Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 6020B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Antimony	16C1	2	U	U		2	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		2	Analyte not detected at or above the DL or QL.
	16MW9	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		2	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Arsenic	16C1	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC2B	10	U	U		10	Analyte not detected at or above the QL.
	16-2	10	U	U		10	Analyte not detected at or above the QL.
	16-3	10	U	U		10	Analyte not detected at or above the QL.
	16-5	10	U	U		10	Analyte not detected at or above the QL.
	16SPRING	10	U	U		10	Analyte not detected at or above the QL.
	16WDUP	10	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Barium	16C1	140		140		10	No action taken.
	16MW8	110		110		10	No action taken.
	16MW9	600		600		10	No action taken.
	16WC1A	340		340		10	No action taken.
	16WC1B	130		130		10	No action taken.
	16WC2B	120		120		10	No action taken.
	16-2	180		180		10	No action taken.
	16-3	800		800		10	No action taken.
	16-5	170		170		10	No action taken.
	16SPRING	180		180		10	No action taken.
	16WDUP	350		350		10	No action taken. Field duplicate submitted blind for 16WC1A.
Beryllium	16C1	1	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW8	1	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW9	1	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1A	1	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD recovered low.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 6020B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Beryllium	16WC1B	1	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC2B	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16-2	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16-3	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16-5	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16SPRING	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16WDUP	1	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate submitted blind for 16WC1A.
Cadmium	16C1	1	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.23	J	0.23	J	1	Result < QL.
	16MW9	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WC1A	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WC1B	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	1	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Chromium	16C1	5	U	U		5	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		5	Analyte not detected at or above the DL or QL.
	16MW9	5	U	U		5	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		5	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		5	Analyte not detected at or above the DL or QL.
	16WC2B	5	U	U		5	Analyte not detected at or above the QL.
	16-2	5	U	U		5	Analyte not detected at or above the QL.
	16-3	5	U	U		5	Analyte not detected at or above the QL.
	16-5	5	U	U		5	Analyte not detected at or above the QL.
	16SPRING	5	U	U		5	Analyte not detected at or above the QL.
	16WDUP	5	U	U		5	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Cobalt	16C1	5	U	U		5	Analyte not detected at or above the DL or QL.
	16MW8	3.1	J	3.1	J	5	Verification event 6-25-2019. Verification result reported as final result. (Shealy)
	16MW8	6.8		6.8		5	No action taken.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 6020B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Cobalt	16MW9	6.2		6.2		5	No action taken.
	16WC1A	13		13		5	No action taken.
	16WC1B	18		18		5	No action taken.
	16WC2B	5	U	U		5	Analyte not detected at or above the QL.
	16-2	5	U	U		5	Analyte not detected at or above the QL.
	16-3	5	U	U		5	Analyte not detected at or above the QL.
	16-5	5	U	U		5	Analyte not detected at or above the QL.
	16SPRING	5	U	U		5	Analyte not detected at or above the QL.
	16WDUP	14		14		5	No action taken. Field duplicate submitted blind for 16WC1A.
Copper	16C1	5	U	U		5	Analyte not detected at or above the DL or QL.
	16MW8	6.6		6.6		5	No action taken.
	16MW9	5	U	U		5	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		5	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		5	Analyte not detected at or above the DL or QL.
	16WC2B	5	U	U		5	Analyte not detected at or above the QL.
	16-2	5	U	U		5	Analyte not detected at or above the QL.
	16-3	5	U	U		5	Analyte not detected at or above the QL.
	16-5	5	U	U		5	Analyte not detected at or above the QL.
	16SPRING	5	U	U		5	Analyte not detected at or above the QL.
	16WDUP	5	U	U		5	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Lead	16C1	3	U	U		3	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U		3	Analyte not detected at or above the DL or QL.
	16MW9	3	U	U		3	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		3	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U		3	Analyte not detected at or above the DL or QL.
	16WC2B	3	U	U		3	Analyte not detected at or above the QL.
	16-2	3	U	U		3	Analyte not detected at or above the QL.
	16-3	3	U	U		3	Analyte not detected at or above the QL.
	16-5	3	U	U		3	Analyte not detected at or above the QL.
	16SPRING	3	U	U		3	Analyte not detected at or above the QL.
	16WDUP	3	U	U		3	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Nickel	16C1	4.3	J	4.3	J	10	Result < QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 6020B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Nickel	16MW8	7.2	J	7.2	J	10	Result < QL.
	16MW9	16		16		10	No action taken.
	16WC1A	15		15		10	No action taken.
	16WC1B	4.9	J	4.9	J	10	Result < QL.
	16WC2B	10	U	U		10	Analyte not detected at or above the QL.
	16-2	10	U	U		10	Analyte not detected at or above the QL.
	16-3	10	U	U		10	Analyte not detected at or above the QL.
	16-5	10	U	U		10	Analyte not detected at or above the QL.
	16SPRING	10	U	U		10	Analyte not detected at or above the QL.
	16WDUP	16		16		10	No action taken. Field duplicate submitted blind for 16WC1A.
Selenium	16C1	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	10	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Silver	16C1	2	U	U		2	Analyte not detected at or above the DL or QL.
	16MW8	1.1	J	1.1	J	2	Result < QL. No action taken. Result obtained form re-digestion and reanalysis.
	16MW8	2	U	U		2	Verification event 6-25-2019. Verification result reported as final result. Shealy
	16MW9	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		2	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Thallium	16C1	1	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	1	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WC1A	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WC1B	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	1	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Vanadium	16C1	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	10	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 6020B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Vanadium	16WC1A	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	10	U	U		10	Analyte not detected at or above the DL or QL.
	16WC2B	10	U	U		10	Analyte not detected at or above the QL.
	16-2	10	U	U		10	Analyte not detected at or above the QL.
	16-3	10	U	U		10	Analyte not detected at or above the QL.
	16-5	10	U	U		10	Analyte not detected at or above the QL.
	16SPRING	10	U	U		10	Analyte not detected at or above the QL.
	16WDUP	10	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Zinc	16C1	30	U	U		30	Analyte not detected at or above the DL or QL.
	16MW8	33		33		30	No action taken.
	16MW9	30	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1A	16	J	16	J	30	Result < QL.
	16WC1B	30	U	U		30	Analyte not detected at or above the DL or QL.
	16WC2B	30	U	U		30	Analyte not detected at or above the QL.
	16-2	30	U	U		30	Analyte not detected at or above the QL.
	16-3	30	U	U		30	Analyte not detected at or above the QL.
	16-5	30	U	U		30	Analyte not detected at or above the QL.
	16SPRING	30	U	U		30	Analyte not detected at or above the QL.
	16WDUP	16	J	16	J	30	Result < QL. Field duplicate submitted blind for 16WC1A.
Method: 7470A							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Mercury	16C1	2	U	U		2	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		2	Analyte not detected at or above the DL or QL.
	16MW9	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		2	Analyte not detected at or above the DL or QL.
	16WC2B	2	U	U		2	Analyte not detected at or above the QL.
	16-2	2	U	U		2	Analyte not detected at or above the QL.
	16-3	2	U	U		2	Analyte not detected at or above the QL.
	16-5	2	U	U		2	Analyte not detected at or above the QL.
	16SPRING	2	U	U		2	Analyte not detected at or above the QL.
	16WDUP	2	U	U		2	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Acetone	16C1	2.23	J	U	N	10	Result < QL. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
	16MW8	8.78	J	U	N	10	Result < QL. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
	16MW9	2.97	J	U	JN	10	Result < QL. Analyzed using vial with headspace. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
	16WC1A	1.91	J	U	JN	10	Result < QL. Analyzed using vial with headspace. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
	16WC1B	1.39	J	U	N	10	Result < QL. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
	16WDUP	1.52	J	U	N	10	Result < QL. Blank contamination in the trip blanks (2.52-2.79 J ug/l). Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	2.52	J	U	N	10	Result < QL. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
	Trip_Blank_2	2.79	J	U	N	10	Result < QL. Blank contamination in the trip blanks (2.52-2.79 J ug/l).
Acetonitrile	16C1	31.7	U	U		100	Analyte not detected at or above the DL or QL.
	16MW8	31.7	U	U		100	Analyte not detected at or above the DL or QL.
	16MW9	31.7	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	31.7	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	31.7	U	U		100	Analyte not detected at or above the DL or QL.
	16WDUP	31.7	U	U		100	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	31.7	U	U		100	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	31.7	U	U		100	Analyte not detected at or above the DL or QL.
Acrolein	16C1	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Aliquot pH was <2.
	16MW8	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Aliquot pH was <2.
	16MW9	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace. Aliquot pH was <2.
	16WC1A	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace. Aliquot pH was <2.
	16WC1B	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Aliquot pH was <2.
	16WDUP	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Aliquot pH was <2. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Aliquot pH was <2.
	Trip_Blank_2	3.4	U	U	J	25	Analyte not detected at or above the DL or QL. Aliquot pH was <2.
Acrylonitrile	16C1	0.47	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.47	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.47	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.47	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.47	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.47	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.47	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Acrylonitrile	Trip_Blank_2	0.47	U	U		10	Analyte not detected at or above the DL or QL.
Allyl chloride	16C1	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. CV %D > +/-20% (-22%).
	16MW8	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. CV %D> +/-20% (-22%).
	16MW9	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace. CV %D > +/-20% (-22%).
	16WC1A	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace. CV %D> +/-20% (-22%).
	16WC1B	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. CV %D > +/-20% (-22%).
	16WDUP	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. CV %D> +/-20% (-22%). Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. CV %D> +/-20% (-22%).
	Trip_Blank_2	0.82	U	U	J	10	Analyte not detected at or above the DL or QL. CV %D> +/-20% (-22%).
Benzene	16C1	0.227	J	0.227	J	1	Result < QL.
	16MW8	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.377	J	0.377	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1A	0.301	J	0.301	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1B	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the DL or QL.
	16-2	1	U	U		1	Analyte not detected at or above the DL or QL.
	16-3	1	U	U		1	Analyte not detected at or above the DL or QL.
	16-5	1	U	U		1	Analyte not detected at or above the DL or QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.294	J	0.294	J	1	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.07	U	U		1	Analyte not detected at or above the DL or QL.
Bromodichloromethane	16C1	0.088	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.088	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.088	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.088	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.088	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.088	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.088	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.088	U	U		1	Analyte not detected at or above the DL or QL.
Bromoform	16C1	0.106	U	U		1	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Bromoform	16MW8	0.106	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.106	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.106	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.106	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.106	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.106	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.106	U	U		1	Analyte not detected at or above the DL or QL.
2-Butanone	16C1	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.6	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.6	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	16WC2B	10	U	U		10	Analyte not detected at or above the QL.
	16-2	10	U	U		10	Analyte not detected at or above the QL.
	16-3	10	U	U		10	Analyte not detected at or above the QL.
	16-5	10	U	U		10	Analyte not detected at or above the QL.
	16SPRING	10	U	U		10	Analyte not detected at or above the QL.
	16WDUP	0.6	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.6	U	U		10	Analyte not detected at or above the DL or QL.
Carbon disulfide	16C1	0.37	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.37	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.37	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.37	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.37	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.37	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.37	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.37	U	U		10	Analyte not detected at or above the DL or QL.
Carbon tetrachloride	16C1	0.16	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.16	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.16	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.16	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Carbon tetrachloride	16WC1B	0.16	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.16	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.16	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.16	U	U		1	Analyte not detected at or above the DL or QL.
Chloroethane	16C1	2.94		2.94		1	No action taken.
	16MW8	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	1.91		1.91	J	1	Analyzed using vial with headspace.
	16WC1A	1.56		1.56	J	1	Analyzed using vial with headspace.
	16WC1B	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	1.55		1.55		1	No action taken. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.07	U	U		1	Analyte not detected at or above the DL or QL.
Chloroform	16C1	0.09	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.09	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.09	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.09	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.09	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.09	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.09	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.09	U	U		1	Analyte not detected at or above the DL or QL.
Chloroprene	16C1	0.46	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.46	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Chloroprene	16MW9	0.46	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.46	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.46	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.46	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.46	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.46	U	U		10	Analyte not detected at or above the DL or QL.
Dibromochloromethane	16C1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.07	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.07	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.07	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.07	U	U		1	Analyte not detected at or above the DL or QL.
1,2-Dibromo-3-chloropropane	16C1	0.204	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.204	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.204	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.204	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.204	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.204	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.204	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.204	U	U		1	Analyte not detected at or above the DL or QL.
1,2-Dibromoethane	16C1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.06	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.06	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.06	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.06	U	U		1	Analyte not detected at or above the DL or QL.
1,2-Dichlorobenzene	16C1	0.082	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.082	U	U		1	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
1,2-Dichlorobenzene	16MW9	0.082	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.082	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.082	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.082	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.082	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.082	U	U		1	Analyte not detected at or above the DL or QL.
1,3-Dichlorobenzene	16C1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.06	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.06	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.06	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.06	U	U		1	Analyte not detected at or above the DL or QL.
1,4-Dichlorobenzene	16C1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.07	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.07	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.07	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.07	U	U		1	Analyte not detected at or above the DL or QL.
trans-1,4-Dichloro-2-butene	16C1	0.97	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.97	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.97	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.97	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.97	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.97	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.97	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.97	U	U		10	Analyte not detected at or above the DL or QL.
Dichlorodifluoromethane	16C1	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD/LCS recovered low.
	16MW8	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD/LCS recovered low.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Dichlorodifluoromethane	16MW9	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace. MS/MSD/LCS recovered low.
	16WC1A	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace. MS/MSD/LCS recovered low.
	16WC1B	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD/LCS recovered low.
	16WC2B	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16-2	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16-3	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16-5	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16SPRING	1	U	U	J	1	Analyte not detected at or above the QL. MS/MSD recovered low.
	16WDUP	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD/LCS recovered low. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD/LCS recovered low.
	Trip_Blank_2	0.148	U	U	J	1	Analyte not detected at or above the DL or QL. MS/MSD/LCS recovered low.
1,1-Dichloroethane	16C1	4.56		4.56		1	No action taken.
	16MW8	0.285	J	0.285	J	1	Result < QL.
	16MW9	6.98		6.98	J	1	Analyzed using vial with headspace.
	16WC1A	4.94		4.94	J	1	Analyzed using vial with headspace.
	16WC1B	0.135	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	4.87		4.87		1	No action taken. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.135	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.135	U	U		1	Analyte not detected at or above the DL or QL.
1,2-Dichloroethane	16C1	0.147	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.147	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.147	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.147	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.147	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.147	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.147	U	U		1	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
1,2-Dichloroethane	Trip_Blank_2	0.147	U	U		1	Analyte not detected at or above the DL or QL.
1,1-Dichloroethene	16C1	0.223	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.223	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.223	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.223	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.223	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.223	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.223	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.223	U	U		1	Analyte not detected at or above the DL or QL.
trans-1,2-Dichloroethene	16C1	0.162	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.162	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.162	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.162	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.162	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.162	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.162	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.162	U	U		1	Analyte not detected at or above the DL or QL.
1,2-Dichloropropane	16C1	0.107	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.107	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.107	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.107	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.107	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.107	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.107	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.107	U	U		1	Analyte not detected at or above the DL or QL.
1,3-Dichloropropane	16C1	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.097	U	U		1	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
1,3-Dichloropropane	16MW9	0.097	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.097	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.097	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.097	U	U		1	Analyte not detected at or above the DL or QL.
trans-1,3-Dichloropropene	16C1	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.097	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.097	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.097	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.097	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.097	U	U		1	Analyte not detected at or above the DL or QL.
Diethyl ether	16C1	26.6		26.6		12.5	Analyzed in dilution (1:2). Actual QL 25 ug/L.
	16MW8	3.78	J	3.78	J	12.5	Result < QL.
	16MW9	66.4		66.4	J	12.5	Analyzed in dilution (1:4). Analyzed using vial with headspace.Actual QL 50 ug/L.
	16WC1A	15.6		15.6	J	12.5	Analyzed using vial with headspace.
	16WC1B	1.11	U	U		12.5	Analyte not detected at or above the DL or QL.
	16WC2B	13	U	U		12.5	Analyte not detected at or above the QL.
	16-2	13	U	U		12.5	Analyte not detected at or above the QL.
	16-3	13	U	U		12.5	Analyte not detected at or above the QL.
	16-5	13	U	U		12.5	Analyte not detected at or above the QL.
	16SPRING	13	U	U		12.5	Analyte not detected at or above the QL.
	16WDUP	15.5		15.5		12.5	No action taken. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	1.11	U	U		12.5	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	1.11	U	U		12.5	Analyte not detected at or above the DL or QL.
Dimethyl ether	16C1	8.74	J	8.74	J	12.5	Result < QL.
	16MW8	0.577	J	0.577	J	12.5	Result < QL.
	16MW9	2.19	J	2.19	J	12.5	Result < QL. Analyzed using vial with headspace.
	16WC1A	2.25	J	2.25	J	12.5	Result < QL. Analyzed using vial with headspace.
	16WC1B	0.307	J	0.307	J	12.5	Result < QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Dimethyl ether	16WC2B	13	U	U		12.5	Analyte not detected at or above the QL.
	16-2	13	U	U		12.5	Analyte not detected at or above the QL.
	16-3	13	U	U		12.5	Analyte not detected at or above the QL.
	16-5	13	U	U		12.5	Analyte not detected at or above the QL.
	16SPRING	13	U	U		12.5	Analyte not detected at or above the QL.
	16WDUP	2.15	J	2.15	J	12.5	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.04	U	U		12.5	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.04	U	U		12.5	Analyte not detected at or above the DL or QL.
1,4-Dioxane	16C1	45.5	U	U		200	Analyte not detected at or above the DL or QL.
	16MW8	45.5	U	U		200	Analyte not detected at or above the DL or QL.
	16MW9	45.5	U	U	J	200	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	45.5	U	U	J	200	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	45.5	U	U		200	Analyte not detected at or above the DL or QL.
	16WDUP	45.5	U	U		200	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	45.5	U	U		200	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	45.5	U	U		200	Analyte not detected at or above the DL or QL.
Ethylbenzene	16C1	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.079	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.079	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.079	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.079	U	U		1	Analyte not detected at or above the DL or QL.
Ethyl methacrylate	16C1	0.81	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.81	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.81	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Ethyl methacrylate	16WC1A	0.81	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.81	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.81	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.81	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.81	U	U		10	Analyte not detected at or above the DL or QL.
Hexachlorobutadiene	16C1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.07	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.07	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.07	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.07	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.07	U	U		1	Analyte not detected at or above the DL or QL.
Hexachloroethane	16C1	0.11	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.11	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.11	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.11	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.11	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.11	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.11	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.11	U	U		10	Analyte not detected at or above the DL or QL.
2-Hexanone	16C1	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.6	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.6	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.6	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.6	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.6	U	U		10	Analyte not detected at or above the DL or QL.
Isobutyl alcohol	16C1	3.6	U	U		200	Analyte not detected at or above the DL or QL.
	16MW8	3.6	U	U		200	Analyte not detected at or above the DL or QL.
	16MW9	3.6	U	U	J	200	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Isobutyl alcohol	16WC1A	3.6	U	U	J	200	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	3.6	U	U		200	Analyte not detected at or above the DL or QL.
	16WDUP	3.6	U	U		200	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	3.6	U	U		200	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	3.6	U	U		200	Analyte not detected at or above the DL or QL.
Methacrylonitrile	16C1	9.75	U	U		100	Analyte not detected at or above the DL or QL.
	16MW8	9.75	U	U		100	Analyte not detected at or above the DL or QL.
	16MW9	9.75	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	9.75	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	9.75	U	U		100	Analyte not detected at or above the DL or QL.
	16WDUP	9.75	U	U		100	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	9.75	U	U		100	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	9.75	U	U		100	Analyte not detected at or above the DL or QL.
Bromomethane	16C1	0.542	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.542	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.542	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.542	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.542	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.542	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.542	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.542	U	U		1	Analyte not detected at or above the DL or QL.
Chloromethane	16C1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.06	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.06	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.06	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Chloromethane	Trip_Blank_1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.06	U	U		1	Analyte not detected at or above the DL or QL.
Iodomethane	16C1	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.58	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.58	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.58	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.58	U	U		10	Analyte not detected at or above the DL or QL.
Methyl methacrylate	16C1	3.58	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3.58	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.58	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	3.58	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	3.58	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3.58	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	3.58	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	3.58	U	U		10	Analyte not detected at or above the DL or QL.
4-Methyl-2-pentanone	16C1	0.91	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.91	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.91	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.91	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.91	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.91	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.91	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.91	U	U		10	Analyte not detected at or above the DL or QL.
Dibromomethane	16C1	0.065	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.065	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.065	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.065	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.065	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.065	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Dibromomethane	Trip_Blank_1	0.065	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.065	U	U		1	Analyte not detected at or above the DL or QL.
Methylene chloride	16C1	1.39		1.39		1	No action taken.
	16MW8	0.182	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.24	J	0.24	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1A	0.21	J	0.21	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1B	0.182	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.193	J	0.193	J	1	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.182	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.182	U	U		1	Analyte not detected at or above the DL or QL.
Naphthalene	16C1	0.126	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.126	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.126	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.126	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.126	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.126	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.126	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.126	U	U		1	Analyte not detected at or above the DL or QL.
Pentachloroethane	16C1	0.8	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.8	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.8	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.8	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.8	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.8	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.8	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.8	U	U		10	Analyte not detected at or above the DL or QL.
2-Propanol	16C1	46	J	U		100	Result < QL. VDEQ indicated continued monitoring annual as result could not be confirmed at this time (6-12-2019 email).

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
2-Propanol	16MW8	31	J	U		100	Result < QL. VDEQ indicated continued monitoring annual as result could not be confirmed at this time (6-12-2019 email).
	16MW9	18	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	37	J	U	J	100	Result < QL. Analyzed using vial with headspace. VDEQ indicated continued monitoring annual as result could not be confirmed at this time (6-12-2019 email).
	16WC1B	23	J	U		100	Result < QL. VDEQ indicated continued monitoring annual as result could not be confirmed at this time (6-12-2019 email).
	16WDUP	49	J	U		100	Result < QL.Field duplicate submitted blind for 16WC1A.Result < QL. VDEQ indicated continued monitoring annual as result could not be confirmed at this time (6-12-2019 email).
Propionitrile	16C1	10.2	U	U		100	Analyte not detected at or above the DL or QL.
	16MW8	10.2	U	U		100	Analyte not detected at or above the DL or QL.
	16MW9	10.2	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	10.2	U	U	J	100	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	10.2	U	U		100	Analyte not detected at or above the DL or QL.
	16WDUP	10.2	U	U		100	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	10.2	U	U		100	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	10.2	U	U		100	Analyte not detected at or above the DL or QL.
Styrene	16C1	0.05	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.05	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.05	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.05	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.05	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.05	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.05	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.05	U	U		1	Analyte not detected at or above the DL or QL.
1,1,1,2-Tetrachloroethane	16C1	0.08	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.08	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.08	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.08	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.08	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.08	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.08	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.08	U	U		1	Analyte not detected at or above the DL or QL.
1,1,2,2-Tetrachloroethane	16C1	0.184	U	U		1	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
1,1,2,2-Tetrachloroethane	16MW8	0.184	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.184	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.184	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.184	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.184	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.184	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.184	U	U		1	Analyte not detected at or above the DL or QL.
Tetrachloroethene	16C1	0.213	J	0.213	J	1	Result < QL.
	16MW8	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.0627	J	0.0627	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1A	0.198	J	0.198	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1B	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.181	J	0.181	J	1	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.06	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.06	U	U		1	Analyte not detected at or above the DL or QL.
Tetrahydrofuran	16C1	12.1	J	12.1	J	25	Result < QL.
	16MW8	2	U	U		25	Analyte not detected at or above the DL or QL.
	16MW9	2	U	U	J	25	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	2.92	J	2.92	J	25	Result < QL. Analyzed using vial with headspace.
	16WC1B	2	U	U		25	Analyte not detected at or above the DL or QL.
	16WC2B	25	U	U		25	Analyte not detected at or above the QL.
	16-2	25	U	U		25	Analyte not detected at or above the QL.
	16-3	25	U	U		25	Analyte not detected at or above the QL.
	16-5	25	U	U		25	Analyte not detected at or above the QL.
	16SPRING	25	U	U		25	Analyte not detected at or above the QL.
	16WDUP	2.48	J	2.48	J	25	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	2	U	U		25	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Tetrahydrofuran	Trip_Blank_2	2	U	U		25	Analyte not detected at or above the DL or QL.
Toluene	16C1	0.093	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.093	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.093	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.093	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.093	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.093	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.093	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.093	U	U		1	Analyte not detected at or above the DL or QL.
1,2,4-Trichlorobenzene	16C1	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.13	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.13	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.13	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.13	U	U		1	Analyte not detected at or above the DL or QL.
1,1,1-Trichloroethane	16C1	0.19	J	0.19	J	1	Result < QL.
	16MW8	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.13	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.13	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
1,1,1-Trichloroethane	16WDUP	0.13	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.13	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.13	U	U		1	Analyte not detected at or above the DL or QL.
1,1,2-Trichloroethane	16C1	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.079	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.079	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.079	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.079	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.079	U	U		1	Analyte not detected at or above the DL or QL.
Trichloroethene	16C1	0.211	J	0.211	J	1	Result < QL.
	16MW8	0.177	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.177	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.189	J	0.189	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1B	0.177	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.22	J	0.22	J	1	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.177	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.177	U	U		1	Analyte not detected at or above the DL or QL.
Trichlorofluoromethane	16C1	0.176	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.176	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.176	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.176	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.176	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Trichlorofluoromethane	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.176	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.176	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.176	U	U		1	Analyte not detected at or above the DL or QL.
1,2,3-Trichloropropane	16C1	0.1	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.1	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.1	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.1	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.1	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.1	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.1	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.1	U	U		1	Analyte not detected at or above the DL or QL.
1,1,2-Trichloro-1,2,2-Trifluoroethane	16C1	0.12	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.12	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.12	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.12	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.12	U	U		1	Analyte not detected at or above the DL or QL.
	16WC2B	1	U	U		1	Analyte not detected at or above the DL or QL.
	16-2	1	U	U		1	Analyte not detected at or above the QL.
	16-3	1	U	U		1	Analyte not detected at or above the QL.
	16-5	1	U	U		1	Analyte not detected at or above the QL.
	16SPRING	1	U	U		1	Analyte not detected at or above the QL.
	16WDUP	0.12	U	U		1	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.12	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.12	U	U		1	Analyte not detected at or above the DL or QL.
Vinyl acetate	16C1	3.29	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3.29	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.29	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	3.29	U	U	J	10	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	3.29	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3.29	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Vinyl acetate	Trip_Blank_1	3.29	U	U		10	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	3.29	U	U		10	Analyte not detected at or above the DL or QL.
Vinyl chloride	16C1	0.153	U	U		1	Analyte not detected at or above the DL or QL.
	16MW8	0.153	U	U		1	Analyte not detected at or above the DL or QL.
	16MW9	0.153	U	U	J	1	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.153	U	U		1	Verification event 6-25-2019. Verification result reported as final result. ELLE
	16WC1A	0.184	J	0.184	J	1	Result < QL. Analyzed using vial with headspace.
	16WC1B	0.153	U	U		1	Analyte not detected at or above the DL or QL.
	16WDUP	0.194	J	0.194	J	1	Result < QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.153	U	U		1	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.153	U	U		1	Analyte not detected at or above the DL or QL.
Xylenes (Total)	16C1	0.208	U	U		3	Analyte not detected at or above the DL or QL.
	16MW8	0.208	U	U		3	Analyte not detected at or above the DL or QL.
	16MW9	0.208	U	U	J	3	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1A	0.208	U	U	J	3	Analyte not detected at or above the DL or QL. Analyzed using vial with headspace.
	16WC1B	0.208	U	U		3	Analyte not detected at or above the DL or QL.
	16WC2B	3	U	U		3	Analyte not detected at or above the DL or QL.
	16-2	3	U	U		3	Analyte not detected at or above the DL or QL.
	16-3	3	U	U		3	Analyte not detected at or above the DL or QL.
	16-5	3	U	U		3	Analyte not detected at or above the DL or QL.
	16SPRING	3	U	U		3	Analyte not detected at or above the DL or QL.
	16WDUP	0.208	U	U		3	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
	Trip_Blank_1	0.208	U	U		3	Analyte not detected at or above the DL or QL.
	Trip_Blank_2	0.208	U	U		3	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Acenaphthene	16C1	0.349	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.35	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.349	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.35	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.35	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.35	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Acenaphthylene	16C1	0.478	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.48	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.478	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.48	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.48	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.48	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Acetophenone	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Acetylaminofluorene	16C1	9.96	U	U		21	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U		21	Analyte not detected at or above the DL or QL.
	16MW9	9.96	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1A	10	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1B	10	U	U		21	Analyte not detected at or above the DL or QL.
	16WDUP	10	U	U		21	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
4-Aminobiphenyl	16C1	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		11	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		11	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Aniline	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Aniline	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Anthracene	16C1	0.518	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.52	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.518	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.52	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.52	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.52	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Aramite	16C1	4.98	U	U		15	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		15	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		15	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		15	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		15	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		15	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Benzo[a]anthracene	16C1	0.448	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.45	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.448	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.45	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.45	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.45	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Benzo[b]fluoranthene	16C1	1.2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1.2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1.2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1.2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	1.2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Benzo[k]fluoranthene	16C1	1.59	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1.6	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.59	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1.6	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Benzo[k]fluoranthene	16WC1B	1.6	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	1.6	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Benzo[ghi]perylene	16C1	0.418	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.42	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.418	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.42	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.42	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.42	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Benzo(a)pyrene	16C1	1.49	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.49	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	1.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
1,4-Benzenediamine	16C1	74.7	U	U	J	300	Analyte not detected at or above the DL or QL. LCS recovered low.
	16MW8	75	U	U	J	300	Analyte not detected at or above the DL or QL. LCS recovered low.
	16MW9	74.7	U	U	J	300	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WC1A	75	U	U	J	300	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WC1B	75	U	U	J	300	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WDUP	75	U	U	J	300	Analyte not detected at or above the DL or QL. LCS recovered low. Field duplicate submitted blind for 16WC1A.
Benzyl alcohol	16C1	9.96	U	U		30	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U		30	Analyte not detected at or above the DL or QL.
	16MW9	9.96	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1A	10	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1B	10	U	U		30	Analyte not detected at or above the DL or QL.
	16WDUP	10	U	U		30	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
bis(2-Chloroethoxy)methane	16C1	0.498	U	U		2	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		2	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		2	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		2	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
bis(2-Chloroethyl)ether	16C1	0.498	U	U		2	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		2	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		2	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		2	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		2	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
bis(2-Chloro-1-methylethyl)ether	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
bis(2-Ethylhexyl)phthalate	16C1	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		11	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		11	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
4-Bromophenyl phenyl ether	16C1	0.558	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.56	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.558	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.56	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.56	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.56	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Butyl benzyl phthalate	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
p-Chloroaniline	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
p-Chloroaniline	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Chlorobenzilate	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
p-Chloro-m-cresol	16C1	1.01	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1.01	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	1.01	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1.01	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1.01	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	1.01	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Chloronaphthalene	16C1	0.488	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.49	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.488	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.49	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.49	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.49	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Chlorophenol	16C1	0.976	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.98	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	0.976	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.98	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	0.98	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
4-Chlorophenyl phenyl ether	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
4-Chlorophenyl phenyl ether	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Chrysene	16C1	0.309	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.31	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.309	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.31	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.31	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.31	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Diallate	16C1	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	1	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Dibenz(a,h)anthracene	16C1	0.378	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.38	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.378	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.38	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.38	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.38	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Dibenzofuran	16C1	0.578	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.578	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.58	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.58	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Di-n-butyl phthalate	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
3,3'-Dichlorobenzidine	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2,4-Dichlorophenol	16C1	1.58	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW8	1.59	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%). MS/MSD recovered low.
	16MW9	1.58	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1A	1.59	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1B	1.59	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%). MS/MSD recovered low.
	16WDUP	1.59	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate submitted blind for 16WC1A.
2,6-Dichlorophenol	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Diethyl phthalate	16C1	1.99	U	U		5	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		5	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		5	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		5	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		5	Analyte not detected at or above the DL or QL.
	16WC2B	5	U	U		5	Analyte not detected at or above the QL.
	16-2	5	U	U		5	Analyte not detected at or above the QL.
	16-3	5	U	U		5	Analyte not detected at or above the QL.
	16-5	5	U	U		5	Analyte not detected at or above the QL.
	16SPRING	5	U	U		5	Analyte not detected at or above the QL.
	16WDUP	2	U	U		5	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
O,O-Diethyl O-2-pyrazinyl	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
O,O-Diethyl O-2-pyrazinyl	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Dimethoate	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
p-(Dimethylamino)azobenzene	16C1	4.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
7,12-Dimethylbenz[a]anthracene	16C1	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		11	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		11	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
3,3'-Dimethylbenzidine	16C1	24.9	U	U		75	Analyte not detected at or above the DL or QL.
	16MW8	25	U	U		75	Analyte not detected at or above the DL or QL.
	16MW9	24.9	U	U		75	Analyte not detected at or above the DL or QL.
	16WC1A	25	U	U		75	Analyte not detected at or above the DL or QL.
	16WC1B	25	U	U		75	Analyte not detected at or above the DL or QL.
	16WDUP	25	U	U		75	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
a,a-Dimethylphenethylamine	16C1	4.98	U	U		50	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		50	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		50	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
a,a-Dimethylphenethylamine	16WC1B	5	U	U		50	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		50	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2,4-Dimethylphenol	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Dimethyl phthalate	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
m-Dinitrobenzene	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
4,6-Dinitro-o-cresol	16C1	7.97	U	U		21	Analyte not detected at or above the DL or QL.
	16MW8	8	U	U	J	21	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	7.97	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1A	8	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1B	8	U	U	J	21	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	8	U	U		21	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2,4-Dinitrophenol	16C1	13.9	U	U		30	Analyte not detected at or above the DL or QL.
	16MW8	14	U	U	J	30	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	13.9	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1A	14	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1B	14	U	U	J	30	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	14	U	U		30	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
2,4-Dinitrotoluene	16C1	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WC2B	10	U	U		10	Analyte not detected at or above the QL.
	16-2	10	U	U		10	Analyte not detected at or above the QL.
	16-3	10	U	U		10	Analyte not detected at or above the QL.
	16-5	10	U	U		10	Analyte not detected at or above the QL.
	16SPRING	10	U	U		10	Analyte not detected at or above the QL.
	16WDUP	1	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2,6-Dinitrotoluene	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC2B	10	U	U		10	Analyte not detected at or above the QL.
	16-2	10	U	U		10	Analyte not detected at or above the QL.
	16-3	10	U	U		10	Analyte not detected at or above the QL.
	16-5	10	U	U		10	Analyte not detected at or above the QL.
	16SPRING	10	U	U		10	Analyte not detected at or above the QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Di-n-octyl phthalate	16C1	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		11	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		11	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Diphenylamine	16C1	0.697	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.697	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.7	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Diphenylamine	16WC1B	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.7	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Disulfoton	16C1	24.9	U	U		50	Analyte not detected at or above the DL or QL.
	16MW8	25	U	U		50	Analyte not detected at or above the DL or QL.
	16MW9	24.9	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1A	25	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1B	25	U	U		50	Analyte not detected at or above the DL or QL.
	16WDUP	25	U	U		50	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Ethyl methanesulfonate	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Famphur	16C1	24.9	U	U	J	50	Analyte not detected at or above the DL or QL. LCS recovered low.
	16MW8	25	U	U	J	50	Analyte not detected at or above the DL or QL. LCS recovered low.
	16MW9	24.9	U	U	J	50	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WC1A	25	U	U	J	50	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WC1B	25	U	U	J	50	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WDUP	25	U	U	J	50	Analyte not detected at or above the DL or QL. LCS recovered low. Field duplicate submitted blind for 16WC1A.
Fluoranthene	16C1	0.418	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.42	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.418	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.42	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.42	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.42	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Fluorene	16C1	0.378	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.38	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.378	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.38	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.38	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.38	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Hexachlorobenzene	16C1	0.867	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW8	0.87	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW9	0.867	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1A	0.87	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1B	0.87	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WDUP	0.87	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate submitted blind for 16WC1A.
Hexachlorocyclopentadiene	16C1	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16MW8	5	U	U		11	Analyte not detected at or above the DL or QL.
	16MW9	4.98	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1A	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WC1B	5	U	U		11	Analyte not detected at or above the DL or QL.
	16WDUP	5	U	U		11	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Hexachlorophene	16C1	100	U	U	J	100	Analyte not detected at or above the DL or QL. Reported by laboratory as estimated. Single point only calibration performed.
	16MW8	100	U	U	J	100	Analyte not detected at or above the DL or QL. Reported by laboratory as estimated. Single point only calibration performed.
	16MW9	100	U	U	J	100	Analyte not detected at or above the DL or QL. Reported by laboratory as estimated. Single point only calibration performed.
	16WC1A	100	U	U	J	100	Analyte not detected at or above the DL or QL. Reported by laboratory as estimated. Single point only calibration performed.
	16WC1B	100	U	U	J	100	Analyte not detected at or above the DL or QL. Reported by laboratory as estimated. Single point only calibration performed.
	16WDUP	100	U	U	J	100	Analyte not detected at or above the DL or QL. Reported by laboratory as estimated. Single point only calibration performed.
Hexachloropropene	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Indeno[1,2,3-cd]pyrene	16C1	0.149	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.15	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.149	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.15	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Indeno[1,2,3-cd]pyrene	16WC1B	0.15	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.15	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Isodrin	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Isophorone	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Isosafrole	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Kepone	16C1	24.9	U	U		50	Analyte not detected at or above the DL or QL.
	16MW8	25	U	U		50	Analyte not detected at or above the DL or QL.
	16MW9	24.9	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1A	25	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1B	25	U	U		50	Analyte not detected at or above the DL or QL.
	16WDUP	25	U	U		50	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Methapyrilene	16C1	14.9	U	U		50	Analyte not detected at or above the DL or QL.
	16MW8	15	U	U		50	Analyte not detected at or above the DL or QL.
	16MW9	14.9	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1A	15	U	U		50	Analyte not detected at or above the DL or QL.
	16WC1B	15	U	U		50	Analyte not detected at or above the DL or QL.
	16WDUP	15	U	U		50	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
3-Methylcholanthrene	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Methyl methane sulfonate	16C1	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	1	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Methylnaphthalene	16C1	0.289	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.29	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.289	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.29	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.29	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.29	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Methyl parathion	16C1	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	1	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.996	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	1	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	1	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Methylphenol	16C1	0.956	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.96	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	0.956	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.96	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.96	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	0.96	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
3 & 4-Methylphenol	16C1	2.46	U	U		20	Analyte not detected at or above the DL or QL.
	16MW8	2.47	U	U	J	20	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
3 & 4-Methylphenol	16MW9	2.46	U	U		20	Analyte not detected at or above the DL or QL.
	16WC1A	2.47	U	U		20	Analyte not detected at or above the DL or QL.
	16WC1B	2.47	U	U	J	20	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	2.47	U	U		20	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
1,4-Naphthoquinone	16C1	24.9	U	U	J	60	Analyte not detected at or above the DL or QL. LCS recovered low.
	16MW8	25	U	U	J	60	Analyte not detected at or above the DL or QL. LCS did not recover.
	16MW9	24.9	U	U	J	60	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WC1A	25	U	U	J	60	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WC1B	25	U	U	J	60	Analyte not detected at or above the DL or QL. LCS recovered low.
	16WDUP	25	U	U	J	60	Analyte not detected at or above the DL or QL. LCS recovered low. Field duplicate submitted blind for 16WC1A.
1-Naphthylamine	16C1	7.97	U	U		21	Analyte not detected at or above the DL or QL.
	16MW8	8	U	U		21	Analyte not detected at or above the DL or QL.
	16MW9	7.97	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1A	8	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1B	8	U	U		21	Analyte not detected at or above the DL or QL.
	16WDUP	8	U	U		21	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Naphthylamine	16C1	6.97	U	U		21	Analyte not detected at or above the DL or QL.
	16MW8	7	U	U		21	Analyte not detected at or above the DL or QL.
	16MW9	6.97	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1A	7	U	U		21	Analyte not detected at or above the DL or QL.
	16WC1B	7	U	U		21	Analyte not detected at or above the DL or QL.
	16WDUP	7	U	U		21	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
o-Nitroaniline	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
m-Nitroaniline	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
m-Nitroaniline	16WC1B	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
p-Nitroaniline	16C1	0.896	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.9	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.896	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.9	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.9	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.9	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Nitrobenzene	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
o-Nitrophenol	16C1	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	3	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	2.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	3	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	3	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	3	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
p-Nitrophenol	16C1	9.96	U	U		30	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U	J	30	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	9.96	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1A	10	U	U		30	Analyte not detected at or above the DL or QL.
	16WC1B	10	U	U	J	30	Analyte not detected at or above the DL or QL Acid surrogates recovered low (<10%)..
	16WDUP	10	U	U		30	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
4-Nitroquinoline-1-oxide	16C1	19.9	U	U		60	Analyte not detected at or above the DL or QL.
	16MW8	20	U	U		60	Analyte not detected at or above the DL or QL.
	16MW9	19.9	U	U		60	Analyte not detected at or above the DL or QL.
	16WC1A	20	U	U		60	Analyte not detected at or above the DL or QL.
	16WC1B	20	U	U		60	Analyte not detected at or above the DL or QL.
	16WDUP	20	U	U		60	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
N-Nitrosodi-n-butylamine	16C1	12	U	U		25	Analyte not detected at or above the DL or QL.
	16MW8	12	U	U		25	Analyte not detected at or above the DL or QL.
	16MW9	12	U	U		25	Analyte not detected at or above the DL or QL.
	16WC1A	12	U	U		25	Analyte not detected at or above the DL or QL.
	16WC1B	12	U	U		25	Analyte not detected at or above the DL or QL.
	16WDUP	12	U	U		25	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosodiethylamine	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosodimethylamine	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosodiphenylamine	16C1	0.697	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.697	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.7	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosodipropylamine	16C1	0.697	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.697	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.7	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.7	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosomethylethylamine	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
N-Nitrosomethylethylamine	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosomorpholine	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosopiperidine	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
N-Nitrosopyrrolidine	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
5-Nitroso-o-toluidine	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Parathion	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Parathion	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Pentachlorobenzene	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Pentachloronitrobenzene	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Pentachlorophenol	16C1	2.91	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2.92	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	2.91	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2.92	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2.92	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	2.92	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Phenacetin	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Phenanthrene	16C1	0.518	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.52	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.518	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.52	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.52	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.52	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Phenol	16C1	0.767	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.77	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%).
	16MW9	0.767	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.77	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.77	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%).
	16WDUP	0.77	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Phorate	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2-Picoline	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Pronamide	16C1	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.498	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.5	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.5	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Pyrene	16C1	0.408	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	0.41	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	0.408	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	0.41	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	0.41	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	0.41	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Pyridine	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
Pyridine	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Safrole	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
Sulfotep	16C1	10	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	10	U	U	J	10	Analyte not detected at or above the DL or QL. LCS did not recover from initial LCS.
	16MW9	10	U	U	J	10	Analyte not detected at or above the DL or QL. LCS did not recover from initial LCS.
	16WC1A	10	U	U	J	10	Analyte not detected at or above the DL or QL. LCS did not recover from initial LCS.
	16WC1B	10	U	U	J	10	Analyte not detected at or above the DL or QL. LCS did not recover from initial LCS.
	16WDUP	10	U	U	J	10	Analyte not detected at or above the DL or QL. Initial LCS did not recover. Field duplicate submitted blind for 16WC1A.
1,2,4,5-Tetrachlorobenzene	16C1	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	1.99	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2,3,4,6-Tetrachlorophenol	16C1	3.98	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW8	4	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%). MS/MSD recovered low.
	16MW9	3.98	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1A	4	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1B	4	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%). MS/MSD recovered low.
	16WDUP	4	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate submitted blind for 16WC1A.
o-Toluidine	16C1	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	4	U	U		10	Analyte not detected at or above the DL or QL.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 8270D							
Laboratory: ELLE, Lancaster, PA							
o-Toluidine	16MW9	3.98	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	4	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	4	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
2,4,5-Trichlorophenol	16C1	0.807	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW8	0.81	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%). MS/MSD recovered low.
	16MW9	0.807	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1A	0.81	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1B	0.81	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%). MS/MSD recovered low.
	16WDUP	0.81	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate submitted blind for 16WC1A.
2,4,6-Trichlorophenol	16C1	0.627	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16MW8	0.63	U	U	J	10	Analyte not detected at or above the DL or QL. One acid surrogate recovered low (<10%). MS/MSD recovered low.
	16MW9	0.627	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1A	0.63	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
	16WC1B	0.63	U	U	J	10	Analyte not detected at or above the DL or QL. Acid surrogates recovered low (<10%). MS/MSD recovered low.
	16WDUP	0.63	U	U	J	10	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate submitted blind for 16WC1A.
O,O,O-Triethyl phosphorothioate	16C1	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW8	2	U	U		10	Analyte not detected at or above the DL or QL.
	16MW9	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1A	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WC1B	2	U	U		10	Analyte not detected at or above the DL or QL.
	16WDUP	2	U	U		10	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.
sym-Trinitrobenzene	16C1	97	U	U		200	Analyte not detected at or above the DL or QL.
	16MW8	97	U	U		200	Analyte not detected at or above the DL or QL.
	16MW9	97	U	U		200	Analyte not detected at or above the DL or QL.
	16WC1A	97	U	U		200	Analyte not detected at or above the DL or QL.
	16WC1B	97	U	U		200	Analyte not detected at or above the DL or QL.
	16WDUP	97	U	U		200	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 9012B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Cyanide	16C1	20	U	U		20	Analyte not detected at or above the DL or QL.
	16MW8	20	U	U		20	Analyte not detected at or above the DL or QL.
	16MW9	20	U	U		20	Analyte not detected at or above the DL or QL.
	16WC1A	20	U	U		20	Analyte not detected at or above the DL or QL.
	16WC1B	20	U	U		20	Analyte not detected at or above the DL or QL.
	16WDUP	20	U	U		20	Analyte not detected at or above the DL or QL. Field duplicate submitted blind for 16WC1A.

Definitions:

Appendix IX monitoring events and compliance monitoring wells:
For Appendix IX monitoring events, all compliance well results evaluated to the project detection limit.
See separate table for Appendix IX monitoring event detection limits.
QL Denotes permit quantitation limit.
Q Denotes data qualifier.
U Denotes analyte not detected at or above laboratory detection limit (DL) or QL.
J Denotes analyte reported at or above laboratory detection limit and associated result is estimated. When used with "U" (i.e., "UJ"), denotes analyte not detected at or above laboratory detection limit and project required quantitation limit/detection limit is estimated.
UA Denotes analyte not detected at or above adjusted sample detection limit /QL.
UN Denotes analyte concentration is less than the quantitation limit and five times the blank concentration. Analyte was not reliably detected due to blank contamination.
R Denotes result rejected.
Laboratory Data Qualifiers,
"U" and "<", denote not detected at or above the detection limit or QL.
B or J denote result detected between DL and QL, associated value should be considered an estimated concentration.

Appendix IX monitoring events:
Third Quarter 2003, Second Quarter 2004, Second Quarter 2005, Third Quarter 2006, Second Quarter 2007, Second Quarter 2008, Second Quarter 2009, Second Quarter 2010, 2Q 2011, 2Q 2012, 2Q 2013. 2Q 2014, 2Q 2015, 2Q 2016, 2Q 2017

Definitions for Non-Appendix IX Monitoring Events and plume monitoring wells:
QL Denotes permit quantitation limit.
Q Denotes data qualifier.
U Denotes analyte not detected at or above QL.
UA Denotes analyte not detected at or above adjusted sample QL. See data validation report for further explanation.
UN Denotes analyte concentration is less than five times the blank concentration. Analyte was not reliably detected due to blank contamination

J Denotes analyte reported at or above QL and associated result is estimated. When used with "U" (i.e., "UJ"), denotes analyte not detected at or above QL and QL is estimated. When used with "UA" (i.e., "UAJ"), denotes analyte not detected at or above adjusted QL and adjusted QL is estimated.
R Denotes result rejected. See data validation report for further explanation.
Laboratory Data Qualifiers, "U" and "<", denote not detected at or above the QL.

SW-846 METHODS 6020B and 7470A INORGANIC DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 10-11, 2019 groundwater monitoring event at Hazardous Waste Management Unit 16 (HWMU 16) located at the Radford Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected the groundwater samples from monitoring wells 16C1, 16MW8, 16MW9, 16WC1A, 16WC1B, 16-2, 16-3, 16-5, 16WC2B, and 16SPRING. Sample 16WDUP was submitted to the laboratory as a blind sample duplicate for sample 16WC1A. Validation of other required methods is presented on separate reports.

Samples 16C1, 16MW8, 16MW9, 16WC1A and 16WC1B (compliance wells) were analyzed for fifteen (15) metals by SW-846 Method 6020B and mercury by SW-846 Method 7470A. Samples 16-2, 16-3, 16-5, 16WC2B and 16SPRING (plume wells) were analyzed for eleven (11) metals by SW-846 Method 6020B and mercury by SW-846 Method 7470A. The following information and attached table summarize the inorganic data validation results.

Techniques used for metals analysis include inductively coupled plasma Mass Spectrometry (ICP-MS) and cold vapor atomic absorption (CVAA). Samples 16C1, 16MW8, 16MW9, 16WC1A, 16WC1B were analyzed for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium and zinc by ICP-MS Method 6020B and mercury by CVAA Method 7470A. The remaining plume monitoring well samples were analyzed for arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc by ICP-MS Method 6020B and mercury by CVAA Method 7470A. Total (T) concentrations were determined for the inorganic (metal) analytes.

Draper Aden Associates sent samples to Shealy Environmental Services of West Columbia, South Carolina. Shealy performed the Method 6020B and 7470A analyses. On behalf of RFAAP, Shealy submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results, as well as relevant documentation to validate and verify the results. Shealy is accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP) for the above analytes, methods and matrix.

The evaluation of Shealy's compliance with the method and validation of results presented here are based upon a limited review of QA/QC information including holding times, preservation procedures, instrument tuning, calibration and calibration verification data, QL standards, blank samples (method, calibration, and others), interference check sample, pre-digestion matrix spike and matrix spike duplicate (MS/MSD), laboratory control sample (LCS), internal standard, and serial dilution results, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation checks were performed on ten percent of the data set, where applicable. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

Shealy received the samples on ice and in good condition, with custody seals intact. Applicable holding time and preservation criteria were met. The chain of custody was appropriately signed and dated by field and laboratory personnel.

Method 6020B (ICP-MS)

The revised certificate of analysis was received on July 10, 2019. The certificate of analysis appeared complete in their presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL) or detection limit (DL).

QC documentation criteria were met. Applicable instrument tune, calibration and calibration verification requirements were met. Blank, interference check samples, pre-digestion MS/MSD, LCS, internal standard and serial dilution results were within control limits, except where noted below. Deviations from QA/QC control limits that were identified during the data review process are summarized below.

The original certificate of analysis was revised to report the re-digested and reanalyzed silver result for 16MW8 as requested by Draper Aden Associates.

Beryllium recovered low from the MS/MSD and from the analytical spike of the sample digestate. Beryllium was not detected at or above the detection limit or QL in any project sample and beryllium sample results were validated and qualified "UJ" to note that the QL was estimated due to the observed QC deficiency. The remaining MS/MSD criteria were met.

Field duplicate/sample results exhibited acceptable precision, where applicable.

A verification event was performed on June 25, 2019 to confirm or refute the cobalt and silver detection in sample 16MW8. The sample, including a blind duplicate, were collected and submitted to Shealy. Verification results indicated cobalt was report less than the QL and the verification result disconfirmed the initial silver detection in 16MW8.

Target analytes detected at or above the permit detection limit or QL and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. The reported concentration for target analytes detected less than the QL should be considered estimated.

For this Appendix IX groundwater monitoring event, results for samples 16C1, 16MW8, 16MW9, 16WC1A, 16WC1B, and 16WDUP were reported to at or above the laboratory detection limit. Sample results unaffected by the data validation process, and not detected at or above the detection limit or QL, were validated and reported as "U." The reported concentration for target analytes detected less than the QL were validated and qualified "J" to note that the reported concentration should be considered estimated.

Sample results for 16-2, 16-3, 16-5, 16WC2B, and 16SPRING were reported at or above the permit required QL. Sample results unaffected by the data validation process, and not detected at or above the permit QL, were validated and reported as "U." No results were rejected based on the data validation criteria. QLs were at or below the applicable groundwater protection standard (GPS).

Method 7470A (CVAA)

The revised certificate of analysis was received on July 10, 2019. The certificate of analysis was revised to correct the sample preparation method. The certificate of analysis appeared complete in their presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit QL or DL for mercury.

QC documentation criteria were met. Instrument calibration and calibration verification criteria were met. QL standards, blank samples, MS/MSD, and LCS were analyzed as required and applicable criteria were met unless noted below. No deviations from QA/QC control limits were identified during the data review process.

Field duplicate/sample results exhibited acceptable precision, where applicable.

Target analytes detected at or above the permit detection limit or QL and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table.

For samples 16-2, 16-3, 16-5, 16WC2B and 16SPRING, results were reported at or above the permit required QL. For this Appendix IX groundwater monitoring event, results for samples 16C1, 16MW8, 16MW9, 16WC1A, 16WC1B were reported to at or above the permit detection limit. Sample results unaffected by the data validation process, and not detected at or above the detection limit or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

INORGANIC DATA EVALUATION BY SW-846 ICP-MS METHOD 6020B

Shealy Environmental Services, West Columbia, South Carolina; Lot #: UD13009, UD13010
☑ - denotes items reviewed. See Data Validation Summary for additional comments.

A. DOCUMENTION COMPLETENESS CRITERIA:
Data Quality Objective: Representativeness
- ☑ Chain of custody – Custody transfers must be signed and dated
- ☑ Chain of custody properly and completely filled out including sampler signatures, date and time of sampling, sample ID, analysis requested

B. DETECTION LIMIT AND QUANTITATION LIMIT CRITERIA:
Data Quality Objective: Analytical Sensitivity
- ☑ Specific detection limit reported
- ☑ Specific quantitation limit reported
- ☑ Instrument detection limit (IDL) less than QL
- ☑ VELAP accredited within 12 months

C. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:
Data Quality Objective: Laboratory Method Sensitivity
- ☑ IDOC for analyst BNW submitted previously

D. SAMPLE AND STANDARD PREPARATION CRITERIA:
Data Quality Objective: Accuracy and Representativeness
- ☑ Digestion method: 3005A

E. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
Data Quality Objective: Representativeness
- ☑ 6 month holding time, pH<2 with Nitric Acid (HNO_3)

F. INSTRUMENT TUNE CRITERIA:
Data Quality Objective: Verify Operating Conditions
- ☑ Prior to calibration
- ☑ Relative Standard Deviation (RSD) </=5%
- ☑ Resolution < 0.9 amu full width at 10% peak height (or lower)
- ☑ Mass calibration </=0.1 amu difference from true value

G. INITIAL CALIBRATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ A single point calibration or a multi-point calibration with a calibration blank and at least 3 standards (low standard at or below the QL)
- ☑ Linear curve fit with correlation coefficient $r \geq 0.995$
- ☑ Daily calibration following tuning and prior to sample analysis

H. INITIAL CALIBRATION VERIFICATION (ICV) CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ Daily following initial calibration - Independent/second source used for standard
- ☑ ICV recovery 90-110% - concentration near mid-point of calibration curve
- ☑ Low level ICV (LLICV) – prior to sample analysis, at QL concentration, 80-120% recovery

I. INITIAL CALIBRATION BLANK CRITERIA:

Data Quality Objective: Laboratory Analytical Sensitivity/Instrument Drift/Contamination Evaluation

- ☑ Daily following ICV
- ☑ Interference free (< ±1/2 the QL concentration)

J. QL/LOQ CHECK STANDARD CRITERIA:

Data Quality Objective: Laboratory Analytical Sensitivity

- ☑ Standard analyzed at or below the QL (LLQC), digested, mean of 7 replicates with RSD <5%, analyzed after MDL determination and analyzed at least quarterly
- ☑ QL standard recovery 80-120%

K. CONTINUING CALIBRATION VERIFICATION (CCV) CRITERIA:

Data Quality Objective: Laboratory Analytical Accuracy

- ☑ CCV, prior to analysis, after every 10 samples, at end of analysis
- ☑ CCV recovery within 90-110%, mid-point of curve concentration

L. CONTINUING CALIBRATION BLANK CRITERIA:

Data Quality Objective: Laboratory Analytical Sensitivity/Instrument Drift/Contamination Evaluation

- ☑ Immediately after the CCV and after each group of 10 samples
- ☑ Interference free (<QL)

M. BLANK CRITERIA:

Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation

- N/A Trip Blank (check only if analyzed)
- ☑ Method/Other Lab Blanks (check only if analyzed), one per digestion batch
- ☑ Interference free (<1/2 LLOQ), where applicable

N. INTERFERENCE CHECK SAMPLE (ICS) CRITERIA:

Data Quality Objective: Analytical Accuracy/Verification of Isobaric Interference Corrections

- ☑ At beginning of analytical run or once every 12 hours of continuing sample analysis Results for elements not spiked in solution should be < 2 times the LLOQ. (Ti and Mo are spiked in addition to alkali metals)

O. MATRIX SPIKE DUPLICATE (MSD) CRITERIA:

Data Quality Objective: Method Precision in Sample Matrix

- ☑ All analytes, one MSD or sample duplicate per batch of 20 samples
- ☑ Spiked prior to sample preparation
- ☑ RPD ≤ 20 between MS & MSD results or sample & duplicate results, where applicable

P. MATRIX SPIKE (MS) CRITERIA:

Data Quality Objective: Method Accuracy in Sample Matrix

- ☑ All analytes, one MS per digestion batch of 20 samples
- ☑ Spiked prior to sample preparation
- ☑ Recovery: 75-125%, post-digestion spike analyzed for failed analytes, recovery 75-125%

Q. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

Data Quality Objective: Laboratory Method Accuracy, Laboratory Performance

- ☑ 1 LCS per 20 samples, all analytes, Recovery: 80-120%
- ☑ LCS solution same concentration as MS/MSD solution

R. INTERNAL STANDARDS (IS) CRITERIA:

Data Quality Objective: Analytical Accuracy in Sample Matrix

- ☑ IS added to each sample and QC sample
- ☑ Relative intensity (RI) should be within 70-125%
- ☑ If RI of CCB is <30%, terminate run and recalibrate

S. SERIAL DILUTION TEST CRITERIA:

Data Quality Objective: Accuracy in Sample Matrix

- ☑ <20% Difference (applicable when concentration >25X LLOQ)

T. SAMPLE QUANTITATION AND GENERAL REPORTING CRITERIA:

Data Quality Objective: n/a

- ☑ Sample results reported within instrument calibration range
- ☑ Sample results reported to the method detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III, and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017, where applicable). Validation of this data set is limited to review of items detailed in this data review report. Additionally, laboratory specific acceptance criteria and/or historical program acceptance criteria were used when no other acceptance criteria were available. Validation of this data set is limited to the items detailed in this report.

INORGANIC DATA EVALUATION FOR MERCURY BY COLD VAPOR AA SW-846 METHOD 7470A

Shealy Environmental Services, West Columbia, South Carolina; Lot #: UD13009, UD13010
☑ - denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limits/quantitation limit (QLs) for target analyte
- ☑ Standard analyzed at the QL (70-130% Recovery)
- ☑ VELAP accredited
- ☑ IDOC for analyst JNH submitted previously

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Mercury analyzed by requested method

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ 28 day holding time
- ☑ Adjust pH <2 w/ HNO_3

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards, correlation coefficient >0.995
- ☑ Instrument calibrated for every analytical sequence for every method

E. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
- ☑ 10 sample frequency for CCV
- ☑ Recovery within 80-120%

F. BLANK SAMPLE CRITERIA:
- N/A Trip Blank (check only if analyzed)
- N/A Equipment Blank (check only if analyzed)
- ☑ Method/other laboratory blanks (check only if analyzed)
- ☑ Interference free

G. MATRIX SPIKE DUPLICATE (MSD) SAMPLE CRITERIA:
- ☑ One MSD or sample duplicate per batch of 20 samples
- ☑ RPD ≤20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

H. MATRIX SPIKE (MS) SAMPLE CRITERIA:
- ☑ Recovery within 75-125% range
- ☑ One MS per batch of 20 samples
- ☑ MS added prior to digestion

I. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:
- ☑ LCS for mercury
- ☑ Recovery within 80-120%
- ☑ Independent source for LCS

J. SAMPLE RESULTS CRITERIA:

- ☑ Results reported within instrument calibration range
- ☑ Results reported to laboratory detection limit (compliance wells)
- ☑ Results reported to laboratory quantitation limit (plume wells)

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III, and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017, where applicable). Validation of this data set is limited to review of items detailed in this data review report. Additionally, laboratory specific acceptance criteria and/or historical program acceptance criteria were used when no other acceptance criteria were available. Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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SW-846 METHOD 8260C VOLATILE ORGANICS DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 10-11, 2019 monitoring event at Hazardous Waste Management Unit 16 (HWMU 16) located at the Radford Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 16C1, 16MW8, 16MW9, 16WC1A, 16WC1B, 16-2, 16-3, 16-5, 16WC2B, and 16Spring. Groundwater sample 16WDUP was submitted to the laboratory as a blind field duplicate for 16WC1A.

Samples 16C1, 16MW8, 16MW9, 16WC1A, and 16WC1B (compliance monitoring wells) were analyzed for 66 volatile organic target analytes and samples 16-2, 16-3, 16-5, 16WC2B, and 16Spring (plume wells) were analyzed for 20 volatile organic target analytes per USEPA SW-846 Method 8260C. The following information and attached table summarize the Method 8260C data validation results.

Draper Aden Associates sent samples to Eurofins Lancaster Laboratories Environmental (ELLE), of Lancaster, Pennsylvania. ELLE performed the SW-846 Method 8260C volatile analysis. ELLE is a VELAP accredited laboratory for the analytes, method and matrix as reported on the certificate of analysis. ELLE submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results (SDG# RAF35).

The evaluation of ELLE's compliance with Method 8260C and validation of the results were based on a review of the following items: QC deliverables package, QC history documentation, technical holding times and preservation requirements, instrument performance (tune) check, instrument calibration and calibration verification data, blank, surrogate spike, matrix spike and matrix spike duplicate (MS/MSD), laboratory control sample (LCS), internal standards recovery, and/or target analyte identification and quantitation. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation verifications were performed on ten percent of the data set, where applicable. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

ELLE received the samples on ice and in good condition, with custody seals intact. The chain of custody (COC) was appropriately signed and dated by field and laboratory personnel. Technical holding time and preservation criteria were met, except where noted below.

The narrative noted that samples 16MW9, 16WC1A, 16WC1A MS and 16WC1A MSD were analyzed for Method 8260C using containers that were submitted with headspace. All results associated with the above noted samples for the April 2019 sample collection event were qualified as estimated.

The original certificate of analysis was received on May 14, 2019. The certificate of analysis appeared complete in its presentation and the data were of acceptable quality. The certificate of analysis demonstrated the ability of the laboratory to achieve the quantitation limit (QL) and method detection limit/detection (MDL/DL) for each target analyte, unless noted below.

QC deliverables package requirements were met. QC history documentation and instrument performance check criteria were met. Tuning, initial calibration, calibration verification, blanks, surrogates, MS/MSD, LCS, internal standards, identification and quantitation criteria were met, except where noted below. A minimum ten percent of the sample results were verified through calculations from instrument data and no transcription errors were observed.

Acrolein was analyzed using a sample aliquot adjusted to pH <2 SU. Acrolein was not detected at or above the detection limit or QL in any sample. Acrolein sample results were validated and qualified "UJ" to note that the DL and QL were estimated due to the observed QC deficiency. Acrolein is not a target analyte for the plume well samples.

Allyl chloride did not meet and was below the continuing calibration verification (CV) standard percent difference/drift requirement (±20%) for the CV associated with the compliance monitoring wells. Allyl chloride was not detected at or above the DL or QL in any project sample and associated sample results were validated and qualified "UJ" due to the observed QC deficiency. The remaining CV standard criteria were met.

Acetone was reported in all trip blanks and in all samples at an estimated concentration less than the QL. All acetone results were qualified as UN to indicate that the acetone detection is less than the QL and five times the blank concentration. Acetone detections were attributed to blank contamination.

Dichlorodifluoromethane recovered low in the MS/MSD and in the LCS associated with the compliance monitoring wells. Dichlorodifluoromethane was not detected at or above the DL or QL in any project sample and sample results for this analyte were validated and qualified "UJ" due to the observed QC deficiencies. Acetonitrile and 1,4-dioxane recovered high in the MS/MSD; however, these analytes were not detected in any project sample and no data qualification was required. The remaining MS/MSD and LCS criteria were met.

For samples 16C1 and 16MW9, the initial results for diethyl ether exceeded the instrument calibration range. These samples were reanalyzed in dilution and diethyl ether results from the dilution analysis were reported for these samples. The QL and DL for the reported diethyl ether results adjusted for dilution.

Laboratory analysis was performed using a 25 ml purge volume for all analytes except 2-propanol. 2-Propanol analysis was performed using a 5 ml purge volume.

ELLE reported a lower detection limit for 2-propanol and 2-propanol was reported as detected in 16C1, 16MW8, 16WC1A, and 16WC1B. VDEQ authorized continued use of the historical detection limit of 50 ug/l and final results for 2-propanol were reported as not detected at or above the detection limit 50 ug/l. In correspondence dated June 12, 2019, VDEQ requested a survey of VELAP accredited laboratories annually for a period of at least three (3) years (i.e., 2020, 2021, 2022) to ensure that the lower 18 ug/L MDL reported by ELLE, Lancaster, PA is not routinely achieved by other VELAP accredited laboratories for 2-propanol. VDEQ also requested this survey should be included as an appendix in the annual report for the unit.

Field duplicate/sample results for 16WC1A exhibited acceptable precision, where applicable. A trip blank was submitted and analyzed for each day of sampling.

For compliance well samples 16C1, 16MW8, 16MW9, 16WC1A, 16WDUP, and 16WC1B, results were reported to at or above the permit detection limit for this Appendix IX monitoring event. Where permit MDLs were lower than the laboratory's current MDL study, results were reported to the laboratory MDL. For the remaining samples (plume wells), target analytes were reported to at or above the permit QL.

Target analytes detected at or above the detection limit or QL and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. The reported concentration for target analytes detected less than the QL should be considered estimated.

A verification event was performed on June 25, 2019 to confirm or refute the vinyl chloride detection in sample 16WC1A. A sample and blind duplicate were collected and submitted to ELLE, Additionally, a split sample was collected and submitted to ELLE, Test America, Canton, OH. Upon receipt at the Canton, OH facility, the laboratory reported that they could not meet the required detection limit of 0.153 ug/l and the laboratory overnight shipped the sample and a trip blank under chain of custody to Pace Analytical, Mt. Juliet, TN. PACE analysis was performed within holding time requirements. ELLE results (SDG RAF44) indicated vinyl chloride was not detected in the sample, but was reported as detected just above the method detection limit in the sample duplicate. Pace results (SDG 1116144) indicated vinyl chloride was not detected at or above the detection limit (Pace detection limit at or below ELLE). The final vinyl chloride result for 16WC1A was reported from ELLE as not detected at or above the detection limit.

Results for samples unaffected by the data validation process, and not detected at or above the detection limit and/or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

SW-846 METHOD 8260C (GC/MS) VOLATILE ORGANICS DATA VALIDATION

Comments: *Volatile organic analysis uses a purge and trap system to remove volatile organic target analytes from a 5ml or 25ml water sample (SW-846 5030C). Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for the sample locations?	☑ YES ☐ NO
4.	Did the results correspond to the project specific analyte list?	☑ YES ☐ NO
5.	Were the analyte QLs reported on sample summary sheets in agreement with the MDL study?	☑ YES ☐ NO
6.	Were sample locations, analytes and QLs in agreement with the electronic deliverable (EDD)?	☑ YES ☐ NO
7.	Currently VELAP accredited?	☑ YES ☐ NO

Comments: QC deliverables package requirements were met. The Appendix IX monitoring target analyte list was modified per the 2016permit modification.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Was an instrument specific MDL study provided which included DL and QL values for the target analytes?	☑ YES ☐ NO
2.	Was the instrument calibration range provided?	☑ YES ☐ NO
3.	Were the instrument specific check sample data provided for the target analytes?	☑ YES ☐ NO

Comments: Except as noted above, QC history documentation was provided and met criteria. The laboratory analyzed a MDL check sample at 1 µg/l (5 ml purge) and at 0.1 µg/l (25 ml purge) for most target analytes.

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 14-day sample collection to analysis holding time met?	☑ YES ☐ NO
2.	Were the samples received at ≤6°C, zero headspace?	☐ YES ☑ NO
3.	Were the sample pHs adjusted to < 2 with HCl?	☑ YES ☐ NO
4.	Were the sample pHs adjusted to 4-5 with HCl? (Acrolein only)	☐ YES ☑ NO
5.	Were samples analyzed unpreserved (2-chloroethyl vinyl only)	☑ NA ☐ YES ☐ NO

Comments: Technical holding time and sample preservation criteria were met except where noted above.

D. GC/MS INSTRUMENT PERFORMANCE (TUNING) CHECK CRITERIA:

1.	Was the instrument performance check solution analyzed at the beginning of each 12-hour period prior to standards/samples analysis?	☑ YES ☐ NO
2.	Was there documentation of the injection of 5-50 ng bromofluorobenzene (BFB)?	☑ YES ☐ NO
3.	Were the ion abundance criteria met?	☑ YES ☐ NO
4.	Were calibration, blank, and sample analyses performed within 12 hours of tuning?	☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria*:*

1.	Was the internal standard (IS) which was selected for target analyte RF calculation the IS which had the closest retention time?	☑ YES ☐ NO
2.	Were the target analytes included in the ICAL?	☑ YES ☐ NO
3.	Were any calibration levels removed from the curve that would negatively influence the data integrity?	☐ YES ☑ NO
4.	Did the ICALs consist of a minimum of 5 calibration levels?	☑ YES ☐ NO
5.	Was the lowest concentration calibration standard at or below the associated MCL?	☑ YES ☐ NO
6.	Was the calibration curve developed using the same purge volume as that used for the sample analysis?	☑ YES ☐ NO
7	Were 8260C minimum Relative Response Factor (RRF) criteria met? *Refer to Table 4- SW-846 Method 8260C (Rev3 8/06) for specific analyte RRFs*	☑ YES ☐ NO
8.	Was each target analyte %RSD ≤ 20%?	☐ YES ☑ NO
9.	Was the correlation coefficient >0.99 for target analytes with ≥20 % RSD? (*System recalibrated if >10% analytes fail above condition)*	☑ YES ☐ NO
10.	Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL?	☑ YES ☐ NO
11.	Was the recovery within 70-130%?	☑ YES ☐ NO
12.	Was the ICV standard prepared from a different source than that used for the ICAL ?	☑ YES ☐ NO

Method Validation Performance Criteria:

1.	Did target analytes and surrogates that have RSDs > 20% have ≥0.99 correlation coefficient or coefficient of determination?	☑ YES ☐ NO
2.	For linear regression curves, was the recalculated concentration of the low calibration point within ±30%?	☑ NA ☐ YES ☐ NO
3.	For quadratic curves, was a minimum six standards used?	☑ YES ☐ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or analyzed independently during another 12-hour analysis period. ☑ YES ☐ NO
2. Were 8260C minimum Relative Response Factor (RRF) criteria met?
   Refer to Table 4- SW-846 Method 8260C (Rev3 8/06) for specific analyte RRFs ☑ YES ☐ NO
3. Did the target analytes and system monitoring analytes (surrogates) have the % D within ± 20%? ☐ YES ☑ NO
   If criteria not met for more than 20% of analytes in the initial calibration, then corrective action must be taken prior to the analysis of samples.
   If "NO", list analytes that exceed these criteria: *See data validation report*

Draper Aden Associates Contractual Requirements:

1. Did the target analytes and system monitoring analytes (surrogates) have % Ds within ± 20%? ☐ YES ☑ NO

Comments: The CV standard criteria were met except where noted above.

G. BLANK CRITERIA:

1. Was a method blank analyzed after the calibration standards, prior to sample analysis, and once for every 12-hour period beginning with the injection of BFB? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ YES ☐ NO
3. Were the trip blanks and method blanks interference free? ☐ YES ☑ NO
4. Was the level of blank contamination less than 5% of the regulatory limit associated with an analyte or less than 5% of the sample result for the same analyte, whichever is greater? ☑ NA ☐ YES ☐ NO
5. List target analytes detected in the blanks: *Acetone*
6. Did any result exceed the calibration range? ☑ YES ☐ NO
7. Were one or more blanks analyzed following the high concentration sample to prevent cross contamination? ☐ YES ☑ NO

Comments: Blank criteria were met for laboratory blanks. Acetone was <QL in each Trip blank. All acetone detections were attributed to blank contamination.

H. SURROGATE CRITERIA:

SW-846 Criteria:

1. Were the following surrogates used? ☑ YES ☐ NO
   - dibromofluoromethane (80-120%)
   - 4-bromofluorobenzene (80-120%)
   - toluene-d8 (80-120%)
   - 1,2-dichloroethane-d4 (80-120%)
2. Were recoveries within specified ranges? ☑ YES ☐ NO

If "NO", corrective action is required. Flagging of the data as estimated is not acceptable until corrective action has been attempted

3. Were samples with surrogates outside the QC window reanalyzed as required? ☑ NA ☐ YES ☐ NO

Comments: Surrogate criteria were met.

I. MATRIX SPIKE, MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	*% R Water*	*% RPD Water*
1,1-dichloroethene	61-145	14
trichloroethene	71-120	14
benzene	76-127	11
toluene	76-125	13
chlorobenzene	75-130	13

1. Was a matrix spike and matrix spike duplicate (MS/MSD) analyzed per sample batch or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. MS/MSD acceptance range: 75-125%; 70-130% poor purge analytes; RPD ≤20
5. Were analytes qualified as estimated due to MS/MSD criteria? ☑ YES ☐ NO
    - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD criteria were met except where noted above.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample batch analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? (No TICs) ☑ YES ☐ NO
3. List the LCS acceptance criteria: 80-120%; 70-130% for poor purge analytes
4. Were any analytes qualified as estimated? ☑ YES ☐ NO

Comments: LCS criteria were met except where noted above.

K. INTERNAL STANDARDS (IS) CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   t-butyl alcohol-d_{10}, fluorobenzene, chlorobenzene-d_5, 1,4-dichlorobenzene-d_4
2. Were the IS areas within - 50% to + 100% of the last CV? ☑ YES ☐ NO
3. Were the IS RTs within ± 30 seconds of the last CV? ☑ YES ☐ NO
4. Were samples failing Items 2 and/or 3 above reanalyzed as required by the method? ☑ NA ☐ YES ☐ NO

Comments: Internal standards criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met:
   * Characteristic ions maximize in the same scan or within one scan of each other
   * Characteristic ions present in the standard spectra present in the sample spectra for analytes detected above the QL
   * Relative intensities of the ions between the standard and sample spectra within ± 30%
3. Were the reported analytes confirmed? ☑ YES ☐ NO

Comments: Target analyte identification criteria were met. See attached table for detected analytes. Identification criteria were met.

M. TARGET ANALYTE QUANTITATION:

* If the %RSD of an analyte was 20% or less, then the average relative response factor should have been used for quantitation.
* If the %RSD of an analyte was greater than 20%, then the quantitation should have been based on a calibration curve using the first or higher order regression fit of the five calibration points. (6 calibration points for 2nd order).

1. List the detected analytes whose %RSD was > 20%: *None*
   - Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of an analyte which exceeded the initial calibration range? ☑ YES ☐ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO
4. Were field sample duplicate RPDs <20 where applicable? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met, where applicable.

N. LIBRARY SEARCHES: Library searches were not requested with this data set.

O. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

The initial demonstration of capability (IDOCs) for analysts J. Howe, A. Campbell, and C. Mellinger were submitted previously by the laboratory. No corrective action was taken.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and instrument data provided by the analyzing laboratory. Data were evaluated in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review, January 2017, where applicable). Where QA/QC criteria differed, the analytical method acceptance criteria were used. Additionally, laboratory specific acceptance criteria and/or historical program acceptance criteria were used when no other acceptance criteria were available. Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

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SW-846 METHOD 8270D SEMIVOLATILE DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 10-11, 2019 groundwater monitoring event at Hazardous Waste Management Unit 16 (HWMU 16) located at the Radford Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 16C1, 16MW8, 16MW9, 16WC1A, 16WC1B, 16-2, 16-3, 16-5, 16WC2B, and 16Spring. Groundwater sample 16WDUP was submitted to the laboratory as a blind sample duplicate for 16WC1A.

Samples 16C1, 16MW8, 16MW9, 16WC1A, and 16WC1B (compliance monitoring wells) were analyzed for 114 semivolatile target analytes. Samples 16-2, 16-3, 16-5, 16WC2B, and 16Spring (plume wells) were analyzed for three semivolatile target analytes per USEPA SW-846 Method 8270D. The following information and attached table summarize the Method 8270D data validation results. Validation of other required methods is presented on separate reports.

Draper Aden Associates sent samples to Eurofins Lancaster Laboratories Environmental (ELLE), of Lancaster, Pennsylvania and to Microbac Laboratories (Microbac), of Marietta, Ohio. Each laboratory is a VELAP accredited laboratory for the analytes, method and matrix as reported on the certificates of analysis. Both laboratories submitted results to Draper Aden Associates in a final certificate of analysis that included sample analytical results as well as relevant QA/QC and method performance criteria documentation to verify and validate the results. Microbac analyzed hexachlorophene and sulfotep only (Report Number: L19041033). ELLE reported the remaining target analytes (SDG# RAF35).

The evaluation of each laboratory's compliance with Method 8270D and validation of the results was based on a review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, instrument performance (tune) check, instrument calibrations, blank analysis, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, and internal standard requirements. A review of the transcriptions from instrument data to sample summary sheets was performed. Calculation verifications were performed on ten percent of the data set, where applicable. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

Each laboratory received the samples on ice and in good condition, with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Technical holding time and sample preservation were met.

The original certificate of analysis was received on May 21, 2019. Each certificate of analysis appeared complete and the data were of acceptable quality, except where noted below. The data set demonstrated the laboratory's ability to achieve the reported permit required quantitation limit (QL) or detection limit (DL), unless noted below.

QC history documentation, instrument performance check (tuning) criteria, calibration, blank, surrogate, MS/MSD, LCS and internal standard requirements were met, except where noted below. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. Deviations from specific QA/QC criteria that were identified during the data review process are summarized below.

Microbac revised the certificate of analysis to include the correct method of analysis to Method 8270D instead of Method 8270C.

One acid surrogate recovered low (<10%) in sample 16MW8 and three acid surrogates recovered low in sample 16WC1B. Samples 16MW8 and 16WC1B were reanalyzed with similar surrogate recoveries and the original results were reported as the final results. The acid fraction analytes for 16MW8 and 16WC1B were validated and qualified "UJ" to note that the DL and QL were estimated due to the observed QC deficiency. The remaining surrogate criteria were met.

2,4-Dichlorophenol, hexachlorobenzene, 2,3,4,6-tetrachlorolenol, 2,4,5-trichlorophenol, and 2,4,6-trichlorophenol recovered low in the MS/MSD (see data validation table). Famphur and 1,4-phenylenediamine recovered low in each LCS. 1,4 Naphthoquinone did not recover from the LCS associated with 16MW8 only and recovered low from the LCS associated with the other compliance wells.

Due to a laboratory error, sulfotep did not recover in the MS/MSD or LCS. Sulfotep was re-extracted and reanalyzed outside holding time with acceptable recoveries. The original in-hold results were reported as the final results. Sulfotep was not detected at or above the detection limit or permit QL in any sample and results for this analyte were validated and qualified "UJ" to note that the DL and QL were estimated due to the observed QC deficiency. The remaining MS/MSD/LCS criteria were met or no data qualifications were required for the few analytes that recovered high.

Hexachlorophene was reported by the laboratory via a single point calibration and results were considered estimated by the laboratory. Hexachlorophene was not detected in any sample and hexachlorophene results were validated and qualified as estimated, "UJ" to note that the detection limit and QL are estimated due to the observed QC deficiency.

Hexachloroethane was analyzed by SW-846 Method 8260C and 8270D; however, final results were reported by 8260C.

Due to analytical limitations, 3-methylphenol and 4-methylphenol cannot be analyzed separately. 3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The results reported for 3-methylphenol and 4-methylphenol represent the combined total for both compounds. N-Nitrosodiphenylamine decomposes during analysis to form diphenylamine. The results reported for diphenylamine represent the combined total for both compounds.

For this Appendix IX monitoring event, results for compliance wells (16C1, 16MW8, 16MW9, 16WC1A and 16WC1B) were reported to at or above the detection limit. The detection limit was based on the current laboratory MDL study. For plume wells (16-2, 16-3, 16-5, 16WC2B, and 16Spring), results were reported to at or above the permit required QL. The sample results unaffected by the data validation process, and not detected at or above the detection limit and/or QL, were validated and reported as "U."

For this sampling event, no target analytes were detected. No results were rejected based on the data validation criteria.

SW-846 METHOD 8270D (GC/MS) SEMIVOLATILE ORGANIC DATA VALIDATION

Comments: *Semivolatile (a.k.a, base/neutral and acid extractables) analysis involves sample preparation using SW-846 Method 3510C. The semivolatile extracts are concentrated through evaporation. Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for the sample locations?	☑ YES ☐ NO
4.	Did the data correspond to the project specific analyte list?	☑ YES ☐ NO
5.	Were target analyte QLs reported on sample summary sheets in agreement with the instrument specific MDL study?	☑ YES ☐ NO

Comments: QC deliverables package criteria were met.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Were instrument specific detection limits provided for the analytes?	☑ YES ☐ NO
2.	Were instrument specific QLs for target analytes provided?	☑ YES ☐ NO
3.	Was calibration range specified for the target analytes?	☑ YES ☐ NO

Comments: QC history documentation criteria were met.

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 7-day sample collection to extraction holding time met?	☑ YES ☐ NO
2.	Was the 40-day extraction to analysis holding time met?	☑ YES ☐ NO
3.	Were the samples received at ≤6°C?	☑ YES ☐ NO

Comments: The sample collection to extraction/analysis holding times and preservation criteria were met except where for re-extractions as noted.

D. GC/MS INSTRUMENT PERFORMANCE CHECK CRITERIA:
(Tuning, Injection Port and Column Performance)

1.	Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period of standard and/or sample analysis?	☑ YES ☐ NO
2.	Was there documentation of the injection of 50 ng of DFTPP?	☑ YES ☐ NO
3.	Were ion abundance criteria met?	☑ YES ☐ NO
4.	Was the injection port inertness verified by analysis of 4,4'-DDT?	☑ YES ☐ NO
5.	Was the degradation of DDT to DDE and DDD <20%?	☑ YES ☐ NO
	• If no, does associated data require qualification?	☑ NA ☐ YES ☐ NO

- Was the injection port inertness check acceptable? ☑ YES ☐ NO

6. Was column performance checked through the analysis of peak tailing (<2 tailing factor) of pentachlorophenol and benzidine? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was column performance check acceptable? ☑ YES ☐ NO

Comments: Instrument performance check criteria were met. The lab extracted 250 ml of sample and used 12.5 ng of DFTPP. Laboratory tune criteria windows are within those specified by 8270D.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

1. Were the initial calibrations (ICAL) and any directly associated blanks and samples analyzed within 12-hours of the associated instrument performance (tune) check? ☑ YES ☐ NO
2. Were quantitation ions, used and listed on data, randomly checked against primary quantitation ions as required by Method 8270D and the RFP? ☑ YES ☐ NO
3. Were target analytes included in the ICAL? ☑ YES ☐ NO
4. Did the ICAL consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
5. Was the lowest concentration calibration standard at or below the associated MCL, regulatory compliance, or action limit? ☑ YES ☐ NO
6. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO
7. Were 8270D minimum RRF criteria met?
   Relative Response Factor-range (RRF 0.010-0.900) ☑ YES ☐ NO
   **Refer to Table 4 of SW-846 Method 8270D (Rev4 2/07) for specific analyte RRFs*
8. Was each target analyte %RSD ≤ 20%? ☐ YES ☑ NO
9. Was the correlation coefficient or coefficient of determination >0.99 for target analytes with > 20% RSD? ☑ YES ☐ NO
   **System recalibrated if >10% analytes fail above condition*
10. Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL? ☑ YES ☐ NO
11. Was the recovery within 70-130%? ☑ YES ☐ NO
12. Was the ICV standard prepared from a different source from the ICAL? ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates that have RSDs > 20% have ≥0.99 correlation coefficient or coefficient of determination? ☑ YES ☐ NO
2. For linear regression curves, was the recalculated concentration of the low calibration point within ±30%? ☑ YES ☐ NO
3. For quadratic curves, was a minimum six standards used? ☑ YES ☐ NO

Comments: Initial calibration criteria were met except where noted above.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or analyzed independently during another 12-hour analysis period. ☑ YES ☐ NO
2. Were 8260C minimum Relative Response Factor (RRF) criteria met?
   Refer to Table 4- SW-846 Method 8260C (Rev4 2/07) for specific analyte RRFs ☑ YES ☐ NO
3. Did the target analytes and system monitoring analytes (surrogates) have the % D within ± 20%? ☑ YES ☐ NO
   If criteria not met for more than 20% of analytes in the initial calibration, then corrective action must be taken prior to the analysis of samples.
   If "NO", list analytes that exceed these criteria: *See data validation report.*

Draper Aden Associates Contractual Requirements:

1. Did the target analytes and system monitoring analytes (surrogates) have % Ds within ± 20%? ☑ YES ☐ NO

Comments: The CV standard criteria were met.

G. BLANK CRITERIA:

1. Was a method/extraction blank analyzed on each GC/MS system used for sample analysis? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ NA ☐ YES ☐ NO
3. Were the blank samples interference free? ☑ YES ☐ NO
4. Was the level of blank contamination > 5% of the MCL? ☑ NA ☐ YES ☐ NO
5. List target analytes detected in the blanks: *None*

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were the following surrogates used? ☑ YES ☐ NO
   - phenol - d_6 (10%-94%)
   - 2-fluorophenol (21%-100%)
   - 2,4,6-tribromophenol (10%-123%)
   - nitrobenzene – d_5 (43%-108%)
   - 2-fluorobiphenyl (43%-116%)
   - p-terphenyl - d_{14} (33%-141%)
2. Were recoveries within the specified ranges? ☐ YES ☑ NO
3. Were any two base/neutral or acid surrogates out of specification or did any one base/neutral or acid extractable surrogate have a recovery of less than 10%? ☑ YES ☐ NO
   If yes, was a re-extraction and reanalysis performed to confirm that the non-compliance was due to sample matrix effects rather than laboratory deficiencies? ☑ YES ☐ NO

Comments: Surrogate recovery criteria were met except where noted above. The laboratory reanalyzed but did not re-extract the samples.

I. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	% R Water	% RPD Water
Phenol	12-110	42
2-Chlorophenol	27-123	40
N-Nitroso-di-n-propylamine	41-116	38
4-Chloro-3-methylphenol	23-97	42
Acenaphthene	46-118	31
4-Nitrophenol	10-80	50
2,4-Dinitrotoluene	24-96	38
Pyrene	26-127	31

1. Was a MS/MSD analyzed per sample batch or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List MS/MSD target analytes not within laboratory recovery ranges:
   See semivolatile certificate of analysis
5. Was a LCS analyzed to address failed MS spike criteria? ☑ YES ☐ NO
6. Did the LCS for the failed MS analyte(s) fall within the recovery ranges and was the problem identified as matrix interference? ☑ YES ☐ NO
7. Were analytes qualified as estimated due to MS/MSD criteria? ☑ YES ☐ NO
   - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD criteria were met except where noted above.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO
3. List the LCS target analytes and laboratory recovery range.
   See semivolatile certificate of analysis.
4. Were any analytes qualified as estimated due to LCS criteria? ☑ YES ☐ NO

Comments: LCS criteria were met except where noted above.

K. INTERNAL STANDARDS CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   - 1,4-Dichlorobenzene-d_4
   - Naphthalene-d_8
   - Acenapththene-d_{10}

- Phenanthrene-d_{10}
- Pyrene-d_{10} (Chrysene-d_{12}-TestAmerica)
- Perylene-d_{12}

2. Were the IS areas within ± 50% of last CV? ☑ YES ☐ NO
3. Were the IS RTs within ± 30 seconds of last CV? ☑ YES ☐ NO

Comments: Internal standard criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ NA YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met: ☑ NA YES ☐ NO
   * Did characteristic ions maximize in the same scan or within one scan of each other?
   * Were the characteristic ions present in the standard spectra present in the sample spectra for analytes detected above the QL?
   * Were the relative ion intensities between the standard and sample spectra within ± 30%?
3. Were the reported analytes confirmed? ☑ NA YES ☐ NO

Comments*:* Target analyte identification criteria were met. No target analytes were detected at or above the detection limit or permit QL (compliance samples) or the permit QL (plume samples).

M. TARGET ANALYTE QUANTITATION:

* If the %RSD of an analyte was 20% or less, then the average relative response factor should have been used for quantitation.
* If the %RSD of an analyte was greater than 20%, then the quantitation should be based on a calibration curve using the first or higher order regression fit of the five calibration points (6 calibration points for 2nd order).

1. List the analytes detected above the QL whose %RSD was >20%: *None*
   a. Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of a target analyte that exceeded the initial calibration range? ☐ YES ☑ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met. No target analytes were detected at or above the detection limit or permit QL (compliance samples) or the permit QL (plume samples).

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: The initial demonstration of capability (IDOCs) for analysts SLB (Microbac) and A. Transue (ELLE) were submitted previously. No corrective action was taken.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and instrument data provided by the analyzing laboratory. Data were evaluated in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review, January 2017, where applicable). Where QA/QC criteria differed, the analytical method acceptance criteria were used. Additionally, laboratory specific acceptance criteria and/or historical program acceptance criteria were used when no other acceptance criteria were available. Validation of this data set is limited to the items detailed in this report.

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Engineering ♦ Surveying ♦ Environmental Services

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Date:

SW-846 METHOD 9012B DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 10-11, 2019 monitoring event at Hazardous Waste Management Unit 16 (HWMU 16) located at the Radford Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 16C1, 16MW8, 16MW9, 16WC1A, and 16WC1B. Sample 16WDUP was submitted to the laboratory as a blind field sample duplicate for 16WC1A.

The samples were analyzed for cyanide by SW-846 Method 9012B. The following information and attached table summarize the data validation results. Validation of other required methods is presented on separate reports.

Draper Aden Associates sent samples to Shealy Environmental Services of West Columbia, South Carolina. Shealy performed the Method 9012B analysis. On behalf of RFAAP, the laboratory submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results. The laboratory is a VELAP accredited laboratory for the above analyte, method, and matrix reported.

The evaluation of Shealy's compliance with the analytical method and validation of results presented here are based upon a limited review of quality assurance/quality control (QA/QC) information including holding times, preservation procedures, calibration standards, blank samples (method, calibration and other blanks), matrix spike/matrix spike duplicate (MS/MSD) or matrix spike/sample duplicate (MS/DUP), and laboratory control standard (LCS) results. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation checks were performed on a minimum ten percent of the data set. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

Shealy received the samples in good condition with custody seals intact. Technical holding time and preservation criteria were met.

The original certificate of analysis was received on May 21, 2019. No revisions were required for cyanide analysis, however, other revisions were made to the certificate of analysis and the revised certificate of analysis was received on July 10, 2019. The certificate of analysis appeared complete in its presentation and the data were of acceptable quality. Documentation was provided to demonstrate the ability of the laboratory to achieve the reported project quantitation limit (QL) or detection limit (DL) for cyanide.

QC history documentation, holding time, sample preservation, instrument calibration and calibration verification criteria were met. Blank, MS/MSD, and LCS samples were analyzed as required and results were within control limits, unless noted below. The blanks were

interference free. No deviations from QA/QC control limits were identified during the data review process.

Field duplicate/sample results exhibited acceptable precision, where applicable.

For this Appendix IX monitoring event, cyanide results were reported to at or above the detection limit. Cyanide was not detected at or above the laboratory detection limit or permit defined QL in any sample and sample results for cyanide were validated and reported as "U." No results were rejected based on data validation criteria.

INORGANIC DATA EVALUATION FOR CYANIDE BY SW-846 METHOD 9012B

Shealy Environmental Services, West Columbia, South Carolina; Lot Number: UD13009
Preparation Method: 9012B
☑ - denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limit for target analyte
- ☑ Specific QLs for target analyte
- ☑ VELAP accredited
- ☑ IDOC for analyst MSG submitted previously

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Cyanide analyzed by requested method

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ 14 day holding time
- ☑ Cool ≤6° C
- ☑ Adjust pH >12 w/ NaOH

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards; correlation coefficient ≥ 0.995

E. INITIAL / CONTINUING CALIBRATION VALIDATION CRITERIA:
- ☑ ICV, recovery 85-115%
- ☑ 10 sample frequency for CCV, recovery 85-115%

F. BLANK SAMPLE CRITERIA:
- ☑ Interference free
- ☑ ICB, then 10 sample frequency for CCB
- ☑ One preparation blank per sample batch

G. MATRIX SPIKE DUPLICATE (MSD) SAMPLE CRITERIA:
- ☑ One MSD or sample duplicate for every 20 samples
- ☑ RPD ≤20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

H. MATRIX SPIKE (MS) SAMPLE CRITERIA:
- ☑ One MS sample for every 20 samples
- ☑ MS recovered within 75-125%
- ☑ Spike added prior to distillation

I. LABORATORY CONTROL SAMPLE (LCS) SAMPLE CRITERIA:
- ☑ One LCS sample for every 20 samples
- ☑ LCS recovered within 80-120%

☑ Spike added prior to distillation

J. SAMPLE RESULTS CRITERIA:

☑ Sample results reported within calibration range

☑ Sample results reported to the method detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III, and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017, where applicable). Validation of this data set is limited to review of items detailed in this data review report. Additionally, laboratory specific acceptance criteria and/or historical program acceptance criteria were used when no other acceptance criteria were available. Validation of this data set is limited to the items detailed in this report.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

KO for CD _____ 7/16/2019
Cheryl Daniel, Staff Environmental Scientist Date:
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This Report has been subjected to technical and quality review by:

Kathy Olsen _____ 7/16/2019
Kathy Olsen, Project Environmental Scientist Date:
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Comprehensive Data Validation Report

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Radford Army Ammunition Plant (RFAAP), Radford, Virginia

Sample/Blind Field Duplicate Results Greater Than the Quantitation Limit

Facility: HWMU-16 Monitoring Event: Second Quarter 2019

Analyte	Sample ID	Laboratory Result (ug/L)	Q	Validated Result (ug/L)	Q	QL (ug/L)	Validation Notes
Method: 6020B							
Laboratory: Shealy Environmental Services, West Columbia, SC							
Barium	16WC1A	340		340		10	No action taken.
	16WDUP	350		350		10	No action taken. Field duplicate submitted blind for 16WC1A.
Cobalt	16WC1A	13		13		5	No action taken.
	16WDUP	14		14		5	No action taken. Field duplicate submitted blind for 16WC1A.
Nickel	16WC1A	15		15		10	No action taken.
	16WDUP	16		16		10	No action taken. Field duplicate submitted blind for 16WC1A.
Method: 8260C							
Laboratory: ELLE, Lancaster, PA							
Chloroethane	16WC1A	1.56		1.56		1	No action taken.
	16WDUP	1.55		1.55		1	No action taken. Field duplicate submitted blind for 16WC1A.
1,1-Dichloroethane	16WC1A	4.94		4.94		1	No action taken.
	16WDUP	4.87		4.87		1	No action taken. Field duplicate submitted blind for 16WC1A.
Diethyl ether	16WC1A	15.6		15.6		12.5	No action taken.
	16WDUP	15.5		15.5		12.5	No action taken. Field duplicate submitted blind for 16WC1A.

Definitions:
Data Validation Qualifiers:
QL Denotes permit quantitation limit. **Q** Denotes data qualifier.
J Denotes analyte reported at or above quantitation limit and associated result is estimated.

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Type I Data Package

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

Project: RAAP - Radford, VA - HWMU16
Groundwater and Water Samples
Collected on 04/10/19-04/11/19

SDG# RAF35

GROUP	SAMPLE NUMBERS
2038951	1034101-1034115

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-18-27
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **05/09/2019**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Barbara Weyandt at (717) 556-7264.

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Sample Reference List for SDG Number RAF35
with a Data Package Type of I

11200 - Draper Aden Associates, Inc.
Project: RAAP - Radford, VA - HWMU16

Lab Sample Number	Client Sample ID	Collection Date	Date Received
1034101	16C1	04/11/2019 13:20	04/12/2019 09:40
1034102	16MW8	04/10/2019 12:45	04/12/2019 09:40
1034103	16MW9	04/11/2019 12:25	04/12/2019 09:40
1034104	16WC1A	04/11/2019 11:00	04/12/2019 09:40
1034105	16WC1A MS	04/11/2019 11:00	04/12/2019 09:40
1034106	16WC1A MSD	04/11/2019 11:00	04/12/2019 09:40
1034107	16WDUP	04/11/2019 11:15	04/12/2019 09:40
1034108	16WC1B	04/11/2019 10:15	04/12/2019 09:40
1034109	16-2	04/10/2019 12:05	04/12/2019 09:40
1034110	16-3	04/10/2019 13:35	04/12/2019 09:40
1034111	16-5	04/10/2019 09:10	04/12/2019 09:40
1034112	16WC2B	04/10/2019 11:15	04/12/2019 09:40
1034113	16SPRING	04/10/2019 09:20	04/12/2019 09:40
1034114	Trip Blank_1	04/10/2019 00:00	04/12/2019 09:40
1034115	Trip Blank_2	04/10/2019 00:00	04/12/2019 09:40

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Sample pH Log

SDG: RAF35

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1034101	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:35PM	29284
1034101	038C	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:31PM	29284
1034101	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:10AM	1382
1034101	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:17AM	1382
1034102	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034102	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:03AM	1382
1034102	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:34AM	1382
1034103	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034103	038C	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034103	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:31AM	1382
1034103	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:12AM	1382
1034104	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034104	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:05AM	1382
1034104	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:47AM	1382
1034105	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034105	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034105	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:19AM	1382
1034105	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:24AM	1382
1034106	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:32PM	29284
1034106	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:33PM	29284
1034106	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:57AM	1382
1034106	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:55AM	1382
1034107	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:33PM	29284
1034107	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:21AM	1382
1034107	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:44AM	1382
1034108	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:33PM	29284
1034108	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:34AM	1382
1034108	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:02:49AM	1382
1034109	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/23/2019 8:03:10AM	9052
1034109	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:40AM	1382
1034109	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:26AM	1382
1034110	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/23/2019 8:03:07AM	9052
1034110	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:04:00AM	1382
1034110	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:43AM	1382
1034111	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/23/2019 8:03:07AM	9052
1034111	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:04:12AM	1382
1034111	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:57AM	1382
1034112	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/23/2019 8:03:07AM	9052

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1034112	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:04:04AM	1382
1034112	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:49AM	1382
1034113	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/23/2019 8:03:07AM	9052
1034113	153A		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:04:14AM	1382
1034113	153B		N/A	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	4/15/2019 11:03:51AM	1382
1034114	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:33PM	29284
1034115	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	4/24/2019 5:57:33PM	29284

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11996 VOCs- 25ml Water by 8260C/D
11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

11010 8270D BNA Extraction

The sample aliquot is extracted with methylene chloride by either separatory funnel or liquid/liquid apparatus. Extraction is performed at both a pH of 11 and 2. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3510C, Rev 3, December 1996

14241 SVOAs 8270D/E MINI

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270D, February 2007.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

Report Date: May 03, 2019 15:21

Project: RAAP - Radford, VA - HWMU16

Account #: 11200
Group Number: 2038951
SDG: RAF35
State of Sample Origin: VA

Electronic Copy To	Draper Aden Associates, Inc.	Attn: Janet Frazier
Electronic Copy To	Draper Aden Associates, Inc.	Attn: Kathy Olsen

Respectfully Submitted,

Barbara Weyandt

Barbara A. Weyandt
Specialist

(717) 556-7264

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
16C1 Grab Groundwater	04/11/2019 13:20	1034101
16MW8 Grab Groundwater	04/10/2019 12:45	1034102
16MW9 Grab Groundwater	04/11/2019 12:25	1034103
16WC1A Grab Groundwater	04/11/2019 11:00	1034104
16WC1A MS Grab Groundwater	04/11/2019 11:00	1034105
16WC1A MSD Grab Groundwater	04/11/2019 11:00	1034106
16WDUP Grab Groundwater	04/11/2019 11:15	1034107
16WC1B Grab Groundwater	04/11/2019 10:15	1034108
16-2 Grab Groundwater	04/10/2019 12:05	1034109
16-3 Grab Groundwater	04/10/2019 13:35	1034110
16-5 Grab Groundwater	04/10/2019 09:10	1034111
16WC2B Grab Groundwater	04/10/2019 11:15	1034112
16SPRING Grab Groundwater	04/10/2019 09:20	1034113
Trip Blank_1 Water	04/10/2019	1034114
Trip Blank_2 Water	04/10/2019	1034115

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Project Name: RAAP - Radford, VA - HWMU16
ELLE Group #: 2038951

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.
Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C 25mL purge, GC/MS Volatiles

Sample #s: 1034101, 1034102, 1034107, 1034108, 1034114, 1034115

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 1034103, 1034104

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The container used for this analysis was submitted with headspace.

Sample #s: 1034105, 1034106

The container used for this analysis was submitted with headspace.

SW-846 8270D, GC/MS Semivolatiles

Sample #s: 1034101, 1034103

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor

performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

Sample #s: 1034105

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The GC/MS semivolatile surrogate recoveries are outside of QC limits. The unspiked background and matrix spike duplicate samples were analyzed and surrogate recoveries are again outside of QC limits, indicating a matrix effect.

Sample #s: 1034104

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The GC/MS semivolatile surrogate recoveries are outside of QC limits. The matrix spike and matrix spike duplicate samples were analyzed and surrogate recoveries are again outside of QC limits, indicating a matrix effect.

Sample #s: 1034106

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The GC/MS semivolatile surrogate recoveries were outside of QC limits. The unspiked background and matrix spike samples were analyzed and surrogate recoveries were again outside of QC limits, indicating a matrix effect.

Sample #s: 1034107, 1034108

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Results are reported from the first trial as the sample is outside the method required holding time for re-extraction.

Sample #s: 1034102

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Results are reported from the first trial as the sample is outside the method required holding time for re-extraction.

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

Batch #: 19106WAN026 (Sample number(s): 1034102, 1034109-1034113)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: a,a-Dimethylphenethylamine

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: 1,4-Naphthoquinone, Famphur

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 1034102

Batch #: 19107WAJ026 (Sample number(s): 1034101, 1034103-1034108 UNSPK: 1034104)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: a,a-Dimethylphenethylamine

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: 1,4-Naphthoquinone, 1,4-Phenylenediamine, Methyl parathion, Famphur

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: 2-Naphthylamine, o-Toluidine

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: 2,3,4,6-Tetrachlorophenol, 2,4,5-Trichlorophenol, 2,4-Dichlorophenol, 2,4,6-Trichlorophenol, Pentachlorophenol, 2-Chlorophenol

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: 2,3,4,6-Tetrachlorophenol, 3,3'-Dimethylbenzidine, 2,4,5-Trichlorophenol, 2,4-Dichlorophenol, 2,4,6-Trichlorophenol

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 1034104, 1034105, 1034106, 1034107, 1034108, MS, MSD

Sample Description: **16C1 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 13:20
SDG#: RAF35-01

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034101
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	46 J	18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	2.23 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	0.227 J	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	2.94	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	4.56	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	8.74 J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	26.6	2.22	25.0	2
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16C1 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 13:20
SDG#: RAF35-01

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034101
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	1.39	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	0.213 J	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	12.1 J	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	0.190 J	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	0.211 J	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	N.D.	0.349	9.96	1
14241	Acenaphthylene	208-96-8	N.D.	0.478	9.96	1
14241	Acetophenone	98-86-2	N.D.	3.98	9.96	1
14241	2-Acetylaminofluorene	53-96-3	N.D.	9.96	20.9	1

*=This limit was used in the evaluation of the final result

Sample Description: **16C1 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 13:20
SDG#: RAF35-01

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034101
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	4-Aminobiphenyl	92-67-1	N.D.	4.98	11.0	1
14241	Aniline	62-53-3	N.D.	2.99	9.96	1
14241	Anthracene	120-12-7	N.D.	0.518	9.96	1
14241	Aramite	140-57-8	N.D.	4.98	14.9	1
14241	Benzo(a)anthracene	56-55-3	N.D.	0.448	9.96	1
14241	Benzo(a)pyrene	50-32-8	N.D.	1.49	9.96	1
14241	Benzo(b)fluoranthene	205-99-2	N.D.	1.20	9.96	1
14241	Benzo(g,h,i)perylene	191-24-2	N.D.	0.418	9.96	1
14241	Benzo(k)fluoranthene	207-08-9	N.D.	1.59	9.96	1
14241	Benzyl alcohol	100-51-6	N.D.	9.96	29.9	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	0.558	9.96	1
14241	Butylbenzylphthalate	85-68-7	N.D.	1.99	9.96	1
14241	Di-n-butylphthalate	84-74-2	N.D.	1.99	9.96	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.01	9.96	1
14241	4-Chloroaniline	106-47-8	N.D.	3.98	9.96	1
14241	Chlorobenzilate	510-15-6	N.D.	2.99	9.96	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.498	1.99	1
14241	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.498	1.99	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.498	9.96	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	2-Chloronaphthalene	91-58-7	N.D.	0.488	9.96	1
14241	2-Chlorophenol	95-57-8	N.D.	0.976	9.96	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.498	9.96	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.498	1.99	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	Chrysene	218-01-9	N.D.	0.309	9.96	1
14241	Diallate trans/cis	2303-16-4	N.D.	0.996	9.96	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.378	9.96	1
14241	Dibenzofuran	132-64-9	N.D.	0.578	9.96	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	2.99	9.96	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.58	9.96	1
14241	2,6-Dichlorophenol	87-65-0	N.D.	0.498	9.96	1
14241	Diethylphthalate	84-66-2	N.D.	1.99	9.96	1
14241	Dimethoate	60-51-5	N.D.	2.99	9.96	1
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.	4.98	9.96	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	N.D.	4.98	11.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16C1 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 13:20
SDG#: RAF35-01

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034101
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	3,3'-Dimethylbenzidine	119-93-7	N.D.	24.9	74.7	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.	4.98	49.8	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	2.99	9.96	1
14241	Dimethylphthalate	131-11-3	N.D.	1.99	9.96	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	7.97	20.9	1
14241	1,3-Dinitrobenzene	99-65-0	N.D.	1.99	9.96	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	13.9	29.9	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	0.996	9.96	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	0.498	9.96	1
14241	Disulfoton	298-04-4	N.D.	24.9	49.8	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.498	9.96	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	4.98	11.0	1
14241	Famphur	52-85-7	N.D.	24.9	49.8	1
14241	Fluoranthene	206-44-0	N.D.	0.418	9.96	1
14241	Fluorene	86-73-7	N.D.	0.378	9.96	1
14241	Hexachlorobenzene	118-74-1	N.D.	0.867	9.96	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	4.98	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	1.99	9.96	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.149	9.96	1
14241	Isodrin	465-73-6	N.D.	0.498	9.96	1
14241	Isophorone	78-59-1	N.D.	0.498	9.96	1
14241	Isosafrole	120-58-1	N.D.	3.98	9.96	1
14241	Kepone	143-50-0	N.D.	24.9	49.8	1
14241	Methapyrilene	91-80-5	N.D.	14.9	49.8	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	0.996	9.96	1
14241	Methyl parathion	298-00-0	N.D.	0.996	9.96	1
14241	3-Methylcholanthrene	56-49-5	N.D.	3.98	9.96	1
14241	2-Methylnaphthalene	91-57-6	N.D.	0.289	9.96	1
14241	2-Methylphenol	95-48-7	N.D.	0.956	9.96	1
14241	4-Methylphenol	106-44-5	N.D.	2.46	19.9	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	24.9	59.8	1
14241	1-Naphthylamine	134-32-7	N.D.	7.97	20.9	1
14241	2-Naphthylamine	91-59-8	N.D.	6.97	20.9	1
14241	NDPA as diphenylamine	n.a.	N.D.	0.697	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16C1 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 13:20
SDG#: RAF35-01

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034101
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	N.D.	1.99	9.96	1
14241	3-Nitroaniline	99-09-2	N.D.	2.99	9.96	1
14241	4-Nitroaniline	100-01-6	N.D.	0.896	9.96	1
14241	Nitrobenzene	98-95-3	N.D.	0.498	9.96	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.	3.98	9.96	1
14241	2-Nitrophenol	88-75-5	N.D.	2.99	9.96	1
14241	4-Nitrophenol	100-02-7	N.D.	9.96	29.9	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.	19.9	59.8	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.	0.498	9.96	1
14241	N-Nitrosodimethylamine	62-75-9	N.D.	1.99	9.96	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.	12.0	24.9	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.697	9.96	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	0.697	9.96	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.	1.99	9.96	1
14241	N-Nitrosomorpholine	59-89-2	N.D.	1.99	9.96	1
14241	N-Nitrosopiperidine	100-75-4	N.D.	0.498	9.96	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.	0.498	9.96	1
14241	Di-n-octylphthalate	117-84-0	N.D.	4.98	11.0	1
14241	Parathion	56-38-2	N.D.	3.98	9.96	1
14241	Pentachlorobenzene	608-93-5	N.D.	0.498	9.96	1
14241	Pentachloronitrobenzene	82-68-8	N.D.	1.99	9.96	1
14241	Pentachlorophenol	87-86-5	N.D.	2.91	9.96	1
14241	Phenacetin	62-44-2	N.D.	0.498	9.96	1
14241	Phenanthrene	85-01-8	N.D.	0.518	9.96	1
14241	Phenol	108-95-2	N.D.	0.767	9.96	1
14241	1,4-Phenylenediamine	106-50-3	N.D.	74.7	299	1
14241	Phorate	298-02-2	N.D.	0.498	9.96	1
14241	2-Picoline	109-06-8	N.D.	1.99	9.96	1
14241	Pronamide	23950-58-5	N.D.	0.498	9.96	1
14241	Pyrene	129-00-0	N.D.	0.408	9.96	1
14241	Pyridine	110-86-1	N.D.	1.99	9.96	1
14241	Safrole	94-59-7	N.D.	1.99	9.96	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	1.99	9.96	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	3.98	9.96	1
14241	Thionazin	297-97-2	N.D.	1.99	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16C1 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 13:20
SDG#: RAF35-01

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034101
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	o-Toluidine	95-53-4	N.D.	3.98	9.96	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.807	9.96	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.627	9.96	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.	1.99	9.96	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.	96.6	200	1

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 14:30	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 13:01	Jennifer K Howe	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 16:54	Jennifer K Howe	2
01163	GC/MS VOA Water Prep	SW-846 5030C	1	I191141AA	04/24/2019 13:00	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Y191141AA	04/24/2019 14:29	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	3	I191141AA	04/24/2019 16:53	Jennifer K Howe	2
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 03:54	Ashley R Transue	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW8 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:45
SDG#: RAF35-02

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034102
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	31 J	18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	8.78 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	N.D.	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	N.D.	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	0.285 J	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	0.577 J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	3.78 J	1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW8 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:45
SDG#: RAF35-02

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034102
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	N.D.	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	N.D.	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	N.D.	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	N.D.	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	N.D.	0.350	10.0	1
14241	Acenaphthylene	208-96-8	N.D.	0.480	10.0	1
14241	Acetophenone	98-86-2	N.D.	4.00	10.0	1
14241	2-Acetylaminofluorene	53-96-3	N.D.	10.0	21.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW8 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:45
SDG#: RAF35-02

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034102
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	4-Aminobiphenyl	92-67-1	N.D.	5.00	11.0	1
14241	Aniline	62-53-3	N.D.	3.00	10.0	1
14241	Anthracene	120-12-7	N.D.	0.520	10.0	1
14241	Aramite	140-57-8	N.D.	5.00	15.0	1
14241	Benzo(a)anthracene	56-55-3	N.D.	0.450	10.0	1
14241	Benzo(a)pyrene	50-32-8	N.D.	1.50	10.0	1
14241	Benzo(b)fluoranthene	205-99-2	N.D.	1.20	10.0	1
14241	Benzo(g,h,i)perylene	191-24-2	N.D.	0.420	10.0	1
14241	Benzo(k)fluoranthene	207-08-9	N.D.	1.60	10.0	1
14241	Benzyl alcohol	100-51-6	N.D.	10.0	30.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	0.560	10.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	2.00	10.0	1
14241	Di-n-butylphthalate	84-74-2	N.D.	2.00	10.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.01	10.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.00	10.0	1
14241	Chlorobenzilate	510-15-6	N.D.	3.00	10.0	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.500	2.00	1
14241	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.500	2.00	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.500	10.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	2-Chloronaphthalene	91-58-7	N.D.	0.490	10.0	1
14241	2-Chlorophenol	95-57-8	N.D.	0.980	10.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.500	10.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.500	2.00	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	Chrysene	218-01-9	N.D.	0.310	10.0	1
14241	Diallate trans/cis	2303-16-4	N.D.	1.00	10.0	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.380	10.0	1
14241	Dibenzofuran	132-64-9	N.D.	0.580	10.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	3.00	10.0	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.59	10.0	1
14241	2,6-Dichlorophenol	87-65-0	N.D.	0.500	10.0	1
14241	Diethylphthalate	84-66-2	N.D.	2.00	10.0	1
14241	Dimethoate	60-51-5	N.D.	3.00	10.0	1
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.	5.00	10.0	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	N.D.	5.00	11.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW8 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:45
SDG#: RAF35-02

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034102
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	3,3'-Dimethylbenzidine	119-93-7	N.D.	25.0	75.0	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.	5.00	50.0	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	3.00	10.0	1
14241	Dimethylphthalate	131-11-3	N.D.	2.00	10.0	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	8.00	21.0	1
14241	1,3-Dinitrobenzene	99-65-0	N.D.	2.00	10.0	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	14.0	30.0	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	1.00	10.0	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	0.500	10.0	1
14241	Disulfoton	298-04-4	N.D.	25.0	50.0	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.500	10.0	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	5.00	11.0	1
14241	Famphur	52-85-7	N.D.	25.0	50.0	1
14241	Fluoranthene	206-44-0	N.D.	0.420	10.0	1
14241	Fluorene	86-73-7	N.D.	0.380	10.0	1
14241	Hexachlorobenzene	118-74-1	N.D.	0.870	10.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	5.00	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	2.00	10.0	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.150	10.0	1
14241	Isodrin	465-73-6	N.D.	0.500	10.0	1
14241	Isophorone	78-59-1	N.D.	0.500	10.0	1
14241	Isosafrole	120-58-1	N.D.	4.00	10.0	1
14241	Kepone	143-50-0	N.D.	25.0	50.0	1
14241	Methapyrilene	91-80-5	N.D.	15.0	50.0	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	1.00	10.0	1
14241	Methyl parathion	298-00-0	N.D.	1.00	10.0	1
14241	3-Methylcholanthrene	56-49-5	N.D.	4.00	10.0	1
14241	2-Methylnaphthalene	91-57-6	N.D.	0.290	10.0	1
14241	2-Methylphenol	95-48-7	N.D.	0.960	10.0	1
14241	4-Methylphenol	106-44-5	N.D.	2.47	20.0	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	25.0	60.0	1
14241	1-Naphthylamine	134-32-7	N.D.	8.00	21.0	1
14241	2-Naphthylamine	91-59-8	N.D.	7.00	21.0	1
14241	NDPA as diphenylamine	n.a.	N.D.	0.700	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW8 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:45
SDG#: RAF35-02

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034102
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	N.D.	2.00	10.0	1
14241	3-Nitroaniline	99-09-2	N.D.	3.00	10.0	1
14241	4-Nitroaniline	100-01-6	N.D.	0.900	10.0	1
14241	Nitrobenzene	98-95-3	N.D.	0.500	10.0	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.	4.00	10.0	1
14241	2-Nitrophenol	88-75-5	N.D.	3.00	10.0	1
14241	4-Nitrophenol	100-02-7	N.D.	10.0	30.0	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.	20.0	60.0	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.	0.500	10.0	1
14241	N-Nitrosodimethylamine	62-75-9	N.D.	2.00	10.0	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.	12.0	25.0	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.700	10.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.	2.00	10.0	1
14241	N-Nitrosomorpholine	59-89-2	N.D.	2.00	10.0	1
14241	N-Nitrosopiperidine	100-75-4	N.D.	0.500	10.0	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.	0.500	10.0	1
14241	Di-n-octylphthalate	117-84-0	N.D.	5.00	11.0	1
14241	Parathion	56-38-2	N.D.	4.00	10.0	1
14241	Pentachlorobenzene	608-93-5	N.D.	0.500	10.0	1
14241	Pentachloronitrobenzene	82-68-8	N.D.	2.00	10.0	1
14241	Pentachlorophenol	87-86-5	N.D.	2.92	10.0	1
14241	Phenacetin	62-44-2	N.D.	0.500	10.0	1
14241	Phenanthrene	85-01-8	N.D.	0.520	10.0	1
14241	Phenol	108-95-2	N.D.	0.770	10.0	1
14241	1,4-Phenylenediamine	106-50-3	N.D.	75.0	300	1
14241	Phorate	298-02-2	N.D.	0.500	10.0	1
14241	2-Picoline	109-06-8	N.D.	2.00	10.0	1
14241	Pronamide	23950-58-5	N.D.	0.500	10.0	1
14241	Pyrene	129-00-0	N.D.	0.410	10.0	1
14241	Pyridine	110-86-1	N.D.	2.00	10.0	1
14241	Safrole	94-59-7	N.D.	2.00	10.0	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	2.00	10.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	4.00	10.0	1
14241	Thionazin	297-97-2	N.D.	2.00	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW8 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:45
SDG#: RAF35-02

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034102
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	o-Toluidine	95-53-4	N.D.	4.00	10.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.810	10.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.630	10.0	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.	2.00	10.0	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.	97.0	201	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Results are reported from the first trial as the sample is outside the method required holding time for re-extraction.

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 14:53	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 13:22	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	I191141AA	04/24/2019 13:21	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Y191141AA	04/24/2019 14:52	Corie Mellinger	1
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19106WAN026	04/19/2019 17:20	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19106WAN026	04/17/2019 08:00	David S Schrum	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW9 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 12:25
SDG#: RAF35-03

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034103
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	N.D.	18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	2.97 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	0.377 J	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	1.91	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	6.98	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	2.19 J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	66.4	4.44	50.0	4
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW9 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 12:25
SDG#: RAF35-03

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034103
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	0.240 J	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	0.0627 J	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	N.D.	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	N.D.	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The container used for this analysis was submitted with headspace.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	N.D.	0.349	9.96	1
14241	Acenaphthylene	208-96-8	N.D.	0.478	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW9 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 12:25
SDG#: RAF35-03

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034103
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acetophenone	98-86-2	N.D.	3.98	9.96	1
14241	2-Acetylaminofluorene	53-96-3	N.D.	9.96	20.9	1
14241	4-Aminobiphenyl	92-67-1	N.D.	4.98	11.0	1
14241	Aniline	62-53-3	N.D.	2.99	9.96	1
14241	Anthracene	120-12-7	N.D.	0.518	9.96	1
14241	Aramite	140-57-8	N.D.	4.98	14.9	1
14241	Benzo(a)anthracene	56-55-3	N.D.	0.448	9.96	1
14241	Benzo(a)pyrene	50-32-8	N.D.	1.49	9.96	1
14241	Benzo(b)fluoranthene	205-99-2	N.D.	1.20	9.96	1
14241	Benzo(g,h,i)perylene	191-24-2	N.D.	0.418	9.96	1
14241	Benzo(k)fluoranthene	207-08-9	N.D.	1.59	9.96	1
14241	Benzyl alcohol	100-51-6	N.D.	9.96	29.9	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	0.558	9.96	1
14241	Butylbenzylphthalate	85-68-7	N.D.	1.99	9.96	1
14241	Di-n-butylphthalate	84-74-2	N.D.	1.99	9.96	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.01	9.96	1
14241	4-Chloroaniline	106-47-8	N.D.	3.98	9.96	1
14241	Chlorobenzilate	510-15-6	N.D.	2.99	9.96	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.498	1.99	1
14241	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.498	1.99	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.498	9.96	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	2-Chloronaphthalene	91-58-7	N.D.	0.488	9.96	1
14241	2-Chlorophenol	95-57-8	N.D.	0.976	9.96	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.498	9.96	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.498	1.99	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	Chrysene	218-01-9	N.D.	0.309	9.96	1
14241	Diallate trans/cis	2303-16-4	N.D.	0.996	9.96	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.378	9.96	1
14241	Dibenzofuran	132-64-9	N.D.	0.578	9.96	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	2.99	9.96	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.58	9.96	1
14241	2,6-Dichlorophenol	87-65-0	N.D.	0.498	9.96	1
14241	Diethylphthalate	84-66-2	N.D.	1.99	9.96	1
14241	Dimethoate	60-51-5	N.D.	2.99	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW9 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 12:25
SDG#: RAF35-03

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034103
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.	4.98	9.96	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	N.D.	4.98	11.0	1
14241	3,3'-Dimethylbenzidine	119-93-7	N.D.	24.9	74.7	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.	4.98	49.8	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	2.99	9.96	1
14241	Dimethylphthalate	131-11-3	N.D.	1.99	9.96	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	7.97	20.9	1
14241	1,3-Dinitrobenzene	99-65-0	N.D.	1.99	9.96	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	13.9	29.9	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	0.996	9.96	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	0.498	9.96	1
14241	Disulfoton	298-04-4	N.D.	24.9	49.8	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.498	9.96	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	4.98	11.0	1
14241	Famphur	52-85-7	N.D.	24.9	49.8	1
14241	Fluoranthene	206-44-0	N.D.	0.418	9.96	1
14241	Fluorene	86-73-7	N.D.	0.378	9.96	1
14241	Hexachlorobenzene	118-74-1	N.D.	0.867	9.96	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	4.98	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	1.99	9.96	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.149	9.96	1
14241	Isodrin	465-73-6	N.D.	0.498	9.96	1
14241	Isophorone	78-59-1	N.D.	0.498	9.96	1
14241	Isosafrole	120-58-1	N.D.	3.98	9.96	1
14241	Kepone	143-50-0	N.D.	24.9	49.8	1
14241	Methapyrilene	91-80-5	N.D.	14.9	49.8	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	0.996	9.96	1
14241	Methyl parathion	298-00-0	N.D.	0.996	9.96	1
14241	3-Methylcholanthrene	56-49-5	N.D.	3.98	9.96	1
14241	2-Methylnaphthalene	91-57-6	N.D.	0.289	9.96	1
14241	2-Methylphenol	95-48-7	N.D.	0.956	9.96	1
14241	4-Methylphenol	106-44-5	N.D.	2.46	19.9	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	24.9	59.8	1
14241	1-Naphthylamine	134-32-7	N.D.	7.97	20.9	1
14241	2-Naphthylamine	91-59-8	N.D.	6.97	20.9	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW9 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 12:25
SDG#: RAF35-03

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034103
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	NDPA as diphenylamine	n.a.	N.D.	0.697	9.96	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	N.D.	1.99	9.96	1
14241	3-Nitroaniline	99-09-2	N.D.	2.99	9.96	1
14241	4-Nitroaniline	100-01-6	N.D.	0.896	9.96	1
14241	Nitrobenzene	98-95-3	N.D.	0.498	9.96	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.	3.98	9.96	1
14241	2-Nitrophenol	88-75-5	N.D.	2.99	9.96	1
14241	4-Nitrophenol	100-02-7	N.D.	9.96	29.9	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.	19.9	59.8	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.	0.498	9.96	1
14241	N-Nitrosodimethylamine	62-75-9	N.D.	1.99	9.96	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.	12.0	24.9	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.697	9.96	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	0.697	9.96	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.	1.99	9.96	1
14241	N-Nitrosomorpholine	59-89-2	N.D.	1.99	9.96	1
14241	N-Nitrosopiperidine	100-75-4	N.D.	0.498	9.96	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.	0.498	9.96	1
14241	Di-n-octylphthalate	117-84-0	N.D.	4.98	11.0	1
14241	Parathion	56-38-2	N.D.	3.98	9.96	1
14241	Pentachlorobenzene	608-93-5	N.D.	0.498	9.96	1
14241	Pentachloronitrobenzene	82-68-8	N.D.	1.99	9.96	1
14241	Pentachlorophenol	87-86-5	N.D.	2.91	9.96	1
14241	Phenacetin	62-44-2	N.D.	0.498	9.96	1
14241	Phenanthrene	85-01-8	N.D.	0.518	9.96	1
14241	Phenol	108-95-2	N.D.	0.767	9.96	1
14241	1,4-Phenylenediamine	106-50-3	N.D.	74.7	299	1
14241	Phorate	298-02-2	N.D.	0.498	9.96	1
14241	2-Picoline	109-06-8	N.D.	1.99	9.96	1
14241	Pronamide	23950-58-5	N.D.	0.498	9.96	1
14241	Pyrene	129-00-0	N.D.	0.408	9.96	1
14241	Pyridine	110-86-1	N.D.	1.99	9.96	1
14241	Safrole	94-59-7	N.D.	1.99	9.96	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	1.99	9.96	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	3.98	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16MW9 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 12:25
SDG#: RAF35-03

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034103
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Thionazin	297-97-2	N.D.	1.99	9.96	1
14241	o-Toluidine	95-53-4	N.D.	3.98	9.96	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.807	9.96	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.627	9.96	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.	1.99	9.96	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.	96.6	200	1

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 15:15	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 13:43	Jennifer K Howe	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 16:33	Jennifer K Howe	4
01163	GC/MS VOA Water Prep	SW-846 5030C	1	I191141AA	04/24/2019 13:42	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Y191141AA	04/24/2019 15:14	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	3	I191141AA	04/24/2019 16:32	Jennifer K Howe	4
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 04:23	Ashley R Transue	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04BKG

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034104
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	37 J	18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	1.91 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	0.301 J	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	1.56	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	4.94	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	2.25 J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	15.6	1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04BKG

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034104
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	0.210 J	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	0.198 J	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	2.92 J	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	0.189 J	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	0.184 J	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The container used for this analysis was submitted with headspace.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	N.D.	0.350	10.0	1
14241	Acenaphthylene	208-96-8	N.D.	0.480	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04BKG

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034104
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acetophenone	98-86-2	N.D.	4.00	10.0	1
14241	2-Acetylaminofluorene	53-96-3	N.D.	10.0	21.0	1
14241	4-Aminobiphenyl	92-67-1	N.D.	5.00	11.0	1
14241	Aniline	62-53-3	N.D.	3.00	10.0	1
14241	Anthracene	120-12-7	N.D.	0.520	10.0	1
14241	Aramite	140-57-8	N.D.	5.00	15.0	1
14241	Benzo(a)anthracene	56-55-3	N.D.	0.450	10.0	1
14241	Benzo(a)pyrene	50-32-8	N.D.	1.50	10.0	1
14241	Benzo(b)fluoranthene	205-99-2	N.D.	1.20	10.0	1
14241	Benzo(g,h,i)perylene	191-24-2	N.D.	0.420	10.0	1
14241	Benzo(k)fluoranthene	207-08-9	N.D.	1.60	10.0	1
14241	Benzyl alcohol	100-51-6	N.D.	10.0	30.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	0.560	10.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	2.00	10.0	1
14241	Di-n-butylphthalate	84-74-2	N.D.	2.00	10.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.01	10.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.00	10.0	1
14241	Chlorobenzilate	510-15-6	N.D.	3.00	10.0	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.500	2.00	1
14241	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.500	2.00	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.500	10.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	2-Chloronaphthalene	91-58-7	N.D.	0.490	10.0	1
14241	2-Chlorophenol	95-57-8	N.D.	0.980	10.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.500	10.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.500	2.00	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	Chrysene	218-01-9	N.D.	0.310	10.0	1
14241	Diallate trans/cis	2303-16-4	N.D.	1.00	10.0	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.380	10.0	1
14241	Dibenzofuran	132-64-9	N.D.	0.580	10.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	3.00	10.0	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.59	10.0	1
14241	2,6-Dichlorophenol	87-65-0	N.D.	0.500	10.0	1
14241	Diethylphthalate	84-66-2	N.D.	2.00	10.0	1
14241	Dimethoate	60-51-5	N.D.	3.00	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04BKG

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034104
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.	5.00	10.0	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	N.D.	5.00	11.0	1
14241	3,3'-Dimethylbenzidine	119-93-7	N.D.	25.0	75.0	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.	5.00	50.0	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	3.00	10.0	1
14241	Dimethylphthalate	131-11-3	N.D.	2.00	10.0	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	8.00	21.0	1
14241	1,3-Dinitrobenzene	99-65-0	N.D.	2.00	10.0	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	14.0	30.0	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	1.00	10.0	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	0.500	10.0	1
14241	Disulfoton	298-04-4	N.D.	25.0	50.0	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.500	10.0	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	5.00	11.0	1
14241	Famphur	52-85-7	N.D.	25.0	50.0	1
14241	Fluoranthene	206-44-0	N.D.	0.420	10.0	1
14241	Fluorene	86-73-7	N.D.	0.380	10.0	1
14241	Hexachlorobenzene	118-74-1	N.D.	0.870	10.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	5.00	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	2.00	10.0	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.150	10.0	1
14241	Isodrin	465-73-6	N.D.	0.500	10.0	1
14241	Isophorone	78-59-1	N.D.	0.500	10.0	1
14241	Isosafrole	120-58-1	N.D.	4.00	10.0	1
14241	Kepone	143-50-0	N.D.	25.0	50.0	1
14241	Methapyrilene	91-80-5	N.D.	15.0	50.0	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	1.00	10.0	1
14241	Methyl parathion	298-00-0	N.D.	1.00	10.0	1
14241	3-Methylcholanthrene	56-49-5	N.D.	4.00	10.0	1
14241	2-Methylnaphthalene	91-57-6	N.D.	0.290	10.0	1
14241	2-Methylphenol	95-48-7	N.D.	0.960	10.0	1
14241	4-Methylphenol	106-44-5	N.D.	2.47	20.0	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	25.0	60.0	1
14241	1-Naphthylamine	134-32-7	N.D.	8.00	21.0	1
14241	2-Naphthylamine	91-59-8	N.D.	7.00	21.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04BKG

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034104
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	NDPA as diphenylamine	n.a.	N.D.	0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	N.D.	2.00	10.0	1
14241	3-Nitroaniline	99-09-2	N.D.	3.00	10.0	1
14241	4-Nitroaniline	100-01-6	N.D.	0.900	10.0	1
14241	Nitrobenzene	98-95-3	N.D.	0.500	10.0	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.	4.00	10.0	1
14241	2-Nitrophenol	88-75-5	N.D.	3.00	10.0	1
14241	4-Nitrophenol	100-02-7	N.D.	10.0	30.0	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.	20.0	60.0	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.	0.500	10.0	1
14241	N-Nitrosodimethylamine	62-75-9	N.D.	2.00	10.0	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.	12.0	25.0	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.700	10.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.	2.00	10.0	1
14241	N-Nitrosomorpholine	59-89-2	N.D.	2.00	10.0	1
14241	N-Nitrosopiperidine	100-75-4	N.D.	0.500	10.0	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.	0.500	10.0	1
14241	Di-n-octylphthalate	117-84-0	N.D.	5.00	11.0	1
14241	Parathion	56-38-2	N.D.	4.00	10.0	1
14241	Pentachlorobenzene	608-93-5	N.D.	0.500	10.0	1
14241	Pentachloronitrobenzene	82-68-8	N.D.	2.00	10.0	1
14241	Pentachlorophenol	87-86-5	N.D.	2.92	10.0	1
14241	Phenacetin	62-44-2	N.D.	0.500	10.0	1
14241	Phenanthrene	85-01-8	N.D.	0.520	10.0	1
14241	Phenol	108-95-2	N.D.	0.770	10.0	1
14241	1,4-Phenylenediamine	106-50-3	N.D.	75.0	300	1
14241	Phorate	298-02-2	N.D.	0.500	10.0	1
14241	2-Picoline	109-06-8	N.D.	2.00	10.0	1
14241	Pronamide	23950-58-5	N.D.	0.500	10.0	1
14241	Pyrene	129-00-0	N.D.	0.410	10.0	1
14241	Pyridine	110-86-1	N.D.	2.00	10.0	1
14241	Safrole	94-59-7	N.D.	2.00	10.0	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	2.00	10.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	4.00	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04BKG

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034104
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Thionazin	297-97-2	N.D.	2.00	10.0	1
14241	o-Toluidine	95-53-4	N.D.	4.00	10.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.810	10.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.630	10.0	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.	2.00	10.0	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.	97.0	201	1

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The GC/MS semivolatile surrogate recoveries are outside of QC limits. The matrix spike and matrix spike duplicate samples were analyzed and surrogate recoveries are again outside of QC limits, indicating a matrix effect.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 13:24	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 14:04	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y191141AA	04/24/2019 13:23	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	I191141AA	04/24/2019 14:03	Jennifer K Howe	1
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 04:52	Ashley R Transue	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MS Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MS

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034105
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	180		18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
11996	Acetone	67-64-1	36.9		0.900	10.0	1
11996	Acetonitrile	75-05-8	50.5	J	31.7	100	1
11996	Acrolein	107-02-8	32.0		3.40	25.0	1
11996	Acrylonitrile	107-13-1	25.0		0.470	10.0	1
11996	Allyl Chloride	107-05-1	4.70	J	0.820	10.0	1
11996	Benzene	71-43-2	5.87		0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	5.36		0.0880	1.00	1
11996	Bromoform	75-25-2	4.29		0.106	1.00	1
11996	Bromomethane	74-83-9	4.59		0.542	1.00	1
11996	2-Butanone	78-93-3	38.4		0.600	10.0	1
11996	Carbon Disulfide	75-15-0	5.24	J	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	5.76		0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	5.47	J	0.460	10.0	1
11996	Chloroethane	75-00-3	6.82		0.0700	1.00	1
11996	Chloroform	67-66-3	5.63		0.0900	1.00	1
11996	Chloromethane	74-87-3	4.43		0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.74		0.204	1.00	1
11996	Dibromochloromethane	124-48-1	5.00		0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	5.31		0.0600	1.00	1
11996	Dibromomethane	74-95-3	5.45		0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	17.5		0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	5.50		0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	5.43		0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	5.53		0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	3.37		0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	10.4		0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	5.38		0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	6.28		0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	5.33		0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	5.73		0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	5.50		0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	4.86		0.0970	1.00	1
11996	Dimethyl ether	115-10-6	6.61	J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	169	J	45.5	200	1
11996	Ethyl ether	60-29-7	20.7		1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	4.82	J	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MS Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MS

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034105
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	5.61		0.0790	1.00	1
11996	Freon 113	76-13-1	5.79		0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	5.22		0.0700	1.00	1
11996	Hexachloroethane	67-72-1	5.56	J	0.110	10.0	1
11996	2-Hexanone	591-78-6	25.8		0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	121	J	3.60	200	1
11996	Methacrylonitrile	126-98-7	41.1	J	9.75	100	1
11996	Methyl Iodide	74-88-4	5.19	J	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	5.37	J	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	25.8		0.910	10.0	1
11996	Methylene Chloride	75-09-2	5.89		0.182	1.00	1
11996	Naphthalene	91-20-3	4.68		0.126	1.00	1
11996	Pentachloroethane	76-01-7	4.92	J	0.800	10.0	1
11996	Propionitrile	107-12-0	40.4	J	10.2	100	1
11996	Styrene	100-42-5	5.59		0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.52		0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	5.27		0.184	1.00	1
11996	Tetrachloroethene	127-18-4	5.92		0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	29.7		2.00	25.0	1
11996	Toluene	108-88-3	5.68		0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	5.13		0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	5.78		0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	5.72		0.0790	1.00	1
11996	Trichloroethene	79-01-6	5.96		0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	4.85		0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	5.34		0.100	1.00	1
11996	Vinyl Acetate	108-05-4	13.8		3.29	10.0	1
11996	Vinyl Chloride	75-01-4	5.03		0.153	1.00	1
11996	Xylene (Total)	1330-20-7	16.9		0.208	3.00	1

The container used for this analysis was submitted with headspace.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	46.4		0.349	9.96	1
14241	Acenaphthylene	208-96-8	49.5		0.478	9.96	1
14241	Acetophenone	98-86-2	47.9		3.98	9.96	1
14241	2-Acetylaminofluorene	53-96-3	N.D.		9.96	20.9	1
14241	4-Aminobiphenyl	92-67-1	N.D.		4.98	11.0	1
14241	Aniline	62-53-3	32.8		2.99	9.96	1
14241	Anthracene	120-12-7	48.1		0.518	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MS Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MS

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034105
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14241	Aramite	140-57-8	N.D.		4.98	14.9	1
14241	Benzo(a)anthracene	56-55-3	47.8		0.448	9.96	1
14241	Benzo(a)pyrene	50-32-8	45.2		1.49	9.96	1
14241	Benzo(b)fluoranthene	205-99-2	47.5		1.20	9.96	1
14241	Benzo(g,h,i)perylene	191-24-2	42.7		0.418	9.96	1
14241	Benzo(k)fluoranthene	207-08-9	47.8		1.59	9.96	1
14241	Benzyl alcohol	100-51-6	46.5		9.96	29.9	1
14241	4-Bromophenyl-phenylether	101-55-3	45.4		0.558	9.96	1
14241	Butylbenzylphthalate	85-68-7	50.1		1.99	9.96	1
14241	Di-n-butylphthalate	84-74-2	52.4		1.99	9.96	1
14241	4-Chloro-3-methylphenol	59-50-7	40.9		1.01	9.96	1
14241	4-Chloroaniline	106-47-8	40.0		3.98	9.96	1
14241	Chlorobenzilate	510-15-6	N.D.		2.99	9.96	1
14241	bis(2-Chloroethoxy)methane	111-91-1	49.5		0.498	1.99	1
14241	bis(2-Chloroethyl)ether	111-44-4	44.3		0.498	1.99	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	45.3		0.498	9.96	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
14241	2-Chloronaphthalene	91-58-7	43.7		0.488	9.96	1
14241	2-Chlorophenol	95-57-8	22.2		0.976	9.96	1
14241	4-Chlorophenyl-phenylether	7005-72-3	44.0		0.498	9.96	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	45.3		0.498	1.99	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
14241	Chrysene	218-01-9	47.6		0.309	9.96	1
14241	Diallate trans/cis	2303-16-4	N.D.		0.996	9.96	1
14241	Dibenz(a,h)anthracene	53-70-3	46.9		0.378	9.96	1
14241	Dibenzofuran	132-64-9	46.7		0.578	9.96	1
14241	3,3'-Dichlorobenzidine	91-94-1	41.1		2.99	9.96	1
14241	2,4-Dichlorophenol	120-83-2	17.8		1.58	9.96	1
14241	2,6-Dichlorophenol	87-65-0	N.D.		0.498	9.96	1
14241	Diethylphthalate	84-66-2	47.1		1.99	9.96	1
14241	Dimethoate	60-51-5	N.D.		2.99	9.96	1
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.		4.98	9.96	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	47.7		4.98	11.0	1
14241	3,3'-Dimethylbenzidine	119-93-7	31.2	J	24.9	74.7	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.		4.98	49.8	1
14241	2,4-Dimethylphenol	105-67-9	37.1		2.99	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MS Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MS

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034105
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Dimethylphthalate	131-11-3	48.2	1.99	9.96	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	48.0	7.97	20.9	1
14241	1,3-Dinitrobenzene	99-65-0	48.7	1.99	9.96	1
14241	2,4-Dinitrophenol	51-28-5	90.3	13.9	29.9	1
14241	2,4-Dinitrotoluene	121-14-2	48.9	0.996	9.96	1
14241	2,6-Dinitrotoluene	606-20-2	50.7	0.498	9.96	1
14241	Disulfoton	298-04-4	N.D.	24.9	49.8	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.498	9.96	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	49.3	4.98	11.0	1
14241	Famphur	52-85-7	N.D.	24.9	49.8	1
14241	Fluoranthene	206-44-0	51.0	0.418	9.96	1
14241	Fluorene	86-73-7	46.1	0.378	9.96	1
14241	Hexachlorobenzene	118-74-1	45.4	0.867	9.96	1
14241	Hexachlorocyclopentadiene	77-47-4	43.2	4.98	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	1.99	9.96	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	44.2	0.149	9.96	1
14241	Isodrin	465-73-6	N.D.	0.498	9.96	1
14241	Isophorone	78-59-1	50.4	0.498	9.96	1
14241	Isosafrole	120-58-1	N.D.	3.98	9.96	1
14241	Kepone	143-50-0	N.D.	24.9	49.8	1
14241	Methapyrilene	91-80-5	N.D.	14.9	49.8	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	0.996	9.96	1
14241	Methyl parathion	298-00-0	N.D.	0.996	9.96	1
14241	3-Methylcholanthrene	56-49-5	N.D.	3.98	9.96	1
14241	2-Methylnaphthalene	91-57-6	43.3	0.289	9.96	1
14241	2-Methylphenol	95-48-7	37.3	0.956	9.96	1
14241	4-Methylphenol	106-44-5	34.8	2.46	19.9	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	24.9	59.8	1
14241	1-Naphthylamine	134-32-7	58.5	7.97	20.9	1
14241	2-Naphthylamine	91-59-8	58.5	6.97	20.9	1
14241	NDPA as diphenylamine	n.a.	51.1	0.697	9.96	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	51.5	1.99	9.96	1
14241	3-Nitroaniline	99-09-2	44.9	2.99	9.96	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MS Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MS

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034105
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14241	4-Nitroaniline	100-01-6	44.6		0.896	9.96	1
14241	Nitrobenzene	98-95-3	47.1		0.498	9.96	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.		3.98	9.96	1
14241	2-Nitrophenol	88-75-5	45.5		2.99	9.96	1
14241	4-Nitrophenol	100-02-7	28.5	J	9.96	29.9	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.		19.9	59.8	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.		0.498	9.96	1
14241	N-Nitrosodimethylamine	62-75-9	32.7		1.99	9.96	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.		12.0	24.9	1
14241	N-Nitroso-di-n-propylamine	621-64-7	48.9		0.697	9.96	1
14241	N-Nitrosodiphenylamine	86-30-6	51.4		0.697	9.96	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.		1.99	9.96	1
14241	N-Nitrosomorpholine	59-89-2	N.D.		1.99	9.96	1
14241	N-Nitrosopiperidine	100-75-4	N.D.		0.498	9.96	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.		0.498	9.96	1
14241	Di-n-octylphthalate	117-84-0	49.3		4.98	11.0	1
14241	Parathion	56-38-2	N.D.		3.98	9.96	1
14241	Pentachlorobenzene	608-93-5	N.D.		0.498	9.96	1
14241	Pentachloronitrobenzene	82-68-8	N.D.		1.99	9.96	1
14241	Pentachlorophenol	87-86-5	11.4		2.91	9.96	1
14241	Phenacetin	62-44-2	N.D.		0.498	9.96	1
14241	Phenanthrene	85-01-8	47.8		0.518	9.96	1
14241	Phenol	108-95-2	19.2		0.767	9.96	1
14241	1,4-Phenylenediamine	106-50-3	N.D.		74.7	299	1
14241	Phorate	298-02-2	N.D.		0.498	9.96	1
14241	2-Picoline	109-06-8	39.5		1.99	9.96	1
14241	Pronamide	23950-58-5	N.D.		0.498	9.96	1
14241	Pyrene	129-00-0	47.4		0.408	9.96	1
14241	Pyridine	110-86-1	25.3		1.99	9.96	1
14241	Safrole	94-59-7	N.D.		1.99	9.96	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	38.3		1.99	9.96	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	4.73	J	3.98	9.96	1
14241	Thionazin	297-97-2	N.D.		1.99	9.96	1
14241	o-Toluidine	95-53-4	37.9		3.98	9.96	1
14241	2,4,5-Trichlorophenol	95-95-4	20.8		0.807	9.96	1
14241	2,4,6-Trichlorophenol	88-06-2	5.12	J	0.627	9.96	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.		1.99	9.96	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.		96.6	200	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MS Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MS

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034105
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The GC/MS semivolatile surrogate recoveries are outside of QC limits. The unspiked background and matrix spike duplicate samples were analyzed and surrogate recoveries are again outside of QC limits, indicating a matrix effect.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 13:46	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 14:25	Jennifer K Howe	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 15:08	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y191141AA	04/24/2019 13:45	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	I191141AA	04/24/2019 14:24	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	3	I191141AA	04/24/2019 15:07	Jennifer K Howe	1
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 05:20	Ashley R Transue	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MSD Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MSD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034106
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	160		18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
11996	Acetone	67-64-1	38.2		0.900	10.0	1
11996	Acetonitrile	75-05-8	53.7	J	31.7	100	1
11996	Acrolein	107-02-8	34.8		3.40	25.0	1
11996	Acrylonitrile	107-13-1	26.6		0.470	10.0	1
11996	Allyl Chloride	107-05-1	4.52	J	0.820	10.0	1
11996	Benzene	71-43-2	5.65		0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	5.12		0.0880	1.00	1
11996	Bromoform	75-25-2	4.16		0.106	1.00	1
11996	Bromomethane	74-83-9	4.42		0.542	1.00	1
11996	2-Butanone	78-93-3	41.1		0.600	10.0	1
11996	Carbon Disulfide	75-15-0	5.01	J	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	5.47		0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	5.20	J	0.460	10.0	1
11996	Chloroethane	75-00-3	6.47		0.0700	1.00	1
11996	Chloroform	67-66-3	5.39		0.0900	1.00	1
11996	Chloromethane	74-87-3	4.39		0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	6.33		0.204	1.00	1
11996	Dibromochloromethane	124-48-1	4.67		0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	5.16		0.0600	1.00	1
11996	Dibromomethane	74-95-3	5.26		0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	19.2		0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	5.32		0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	5.24		0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	5.35		0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	3.26		0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	9.97		0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	5.24		0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	6.00		0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	5.18		0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	5.44		0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	5.22		0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	4.72		0.0970	1.00	1
11996	Dimethyl ether	115-10-6	6.28	J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	150	J	45.5	200	1
11996	Ethyl ether	60-29-7	19.9		1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	4.58	J	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MSD Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MSD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034106
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	5.34		0.0790	1.00	1
11996	Freon 113	76-13-1	5.58		0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	5.16		0.0700	1.00	1
11996	Hexachloroethane	67-72-1	5.75	J	0.110	10.0	1
11996	2-Hexanone	591-78-6	27.6		0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	122	J	3.60	200	1
11996	Methacrylonitrile	126-98-7	43.9	J	9.75	100	1
11996	Methyl Iodide	74-88-4	5.09	J	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	5.74	J	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	28.2		0.910	10.0	1
11996	Methylene Chloride	75-09-2	5.65		0.182	1.00	1
11996	Naphthalene	91-20-3	4.61		0.126	1.00	1
11996	Pentachloroethane	76-01-7	4.92	J	0.800	10.0	1
11996	Propionitrile	107-12-0	41.8	J	10.2	100	1
11996	Styrene	100-42-5	5.45		0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.22		0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	5.09		0.184	1.00	1
11996	Tetrachloroethene	127-18-4	5.67		0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	30.0		2.00	25.0	1
11996	Toluene	108-88-3	5.48		0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	5.04		0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	5.50		0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	5.46		0.0790	1.00	1
11996	Trichloroethene	79-01-6	5.64		0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	4.71		0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	5.06		0.100	1.00	1
11996	Vinyl Acetate	108-05-4	13.6		3.29	10.0	1
11996	Vinyl Chloride	75-01-4	4.92		0.153	1.00	1
11996	Xylene (Total)	1330-20-7	16.3		0.208	3.00	1
	The container used for this analysis was submitted with headspace.						
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	44.5		0.350	10.0	1
14241	Acenaphthylene	208-96-8	47.5		0.480	10.0	1
14241	Acetophenone	98-86-2	46.0		4.00	10.0	1
14241	2-Acetylaminofluorene	53-96-3	N.D.		10.0	21.0	1
14241	4-Aminobiphenyl	92-67-1	N.D.		5.00	11.0	1
14241	Aniline	62-53-3	34.7		3.00	10.0	1
14241	Anthracene	120-12-7	45.9		0.520	10.0	1

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Sample Description: **16WC1A MSD Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MSD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034106
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14241	Aramite	140-57-8	N.D.		5.00	15.0	1
14241	Benzo(a)anthracene	56-55-3	46.2		0.450	10.0	1
14241	Benzo(a)pyrene	50-32-8	45.8		1.50	10.0	1
14241	Benzo(b)fluoranthene	205-99-2	46.4		1.20	10.0	1
14241	Benzo(g,h,i)perylene	191-24-2	42.0		0.420	10.0	1
14241	Benzo(k)fluoranthene	207-08-9	46.7		1.60	10.0	1
14241	Benzyl alcohol	100-51-6	45.6		10.0	30.0	1
14241	4-Bromophenyl-phenylether	101-55-3	43.5		0.560	10.0	1
14241	Butylbenzylphthalate	85-68-7	47.1		2.00	10.0	1
14241	Di-n-butylphthalate	84-74-2	49.4		2.00	10.0	1
14241	4-Chloro-3-methylphenol	59-50-7	44.1		1.01	10.0	1
14241	4-Chloroaniline	106-47-8	41.8		4.00	10.0	1
14241	Chlorobenzilate	510-15-6	N.D.		3.00	10.0	1
14241	bis(2-Chloroethoxy)methane	111-91-1	47.5		0.500	2.00	1
14241	bis(2-Chloroethyl)ether	111-44-4	43.1		0.500	2.00	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	42.6		0.500	10.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
14241	2-Chloronaphthalene	91-58-7	41.9		0.490	10.0	1
14241	2-Chlorophenol	95-57-8	30.2		0.980	10.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	44.0		0.500	10.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	42.6		0.500	2.00	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
14241	Chrysene	218-01-9	45.8		0.310	10.0	1
14241	Diallate trans/cis	2303-16-4	N.D.		1.00	10.0	1
14241	Dibenz(a,h)anthracene	53-70-3	45.5		0.380	10.0	1
14241	Dibenzofuran	132-64-9	45.1		0.580	10.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	43.4		3.00	10.0	1
14241	2,4-Dichlorophenol	120-83-2	26.7		1.59	10.0	1
14241	2,6-Dichlorophenol	87-65-0	N.D.		0.500	10.0	1
14241	Diethylphthalate	84-66-2	46.0		2.00	10.0	1
14241	Dimethoate	60-51-5	N.D.		3.00	10.0	1
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.		5.00	10.0	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	46.8		5.00	11.0	1
14241	3,3'-Dimethylbenzidine	119-93-7	52.3	J	25.0	75.0	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.		5.00	50.0	1
14241	2,4-Dimethylphenol	105-67-9	36.7		3.00	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MSD Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
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SDG#: RAF35-04MSD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034106
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Dimethylphthalate	131-11-3	46.6	2.00	10.0	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	44.7	8.00	21.0	1
14241	1,3-Dinitrobenzene	99-65-0	47.7	2.00	10.0	1
14241	2,4-Dinitrophenol	51-28-5	83.4	14.0	30.0	1
14241	2,4-Dinitrotoluene	121-14-2	48.7	1.00	10.0	1
14241	2,6-Dinitrotoluene	606-20-2	48.0	0.500	10.0	1
14241	Disulfoton	298-04-4	N.D.	25.0	50.0	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.500	10.0	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	47.8	5.00	11.0	1
14241	Famphur	52-85-7	N.D.	25.0	50.0	1
14241	Fluoranthene	206-44-0	47.9	0.420	10.0	1
14241	Fluorene	86-73-7	44.4	0.380	10.0	1
14241	Hexachlorobenzene	118-74-1	44.0	0.870	10.0	1
14241	Hexachlorocyclopentadiene	77-47-4	43.6	5.00	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	2.00	10.0	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	43.5	0.150	10.0	1
14241	Isodrin	465-73-6	N.D.	0.500	10.0	1
14241	Isophorone	78-59-1	47.8	0.500	10.0	1
14241	Isosafrole	120-58-1	N.D.	4.00	10.0	1
14241	Kepone	143-50-0	N.D.	25.0	50.0	1
14241	Methapyrilene	91-80-5	N.D.	15.0	50.0	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	1.00	10.0	1
14241	Methyl parathion	298-00-0	N.D.	1.00	10.0	1
14241	3-Methylcholanthrene	56-49-5	N.D.	4.00	10.0	1
14241	2-Methylnaphthalene	91-57-6	42.1	0.290	10.0	1
14241	2-Methylphenol	95-48-7	39.3	0.960	10.0	1
14241	4-Methylphenol	106-44-5	38.1	2.47	20.0	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	25.0	60.0	1
14241	1-Naphthylamine	134-32-7	73.0	8.00	21.0	1
14241	2-Naphthylamine	91-59-8	64.9	7.00	21.0	1
14241	NDPA as diphenylamine	n.a.	47.5	0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	49.3	2.00	10.0	1
14241	3-Nitroaniline	99-09-2	45.2	3.00	10.0	1

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Project Name: **RAAP - Radford, VA - HWMU16**

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SDG#: RAF35-04MSD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034106
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14241	4-Nitroaniline	100-01-6	45.0		0.900	10.0	1
14241	Nitrobenzene	98-95-3	45.7		0.500	10.0	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.		4.00	10.0	1
14241	2-Nitrophenol	88-75-5	44.8		3.00	10.0	1
14241	4-Nitrophenol	100-02-7	28.0	J	10.0	30.0	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.		20.0	60.0	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.		0.500	10.0	1
14241	N-Nitrosodimethylamine	62-75-9	31.0		2.00	10.0	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.		12.0	25.0	1
14241	N-Nitroso-di-n-propylamine	621-64-7	46.7		0.700	10.0	1
14241	N-Nitrosodiphenylamine	86-30-6	48.2		0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.		2.00	10.0	1
14241	N-Nitrosomorpholine	59-89-2	4.00	J	2.00	10.0	1
14241	N-Nitrosopiperidine	100-75-4	N.D.		0.500	10.0	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.		0.500	10.0	1
14241	Di-n-octylphthalate	117-84-0	48.3		5.00	11.0	1
14241	Parathion	56-38-2	N.D.		4.00	10.0	1
14241	Pentachlorobenzene	608-93-5	N.D.		0.500	10.0	1
14241	Pentachloronitrobenzene	82-68-8	N.D.		2.00	10.0	1
14241	Pentachlorophenol	87-86-5	12.3		2.92	10.0	1
14241	Phenacetin	62-44-2	N.D.		0.500	10.0	1
14241	Phenanthrene	85-01-8	45.5		0.520	10.0	1
14241	Phenol	108-95-2	25.0		0.770	10.0	1
14241	1,4-Phenylenediamine	106-50-3	N.D.		75.0	300	1
14241	Phorate	298-02-2	N.D.		0.500	10.0	1
14241	2-Picoline	109-06-8	37.4		2.00	10.0	1
14241	Pronamide	23950-58-5	N.D.		0.500	10.0	1
14241	Pyrene	129-00-0	45.2		0.410	10.0	1
14241	Pyridine	110-86-1	25.4		2.00	10.0	1
14241	Safrole	94-59-7	N.D.		2.00	10.0	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	37.9		2.00	10.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	9.30	J	4.00	10.0	1
14241	Thionazin	297-97-2	N.D.		2.00	10.0	1
14241	o-Toluidine	95-53-4	41.8		4.00	10.0	1
14241	2,4,5-Trichlorophenol	95-95-4	29.0		0.810	10.0	1
14241	2,4,6-Trichlorophenol	88-06-2	11.0		0.630	10.0	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.		2.00	10.0	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.		97.0	201	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1A MSD Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:00
SDG#: RAF35-04MSD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034106
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The GC/MS semivolatile surrogate recoveries were outside of QC limits. The unspiked background and matrix spike samples were analyzed and surrogate recoveries were again outside of QC limits, indicating a matrix effect.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 14:08	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 14:47	Jennifer K Howe	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 15:29	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y191141AA	04/24/2019 14:07	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	I191141AA	04/24/2019 14:46	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	3	I191141AA	04/24/2019 15:28	Jennifer K Howe	1
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 05:49	Ashley R Transue	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:15
SDG#: RAF35-05FD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034107
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	49 J	18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	1.52 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	0.294 J	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	1.55	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	4.87	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	2.15 J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	15.5	1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:15
SDG#: RAF35-05FD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034107
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	0.193 J	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	0.181 J	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	2.48 J	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	0.220 J	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	0.194 J	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	N.D.	0.350	10.0	1
14241	Acenaphthylene	208-96-8	N.D.	0.480	10.0	1
14241	Acetophenone	98-86-2	N.D.	4.00	10.0	1
14241	2-Acetylaminofluorene	53-96-3	N.D.	10.0	21.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:15
SDG#: RAF35-05FD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034107
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	4-Aminobiphenyl	92-67-1	N.D.	5.00	11.0	1
14241	Aniline	62-53-3	N.D.	3.00	10.0	1
14241	Anthracene	120-12-7	N.D.	0.520	10.0	1
14241	Aramite	140-57-8	N.D.	5.00	15.0	1
14241	Benzo(a)anthracene	56-55-3	N.D.	0.450	10.0	1
14241	Benzo(a)pyrene	50-32-8	N.D.	1.50	10.0	1
14241	Benzo(b)fluoranthene	205-99-2	N.D.	1.20	10.0	1
14241	Benzo(g,h,i)perylene	191-24-2	N.D.	0.420	10.0	1
14241	Benzo(k)fluoranthene	207-08-9	N.D.	1.60	10.0	1
14241	Benzyl alcohol	100-51-6	N.D.	10.0	30.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	0.560	10.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	2.00	10.0	1
14241	Di-n-butylphthalate	84-74-2	N.D.	2.00	10.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.01	10.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.00	10.0	1
14241	Chlorobenzilate	510-15-6	N.D.	3.00	10.0	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.500	2.00	1
14241	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.500	2.00	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.500	10.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	2-Chloronaphthalene	91-58-7	N.D.	0.490	10.0	1
14241	2-Chlorophenol	95-57-8	N.D.	0.980	10.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.500	10.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.500	2.00	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	Chrysene	218-01-9	N.D.	0.310	10.0	1
14241	Diallate trans/cis	2303-16-4	N.D.	1.00	10.0	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.380	10.0	1
14241	Dibenzofuran	132-64-9	N.D.	0.580	10.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	3.00	10.0	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.59	10.0	1
14241	2,6-Dichlorophenol	87-65-0	N.D.	0.500	10.0	1
14241	Diethylphthalate	84-66-2	N.D.	2.00	10.0	1
14241	Dimethoate	60-51-5	N.D.	3.00	10.0	1
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.	5.00	10.0	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	N.D.	5.00	11.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:15
SDG#: RAF35-05FD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034107
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	3,3'-Dimethylbenzidine	119-93-7	N.D.	25.0	75.0	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.	5.00	50.0	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	3.00	10.0	1
14241	Dimethylphthalate	131-11-3	N.D.	2.00	10.0	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	8.00	21.0	1
14241	1,3-Dinitrobenzene	99-65-0	N.D.	2.00	10.0	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	14.0	30.0	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	1.00	10.0	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	0.500	10.0	1
14241	Disulfoton	298-04-4	N.D.	25.0	50.0	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.500	10.0	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	5.00	11.0	1
14241	Famphur	52-85-7	N.D.	25.0	50.0	1
14241	Fluoranthene	206-44-0	N.D.	0.420	10.0	1
14241	Fluorene	86-73-7	N.D.	0.380	10.0	1
14241	Hexachlorobenzene	118-74-1	N.D.	0.870	10.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	5.00	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	2.00	10.0	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.150	10.0	1
14241	Isodrin	465-73-6	N.D.	0.500	10.0	1
14241	Isophorone	78-59-1	N.D.	0.500	10.0	1
14241	Isosafrole	120-58-1	N.D.	4.00	10.0	1
14241	Kepone	143-50-0	N.D.	25.0	50.0	1
14241	Methapyrilene	91-80-5	N.D.	15.0	50.0	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	1.00	10.0	1
14241	Methyl parathion	298-00-0	N.D.	1.00	10.0	1
14241	3-Methylcholanthrene	56-49-5	N.D.	4.00	10.0	1
14241	2-Methylnaphthalene	91-57-6	N.D.	0.290	10.0	1
14241	2-Methylphenol	95-48-7	N.D.	0.960	10.0	1
14241	4-Methylphenol	106-44-5	N.D.	2.47	20.0	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	25.0	60.0	1
14241	1-Naphthylamine	134-32-7	N.D.	8.00	21.0	1
14241	2-Naphthylamine	91-59-8	N.D.	7.00	21.0	1
14241	NDPA as diphenylamine	n.a.	N.D.	0.700	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:15
SDG#: RAF35-05FD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034107
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	N.D.	2.00	10.0	1
14241	3-Nitroaniline	99-09-2	N.D.	3.00	10.0	1
14241	4-Nitroaniline	100-01-6	N.D.	0.900	10.0	1
14241	Nitrobenzene	98-95-3	N.D.	0.500	10.0	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.	4.00	10.0	1
14241	2-Nitrophenol	88-75-5	N.D.	3.00	10.0	1
14241	4-Nitrophenol	100-02-7	N.D.	10.0	30.0	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.	20.0	60.0	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.	0.500	10.0	1
14241	N-Nitrosodimethylamine	62-75-9	N.D.	2.00	10.0	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.	12.0	25.0	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.700	10.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.	2.00	10.0	1
14241	N-Nitrosomorpholine	59-89-2	N.D.	2.00	10.0	1
14241	N-Nitrosopiperidine	100-75-4	N.D.	0.500	10.0	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.	0.500	10.0	1
14241	Di-n-octylphthalate	117-84-0	N.D.	5.00	11.0	1
14241	Parathion	56-38-2	N.D.	4.00	10.0	1
14241	Pentachlorobenzene	608-93-5	N.D.	0.500	10.0	1
14241	Pentachloronitrobenzene	82-68-8	N.D.	2.00	10.0	1
14241	Pentachlorophenol	87-86-5	N.D.	2.92	10.0	1
14241	Phenacetin	62-44-2	N.D.	0.500	10.0	1
14241	Phenanthrene	85-01-8	N.D.	0.520	10.0	1
14241	Phenol	108-95-2	N.D.	0.770	10.0	1
14241	1,4-Phenylenediamine	106-50-3	N.D.	75.0	300	1
14241	Phorate	298-02-2	N.D.	0.500	10.0	1
14241	2-Picoline	109-06-8	N.D.	2.00	10.0	1
14241	Pronamide	23950-58-5	N.D.	0.500	10.0	1
14241	Pyrene	129-00-0	N.D.	0.410	10.0	1
14241	Pyridine	110-86-1	N.D.	2.00	10.0	1
14241	Safrole	94-59-7	N.D.	2.00	10.0	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	2.00	10.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	4.00	10.0	1
14241	Thionazin	297-97-2	N.D.	2.00	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 11:15
SDG#: RAF35-05FD

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034107
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	o-Toluidine	95-53-4	N.D.	4.00	10.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.810	10.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.630	10.0	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.	2.00	10.0	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.	97.0	201	1

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Results are reported from the first trial as the sample is outside the method required holding time for re-extraction.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 15:37	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 15:51	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y191141AA	04/24/2019 15:36	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	I191141AA	04/24/2019 15:50	Jennifer K Howe	1
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 16:22	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 10:15
SDG#: RAF35-06

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034108
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	2-Propanol	67-63-0	23 J	18	100	1
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	1.39 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	N.D.	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	N.D.	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	N.D.	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	0.307 J	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	N.D.	1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 10:15
SDG#: RAF35-06

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034108
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	N.D.	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	N.D.	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	N.D.	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	N.D.	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Acenaphthene	83-32-9	N.D.	0.350	10.0	1
14241	Acenaphthylene	208-96-8	N.D.	0.480	10.0	1
14241	Acetophenone	98-86-2	N.D.	4.00	10.0	1
14241	2-Acetylaminofluorene	53-96-3	N.D.	10.0	21.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 10:15
SDG#: RAF35-06

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034108
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	4-Aminobiphenyl	92-67-1	N.D.	5.00	11.0	1
14241	Aniline	62-53-3	N.D.	3.00	10.0	1
14241	Anthracene	120-12-7	N.D.	0.520	10.0	1
14241	Aramite	140-57-8	N.D.	5.00	15.0	1
14241	Benzo(a)anthracene	56-55-3	N.D.	0.450	10.0	1
14241	Benzo(a)pyrene	50-32-8	N.D.	1.50	10.0	1
14241	Benzo(b)fluoranthene	205-99-2	N.D.	1.20	10.0	1
14241	Benzo(g,h,i)perylene	191-24-2	N.D.	0.420	10.0	1
14241	Benzo(k)fluoranthene	207-08-9	N.D.	1.60	10.0	1
14241	Benzyl alcohol	100-51-6	N.D.	10.0	30.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	0.560	10.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	2.00	10.0	1
14241	Di-n-butylphthalate	84-74-2	N.D.	2.00	10.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.01	10.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.00	10.0	1
14241	Chlorobenzilate	510-15-6	N.D.	3.00	10.0	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.500	2.00	1
14241	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.500	2.00	1
14241	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.500	10.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	2-Chloronaphthalene	91-58-7	N.D.	0.490	10.0	1
14241	2-Chlorophenol	95-57-8	N.D.	0.980	10.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.500	10.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.500	2.00	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14241	Chrysene	218-01-9	N.D.	0.310	10.0	1
14241	Diallate trans/cis	2303-16-4	N.D.	1.00	10.0	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.380	10.0	1
14241	Dibenzofuran	132-64-9	N.D.	0.580	10.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	3.00	10.0	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.59	10.0	1
14241	2,6-Dichlorophenol	87-65-0	N.D.	0.500	10.0	1
14241	Diethylphthalate	84-66-2	N.D.	2.00	10.0	1
14241	Dimethoate	60-51-5	N.D.	3.00	10.0	1
14241	p-Dimethylaminoazobenzene	60-11-7	N.D.	5.00	10.0	1
14241	7,12-Dimethylbenz[a]anthracene	57-97-6	N.D.	5.00	11.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 10:15
SDG#: RAF35-06

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034108
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	3,3'-Dimethylbenzidine	119-93-7	N.D.	25.0	75.0	1
14241	a,a-Dimethylphenethylamine	122-09-8	N.D.	5.00	50.0	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	3.00	10.0	1
14241	Dimethylphthalate	131-11-3	N.D.	2.00	10.0	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	8.00	21.0	1
14241	1,3-Dinitrobenzene	99-65-0	N.D.	2.00	10.0	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	14.0	30.0	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	1.00	10.0	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	0.500	10.0	1
14241	Disulfoton	298-04-4	N.D.	25.0	50.0	1
14241	Ethyl methanesulfonate	62-50-0	N.D.	0.500	10.0	1
14241	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	5.00	11.0	1
14241	Famphur	52-85-7	N.D.	25.0	50.0	1
14241	Fluoranthene	206-44-0	N.D.	0.420	10.0	1
14241	Fluorene	86-73-7	N.D.	0.380	10.0	1
14241	Hexachlorobenzene	118-74-1	N.D.	0.870	10.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	5.00	11.0	1
14241	Hexachloropropene	1888-71-7	N.D.	2.00	10.0	1
14241	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.150	10.0	1
14241	Isodrin	465-73-6	N.D.	0.500	10.0	1
14241	Isophorone	78-59-1	N.D.	0.500	10.0	1
14241	Isosafrole	120-58-1	N.D.	4.00	10.0	1
14241	Kepone	143-50-0	N.D.	25.0	50.0	1
14241	Methapyrilene	91-80-5	N.D.	15.0	50.0	1
	The QC window for methapyrilene is advisory due to the erratic performance of the compound. The quantitated result is estimated.					
14241	Methyl methanesulfonate	66-27-3	N.D.	1.00	10.0	1
14241	Methyl parathion	298-00-0	N.D.	1.00	10.0	1
14241	3-Methylcholanthrene	56-49-5	N.D.	4.00	10.0	1
14241	2-Methylnaphthalene	91-57-6	N.D.	0.290	10.0	1
14241	2-Methylphenol	95-48-7	N.D.	0.960	10.0	1
14241	4-Methylphenol	106-44-5	N.D.	2.47	20.0	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14241	1,4-Naphthoquinone	130-15-4	N.D.	25.0	60.0	1
14241	1-Naphthylamine	134-32-7	N.D.	8.00	21.0	1
14241	2-Naphthylamine	91-59-8	N.D.	7.00	21.0	1
14241	NDPA as diphenylamine	n.a.	N.D.	0.700	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 10:15
SDG#: RAF35-06

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034108
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	2-Nitroaniline	88-74-4	N.D.	2.00	10.0	1
14241	3-Nitroaniline	99-09-2	N.D.	3.00	10.0	1
14241	4-Nitroaniline	100-01-6	N.D.	0.900	10.0	1
14241	Nitrobenzene	98-95-3	N.D.	0.500	10.0	1
14241	5-Nitro-o-toluidine	99-55-8	N.D.	4.00	10.0	1
14241	2-Nitrophenol	88-75-5	N.D.	3.00	10.0	1
14241	4-Nitrophenol	100-02-7	N.D.	10.0	30.0	1
14241	4-Nitroquinoline-1-oxide	56-57-5	N.D.	20.0	60.0	1
14241	N-Nitrosodiethylamine	55-18-5	N.D.	0.500	10.0	1
14241	N-Nitrosodimethylamine	62-75-9	N.D.	2.00	10.0	1
14241	N-Nitrosodi-n-butylamine	924-16-3	N.D.	12.0	25.0	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.700	10.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	0.700	10.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14241	N-Nitrosomethylethylamine	10595-95-6	N.D.	2.00	10.0	1
14241	N-Nitrosomorpholine	59-89-2	N.D.	2.00	10.0	1
14241	N-Nitrosopiperidine	100-75-4	N.D.	0.500	10.0	1
14241	N-Nitrosopyrrolidine	930-55-2	N.D.	0.500	10.0	1
14241	Di-n-octylphthalate	117-84-0	N.D.	5.00	11.0	1
14241	Parathion	56-38-2	N.D.	4.00	10.0	1
14241	Pentachlorobenzene	608-93-5	N.D.	0.500	10.0	1
14241	Pentachloronitrobenzene	82-68-8	N.D.	2.00	10.0	1
14241	Pentachlorophenol	87-86-5	N.D.	2.92	10.0	1
14241	Phenacetin	62-44-2	N.D.	0.500	10.0	1
14241	Phenanthrene	85-01-8	N.D.	0.520	10.0	1
14241	Phenol	108-95-2	N.D.	0.770	10.0	1
14241	1,4-Phenylenediamine	106-50-3	N.D.	75.0	300	1
14241	Phorate	298-02-2	N.D.	0.500	10.0	1
14241	2-Picoline	109-06-8	N.D.	2.00	10.0	1
14241	Pronamide	23950-58-5	N.D.	0.500	10.0	1
14241	Pyrene	129-00-0	N.D.	0.410	10.0	1
14241	Pyridine	110-86-1	N.D.	2.00	10.0	1
14241	Safrole	94-59-7	N.D.	2.00	10.0	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	2.00	10.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	4.00	10.0	1
14241	Thionazin	297-97-2	N.D.	2.00	10.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC1B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/11/2019 10:15
SDG#: RAF35-06

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034108
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	o-Toluidine	95-53-4	N.D.	4.00	10.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.810	10.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.630	10.0	1
14241	O,O,O-Triethylphosphorothioate	126-68-1	N.D.	2.00	10.0	1
14241	1,3,5-Trinitrobenzene	99-35-4	N.D.	97.0	201	1

The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.

The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Results are reported from the first trial as the sample is outside the method required holding time for re-extraction.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	2-Propanol	SW-846 8260C	1	Y191141AA	04/24/2019 15:59	Corie Mellinger	1
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 16:12	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y191141AA	04/24/2019 15:58	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	I191141AA	04/24/2019 16:11	Jennifer K Howe	1
14241	SVOAs 8270D/E MINI	SW-846 8270D	1	19107WAJ026	04/19/2019 16:51	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19107WAJ026	04/17/2019 16:55	Osvaldo R Sanchez	1

*=This limit was used in the evaluation of the final result

Sample Description: **16-2 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 12:05
SDG#: RAF35-07

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034109
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Benzene	71-43-2	< 1.0	1.0	0.05	1
11996	2-Butanone	78-93-3	< 10	10	0.6	1
11996	Carbon Tetrachloride	56-23-5	< 1.0	1.0	0.07	1
11996	Chloroethane	75-00-3	< 1.0	1.0	0.07	1
11996	Chloromethane	74-87-3	< 1.0	1.0	0.06	1
11996	Dichlorodifluoromethane	75-71-8	< 1.0	1.0	0.05	1
11996	1,1-Dichloroethane	75-34-3	< 1.0	1.0	0.07	1
11996	1,1-Dichloroethene	75-35-4	< 1.0	1.0	0.06	1
11996	Dimethyl ether	115-10-6	< 13	13	0.04	1
11996	Ethyl ether	60-29-7	< 13	13	0.05	1
11996	Ethylbenzene	100-41-4	< 1.0	1.0	0.06	1
11996	Freon 113	76-13-1	< 1.0	1.0	0.06	1
11996	Methylene Chloride	75-09-2	< 1.0	1.0	0.07	1
11996	Tetrachloroethene	127-18-4	< 1.0	1.0	0.06	1
11996	Tetrahydrofuran	109-99-9	< 25	25	0.8	1
11996	Toluene	108-88-3	< 1.0	1.0	0.07	1
11996	1,1,1-Trichloroethane	71-55-6	< 1.0	1.0	0.06	1
11996	Trichloroethene	79-01-6	< 1.0	1.0	0.06	1
11996	Trichlorofluoromethane	75-69-4	< 1.0	1.0	0.05	1
11996	Xylene (Total)	1330-20-7	< 3.0	3.0	0.1	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Diethylphthalate	84-66-2	< 5	5	2	1
14241	2,4-Dinitrotoluene	121-14-2	< 10	10	1	1
14241	2,6-Dinitrotoluene	606-20-2	< 10	10	0.5	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	H191123AA	04/23/2019 05:54	Miranda Campbell	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	H191123AA	04/23/2019 05:53	Miranda Campbell	1
14241	3 SVOCs 8270D	SW-846 8270D	1	19106WAN026	04/19/2019 17:49	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19106WAN026	04/17/2019 08:00	David S Schrum	1

*=This limit was used in the evaluation of the final result

Sample Description: **16-3 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 13:35
SDG#: RAF35-08

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034110
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Benzene	71-43-2	< 1.0	1.0	0.05	1
11996	2-Butanone	78-93-3	< 10	10	0.6	1
11996	Carbon Tetrachloride	56-23-5	< 1.0	1.0	0.07	1
11996	Chloroethane	75-00-3	< 1.0	1.0	0.07	1
11996	Chloromethane	74-87-3	< 1.0	1.0	0.06	1
11996	Dichlorodifluoromethane	75-71-8	< 1.0	1.0	0.05	1
11996	1,1-Dichloroethane	75-34-3	< 1.0	1.0	0.07	1
11996	1,1-Dichloroethene	75-35-4	< 1.0	1.0	0.06	1
11996	Dimethyl ether	115-10-6	< 13	13	0.04	1
11996	Ethyl ether	60-29-7	< 13	13	0.05	1
11996	Ethylbenzene	100-41-4	< 1.0	1.0	0.06	1
11996	Freon 113	76-13-1	< 1.0	1.0	0.06	1
11996	Methylene Chloride	75-09-2	< 1.0	1.0	0.07	1
11996	Tetrachloroethene	127-18-4	< 1.0	1.0	0.06	1
11996	Tetrahydrofuran	109-99-9	< 25	25	0.8	1
11996	Toluene	108-88-3	< 1.0	1.0	0.07	1
11996	1,1,1-Trichloroethane	71-55-6	< 1.0	1.0	0.06	1
11996	Trichloroethene	79-01-6	< 1.0	1.0	0.06	1
11996	Trichlorofluoromethane	75-69-4	< 1.0	1.0	0.05	1
11996	Xylene (Total)	1330-20-7	< 3.0	3.0	0.1	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Diethylphthalate	84-66-2	< 5	5	2	1
14241	2,4-Dinitrotoluene	121-14-2	< 10	10	1	1
14241	2,6-Dinitrotoluene	606-20-2	< 10	10	0.5	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	H191123AA	04/23/2019 06:15	Miranda Campbell	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	H191123AA	04/23/2019 06:14	Miranda Campbell	1
14241	3 SVOCs 8270D	SW-846 8270D	1	19106WAN026	04/19/2019 18:18	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19106WAN026	04/17/2019 08:00	David S Schrum	1

*=This limit was used in the evaluation of the final result

Sample Description: **16-5 Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 09:10
SDG#: RAF35-09

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034111
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Benzene	71-43-2	< 1.0	1.0	0.05	1
11996	2-Butanone	78-93-3	< 10	10	0.6	1
11996	Carbon Tetrachloride	56-23-5	< 1.0	1.0	0.07	1
11996	Chloroethane	75-00-3	< 1.0	1.0	0.07	1
11996	Chloromethane	74-87-3	< 1.0	1.0	0.06	1
11996	Dichlorodifluoromethane	75-71-8	< 1.0	1.0	0.05	1
11996	1,1-Dichloroethane	75-34-3	< 1.0	1.0	0.07	1
11996	1,1-Dichloroethene	75-35-4	< 1.0	1.0	0.06	1
11996	Dimethyl ether	115-10-6	< 13	13	0.04	1
11996	Ethyl ether	60-29-7	< 13	13	0.05	1
11996	Ethylbenzene	100-41-4	< 1.0	1.0	0.06	1
11996	Freon 113	76-13-1	< 1.0	1.0	0.06	1
11996	Methylene Chloride	75-09-2	< 1.0	1.0	0.07	1
11996	Tetrachloroethene	127-18-4	< 1.0	1.0	0.06	1
11996	Tetrahydrofuran	109-99-9	< 25	25	0.8	1
11996	Toluene	108-88-3	< 1.0	1.0	0.07	1
11996	1,1,1-Trichloroethane	71-55-6	< 1.0	1.0	0.06	1
11996	Trichloroethene	79-01-6	< 1.0	1.0	0.06	1
11996	Trichlorofluoromethane	75-69-4	< 1.0	1.0	0.05	1
11996	Xylene (Total)	1330-20-7	< 3.0	3.0	0.1	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Diethylphthalate	84-66-2	< 5	5	2	1
14241	2,4-Dinitrotoluene	121-14-2	< 10	10	1	1
14241	2,6-Dinitrotoluene	606-20-2	< 10	10	0.5	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	H191123AA	04/23/2019 06:36	Miranda Campbell	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	H191123AA	04/23/2019 06:35	Miranda Campbell	1
14241	3 SVOCs 8270D	SW-846 8270D	1	19106WAN026	04/19/2019 18:47	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19106WAN026	04/17/2019 08:00	David S Schrum	1

*=This limit was used in the evaluation of the final result

Sample Description: **16WC2B Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 11:15
SDG#: RAF35-10

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034112
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Benzene	71-43-2	< 1.0	1.0	0.05	1
11996	2-Butanone	78-93-3	< 10	10	0.6	1
11996	Carbon Tetrachloride	56-23-5	< 1.0	1.0	0.07	1
11996	Chloroethane	75-00-3	< 1.0	1.0	0.07	1
11996	Chloromethane	74-87-3	< 1.0	1.0	0.06	1
11996	Dichlorodifluoromethane	75-71-8	< 1.0	1.0	0.05	1
11996	1,1-Dichloroethane	75-34-3	< 1.0	1.0	0.07	1
11996	1,1-Dichloroethene	75-35-4	< 1.0	1.0	0.06	1
11996	Dimethyl ether	115-10-6	< 13	13	0.04	1
11996	Ethyl ether	60-29-7	< 13	13	0.05	1
11996	Ethylbenzene	100-41-4	< 1.0	1.0	0.06	1
11996	Freon 113	76-13-1	< 1.0	1.0	0.06	1
11996	Methylene Chloride	75-09-2	< 1.0	1.0	0.07	1
11996	Tetrachloroethene	127-18-4	< 1.0	1.0	0.06	1
11996	Tetrahydrofuran	109-99-9	< 25	25	0.8	1
11996	Toluene	108-88-3	< 1.0	1.0	0.07	1
11996	1,1,1-Trichloroethane	71-55-6	< 1.0	1.0	0.06	1
11996	Trichloroethene	79-01-6	< 1.0	1.0	0.06	1
11996	Trichlorofluoromethane	75-69-4	< 1.0	1.0	0.05	1
11996	Xylene (Total)	1330-20-7	< 3.0	3.0	0.1	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Diethylphthalate	84-66-2	< 5	5	2	1
14241	2,4-Dinitrotoluene	121-14-2	< 10	10	1	1
14241	2,6-Dinitrotoluene	606-20-2	< 10	10	0.5	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	H191123AA	04/23/2019 06:58	Miranda Campbell	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	H191123AA	04/23/2019 06:57	Miranda Campbell	1
14241	3 SVOCs 8270D	SW-846 8270D	1	19106WAN026	04/19/2019 19:16	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19106WAN026	04/17/2019 08:00	David S Schrum	1

*=This limit was used in the evaluation of the final result

Sample Description: **16SPRING Grab Groundwater**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019 09:20
SDG#: RAF35-11

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034113
ELLE Group #: 2038951
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Benzene	71-43-2	< 1.0	1.0	0.05	1
11996	2-Butanone	78-93-3	< 10	10	0.6	1
11996	Carbon Tetrachloride	56-23-5	< 1.0	1.0	0.07	1
11996	Chloroethane	75-00-3	< 1.0	1.0	0.07	1
11996	Chloromethane	74-87-3	< 1.0	1.0	0.06	1
11996	Dichlorodifluoromethane	75-71-8	< 1.0	1.0	0.05	1
11996	1,1-Dichloroethane	75-34-3	< 1.0	1.0	0.07	1
11996	1,1-Dichloroethene	75-35-4	< 1.0	1.0	0.06	1
11996	Dimethyl ether	115-10-6	< 13	13	0.04	1
11996	Ethyl ether	60-29-7	< 13	13	0.05	1
11996	Ethylbenzene	100-41-4	< 1.0	1.0	0.06	1
11996	Freon 113	76-13-1	< 1.0	1.0	0.06	1
11996	Methylene Chloride	75-09-2	< 1.0	1.0	0.07	1
11996	Tetrachloroethene	127-18-4	< 1.0	1.0	0.06	1
11996	Tetrahydrofuran	109-99-9	< 25	25	0.8	1
11996	Toluene	108-88-3	< 1.0	1.0	0.07	1
11996	1,1,1-Trichloroethane	71-55-6	< 1.0	1.0	0.06	1
11996	Trichloroethene	79-01-6	< 1.0	1.0	0.06	1
11996	Trichlorofluoromethane	75-69-4	< 1.0	1.0	0.05	1
11996	Xylene (Total)	1330-20-7	< 3.0	3.0	0.1	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14241	Diethylphthalate	84-66-2	< 5	5	2	1
14241	2,4-Dinitrotoluene	121-14-2	< 10	10	1	1
14241	2,6-Dinitrotoluene	606-20-2	< 10	10	0.5	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	H191123AA	04/23/2019 07:20	Miranda Campbell	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	H191123AA	04/23/2019 07:19	Miranda Campbell	1
14241	3 SVOCs 8270D	SW-846 8270D	1	19106WAN026	04/19/2019 19:45	Kira N Beck	1
11010	8270D BNA Extraction	SW-846 3510C	1	19106WAN026	04/17/2019 08:00	David S Schrum	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank_1 Water**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019
SDG#: RAF35-12TB

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034114
ELLE Group #: 2038951
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	2.52 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	N.D.	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	N.D.	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	N.D.	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	N.D.	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	N.D.	1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank_1 Water**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019
SDG#: RAF35-12TB

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034114
ELLE Group #: 2038951
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	N.D.	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	N.D.	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	N.D.	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	N.D.	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 12:19	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	I191141AA	04/24/2019 12:18	Jennifer K Howe	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank_2 Water**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019
SDG#: RAF35-13TB

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034115
ELLE Group #: 2038951
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Acetone	67-64-1	2.79 J	0.900	10.0	1
11996	Acetonitrile	75-05-8	N.D.	31.7	100	1
11996	Acrolein	107-02-8	N.D.	3.40	25.0	1
11996	Acrylonitrile	107-13-1	N.D.	0.470	10.0	1
11996	Allyl Chloride	107-05-1	N.D.	0.820	10.0	1
11996	Benzene	71-43-2	N.D.	0.0700	1.00	1
11996	Bromodichloromethane	75-27-4	N.D.	0.0880	1.00	1
11996	Bromoform	75-25-2	N.D.	0.106	1.00	1
11996	Bromomethane	74-83-9	N.D.	0.542	1.00	1
11996	2-Butanone	78-93-3	N.D.	0.600	10.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.370	10.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.160	1.00	1
11996	2-Chloro-1,3-butadiene	126-99-8	N.D.	0.460	10.0	1
11996	Chloroethane	75-00-3	N.D.	0.0700	1.00	1
11996	Chloroform	67-66-3	N.D.	0.0900	1.00	1
11996	Chloromethane	74-87-3	N.D.	0.0600	1.00	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.204	1.00	1
11996	Dibromochloromethane	124-48-1	N.D.	0.0700	1.00	1
11996	1,2-Dibromoethane	106-93-4	N.D.	0.0600	1.00	1
11996	Dibromomethane	74-95-3	N.D.	0.0650	1.00	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	0.970	10.0	1
11996	1,2-Dichlorobenzene	95-50-1	N.D.	0.0820	1.00	1
11996	1,3-Dichlorobenzene	541-73-1	N.D.	0.0600	1.00	1
11996	1,4-Dichlorobenzene	106-46-7	N.D.	0.0700	1.00	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.148	1.00	1
11996	1,1-Dichloroethane	75-34-3	N.D.	0.135	1.00	1
11996	1,2-Dichloroethane	107-06-2	N.D.	0.147	1.00	1
11996	1,1-Dichloroethene	75-35-4	N.D.	0.223	1.00	1
11996	trans-1,2-Dichloroethene	156-60-5	N.D.	0.162	1.00	1
11996	1,2-Dichloropropane	78-87-5	N.D.	0.107	1.00	1
11996	1,3-Dichloropropane	142-28-9	N.D.	0.0970	1.00	1
11996	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0970	1.00	1
11996	Dimethyl ether	115-10-6	N.D.	0.0400	12.5	1
11996	1,4-Dioxane	123-91-1	N.D.	45.5	200	1
11996	Ethyl ether	60-29-7	N.D.	1.11	12.5	1
11996	Ethyl Methacrylate	97-63-2	N.D.	0.810	10.0	1
11996	Ethylbenzene	100-41-4	N.D.	0.0790	1.00	1
11996	Freon 113	76-13-1	N.D.	0.120	1.00	1
11996	Hexachlorobutadiene	87-68-3	N.D.	0.0700	1.00	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank_2 Water**
2Q 2019 Annual GW Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 04/12/2019 09:40
Collection Date/Time: 04/10/2019
SDG#: RAF35-13TB

Draper Aden Associates, Inc.
ELLE Sample #: WW 1034115
ELLE Group #: 2038951
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Hexachloroethane	67-72-1	N.D.	0.110	10.0	1
11996	2-Hexanone	591-78-6	N.D.	0.600	10.0	1
11996	Isobutyl Alcohol	78-83-1	N.D.	3.60	200	1
11996	Methacrylonitrile	126-98-7	N.D.	9.75	100	1
11996	Methyl Iodide	74-88-4	N.D.	0.580	10.0	1
11996	Methyl Methacrylate	80-62-6	N.D.	3.58	10.0	1
11996	4-Methyl-2-pentanone	108-10-1	N.D.	0.910	10.0	1
11996	Methylene Chloride	75-09-2	N.D.	0.182	1.00	1
11996	Naphthalene	91-20-3	N.D.	0.126	1.00	1
11996	Pentachloroethane	76-01-7	N.D.	0.800	10.0	1
11996	Propionitrile	107-12-0	N.D.	10.2	100	1
11996	Styrene	100-42-5	N.D.	0.0500	1.00	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.0800	1.00	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.184	1.00	1
11996	Tetrachloroethene	127-18-4	N.D.	0.0600	1.00	1
11996	Tetrahydrofuran	109-99-9	N.D.	2.00	25.0	1
11996	Toluene	108-88-3	N.D.	0.0930	1.00	1
11996	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.130	1.00	1
11996	1,1,1-Trichloroethane	71-55-6	N.D.	0.130	1.00	1
11996	1,1,2-Trichloroethane	79-00-5	N.D.	0.0790	1.00	1
11996	Trichloroethene	79-01-6	N.D.	0.177	1.00	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.176	1.00	1
11996	1,2,3-Trichloropropane	96-18-4	N.D.	0.100	1.00	1
11996	Vinyl Acetate	108-05-4	N.D.	3.29	10.0	1
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1
11996	Xylene (Total)	1330-20-7	N.D.	0.208	3.00	1

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	I191141AA	04/24/2019 12:40	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	I191141AA	04/24/2019 12:39	Jennifer K Howe	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: H191123AA	Sample number(s): 1034109-1034113		
Benzene	< 1.0	1.0	0.05
2-Butanone	< 10	10	0.6
Carbon Tetrachloride	< 1.0	1.0	0.07
Chloroethane	< 1.0	1.0	0.07
Chloromethane	< 1.0	1.0	0.06
Dichlorodifluoromethane	< 1.0	1.0	0.05
1,1-Dichloroethane	< 1.0	1.0	0.07
1,1-Dichloroethene	< 1.0	1.0	0.06
Dimethyl ether	< 13	13	0.04
Ethyl ether	< 13	13	0.05
Ethylbenzene	< 1.0	1.0	0.06
Freon 113	< 1.0	1.0	0.06
Methylene Chloride	< 1.0	1.0	0.07
Tetrachloroethene	< 1.0	1.0	0.06
Tetrahydrofuran	< 25	25	0.8
Toluene	< 1.0	1.0	0.07
1,1,1-Trichloroethane	< 1.0	1.0	0.06
Trichloroethene	< 1.0	1.0	0.06
Trichlorofluoromethane	< 1.0	1.0	0.05
Xylene (Total)	< 3.0	3.0	0.1

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: I191141AA	Sample number(s): 1034101-1034108,1034114-1034115		
Acetone	N.D.	0.900	10.0
Acetonitrile	N.D.	31.7	100
Acrolein	N.D.	3.40	25.0
Acrylonitrile	N.D.	0.470	10.0
Allyl Chloride	N.D.	0.820	10.0
Benzene	N.D.	0.0700	1.00
Bromodichloromethane	N.D.	0.0880	1.00
Bromoform	N.D.	0.106	1.00
Bromomethane	N.D.	0.542	1.00
2-Butanone	N.D.	0.600	10.0
Carbon Disulfide	N.D.	0.370	10.0
Carbon Tetrachloride	N.D.	0.160	1.00
2-Chloro-1,3-butadiene	N.D.	0.460	10.0
Chloroethane	N.D.	0.0700	1.00
Chloroform	N.D.	0.0900	1.00

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Chloromethane	N.D.	0.0600	1.00
1,2-Dibromo-3-chloropropane	N.D.	0.204	1.00
Dibromochloromethane	N.D.	0.0700	1.00
1,2-Dibromoethane	N.D.	0.0600	1.00
Dibromomethane	N.D.	0.0650	1.00
trans-1,4-Dichloro-2-butene	N.D.	0.970	10.0
1,2-Dichlorobenzene	N.D.	0.0820	1.00
1,3-Dichlorobenzene	N.D.	0.0600	1.00
1,4-Dichlorobenzene	N.D.	0.0700	1.00
Dichlorodifluoromethane	N.D.	0.148	1.00
1,1-Dichloroethane	N.D.	0.135	1.00
1,2-Dichloroethane	N.D.	0.147	1.00
1,1-Dichloroethene	N.D.	0.223	1.00
trans-1,2-Dichloroethene	N.D.	0.162	1.00
1,2-Dichloropropane	N.D.	0.107	1.00
1,3-Dichloropropane	N.D.	0.0970	1.00
trans-1,3-Dichloropropene	N.D.	0.0970	1.00
Dimethyl ether	N.D.	0.0400	12.5
1,4-Dioxane	N.D.	45.5	200
Ethyl ether	N.D.	1.11	12.5
Ethyl Methacrylate	N.D.	0.810	10.0
Ethylbenzene	N.D.	0.0790	1.00
Freon 113	N.D.	0.120	1.00
Hexachlorobutadiene	N.D.	0.0700	1.00
Hexachloroethane	N.D.	0.110	10.0
2-Hexanone	N.D.	0.600	10.0
Isobutyl Alcohol	N.D.	3.60	200
Methacrylonitrile	N.D.	9.75	100
Methyl Iodide	N.D.	0.580	10.0
Methyl Methacrylate	N.D.	3.58	10.0
4-Methyl-2-pentanone	N.D.	0.910	10.0
Methylene Chloride	N.D.	0.182	1.00
Naphthalene	N.D.	0.126	1.00
Pentachloroethane	N.D.	0.800	10.0
Propionitrile	N.D.	10.2	100
Styrene	N.D.	0.0500	1.00
1,1,1,2-Tetrachloroethane	N.D.	0.0800	1.00
1,1,2,2-Tetrachloroethane	N.D.	0.184	1.00
Tetrachloroethene	N.D.	0.0600	1.00
Tetrahydrofuran	N.D.	2.00	25.0
Toluene	N.D.	0.0930	1.00
1,2,4-Trichlorobenzene	N.D.	0.130	1.00
1,1,1-Trichloroethane	N.D.	0.130	1.00
1,1,2-Trichloroethane	N.D.	0.0790	1.00
Trichloroethene	N.D.	0.177	1.00

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Trichlorofluoromethane	N.D.	0.176	1.00
1,2,3-Trichloropropane	N.D.	0.100	1.00
Vinyl Acetate	N.D.	3.29	10.0
Vinyl Chloride	N.D.	0.153	1.00
Xylene (Total)	N.D.	0.208	3.00
Batch number: Y191141AA	Sample number(s): 1034101-1034108		
2-Propanol	N.D.	18	100
Batch number: 19106WAN026	Sample number(s): 1034102,1034109-1034113		
Acenaphthene	N.D.	0.350	10.0
Acenaphthylene	N.D.	0.480	10.0
Acetophenone	N.D.	4.00	10.0
2-Acetylaminofluorene	N.D.	10.0	21.0
4-Aminobiphenyl	N.D.	5.00	11.0
Aniline	N.D.	3.00	10.0
Anthracene	N.D.	0.520	10.0
Aramite	N.D.	5.00	15.0
Benzo(a)anthracene	N.D.	0.450	10.0
Benzo(a)pyrene	N.D.	1.50	10.0
Benzo(b)fluoranthene	N.D.	1.20	10.0
Benzo(g,h,i)perylene	N.D.	0.420	10.0
Benzo(k)fluoranthene	N.D.	1.60	10.0
Benzyl alcohol	N.D.	10.0	30.0
4-Bromophenyl-phenylether	N.D.	0.560	10.0
Butylbenzylphthalate	N.D.	2.00	10.0
Di-n-butylphthalate	N.D.	2.00	10.0
4-Chloro-3-methylphenol	N.D.	1.01	10.0
4-Chloroaniline	N.D.	4.00	10.0
Chlorobenzilate	N.D.	3.00	10.0
bis(2-Chloroethoxy)methane	N.D.	0.500	2.00
bis(2-Chloroethyl)ether	N.D.	0.500	2.00
bis(2-Chloroisopropyl)ether	N.D.	0.500	10.0
2-Chloronaphthalene	N.D.	0.490	10.0
2-Chlorophenol	N.D.	0.980	10.0
4-Chlorophenyl-phenylether	N.D.	0.500	10.0
2,2'-oxybis(1-Chloropropane)	N.D.	0.500	2.00
Chrysene	N.D.	0.310	10.0
Diallate trans/cis	N.D.	1.00	10.0
Dibenz(a,h)anthracene	N.D.	0.380	10.0
Dibenzofuran	N.D.	0.580	10.0
3,3'-Dichlorobenzidine	N.D.	3.00	10.0
2,4-Dichlorophenol	N.D.	1.59	10.0
2,6-Dichlorophenol	N.D.	0.500	10.0
Diethylphthalate	N.D.	2	10
Dimethoate	N.D.	3.00	10.0

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
p-Dimethylaminoazobenzene	N.D.	5.00	10.0
7,12-Dimethylbenz[a]anthracene	N.D.	5.00	11.0
3,3'-Dimethylbenzidine	N.D.	25.0	75.0
a,a-Dimethylphenethylamine	N.D.	5.00	50.0
2,4-Dimethylphenol	N.D.	3.00	10.0
Dimethylphthalate	N.D.	2.00	10.0
4,6-Dinitro-2-methylphenol	N.D.	8.00	21.0
1,3-Dinitrobenzene	N.D.	2.00	10.0
2,4-Dinitrophenol	N.D.	14.0	30.0
2,4-Dinitrotoluene	N.D.	1	10
2,6-Dinitrotoluene	N.D.	0.5	10
Disulfoton	N.D.	25.0	50.0
Ethyl methanesulfonate	N.D.	0.500	10.0
bis(2-Ethylhexyl)phthalate	N.D.	5.00	11.0
Famphur	N.D.	25.0	50.0
Fluoranthene	N.D.	0.420	10.0
Fluorene	N.D.	0.380	10.0
Hexachlorobenzene	N.D.	0.870	10.0
Hexachlorocyclopentadiene	N.D.	5.00	11.0
Hexachloropropene	N.D.	2.00	10.0
Indeno(1,2,3-cd)pyrene	N.D.	0.150	10.0
Isodrin	N.D.	0.500	10.0
Isophorone	N.D.	0.500	10.0
Isosafrole	N.D.	4.00	10.0
Kepone	N.D.	25.0	50.0
Methapyrilene	N.D.	15.0	50.0
Methyl methanesulfonate	N.D.	1.00	10.0
Methyl parathion	N.D.	1.00	10.0
3-Methylcholanthrene	N.D.	4.00	10.0
2-Methylnaphthalene	N.D.	0.290	10.0
2-Methylphenol	N.D.	0.960	10.0
4-Methylphenol	N.D.	2.47	20.0
1,4-Naphthoquinone	N.D.	25.0	60.0
1-Naphthylamine	N.D.	8.00	21.0
2-Naphthylamine	N.D.	7.00	21.0
NDPA as diphenylamine	N.D.	0.700	10.0
2-Nitroaniline	N.D.	2.00	10.0
3-Nitroaniline	N.D.	3.00	10.0
4-Nitroaniline	N.D.	0.900	10.0
Nitrobenzene	N.D.	0.500	10.0
5-Nitro-o-toluidine	N.D.	4.00	10.0
2-Nitrophenol	N.D.	3.00	10.0
4-Nitrophenol	N.D.	10.0	30.0
4-Nitroquinoline-1-oxide	N.D.	20.0	60.0
N-Nitrosodiethylamine	N.D.	0.500	10.0

*- Outside of specification
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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
N-Nitrosodimethylamine	N.D.	2.00	10.0
N-Nitrosodi-n-butylamine	N.D.	12.0	25.0
N-Nitroso-di-n-propylamine	N.D.	0.700	10.0
N-Nitrosodiphenylamine	N.D.	0.700	10.0
N-Nitrosomethylethylamine	N.D.	2.00	10.0
N-Nitrosomorpholine	N.D.	2.00	10.0
N-Nitrosopiperidine	N.D.	0.500	10.0
N-Nitrosopyrrolidine	N.D.	0.500	10.0
Di-n-octylphthalate	N.D.	5.00	11.0
Parathion	N.D.	4.00	10.0
Pentachlorobenzene	N.D.	0.500	10.0
Pentachloronitrobenzene	N.D.	2.00	10.0
Pentachlorophenol	N.D.	2.92	10.0
Phenacetin	N.D.	0.500	10.0
Phenanthrene	N.D.	0.520	10.0
Phenol	N.D.	0.770	10.0
1,4-Phenylenediamine	N.D.	75.0	300
Phorate	N.D.	0.500	10.0
2-Picoline	N.D.	2.00	10.0
Pronamide	N.D.	0.500	10.0
Pyrene	N.D.	0.410	10.0
Pyridine	N.D.	2.00	10.0
Safrole	N.D.	2.00	10.0
1,2,4,5-Tetrachlorobenzene	N.D.	2.00	10.0
2,3,4,6-Tetrachlorophenol	N.D.	4.00	10.0
Thionazin	N.D.	2.00	10.0
o-Toluidine	N.D.	4.00	10.0
2,4,5-Trichlorophenol	N.D.	0.810	10.0
2,4,6-Trichlorophenol	N.D.	0.630	10.0
O,O,O-Triethylphosphorothioate	N.D.	2.00	10.0
1,3,5-Trinitrobenzene	N.D.	97.0	201
Batch number: 19107WAJ026	Sample number(s): 1034101,1034103-1034108		
Acenaphthene	N.D.	0.350	10.0
Acenaphthylene	N.D.	0.480	10.0
Acetophenone	N.D.	4.00	10.0
2-Acetylaminofluorene	N.D.	10.0	21.0
4-Aminobiphenyl	N.D.	5.00	11.0
Aniline	N.D.	3.00	10.0
Anthracene	N.D.	0.520	10.0
Aramite	N.D.	5.00	15.0
Benzo(a)anthracene	N.D.	0.450	10.0
Benzo(a)pyrene	N.D.	1.50	10.0
Benzo(b)fluoranthene	N.D.	1.20	10.0
Benzo(g,h,i)perylene	N.D.	0.420	10.0

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Benzo(k)fluoranthene	N.D.	1.60	10.0
Benzyl alcohol	N.D.	10.0	30.0
4-Bromophenyl-phenylether	N.D.	0.560	10.0
Butylbenzylphthalate	N.D.	2.00	10.0
Di-n-butylphthalate	N.D.	2.00	10.0
4-Chloro-3-methylphenol	N.D.	1.01	10.0
4-Chloroaniline	N.D.	4.00	10.0
Chlorobenzilate	N.D.	3.00	10.0
bis(2-Chloroethoxy)methane	N.D.	0.500	2.00
bis(2-Chloroethyl)ether	N.D.	0.500	2.00
bis(2-Chloroisopropyl)ether	N.D.	0.500	10.0
2-Chloronaphthalene	N.D.	0.490	10.0
2-Chlorophenol	N.D.	0.980	10.0
4-Chlorophenyl-phenylether	N.D.	0.500	10.0
2,2'-oxybis(1-Chloropropane)	N.D.	0.500	2.00
Chrysene	N.D.	0.310	10.0
Diallate trans/cis	N.D.	1.00	10.0
Dibenz(a,h)anthracene	N.D.	0.380	10.0
Dibenzofuran	N.D.	0.580	10.0
3,3'-Dichlorobenzidine	N.D.	3.00	10.0
2,4-Dichlorophenol	N.D.	1.59	10.0
2,6-Dichlorophenol	N.D.	0.500	10.0
Diethylphthalate	N.D.	2.00	10.0
Dimethoate	N.D.	3.00	10.0
p-Dimethylaminoazobenzene	N.D.	5.00	10.0
7,12-Dimethylbenz[a]anthracene	N.D.	5.00	11.0
3,3'-Dimethylbenzidine	N.D.	25.0	75.0
a,a-Dimethylphenethylamine	N.D.	5.00	50.0
2,4-Dimethylphenol	N.D.	3.00	10.0
Dimethylphthalate	N.D.	2.00	10.0
4,6-Dinitro-2-methylphenol	N.D.	8.00	21.0
1,3-Dinitrobenzene	N.D.	2.00	10.0
2,4-Dinitrophenol	N.D.	14.0	30.0
2,4-Dinitrotoluene	N.D.	1.00	10.0
2,6-Dinitrotoluene	N.D.	0.500	10.0
Disulfoton	N.D.	25.0	50.0
Ethyl methanesulfonate	N.D.	0.500	10.0
bis(2-Ethylhexyl)phthalate	N.D.	5.00	11.0
Famphur	N.D.	25.0	50.0
Fluoranthene	N.D.	0.420	10.0
Fluorene	N.D.	0.380	10.0
Hexachlorobenzene	N.D.	0.870	10.0
Hexachlorocyclopentadiene	N.D.	5.00	11.0
Hexachloropropene	N.D.	2.00	10.0
Indeno(1,2,3-cd)pyrene	N.D.	0.150	10.0

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Isodrin	N.D.	0.500	10.0
Isophorone	N.D.	0.500	10.0
Isosafrole	N.D.	4.00	10.0
Kepone	N.D.	25.0	50.0
Methapyrilene	N.D.	15.0	50.0
Methyl methanesulfonate	N.D.	1.00	10.0
Methyl parathion	N.D.	1.00	10.0
3-Methylcholanthrene	N.D.	4.00	10.0
2-Methylnaphthalene	N.D.	0.290	10.0
2-Methylphenol	N.D.	0.960	10.0
4-Methylphenol	N.D.	2.47	20.0
1,4-Naphthoquinone	N.D.	25.0	60.0
1-Naphthylamine	N.D.	8.00	21.0
2-Naphthylamine	N.D.	7.00	21.0
NDPA as diphenylamine	N.D.	0.700	10.0
2-Nitroaniline	N.D.	2.00	10.0
3-Nitroaniline	N.D.	3.00	10.0
4-Nitroaniline	N.D.	0.900	10.0
Nitrobenzene	N.D.	0.500	10.0
5-Nitro-o-toluidine	N.D.	4.00	10.0
2-Nitrophenol	N.D.	3.00	10.0
4-Nitrophenol	N.D.	10.0	30.0
4-Nitroquinoline-1-oxide	N.D.	20.0	60.0
N-Nitrosodiethylamine	N.D.	0.500	10.0
N-Nitrosodimethylamine	N.D.	2.00	10.0
N-Nitrosodi-n-butylamine	N.D.	12.0	25.0
N-Nitroso-di-n-propylamine	N.D.	0.700	10.0
N-Nitrosodiphenylamine	N.D.	0.700	10.0
N-Nitrosomethylethylamine	N.D.	2.00	10.0
N-Nitrosomorpholine	N.D.	2.00	10.0
N-Nitrosopiperidine	N.D.	0.500	10.0
N-Nitrosopyrrolidine	N.D.	0.500	10.0
Di-n-octylphthalate	N.D.	5.00	11.0
Parathion	N.D.	4.00	10.0
Pentachlorobenzene	N.D.	0.500	10.0
Pentachloronitrobenzene	N.D.	2.00	10.0
Pentachlorophenol	N.D.	2.92	10.0
Phenacetin	N.D.	0.500	10.0
Phenanthrene	N.D.	0.520	10.0
Phenol	N.D.	0.770	10.0
1,4-Phenylenediamine	N.D.	75.0	300
Phorate	N.D.	0.500	10.0
2-Picoline	N.D.	2.00	10.0
Pronamide	N.D.	0.500	10.0
Pyrene	N.D.	0.410	10.0

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Pyridine	N.D.	2.00	10.0
Safrole	N.D.	2.00	10.0
1,2,4,5-Tetrachlorobenzene	N.D.	2.00	10.0
2,3,4,6-Tetrachlorophenol	N.D.	4.00	10.0
Thionazin	N.D.	2.00	10.0
o-Toluidine	N.D.	4.00	10.0
2,4,5-Trichlorophenol	N.D.	0.810	10.0
2,4,6-Trichlorophenol	N.D.	0.630	10.0
O,O,O-Triethylphosphorothioate	N.D.	2.00	10.0
1,3,5-Trinitrobenzene	N.D.	97.0	201

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H191123AA	Sample number(s): 1034109-1034113								
Benzene	5.00	4.79	5.00	4.76	96	95	80-120	1	30
2-Butanone	37.5	30.27	37.5	31.16	81	83	59-141	3	30
Carbon Tetrachloride	5.00	5.00	5.00	4.83	100	97	64-141	4	30
Chloroethane	5.00	4.68	5.00	4.66	94	93	63-120	0	30
Chloromethane	5.00	4.66	5.00	4.60	93	92	56-124	1	30
Dichlorodifluoromethane	5.00	3.82	5.00	3.84	76	77	43-123	1	30
1,1-Dichloroethane	5.00	4.75	5.00	4.71	95	94	74-120	1	30
1,1-Dichloroethene	5.00	5.00	5.00	4.91	100	98	80-131	2	30
Dimethyl ether	5.00	5.05	5.00	4.96	101	99	70-130	2	30
Ethyl ether	5.00	4.87	5.00	4.59	97	92	72-121	6	30
Ethylbenzene	5.00	5.03	5.00	4.99	101	100	80-120	1	30
Freon 113	5.00	4.75	5.00	4.72	95	94	75-133	1	30
Methylene Chloride	5.00	5.05	5.00	5.04	101	101	80-120	0	30
Tetrachloroethene	5.00	5.21	5.00	5.11	104	102	80-120	2	30
Tetrahydrofuran	25	21.75	25	22.29	87	89	67-137	2	30
Toluene	5.00	5.14	5.00	5.14	103	103	80-120	0	30
1,1,1-Trichloroethane	5.00	4.96	5.00	4.89	99	98	78-126	1	30
Trichloroethene	5.00	4.87	5.00	4.82	97	96	80-120	1	30
Trichlorofluoromethane	5.00	4.50	5.00	4.39	90	88	62-136	2	30
Xylene (Total)	15	15.14	15	15.22	101	101	80-120	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: I191141AA	Sample number(s): 1034101-1034108,1034114-1034115								
Acetone	37.5	33.7	37.5	34.46	90	92	60-146	2	30
Acetonitrile	37.5	44.01	37.5	43.35	117	116	51-160	2	30

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acrolein	37.5	35.02	37.5	34.47	93	92	45-140	2	30
Acrylonitrile	25	25.3	25	25.12	101	100	64-139	1	30
Allyl Chloride	5.00	4.42	5.00	4.27	88	85	51-126	3	30
Benzene	5.00	5.20	5.00	5.09	104	102	80-120	2	30
Bromodichloromethane	5.00	5.27	5.00	5.17	105	103	73-124	2	30
Bromoform	5.00	5.16	5.00	5.03	103	101	49-144	3	30
Bromomethane	5.00	4.26	5.00	4.11	85	82	60-136	4	30
2-Butanone	37.5	37.47	37.5	36.55	100	97	59-141	2	30
Carbon Disulfide	5.00	4.84	5.00	4.64	97	93	67-130	4	30
Carbon Tetrachloride	5.00	5.12	5.00	5.05	102	101	64-141	1	30
2-Chloro-1,3-butadiene	5.00	4.92	5.00	4.73	98	95	60-128	4	30
Chloroethane	5.00	4.71	5.00	4.62	94	92	63-120	2	30
Chloroform	5.00	5.21	5.00	5.13	104	103	80-120	2	30
Chloromethane	5.00	4.12	5.00	4.05	82	81	56-124	2	30
1,2-Dibromo-3-chloropropane	5.00	5.68	5.00	5.74	114	115	56-148	1	30
Dibromochloromethane	5.00	5.25	5.00	5.15	105	103	64-138	2	30
1,2-Dibromoethane	5.00	5.23	5.00	5.07	105	101	80-120	3	30
Dibromomethane	5.00	5.15	5.00	5.09	103	102	80-122	1	30
trans-1,4-Dichloro-2-butene	25	22.39	25	20.46	90	82	10-172	9	30
1,2-Dichlorobenzene	5.00	5.23	5.00	5.22	105	104	80-120	0	30
1,3-Dichlorobenzene	5.00	5.04	5.00	5.09	101	102	80-120	1	30
1,4-Dichlorobenzene	5.00	5.13	5.00	5.14	103	103	80-120	0	30
Dichlorodifluoromethane	5.00	3.12	5.00	2.98	62	60	43-123	5	30
1,1-Dichloroethane	5.00	5.28	5.00	5.18	106	104	74-120	2	30
1,2-Dichloroethane	5.00	5.11	5.00	5.07	102	101	69-122	1	30
1,1-Dichloroethene	5.00	5.37	5.00	5.28	107	106	80-131	2	30
trans-1,2-Dichloroethene	5.00	4.83	5.00	4.76	97	95	80-122	2	30
1,2-Dichloropropane	5.00	5.35	5.00	5.29	107	106	80-120	1	30
1,3-Dichloropropane	5.00	5.12	5.00	5.07	102	101	80-120	1	30
trans-1,3-Dichloropropene	5.00	4.77	5.00	4.75	95	95	61-129	0	30
Dimethyl ether	5.00	4.20	5.00	4.18	84	84	70-130	0	30
1,4-Dioxane	125	149.39	125	142.74	120	114	65-169	5	30
Ethyl ether	5.00	4.76	5.00	4.74	95	95	72-121	0	30
Ethyl Methacrylate	5.00	4.68	5.00	4.60	94	92	55-133	2	30
Ethylbenzene	5.00	5.07	5.00	5.08	101	102	80-120	0	30
Freon 113	5.00	4.95	5.00	4.91	99	98	75-133	1	30
Hexachlorobutadiene	5.00	4.86	5.00	4.84	97	97	72-132	0	30
Hexachloroethane	5.00	5.16	5.00	5.03	103	101	63-137	3	30
2-Hexanone	25	24.76	25	23.95	99	96	52-140	3	30
Isobutyl Alcohol	125	109.6	125	120.41	88	96	57-154	9	30
Methacrylonitrile	37.5	39.47	37.5	37.83	105	101	60-145	4	30
Methyl Iodide	5.00	4.98	5.00	4.92	100	98	77-120	1	30
Methyl Methacrylate	5.00	5.14	5.00	4.83	103	97	55-139	6	30
4-Methyl-2-pentanone	25	24.86	25	23.82	99	95	55-140	4	30

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methylene Chloride	5.00	5.45	5.00	5.29	109	106	80-120	3	30
Naphthalene	5.00	4.67	5.00	4.83	93	97	64-122	3	30
Pentachloroethane	5.00	4.88	5.00	4.85	98	97	68-134	1	30
Propionitrile	37.5	38.66	37.5	37.87	103	101	63-145	2	30
Styrene	5.00	5.23	5.00	5.19	105	104	80-120	1	30
1,1,1,2-Tetrachloroethane	5.00	5.14	5.00	5.05	103	101	71-134	2	30
1,1,2,2-Tetrachloroethane	5.00	5.01	5.00	5.10	100	102	75-123	2	30
Tetrachloroethene	5.00	5.12	5.00	5.09	102	102	80-120	1	30
Tetrahydrofuran	25	25.24	25	24.23	101	97	67-137	4	30
Toluene	5.00	5.20	5.00	5.16	104	103	80-120	1	30
1,2,4-Trichlorobenzene	5.00	4.84	5.00	4.99	97	100	68-122	3	30
1,1,1-Trichloroethane	5.00	5.19	5.00	5.13	104	103	78-126	1	30
1,1,2-Trichloroethane	5.00	5.42	5.00	5.33	108	107	80-120	2	30
Trichloroethene	5.00	5.17	5.00	5.14	103	103	80-120	1	30
Trichlorofluoromethane	5.00	4.13	5.00	3.98	83	80	62-136	4	30
1,2,3-Trichloropropane	5.00	5.22	5.00	5.22	104	104	80-125	0	30
Vinyl Acetate	12.5	13.08	12.5	13.19	105	106	38-145	1	30
Vinyl Chloride	5.00	4.35	5.00	4.25	87	85	60-125	2	30
Xylene (Total)	15	15.6	15	15.64	104	104	80-120	0	30
Batch number: Y191141AA	Sample number(s): 1034101-1034108								
2-Propanol	150	142.32	150	139.34	95	93	52-144	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19106WAN026	Sample number(s): 1034102,1034109-1034113								
Acenaphthene	50	43.46	50	41.92	87	84	60-110	4	30
Acenaphthylene	50	46.51	50	44.36	93	89	65-115	5	30
Acetophenone	50	44.79	50	46.01	90	92	62-108	3	30
2-Acetylaminofluorene	50	50.62	50	49.57	101	99	65-134	2	30
4-Aminobiphenyl	50	24.9	50	23.94	50	48	11-128	4	30
Aniline	50	31.16	50	30.97	62	62	27-76	1	30
Anthracene	50	45.9	50	47.81	92	96	67-112	4	30
Aramite	50	21.37	50	22.76	43	46	10-122	6	30
Benzo(a)anthracene	50	47.8	50	46.85	96	94	70-118	2	30
Benzo(a)pyrene	50	48.76	50	48.75	98	98	71-117	0	30
Benzo(b)fluoranthene	50	48.82	50	47.75	98	96	71-115	2	30
Benzo(g,h,i)perylene	50	45.95	50	45.43	92	91	62-113	1	30
Benzo(k)fluoranthene	50	49.6	50	48.58	99	97	71-116	2	30
Benzyl alcohol	50	45.28	50	46.24	91	92	62-109	2	30
4-Bromophenyl-phenylether	50	43.55	50	45.11	87	90	62-113	4	30
Butylbenzylphthalate	50	48.46	50	47.44	97	95	57-119	2	30
Di-n-butylphthalate	50	47.08	50	49.2	94	98	66-112	4	30
4-Chloro-3-methylphenol	50	45.18	50	44.26	90	89	60-118	2	30
4-Chloroaniline	50	34.73	50	33.88	69	68	30-101	2	30

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chlorobenzilate	50	42.03	50	43.22	84	86	13-126	3	30
bis(2-Chloroethoxy)methane	50	46	50	46.18	92	92	62-109	0	30
bis(2-Chloroethyl)ether	50	42.59	50	43.38	85	87	58-100	2	30
bis(2-Chloroisopropyl)ether	50	41.77	50	42.85	84	86	47-108	3	30
2-Chloronaphthalene	50	39.86	50	37.55	80	75	50-109	6	30
2-Chlorophenol	50	41.12	50	41.8	82	84	60-102	2	30
4-Chlorophenyl-phenylether	50	43.1	50	41.09	86	82	55-110	5	30
2,2'-oxybis(1-Chloropropane)	50	41.77	50	42.85	84	86	47-106	3	30
Chrysene	50	47.29	50	46.09	95	92	69-116	3	30
Diallate trans/cis	50	48.21	50	49.55	96	99	55-113	3	30
Dibenz(a,h)anthracene	50	48.57	50	48.22	97	96	67-116	1	30
Dibenzofuran	50	44.73	50	43.1	89	86	61-109	4	30
3,3'-Dichlorobenzidine	50	33.9	50	33.18	68	66	42-107	2	30
2,4-Dichlorophenol	50	43.43	50	42.69	87	85	65-117	2	30
2,6-Dichlorophenol	50	40.75	50	42.9	82	86	67-107	5	30
Diethylphthalate	50	42.35	50	40.75	85	81	51-108	4	30
Dimethoate	50	16.61	50	17.99	33	36	10-98	8	30
p-Dimethylaminoazobenzene	50	52.88	50	52.17	106	104	72-127	1	30
7,12-Dimethylbenz[a]anthracene	50	52.08	50	50.61	104	101	68-116	3	30
3,3'-Dimethylbenzidine	100	17.91	100	17.03	18	17	10-65	5	30
a,a-Dimethylphenethylamine	50	141.5	50	140.47	283*	281*	70-130	1	30
2,4-Dimethylphenol	50	36.87	50	37.32	74	75	48-91	1	30
Dimethylphthalate	50	37.91	50	37.24	76	74	27-116	2	30
4,6-Dinitro-2-methylphenol	50	41.78	50	44.25	84	88	63-129	6	30
1,3-Dinitrobenzene	50	48.52	50	46.87	97	94	65-112	3	30
2,4-Dinitrophenol	100	83.81	100	76.91	84	77	44-134	9	30
2,4-Dinitrotoluene	50	50.1	50	47.83	100	96	69-117	5	30
2,6-Dinitrotoluene	50	49.58	50	49.05	99	98	71-113	1	30
Disulfoton	100	113.31	100	110.42	113	110	63-125	3	30
Ethyl methanesulfonate	50	43.01	50	43.22	86	86	72-96	0	30
bis(2-Ethylhexyl)phthalate	50	50.46	50	50.36	101	101	68-120	0	30
Famphur	100	26.61	100	24.68	27*	25*	70-130	8	20
Fluoranthene	50	48.06	50	49.69	96	99	68-118	3	30
Fluorene	50	44.98	50	43.11	90	86	62-110	4	30
Hexachlorobenzene	50	43.64	50	44.8	87	90	65-121	3	30
Hexachlorocyclopentadiene	100	22.62	100	22.54	23	23	10-96	0	30
Hexachloropropene	50	15.01	50	13.29	30	27	10-116	12	30
Indeno(1,2,3-cd)pyrene	50	47.3	50	46.34	95	93	63-114	2	30
Isodrin	50	48.09	50	47.56	96	95	49-124	1	30
Isophorone	50	47.02	50	46.33	94	93	64-111	1	30
Isosafrole	50	42.01	50	42.7	84	85	60-117	2	30
Kepone	100	37.65	100	38.78	38	39	10-92	3	30
Methapyrilene	400	464.94	400	442.41	116	111	18-159	5	30
Methyl methanesulfonate	50	38.01	50	38.14	76	76	47-93	0	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methyl parathion	50	29.96	50	29.88	60	60	58-108	0	30
3-Methylcholanthrene	50	51.13	50	50.84	102	102	84-130	1	30
2-Methylnaphthalene	50	35.76	50	35.78	72	72	52-105	0	30
2-Methylphenol	50	41.66	50	42.11	83	84	59-109	1	30
4-Methylphenol	50	40.37	50	39.11	81	78	56-108	3	30
1,4-Naphthoquinone	100	N.D.	100	N.D.	0*	0*	70-130	0	30
1-Naphthylamine	100	54.64	100	50	55	50	10-74	9	30
2-Naphthylamine	100	50.97	100	47.51	51	48	10-63	7	30
NDPA as diphenylamine	50	46.88	50	49.12	94	98	70-130	5	30
2-Nitroaniline	50	50.15	50	49.72	100	99	66-126	1	30
3-Nitroaniline	50	45.05	50	39.92	90	80	47-111	12	30
4-Nitroaniline	50	39.15	50	39.75	78	80	47-102	2	30
Nitrobenzene	50	44.26	50	45.14	89	90	59-117	2	30
5-Nitro-o-toluidine	50	34.36	50	34.72	69	69	44-103	1	30
2-Nitrophenol	50	43.96	50	44.2	88	88	63-121	1	30
4-Nitrophenol	50	29.86	50	26.89	60	54	28-82	10	30
4-Nitroquinoline-1-oxide	500	437.2	500	431.62	87	86	51-114	1	30
N-Nitrosodiethylamine	50	44.01	50	44.21	88	88	63-106	0	30
N-Nitrosodimethylamine	50	32.23	50	32.1	64	64	25-89	0	30
N-Nitrosodi-n-butylamine	50	43.06	50	45.03	86	90	49-101	4	30
N-Nitroso-di-n-propylamine	50	46.05	50	46.07	92	92	58-110	0	30
N-Nitrosodiphenylamine	50	47.15	50	49.63	94	99	68-122	5	30
N-Nitrosomethylethylamine	50	42.63	50	43.87	85	88	52-100	3	30
N-Nitrosomorpholine	50	41.46	50	41.94	83	84	49-96	1	30
N-Nitrosopiperidine	50	44.48	50	45.43	89	91	67-102	2	30
N-Nitrosopyrrolidine	50	45.03	50	45.8	90	92	67-101	2	30
Di-n-octylphthalate	50	52.25	50	52.3	104	105	67-120	0	30
Parathion	50	54.92	50	53.78	110	108	75-120	2	30
Pentachlorobenzene	50	32.43	50	33.73	65	67	30-120	4	30
Pentachloronitrobenzene	50	45.17	50	44.19	90	88	60-112	2	30
Pentachlorophenol	50	44.81	50	43.89	90	88	64-130	2	30
Phenacetin	50	50.34	50	48.55	101	97	74-108	4	30
Phenanthrene	50	46.77	50	47.89	94	96	65-113	2	30
Phenol	50	26.73	50	25.53	53	51	23-72	5	30
1,4-Phenylenediamine	1000	151.56	1000	150.01	15	15	10-30	1	30
Phorate	50	50.25	50	51.55	101	103	52-123	3	30
2-Picoline	50	37.35	50	37.63	75	75	43-81	1	30
Pronamide	50	52.33	50	50.48	105	101	73-117	4	30
Pyrene	50	46.81	50	46.01	94	92	68-110	2	30
Pyridine	50	26.1	50	25.71	52	51	13-83	1	30
Safrole	50	38.02	50	39.44	76	79	57-105	4	30
1,2,4,5-Tetrachlorobenzene	50	31.48	50	30.6	63	61	41-104	3	30
2,3,4,6-Tetrachlorophenol	50	48.99	50	46.17	98	92	62-122	6	30
Thionazin	50	49.34	50	52.37	99	105	53-114	6	30

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
o-Toluidine	50	30.4	50	30.02	61	60	29-82	1	30
2,4,5-Trichlorophenol	50	45.21	50	44.65	90	89	73-124	1	30
2,4,6-Trichlorophenol	50	47.08	50	45.58	94	91	69-122	3	30
O,O,O-Triethylphosphorothioate	50	41.88	50	44.14	84	88	62-114	5	30
1,3,5-Trinitrobenzene	50	14.95	50	17.39	30	35	10-106	15	30
Batch number: 19107WAJ026	Sample number(s): 1034101,1034103-1034108								
Acenaphthene	50	39.61			79		60-110		
Acenaphthylene	50	42.79			86		65-115		
Acetophenone	50	43.9			88		62-108		
2-Acetylaminofluorene	50	48.19	50	50.37	96	101	65-134	4	30
4-Aminobiphenyl	50	42.93	50	41.56	86	83	11-128	3	30
Aniline	50	33.76			68		27-76		
Anthracene	50	42.64			85		67-112		
Aramite	50	15.77	50	16.95	32	34	10-122	7	30
Benzo(a)anthracene	50	44.44			89		70-118		
Benzo(a)pyrene	50	43.89			88		71-117		
Benzo(b)fluoranthene	50	44.35			89		71-115		
Benzo(g,h,i)perylene	50	42.67			85		62-113		
Benzo(k)fluoranthene	50	46.75			93		71-116		
Benzyl alcohol	50	42.27			85		62-109		
4-Bromophenyl-phenylether	50	38.35			77		62-113		
Butylbenzylphthalate	50	45.61			91		57-119		
Di-n-butylphthalate	50	49.39			99		66-112		
4-Chloro-3-methylphenol	50	44.54			89		60-118		
4-Chloroaniline	50	39.36			79		30-101		
Chlorobenzilate	50	44.33	50	46.83	89	94	13-126	5	30
bis(2-Chloroethoxy)methane	50	45.17			90		62-109		
bis(2-Chloroethyl)ether	50	40.31			81		58-100		
bis(2-Chloroisopropyl)ether	50	40.76			82		47-108		
2-Chloronaphthalene	50	35.67			71		50-109		
2-Chlorophenol	50	40.23			80		60-102		
4-Chlorophenyl-phenylether	50	36.64			73		55-110		
2,2'-oxybis(1-Chloropropane)	50	40.76			82		47-106		
Chrysene	50	44.38			89		69-116		
Diallate trans/cis	50	48.65	50	50.42	97	101	55-113	4	30
Dibenz(a,h)anthracene	50	45.28			91		67-116		
Dibenzofuran	50	40.37			81		61-109		
3,3'-Dichlorobenzidine	50	39.59			79		42-107		
2,4-Dichlorophenol	50	41.08			82		65-117		
2,6-Dichlorophenol	50	40.6	50	40.66	81	81	67-107	0	30
Diethylphthalate	50	47.23			94		51-108		
Dimethoate	50	22.61	50	22.41	45	45	10-98	1	30
p-Dimethylaminoazobenzene	50	50.83	50	53.64	102	107	72-127	5	30

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
7,12-Dimethylbenz[a]anthracene	50	44.63			89		68-116		
3,3'-Dimethylbenzidine	100	46.13			46		10-65		
a,a-Dimethylphenethylamine	50	137.13	50	144.98	274*	290*	70-130	6	30
2,4-Dimethylphenol	50	35.82			72		48-91		
Dimethylphthalate	50	45.08			90		27-116		
4,6-Dinitro-2-methylphenol	50	45.04			90		63-129		
1,3-Dinitrobenzene	50	46.65			93		65-112		
2,4-Dinitrophenol	100	85.02			85		44-134		
2,4-Dinitrotoluene	50	46.5			93		69-117		
2,6-Dinitrotoluene	50	47.71			95		71-113		
Disulfoton	100	113.63	100	115.05	114	115	63-125	1	30
Ethyl methanesulfonate	50	44.73	50	42.97	89	86	72-96	4	30
bis(2-Ethylhexyl)phthalate	50	45.71			91		68-120		
Famphur	100	19.56	100	16.7	20*	17*	70-130	16	20
Fluoranthene	50	47.8			96		68-118		
Fluorene	50	40.18			80		62-110		
Hexachlorobenzene	50	37.63			75		65-121		
Hexachlorocyclopentadiene	100	12.39			12		10-96		
Hexachloropropene	50	9.95	50	10.92	20	22	10-116	9	30
Indeno(1,2,3-cd)pyrene	50	43.45			87		63-114		
Isodrin	50	38.86	50	42.07	78	84	49-124	8	30
Isophorone	50	45.52			91		64-111		
Isosafrole	50	42.53	50	42.59	85	85	60-117	0	30
Kepone	100	36.59	100	38.74	37	39	10-92	6	30
Methapyrilene	400	462.36	400	464.7	116	116	18-159	1	30
Methyl methanesulfonate	50	38.24	50	38.34	76	77	47-93	0	30
Methyl parathion	50	28.12	50	26.76	56*	54*	58-108	5	30
3-Methylcholanthrene	50	49.96	50	50.79	100	102	84-130	2	30
2-Methylnaphthalene	50	33.88			68		52-105		
2-Methylphenol	50	41.17			82		59-109		
4-Methylphenol	50	42			84		56-108		
1,4-Naphthoquinone	100	10.72	100	11.18	11*	11*	70-130	4	30
1-Naphthylamine	100	73.96			74		10-74		
2-Naphthylamine	100	62.64			63		10-63		
NDPA as diphenylamine	50	47.03			94		70-130		
2-Nitroaniline	50	46.96			94		66-126		
3-Nitroaniline	50	45.32			91		47-111		
4-Nitroaniline	50	42.24			84		47-102		
Nitrobenzene	50	43.43			87		59-117		
5-Nitro-o-toluidine	50	48.56	50	46.31	97	93	44-103	5	30
2-Nitrophenol	50	39.93			80		63-121		
4-Nitrophenol	50	30.31			61		28-82		
4-Nitroquinoline-1-oxide	500	458.19	500	464.48	92	93	51-114	1	30
N-Nitrosodiethylamine	50	46.74	50	44.91	93	90	63-106	4	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
N-Nitrosodimethylamine	50	30.7			61		25-89		
N-Nitrosodi-n-butylamine	50	44.62	50	45.15	89	90	49-101	1	30
N-Nitroso-di-n-propylamine	50	45.23			90		58-110		
N-Nitrosodiphenylamine	50	47.03			94		68-122		
N-Nitrosomethylethylamine	50	45.07	50	44.22	90	88	52-100	2	30
N-Nitrosomorpholine	50	43.77	50	42.83	88	86	49-96	2	30
N-Nitrosopiperidine	50	45.53	50	45.64	91	91	67-102	0	30
N-Nitrosopyrrolidine	50	47.38	50	47.31	95	95	67-101	0	30
Di-n-octylphthalate	50	46.63			93		67-120		
Parathion	50	54.43	50	54.39	109	109	75-120	0	30
Pentachlorobenzene	50	31.04	50	34.03	62	68	30-120	9	30
Pentachloronitrobenzene	50	41.99	50	43	84	86	60-112	2	30
Pentachlorophenol	50	45.52			91		64-130		
Phenacetin	50	51.15	50	51.07	102	102	74-108	0	30
Phenanthrene	50	43.04			86		65-113		
Phenol	50	31.41			63		23-72		
1,4-Phenylenediamine	1000	36.54	1000	44.72	4*	4*	10-30	20	30
Phorate	50	51.5	50	51.54	103	103	52-123	0	30
2-Picoline	50	35.11			70		43-81		
Pronamide	50	53.76	50	53.36	108	107	73-117	1	30
Pyrene	50	44.11			88		68-110		
Pyridine	50	23.06			46		13-83		
Safrole	50	39.46	50	40.02	79	80	57-105	1	30
1,2,4,5-Tetrachlorobenzene	50	29.11			58		41-104		
2,3,4,6-Tetrachlorophenol	50	45.07			90		62-122		
Thionazin	50	51.36	50	52.27	103	105	53-114	2	30
o-Toluidine	50	40.33			81		29-82		
2,4,5-Trichlorophenol	50	43.43			87		73-124		
2,4,6-Trichlorophenol	50	42.94			86		69-122		
O,O,O-Triethylphosphorothioate	50	41.72	50	42.9	83	86	62-114	3	30
1,3,5-Trinitrobenzene	50	36.96	50	35.21	74	70	10-106	5	30

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: I191141AA	Sample number(s): 1034101-1034108,1034114-1034115 UNSPK: 1034104									
Acetone	1.91	37.5	36.91	37.5	38.15	93	97	60-146	3	30
Acetonitrile	N.D.	37.5	50.46	37.5	53.67	135	143	51-160	6	30

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Acrolein	N.D.	37.5	31.99	37.5	34.79	85	93	45-140	8	30
Acrylonitrile	N.D.	25	24.98	25	26.6	100	106	64-139	6	30
Allyl Chloride	N.D.	5.00	4.70	5.00	4.52	94	90	51-126	4	30
Benzene	0.301	5.00	5.87	5.00	5.65	111	107	80-120	4	30
Bromodichloromethane	N.D.	5.00	5.36	5.00	5.12	107	102	73-124	5	30
Bromoform	N.D.	5.00	4.29	5.00	4.16	86	83	49-144	3	30
Bromomethane	N.D.	5.00	4.59	5.00	4.42	92	88	60-136	4	30
2-Butanone	N.D.	37.5	38.37	37.5	41.08	102	110	59-141	7	30
Carbon Disulfide	N.D.	5.00	5.24	5.00	5.01	105	100	67-130	4	30
Carbon Tetrachloride	N.D.	5.00	5.76	5.00	5.47	115	109	64-141	5	30
2-Chloro-1,3-butadiene	N.D.	5.00	5.47	5.00	5.20	109	104	60-128	5	30
Chloroethane	1.56	5.00	6.82	5.00	6.47	105	98	63-120	5	30
Chloroform	N.D.	5.00	5.63	5.00	5.39	113	108	80-120	4	30
Chloromethane	N.D.	5.00	4.43	5.00	4.39	89	88	56-124	1	30
1,2-Dibromo-3-chloropropane	N.D.	5.00	5.74	5.00	6.33	115	127	56-148	10	30
Dibromochloromethane	N.D.	5.00	5.00	5.00	4.67	100	93	64-138	7	30
1,2-Dibromoethane	N.D.	5.00	5.31	5.00	5.16	106	103	80-120	3	30
Dibromomethane	N.D.	5.00	5.45	5.00	5.26	109	105	80-122	4	30
trans-1,4-Dichloro-2-butene	N.D.	25	17.5	25	19.24	70	77	10-172	9	30
1,2-Dichlorobenzene	N.D.	5.00	5.50	5.00	5.32	110	106	80-120	3	30
1,3-Dichlorobenzene	N.D.	5.00	5.43	5.00	5.24	109	105	80-120	4	30
1,4-Dichlorobenzene	N.D.	5.00	5.53	5.00	5.35	111	107	80-120	3	30
Dichlorodifluoromethane	N.D.	5.00	3.37	5.00	3.26	67	65	43-123	4	30
1,1-Dichloroethane	4.94	5.00	10.4	5.00	9.97	109	101	74-120	4	30
1,2-Dichloroethane	N.D.	5.00	5.38	5.00	5.24	108	105	69-122	3	30
1,1-Dichloroethene	N.D.	5.00	6.28	5.00	6.00	126	120	80-131	5	30
trans-1,2-Dichloroethene	N.D.	5.00	5.33	5.00	5.18	107	104	80-120	3	30
1,2-Dichloropropane	N.D.	5.00	5.73	5.00	5.44	115	109	80-120	5	30
1,3-Dichloropropane	N.D.	5.00	5.50	5.00	5.22	110	104	80-120	5	30
trans-1,3-Dichloropropene	N.D.	5.00	4.86	5.00	4.72	97	94	61-129	3	30
Dimethyl ether	2.25	5.00	6.61	5.00	6.28	87	80	70-130	5	30
1,4-Dioxane	N.D.	125	169.19	125	150.15	135	120	65-169	12	30
Ethyl ether	15.59	5.00	20.72	5.00	19.92	103	87	72-121	4	30
Ethyl Methacrylate	N.D.	5.00	4.82	5.00	4.58	96	92	55-133	5	30
Ethylbenzene	N.D.	5.00	5.61	5.00	5.34	112	107	80-120	5	30
Freon 113	N.D.	5.00	5.79	5.00	5.58	116	112	75-133	4	30
Hexachlorobutadiene	N.D.	5.00	5.22	5.00	5.16	104	103	72-132	1	30
Hexachloroethane	N.D.	5.00	5.56	5.00	5.75	111	115	63-137	3	30
2-Hexanone	N.D.	25	25.85	25	27.64	103	111	52-140	7	30
Isobutyl Alcohol	N.D.	125	121.12	125	122.01	97	98	57-154	1	30
Methacrylonitrile	N.D.	37.5	41.06	37.5	43.92	109	117	60-145	7	30
Methyl Iodide	N.D.	5.00	5.19	5.00	5.09	104	102	77-120	2	30
Methyl Methacrylate	N.D.	5.00	5.37	5.00	5.74	107	115	55-139	7	30

*- Outside of specification
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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
4-Methyl-2-pentanone	N.D.	25	25.81	25	28.24	103	113	55-140	9	30
Methylene Chloride	0.210	5.00	5.89	5.00	5.65	114	109	80-120	4	30
Naphthalene	N.D.	5.00	4.68	5.00	4.61	94	92	64-122	2	30
Pentachloroethane	N.D.	5.00	4.92	5.00	4.92	98	98	68-134	0	30
Propionitrile	N.D.	37.5	40.43	37.5	41.76	108	111	63-145	3	30
Styrene	N.D.	5.00	5.59	5.00	5.45	112	109	80-120	3	30
1,1,1,2-Tetrachloroethane	N.D.	5.00	5.52	5.00	5.22	110	104	71-134	6	30
1,1,2,2-Tetrachloroethane	N.D.	5.00	5.27	5.00	5.09	105	102	75-123	3	30
Tetrachloroethene	0.198	5.00	5.92	5.00	5.67	114	109	80-120	4	30
Tetrahydrofuran	2.93	25	29.7	25	30.02	107	108	67-137	1	30
Toluene	N.D.	5.00	5.68	5.00	5.48	114	110	80-120	4	30
1,2,4-Trichlorobenzene	N.D.	5.00	5.13	5.00	5.04	103	101	68-122	2	30
1,1,1-Trichloroethane	N.D.	5.00	5.78	5.00	5.50	116	110	78-126	5	30
1,1,2-Trichloroethane	N.D.	5.00	5.72	5.00	5.46	114	109	80-120	5	30
Trichloroethene	0.189	5.00	5.96	5.00	5.64	115	109	80-120	6	30
Trichlorofluoromethane	N.D.	5.00	4.85	5.00	4.71	97	94	62-136	3	30
1,2,3-Trichloropropane	N.D.	5.00	5.34	5.00	5.06	107	101	80-125	5	30
Vinyl Acetate	N.D.	12.5	13.8	12.5	13.56	110	109	38-145	2	30
Vinyl Chloride	0.184	5.00	5.03	5.00	4.92	97	95	60-125	2	30
Xylene (Total)	N.D.	15	16.91	15	16.26	113	108	80-120	4	30
Batch number: Y191141AA	Sample number(s): 1034101-1034108 UNSPK: 1034104									
2-Propanol	36.55	150	176.39	150	155.23	93	79	52-144	13	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 19107WAJ026	Sample number(s): 1034101,1034103-1034108 UNSPK: 1034104									
Acenaphthene	N.D.	49.8	46.39	50	44.48	93	89	60-110	4	30
Acenaphthylene	N.D.	49.8	49.47	50	47.46	99	95	65-115	4	30
Acetophenone	N.D.	49.8	47.86	50	45.98	96	92	62-108	4	30
Aniline	N.D.	49.8	32.78	50	34.71	66	69	27-76	6	30
Anthracene	N.D.	49.8	48.09	50	45.87	97	92	67-112	5	30
Benzo(a)anthracene	N.D.	49.8	47.84	50	46.24	96	92	70-118	3	30
Benzo(a)pyrene	N.D.	49.8	45.22	50	45.79	91	92	71-117	1	30
Benzo(b)fluoranthene	N.D.	49.8	47.47	50	46.36	95	93	71-115	2	30
Benzo(g,h,i)perylene	N.D.	49.8	42.73	50	42.03	86	84	62-113	2	30
Benzo(k)fluoranthene	N.D.	49.8	47.79	50	46.68	96	93	71-116	2	30
Benzyl alcohol	N.D.	49.8	46.54	50	45.56	93	91	62-109	2	30
4-Bromophenyl-phenylether	N.D.	49.8	45.41	50	43.48	91	87	62-113	4	30
Butylbenzylphthalate	N.D.	49.8	50.08	50	47.11	101	94	57-119	6	30
Di-n-butylphthalate	N.D.	49.8	52.41	50	49.41	105	99	66-112	6	30
4-Chloro-3-methylphenol	N.D.	49.8	40.87	50	44.06	82	88	60-118	8	30
4-Chloroaniline	N.D.	49.8	40.04	50	41.82	80	84	30-101	4	30
bis(2-Chloroethoxy)methane	N.D.	49.8	49.53	50	47.47	99	95	62-109	4	30

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
bis(2-Chloroethyl)ether	N.D.	49.8	44.35	50	43.05	89	86	58-100	3	30
bis(2-Chloroisopropyl)ether	N.D.	49.8	45.33	50	42.56	91	85	47-108	6	30
2-Chloronaphthalene	N.D.	49.8	43.71	50	41.87	88	84	50-109	4	30
2-Chlorophenol	N.D.	49.8	22.24	50	30.17	45*	60	60-102	30	30
4-Chlorophenyl-phenylether	N.D.	49.8	44.01	50	44.03	88	88	55-110	0	30
2,2'-oxybis(1-Chloropropane)	N.D.	49.8	45.33	50	42.56	91	85	47-106	6	30
Chrysene	N.D.	49.8	47.59	50	45.83	96	92	69-116	4	30
Dibenz(a,h)anthracene	N.D.	49.8	46.87	50	45.51	94	91	67-116	3	30
Dibenzofuran	N.D.	49.8	46.68	50	45.13	94	90	61-109	3	30
3,3'-Dichlorobenzidine	N.D.	49.8	41.06	50	43.36	82	87	42-107	5	30
2,4-Dichlorophenol	N.D.	49.8	17.76	50	26.74	36*	53*	65-117	40*	30
Diethylphthalate	N.D.	49.8	47.12	50	45.99	95	92	51-108	2	30
7,12-Dimethylbenz[a]anthracene	N.D.	49.8	47.65	50	46.84	96	94	68-116	2	30
3,3'-Dimethylbenzidine	N.D.	99.6	31.15	100	52.29	31	52	10-65	51*	30
2,4-Dimethylphenol	N.D.	49.8	37.12	50	36.73	75	73	48-91	1	30
Dimethylphthalate	N.D.	49.8	48.17	50	46.57	97	93	27-116	3	30
4,6-Dinitro-2-methylphenol	N.D.	49.8	48	50	44.72	96	89	63-129	7	30
1,3-Dinitrobenzene	N.D.	49.8	48.66	50	47.69	98	95	65-112	2	30
2,4-Dinitrophenol	N.D.	99.6	90.3	100	83.36	91	83	44-134	8	30
2,4-Dinitrotoluene	N.D.	49.8	48.94	50	48.69	98	97	69-117	1	30
2,6-Dinitrotoluene	N.D.	49.8	50.71	50	48.02	102	96	71-113	5	30
bis(2-Ethylhexyl)phthalate	N.D.	49.8	49.3	50	47.77	99	96	68-120	3	30
Fluoranthene	N.D.	49.8	51.01	50	47.86	102	96	68-118	6	30
Fluorene	N.D.	49.8	46.09	50	44.44	93	89	62-110	4	30
Hexachlorobenzene	N.D.	49.8	45.36	50	44.02	91	88	65-121	3	30
Hexachlorocyclopentadiene	N.D.	99.6	43.19	100	43.64	43	44	10-96	1	30
Indeno(1,2,3-cd)pyrene	N.D.	49.8	44.21	50	43.52	89	87	63-114	2	30
Isophorone	N.D.	49.8	50.38	50	47.75	101	96	64-111	5	30
2-Methylnaphthalene	N.D.	49.8	43.26	50	42.08	87	84	52-105	3	30
2-Methylphenol	N.D.	49.8	37.31	50	39.28	75	79	59-109	5	30
4-Methylphenol	N.D.	49.8	34.8	50	38.06	70	76	56-108	9	30
1-Naphthylamine	N.D.	99.6	58.54	100	72.97	59	73	10-74	22	30
2-Naphthylamine	N.D.	99.6	58.51	100	64.87	59	65*	10-63	10	30
NDPA as diphenylamine	N.D.	49.8	51.15	50	47.52	103	95	70-130	7	30
2-Nitroaniline	N.D.	49.8	51.47	50	49.34	103	99	66-126	4	30
3-Nitroaniline	N.D.	49.8	44.93	50	45.21	90	90	47-111	1	30
4-Nitroaniline	N.D.	49.8	44.59	50	44.97	90	90	47-102	1	30
Nitrobenzene	N.D.	49.8	47.14	50	45.7	95	91	59-117	3	30
2-Nitrophenol	N.D.	49.8	45.49	50	44.84	91	90	63-121	1	30
4-Nitrophenol	N.D.	49.8	28.53	50	28.02	57	56	28-82	2	30
N-Nitrosodimethylamine	N.D.	49.8	32.7	50	30.98	66	62	25-89	5	30
N-Nitroso-di-n-propylamine	N.D.	49.8	48.92	50	46.74	98	93	58-110	5	30
N-Nitrosodiphenylamine	N.D.	49.8	51.36	50	48.17	103	96	68-122	6	30

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Di-n-octylphthalate	N.D.	49.8	49.31	50	48.27	99	97	67-120	2	30
Pentachlorophenol	N.D.	49.8	11.39	50	12.3	23*	25*	64-130	8	30
Phenanthrene	N.D.	49.8	47.77	50	45.54	96	91	65-113	5	30
Phenol	N.D.	49.8	19.16	50	25	38	50	23-72	26	30
2-Picoline	N.D.	49.8	39.48	50	37.36	79	75	43-81	6	30
Pyrene	N.D.	49.8	47.35	50	45.15	95	90	68-110	5	30
Pyridine	N.D.	49.8	25.31	50	25.38	51	51	13-83	0	30
1,2,4,5-Tetrachlorobenzene	N.D.	49.8	38.28	50	37.93	77	76	41-104	1	30
2,3,4,6-Tetrachlorophenol	N.D.	49.8	4.73	50	9.30	10*	19*	62-122	65*	30
o-Toluidine	N.D.	49.8	37.87	50	41.76	76	84*	29-82	10	30
2,4,5-Trichlorophenol	N.D.	49.8	20.81	50	29.04	42*	58*	73-124	33*	30
2,4,6-Trichlorophenol	N.D.	49.8	5.12	50	11.05	10*	22*	69-122	73*	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C (25 ml)
Batch number: H191123AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1034109	102	106	103	94
1034110	102	107	103	93
1034111	102	106	104	94
1034112	102	106	103	94
1034113	101	107	104	93
Blank	102	107	103	94
LCS	99	101	104	97
LCSD	99	103	104	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260C (25 ml)
Batch number: I191141AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1034101	101	100	102	97
1034102	99	100	103	96
1034103	100	100	101	96
1034104	101	101	103	97
1034105	100	99	102	96

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C (25 ml)
Batch number: I191141AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1034106	99	100	102	95
1034107	100	101	102	96
1034108	101	103	103	95
1034114	99	98	103	96
1034115	100	102	103	95
Blank	100	95	103	96
LCS	101	102	102	95
LCSD	100	101	101	96
MS	100	99	102	96
MSD	99	100	102	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 2-Propanol
Batch number: Y191141AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1034101	101	103	98	92
1034102	101	105	97	92
1034103	102	106	96	90
1034104	103	108	96	92
1034105	97	102	101	101
1034106	96	103	101	101
1034107	103	107	97	91
1034108	103	106	96	90
Blank	100	106	98	94
LCS	97	102	101	100
LCSD	97	101	101	101
MS	97	102	101	101
MSD	96	103	101	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: SVOAs 8270D/E MINI
Batch number: 19106WAN026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1034102	12	9*	11*	80	68	70
Blank	35	47	84	73	59	93
LCS	46	61	93	85	74	93
LCSD	45	60	89	85	73	92
Limits:	10-67	10-84	23-135	35-107	44-102	33-126

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Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2038951
Reported: 05/03/2019 15:21

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: SVOAs 8270D/E MINI
Batch number: 19106WAN026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1034109	81	72	91
1034110	84	73	94
1034111	78	71	94
1034112	61	52	85
1034113	75	62	94
Limits:	35-107	44-102	33-126

Analysis Name: SVOAs 8270D/E MINI
Batch number: 19107WAJ026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1034101	45	47	81	80	77	90
1034103	48	50	78	81	79	92
1034104	27	16	16*	83	80	47
1034105	33	19	6*	92	82	66
1034106	43	32	10*	87	81	64
1034107	27	13	16*	80	78	51
1034108	9*	3*	3*	84	77	39
Blank	35	45	80	76	64	91
LCS	55	59	88	81	70	88
LCSD	50	59	89	87	70	96
MS	33	19	6*	92	82	66
MSD	43	32	10*	87	81	64
Limits:	10-67	10-84	23-135	35-107	44-102	33-126

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11200 | 2038951 | 1034101 — 15

CHAIN OF CUSTODY RECORD

Laboratory: Eurofins Lancaster Laboratories Environmental, 2425 New Holland Pike, Lancaster, PA, 17605-2425/ Barb Weyandt, Manager/ (717) 656-2300 x1576 ac JV 3/27/19

Client: 0 **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP, Radford, Virginia **Location:** HWMU16 **Event:** 2Q 2019 Annual Groundwater Monitoring Event **DAA JN:** B03204-19A **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES MPS **Carrier:** 12-754-02X-Y0-5541-1972 **Tracking Number:** 12-754-02X-Y0-5563-8166

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on Ice: YES

Box 4 - Sample Type	G	G	G	G					
Box 3 - Filtered/Unfiltered	U	U	U	U					
Required pH of Sample	<2	<2		<2					
Box 2 - Preservative	A	A	H	A					
Box 5 - Sample Container Type	3-40mL V	3-40mL V	2-250mL AG	3/40ml VOA					

Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles (was 4-4-19)	8260C/5030C 25 ml purge volume	8260C/5030C 5 ml purge volume for 2-propanol ONLY	8270D/3510C (Semivolatiles)	Additional Aliquot 8260C/5030C 25 ml purge volume
16C1	4/11	1320	GW	11 ~~10~~	X	X	X	X
16MW8	4/10	1245	GW	8	X	X	X	
16MW9	4/11	1225	GW	11 ~~10~~	X	X	X	X
16WC1A	4/11	1100	GW	24	X	X	X	
16WDUP	4/11	1115	GW	8	X	X	X	
16WC1B	4/11	1015	GW	8	X	X	X	
16-2	4/10	1205	GW	5	X		X	
16-3	4/10	1335	GW	5	X		X	
16-5	4/10	0910	GW	5	X		X	
16WC2B	4/10	1115	GW	5	X		X	
16SPRING	4/10	0920	GW	5	X		X	
Trip Blank 1	4/10	—	T	2	X			
Trip Blank 2	4/10	—	T	2	X			
~~Trip Blank 3~~			T	2	X		NOT USED ~~JV~~ 4/11/19	

GENERAL NOTES:
1. Report results to detection limit, with J flags, for italicized wells.
2. Report results at or greater than QL for non-italicized wells.
3. VELAP accreditation required.
4. FULL Deliverable with EDD and ERIS EDD.

Additional VOA Aliquot if dilution is required.

Additional VOA aliquot if dilution is required.

USE FOR QC

one trip blank required per day per permit. Delete if not required.

Clients Special Instructions: level 1 with edd. See attached target analyte list.

Received by lab in Good Condition Yes No Custody Seal Intact Yes No Temperature upon arrival Received on Ice Yes No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 4/10/19	#1 Relinquished by (Signature):	Date: 4/11/19	#2 Relinquished by (Signature):	Date:	Sample Storage
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	Time:	Time Requested:
Sampler Name (Print): Graham Snyder	Date: 4/10/19	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 4/12/19	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0700	Company Name:	Time:	Company Name: ECLE	Time: 940	

JV 3/27/19

1/4

2038951

JUK 3/27/19 2/7

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: 8260C/5030C
TYPE METHOD: GCMS
CLASS: VOLATILE

(*)

THIS APPLIES TO WELLS 16-2, 16-3, 16-5, 16WC2B, 16SPRING

1.	Carbon tetrachloride	56-23-5	1
2.	chloromethane ; (Methyl chloride)	74-87-3	1
3.	2-butanone (methyl ethyl ketone - MEK)	78-93-3	10
4.	1,1-dichloroethane	75-34-3	1
5.	Dichlorodifluoromethane	75-71-8	1
6.	Ethylbenzene	100-41-4	1
7.	Tetrachloroethene	127-18-4	1
8.	Toluene (methyl benzene)	108-88-3	1
9.	1,1,1-trichloroethane (methyl chloroform)	71-55-6	1
10.	Trichloroethene	79-01-6	1
11.	Trichlorofluoromethane (CFC-11)	75-69-4	1
12.	Xylenes (total)	1330-20-7	3
13	Chloroethane	75-00-3	1
14	Diethyl ether	60-29-7	12.5
15	Dimethyl ether	115-10-6	12.5
16	Methylene chloride	75-09-2	1
17	1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	1
18	Benzene	71-43-2	1
19	1,1-Dichloroethene	75-35-4	1
20	Tetrahydrofuran		25

Notes
13-16 added 10/03. JCF
Revised 10/31/03 JCF

17 added 0704. Revised 7/28/2004
10/2008 JCF
18 added 04 2011. JCF
19 added 04 2014. KPO, location 16-1 removed 2014
20 added 04 2016 JCF

(*) For these wells/analytes report to at or above QL.
JUK
3/27/19

25 ml purge volume

2038951

JW 3/27/15

37

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: 8270D/3510C
TYPE METHOD: GCMS
CLASS: SEMIVOLATILE

THIS APPLIES TO WELLS 16-2, 16-3, 16-5, 16WC2B, 16SPRING (*)

No.	PARAMETER	CAS RN	Required LOQ (µg/l)
1.	2,4-dinitrotoluene	121-14-2	10
2.	2,6-dinitrotoluene	606-20-2	10
3.	Diethylphthate		5

(*) For these wells/analytes report to at or above QL.

JW
3/27/15

Report to at or above the QL.
10/13- diethylphthate added 10/13.

* For these wells / analytes report to MDL w/ J flag. 3/27/2019 ↑ permit Or lab MDL if higher.

2038951

JJ 3/27/19 4/1

ANALYTICAL METHOD: 8260C/ GCMS/ Volatile (1 of 2 pages)
THIS APPLIES TO WELLS 16C1, 16MW8, 16MW9,16WC1A, 16WDUP, 16WC1B & QC

Analyte	CAS#	SecondaryName	TertiaryName
1. Acetone	67-64-1		
2. Acetonitrile	75-05-8		
3. Acrolein	107-02-8		
4. Acrylonitrile	107-13-1		
5. Allyl chloride	107-05-1		
6. Benzene	71-43-2		
7. Bromodichloromethane	75-27-4		
8. Bromoform	75-25-2	Tribromomethane	
9. Carbon disulfide	75-15-0		
10. Carbon tetrachloride	56-23-5		
11. Chloroethane	75-00-3	Ethyl chloride	
12. Chloroform	67-66-3	Trichloromethane	
13. Chloroprene	126-99-8		
14. Dibromochloromethane	124-48-1		
15. 1,2-Dibromo-3-chloropropane	96-12-8	DBCP	
16. 1,2-Dibromoethane	106-93-4	EDB	Ethylene dibromide
17. 1,2-Dichlorobenzene	95-50-1	o-Dichlorobenzene	
18. 1,3-Dichlorobenzene	541-73-1	m-Dichlorobenzene	
19. 1,4-Dichlorobenzene	106-46-7	p-Dichlorobenzene	
20. trans-1,4-Dichloro-2-butene	110-57-6		
21. Dichlorodifluoromethane	75-71-8		
22. 1,1-Dichloroethane	75-34-3		
23. 1,2-Dichloroethane	107-06-2		
24. 1,1-Dichloroethene	75-35-4		
25. trans-1,2-Dichloroethene	156-60-5		
26. 1,2-Dichloropropane	78-87-5		
27. 1,3-Dichloropropane	142-28-9		
28. trans-1,3-Dichloropropene	10061-02-6		
29. Diethyl ether	60-29-7		
30. Dimethyl ether	115-10-6		
31. 1,4-Dioxane	123-91-1		
32. Ethylbenzene	100-41-4		
33. Ethyl methacrylate	97-63-2		
34. Hexachlorobutadiene	87-68-3		
35. Hexachloroethane	67-72-1		
36. 2-Hexanone	591-78-6	Methyl butyl ketone	MBK
37. Isobutyl alcohol	78-83-1		
38. Methacrylonitrile	126-98-7		
39. Bromomethane	74-83-9	Methyl bromide	
40. Chloromethane	74-87-3	Methyl chloride	
41. 2-Butanone	78-93-3	Methyl ethyl ketone	MEK
42. Iodomethane	74-88-4	methyl iodide	
43. Methyl methacrylate	80-62-6		
44. 4-Methyl-2-pentanone	108-10-1	Methyl isobutyl	
45. Dibromomethane	74-95-3	Methylene bromide	
46. Methylene chloride	75-09-2		
47. Naphthalene	91-20-3		
48. Pentachloroethane	76-01-7		

2038951

49.	2-Propanol	67-63-0	Isopropanol	
50.	Propionitrile	107-12-0		
51.	Styrene	100-42-5		
52.	1,1,1,2-Tetrachloroethane	630-20-6		
53.	1,1,2,2-Tetrachloroethane	79-34-5		
54.	Tetrachloroethene	127-18-4	Tetrachloroethylene	
55.	Tetrahydrofuran	109-99-9		
56.	Toluene	108-88-3		
57.	1,2,4-Trichlorobenzene	120-82-1		
58.	1,1,1-Trichloroethane	71-55-6	Methylchloroform	
59.	1,1,2-Trichloroethane	79-00-5		
60.	Trichloroethene	79-01-6	Trichloroethene	
61.	Trichlorofluoromethane	75-69-4		
62.	1,2,3-Trichloropropane	96-18-4		
63.	1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	Freon-13	
64.	Vinyl acetate	108-05-4		
65.	Vinyl chloride	75-01-4		
66.	Xylenes (Total)	1330-20-7		

Rev per July 2014 permit renewal. JCF 4-2015

* For these wells/analytes 2038951
report to permit MDL w/ J flag. (or lab MDL if higher)
JW 7/17/18

ANALYTICAL METHOD: 8270D/ GCMS/ Semivolatile
THIS APPLIES TO WELLS 16C1, 16MW8, 16MW9,16WC1A, 16WDUP, 16WC1B & QC

	Analyte	CAS#	SecondaryName	TertiaryName
1.	Acenaphthene	83-32-9		
2.	Acenaphthylene	208-96-8		
3.	Acetophenone	98-86-2		
4.	2-Acetylaminofluorene	53-96-3		
5.	4-Aminobiphenyl	92-67-1		
6.	Aniline	62-53-3		
7.	Anthracene	120-12-7		
8.	Aramite	140-57-8		
9.	Benzo[a]anthracene	56-55-3		
10.	Benzo[b]fluoranthene	205-99-2		
11.	Benzo[k]fluoranthene	207-08-9		
12.	Benzo[ghi]perylene	191-24-2		
13.	Benzo(a)pyrene	50-32-8		
14.	1,4-Benzenediamine	106-50-3	p-Phenylenediamine	
15.	Benzyl alcohol	100-51-6		
16.	bis(2-Chloroethoxy)methane	111-91-1		
17.	bis(2-Chloroethyl)ether	111-44-4		
18.	bis(2-Chloro-1-methylethyl)ether	108-60-1		
19.	bis(2-Ethylhexyl)phthalate	117-81-7		
20.	4-Bromophenyl phenyl ether	101-55-3		
21.	Butyl benzyl phthalate	85-68-7		
22.	p-Chloroaniline	106-47-8	4-Chloroaniline	
23.	Chlorobenzilate	510-15-6		
24.	p-Chloro-m-cresol	59-50-7	4-Chloro-3-methylphenol	
25.	2-Chloronaphthalene	91-58-7		
26.	2-Chlorophenol	95-57-8		
27.	4-Chlorophenyl phenyl ether	7005-72-3		
28.	Chrysene	218-01-9		
29.	Diallate	2303-16-4		
30.	Dibenz(a,h)anthracene	53-70-3		
31.	Dibenzofuran	132-64-9		
32.	Di-n-butyl phthalate	84-74-2		
33.	3,3'-Dichlorobenzidine	91-94-1		
34.	2,4-Dichlorophenol	120-83-2		
35.	2,6-Dichlorophenol	87-65-0		
36.	Diethyl phthalate	84-66-2		
37.	O,O-Diethyl O-2-pyrazinyl	297-97-2	Thionazin	
38.	Dimethoate	60-51-5		
39.	p-(Dimethylamino)azobenzene	60-11-7		
40.	7,12-Dimethylbenz[a]anthracene	57-97-6		
41.	3,3'-Dimethylbenzidine	119-93-7		
42.	a,a-Dimethylphenethylamine	122-09-8		
43.	2,4-Dimethylphenol	105-67-9		
44.	Dimethyl phthalate	131-11-3		
45.	m-Dinitrobenzene	99-65-0	1,3-Dinitrobenzene	
46.	4,6-Dinitro-o-cresol	534-52-1	4,6-Dinitro-2-methylphenol	
47.	2,4-Dinitrophenol	51-28-5		
48.	2,4-Dinitrotoluene	121-14-2		
49.	2,6-Dinitrotoluene	606-20-2		
50.	Di-n-octyl phthalate	117-84-0		
51.	Diphenylamine	122-39-4		
52.	Disulfoton	298-04-4		
53.	Ethyl methanesulfonate	62-50-0		
54.	Famphur	52-85-7		
55.	Fluoranthene	206-44-0		

56.	Fluorene	86-73-7	
57.	Hexachlorobenzene	118-74-1	
58.	Hexachlorocyclopentadiene	77-47-4	
59.	Hexachlorophene	70-30-4	NO VELAP - not required by ELLE. Jue 3/27/19
60.	Hexachloropropene	1888-71-7	
61.	Indeno[1,2,3-cd]pyrene	193-39-5	
62.	Isodrin	465-73-6	
63.	Isophorone	78-59-1	
64.	Isosafrole	120-58-1	
65.	Kepone	143-50-0	
66.	Methapyrilene	91-80-5	
67.	3-Methylcholanthrene	56-49-5	
68.	Methyl methane sulfonate	66-27-3	
69.	2-Methylnaphthalene	91-57-6	
70.	Methyl parathion	298-00-0	
71.	2-Methylphenol	95-48-7	o-Cresol
72.	3 & 4-Methylphenol	m 108-39-4 p	m-/p-Cresol
73.	1,4-Naphthoquinone	130-15-4	
74.	1-Naphthylamine	134-32-7	
75.	2-Naphthylamine	91-59-8	
76.	o-Nitroaniline	88-74-4	2-Nitroaniline
77.	m-Nitroaniline	99-09-2	3-Nitroaniline
78.	p-Nitroaniline	100-01-6	4-Nitroaniline
79.	Nitrobenzene	98-95-3	
80.	o-Nitrophenol	88-75-5	2-Nitrophenol
81.	p-Nitrophenol	100-02-7	4-Nitrophenol
82.	4-Nitroquinoline-1-oxide	56-57-5	
83.	N-Nitrosodi-n-butylamine	924-16-3	
84.	N-Nitrosodiethylamine	55-18-5	
85.	N-Nitrosodimethylamine	62-75-9	
86.	N-Nitrosodiphenylamine	86-30-6	
87.	N-Nitrosodipropylamine	621-64-7	
88.	N-Nitrosomethylethylamine	10595-95-6	
89.	N-Nitrosomorpholine	59-89-2	
90.	N-Nitrosopiperidine	100-75-4	
91.	N-Nitrosopyrrolidine	930-55-2	
92.	5-Nitroso-o-toluidine	99-55-8	
93.	Parathion	56-38-2	
94.	Pentachlorobenzene	608-93-5	
95.	Pentachloronitrobenzene	82-68-8	
96.	Pentachlorophenol	87-86-5	
97.	Phenacetin	62-44-2	
98.	Phenanthrene	85-01-8	
99.	Phenol	108-95-2	
100.	Phorate	298-02-2	
101.	2-Picoline	931-19-1	
102.	Pronamide	23950-58-5	
103.	Pyrene	129-00-0	
104.	Pyridine	110-86-1	
105.	Safrole	94-59-7	
106.	Sulfotep	3689-24-5	NOT VELAP - NOT REQUIRED BY ELLE Jue 3/27/19
107.	1,2,4,5-Tetrachlorobenzene	95-94-3	
108.	2,3,4,6-Tetrachlorophenol	58-90-2	
109.	o-Toluidine	95-53-4	
110.	2,4,5-Trichlorophenol	95-95-4	
111.	2,4,6-Trichlorophenol	88-06-2	
112.	O,O,O-Triethyl phosphorothioate	126-68-1	
113.	sym-Trinitrobenzene	99-35-4	1,3,5-trinitrobenzene
114.	**HEXACHLOROETHANE** JCF 4/9/2013	report by 8260. Jue 3/27/19	

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Sample Administration Receipt Documentation Log

Doc Log ID: 246363

Group Number(s): 2038951

Client: Draper Aden

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	04/12/2019 9:40
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	4
Samples Intact:	Yes	Trip Blank Type:	HCL
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Juan Carrion (16518) at 04:17 on 04/13/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	4.1	DT	Wet	Y	Bagged	N
2	DT42-01	2.9	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-5842
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	Comments
1034101	16C1	X		
1034102	16MW8	X		
1034103	16MW9	X		
1034104	16WC1A	X		Unspiked
1034105	16WC1A MS	X		Matrix Spike
1034106	16WC1A MSD	X		Matrix Spike Duplicate
1034107	16WDUP	X		Field Duplicate Sample
1034108	16WC1B	X		
1034109	16-2	X		
1034110	16-3	X		
1034111	16-5	X		
1034112	16WC2B	X		
1034113	16SPRING	X		
1034114	Trip Blank_1	X		Trip Blank
1034115	Trip Blank_2	X		Trip Blank

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

(Sample number(s): 1034103-1034104: Analysis: 11996)
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The container used for this analysis was submitted with headspace.

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Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Volatiles

Fraction: Volatiles by GC/MS

(Sample number(s): 1034101-1034102, 1034107-1034108, 1034114-1034115: Analysis: 11996)
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

(Sample number(s): 1034105-1034106: Analysis: 11996)
The container used for this analysis was submitted with headspace.

Samples	2-Propanol	8260C (25 ml)
1034101	DF1	DF2; DF1
1034102	DF1	DF1
1034103	DF1	DF4; DF1
1034104	UNSPK/ DF1	UNSPK/ DF1
1034105	MS/ DF1	MS/ DF1
1034106	MSD/ DF1	MSD/ DF1
1034107	DF1	DF1
1034108	DF1	DF1
1034109		DF1
1034110		DF1
1034111		DF1
1034112		DF1
1034113		DF1
1034114		DF1
1034115		DF1

No additional problems were encountered with the analysis of the samples.

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Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
2-Propanol	Y191141AA	VBLKY63	04/24/2019 10:44
		LCSY63	04/24/2019 09:37
		LCDY63	04/24/2019 10:22
		1034101	04/24/2019 14:30
		1034102	04/24/2019 14:53
		1034103	04/24/2019 15:15
		1034104 UNSPK	04/24/2019 13:24
		1034105 MS	04/24/2019 13:46
		1034106 MSD	04/24/2019 14:08
		1034107	04/24/2019 15:37
		1034108	04/24/2019 15:59
8260C (25 ml)	H191123AA	VBLKH31	04/22/2019 23:24
		LCSH31	04/22/2019 21:58
		LCDH31	04/22/2019 22:20
		LCSH32	04/22/2019 22:41
		LCDH32	04/22/2019 23:03
		1034109	04/23/2019 05:54
		1034110	04/23/2019 06:15
		1034111	04/23/2019 06:36
		1034112	04/23/2019 06:58
		1034113	04/23/2019 07:20
8260C (25 ml)	I191141AA	VBLKI33	04/24/2019 11:56
		LCSI33	04/24/2019 10:10
		LCDI33	04/24/2019 10:31
		LCSI34	04/24/2019 10:53
		LCDI34	04/24/2019 11:14
		1034101	04/24/2019 13:01
		1034101	04/24/2019 16:54
		1034102	04/24/2019 13:22
		1034103	04/24/2019 13:43
		1034103	04/24/2019 16:33
		1034104 UNSPK	04/24/2019 14:04
		1034105 MS	04/24/2019 14:25
		1034105 MS	04/24/2019 15:08
		1034106 MSD	04/24/2019 14:47
		1034106 MSD	04/24/2019 15:29
		1034107	04/24/2019 15:51
		1034108	04/24/2019 16:12
		1034114	04/24/2019 12:19
		1034115	04/24/2019 12:40

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: RAF35
Matrix: LIQUID

Fraction: Volatiles by GC/MS

H191123AA / VBLKH31 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	04/22/19	N.D.	ug/l	0.05	1.0
Chloromethane	04/22/19	N.D.	ug/l	0.06	1.0
Chloroethane	04/22/19	N.D.	ug/l	0.07	1.0
Trichlorofluoromethane	04/22/19	N.D.	ug/l	0.05	1.0
Ethyl ether	04/22/19	N.D.	ug/l	0.05	13
1,1-Dichloroethene	04/22/19	N.D.	ug/l	0.06	1.0
Freon 113	04/22/19	N.D.	ug/l	0.06	1.0
Methylene Chloride	04/22/19	N.D.	ug/l	0.07	1.0
1,1-Dichloroethane	04/22/19	N.D.	ug/l	0.07	1.0
2-Butanone	04/22/19	N.D.	ug/l	0.6	10
Tetrahydrofuran	04/22/19	N.D.	ug/l	0.8	25
1,1,1-Trichloroethane	04/22/19	N.D.	ug/l	0.06	1.0
Carbon Tetrachloride	04/22/19	N.D.	ug/l	0.07	1.0
Benzene	04/22/19	N.D.	ug/l	0.05	1.0
Trichloroethene	04/22/19	N.D.	ug/l	0.06	1.0
Toluene	04/22/19	N.D.	ug/l	0.07	1.0
Tetrachloroethene	04/22/19	N.D.	ug/l	0.06	1.0
Ethylbenzene	04/22/19	N.D.	ug/l	0.06	1.0
Xylene (Total)	04/22/19	N.D.	ug/l	0.1	3.0
Dimethyl ether	04/22/19	N.D.	ug/l	0.04	13

I191141AA / VBLKI33 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	04/24/19	N.D.	ug/l	0.1	1.0
Chloromethane	04/24/19	N.D.	ug/l	0.06	1.0
Vinyl Chloride	04/24/19	N.D.	ug/l	0.2	1.0
Bromomethane	04/24/19	N.D.	ug/l	0.5	1.0
Chloroethane	04/24/19	N.D.	ug/l	0.07	1.0
Trichlorofluoromethane	04/24/19	N.D.	ug/l	0.2	1.0
Ethyl ether	04/24/19	N.D.	ug/l	1.1	13
Acrolein	04/24/19	N.D.	ug/l	3.4	25
1,1-Dichloroethene	04/24/19	N.D.	ug/l	0.2	1.0
Freon 113	04/24/19	N.D.	ug/l	0.1	1.0
Acetone	04/24/19	N.D.	ug/l	0.9	10
Methyl Iodide	04/24/19	N.D.	ug/l	0.6	10
Carbon Disulfide	04/24/19	N.D.	ug/l	0.4	10
Acetonitrile	04/24/19	N.D.	ug/l	32	100
Allyl Chloride	04/24/19	N.D.	ug/l	0.8	10
Methylene Chloride	04/24/19	N.D.	ug/l	0.2	1.0
Acrylonitrile	04/24/19	N.D.	ug/l	0.5	10
trans-1,2-Dichloroethene	04/24/19	N.D.	ug/l	0.2	1.0
1,1-Dichloroethane	04/24/19	N.D.	ug/l	0.1	1.0
Vinyl Acetate	04/24/19	N.D.	ug/l	3.3	10
2-Chloro-1,3-butadiene	04/24/19	N.D.	ug/l	0.5	10
2-Butanone	04/24/19	N.D.	ug/l	0.6	10

Fraction: Volatiles by GC/MS

I191141AA / VBLKI33 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Propionitrile	04/24/19	N.D.	ug/l	10	100
Methacrylonitrile	04/24/19	N.D.	ug/l	9.8	100
Tetrahydrofuran	04/24/19	N.D.	ug/l	2.0	25
Chloroform	04/24/19	N.D.	ug/l	0.09	1.0
1,1,1-Trichloroethane	04/24/19	N.D.	ug/l	0.1	1.0
Carbon Tetrachloride	04/24/19	N.D.	ug/l	0.2	1.0
Isobutyl Alcohol	04/24/19	N.D.	ug/l	3.6	200
Benzene	04/24/19	N.D.	ug/l	0.07	1.0
1,2-Dichloroethane	04/24/19	N.D.	ug/l	0.1	1.0
Trichloroethene	04/24/19	N.D.	ug/l	0.2	1.0
1,2-Dichloropropane	04/24/19	N.D.	ug/l	0.1	1.0
Dibromomethane	04/24/19	N.D.	ug/l	0.07	1.0
Methyl Methacrylate	04/24/19	N.D.	ug/l	3.6	10
1,4-Dioxane	04/24/19	N.D.	ug/l	45	200
Bromodichloromethane	04/24/19	N.D.	ug/l	0.09	1.0
4-Methyl-2-pentanone	04/24/19	N.D.	ug/l	0.9	10
Toluene	04/24/19	N.D.	ug/l	0.09	1.0
trans-1,3-Dichloropropene	04/24/19	N.D.	ug/l	0.1	1.0
Ethyl Methacrylate	04/24/19	N.D.	ug/l	0.8	10
1,1,2-Trichloroethane	04/24/19	N.D.	ug/l	0.08	1.0
Tetrachloroethene	04/24/19	N.D.	ug/l	0.06	1.0
1,3-Dichloropropane	04/24/19	N.D.	ug/l	0.1	1.0
2-Hexanone	04/24/19	N.D.	ug/l	0.6	10
Dibromochloromethane	04/24/19	N.D.	ug/l	0.07	1.0
1,2-Dibromoethane	04/24/19	N.D.	ug/l	0.06	1.0
1,1,1,2-Tetrachloroethane	04/24/19	N.D.	ug/l	0.08	1.0
Ethylbenzene	04/24/19	N.D.	ug/l	0.08	1.0
Xylene (Total)	04/24/19	N.D.	ug/l	0.2	3.0
Styrene	04/24/19	N.D.	ug/l	0.05	1.0
Bromoform	04/24/19	N.D.	ug/l	0.1	1.0
1,1,2,2-Tetrachloroethane	04/24/19	N.D.	ug/l	0.2	1.0
trans-1,4-Dichloro-2-butene	04/24/19	N.D.	ug/l	1	10
1,2,3-Trichloropropane	04/24/19	N.D.	ug/l	0.1	1.0
Pentachloroethane	04/24/19	N.D.	ug/l	0.8	10
1,3-Dichlorobenzene	04/24/19	N.D.	ug/l	0.06	1.0
1,4-Dichlorobenzene	04/24/19	N.D.	ug/l	0.07	1.0
1,2-Dichlorobenzene	04/24/19	N.D.	ug/l	0.08	1.0
1,2-Dibromo-3-chloropropane	04/24/19	N.D.	ug/l	0.2	1.0
1,2,4-Trichlorobenzene	04/24/19	N.D.	ug/l	0.1	1.0
Hexachlorobutadiene	04/24/19	N.D.	ug/l	0.07	1.0
Naphthalene	04/24/19	N.D.	ug/l	0.1	1.0
Hexachloroethane	04/24/19	N.D.	ug/l	0.1	10
Dimethyl ether	04/24/19	N.D.	ug/l	0.04	13

Fraction: Volatiles by GC/MS

Y191141AA / VBLKY63 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
2-Propanol	04/24/19	N.D.	ug/l	18	100

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: RAF35
Matrix: LIQUID

Fraction: Volatiles by GC/MS

H191123AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	10 ug/l	Spike Added	10 ug/l	Spike Added	10 ug/l	Spike Added	10 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKH31	107	80 - 120	94	80 - 120	102	80 - 120	103	80 - 120
LCSH31	101	80 - 120	97	80 - 120	99	80 - 120	104	80 - 120
LCDH31	103	80 - 120	97	80 - 120	99	80 - 120	104	80 - 120
1034109	106	80 - 120	94	80 - 120	102	80 - 120	103	80 - 120
1034110	107	80 - 120	93	80 - 120	102	80 - 120	103	80 - 120
1034111	106	80 - 120	94	80 - 120	102	80 - 120	104	80 - 120
1034112	106	80 - 120	94	80 - 120	102	80 - 120	103	80 - 120
1034113	107	80 - 120	93	80 - 120	101	80 - 120	104	80 - 120

I191141AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	10 ug/l	Spike Added	10 ug/l	Spike Added	10 ug/l	Spike Added	10 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKI33	95	80 - 120	96	80 - 120	100	80 - 120	103	80 - 120
LCSI33	102	80 - 120	95	80 - 120	101	80 - 120	102	80 - 120
LCDI33	101	80 - 120	96	80 - 120	100	80 - 120	101	80 - 120
1034101	100	80 - 120	97	80 - 120	101	80 - 120	102	80 - 120
1034102	100	80 - 120	96	80 - 120	99	80 - 120	103	80 - 120
1034103	100	80 - 120	96	80 - 120	100	80 - 120	101	80 - 120
1034104 UNSPK	101	80 - 120	97	80 - 120	101	80 - 120	103	80 - 120
1034105 MS	99	80 - 120	96	80 - 120	100	80 - 120	102	80 - 120
1034106 MSD	100	80 - 120	95	80 - 120	99	80 - 120	102	80 - 120
1034107	101	80 - 120	96	80 - 120	100	80 - 120	102	80 - 120
1034108	103	80 - 120	95	80 - 120	101	80 - 120	103	80 - 120
1034114	98	80 - 120	96	80 - 120	99	80 - 120	103	80 - 120
1034115	102	80 - 120	95	80 - 120	100	80 - 120	103	80 - 120

Y191141AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKY63	106	80 - 120	94	80 - 120	100	80 - 120	98	80 - 120
LCSY63	102	80 - 120	100	80 - 120	97	80 - 120	101	80 - 120
LCDY63	101	80 - 120	101	80 - 120	97	80 - 120	101	80 - 120
1034101	103	80 - 120	92	80 - 120	101	80 - 120	98	80 - 120
1034102	105	80 - 120	92	80 - 120	101	80 - 120	97	80 - 120
1034103	106	80 - 120	90	80 - 120	102	80 - 120	96	80 - 120
1034104 UNSPK	108	80 - 120	92	80 - 120	103	80 - 120	96	80 - 120
1034105 MS	102	80 - 120	101	80 - 120	97	80 - 120	101	80 - 120
1034106 MSD	103	80 - 120	101	80 - 120	96	80 - 120	101	80 - 120
1034107	107	80 - 120	91	80 - 120	103	80 - 120	97	80 - 120
1034108	106	80 - 120	90	80 - 120	103	80 - 120	96	80 - 120

Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: RAF35
Matrix: LIQUID

Fraction: Volatiles by GC/MS

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1034104 MS: 1034105 MSD: 1034106 **Analyte**	Batch: **I191141AA** (Sample number(s): 1034101-1034108, 1034114-1034115)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	5.00	N.D.	3.37	3.26	67	65	43-123	4	30
Chloromethane	5.00	N.D.	4.43	4.39	89	88	56-124	1	30
Vinyl Chloride	5.00	0.184 J	5.03	4.92	97	95	60-125	2	30
Bromomethane	5.00	N.D.	4.59	4.42	92	88	60-136	4	30
Chloroethane	5.00	1.56	6.82	6.47	105	98	63-120	5	30
Trichlorofluoromethane	5.00	N.D.	4.85	4.71	97	94	62-136	3	30
Ethyl ether	5.00	15.59	20.72	19.92	103	87	72-121	4	30
Acrolein	37.5	N.D.	31.99	34.79	85	93	45-140	8	30
1,1-Dichloroethene	5.00	N.D.	6.28	6.00	126	120	80-131	5	30
Freon 113	5.00	N.D.	5.79	5.58	116	112	75-133	4	30
Acetone	37.5	1.91 J	36.91	38.15	93	97	60-146	3	30
Methyl Iodide	5.00	N.D.	5.19 J	5.09 J	104	102	77-120	2	30
Carbon Disulfide	5.00	N.D.	5.24 J	5.01 J	105	100	67-130	4	30
Acetonitrile	37.5	N.D.	50.46 J	53.67 J	135	143	51-160	6	30
Allyl Chloride	5.00	N.D.	4.70 J	4.52 J	94	90	51-126	4	30
Methylene Chloride	5.00	0.210 J	5.89	5.65	114	109	80-120	4	30
Acrylonitrile	25	N.D.	24.98	26.6	100	106	64-139	6	30
trans-1,2-Dichloroethene	5.00	N.D.	5.33	5.18	107	104	80-120	3	30
1,1-Dichloroethane	5.00	4.94	10.4	9.97	109	101	74-120	4	30
Vinyl Acetate	12.5	N.D.	13.8	13.56	110	109	38-145	2	30
2-Chloro-1,3-butadiene	5.00	N.D.	5.47 J	5.20 J	109	104	60-128	5	30
2-Butanone	37.5	N.D.	38.37	41.08	102	110	59-141	7	30
Propionitrile	37.5	N.D.	40.43 J	41.76 J	108	111	63-145	3	30
Methacrylonitrile	37.5	N.D.	41.06 J	43.92 J	109	117	60-145	7	30
Tetrahydrofuran	25	2.93 J	29.7	30.02	107	108	67-137	1	30
Chloroform	5.00	N.D.	5.63	5.39	113	108	80-120	4	30
1,1,1-Trichloroethane	5.00	N.D.	5.78	5.50	116	110	78-126	5	30
Carbon Tetrachloride	5.00	N.D.	5.76	5.47	115	109	64-141	5	30
Isobutyl Alcohol	125	N.D.	121.12 J	122.01 J	97	98	57-154	1	30
Benzene	5.00	0.301 J	5.87	5.65	111	107	80-120	4	30
1,2-Dichloroethane	5.00	N.D.	5.38	5.24	108	105	69-122	3	30
Trichloroethene	5.00	0.189 J	5.96	5.64	115	109	80-120	6	30
1,2-Dichloropropane	5.00	N.D.	5.73	5.44	115	109	80-120	5	30
Dibromomethane	5.00	N.D.	5.45	5.26	109	105	80-122	4	30
Methyl Methacrylate	5.00	N.D.	5.37 J	5.74 J	107	115	55-139	7	30
1,4-Dioxane	125	N.D.	169.19 J	150.15 J	135	120	65-169	12	30
Bromodichloromethane	5.00	N.D.	5.36	5.12	107	102	73-124	5	30
4-Methyl-2-pentanone	25	N.D.	25.81	28.24	103	113	55-140	9	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1034104 MS: 1034105 MSD: 1034106 **Analyte**	Batch: **I191141AA** (Sample number(s): 1034101-1034108, 1034114-1034115)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Toluene	5.00	N.D.	5.68	5.48	114	110	80-120	4	30
trans-1,3-Dichloropropene	5.00	N.D.	4.86	4.72	97	94	61-129	3	30
Ethyl Methacrylate	5.00	N.D.	4.82 J	4.58 J	96	92	55-133	5	30
1,1,2-Trichloroethane	5.00	N.D.	5.72	5.46	114	109	80-120	5	30
Tetrachloroethene	5.00	0.198 J	5.92	5.67	114	109	80-120	4	30
1,3-Dichloropropane	5.00	N.D.	5.50	5.22	110	104	80-120	5	30
2-Hexanone	25	N.D.	25.85	27.64	103	111	52-140	7	30
Dibromochloromethane	5.00	N.D.	5.00	4.67	100	93	64-138	7	30
1,2-Dibromoethane	5.00	N.D.	5.31	5.16	106	103	80-120	3	30
1,1,1,2-Tetrachloroethane	5.00	N.D.	5.52	5.22	110	104	71-134	6	30
Ethylbenzene	5.00	N.D.	5.61	5.34	112	107	80-120	5	30
Xylene (Total)	15	N.D.	16.91	16.26	113	108	80-120	4	30
Styrene	5.00	N.D.	5.59	5.45	112	109	80-120	3	30
Bromoform	5.00	N.D.	4.29	4.16	86	83	49-144	3	30
1,1,2,2-Tetrachloroethane	5.00	N.D.	5.27	5.09	105	102	75-123	3	30
trans-1,4-Dichloro-2-butene	25	N.D.	17.5	19.24	70	77	10-172	9	30
1,2,3-Trichloropropane	5.00	N.D.	5.34	5.06	107	101	80-125	5	30
Pentachloroethane	5.00	N.D.	4.92 J	4.92 J	98	98	68-134	0	30
1,3-Dichlorobenzene	5.00	N.D.	5.43	5.24	109	105	80-120	4	30
1,4-Dichlorobenzene	5.00	N.D.	5.53	5.35	111	107	80-120	3	30
1,2-Dichlorobenzene	5.00	N.D.	5.50	5.32	110	106	80-120	3	30
1,2-Dibromo-3-chloropropane	5.00	N.D.	5.74	6.33	115	127	56-148	10	30
1,2,4-Trichlorobenzene	5.00	N.D.	5.13	5.04	103	101	68-122	2	30
Hexachlorobutadiene	5.00	N.D.	5.22	5.16	104	103	72-132	1	30
Naphthalene	5.00	N.D.	4.68	4.61	94	92	64-122	2	30
Hexachloroethane	5.00	N.D.	5.56 J	5.75 J	111	115	63-137	3	30
Dimethyl ether	5.00	2.25 J	6.61 J	6.28 J	87	80	70-130	5	30

UNSPK: 1034104 MS: 1034105 MSD: 1034106 **Analyte**	Batch: **Y191141AA** (Sample number(s): 1034101-1034108)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
2-Propanol	150	36.55 J	176.39	155.23	93	79	52-144	13	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: RAF35
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSH31 LCSD: LCDH31	Batch: **H191123AA** (Sample number(s): 1034109-1034113)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	5.00	3.82	3.84	76	77	43-123	1	30
Chloromethane	5.00	4.66	4.60	93	92	56-124	1	30
Chloroethane	5.00	4.68	4.66	94	93	63-120	0	30
Trichlorofluoromethane	5.00	4.50	4.39	90	88	62-136	2	30
Ethyl ether	5.00	4.87 J	4.59 J	97	92	72-121	6	30
1,1-Dichloroethene	5.00	5.00	4.91	100	98	80-131	2	30
Freon 113	5.00	4.75	4.72	95	94	75-133	1	30
Methylene Chloride	5.00	5.05	5.04	101	101	80-120	0	30
1,1-Dichloroethane	5.00	4.75	4.71	95	94	74-120	1	30
2-Butanone	37.5	30.27	31.16	81	83	59-141	3	30
Tetrahydrofuran	25	21.75 J	22.29 J	87	89	67-137	2	30
1,1,1-Trichloroethane	5.00	4.96	4.89	99	98	78-126	1	30
Carbon Tetrachloride	5.00	5.00	4.83	100	97	64-141	4	30
Benzene	5.00	4.79	4.76	96	95	80-120	1	30
Trichloroethene	5.00	4.87	4.82	97	96	80-120	1	30
Toluene	5.00	5.14	5.14	103	103	80-120	0	30
Tetrachloroethene	5.00	5.21	5.11	104	102	80-120	2	30
Ethylbenzene	5.00	5.03	4.99	101	100	80-120	1	30
Xylene (Total)	15	15.14	15.22	101	101	80-120	1	30

LCS: LCSH32 LCSD: LCDH32	Batch: **H191123AA** (Sample number(s): 1034109-1034113)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dimethyl ether	5.00	5.05 J	4.96 J	101	99	70-130	2	30

LCS: LCSI33 LCSD: LCDI33	Batch: **I191141AA** (Sample number(s): 1034101-1034108, 1034114-1034115)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	5.00	3.12	2.98	62	60	43-123	5	30
Chloromethane	5.00	4.12	4.05	82	81	56-124	2	30
Vinyl Chloride	5.00	4.35	4.25	87	85	60-125	2	30
Bromomethane	5.00	4.26	4.11	85	82	60-136	4	30
Chloroethane	5.00	4.71	4.62	94	92	63-120	2	30
Trichlorofluoromethane	5.00	4.13	3.98	83	80	62-136	4	30
Ethyl ether	5.00	4.76 J	4.74 J	95	95	72-121	0	30
Acrolein	37.5	35.02	34.47	93	92	45-140	2	30
1,1-Dichloroethene	5.00	5.37	5.28	107	106	80-131	2	30
Freon 113	5.00	4.95	4.91	99	98	75-133	1	30
Acetone	37.5	33.7	34.46	90	92	60-146	2	30
Methyl Iodide	5.00	4.98 J	4.92 J	100	98	77-120	1	30

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSI33 LCSD: LCDI33 **Analyte**	Batch: **I191141AA** (Sample number(s): 1034101-1034108, 1034114-1034115)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Carbon Disulfide	5.00	4.84 J	4.64 J	97	93	67-130	4	30
Allyl Chloride	5.00	4.42 J	4.27 J	88	85	51-126	3	30
Methylene Chloride	5.00	5.45	5.29	109	106	80-120	3	30
Acrylonitrile	25	25.3	25.12	101	100	64-139	1	30
trans-1,2-Dichloroethene	5.00	4.83	4.76	97	95	80-122	2	30
1,1-Dichloroethane	5.00	5.28	5.18	106	104	74-120	2	30
2-Chloro-1,3-butadiene	5.00	4.92 J	4.73 J	98	95	60-128	4	30
2-Butanone	37.5	37.47	36.55	100	97	59-141	2	30
Propionitrile	37.5	38.66 J	37.87 J	103	101	63-145	2	30
Methacrylonitrile	37.5	39.47 J	37.83 J	105	101	60-145	4	30
Tetrahydrofuran	25	25.24	24.23 J	101	97	67-137	4	30
Chloroform	5.00	5.21	5.13	104	103	80-120	2	30
1,1,1-Trichloroethane	5.00	5.19	5.13	104	103	78-126	1	30
Carbon Tetrachloride	5.00	5.12	5.05	102	101	64-141	1	30
Isobutyl Alcohol	125	109.6 J	120.41 J	88	96	57-154	9	30
Benzene	5.00	5.20	5.09	104	102	80-120	2	30
1,2-Dichloroethane	5.00	5.11	5.07	102	101	69-122	1	30
Trichloroethene	5.00	5.17	5.14	103	103	80-120	1	30
1,2-Dichloropropane	5.00	5.35	5.29	107	106	80-120	1	30
Dibromomethane	5.00	5.15	5.09	103	102	80-122	1	30
Methyl Methacrylate	5.00	5.14 J	4.83 J	103	97	55-139	6	30
1,4-Dioxane	125	149.39 J	142.74 J	120	114	65-169	5	30
Bromodichloromethane	5.00	5.27	5.17	105	103	73-124	2	30
4-Methyl-2-pentanone	25	24.86	23.82	99	95	55-140	4	30
Toluene	5.00	5.20	5.16	104	103	80-120	1	30
trans-1,3-Dichloropropene	5.00	4.77	4.75	95	95	61-129	0	30
Ethyl Methacrylate	5.00	4.68 J	4.60 J	94	92	55-133	2	30
1,1,2-Trichloroethane	5.00	5.42	5.33	108	107	80-120	2	30
Tetrachloroethene	5.00	5.12	5.09	102	102	80-120	1	30
1,3-Dichloropropane	5.00	5.12	5.07	102	101	80-120	1	30
2-Hexanone	25	24.76	23.95	99	96	52-140	3	30
Dibromochloromethane	5.00	5.25	5.15	105	103	64-138	2	30
1,2-Dibromoethane	5.00	5.23	5.07	105	101	80-120	3	30
1,1,1,2-Tetrachloroethane	5.00	5.14	5.05	103	101	71-134	2	30
Ethylbenzene	5.00	5.07	5.08	101	102	80-120	0	30
Xylene (Total)	15	15.6	15.64	104	104	80-120	0	30
Styrene	5.00	5.23	5.19	105	104	80-120	1	30
Bromoform	5.00	5.16	5.03	103	101	49-144	3	30
1,1,2,2-Tetrachloroethane	5.00	5.01	5.10	100	102	75-123	2	30
trans-1,4-Dichloro-2-butene	25	22.39	20.46	90	82	10-172	9	30
1,2,3-Trichloropropane	5.00	5.22	5.22	104	104	80-125	0	30
Pentachloroethane	5.00	4.88 J	4.85 J	98	97	68-134	1	30

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSI33 LCSD: LCDI33 **Analyte**	Batch: **I191141AA** (Sample number(s): 1034101-1034108, 1034114-1034115)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,3-Dichlorobenzene	5.00	5.04	5.09	101	102	80-120	1	30
1,4-Dichlorobenzene	5.00	5.13	5.14	103	103	80-120	0	30
1,2-Dichlorobenzene	5.00	5.23	5.22	105	104	80-120	0	30
1,2-Dibromo-3-chloropropane	5.00	5.68	5.74	114	115	56-148	1	30
1,2,4-Trichlorobenzene	5.00	4.84	4.99	97	100	68-122	3	30
Hexachlorobutadiene	5.00	4.86	4.84	97	97	72-132	0	30
Naphthalene	5.00	4.67	4.83	93	97	64-122	3	30

LCS: LCSI34 LCSD: LCDI34 **Analyte**	Batch: **I191141AA** (Sample number(s): 1034101-1034108, 1034114-1034115)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Acetonitrile	37.5	44.01 J	43.35 J	117	116	51-160	2	30
Vinyl Acetate	12.5	13.08	13.19	105	106	38-145	1	30
Hexachloroethane	5.00	5.16 J	5.03 J	103	101	63-137	3	30
Dimethyl ether	5.00	4.20 J	4.18 J	84	84	70-130	0	30

LCS: LCSY63 LCSD: LCDY63 **Analyte**	Batch: **Y191141AA** (Sample number(s): 1034101-1034108)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
2-Propanol	150	142.32	139.34	95	93	52-144	2	30

Fraction: Volatiles by GC/MS

11996: 8260C (25 ml) Analyte Name	Default MDL	Default LOQ	Units
Dichlorodifluoromethane	0.05	1.0	ug/l
Chloromethane	0.06	1.0	ug/l
Vinyl Chloride	0.2	1.0	ug/l
Bromomethane	0.5	1.0	ug/l
Chloroethane	0.07	1.0	ug/l
Trichlorofluoromethane	0.05	1.0	ug/l
Ethyl ether	0.05	13	ug/l
Acrolein	3.4	25	ug/l
1,1-Dichloroethene	0.06	1.0	ug/l
Freon 113	0.06	1.0	ug/l
Acetone	0.9	10	ug/l
Methyl Iodide	0.6	10	ug/l
Carbon Disulfide	0.4	10	ug/l
Acetonitrile	32	100	ug/l
Allyl Chloride	0.8	10	ug/l
Methylene Chloride	0.07	1.0	ug/l
Acrylonitrile	0.5	10	ug/l
trans-1,2-Dichloroethene	0.2	1.0	ug/l
1,1-Dichloroethane	0.07	1.0	ug/l
Vinyl Acetate	3.3	10	ug/l
2-Chloro-1,3-butadiene	0.5	10	ug/l
2-Butanone	0.6	10	ug/l
Propionitrile	10	100	ug/l
Methacrylonitrile	9.8	100	ug/l
Tetrahydrofuran	0.8	25	ug/l
Chloroform	0.09	1.0	ug/l
1,1,1-Trichloroethane	0.06	1.0	ug/l
Carbon Tetrachloride	0.07	1.0	ug/l
Isobutyl Alcohol	3.6	200	ug/l
Benzene	0.05	1.0	ug/l
1,2-Dichloroethane	0.1	1.0	ug/l
Trichloroethene	0.06	1.0	ug/l
1,2-Dichloropropane	0.1	1.0	ug/l
Dibromomethane	0.07	1.0	ug/l
Methyl Methacrylate	3.6	10	ug/l
1,4-Dioxane	45	200	ug/l
Bromodichloromethane	0.09	1.0	ug/l
4-Methyl-2-pentanone	0.9	10	ug/l
Toluene	0.07	1.0	ug/l
trans-1,3-Dichloropropene	0.1	1.0	ug/l
Ethyl Methacrylate	0.8	10	ug/l
1,1,2-Trichloroethane	0.08	1.0	ug/l
Tetrachloroethene	0.06	1.0	ug/l
1,3-Dichloropropane	0.1	1.0	ug/l
2-Hexanone	0.6	10	ug/l
Dibromochloromethane	0.07	1.0	ug/l
1,2-Dibromoethane	0.06	1.0	ug/l

Fraction: Volatiles by GC/MS

11996: 8260C (25 ml) Analyte Name	Default MDL	Default LOQ	Units
1,1,1,2-Tetrachloroethane	0.08	1.0	ug/l
Ethylbenzene	0.06	1.0	ug/l
Xylene (Total)	0.1	3.0	ug/l
Styrene	0.05	1.0	ug/l
Bromoform	0.1	1.0	ug/l
1,1,2,2-Tetrachloroethane	0.2	1.0	ug/l
trans-1,4-Dichloro-2-butene	1	10	ug/l
1,2,3-Trichloropropane	0.1	1.0	ug/l
Pentachloroethane	0.8	10	ug/l
1,3-Dichlorobenzene	0.06	1.0	ug/l
1,4-Dichlorobenzene	0.07	1.0	ug/l
1,2-Dichlorobenzene	0.08	1.0	ug/l
1,2-Dibromo-3-chloropropane	0.2	1.0	ug/l
1,2,4-Trichlorobenzene	0.1	1.0	ug/l
Hexachlorobutadiene	0.07	1.0	ug/l
Naphthalene	0.1	1.0	ug/l
Hexachloroethane	0.1	10	ug/l
Dimethyl ether	0.04	13	ug/l

11997: 2-Propanol Analyte Name	Default MDL	Default LOQ	Units
2-Propanol	18	100	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: yj21t51.d BFB Injection Date: 01/21/19

Instrument ID: HP09355 BFB Injection Time: 07:03

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.70
75	30.0 - 60.0% of mass 95	48.73
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.04
173	Less than 2.0% of mass 174	0.39 (0.46)1
174	Greater than 50.0% of mass 95	84.49
175	5.0 - 9.0% of mass 174	6.23 (7.38)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.15 (97.24)1
177	5.0 - 9.0% of mass 176	5.42 (6.60)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	yj21i51.d	01/21/19	07:47
02	VSTD100	yj21i52.d	01/21/19	08:09
03	VSTD50	yj21i53.d	01/21/19	08:31
04	VSTD20	yj21i54.d	01/21/19	08:53
05	VSTD10	yj21i55.d	01/21/19	09:15
06	VSTD4	yj21i56.d	01/21/19	09:38
07	VSTD1	yj21i57.d	01/21/19	10:00
08	YLCICV	yj21v51.d	01/21/19	10:44

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ya24t01.d BFB Injection Date: 04/24/19

Instrument ID: HP09355 BFB Injection Time: 07:48

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.26
75	30.0 - 60.0% of mass 95	46.43
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.51
175	5.0 - 9.0% of mass 174	6.10 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	76.81 (95.41)1
177	5.0 - 9.0% of mass 176	5.00 (6.51)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ya24c01.d	04/24/19	08:31
02	LCSY63	ya24s01.d	04/24/19	09:37
03	LCSY65	ya24s31.d	04/24/19	09:37
04	LCDY63	ya24s02.d	04/24/19	10:22
05	LCDY65	ya24s32.d	04/24/19	10:22
06	VBLKY63	ya24b01.d	04/24/19	10:44
07	VBLKY65	ya24b05.d	04/24/19	10:44
08	1035498	ya24s03.d	04/24/19	12:40
09	1035499	ya24s04.d	04/24/19	13:02
10	1034104	ya24s05.d	04/24/19	13:24
11	1034105MS	ya24s06.d	04/24/19	13:46
12	1034106MSD	ya24s07.d	04/24/19	14:08
13	1034101	ya24s08.d	04/24/19	14:30
14	1034102	ya24s09.d	04/24/19	14:53
15	1034103	ya24s10.d	04/24/19	15:15
16	1034107	ya24s11.d	04/24/19	15:37
17	1034108	ya24s12.d	04/24/19	15:59
18	1035492	ya24s13.d	04/24/19	16:21
19	1035495	ya24s14.d	04/24/19	16:43
20	1035047	ya24s33.d	04/24/19	17:05
21	1035039	ya24s34.d	04/24/19	17:28
22	1035039MS	ya24s35.d	04/24/19	17:50

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ya24t01.d BFB Injection Date: 04/24/19

Instrument ID: HP09355 BFB Injection Time: 07:48

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.26
75	30.0 - 60.0% of mass 95	46.43
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.51
175	5.0 - 9.0% of mass 174	6.10 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	76.81 (95.41)1
177	5.0 - 9.0% of mass 176	5.00 (6.51)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1035039MSD	ya24s36.d	04/24/19	18:12
24	1035040	ya24s37.d	04/24/19	18:34
25	1035041	ya24s38.d	04/24/19	18:56
26	1035042	ya24s39.d	04/24/19	19:18

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: hn13t02.d BFB Injection Date: 11/13/18

Instrument ID: HP19094 BFB Injection Time: 11:59

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.80
75	30.0 - 60.0% of mass 95	46.67
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.65
173	Less than 2.0% of mass 174	0.89 (1.08)1
174	Greater than 50.0% of mass 95	82.49
175	5.0 - 9.0% of mass 174	6.02 (7.30)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.11 (95.91)1
177	5.0 - 9.0% of mass 176	5.17 (6.53)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD25	hn13i11.d	11/13/18	12:33
02	VSTD10	hn13i12.d	11/13/18	12:54
03	VSTD5	hn13i13.d	11/13/18	13:16
04	VSTD2	hn13i14.d	11/13/18	13:37
05	VSTD1	hn13i15.d	11/13/18	13:58
06	VSTD.5	hn13i16.d	11/13/18	14:20
07	VSTD.2	hn13i17.d	11/13/18	14:41
08	MDL0.1 - MDL0.1	hn13m11.d	11/13/18	15:03
09	ICVHSM	hn13v11.d	11/13/18	15:25
10	VSTD25	hn13i01.d	11/13/18	15:46
11	VSTD10	hn13i02.d	11/13/18	16:07
12	VSTD5	hn13i03.d	11/13/18	16:28
13	VSTD2	hn13i04.d	11/13/18	16:50
14	VSTD1	hn13i05.d	11/13/18	17:11
15	VSTD.5	hn13i06.d	11/13/18	17:33
16	VSTD.2	hn13i07.d	11/13/18	17:54
17	MDL0.1 - MDL0.1	hn13m01.d	11/13/18	18:15
18	ICVHLG	hn13v01.d	11/13/18	18:37

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ha22t03.d BFB Injection Date: 04/22/19

Instrument ID: HP19094 BFB Injection Time: 20:44

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.41
75	30.0 - 60.0% of mass 95	51.16
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.73 (0.79)1
174	Greater than 50.0% of mass 95	92.64
175	5.0 - 9.0% of mass 174	7.24 (7.81)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.50 (97.69)1
177	5.0 - 9.0% of mass 176	5.23 (5.77)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD10	ha22c01.d	04/22/19	21:16
02	VSTD10	ha22c02.d	04/22/19	21:37
03	LCSH28	ha22l41.d	04/22/19	21:58
04	LCSH31	ha22l71.d	04/22/19	21:58
05	LCDH28	ha22l42.d	04/22/19	22:20
06	LCDH31	ha22l72.d	04/22/19	22:20
07	LCSH30	ha22l43.d	04/22/19	22:41
08	LCSH32	ha22l73.d	04/22/19	22:41
09	LCDH30	ha22l44.d	04/22/19	23:03
10	LCDH32	ha22l74.d	04/22/19	23:03
11	VBLKH28	ha22b40.d	04/22/19	23:24
12	VBLKH31	ha22b70.d	04/22/19	23:24
13	1034274	ha22s45.d	04/22/19	23:50
14	1034283	ha22s46.d	04/23/19	00:11
15	1034285	ha22s47.d	04/23/19	00:33
16	1034275	ha22s48.d	04/23/19	00:54
17	1034276	ha22s49.d	04/23/19	01:15
18	1034278	ha22s50.d	04/23/19	01:36
19	1034280	ha22s51.d	04/23/19	01:58
20	1034281	ha22s52.d	04/23/19	02:19
21	1034282	ha22s53.d	04/23/19	02:41
22	1034284	ha22s54.d	04/23/19	03:02

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ha22t03.d BFB Injection Date: 04/22/19

Instrument ID: HP19094 BFB Injection Time: 20:44

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.41
75	30.0 - 60.0% of mass 95	51.16
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.73 (0.79)1
174	Greater than 50.0% of mass 95	92.64
175	5.0 - 9.0% of mass 174	7.24 (7.81)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.50 (97.69)1
177	5.0 - 9.0% of mass 176	5.23 (5.77)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1033182DL	ha22s55.d	04/23/19	03:24
24	1033183DL	ha22s56.d	04/23/19	03:45
25	1034265DL	ha22s57.d	04/23/19	04:07
26	1034272	ha22s58.d	04/23/19	04:28
27	1034272DL	ha22s59.d	04/23/19	04:49
28	1034277	ha22s60.d	04/23/19	05:11
29	1034279	ha22s61.d	04/23/19	05:32
30	1034109	ha22s75.d	04/23/19	05:54
31	1034110	ha22s76.d	04/23/19	06:15
32	1034111	ha22s77.d	04/23/19	06:36
33	1034112	ha22s78.d	04/23/19	06:58
34	1034113	ha22s79.d	04/23/19	07:20

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ia08t01.d BFB Injection Date: 04/08/19

Instrument ID: HP19930 BFB Injection Time: 15:37

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.17
75	30.0 - 60.0% of mass 95	47.26
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.52
173	Less than 2.0% of mass 174	1.39 (1.54)1
174	Greater than 50.0% of mass 95	90.35
175	5.0 - 9.0% of mass 174	6.71 (7.43)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.37 (95.59)1
177	5.0 - 9.0% of mass 176	5.60 (6.48)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD25	ia08i01.d	04/08/19	16:13
02	VSTD10	ia08i02.d	04/08/19	16:34
03	VSTD5	ia08i03.d	04/08/19	16:55
04	VSTD2	ia08i04.d	04/08/19	17:16
05	VSTD1	ia08i05.d	04/08/19	17:37
06	VSTD.5	ia08i06.d	04/08/19	17:59
07	VSTD.2	ia08i07.d	04/08/19	18:20
08	LCSILG	ia08v01.d	04/08/19	18:41

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ia23t02.d BFB Injection Date: 04/23/19

Instrument ID: HP19930 BFB Injection Time: 21:14

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.83
75	30.0 - 60.0% of mass 95	49.05
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.99
173	Less than 2.0% of mass 174	1.63 (1.80)1
174	Greater than 50.0% of mass 95	90.75
175	5.0 - 9.0% of mass 174	6.97 (7.68)1
176	Greater than 95.0%, but less than 101.0% of mass 174	87.20 (96.09)1
177	5.0 - 9.0% of mass 176	5.79 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD25	ia23i11.d	04/23/19	21:47
02	VSTD10	ia23i12.d	04/23/19	22:08
03	VSTD5	ia23i13.d	04/23/19	22:29
04	VSTD2	ia23i14.d	04/23/19	22:51
05	VSTD1	ia23i15.d	04/23/19	23:12
06	VSTD.5	ia23i16.d	04/23/19	23:33
07	VSTD.2	ia23i17.d	04/23/19	23:54
08	LCSISM	ia23v11.d	04/24/19	00:16

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ia24t03.d BFB Injection Date: 04/24/19

Instrument ID: HP19930 BFB Injection Time: 08:42

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.66
75	30.0 - 60.0% of mass 95	47.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.87
173	Less than 2.0% of mass 174	1.38 (1.47)1
174	Greater than 50.0% of mass 95	94.27
175	5.0 - 9.0% of mass 174	7.25 (7.69)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.25 (95.74)1
177	5.0 - 9.0% of mass 176	6.01 (6.66)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD10	ia24c01.d	04/24/19	09:28
02	VSTD10	ia24c02.d	04/24/19	09:49
03	LCSI33	ia24l01.d	04/24/19	10:10
04	LCSI35	ia24l31.d	04/24/19	10:10
05	LCDI33	ia24l02.d	04/24/19	10:31
06	LCDI35	ia24l32.d	04/24/19	10:31
07	LCSI34	ia24l03.d	04/24/19	10:53
08	LCSI36	ia24l33.d	04/24/19	10:53
09	LCDI34	ia24l04.d	04/24/19	11:14
10	LCDI36	ia24l34.d	04/24/19	11:14
11	MDLI33 - MDLI33	ia24m01.d	04/24/19	11:35
12	VBLKI33	ia24b01.d	04/24/19	11:56
13	VBLKI35	ia24b30.d	04/24/19	11:56
14	1034114	ia24s02.d	04/24/19	12:19
15	1034115	ia24s03.d	04/24/19	12:40
16	1034101	ia24s04.d	04/24/19	13:01
17	1034102	ia24s05.d	04/24/19	13:22
18	1034103	ia24s06.d	04/24/19	13:43
19	1034104	ia24s07.d	04/24/19	14:04
20	1034105MS	ia24s08.d	04/24/19	14:25
21	1034106MSD	ia24s09.d	04/24/19	14:47
22	1034105MS1	ia24s10.d	04/24/19	15:08

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ia24t03.d BFB Injection Date: 04/24/19

Instrument ID: HP19930 BFB Injection Time: 08:42

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.66
75	30.0 - 60.0% of mass 95	47.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.87
173	Less than 2.0% of mass 174	1.38 (1.47)1
174	Greater than 50.0% of mass 95	94.27
175	5.0 - 9.0% of mass 174	7.25 (7.69)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.25 (95.74)1
177	5.0 - 9.0% of mass 176	6.01 (6.66)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1034106MSD1	ia24s11.d	04/24/19	15:29
24	1034107	ia24s12.d	04/24/19	15:51
25	1034108	ia24s13.d	04/24/19	16:12
26	1034103DL	ia24s14.d	04/24/19	16:33
27	1034101DL	ia24s15.d	04/24/19	16:54
28	1033957DL	ia24s37.d	04/24/19	17:15
29	1033958DL	ia24s38.d	04/24/19	17:36
30	1033959RE	ia24s39.d	04/24/19	17:57
31	1033959DL	ia24s40.d	04/24/19	18:19
32	1033960DL	ia24s41.d	04/24/19	18:40
33	1033961DL	ia24s42.d	04/24/19	19:01
34	1033962DL	ia24s43.d	04/24/19	19:22
35	1033963DL	ia24s44.d	04/24/19	19:44
36	1033964DL	ia24s45.d	04/24/19	20:05

FORM V VOA

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 01/21/19 01/21/19

Heated Purge: (Y/N) Y Calibration Times: 07:47 10:00

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = yj21i57.d RRF 4 = yj21i56.d RRF 10= yj21i55.d
RRF 20= yj21i54.d RRF 50= yj21i53.d RRF100= yj21i52.d RRF300= yj21i51.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.3224	0.4329	0.4908	0.3941	0.4246	0.4566	0.4478	0.4242	13	AVG	#
Chloromethane	#0.3198	0.3636	0.3856	0.3291	0.3333	0.3519	0.3342	0.3454	7	AVG	#
1,3-Butadiene	0.2412	0.2645	0.2374	0.2284	0.2337	0.2531	0.2498	0.2440	5	AVG	
Vinyl Chloride	#0.3070	0.3630	0.3848	0.3270	0.3349	0.3564	0.3438	0.3453	7	AVG	#
Bromomethane	#0.2531	0.2909	0.3070	0.2769	0.2681	0.2770	0.2576	0.2758	7	AVG	#
Chloroethane	#0.2460	0.2249	0.2232	0.1956	0.1902	0.1974	0.1867	0.2091	11	AVG	#
Dichlorofluoromethane	0.4167	0.4573	0.4497	0.4240	0.3919	0.4125	0.3996	0.4217	6	AVG	
n-Pentane	0.5261	0.4204	0.3690	0.3439	0.3581	0.3836	0.3763	0.3968	16	AVG	
Trichlorofluoromethane	#0.3949	0.5109	0.5504	0.4546	0.4802	0.5124	0.5065	0.4871	10	AVG	#
Ethyl ether	0.2175	0.2547	0.2432	0.2461	0.2410	0.2474	0.2450	0.2421	5	AVG	
Freon 123a	0.2483	0.3116	0.2777	0.2717	0.2747	0.2910	0.2816	0.2795	7	AVG	
Acrolein	1.5999	1.7454	1.7926	1.6876	2.0719	1.7817	1.8344	1.7876	8	AVG	
1,1-Dichloroethene	#0.1703	0.2192	0.2007	0.2055	0.2099	0.2220	0.2199	0.2068	9	AVG	#
1,1-Dichloroethene(2)	#0.0868	0.1144	0.1045	0.1029	0.1057	0.1111	0.1088	0.1049	8	AVG	#
Acetone	#0.7757	0.9169	0.9359	0.8744	1.0411	0.8944	0.9140	0.9075	9	AVG	#
Freon 113	#0.1717	0.2410	0.2230	0.2189	0.2356	0.2501	0.2490	0.2270	12	AVG	#
2-Propanol	0.6436	0.6437	0.6483	0.6310	0.6028	0.6340	0.6268	0.6329	2	AVG	
Methyl Iodide	0.3613	0.4309	0.4293	0.4206	0.4183	0.4347	0.4231	0.4169	6	AVG	
Carbon Disulfide	#0.5350	0.6669	0.6601	0.6650	0.6937	0.7430	0.7336	0.6711	10	AVG	#
Allyl Chloride	0.3417	0.3832	0.3988	0.3784	0.3774	0.3965	0.3906	0.3809	5	AVG	
Methyl Acetate	#0.3944	0.3707	0.3736	0.3886	0.3646	0.3814	0.3746	0.3783	3	AVG	#
Methylene Chloride	#0.2456	0.2653	0.2581	0.2572	0.2497	0.2586	0.2532	0.2554	3	AVG	#
t-Butyl alcohol	1.2314	1.2667	1.3538	1.2716	1.2386	1.3055	1.2740	1.2774	3	AVG	
Acrylonitrile	0.1719	0.1981	0.2112	0.2080	0.2449	0.2040	0.1961	0.2049	11	AVG	
trans-1,2-Dichloroethene	#0.2119	0.2591	0.2547	0.2482	0.2462	0.2596	0.2554	0.2479	7	AVG	#
Methyl Tertiary Butyl Ether	#0.6597	0.7217	0.7415	0.7277	0.6925	0.7012	0.6629	0.7010	5	AVG	#
n-Hexane	0.3257	0.4051	0.3918	0.3684	0.3769	0.4048	0.4119	0.3835	8	AVG	
1,1-Dichloroethane	#0.3687	0.4501	0.4470	0.4382	0.4308	0.4489	0.4410	0.4321	7	AVG	#
di-Isopropyl ether	0.7255	0.8146	0.8301	0.8191	0.7921	0.8114	0.7724	0.7950	5	AVG	
2-Chloro-1,3-butadiene	0.3041	0.3961	0.3809	0.3827	0.3928	0.4164	0.4154	0.3840	10	AVG	
Ethyl t-butyl ether	0.6563	0.7370	0.7528	0.7400	0.6856	0.6761	0.6053	0.6933	8	AVG	
cis-1,2-Dichloroethene	#0.2502	0.2906	0.2937	0.2845	0.2792	0.2916	0.2913	0.2830	5	AVG	#
2-Butanone	#0.2831	0.3003	0.3138	0.3109	0.3600	0.2983	0.2875	0.3077	8	AVG	#
2,2-Dichloropropane	0.2816	0.3498	0.3484	0.3512	0.3582	0.3772	0.3740	0.3486	9	AVG	
Propionitrile	1.2030	1.2988	1.3007	1.2823	1.2557	1.3097	1.3973	1.2925	5	AVG	
Methacrylonitrile	0.1839	0.2030	0.2047	0.2132	0.2035	0.2112	0.2115	0.2044	5	AVG	
Bromochloromethane	0.1328	0.1547	0.1652	0.1597	0.1557	0.1629	0.1633	0.1563	7	AVG	
Tetrahydrofuran	1.2026	1.2783	1.3303	1.2827	1.5516	1.3242	1.4299	1.3428	9	AVG	
Chloroform	#0.3827	0.4472	0.4525	0.4469	0.4391	0.4599	0.4556	0.4405	6	AVG	#
1,1,1-Trichloroethane	#0.3202	0.3894	0.3923	0.3834	0.3926	0.4101	0.4143	0.3860	8	AVG	#
Cyclohexane	#0.3847	0.4709	0.4460	0.4263	0.4488	0.4728	0.4753	0.4464	7	AVG	#
Cyclohexane(2)	#0.3748	0.4807	0.3958	0.3767	0.3952	0.4238	0.4250	0.4103	9	AVG	#
Cyclohexane(3)	#0.1186	0.1487	0.1419	0.1376	0.1433	0.1525	0.1535	0.1423	8	AVG	#
1,1-Dichloropropene	0.2938	0.3686	0.3615	0.3493	0.3503	0.3683	0.3638	0.3508	8	AVG	
Carbon Tetrachloride	#0.2570	0.3285	0.3222	0.3255	0.3429	0.3700	0.3794	0.3322	12	AVG	#
Isobutyl Alcohol	0.4011	0.4093	0.4617	0.4053	0.3899	0.4080	0.4286	0.4148	6	AVG	
Benzene	#0.9238	1.0836	1.0768	1.0516	1.0273	1.0616	1.0463	1.0387	5	AVG	#
1,2-Dichloroethane	#0.3804	0.3967	0.3763	0.3690	0.3575	0.3678	0.3635	0.3730	3	AVG	#
1,2-Dichloroethane(2)	#0.0233	0.0340	0.0358	0.0337	0.0329	0.0341	0.0337	0.0325	13	AVG	#<-
t-Amyl methyl ether	0.6905	0.7899	0.8004	0.7894	0.7274	0.6988	0.5982	0.7278	10	AVG	
n-Heptane	0.3809	0.4395	0.4326	0.4061	0.3961	0.4228	0.4438	0.4174	6	AVG	
n-Butanol	0.2844	0.3295	0.3858	0.3545	0.3460	0.3685	0.3902	0.3513	10	AVG	

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 01/21/19 01/21/19

Heated Purge: (Y/N) Y Calibration Times: 07:47 10:00

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = yj21i57.d RRF 4 = yj21i56.d RRF 10= yj21i55.d
RRF 20= yj21i54.d RRF 50= yj21i53.d RRF100= yj21i52.d RRF300= yj21i51.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2270	0.2825	0.2833	0.2751	0.2724	0.2852	0.2880	0.2734	8	AVG #
Methylcyclohexane	#0.4152	0.5262	0.5337	0.5004	0.5128	0.5472	0.5722	0.5154	10	AVG #
Methylcyclohexane(2)	#0.1851	0.2422	0.2376	0.2240	0.2322	0.2481	0.2617	0.2330	10	AVG #
1,2-Dichloropropane	#0.2083	0.2632	0.2670	0.2638	0.2569	0.2691	0.2711	0.2571	9	AVG #
Dibromomethane	0.1561	0.1867	0.1854	0.1865	0.1820	0.1892	0.1928	0.1827	7	AVG
1,4-Dioxane	0.0855	0.1016	0.0993	0.0994	0.0981	0.1027	0.1066	0.0990	7	AVG
Methyl Methacrylate	0.2487	0.2908	0.3047	0.3127	0.3054	0.3211	0.3304	0.3020	9	AVG
Bromodichloromethane	#0.2375	0.2956	0.3089	0.3194	0.3227	0.3453	0.3573	0.3124	13	AVG #
2-Nitropropane	0.1102	0.1180	0.1325	0.1438	0.1812	0.1551	0.1553	0.1423	17	AVG
2-Chloroethyl Vinyl Ether	0.1681	0.1974	0.2122	0.2156	0.2132	0.2209	0.2300	0.2082	10	AVG
cis-1,3-Dichloropropene	#0.3011	0.3821	0.4110	0.4202	0.4250	0.4487	0.4600	0.4069	13	AVG #
4-Methyl-2-pentanone	#0.4580	0.5140	0.5596	0.5520	0.6599	0.5456	0.5168	0.5437	11	AVG #
Toluene	#0.8142	0.9293	0.9317	0.9005	0.8850	0.9153	0.9008	0.8967	4	AVG #
trans-1,3-Dichloropropene	#0.3623	0.4509	0.4832	0.5149	0.5326	0.5676	0.5771	0.4984	15	AVG #
Ethyl Methacrylate	0.4516	0.5765	0.6353	0.6558	0.6463	0.6766	0.6779	0.6172	13	AVG
1,1,2-Trichloroethane	#0.3036	0.3507	0.3595	0.3566	0.3431	0.3545	0.3547	0.3461	6	AVG #
Tetrachloroethene	#0.3374	0.4046	0.4063	0.3897	0.3810	0.3965	0.4030	0.3884	6	AVG #
1,3-Dichloropropane	0.5214	0.5933	0.6069	0.5980	0.5767	0.5924	0.5870	0.5822	5	AVG
2-Hexanone	#0.4626	0.5422	0.6003	0.5982	0.6929	0.5736	0.5375	0.5725	12	AVG #
Dibromochloromethane	#0.2344	0.2988	0.3351	0.3549	0.3693	0.3982	0.4120	0.3432	18	AVG #
1,2-Dibromoethane	#0.3202	0.3773	0.3927	0.4049	0.3893	0.4028	0.4038	0.3844	8	AVG #
1-Chlorohexane	0.4817	0.5091	0.5040	0.4714	0.4723	0.4919	0.5053	0.4908	3	AVG
Chlorobenzene	#0.9003	1.0641	1.0919	1.0447	1.0127	1.0349	1.0205	1.0241	6	AVG #
1,1,1,2-Tetrachloroethane	0.2508	0.3080	0.3482	0.3435	0.3495	0.3676	0.3758	0.3348	13	AVG
Ethylbenzene	#1.5131	1.8010	1.8503	1.7646	1.7341	1.7876	1.7250	1.7394	6	AVG #
m+p-Xylene	#0.5694	0.7019	0.7364	0.7022	0.6896	0.7152	0.7004	0.6879	8	AVG #
o-Xylene	#0.5644	0.6759	0.7116	0.6913	0.6793	0.7007	0.6979	0.6744	7	AVG #
Styrene	#0.8344	1.0465	1.1634	1.1464	1.1491	1.1984	1.1852	1.1033	12	AVG #
Bromoform	#	0.2067	0.2453	0.2579	0.2810	0.3093	0.3299	0.2717	16	AVG #
Isopropylbenzene	#1.4177	1.8144	1.9109	1.7732	1.7682	1.8190	1.7353	1.7484	9	AVG #
Cyclohexanone	0.3602	0.4347	0.4323	0.4539	0.4581	0.4654	0.4920	0.4424	9	AVG
Bromobenzene	0.7409	0.8582	0.8898	0.8488	0.8230	0.8531	0.8553	0.8384	6	AVG
1,1,2,2-Tetrachloroethane	#0.9384	1.0604	1.1866	1.1262	1.0915	1.1262	1.1111	1.0915	7	AVG #
1,2,3-Trichloropropane	0.3536	0.3737	0.4102	0.3861	0.3627	0.3789	0.3741	0.3770	5	AVG
trans-1,4-Dichloro-2-butene	0.2917	0.3560	0.3911	0.3934	0.3748	0.3895	0.3692	0.3665	10	AVG
n-Propylbenzene	3.1065	3.9218	4.0640	3.7830	3.6991	3.8022	3.5275	3.7006	8	AVG
2-Chlorotoluene	0.6936	0.8199	0.8434	0.7944	0.7666	0.7961	0.7905	0.7864	6	AVG
4-Chlorotoluene	0.7408	0.8266	0.8864	0.8231	0.8062	0.8362	0.8357	0.8221	5	AVG
1,3,5-Trimethylbenzene	2.1791	2.7894	3.0347	2.8500	2.7768	2.8967	2.7938	2.7601	10	AVG
tert-Butylbenzene	0.4622	0.6028	0.6182	0.5862	0.5768	0.6039	0.6210	0.5816	9	AVG
Pentachloroethane	0.3178	0.4157	0.4577	0.4792	0.4902	0.5352	0.5508	0.4638	17	AVG
1,2,4-Trimethylbenzene	2.2456	2.8928	3.1476	2.9449	2.8924	3.0236	2.9037	2.8644	10	AVG
sec-Butylbenzene	2.8509	3.6437	3.8970	3.6081	3.5109	3.6702	3.4558	3.5195	9	AVG
1,3-Dichlorobenzene	#1.4356	1.6526	1.7584	1.6326	1.5746	1.6412	1.6121	1.6153	6	AVG #
p-Isopropyltoluene	2.4051	3.1033	3.3594	3.1690	3.1140	3.2771	3.1262	3.0792	10	AVG
1,4-Dichlorobenzene	#1.5023	1.7013	1.8206	1.6776	1.6098	1.6714	1.6393	1.6603	6	AVG #
1,2,3-Trimethylbenzene	2.6364	3.1056	3.2673	3.2104	3.0716	3.2015	3.0607	3.0791	7	AVG
Benzyl Chloride		1.7401	2.1230	2.2174	2.3362	2.5553	2.5602	2.2554	14	AVG
1,3-Diethylbenzene	1.4665	1.8980	2.0224	2.0163	1.9382	2.0407	2.0147	1.9138	11	AVG
1,4-Diethylbenzene	1.5662	2.0259	2.1700	2.1459	2.0566	2.1828	2.1358	2.0405	11	AVG
1,2-Dichlorobenzene	#1.4211	1.6421	1.7028	1.6114	1.5423	1.6040	1.5735	1.5853	6	AVG #
n-Butylbenzene	1.2873	1.6232	1.7199	1.5972	1.5554	1.6475	1.6442	1.5821	9	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 01/21/19 01/21/19

Heated Purge: (Y/N) Y Calibration Times: 07:47 10:00

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = yj21i57.d RRF 4 = yj21i56.d RRF 10= yj21i55.d
RRF 20= yj21i54.d RRF 50= yj21i53.d RRF100= yj21i52.d RRF300= yj21i51.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.2953	1.6111	1.7058	1.6867	1.6122	1.7007	1.6860	1.6140	9	AVG
1,2-Dibromo-3-chloropropane	#0.2339	0.2761	0.3076	0.3078	0.3102	0.3288	0.3306	0.2993	11	AVG #
1,3,5-Trichlorobenzene	1.1479	1.2514	1.3358	1.2399	1.1771	1.2431	1.2322	1.2325	5	AVG
1,2,4-Trichlorobenzene	#1.1081	1.2016	1.2499	1.1650	1.1248	1.1848	1.1529	1.1696	4	AVG #
Hexachlorobutadiene	0.5221	0.5527	0.5576	0.5201	0.5008	0.5395	0.5335	0.5323	4	AVG
Naphthalene	3.6941	4.1055	4.3566	4.1539	4.0442	4.2185	3.7242	4.0424	6	AVG
1,2,3-Trichlorobenzene	1.0944	1.2081	1.2117	1.1242	1.0854	1.1437	1.0959	1.1376	5	AVG
2-Methylnaphthalene	2.0204	2.2203	2.4043	2.5219	2.5032	2.6680	2.4854	2.4034	9	AVG
Dibromofluoromethane	0.2374	0.2385	0.2404	0.2400	0.2441	0.2449	0.2429	0.2412	1	AVG
Dibromofluoromethane(2)	0.2430	0.2441	0.2456	0.2458	0.2495	0.2499	0.2485	0.2466	1	AVG
1,2-Dichloroethane-d4	0.0602	0.0606	0.0609	0.0606	0.0601	0.0606	0.0604	0.0605	0	AVG
1,2-Dichloroethane-d4(2)	0.3002	0.2957	0.2957	0.2933	0.2959	0.2963	0.2944	0.2959	1	AVG
1,2-Dichloroethane-d4(3)	0.0388	0.0390	0.0388	0.0391	0.0391	0.0391	0.0382	0.0388	1	AVG
Toluene-d8	1.3182	1.3199	1.3204	1.3144	1.3151	1.3064	1.2916	1.3123	1	AVG
Toluene-d8(2)	0.8447	0.8461	0.8419	0.8449	0.8444	0.8429	0.8392	0.8434	0	AVG
4-Bromofluorobenzene	0.4980	0.5009	0.5036	0.5018	0.5043	0.5017	0.4970	0.5010	1	AVG
4-Bromofluorobenzene(2)	0.4130	0.4118	0.4150	0.4111	0.4109	0.4125	0.4085	0.4118	0	AVG

Average %RSD 8

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP09355.i/19jan21c.b/yj21i51.d	VSTD300
/chem2/HP09355.i/19jan21c.b/yj21i52.d	VSTD100
/chem2/HP09355.i/19jan21c.b/yj21i53.d	VSTD050
/chem2/HP09355.i/19jan21c.b/yj21i54.d	VSTD020
/chem2/HP09355.i/19jan21c.b/yj21i55.d	VSTD010
/chem2/HP09355.i/19jan21c.b/yj21i56.d	VSTD004
/chem2/HP09355.i/19jan21c.b/yj21i57.d	VSTD001

Area Summary

File ID:

Internal Standard Name	yj21i51.d	yj21i52.d	yj21i53.d	yj21i54.d	yj21i55.d	yj21i56.d	yj21i57.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	391431	428236	437229	442324	415197	411481	425236	421591	4	Yes
Fluorobenzene	1291999	1275532	1274730	1236618	1219425	1226863	1211198	1248052	3	Yes
Chlorobenzene-d5	1005540	978591	973869	941997	929063	930251	920766	954297	3	Yes
1,4-Dichlorobenzene-d4	557543	539694	541928	521257	518745	516177	511924	529610	3	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	yj21i51.d	yj21i52.d	yj21i53.d	yj21i54.d	yj21i55.d	yj21i56.d	yj21i57.d	Avg. RT
t-Butyl alcohol-d10	4.276	4.276	4.264	4.264	4.270	4.264	4.264	4.268
Fluorobenzene	7.811	7.811	7.805	7.799	7.805	7.805	7.805	7.806
Chlorobenzene-d5	11.279	11.272	11.272	11.272	11.272	11.272	11.272	11.273
1,4-Dichlorobenzene-d4	13.165	13.158	13.158	13.158	13.158	13.158	13.158	13.159

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 01/23/2019 at 12:47.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 01/21/19 Time: 10:44

Lab File ID: yj21v51.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
Dichlorodifluoromethane	0.4242	0.3151	14.86	20	-26	#
Chloromethane	0.3454	0.2956	17.12	20	-14	#
1,3-Butadiene	0.2440	0.2896	23.73	20	19	
Vinyl Chloride	0.3453	0.3154	18.27	20	-9	#
Bromomethane	0.2758	0.2092	15.17	20	-24	#
Chloroethane	0.2091	0.1753	16.76	20	-16	#
Dichlorofluoromethane	0.4217	0.4190	19.88	20	-1	
n-Pentane	0.3968	0.4126	20.80	20	4	
Trichlorofluoromethane	0.4871	0.4477	18.38	20	-8	#
Ethyl ether	0.2421	0.2495	20.61	20	3	
Freon 123a	0.2795	0.3003	21.49	20	7	
Acrolein	1.7876	1.6759	140.62	150	-6	
1,1-Dichloroethene	0.2068	0.2411	23.32	20	17	#
Acetone	0.9075	1.1368	187.90	150	25	#
Freon 113	0.2270	0.2607	22.96	20	15	#
2-Propanol	0.6329	0.6290	149.08	150	-1	
Methyl Iodide	0.4169	0.4414	21.17	20	6	
Carbon Disulfide	0.6711	0.6902	20.57	20	3	#
Allyl Chloride	0.3809	0.3527	18.52	20	-7	
Methyl Acetate	0.3783	0.3816	20.17	20	1	#
Methylene Chloride	0.2554	0.2779	21.76	20	9	#
t-Butyl alcohol	1.2774	1.2828	200.85	200	0	
Acrylonitrile	0.2049	0.1936	94.48	100	-6	
trans-1,2-Dichloroethene	0.2479	0.2767	22.32	20	12	#
Methyl Tertiary Butyl Ether	0.7010	0.7182	20.49	20	2	#
n-Hexane	0.3835	0.4073	21.24	20	6	
1,1-Dichloroethane	0.4321	0.4611	21.34	20	7	#
di-Isopropyl ether	0.7950	0.8244	20.74	20	4	
2-Chloro-1,3-butadiene	0.3840	0.4049	21.09	20	5	
Ethyl t-butyl ether	0.6933	0.7130	20.57	20	3	
cis-1,2-Dichloroethene	0.2830	0.3122	22.06	20	10	#
2-Butanone	0.3077	0.3300	160.84	150	7	#
2,2-Dichloropropane	0.3486	0.3815	21.88	20	9	
Propionitrile	1.2925	1.3795	160.10	150	7	
Methacrylonitrile	0.2044	0.2107	154.62	150	3	
Bromochloromethane	0.1563	0.1571	20.10	20	1	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 01/21/19 Time: 10:44

Lab File ID: yj21v51.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.3428	1.3836	103.04	100	3	
#	Chloroform	0.4405	0.4810	21.84	20	9	#
#	1,1,1-Trichloroethane	0.3860	0.4253	22.04	20	10	#
#	Cyclohexane	0.4464	0.4734	21.21	20	6	#
	1,1-Dichloropropene	0.3508	0.3841	21.90	20	9	
#	Carbon Tetrachloride	0.3322	0.3609	21.73	20	9	#
	Isobutyl Alcohol	0.4148	0.4042	487.17	500	-3	
#	Benzene	1.0387	1.1209	21.58	20	8	#
#	1,2-Dichloroethane	0.3730	0.4024	21.58	20	8	#
	t-Amyl methyl ether	0.7278	0.7786	21.40	20	7	
	n-Heptane	0.4174	0.4359	20.89	20	4	
	n-Butanol	0.3513	0.3477	989.87	1000	-1	
#	Trichloroethene	0.2734	0.2955	21.62	20	8	#
#	Methylcyclohexane	0.5154	0.5255	20.39	20	2	#
#	1,2-Dichloropropane	0.2571	0.2827	22.00	20	10	#
	Dibromomethane	0.1827	0.1968	21.54	20	8	
	1,4-Dioxane	0.0990	0.1039	524.66	500	5	
	Methyl Methacrylate	0.3020	0.3014	19.96	20	0	
#	Bromodichloromethane	0.3124	0.3328	21.31	20	7	#
	2-Nitropropane	0.1423	0.1200	16.87	20	-16	
	2-Chloroethyl Vinyl Ether	0.2082	0.2121	20.38	20	2	
#	cis-1,3-Dichloropropene	0.4069	0.4303	21.15	20	6	#
#	4-Methyl-2-pentanone	0.5437	0.5349	98.39	100	-2	#
#	Toluene	0.8967	0.9570	21.35	20	7	#
#	trans-1,3-Dichloropropene	0.4984	0.5162	20.71	20	4	#
	Ethyl Methacrylate	0.6172	0.6218	20.15	20	1	
#	1,1,2-Trichloroethane	0.3461	0.3850	22.25	20	11	#
#	Tetrachloroethene	0.3884	0.4233	21.80	20	9	#
	1,3-Dichloropropane	0.5822	0.6134	21.07	20	5	
#	2-Hexanone	0.5725	0.5916	103.35	100	3	#
#	Dibromochloromethane	0.3432	0.3621	21.10	20	6	#
#	1,2-Dibromoethane	0.3844	0.4110	21.38	20	7	#
	1-Chlorohexane	0.4908	0.5141	20.95	20	5	
#	Chlorobenzene	1.0241	1.1097	21.67	20	8	#
	1,1,1,2-Tetrachloroethane	0.3348	0.3559	21.26	20	6	
#	Ethylbenzene	1.7394	1.8632	21.42	20	7	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 01/21/19 Time: 10:44

Lab File ID: yj21v51.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.6879	0.7548	43.89	40	10	#
# o-Xylene	0.6744	0.7242	21.47	20	7	#
# Styrene	1.1033	1.2093	21.92	20	10	#
# Bromoform	0.2717	0.2516	18.52	20	-7	#
# Isopropylbenzene	1.7484	1.9293	22.07	20	10	#
Cyclohexanone	0.4424	0.4409	498.30	500	0	
Bromobenzene	0.8384	0.8927	21.29	20	6	
# 1,1,2,2-Tetrachloroethane	1.0915	1.1593	21.24	20	6	#
1,2,3-Trichloropropane	0.3770	0.4047	21.47	20	7	
trans-1,4-Dichloro-2-butene	0.3665	0.3977	108.51	100	9	
n-Propylbenzene	3.7006	4.0949	22.13	20	11	
2-Chlorotoluene	0.7864	0.8368	21.28	20	6	
4-Chlorotoluene	0.8221	0.8761	21.31	20	7	
1,3,5-Trimethylbenzene	2.7601	3.0050	21.77	20	9	
tert-Butylbenzene	0.5816	0.6242	21.47	20	7	
Pentachloroethane	0.4638	0.4715	20.33	20	2	
1,2,4-Trimethylbenzene	2.8644	3.1127	21.73	20	9	
sec-Butylbenzene	3.5195	3.8545	21.90	20	10	
# 1,3-Dichlorobenzene	1.6153	1.7143	21.23	20	6	#
p-Isopropyltoluene	3.0792	3.4057	22.12	20	11	
# 1,4-Dichlorobenzene	1.6603	1.7774	21.41	20	7	#
1,2,3-Trimethylbenzene	3.0791	3.2783	21.29	20	6	
Benzyl Chloride	2.2554	2.0823	18.47	20	-8	
1,3-Diethylbenzene	1.9138	2.0308	21.22	20	6	
1,4-Diethylbenzene	2.0405	2.1119	20.70	20	4	
# 1,2-Dichlorobenzene	1.5853	1.6909	21.33	20	7	#
n-Butylbenzene	1.5821	1.6892	21.35	20	7	
1,2-Diethylbenzene	1.6140	1.7167	21.27	20	6	
# 1,2-Dibromo-3-chloropropane	0.2993	0.3092	20.66	20	3	#
1,3,5-Trichlorobenzene	1.2325	1.2936	20.99	20	5	
# 1,2,4-Trichlorobenzene	1.1696	1.2276	20.99	20	5	#
Hexachlorobutadiene	0.5323	0.5440	20.44	20	2	
Naphthalene	4.0424	4.2804	21.18	20	6	
1,2,3-Trichlorobenzene	1.1376	1.1767	20.69	20	3	
2-Methylnaphthalene	2.4034	2.4643	20.51	20	3	
			Average %Drift		7	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 11/13/18 11/13/18

Heated Purge: (Y/N) Y Calibration Times: 15:46 17:54

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hn13i07.d RRF0.5= hn13i06.d RRF 1 = hn13i05.d
RRF 2 = hn13i04.d RRF 5 = hn13i03.d RRF 10= hn13i02.d RRF 25= hn13i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.3263	0.3299	0.3276	0.3353	0.3394	0.3281	0.3592	0.3351	3	AVG #
Chloromethane	#0.3447	0.3123	0.3174	0.3183	0.3197	0.3209	0.3363	0.3242	4	AVG #
Vinyl Chloride	#0.2982	0.2887	0.2882	0.2889	0.2946	0.2906	0.3094	0.2941	3	AVG #
1,3-Butadiene	0.2573	0.2396	0.2586	0.2362	0.2326	0.2251	0.2431	0.2418	5	AVG
Bromomethane	#0.2271	0.2303	0.2226	0.2182	0.2189	0.2166	0.2272	0.2230	2	AVG #
Chloroethane	#0.1844	0.1710	0.1727	0.1758	0.1749	0.1702	0.1791	0.1754	3	AVG #
Dichlorofluoromethane	0.5446	0.4495	0.4385	0.4415	0.4483	0.4352	0.4491	0.4581	8	AVG
Trichlorofluoromethane	#0.4104	0.3769	0.3891	0.3843	0.4029	0.3941	0.4145	0.3960	4	AVG #
Ethyl ether	0.1389	0.1264	0.1349	0.1317	0.1378	0.1346	0.1402	0.1349	4	AVG
Freon 123a	0.2818	0.2710	0.2863	0.2678	0.2707	0.2660	0.2724	0.2737	3	AVG
Acrolein	2.1900	2.1002	1.8897	1.9102	1.8912	1.9130	2.0454	1.9914	6	AVG
1,1-Dichloroethene	#0.1973	0.1787	0.1955	0.1797	0.1782	0.1786	0.1825	0.1844	5	AVG #
Freon 113	#0.1936	0.2019	0.2241	0.2158	0.2129	0.2146	0.2214	0.2120	5	AVG #
Acetone	#3.4104	2.6737	2.4234	2.2168	2.1716	2.1512	2.3038	2.4787	18	AVG #
Methyl Iodide	0.3672	0.3630	0.3963	0.3745	0.3683	0.3720	0.3794	0.3744	3	AVG
Carbon Disulfide	#0.5937	0.5417	0.6078	0.5528	0.5547	0.5541	0.5680	0.5675	4	AVG #
Allyl Chloride	0.4437	0.4050	0.3971	0.3742	0.3769	0.3768	0.3825	0.3937	6	AVG
Methyl Acetate	#11.446	10.143	8.1002	7.7637	7.5917	7.0135	8.1267	8.5979	19	AVG #
Methylene Chloride	#0.2207	0.2024	0.2112	0.1878	0.1872	0.1869	0.1892	0.1979	7	AVG #
t-Butyl Alcohol	0.5378	0.6278	0.7483	0.7075	0.6809	0.6622	0.6543	0.6598	10	AVG
Acrylonitrile	3.5546	3.9383	3.6535	3.2684	3.2969	3.4036	3.5769	3.5275	7	AVG
trans-1,2-Dichloroethene	#0.2232	0.2047	0.2160	0.1987	0.2011	0.1990	0.2042	0.2067	5	AVG #
Methyl Tertiary Butyl Ether	#0.4134	0.3991	0.4431	0.4066	0.4097	0.4031	0.4057	0.4115	4	AVG #
n-Hexane	0.3471	0.3419	0.3795	0.3510	0.3491	0.3505	0.3607	0.3543	4	AVG
1,1-Dichloroethane	#0.4057	0.3897	0.4299	0.3988	0.3964	0.3957	0.4087	0.4036	3	AVG #
di-Isopropyl Ether	0.7639	0.7289	0.7979	0.7410	0.7381	0.7323	0.7422	0.7492	3	AVG
2-Chloro-1,3-Butadiene	0.3792	0.3694	0.3915	0.3634	0.3681	0.3658	0.3763	0.3734	3	AVG
Ethyl t-butyl ether	0.6264	0.5865	0.6591	0.6059	0.6047	0.5972	0.6030	0.6118	4	AVG
cis-1,2-Dichloroethene	#0.2378	0.2232	0.2424	0.2259	0.2264	0.2250	0.2288	0.2299	3	AVG #
2,2-Dichloropropane	0.3378	0.3142	0.3536	0.3242	0.3228	0.3217	0.3278	0.3289	4	AVG
2-Butanone	#6.2958	5.7275	5.2591	4.5650	4.4853	4.4857	4.6598	5.0683	14	AVG #
Propionitrile	1.3217	1.3263	1.4236	1.2283	1.2290	1.2352	1.3021	1.2952	6	AVG
Methacrylonitrile	5.2414	5.1328	4.8576	4.4245	4.4505	4.4846	4.6106	4.7431	7	AVG
Bromochloromethane	0.0862	0.0904	0.0898	0.0911	0.0927	0.0909	0.0920	0.0904	2	AVG
Tetrahydrofuran	1.3270	1.3430	1.1781	1.1351	1.1232	1.1560	1.2191	1.2116	7	AVG
Chloroform	#0.3768	0.3530	0.3980	0.3609	0.3627	0.3649	0.3676	0.3691	4	AVG #
1,1,1-Trichloroethane	#0.3359	0.3296	0.3496	0.3344	0.3298	0.3269	0.3337	0.3343	2	AVG #
Cyclohexane	#0.4264	0.4483	0.4745	0.4357	0.4306	0.4270	0.4393	0.4403	4	AVG #
Cyclohexane(2)	#0.3609	0.3442	0.3690	0.3506	0.3516	0.3528	0.3610	0.3557	2	AVG #
Cyclohexane(3)	#0.1420	0.1369	0.1441	0.1310	0.1288	0.1291	0.1296	0.1345	5	AVG #
1,1-Dichloropropene	0.2979	0.2915	0.3150	0.2993	0.3003	0.3009	0.3088	0.3019	3	AVG
Carbon Tetrachloride	#0.2939	0.2898	0.3130	0.2997	0.2993	0.3005	0.3083	0.3006	3	AVG #
Isobutyl Alcohol	0.5026	0.4015	0.3451	0.3159	0.2833	0.2721	0.2802	0.3430	24	2NDDEG
Benzene	#0.8865	0.8436	0.9222	0.8669	0.8658	0.8651	0.8810	0.8759	3	AVG #
1,2-Dichloroethane	#0.2211	0.1937	0.2028	0.1848	0.1855	0.1852	0.1878	0.1944	7	AVG #
t-Amyl methyl ether	0.4973	0.4882	0.5470	0.5018	0.5070	0.4925	0.4948	0.5041	4	AVG
n-Heptane	0.3930	0.3770	0.4075	0.3769	0.3717	0.3796	0.3869	0.3847	3	AVG
n-Butanol	0.2530	0.2488	0.2579	0.2499	0.2554	0.2576	0.2525	0.2536	1	AVG
Trichloroethene	#0.2197	0.2150	0.2406	0.2243	0.2240	0.2257	0.2328	0.2260	4	AVG #
Methylcyclohexane	#0.4559	0.4078	0.4337	0.4314	0.4344	0.4371	0.4486	0.4356	3	AVG #
1,2-Dichloropropane	#0.2333	0.2131	0.2377	0.2150	0.2140	0.2163	0.2200	0.2213	5	AVG #
Methyl Methacrylate	10.721	11.044	10.766	9.0034	9.2776	9.3549	9.4470	9.9448	9	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 11/13/18 11/13/18

Heated Purge: (Y/N) Y Calibration Times: 15:46 17:54

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hn13i07.d RRF0.5= hn13i06.d RRF 1 = hn13i05.d
RRF 2 = hn13i04.d RRF 5 = hn13i03.d RRF 10= hn13i02.d RRF 25= hn13i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dibromomethane	0.0764	0.0811	0.0912	0.0839	0.0842	0.0852	0.0867	0.0841	5	AVG
1,4-Dioxane		0.0128	0.0453	0.0649	0.0583	0.0608	0.0461	0.0480	40	2NDDEG
Bromodichloromethane	#0.2578	0.2388	0.2621	0.2435	0.2480	0.2484	0.2570	0.2508	3	AVG #
2-Nitropropane	3.3243	3.3866	3.0531	2.6424	2.6140	2.6557	2.6753	2.9074	12	AVG
cis-1,3-Dichloropropene	#0.3115	0.2866	0.3303	0.3076	0.3048	0.3098	0.3190	0.3099	4	AVG #
4-Methyl-2-Pentanone	#13.354	13.779	13.102	11.506	11.913	11.923	12.252	12.547	7	AVG #
Toluene	#0.6834	0.6761	0.7143	0.6770	0.6815	0.6786	0.6884	0.6856	2	AVG #
trans-1,3-Dichloropropene	#0.2951	0.2833	0.3189	0.2956	0.3022	0.3002	0.3109	0.3009	4	AVG #
Ethyl Methacrylate	0.2530	0.2362	0.2607	0.2466	0.2462	0.2421	0.2501	0.2478	3	AVG
1,1,2-Trichloroethane	#0.1474	0.1465	0.1658	0.1504	0.1529	0.1511	0.1531	0.1524	4	AVG #
Tetrachloroethene	#0.3120	0.3045	0.3322	0.3207	0.3195	0.3200	0.3258	0.3192	3	AVG #
1,3-Dichloropropane	0.2750	0.2703	0.2983	0.2768	0.2709	0.2709	0.2756	0.2768	4	AVG
2-Hexanone	#9.2678	9.9433	9.2573	8.0868	8.0380	8.1748	8.2715	8.7199	9	AVG #
Dibromochloromethane	#0.2126	0.1978	0.2194	0.2005	0.2054	0.2067	0.2137	0.2080	4	AVG #
1,2-Dibromoethane	#0.1348	0.1404	0.1570	0.1475	0.1491	0.1452	0.1498	0.1462	5	AVG #
1-Chlorohexane	0.4918	0.4328	0.4437	0.4160	0.4087	0.4101	0.4212	0.4320	7	AVG
Chlorobenzene	#0.7303	0.7136	0.7621	0.7361	0.7282	0.7232	0.7390	0.7332	2	AVG #
1,1,1,2-Tetrachloroethane	0.2515	0.2406	0.2746	0.2596	0.2600	0.2618	0.2659	0.2591	4	AVG
Ethylbenzene	#1.3622	1.3013	1.4199	1.3619	1.3489	1.3574	1.3791	1.3615	3	AVG #
m+p-Xylene	#0.5063	0.4869	0.5457	0.5096	0.5109	0.5126	0.5234	0.5136	3	AVG #
o-Xylene	#0.5103	0.4621	0.5336	0.5021	0.4956	0.4964	0.5028	0.5004	4	AVG #
Styrene	#0.7723	0.7763	0.8427	0.7981	0.8054	0.8017	0.8104	0.8010	3	AVG #
Bromoform	#0.1106	0.1114	0.1244	0.1152	0.1198	0.1208	0.1242	0.1181	5	AVG #
Isopropylbenzene	#1.4172	1.3104	1.4309	1.3541	1.3554	1.3558	1.3893	1.3733	3	AVG #
1,1,2,2-Tetrachloroethane	#0.3228	0.3279	0.3814	0.3423	0.3504	0.3387	0.3562	0.3457	6	AVG #
Bromobenzene	0.5518	0.5167	0.5778	0.5537	0.5441	0.5524	0.5692	0.5522	4	AVG
trans-1,4-Dichloro-2-butene	4.5169	4.6461	4.3750	4.1235	4.1284	4.1984	4.2814	4.3242	5	AVG
1,2,3-Trichloropropane	0.0929	0.0860	0.0969	0.0874	0.0889	0.0867	0.0894	0.0897	4	AVG
n-Propylbenzene	3.0137	2.8679	3.0996	3.0022	2.9760	3.0319	3.1278	3.0170	3	AVG
2-Chlorotoluene	0.6194	0.5551	0.6133	0.5797	0.5888	0.5882	0.6029	0.5925	4	AVG
1,3,5-Trimethylbenzene	2.1050	2.0317	2.1706	2.1037	2.1083	2.1422	2.1948	2.1223	3	AVG
4-Chlorotoluene	0.5736	0.5717	0.6141	0.5965	0.5820	0.5867	0.6030	0.5897	3	AVG
tert-Butylbenzene	0.4336	0.4363	0.4715	0.4591	0.4653	0.4729	0.4770	0.4594	4	AVG
Pentachloroethane	0.3562	0.3352	0.3564	0.3599	0.3690	0.3783	0.3943	0.3642	5	AVG
1,2,4-Trimethylbenzene	2.1537	2.0400	2.1712	2.1285	2.1235	2.1502	2.2204	2.1411	3	AVG
sec-Butylbenzene	2.6788	2.6065	2.7575	2.7151	2.7131	2.7593	2.8752	2.7293	3	AVG
1,3-Dichlorobenzene	#1.1130	1.0642	1.1393	1.1005	1.0840	1.1084	1.1421	1.1073	3	AVG #
p-Isopropyltoluene	2.2847	2.2076	2.3650	2.2866	2.3370	2.3660	2.4700	2.3310	4	AVG
1,4-Dichlorobenzene	#1.1080	1.0222	1.1454	1.0751	1.0590	1.0715	1.1009	1.0832	4	AVG #
1,2,3-Trimethylbenzene	0.9437	0.8991	0.8949	0.8960	0.9095	0.9095	0.9361	0.9127	2	AVG
Benzyl Chloride	0.1428	0.1433	0.1629	0.1538	0.1674	0.1596	0.1694	0.1570	7	AVG
n-Butylbenzene	1.0755	1.0366	1.1266	1.0808	1.0917	1.1145	1.1564	1.0974	4	AVG
1,2-Dichlorobenzene	#0.9225	0.9280	1.0082	0.9551	0.9435	0.9444	0.9671	0.9527	3	AVG #
1,2-Dibromo-3-chloropropane	#2.0701	2.2475	2.2865	2.1848	2.1783	2.2684	2.3922	2.2325	5	AVG #
1,3,5-Trichlorobenzene	0.8168	0.7599	0.8327	0.7923	0.8091	0.8312	0.8649	0.8153	4	AVG
1,2,4-Trichlorobenzene	#0.6224	0.6037	0.6699	0.6424	0.6567	0.6693	0.7066	0.6530	5	AVG #
Hexachlorobutadiene	0.2617	0.2489	0.2636	0.2607	0.2680	0.2691	0.2727	0.2635	3	AVG
Naphthalene	1.0550	1.0399	1.1642	1.0704	1.0985	1.0853	1.1420	1.0936	4	AVG
1,2,3-Trichlorobenzene	0.5348	0.5078	0.5683	0.5265	0.5482	0.5497	0.5726	0.5440	4	AVG
Dibromofluoromethane	0.2512	0.2491	0.2509	0.2482	0.2502	0.2496	0.2509	0.2500	0	AVG
Dibromofluoromethane(2)	0.2553	0.2563	0.2574	0.2569	0.2564	0.2558	0.2581	0.2566	0	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 11/13/18 11/13/18

Heated Purge: (Y/N) Y Calibration Times: 15:46 17:54

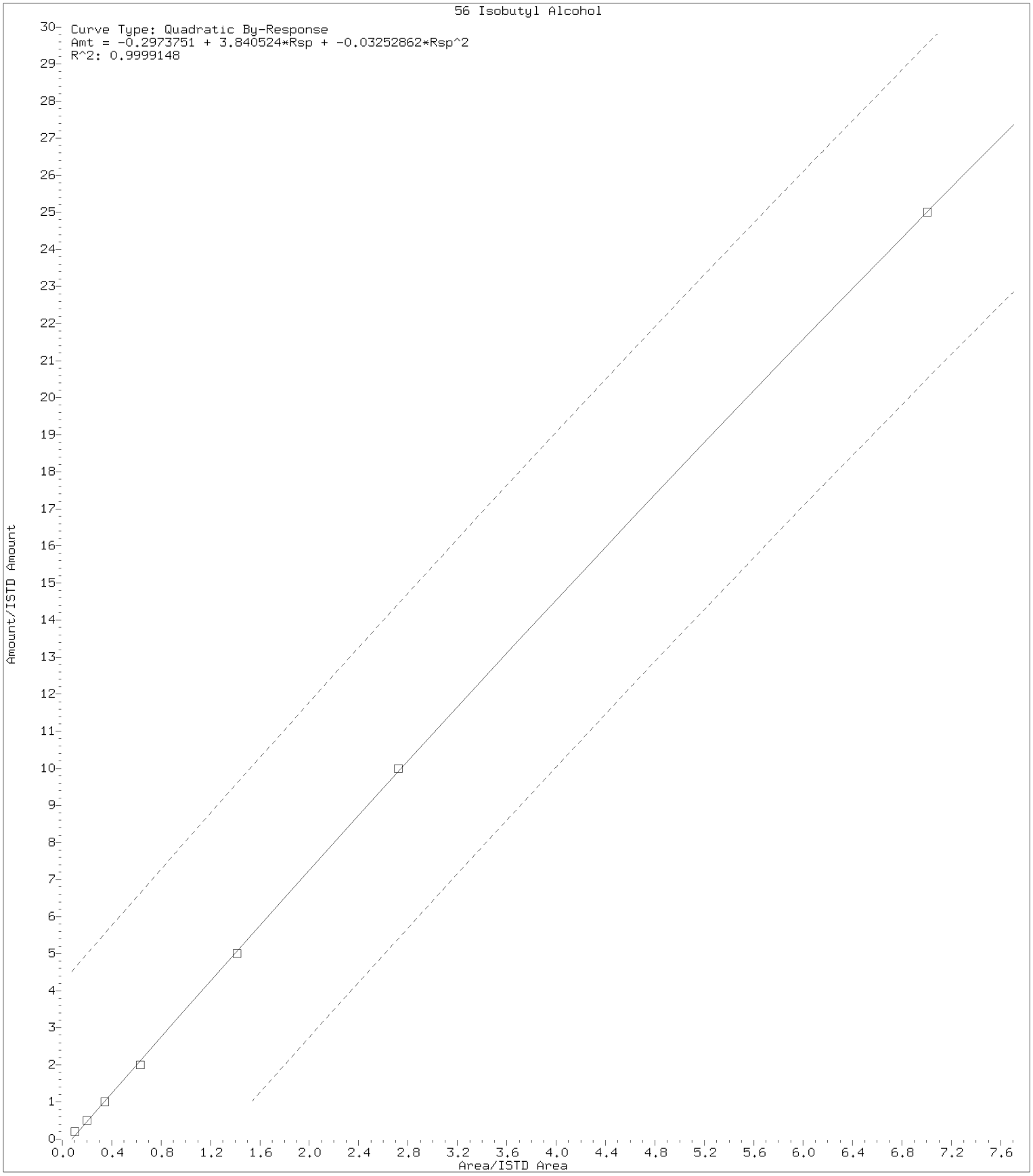
Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hn13i07.d RRF0.5= hn13i06.d RRF 1 = hn13i05.d
RRF 2 = hn13i04.d RRF 5 = hn13i03.d RRF 10= hn13i02.d RRF 25= hn13i01.d

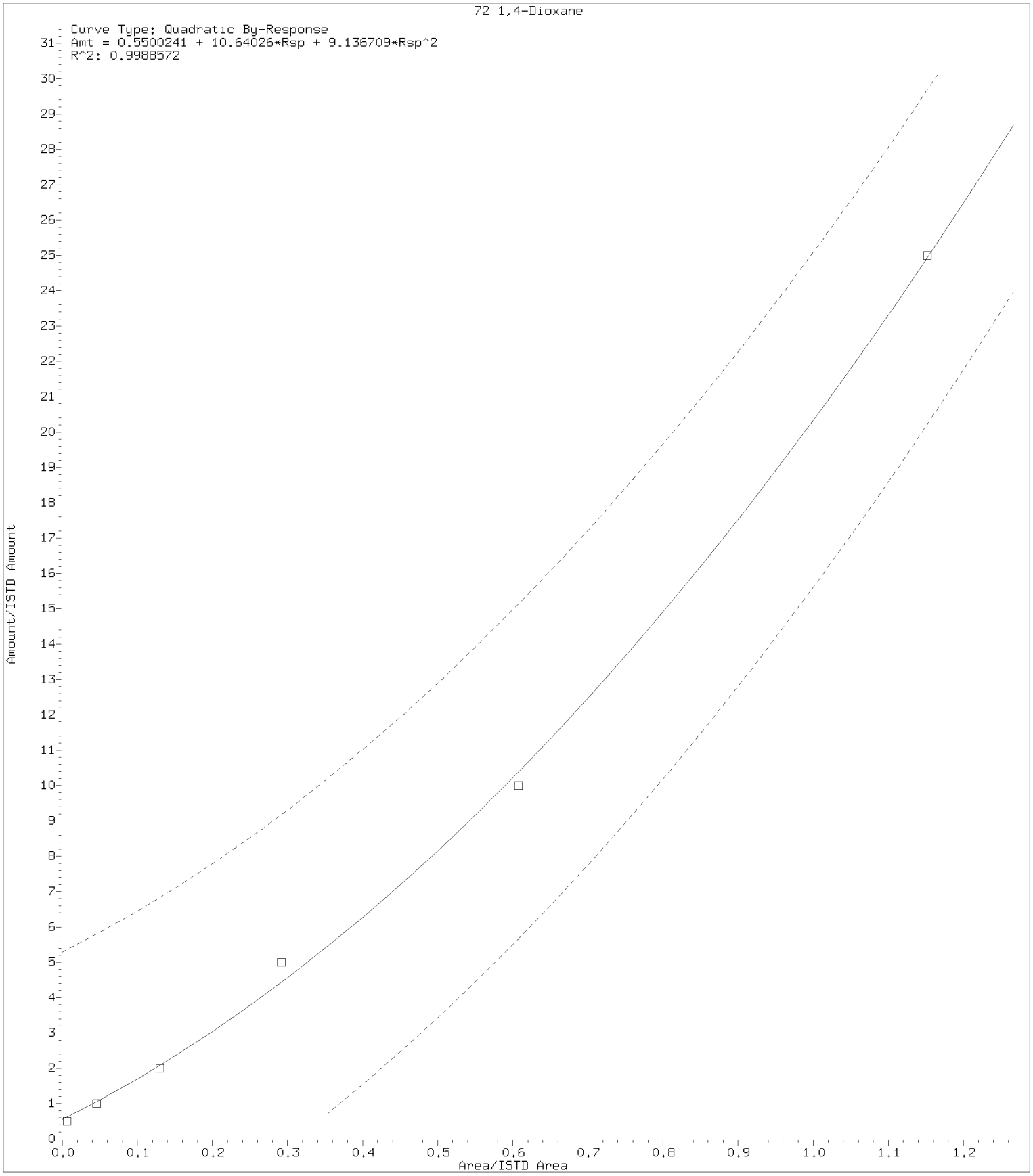
COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
1,2-Dichloroethane-d4	0.0443	0.0430	0.0440	0.0439	0.0439	0.0436	0.0440	0.0438	1	AVG
1,2-Dichloroethane-d4(2)	0.2049	0.2027	0.2064	0.2035	0.2040	0.2002	0.2025	0.2034	1	AVG
1,2-Dichloroethane-d4(3)	0.0282	0.0273	0.0281	0.0282	0.0278	0.0276	0.0270	0.0277	2	AVG
Toluene-d8	1.2794	1.2994	1.2941	1.2948	1.2935	1.2967	1.2825	1.2915	1	AVG
Toluene-d8(2)	0.8316	0.8399	0.8325	0.8430	0.8430	0.8419	0.8452	0.8396	1	AVG
4-Bromofluorobenzene	0.4901	0.4825	0.4840	0.4849	0.4878	0.4781	0.4766	0.4834	1	AVG
4-Bromofluorobenzene(2)	0.4143	0.4136	0.4171	0.4150	0.4144	0.4125	0.4109	0.4140	0	AVG

Average %RSD 5

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.



Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052



Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP19094.i/18nov13i.b/hn13i01.d	VSTD025
/chem2/HP19094.i/18nov13i.b/hn13i02.d	VSTD010
/chem2/HP19094.i/18nov13i.b/hn13i03.d	VSTD005
/chem2/HP19094.i/18nov13i.b/hn13i04.d	VSTD002
/chem2/HP19094.i/18nov13i.b/hn13i05.d	VSTD001
/chem2/HP19094.i/18nov13i.b/hn13i06.d	VSTD0.5
/chem2/HP19094.i/18nov13i.b/hn13i07.d	VSTD0.2

Area Summary

File ID:

Internal Standard Name	hn13i01.d	hn13i02.d	hn13i03.d	hn13i04.d	hn13i05.d	hn13i06.d	hn13i07.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	103927	101932	105362	105777	103411	86230	94440	100154	7	Yes
Fluorobenzene	2212996	2215459	2216047	2232667	2234002	2218902	2238985	2224151	0	Yes
Chlorobenzene-d5	1779240	1770593	1761692	1775405	1782832	1769758	1788432	1775422	1	Yes
1,4-Dichlorobenzene-d4	919468	920823	928837	936773	954468	936632	956011	936145	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	hn13i01.d	hn13i02.d	hn13i03.d	hn13i04.d	hn13i05.d	hn13i06.d	hn13i07.d	Avg. RT
t-Butyl Alcohol-d10	4.483	4.458	4.470	4.483	4.464	4.476	4.464	4.471
Fluorobenzene	7.970	7.963	7.970	7.970	7.964	7.964	7.970	7.967
Chlorobenzene-d5	11.390	11.384	11.390	11.384	11.384	11.390	11.390	11.387
1,4-Dichlorobenzene-d4	13.261	13.255	13.261	13.255	13.255	13.255	13.261	13.258

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 11/14/2018 at 06:57.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 11/13/18 Time: 18:37

Lab File ID: hn13v01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3351	0.2534	3.78	5	-24	#
# Chloromethane	0.3242	0.2945	4.54	5	-9	#
# Vinyl Chloride	0.2941	0.2839	4.83	5	-3	#
1,3-Butadiene	0.2418	0.2472	5.11	5	2	
# Bromomethane	0.2230	0.1883	4.22	5	-16	#
# Chloroethane	0.1754	0.1658	4.72	5	-6	#
Dichlorofluoromethane	0.4581	0.3879	4.23	5	-15	
# Trichlorofluoromethane	0.3960	0.3563	4.50	5	-10	#
Ethyl ether	0.1349	0.1402	5.20	5	4	
Freon 123a	0.2737	0.2737	5.00	5	0	
Acrolein	1.9914	1.9702	37.10	37.5	-1	
# 1,1-Dichloroethene	0.1844	0.2016	5.47	5	9	#
# Freon 113	0.2120	0.2238	5.28	5	6	#
# Acetone	2.4787	2.1719	32.86	37.5	-12	#
Methyl Iodide	0.3744	0.3855	5.15	5	3	
# Carbon Disulfide	0.5675	0.5771	5.08	5	2	#
Allyl Chloride	0.3937	0.3607	4.58	5	-8	
# Methyl Acetate	8.5979	8.3010	4.83	5	-3	#
# Methylene Chloride	0.1979	0.2047	5.17	5	3	#
t-Butyl Alcohol	0.6598	0.5718	43.33	50	-13	
Acrylonitrile	3.5275	3.6231	25.68	25	3	
# trans-1,2-Dichloroethene	0.2067	0.2202	5.33	5	7	#
# Methyl Tertiary Butyl Ether	0.4115	0.4096	4.98	5	0	#
n-Hexane	0.3543	0.3488	4.92	5	-2	
# 1,1-Dichloroethane	0.4036	0.4156	5.15	5	3	#
di-Isopropyl Ether	0.7492	0.7609	5.08	5	2	
2-Chloro-1,3-Butadiene	0.3734	0.3674	4.92	5	-2	
Ethyl t-butyl ether	0.6118	0.6024	4.92	5	-2	
# cis-1,2-Dichloroethene	0.2299	0.2424	5.27	5	5	#
2,2-Dichloropropane	0.3289	0.3453	5.25	5	5	
# 2-Butanone	5.0683	4.7792	35.36	37.5	-6	#
Propionitrile	1.2952	1.2288	35.58	37.5	-5	
Methacrylonitrile	4.7431	4.9278	38.96	37.5	4	
Bromochloromethane	0.0904	0.0895	4.95	5	-1	
Tetrahydrofuran	1.2116	1.2419	25.62	25	2	
# Chloroform	0.3691	0.3869	5.24	5	5	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 11/13/18 Time: 18:37

Lab File ID: hn13v01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# 1,1,1-Trichloroethane	0.3343	0.3439	5.14	5	3	#
# Cyclohexane	0.4403	0.4224	4.80	5	-4	#
1,1-Dichloropropene	0.3019	0.3141	5.20	5	4	
# Carbon Tetrachloride	0.3006	0.3158	5.25	5	5	#
Isobutyl Alcohol	0.3430	0.2578	108.23	125	-13	
# Benzene	0.8759	0.9021	5.15	5	3	#
# 1,2-Dichloroethane	0.1944	0.2011	5.17	5	3	#
t-Amyl methyl ether	0.5041	0.5026	4.99	5	0	
n-Heptane	0.3847	0.3707	4.82	5	-4	
n-Butanol	0.2536	0.2086	205.65	250	-18	
# Trichloroethene	0.2260	0.2371	5.24	5	5	#
# Methylcyclohexane	0.4356	0.4021	4.62	5	-8	#
# 1,2-Dichloropropane	0.2213	0.2289	5.17	5	3	#
Methyl Methacrylate	9.9448	9.8612	4.96	5	-1	
Dibromomethane	0.0841	0.0885	5.26	5	5	
1,4-Dioxane	0.0480	0.0386	83.07	125	-34	<-
# Bromodichloromethane	0.2508	0.2640	5.26	5	5	#
2-Nitropropane	2.9074	3.0980	5.33	5	7	
# cis-1,3-Dichloropropene	0.3099	0.3206	5.17	5	3	#
# 4-Methyl-2-Pentanone	12.5470	12.5169	24.94	25	0	#
# Toluene	0.6856	0.7048	5.14	5	3	#
# trans-1,3-Dichloropropene	0.3009	0.3062	5.09	5	2	#
Ethyl Methacrylate	0.2478	0.2364	4.77	5	-5	
# 1,1,2-Trichloroethane	0.1524	0.1631	5.35	5	7	#
# Tetrachloroethene	0.3192	0.3311	5.19	5	4	#
1,3-Dichloropropane	0.2768	0.2822	5.10	5	2	
# 2-Hexanone	8.7199	8.6680	24.85	25	-1	#
# Dibromochloromethane	0.2080	0.2148	5.16	5	3	#
# 1,2-Dibromoethane	0.1462	0.1515	5.18	5	4	#
1-Chlorohexane	0.4320	0.4183	4.84	5	-3	
# Chlorobenzene	0.7332	0.7544	5.14	5	3	#
1,1,1,2-Tetrachloroethane	0.2591	0.2660	5.13	5	3	
# Ethylbenzene	1.3615	1.3848	5.09	5	2	#
# m+p-Xylene	0.5136	0.5336	10.39	10	4	#
# o-Xylene	0.5004	0.5112	5.11	5	2	#
# Styrene	0.8010	0.8326	5.20	5	4	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 11/13/18 Time: 18:37

Lab File ID: hn13v01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Bromoform	0.1181	0.1217	5.15	5	3	#
# Isopropylbenzene	1.3733	1.4001	5.10	5	2	#
# 1,1,2,2-Tetrachloroethane	0.3457	0.3522	5.09	5	2	#
Bromobenzene	0.5522	0.5682	5.14	5	3	
trans-1,4-Dichloro-2-butene	4.3242	4.5074	26.06	25	4	
1,2,3-Trichloropropane	0.0897	0.0916	5.10	5	2	
n-Propylbenzene	3.0170	3.1194	5.17	5	3	
2-Chlorotoluene	0.5925	0.6070	5.12	5	2	
1,3,5-Trimethylbenzene	2.1223	2.1573	5.08	5	2	
4-Chlorotoluene	0.5897	0.6078	5.15	5	3	
tert-Butylbenzene	0.4594	0.4793	5.22	5	4	
Pentachloroethane	0.3642	0.3721	5.11	5	2	
1,2,4-Trimethylbenzene	2.1411	2.1806	5.09	5	2	
sec-Butylbenzene	2.7293	2.8097	5.15	5	3	
# 1,3-Dichlorobenzene	1.1073	1.1159	5.04	5	1	#
p-Isopropyltoluene	2.3310	2.3739	5.09	5	2	
# 1,4-Dichlorobenzene	1.0832	1.0923	5.04	5	1	#
1,2,3-Trimethylbenzene	0.9127	0.9198	5.04	5	1	
Benzyl Chloride	0.1570	0.1546	4.92	5	-2	
n-Butylbenzene	1.0974	1.1059	5.04	5	1	
# 1,2-Dichlorobenzene	0.9527	0.9725	5.10	5	2	#
# 1,2-Dibromo-3-chloropropane	2.2325	2.4795	5.55	5	11	#
1,3,5-Trichlorobenzene	0.8153	0.8194	5.02	5	0	
# 1,2,4-Trichlorobenzene	0.6530	0.6682	5.12	5	2	#
Hexachlorobutadiene	0.2635	0.2645	5.02	5	0	
Naphthalene	1.0936	1.0866	4.97	5	-1	
1,2,3-Trichlorobenzene	0.5440	0.5462	5.02	5	0	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 11/13/18 11/13/18

Heated Purge: (Y/N) Y Calibration Times: 12:33 14:41

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

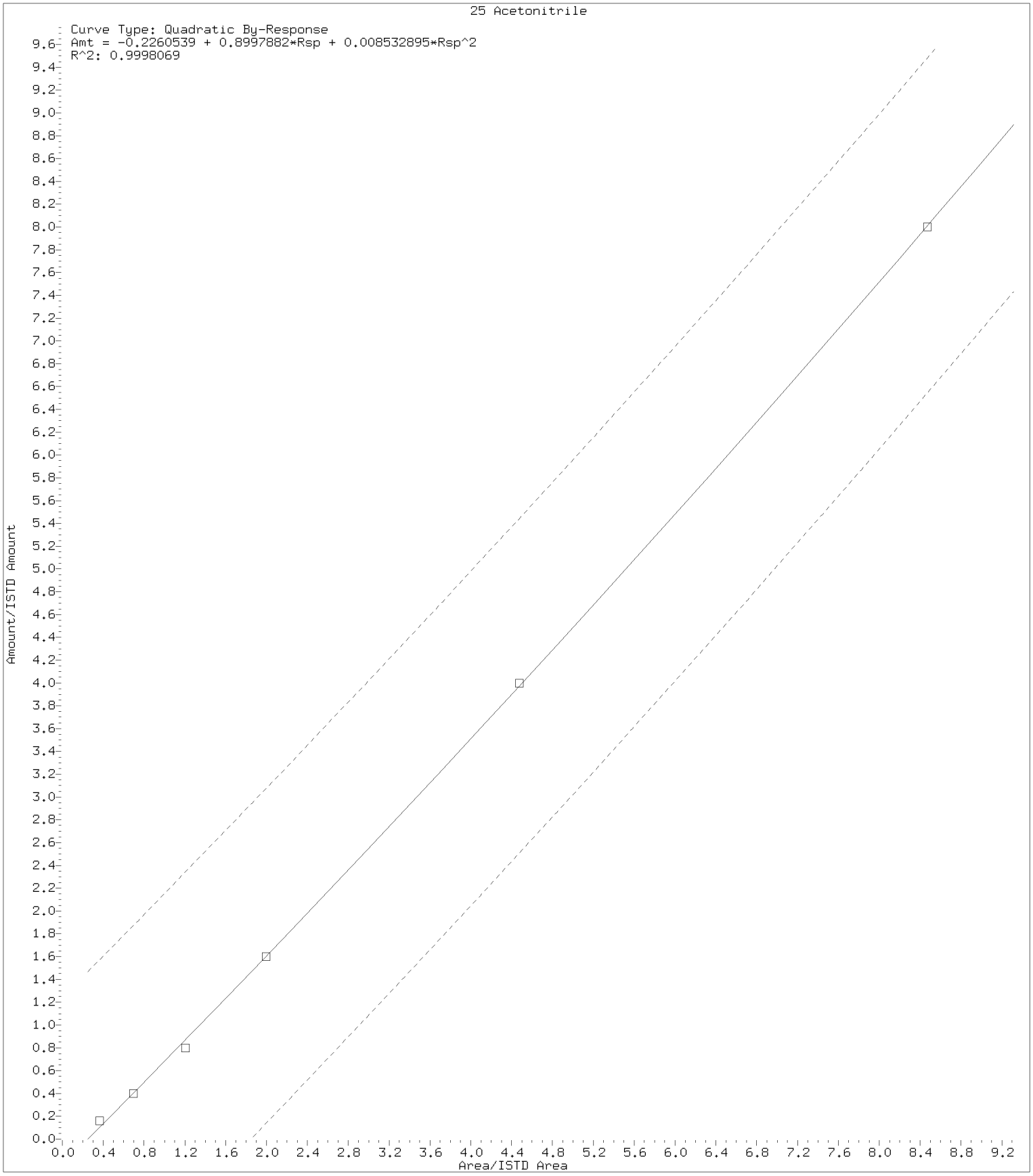
LAB FILE ID: RRF0.2= hn13i17.d RRF0.5= hn13i16.d RRF 1 = hn13i15.d
RRF 2 = hn13i14.d RRF 5 = hn13i13.d RRF 10= hn13i12.d RRF 25= hn13i11.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dimethyl ether	0.3170	0.2507	0.2669	0.2497	0.2221	0.2383	0.2462	0.2558	12	AVG
Acetonitrile	2.2872	1.7417	1.5057	1.2466	1.1188	1.0586		1.4931	31	2NDDEG
Vinyl Acetate	0.3691	0.3123	0.3017	0.2869	0.2687	0.2721	0.2815	0.2989	12	AVG
Methyl Acrylate	0.1011	0.0964	0.0966	0.0943	0.0910	0.0915	0.0961	0.0953	4	AVG
1-Chlorobutane	0.4749	0.4779	0.4665	0.4426	0.4473	0.4425	0.4494	0.4573	3	AVG
Chloroacetonitrile	0.0036	0.0036	0.0038	0.0037	0.0035	0.0038	0.0047	0.0038	10	AVG
2-Chloroethyl vinyl ether	0.0759	0.0821	0.0858	0.0861	0.0852	0.0823	0.0824	0.0828	4	AVG
cis-1,4-Dichloro-2-butene	6.2417	6.0441	6.8467	6.1534	6.6112	5.7405	5.1494	6.1124	9	AVG
Cyclohexanone	0.3867	0.3051	0.3094	0.3165	0.3046	0.3071	0.2996	0.3184	10	AVG
Hexachloroethane	0.4214	0.4168	0.4329	0.4226	0.4376	0.4411	0.4638	0.4338	4	AVG

Average %RSD 10

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP19094.i/18nov13i.b/hn13i11.d	VSTD025
/chem2/HP19094.i/18nov13i.b/hn13i12.d	VSTD010
/chem2/HP19094.i/18nov13i.b/hn13i13.d	VSTD005
/chem2/HP19094.i/18nov13i.b/hn13i14.d	VSTD002
/chem2/HP19094.i/18nov13i.b/hn13i15.d	VSTD001
/chem2/HP19094.i/18nov13i.b/hn13i16.d	VSTD0.5
/chem2/HP19094.i/18nov13i.b/hn13i17.d	VSTD0.2

Area Summary

File ID:

Internal Standard Name	hn13i11.d	hn13i12.d	hn13i13.d	hn13i14.d	hn13i15.d	hn13i16.d	hn13i17.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	115186	96722	86733	90627	83526	83412	83171	91340	13	Yes
Fluorobenzene	2301590	2358172	2298067	2357327	2289401	2283110	2339232	2318128	1	Yes
Chlorobenzene-d5	1790529	1810932	1797211	1837672	1803450	1793522	1845320	1811234	1	Yes
1,4-Dichlorobenzene-d4	950619	972712	962321	980600	956629	967449	976473	966686	1	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	hn13i11.d	hn13i12.d	hn13i13.d	hn13i14.d	hn13i15.d	hn13i16.d	hn13i17.d	Avg. RT
t-Butyl Alcohol-d10	4.476	4.495	4.495	4.476	4.501	4.507	4.470	4.489
Fluorobenzene	7.970	7.964	7.964	7.963	7.964	7.964	7.964	7.964
Chlorobenzene-d5	11.390	11.384	11.384	11.384	11.384	11.384	11.384	11.385
1,4-Dichlorobenzene-d4	13.261	13.255	13.255	13.255	13.255	13.255	13.255	13.256

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 11/16/2018 at 11:02.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 11/13/18 Time: 15:25

Lab File ID: hn13v11.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
Dimethyl ether	0.2558	0.2459	4.80	5	-4	
Acetonitrile	1.4931	1.3851	35.90	37.5	-4	
Vinyl Acetate	0.2989	0.2755	11.52	12.5	-8	
Methyl Acrylate	0.0953	0.0941	24.68	25	-1	
1-Chlorobutane	0.4573	0.4294	4.69	5	-6	
Chloroacetonitrile	0.0038	0.0031	202.49	250	-19	
2-Chloroethyl vinyl ether	0.0828	0.0828	5.00	5	0	
cis-1,4-Dichloro-2-butene	6.1124	6.4666	13.22	12.5	6	
Cyclohexanone	0.3184	0.2197	86.23	125	-31	<-
Hexachloroethane	0.4338	0.4263	4.91	5	-2	

Average %Drift 8

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date(s): 04/08/19 04/08/19

Heated Purge: (Y/N) Y Calibration Times: 16:13 18:20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF0.2= ia08i07.d RRF0.5= ia08i06.d RRF 1 = ia08i05.d
RRF 2 = ia08i04.d RRF 5 = ia08i03.d RRF 10= ia08i02.d RRF 25= ia08i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.5804	0.5664	0.5709	0.5915	0.5954	0.5841	0.5913	0.5828	2	AVG #
Chloromethane	#0.4624	0.4318	0.4222	0.4443	0.4234	0.4277	0.4101	0.4317	4	AVG #
Vinyl Chloride	#0.4335	0.4446	0.4326	0.4492	0.4404	0.4415	0.4306	0.4389	2	AVG #
1,3-Butadiene	0.4570	0.3894	0.3597	0.3423	0.3258	0.3433	0.3235	0.3630	13	AVG
Bromomethane	#0.4011	0.3862	0.3738	0.3872	0.3873	0.3876	0.4085	0.3902	3	AVG #
Chloroethane	#0.2519	0.2546	0.2491	0.2584	0.2513	0.2552	0.2643	0.2550	2	AVG #
Dichlorofluoromethane	0.6746	0.6572	0.6367	0.6608	0.6516	0.6571	0.6736	0.6588	2	AVG
Trichlorofluoromethane	#0.7352	0.6886	0.7109	0.7381	0.7527	0.7396	0.7681	0.7333	4	AVG #
Ethyl ether	0.1816	0.1980	0.1900	0.1808	0.2005	0.2034	0.1973	0.1931	5	AVG
Freon 123a	0.3454	0.3265	0.3269	0.3185	0.3250	0.3326	0.3332	0.3297	3	AVG
Acrolein	1.9694	2.0131	2.0283	2.1196	2.0868	2.3188	2.3199	2.1223	7	AVG
1,1-Dichloroethene	#0.2522	0.2576	0.2488	0.2536	0.2506	0.2598	0.2575	0.2543	2	AVG #
Freon 113	#0.3019	0.2920	0.3090	0.2992	0.3113	0.3183	0.3193	0.3073	3	AVG #
Acetone	#3.2666	3.0196	2.8110	2.8061	2.7743	2.9797	2.8488	2.9294	6	AVG #
Methyl Iodide	0.5250	0.5495	0.5294	0.5383	0.5546	0.5606	0.5609	0.5455	3	AVG
Carbon Disulfide	#0.8318	0.7689	0.7110	0.7142	0.7204	0.7357	0.7308	0.7447	6	AVG #
Allyl Chloride	0.3893	0.4049	0.3946	0.3646	0.3914	0.4015	0.3920	0.3912	3	AVG
Methyl Acetate	#7.3314	8.2646	7.7896	7.6014	7.9270	7.5971	7.6738	7.7407	4	AVG #
Methylene Chloride	#0.2568	0.2632	0.2579	0.2540	0.2612	0.2639	0.2640	0.2601	2	AVG #
t-Butyl Alcohol	1.1763	1.2495	1.1866	1.2440	1.1972	1.2639	1.1820	1.2142	3	AVG
Acrylonitrile	3.2593	3.3395	3.3981	3.4735	3.4745	3.8451	3.7387	3.5041	6	AVG
trans-1,2-Dichloroethene	#0.3193	0.2856	0.2751	0.2763	0.2765	0.2808	0.2788	0.2846	6	AVG #
Methyl Tertiary Butyl Ether	#0.6467	0.6720	0.6603	0.6556	0.6725	0.6919	0.6573	0.6652	2	AVG #
n-Hexane	0.3839	0.3882	0.3869	0.3848	0.4119	0.4273	0.4209	0.4006	5	AVG
1,1-Dichloroethane	#0.4522	0.4910	0.4589	0.4485	0.4614	0.4652	0.4635	0.4629	3	AVG #
di-Isopropyl Ether	0.7400	0.7695	0.7458	0.7815	0.7921	0.8110	0.7979	0.7768	3	AVG
2-Chloro-1,3-Butadiene	0.4024	0.4106	0.4030	0.4084	0.4173	0.4341	0.4341	0.4157	3	AVG
Ethyl t-butyl ether	0.7942	0.7706	0.7550	0.7718	0.7812	0.7760	0.7498	0.7712	2	AVG
cis-1,2-Dichloroethene	#0.3294	0.3231	0.3072	0.3084	0.3104	0.3217	0.3194	0.3171	3	AVG #
2,2-Dichloropropane	0.4429	0.4408	0.4179	0.4177	0.4249	0.4359	0.4363	0.4309	2	AVG
2-Butanone	#4.4895	4.5022	4.4994	4.7045	4.7694	5.2284	5.1145	4.7583	6	AVG #
Propionitrile	1.1643	1.2690	1.2420	1.2768	1.2972	1.3934	1.3003	1.2776	5	AVG
Methacrylonitrile	4.3666	4.4127	4.4585	4.6471	4.6993	5.1466	5.1811	4.7017	7	AVG
Bromochloromethane	0.1527	0.1626	0.1631	0.1444	0.1576	0.1561	0.1558	0.1560	4	AVG
Tetrahydrofuran	1.3928	1.4474	1.4020	1.5143	1.4695	1.6082	1.5812	1.4879	6	AVG
Chloroform	#0.5152	0.5132	0.5006	0.4869	0.4995	0.5107	0.5052	0.5045	2	AVG #
1,1,1-Trichloroethane	#0.4780	0.4918	0.4774	0.4787	0.4897	0.5015	0.4966	0.4877	2	AVG #
Cyclohexane	#0.4758	0.4553	0.4589	0.4794	0.4892	0.5013	0.4969	0.4795	4	AVG #
Cyclohexane(2)	#0.4317	0.4407	0.4477	0.4491	0.4622	0.4669	0.4686	0.4524	3	AVG #
Cyclohexane(3)	#0.1530	0.1562	0.1575	0.1602	0.1561	0.1600	0.1594	0.1575	2	AVG #
1,1-Dichloropropene	0.3586	0.3867	0.3666	0.3739	0.3810	0.3885	0.3873	0.3775	3	AVG
Carbon Tetrachloride	#0.4598	0.4566	0.4448	0.4453	0.4637	0.4761	0.4771	0.4605	3	AVG #
Isobutyl Alcohol	0.4003	0.3652	0.3626	0.3633	0.3712	0.3930	0.3695	0.3750	4	AVG
Benzene	#1.0876	1.1257	1.0718	1.0983	1.1172	1.1330	1.1363	1.1100	2	AVG #
1,2-Dichloroethane	#0.3315	0.3057	0.2901	0.2901	0.2857	0.2932	0.2880	0.2977	5	AVG #
1,2-Dichloroethane(2)	#0.0236	0.0270	0.0280	0.0302	0.0284	0.0287	0.0285	0.0278	7	AVG #<-
t-Amyl methyl ether	0.7569	0.7493	0.7188	0.7468	0.7489	0.7598	0.7262	0.7438	2	AVG
n-Heptane	0.4019	0.3840	0.3937	0.4029	0.4186	0.4378	0.4402	0.4113	5	AVG
n-Butanol	0.2759	0.2957	0.3070	0.3172	0.3262	0.3398	0.3289	0.3129	7	AVG
Trichloroethene	#0.3092	0.3179	0.2946	0.3085	0.3094	0.3152	0.3192	0.3106	3	AVG #
Methylcyclohexane	#0.4135	0.5706	0.5753	0.4979	0.6018	0.6120	0.6109	0.5546	13	AVG #
1,2-Dichloropropane	#0.2474	0.2607	0.2472	0.2506	0.2600	0.2651	0.2679	0.2570	3	AVG #

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date(s): 04/08/19 04/08/19

Heated Purge: (Y/N) Y Calibration Times: 16:13 18:20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF0.2= ia08i07.d RRF0.5= ia08i06.d RRF 1 = ia08i05.d
RRF 2 = ia08i04.d RRF 5 = ia08i03.d RRF 10= ia08i02.d RRF 25= ia08i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Methyl Methacrylate	7.8796	8.5979	8.5975	8.7212	9.0726	10.004	10.118	8.9987	9	AVG
Dibromomethane	0.1449	0.1445	0.1403	0.1421	0.1456	0.1464	0.1476	0.1445	2	AVG
1,4-Dioxane		0.0700	0.0806	0.0812	0.0771	0.0797	0.0731	0.0769	6	AVG
1,4-Dioxane(2)		0.0370	0.0479	0.0452	0.0485	0.0519	0.0446	0.0458	11	AVG
# Bromodichloromethane	0.3404	0.3439	0.3403	0.3530	0.3664	0.3734	0.3796	0.3567	5	AVG #
2-Nitropropane	2.5250	2.7402	2.7853	2.9779	3.0797	3.4124	3.4387	2.9942	11	AVG
# cis-1,3-Dichloropropene	0.3938	0.3921	0.3845	0.3953	0.4104	0.4269	0.4295	0.4047	4	AVG #
# 4-Methyl-2-Pentanone	10.379	11.147	11.178	11.875	12.292	13.635	13.815	12.045	11	AVG #
# Toluene	0.9086	0.9444	0.8862	0.9102	0.9220	0.9420	0.9417	0.9222	2	AVG #
# trans-1,3-Dichloropropene	0.4274	0.4267	0.4067	0.4276	0.4428	0.4591	0.4525	0.4347	4	AVG #
Ethyl Methacrylate	0.3362	0.3633	0.3421	0.3534	0.3830	0.3958	0.3959	0.3671	7	AVG
# 1,1,2-Trichloroethane	0.2599	0.2457	0.2455	0.2535	0.2582	0.2614	0.2596	0.2548	3	AVG #
# Tetrachloroethene	0.4865	0.4923	0.4820	0.4758	0.4817	0.4995	0.4982	0.4880	2	AVG #
1,3-Dichloropropane	0.4093	0.4105	0.3940	0.4056	0.4127	0.4224	0.4167	0.4102	2	AVG
# 2-Hexanone	7.5100	8.0073	7.9238	8.4444	8.6135	9.5644	9.7283	8.5417	10	AVG #
# Dibromochloromethane	0.3045	0.3524	0.3255	0.3387	0.3574	0.3728	0.3731	0.3464	7	AVG #
# 1,2-Dibromoethane	0.2562	0.2611	0.2491	0.2548	0.2600	0.2669	0.2685	0.2595	3	AVG #
1-Chlorohexane	0.5886	0.5507	0.5388	0.5341	0.5463	0.5638	0.5644	0.5552	3	AVG
# Chlorobenzene	1.0793	1.0612	1.0305	1.0356	1.0445	1.0795	1.0798	1.0586	2	AVG #
1,1,1,2-Tetrachloroethane	0.3669	0.3928	0.3834	0.3910	0.4081	0.4231	0.4298	0.3993	6	AVG
# Ethylbenzene	1.8218	1.8661	1.7692	1.7973	1.8448	1.9232	1.9416	1.8520	3	AVG #
# m+p-Xylene	0.7185	0.7279	0.7068	0.7196	0.7421	0.7680	0.7799	0.7375	4	AVG #
# o-Xylene	0.6622	0.7009	0.6954	0.6952	0.7276	0.7458	0.7561	0.7119	5	AVG #
# Styrene	1.0226	1.0790	1.0782	1.1028	1.1617	1.2151	1.2408	1.1286	7	AVG #
# Bromoform	0.1860	0.1929	0.1939	0.2104	0.2263	0.2380	0.2436	0.2130	11	AVG #
# Isopropylbenzene	1.8154	1.9139	1.8742	1.8819	1.9429	2.0256	2.0068	1.9229	4	AVG #
# 1,1,2,2-Tetrachloroethane	0.5532	0.5639	0.5462	0.5585	0.5749	0.5951	0.6037	0.5707	4	AVG #
Bromobenzene	0.8728	0.8804	0.8250	0.8262	0.8572	0.8904	0.9281	0.8686	4	AVG
trans-1,4-Dichloro-2-butene	3.2735	3.7334	3.8096	4.1072	4.3308	4.9854	5.3319	4.2245	17	AVG
1,2,3-Trichloropropane	0.1641	0.1713	0.1609	0.1665	0.1707	0.1774	0.1748	0.1694	3	AVG
n-Propylbenzene	3.7455	3.8605	3.7061	3.8210	3.9169	4.1022	4.0423	3.8849	4	AVG
2-Chlorotoluene	0.8153	0.8698	0.8057	0.8160	0.8187	0.8610	0.8613	0.8354	3	AVG
1,3,5-Trimethylbenzene	2.7388	2.7920	2.7513	2.8060	2.8927	3.0242	3.0829	2.8697	5	AVG
4-Chlorotoluene	0.8595	0.8183	0.8204	0.8090	0.8344	0.8673	0.8670	0.8394	3	AVG
tert-Butylbenzene	0.6107	0.6536	0.6361	0.6369	0.6533	0.6857	0.7012	0.6539	5	AVG
Pentachloroethane	0.4996	0.5629	0.5856	0.5342	0.5938	0.6142	0.6409	0.5759	8	AVG
1,2,4-Trimethylbenzene	2.7906	2.8606	2.7928	2.8383	2.9089	3.0993	3.1781	2.9241	5	AVG
sec-Butylbenzene	3.4828	3.5706	3.5226	3.6174	3.7766	4.0058	4.0264	3.7146	6	AVG
# 1,3-Dichlorobenzene	1.6289	1.6388	1.5984	1.5941	1.6399	1.7234	1.8148	1.6626	5	AVG #
p-Isopropyltoluene	2.9157	3.1278	3.0434	3.1597	3.3388	3.5513	3.6820	3.2598	9	AVG
# 1,4-Dichlorobenzene	1.6853	1.6358	1.5966	1.6052	1.6300	1.7144	1.7634	1.6615	4	AVG #
1,2,3-Trimethylbenzene	1.2862	1.4011	1.3636	1.2672	1.3691	1.4079	1.4701	1.3664	5	AVG
Benzyl Chloride	0.2199	0.2474	0.2489	0.2805	0.2810	0.3003	0.3045	0.2689	12	AVG
n-Butylbenzene	1.2813	1.3750	1.3937	1.4129	1.5269	1.6460	1.7430	1.4827	11	AVG
# 1,2-Dichlorobenzene	1.5105	1.4707	1.4437	1.4855	1.5121	1.5840	1.6173	1.5177	4	AVG #
# 1,2-Dibromo-3-chloropropane	2.2552	2.4977	2.6329	2.6728	2.7368	3.1696	3.2059	2.7387	13	AVG #
1,3,5-Trichlorobenzene	1.1281	1.1381	1.1246	1.1663	1.2272	1.3179	1.3836	1.2123	8	AVG
# 1,2,4-Trichlorobenzene	1.0266	0.9918	0.9799	1.0174	1.0767	1.1464	1.2001	1.0627	8	AVG #
Hexachlorobutadiene	0.3845	0.3988	0.3862	0.3991	0.4434	0.4912	0.5363	0.4342	14	AVG
Naphthalene	2.2161	2.1024	1.9866	2.0771	2.1312	2.2130	2.1708	2.1282	4	AVG
1,2,3-Trichlorobenzene	0.9269	0.9049	0.9132	0.9170	0.9711	1.0273	1.0375	0.9568	6	AVG
Dibromofluoromethane	0.2587	0.2582	0.2582	0.2594	0.2585	0.2565	0.2570	0.2581	0	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date(s): 04/08/19 04/08/19

Heated Purge: (Y/N) Y Calibration Times: 16:13 18:20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF0.2= ia08i07.d RRF0.5= ia08i06.d RRF 1 = ia08i05.d
RRF 2 = ia08i04.d RRF 5 = ia08i03.d RRF 10= ia08i02.d RRF 25= ia08i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dibromofluoromethane(2)	0.2624	0.2646	0.2636	0.2637	0.2642	0.2645	0.2636	0.2638	0	AVG
1,2-Dichloroethane-d4	0.0497	0.0509	0.0498	0.0497	0.0493	0.0494	0.0494	0.0497	1	AVG
1,2-Dichloroethane-d4(2)	0.2244	0.2249	0.2198	0.2209	0.2238	0.2224	0.2242	0.2229	1	AVG
1,2-Dichloroethane-d4(3)	0.0315	0.0314	0.0312	0.0318	0.0319	0.0313	0.0307	0.0314	1	AVG
Toluene-d8	1.2448	1.2351	1.2304	1.2226	1.2272	1.2268	1.1991	1.2266	1	AVG
Toluene-d8(2)	0.7966	0.7911	0.7921	0.7826	0.7912	0.7883	0.7647	0.7866	1	AVG
4-Bromofluorobenzene	0.4677	0.4692	0.4606	0.4574	0.4593	0.4558	0.4475	0.4596	2	AVG
4-Bromofluorobenzene(2)	0.4334	0.4400	0.4403	0.4402	0.4507	0.4395	0.4356	0.4400	1	AVG

Average %RSD 5

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP19930.i/19apr08a.b/ia08i01.d	VSTD025
/chem2/HP19930.i/19apr08a.b/ia08i02.d	VSTD010
/chem2/HP19930.i/19apr08a.b/ia08i03.d	VSTD005
/chem2/HP19930.i/19apr08a.b/ia08i04.d	VSTD002
/chem2/HP19930.i/19apr08a.b/ia08i05.d	VSTD001
/chem2/HP19930.i/19apr08a.b/ia08i06.d	VSTD0.5
/chem2/HP19930.i/19apr08a.b/ia08i07.d	VSTD0.2

Area Summary

File ID:

Internal Standard Name	ia08i01.d	ia08i02.d	ia08i03.d	ia08i04.d	ia08i05.d	ia08i06.d	ia08i07.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	136489	135247	145276	144315	145694	149699	156860	144797	5	Yes
Fluorobenzene	1828378	1834755	1815436	1838321	1847494	1845545	1838389	1835474	1	Yes
Chlorobenzene-d5	1498173	1474409	1459007	1482784	1473334	1472238	1457542	1473927	1	Yes
1,4-Dichlorobenzene-d4	835590	825128	826324	829269	826954	822319	808996	824940	1	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ia08i01.d	ia08i02.d	ia08i03.d	ia08i04.d	ia08i05.d	ia08i06.d	ia08i07.d	Avg. RT
t-Butyl Alcohol-d10	4.312	4.324	4.306	4.312	4.306	4.312	4.306	4.311
Fluorobenzene	7.805	7.805	7.805	7.805	7.805	7.805	7.805	7.805
Chlorobenzene-d5	11.256	11.256	11.256	11.256	11.256	11.256	11.256	11.256
1,4-Dichlorobenzene-d4	13.133	13.133	13.133	13.133	13.133	13.133	13.133	13.133

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/09/2019 at 10:36.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 ICV Date: 04/08/19 Time: 18:41

Lab File ID: ia08v01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.5828	0.4271	3.66	5	-27	#
# Chloromethane	0.4317	0.3761	4.36	5	-13	#
# Vinyl Chloride	0.4389	0.4007	4.56	5	-9	#
1,3-Butadiene	0.3630	0.3152	4.34	5	-13	
# Bromomethane	0.3902	0.3391	4.35	5	-13	#
# Chloroethane	0.2550	0.2445	4.79	5	-4	#
Dichlorofluoromethane	0.6588	0.6540	4.96	5	-1	
# Trichlorofluoromethane	0.7333	0.6683	4.56	5	-9	#
Ethyl ether	0.1931	0.1901	4.92	5	-2	
Freon 123a	0.3297	0.3254	4.93	5	-1	
Acrolein	2.1223	1.8963	33.51	37.5	-11	
# 1,1-Dichloroethene	0.2543	0.2789	5.48	5	10	#
# Freon 113	0.3073	0.3164	5.15	5	3	#
# Acetone	2.9294	2.4206	30.99	37.5	-17	#
Methyl Iodide	0.5455	0.5369	4.92	5	-2	
# Carbon Disulfide	0.7447	0.7047	4.73	5	-5	#
Allyl Chloride	0.3912	0.3544	4.53	5	-9	
# Methyl Acetate	7.7407	6.5633	4.24	5	-15	#
# Methylene Chloride	0.2601	0.2735	5.26	5	5	#
t-Butyl Alcohol	1.2142	1.1138	45.87	50	-8	
Acrylonitrile	3.5041	3.1741	22.65	25	-9	
# trans-1,2-Dichloroethene	0.2846	0.2977	5.23	5	5	#
# Methyl Tertiary Butyl Ether	0.6652	0.6480	4.87	5	-3	#
n-Hexane	0.4006	0.3861	4.82	5	-4	
# 1,1-Dichloroethane	0.4629	0.4794	5.18	5	4	#
di-Isopropyl Ether	0.7768	0.7940	5.11	5	2	
2-Chloro-1,3-Butadiene	0.4157	0.4141	4.98	5	0	
Ethyl t-butyl ether	0.7712	0.7533	4.88	5	-2	
# cis-1,2-Dichloroethene	0.3171	0.3390	5.35	5	7	#
2,2-Dichloropropane	0.4309	0.4488	5.21	5	4	
# 2-Butanone	4.7583	4.2860	33.78	37.5	-10	#
Propionitrile	1.2776	1.1985	35.18	37.5	-6	
Methacrylonitrile	4.7017	4.4225	35.27	37.5	-6	
Bromochloromethane	0.1560	0.1434	4.59	5	-8	
Tetrahydrofuran	1.4879	1.3086	21.99	25	-12	
# Chloroform	0.5045	0.5288	5.24	5	5	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 ICV Date: 04/08/19 Time: 18:41

Lab File ID: ia08v01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# 1,1,1-Trichloroethane	0.4877	0.5122	5.25	5	5	#
# Cyclohexane	0.4795	0.4738	4.94	5	-1	#
1,1-Dichloropropene	0.3775	0.3901	5.17	5	3	
# Carbon Tetrachloride	0.4605	0.4831	5.25	5	5	#
Isobutyl Alcohol	0.3750	0.3532	117.73	125	-6	
# Benzene	1.1100	1.1497	5.18	5	4	#
# 1,2-Dichloroethane	0.2977	0.2994	5.03	5	1	#
t-Amyl methyl ether	0.7438	0.7386	4.96	5	-1	
n-Heptane	0.4113	0.3858	4.69	5	-6	
n-Butanol	0.3129	0.3111	248.53	250	-1	
# Trichloroethene	0.3106	0.3228	5.20	5	4	#
# Methylcyclohexane	0.5546	0.5330	4.81	5	-4	#
# 1,2-Dichloropropane	0.2570	0.2700	5.25	5	5	#
Methyl Methacrylate	8.9987	8.5358	4.74	5	-5	
Dibromomethane	0.1445	0.1477	5.11	5	2	
1,4-Dioxane	0.0769	0.0872	141.64	125	13	
# Bromodichloromethane	0.3567	0.3737	5.24	5	5	#
2-Nitropropane	2.9942	2.5894	4.32	5	-14	
# cis-1,3-Dichloropropene	0.4047	0.4172	5.16	5	3	#
# 4-Methyl-2-Pentanone	12.045	10.7348	22.28	25	-11	#
# Toluene	0.9222	0.9587	5.20	5	4	#
# trans-1,3-Dichloropropene	0.4347	0.4337	4.99	5	0	#
Ethyl Methacrylate	0.3671	0.3507	4.78	5	-4	
# 1,1,2-Trichloroethane	0.2548	0.2711	5.32	5	6	#
# Tetrachloroethene	0.4880	0.5056	5.18	5	4	#
1,3-Dichloropropane	0.4102	0.4111	5.01	5	0	
# 2-Hexanone	8.5417	7.6605	22.42	25	-10	#
# Dibromochloromethane	0.3464	0.3685	5.32	5	6	#
# 1,2-Dibromoethane	0.2595	0.2643	5.09	5	2	#
1-Chlorohexane	0.5552	0.5622	5.06	5	1	
# Chlorobenzene	1.0586	1.0907	5.15	5	3	#
1,1,1,2-Tetrachloroethane	0.3993	0.4200	5.26	5	5	
# Ethylbenzene	1.8520	1.8929	5.11	5	2	#
# m+p-Xylene	0.7375	0.7682	10.42	10	4	#
# o-Xylene	0.7119	0.7418	5.21	5	4	#
# Styrene	1.1286	1.1886	5.27	5	5	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 ICV Date: 04/08/19 Time: 18:41

Lab File ID: ia08v01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Bromoform	0.2130	0.2215	5.20	5	4	#
# Isopropylbenzene	1.9229	2.0409	5.31	5	6	#
# 1,1,2,2-Tetrachloroethane	0.5707	0.5797	5.08	5	2	#
Bromobenzene	0.8686	0.8851	5.09	5	2	
trans-1,4-Dichloro-2-butene	4.2245	3.9911	23.62	25	-6	
1,2,3-Trichloropropane	0.1694	0.1721	5.08	5	2	
n-Propylbenzene	3.8849	4.1441	5.33	5	7	
2-Chlorotoluene	0.8354	0.8686	5.20	5	4	
1,3,5-Trimethylbenzene	2.8697	3.0041	5.23	5	5	
4-Chlorotoluene	0.8394	0.8670	5.16	5	3	
tert-Butylbenzene	0.6539	0.6927	5.30	5	6	
Pentachloroethane	0.5759	0.5713	4.96	5	-1	
1,2,4-Trimethylbenzene	2.9241	3.0560	5.23	5	5	
sec-Butylbenzene	3.7146	4.0021	5.39	5	8	
# 1,3-Dichlorobenzene	1.6626	1.6992	5.11	5	2	#
p-Isopropyltoluene	3.2598	3.4918	5.36	5	7	
# 1,4-Dichlorobenzene	1.6615	1.7187	5.17	5	3	#
1,2,3-Trimethylbenzene	1.3664	1.3999	5.12	5	2	
Benzyl Chloride	0.2689	0.2677	4.98	5	0	
n-Butylbenzene	1.4827	1.5592	5.26	5	5	
# 1,2-Dichlorobenzene	1.5177	1.5817	5.21	5	4	#
# 1,2-Dibromo-3-chloropropane	2.7387	2.7040	4.94	5	-1	#
1,3,5-Trichlorobenzene	1.2123	1.2730	5.25	5	5	
# 1,2,4-Trichlorobenzene	1.0627	1.0958	5.16	5	3	#
Hexachlorobutadiene	0.4342	0.4679	5.39	5	8	
Naphthalene	2.1282	2.0701	4.86	5	-3	
1,2,3-Trichlorobenzene	0.9568	0.9610	5.02	5	0	
			Average %Drift		5	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date(s): 04/23/19 04/23/19

Heated Purge: (Y/N) Y Calibration Times: 21:47 23:54

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF0.2= ia23i17.d RRF0.5= ia23i16.d RRF 1 = ia23i15.d
RRF 2 = ia23i14.d RRF 5 = ia23i13.d RRF 10= ia23i12.d RRF 25= ia23i11.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dimethyl ether	0.4105	0.3544	0.3618	0.3641	0.3260	0.3925	0.3352	0.3635	8	AVG
Acetonitrile	1.0646	1.0330	1.0255	0.9900	1.0284	0.9865	1.0299	1.0225	3	AVG
Vinyl Acetate	0.3355	0.3090	0.3323	0.3322	0.3375	0.3796	0.3850	0.3444	8	AVG
Ethyl Acetate	0.1684	0.1875	0.1717	0.1821	0.1841	0.1917	0.1899	0.1822	5	AVG
Methyl Acrylate	0.1218	0.1356	0.1382	0.1419	0.1479	0.1528	0.1556	0.1419	8	AVG
1-Chlorobutane	0.4651	0.4632	0.4744	0.4970	0.4971	0.4978	0.5129	0.4868	4	AVG
Chloroacetonitrile	0.0060	0.0073	0.0086	0.0086	0.0084	0.0080	0.0091	0.0080	13	AVG
2-Chloroethyl vinyl ether	0.1027	0.1136	0.0994	0.1117	0.1116	0.1187	0.1239	0.1117	8	AVG
cis-1,4-Dichloro-2-butene	1.9160	2.2354	1.6180	2.0237	2.4493	2.7614	3.1997	2.3148	23	2NDDEG
Cyclohexanone	0.2835	0.2709	0.2954	0.2959	0.3517	0.3258	0.3330	0.3080	9	AVG
Hexachloroethane	0.4958	0.5277	0.5148	0.5481	0.5705	0.6077	0.6528	0.5596	10	AVG

Average %RSD 9

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

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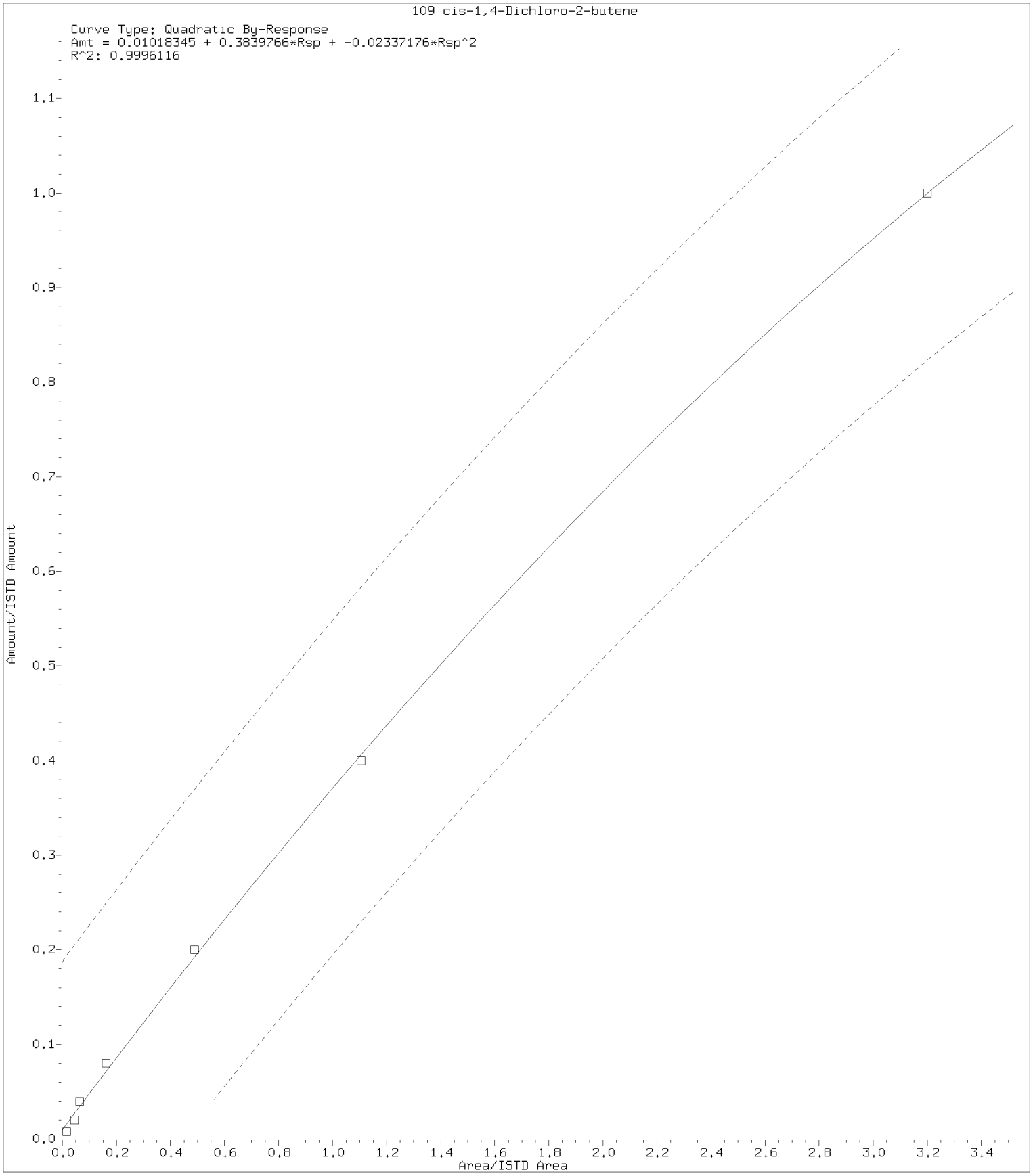

Digitally signed by Jennifer K. Howe on 04/24/2019 at 06:23.
Target 3.5 esignature user ID: jkh09052

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP19930.i/19apr23i.b/ia23i11.d	VSTD025
/chem2/HP19930.i/19apr23i.b/ia23i12.d	VSTD010
/chem2/HP19930.i/19apr23i.b/ia23i13.d	VSTD005
/chem2/HP19930.i/19apr23i.b/ia23i14.d	VSTD002
/chem2/HP19930.i/19apr23i.b/ia23i15.d	VSTD001
/chem2/HP19930.i/19apr23i.b/ia23i16.d	VSTD0.5
/chem2/HP19930.i/19apr23i.b/ia23i17.d	VSTD0.2

Area Summary

File ID:

Internal Standard Name	ia23i11.d	ia23i12.d	ia23i13.d	ia23i14.d	ia23i15.d	ia23i16.d	ia23i17.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	100568	93649	96030	103926	104314	91909	88398	96971	6	Yes
Fluorobenzene	1326775	1326708	1313109	1320704	1331997	1295249	1294299	1315549	1	Yes
Chlorobenzene-d5	1095012	1099910	1089604	1104810	1105123	1078684	1073061	1092315	1	Yes
1,4-Dichlorobenzene-d4	625348	627816	622330	617189	628903	601523	594963	616867	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ia23i11.d	ia23i12.d	ia23i13.d	ia23i14.d	ia23i15.d	ia23i16.d	ia23i17.d	Avg. RT
t-Butyl Alcohol-d10	4.306	4.312	4.324	4.324	4.318	4.306	4.336	4.318
Fluorobenzene	7.805	7.805	7.811	7.811	7.811	7.805	7.811	7.809
Chlorobenzene-d5	11.256	11.256	11.256	11.256	11.256	11.256	11.256	11.256
1,4-Dichlorobenzene-d4	13.133	13.133	13.133	13.133	13.133	13.133	13.133	13.133

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/24/2019 at 06:22.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 ICV Date: 04/24/19 Time: 00:16

Lab File ID: ia23v11.d Init. Calib. Date(s): 04/23/19 04/23/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dimethyl ether	0.3635	0.3283	4.52	5	-10
Acetonitrile	1.0225	1.2787	46.89	37.5	25
Vinyl Acetate	0.3444	0.3633	13.19	12.5	5
Ethyl Acetate	0.1822	0.2075	2.85	2.5	14
Methyl Acrylate	0.1419	0.1546	27.23	25	9
1-Chlorobutane	0.4868	0.5377	5.52	5	10
Chloroacetonitrile	0.0080	0.0067	208.82	250	-16
2-Chloroethyl vinyl ether	0.1117	0.1118	5.01	5	0
cis-1,4-Dichloro-2-butene	2.3148	2.7615	13.21	12.5	6
Cyclohexanone	0.3080	0.2921	118.52	125	-5
Hexachloroethane	0.5596	0.5705	5.10	5	2

Average %Drift 9

Compounds with required minimum RRF.
Maximum % Drift = 30 %

page 1 of 1 FORM VII VOA

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Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09355.i/19jan21c.b/yj21i57.d
/chem2/HP09355.i/19jan21c.b/yj21i56.d
/chem2/HP09355.i/19jan21c.b/yj21i55.d
/chem2/HP09355.i/19jan21c.b/yj21i54.d
/chem2/HP09355.i/19jan21c.b/yj21i53.d
/chem2/HP09355.i/19jan21c.b/yj21i52.d
/chem2/HP09355.i/19jan21c.b/yj21i51.d

File /chem2/HP09355.i/19jan21c.b/yj21i53.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09355.i/19apr24a.b/ya24c01.d

RT Summary

Internal Standard Name	File ID: ya24c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.258	4.264	Yes
Fluorobenzene	7.805	7.805	Yes
Chlorobenzene-d5	11.272	11.272	Yes
1,4-Dichlorobenzene-d4	13.158	13.158	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ya24c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	375502	437229	218614	874458	Yes
Fluorobenzene	1212921	1274730	637365	2549460	Yes
Chlorobenzene-d5	919579	973869	486934	1947738	Yes
1,4-Dichlorobenzene-d4	516835	541928	270964	1083856	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments:

report generated on 04/24/2019 at 09:27

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 04/24/19 Time: 08:31

Lab File ID: ya24c01.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4242	0.3611	42.56	50	-15	#
# Chloromethane	0.3454	0.2985	43.22	50	-14	#
1,3-Butadiene	0.2440	0.4173	85.51	50	71	<-
# Vinyl Chloride	0.3453	0.3088	44.71	50	-11	#
# Bromomethane	0.2758	0.2541	46.06	50	-8	#
# Chloroethane	0.2091	0.1874	44.79	50	-10	#
Dichlorofluoromethane	0.4217	0.4144	49.14	50	-2	
n-Pentane	0.3968	0.3479	43.84	50	-12	
# Trichlorofluoromethane	0.4871	0.4839	49.67	50	-1	#
Ethyl ether	0.2421	0.2580	53.28	50	7	
Freon 123a	0.2795	0.3009	53.82	50	8	
Acrolein	1.7876	1.8010	503.74	500	1	
# 1,1-Dichloroethene	0.2068	0.2201	53.23	50	6	#
# 1,1-Dichloroethene(2)	0.1049	0.1132	53.98	50	8	#
# Acetone	0.9075	1.0280	113.28	100	13	#
# Freon 113	0.2270	0.2427	53.45	50	7	#
2-Propanol	0.6329	0.5720	225.96	250	-10	
Methyl Iodide	0.4169	0.4238	50.83	50	2	
# Carbon Disulfide	0.6711	0.7839	58.41	50	17	#
Allyl Chloride	0.3809	0.3827	50.23	50	0	
# Methyl Acetate	0.3783	0.4156	54.93	50	10	#
# Methylene Chloride	0.2554	0.2609	51.08	50	2	#
t-Butyl alcohol	1.2774	1.2331	241.34	250	-3	
Acrylonitrile	0.2049	0.2197	53.61	50	7	
# trans-1,2-Dichloroethene	0.2479	0.2552	51.47	50	3	#
# Methyl Tertiary Butyl Ether	0.7010	0.7513	53.59	50	7	#
n-Hexane	0.3835	0.4169	54.35	50	9	
# 1,1-Dichloroethane	0.4321	0.4595	53.17	50	6	#
di-Isopropyl ether	0.7950	0.8192	51.52	50	3	
2-Chloro-1,3-butadiene	0.3840	0.4137	53.86	50	8	
Ethyl t-butyl ether	0.6933	0.7284	52.53	50	5	
# cis-1,2-Dichloroethene	0.2830	0.2855	50.43	50	1	#
# 2-Butanone	0.3077	0.3109	101.02	100	1	#
2,2-Dichloropropane	0.3486	0.3475	49.84	50	0	
Propionitrile	1.2925	1.5093	291.92	250	17	
Methacrylonitrile	0.2044	0.2179	133.25	125	7	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 04/24/19 Time: 08:31

Lab File ID: ya24c01.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Bromochloromethane	0.1563	0.1624	51.96	50	4	
Tetrahydrofuran	1.3428	1.4574	108.53	100	9	
# Chloroform	0.4405	0.4555	51.69	50	3	#
# 1,1,1-Trichloroethane	0.3860	0.3780	48.96	50	-2	#
# Cyclohexane	0.4464	0.4670	52.30	50	5	#
# Cyclohexane(2)	0.4103	0.4012	48.89	50	-2	#
# Cyclohexane(3)	0.1423	0.1482	52.07	50	4	#
1,1-Dichloropropene	0.3508	0.3642	51.91	50	4	
# Carbon Tetrachloride	0.3322	0.3360	50.57	50	1	#
Isobutyl Alcohol	0.4148	0.4360	656.96	625	5	
# Benzene	1.0387	1.0885	52.39	50	5	#
# 1,2-Dichloroethane	0.3730	0.3664	49.12	50	-2	#
# 1,2-Dichloroethane(2)	0.0325	0.0345	53.05	50	6	#<-
t-Amyl methyl ether	0.7278	0.7429	51.04	50	2	
n-Heptane	0.4174	0.4512	54.05	50	8	
n-Butanol	0.3513	0.3691	1313.36	1250	5	
# Trichloroethene	0.2734	0.2817	51.53	50	3	#
# Methylcyclohexane	0.5154	0.5274	51.17	50	2	#
# Methylcyclohexane(2)	0.2330	0.2331	50.03	50	0	#
# 1,2-Dichloropropane	0.2571	0.2754	53.56	50	7	#
Dibromomethane	0.1827	0.1859	50.89	50	2	
1,4-Dioxane	0.0990	0.0992	626.14	625	0	
Methyl Methacrylate	0.3020	0.3224	53.38	50	7	
# Bromodichloromethane	0.3124	0.3244	51.92	50	4	#
2-Nitropropane	0.1423	0.1453	102.07	100	2	
2-Chloroethyl Vinyl Ether	0.2082	0.2430	58.35	50	17	
# cis-1,3-Dichloropropene	0.4069	0.4264	52.40	50	5	#
# 4-Methyl-2-pentanone	0.5437	0.5759	105.93	100	6	#
# Toluene	0.8967	0.9150	51.02	50	2	#
# trans-1,3-Dichloropropene	0.4984	0.5213	52.30	50	5	#
Ethyl Methacrylate	0.6172	0.6730	54.52	50	9	
# 1,1,2-Trichloroethane	0.3461	0.3578	51.69	50	3	#
# Tetrachloroethene	0.3884	0.3971	51.12	50	2	#
1,3-Dichloropropane	0.5822	0.6139	52.71	50	5	
# 2-Hexanone	0.5725	0.6225	108.74	100	9	#
# Dibromochloromethane	0.3432	0.3583	52.19	50	4	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 04/24/19 Time: 08:31

Lab File ID: ya24c01.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# 1,2-Dibromoethane	0.3844	0.3981	51.78	50	4	#
1-Chlorohexane	0.4908	0.4768	48.57	50	-3	
# Chlorobenzene	1.0241	1.0373	50.64	50	1	#
1,1,1,2-Tetrachloroethane	0.3348	0.3462	51.71	50	3	
# Ethylbenzene	1.7394	1.7662	50.77	50	2	#
# m+p-Xylene	0.6879	0.6977	101.42	100	1	#
# o-Xylene	0.6744	0.6682	49.54	50	-1	#
# Styrene	1.1033	1.1369	51.52	50	3	#
# Bromoform	0.2717	0.2580	47.48	50	-5	#
# Isopropylbenzene	1.7484	1.7314	49.51	50	-1	#
Cyclohexanone	0.4424	0.3741	528.51	625	-15	
Bromobenzene	0.8384	0.8224	49.04	50	-2	
# 1,1,2,2-Tetrachloroethane	1.0915	1.0999	50.38	50	1	#
1,2,3-Trichloropropane	0.3770	0.3673	48.71	50	-3	
trans-1,4-Dichloro-2-butene	0.3665	0.1372	46.79	125	-63	<-
n-Propylbenzene	3.7006	3.7508	50.68	50	1	
2-Chlorotoluene	0.7864	0.7651	48.65	50	-3	
4-Chlorotoluene	0.8221	0.8053	48.98	50	-2	
1,3,5-Trimethylbenzene	2.7601	2.7676	50.14	50	0	
tert-Butylbenzene	0.5816	0.5587	48.03	50	-4	
Pentachloroethane	0.4638	0.5117	55.16	50	10	
1,2,4-Trimethylbenzene	2.8644	2.8780	50.24	50	0	
sec-Butylbenzene	3.5195	3.5248	50.07	50	0	
# 1,3-Dichlorobenzene	1.6153	1.5866	49.11	50	-2	#
p-Isopropyltoluene	3.0792	3.1186	50.64	50	1	
# 1,4-Dichlorobenzene	1.6603	1.6060	48.36	50	-3	#
1,2,3-Trimethylbenzene	3.0791	3.2114	52.15	50	4	
Benzyl Chloride	2.2554	2.3298	51.65	50	3	
1,3-Diethylbenzene	1.9138	2.0408	53.32	50	7	
1,4-Diethylbenzene	2.0405	2.1966	53.82	50	8	
# 1,2-Dichlorobenzene	1.5853	1.5415	48.62	50	-3	#
n-Butylbenzene	1.5821	1.6526	52.23	50	4	
1,2-Diethylbenzene	1.6140	1.6924	52.43	50	5	
# 1,2-Dibromo-3-chloropropane	0.2993	0.3036	50.72	50	1	#
1,3,5-Trichlorobenzene	1.2325	1.2137	49.24	50	-2	
# 1,2,4-Trichlorobenzene	1.1696	1.1221	47.97	50	-4	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 04/24/19 Time: 08:31

Lab File ID: ya24c01.d Init. Calib. Date(s): 01/21/19 01/21/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Hexachlorobutadiene	0.5323	0.5725	53.77	50	8
Naphthalene	4.0424	4.0545	50.15	50	0
1,2,3-Trichlorobenzene	1.1376	1.1184	49.15	50	-2
2-Methylnaphthalene	2.4034	2.5431	52.91	50	6
Dibromofluoromethane	0.2412	0.2365	49.04	50	-2
Dibromofluoromethane(2)	0.2466	0.2401	48.68	50	-3
1,2-Dichloroethane-d4	0.0605	0.0612	50.62	50	1
1,2-Dichloroethane-d4(2)	0.2959	0.2986	50.44	50	1
1,2-Dichloroethane-d4(3)	0.0388	0.0393	50.56	50	1
Toluene-d8	1.3123	1.3237	50.43	50	1
Toluene-d8(2)	0.8434	0.8474	50.24	50	0
4-Bromofluorobenzene	0.5010	0.5013	50.03	50	0
4-Bromofluorobenzene(2)	0.4118	0.4171	50.64	50	1

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP19094.i/18nov13i.b/hn13i07.d
/chem2/HP19094.i/18nov13i.b/hn13i06.d
/chem2/HP19094.i/18nov13i.b/hn13i05.d
/chem2/HP19094.i/18nov13i.b/hn13i04.d
/chem2/HP19094.i/18nov13i.b/hn13i03.d
/chem2/HP19094.i/18nov13i.b/hn13i02.d
/chem2/HP19094.i/18nov13i.b/hn13i01.d

File /chem2/HP19094.i/18nov13i.b/hn13i02.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP19094.i/19apr22b.b/ha22c01.d

RT Summary

Internal Standard Name	File ID: ha22c01.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.476	4.458	Yes
Fluorobenzene	7.964	7.963	Yes
Chlorobenzene-d5	11.378	11.384	Yes
1,4-Dichlorobenzene-d4	13.249	13.255	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ha22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	151985	101932	50966	203864	Yes
Fluorobenzene	2877128	2215459	1107730	4430918	Yes
Chlorobenzene-d5	2180963	1770593	885296	3541186	Yes
1,4-Dichlorobenzene-d4	1144051	920823	460412	1841646	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 04/22/2019 at 21:40

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 04/22/19 Time: 21:16

Lab File ID: ha22c01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3351	0.3932	11.73	10	17 #	
# Chloromethane	0.3242	0.3428	10.57	10	6 #	
# Vinyl Chloride	0.2941	0.3210	10.91	10	9 #	
1,3-Butadiene	0.2418	0.3342	13.82	10	38	<-
# Bromomethane	0.2230	0.2356	10.56	10	6 #	
# Chloroethane	0.1754	0.1851	10.55	10	6 #	
Dichlorofluoromethane	0.4581	0.4475	9.77	10	-2	
# Trichlorofluoromethane	0.3960	0.4450	11.24	10	12 #	
Ethyl ether	0.1349	0.1256	9.31	10	-7	
Freon 123a	0.2737	0.2671	9.76	10	-2	
Acrolein	1.9914	1.7904	449.54	500	-10	
# 1,1-Dichloroethene	0.1844	0.1763	9.56	10	-4 #	
# Freon 113	0.2120	0.2198	10.37	10	4 #	
# Acetone	2.4787	2.4175	97.53	100	-2 #	
Methyl Iodide	0.3744	0.3597	9.61	10	-4	
# Carbon Disulfide	0.5675	0.5492	9.68	10	-3 #	
Allyl Chloride	0.3937	0.3058	7.77	10	-22	<-
# Methyl Acetate	8.5979	5.9592	6.93	10	-31 #	<-
# Methylene Chloride	0.1979	0.1873	9.46	10	-5 #	
t-Butyl Alcohol	0.6598	0.8202	248.61	200	24	<-
Acrylonitrile	3.5275	3.2407	45.94	50	-8	
# trans-1,2-Dichloroethene	0.2067	0.1970	9.53	10	-5 #	
# Methyl Tertiary Butyl Ether	0.4115	0.3816	9.27	10	-7 #	
n-Hexane	0.3543	0.3313	9.35	10	-6	
# 1,1-Dichloroethane	0.4036	0.3831	9.49	10	-5 #	
di-Isopropyl Ether	0.7492	0.6666	8.90	10	-11	
2-Chloro-1,3-Butadiene	0.3734	0.3569	9.56	10	-4	
Ethyl t-butyl ether	0.6118	0.5465	8.93	10	-11	
# cis-1,2-Dichloroethene	0.2299	0.2197	9.55	10	-4 #	
2,2-Dichloropropane	0.3289	0.3166	9.63	10	-4	
# 2-Butanone	5.0683	4.1794	82.46	100	-18 #	
Propionitrile	1.2952	1.1802	182.24	200	-9	
Methacrylonitrile	4.7431	4.0164	84.68	100	-15	
Bromochloromethane	0.0904	0.0863	9.54	10	-5	
Tetrahydrofuran	1.2116	1.0809	89.21	100	-11	
# Chloroform	0.3691	0.3621	9.81	10	-2 #	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 04/22/19 Time: 21:16

Lab File ID: ha22c01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
# 1,1,1-Trichloroethane	0.3343	0.3337	9.98	10	0	#
# Cyclohexane	0.4403	0.4101	9.31	10	-7	#
# Cyclohexane(2)	0.3557	0.3353	9.42	10	-6	#
# Cyclohexane(3)	0.1345	0.1231	9.16	10	-8	#
1,1-Dichloropropene	0.3019	0.2951	9.77	10	-2	
# Carbon Tetrachloride	0.3006	0.3051	10.15	10	1	#
Isobutyl Alcohol	0.3430	0.3178	578.96	500	16	
# Benzene	0.8759	0.8430	9.63	10	-4	#
# 1,2-Dichloroethane	0.1944	0.1983	10.20	10	2	#
t-Amyl methyl ether	0.5041	0.4571	9.07	10	-9	
n-Heptane	0.3847	0.3443	8.95	10	-10	
n-Butanol	0.2536	0.2661	1049.36	1000	5	
# Trichloroethene	0.2260	0.2196	9.71	10	-3	#
# Methylcyclohexane	0.4356	0.3759	8.63	10	-14	#
# 1,2-Dichloropropane	0.2213	0.2063	9.32	10	-7	#
Methyl Methacrylate	9.9448	7.5657	7.61	10	-24	<-
Dibromomethane	0.0841	0.0865	10.28	10	3	
1,4-Dioxane	0.0480	0.0652	568.65	500	14	
# Bromodichloromethane	0.2508	0.2444	9.74	10	-3	#
2-Nitropropane	2.9074	2.5161	86.54	100	-13	
# cis-1,3-Dichloropropene	0.3099	0.2908	9.38	10	-6	#
# 4-Methyl-2-Pentanone	12.547	10.5195	83.84	100	-16	#
# Toluene	0.6856	0.6957	10.15	10	1	#
# trans-1,3-Dichloropropene	0.3009	0.3064	10.18	10	2	#
Ethyl Methacrylate	0.2478	0.2315	9.34	10	-7	
# 1,1,2-Trichloroethane	0.1524	0.1630	10.69	10	7	#
# Tetrachloroethene	0.3192	0.3310	10.37	10	4	#
1,3-Dichloropropane	0.2768	0.2879	10.40	10	4	
# 2-Hexanone	8.7199	7.2276	82.89	100	-17	#
# Dibromochloromethane	0.2080	0.2143	10.30	10	3	#
# 1,2-Dibromoethane	0.1462	0.1574	10.76	10	8	#
1-Chlorohexane	0.4320	0.4003	9.27	10	-7	
# Chlorobenzene	0.7332	0.7530	10.27	10	3	#
1,1,1,2-Tetrachloroethane	0.2591	0.2652	10.23	10	2	
# Ethylbenzene	1.3615	1.3813	10.15	10	1	#
# m+p-Xylene	0.5136	0.5274	20.53	20	3	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 04/22/19 Time: 21:16

Lab File ID: ha22c01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
	COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
#	o-Xylene	0.5004	0.5057	10.10	10	1	#
#	Styrene	0.8010	0.8224	10.27	10	3	#
#	Bromoform	0.1181	0.1234	10.45	10	4	#
#	Isopropylbenzene	1.3733	1.3631	9.93	10	-1	#
#	1,1,2,2-Tetrachloroethane	0.3457	0.3694	10.69	10	7	#
	Bromobenzene	0.5522	0.5875	10.64	10	6	
	trans-1,4-Dichloro-2-butene	4.3242	3.6523	84.46	100	-16	
	1,2,3-Trichloropropane	0.0897	0.0951	10.59	10	6	
	n-Propylbenzene	3.0170	3.0882	10.24	10	2	
	2-Chlorotoluene	0.5925	0.5928	10.01	10	0	
	1,3,5-Trimethylbenzene	2.1223	2.1644	10.20	10	2	
	4-Chlorotoluene	0.5897	0.6023	10.21	10	2	
	tert-Butylbenzene	0.4594	0.4527	9.85	10	-1	
	Pentachloroethane	0.3642	0.3735	10.26	10	3	
	1,2,4-Trimethylbenzene	2.1411	2.1989	10.27	10	3	
	sec-Butylbenzene	2.7293	2.7737	10.16	10	2	
#	1,3-Dichlorobenzene	1.1073	1.1499	10.38	10	4	#
	p-Isopropyltoluene	2.3310	2.3441	10.06	10	1	
#	1,4-Dichlorobenzene	1.0832	1.1085	10.23	10	2	#
	1,2,3-Trimethylbenzene	0.9127	0.9093	9.96	10	0	
	Benzyl Chloride	0.1570	0.1598	10.18	10	2	
	n-Butylbenzene	1.0974	1.1100	10.11	10	1	
#	1,2-Dichlorobenzene	0.9527	0.9807	10.29	10	3	#
#	1,2-Dibromo-3-chloropropane	2.2325	1.8310	8.20	10	-18	#
	1,3,5-Trichlorobenzene	0.8153	0.7933	9.73	10	-3	
#	1,2,4-Trichlorobenzene	0.6530	0.6024	9.22	10	-8	#
	Hexachlorobutadiene	0.2635	0.2610	9.91	10	-1	
	Naphthalene	1.0936	0.9745	8.91	10	-11	
	1,2,3-Trichlorobenzene	0.5440	0.4866	8.94	10	-11	
	Dibromofluoromethane	0.2500	0.2485	9.94	10	-1	
	Dibromofluoromethane(2)	0.2566	0.2527	9.85	10	-2	
	1,2-Dichloroethane-d4	0.0438	0.0453	10.33	10	3	
	1,2-Dichloroethane-d4(2)	0.2034	0.2196	10.79	10	8	
	1,2-Dichloroethane-d4(3)	0.0277	0.0282	10.15	10	1	
	Toluene-d8	1.2915	1.3295	10.29	10	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 04/22/19 Time: 21:16

Lab File ID: ha22c01.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	RRF	RRF10	ACTUAL CONC.	TRUE CONC.	% DRIFT
Toluene-d8(2)	0.8396	0.8497	10.12	10	1
4-Bromofluorobenzene	0.4834	0.4632	9.58	10	-4
4-Bromofluorobenzene(2)	0.4140	0.4120	9.95	10	0

Average %Drift 7

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP19094.i/18nov13i.b/hn13i17.d
/chem2/HP19094.i/18nov13i.b/hn13i16.d
/chem2/HP19094.i/18nov13i.b/hn13i15.d
/chem2/HP19094.i/18nov13i.b/hn13i14.d
/chem2/HP19094.i/18nov13i.b/hn13i13.d
/chem2/HP19094.i/18nov13i.b/hn13i12.d
/chem2/HP19094.i/18nov13i.b/hn13i11.d

File /chem2/HP19094.i/18nov13i.b/hn13i12.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP19094.i/19apr22b.b/ha22c02.d

RT Summary

Internal Standard Name	File ID: ha22c02.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.495	4.495	Yes
Fluorobenzene	7.964	7.964	Yes
Chlorobenzene-d5	11.378	11.384	Yes
1,4-Dichlorobenzene-d4	13.249	13.255	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ha22c02.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	150365	96722	48361	193444	Yes
Fluorobenzene	2949244	2358172	1179086	4716344	Yes
Chlorobenzene-d5	2188731	1810932	905466	3621864	Yes
1,4-Dichlorobenzene-d4	1149616	972712	486356	1945424	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 04/22/19 Time: 21:37

Lab File ID: ha22c02.d Init. Calib. Date(s): 11/13/18 11/13/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	RRF	RRF10	ACTUAL CONC.	TRUE CONC.	% DRIFT	
Dimethyl ether	0.2558	0.2823	11.04	10	10	
Acetonitrile	1.4931	1.0429	393.74	400	-2	
Vinyl Acetate	0.2989	0.2458	8.22	10	-18	
Methyl Acrylate	0.0953	0.0886	46.48	50	-7	
1-Chlorobutane	0.4573	0.3883	8.49	10	-15	
Chloroacetonitrile	0.0038	0.0051	675.94	500	35	
2-Chloroethyl vinyl ether	0.0828	0.0812	9.80	10	-2	
cis-1,4-Dichloro-2-butene	6.1124	4.3767	14.32	20	-28	<-
Cyclohexanone	0.3184	0.2766	434.24	500	-13	
Hexachloroethane	0.4338	0.4277	9.86	10	-1	

Average %Drift 13

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP19930.i/19apr08a.b/ia08i07.d
/chem2/HP19930.i/19apr08a.b/ia08i06.d
/chem2/HP19930.i/19apr08a.b/ia08i05.d
/chem2/HP19930.i/19apr08a.b/ia08i04.d
/chem2/HP19930.i/19apr08a.b/ia08i03.d
/chem2/HP19930.i/19apr08a.b/ia08i02.d
/chem2/HP19930.i/19apr08a.b/ia08i01.d

File /chem2/HP19930.i/19apr08a.b/ia08i02.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP19930.i/19apr24a.b/ia24c01.d

RT Summary

Internal Standard Name	File ID: ia24c01.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.312	4.324	Yes
Fluorobenzene	7.805	7.805	Yes
Chlorobenzene-d5	11.256	11.256	Yes
1,4-Dichlorobenzene-d4	13.133	13.133	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ia24c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	138717	135247	67624	270494	Yes
Fluorobenzene	2127093	1834755	917378	3669510	Yes
Chlorobenzene-d5	1728695	1474409	737204	2948818	Yes
1,4-Dichlorobenzene-d4	997807	825128	412564	1650256	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 04/24/2019 at 10:23

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date: 04/24/19 Time: 09:28

Lab File ID: ia24c01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.5828	0.4670	8.01	10	-20	#
# Chloromethane	0.4317	0.3669	8.50	10	-15	#
# Vinyl Chloride	0.4389	0.3802	8.66	10	-13	#
1,3-Butadiene	0.3630	0.3692	10.17	10	2	
# Bromomethane	0.3902	0.3583	9.18	10	-8	#
# Chloroethane	0.2550	0.2392	9.38	10	-6	#
Dichlorofluoromethane	0.6588	0.6142	9.32	10	-7	
# Trichlorofluoromethane	0.7333	0.6556	8.94	10	-11	#
Ethyl ether	0.1931	0.1717	8.89	10	-11	
Freon 123a	0.3297	0.3252	9.86	10	-1	
Acrolein	2.1223	2.2592	532.26	500	6	
# 1,1-Dichloroethene	0.2543	0.2451	9.64	10	-4	#
# Freon 113	0.3073	0.2985	9.71	10	-3	#
# Acetone	2.9294	2.7807	94.92	100	-5	#
Methyl Iodide	0.5455	0.5236	9.60	10	-4	
# Carbon Disulfide	0.7447	0.6891	9.25	10	-7	#
Allyl Chloride	0.3912	0.3077	7.87	10	-21	<-
# Methyl Acetate	7.7407	6.9219	8.94	10	-11	#
# Methylene Chloride	0.2601	0.2529	9.72	10	-3	#
t-Butyl Alcohol	1.2142	1.0565	174.02	200	-13	
Acrylonitrile	3.5041	3.7305	53.23	50	6	
# trans-1,2-Dichloroethene	0.2846	0.2688	9.44	10	-6	#
# Methyl Tertiary Butyl Ether	0.6652	0.6081	9.14	10	-9	#
n-Hexane	0.4006	0.3807	9.51	10	-5	
# 1,1-Dichloroethane	0.4629	0.4528	9.78	10	-2	#
di-Isopropyl Ether	0.7768	0.7433	9.57	10	-4	
2-Chloro-1,3-Butadiene	0.4157	0.4065	9.78	10	-2	
Ethyl t-butyl ether	0.7712	0.7031	9.12	10	-9	
# cis-1,2-Dichloroethene	0.3171	0.3066	9.67	10	-3	#
2,2-Dichloropropane	0.4309	0.4019	9.33	10	-7	
# 2-Butanone	4.7583	5.0399	105.92	100	6	#
Propionitrile	1.2776	1.2751	199.62	200	0	
Methacrylonitrile	4.7017	5.3475	113.74	100	14	
Bromochloromethane	0.1560	0.1397	8.95	10	-10	
Tetrahydrofuran	1.4879	1.6043	107.82	100	8	
# Chloroform	0.5045	0.4859	9.63	10	-4	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date: 04/24/19 Time: 09:28

Lab File ID: ia24c01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
# 1,1,1-Trichloroethane	0.4877	0.4644	9.52	10	-5	#
# Cyclohexane	0.4795	0.4600	9.59	10	-4	#
# Cyclohexane(2)	0.4524	0.4364	9.65	10	-4	#
# Cyclohexane(3)	0.1575	0.0319	2.03	10	-80	#<-
1,1-Dichloropropene	0.3775	0.3721	9.86	10	-1	
# Carbon Tetrachloride	0.4605	0.4398	9.55	10	-4	#
Isobutyl Alcohol	0.3750	0.3547	472.97	500	-5	
# Benzene	1.1100	1.0803	9.73	10	-3	#
# 1,2-Dichloroethane	0.2977	0.2749	9.23	10	-8	#
# 1,2-Dichloroethane(2)	0.0278	0.0271	9.76	10	-2	#<-
t-Amyl methyl ether	0.7438	0.7005	9.42	10	-6	
n-Heptane	0.4113	0.3892	9.46	10	-5	
n-Butanol	0.3129	0.3430	1096.20	1000	10	
# Trichloroethene	0.3106	0.3000	9.66	10	-3	#
# Methylcyclohexane	0.5546	0.4909	8.85	10	-11	#
# 1,2-Dichloropropane	0.2570	0.2559	9.96	10	0	#
Methyl Methacrylate	8.9987	10.5035	11.67	10	17	
Dibromomethane	0.1445	0.1408	9.75	10	-3	
1,4-Dioxane	0.0769	0.0894	580.68	500	16	
1,4-Dioxane(2)	0.0458	0.0543	592.65	500	19	
# Bromodichloromethane	0.3567	0.3536	9.91	10	-1	#
2-Nitropropane	2.9942	3.4381	114.83	100	15	
# cis-1,3-Dichloropropene	0.4047	0.3951	9.76	10	-2	#
# 4-Methyl-2-Pentanone	12.0450	13.7846	114.43	100	14	#
# Toluene	0.9222	0.8868	9.62	10	-4	#
# trans-1,3-Dichloropropene	0.4347	0.4153	9.55	10	-4	#
Ethyl Methacrylate	0.3671	0.3607	9.83	10	-2	
# 1,1,2-Trichloroethane	0.2548	0.2541	9.97	10	0	#
# Tetrachloroethene	0.4880	0.4651	9.53	10	-5	#
1,3-Dichloropropane	0.4102	0.4033	9.83	10	-2	
# 2-Hexanone	8.5417	9.7783	114.48	100	14	#
# Dibromochloromethane	0.3464	0.3471	10.02	10	0	#
# 1,2-Dibromoethane	0.2595	0.2536	9.77	10	-2	#
1-Chlorohexane	0.5552	0.5147	9.27	10	-7	
# Chlorobenzene	1.0586	1.0444	9.87	10	-1	#
1,1,1,2-Tetrachloroethane	0.3993	0.3982	9.97	10	0	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date: 04/24/19 Time: 09:28

Lab File ID: ia24c01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
# Ethylbenzene	1.8520	1.8207	9.83	10	-2	#
# m+p-Xylene	0.7375	0.7267	19.71	20	-1	#
# o-Xylene	0.7119	0.6993	9.82	10	-2	#
# Styrene	1.1286	1.1413	10.11	10	1	#
# Bromoform	0.2130	0.2186	10.26	10	3	#
# Isopropylbenzene	1.9229	1.8873	9.81	10	-2	#
# 1,1,2,2-Tetrachloroethane	0.5707	0.5556	9.73	10	-3	#
Bromobenzene	0.8686	0.8246	9.49	10	-5	
trans-1,4-Dichloro-2-butene	4.2245	4.4733	105.89	100	6	
1,2,3-Trichloropropane	0.1694	0.1611	9.51	10	-5	
n-Propylbenzene	3.8849	3.7398	9.63	10	-4	
2-Chlorotoluene	0.8354	0.7722	9.24	10	-8	
1,3,5-Trimethylbenzene	2.8697	2.7252	9.50	10	-5	
4-Chlorotoluene	0.8394	0.7936	9.45	10	-5	
tert-Butylbenzene	0.6539	0.6261	9.57	10	-4	
Pentachloroethane	0.5759	0.5451	9.47	10	-5	
1,2,4-Trimethylbenzene	2.9241	2.8163	9.63	10	-4	
sec-Butylbenzene	3.7146	3.6479	9.82	10	-2	
# 1,3-Dichlorobenzene	1.6626	1.6139	9.71	10	-3	#
p-Isopropyltoluene	3.2598	3.2327	9.92	10	-1	
# 1,4-Dichlorobenzene	1.6615	1.5993	9.63	10	-4	#
1,2,3-Trimethylbenzene	1.3664	1.2580	9.21	10	-8	
Benzyl Chloride	0.2689	0.2608	9.70	10	-3	
n-Butylbenzene	1.4827	1.4779	9.97	10	0	
# 1,2-Dichlorobenzene	1.5177	1.4913	9.83	10	-2	#
# 1,2-Dibromo-3-chloropropane	2.7387	3.2446	11.85	10	18	#
1,3,5-Trichlorobenzene	1.2123	1.1659	9.62	10	-4	
# 1,2,4-Trichlorobenzene	1.0627	0.9771	9.19	10	-8	#
Hexachlorobutadiene	0.4342	0.4057	9.34	10	-7	
Naphthalene	2.1282	1.8697	8.79	10	-12	
1,2,3-Trichlorobenzene	0.9568	0.8599	8.99	10	-10	
Dibromofluoromethane	0.2581	0.2606	10.10	10	1	
Dibromofluoromethane(2)	0.2638	0.2634	9.98	10	0	
1,2-Dichloroethane-d4	0.0497	0.0497	9.98	10	0	
1,2-Dichloroethane-d4(2)	0.2229	0.2206	9.90	10	-1	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date: 04/24/19 Time: 09:28

Lab File ID: ia24c01.d Init. Calib. Date(s): 04/08/19 04/08/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF10	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,2-Dichloroethane-d4(3)	0.0314	0.0310	9.87	10	-1
Toluene-d8	1.2266	1.2346	10.07	10	1
Toluene-d8(2)	0.7866	0.7915	10.06	10	1
4-Bromofluorobenzene	0.4596	0.4367	9.50	10	-5
4-Bromofluorobenzene(2)	0.4400	0.4406	10.01	10	0

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP19930.i/19apr23i.b/ia23i17.d
/chem2/HP19930.i/19apr23i.b/ia23i16.d
/chem2/HP19930.i/19apr23i.b/ia23i15.d
/chem2/HP19930.i/19apr23i.b/ia23i14.d
/chem2/HP19930.i/19apr23i.b/ia23i13.d
/chem2/HP19930.i/19apr23i.b/ia23i12.d
/chem2/HP19930.i/19apr23i.b/ia23i11.d

File /chem2/HP19930.i/19apr23i.b/ia23i12.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP19930.i/19apr24a.b/ia24c02.d

RT Summary

Internal Standard Name	File ID: ia24c02.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.306	4.312	Yes
Fluorobenzene	7.805	7.805	Yes
Chlorobenzene-d5	11.256	11.256	Yes
1,4-Dichlorobenzene-d4	13.133	13.133	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ia24c02.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	151889	93649	46824	187298	Yes
Fluorobenzene	2096160	1326708	663354	2653416	Yes
Chlorobenzene-d5	1681518	1099910	549955	2199820	Yes
1,4-Dichlorobenzene-d4	944694	627816	313908	1255632	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 04/24/2019 at 10:25

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19930 Calibration Date: 04/24/19 Time: 09:49

Lab File ID: ia24c02.d Init. Calib. Date(s): 04/23/19 04/23/19

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF10	ACTUAL CONC.	TRUE CONC.	% DRIFT	
Dimethyl ether	0.3635	0.3127	9.47	10	-5	
Acetonitrile	1.0225	0.9713	394.34	400	-1	
Vinyl Acetate	0.3444	0.3780	10.97	10	10	
Ethyl Acetate	0.1822	0.1861	10.21	10	2	
Methyl Acrylate	0.1419	0.1507	53.07	50	6	
1-Chlorobutane	0.4868	0.4875	10.02	10	0	
Isopropyl Acetate	0.3226	0.3374	10.46	10	5	
n-Propyl Acetate	0.0950	0.1084	11.41	10	14	
Chloroacetonitrile	0.0080	0.0090	562.37	500	12	
2-Chloroethyl vinyl ether	0.1117	0.1204	10.79	10	8	
Butyl Acetate	0.3395	0.3880	11.43	10	14	
cis-1,4-Dichloro-2-butene	2.3148	0.5784	32.58	20	63	<-
Cyclohexanone	0.3080	0.0004	500.44	500	0	
Hexachloroethane	0.5596	0.6180	11.04	10	10	

Average %Drift 11

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

page 1 of 1

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ya24c01.d Date Analyzed: 04/24/19

Instrument ID: HP09355 Time Analyzed: 08:31

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	375502	4.258	1212921	7.805	919579	11.272	516835	13.158
UPPER LIMIT	751004	4.758	2425842	8.305	1839158	11.772	1033670	13.658
LOWER LIMIT	187751	3.758	606460	7.305	459790	10.772	258418	12.658
LAB SAMPLE ID								
01 LCSY63	360238	4.258	1184807	7.799	888251	11.266	498111	13.152
02 LCSY65	360238	4.258	1184807	7.799	888251	11.266	498111	13.152
03 LCDY63	368512	4.258	1176070	7.799	886807	11.266	499754	13.152
04 LCDY65	368512	4.258	1176070	7.799	886807	11.266	499754	13.152
05 VBLKY63	347056	4.246	1106030	7.793	825222	11.266	451334	13.152
06 VBLKY65	347056	4.246	1106030	7.793	825222	11.266	451334	13.152
07 1035498	328340	4.270	1077778	7.811	808393	11.278	441215	13.164
08 1035499	326363	4.264	1064061	7.805	802217	11.272	439499	13.158
09 1034104	338048	4.252	1061215	7.799	801128	11.266	436132	13.158
10 1034105MS	329926	4.252	1112495	7.792	832785	11.266	472620	13.152
11 1034106MSD	349672	4.252	1139252	7.786	860160	11.266	484812	13.152
12 1034101	326692	4.246	1070074	7.792	792828	11.266	434017	13.152
13 1034102	315891	4.240	1050129	7.786	786965	11.260	431130	13.152
14 1034103	313159	4.252	1035440	7.792	783651	11.266	426317	13.152
15 1034107	303419	4.252	1016638	7.792	753760	11.266	416923	13.152
16 1034108	304267	4.252	1000540	7.793	758424	11.266	417509	13.152
17 1035492	312256	4.240	993450	7.792	759005	11.266	415817	13.152
18 1035495	307939	4.252	1001098	7.792	751927	11.266	412249	13.152
19 1035047	314864	4.258	964559	7.792	736488	11.266	409388	13.152
20 1035039	317184	4.240	944277	7.786	730665	11.260	403121	13.152
21 1035039MS	324593	4.246	1030028	7.793	786776	11.260	452096	13.152
22 1035039MSD	351999	4.252	1066352	7.786	806277	11.266	460224	13.152

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ya24c01.d Date Analyzed: 04/24/19

Instrument ID: HP09355 Time Analyzed: 08:31

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	375502	4.258	1212921	7.805	919579	11.272	516835	13.158
UPPER LIMIT	751004	4.758	2425842	8.305	1839158	11.772	1033670	13.658
LOWER LIMIT	187751	3.758	606460	7.305	459790	10.772	258418	12.658
LAB SAMPLE ID								
23 1035040	335272	4.240	989938	7.787	747830	11.260	408704	13.152
24 1035041	312680	4.252	959433	7.793	729669	11.266	402641	13.152
25 1035042	308759	4.252	946164	7.792	721509	11.266	396679	13.152

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ha22c01.d Date Analyzed: 04/22/19

Instrument ID: HP19094 Time Analyzed: 21:16

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	151985	4.476	2877128	7.964	2180963	11.378	1144051	13.249
UPPER LIMIT	303970	4.976	5754256	8.464	4361926	11.878	2288102	13.749
LOWER LIMIT	75992	3.976	1438564	7.464	1090482	10.878	572026	12.749
LAB SAMPLE ID								
01 LCSH28	155107	4.476	2941762	7.964	2203886	11.378	1172063	13.249
02 LCSH31	155107	4.476	2941762	7.964	2203886	11.378	1172063	13.249
03 LCDH28	153161	4.495	2976277	7.964	2222368	11.378	1181251	13.249
04 LCDH31	153161	4.495	2976277	7.964	2222368	11.378	1181251	13.249
05 LCSH30	164320	4.489	3004616	7.964	2228150	11.378	1177765	13.249
06 LCSH32	164320	4.489	3004616	7.964	2228150	11.378	1177765	13.249
07 LCDH30	153166	4.464	2996349	7.957	2215256	11.377	1154504	13.249
08 LCDH32	153166	4.464	2996349	7.957	2215256	11.377	1154504	13.249
09 VBLKH28	149086	4.470	2975825	7.958	2242238	11.378	1171398	13.249
10 VBLKH31	149086	4.470	2975825	7.958	2242238	11.378	1171398	13.249
11 1034274	152654	4.476	2952503	7.958	2223665	11.378	1168282	13.249
12 1034283	156926	4.476	2963783	7.963	2241174	11.377	1170634	13.249
13 1034285	149177	4.464	2917279	7.958	2180393	11.378	1128819	13.249
14 1034275	152351	4.470	2894762	7.964	2194216	11.378	1138739	13.249
15 1034276	126328	4.464	2907002	7.958	2197562	11.378	1151093	13.249
16 1034278	146382	4.482	2906306	7.964	2179403	11.377	1141922	13.249
17 1034280	152450	4.470	2918940	7.958	2218718	11.378	1150687	13.249
18 1034281	146352	4.464	2905414	7.958	2195941	11.378	1137110	13.249
19 1034282	156375	4.482	2917933	7.964	2199746	11.378	1159676	13.249
20 1034284	150254	4.482	2941222	7.964	2199473	11.378	1153540	13.249
21 1033182DL	136961	4.483	2938972	7.964	2211964	11.378	1144931	13.249
22 1033183DL	148821	4.470	2953459	7.958	2223174	11.378	1161189	13.249

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ha22c01.d Date Analyzed: 04/22/19

Instrument ID: HP19094 Time Analyzed: 21:16

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	151985	4.476	2877128	7.964	2180963	11.378	1144051	13.249
UPPER LIMIT	303970	4.976	5754256	8.464	4361926	11.878	2288102	13.749
LOWER LIMIT	75992	3.976	1438564	7.464	1090482	10.878	572026	12.749
LAB SAMPLE ID								
23 1034265DL	136040	4.483	2883267	7.964	2172313	11.378	1135996	13.249
24 1034272	146545	4.483	2880782	7.964	2195280	11.378	1142873	13.249
25 1034272DL	140762	4.470	2891705	7.958	2191504	11.378	1140787	13.249
26 1034277	152087	4.470	2908812	7.958	2194979	11.378	1152283	13.249
27 1034279	134442	4.464	2903485	7.958	2180659	11.378	1139782	13.249
28 1034109	150876	4.464	2894183	7.957	2196945	11.377	1143020	13.249
29 1034110	155017	4.458	2910700	7.957	2211050	11.378	1160549	13.249
30 1034111	150885	4.483	2893902	7.964	2197961	11.378	1163325	13.249
31 1034112	152249	4.476	2923068	7.958	2197248	11.378	1152854	13.249
32 1034113	153882	4.477	2934429	7.958	2226897	11.378	1162745	13.249

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ia24c01.d Date Analyzed: 04/24/19

Instrument ID: HP19930 Time Analyzed: 09:28

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	138717	4.312	2127093	7.805	1728695	11.256	997807	13.133
UPPER LIMIT	277434	4.812	4254186	8.305	3457390	11.756	1995614	13.633
LOWER LIMIT	69358	3.812	1063546	7.305	864348	10.756	498904	12.633
LAB SAMPLE ID								
01 LCSI33	152645	4.306	2117520	7.811	1716406	11.256	980480	13.133
02 LCSI35	152645	4.306	2117520	7.811	1716406	11.256	980480	13.133
03 LCDI33	158766	4.300	2151690	7.805	1728569	11.256	970992	13.127
04 LCDI35	158384	4.300	2151690	7.805	1728569	11.256	970992	13.127
05 LCSI34	149098	4.306	2130846	7.805	1702647	11.256	946941	13.133
06 LCSI36	149098	4.306	2130846	7.805	1702647	11.256	946941	13.133
07 LCDI34	150086	4.318	2117059	7.811	1700868	11.256	944949	13.133
08 LCDI36	150086	4.318	2117059	7.811	1700868	11.256	944949	13.133
09 MDLI33 - MD	154232	4.312	2090536	7.811	1671746	11.256	926787	13.133
10 VBLKI33	154400	4.312	2097539	7.805	1680003	11.256	922523	13.133
11 VBLKI35	154400	4.312	2097539	7.805	1680003	11.256	922523	13.133
12 1034114	151967	4.306	2070282	7.805	1650438	11.256	896849	13.133
13 1034115	147184	4.324	2029140	7.805	1612727	11.256	875503	13.133
14 1034101	120607	4.330	2012602	7.811	1608125	11.256	866680	13.133
15 1034102	128134	4.312	2003392	7.811	1598074	11.256	864355	13.133
16 1034103	127746	4.318	2022252	7.805	1625623	11.256	885519	13.133
17 1034104	136913	4.324	2049423	7.811	1631417	11.256	890317	13.133
18 1034105MS	145031	4.306	2098183	7.811	1679291	11.256	958602	13.127
19 1034106MSD	135230	4.306	2196520	7.805	1754276	11.256	995228	13.127
20 1034105MS1	151418	4.294	2148811	7.805	1714094	11.256	934161	13.127
21 1034106MSD1	142568	4.306	2136874	7.811	1694147	11.256	926207	13.133
22 1034107	155279	4.336	2115723	7.811	1686192	11.256	921621	13.127

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ia24c01.d Date Analyzed: 04/24/19

Instrument ID: HP19930 Time Analyzed: 09:28

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	138717	4.312	2127093	7.805	1728695	11.256	997807	13.133
UPPER LIMIT	277434	4.812	4254186	8.305	3457390	11.756	1995614	13.633
LOWER LIMIT	69358	3.812	1063546	7.305	864348	10.756	498904	12.633
	LAB SAMPLE ID							
23	1034108	156593	4.330	2026013	7.805	1618419	11.256	881871	13.133
24	1034103DL	132393	4.354	2013099	7.811	1579235	11.256	849234	13.127
25	1034101DL	135515	4.342	2018801	7.811	1599125	11.256	867036	13.133
26	1033957DL	138884	4.330	1985555	7.805	1568255	11.256	857242	13.133
27	1033958DL	128973	4.312	1987595	7.805	1589366	11.256	865269	13.127
28	1033959RE	134142	4.306	2021776	7.805	1588650	11.256	866050	13.127
29	1033959DL	154138	4.312	2028297	7.805	1597273	11.256	867840	13.133
30	1033960DL	155480	4.306	2030863	7.805	1594776	11.256	876098	13.127
31	1033961DL	146952	4.318	2002044	7.805	1590617	11.256	859645	13.127
32	1033962DL	127452	4.336	1973190	7.805	1582537	11.255	849154	13.127
33	1033963DL	140223	4.306	1964338	7.805	1572755	11.256	852897	13.127
34	1033964DL	140494	4.312	1972504	7.811	1559648	11.256	846764	13.133

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

^

Sample Data

Volatiles by GC/MS

F3501 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034101

Data file: /chem2/HP09355.i/19apr24a.b/ya24s08.d Injection date and time: **24-APR-2019 14:30**
Data file Sample Info. Line: F3501;1034101;1;0;;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:46 Automation

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.246	(0.012)	438	65	326692	(-14)	250.00	
66) Fluorobenzene	7.793	(0.012)	1021	96	1070074	(-12)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	792828	(-14)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	434017	(-16)	50.00	

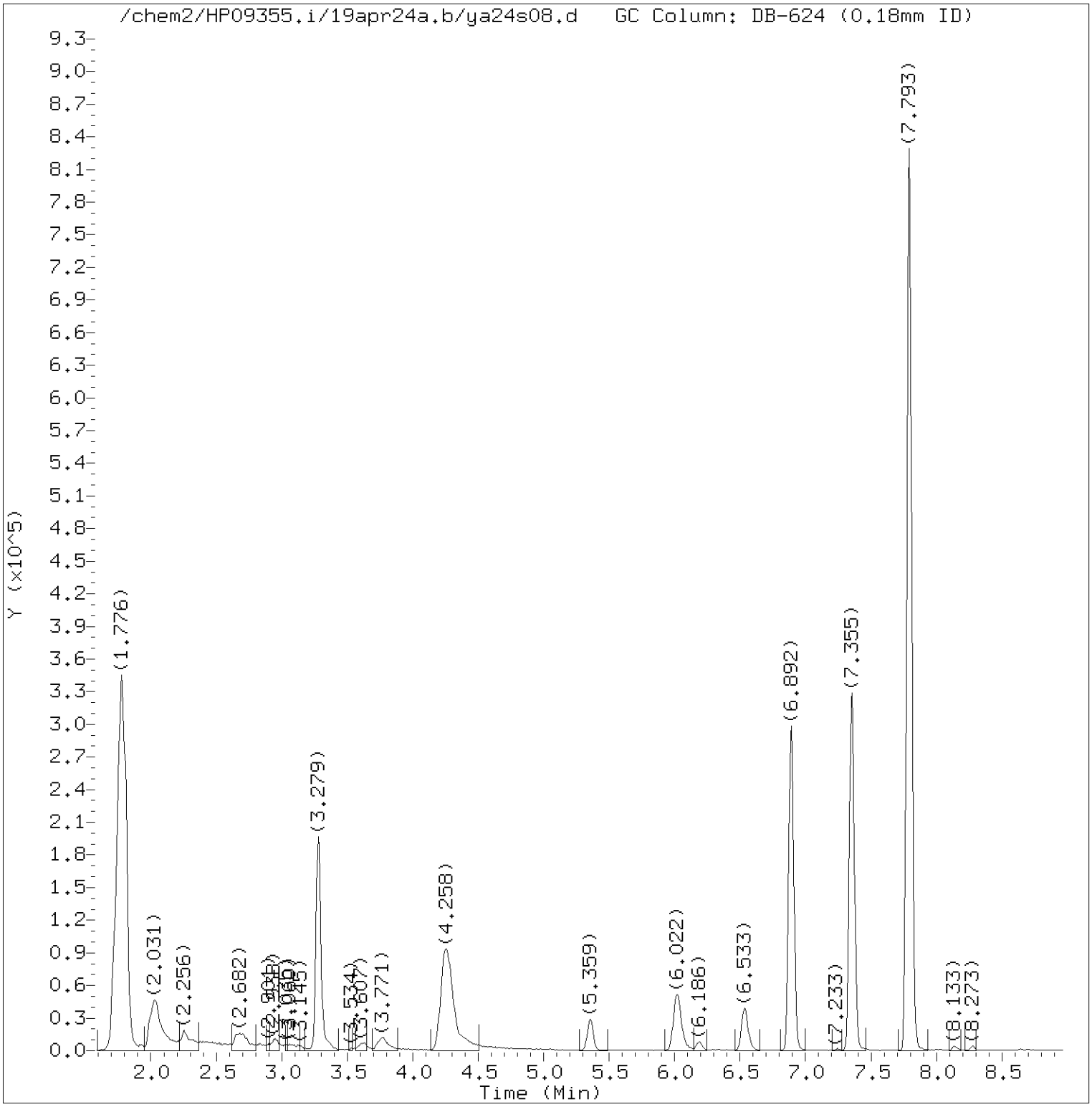
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.000)	113	259764	50.332	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.355	(0.000)	102	66659	51.495	103%		80 - 120
83) Toluene-d8	(3)	9.806	(0.001)	98	1019314	48.986	98%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.264	(0.000)	95	365122	45.957	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
21) 2-Propanol	(1)	3.771	(-0.001)	45	38017	45.967	45.97		J	18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:26. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

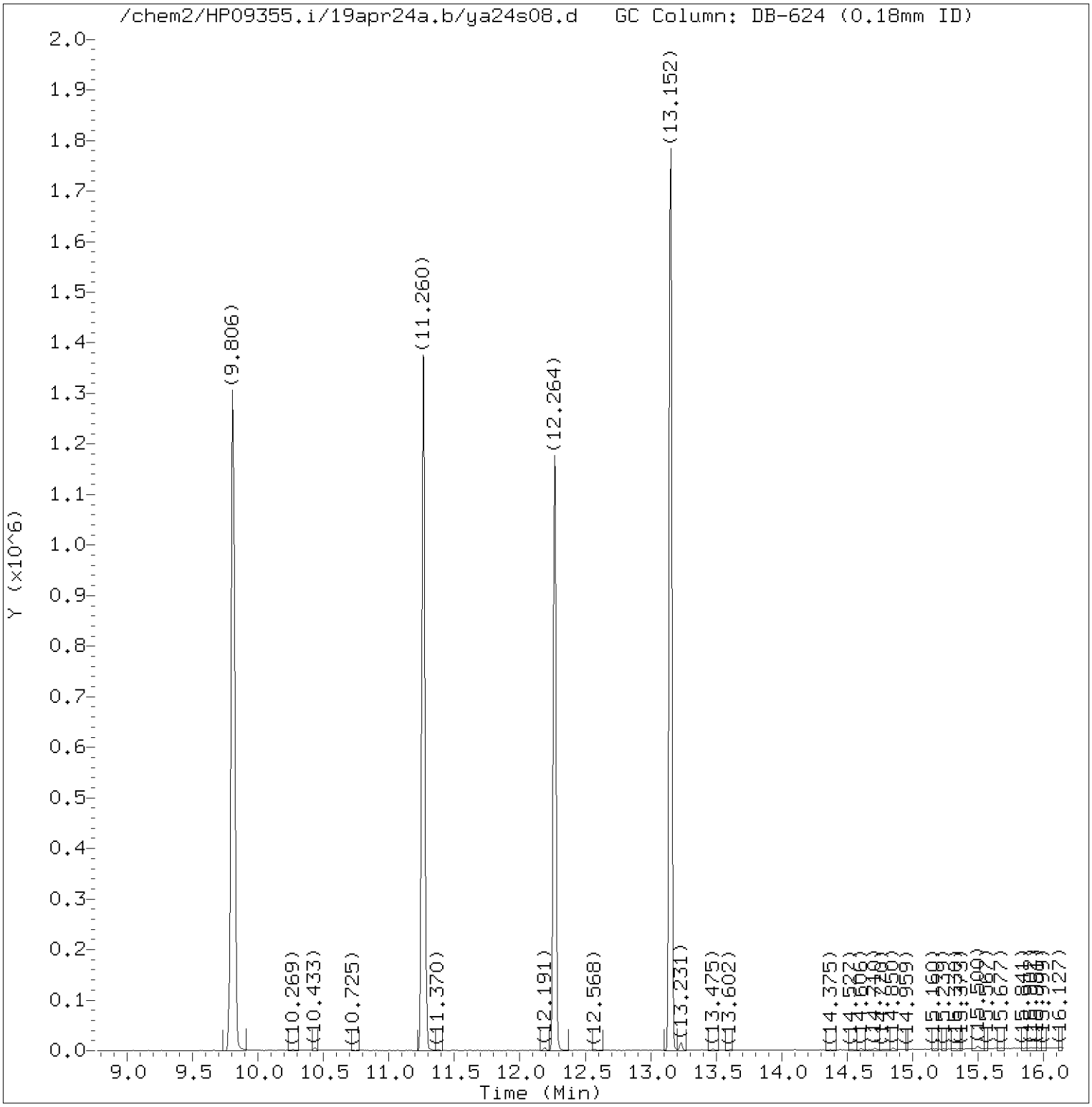
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s08.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:30 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 14:46 Automation

Sample Name: F3501 Lab Sample ID: 1034101

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s08.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:30 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 14:46 Automation

Sample Name: F3501 Lab Sample ID: 1034101

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s08.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:30 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 14:46 Automation

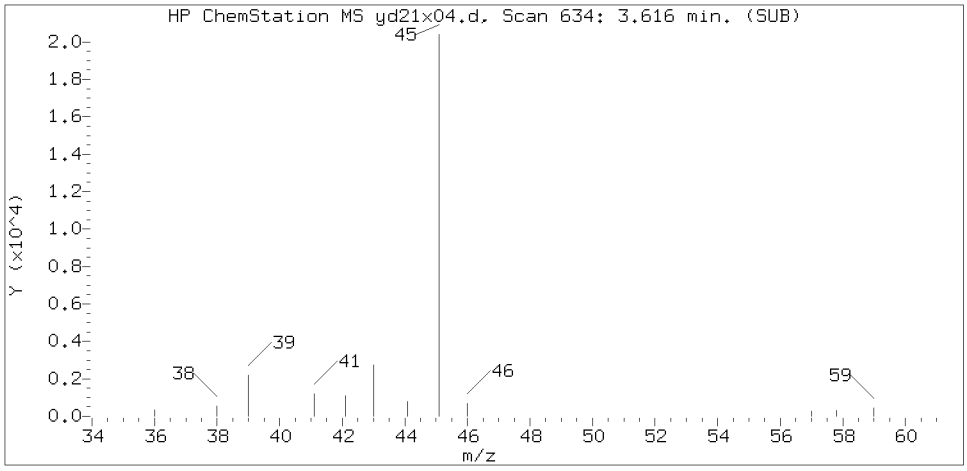
Sample Name: F3501 Lab Sample ID: 1034101

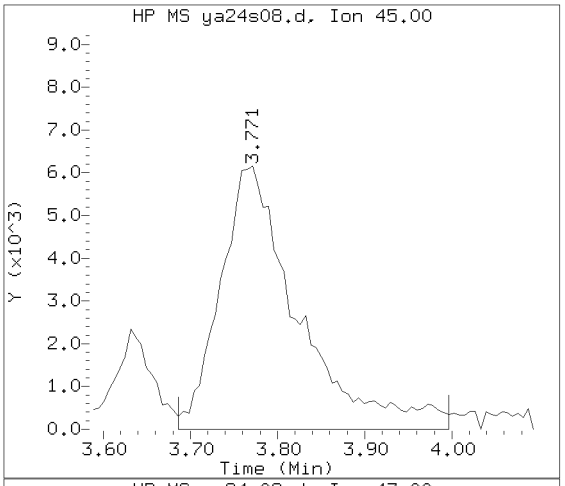
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.771	45	38017	45.967
29)*t-Butyl alcohol-d10	(1)	4.246	65	326692	250.000
52)$Dibromofluoromethane	(2)	6.892	113	259764	50.332
57)$1,2-Dichloroethane-d4	(2)	7.355	102	66659	51.495
66)*Fluorobenzene	(2)	7.793	96	1070074	50.000
83)$Toluene-d8	(3)	9.806	98	1019314	48.986
100)*Chlorobenzene-d5	(3)	11.266	117	792828	50.000
114)$4-Bromofluorobenzene	(3)	12.264	95	365122	45.957
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	434017	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

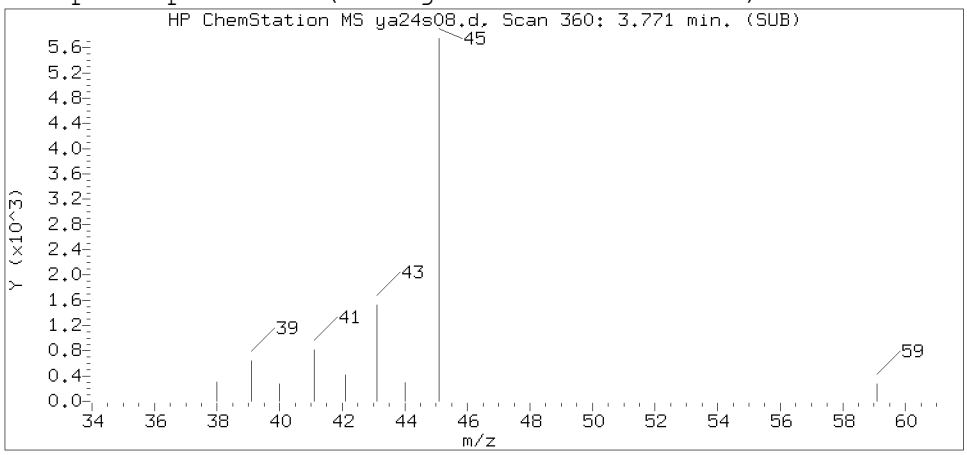
Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002

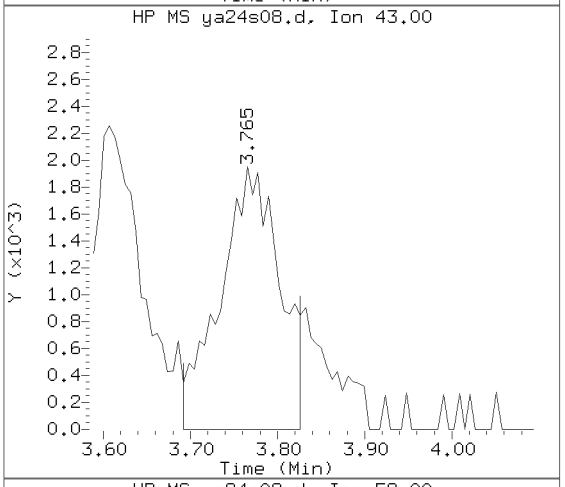
Reference Standard Spectrum for 2-Propanol



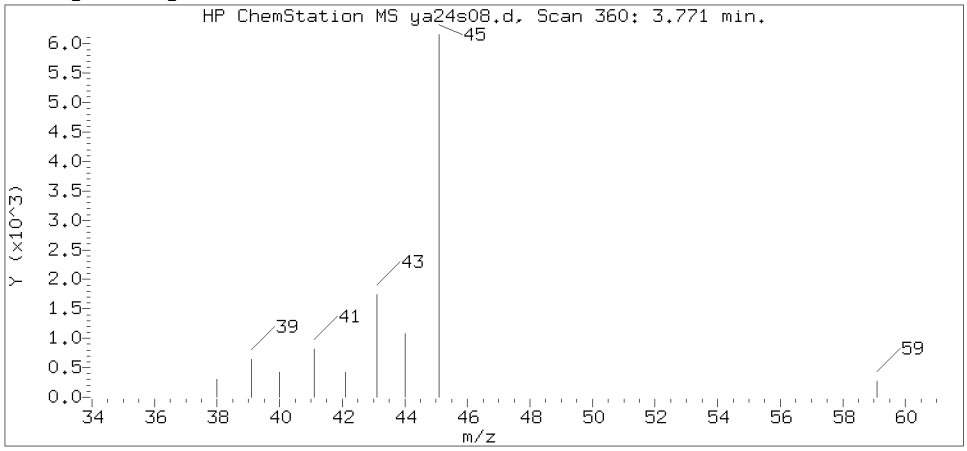


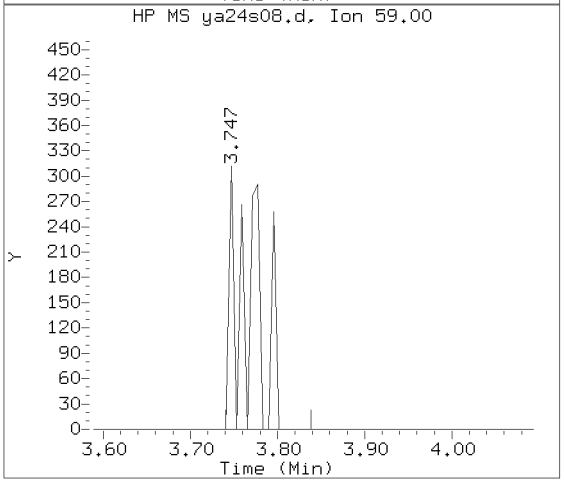
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/19apr24a.b/ya24s08.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:30 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 14:46 Automation

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 360
Retention Time (minutes): 3.771
Relative Retention Time :-0.00111
Quant Ion : 45.00
Area (flag) : 38017
On-Column Amount (ng) : 45.9674

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002

F3501 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034101

Data file: /chem2/HP19930.i/19apr24a.b/ia24s04.d Injection date and time: **24-APR-2019 13:01**
Data file Sample Info. Line: F3501;1034101;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.330(-0.018)	450	65	120607 (-13)	50.00	
63) Fluorobenzene	7.811(-0.006)	1021	96	2012602 (-5)	10.00	
97) Chlorobenzene-d5	11.256(0.000)	1586	117	1608125 (-7)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133(0.000)	1894	152	866680 (-13)	10.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921(0.000)	113	522881	10.067	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372(0.000)	102	100147	10.005	100%		80 - 120
82) Toluene-d8	(3)	9.811(0.000)	98	2010201	10.191	102%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249(0.000)	95	715738	9.683	97%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)			Not Detected					0.1	1
4) Dimethyl ether	(2)	2.068(-0.000)	45	639511M	8.741	8.74		J	0.04	13
2) Chloromethane	(2)			Not Detected					0.06	0.5
5) Vinyl Chloride	(2)			Not Detected					0.2	1
7) Bromomethane	(2)			Not Detected					0.5	1
8) Chloroethane	(2)	2.745(-0.002)	64	150780	2.938	2.94			0.07	0.5
10) Trichlorofluoromethane	(2)			Not Detected					0.2	1
11) Ethyl ether	(2)	3.306(-0.000)	59	1063218	27.359	27.36		E	1	13
13) Acrolein	(1)			Not Detected					3	25
15) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
16) Freon 113	(2)			Not Detected					0.1	1
14) Acetone	(1)	3.666(-0.000)	43	15735	2.227	2.23		J	0.9	10
17) Methyl Iodide	(2)			Not Detected					0.6	10
18) Carbon Disulfide	(2)			Not Detected					0.4	10
25) Acetonitrile	(1)			Not Detected					32	100
22) Allyl Chloride	(2)			Not Detected					0.8	10
23) Methylene Chloride	(2)	4.306(-0.001)	84	72751	1.390	1.39			0.2	1
29) Acrylonitrile	(1)			Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)	5.391(-0.000)	63	425031	4.562	4.56			0.1	1
36) Vinyl Acetate	(2)			Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)			Not Detected					0.5	10
38) 2-Butanone	(1)			Not Detected					0.6	10
42) Propionitrile	(1)			Not Detected					10	100
45) Methacrylonitrile	(1)			Not Detected					10	100
48) Tetrahydrofuran	(1)	6.567(0.005)	71	43481	12.115	12.11		J	2	25
49) Chloroform	(2)			Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)	6.933(-0.000)	97	18625	0.190	0.19		J	0.1	1
54) Carbon Tetrachloride	(2)			Not Detected					0.2	1
56) Isobutyl Alcohol	(1)			Not Detected					4	200

M = Compound was manually integrated. E = Compound concentration above calibration range.

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37. Target 3.5 esignature user ID: jkh09052

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034101

Data file: /chem2/HP19930.i/19apr24a.b/ia24s04.d Injection date and time: **24-APR-2019 13:01**
Data file Sample Info. Line: F3501;1034101;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

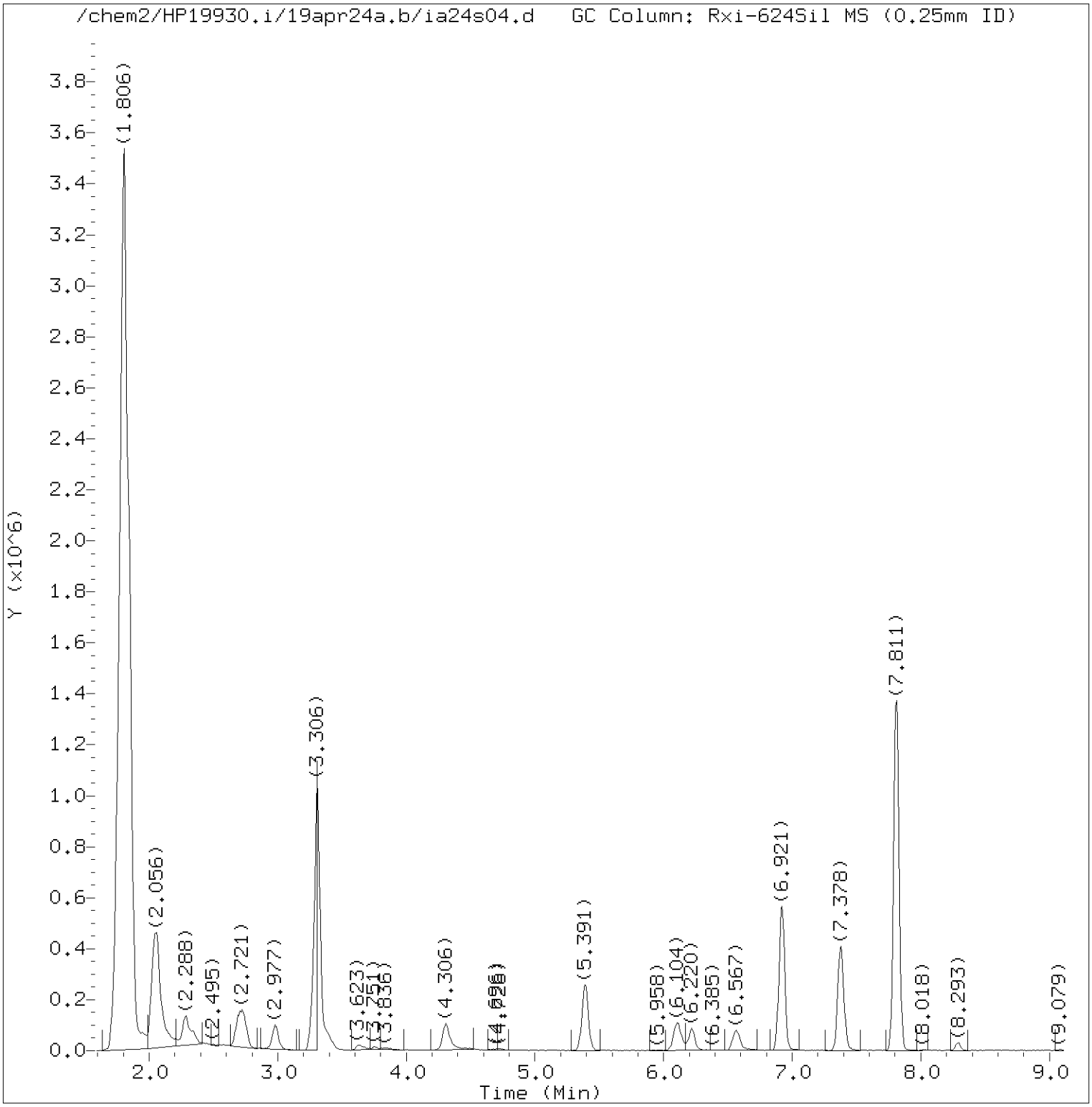
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
58) Benzene	(2)	7.403(0.000)	78	50633	0.227	0.23		J	0.07	1
59) 1,2-Dichloroethane	(2)			Not Detected					0.1	1
67) Trichloroethene	(2)	8.280(0.000)	95	13162	0.211	0.21		J	0.2	1
70) 1,2-Dichloropropane	(2)			Not Detected					0.1	1
71) Methyl Methacrylate	(1)			Not Detected					4	10
73) Dibromomethane	(2)			Not Detected					0.07	1
72) 1,4-Dioxane	(1)			Not Detected					45	200
74) Bromodichloromethane	(2)			Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)			Not Detected					0.9	10
83) Toluene	(3)			Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)			Not Detected					0.1	1
86) Ethyl Methacrylate	(3)			Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)			Not Detected					0.08	1
89) Tetrachloroethene	(3)	10.426(0.000)	166	16689	0.213	0.21		J	0.06	1
90) 1,3-Dichloropropane	(3)			Not Detected					0.09	1
91) 2-Hexanone	(1)			Not Detected					0.6	10
93) Dibromochloromethane	(3)			Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)			Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.08	1
100) Ethylbenzene	(3)			Not Detected					0.08	1
101) m+p-Xylene	(3)			Not Detected					0.1	0.5
104) o-Xylene	(3)			Not Detected					0.05	0.5
105) Xylene (Total)	(3)			Not Detected					0.2	3
106) Styrene	(3)			Not Detected					0.05	1
107) Bromoform	(3)			Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)			Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)			Not Detected					0.1	1
126) Pentachloroethane	(4)			Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.08	1
142) Hexachloroethane	(4)			Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)			Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)			Not Detected					0.1	1
146) Hexachlorobutadiene	(4)			Not Detected					0.07	1
147) Naphthalene	(4)			Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

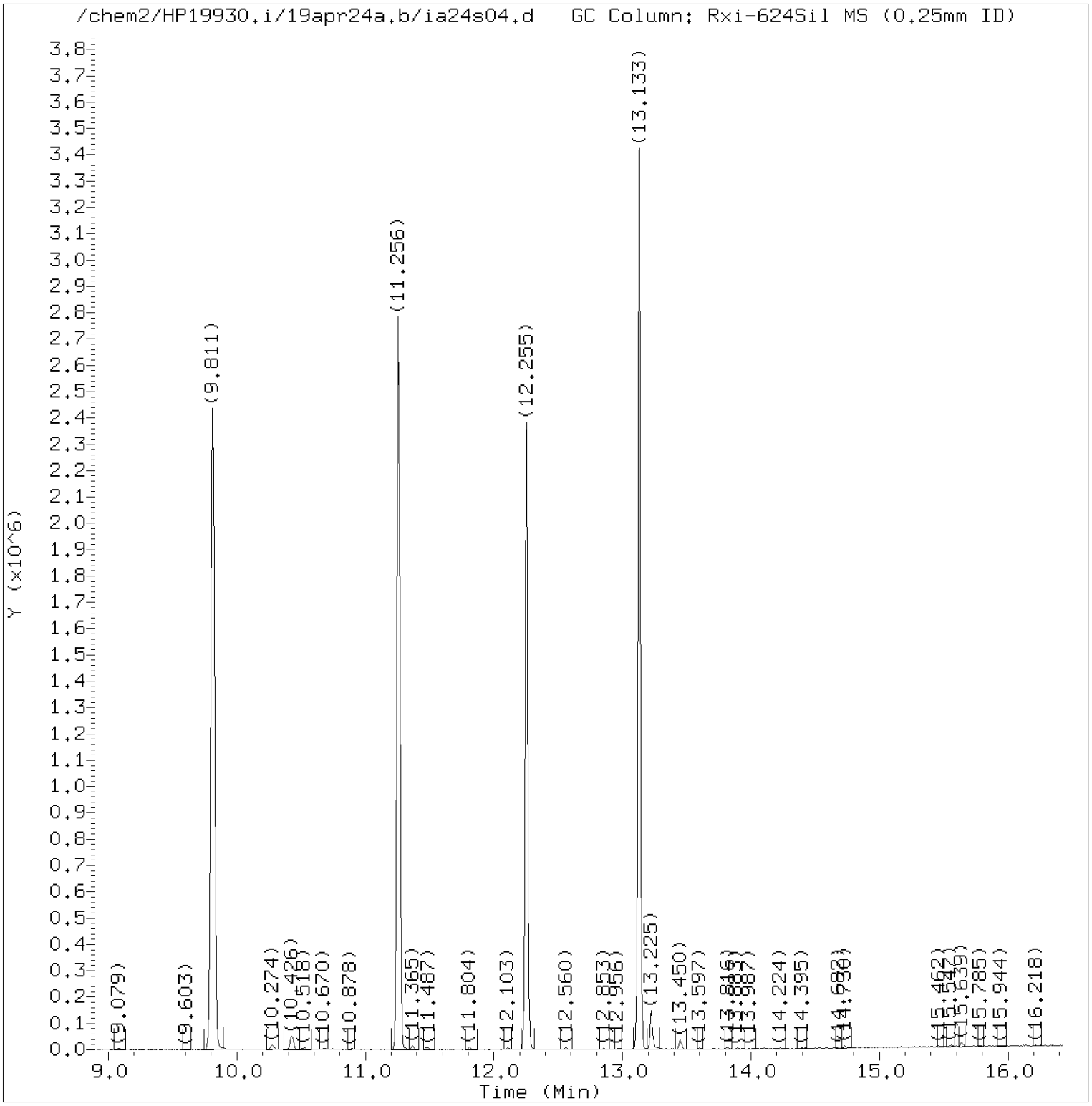
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.068	45	639511M	8.741
8) Chloroethane	(2)	2.745	64	150780	2.938
11) Ethyl ether	(2)	3.306	59	1063218	27.359
14) Acetone	(1)	3.666	43	15735	2.227
23) Methylene Chloride	(2)	4.306	84	72751	1.390
26)*t-Butyl Alcohol-d10	(1)	4.330	65	120607	50.000
33) 1,1-Dichloroethane	(2)	5.391	63	425031	4.562
48) Tetrahydrofuran	(1)	6.567	71	43481	12.115
50)$Dibromofluoromethane	(2)	6.921	113	522881	10.067
51) 1,1,1-Trichloroethane	(2)	6.933	97	18625	0.190
57)$1,2-Dichloroethane-d4	(2)	7.372	102	100147	10.005
58) Benzene	(2)	7.403	78	50633	0.227
63)*Fluorobenzene	(2)	7.811	96	2012602	10.000
67) Trichloroethene	(2)	8.280	95	13162	0.211
82)$Toluene-d8	(3)	9.811	98	2010201	10.191
89) Tetrachloroethene	(3)	10.426	166	16689	0.213
97)*Chlorobenzene-d5	(3)	11.256	117	1608125	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	715738	9.683
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	866680	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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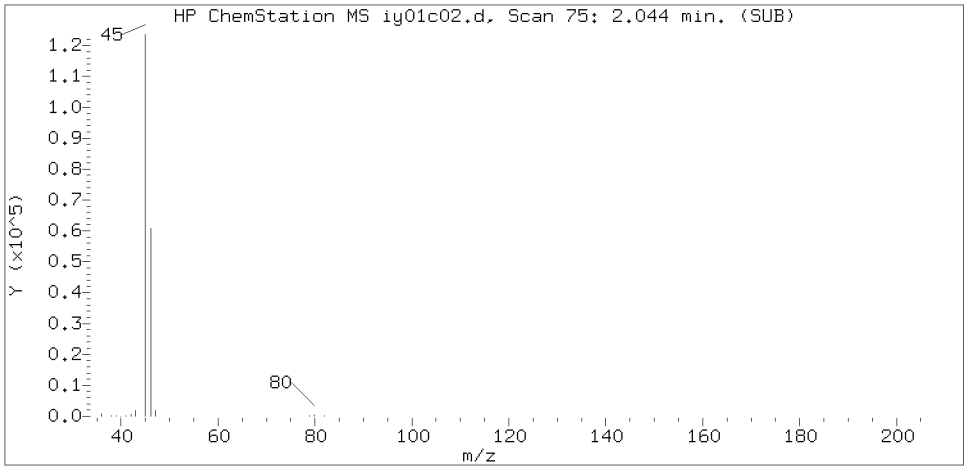
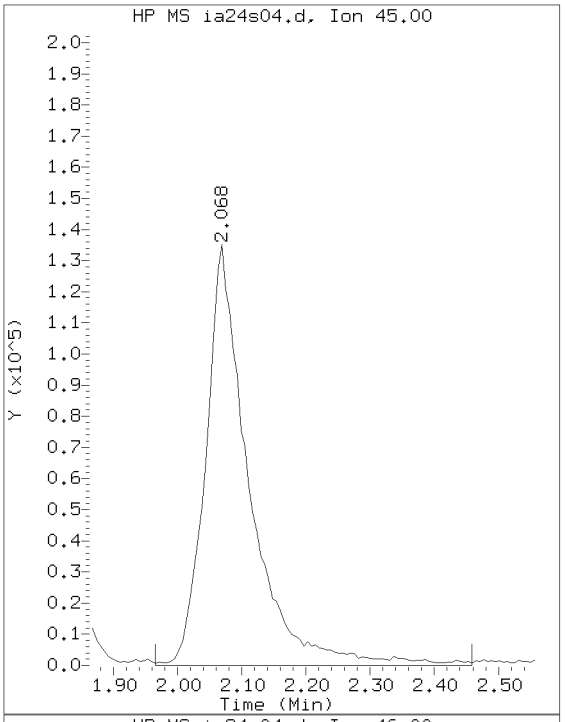
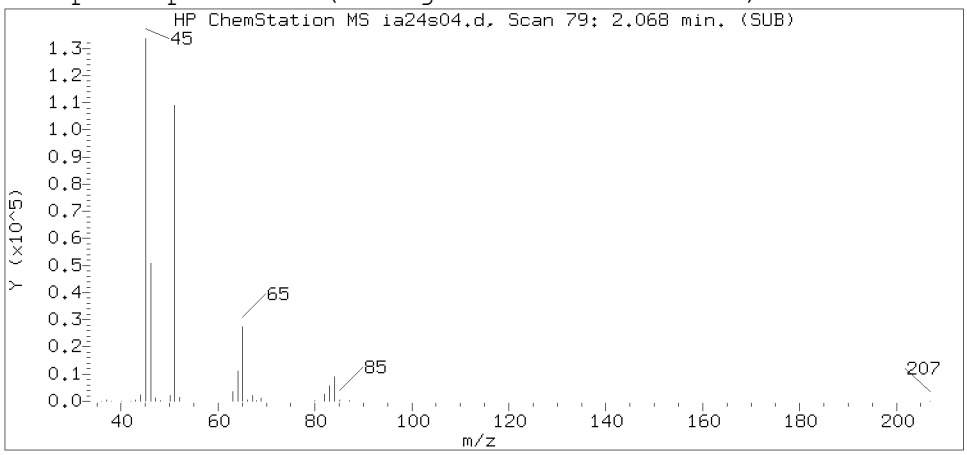
Target 3.5 esignature user ID: jkh09052

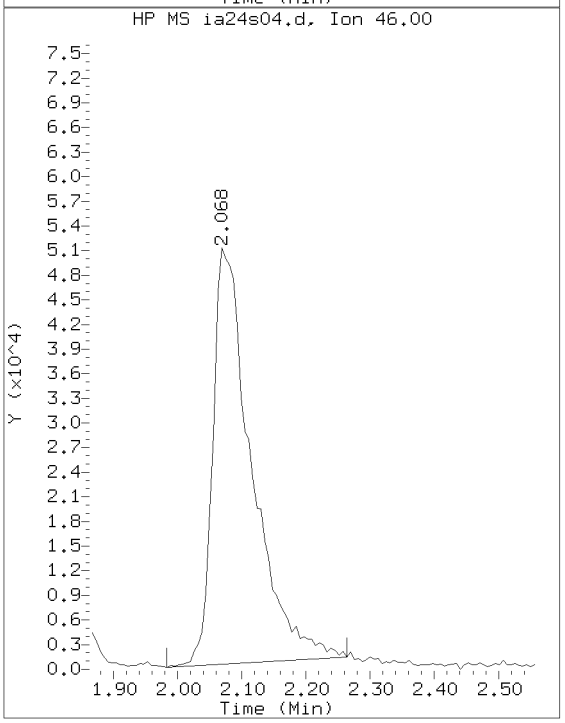
Reference Standard Spectrum for Dimethyl ether



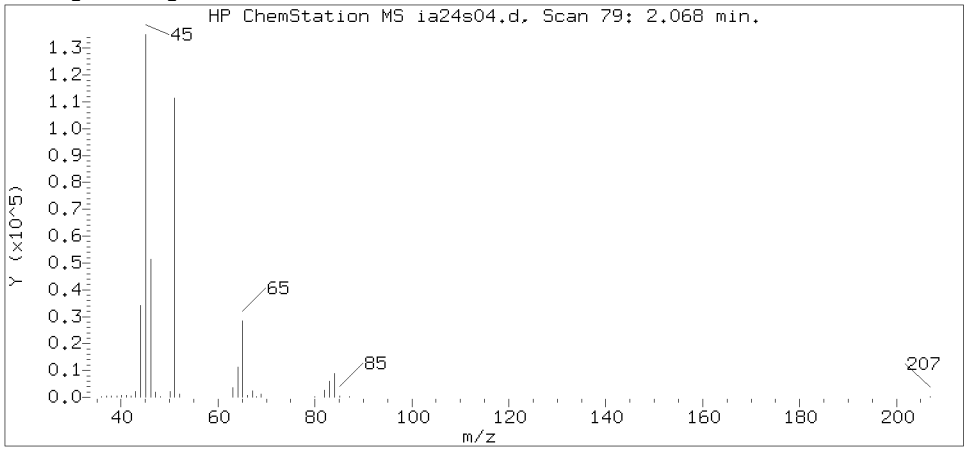


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number	: 4
Compound Name	: Dimethyl ether
Scan Number	: 79
Retention Time (minutes)	: 2.068
Relative Retention Time	:-0.00056
Quant Ion	: 45.00
Area (flag)	: 639511M
On-Column Amount (ng)	: 8.7412

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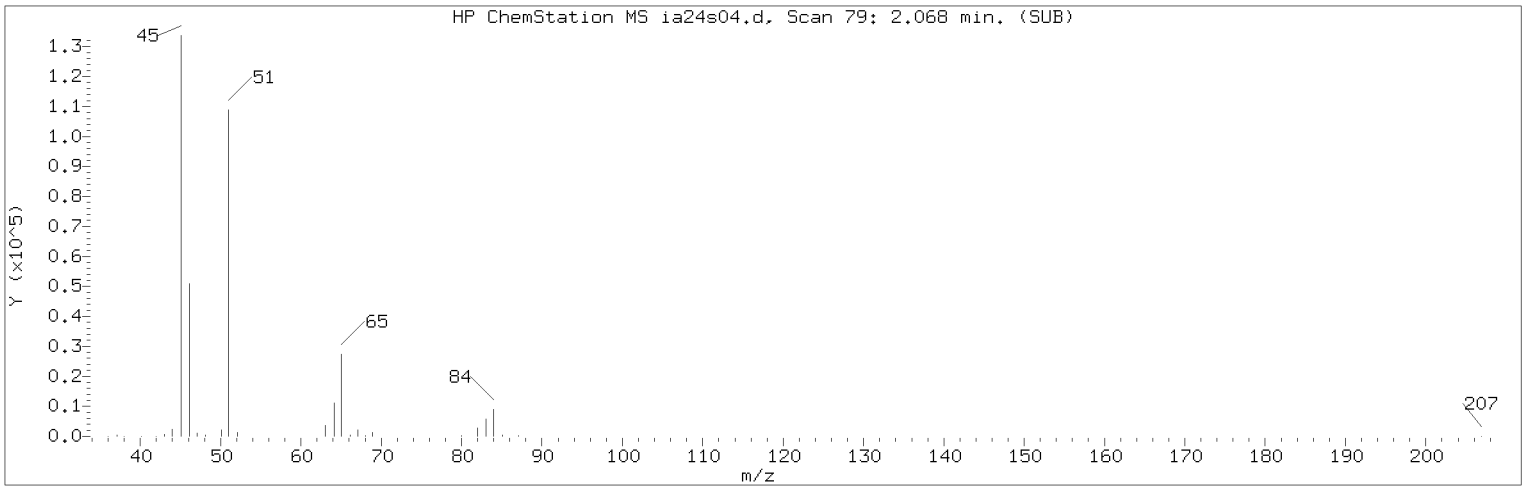
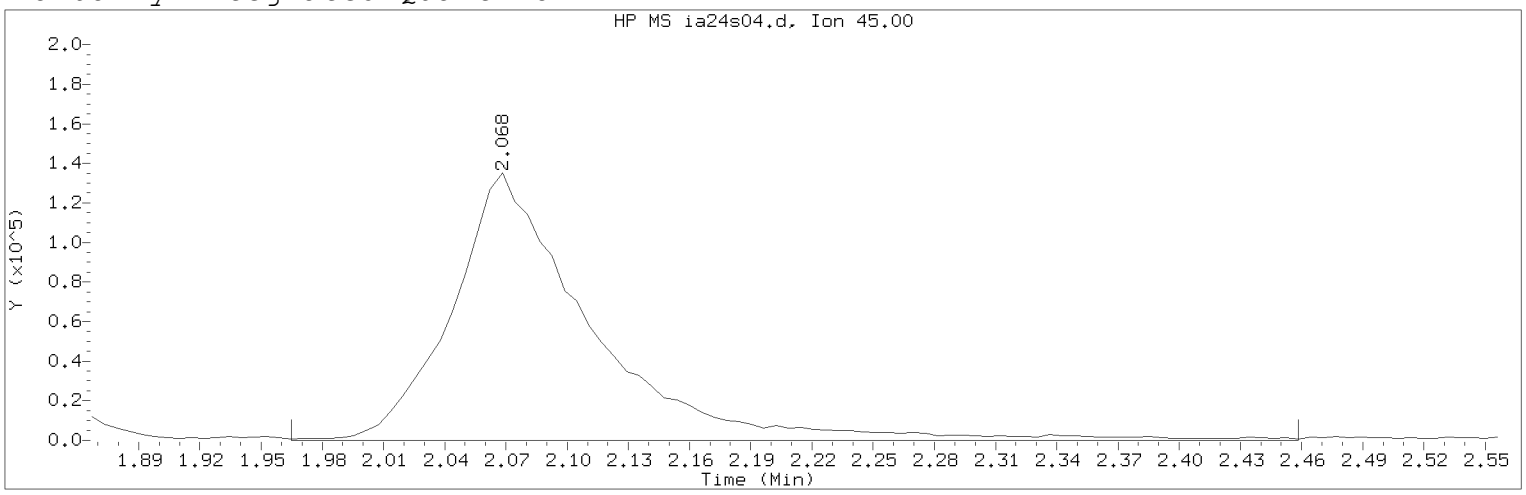
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

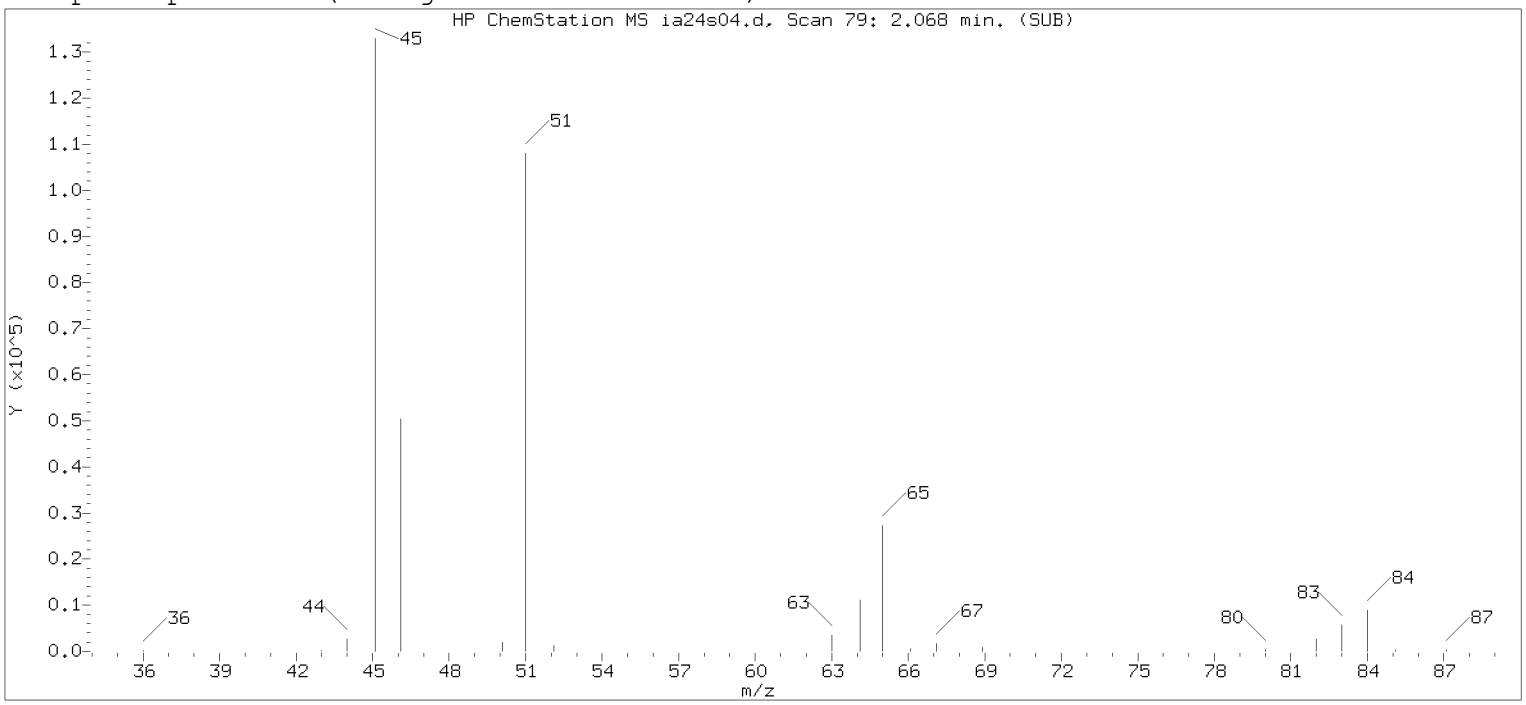
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area (flag) : 639511M
On-Column Amount (ng) : 8.7412
Integration start scan : 61 Integration stop scan: 142
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

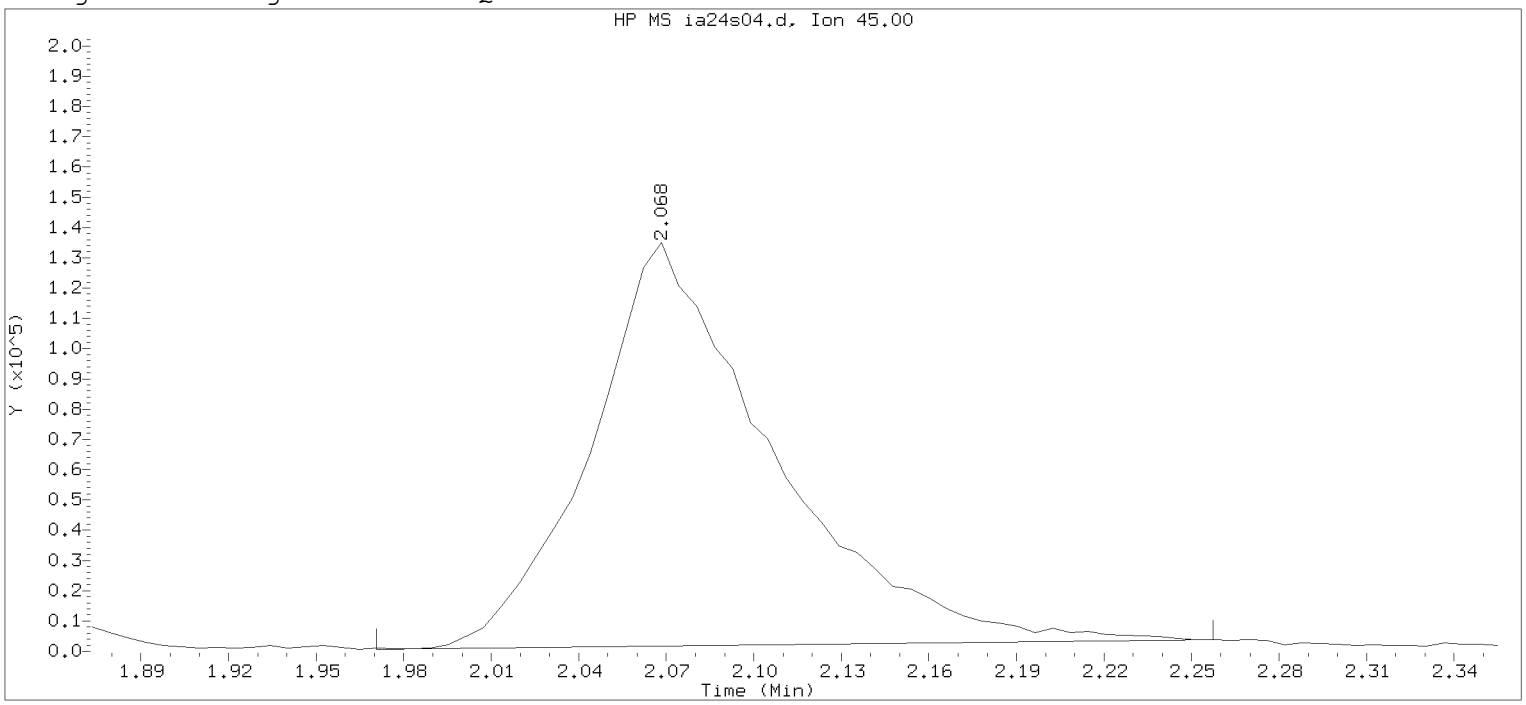
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 13:19 Automation

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 79		
Retention Time (minutes)	: 2.068		
Quant Ion	: 45.00		
Area	: 577486		
On-column Amount (ng)	: 7.8934		
Integration start scan	: 62	Integration stop scan:	109
Y at integration start	: 686	Y at integration end:	3813

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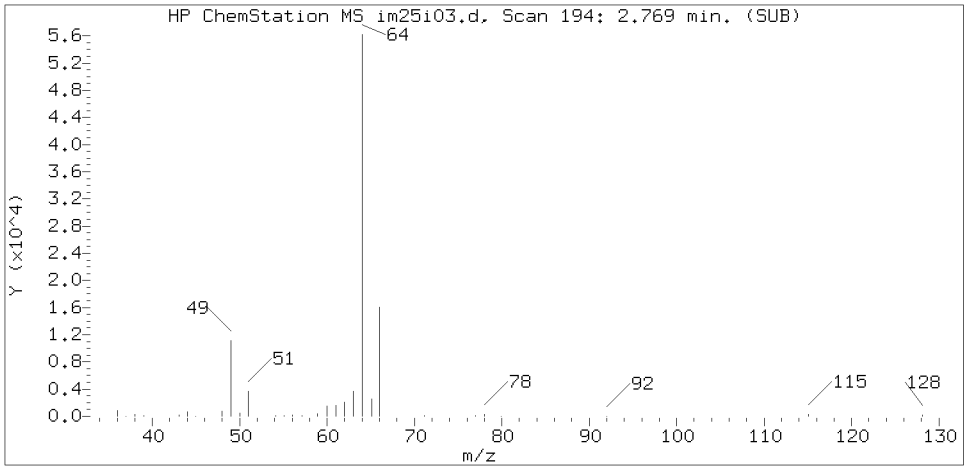
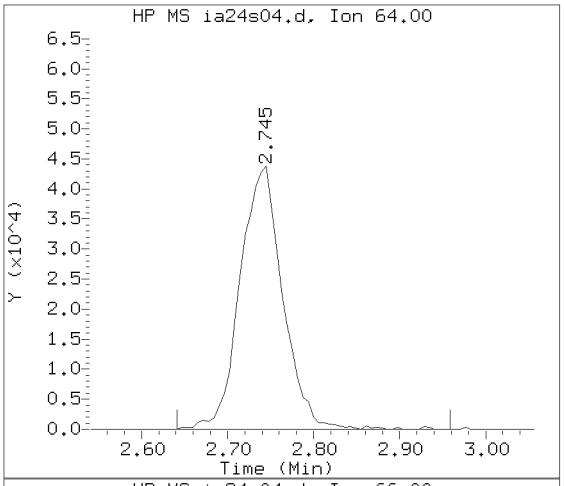
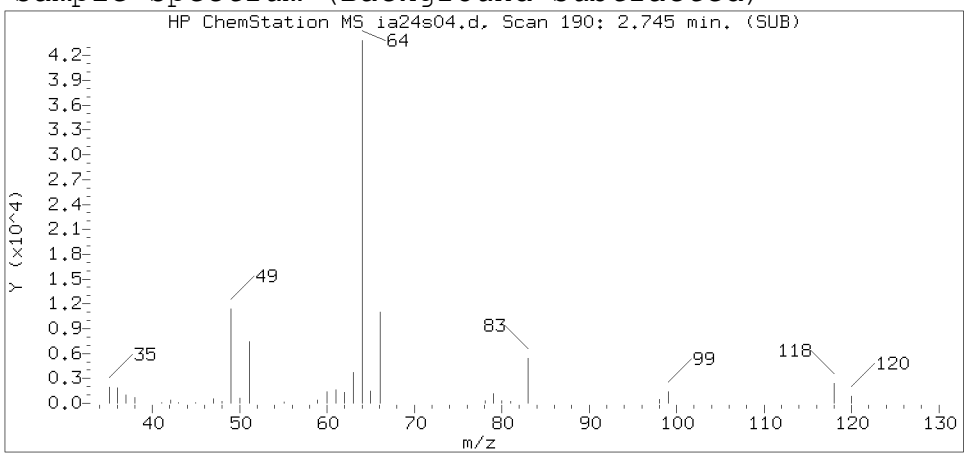
Target 3.5 esignature used. AE35 Page 204 of 2326

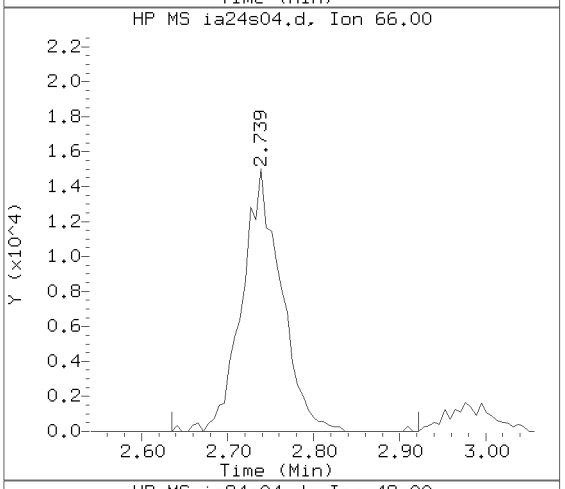
Reference Standard Spectrum for Chloroethane



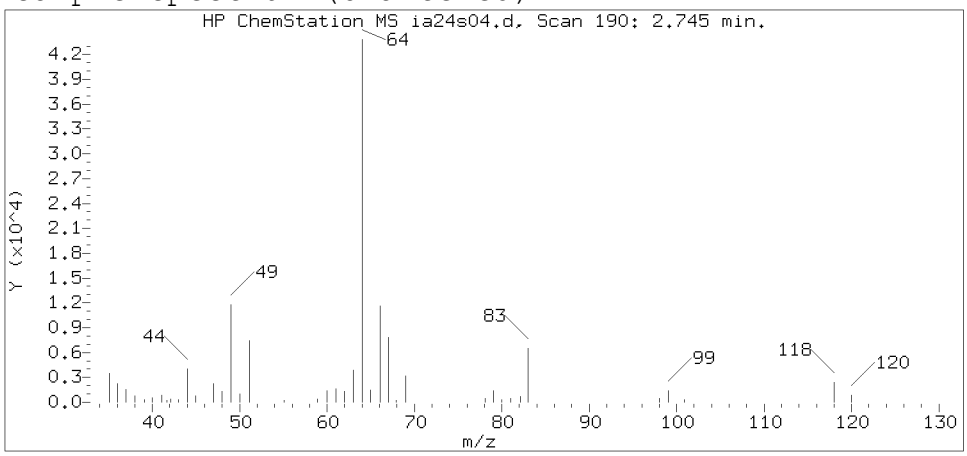


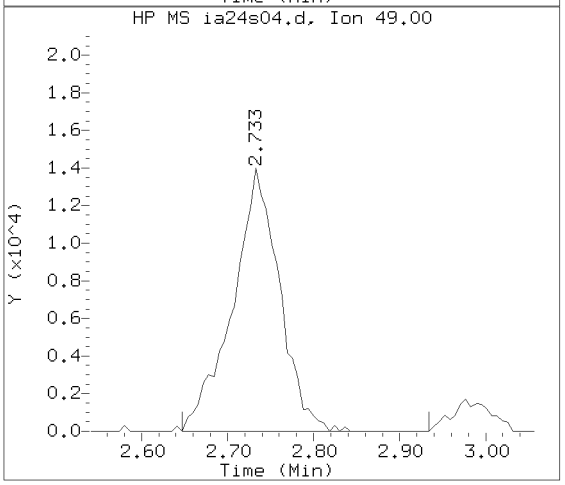
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 190
Retention Time (minutes): 2.745
Relative Retention Time :-0.00206
Quant Ion : 64.00
Area (flag) : 150780
On-Column Amount (ng) : 2.9383

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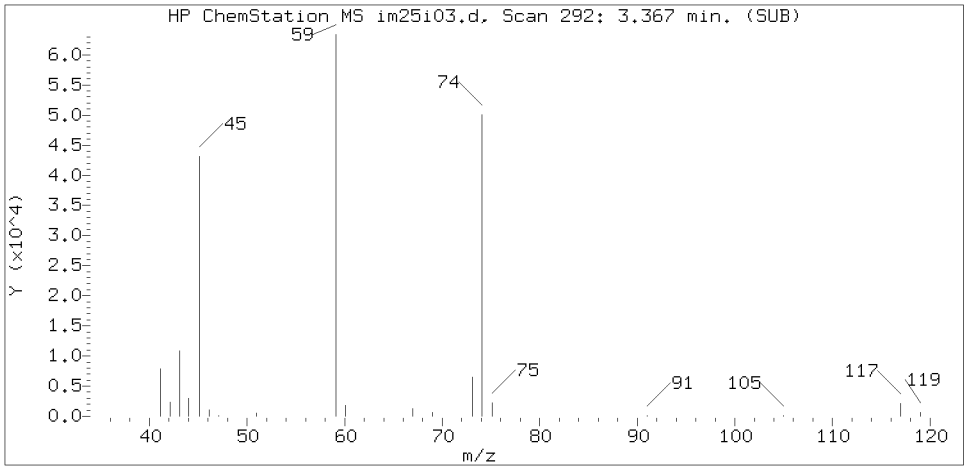
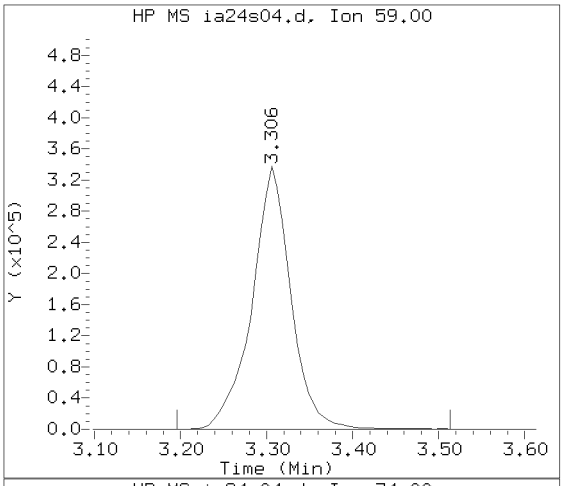
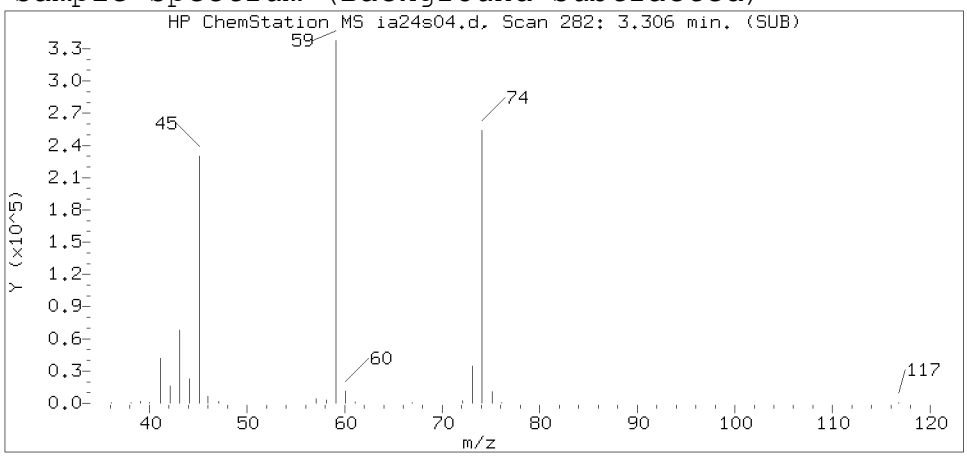
Target 3.5 esignature user ID: jkh09052

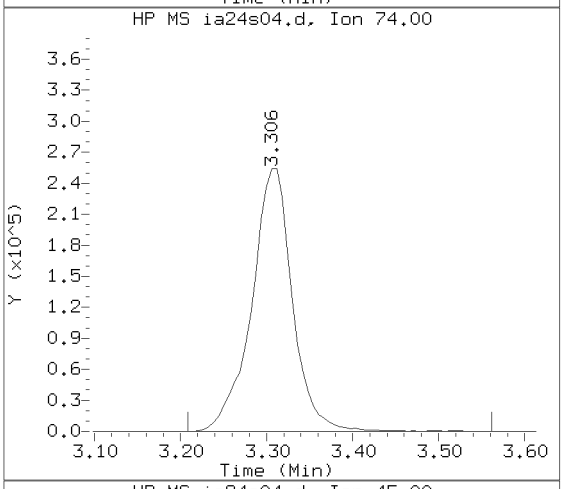
Reference Standard Spectrum for Ethyl ether



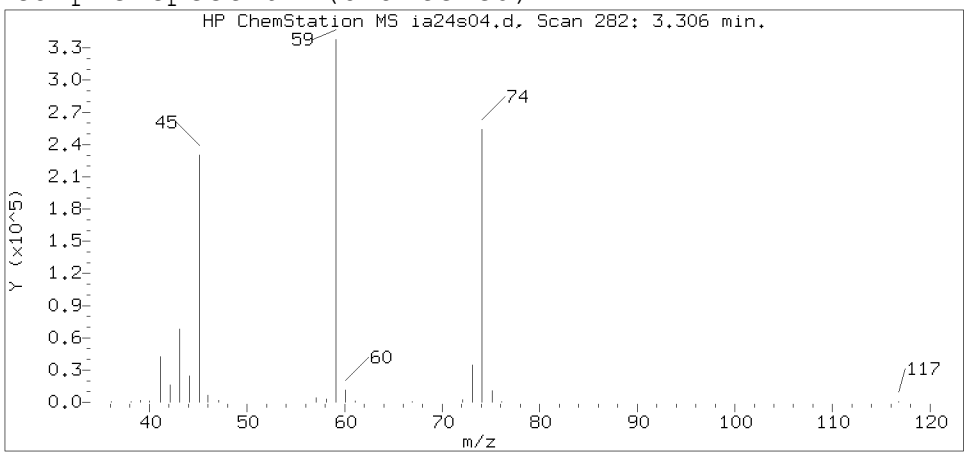


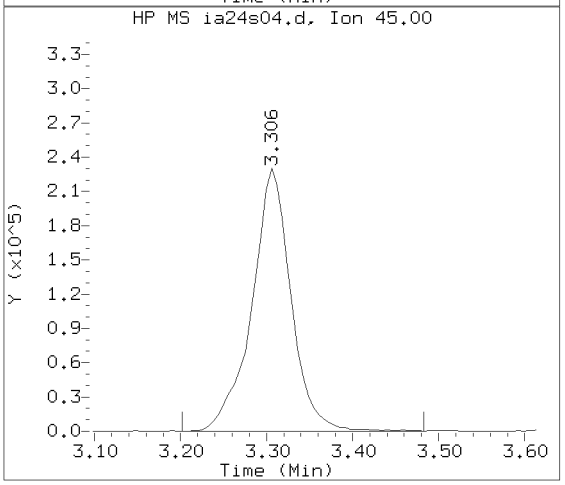
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 282
Retention Time (minutes): 3.306
Relative Retention Time :-0.00044
Quant Ion : 59.00
Area (flag) : 1063218
On-Column Amount (ng) : 27.3587

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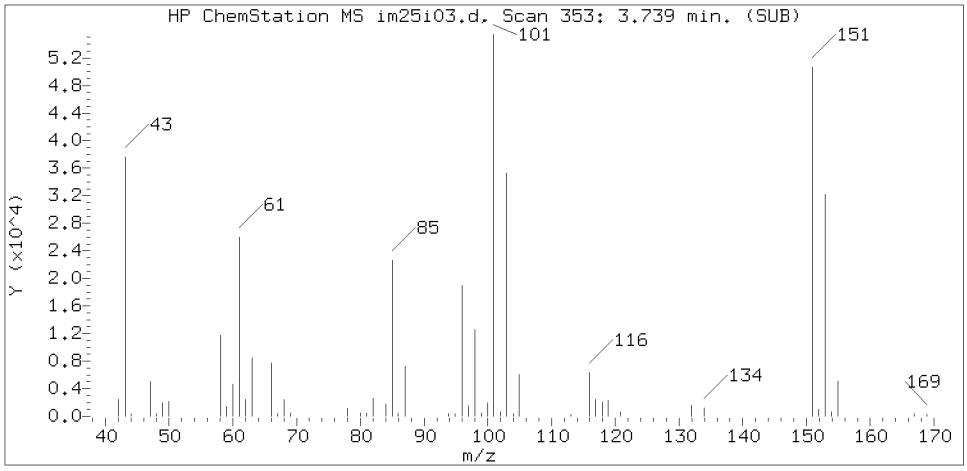
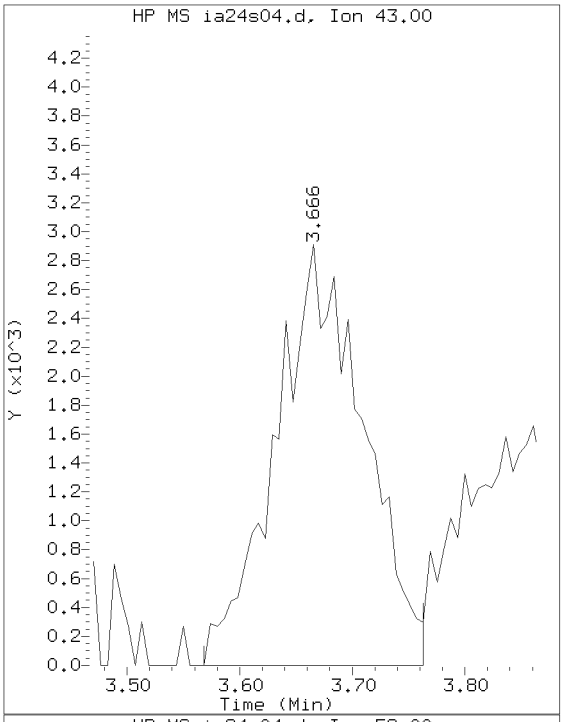
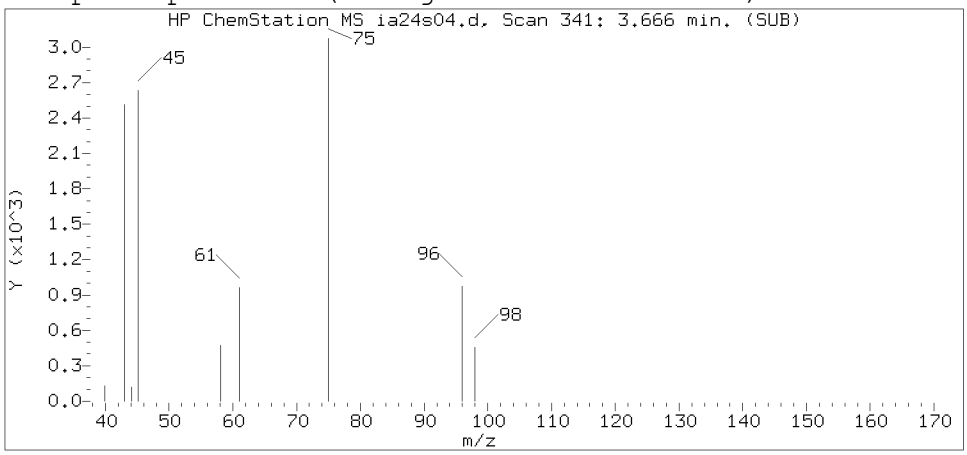
Target 3.5 esignature user ID: jkh09052

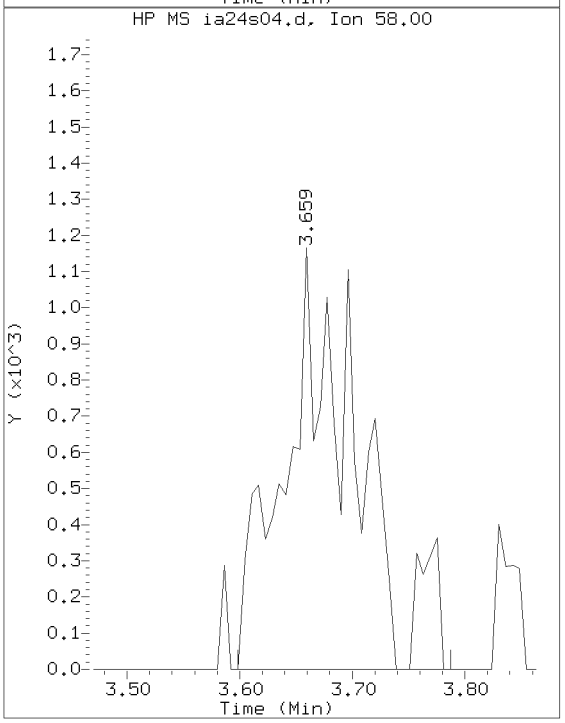
Reference Standard Spectrum for Acetone



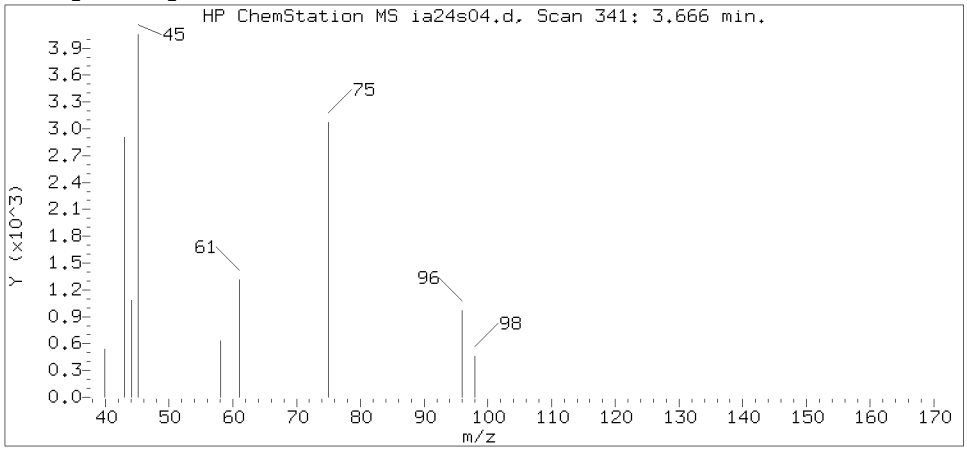


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 341
Retention Time (minutes)	: 3.666
Relative Retention Time	:-0.00065
Quant Ion	: 43.00
Area (flag)	: 15735
On-Column Amount (ng)	: 2.2268

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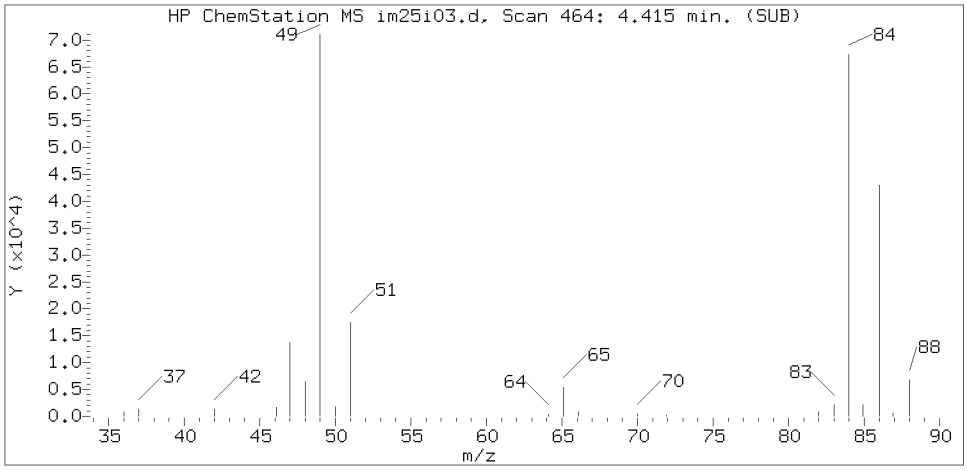
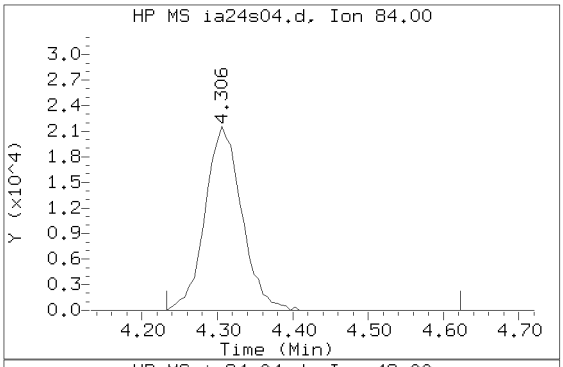
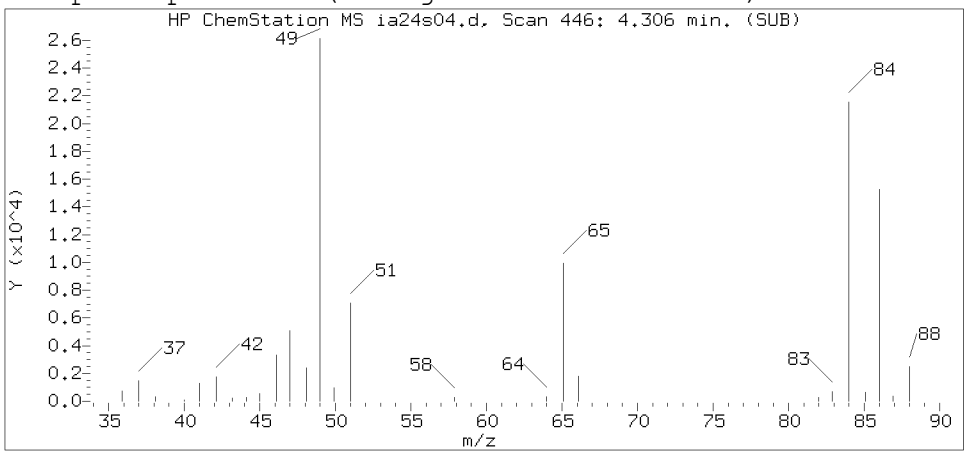
Target 3.5 esignature user ID: jkh09052

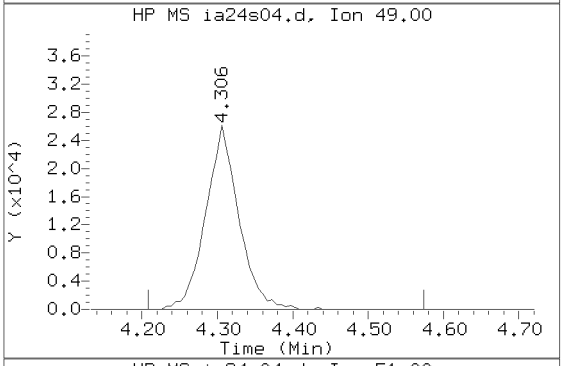
Reference Standard Spectrum for Methylene Chloride

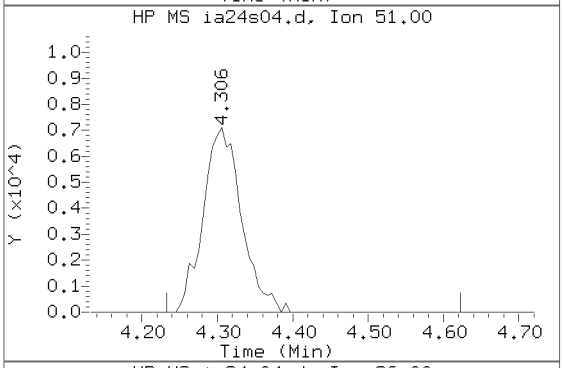




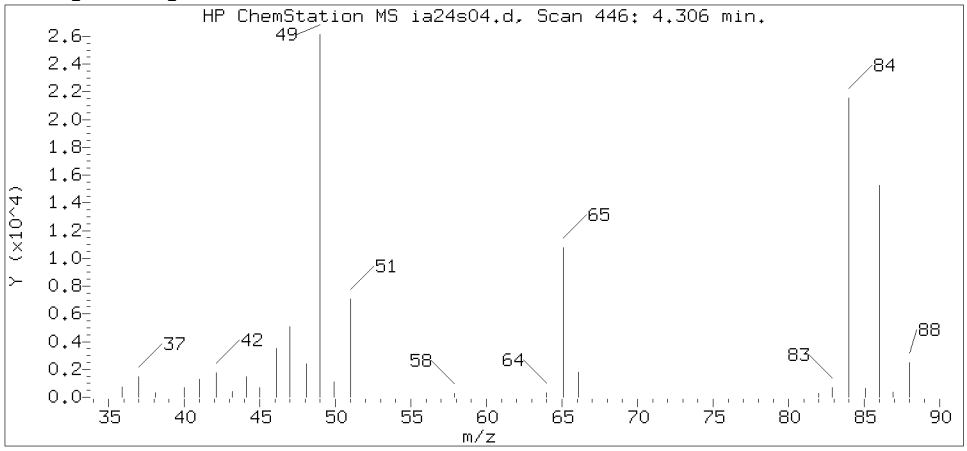
Sample Spectrum (Background Subtracted)

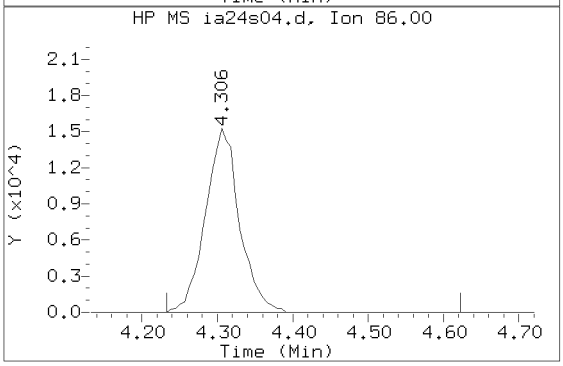






Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

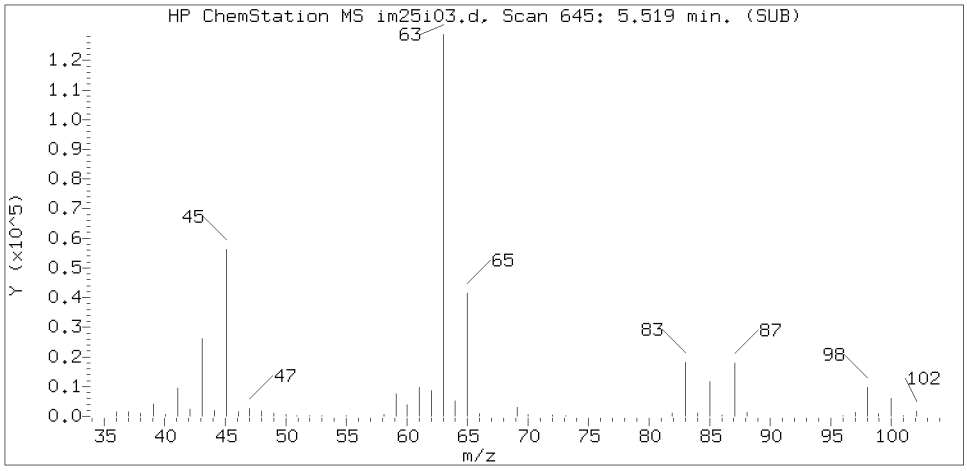
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

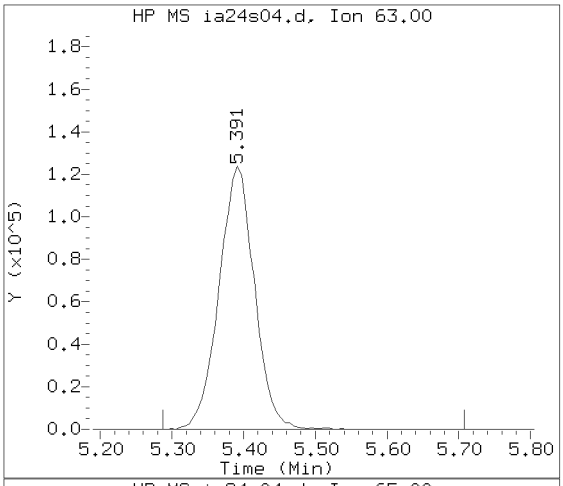
Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 446
Retention Time (minutes): 4.306
Relative Retention Time :-0.00113
Quant Ion : 84.00
Area (flag) : 72751
On-Column Amount (ng) : 1.3895

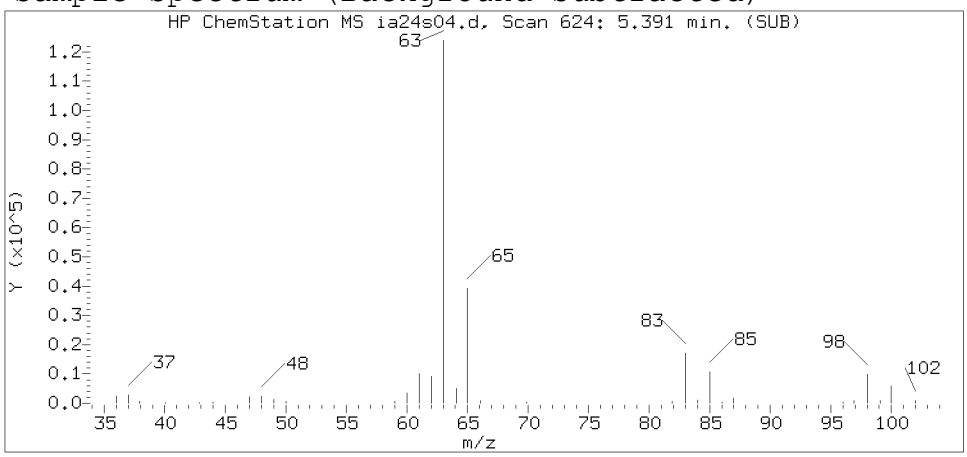
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

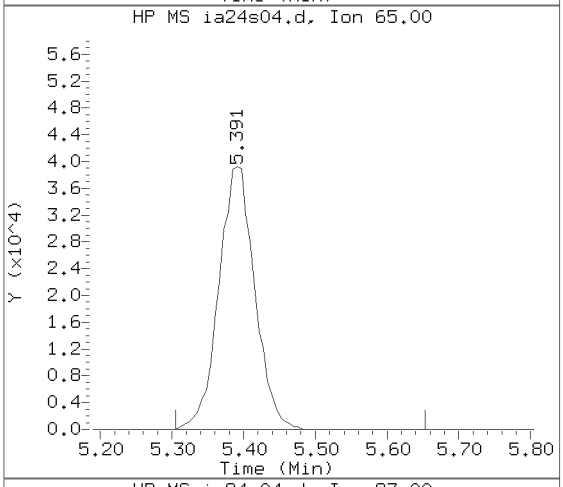
Reference Standard Spectrum for 1,1-Dichloroethane



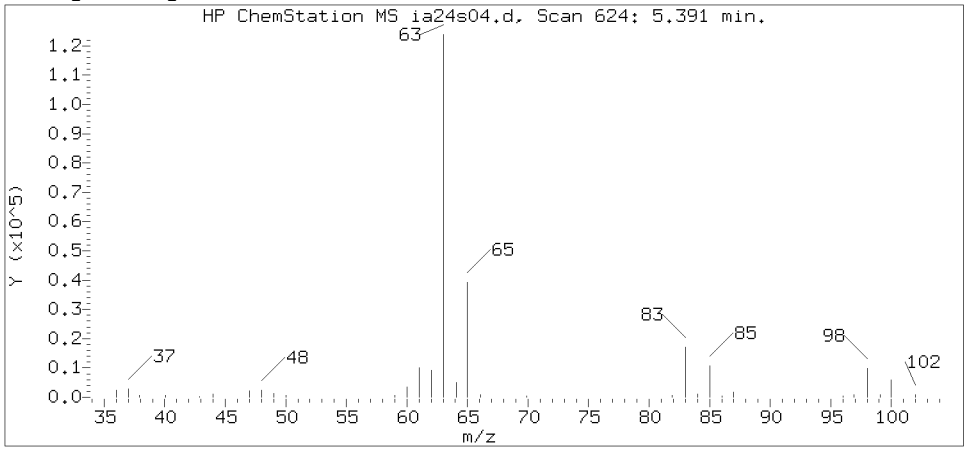


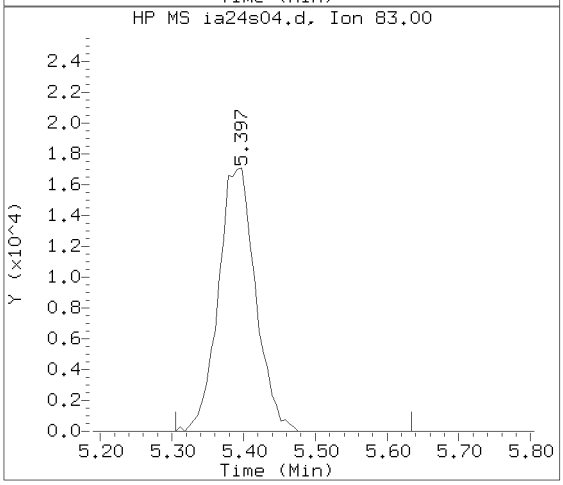
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 624
Retention Time (minutes): 5.391
Relative Retention Time :-0.00024
Quant Ion : 63.00
Area (flag) : 425031
On-Column Amount (ng) : 4.5617

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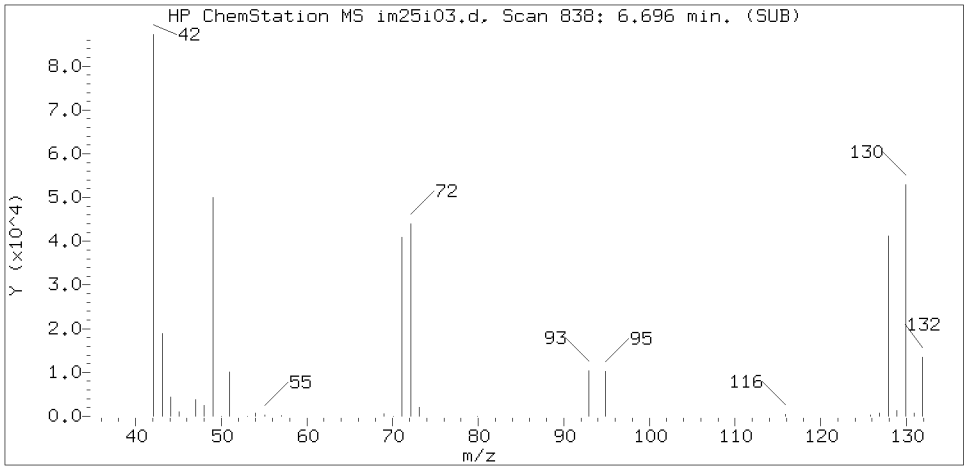
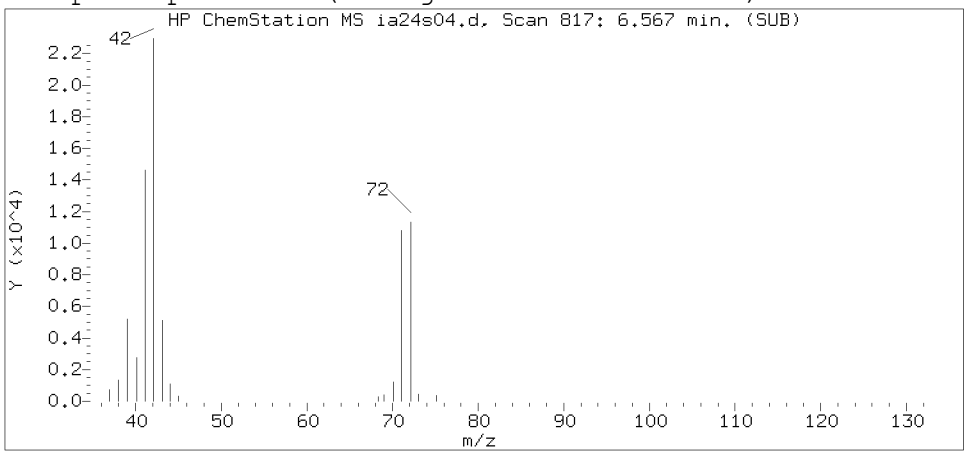
Target 3.5 esignature user ID: jkh09052

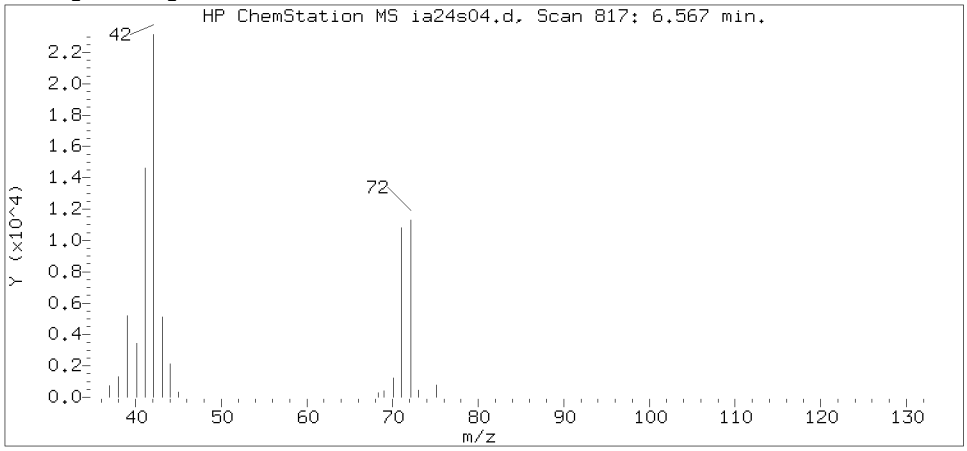
Reference Standard Spectrum for Tetrahydrofuran

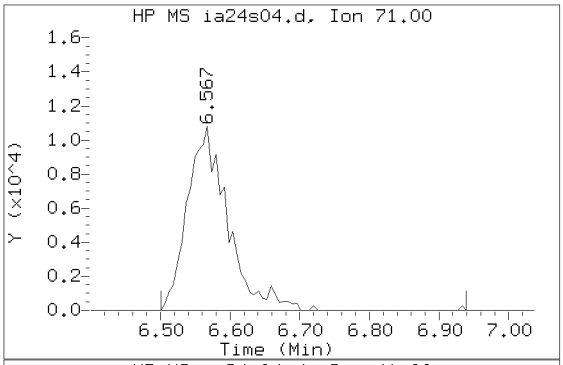


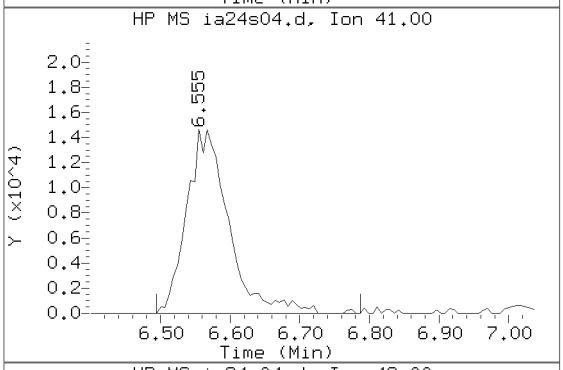
Sample Spectrum (Background Subtracted)

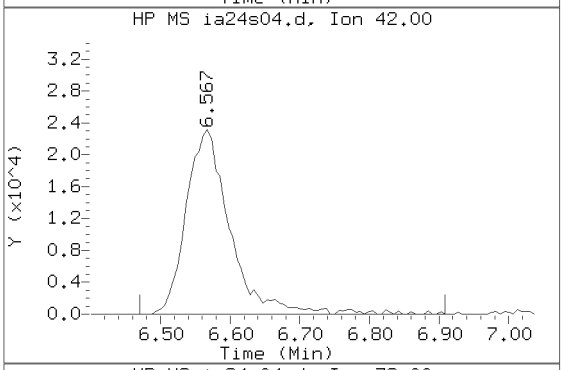


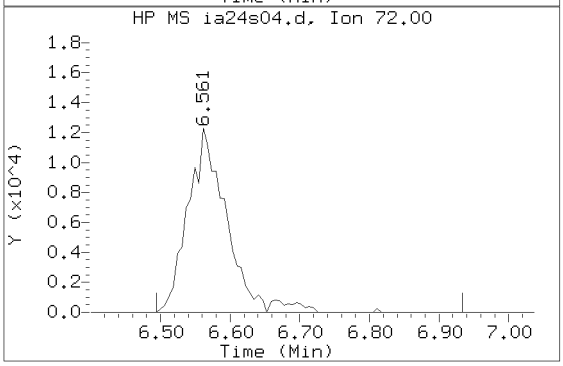
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 48
Compound Name : Tetrahydrofuran
Scan Number : 817
Retention Time (minutes): 6.567
Relative Retention Time : 0.00500
Quant Ion : 71.00
Area (flag) : 43481
On-Column Amount (ng) : 12.1150

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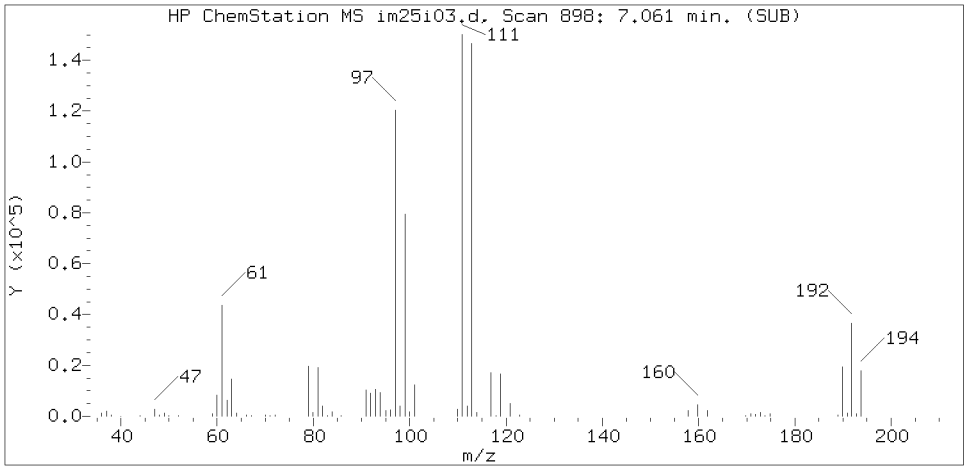
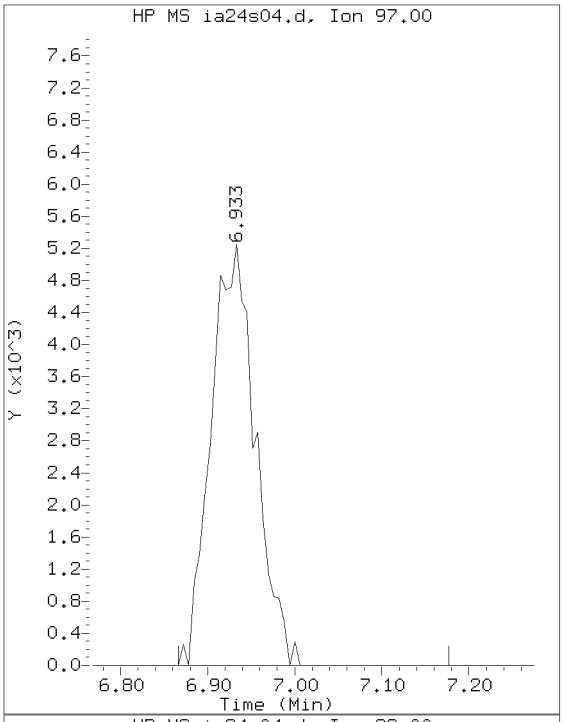
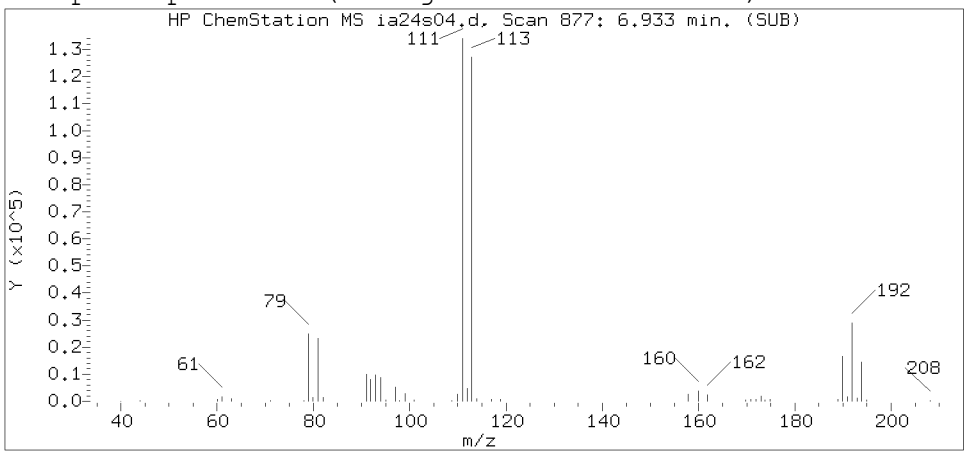
Target 3.5 esignature user ID: jkh09052

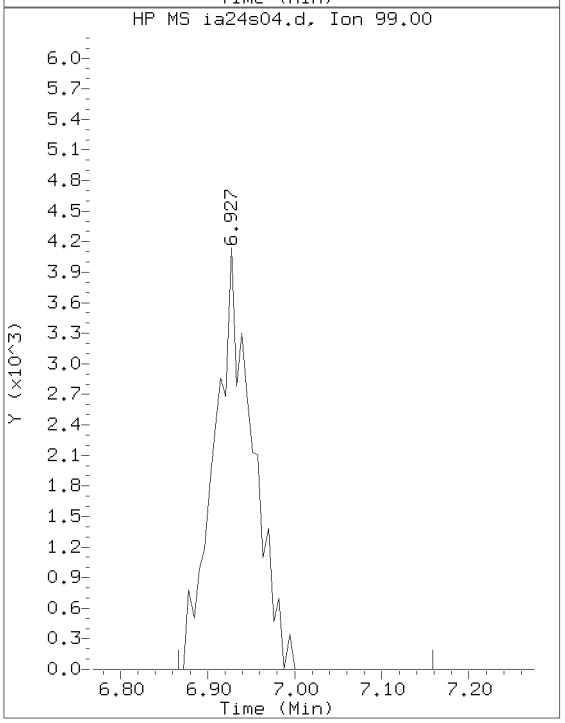
Reference Standard Spectrum for 1,1,1-Trichloroethane



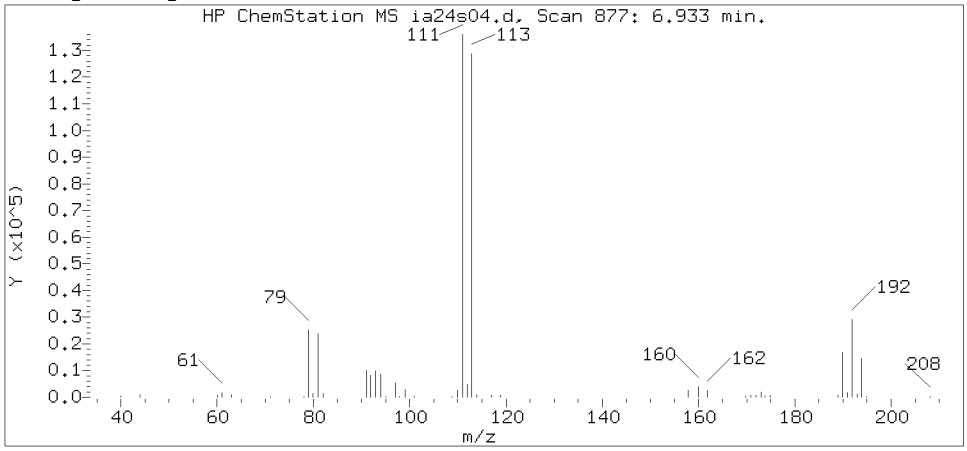


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 877
Retention Time (minutes): 6.933
Relative Retention Time :-0.00009
Quant Ion : 97.00
Area (flag) : 18625
On-Column Amount (ng) : 0.1898

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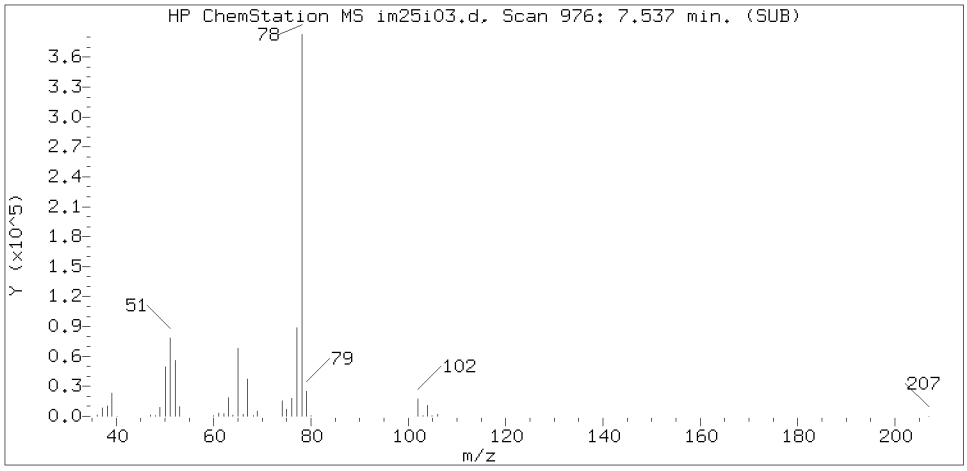
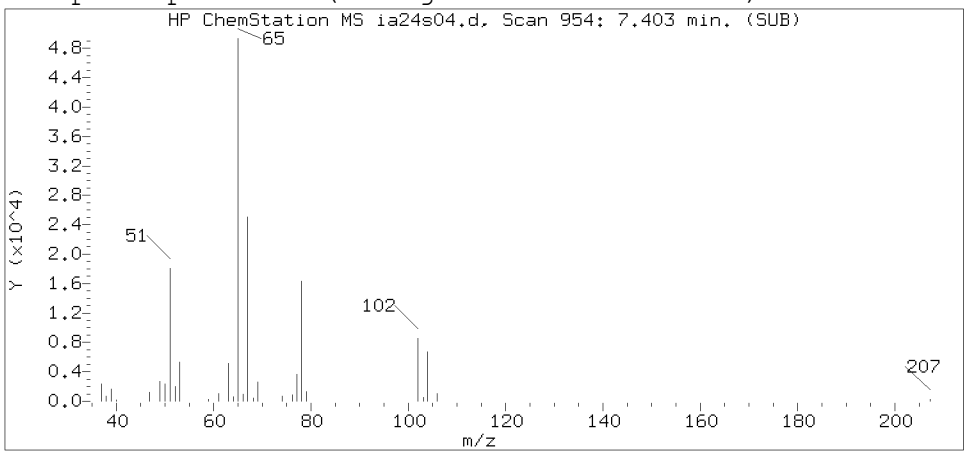
Target 3.5 esignature user ID: jkh09052

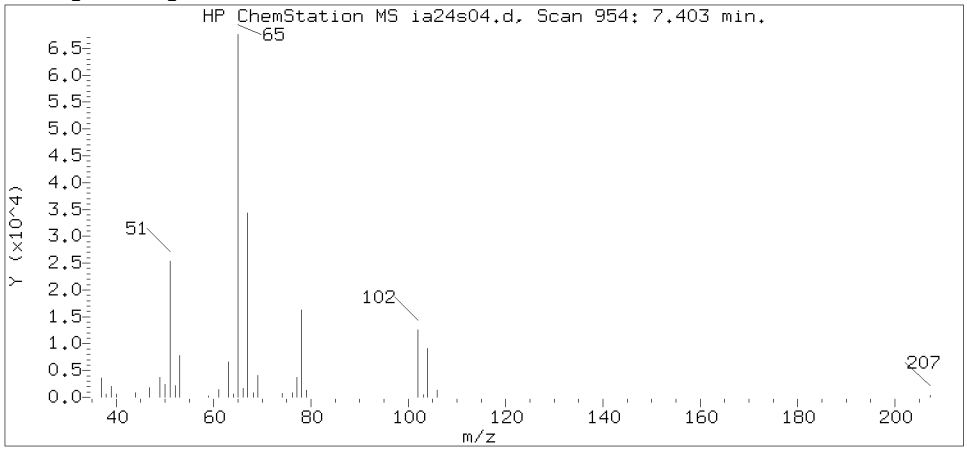
Reference Standard Spectrum for Benzene

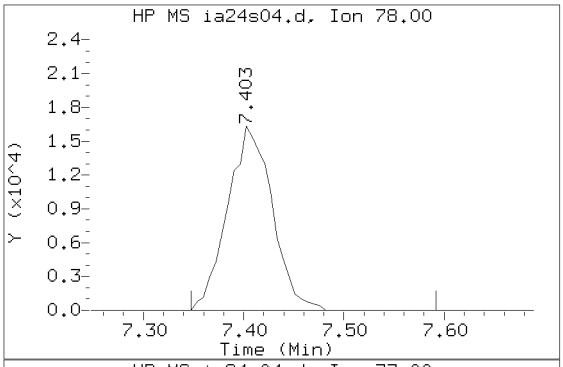


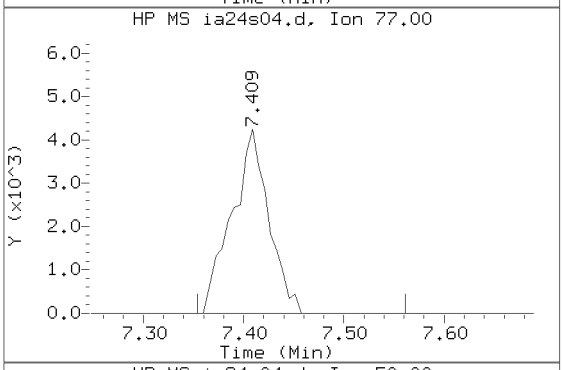
Sample Spectrum (Background Subtracted)

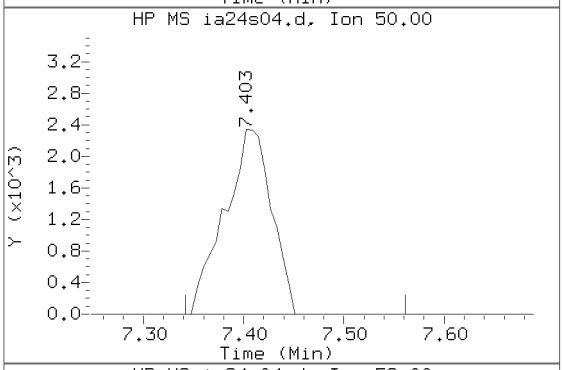


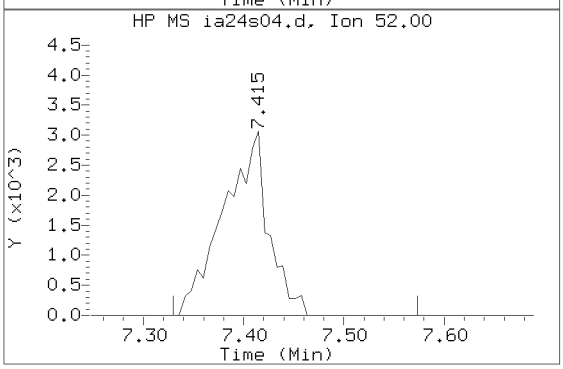
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 58
Compound Name : Benzene
Scan Number : 954
Retention Time (minutes): 7.403
Relative Retention Time : 0.00074
Quant Ion : 78.00
Area (flag) : 50633
On-Column Amount (ng) : 0.2266

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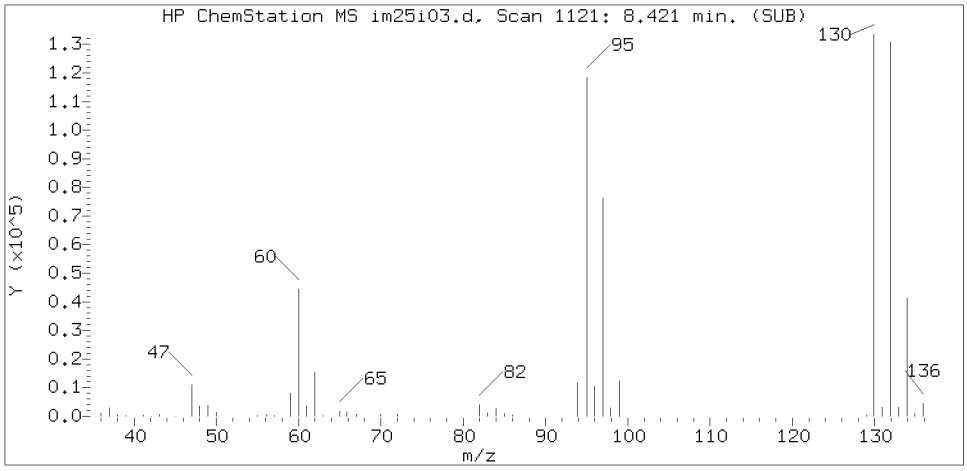
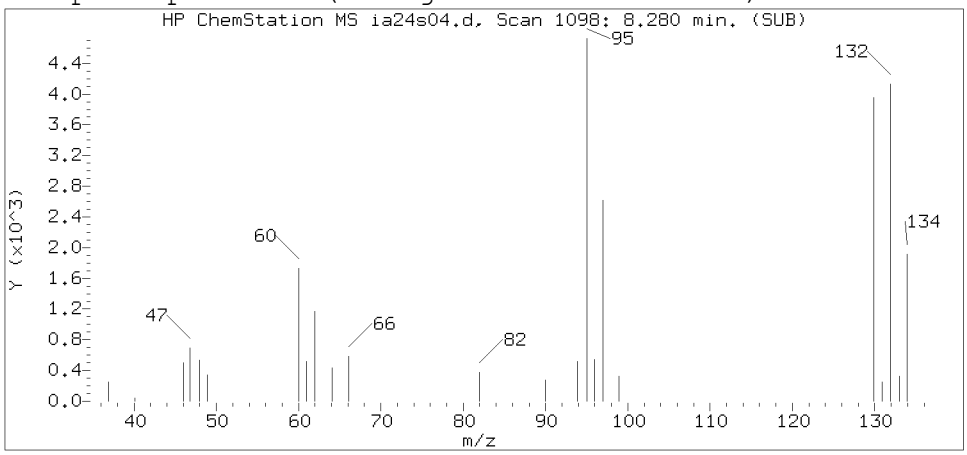
Target 3.5 esignature user ID: jkh09052

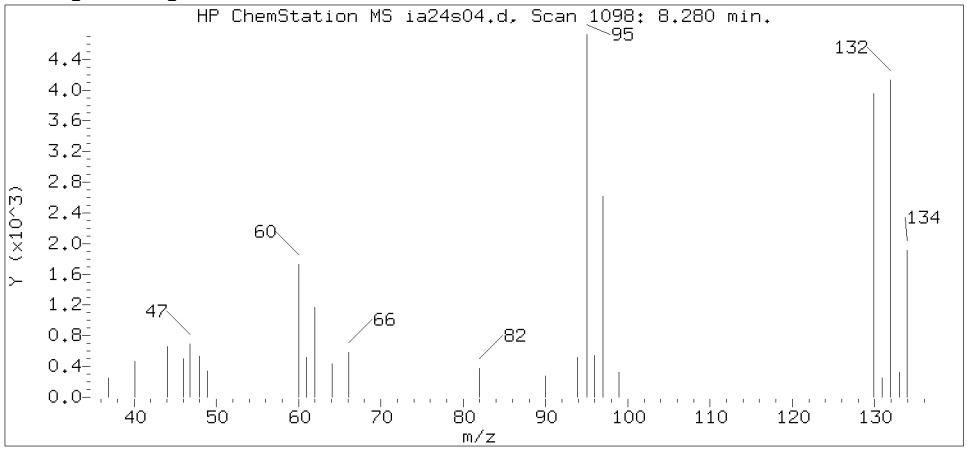
Reference Standard Spectrum for Trichloroethene

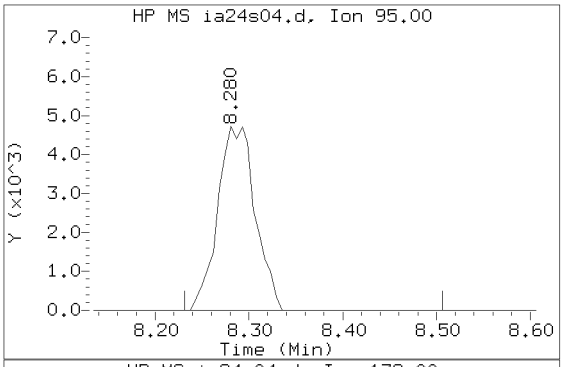


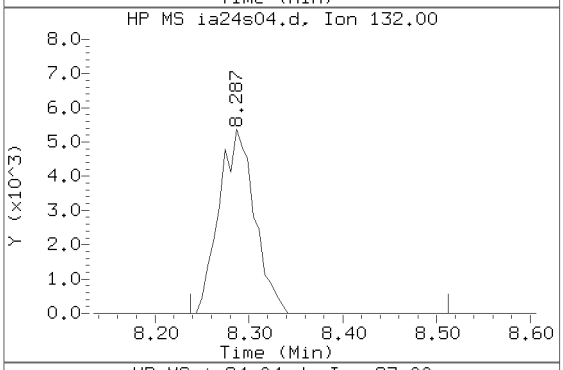
Sample Spectrum (Background Subtracted)

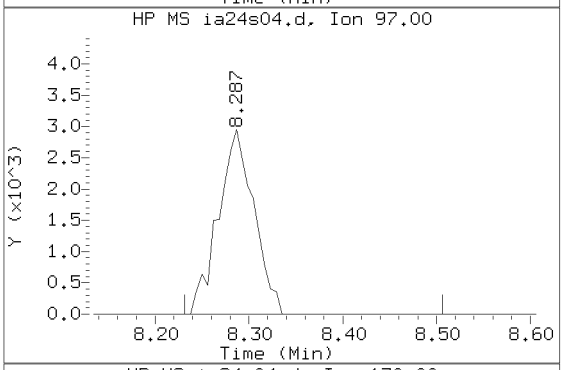


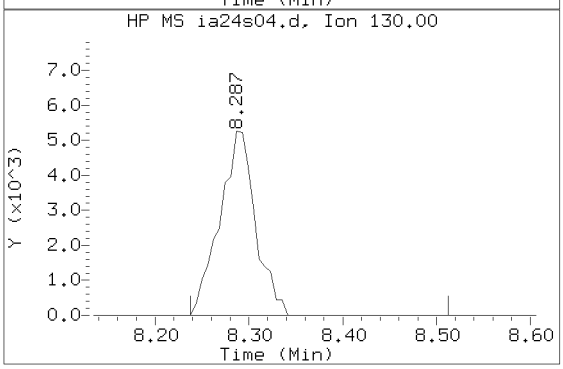
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 67
Compound Name : Trichloroethene
Scan Number : 1098
Retention Time (minutes): 8.280
Relative Retention Time : 0.00083
Quant Ion : 95.00
Area (flag) : 13162
On-Column Amount (ng) : 0.2106

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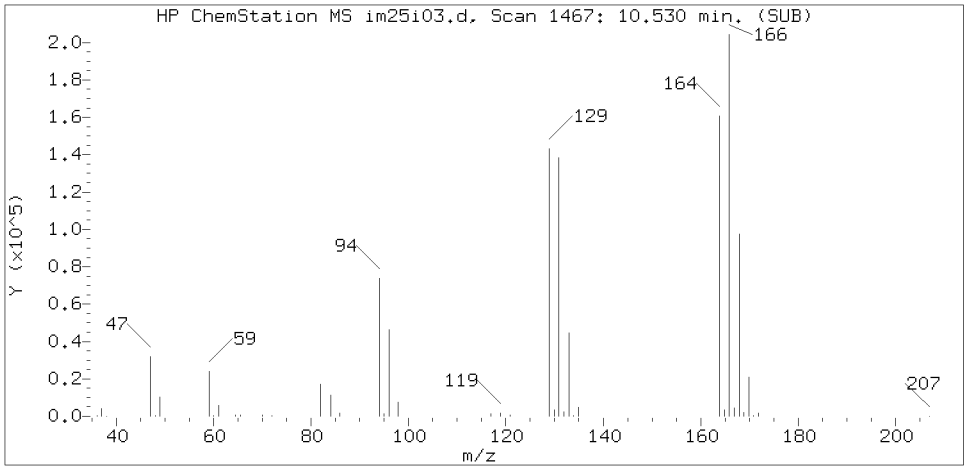
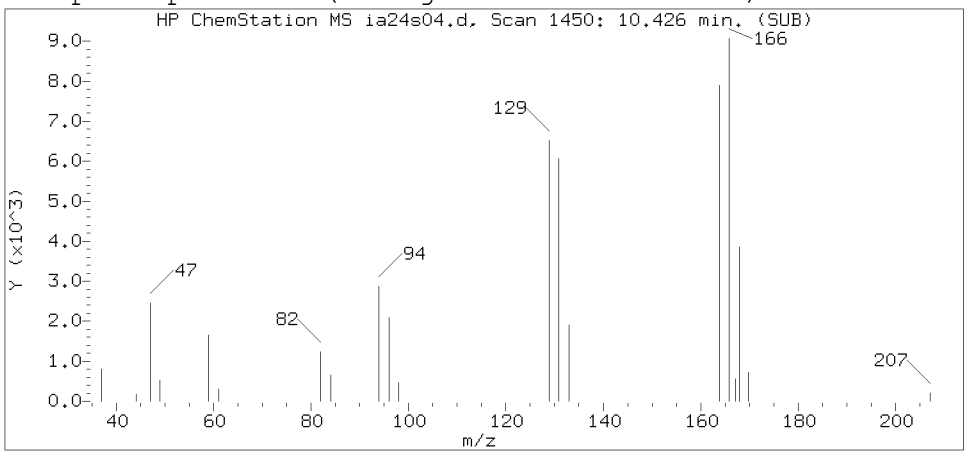
Target 3.5 esignature user ID: jkh09052

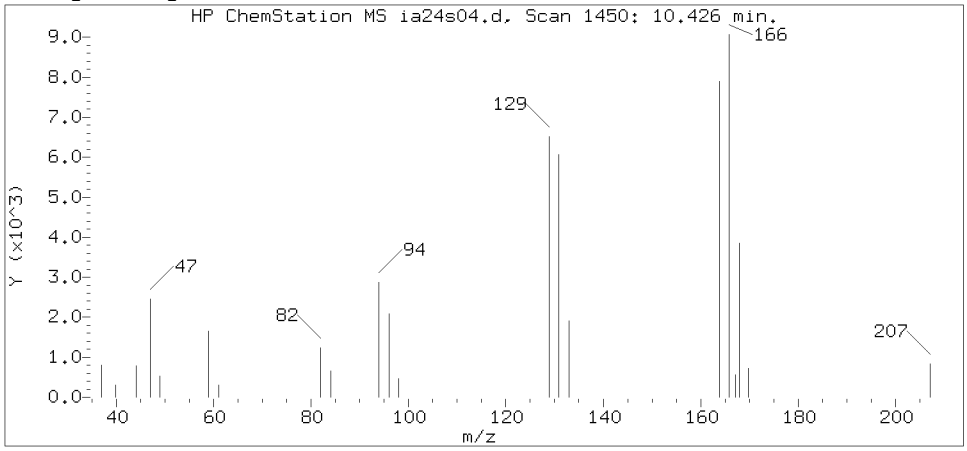
Reference Standard Spectrum for Tetrachloroethene

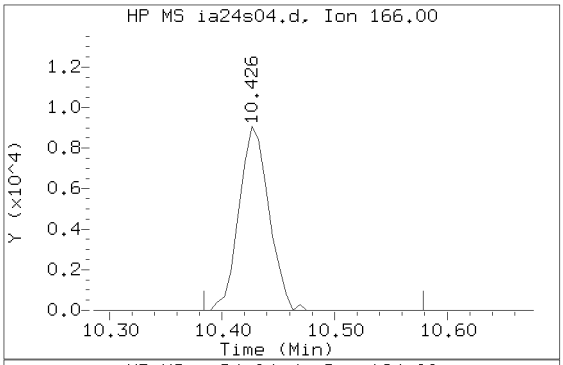


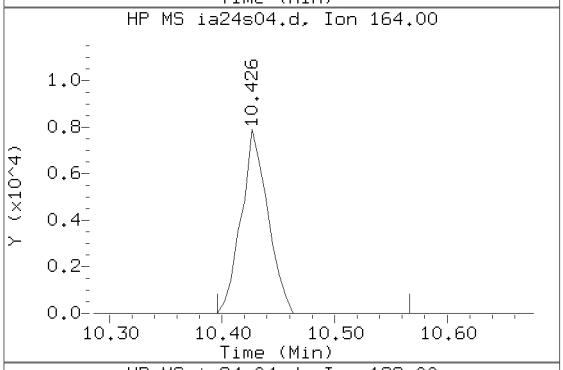
Sample Spectrum (Background Subtracted)

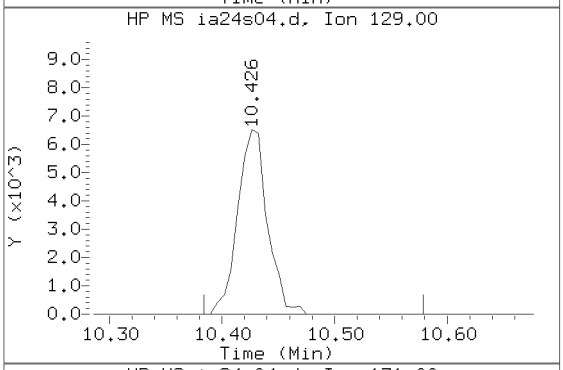


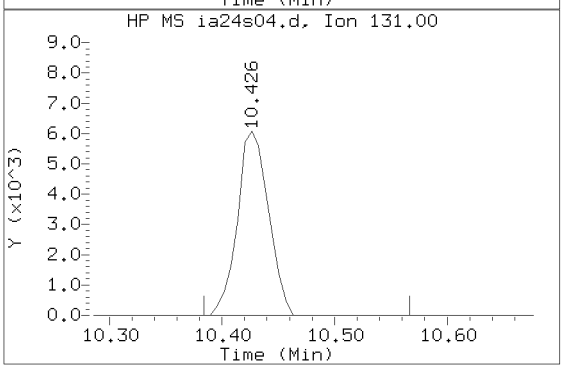
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:01 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:28 jkh09052

Sample Name: F3501 Lab Sample ID: 1034101

Compound Number : 89
Compound Name : Tetrachloroethene
Scan Number : 1450
Retention Time (minutes): 10.426
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 16689
On-Column Amount (ng) : 0.2127

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

F3501DL

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1034101DL

Data file: /chem2/HP19930.i/19apr24a.b/ia24s15.d Injection date and time: **24-APR-2019 16:54**
Data file Sample Info. Line: F3501DL;1034101DL;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038C** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **2.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 12.5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.342	(-0.030)	452	65	135515	(-2)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2018801	(-5)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1599125	(-7)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	867036	(-13)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921	(0.000)	113	514449	9.874	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372	(0.000)	102	98043	9.765	98%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2016675	10.282	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	700406	9.529	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.3	2
4) Dimethyl ether	(2)	2.068	(-0.000)	45	306115M	4.171	8.34		J	0.08	25
2) Chloromethane	(2)				Not Detected					0.1	1
5) Vinyl Chloride	(2)				Not Detected					0.3	2
7) Bromomethane	(2)				Not Detected					1	2
8) Chloroethane	(2)	2.733	(-0.000)	64	71664	1.392	2.78			0.1	1
10) Trichlorofluoromethane	(2)				Not Detected					0.4	2
11) Ethyl ether	(2)	3.306	(-0.000)	59	518894	13.311	26.62			2	25
13) Acrolein	(1)				Not Detected					7	50
15) 1,1-Dichloroethene	(2)				Not Detected					0.4	2
16) Freon 113	(2)				Not Detected					0.2	2
14) Acetone	(1)	3.672	(0.000)	43	20780	2.617	5.23		J	2	20
17) Methyl Iodide	(2)				Not Detected					1	20
18) Carbon Disulfide	(2)				Not Detected					0.7	20
25) Acetonitrile	(1)				Not Detected					63	200
22) Allyl Chloride	(2)				Not Detected					2	20
23) Methylene Chloride	(2)	4.312	(-0.001)	84	37742	0.719	1.44		J	0.4	2
29) Acrylonitrile	(1)				Not Detected					0.9	20
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.3	2
33) 1,1-Dichloroethane	(2)	5.397	(-0.001)	63	199694	2.137	4.27			0.3	2
36) Vinyl Acetate	(2)				Not Detected					7	20
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.9	20
38) 2-Butanone	(1)				Not Detected					1	20
42) Propionitrile	(1)				Not Detected					20	200
45) Methacrylonitrile	(1)				Not Detected					20	200
48) Tetrahydrofuran	(1)	6.568	(0.009)	71	23545	5.839	11.68		J	4	50
49) Chloroform	(2)				Not Detected					0.2	2
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	2
54) Carbon Tetrachloride	(2)				Not Detected					0.3	2
56) Isobutyl Alcohol	(1)				Not Detected					7	400
58) Benzene	(2)	7.403	(0.000)	78	25297	0.113	0.23		J	0.1	2

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55. Target 3.5 esignature user ID: mec29284

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s15.d Injection date and time: **24-APR-2019 16:54**
Data file Sample Info. Line: F3501DL;1034101DL;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038C** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **2.00**

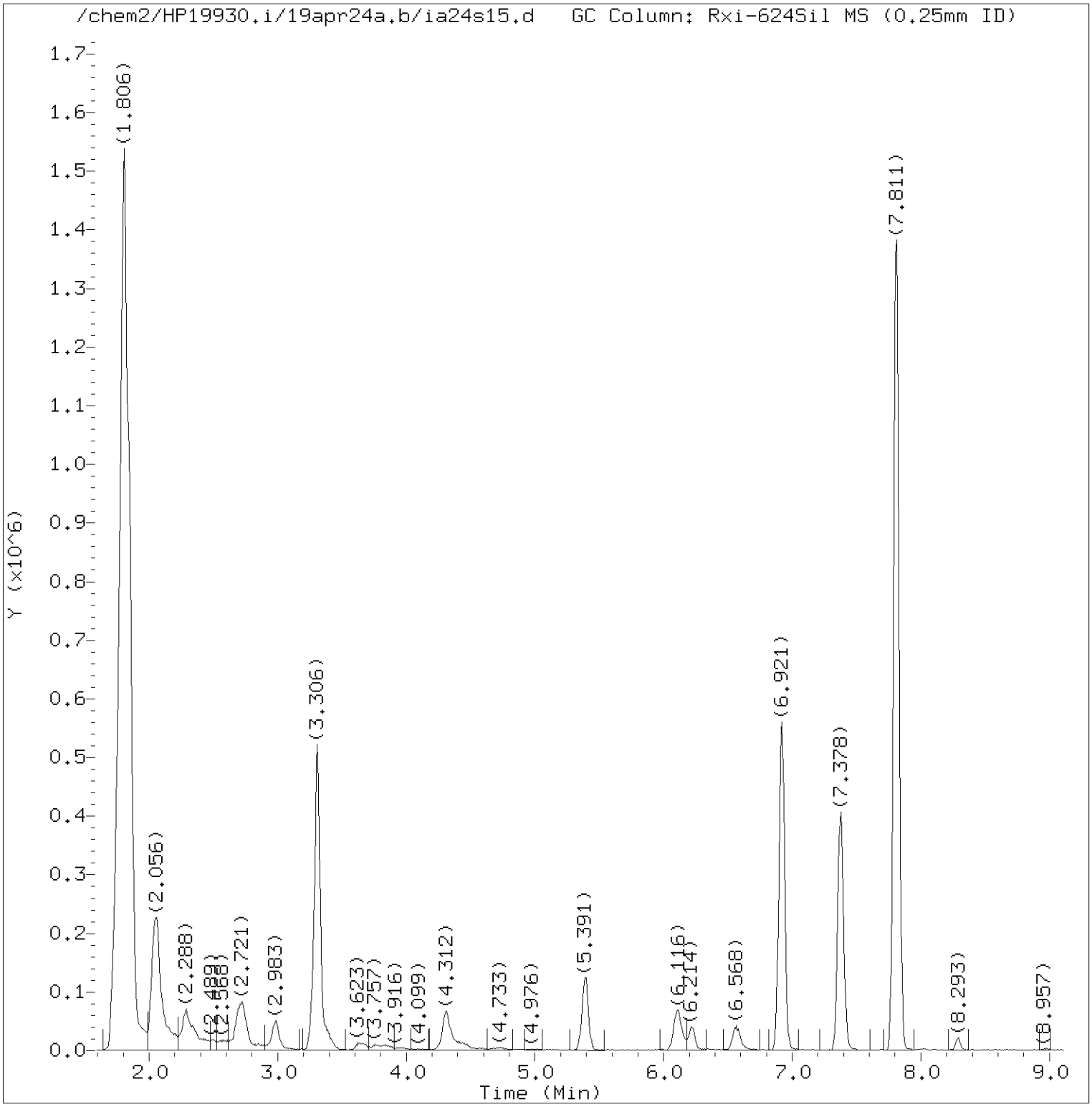
Volume Purged (Vt): 25 ml Sample Volume (Vo): 12.5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
59) 1,2-Dichloroethane	(2)				Not Detected					0.3	2
67) Trichloroethene	(2)				Not Detected					0.4	2
70) 1,2-Dichloropropane	(2)				Not Detected					0.2	2
71) Methyl Methacrylate	(1)				Not Detected					7	20
73) Dibromomethane	(2)				Not Detected					0.1	2
72) 1,4-Dioxane	(1)				Not Detected					91	400
74) Bromodichloromethane	(2)				Not Detected					0.2	2
81) 4-Methyl-2-Pentanone	(1)				Not Detected					2	20
83) Toluene	(3)				Not Detected					0.2	2
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	2
86) Ethyl Methacrylate	(3)				Not Detected					2	20
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	2
89) Tetrachloroethene	(3)	10.433	(-0.000)	166	8216	0.105	0.21		J	0.1	2
90) 1,3-Dichloropropane	(3)				Not Detected					0.2	2
91) 2-Hexanone	(1)				Not Detected					1	20
93) Dibromochloromethane	(3)				Not Detected					0.1	2
95) 1,2-Dibromoethane	(3)				Not Detected					0.1	2
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	2
100) Ethylbenzene	(3)				Not Detected					0.2	2
101) m+p-Xylene	(3)				Not Detected					0.2	1
104) o-Xylene	(3)				Not Detected					0.1	1
105) Xylene (Total)	(3)				Not Detected					0.4	6
106) Styrene	(3)				Not Detected					0.1	2
107) Bromoform	(3)				Not Detected					0.2	2
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.4	2
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					2	20
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	2
126) Pentachloroethane	(4)				Not Detected					2	20
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.1	2
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.1	2
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	2
142) Hexachloroethane	(4)				Not Detected					0.2	20
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.4	2
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	2
146) Hexachlorobutadiene	(4)				Not Detected					0.1	2
147) Naphthalene	(4)				Not Detected					0.3	2

Total number of targets = 67

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

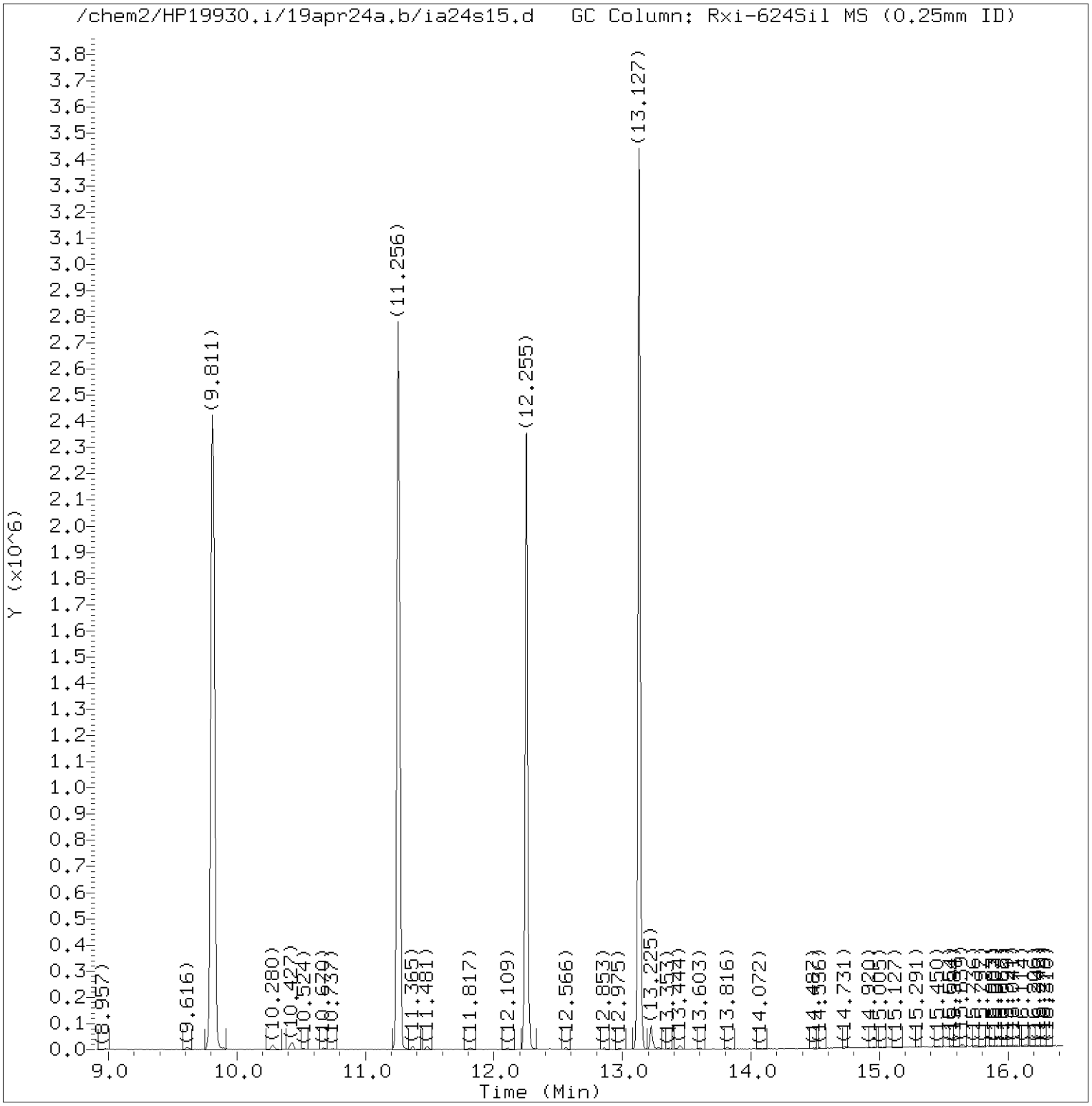
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

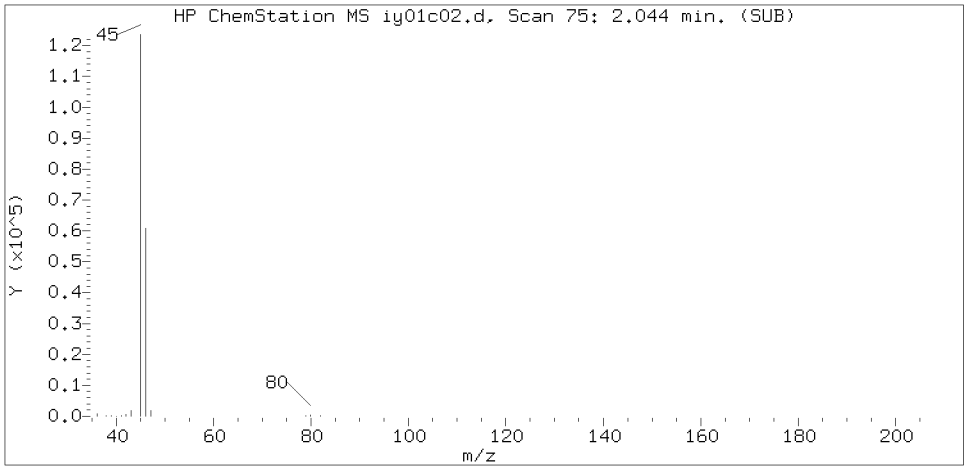
Sample Name: F3501DL Lab Sample ID: 1034101DL

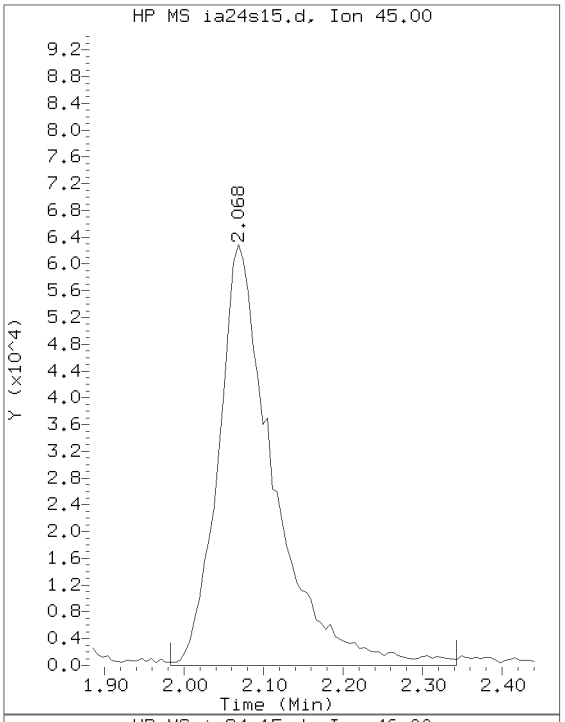
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.068	45	306115M	4.171
8) Chloroethane	(2)	2.733	64	71664	1.392
11) Ethyl ether	(2)	3.306	59	518894	13.311
14) Acetone	(1)	3.672	43	20780	2.617
23) Methylene Chloride	(2)	4.312	84	37742	0.719
26)*t-Butyl Alcohol-d10	(1)	4.342	65	135515	50.000
33) 1,1-Dichloroethane	(2)	5.397	63	199694	2.137
48) Tetrahydrofuran	(1)	6.568	71	23545	5.839
50)$Dibromofluoromethane	(2)	6.921	113	514449	9.874
57)$1,2-Dichloroethane-d4	(2)	7.372	102	98043	9.765
58) Benzene	(2)	7.403	78	25297	0.113
63)*Fluorobenzene	(2)	7.811	96	2018801	10.000
82)$Toluene-d8	(3)	9.811	98	2016675	10.282
89) Tetrachloroethene	(3)	10.433	166	8216	0.105
97)*Chlorobenzene-d5	(3)	11.256	117	1599125	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	700406	9.529
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	867036	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

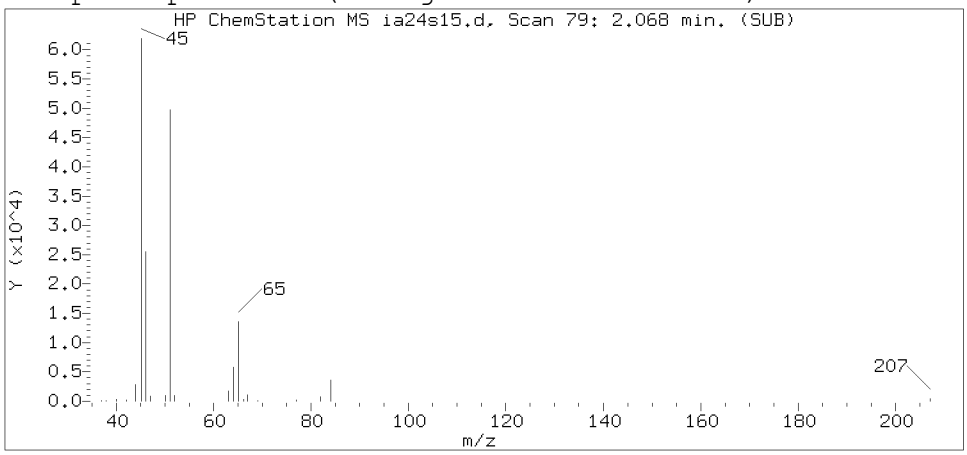
Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

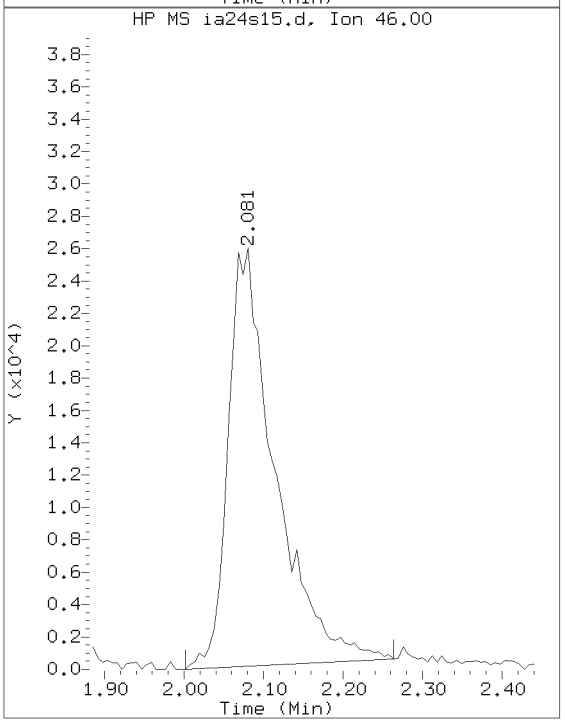
Reference Standard Spectrum for Dimethyl ether



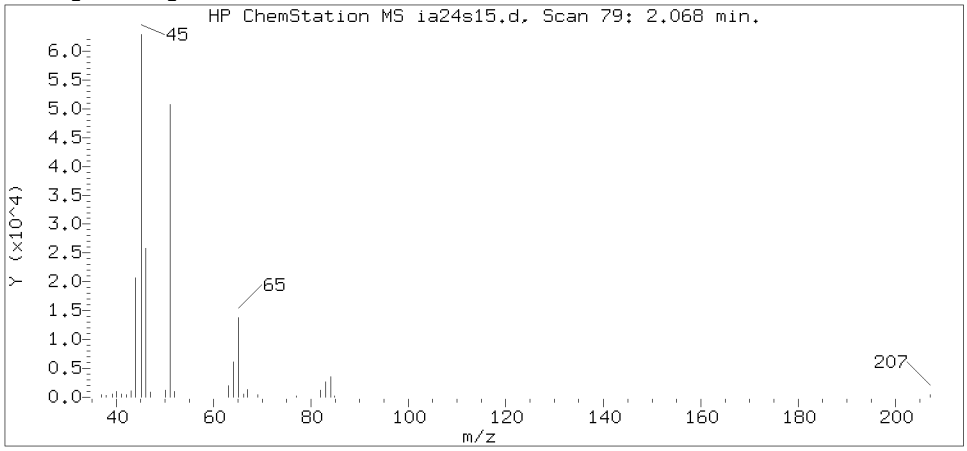


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

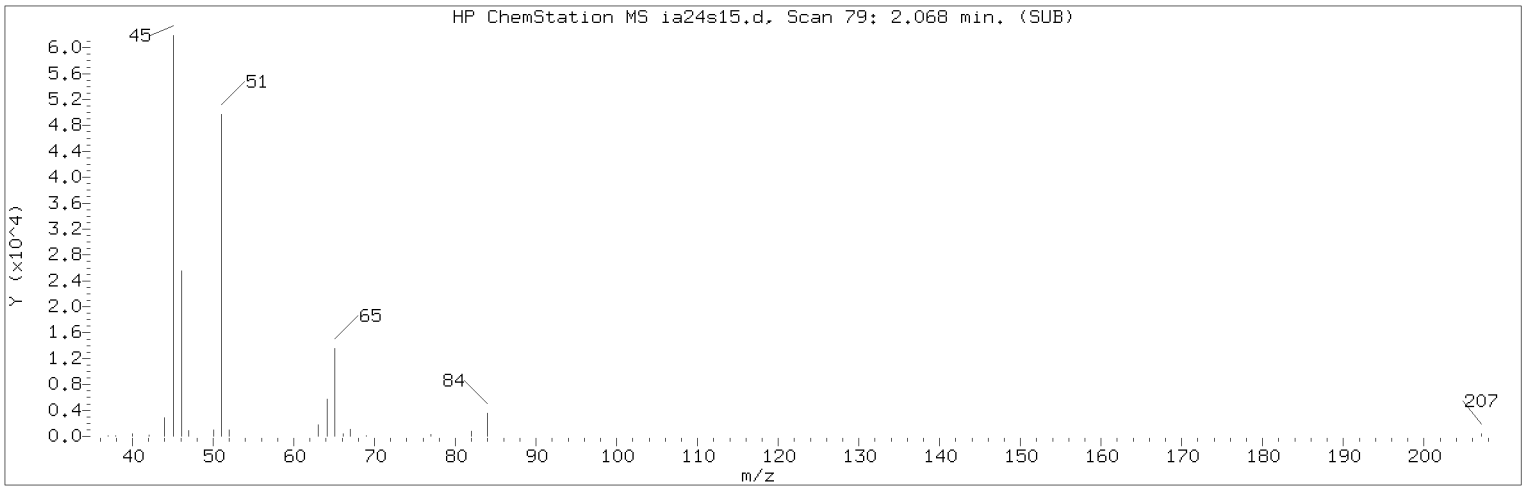
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

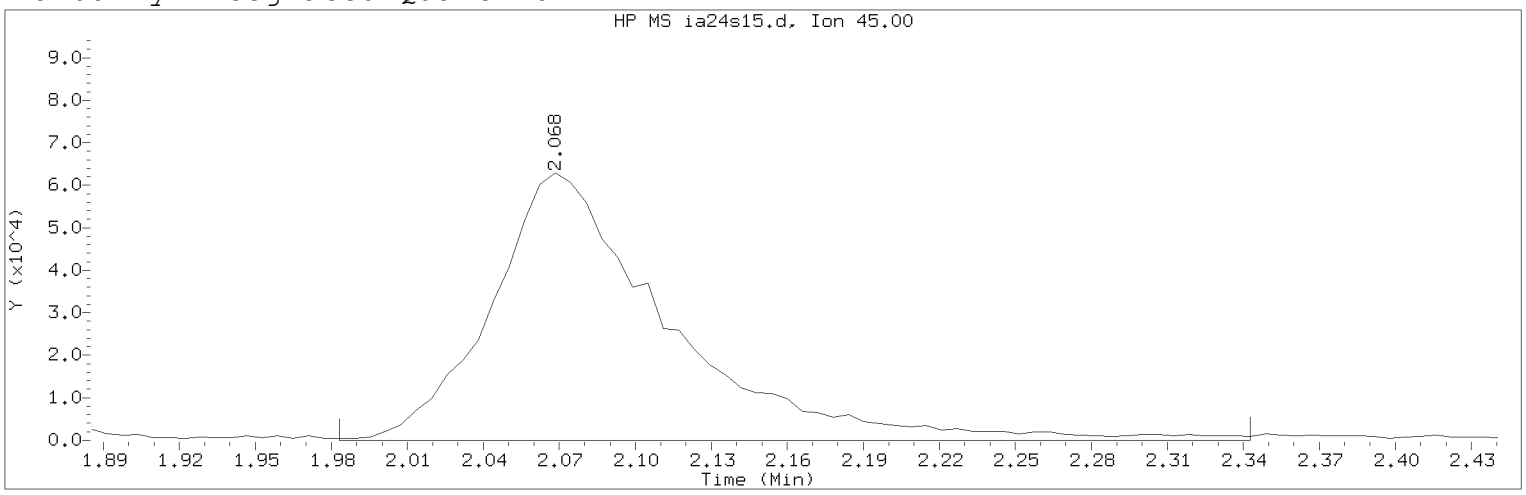
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Relative Retention Time :-0.00058
Quant Ion : 45.00
Area (flag) : 306115M
On-Column Amount (ng) : 4.1713

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

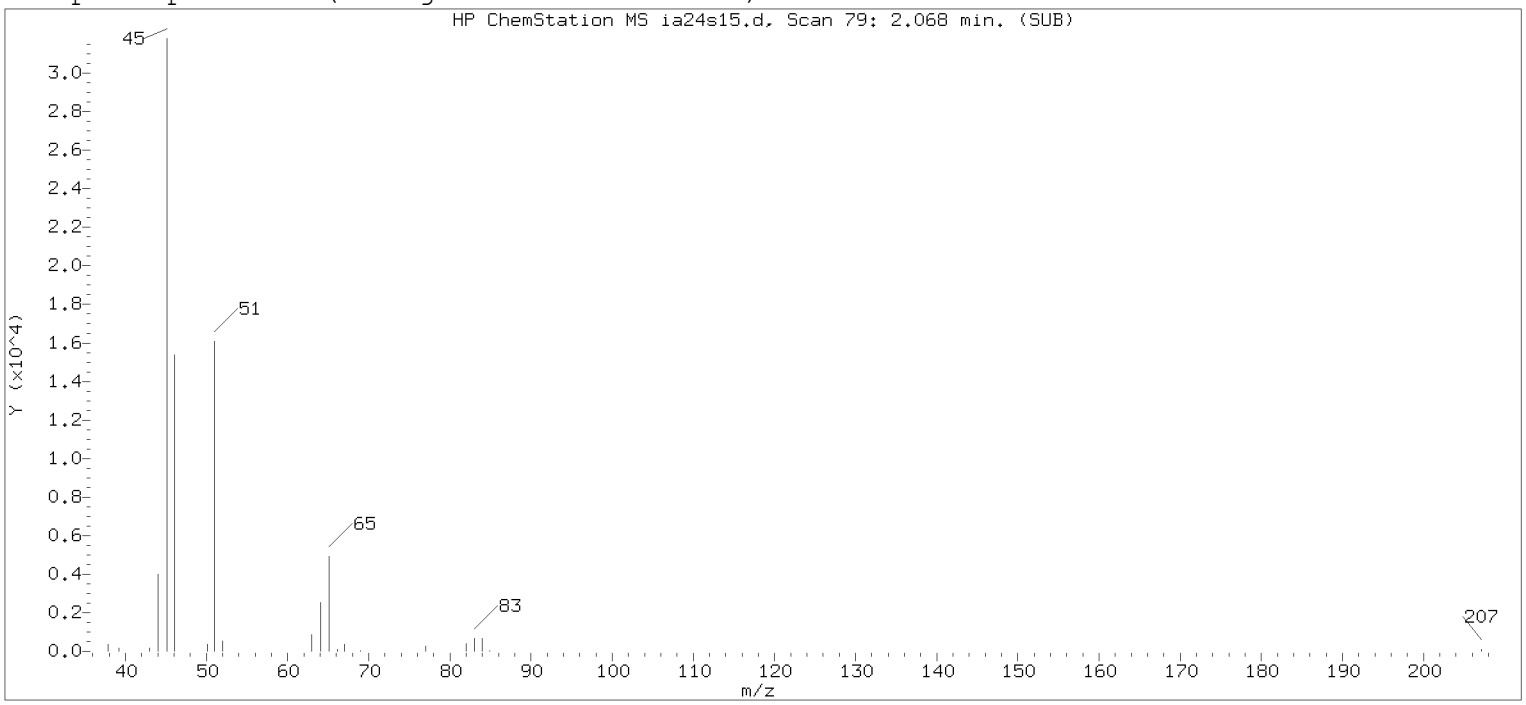
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area (flag) : 306115M
On-Column Amount (ng) : 4.1713
Integration start scan : 64 Integration stop scan: 123
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

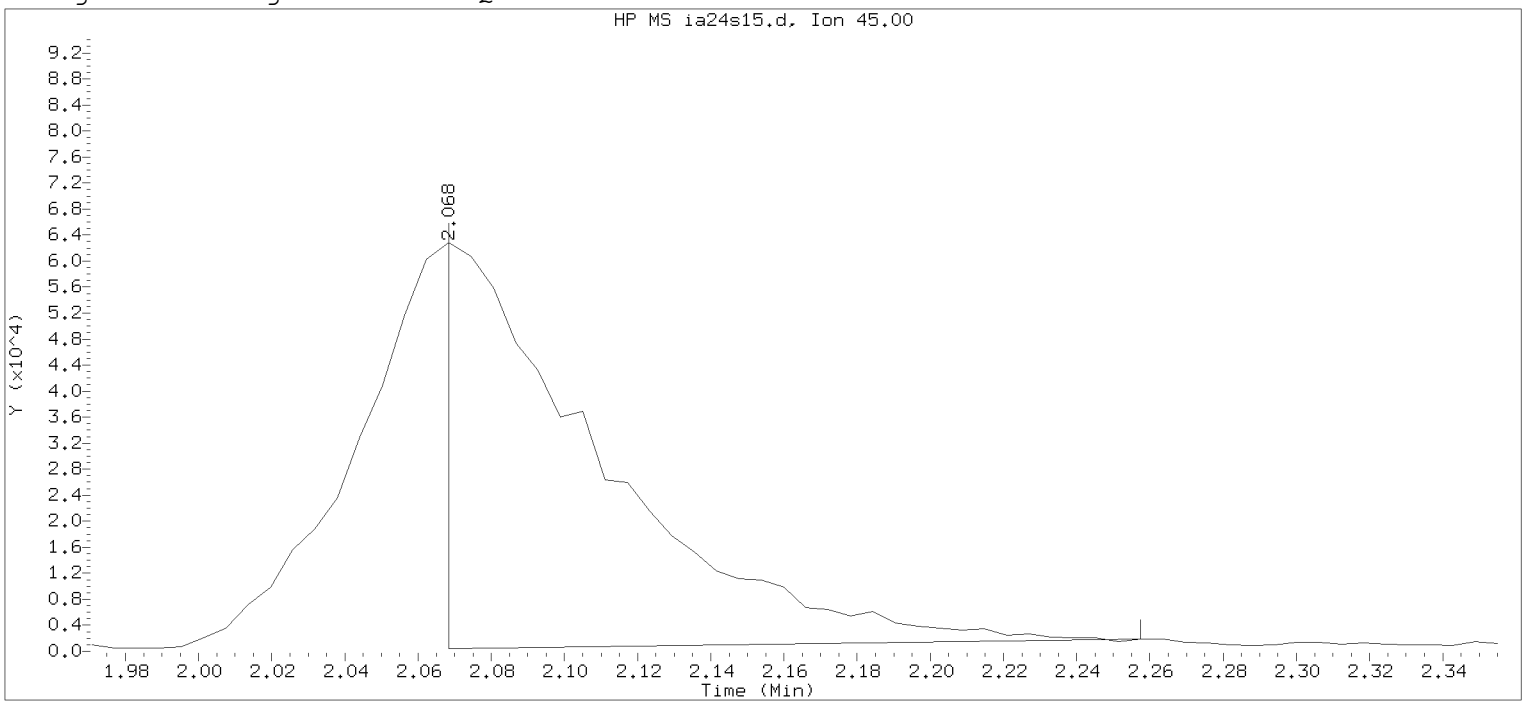
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

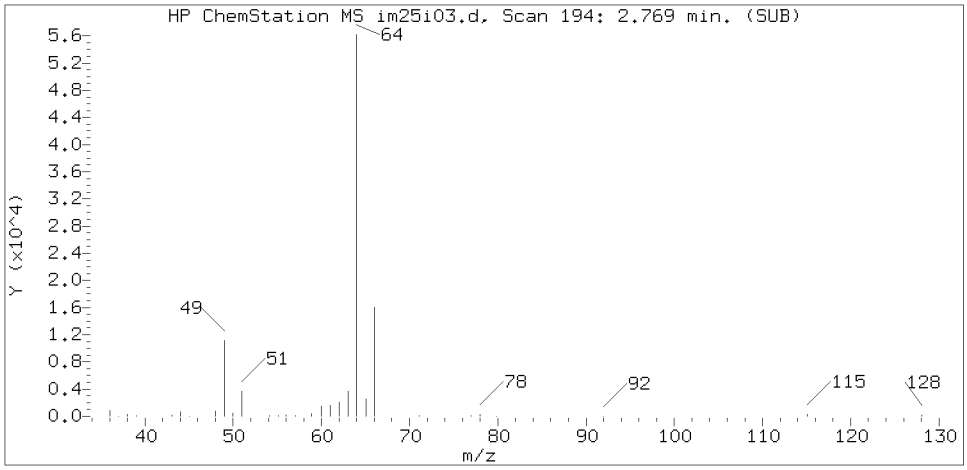
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:49 mec29284

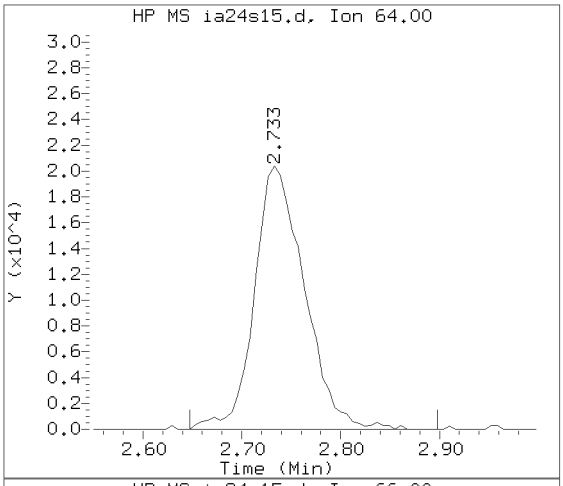
Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area : 176943
On-column Amount (ng) : 2.4112
Integration start scan : 78 Integration stop scan: 109
Y at integration start : 425 Y at integration end: 1889

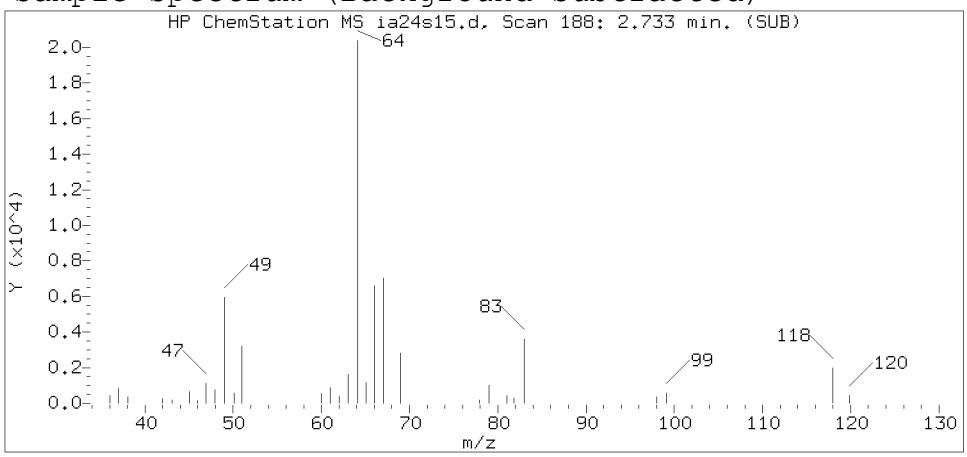
Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature used for mec29284

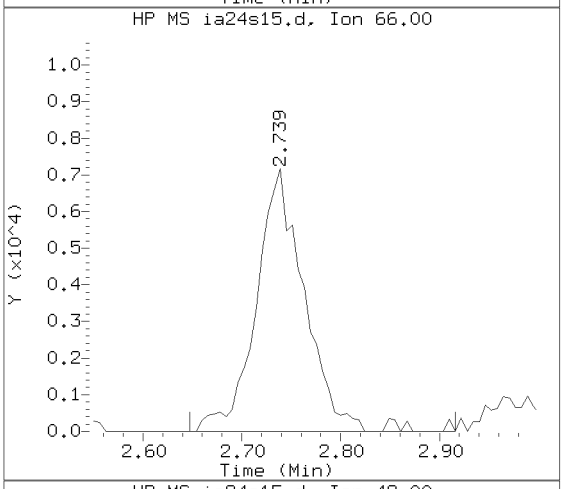
Reference Standard Spectrum for Chloroethane



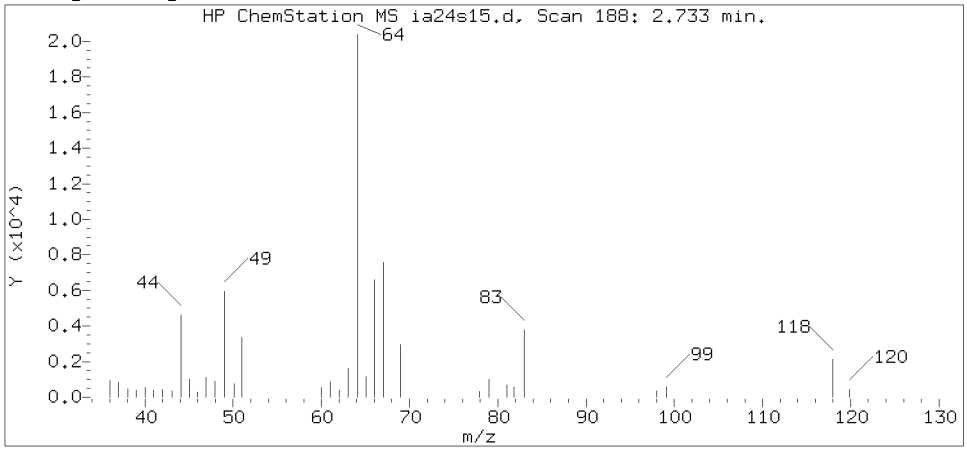


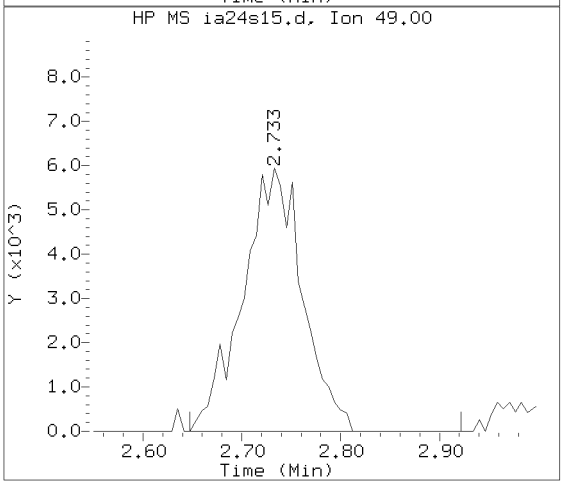
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

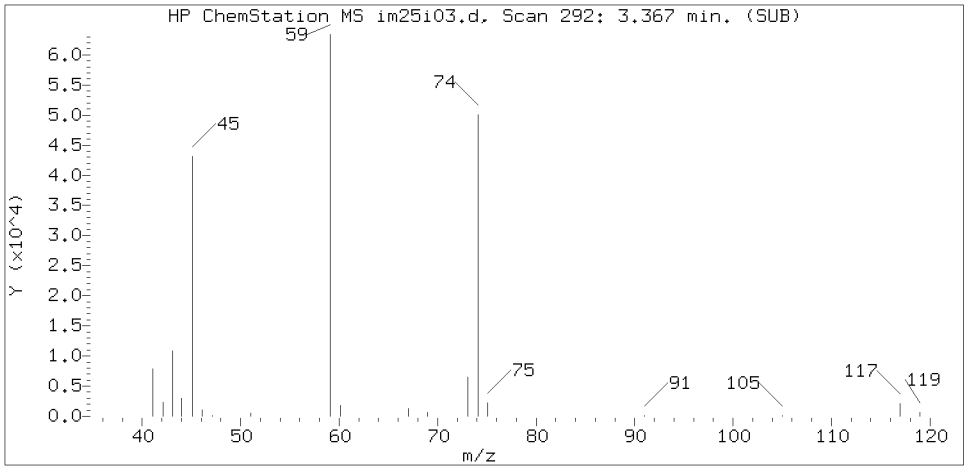
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

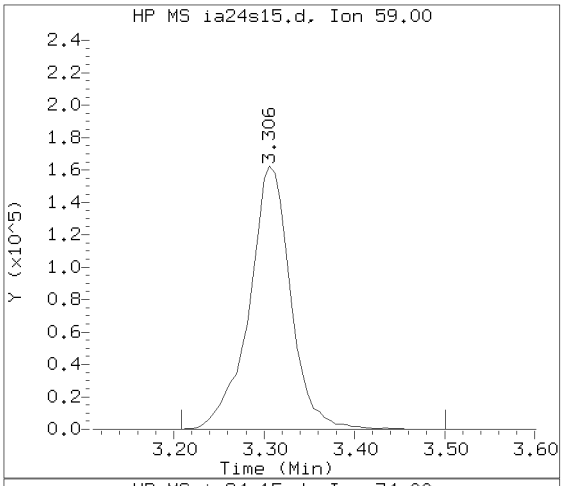
Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 188
Retention Time (minutes): 2.733
Relative Retention Time :-0.00051
Quant Ion : 64.00
Area (flag) : 71664
On-Column Amount (ng) : 1.3922

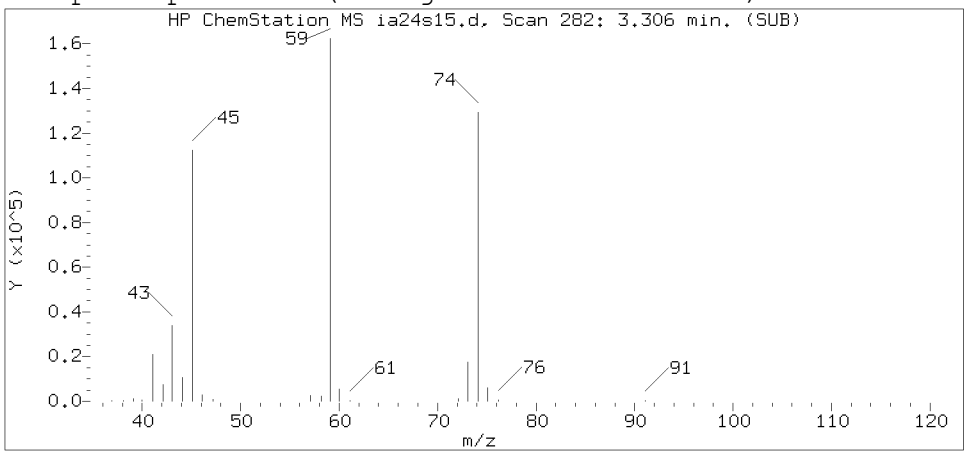
Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

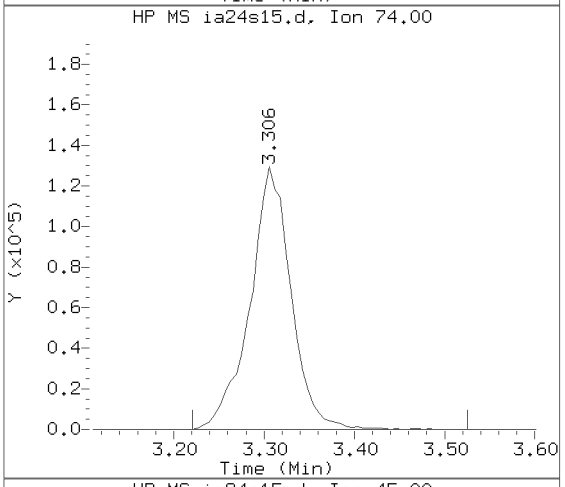
Reference Standard Spectrum for Ethyl ether



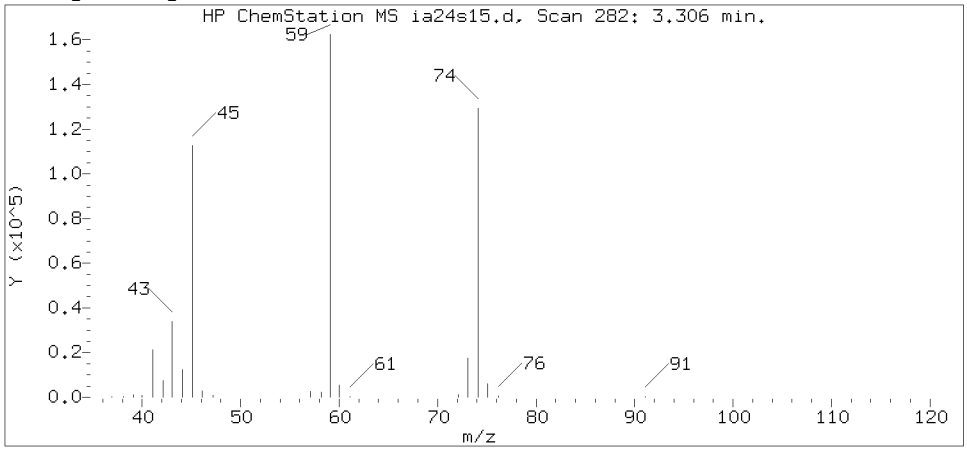


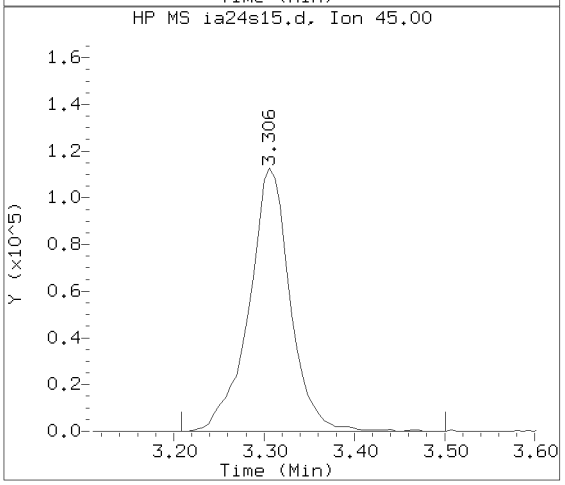
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 282
Retention Time (minutes): 3.306
Relative Retention Time :-0.00045
Quant Ion : 59.00
Area (flag) : 518894
On-Column Amount (ng) : 13.3112

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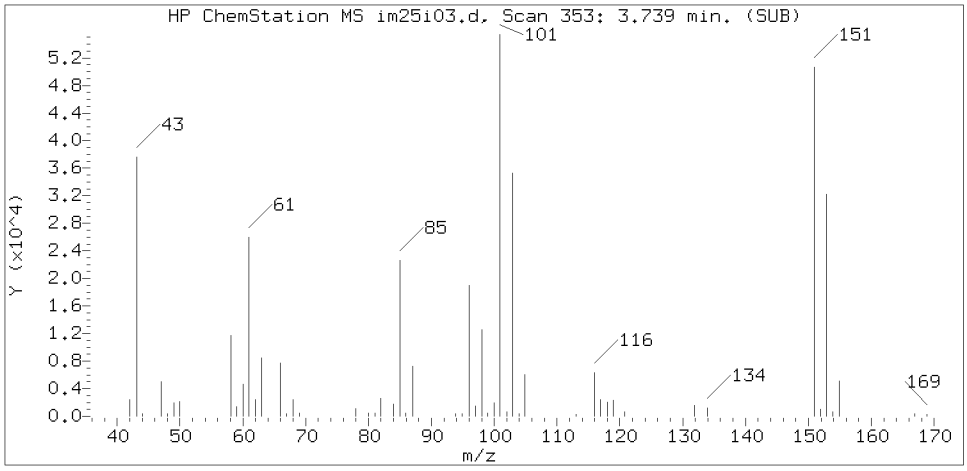
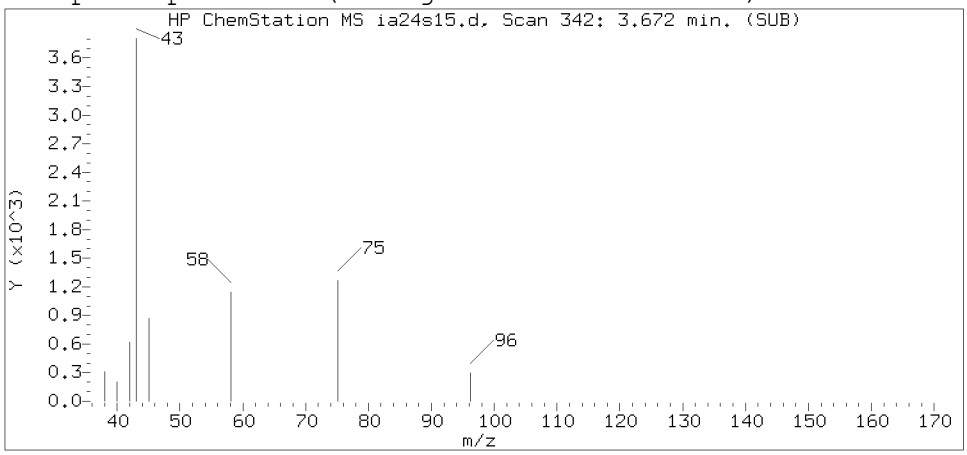
Target 3.5 esignature user ID: mec29284

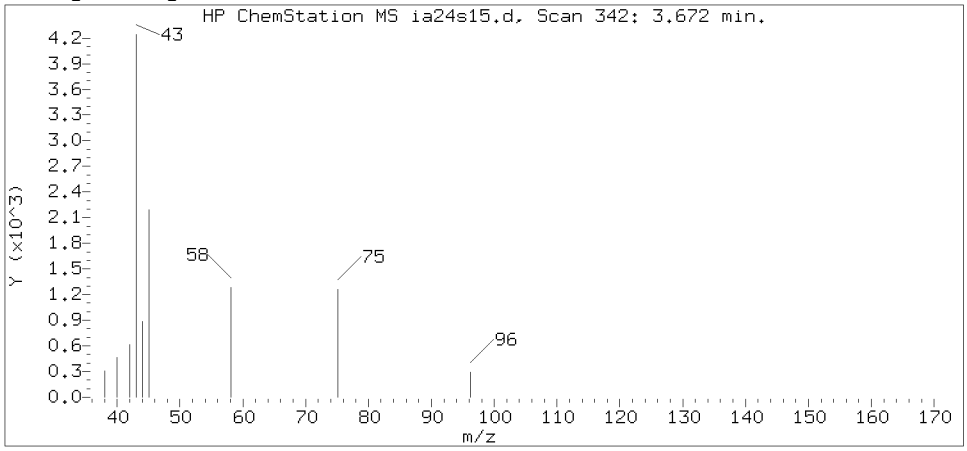
Reference Standard Spectrum for Acetone

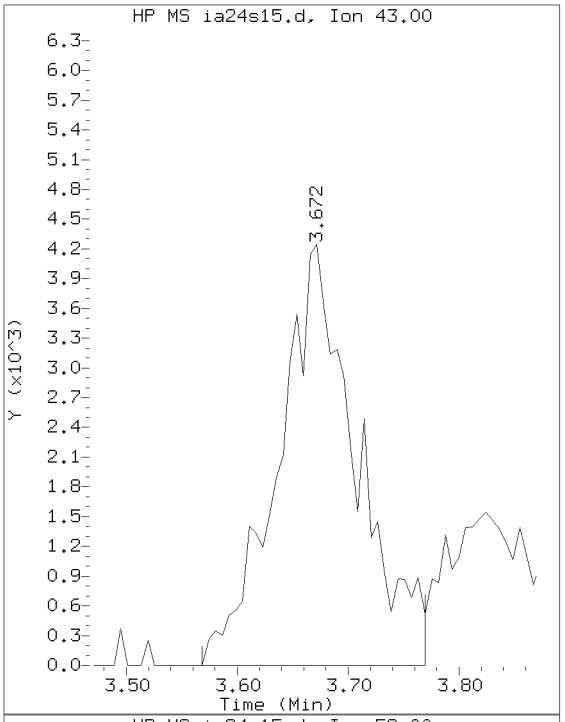


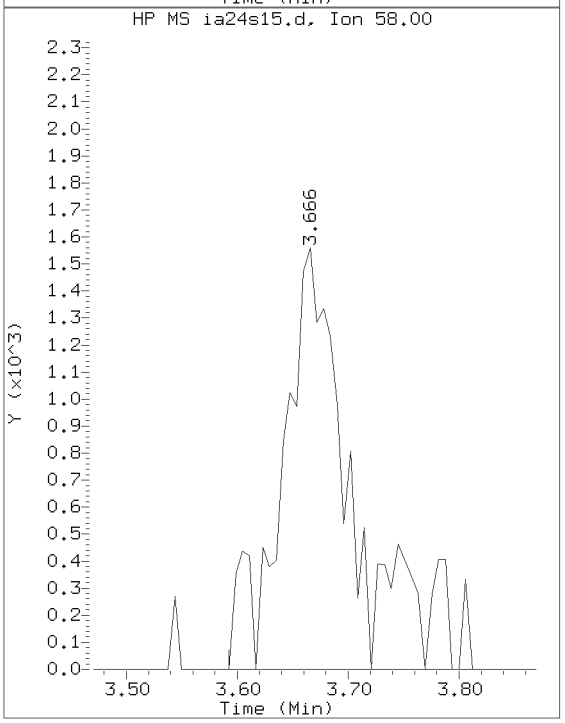
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 342
Retention Time (minutes)	: 3.672
Relative Retention Time	: 0.00032
Quant Ion	: 43.00
Area (flag)	: 20780
On-Column Amount (ng)	: 2.6173

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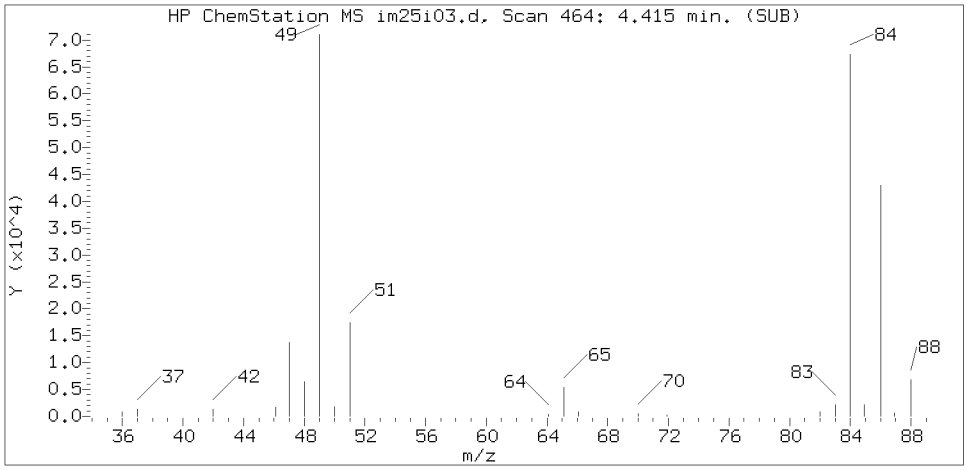
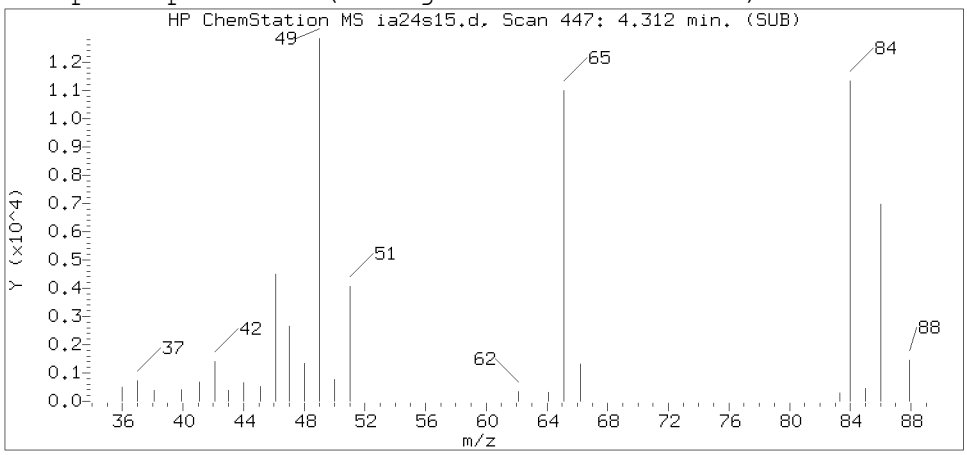
Target 3.5 esignature user ID: mec29284

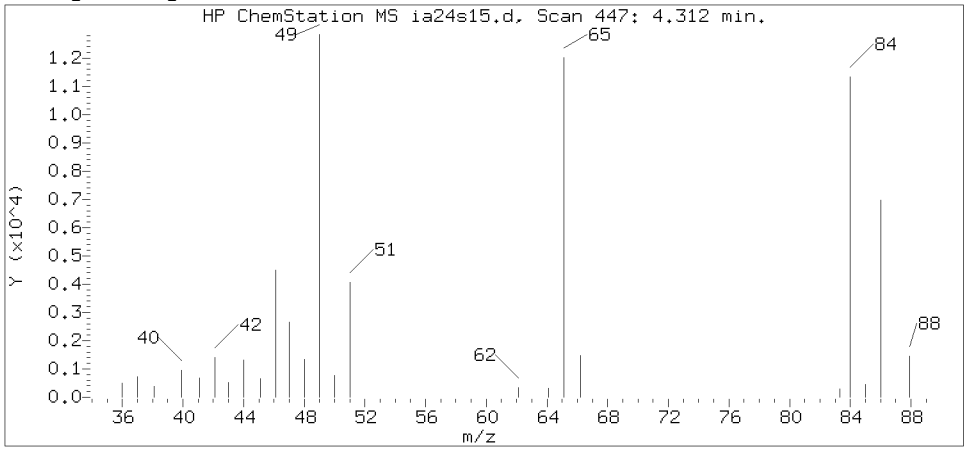
Reference Standard Spectrum for Methylene Chloride

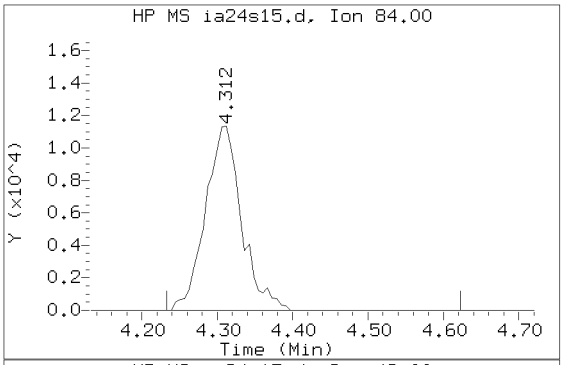


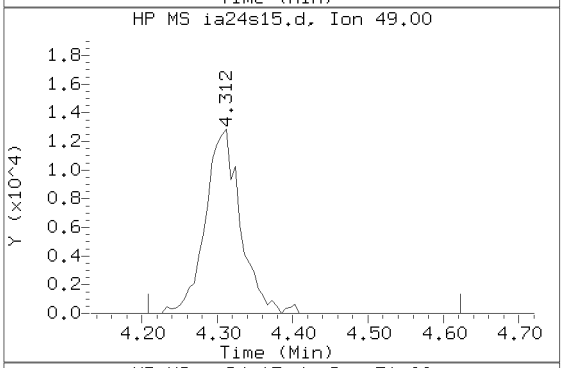
Sample Spectrum (Background Subtracted)

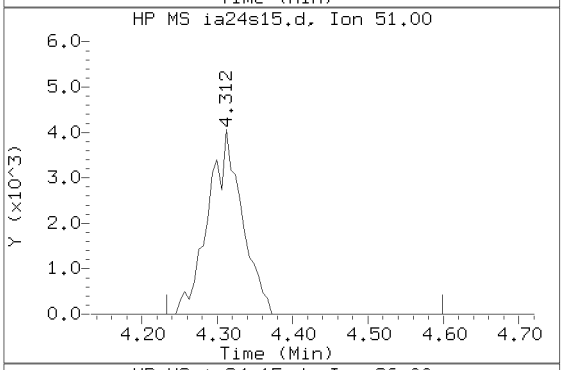


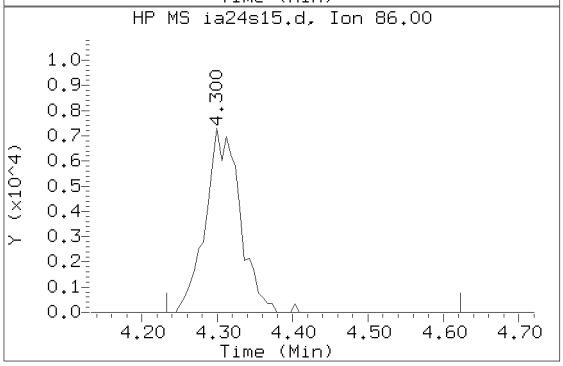
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 447
Retention Time (minutes): 4.312
Relative Retention Time :-0.00191
Quant Ion : 84.00
Area (flag) : 37742
On-Column Amount (ng) : 0.7186

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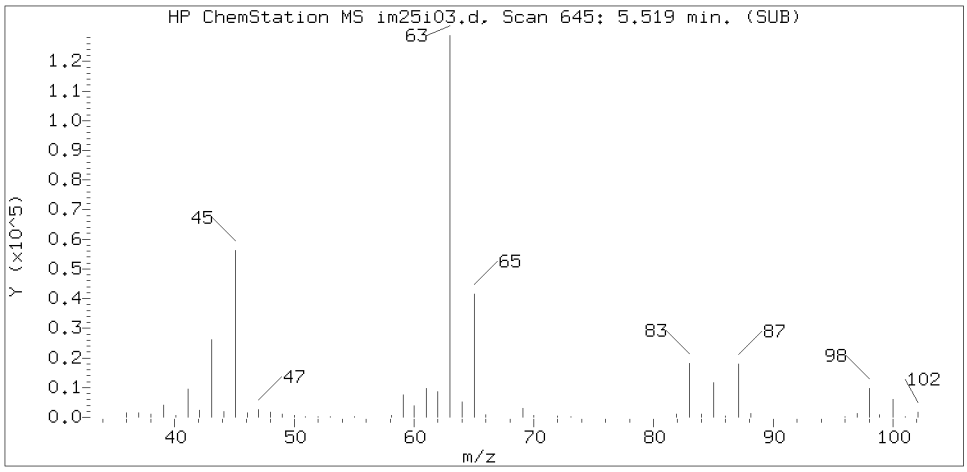
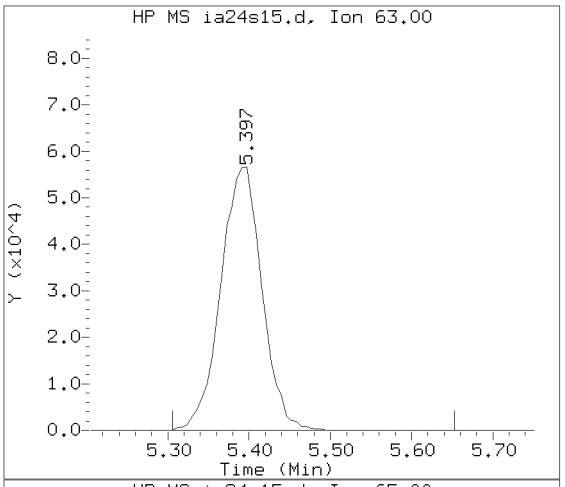
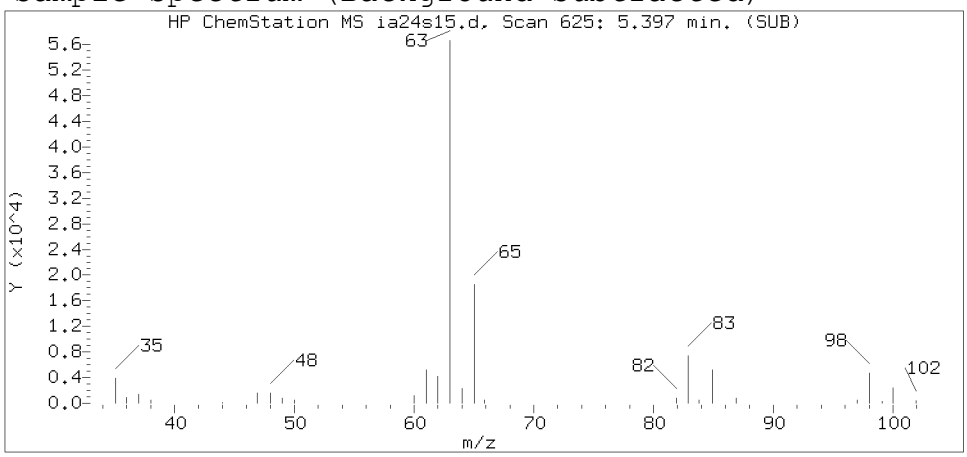
Target 3.5 esignature user ID: mec29284

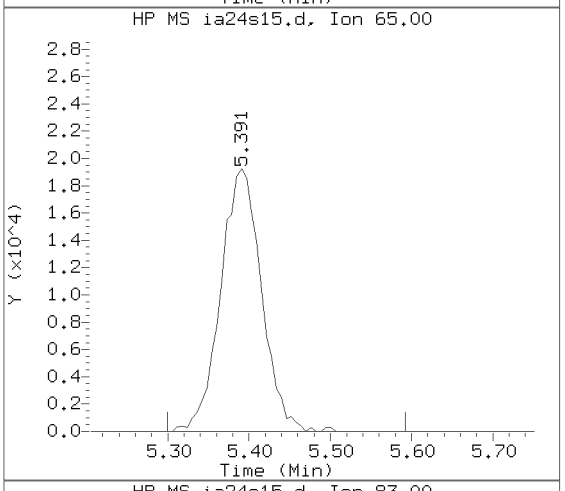
Reference Standard Spectrum for 1,1-Dichloroethane



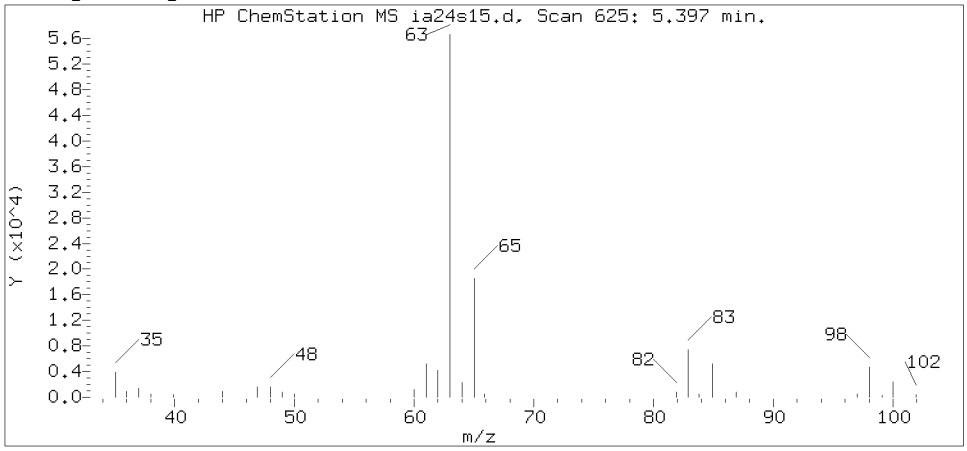


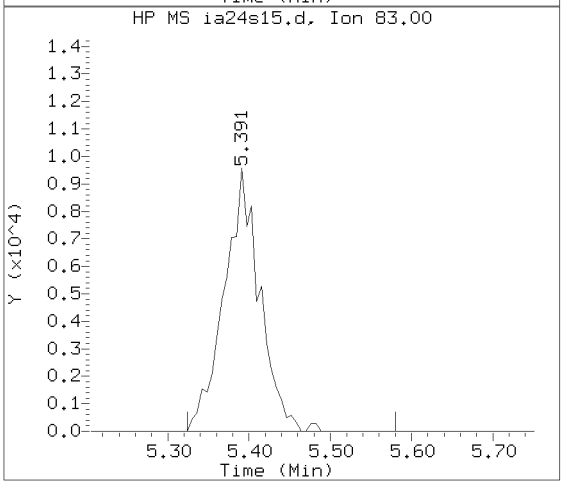
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 625
Retention Time (minutes): 5.397
Relative Retention Time :-0.00102
Quant Ion : 63.00
Area (flag) : 199694
On-Column Amount (ng) : 2.1367

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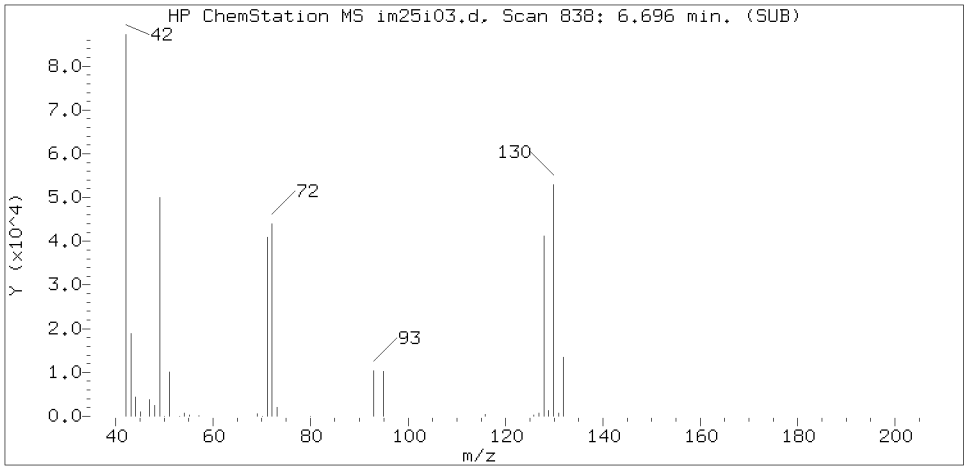
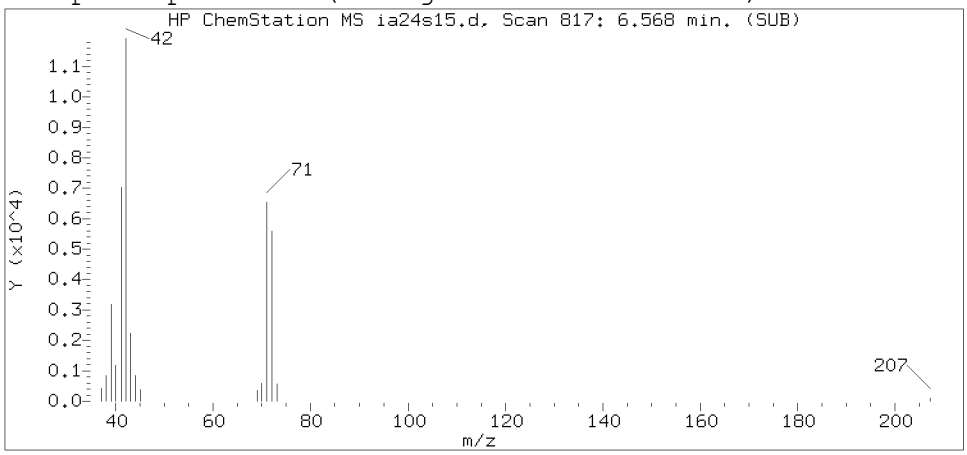
Target 3.5 esignature user ID: mec29284

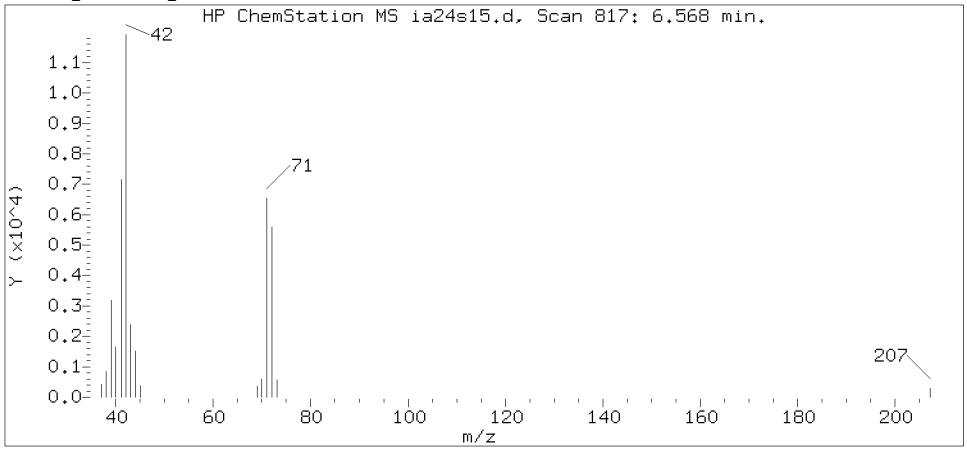
Reference Standard Spectrum for Tetrahydrofuran

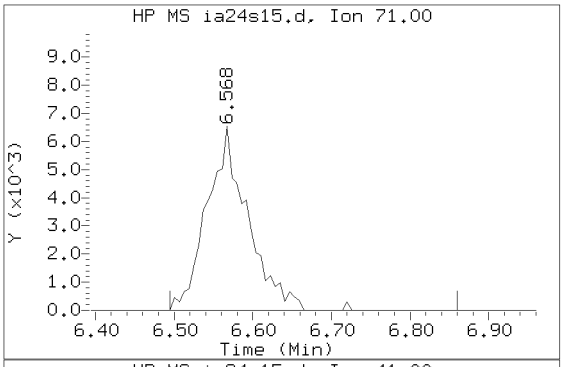


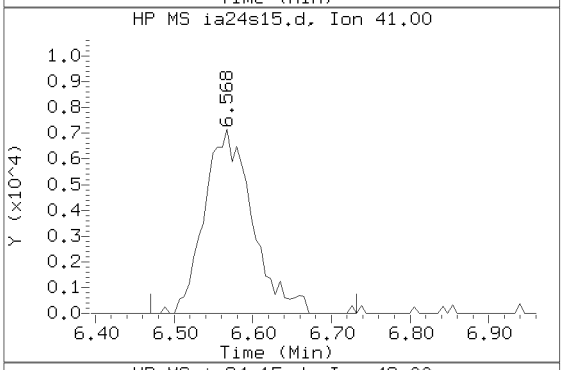
Sample Spectrum (Background Subtracted)

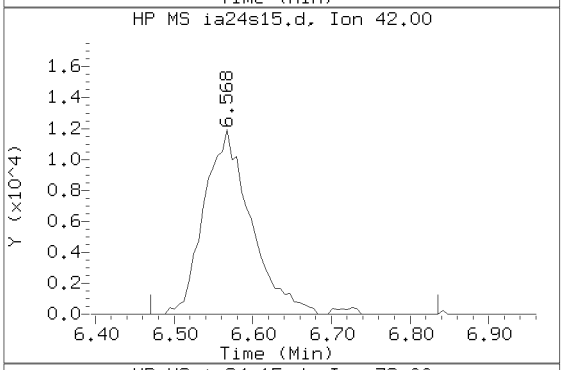


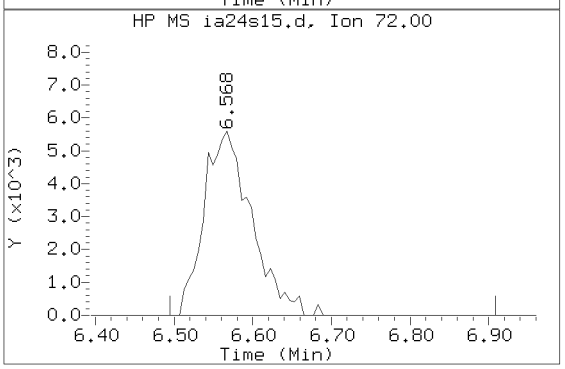
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 48
Compound Name : Tetrahydrofuran
Scan Number : 817
Retention Time (minutes): 6.568
Relative Retention Time : 0.00928
Quant Ion : 71.00
Area (flag) : 23545
On-Column Amount (ng) : 5.8386

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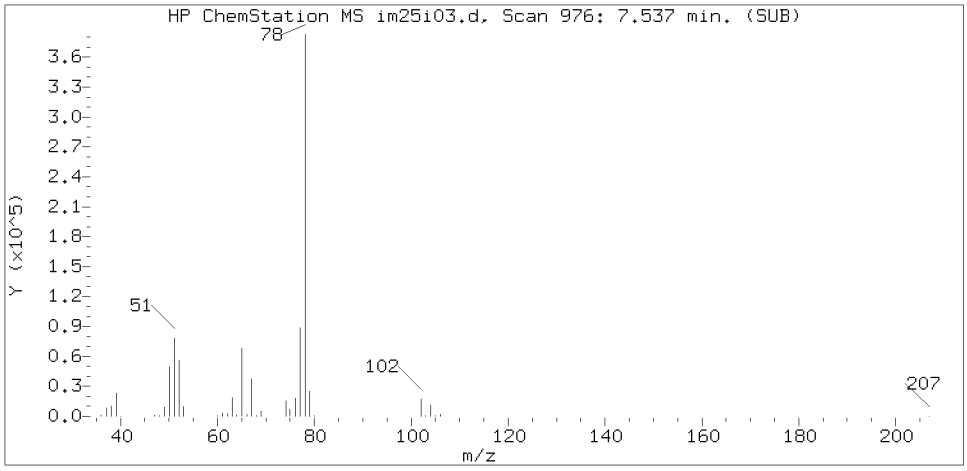
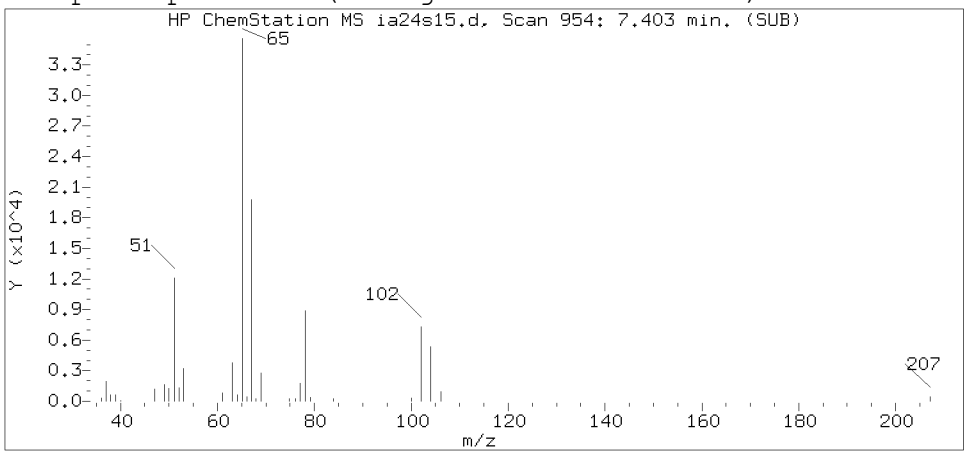
Target 3.5 esignature user ID: mec29284

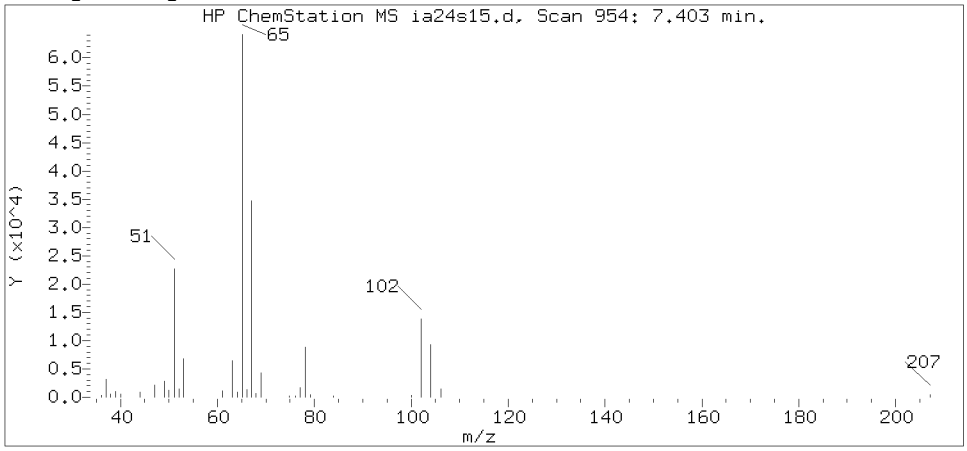
Reference Standard Spectrum for Benzene

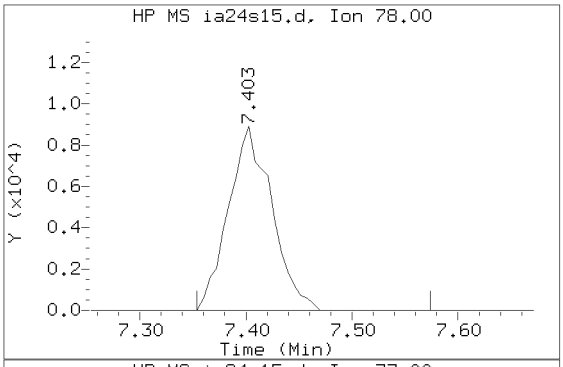


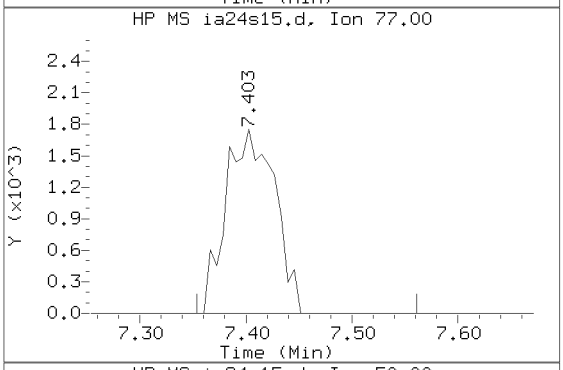
Sample Spectrum (Background Subtracted)

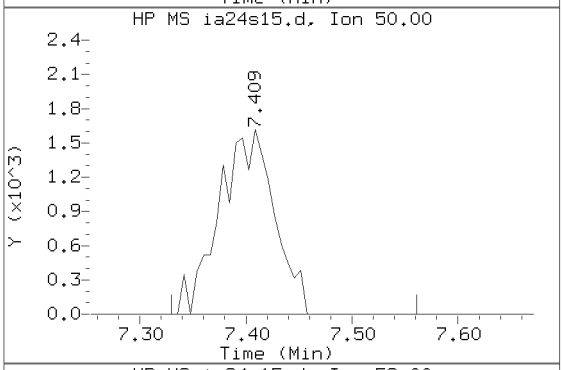


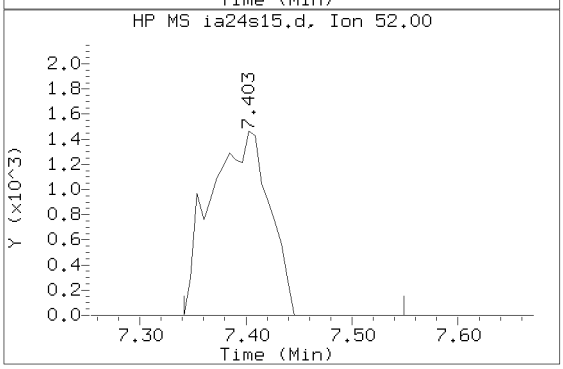
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number	: 58
Compound Name	: Benzene
Scan Number	: 954
Retention Time (minutes)	: 7.403
Relative Retention Time	: 0.00074
Quant Ion	: 78.00
Area (flag)	: 25297
On-Column Amount (ng)	: 0.1129

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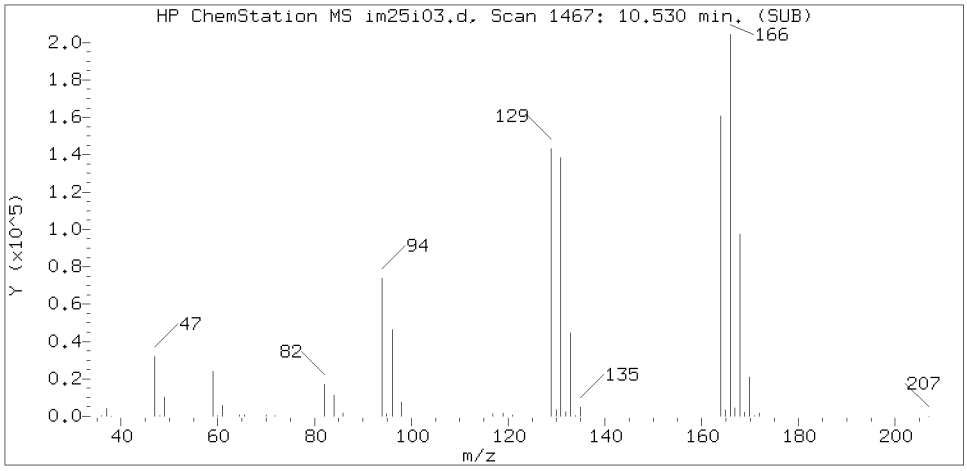
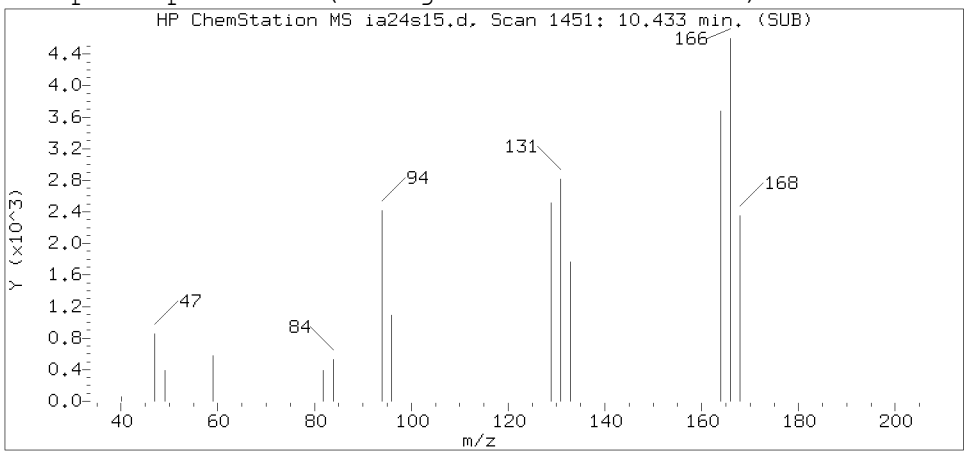
Target 3.5 esignature user ID: mec29284

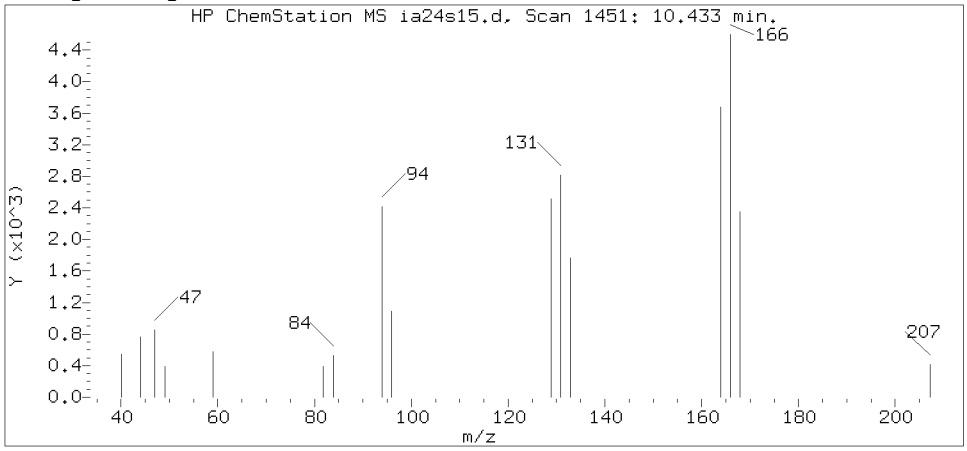
Reference Standard Spectrum for Tetrachloroethene

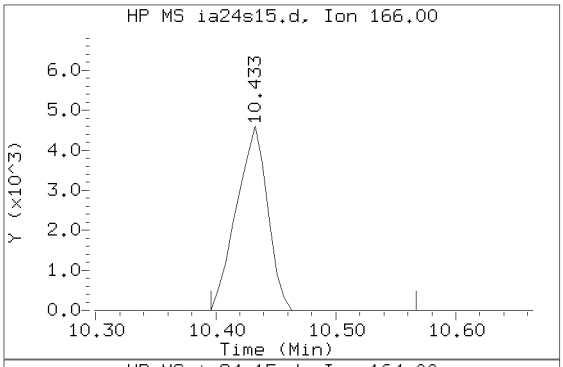


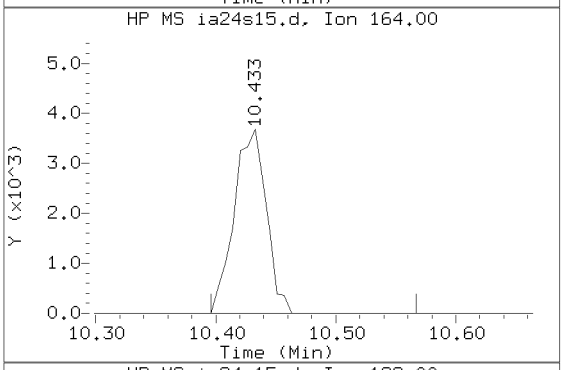
Sample Spectrum (Background Subtracted)

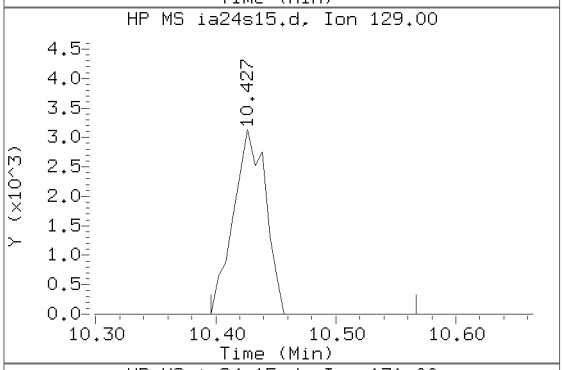


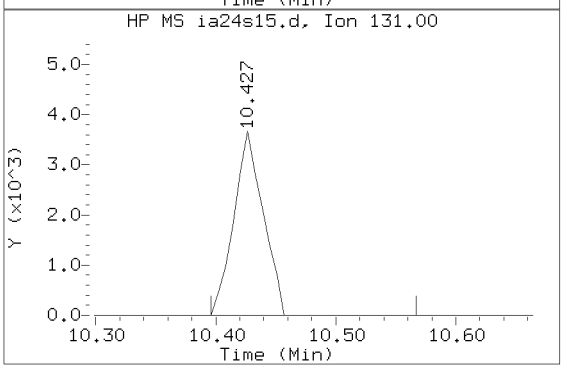
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s15.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:54 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:51 mec29284

Sample Name: F3501DL Lab Sample ID: 1034101DL

Compound Number : 89
Compound Name : Tetrachloroethene
Scan Number : 1451
Retention Time (minutes): 10.433
Relative Retention Time :-0.00054
Quant Ion : 166.00
Area (flag) : 8216
On-Column Amount (ng) : 0.1053

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

F3502 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034102

Data file: /chem2/HP09355.i/19apr24a.b/ya24s09.d Injection date and time: **24-APR-2019 14:53**
Data file Sample Info. Line: F3502;1034102;1;0;;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:08 Automation

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.240	(0.018)	437	65	315891	(-17)	250.00	
66) Fluorobenzene	7.786	(0.018)	1020	96	1050129	(-13)	50.00	
100) Chlorobenzene-d5	11.260	(0.012)	1591	117	786965	(-14)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	431130	(-17)	50.00	

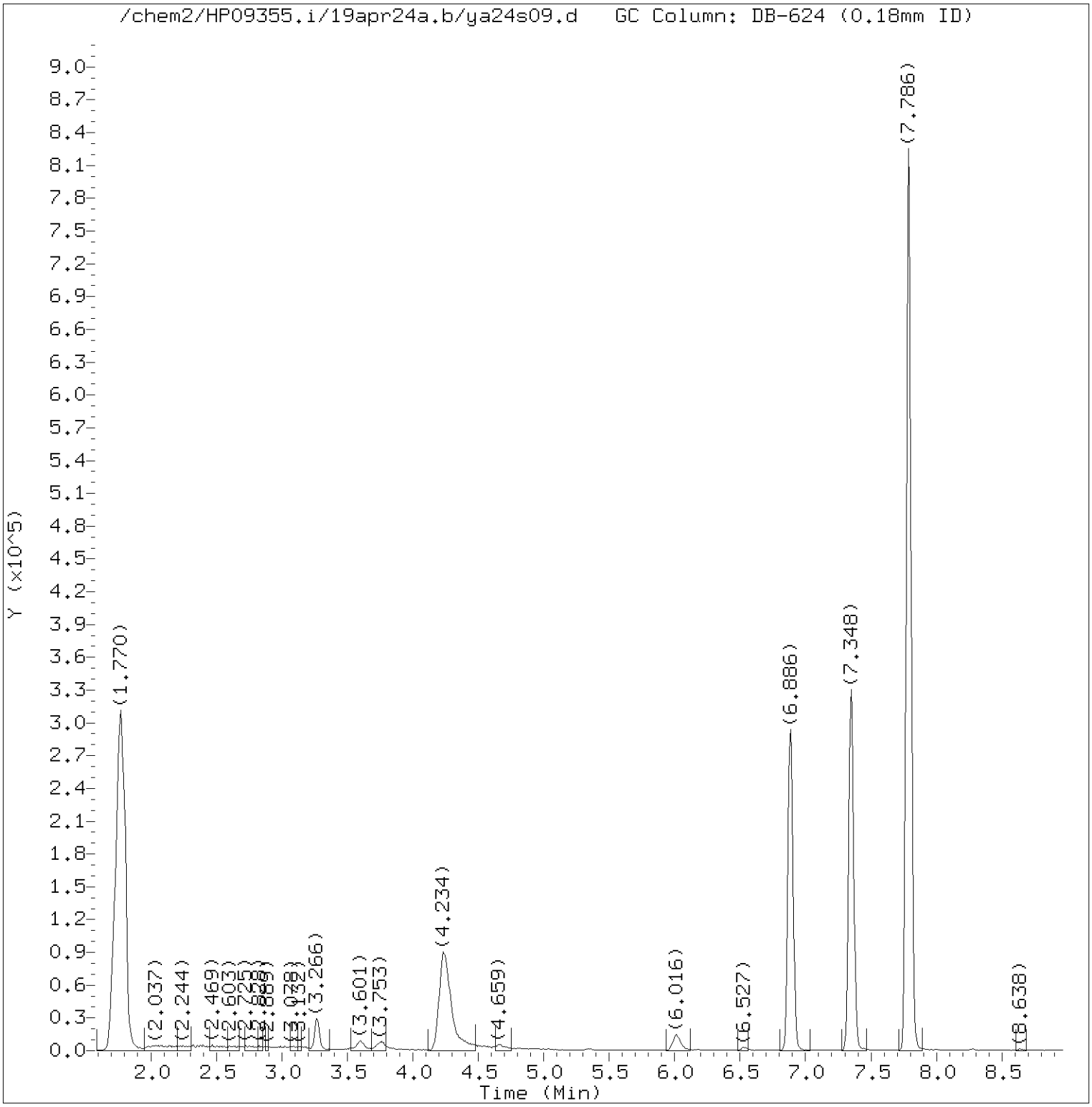
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.886	(0.000)	113	256757	50.695	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.348	(0.000)	102	66715	52.516	105%		80 - 120
83) Toluene-d8	(3)	9.806	(0.000)	98	1005114	48.663	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.264	(-0.001)	95	361431	45.831	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
21) 2-Propanol	(1)	3.759	(0.000)	45	24523	30.665	30.67		J	18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:26. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

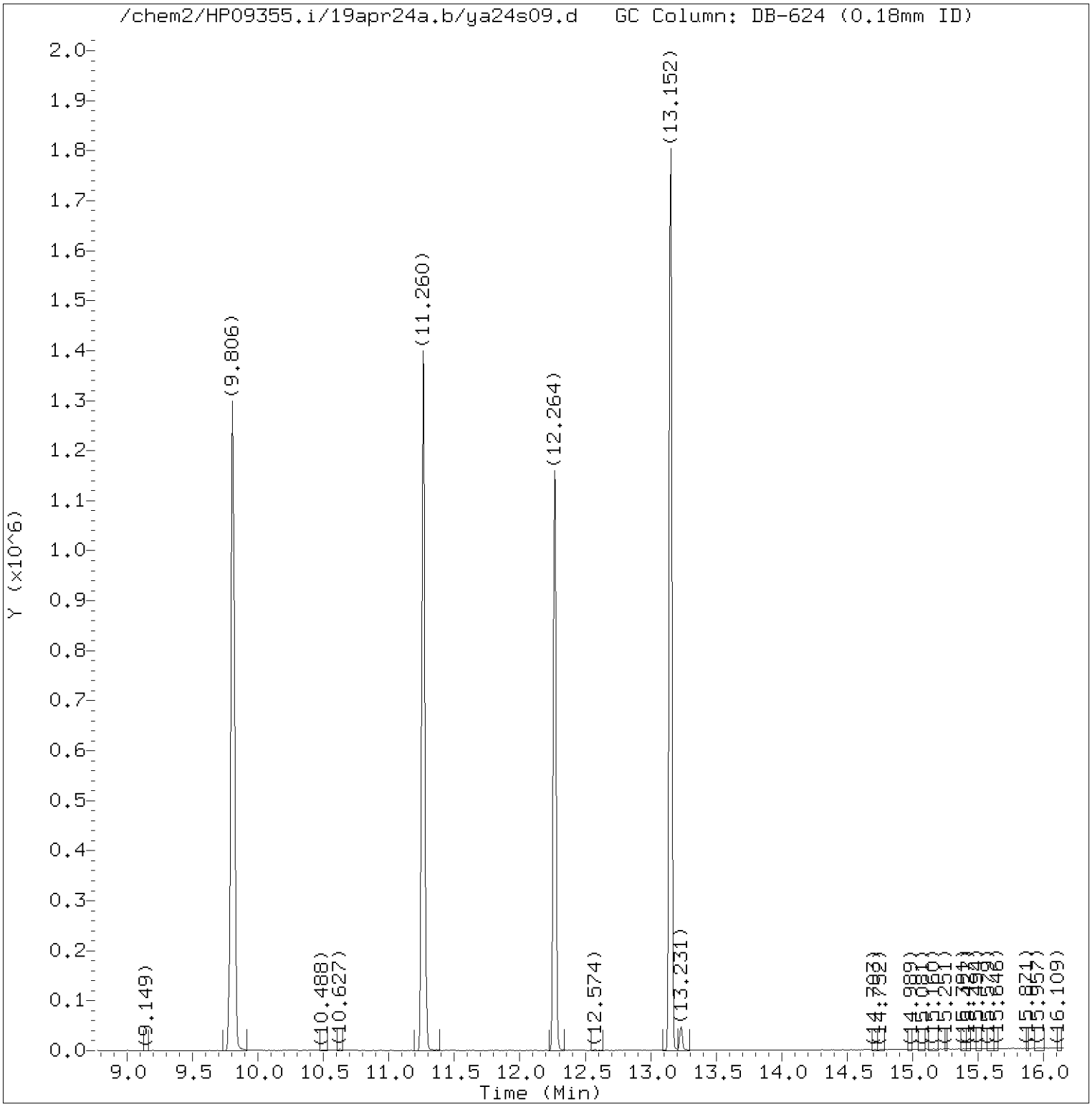
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s09.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:53 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:08 Automation

Sample Name: F3502 Lab Sample ID: 1034102

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s09.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:53 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:08 Automation

Sample Name: F3502 Lab Sample ID: 1034102

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s09.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:53 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:08 Automation

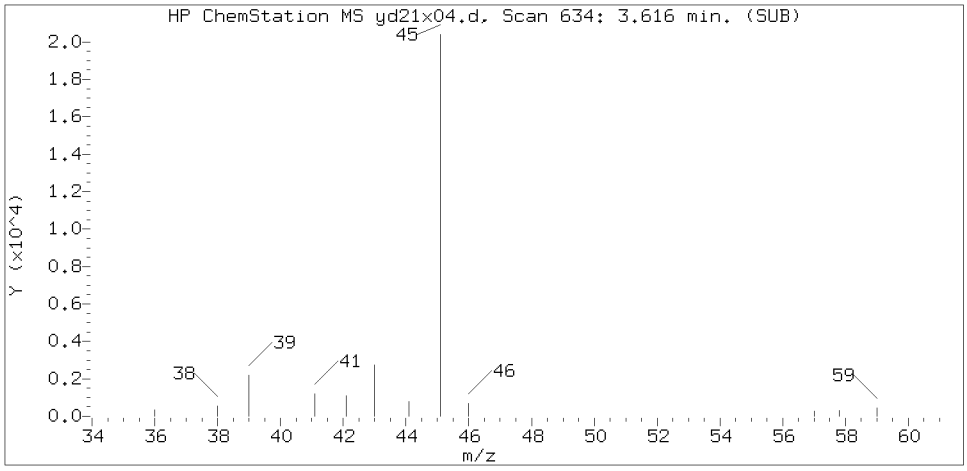
Sample Name: F3502 Lab Sample ID: 1034102

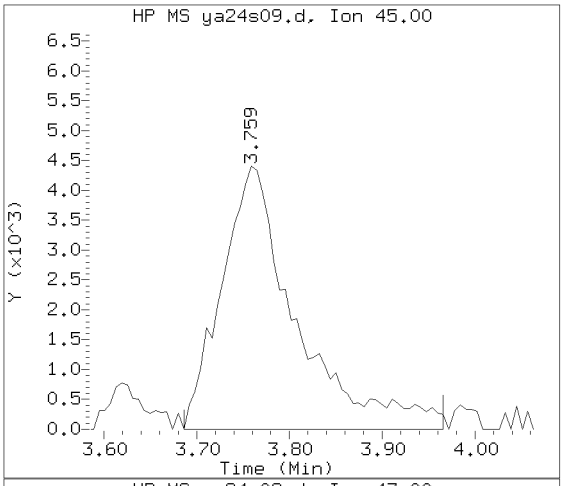
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.759	45	24523	30.665
29)*t-Butyl alcohol-d10	(1)	4.240	65	315891	250.000
52)$Dibromofluoromethane	(2)	6.886	113	256757	50.695
57)$1,2-Dichloroethane-d4	(2)	7.348	102	66715	52.516
66)*Fluorobenzene	(2)	7.786	96	1050129	50.000
83)$Toluene-d8	(3)	9.806	98	1005114	48.663
100)*Chlorobenzene-d5	(3)	11.260	117	786965	50.000
114)$4-Bromofluorobenzene	(3)	12.264	95	361431	45.831
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	431130	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

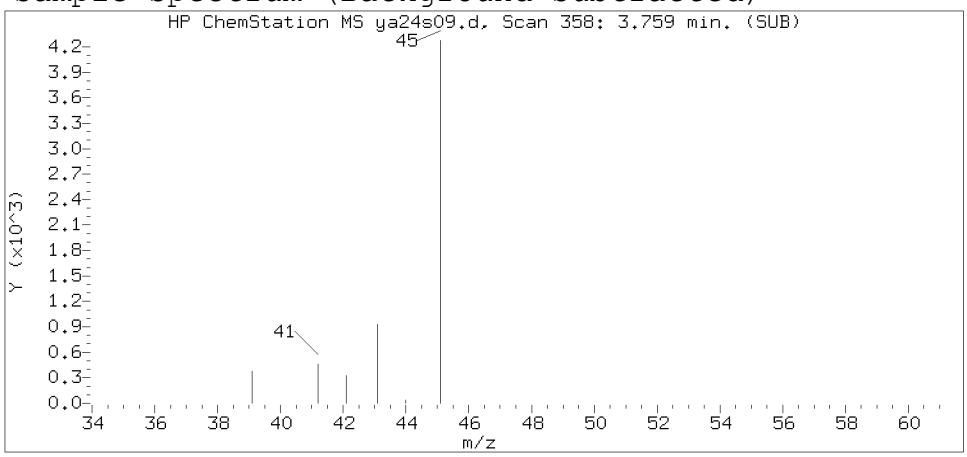
Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002

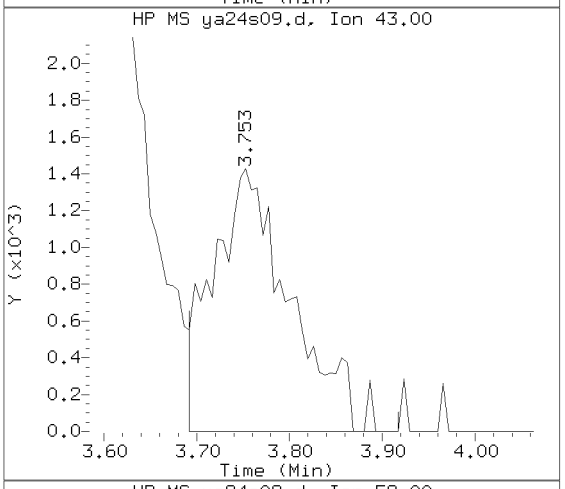
Reference Standard Spectrum for 2-Propanol



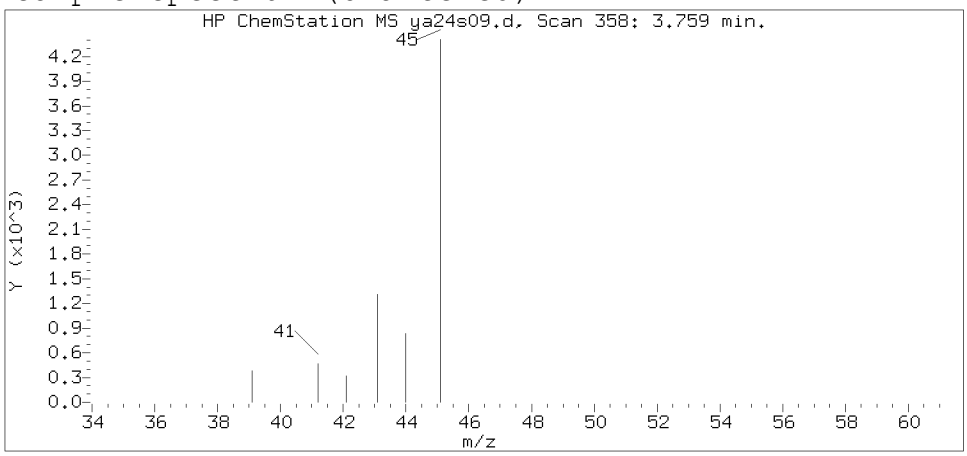


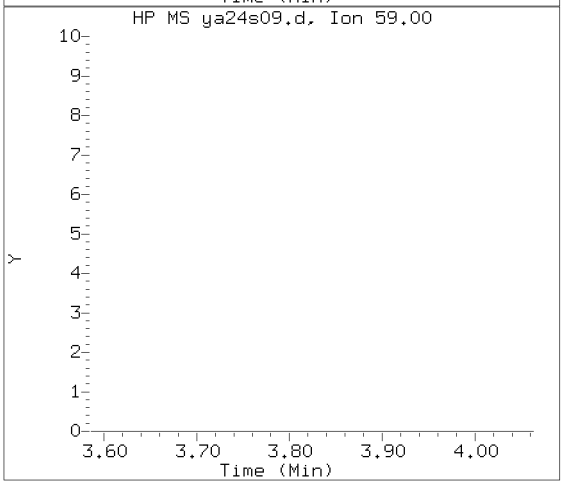
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/19apr24a.b/ya24s09.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:53 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:08 Automation

Sample Name: F3502 Lab Sample ID: 1034102

Compound Number	: 21
Compound Name	: 2-Propanol
Scan Number	: 358
Retention Time (minutes)	: 3.759
Relative Retention Time	: 0.00049
Quant Ion	: 45.00
Area (flag)	: 24523
On-Column Amount (ng)	: 30.6653

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:26.
Target 3.5 esignature user ID: sej02002

F3502 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034102

Data file: /chem2/HP19930.i/19apr24a.b/ia24s05.d Injection date and time: **24-APR-2019 13:22**
Data file Sample Info. Line: F3502;1034102;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.312	(0.000)	447	65	128134	(-8)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2003392	(-6)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1598074	(-8)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	864355	(-13)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.001)	113	513807	9.938	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372	(0.000)	102	99928	10.029	100%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2014512	10.277	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	708218	9.642	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.1	1
4) Dimethyl ether	(2)	2.068	(-0.000)	45	41984M	0.577	0.58		J	0.04	13
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.2	1
7) Bromomethane	(2)				Not Detected					0.5	1
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.2	1
11) Ethyl ether	(2)	3.306	(-0.000)	59	146384	3.784	3.78		J	1	13
13) Acrolein	(1)				Not Detected					3	25
15) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
16) Freon 113	(2)				Not Detected					0.1	1
14) Acetone	(1)	3.647	(-0.000)	43	65881	8.776	8.78		J	0.9	10
17) Methyl Iodide	(2)				Not Detected					0.6	10
18) Carbon Disulfide	(2)				Not Detected					0.4	10
25) Acetonitrile	(1)				Not Detected					32	100
22) Allyl Chloride	(2)				Not Detected					0.8	10
23) Methylene Chloride	(2)				Not Detected					0.2	1
29) Acrylonitrile	(1)				Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)	5.373	(0.002)	63	26417	0.285	0.28		J	0.1	1
36) Vinyl Acetate	(2)				Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.5	10
38) 2-Butanone	(1)				Not Detected					0.6	10
42) Propionitrile	(1)				Not Detected					10	100
45) Methacrylonitrile	(1)				Not Detected					10	100
48) Tetrahydrofuran	(1)				Not Detected					2	25
49) Chloroform	(2)				Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.1	1
54) Carbon Tetrachloride	(2)				Not Detected					0.2	1
56) Isobutyl Alcohol	(1)				Not Detected					4	200

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034102

Data file: /chem2/HP19930.i/19apr24a.b/ia24s05.d Injection date and time: **24-APR-2019 13:22**
Data file Sample Info. Line: F3502;1034102;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

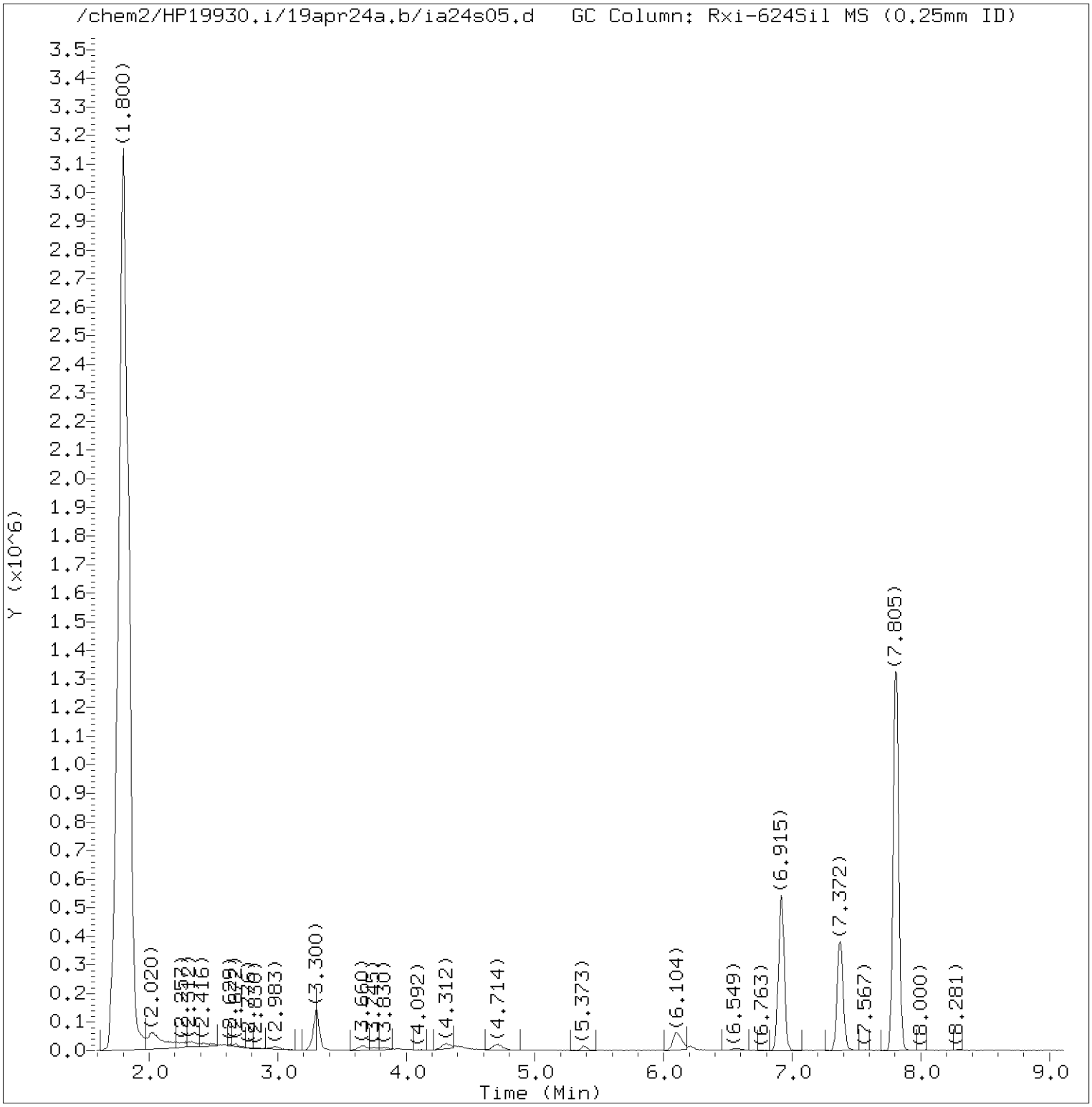
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
58) Benzene	(2)				Not Detected					0.07	1
59) 1,2-Dichloroethane	(2)				Not Detected					0.1	1
67) Trichloroethene	(2)				Not Detected					0.2	1
70) 1,2-Dichloropropane	(2)				Not Detected					0.1	1
71) Methyl Methacrylate	(1)				Not Detected					4	10
73) Dibromomethane	(2)				Not Detected					0.07	1
72) 1,4-Dioxane	(1)				Not Detected					45	200
74) Bromodichloromethane	(2)				Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.9	10
83) Toluene	(3)				Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.1	1
86) Ethyl Methacrylate	(3)				Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.08	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
90) 1,3-Dichloropropane	(3)				Not Detected					0.09	1
91) 2-Hexanone	(1)				Not Detected					0.6	10
93) Dibromochloromethane	(3)				Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.08	1
100) Ethylbenzene	(3)				Not Detected					0.08	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.2	3
106) Styrene	(3)				Not Detected					0.05	1
107) Bromoform	(3)				Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.1	1
126) Pentachloroethane	(4)				Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.08	1
142) Hexachloroethane	(4)				Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.1	1
146) Hexachlorobutadiene	(4)				Not Detected					0.07	1
147) Naphthalene	(4)				Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

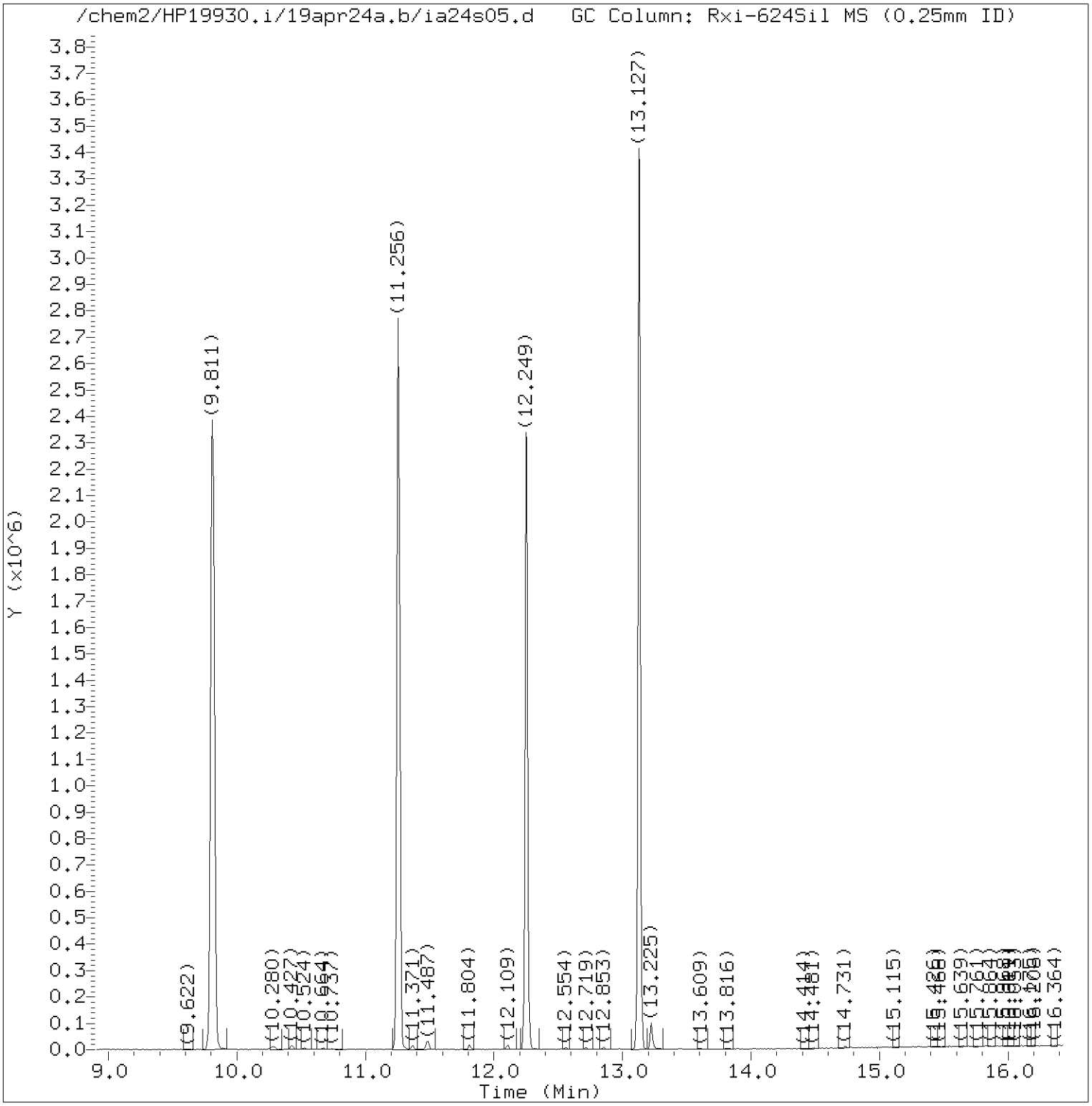
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Sample Name: F3502 Lab Sample ID: 1034102

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Sample Name: F3502 Lab Sample ID: 1034102

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

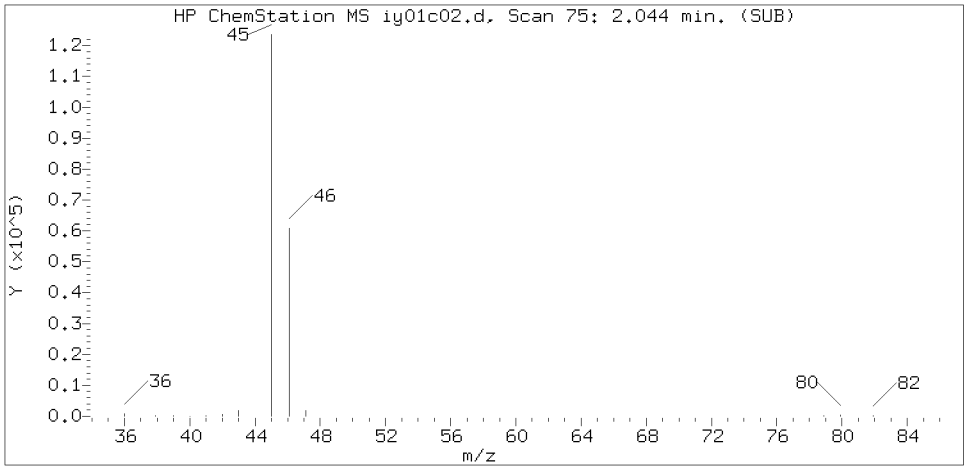
Sample Name: F3502 Lab Sample ID: 1034102

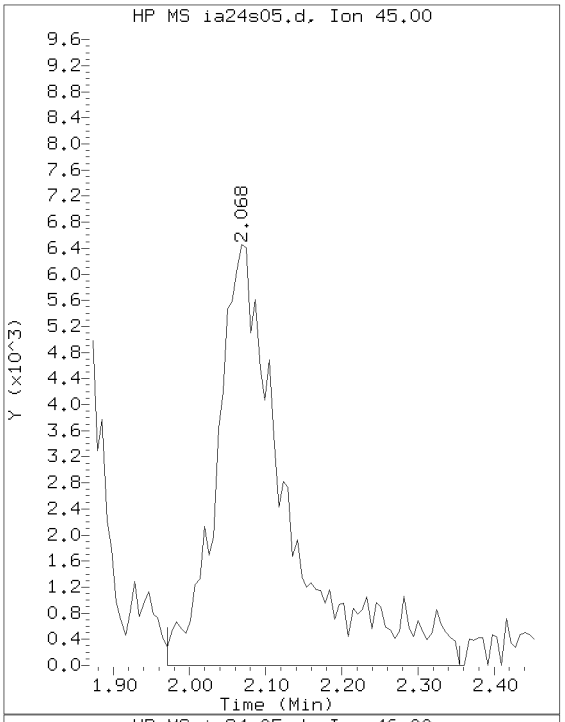
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.068	45	41984M	0.577
11) Ethyl ether	(2)	3.306	59	146384	3.784
14) Acetone	(1)	3.647	43	65881	8.776
26)*t-Butyl Alcohol-d10	(1)	4.312	65	128134	50.000
33) 1,1-Dichloroethane	(2)	5.373	63	26417	0.285
50)$Dibromofluoromethane	(2)	6.915	113	513807	9.938
57)$1,2-Dichloroethane-d4	(2)	7.372	102	99928	10.029
63)*Fluorobenzene	(2)	7.811	96	2003392	10.000
82)$Toluene-d8	(3)	9.811	98	2014512	10.277
97)*Chlorobenzene-d5	(3)	11.256	117	1598074	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	708218	9.642
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	864355	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

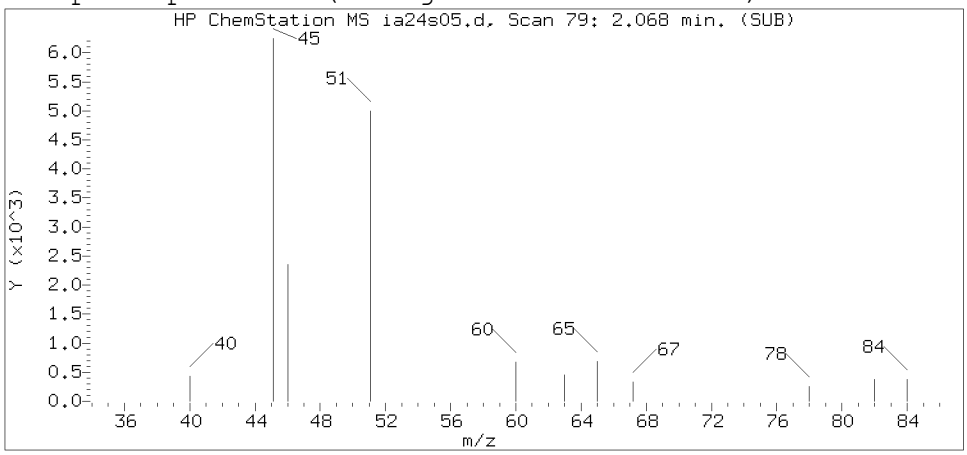
Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

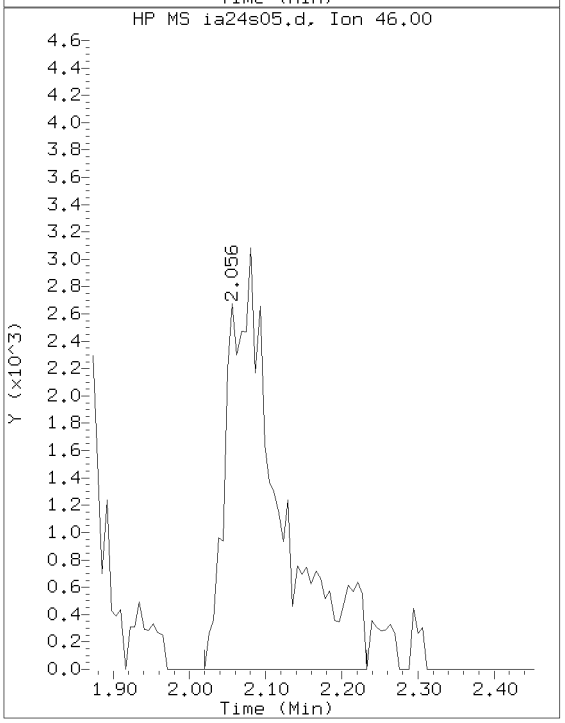
Reference Standard Spectrum for Dimethyl ether



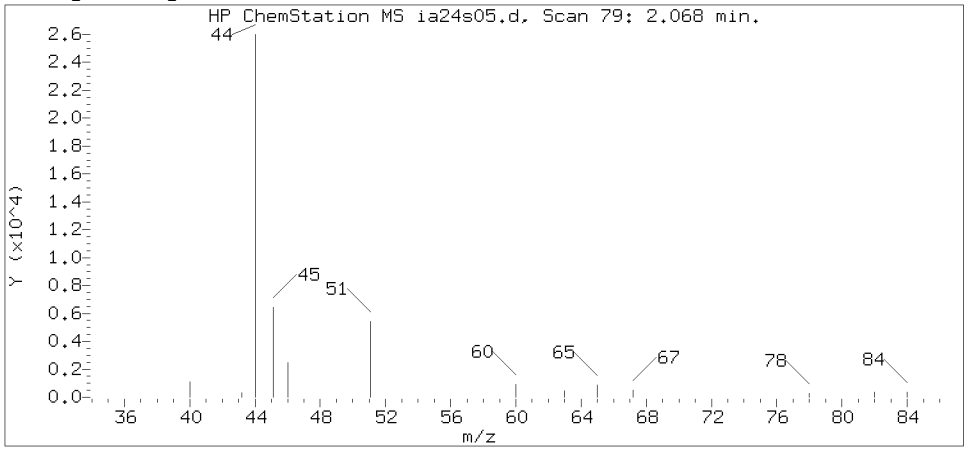


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

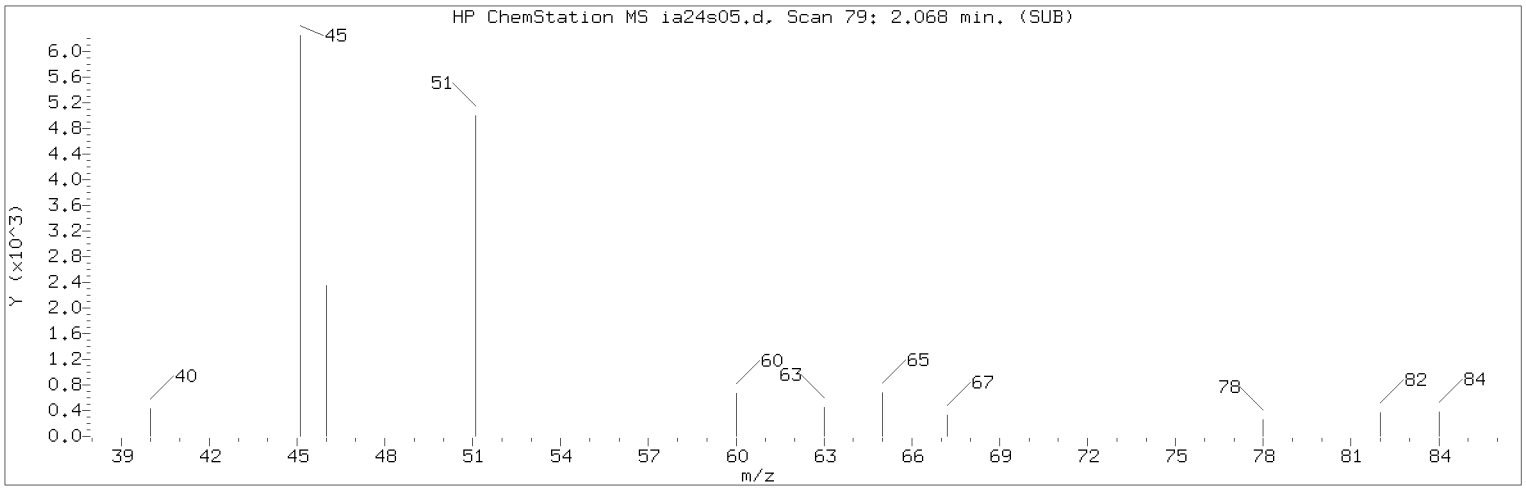
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Sample Name: F3502 Lab Sample ID: 1034102

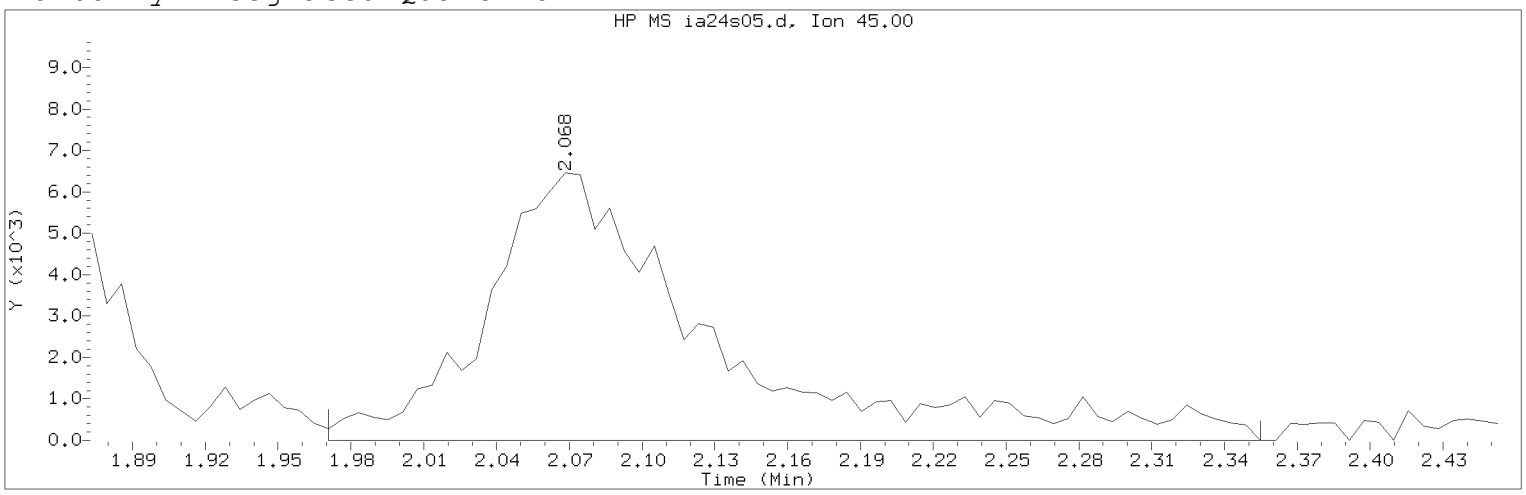
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Relative Retention Time :-0.00058
Quant Ion : 45.00
Area (flag) : 41984M
On-Column Amount (ng) : 0.5765

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Sample Name: F3502 Lab Sample ID: 1034102

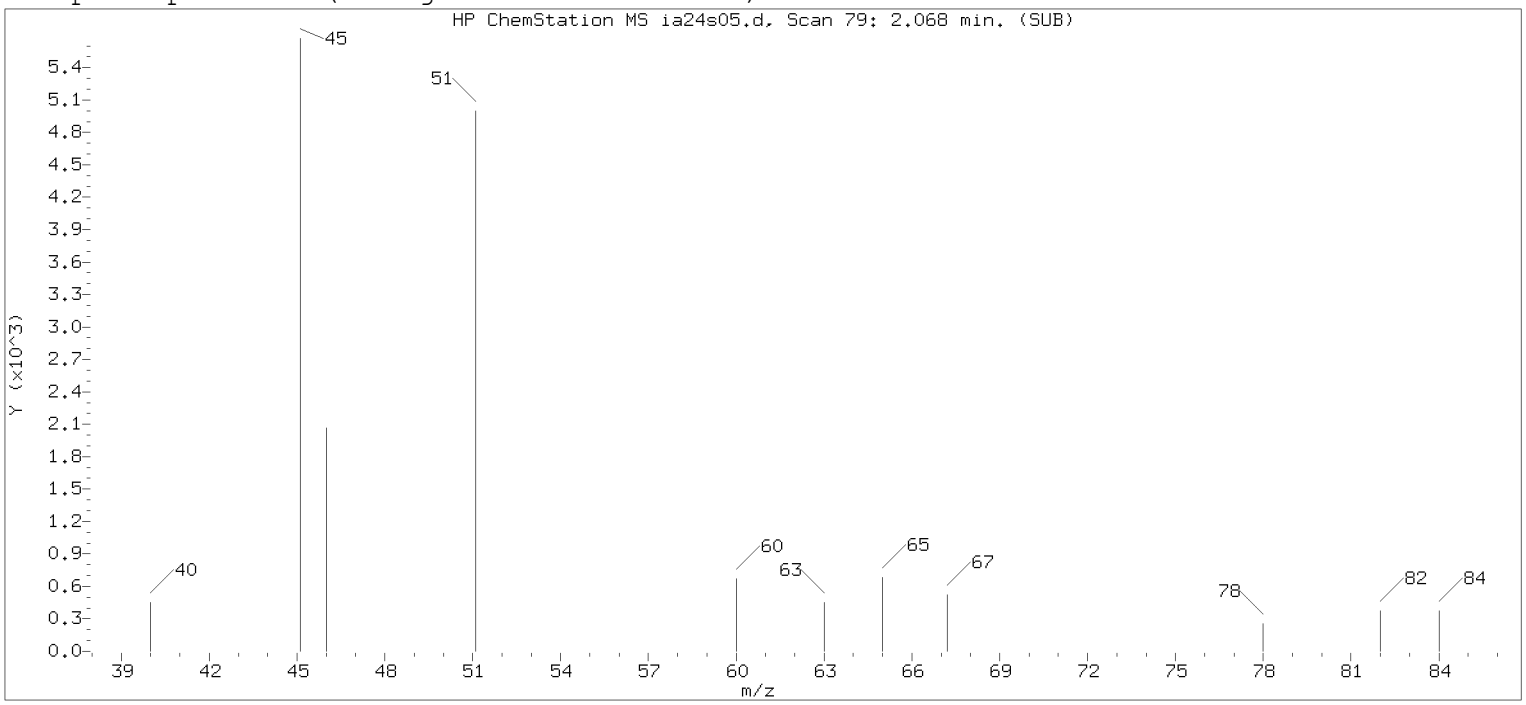
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area (flag) : 41984M
On-Column Amount (ng) : 0.5765
Integration start scan : 62 Integration stop scan: 125
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

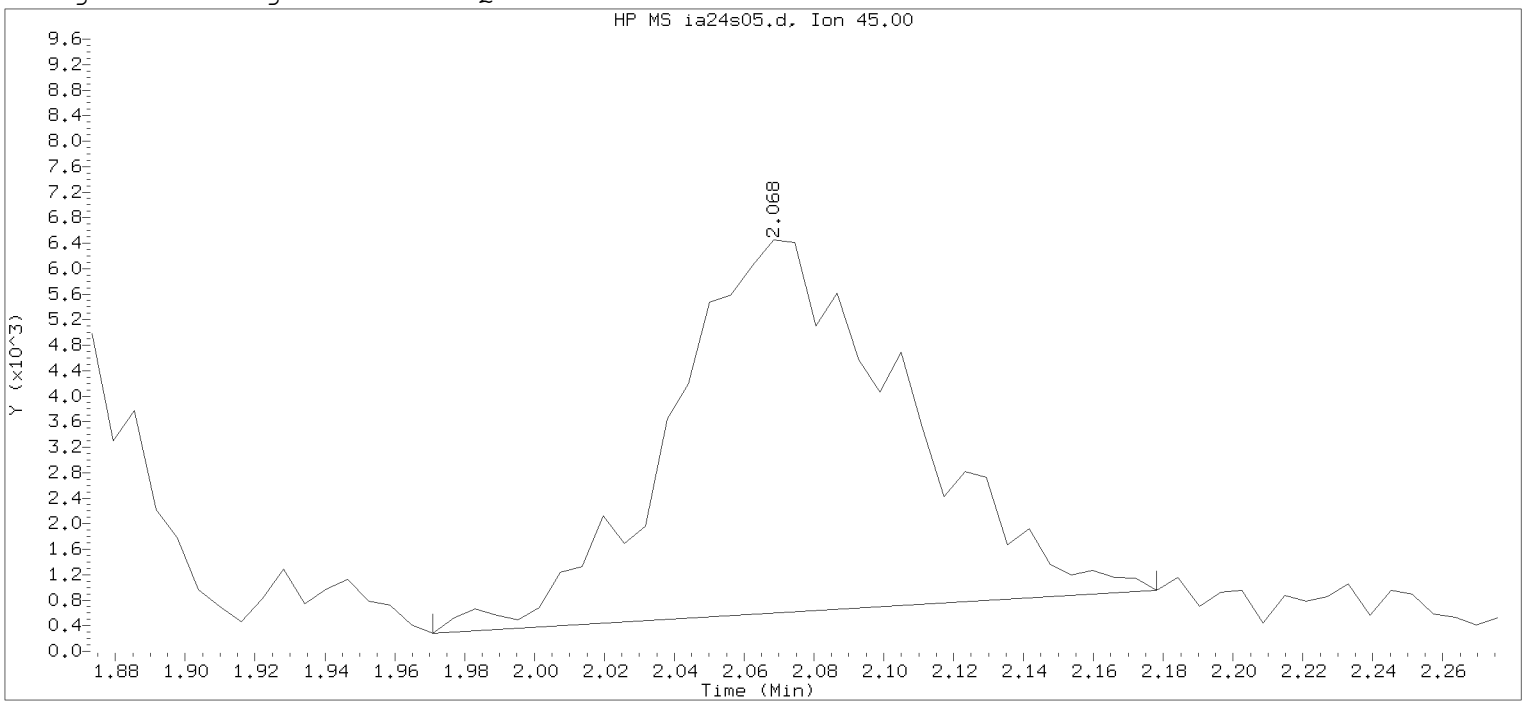
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 13:40 Automation

Sample Name: F3502 Lab Sample ID: 1034102

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 79		
Retention Time (minutes)	: 2.068		
Quant Ion	: 45.00		
Area	: 27045		
On-column Amount (ng)	: 0.3714		
Integration start scan	: 62	Integration stop scan:	96
Y at integration start	: 282	Y at integration end:	955

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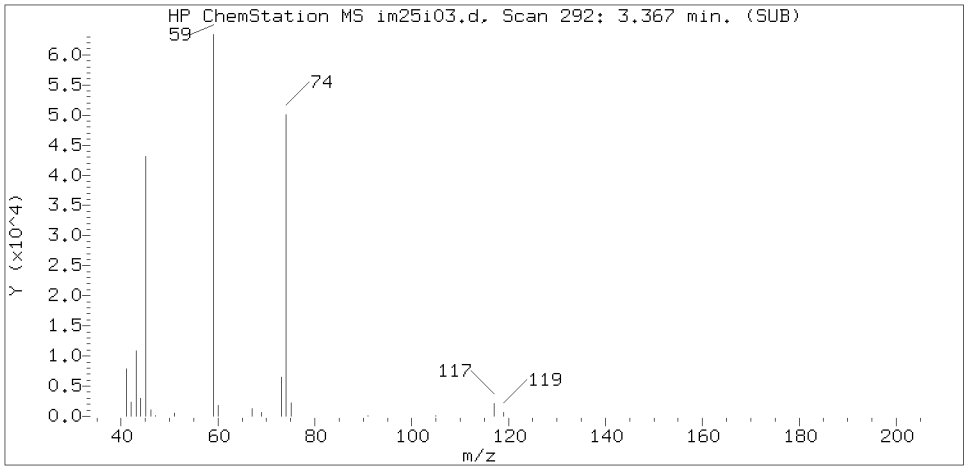
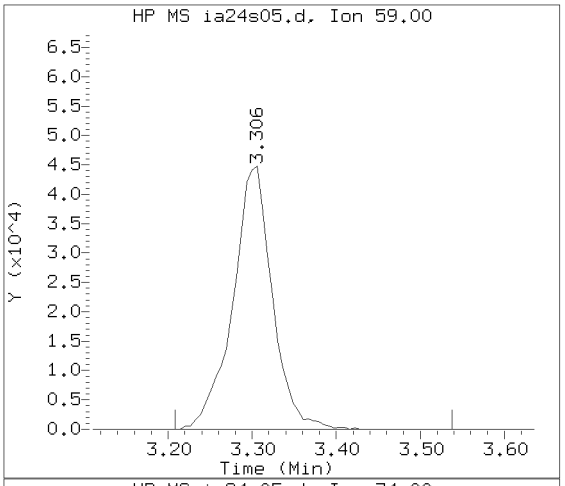
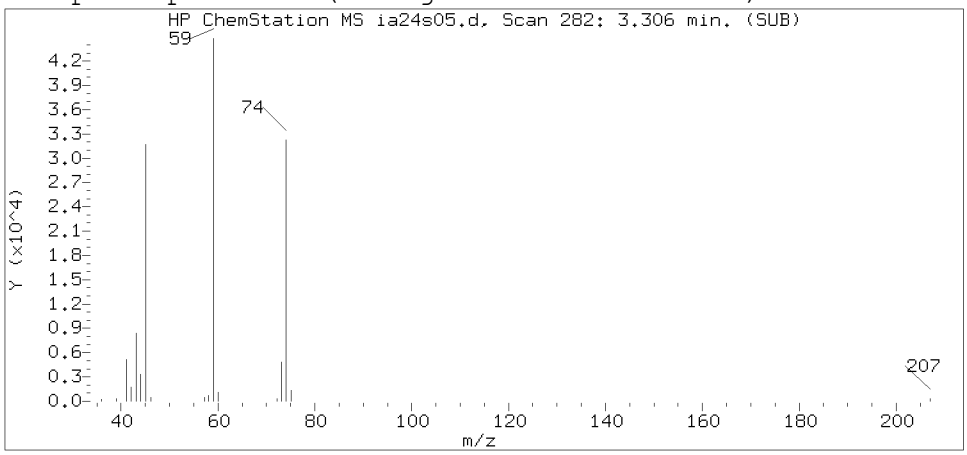
Target 3.5 esignature used. AE35 Page 243 of 2326

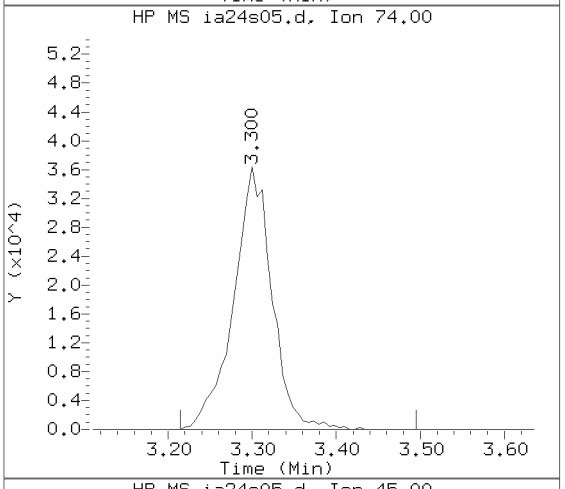
Reference Standard Spectrum for Ethyl ether



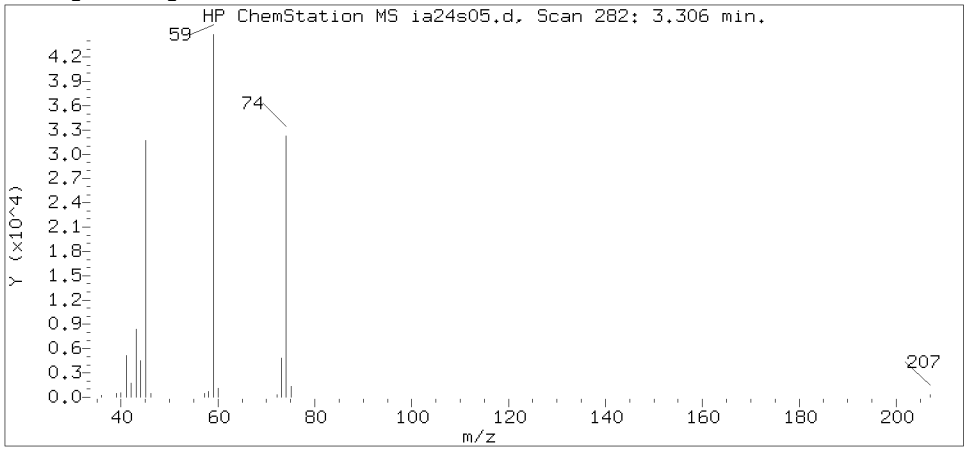


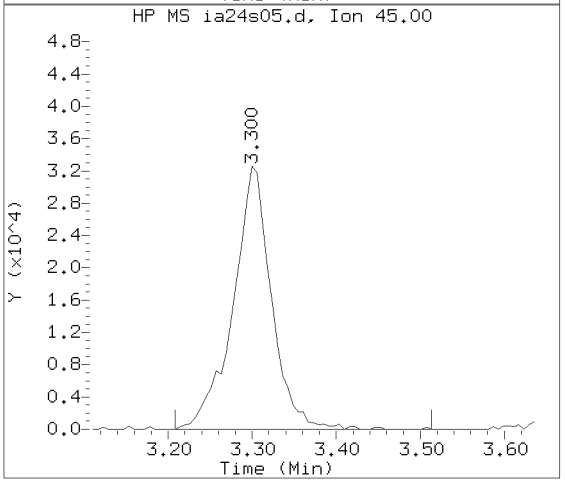
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

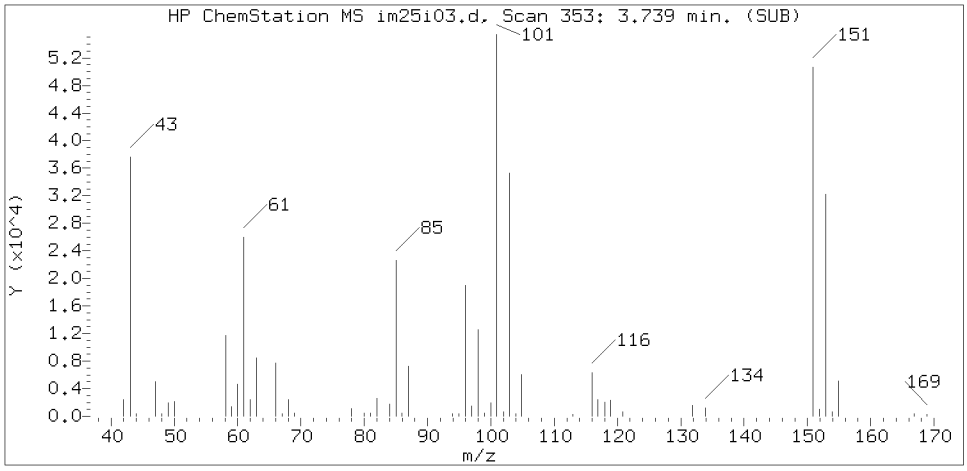
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Sample Name: F3502 Lab Sample ID: 1034102

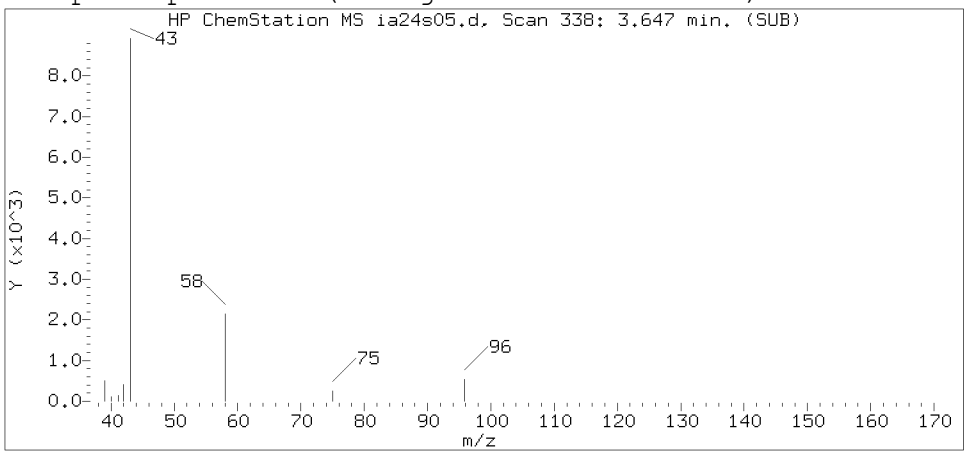
Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 282
Retention Time (minutes): 3.306
Relative Retention Time :-0.00045
Quant Ion : 59.00
Area (flag) : 146384
On-Column Amount (ng) : 3.7841

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

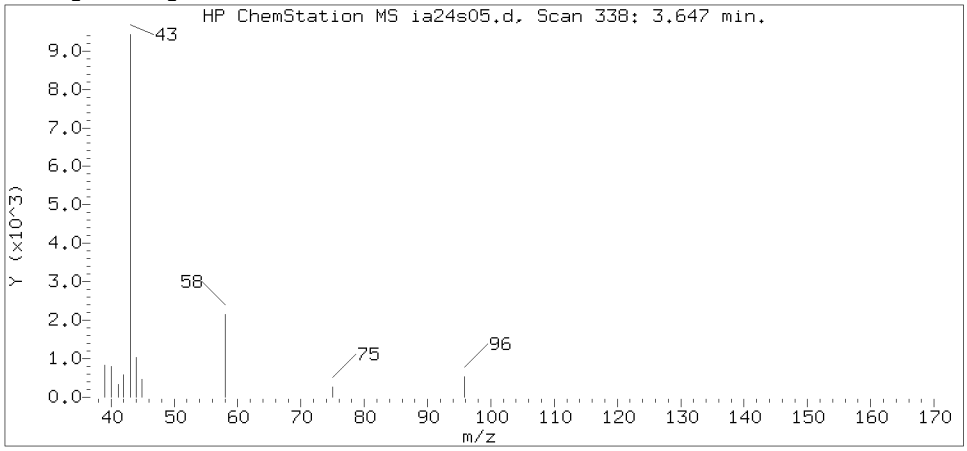
Reference Standard Spectrum for Acetone

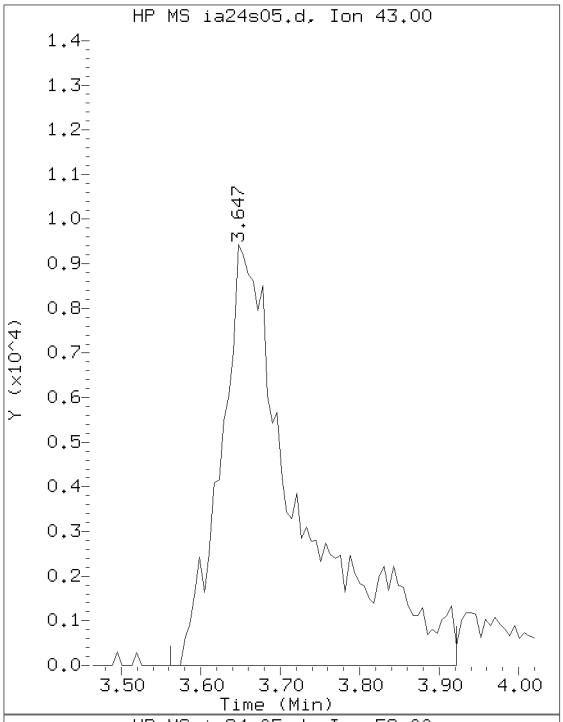


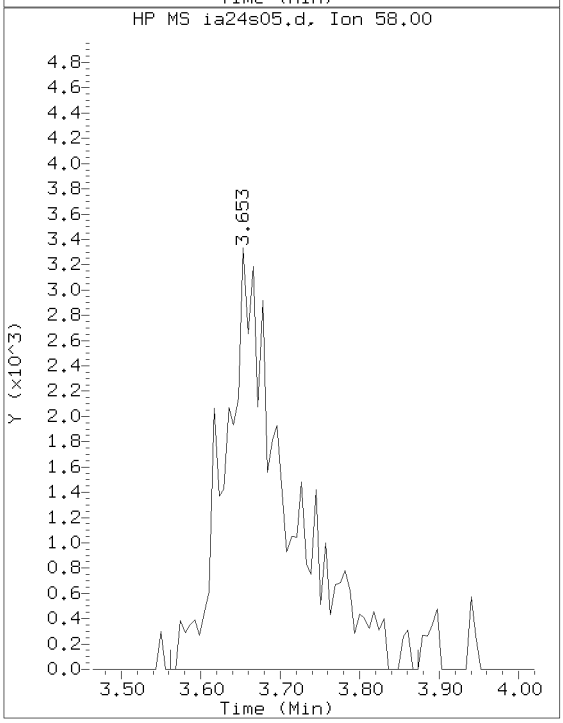
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

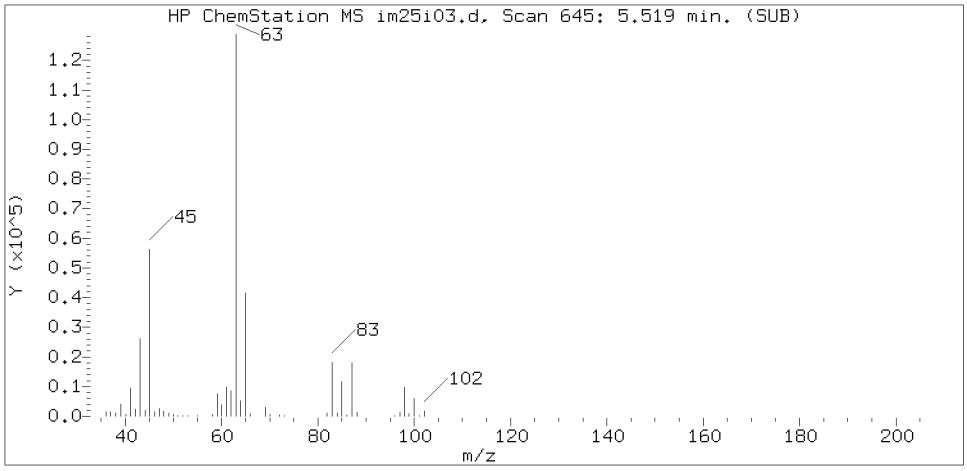
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

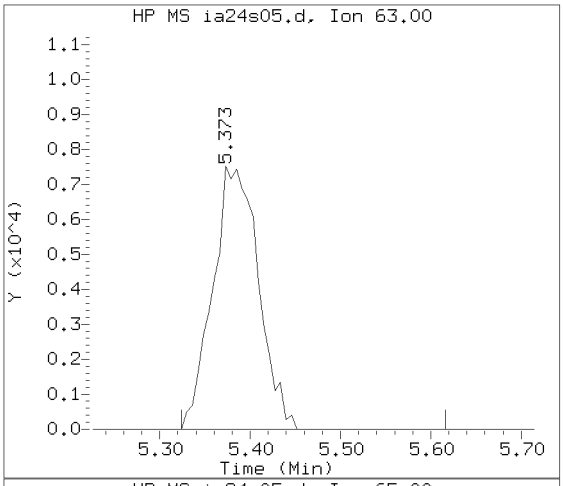
Sample Name: F3502 Lab Sample ID: 1034102

Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Relative Retention Time :-0.00000
Quant Ion : 43.00
Area (flag) : 65881
On-Column Amount (ng) : 8.7757

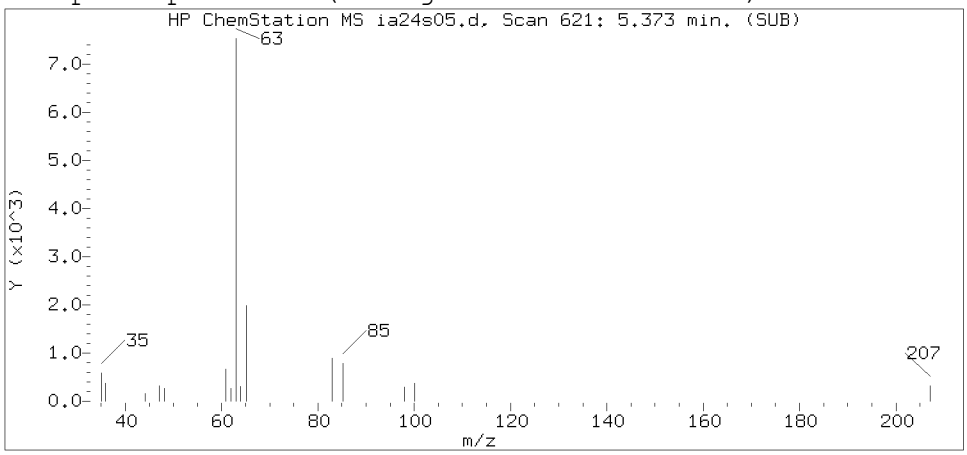
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

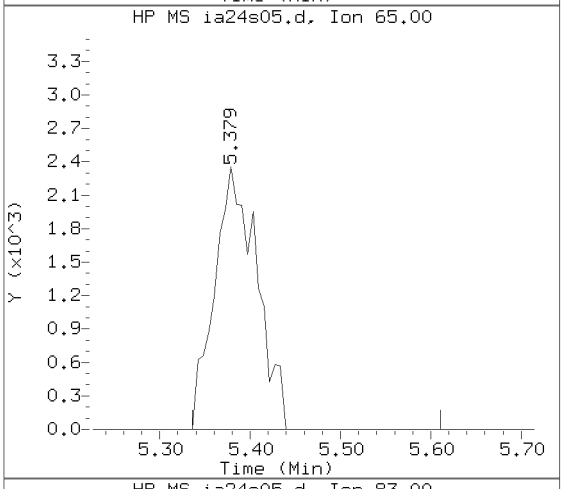
Reference Standard Spectrum for 1,1-Dichloroethane



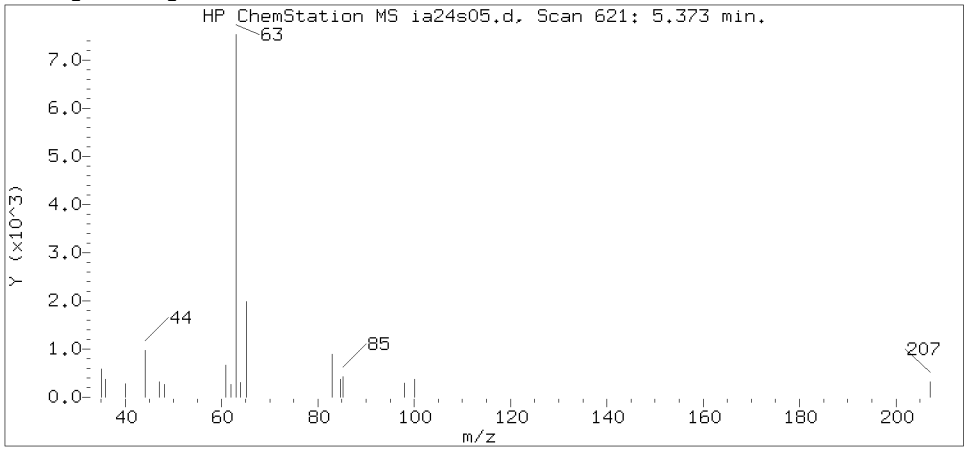


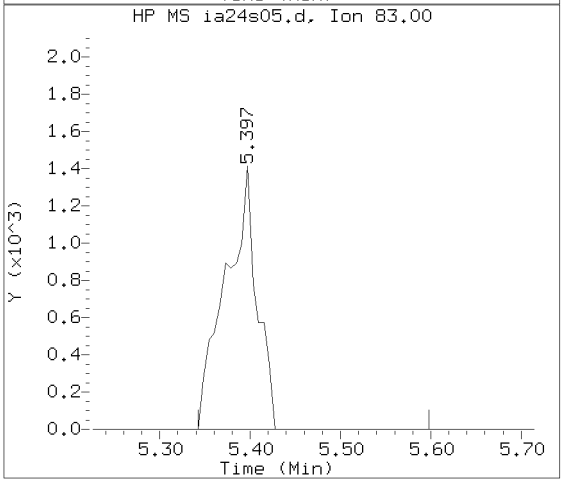
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s05.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:22 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:29 jkh09052

Sample Name: F3502 Lab Sample ID: 1034102

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 621
Retention Time (minutes): 5.373
Relative Retention Time : 0.00210
Quant Ion : 63.00
Area (flag) : 26417
On-Column Amount (ng) : 0.2848

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

F3503 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034103

Data file: /chem2/HP09355.i/19apr24a.b/ya24s10.d Injection date and time: **24-APR-2019 15:15**
Data file Sample Info. Line: F3503;1034103;1;0;;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:30 Automation

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.252	(0.006)	439	65	313159	(-18)	250.00	
66) Fluorobenzene	7.793	(0.012)	1021	96	1035440	(-15)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	783651	(-15)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	426317	(-18)	50.00	

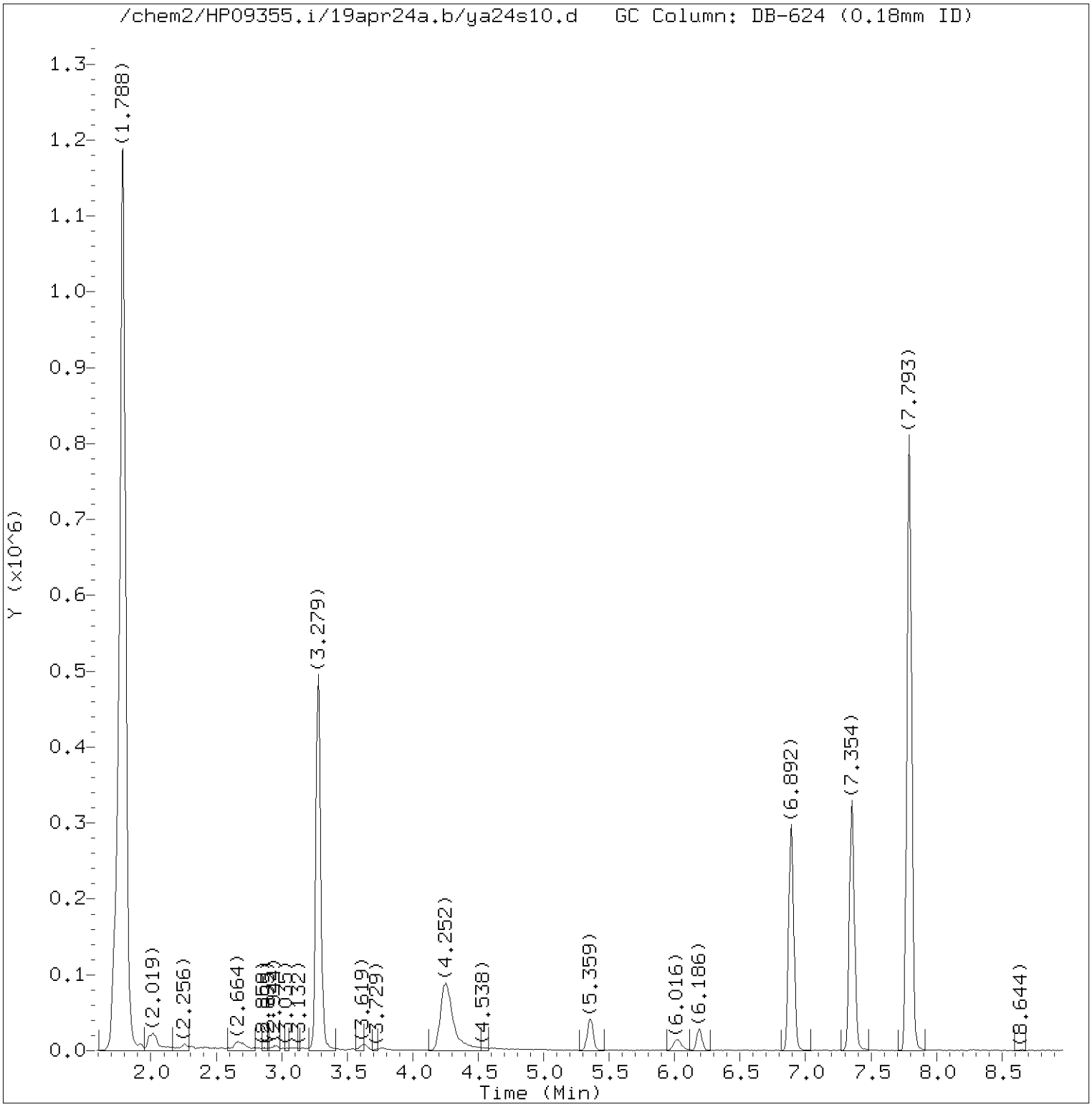
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.000)	113	255150	51.092	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.354	(0.000)	102	66347	52.968	106%		80 - 120
83) Toluene-d8	(3)	9.806	(0.001)	98	986031	47.941	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	353939	45.071	90%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
21) 2-Propanol	(1)				Not Detected					18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:27. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

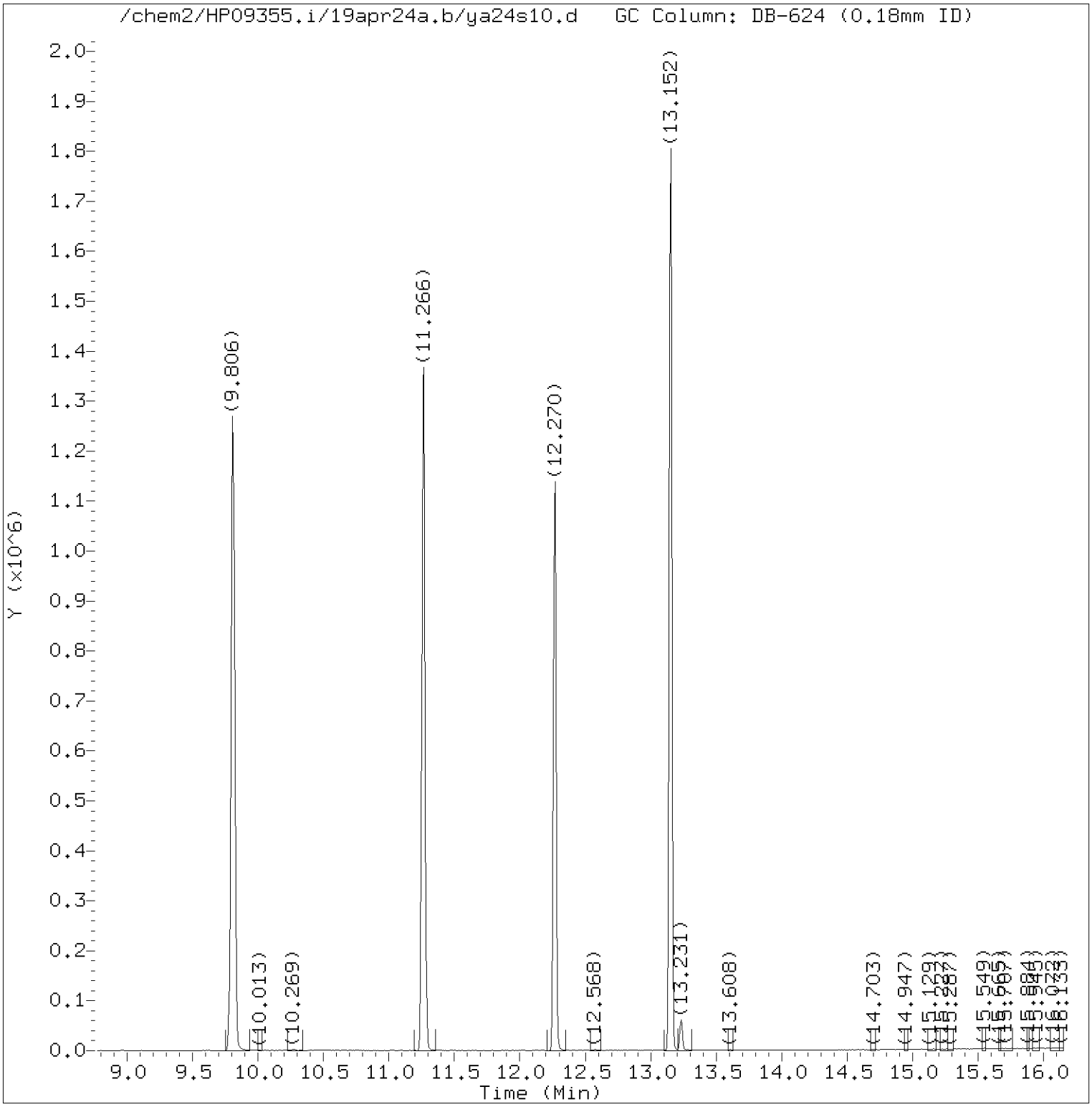
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s10.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:15 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:30 Automation

Sample Name: F3503 Lab Sample ID: 1034103

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s10.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:15 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:30 Automation

Sample Name: F3503 Lab Sample ID: 1034103

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s10.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:15 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:30 Automation

Sample Name: F3503 Lab Sample ID: 1034103

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.252	65	313159	250.000
52)$Dibromofluoromethane	(2)	6.892	113	255150	51.092
57)$1,2-Dichloroethane-d4	(2)	7.354	102	66347	52.968
66)*Fluorobenzene	(2)	7.793	96	1035440	50.000
83)$Toluene-d8	(3)	9.806	98	986031	47.941
100)*Chlorobenzene-d5	(3)	11.266	117	783651	50.000
114)$4-Bromofluorobenzene	(3)	12.270	95	353939	45.071
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	426317	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

F3503 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034103

Data file: /chem2/HP19930.i/19apr24a.b/ia24s06.d Injection date and time: **24-APR-2019 13:43**
Data file Sample Info. Line: F3503;1034103;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274 ;193

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.318(-0.006)	448	65	127746 (-8)	50.00	
63) Fluorobenzene	7.805(0.000)	1020	96	2022252 (-5)	10.00	
97) Chlorobenzene-d5	11.256(0.000)	1586	117	1625623 (-6)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133(0.000)	1894	152	885519 (-11)	10.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915(0.000)	113	521793	9.998	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378(-0.002)	102	100333	9.976	100%		80 - 120
82) Toluene-d8	(3)	9.811(0.000)	98	2016550	10.113	101%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249(0.000)	95	713620	9.551	96%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)			Not Detected					0.1	1
4) Dimethyl ether	(2)	2.050(0.001)	45	161139M	2.192	2.19		J	0.04	13
2) Chloromethane	(2)			Not Detected					0.06	0.5
5) Vinyl Chloride	(2)			Not Detected					0.2	1
7) Bromomethane	(2)			Not Detected					0.5	1
8) Chloroethane	(2)	2.733(-0.000)	64	98389	1.908	1.91			0.07	0.5
10) Trichlorofluoromethane	(2)			Not Detected					0.2	1
11) Ethyl ether	(2)	3.300(0.000)	59	2794415	71.563	71.56		E	1	13
13) Acrolein	(1)			Not Detected					3	25
15) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
16) Freon 113	(2)			Not Detected					0.1	1
14) Acetone	(1)	3.672(-0.004)	43	22262	2.974	2.97		J	0.9	10
17) Methyl Iodide	(2)			Not Detected					0.6	10
18) Carbon Disulfide	(2)			Not Detected					0.4	10
25) Acetonitrile	(1)			Not Detected					32	100
22) Allyl Chloride	(2)			Not Detected					0.8	10
23) Methylene Chloride	(2)	4.312(-0.002)	84	12613	0.240	0.24		J	0.2	1
29) Acrylonitrile	(1)			Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)	5.385(0.000)	63	653428	6.980	6.98			0.1	1
36) Vinyl Acetate	(2)			Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)			Not Detected					0.5	10
38) 2-Butanone	(1)			Not Detected					0.6	10
42) Propionitrile	(1)			Not Detected					10	100
45) Methacrylonitrile	(1)			Not Detected					10	100
48) Tetrahydrofuran	(1)			Not Detected					2	25
49) Chloroform	(2)			Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)			Not Detected					0.1	1
54) Carbon Tetrachloride	(2)			Not Detected					0.2	1
56) Isobutyl Alcohol	(1)			Not Detected					4	200

M = Compound was manually integrated. E = Compound concentration above calibration range.

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s06.d Injection date and time: **24-APR-2019 13:43**
Data file Sample Info. Line: F3503;1034103;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

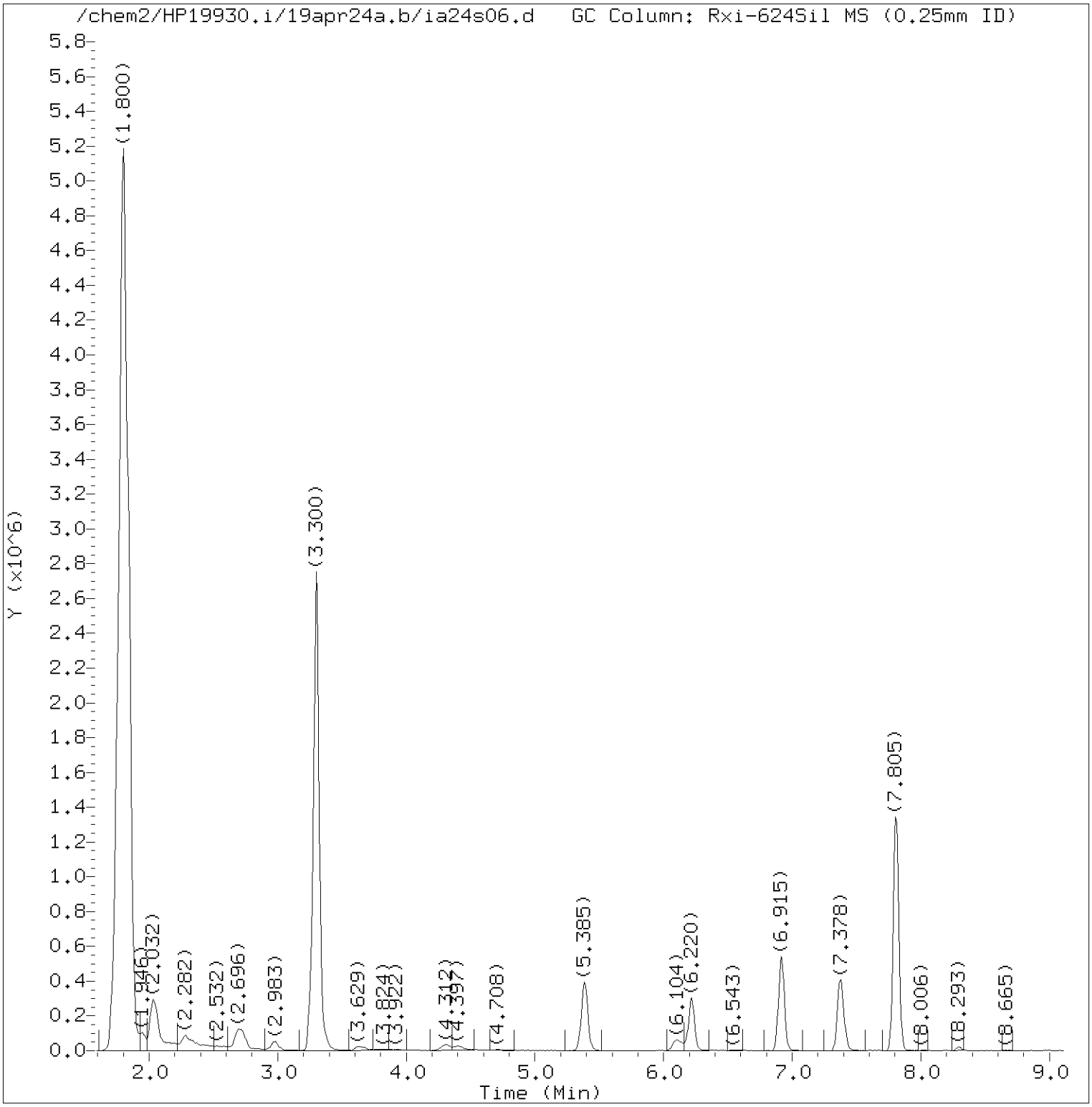
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
58) Benzene	(2)	7.403	(0.000)	78	84620	0.377	0.38		J	0.07	1
59) 1,2-Dichloroethane	(2)				Not Detected					0.1	1
67) Trichloroethene	(2)				Not Detected					0.2	1
70) 1,2-Dichloropropane	(2)				Not Detected					0.1	1
71) Methyl Methacrylate	(1)				Not Detected					4	10
73) Dibromomethane	(2)				Not Detected					0.07	1
72) 1,4-Dioxane	(1)				Not Detected					45	200
74) Bromodichloromethane	(2)				Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.9	10
83) Toluene	(3)				Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.1	1
86) Ethyl Methacrylate	(3)				Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.08	1
89) Tetrachloroethene	(3)	10.426	(0.000)	166	4974	0.063	0.06		J	0.06	1
90) 1,3-Dichloropropane	(3)				Not Detected					0.09	1
91) 2-Hexanone	(1)				Not Detected					0.6	10
93) Dibromochloromethane	(3)				Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.08	1
100) Ethylbenzene	(3)				Not Detected					0.08	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.2	3
106) Styrene	(3)				Not Detected					0.05	1
107) Bromoform	(3)				Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.1	1
126) Pentachloroethane	(4)				Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.08	1
142) Hexachloroethane	(4)				Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.1	1
146) Hexachlorobutadiene	(4)				Not Detected					0.07	1
147) Naphthalene	(4)				Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

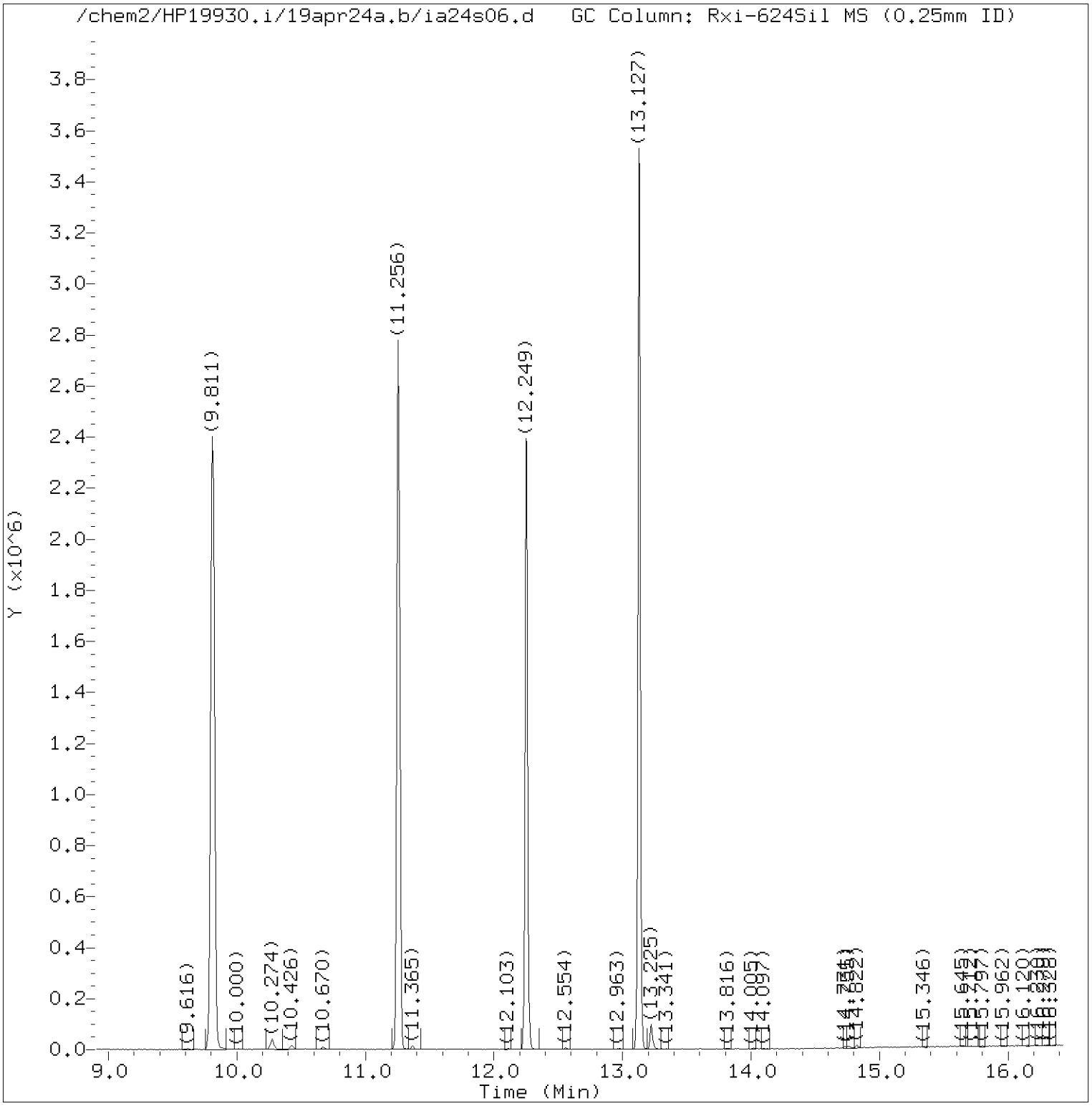
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

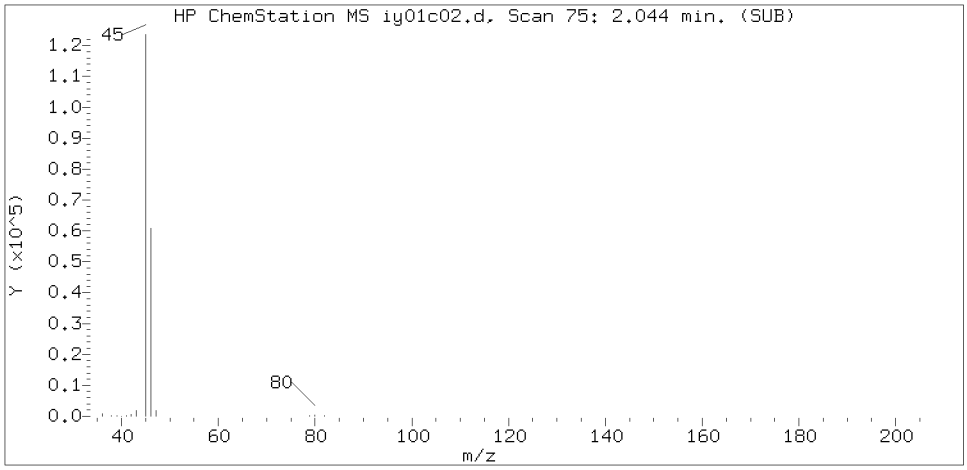
Sample Name: F3503 Lab Sample ID: 1034103

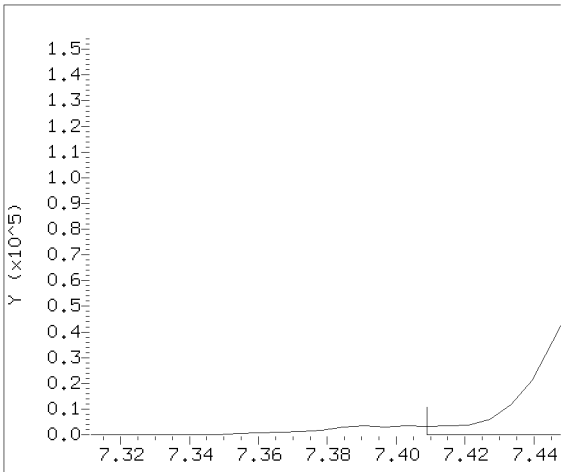
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.050	45	161139M	2.192
8) Chloroethane	(2)	2.733	64	98389	1.908
11) Ethyl ether	(2)	3.300	59	2794415	71.563
14) Acetone	(1)	3.672	43	22262	2.974
23) Methylene Chloride	(2)	4.312	84	12613	0.240
26)*t-Butyl Alcohol-d10	(1)	4.318	65	127746	50.000
33) 1,1-Dichloroethane	(2)	5.385	63	653428	6.980
50)$Dibromofluoromethane	(2)	6.915	113	521793	9.998
57)$1,2-Dichloroethane-d4	(2)	7.378	102	100333	9.976
58) Benzene	(2)	7.403	78	84620	0.377
63)*Fluorobenzene	(2)	7.805	96	2022252	10.000
82)$Toluene-d8	(3)	9.811	98	2016550	10.113
89) Tetrachloroethene	(3)	10.426	166	4974	0.063
97)*Chlorobenzene-d5	(3)	11.256	117	1625623	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	713620	9.551
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	885519	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

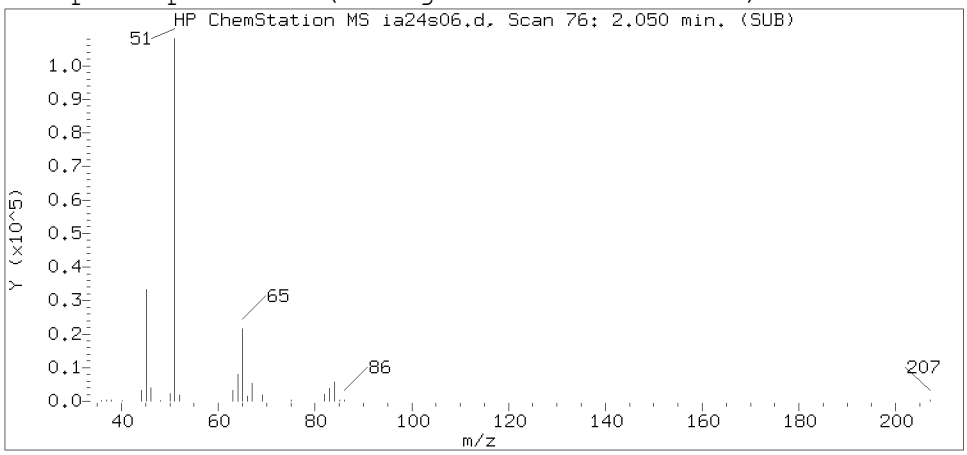
Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

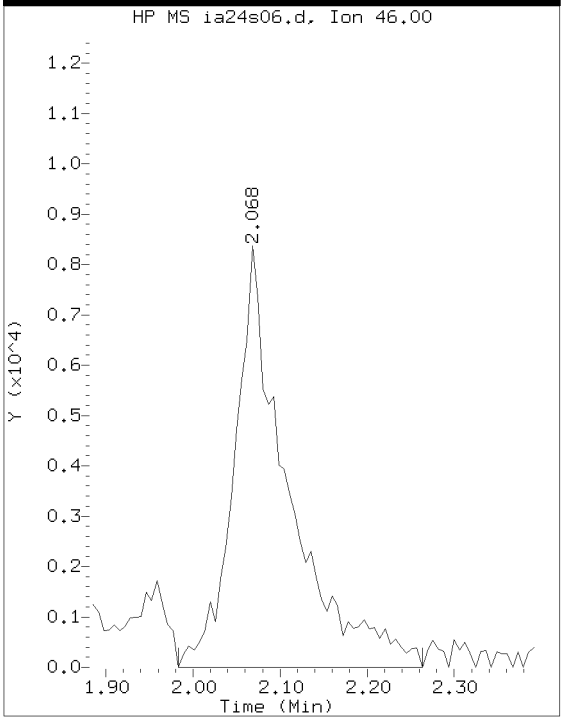
Reference Standard Spectrum for Dimethyl ether



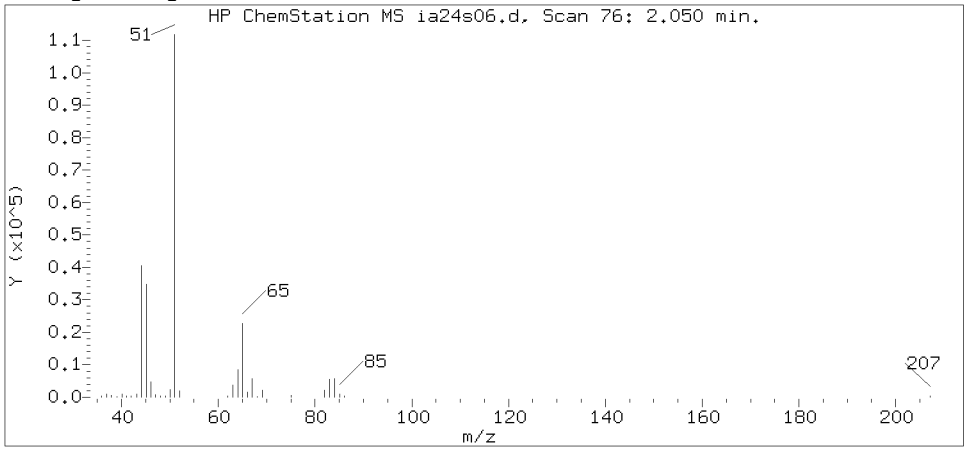


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

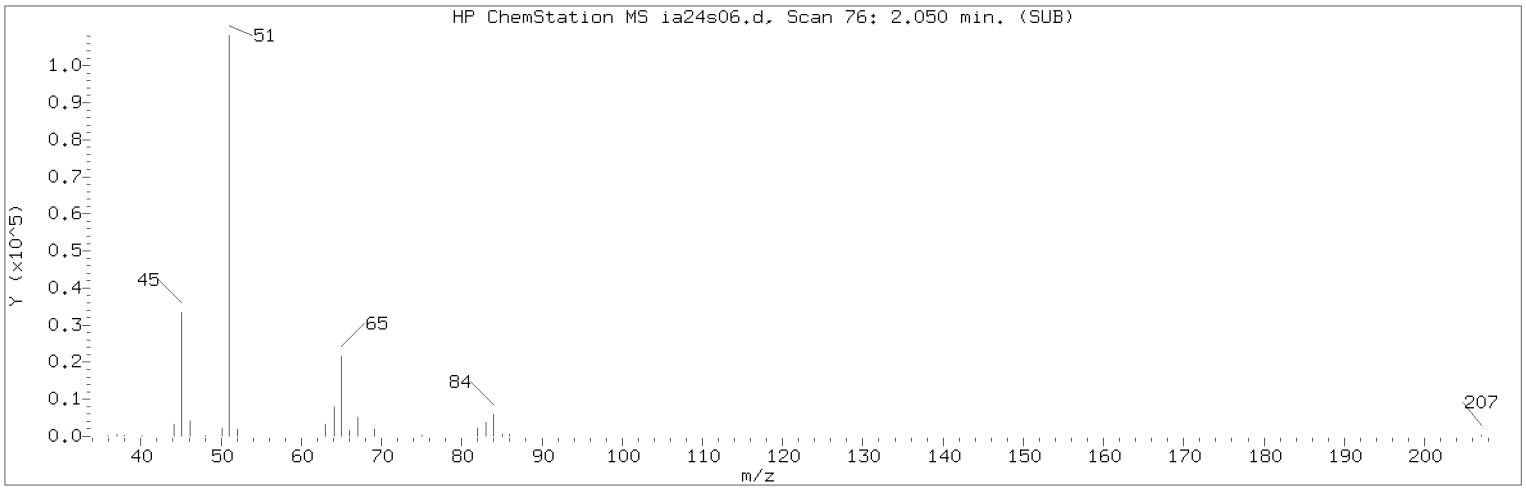
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

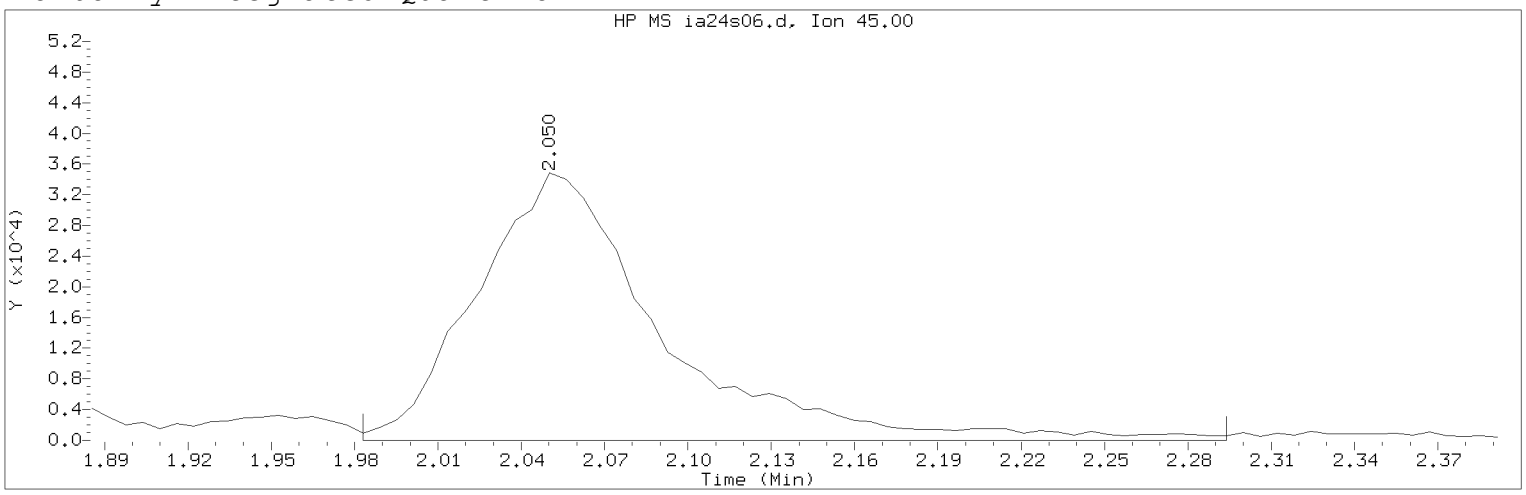
Compound Number	: 4
Compound Name	: Dimethyl ether
Scan Number	: 76
Retention Time (minutes)	: 2.050
Relative Retention Time	: 0.00157
Quant Ion	: 45.00
Area (flag)	: 161139M
On-Column Amount (ng)	: 2.1921

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

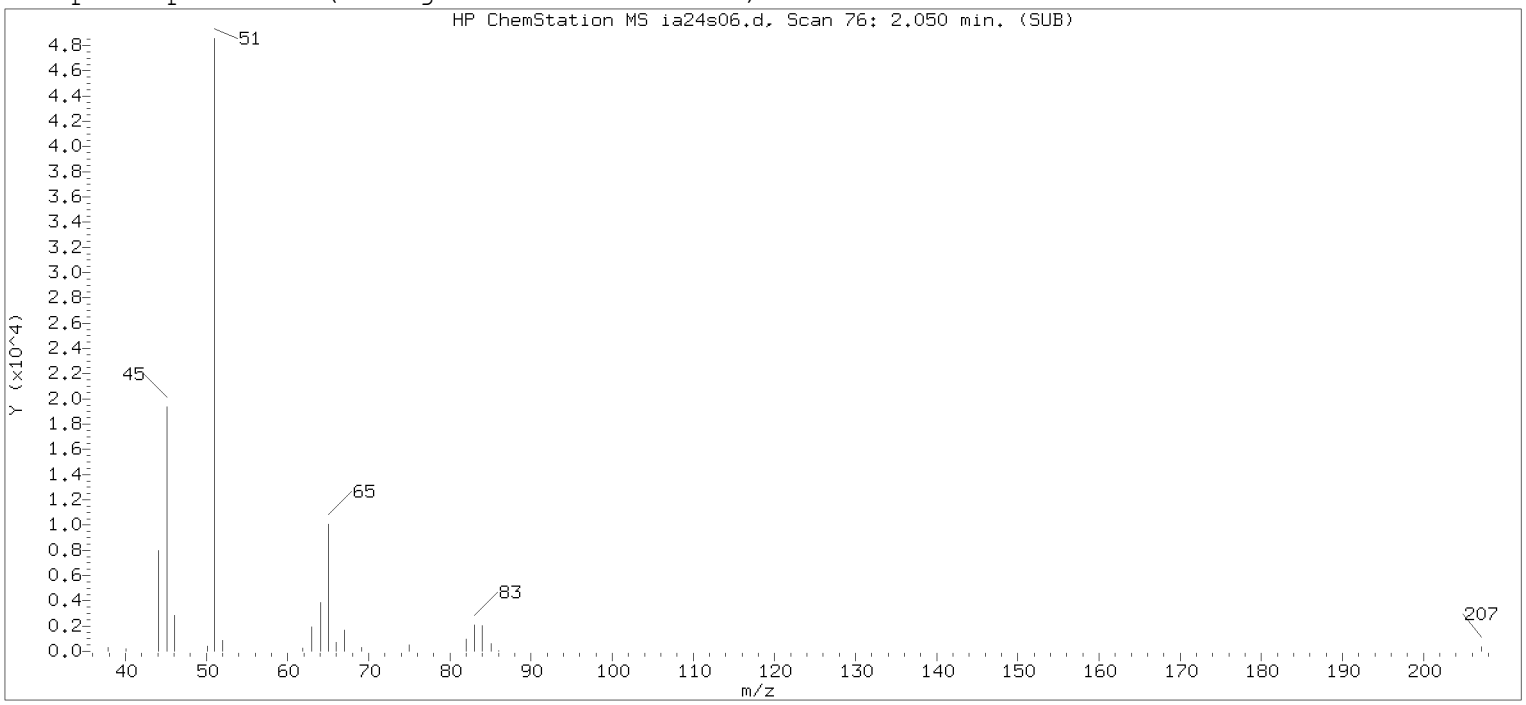
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 76
Retention Time (minutes): 2.050
Quant Ion : 45.00
Area (flag) : 161139M
On-Column Amount (ng) : 2.1921
Integration start scan : 64 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

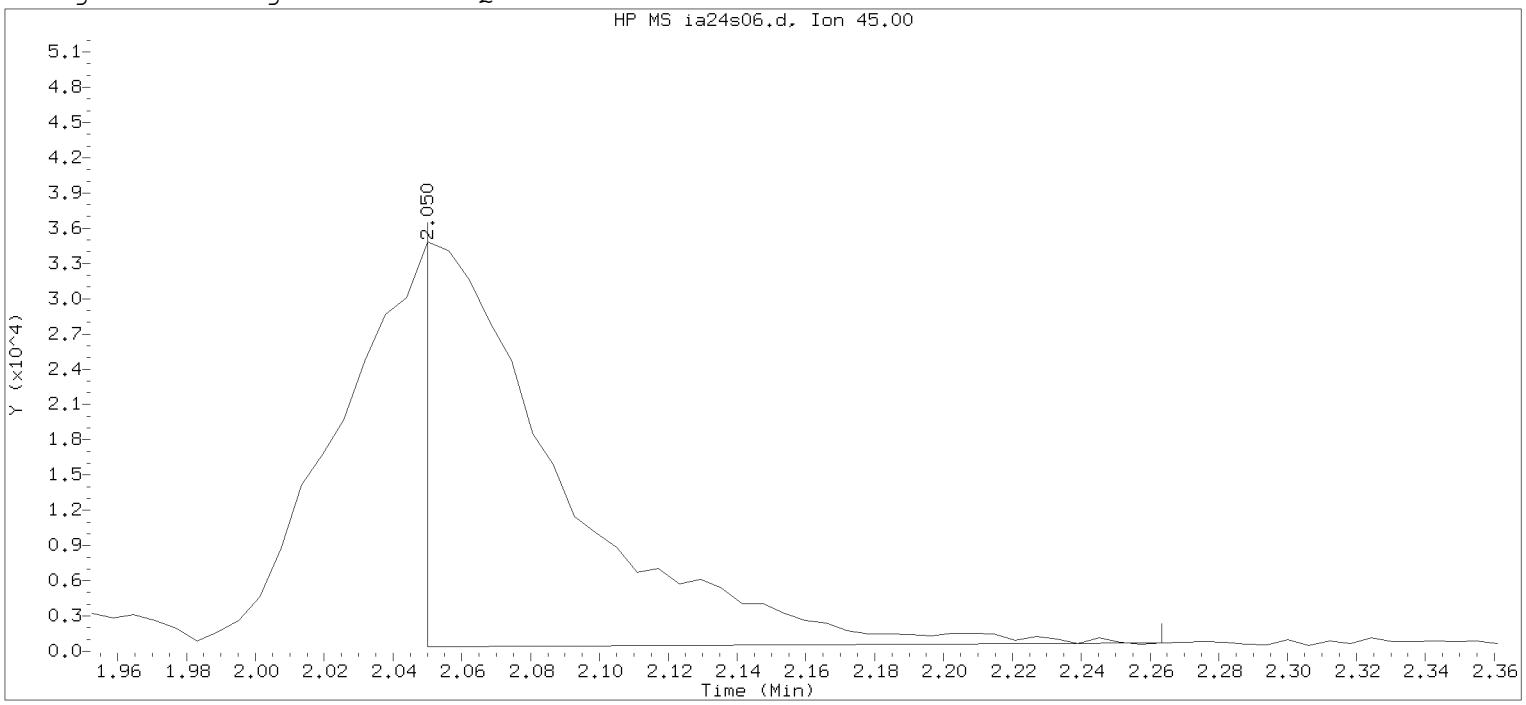
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:01 Automation

Sample Name: F3503 Lab Sample ID: 1034103

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 76		
Retention Time (minutes)	: 2.050		
Quant Ion	: 45.00		
Area	: 90323		
On-column Amount (ng)	: 1.2287		
Integration start scan	: 75	Integration stop scan:	110
Y at integration start	: 386	Y at integration end:	735

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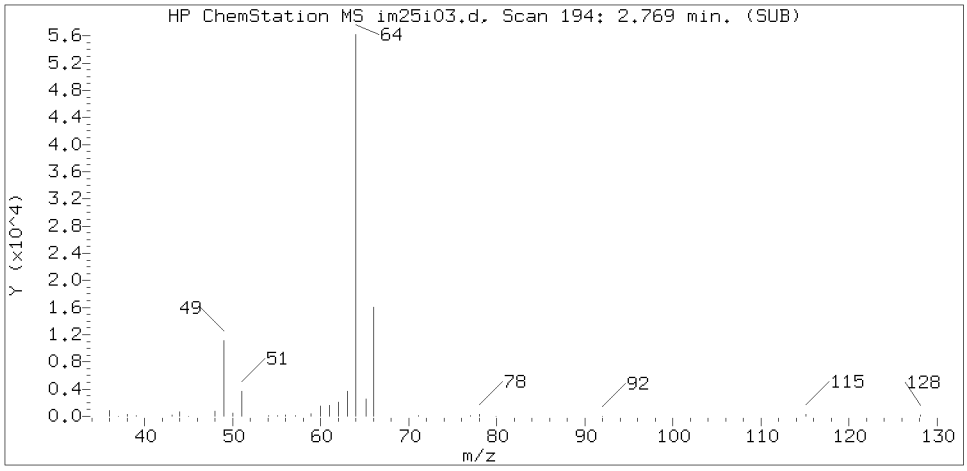
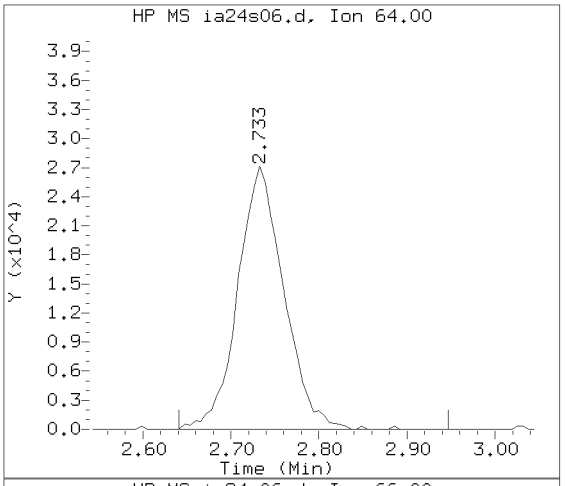
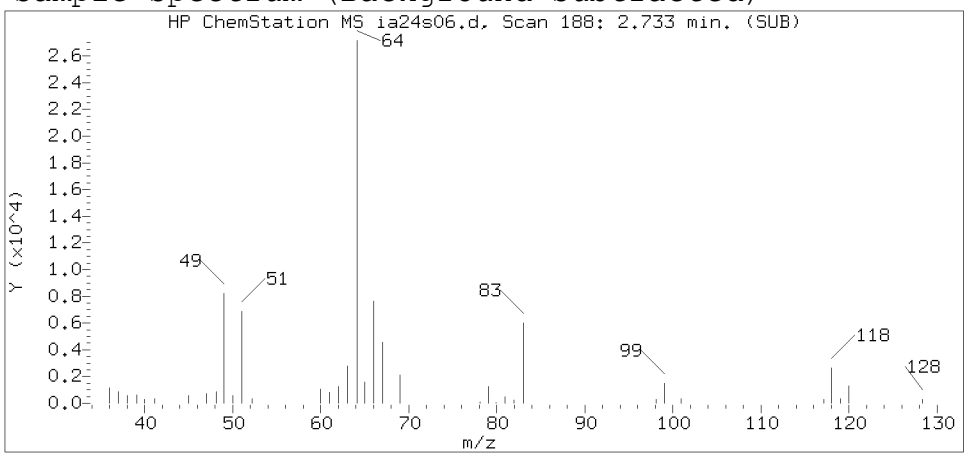
Target 3.5 esignature used. AE35 Page 258 of 2326

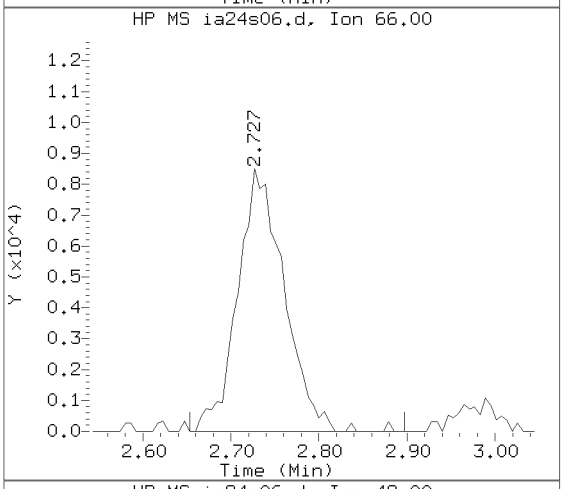
Reference Standard Spectrum for Chloroethane



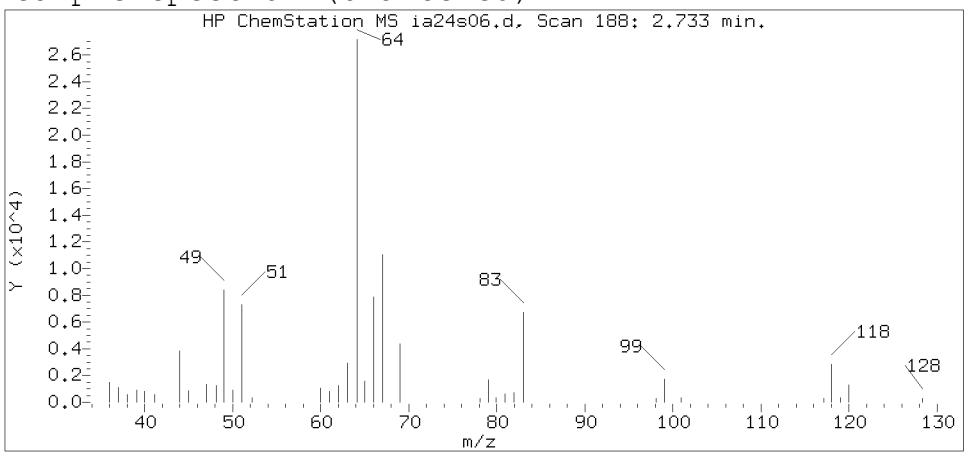


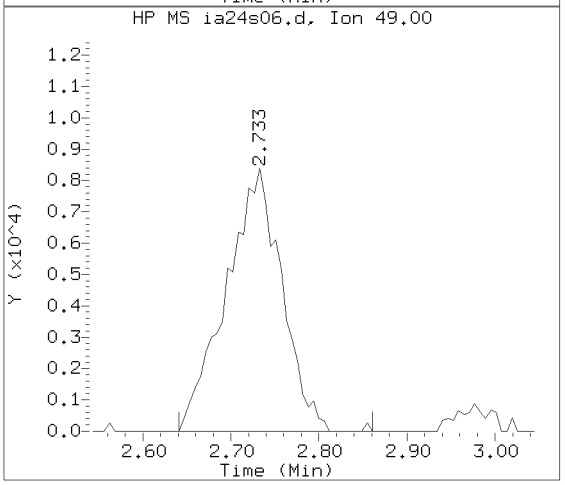
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

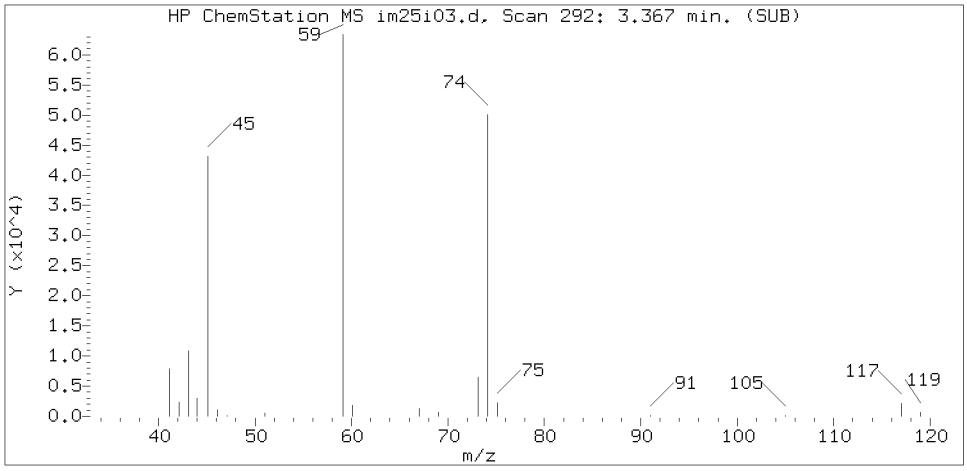
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

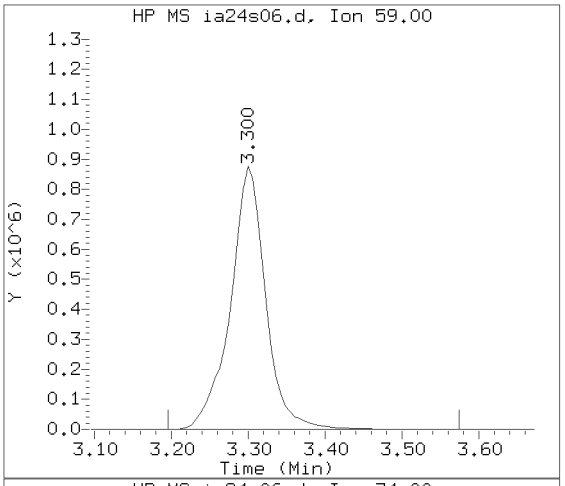
Sample Name: F3503 Lab Sample ID: 1034103

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 188
Retention Time (minutes): 2.733
Relative Retention Time :-0.00078
Quant Ion : 64.00
Area (flag) : 98389
On-Column Amount (ng) : 1.9082

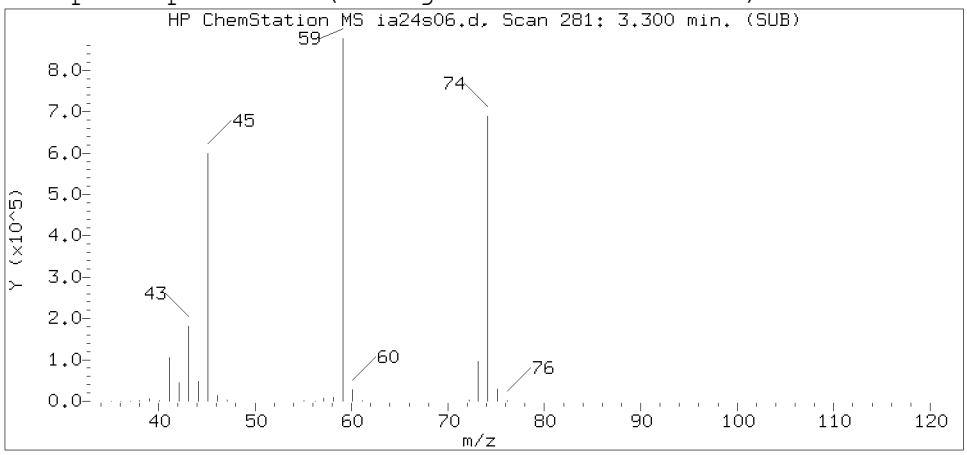
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

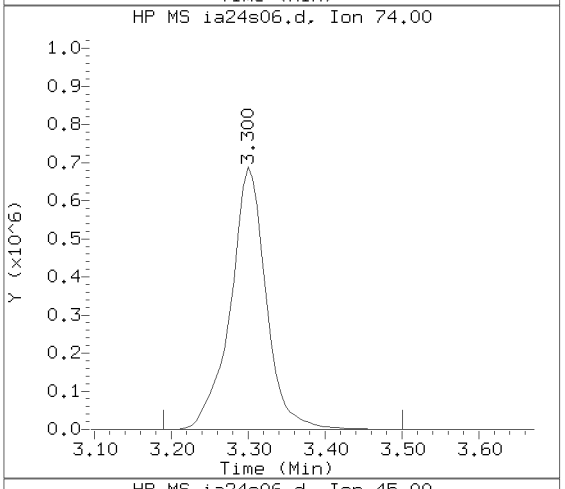
Reference Standard Spectrum for Ethyl ether



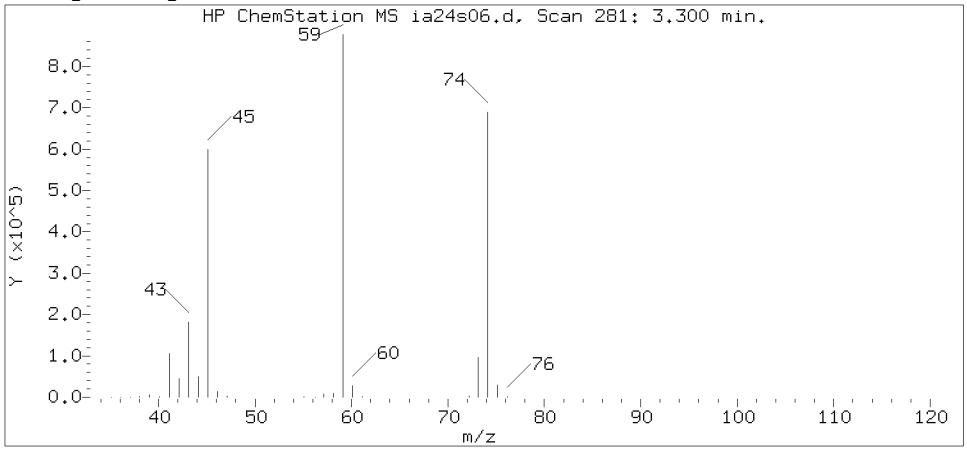


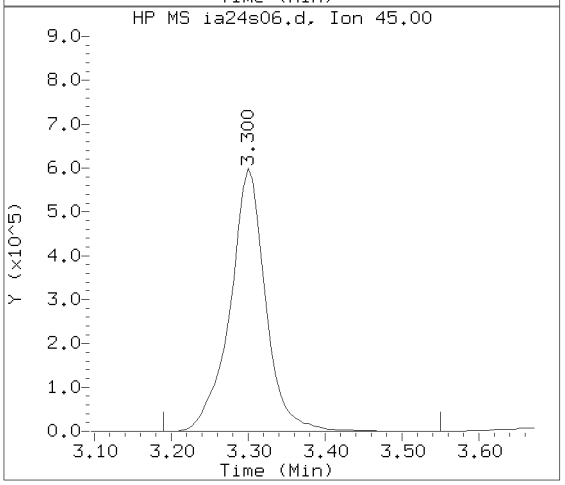
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

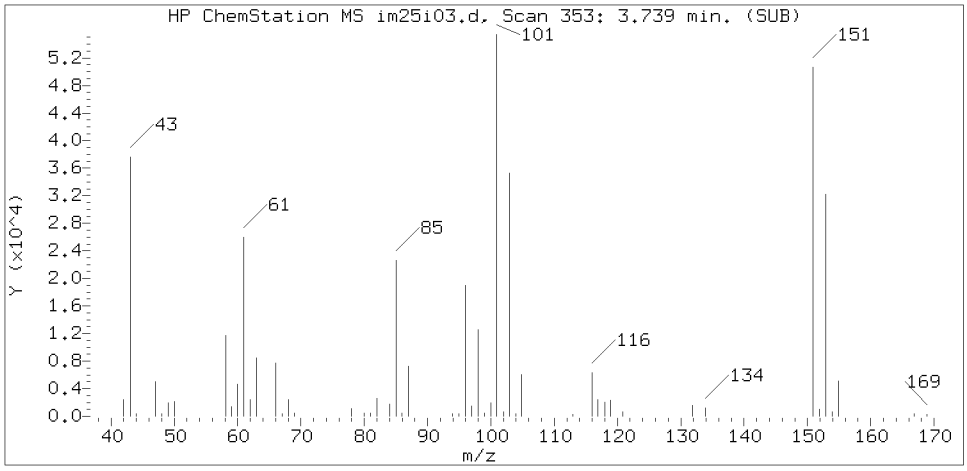
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

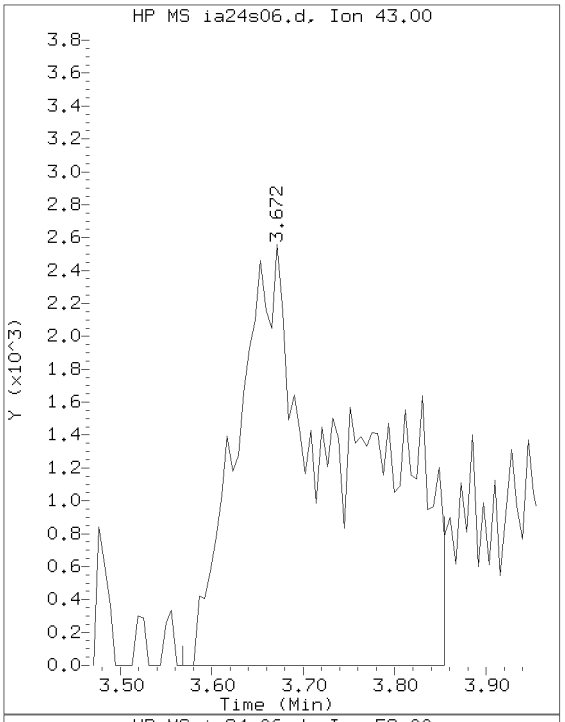
Sample Name: F3503 Lab Sample ID: 1034103

Compound Number	: 11
Compound Name	: Ethyl ether
Scan Number	: 281
Retention Time (minutes)	: 3.300
Relative Retention Time	: 0.00000
Quant Ion	: 59.00
Area (flag)	: 2794415
On-Column Amount (ng)	: 71.5627

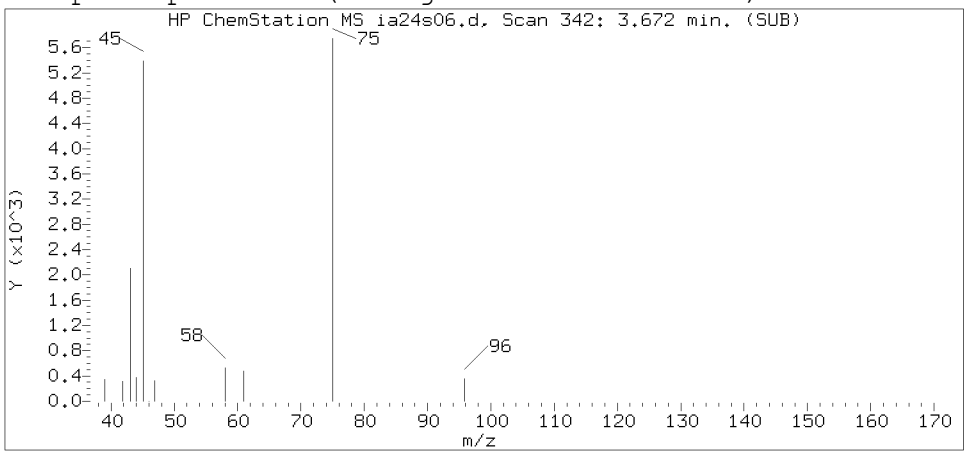
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

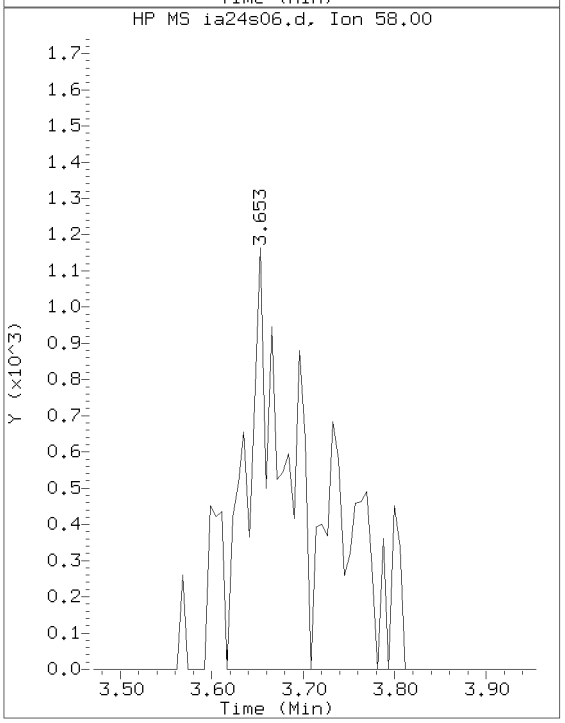
Reference Standard Spectrum for Acetone



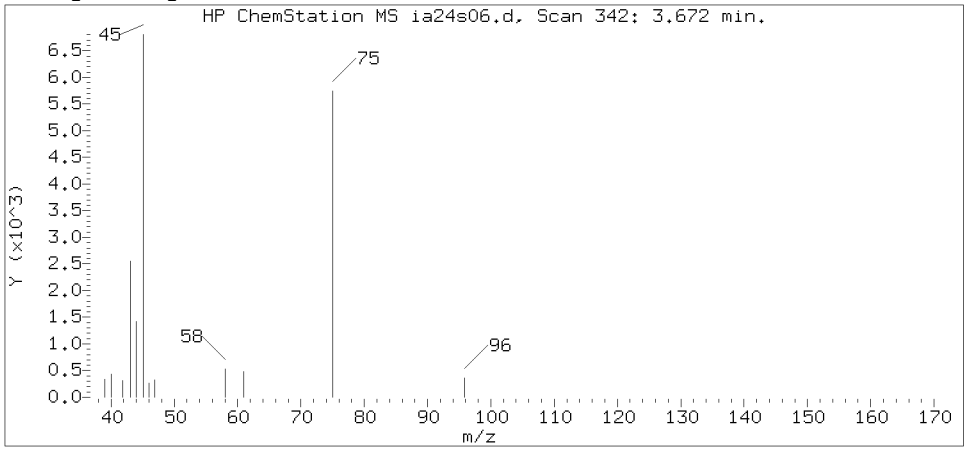


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

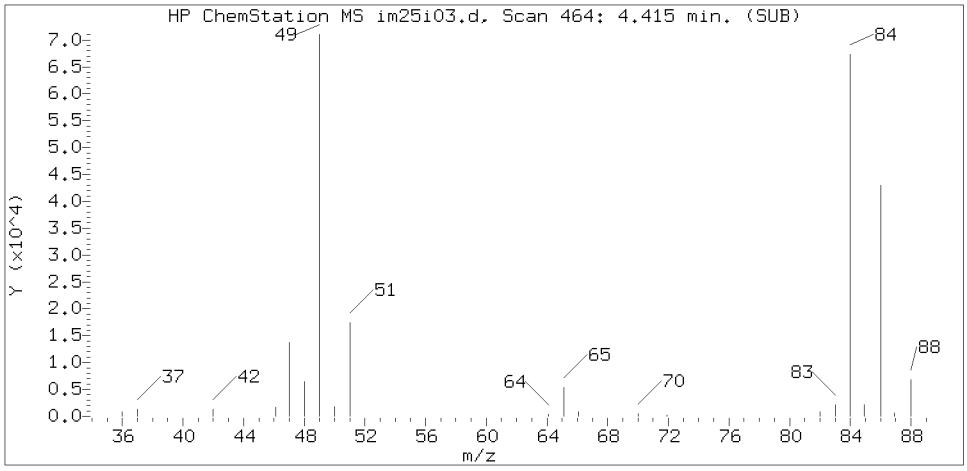
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

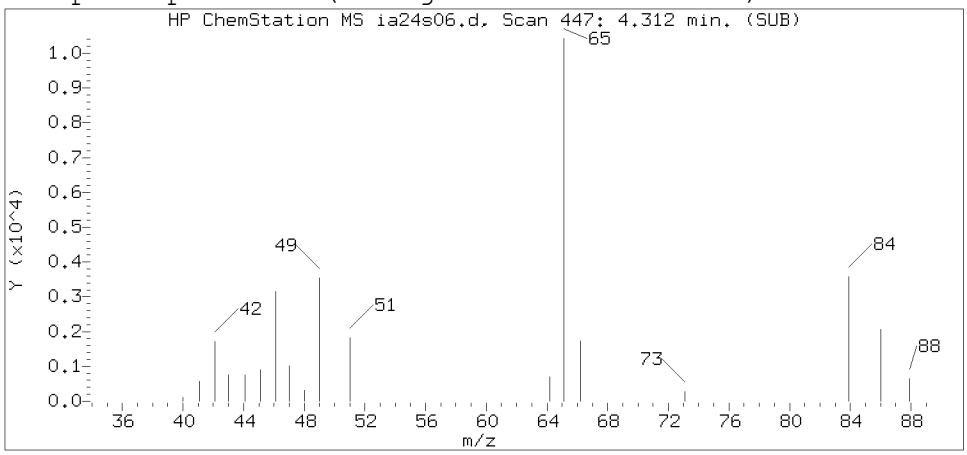
Compound Number : 14
Compound Name : Acetone
Scan Number : 342
Retention Time (minutes): 3.672
Relative Retention Time :-0.00445
Quant Ion : 43.00
Area (flag) : 22262
On-Column Amount (ng) : 2.9744

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

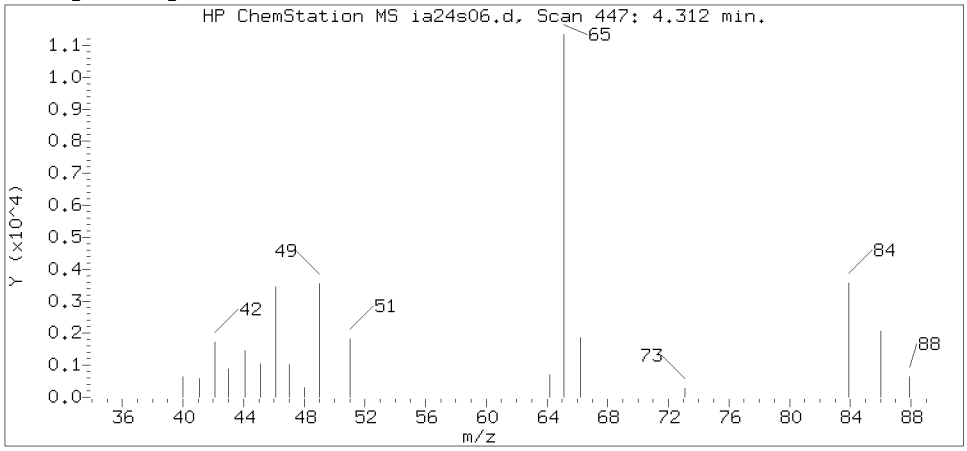
Reference Standard Spectrum for Methylene Chloride

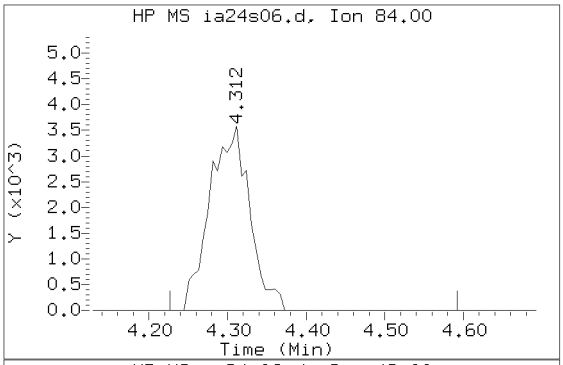


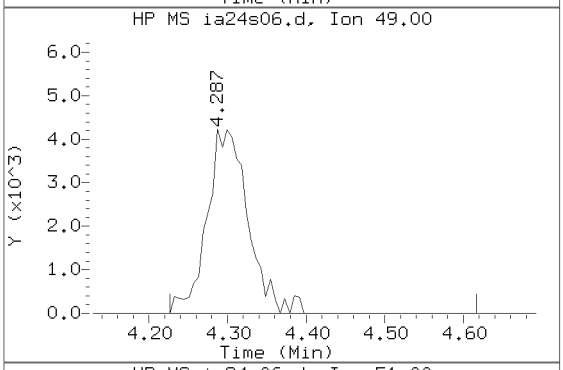
Sample Spectrum (Background Subtracted)

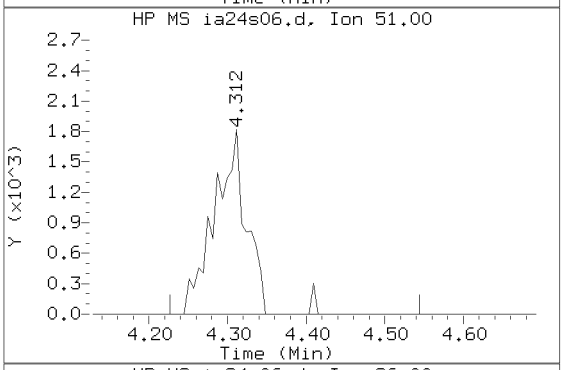


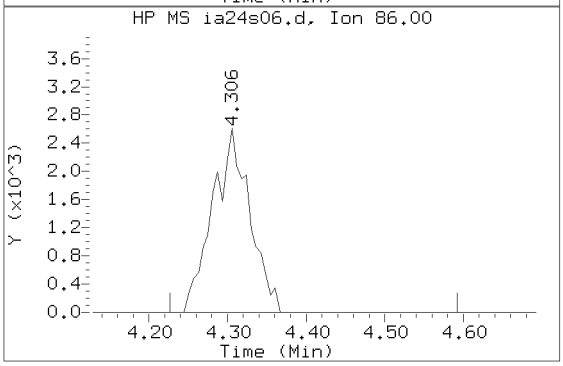
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 447
Retention Time (minutes): 4.312
Relative Retention Time :-0.00234
Quant Ion : 84.00
Area (flag) : 12613
On-Column Amount (ng) : 0.2398

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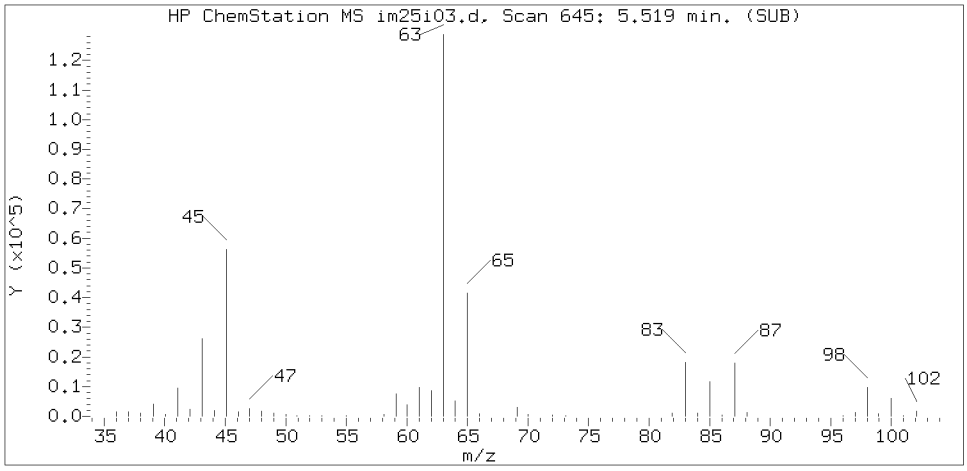
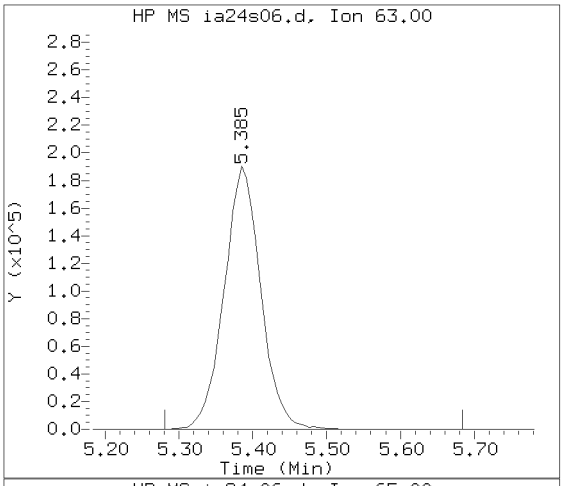
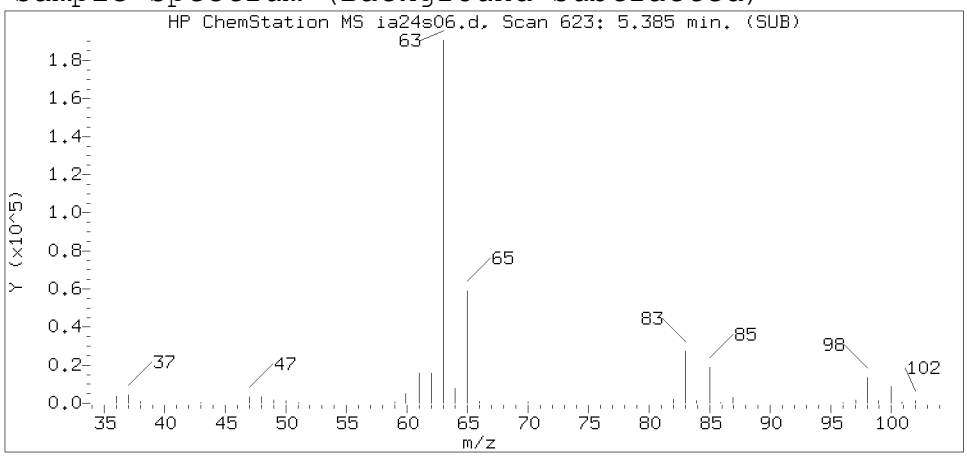
Target 3.5 esignature user ID: jkh09052

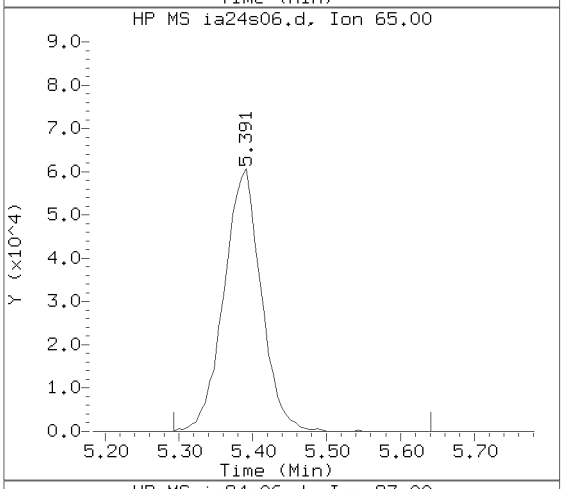
Reference Standard Spectrum for 1,1-Dichloroethane



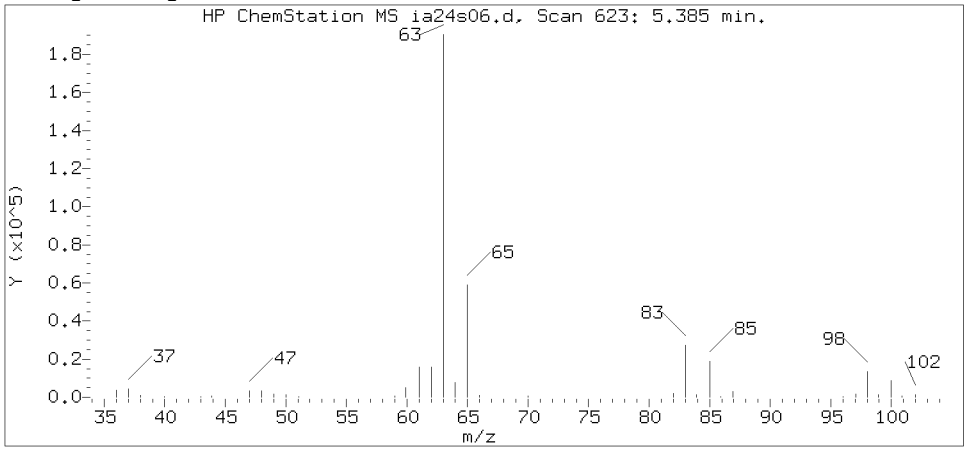


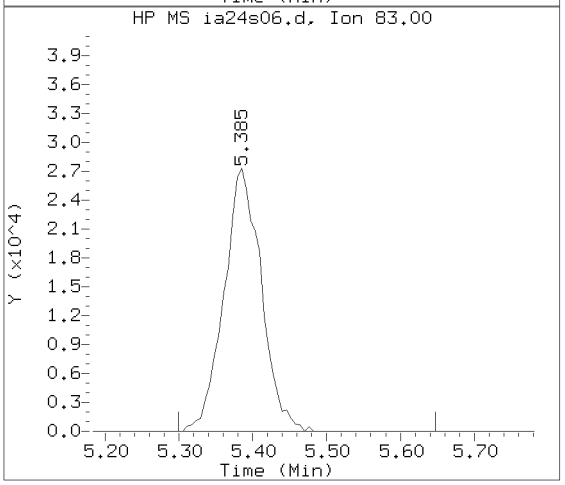
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 623
Retention Time (minutes): 5.385
Relative Retention Time : 0.00000
Quant Ion : 63.00
Area (flag) : 653428
On-Column Amount (ng) : 6.9796

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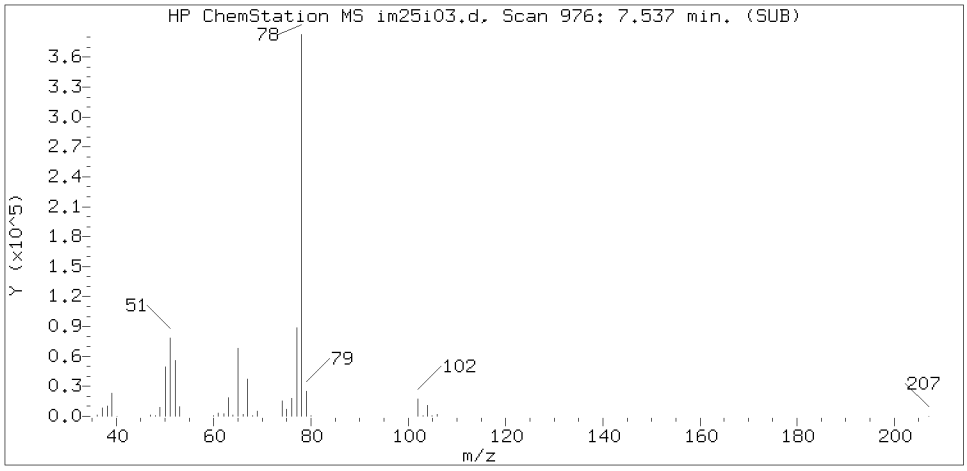
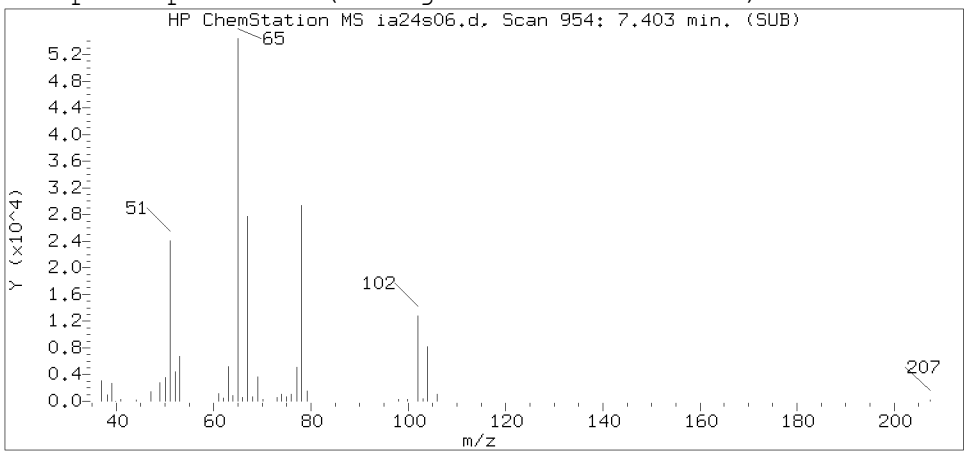
Target 3.5 esignature user ID: jkh09052

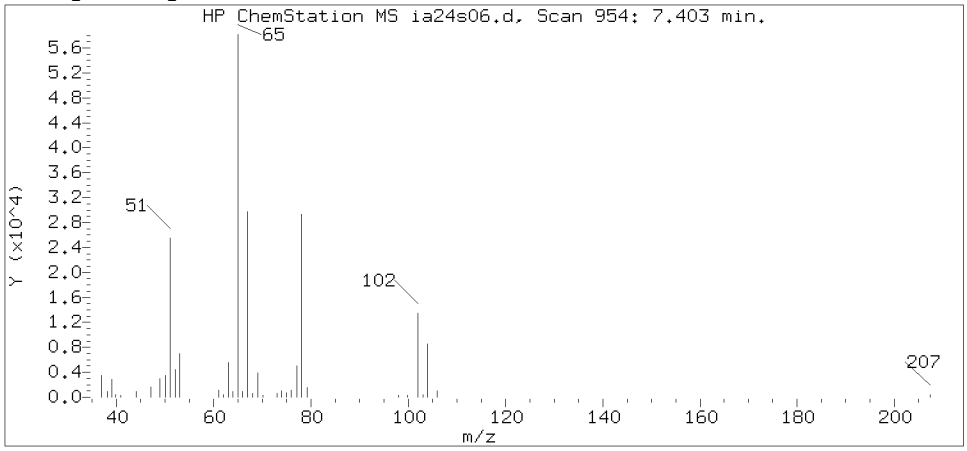
Reference Standard Spectrum for Benzene

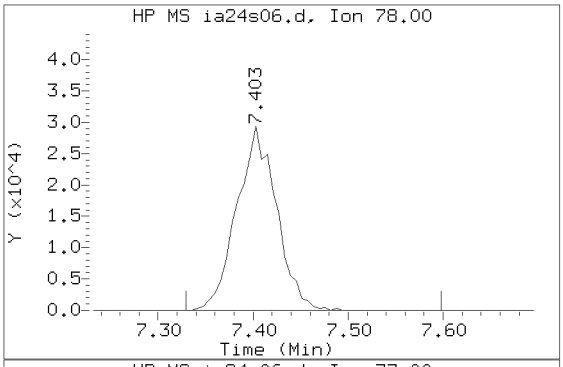


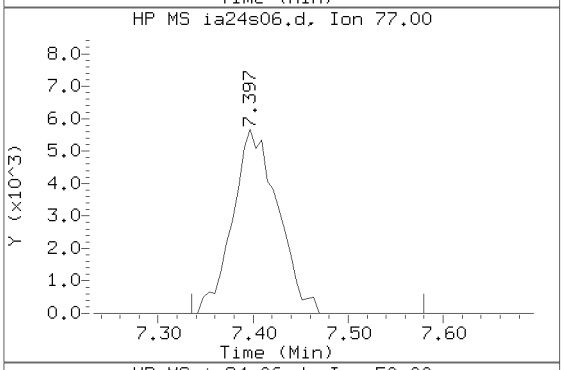
Sample Spectrum (Background Subtracted)

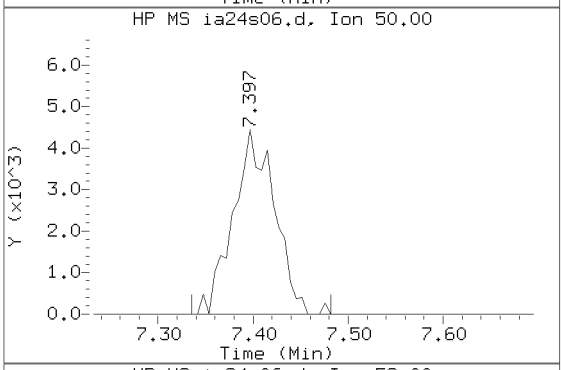


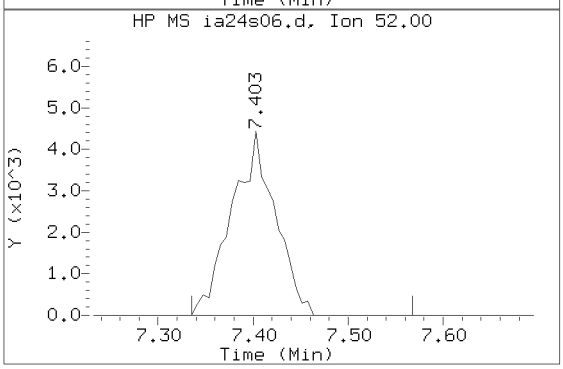
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

Compound Number	: 58
Compound Name	: Benzene
Scan Number	: 954
Retention Time (minutes)	: 7.403
Relative Retention Time	: 0.00000
Quant Ion	: 78.00
Area (flag)	: 84620
On-Column Amount (ng)	: 0.3770

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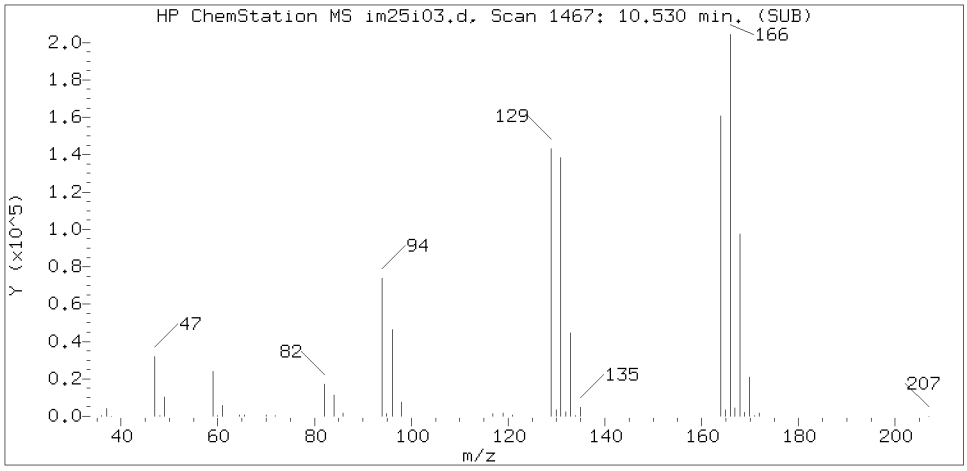
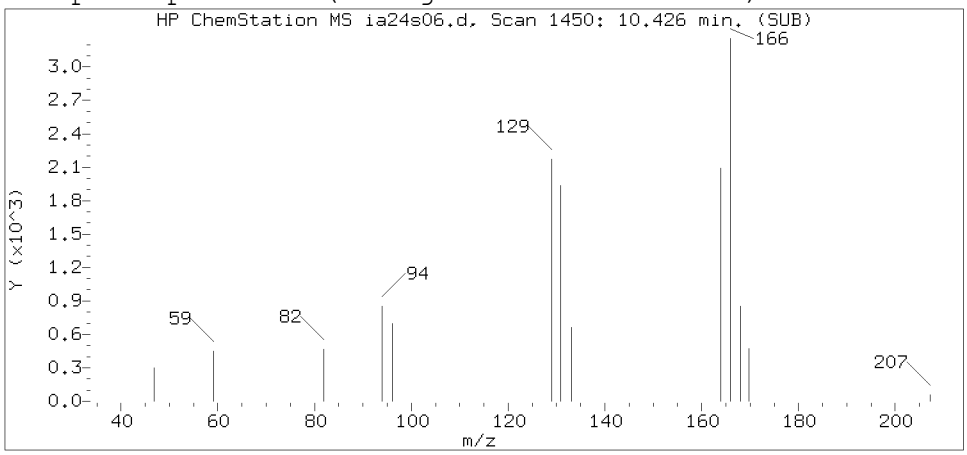
Target 3.5 esignature user ID: jkh09052

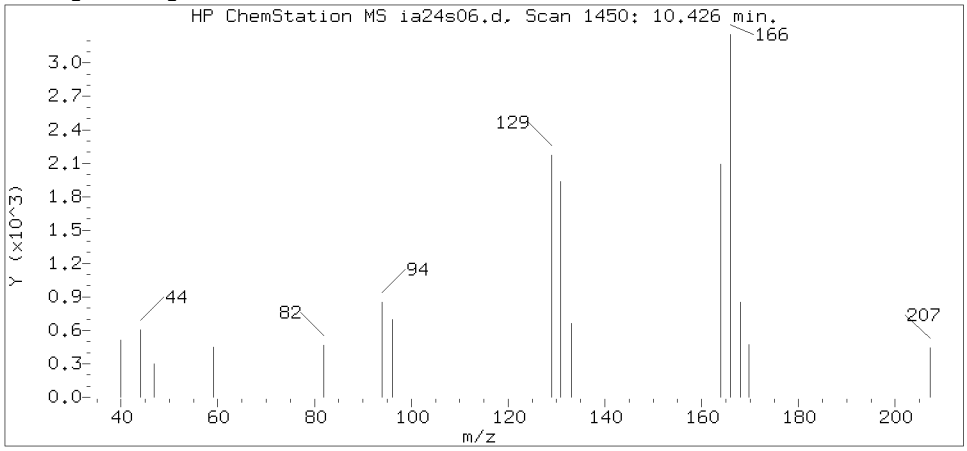
Reference Standard Spectrum for Tetrachloroethene

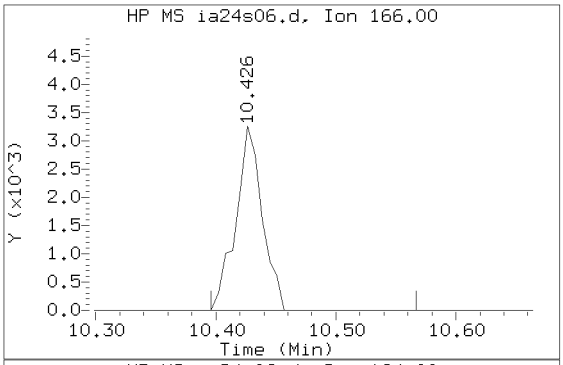


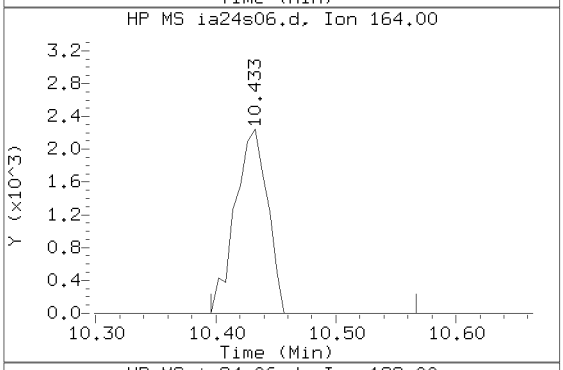
Sample Spectrum (Background Subtracted)

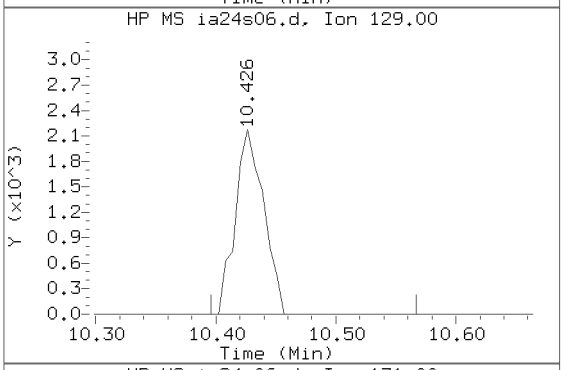


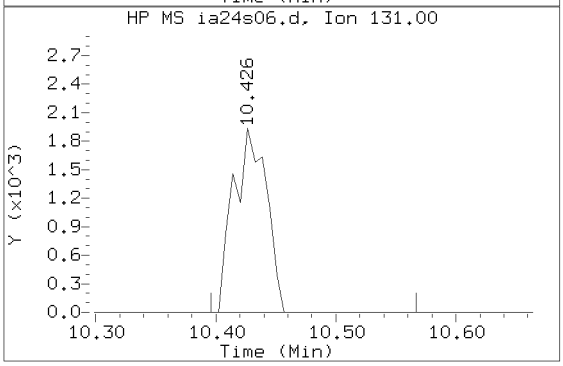
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s06.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 13:43 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:34 jkh09052

Sample Name: F3503 Lab Sample ID: 1034103

Compound Number : 89
Compound Name : Tetrachloroethene
Scan Number : 1450
Retention Time (minutes): 10.426
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 4974
On-Column Amount (ng) : 0.0627

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

F3503DL

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1034103DL

Data file: /chem2/HP19930.i/19apr24a.b/ia24s14.d Injection date and time: **24-APR-2019 16:33**
Data file Sample Info. Line: F3503DL;1034103DL;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038C** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **4.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 6.25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.355	(-0.043)	454	65	132393	(-5)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2013099	(-5)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1579235	(-9)	10.00	
133) 1,4-Dichlorobenzene-d4	13.127	(0.006)	1893	152	849234	(-15)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921	(0.000)	113	518720	9.984	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.001)	102	100753	10.063	101%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2003209	10.342	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	697719	9.612	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.6	4
4) Dimethyl ether	(2)	2.062	(0.000)	45	36865M	0.504	2.02		J	0.2	50
2) Chloromethane	(2)				Not Detected					0.2	2
5) Vinyl Chloride	(2)				Not Detected					0.6	4
7) Bromomethane	(2)				Not Detected					2	4
8) Chloroethane	(2)	2.739	(-0.001)	64	21240	0.414	1.66		J	0.3	2
10) Trichlorofluoromethane	(2)				Not Detected					0.7	4
11) Ethyl ether	(2)	3.306	(-0.000)	59	644807	16.588	66.35			4	50
13) Acrolein	(1)				Not Detected					14	100
15) 1,1-Dichloroethene	(2)				Not Detected					0.9	4
16) Freon 113	(2)				Not Detected					0.5	4
14) Acetone	(1)	3.678	(0.001)	43	14093	1.817	7.27		J	4	40
17) Methyl Iodide	(2)				Not Detected					2	40
18) Carbon Disulfide	(2)				Not Detected					1	40
25) Acetonitrile	(1)				Not Detected					130	400
22) Allyl Chloride	(2)				Not Detected					3	40
23) Methylene Chloride	(2)				Not Detected					0.7	4
29) Acrylonitrile	(1)				Not Detected					2	40
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.6	4
33) 1,1-Dichloroethane	(2)	5.391	(-0.000)	63	141780	1.521	6.09			0.5	4
36) Vinyl Acetate	(2)				Not Detected					13	40
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					2	40
38) 2-Butanone	(1)				Not Detected					2	40
42) Propionitrile	(1)				Not Detected					41	400
45) Methacrylonitrile	(1)				Not Detected					39	400
48) Tetrahydrofuran	(1)				Not Detected					8	100
49) Chloroform	(2)				Not Detected					0.4	4
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.5	4
54) Carbon Tetrachloride	(2)				Not Detected					0.6	4
56) Isobutyl Alcohol	(1)				Not Detected					14	800
58) Benzene	(2)	7.415	(-0.000)	78	18193	0.081	0.33		J	0.3	4

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55. Target 3.5 esignature user ID: mec29284

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s14.d Injection date and time: **24-APR-2019 16:33**
Data file Sample Info. Line: F3503DL;1034103DL;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038C** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **4.00**

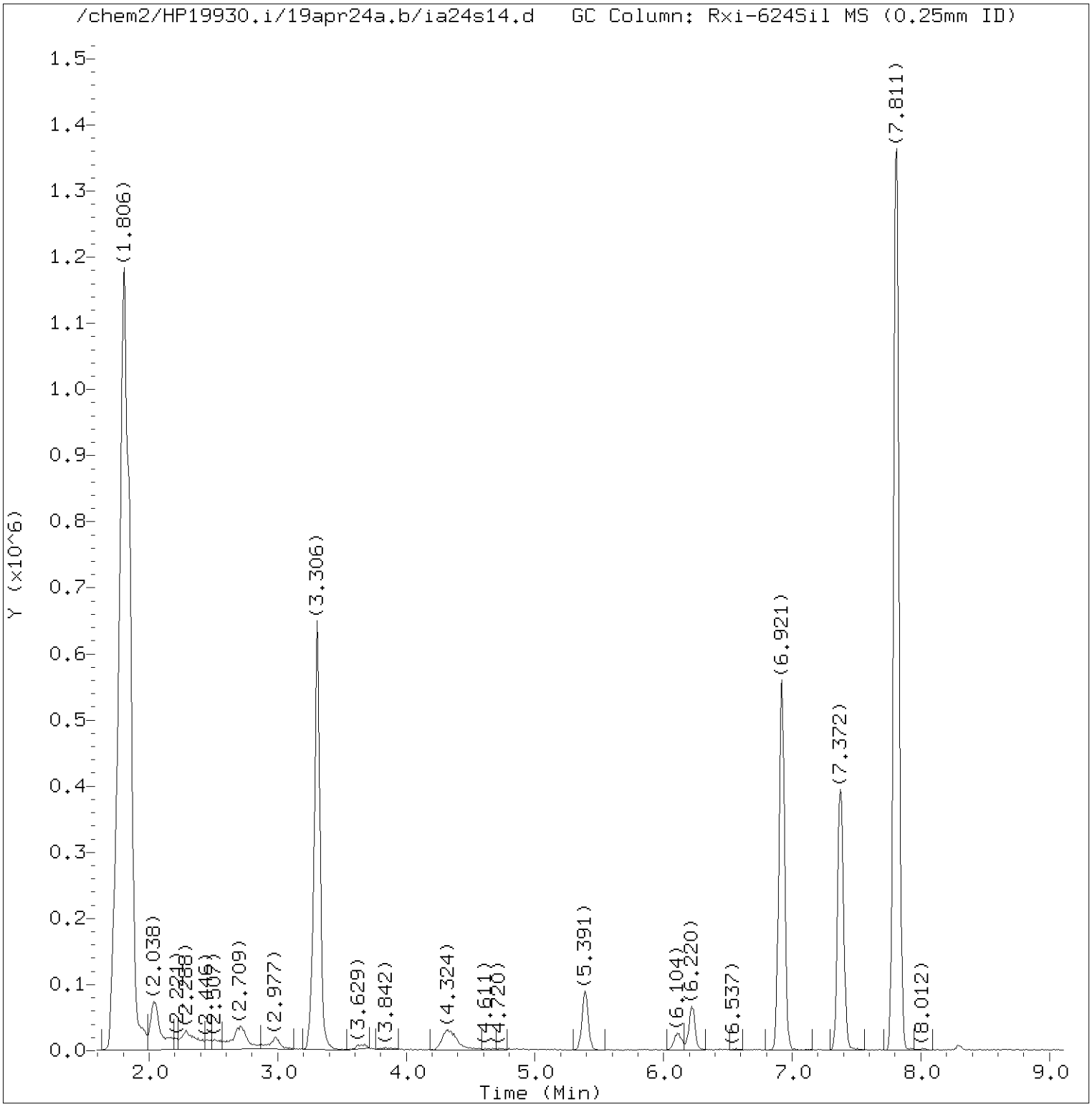
Volume Purged (Vt): 25 ml Sample Volume (Vo): 6.25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
59) 1,2-Dichloroethane	(2)				Not Detected					0.6	4
67) Trichloroethene	(2)				Not Detected					0.7	4
70) 1,2-Dichloropropane	(2)				Not Detected					0.4	4
71) Methyl Methacrylate	(1)				Not Detected					14	40
73) Dibromomethane	(2)				Not Detected					0.3	4
72) 1,4-Dioxane	(1)				Not Detected					180	800
74) Bromodichloromethane	(2)				Not Detected					0.4	4
81) 4-Methyl-2-Pentanone	(1)				Not Detected					4	40
83) Toluene	(3)				Not Detected					0.4	4
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.4	4
86) Ethyl Methacrylate	(3)				Not Detected					3	40
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.3	4
89) Tetrachloroethene	(3)				Not Detected					0.2	4
90) 1,3-Dichloropropane	(3)				Not Detected					0.4	4
91) 2-Hexanone	(1)				Not Detected					2	40
93) Dibromochloromethane	(3)				Not Detected					0.3	4
95) 1,2-Dibromoethane	(3)				Not Detected					0.2	4
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.3	4
100) Ethylbenzene	(3)				Not Detected					0.3	4
101) m+p-Xylene	(3)				Not Detected					0.4	2
104) o-Xylene	(3)				Not Detected					0.2	2
105) Xylene (Total)	(3)				Not Detected					0.8	12
106) Styrene	(3)				Not Detected					0.2	4
107) Bromoform	(3)				Not Detected					0.4	4
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.7	4
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					4	40
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.4	4
126) Pentachloroethane	(4)				Not Detected					3	40
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	4
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.3	4
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.3	4
142) Hexachloroethane	(4)				Not Detected					0.4	40
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.8	4
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.5	4
146) Hexachlorobutadiene	(4)				Not Detected					0.3	4
147) Naphthalene	(4)				Not Detected					0.5	4

Total number of targets = 67

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

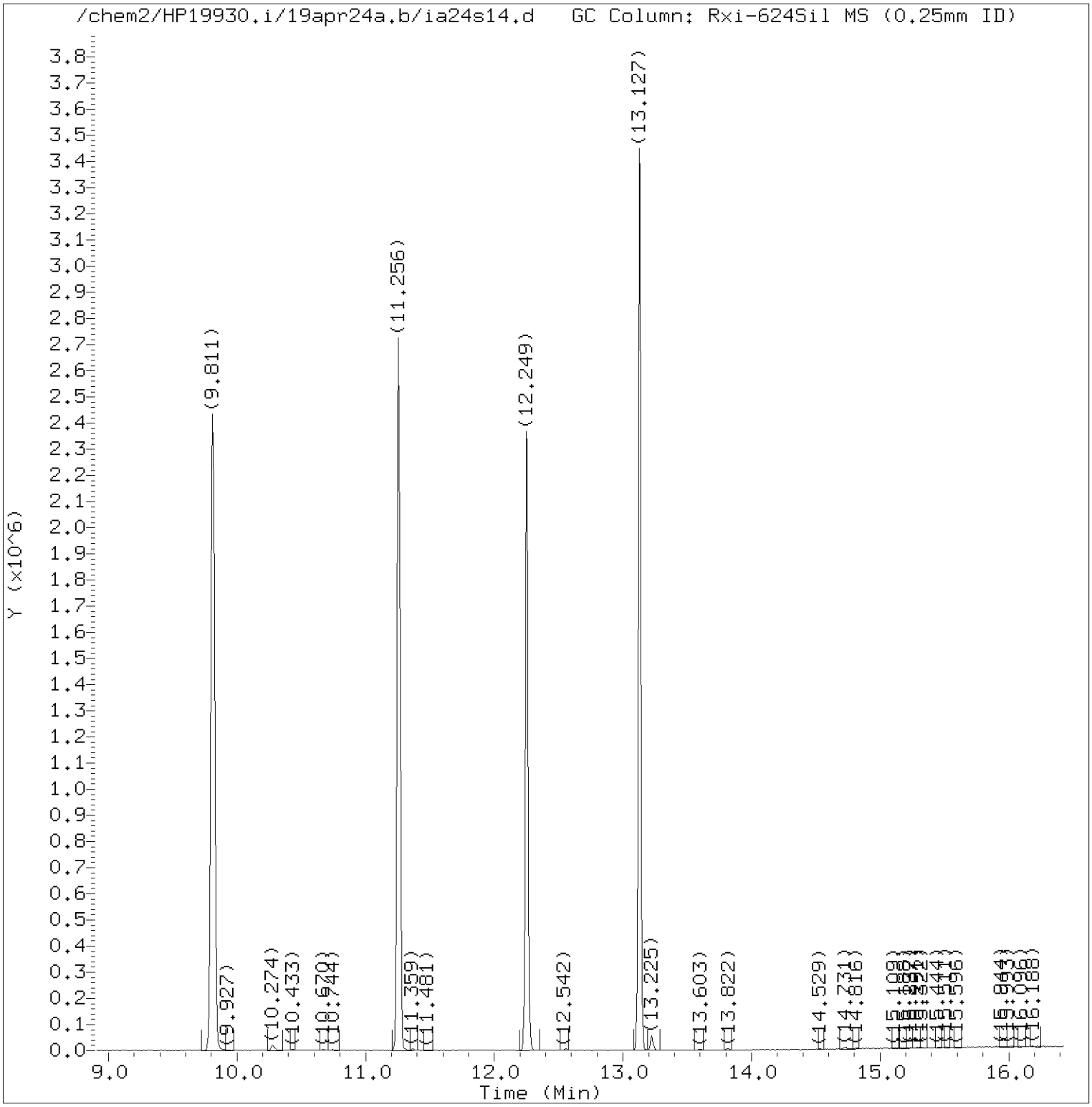
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	36865M	0.504
8) Chloroethane	(2)	2.739	64	21240	0.414
11) Ethyl ether	(2)	3.306	59	644807	16.588
14) Acetone	(1)	3.678	43	14093	1.817
26)*t-Butyl Alcohol-d10	(1)	4.355	65	132393	50.000
33) 1,1-Dichloroethane	(2)	5.391	63	141780	1.521
50)$Dibromofluoromethane	(2)	6.921	113	518720	9.984
57)$1,2-Dichloroethane-d4	(2)	7.378	102	100753	10.063
58) Benzene	(2)	7.415	78	18193	0.081
63)*Fluorobenzene	(2)	7.811	96	2013099	10.000
82)$Toluene-d8	(3)	9.811	98	2003209	10.342
97)*Chlorobenzene-d5	(3)	11.256	117	1579235	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	697719	9.612
133)*1,4-Dichlorobenzene-d4	(4)	13.127	152	849234	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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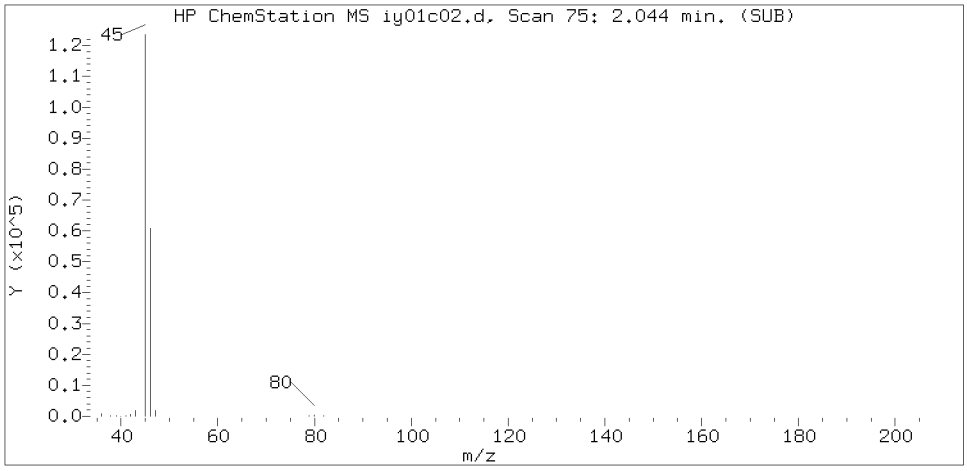
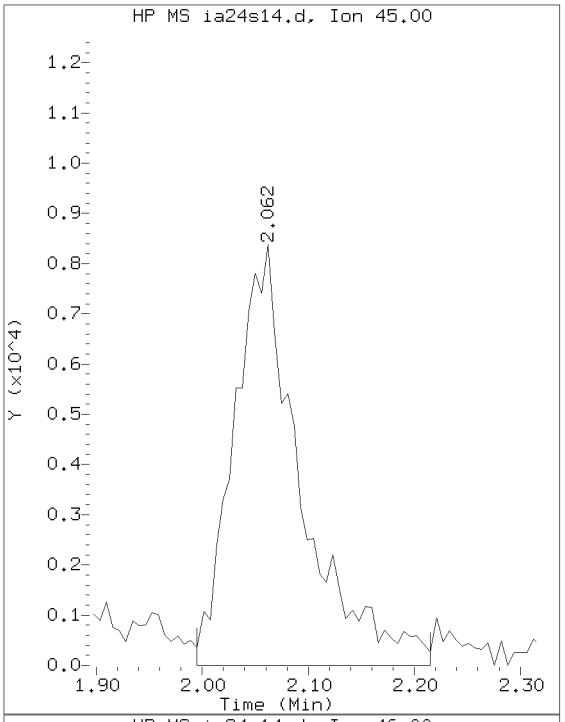
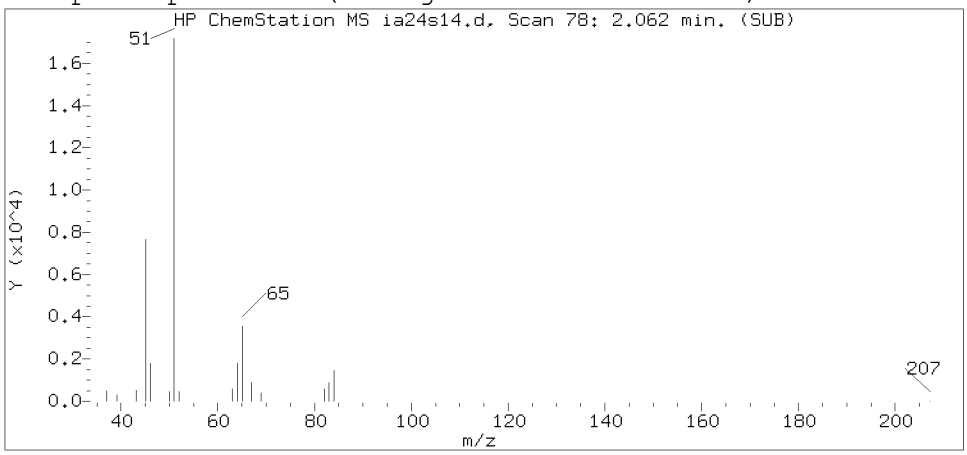
on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

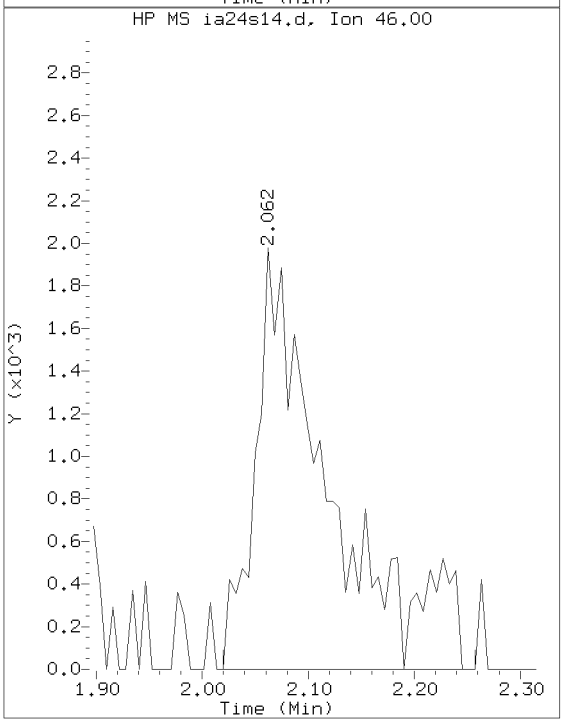
Reference Standard Spectrum for Dimethyl ether



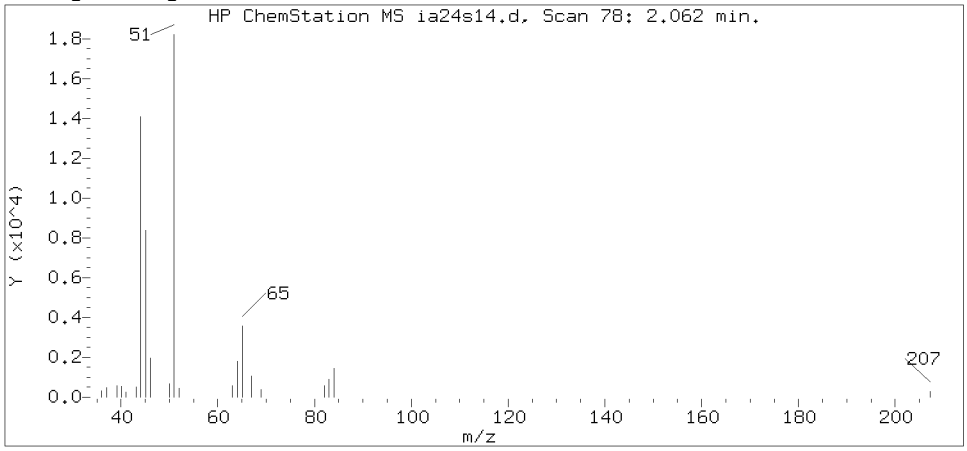


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

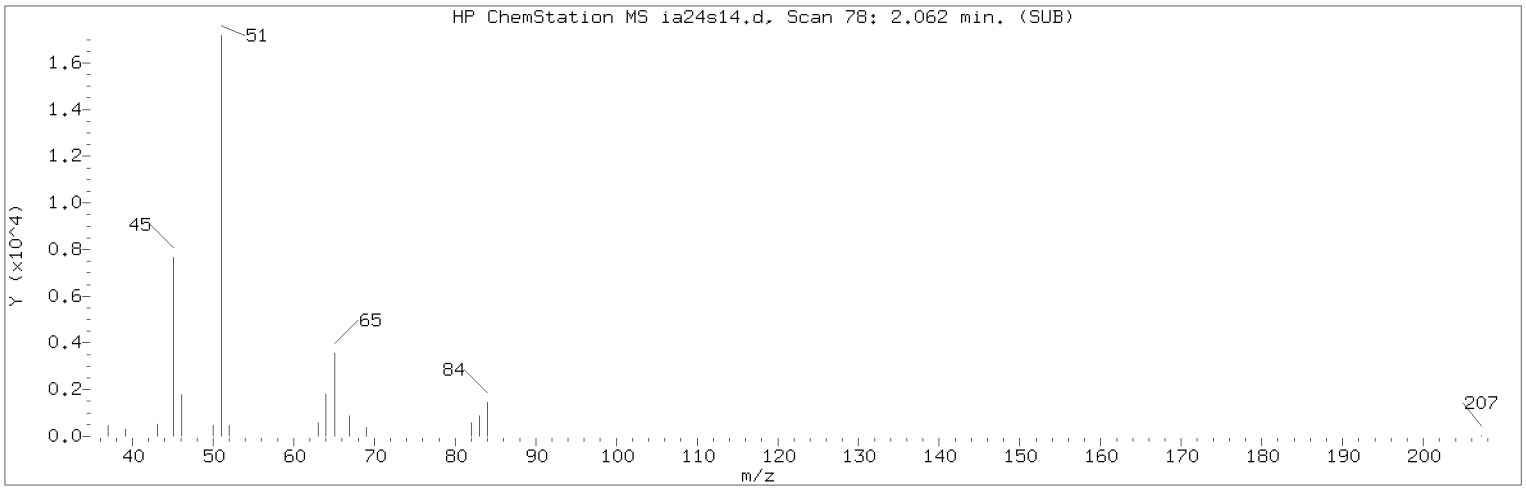
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

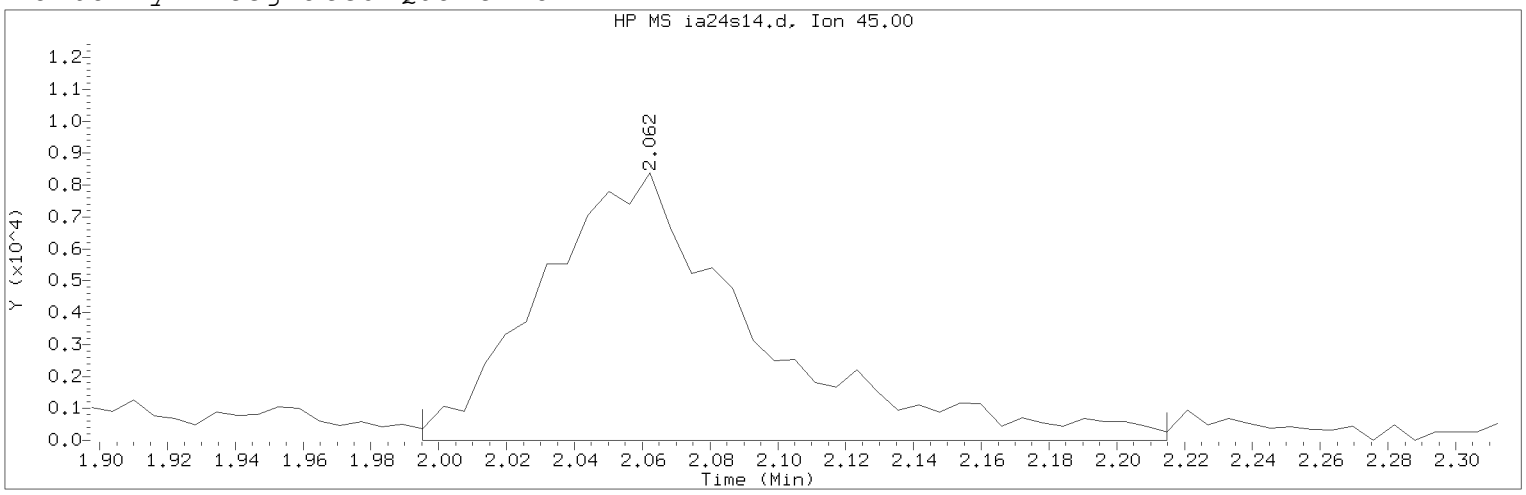
Compound Number	: 4
Compound Name	: Dimethyl ether
Scan Number	: 78
Retention Time (minutes)	: 2.062
Relative Retention Time	: 0.00020
Quant Ion	: 45.00
Area (flag)	: 36865M
On-Column Amount (ng)	: 0.5038

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

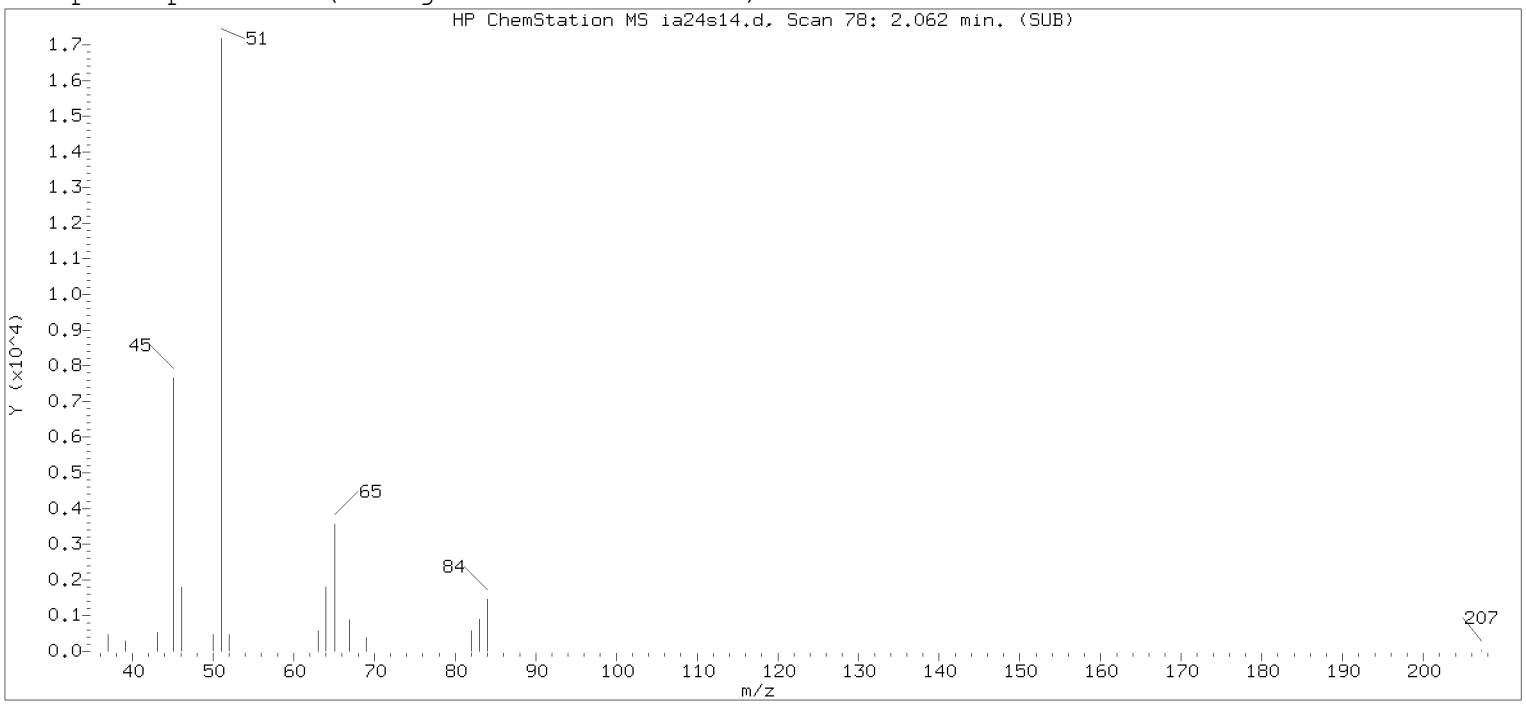
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 36865M
On-Column Amount (ng) : 0.5038
Integration start scan : 66 Integration stop scan: 102
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

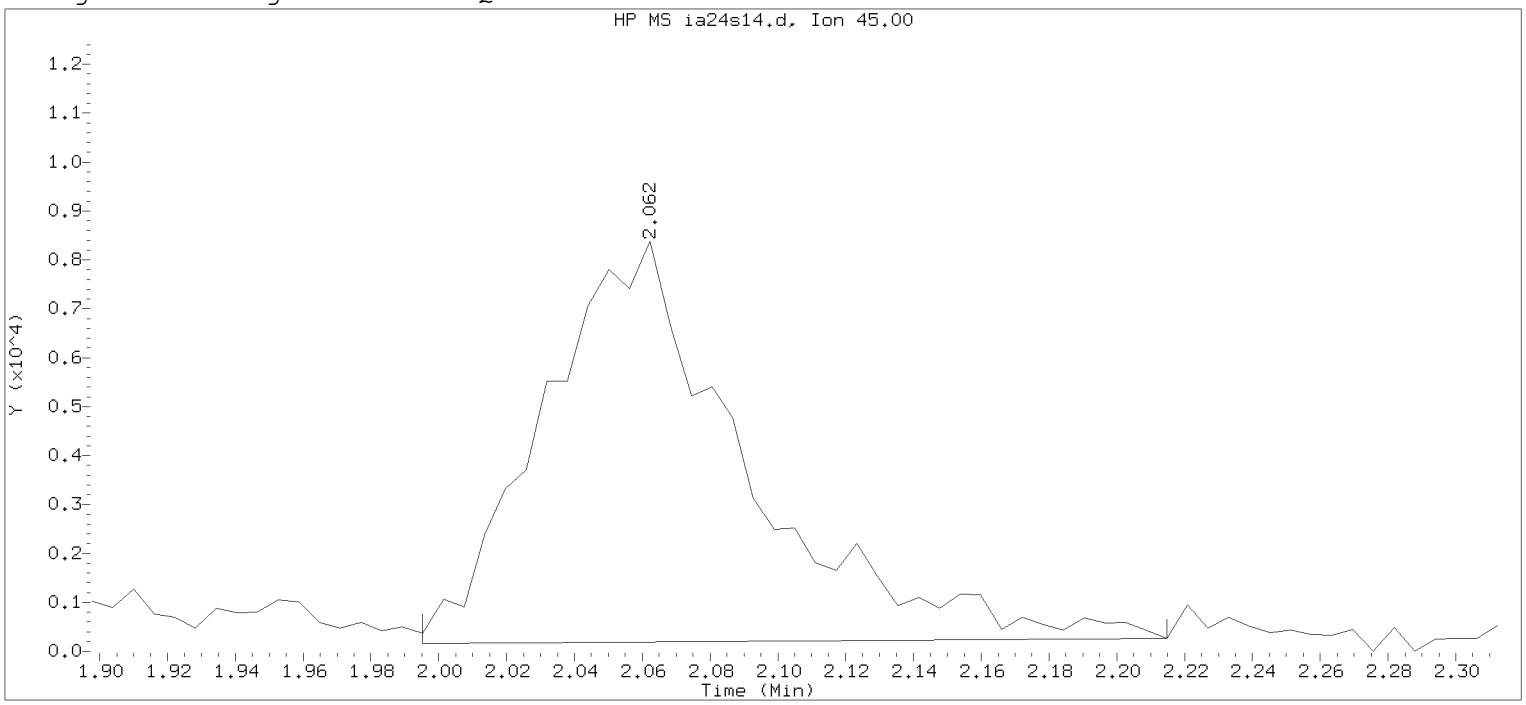
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

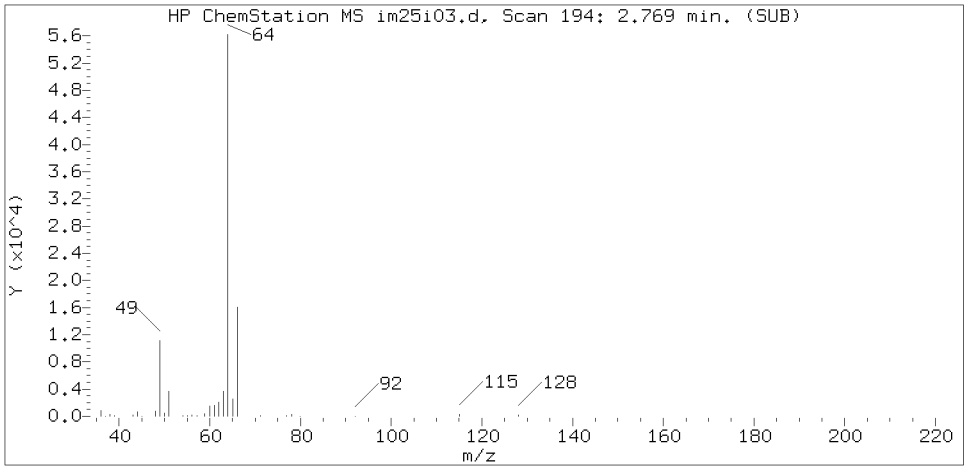
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:49 mec29284

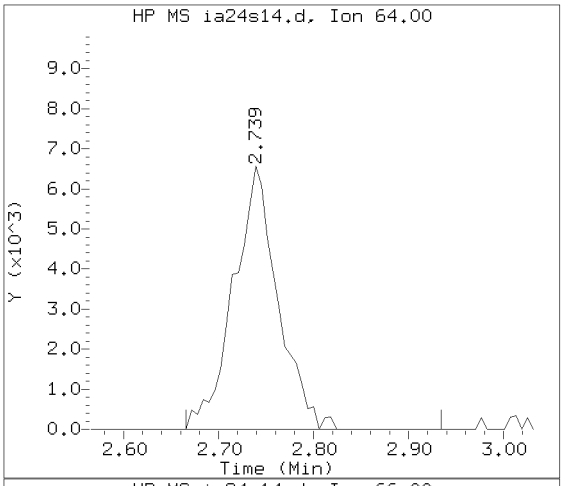
Sample Name: F3503DL Lab Sample ID: 1034103DL

Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area : 33984
On-column Amount (ng) : 0.4644
Integration start scan : 66 Integration stop scan: 102
Y at integration start : 154 Y at integration end: 266

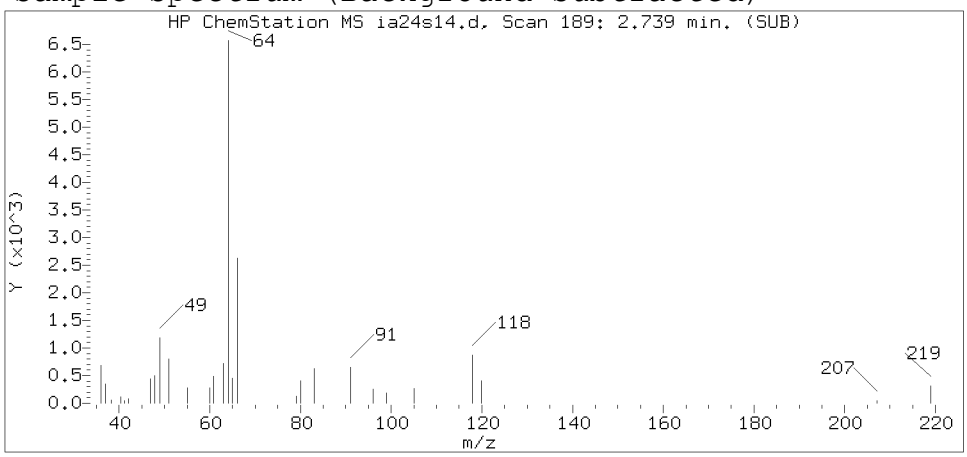
Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature used for mec29284

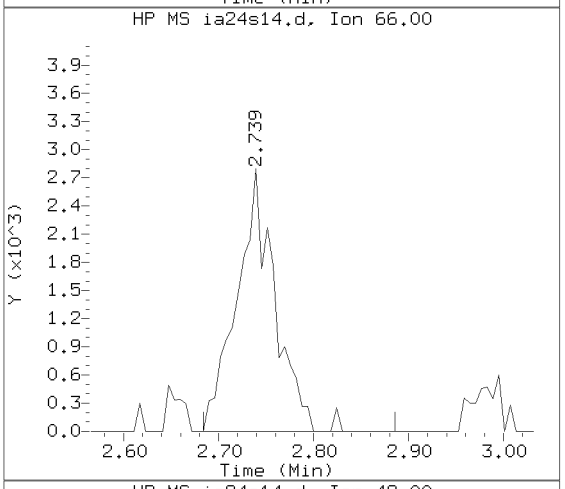
Reference Standard Spectrum for Chloroethane



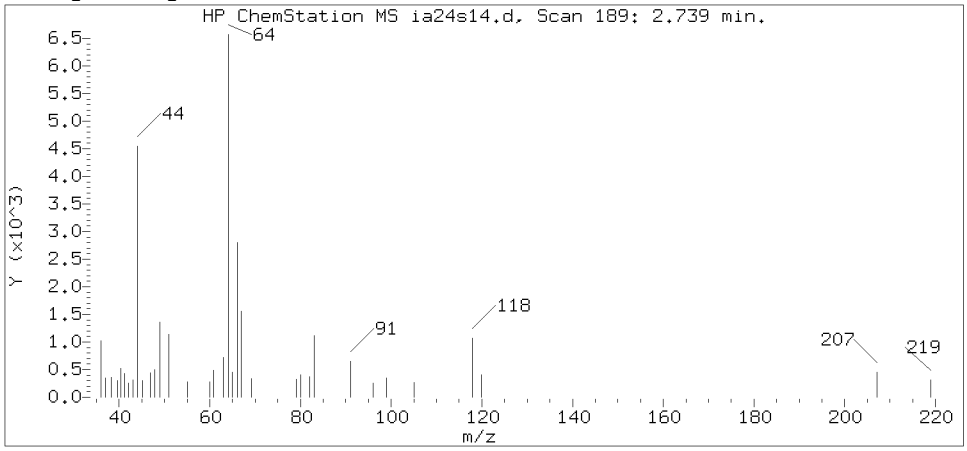


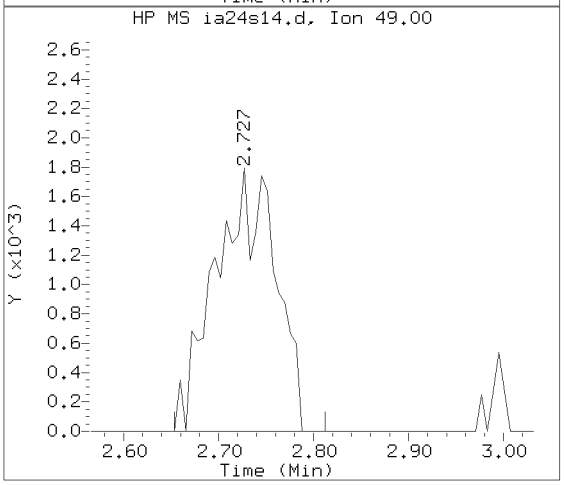
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 189
Retention Time (minutes): 2.739
Relative Retention Time :-0.00129
Quant Ion : 64.00
Area (flag) : 21240
On-Column Amount (ng) : 0.4138

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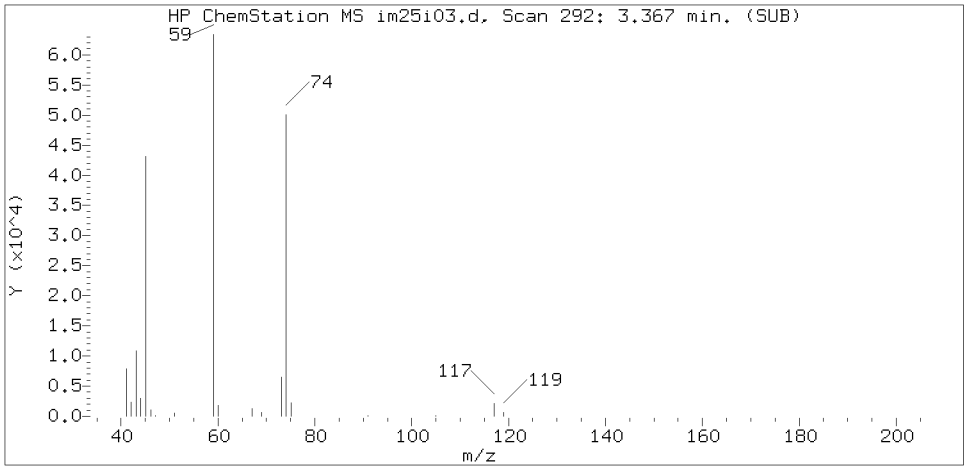
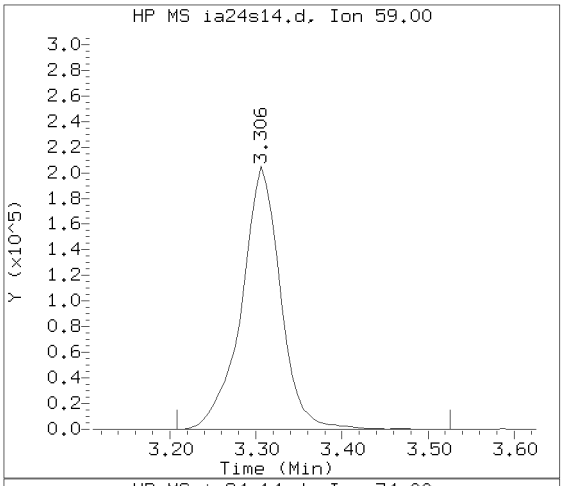
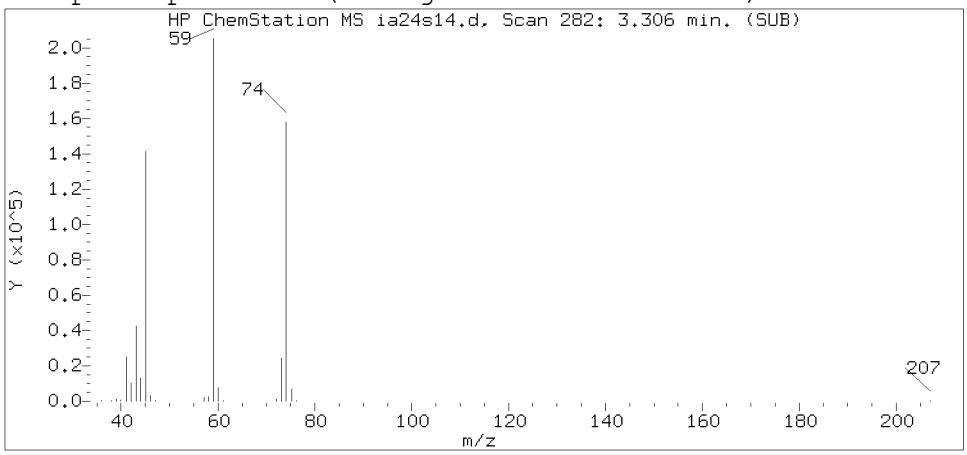
Target 3.5 esignature user ID: mec29284

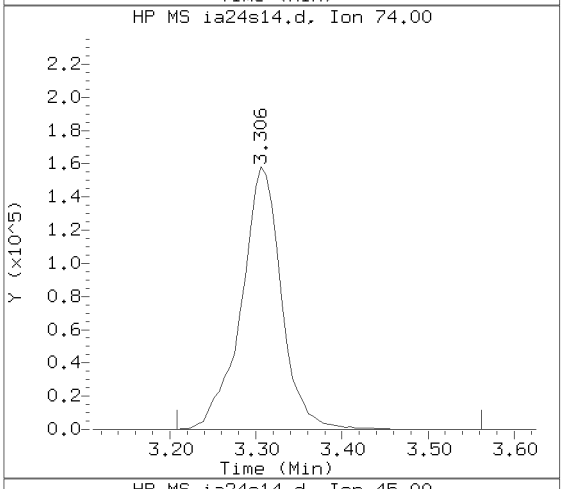
Reference Standard Spectrum for Ethyl ether



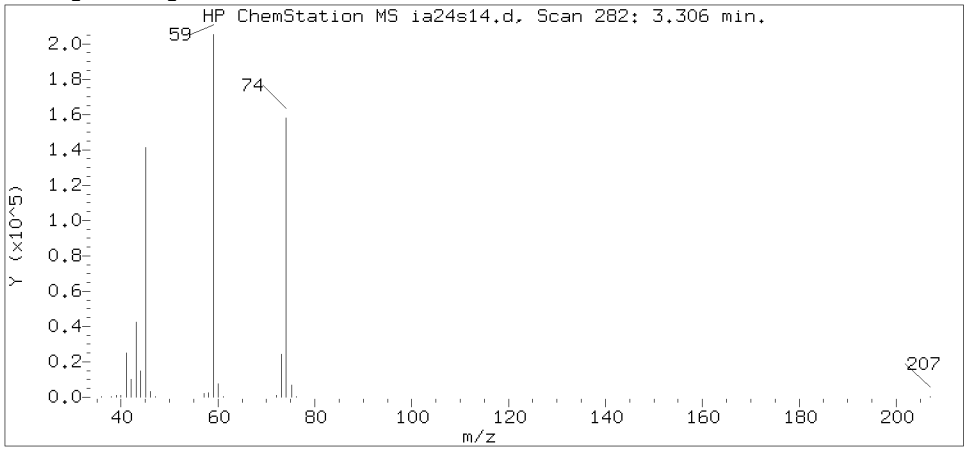


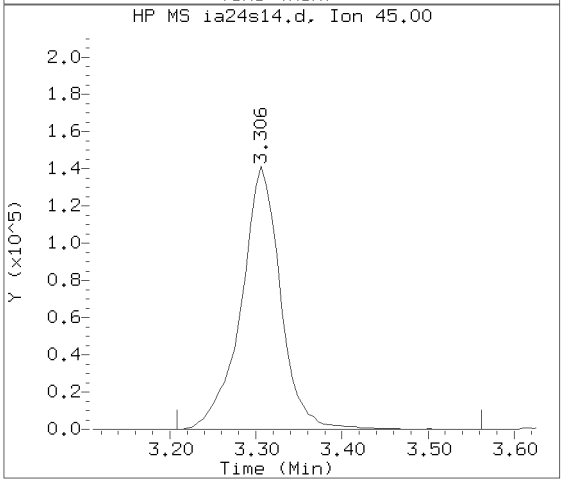
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

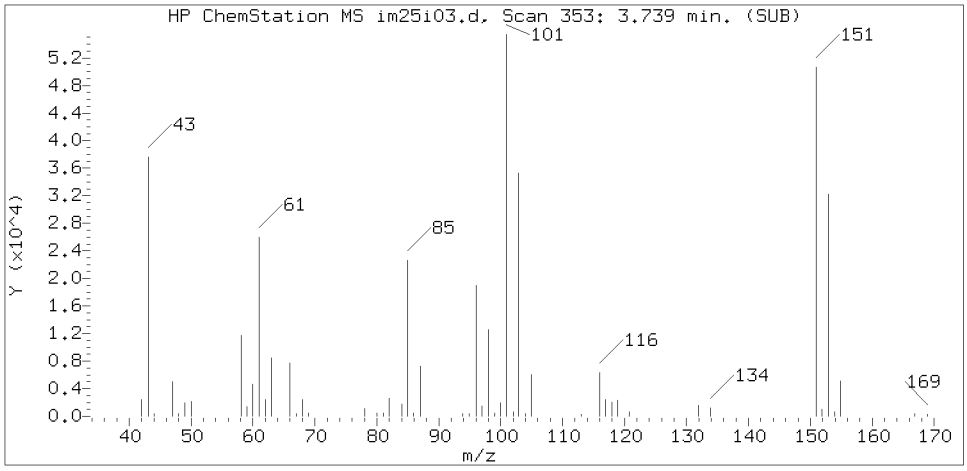
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

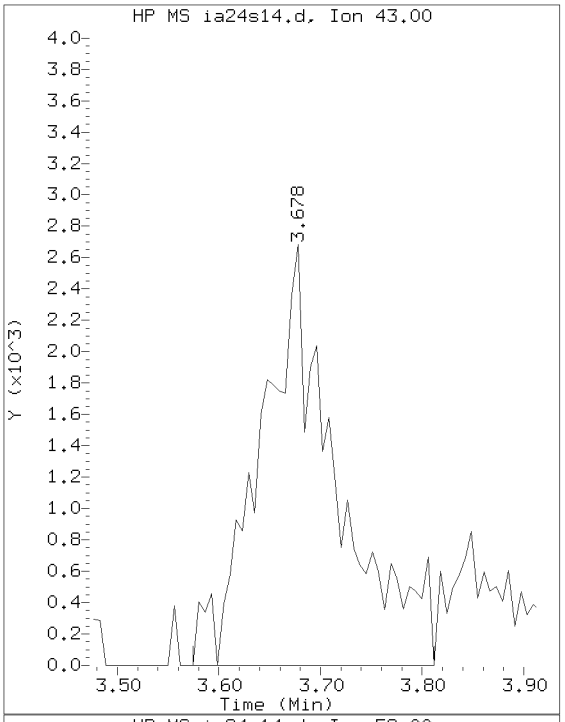
Sample Name: F3503DL Lab Sample ID: 1034103DL

Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 282
Retention Time (minutes): 3.306
Relative Retention Time :-0.00045
Quant Ion : 59.00
Area (flag) : 644807
On-Column Amount (ng) : 16.5881

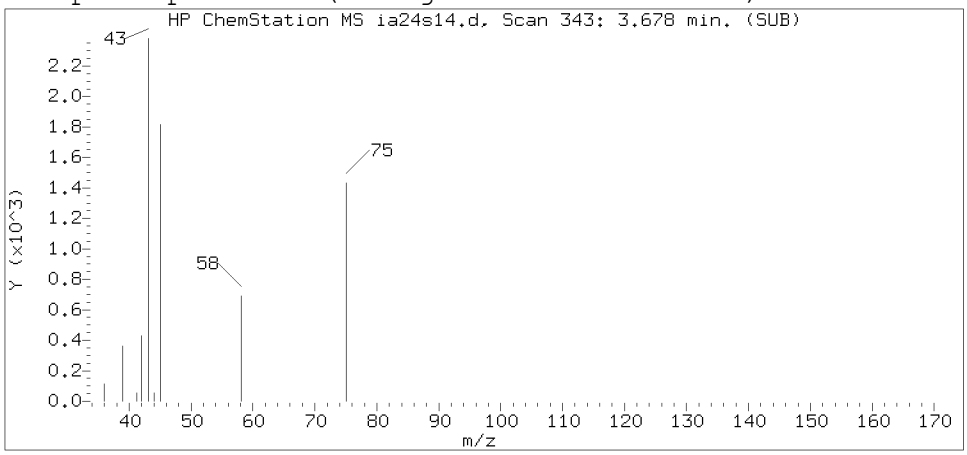
Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

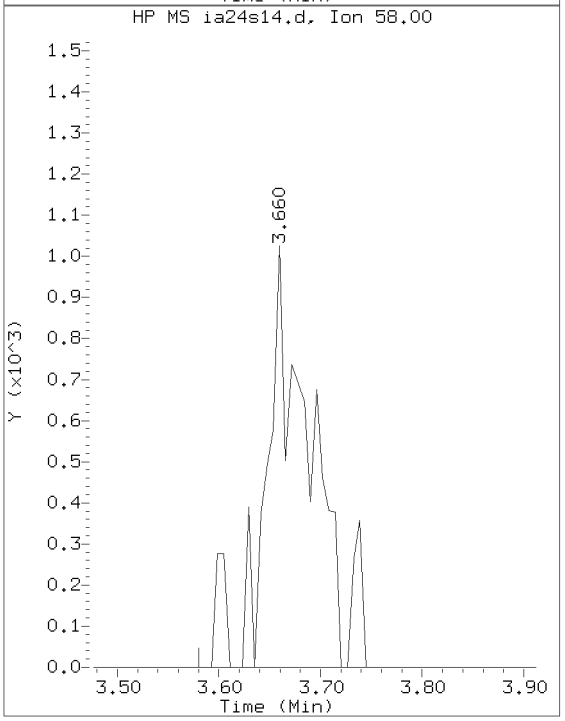
Reference Standard Spectrum for Acetone



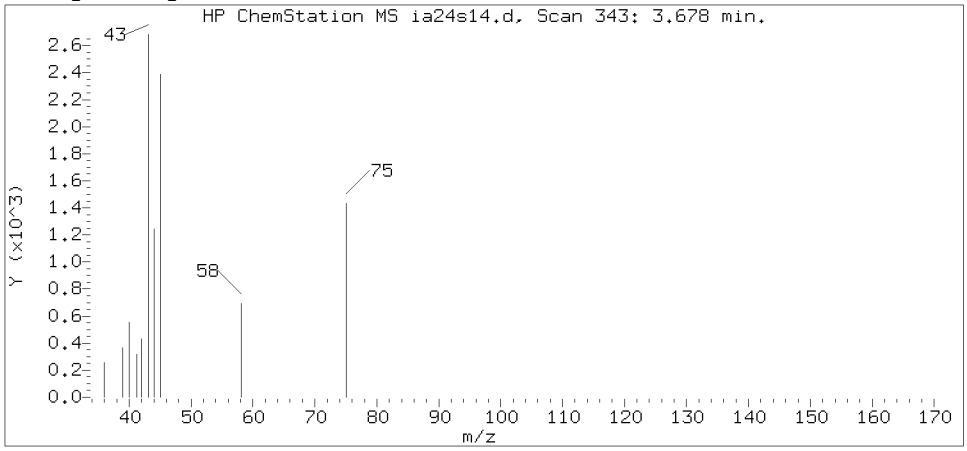


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

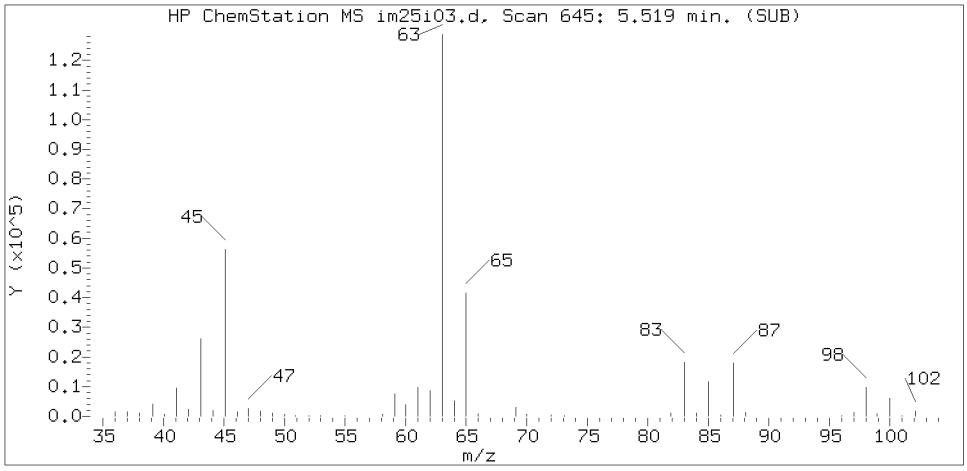
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

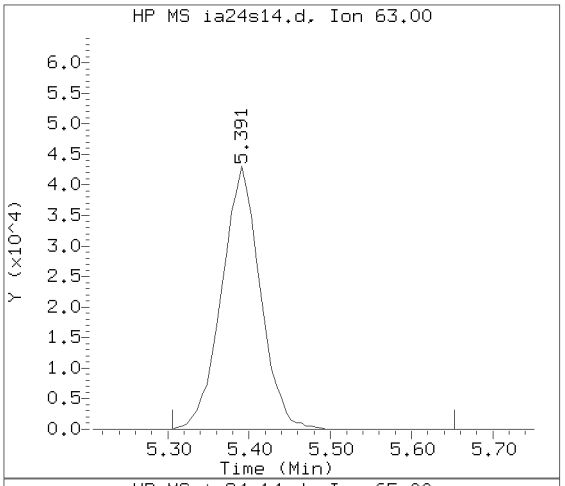
Sample Name: F3503DL Lab Sample ID: 1034103DL

Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 343
Retention Time (minutes)	: 3.678
Relative Retention Time	: 0.00129
Quant Ion	: 43.00
Area (flag)	: 14093
On-Column Amount (ng)	: 1.8169

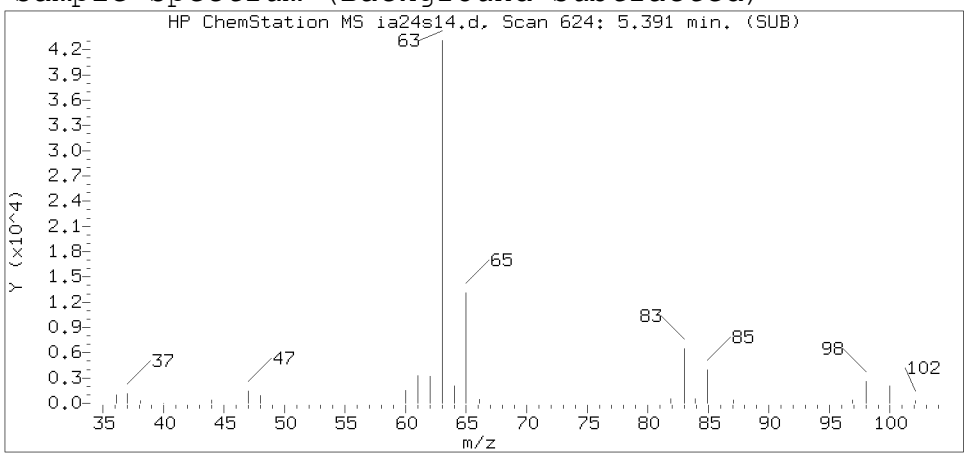
Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

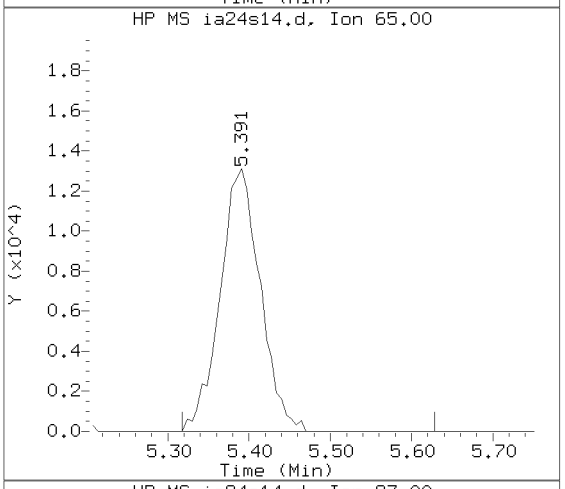
Reference Standard Spectrum for 1,1-Dichloroethane



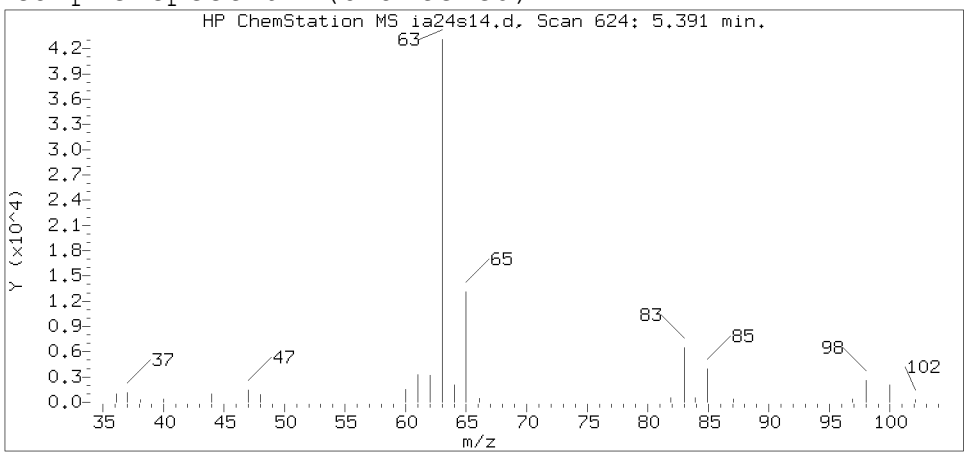


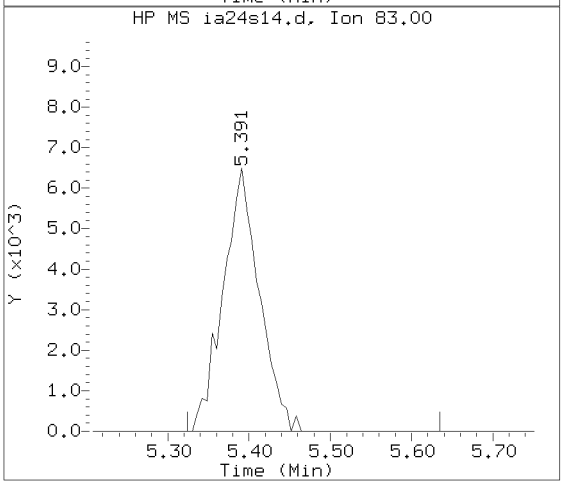
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

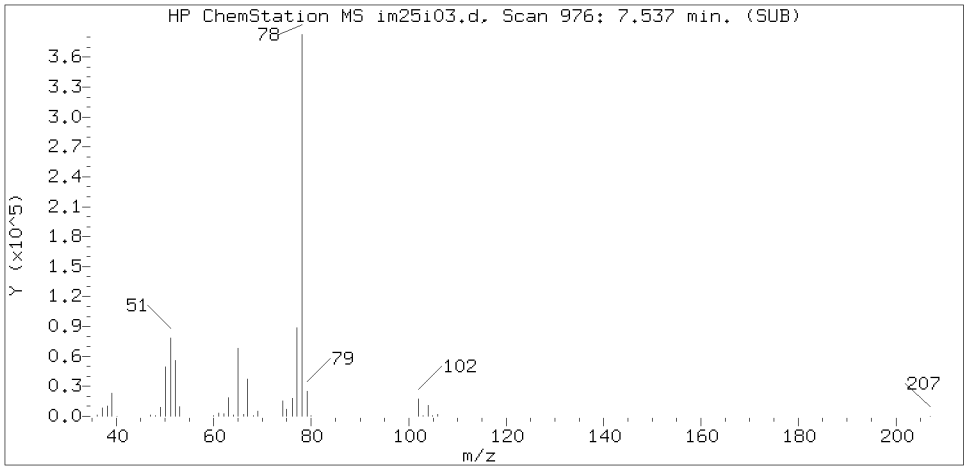
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

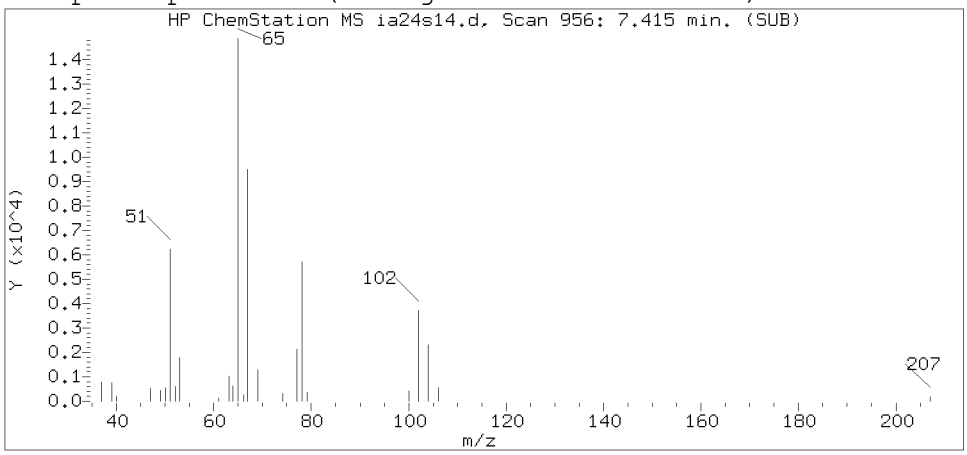
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 624
Retention Time (minutes): 5.391
Relative Retention Time :-0.00024
Quant Ion : 63.00
Area (flag) : 141780
On-Column Amount (ng) : 1.5213

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

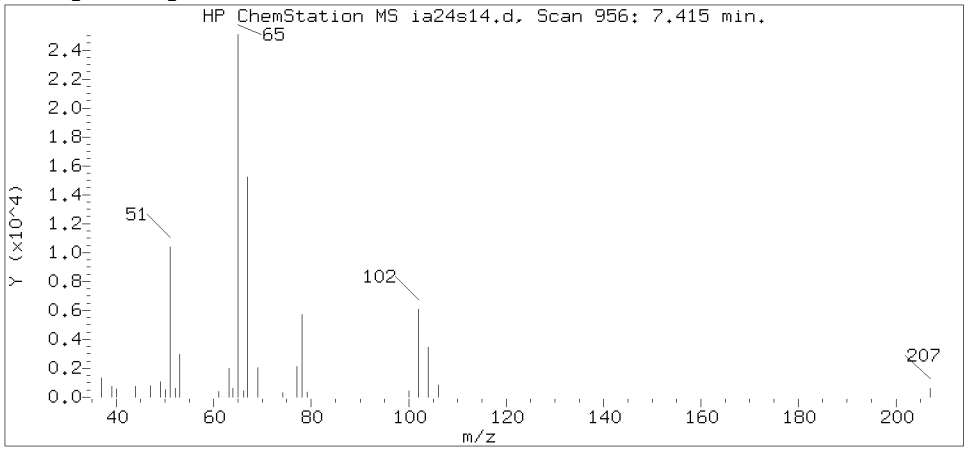
Reference Standard Spectrum for Benzene

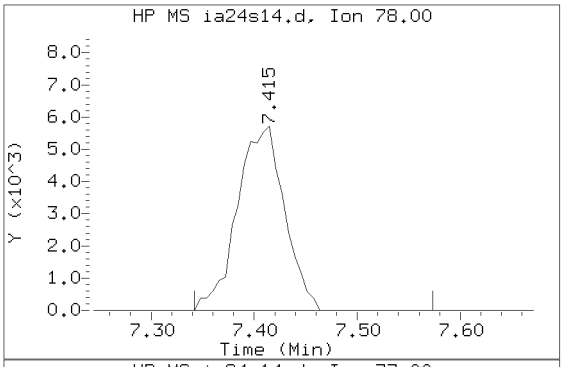


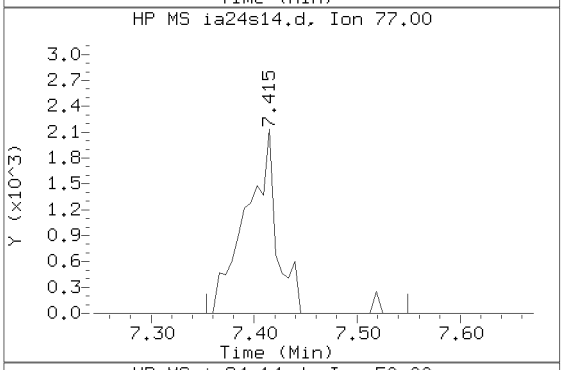
Sample Spectrum (Background Subtracted)

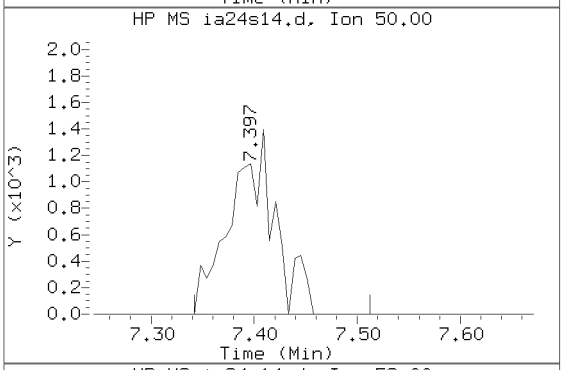


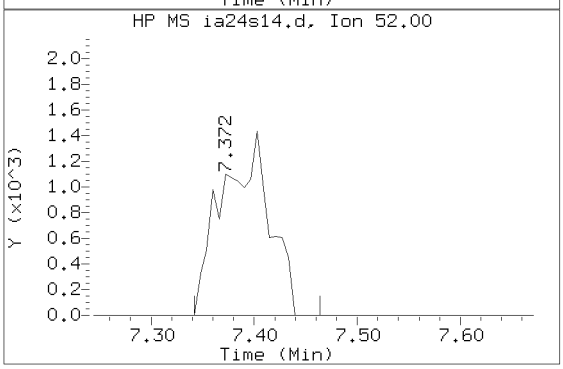
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s14.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:33 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:50 mec29284

Sample Name: F3503DL Lab Sample ID: 1034103DL

Compound Number : 58
Compound Name : Benzene
Scan Number : 956
Retention Time (minutes): 7.415
Relative Retention Time :-0.00082
Quant Ion : 78.00
Area (flag) : 18193
On-Column Amount (ng) : 0.0814

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:55.
Target 3.5 esignature user ID: mec29284

F3504 Lancaster Laboratories 1034104
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s05.d Injection date and time: **24-APR-2019 13:24**
Data file Sample Info. Line: F3504;1034104;1;0;;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.252	(0.006)	439	65	338048	(-11)	250.00	
66) Fluorobenzene	7.799	(0.006)	1022	96	1061215	(-13)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	801128	(-13)	50.00	
131) 1,4-Dichlorobenzene-d4	13.158	(0.000)	1903	152	436132	(-16)	50.00	

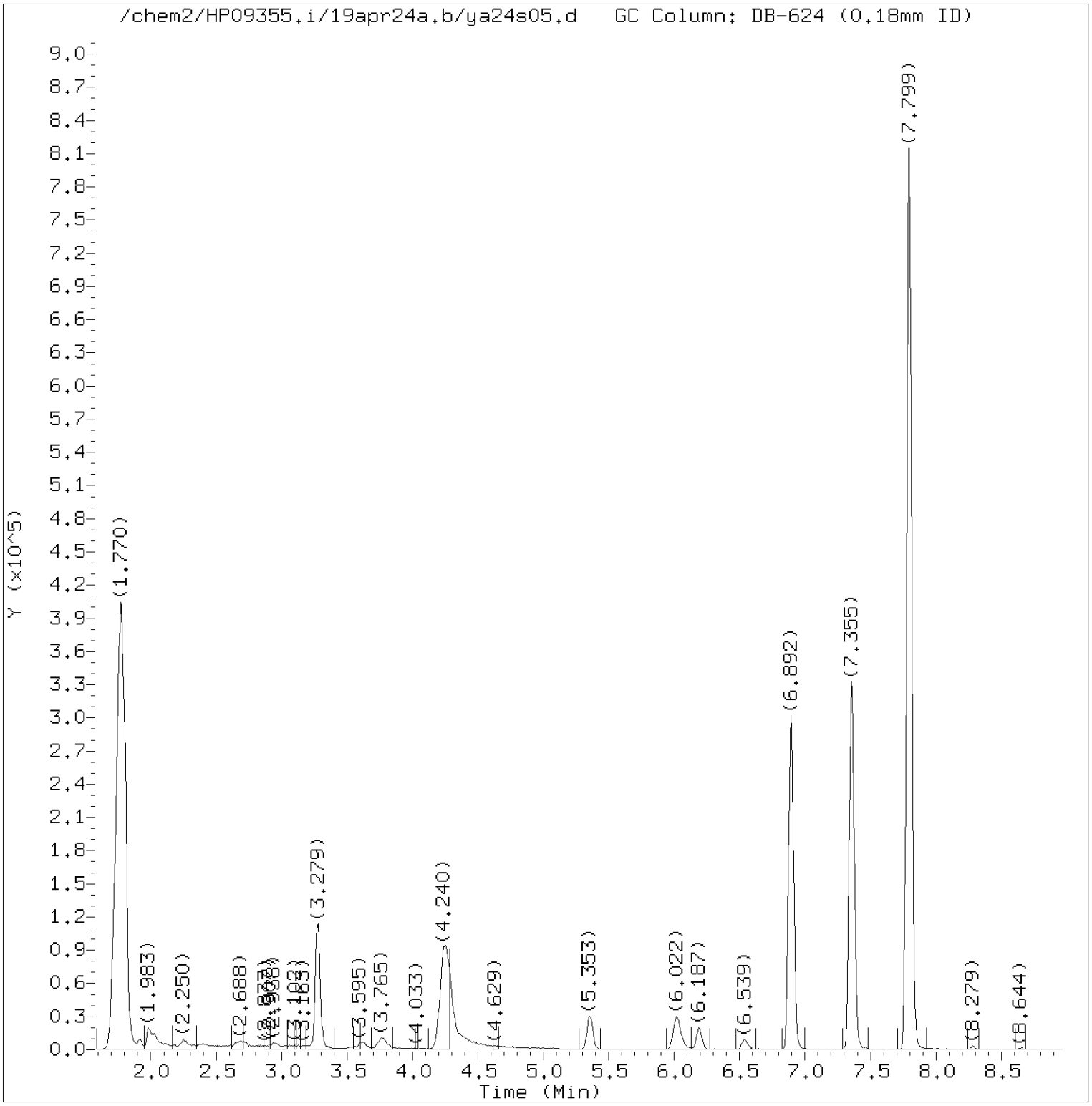
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.001)	113	262831	51.352	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.355	(0.001)	102	69227	53.924	108%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	1012497	48.154	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	367773	45.811	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
21) 2-Propanol	(1)	3.771	(0.000)	45	31278	36.549	36.55		J	18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:45. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

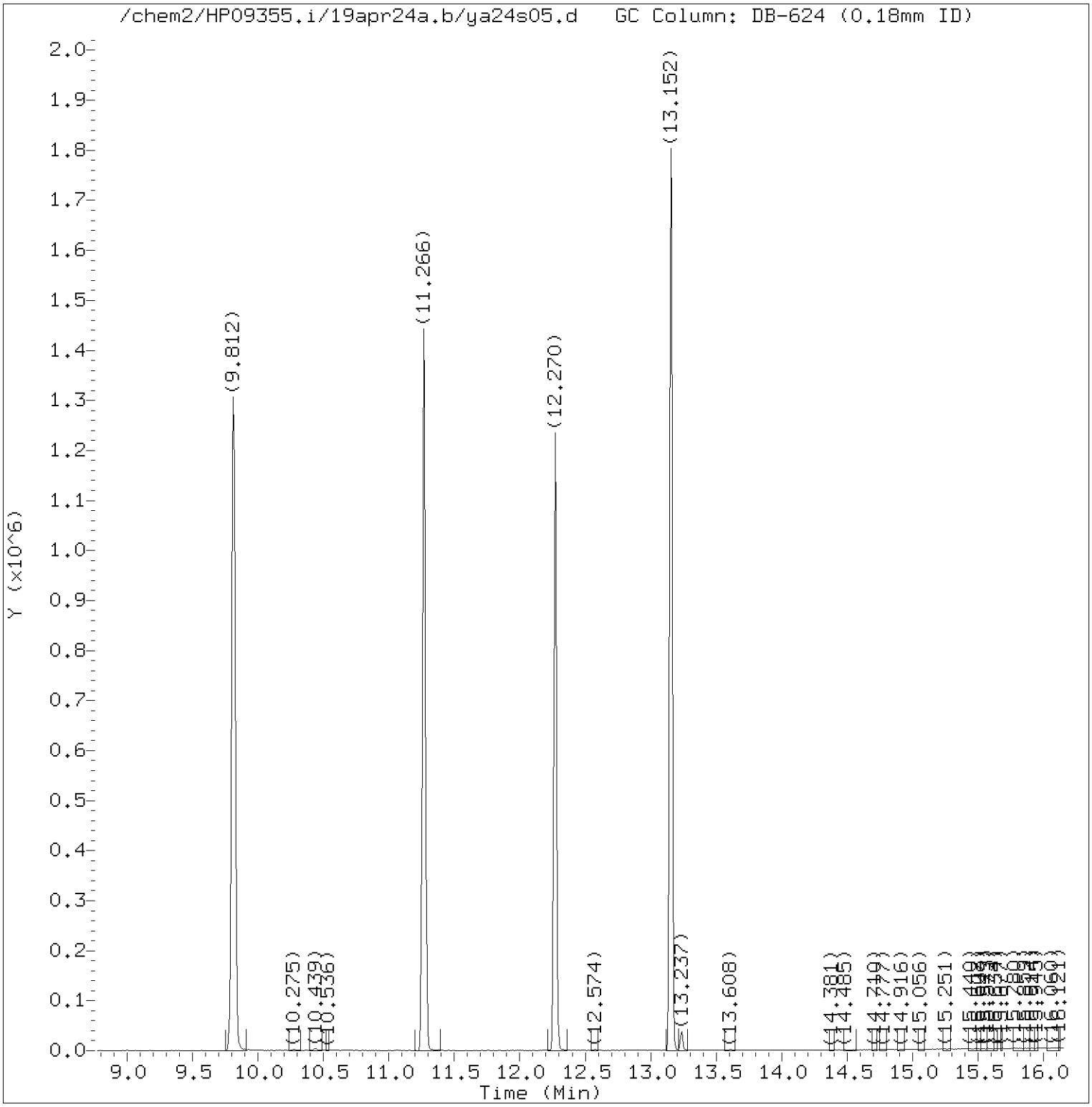
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s05.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:24 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504 Lab Sample ID: 1034104

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s05.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:24 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504 Lab Sample ID: 1034104

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s05.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:24 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

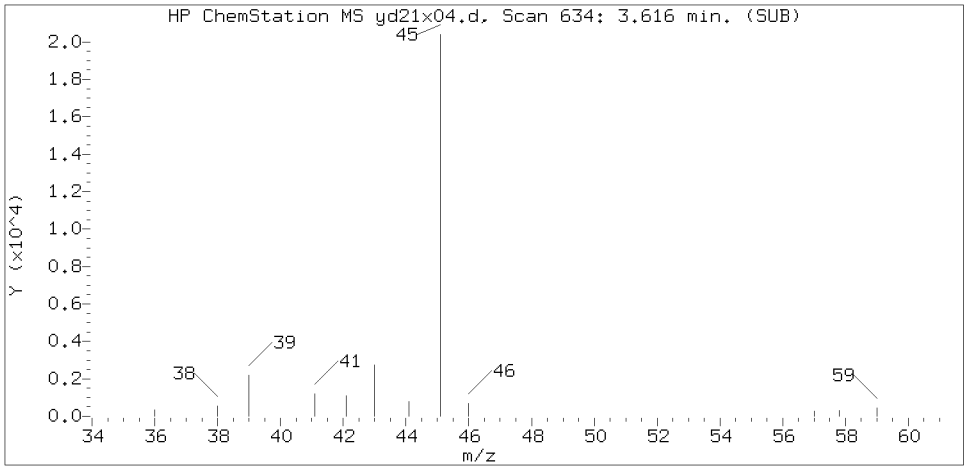
Sample Name: F3504 Lab Sample ID: 1034104

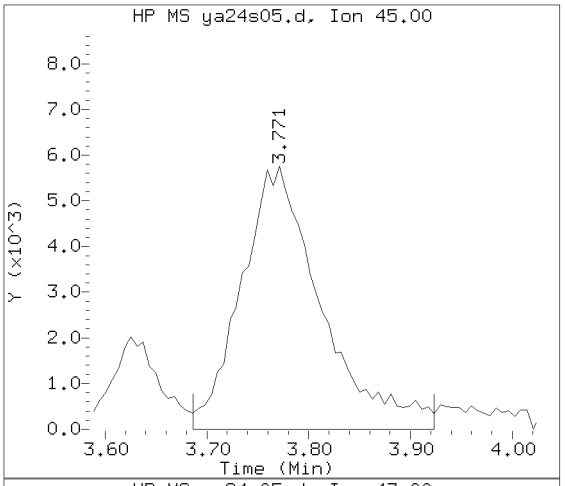
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.771	45	31278	36.549
29)*t-Butyl alcohol-d10	(1)	4.252	65	338048	250.000
52)$Dibromofluoromethane	(2)	6.892	113	262831	51.352
57)$1,2-Dichloroethane-d4	(2)	7.355	102	69227	53.924
66)*Fluorobenzene	(2)	7.799	96	1061215	50.000
83)$Toluene-d8	(3)	9.812	98	1012497	48.154
100)*Chlorobenzene-d5	(3)	11.266	117	801128	50.000
114)$4-Bromofluorobenzene	(3)	12.270	95	367773	45.811
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	436132	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

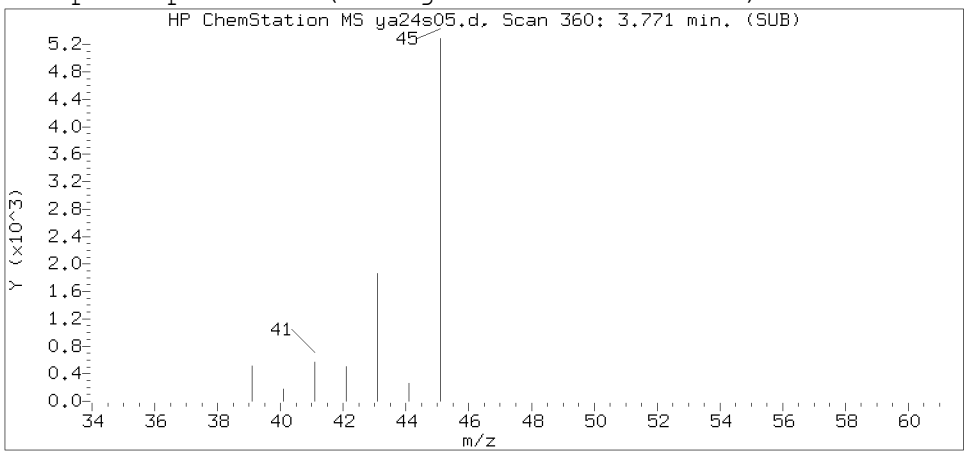
Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

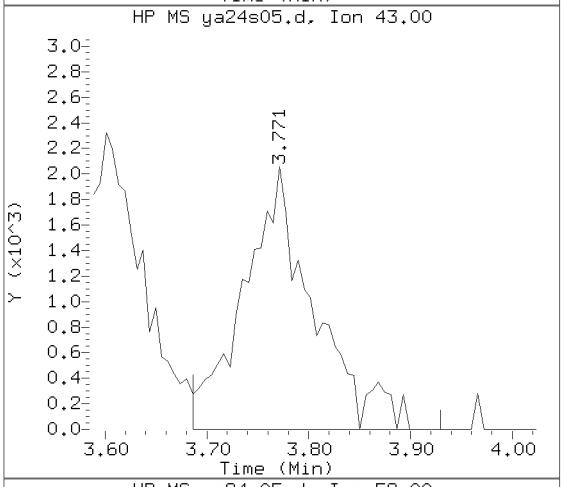
Reference Standard Spectrum for 2-Propanol



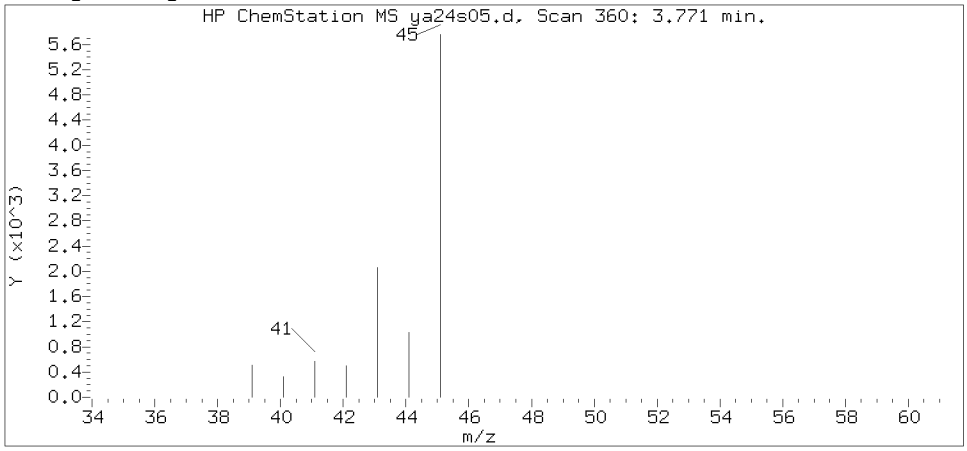


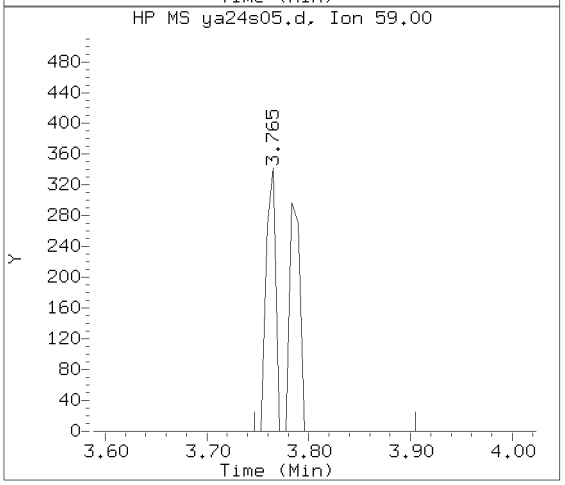
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/19apr24a.b/ya24s05.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:24 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number	: 21
Compound Name	: 2-Propanol
Scan Number	: 360
Retention Time (minutes)	: 3.771
Relative Retention Time	: 0.00017
Quant Ion	: 45.00
Area (flag)	: 31278
On-Column Amount (ng)	: 36.5486

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

F3504 Lancaster Laboratories 1034104
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s07.d Injection date and time: **24-APR-2019 14:04**
Data file Sample Info. Line: F3504;1034104;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274 ;193

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.324 (-0.012)	449	65	136913 (-1)	50.00	
63) Fluorobenzene	7.811 (-0.006)	1021	96	2049423 (-4)	10.00	
97) Chlorobenzene-d5	11.256 (0.000)	1586	117	1631417 (-6)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133 (0.000)	1894	152	890317 (-11)	10.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921 (0.000)	113	533081	10.079	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372 (0.000)	102	102705	10.076	101%		80 - 120
82) Toluene-d8	(3)	9.811 (0.000)	98	2055021	10.270	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249 (0.000)	95	724419	9.661	97%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)			Not Detected					0.1	1
4) Dimethyl ether	(2)	2.068 (-0.000)	45	167878M	2.253	2.25		J	0.04	13
2) Chloromethane	(2)			Not Detected					0.06	0.5
5) Vinyl Chloride	(2)	2.312 (-0.000)	62	16542	0.184	0.18		J	0.2	1
7) Bromomethane	(2)			Not Detected					0.5	1
8) Chloroethane	(2)	2.739 (-0.001)	64	81573	1.561	1.56			0.07	0.5
10) Trichlorofluoromethane	(2)			Not Detected					0.2	1
11) Ethyl ether	(2)	3.312 (-0.001)	59	617092	15.594	15.59			1	13
13) Acrolein	(1)			Not Detected					3	25
15) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
16) Freon 113	(2)			Not Detected					0.1	1
14) Acetone	(1)	3.672 (-0.003)	43	15357	1.914	1.91		J	0.9	10
17) Methyl Iodide	(2)			Not Detected					0.6	10
18) Carbon Disulfide	(2)			Not Detected					0.4	10
25) Acetonitrile	(1)			Not Detected					32	100
22) Allyl Chloride	(2)			Not Detected					0.8	10
23) Methylene Chloride	(2)	4.312 (-0.001)	84	11203	0.210	0.21		J	0.2	1
29) Acrylonitrile	(1)			Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)	5.391 (-0.000)	63	468529	4.938	4.94			0.1	1
36) Vinyl Acetate	(2)			Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)			Not Detected					0.5	10
38) 2-Butanone	(1)			Not Detected					0.6	10
42) Propionitrile	(1)			Not Detected					10	100
45) Methacrylonitrile	(1)			Not Detected					10	100
48) Tetrahydrofuran	(1)	6.568 (0.002)	71	11916	2.925	2.92		J	2	25
49) Chloroform	(2)			Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)			Not Detected					0.1	1
54) Carbon Tetrachloride	(2)			Not Detected					0.2	1
56) Isobutyl Alcohol	(1)			Not Detected					4	200

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s07.d Injection date and time: **24-APR-2019 14:04**
Data file Sample Info. Line: F3504;1034104;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

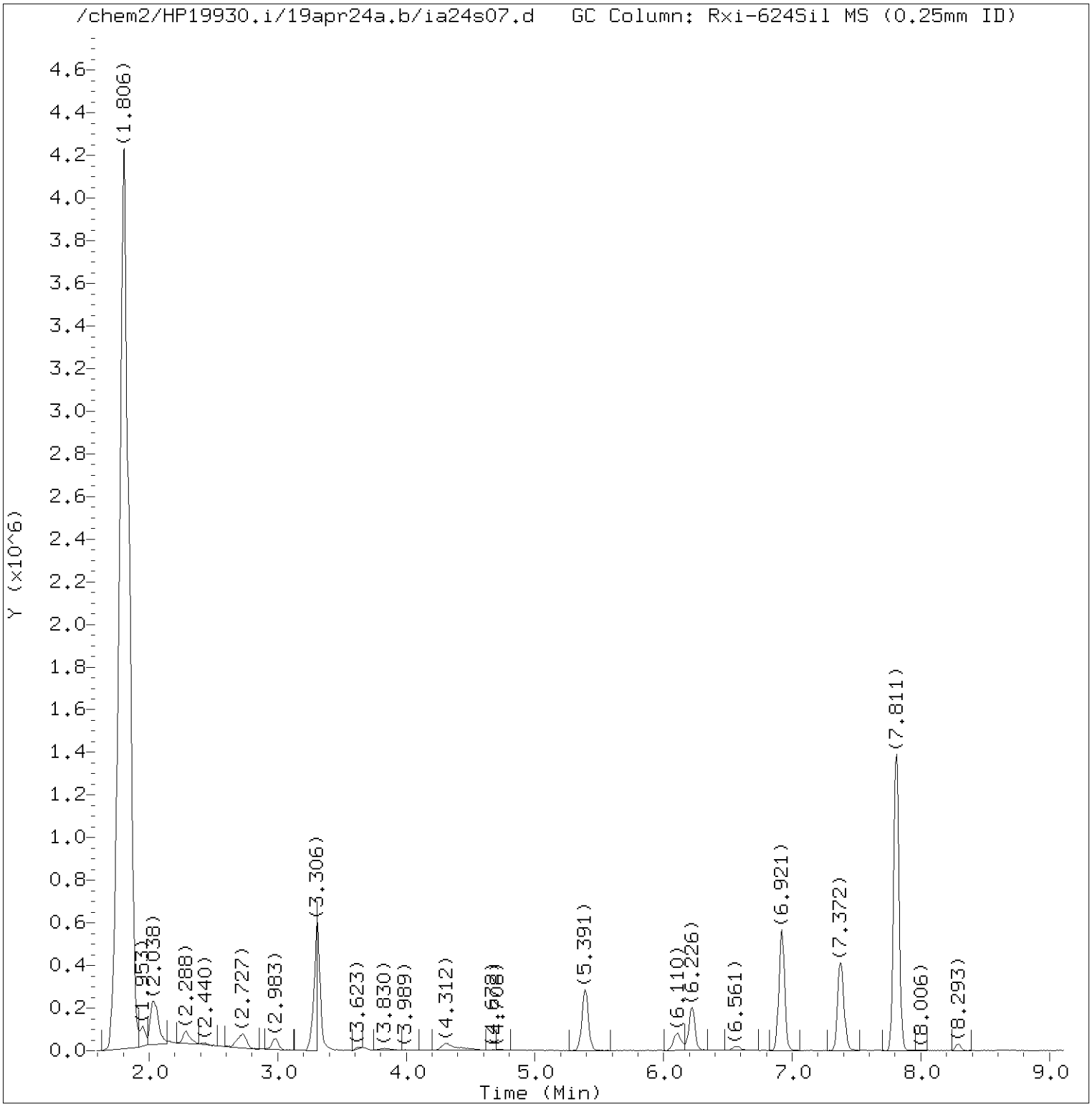
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
58) Benzene	(2)	7.409(-0.000)	78	68404	0.301	0.30		J	0.07	1
59) 1,2-Dichloroethane	(2)			Not Detected					0.1	1
67) Trichloroethene	(2)	8.281(0.000)	95	12052	0.189	0.19		J	0.2	1
70) 1,2-Dichloropropane	(2)			Not Detected					0.1	1
71) Methyl Methacrylate	(1)			Not Detected					4	10
73) Dibromomethane	(2)			Not Detected					0.07	1
72) 1,4-Dioxane	(1)			Not Detected					45	200
74) Bromodichloromethane	(2)			Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)			Not Detected					0.9	10
83) Toluene	(3)			Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)			Not Detected					0.1	1
86) Ethyl Methacrylate	(3)			Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)			Not Detected					0.08	1
89) Tetrachloroethene	(3)	10.426(-0.000)	166	15768	0.198	0.20		J	0.06	1
90) 1,3-Dichloropropane	(3)			Not Detected					0.09	1
91) 2-Hexanone	(1)			Not Detected					0.6	10
93) Dibromochloromethane	(3)			Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)			Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.08	1
100) Ethylbenzene	(3)			Not Detected					0.08	1
101) m+p-Xylene	(3)			Not Detected					0.1	0.5
104) o-Xylene	(3)			Not Detected					0.05	0.5
105) Xylene (Total)	(3)			Not Detected					0.2	3
106) Styrene	(3)			Not Detected					0.05	1
107) Bromoform	(3)			Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)			Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)			Not Detected					0.1	1
126) Pentachloroethane	(4)			Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.08	1
142) Hexachloroethane	(4)			Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)			Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)			Not Detected					0.1	1
146) Hexachlorobutadiene	(4)			Not Detected					0.07	1
147) Naphthalene	(4)			Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

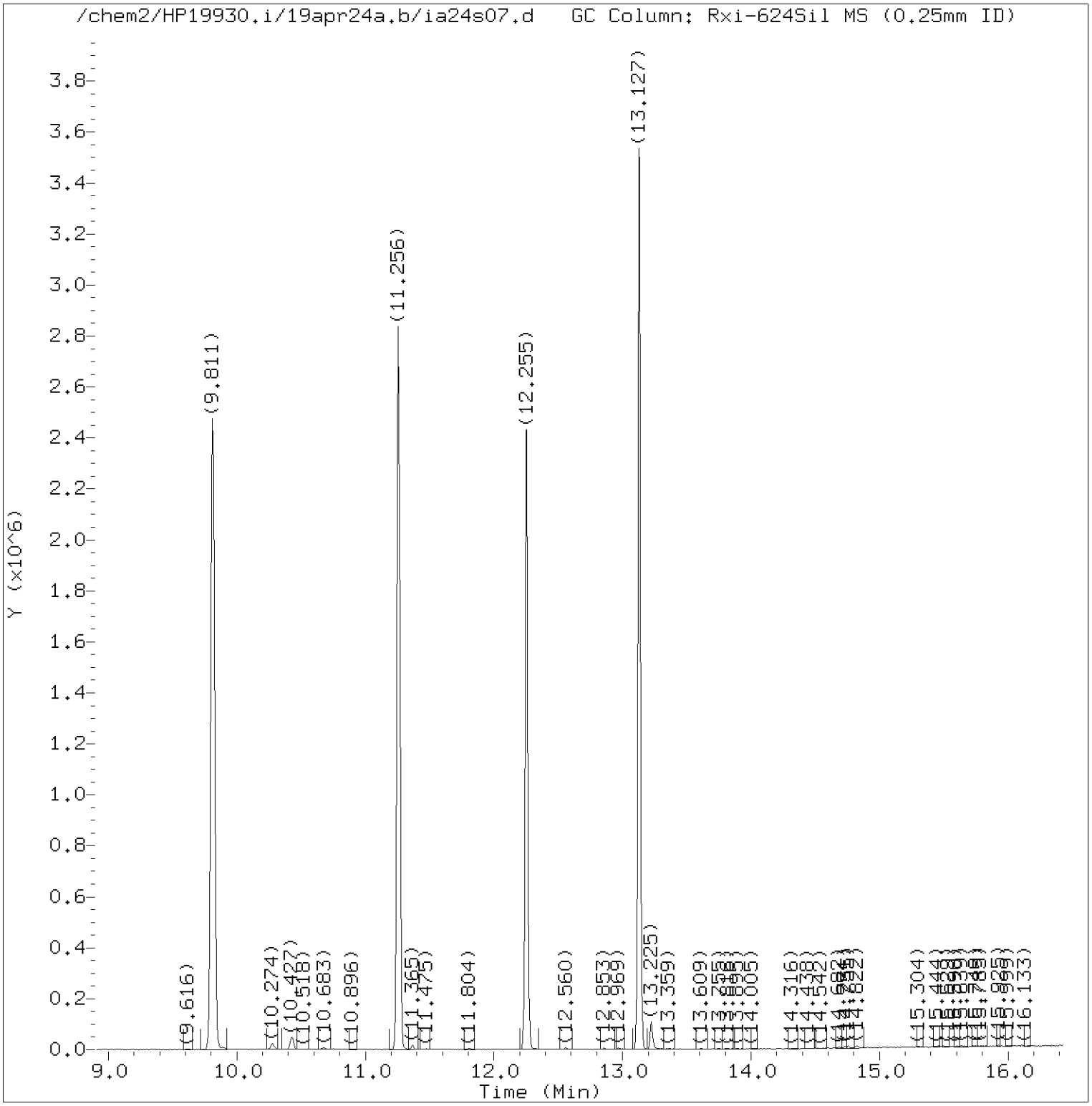
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.068	45	167878M	2.253
5) Vinyl Chloride	(2)	2.312	62	16542	0.184
8) Chloroethane	(2)	2.739	64	81573	1.561
11) Ethyl ether	(2)	3.312	59	617092	15.594
14) Acetone	(1)	3.672	43	15357	1.914
23) Methylene Chloride	(2)	4.312	84	11203	0.210
26)*t-Butyl Alcohol-d10	(1)	4.324	65	136913	50.000
33) 1,1-Dichloroethane	(2)	5.391	63	468529	4.938
48) Tetrahydrofuran	(1)	6.568	71	11916	2.925
50)$Dibromofluoromethane	(2)	6.921	113	533081	10.079
57)$1,2-Dichloroethane-d4	(2)	7.372	102	102705	10.076
58) Benzene	(2)	7.409	78	68404	0.301
63)*Fluorobenzene	(2)	7.811	96	2049423	10.000
67) Trichloroethene	(2)	8.281	95	12052	0.189
82)$Toluene-d8	(3)	9.811	98	2055021	10.270
89) Tetrachloroethene	(3)	10.427	166	15768	0.198
97)*Chlorobenzene-d5	(3)	11.256	117	1631417	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	724419	9.661
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	890317	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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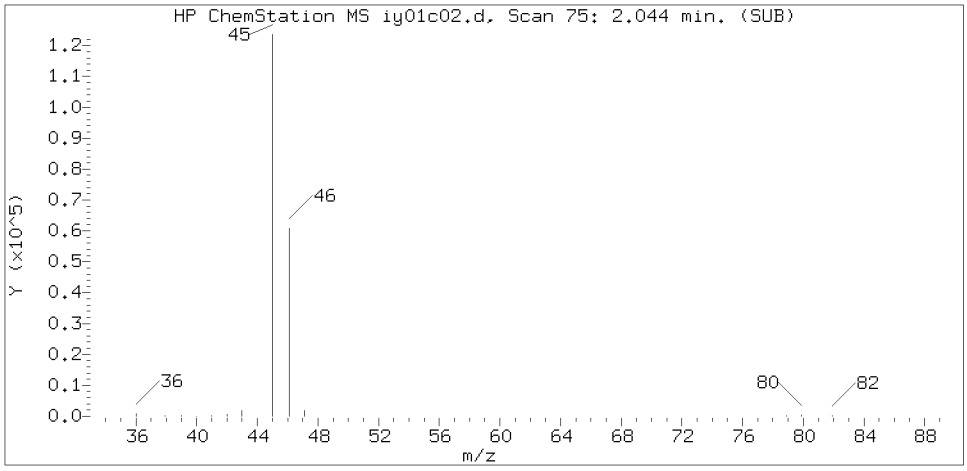
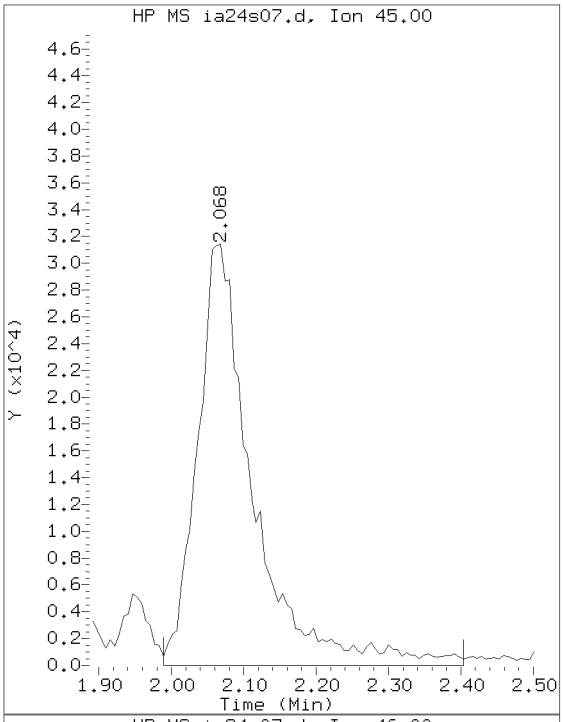
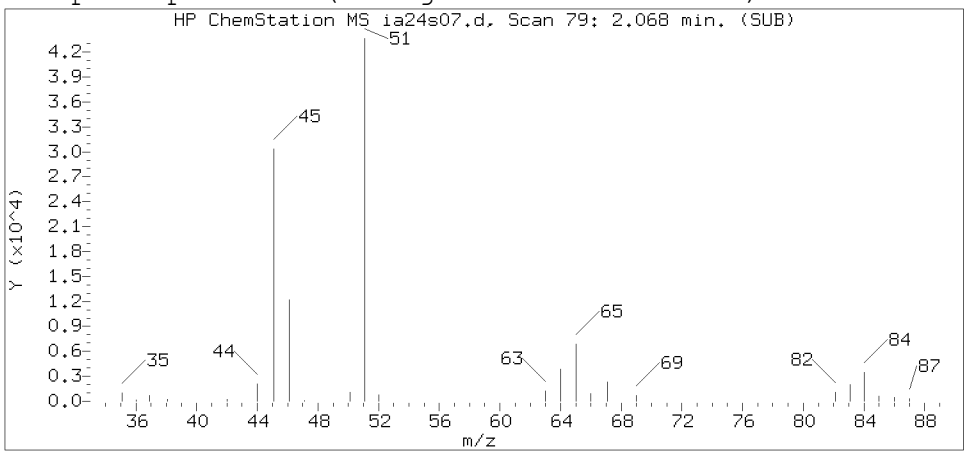
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

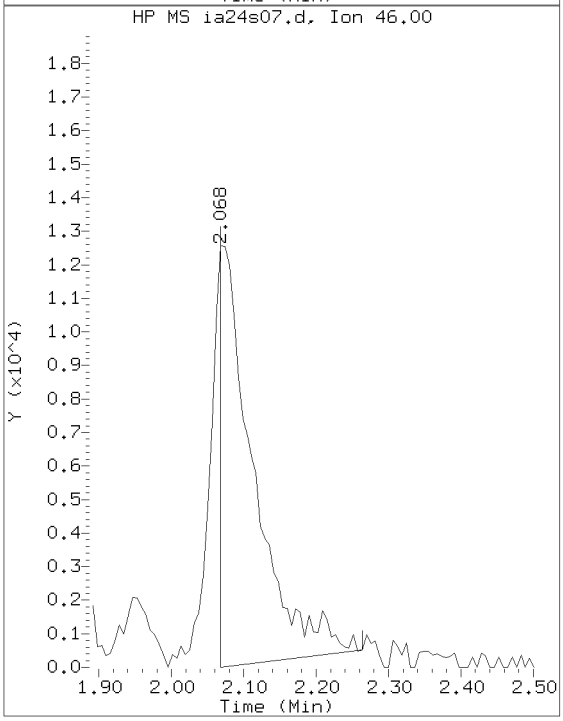
Reference Standard Spectrum for Dimethyl ether



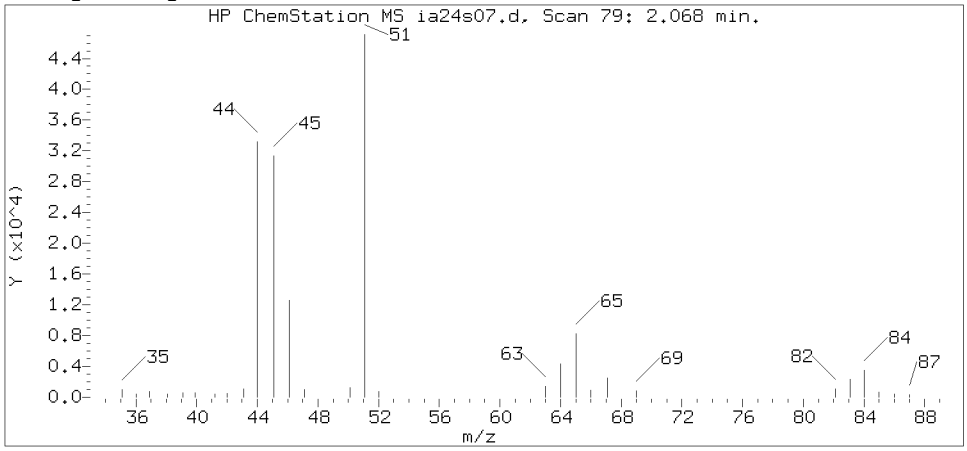


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

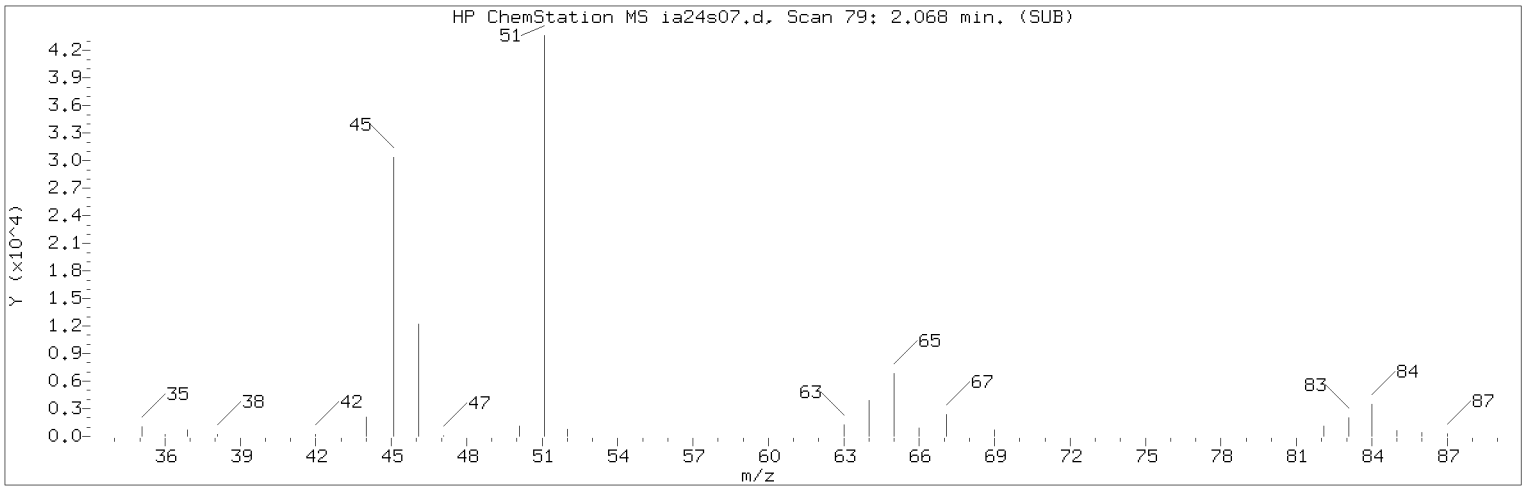
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

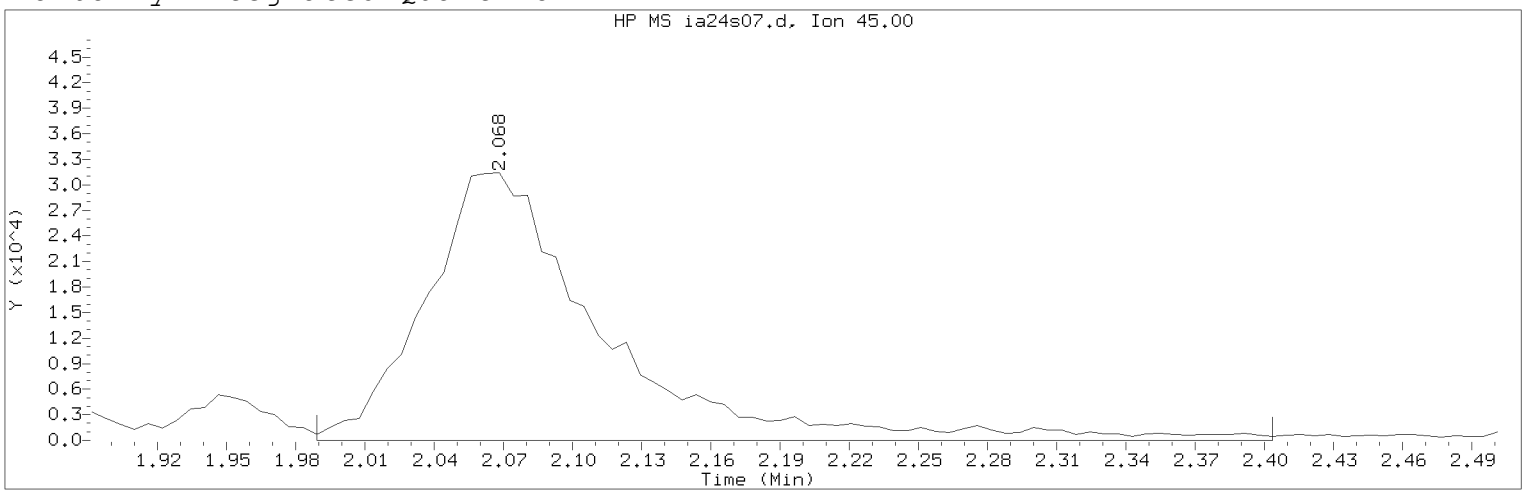
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Relative Retention Time :-0.00057
Quant Ion : 45.00
Area (flag) : 167878M
On-Column Amount (ng) : 2.2534

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

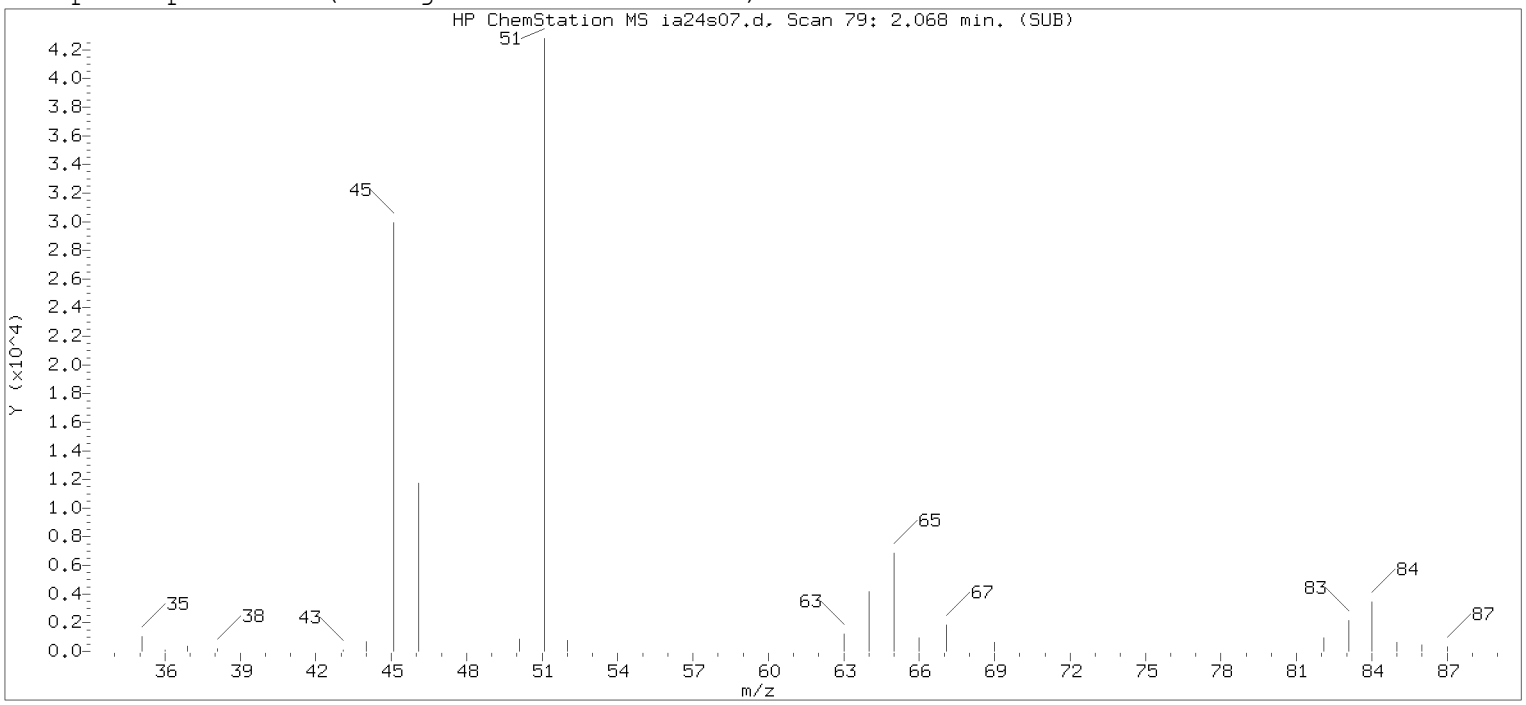
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area (flag) : 167878M
On-Column Amount (ng) : 2.2534
Integration start scan : 65 Integration stop scan: 133
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

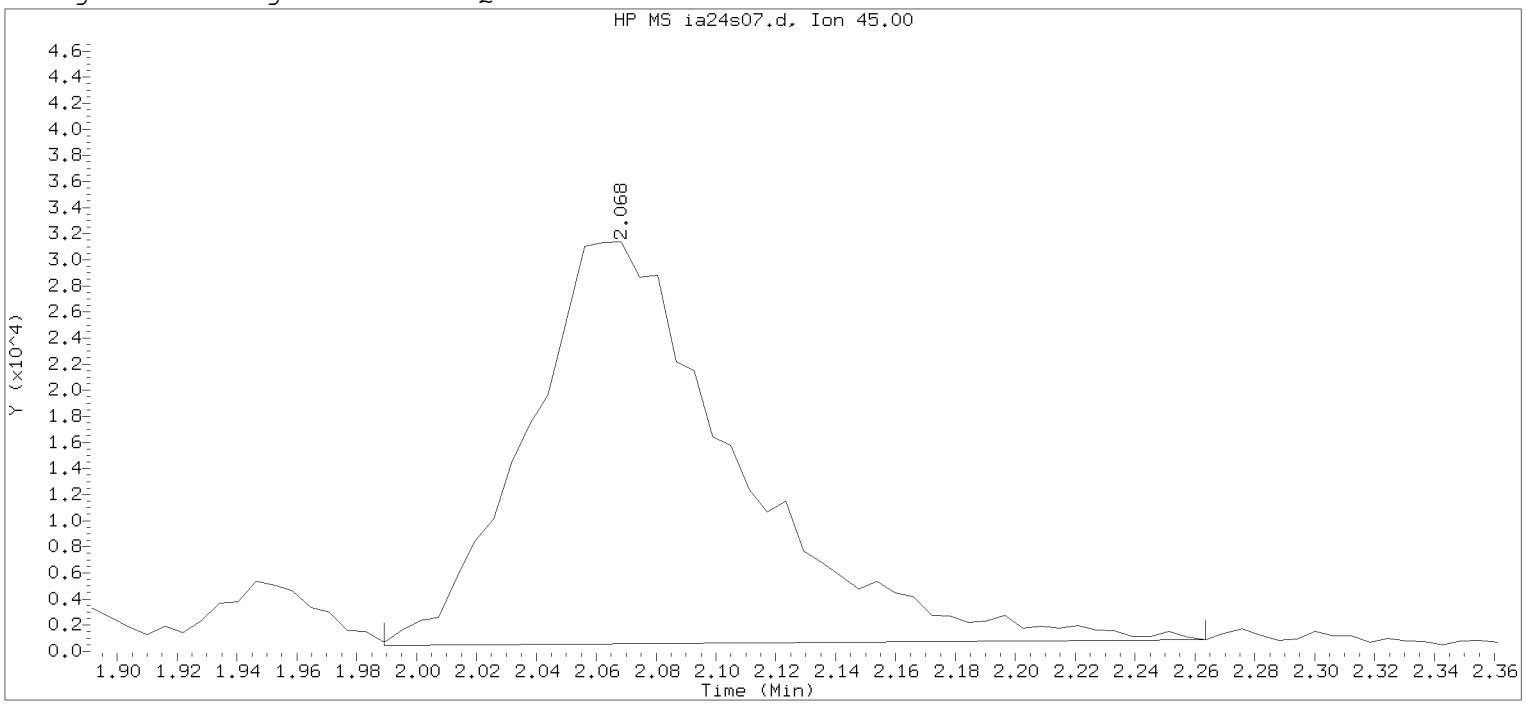
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:22 Automation

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 79		
Retention Time (minutes)	: 2.068		
Quant Ion	: 45.00		
Area	: 149086		
On-column Amount (ng)	: 2.0012		
Integration start scan	: 65	Integration stop scan:	110
Y at integration start	: 458	Y at integration end:	872

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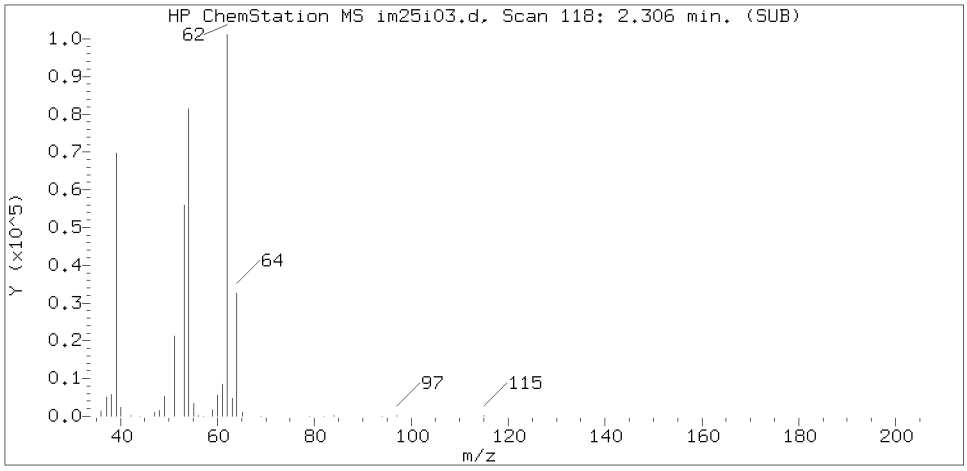
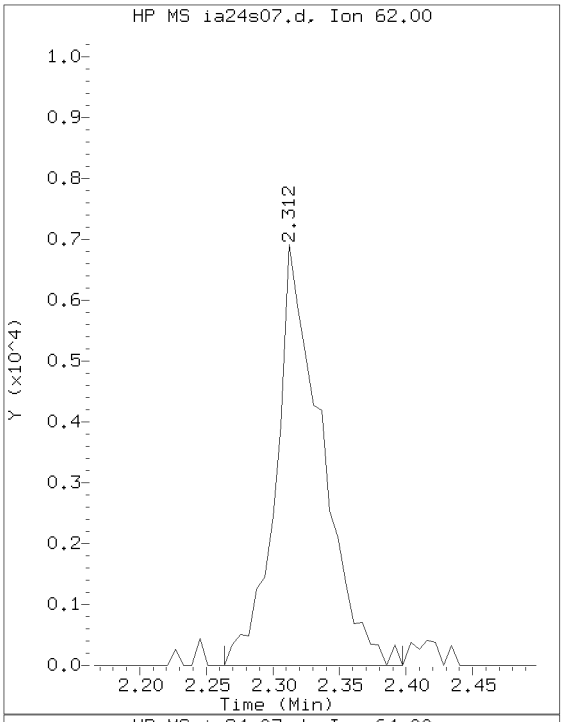
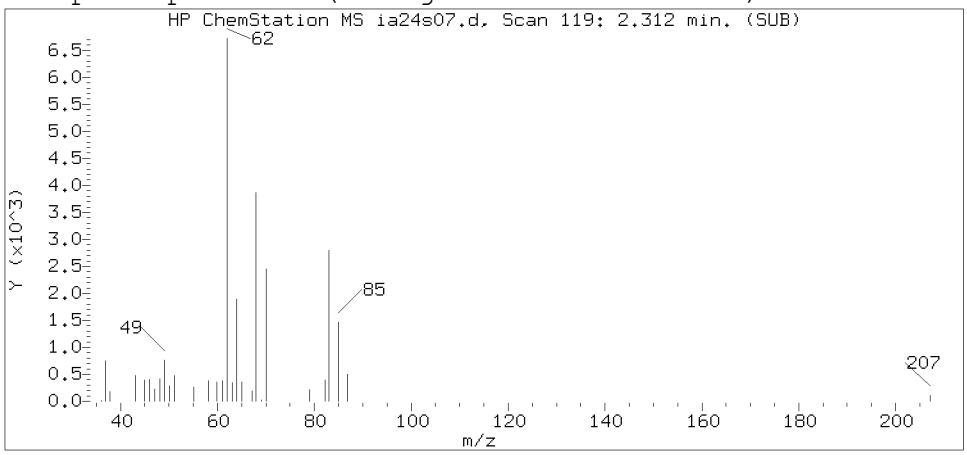
Target 3.5 esignature used. AE35 Page 291

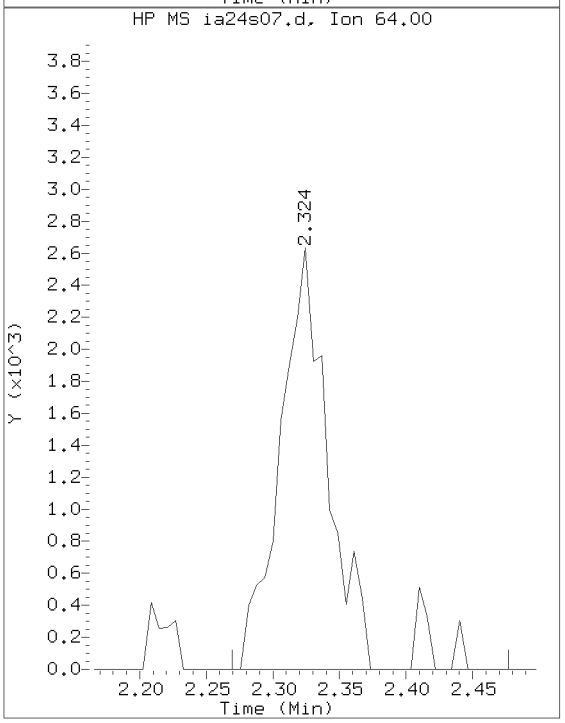
Reference Standard Spectrum for Vinyl Chloride



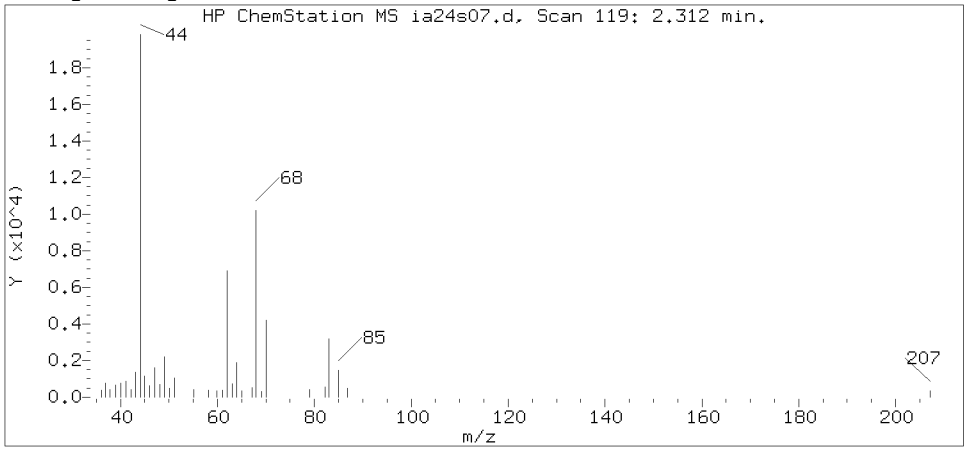


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

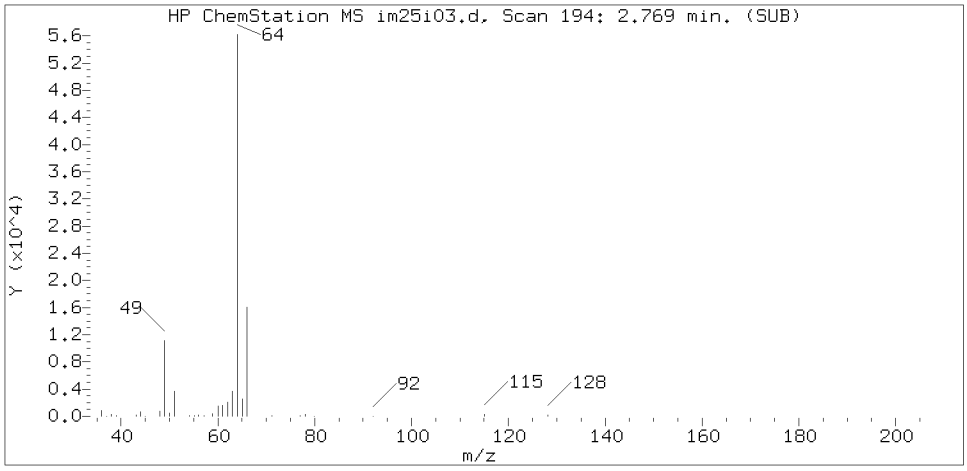
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

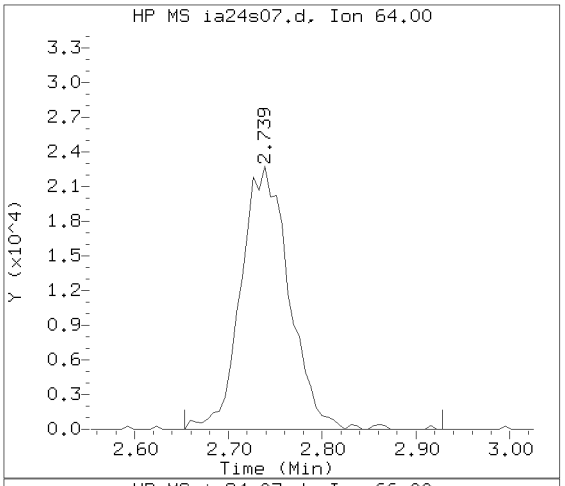
Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 5
Compound Name : Vinyl Chloride
Scan Number : 119
Retention Time (minutes): 2.312
Relative Retention Time :-0.00055
Quant Ion : 62.00
Area (flag) : 16542
On-Column Amount (ng) : 0.1839

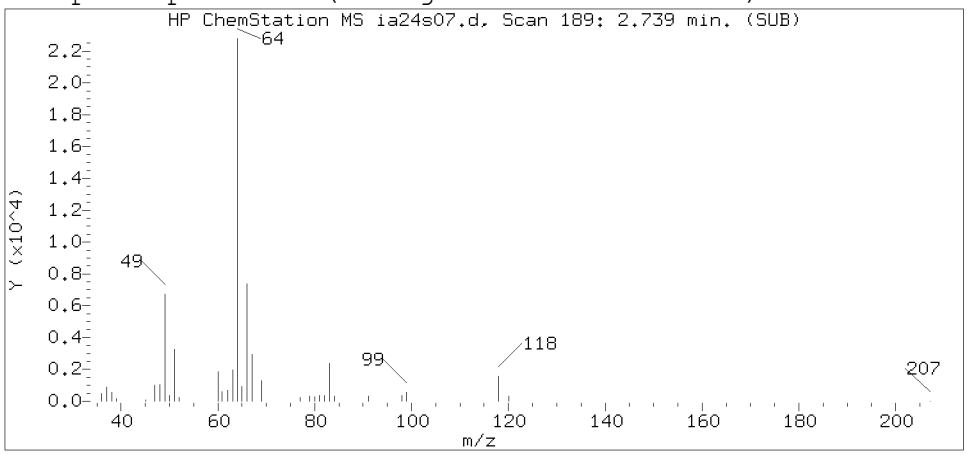
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

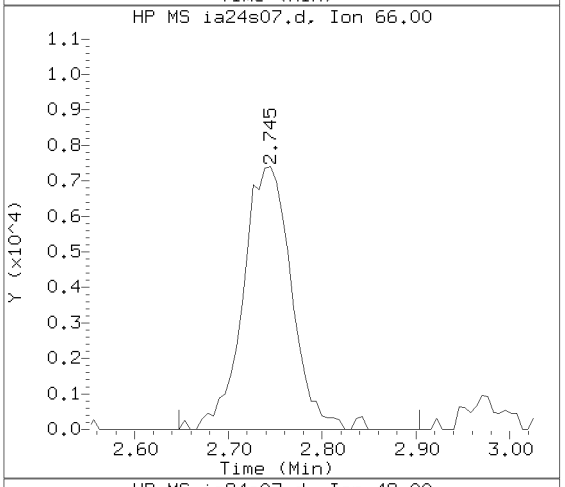
Reference Standard Spectrum for Chloroethane



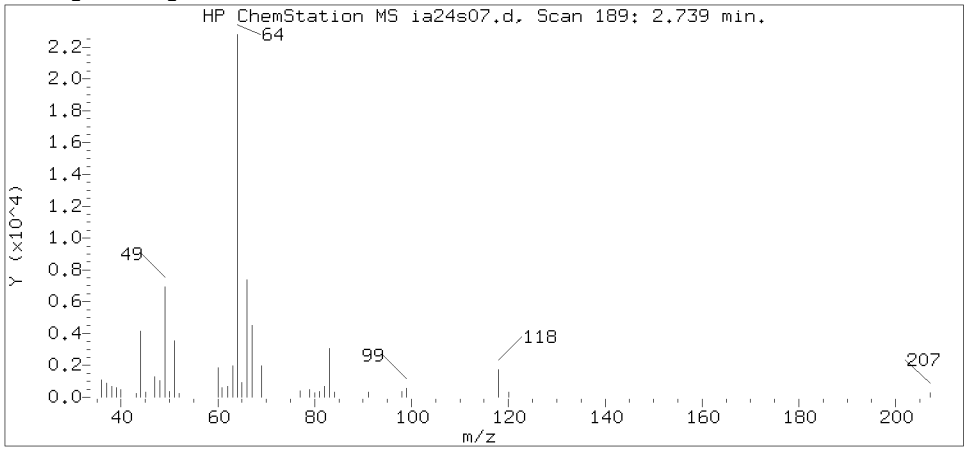


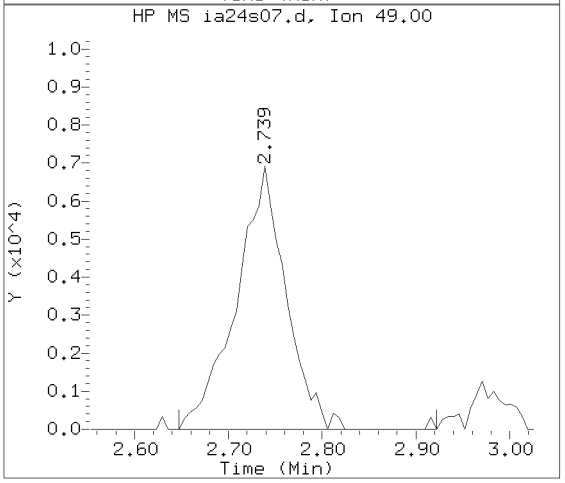
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

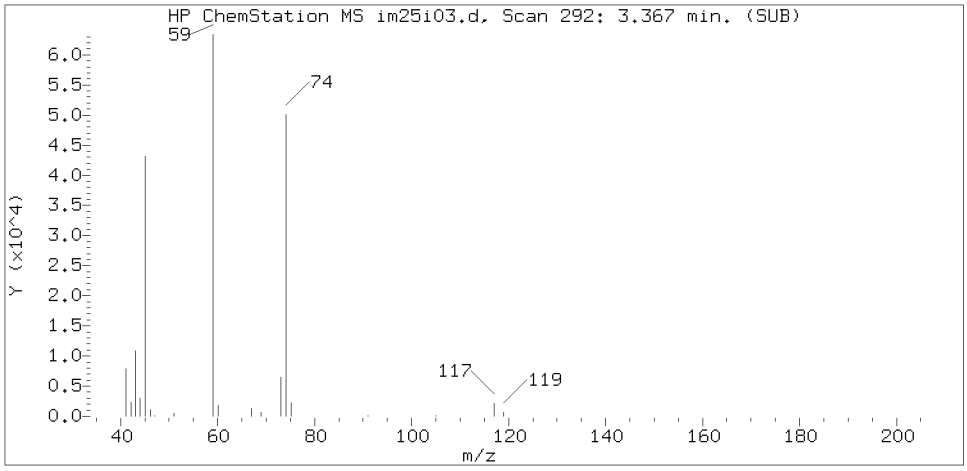
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

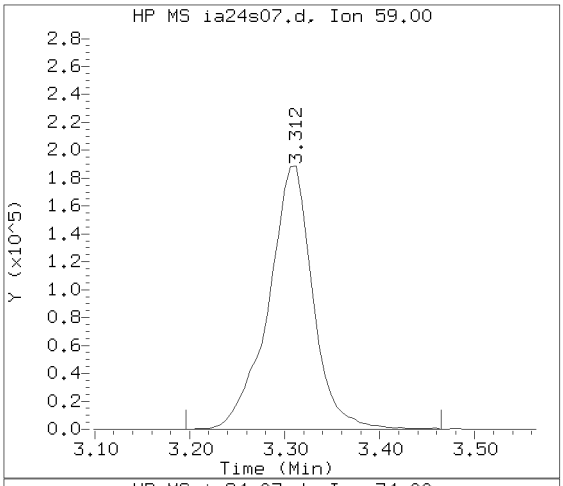
Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 189
Retention Time (minutes): 2.739
Relative Retention Time :-0.00129
Quant Ion : 64.00
Area (flag) : 81573
On-Column Amount (ng) : 1.5611

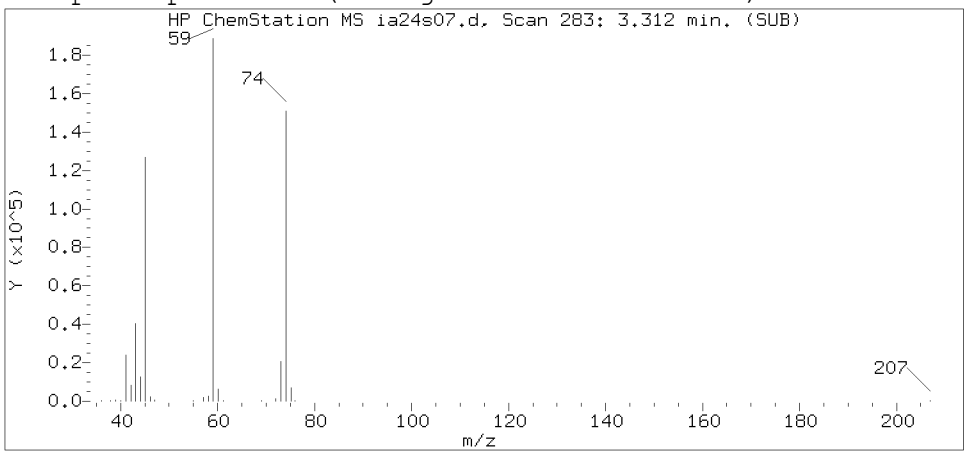
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

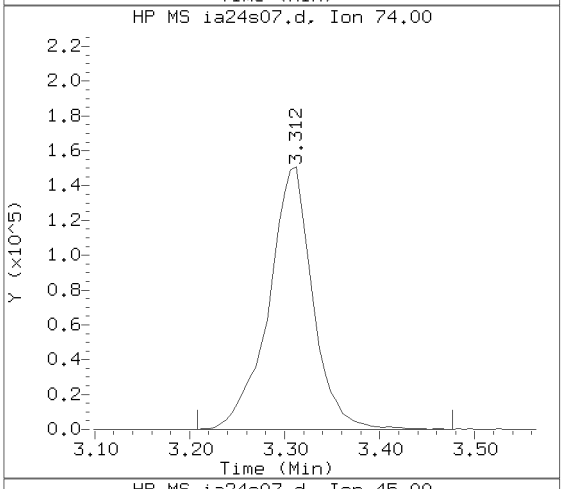
Reference Standard Spectrum for Ethyl ether



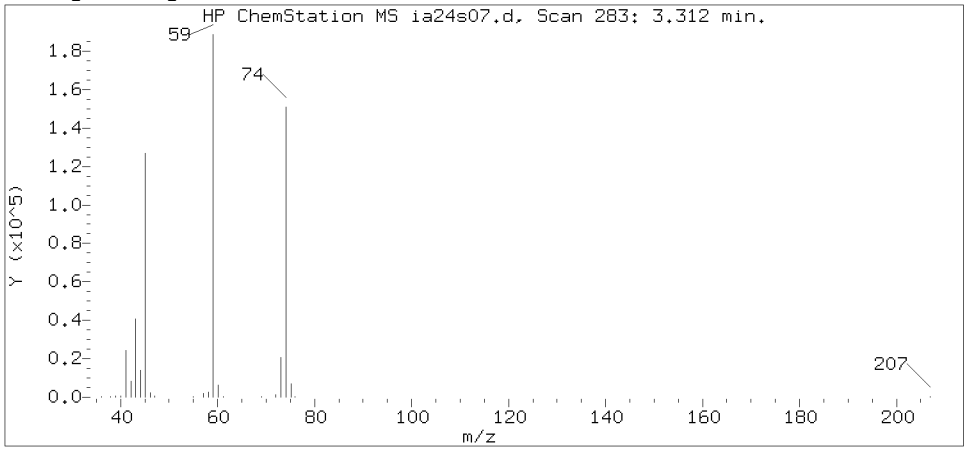


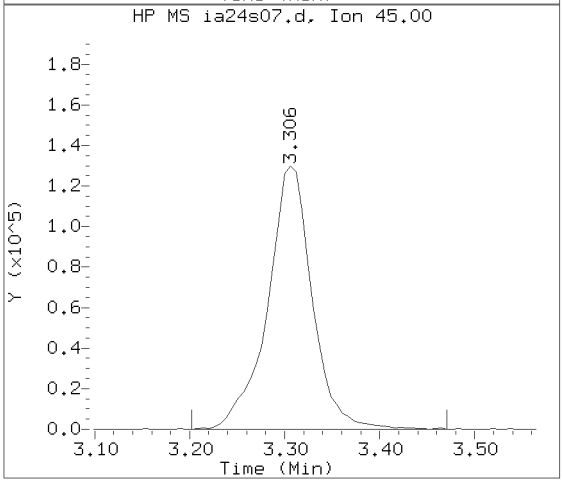
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

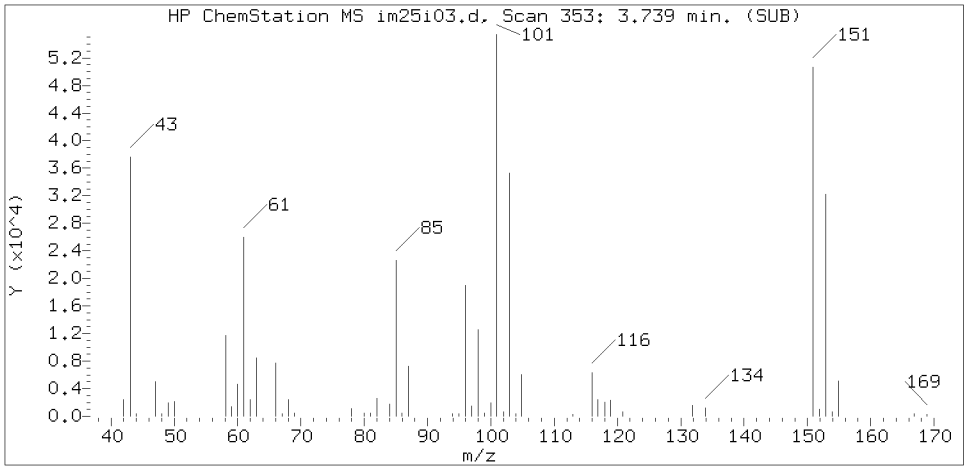
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

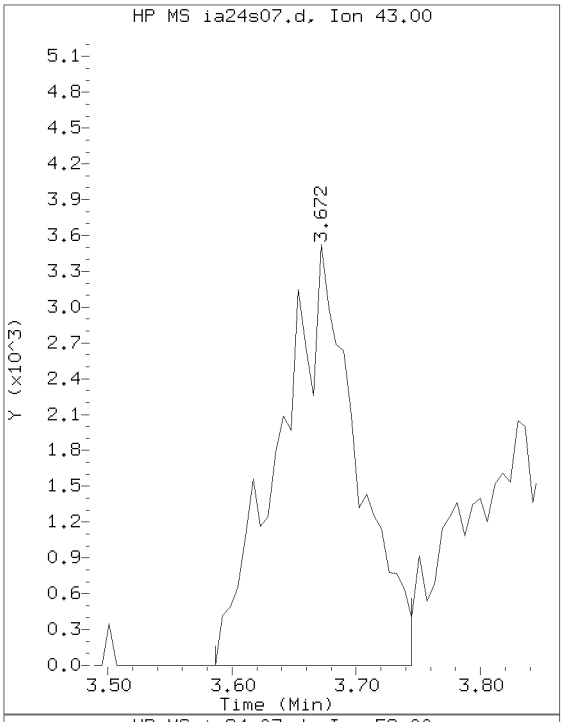
Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 283
Retention Time (minutes): 3.312
Relative Retention Time :-0.00123
Quant Ion : 59.00
Area (flag) : 617092
On-Column Amount (ng) : 15.5937

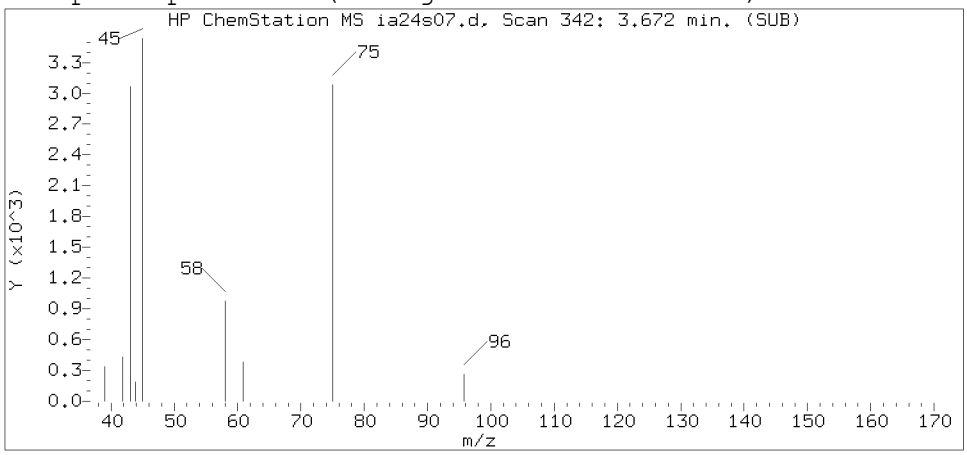
Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

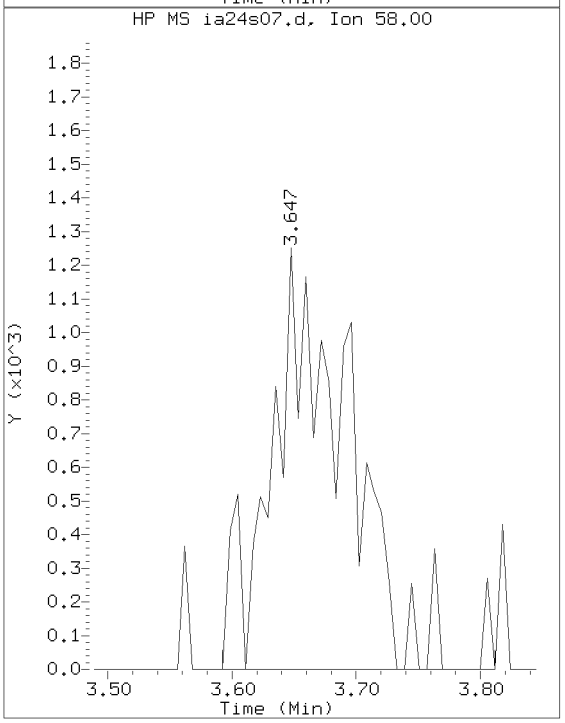
Reference Standard Spectrum for Acetone



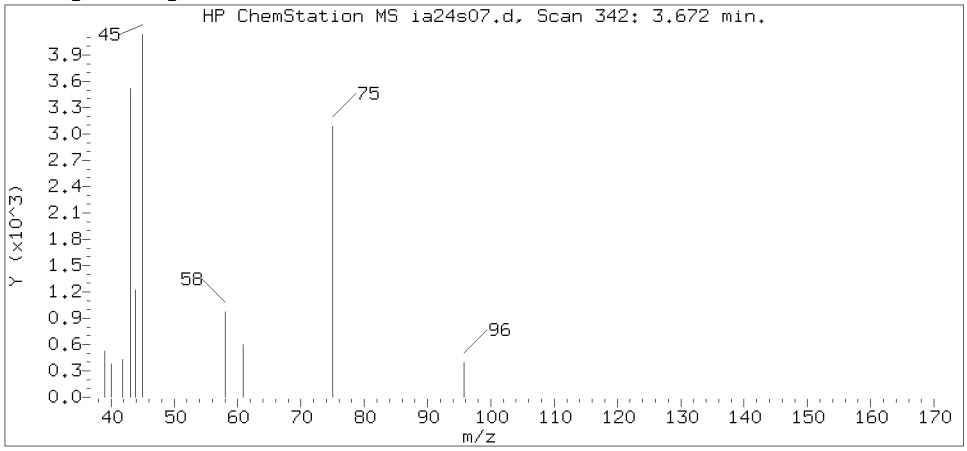


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 342
Retention Time (minutes)	: 3.672
Relative Retention Time	:-0.00326
Quant Ion	: 43.00
Area (flag)	: 15357
On-Column Amount (ng)	: 1.9145

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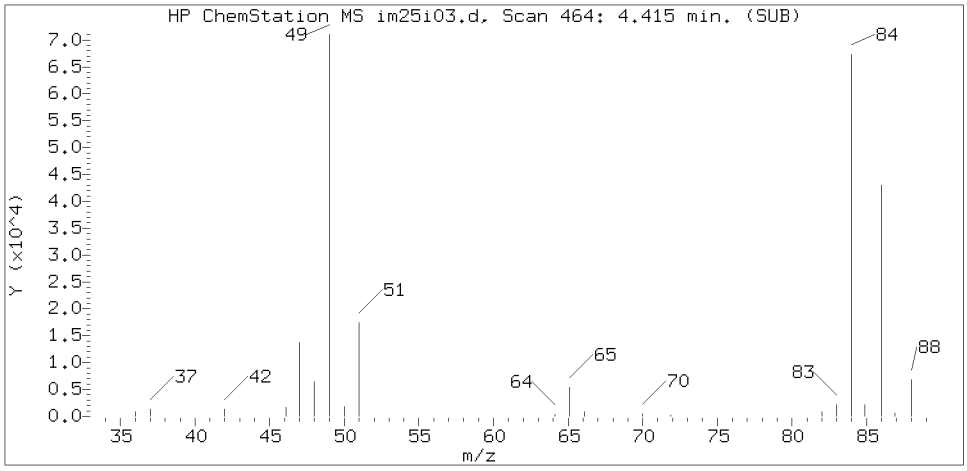
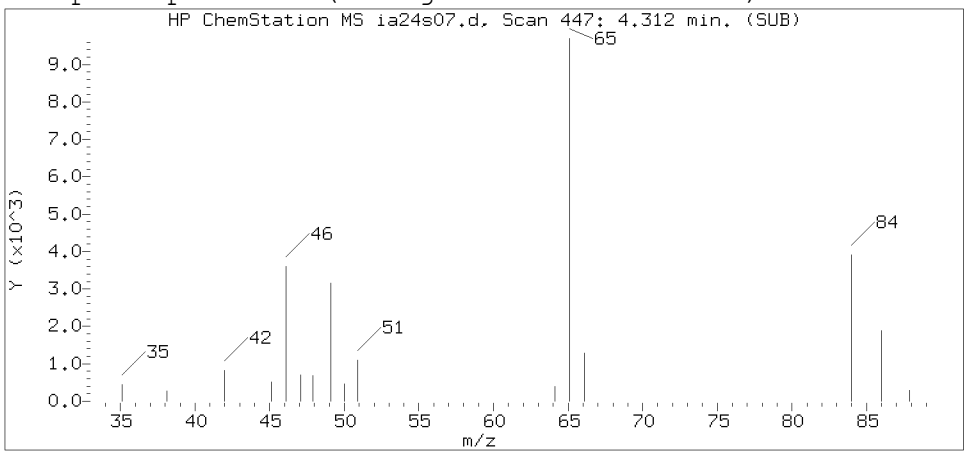
Target 3.5 esignature user ID: jkh09052

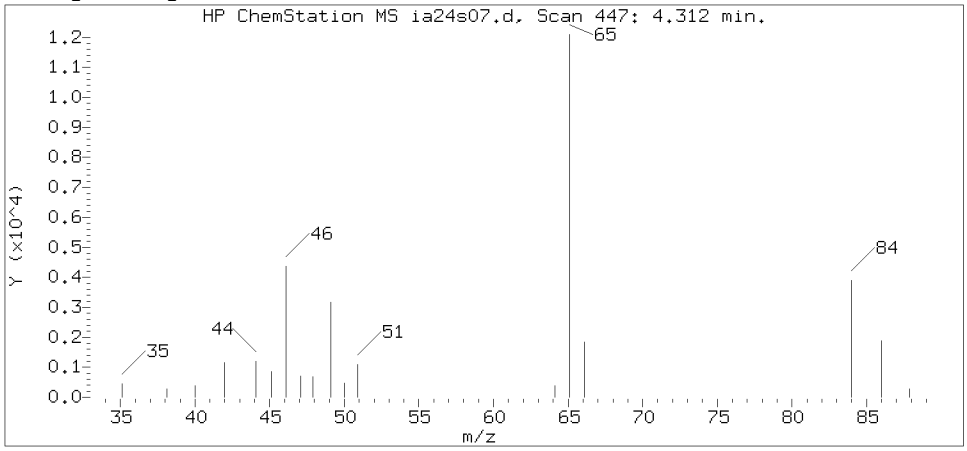
Reference Standard Spectrum for Methylene Chloride

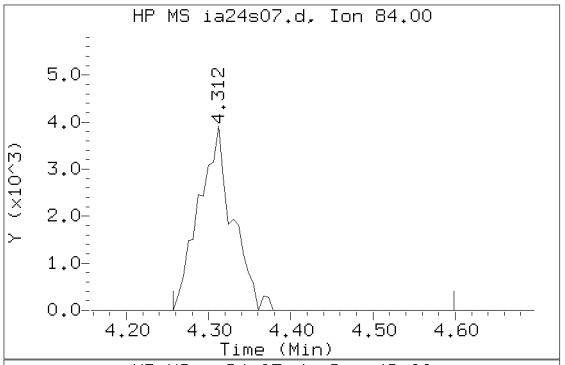


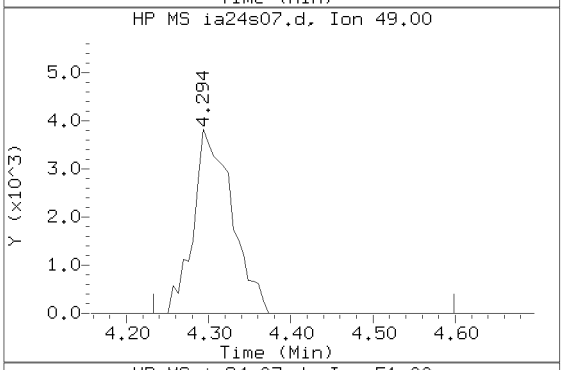
Sample Spectrum (Background Subtracted)

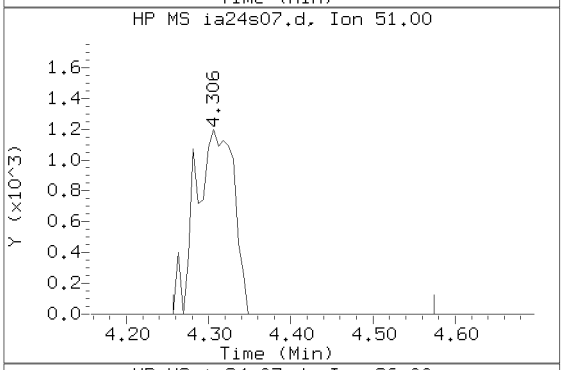


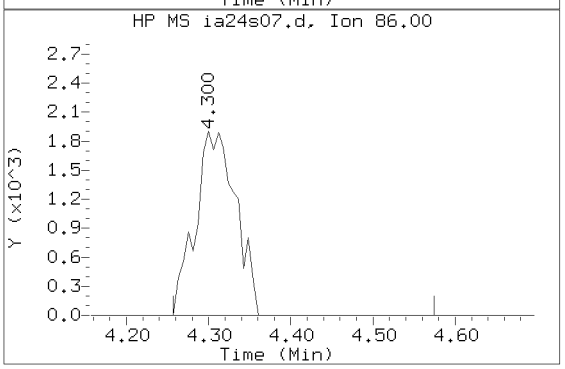
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 447
Retention Time (minutes): 4.312
Relative Retention Time :-0.00191
Quant Ion : 84.00
Area (flag) : 11203
On-Column Amount (ng) : 0.2101

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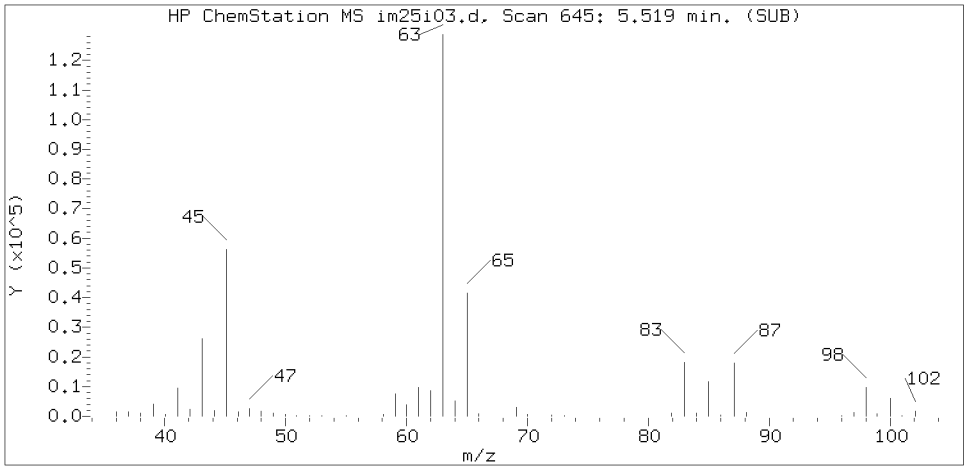
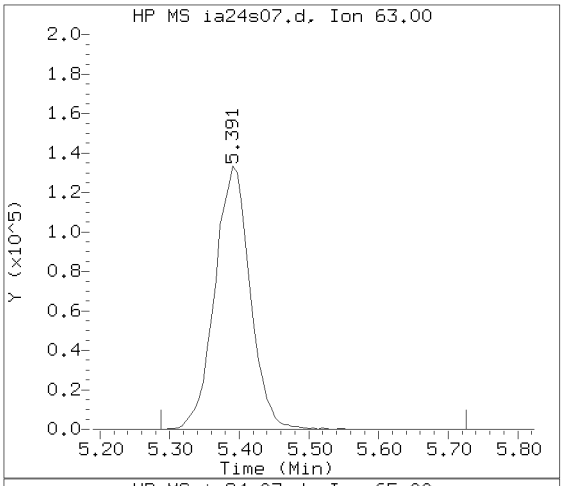
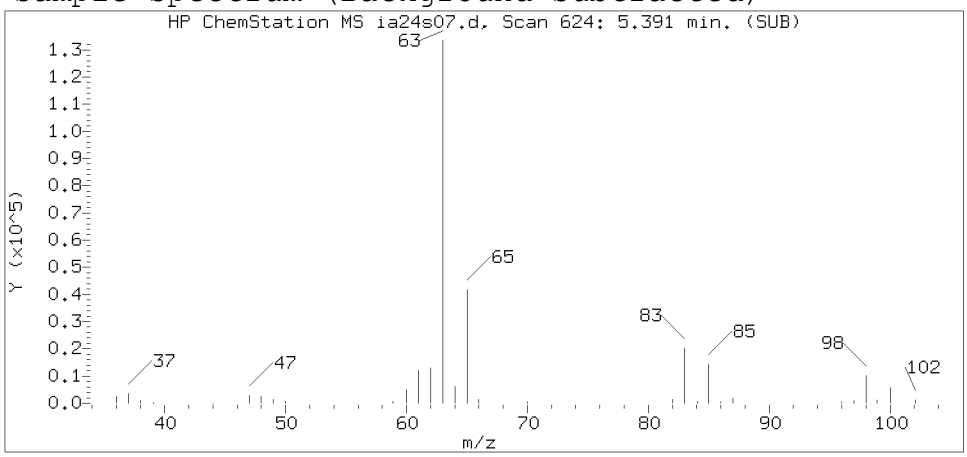
Target 3.5 esignature user ID: jkh09052

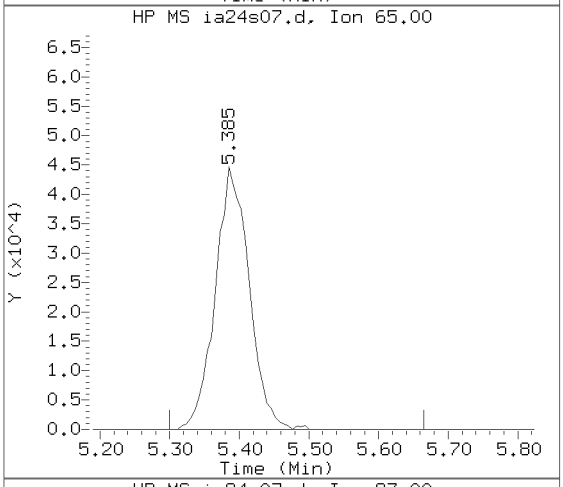
Reference Standard Spectrum for 1,1-Dichloroethane



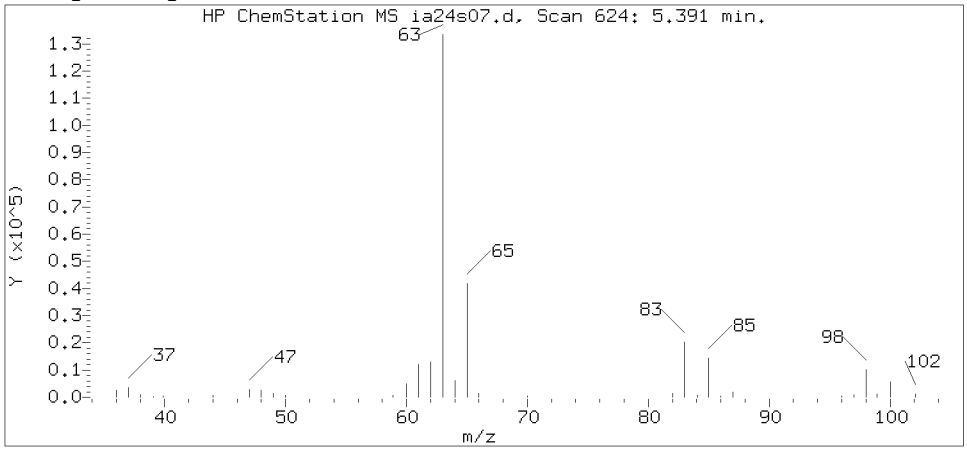


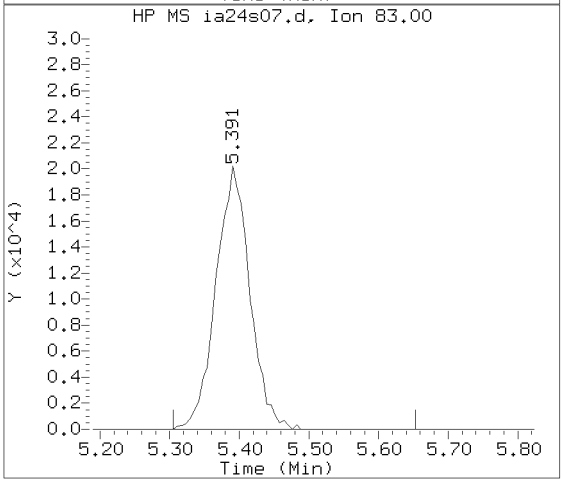
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 624
Retention Time (minutes): 5.391
Relative Retention Time :-0.00024
Quant Ion : 63.00
Area (flag) : 468529
On-Column Amount (ng) : 4.9382

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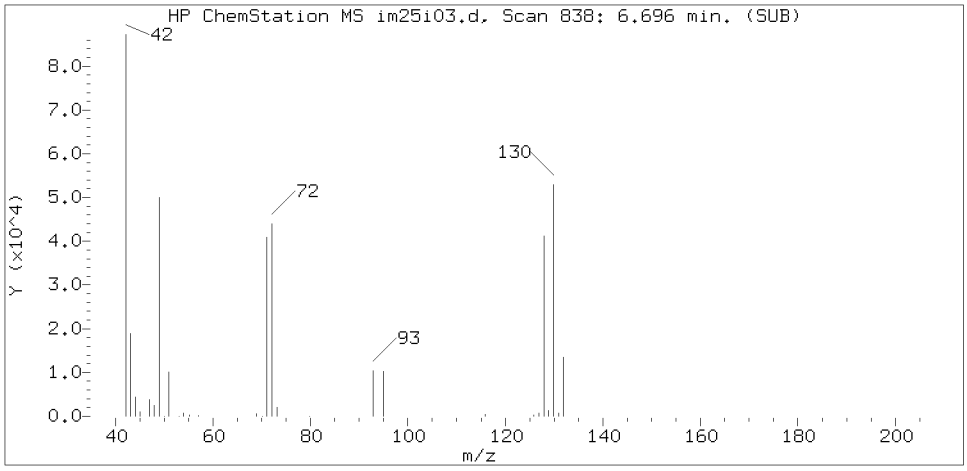
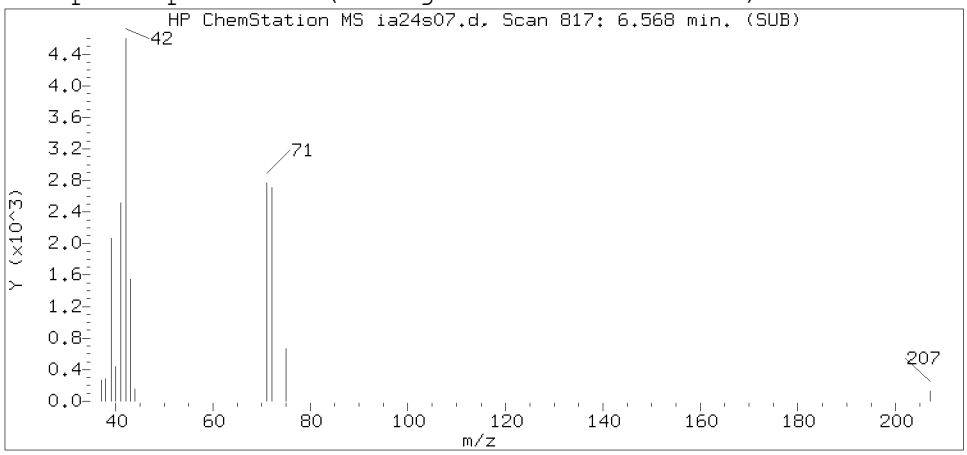
Target 3.5 esignature user ID: jkh09052

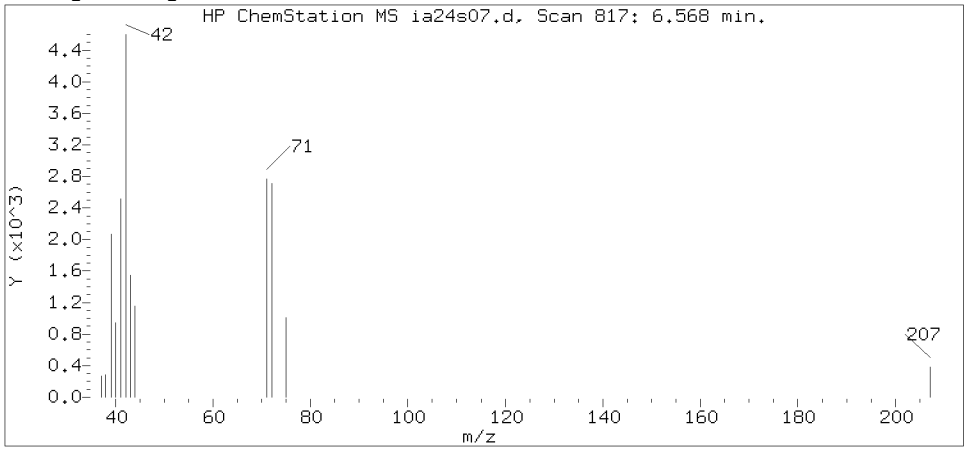
Reference Standard Spectrum for Tetrahydrofuran

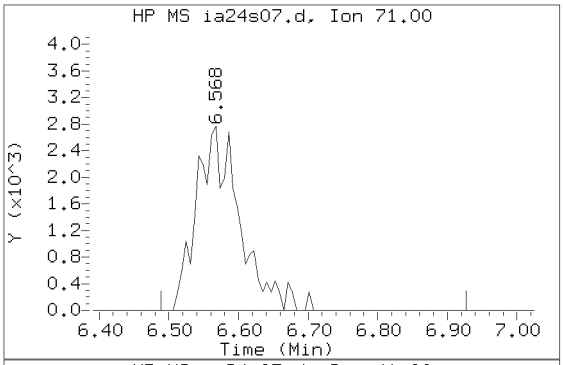


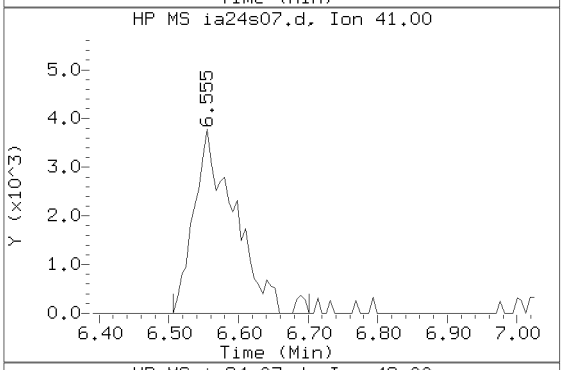
Sample Spectrum (Background Subtracted)

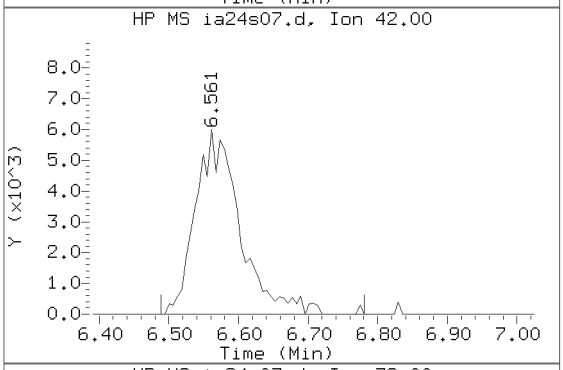


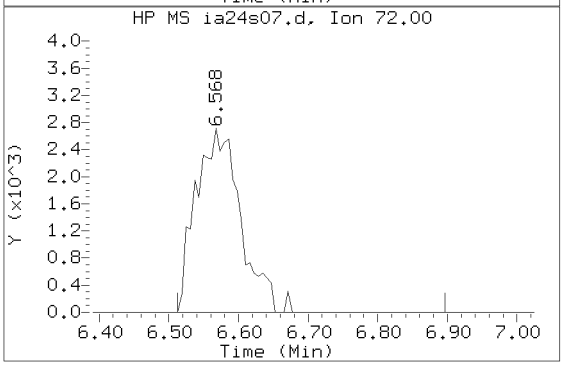
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number	: 48
Compound Name	: Tetrahydrofuran
Scan Number	: 817
Retention Time (minutes)	: 6.568
Relative Retention Time	: 0.00287
Quant Ion	: 71.00
Area (flag)	: 11916
On-Column Amount (ng)	: 2.9247

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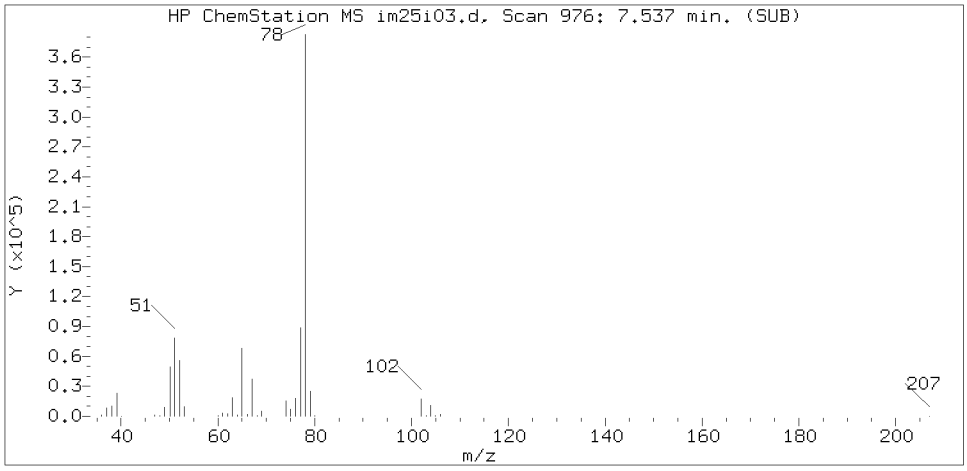
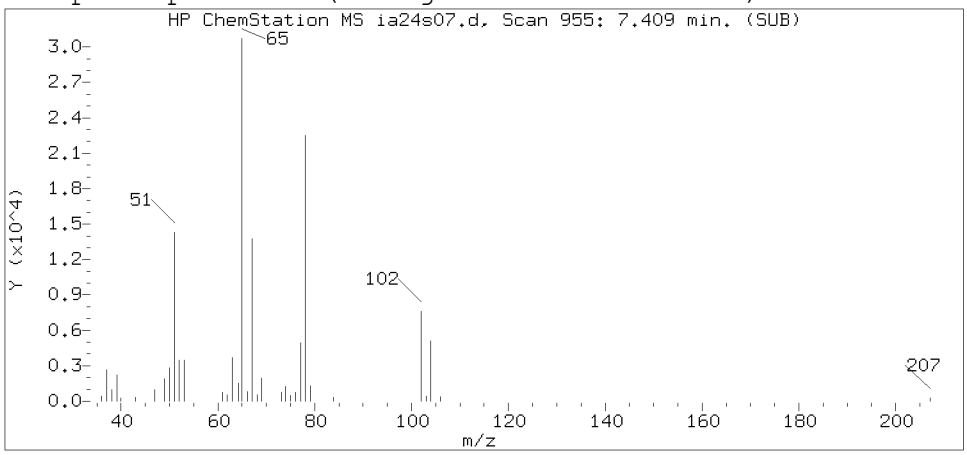
Target 3.5 esignature user ID: jkh09052

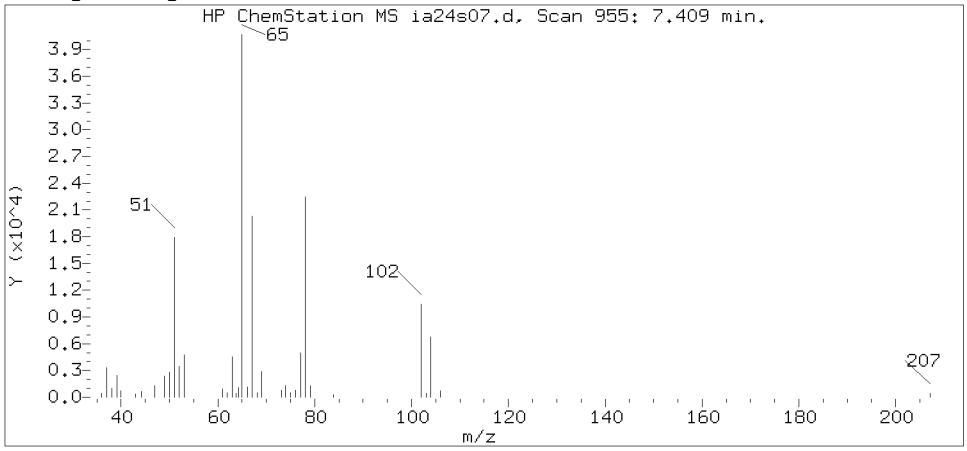
Reference Standard Spectrum for Benzene

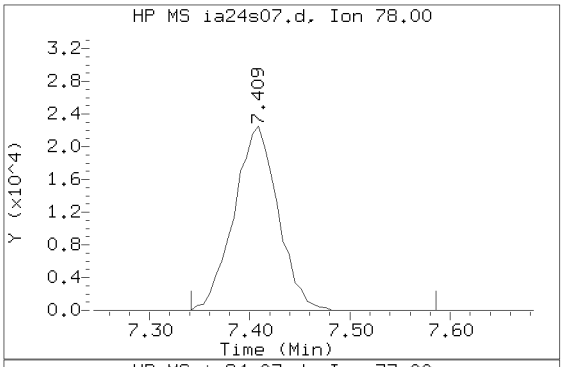


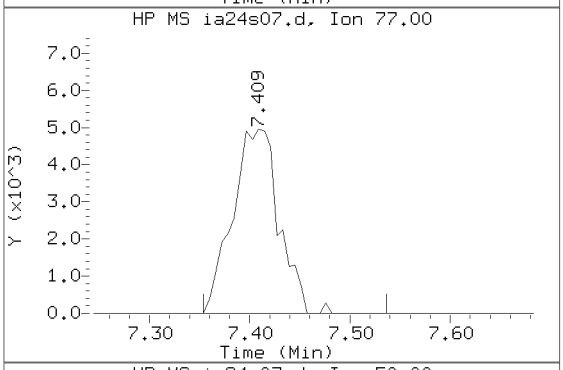
Sample Spectrum (Background Subtracted)

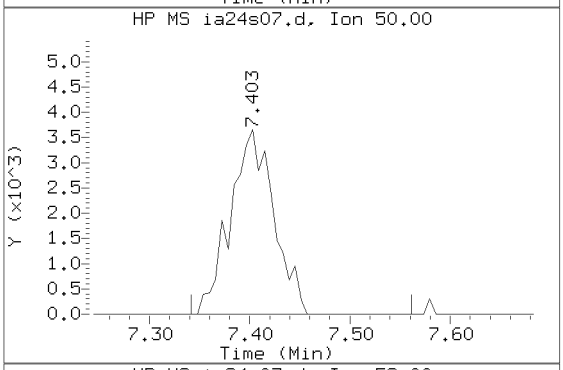


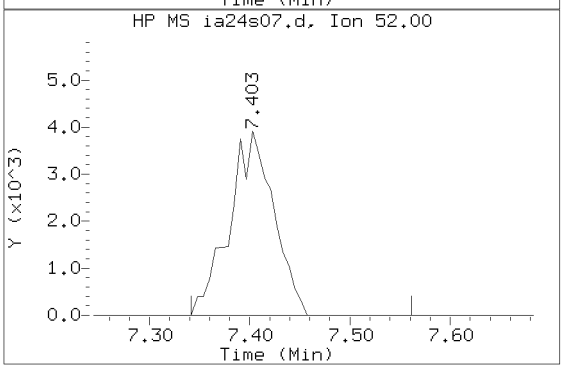
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 58
Compound Name : Benzene
Scan Number : 955
Retention Time (minutes): 7.409
Relative Retention Time :-0.00004
Quant Ion : 78.00
Area (flag) : 68404
On-Column Amount (ng) : 0.3007

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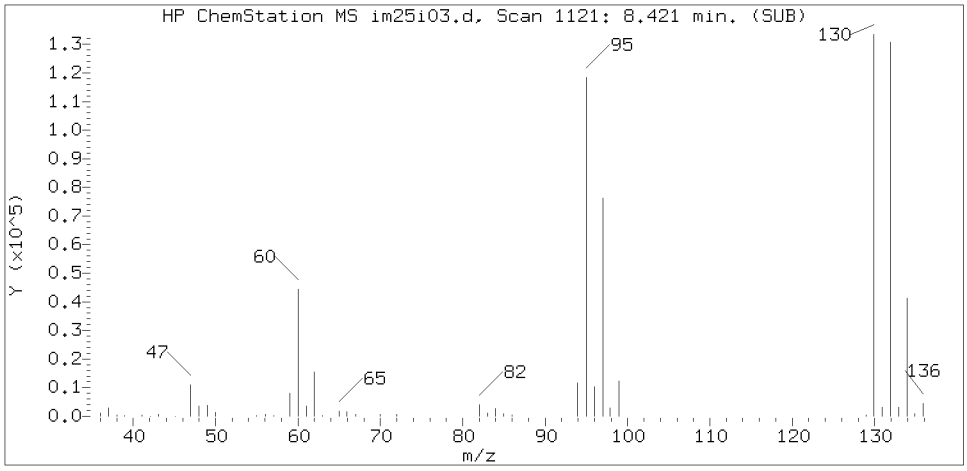
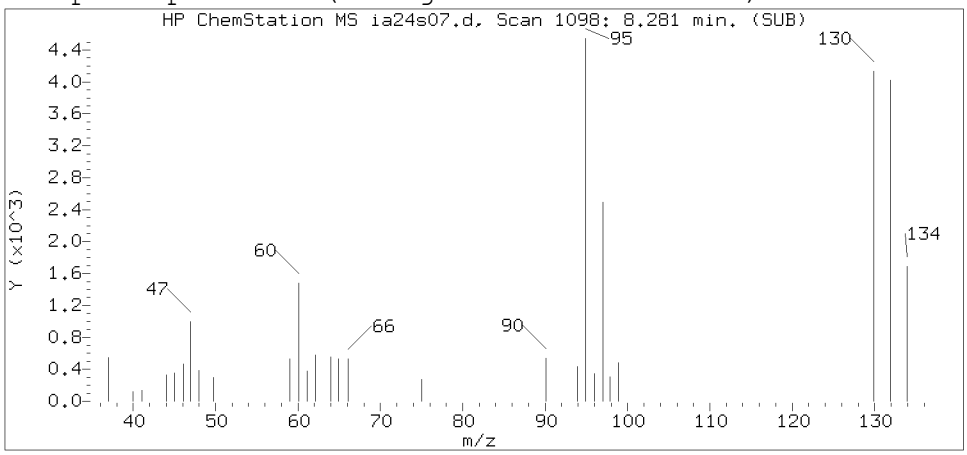
Target 3.5 esignature user ID: jkh09052

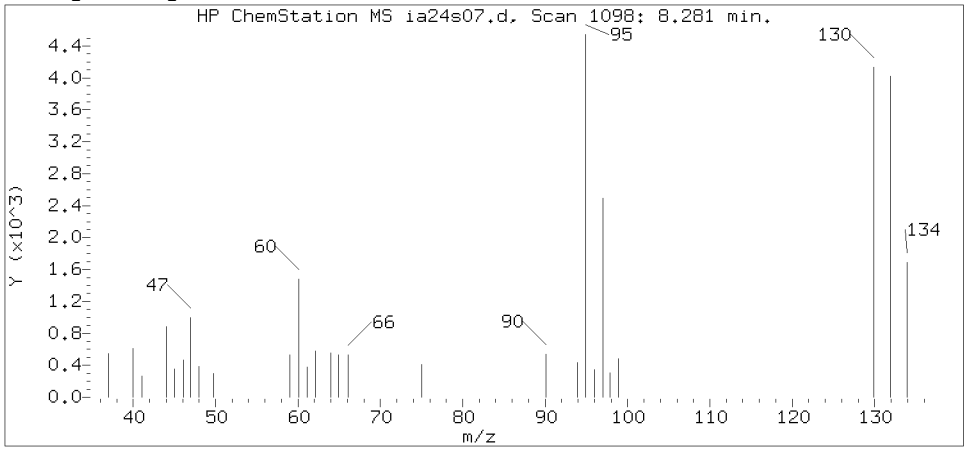
Reference Standard Spectrum for Trichloroethene

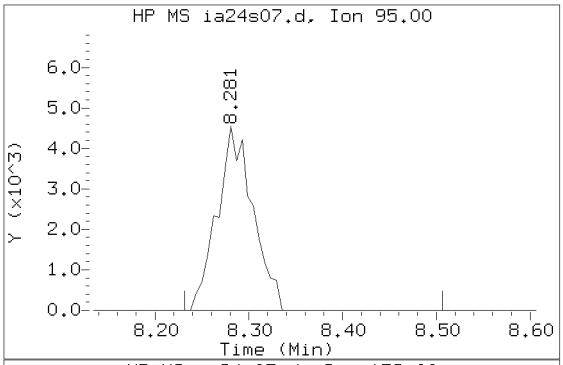


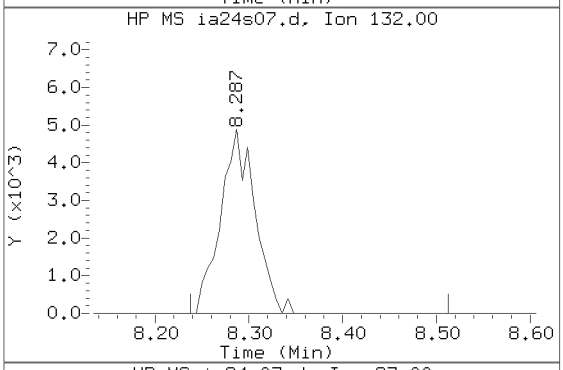
Sample Spectrum (Background Subtracted)

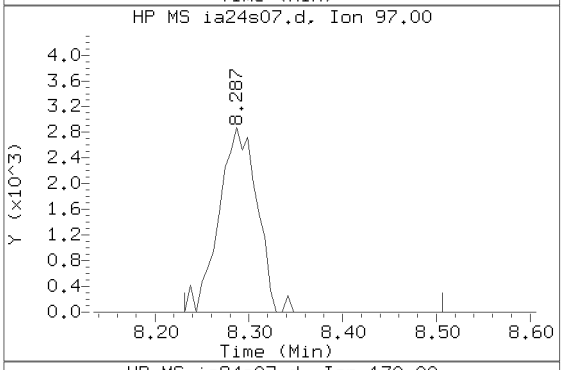


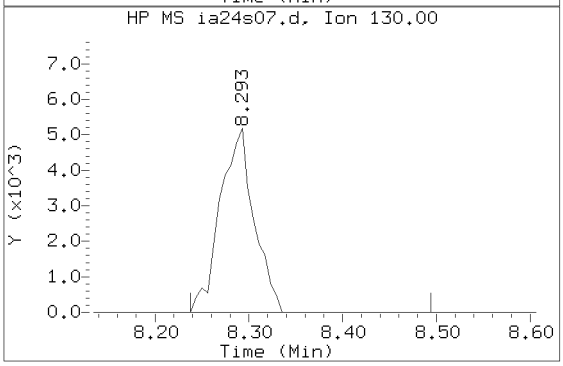
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number	: 67
Compound Name	: Trichloroethene
Scan Number	: 1098
Retention Time (minutes)	: 8.281
Relative Retention Time	: 0.00083
Quant Ion	: 95.00
Area (flag)	: 12052
On-Column Amount (ng)	: 0.1893

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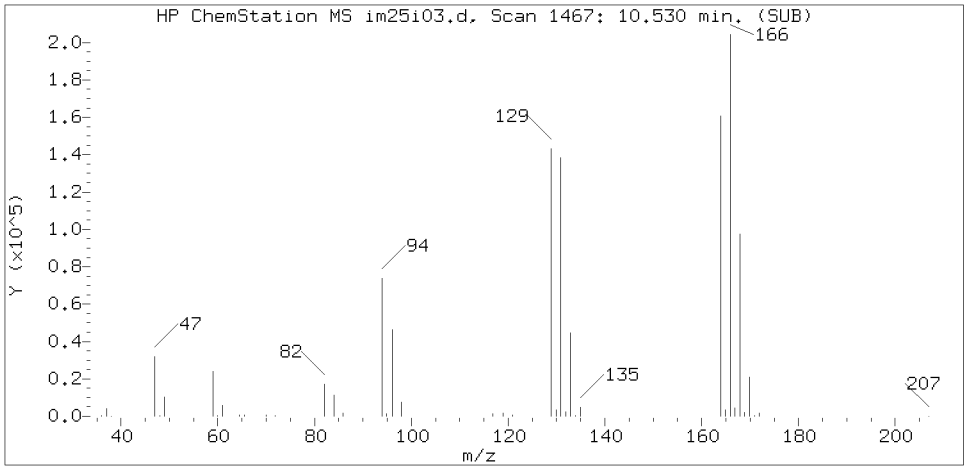
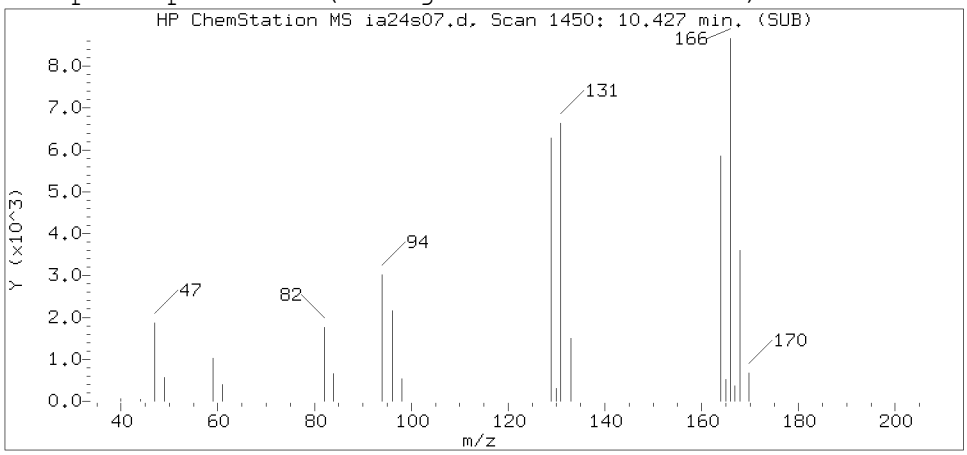
Target 3.5 esignature user ID: jkh09052

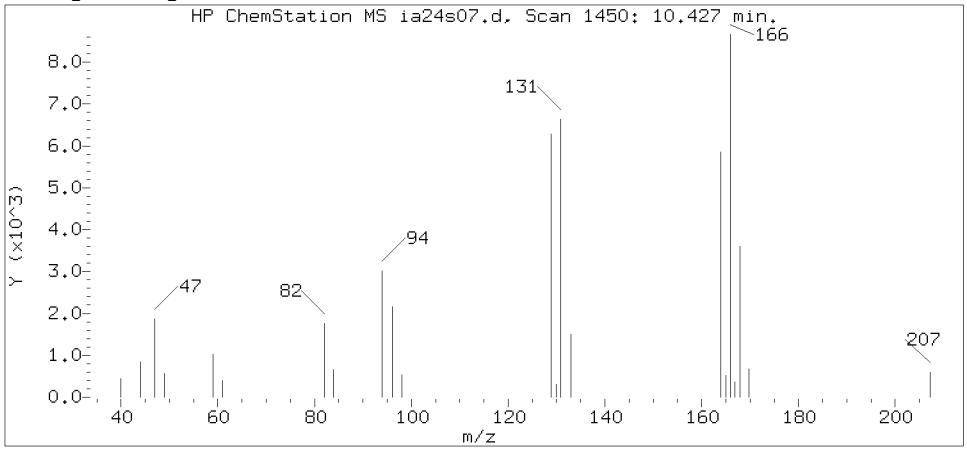
Reference Standard Spectrum for Tetrachloroethene

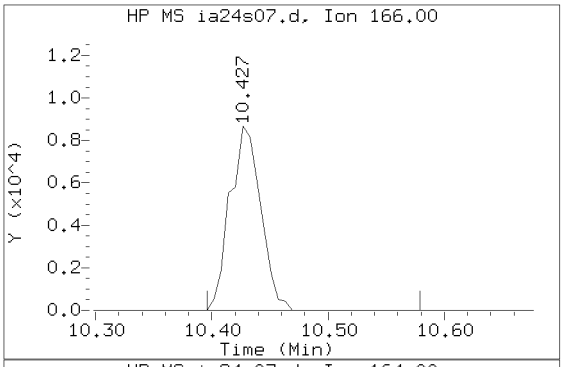


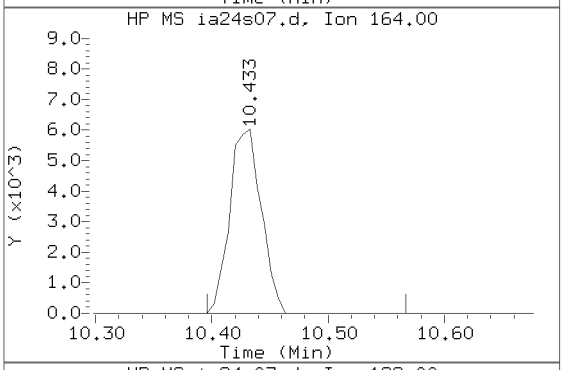
Sample Spectrum (Background Subtracted)

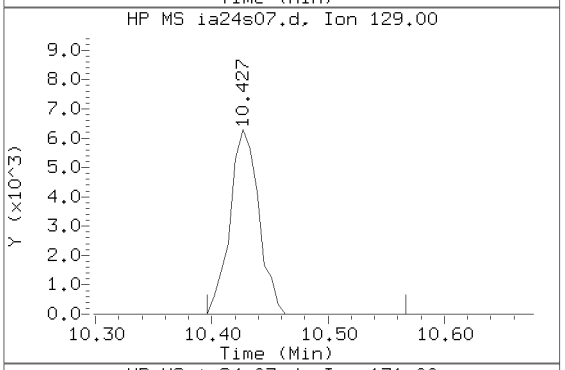


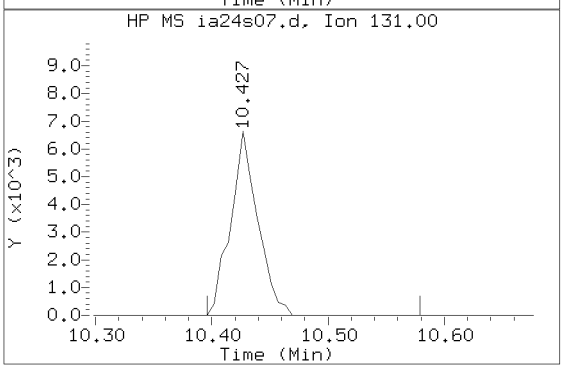
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s07.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:04 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:35 jkh09052

Sample Name: F3504 Lab Sample ID: 1034104

Compound Number : 89
Compound Name : Tetrachloroethene
Scan Number : 1450
Retention Time (minutes): 10.427
Relative Retention Time :-0.00000
Quant Ion : 166.00
Area (flag) : 15768
On-Column Amount (ng) : 0.1981

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

F3505 Lancaster Laboratories 1034107
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s11.d Injection date and time: **24-APR-2019 15:37**
Data file Sample Info. Line: F3505;1034107;1;0;;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:52 Automation

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.252	(0.006)	439	65	303419	(-20)	250.00	
66) Fluorobenzene	7.793	(0.012)	1021	96	1016638	(-16)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	753760	(-18)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	416923	(-19)	50.00	

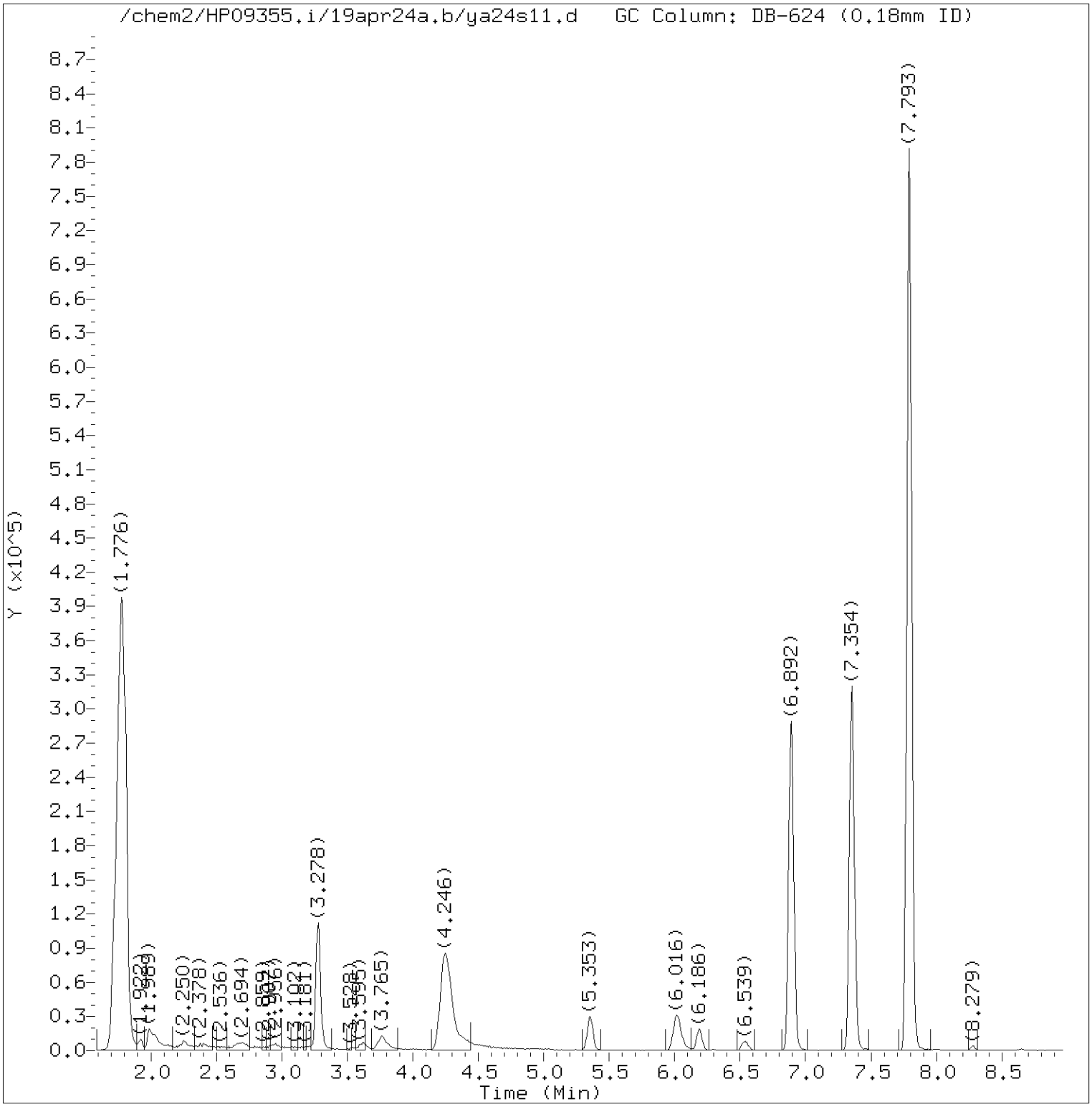
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.000)	113	252116	51.418	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.354	(0.000)	102	66059	53.713	107%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	962808	48.668	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	343958	45.537	91%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
21) 2-Propanol	(1)	3.771	(0.000)	45	37940	49.393	49.39		J	18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:27. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

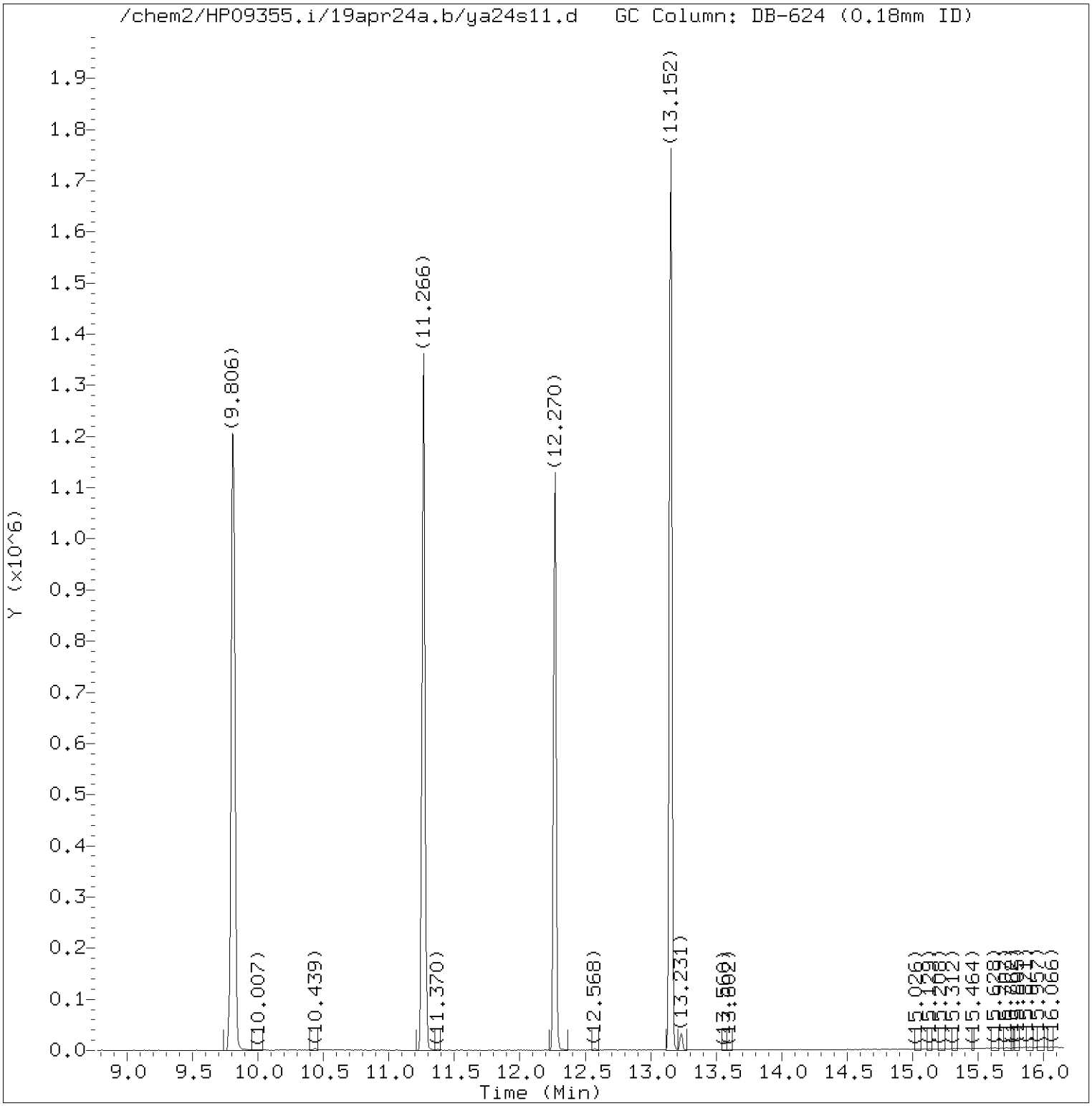
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s11.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:52 Automation

Sample Name: F3505 Lab Sample ID: 1034107

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s11.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:52 Automation

Sample Name: F3505 Lab Sample ID: 1034107

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s11.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:52 Automation

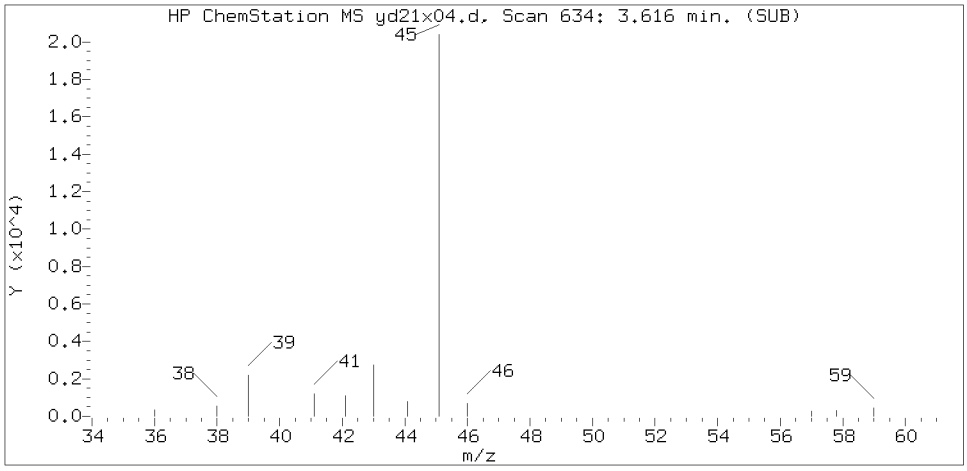
Sample Name: F3505 Lab Sample ID: 1034107

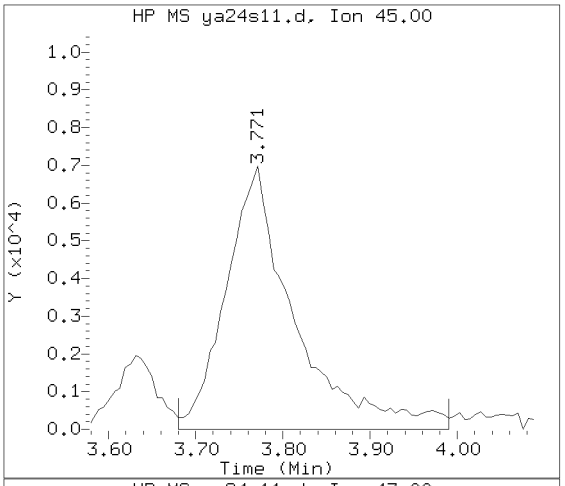
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.771	45	37940	49.393
29)*t-Butyl alcohol-d10	(1)	4.252	65	303419	250.000
52)$Dibromofluoromethane	(2)	6.892	113	252116	51.418
57)$1,2-Dichloroethane-d4	(2)	7.354	102	66059	53.713
66)*Fluorobenzene	(2)	7.793	96	1016638	50.000
83)$Toluene-d8	(3)	9.812	98	962808	48.668
100)*Chlorobenzene-d5	(3)	11.266	117	753760	50.000
114)$4-Bromofluorobenzene	(3)	12.270	95	343958	45.537
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	416923	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

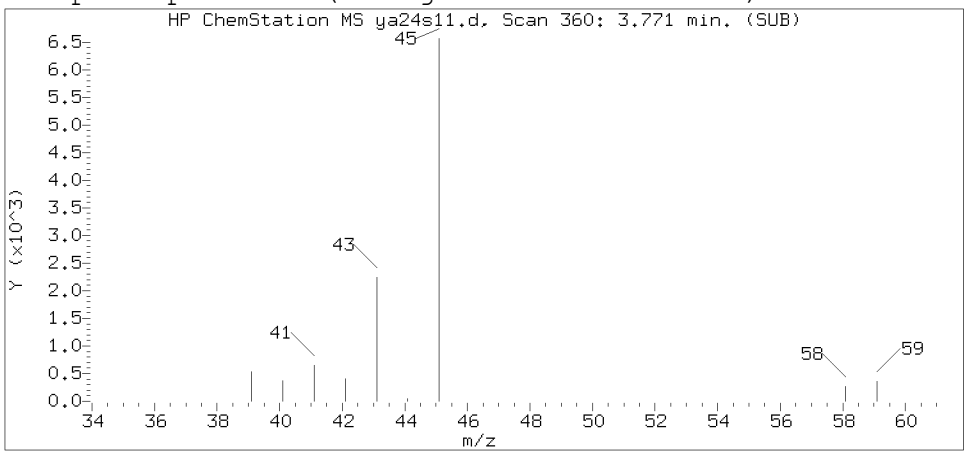
Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

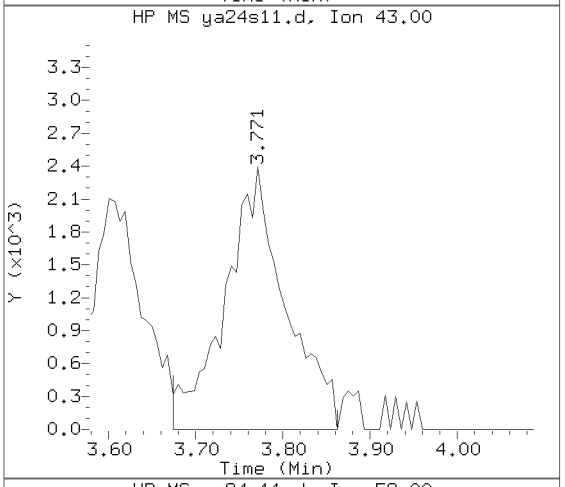
Reference Standard Spectrum for 2-Propanol



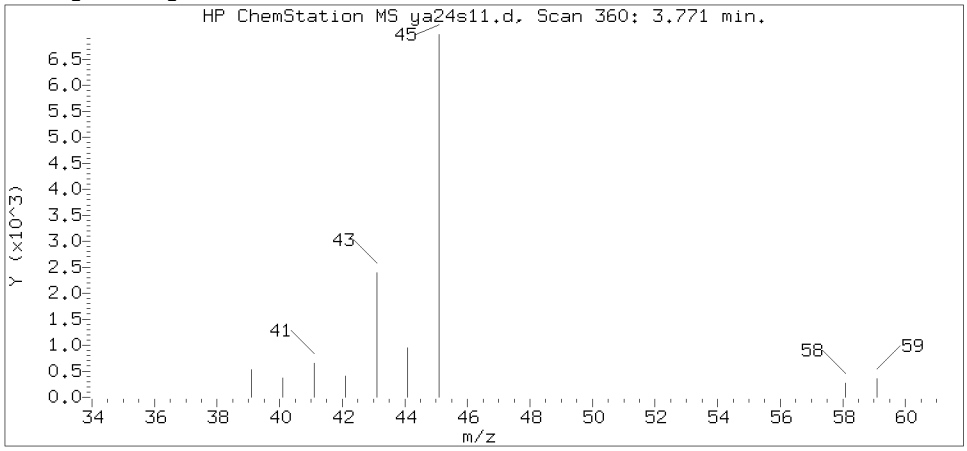


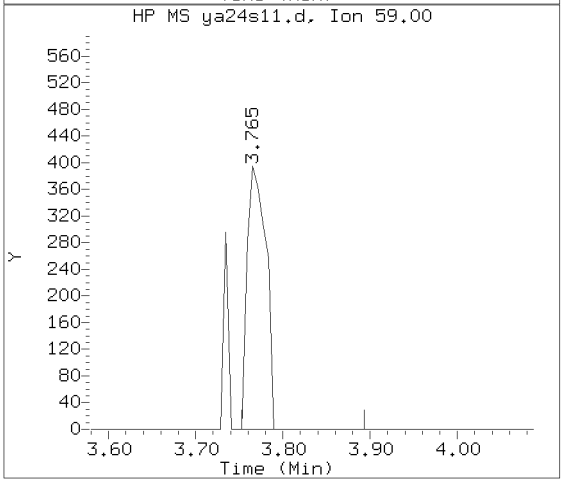
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/19apr24a.b/ya24s11.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 15:52 Automation

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number	: 21
Compound Name	: 2-Propanol
Scan Number	: 360
Retention Time (minutes)	: 3.771
Relative Retention Time	: 0.00017
Quant Ion	: 45.00
Area (flag)	: 37940
On-Column Amount (ng)	: 49.3934

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

F3505 Lancaster Laboratories 1034107
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s12.d Injection date and time: **24-APR-2019 15:51**
Data file Sample Info. Line: F3505;1034107;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.336	(-0.024)	451	65	155279	(12)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2115723	(-1)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1686192	(-2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.127	(0.006)	1893	152	921621	(-8)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.001)	113	546159	10.003	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.001)	102	105776	10.052	101%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2105795	10.182	102%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	741522	9.568	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.1	1
4) Dimethyl ether	(2)	2.062	(0.000)	45	165342M	2.150	2.15		J	0.04	13
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)	2.312	(-0.000)	62	18026	0.194	0.19		J	0.2	1
7) Bromomethane	(2)				Not Detected					0.5	1
8) Chloroethane	(2)	2.733	(-0.000)	64	83395	1.546	1.55			0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.2	1
11) Ethyl ether	(2)	3.300	(0.000)	59	631397	15.455	15.46			1	13
13) Acrolein	(1)				Not Detected					3	25
15) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
16) Freon 113	(2)				Not Detected					0.1	1
14) Acetone	(1)	3.654	(0.003)	43	13786	1.515	1.52		J	0.9	10
17) Methyl Iodide	(2)				Not Detected					0.6	10
18) Carbon Disulfide	(2)				Not Detected					0.4	10
25) Acetonitrile	(1)				Not Detected					32	100
22) Allyl Chloride	(2)				Not Detected					0.8	10
23) Methylene Chloride	(2)	4.306	(-0.001)	84	10595	0.192	0.19		J	0.2	1
29) Acrylonitrile	(1)				Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)	5.385	(0.000)	63	477317	4.873	4.87			0.1	1
36) Vinyl Acetate	(2)				Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.5	10
38) 2-Butanone	(1)				Not Detected					0.6	10
42) Propionitrile	(1)				Not Detected					10	100
45) Methacrylonitrile	(1)				Not Detected					10	100
48) Tetrahydrofuran	(1)	6.574	(0.005)	71	11446	2.477	2.48		J	2	25
49) Chloroform	(2)				Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.1	1
54) Carbon Tetrachloride	(2)				Not Detected					0.2	1
56) Isobutyl Alcohol	(1)				Not Detected					4	200
58) Benzene	(2)	7.403	(0.000)	78	69023	0.294	0.29		J	0.07	1

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:30. Target 3.5 esignature user ID: mec29284

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s12.d Injection date and time: **24-APR-2019 15:51**
Data file Sample Info. Line: F3505;1034107;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

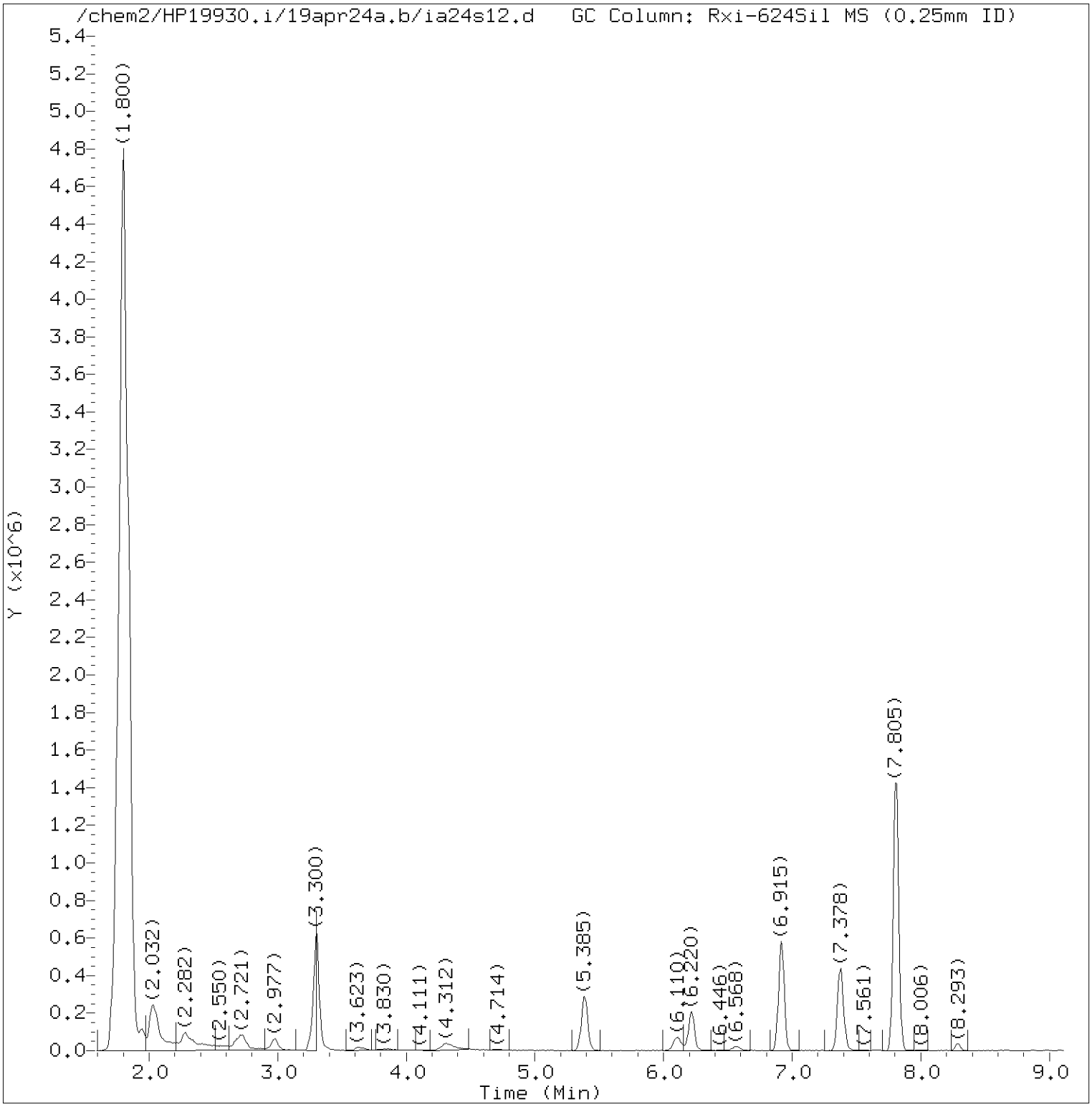
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
59) 1,2-Dichloroethane	(2)			Not Detected					0.1	1
67) Trichloroethene	(2)	8.293(-0.000)	95	14476	0.220	0.22		J	0.2	1
70) 1,2-Dichloropropane	(2)			Not Detected					0.1	1
71) Methyl Methacrylate	(1)			Not Detected					4	10
73) Dibromomethane	(2)			Not Detected					0.07	1
72) 1,4-Dioxane	(1)			Not Detected					45	200
74) Bromodichloromethane	(2)			Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)			Not Detected					0.9	10
83) Toluene	(3)			Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)			Not Detected					0.1	1
86) Ethyl Methacrylate	(3)			Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)			Not Detected					0.08	1
89) Tetrachloroethene	(3)	10.426(-0.000)	166	14905	0.181	0.18		J	0.06	1
90) 1,3-Dichloropropane	(3)			Not Detected					0.09	1
91) 2-Hexanone	(1)			Not Detected					0.6	10
93) Dibromochloromethane	(3)			Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)			Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.08	1
100) Ethylbenzene	(3)			Not Detected					0.08	1
101) m+p-Xylene	(3)			Not Detected					0.1	0.5
104) o-Xylene	(3)			Not Detected					0.05	0.5
105) Xylene (Total)	(3)			Not Detected					0.2	3
106) Styrene	(3)			Not Detected					0.05	1
107) Bromoform	(3)			Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)			Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)			Not Detected					0.1	1
126) Pentachloroethane	(4)			Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.08	1
142) Hexachloroethane	(4)			Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)			Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)			Not Detected					0.1	1
146) Hexachlorobutadiene	(4)			Not Detected					0.07	1
147) Naphthalene	(4)			Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:30. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

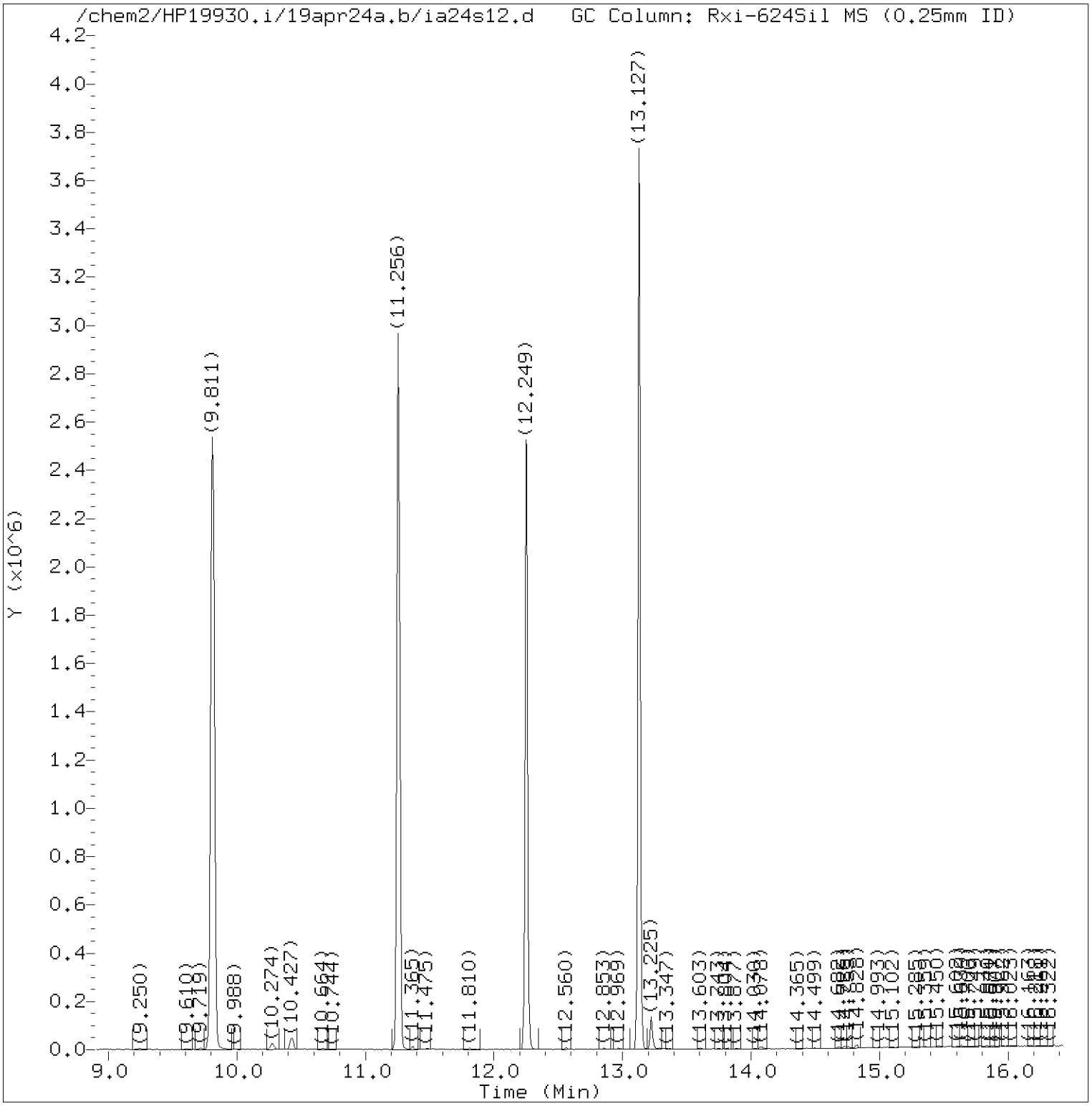
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:30.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:30.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	165342M	2.150
5) Vinyl Chloride	(2)	2.312	62	18026	0.194
8) Chloroethane	(2)	2.733	64	83395	1.546
11) Ethyl ether	(2)	3.300	59	631397	15.455
14) Acetone	(1)	3.654	43	13786	1.515
23) Methylene Chloride	(2)	4.306	84	10595	0.192
26)*t-Butyl Alcohol-d10	(1)	4.336	65	155279	50.000
33) 1,1-Dichloroethane	(2)	5.385	63	477317	4.873
48) Tetrahydrofuran	(1)	6.574	71	11446	2.477
50)$Dibromofluoromethane	(2)	6.915	113	546159	10.003
57)$1,2-Dichloroethane-d4	(2)	7.378	102	105776	10.052
58) Benzene	(2)	7.403	78	69023	0.294
63)*Fluorobenzene	(2)	7.811	96	2115723	10.000
67) Trichloroethene	(2)	8.293	95	14476	0.220
82)$Toluene-d8	(3)	9.811	98	2105795	10.182
89) Tetrachloroethene	(3)	10.427	166	14905	0.181
97)*Chlorobenzene-d5	(3)	11.256	117	1686192	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	741522	9.568
133)*1,4-Dichlorobenzene-d4	(4)	13.127	152	921621	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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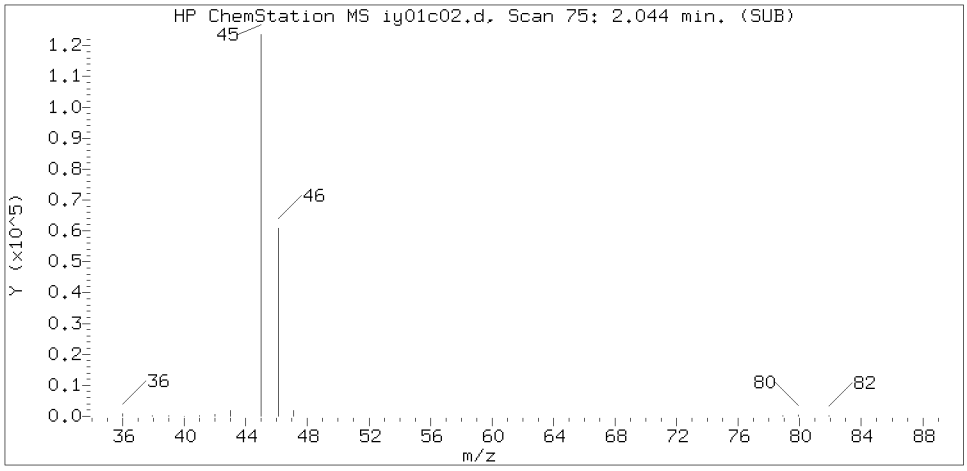
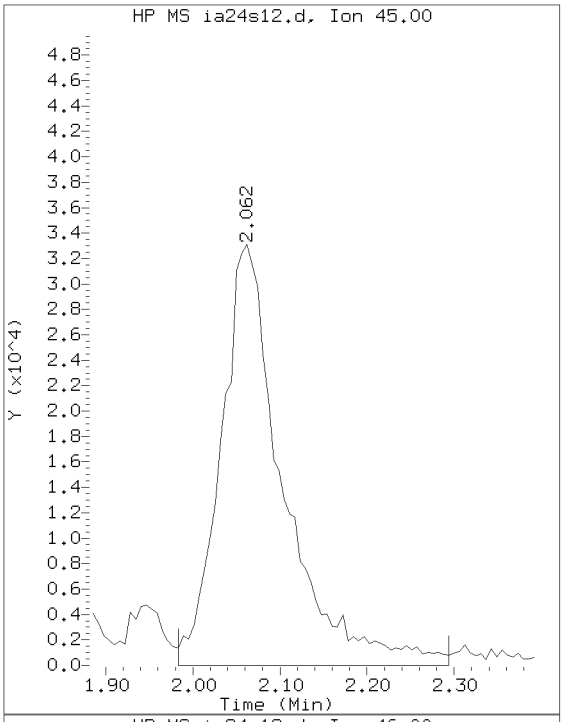
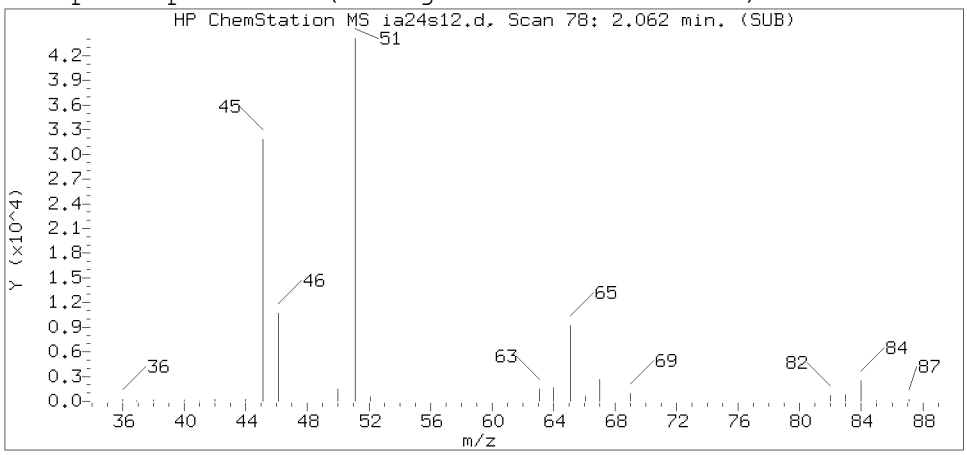
on 04/24/2019 at 17:30.
Target 3.5 esignature user ID: mec29284

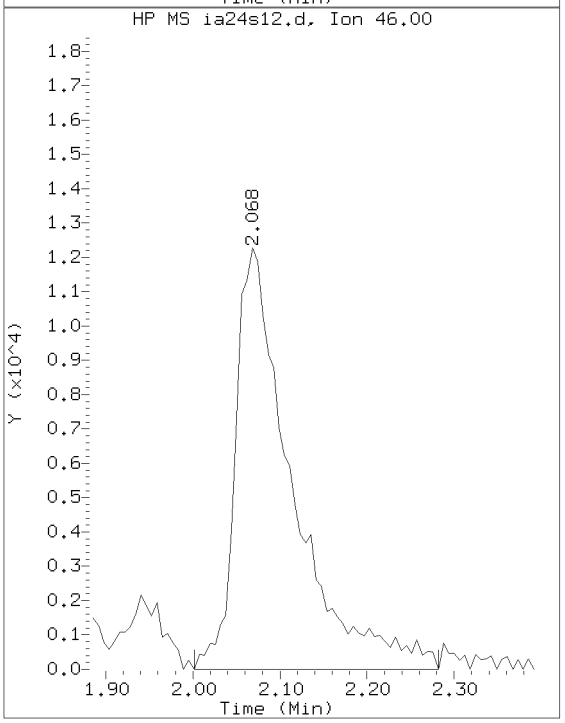
Reference Standard Spectrum for Dimethyl ether



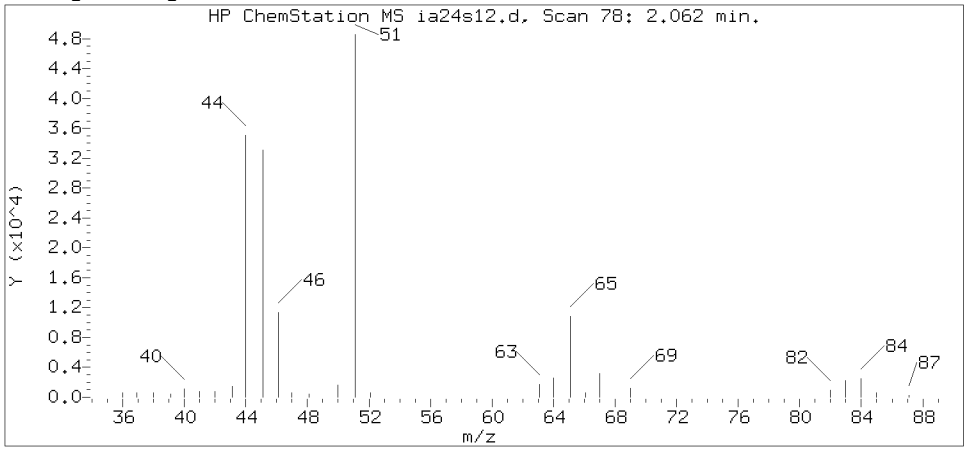


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number	: 4
Compound Name	: Dimethyl ether
Scan Number	: 78
Retention Time (minutes)	: 2.062
Relative Retention Time	: 0.00020
Quant Ion	: 45.00
Area (flag)	: 165342M
On-Column Amount (ng)	: 2.1499

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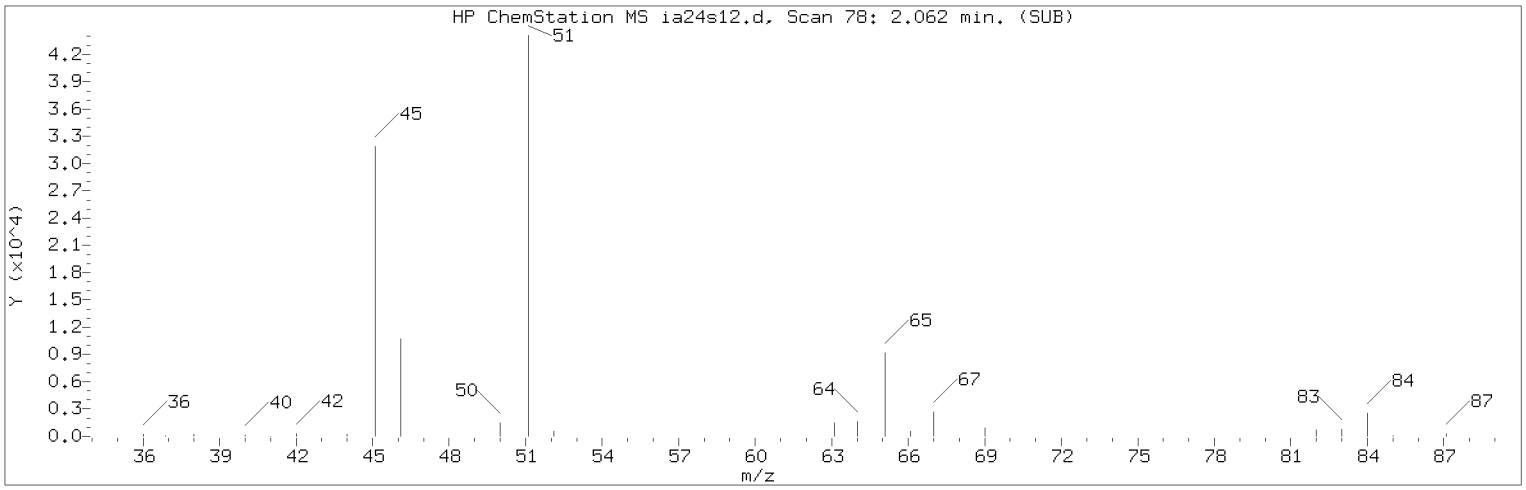
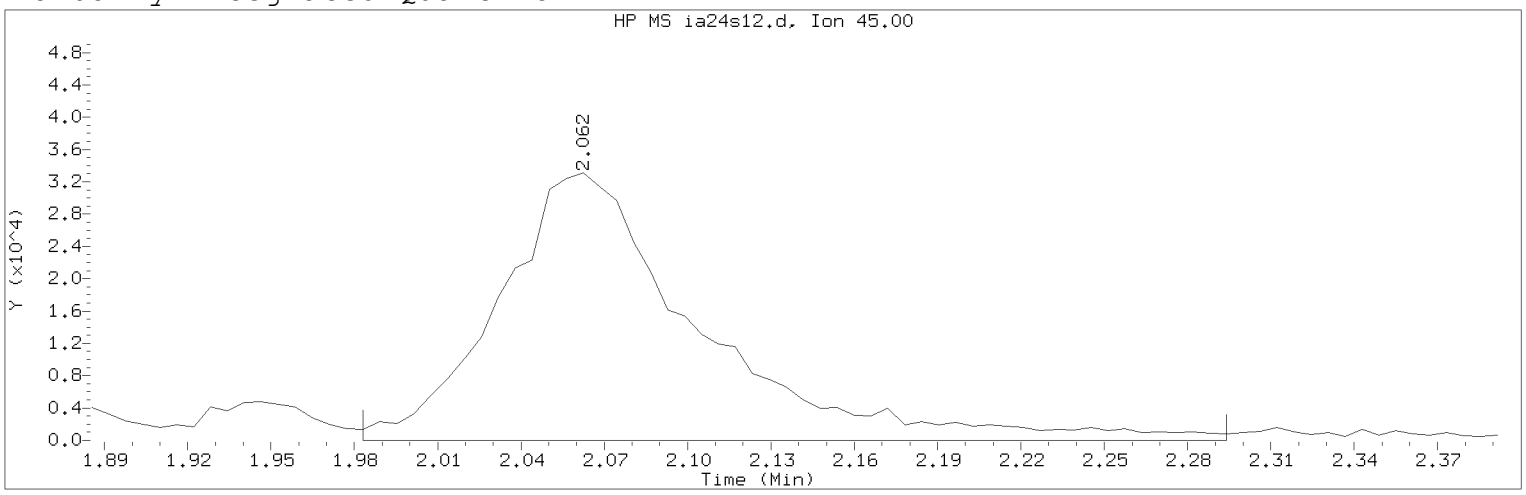
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

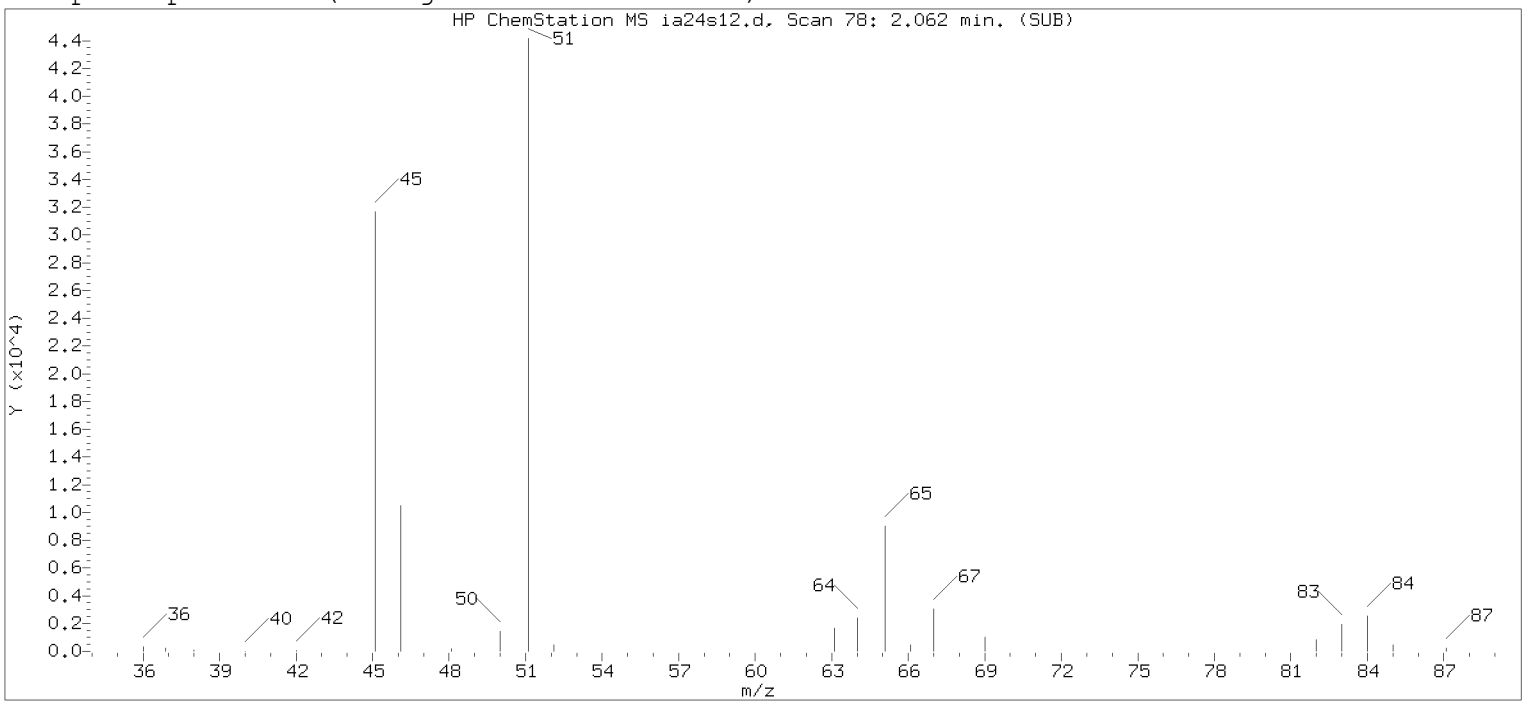
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 165342M
On-Column Amount (ng) : 2.1499
Integration start scan : 64 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

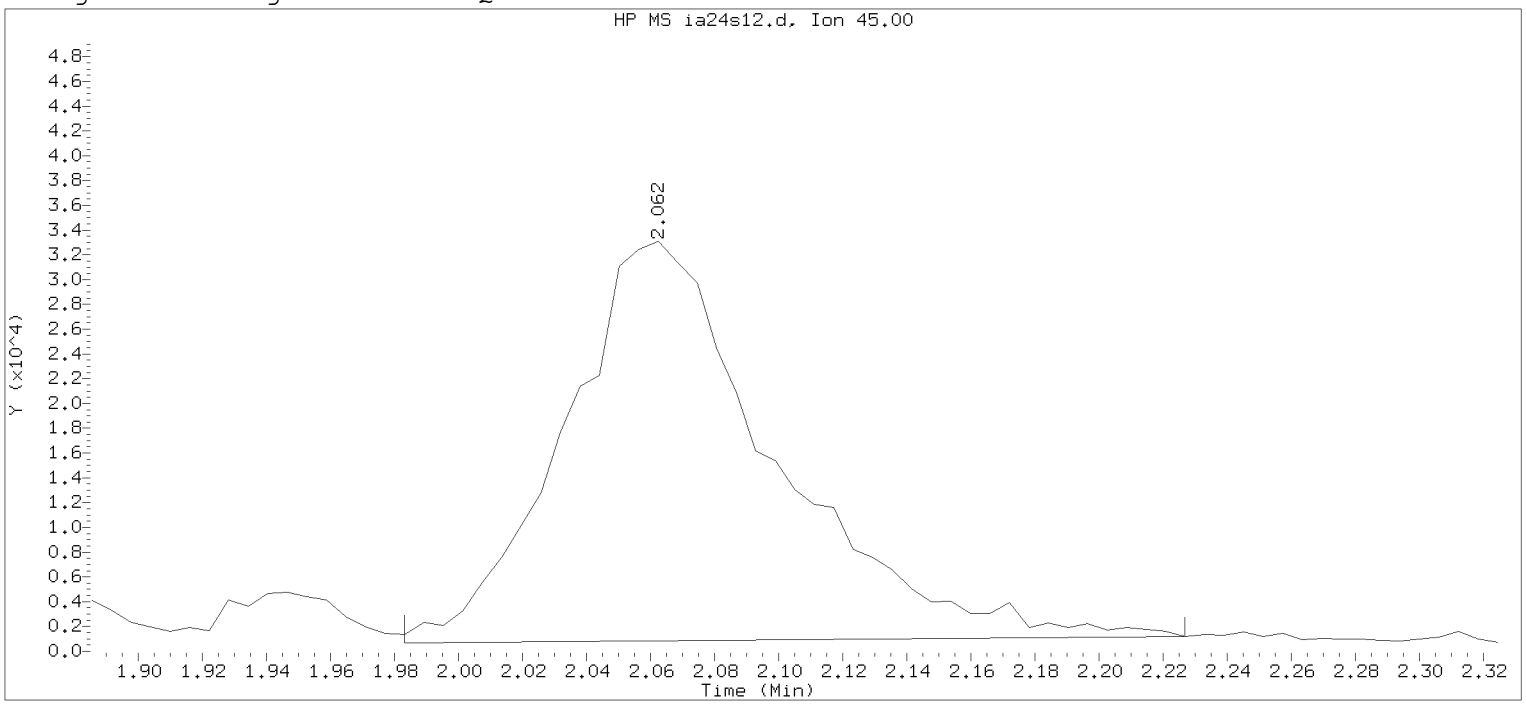
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:30.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:09 Automation

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 78		
Retention Time (minutes)	: 2.062		
Quant Ion	: 45.00		
Area	: 146779		
On-column Amount (ng)	: 1.9085		
Integration start scan	: 64	Integration stop scan:	104
Y at integration start	: 665	Y at integration end:	1187

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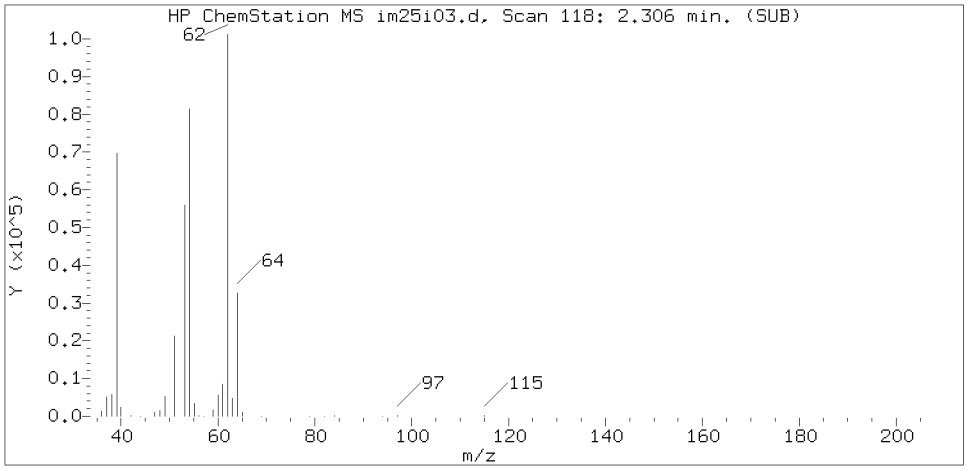
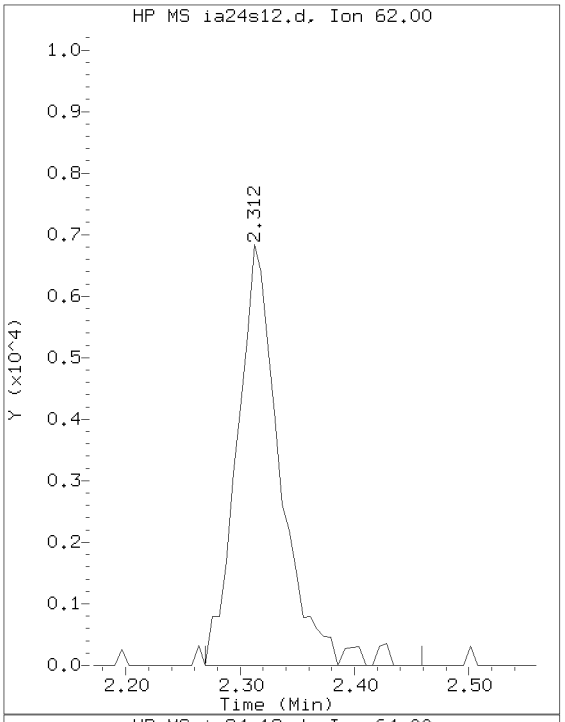
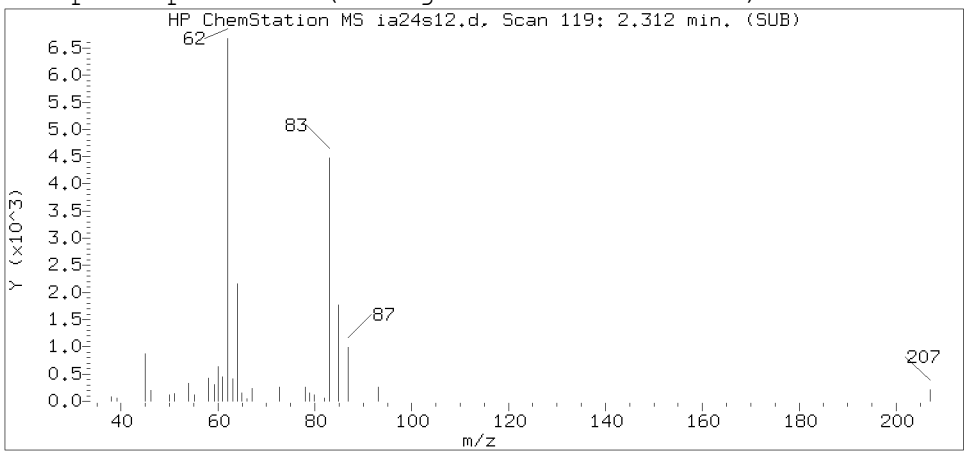
Target 3.5 esignature used for method 9934

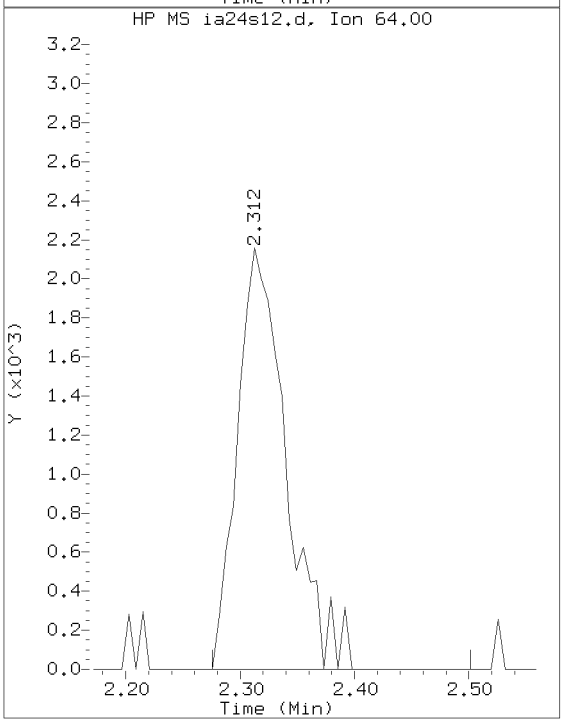
Reference Standard Spectrum for Vinyl Chloride



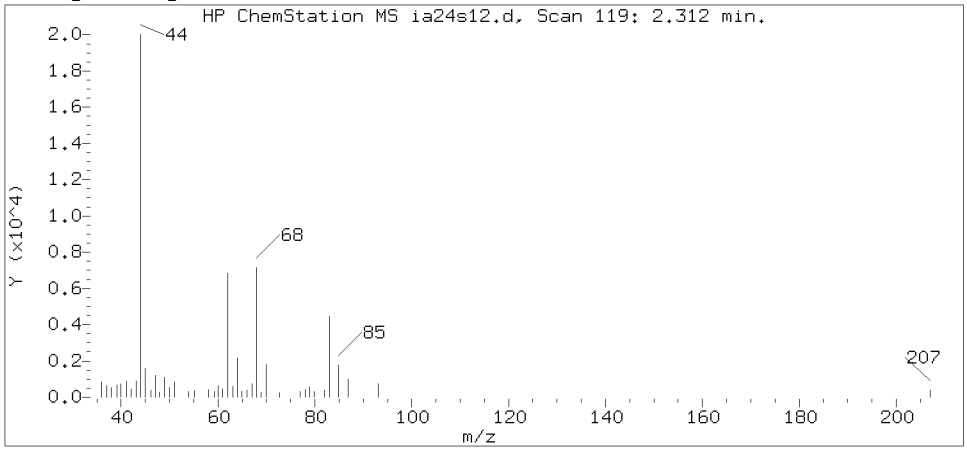


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 5
Compound Name : Vinyl Chloride
Scan Number : 119
Retention Time (minutes): 2.312
Relative Retention Time :-0.00055
Quant Ion : 62.00
Area (flag) : 18026
On-Column Amount (ng) : 0.1941

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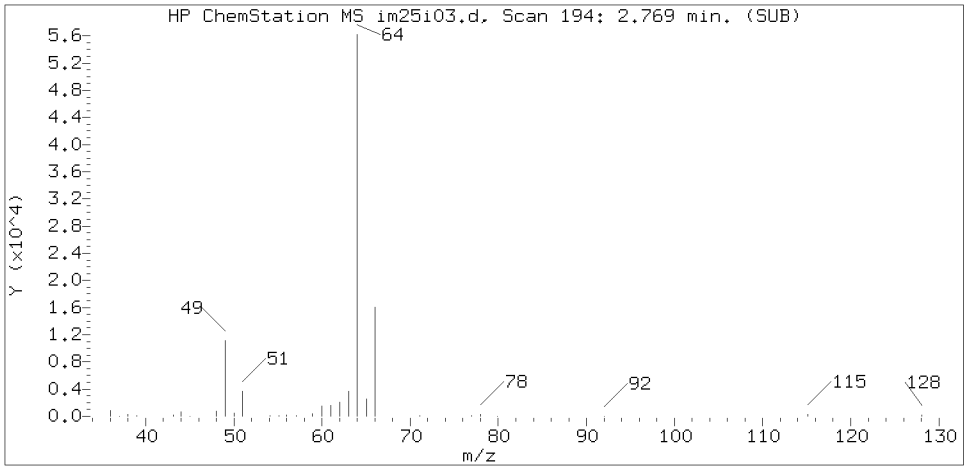
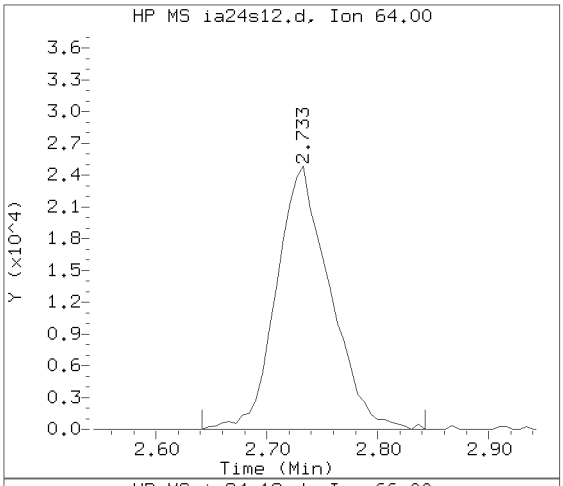
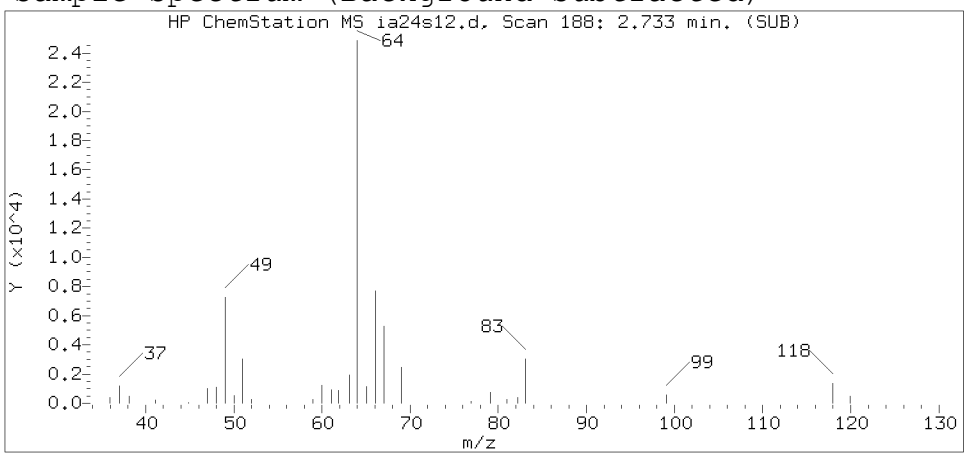
Target 3.5 esignature user ID: mec29284

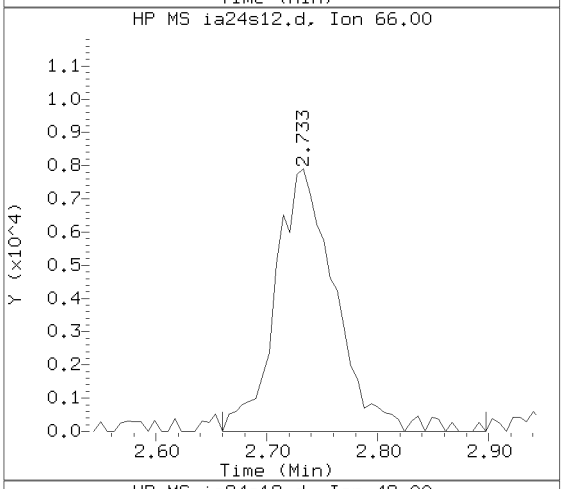
Reference Standard Spectrum for Chloroethane



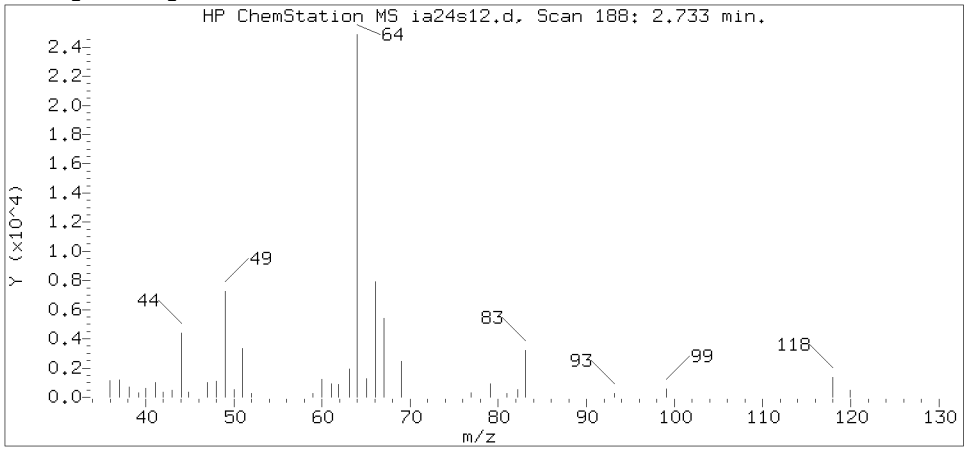


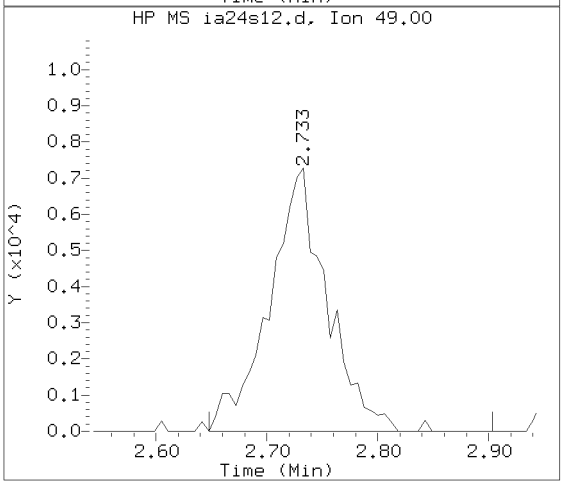
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 188
Retention Time (minutes): 2.733
Relative Retention Time :-0.00051
Quant Ion : 64.00
Area (flag) : 83395
On-Column Amount (ng) : 1.5459

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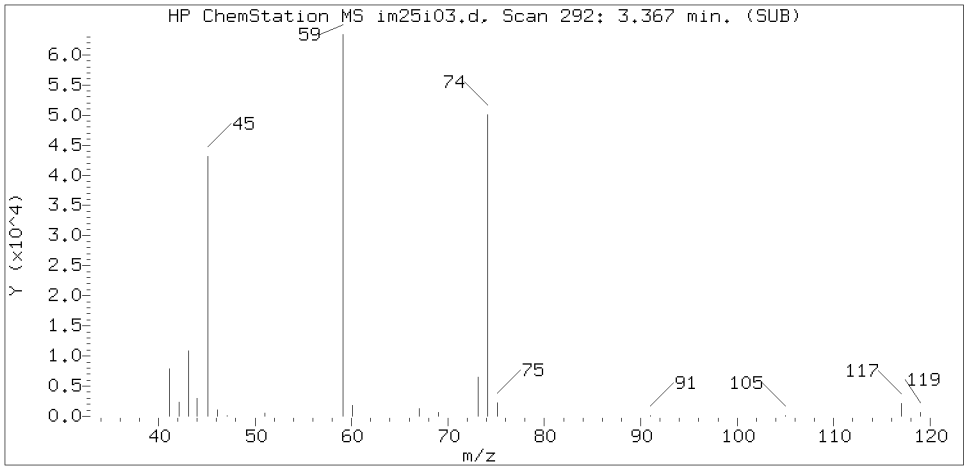
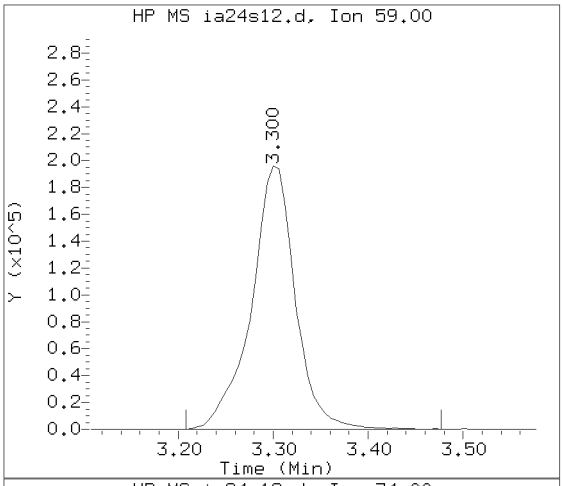
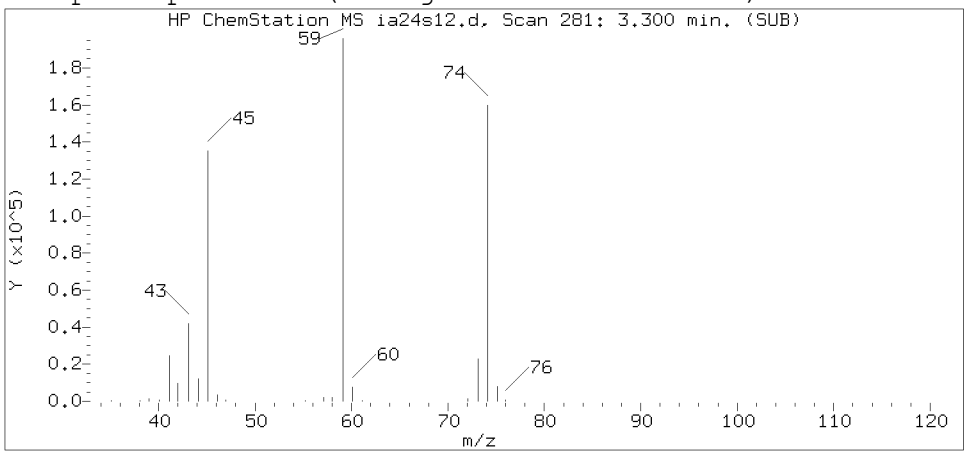
Target 3.5 esignature user ID: mec29284

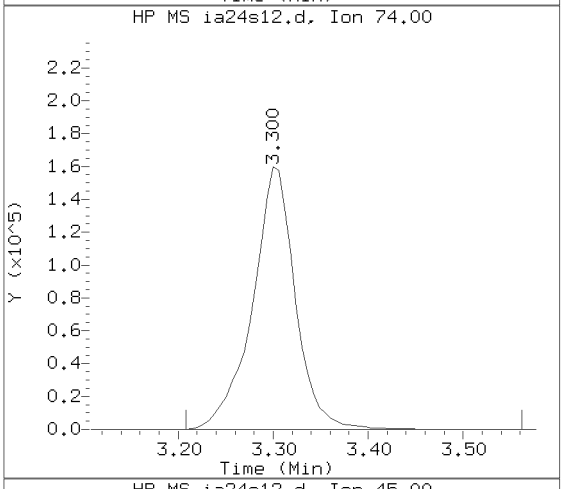
Reference Standard Spectrum for Ethyl ether



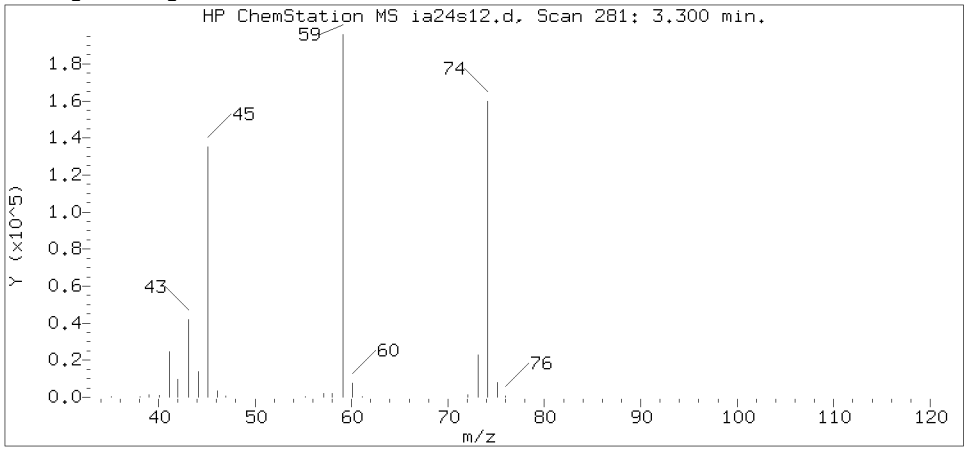


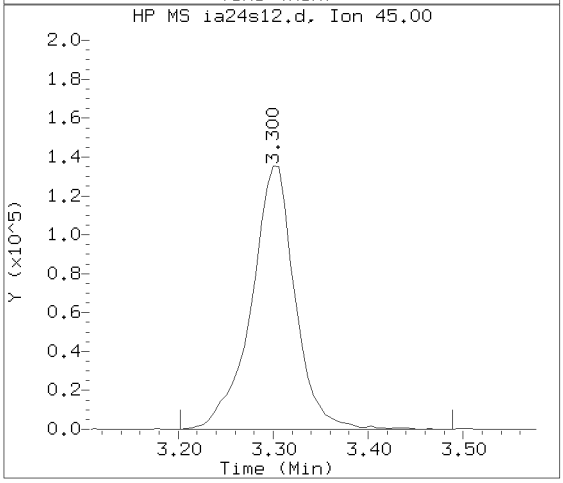
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 281
Retention Time (minutes): 3.300
Relative Retention Time : 0.00033
Quant Ion : 59.00
Area (flag) : 631397
On-Column Amount (ng) : 15.4552

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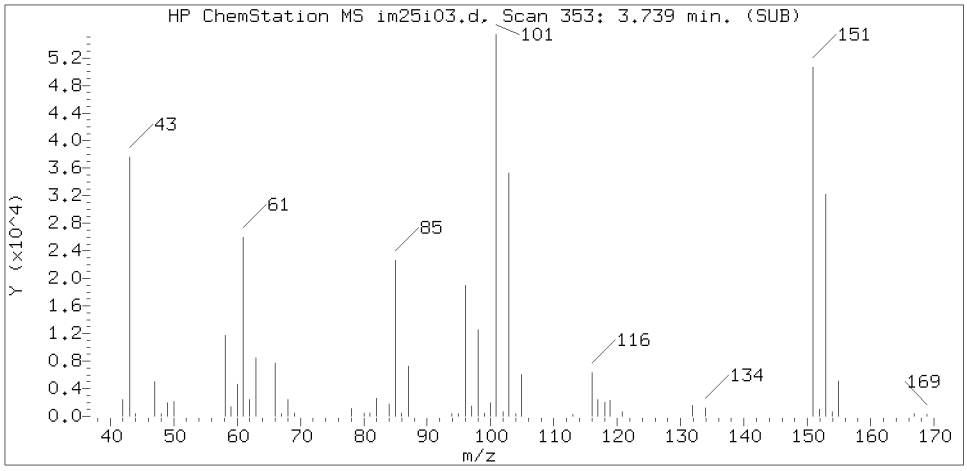
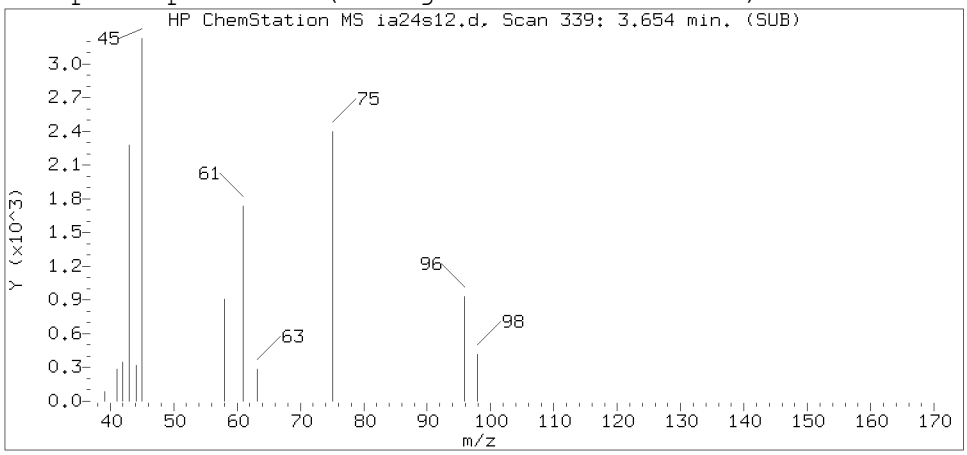
Target 3.5 esignature user ID: mec29284

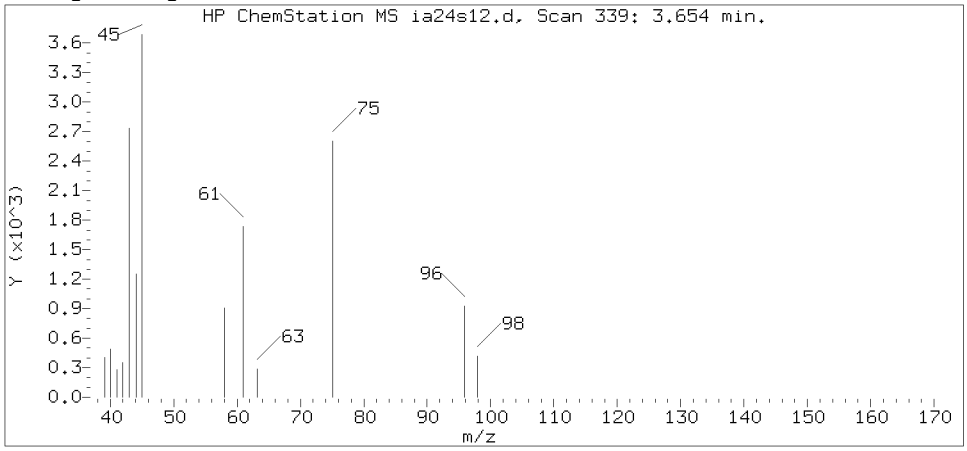
Reference Standard Spectrum for Acetone

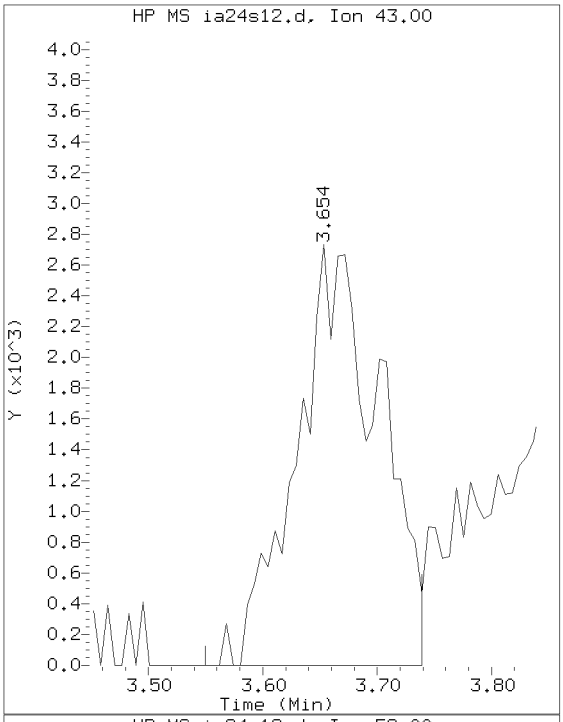


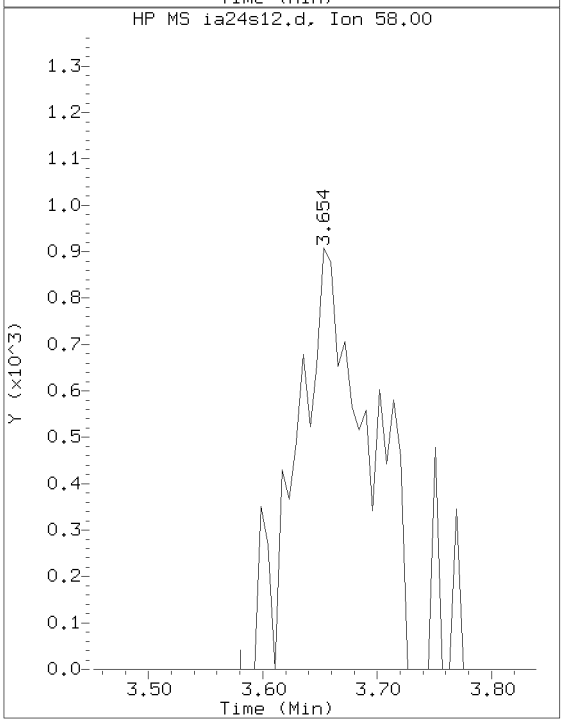
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

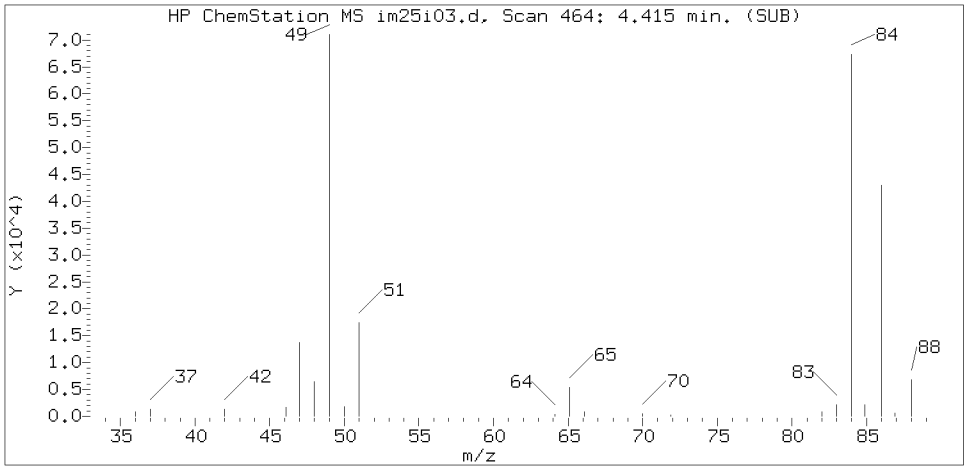
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

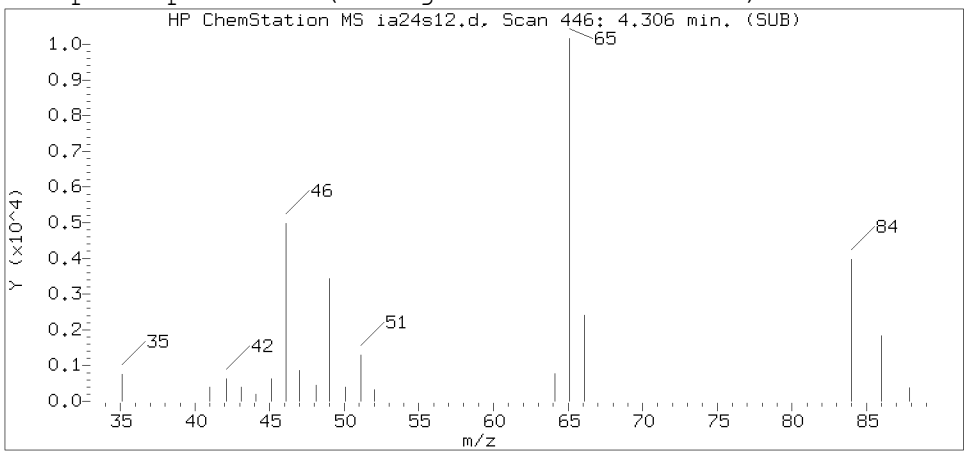
Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 339
Retention Time (minutes)	: 3.654
Relative Retention Time	: 0.00335
Quant Ion	: 43.00
Area (flag)	: 13786
On-Column Amount (ng)	: 1.5153

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:30.
Target 3.5 esignature user ID: mec29284

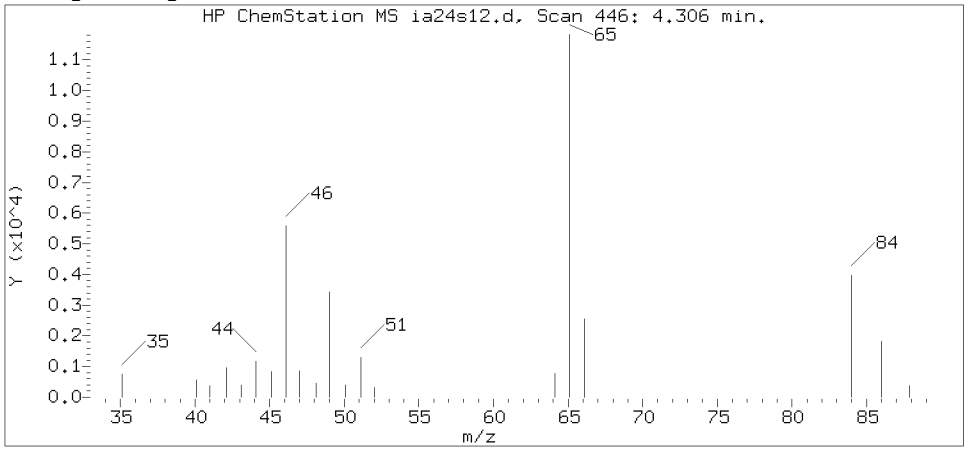
Reference Standard Spectrum for Methylene Chloride

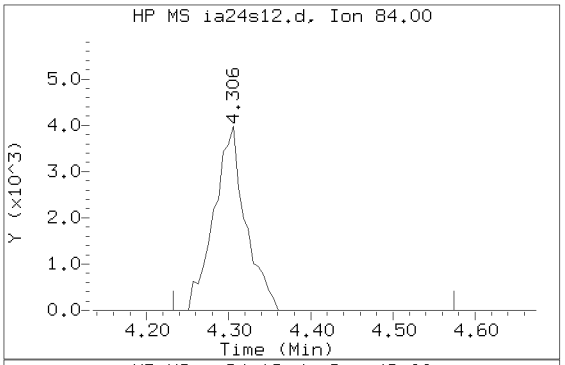


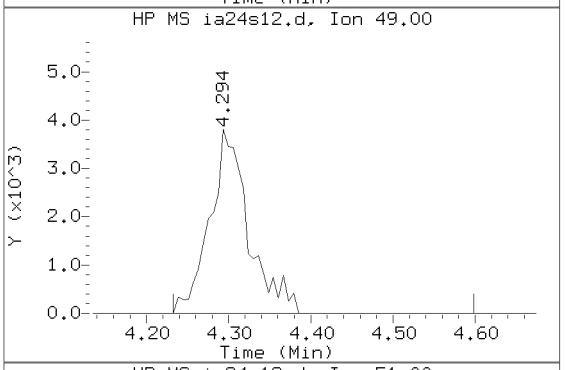
Sample Spectrum (Background Subtracted)

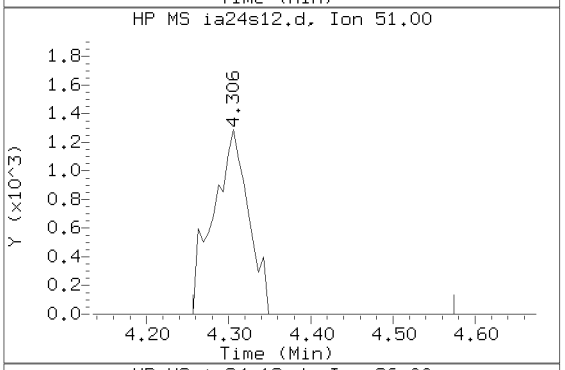


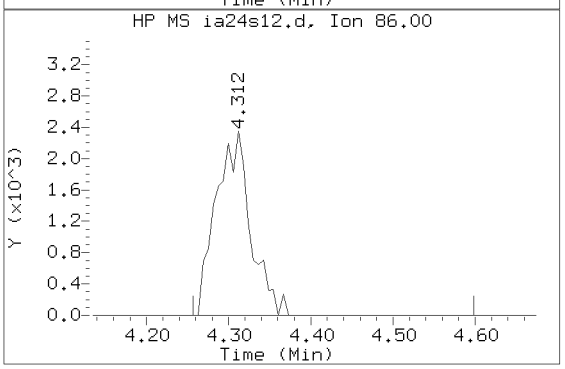
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 446
Retention Time (minutes): 4.306
Relative Retention Time :-0.00114
Quant Ion : 84.00
Area (flag) : 10595
On-Column Amount (ng) : 0.1925

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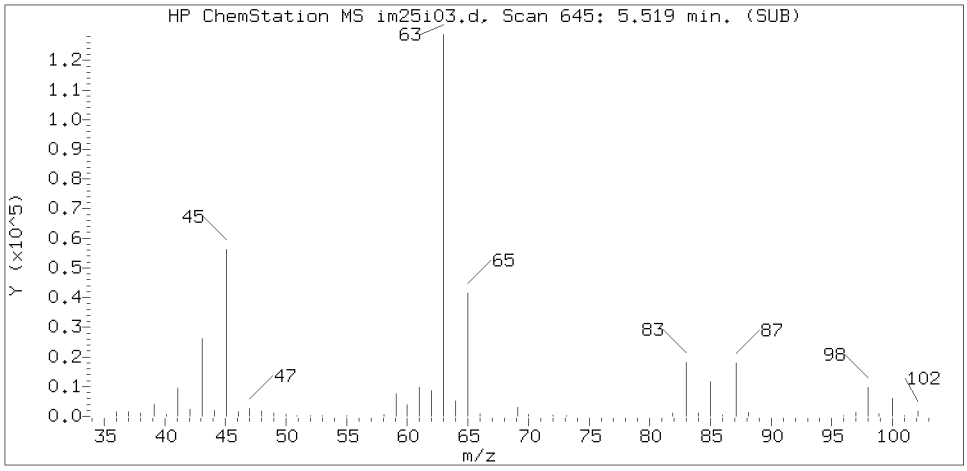
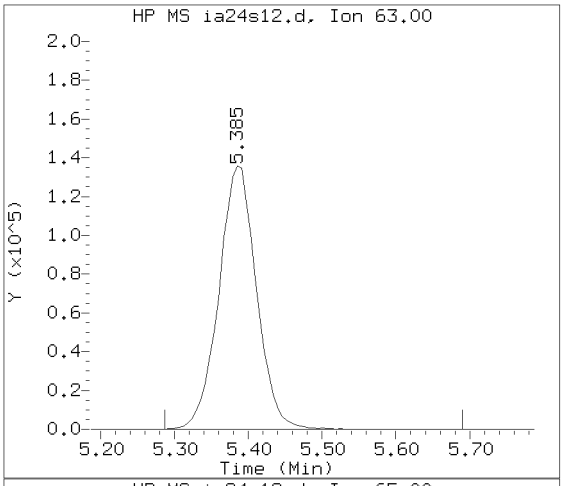
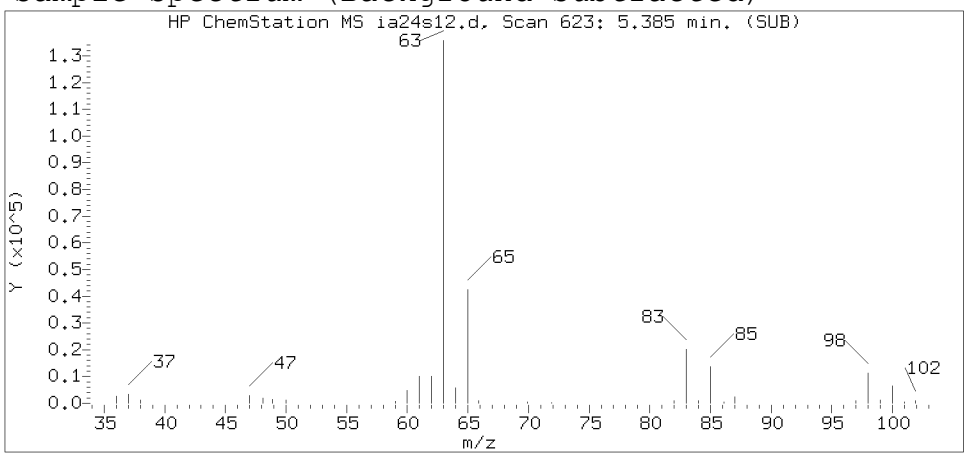
Target 3.5 esignature user ID: mec29284

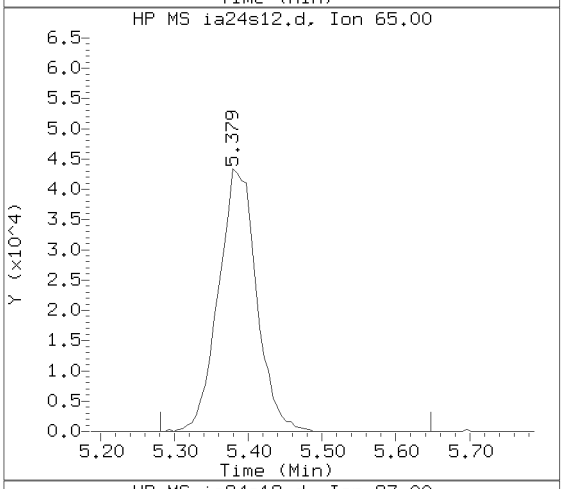
Reference Standard Spectrum for 1,1-Dichloroethane



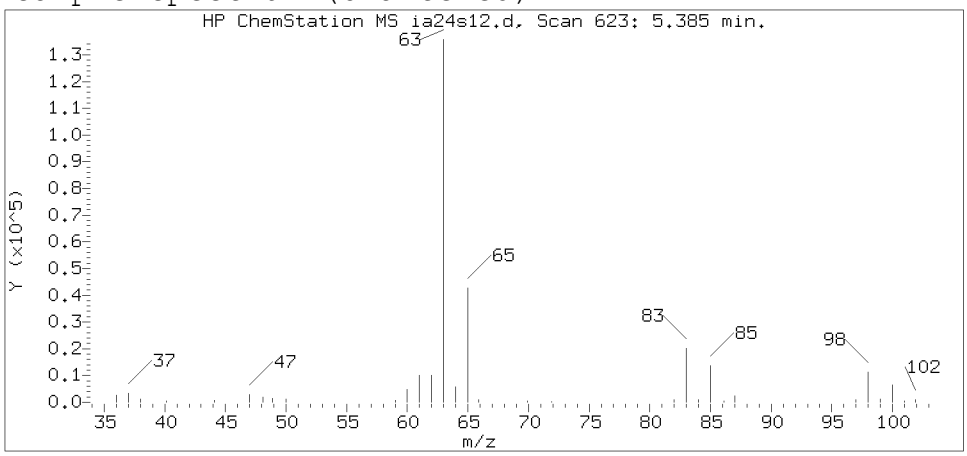


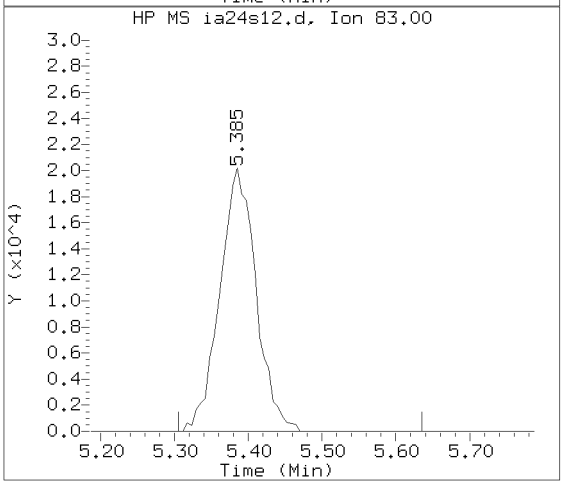
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number	: 33
Compound Name	: 1,1-Dichloroethane
Scan Number	: 623
Retention Time (minutes)	: 5.385
Relative Retention Time	: 0.00054
Quant Ion	: 63.00
Area (flag)	: 477317
On-Column Amount (ng)	: 4.8732

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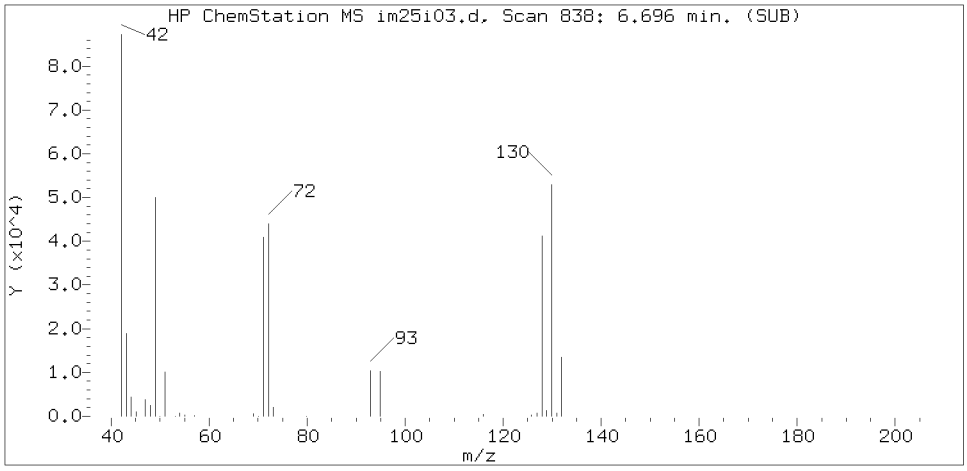
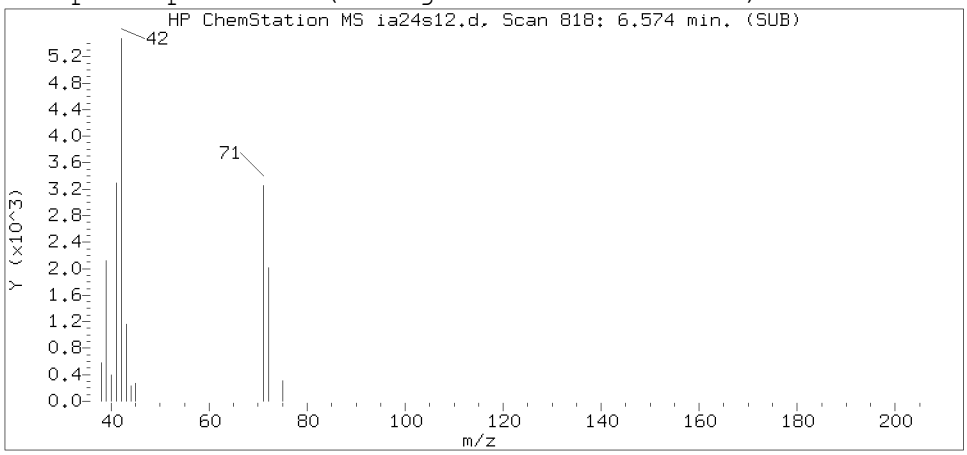
Target 3.5 esignature user ID: mec29284

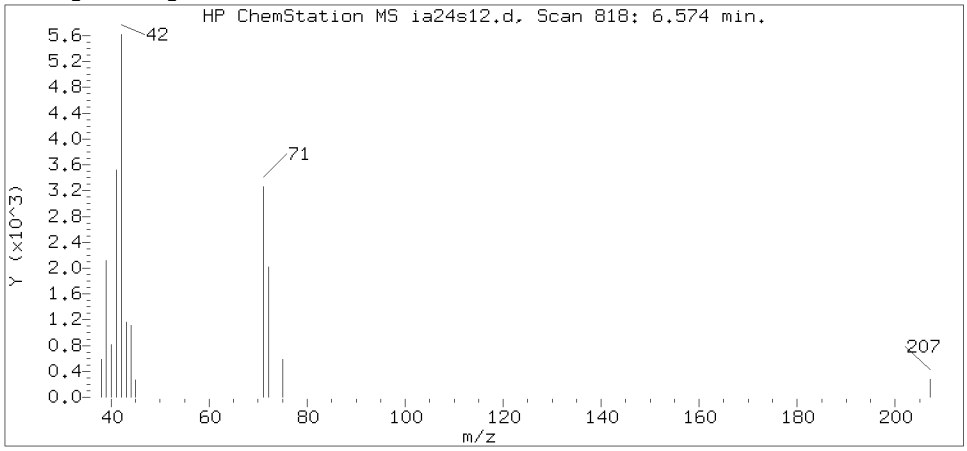
Reference Standard Spectrum for Tetrahydrofuran

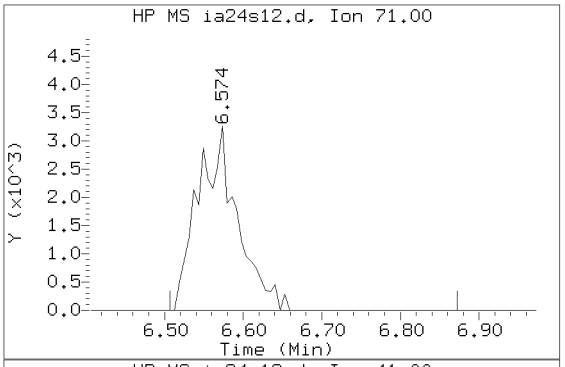


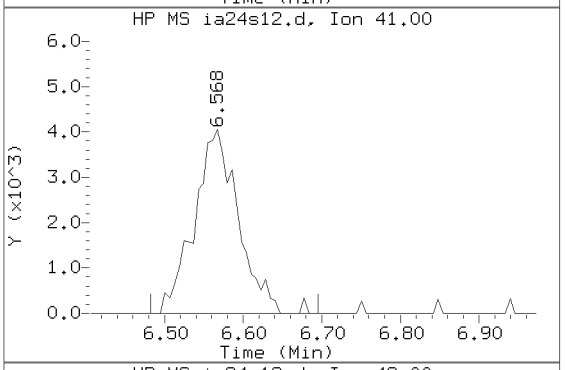
Sample Spectrum (Background Subtracted)

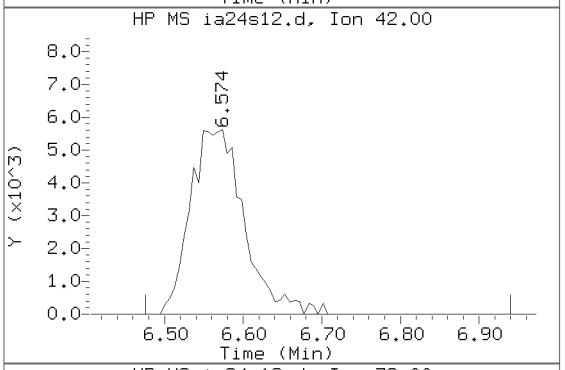


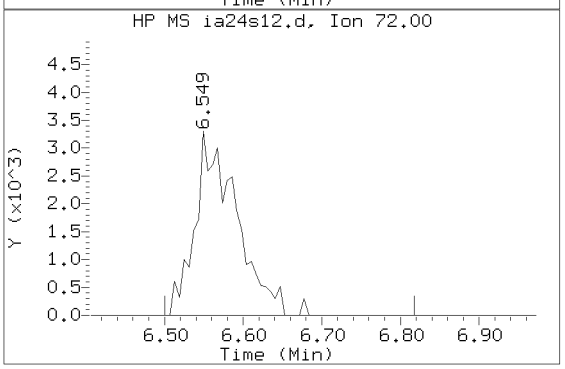
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 48
Compound Name : Tetrahydrofuran
Scan Number : 818
Retention Time (minutes): 6.574
Relative Retention Time : 0.00575
Quant Ion : 71.00
Area (flag) : 11446
On-Column Amount (ng) : 2.4771

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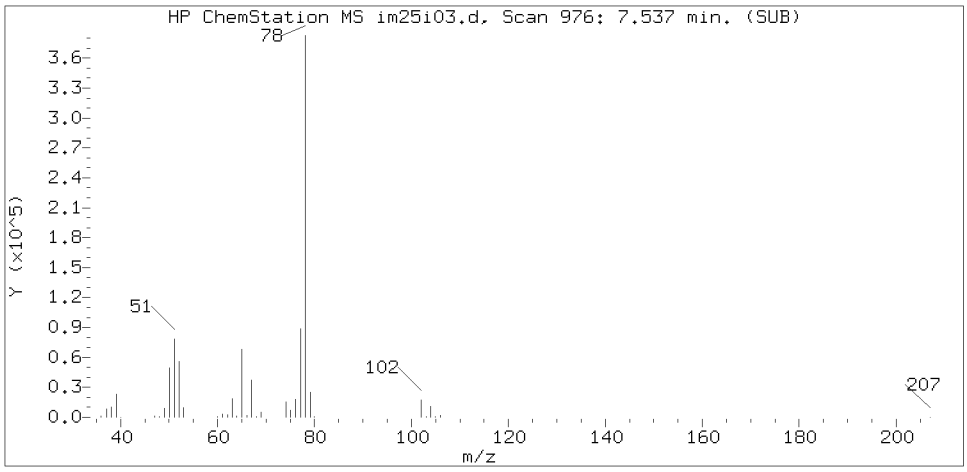
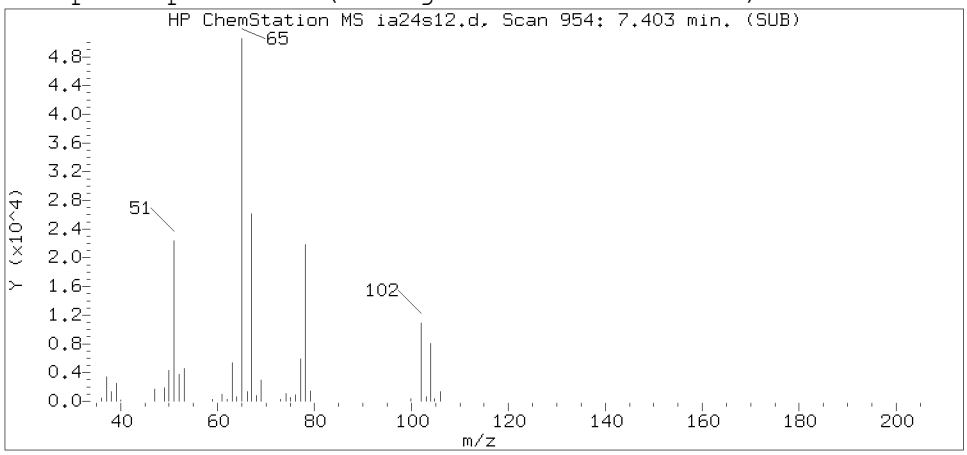
Target 3.5 esignature user ID: mec29284

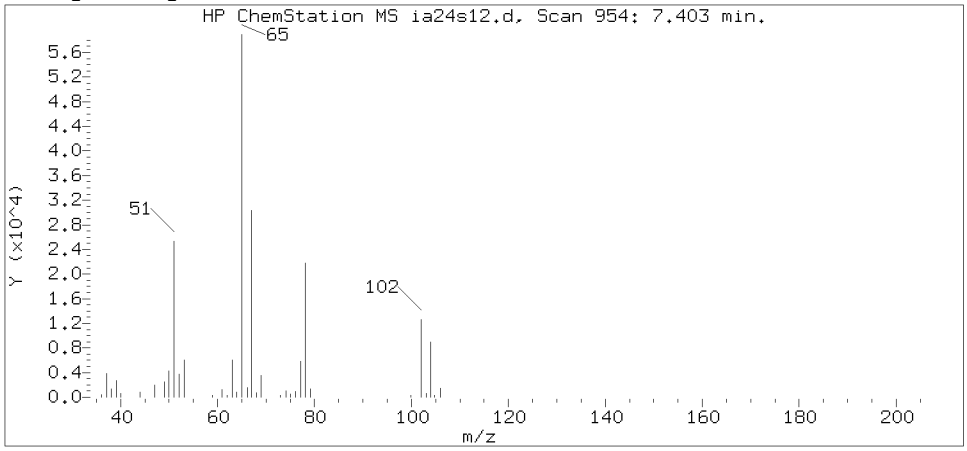
Reference Standard Spectrum for Benzene

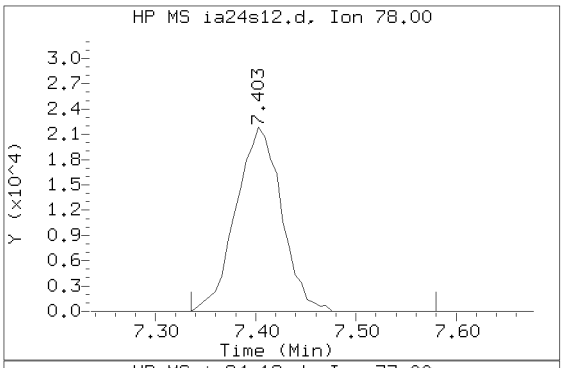


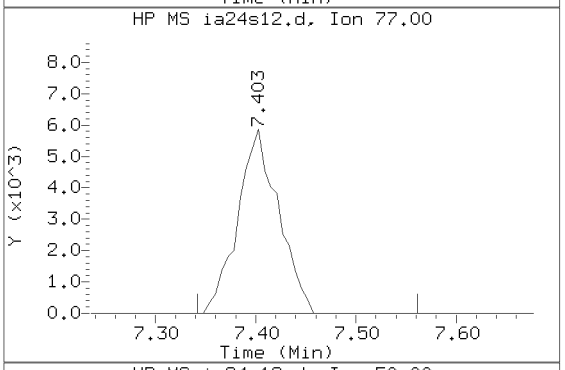
Sample Spectrum (Background Subtracted)

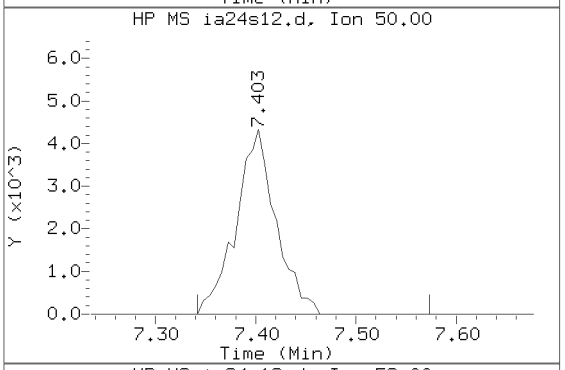


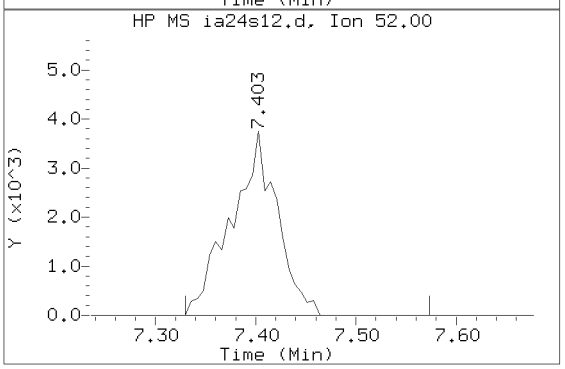
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number	: 58
Compound Name	: Benzene
Scan Number	: 954
Retention Time (minutes)	: 7.403
Relative Retention Time	: 0.00074
Quant Ion	: 78.00
Area (flag)	: 69023
On-Column Amount (ng)	: 0.2939

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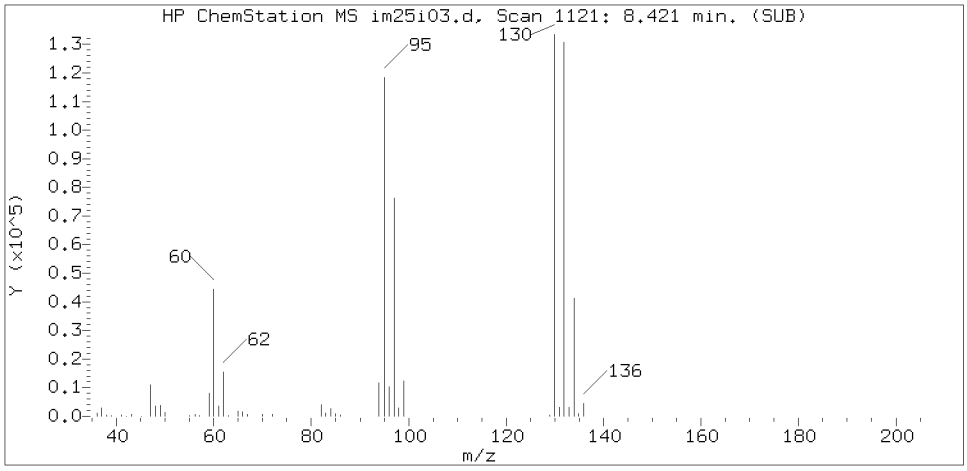
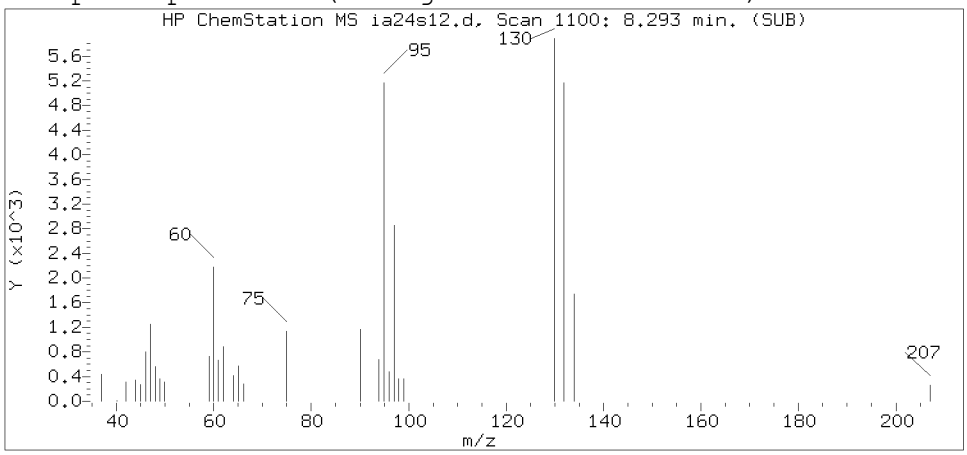
Target 3.5 esignature user ID: mec29284

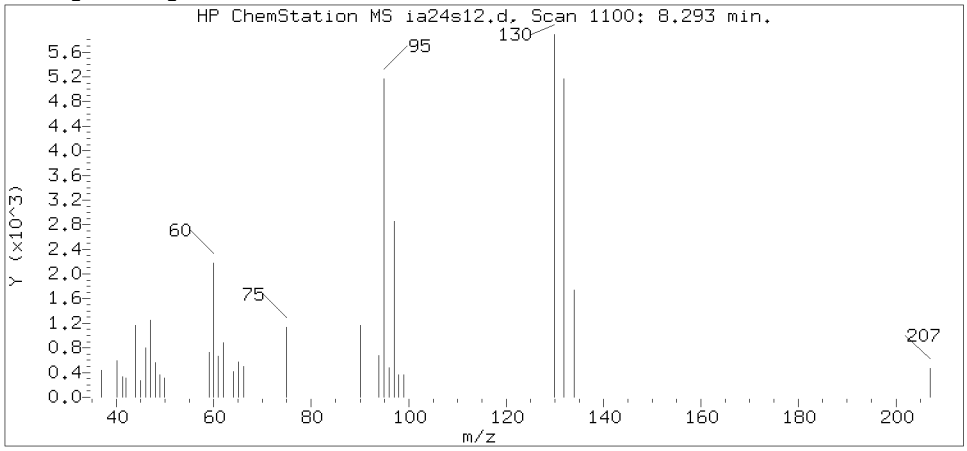
Reference Standard Spectrum for Trichloroethene

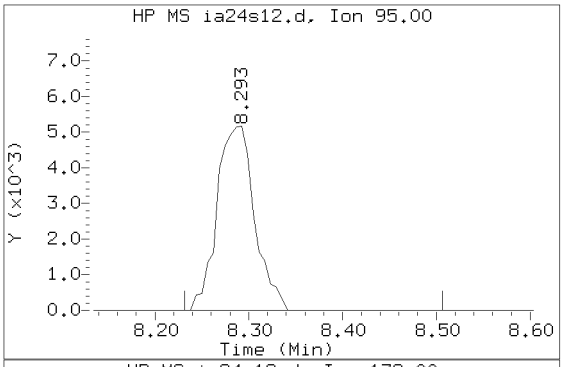


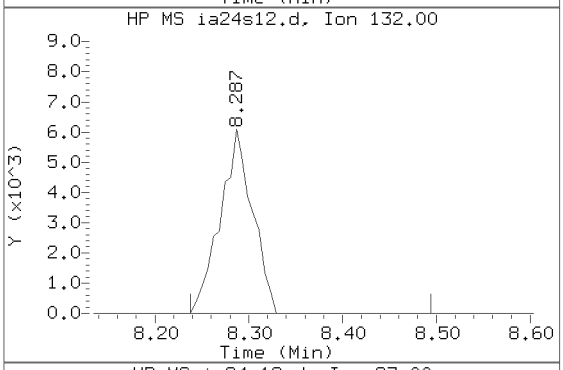
Sample Spectrum (Background Subtracted)

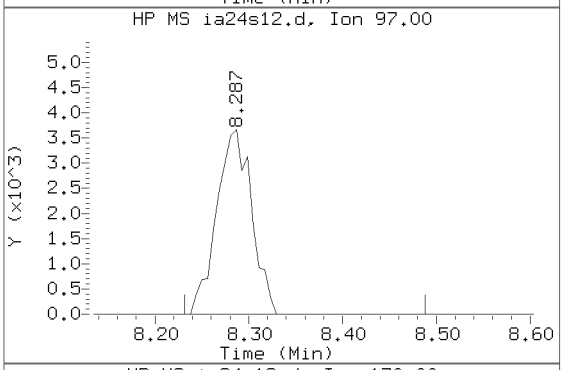


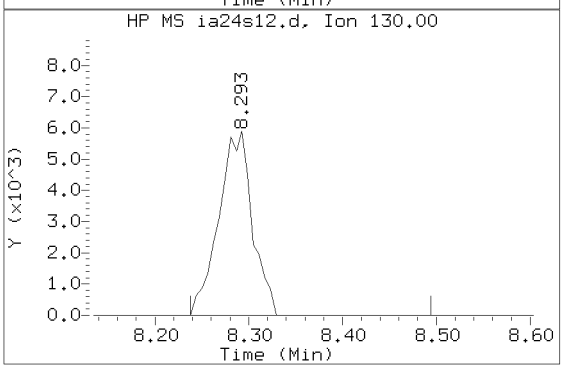
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 67
Compound Name : Trichloroethene
Scan Number : 1100
Retention Time (minutes): 8.293
Relative Retention Time :-0.00073
Quant Ion : 95.00
Area (flag) : 14476
On-Column Amount (ng) : 0.2203

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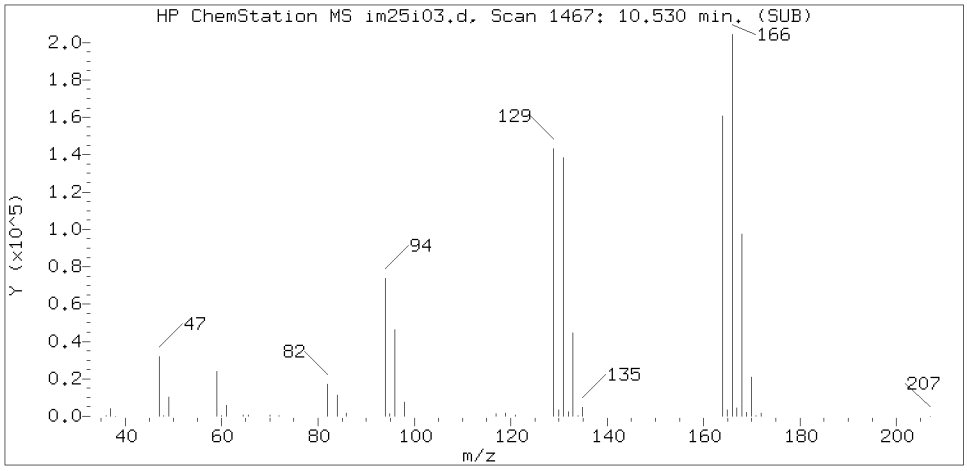
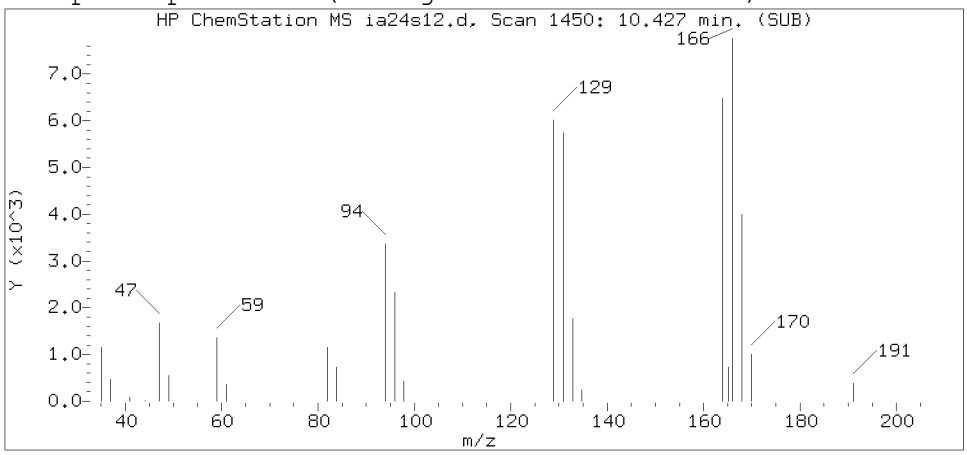
Target 3.5 esignature user ID: mec29284

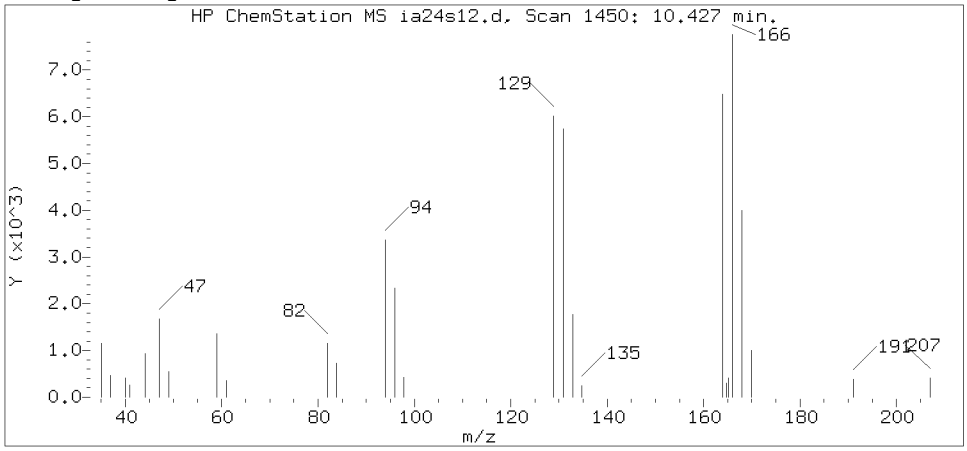
Reference Standard Spectrum for Tetrachloroethene

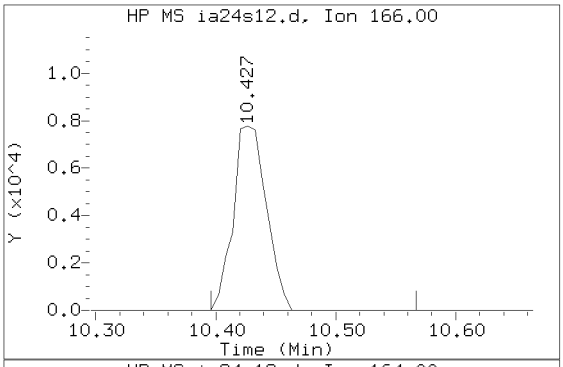


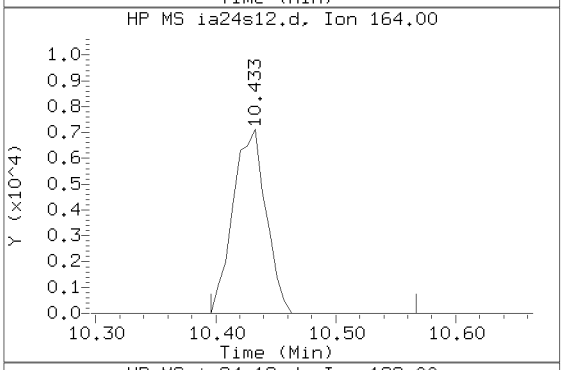
Sample Spectrum (Background Subtracted)

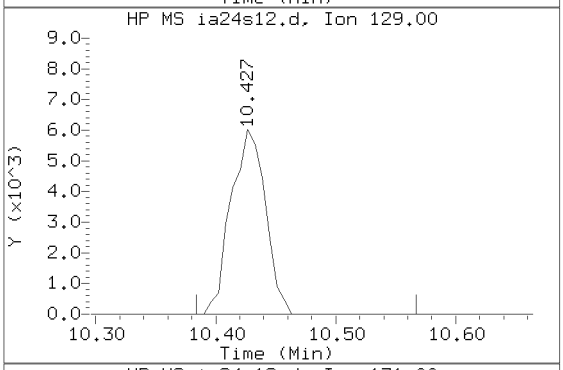


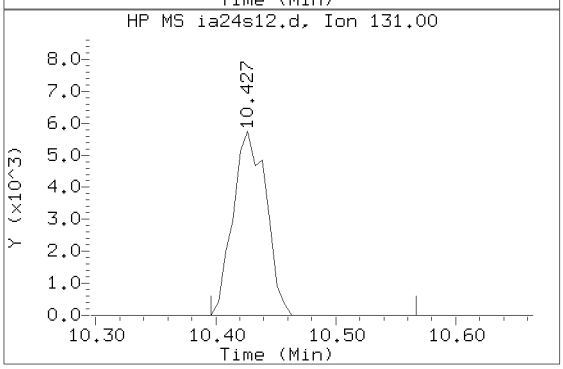
Sample Spectrum (Unaltered)











Data File: /chem2/HP19930.i/19apr24a.b/ia24s12.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:51 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:22 mec29284

Sample Name: F3505 Lab Sample ID: 1034107

Compound Number : 89
Compound Name : Tetrachloroethene
Scan Number : 1450
Retention Time (minutes): 10.427
Relative Retention Time :-0.00000
Quant Ion : 166.00
Area (flag) : 14905
On-Column Amount (ng) : 0.1811

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:30.
Target 3.5 esignature user ID: mec29284

F3506 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034108

Data file: /chem2/HP09355.i/19apr24a.b/ya24s12.d Injection date and time: **24-APR-2019 15:59**
Data file Sample Info. Line: F3506;1034108;1;0;;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 16:15 Automation

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.252	(0.006)	439	65	304267	(-20)	250.00	
66) Fluorobenzene	7.793	(0.012)	1021	96	1000540	(-18)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	758424	(-18)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	417509	(-19)	50.00	

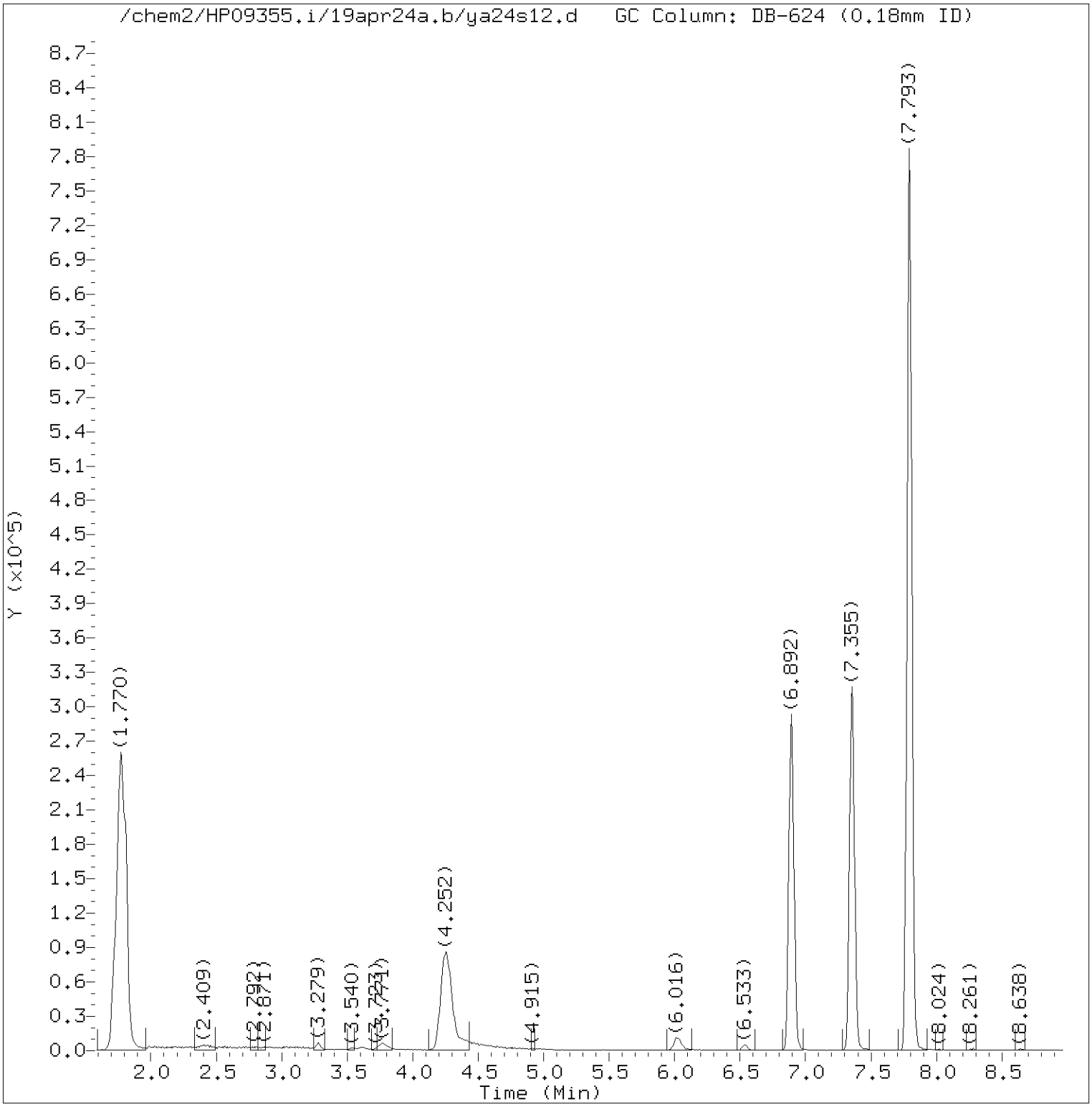
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.000)	113	249149	51.631	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.355	(0.000)	102	64291	53.117	106%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	955475	48.001	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	343356	45.177	90%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
21) 2-Propanol	(1)	3.765	(0.001)	45	17964	23.322	23.32		J	18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:27. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

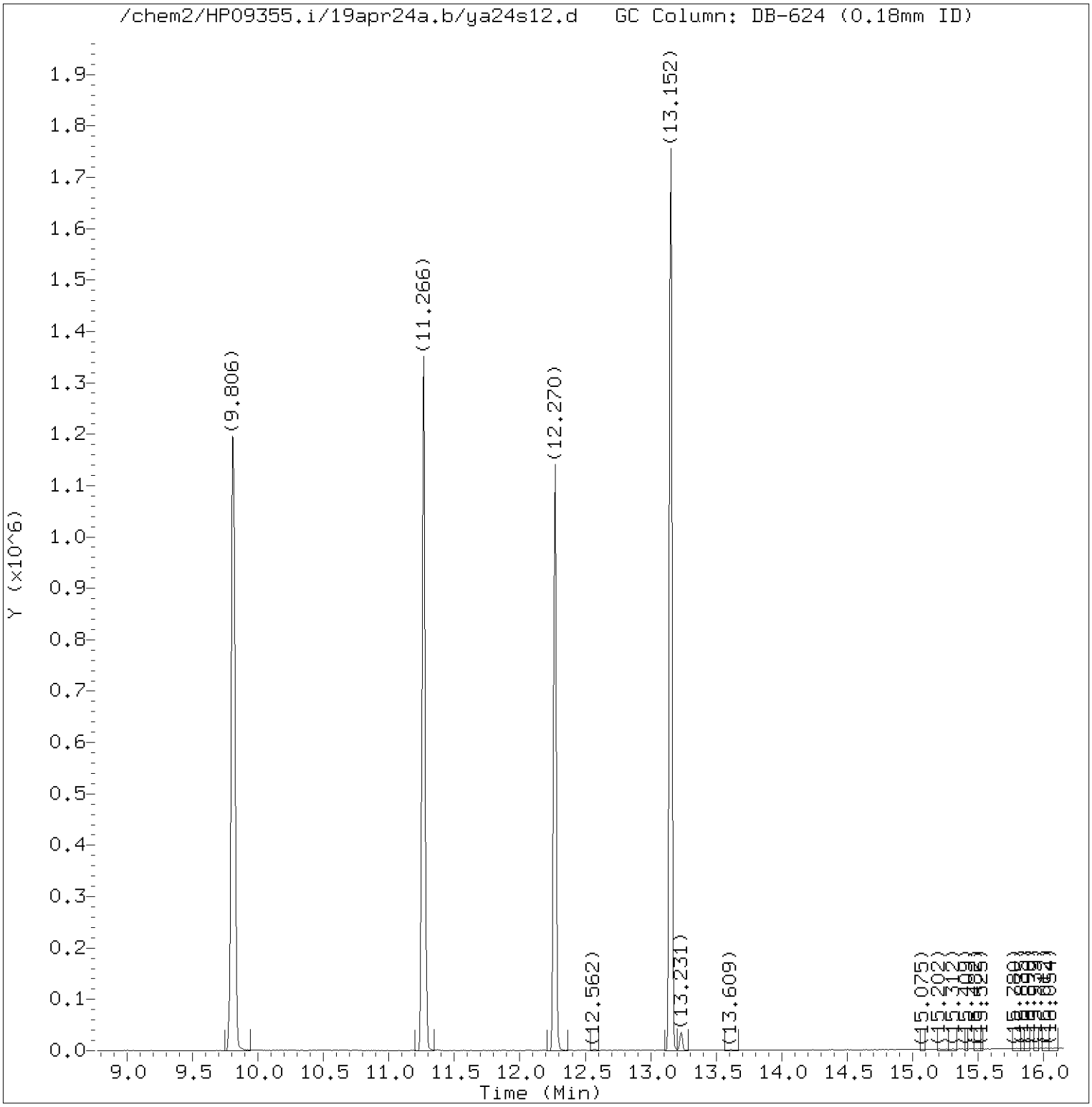
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s12.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:59 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 16:15 Automation

Sample Name: F3506 Lab Sample ID: 1034108

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s12.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:59 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 16:15 Automation

Sample Name: F3506 Lab Sample ID: 1034108

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s12.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:59 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 16:15 Automation

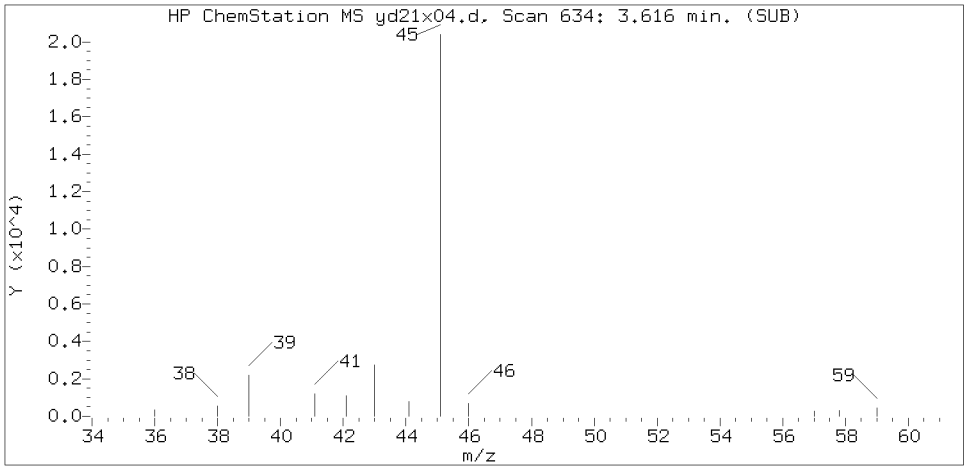
Sample Name: F3506 Lab Sample ID: 1034108

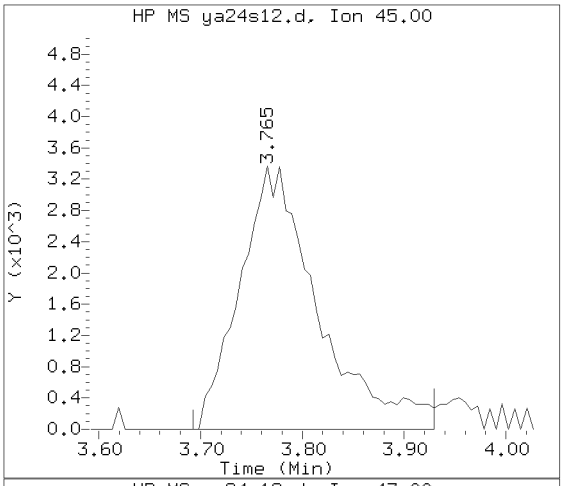
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.765	45	17964	23.322
29)*t-Butyl alcohol-d10	(1)	4.252	65	304267	250.000
52)$Dibromofluoromethane	(2)	6.892	113	249149	51.631
57)$1,2-Dichloroethane-d4	(2)	7.355	102	64291	53.117
66)*Fluorobenzene	(2)	7.793	96	1000540	50.000
83)$Toluene-d8	(3)	9.812	98	955475	48.001
100)*Chlorobenzene-d5	(3)	11.266	117	758424	50.000
114)$4-Bromofluorobenzene	(3)	12.270	95	343356	45.177
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	417509	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

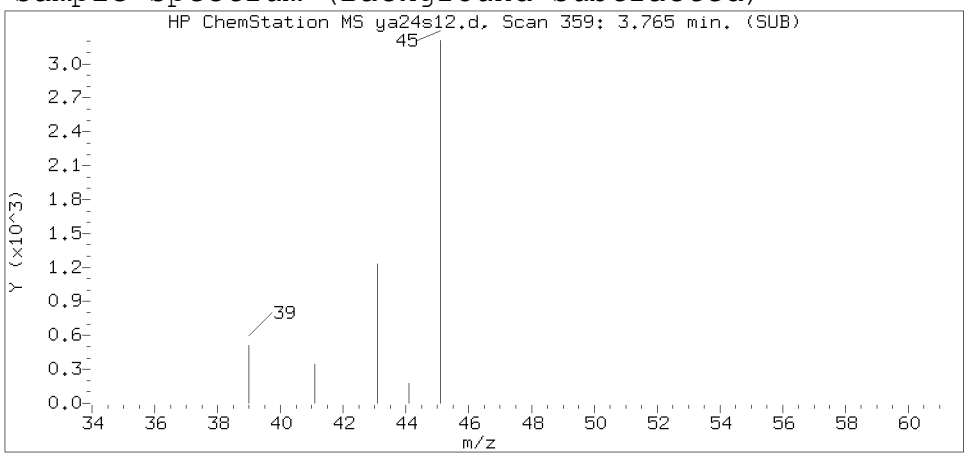
Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

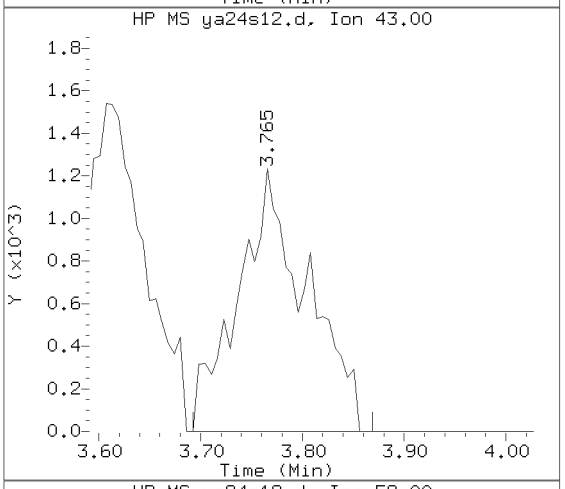
Reference Standard Spectrum for 2-Propanol



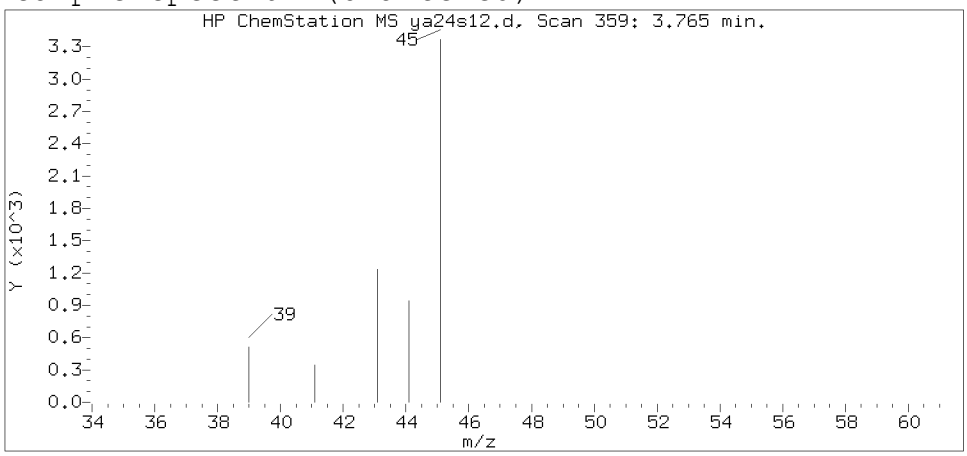


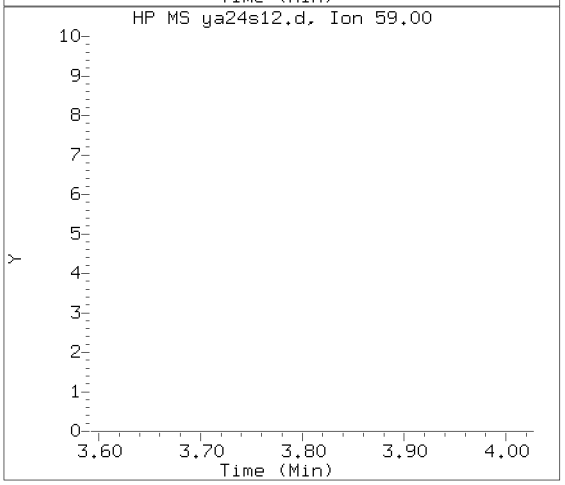
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/19apr24a.b/ya24s12.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 15:59 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 16:15 Automation

Sample Name: F3506 Lab Sample ID: 1034108

Compound Number	: 21
Compound Name	: 2-Propanol
Scan Number	: 359
Retention Time (minutes)	: 3.765
Relative Retention Time	: 0.00159
Quant Ion	: 45.00
Area (flag)	: 17964
On-Column Amount (ng)	: 23.3221

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:27.
Target 3.5 esignature user ID: sej02002

F3506 Lancaster Laboratories 1034108
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s13.d Injection date and time: **24-APR-2019 16:12**
Data file Sample Info. Line: F3506;1034108;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.330	(-0.018)	450	65	156593	(13)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2026013	(-5)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1618419	(-6)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	881871	(-12)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921	(-0.001)	113	526430	10.068	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372	(-0.001)	102	104173	10.338	103%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2036186	10.257	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	708409	9.523	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.1	1
4) Dimethyl ether	(2)	2.081	(-0.002)	45	22604M	0.307	0.31		J	0.04	13
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.2	1
7) Bromomethane	(2)				Not Detected					0.5	1
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.2	1
11) Ethyl ether	(2)				Not Detected					1	13
13) Acrolein	(1)				Not Detected					3	25
15) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
16) Freon 113	(2)				Not Detected					0.1	1
14) Acetone	(1)	3.672	(-0.002)	43	12719M	1.386	1.39		J	0.9	10
17) Methyl Iodide	(2)				Not Detected					0.6	10
18) Carbon Disulfide	(2)				Not Detected					0.4	10
25) Acetonitrile	(1)				Not Detected					32	100
22) Allyl Chloride	(2)				Not Detected					0.8	10
23) Methylene Chloride	(2)				Not Detected					0.2	1
29) Acrylonitrile	(1)				Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.1	1
36) Vinyl Acetate	(2)				Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.5	10
38) 2-Butanone	(1)				Not Detected					0.6	10
42) Propionitrile	(1)				Not Detected					10	100
45) Methacrylonitrile	(1)				Not Detected					10	100
48) Tetrahydrofuran	(1)				Not Detected					2	25
49) Chloroform	(2)				Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.1	1
54) Carbon Tetrachloride	(2)				Not Detected					0.2	1
56) Isobutyl Alcohol	(1)				Not Detected					4	200
58) Benzene	(2)				Not Detected					0.07	1

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31. Target 3.5 esignature user ID: mec29284

Data file: /chem2/HP19930.i/19apr24a.b/ia24s13.d Injection date and time: **24-APR-2019 16:12**
Data file Sample Info. Line: F3506;1034108;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

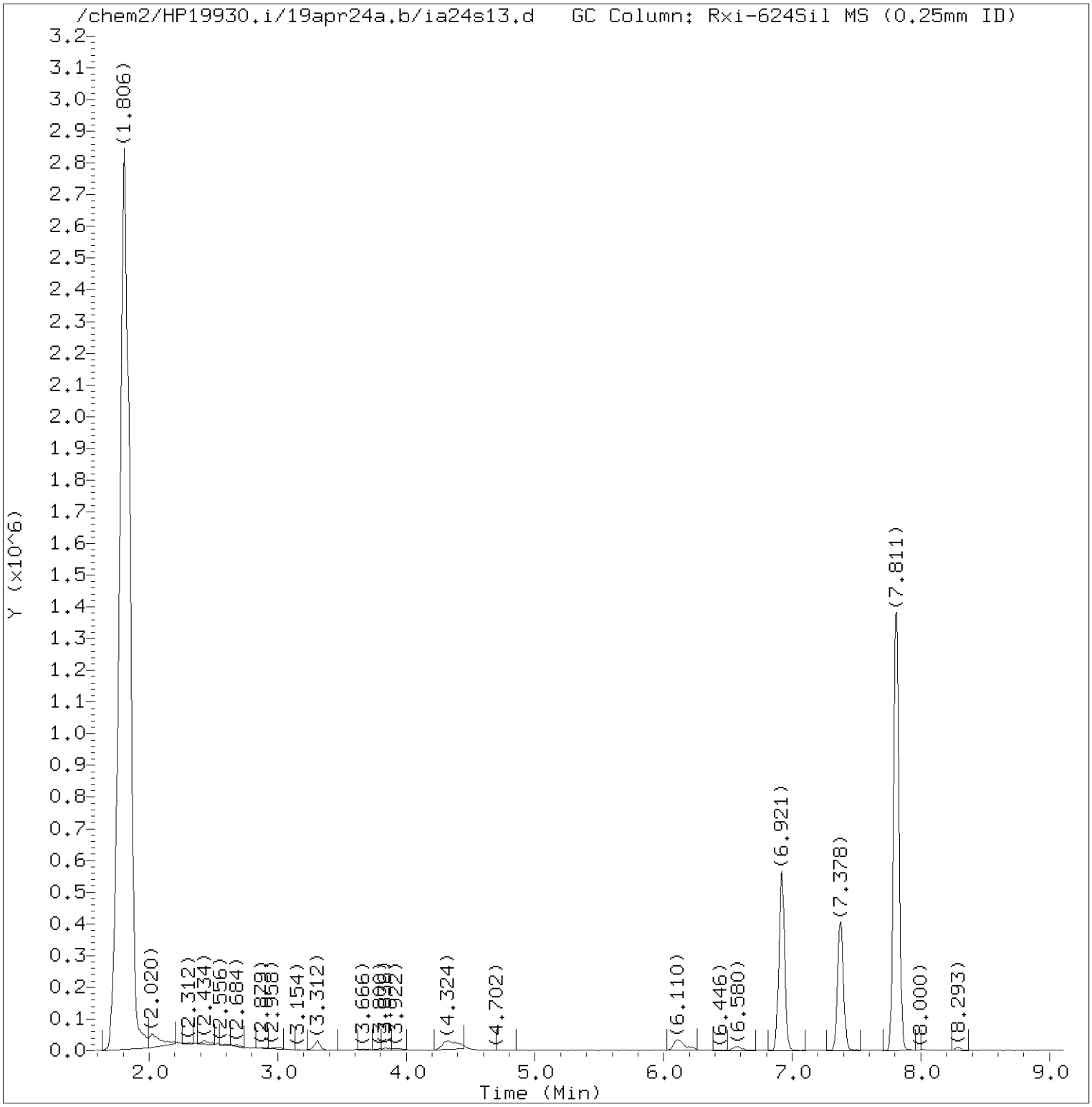
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
59) 1,2-Dichloroethane	(2)				Not Detected					0.1	1
67) Trichloroethene	(2)				Not Detected					0.2	1
70) 1,2-Dichloropropane	(2)				Not Detected					0.1	1
71) Methyl Methacrylate	(1)				Not Detected					4	10
73) Dibromomethane	(2)				Not Detected					0.07	1
72) 1,4-Dioxane	(1)				Not Detected					45	200
74) Bromodichloromethane	(2)				Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.9	10
83) Toluene	(3)				Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.1	1
86) Ethyl Methacrylate	(3)				Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.08	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
90) 1,3-Dichloropropane	(3)				Not Detected					0.09	1
91) 2-Hexanone	(1)				Not Detected					0.6	10
93) Dibromochloromethane	(3)				Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.08	1
100) Ethylbenzene	(3)				Not Detected					0.08	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.2	3
106) Styrene	(3)				Not Detected					0.05	1
107) Bromoform	(3)				Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.1	1
126) Pentachloroethane	(4)				Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.08	1
142) Hexachloroethane	(4)				Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.1	1
146) Hexachlorobutadiene	(4)				Not Detected					0.07	1
147) Naphthalene	(4)				Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

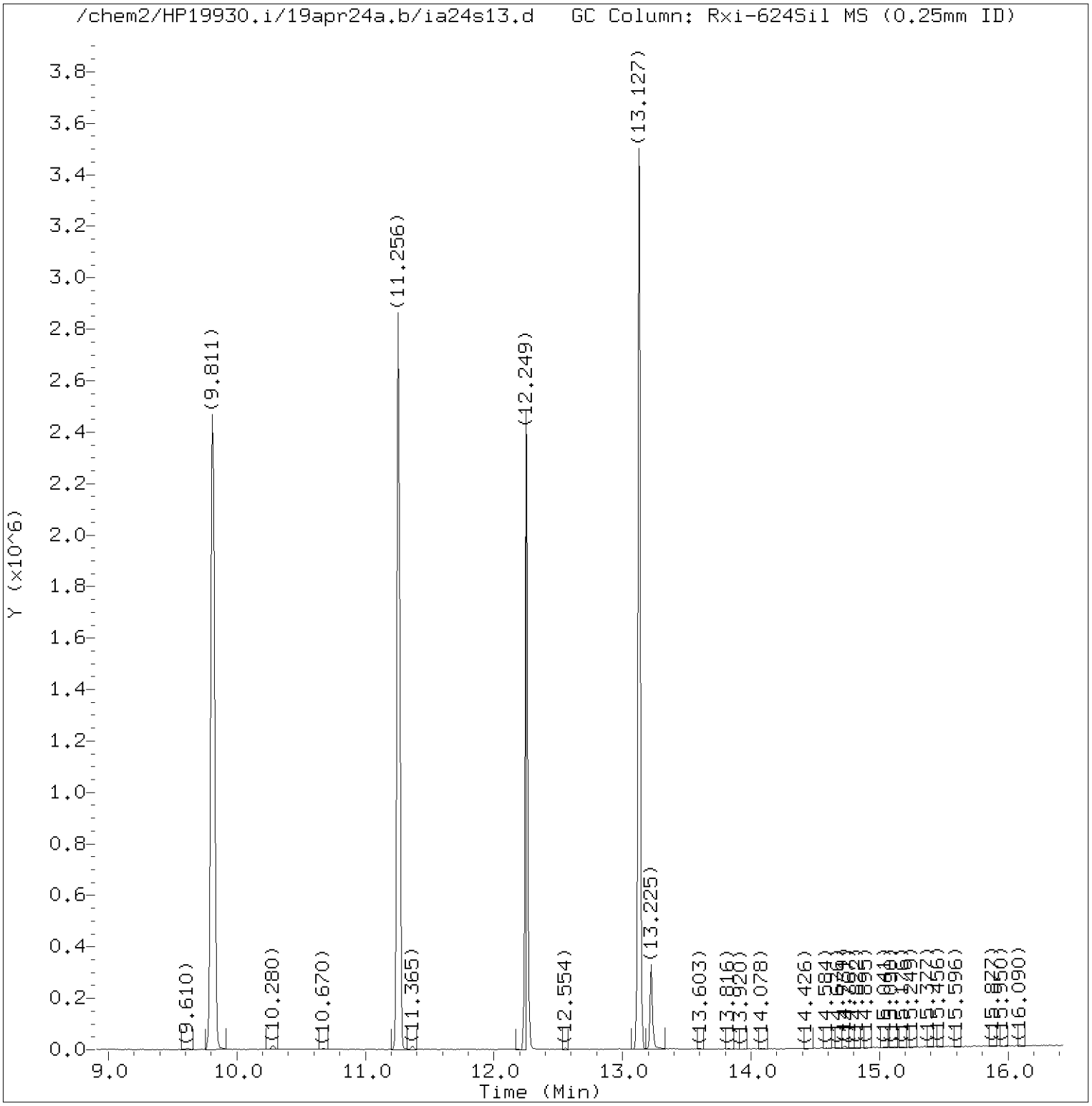
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Sample Name: F3506 Lab Sample ID: 1034108

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Sample Name: F3506 Lab Sample ID: 1034108

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

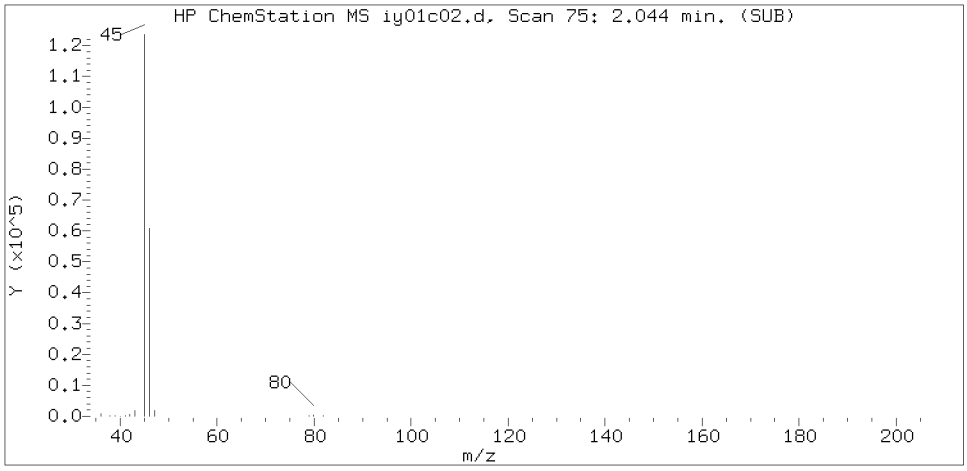
Sample Name: F3506 Lab Sample ID: 1034108

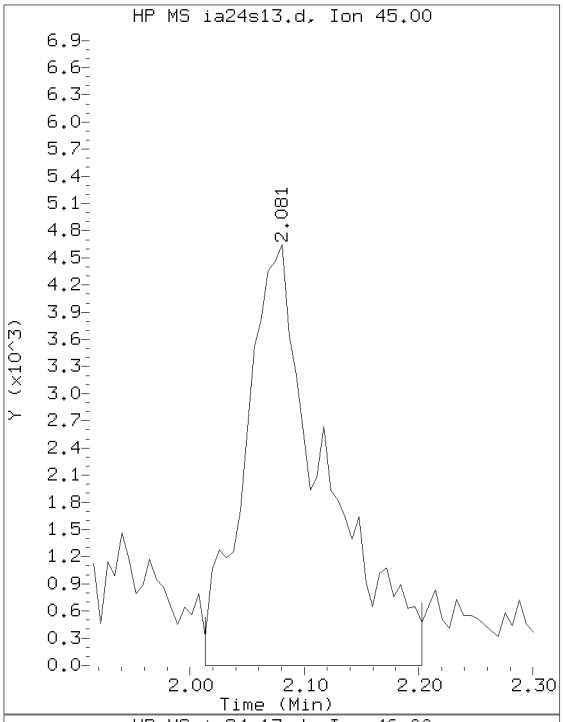
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.081	45	22604M	0.307
14) Acetone	(1)	3.672	43	12719M	1.386
26)*t-Butyl Alcohol-d10	(1)	4.330	65	156593	50.000
50)$Dibromofluoromethane	(2)	6.921	113	526430	10.068
57)$1,2-Dichloroethane-d4	(2)	7.372	102	104173	10.338
63)*Fluorobenzene	(2)	7.805	96	2026013	10.000
82)$Toluene-d8	(3)	9.811	98	2036186	10.257
97)*Chlorobenzene-d5	(3)	11.256	117	1618419	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	708409	9.523
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	881871	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

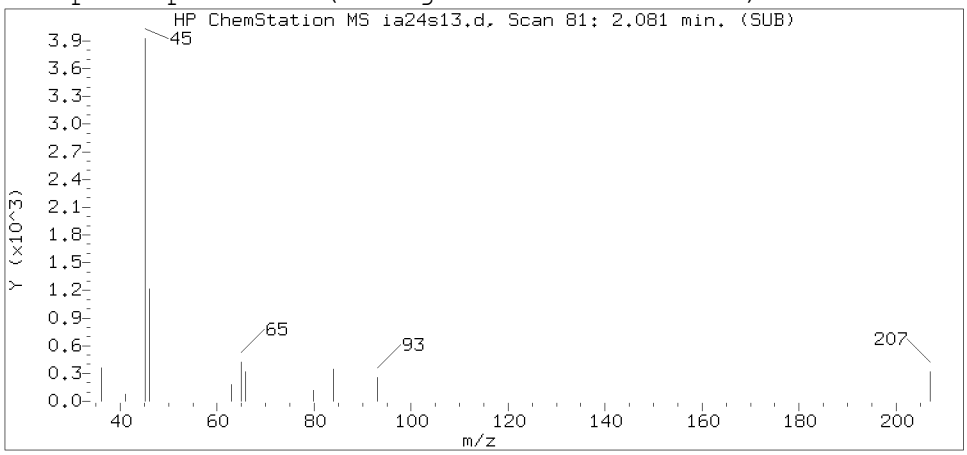
Digitally signed by Miranda E. Campbell
on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284

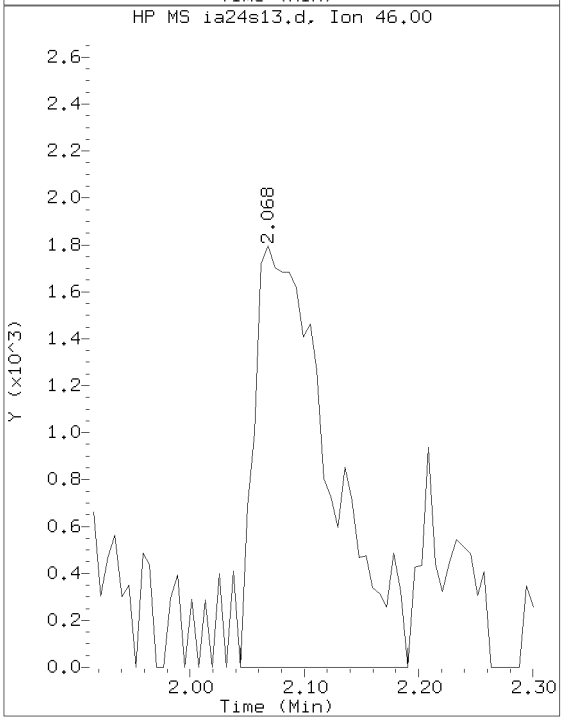
Reference Standard Spectrum for Dimethyl ether



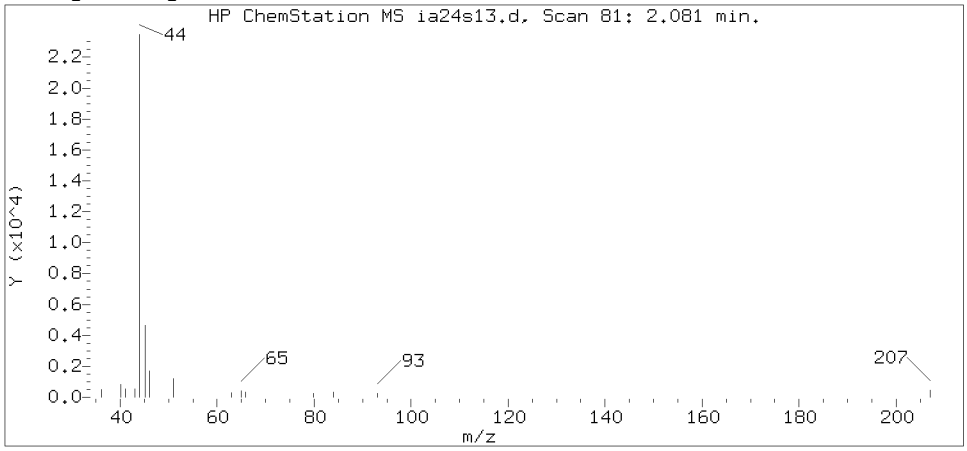


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

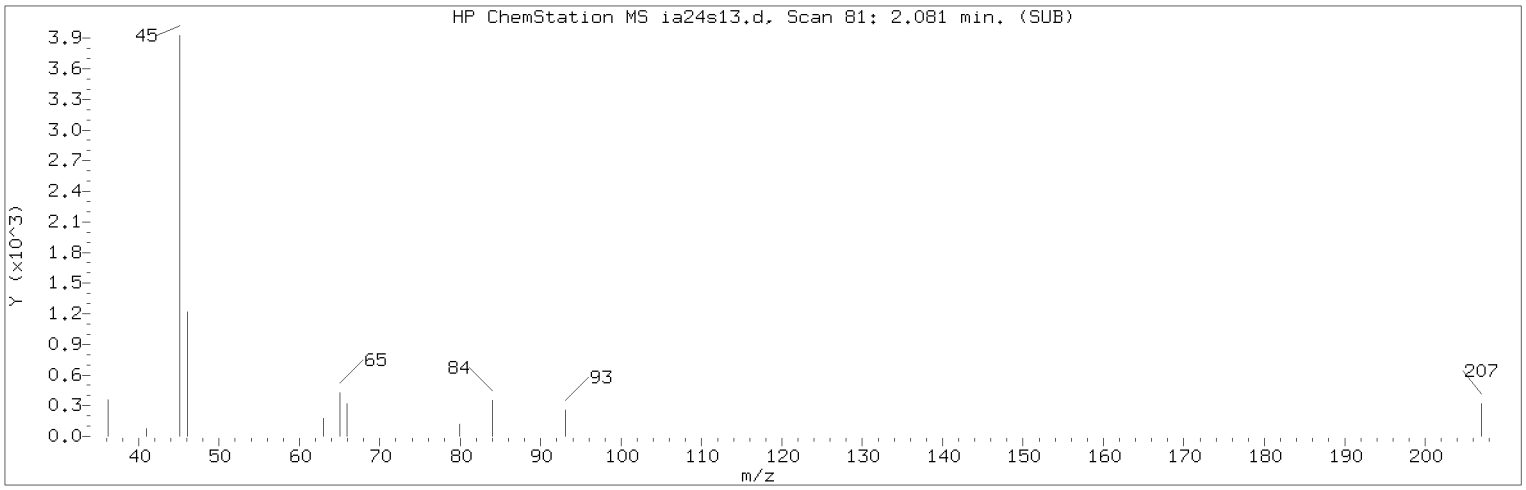
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Sample Name: F3506 Lab Sample ID: 1034108

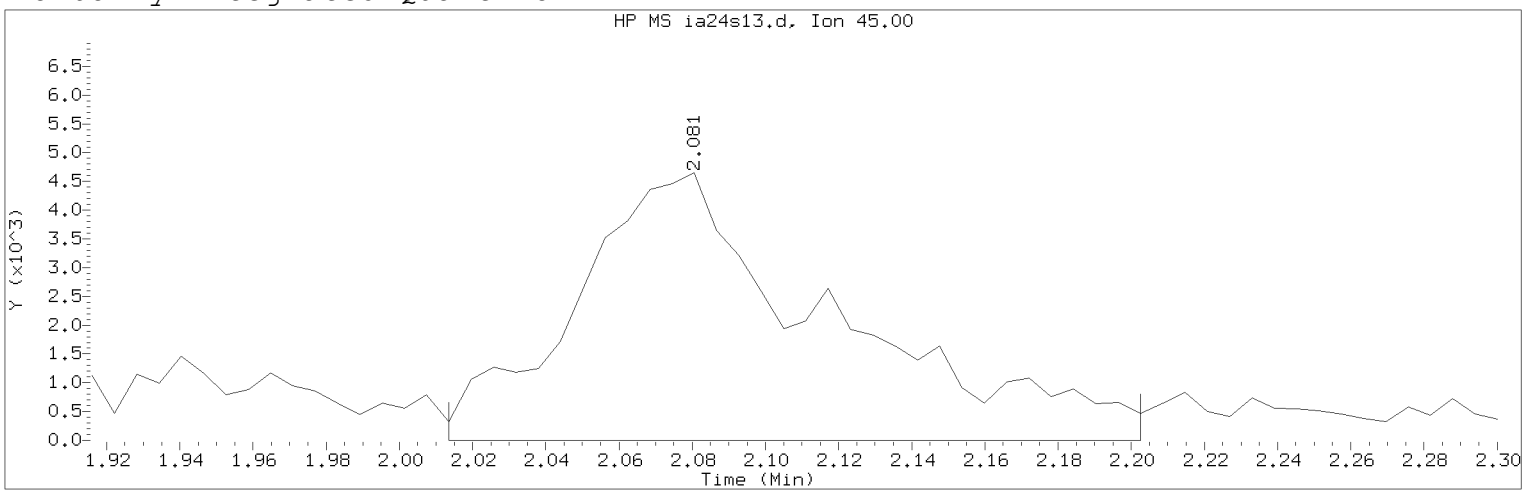
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 81
Retention Time (minutes): 2.081
Relative Retention Time :-0.00234
Quant Ion : 45.00
Area (flag) : 22604M
On-Column Amount (ng) : 0.3069

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Sample Name: F3506 Lab Sample ID: 1034108

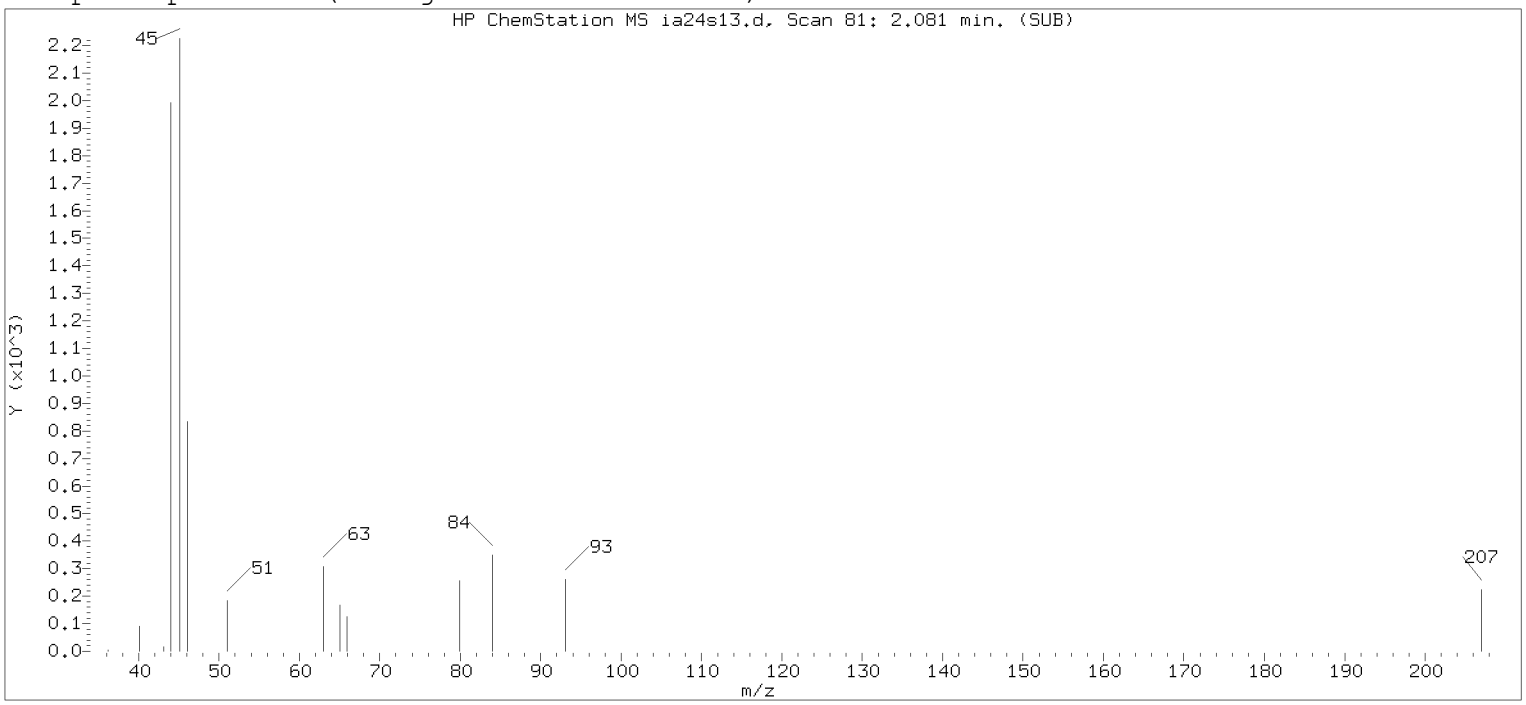
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 81
Retention Time (minutes): 2.081
Quant Ion : 45.00
Area (flag) : 22604M
On-Column Amount (ng) : 0.3069
Integration start scan : 69 Integration stop scan: 100
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

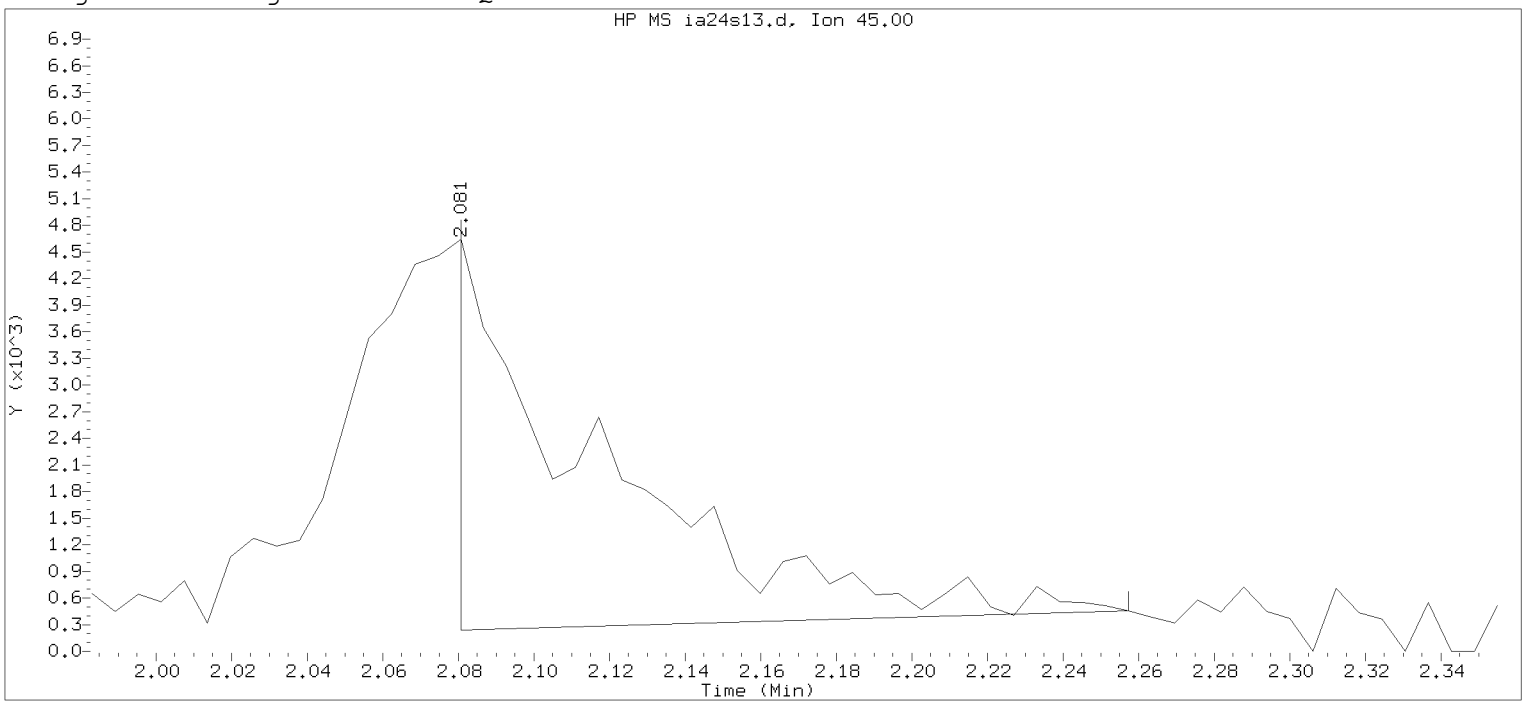
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

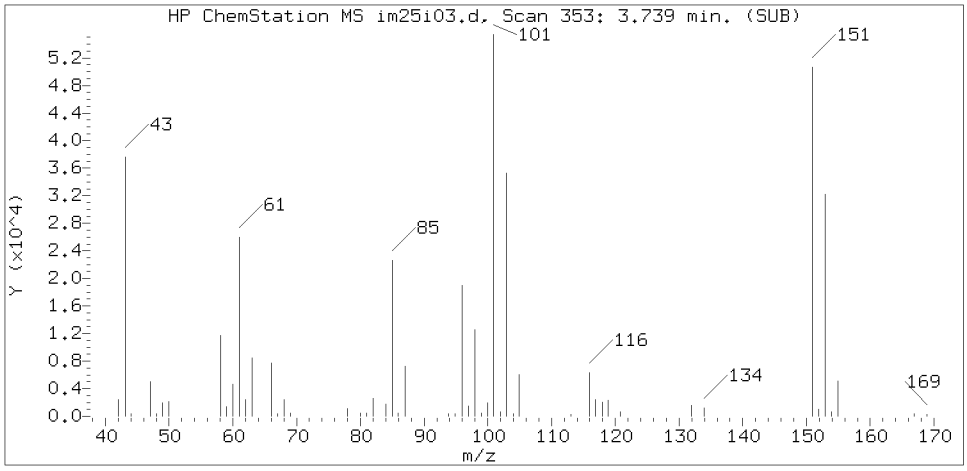
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:29 Automation

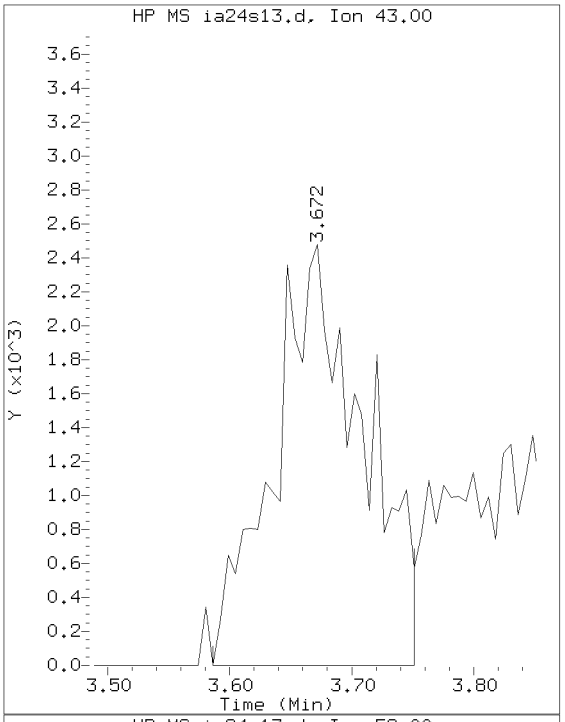
Sample Name: F3506 Lab Sample ID: 1034108

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 81		
Retention Time (minutes)	: 2.081		
Quant Ion	: 45.00		
Area	: 10541		
On-column Amount (ng)	: 0.1431		
Integration start scan	: 80	Integration stop scan:	109
Y at integration start	: 239	Y at integration end:	454

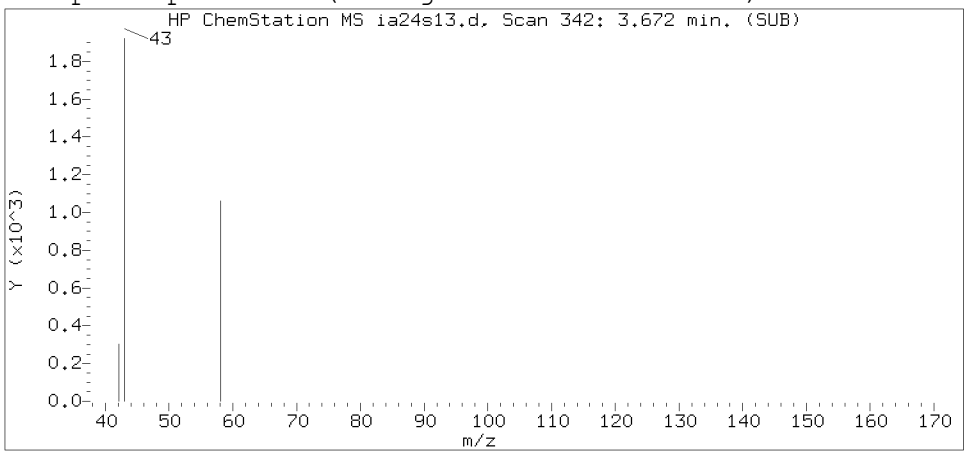
Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31.
Target 3.5 esignature used for this report.

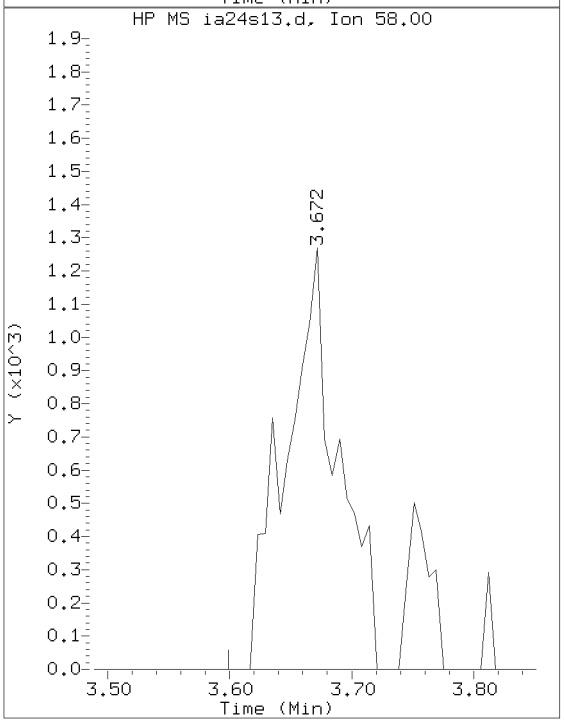
Reference Standard Spectrum for Acetone



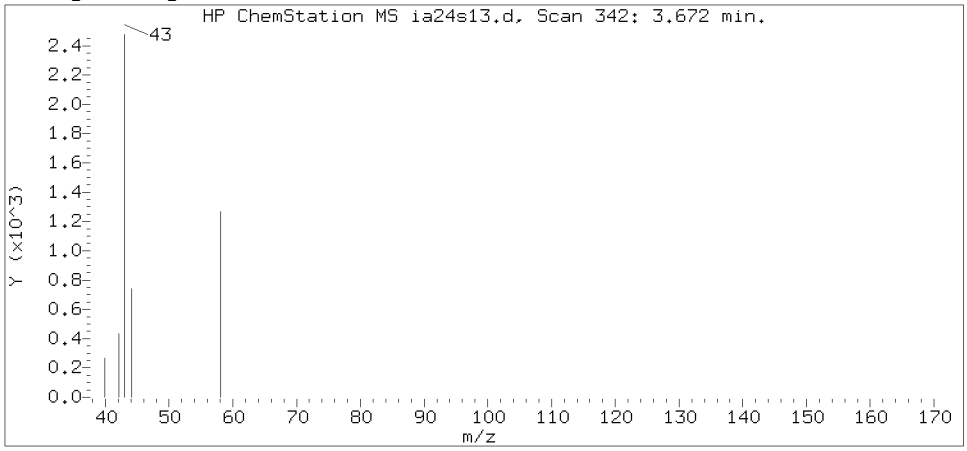


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

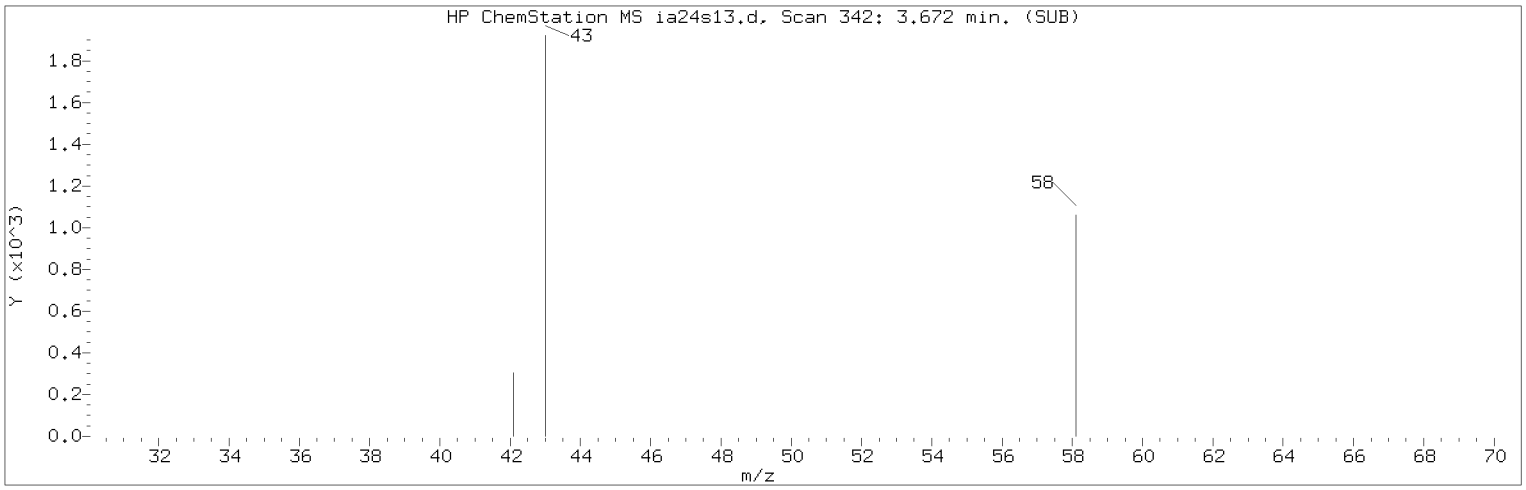
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Sample Name: F3506 Lab Sample ID: 1034108

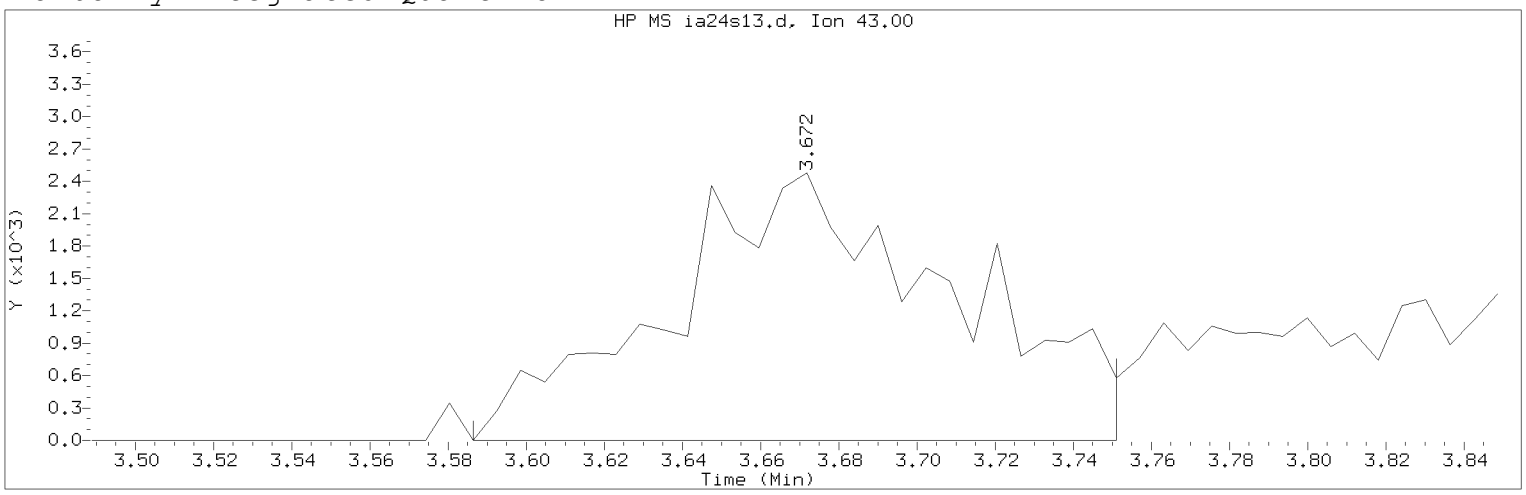
Compound Number : 14
Compound Name : Acetone
Scan Number : 342
Retention Time (minutes): 3.672
Relative Retention Time :-0.00206
Quant Ion : 43.00
Area (flag) : 12719M
On-Column Amount (ng) : 1.3864

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 17:23 mec29284

Sample Name: F3506 Lab Sample ID: 1034108

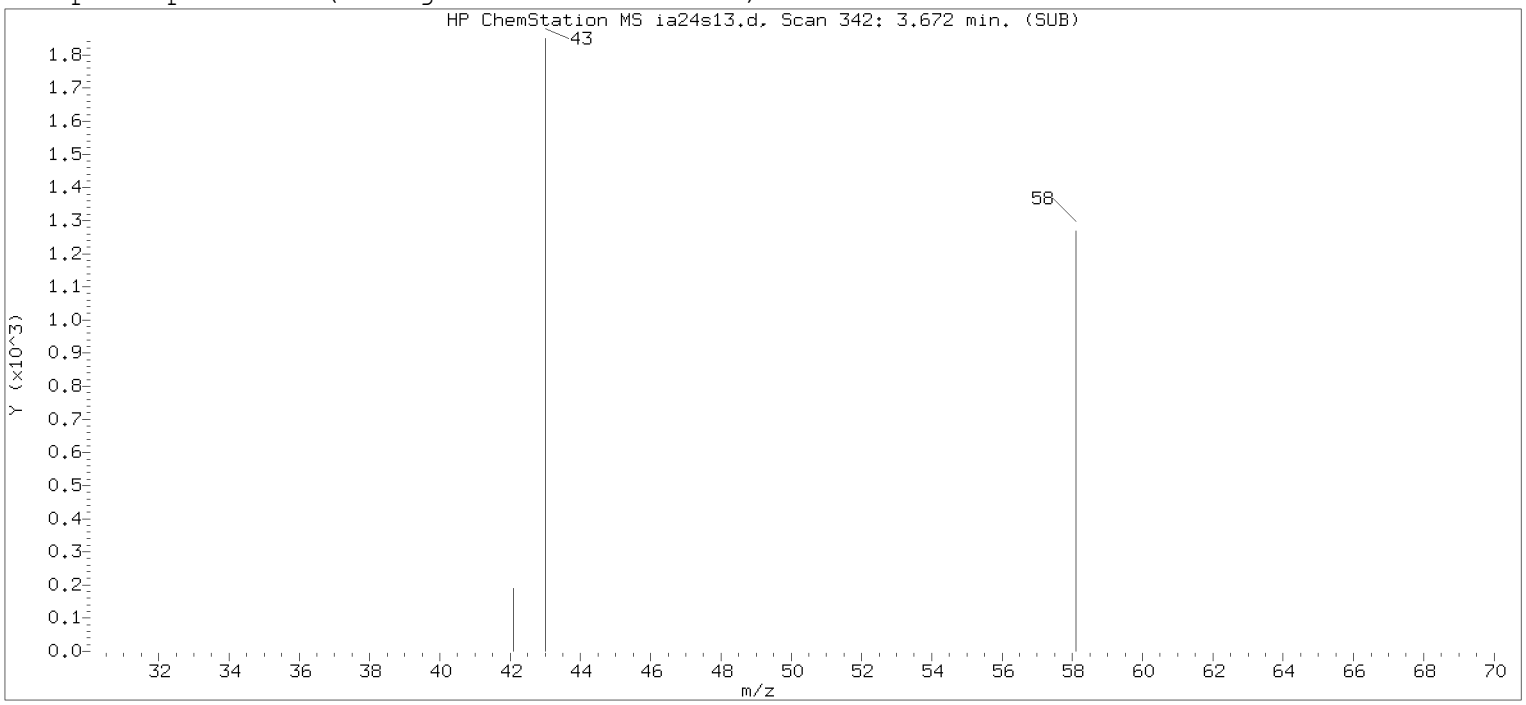
Compound Number : 14
Compound Name : Acetone
Scan Number : 342
Retention Time (minutes): 3.672
Quant Ion : 43.00
Area (flag) : 12719M
On-Column Amount (ng) : 1.3864
Integration start scan : 327 Integration stop scan: 354
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

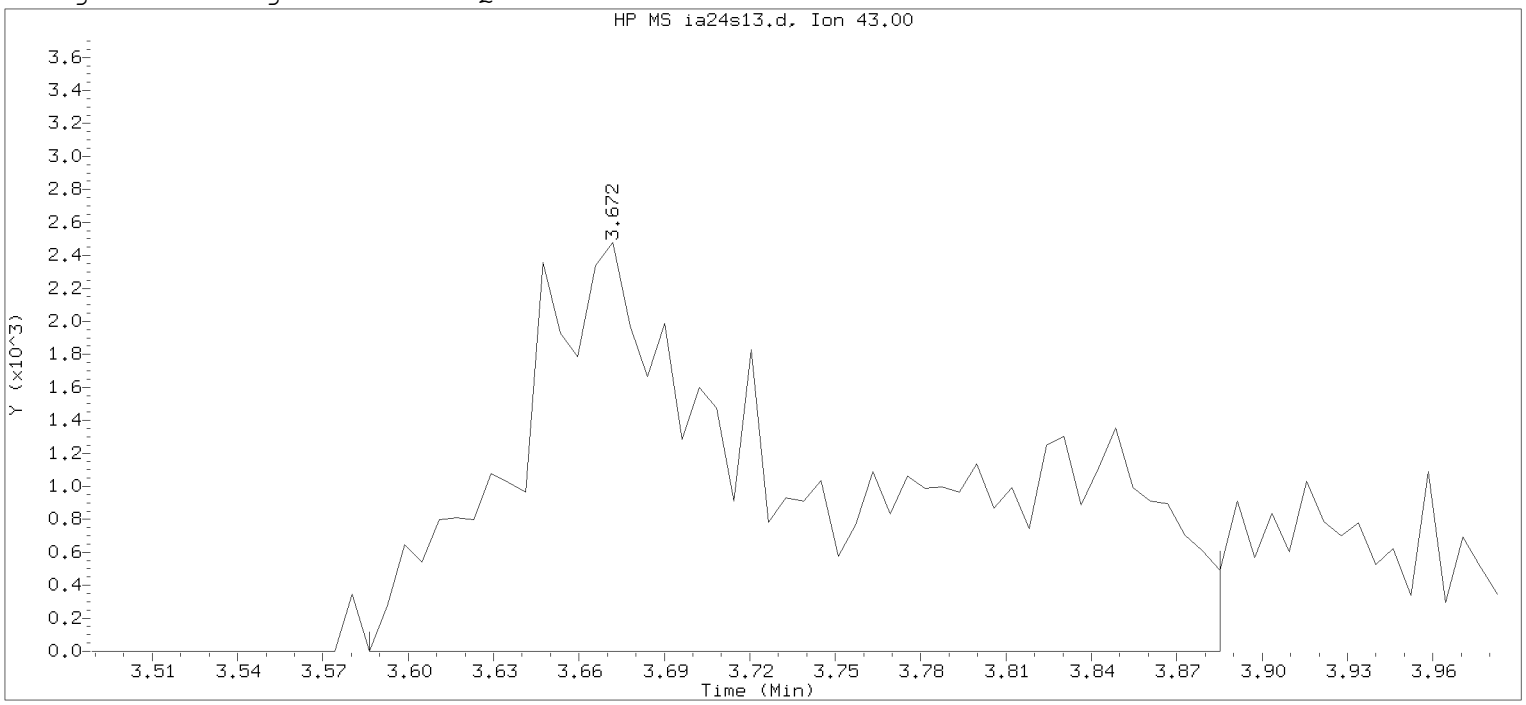
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s13.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 16:12 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:29 Automation

Sample Name: F3506 Lab Sample ID: 1034108

Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 342		
Retention Time (minutes)	: 3.672		
Quant Ion	: 43.00		
Area	: 20287		
On-column Amount (ng)	: 2.2113		
Integration start scan	: 327	Integration stop scan:	376
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 17:31.
Target 3.5 esignature used for method 9934

F3507 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034109

Data file: /chem2/HP19094.i/19apr22b.b/ha22s75.d Injection date and time: **23-APR-2019 05:54**
Data file Sample Info. Line: F3507;1034109;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.464	(0.012)	472	65	150876	(-1)	50.00	
63) Fluorobenzene	7.957	(0.006)	1045	96	2894183	(1)	10.00	
97) Chlorobenzene-d5	11.377	(0.000)	1606	117	2196945	(1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1143020	(0)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(-0.001)	113	735795	10.169	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(-0.001)	102	133896	10.558	106%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2917704	10.283	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1003053	9.444	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	1
8) Chloroethane	(2)				Not Detected					0.07	1
10) Trichlorofluoromethane	(2)				Not Detected					0.05	1
11) Ethyl ether	(2)				Not Detected					0.05	13
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	1
16) Freon 113	(2)				Not Detected					0.06	1
23) Methylene Chloride	(2)				Not Detected					0.07	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	1
38) 2-Butanone	(1)				Not Detected					0.6	10
48) Tetrahydrofuran	(1)				Not Detected					0.8	25
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	1
54) Carbon Tetrachloride	(2)				Not Detected					0.07	1
58) Benzene	(2)				Not Detected					0.05	1
67) Trichloroethene	(2)				Not Detected					0.06	1
83) Toluene	(3)				Not Detected					0.07	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
100) Ethylbenzene	(3)				Not Detected					0.06	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	3

Digitally signed by Jennifer K. Howe on 04/23/2019 at 06:51. Target 3.5 esignature user ID: jkh09052

F3507 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034109

Data file: /chem2/HP19094.i/19apr22b.b/ha22s75.d Injection date and time: **23-APR-2019 05:54**
Data file Sample Info. Line: F3507;1034109;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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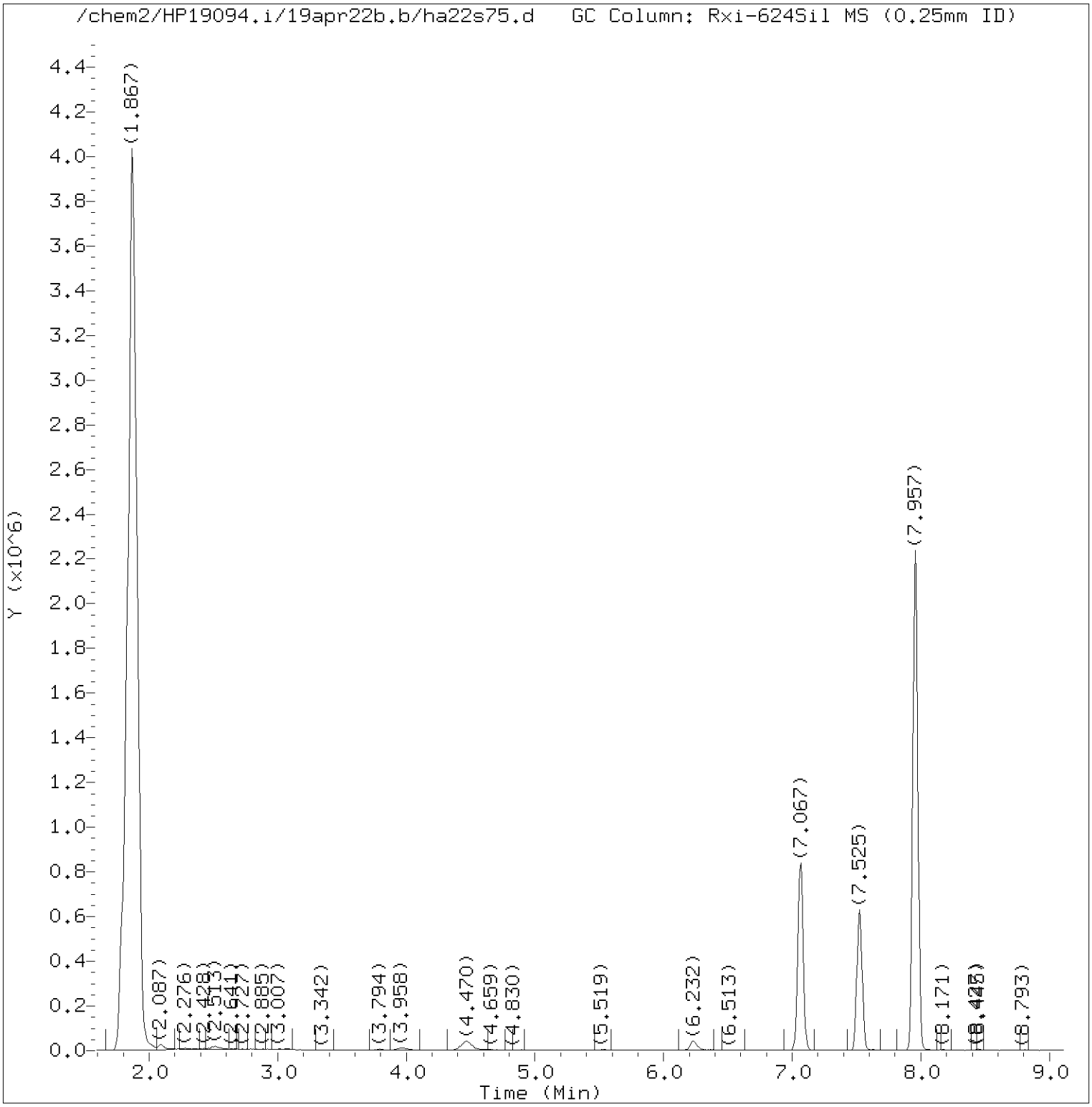
Total number of targets = 22

Digitally signed by Jennifer K. Howe on 04/23/2019 at 06:51. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

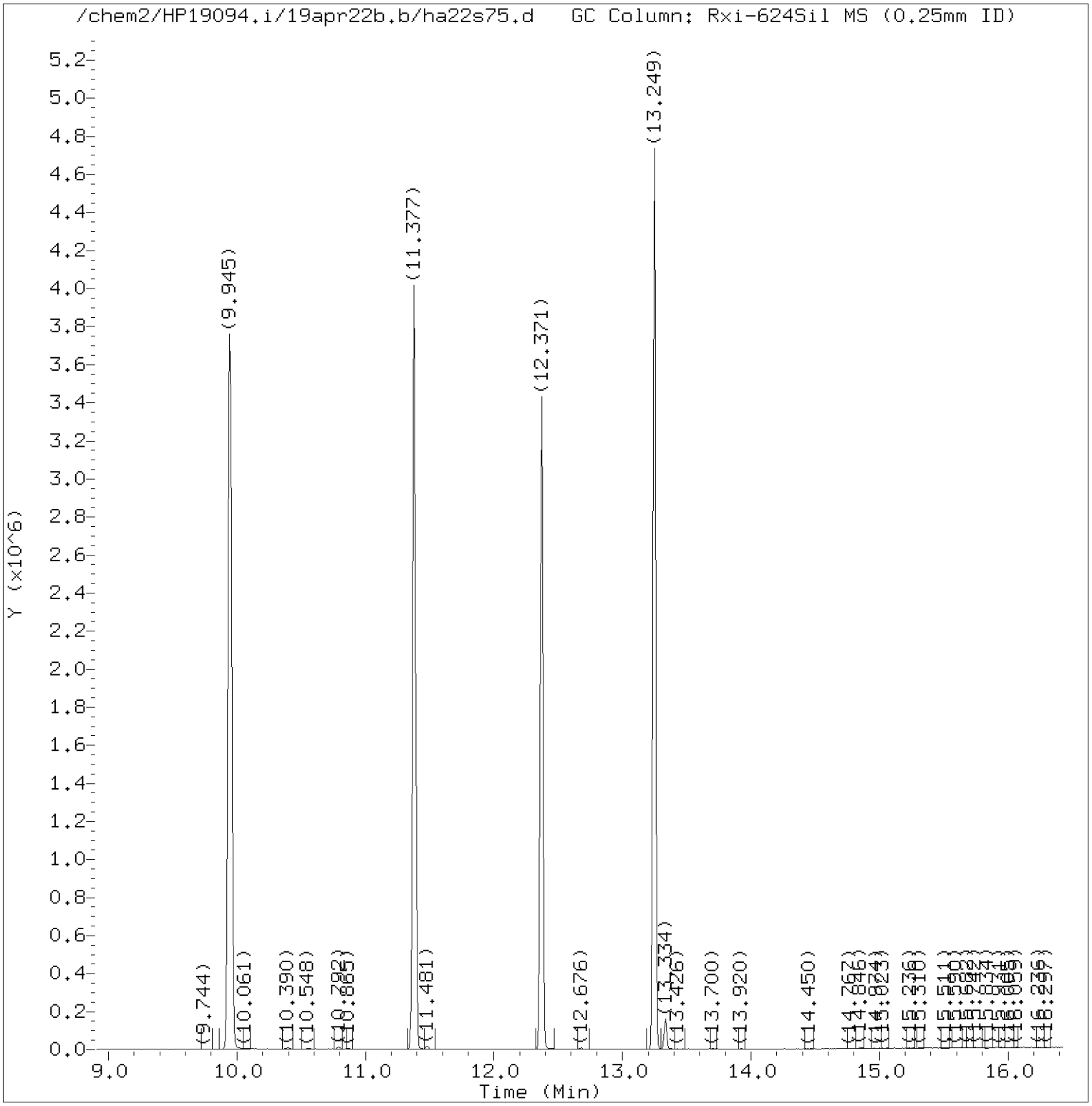
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s75.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 05:54 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3507 Lab Sample ID: 1034109

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 06:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s75.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 05:54 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3507 Lab Sample ID: 1034109

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 06:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s75.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 05:54 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3507 Lab Sample ID: 1034109

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.464	65	150876	50.000
50)$Dibromofluoromethane	(2)	7.067	113	735795	10.169
57)$1,2-Dichloroethane-d4	(2)	7.525	102	133896	10.558
63)*Fluorobenzene	(2)	7.957	96	2894183	10.000
82)$Toluene-d8	(3)	9.945	98	2917704	10.283
97)*Chlorobenzene-d5	(3)	11.377	117	2196945	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	1003053	9.444
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1143020	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 06:51.
Target 3.5 esignature user ID: jkh09052

F3508 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034110

Data file: /chem2/HP19094.i/19apr22b.b/ha22s76.d Injection date and time: **23-APR-2019 06:15**
Data file Sample Info. Line: F3508;1034110;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.458	(0.018)	471	65	155017	(2)	50.00	
63) Fluorobenzene	7.957	(0.006)	1045	96	2910700	(1)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2211050	(1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1160549	(1)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.061	(0.000)	113	738738	10.152	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(-0.001)	102	136567	10.707	107%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2945076	10.314	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	997402	9.331	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)	2.068	(0.000)	85	22813	0.234	0.23		J	0.05	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	1
8) Chloroethane	(2)				Not Detected					0.07	1
10) Trichlorofluoromethane	(2)	3.129	(0.001)	101	6152	0.053	0.05		J	0.05	1
11) Ethyl ether	(2)				Not Detected					0.05	13
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	1
16) Freon 113	(2)				Not Detected					0.06	1
23) Methylene Chloride	(2)				Not Detected					0.07	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	1
38) 2-Butanone	(1)				Not Detected					0.6	10
48) Tetrahydrofuran	(1)				Not Detected					0.8	25
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	1
54) Carbon Tetrachloride	(2)				Not Detected					0.07	1
58) Benzene	(2)				Not Detected					0.05	1
67) Trichloroethene	(2)				Not Detected					0.06	1
83) Toluene	(3)				Not Detected					0.07	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
100) Ethylbenzene	(3)				Not Detected					0.06	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	3

Digitally signed by Jennifer K. Howe on 04/23/2019 at 06:51. Target 3.5 esignature user ID: jkh09052

F3508 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034110

Data file: /chem2/HP19094.i/19apr22b.b/ha22s76.d Injection date and time: **23-APR-2019 06:15**
Data file Sample Info. Line: F3508;1034110;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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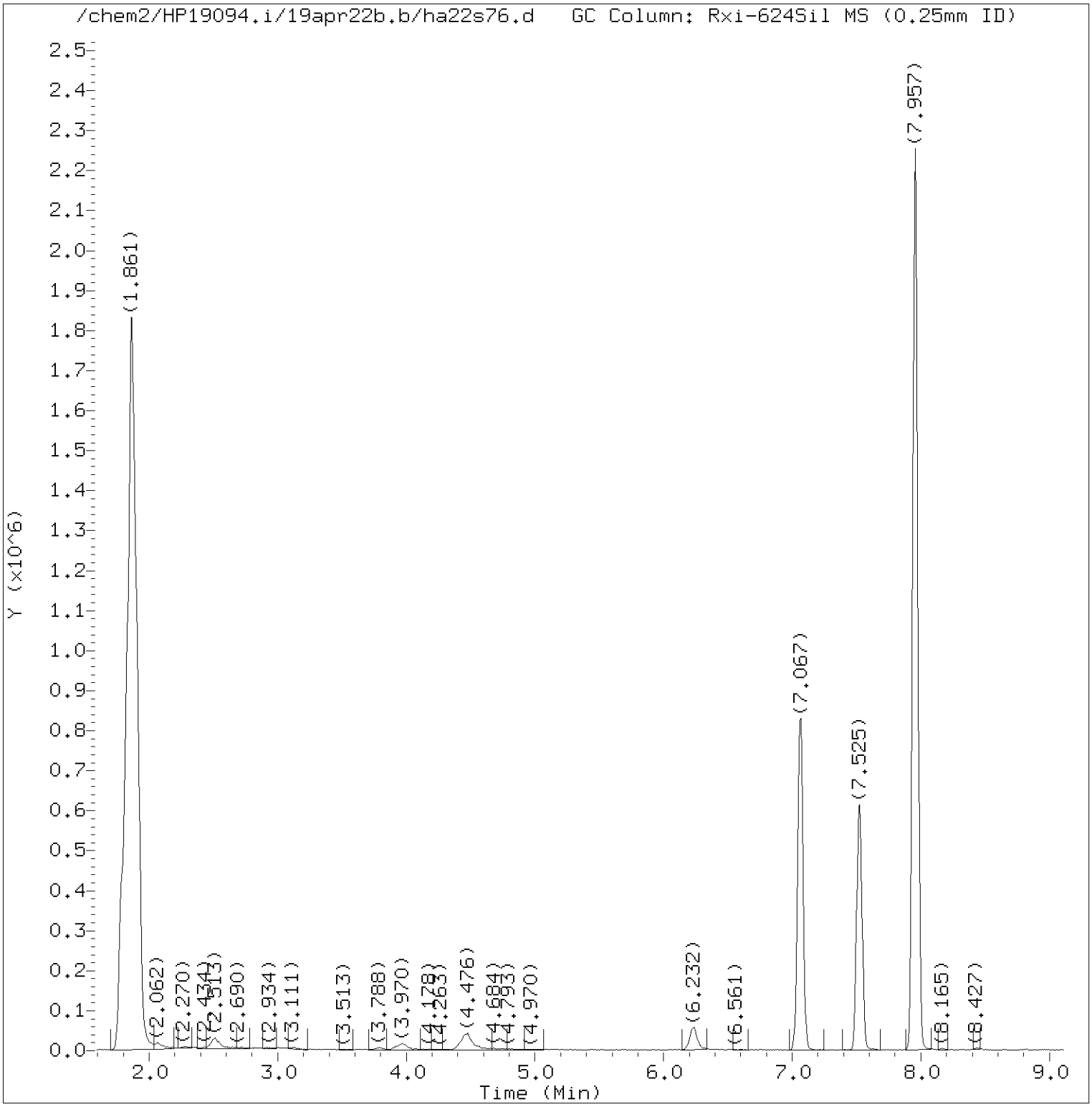
Total number of targets = 22

Digitally signed by Jennifer K. Howe on 04/23/2019 at 06:51. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

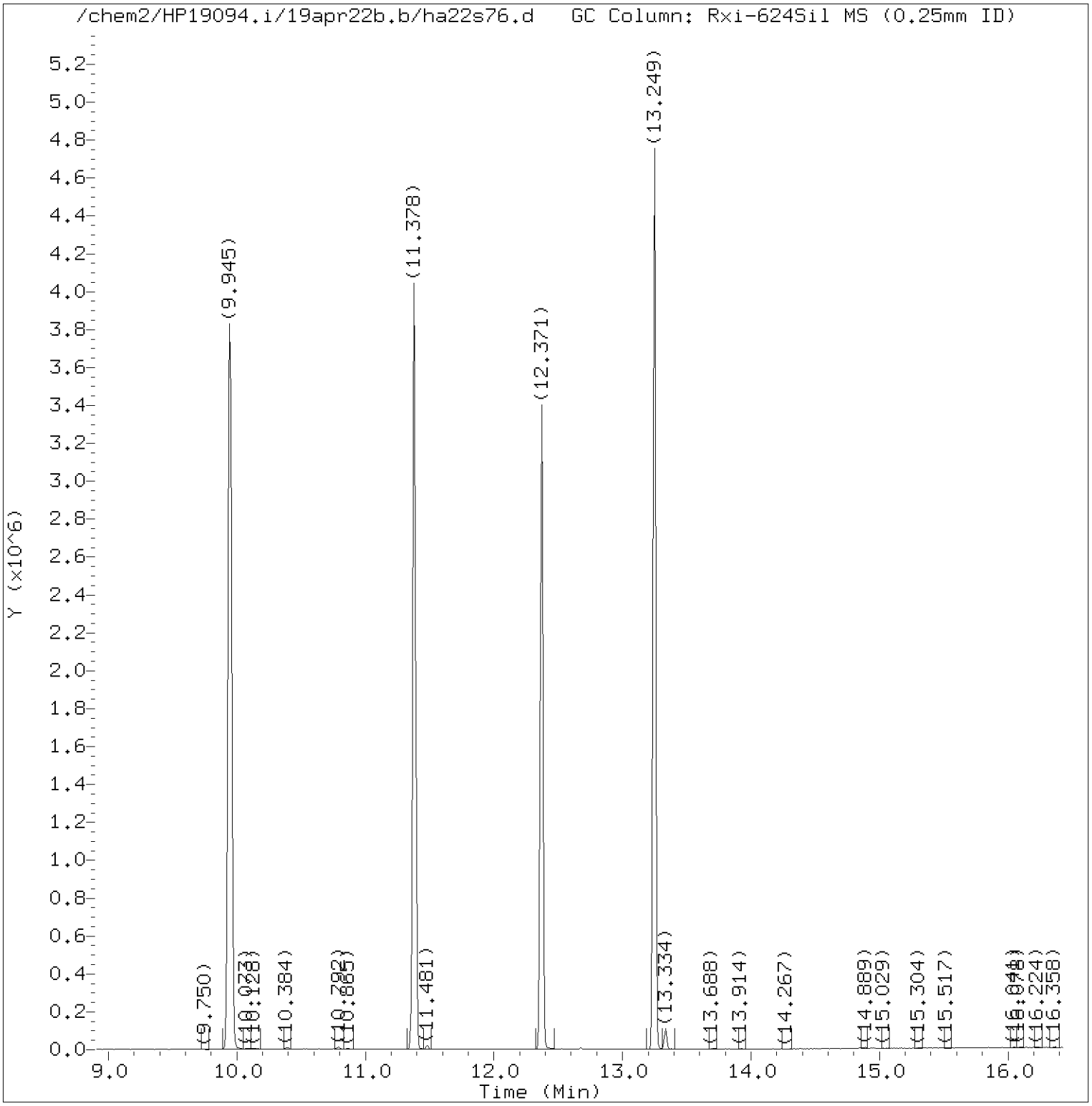
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s76.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:15 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3508 Lab Sample ID: 1034110

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 06:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s76.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:15 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3508 Lab Sample ID: 1034110

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 06:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s76.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:15 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3508 Lab Sample ID: 1034110

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.068	85	22813	0.234
10) Trichlorofluoromethane	(2)	3.129	101	6152	0.053
26)*t-Butyl Alcohol-d10	(1)	4.458	65	155017	50.000
50)$Dibromofluoromethane	(2)	7.061	113	738738	10.152
57)$1,2-Dichloroethane-d4	(2)	7.525	102	136567	10.707
63)*Fluorobenzene	(2)	7.957	96	2910700	10.000
82)$Toluene-d8	(3)	9.945	98	2945076	10.314
97)*Chlorobenzene-d5	(3)	11.378	117	2211050	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	997402	9.331
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1160549	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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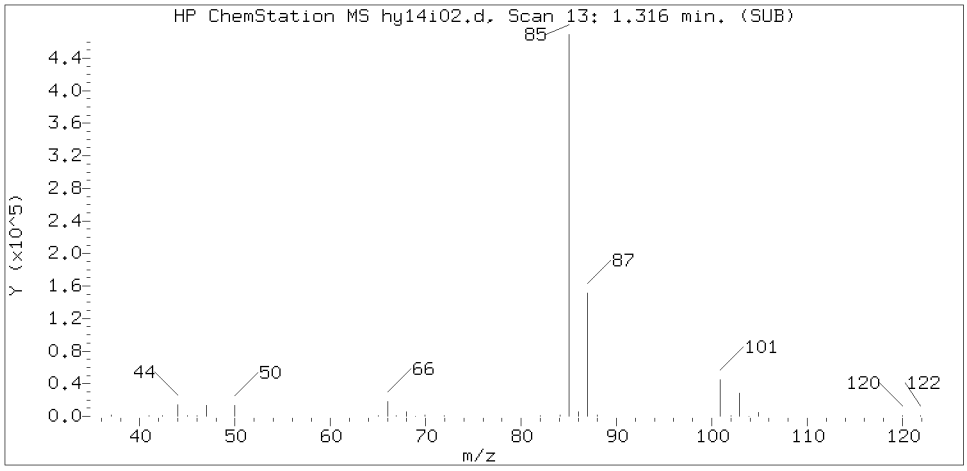
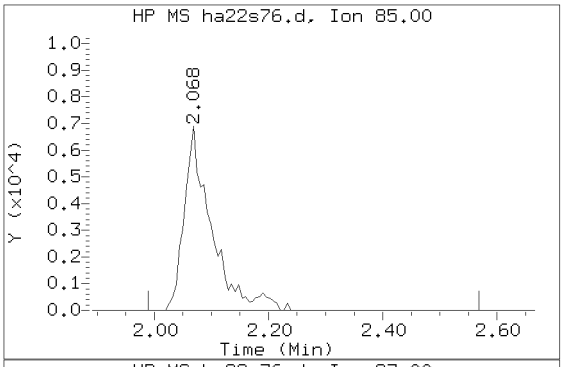
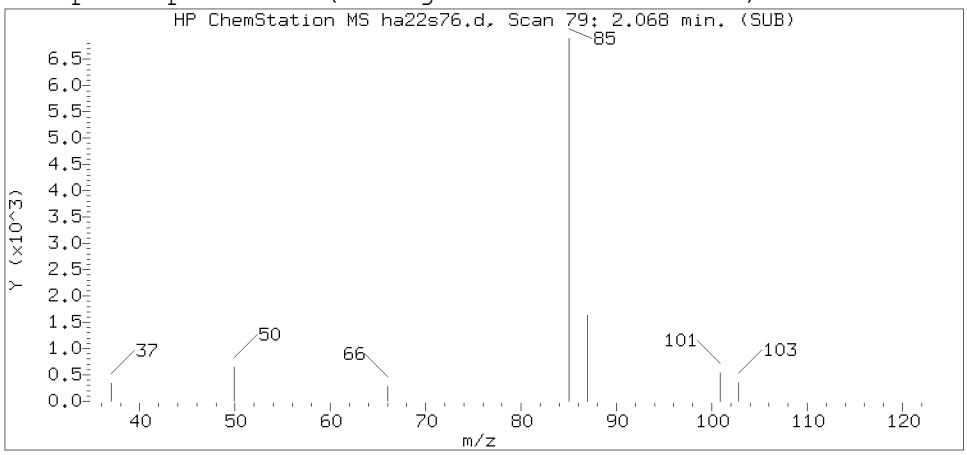
on 04/23/2019 at 06:51.
Target 3.5 esignature user ID: jkh09052

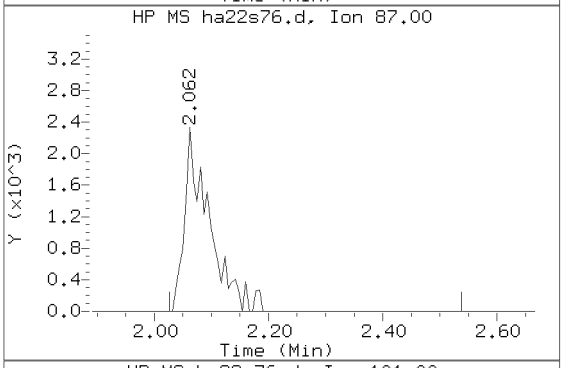
Reference Standard Spectrum for Dichlorodifluoromethane

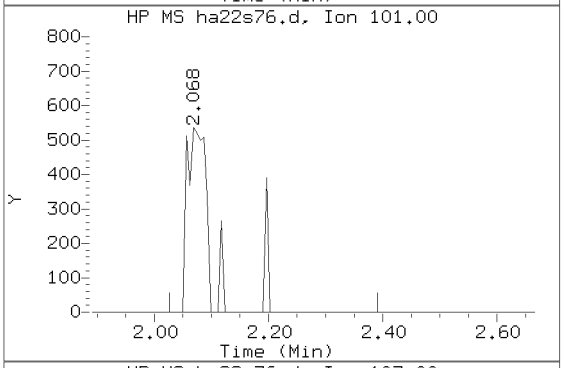




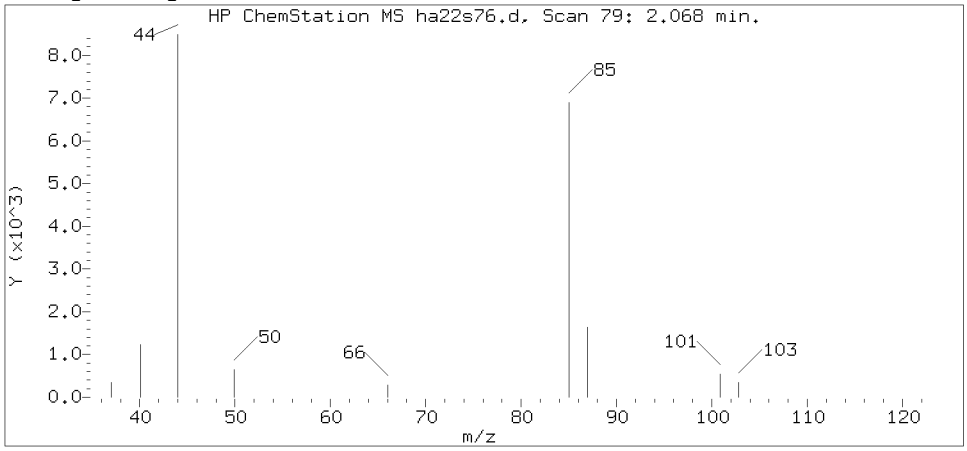
Sample Spectrum (Background Subtracted)

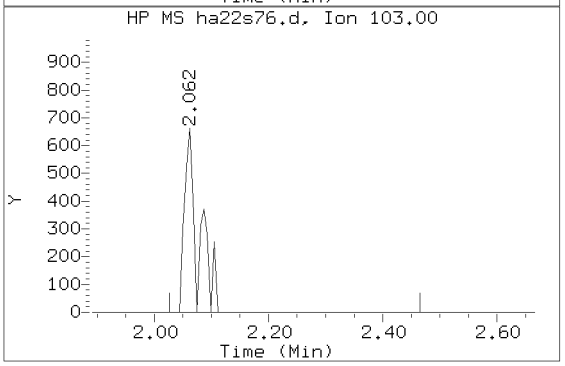






Sample Spectrum (Unaltered)





Data File: /chem2/HP19094.i/19apr22b.b/ha22s76.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:15 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3508 Lab Sample ID: 1034110

Compound Number	: 1
Compound Name	: Dichlorodifluoromethane
Scan Number	: 79
Retention Time (minutes)	: 2.068
Relative Retention Time	: 0.00057
Quant Ion	: 85.00
Area (flag)	: 22813
On-Column Amount (ng)	: 0.2339

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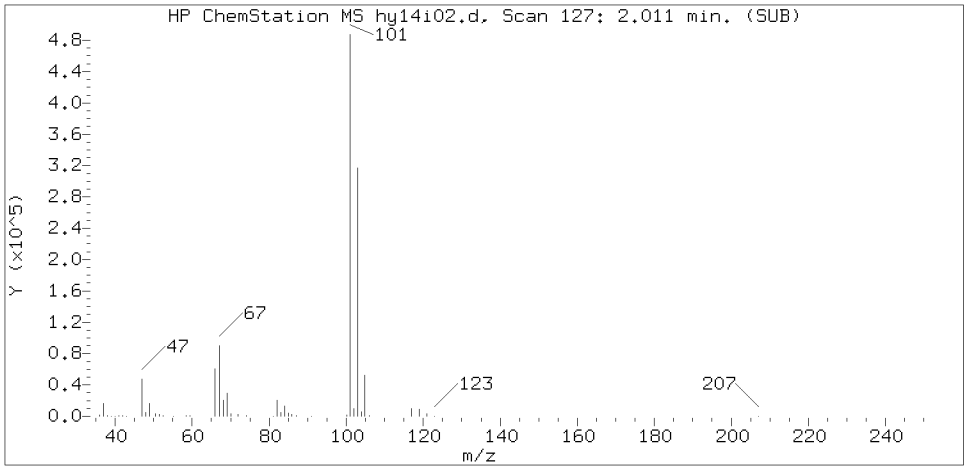
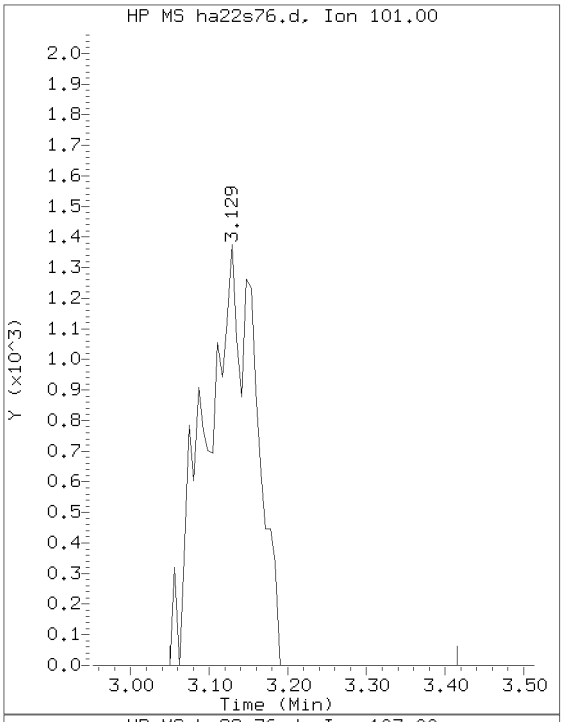
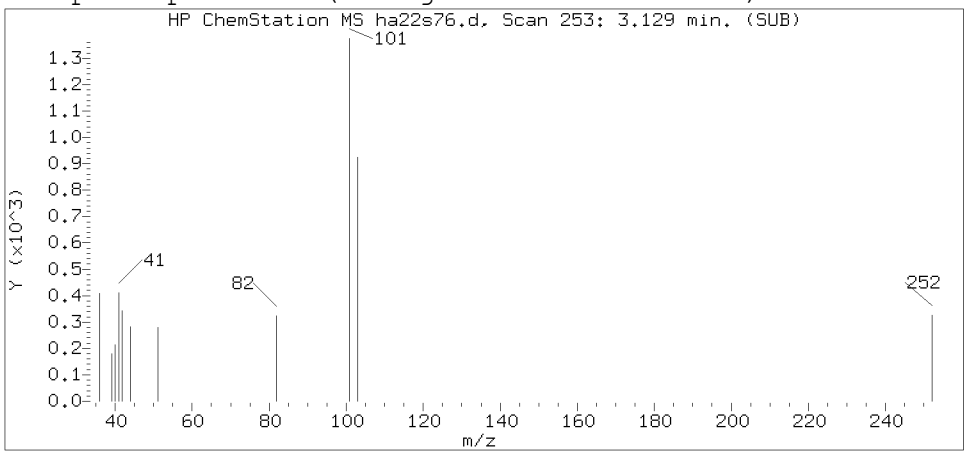
Target 3.5 esignature user ID: jkh09052

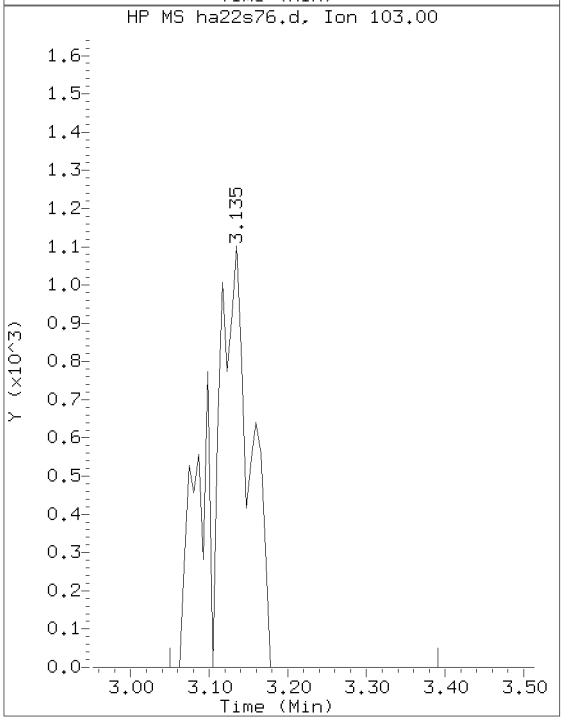
Reference Standard Spectrum for Trichlorofluoromethane



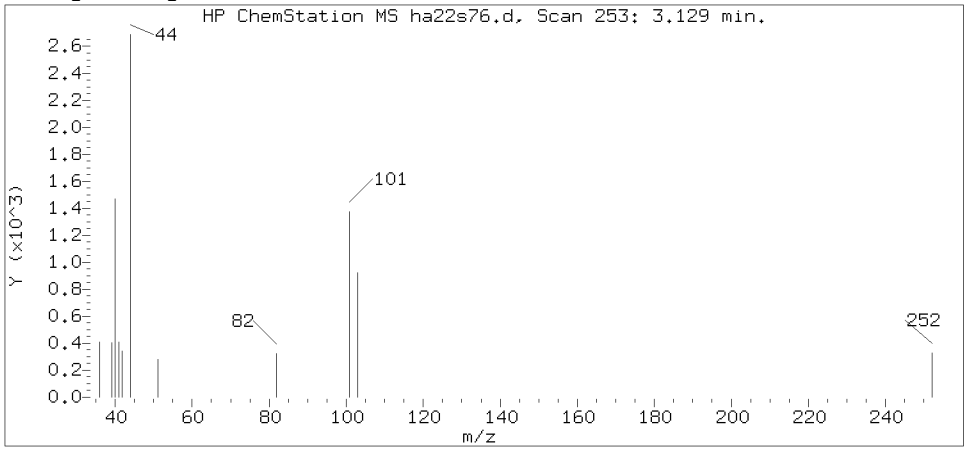


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19094.i/19apr22b.b/ha22s76.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:15 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:50 jkh09052

Sample Name: F3508 Lab Sample ID: 1034110

Compound Number	: 10
Compound Name	: Trichlorofluoromethane
Scan Number	: 253
Retention Time (minutes)	: 3.129
Relative Retention Time	: 0.00123
Quant Ion	: 101.00
Area (flag)	: 6152
On-Column Amount (ng)	: 0.0534

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Target 3.5 esignature user ID: jkh09052

F3509 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034111

Data file: /chem2/HP19094.i/19apr22b.b/ha22s77.d Injection date and time: **23-APR-2019 06:36**
Data file Sample Info. Line: F3509;1034111;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 06:54 Automation

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.483	(-0.006)	475	65	150885	(-1)	50.00	
63) Fluorobenzene	7.964	(0.000)	1046	96	2893902	(1)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2197961	(1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1163325	(2)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.074	(-0.001)	113	739013	10.215	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(0.000)	102	134663	10.619	106%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2939657	10.356	104%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	996973	9.382	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	1
8) Chloroethane	(2)				Not Detected					0.07	1
10) Trichlorofluoromethane	(2)				Not Detected					0.05	1
11) Ethyl ether	(2)				Not Detected					0.05	13
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	1
16) Freon 113	(2)				Not Detected					0.06	1
23) Methylene Chloride	(2)				Not Detected					0.07	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	1
38) 2-Butanone	(1)				Not Detected					0.6	10
48) Tetrahydrofuran	(1)				Not Detected					0.8	25
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	1
54) Carbon Tetrachloride	(2)				Not Detected					0.07	1
58) Benzene	(2)				Not Detected					0.05	1
67) Trichloroethene	(2)				Not Detected					0.06	1
83) Toluene	(3)				Not Detected					0.07	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
100) Ethylbenzene	(3)				Not Detected					0.06	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	3

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:07. Target 3.5 esignature user ID: jkh09052

F3509 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034111

Data file: /chem2/HP19094.i/19apr22b.b/ha22s77.d Injection date and time: **23-APR-2019 06:36**
Data file Sample Info. Line: F3509;1034111;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 06:54 Automation

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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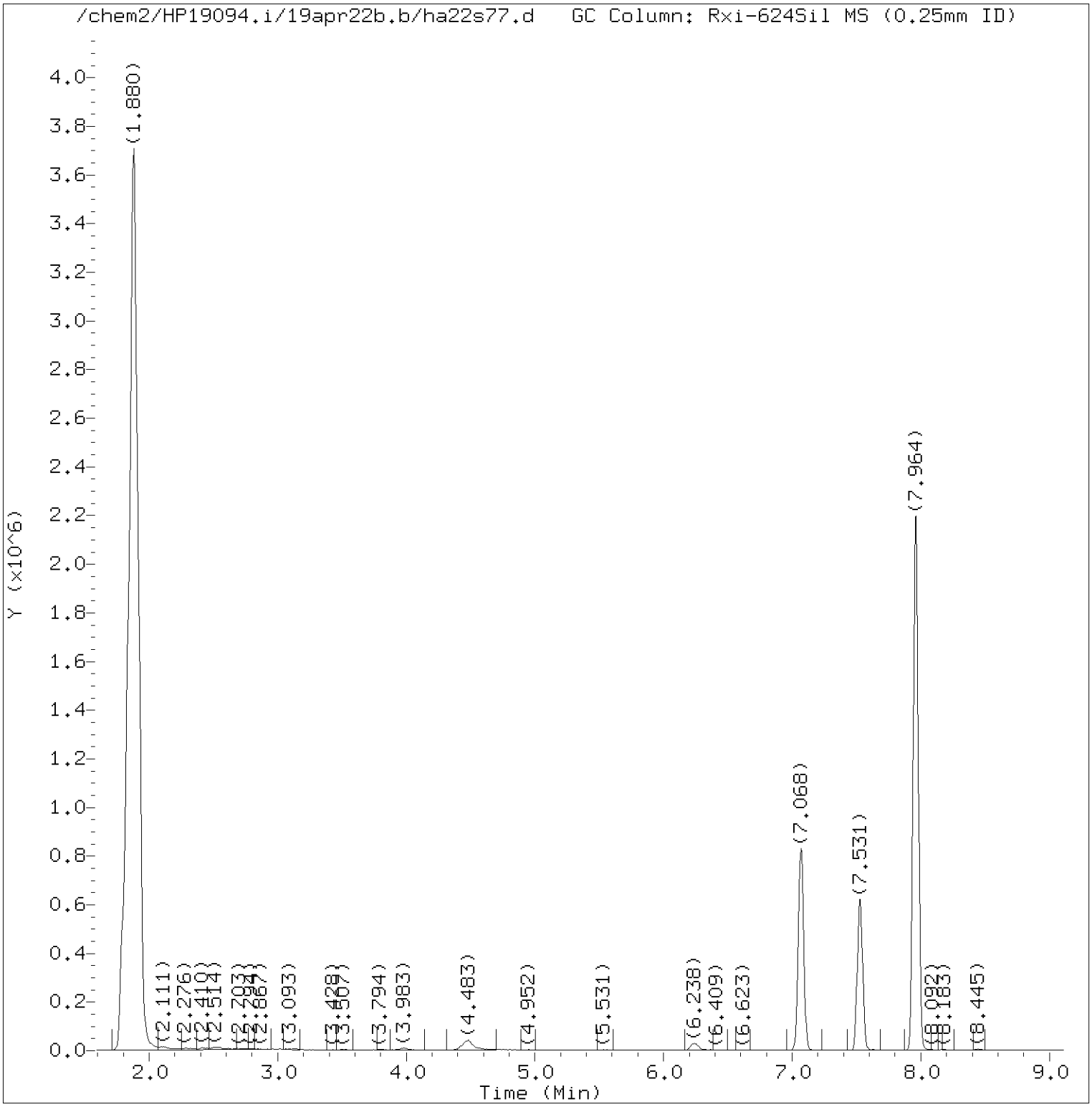
Total number of targets = 22

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:07. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

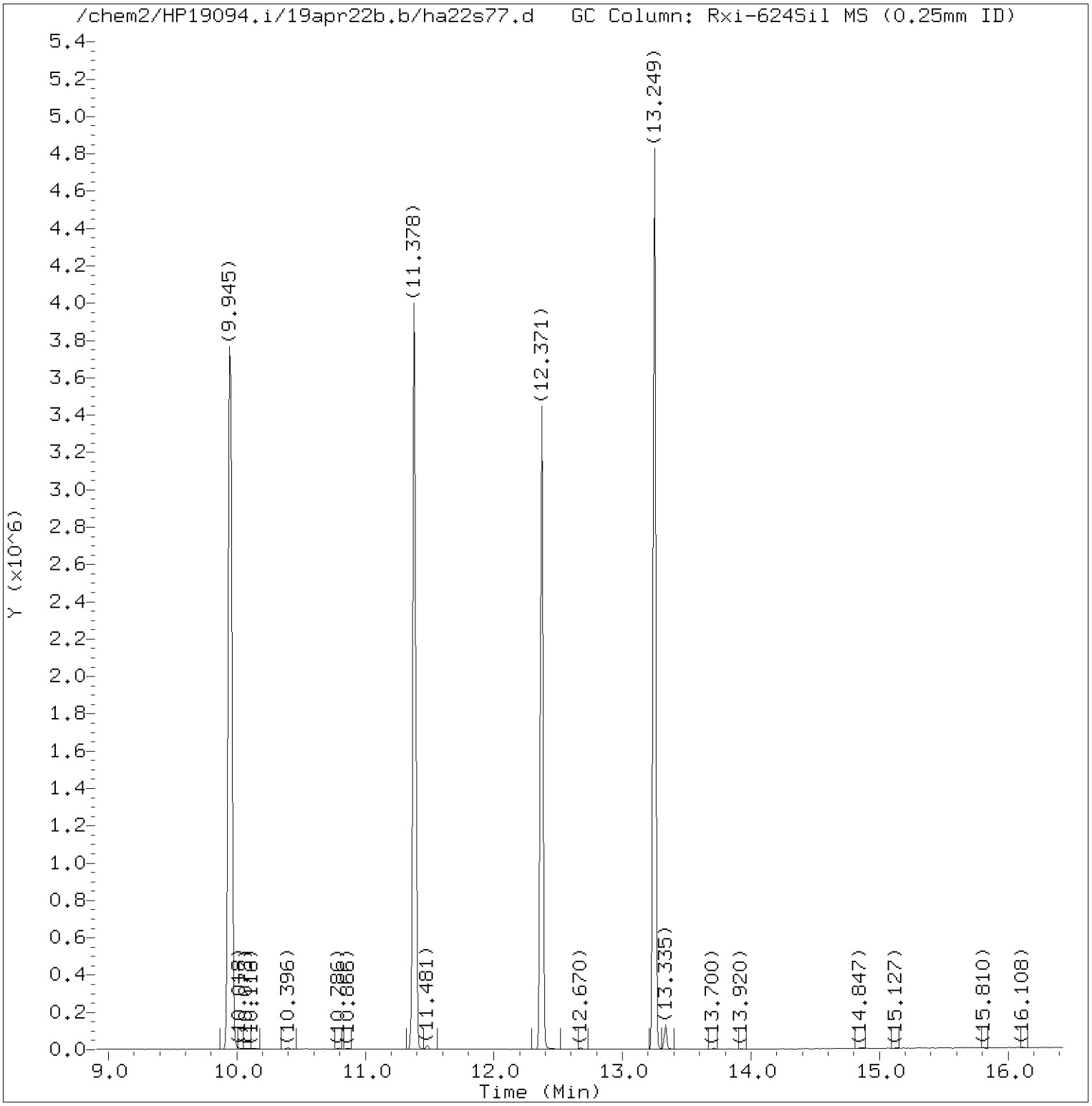
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s77.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:36 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:54 Automation

Sample Name: F3509 Lab Sample ID: 1034111

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s77.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:36 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:54 Automation

Sample Name: F3509 Lab Sample ID: 1034111

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s77.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:36 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 06:54 Automation

Sample Name: F3509 Lab Sample ID: 1034111

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.483	65	150885	50.000
50)$Dibromofluoromethane	(2)	7.074	113	739013	10.215
57)$1,2-Dichloroethane-d4	(2)	7.525	102	134663	10.619
63)*Fluorobenzene	(2)	7.964	96	2893902	10.000
82)$Toluene-d8	(3)	9.945	98	2939657	10.356
97)*Chlorobenzene-d5	(3)	11.378	117	2197961	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	996973	9.382
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1163325	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:07.
Target 3.5 esignature user ID: jkh09052

F3510 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034112

Data file: /chem2/HP19094.i/19apr22b.b/ha22s78.d Injection date and time: **23-APR-2019 06:58**
Data file Sample Info. Line: F3510;1034112;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 07:31 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.477	(0.000)	474	65	152249	(0)	50.00	
63) Fluorobenzene	7.958	(0.006)	1045	96	2923068	(2)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2197248	(1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1152854	(1)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(-0.001)	113	744059	10.182	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(-0.001)	102	135980	10.616	106%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2930099	10.326	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1003010	9.442	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	1
8) Chloroethane	(2)				Not Detected					0.07	1
10) Trichlorofluoromethane	(2)				Not Detected					0.05	1
11) Ethyl ether	(2)				Not Detected					0.05	13
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	1
16) Freon 113	(2)				Not Detected					0.06	1
23) Methylene Chloride	(2)				Not Detected					0.07	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	1
38) 2-Butanone	(1)				Not Detected					0.6	10
48) Tetrahydrofuran	(1)				Not Detected					0.8	25
51) 1,1,1-Trichloroethane	(2)	7.098	(-0.002)	97	8657	0.089	0.09		J	0.06	1
54) Carbon Tetrachloride	(2)				Not Detected					0.07	1
58) Benzene	(2)				Not Detected					0.05	1
67) Trichloroethene	(2)				Not Detected					0.06	1
83) Toluene	(3)				Not Detected					0.07	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
100) Ethylbenzene	(3)				Not Detected					0.06	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	3

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:31. Target 3.5 esignature user ID: jkh09052

F3510 Lancaster Laboratories 1034112
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/19apr22b.b/ha22s78.d Injection date and time: **23-APR-2019 06:58**
Data file Sample Info. Line: F3510;1034112;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 07:31 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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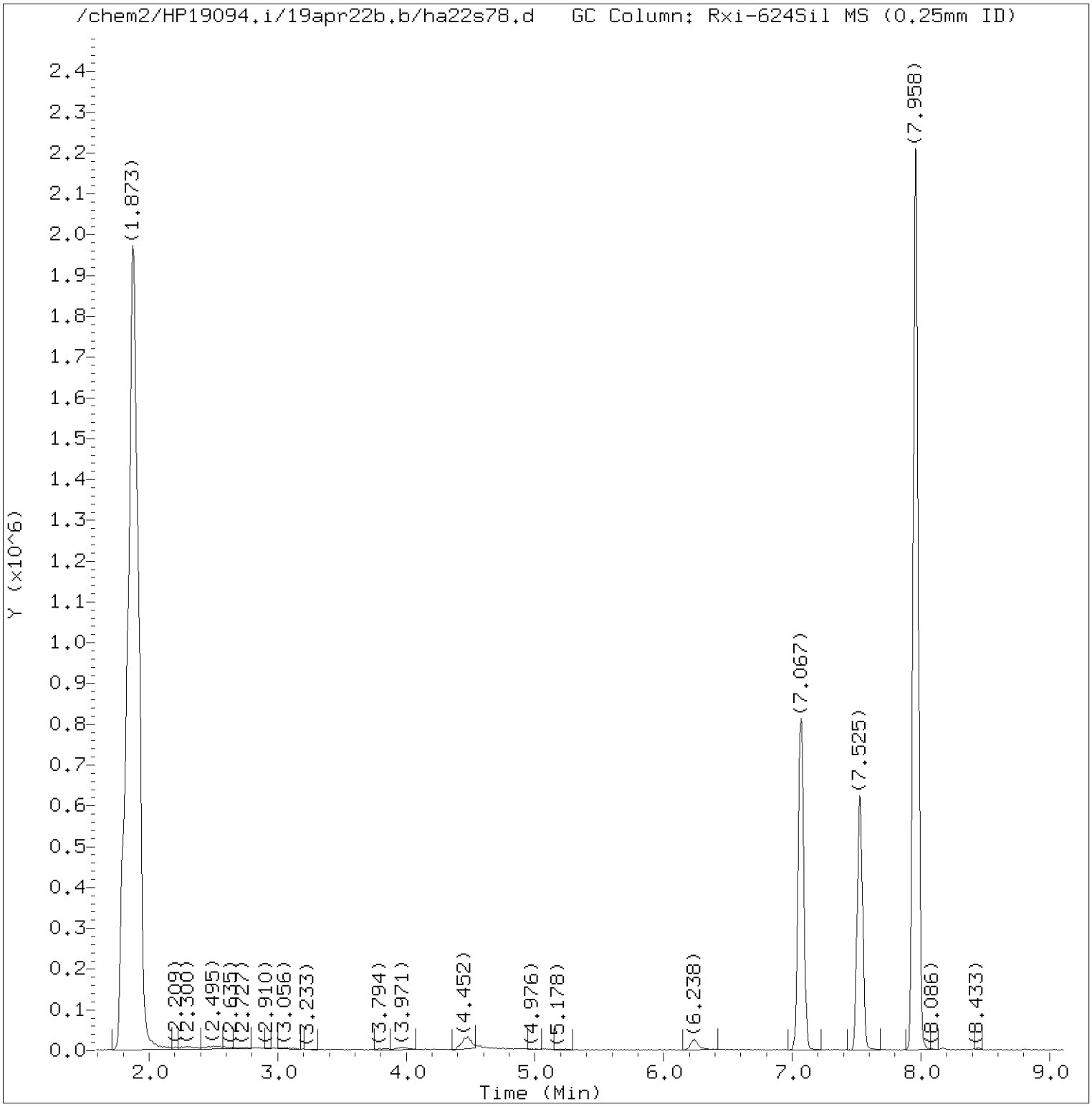
Total number of targets = 22

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:31. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

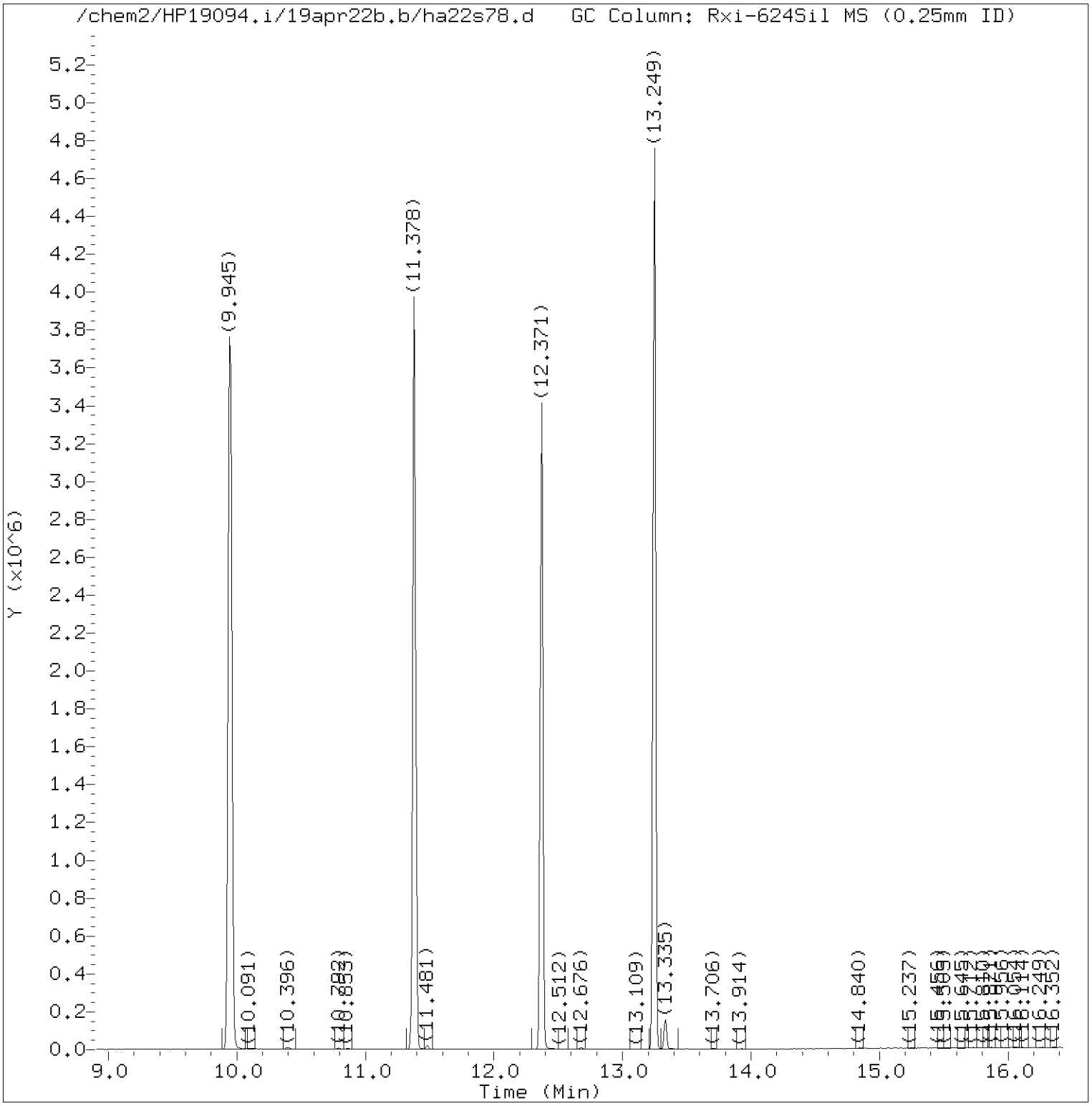
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s78.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:31 jkh09052

Sample Name: F3510 Lab Sample ID: 1034112

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:31.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s78.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:31 jkh09052

Sample Name: F3510 Lab Sample ID: 1034112

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on 04/23/2019 at 07:31.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s78.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:31 jkh09052

Sample Name: F3510 Lab Sample ID: 1034112

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.477	65	152249	50.000
50)$Dibromofluoromethane	(2)	7.067	113	744059	10.182
51) 1,1,1-Trichloroethane	(2)	7.098	97	8657	0.089
57)$1,2-Dichloroethane-d4	(2)	7.525	102	135980	10.616
63)*Fluorobenzene	(2)	7.958	96	2923068	10.000
82)$Toluene-d8	(3)	9.945	98	2930099	10.326
97)*Chlorobenzene-d5	(3)	11.378	117	2197248	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	1003010	9.442
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1152854	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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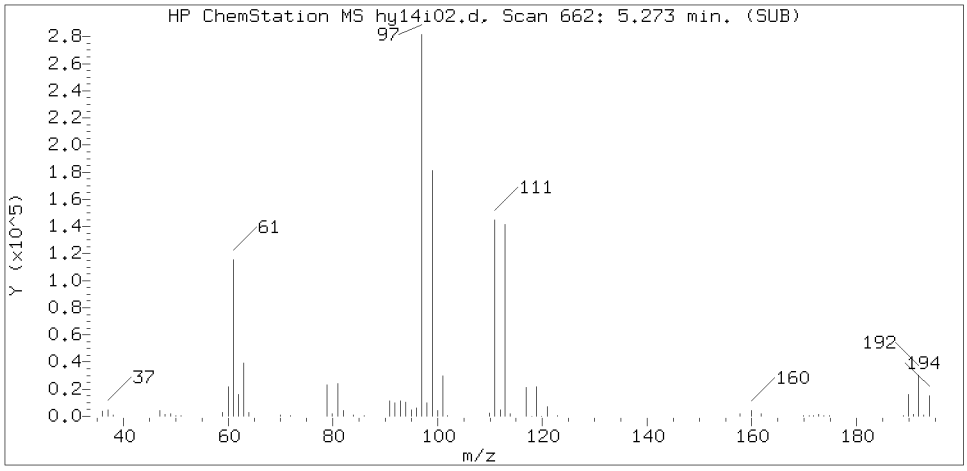
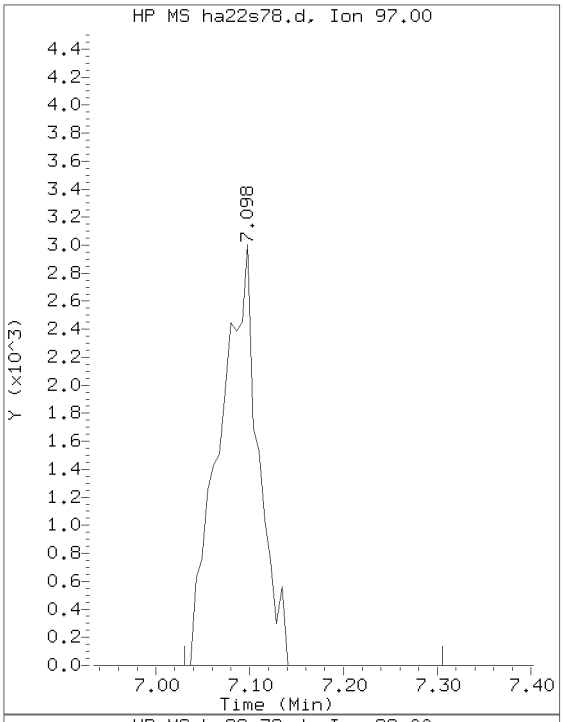
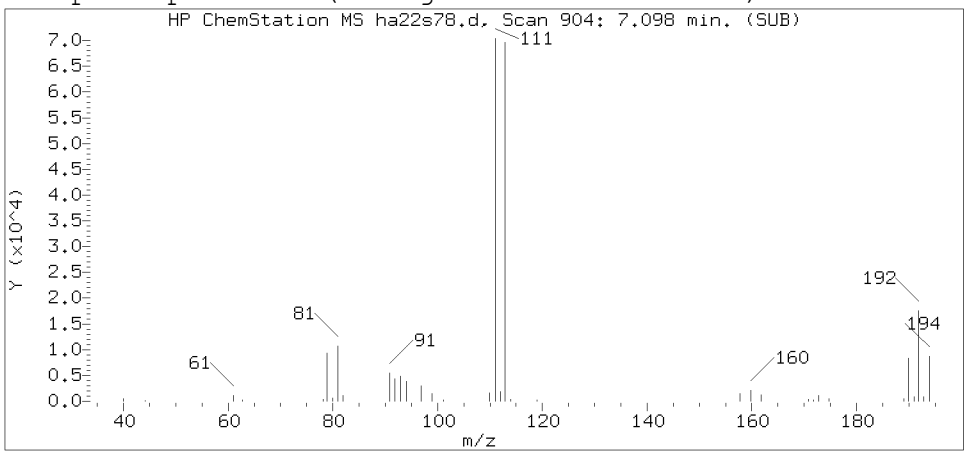
on 04/23/2019 at 07:31.
Target 3.5 esignature user ID: jkh09052

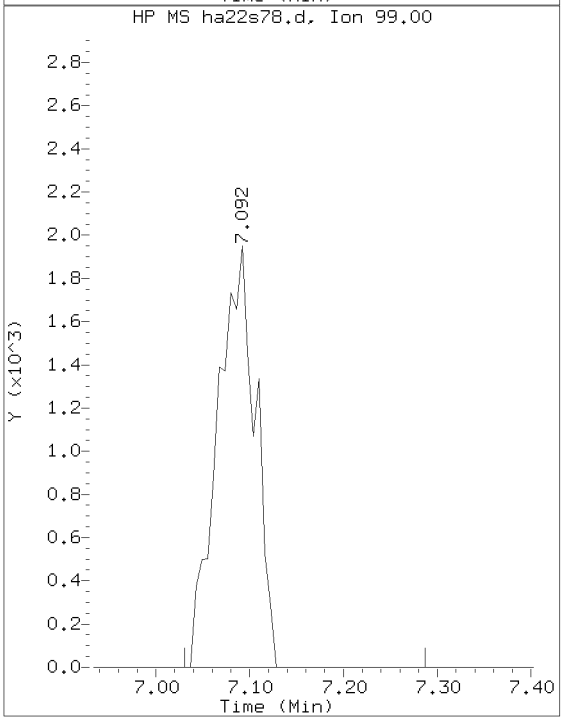
Reference Standard Spectrum for 1,1,1-Trichloroethane



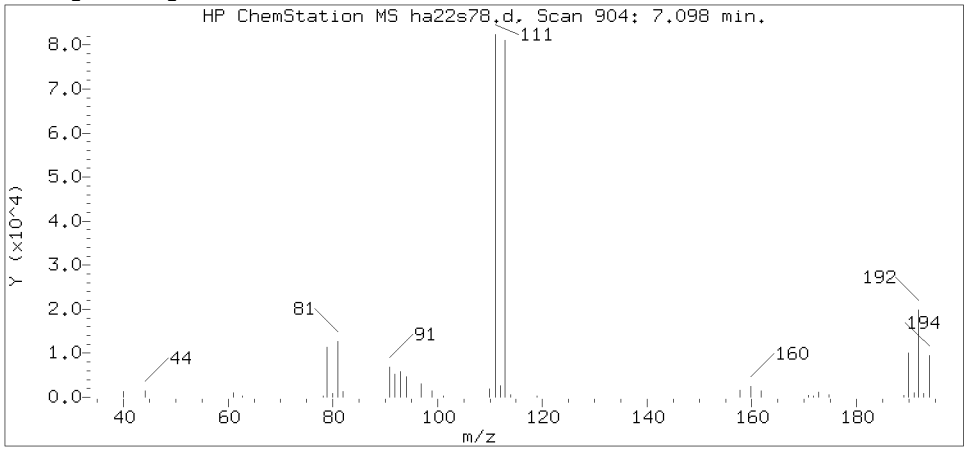


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19094.i/19apr22b.b/ha22s78.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 06:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:31 jkh09052

Sample Name: F3510 Lab Sample ID: 1034112

Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 904
Retention Time (minutes): 7.098
Relative Retention Time :-0.00222
Quant Ion : 97.00
Area (flag) : 8657
On-Column Amount (ng) : 0.0886

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Target 3.5 esignature user ID: jkh09052

F3511 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034113

Data file: /chem2/HP19094.i/19apr22b.b/ha22s79.d Injection date and time: **23-APR-2019 07:20**
Data file Sample Info. Line: F3511;1034113;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.477	(0.000)	474	65	153882	(1)	50.00	
63) Fluorobenzene	7.958	(0.006)	1045	96	2934429	(2)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2226897	(2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1162745	(2)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.061	(0.000)	113	744092	10.143	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.531	(-0.002)	102	138025	10.734	107%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2981785	10.368	104%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1000538	9.294	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	1
8) Chloroethane	(2)				Not Detected					0.07	1
10) Trichlorofluoromethane	(2)	3.135	(0.000)	101	10225	0.088	0.09		J	0.05	1
11) Ethyl ether	(2)	3.422	(-0.000)	59	19463	0.492	0.49		J	0.05	13
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	1
16) Freon 113	(2)				Not Detected					0.06	1
23) Methylene Chloride	(2)				Not Detected					0.07	1
33) 1,1-Dichloroethane	(2)	5.550	(-0.001)	63	41613	0.351	0.35		J	0.07	1
38) 2-Butanone	(1)				Not Detected					0.6	10
48) Tetrahydrofuran	(1)				Not Detected					0.8	25
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	1
54) Carbon Tetrachloride	(2)				Not Detected					0.07	1
58) Benzene	(2)				Not Detected					0.05	1
67) Trichloroethene	(2)				Not Detected					0.06	1
83) Toluene	(3)				Not Detected					0.07	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
100) Ethylbenzene	(3)				Not Detected					0.06	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	3

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Data file: /chem2/HP19094.i/19apr22b.b/ha22s79.d Injection date and time: **23-APR-2019 07:20**
Data file Sample Info. Line: F3511;1034113;1;0;;RAF35;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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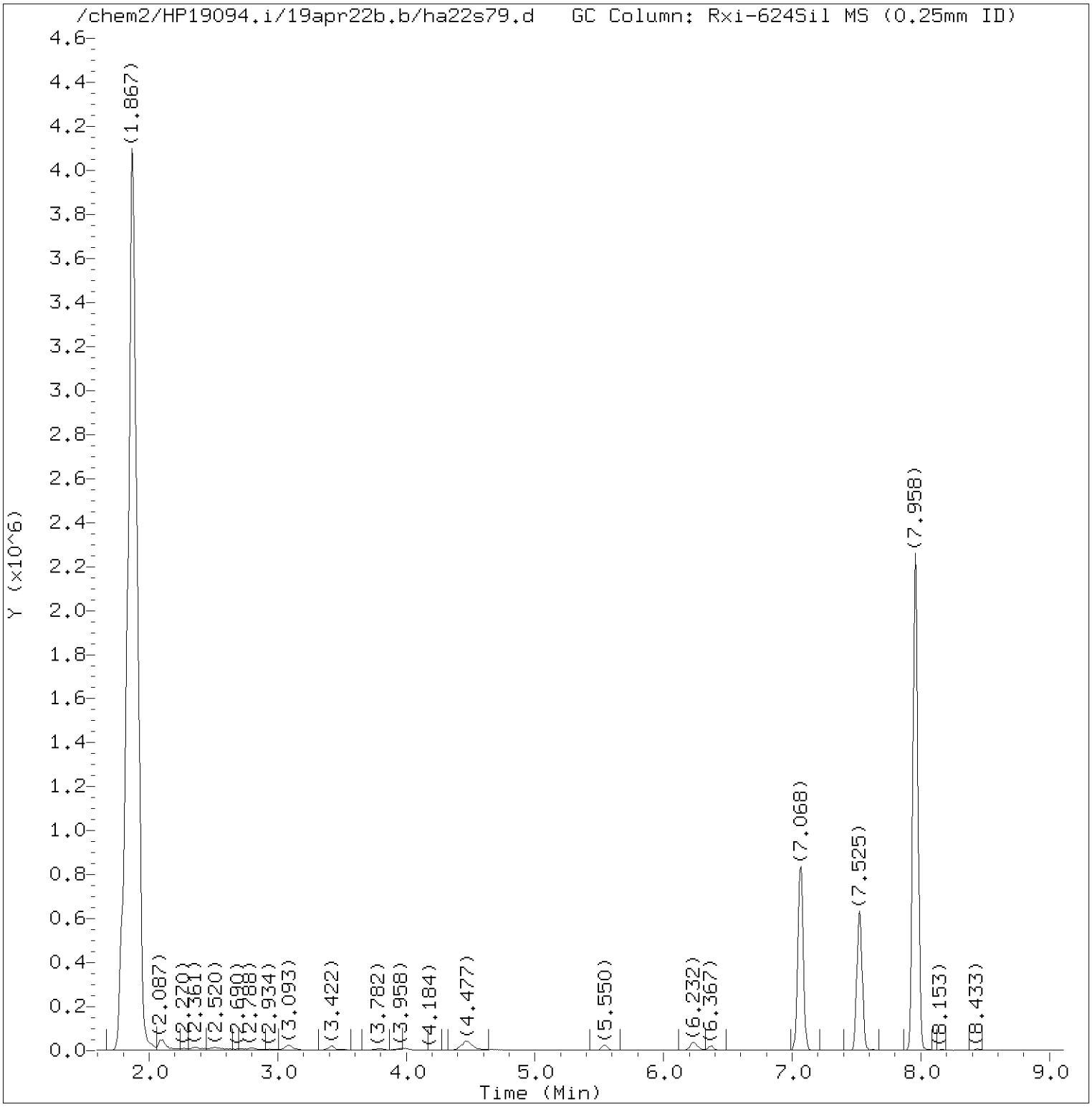
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 22

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:51. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

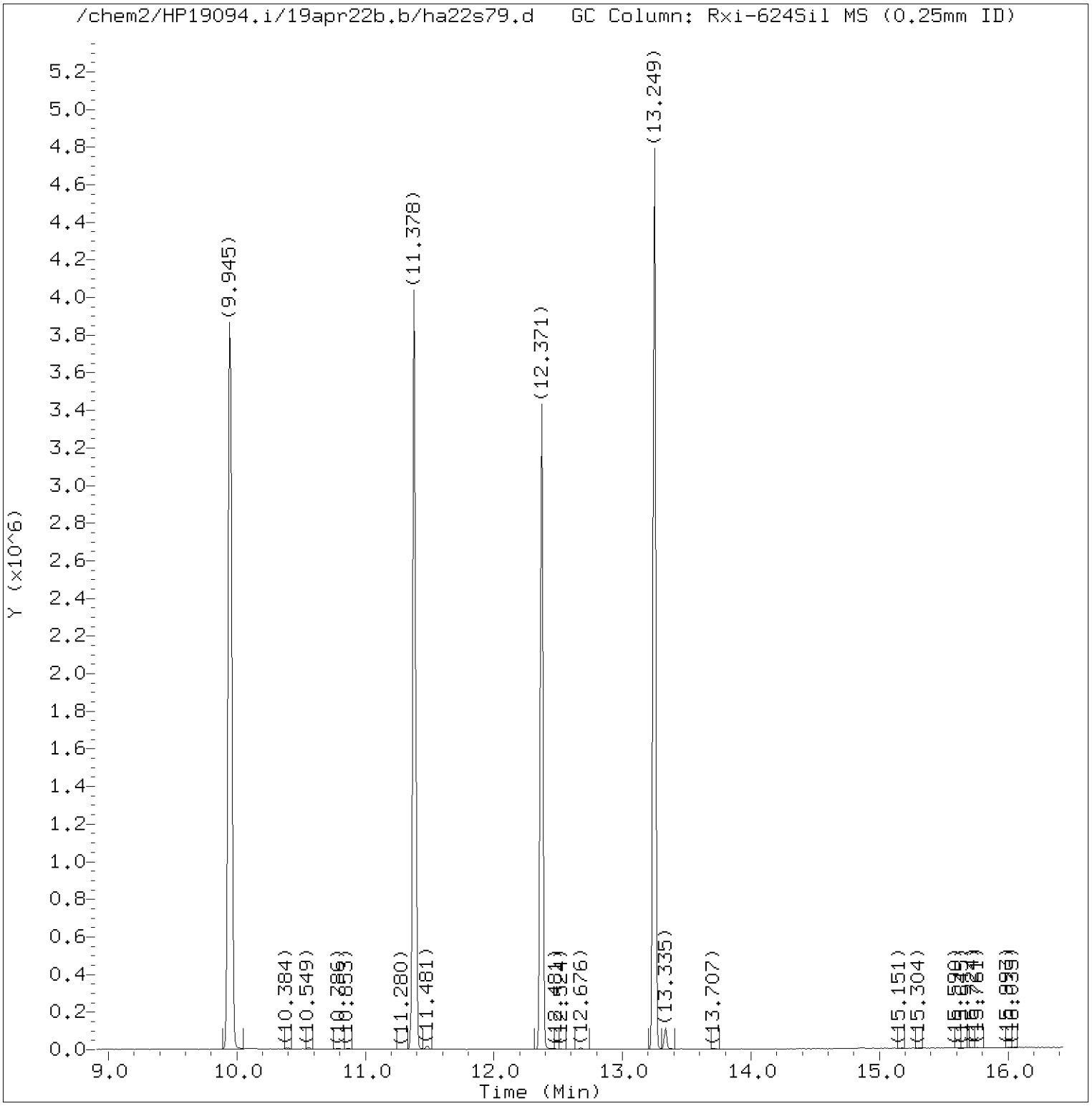
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s79.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 07:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Sample Name: F3511 Lab Sample ID: 1034113

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s79.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 07:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Sample Name: F3511 Lab Sample ID: 1034113

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22s79.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 07:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Sample Name: F3511 Lab Sample ID: 1034113

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
10) Trichlorofluoromethane	(2)	3.135	101	10225	0.088
11) Ethyl ether	(2)	3.422	59	19463	0.492
26)*t-Butyl Alcohol-d10	(1)	4.477	65	153882	50.000
33) 1,1-Dichloroethane	(2)	5.550	63	41613	0.351
50)$Dibromofluoromethane	(2)	7.061	113	744092	10.143
57)$1,2-Dichloroethane-d4	(2)	7.531	102	138025	10.734
63)*Fluorobenzene	(2)	7.958	96	2934429	10.000
82)$Toluene-d8	(3)	9.945	98	2981785	10.368
97)*Chlorobenzene-d5	(3)	11.378	117	2226897	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	1000538	9.294
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1162745	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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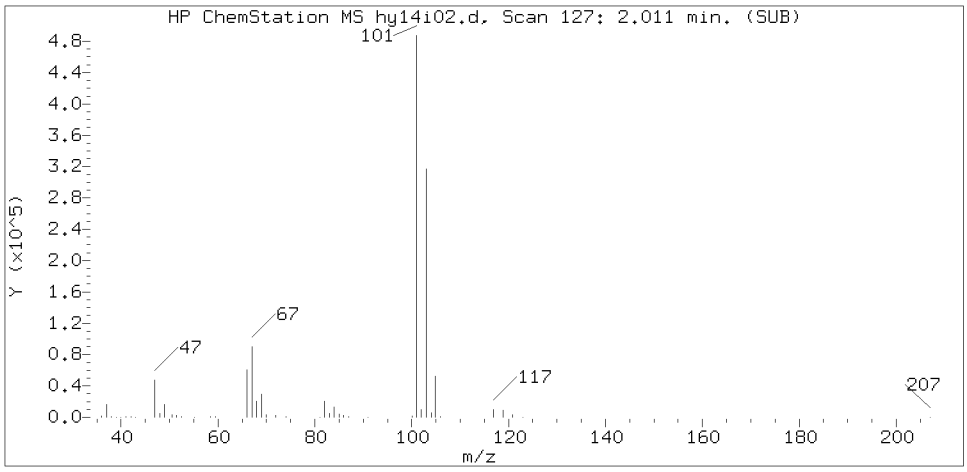
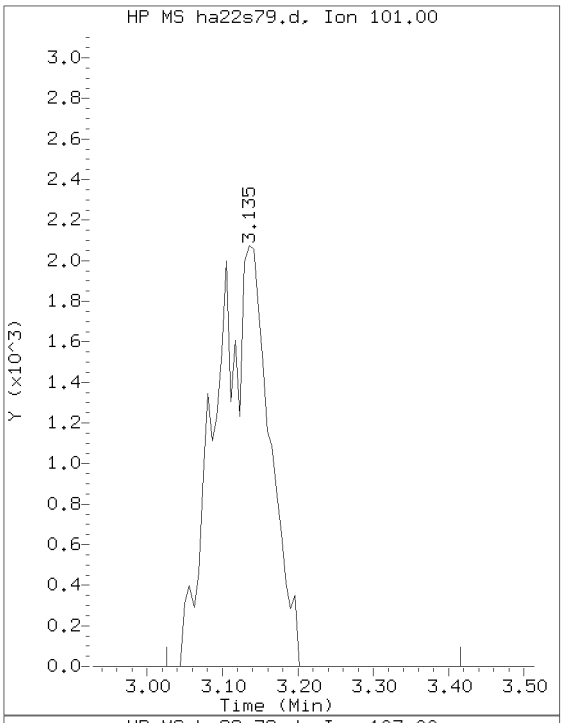
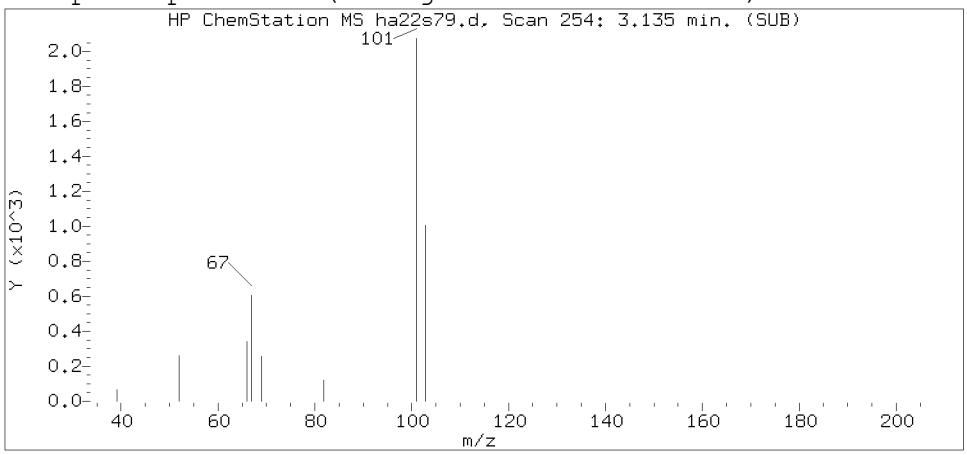
on 04/23/2019 at 07:51.
Target 3.5 esignature user ID: jkh09052

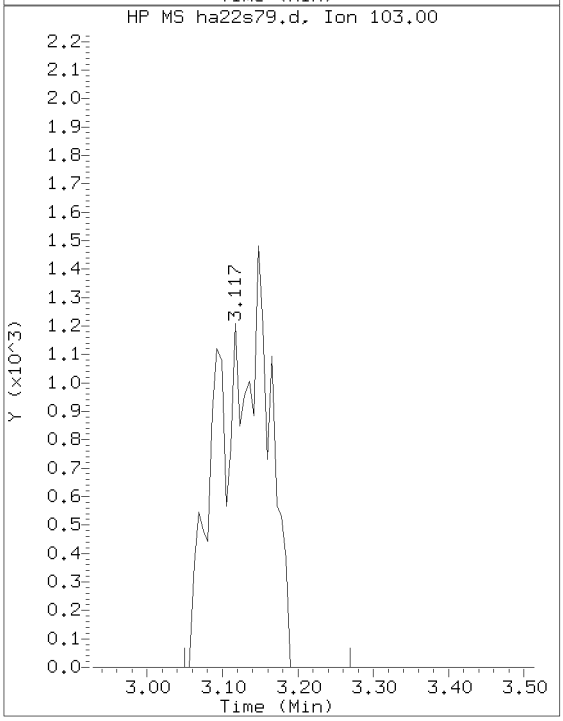
Reference Standard Spectrum for Trichlorofluoromethane



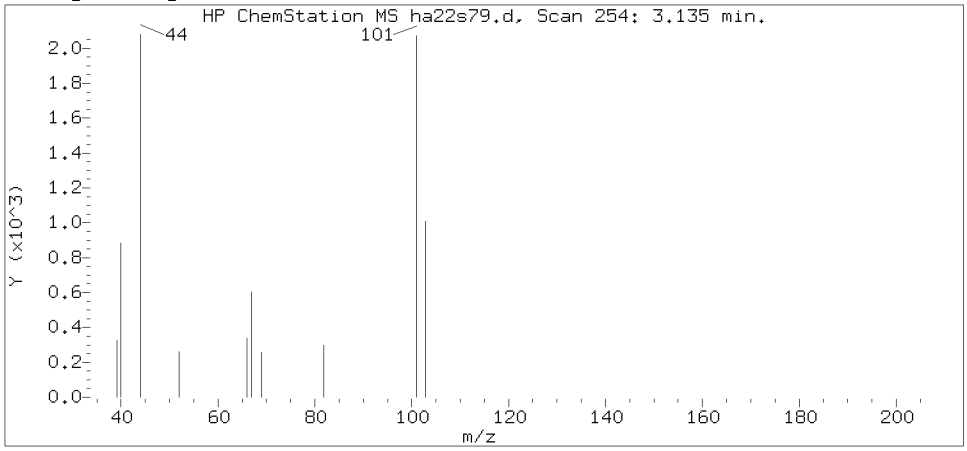


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



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Injection date and time: 23-APR-2019 07:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Sample Name: F3511 Lab Sample ID: 1034113

Compound Number	: 10
Compound Name	: Trichlorofluoromethane
Scan Number	: 254
Retention Time (minutes)	: 3.135
Relative Retention Time	: 0.00045
Quant Ion	: 101.00
Area (flag)	: 10225
On-Column Amount (ng)	: 0.0880

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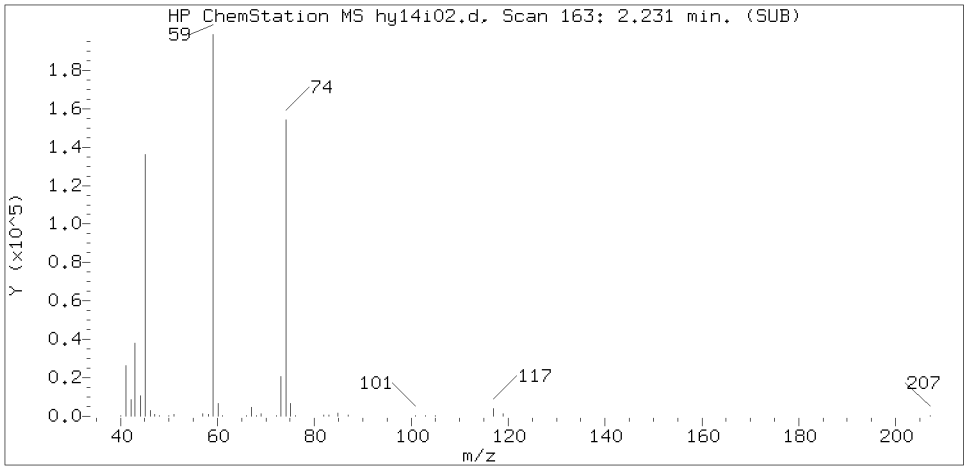
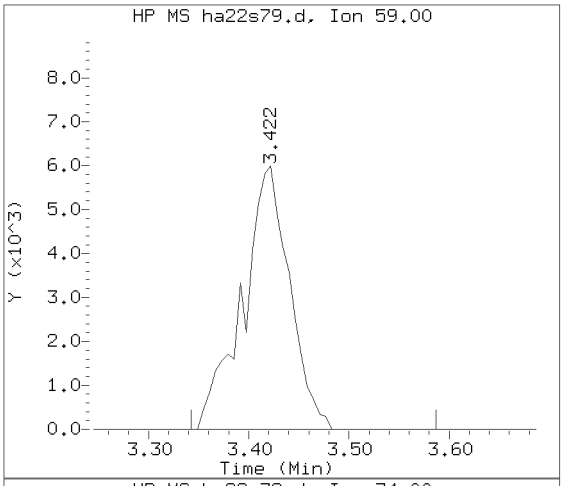
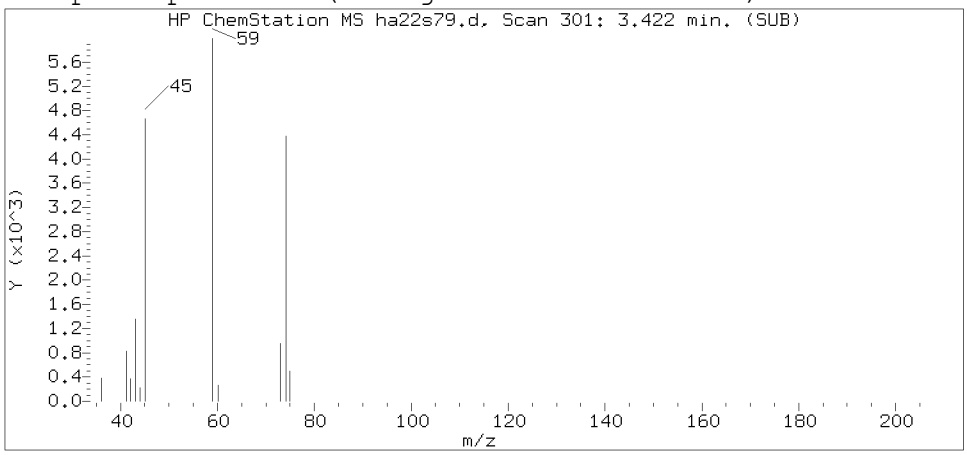
Target 3.5 esignature user ID: jkh09052

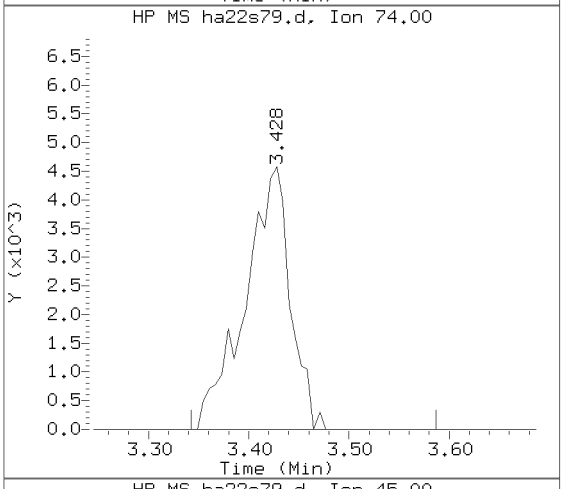
Reference Standard Spectrum for Ethyl ether



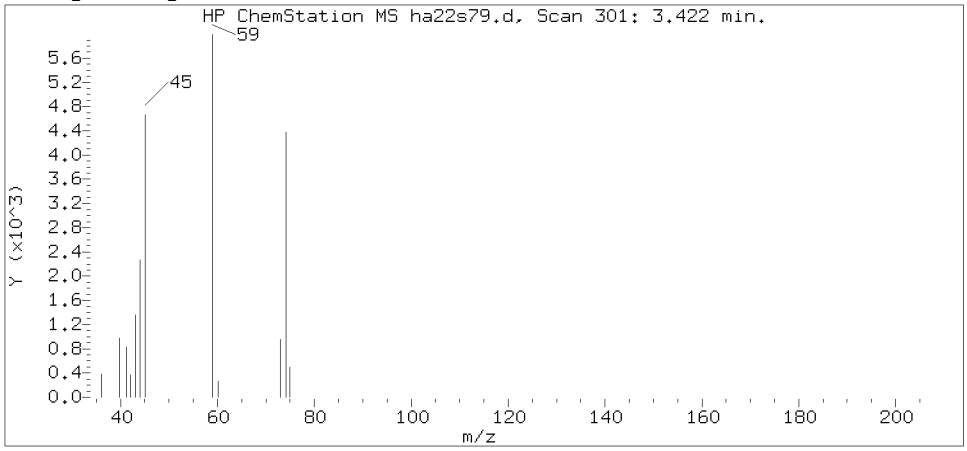


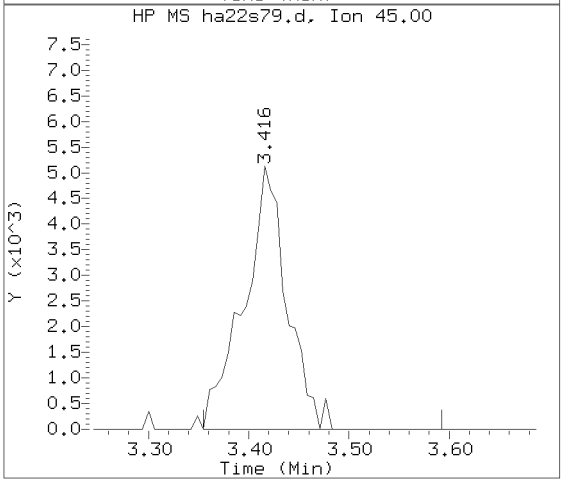
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19094.i/19apr22b.b/ha22s79.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 07:20 Analyst ID: MEC29284

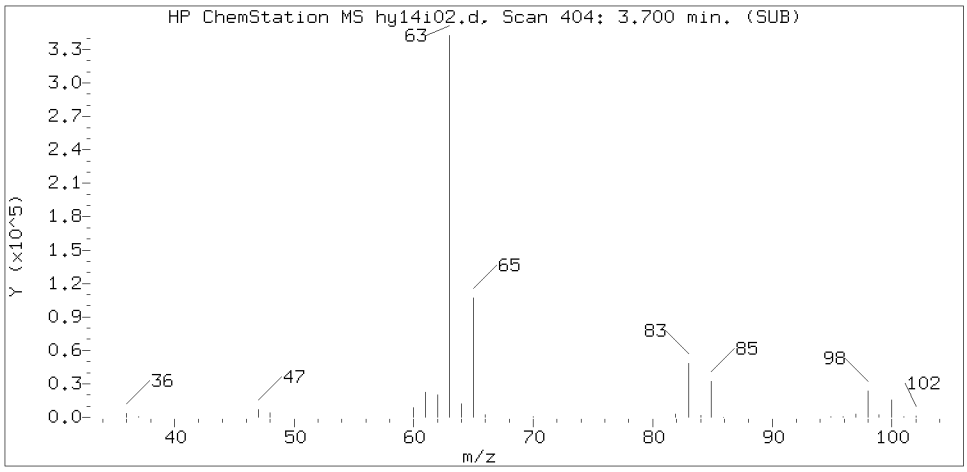
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

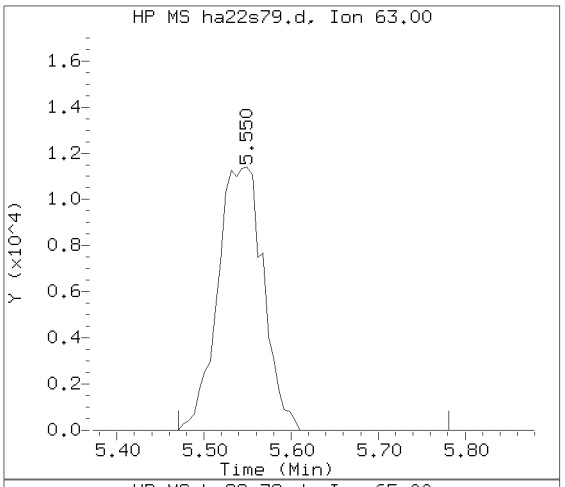
Sample Name: F3511 Lab Sample ID: 1034113

Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 301
Retention Time (minutes): 3.422
Relative Retention Time :-0.00034
Quant Ion : 59.00
Area (flag) : 19463
On-Column Amount (ng) : 0.4916

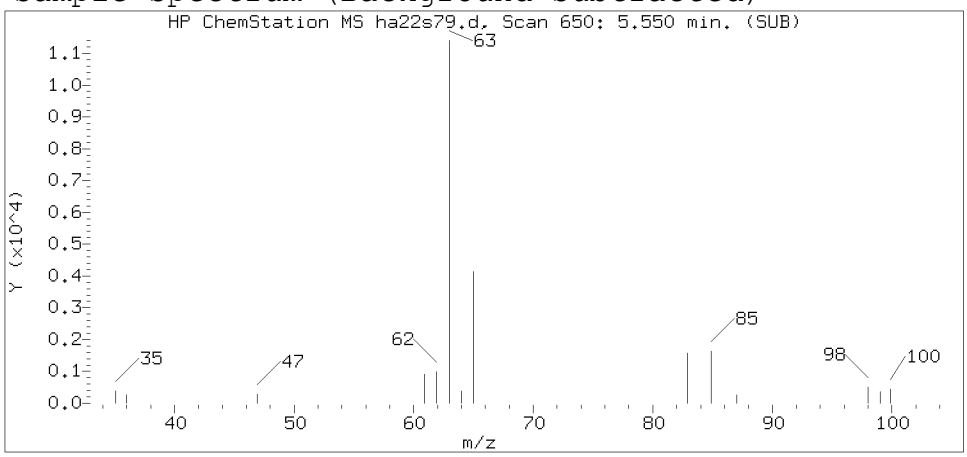
Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:51.
Target 3.5 esignature user ID: jkh09052

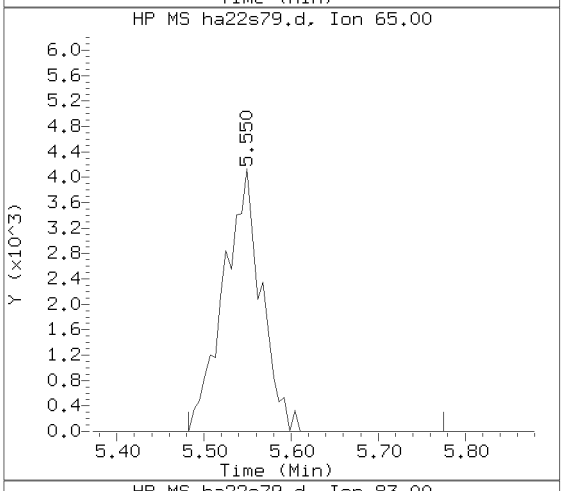
Reference Standard Spectrum for 1,1-Dichloroethane



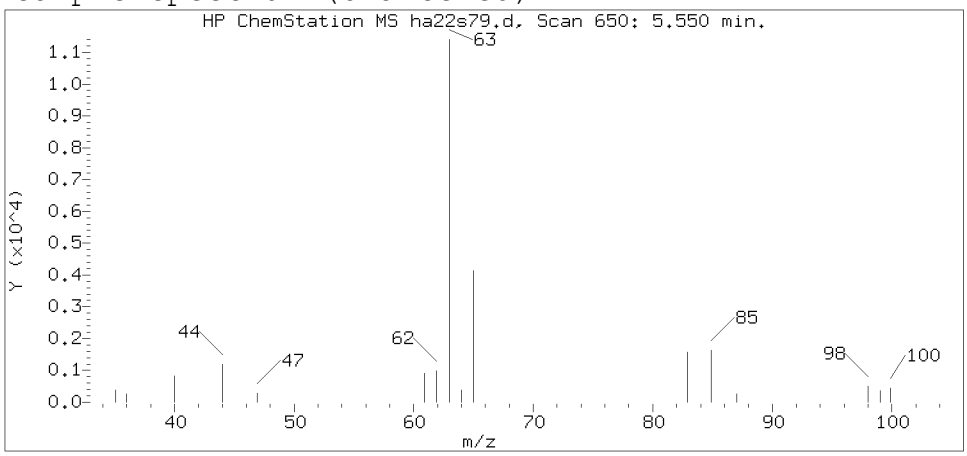


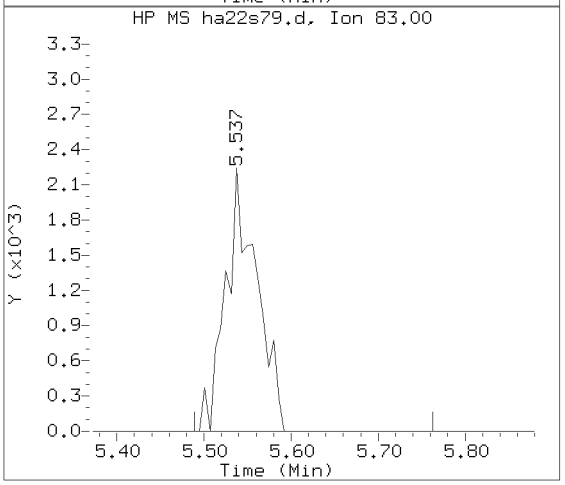
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP19094.i/19apr22b.b/ha22s79.d Instrument ID: HP19094.i
Injection date and time: 23-APR-2019 07:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 23-Apr-2019 07:51 jkh09052

Sample Name: F3511 Lab Sample ID: 1034113

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 650
Retention Time (minutes): 5.550
Relative Retention Time :-0.00131
Quant Ion : 63.00
Area (flag) : 41613
On-Column Amount (ng) : 0.3514

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:51.
Target 3.5 esignature user ID: jkh09052

F3512 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034114

Data file: /chem2/HP19930.i/19apr24a.b/ia24s02.d Injection date and time: **24-APR-2019 12:19**
Data file Sample Info. Line: F3512;1034114;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.306	(0.006)	446	65	151967	(10)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2070282	(-3)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1650438	(-5)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	896849	(-10)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.000)	113	530880	9.936	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.002)	102	101412	9.849	98%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2081460	10.282	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	729467	9.616	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.1	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.2	1
7) Bromomethane	(2)				Not Detected					0.5	1
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.2	1
11) Ethyl ether	(2)				Not Detected					1	13
13) Acrolein	(1)				Not Detected					3	25
15) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
16) Freon 113	(2)				Not Detected					0.1	1
14) Acetone	(1)	3.653	(-0.002)	43	22475	2.524	2.52		J	0.9	10
17) Methyl Iodide	(2)				Not Detected					0.6	10
18) Carbon Disulfide	(2)				Not Detected					0.4	10
25) Acetonitrile	(1)				Not Detected					32	100
22) Allyl Chloride	(2)				Not Detected					0.8	10
23) Methylene Chloride	(2)				Not Detected					0.2	1
29) Acrylonitrile	(1)				Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.1	1
36) Vinyl Acetate	(2)				Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.5	10
38) 2-Butanone	(1)				Not Detected					0.6	10
42) Propionitrile	(1)				Not Detected					10	100
45) Methacrylonitrile	(1)				Not Detected					10	100
48) Tetrahydrofuran	(1)				Not Detected					2	25
49) Chloroform	(2)				Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.1	1
54) Carbon Tetrachloride	(2)				Not Detected					0.2	1
56) Isobutyl Alcohol	(1)				Not Detected					4	200

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034114

Data file: /chem2/HP19930.i/19apr24a.b/ia24s02.d Injection date and time: **24-APR-2019 12:19**
Data file Sample Info. Line: F3512;1034114;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
58) Benzene	(2)				Not Detected					0.07	1
59) 1,2-Dichloroethane	(2)				Not Detected					0.1	1
67) Trichloroethene	(2)				Not Detected					0.2	1
70) 1,2-Dichloropropane	(2)				Not Detected					0.1	1
71) Methyl Methacrylate	(1)				Not Detected					4	10
73) Dibromomethane	(2)				Not Detected					0.07	1
72) 1,4-Dioxane	(1)				Not Detected					45	200
74) Bromodichloromethane	(2)				Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.9	10
83) Toluene	(3)				Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.1	1
86) Ethyl Methacrylate	(3)				Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.08	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
90) 1,3-Dichloropropane	(3)				Not Detected					0.09	1
91) 2-Hexanone	(1)				Not Detected					0.6	10
93) Dibromochloromethane	(3)				Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.08	1
100) Ethylbenzene	(3)				Not Detected					0.08	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.2	3
106) Styrene	(3)				Not Detected					0.05	1
107) Bromoform	(3)				Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.1	1
126) Pentachloroethane	(4)				Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.08	1
142) Hexachloroethane	(4)				Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.1	1
146) Hexachlorobutadiene	(4)				Not Detected					0.07	1
147) Naphthalene	(4)				Not Detected					0.1	1

Total number of targets = 67

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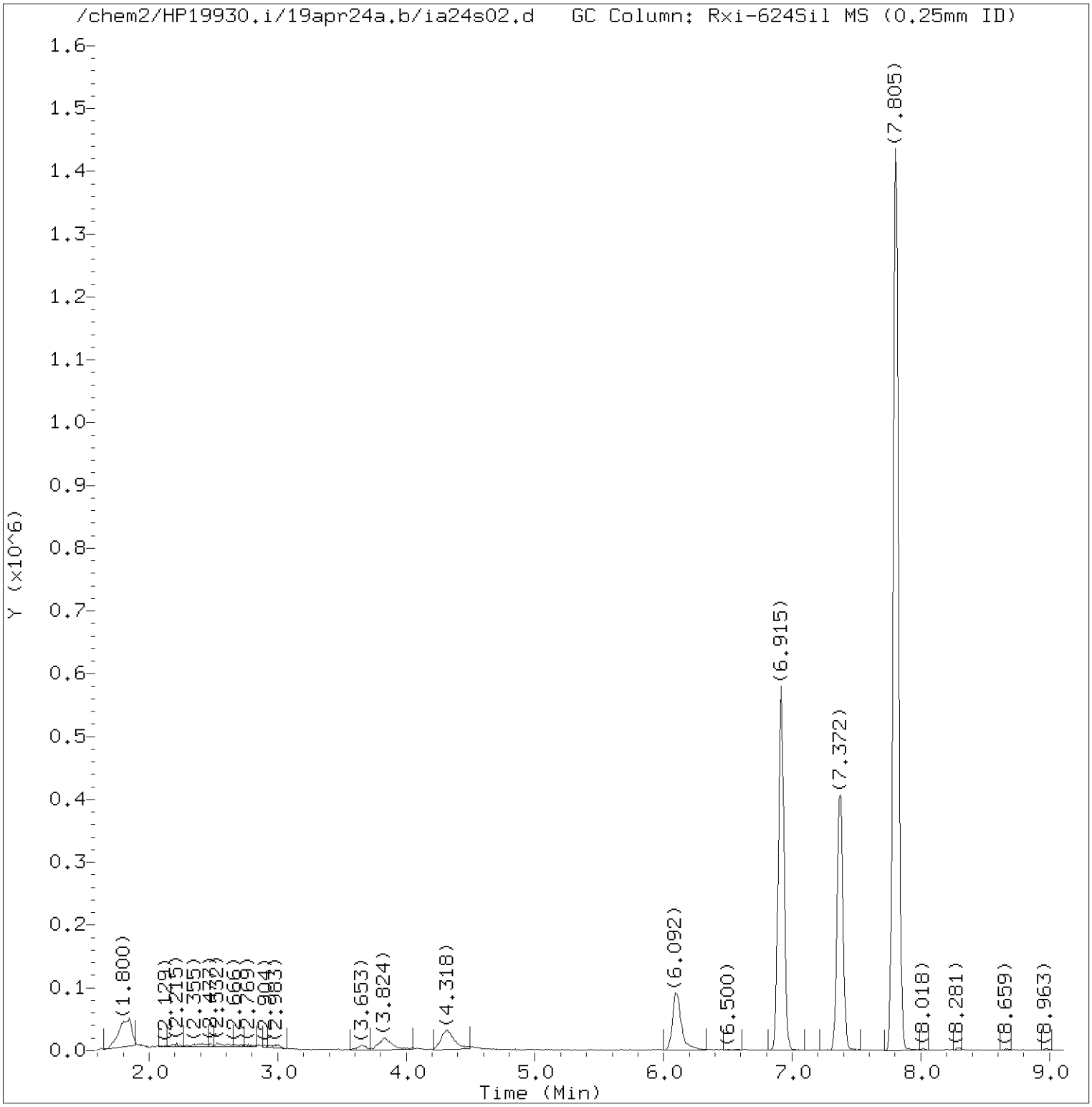
Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

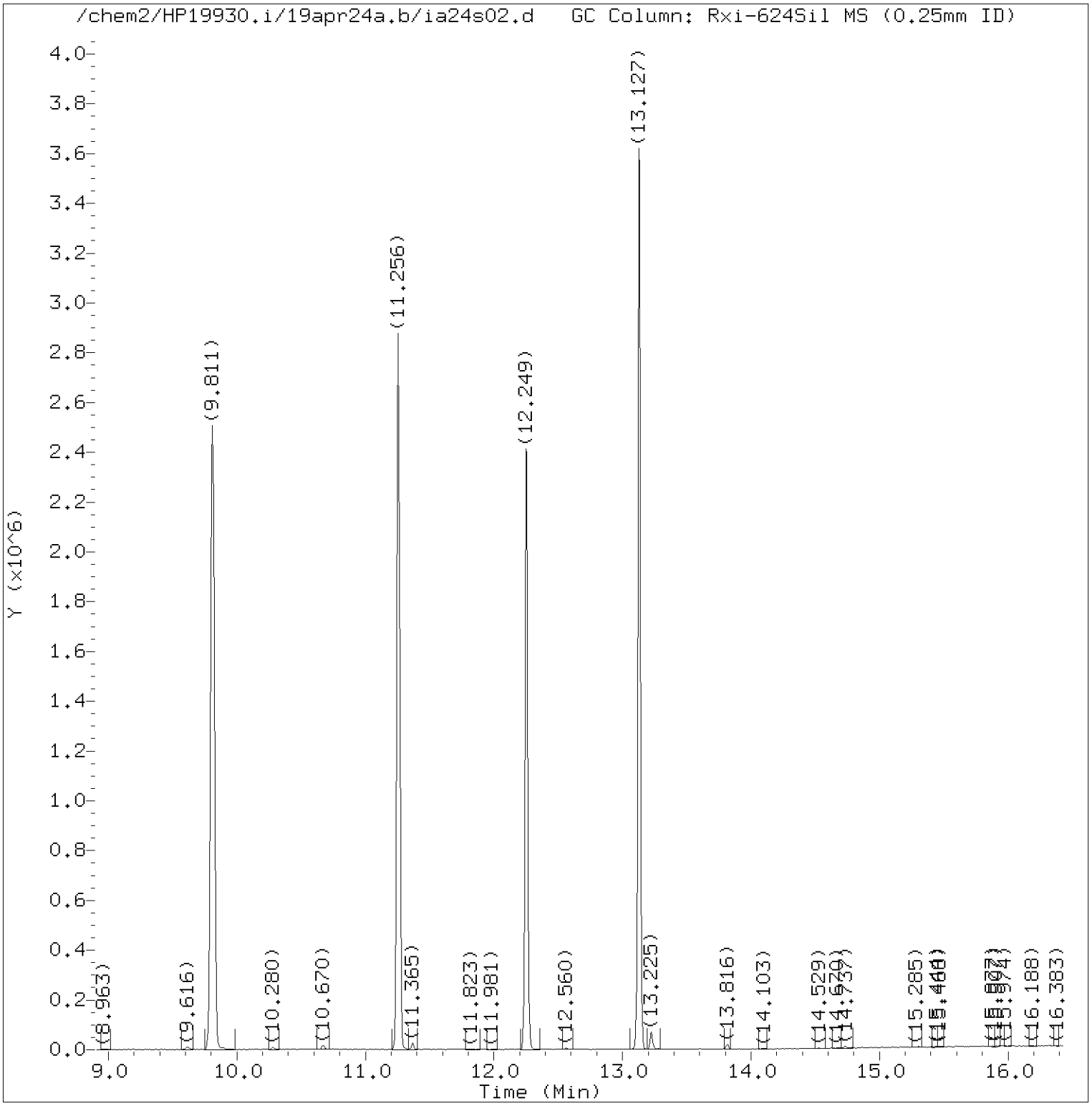
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:19 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3512 Lab Sample ID: 1034114

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:19 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3512 Lab Sample ID: 1034114

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:19 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3512 Lab Sample ID: 1034114

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
14) Acetone	(1)	3.653	43	22475	2.524
26)*t-Butyl Alcohol-d10	(1)	4.306	65	151967	50.000
50)$Dibromofluoromethane	(2)	6.915	113	530880	9.936
57)$1,2-Dichloroethane-d4	(2)	7.378	102	101412	9.849
63)*Fluorobenzene	(2)	7.805	96	2070282	10.000
82)$Toluene-d8	(3)	9.811	98	2081460	10.282
97)*Chlorobenzene-d5	(3)	11.256	117	1650438	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	729467	9.616
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	896849	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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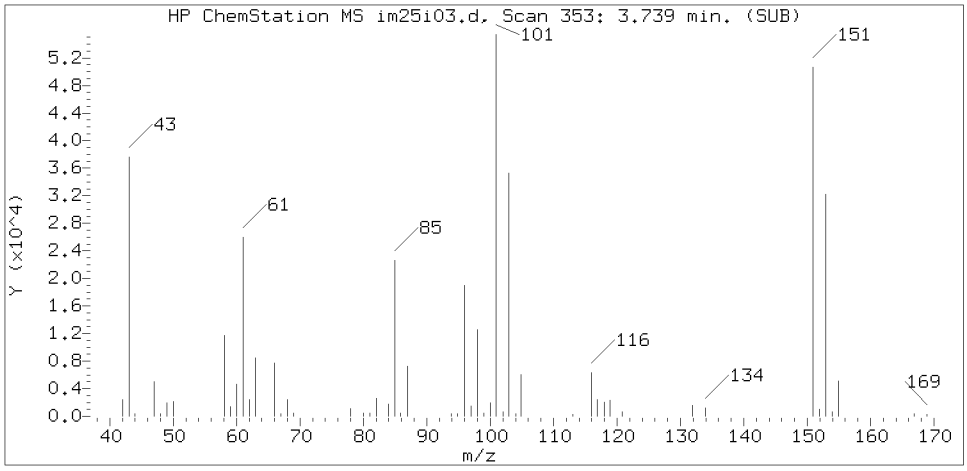
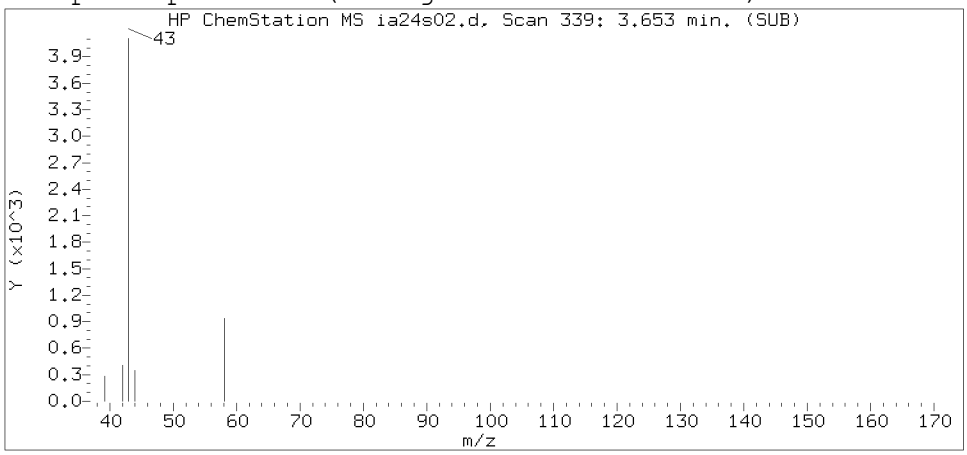
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

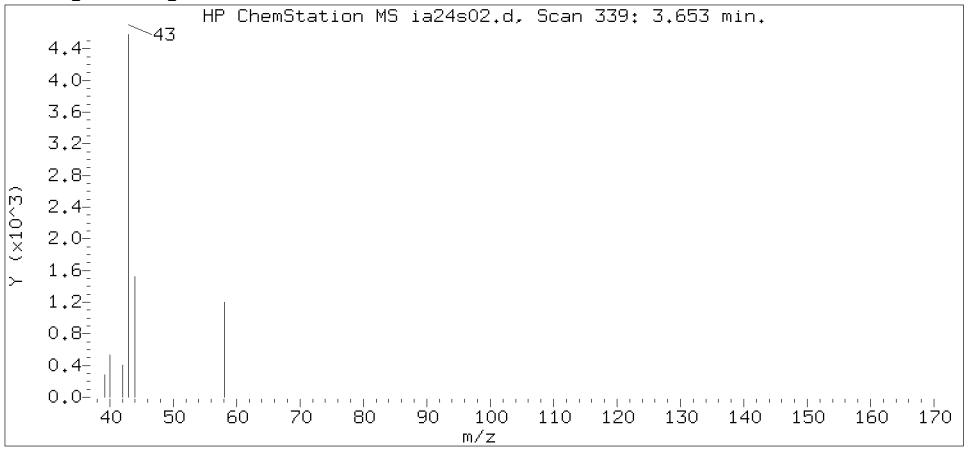
Reference Standard Spectrum for Acetone

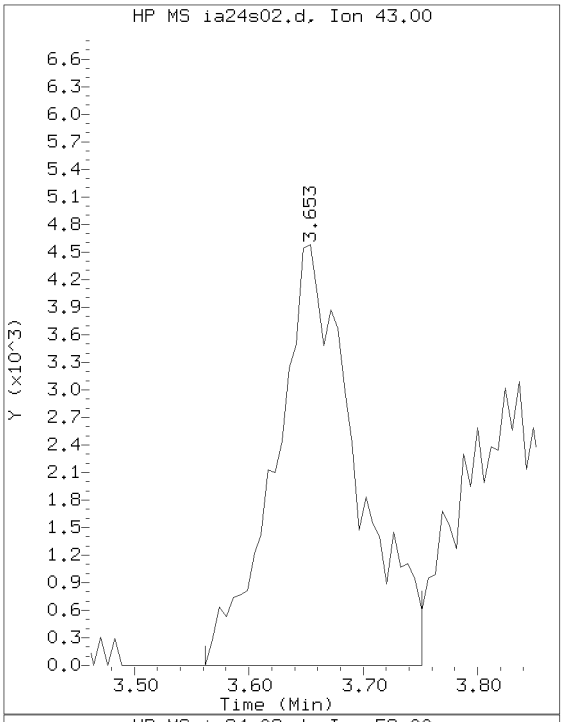


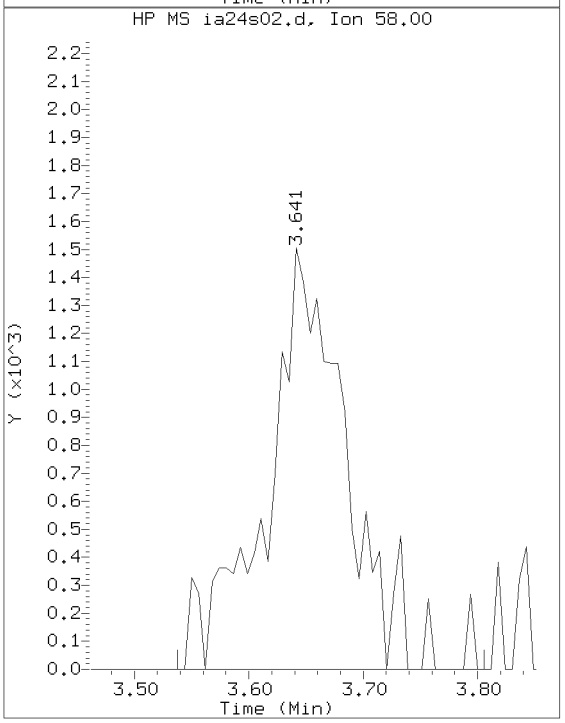
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP19930.i/19apr24a.b/ia24s02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:19 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3512 Lab Sample ID: 1034114

Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 339
Retention Time (minutes)	: 3.653
Relative Retention Time	:-0.00262
Quant Ion	: 43.00
Area (flag)	: 22475
On-Column Amount (ng)	: 2.5243

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

F3513 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034115

Data file: /chem2/HP19930.i/19apr24a.b/ia24s03.d Injection date and time: **24-APR-2019 12:40**
Data file Sample Info. Line: F3513;1034115;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.324	(-0.012)	449	65	147184	(6)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2029140	(-5)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1612727	(-7)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	875503	(-12)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.000)	113	525883	10.042	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.366	(0.000)	102	103274	10.233	102%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2041530	10.320	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	706410	9.530	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.1	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.2	1
7) Bromomethane	(2)				Not Detected					0.5	1
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.2	1
11) Ethyl ether	(2)				Not Detected					1	13
13) Acrolein	(1)				Not Detected					3	25
15) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
16) Freon 113	(2)				Not Detected					0.1	1
14) Acetone	(1)	3.660	(-0.000)	43	24078	2.792	2.79		J	0.9	10
17) Methyl Iodide	(2)				Not Detected					0.6	10
18) Carbon Disulfide	(2)				Not Detected					0.4	10
25) Acetonitrile	(1)				Not Detected					32	100
22) Allyl Chloride	(2)				Not Detected					0.8	10
23) Methylene Chloride	(2)				Not Detected					0.2	1
29) Acrylonitrile	(1)				Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.1	1
36) Vinyl Acetate	(2)				Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.5	10
38) 2-Butanone	(1)				Not Detected					0.6	10
42) Propionitrile	(1)				Not Detected					10	100
45) Methacrylonitrile	(1)				Not Detected					10	100
48) Tetrahydrofuran	(1)				Not Detected					2	25
49) Chloroform	(2)				Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.1	1
54) Carbon Tetrachloride	(2)				Not Detected					0.2	1
56) Isobutyl Alcohol	(1)				Not Detected					4	200

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1034115

Data file: /chem2/HP19930.i/19apr24a.b/ia24s03.d Injection date and time: **24-APR-2019 12:40**
Data file Sample Info. Line: F3513;1034115;1;0;;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

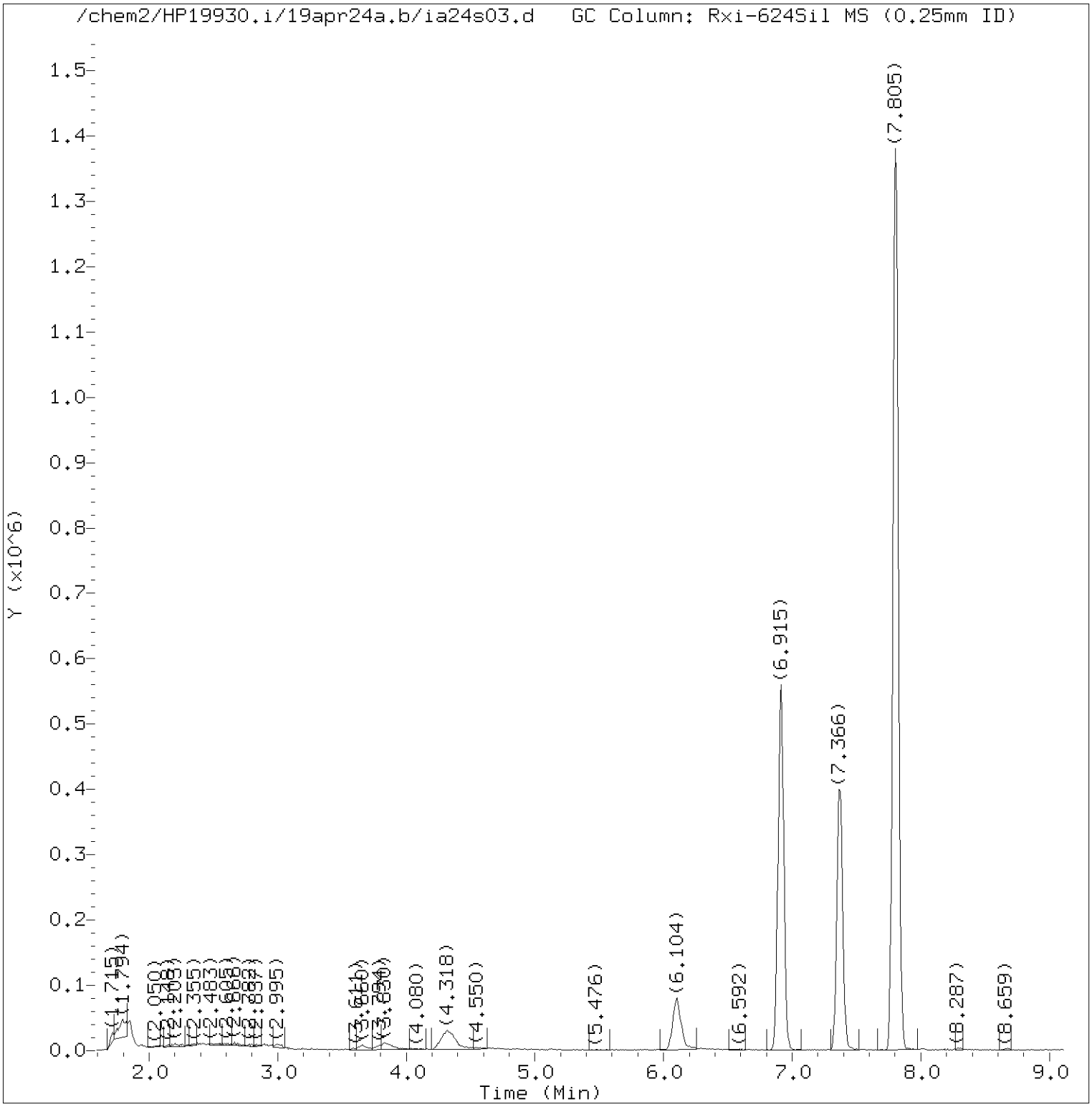
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
58) Benzene	(2)				Not Detected					0.07	1
59) 1,2-Dichloroethane	(2)				Not Detected					0.1	1
67) Trichloroethene	(2)				Not Detected					0.2	1
70) 1,2-Dichloropropane	(2)				Not Detected					0.1	1
71) Methyl Methacrylate	(1)				Not Detected					4	10
73) Dibromomethane	(2)				Not Detected					0.07	1
72) 1,4-Dioxane	(1)				Not Detected					45	200
74) Bromodichloromethane	(2)				Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.9	10
83) Toluene	(3)				Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.1	1
86) Ethyl Methacrylate	(3)				Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.08	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
90) 1,3-Dichloropropane	(3)				Not Detected					0.09	1
91) 2-Hexanone	(1)				Not Detected					0.6	10
93) Dibromochloromethane	(3)				Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.08	1
100) Ethylbenzene	(3)				Not Detected					0.08	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.2	3
106) Styrene	(3)				Not Detected					0.05	1
107) Bromoform	(3)				Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.1	1
126) Pentachloroethane	(4)				Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.08	1
142) Hexachloroethane	(4)				Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.1	1
146) Hexachlorobutadiene	(4)				Not Detected					0.07	1
147) Naphthalene	(4)				Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

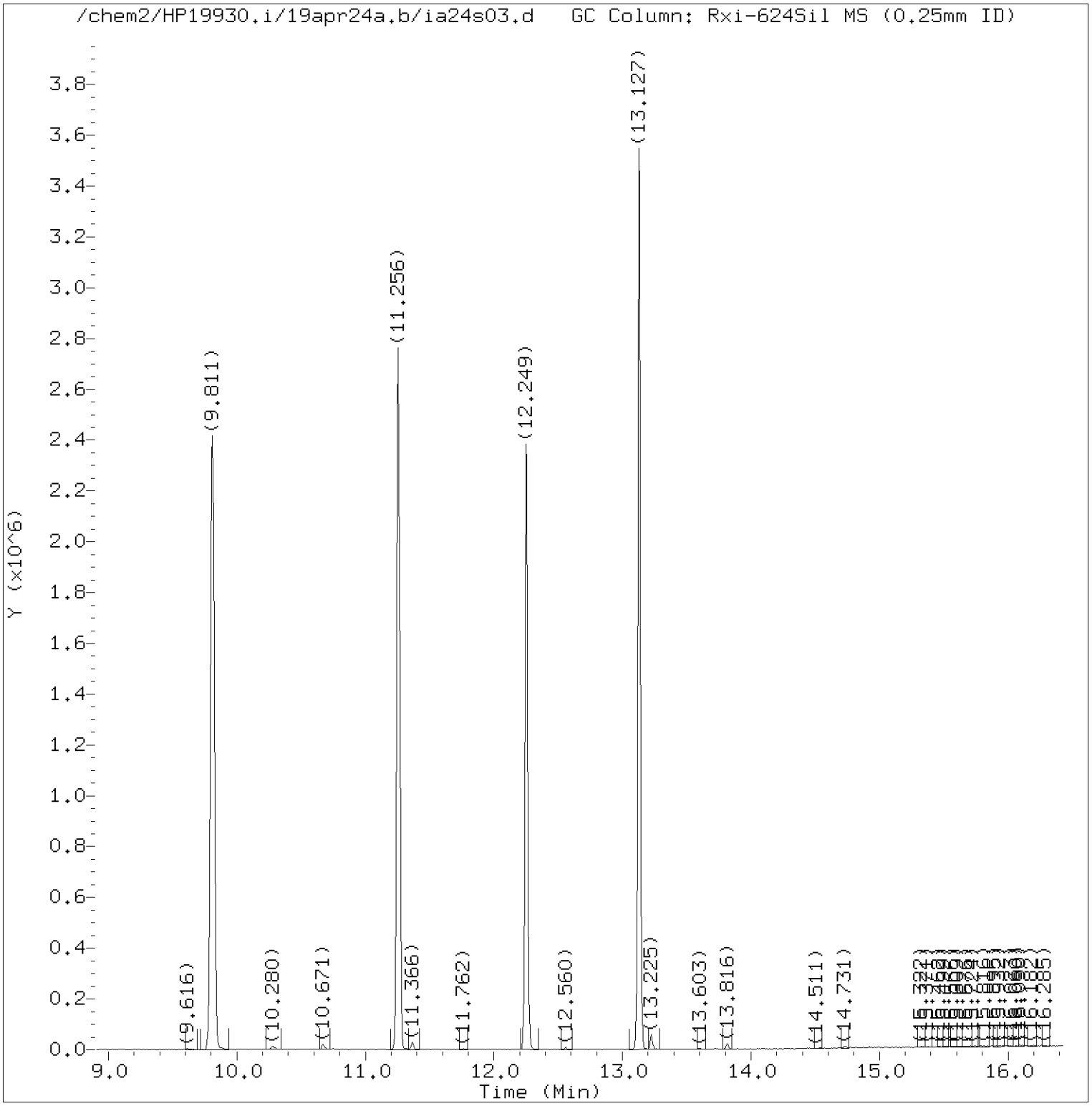
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:40 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3513 Lab Sample ID: 1034115

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:40 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3513 Lab Sample ID: 1034115

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:40 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

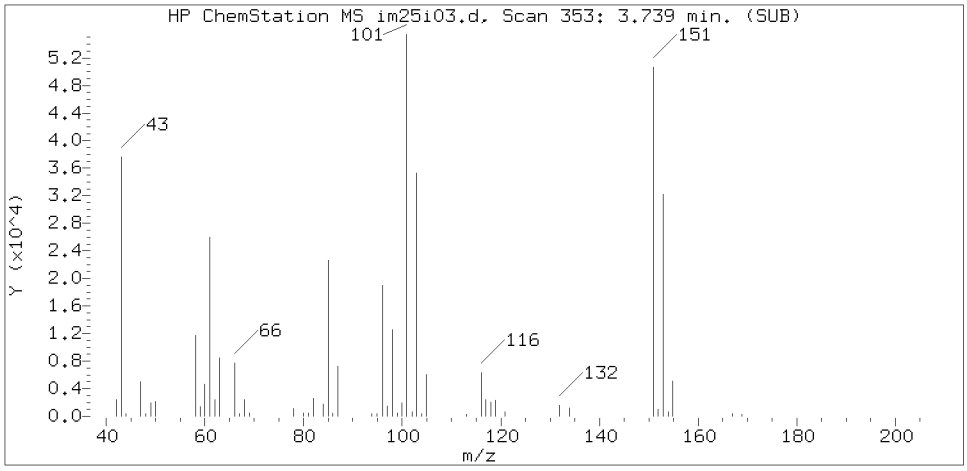
Sample Name: F3513 Lab Sample ID: 1034115

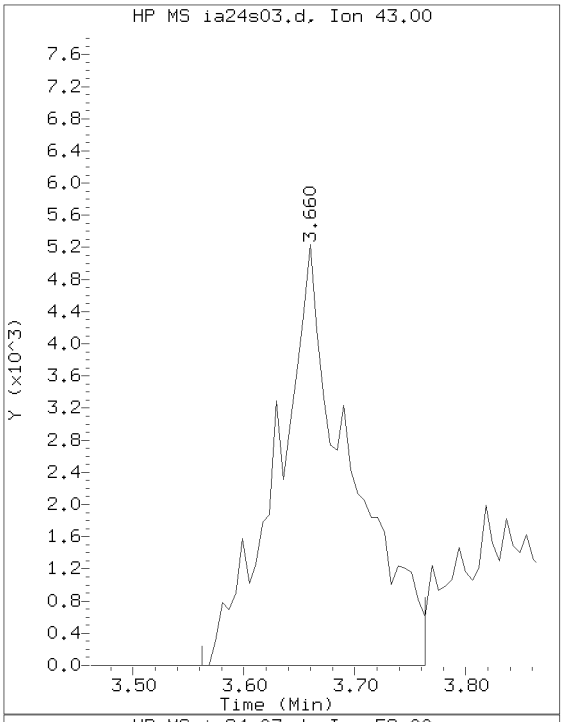
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
14) Acetone	(1)	3.660	43	24078	2.792
26)*t-Butyl Alcohol-d10	(1)	4.324	65	147184	50.000
50)$Dibromofluoromethane	(2)	6.915	113	525883	10.042
57)$1,2-Dichloroethane-d4	(2)	7.366	102	103274	10.233
63)*Fluorobenzene	(2)	7.805	96	2029140	10.000
82)$Toluene-d8	(3)	9.811	98	2041530	10.320
97)*Chlorobenzene-d5	(3)	11.256	117	1612727	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	706410	9.530
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	875503	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

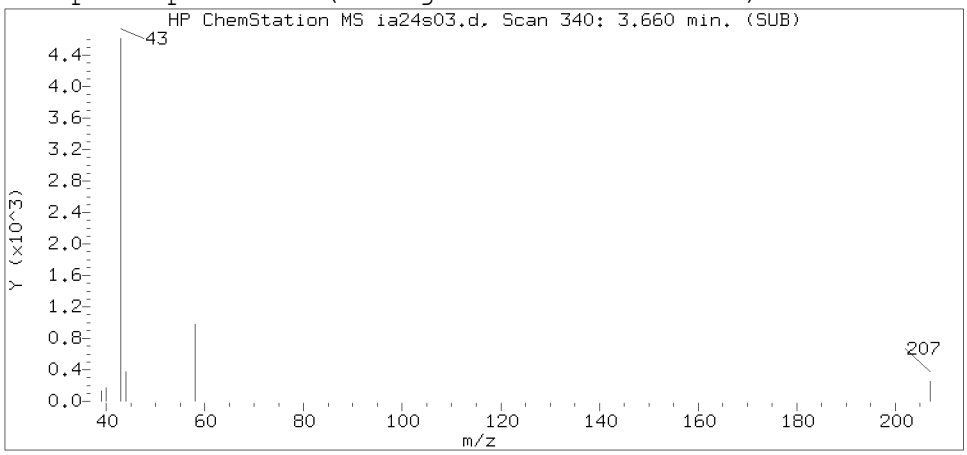
Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

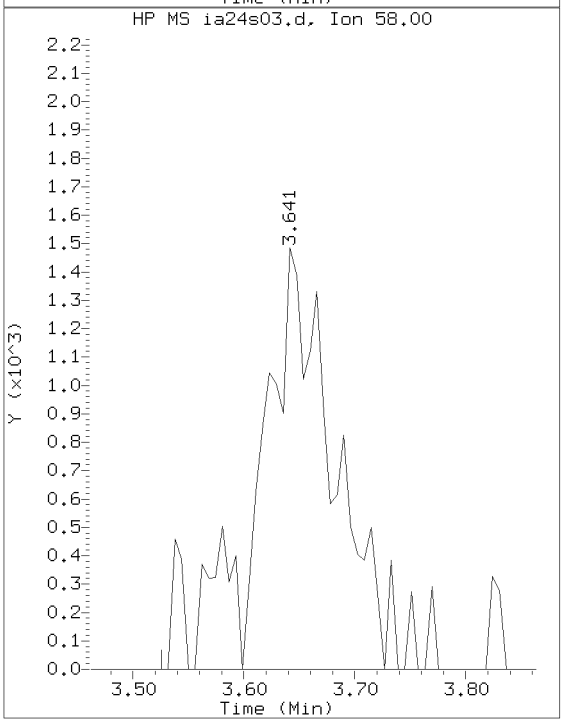
Reference Standard Spectrum for Acetone



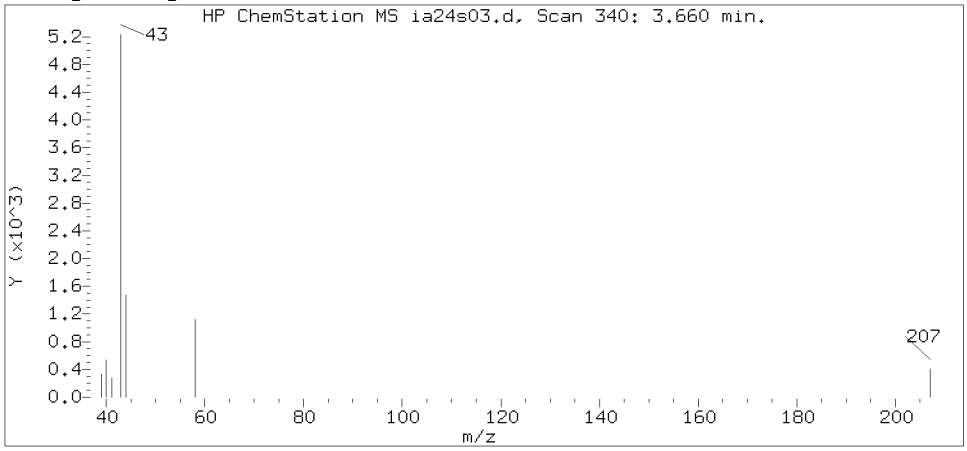


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP19930.i/19apr24a.b/ia24s03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 12:40 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:24 jkh09052

Sample Name: F3513 Lab Sample ID: 1034115

Compound Number	: 14
Compound Name	: Acetone
Scan Number	: 340
Retention Time (minutes)	: 3.660
Relative Retention Time	:-0.00044
Quant Ion	: 43.00
Area (flag)	: 24078
On-Column Amount (ng)	: 2.7922

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09355 **HP #20**

Data Directory Path is - C:\MSDCHEM\1\DATA\19JAN21c\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LCP00895	YJ21T51.D	50NGBFB	01/21/2019	07:03		
LCP00895	YJ21X01.D	BLANK	01/21/2019	07:25		
LCP00895	YJ21I51.D	VSTD300	01/21/2019	07:47		
LCP00895	YJ21I52.D	VSTD100	01/21/2019	08:09		
LCP00895	YJ21I53.D	VSTD050	01/21/2019	08:31		
LCP00895	YJ21I54.D	VSTD020	01/21/2019	08:53		
LCP00895	YJ21I55.D	VSTD010	01/21/2019	09:15		
LCP00895	YJ21I56.D	VSTD004	01/21/2019	09:38		
LCP00895	YJ21I57.D	VSTD001	01/21/2019	10:00		
LCP00895	YJ21M51.D	MDL0.5	01/21/2019	10:22		
LCP00895	YJ21V51.D	YLGICV	01/21/2019	10:44		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19094 **HP #30**

Data Directory Path is - D:\DATA\18NOV13I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jkh09052	HN13T01.D	BFB AUG07-18	11/13/2018	11:48		
jkh09052	HN13T02.D	BFB AUG07-18	11/13/2018	11:59		
JKH09052	HN13X01.D	blk	11/13/2018	12:12		
JKH09052	HN13I11.D	VSTD025	11/13/2018	12:33		
JKH09052	HN13I12.D	VSTD010	11/13/2018	12:54		
JKH09052	HN13I13.D	VSTD005	11/13/2018	13:16		
JKH09052	HN13I14.D	VSTD002	11/13/2018	13:37		
JKH09052	HN13I15.D	VSTD001	11/13/2018	13:58		
JKH09052	HN13I16.D	VSTD0.5	11/13/2018	14:20		
JKH09052	HN13I17.D	VSTD0.2	11/13/2018	14:41		
JKH09052	HN13M11.D	MDL0.1	11/13/2018	15:03		
JKH09052	HN13V11.D	ICVHSM	11/13/2018	15:25		
JKH09052	HN13I01.D	VSTD025	11/13/2018	15:46		
JKH09052	HN13I02.D	VSTD010	11/13/2018	16:07		
JKH09052	HN13I03.D	VSTD005	11/13/2018	16:28		
JKH09052	HN13I04.D	VSTD002	11/13/2018	16:50		
JKH09052	HN13I05.D	VSTD001	11/13/2018	17:11		
JKH09052	HN13I06.D	VSTD0.5	11/13/2018	17:33		
JKH09052	HN13I07.D	VSTD0.2	11/13/2018	17:54		
JKH09052	HN13M01.D	MDL0.1	11/13/2018	18:15		
JKH09052	HN13V01.D	ICVHLG	11/13/2018	18:37		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19094 **HP #30**

Data Directory Path is - D:\DATA\18NOV13I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jkh09052	HN13T01.D	BFB AUG07-18	11/13/2018	11:48		
jkh09052	HN13T02.D	BFB AUG07-18	11/13/2018	11:59		
JKH09052	HN13X01.D	blk	11/13/2018	12:12		
JKH09052	HN13I11.D	VSTD025	11/13/2018	12:33		
JKH09052	HN13I12.D	VSTD010	11/13/2018	12:54		
JKH09052	HN13I13.D	VSTD005	11/13/2018	13:16		
JKH09052	HN13I14.D	VSTD002	11/13/2018	13:37		
JKH09052	HN13I15.D	VSTD001	11/13/2018	13:58		
JKH09052	HN13I16.D	VSTD0.5	11/13/2018	14:20		
JKH09052	HN13I17.D	VSTD0.2	11/13/2018	14:41		
JKH09052	HN13M11.D	MDL0.1	11/13/2018	15:03		
JKH09052	HN13V11.D	ICVHSM	11/13/2018	15:25		
JKH09052	HN13I01.D	VSTD025	11/13/2018	15:46		
JKH09052	HN13I02.D	VSTD010	11/13/2018	16:07		
JKH09052	HN13I03.D	VSTD005	11/13/2018	16:28		
JKH09052	HN13I04.D	VSTD002	11/13/2018	16:50		
JKH09052	HN13I05.D	VSTD001	11/13/2018	17:11		
JKH09052	HN13I06.D	VSTD0.5	11/13/2018	17:33		
JKH09052	HN13I07.D	VSTD0.2	11/13/2018	17:54		
JKH09052	HN13M01.D	MDL0.1	11/13/2018	18:15		
JKH09052	HN13V01.D	ICVHLG	11/13/2018	18:37		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19930 **HP #31**

Data Directory Path is - D:\DATA\19APR08A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
MEC29284	IA08T01.D	50NGBFB	04/08/2019	15:37		
MEC29284	IA08X00.D	blk	04/08/2019	15:52		
MEC29284	IA08I01.D	VSTD025	04/08/2019	16:13		
MEC29284	IA08I02.D	VSTD010	04/08/2019	16:34		
MEC29284	IA08I03.D	VSTD005	04/08/2019	16:55		
MEC29284	IA08I04.D	VSTD002	04/08/2019	17:16		
MEC29284	IA08I05.D	VSTD001	04/08/2019	17:37		
MEC29284	IA08I06.D	VSTD0.5	04/08/2019	17:59		
MEC29284	IA08I07.D	VSTD0.2	04/08/2019	18:20		
MEC29284	IA08V01.D	LCSILG	04/08/2019	18:41		
MEC29284	IA08X01.D	blk	04/08/2019	19:03		
MEC29284	IA08X02.D	blk	04/08/2019	19:24		
MEC29284	IA08D01.D	MECIDOC#1	04/08/2019	19:45		
MEC29284	IA08D02.D	MECIDOC#2	04/08/2019	20:06		
MEC29284	IA08D03.D	MECIDOC#3	04/08/2019	20:27		
MEC29284	IA08D04.D	MECIDOC#4	04/08/2019	20:48		
MEC29284	IA08D05.D	MECIDOC#5	04/08/2019	21:09		
MEC29284	IA08D06.D	MECIDOC#6	04/08/2019	21:31		
MEC29284	IA08D07.D	MECIDOC#7	04/08/2019	21:52		
MEC29284	IA08D08.D	MECIDOC#8	04/08/2019	22:13		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19930 **HP #31**

Data Directory Path is - D:\DATA\19APR23I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
MEC29284	IA23T01.D	50NGBFB	04/23/2019	21:06		
MEC29284	IA23T02.D	50NGBFB	04/23/2019	21:14		
MEC29284	IA23X00.D	blk	04/23/2019	21:26		
MEC29284	IA23I11.D	VSTD025	04/23/2019	21:47		
MEC29284	IA23I12.D	VSTD010	04/23/2019	22:08		
MEC29284	IA23I13.D	VSTD005	04/23/2019	22:29		
MEC29284	IA23I14.D	VSTD002	04/23/2019	22:51		
MEC29284	IA23I15.D	VSTD001	04/23/2019	23:12		
MEC29284	IA23I16.D	VSTD0.5	04/23/2019	23:33		
MEC29284	IA23I17.D	VSTD0.2	04/23/2019	23:54		
MEC29284	IA23V11.D	LCSISM	04/24/2019	00:16		
MEC29284	IA23X01.D	blk	04/24/2019	00:37		
MEC29284	IA23X02.D	blk	04/24/2019	00:58		
MEC29284	IA23D09.D	MECIDOC#9	04/24/2019	01:19		
MEC29284	IA23D10.D	MECIDOC#10	04/24/2019	01:40		
MEC29284	IA23D11.D	MECIDOC#11	04/24/2019	02:01		
MEC29284	IA23D12.D	MECIDOC#12	04/24/2019	02:22		
MEC29284	IA10X03.D	blk	04/24/2019	02:44		
MEC29284	IA23D13.D	MECIDOC#13	04/24/2019	03:05		
MEC29284	IA23D14.D	MECIDOC#14	04/24/2019	03:27		
MEC29284	IA23D15.D	MECIDOC#15	04/24/2019	03:49		
MEC29284	IA23D16.D	MECIDOC#16	04/24/2019	04:10		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09355 **HP #20**

Data Directory Path is - c:\msdchem\1\data\19apr24A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
CLM27445	YA24T01.D	50NGBFB	04/24/2019	07:48	Y191141AA	
CLM27445	YA24X00.D	VBLKY63	04/24/2019	08:09	Y191141AA	
CLM27445	YA24C01.D	VSTD050	04/24/2019	08:31	Y191141AA	
CLM27445	YA24C02.D	VSTD050	04/24/2019	08:53	Y191141AA	
CLM27445	YA24X01.D	VBLKY63	04/24/2019	09:15	Y191141AA	
CLM27445	YA24S01.D	LCSY63	04/24/2019	09:37	Y191141AA	
CLM27445	YA24X02.D	VBLKY63	04/24/2019	09:59	Y191141AA	
CLM27445	YA24S02.D	LCDY63	04/24/2019	10:22	Y191141AA	
CLM27445	YA24B01.D	VBLKY63	04/24/2019	10:44	Y191141AA	
CLM27445	YA24S03.D	1035498	04/24/2019	12:40	Y191141AA	
CLM27445	YA24S04.D	1035499	04/24/2019	13:02	Y191141AA	
CLM27445	YA24S05.D	1034104	04/24/2019	13:24	Y191141AA	
CLM27445	YA24S06.D	1034105MS	04/24/2019	13:46	Y191141AA	
CLM27445	YA24S07.D	1034106MSD	04/24/2019	14:08	Y191141AA	
CLM27445	YA24S08.D	1034101	04/24/2019	14:30	Y191141AA	
CLM27445	YA24S09.D	1034102	04/24/2019	14:53	Y191141AA	
CLM27445	YA24S10.D	1034103	04/24/2019	15:15	Y191141AA	
CLM27445	YA24S11.D	1034107	04/24/2019	15:37	Y191141AA	
CLM27445	YA24S12.D	1034108	04/24/2019	15:59	Y191141AA	
CLM27445	YA24S13.D	1035492	04/24/2019	16:21	Y191141AA	
CLM27445	YA24S14.D	1035495	04/24/2019	16:43	Y191141AA	
CLM27445	YA24S33.D	1035047	04/24/2019	17:05	Y191142AA	
CLM27445	YA24S34.D	1035039	04/24/2019	17:28	Y191142AA	
CLM27445	YA24S35.D	1035039MS	04/24/2019	17:50	Y191142AA	
CLM27445	YA24S36.D	1035039MSD	04/24/2019	18:12	Y191142AA	
CLM27445	YA24S37.D	1035040	04/24/2019	18:34	Y191142AA	
CLM27445	YA24S38.D	1035041	04/24/2019	18:56	Y191142AA	
CLM27445	YA24S39.D	1035042	04/24/2019	19:18	Y191142AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19094 **HP #30**

Data Directory Path is - D:\DATA\19APR22B\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
MEC29284	HA22T01.D	BFB FEB05-19	04/22/2019	20:26		
MEC29284	HA22T02.D	BFB FEB05-19	04/22/2019	20:36		
MEC29284	HA22T03.D	BFB FEB05-19	04/22/2019	20:44		
MEC29284	HA22X00.D	VBLKH28	04/22/2019	20:54	H191122AA	
MEC29284	HA22C01.D	VSTD010	04/22/2019	21:16	H191122AA	
MEC29284	HA22C02.D	VSTD010	04/22/2019	21:37	H191122AA	
MEC29284	HA22L41.D	LCSH28	04/22/2019	21:58	H191122AA	
MEC29284	HA22L42.D	LCDH28	04/22/2019	22:20	H191122AA	
MEC29284	HA22L43.D	LCSH30	04/22/2019	22:41	H191122AA	
MEC29284	HA22L44.D	LCDH30	04/22/2019	23:03	H191122AA	
MEC29284	HA22B40.D	VBLKH28	04/22/2019	23:24	H191122AA	
MEC29284	HA22S45.D	1034274	04/22/2019	23:50	H191122AA	
MEC29284	HA22S46.D	1034283	04/23/2019	00:11	H191122AA	
MEC29284	HA22S47.D	1034285	04/23/2019	00:33	H191122AA	
MEC29284	HA22S48.D	1034275	04/23/2019	00:54	H191122AA	
MEC29284	HA22S49.D	1034276	04/23/2019	01:15	H191122AA	
MEC29284	HA22S50.D	1034278	04/23/2019	01:36	H191122AA	
MEC29284	HA22S51.D	1034280	04/23/2019	01:58	H191122AA	
MEC29284	HA22S52.D	1034281	04/23/2019	02:19	H191122AA	
MEC29284	HA22S53.D	1034282	04/23/2019	02:41	H191122AA	
MEC29284	HA22S54.D	1034284	04/23/2019	03:02	H191122AA	
MEC29284	HA22S55.D	1033182DL	04/23/2019	03:24	H191122AA	50
MEC29284	HA22S56.D	1033183DL	04/23/2019	03:45	H191122AA	10
MEC29284	HA22S57.D	1034265DL	04/23/2019	04:07	H191122AA	10
MEC29284	HA22S58.D	1034272	04/23/2019	04:28	H191122AA	5
MEC29284	HA22S59.D	1034272DL	04/23/2019	04:49	H191122AA	50
MEC29284	HA22S60.D	1034277	04/23/2019	05:11	H191122AA	10
MEC29284	HA22S61.D	1034279	04/23/2019	05:32	H191122AA	25
MEC29284	HA22S75.D	1034109	04/23/2019	05:54	H191123AA	
MEC29284	HA22S76.D	1034110	04/23/2019	06:15	H191123AA	
MEC29284	HA22S77.D	1034111	04/23/2019	06:36	H191123AA	
MEC29284	HA22S78.D	1034112	04/23/2019	06:58	H191123AA	
MEC29284	HA22S79.D	1034113	04/23/2019	07:20	H191123AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19930 **HP #31**

Data Directory Path is - D:\DATA\19APR24a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
JKH09052	IA24T01.D	50NGBFB	04/24/2019	08:06		
JKH09052	IA24T02.D	50NGBFB	04/24/2019	08:18		
JKH09052	IA24T03.D	50NGBFB	04/24/2019	08:42		
jkh09052	IA24X00.D	VBLKI33	04/24/2019	09:07	I191141AA	
jkh09052	IA24C01.D	VSTD010	04/24/2019	09:28	I191141AA	
jkh09052	IA24C02.D	VSTD010	04/24/2019	09:49	I191141AA	
jkh09052	IA24L01.D	LCSI33	04/24/2019	10:10	I191141AA	
jkh09052	IA24L02.D	LCDI33	04/24/2019	10:31	I191141AA	
jkh09052	IA24L03.D	LCSI34	04/24/2019	10:53	I191141AA	
jkh09052	IA24L04.D	LCDI34	04/24/2019	11:14	I191141AA	
jkh09052	IA24M01.D	MDLI33	04/24/2019	11:35	I191141AA	
jkh09052	IA24B01.D	VBLKI33	04/24/2019	11:56	I191141AA	
jkh09052	IA24S02.D	1034114	04/24/2019	12:19	I191141AA	
jkh09052	IA24S03.D	1034115	04/24/2019	12:40	I191141AA	
jkh09052	IA24S04.D	1034101	04/24/2019	13:01	I191141AA	
jkh09052	IA24S05.D	1034102	04/24/2019	13:22	I191141AA	
jkh09052	IA24S06.D	1034103	04/24/2019	13:43	I191141AA	
jkh09052	IA24S07.D	1034104	04/24/2019	14:04	I191141AA	
jkh09052	IA24S08.D	1034105MS	04/24/2019	14:25	I191141AA	
jkh09052	IA24S09.D	1034106MSD	04/24/2019	14:47	I191141AA	
jkh09052	IA24S10.D	1034105MS	04/24/2019	15:08	I191141AA	
jkh09052	IA24S11.D	1034106MSD	04/24/2019	15:29	I191141AA	
jkh09052	IA24S12.D	1034107	04/24/2019	15:51	I191141AA	
jkh09052	IA24S13.D	1034108	04/24/2019	16:12	I191141AA	
jkh09052	IA24S14.D	1034103DL	04/24/2019	16:33	I191141AA	4
jkh09052	IA24S15.D	1034101DL	04/24/2019	16:54	I191141AA	2
jkh09052	IA24S37.D	1033957DL	04/24/2019	17:15	I191142AA	20
jkh09052	IA24S38.D	1033958DL	04/24/2019	17:36	I191142AA	20
jkh09052	IA24S39.D	1033959	04/24/2019	17:57	I191142AA	2
jkh09052	IA24S40.D	1033959DL	04/24/2019	18:19	I191142AA	20
jkh09052	IA24S41.D	1033960DL	04/24/2019	18:40	I191142AA	20
jkh09052	IA24S42.D	1033961DL	04/24/2019	19:01	I191142AA	20
jkh09052	IA24S43.D	1033962DL	04/24/2019	19:22	I191142AA	20
jkh09052	IA24S44.D	1033963DL	04/24/2019	19:44	I191142AA	20
jkh09052	IA24S45.D	1033964DL	04/24/2019	20:05	I191142AA	20

Data File: /chem2/HP09355.i/19jan21c.b/yj21t51.d

Date : 21-JAN-2019 07:03

Client ID: BFBAug7-2018

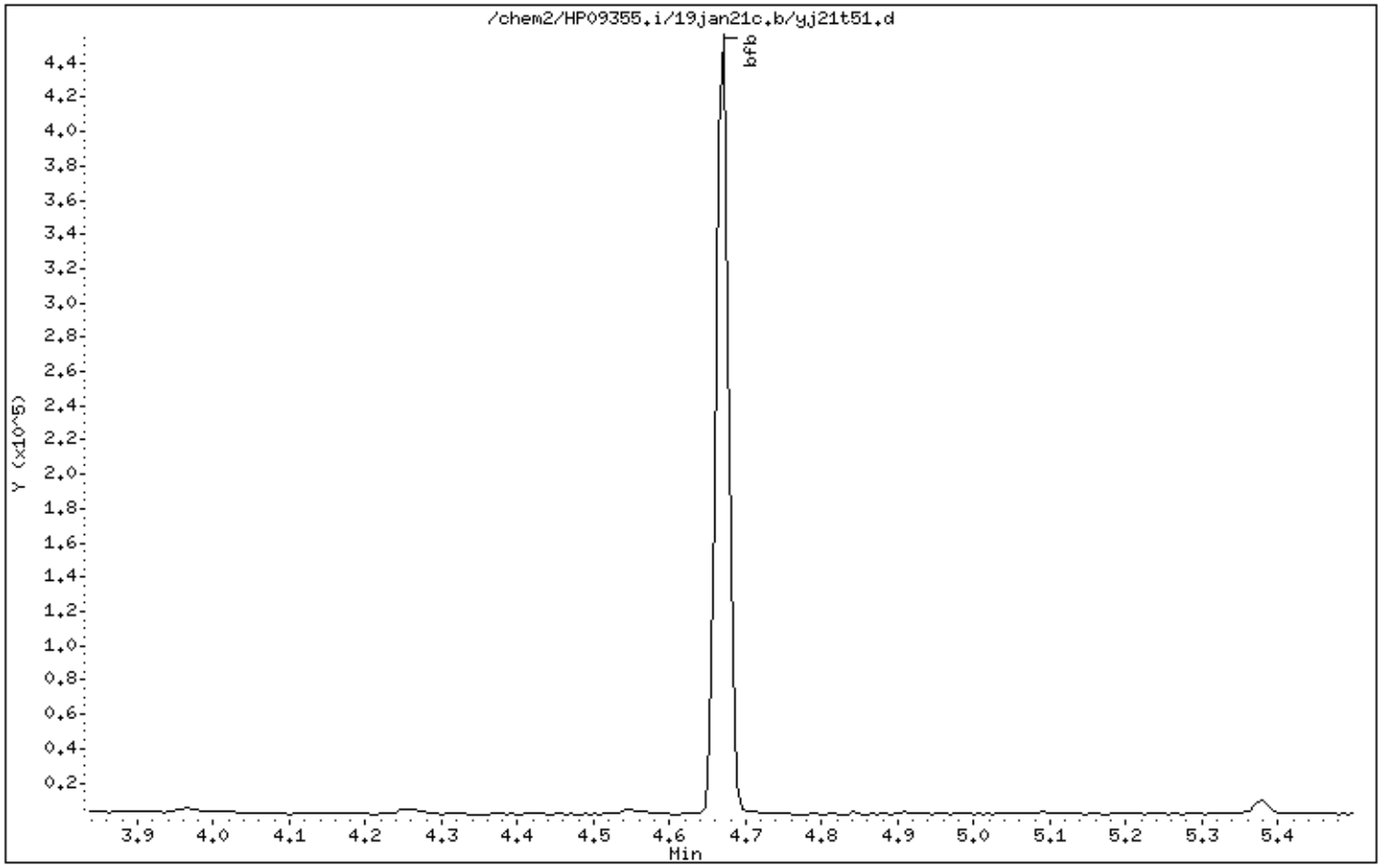
Instrument: HP09355.i

Sample Info: BFBAug7-2018;50NGBFB;1;2;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



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Target 3.5 esignature user ID: lcp00895

Data File: /chem2/HP09355.i/19jan21c.b/yj21t51.d

Date : 21-JAN-2019 07:03

Client ID: BFBAug7-2018

Instrument: HP09355.i

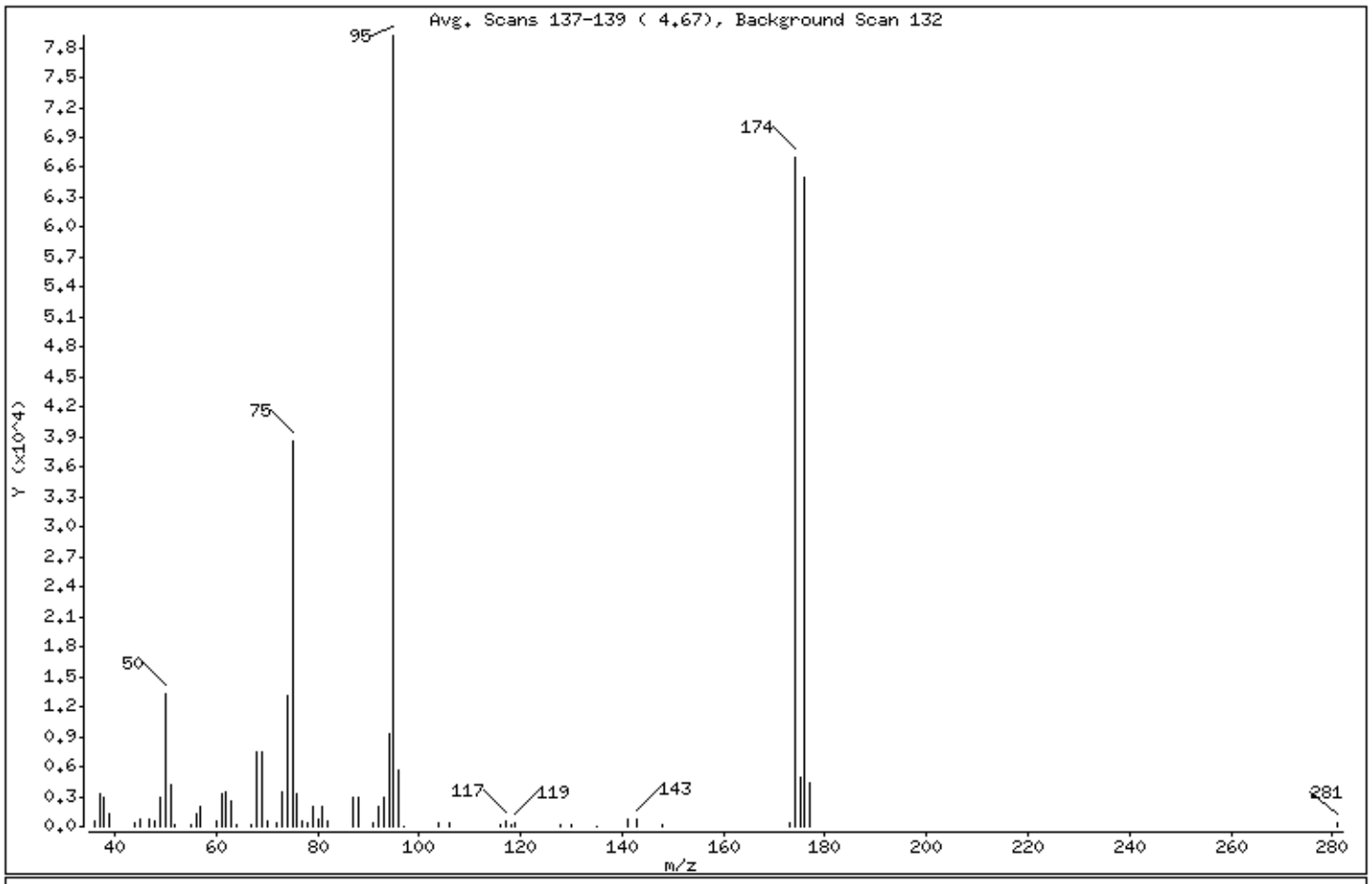
Sample Info: BFBAug7-2018;50NGBFB;1;2;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.70
75	30.00 - 60.00% of mass 95	48.73
96	5.00 - 9.00% of mass 95	7.04
173	Less than 2.00% of mass 174	0.39 (0.46)
174	50.00 - 100.00% of mass 95	84.49
175	5.00 - 9.00% of mass 174	6.23 (7.38)
176	95.00 - 101.00% of mass 174	82.15 (97.24)
177	5.00 - 9.00% of mass 176	5.42 (6.60)

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Target 3.5 esignature user ID: lcp00895

Data File: /chem2/HP09355.i/19jan21c.b/yj21t51.d

Date : 21-JAN-2019 07:03

Client ID: BFBAug7-2018

Instrument: HP09355.i

Sample Info: BFBAug7-2018;50NGBFB;1;2;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: yj21t51.d
Spectrum: Avg. Scans 137-139 (4.67), Background Scan 132
Location of Maximum: 95.00
Number of points: 62

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	637	61.00	3295	80.00	638	118.00	242
37.00	3352	62.00	3434	81.00	2056	119.00	439
38.00	2933	63.00	2500	82.00	505	128.00	235
39.00	1251	64.00	213	87.00	2883	130.00	221
44.00	388	67.00	109	88.00	2990	135.00	87
45.00	721	68.00	7524	91.00	355	141.00	687
47.00	700	69.00	7519	92.00	1929	143.00	748
48.00	472	70.00	615	93.00	2993	148.00	177
49.00	2876	72.00	334	94.00	9352	173.00	309
50.00	13227	73.00	3407	95.00	79192	174.00	66912
51.00	4138	74.00	13134	96.00	5572	175.00	4936
52.00	116	75.00	38592	97.00	88	176.00	65064
55.00	175	76.00	3217	104.00	412	177.00	4294
56.00	1220	77.00	475	106.00	391	281.00	276
57.00	2036	78.00	389	116.00	217		
60.00	619	79.00	1996	117.00	495		

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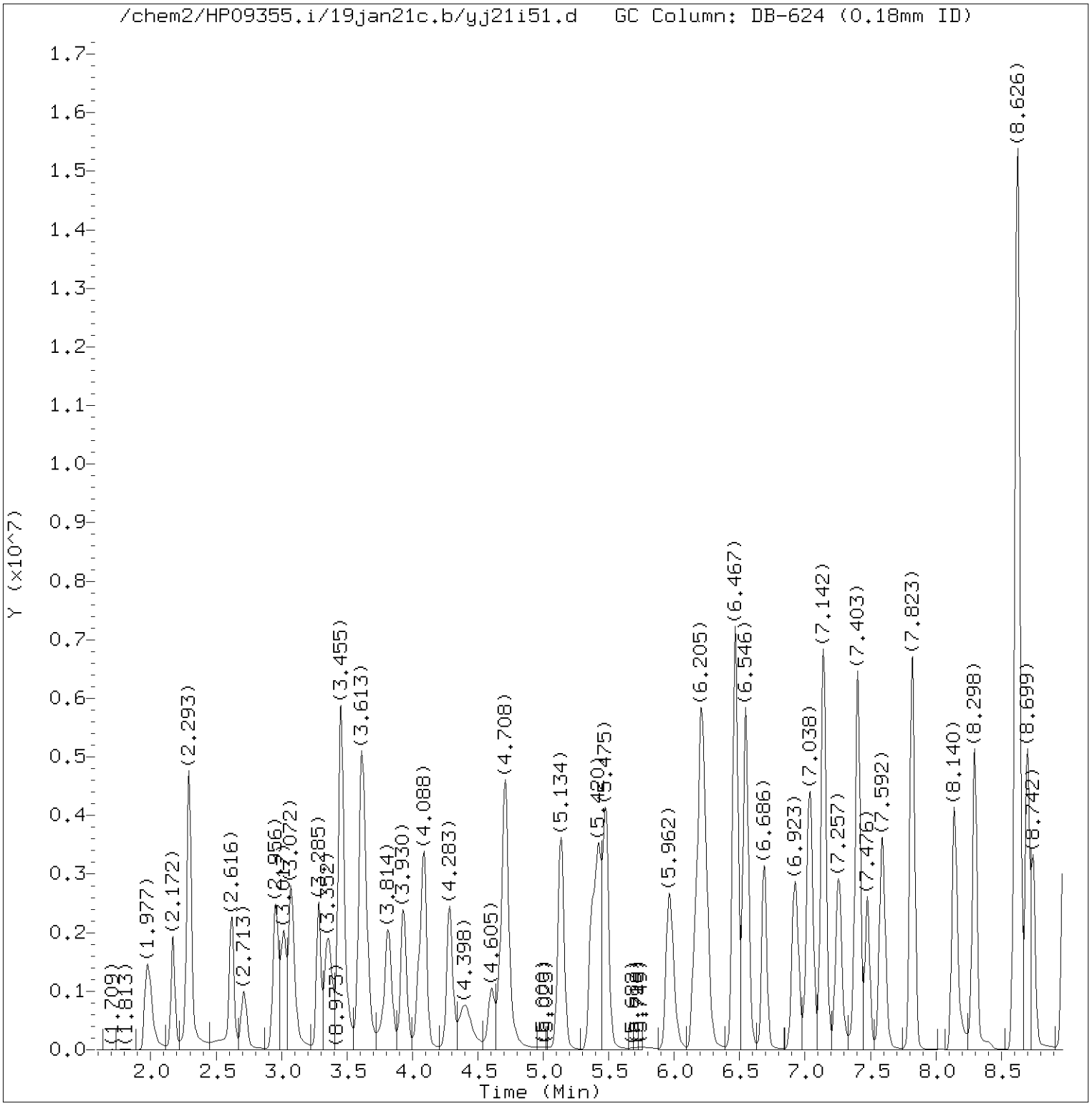
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

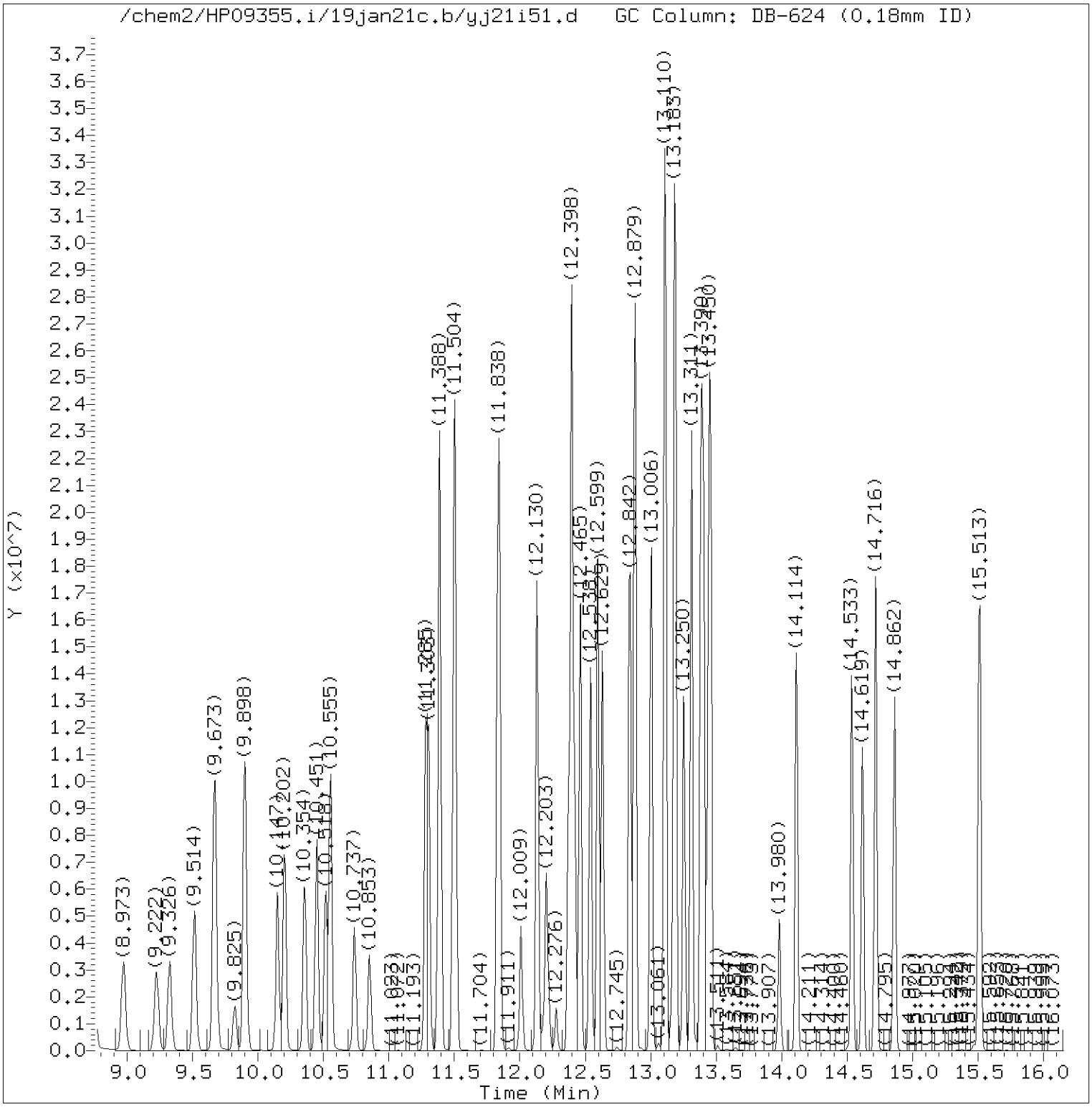
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.977	85	3471461	300.000
4) Chloromethane	(2)	2.172	50	2590817	300.000
6) Vinyl Chloride	(2)	2.287	62	2665437	300.000
5) 1,3-Butadiene	(2)	2.293	39	1936494	300.000
8) Bromomethane	(2)	2.616	94	1997080	300.000
9) Chloroethane	(2)	2.713	64	1447186	300.000
10) Dichlorofluoromethane	(2)	2.950	67	3097450	300.000
12) Trichlorofluoromethane	(2)	3.017	101	3926219	300.000
11) n-Pentane	(2)	3.072	43	2916998	300.000
14) Ethyl ether	(2)	3.285	59	1899448	300.000
15) Freon 123a	(2)	3.352	67	2182809	300.000
16) Acrolein	(1)	3.455	56	8616558	3000.000
17) 1,1-Dichloroethene	(2)	3.607	96	1704908	300.000
17) 1,1-Dichloroethene	(2)	3.607	63	381577	300.000
18) Acetone	(1)	3.619	58	858629	600.000
19) Freon 113	(2)	3.632	101	1930149	300.000
21) 2-Propanol	(1)	3.784	45	1472162	1500.000
22) Methyl Iodide	(2)	3.814	142	3279900	300.000
23) Carbon Disulfide	(2)	3.930	76	5687102	300.000
27) Methyl Acetate	(2)	4.051	43	2903770	300.000
25) Allyl Chloride	(2)	4.088	41	3027940	300.000
29)*t-Butyl alcohol-d10	(1)	4.276	65	391431	250.000
28) Methylene Chloride	(2)	4.283	84	1962822	300.000
30) t-Butyl alcohol	(1)	4.404	59	2992053	1500.000
31) Acrylonitrile	(2)	4.605	53	1520261	300.000
33) Methyl Tertiary Butyl Ether	(2)	4.690	73	5138805	300.000
32) trans-1,2-Dichloroethene	(2)	4.714	96	1980002	300.000
34) n-Hexane	(2)	5.134	57	3193174	300.000
36) 1,1-Dichloroethane	(2)	5.371	63	3418818	300.000
38) di-Isopropyl ether	(2)	5.420	45	5987718	300.000
39) 2-Chloro-1,3-butadiene	(2)	5.481	53	3220047	300.000
40) Ethyl t-butyl ether	(2)	5.962	59	4692604	300.000
43) 1,2-Dichloroethene (Total)	(2)		96	4238117	600.000
44) 2-Butanone	(2)	6.162	43	4457348	600.000
42) cis-1,2-Dichloroethene	(2)	6.205	96	2258115	300.000
45) 2,2-Dichloropropane	(2)	6.223	77	2899272	300.000
47) Propionitrile	(1)	6.241	54	3281565	1500.000
48) Methacrylonitrile	(2)	6.467	67	4099550	750.000

* = Compound is an internal standard.

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on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.546	128	1265616	300.000
50) Tetrahydrofuran	(1)	6.552	71	1343312	600.000
51) Chloroform	(2)	6.686	83	3531947	300.000
52)$Dibromofluoromethane	(2)	6.905	113	313764	50.000
52)$Dibromofluoromethane	(2)	6.905	111	321115	50.000
53) 1,1,1-Trichloroethane	(2)	6.929	97	3211476	300.000
54) Cyclohexane	(2)	7.038	56	3684535	300.000
54) Cyclohexane	(2)	7.038	84	3294444	300.000
54) Cyclohexane	(2)	7.038	69	1189659	300.000
55) 1,1-Dichloropropene	(2)	7.142	75	2820487	300.000
56) Carbon Tetrachloride	(2)	7.142	117	2940778	300.000
58) Isobutyl Alcohol	(1)	7.257	41	2516402	3750.000
57)$1,2-Dichloroethane-d4	(2)	7.373	102	78008	50.000
57)$1,2-Dichloroethane-d4	(2)	7.373	65	380409	50.000
57)$1,2-Dichloroethane-d4	(2)	7.373	104	49313	50.000
60) Benzene	(2)	7.403	78	8111293	300.000
61) 1,2-Dichloroethane	(2)	7.476	62	2817495	300.000
61) 1,2-Dichloroethane	(2)	7.476	98	261260	300.000
65) t-Amyl methyl ether	(2)	7.592	73	4637576	300.000
66)*Fluorobenzene	(2)	7.811	96	1291999	50.000
67) n-Heptane	(2)	7.823	43	3440338	300.000
69) n-Butanol	(1)	8.140	56	4581539	7500.000
71) Trichloroethene	(2)	8.298	95	2232551	300.000
72) Methylcyclohexane	(2)	8.614	83	4435923	300.000
72) Methylcyclohexane	(2)	8.614	98	2028450	300.000
73) 1,2-Dichloropropane	(2)	8.632	63	2101650	300.000
76) Methyl Methacrylate	(2)	8.699	69	2561609	300.000
75) 1,4-Dioxane	(1)	8.711	88	625787M	3750.000
74) Dibromomethane	(2)	8.742	93	1494667	300.000
78) Bromodichloromethane	(2)	8.973	83	2769592	300.000
79) 2-Nitropropane	(2)	9.222	41	2407153	600.000
80) 2-Chloroethyl Vinyl Ether	(2)	9.326	63	1782768	300.000
81) cis-1,3-Dichloropropene	(2)	9.514	75	3565873	300.000
82) 4-Methyl-2-pentanone	(2)	9.673	43	8012059	600.000
83)$Toluene-d8	(3)	9.825	98	1298723	50.000
83)$Toluene-d8	(3)	9.825	100	843895	50.000
88) Toluene	(3)	9.898	92	5434832	300.000
90) 1,3-Dichloropropene (total)	(3)		100	7047680	600.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	3481807	300.000
91) Ethyl Methacrylate	(3)	10.202	69	4090154	300.000
92) 1,1,2-Trichloroethane	(3)	10.354	97	2140140	300.000
93) Tetrachloroethene	(3)	10.451	166	2431169	300.000
94) 1,3-Dichloropropane	(3)	10.518	76	3541505	300.000
96) 2-Hexanone	(3)	10.555	43	6485290	600.000
97) Dibromochloromethane	(3)	10.737	129	2485457	300.000
99) 1,2-Dibromoethane	(3)	10.853	107	2436093	300.000
100)*Chlorobenzene-d5	(3)	11.279	117	1005540	50.000
101) 1-Chlorohexane	(3)	11.279	91	3048452	300.000
102) Chlorobenzene	(3)	11.303	112	6157138	300.000
104) Ethylbenzene	(3)	11.388	91	10407512	300.000
103) 1,1,1,2-Tetrachloroethane	(3)	11.388	131	2267557	300.000
106) m+p-Xylene	(3)	11.504	106	8451466	600.000
108) Xylene (Total)	(3)		106	12662061	900.000
107) o-Xylene	(3)	11.832	106	4210595	300.000
109) Styrene	(3)	11.844	104	7150754	300.000
110) Bromoform	(3)	12.009	173	1990401	300.000
111) Isopropylbenzene	(3)	12.130	105	10469500	300.000
112) Cyclohexanone	(1)	12.203	55	2888724	3750.000
114)$4-Bromofluorobenzene	(3)	12.276	95	499773	50.000
114)$4-Bromofluorobenzene	(3)	12.282	174	410801	50.000
116) 1,1,2,2-Tetrachloroethane	(4)	12.368	83	3716966	300.000
118) trans-1,4-Dichloro-2-butene	(4)	12.398	53	3087275	750.000
115) Bromobenzene	(4)	12.398	156	2861268	300.000
117) 1,2,3-Trichloropropane	(4)	12.422	110	1251348	300.000
119) n-Propylbenzene	(4)	12.465	91	11800278	300.000
120) 2-Chlorotoluene	(4)	12.538	126	2644297	300.000
122) 1,3,5-Trimethylbenzene	(4)	12.599	105	9345841	300.000
121) 4-Chlorotoluene	(4)	12.629	126	2795499	300.000
124) tert-Butylbenzene	(4)	12.842	134	2077292M	300.000
125) Pentachloroethane	(4)	12.873	167	1842611	300.000
126) 1,2,4-Trimethylbenzene	(4)	12.879	105	9713518	300.000
127) sec-Butylbenzene	(4)	13.006	105	11560482	300.000
129) 1,3-Dichlorobenzene	(4)	13.104	146	5392797	300.000
130) p-Isopropyltoluene	(4)	13.110	119	10458108	300.000
131)*1,4-Dichlorobenzene-d4	(4)	13.165	152	557543	50.000
133) 1,4-Dichlorobenzene	(4)	13.183	146	5483768	300.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

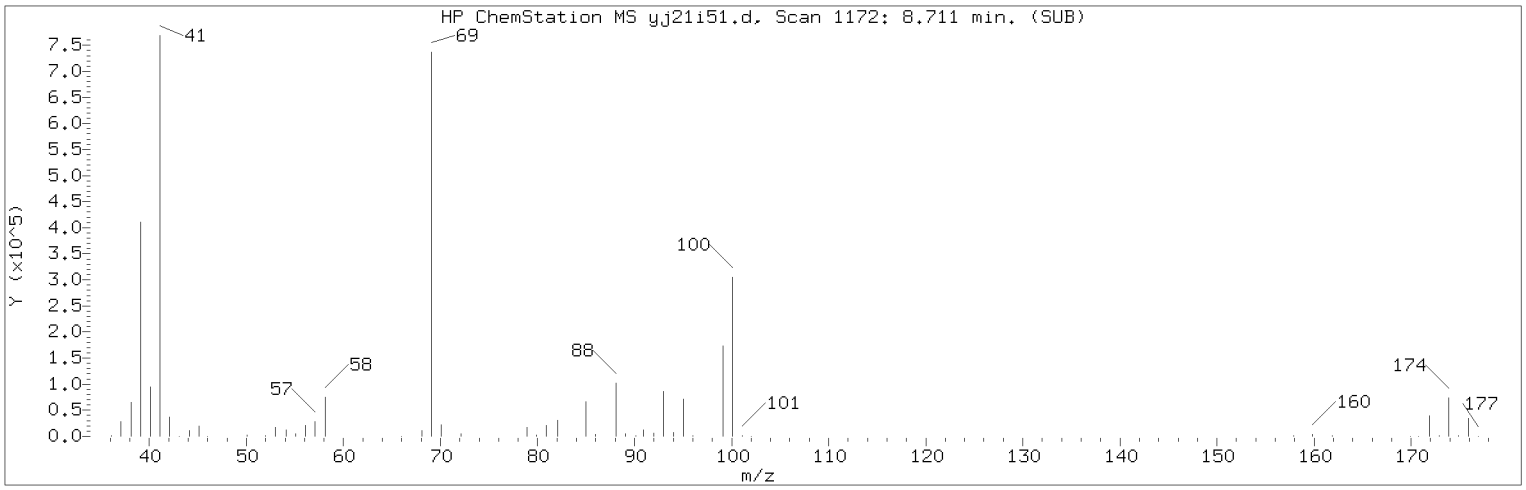
Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.189	105	10238670	300.000
135) Benzyl Chloride	(4)	13.250	91	8564576	300.000
136) 1,3-Diethylbenzene	(4)	13.311	119	6739847	300.000
141) Diethylbenzene (total)	(4)		100	19524633	900.000
137) 1,4-Diethylbenzene	(4)	13.384	119	7144819	300.000
139) n-Butylbenzene	(4)	13.402	92	5500418M	300.000
138) 1,2-Dichlorobenzene	(4)	13.438	146	5263887	300.000
140) 1,2-Diethylbenzene	(4)	13.457	119	5639967	300.000
142) 1,2-Dibromo-3-chloropropane	(4)	13.980	75	1105796	300.000
144) 1,3,5-Trichlorobenzene	(4)	14.114	180	4122045	300.000
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	3856828	300.000
147) Hexachlorobutadiene	(4)	14.619	225	1784710	300.000
148) Naphthalene	(4)	14.716	128	12458540	300.000
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	3666076	300.000
150) 2-Methylnaphthalene	(4)	15.513	142	8314294	300.000

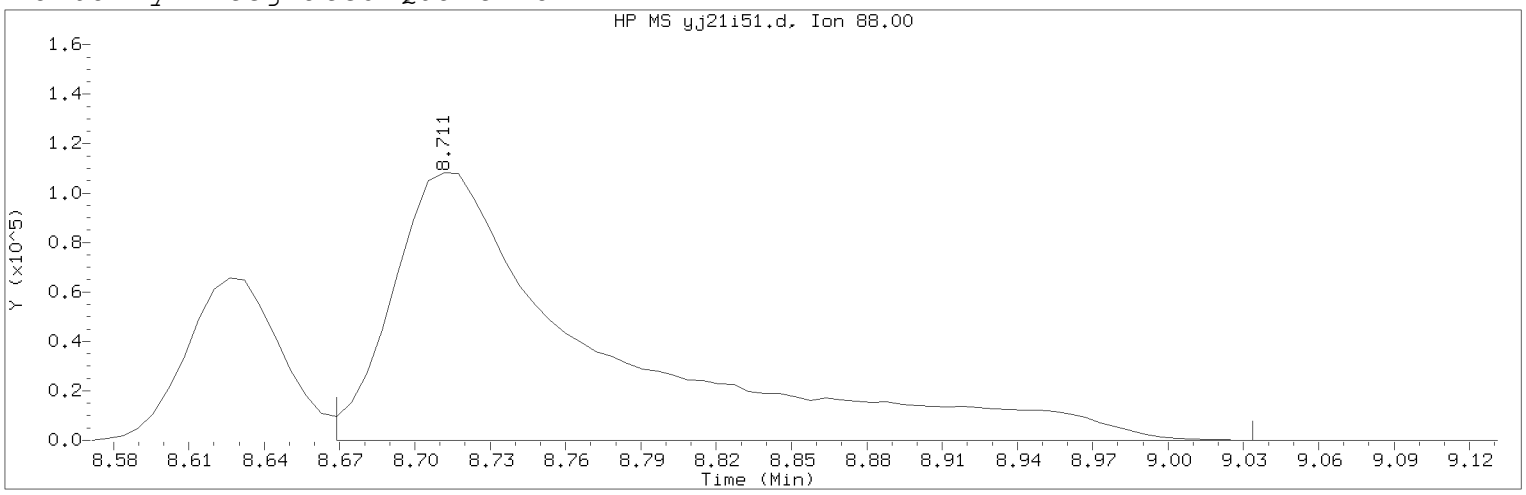
M = Compound was manually integrated.

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

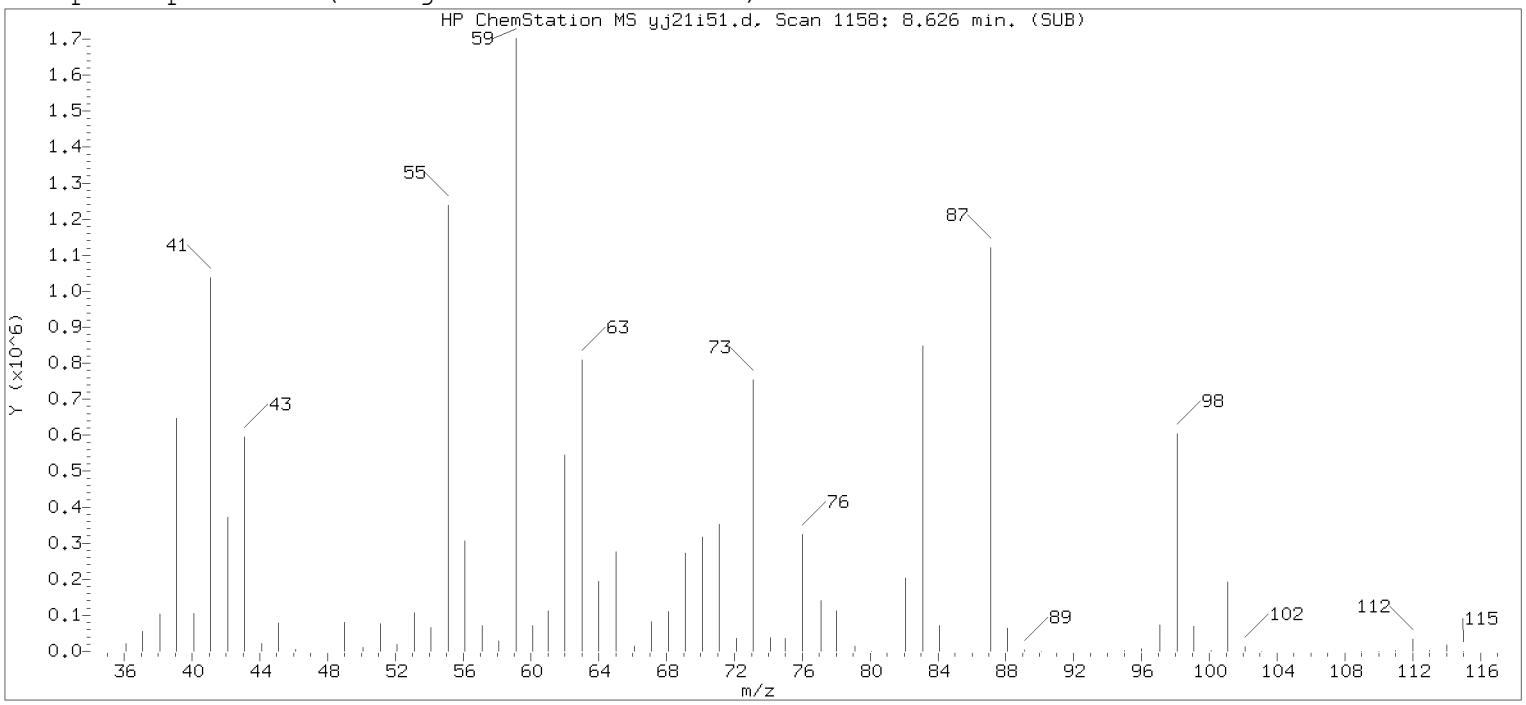
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area (flag) : 625787M
On-Column Amount (ng) : 3750.0000
Integration start scan : 1164 Integration stop scan: 1224
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

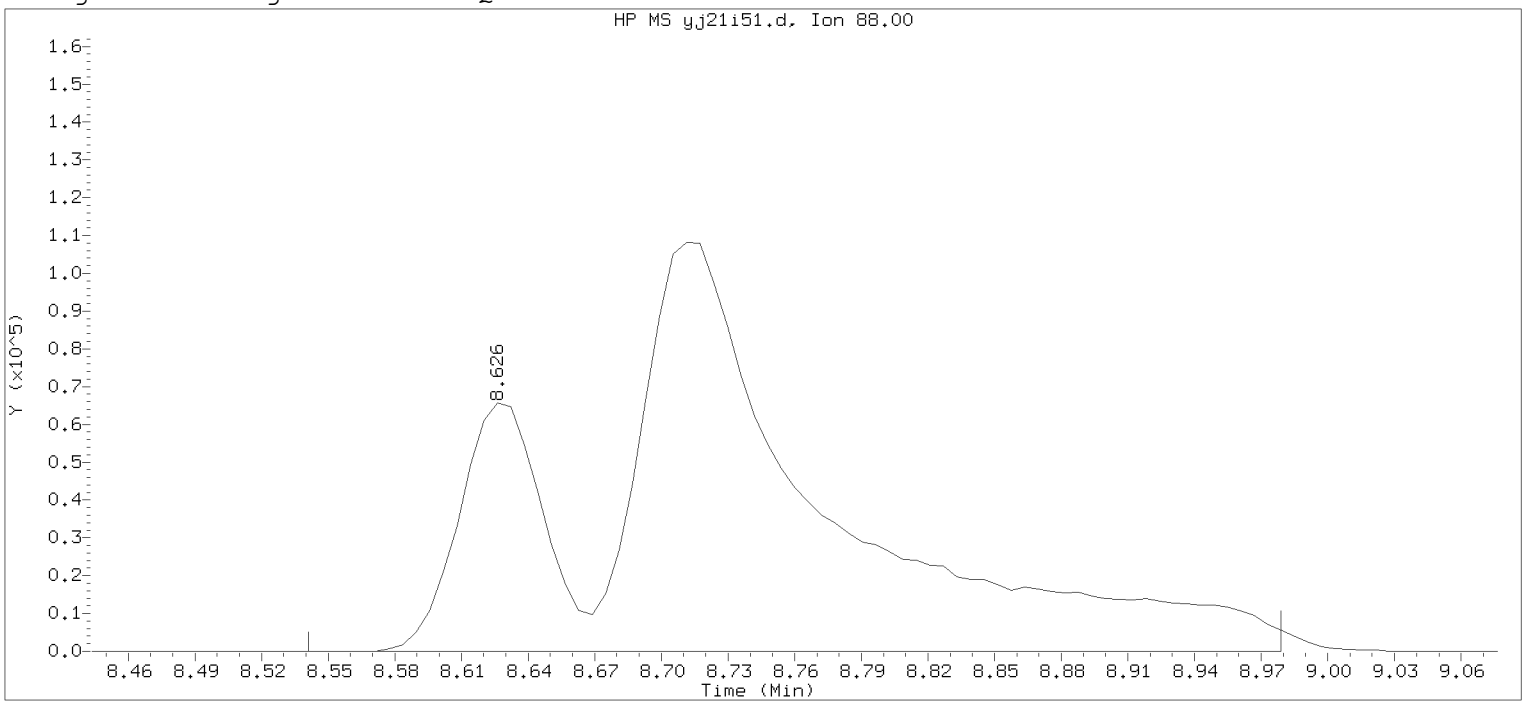
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

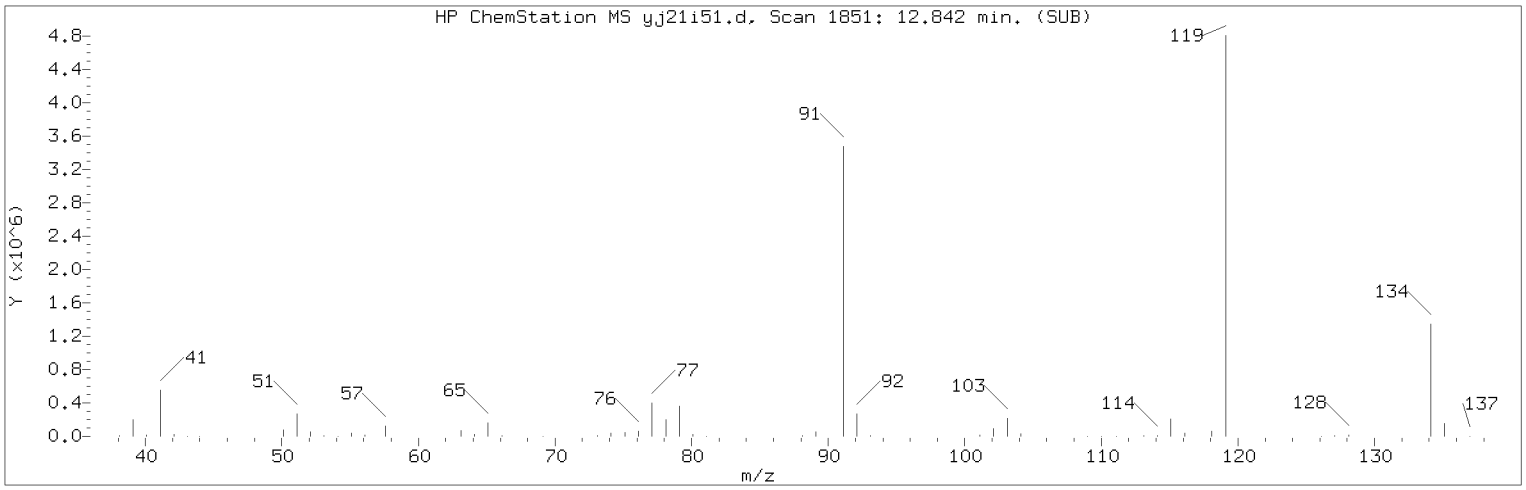
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD300 Lab Sample ID: VSTD300

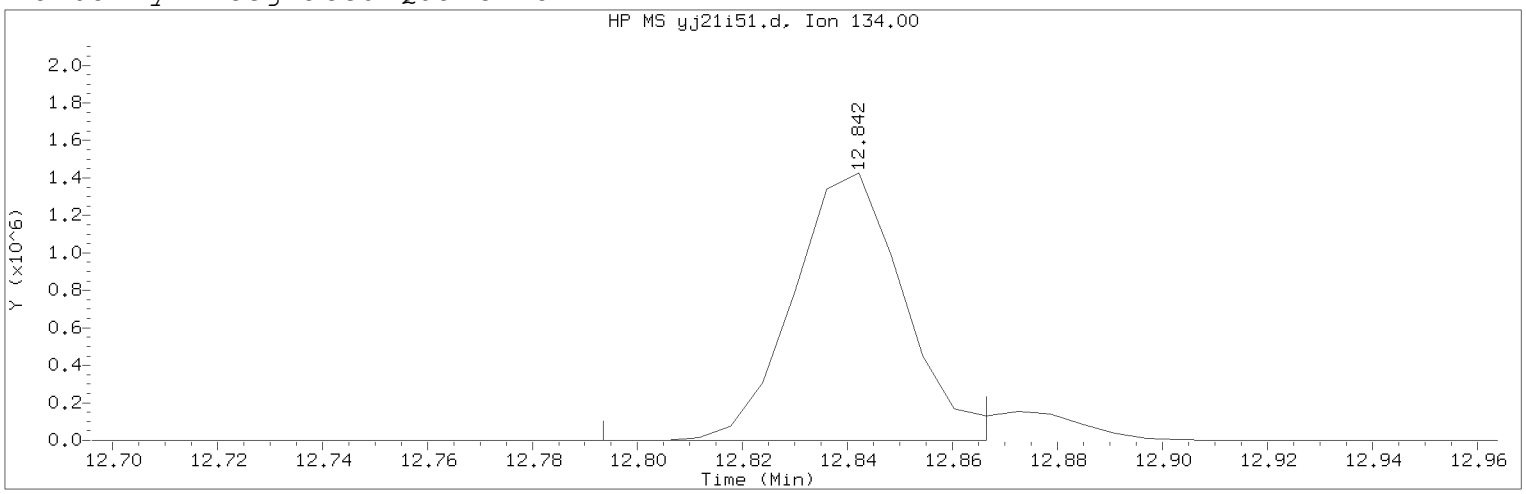
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1158
Retention Time (minutes): 8.626
Quant Ion : 88.00
Area : 791964
On-column Amount (ng) : 3750.0000
Integration start scan : 1143 Integration stop scan: 1215
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

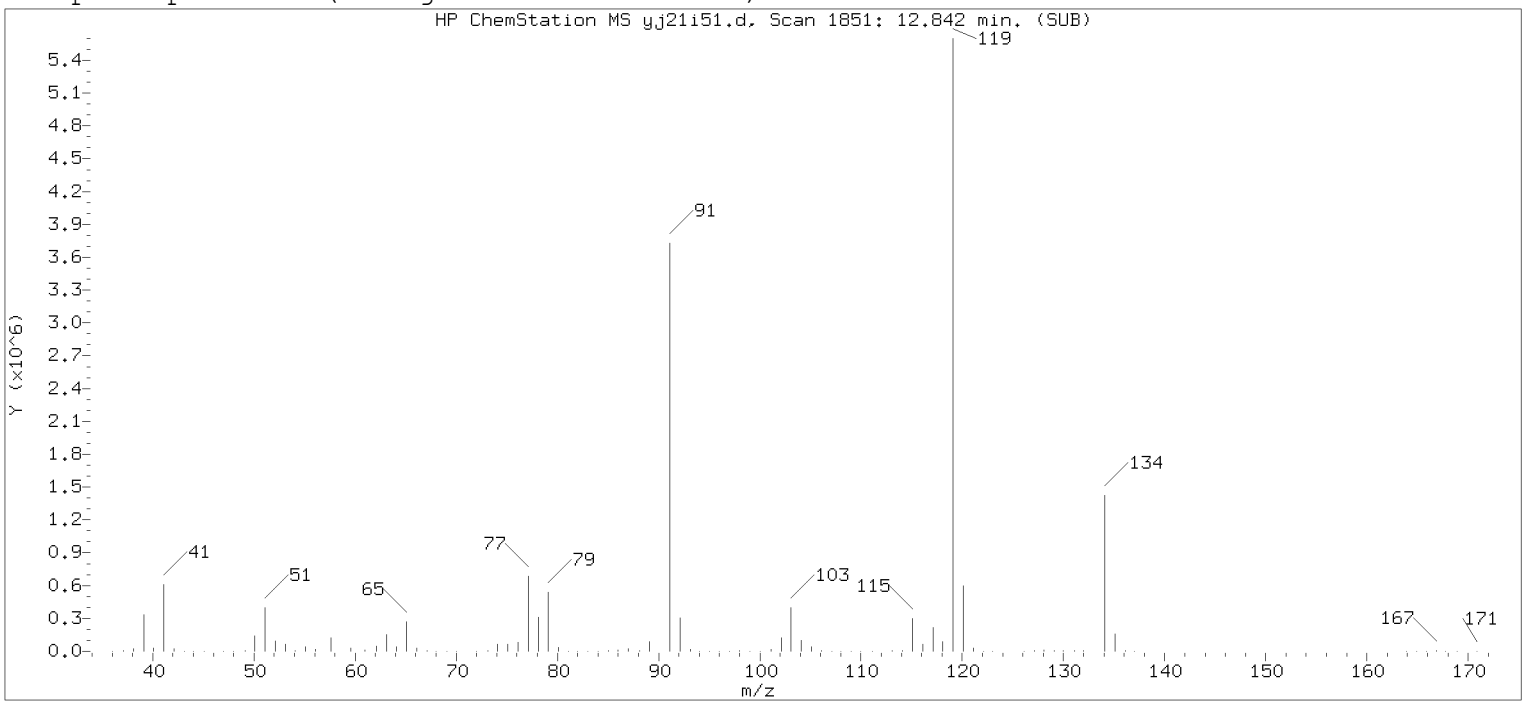
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1851
Retention Time (minutes): 12.842
Quant Ion : 134.00
Area (flag) : 2077292M
On-Column Amount (ng) : 300.0000
Integration start scan : 1842 Integration stop scan: 1854
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

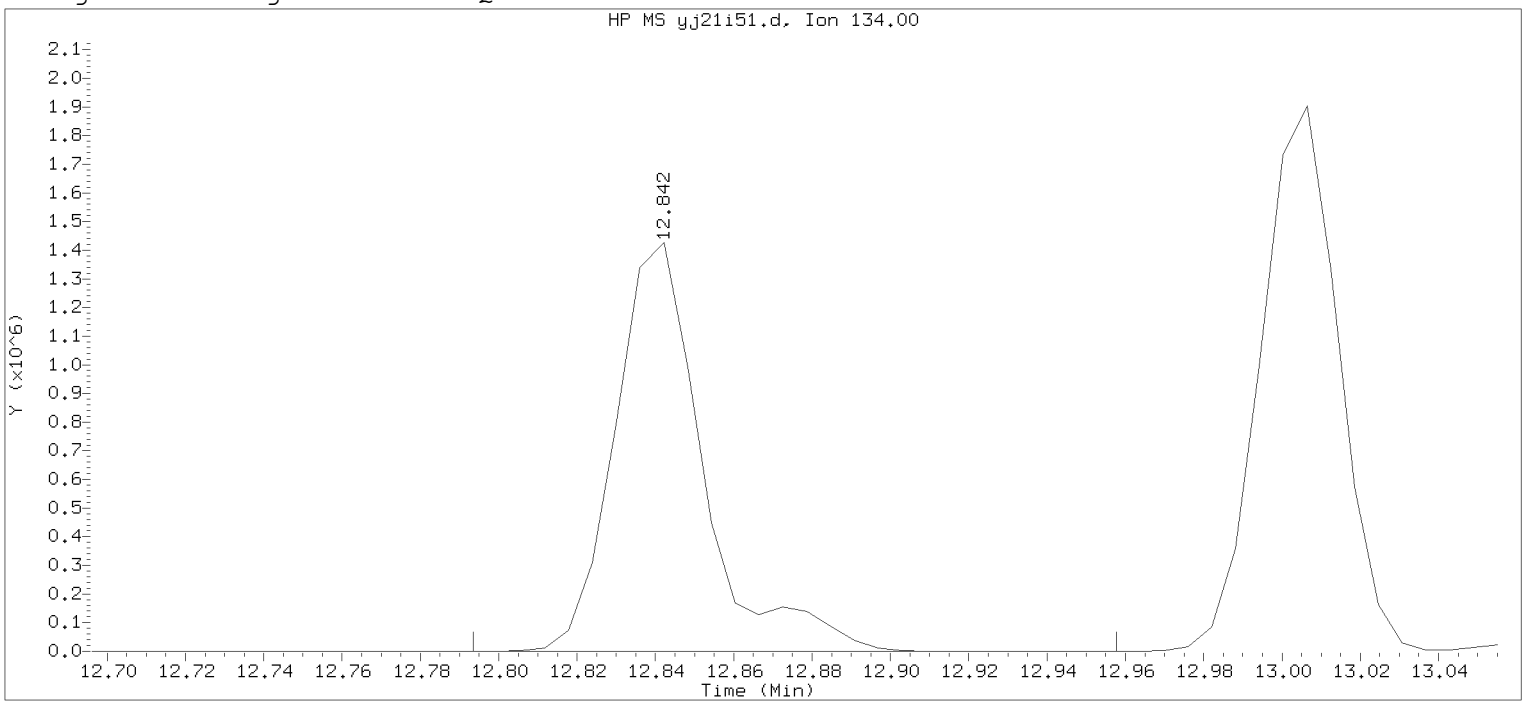
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1851
Retention Time (minutes): 12.842
Quant Ion : 134.00
Area : 2234596
On-column Amount (ng) : 300.0000
Integration start scan : 1842 Integration stop scan: 1869
Y at integration start : 0 Y at integration end: 0

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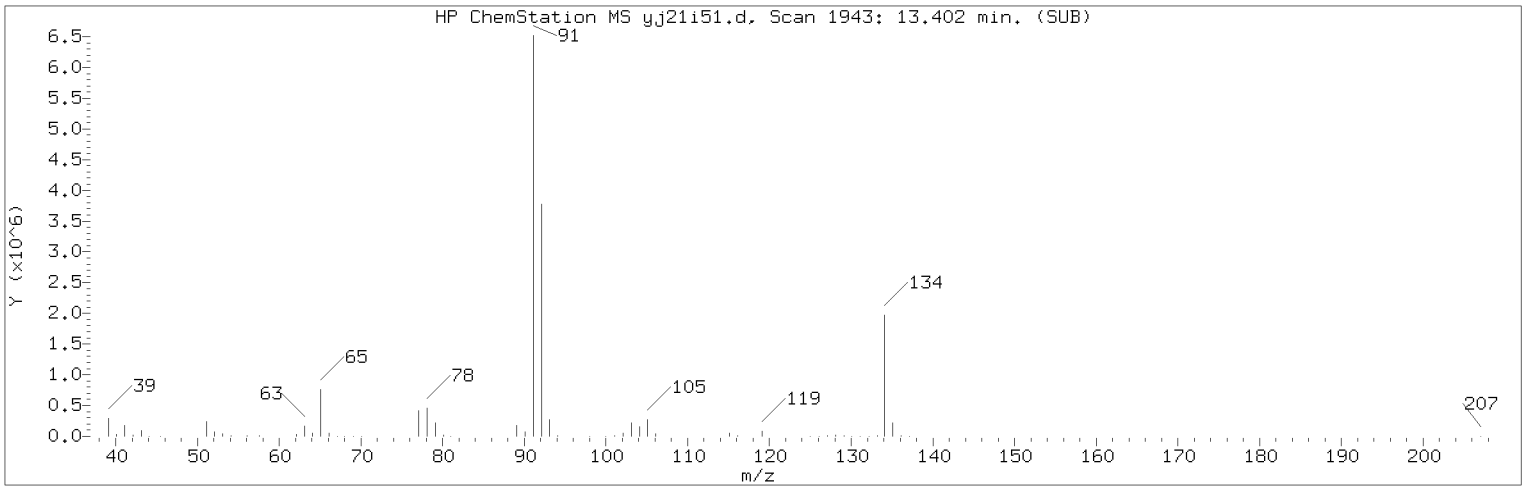
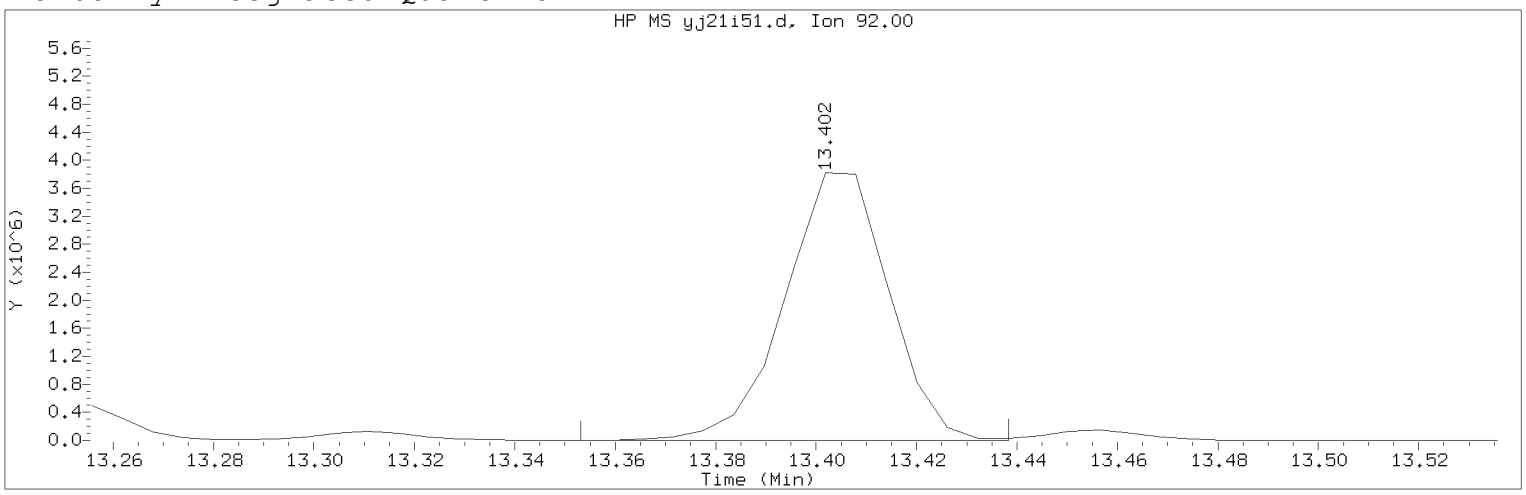
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:58 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

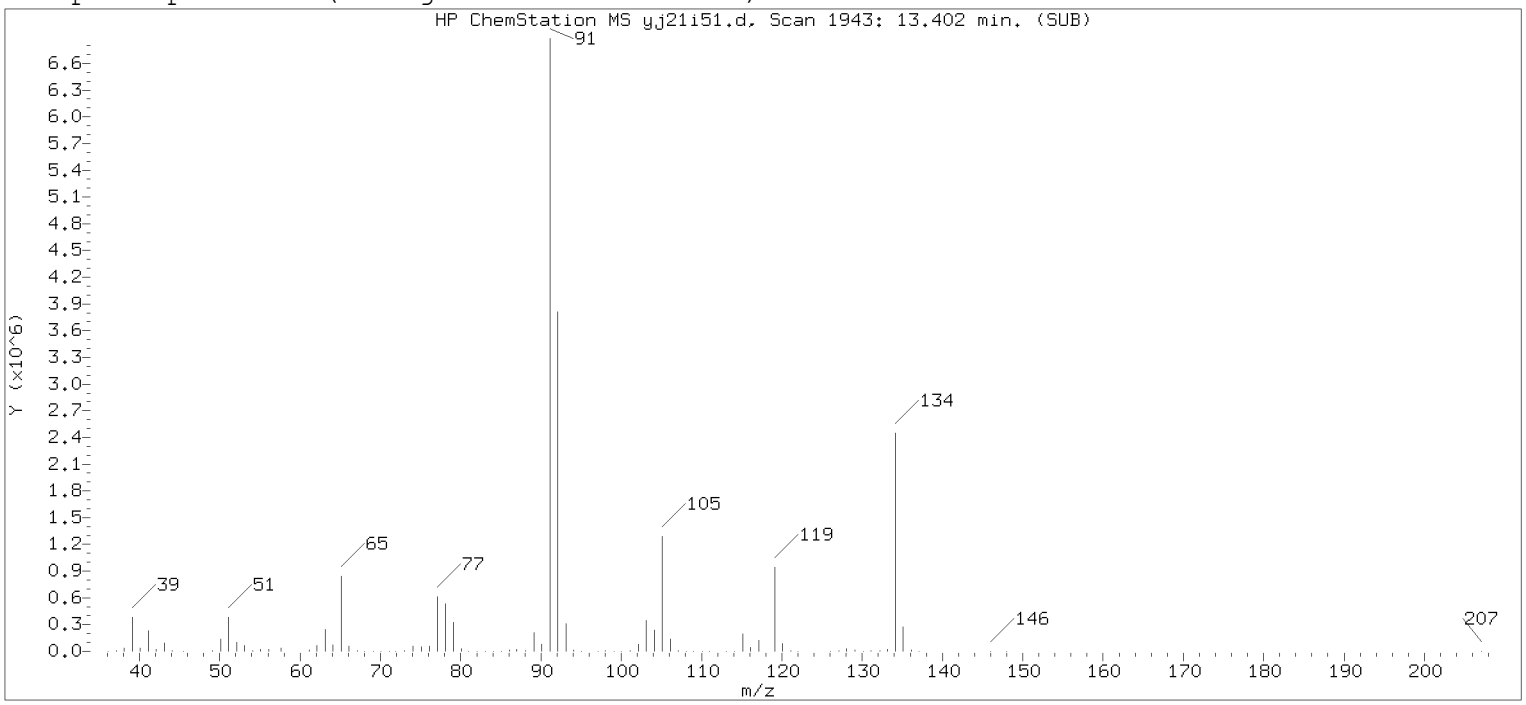
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area (flag) : 5500418M
On-Column Amount (ng) : 300.0000
Integration start scan : 1934 Integration stop scan: 1948
Y at integration start : 328 Y at integration end: 328

Reason for manual integration: improper integration

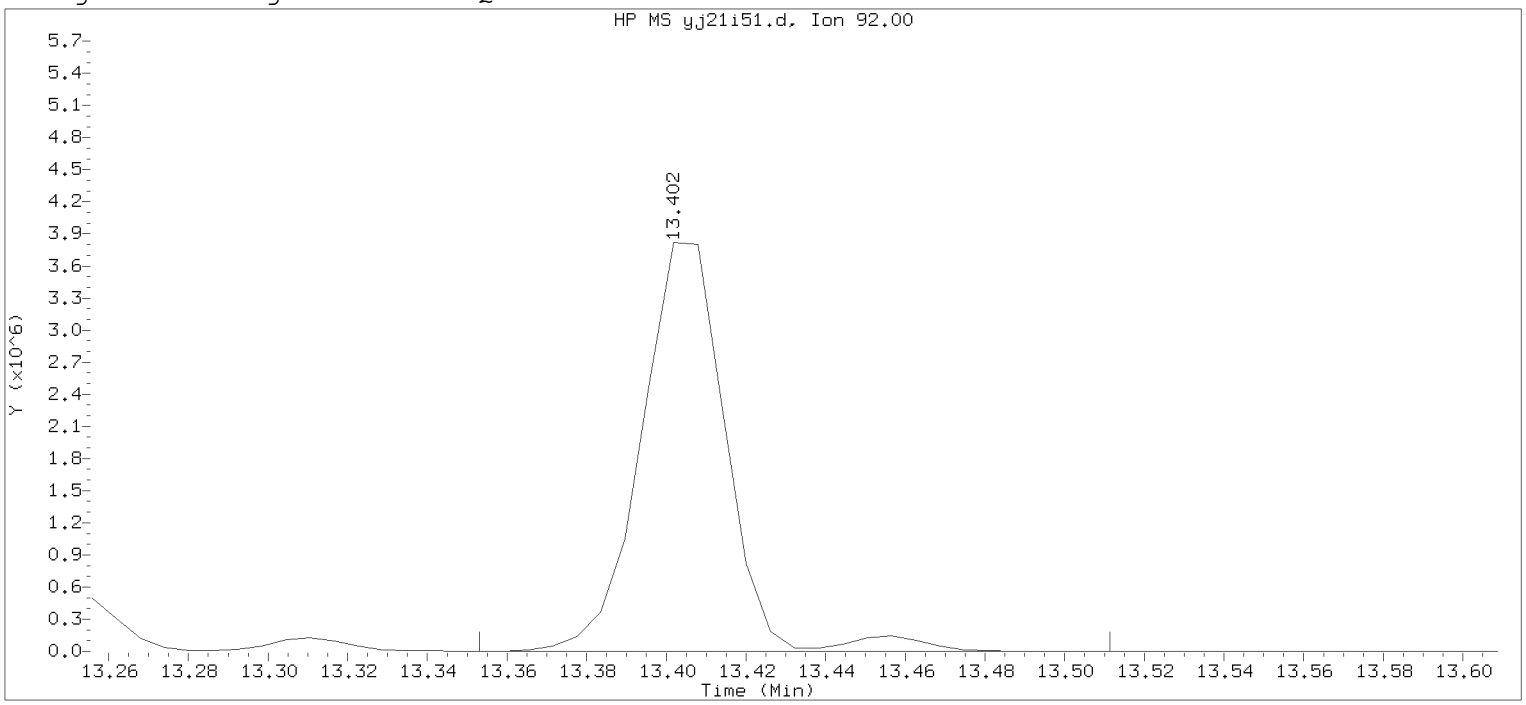
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



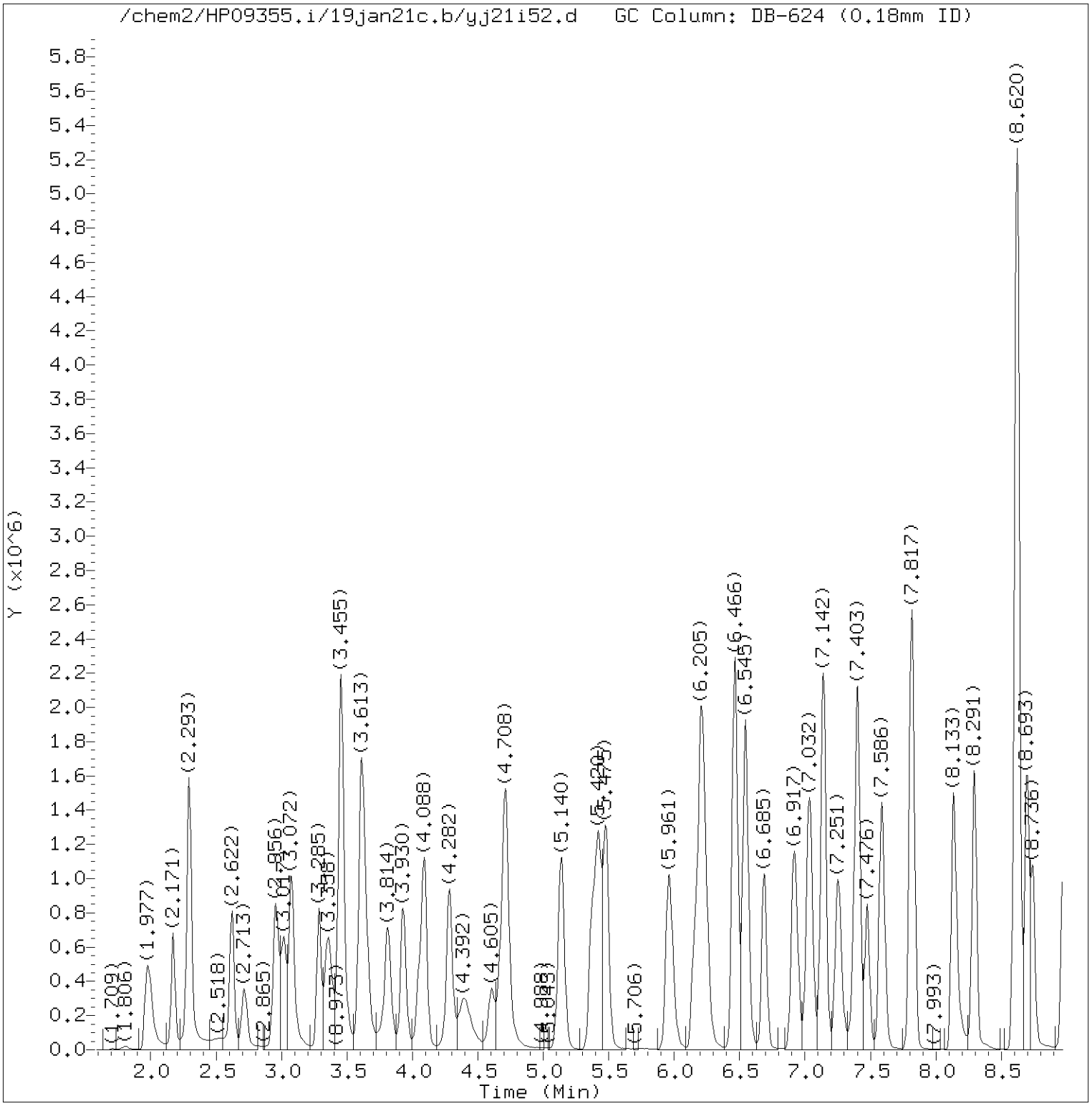
Data File: /chem2/HP09355.i/19jan21c.b/yj21i51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 07:47 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area : 5685303
On-column Amount (ng) : 300.0000
Integration start scan : 1934 Integration stop scan: 1960
Y at integration start : 328 Y at integration end: 328

Digitally signed by Linda C. Pape on 01/23/2019 at 08:08.
Target 3.5 esignature user [illegible]



Total Ion Chromatogram (TIC)

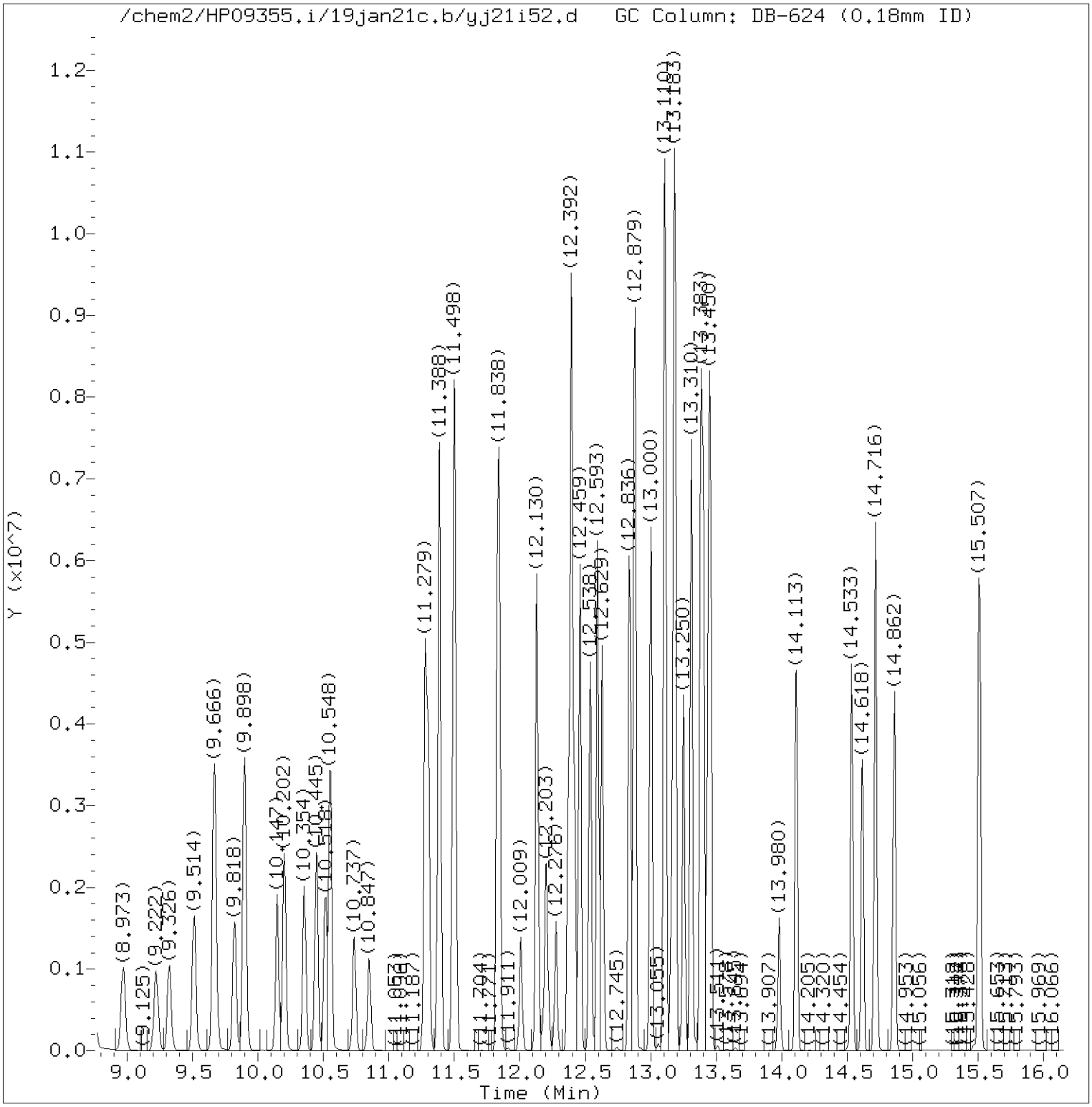
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.977	85	1164711	100.967
4) Chloromethane	(2)	2.171	50	897843	102.585
5) 1,3-Butadiene	(2)	2.293	39	645711	100.658
6) Vinyl Chloride	(2)	2.293	62	909320	101.800
8) Bromomethane	(2)	2.622	94	706718	103.630
9) Chloroethane	(2)	2.713	64	503546	102.786
10) Dichlorofluoromethane	(2)	2.950	67	1052279	101.591
12) Trichlorofluoromethane	(2)	3.017	101	1307235	100.584
11) n-Pentane	(2)	3.078	43	978485	100.957
14) Ethyl ether	(2)	3.285	59	631162	100.484
15) Freon 123a	(2)	3.358	67	742302M	101.641
16) Acrolein	(1)	3.455	56	3051907	985.415
17) 1,1-Dichloroethene	(2)	3.607	96	566301	100.465
17) 1,1-Dichloroethene	(2)	3.607	63	283299	138.576
18) Acetone	(1)	3.619	58	306412	197.834
19) Freon 113	(2)	3.631	101	637957	100.218
21) 2-Propanol	(1)	3.790	45	542978	502.832
22) Methyl Iodide	(2)	3.814	142	1109041	101.356
23) Carbon Disulfide	(2)	3.930	76	1895532	100.637
27) Methyl Acetate	(2)	4.051	43	972958	100.901
25) Allyl Chloride	(2)	4.094	41	1011575	100.753
29)*t-Butyl alcohol-d10	(1)	4.276	65	428236	250.000
28) Methylene Chloride	(2)	4.282	84	659699	101.054
30) t-Butyl alcohol	(1)	4.392	59	1118128	506.110
31) Acrylonitrile	(2)	4.605	53	520504	101.980
33) Methyl Tertiary Butyl Ether	(2)	4.690	73	1788872	102.809
32) trans-1,2-Dichloroethene	(2)	4.714	96	662323	100.817
34) n-Hexane	(2)	5.140	57	1032595	99.125
36) 1,1-Dichloroethane	(2)	5.371	63	1145107	100.882
38) di-Isopropyl ether	(2)	5.420	45	2069967	102.463
39) 2-Chloro-1,3-butadiene	(2)	5.481	53	1062136	100.116
40) Ethyl t-butyl ether	(2)	5.961	59	1724801	105.523
43) 1,2-Dichloroethene (Total)	(2)		96	1406318	200.876
44) 2-Butanone	(2)	6.156	43	1522212	203.705
42) cis-1,2-Dichloroethene	(2)	6.205	96	743995	100.059
45) 2,2-Dichloropropane	(2)	6.223	77	962326	100.429
47) Propionitrile	(1)	6.241	54	1121740	483.833
48) Methacrylonitrile	(2)	6.466	67	1346976	249.803

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.545	128	415619	99.895
50) Tetrahydrofuran	(1)	6.552	71	453670	192.326
51) Chloroform	(2)	6.685	83	1173159	100.465
52)$Dibromofluoromethane	(2)	6.904	113	312319	50.205
52)$Dibromofluoromethane	(2)	6.904	111	318788	50.139
53) 1,1,1-Trichloroethane	(2)	6.923	97	1046196	99.493
54) Cyclohexane	(2)	7.032	56	1206262	99.741
54) Cyclohexane	(2)	7.032	84	1081165	99.862
54) Cyclohexane	(2)	7.032	69	389029	99.684
55) 1,1-Dichloropropene	(2)	7.136	75	939485	100.605
56) Carbon Tetrachloride	(2)	7.142	117	943808	98.747
58) Isobutyl Alcohol	(1)	7.251	41	873534	1219.199
57)$1,2-Dichloroethane-d4	(2)	7.373	102	77260	50.080
57)$1,2-Dichloroethane-d4	(2)	7.373	65	377942	50.158
57)$1,2-Dichloroethane-d4	(2)	7.373	104	49906	50.619
60) Benzene	(2)	7.403	78	2708225	100.724
61) 1,2-Dichloroethane	(2)	7.476	62	938216	100.591
61) 1,2-Dichloroethane	(2)	7.476	98	87117	100.659
65) t-Amyl methyl ether	(2)	7.586	73	1782662	107.752
66)*Fluorobenzene	(2)	7.811	96	1275532	50.000
67) n-Heptane	(2)	7.823	43	1078581	97.576
69) n-Butanol	(1)	8.133	56	1577963	2428.578
71) Trichloroethene	(2)	8.291	95	727476	99.506
72) Methylcyclohexane	(2)	8.614	83	1395875	97.762
72) Methylcyclohexane	(2)	8.614	98	632940	97.340
73) 1,2-Dichloropropane	(2)	8.626	63	686393	99.621
76) Methyl Methacrylate	(2)	8.693	69	819244	98.572
75) 1,4-Dioxane	(1)	8.711	88	219999M	1227.104
74) Dibromomethane	(2)	8.742	93	482748	99.064
78) Bromodichloromethane	(2)	8.973	83	880983	98.301
79) 2-Nitropropane	(2)	9.222	41	791461	199.912
80) 2-Chloroethyl Vinyl Ether	(2)	9.326	63	563442	97.979
81) cis-1,3-Dichloropropene	(2)	9.514	75	1144759	98.761
82) 4-Methyl-2-pentanone	(2)	9.666	43	2783693	205.426
83)$Toluene-d8	(3)	9.818	98	1278469	50.286
83)$Toluene-d8	(3)	9.818	100	824813	50.107
88) Toluene	(3)	9.898	92	1791447	100.799
90) 1,3-Dichloropropene (total)	(3)		100	2255719	197.934

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	1110960	99.173
91) Ethyl Methacrylate	(3)	10.202	69	1324151	99.898
92) 1,1,2-Trichloroethane	(3)	10.354	97	693821	99.968
93) Tetrachloroethene	(3)	10.451	166	776100	99.197
94) 1,3-Dichloropropane	(3)	10.518	76	1159425	100.458
96) 2-Hexanone	(3)	10.548	43	2245456	206.513
97) Dibromochloromethane	(3)	10.737	129	779277	98.297
99) 1,2-Dibromoethane	(3)	10.847	107	788271	99.873
100)*Chlorobenzene-d5	(3)	11.272	117	978591	50.000
101) 1-Chlorohexane	(3)	11.279	91	962809	98.662
102) Chlorobenzene	(3)	11.303	112	2025407	100.697
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	719431	98.889
104) Ethylbenzene	(3)	11.388	91	3498652	101.781
106) m+p-Xylene	(3)	11.498	106	2799659	202.094
108) Xylene (Total)	(3)		106	4171025	302.293
107) o-Xylene	(3)	11.832	106	1371366	100.199
109) Styrene	(3)	11.844	104	2345393	100.551
110) Bromoform	(3)	12.009	173	605265	96.769
111) Isopropylbenzene	(3)	12.130	105	3560156	102.355
112) Cyclohexanone	(1)	12.203	55	996609	1215.344
114)$4-Bromofluorobenzene	(3)	12.276	95	490935	50.233
114)$4-Bromofluorobenzene	(3)	12.276	174	403670	50.241
116) 1,1,2,2-Tetrachloroethane	(4)	12.367	83	1215579	100.673
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	1051088	256.709
115) Bromobenzene	(4)	12.392	156	920822	99.870
117) 1,2,3-Trichloropropane	(4)	12.416	110	408974	100.641
119) n-Propylbenzene	(4)	12.459	91	4104026	103.748
120) 2-Chlorotoluene	(4)	12.538	126	859310	100.356
122) 1,3,5-Trimethylbenzene	(4)	12.593	105	3126670	101.809
121) 4-Chlorotoluene	(4)	12.629	126	902532	100.029
124) tert-Butylbenzene	(4)	12.836	134	651869M	98.609
125) Pentachloroethane	(4)	12.872	167	577713	98.564
126) 1,2,4-Trimethylbenzene	(4)	12.879	105	3263638	102.023
127) sec-Butylbenzene	(4)	13.000	105	3961549	103.009
129) 1,3-Dichlorobenzene	(4)	13.104	146	1771479	100.895
130) p-Isopropyltoluene	(4)	13.110	119	3537271	102.356
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	539694	50.000
133) 1,4-Dichlorobenzene	(4)	13.183	146	1804041	100.969

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	3455629	102.249
135) Benzyl Chloride	(4)	13.250	91	2758161	99.904
136) 1,3-Diethylbenzene	(4)	13.310	119	2202710	100.640
141) Diethylbenzene (total)	(4)		100	6394603	302.166
137) 1,4-Diethylbenzene	(4)	13.383	119	2356136	101.089
139) n-Butylbenzene	(4)	13.402	92	1778239	100.097
138) 1,2-Dichlorobenzene	(4)	13.438	146	1731383	100.960
140) 1,2-Diethylbenzene	(4)	13.456	119	1835757	100.436
142) 1,2-Dibromo-3-chloropropane	(4)	13.980	75	354925	99.737
144) 1,3,5-Trichlorobenzene	(4)	14.113	180	1341788	100.440
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	1278838	101.363
147) Hexachlorobutadiene	(4)	14.618	225	582328	100.559
148) Naphthalene	(4)	14.716	128	4553349	106.222
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	1234468	102.133
150) 2-Methylnaphthalene	(4)	15.507	142	2879777	103.543

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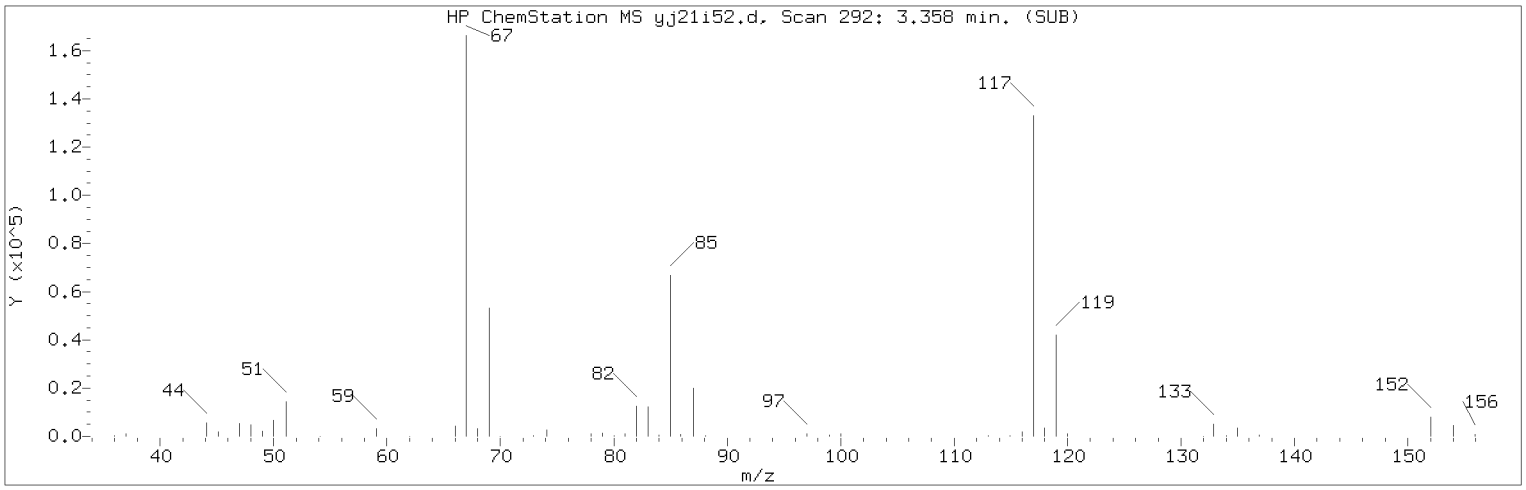
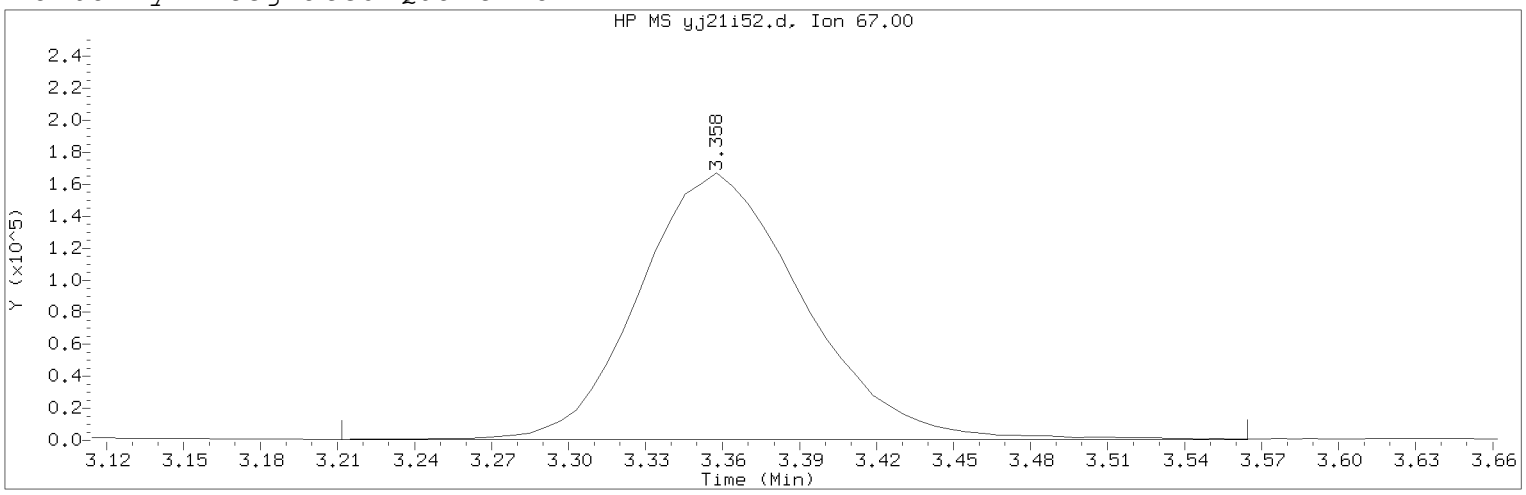
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

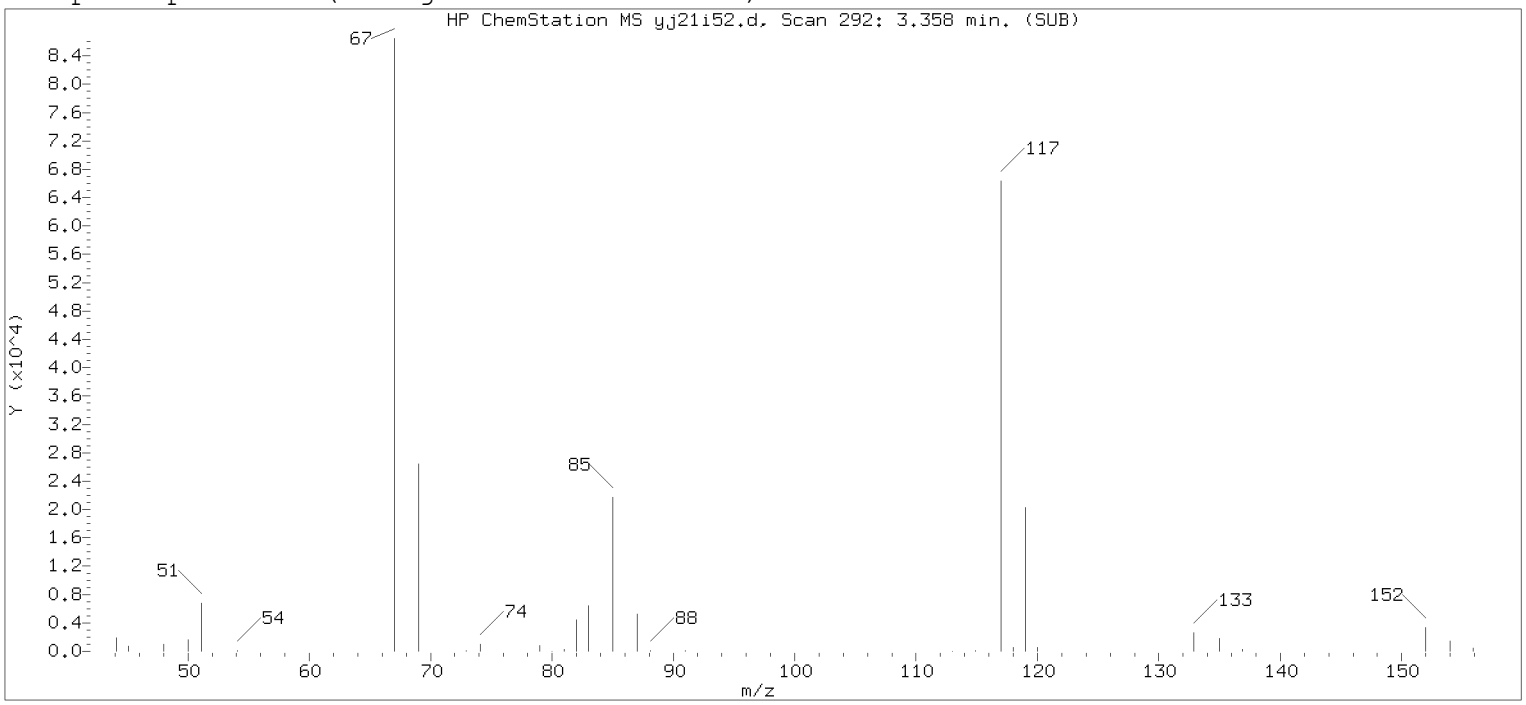
Compound Number : 15
Compound Name : Freon 123a
Scan Number : 292
Retention Time (minutes): 3.358
Quant Ion : 67.00
Area (flag) : 742302M
On-Column Amount (ng) : 101.6413
Integration start scan : 267 Integration stop scan: 325
Y at integration start : 393 Y at integration end: 393

Reason for manual integration: improper integration

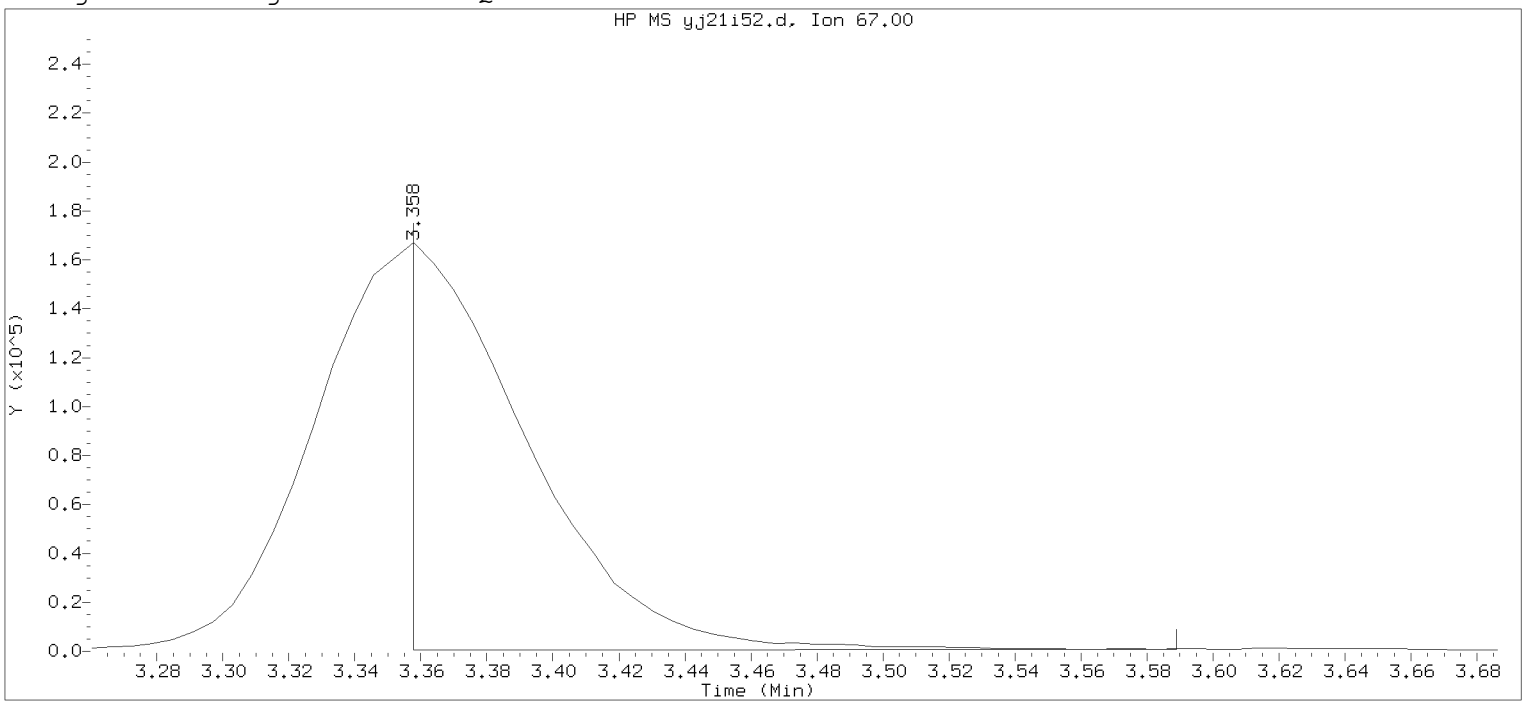
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 15
Compound Name : Freon 123a
Scan Number : 292
Retention Time (minutes): 3.358
Quant Ion : 67.00
Area : 396463
On-column Amount (ng) : 71.1277
Integration start scan : 291 Integration stop scan: 329
Y at integration start : 479 Y at integration end: 790

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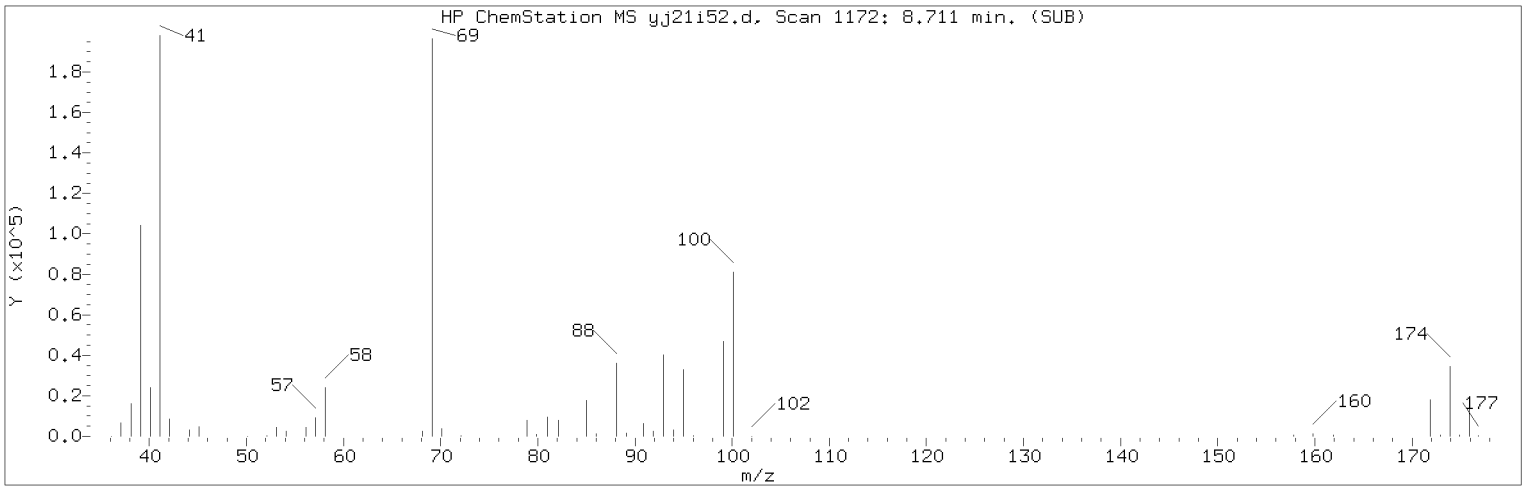
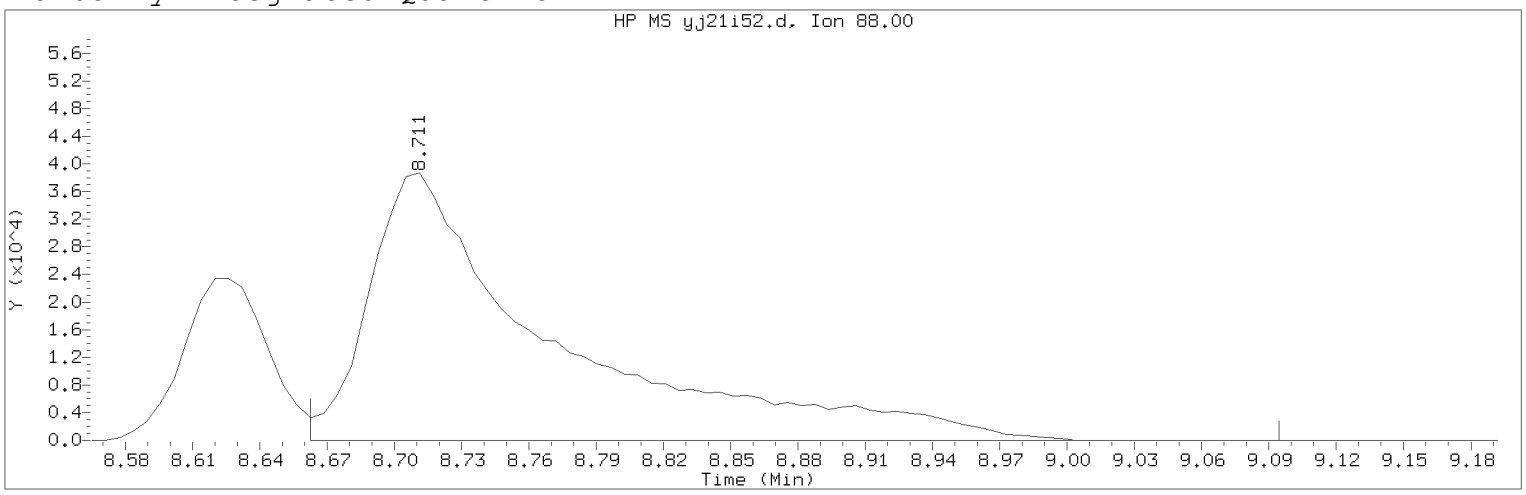
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

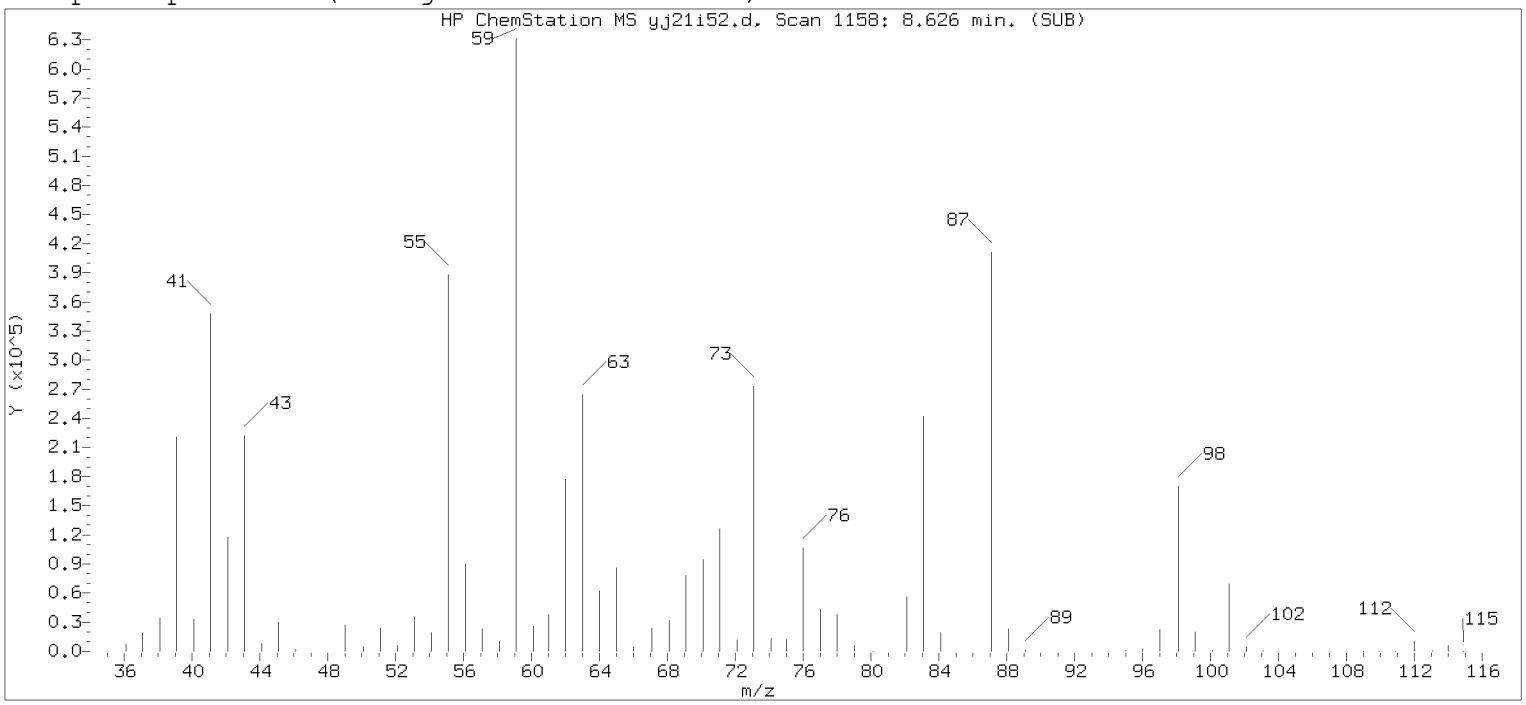
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area (flag) : 219999M
On-Column Amount (ng) : 1227.1038
Integration start scan : 1163 Integration stop scan: 1234
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

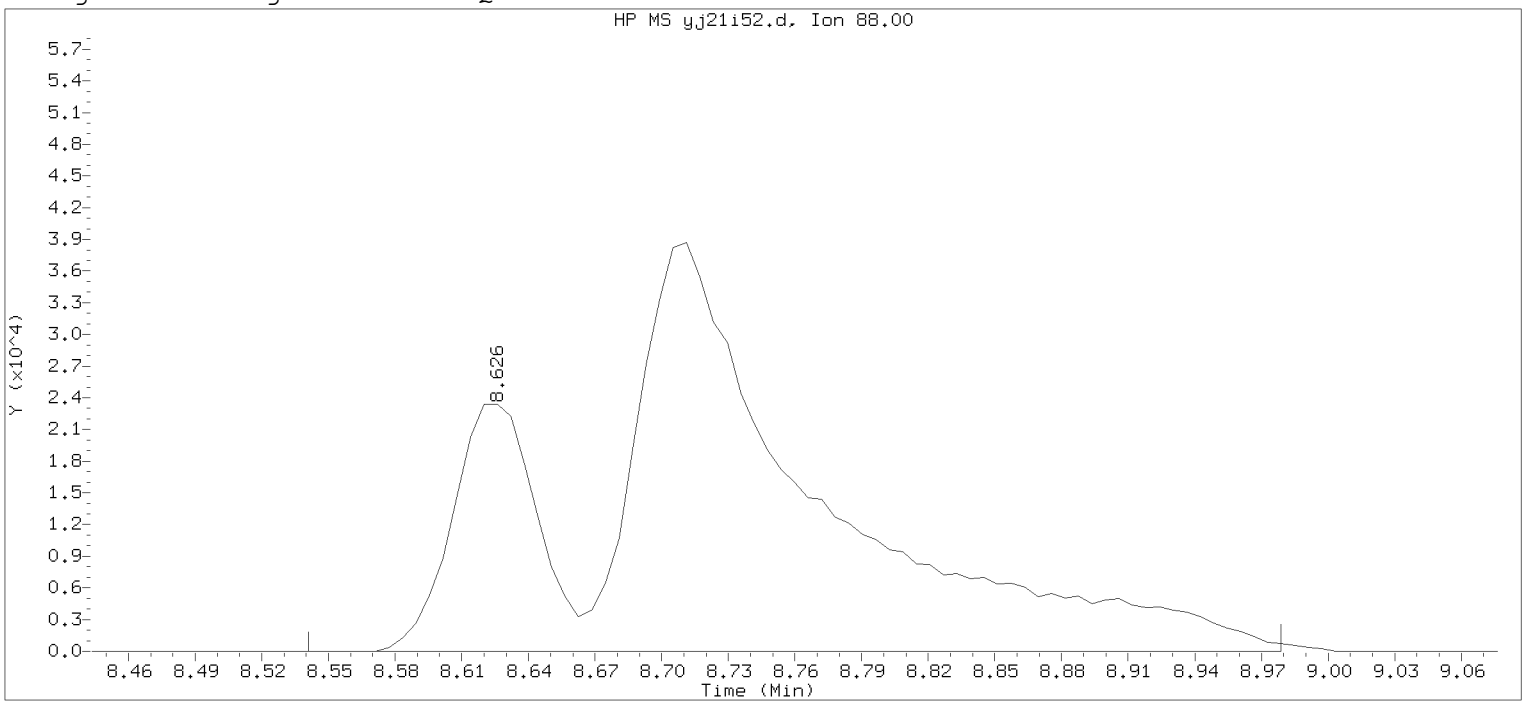
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1158
Retention Time (minutes): 8.626
Quant Ion : 88.00
Area : 280125
On-column Amount (ng) : 1230.9179
Integration start scan : 1143 Integration stop scan: 1215
Y at integration start : 0 Y at integration end: 0

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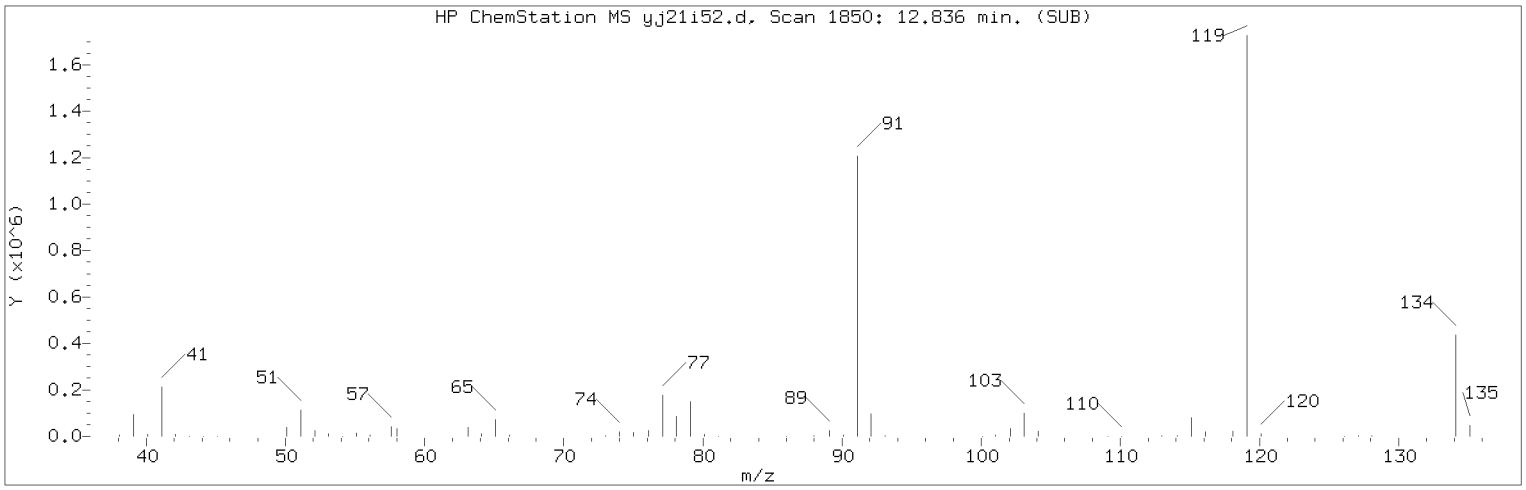
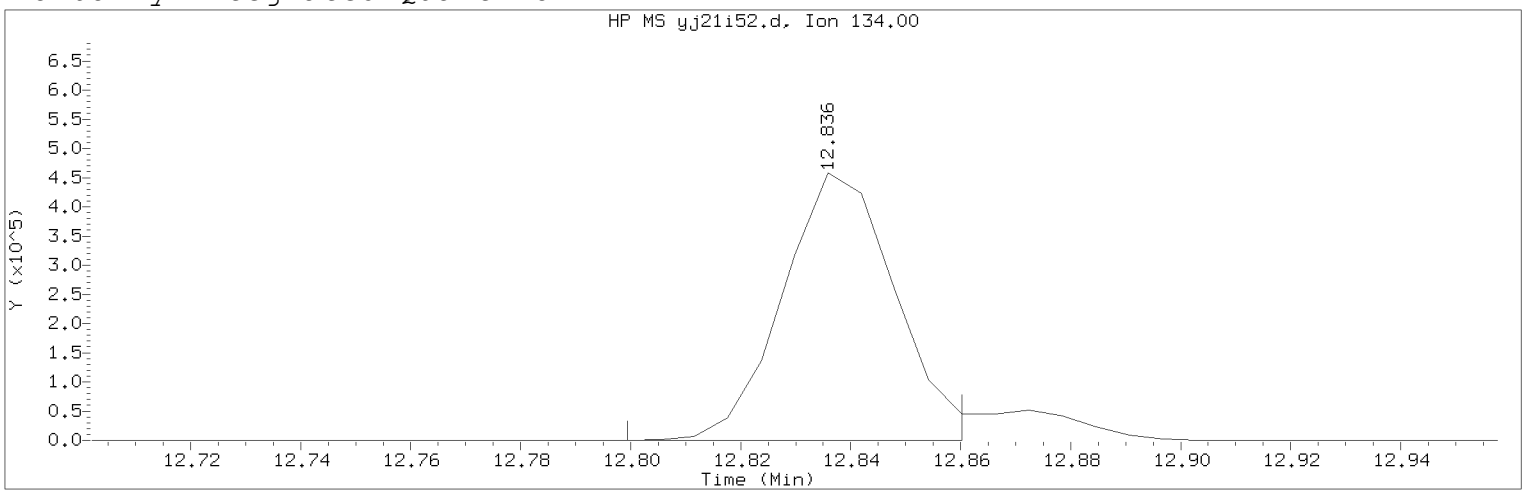
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:00 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

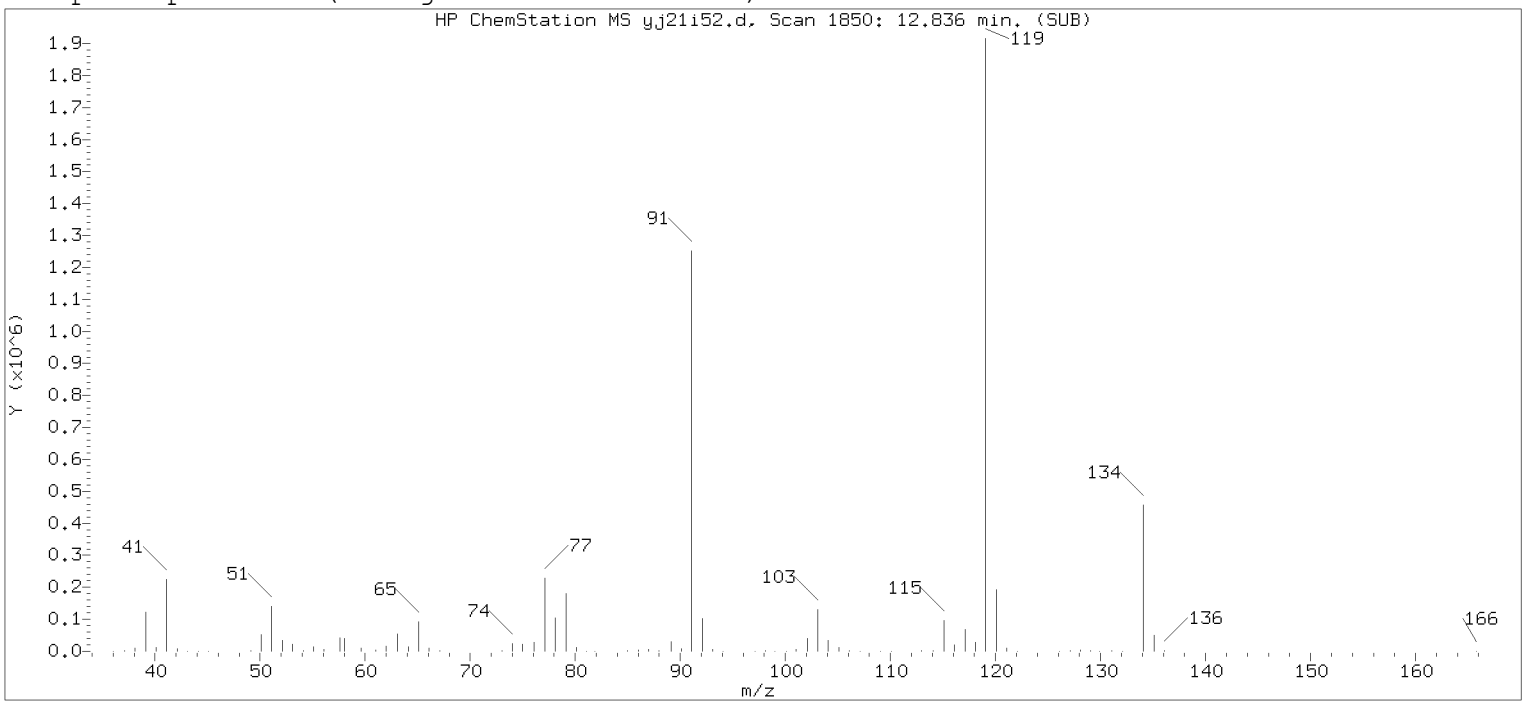
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 651869M
On-Column Amount (ng) : 98.6087
Integration start scan : 1843 Integration stop scan: 1853
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

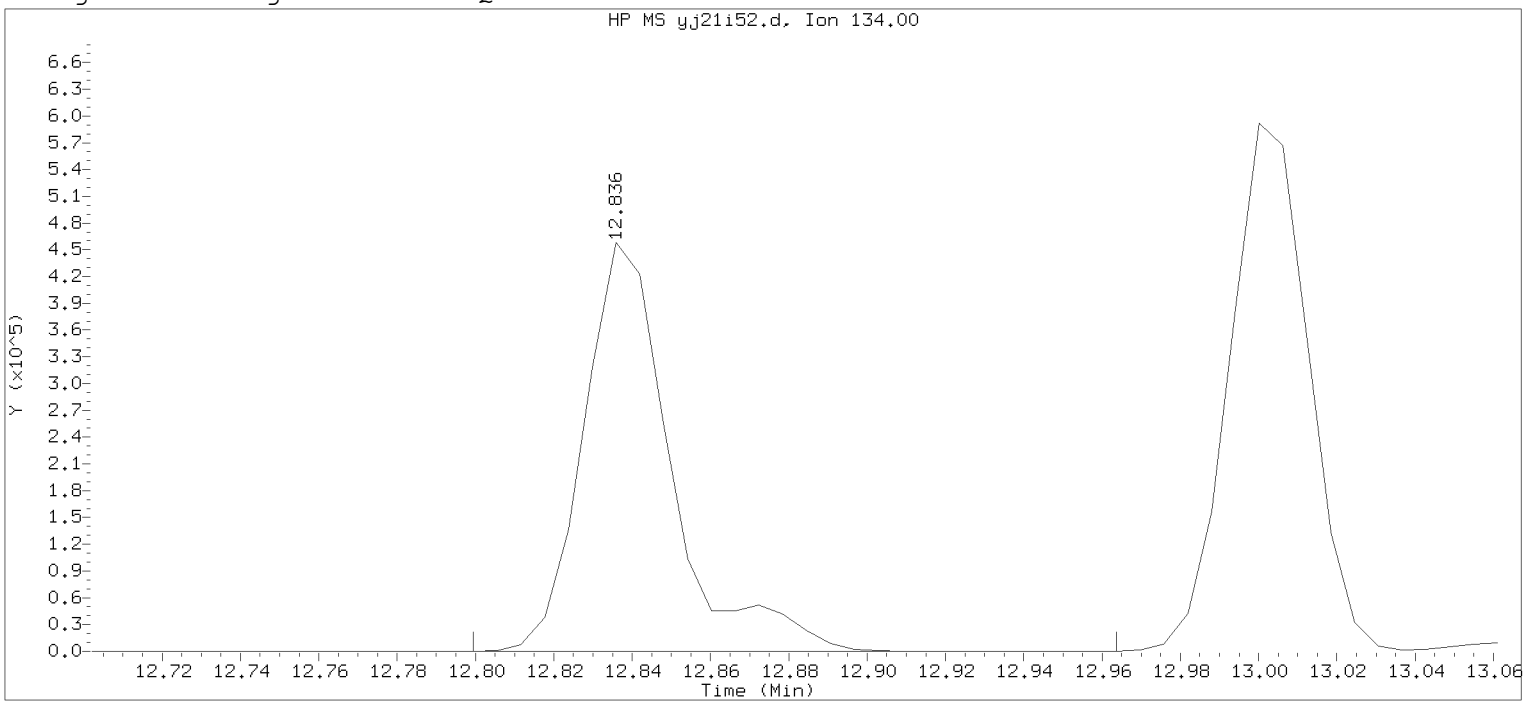
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i52.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:09 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 715254
On-column Amount (ng) : 99.5985
Integration start scan : 1843 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

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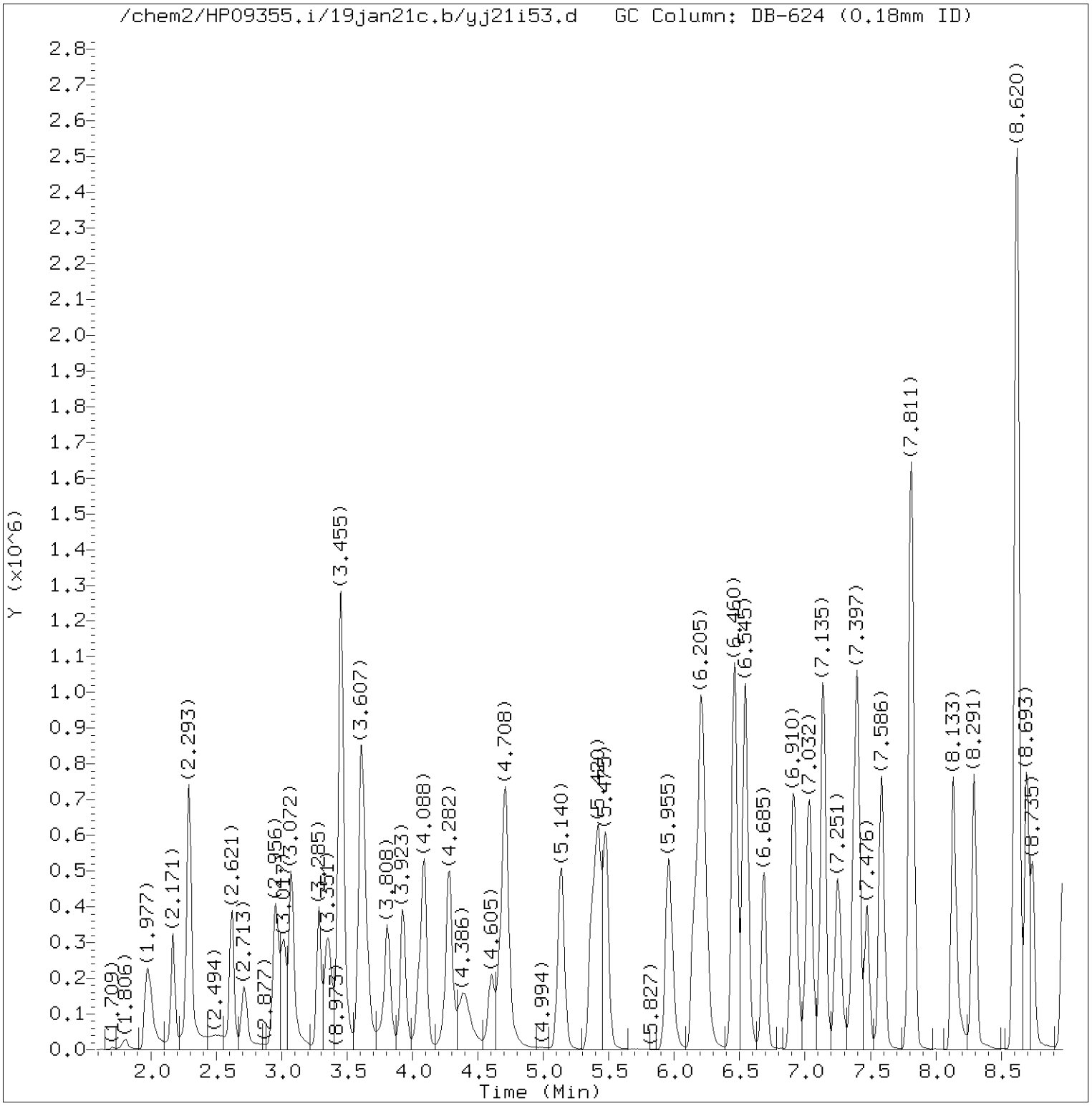
Target 3.5 esignature user ID: LCP00895



Total Ion Chromatogram (TIC)

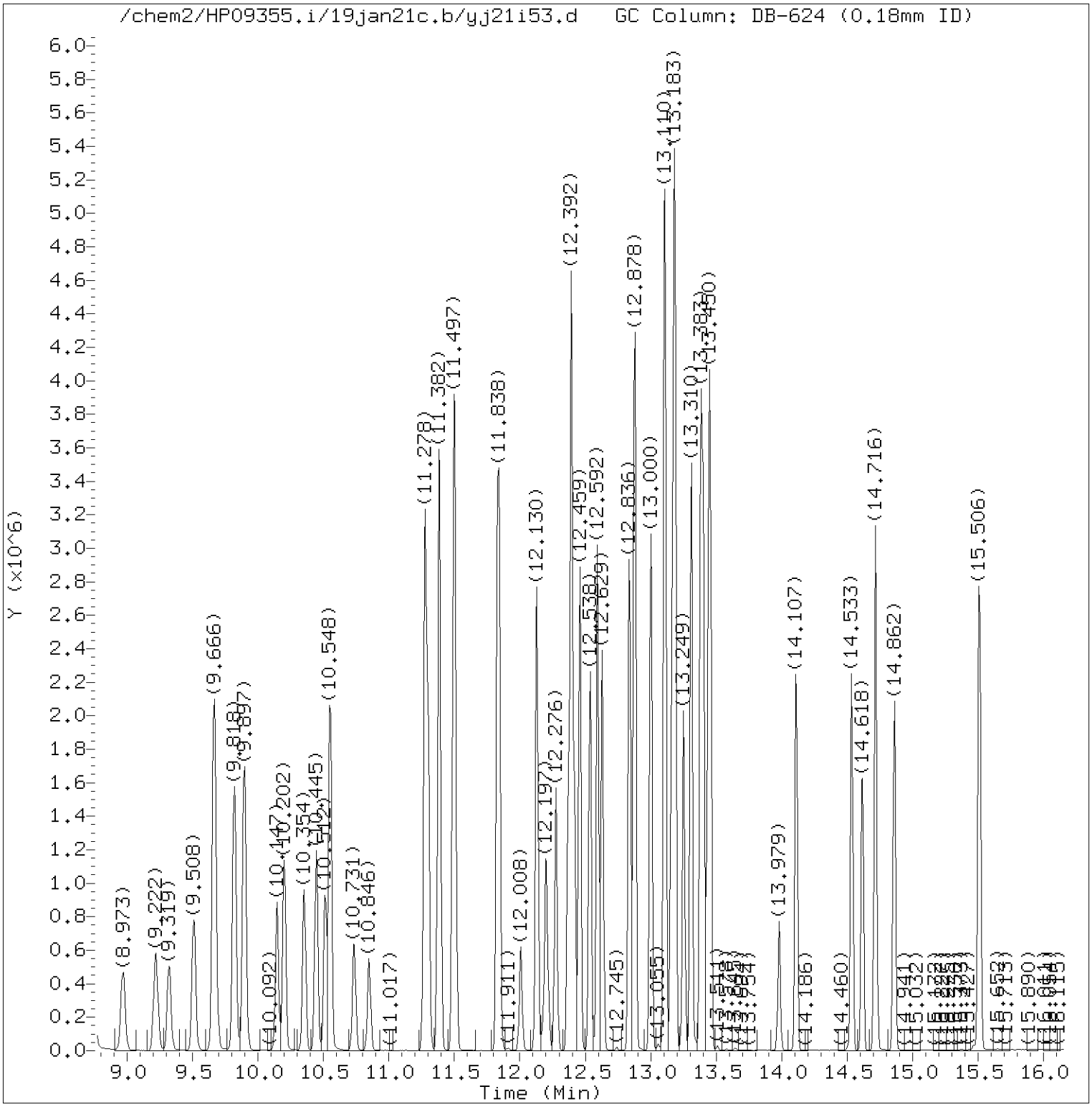
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:02 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:02 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:02 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.977	85	541233	47.923
4) Chloromethane	(2)	2.171	50	424861	49.040
6) Vinyl Chloride	(2)	2.287	62	426937	48.530
5) 1,3-Butadiene	(2)	2.293	39	297864	47.585
8) Bromomethane	(2)	2.621	94	341709	50.092
9) Chloroethane	(2)	2.713	64	242418	49.675
10) Dichlorofluoromethane	(2)	2.950	67	499597	48.829
12) Trichlorofluoromethane	(2)	3.011	101	612182	48.052
11) n-Pentane	(2)	3.072	43	456535	48.052
14) Ethyl ether	(2)	3.285	59	307160	49.283
15) Freon 123a	(2)	3.351	67	350107	48.628
16) Acrolein	(1)	3.455	56	1811784	546.387
17) 1,1-Dichloroethene	(2)	3.607	96	267581	48.305
17) 1,1-Dichloroethene	(2)	3.601	63	134681	59.596
18) Acetone	(1)	3.613	58	182085	109.611
19) Freon 113	(2)	3.625	101	300279	48.099
21) 2-Propanol	(1)	3.783	45	263578	242.605
22) Methyl Iodide	(2)	3.808	142	533232	49.169
23) Carbon Disulfide	(2)	3.923	76	884241	47.942
27) Methyl Acetate	(2)	4.051	43	464786	48.807
25) Allyl Chloride	(2)	4.088	41	481053	48.610
29)*t-Butyl alcohol-d10	(1)	4.264	65	437229	250.000
28) Methylene Chloride	(2)	4.282	84	318249	49.181
30) t-Butyl alcohol	(1)	4.398	59	541561	243.305
31) Acrylonitrile	(2)	4.605	53	312160	56.947
33) Methyl Tertiary Butyl Ether	(2)	4.690	73	882689	50.505
32) trans-1,2-Dichloroethene	(2)	4.714	96	313807	48.509
34) n-Hexane	(2)	5.140	57	480501	47.369
36) 1,1-Dichloroethane	(2)	5.365	63	549156	48.929
38) di-Isopropyl ether	(2)	5.420	45	1009686	50.007
39) 2-Chloro-1,3-butadiene	(2)	5.481	53	500738	48.118
40) Ethyl t-butyl ether	(2)	5.955	59	873959	52.281
43) 1,2-Dichloroethene (Total)	(2)		96	669648	97.081
44) 2-Butanone	(2)	6.156	43	917888	114.190
42) cis-1,2-Dichloroethene	(2)	6.199	96	355841	48.571
45) 2,2-Dichloropropane	(2)	6.217	77	456613	48.431
47) Propionitrile	(1)	6.241	54	549038	237.664
48) Methacrylonitrile	(2)	6.460	67	648505	121.857

* = Compound is an internal standard.

Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:02 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.539	128	198501	48.470
50) Tetrahydrofuran	(1)	6.545	71	271356	108.105
51) Chloroform	(2)	6.685	83	559748	48.624
52)$Dibromofluoromethane	(2)	6.904	113	311117	50.029
52)$Dibromofluoromethane	(2)	6.904	111	318008	50.032
53) 1,1,1-Trichloroethane	(2)	6.923	97	500476	48.391
54) Cyclohexane	(2)	7.032	56	572110	48.191
54) Cyclohexane	(2)	7.032	84	503760	47.652
54) Cyclohexane	(2)	7.032	69	182609	47.834
55) 1,1-Dichloropropene	(2)	7.135	75	446474	48.540
56) Carbon Tetrachloride	(2)	7.142	117	437070	47.089
58) Isobutyl Alcohol	(1)	7.251	41	426203	596.093
57)$1,2-Dichloroethane-d4	(2)	7.367	102	76616	49.795
57)$1,2-Dichloroethane-d4	(2)	7.367	65	377208	50.061
57)$1,2-Dichloroethane-d4	(2)	7.367	104	49782	50.349
60) Benzene	(2)	7.403	78	1309590	49.151
61) 1,2-Dichloroethane	(2)	7.476	62	455753	49.257
61) 1,2-Dichloroethane	(2)	7.476	98	41876	48.933
65) t-Amyl methyl ether	(2)	7.586	73	927216	53.896
66)*Fluorobenzene	(2)	7.805	96	1274730	50.000
67) n-Heptane	(2)	7.823	43	504921	47.054
69) n-Butanol	(1)	8.133	56	756491	1174.689
71) Trichloroethene	(2)	8.291	95	347232	48.322
72) Methylcyclohexane	(2)	8.608	83	653660	47.125
72) Methylcyclohexane	(2)	8.614	98	296050	46.948
73) 1,2-Dichloropropane	(2)	8.626	63	327525	48.350
76) Methyl Methacrylate	(2)	8.693	69	389272	47.867
75) 1,4-Dioxane	(1)	8.711	88	107199M	598.195
74) Dibromomethane	(2)	8.735	93	231982	48.398
78) Bromodichloromethane	(2)	8.973	83	411385	47.212
79) 2-Nitropropane	(2)	9.222	41	461854	110.565
80) 2-Chloroethyl Vinyl Ether	(2)	9.319	63	271760	48.158
81) cis-1,3-Dichloropropene	(2)	9.508	75	541812	47.801
82) 4-Methyl-2-pentanone	(2)	9.666	43	1682460	114.950
83)$Toluene-d8	(3)	9.818	98	1280717	50.411
83)$Toluene-d8	(3)	9.818	100	822369	50.134
88) Toluene	(3)	9.897	92	861906	49.147
90) 1,3-Dichloropropene (total)	(3)		100	1060459	95.428

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:02 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	518647	47.627
91) Ethyl Methacrylate	(3)	10.202	69	629431	48.454
92) 1,1,2-Trichloroethane	(3)	10.354	97	334114	48.904
93) Tetrachloroethene	(3)	10.445	166	371063	48.413
94) 1,3-Dichloropropane	(3)	10.512	76	561650	49.261
96) 2-Hexanone	(3)	10.548	43	1349640	115.229
97) Dibromochloromethane	(3)	10.737	129	359668	46.969
99) 1,2-Dibromoethane	(3)	10.846	107	379138	48.833
100)*Chlorobenzene-d5	(3)	11.272	117	973869	50.000
101) 1-Chlorohexane	(3)	11.278	91	459987	48.212
102) Chlorobenzene	(3)	11.303	112	986202	49.510
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	340346	47.965
104) Ethylbenzene	(3)	11.388	91	1688765	49.576
106) m+p-Xylene	(3)	11.497	106	1343085	98.266
108) Xylene (Total)	(3)		106	2004613	147.302
107) o-Xylene	(3)	11.826	106	661528	49.037
109) Styrene	(3)	11.844	104	1119065	48.791
110) Bromoform	(3)	12.008	173	273651	45.807
111) Isopropylbenzene	(3)	12.130	105	1722040	49.832
112) Cyclohexanone	(1)	12.197	55	500756	606.806
114)$4-Bromofluorobenzene	(3)	12.276	95	491157	50.332
114)$4-Bromofluorobenzene	(3)	12.276	174	400159	50.031
116) 1,1,2,2-Tetrachloroethane	(4)	12.367	83	591508	49.184
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	507822	124.006
115) Bromobenzene	(4)	12.392	156	446027	48.769
117) 1,2,3-Trichloropropane	(4)	12.416	110	196530	48.760
119) n-Propylbenzene	(4)	12.459	91	2004640	50.311
120) 2-Chlorotoluene	(4)	12.538	126	415430	48.865
122) 1,3,5-Trimethylbenzene	(4)	12.592	105	1504831	49.192
121) 4-Chlorotoluene	(4)	12.629	126	436910	48.802
124) tert-Butylbenzene	(4)	12.836	134	312564M	48.020
125) Pentachloroethane	(4)	12.872	167	265650	46.649
126) 1,2,4-Trimethylbenzene	(4)	12.878	105	1567485	49.193
127) sec-Butylbenzene	(4)	13.000	105	1902629	49.510
129) 1,3-Dichlorobenzene	(4)	13.103	146	853329	48.923
130) p-Isopropyltoluene	(4)	13.110	119	1687567	49.079
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	541928	50.000
133) 1,4-Dichlorobenzene	(4)	13.176	146	872375	49.074

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:02 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	1664575	49.363
135) Benzyl Chloride	(4)	13.249	91	1266034	47.026
136) 1,3-Diethylbenzene	(4)	13.310	119	1050386	48.507
141) Diethylbenzene (total)	(4)		100	3038577	145.271
137) 1,4-Diethylbenzene	(4)	13.383	119	1114515	48.388
139) n-Butylbenzene	(4)	13.402	92	842937M	48.135
138) 1,2-Dichlorobenzene	(4)	13.438	146	835822	49.015
140) 1,2-Diethylbenzene	(4)	13.456	119	873676	48.376
142) 1,2-Dibromo-3-chloropropane	(4)	13.979	75	168095	47.988
144) 1,3,5-Trichlorobenzene	(4)	14.113	180	637883	48.341
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	609573	48.728
147) Hexachlorobutadiene	(4)	14.618	225	271423	47.735
148) Naphthalene	(4)	14.716	128	2191685	50.608
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	588229	48.967
150) 2-Methylnaphthalene	(4)	15.506	142	1356550	49.040

M = Compound was manually integrated.

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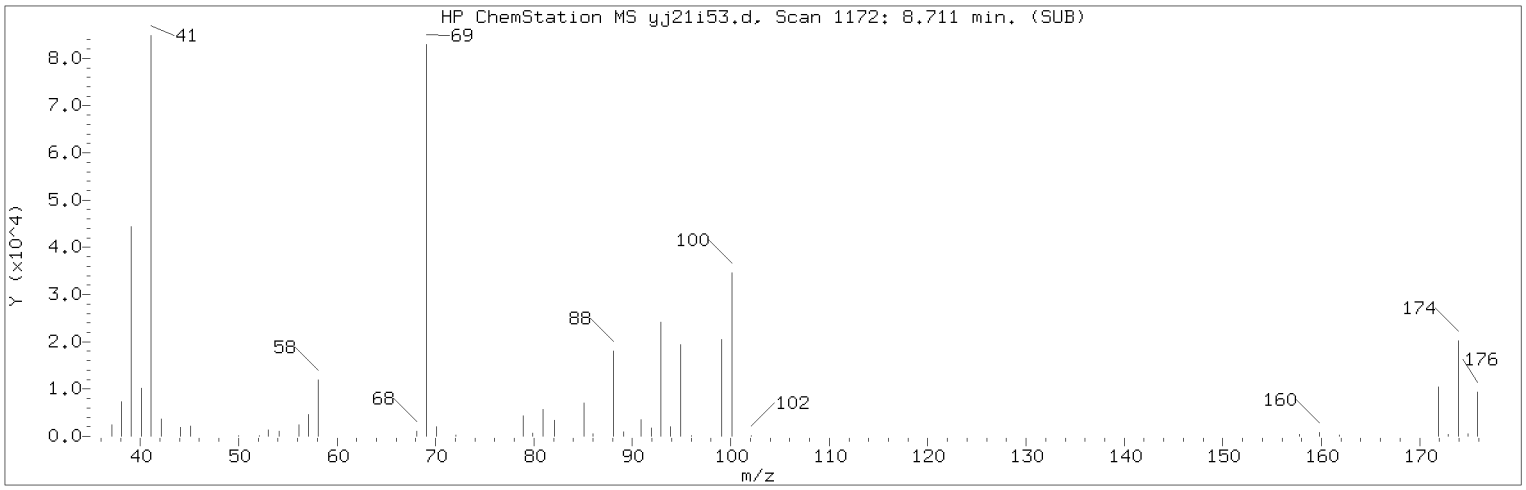
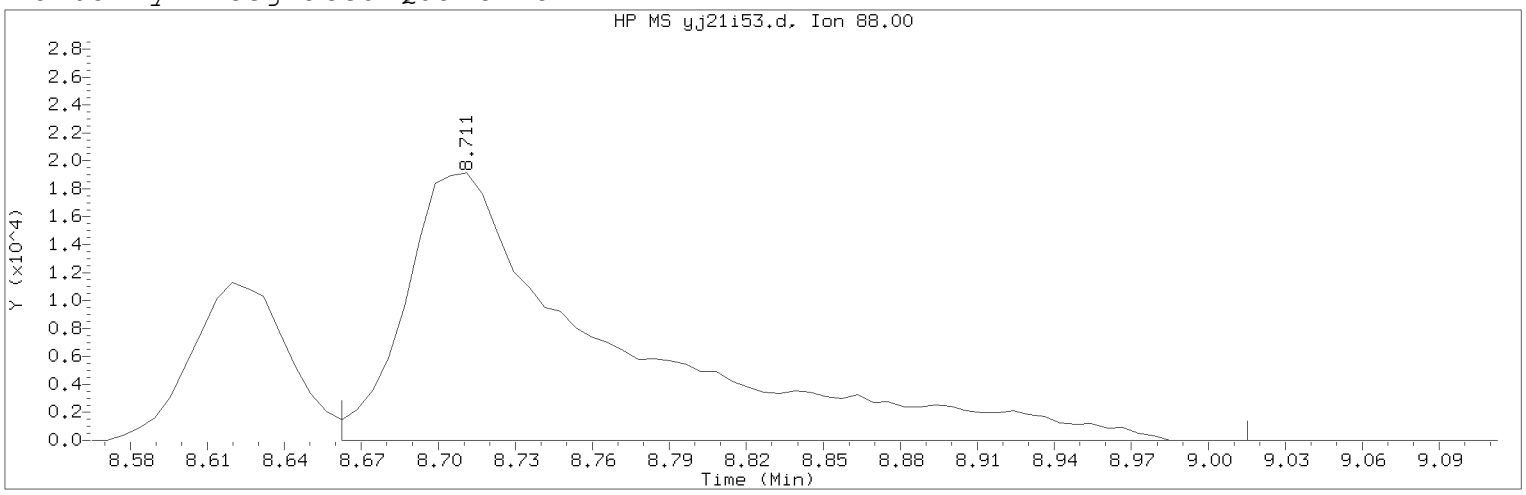
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:08 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

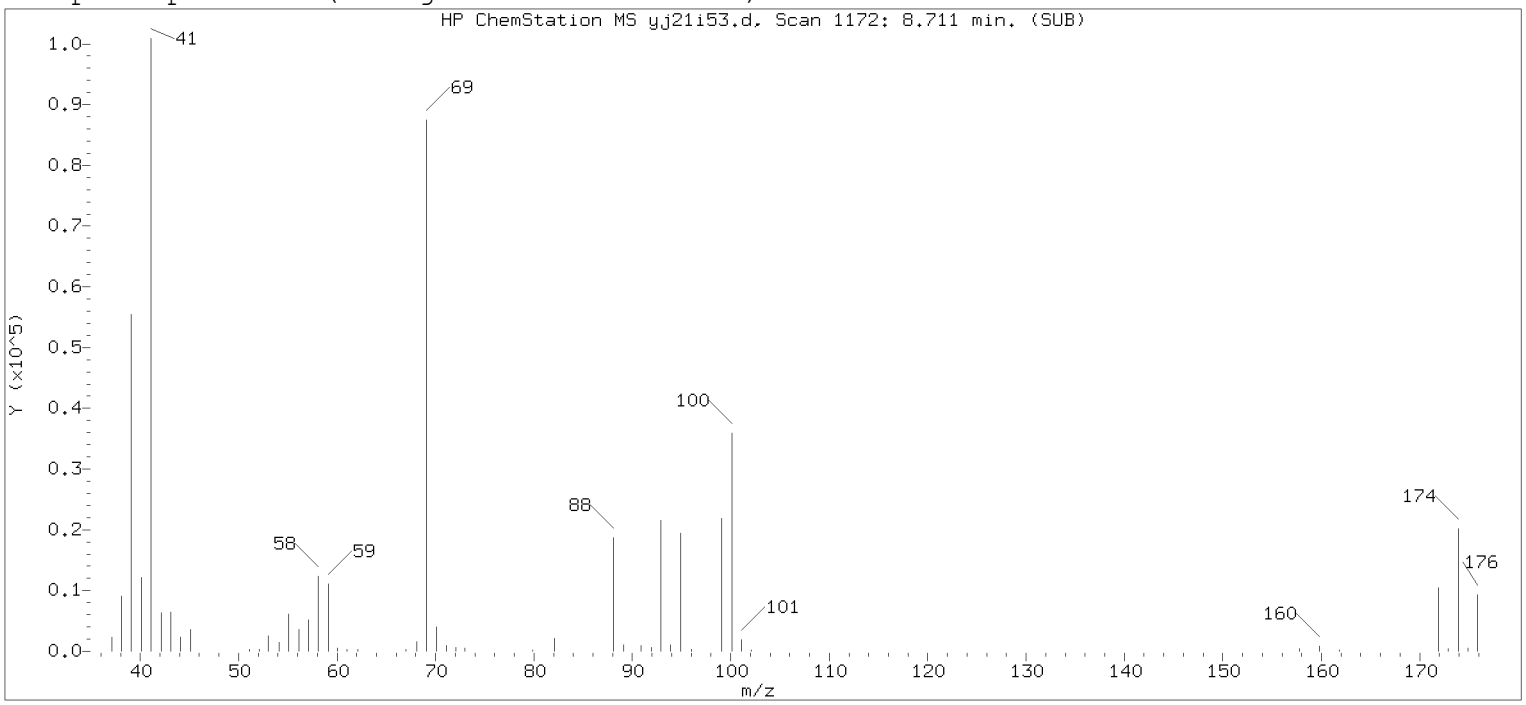
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area (flag) : 107199M
On-Column Amount (ng) : 598.1954
Integration start scan : 1163 Integration stop scan: 1221
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

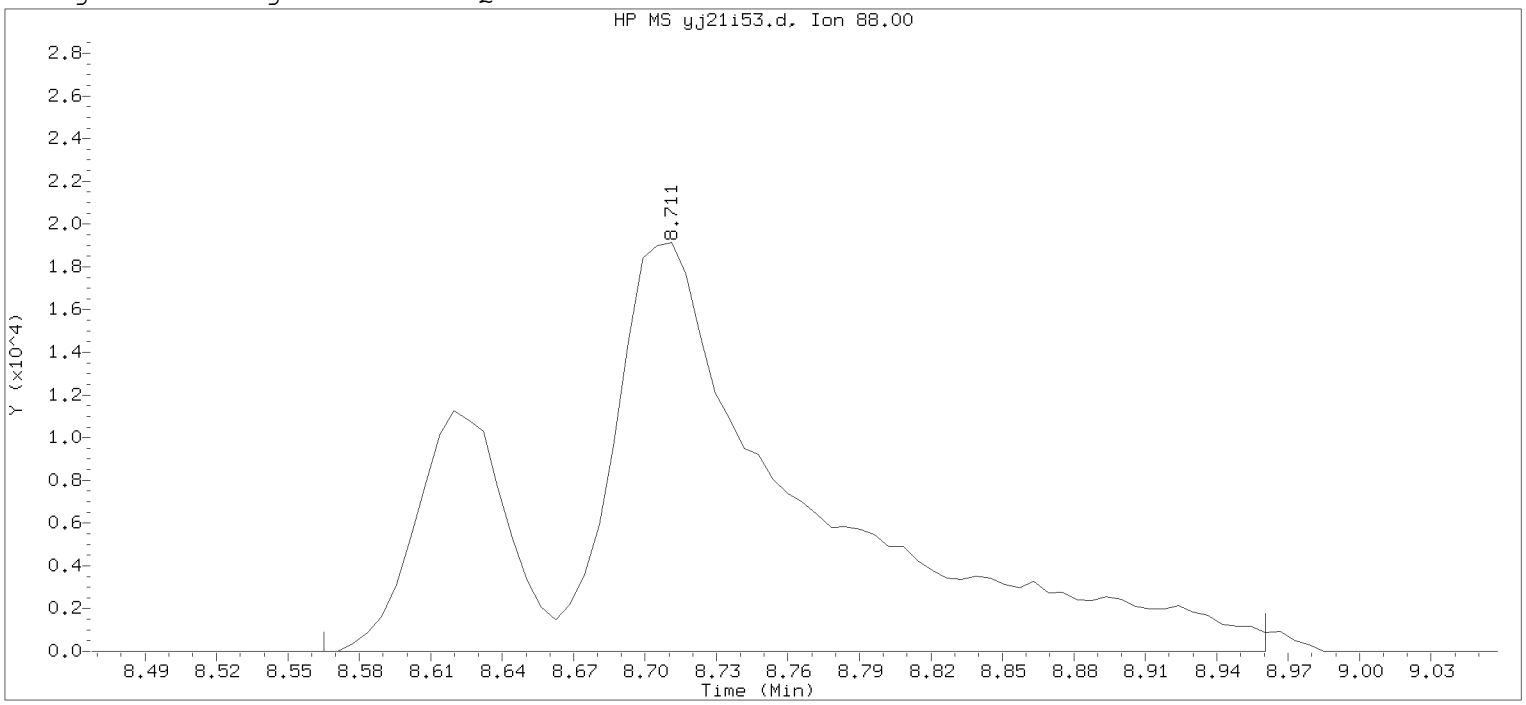
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

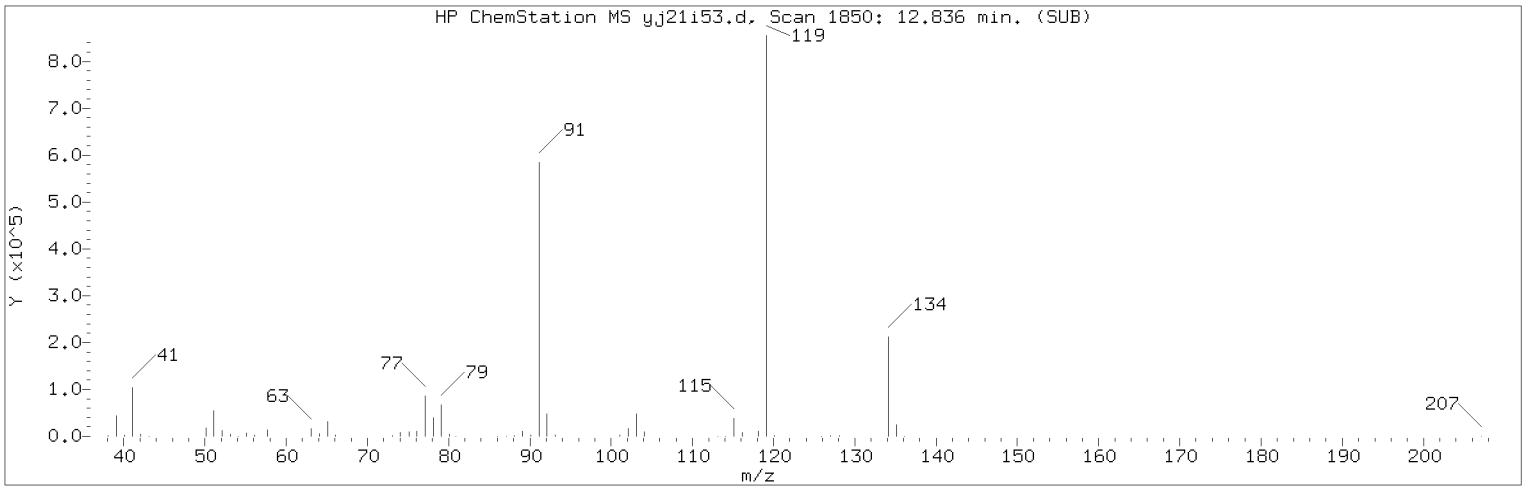
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

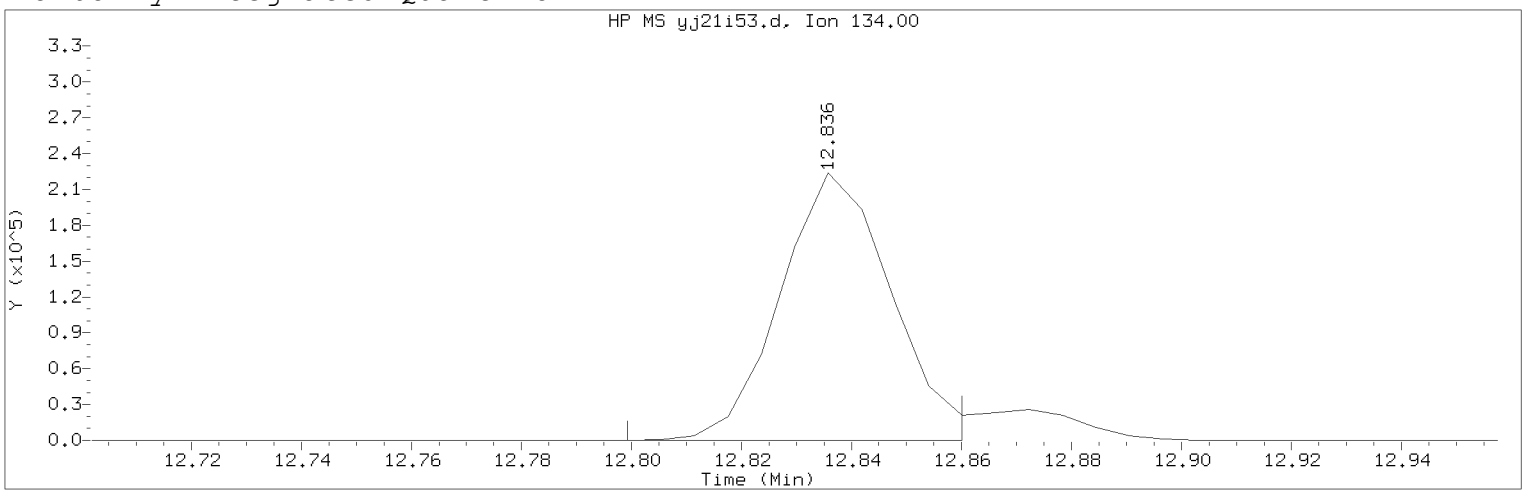
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area : 135614
On-column Amount (ng) : 596.8162
Integration start scan : 1147 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:08 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

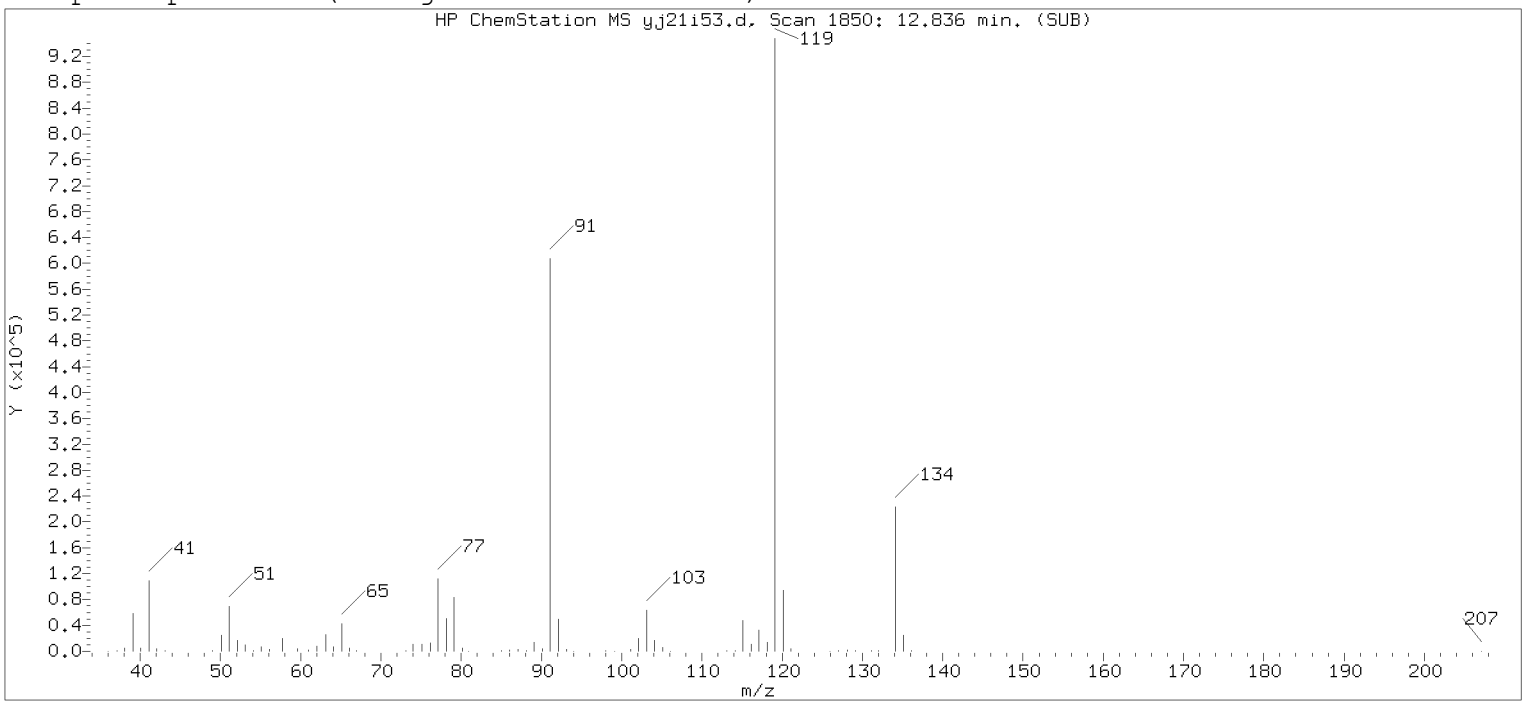
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 312564M
On-Column Amount (ng) : 48.0195
Integration start scan : 1843 Integration stop scan: 1853
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

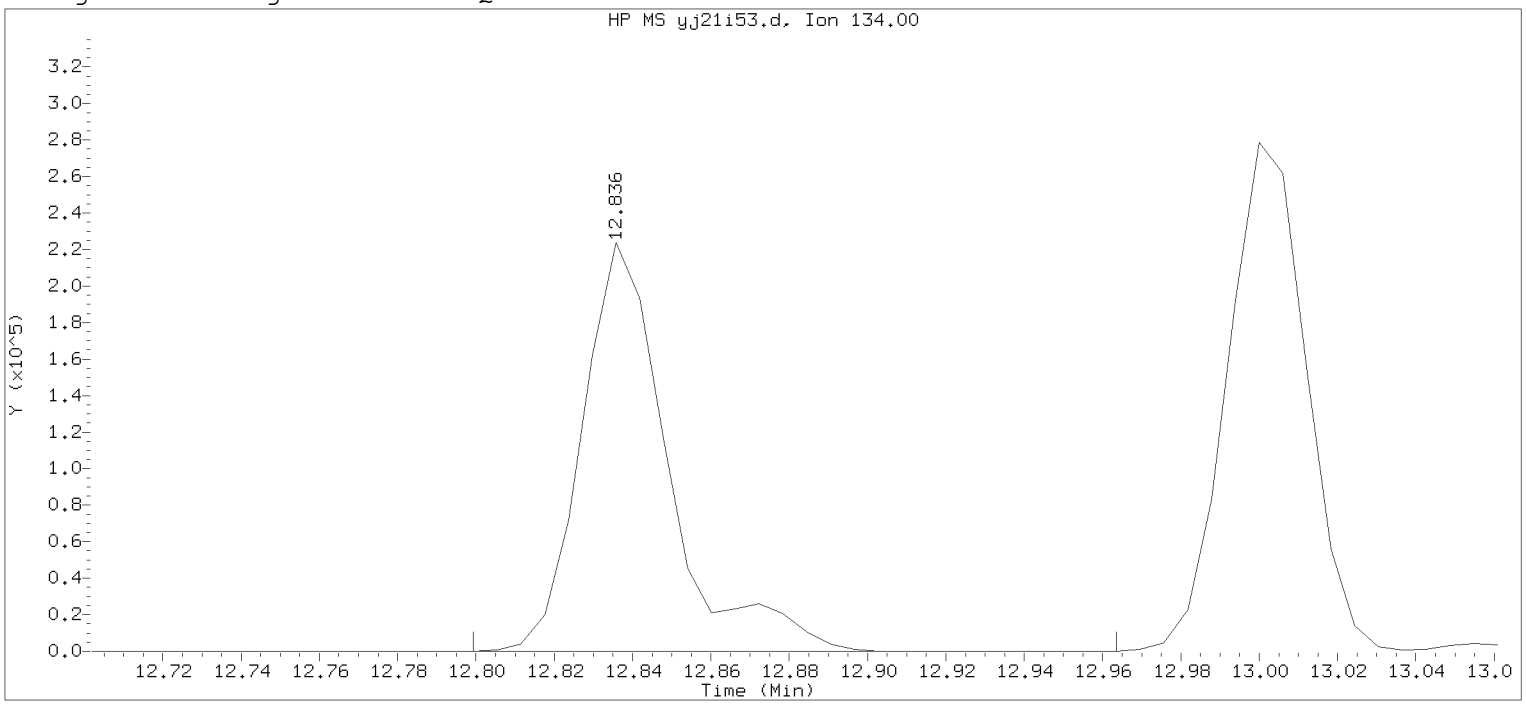
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 343681
On-column Amount (ng) : 48.4153
Integration start scan : 1843 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

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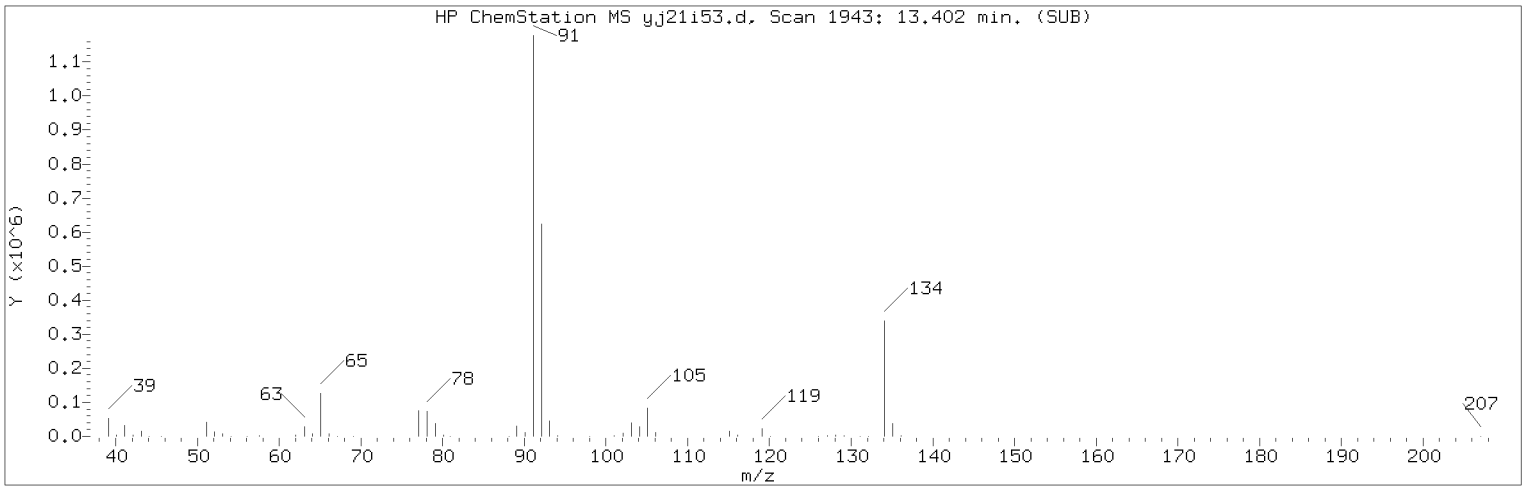
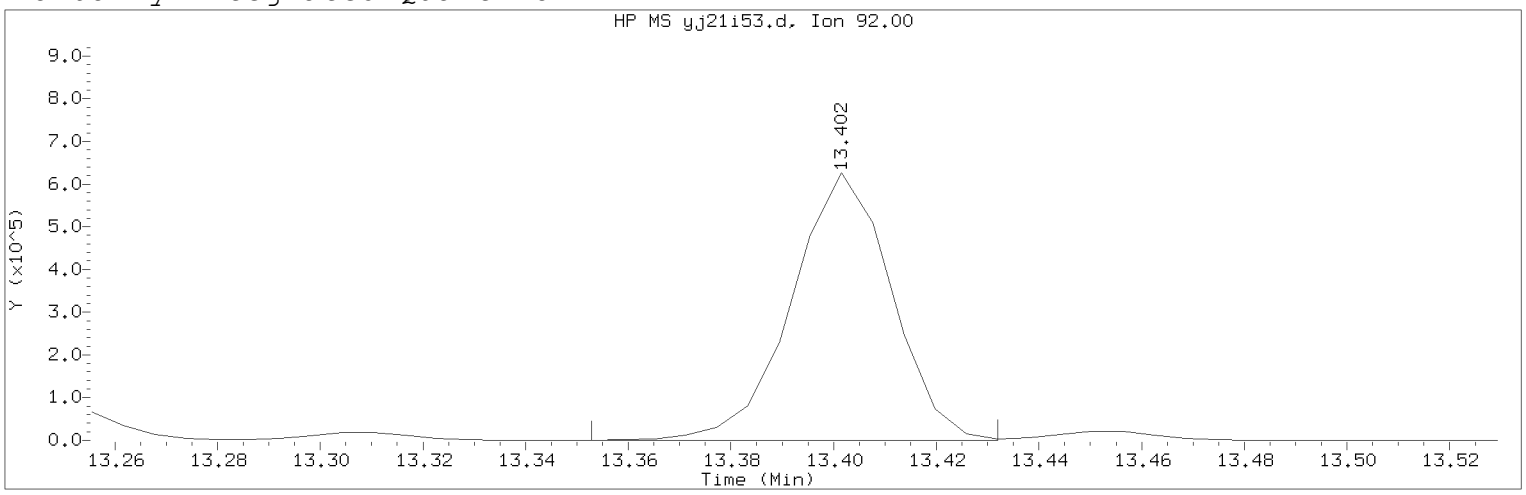
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 08:08 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

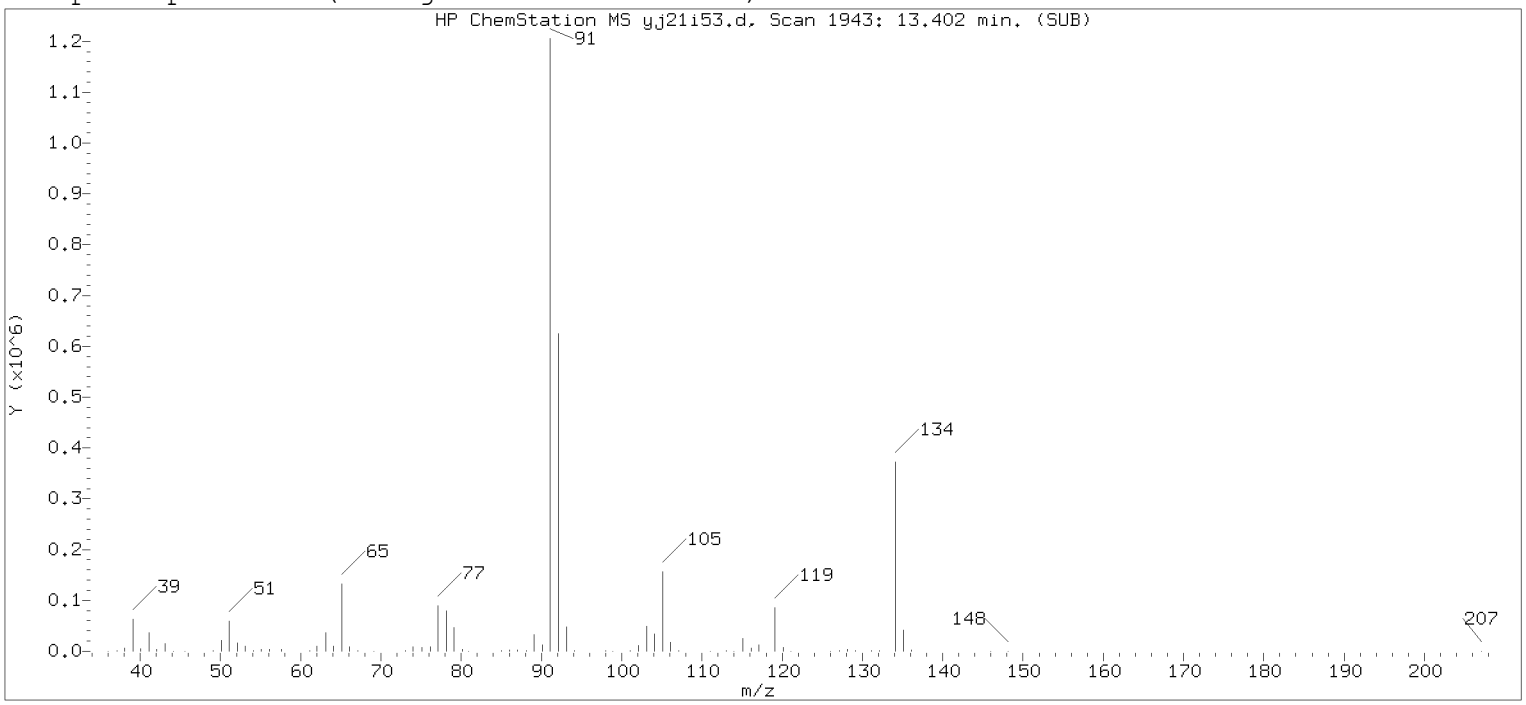
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area (flag) : 842937M
On-Column Amount (ng) : 48.1349
Integration start scan : 1934 Integration stop scan: 1947
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

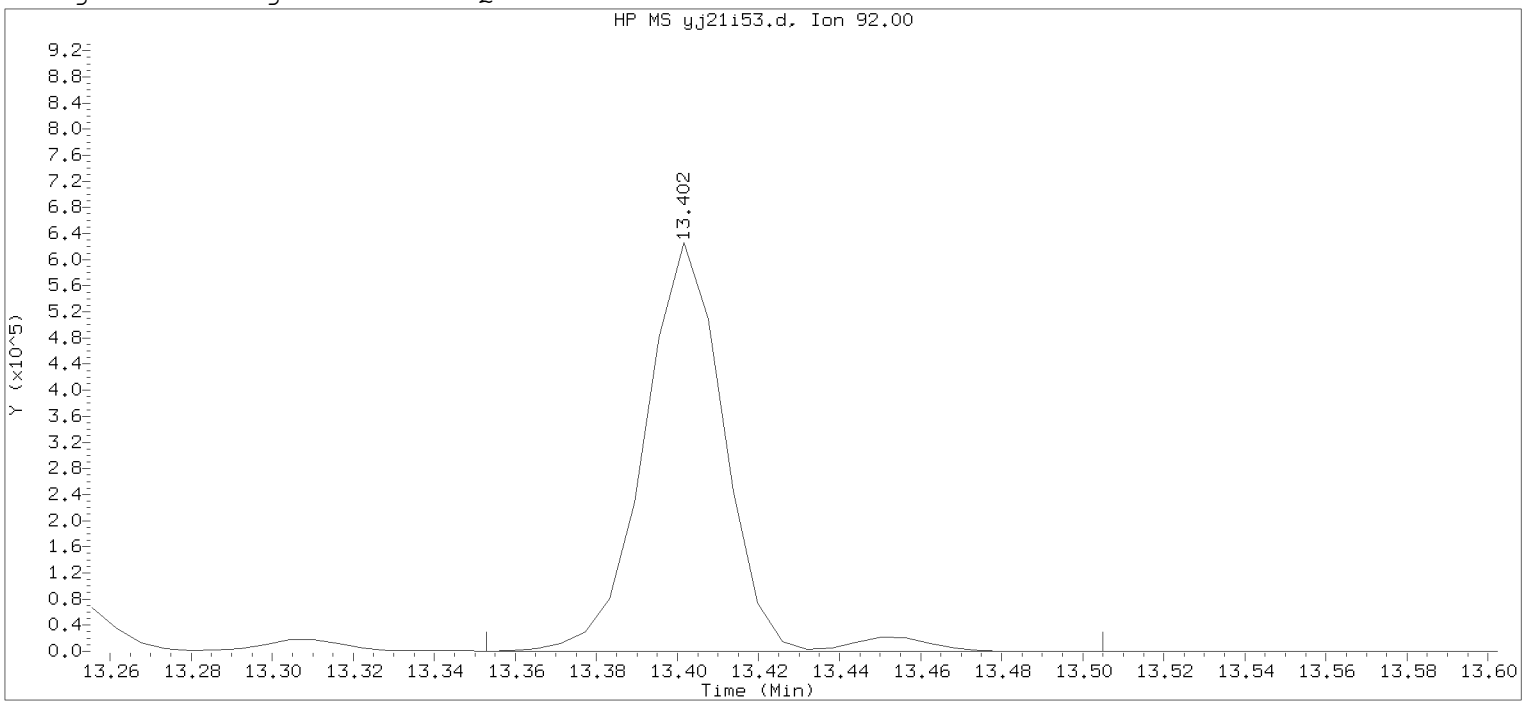
Analyst responsible for change: Digitally signed by Linda C. Pape
on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



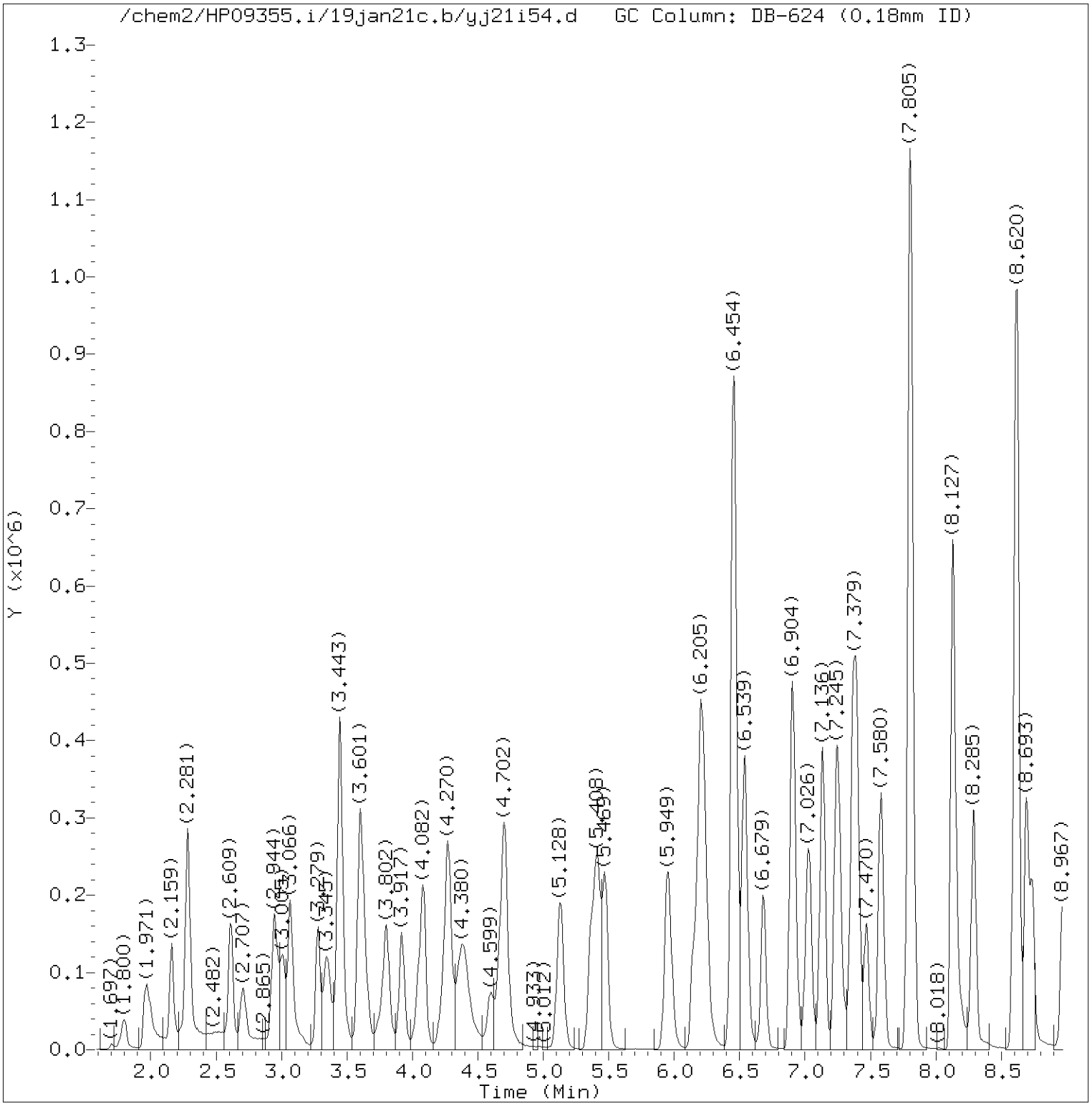
Data File: /chem2/HP09355.i/19jan21c.b/yj21i53.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:31 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area : 872353
On-column Amount (ng) : 48.7137
Integration start scan : 1934 Integration stop scan: 1959
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 01/23/2019 at 08:08.
Target 3.5 esignature user ID: LCP00895



Total Ion Chromatogram (TIC)

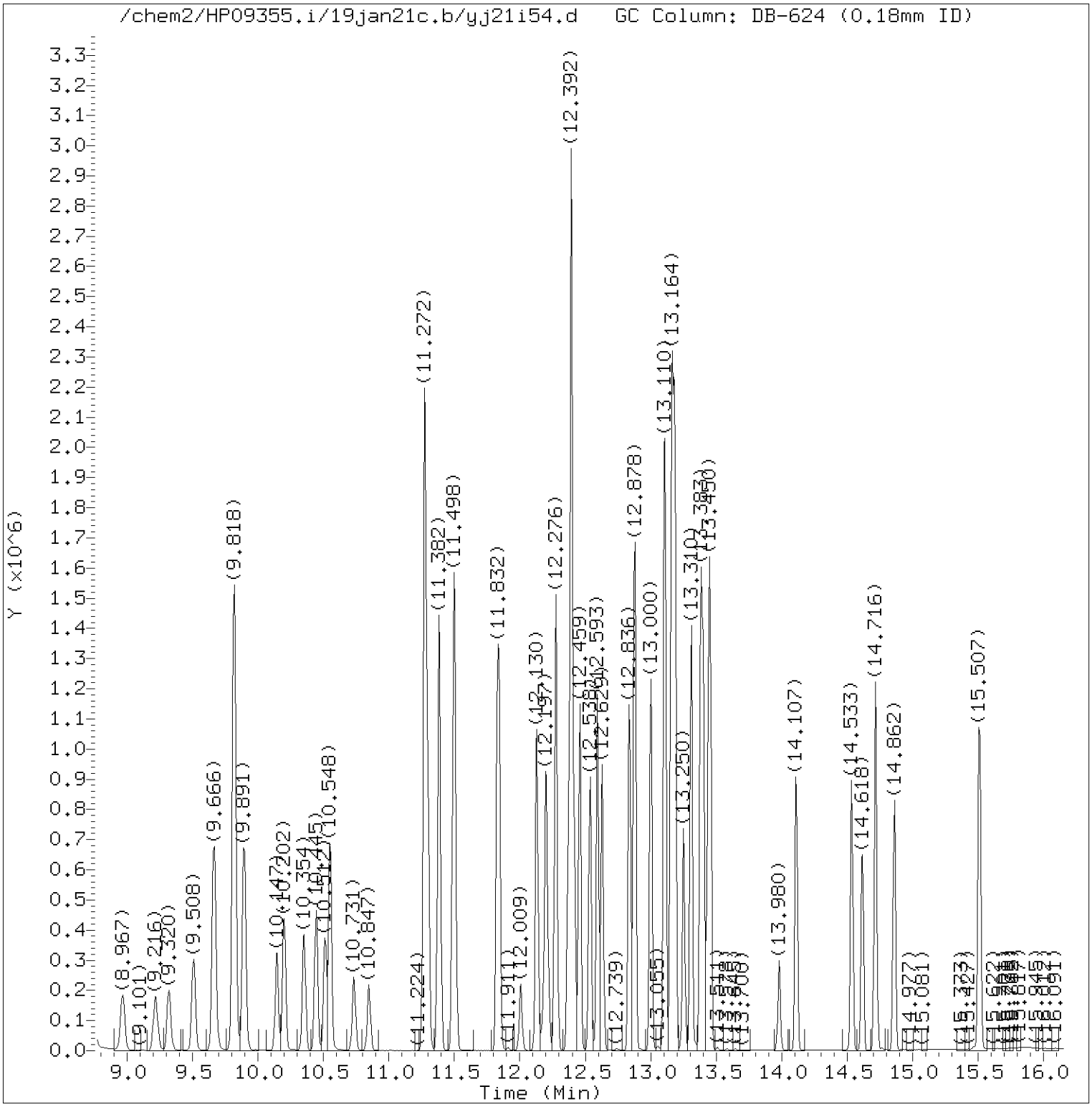
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.965	85	194951	18.583
4) Chloromethane	(2)	2.159	50	162795	19.058
5) 1,3-Butadiene	(2)	2.281	39	112961	18.718
6) Vinyl Chloride	(2)	2.281	62	161754	18.941
8) Bromomethane	(2)	2.609	94	136977	20.080
9) Chloroethane	(2)	2.707	64	96773	18.710
10) Dichlorofluoromethane	(2)	2.944	67	209723	20.110
12) Trichlorofluoromethane	(2)	3.005	101	224874	18.665
11) n-Pentane	(2)	3.066	43	170132	17.337
14) Ethyl ether	(2)	3.279	59	121749	20.331
15) Freon 123a	(2)	3.345	67	134407	19.442
16) Acrolein	(1)	3.443	56	597165	188.804
17) 1,1-Dichloroethene	(2)	3.595	96	101663	19.877
17) 1,1-Dichloroethene	(2)	3.595	63	50913	21.364
18) Acetone	(1)	3.613	58	61884	38.542
19) Freon 113	(2)	3.625	101	108276	19.283
21) 2-Propanol	(1)	3.777	45	223280	199.397
22) Methyl Iodide	(2)	3.802	142	208028	20.176
23) Carbon Disulfide	(2)	3.917	76	328947	19.820
27) Methyl Acetate	(2)	4.045	43	192244	20.549
25) Allyl Chloride	(2)	4.082	41	187162	19.866
29)*t-Butyl alcohol-d10	(1)	4.264	65	442324	250.000
28) Methylene Chloride	(2)	4.270	84	127219	20.142
30) t-Butyl alcohol	(1)	4.380	59	449969	199.097
31) Acrylonitrile	(2)	4.599	53	102870	20.299
33) Methyl Tertiary Butyl Ether	(2)	4.684	73	359963	20.762
32) trans-1,2-Dichloroethene	(2)	4.708	96	122760	20.025
34) n-Hexane	(2)	5.134	57	182220	19.211
36) 1,1-Dichloroethane	(2)	5.365	63	216746	20.282
38) di-Isopropyl ether	(2)	5.414	45	405158	20.605
39) 2-Chloro-1,3-butadiene	(2)	5.469	53	189286	19.928
40) Ethyl t-butyl ether	(2)	5.949	59	366025	21.346
44) 2-Butanone	(2)	6.150	43	307595	40.417
43) 1,2-Dichloroethene (Total)	(2)		96	263484	40.129
42) cis-1,2-Dichloroethene	(2)	6.199	96	140724	20.104
45) 2,2-Dichloropropane	(2)	6.217	77	173723	20.147
47) Propionitrile	(1)	6.235	54	453768	198.426
48) Methacrylonitrile	(2)	6.454	67	527355	104.295

* = Compound is an internal standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.533	128	78983	20.428
50) Tetrahydrofuran	(1)	6.539	71	90782	38.211
51) Chloroform	(2)	6.679	83	221049	20.287
52)$Dibromofluoromethane	(2)	6.898	113	296836	49.769
52)$Dibromofluoromethane	(2)	6.898	111	303927	49.825
53) 1,1,1-Trichloroethane	(2)	6.917	97	189656	19.863
54) Cyclohexane	(2)	7.026	56	210849	19.098
54) Cyclohexane	(2)	7.026	84	186320	18.362
54) Cyclohexane	(2)	7.032	69	68053	19.340
55) 1,1-Dichloropropene	(2)	7.136	75	172792	19.916
56) Carbon Tetrachloride	(2)	7.136	117	161029	19.599
58) Isobutyl Alcohol	(1)	7.245	41	358591	488.563
57)$1,2-Dichloroethane-d4	(2)	7.367	102	74915	50.078
57)$1,2-Dichloroethane-d4	(2)	7.361	65	362710	49.555
57)$1,2-Dichloroethane-d4	(2)	7.367	104	48295	50.263
60) Benzene	(2)	7.397	78	520192	20.249
61) 1,2-Dichloroethane	(2)	7.470	62	182530	19.785
61) 1,2-Dichloroethane	(2)	7.476	98	16694	20.766
65) t-Amyl methyl ether	(2)	7.580	73	390451	21.692
66)*Fluorobenzene	(2)	7.799	96	1236618	50.000
67) n-Heptane	(2)	7.817	43	200872	19.458
69) n-Butanol	(1)	8.127	56	627269	1009.281
71) Trichloroethene	(2)	8.285	95	136054	20.124
72) Methylcyclohexane	(2)	8.608	83	247543	19.420
72) Methylcyclohexane	(2)	8.608	98	110800	19.228
73) 1,2-Dichloropropane	(2)	8.620	63	130467	20.521
76) Methyl Methacrylate	(2)	8.687	69	154699	20.713
75) 1,4-Dioxane	(1)	8.705	88	87933M	501.833
74) Dibromomethane	(2)	8.736	93	92274	20.423
78) Bromodichloromethane	(2)	8.967	83	157979	20.448
79) 2-Nitropropane	(2)	9.222	41	142278	40.426
80) 2-Chloroethyl Vinyl Ether	(2)	9.320	63	106653M	20.713
81) cis-1,3-Dichloropropene	(2)	9.508	75	207870	20.656
82) 4-Methyl-2-pentanone	(2)	9.666	43	546047	40.609
83)$Toluene-d8	(3)	9.818	98	1238207	50.082
83)$Toluene-d8	(3)	9.818	100	795857	50.084
88) Toluene	(3)	9.891	92	339290	20.084
90) 1,3-Dichloropropene (total)	(3)		100	401870	41.318

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	194000	20.662
91) Ethyl Methacrylate	(3)	10.202	69	247123	21.253
92) 1,1,2-Trichloroethane	(3)	10.354	97	134351	20.605
93) Tetrachloroethene	(3)	10.445	166	146837	20.069
94) 1,3-Dichloropropane	(3)	10.512	76	225323	20.541
96) 2-Hexanone	(3)	10.548	43	450803	41.798
97) Dibromochloromethane	(3)	10.731	129	133728	20.680
99) 1,2-Dibromoethane	(3)	10.847	107	152560	21.065
100)*Chlorobenzene-d5	(3)	11.272	117	941997	50.000
101) 1-Chlorohexane	(3)	11.278	91	177621	19.208
102) Chlorobenzene	(3)	11.303	112	393638	20.401
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	129426	20.521
104) Ethylbenzene	(3)	11.382	91	664887	20.290
106) m+p-Xylene	(3)	11.498	106	529158	40.831
108) Xylene (Total)	(3)		106	789640	61.332
107) o-Xylene	(3)	11.826	106	260482	20.500
109) Styrene	(3)	11.844	104	431953	20.780
110) Bromoform	(3)	12.009	173	97182	20.158
111) Isopropylbenzene	(3)	12.130	105	668144	20.284
112) Cyclohexanone	(1)	12.197	55	401584	513.071
114)$4-Bromofluorobenzene	(3)	12.276	95	472734	50.079
114)$4-Bromofluorobenzene	(3)	12.276	174	387218	49.907
116) 1,1,2,2-Tetrachloroethane	(4)	12.367	83	234825	20.637
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	410083	107.323
115) Bromobenzene	(4)	12.392	156	176976	20.247
117) 1,2,3-Trichloropropane	(4)	12.416	110	80494	20.479
119) n-Propylbenzene	(4)	12.459	91	788772	20.446
120) 2-Chlorotoluene	(4)	12.538	126	165644	20.206
122) 1,3,5-Trimethylbenzene	(4)	12.593	105	594231	20.652
121) 4-Chlorotoluene	(4)	12.629	126	171615	20.023
124) tert-Butylbenzene	(4)	12.836	134	122225M	20.159
125) Pentachloroethane	(4)	12.872	167	99919	20.665
126) 1,2,4-Trimethylbenzene	(4)	12.878	105	614019	20.562
127) sec-Butylbenzene	(4)	13.000	105	752298	20.503
129) 1,3-Dichlorobenzene	(4)	13.104	146	340408	20.215
130) p-Isopropyltoluene	(4)	13.110	119	660742	20.583
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	521257	50.000
133) 1,4-Dichlorobenzene	(4)	13.177	146	349783	20.208

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

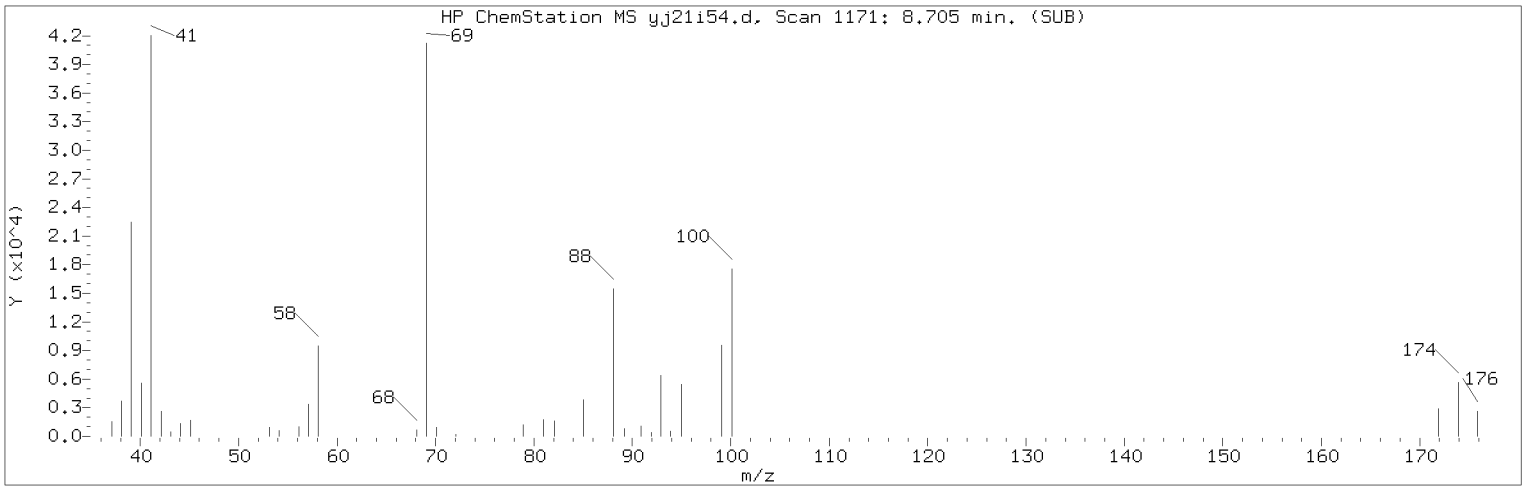
Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	669379	20.853
135) Benzyl Chloride	(4)	13.250	91	462336	20.950
136) 1,3-Diethylbenzene	(4)	13.310	119	420407	21.071
141) Diethylbenzene (total)	(4)		100	1219526	63.006
137) 1,4-Diethylbenzene	(4)	13.383	119	447431	21.034
139) n-Butylbenzene	(4)	13.402	92	333011M	20.190
138) 1,2-Dichlorobenzene	(4)	13.438	146	335991	20.329
140) 1,2-Diethylbenzene	(4)	13.456	119	351688	20.902
142) 1,2-Dibromo-3-chloropropane	(4)	13.980	75	64177	20.569
144) 1,3,5-Trichlorobenzene	(4)	14.113	180	258525	20.121
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	242905	19.922
147) Hexachlorobutadiene	(4)	14.618	225	108439	19.540
148) Naphthalene	(4)	14.716	128	866093	20.551
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	234395	19.764
150) 2-Methylnaphthalene	(4)	15.507	142	525824	20.987

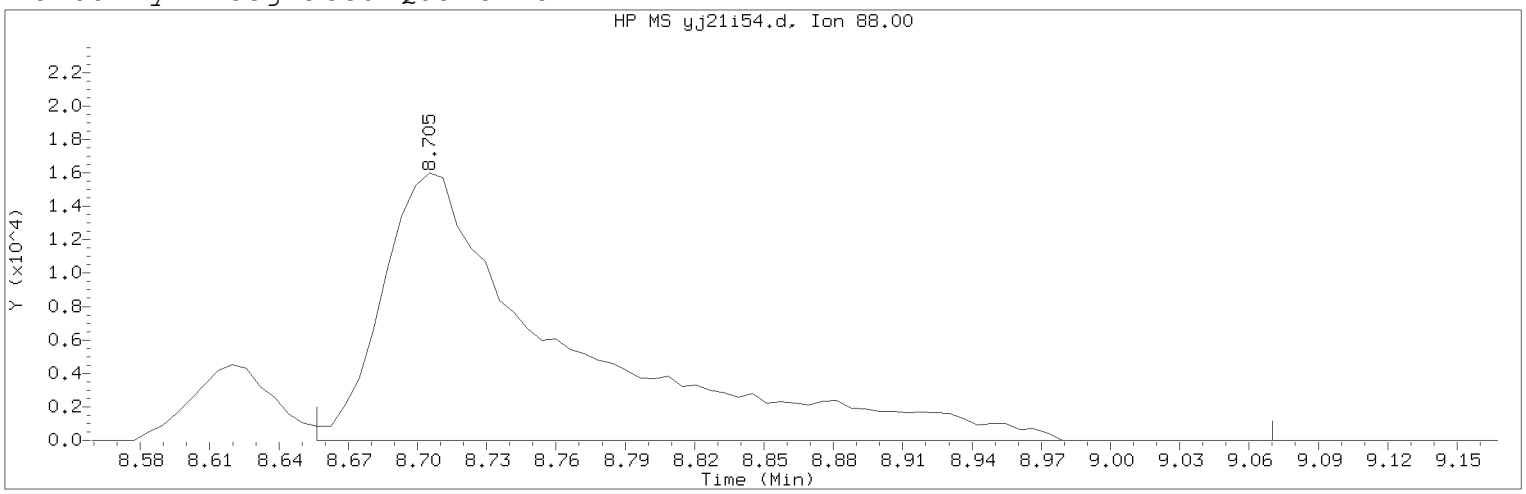
M = Compound was manually integrated.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

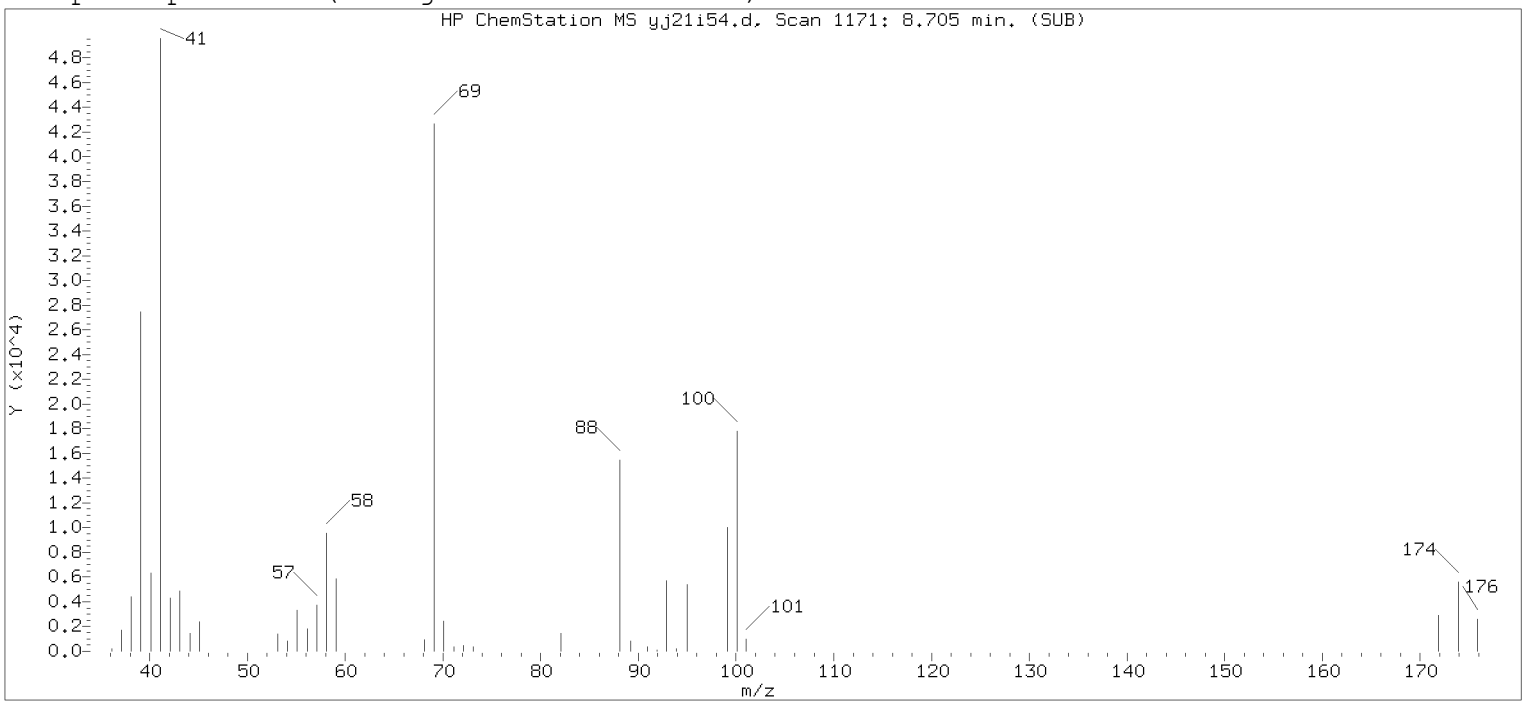
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1171
Retention Time (minutes): 8.705
Quant Ion : 88.00
Area (flag) : 87933M
On-Column Amount (ng) : 501.8332
Integration start scan : 1162 Integration stop scan: 1230
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

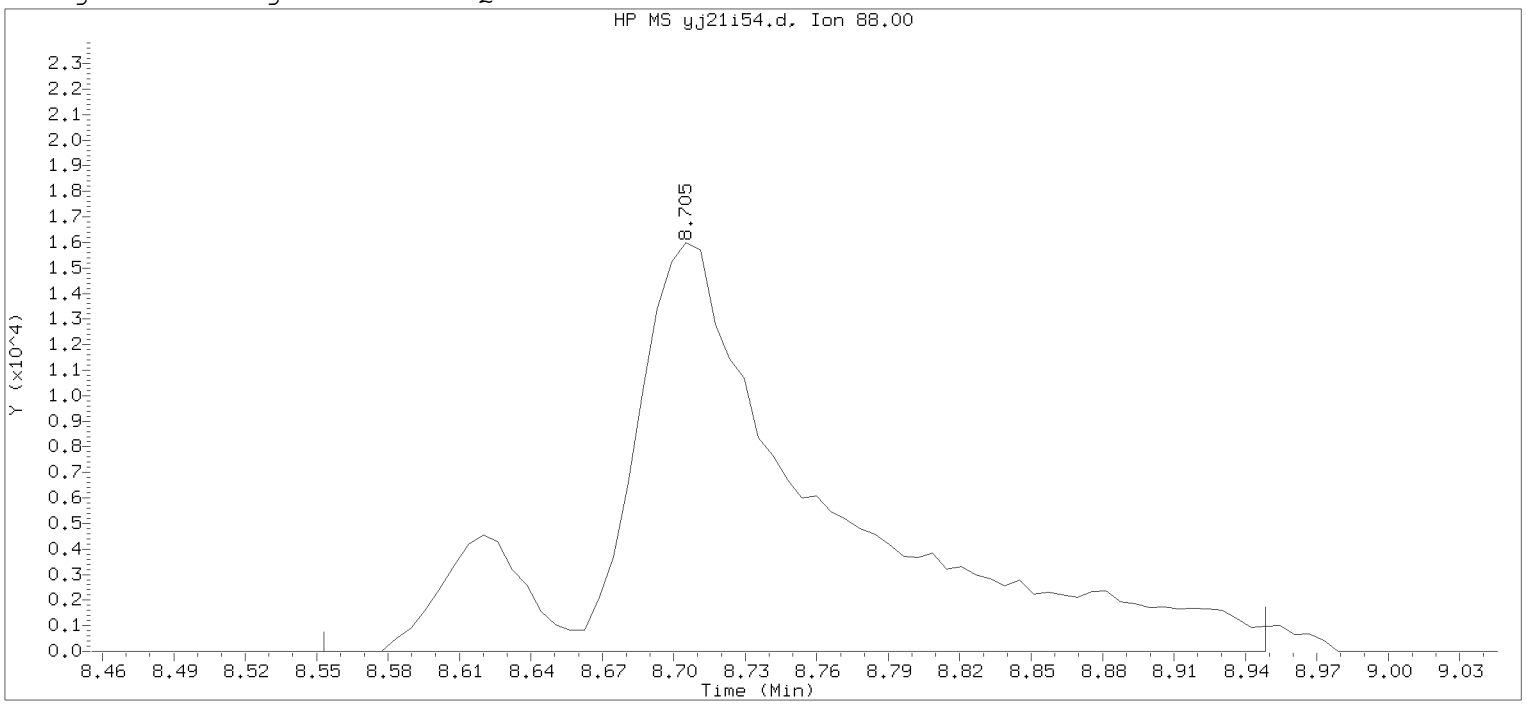
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

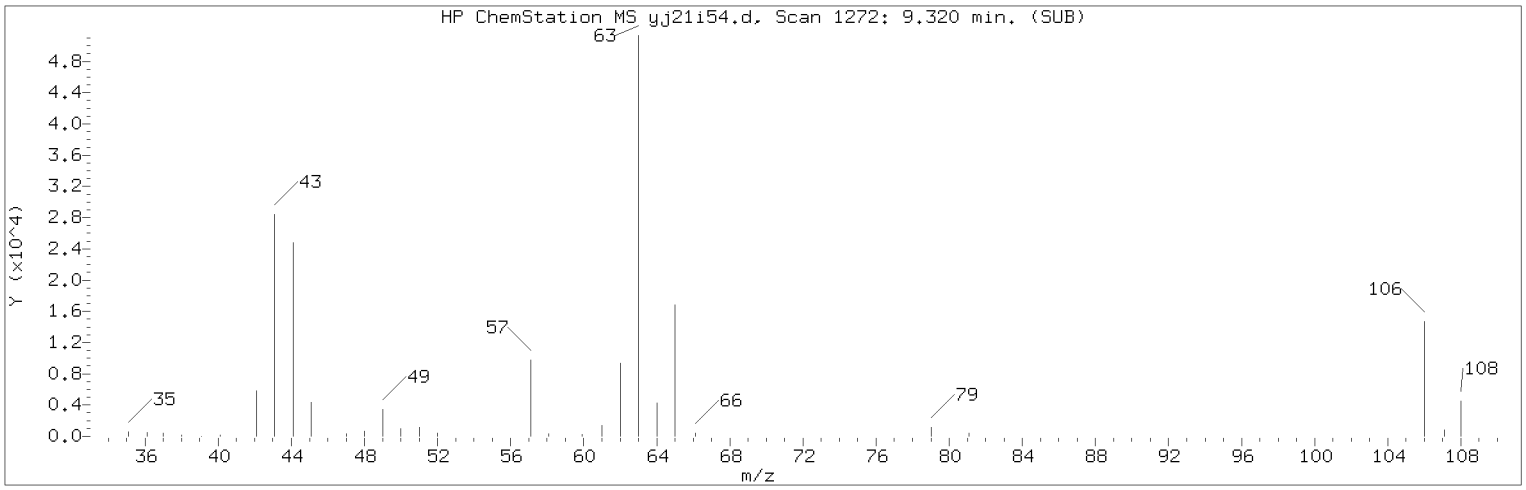
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD020 Lab Sample ID: VSTD020

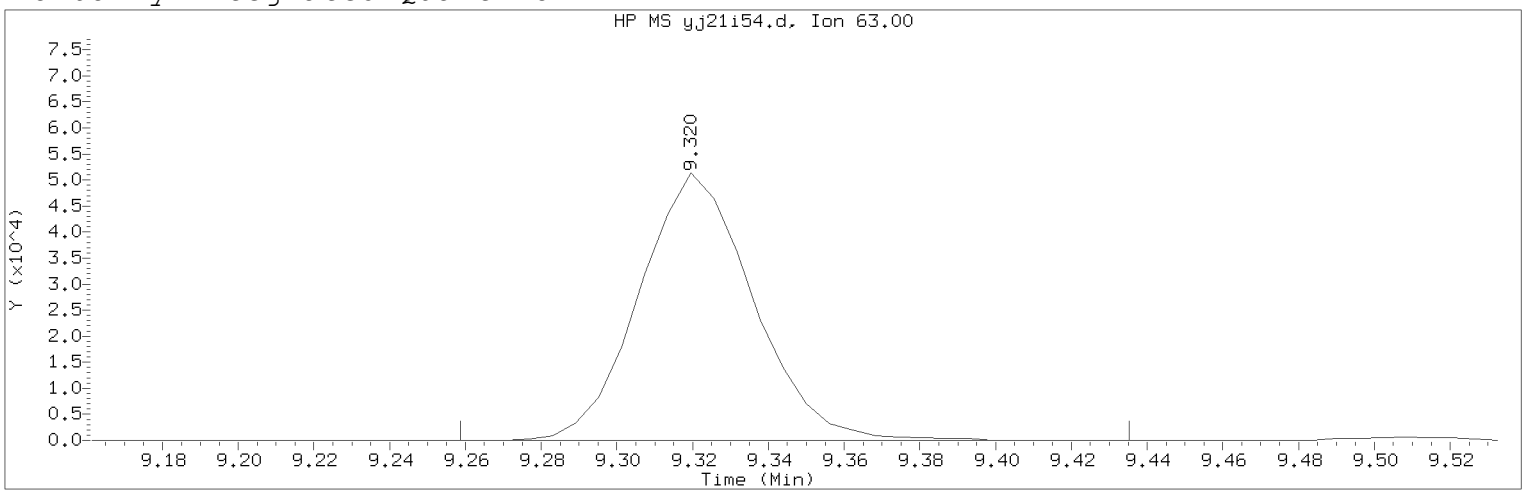
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1171		
Retention Time (minutes)	: 8.705		
Quant Ion	: 88.00		
Area	: 97770		
On-column Amount (ng)	: 441.8128		
Integration start scan	: 1145	Integration stop scan:	1210
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

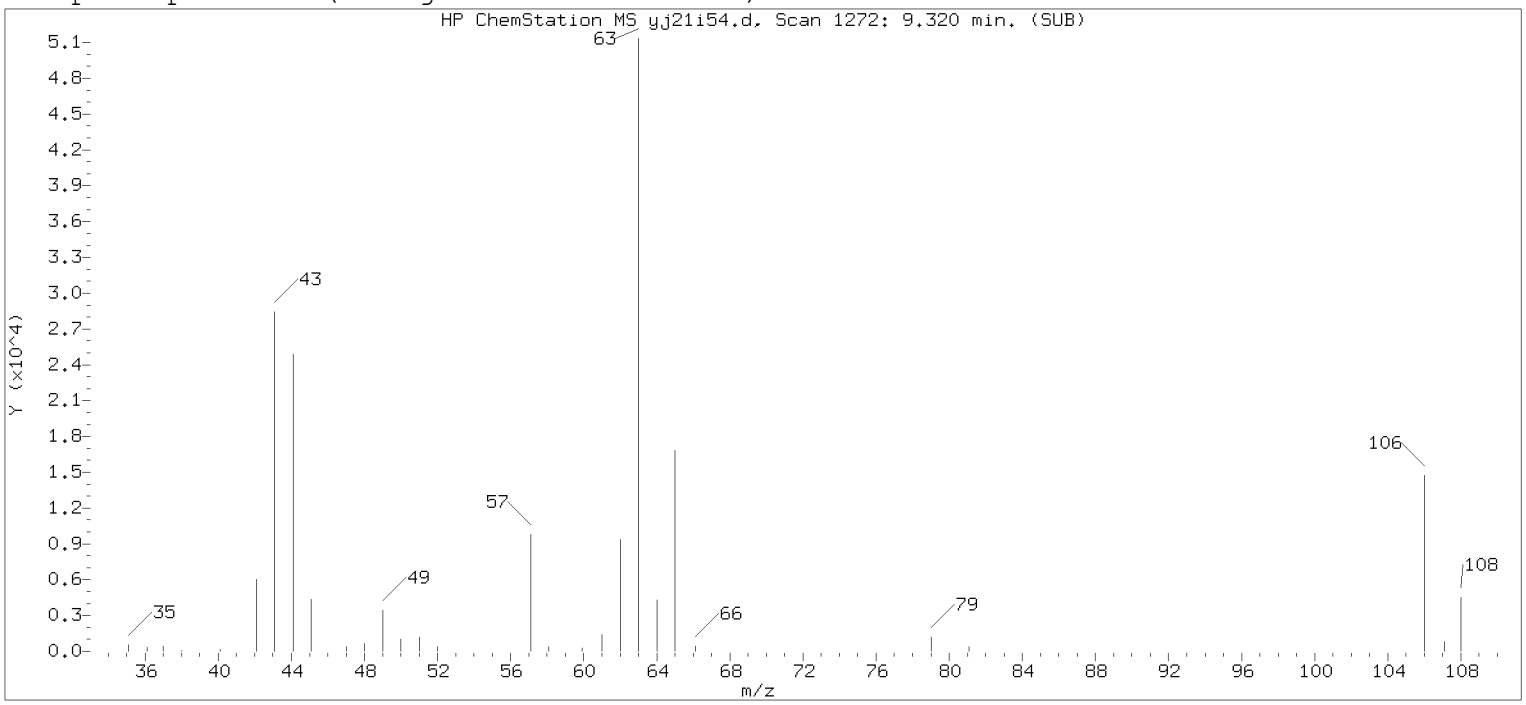
Compound Number : 80
Compound Name : 2-Chloroethyl Vinyl Ether
Scan Number : 1272
Retention Time (minutes): 9.320
Quant Ion : 63.00
Area (flag) : 106653M
On-Column Amount (ng) : 20.7127
Integration start scan : 1261 Integration stop scan: 1290
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

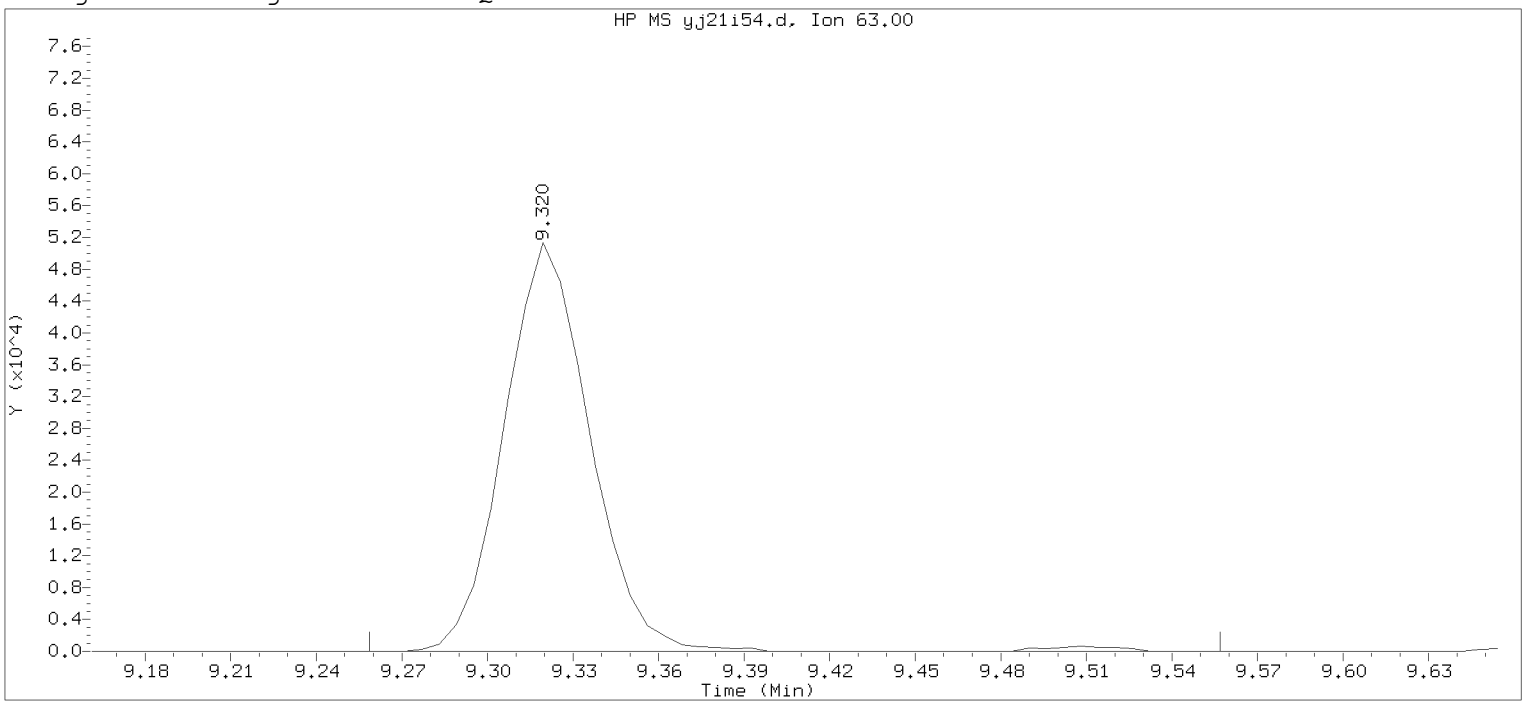
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

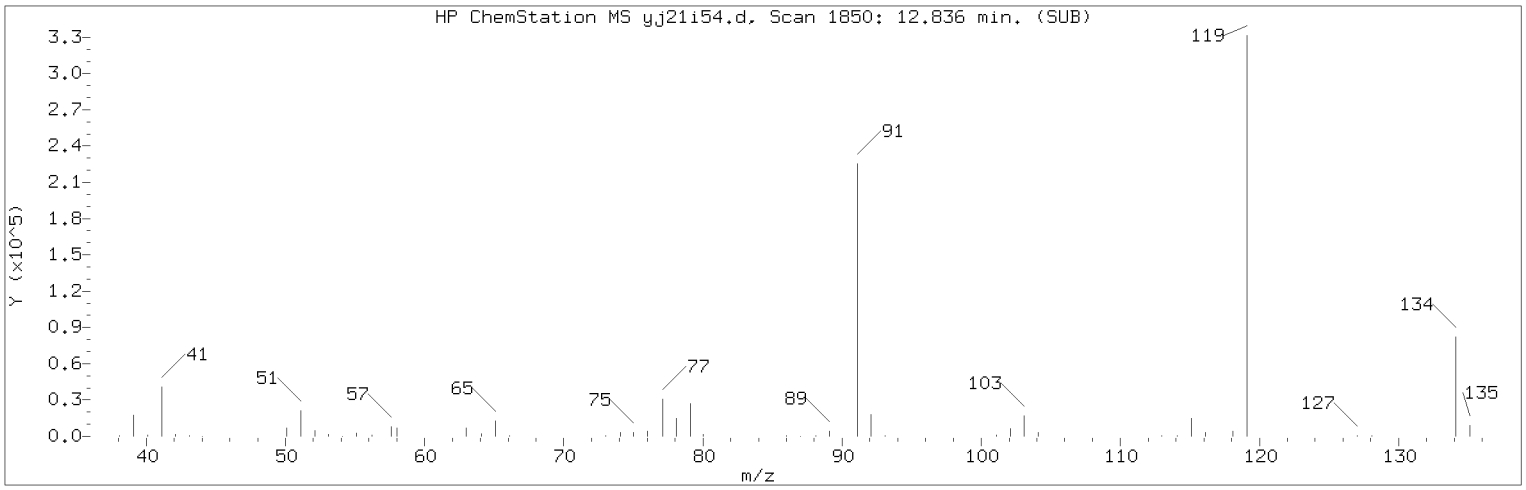
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD020 Lab Sample ID: VSTD020

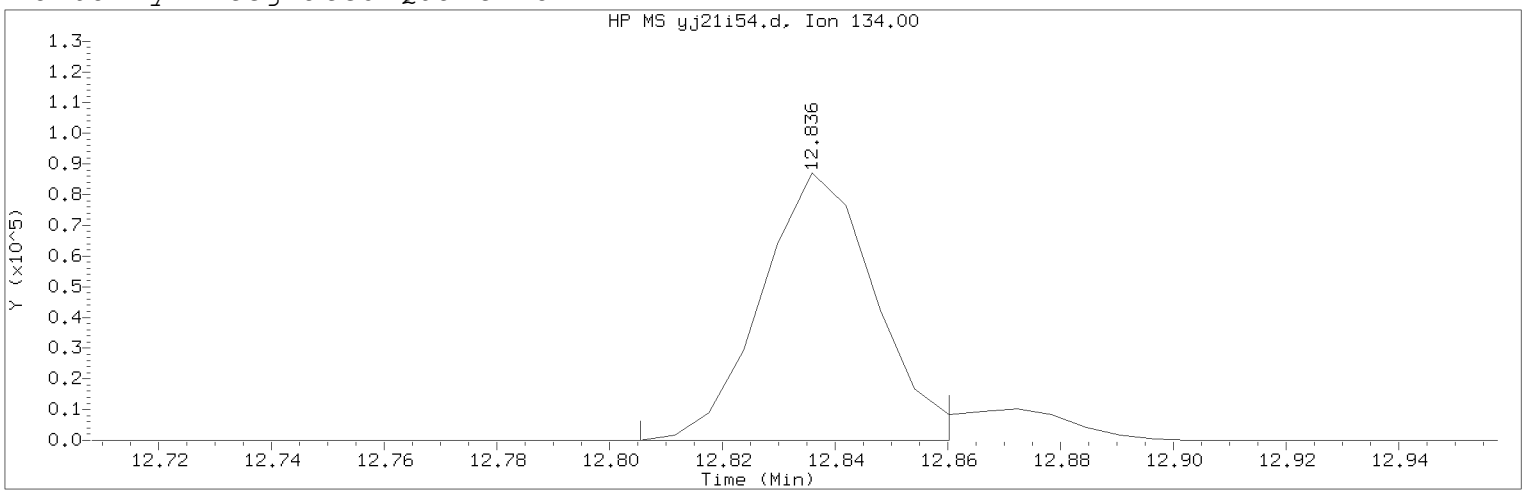
Compound Number : 80
Compound Name : 2-Chloroethyl Vinyl Ether
Scan Number : 1272
Retention Time (minutes): 9.320
Quant Ion : 63.00
Area : 107797
On-column Amount (ng) : 19.7677
Integration start scan : 1261 Integration stop scan: 1310
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

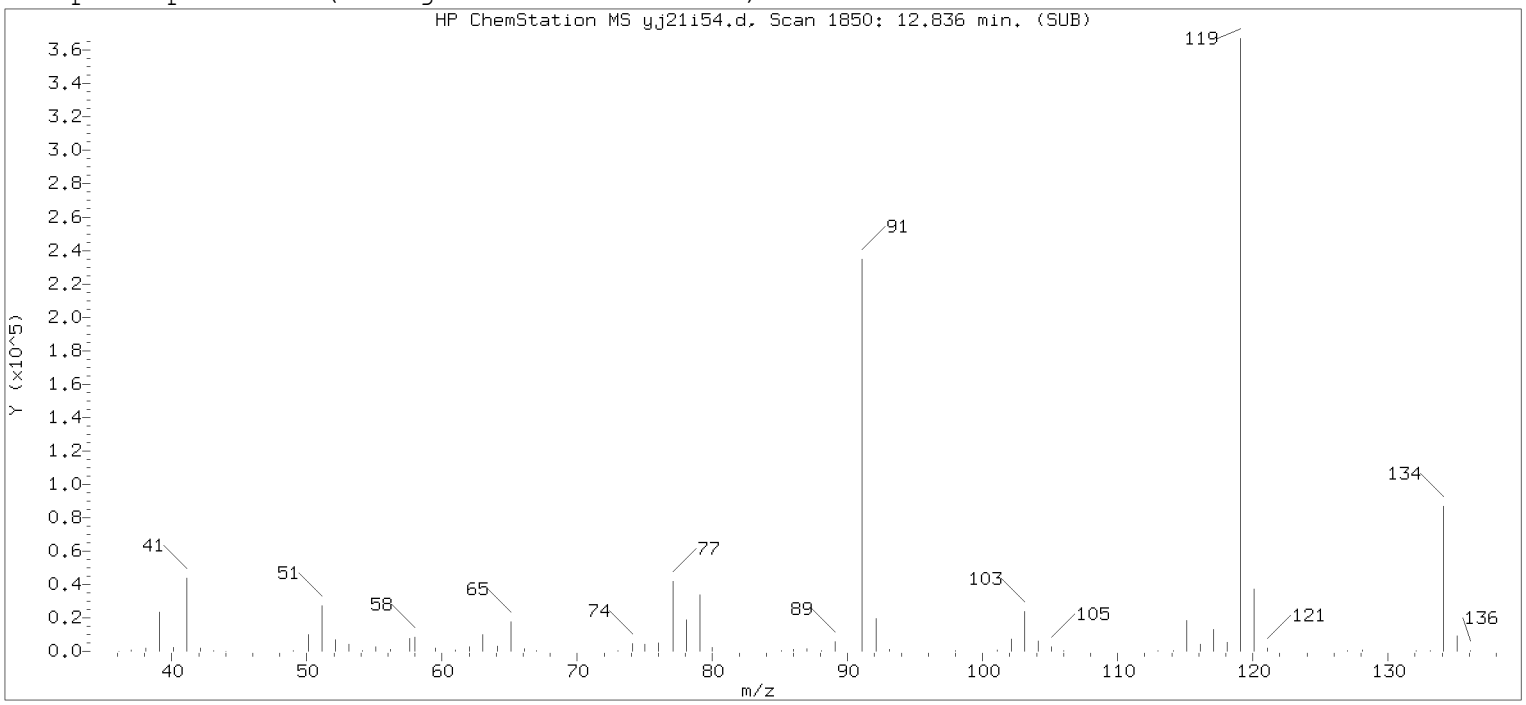
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 122225M
On-Column Amount (ng) : 20.1594
Integration start scan : 1844 Integration stop scan: 1853
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

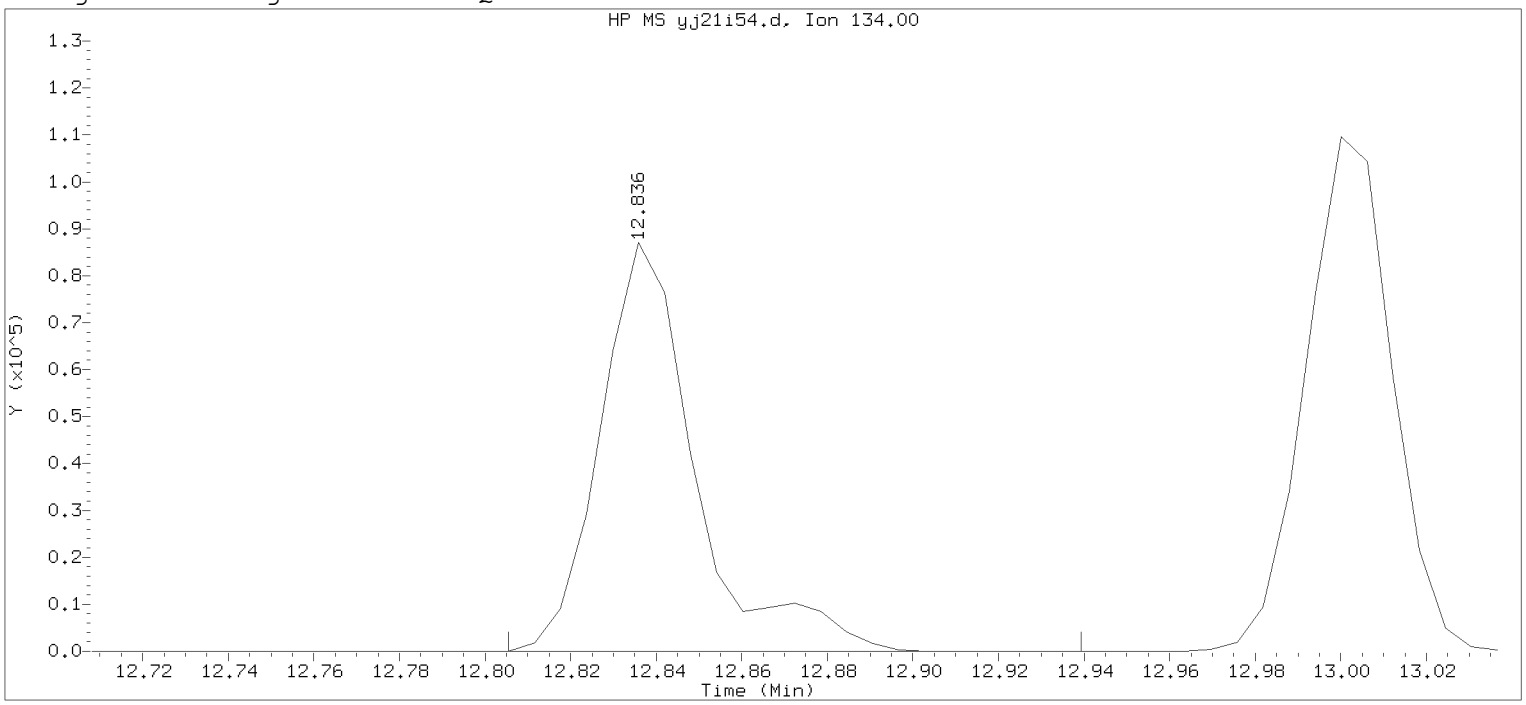
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

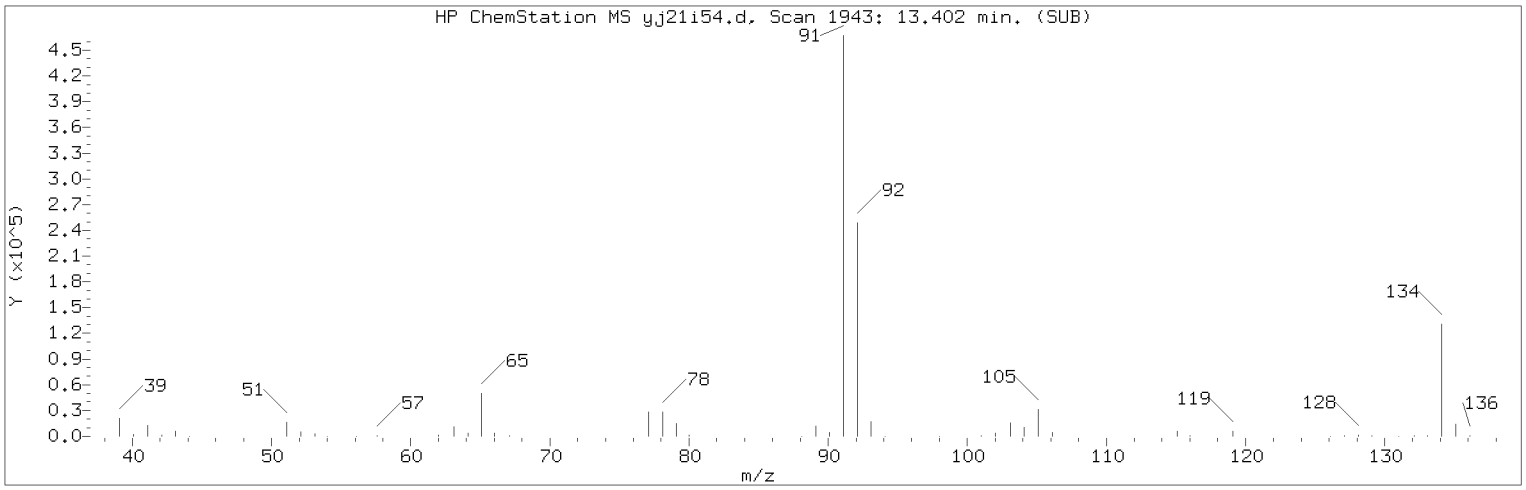
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD020 Lab Sample ID: VSTD020

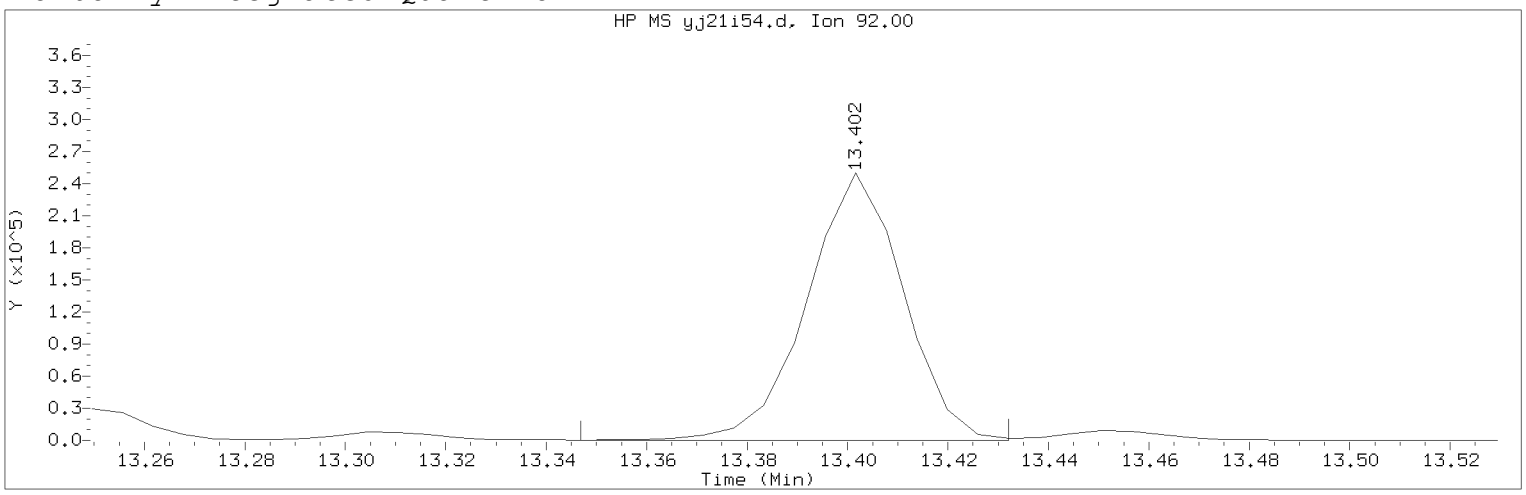
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 134707
On-column Amount (ng) : 19.7961
Integration start scan : 1844 Integration stop scan: 1866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:45 lcp00895

Sample Name: VSTD020 Lab Sample ID: VSTD020

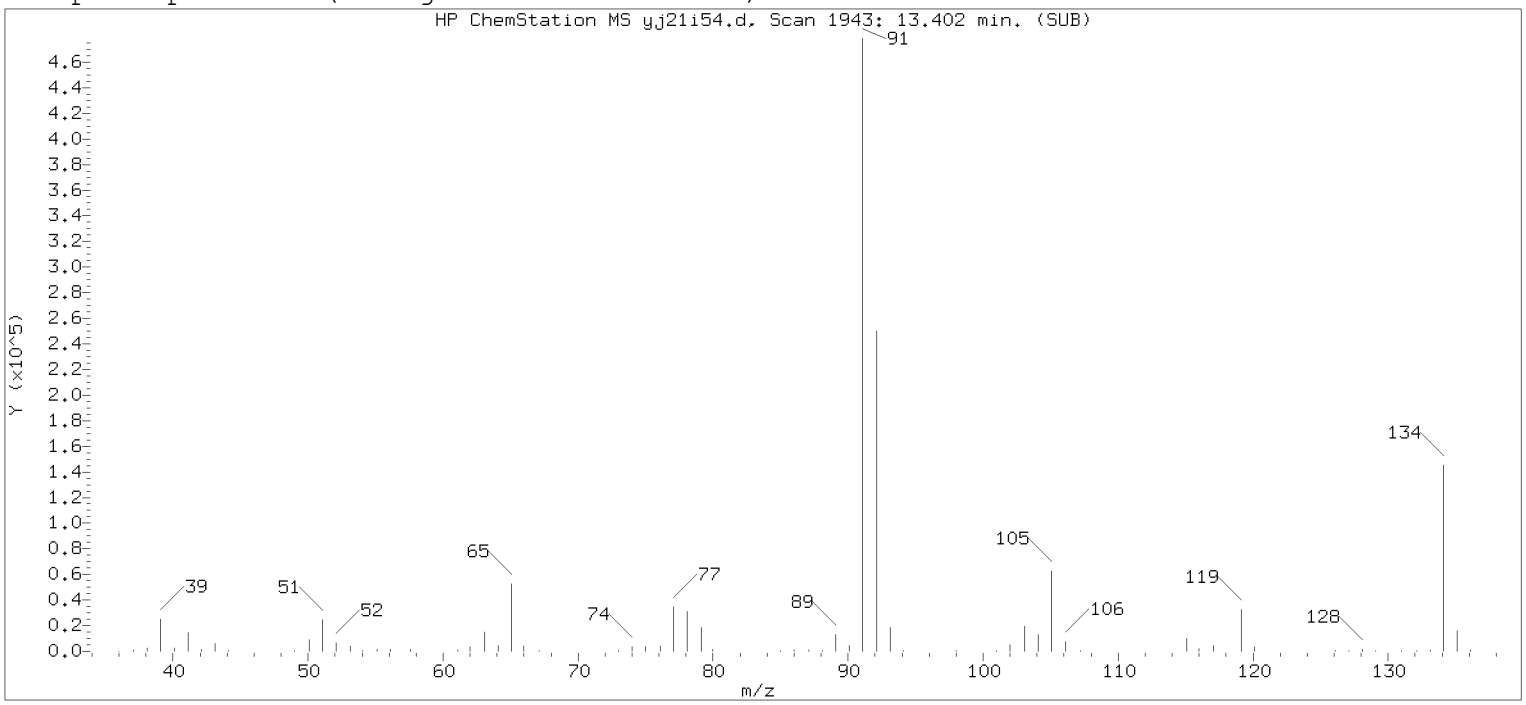
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area (flag) : 333011M
On-Column Amount (ng) : 20.1904
Integration start scan : 1933 Integration stop scan: 1947
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

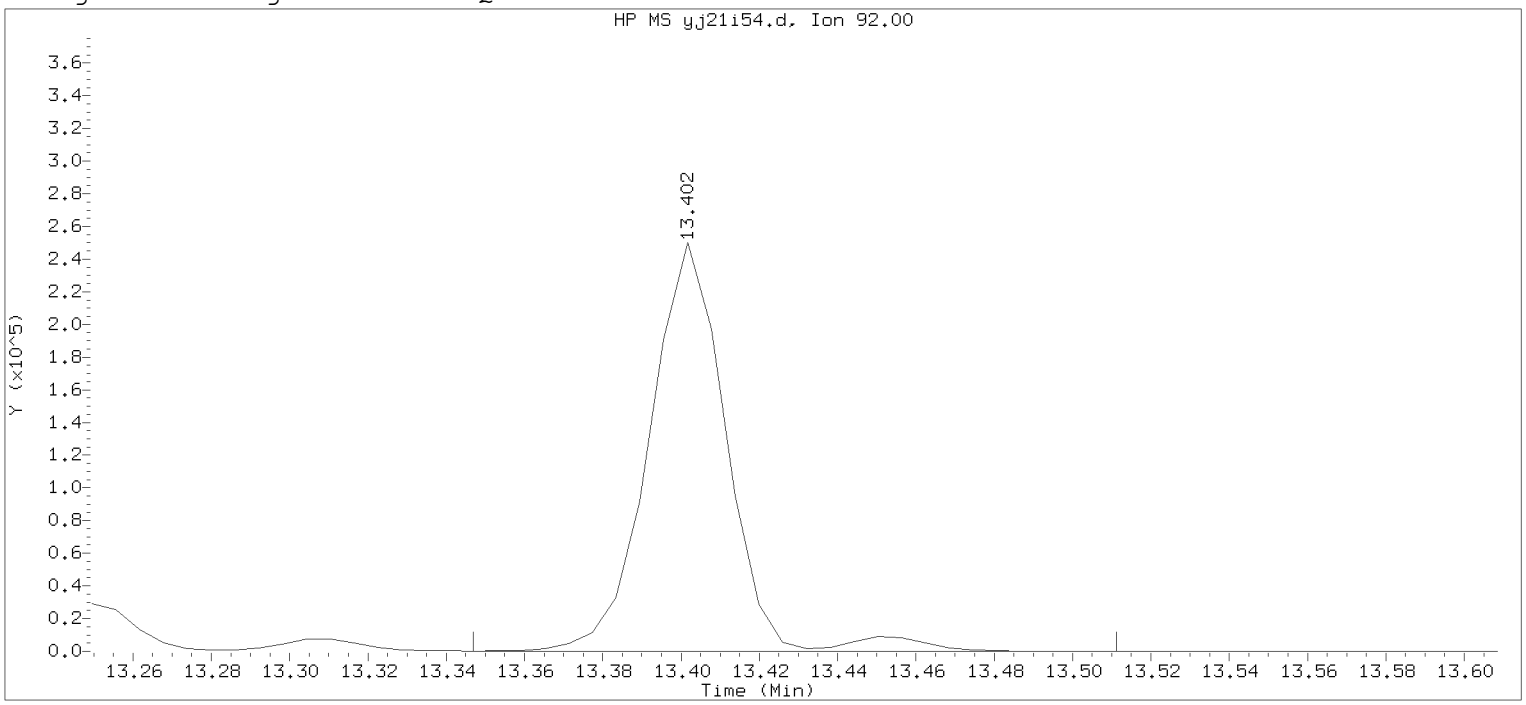
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



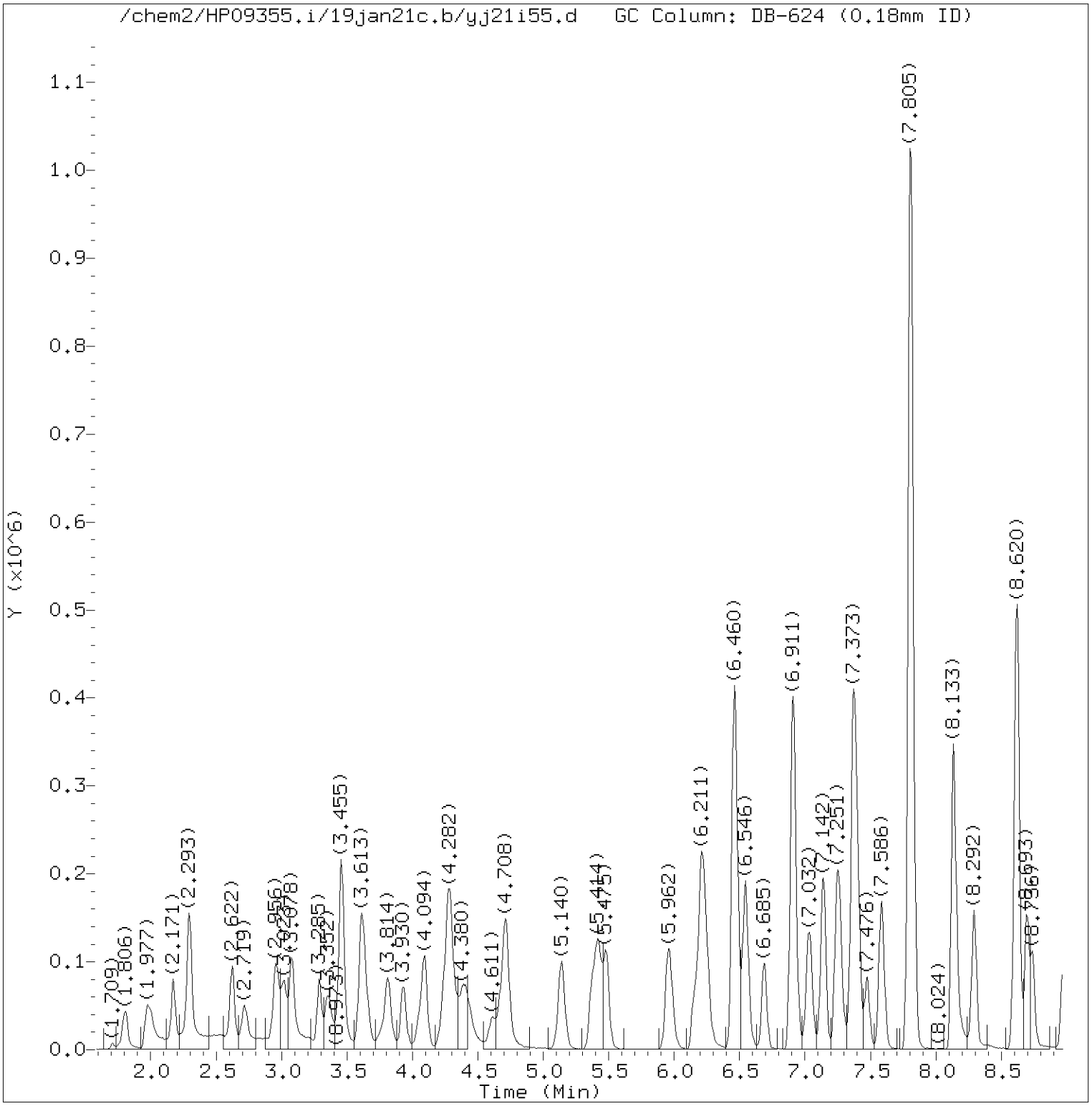
Data File: /chem2/HP09355.i/19jan21c.b/yj21i54.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 08:53 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area : 345412
On-column Amount (ng) : 20.0399
Integration start scan : 1933 Integration stop scan: 1960
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user [illegible]



Total Ion Chromatogram (TIC)

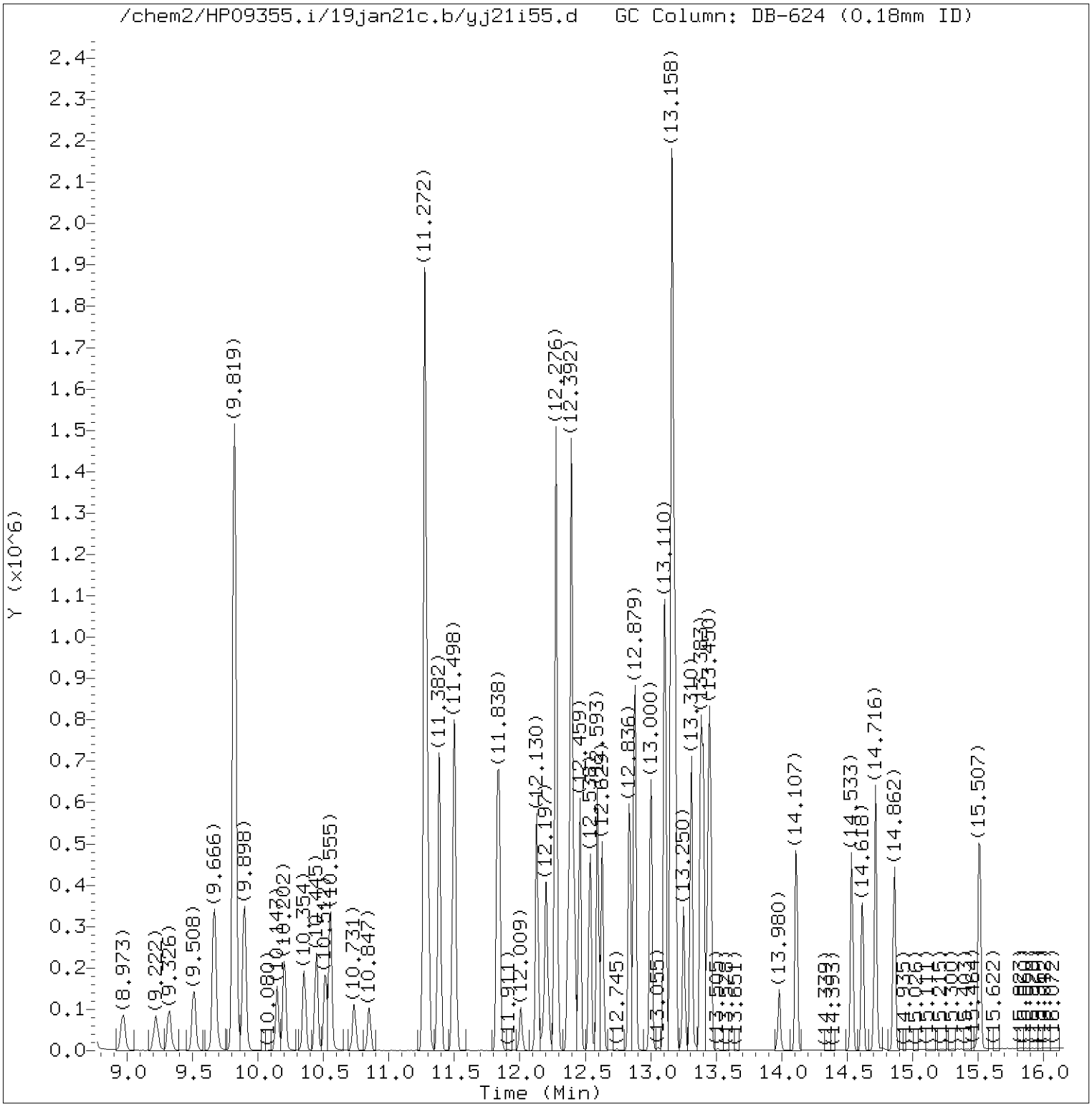
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.977	85	119704	11.571
4) Chloromethane	(2)	2.171	50	94044	11.165
6) Vinyl Chloride	(2)	2.293	62	93840	11.144
5) 1,3-Butadiene	(2)	2.299	39	57895	9.729
8) Bromomethane	(2)	2.622	94	74882	11.132
9) Chloroethane	(2)	2.719	64	54439	10.674
10) Dichlorofluoromethane	(2)	2.956	67	109668	10.664
12) Trichlorofluoromethane	(2)	3.023	101	134235	11.299
11) n-Pentane	(2)	3.078	43	90002	9.301
14) Ethyl ether	(2)	3.285	59	59302	10.043
15) Freon 123a	(2)	3.364	67	67725	9.935
16) Acrolein	(1)	3.455	56	297716	100.278
17) 1,1-Dichloroethene	(2)	3.607	96	48958	9.707
17) 1,1-Dichloroethene	(2)	3.607	63	25481	10.843
18) Acetone	(1)	3.619	58	31088	20.627
19) Freon 113	(2)	3.632	101	54382	9.821
21) 2-Propanol	(1)	3.790	45	107670	102.436
22) Methyl Iodide	(2)	3.814	142	104698	10.298
23) Carbon Disulfide	(2)	3.930	76	160999	9.837
27) Methyl Acetate	(2)	4.057	43	91111	9.876
25) Allyl Chloride	(2)	4.094	41	97268	10.470
29)*t-Butyl alcohol-d10	(1)	4.270	65	415197	250.000
28) Methylene Chloride	(2)	4.282	84	62937	10.105
30) t-Butyl alcohol	(1)	4.404	59	224835	105.982
31) Acrylonitrile	(2)	4.605	53	51514	10.309
33) Methyl Tertiary Butyl Ether	(2)	4.690	73	180832	10.577
32) trans-1,2-Dichloroethene	(2)	4.720	96	62119	10.276
34) n-Hexane	(2)	5.140	57	95564	10.217
36) 1,1-Dichloroethane	(2)	5.371	63	109016	10.345
38) di-Isopropyl ether	(2)	5.426	45	202455	10.441
39) 2-Chloro-1,3-butadiene	(2)	5.481	53	92896	9.918
40) Ethyl t-butyl ether	(2)	5.962	59	183590	10.858
43) 1,2-Dichloroethene (Total)	(2)		96	133753	20.654
44) 2-Butanone	(2)	6.156	43	153045	20.393
42) cis-1,2-Dichloroethene	(2)	6.205	96	71634	10.378
45) 2,2-Dichloropropane	(2)	6.217	77	84981	9.994
47) Propionitrile	(1)	6.247	54	216016	100.632
48) Methacrylonitrile	(2)	6.460	67	249603	50.060

* = Compound is an internal standard.

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on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.546	128	40301	10.570
50) Tetrahydrofuran	(1)	6.546	71	44186	19.813
51) Chloroform	(2)	6.685	83	110356	10.271
52)$Dibromofluoromethane	(2)	6.904	113	293110	49.838
52)$Dibromofluoromethane	(2)	6.904	111	299537	49.798
53) 1,1,1-Trichloroethane	(2)	6.923	97	95687	10.163
54) Cyclohexane	(2)	7.032	56	108763	9.990
54) Cyclohexane	(2)	7.032	84	96524	9.647
54) Cyclohexane	(2)	7.032	69	34604	9.973
55) 1,1-Dichloropropene	(2)	7.136	75	88169	10.306
56) Carbon Tetrachloride	(2)	7.142	117	78573	9.698
58) Isobutyl Alcohol	(1)	7.251	41	191677	278.213
57)$1,2-Dichloroethane-d4	(2)	7.367	102	74312	50.375
57)$1,2-Dichloroethane-d4	(2)	7.367	65	360577	49.958
57)$1,2-Dichloroethane-d4	(2)	7.367	104	47265	49.884
60) Benzene	(2)	7.403	78	262616	10.366
61) 1,2-Dichloroethane	(2)	7.476	62	91774	10.088
61) 1,2-Dichloroethane	(2)	7.470	98	8740	11.025
65) t-Amyl methyl ether	(2)	7.586	73	195207	10.998
66)*Fluorobenzene	(2)	7.805	96	1219425	50.000
67) n-Heptane	(2)	7.817	43	105513	10.365
69) n-Butanol	(1)	8.133	56	320332	549.092
71) Trichloroethene	(2)	8.292	95	69103	10.365
72) Methylcyclohexane	(2)	8.608	83	130167	10.356
72) Methylcyclohexane	(2)	8.608	98	57955	10.199
73) 1,2-Dichloropropane	(2)	8.626	63	65127	10.388
76) Methyl Methacrylate	(2)	8.693	69	74320	10.091
75) 1,4-Dioxane	(1)	8.711	88	41245M	250.764
74) Dibromomethane	(2)	8.736	93	45228	10.151
78) Bromodichloromethane	(2)	8.973	83	75332	9.888
79) 2-Nitropropane	(2)	9.222	41	64641M	18.626
80) 2-Chloroethyl Vinyl Ether	(2)	9.320	63	51759	10.194
81) cis-1,3-Dichloropropene	(2)	9.508	75	100233	10.101
82) 4-Methyl-2-pentanone	(2)	9.666	43	272936	20.584
83)$Toluene-d8	(3)	9.819	98	1226739	50.309
83)$Toluene-d8	(3)	9.819	100	782185	49.909
88) Toluene	(3)	9.898	92	173124	10.391
90) 1,3-Dichloropropene (total)	(3)		100	190024	19.797

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	89791	9.696
91) Ethyl Methacrylate	(3)	10.202	69	118056	10.295
92) 1,1,2-Trichloroethane	(3)	10.354	97	66794	10.386
93) Tetrachloroethene	(3)	10.451	166	75487	10.461
94) 1,3-Dichloropropane	(3)	10.512	76	112779	10.424
96) 2-Hexanone	(3)	10.555	43	223073	20.971
97) Dibromochloromethane	(3)	10.737	129	62259	9.762
99) 1,2-Dibromoethane	(3)	10.847	107	72968	10.215
100)*Chlorobenzene-d5	(3)	11.272	117	929063	50.000
101) 1-Chlorohexane	(3)	11.279	91	93657	10.269
102) Chlorobenzene	(3)	11.303	112	202881	10.661
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	64706	10.402
104) Ethylbenzene	(3)	11.388	91	343804	10.638
106) m+p-Xylene	(3)	11.498	106	273672	21.411
108) Xylene (Total)	(3)		106	405895	31.962
107) o-Xylene	(3)	11.832	106	132223	10.551
109) Styrene	(3)	11.844	104	216181	10.545
110) Bromoform	(3)	12.009	173	45579	9.586
111) Isopropylbenzene	(3)	12.130	105	355072	10.929
112) Cyclohexanone	(1)	12.197	55	179506	244.324
114)$4-Bromofluorobenzene	(3)	12.276	95	467913	50.258
114)$4-Bromofluorobenzene	(3)	12.276	174	385580	50.388
116) 1,1,2,2-Tetrachloroethane	(4)	12.368	83	123112	10.872
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	202883	53.354
115) Bromobenzene	(4)	12.392	156	92313	10.612
117) 1,2,3-Trichloropropane	(4)	12.416	110	42561	10.881
119) n-Propylbenzene	(4)	12.459	91	421638	10.982
120) 2-Chlorotoluene	(4)	12.538	126	87498	10.725
122) 1,3,5-Trimethylbenzene	(4)	12.593	105	314846	10.995
121) 4-Chlorotoluene	(4)	12.629	126	91962	10.782
124) tert-Butylbenzene	(4)	12.836	134	64134M	10.629
125) Pentachloroethane	(4)	12.872	167	47484	9.868
126) 1,2,4-Trimethylbenzene	(4)	12.879	105	326564	10.989
127) sec-Butylbenzene	(4)	13.000	105	404315	11.073
129) 1,3-Dichlorobenzene	(4)	13.104	146	182428	10.886
130) p-Isopropyltoluene	(4)	13.110	119	348537	10.910
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	518745	50.000
133) 1,4-Dichlorobenzene	(4)	13.177	146	188884	10.965

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

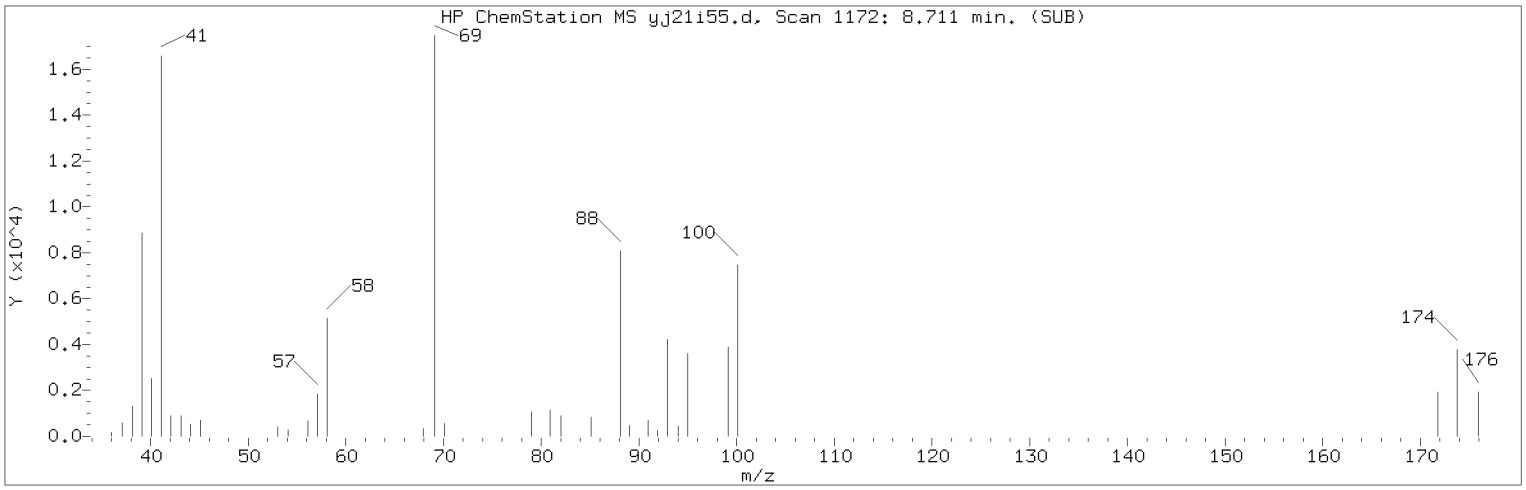
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	338974	10.611
135) Benzyl Chloride	(4)	13.250	91	220261	10.029
136) 1,3-Diethylbenzene	(4)	13.310	119	209818	10.567
141) Diethylbenzene (total)	(4)		100	611924	31.771
137) 1,4-Diethylbenzene	(4)	13.383	119	225132	10.635
139) n-Butylbenzene	(4)	13.402	92	178437M	10.871
138) 1,2-Dichlorobenzene	(4)	13.438	146	176666	10.741
140) 1,2-Diethylbenzene	(4)	13.456	119	176974	10.569
142) 1,2-Dibromo-3-chloropropane	(4)	13.980	75	31915	10.278
144) 1,3,5-Trichlorobenzene	(4)	14.114	180	138586	10.838
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	129676	10.687
147) Hexachlorobutadiene	(4)	14.618	225	57847	10.474
148) Naphthalene	(4)	14.716	128	451994	10.777
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	125709	10.651
150) 2-Methylnaphthalene	(4)	15.513	142	249444	10.004

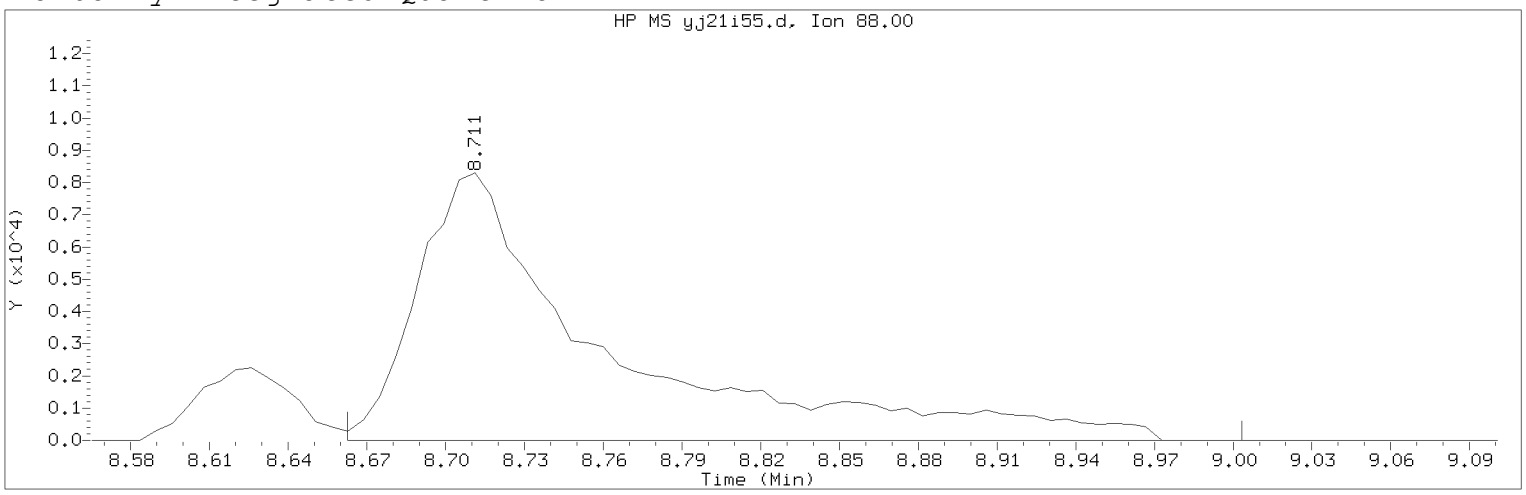
M = Compound was manually integrated.

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

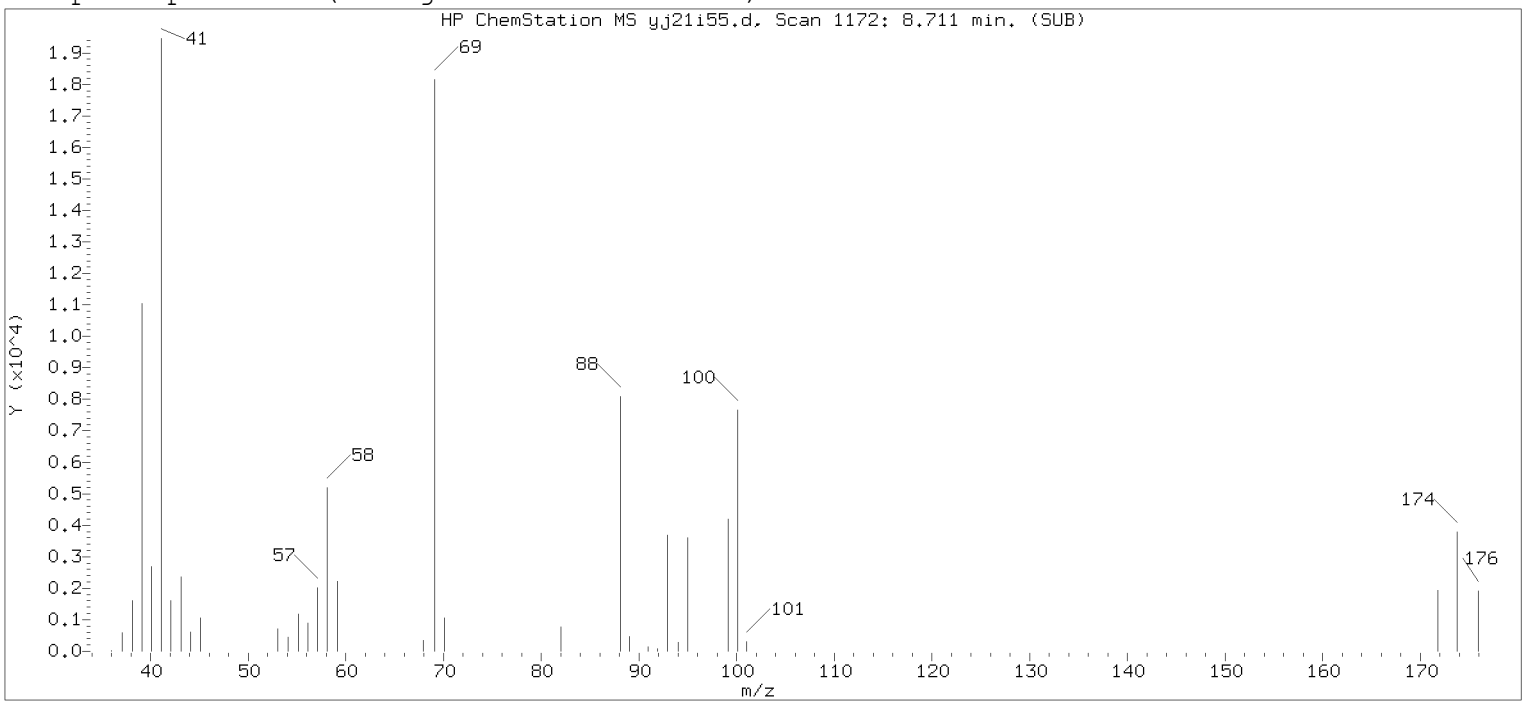
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area (flag) : 41245M
On-Column Amount (ng) : 250.7640
Integration start scan : 1163 Integration stop scan: 1219
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

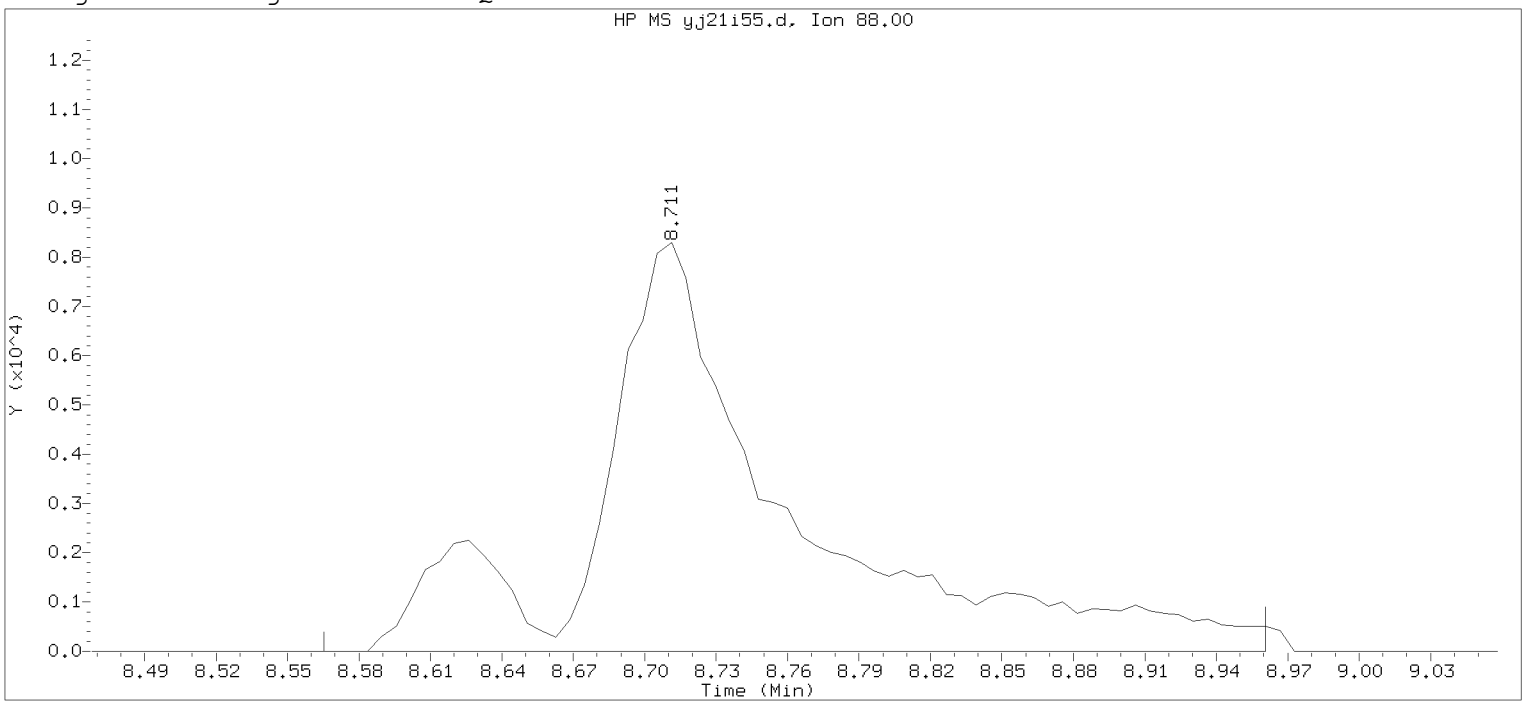
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

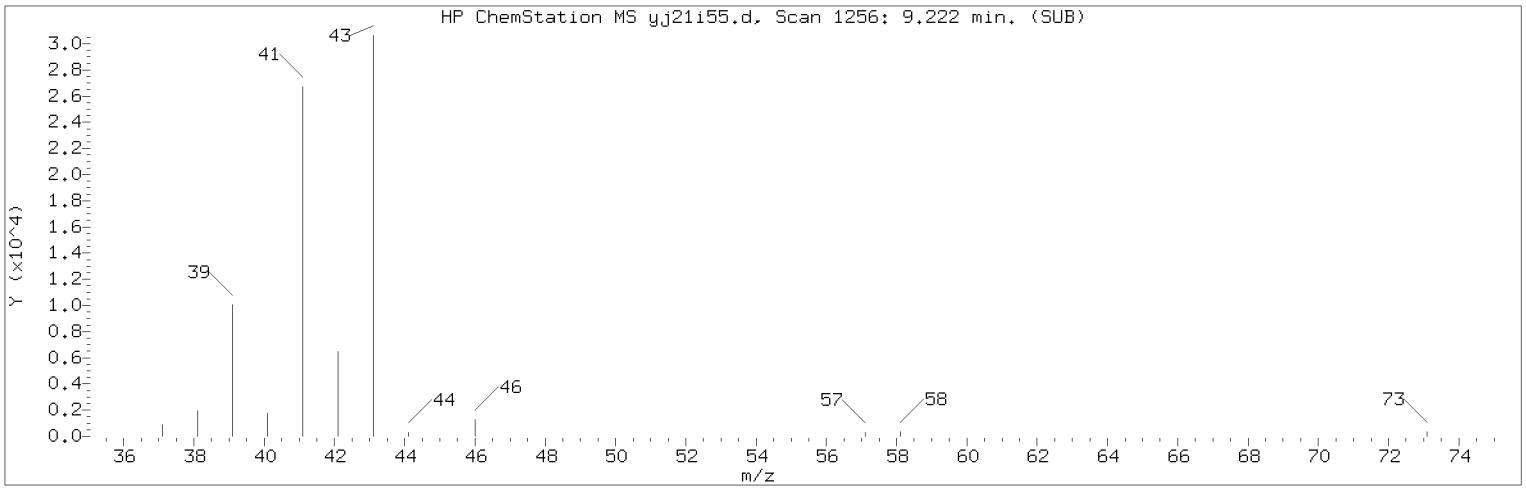
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD010 Lab Sample ID: VSTD010

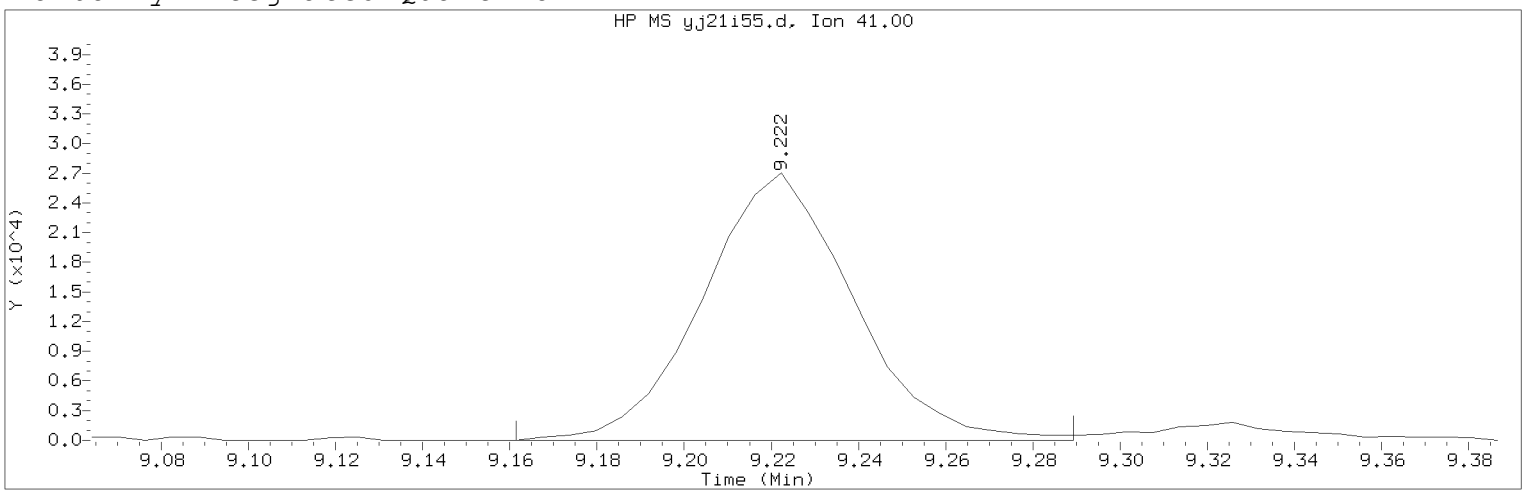
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area : 46697
On-column Amount (ng) : 229.4304
Integration start scan : 1147 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 01/23/2019 at 17:40.
Target 3.5 esignature used for page 453

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

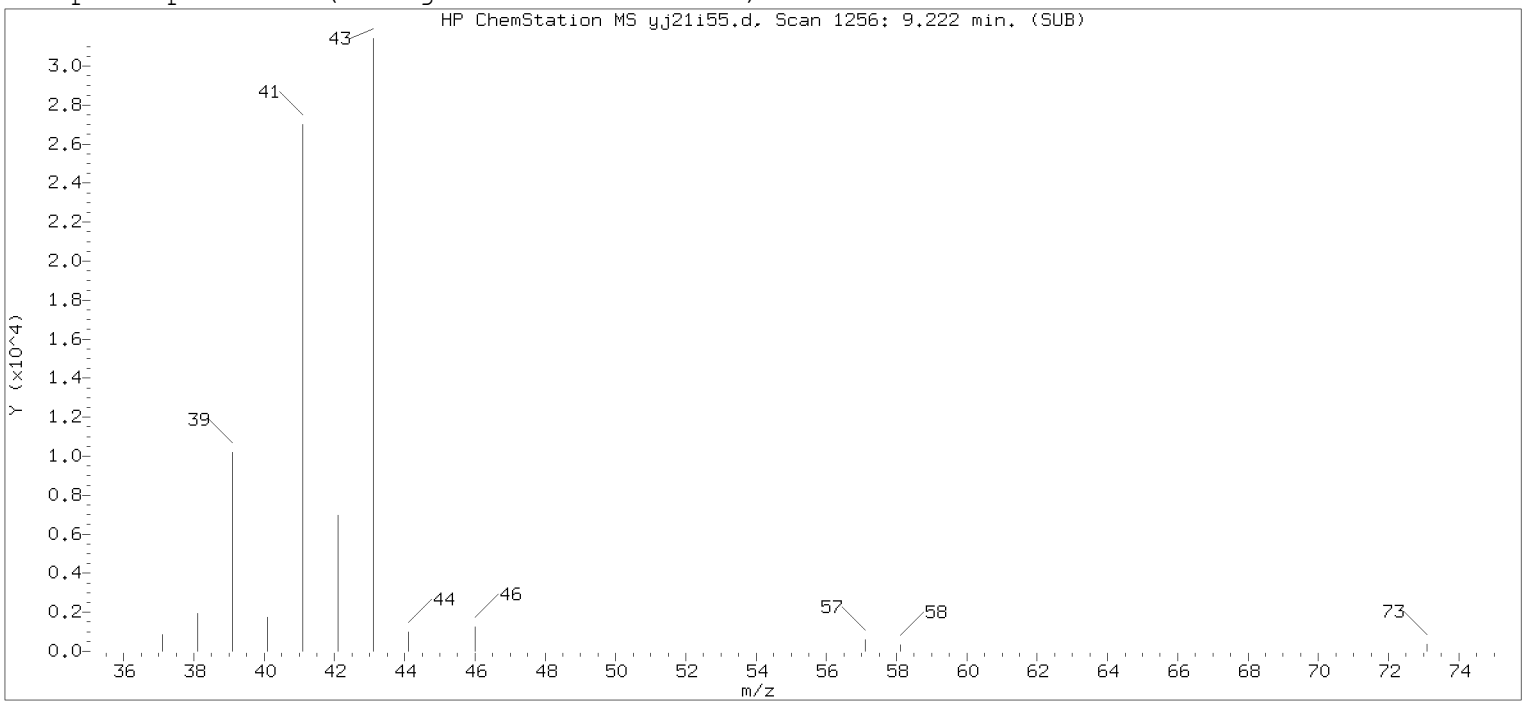
Compound Number : 79
Compound Name : 2-Nitropropane
Scan Number : 1256
Retention Time (minutes): 9.222
Quant Ion : 41.00
Area (flag) : 64641M
On-Column Amount (ng) : 18.6259
Integration start scan : 1245 Integration stop scan: 1266
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

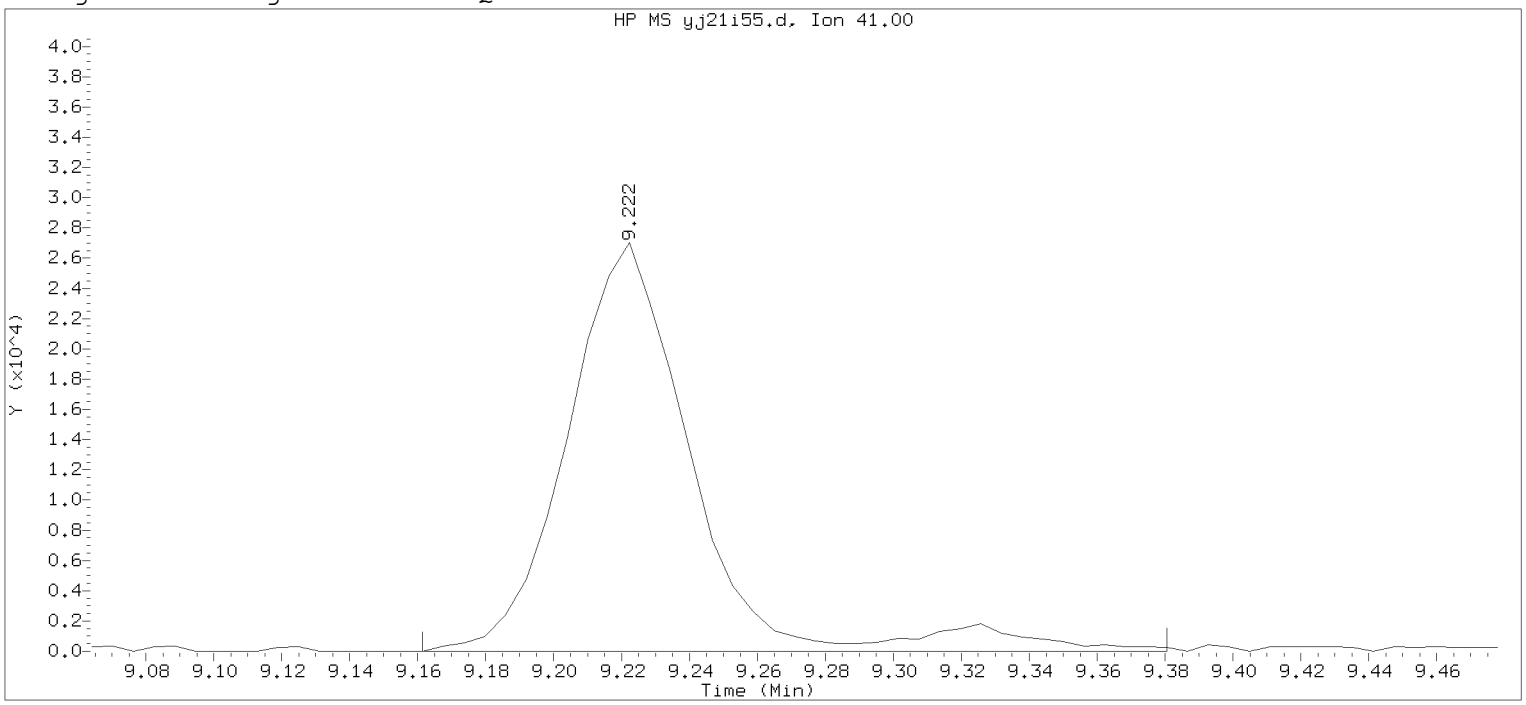
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

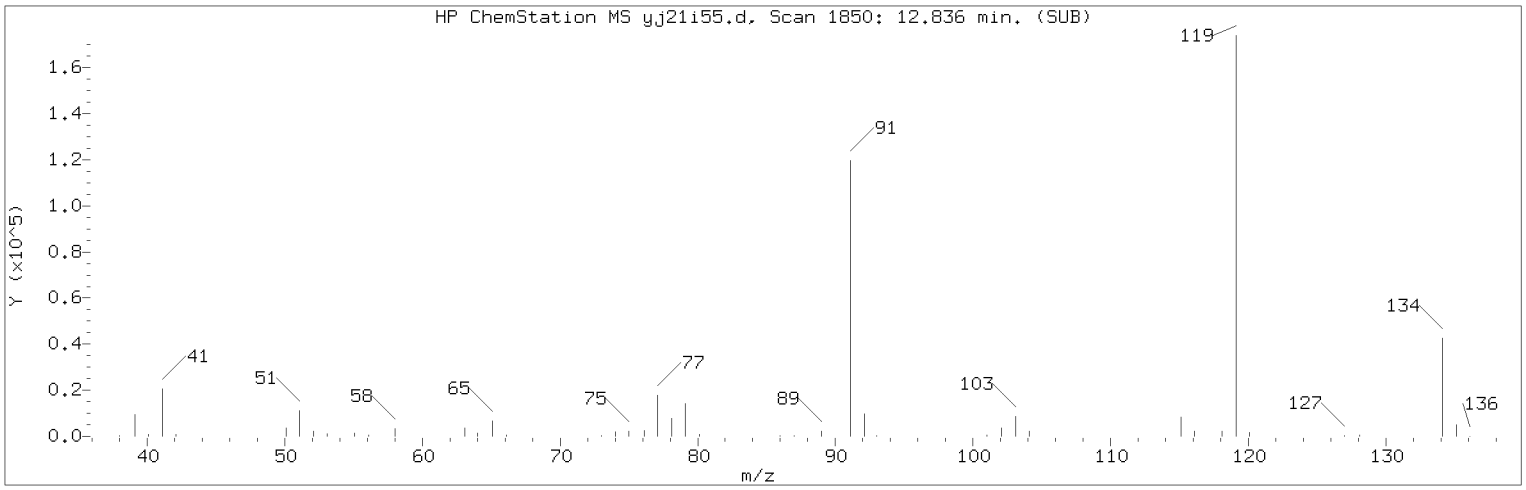
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD010 Lab Sample ID: VSTD010

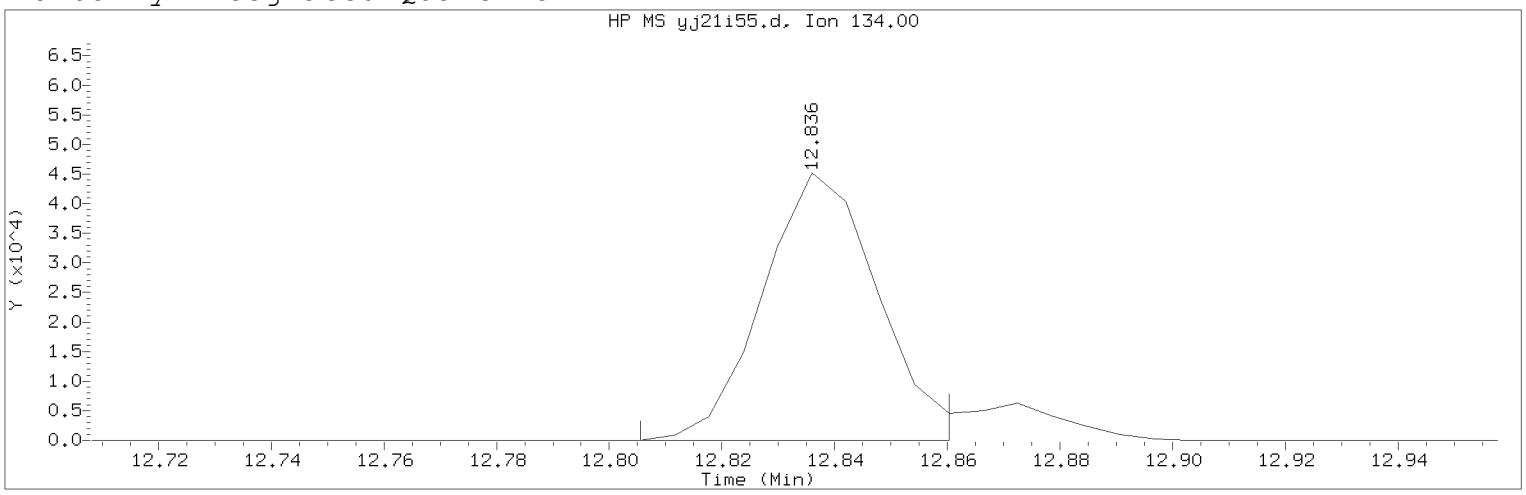
Compound Number : 79
Compound Name : 2-Nitropropane
Scan Number : 1256
Retention Time (minutes): 9.222
Quant Ion : 41.00
Area : 68977
On-column Amount (ng) : 18.2053
Integration start scan : 1245 Integration stop scan: 1281
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 01/23/2019 at 17:40.
Target 3.5 esignature used for page 455

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

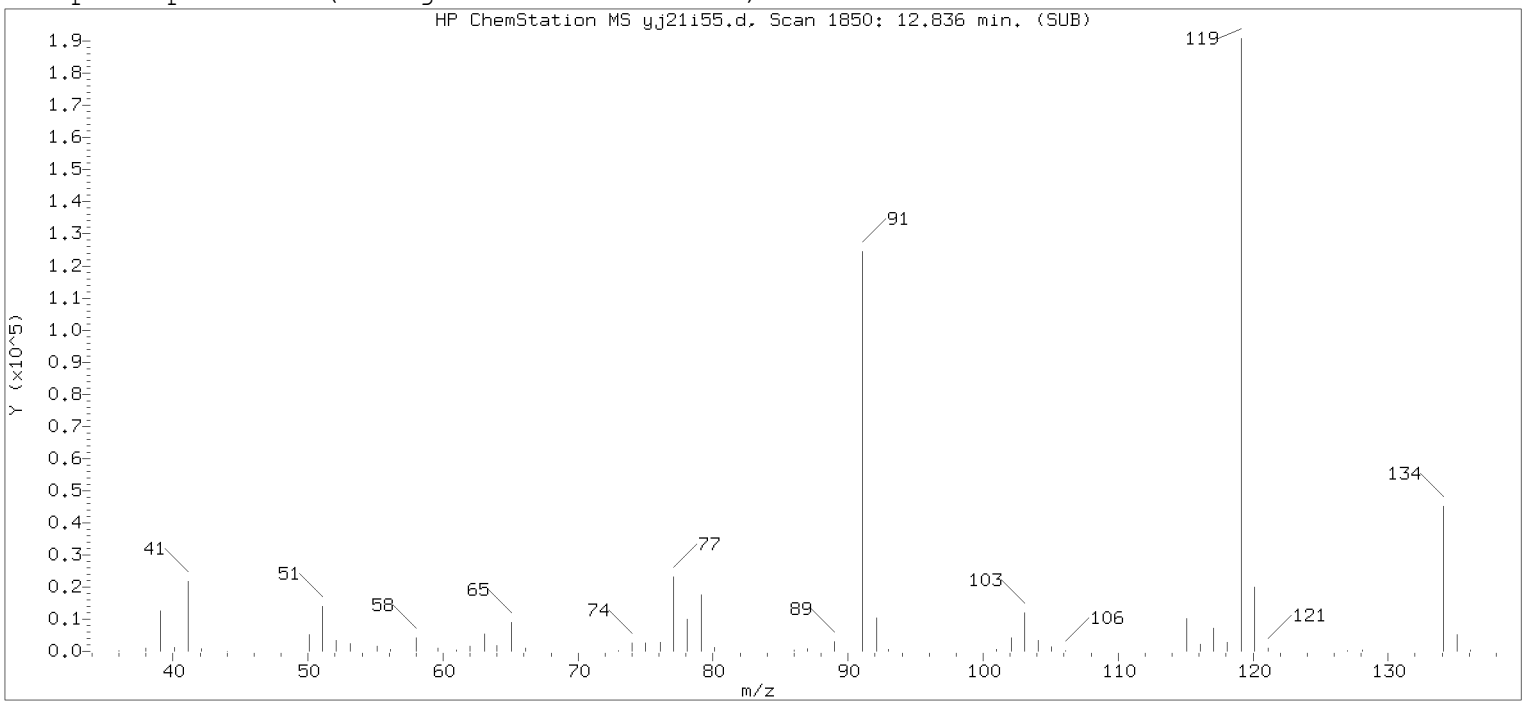
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 64134M
On-Column Amount (ng) : 10.6293
Integration start scan : 1844 Integration stop scan: 1853
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

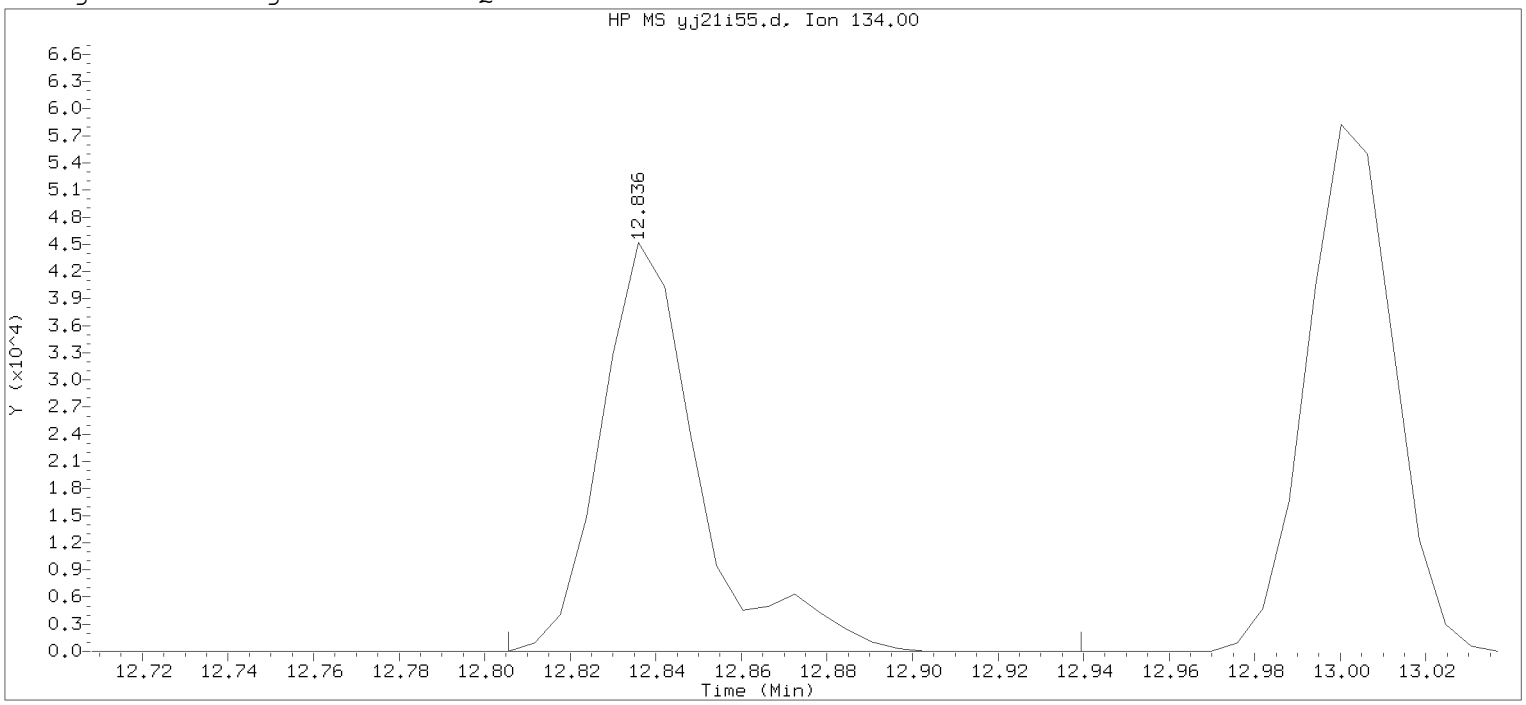
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

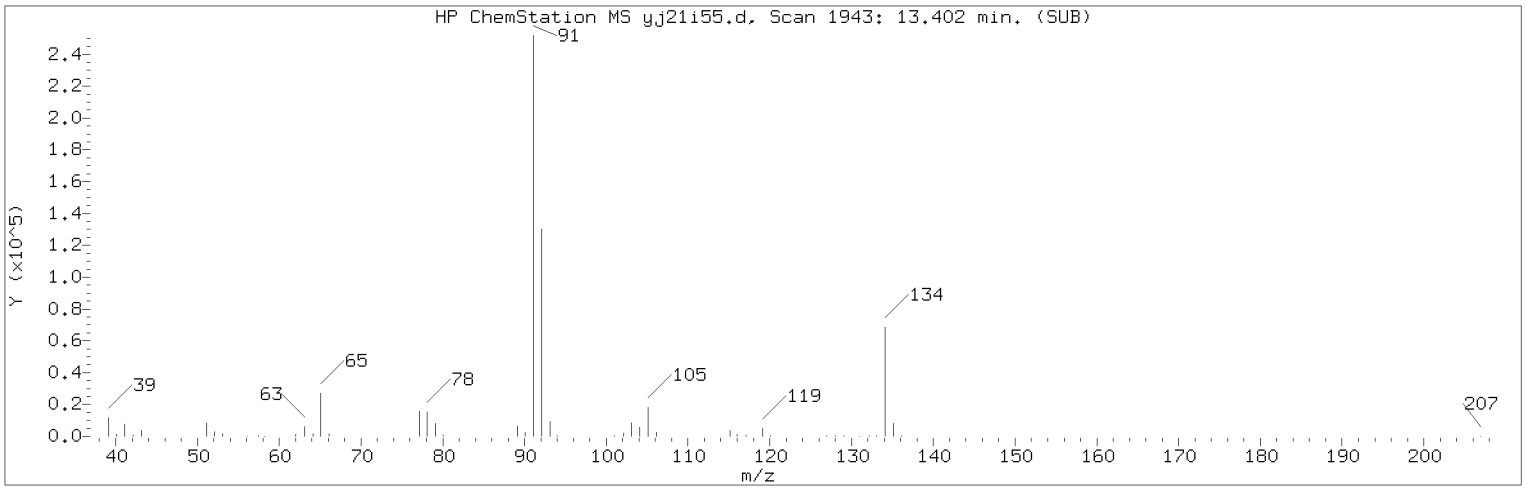
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD010 Lab Sample ID: VSTD010

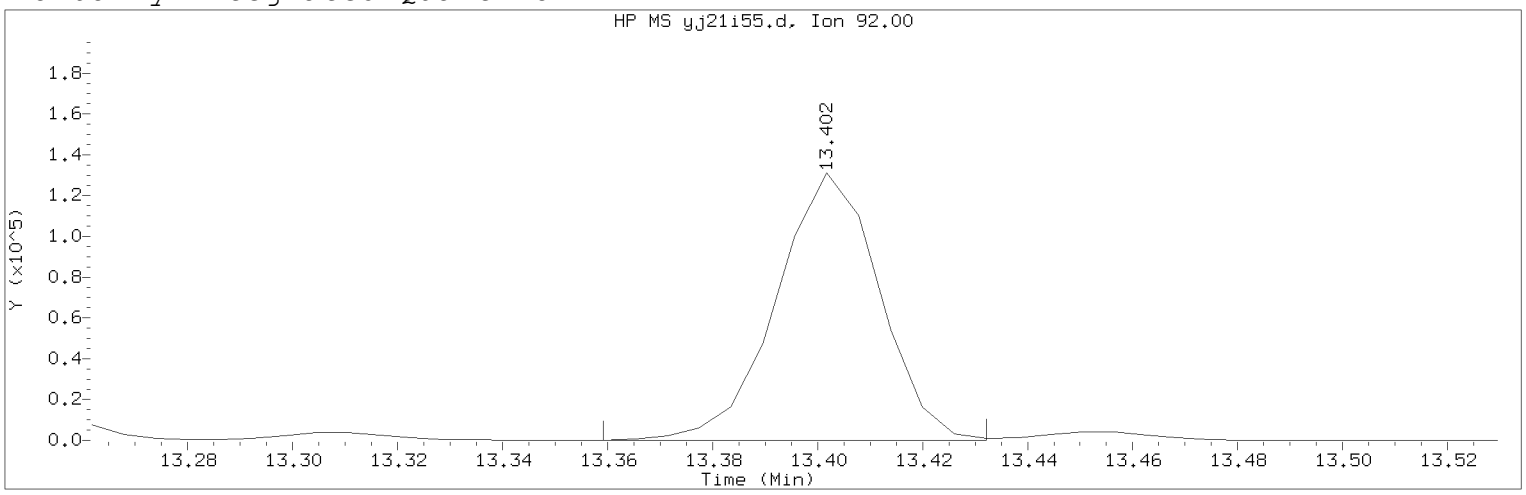
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 71089
On-column Amount (ng) : 10.3942
Integration start scan : 1844 Integration stop scan: 1866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 01/23/2019 at 17:40.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD010 Lab Sample ID: VSTD010

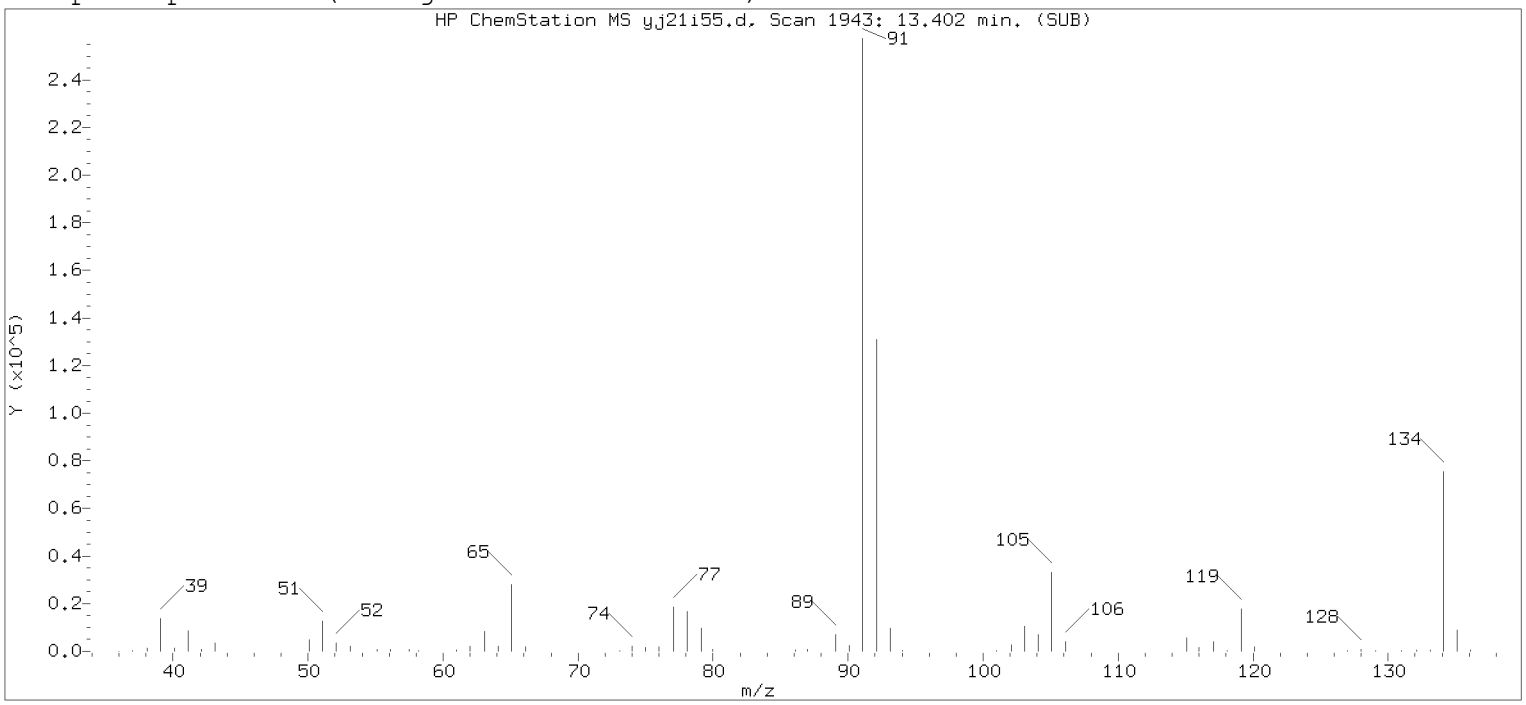
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area (flag) : 178437M
On-Column Amount (ng) : 10.8710
Integration start scan : 1935 Integration stop scan: 1947
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

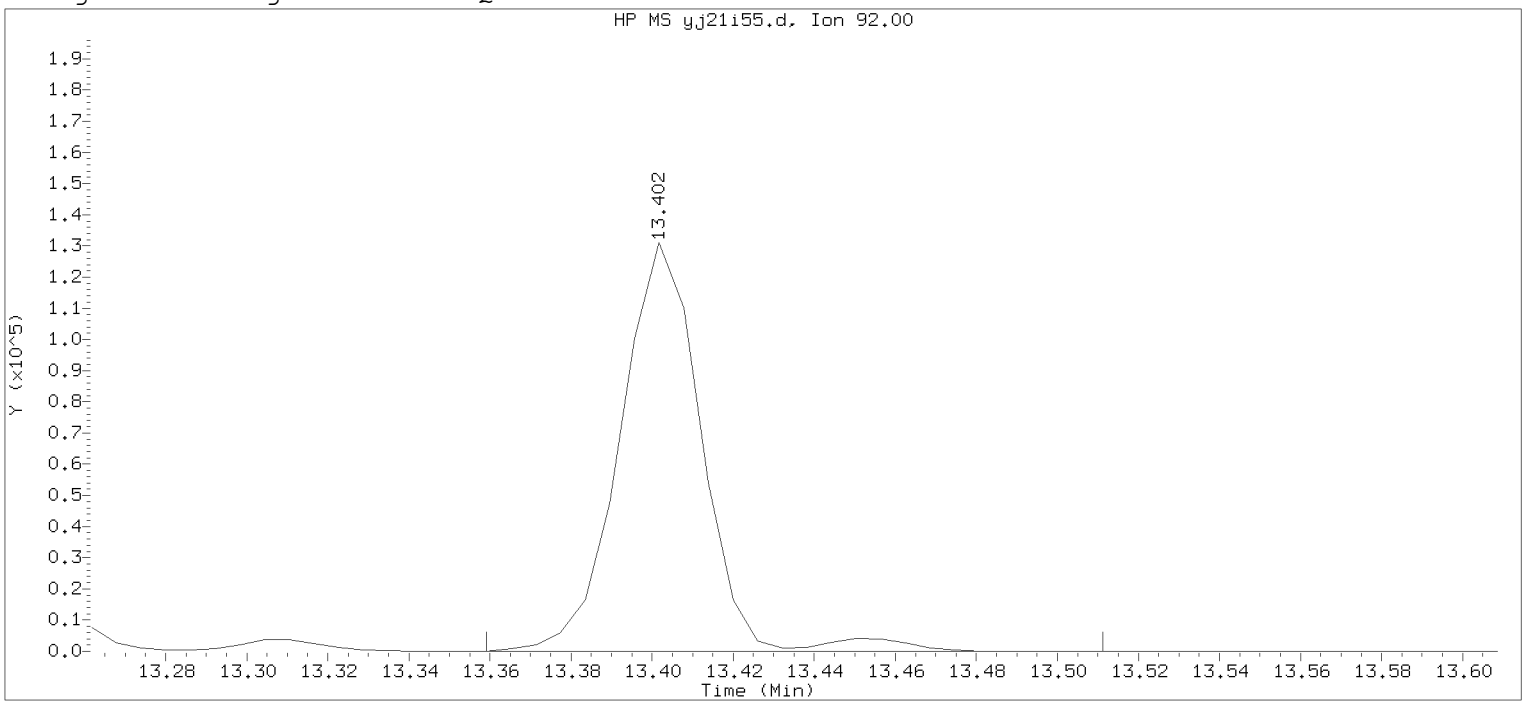
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



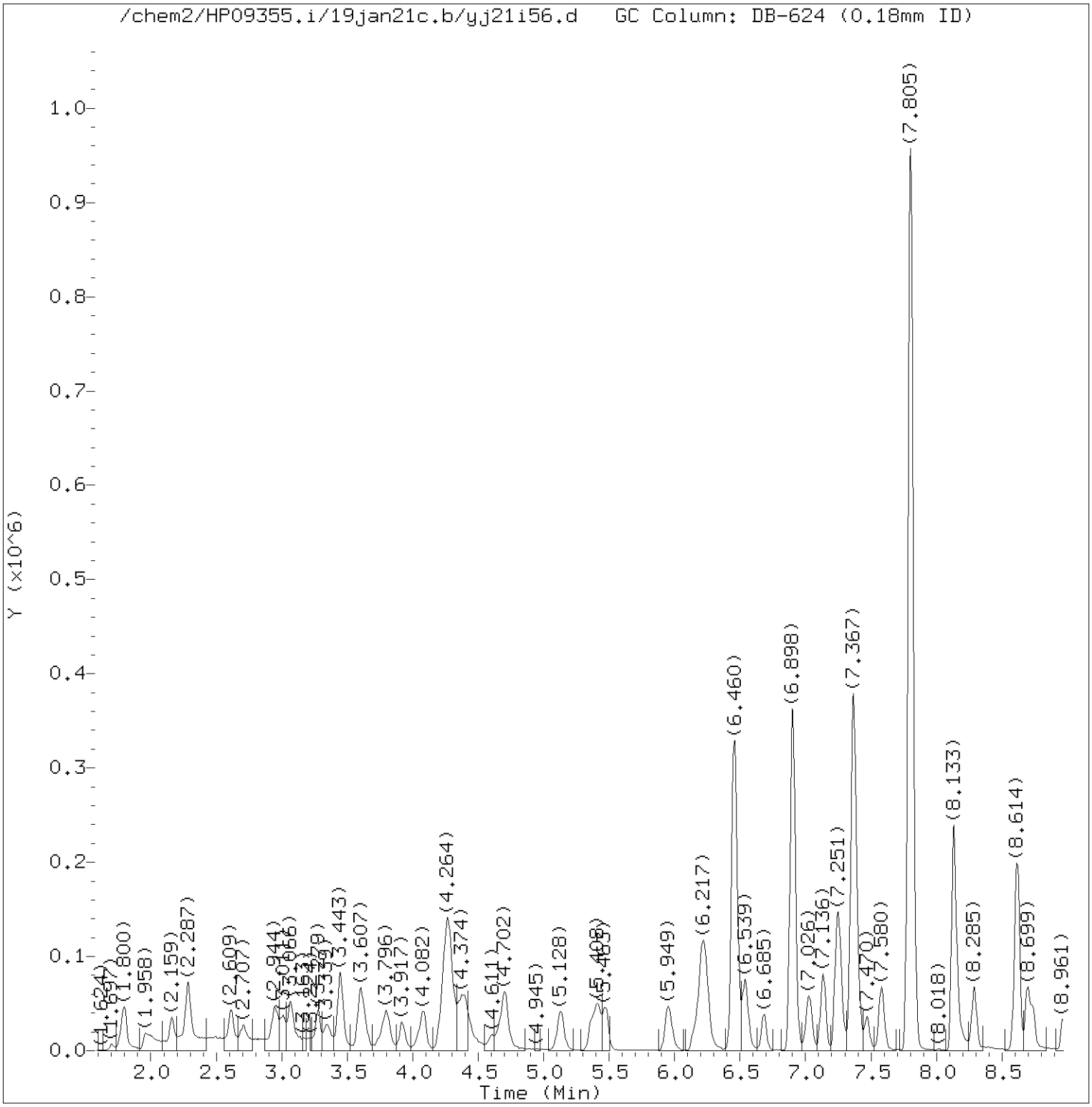
Data File: /chem2/HP09355.i/19jan21c.b/yj21i55.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:15 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area : 184382
On-column Amount (ng) : 10.5905
Integration start scan : 1935 Integration stop scan: 1960
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 01/23/2019 at 17:40.
Target 3.5 esignature used for page 1 of 5



Total Ion Chromatogram (TIC)

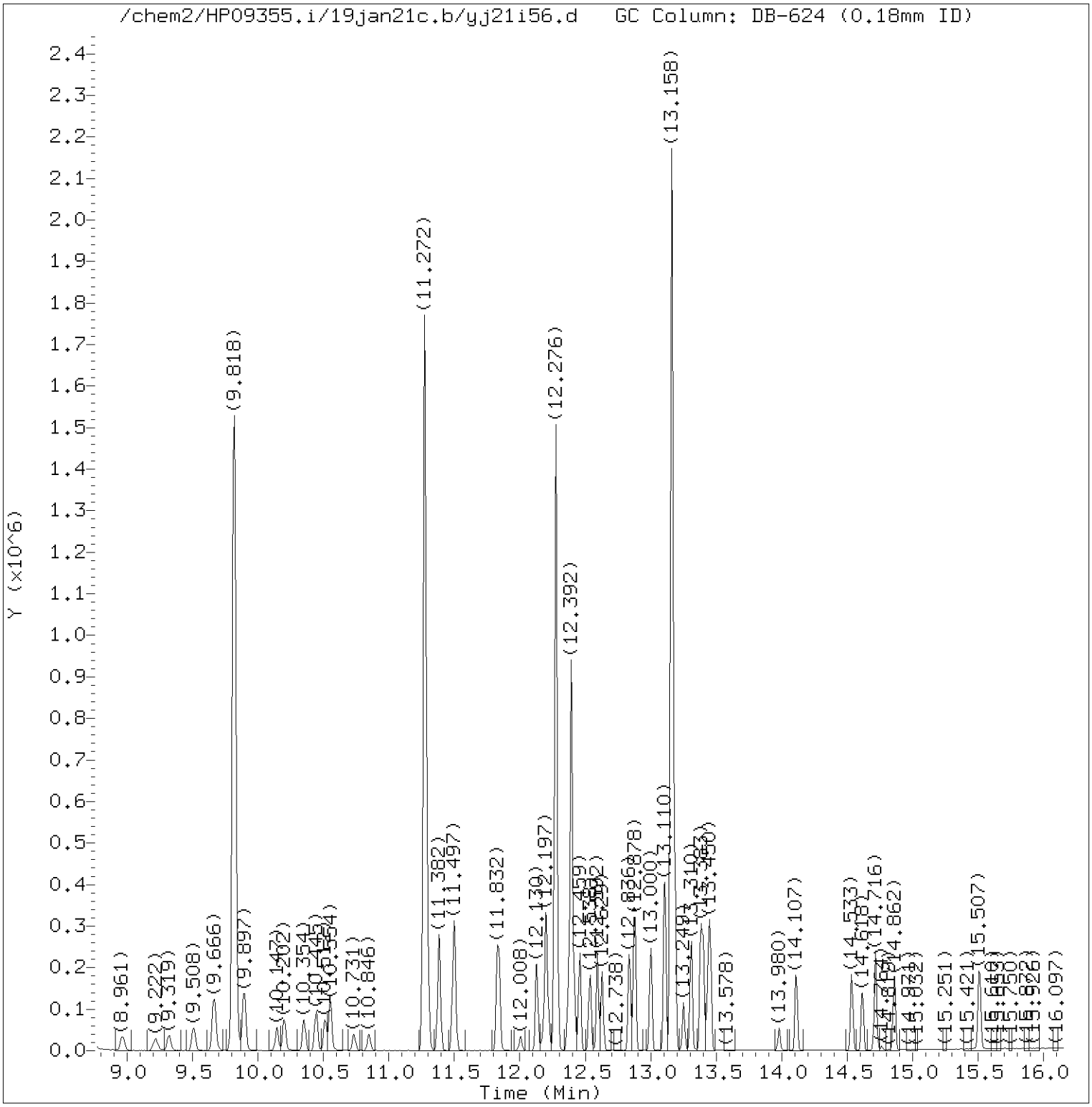
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.958	85	42488	4.082
4) Chloromethane	(2)	2.159	50	35689	4.211
6) Vinyl Chloride	(2)	2.281	62	35627	4.205
5) 1,3-Butadiene	(2)	2.287	39	25964	4.337
8) Bromomethane	(2)	2.615	94	28556	4.220
9) Chloroethane	(2)	2.707	64	22069	4.301
10) Dichlorofluoromethane	(2)	2.944	67	44882	4.338
12) Trichlorofluoromethane	(2)	3.011	101	50143	4.195
11) n-Pentane	(2)	3.066	43	41257	4.238
14) Ethyl ether	(2)	3.279	59	24996	4.207
15) Freon 123a	(2)	3.352	67	30588	4.460
16) Acrolein	(1)	3.443	56	114913	39.055
17) 1,1-Dichloroethene	(2)	3.601	96	21511	4.239
17) 1,1-Dichloroethene	(2)	3.589	63	11226	4.748
18) Acetone	(1)	3.619	58	12073	8.083
19) Freon 113	(2)	3.619	101	23657	4.247
21) 2-Propanol	(1)	3.777	45	84755	81.363
22) Methyl Iodide	(2)	3.802	142	42293	4.135
23) Carbon Disulfide	(2)	3.917	76	65460	3.975
27) Methyl Acetate	(2)	4.045	43	36387	3.920
25) Allyl Chloride	(2)	4.075	41	37606	4.023
29)*t-Butyl alcohol-d10	(1)	4.264	65	411481	250.000
28) Methylene Chloride	(2)	4.276	84	26043	4.156
30) t-Butyl alcohol	(1)	4.392	59	166797	79.334
31) Acrylonitrile	(2)	4.599	53	19447	3.868
33) Methyl Tertiary Butyl Ether	(2)	4.678	73	70834	4.118
32) trans-1,2-Dichloroethene	(2)	4.708	96	25431	4.181
34) n-Hexane	(2)	5.140	57	39757	4.225
36) 1,1-Dichloroethane	(2)	5.365	63	44177	4.167
38) di-Isopropyl ether	(2)	5.420	45	79957	4.099
39) 2-Chloro-1,3-butadiene	(2)	5.475	53	38879	4.126
40) Ethyl t-butyl ether	(2)	5.949	59	72336	4.252
43) 1,2-Dichloroethene (Total)	(2)		96	53955	8.289
44) 2-Butanone	(2)	6.156	43	58943	7.807
42) cis-1,2-Dichloroethene	(2)	6.199	96	28524	4.107
45) 2,2-Dichloropropane	(2)	6.217	77	34334	4.013
47) Propionitrile	(1)	6.235	54	171024	80.392
48) Methacrylonitrile	(2)	6.460	67	199273	39.724

* = Compound is an internal standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.539	128	15186	3.959
50) Tetrahydrofuran	(1)	6.545	71	16832	7.616
51) Chloroform	(2)	6.685	83	43892	4.060
52)$Dibromofluoromethane	(2)	6.898	113	292641	49.456
52)$Dibromofluoromethane	(2)	6.898	111	299504	49.491
53) 1,1,1-Trichloroethane	(2)	6.917	97	38218	4.035
54) Cyclohexane	(2)	7.026	56	46221	4.220
54) Cyclohexane	(2)	7.026	84	47182	4.687
54) Cyclohexane	(2)	7.020	69	14591	4.180
55) 1,1-Dichloropropene	(2)	7.136	75	36179	4.203
56) Carbon Tetrachloride	(2)	7.136	117	32246	3.956
58) Isobutyl Alcohol	(1)	7.245	41	134741	197.338
57)$1,2-Dichloroethane-d4	(2)	7.367	102	74398	50.128
57)$1,2-Dichloroethane-d4	(2)	7.361	65	362781	49.959
57)$1,2-Dichloroethane-d4	(2)	7.367	104	47887	50.234
60) Benzene	(2)	7.397	78	106350	4.173
61) 1,2-Dichloroethane	(2)	7.470	62	38936	4.254
61) 1,2-Dichloroethane	(2)	7.470	98	3333	4.179
65) t-Amyl methyl ether	(2)	7.580	73	77528	4.341
66)*Fluorobenzene	(2)	7.805	96	1226863	50.000
67) n-Heptane	(2)	7.817	43	43135	4.212
69) n-Butanol	(1)	8.133	56	216956	375.250
71) Trichloroethene	(2)	8.291	95	27725	4.134
72) Methylcyclohexane	(2)	8.602	83	51642	4.084
72) Methylcyclohexane	(2)	8.608	98	23773	4.158
73) 1,2-Dichloropropane	(2)	8.626	63	25831	4.095
76) Methyl Methacrylate	(2)	8.693	69	28538	3.851
75) 1,4-Dioxane	(1)	8.705	88	33448M	205.196
74) Dibromomethane	(2)	8.735	93	18323	4.088
78) Bromodichloromethane	(2)	8.967	83	29011	3.785
79) 2-Nitropropane	(2)	9.222	41	23167	6.635
80) 2-Chloroethyl Vinyl Ether	(2)	9.319	63	19378	3.793
81) cis-1,3-Dichloropropene	(2)	9.508	75	37499	3.756
82) 4-Methyl-2-pentanone	(2)	9.666	43	100892	7.563
83)$Toluene-d8	(3)	9.818	98	1227851	50.291
83)$Toluene-d8	(3)	9.818	100	787083	50.157
88) Toluene	(3)	9.897	92	69156	4.145
90) 1,3-Dichloropropene (total)	(3)		100	71052	7.375

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	33553	3.619
91) Ethyl Methacrylate	(3)	10.202	69	42906	3.737
92) 1,1,2-Trichloroethane	(3)	10.354	97	26101	4.054
93) Tetrachloroethene	(3)	10.445	166	30112	4.168
94) 1,3-Dichloropropane	(3)	10.512	76	44156	4.076
96) 2-Hexanone	(3)	10.554	43	80695	7.577
97) Dibromochloromethane	(3)	10.731	129	22238	3.482
99) 1,2-Dibromoethane	(3)	10.846	107	28078	3.926
100)*Chlorobenzene-d5	(3)	11.272	117	930251	50.000
101) 1-Chlorohexane	(3)	11.278	91	37889	4.149
102) Chlorobenzene	(3)	11.303	112	79191	4.156
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	22918	3.680
104) Ethylbenzene	(3)	11.382	91	134030	4.142
106) m+p-Xylene	(3)	11.497	106	104477	8.164
108) Xylene (Total)	(3)		106	154776	12.172
107) o-Xylene	(3)	11.826	106	50299	4.009
109) Styrene	(3)	11.844	104	77883	3.794
110) Bromoform	(3)	12.008	173	15381	3.231
111) Isopropylbenzene	(3)	12.130	105	135031	4.151
112) Cyclohexanone	(1)	12.197	55	143082	196.507
114)$4-Bromofluorobenzene	(3)	12.276	95	465928	49.981
114)$4-Bromofluorobenzene	(3)	12.276	174	383064	49.995
116) 1,1,2,2-Tetrachloroethane	(4)	12.367	83	43790	3.886
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	146996	38.849
115) Bromobenzene	(4)	12.392	156	35437	4.094
117) 1,2,3-Trichloropropane	(4)	12.416	110	15431	3.965
119) n-Propylbenzene	(4)	12.459	91	161949	4.239
120) 2-Chlorotoluene	(4)	12.538	126	33859	4.171
122) 1,3,5-Trimethylbenzene	(4)	12.592	105	115185	4.042
121) 4-Chlorotoluene	(4)	12.629	126	34134	4.022
124) tert-Butylbenzene	(4)	12.836	134	24891M	4.146
125) Pentachloroethane	(4)	12.872	167	17164	3.585
126) 1,2,4-Trimethylbenzene	(4)	12.878	105	119454	4.040
127) sec-Butylbenzene	(4)	13.000	105	150464	4.141
129) 1,3-Dichlorobenzene	(4)	13.104	146	68243	4.092
130) p-Isopropyltoluene	(4)	13.110	119	128148	4.031
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	516177	50.000
133) 1,4-Dichlorobenzene	(4)	13.177	146	70254	4.099

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

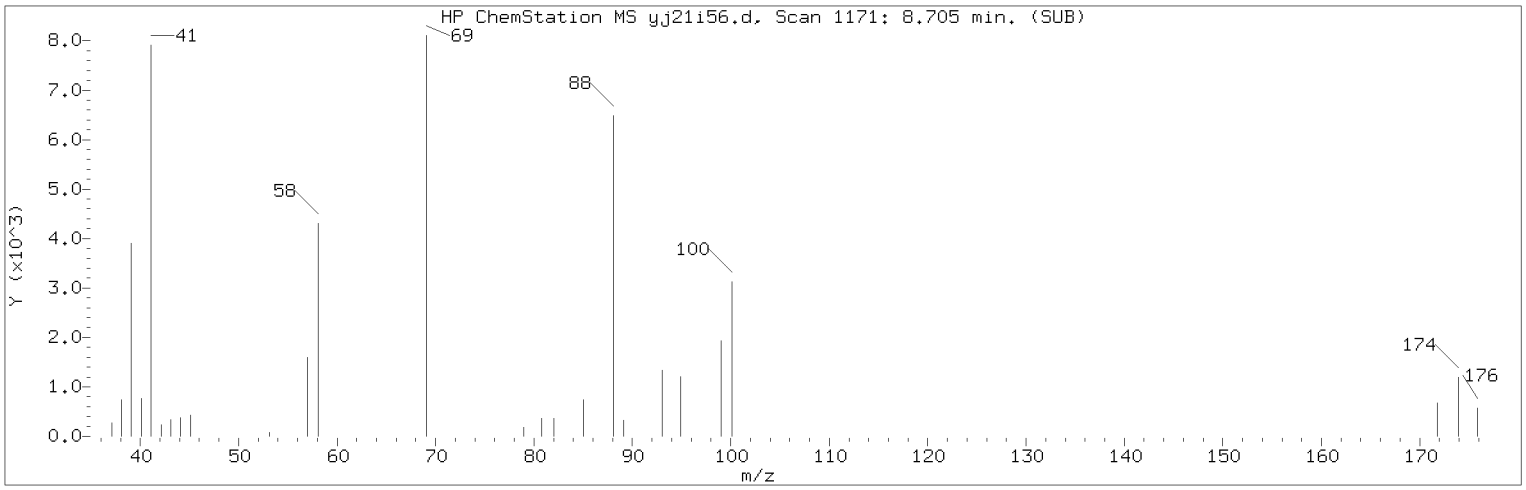
Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	128243	4.034
135) Benzyl Chloride	(4)	13.249	91	71855	3.288
136) 1,3-Diethylbenzene	(4)	13.310	119	78375	3.967
141) Diethylbenzene (total)	(4)		100	228562	11.931
137) 1,4-Diethylbenzene	(4)	13.383	119	83658	3.971
139) n-Butylbenzene	(4)	13.402	92	67027M	4.104
138) 1,2-Dichlorobenzene	(4)	13.438	146	67809	4.143
140) 1,2-Diethylbenzene	(4)	13.456	119	66529	3.993
142) 1,2-Dibromo-3-chloropropane	(4)	13.980	75	11402	3.690
144) 1,3,5-Trichlorobenzene	(4)	14.113	180	51674	4.061
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	49618	4.109
147) Hexachlorobutadiene	(4)	14.618	225	22824	4.153
148) Naphthalene	(4)	14.716	128	169535	4.062
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	49886	4.248
150) 2-Methylnaphthalene	(4)	15.507	142	91684	3.695

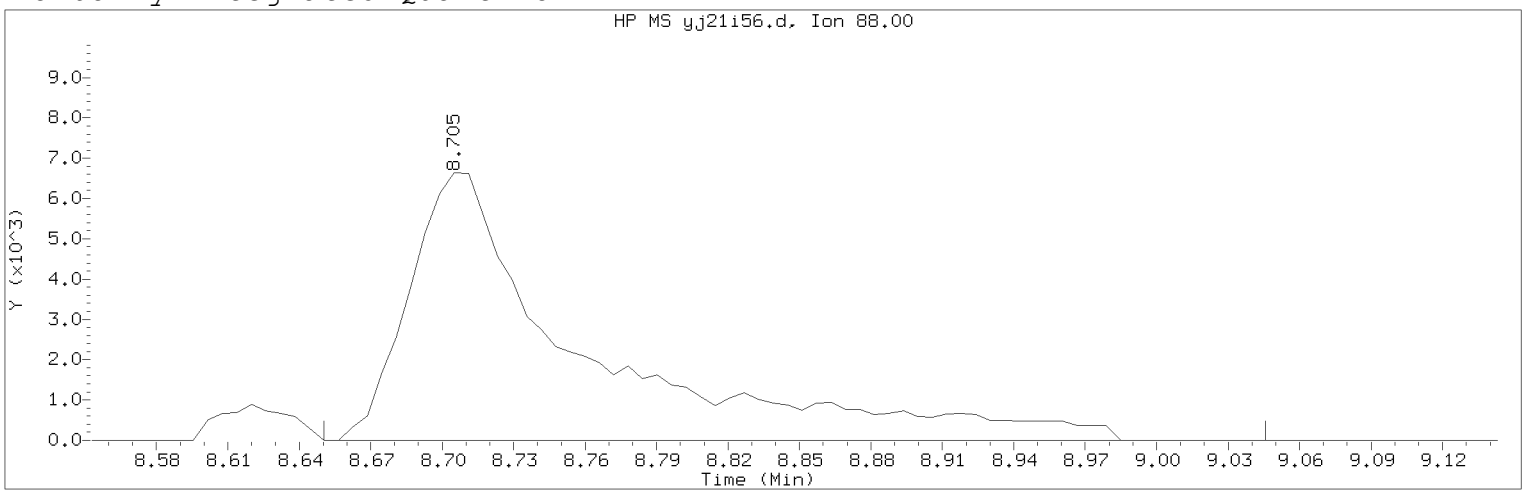
M = Compound was manually integrated.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

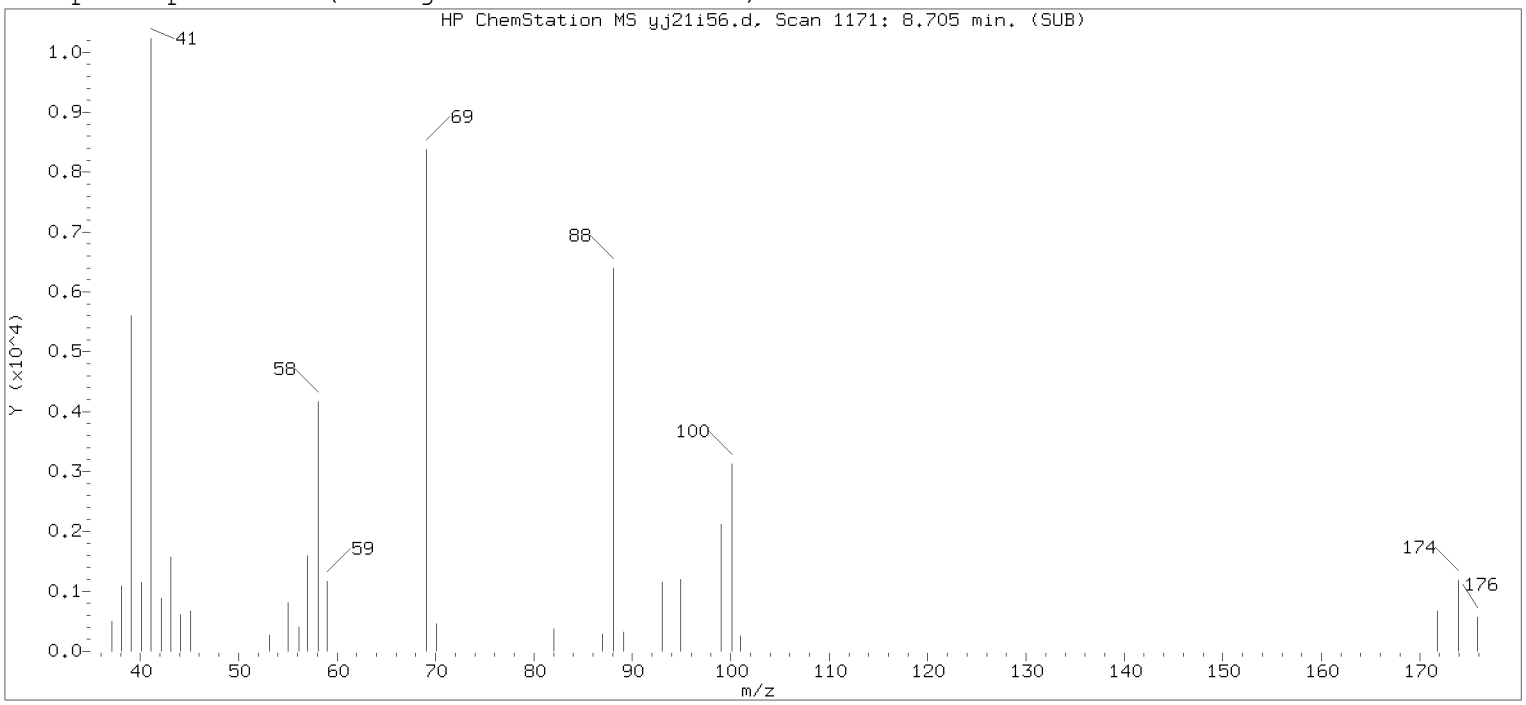
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1171
Retention Time (minutes): 8.705
Quant Ion : 88.00
Area (flag) : 33448M
On-Column Amount (ng) : 205.1958
Integration start scan : 1161 Integration stop scan: 1226
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

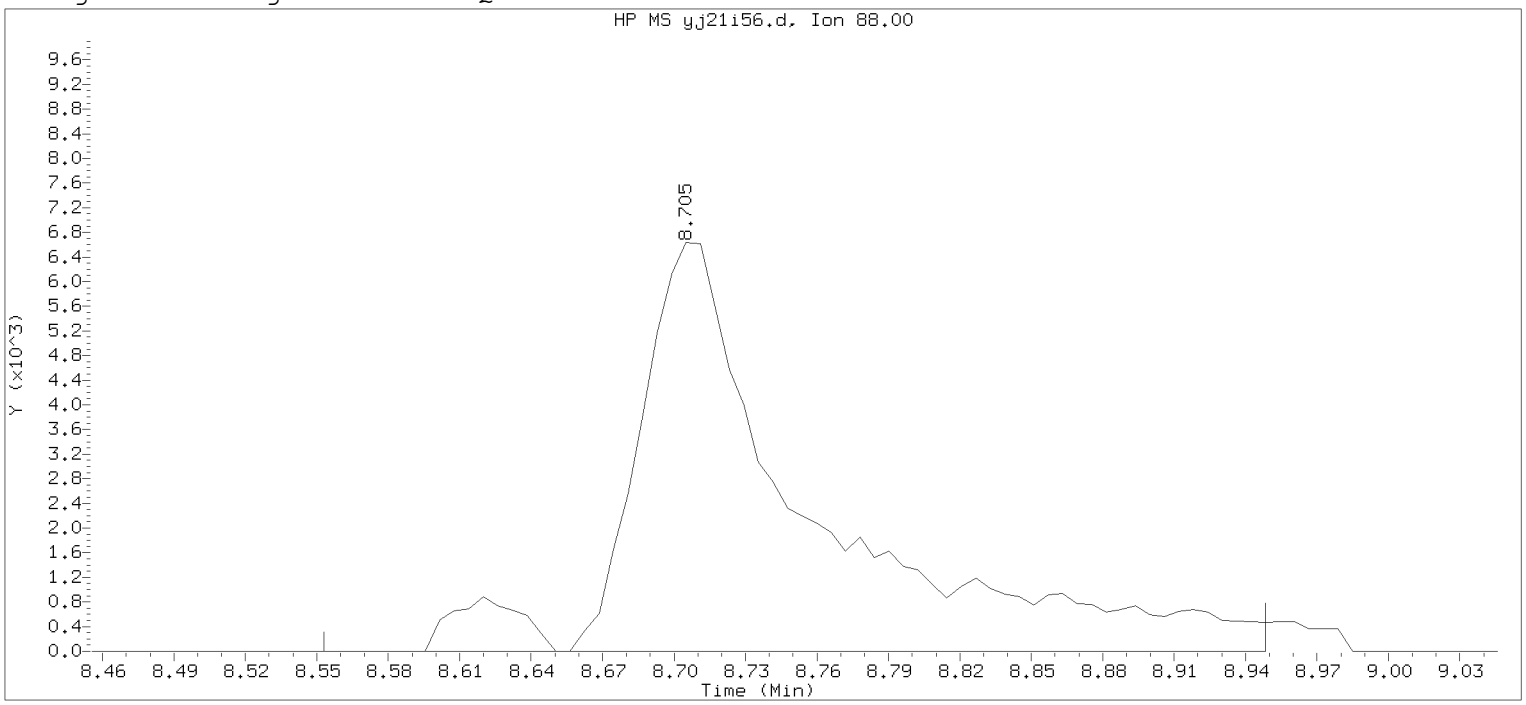
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

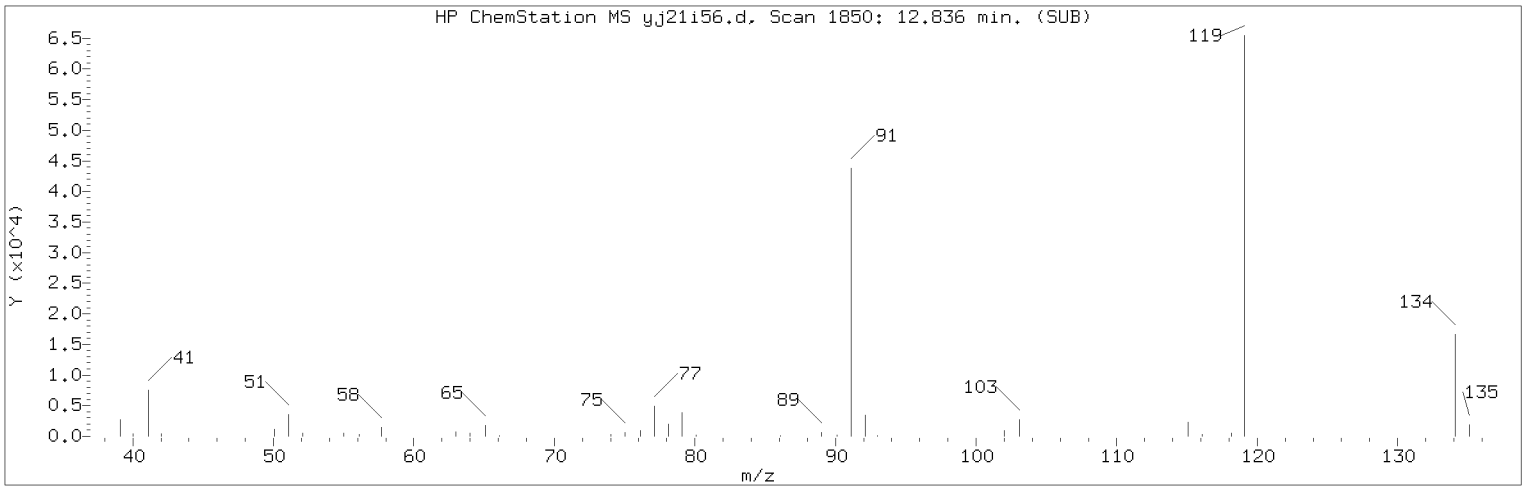
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD004 Lab Sample ID: VSTD004

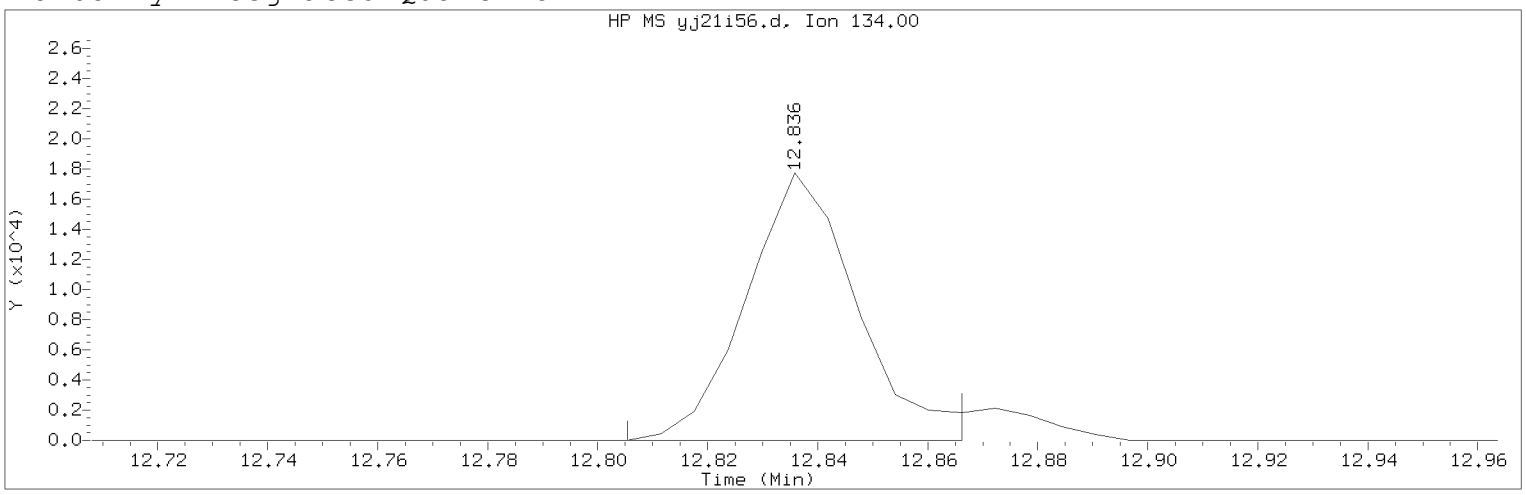
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1171		
Retention Time (minutes)	: 8.705		
Quant Ion	: 88.00		
Area	: 34448		
On-column Amount (ng)	: 175.0399		
Integration start scan	: 1145	Integration stop scan:	1210
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

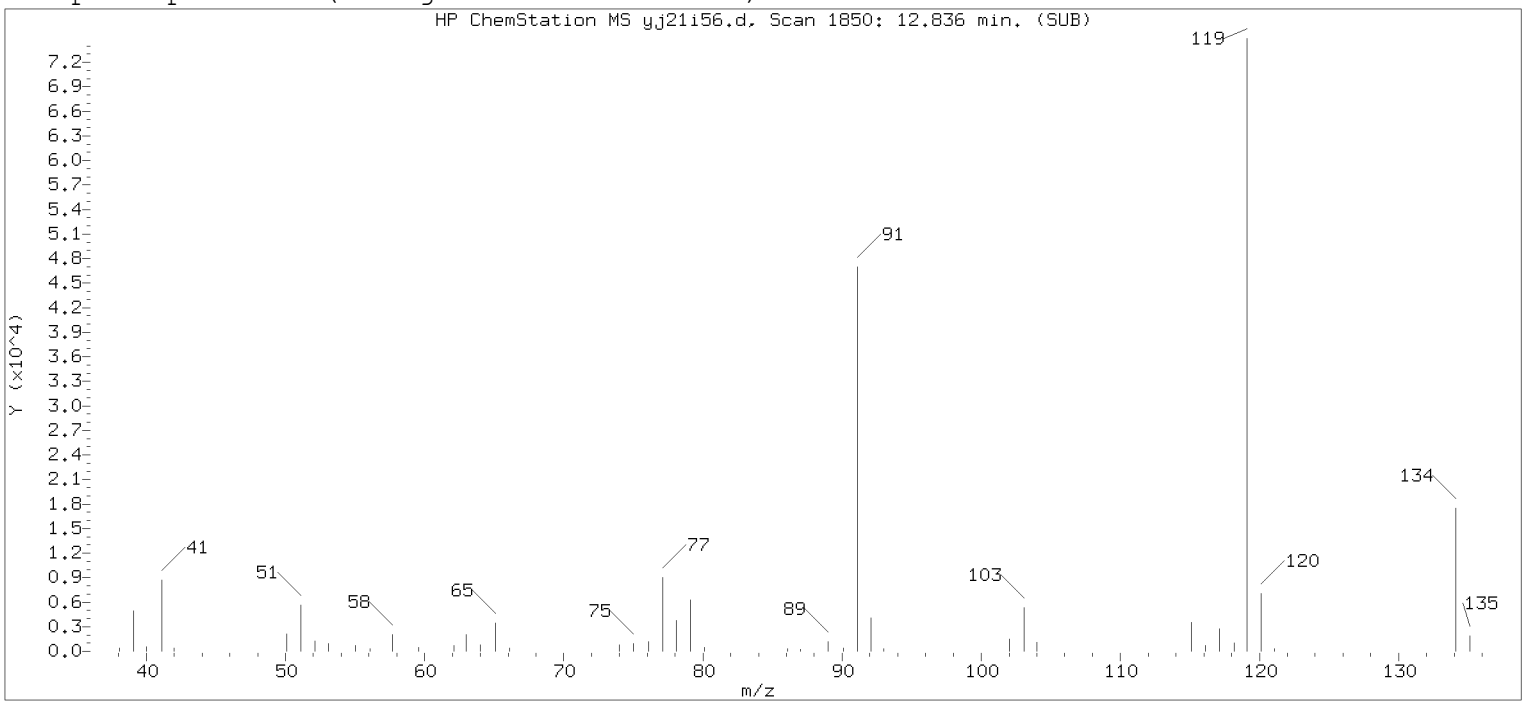
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 24891M
On-Column Amount (ng) : 4.1458
Integration start scan : 1844 Integration stop scan: 1854
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

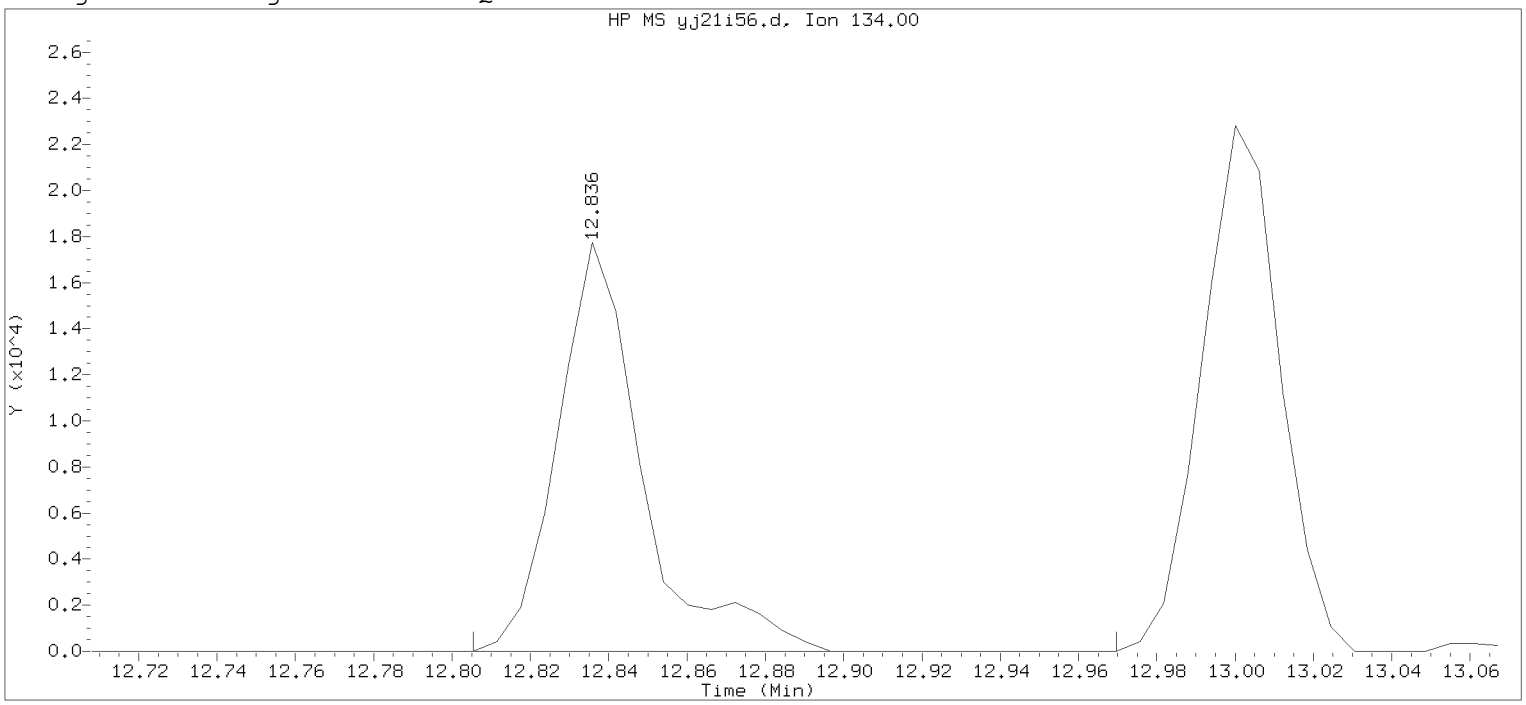
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

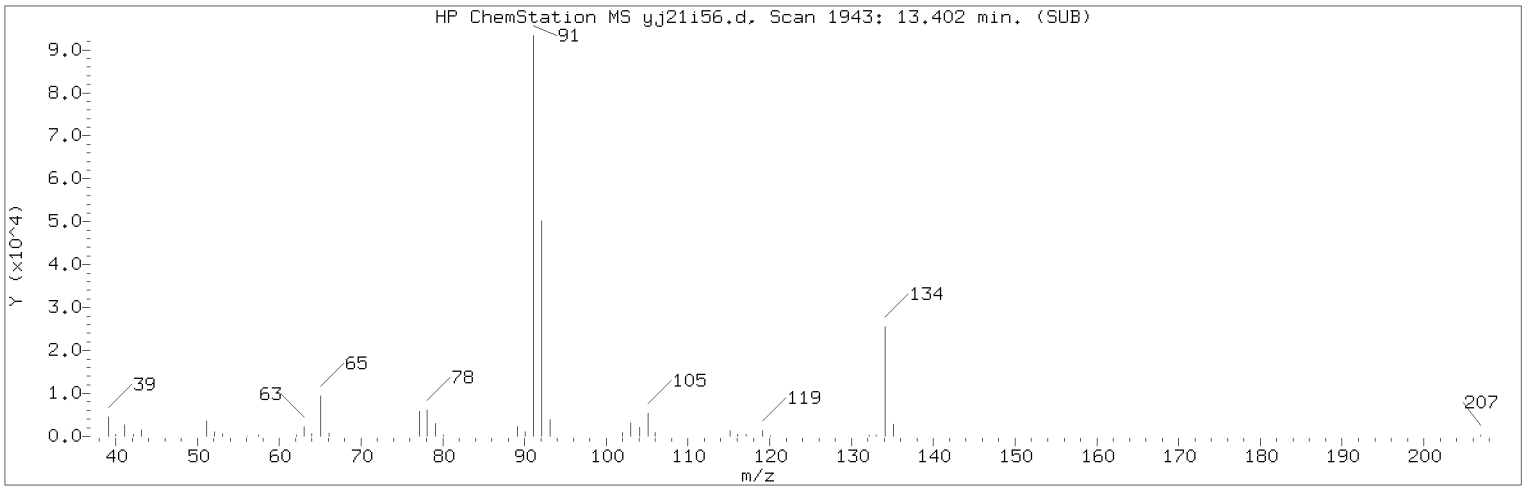
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD004 Lab Sample ID: VSTD004

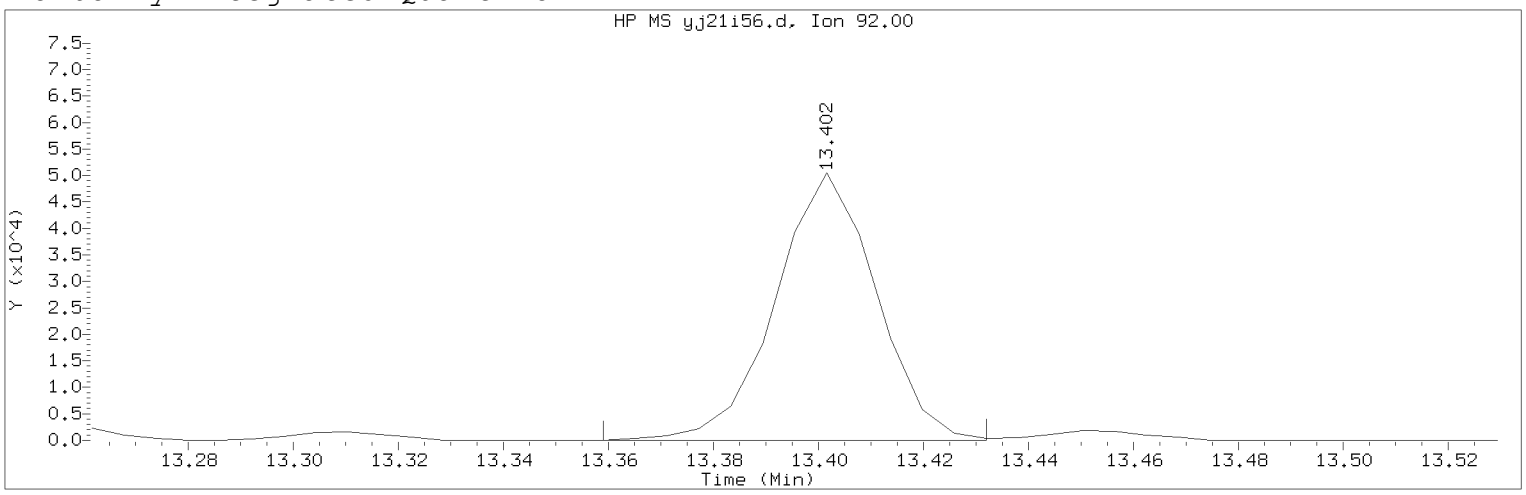
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 26729
On-column Amount (ng) : 3.9395
Integration start scan : 1844 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:35 lcp00895

Sample Name: VSTD004 Lab Sample ID: VSTD004

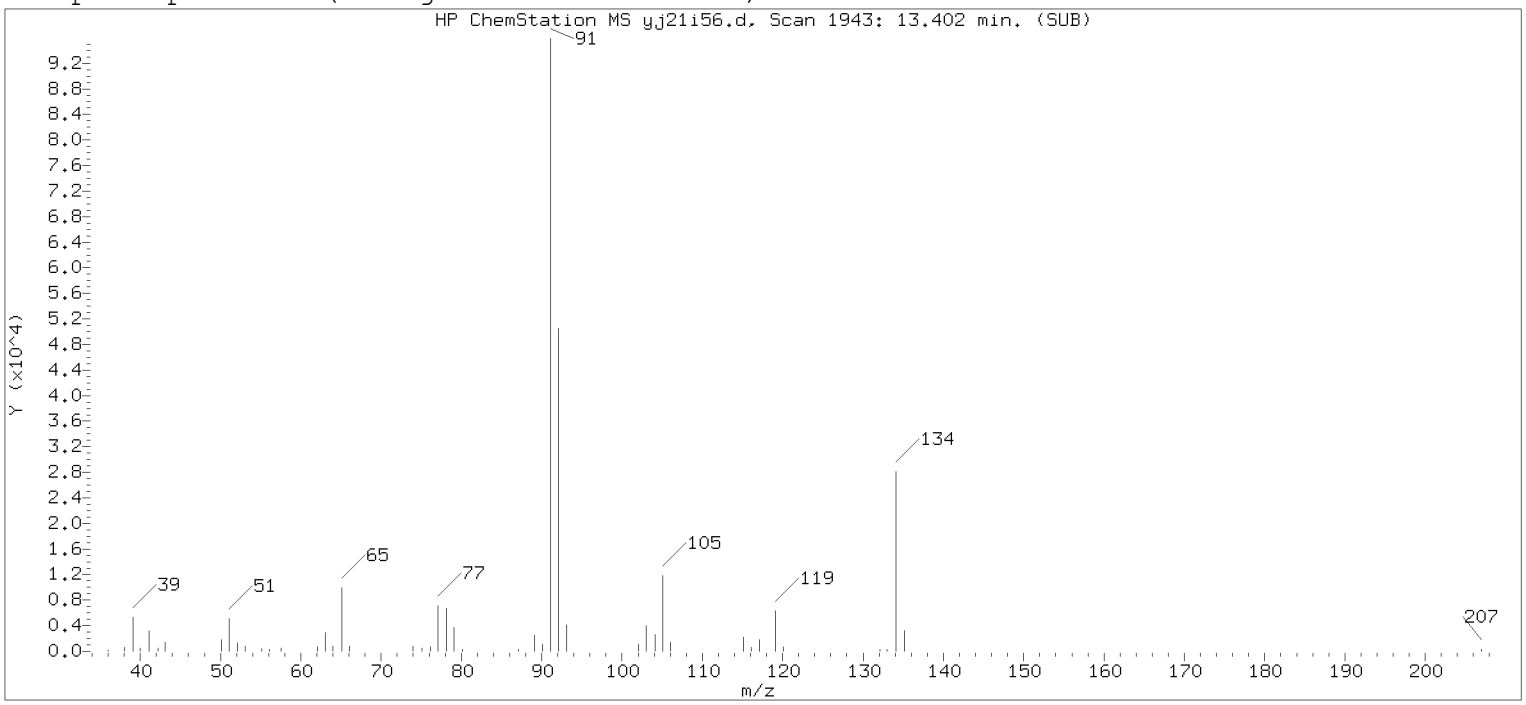
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area (flag) : 67027M
On-Column Amount (ng) : 4.1038
Integration start scan : 1935 Integration stop scan: 1947
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

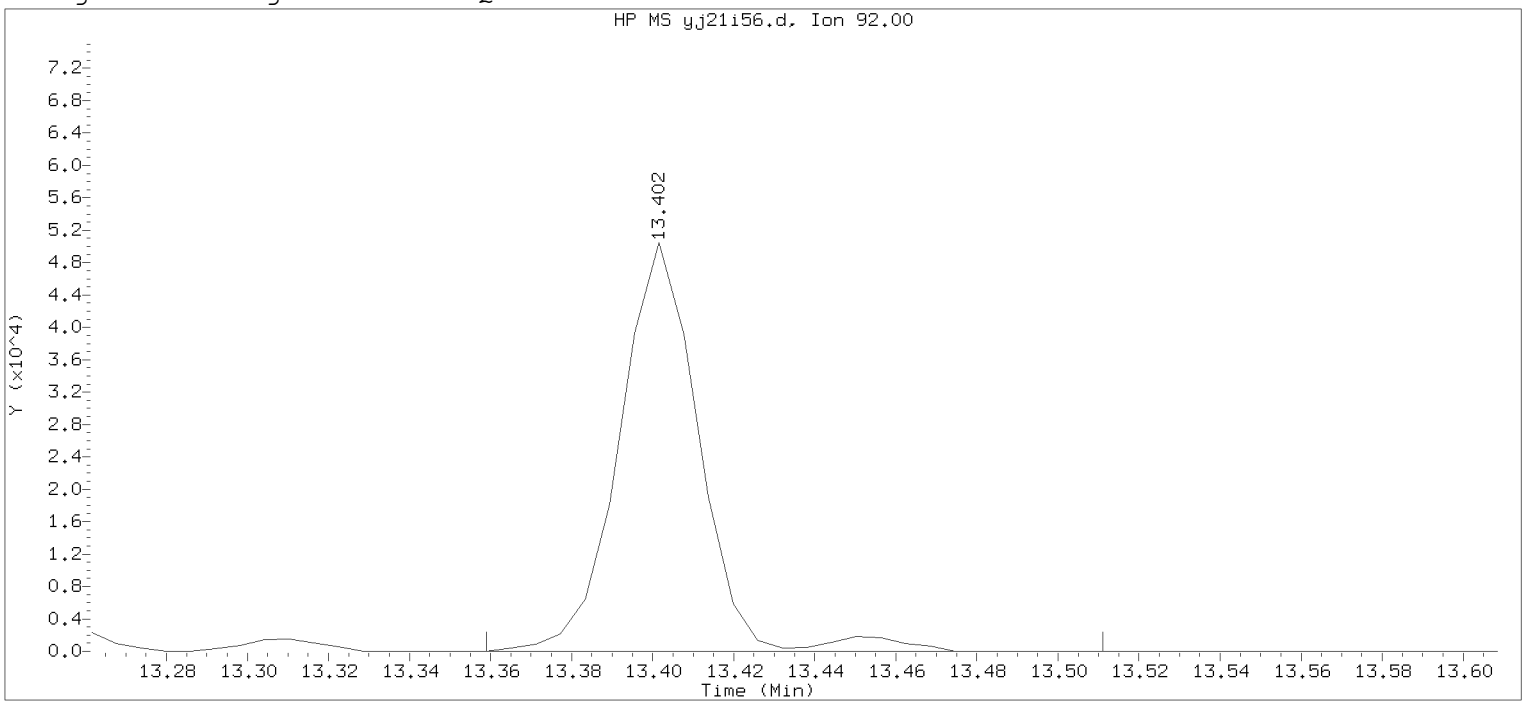
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 18:35.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



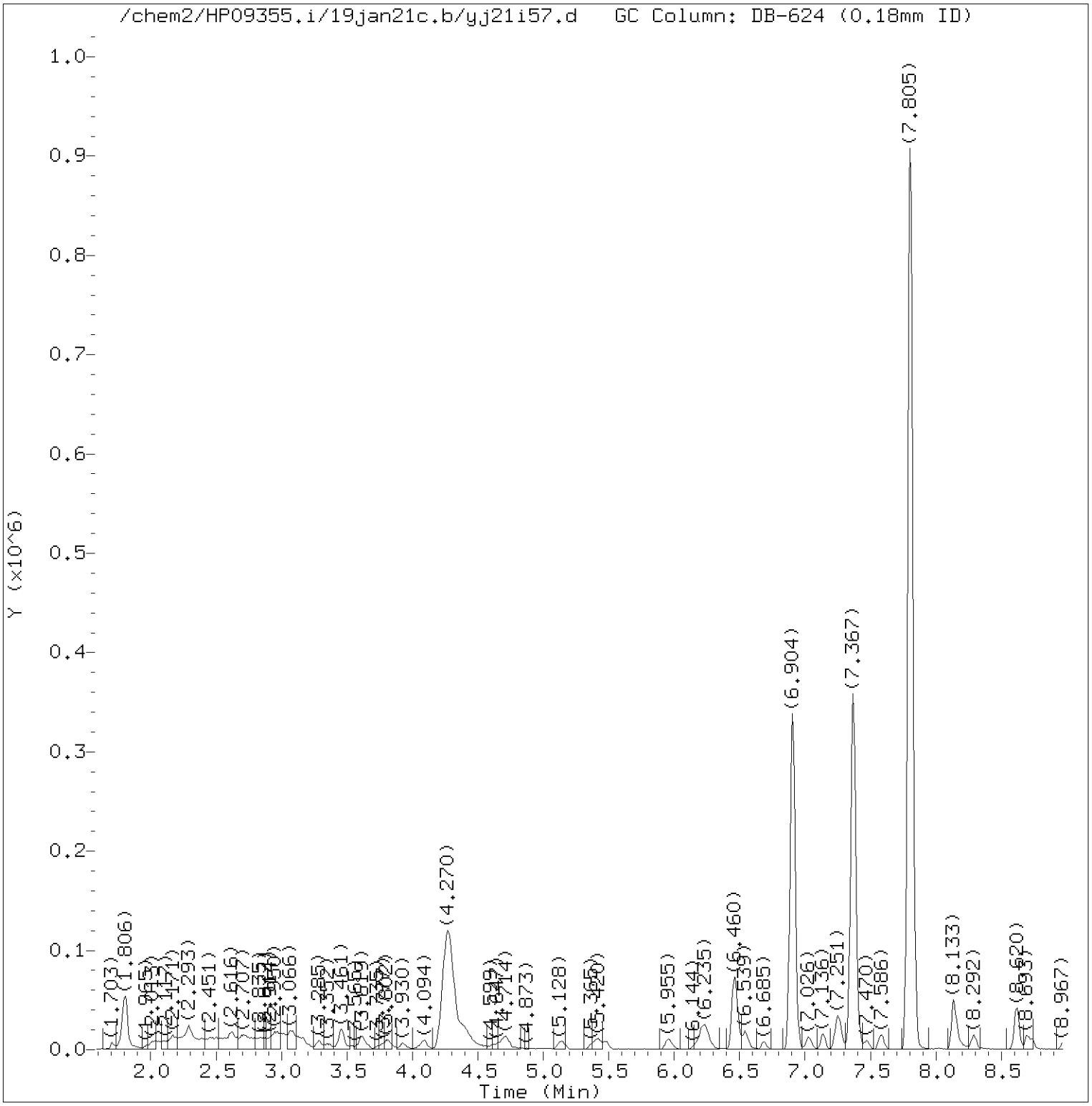
Data File: /chem2/HP09355.i/19jan21c.b/yj21i56.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 09:38 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area : 69424
On-column Amount (ng) : 4.0062
Integration start scan : 1935 Integration stop scan: 1960
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature user



Total Ion Chromatogram (TIC)

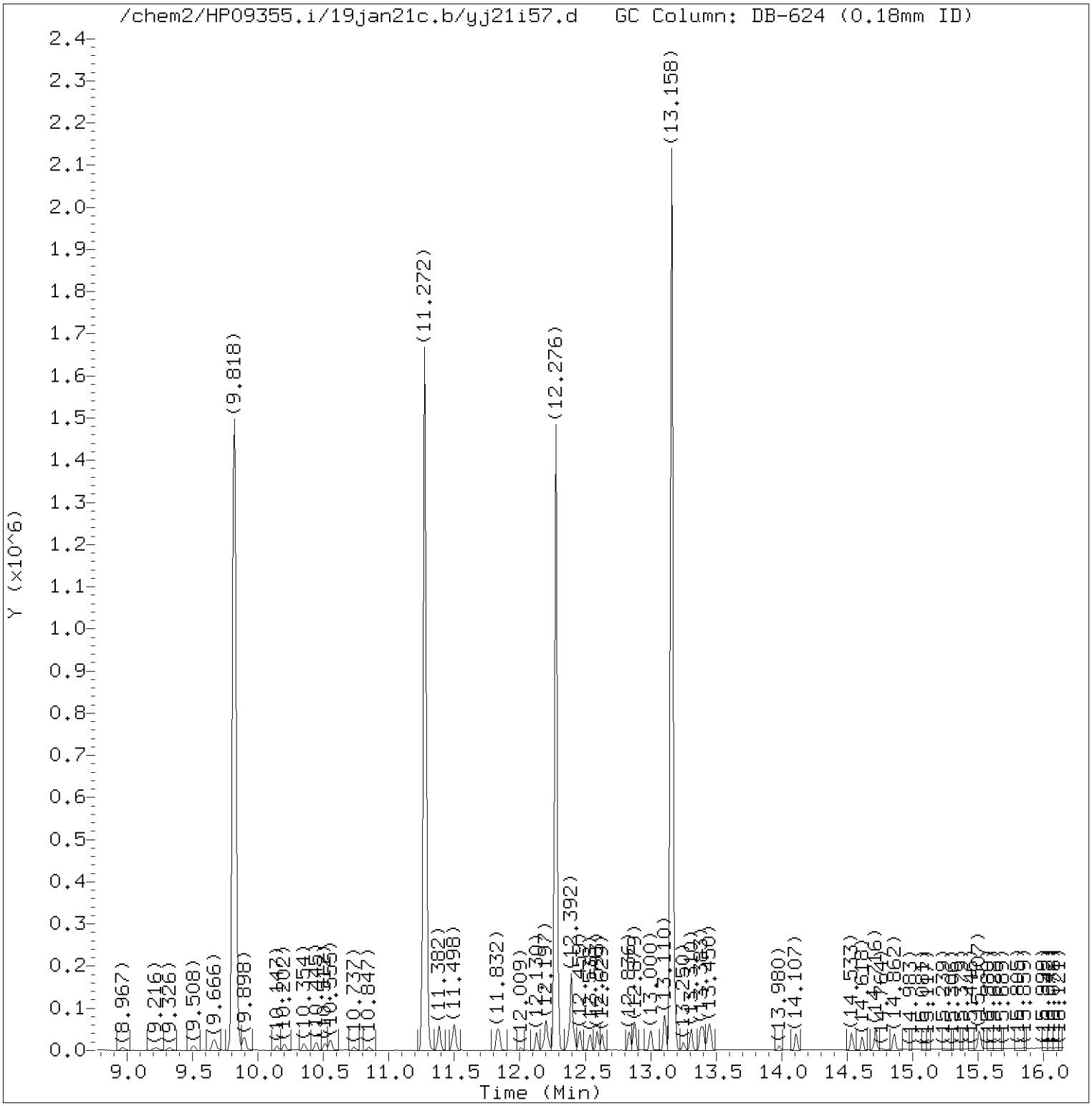
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.971	85	7809	0.760
4) Chloromethane	(2)	2.171	50	7747	0.926
5) 1,3-Butadiene	(2)	2.293	39	5842	0.988
6) Vinyl Chloride	(2)	2.293	62	7437	0.889
8) Bromomethane	(2)	2.622	94	6130	0.917
9) Chloroethane	(2)	2.719	64	5958	1.176
10) Dichlorofluoromethane	(2)	2.956	67	10095	0.988
12) Trichlorofluoromethane	(2)	3.017	101	9565	0.811
11) n-Pentane	(2)	3.072	43	12745	1.326
14) Ethyl ether	(2)	3.285	59	5269	0.898
15) Freon 123a	(2)	3.358	67	6016	0.888
16) Acrolein	(1)	3.455	56	27214	8.950
17) 1,1-Dichloroethene	(2)	3.601	96	4126	0.824
17) 1,1-Dichloroethene	(2)	3.607	63	2102	0.901
18) Acetone	(1)	3.625	58	2639	1.710
19) Freon 113	(2)	3.631	101	4160	0.756
21) 2-Propanol	(1)	3.796	45	21896	20.340
22) Methyl Iodide	(2)	3.814	142	8752	0.867
23) Carbon Disulfide	(2)	3.930	76	12960	0.797
27) Methyl Acetate	(2)	4.057	43	9553M	1.043
25) Allyl Chloride	(2)	4.088	41	8277	0.897
29)*t-Butyl alcohol-d10	(1)	4.264	65	425236	250.000
28) Methylene Chloride	(2)	4.282	84	5949	0.962
30) t-Butyl alcohol	(1)	4.404	59	41890	19.280
31) Acrylonitrile	(2)	4.617	53	4165	0.839
33) Methyl Tertiary Butyl Ether	(2)	4.690	73	15980	0.941
32) trans-1,2-Dichloroethene	(2)	4.714	96	5132	0.855
34) n-Hexane	(2)	5.128	57	7889	0.849
36) 1,1-Dichloroethane	(2)	5.365	63	8931	0.853
38) di-Isopropyl ether	(2)	5.420	45	17574	0.913
39) 2-Chloro-1,3-butadiene	(2)	5.487	53	7366	0.792
40) Ethyl t-butyl ether	(2)	5.955	59	15898	0.947
43) 1,2-Dichloroethene (Total)	(2)		96	11193	1.739
44) 2-Butanone	(2)	6.168	43	13718	1.840
42) cis-1,2-Dichloroethene	(2)	6.205	96	6061	0.884
45) 2,2-Dichloropropane	(2)	6.223	77	6822	0.808
47) Propionitrile	(1)	6.247	54	40925	18.615
48) Methacrylonitrile	(2)	6.466	67	44555	8.997

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.539	128	3216	0.849
50) Tetrahydrofuran	(1)	6.558	71	4091	1.791
51) Chloroform	(2)	6.692	83	9270	0.869
52)$Dibromofluoromethane	(2)	6.904	113	287479	49.212
52)$Dibromofluoromethane	(2)	6.904	111	294290	49.258
53) 1,1,1-Trichloroethane	(2)	6.923	97	7757	0.829
54) Cyclohexane	(2)	7.026	56	9318	0.862
54) Cyclohexane	(2)	7.038	84	9079	0.914
54) Cyclohexane	(2)	7.026	69	2872	0.833
55) 1,1-Dichloropropene	(2)	7.130	75	7116	0.837
56) Carbon Tetrachloride	(2)	7.136	117	6226	0.774
58) Isobutyl Alcohol	(1)	7.251	41	34111	48.342
57)$1,2-Dichloroethane-d4	(2)	7.367	102	72903	49.756
57)$1,2-Dichloroethane-d4	(2)	7.367	65	363641	50.725
57)$1,2-Dichloroethane-d4	(2)	7.367	104	46942	49.880
60) Benzene	(2)	7.403	78	22379	0.889
61) 1,2-Dichloroethane	(2)	7.476	62	9215	1.020
61) 1,2-Dichloroethane	(2)	7.476	98	564	0.716
65) t-Amyl methyl ether	(2)	7.580	73	16726	0.949
66)*Fluorobenzene	(2)	7.805	96	1211198	50.000
67) n-Heptane	(2)	7.823	43	9226	0.912
69) n-Butanol	(1)	8.133	56	48374	80.962
71) Trichloroethene	(2)	8.292	95	5500	0.831
72) Methylcyclohexane	(2)	8.608	83	10058	0.806
72) Methylcyclohexane	(2)	8.608	98	4484	0.794
73) 1,2-Dichloropropane	(2)	8.620	63	5047	0.810
76) Methyl Methacrylate	(2)	8.693	69	6024	0.823
75) 1,4-Dioxane	(1)	8.711	88	7272M	43.169
74) Dibromomethane	(2)	8.742	93	3781	0.854
78) Bromodichloromethane	(2)	8.961	83	5753	0.760
79) 2-Nitropropane	(2)	9.222	41	5339	1.549
80) 2-Chloroethyl Vinyl Ether	(2)	9.326	63	4071	0.807
81) cis-1,3-Dichloropropene	(2)	9.514	75	7295	0.740
82) 4-Methyl-2-pentanone	(2)	9.666	43	22187	1.685
83)$Toluene-d8	(3)	9.818	98	1213714	50.224
83)$Toluene-d8	(3)	9.818	100	777770	50.074
88) Toluene	(3)	9.891	92	14994	0.908
90) 1,3-Dichloropropene (total)	(3)		100	13967	1.467

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$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	6672	0.727
91) Ethyl Methacrylate	(3)	10.202	69	8317	0.732
92) 1,1,2-Trichloroethane	(3)	10.354	97	5591	0.877
93) Tetrachloroethene	(3)	10.451	166	6213	0.869
94) 1,3-Dichloropropane	(3)	10.512	76	9601	0.895
96) 2-Hexanone	(3)	10.555	43	17037	1.616
97) Dibromochloromethane	(3)	10.731	129	4316	0.683
99) 1,2-Dibromoethane	(3)	10.847	107	5897	0.833
100)*Chlorobenzene-d5	(3)	11.272	117	920766	50.000
101) 1-Chlorohexane	(3)	11.279	91	8870	0.981
102) Chlorobenzene	(3)	11.303	112	16579	0.879
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	4618	0.749
104) Ethylbenzene	(3)	11.382	91	27865	0.870
106) m+p-Xylene	(3)	11.498	106	20972	1.656
108) Xylene (Total)	(3)		106	31366	2.492
107) o-Xylene	(3)	11.826	106	10394	0.837
109) Styrene	(3)	11.844	104	15366	0.756
110) Bromoform	(3)	12.009	173	2969	0.630
111) Isopropylbenzene	(3)	12.130	105	26108	0.811
112) Cyclohexanone	(1)	12.203	55	30632	40.709
114)$4-Bromofluorobenzene	(3)	12.276	95	458515	49.693
114)$4-Bromofluorobenzene	(3)	12.276	174	380256	50.140
116) 1,1,2,2-Tetrachloroethane	(4)	12.367	83	9608	0.860
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	29866	7.959
115) Bromobenzene	(4)	12.392	156	7586	0.884
117) 1,2,3-Trichloropropane	(4)	12.416	110	3620	0.938
119) n-Propylbenzene	(4)	12.459	91	31806	0.839
120) 2-Chlorotoluene	(4)	12.538	126	7101	0.882
122) 1,3,5-Trimethylbenzene	(4)	12.593	105	22311	0.790
121) 4-Chlorotoluene	(4)	12.629	126	7585	0.901
124) tert-Butylbenzene	(4)	12.836	134	4732M	0.795
125) Pentachloroethane	(4)	12.872	167	3254	0.685
126) 1,2,4-Trimethylbenzene	(4)	12.879	105	22992	0.784
127) sec-Butylbenzene	(4)	13.000	105	29189	0.810
129) 1,3-Dichlorobenzene	(4)	13.104	146	14698	0.889
130) p-Isopropyltoluene	(4)	13.110	119	24625M	0.781
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	511924	50.000
133) 1,4-Dichlorobenzene	(4)	13.177	146	15381	0.905

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Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

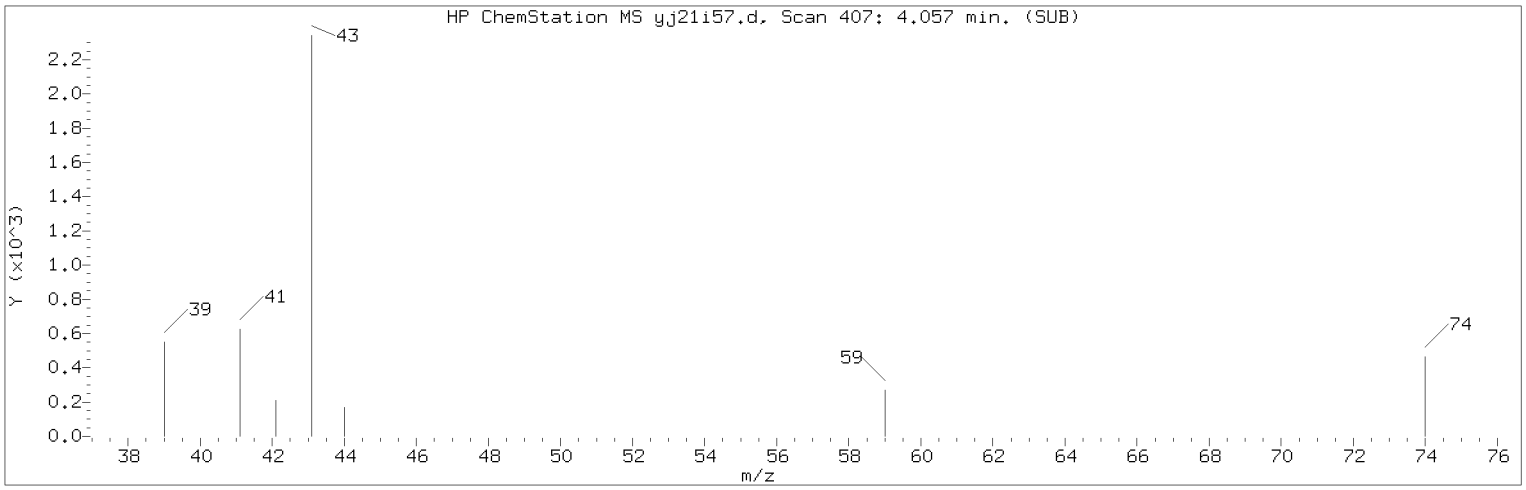
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

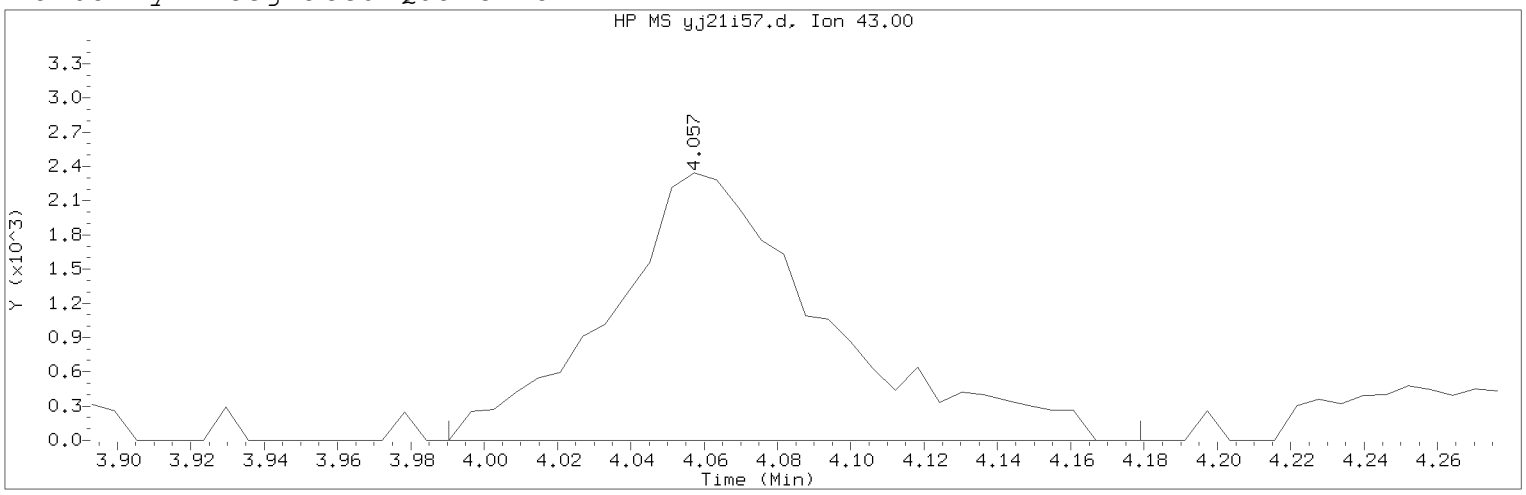
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.183	105	26993	0.856
135)	Benzyl Chloride	(4)	13.250	91	13162	0.607
136)	1,3-Diethylbenzene	(4)	13.310	119	15015	0.766
141)	Diethylbenzene (total)	(4)		100	44313	2.336
137)	1,4-Diethylbenzene	(4)	13.383	119	16036	0.768
139)	n-Butylbenzene	(4)	13.402	92	13180	0.814
138)	1,2-Dichlorobenzene	(4)	13.438	146	14550	0.896
140)	1,2-Diethylbenzene	(4)	13.456	119	13262	0.803
142)	1,2-Dibromo-3-chloropropane	(4)	13.980	75	2395	0.782
144)	1,3,5-Trichlorobenzene	(4)	14.114	180	11753	0.931
146)	1,2,4-Trichlorobenzene	(4)	14.533	180	11345	0.947
147)	Hexachlorobutadiene	(4)	14.618	225	5346	0.981
148)	Naphthalene	(4)	14.716	128	37822	0.914
149)	1,2,3-Trichlorobenzene	(4)	14.862	180	11205	0.962
150)	2-Methylnaphthalene	(4)	15.507	142	20686	0.841

Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

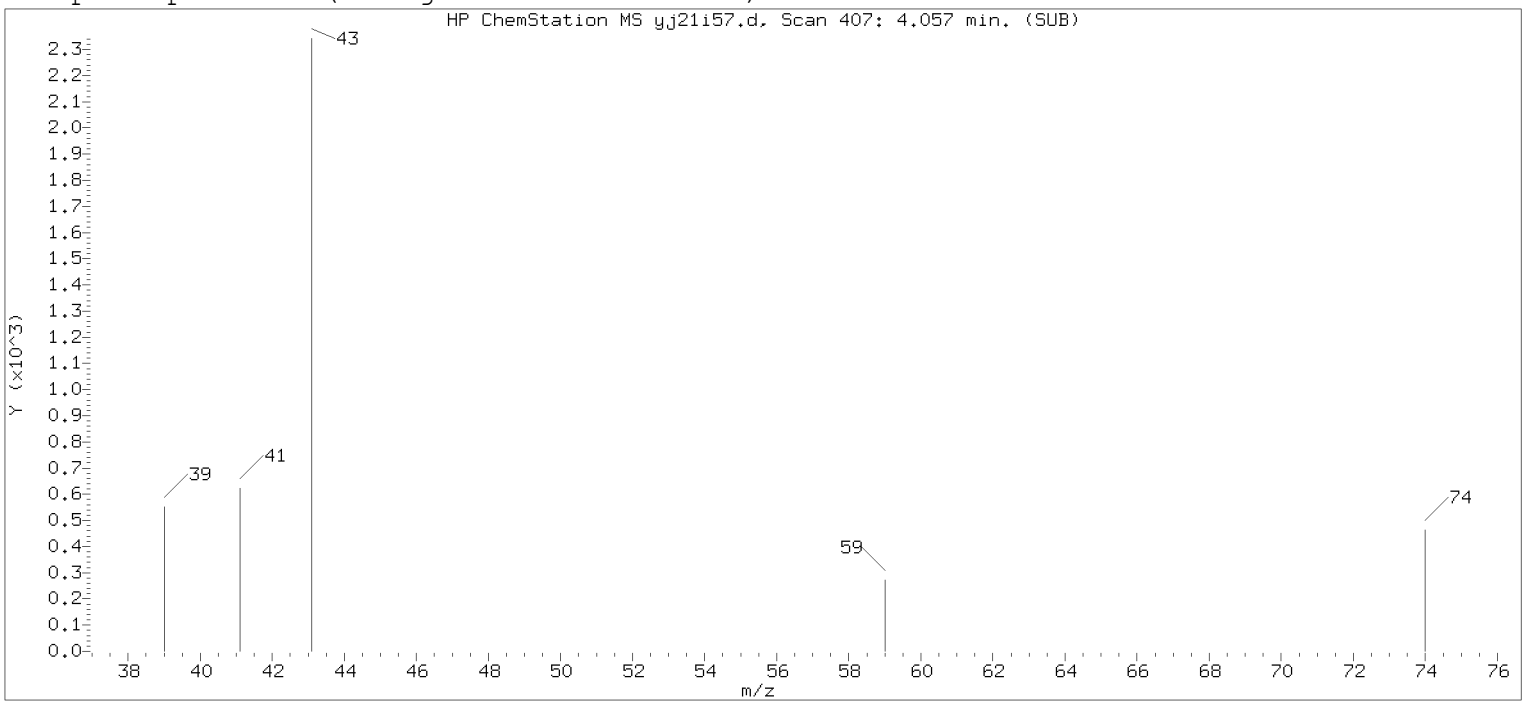
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 407
Retention Time (minutes): 4.057
Quant Ion : 43.00
Area (flag) : 9553M
On-Column Amount (ng) : 1.0425
Integration start scan : 395 Integration stop scan: 426
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

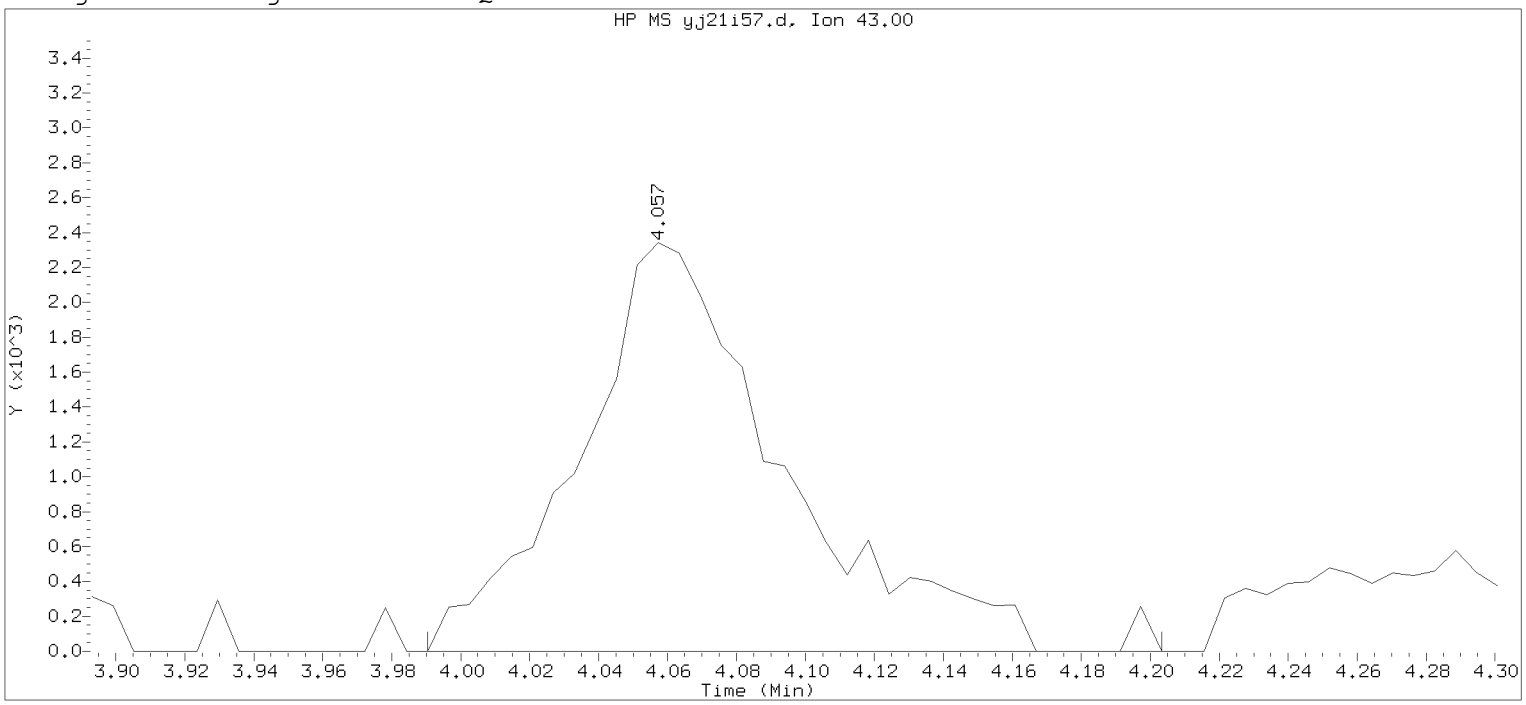
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 407
Retention Time (minutes): 4.057
Quant Ion : 43.00
Area : 9647
On-column Amount (ng) : 1.0513
Integration start scan : 395 Integration stop scan: 430
Y at integration start : 0 Y at integration end: 0

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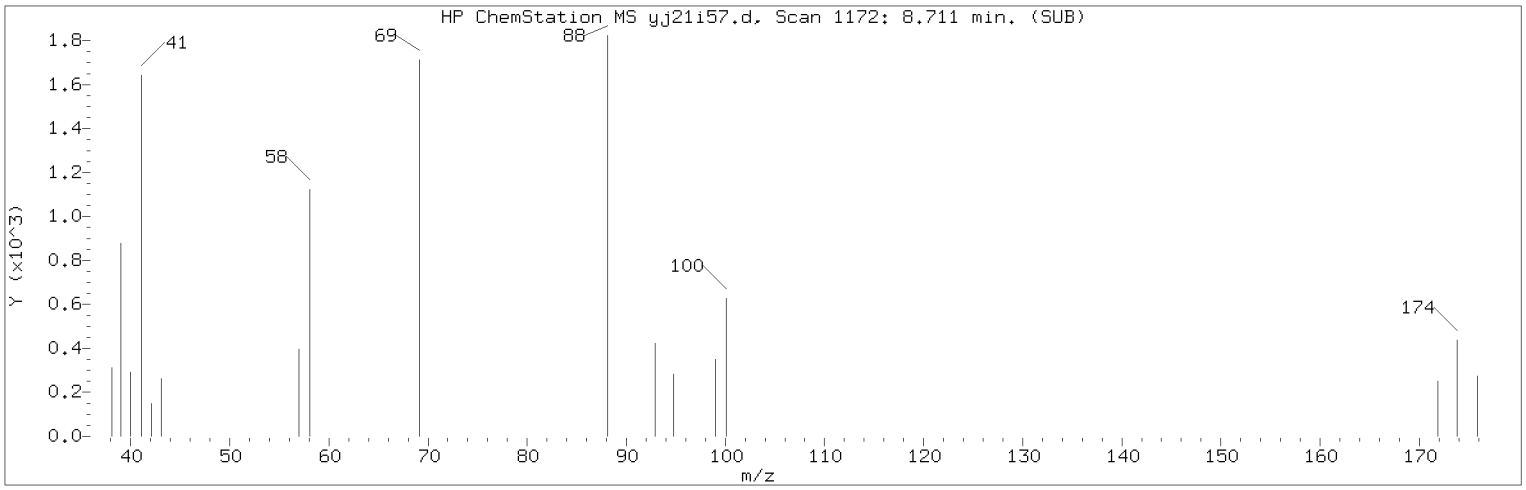
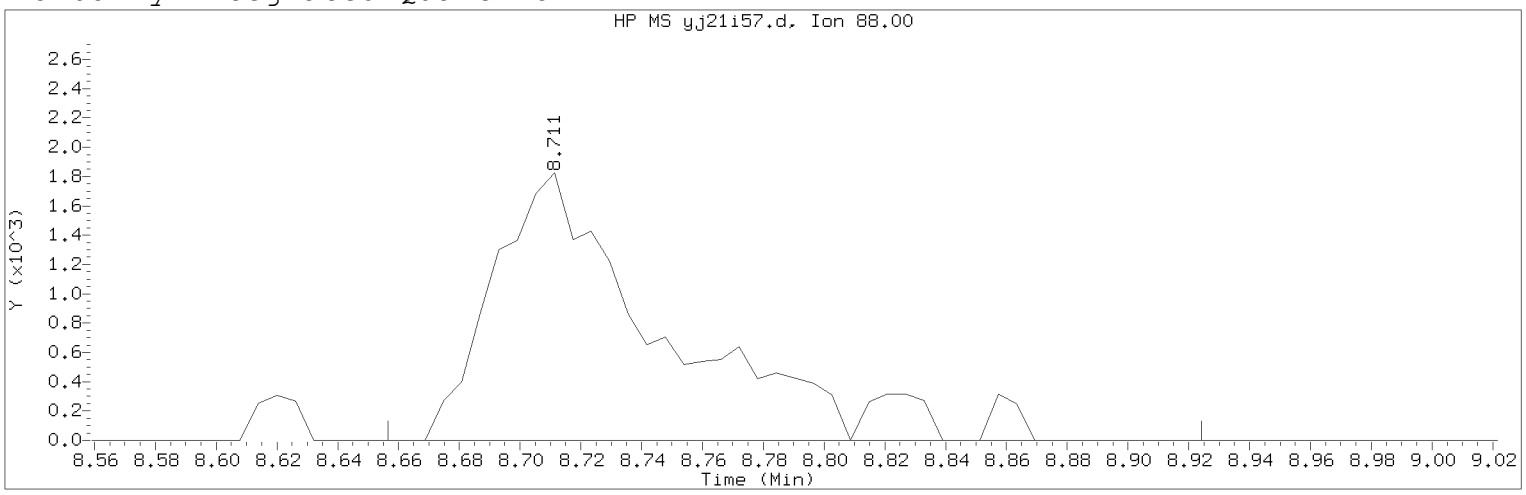
Target 3.5 esignature used for page 479

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

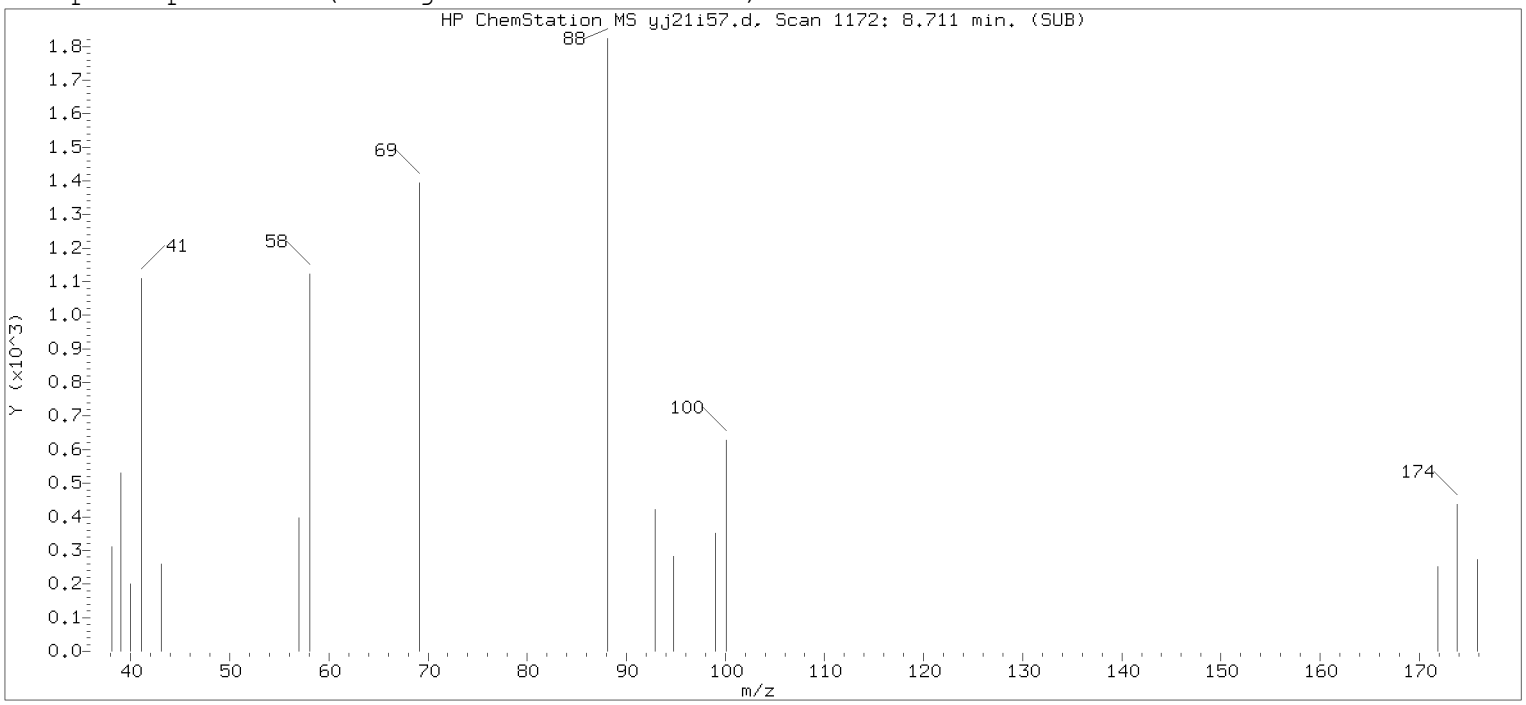
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area (flag) : 7272M
On-Column Amount (ng) : 43.1690
Integration start scan : 1162 Integration stop scan: 1206
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

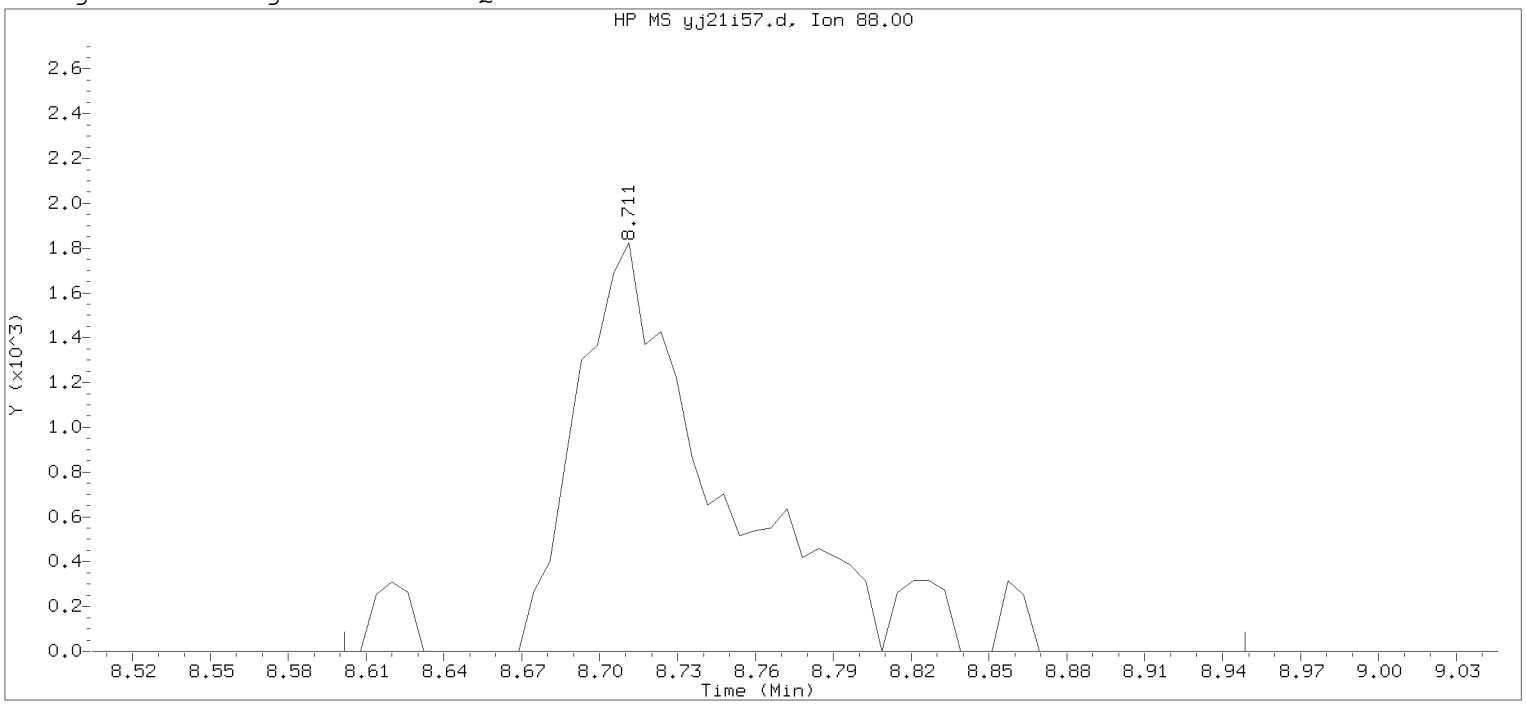
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.711
Quant Ion : 88.00
Area : 7574
On-column Amount (ng) : 38.6529
Integration start scan : 1153 Integration stop scan: 1210
Y at integration start : 0 Y at integration end: 0

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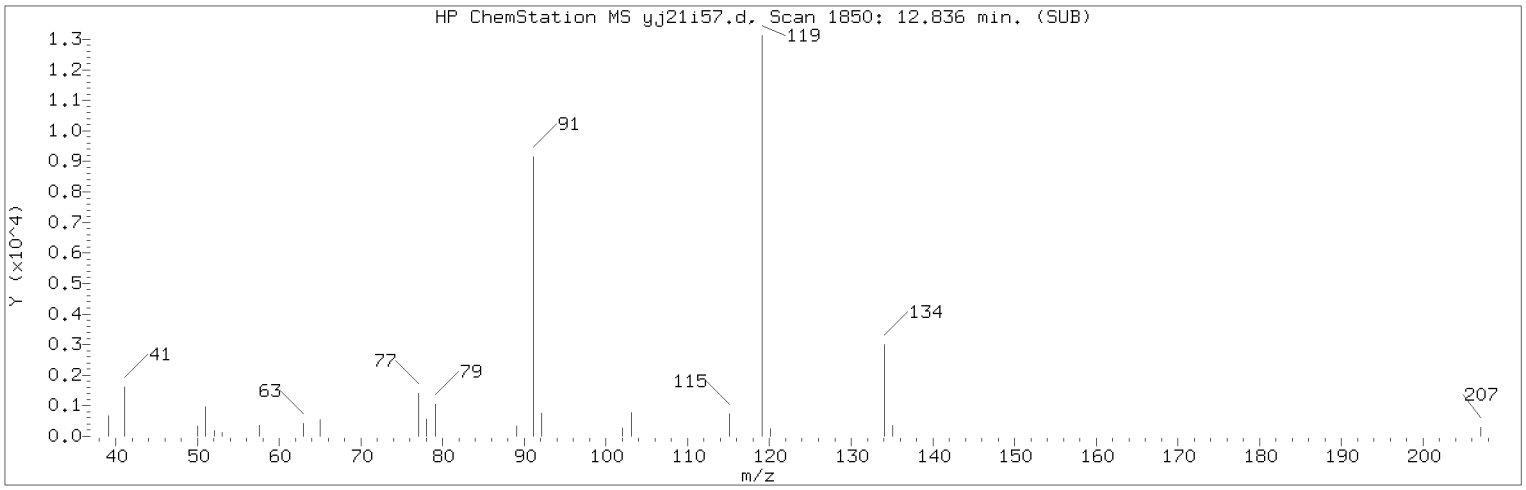
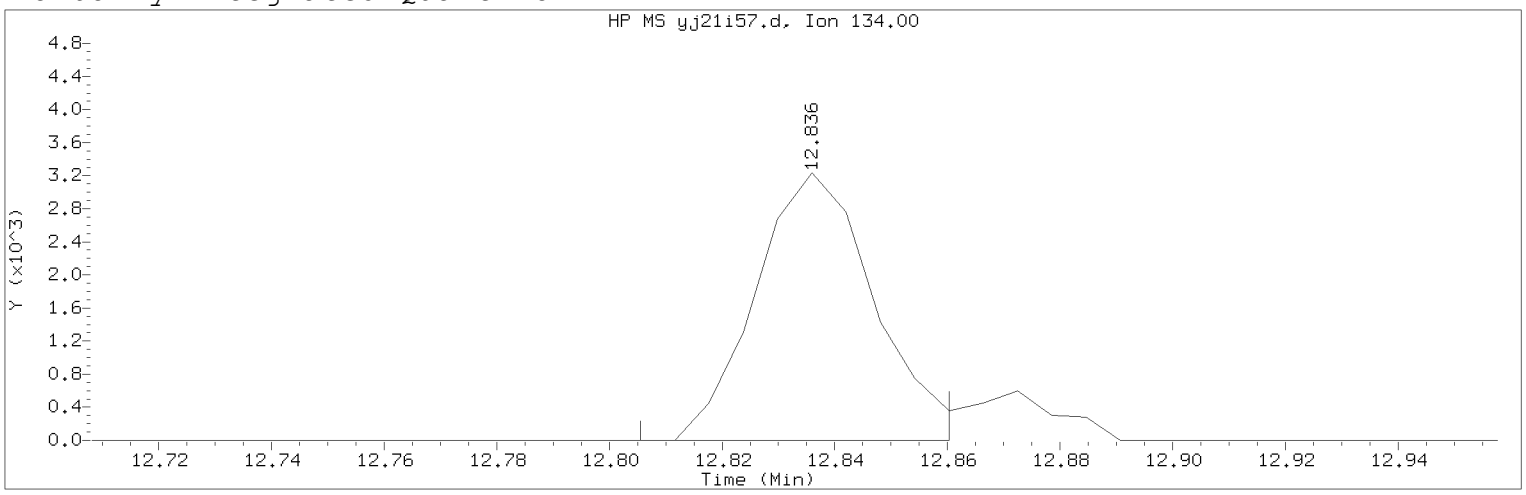
Target 3.5 esignature used for page 0015

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

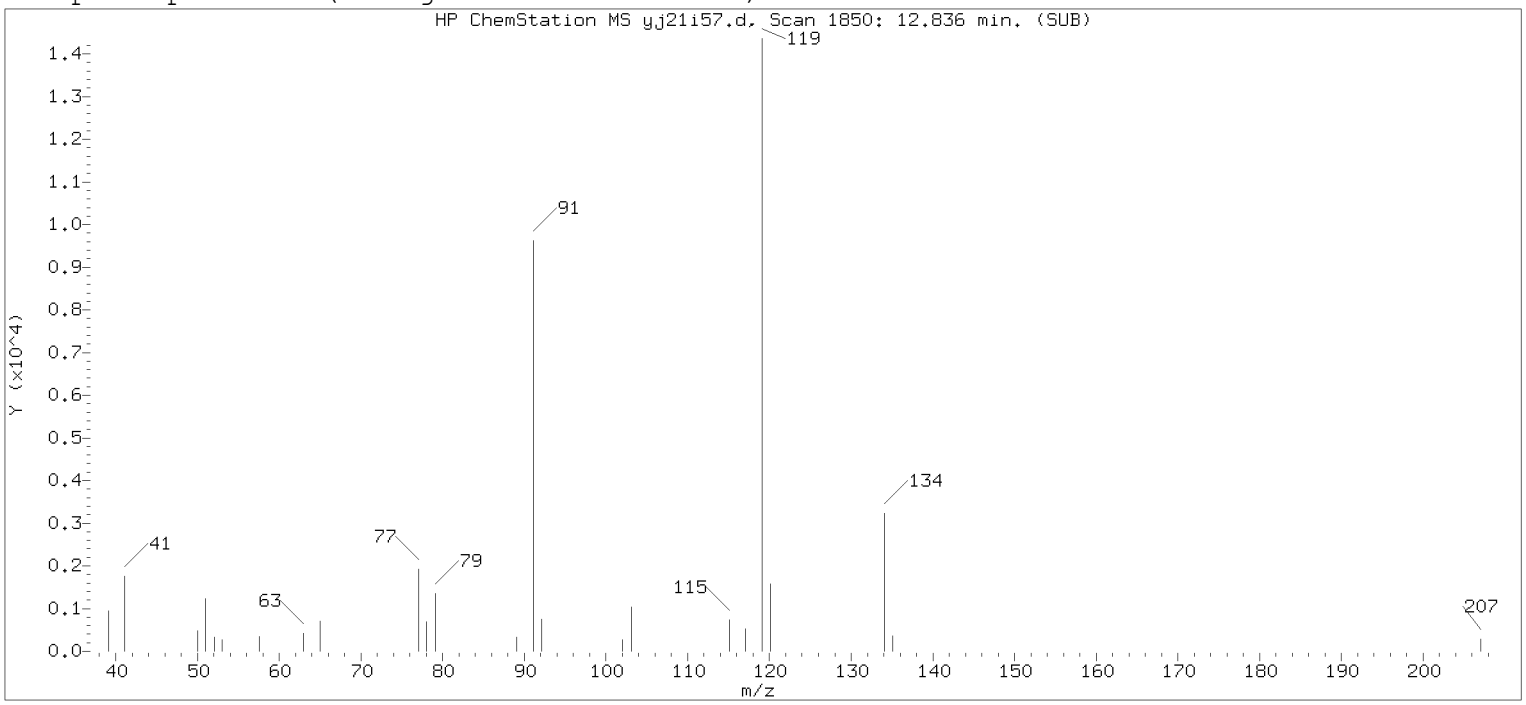
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 4732M
On-Column Amount (ng) : 0.7947
Integration start scan : 1844 Integration stop scan: 1853
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

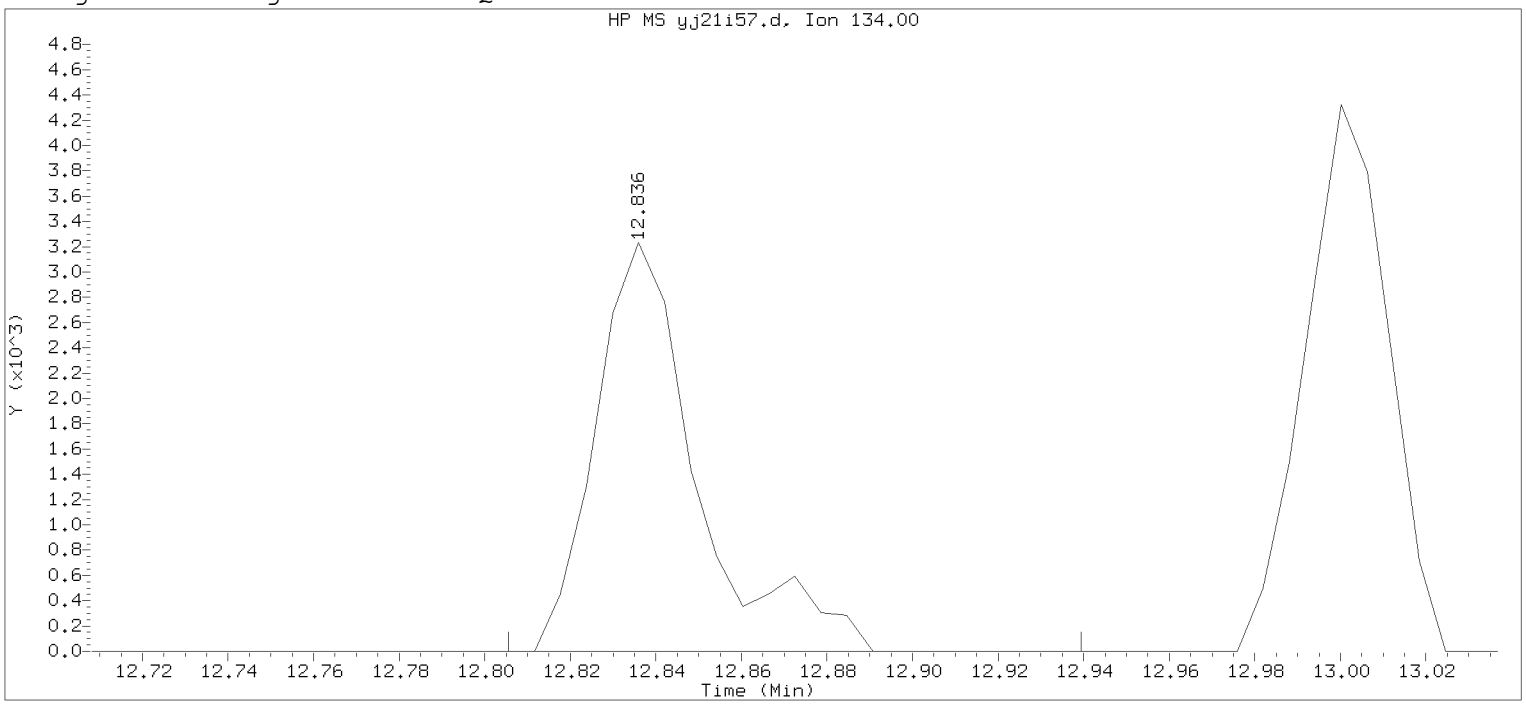
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

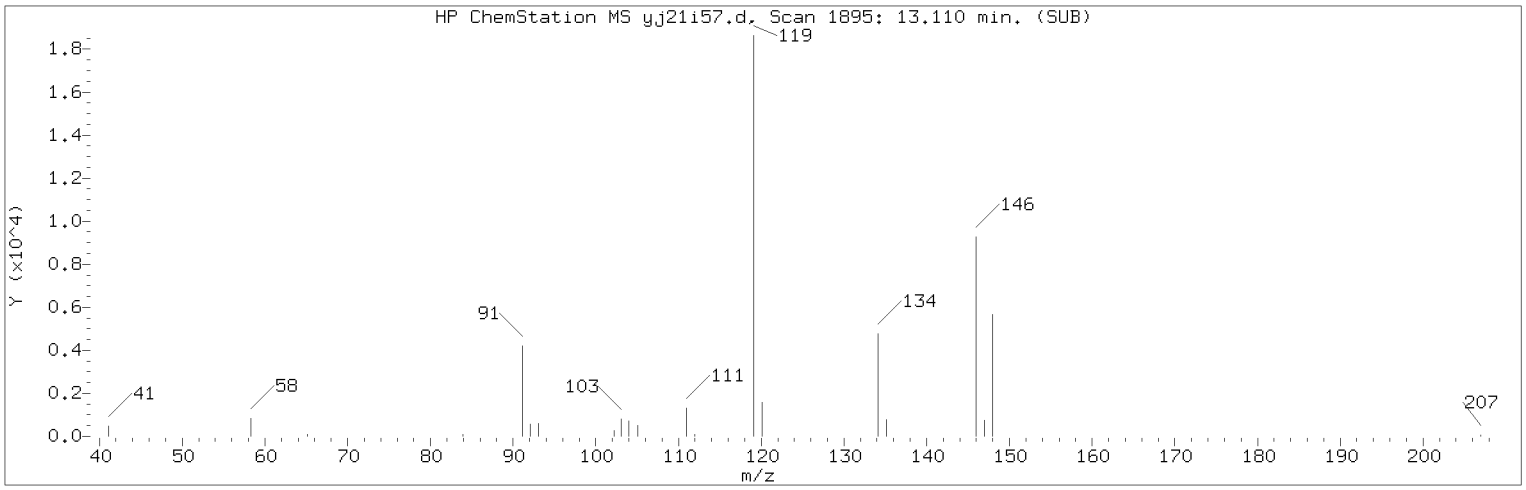
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD001 Lab Sample ID: VSTD001

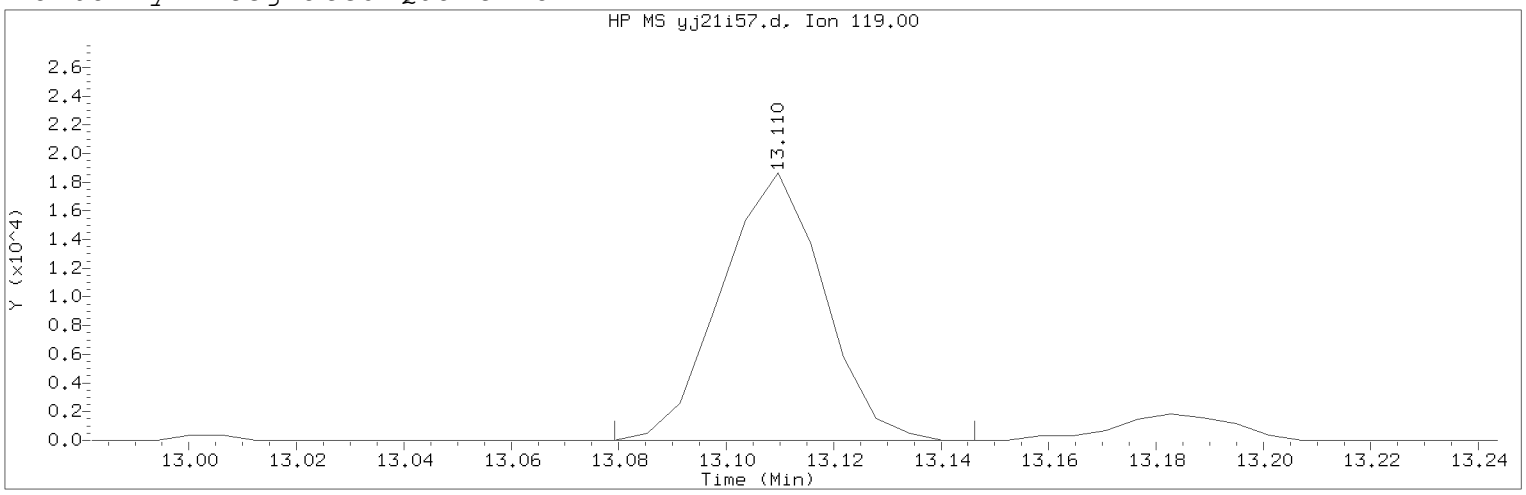
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 5327
On-column Amount (ng) : 0.8160
Integration start scan : 1844 Integration stop scan: 1866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 01/23/2019 at 17:40.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:09
Date, time and analyst ID of latest file update: 23-Jan-2019 08:09 lcp00895

Sample Name: VSTD001 Lab Sample ID: VSTD001

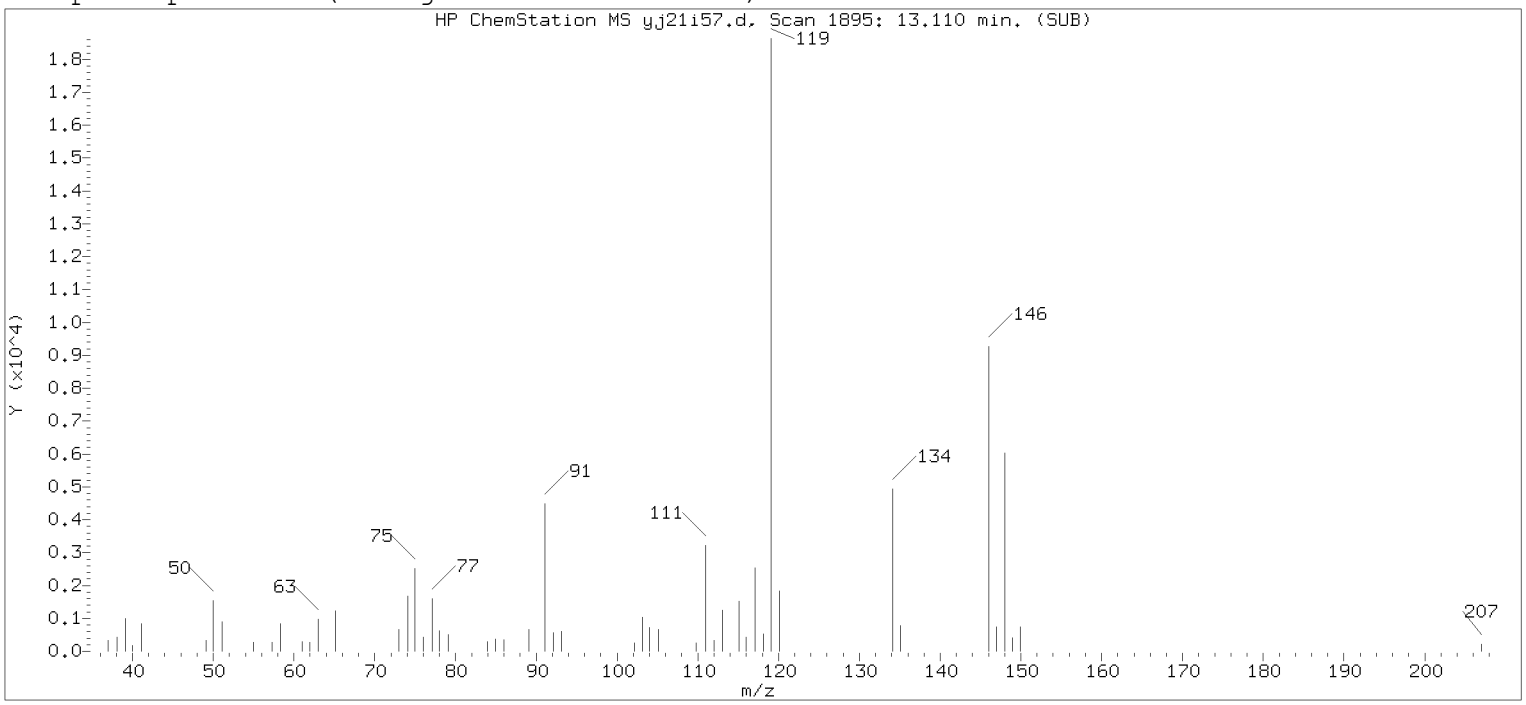
Compound Number : 130
Compound Name : p-Isopropyltoluene
Scan Number : 1895
Retention Time (minutes): 13.110
Quant Ion : 119.00
Area (flag) : 24625M
On-Column Amount (ng) : 0.7811
Integration start scan : 1889 Integration stop scan: 1900
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

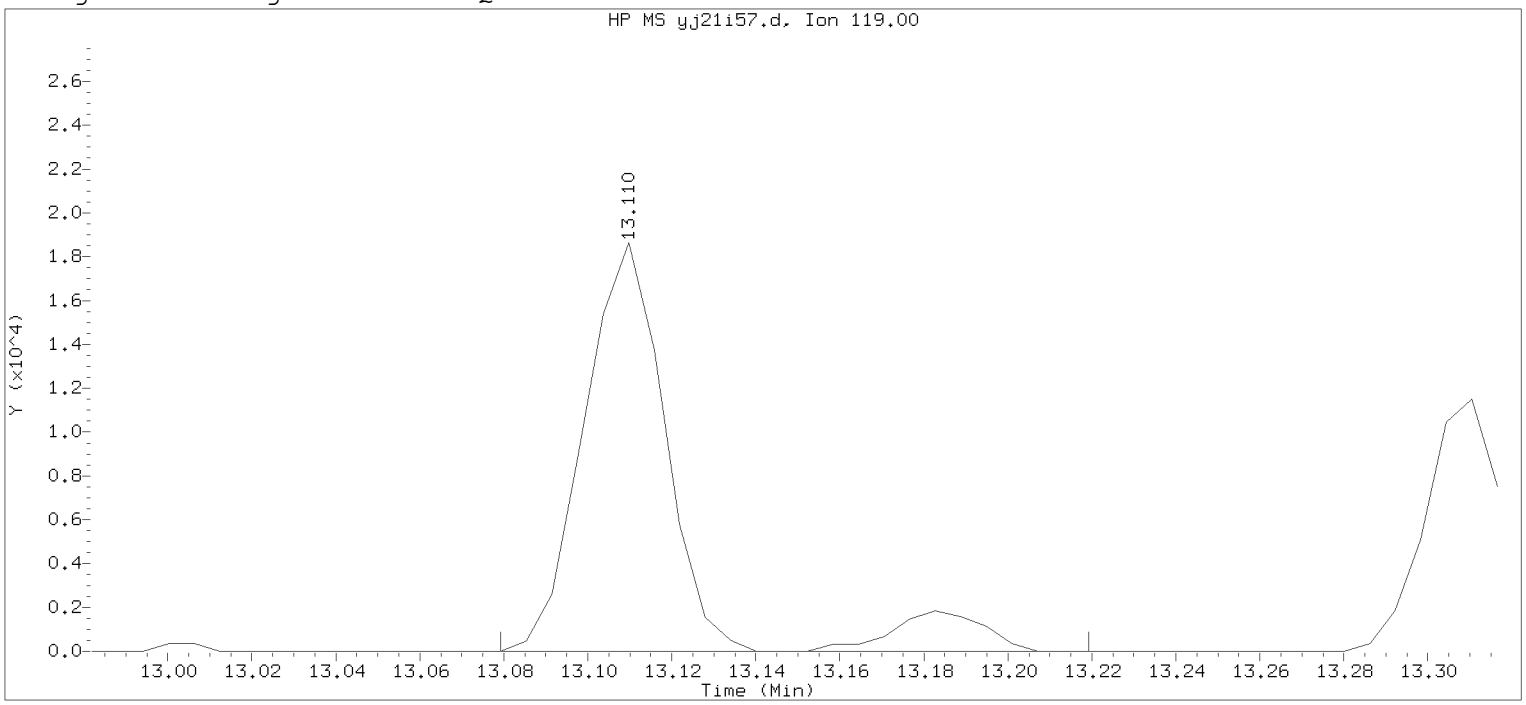
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 01/23/2019 at 17:40.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:58.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



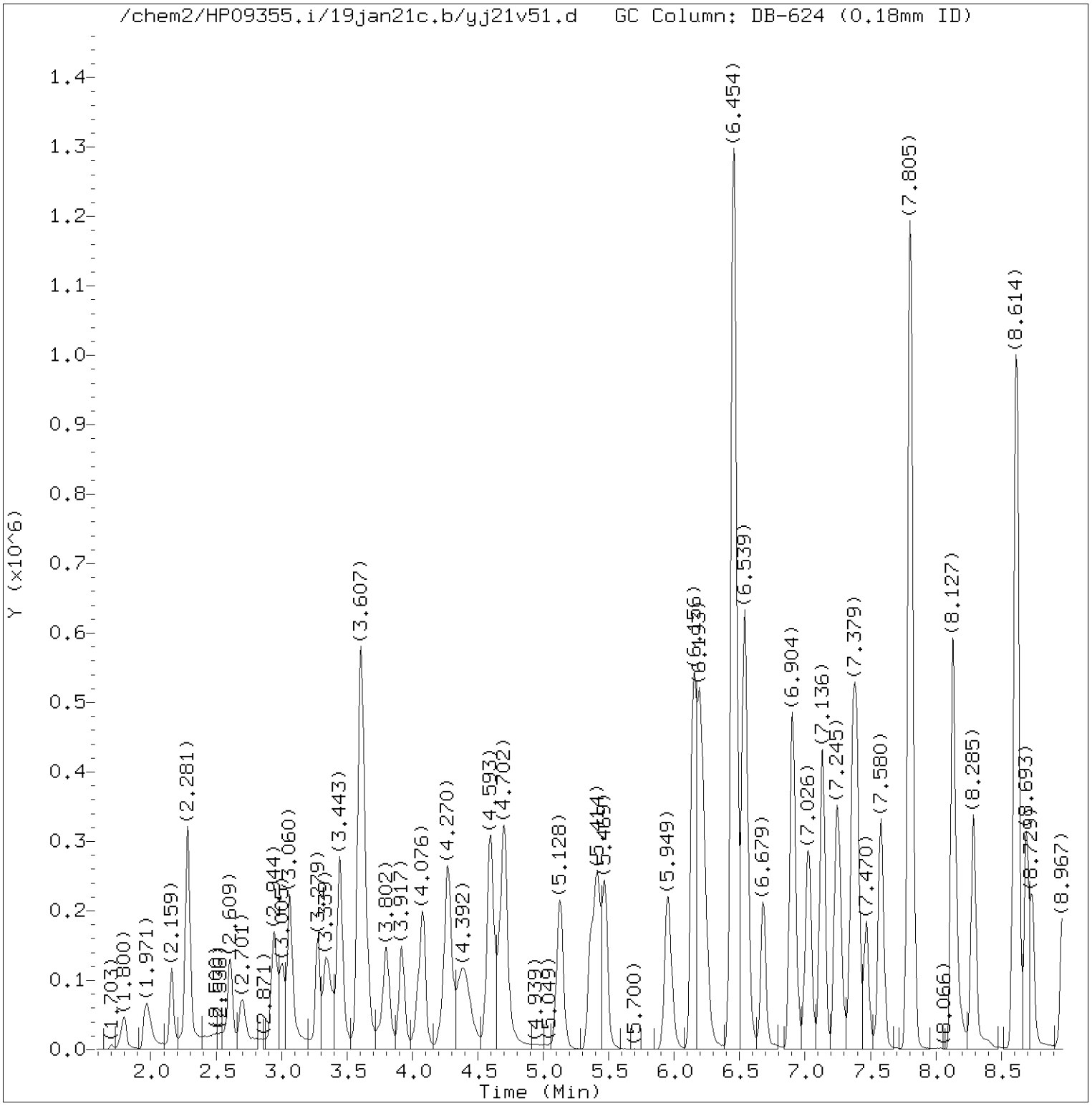
Data File: /chem2/HP09355.i/19jan21c.b/yj21i57.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:00 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 07:32
Date, time and analyst ID of latest file update: 23-Jan-2019 07:32 kas02648

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 130
Compound Name : p-Isopropyltoluene
Scan Number : 1895
Retention Time (minutes): 13.110
Quant Ion : 119.00
Area : 27449
On-column Amount (ng) : 0.8597
Integration start scan : 1889 Integration stop scan: 1912
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 01/23/2019 at 17:40.
Target 3.5 esignature used per pac 0045



Total Ion Chromatogram (TIC)

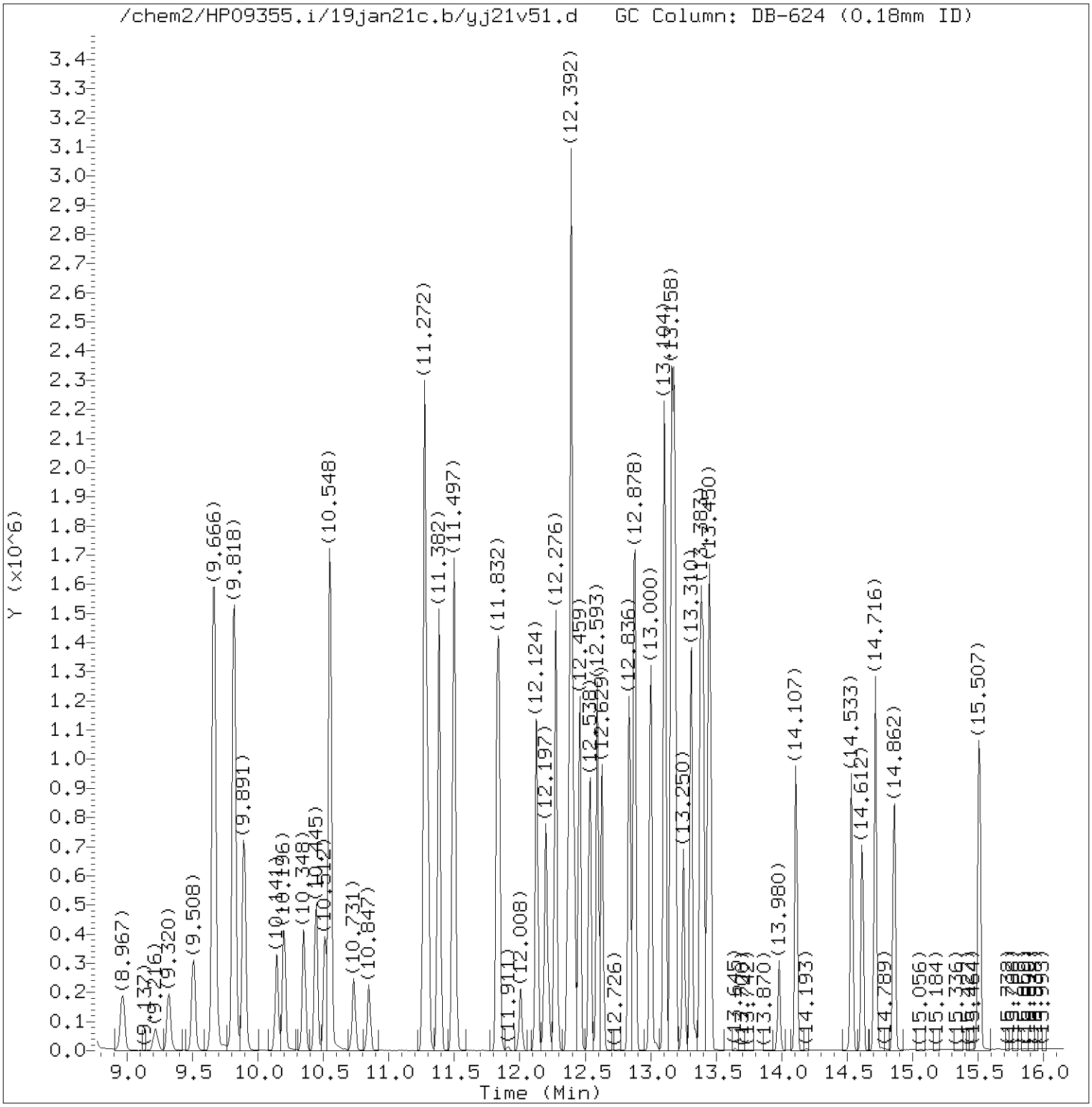
Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.971	85	154224	14.858
4) Chloromethane	(2)	2.159	50	144698	17.120
5) 1,3-Butadiene	(2)	2.281	39	141722	23.734
6) Vinyl Chloride	(2)	2.281	62	154369	18.269
8) Bromomethane	(2)	2.609	94	102396	15.171
9) Chloroethane	(2)	2.701	64	85775	16.760
10) Dichlorofluoromethane	(2)	2.938	67	205086	19.875
12) Trichlorofluoromethane	(2)	3.005	101	219107	18.380
11) n-Pentane	(2)	3.060	43	201957	20.799
14) Ethyl ether	(2)	3.279	59	122136	20.613
15) Freon 123a	(2)	3.345	67	146980	21.488
16) Acrolein	(1)	3.443	56	385685	140.624
17) 1,1-Dichloroethene	(2)	3.595	96	118000	23.317
18) Acetone	(1)	3.613	58	261617	187.900
19) Freon 113	(2)	3.625	101	127583	22.963
21) 2-Propanol	(1)	3.784	45	144762	149.085
22) Methyl Iodide	(2)	3.802	142	216021	21.175
23) Carbon Disulfide	(2)	3.917	76	337798	20.570
27) Methyl Acetate	(2)	4.045	43	186753	20.174
25) Allyl Chloride	(2)	4.082	41	172619	18.517
29)*t-Butyl alcohol-d10	(1)	4.264	65	383558	250.000
28) Methylene Chloride	(2)	4.270	84	136002	21.762
30) t-Butyl alcohol	(1)	4.392	59	393615	200.846
31) Acrylonitrile	(2)	4.593	53	473724	94.477
33) Methyl Tertiary Butyl Ether	(2)	4.684	73	351523	20.491
32) trans-1,2-Dichloroethene	(2)	4.702	96	135411	22.324
34) n-Hexane	(2)	5.128	57	199347	21.241
36) 1,1-Dichloroethane	(2)	5.359	63	225693	21.344
38) di-Isopropyl ether	(2)	5.414	45	403466	20.738
39) 2-Chloro-1,3-butadiene	(2)	5.469	53	198181	21.087
40) Ethyl t-butyl ether	(2)	5.955	59	348964	20.568
44) 2-Butanone	(2)	6.150	43	1211178	160.843
43) 1,2-Dichloroethene (Total)	(2)		96	288208	44.386
42) cis-1,2-Dichloroethene	(2)	6.199	96	152797	22.062
45) 2,2-Dichloropropane	(2)	6.217	77	186701	21.883
47) Propionitrile	(1)	6.235	54	317482	160.101
48) Methacrylonitrile	(2)	6.460	67	773573	154.621
49) Bromochloromethane	(2)	6.533	128	76901	20.102

* = Compound is an internal standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.539	71	212275	103.038
51) Chloroform	(2)	6.679	83	235409	21.836
52)$Dibromofluoromethane	(2)	6.898	113	293846	49.793
53) 1,1,1-Trichloroethane	(2)	6.917	97	208173	22.035
54) Cyclohexane	(2)	7.026	56	231719	21.212
55) 1,1-Dichloropropene	(2)	7.129	75	187967	21.896
56) Carbon Tetrachloride	(2)	7.136	117	176621	21.725
58) Isobutyl Alcohol	(1)	7.245	41	310064	487.172
57)$1,2-Dichloroethane-d4	(2)	7.367	102	73863	49.901
60) Benzene	(2)	7.397	78	548596	21.582
61) 1,2-Dichloroethane	(2)	7.470	62	196952	21.576
65) t-Amyl methyl ether	(2)	7.580	73	381051	21.395
66)*Fluorobenzene	(2)	7.799	96	1223573	50.000
67) n-Heptane	(2)	7.817	43	213333	20.886
69) n-Butanol	(1)	8.133	56	533468	989.865
71) Trichloroethene	(2)	8.285	95	144605	21.617
72) Methylcyclohexane	(2)	8.608	83	257192	20.392
73) 1,2-Dichloropropane	(2)	8.620	63	138369	21.996
76) Methyl Methacrylate	(2)	8.693	69	147508	19.961
75) 1,4-Dioxane	(1)	8.705	88	79719M	524.661
74) Dibromomethane	(2)	8.736	93	96308	21.543
78) Bromodichloromethane	(2)	8.967	83	162873	21.306
79) 2-Nitropropane	(2)	9.216	41	58730	16.865
80) 2-Chloroethyl Vinyl Ether	(2)	9.320	63	103810	20.376
81) cis-1,3-Dichloropropene	(2)	9.508	75	210605	21.151
82) 4-Methyl-2-pentanone	(2)	9.660	43	1308982	98.386
83)$Toluene-d8	(3)	9.818	98	1245513	50.418
88) Toluene	(3)	9.891	92	360316	21.346
90) 1,3-Dichloropropene (total)	(3)		100	404944	41.866
89) trans-1,3-Dichloropropene	(3)	10.141	75	194339	20.715
91) Ethyl Methacrylate	(3)	10.202	69	234097	20.149
92) 1,1,2-Trichloroethane	(3)	10.348	97	144955	22.249
93) Tetrachloroethene	(3)	10.445	166	159359	21.798
94) 1,3-Dichloropropane	(3)	10.512	76	230961	21.072
96) 2-Hexanone	(3)	10.548	43	1113707	103.345
97) Dibromochloromethane	(3)	10.731	129	136344	21.102
99) 1,2-Dibromoethane	(3)	10.847	107	154740	21.383
100)*Chlorobenzene-d5	(3)	11.272	117	941245	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 1-Chlorohexane	(3)	11.278	91	193540	20.947
102) Chlorobenzene	(3)	11.297	112	417796	21.671
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	133979	21.260
104) Ethylbenzene	(3)	11.382	91	701487	21.424
106) m+p-Xylene	(3)	11.497	106	568325	43.889
108) Xylene (Total)	(3)		106	840975	65.364
107) o-Xylene	(3)	11.826	106	272650	21.475
109) Styrene	(3)	11.844	104	455297	21.920
110) Bromoform	(3)	12.008	173	94711	18.519
111) Isopropylbenzene	(3)	12.130	105	726395	22.070
112) Cyclohexanone	(1)	12.197	55	338204	498.298
114)$4-Bromofluorobenzene	(3)	12.276	95	472779	50.124
116) 1,1,2,2-Tetrachloroethane	(4)	12.367	83	242133	21.243
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	415327	108.513
115) Bromobenzene	(4)	12.392	156	186450	21.295
117) 1,2,3-Trichloropropane	(4)	12.416	110	84524	21.469
119) n-Propylbenzene	(4)	12.459	91	855241	22.131
120) 2-Chlorotoluene	(4)	12.538	126	174761	21.282
122) 1,3,5-Trimethylbenzene	(4)	12.593	105	627602	21.775
121) 4-Chlorotoluene	(4)	12.629	126	182974	21.313
124) tert-Butylbenzene	(4)	12.836	134	130362M	21.465
125) Pentachloroethane	(4)	12.872	167	98473	20.332
126) 1,2,4-Trimethylbenzene	(4)	12.878	105	650093	21.734
127) sec-Butylbenzene	(4)	13.000	105	805025	21.904
129) 1,3-Dichlorobenzene	(4)	13.104	146	358038	21.226
130) p-Isopropyltoluene	(4)	13.110	119	711298	22.121
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	522133	50.000
133) 1,4-Dichlorobenzene	(4)	13.177	146	371215	21.410
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	684687	21.294
135) Benzyl Chloride	(4)	13.250	91	434901	18.466
136) 1,3-Diethylbenzene	(4)	13.310	119	424139	21.222
141) Diethylbenzene (total)	(4)		100	1223773	63.196
137) 1,4-Diethylbenzene	(4)	13.383	119	441086	20.701
139) n-Butylbenzene	(4)	13.402	92	352799M	21.354
138) 1,2-Dichlorobenzene	(4)	13.438	146	353146	21.331
140) 1,2-Diethylbenzene	(4)	13.450	119	358548	21.274
142) 1,2-Dibromo-3-chloropropane	(4)	13.980	75	64585	20.665
144) 1,3,5-Trichlorobenzene	(4)	14.107	180	270171	20.992

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

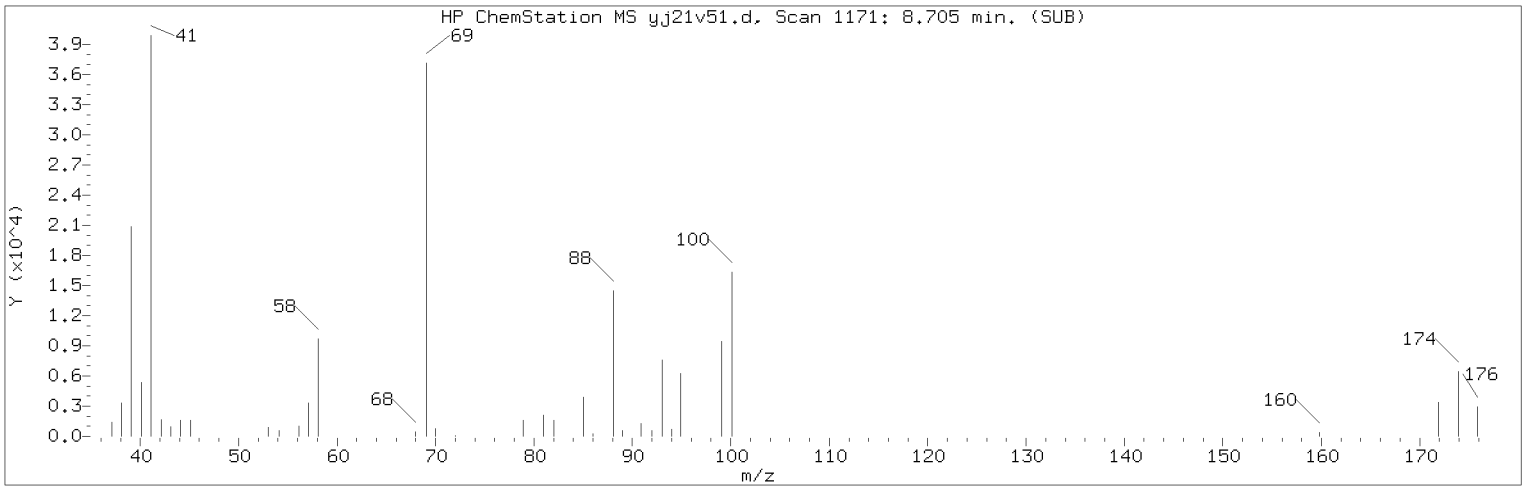
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

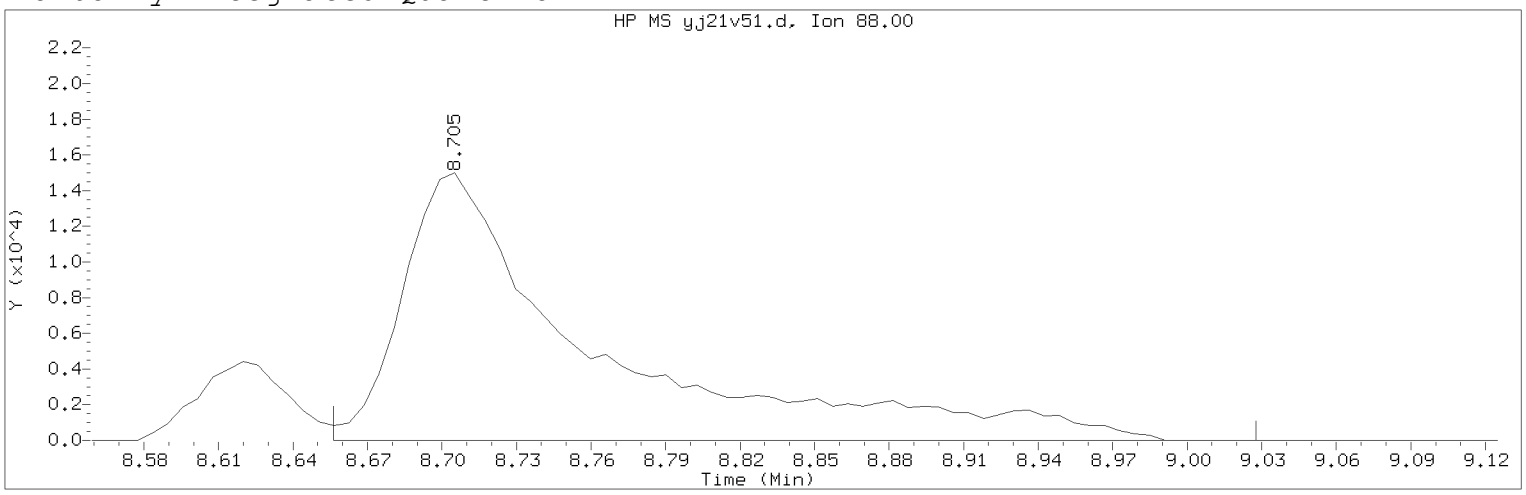
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	256398	20.993
147) Hexachlorobutadiene	(4)	14.618	225	113615	20.438
148) Naphthalene	(4)	14.716	128	893971	21.177
149) 1,2,3-Trichlorobenzene	(4)	14.862	180	245760	20.687
150) 2-Methylnaphthalene	(4)	15.507	142	514669	20.507

Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

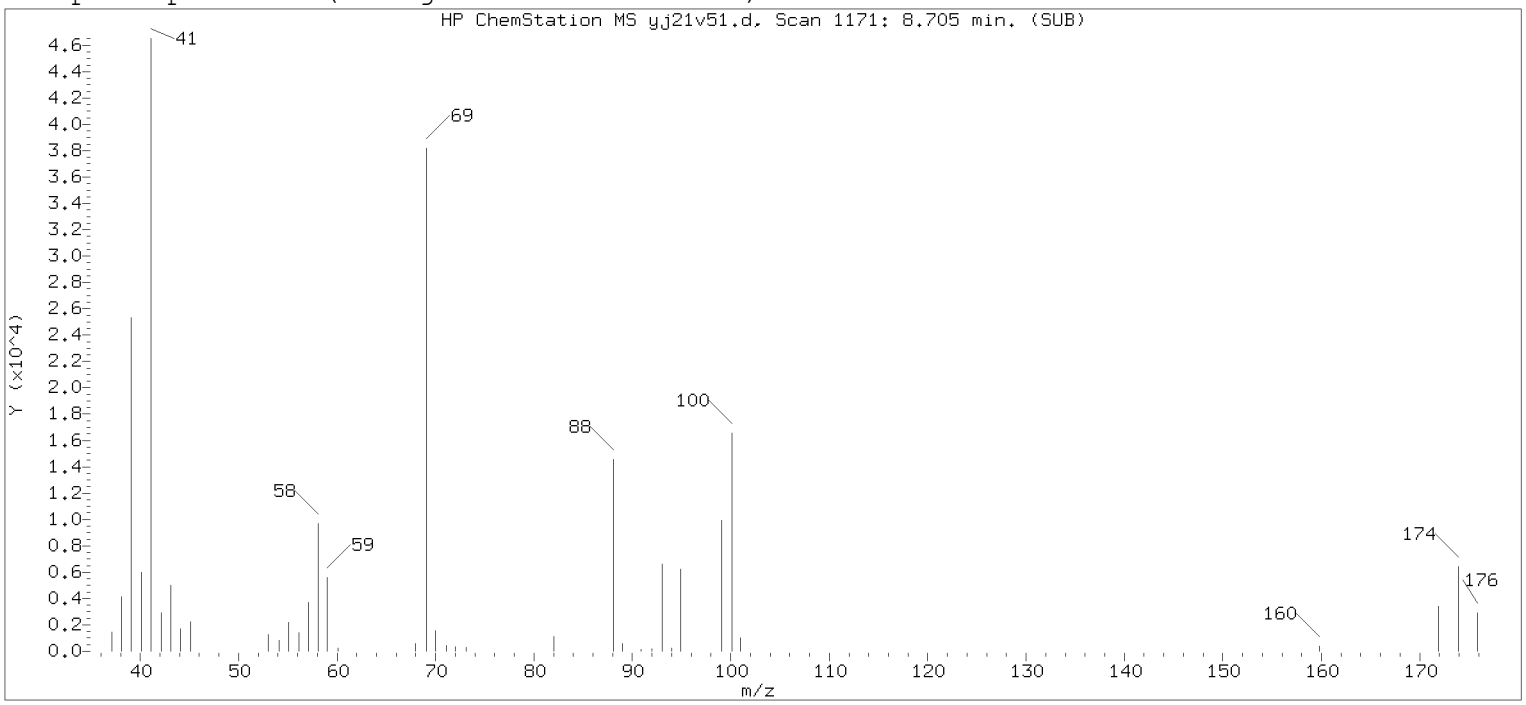
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1171
Retention Time (minutes): 8.705
Quant Ion : 88.00
Area (flag) : 79719M
On-Column Amount (ng) : 524.6611
Integration start scan : 1162 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

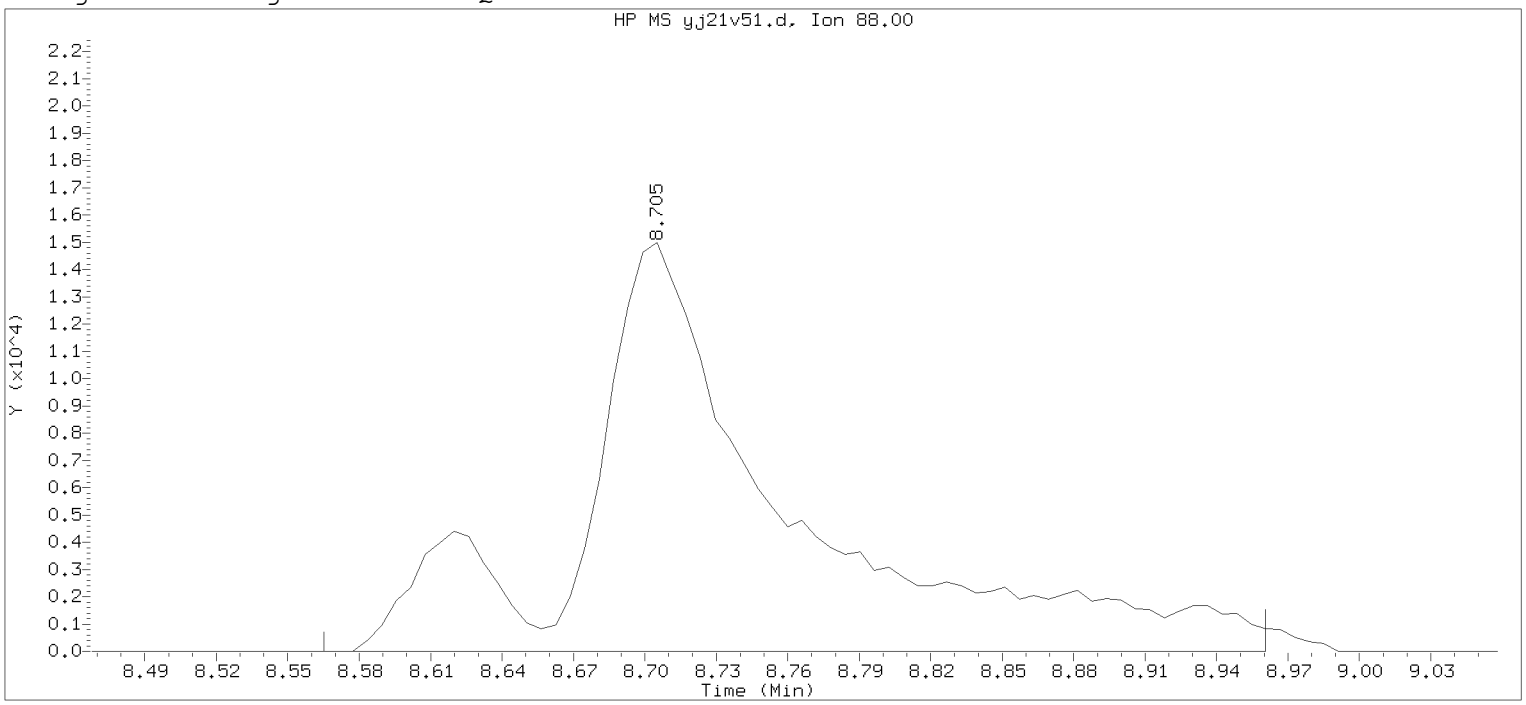
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:59.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

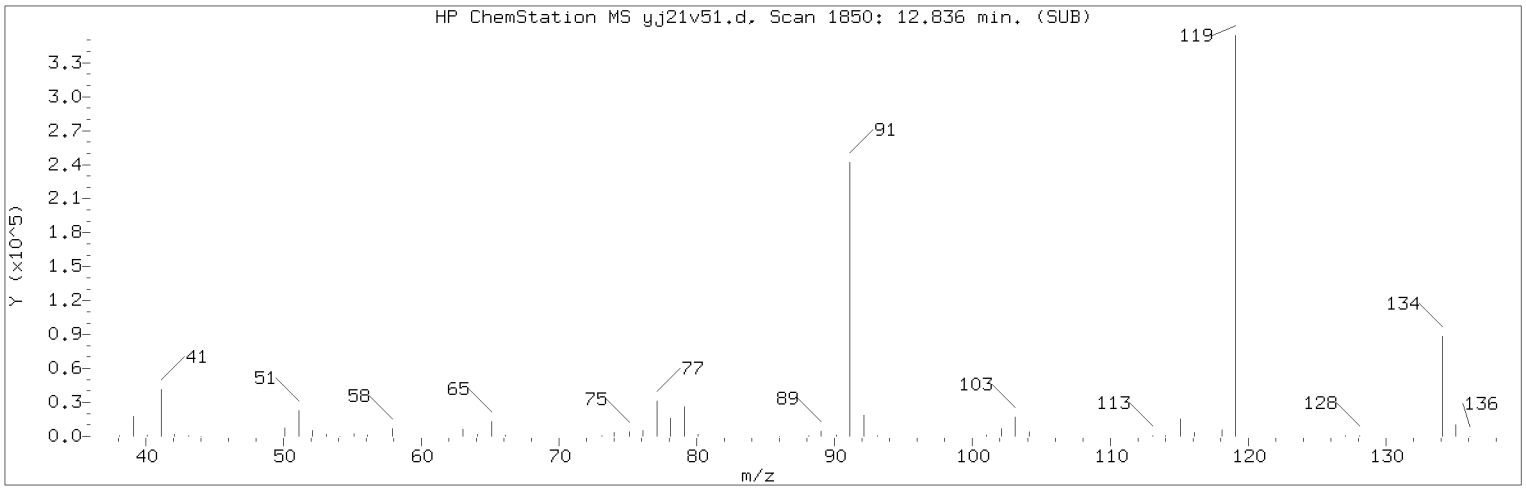
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:16
Date, time and analyst ID of latest file update: 23-Jan-2019 08:17 lcp00895

Sample Name: YLCICV Lab Sample ID: YLCICV

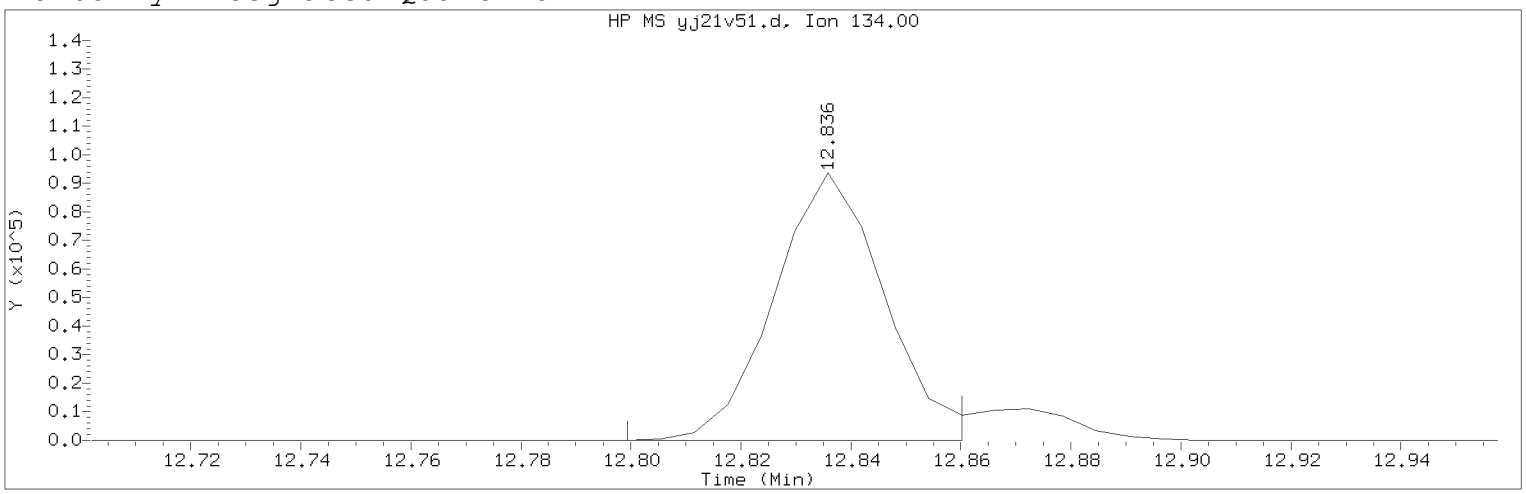
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1171
Retention Time (minutes): 8.705
Quant Ion : 88.00
Area : 89881
On-column Amount (ng) : 591.5424
Integration start scan : 1147 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature used. Key ID: 0x0[illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

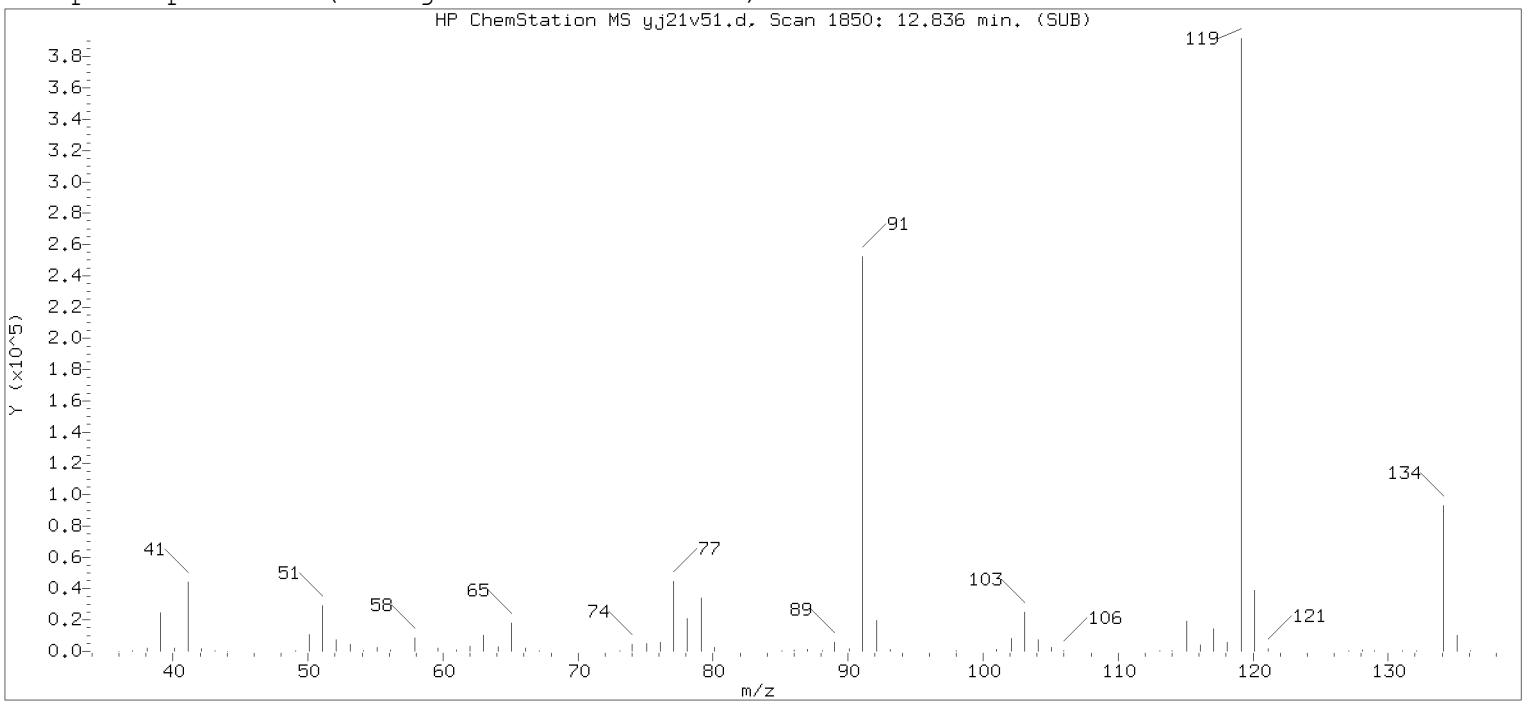
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 130362M
On-Column Amount (ng) : 21.4654
Integration start scan : 1843 Integration stop scan: 1853
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

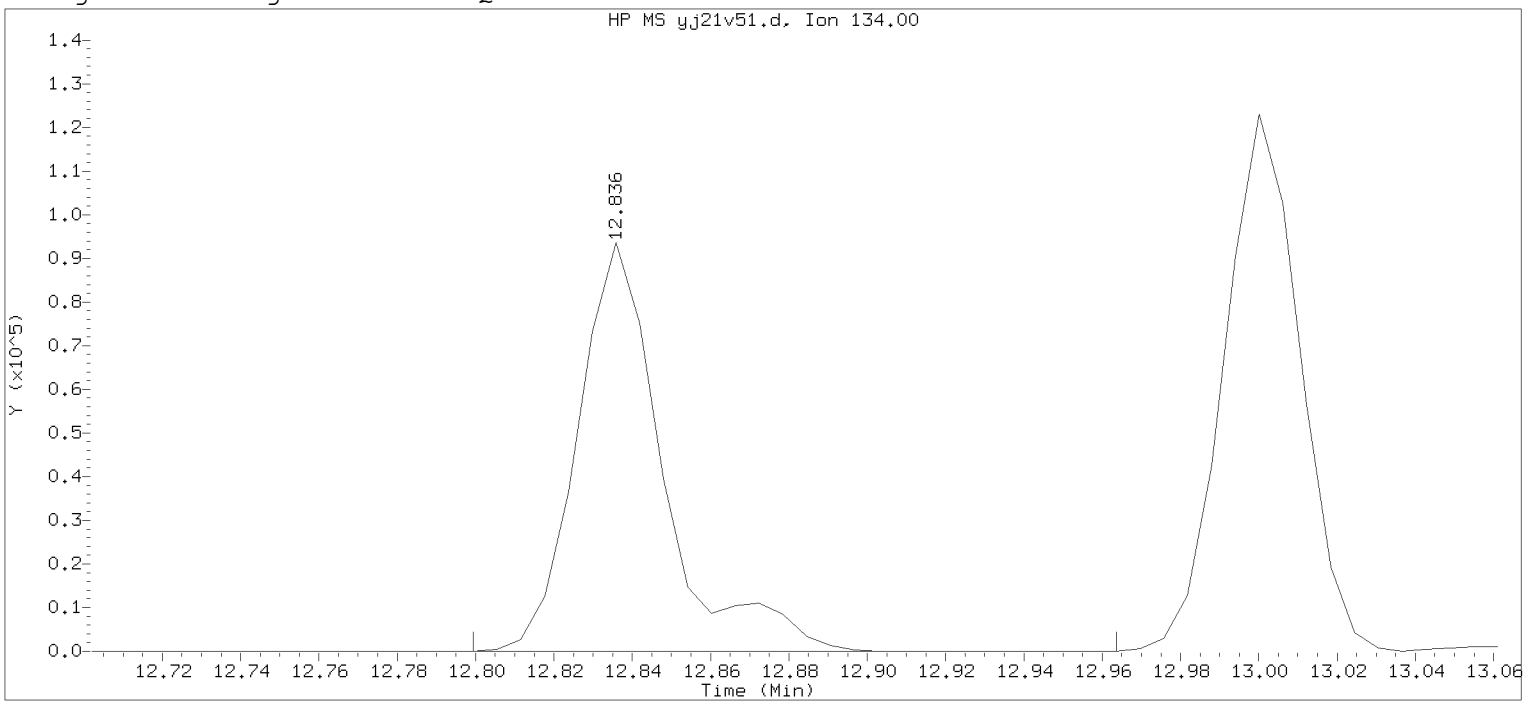
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:59.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

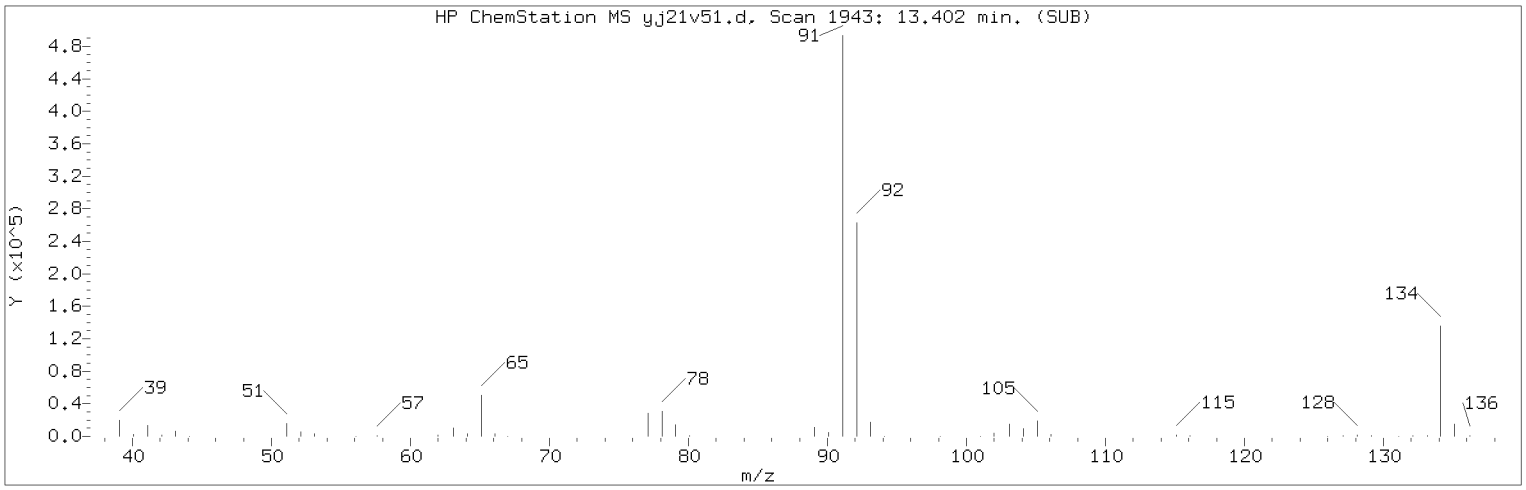
Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:16
Date, time and analyst ID of latest file update: 23-Jan-2019 08:17 lcp00895

Sample Name: YLCICV Lab Sample ID: YLCICV

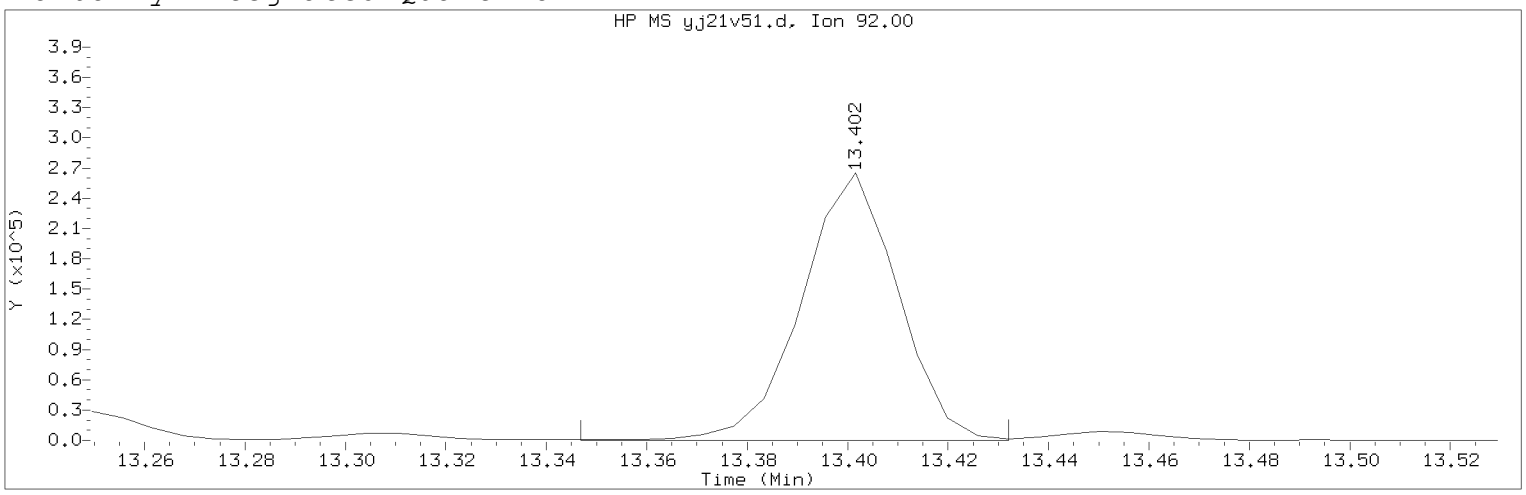
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 143187
On-column Amount (ng) : 23.5773
Integration start scan : 1843 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 12:57
Date, time and analyst ID of latest file update: 23-Jan-2019 17:47 msl01251

Sample Name: YLCICV Lab Sample ID: YLCICV

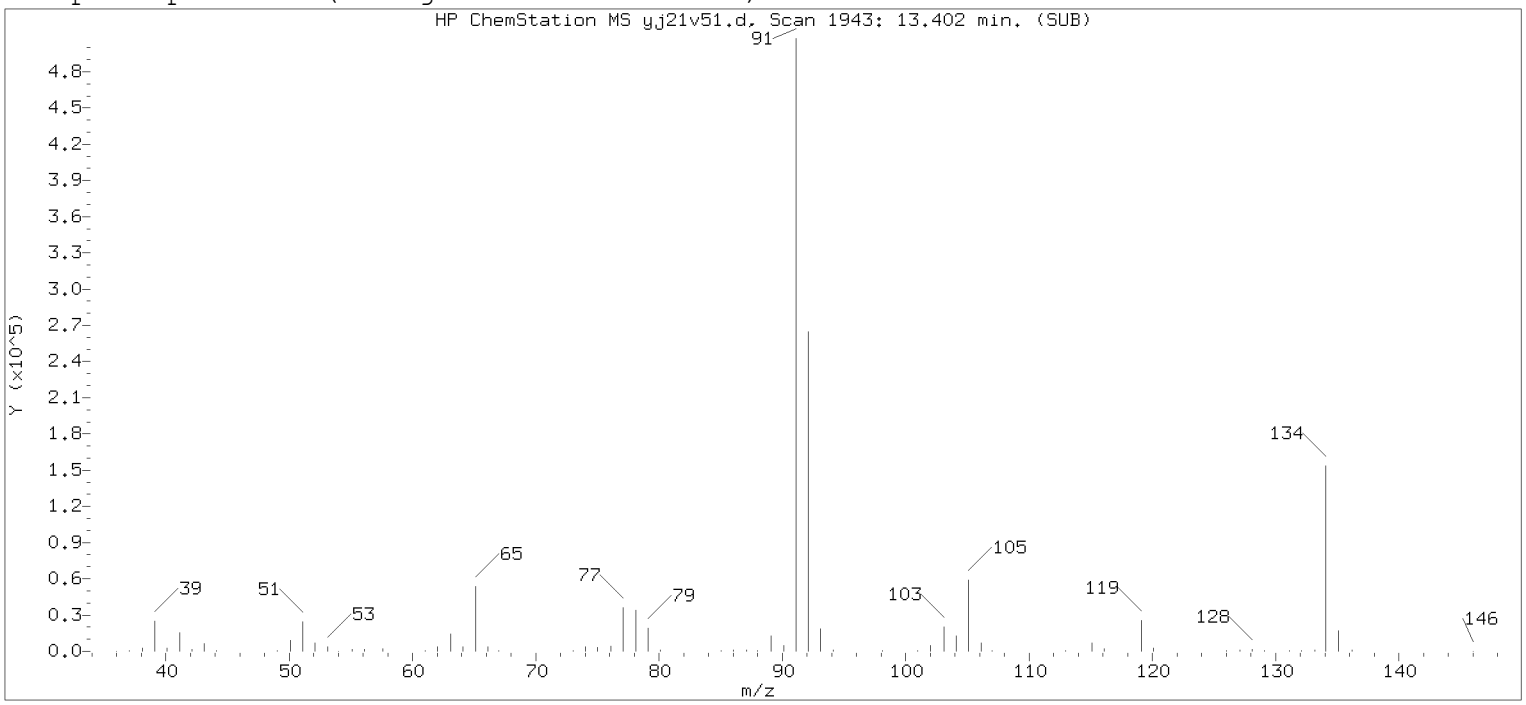
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area (flag) : 352799M
On-Column Amount (ng) : 21.3543
Integration start scan : 1933 Integration stop scan: 1947
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

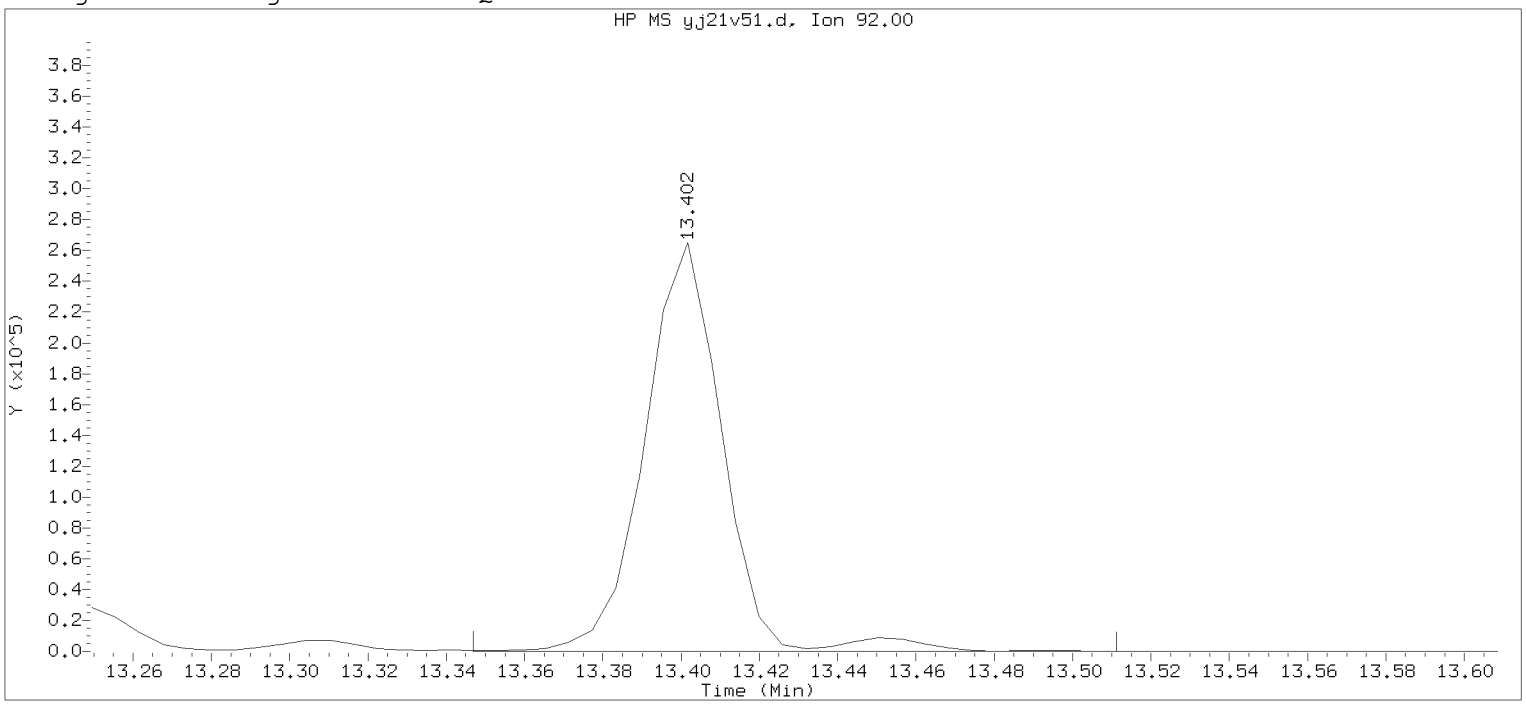
Analyst responsible for change: Digitally signed by Kevin Kelly
on 01/23/2019 at 17:58.
Target 3.5 esignature user ID: kk10002

Secondary review performed and digitally signed by Marla S. Brewer on 01/23/2019 at 17:59.
PARALLAX ID: msl01251

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19jan21c.b/yj21v51.d Instrument ID: HP09355.i
Injection date and time: 21-JAN-2019 10:44 Analyst ID: LCP00895

Method used: /chem2/HP09355.i/19jan21c.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-JAN-2019 08:16
Date, time and analyst ID of latest file update: 23-Jan-2019 08:17 lcp00895

Sample Name: YLCICV Lab Sample ID: YLCICV

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1943
Retention Time (minutes): 13.402
Quant Ion : 92.00
Area : 365051
On-column Amount (ng) : 22.0958
Integration start scan : 1933 Integration stop scan: 1960
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin Kelly on 01/23/2019 at 17:58.
Target 3.5 esignature used. [illegible]

Data File: /chem2/HP09355.i/19apr24a.b/ya24t01.d

Date : 24-APR-2019 07:48

Client ID: BFB

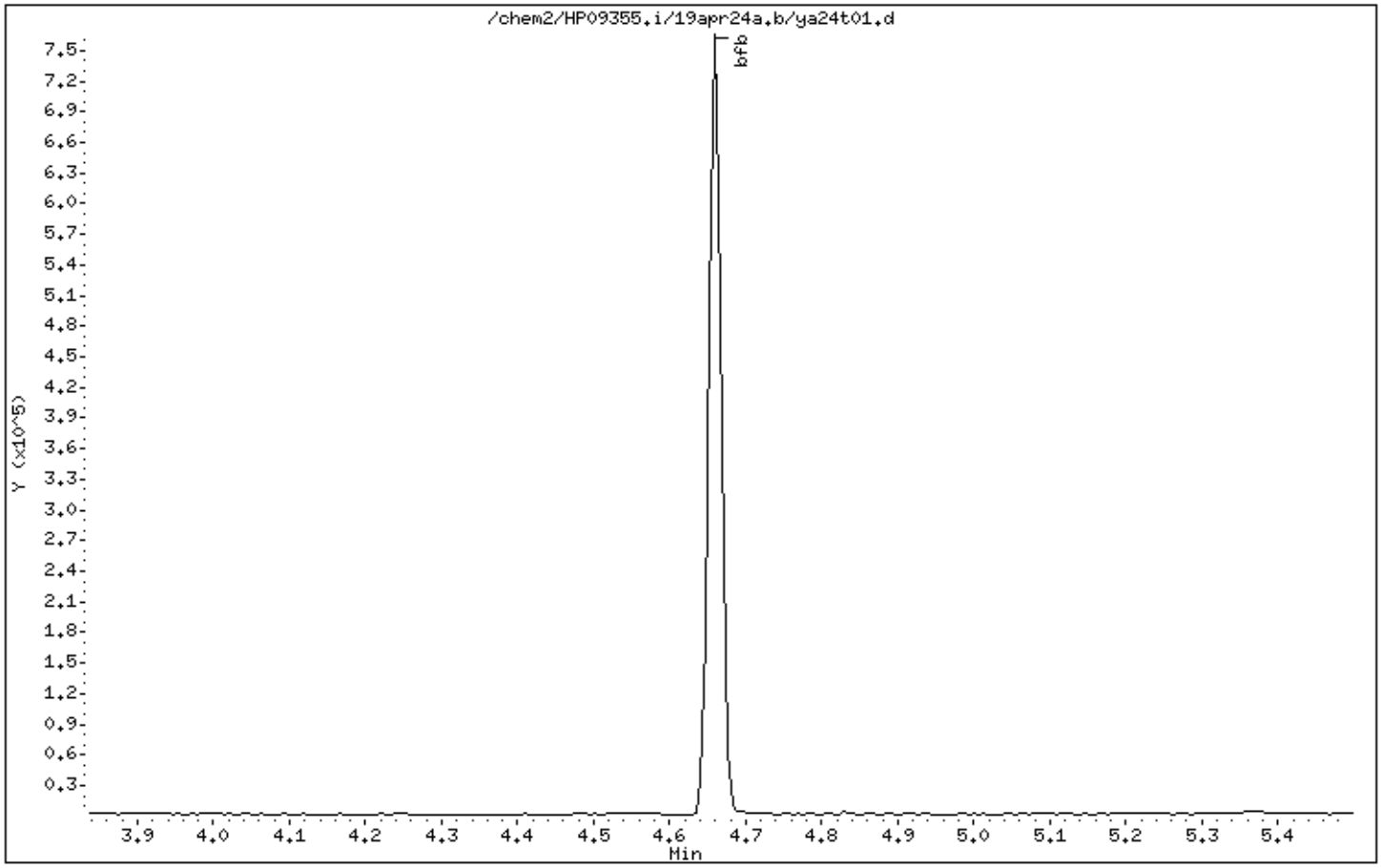
Instrument: HP09355.i

Sample Info: BFB;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Corie L. Mellinger on 04/24/2019 at 10:03.
Target 3.5 esignature user ID: clm27445

Data File: /chem2/HP09355.i/19apr24a.b/ya24t01.d

Date : 24-APR-2019 07:48

Client ID: BFB

Instrument: HP09355.i

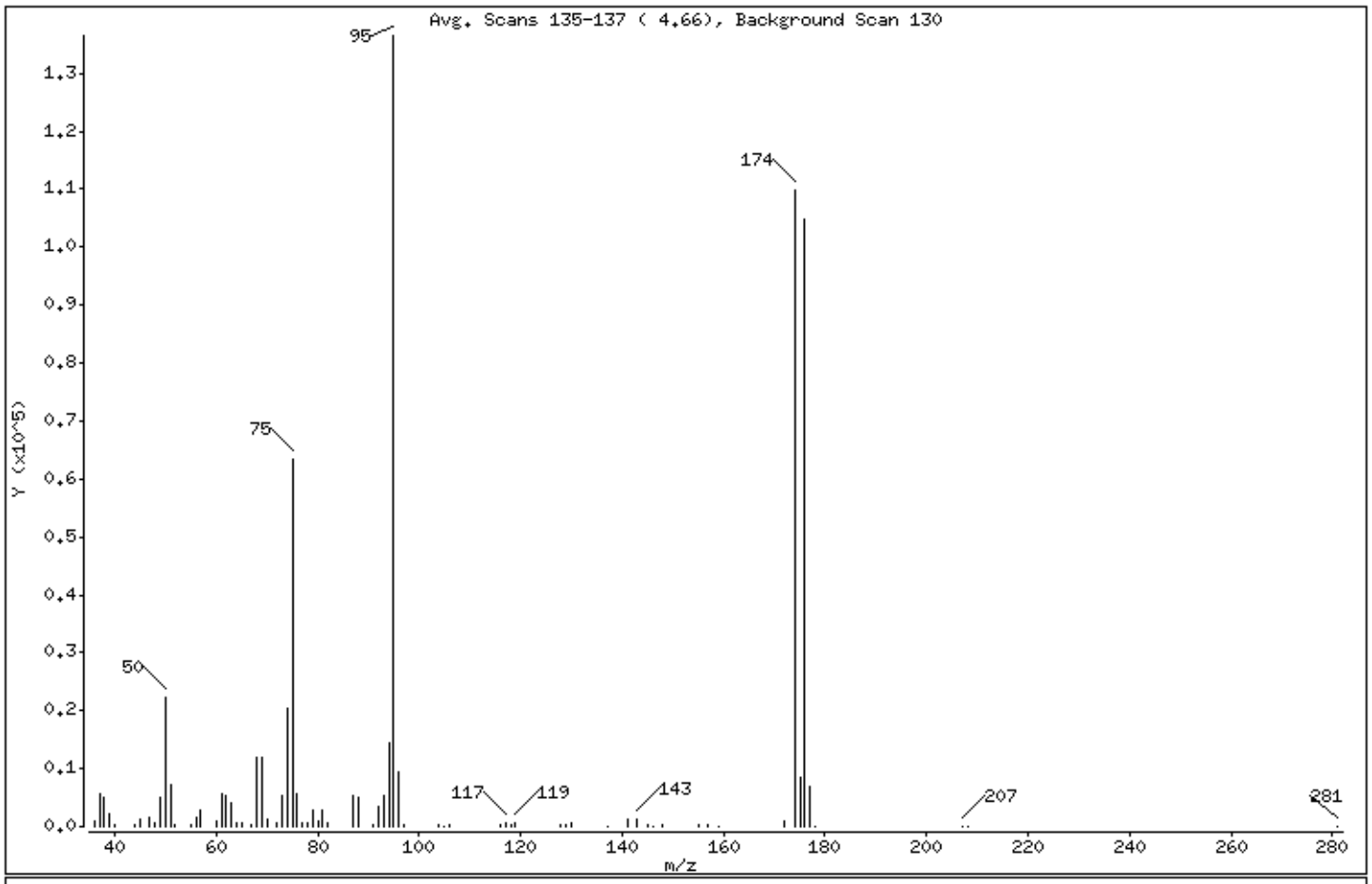
Sample Info: BFB;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.26
75	30.00 - 60.00% of mass 95	46.43
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	80.51
175	5.00 - 9.00% of mass 174	6.10 (7.58)
176	95.00 - 101.00% of mass 174	76.81 (95.41)
177	5.00 - 9.00% of mass 176	5.00 (6.51)

Digitally signed by Corie L. Mellinger on 04/24/2019 at 10:03.
Target 3.5 esignature user ID: clm27445

Data File: /chem2/HP09355.i/19apr24a.b/ya24t01.d

Date : 24-APR-2019 07:48

Client ID: BFB

Instrument: HP09355.i

Sample Info: BFB;50NGBFB;1;3;;;;;;

Operator: CLM27445

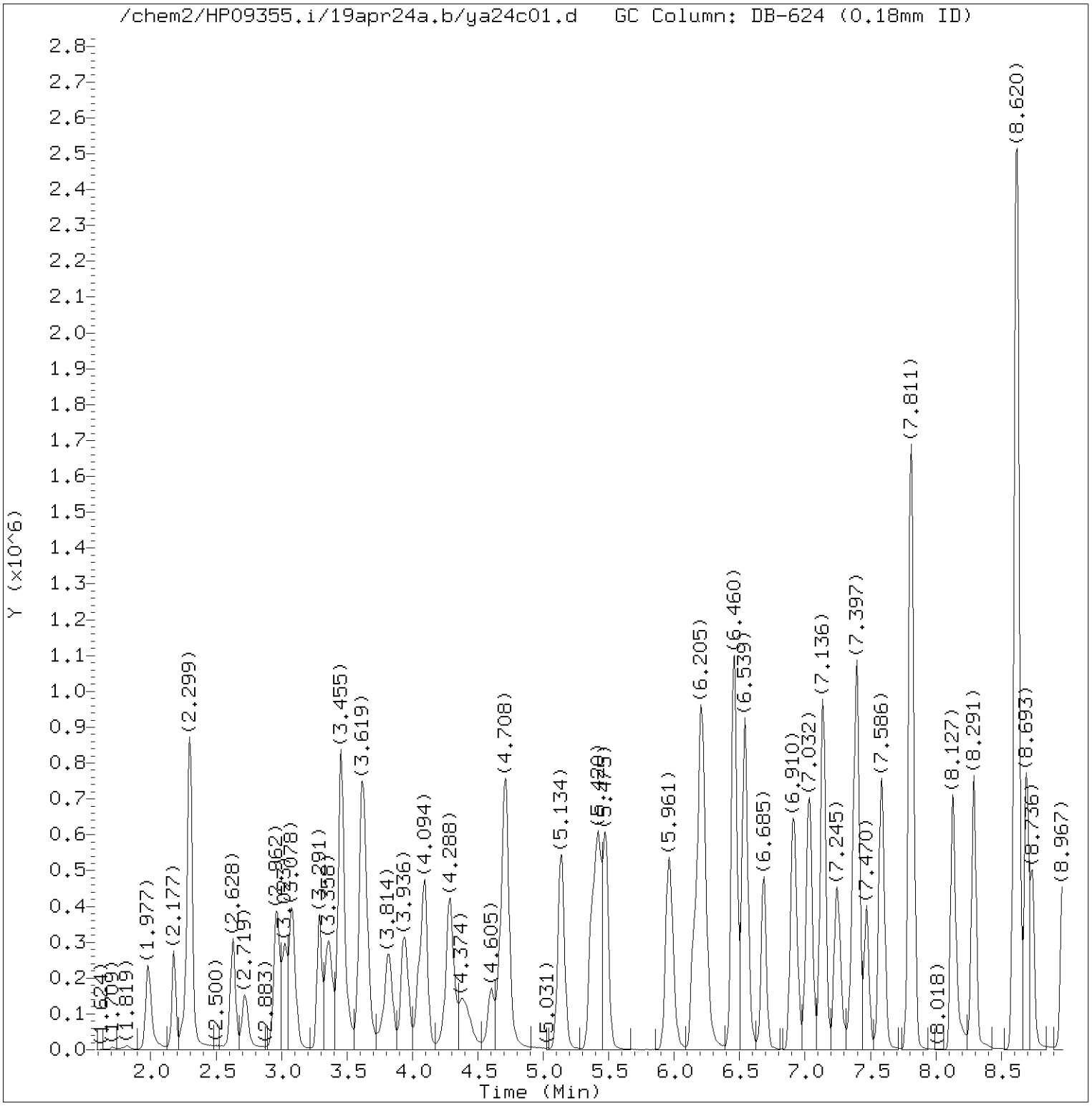
Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: ya24t01.d
Spectrum: Avg. Scans 135-137 (4.66), Background Scan 130
Location of Maximum: 95.00
Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1020	63.00	4153	88.00	4992	141.00	1099
37.00	5601	64.00	481	91.00	456	143.00	1345
38.00	4963	65.00	752	92.00	3535	145.00	295
39.00	2077	67.00	204	93.00	5487	146.00	90
40.00	299	68.00	11984	94.00	14300	148.00	258
44.00	437	69.00	12007	95.00	136512	155.00	343
45.00	1138	70.00	1134	96.00	9368	157.00	201
47.00	1549	72.00	707	97.00	343	159.00	95
48.00	666	73.00	5298	104.00	453	172.00	908
49.00	4967	74.00	20440	105.00	101	174.00	109936
50.00	22200	75.00	63400	106.00	319	175.00	8329
51.00	7266	76.00	5678	116.00	455	176.00	104888
52.00	239	77.00	727	117.00	714	177.00	6832
55.00	201	78.00	511	118.00	444	178.00	88
56.00	1605	79.00	2710	119.00	670	207.00	131
57.00	2864	80.00	838	128.00	435	208.00	84
60.00	1005	81.00	2710	129.00	215	281.00	119
61.00	5672	82.00	699	130.00	479		
62.00	5487	87.00	5367	137.00	86		

Digitally signed by Corie L. Mellinger on 04/24/2019 at 10:03.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

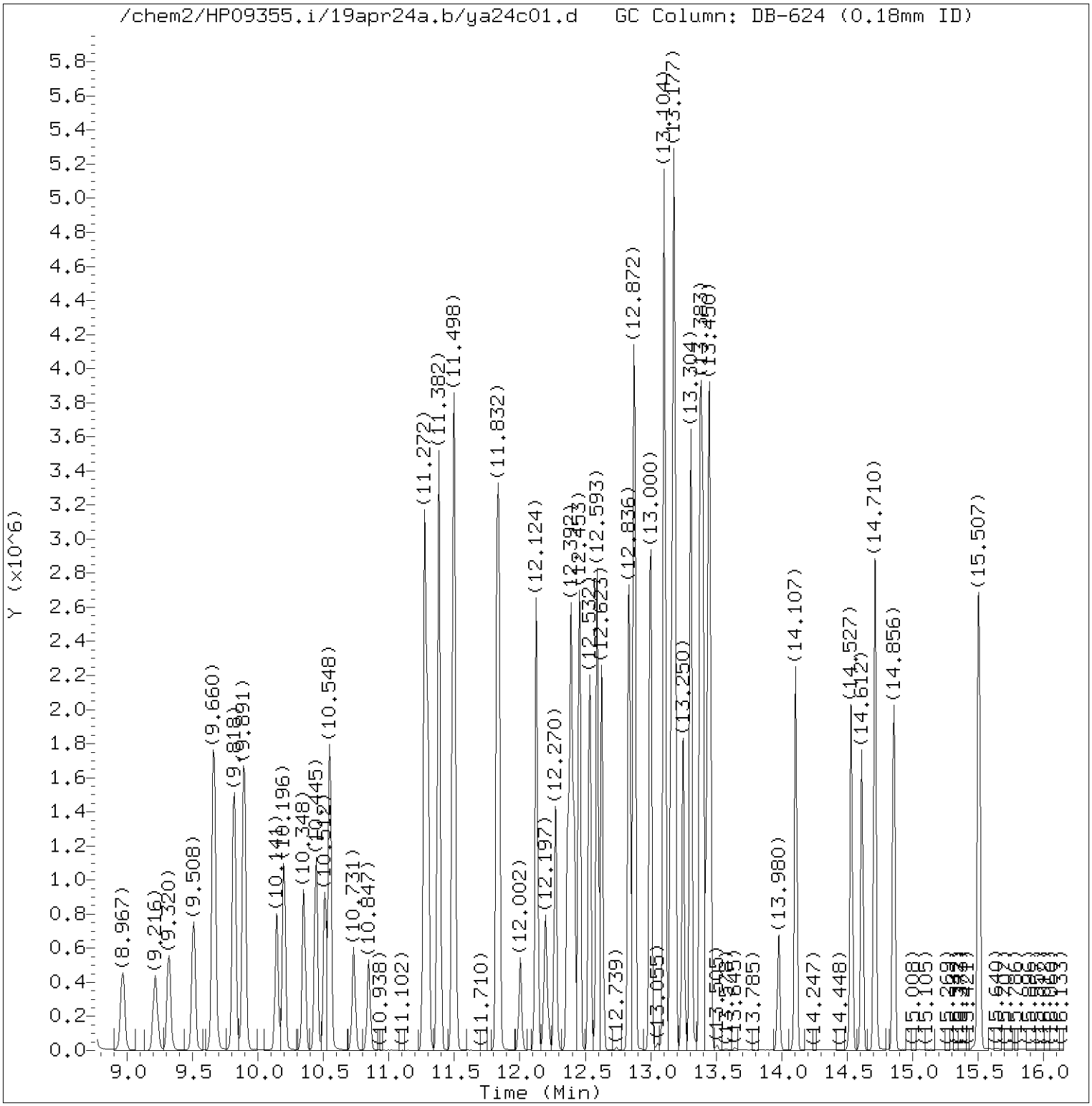
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.977	85	437943	42.562
4) Chloromethane	(2)	2.177	50	362109	43.220
5) 1,3-Butadiene	(2)	2.299	39	506179	85.515
6) Vinyl Chloride	(2)	2.299	62	374515	44.713
8) Bromomethane	(2)	2.628	94	308148	46.056
9) Chloroethane	(2)	2.719	64	227249	44.794
10) Dichlorofluoromethane	(2)	2.956	67	502606	49.136
12) Trichlorofluoromethane	(2)	3.023	101	586911	49.667
11) n-Pentane	(2)	3.078	43	422006	43.844
14) Ethyl ether	(2)	3.291	59	312950	53.281
15) Freon 123a	(2)	3.358	67	364945	53.822
16) Acrolein	(1)	3.455	56	1352570	503.739
17) 1,1-Dichloroethene	(2)	3.613	96	267018	53.227
17) 1,1-Dichloroethene	(2)	3.613	63	137313	53.980
18) Acetone	(1)	3.613	58	154408	113.279
19) Freon 113	(2)	3.638	101	294371	53.448
21) 2-Propanol	(1)	3.777	45	214800	225.960
22) Methyl Iodide	(2)	3.820	142	514084	50.834
23) Carbon Disulfide	(2)	3.936	76	950840	58.409
27) Methyl Acetate	(2)	4.051	43	504091	54.934
25) Allyl Chloride	(2)	4.094	41	464194	50.233
29)*t-Butyl alcohol-d10	(1)	4.258	65	375502	250.000
28) Methylene Chloride	(2)	4.288	84	316456	51.082
30) t-Butyl alcohol	(1)	4.386	59	463035	241.337
31) Acrylonitrile	(2)	4.605	53	266487	53.613
33) Methyl Tertiary Butyl Ether	(2)	4.696	73	911311	53.589
32) trans-1,2-Dichloroethene	(2)	4.714	96	309482	51.470
34) n-Hexane	(2)	5.140	57	505671	54.353
36) 1,1-Dichloroethane	(2)	5.365	63	557299	53.168
38) di-Isopropyl ether	(2)	5.420	45	993655	51.521
39) 2-Chloro-1,3-butadiene	(2)	5.481	53	501761	53.858
40) Ethyl t-butyl ether	(2)	5.961	59	883507	52.532
44) 2-Butanone	(2)	6.150	43	754113	101.025
43) 1,2-Dichloroethene (Total)	(2)		96	655713	101.900
42) cis-1,2-Dichloroethene	(2)	6.199	96	346231	50.430
45) 2,2-Dichloropropane	(2)	6.217	77	421497	49.836
47) Propionitrile	(1)	6.235	54	566730	291.924
48) Methacrylonitrile	(2)	6.460	67	660845	133.249

* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.539	128	197036	51.957
50) Tetrahydrofuran	(1)	6.545	71	218904	108.535
51) Chloroform	(2)	6.685	83	552462	51.695
52)$Dibromofluoromethane	(2)	6.904	113	286910	49.045
52)$Dibromofluoromethane	(2)	6.904	111	291246	48.679
53) 1,1,1-Trichloroethane	(2)	6.923	97	458475	48.956
54) Cyclohexane	(2)	7.032	56	566400	52.305
54) Cyclohexane	(2)	7.032	84	486622	48.894
54) Cyclohexane	(2)	7.032	69	179706	52.069
55) 1,1-Dichloropropene	(2)	7.130	75	441729	51.908
56) Carbon Tetrachloride	(2)	7.142	117	407512	50.567
58) Isobutyl Alcohol	(1)	7.239	41	409342	656.955
57)$1,2-Dichloroethane-d4	(2)	7.367	102	74270	50.617
57)$1,2-Dichloroethane-d4	(2)	7.367	65	362144	50.445
57)$1,2-Dichloroethane-d4	(2)	7.367	104	47650	50.560
60) Benzene	(2)	7.397	78	1320226	52.394
61) 1,2-Dichloroethane	(2)	7.470	62	444452	49.116
61) 1,2-Dichloroethane	(2)	7.470	98	41829	53.049
65) t-Amyl methyl ether	(2)	7.586	73	901078	51.038
66)*Fluorobenzene	(2)	7.805	96	1212921	50.000
67) n-Heptane	(2)	7.817	43	547279	54.050
69) n-Butanol	(1)	8.127	56	692945	1313.364
71) Trichloroethene	(2)	8.291	95	341702	51.530
72) Methylcyclohexane	(2)	8.608	83	639726	51.168
72) Methylcyclohexane	(2)	8.608	98	282789	50.032
73) 1,2-Dichloropropane	(2)	8.620	63	334020	53.564
76) Methyl Methacrylate	(2)	8.693	69	391046	53.381
75) 1,4-Dioxane	(1)	8.699	88	93140M	626.141
74) Dibromomethane	(2)	8.736	93	225542	50.894
78) Bromodichloromethane	(2)	8.967	83	393437	51.919
79) 2-Nitropropane	(2)	9.216	41	352355	102.073
80) 2-Chloroethyl Vinyl Ether	(2)	9.320	63	294711	58.353
81) cis-1,3-Dichloropropene	(2)	9.508	75	517207	52.400
82) 4-Methyl-2-pentanone	(2)	9.660	43	1397068	105.929
83)$Toluene-d8	(3)	9.818	98	1217243	50.435
83)$Toluene-d8	(3)	9.818	100	779289	50.237
88) Toluene	(3)	9.891	92	841429	51.022
90) 1,3-Dichloropropene (total)	(3)		100	996558	104.698

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.147	75	479351	52.298
91) Ethyl Methacrylate	(3)	10.196	69	618884	54.524
92) 1,1,2-Trichloroethane	(3)	10.348	97	329038	51.693
93) Tetrachloroethene	(3)	10.445	166	365141	51.123
94) 1,3-Dichloropropane	(3)	10.512	76	564487	52.714
96) 2-Hexanone	(3)	10.548	43	1144902	108.743
97) Dibromochloromethane	(3)	10.731	129	329473	52.194
99) 1,2-Dibromoethane	(3)	10.847	107	366058	51.776
100)*Chlorobenzene-d5	(3)	11.272	117	919579	50.000
101) 1-Chlorohexane	(3)	11.278	91	438448	48.571
102) Chlorobenzene	(3)	11.297	112	953841	50.640
103) 1,1,1,2-Tetrachloroethane	(3)	11.382	131	318373	51.710
104) Ethylbenzene	(3)	11.382	91	1624153	50.771
106) m+p-Xylene	(3)	11.498	106	1283096	101.421
108) Xylene (Total)	(3)		106	1897600	150.962
107) o-Xylene	(3)	11.826	106	614504	49.541
109) Styrene	(3)	11.838	104	1045424	51.518
110) Bromoform	(3)	12.002	173	237257	47.485
111) Isopropylbenzene	(3)	12.124	105	1592156	49.513
112) Cyclohexanone	(1)	12.197	55	351173	528.507
114)$4-Bromofluorobenzene	(3)	12.270	95	460988	50.025
114)$4-Bromofluorobenzene	(3)	12.276	174	383520	50.636
116) 1,1,2,2-Tetrachloroethane	(4)	12.361	83	568467	50.385
118) trans-1,4-Dichloro-2-butene	(4)	12.392	53	177278	46.793
115) Bromobenzene	(4)	12.392	156	425026	49.041
117) 1,2,3-Trichloropropane	(4)	12.416	110	189818	48.707
119) n-Propylbenzene	(4)	12.453	91	1938552	50.679
120) 2-Chlorotoluene	(4)	12.532	126	395426	48.648
122) 1,3,5-Trimethylbenzene	(4)	12.593	105	1430386	50.136
121) 4-Chlorotoluene	(4)	12.623	126	416222	48.978
124) tert-Butylbenzene	(4)	12.836	134	288733M	48.030
125) Pentachloroethane	(4)	12.872	167	264466	55.164
126) 1,2,4-Trimethylbenzene	(4)	12.878	105	1487468	50.238
127) sec-Butylbenzene	(4)	13.000	105	1821717	50.074
129) 1,3-Dichlorobenzene	(4)	13.104	146	820000	49.111
130) p-Isopropyltoluene	(4)	13.104	119	1611806	50.640
131)*1,4-Dichlorobenzene-d4	(4)	13.158	152	516835	50.000
133) 1,4-Dichlorobenzene	(4)	13.177	146	830018	48.363

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

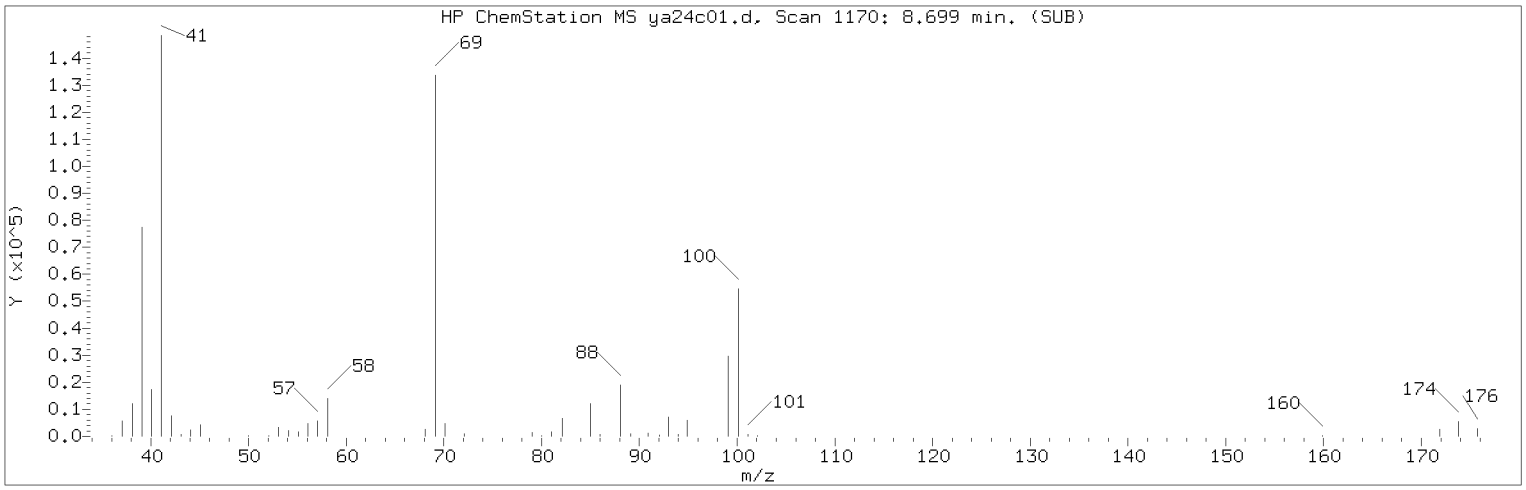
Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

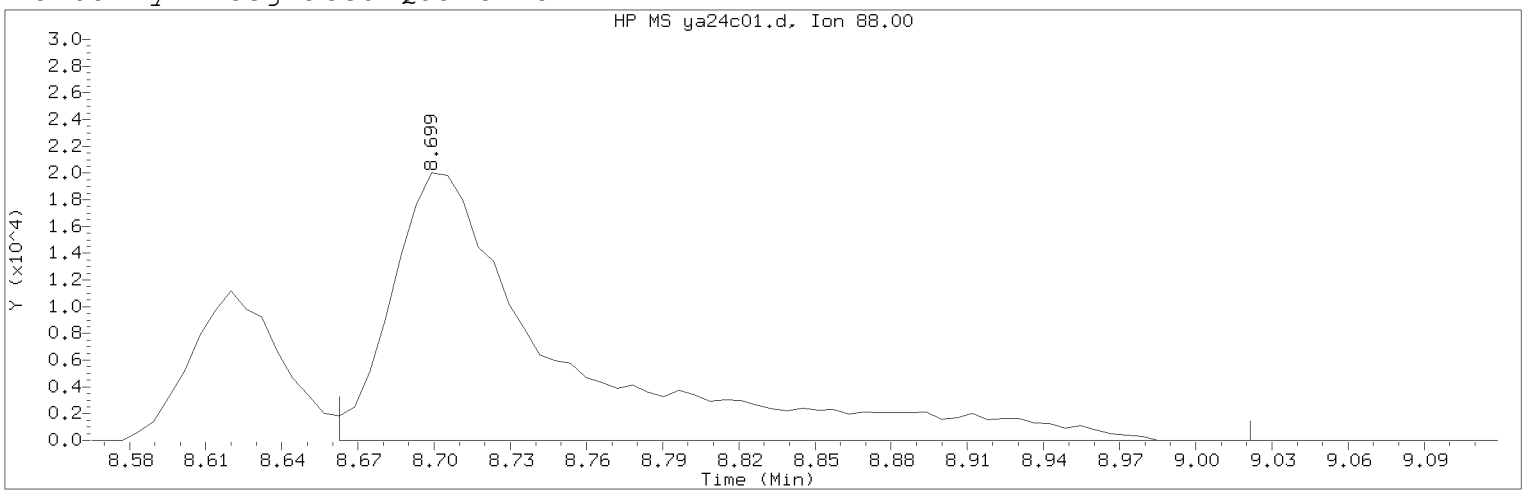
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.183	105	1659781	52.150
135) Benzyl Chloride	(4)	13.250	91	1204141	51.651
136) 1,3-Diethylbenzene	(4)	13.304	119	1054744	53.316
137) 1,4-Diethylbenzene	(4)	13.377	119	1135258	53.825
141) Diethylbenzene (total)	(4)		100	3064675	159.570
139) n-Butylbenzene	(4)	13.396	92	854105	52.227
138) 1,2-Dichlorobenzene	(4)	13.432	146	796688	48.617
140) 1,2-Diethylbenzene	(4)	13.450	119	874673	52.429
142) 1,2-Dibromo-3-chloropropane	(4)	13.974	75	156897	50.716
144) 1,3,5-Trichlorobenzene	(4)	14.107	180	627262	49.237
146) 1,2,4-Trichlorobenzene	(4)	14.533	180	579928	47.969
147) Hexachlorobutadiene	(4)	14.612	225	295890	53.773
148) Naphthalene	(4)	14.716	128	2095531	50.150
149) 1,2,3-Trichlorobenzene	(4)	14.856	180	578017	49.154
150) 2-Methylnaphthalene	(4)	15.507	142	1314365	52.907

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

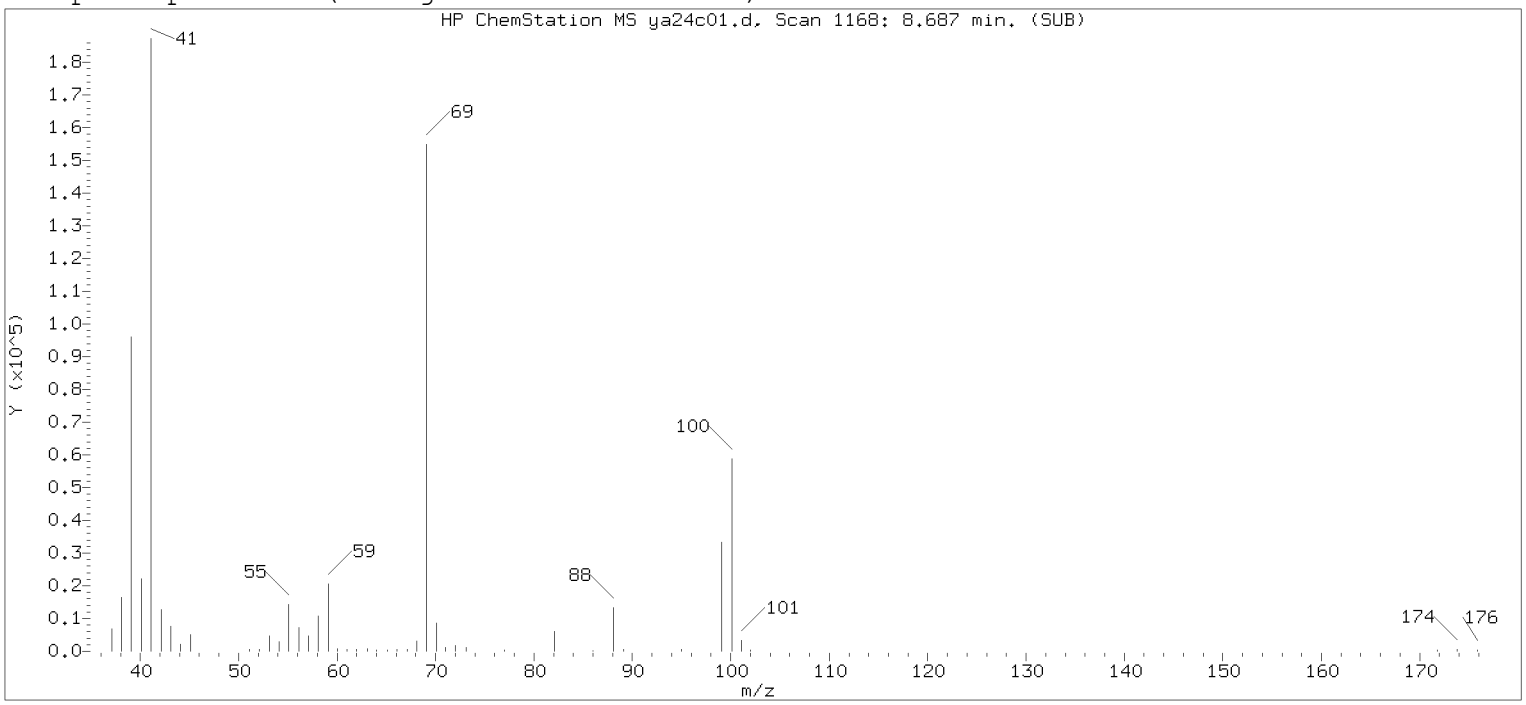
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1170
Retention Time (minutes): 8.699
Quant Ion : 88.00
Area (flag) : 93140M
On-Column Amount (ng) : 626.1408
Integration start scan : 1163 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

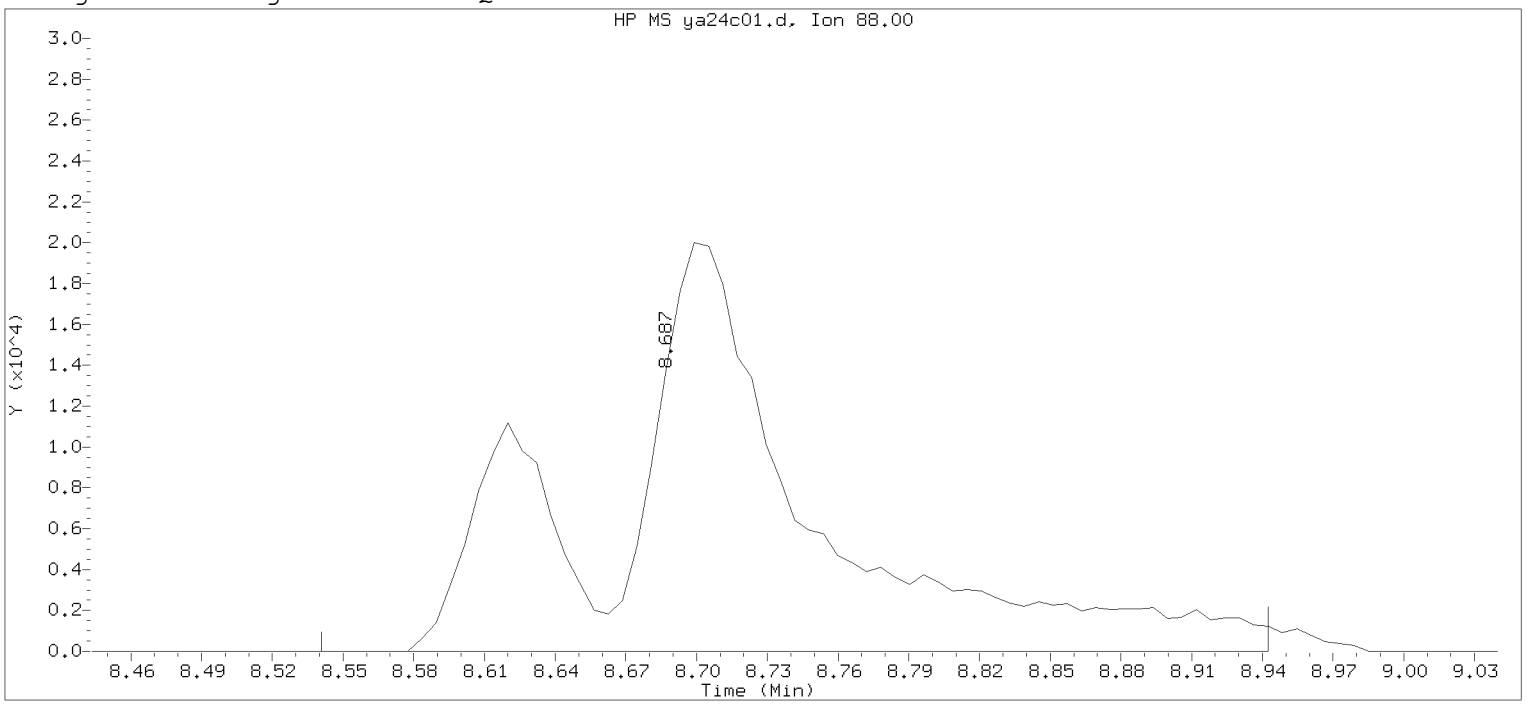
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

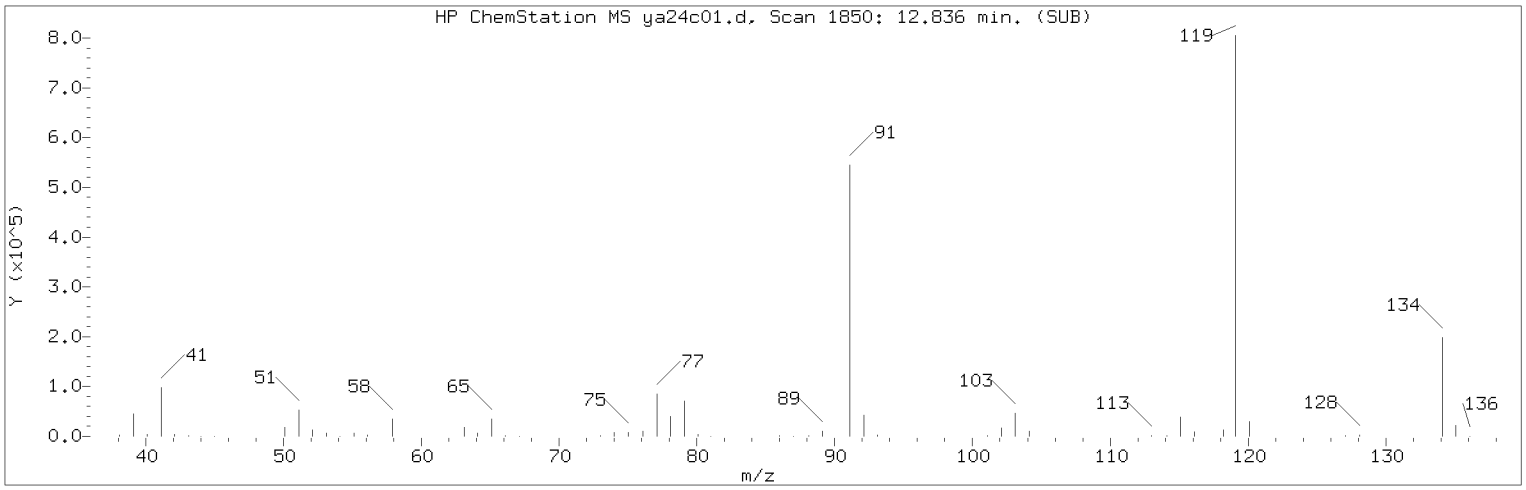
Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

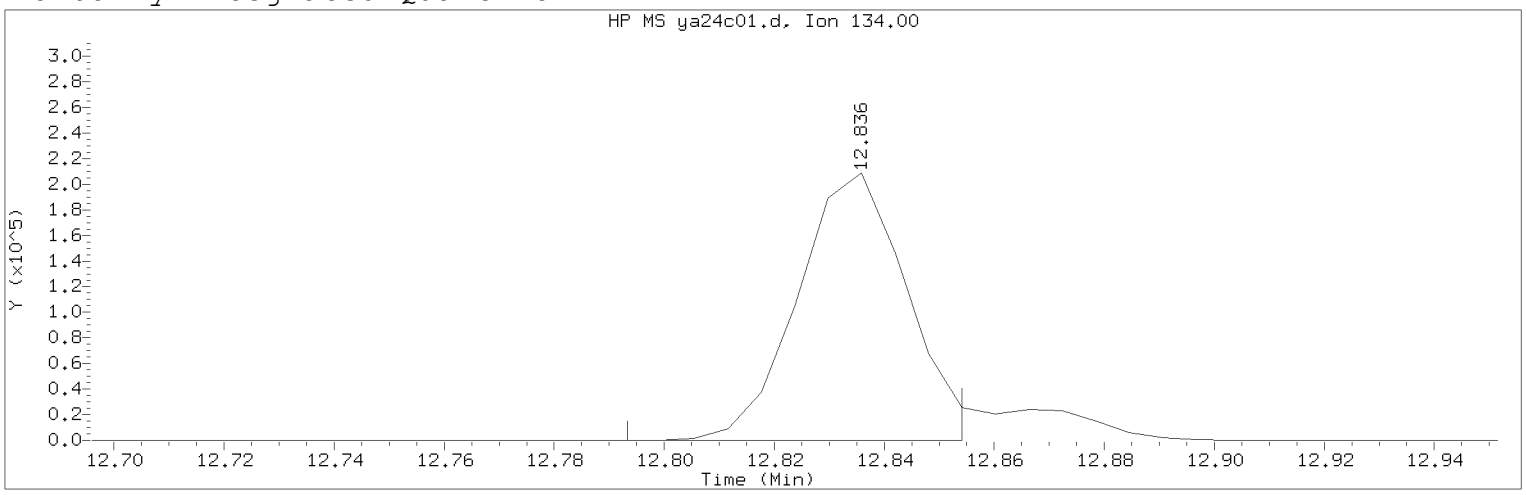
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1168
Retention Time (minutes): 8.687
Quant Ion : 88.00
Area : 118932
On-column Amount (ng) : 799.5293
Integration start scan : 1143 Integration stop scan: 1209
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/24/2019 at 09:27.
Target 3.5 esignature used. Reason: 8260/7000

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

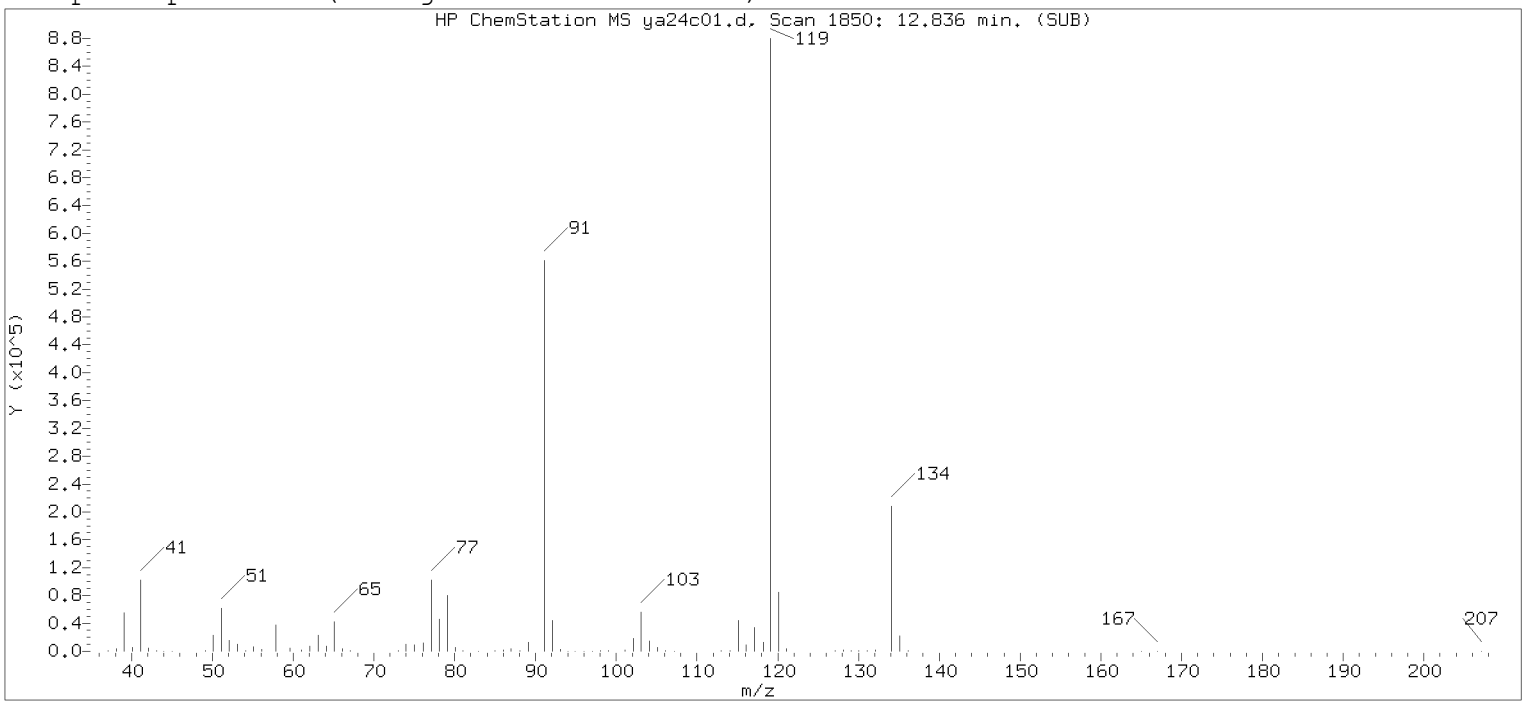
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area (flag) : 288733M
On-Column Amount (ng) : 48.0302
Integration start scan : 1842 Integration stop scan: 1852
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

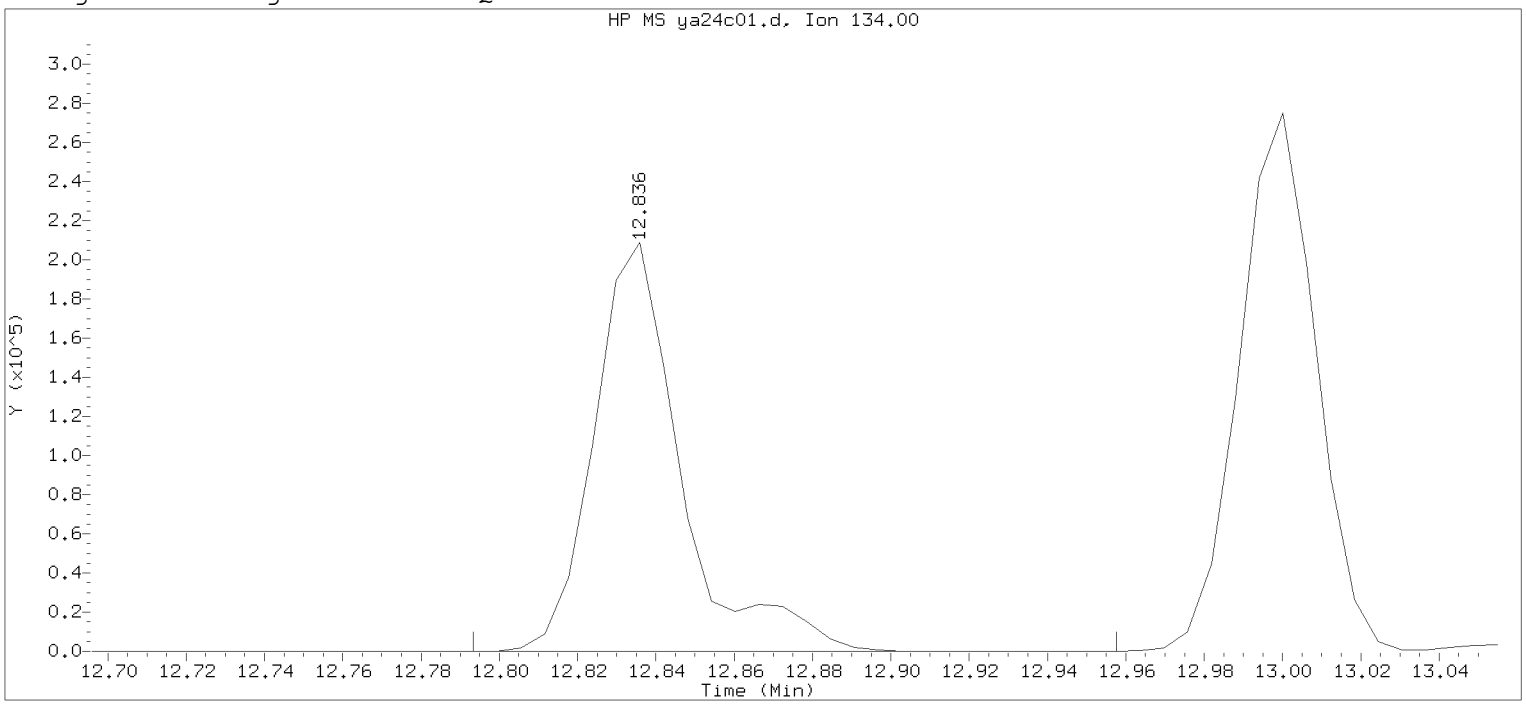
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/24/2019 at 09:27.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24c01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 08:31 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1850
Retention Time (minutes): 12.836
Quant Ion : 134.00
Area : 321887
On-column Amount (ng) : 53.5453
Integration start scan : 1842 Integration stop scan: 1869
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/24/2019 at 09:27.
Target 3.5 esignature used on 04/24/2019 07:10

Data File: /chem2/HP19094.i/18nov13i.b/hn13t02.d

Date : 13-NOV-2018 11:59

Client ID: BFB 50ng

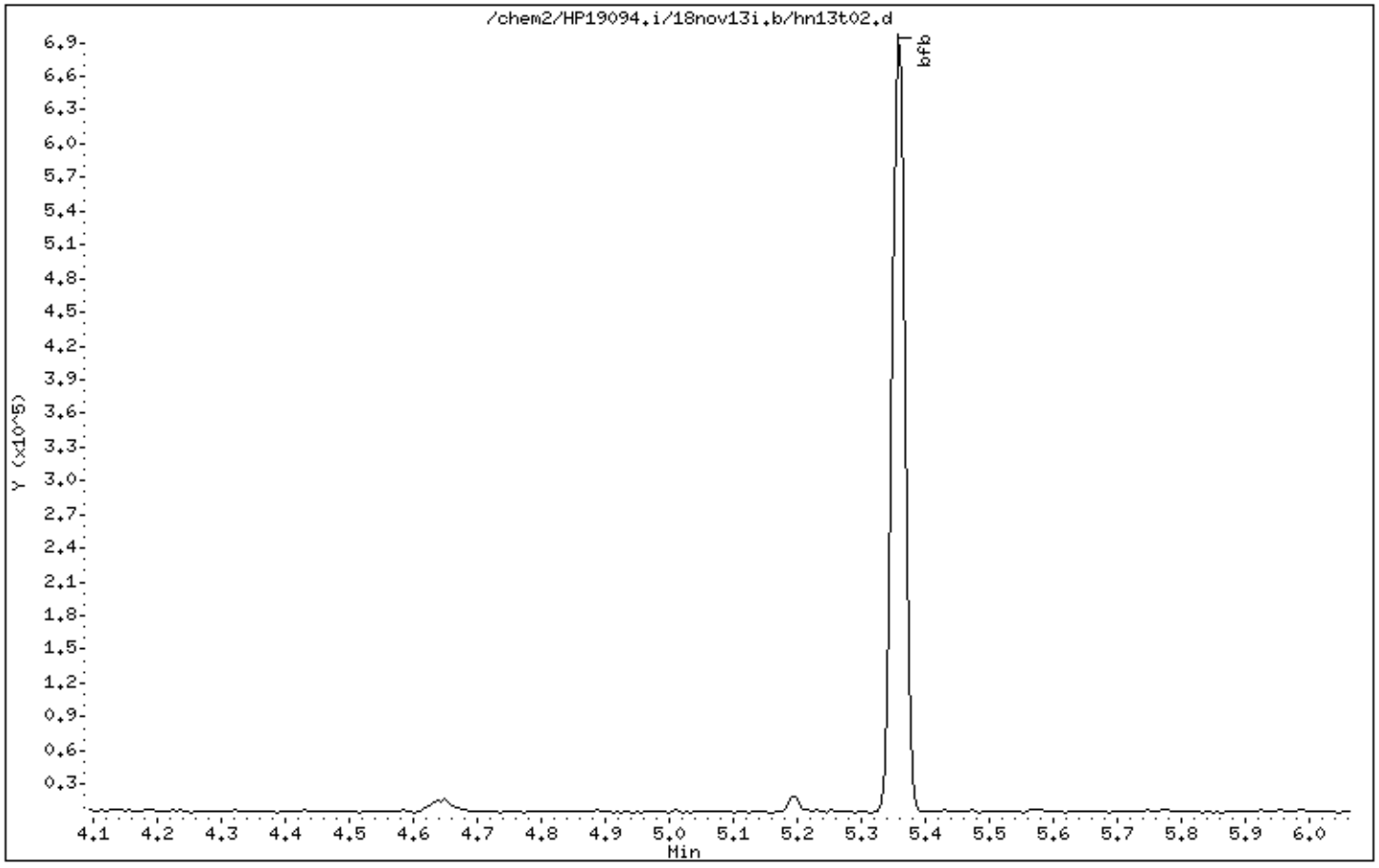
Instrument: HP19094.i

Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Jennifer K. Howe on 11/13/2018 at 12:05.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19094.i/18nov13i.b/hn13t02.d

Date : 13-NOV-2018 11:59

Client ID: BFB 50ng

Instrument: HP19094.i

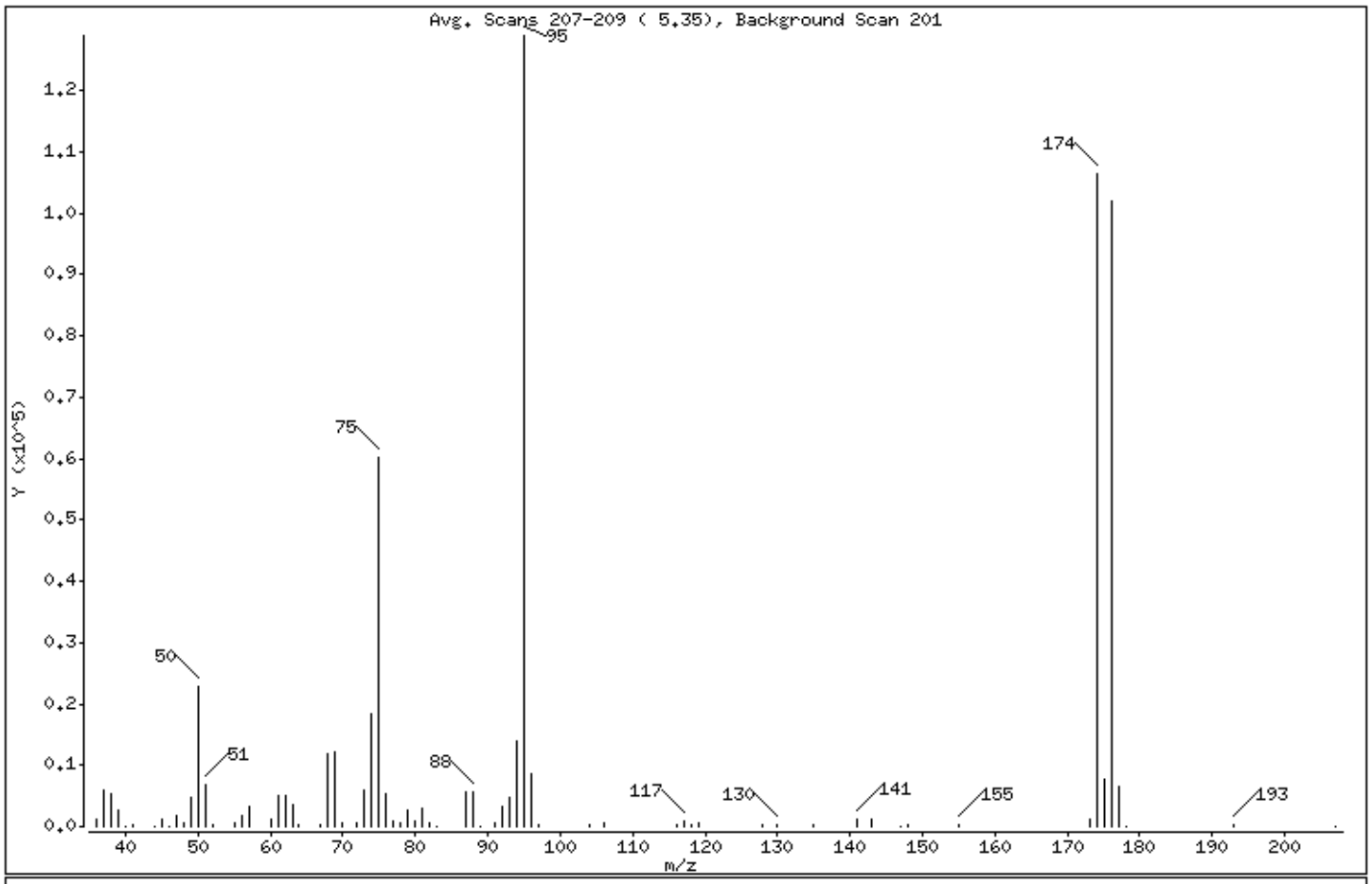
Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.80
75	30.00 - 60.00% of mass 95	46.67
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.89 (1.08)
174	50.00 - 100.00% of mass 95	82.49
175	5.00 - 9.00% of mass 174	6.02 (7.30)
176	95.00 - 101.00% of mass 174	79.11 (95.91)
177	5.00 - 9.00% of mass 176	5.17 (6.53)

Digitally signed by Jennifer K. Howe on 11/13/2018 at 12:05.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19094.i/18nov13i.b/hn13t02.d

Date : 13-NOV-2018 11:59

Client ID: BFB 50ng

Instrument: HP19094.i

Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

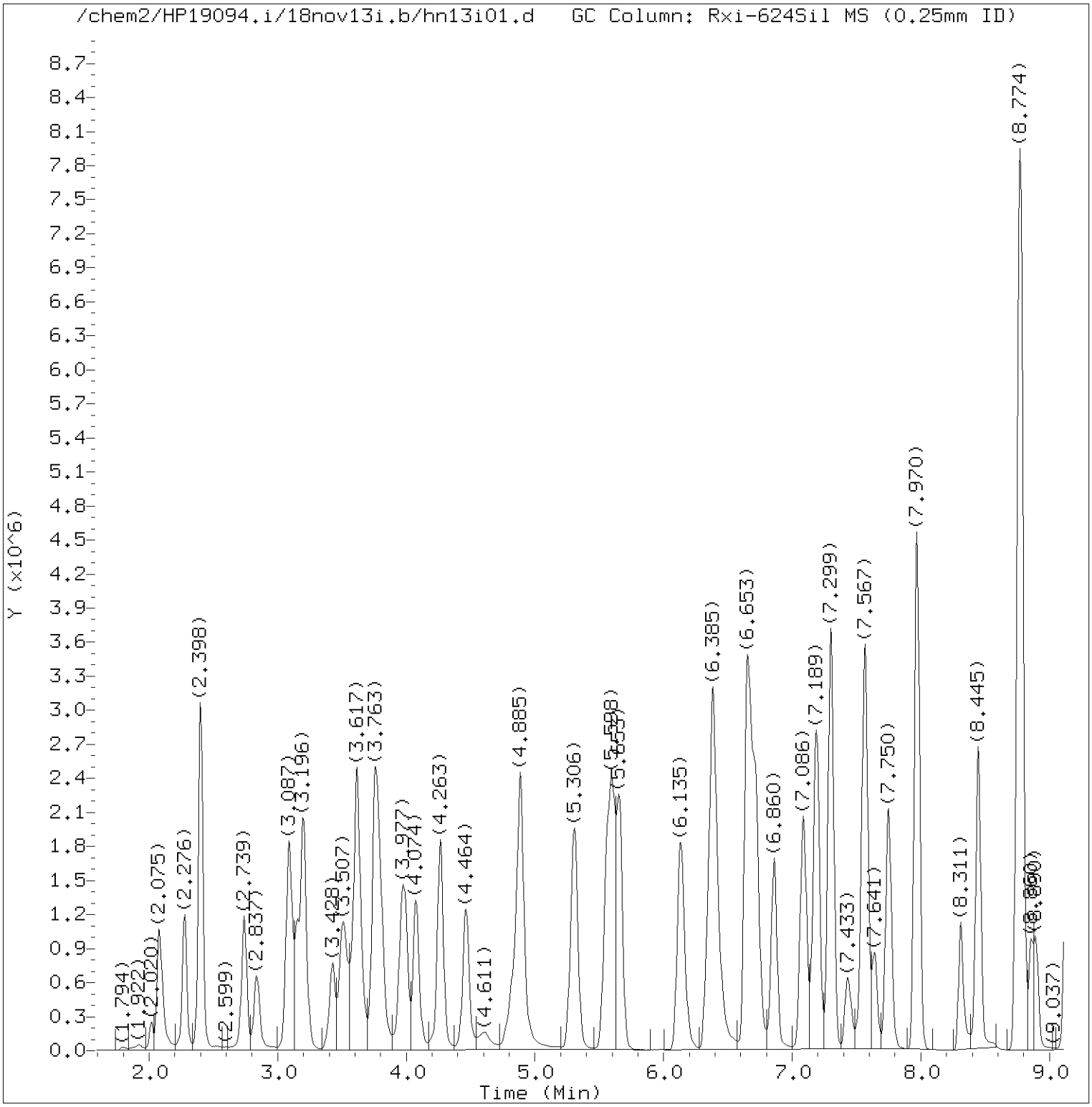
Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: hn13t02.d
Spectrum: Avg. Scans 207-209 (5.35), Background Scan 201
Location of Maximum: 95.00
Number of points: 71

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1242	60.00	1107	81.00	2894	119.00	494
37.00	5994	61.00	4914	82.00	659	128.00	268
38.00	5252	62.00	4971	83.00	100	130.00	399
39.00	2556	63.00	3580	87.00	5558	135.00	226
40.00	3	64.00	187	88.00	5676	141.00	1162
41.00	364	67.00	423	89.00	94	143.00	1087
44.00	132	68.00	11722	91.00	475	147.00	113
45.00	1129	69.00	12006	92.00	3214	148.00	285
46.00	95	70.00	714	93.00	4686	155.00	366
47.00	1904	72.00	502	94.00	13958	173.00	1144
48.00	524	73.00	5829	95.00	128936	174.00	106352
49.00	4726	74.00	18400	96.00	8577	175.00	7766
50.00	22944	75.00	60168	97.00	385	176.00	102000
51.00	6886	76.00	5482	104.00	414	177.00	6660
52.00	255	77.00	805	106.00	462	178.00	127
55.00	541	78.00	583	116.00	397	193.00	182
56.00	1641	79.00	2735	117.00	743	207.00	91
57.00	3132	80.00	809	118.00	298		

Digitally signed by Jennifer K. Howe on 11/13/2018 at 12:05.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

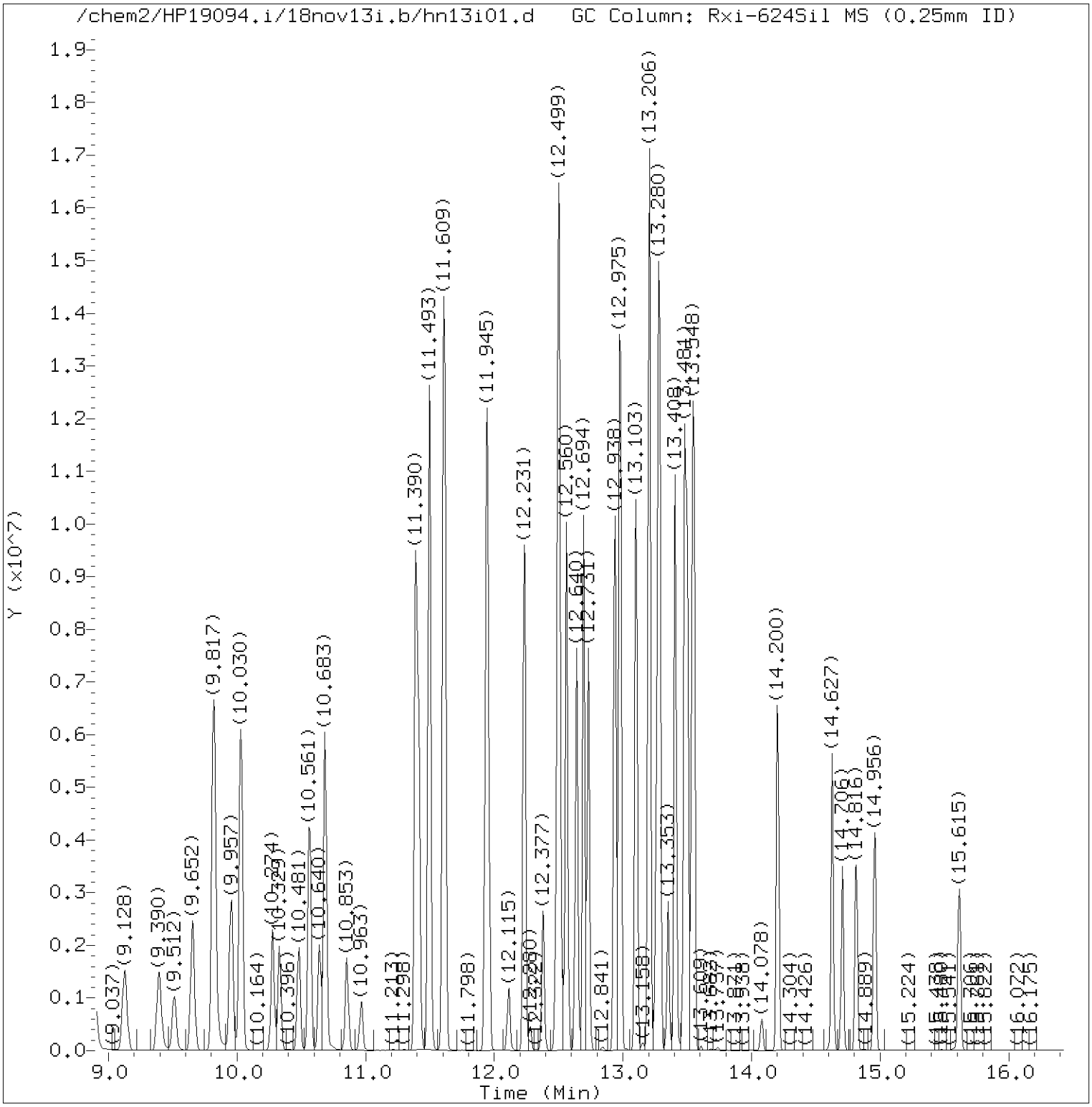
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	1987142	26.795
2) Chloromethane	(2)	2.276	50	1860494	25.929
5) Vinyl Chloride	(2)	2.398	62	1711936	26.304
6) 1,3-Butadiene	(2)	2.398	39	1345033M	25.138
7) Bromomethane	(2)	2.739	94	1256898	25.471
8) Chloroethane	(2)	2.837	64	991066	25.527
9) Dichlorofluoromethane	(2)	3.087	67	2484499	24.508
10) Trichlorofluoromethane	(2)	3.147	101	2293406	26.168
11) Ethyl ether	(2)	3.428	59	775436	25.971
12) Freon 123a	(2)	3.507	67	1506953	24.877
13) Acrolein	(1)	3.617	56	5314405	1283.927
15) 1,1-Dichloroethene	(2)	3.751	96	1009746	24.748
16) Freon 113	(2)	3.781	101	1224671	26.101
14) Acetone	(1)	3.794	43	1197149M	232.363
17) Methyl Iodide	(2)	3.964	142	2098958	25.335
18) Carbon Disulfide	(2)	4.074	76	3142260	25.018
21) Methyl Acetate	(1)	4.233	43	422294	23.630
22) Allyl Chloride	(2)	4.263	41	2116348	24.288
23) Methylene Chloride	(2)	4.464	84	1046669	23.897
26)*t-Butyl Alcohol-d10	(1)	4.483	65	103927	50.000
28) t-Butyl Alcohol	(1)	4.611	59	679968	495.788
29) Acrylonitrile	(1)	4.818	53	929338	126.751
30) Methyl Tertiary Butyl Ether	(2)	4.873	73	2244760	24.648
31) trans-1,2-Dichloroethene	(2)	4.891	96	1129507	24.693
32) n-Hexane	(2)	5.306	57	1995564	25.455
33) 1,1-Dichloroethane	(2)	5.556	63	2260924	25.316
34) di-Isopropyl Ether	(2)	5.598	45	4106099	24.767
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	2082021	25.197
40) 1,2-Dichloroethene (Total)	(2)		96	2395206	49.567
37) Ethyl t-butyl ether	(2)	6.135	59	3336159M	24.639
38) 2-Butanone	(1)	6.342	43	2421382M	229.848
39) cis-1,2-Dichloroethene	(2)	6.379	96	1265699	24.875
41) 2,2-Dichloropropane	(2)	6.397	77	1813480	24.917
42) Propionitrile	(1)	6.433	54	1353270	502.689
45) Methacrylonitrile	(1)	6.653	67	2395825	243.013
48) Tetrahydrofuran	(1)	6.714	71	633507	251.547
47) Bromochloromethane	(2)	6.720	128	508938	25.431
49) Chloroform	(2)	6.860	83	2033613	24.895

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.080	113	555210	10.035
50)$Dibromofluoromethane	(2)	7.080	111	571232	10.060
51) 1,1,1-Trichloroethane	(2)	7.092	97	1846055	24.955
52) Cyclohexane	(2)	7.189	56	2430193	24.944
52) Cyclohexane	(2)	7.189	84	1997386	25.372
52) Cyclohexane	(2)	7.189	69	717253	24.098
55) 1,1-Dichloropropene	(2)	7.299	75	1708197	25.564
54) Carbon Tetrachloride	(2)	7.305	117	1705393	25.632
56) Isobutyl Alcohol	(1)	7.427	41	728002M	1250.455
57)$1,2-Dichloroethane-d4	(2)	7.537	102	97416	10.046
57)$1,2-Dichloroethane-d4	(2)	7.537	65	448113	9.953
57)$1,2-Dichloroethane-d4	(2)	7.531	104	59776	9.734
58) Benzene	(2)	7.567	78	4873872	25.145
59) 1,2-Dichloroethane	(2)	7.641	62	1038771	24.146
60) t-Amyl methyl ether	(2)	7.750	73	2737542	24.541
62) n-Heptane	(2)	7.970	43	2140538	25.146
63)*Fluorobenzene	(2)	7.970	96	2212996	10.000
65) n-Butanol	(1)	8.311	56	1312083	2489.402
67) Trichloroethene	(2)	8.445	95	1288167	25.755
69) Methylcyclohexane	(2)	8.756	83	2481925	25.748
70) 1,2-Dichloropropane	(2)	8.787	63	1216946	24.846
71) Methyl Methacrylate	(1)	8.854	69	490900M	23.749
72) 1,4-Dioxane	(1)	8.878	88	119706	1246.376
73) Dibromomethane	(2)	8.896	93	479514	25.768
74) Bromodichloromethane	(2)	9.128	83	1421916	25.618
76) 2-Nitropropane	(1)	9.390	41	1390204M	230.049
80) cis-1,3-Dichloropropene	(2)	9.652	75	1764729	25.728
81) 4-Methyl-2-Pentanone	(1)	9.817	43	6366798M	244.127
82)$Toluene-d8	(3)	9.957	98	2281792	9.930
82)$Toluene-d8	(3)	9.957	100	1503825	10.067
83) Toluene	(3)	10.030	92	3062225	25.102
85) 1,3-Dichloropropene (total)	(3)		75	3147551	51.560
84) trans-1,3-Dichloropropene	(3)	10.274	75	1382822	25.831
86) Ethyl Methacrylate	(3)	10.329	69	1112651	25.232
88) 1,1,2-Trichloroethane	(3)	10.481	97	680845	25.101
89) Tetrachloroethene	(3)	10.561	166	1449238	25.515
90) 1,3-Dichloropropane	(3)	10.640	76	1225928	24.890
91) 2-Hexanone	(1)	10.683	43	4298140M	237.143

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	950588	25.685
95) 1,2-Dibromoethane	(3)	10.963	107	666242	25.603
96) 1-Chlorohexane	(3)	11.390	91	1873531MA	24.366
97)*Chlorobenzene-d5	(3)	11.390	117	1779240	10.000
98) Chlorobenzene	(3)	11.414	112	3286976	25.196
100) Ethylbenzene	(3)	11.493	91	6134230	25.322
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	1182627	25.649
101) m+p-Xylene	(3)	11.609	106	4656226	50.951
105) Xylene (Total)	(3)		106	6892950	76.078
104) o-Xylene	(3)	11.938	106	2236724	25.121
106) Styrene	(3)	11.951	104	3604845	25.295
107) Bromoform	(3)	12.115	173	552510	26.302
108) Isopropylbenzene	(3)	12.231	105	6179721	25.291
111)$4-Bromofluorobenzene	(3)	12.377	95	848062	9.859
111)$4-Bromofluorobenzene	(3)	12.383	174	731042	9.925
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	818698M	25.759
114) Bromobenzene	(4)	12.499	156	1308364	25.767
115) trans-1,4-Dichloro-2-butene	(1)	12.505	53	2224772M	247.524
116) 1,2,3-Trichloropropane	(4)	12.524	110	205594	24.916
117) n-Propylbenzene	(4)	12.560	91	7189848	25.918
119) 2-Chlorotoluene	(4)	12.640	126	1385929	25.440
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	5045219	25.854
122) 4-Chlorotoluene	(4)	12.731	126	1386183	25.567
125) tert-Butylbenzene	(4)	12.938	134	1096501M	25.960
126) Pentachloroethane	(4)	12.975	167	906400	27.070
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	5104053	25.926
128) sec-Butylbenzene	(4)	13.103	105	6609040	26.336
131) 1,3-Dichlorobenzene	(4)	13.200	146	2625308	25.785
132) p-Isopropyltoluene	(4)	13.206	119	5677802	26.491
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	919468	10.000
134) 1,4-Dichlorobenzene	(4)	13.280	146	2530508	25.408
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	2151734	25.641
136) Benzyl Chloride	(4)	13.353	126	389414	26.971
138) n-Butylbenzene	(4)	13.499	92	2658070	26.342
139) 1,2-Dichlorobenzene	(4)	13.536	146	2222938	25.377
143) 1,2-Dibromo-3-chloropropane	(1)	14.078	155	124309M	26.788
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	1988180	26.522
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	1624213	27.052

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

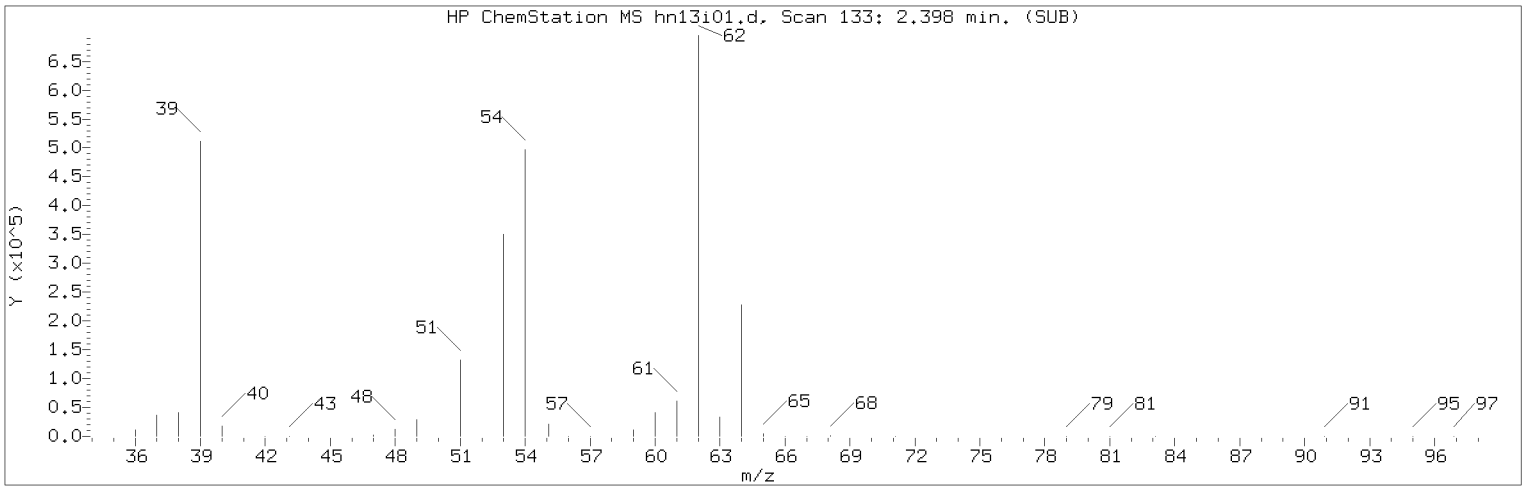
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

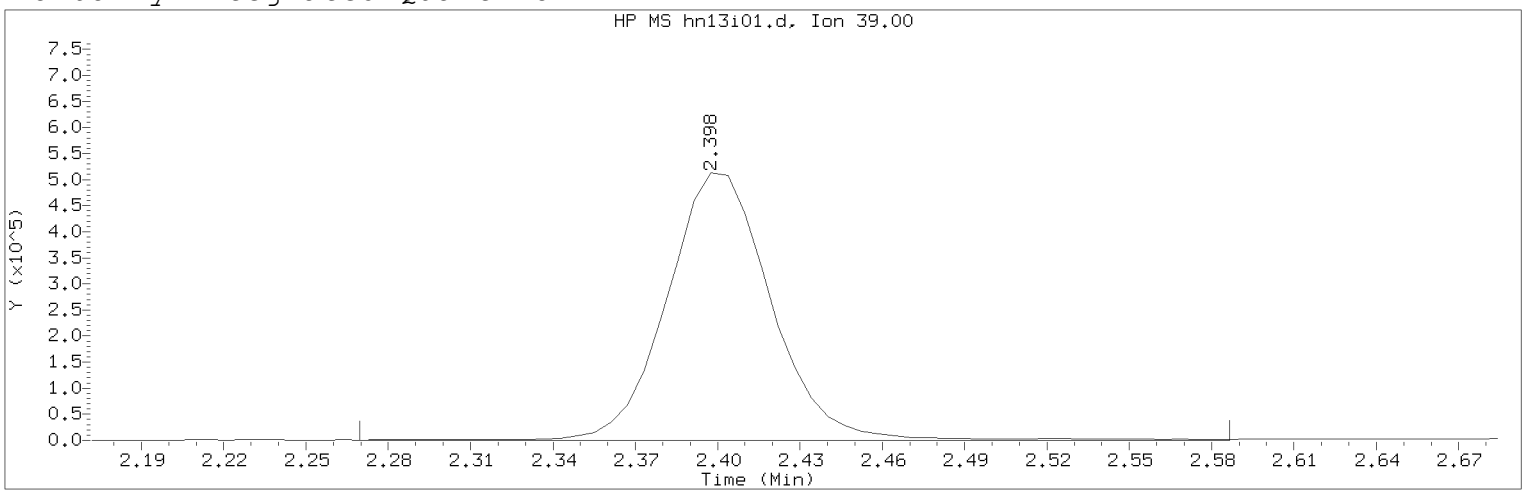
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	626922	25.875
147) Naphthalene	(4)	14.816	128	2625154	26.106
148) 1,2,3-Trichlorobenzene	(4)	14.962	180	1316284	26.316

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

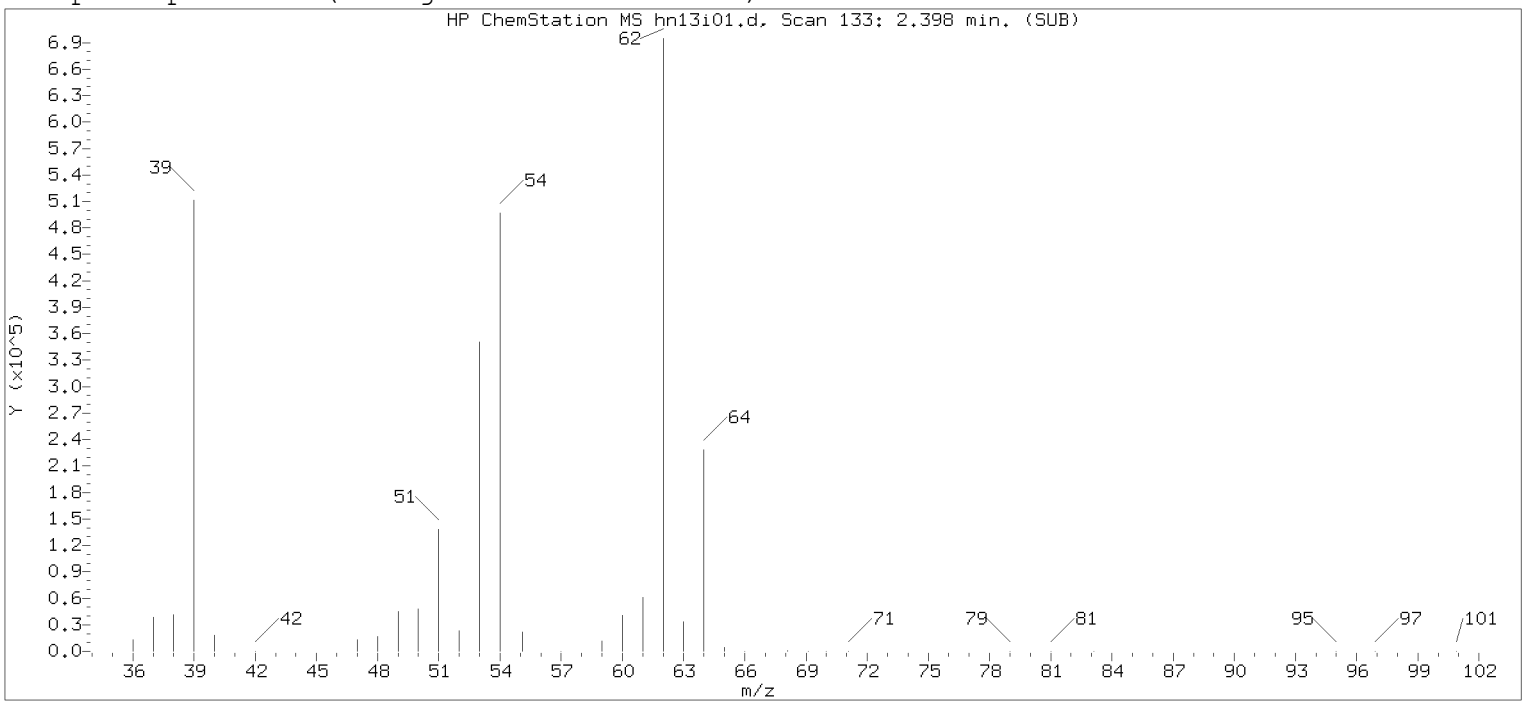
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area (flag) : 1345033M
On-Column Amount (ng) : 25.1381
Integration start scan : 111 Integration stop scan: 163
Y at integration start : 562 Y at integration end: 562

Reason for manual integration: improper integration

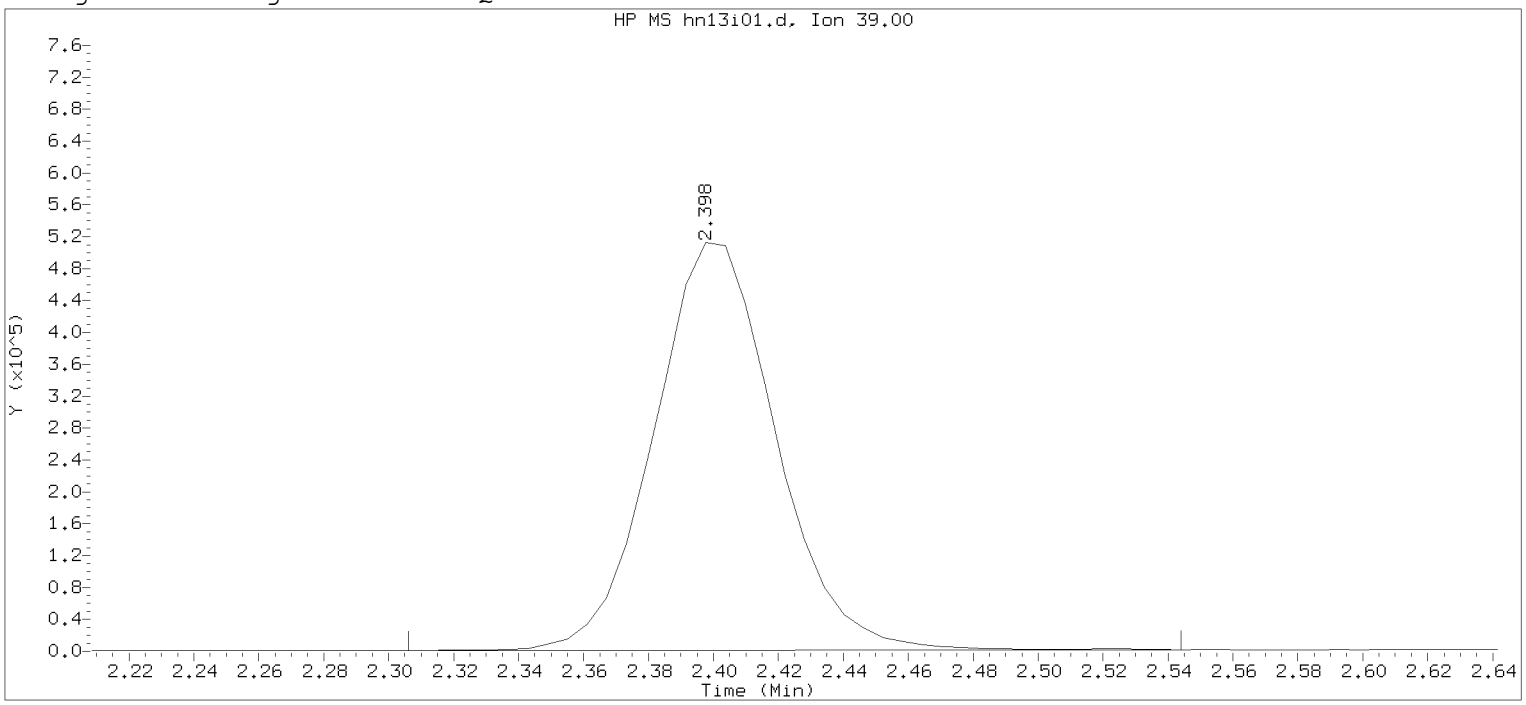
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area : 1328665
On-column Amount (ng) : 15.6561
Integration start scan : 117 Integration stop scan: 156
Y at integration start : 902 Y at integration end: 1966

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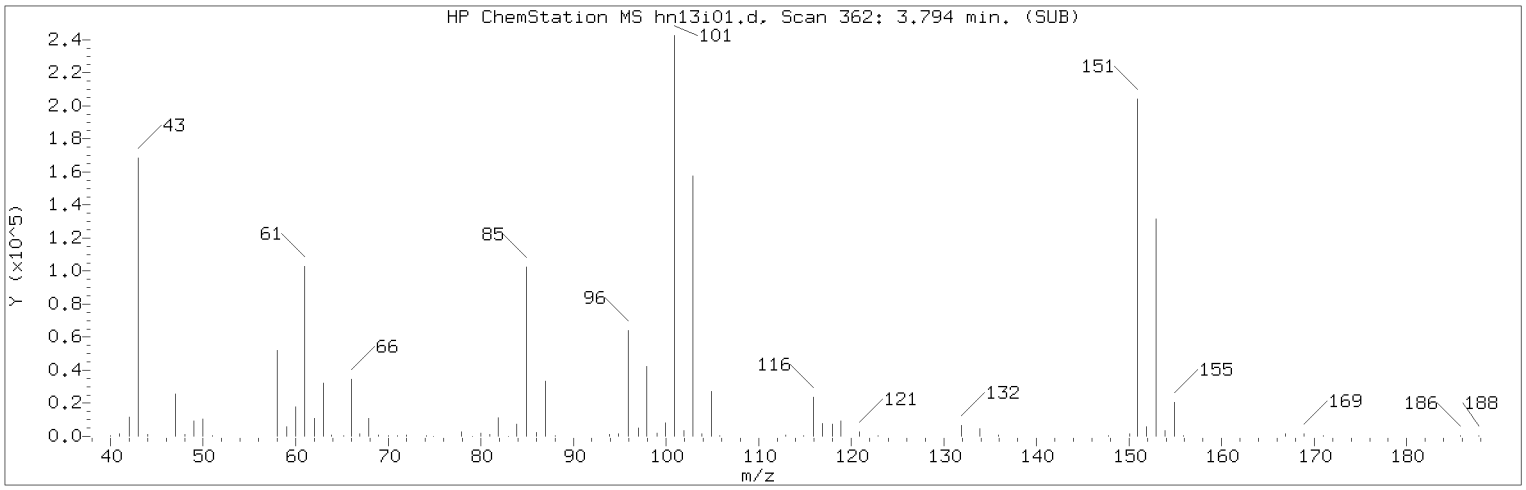
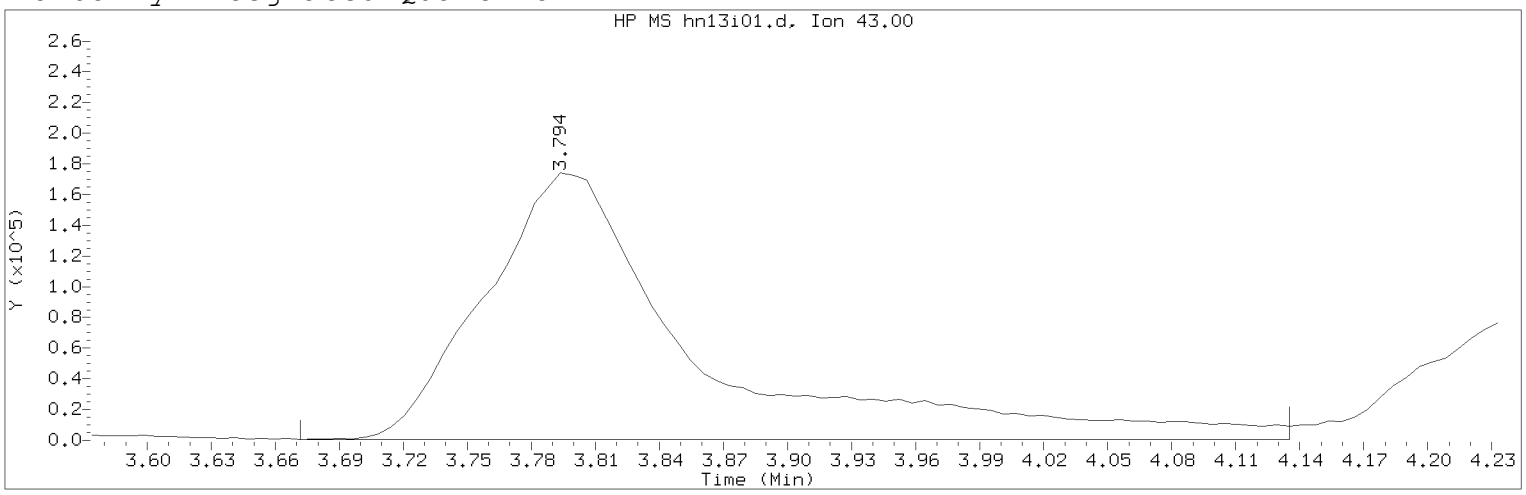
Target 3.5 esignature used. AE35 Page 521

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

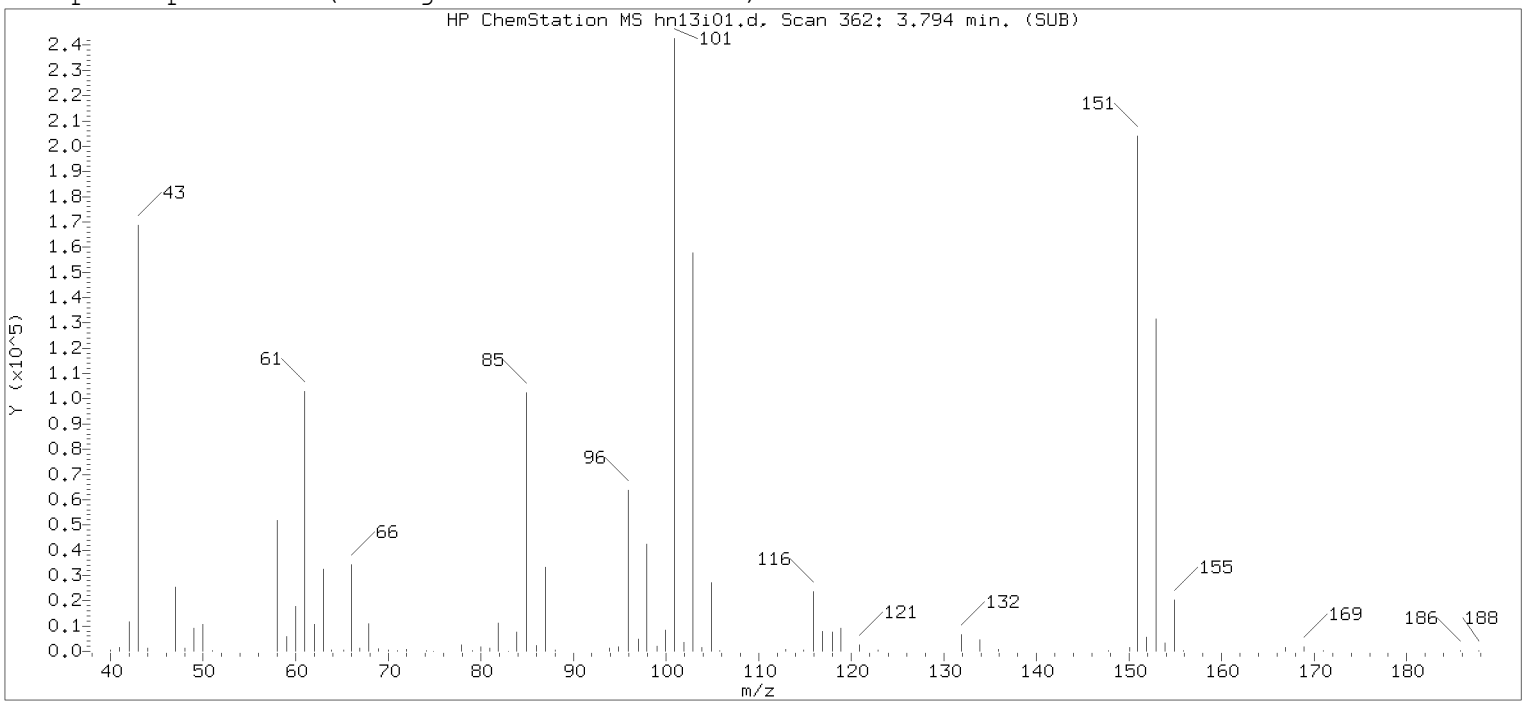
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area (flag) : 1197149M
On-Column Amount (ng) : 232.3628
Integration start scan : 341 Integration stop scan: 417
Y at integration start : 583 Y at integration end: 583

Reason for manual integration: improper integration

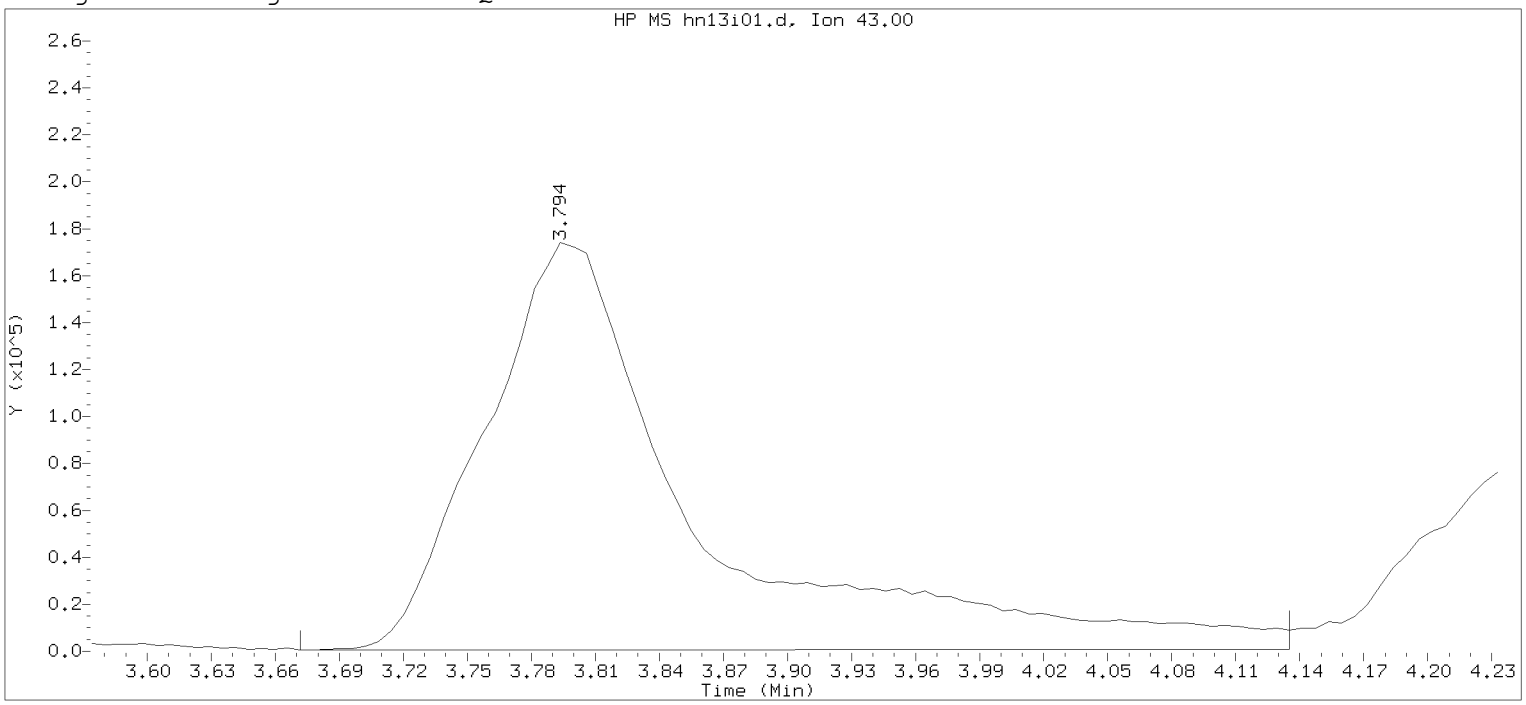
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

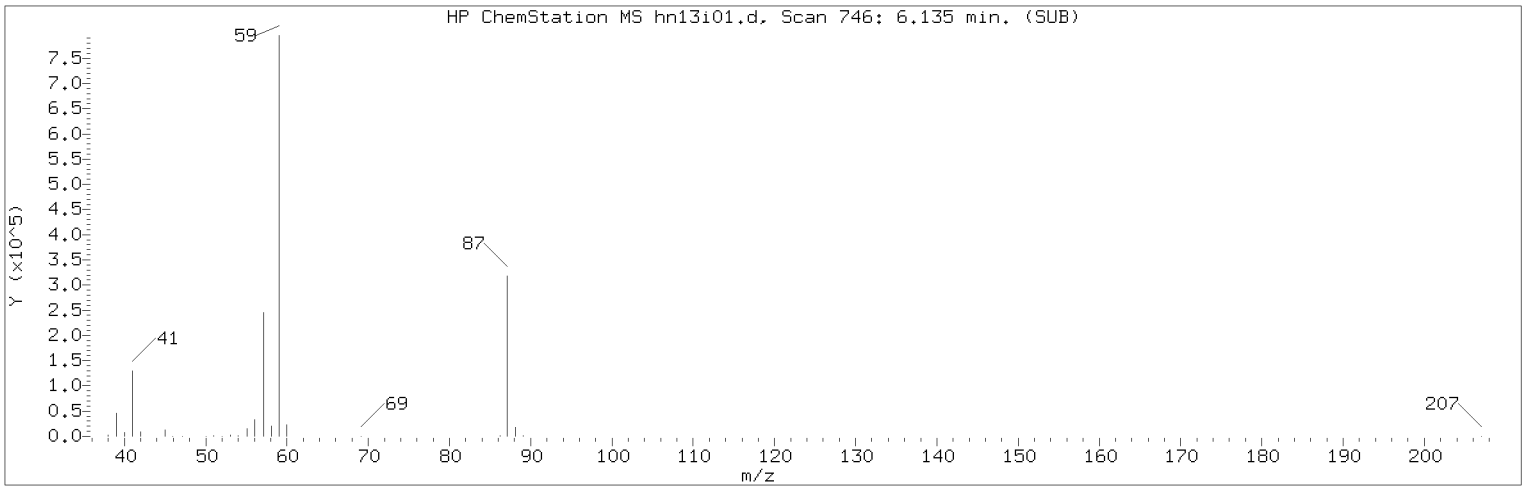
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

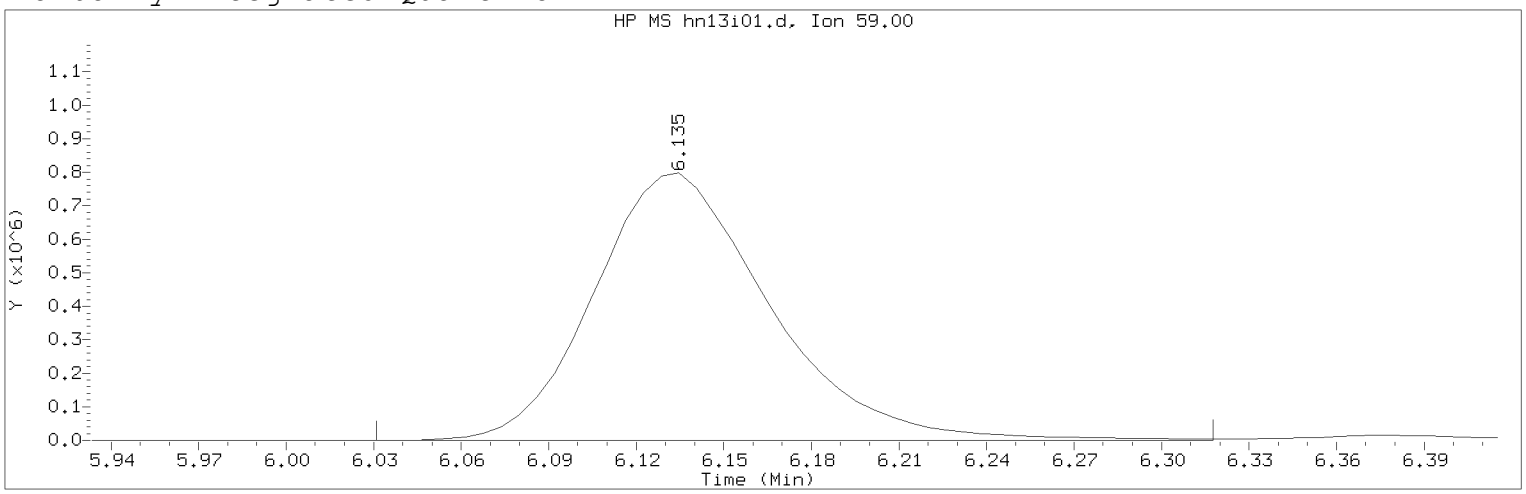
Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 362		
Retention Time (minutes)	: 3.794		
Quant Ion	: 43.00		
Area	: 1191579		
On-column Amount (ng)	: 198.9697		
Integration start scan	: 341	Integration stop scan:	417
Y at integration start	: 583	Y at integration end:	871

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 523 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

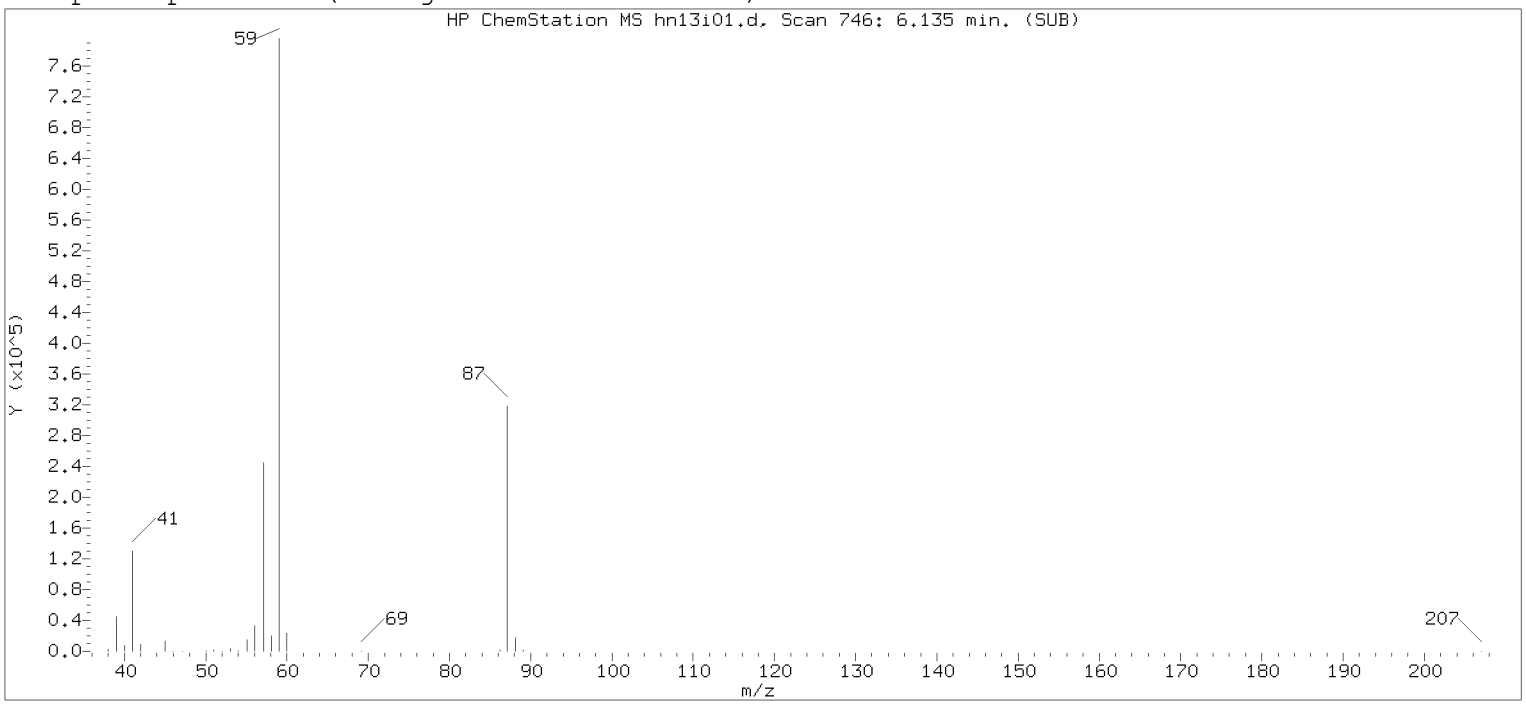
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 746
Retention Time (minutes): 6.135
Quant Ion : 59.00
Area (flag) : 3336159M
On-Column Amount (ng) : 24.6392
Integration start scan : 728 Integration stop scan: 775
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

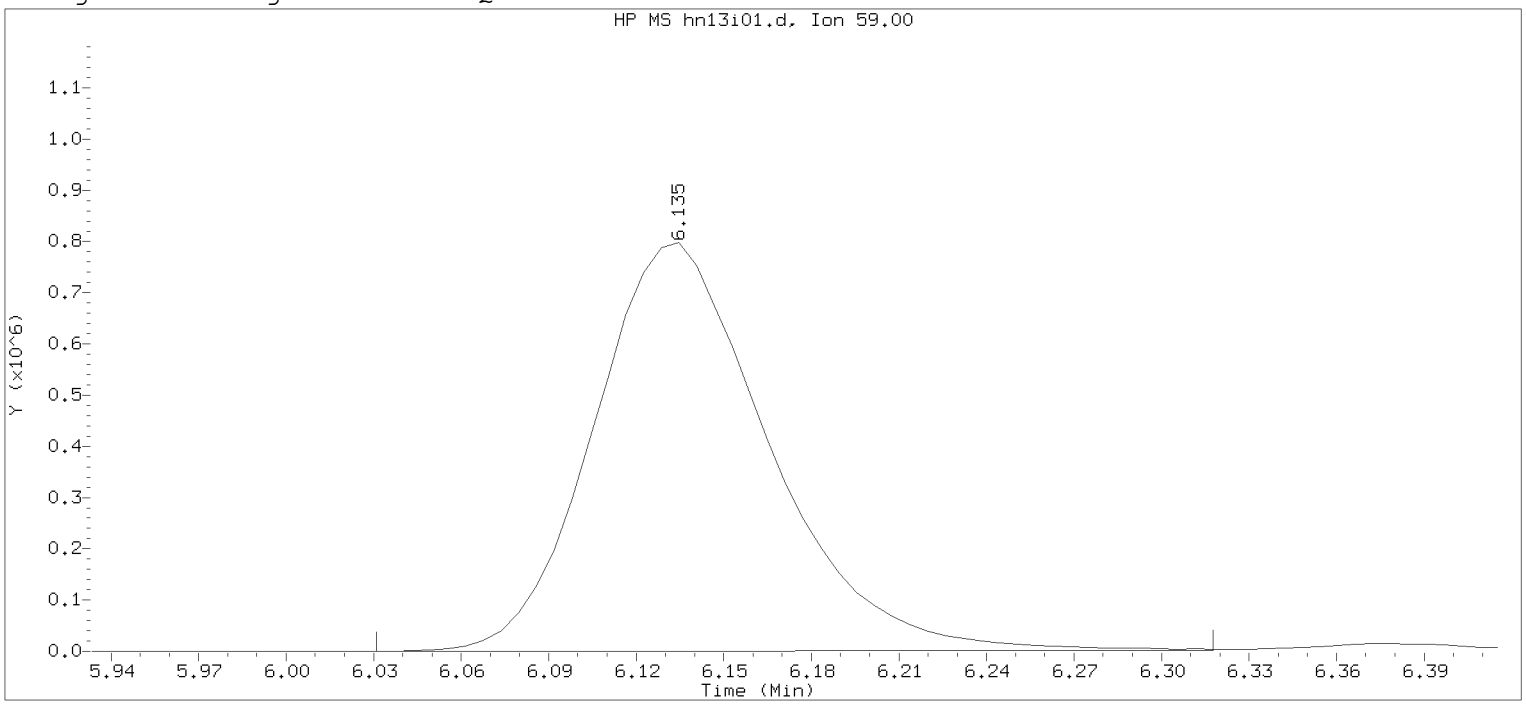
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

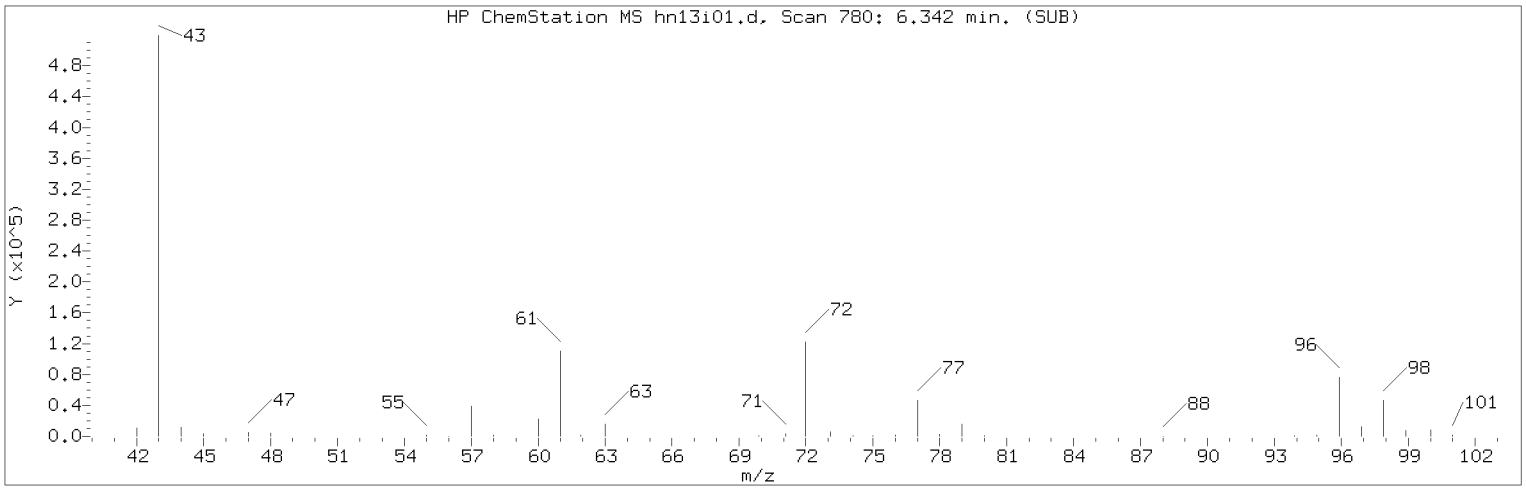
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

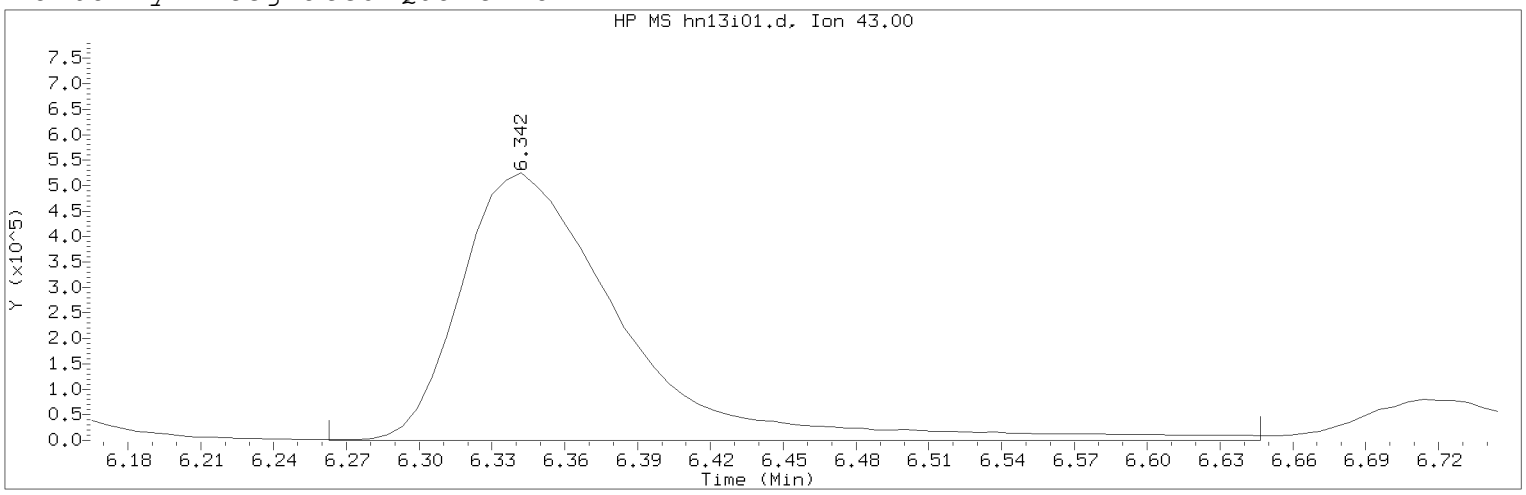
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 746
Retention Time (minutes): 6.135
Quant Ion : 59.00
Area : 3329443
On-column Amount (ng) : 25.3063
Integration start scan : 728 Integration stop scan: 775
Y at integration start : 0 Y at integration end: 699

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 09525

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

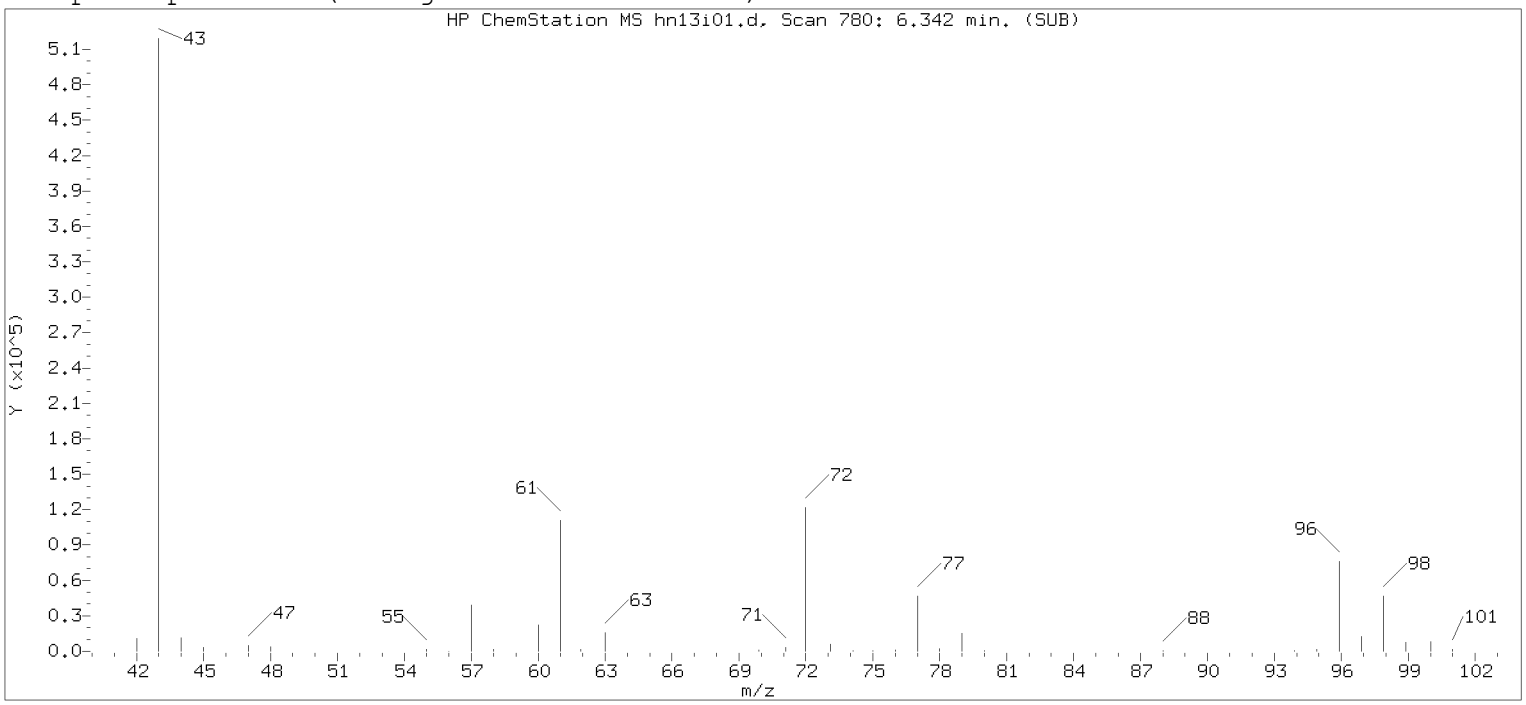
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area (flag) : 2421382M
On-Column Amount (ng) : 229.8484
Integration start scan : 766 Integration stop scan: 829
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

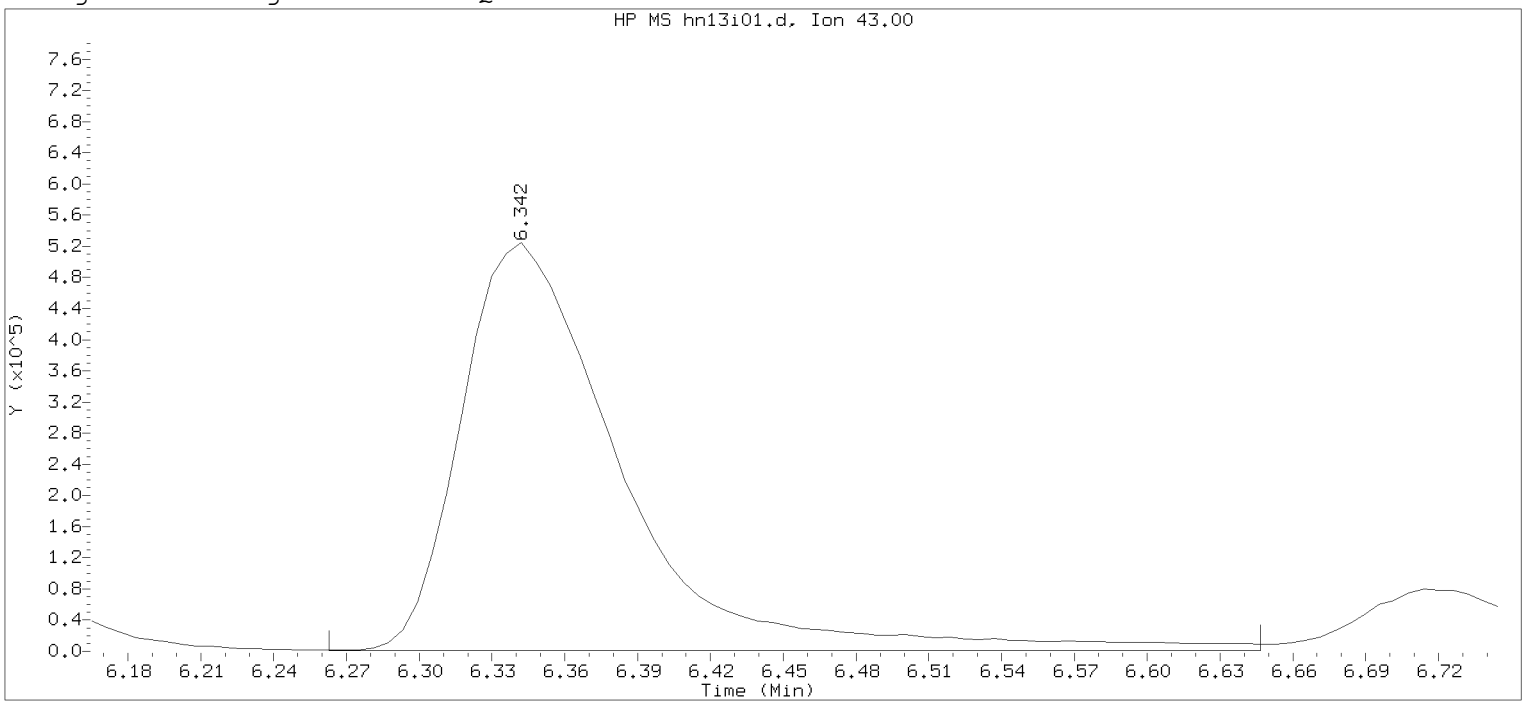
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

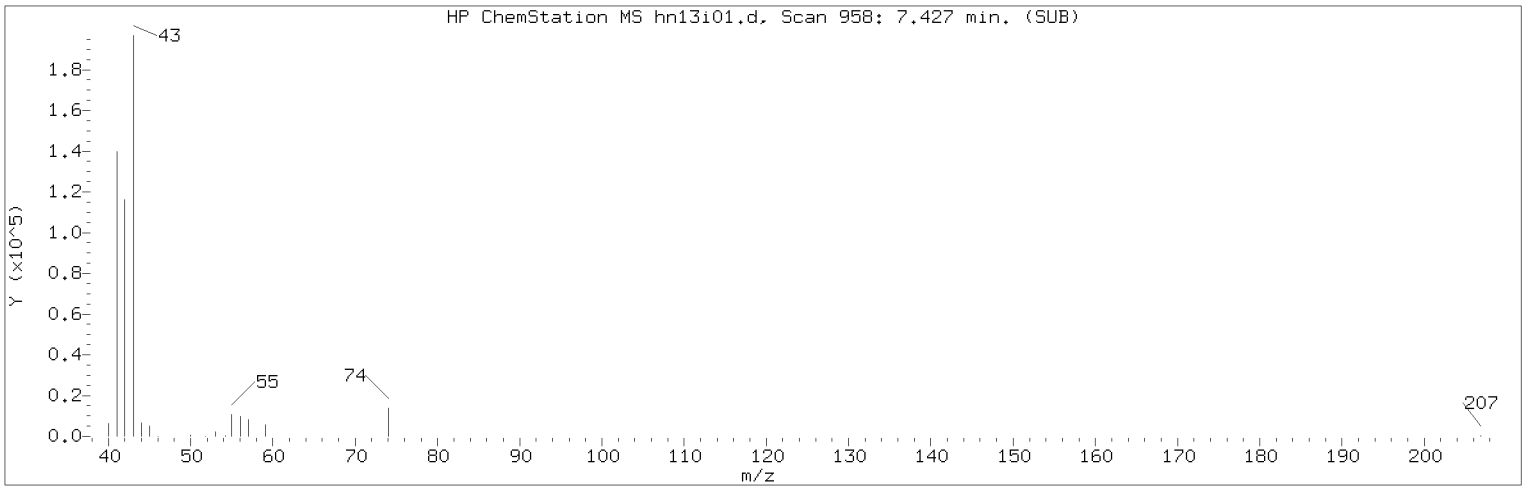
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

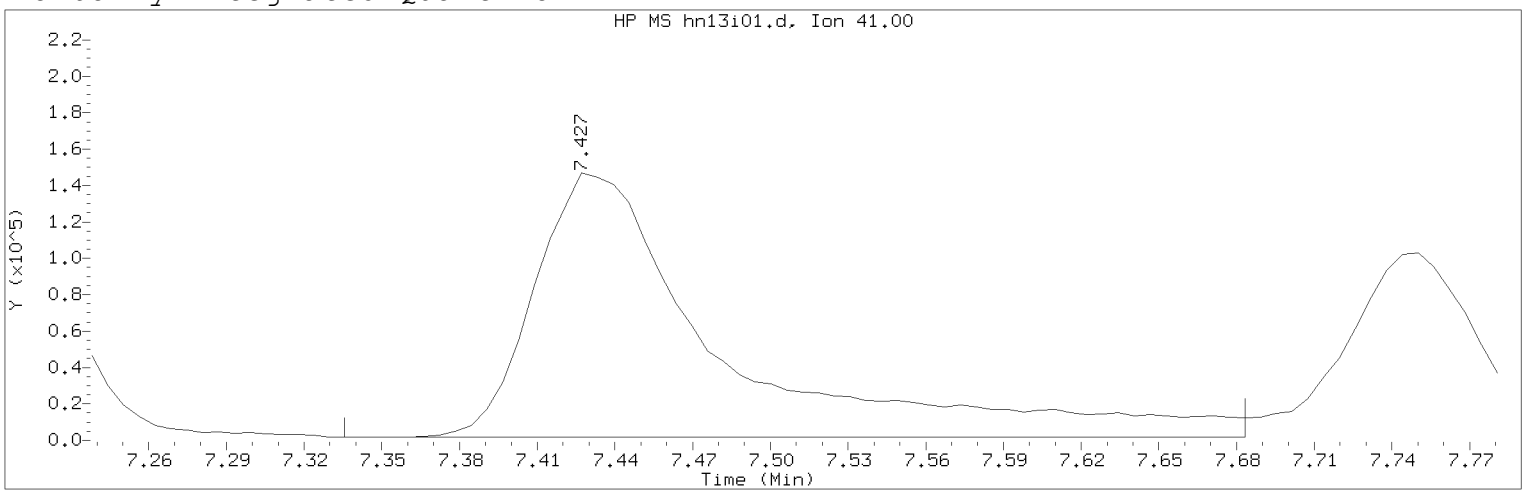
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area : 2407371
On-column Amount (ng) : 239.6213
Integration start scan : 766 Integration stop scan: 829
Y at integration start : 523 Y at integration end: 523

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 522

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

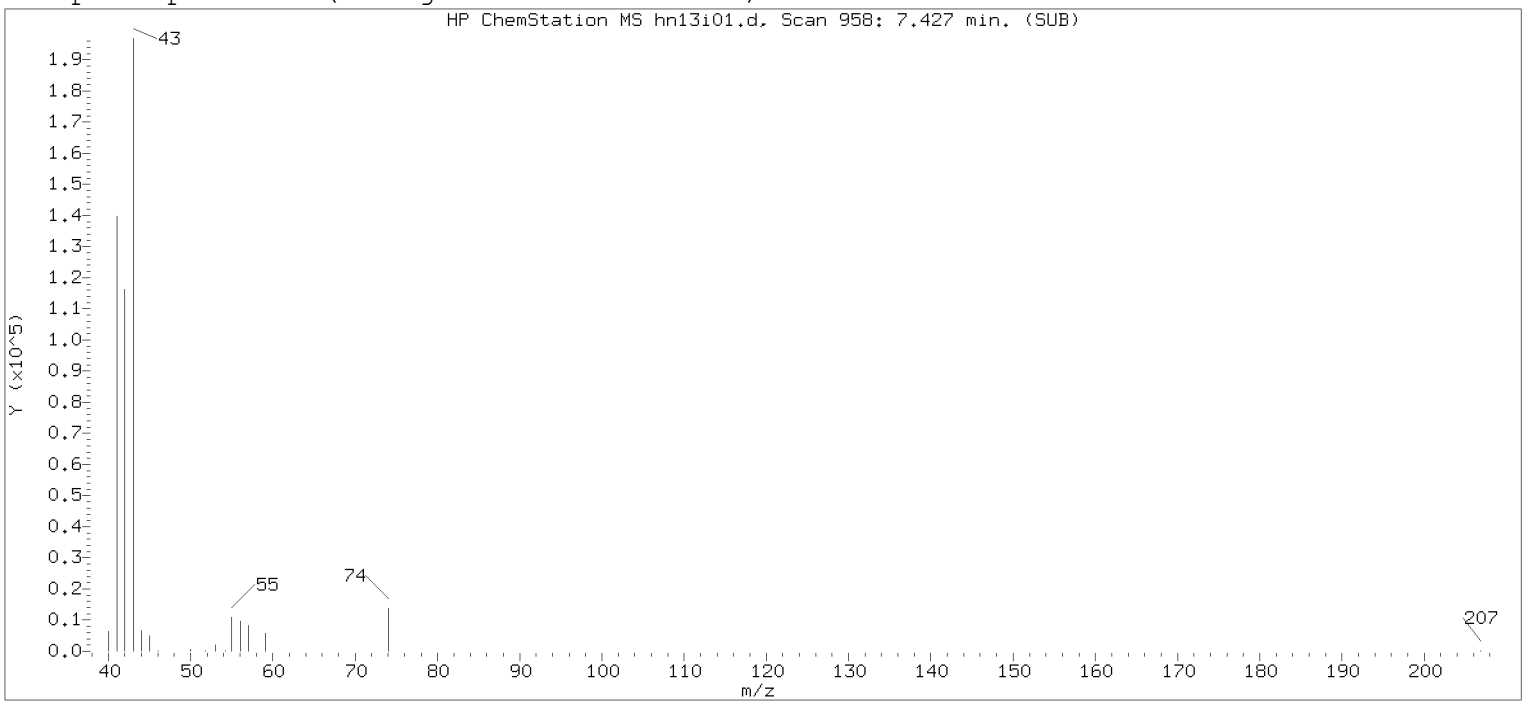
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 958
Retention Time (minutes): 7.427
Quant Ion : 41.00
Area (flag) : 728002M
On-Column Amount (ng) : 1250.4549
Integration start scan : 942 Integration stop scan: 999
Y at integration start : 1632 Y at integration end: 1632

Reason for manual integration: improper integration

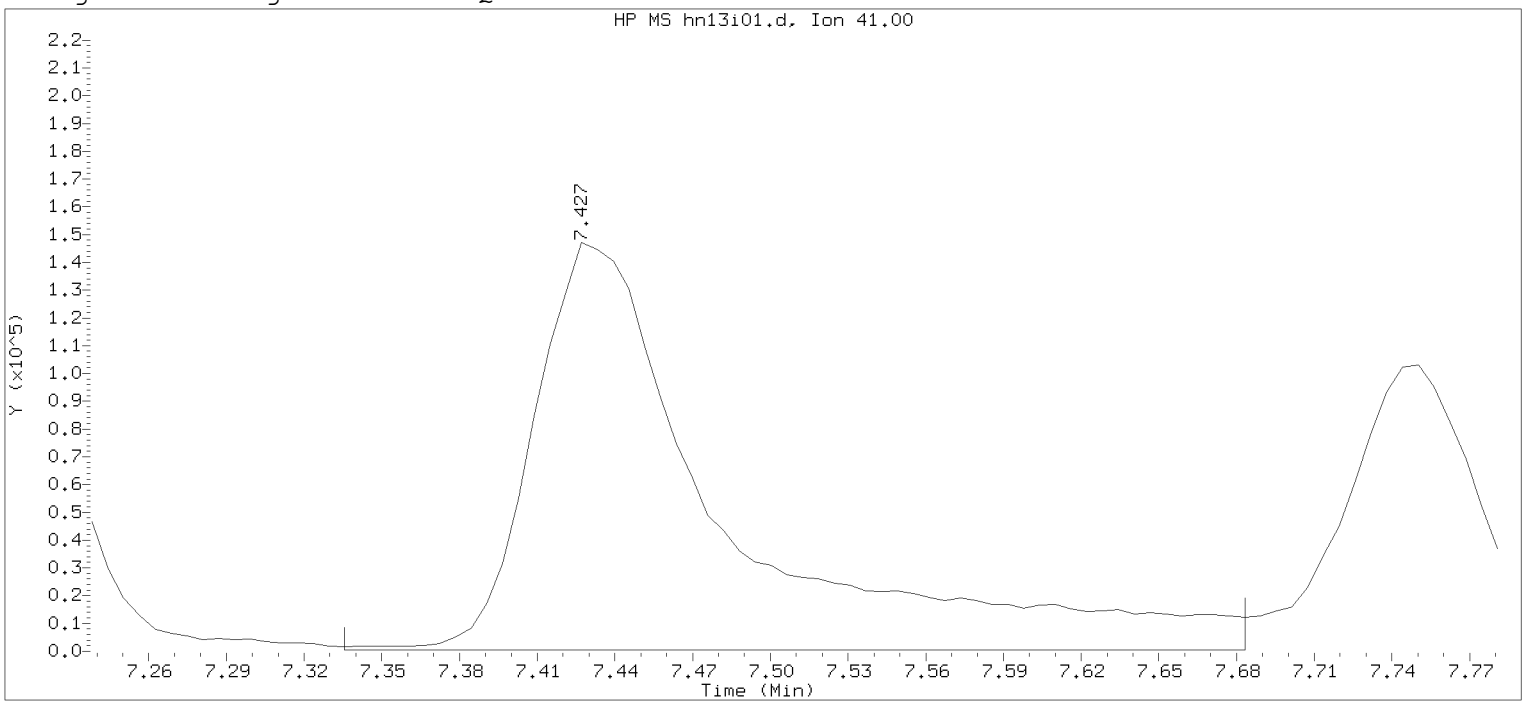
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

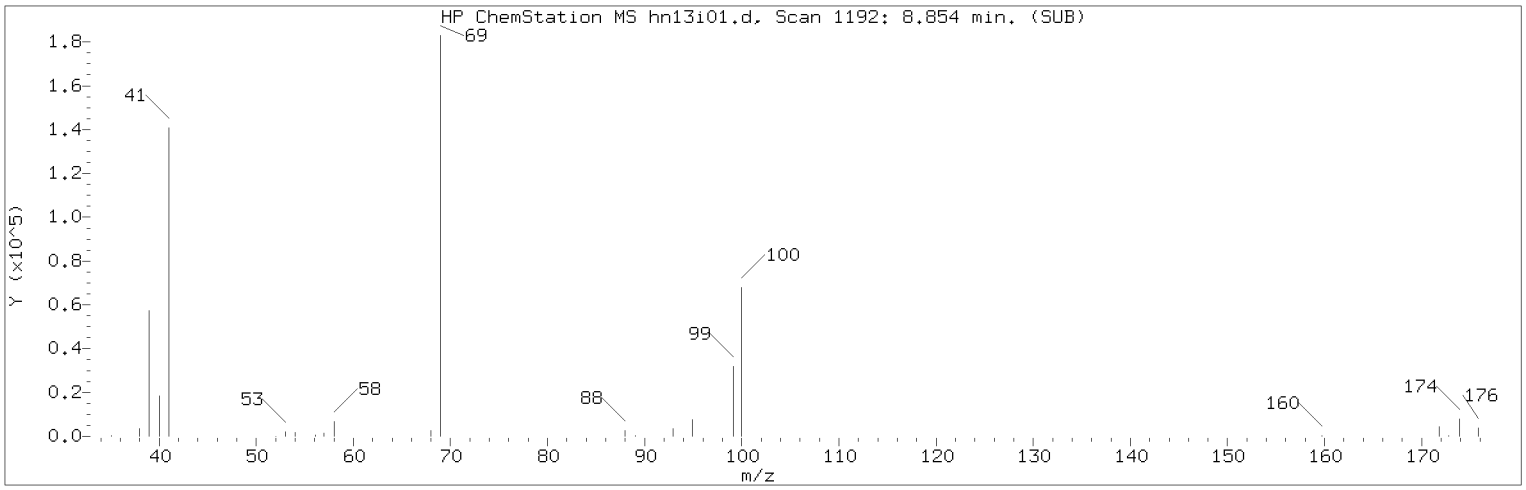
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

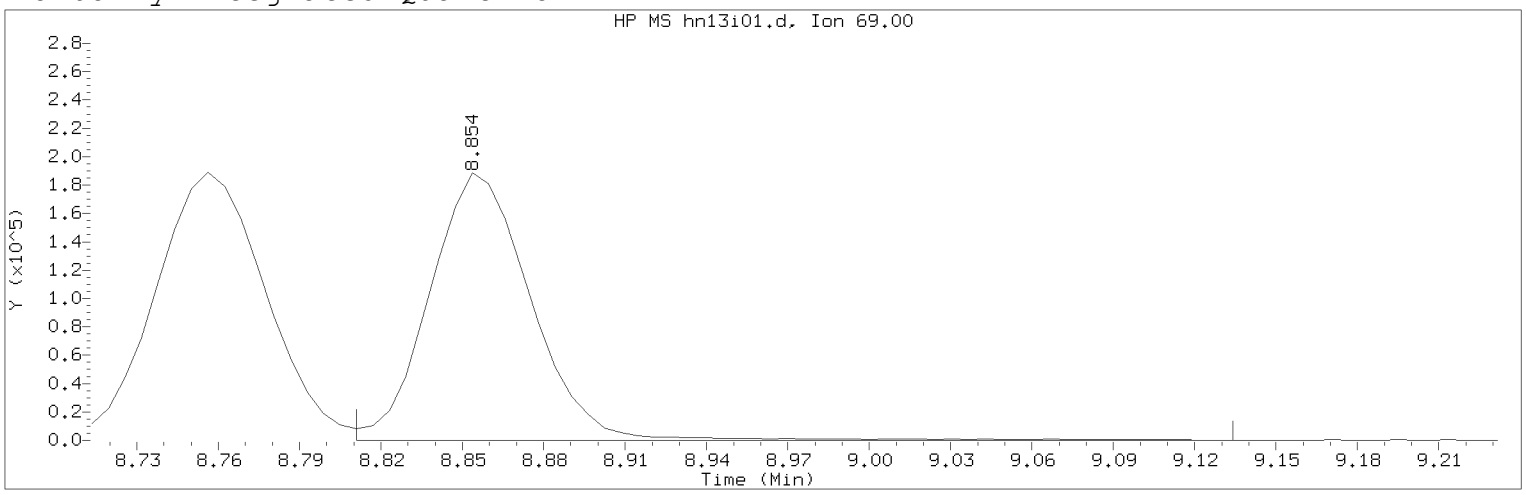
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 958
Retention Time (minutes): 7.427
Quant Ion : 41.00
Area : 752094
On-column Amount (ng) : 1119.2140
Integration start scan : 942 Integration stop scan: 999
Y at integration start : 382 Y at integration end: 382

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 529 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

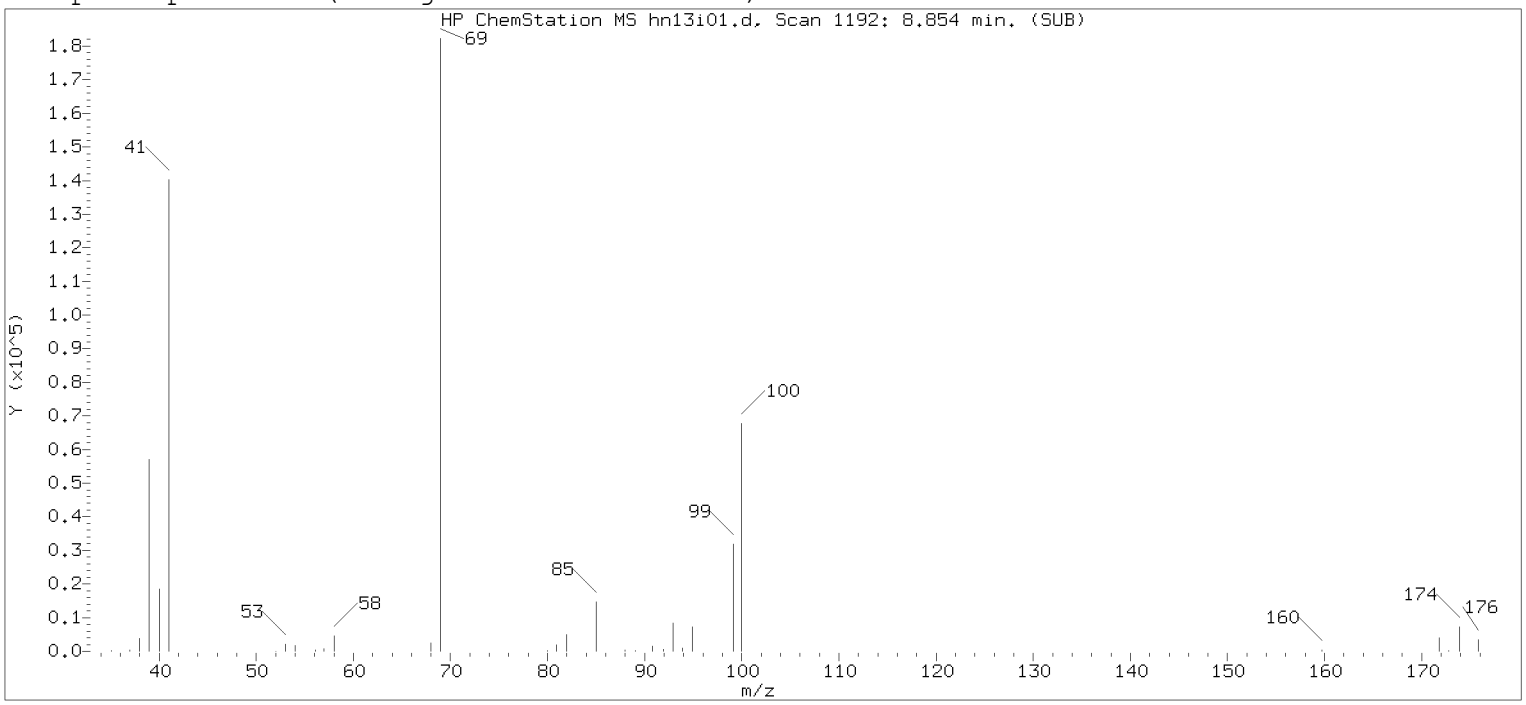
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area (flag) : 490900M
On-Column Amount (ng) : 23.7487
Integration start scan : 1184 Integration stop scan: 1237
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

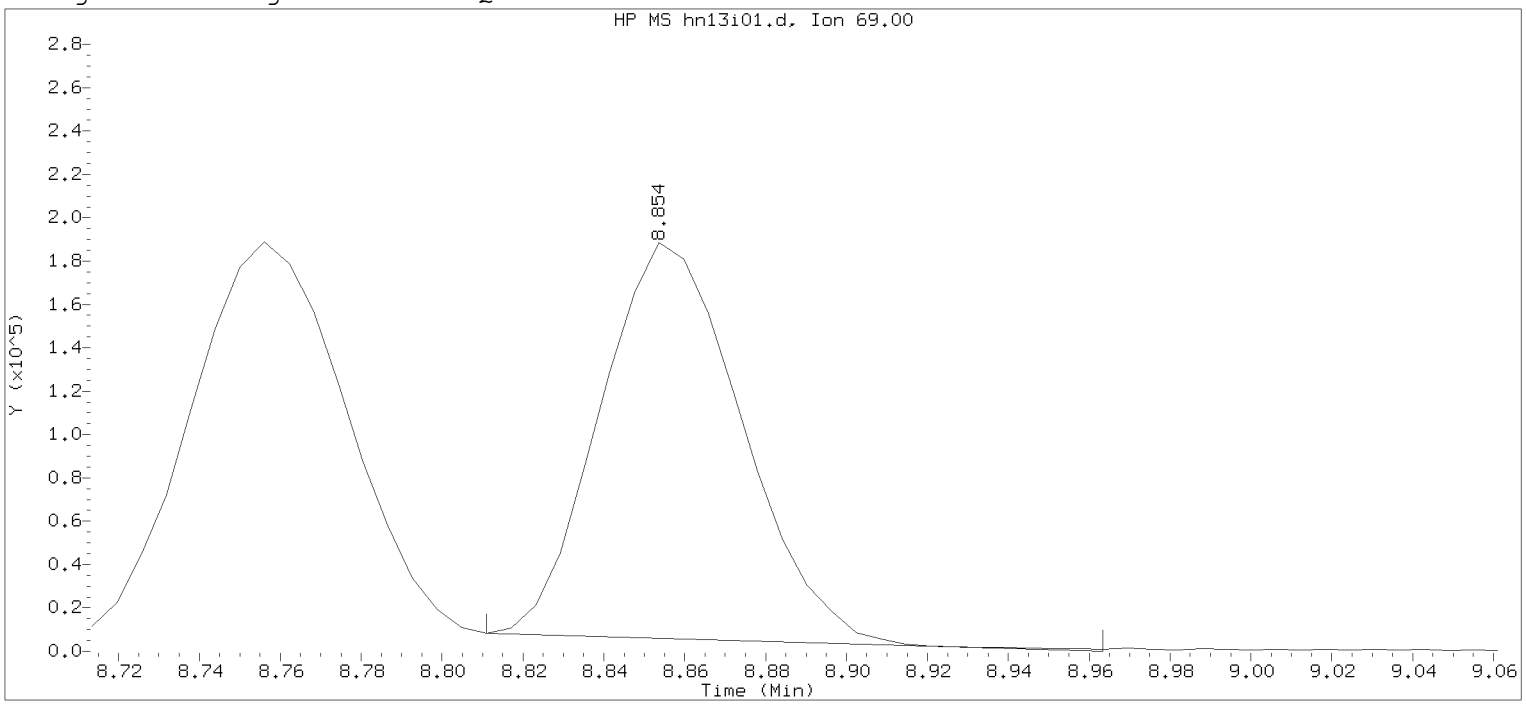
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

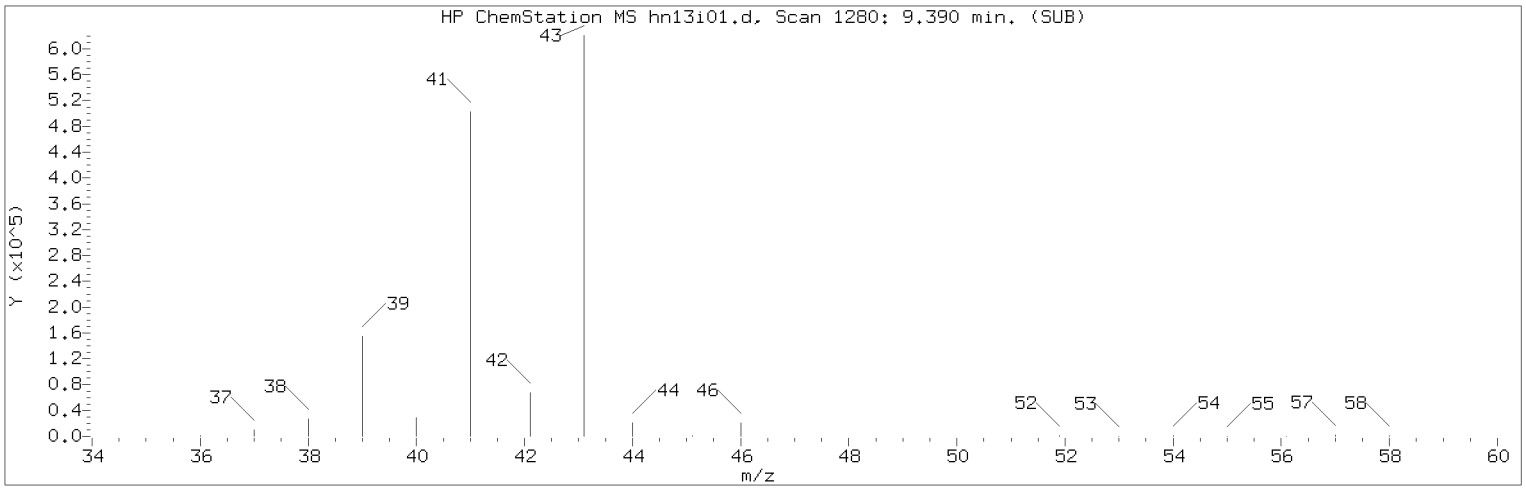
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

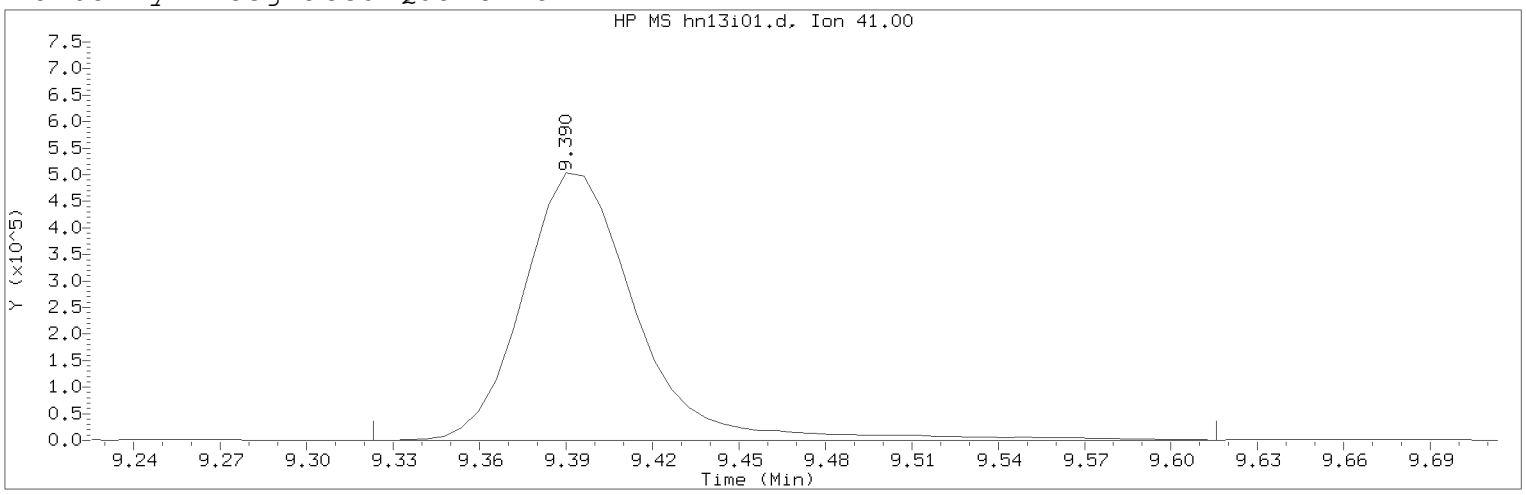
Compound Number	: 71		
Compound Name	: Methyl Methacrylate		
Scan Number	: 1192		
Retention Time (minutes)	: 8.854		
Quant Ion	: 69.00		
Area	: 445324		
On-column Amount (ng)	: 24.8504		
Integration start scan	: 1184	Integration stop scan:	1209
Y at integration start	: 8292	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. Reason: I approve this document.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

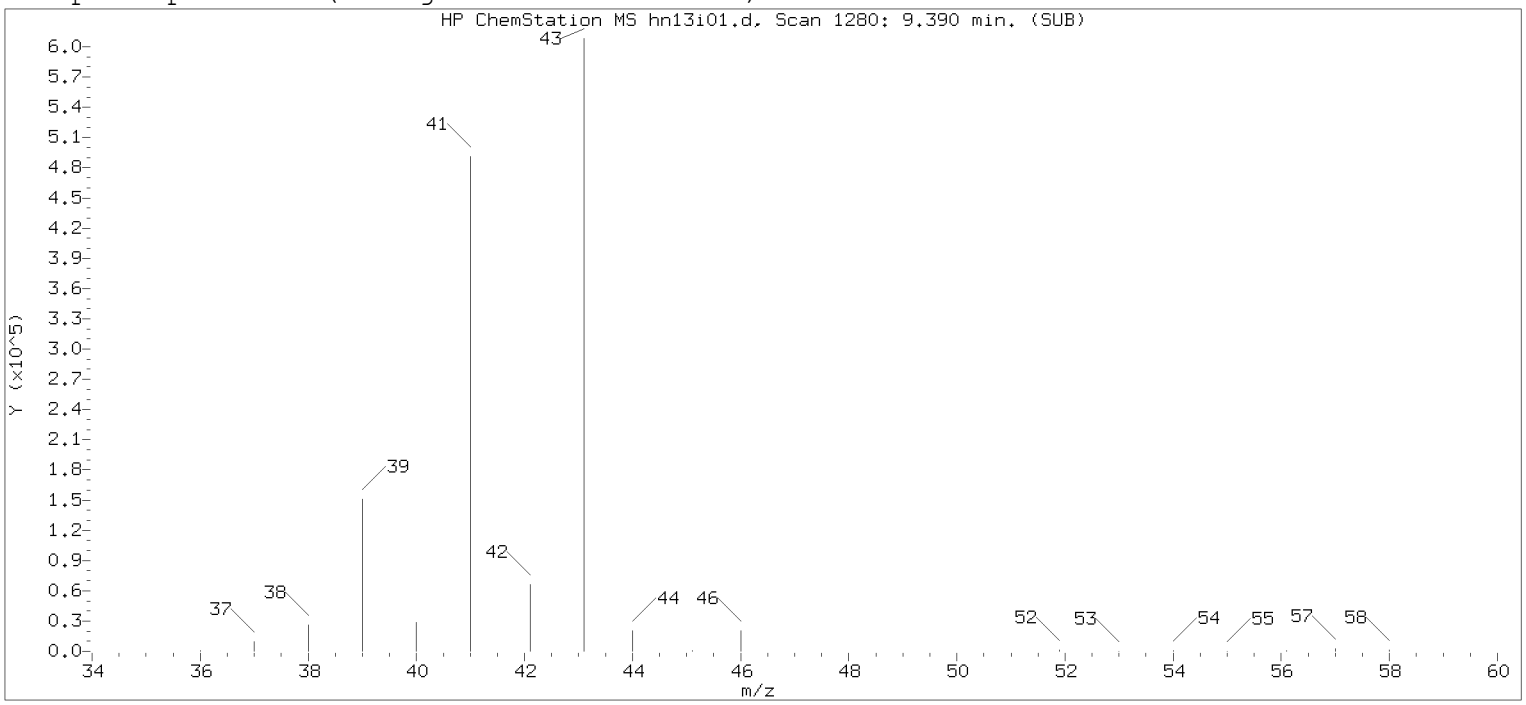
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1280
Retention Time (minutes): 9.390
Quant Ion : 41.00
Area (flag) : 1390204M
On-Column Amount (ng) : 230.0493
Integration start scan : 1268 Integration stop scan: 1316
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

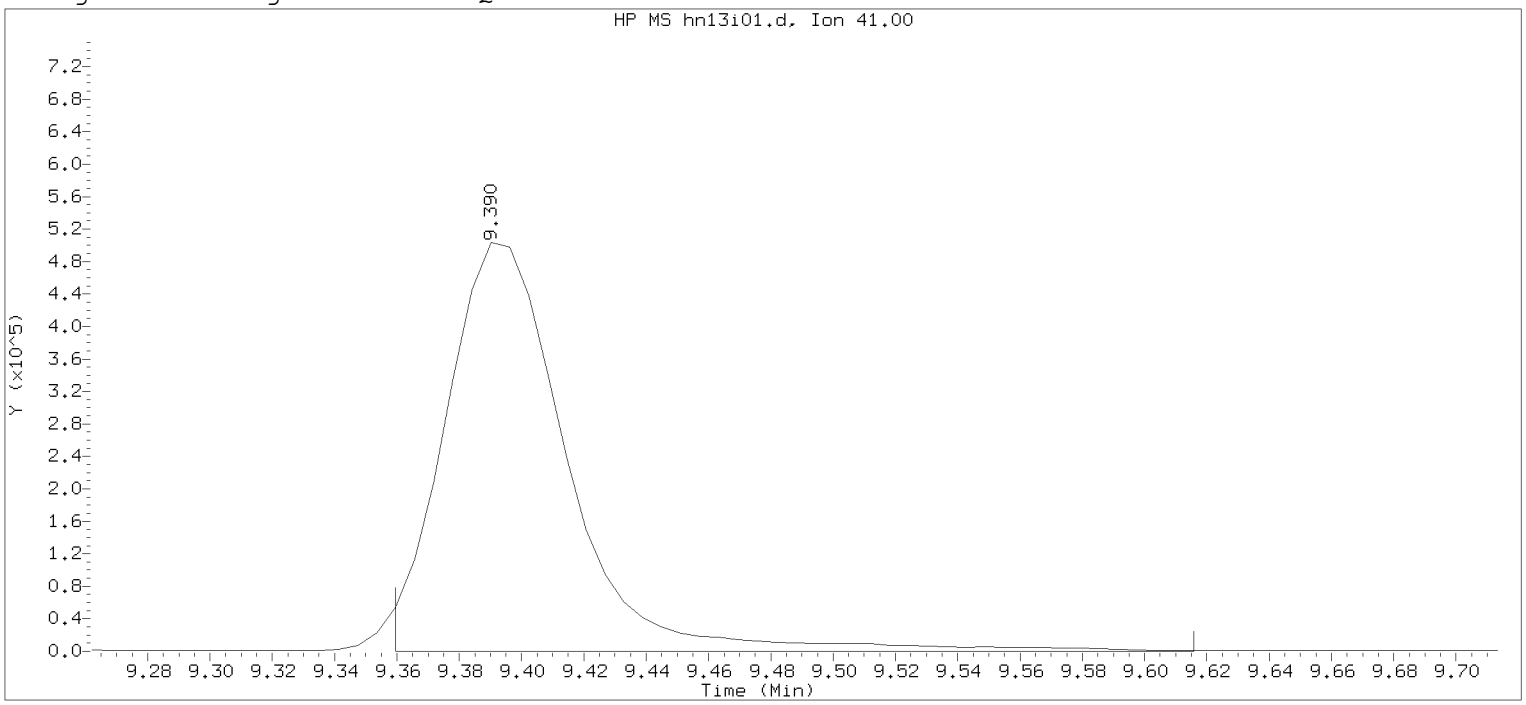
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

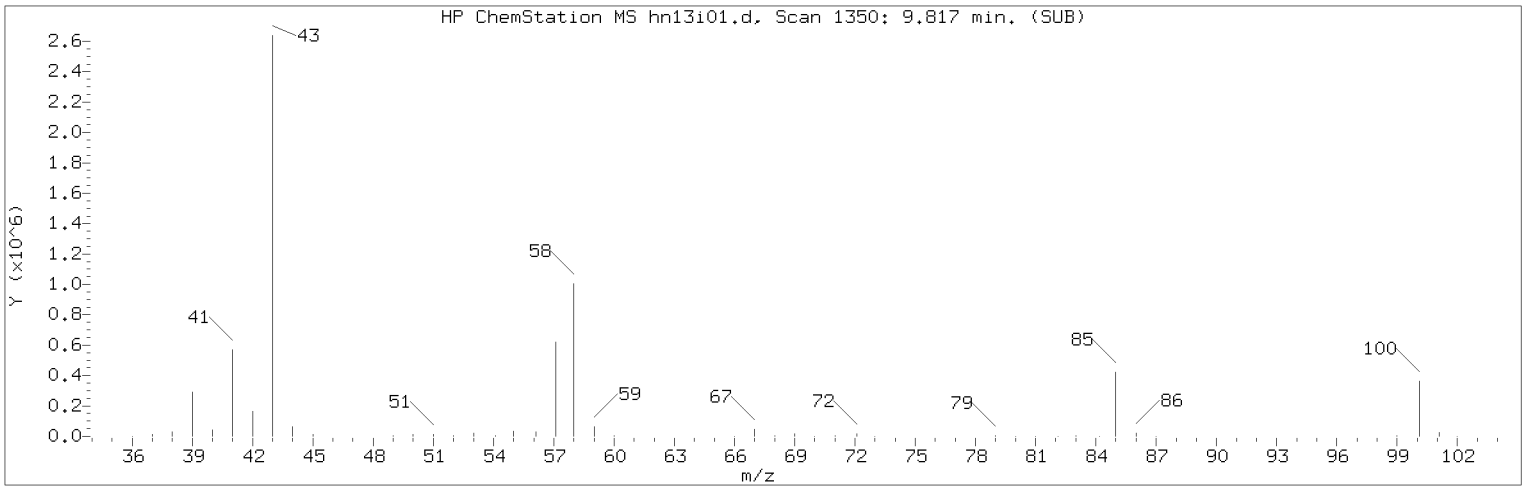
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

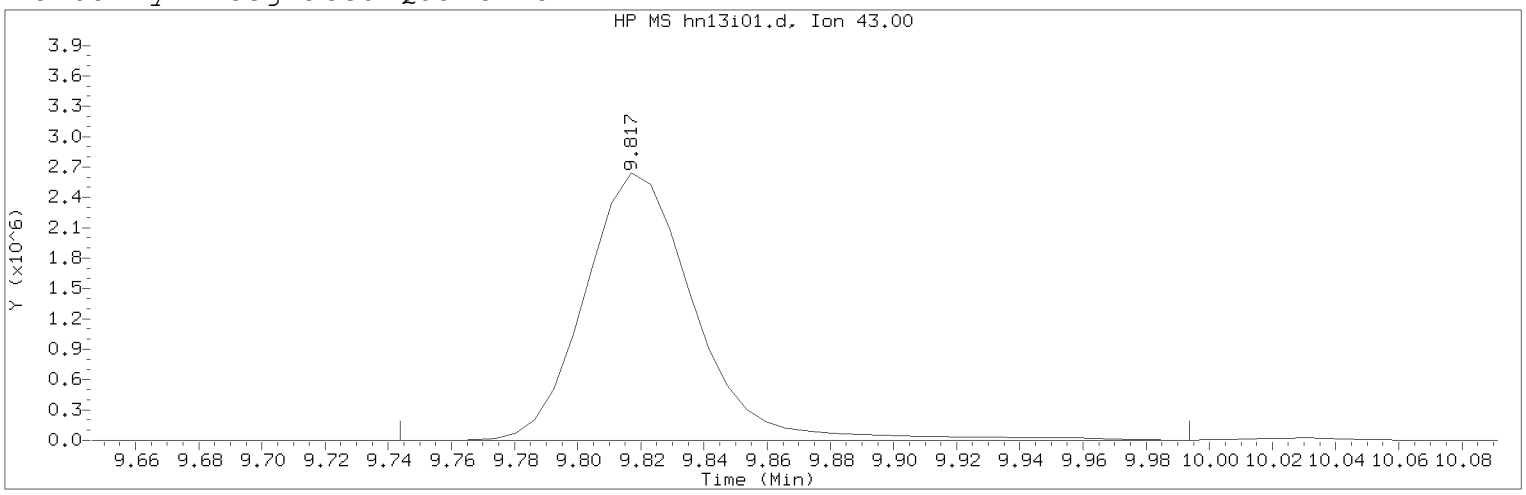
Compound Number	: 76		
Compound Name	: 2-Nitropropane		
Scan Number	: 1280		
Retention Time (minutes)	: 9.390		
Quant Ion	: 41.00		
Area	: 1362482		
On-column Amount (ng)	: 266.8676		
Integration start scan	: 1274	Integration stop scan:	1316
Y at integration start	: 333	Y at integration end:	333

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 533

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

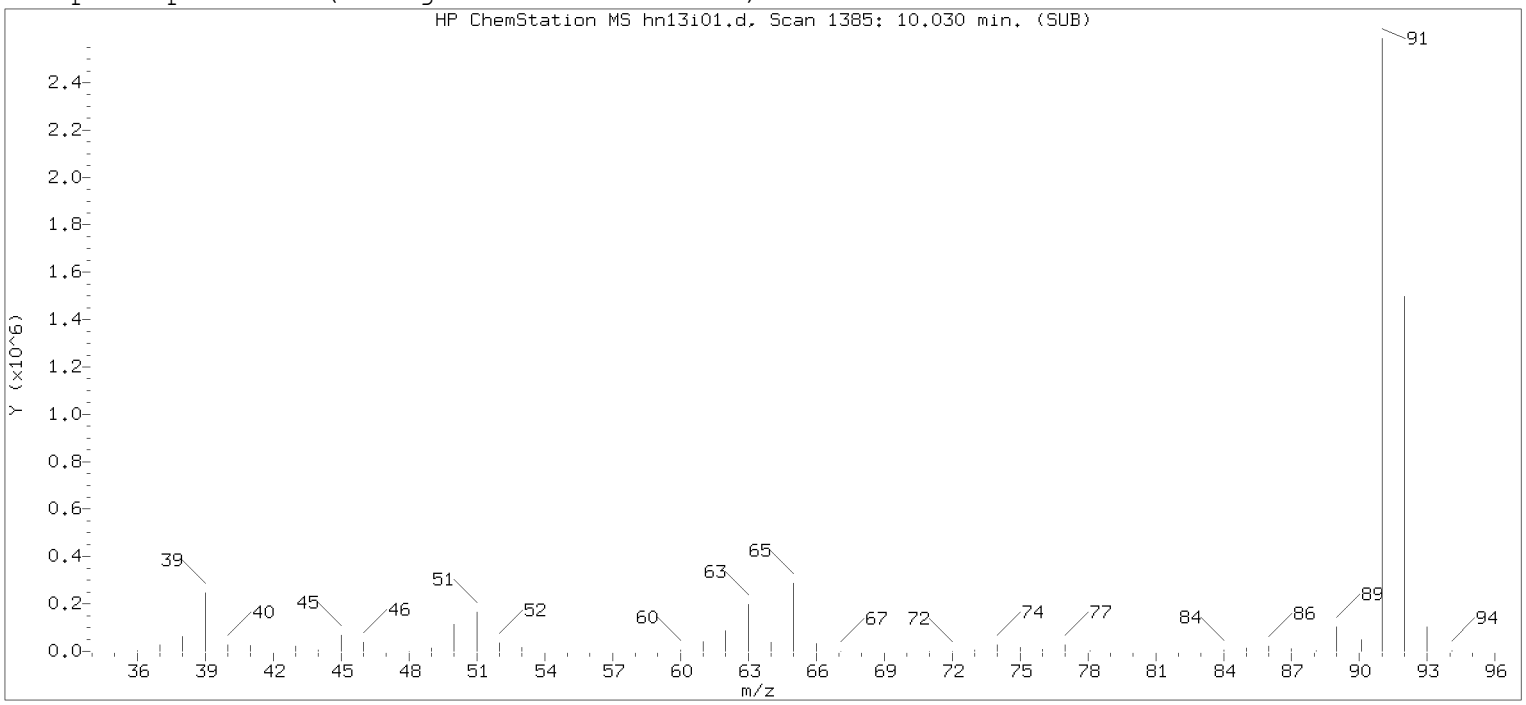
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 6366798M
On-Column Amount (ng) : 244.1274
Integration start scan : 1337 Integration stop scan: 1378
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

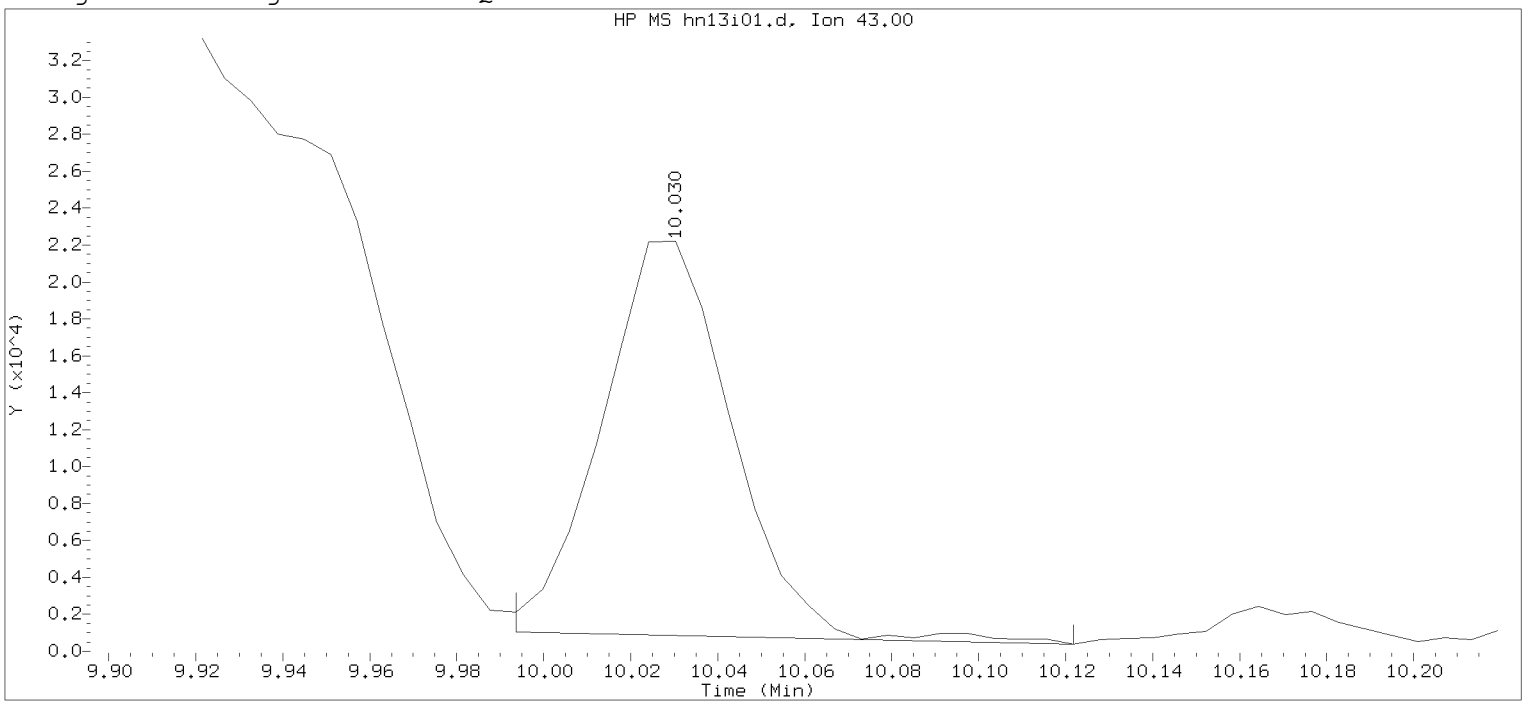
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

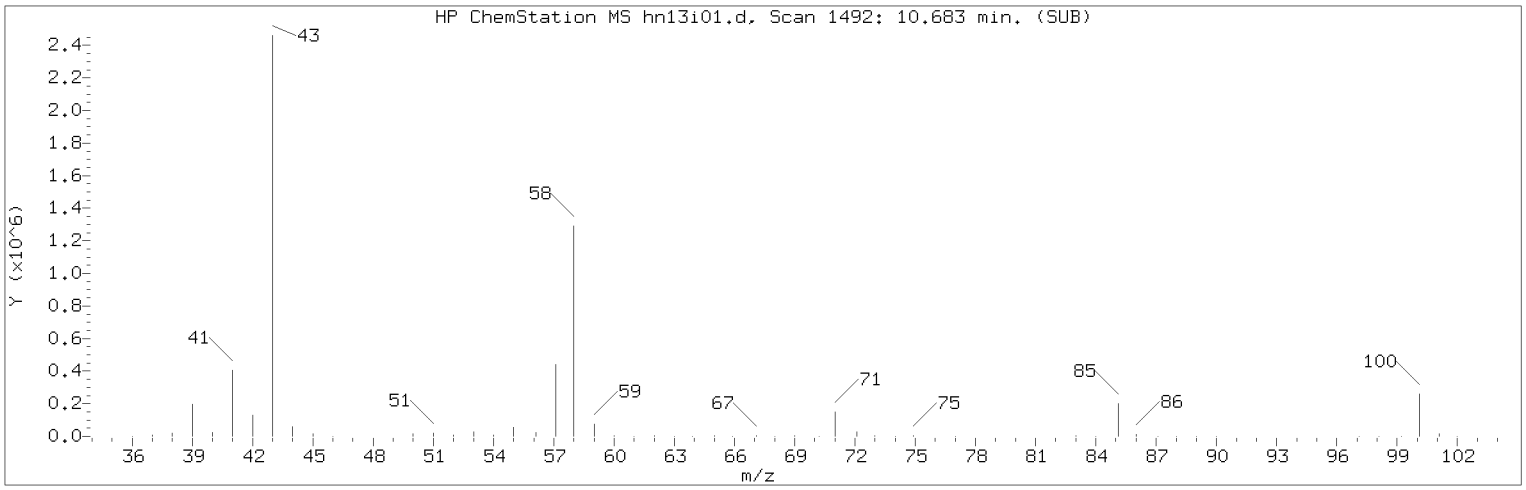
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

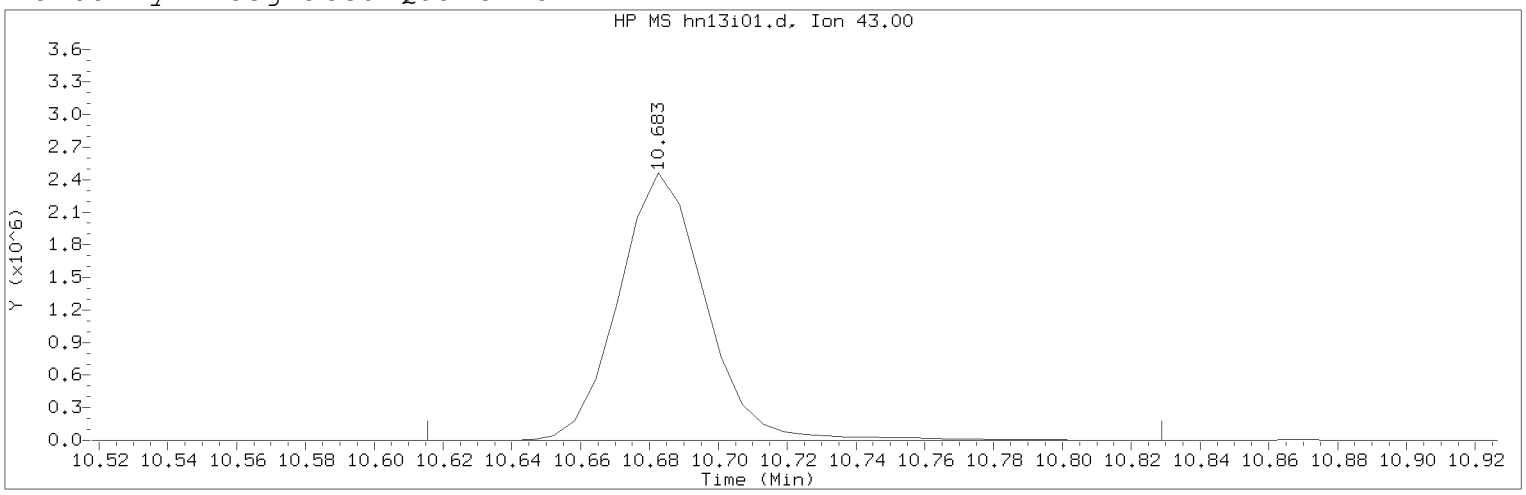
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1385
Retention Time (minutes): 10.030
Quant Ion : 43.00
Area : 44496
On-column Amount (ng) : 2.0991
Integration start scan : 1378 Integration stop scan: 1399
Y at integration start : 1041 Y at integration end: 386

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 535

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

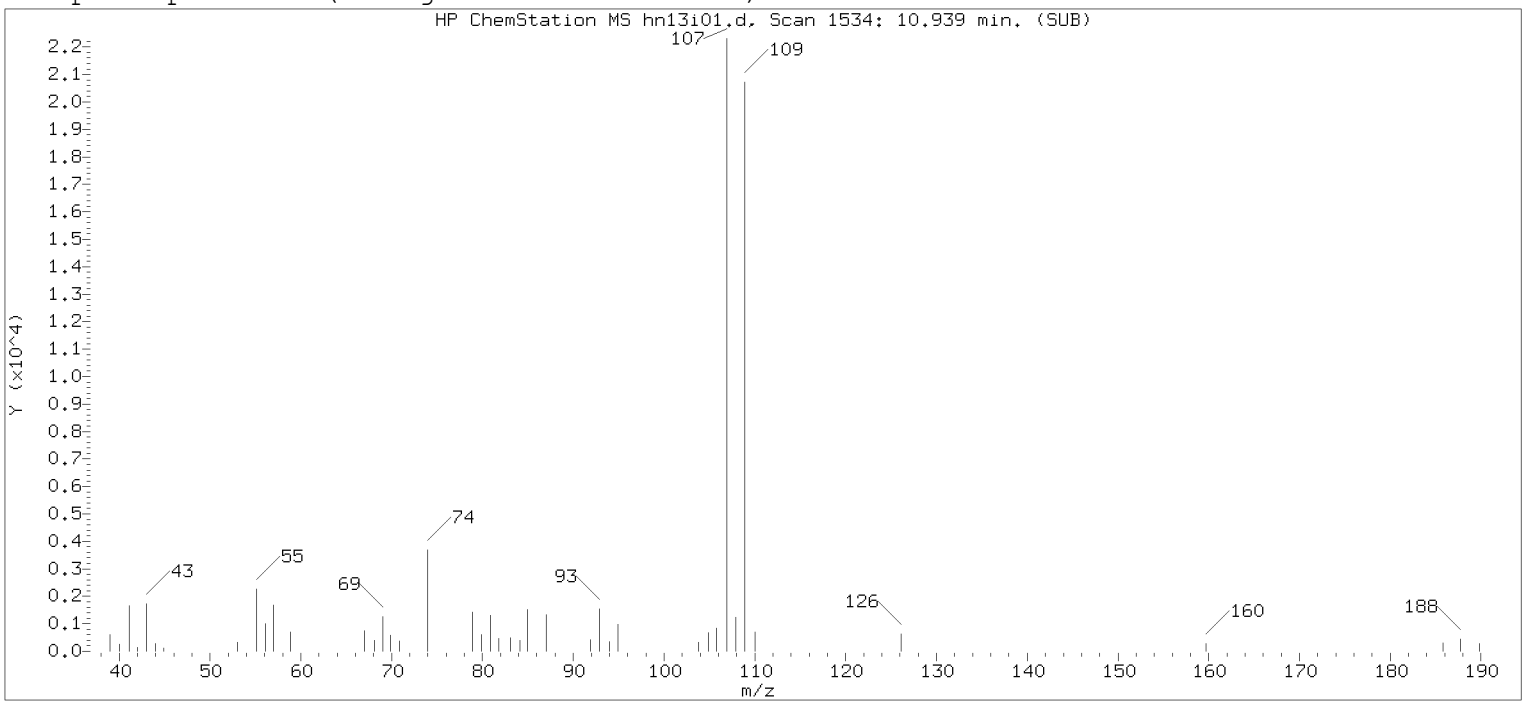
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.683
Quant Ion : 43.00
Area (flag) : 4298140M
On-Column Amount (ng) : 237.1427
Integration start scan : 1480 Integration stop scan: 1515
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

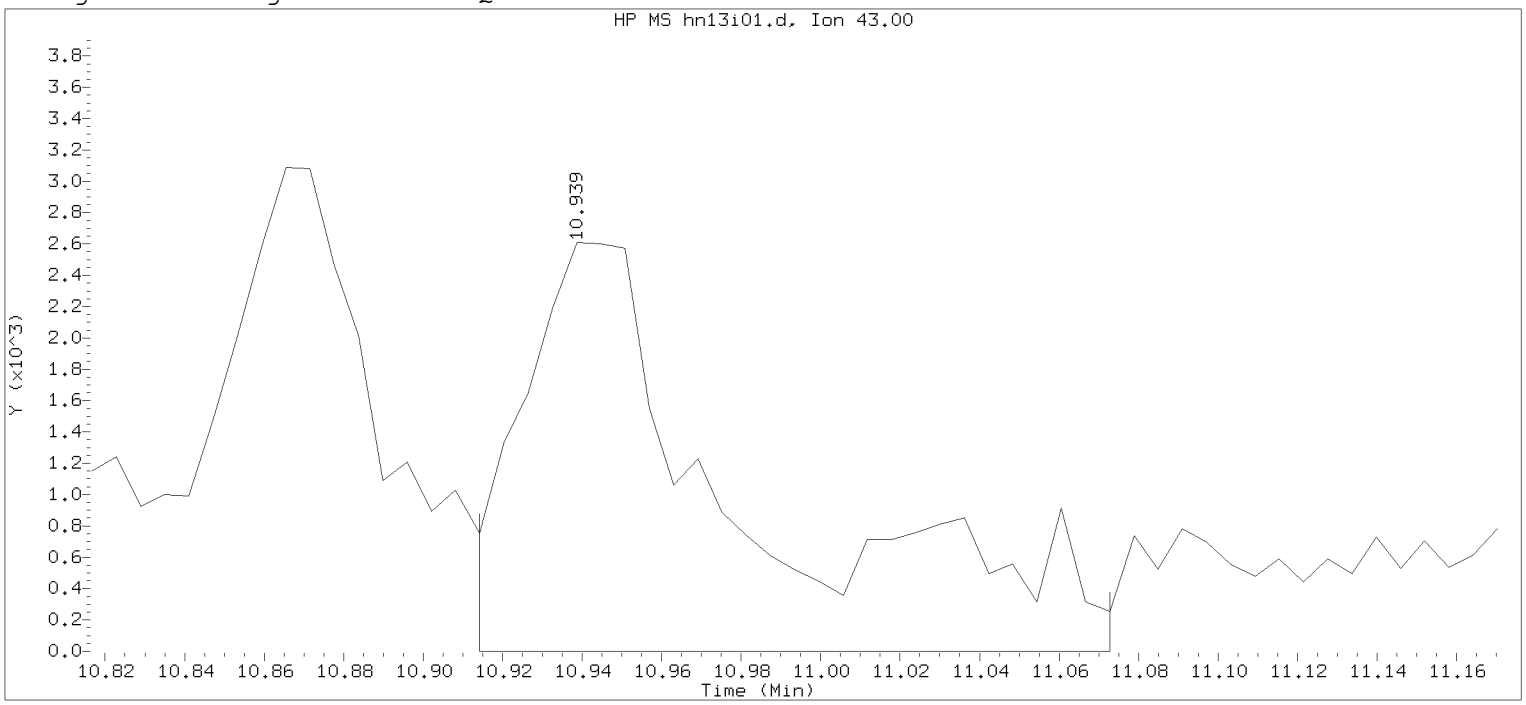
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

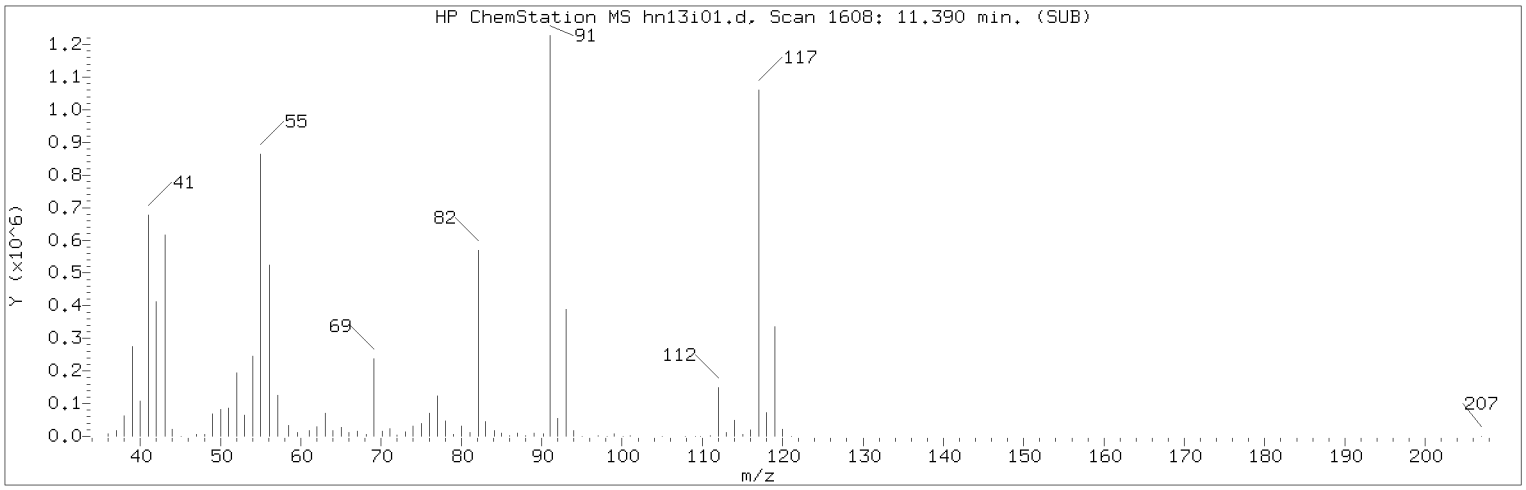
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

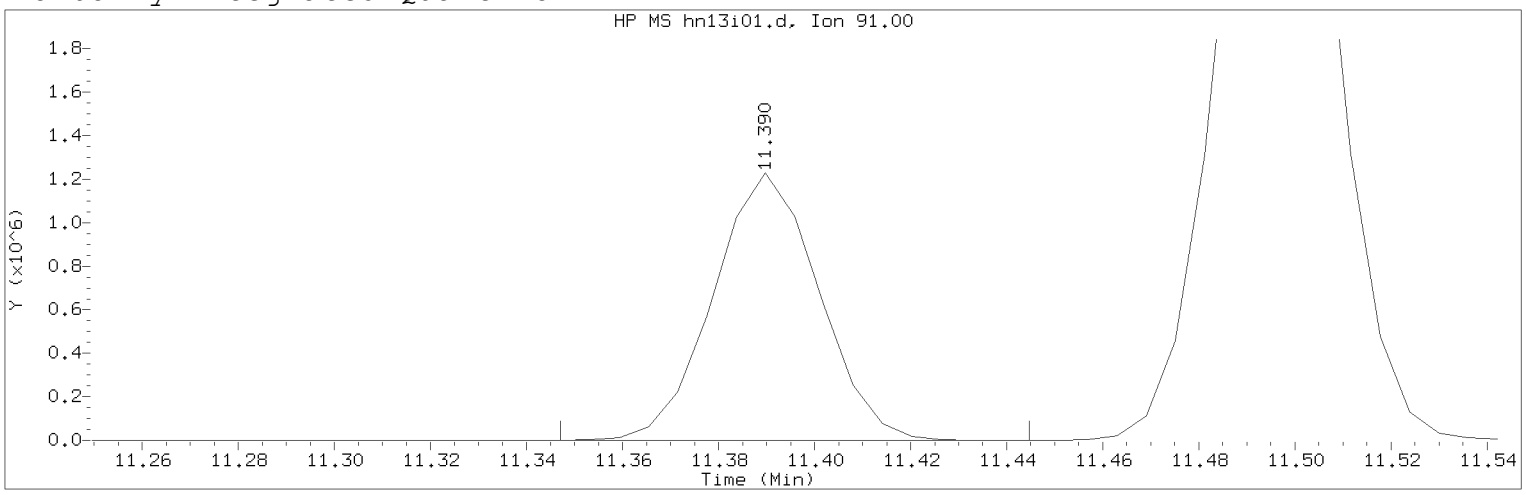
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1534
Retention Time (minutes): 10.939
Quant Ion : 43.00
Area : 9988
On-column Amount (ng) : 0.6907
Integration start scan : 1529 Integration stop scan: 1555
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 09532

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

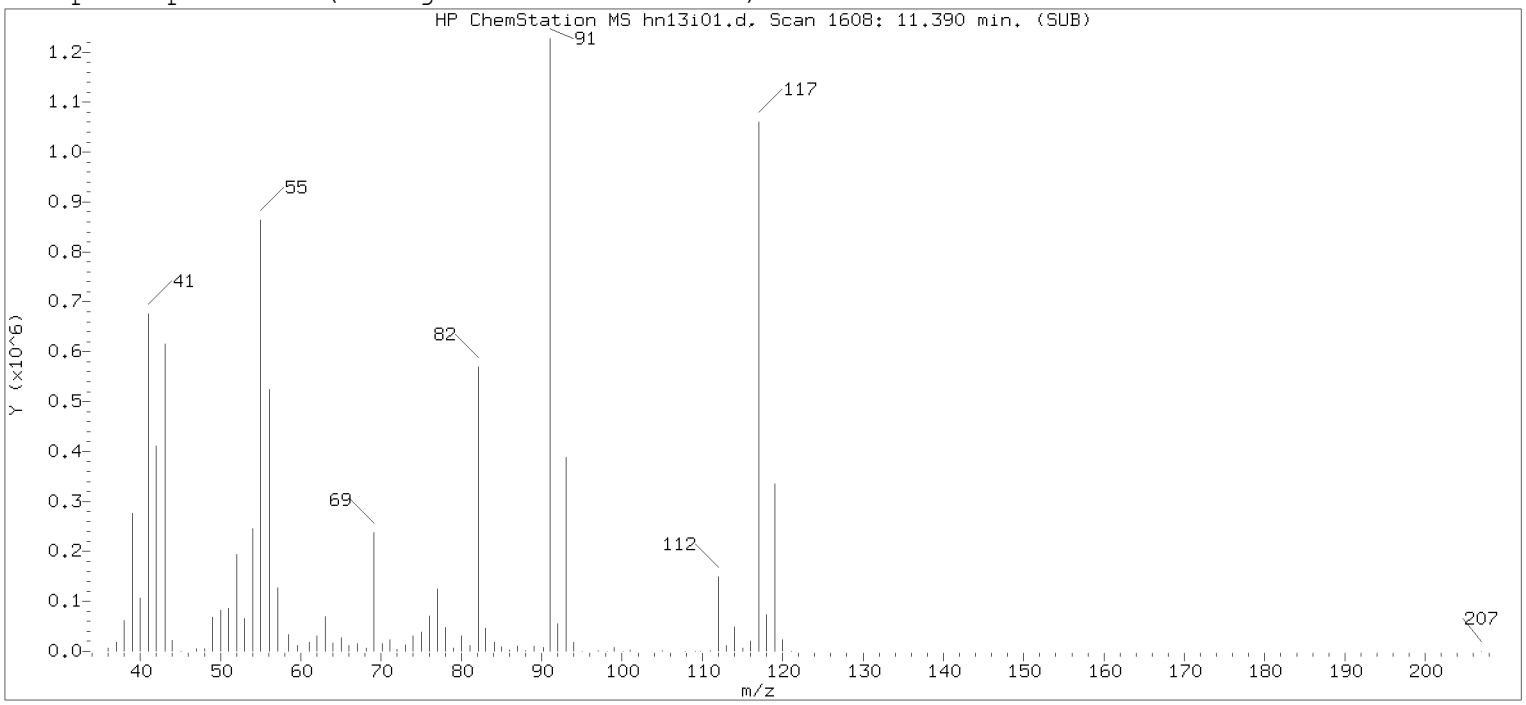
Compound Number : 96
Compound Name : 1-Chlorohexane
Scan Number : 1608
Retention Time (minutes): 11.390
Quant Ion : 91.00
Area (flag) : 1873531MA
On-Column Amount (ng) : 24.3663
Integration start scan : 1600 Integration stop scan: 1616
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

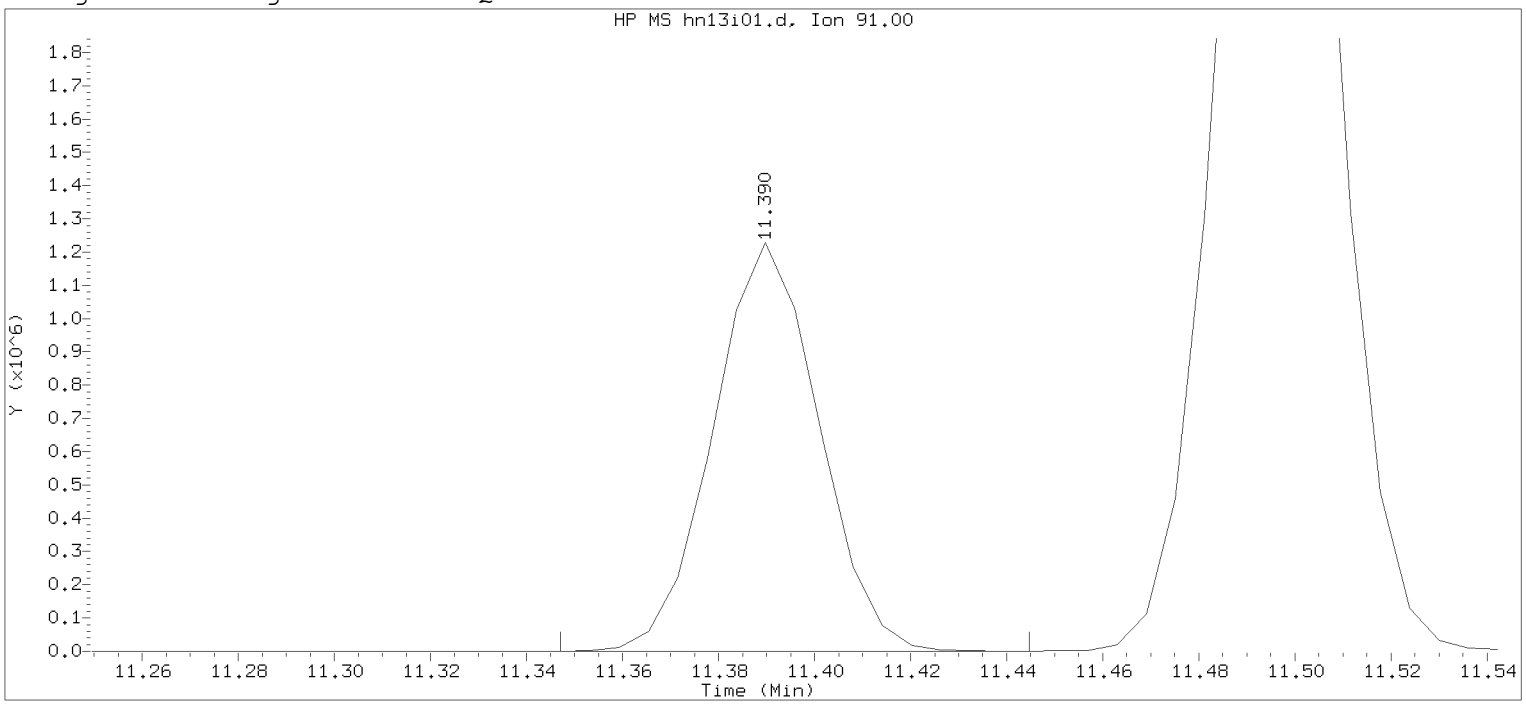
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

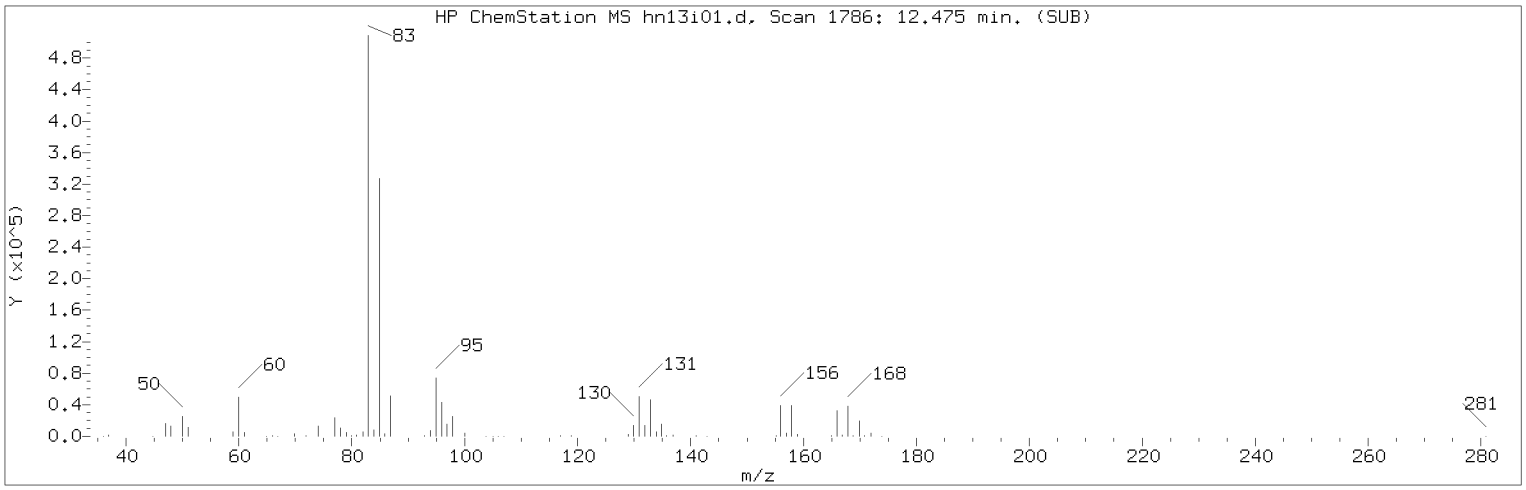
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

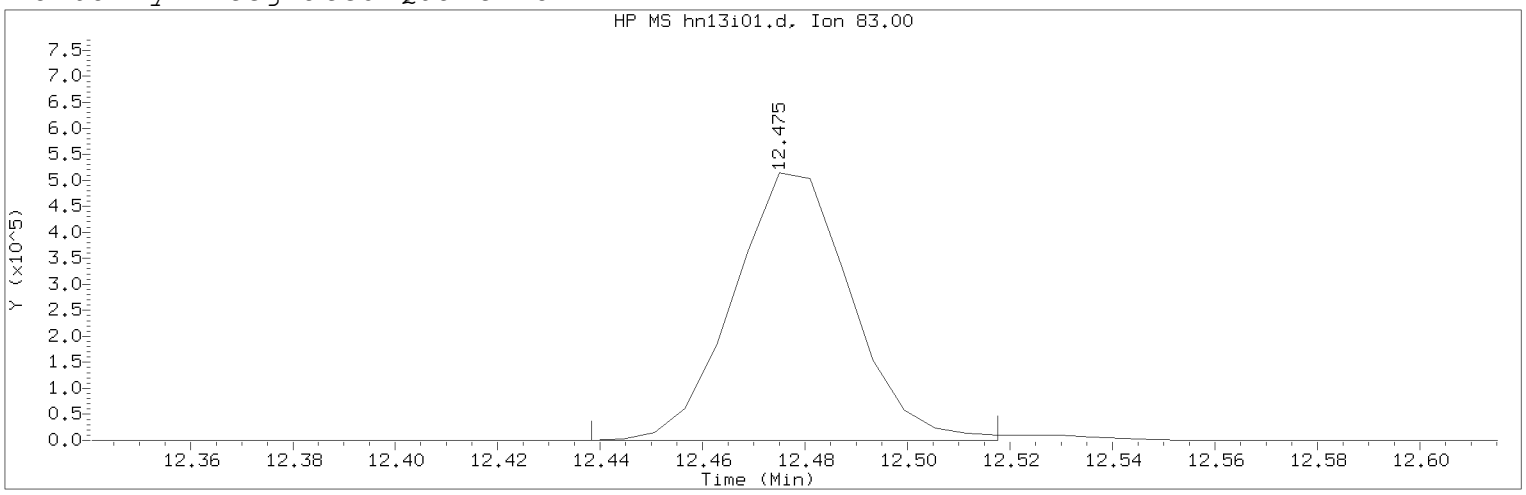
Compound Number	: 96		
Compound Name	: 1-Chlorohexane		
Scan Number	: 1608		
Retention Time (minutes)	: 11.390		
Quant Ion	: 91.00		
Area	: 1871915		
On-column Amount (ng)	: 24.0504		
Integration start scan	: 1600	Integration stop scan:	1616
Y at integration start	: 0	Y at integration end:	511

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 539 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

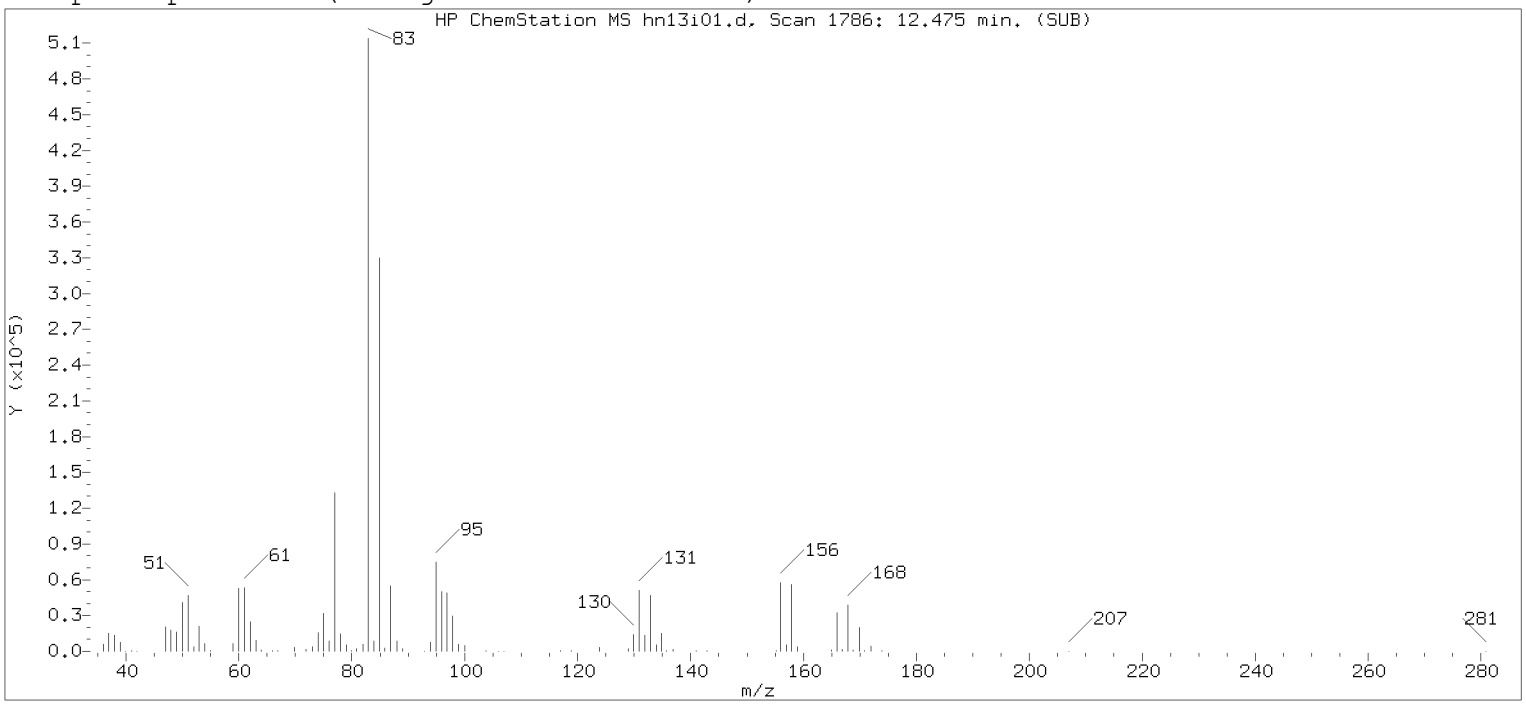
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 818698M
On-Column Amount (ng) : 25.7592
Integration start scan : 1779 Integration stop scan: 1792
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

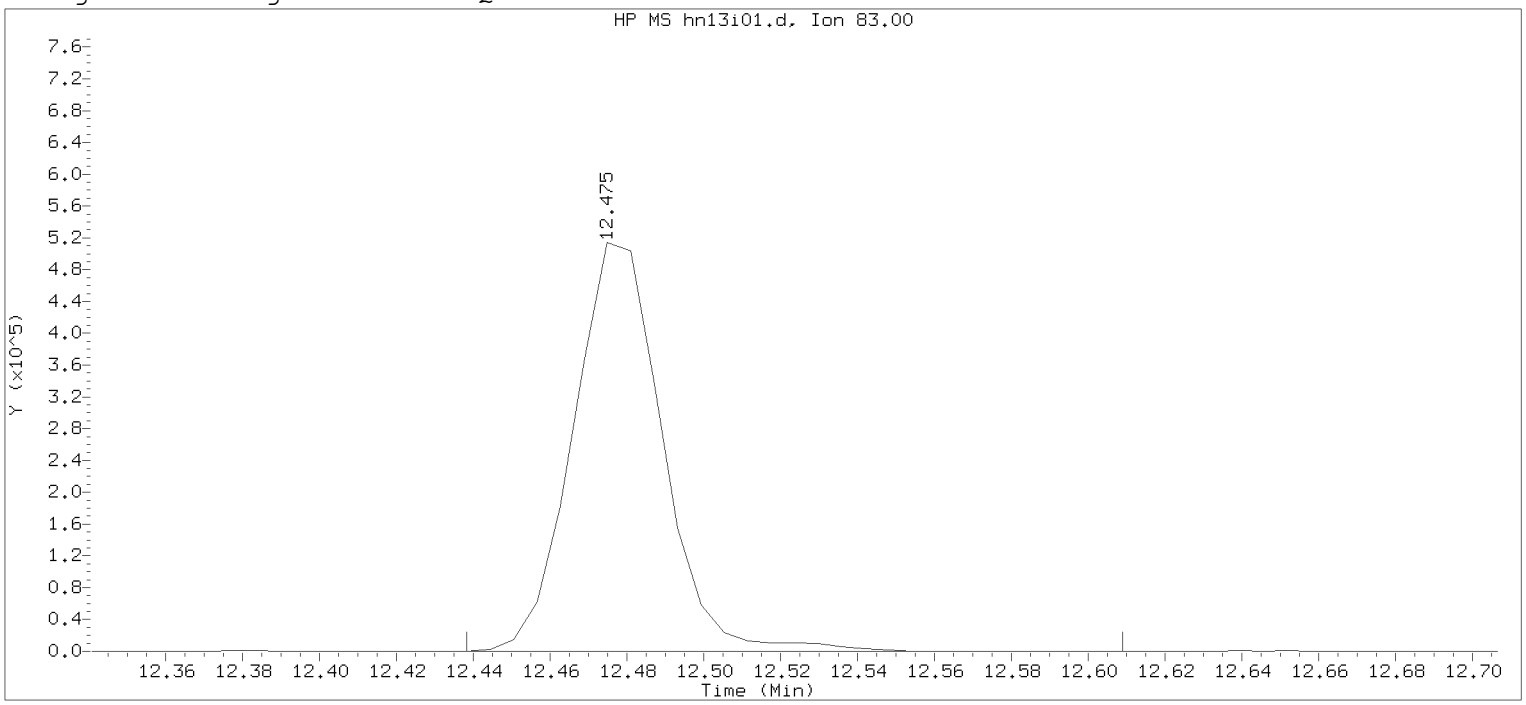
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

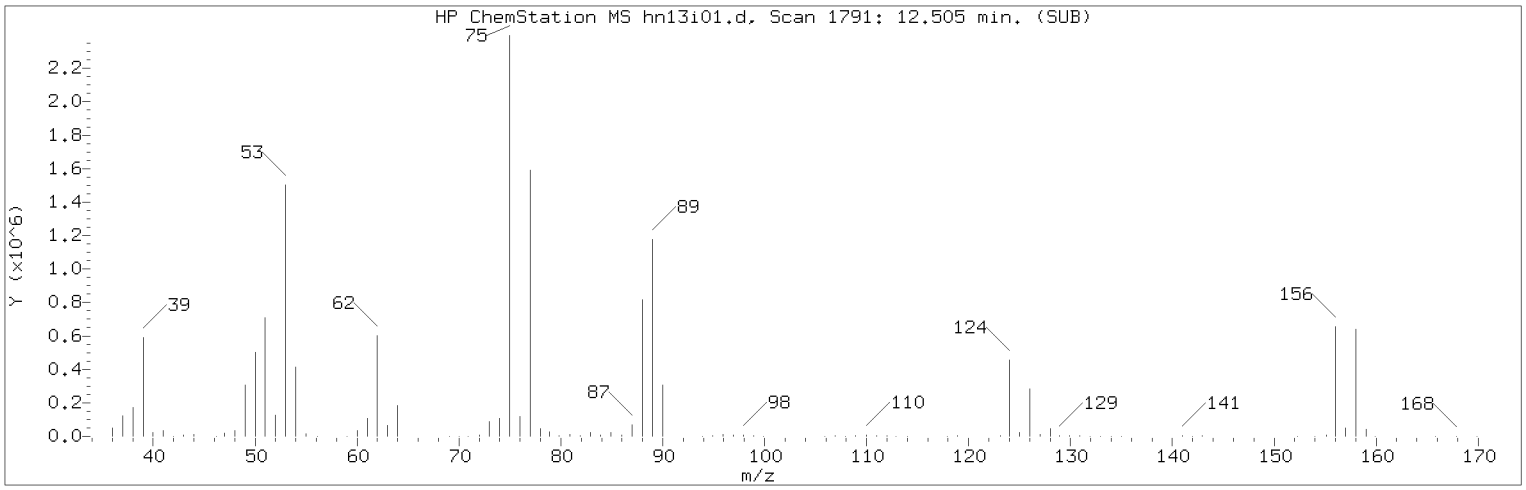
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

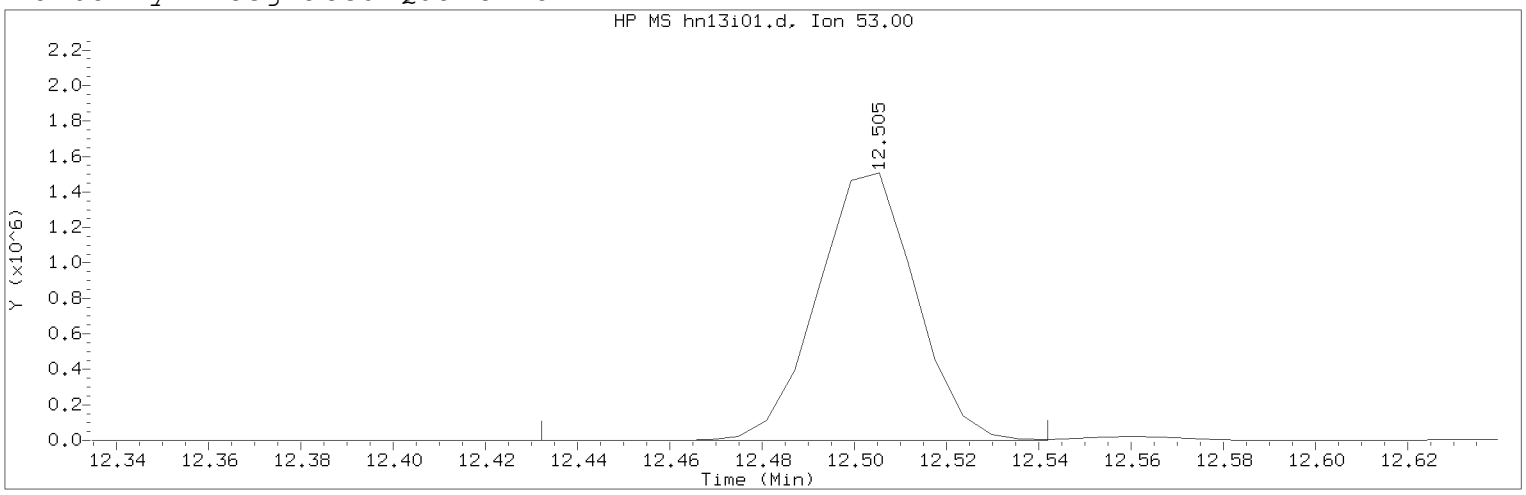
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 830112
On-column Amount (ng) : 23.2743
Integration start scan : 1779 Integration stop scan: 1807
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 09512

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

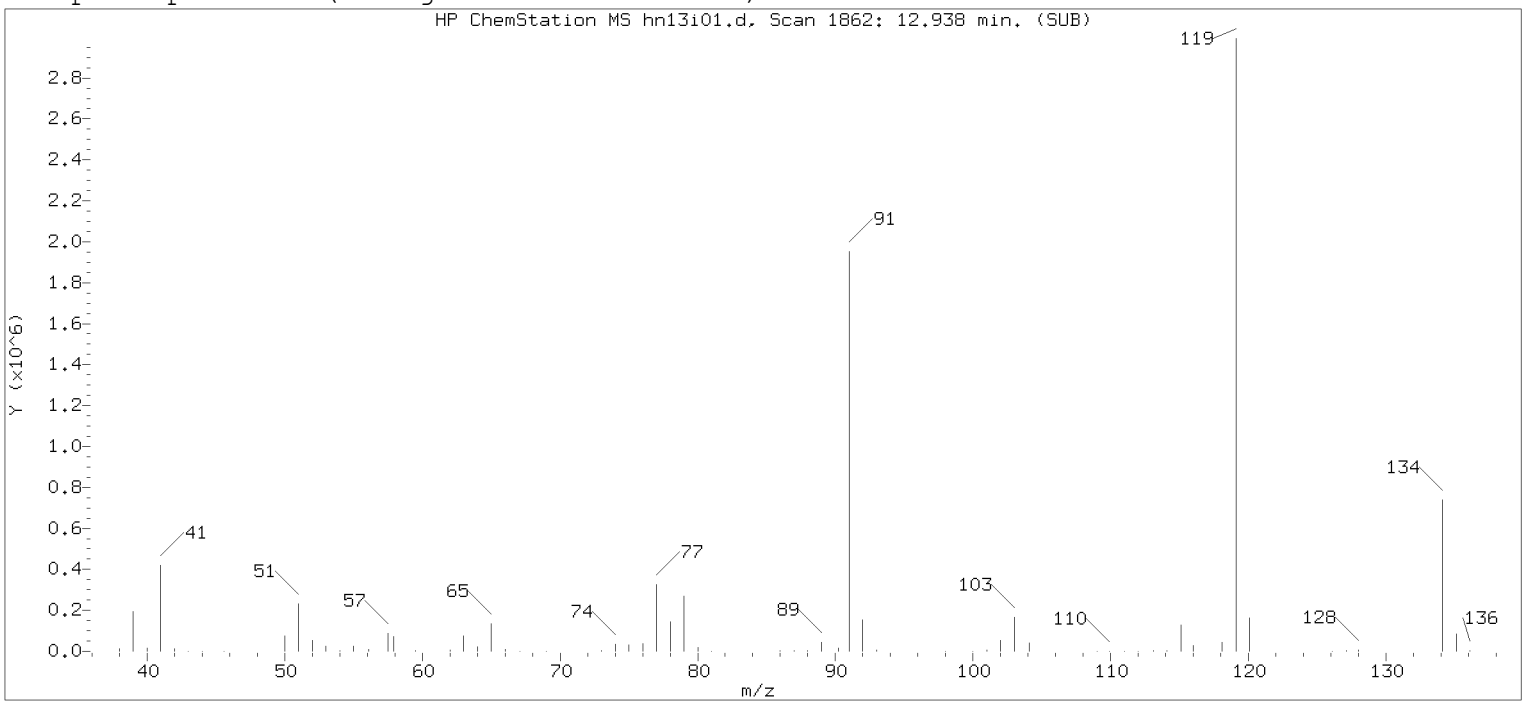
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1791
Retention Time (minutes): 12.505
Quant Ion : 53.00
Area (flag) : 2224772M
On-Column Amount (ng) : 247.5242
Integration start scan : 1778 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

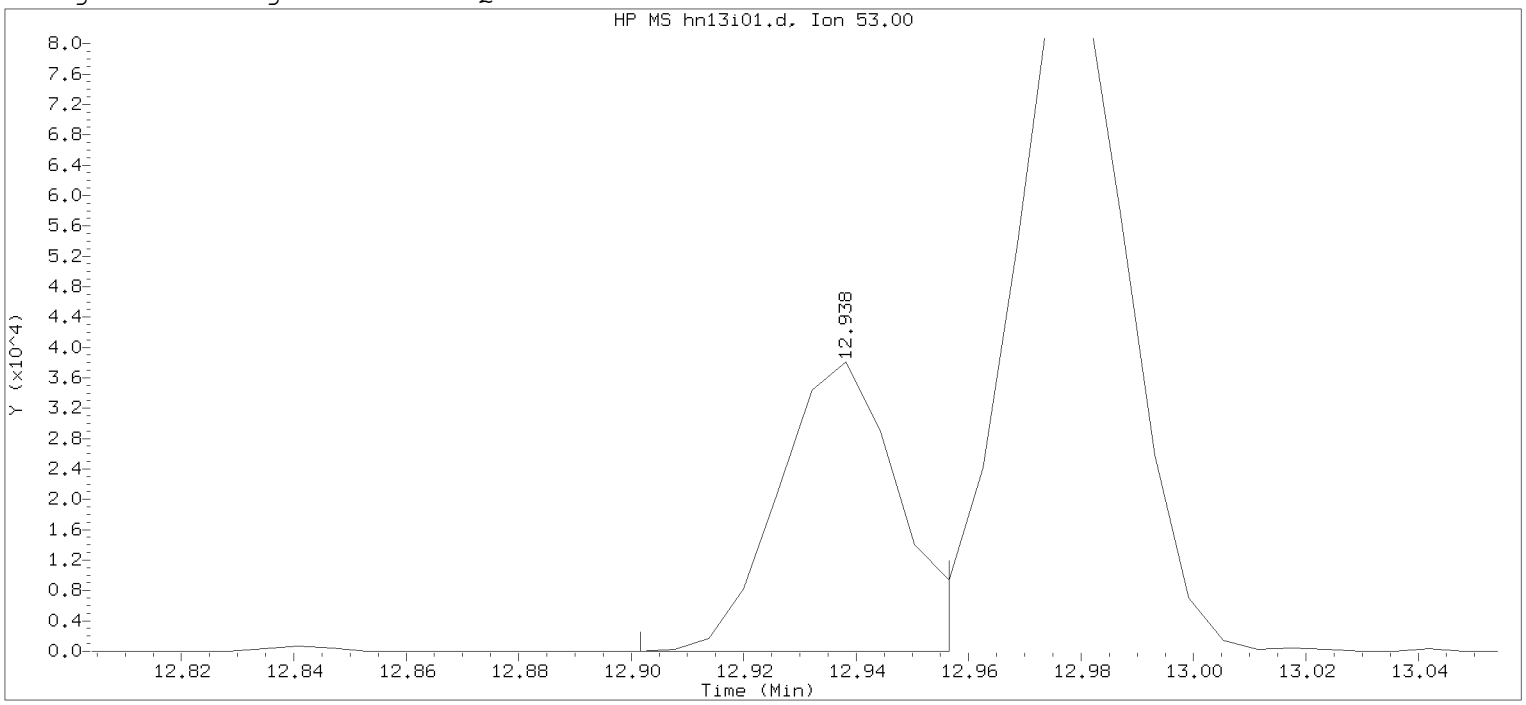
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

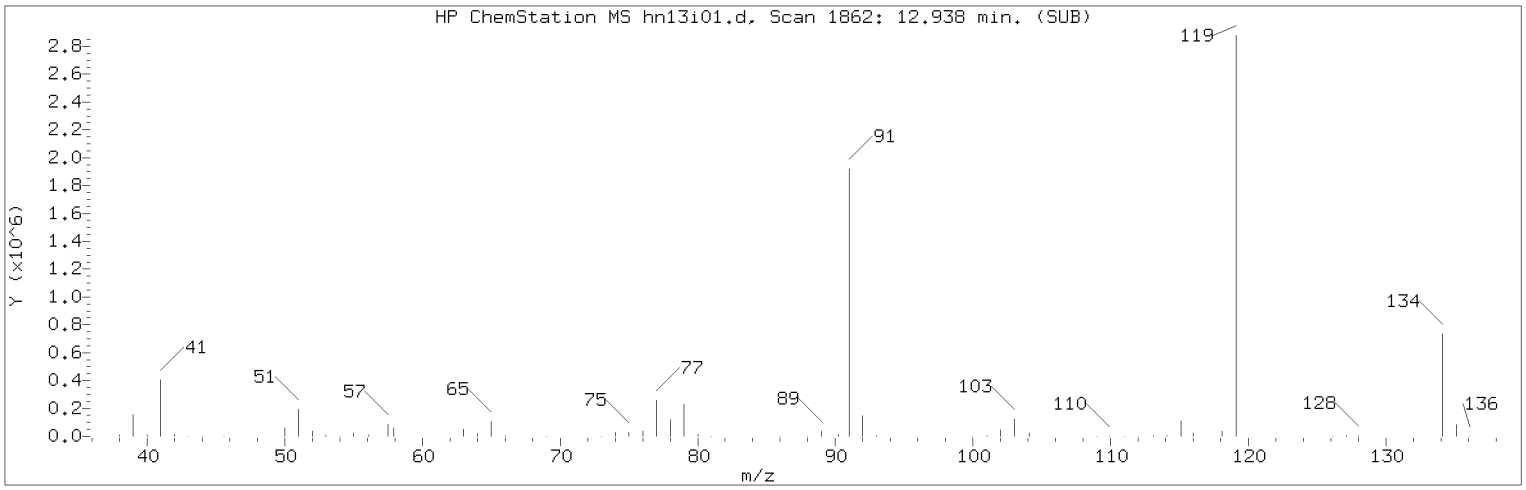
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

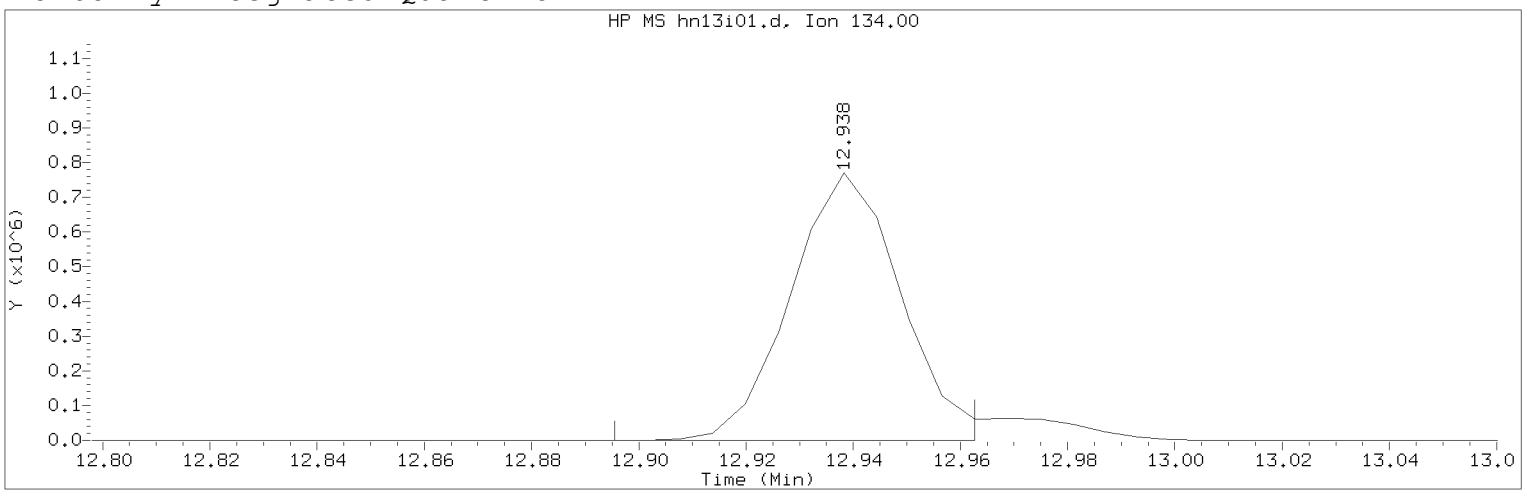
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 53.00
Area : 55274
On-column Amount (ng) : 8.3411
Integration start scan : 1855 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

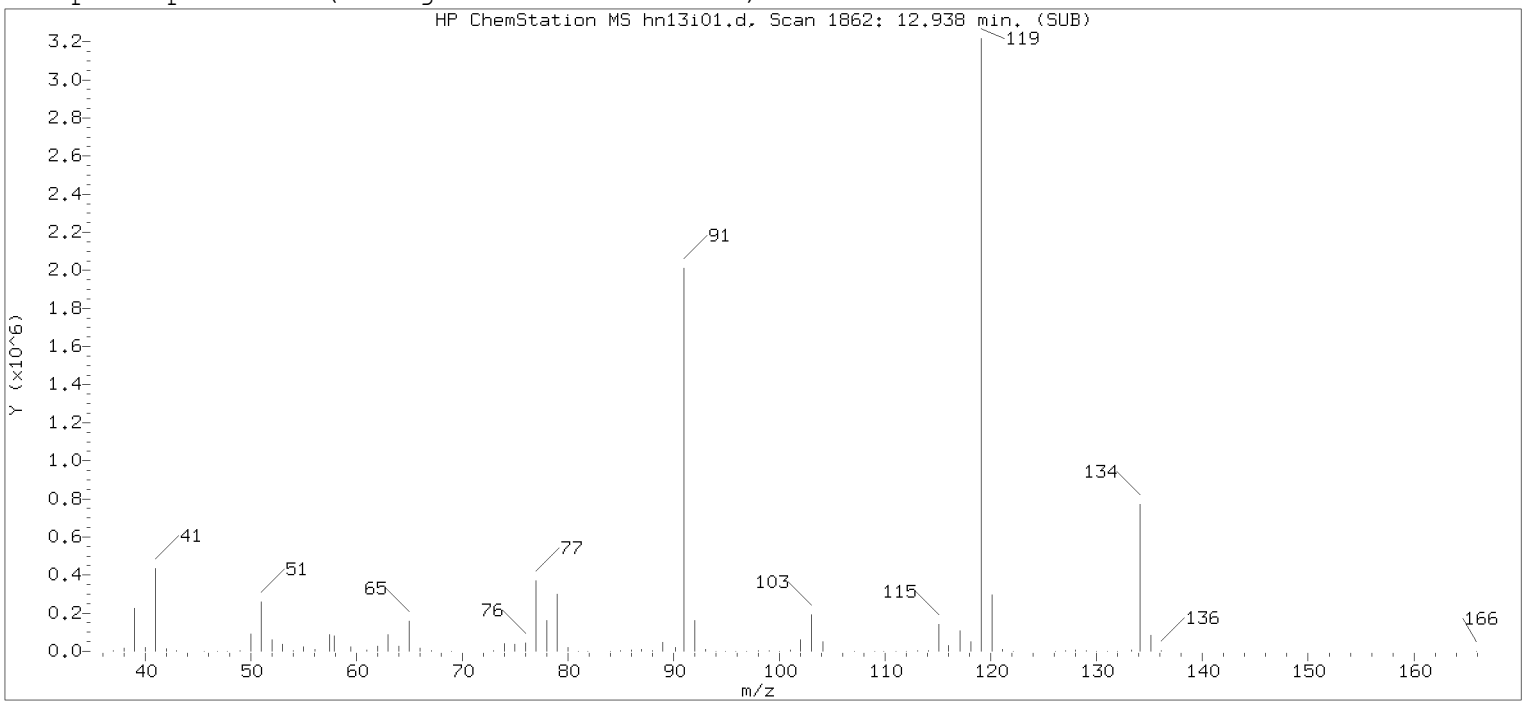
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 1096501M
On-Column Amount (ng) : 25.9601
Integration start scan : 1854 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

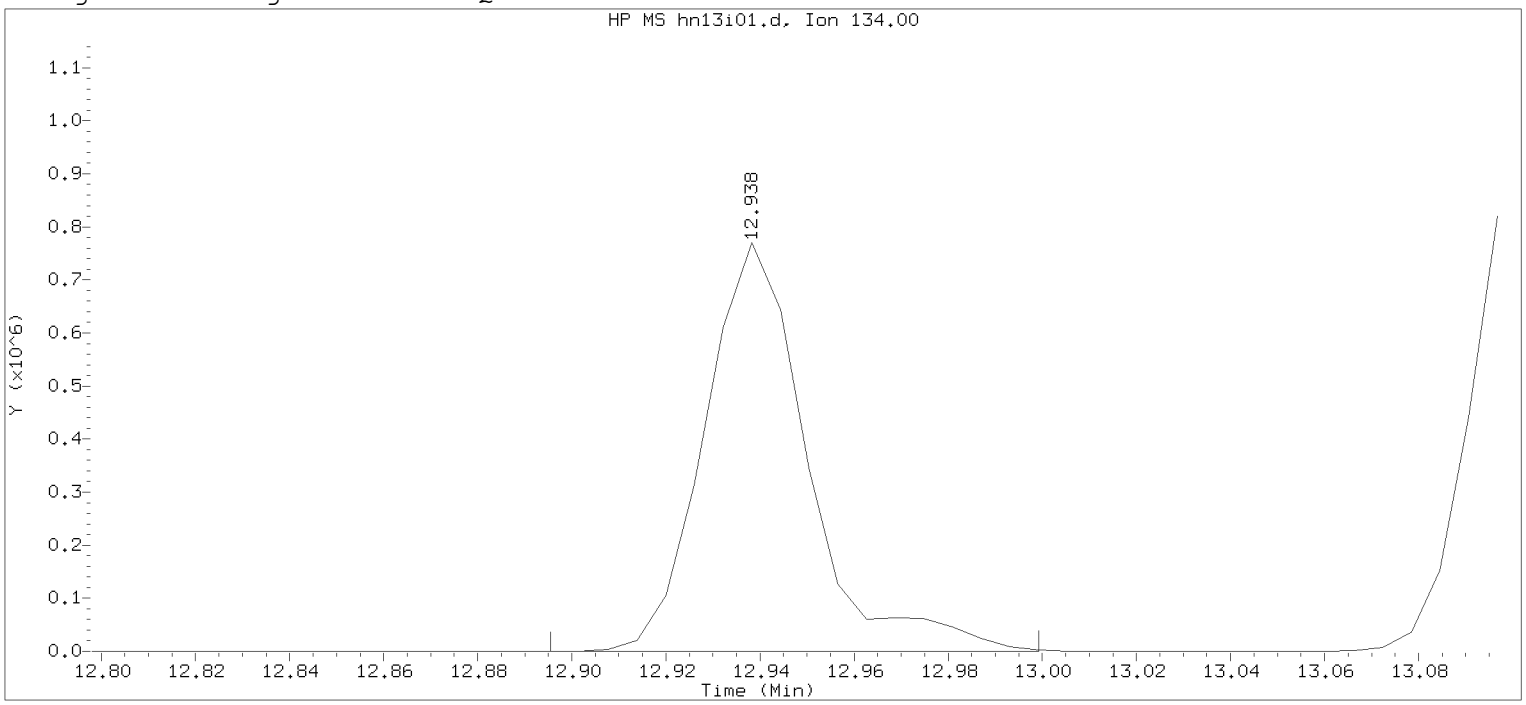
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

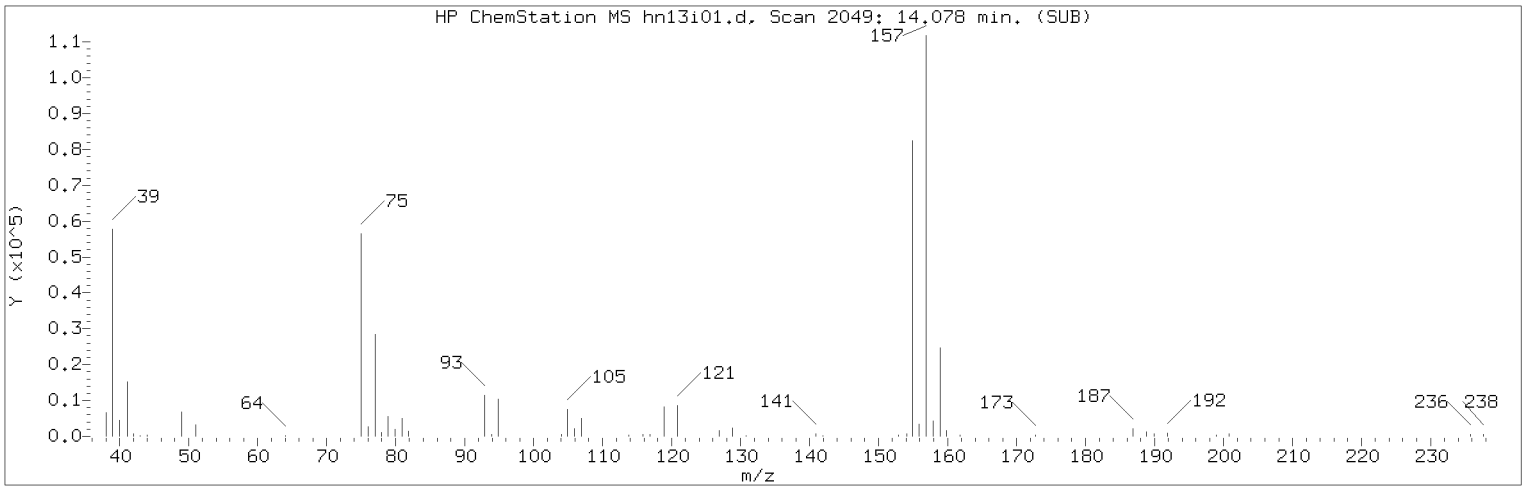
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

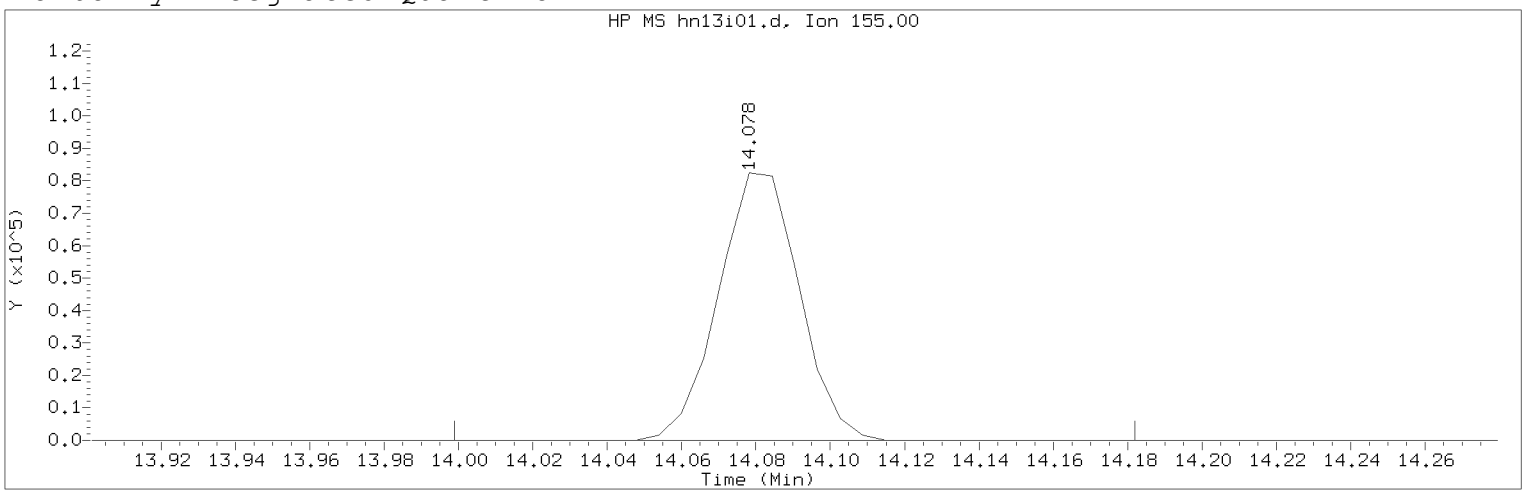
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 1171557
On-column Amount (ng) : 26.4926
Integration start scan : 1854 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 545 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:32 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

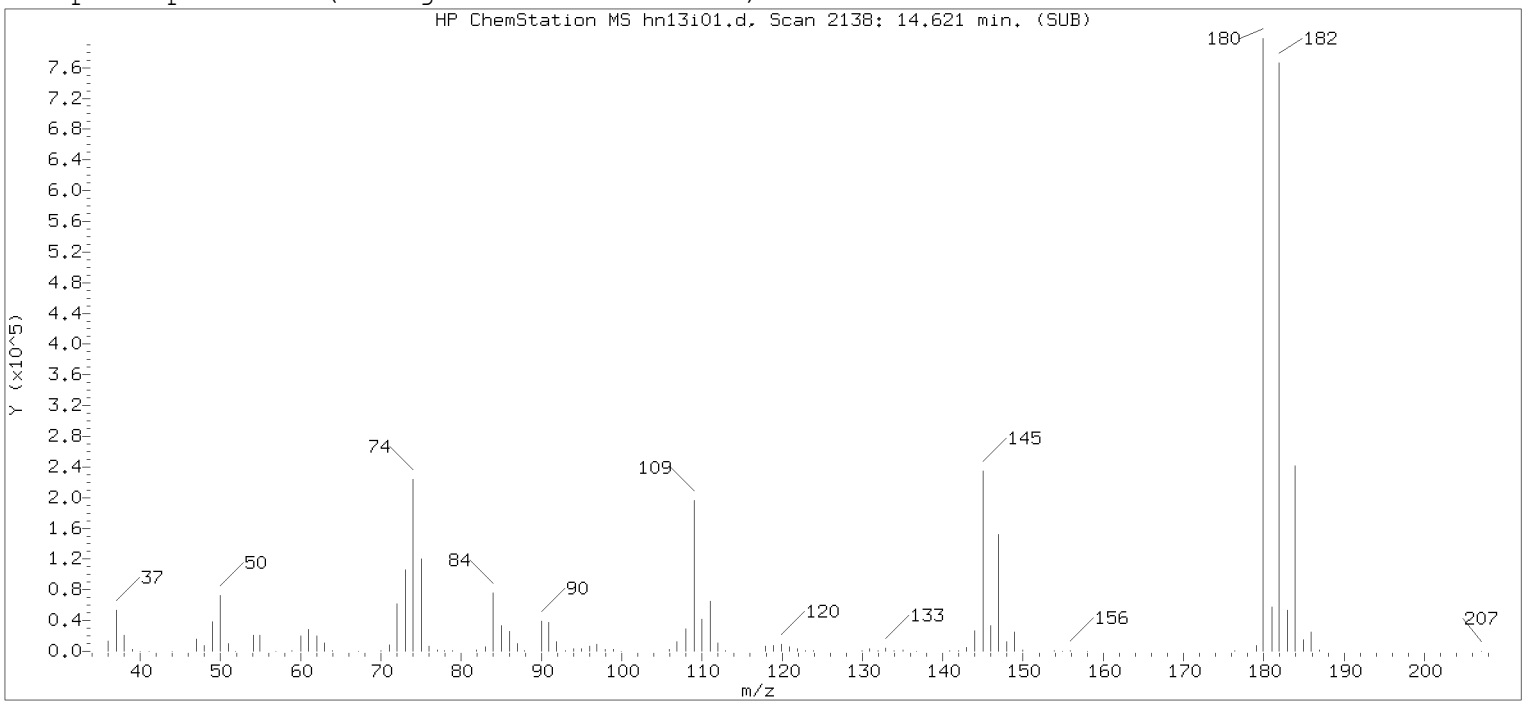
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2049
Retention Time (minutes): 14.078
Quant Ion : 155.00
Area (flag) : 124309M
On-Column Amount (ng) : 26.7883
Integration start scan : 2035 Integration stop scan: 2065
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

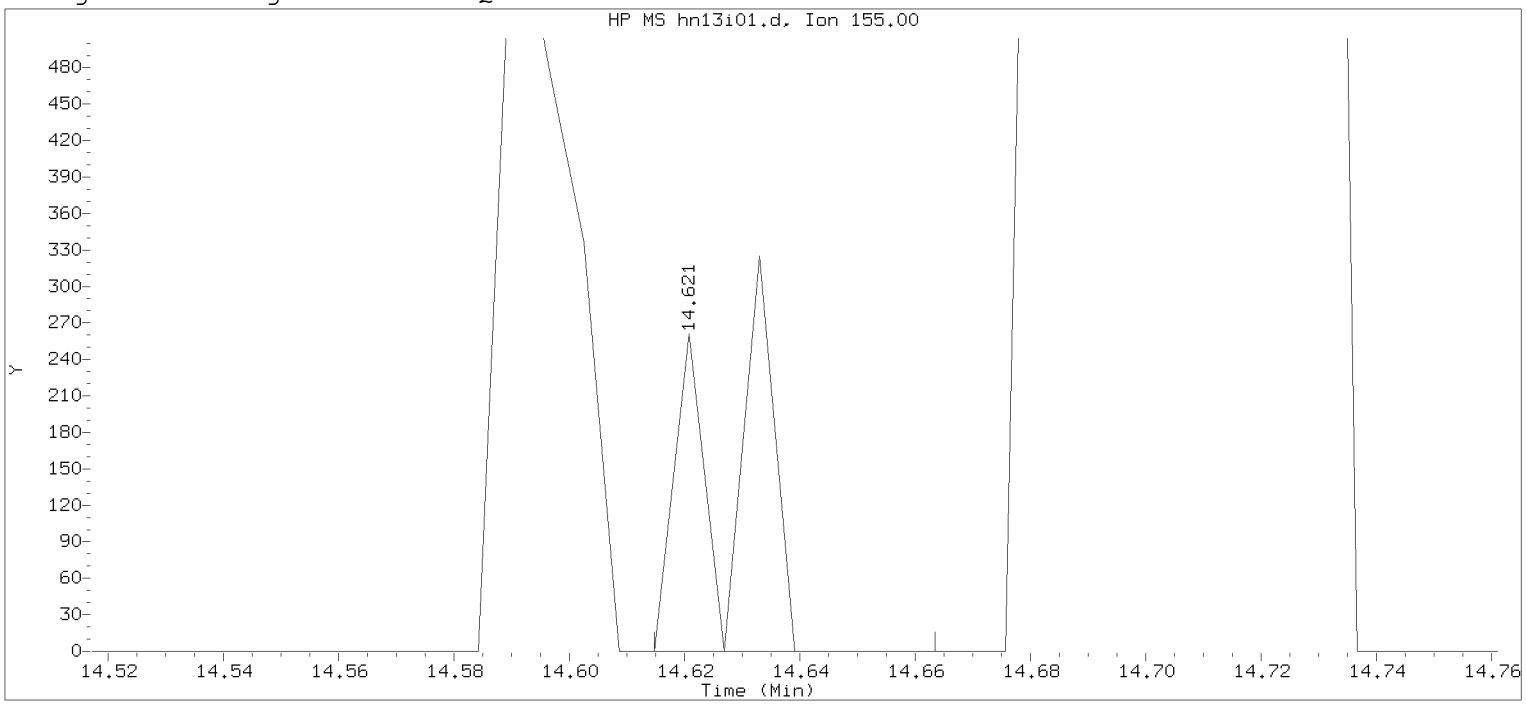
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



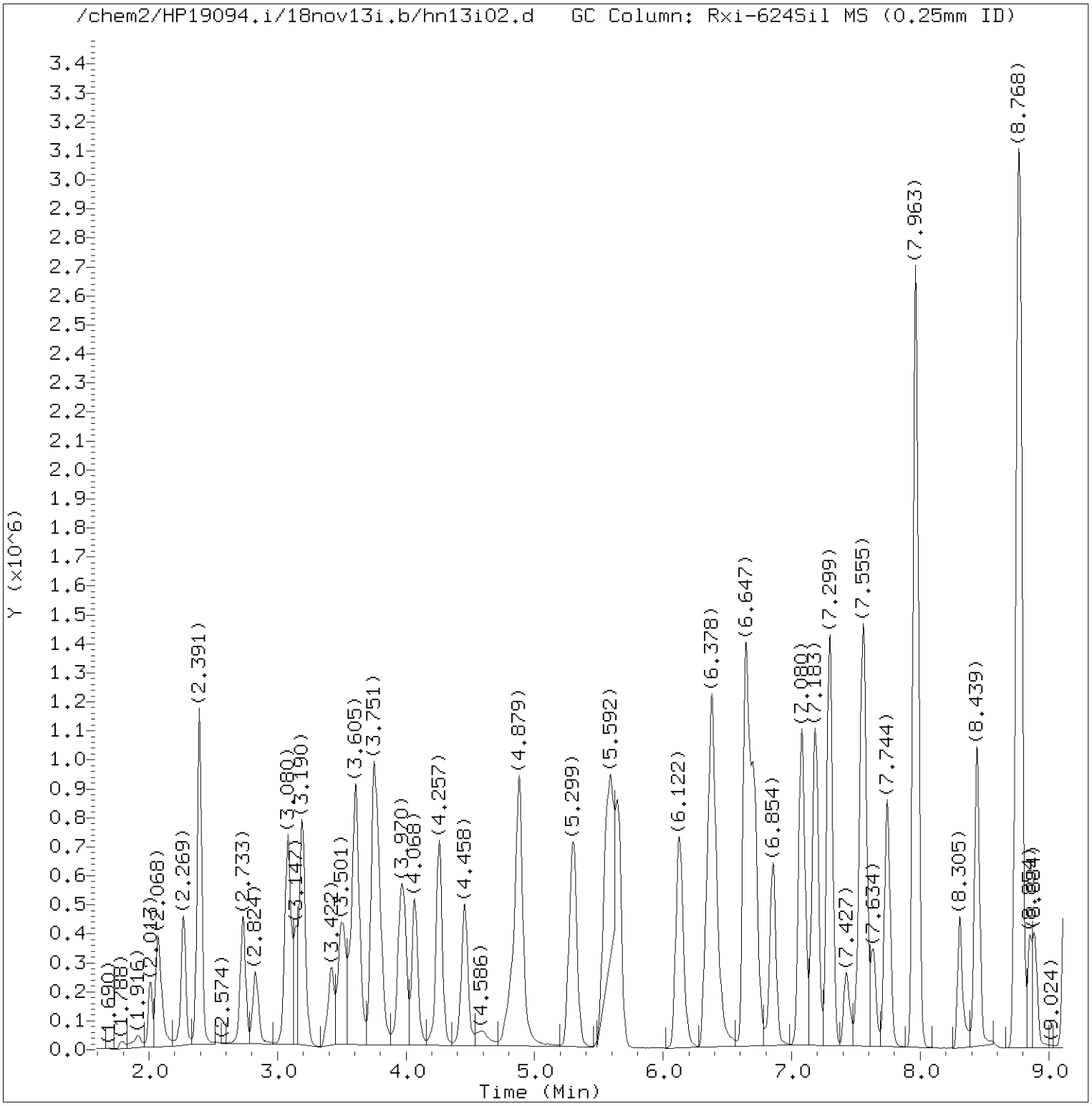
Data File: /chem2/HP19094.i/18nov13i.b/hn13i01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:46 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:04
Date, time and analyst ID of latest file update: 13-Nov-2018 16:04 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2138
Retention Time (minutes): 14.621
Quant Ion : 155.00
Area : 214
On-column Amount (ng) : 0.0603
Integration start scan : 2136 Integration stop scan: 2144
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 547



Total Ion Chromatogram (TIC)

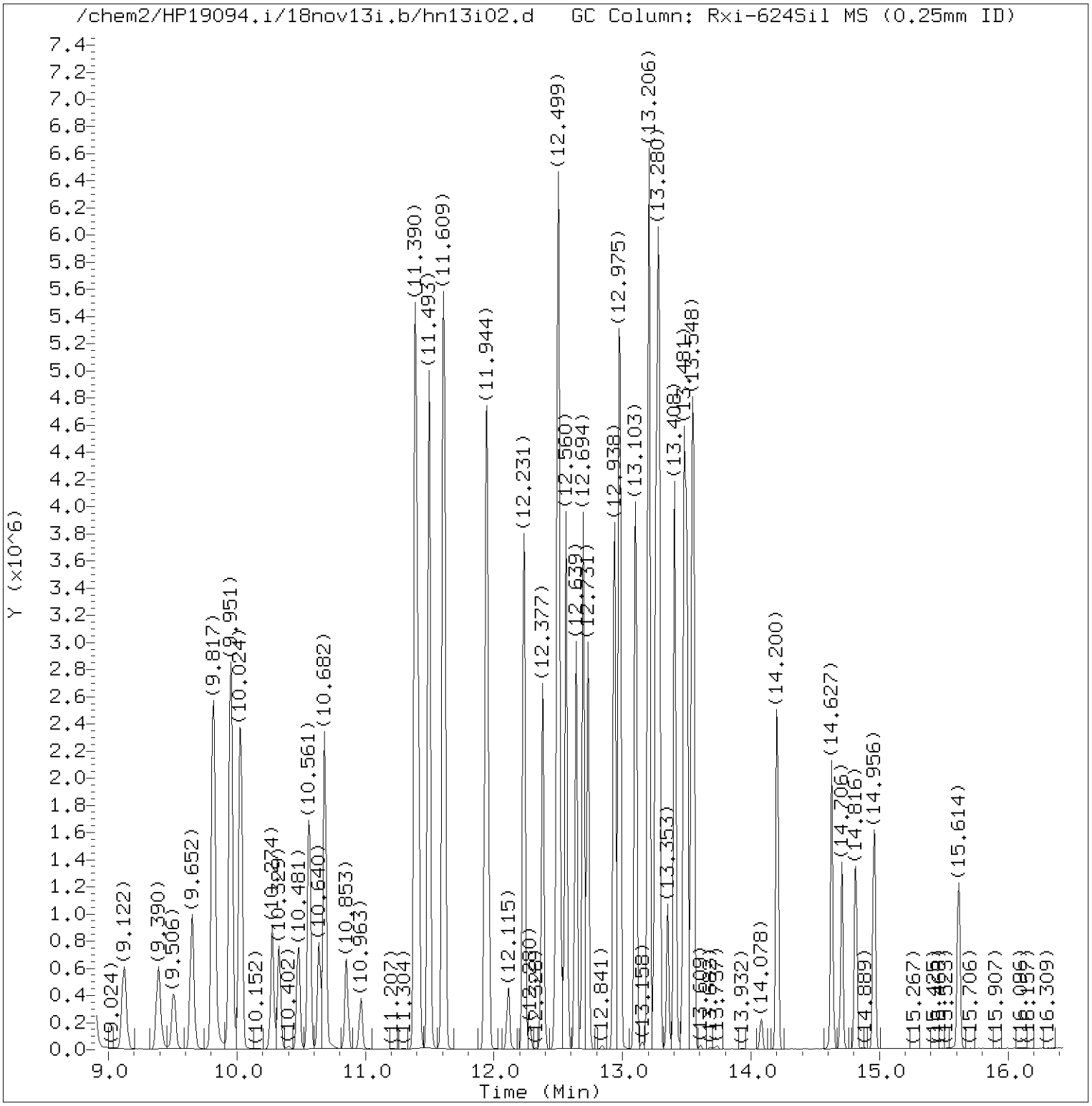
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.068	85	726944	9.791
2) Chloromethane	(2)	2.269	50	710975	9.898
5) Vinyl Chloride	(2)	2.391	62	643778	9.881
6) 1,3-Butadiene	(2)	2.391	39	498769	9.311
7) Bromomethane	(2)	2.733	94	479770	9.712
8) Chloroethane	(2)	2.824	64	377005	9.700
9) Dichlorofluoromethane	(2)	3.080	67	964067	9.499
10) Trichlorofluoromethane	(2)	3.141	101	873145	9.952
11) Ethyl ether	(2)	3.422	59	298237	9.977
12) Freon 123a	(2)	3.495	67	589420	9.720
13) Acrolein	(1)	3.611	56	1949991	480.326
15) 1,1-Dichloroethene	(2)	3.745	96	395670	9.687
16) Freon 113	(2)	3.781	101	475410	10.121
14) Acetone	(1)	3.787	43	438558M	86.789
17) Methyl Iodide	(2)	3.952	142	824086	9.936
18) Carbon Disulfide	(2)	4.068	76	1227507	9.762
21) Methyl Acetate	(1)	4.233	43	142981	8.157
22) Allyl Chloride	(2)	4.257	41	834737	9.569
23) Methylene Chloride	(2)	4.458	84	414041	9.443
26)*t-Butyl Alcohol-d10	(1)	4.458	65	101932M	50.000
28) t-Butyl Alcohol	(1)	4.586	59	270004	200.722
29) Acrylonitrile	(1)	4.806	53	346940	48.245
30) Methyl Tertiary Butyl Ether	(2)	4.867	73	893077	9.795
31) trans-1,2-Dichloroethene	(2)	4.885	96	440785	9.625
32) n-Hexane	(2)	5.299	57	776430	9.893
33) 1,1-Dichloroethane	(2)	5.549	63	876741	9.806
34) di-Isopropyl Ether	(2)	5.592	45	1622415	9.775
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	810320	9.796
40) 1,2-Dichloroethene (Total)	(2)		96	939329	19.412
37) Ethyl t-butyl ether	(2)	6.122	59	1323066	9.761
38) 2-Butanone	(1)	6.336	43	914481M	88.506
39) cis-1,2-Dichloroethene	(2)	6.372	96	498544	9.787
41) 2,2-Dichloropropane	(2)	6.391	77	712725	9.782
42) Propionitrile	(1)	6.427	54	503627M	190.740
45) Methacrylonitrile	(1)	6.647	67	914252	94.549
47) Bromochloromethane	(2)	6.708	128	201343	10.050
48) Tetrahydrofuran	(1)	6.714	71	235659	95.405
49) Chloroform	(2)	6.860	83	808369	9.885

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	552896	9.982
50)$Dibromofluoromethane	(2)	7.073	111	566698	9.969
51) 1,1,1-Trichloroethane	(2)	7.086	97	724256	9.780
52) Cyclohexane	(2)	7.183	56	946099	9.700
52) Cyclohexane	(2)	7.183	84	781679	9.918
52) Cyclohexane	(2)	7.183	69	285977	9.598
54) Carbon Tetrachloride	(2)	7.299	117	665771	9.995
55) 1,1-Dichloropropene	(2)	7.299	75	666595	9.965
56) Isobutyl Alcohol	(1)	7.427	41	277372	396.713
57)$1,2-Dichloroethane-d4	(2)	7.531	102	96532	9.944
57)$1,2-Dichloroethane-d4	(2)	7.531	65	443534	9.840
57)$1,2-Dichloroethane-d4	(2)	7.531	104	61040	9.929
58) Benzene	(2)	7.561	78	1916607	9.877
59) 1,2-Dichloroethane	(2)	7.634	62	410224	9.525
60) t-Amyl methyl ether	(2)	7.744	73	1091099	9.770
62) n-Heptane	(2)	7.963	43	840900	9.867
63)*Fluorobenzene	(2)	7.963	96	2215459	10.000
65) n-Butanol	(1)	8.305	56	525125	1015.814
67) Trichloroethene	(2)	8.439	95	500011	9.986
69) Methylcyclohexane	(2)	8.756	83	968343	10.035
70) 1,2-Dichloropropane	(2)	8.780	63	479133	9.771
71) Methyl Methacrylate	(1)	8.847	69	190713A	9.407
72) 1,4-Dioxane	(1)	8.866	88	61931M	632.474
73) Dibromomethane	(2)	8.890	93	188668	10.127
74) Bromodichloromethane	(2)	9.122	83	550396	9.905
76) 2-Nitropropane	(1)	9.390	41	541409A	91.345
80) cis-1,3-Dichloropropene	(2)	9.652	75	686438	9.997
81) 4-Methyl-2-Pentanone	(1)	9.817	43	2430699A	95.026
82)$Toluene-d8	(3)	9.951	98	2295884	10.040
82)$Toluene-d8	(3)	9.951	100	1490620	10.027
83) Toluene	(3)	10.030	92	1201555	9.898
85) 1,3-Dichloropropene (total)	(3)		75	1217933	19.973
84) trans-1,3-Dichloropropene	(3)	10.274	75	531495	9.977
86) Ethyl Methacrylate	(3)	10.329	69	428669	9.768
88) 1,1,2-Trichloroethane	(3)	10.481	97	267485	9.910
89) Tetrachloroethene	(3)	10.561	166	566561	10.023
90) 1,3-Dichloropropane	(3)	10.640	76	479728	9.787
91) 2-Hexanone	(1)	10.682	43	1666549	93.749

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	365918	9.935
95) 1,2-Dibromoethane	(3)	10.963	107	257035	9.926
97)*Chlorobenzene-d5	(3)	11.384	117	1770593	10.000
96) 1-Chlorohexane	(3)	11.390	91	726191	9.492
98) Chlorobenzene	(3)	11.414	112	1280551	9.864
100) Ethylbenzene	(3)	11.493	91	2403397	9.970
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	463504	10.102
101) m+p-Xylene	(3)	11.609	106	1815179	19.960
105) Xylene (Total)	(3)		106	2694106	29.880
104) o-Xylene	(3)	11.938	106	878927	9.920
106) Styrene	(3)	11.951	104	1419418	10.009
107) Bromoform	(3)	12.115	173	213827	10.229
108) Isopropylbenzene	(3)	12.231	105	2400655	9.873
111)$4-Bromofluorobenzene	(3)	12.377	95	846574	9.890
111)$4-Bromofluorobenzene	(3)	12.377	174	730405	9.965
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	311855M	9.798
114) Bromobenzene	(4)	12.499	156	508649	10.003
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	855904	97.090
116) 1,2,3-Trichloropropane	(4)	12.524	110	79798M	9.656
117) n-Propylbenzene	(4)	12.560	91	2791812	10.049
119) 2-Chlorotoluene	(4)	12.639	126	541585	9.927
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	1972591	10.094
122) 4-Chlorotoluene	(4)	12.731	126	540201	9.949
125) tert-Butylbenzene	(4)	12.938	134	435454M	10.294
126) Pentachloroethane	(4)	12.975	167	348306	10.387
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	1979995	10.043
128) sec-Butylbenzene	(4)	13.103	105	2540822	10.110
131) 1,3-Dichlorobenzene	(4)	13.200	146	1020610	10.009
132) p-Isopropyltoluene	(4)	13.206	119	2178655	10.150
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	920823	10.000
134) 1,4-Dichlorobenzene	(4)	13.273	146	986678	9.893
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	837485	9.965
136) Benzyl Chloride	(4)	13.353	126	146965	10.164
138) n-Butylbenzene	(4)	13.499	92	1026225	10.155
139) 1,2-Dichlorobenzene	(4)	13.536	146	869623	9.913
143) 1,2-Dibromo-3-chloropropane	(1)	14.084	155	46244	10.161
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	765395	10.195
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	616299	10.250

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	247761	10.211
147) Naphthalene	(4)	14.816	128	999407	9.924
148) 1,2,3-Trichlorobenzene	(4)	14.962	180	506171	10.105

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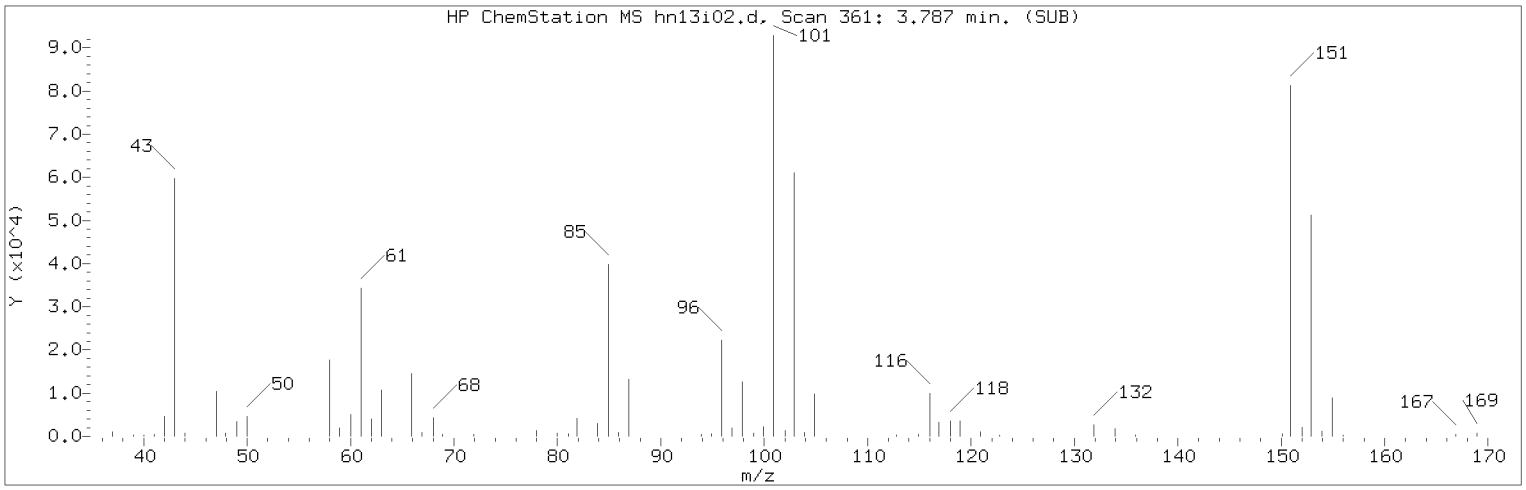
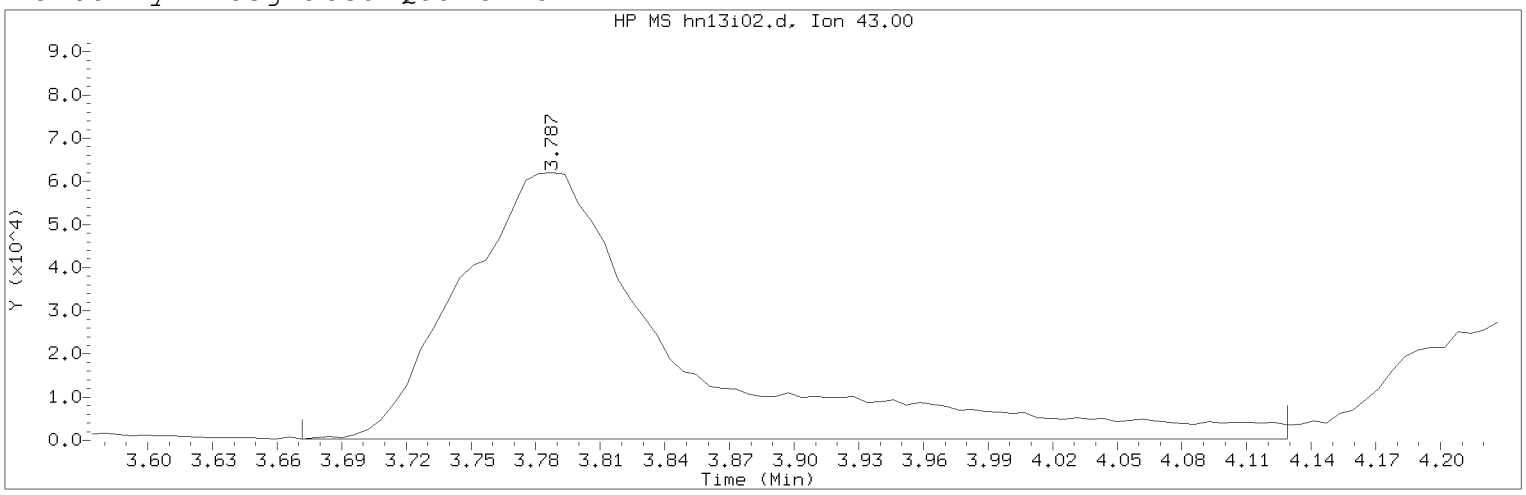
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

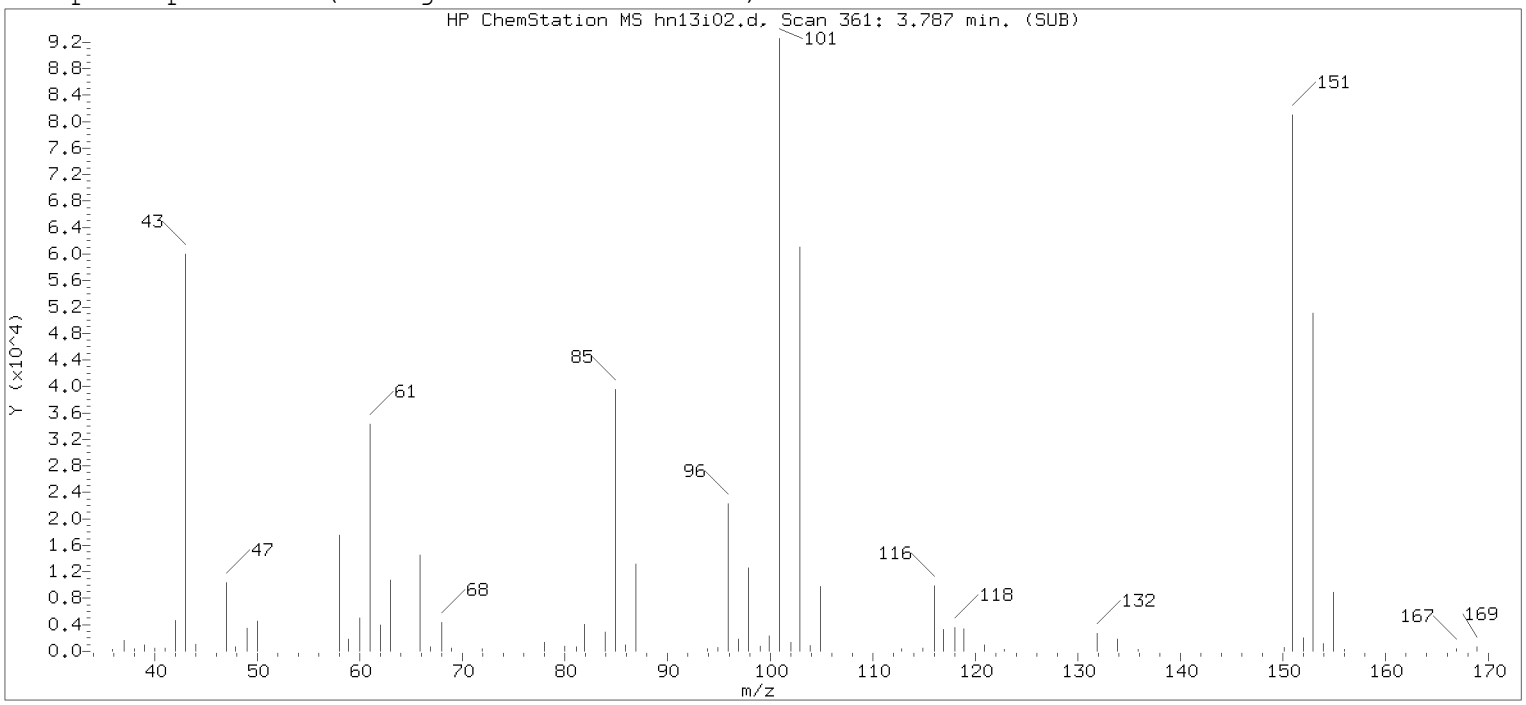
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area (flag) : 438558M
On-Column Amount (ng) : 86.7887
Integration start scan : 341 Integration stop scan: 416
Y at integration start : 274 Y at integration end: 274

Reason for manual integration: improper integration

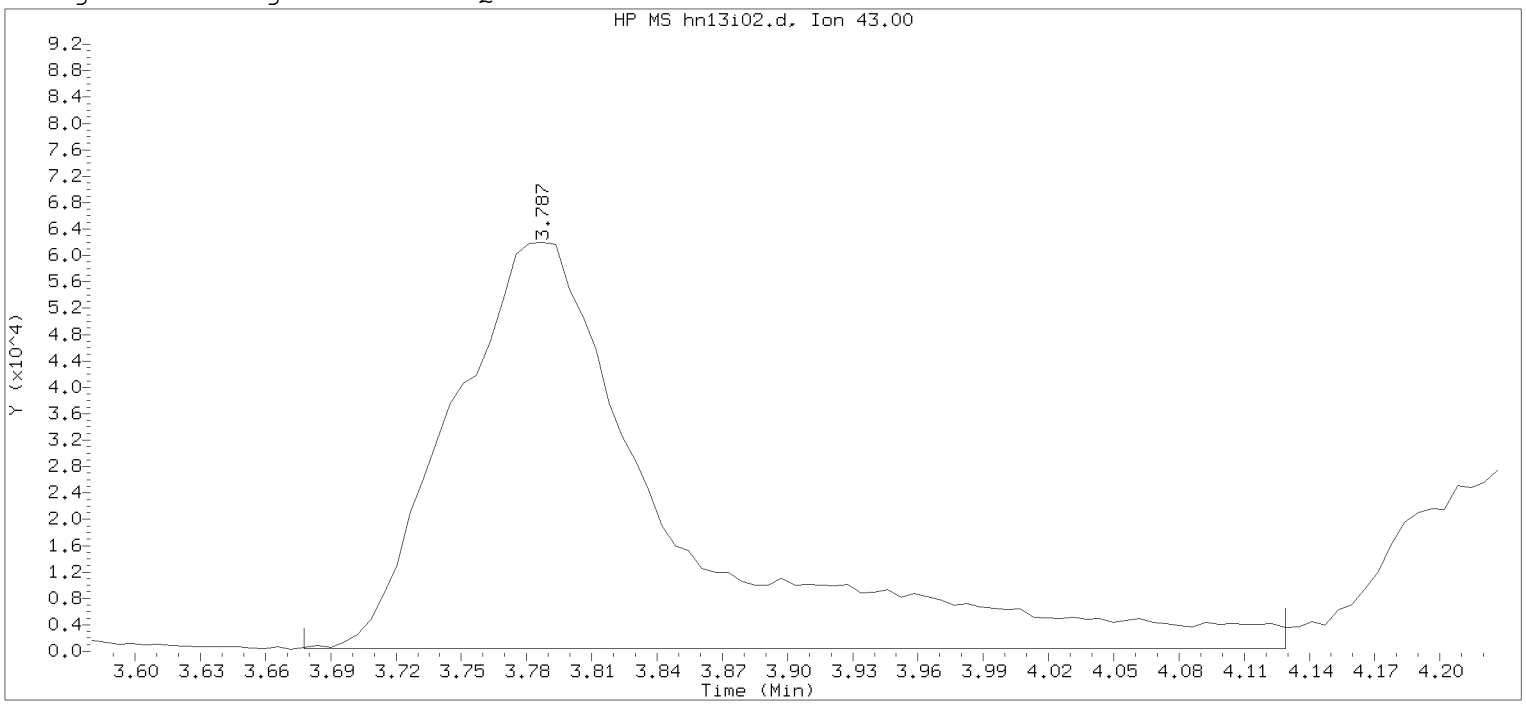
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

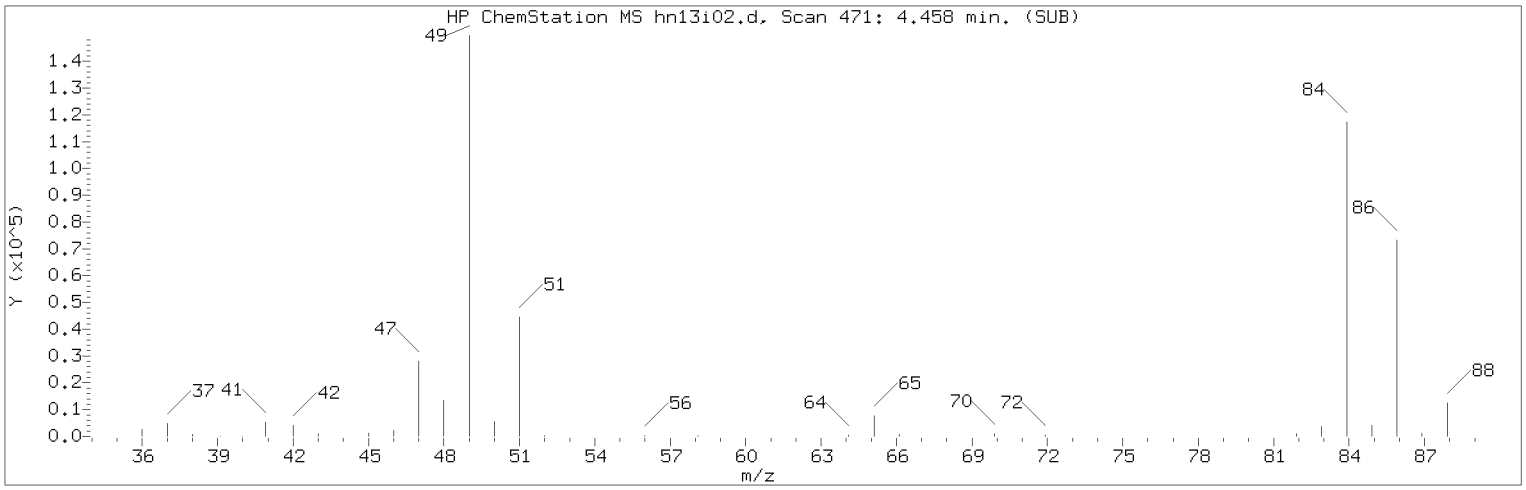
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

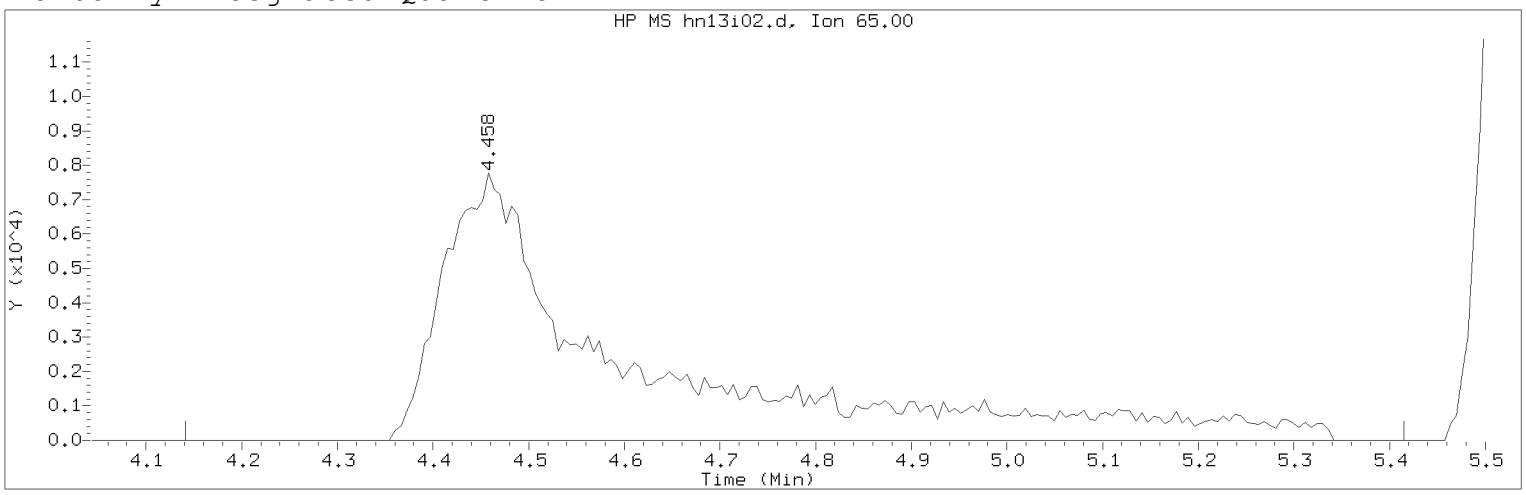
Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 361		
Retention Time (minutes)	: 3.787		
Quant Ion	: 43.00		
Area	: 434730		
On-column Amount (ng)	: 100.0000		
Integration start scan	: 342	Integration stop scan:	416
Y at integration start	: 368	Y at integration end:	413

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

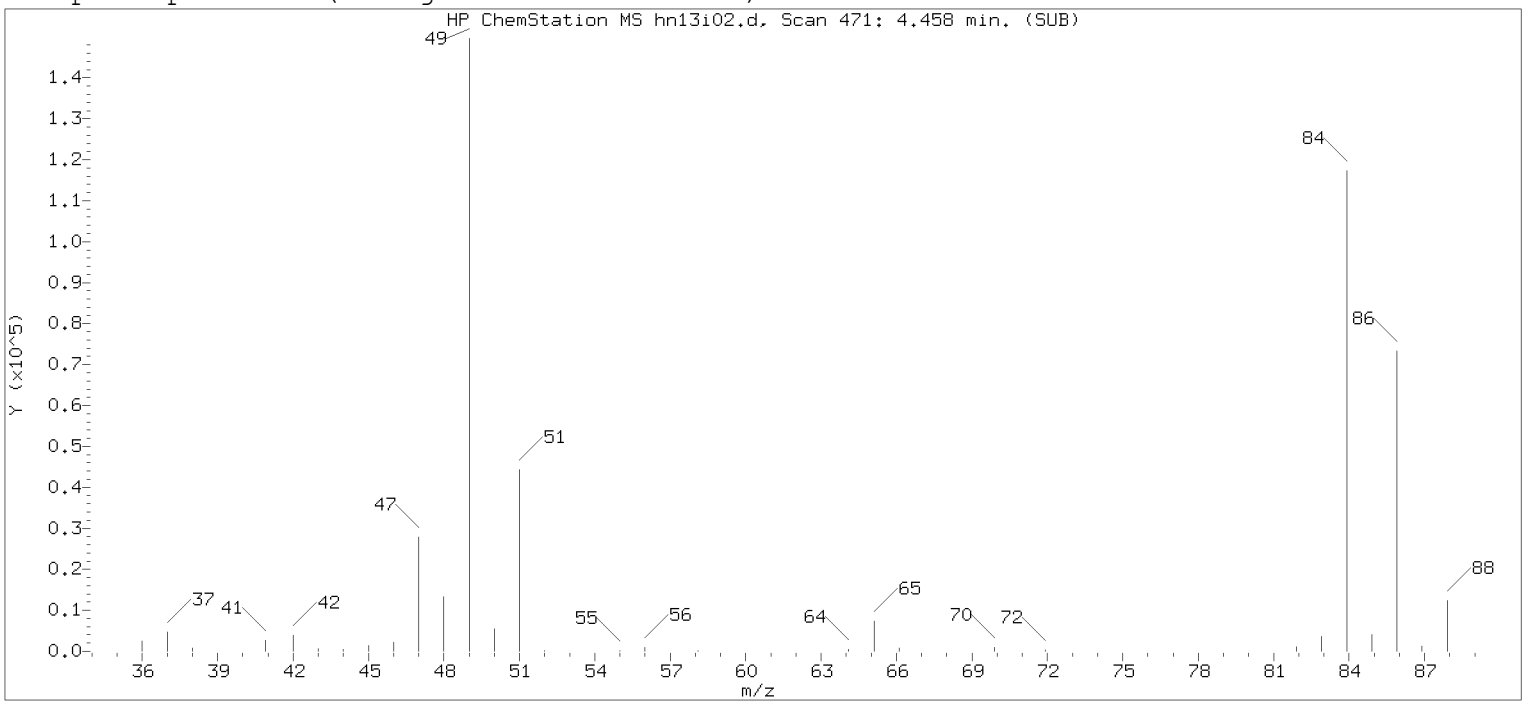
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 471
Retention Time (minutes): 4.458
Quant Ion : 65.00
Area (flag) : 101932M
On-Column Amount (ng) : 50.0000
Integration start scan : 418 Integration stop scan: 627
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

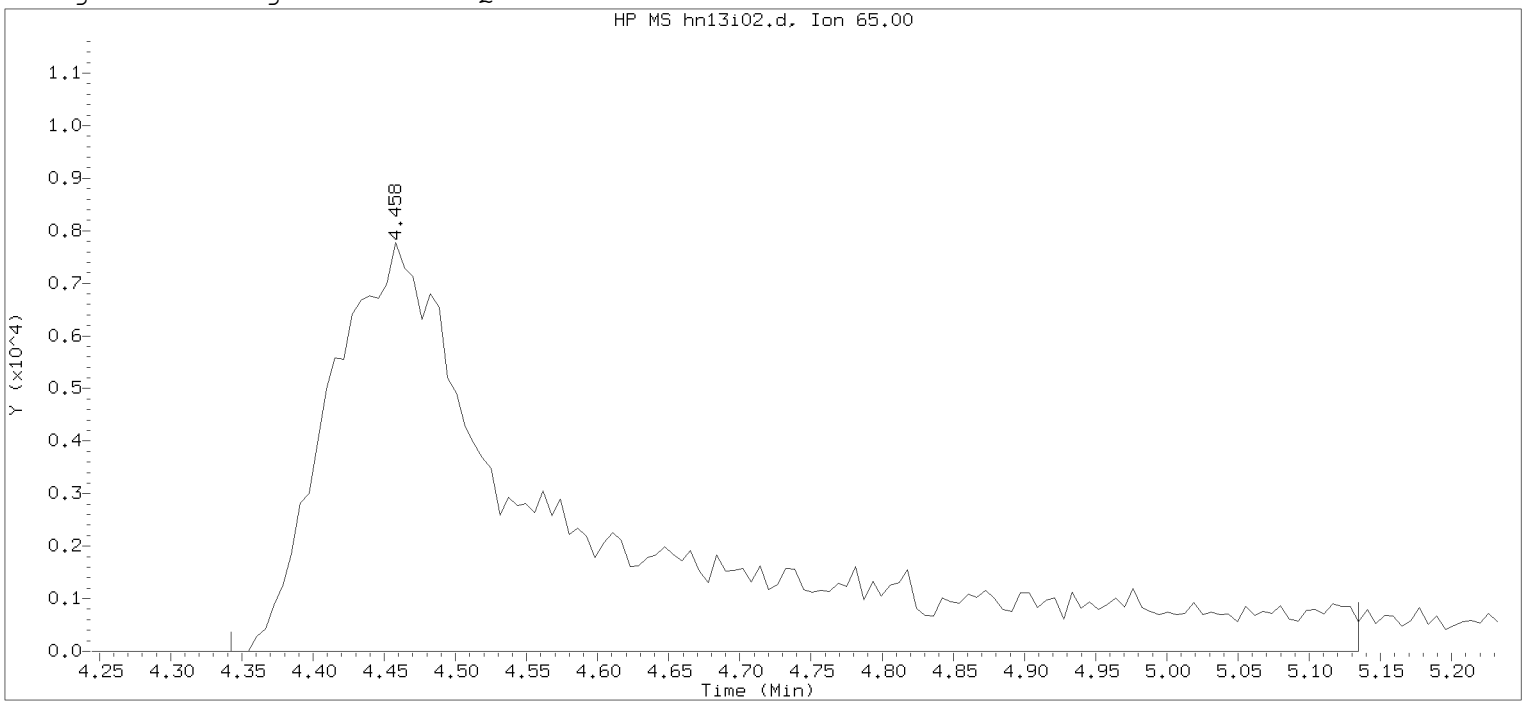
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

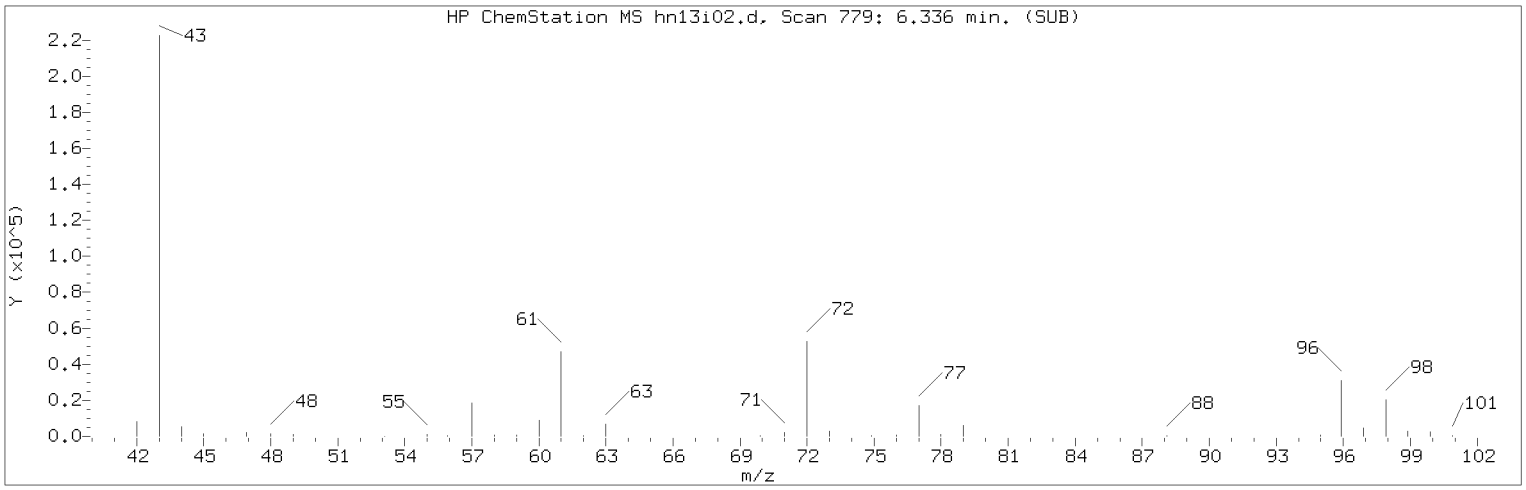
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

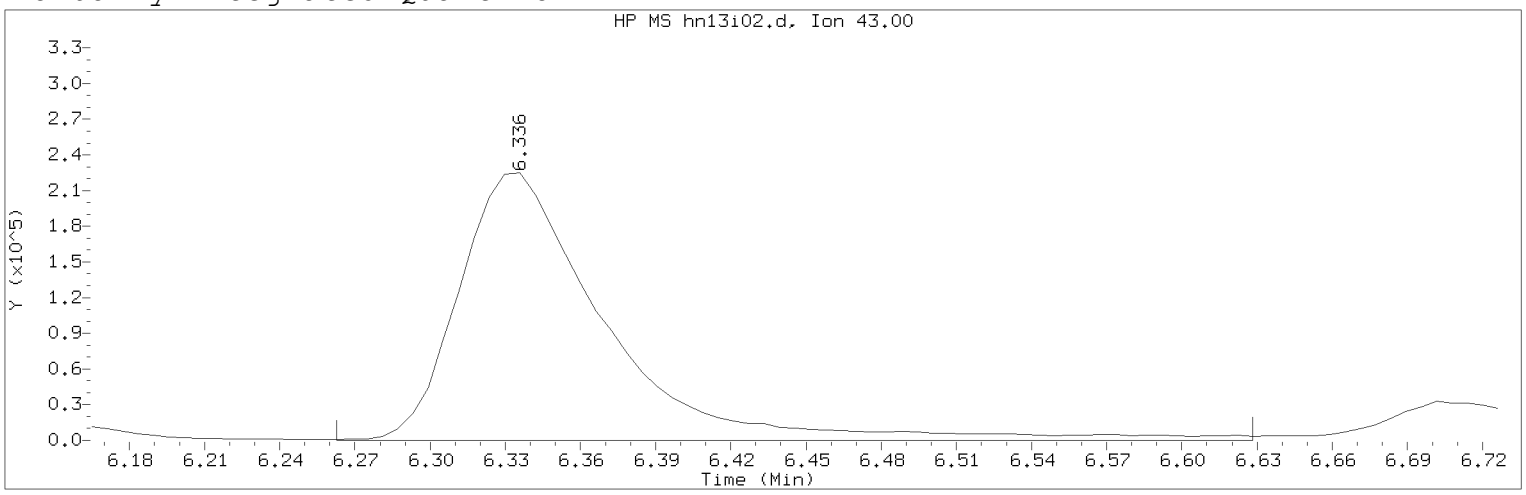
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 471
Retention Time (minutes): 4.458
Quant Ion : 65.00
Area : 95198
On-column Amount (ng) : 50.0000
Integration start scan : 451 Integration stop scan: 581
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 09/2

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

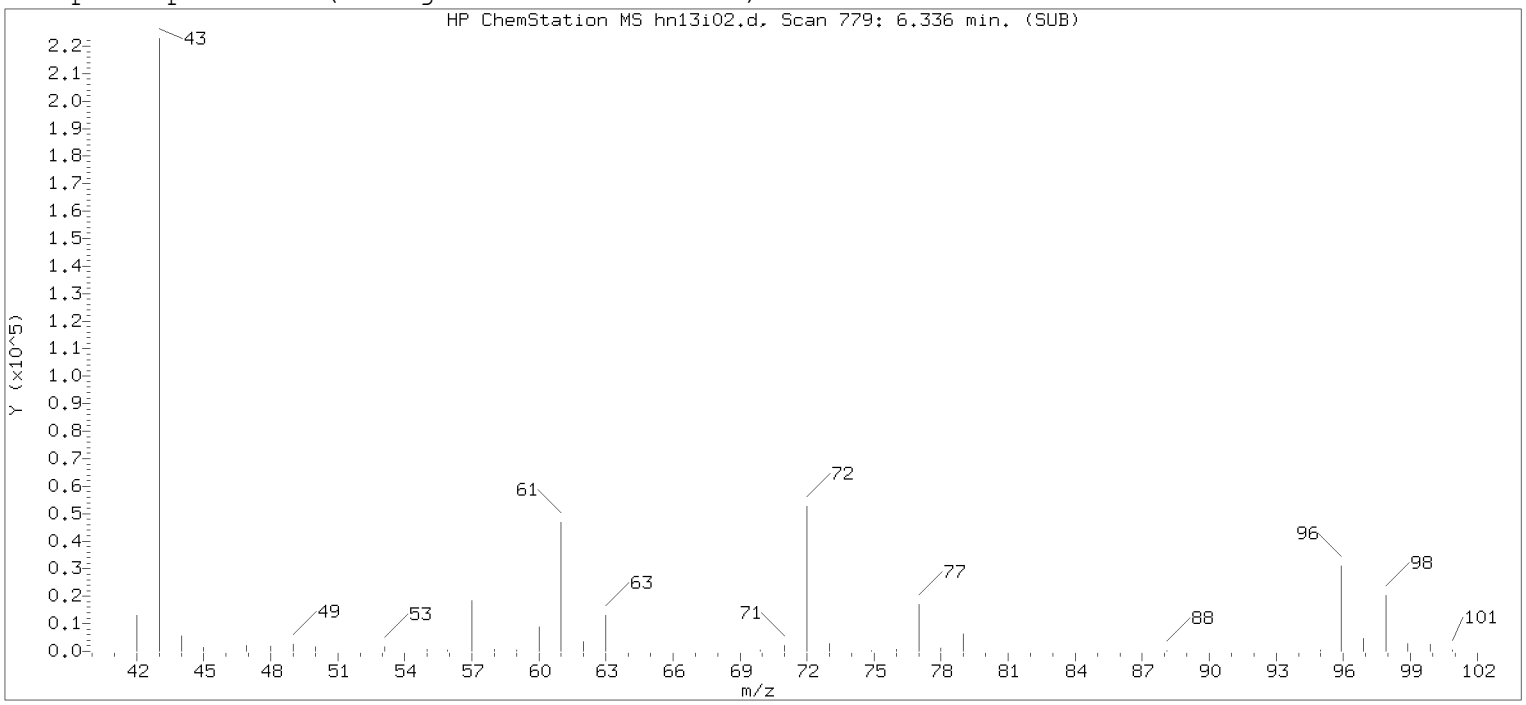
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 779
Retention Time (minutes): 6.336
Quant Ion : 43.00
Area (flag) : 914481M
On-Column Amount (ng) : 88.5056
Integration start scan : 766 Integration stop scan: 826
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

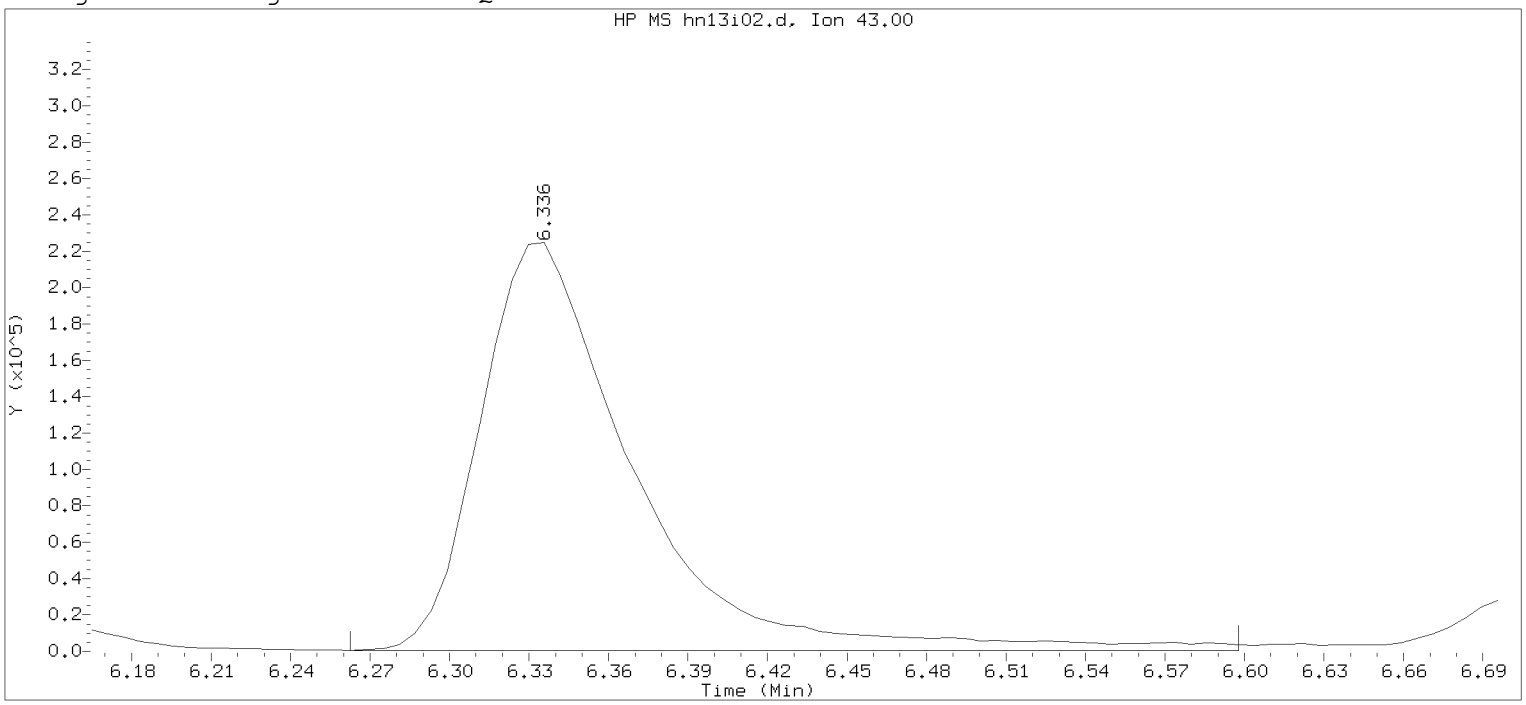
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 38		
Compound Name	: 2-Butanone		
Scan Number	: 779		
Retention Time (minutes)	: 6.336		
Quant Ion	: 43.00		
Area	: 901524		
On-column Amount (ng)	: 100.0000		
Integration start scan	: 766	Integration stop scan:	821
Y at integration start	: 276	Y at integration end:	276

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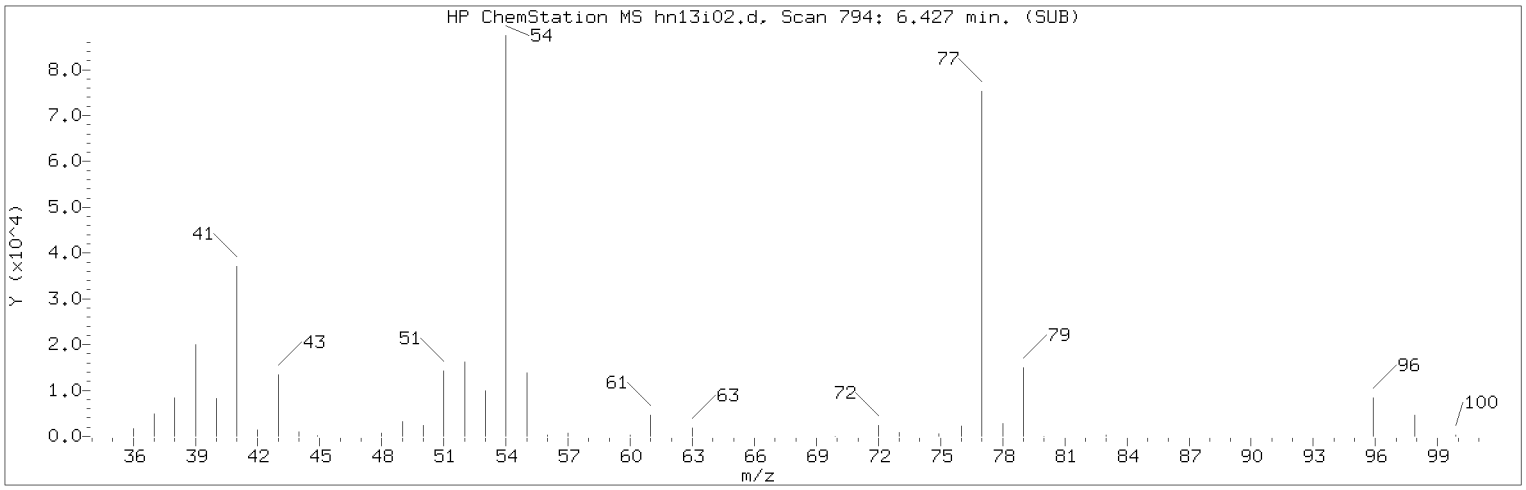
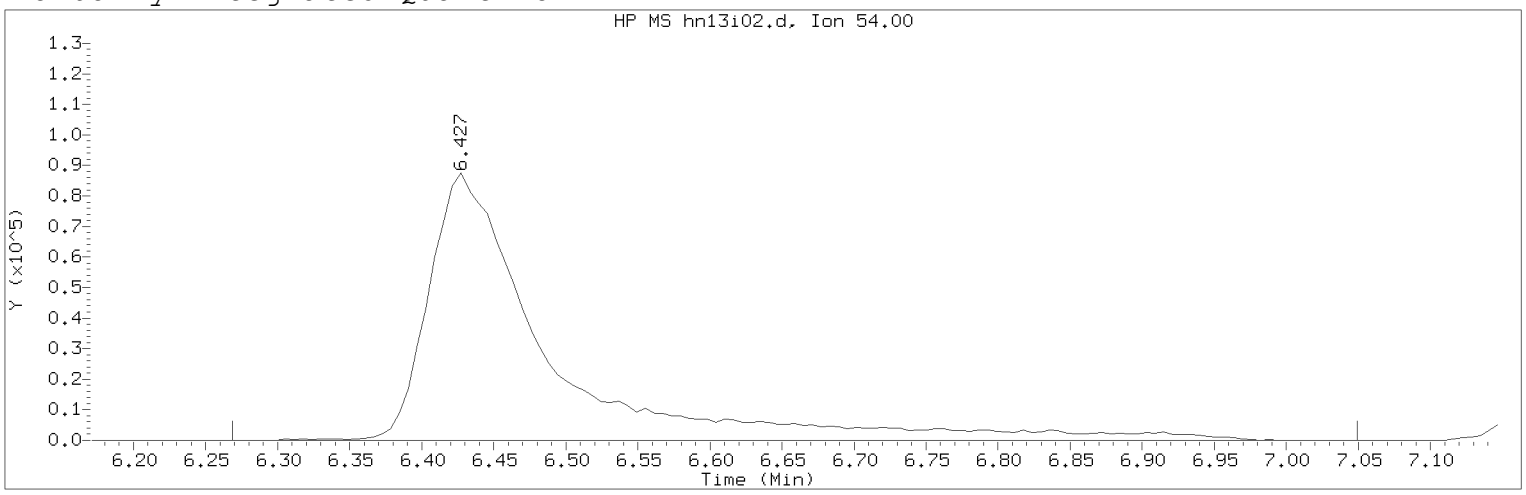
Target 3.5 esignature used. AE35 Page 559 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

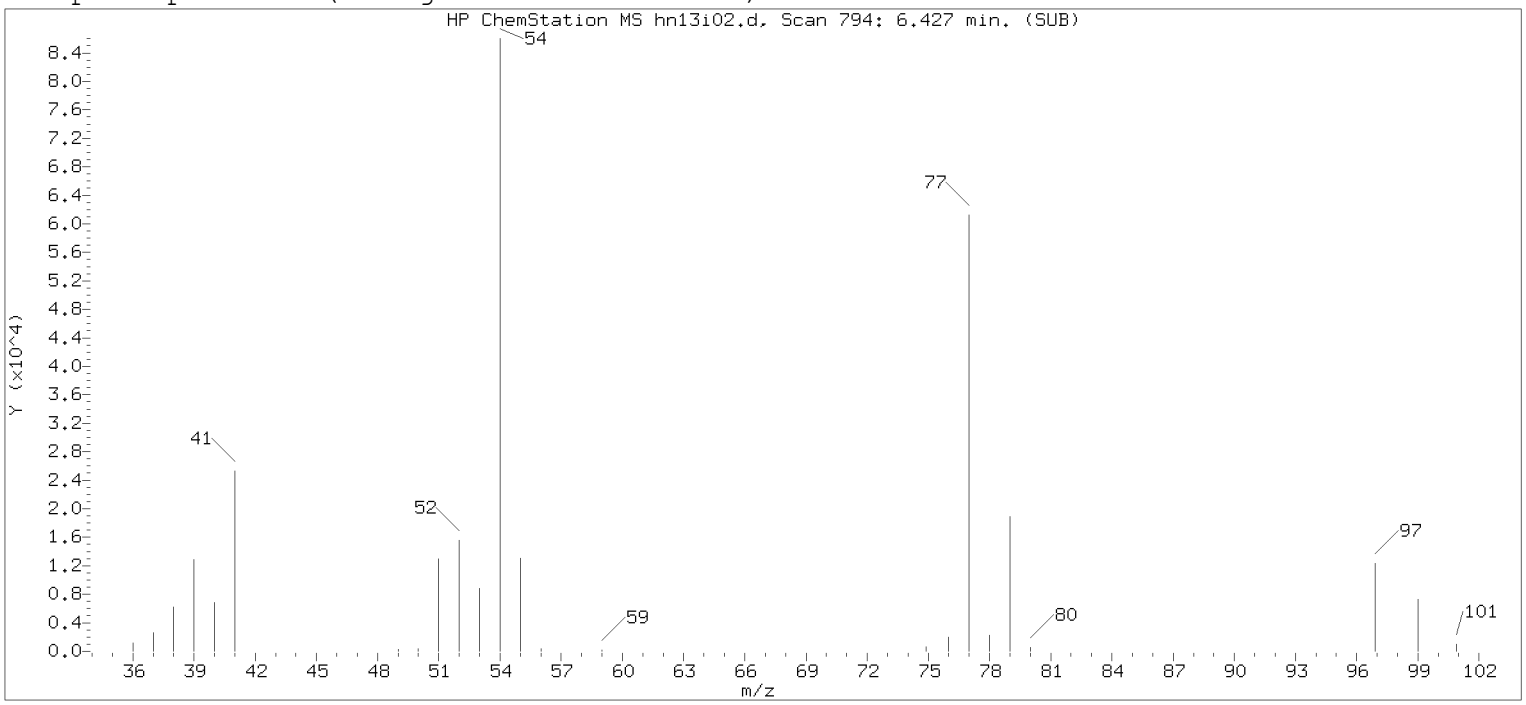
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 794
Retention Time (minutes): 6.427
Quant Ion : 54.00
Area (flag) : 503627M
On-Column Amount (ng) : 190.7401
Integration start scan : 767 Integration stop scan: 895
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

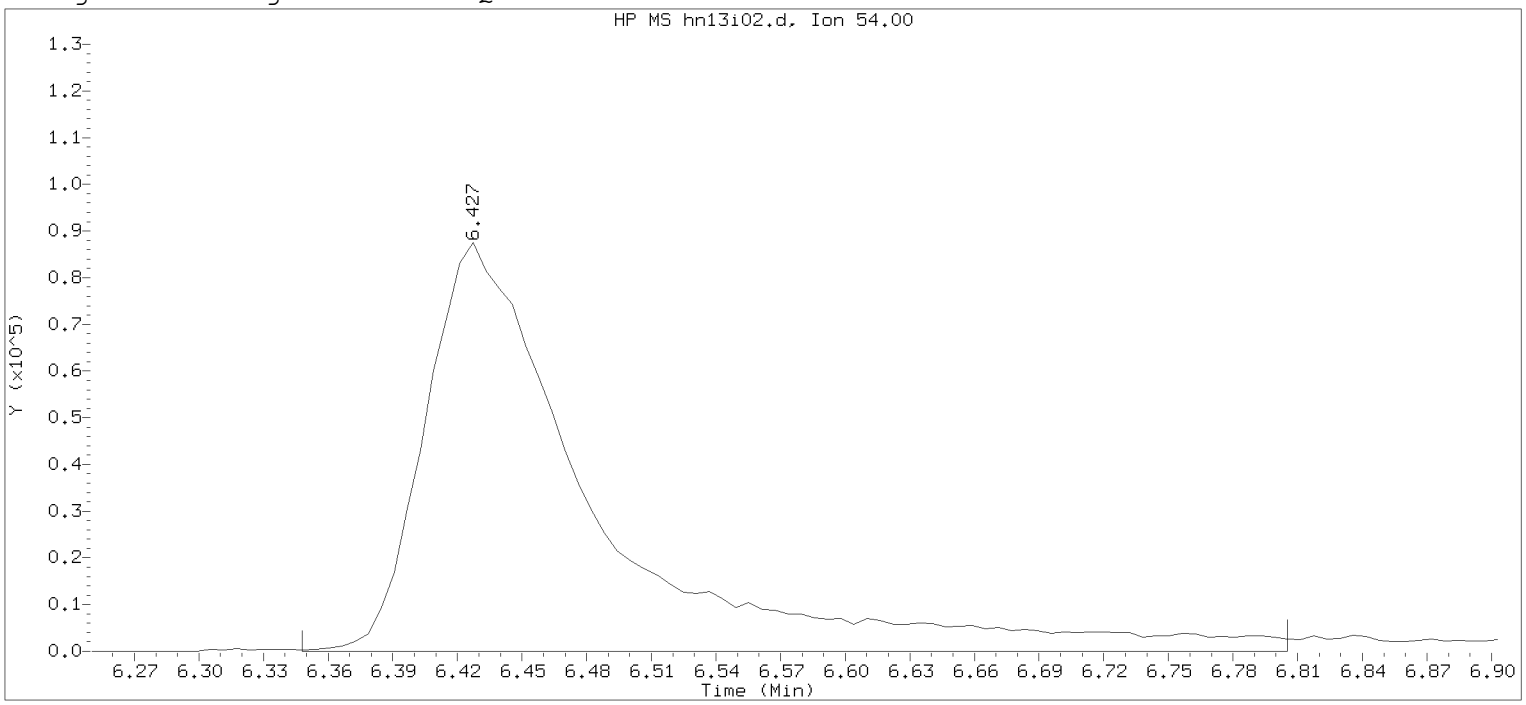
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

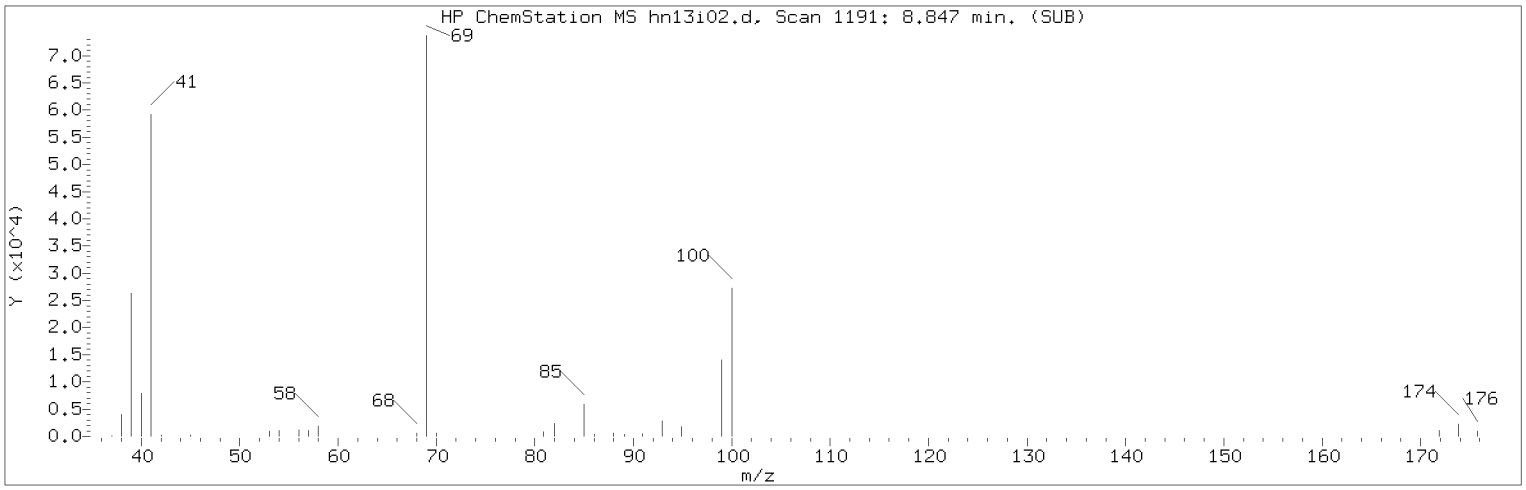
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

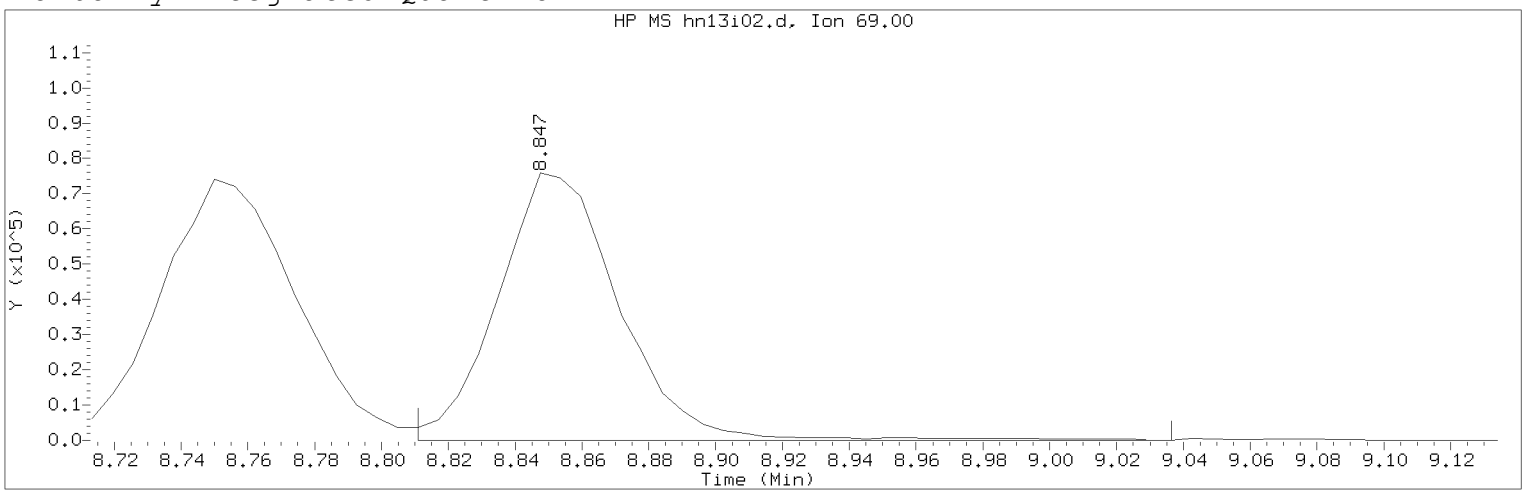
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 794
Retention Time (minutes): 6.427
Quant Ion : 54.00
Area : 480903
On-column Amount (ng) : 200.0000
Integration start scan : 780 Integration stop scan: 855
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

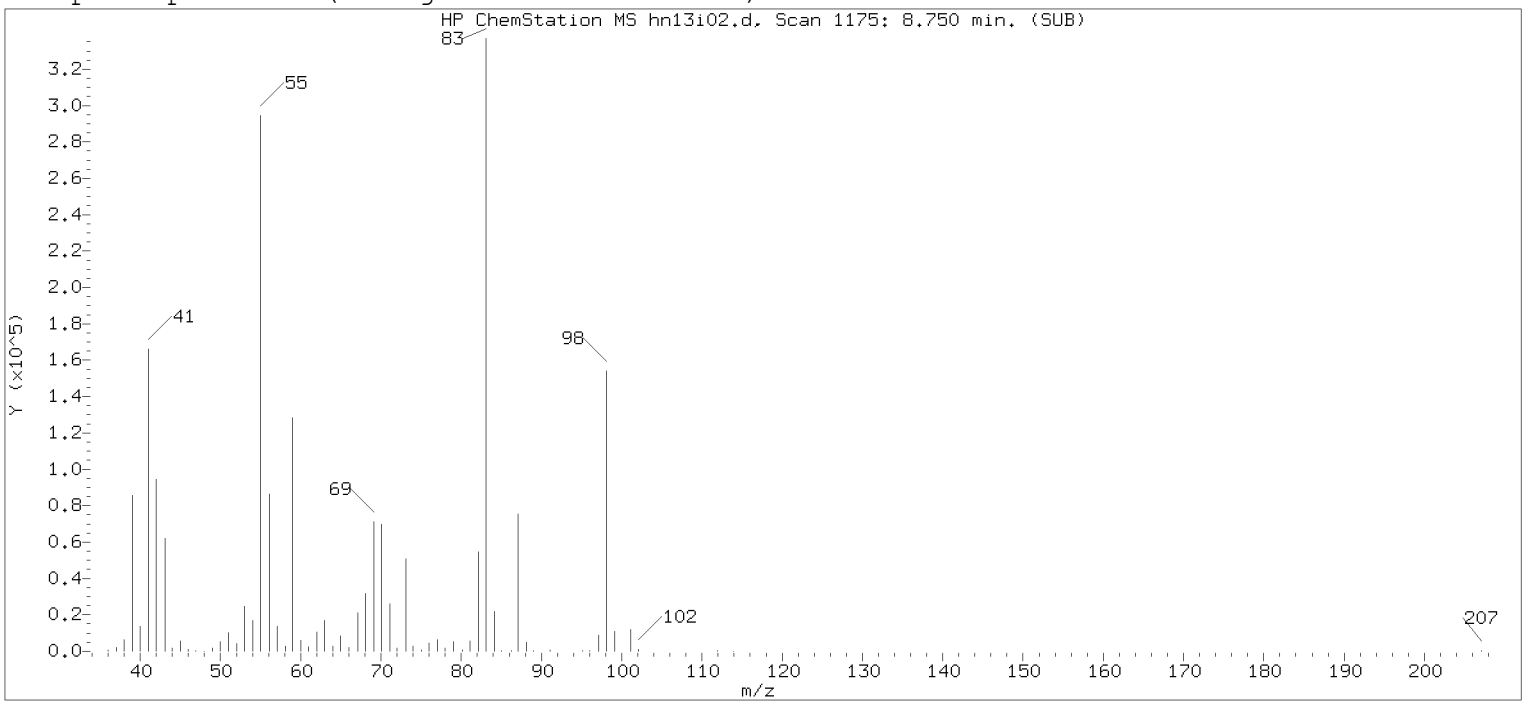
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1191
Retention Time (minutes): 8.847
Quant Ion : 69.00
Area (flag) : 190713A
On-Column Amount (ng) : 9.4068
Integration start scan : 1184 Integration stop scan: 1221
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

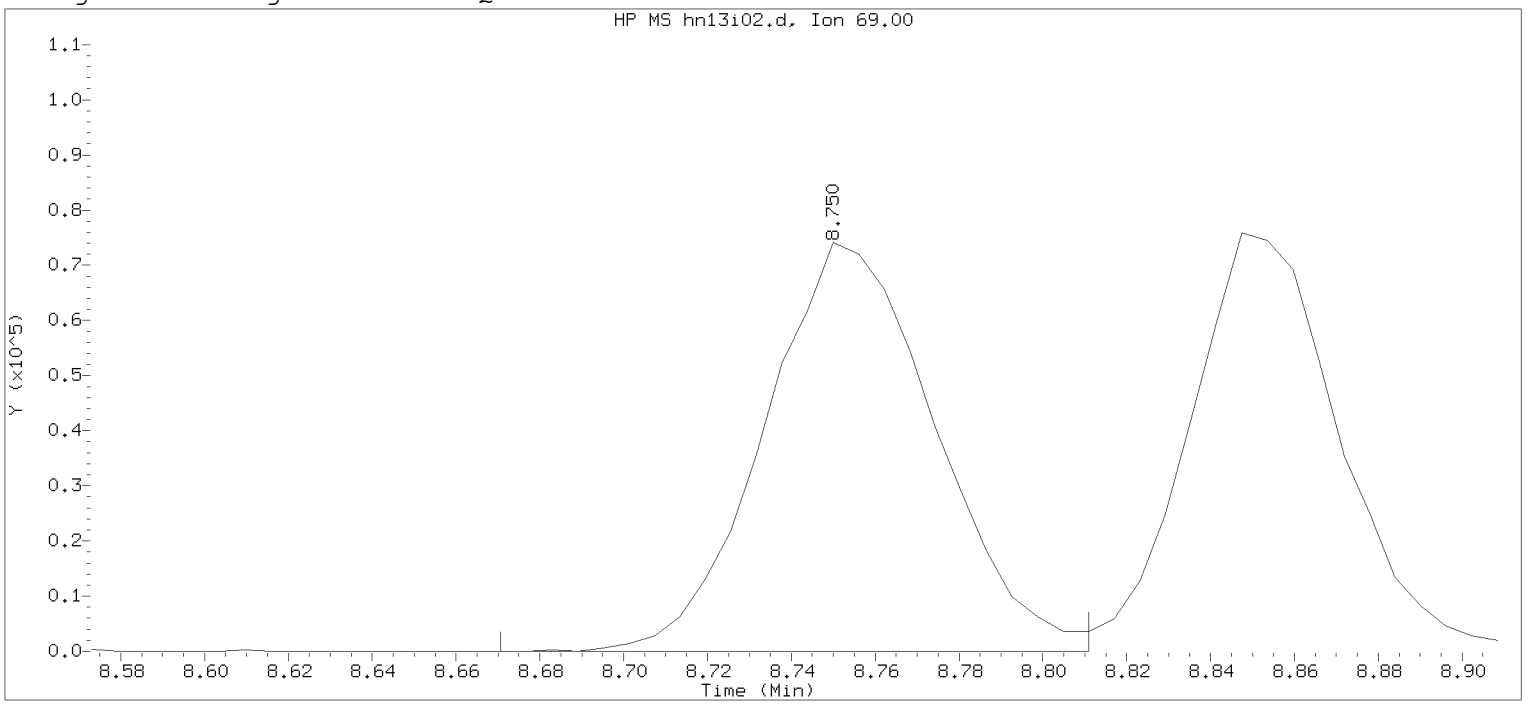
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 71		
Compound Name	: Methyl Methacrylate		
Scan Number	: 1175		
Retention Time (minutes)	: 8.750		
Quant Ion	: 69.00		
Area	: 209111		
On-column Amount (ng)	: 10.0000		
Integration start scan	: 1161	Integration stop scan:	1184
Y at integration start	: 0	Y at integration end:	0

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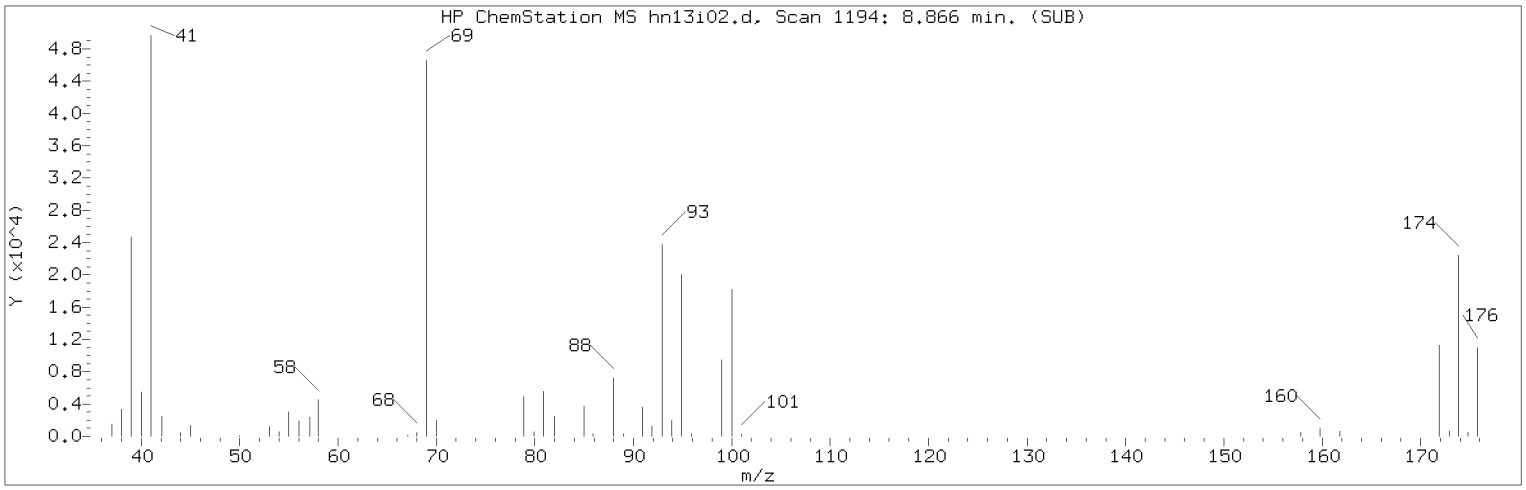
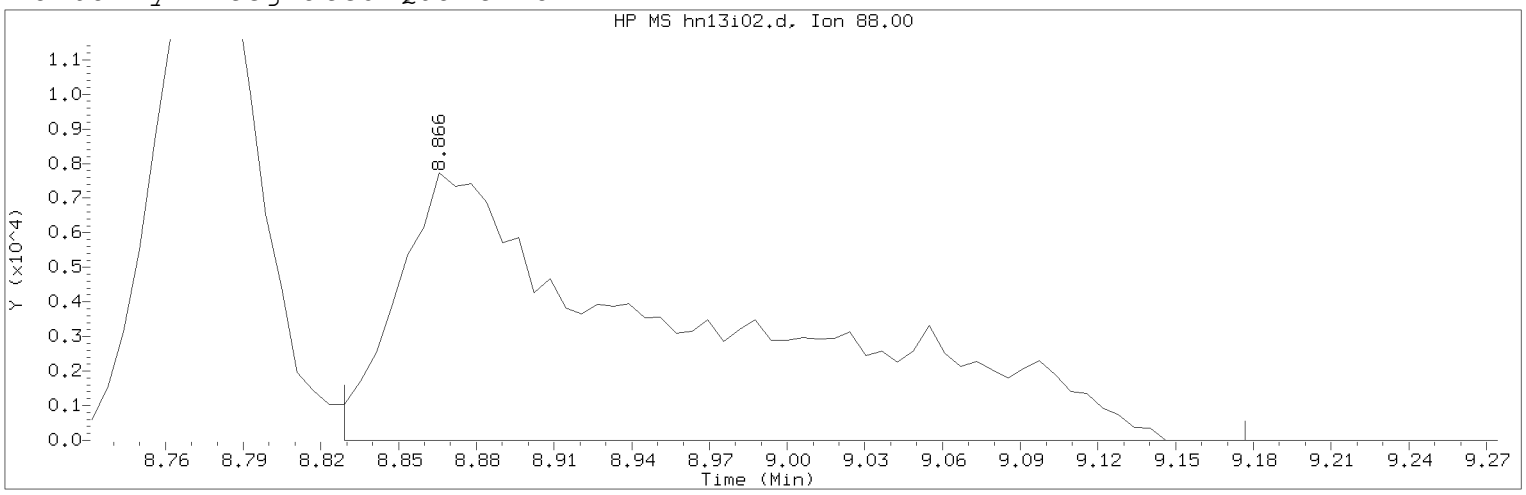
Target 3.5 esignature used. AE35 Page 563 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

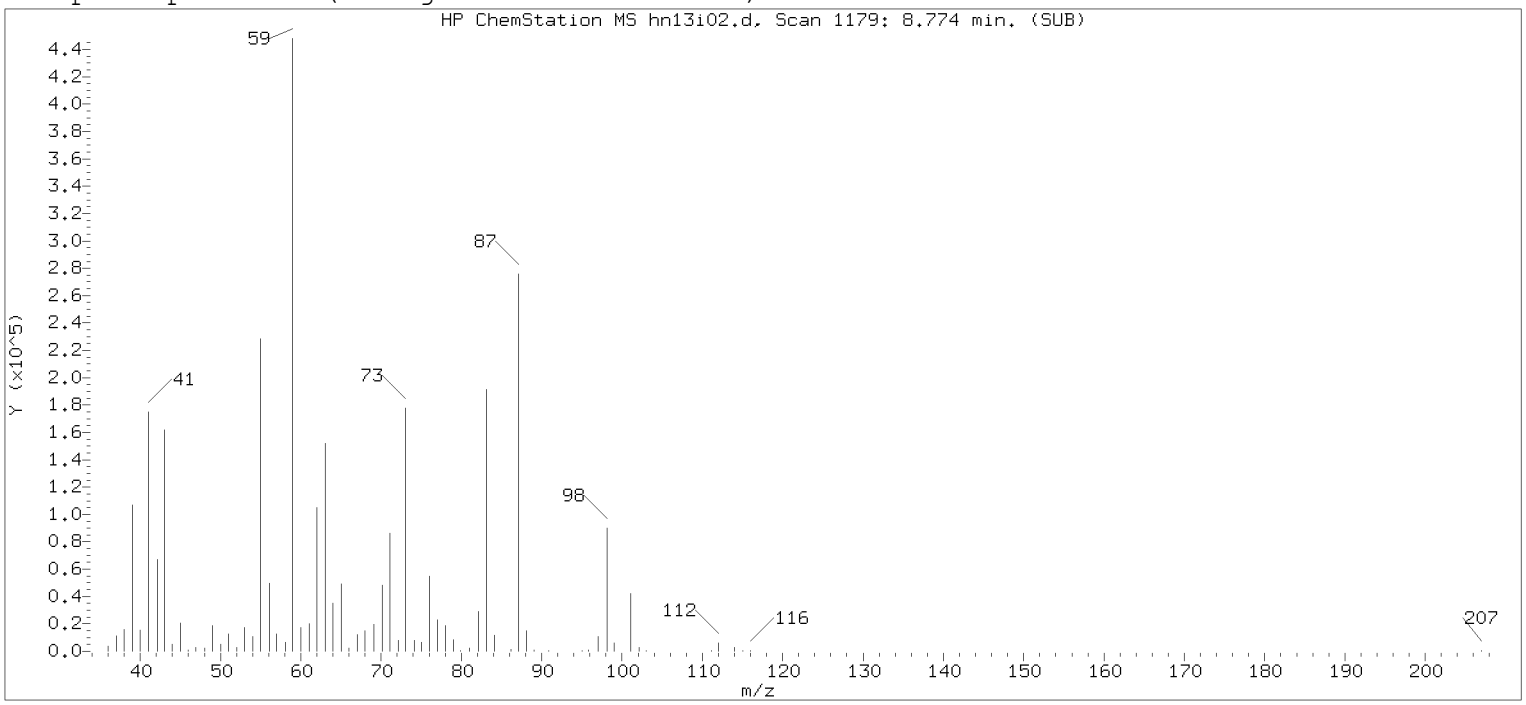
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1194
Retention Time (minutes): 8.866
Quant Ion : 88.00
Area (flag) : 61931M
On-Column Amount (ng) : 632.4742
Integration start scan : 1187 Integration stop scan: 1244
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

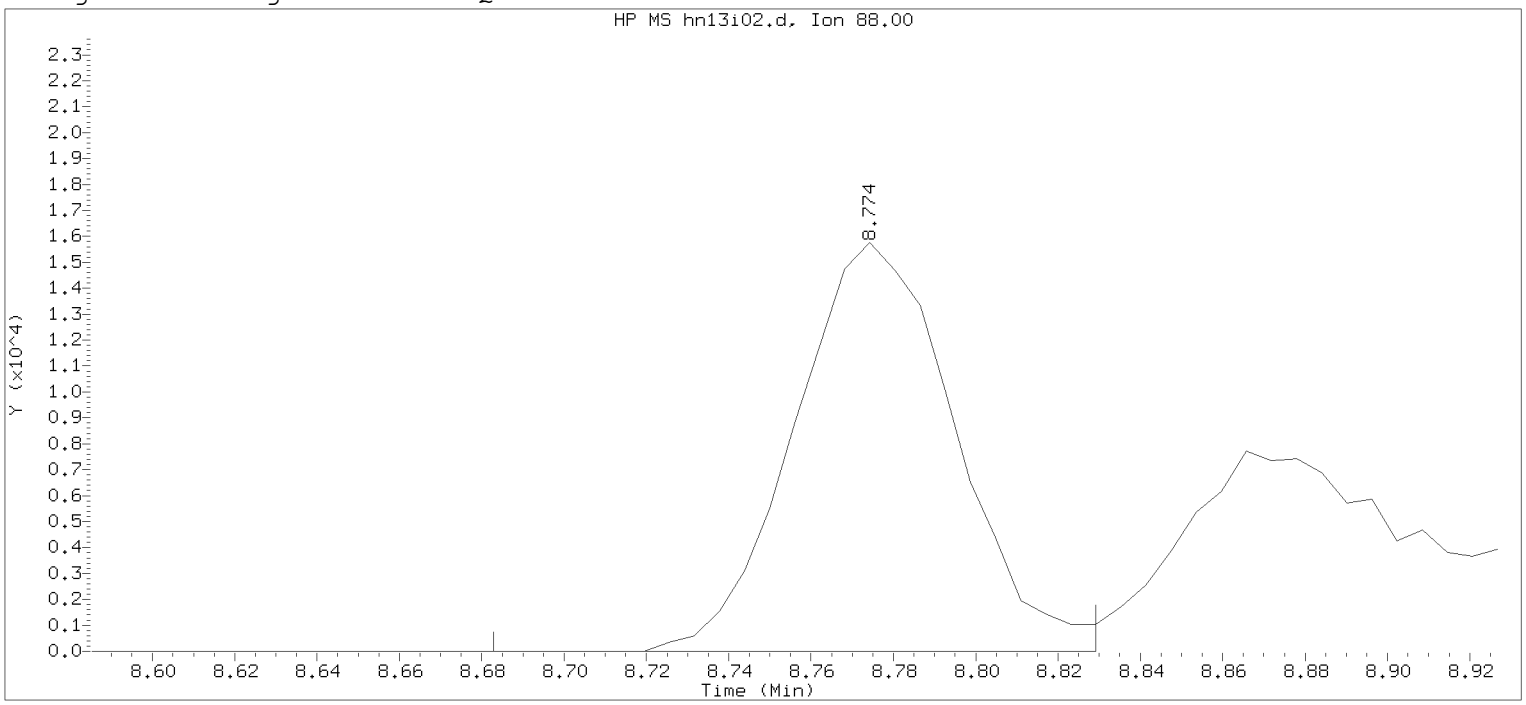
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1179		
Retention Time (minutes)	: 8.774		
Quant Ion	: 88.00		
Area	: 42493		
On-column Amount (ng)	: 500.0000		
Integration start scan	: 1163	Integration stop scan:	1187
Y at integration start	: 0	Y at integration end:	0

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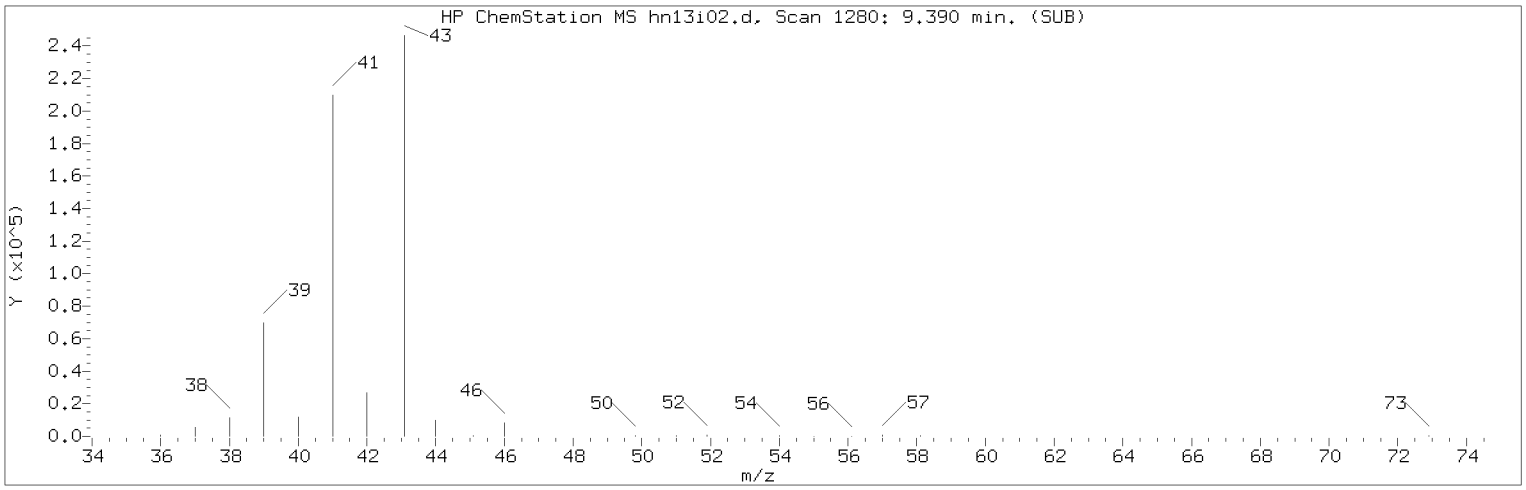
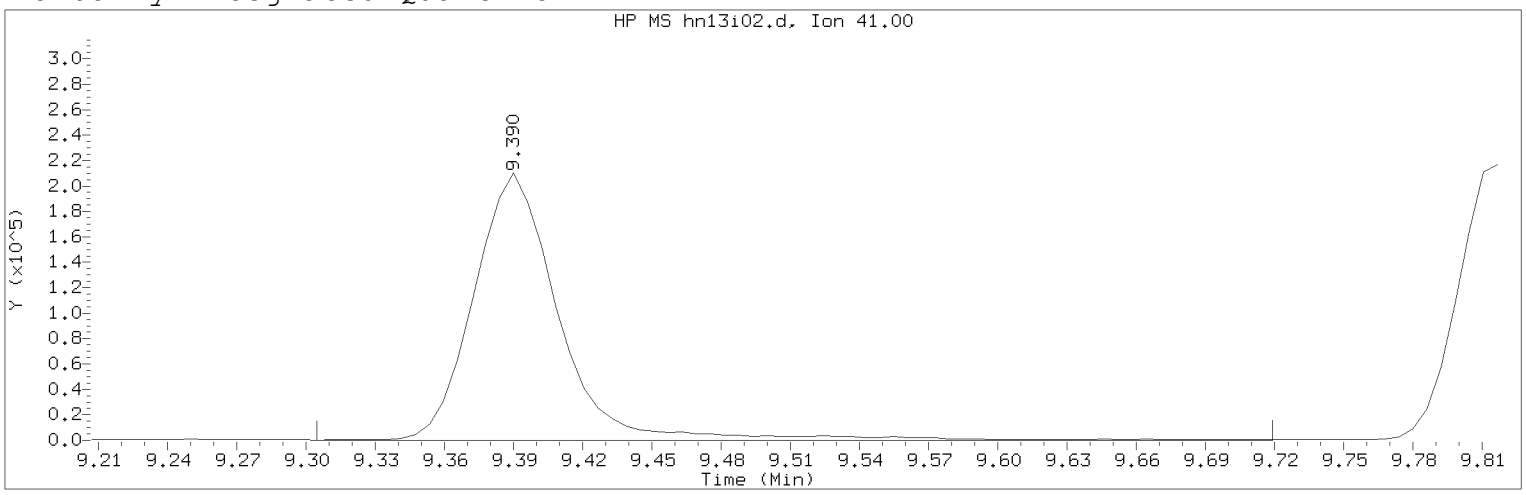
Target 3.5 esignature used. AE35 Page 565 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

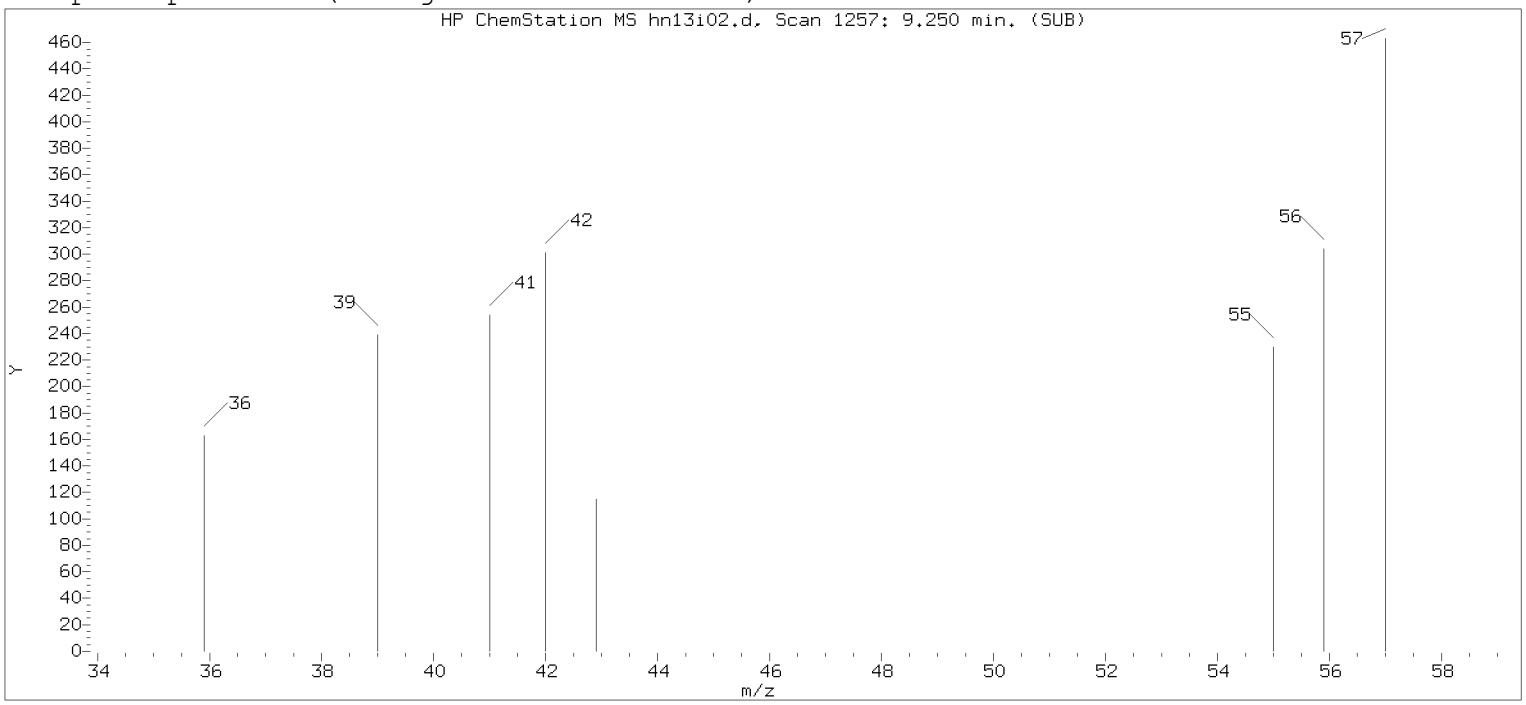
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1280
Retention Time (minutes): 9.390
Quant Ion : 41.00
Area (flag) : 541409A
On-Column Amount (ng) : 91.3452
Integration start scan : 1265 Integration stop scan: 1333
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

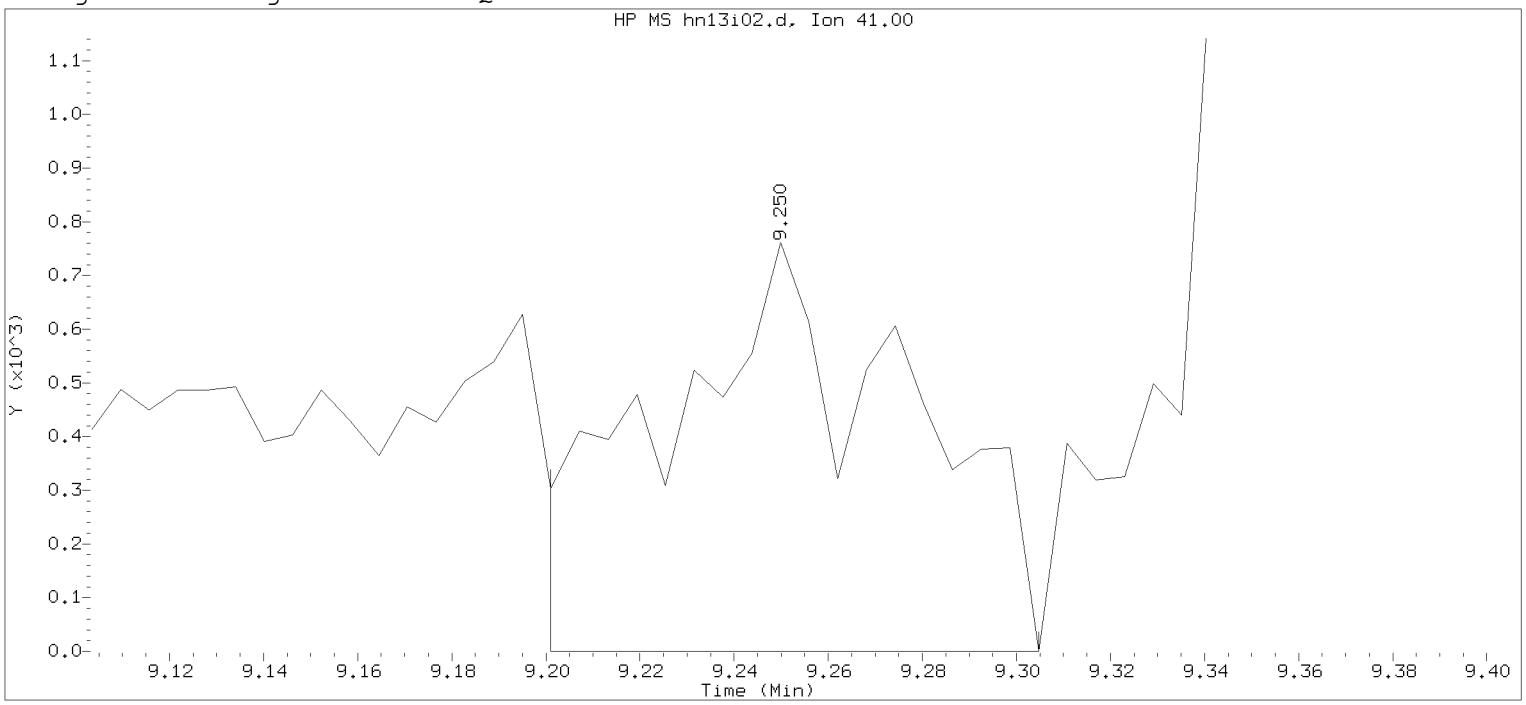
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

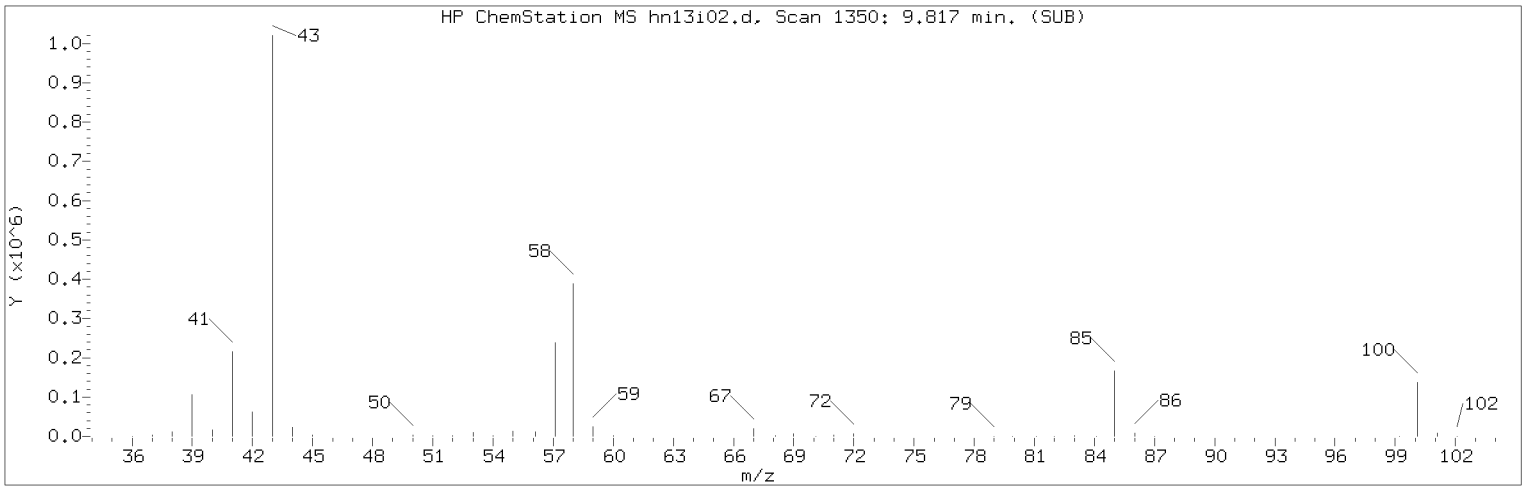
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

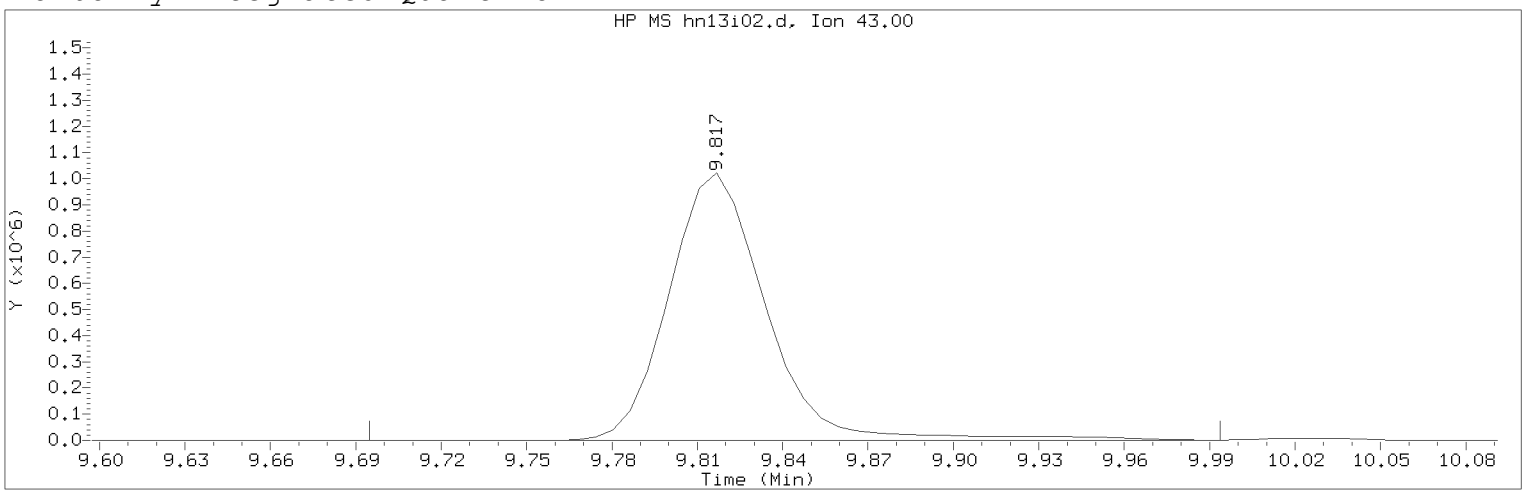
Compound Number	: 76		
Compound Name	: 2-Nitropropane		
Scan Number	: 1257		
Retention Time (minutes)	: 9.250		
Quant Ion	: 41.00		
Area	: 2807		
On-column Amount (ng)	: 100.0000		
Integration start scan	: 1248	Integration stop scan:	1265
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 0562

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

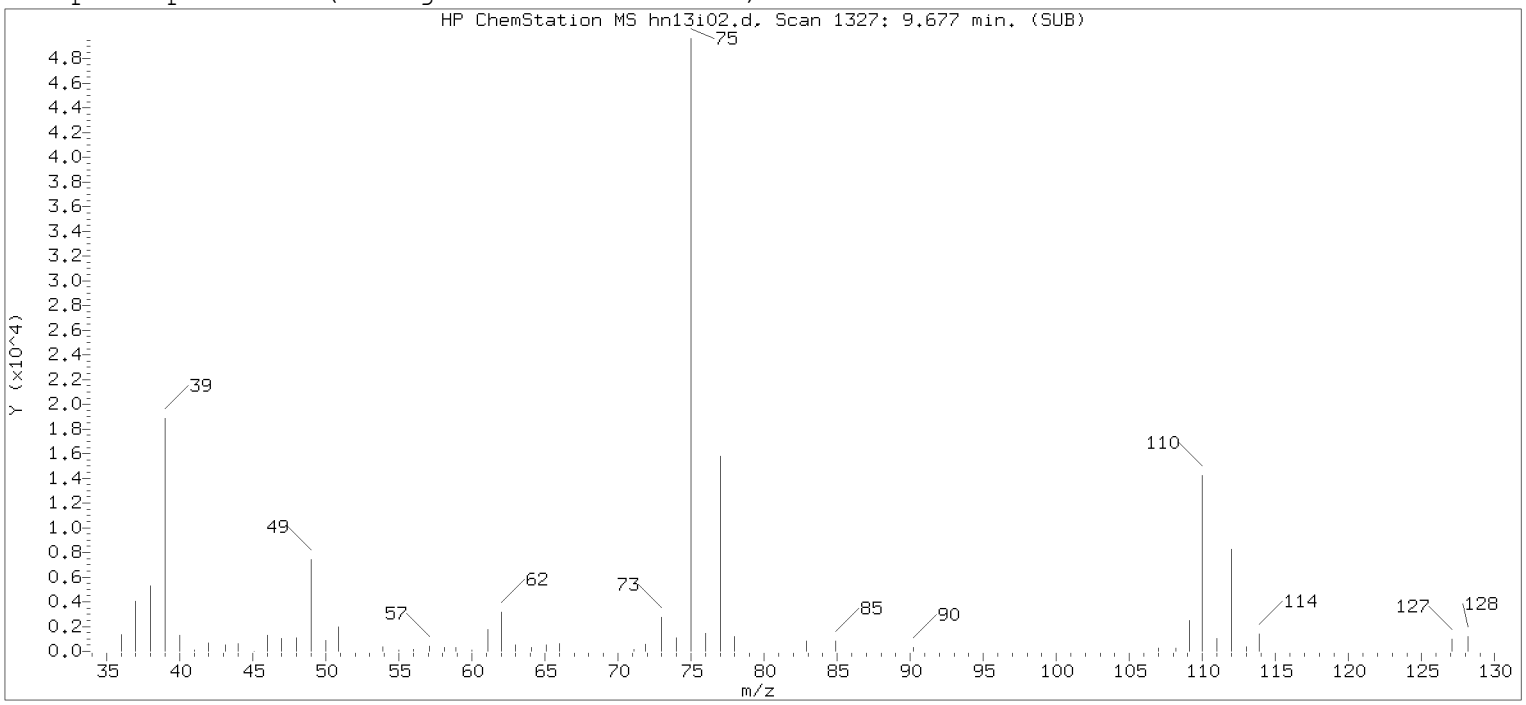
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 2430699A
On-Column Amount (ng) : 95.0265
Integration start scan : 1329 Integration stop scan: 1378
Y at integration start : 52 Y at integration end: 136

Reason for manual integration: improper integration

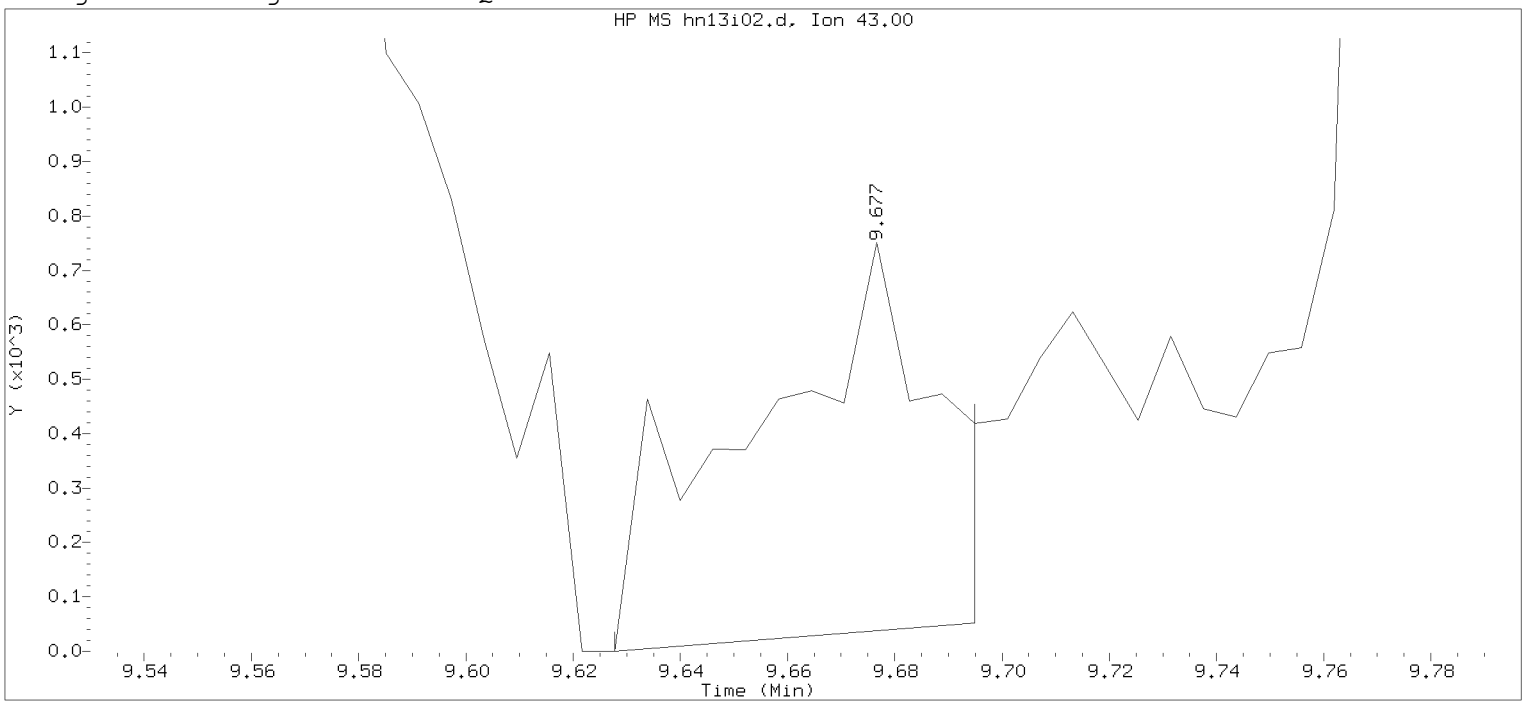
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

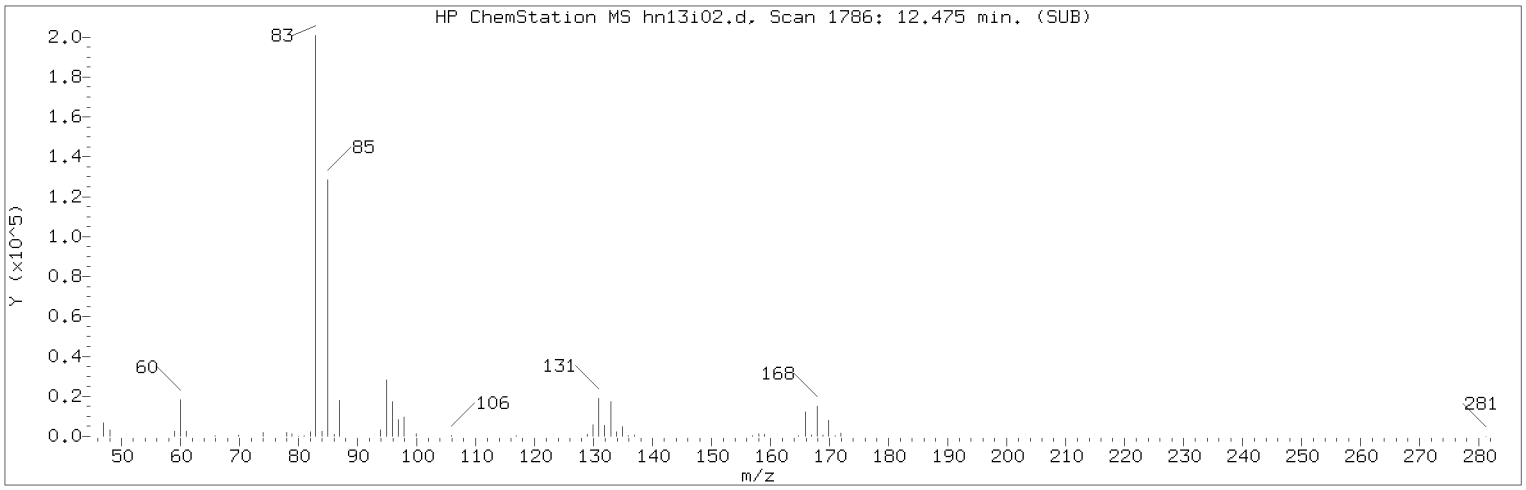
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

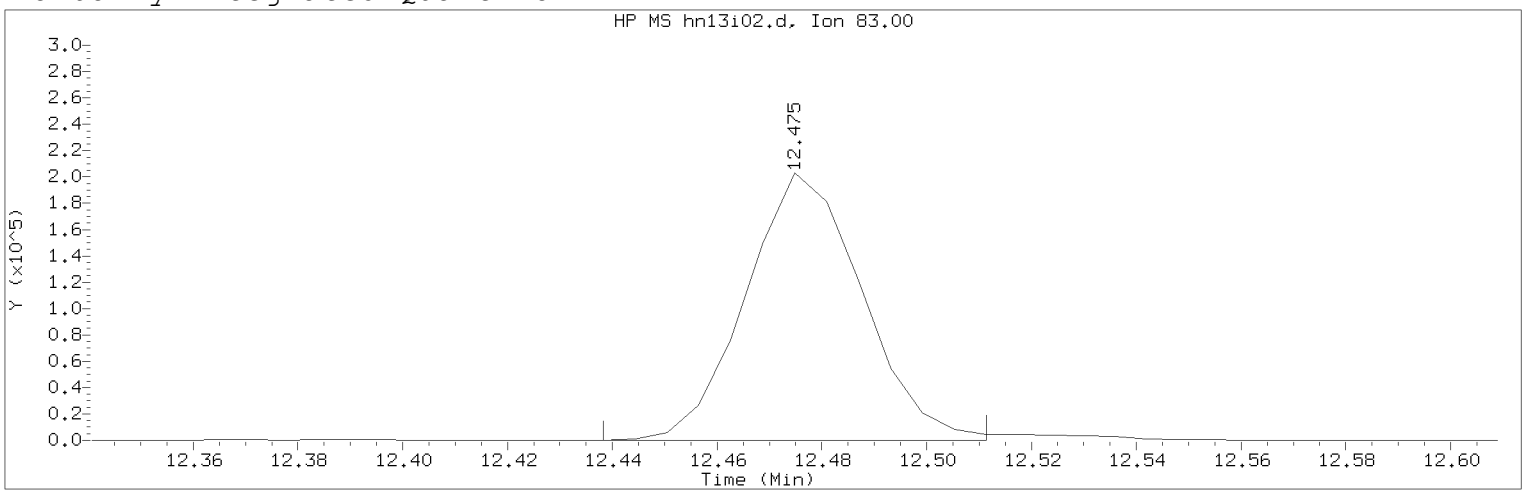
Compound Number	: 81		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1327		
Retention Time (minutes)	: 9.677		
Quant Ion	: 43.00		
Area	: 1641		
On-column Amount (ng)	: 100.0000		
Integration start scan	: 1318	Integration stop scan:	1329
Y at integration start	: 0	Y at integration end:	52

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

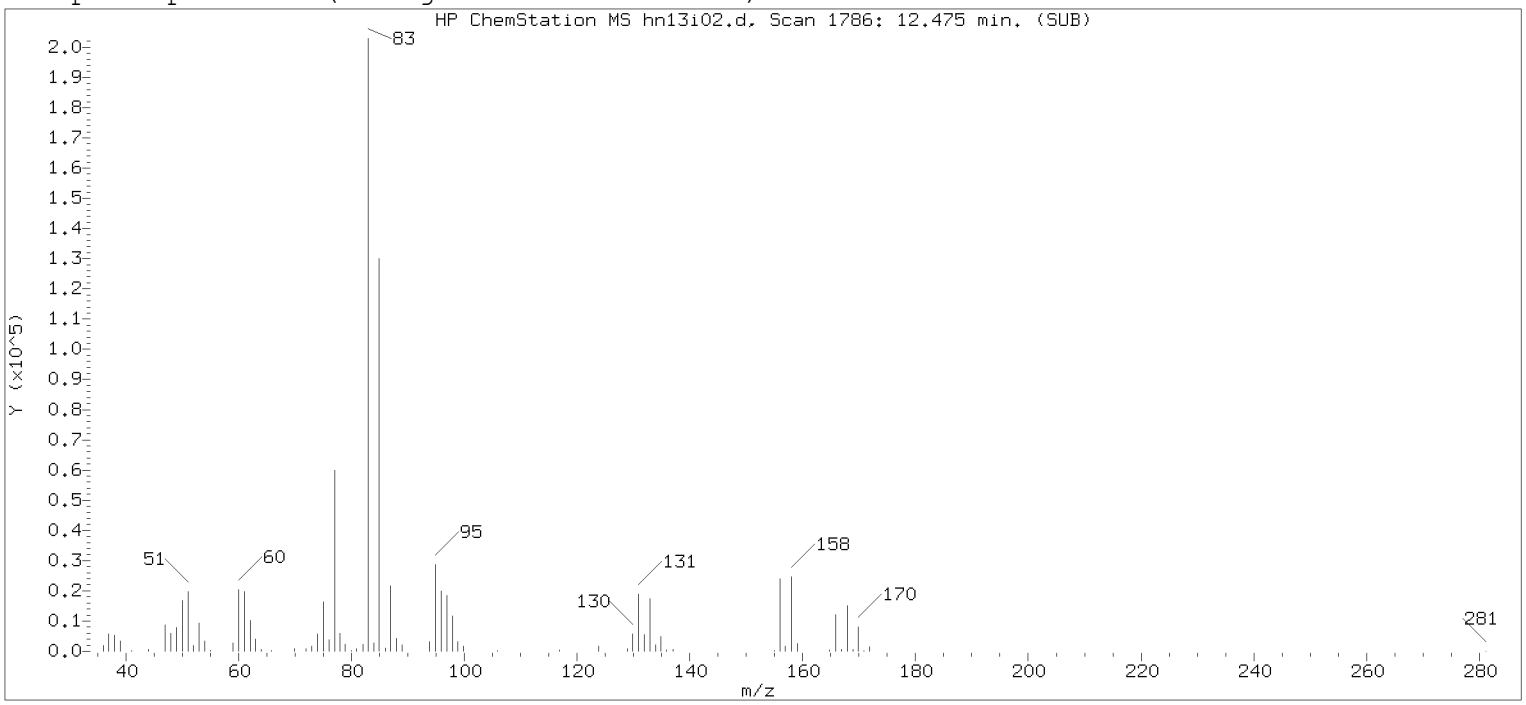
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 311855M
On-Column Amount (ng) : 9.7976
Integration start scan : 1779 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

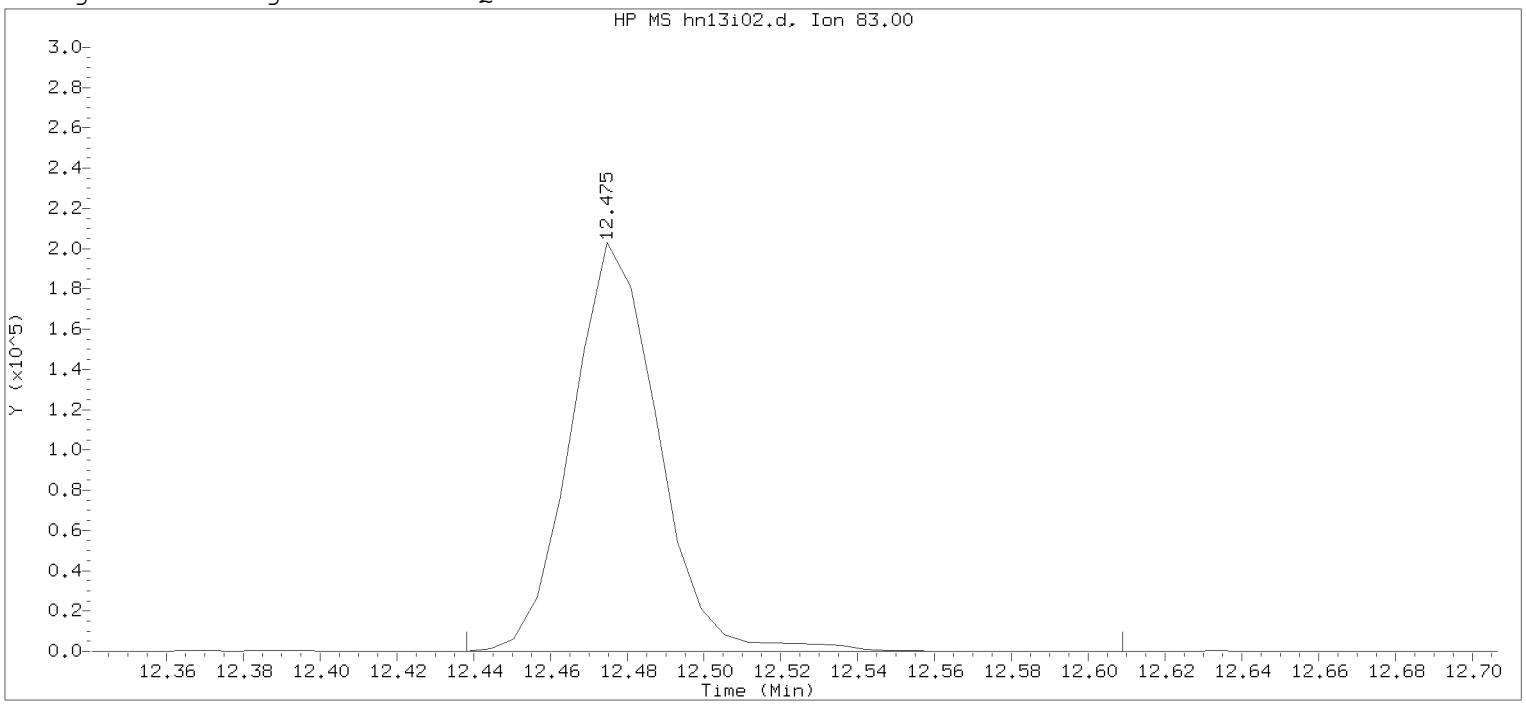
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

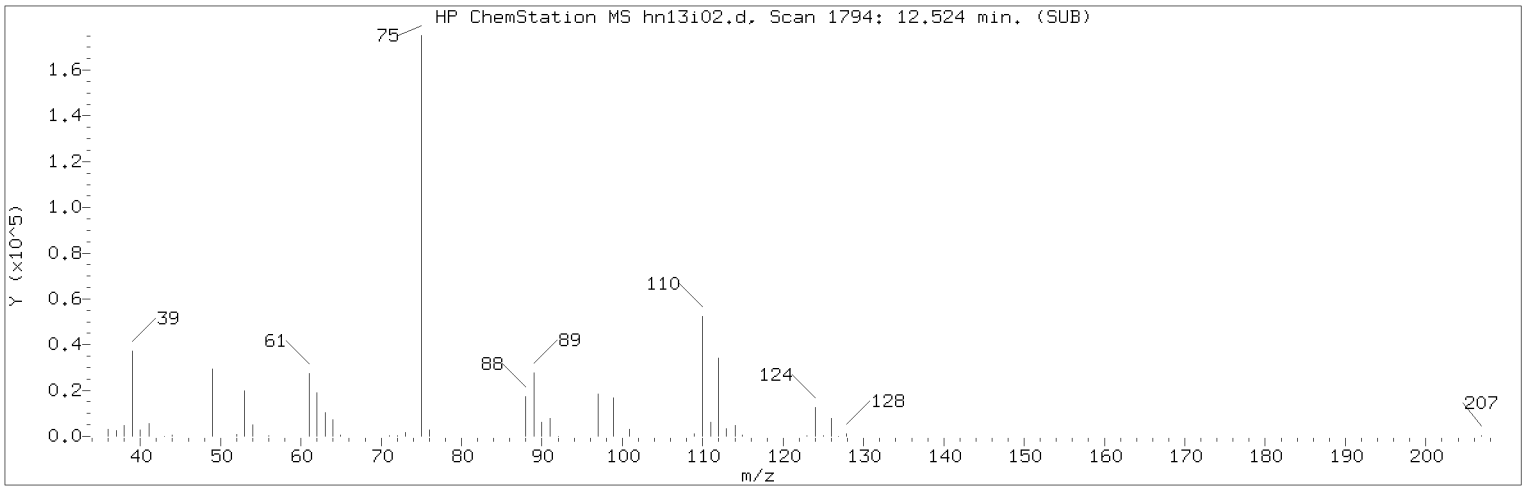
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

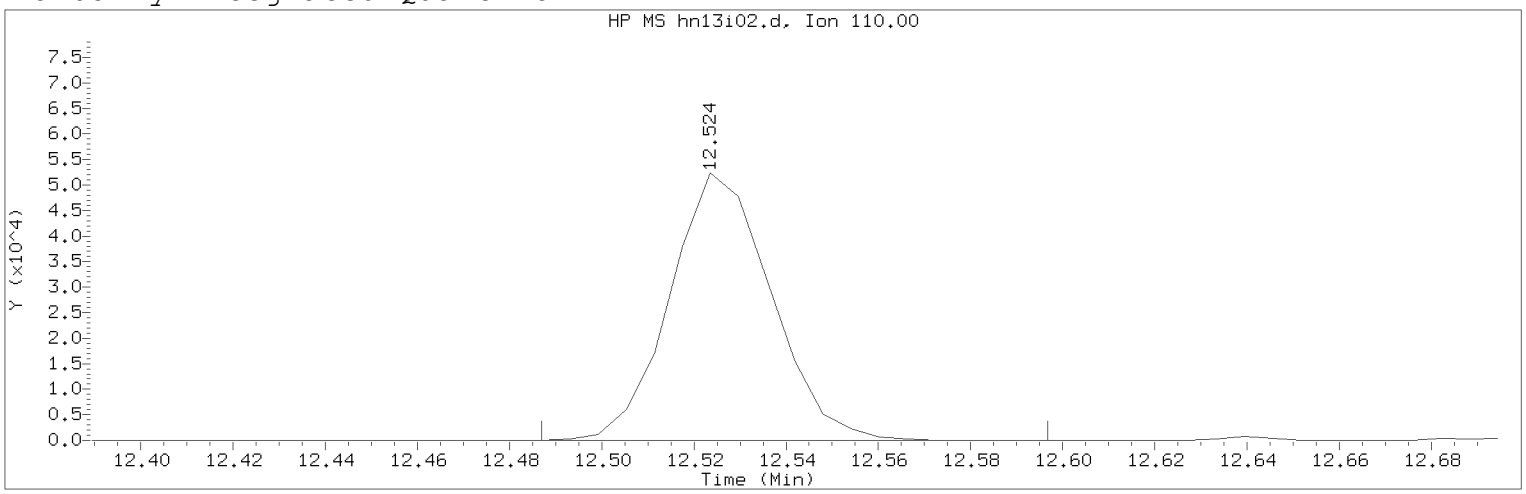
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 317738
On-column Amount (ng) : 10.0000
Integration start scan : 1779 Integration stop scan: 1807
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 571

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

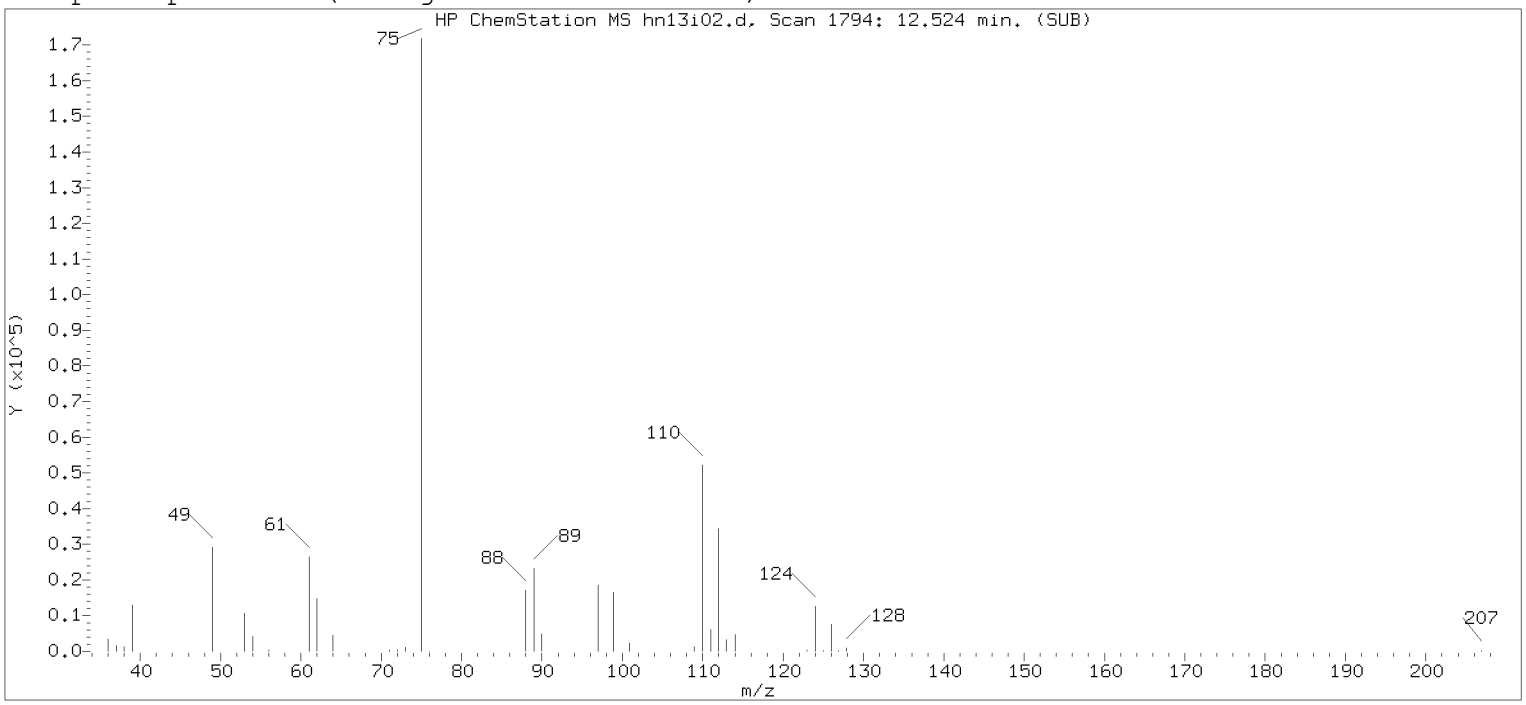
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area (flag) : 79798M
On-Column Amount (ng) : 9.6564
Integration start scan : 1787 Integration stop scan: 1805
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

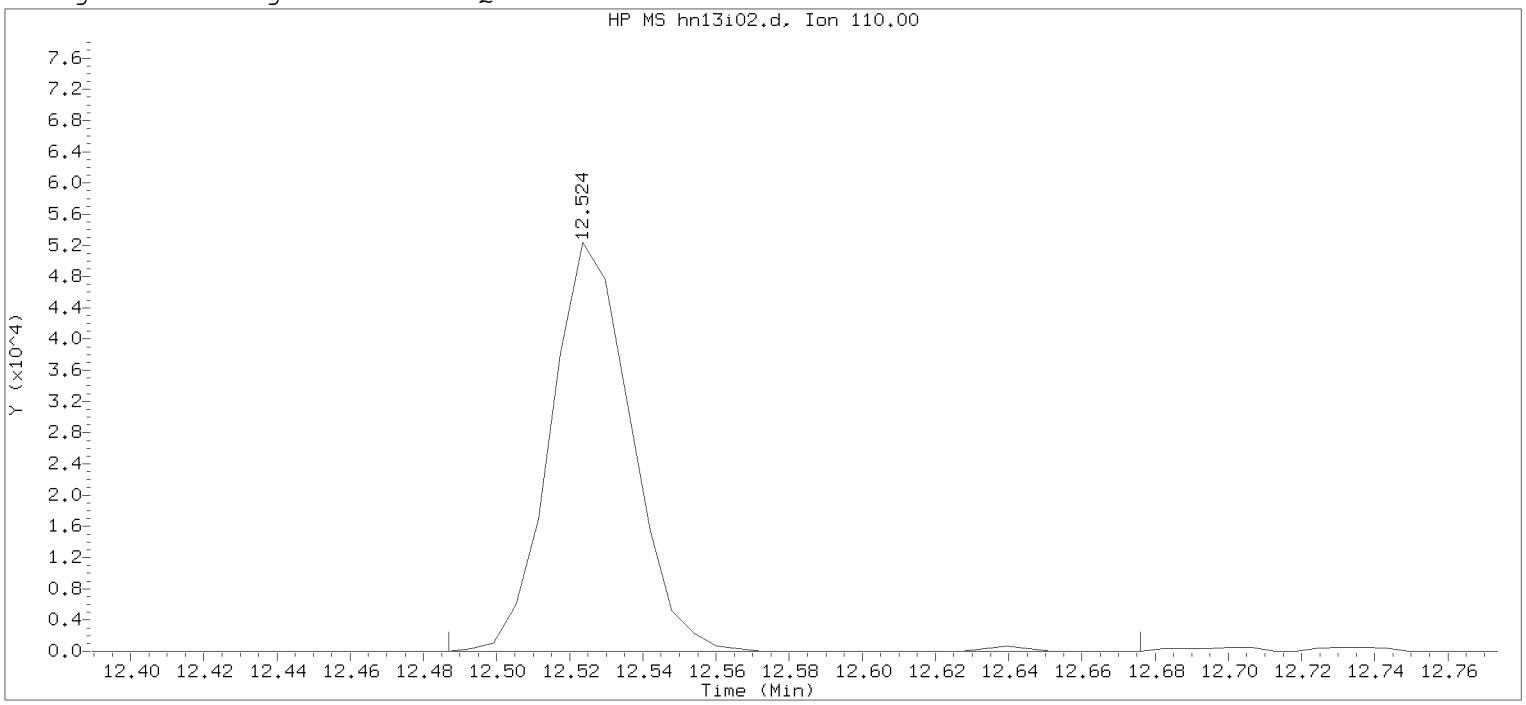
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

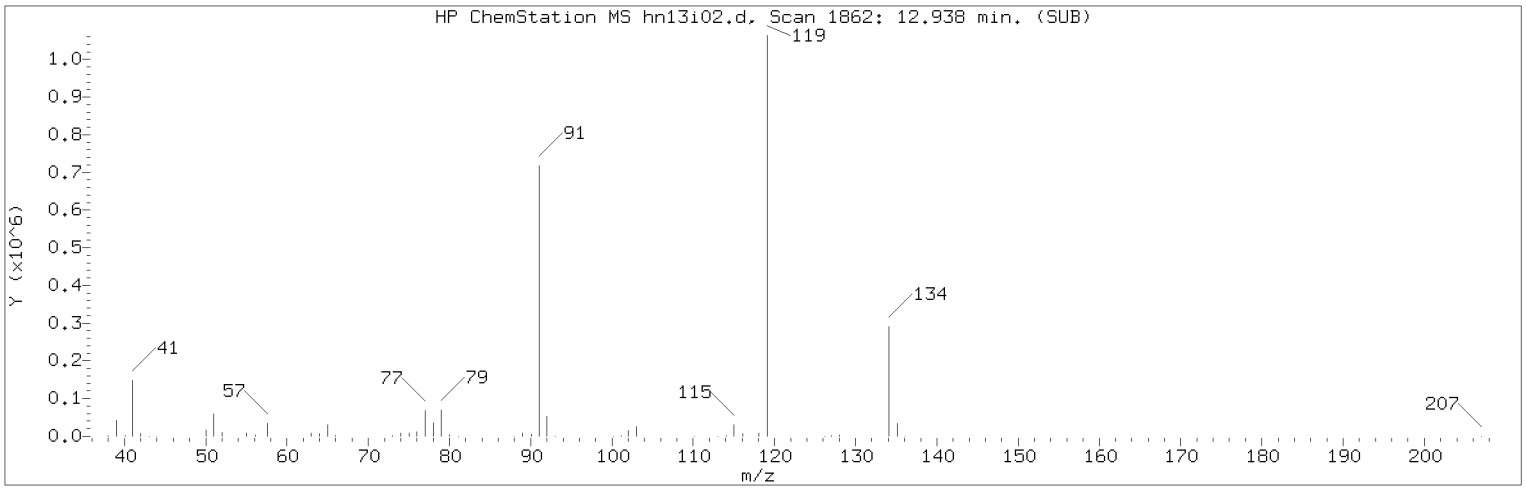
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

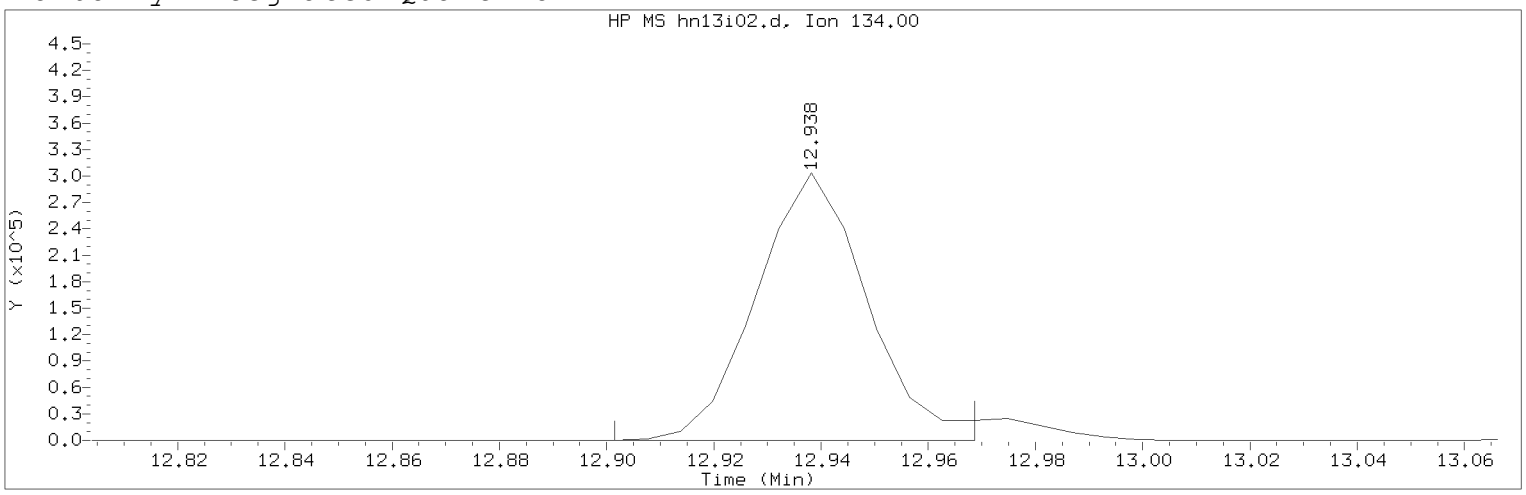
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area : 80291
On-column Amount (ng) : 10.0000
Integration start scan : 1787 Integration stop scan: 1818
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 573

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

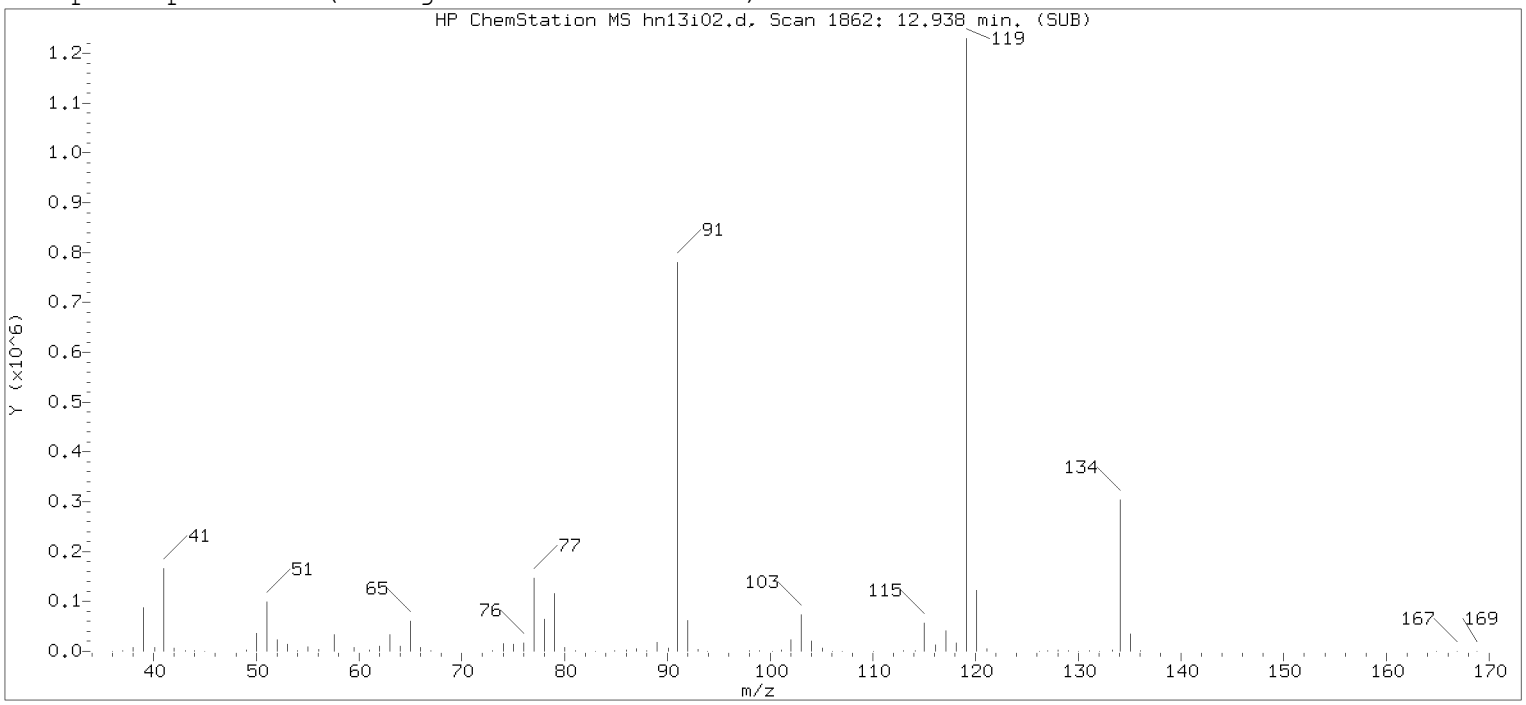
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 435454M
On-Column Amount (ng) : 10.2944
Integration start scan : 1855 Integration stop scan: 1866
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

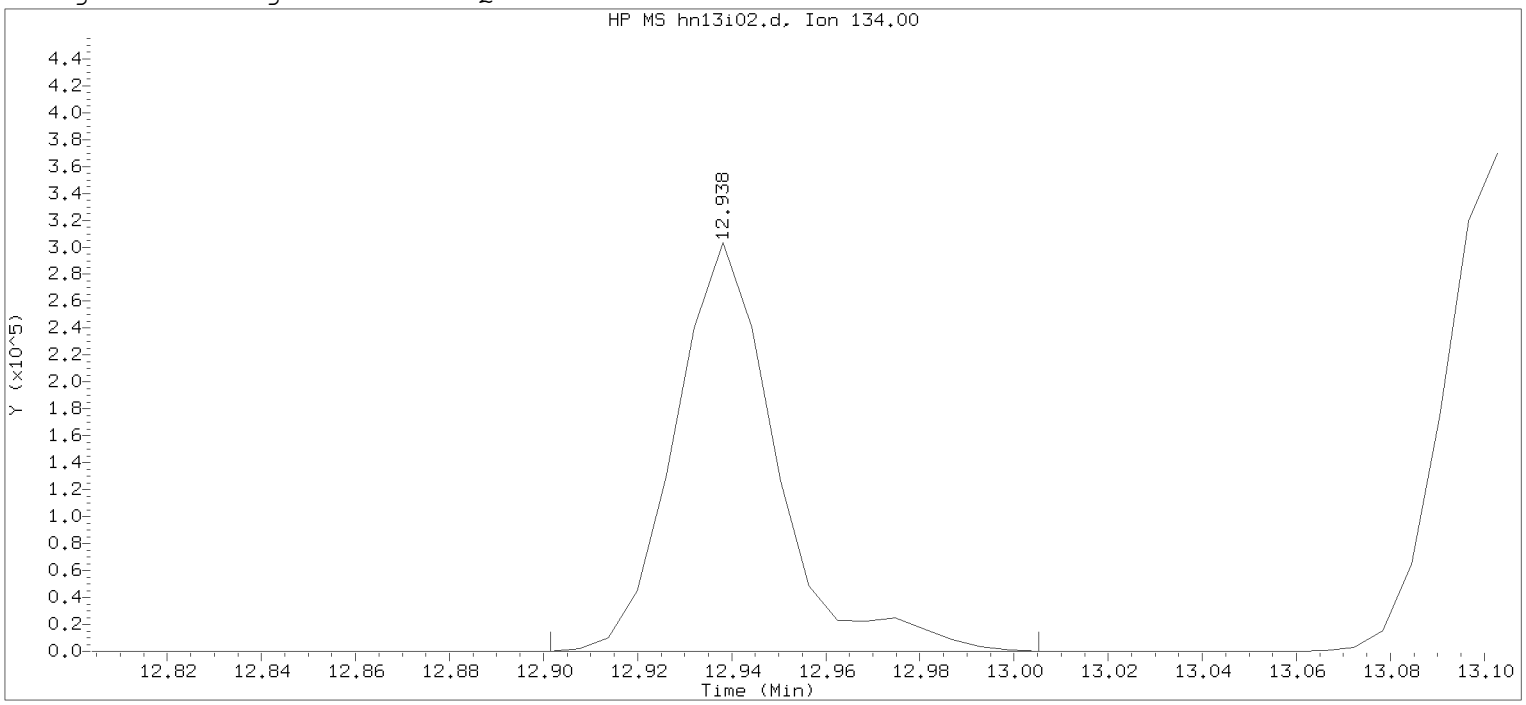
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i02.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:07 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:25
Date, time and analyst ID of latest file update: 13-Nov-2018 16:25 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 455311
On-column Amount (ng) : 10.0000
Integration start scan : 1855 Integration stop scan: 1872
Y at integration start : 0 Y at integration end: 0

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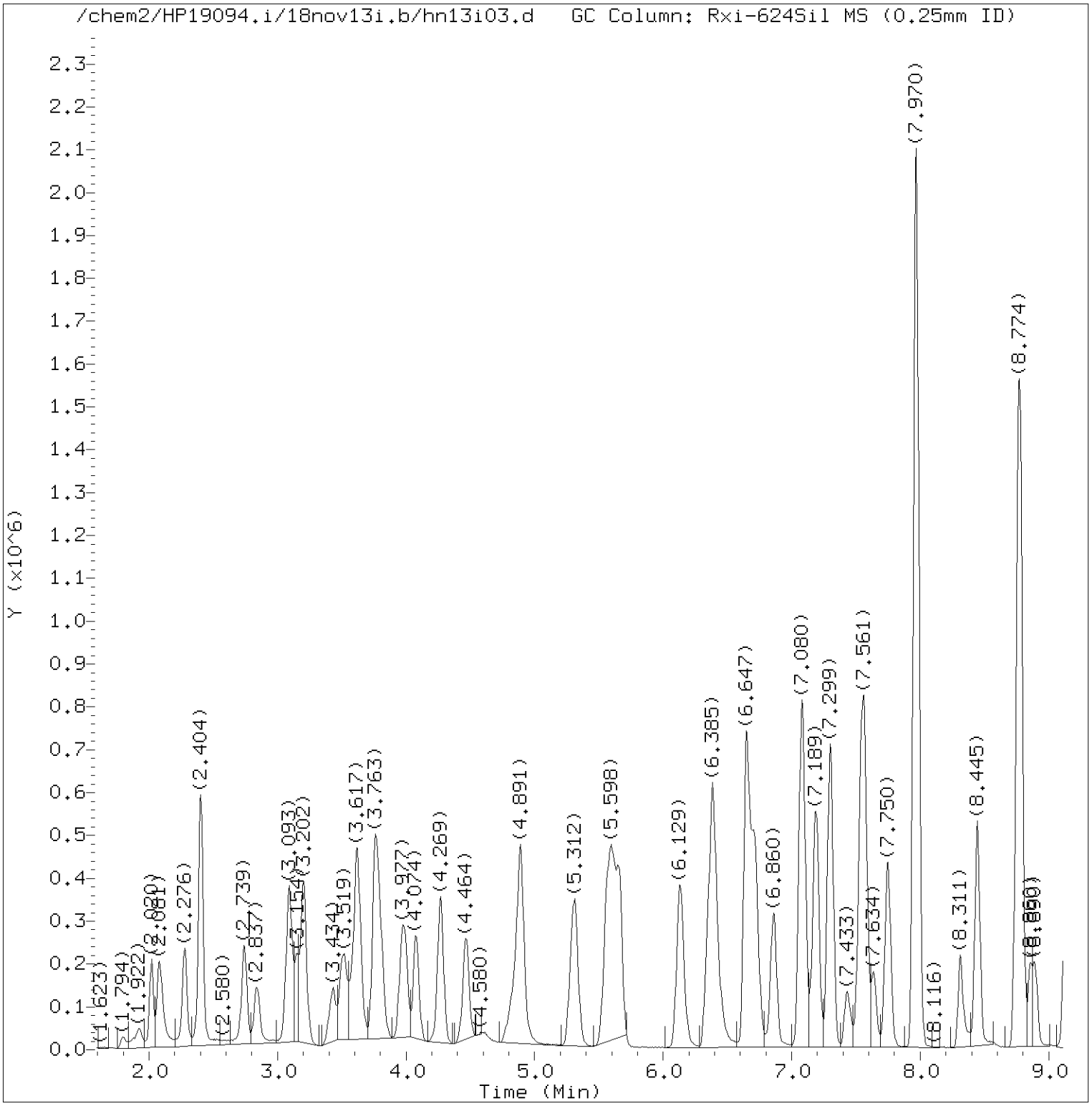
Target 3.5 esignature used. AE35 Page 575



Total Ion Chromatogram (TIC)

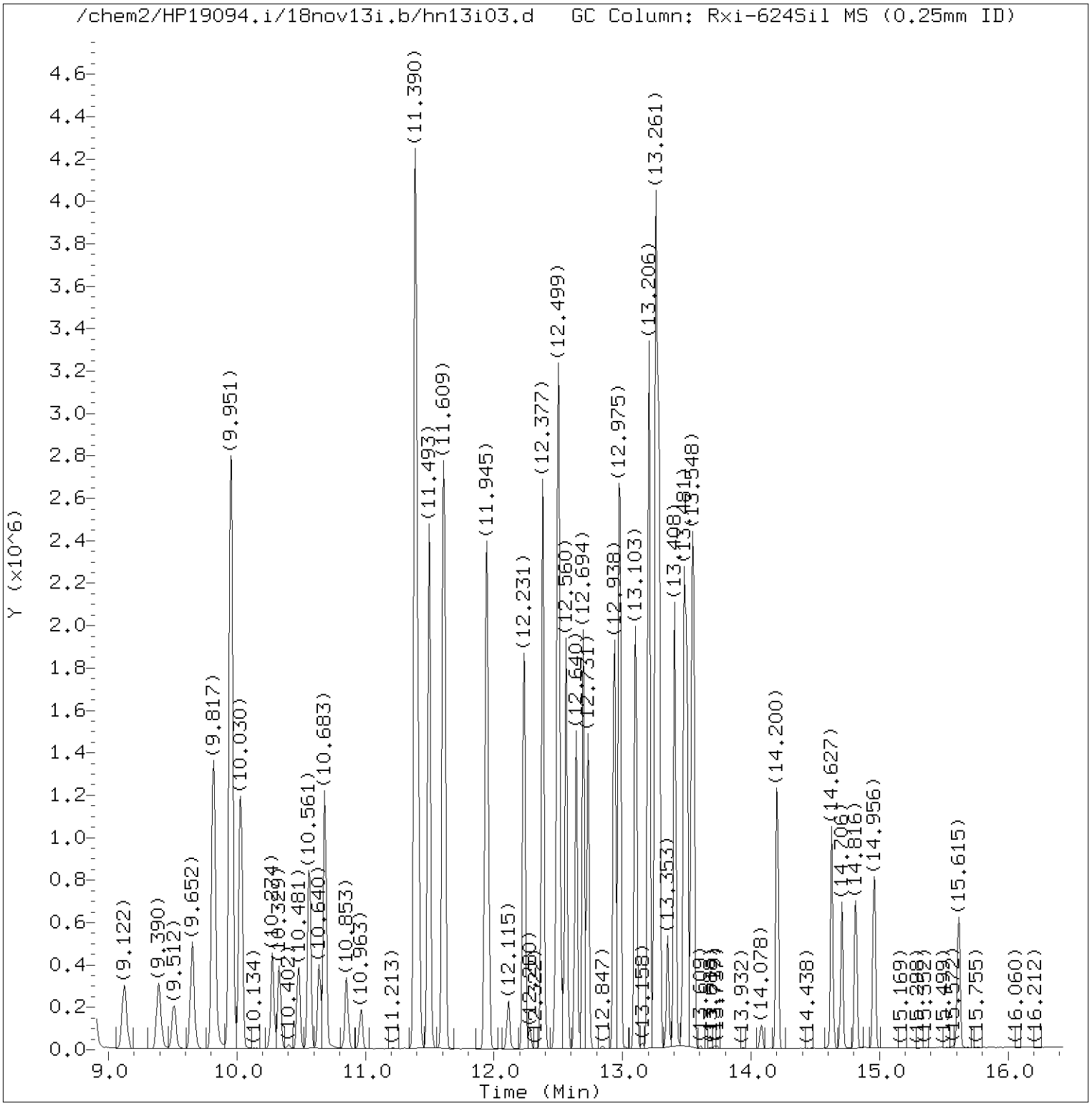
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.074	85	376012	5.063
2) Chloromethane	(2)	2.276	50	354245	4.930
5) Vinyl Chloride	(2)	2.398	62	326442	5.009
6) 1,3-Butadiene	(2)	2.404	39	257758M	4.811
7) Bromomethane	(2)	2.739	94	242565	4.909
8) Chloroethane	(2)	2.837	64	193777	4.984
9) Dichlorofluoromethane	(2)	3.086	67	496746	4.893
10) Trichlorofluoromethane	(2)	3.154	101	446475	5.087
11) Ethyl ether	(2)	3.434	59	152670	5.106
12) Freon 123a	(2)	3.519	67	299959	4.945
13) Acrolein	(1)	3.617	56	996279	237.417
15) 1,1-Dichloroethene	(2)	3.757	96	197478	4.833
16) Freon 113	(2)	3.788	101	235898	5.021
14) Acetone	(1)	3.794	43	228808M	43.806
17) Methyl Iodide	(2)	3.970	142	408058	4.919
18) Carbon Disulfide	(2)	4.080	76	614651	4.887
21) Methyl Acetate	(1)	4.245	43	79988	4.415
22) Allyl Chloride	(2)	4.269	41	417649	4.786
23) Methylene Chloride	(2)	4.470	84	207454	4.730
26)*t-Butyl Alcohol-d10	(1)	4.470	65	105362	50.000
28) t-Butyl Alcohol	(1)	4.611	59	143485	103.195
29) Acrylonitrile	(1)	4.824	53	173685	23.366
30) Methyl Tertiary Butyl Ether	(2)	4.879	73	453987	4.978
31) trans-1,2-Dichloroethene	(2)	4.891	96	222850	4.865
32) n-Hexane	(2)	5.312	57	386791	4.927
33) 1,1-Dichloroethane	(2)	5.556	63	439211	4.911
34) di-Isopropyl Ether	(2)	5.598	45	817787	4.926
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	407817	4.929
40) 1,2-Dichloroethene (Total)	(2)		96	473745	9.789
37) Ethyl t-butyl ether	(2)	6.129	59	670070	4.942
38) 2-Butanone	(1)	6.342	43	472577M	44.248
39) cis-1,2-Dichloroethene	(2)	6.379	96	250895	4.924
41) 2,2-Dichloropropane	(2)	6.397	77	357694	4.908
42) Propionitrile	(1)	6.433	54	258971M	94.888
45) Methacrylonitrile	(1)	6.647	67	468913	46.915
47) Bromochloromethane	(2)	6.714	128	102734	5.126
48) Tetrahydrofuran	(1)	6.714	71	118338	46.349
49) Chloroform	(2)	6.860	83	401884	4.913

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.074	113	554464	10.008
50)$Dibromofluoromethane	(2)	7.080	111	568252	9.993
51) 1,1,1-Trichloroethane	(2)	7.092	97	365390	4.933
52) Cyclohexane	(2)	7.195	56	477133	4.891
52) Cyclohexane	(2)	7.189	84	389540	4.941
52) Cyclohexane	(2)	7.189	69	142699	4.788
54) Carbon Tetrachloride	(2)	7.299	117	331652	4.978
55) 1,1-Dichloropropene	(2)	7.299	75	332712	4.972
56) Isobutyl Alcohol	(1)	7.433	41	149242M	206.505
57)$1,2-Dichloroethane-d4	(2)	7.537	102	97308	10.021
57)$1,2-Dichloroethane-d4	(2)	7.531	65	451975	10.025
57)$1,2-Dichloroethane-d4	(2)	7.537	104	61687	10.032
58) Benzene	(2)	7.567	78	959316	4.942
59) 1,2-Dichloroethane	(2)	7.634	62	205510	4.771
60) t-Amyl methyl ether	(2)	7.750	73	561732	5.029
62) n-Heptane	(2)	7.970	43	411900	4.832
63)*Fluorobenzene	(2)	7.970	96	2216047	10.000
65) n-Butanol	(1)	8.311	56	269107M	503.620
67) Trichloroethene	(2)	8.445	95	248178	4.955
69) Methylcyclohexane	(2)	8.756	83	481357	4.987
70) 1,2-Dichloropropane	(2)	8.787	63	237064	4.833
71) Methyl Methacrylate	(1)	8.860	69	97751MA	4.665
72) 1,4-Dioxane	(1)	8.878	88	30734M	303.655
73) Dibromomethane	(2)	8.896	93	93297	5.007
74) Bromodichloromethane	(2)	9.122	83	274742	4.943
76) 2-Nitropropane	(1)	9.390	41	275414	44.954
80) cis-1,3-Dichloropropene	(2)	9.652	75	337692	4.917
81) 4-Methyl-2-Pentanone	(1)	9.817	43	1255155M	47.472
82)$Toluene-d8	(3)	9.951	98	2278816	10.016
82)$Toluene-d8	(3)	9.951	100	1485151	10.041
83) Toluene	(3)	10.030	92	600297	4.970
85) 1,3-Dichloropropene (total)	(3)		75	603874	9.938
84) trans-1,3-Dichloropropene	(3)	10.274	75	266182	5.022
86) Ethyl Methacrylate	(3)	10.329	69	216860	4.967
88) 1,1,2-Trichloroethane	(3)	10.481	97	134677	5.015
89) Tetrachloroethene	(3)	10.567	166	281446	5.004
90) 1,3-Dichloropropane	(3)	10.640	76	238591	4.892
91) 2-Hexanone	(1)	10.683	43	846902M	46.090

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	180913	4.937
95) 1,2-Dibromoethane	(3)	10.969	107	131298	5.096
96) 1-Chlorohexane	(3)	11.390	91	360018	4.729
97)*Chlorobenzene-d5	(3)	11.390	117	1761692	10.000
98) Chlorobenzene	(3)	11.414	112	641461	4.966
100) Ethylbenzene	(3)	11.493	91	1188170	4.954
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	229020	5.017
101) m+p-Xylene	(3)	11.609	106	899964	9.946
105) Xylene (Total)	(3)		106	1336554	14.899
104) o-Xylene	(3)	11.938	106	436590	4.952
106) Styrene	(3)	11.951	104	709390	5.027
107) Bromoform	(3)	12.115	173	105540	5.074
108) Isopropylbenzene	(3)	12.231	105	1193880	4.935
111)$4-Bromofluorobenzene	(3)	12.377	95	859430	10.091
111)$4-Bromofluorobenzene	(3)	12.383	174	729989	10.009
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	162718M	5.068
114) Bromobenzene	(4)	12.499	156	252689	4.926
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	434974M	47.735
116) 1,2,3-Trichloropropane	(4)	12.524	110	41295	4.954
117) n-Propylbenzene	(4)	12.560	91	1382113	4.932
119) 2-Chlorotoluene	(4)	12.640	126	273450	4.969
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	979153	4.967
122) 4-Chlorotoluene	(4)	12.731	126	270306	4.935
125) tert-Butylbenzene	(4)	12.938	134	216072M	5.064
126) Pentachloroethane	(4)	12.975	167	171356	5.066
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	986210	4.959
128) sec-Butylbenzene	(4)	13.103	105	1259997	4.970
131) 1,3-Dichlorobenzene	(4)	13.206	146	503409	4.894
132) p-Isopropyltoluene	(4)	13.206	119	1085368	5.013
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	928837	10.000
134) 1,4-Dichlorobenzene	(4)	13.280	146	491818	4.888
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	422376	4.982
136) Benzyl Chloride	(4)	13.353	126	77737	5.330
138) n-Butylbenzene	(4)	13.499	92	507013	4.974
139) 1,2-Dichlorobenzene	(4)	13.536	146	438169	4.952
143) 1,2-Dibromo-3-chloropropane	(1)	14.078	155	22951M	4.879
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	375757	4.962
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	304994	5.029

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

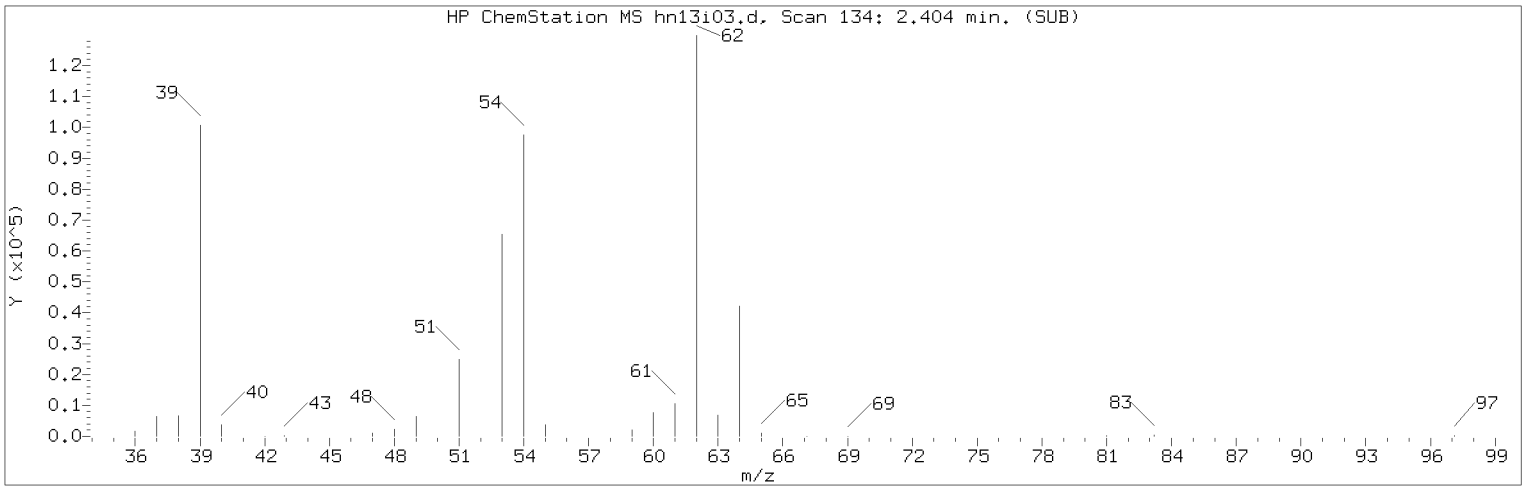
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

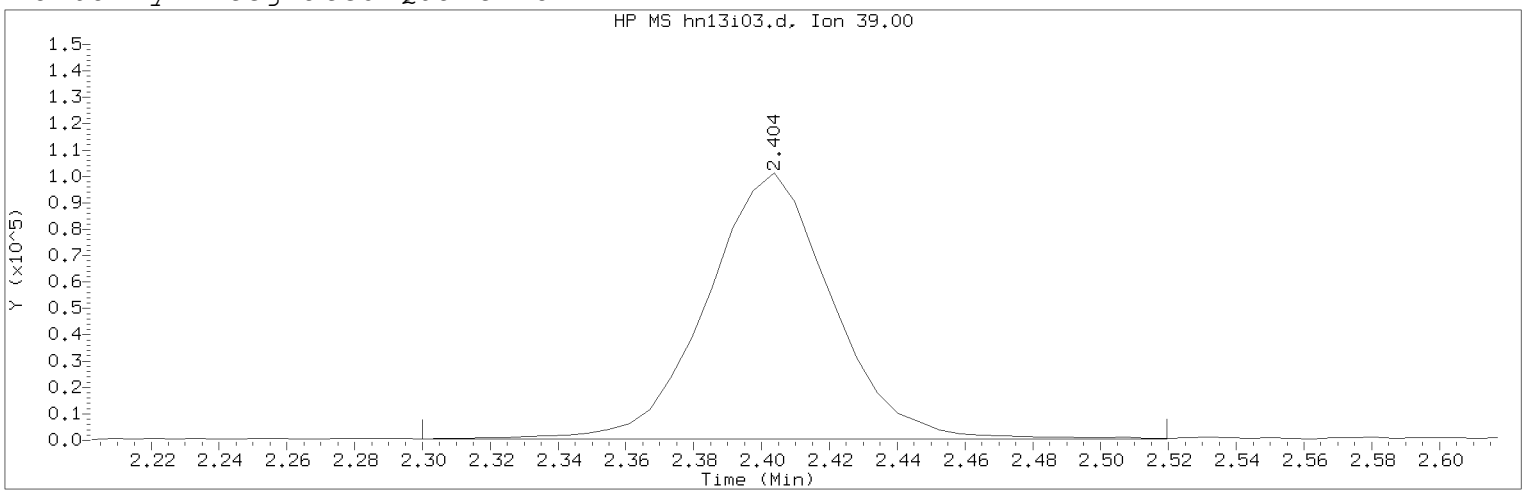
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	124458	5.085
147) Naphthalene	(4)	14.816	128	510163	5.022
148) 1,2,3-Trichlorobenzene	(4)	14.956	180	254602	5.039

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

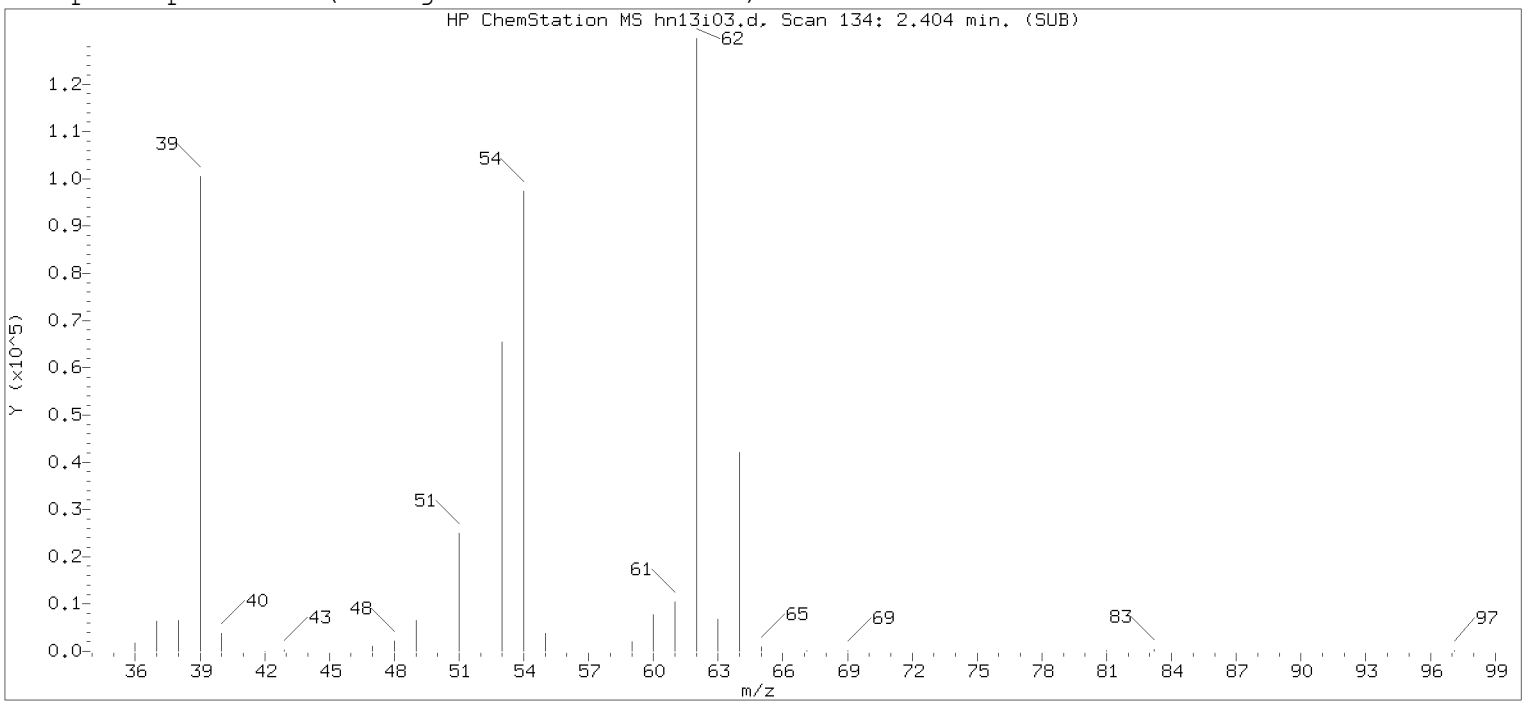
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 134
Retention Time (minutes): 2.404
Quant Ion : 39.00
Area (flag) : 257758M
On-Column Amount (ng) : 4.8108
Integration start scan : 116 Integration stop scan: 152
Y at integration start : 543 Y at integration end: 543

Reason for manual integration: improper integration

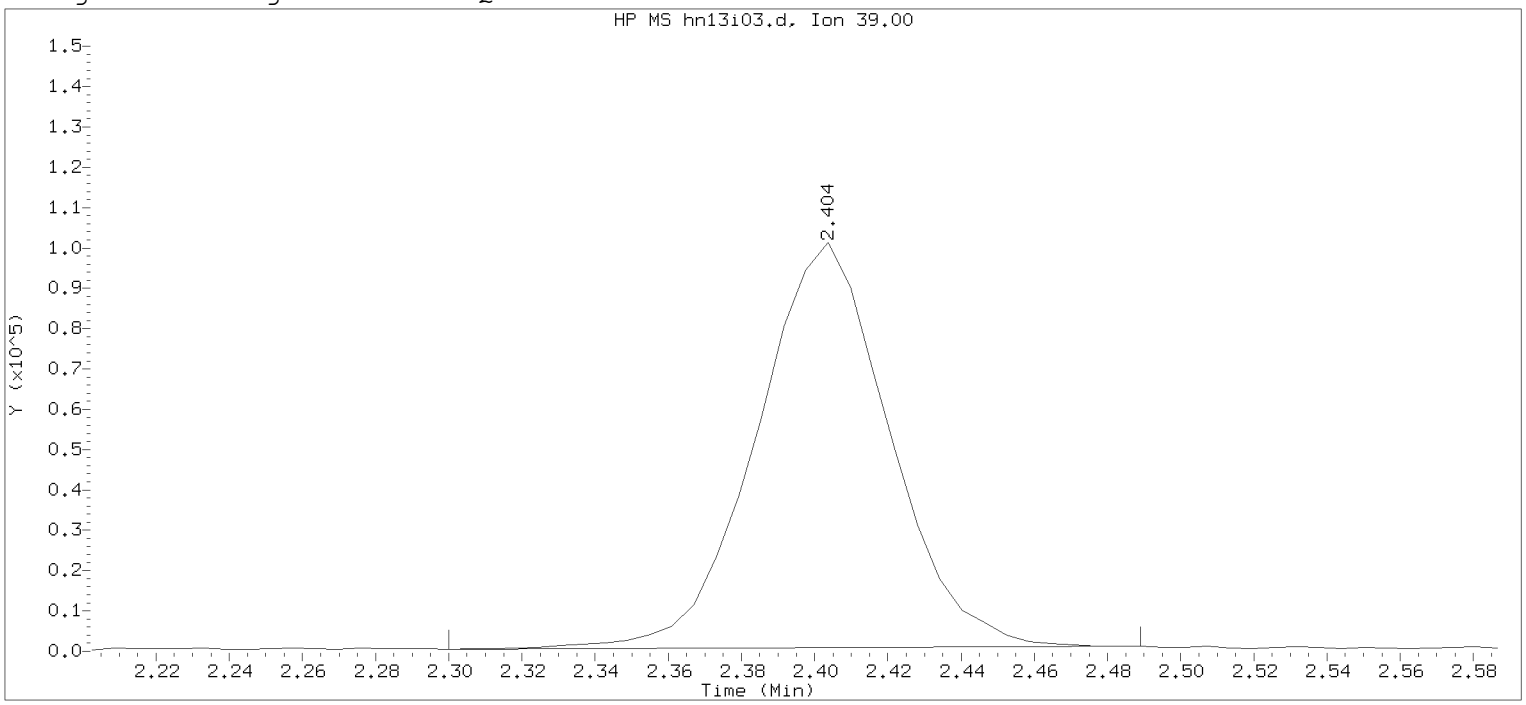
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

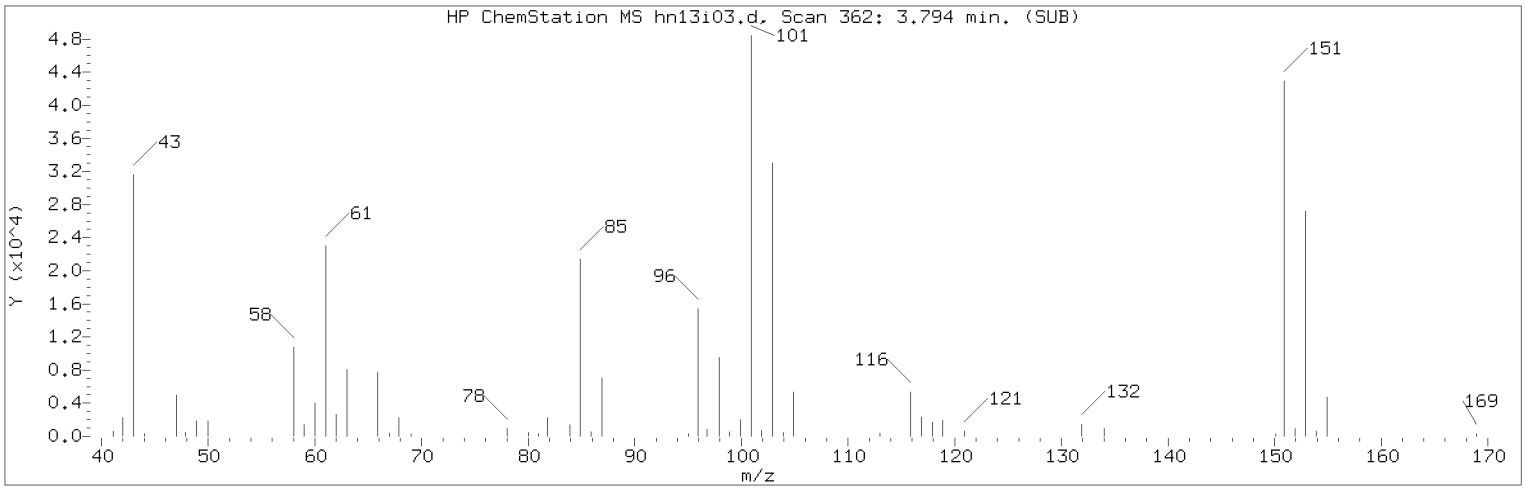
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

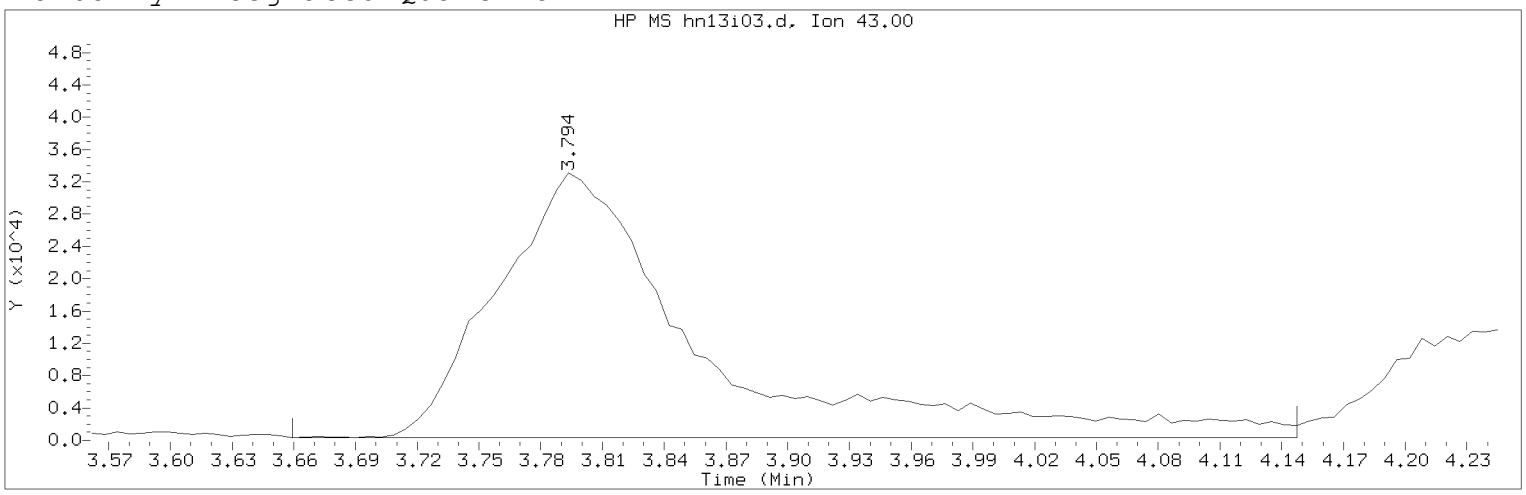
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 134
Retention Time (minutes): 2.404
Quant Ion : 39.00
Area : 252790
On-column Amount (ng) : 5.0000
Integration start scan : 116 Integration stop scan: 147
Y at integration start : 547 Y at integration end: 1269

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

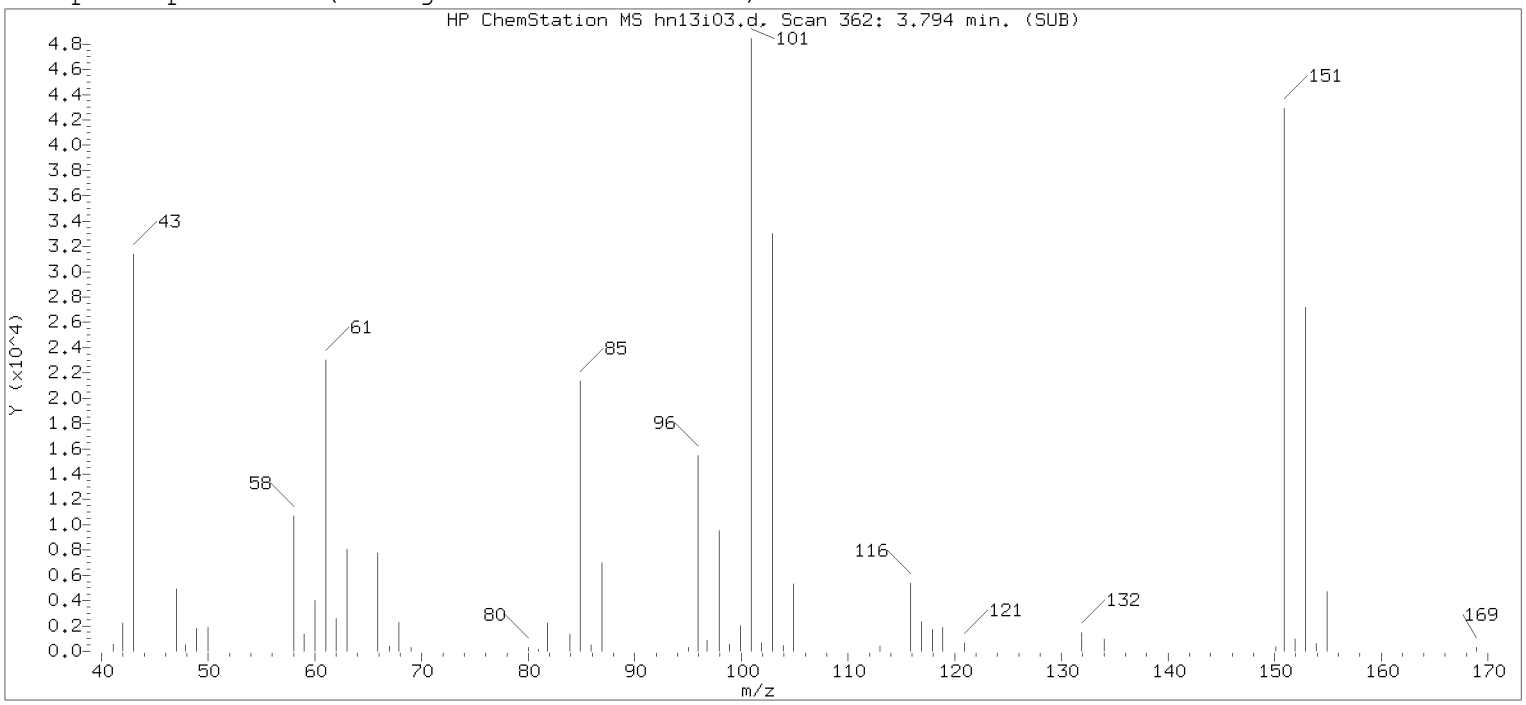
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area (flag) : 228808M
On-Column Amount (ng) : 43.8060
Integration start scan : 339 Integration stop scan: 419
Y at integration start : 289 Y at integration end: 289

Reason for manual integration: improper integration

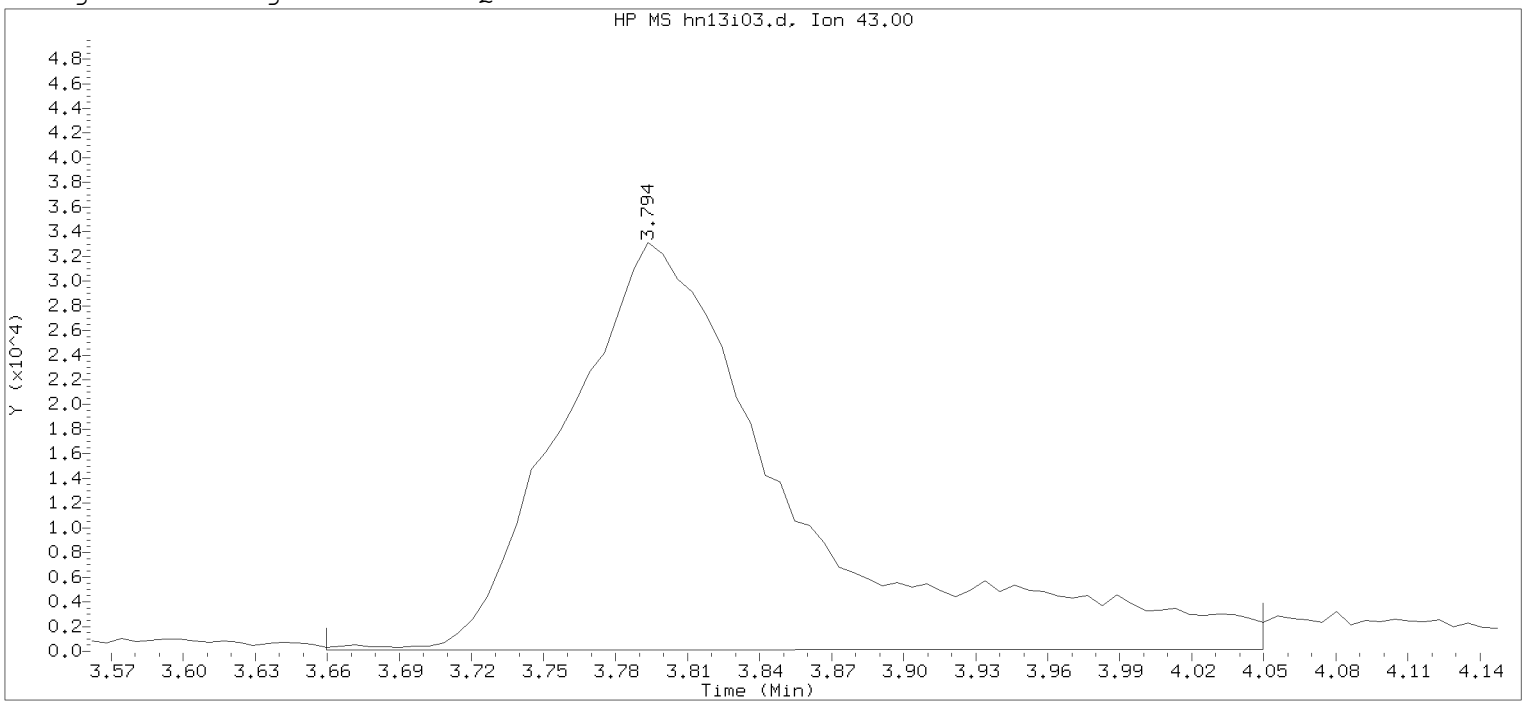
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

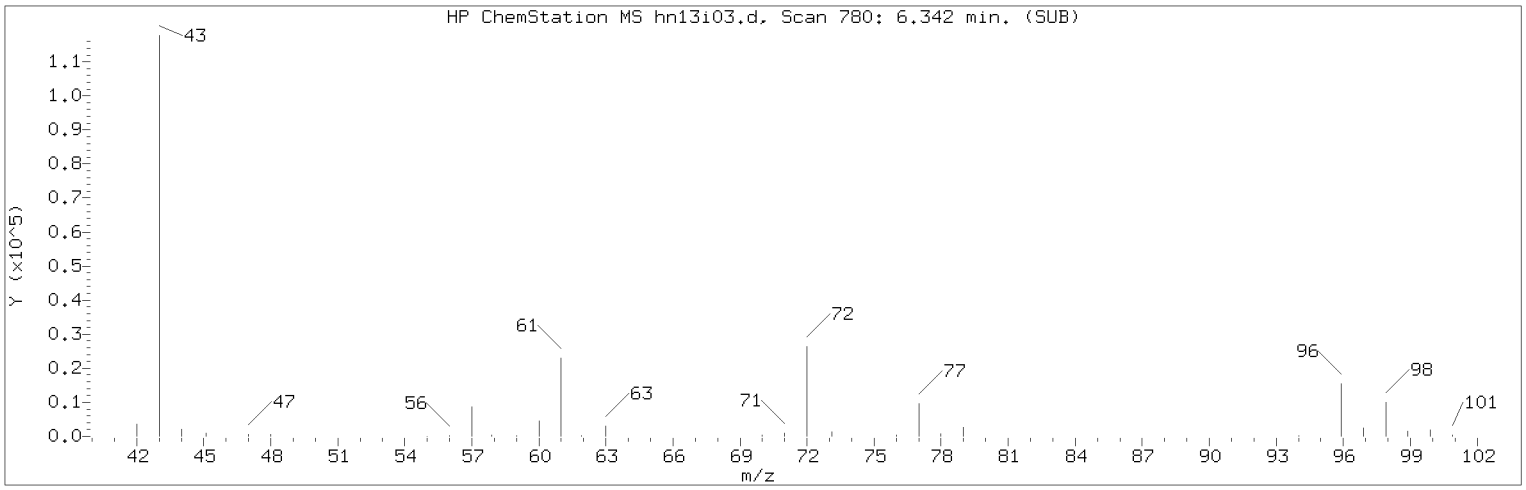
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

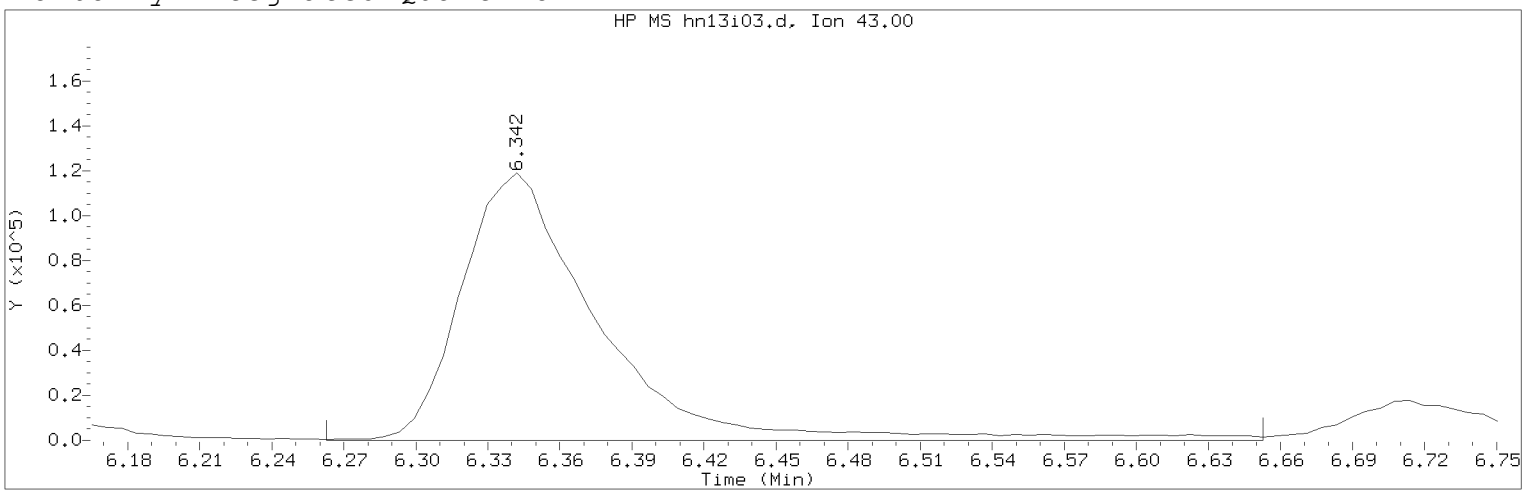
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area : 219126
On-column Amount (ng) : 50.0000
Integration start scan : 339 Integration stop scan: 403
Y at integration start : 130 Y at integration end: 180

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

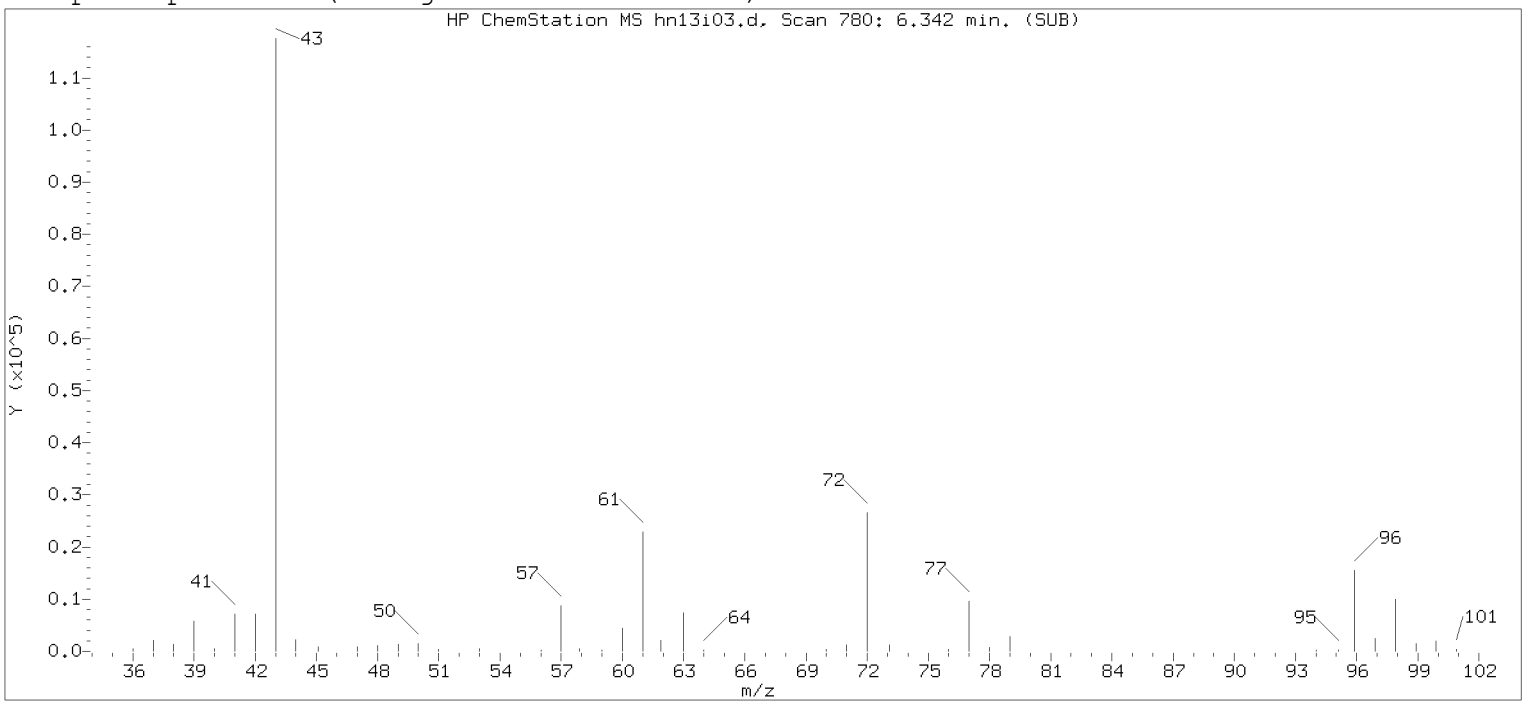
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area (flag) : 472577M
On-Column Amount (ng) : 44.2481
Integration start scan : 766 Integration stop scan: 830
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

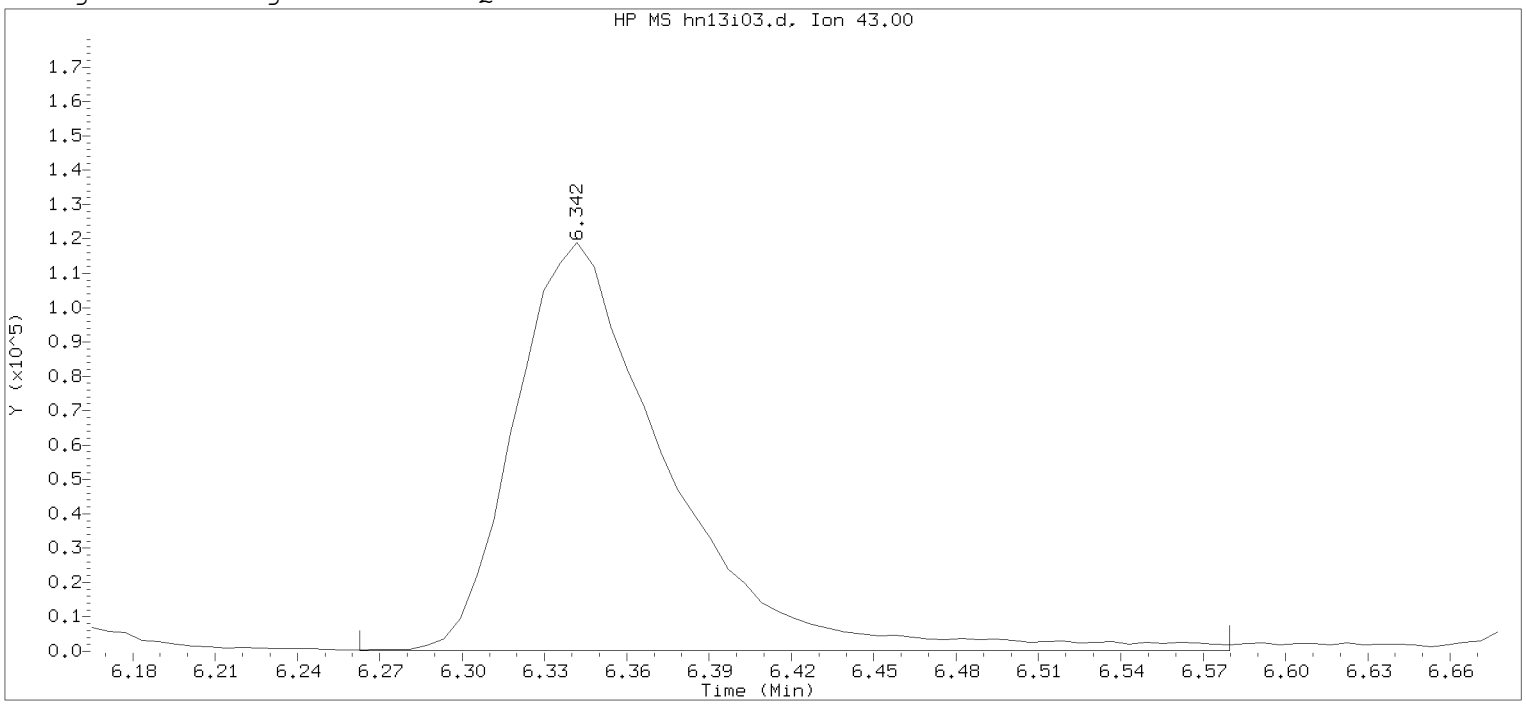
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	: 38		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.342		
Quant Ion	: 43.00		
Area	: 458167		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 766	Integration stop scan:	818
Y at integration start	: 259	Y at integration end:	259

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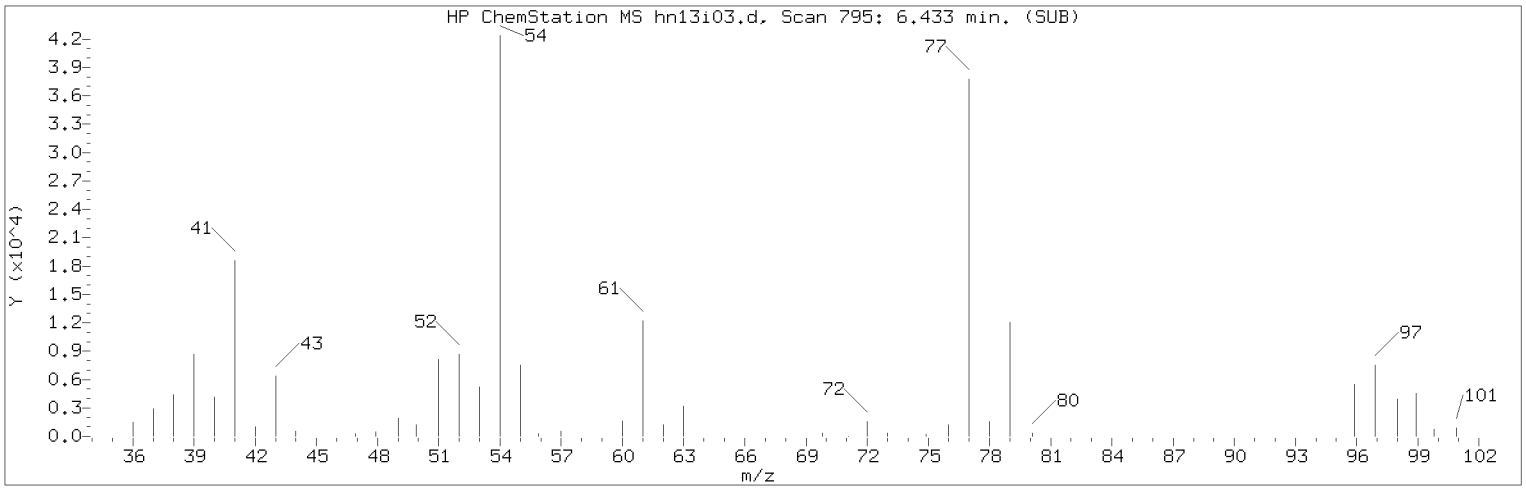
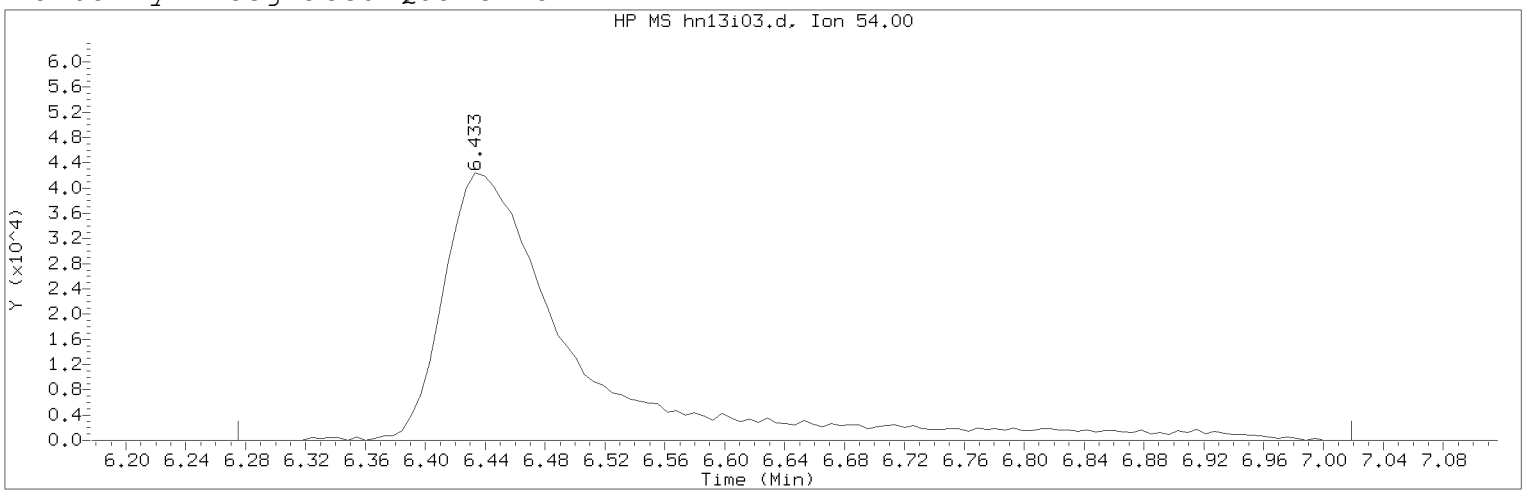
Target 3.5 esignature used. AE35 Page 587

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

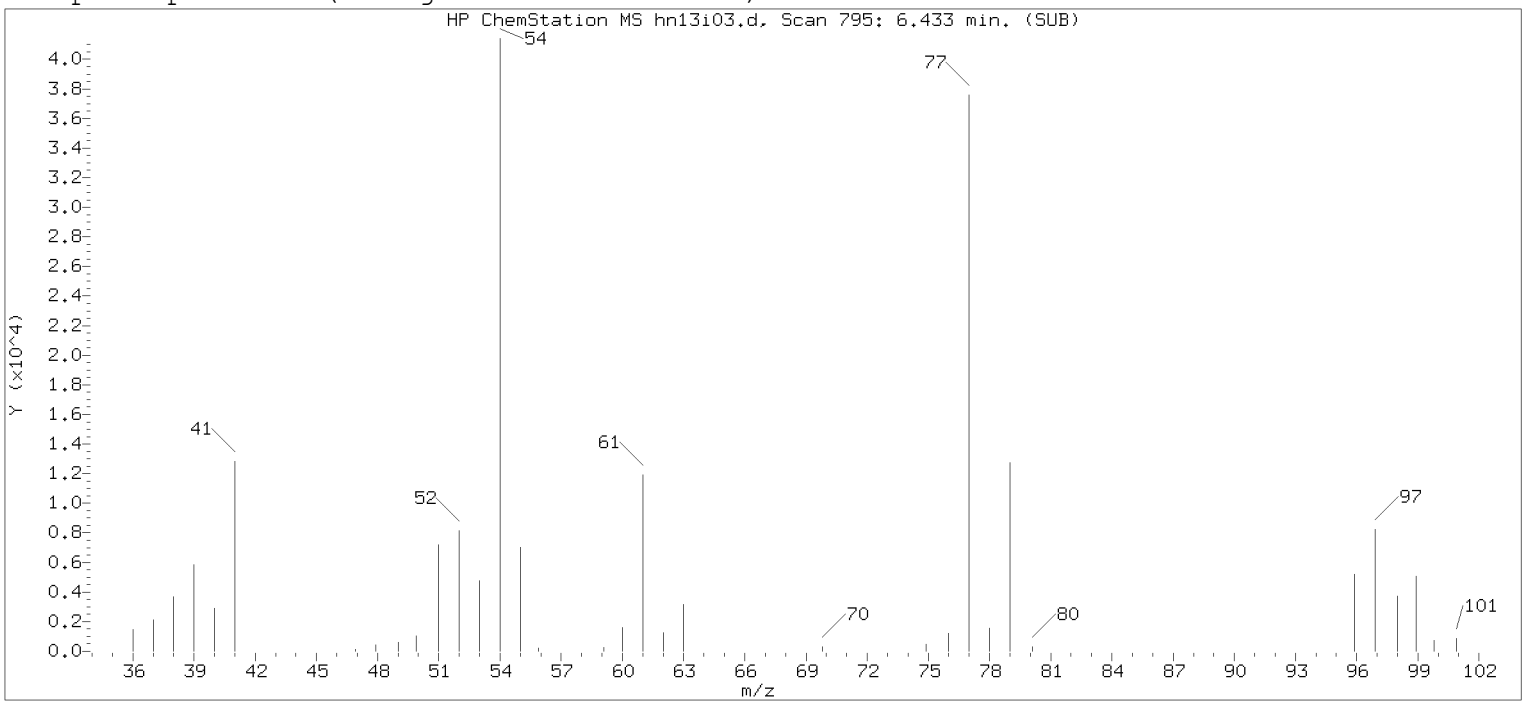
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 795
Retention Time (minutes): 6.433
Quant Ion : 54.00
Area (flag) : 258971M
On-Column Amount (ng) : 94.8878
Integration start scan : 768 Integration stop scan: 890
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

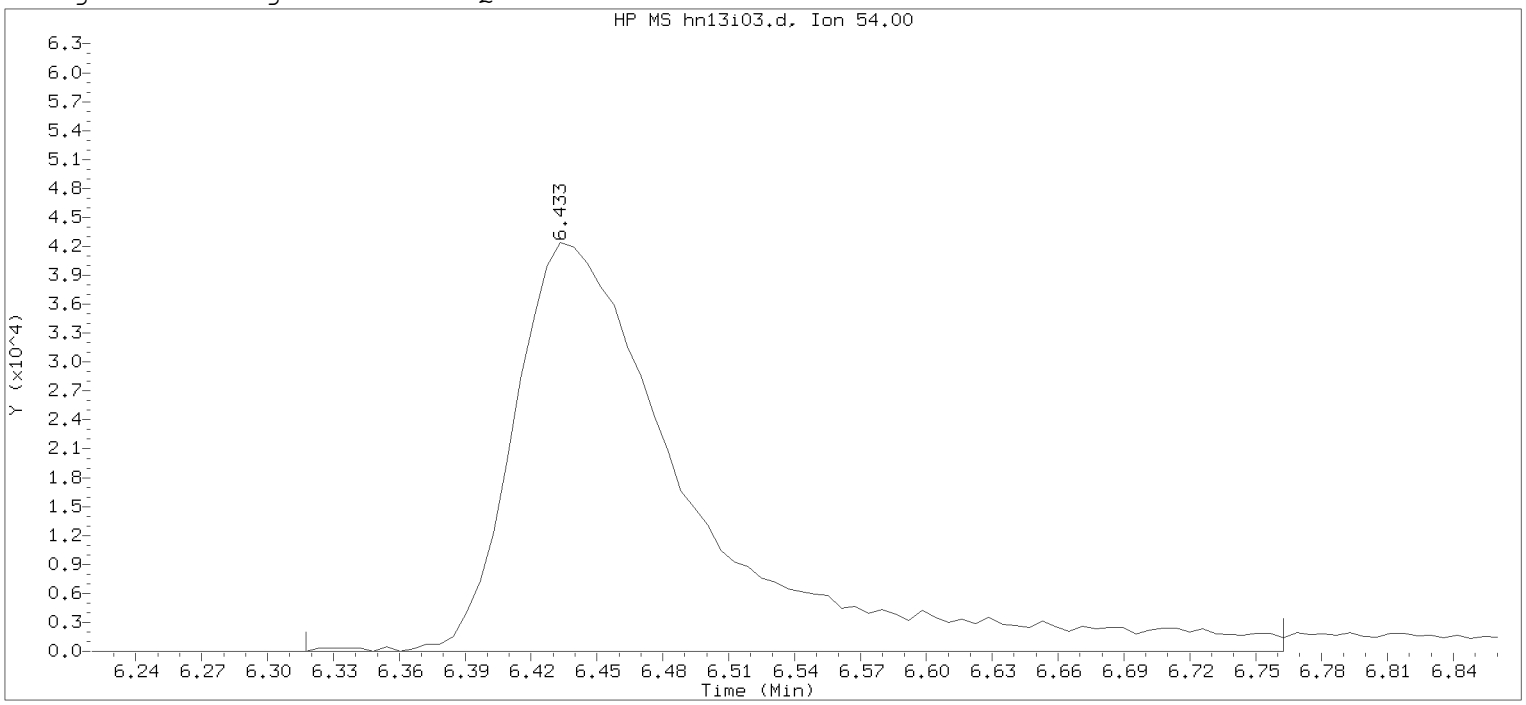
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	: 42		
Compound Name	: Propionitrile		
Scan Number	: 795		
Retention Time (minutes)	: 6.433		
Quant Ion	: 54.00		
Area	: 241555		
On-column Amount (ng)	: 100.0000		
Integration start scan	: 775	Integration stop scan:	848
Y at integration start	: 0	Y at integration end:	0

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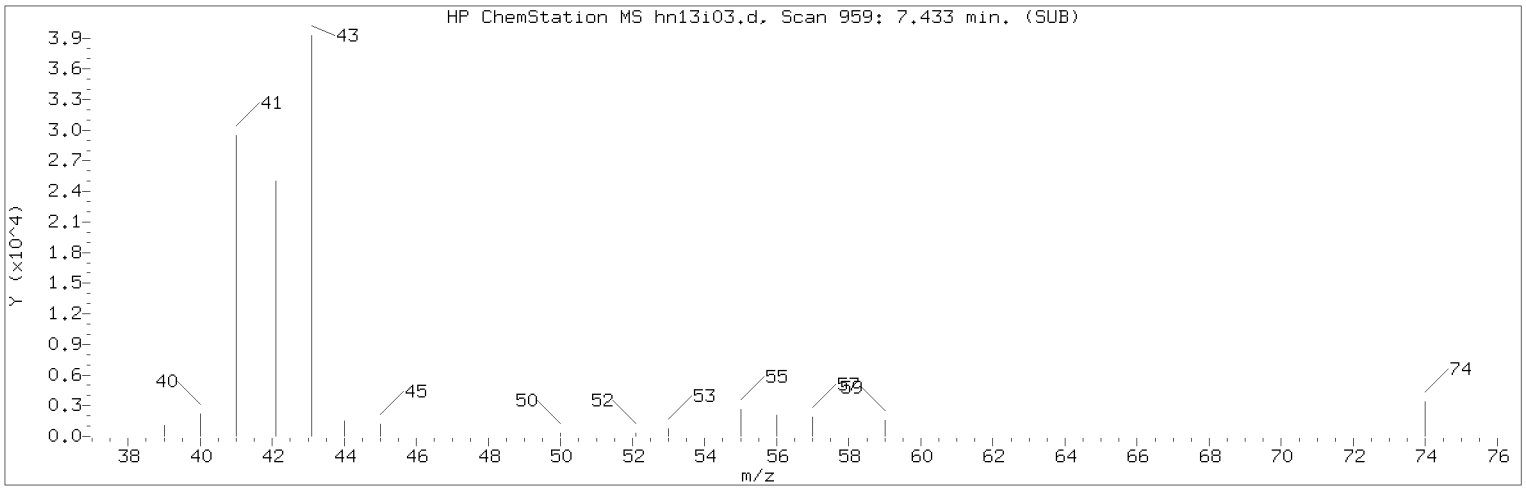
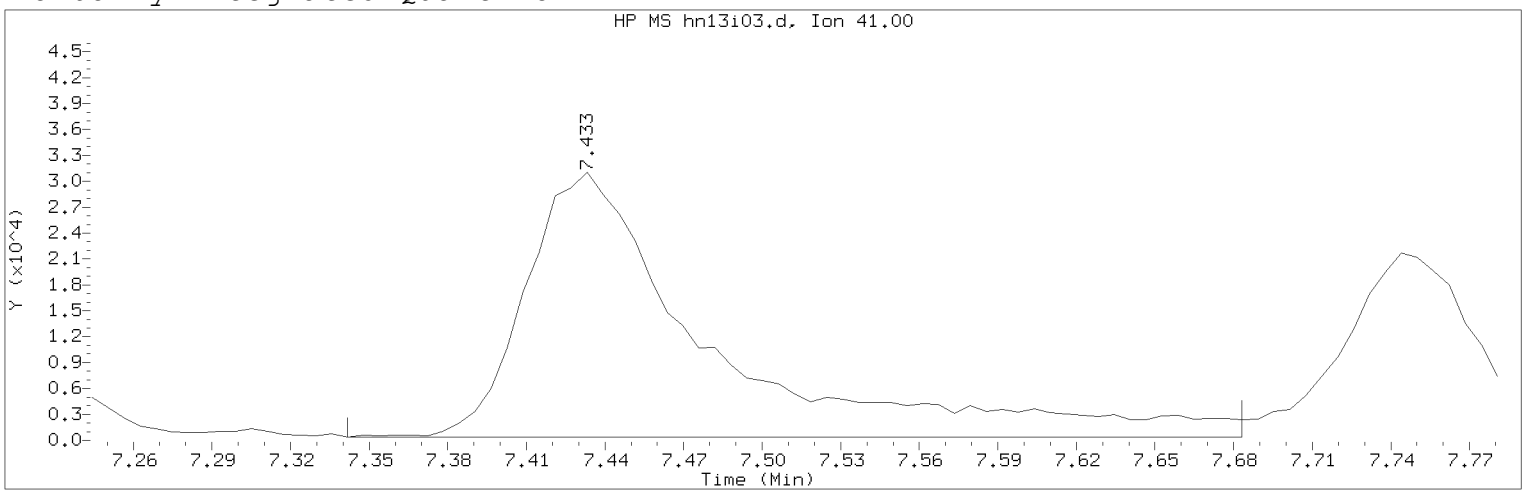
Target 3.5 esignature user

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

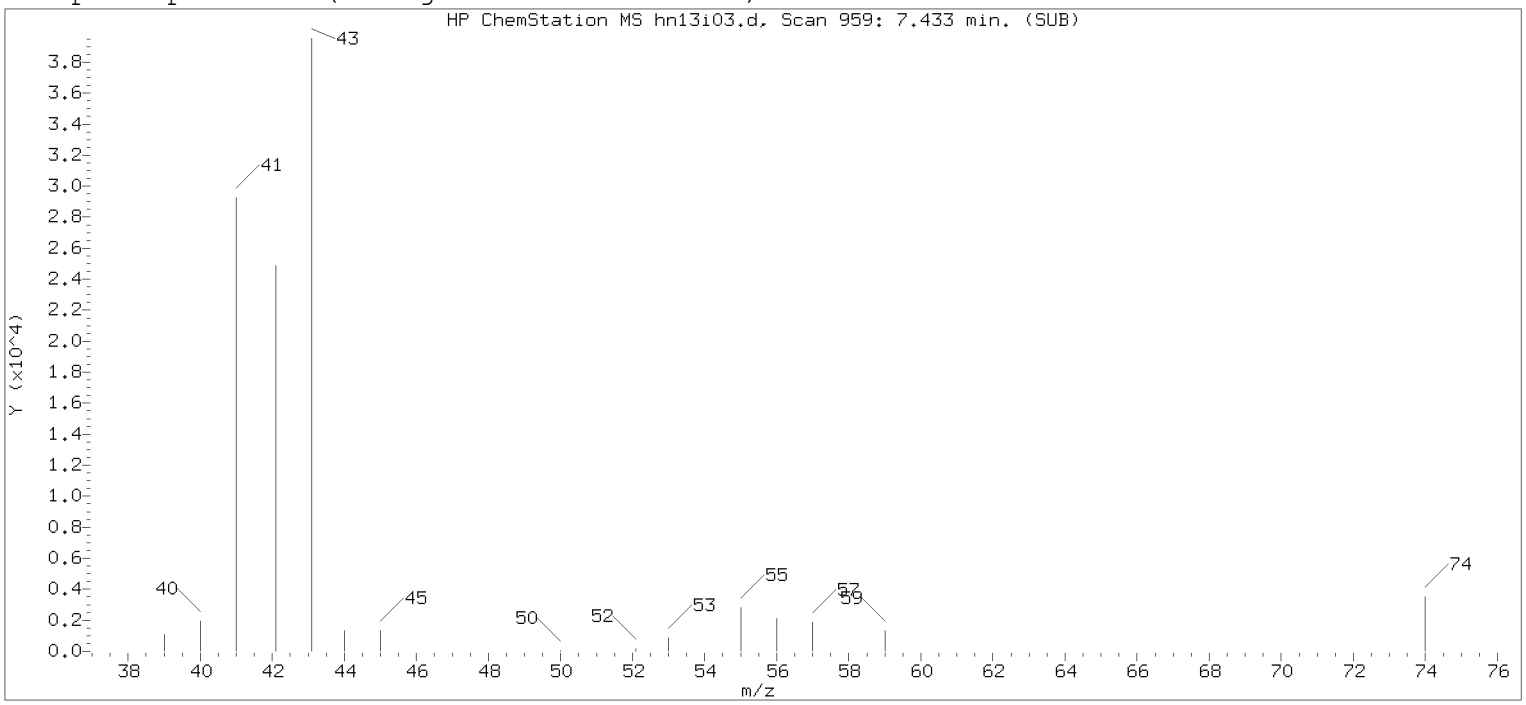
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area (flag) : 149242M
On-Column Amount (ng) : 206.5055
Integration start scan : 943 Integration stop scan: 999
Y at integration start : 396 Y at integration end: 396

Reason for manual integration: improper integration

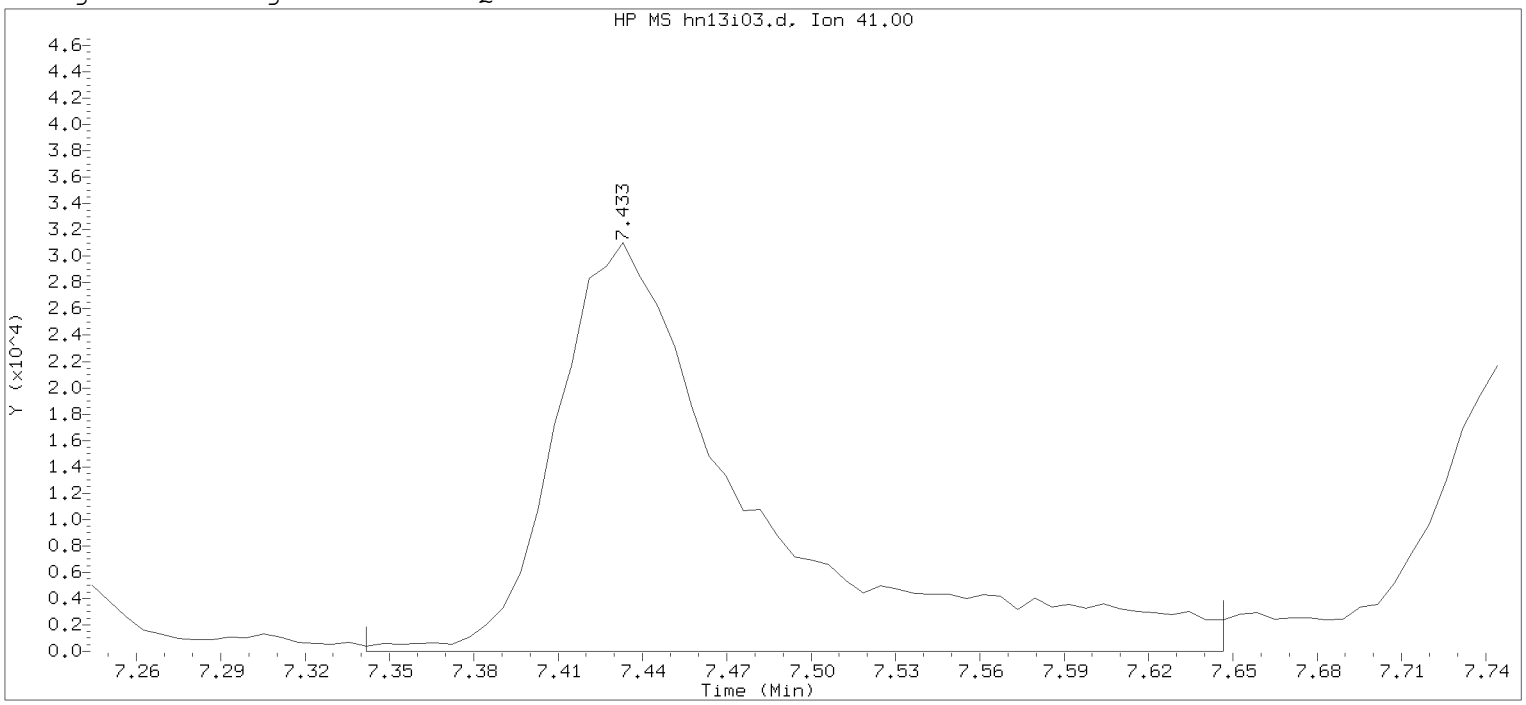
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

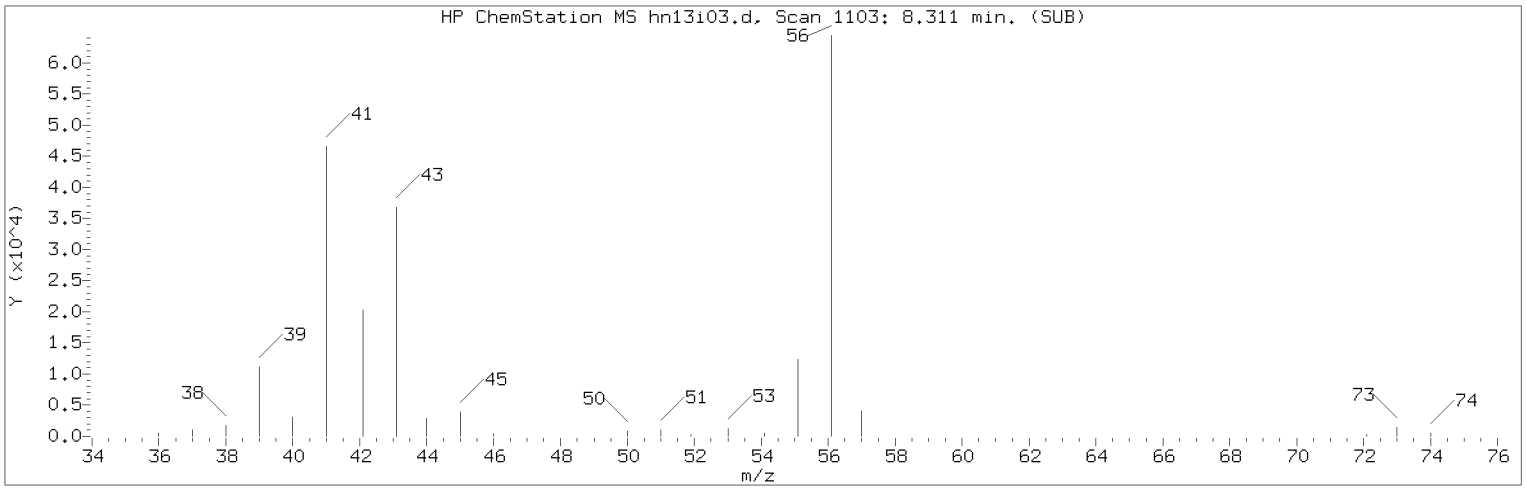
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

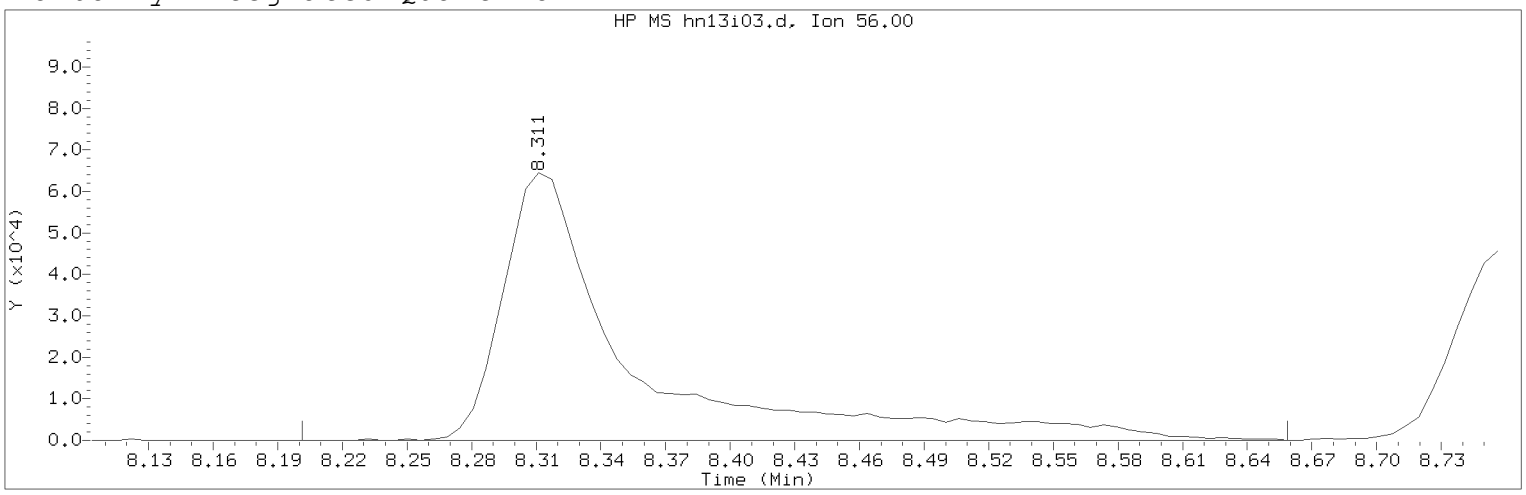
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area : 151279
On-column Amount (ng) : 250.0000
Integration start scan : 943 Integration stop scan: 993
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

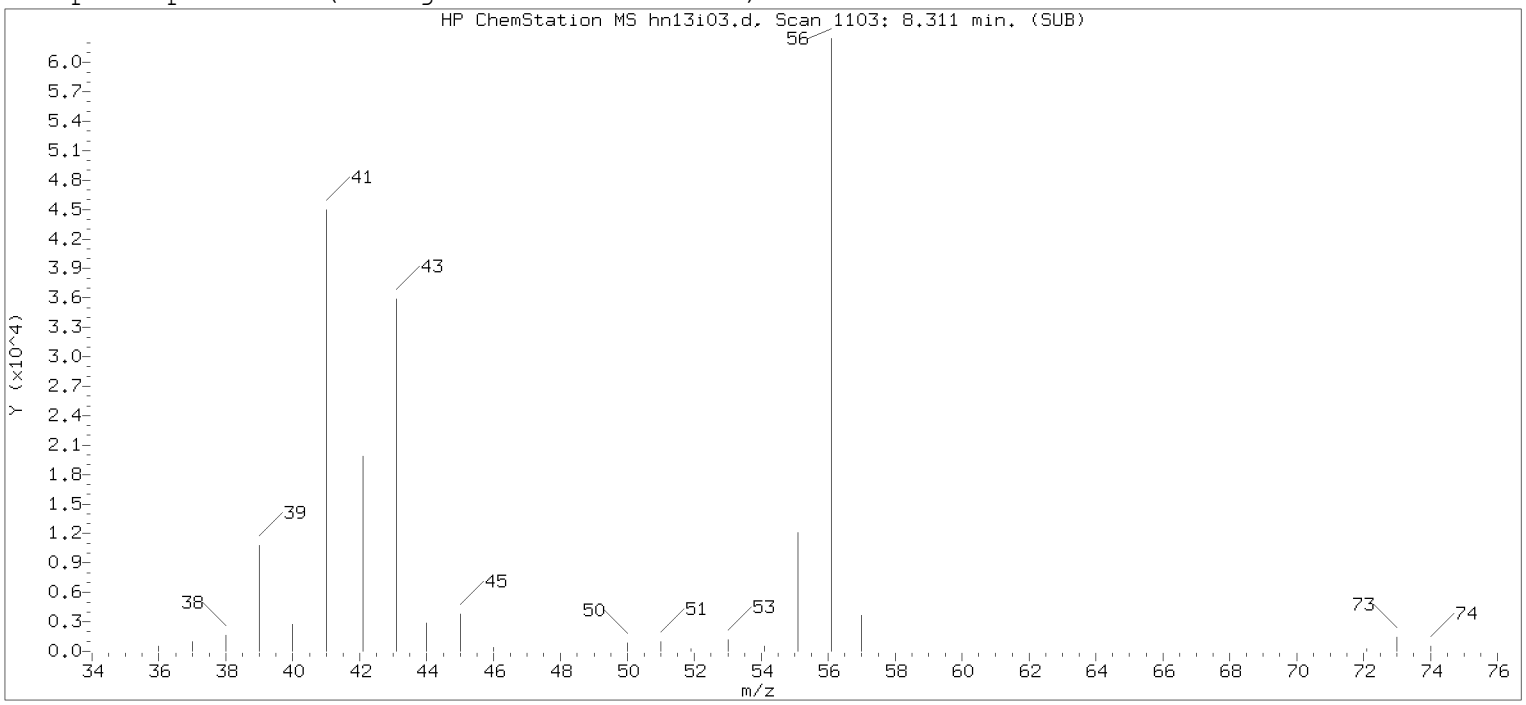
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1103
Retention Time (minutes): 8.311
Quant Ion : 56.00
Area (flag) : 269107M
On-Column Amount (ng) : 503.6201
Integration start scan : 1084 Integration stop scan: 1159
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

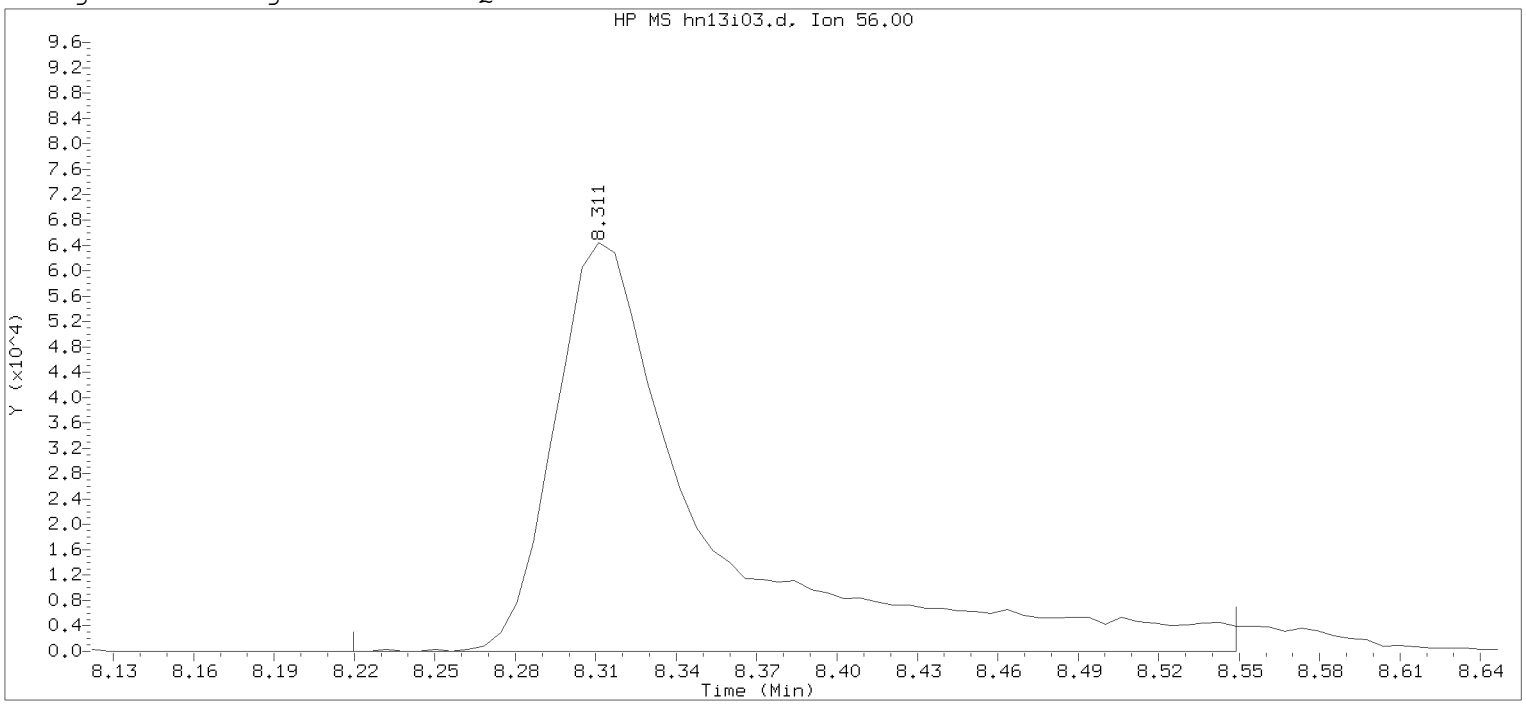
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

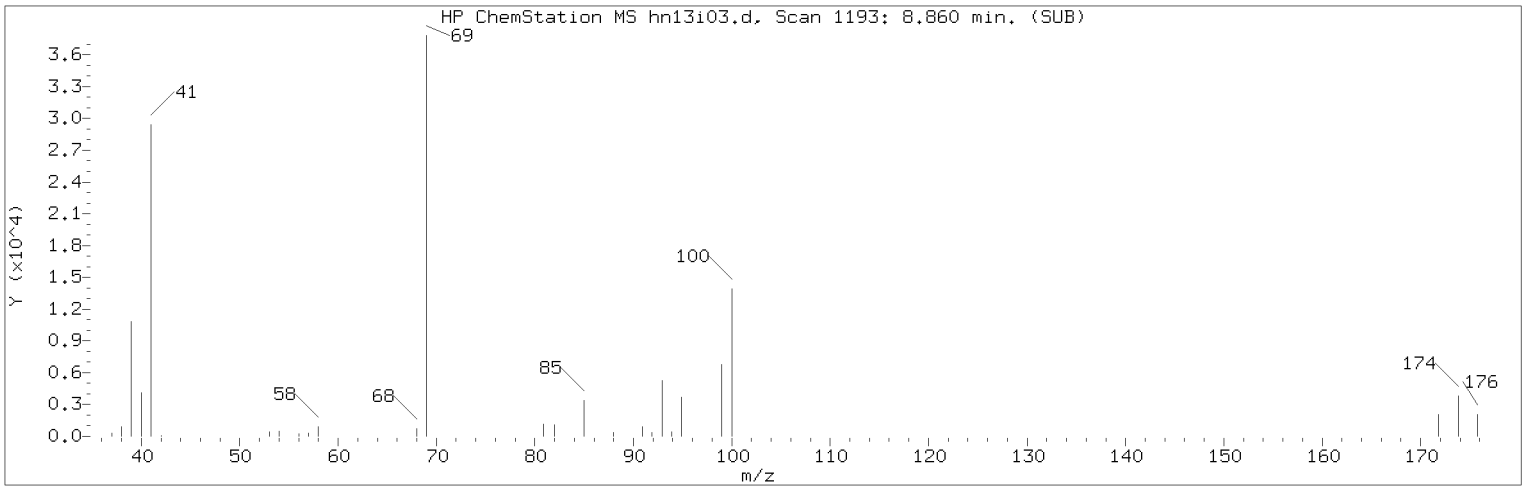
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

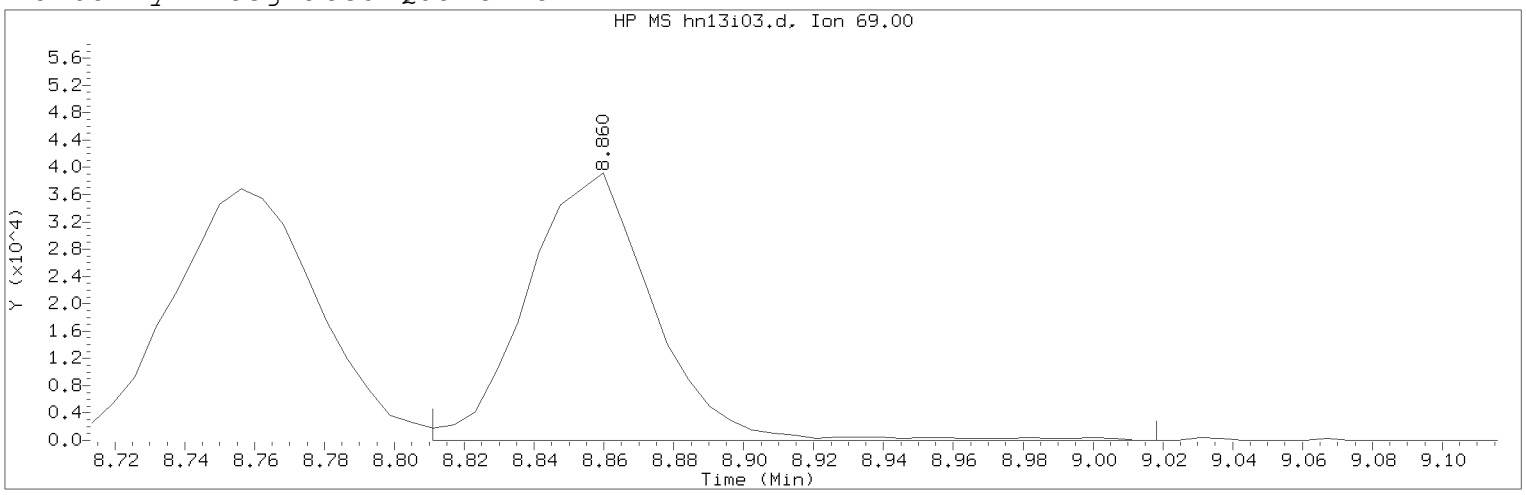
Compound Number	: 65		
Compound Name	: n-Butanol		
Scan Number	: 1103		
Retention Time (minutes)	: 8.311		
Quant Ion	: 56.00		
Area	: 257806		
On-column Amount (ng)	: 500.0000		
Integration start scan	: 1087	Integration stop scan:	1141
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 593 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

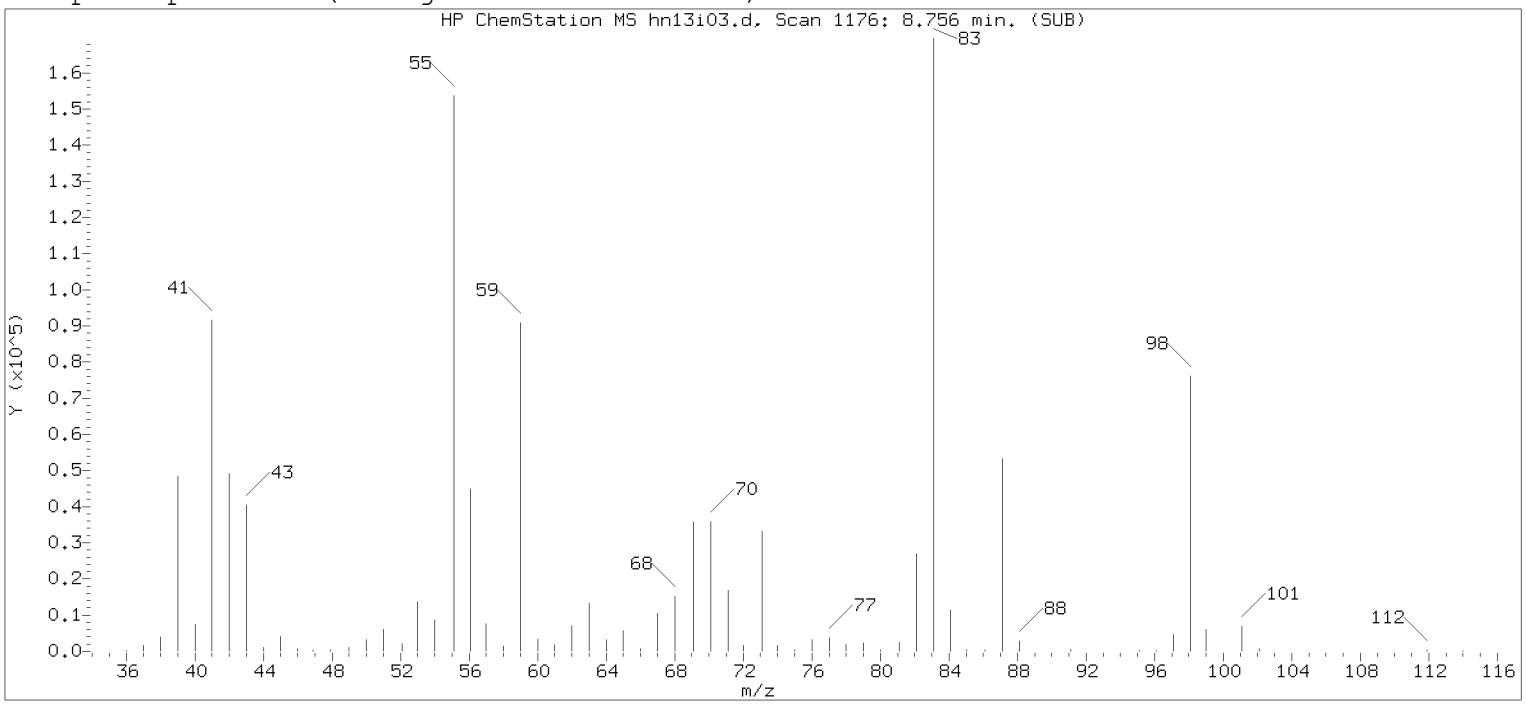
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1193
Retention Time (minutes): 8.860
Quant Ion : 69.00
Area (flag) : 97751MA
On-Column Amount (ng) : 4.6646
Integration start scan : 1184 Integration stop scan: 1218
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

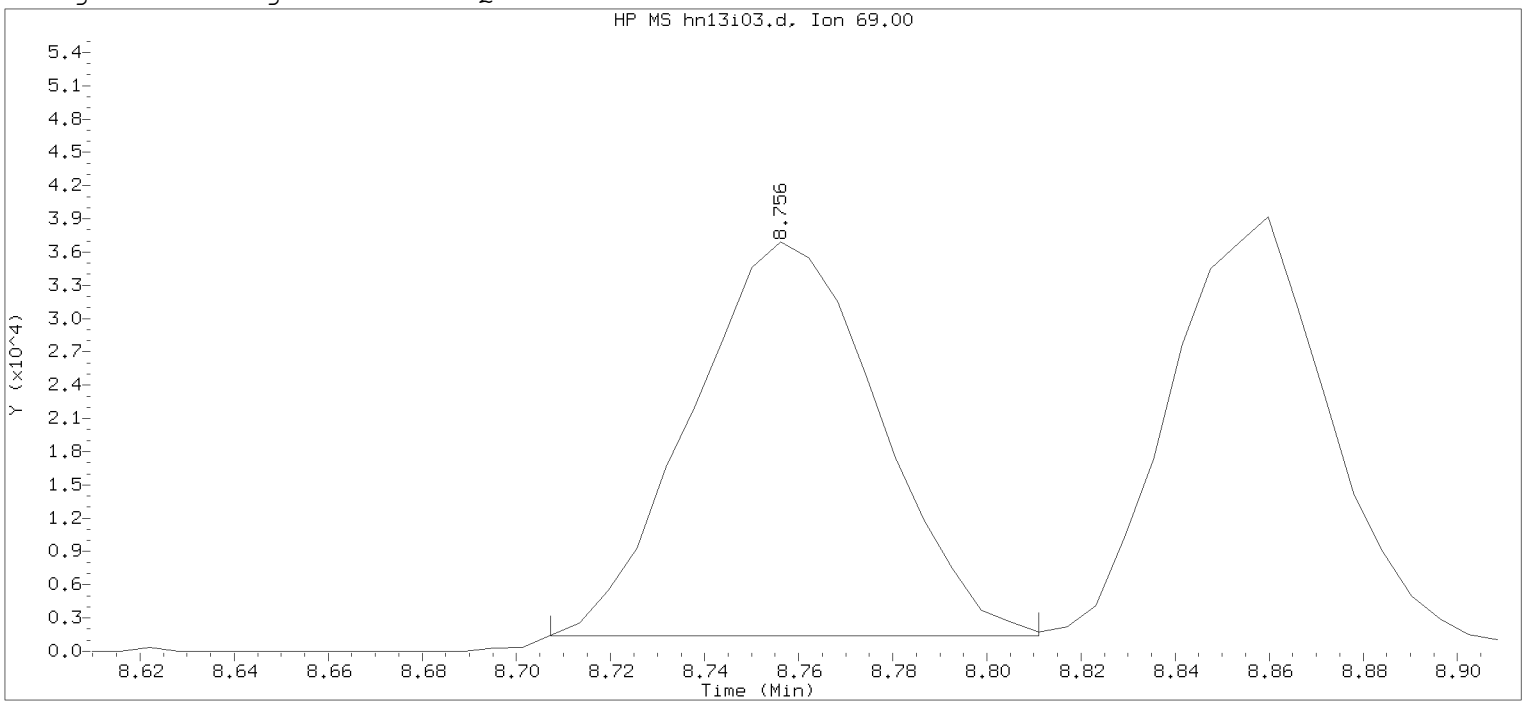
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

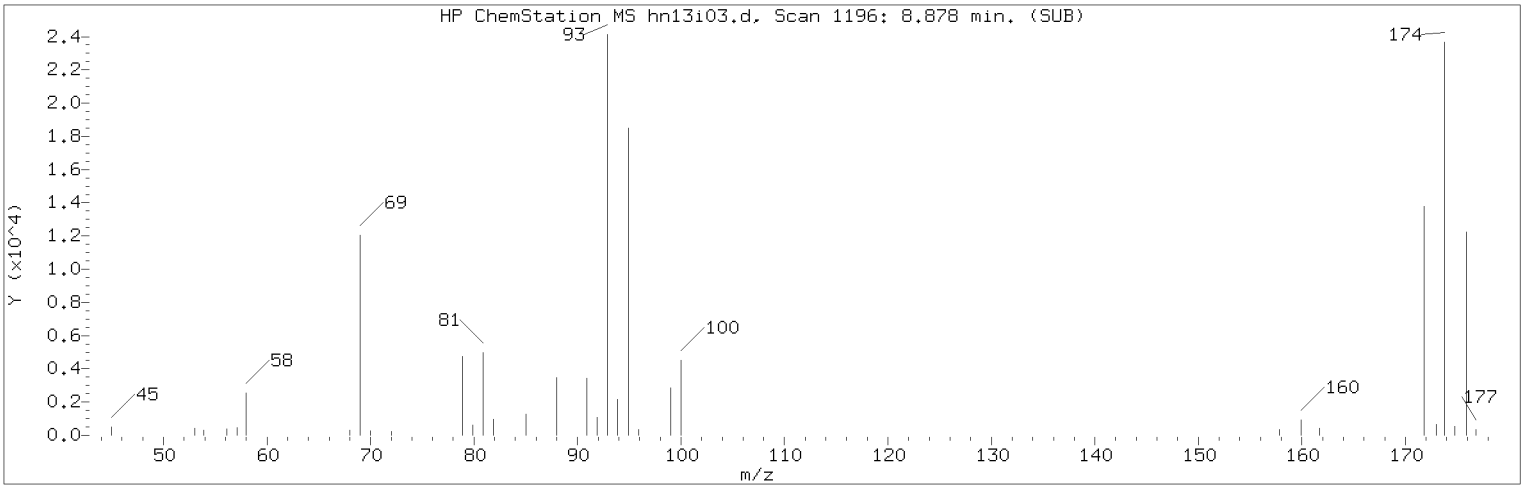
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

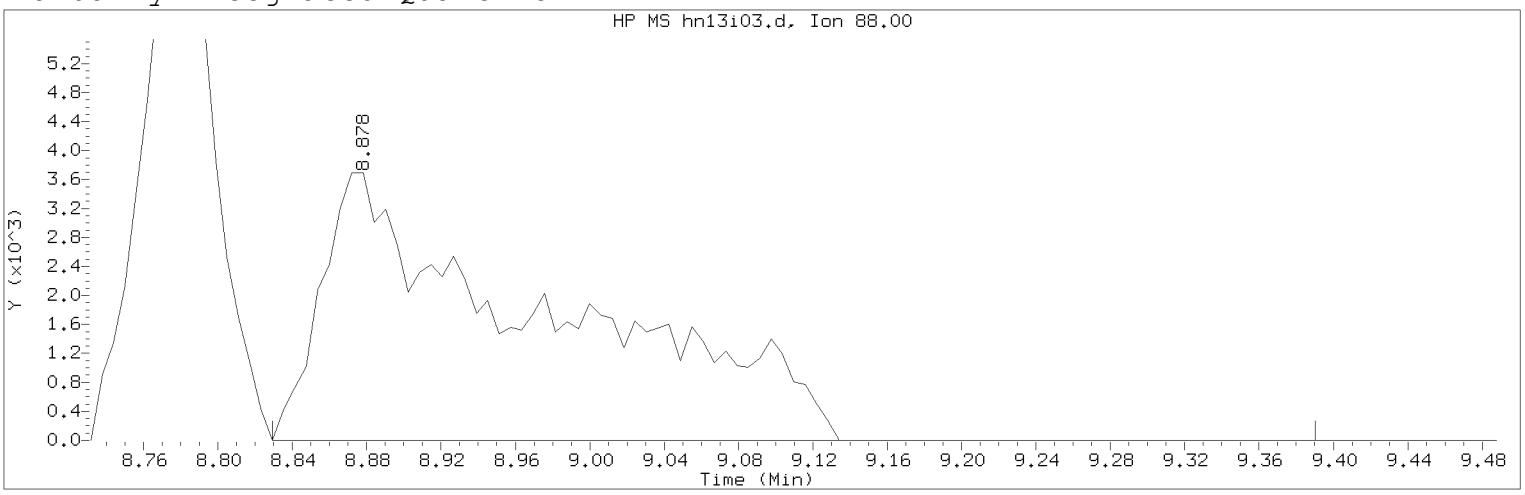
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1176
Retention Time (minutes): 8.756
Quant Ion : 69.00
Area : 98342
On-column Amount (ng) : 5.0000
Integration start scan : 1167 Integration stop scan: 1184
Y at integration start : 1361 Y at integration end: 1361

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 595 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

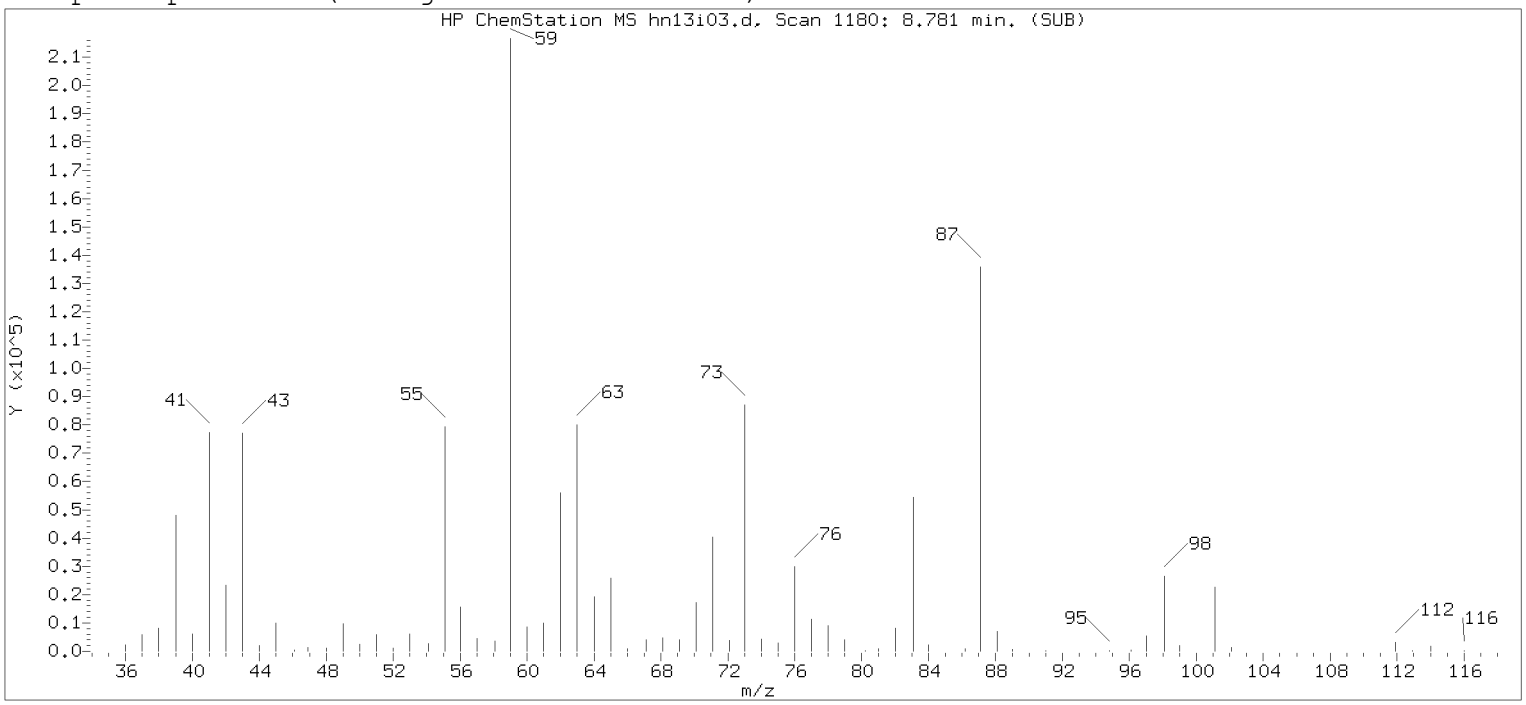
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1196
Retention Time (minutes): 8.878
Quant Ion : 88.00
Area (flag) : 30734M
On-Column Amount (ng) : 303.6549
Integration start scan : 1187 Integration stop scan: 1279
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

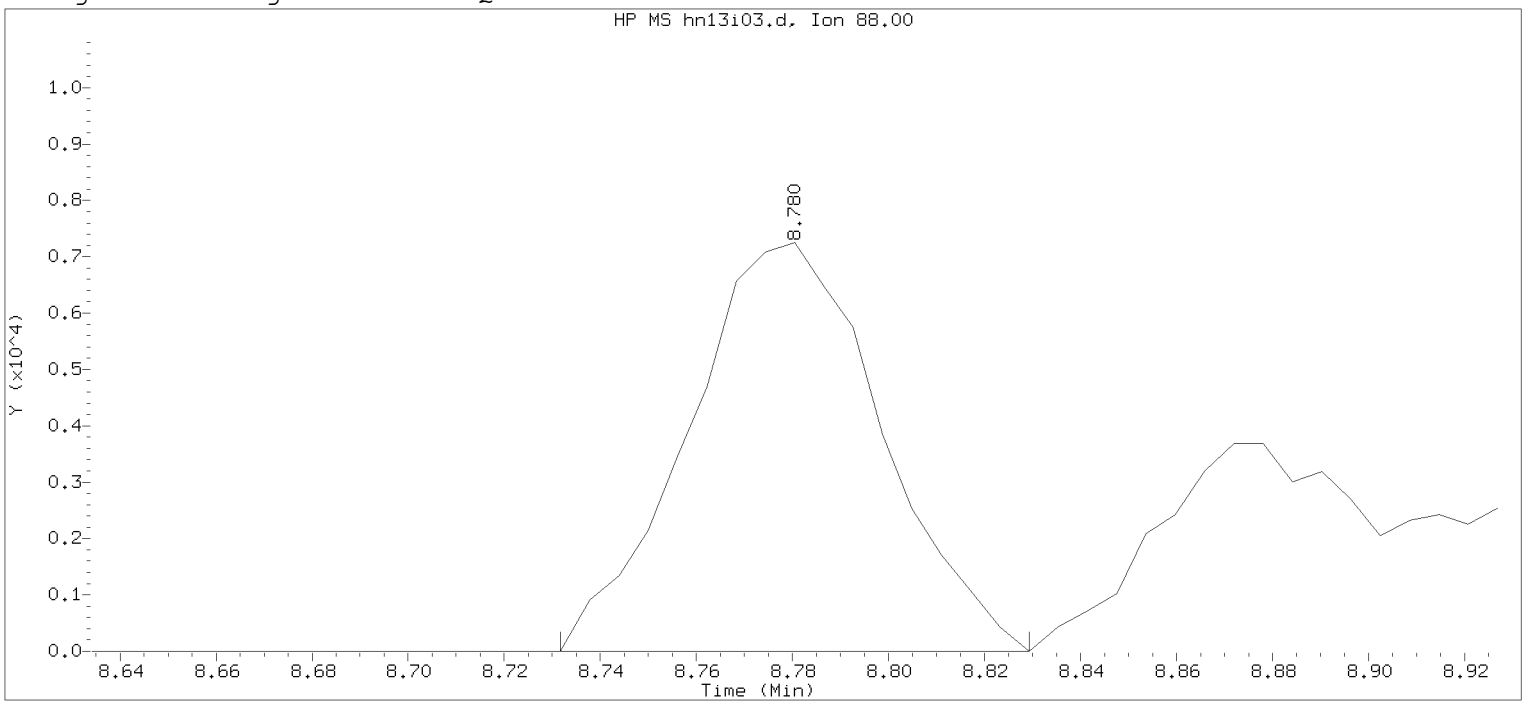
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

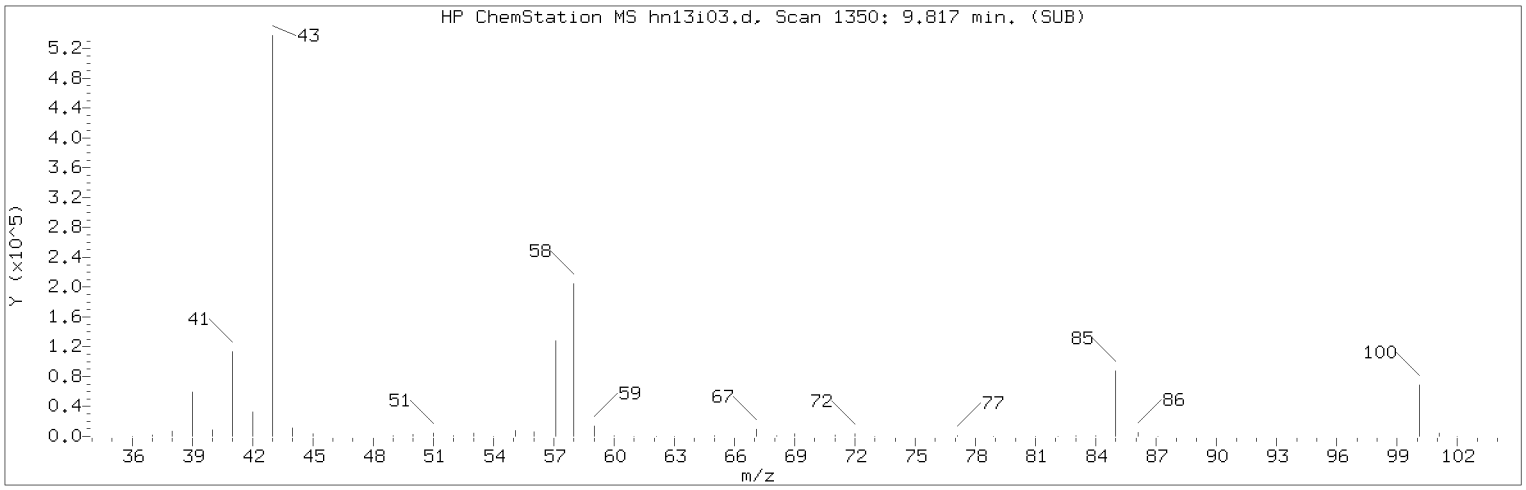
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

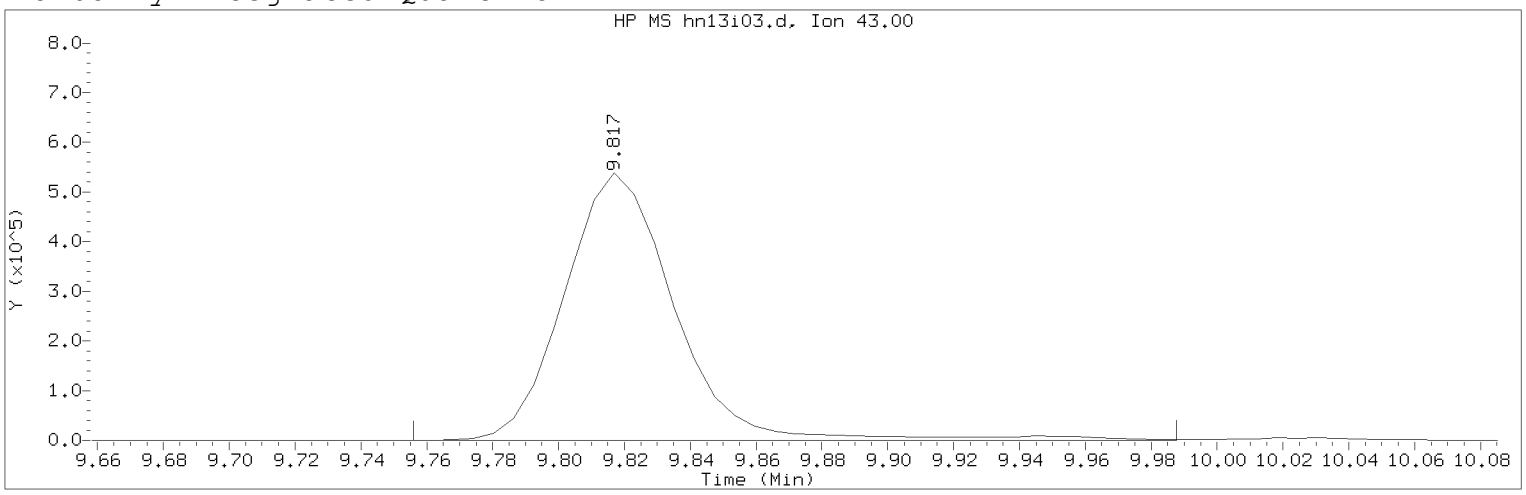
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1180		
Retention Time (minutes)	: 8.780		
Quant Ion	: 88.00		
Area	: 20213		
On-column Amount (ng)	: 250.0000		
Integration start scan	: 1171	Integration stop scan:	1187
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 597

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

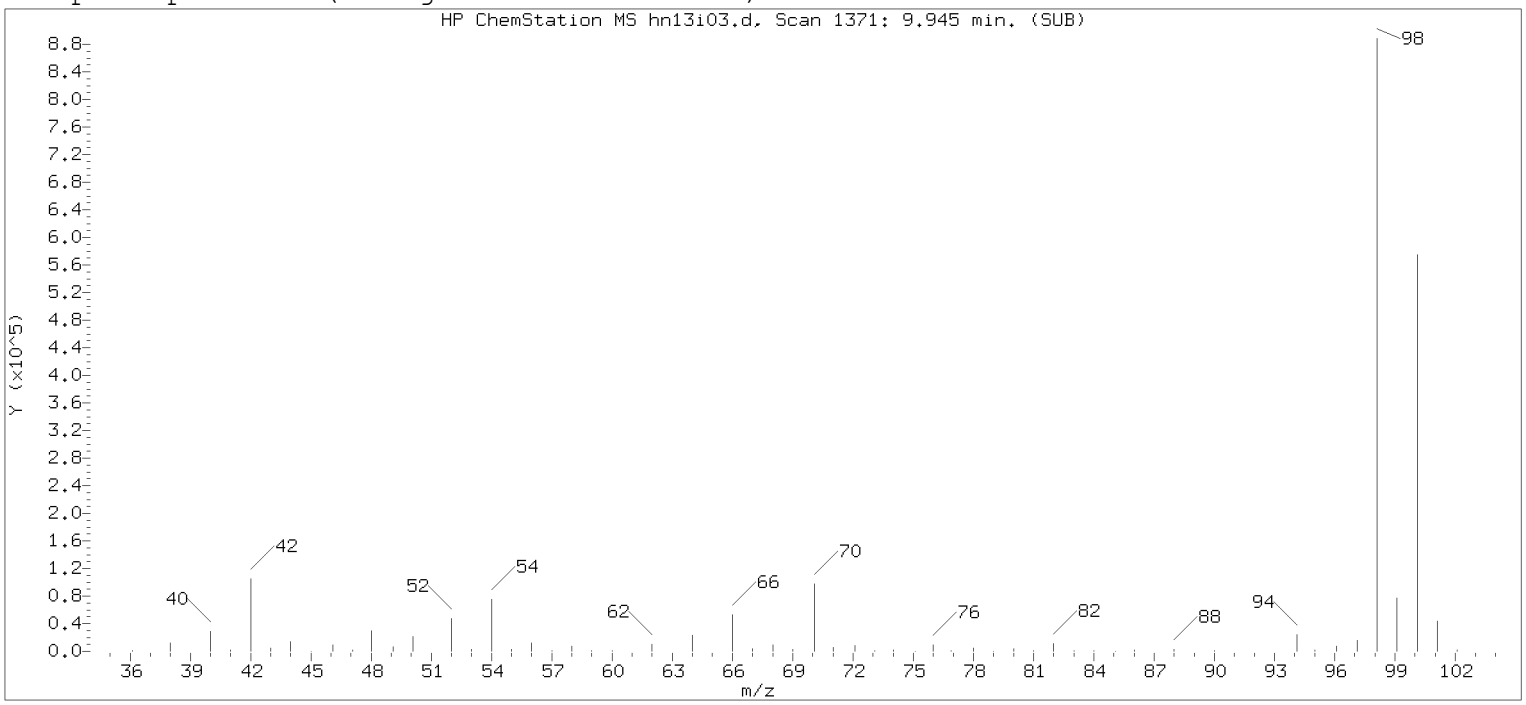
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 1255155M
On-Column Amount (ng) : 47.4720
Integration start scan : 1339 Integration stop scan: 1377
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

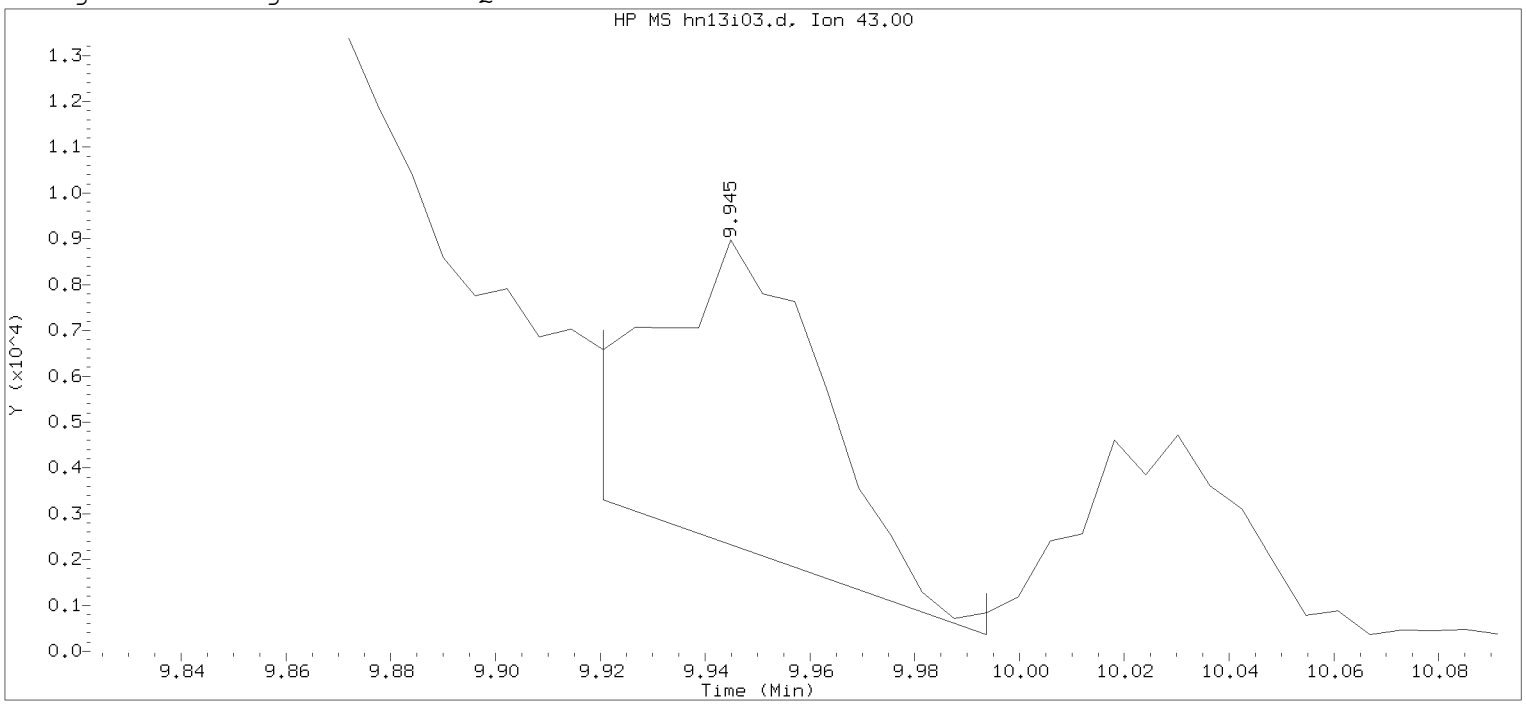
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1371
Retention Time (minutes): 9.945
Quant Ion : 43.00
Area : 15015
On-column Amount (ng) : 50.0000
Integration start scan : 1366 Integration stop scan: 1378
Y at integration start : 3307 Y at integration end: 371

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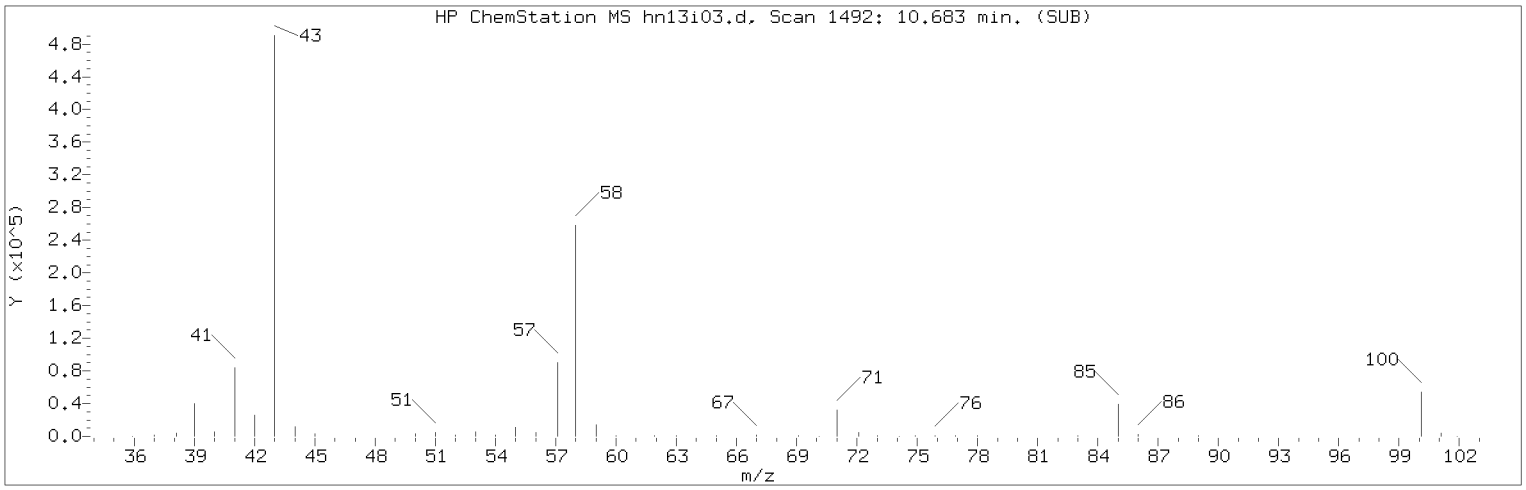
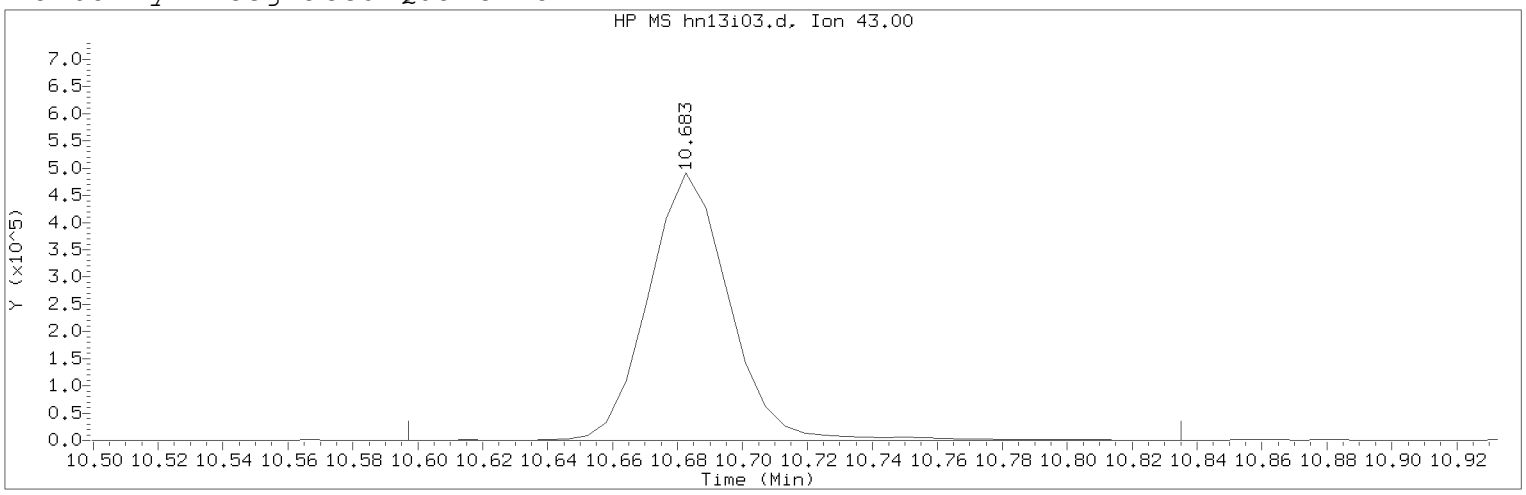
Target 3.5 esignature used. AE35 Page 599 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

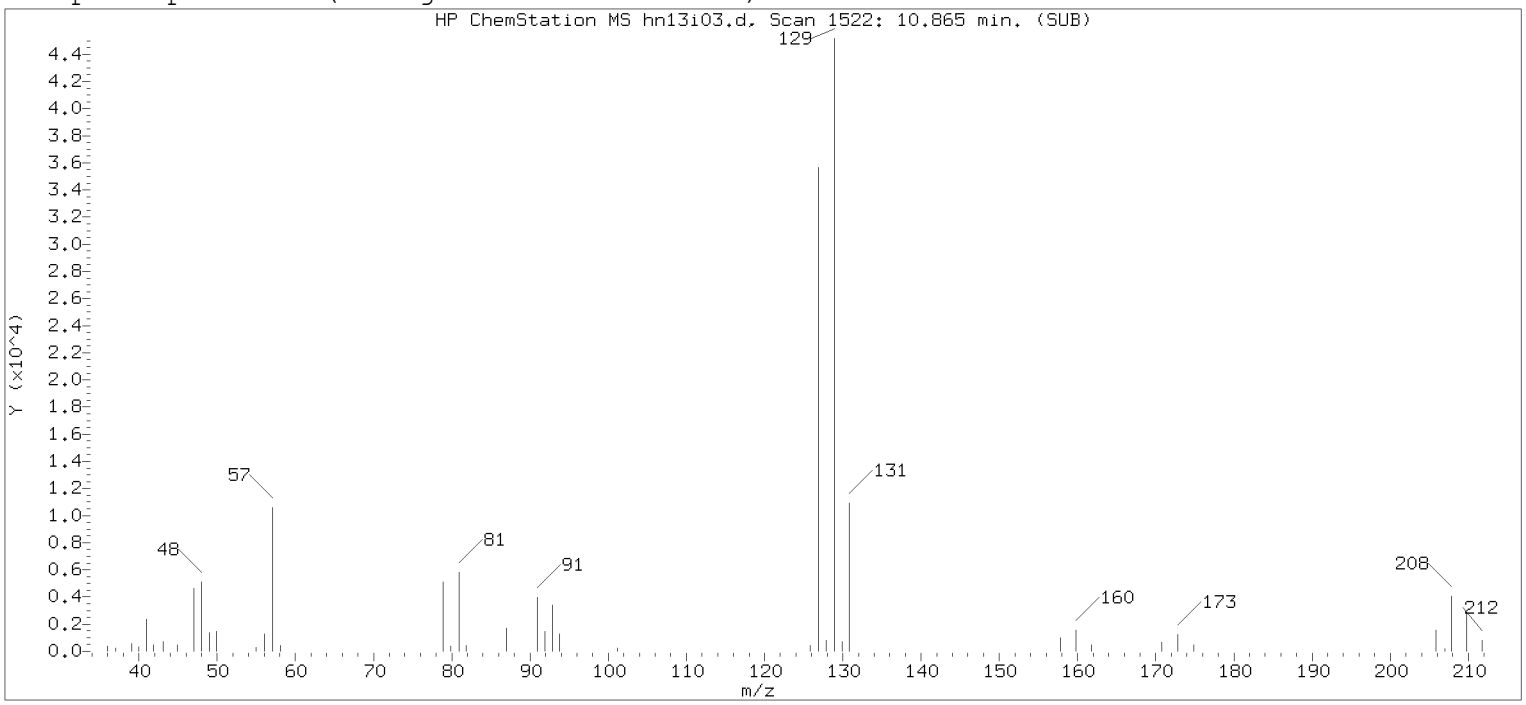
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.683
Quant Ion : 43.00
Area (flag) : 846902M
On-Column Amount (ng) : 46.0900
Integration start scan : 1477 Integration stop scan: 1516
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

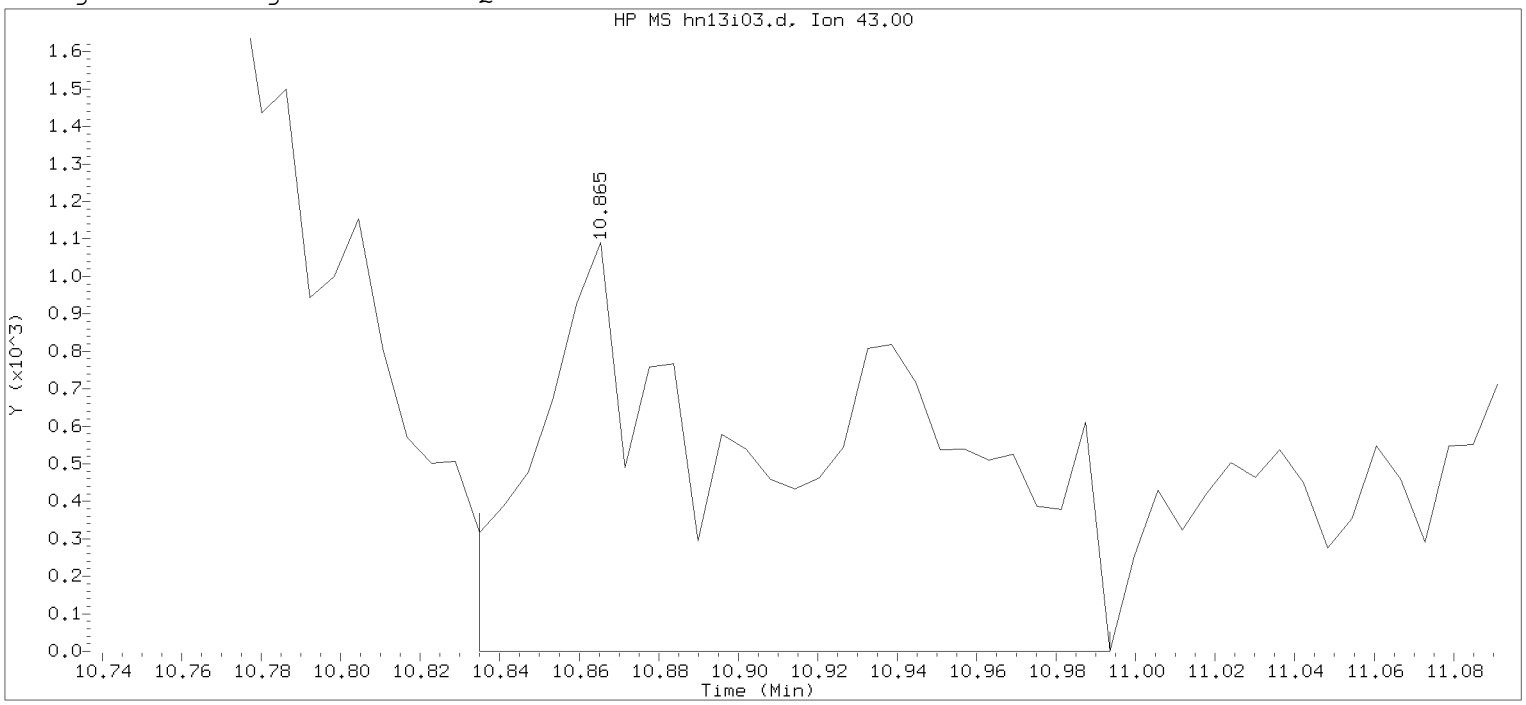
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

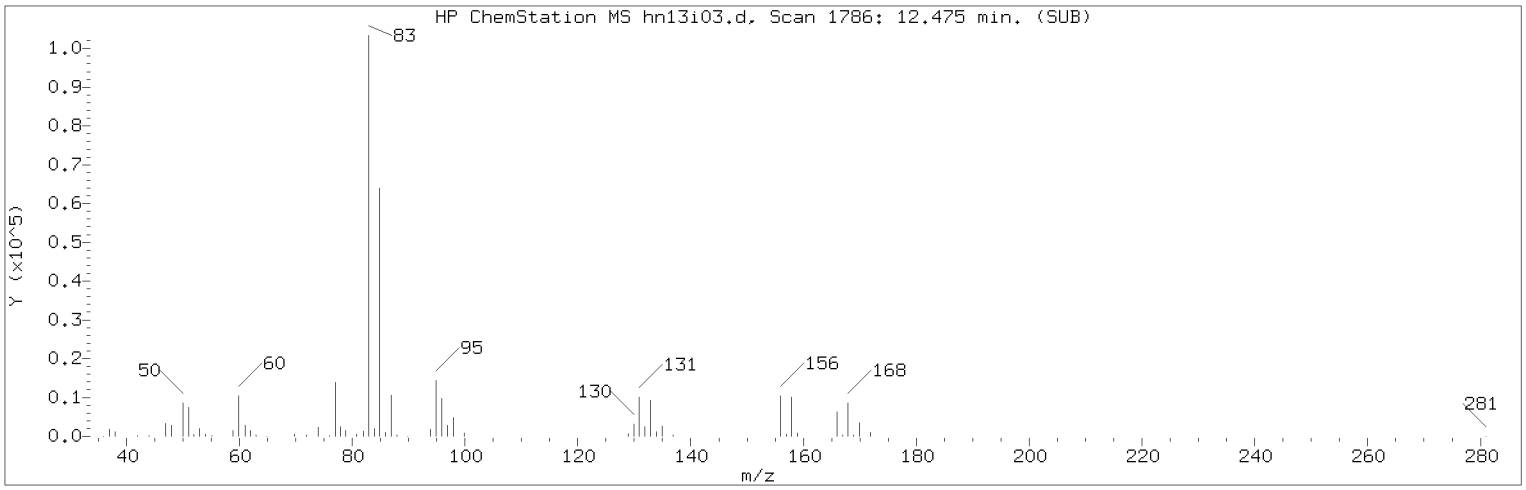
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

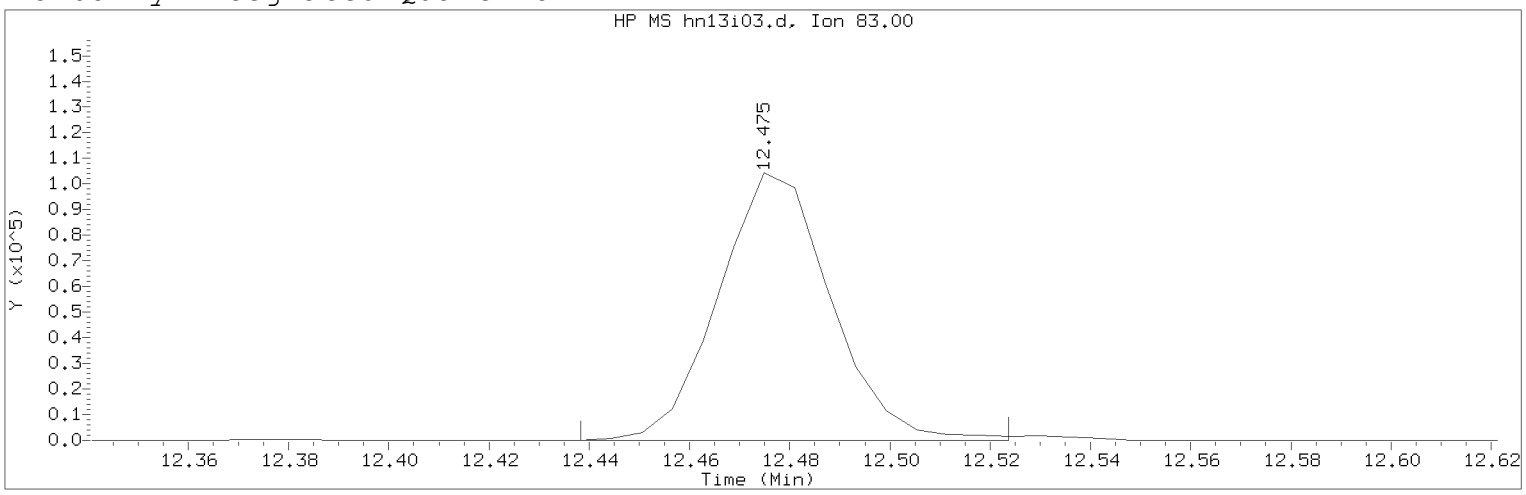
Compound Number	: 91		
Compound Name	: 2-Hexanone		
Scan Number	: 1522		
Retention Time (minutes)	: 10.865		
Quant Ion	: 43.00		
Area	: 5441		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 1516	Integration stop scan:	1542
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature user

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

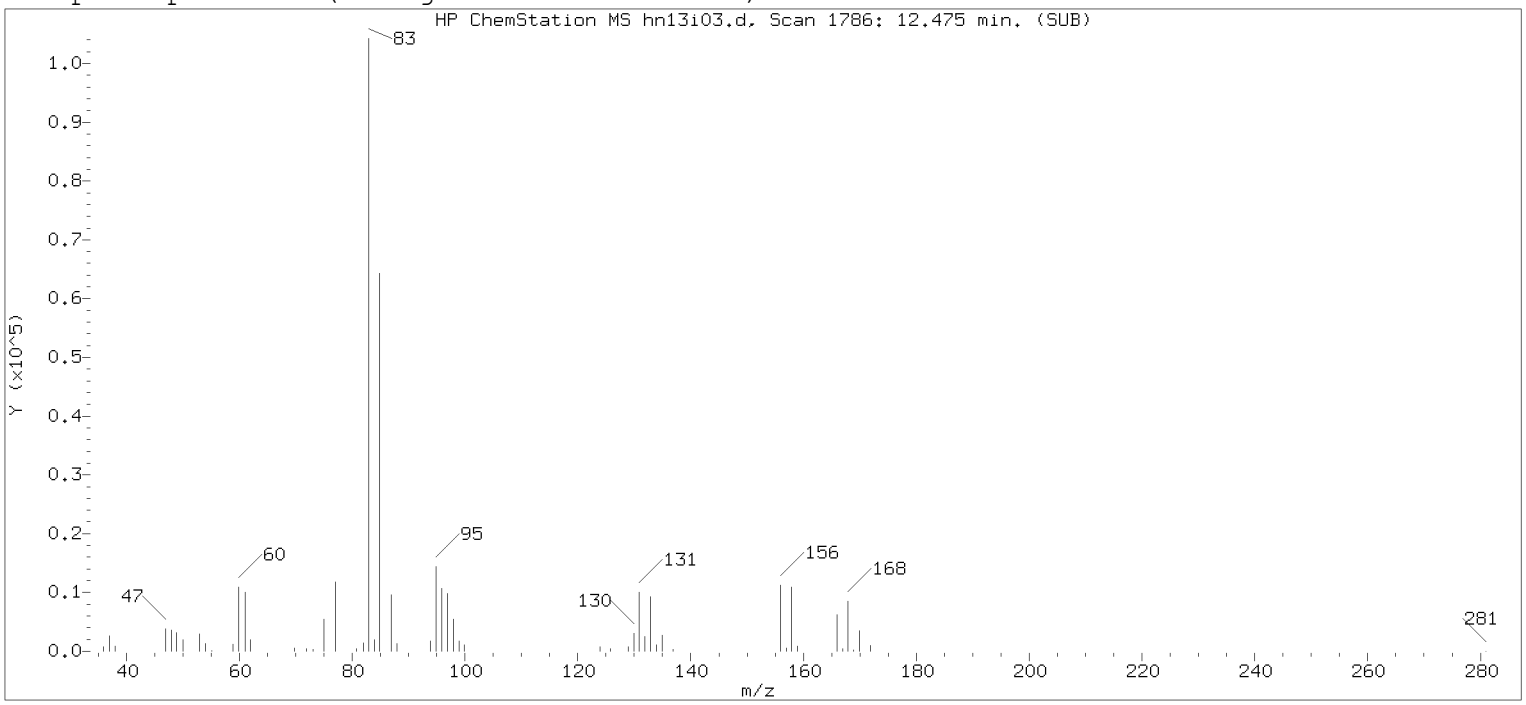
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 162718M
On-Column Amount (ng) : 5.0680
Integration start scan : 1779 Integration stop scan: 1793
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

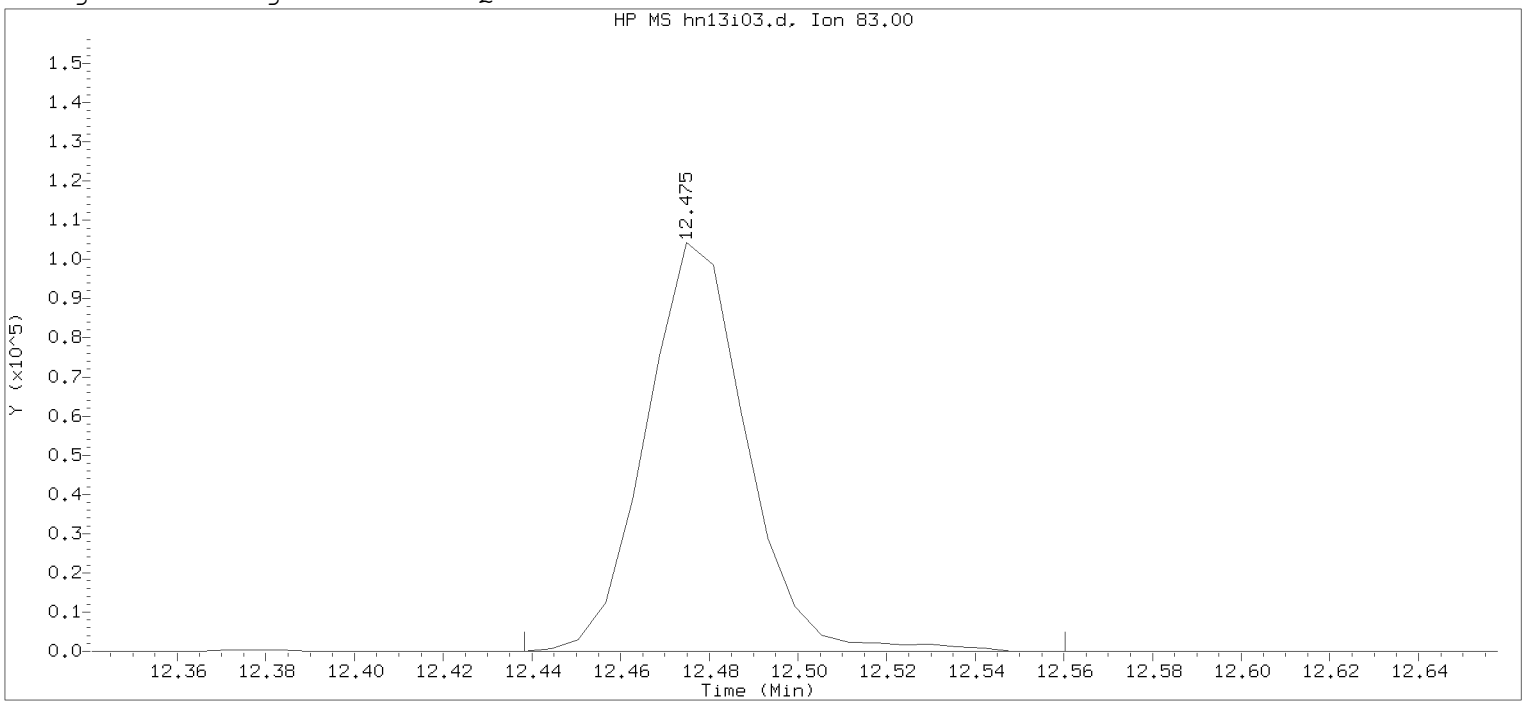
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

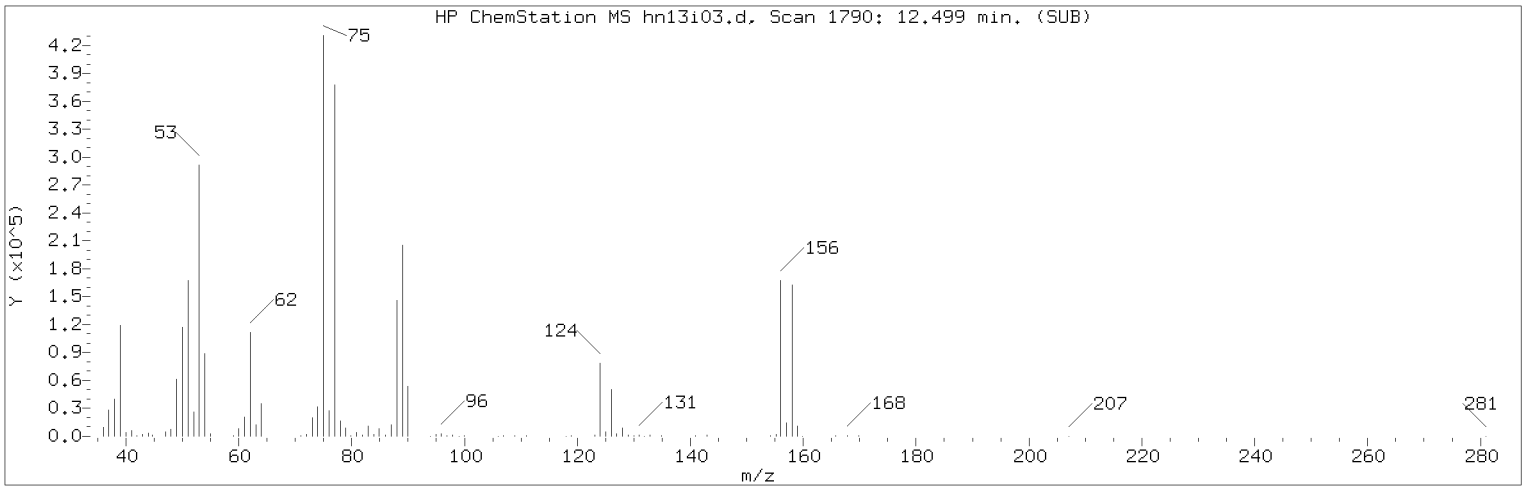
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

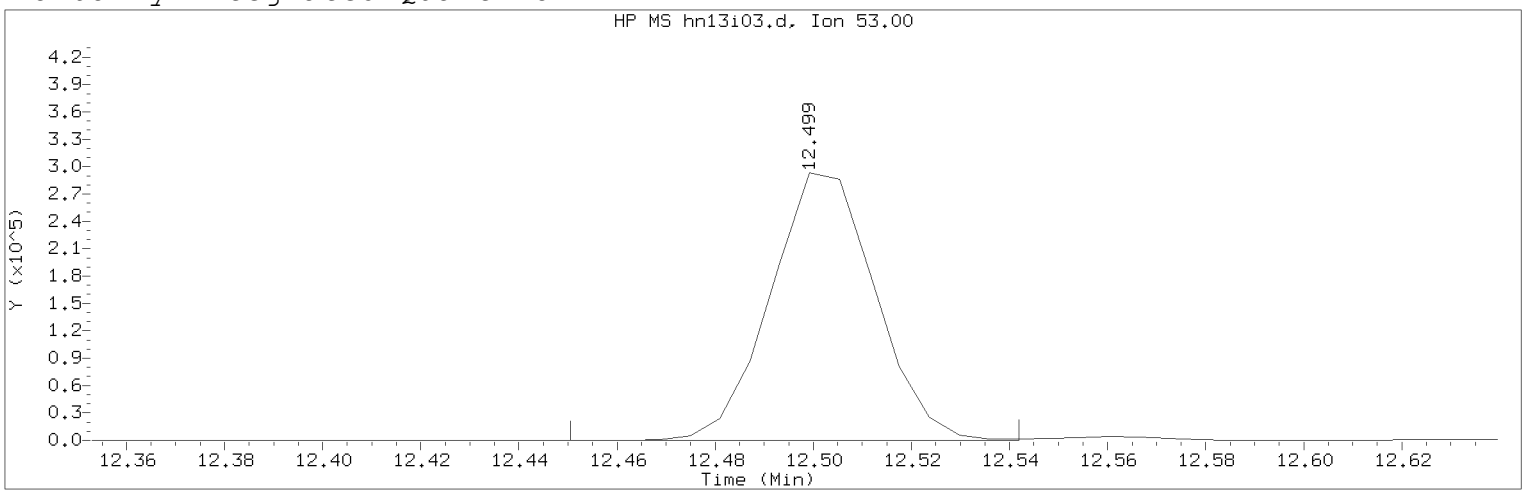
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 164090
On-column Amount (ng) : 5.0000
Integration start scan : 1779 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

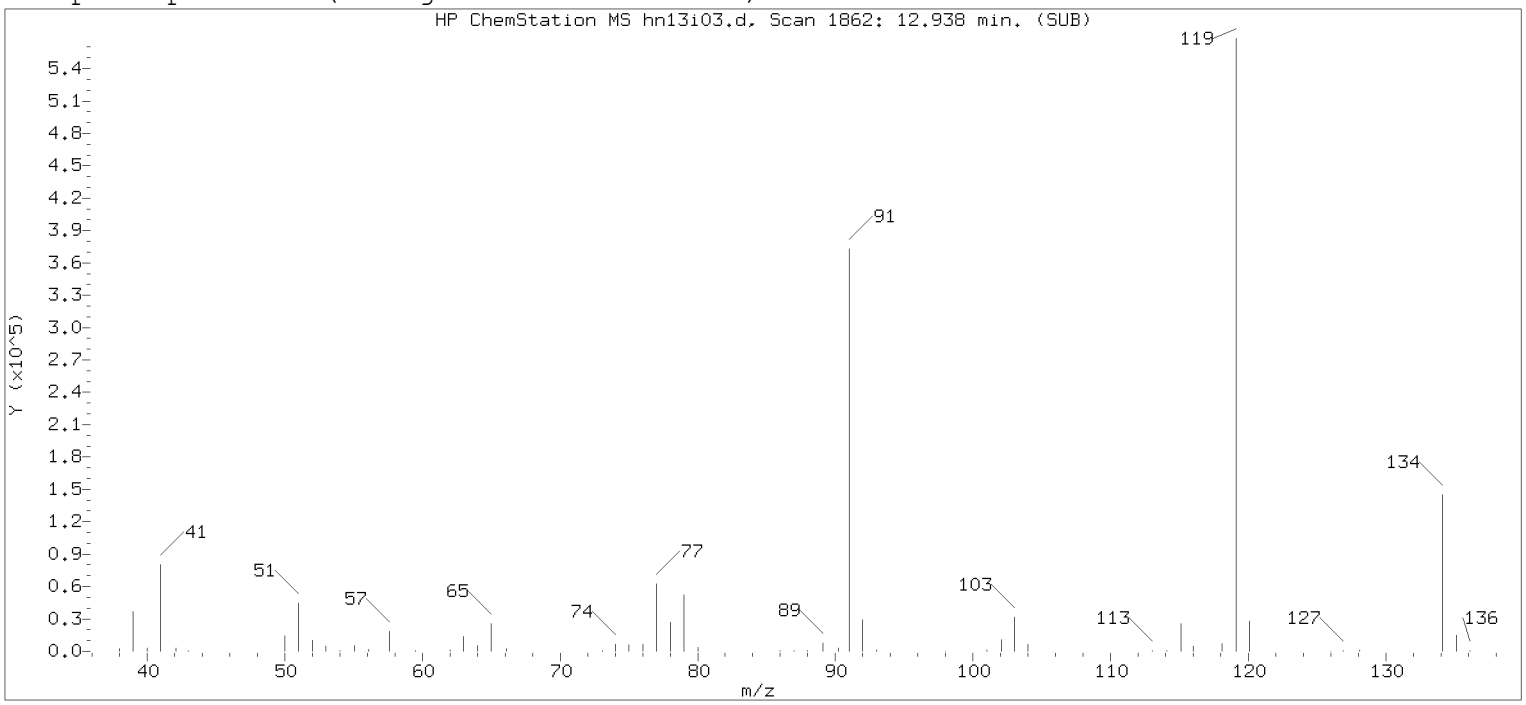
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1790
Retention Time (minutes): 12.499
Quant Ion : 53.00
Area (flag) : 434974M
On-Column Amount (ng) : 47.7353
Integration start scan : 1781 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

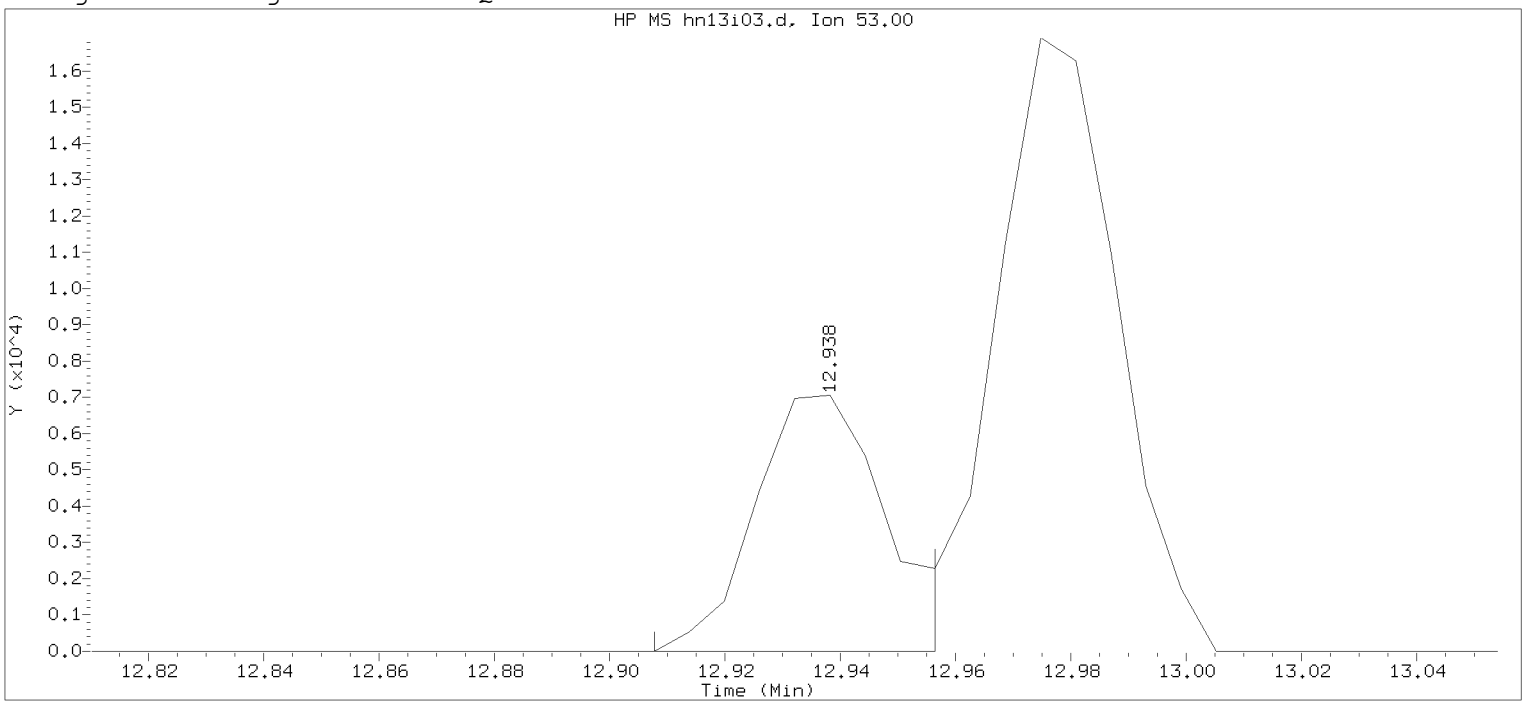
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

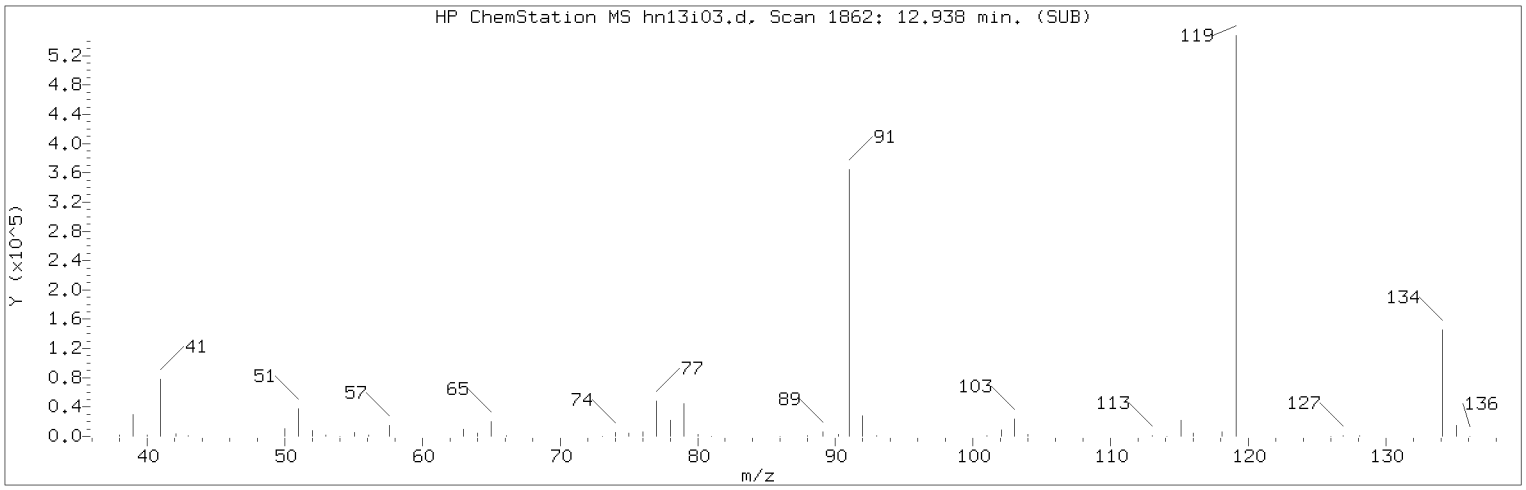
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

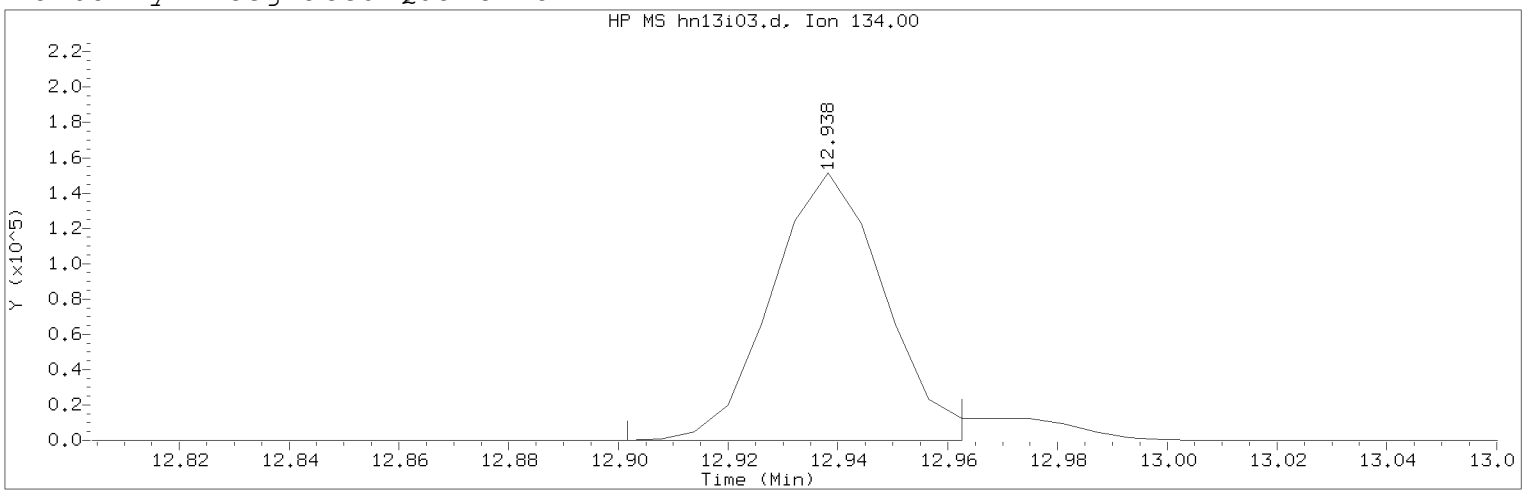
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 53.00
Area : 10760
On-column Amount (ng) : 50.0000
Integration start scan : 1856 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

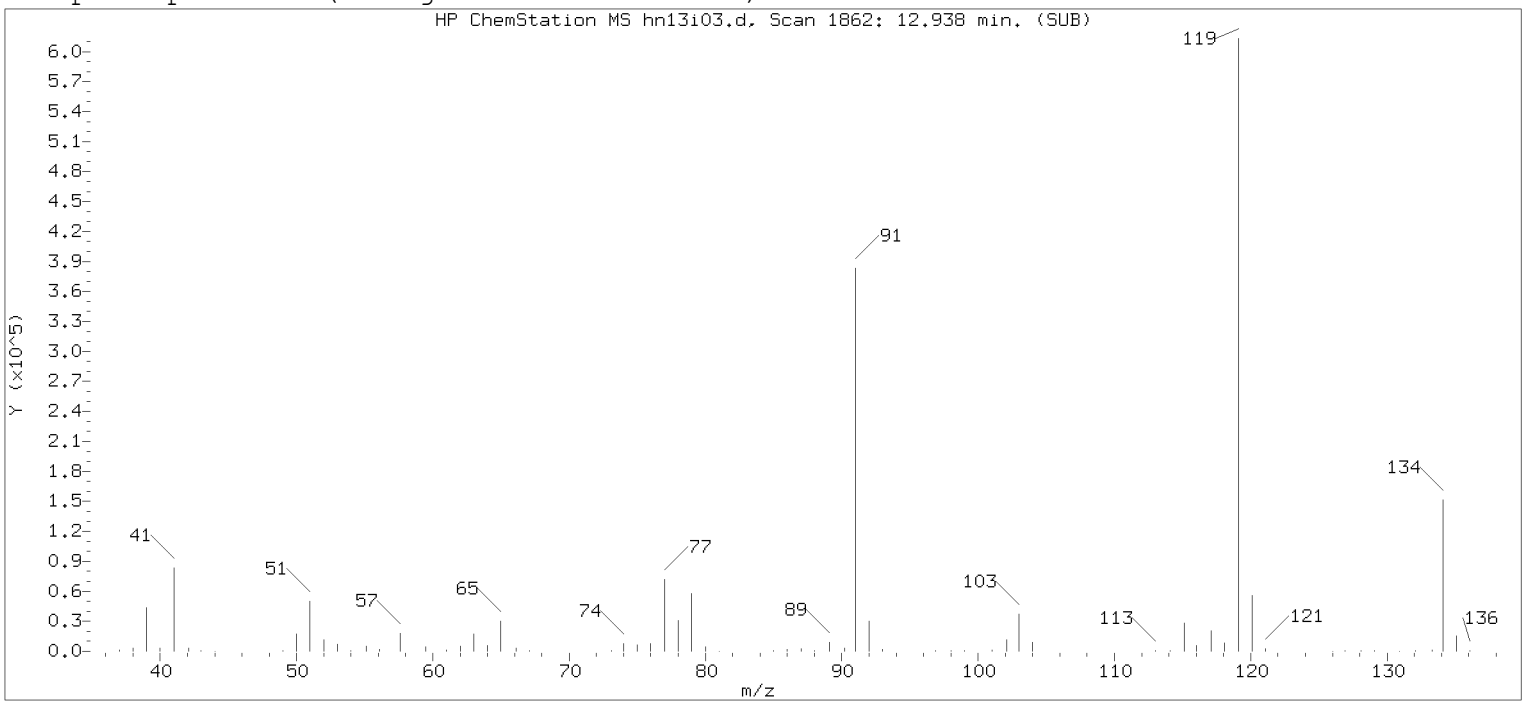
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 216072M
On-Column Amount (ng) : 5.0640
Integration start scan : 1855 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

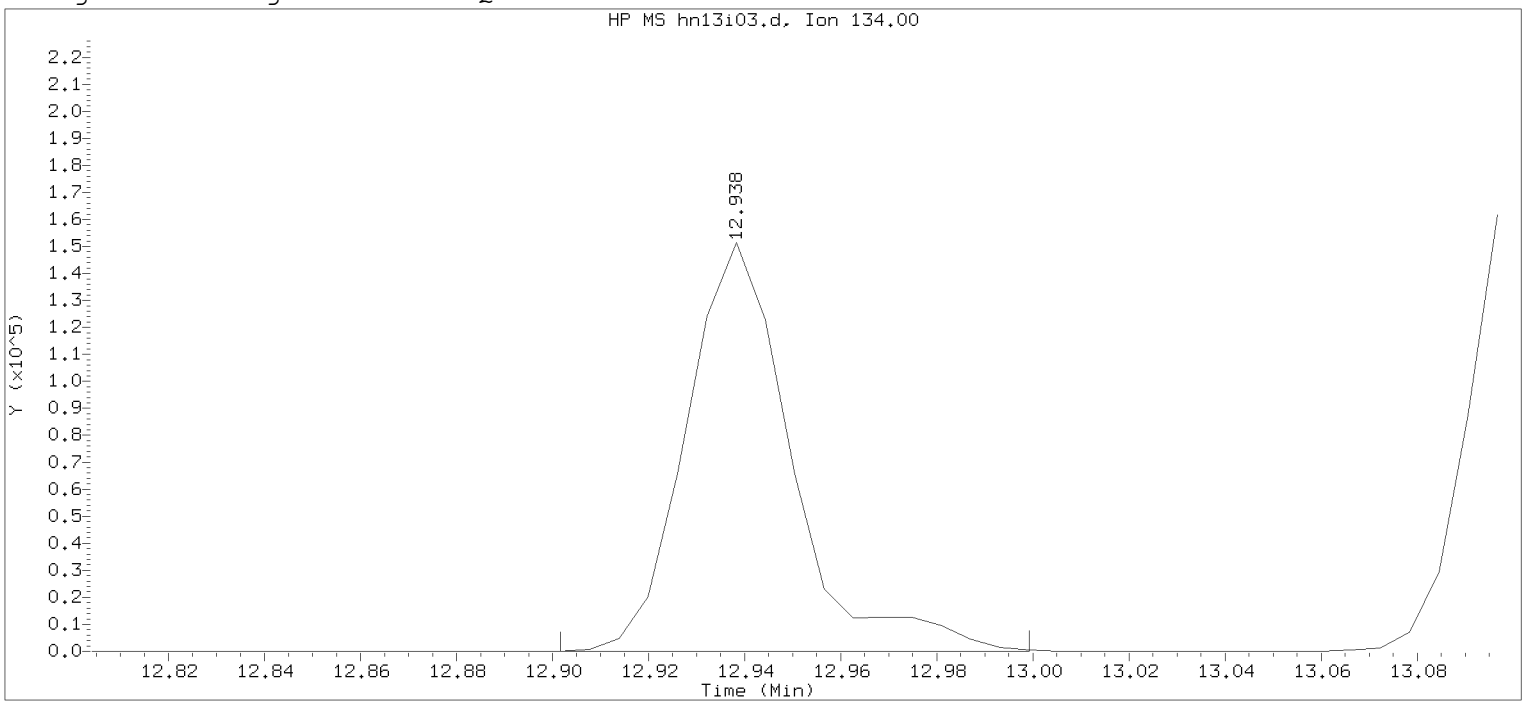
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

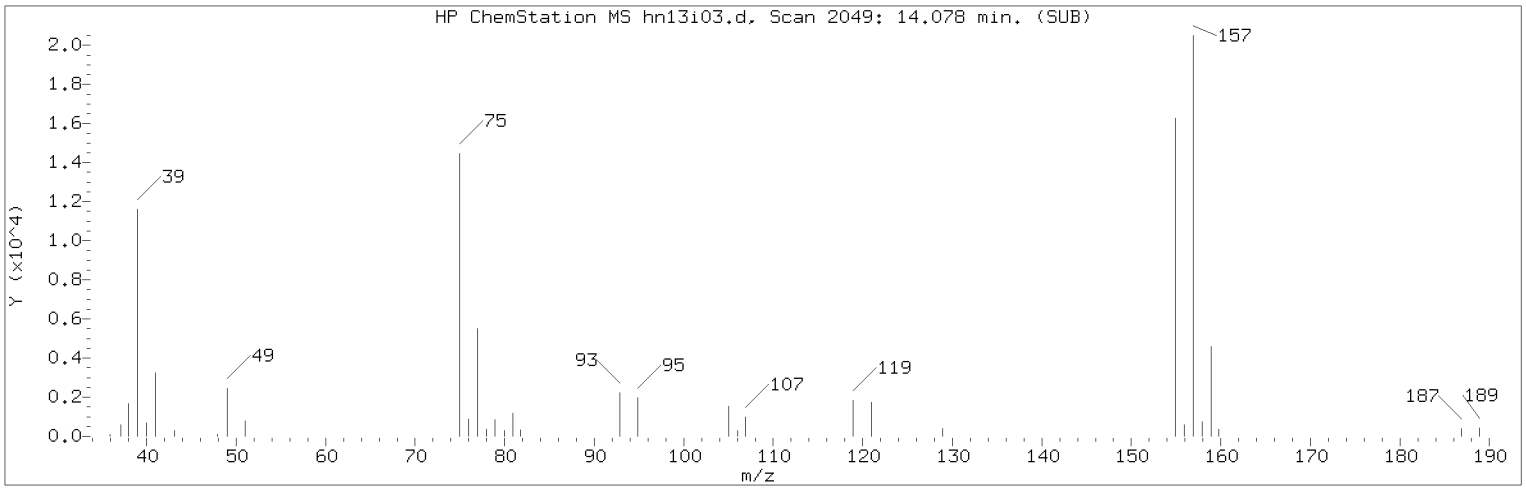
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

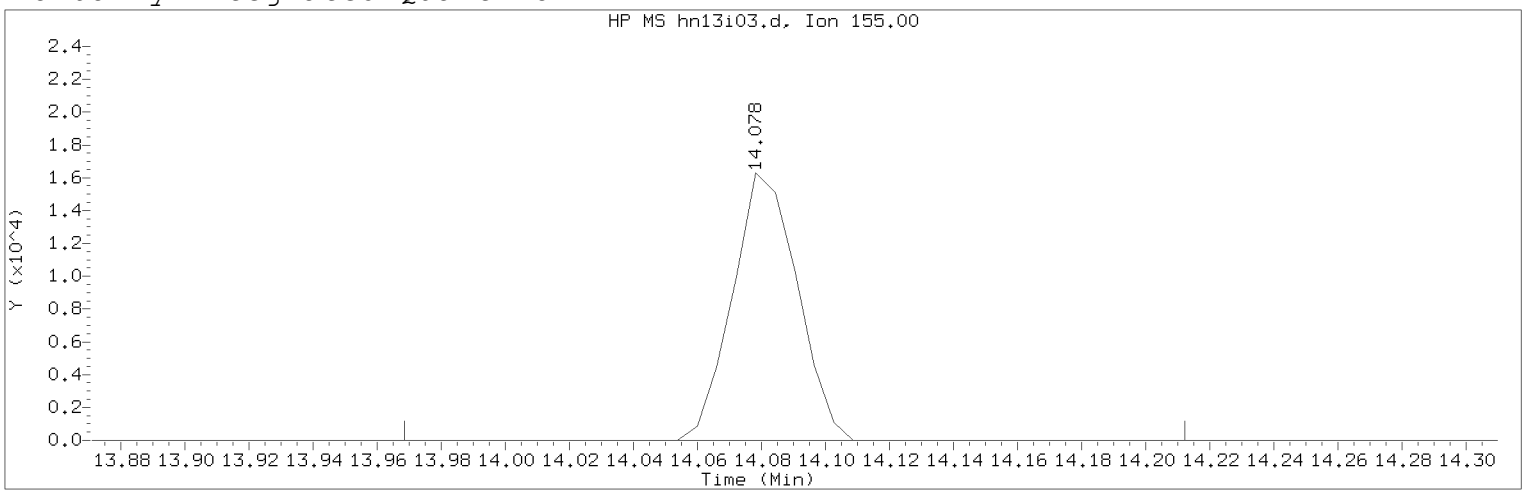
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 231022
On-column Amount (ng) : 5.0000
Integration start scan : 1855 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used. AE35 Page 607 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

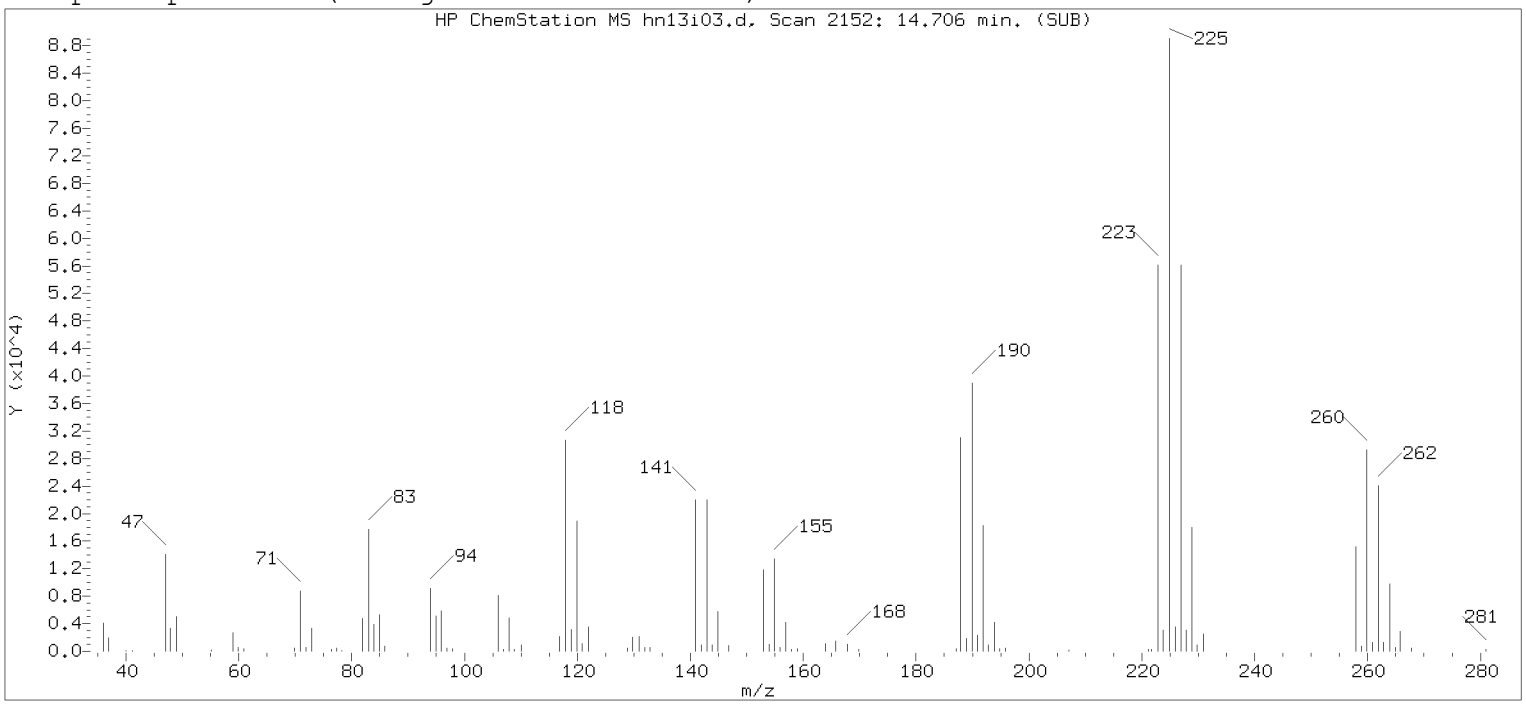
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2049
Retention Time (minutes): 14.078
Quant Ion : 155.00
Area (flag) : 22951M
On-Column Amount (ng) : 4.8785
Integration start scan : 2030 Integration stop scan: 2070
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

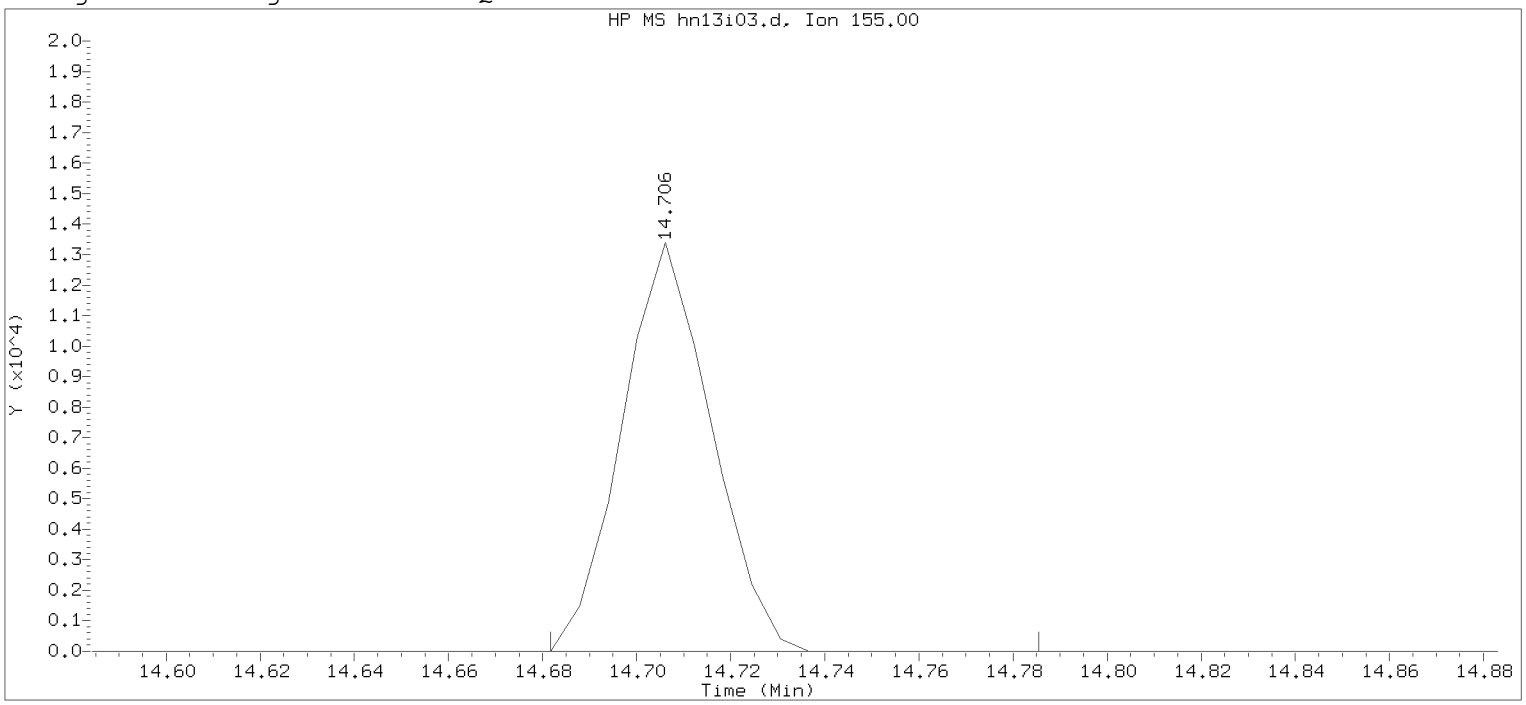
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:57.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



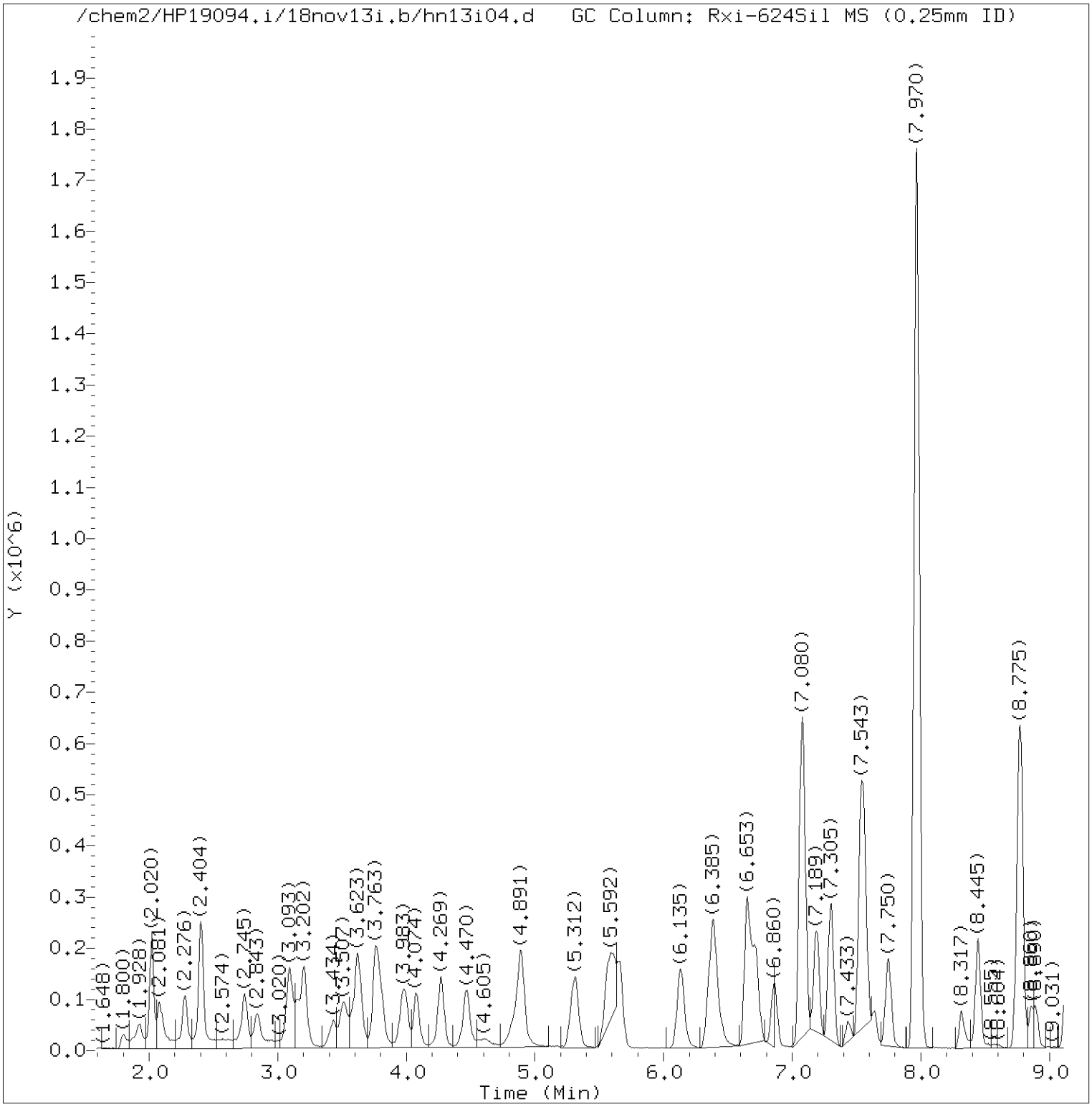
Data File: /chem2/HP19094.i/18nov13i.b/hn13i03.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:28 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 16:46
Date, time and analyst ID of latest file update: 13-Nov-2018 16:46 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2152
Retention Time (minutes): 14.706
Quant Ion : 155.00
Area : 17688
On-column Amount (ng) : 5.0000
Integration start scan : 2147 Integration stop scan: 2164
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:57.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

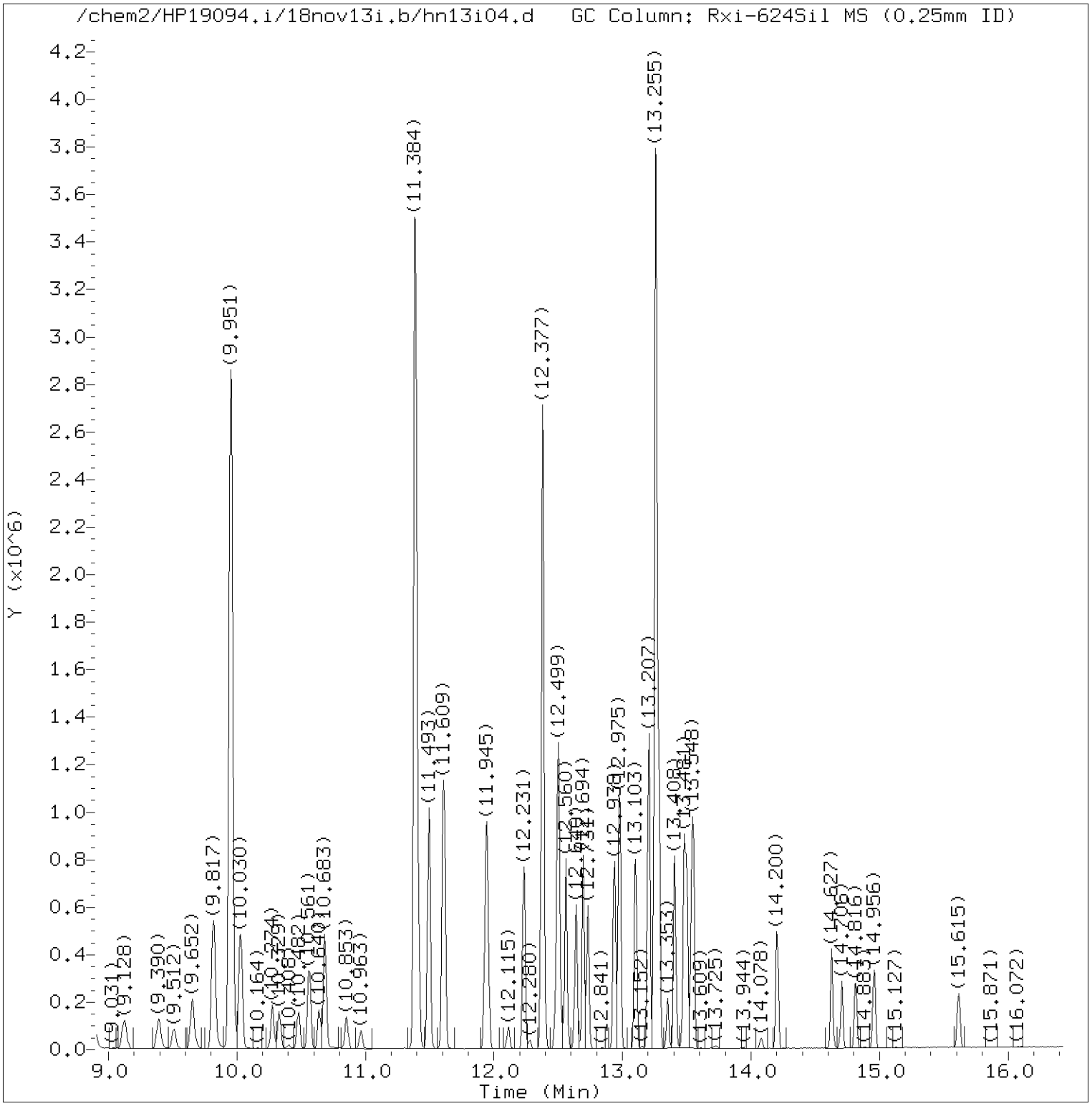
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.081	85	149730	2.001
2) Chloromethane	(2)	2.276	50	142144	1.964
6) 1,3-Butadiene	(2)	2.398	39	105450M	1.953
5) Vinyl Chloride	(2)	2.404	62	129000	1.965
7) Bromomethane	(2)	2.745	94	97414	1.957
8) Chloroethane	(2)	2.843	64	78508	2.004
9) Dichlorofluoromethane	(2)	3.087	67	197155	1.928
10) Trichlorofluoromethane	(2)	3.141	101	171588	1.941
11) Ethyl ether	(2)	3.434	59	58813	1.952
12) Freon 123a	(2)	3.513	67	119602	1.957
13) Acrolein	(1)	3.623	56	404115	95.924
15) 1,1-Dichloroethene	(2)	3.763	96	80239	1.949
16) Freon 113	(2)	3.782	101	96350	2.035
14) Acetone	(1)	3.806	43	93793M	17.887
17) Methyl Iodide	(2)	3.964	142	167231	2.001
18) Carbon Disulfide	(2)	4.074	76	246864	1.948
21) Methyl Acetate	(1)	4.245	43	32849	1.806
22) Allyl Chloride	(2)	4.269	41	167078	1.901
23) Methylene Chloride	(2)	4.470	84	83863	1.898
26)*t-Butyl Alcohol-d10	(1)	4.483	65	105777M	50.000
28) t-Butyl Alcohol	(1)	4.605	59	59870M	42.890
29) Acrylonitrile	(1)	4.824	53	69145	9.266
30) Methyl Tertiary Butyl Ether	(2)	4.867	73	181558	1.976
31) trans-1,2-Dichloroethene	(2)	4.891	96	88726	1.923
32) n-Hexane	(2)	5.318	57	156738	1.982
33) 1,1-Dichloroethane	(2)	5.556	63	178097	1.977
34) di-Isopropyl Ether	(2)	5.598	45	330885	1.978
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	162291	1.947
40) 1,2-Dichloroethene (Total)	(2)		96	189602	3.888
37) Ethyl t-butyl ether	(2)	6.135	59	270549M	1.981
38) 2-Butanone	(1)	6.342	43	193150M	18.014
39) cis-1,2-Dichloroethene	(2)	6.385	96	100876	1.965
41) 2,2-Dichloropropane	(2)	6.397	77	144745	1.971
42) Propionitrile	(1)	6.446	54	103939M	37.934
45) Methacrylonitrile	(1)	6.647	67	187205	18.656
47) Bromochloromethane	(2)	6.720	128	40686	2.015
48) Tetrahydrofuran	(1)	6.720	71	48025	18.736
49) Chloroform	(2)	6.860	83	161142	1.955

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.080	113	554159	9.928
50)$Dibromofluoromethane	(2)	7.080	111	573539	10.011
51) 1,1,1-Trichloroethane	(2)	7.086	97	149327	2.001
52) Cyclohexane	(2)	7.189	56	194537	1.979
52) Cyclohexane	(2)	7.189	84	156567	1.971
52) Cyclohexane	(2)	7.183	69	58490	1.948
54) Carbon Tetrachloride	(2)	7.305	117	133832	1.994
55) 1,1-Dichloropropene	(2)	7.305	75	133633	1.982
56) Isobutyl Alcohol	(1)	7.433	41	66840M	92.123
57)$1,2-Dichloroethane-d4	(2)	7.537	102	98101	10.027
57)$1,2-Dichloroethane-d4	(2)	7.531	65	454417	10.004
57)$1,2-Dichloroethane-d4	(2)	7.537	104	62950	10.161
58) Benzene	(2)	7.567	78	387120	1.980
59) 1,2-Dichloroethane	(2)	7.641	62	82512	1.901
60) t-Amyl methyl ether	(2)	7.750	73	224049	1.991
62) n-Heptane	(2)	7.964	43	168282	1.959
63)*Fluorobenzene	(2)	7.970	96	2232667	10.000
65) n-Butanol	(1)	8.317	56	105723M	197.079
67) Trichloroethene	(2)	8.451	95	100136	1.984
69) Methylcyclohexane	(2)	8.756	83	192641	1.981
70) 1,2-Dichloropropane	(2)	8.787	63	96007	1.943
71) Methyl Methacrylate	(1)	8.854	69	38094M	1.811
72) 1,4-Dioxane	(1)	8.878	88	13721	135.033
73) Dibromomethane	(2)	8.890	93	37460	1.995
74) Bromodichloromethane	(2)	9.128	83	108745	1.942
76) 2-Nitropropane	(1)	9.396	41	111802M	18.177
80) cis-1,3-Dichloropropene	(2)	9.652	75	137365	1.985
81) 4-Methyl-2-Pentanone	(1)	9.817	43	486828M	18.340
82)$Toluene-d8	(3)	9.951	98	2298796	10.026
82)$Toluene-d8	(3)	9.951	100	1496594	10.040
83) Toluene	(3)	10.030	92	240396	1.975
85) 1,3-Dichloropropene (total)	(3)		75	242319	3.950
84) trans-1,3-Dichloropropene	(3)	10.274	75	104954M	1.965
86) Ethyl Methacrylate	(3)	10.329	69	87562	1.990
88) 1,1,2-Trichloroethane	(3)	10.482	97	53395	1.973
89) Tetrachloroethene	(3)	10.567	166	113861	2.009
90) 1,3-Dichloropropane	(3)	10.640	76	98279	2.000
91) 2-Hexanone	(1)	10.683	43	342158M	18.548

M = Compound was manually integrated.
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on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	71184	1.928
95) 1,2-Dibromoethane	(3)	10.963	107	52370	2.017
97)*Chlorobenzene-d5	(3)	11.384	117	1775405	10.000
96) 1-Chlorohexane	(3)	11.390	91	147699	1.925
98) Chlorobenzene	(3)	11.414	112	261381	2.008
100) Ethylbenzene	(3)	11.493	91	483599	2.001
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	92182	2.004
101) m+p-Xylene	(3)	11.609	106	361885	3.968
105) Xylene (Total)	(3)		106	540156	5.975
104) o-Xylene	(3)	11.939	106	178271	2.007
106) Styrene	(3)	11.951	104	283383	1.993
107) Bromoform	(3)	12.115	173	40913	1.952
108) Isopropylbenzene	(3)	12.231	105	480819	1.972
111)$4-Bromofluorobenzene	(3)	12.377	95	860823	10.029
111)$4-Bromofluorobenzene	(3)	12.377	174	736837	10.025
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	64135	1.981
114) Bromobenzene	(4)	12.499	156	103729	2.005
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	174468M	19.072
116) 1,2,3-Trichloropropane	(4)	12.524	110	16366	1.947
117) n-Propylbenzene	(4)	12.560	91	562473	1.990
119) 2-Chlorotoluene	(4)	12.640	126	108605	1.957
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	394132	1.982
122) 4-Chlorotoluene	(4)	12.731	126	111760	2.023
125) tert-Butylbenzene	(4)	12.938	134	86016M	1.999
126) Pentachloroethane	(4)	12.975	167	67420	1.976
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	398779	1.988
128) sec-Butylbenzene	(4)	13.103	105	508692	1.990
131) 1,3-Dichlorobenzene	(4)	13.200	146	206183	1.988
132) p-Isopropyltoluene	(4)	13.207	119	428407	1.962
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	936773	10.000
134) 1,4-Dichlorobenzene	(4)	13.280	146	201430	1.985
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	167874	1.963
136) Benzyl Chloride	(4)	13.353	126	28824	1.960
138) n-Butylbenzene	(4)	13.499	92	202498	1.970
139) 1,2-Dichlorobenzene	(4)	13.536	146	178946	2.005
143) 1,2-Dibromo-3-chloropropane	(1)	14.078	155	9244M	1.957
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	148446	1.944
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	120351	1.967

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on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	48845	1.979
147) Naphthalene	(4)	14.816	128	200549	1.958
148) 1,2,3-Trichlorobenzene	(4)	14.956	180	98634	1.936

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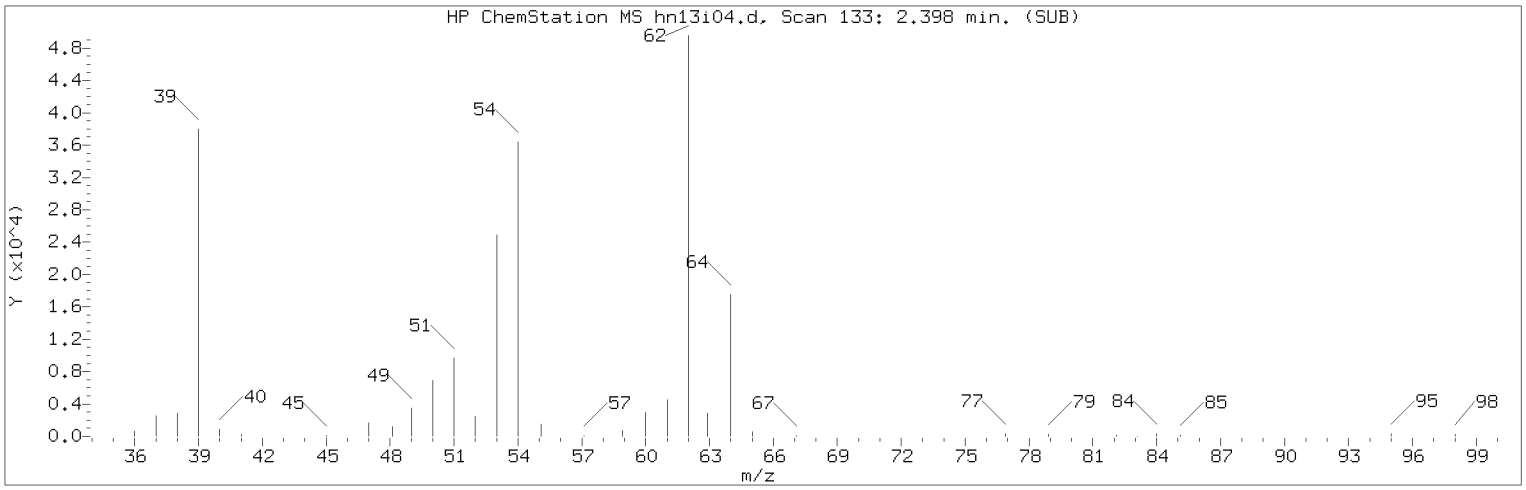
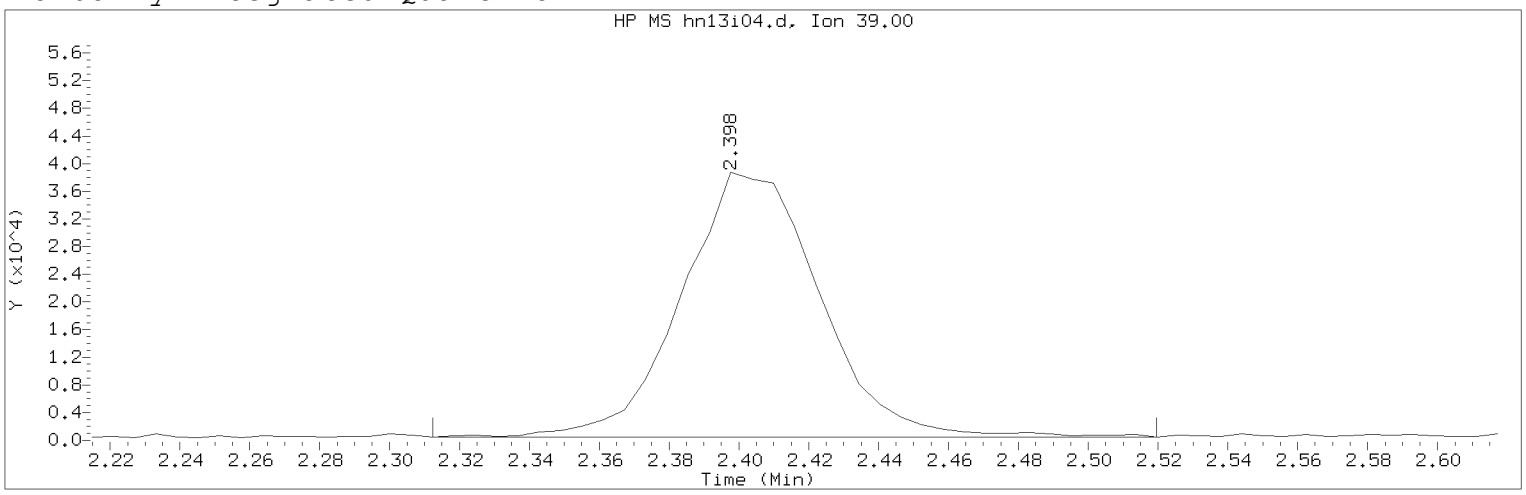
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

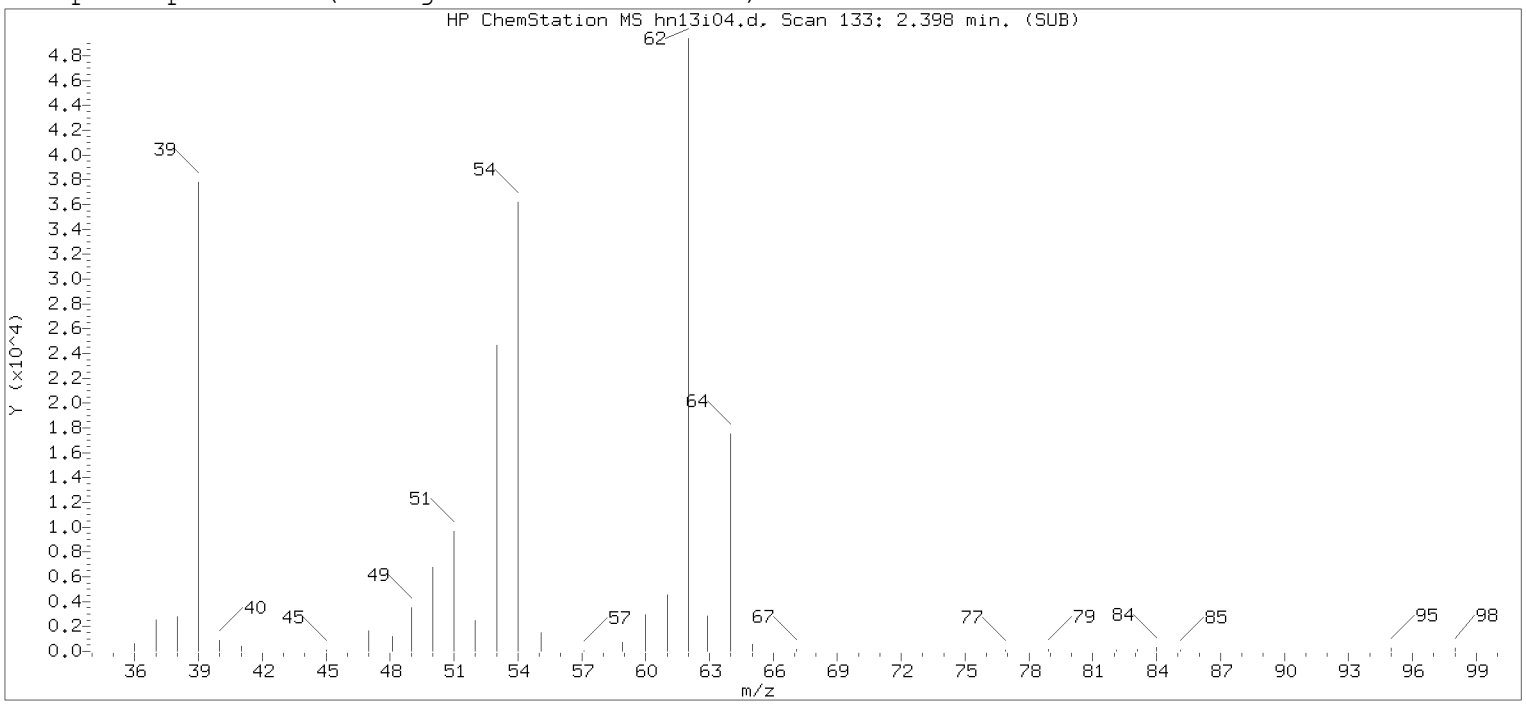
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area (flag) : 105450M
On-Column Amount (ng) : 1.9535
Integration start scan : 118 Integration stop scan: 152
Y at integration start : 465 Y at integration end: 465

Reason for manual integration: improper integration

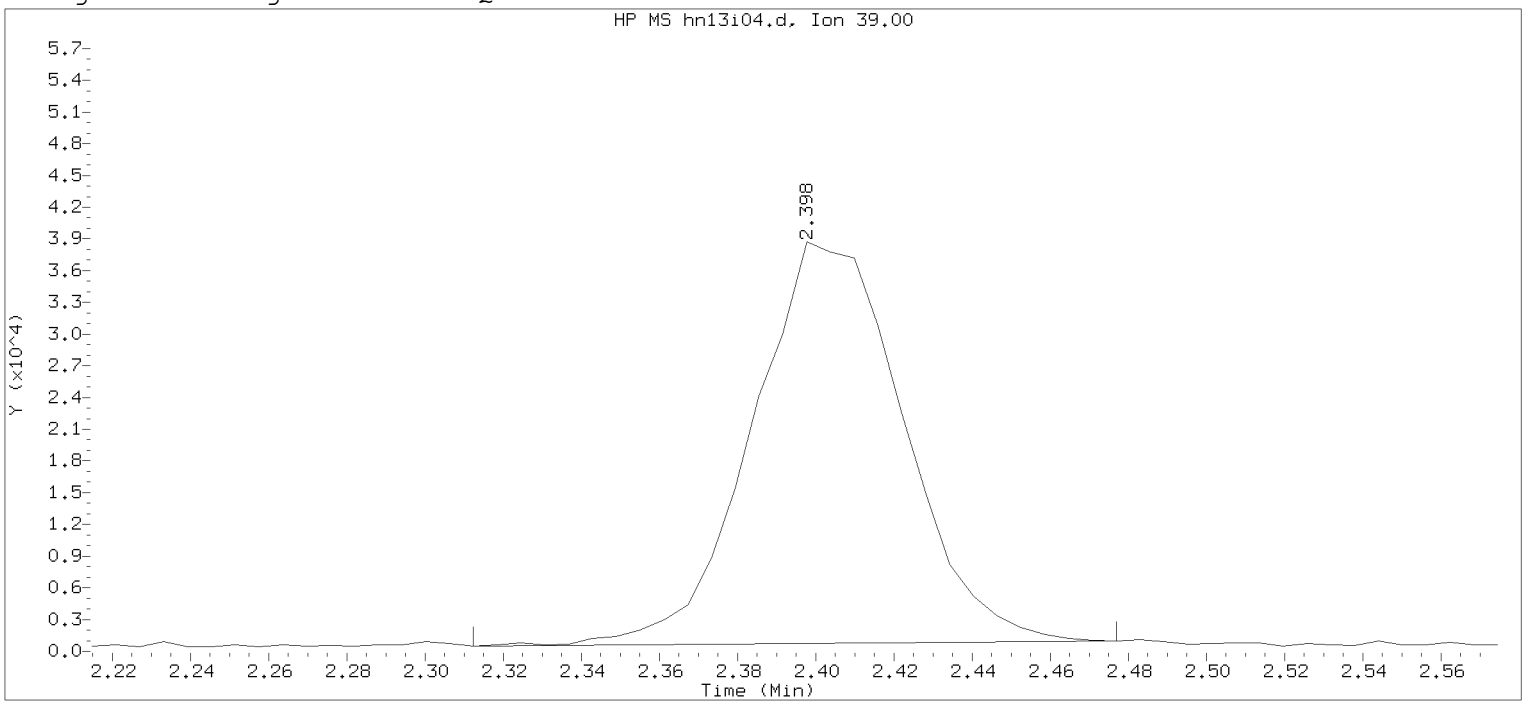
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area : 101964
On-column Amount (ng) : 1.9659
Integration start scan : 118 Integration stop scan: 145
Y at integration start : 468 Y at integration end: 988

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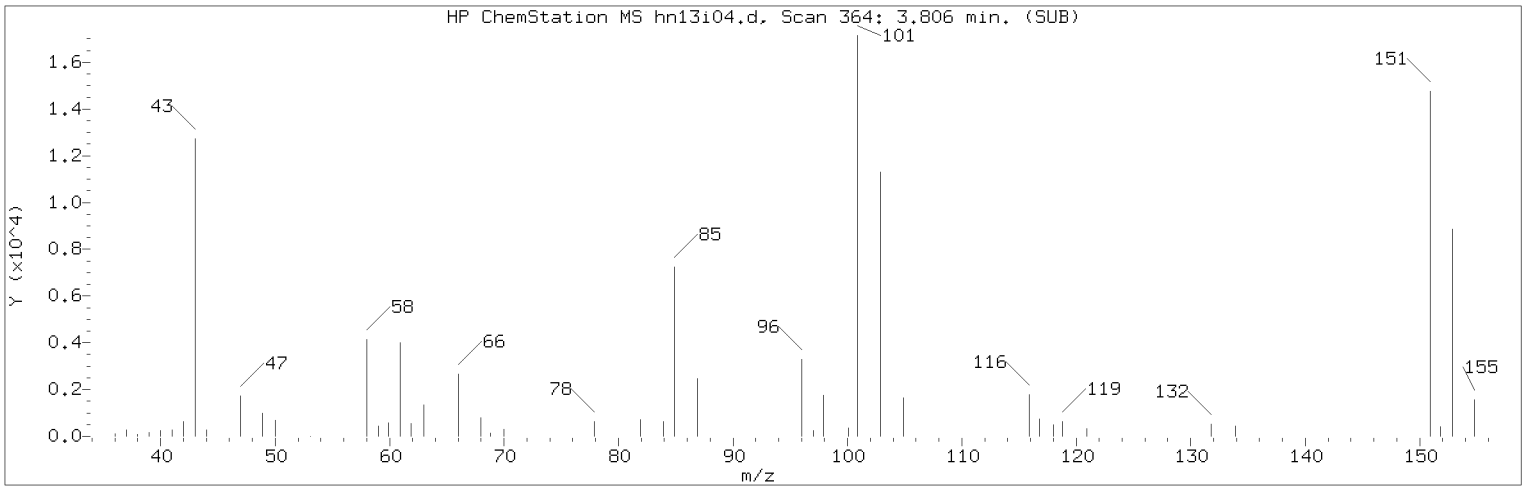
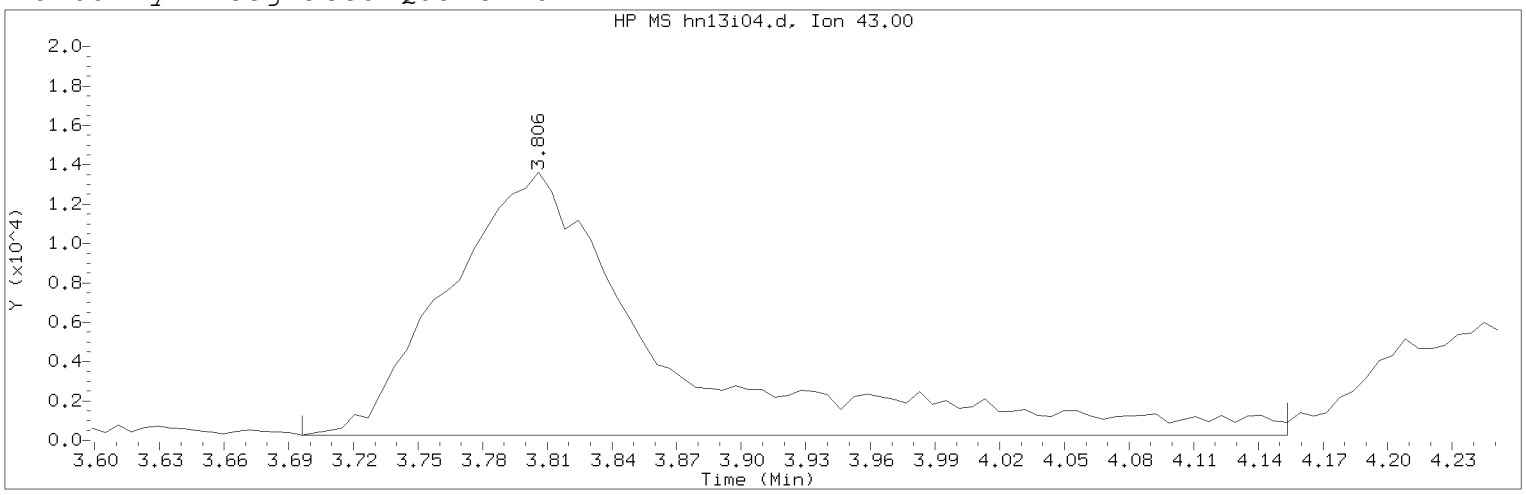
Target 3.5 esignature used. AE35 Page 617

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

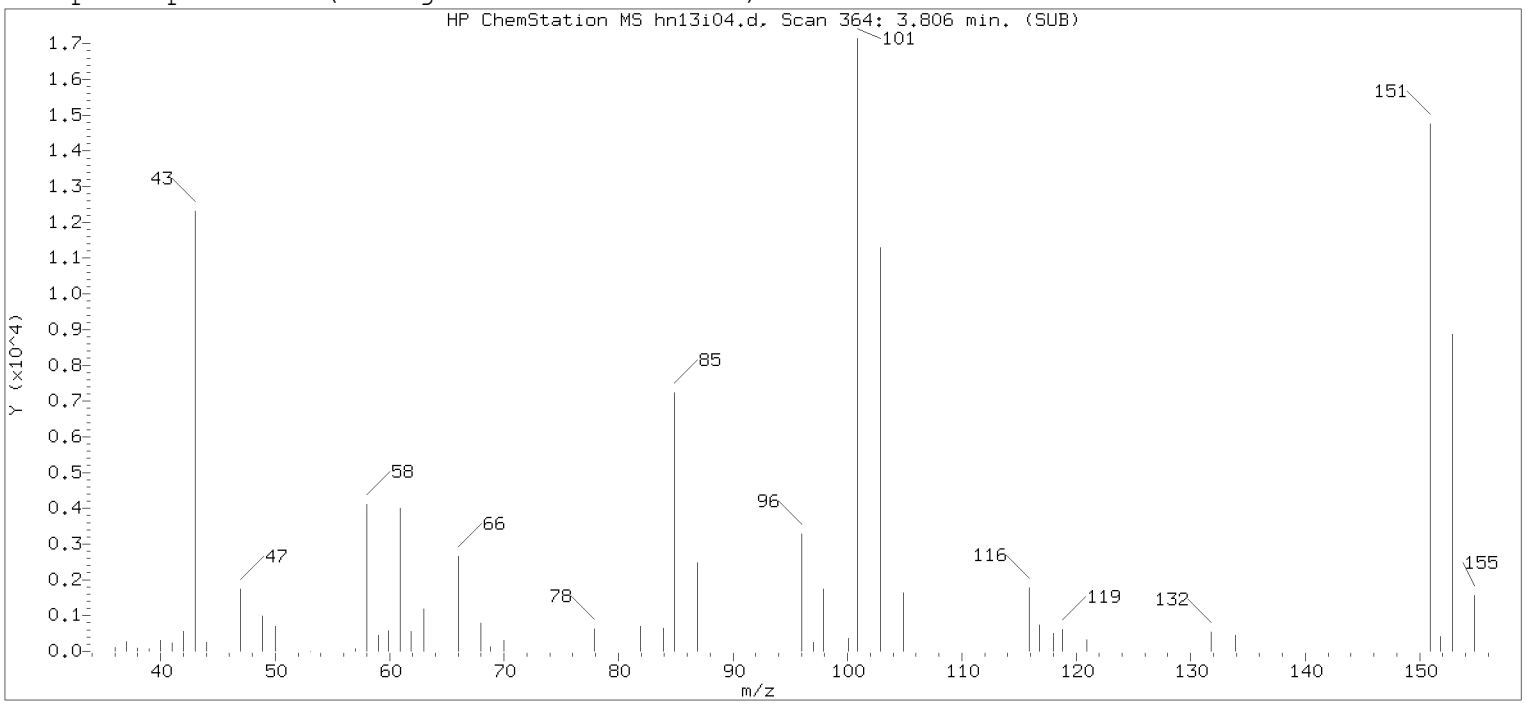
Compound Number : 14
Compound Name : Acetone
Scan Number : 364
Retention Time (minutes): 3.806
Quant Ion : 43.00
Area (flag) : 93793M
On-Column Amount (ng) : 17.8865
Integration start scan : 345 Integration stop scan: 420
Y at integration start : 272 Y at integration end: 272

Reason for manual integration: improper integration

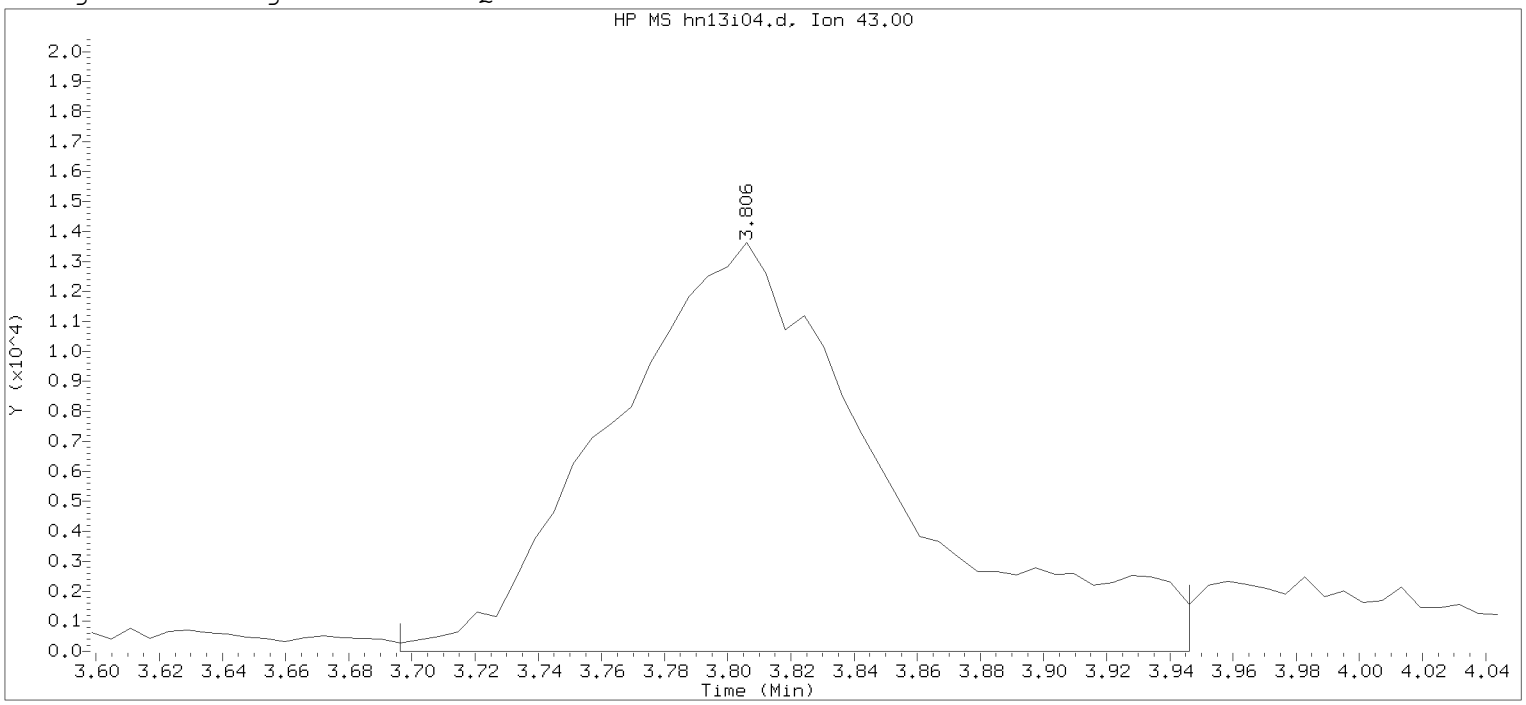
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 364		
Retention Time (minutes)	: 3.806		
Quant Ion	: 43.00		
Area	: 82538		
On-column Amount (ng)	: 18.2619		
Integration start scan	: 345	Integration stop scan:	386
Y at integration start	: 0	Y at integration end:	0

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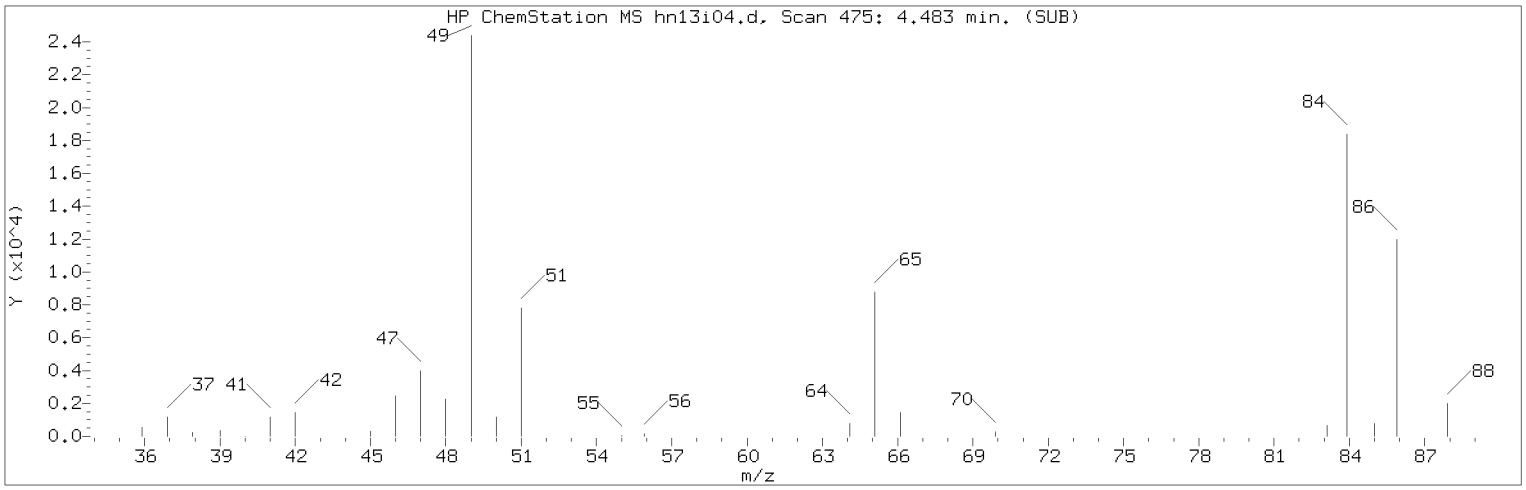
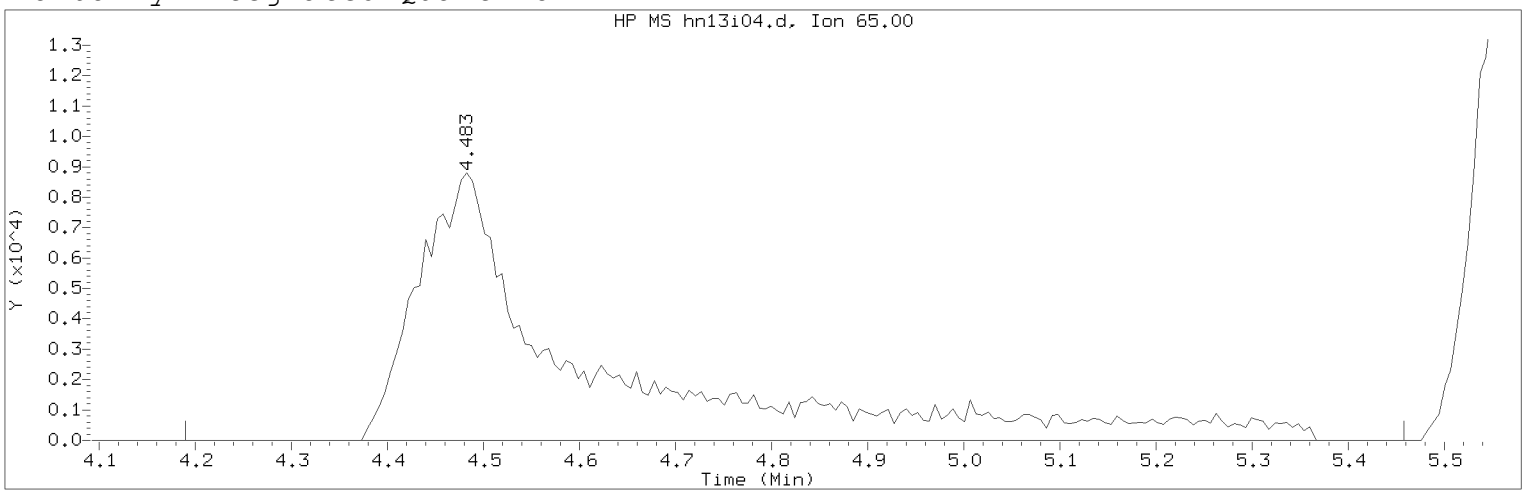
Target 3.5 esignature used. AE35 Page 619 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

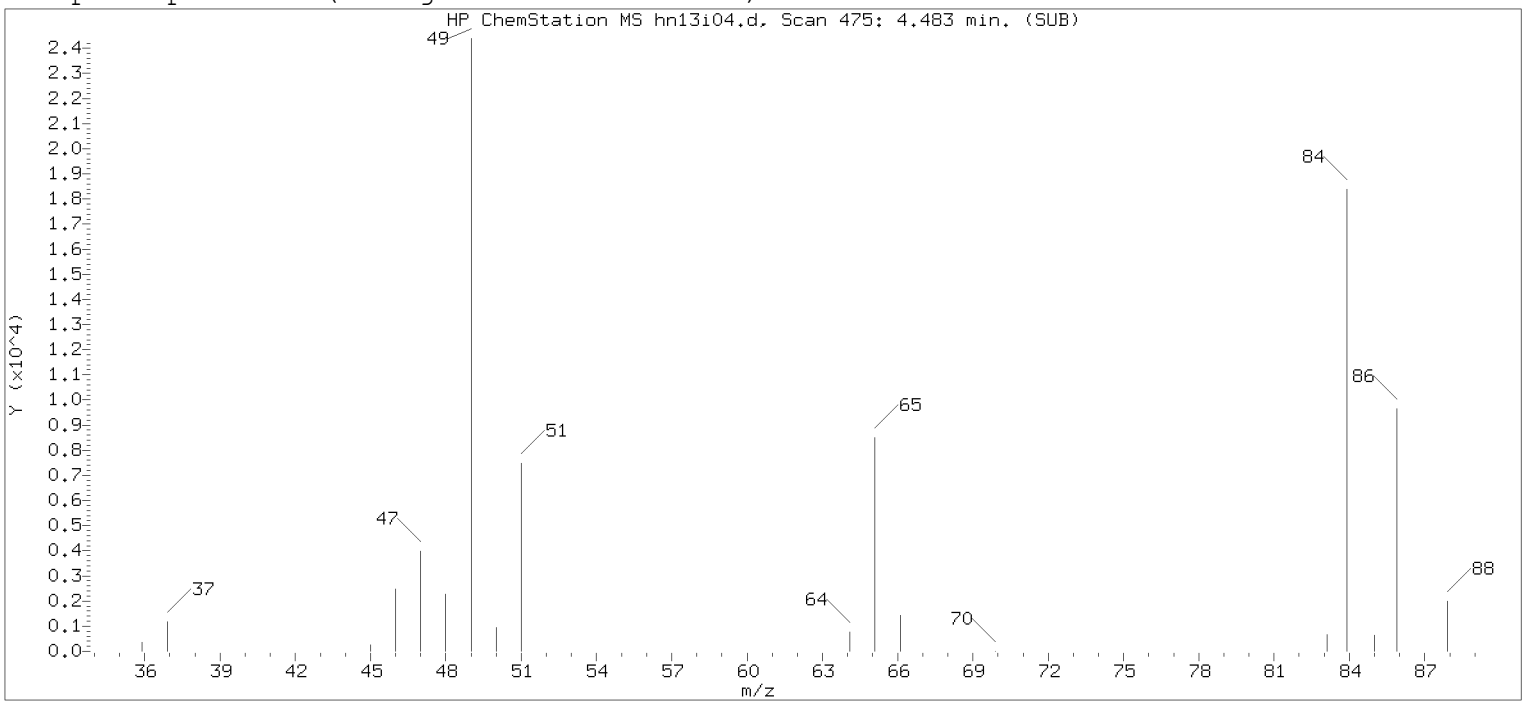
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area (flag) : 105777M
On-Column Amount (ng) : 50.0000
Integration start scan : 426 Integration stop scan: 634
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

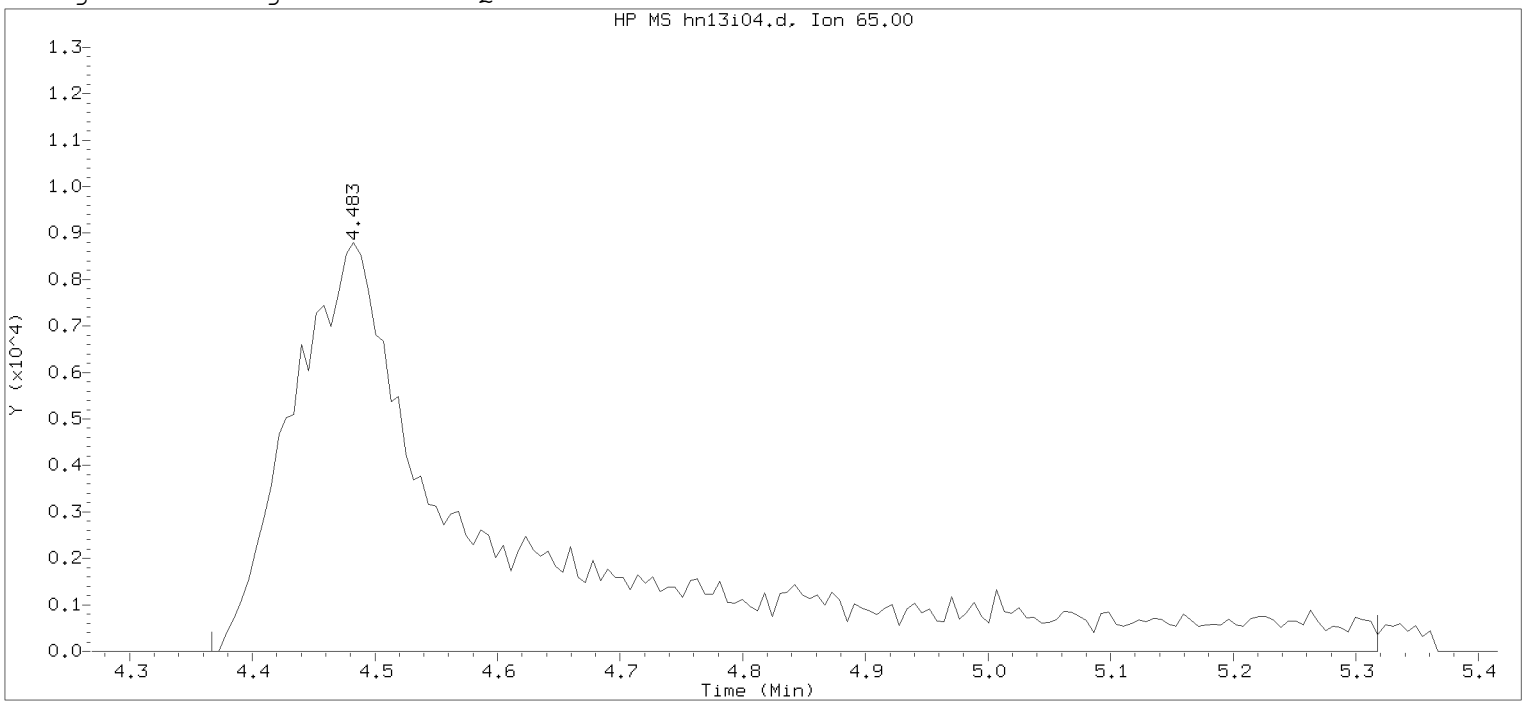
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

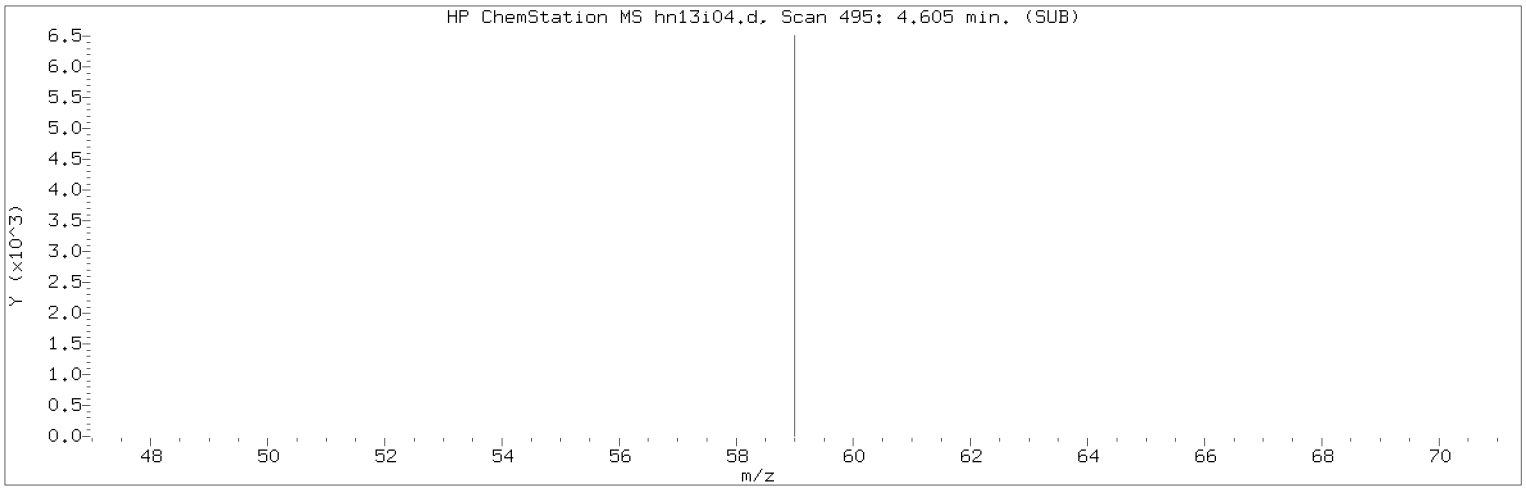
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

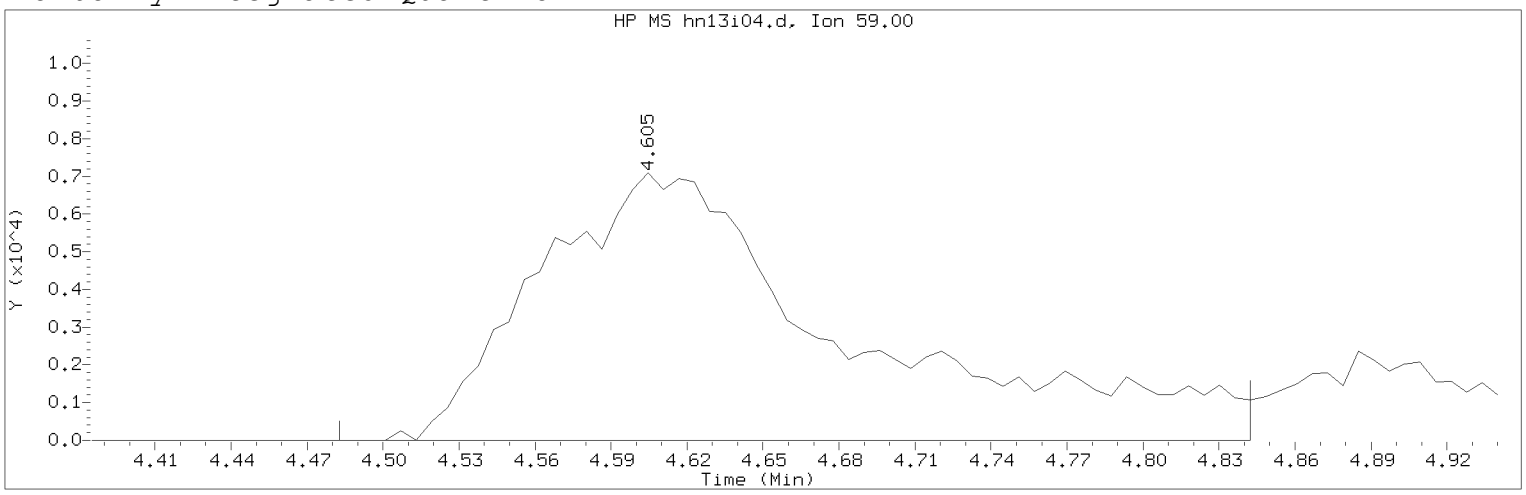
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area : 104454
On-column Amount (ng) : 50.0000
Integration start scan : 455 Integration stop scan: 611
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

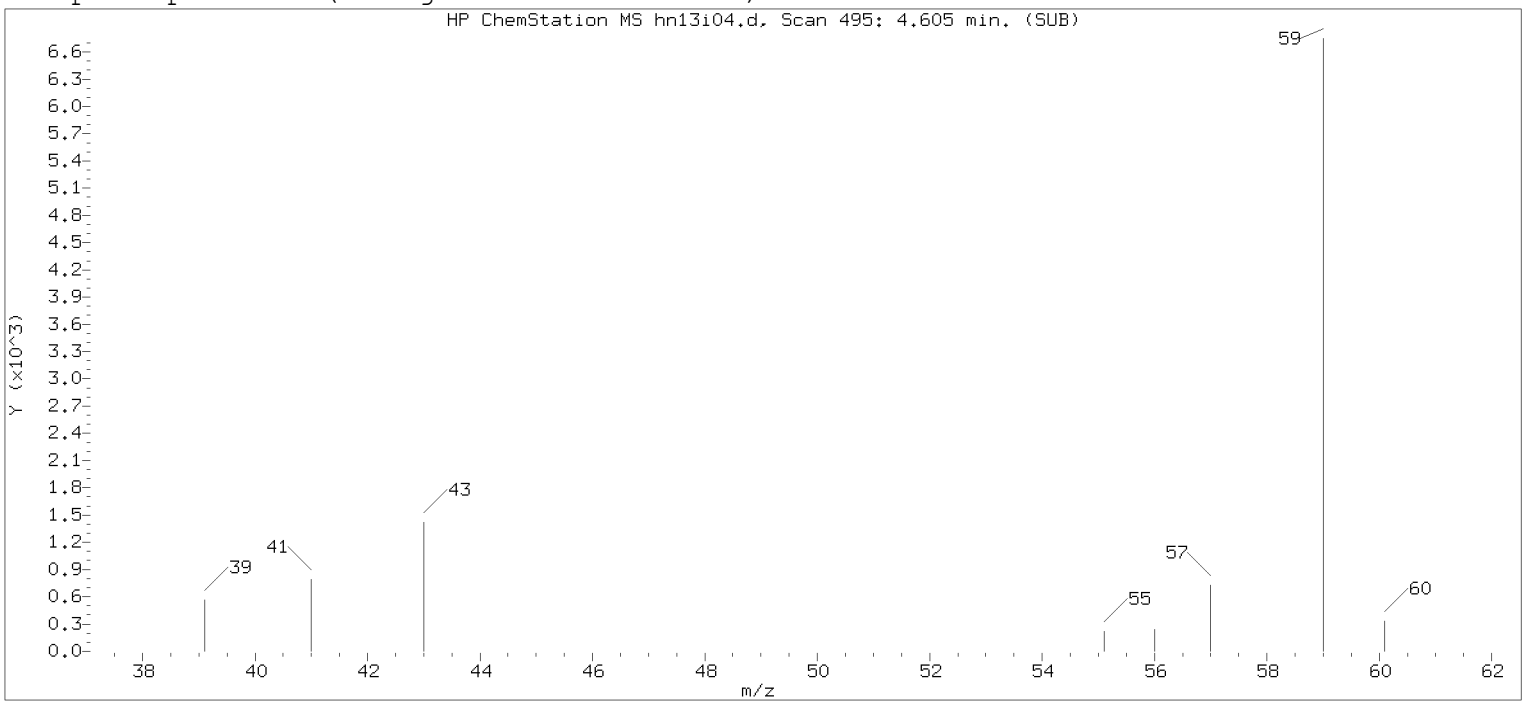
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.605
Quant Ion : 59.00
Area (flag) : 59870M
On-Column Amount (ng) : 42.8898
Integration start scan : 474 Integration stop scan: 533
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

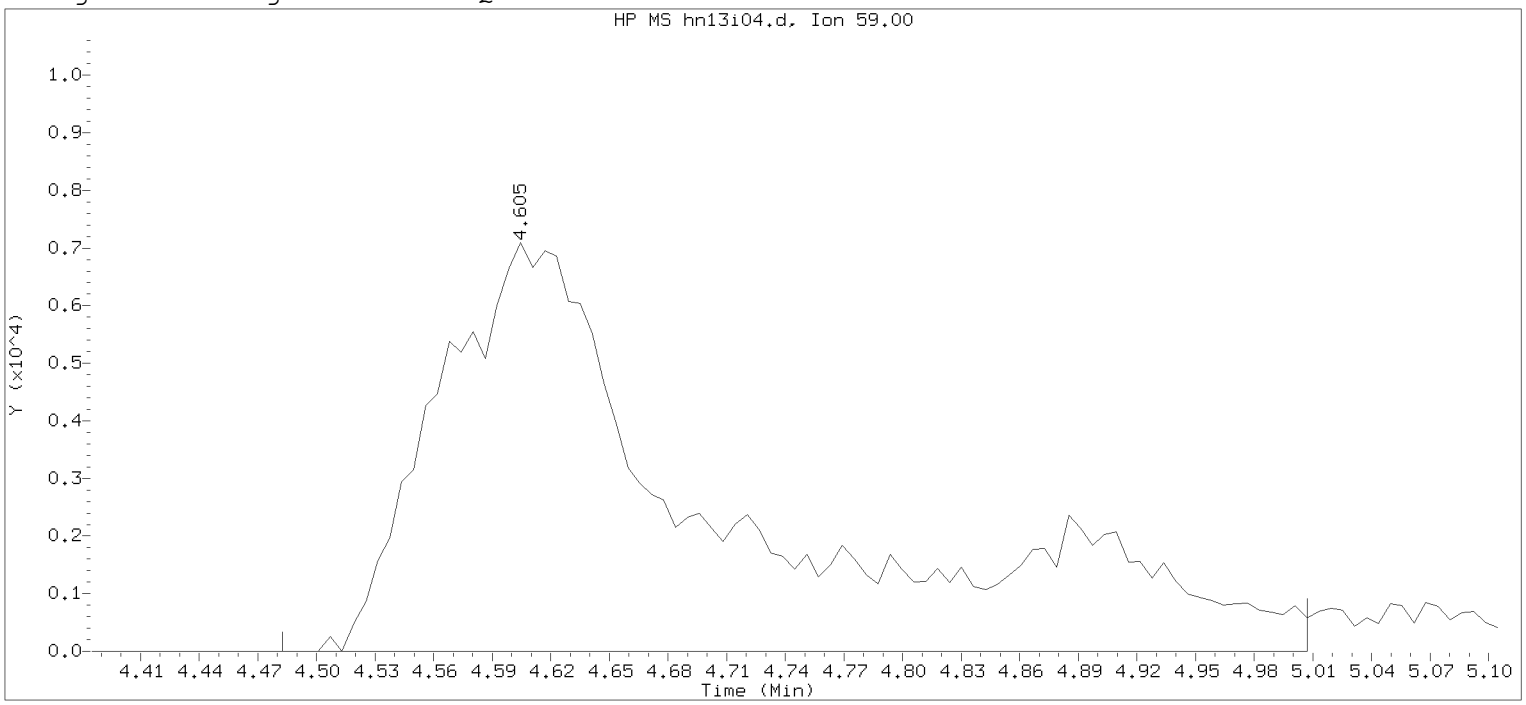
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

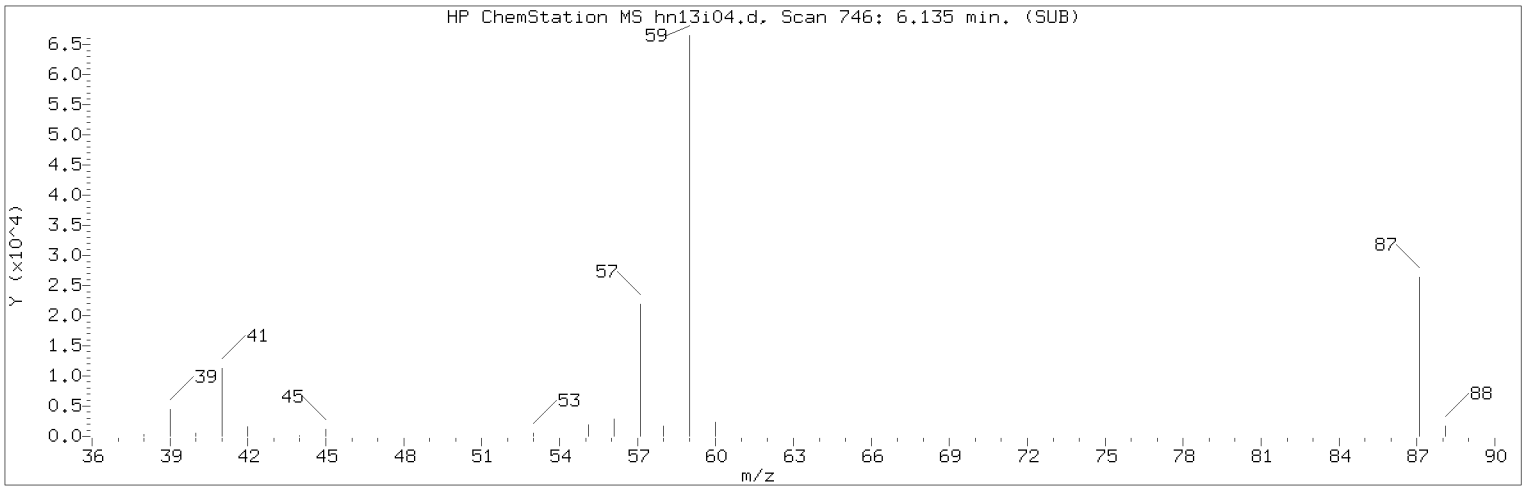
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

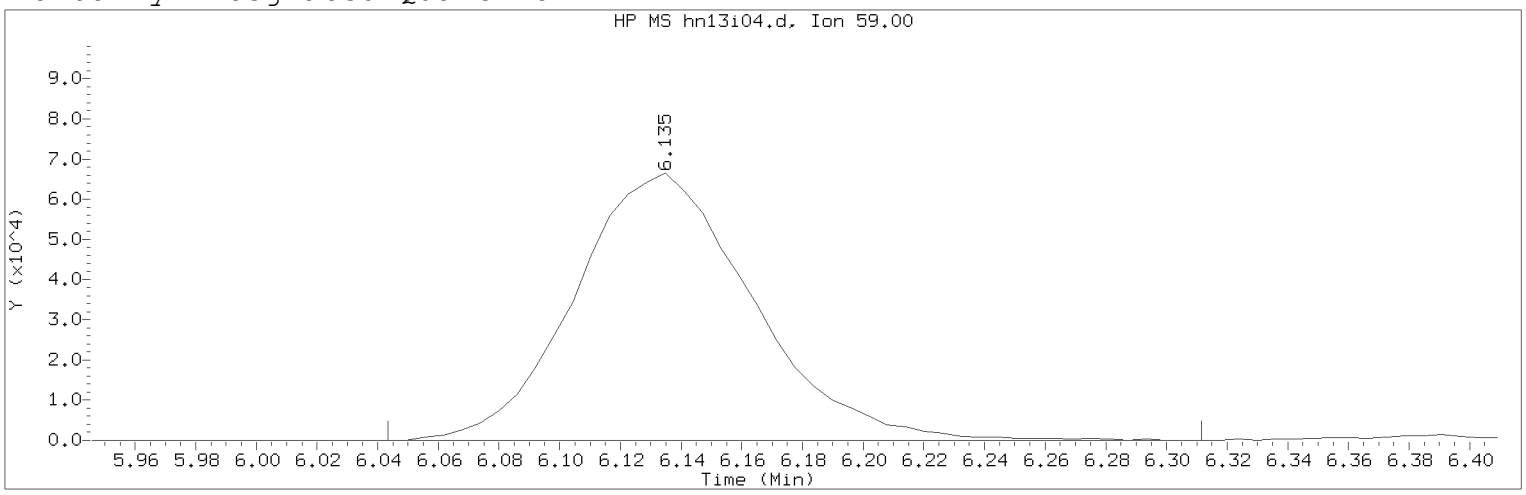
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.605
Quant Ion : 59.00
Area : 72642
On-column Amount (ng) : 48.5187
Integration start scan : 474 Integration stop scan: 560
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

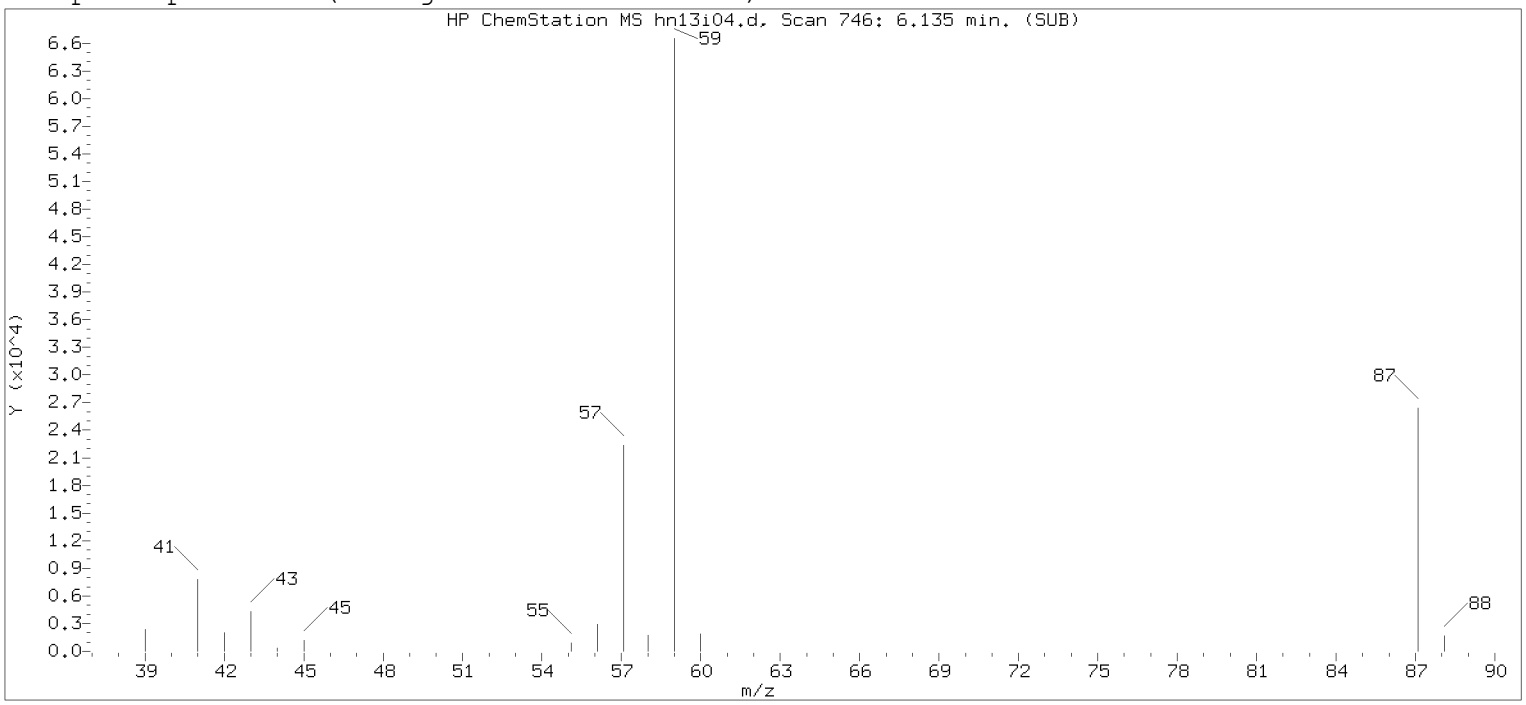
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 746
Retention Time (minutes): 6.135
Quant Ion : 59.00
Area (flag) : 270549M
On-Column Amount (ng) : 1.9805
Integration start scan : 730 Integration stop scan: 774
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

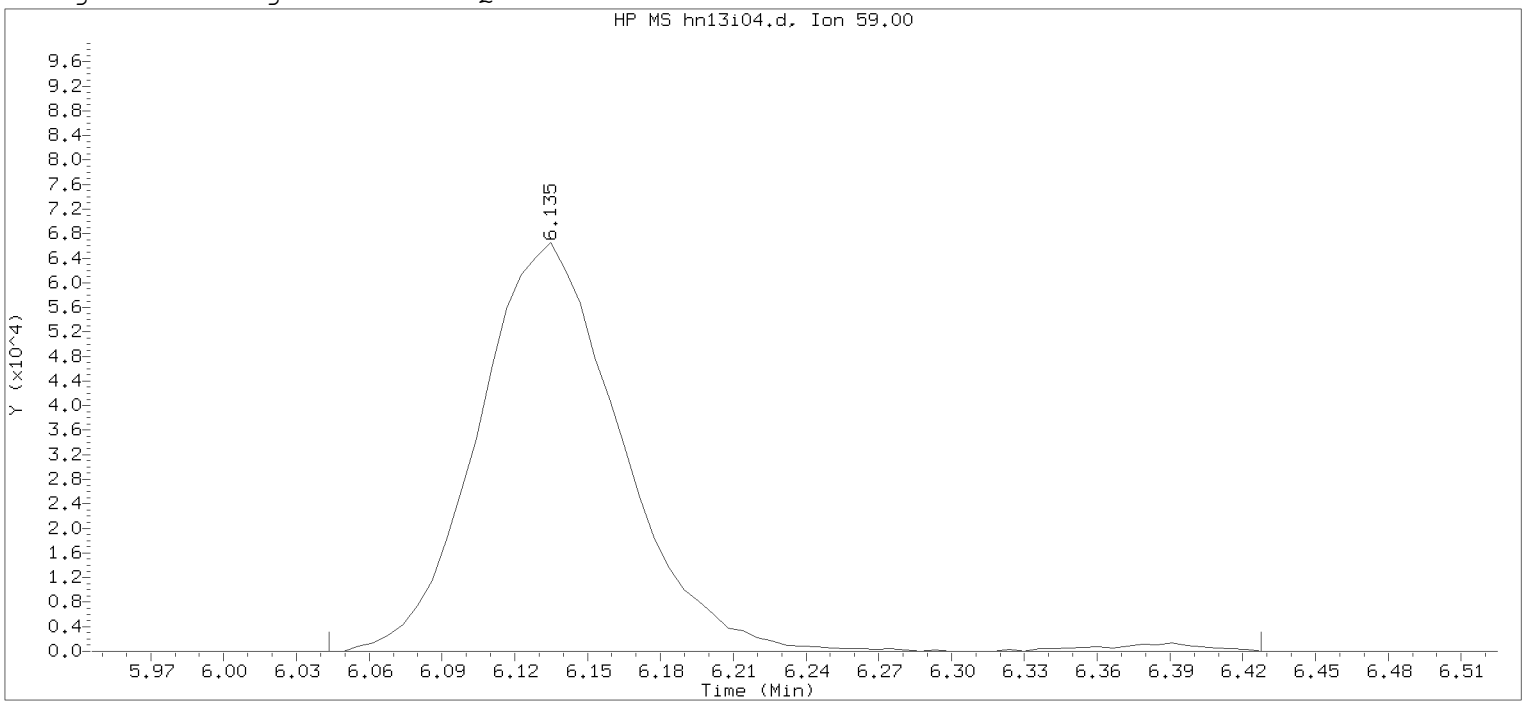
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

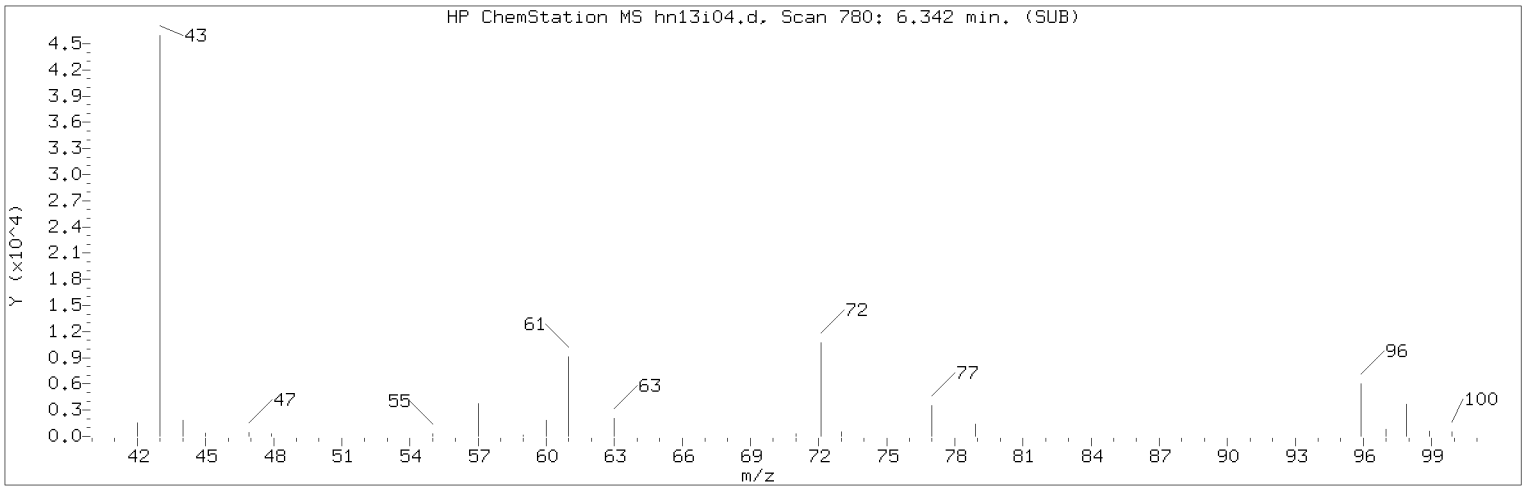
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

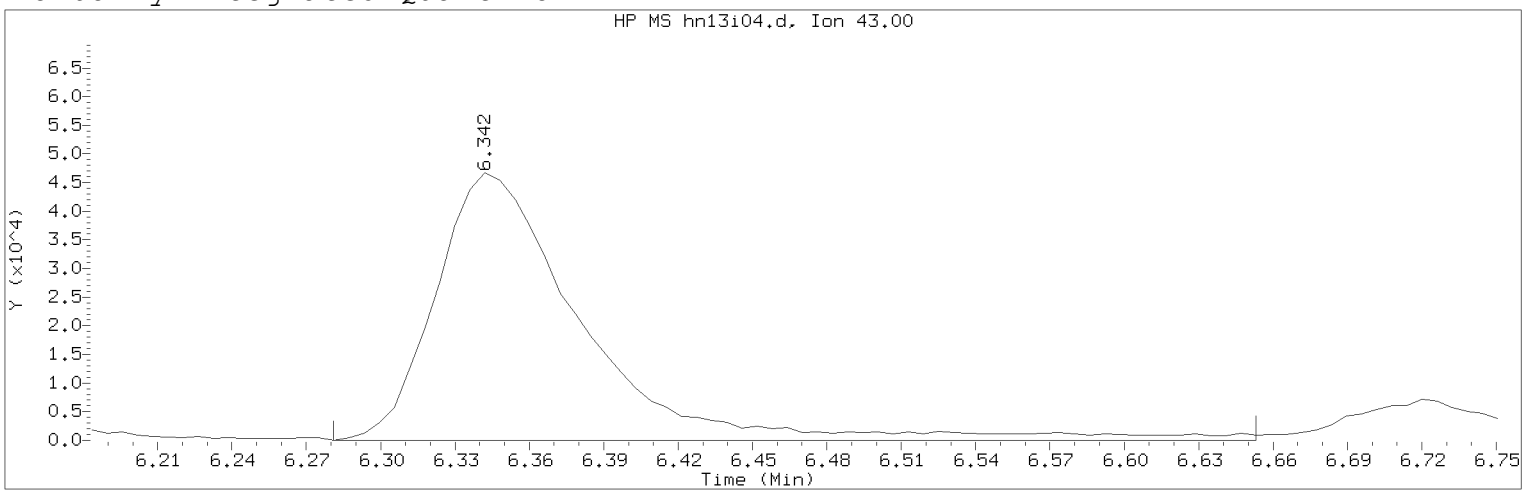
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 746
Retention Time (minutes): 6.135
Quant Ion : 59.00
Area : 274443
On-column Amount (ng) : 2.0332
Integration start scan : 730 Integration stop scan: 793
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 625

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

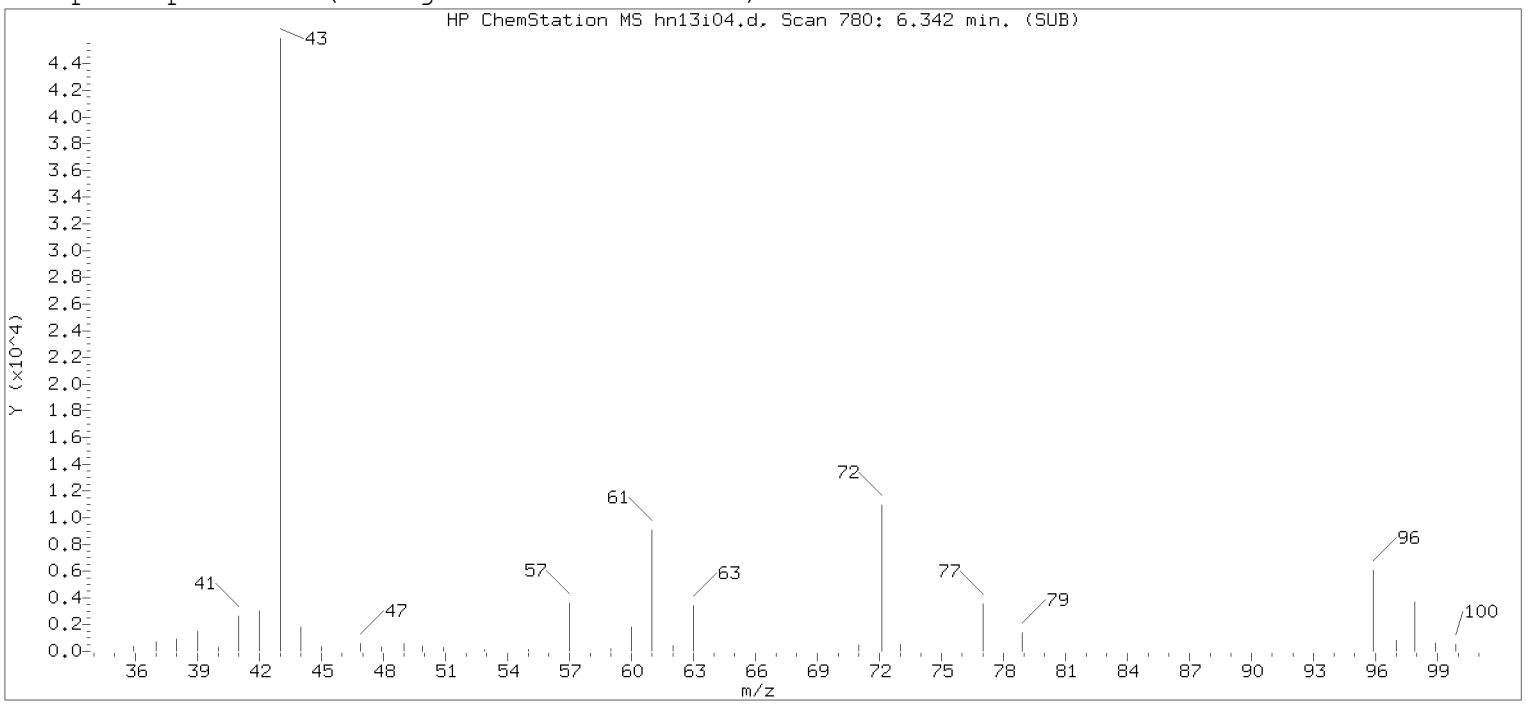
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area (flag) : 193150M
On-Column Amount (ng) : 18.0140
Integration start scan : 769 Integration stop scan: 830
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

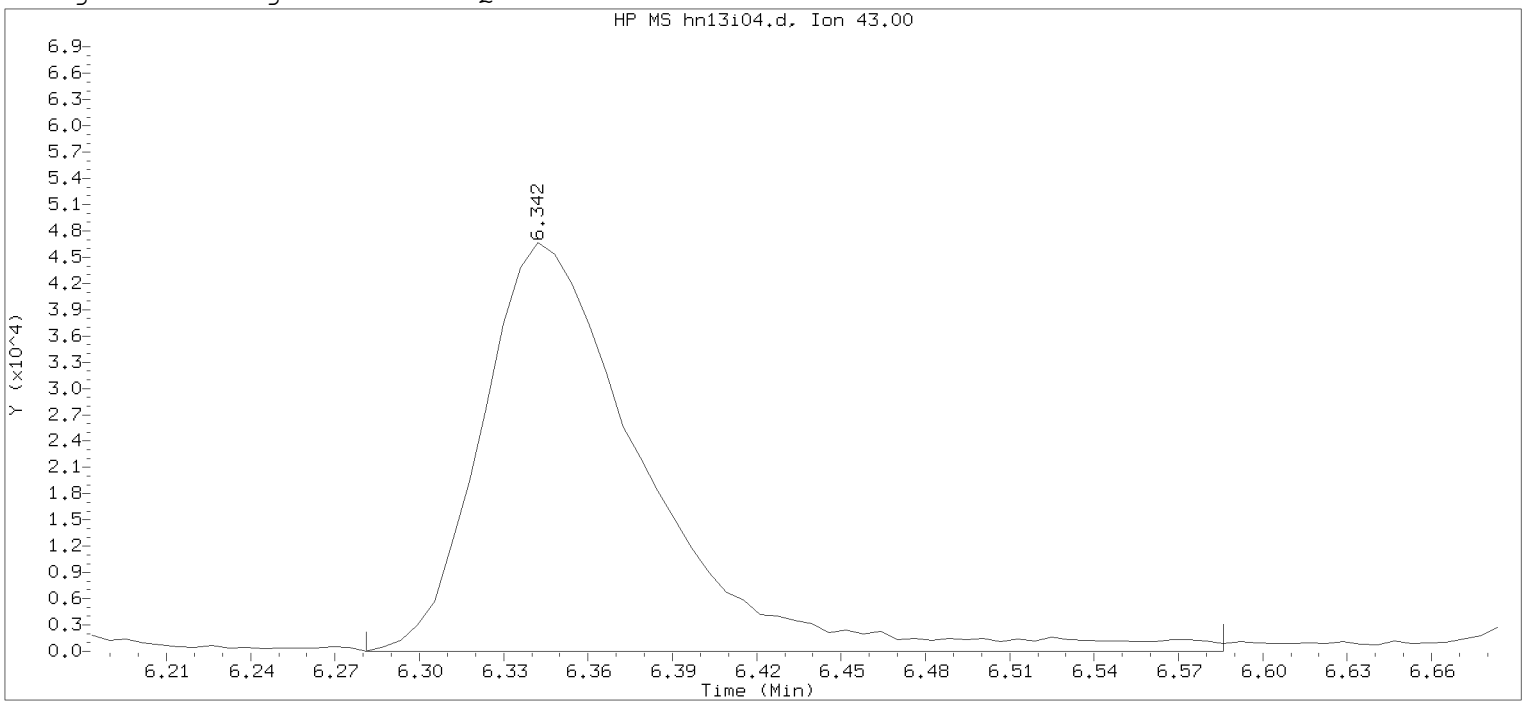
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

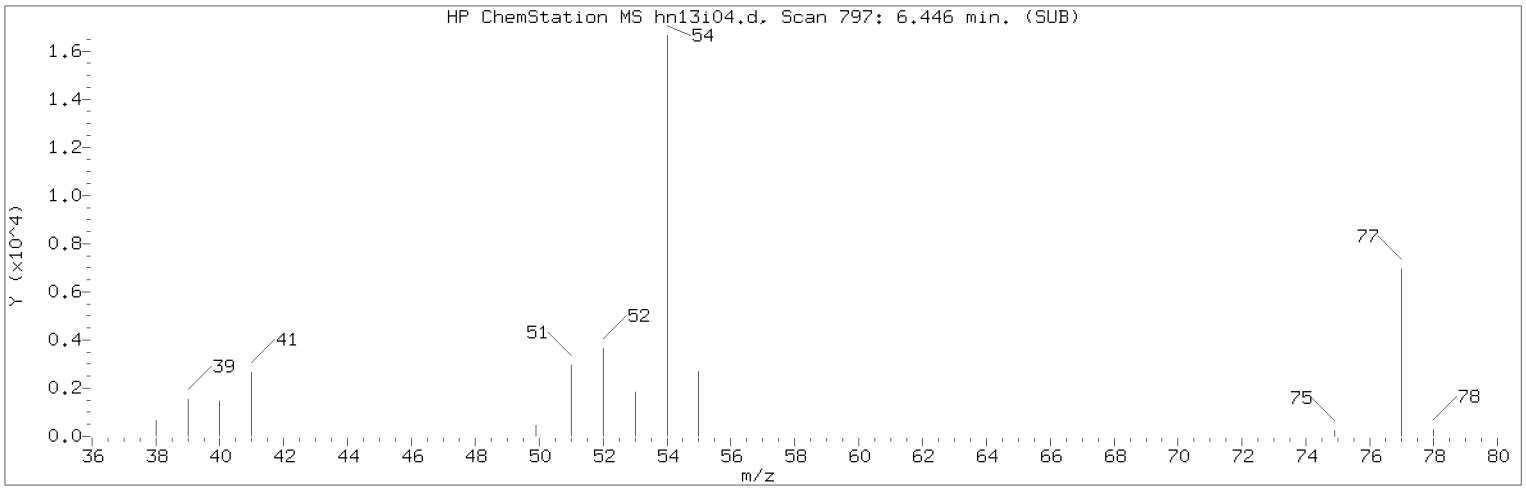
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

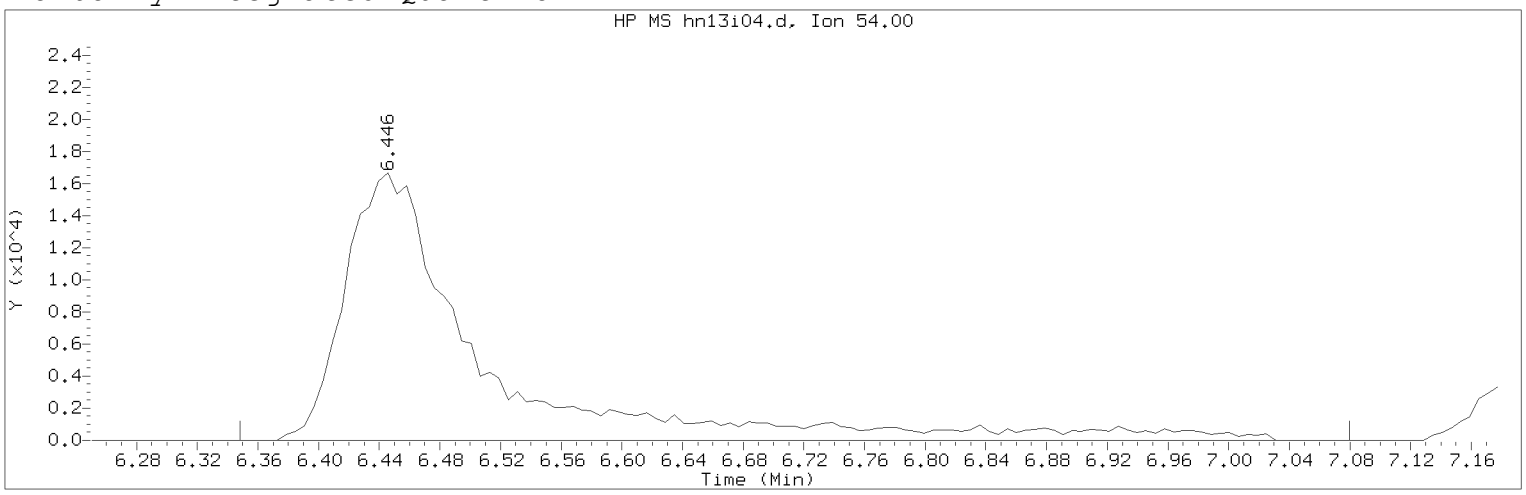
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area : 189163
On-column Amount (ng) : 20.1993
Integration start scan : 769 Integration stop scan: 819
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 627

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

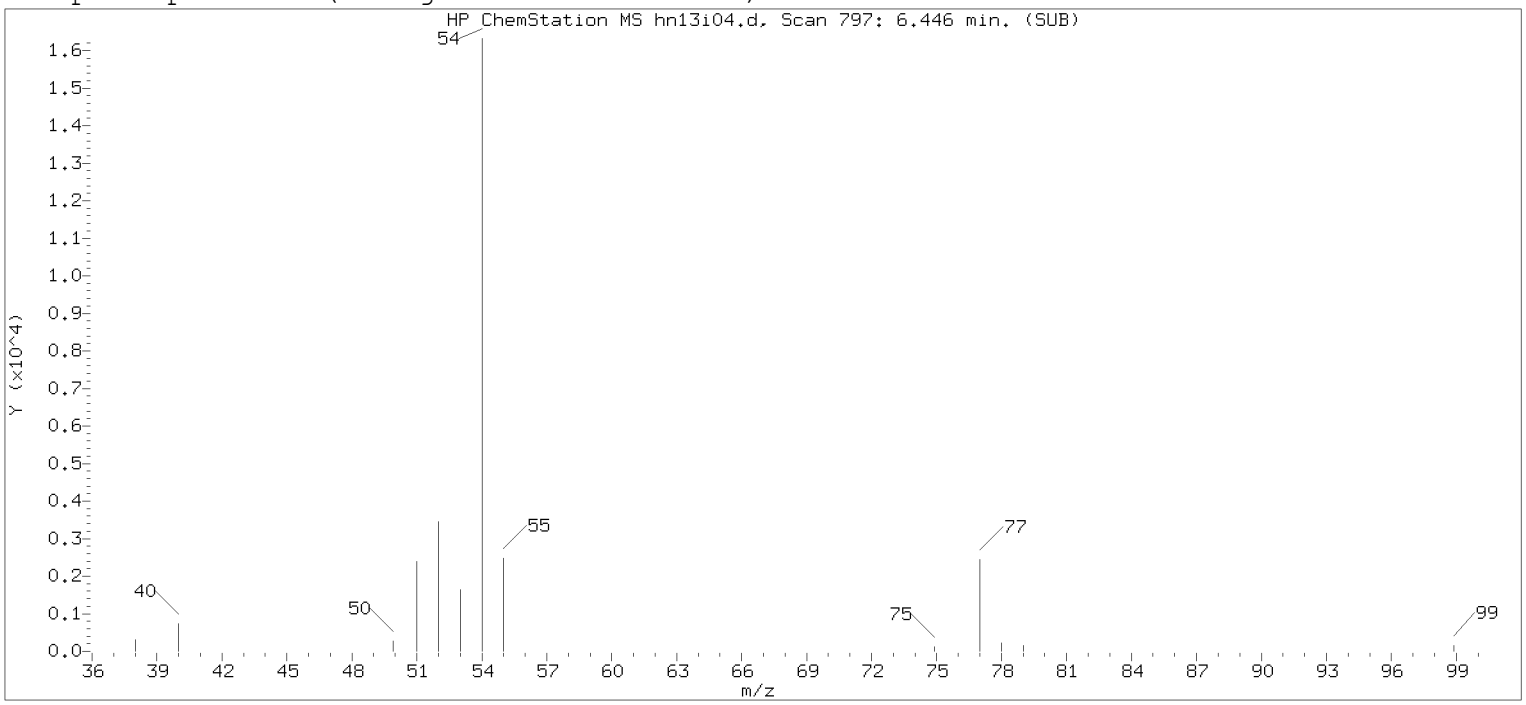
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 797
Retention Time (minutes): 6.446
Quant Ion : 54.00
Area (flag) : 103939M
On-Column Amount (ng) : 37.9342
Integration start scan : 780 Integration stop scan: 900
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

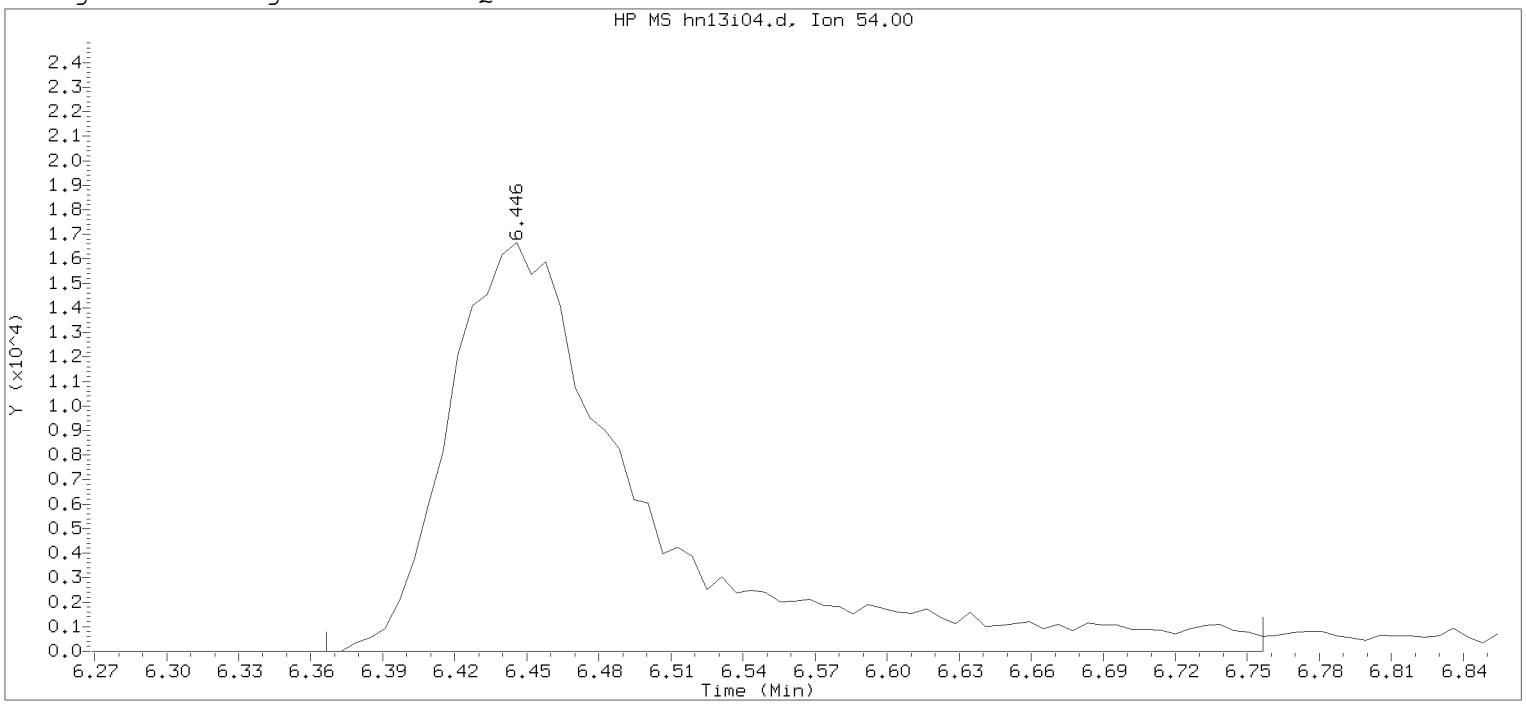
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

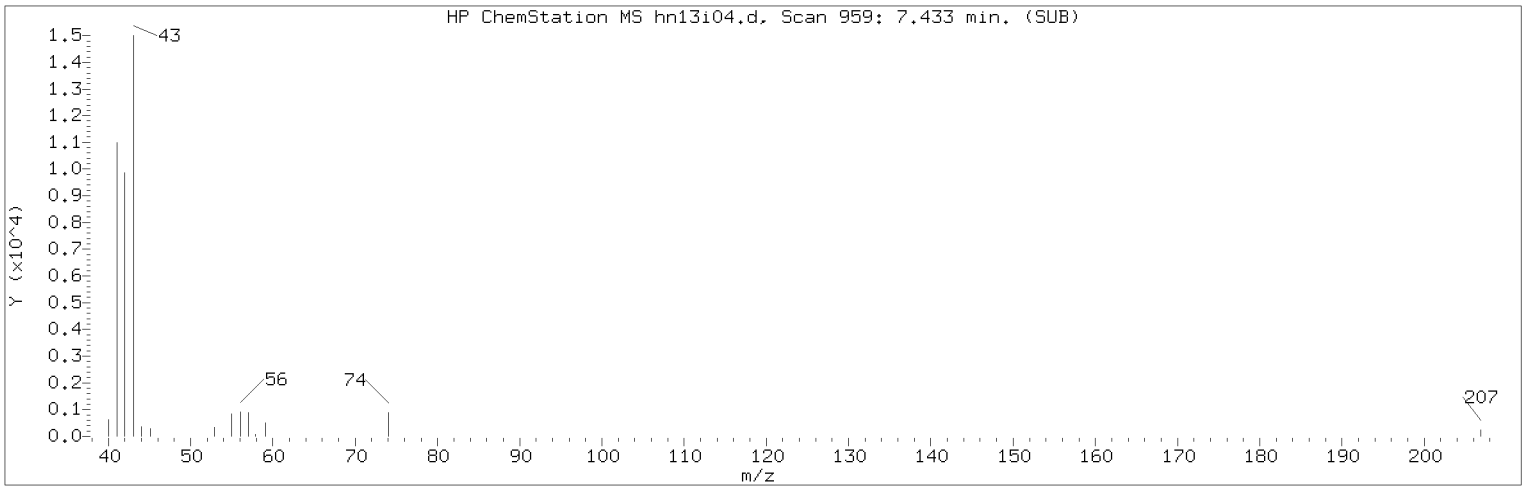
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

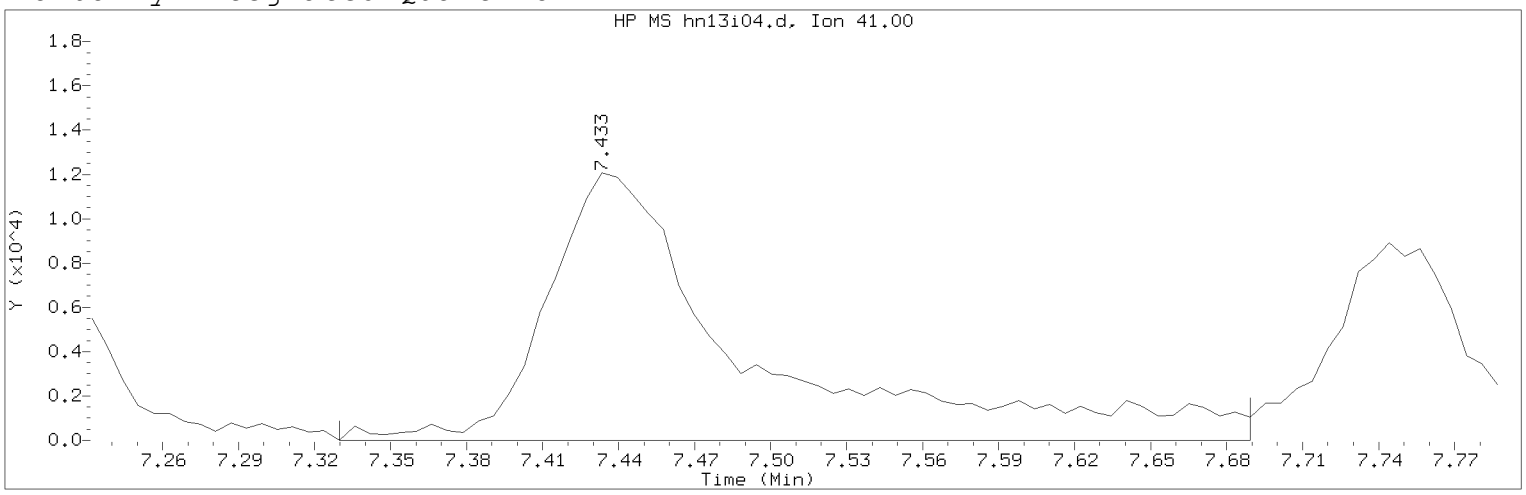
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 797
Retention Time (minutes): 6.446
Quant Ion : 54.00
Area : 94481
On-column Amount (ng) : 36.9422
Integration start scan : 783 Integration stop scan: 847
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

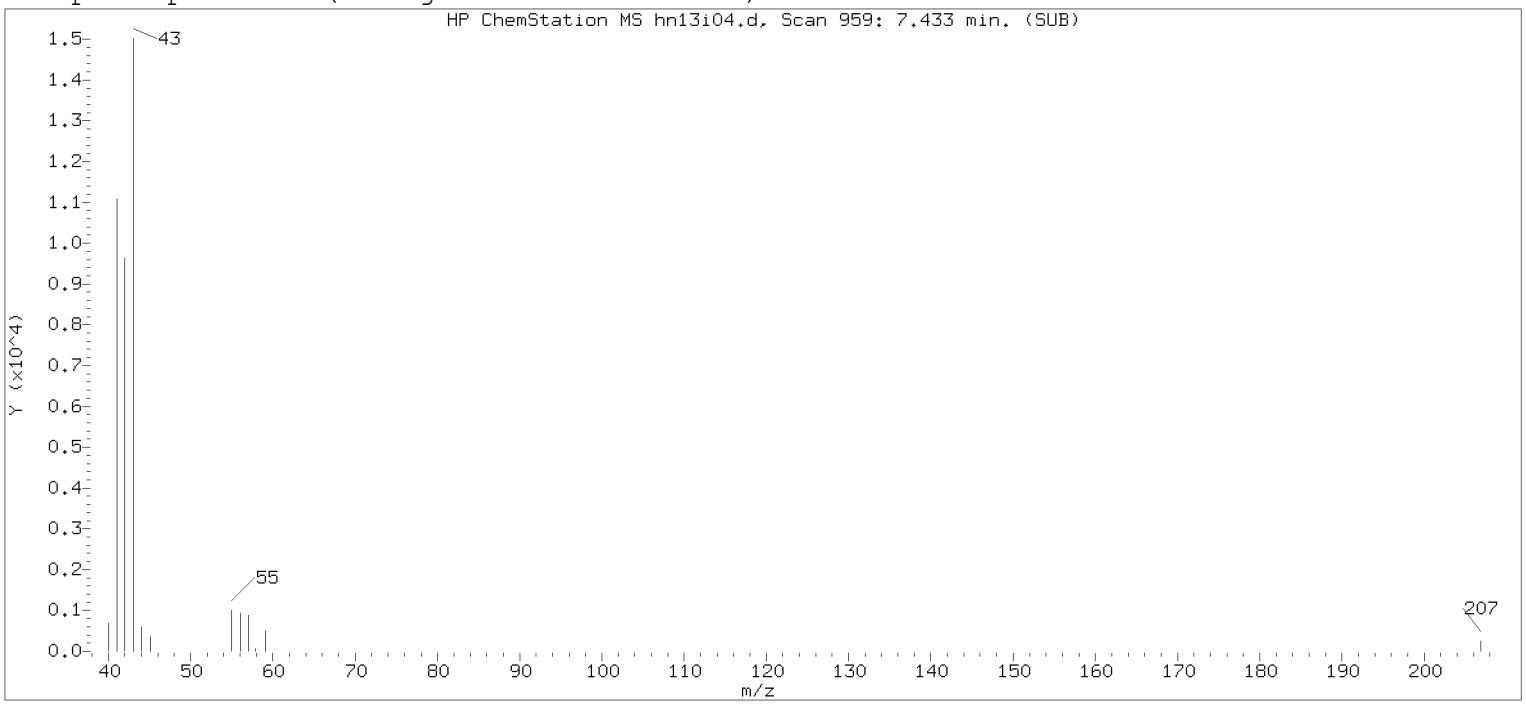
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area (flag) : 66840M
On-Column Amount (ng) : 92.1234
Integration start scan : 941 Integration stop scan: 1000
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

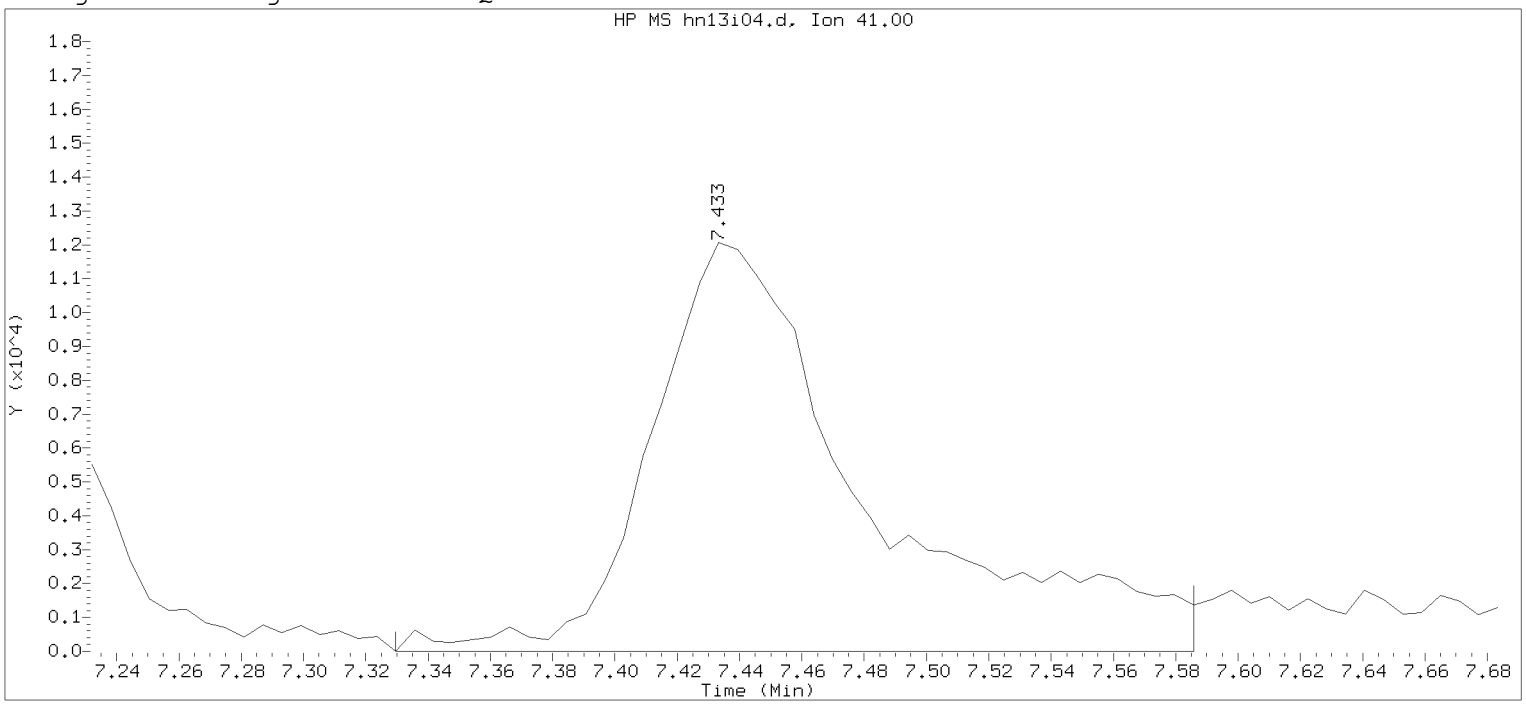
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

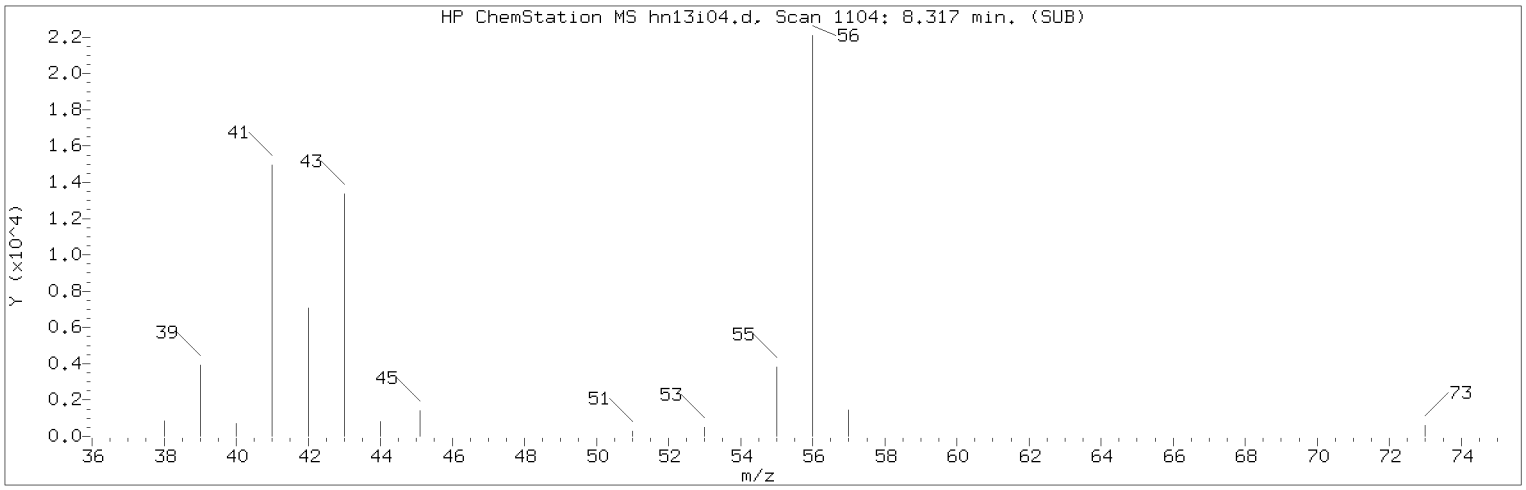
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

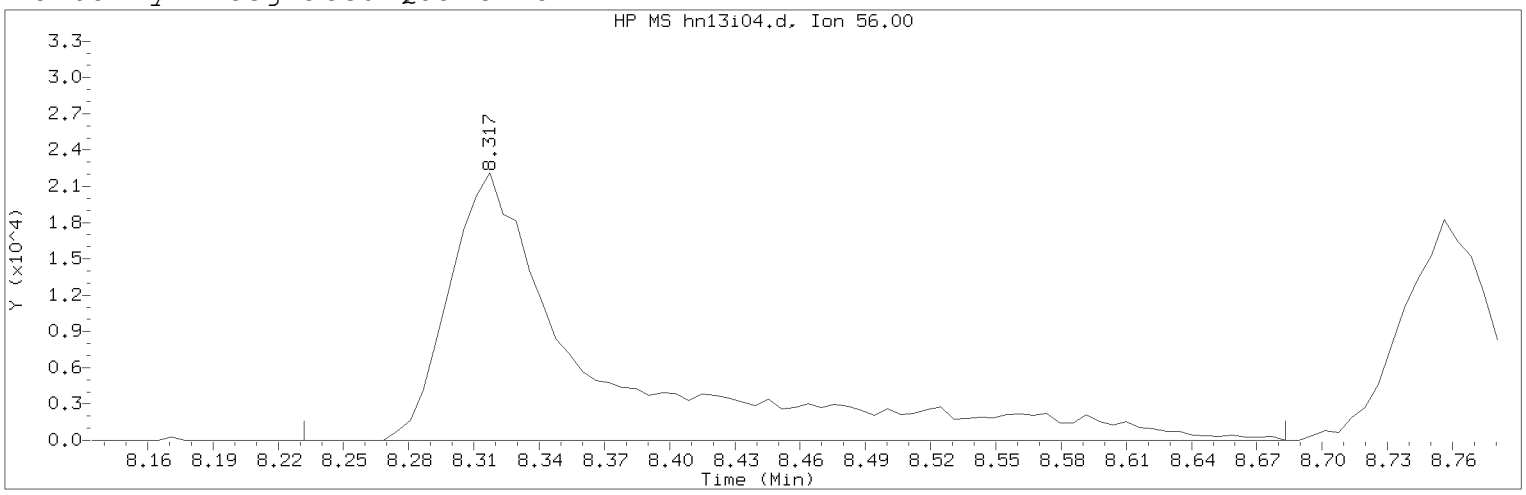
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area : 57982
On-column Amount (ng) : 98.5698
Integration start scan : 941 Integration stop scan: 983
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. RAF35 Page 631 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

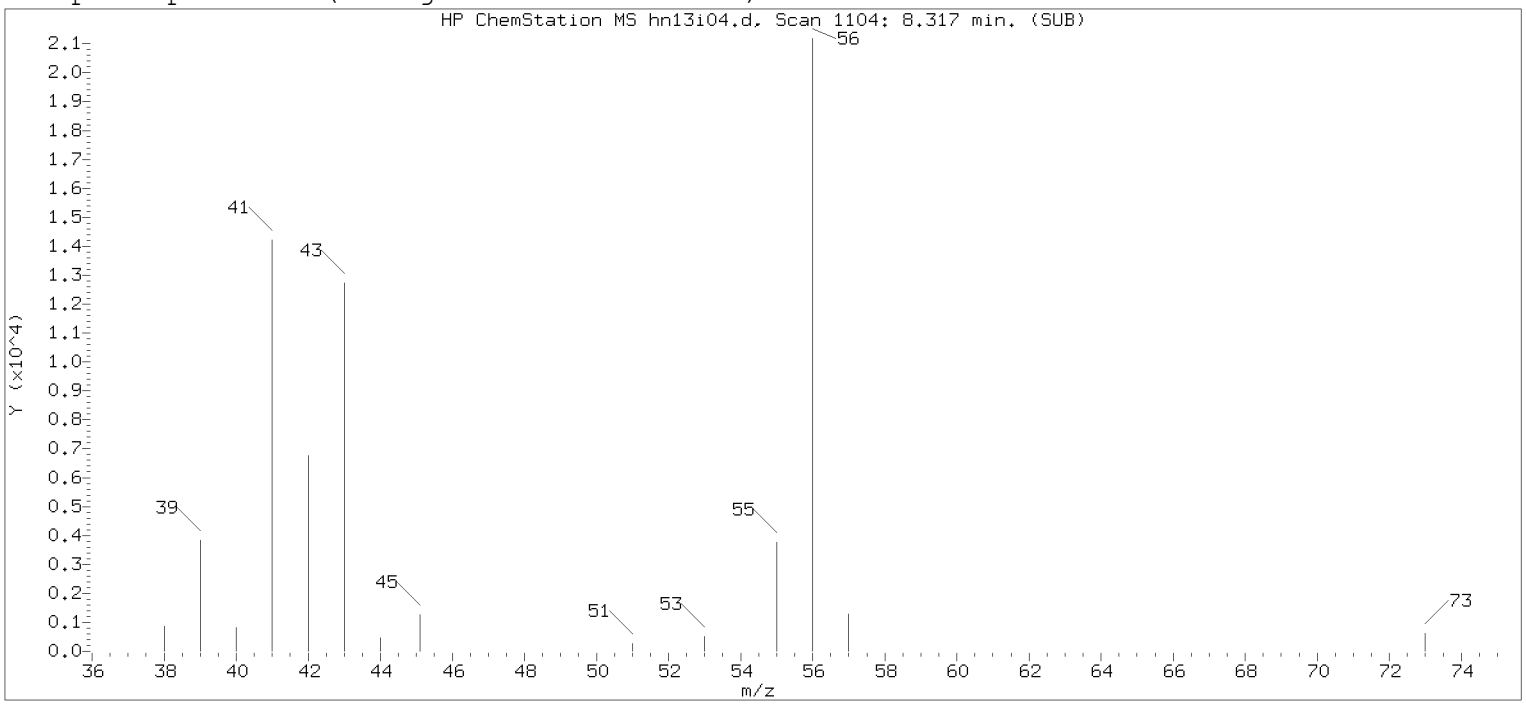
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1104
Retention Time (minutes): 8.317
Quant Ion : 56.00
Area (flag) : 105723M
On-Column Amount (ng) : 197.0790
Integration start scan : 1089 Integration stop scan: 1163
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

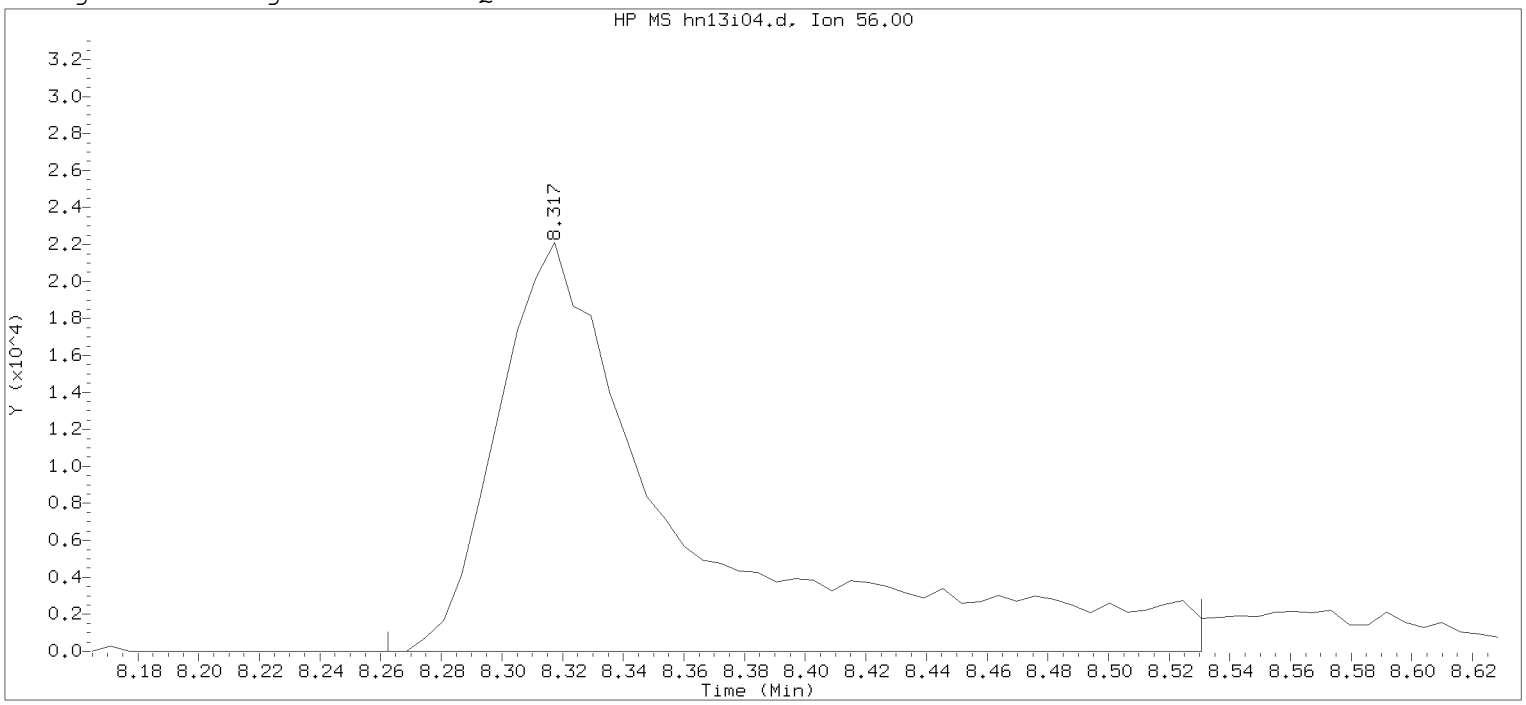
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

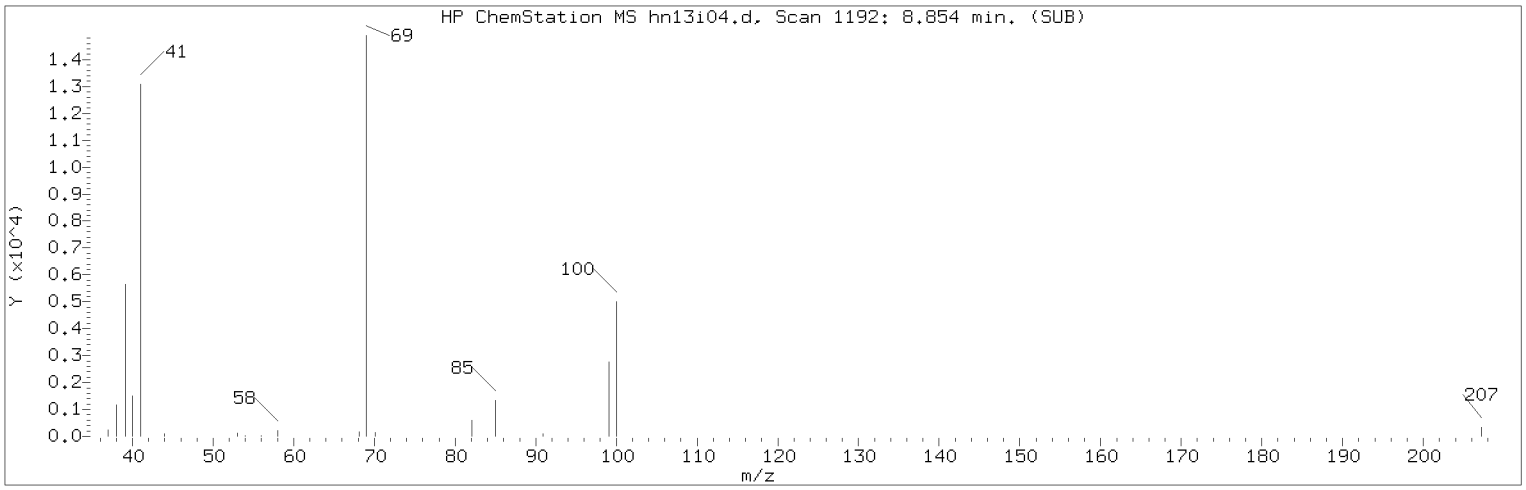
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

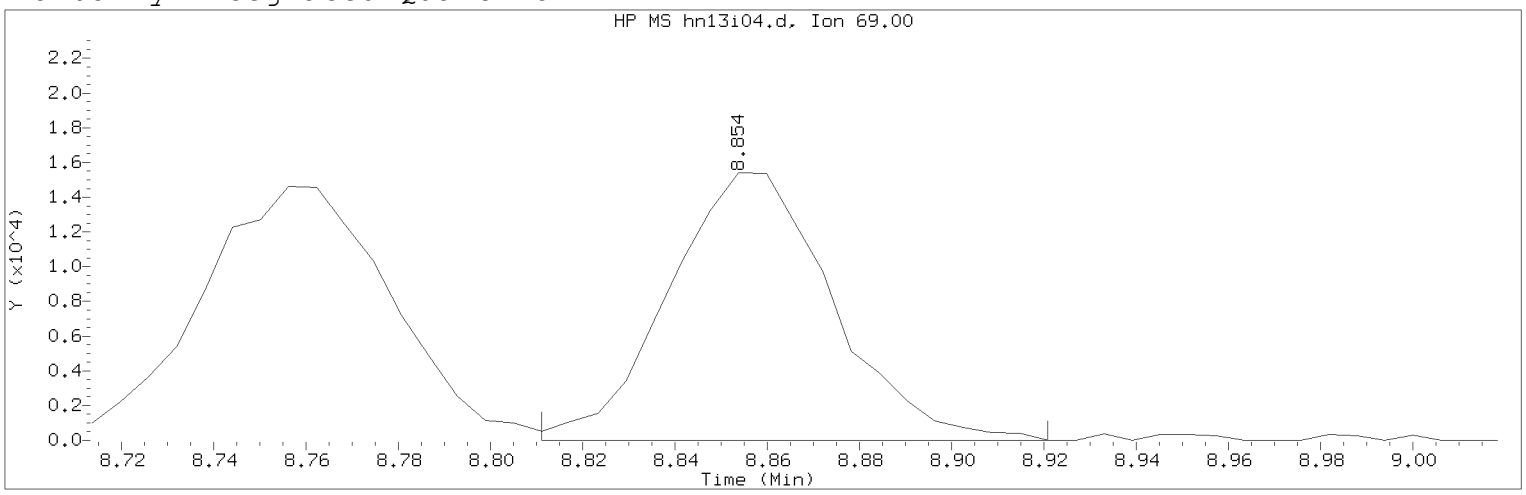
Compound Number	: 65		
Compound Name	: n-Butanol		
Scan Number	: 1104		
Retention Time (minutes)	: 8.317		
Quant Ion	: 56.00		
Area	: 94640		
On-column Amount (ng)	: 182.6682		
Integration start scan	: 1094	Integration stop scan:	1138
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 633 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

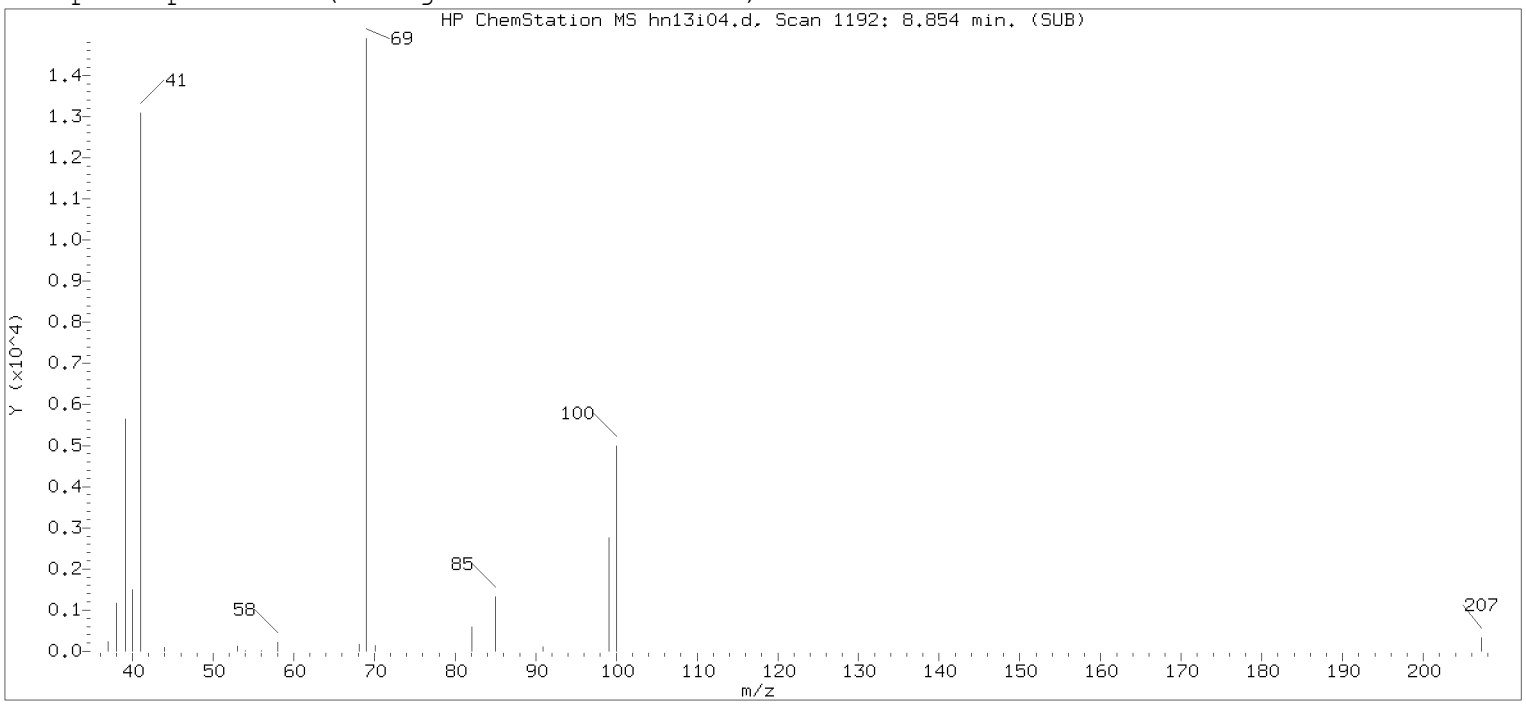
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area (flag) : 38094M
On-Column Amount (ng) : 1.8107
Integration start scan : 1184 Integration stop scan: 1202
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

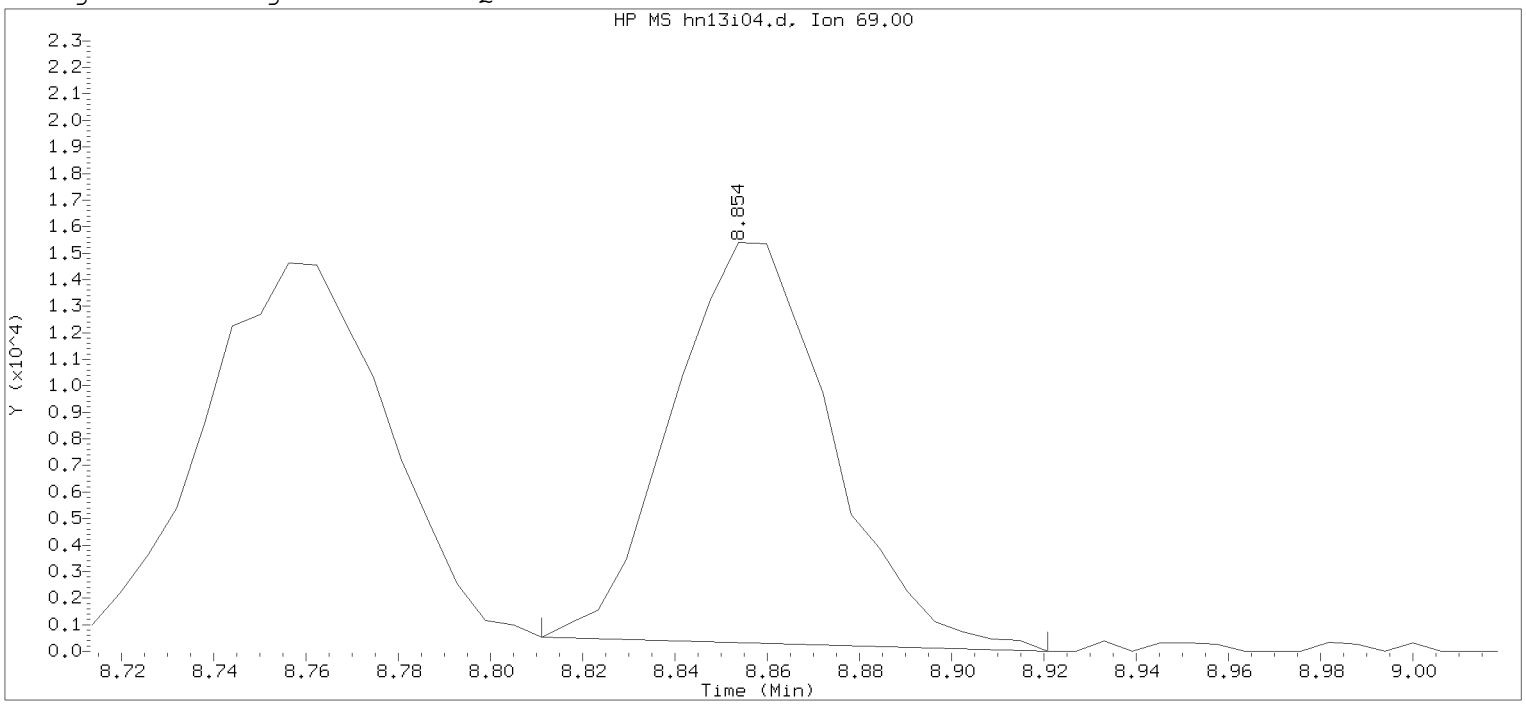
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

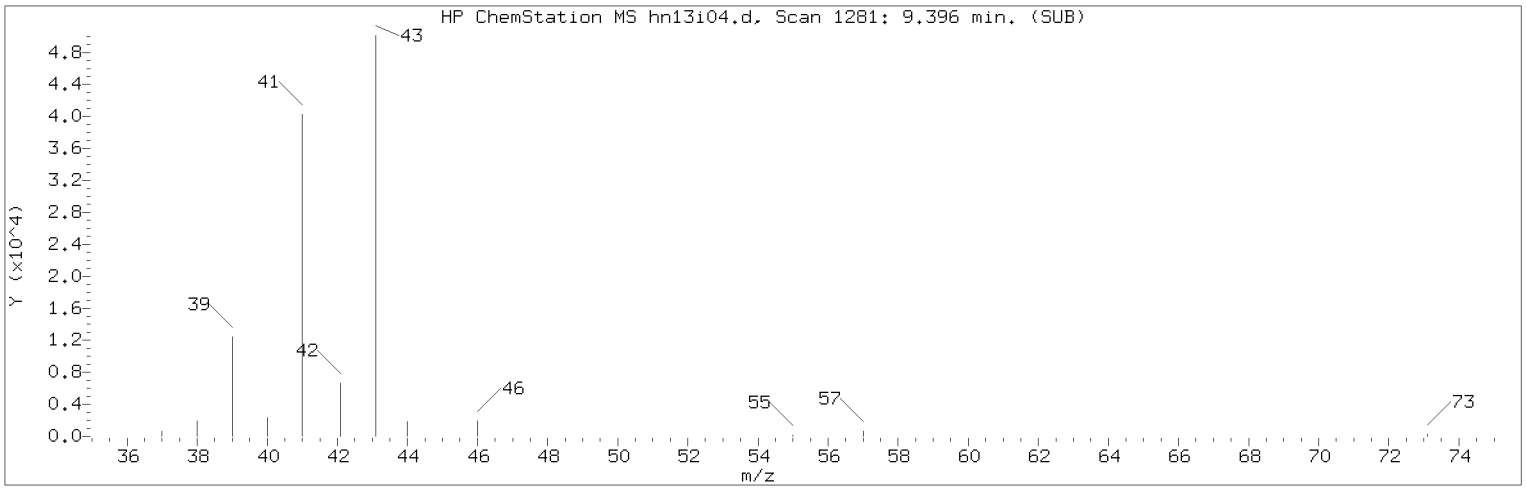
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

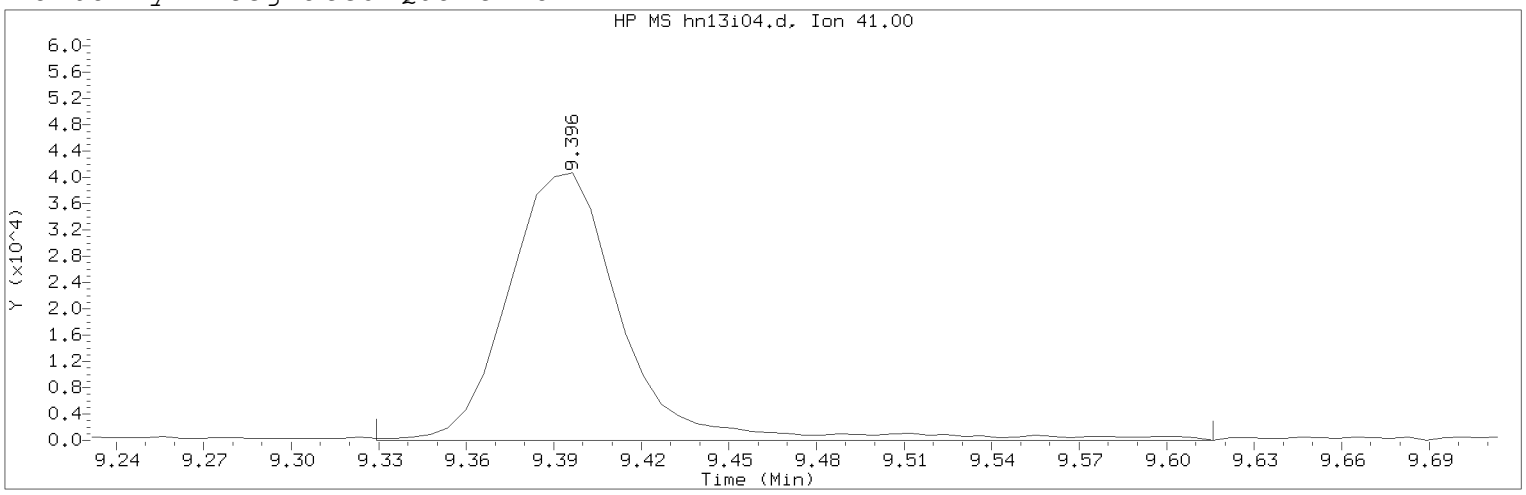
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area : 36249
On-column Amount (ng) : 1.8884
Integration start scan : 1184 Integration stop scan: 1202
Y at integration start : 531 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 635

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

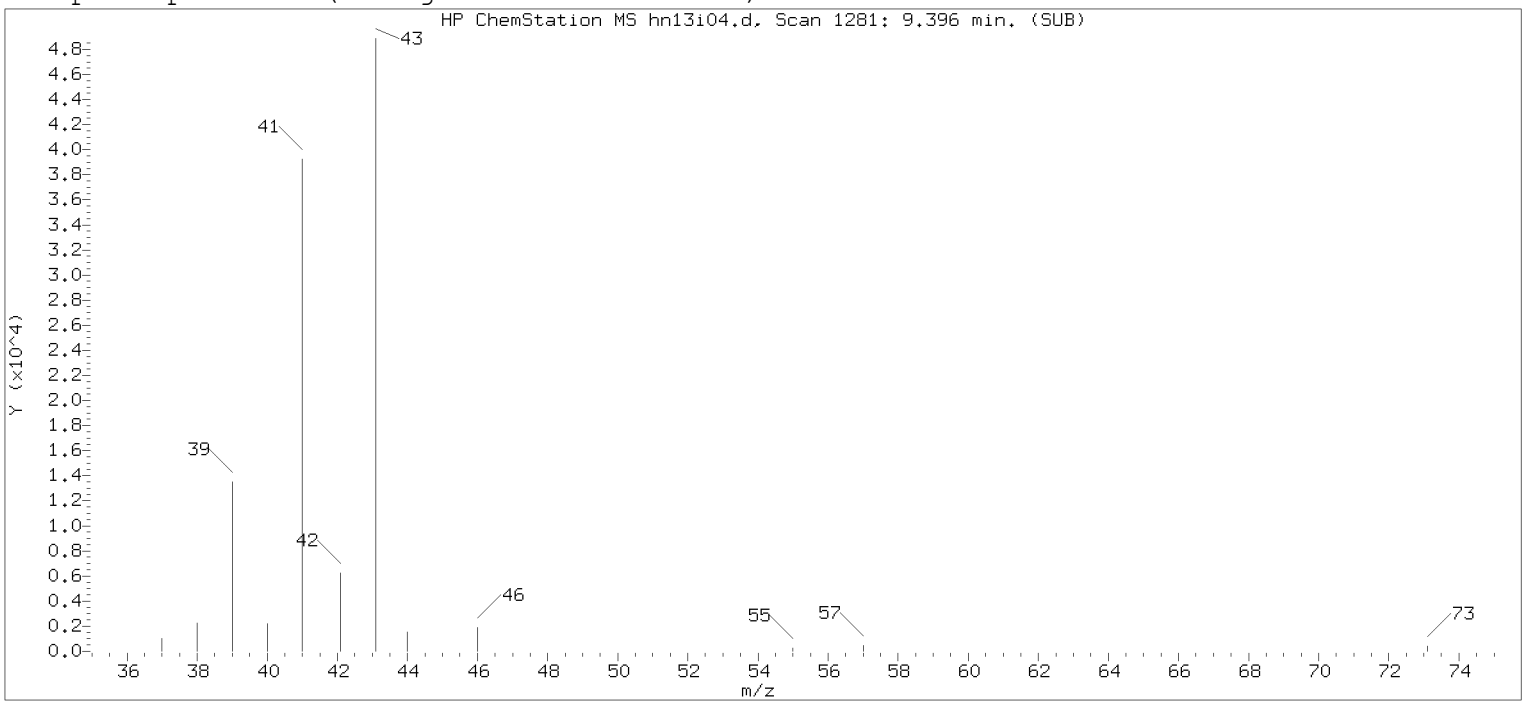
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1281
Retention Time (minutes): 9.396
Quant Ion : 41.00
Area (flag) : 111802M
On-Column Amount (ng) : 18.1773
Integration start scan : 1269 Integration stop scan: 1316
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

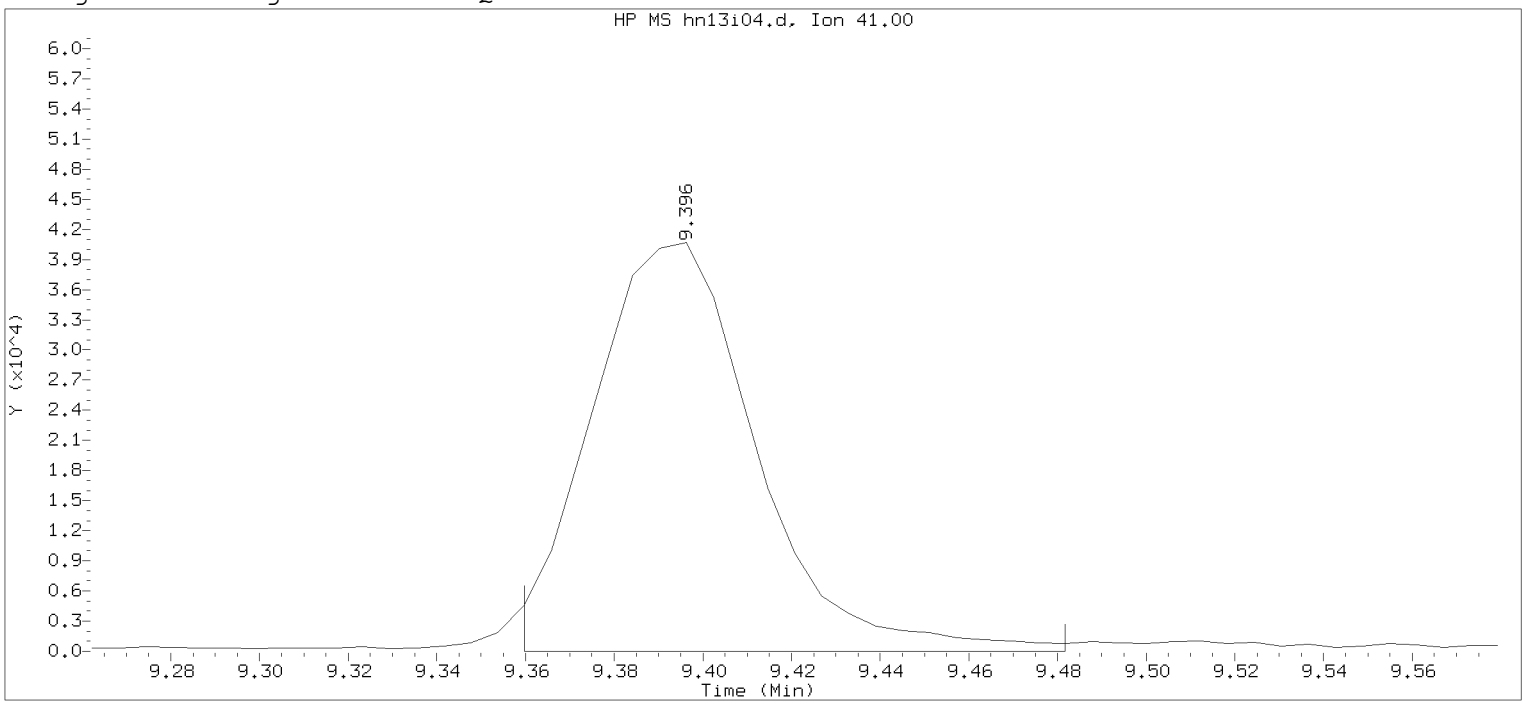
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

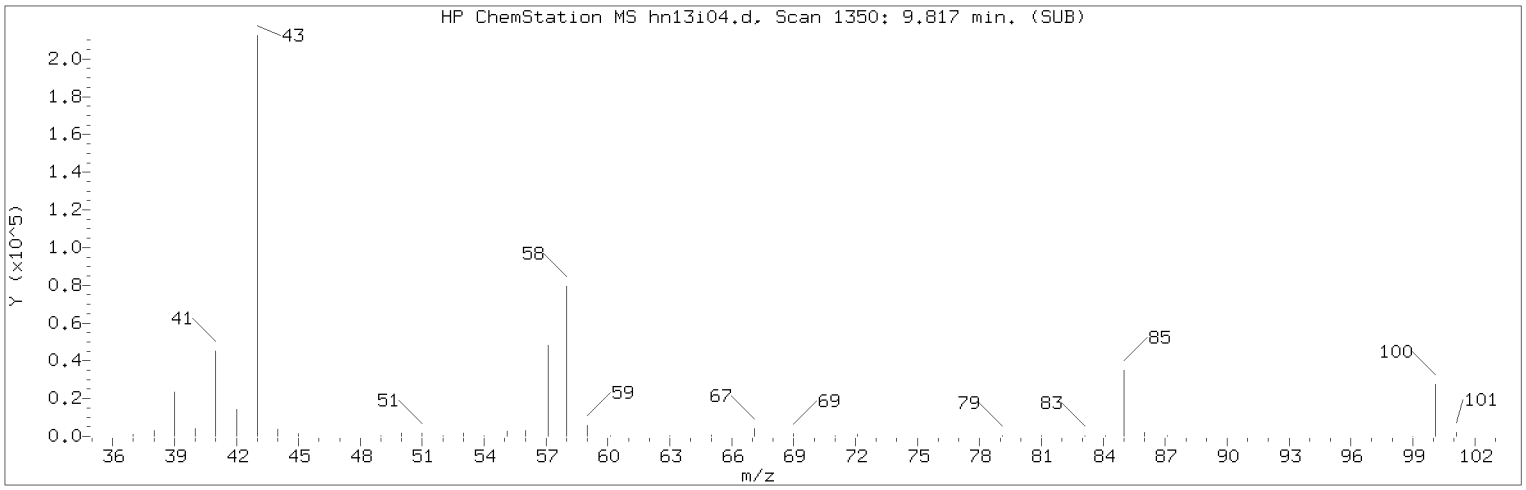
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

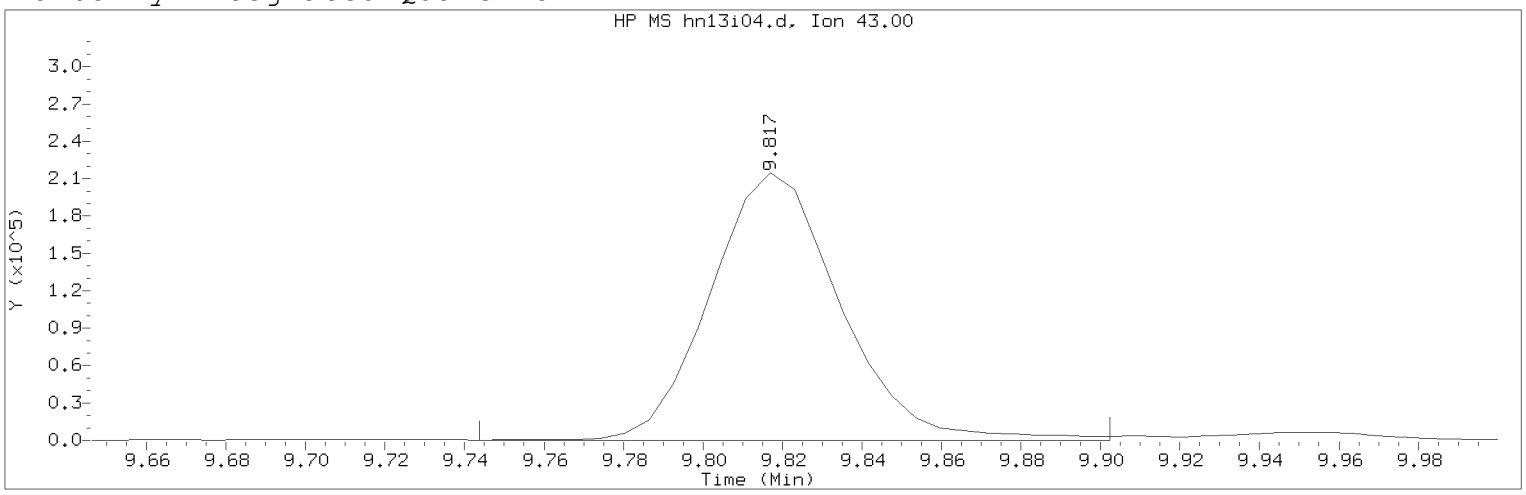
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1281
Retention Time (minutes): 9.396
Quant Ion : 41.00
Area : 104333
On-column Amount (ng) : 19.1309
Integration start scan : 1274 Integration stop scan: 1294
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

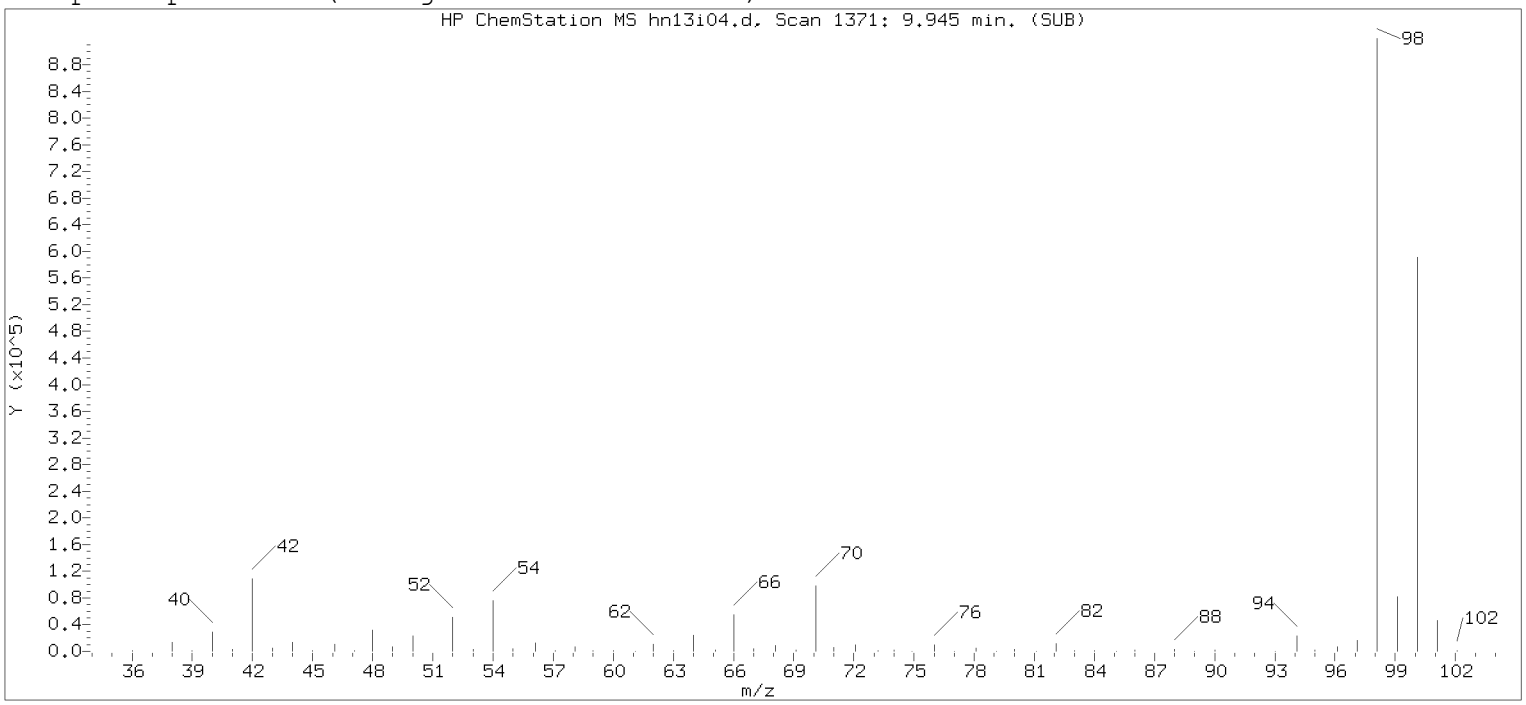
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 486828M
On-Column Amount (ng) : 18.3404
Integration start scan : 1337 Integration stop scan: 1363
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

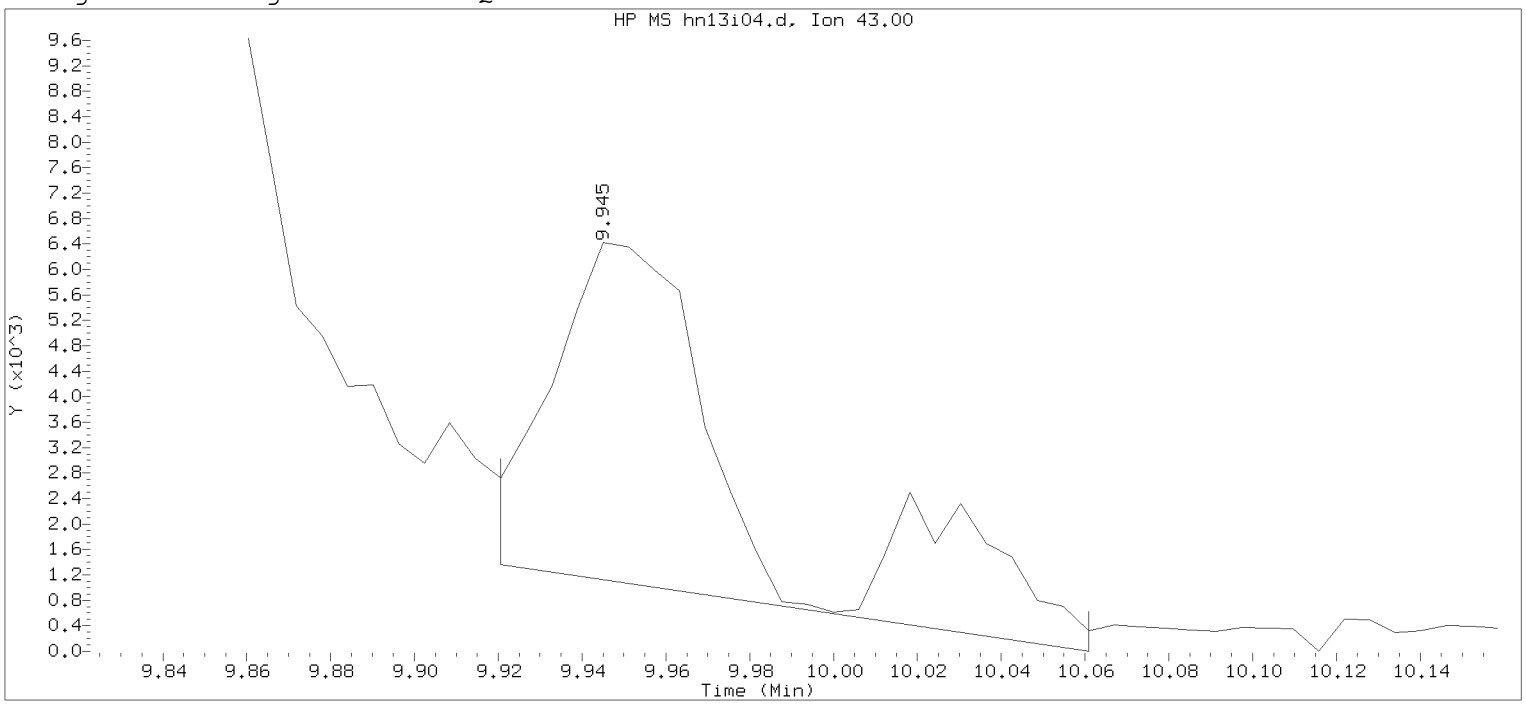
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

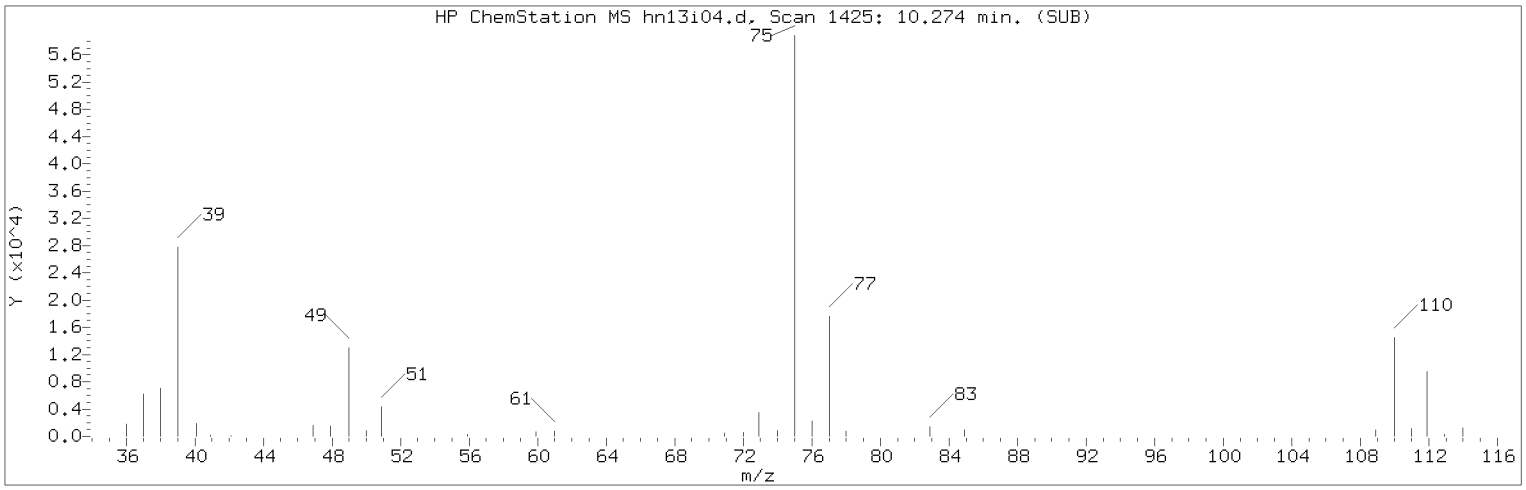
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

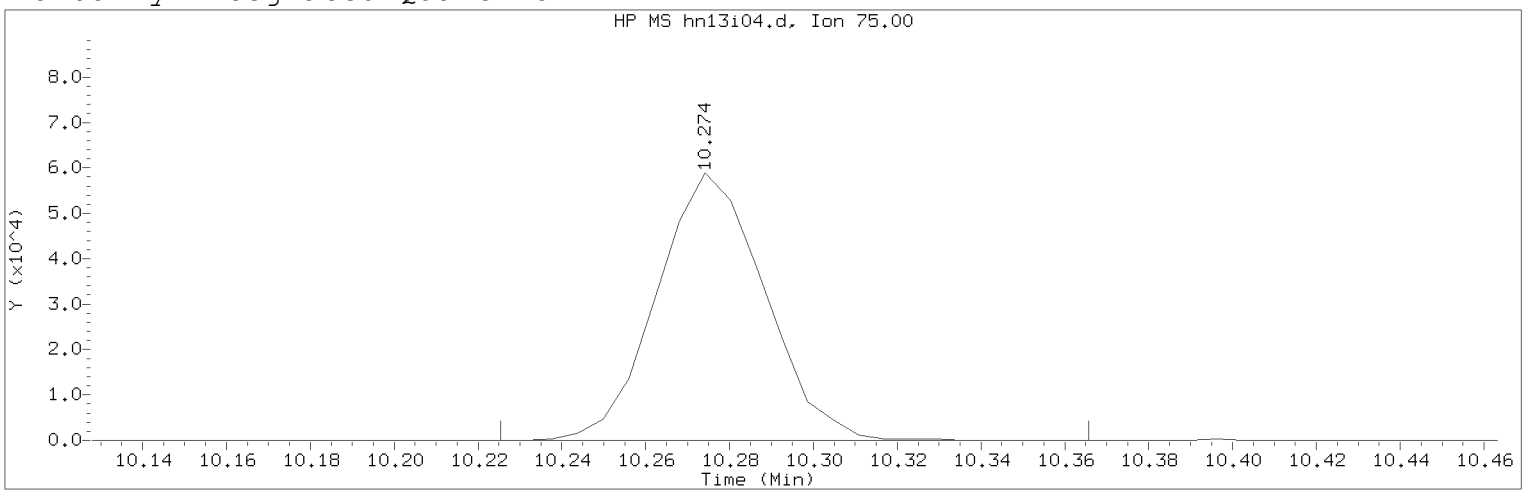
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1371
Retention Time (minutes): 9.945
Quant Ion : 43.00
Area : 16963
On-column Amount (ng) : 0.8900
Integration start scan : 1366 Integration stop scan: 1389
Y at integration start : 1360 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

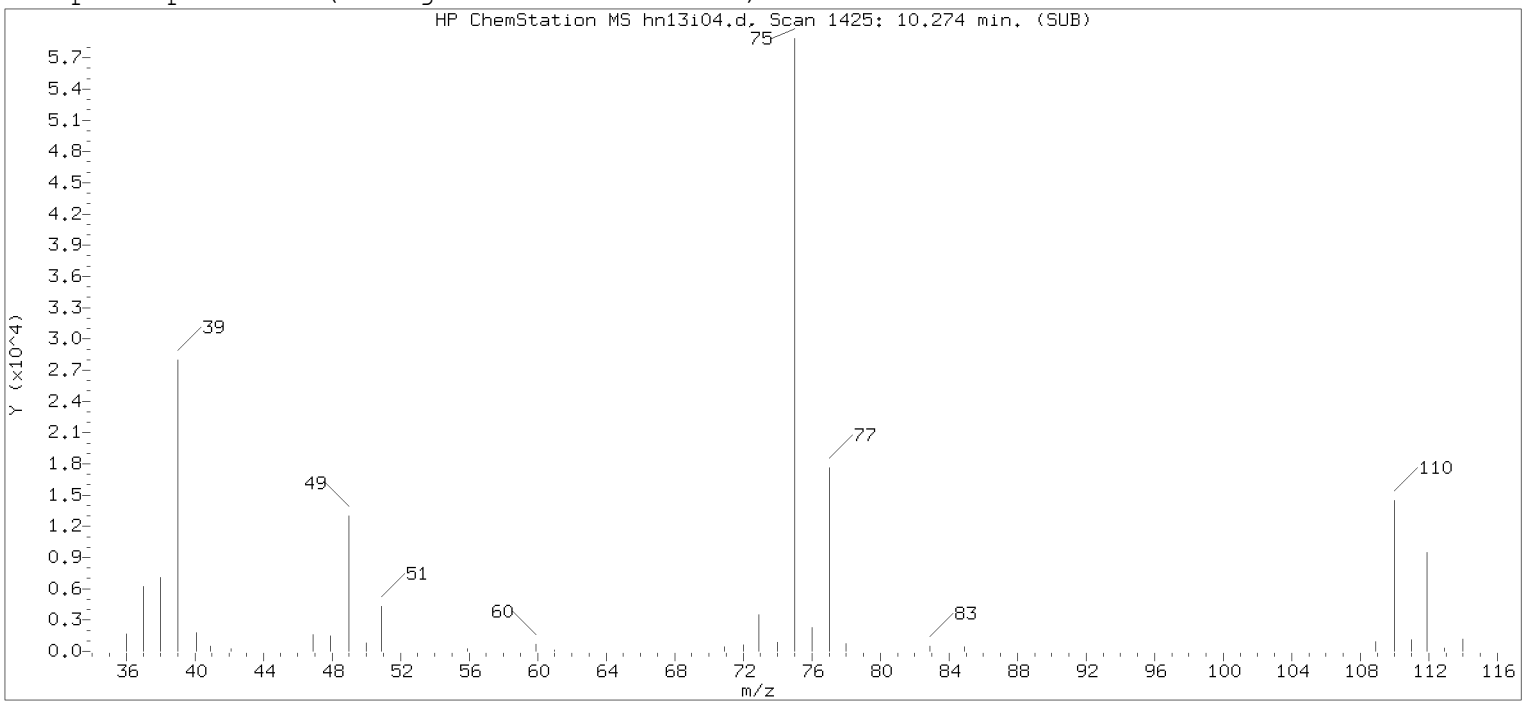
Compound Number : 84
Compound Name : trans-1,3-Dichloropropene
Scan Number : 1425
Retention Time (minutes): 10.274
Quant Ion : 75.00
Area (flag) : 104954M
On-Column Amount (ng) : 1.9648
Integration start scan : 1416 Integration stop scan: 1439
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

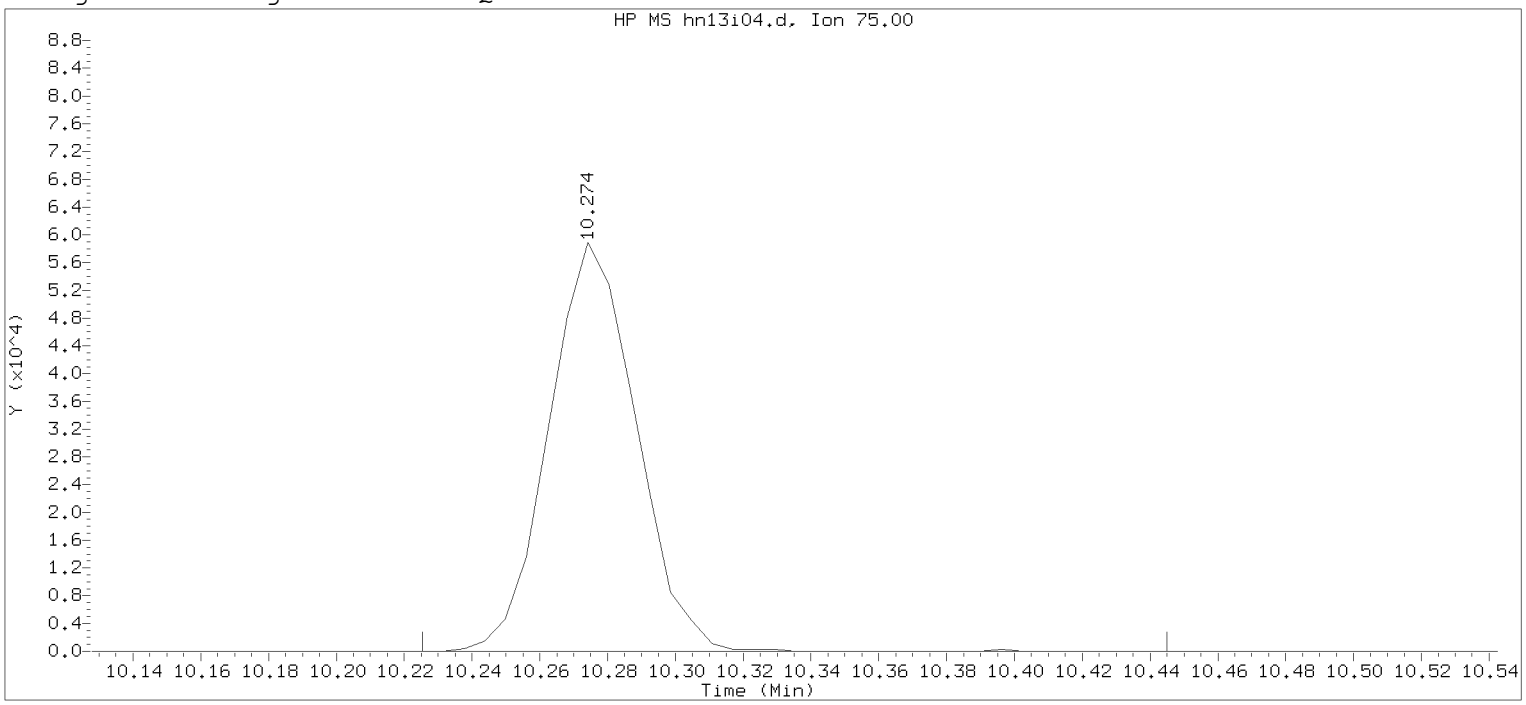
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

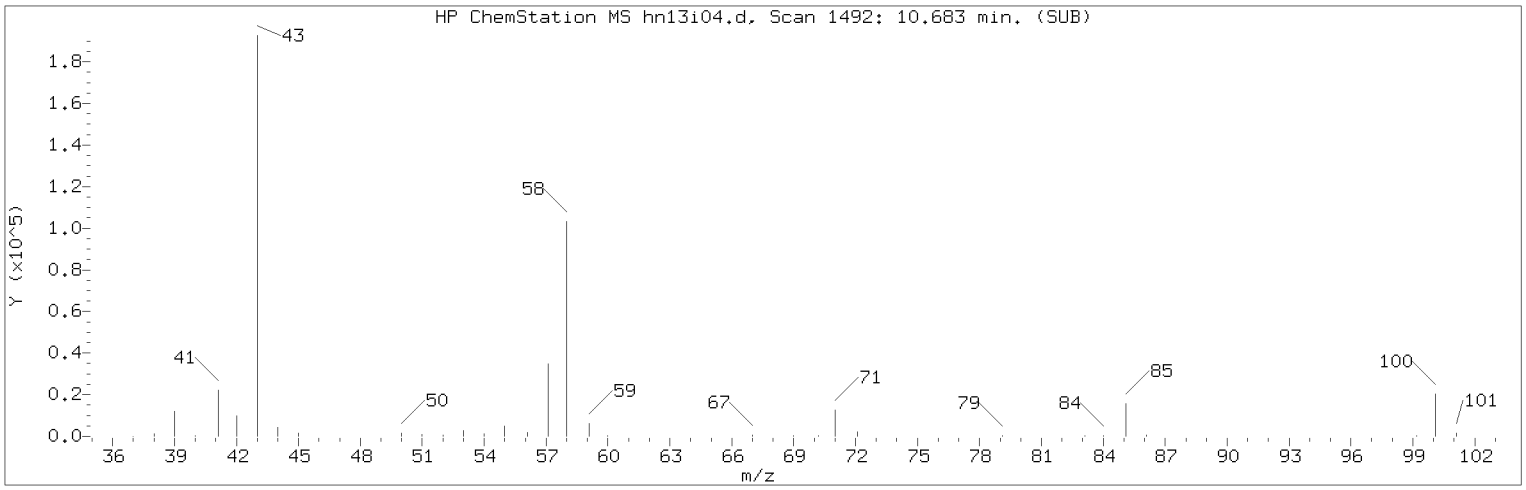
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

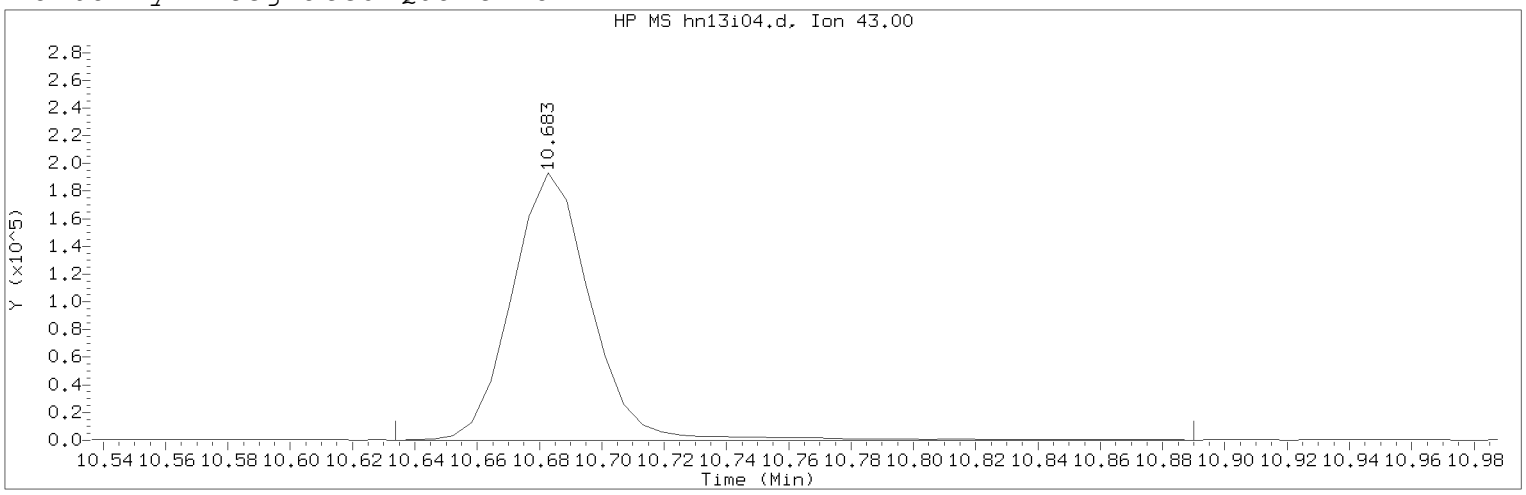
Compound Number : 84
Compound Name : trans-1,3-Dichloropropene
Scan Number : 1425
Retention Time (minutes): 10.274
Quant Ion : 75.00
Area : 105050
On-column Amount (ng) : 1.9575
Integration start scan : 1416 Integration stop scan: 1452
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

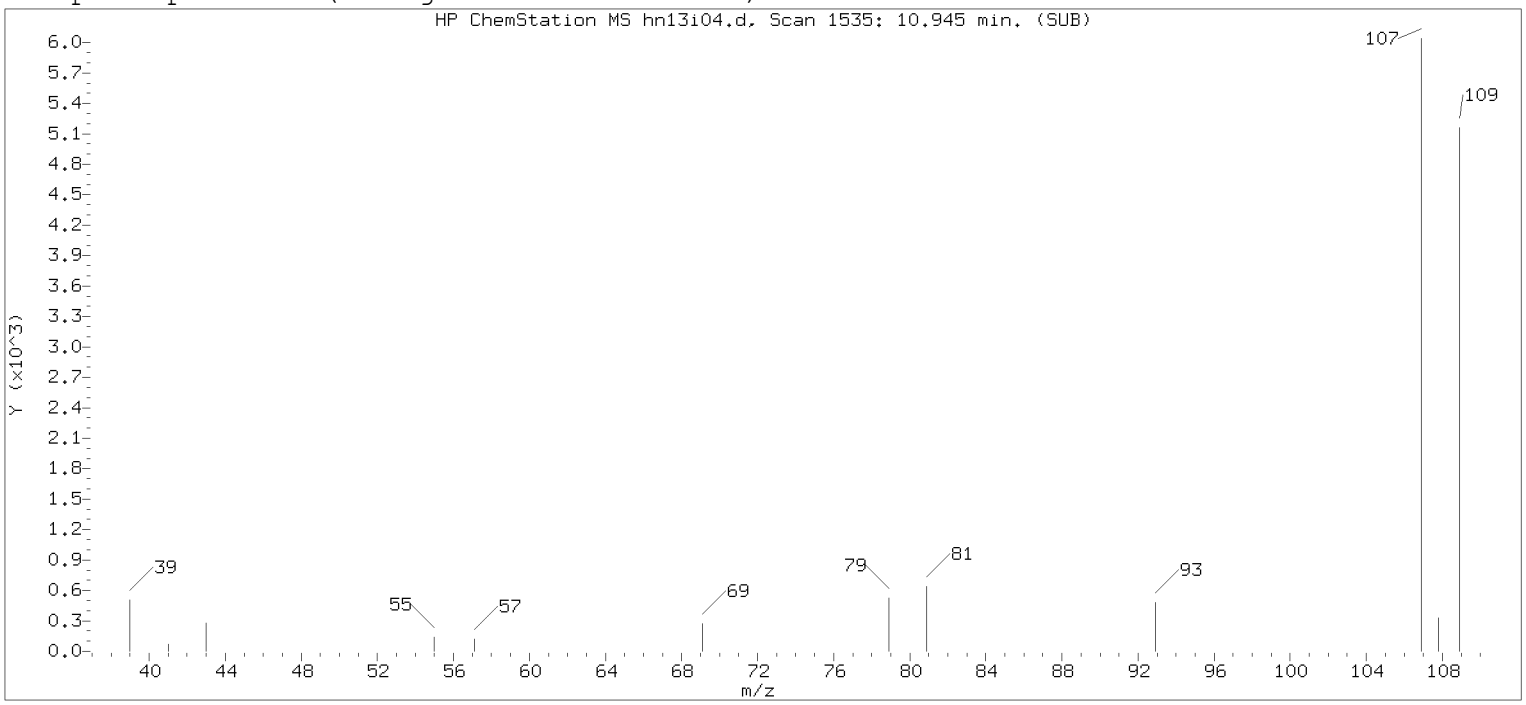
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.683
Quant Ion : 43.00
Area (flag) : 342158M
On-Column Amount (ng) : 18.5478
Integration start scan : 1483 Integration stop scan: 1525
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

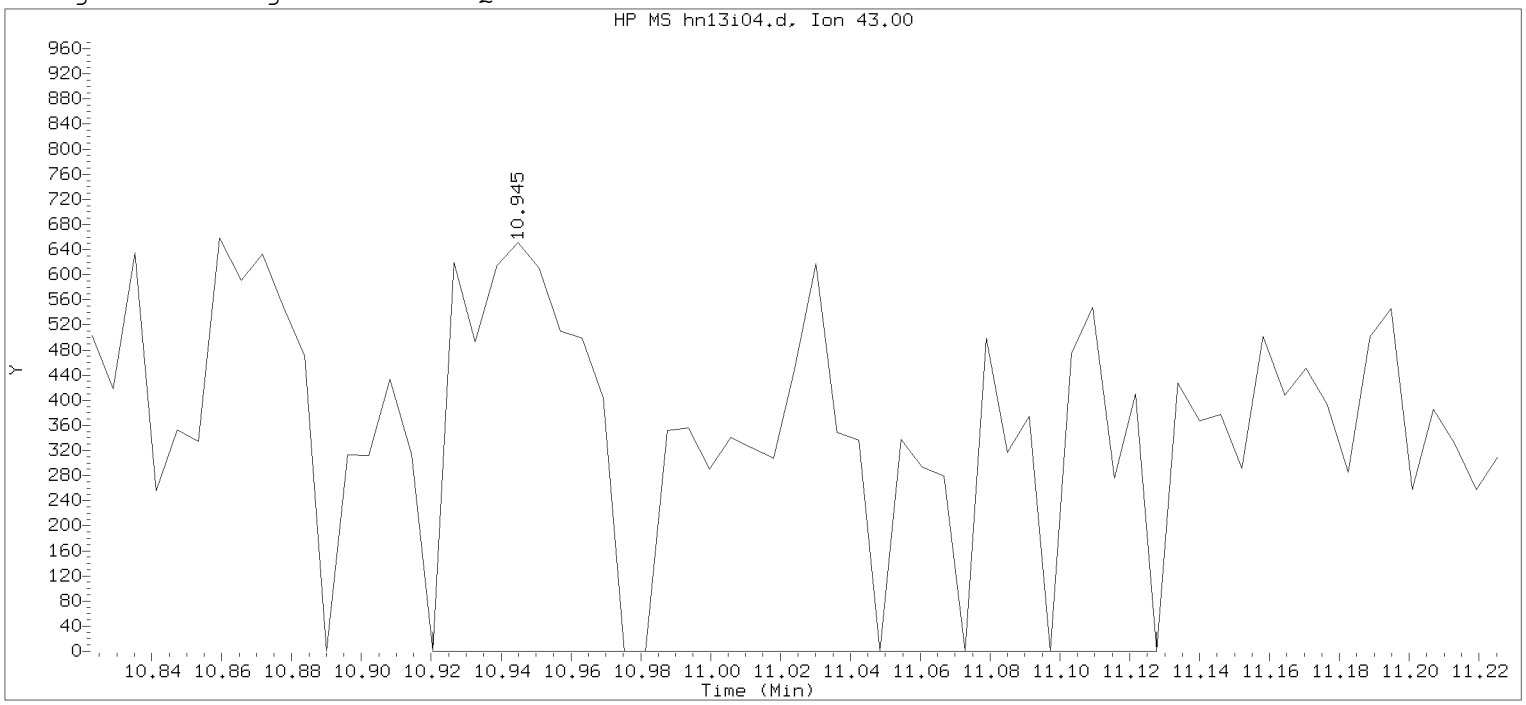
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

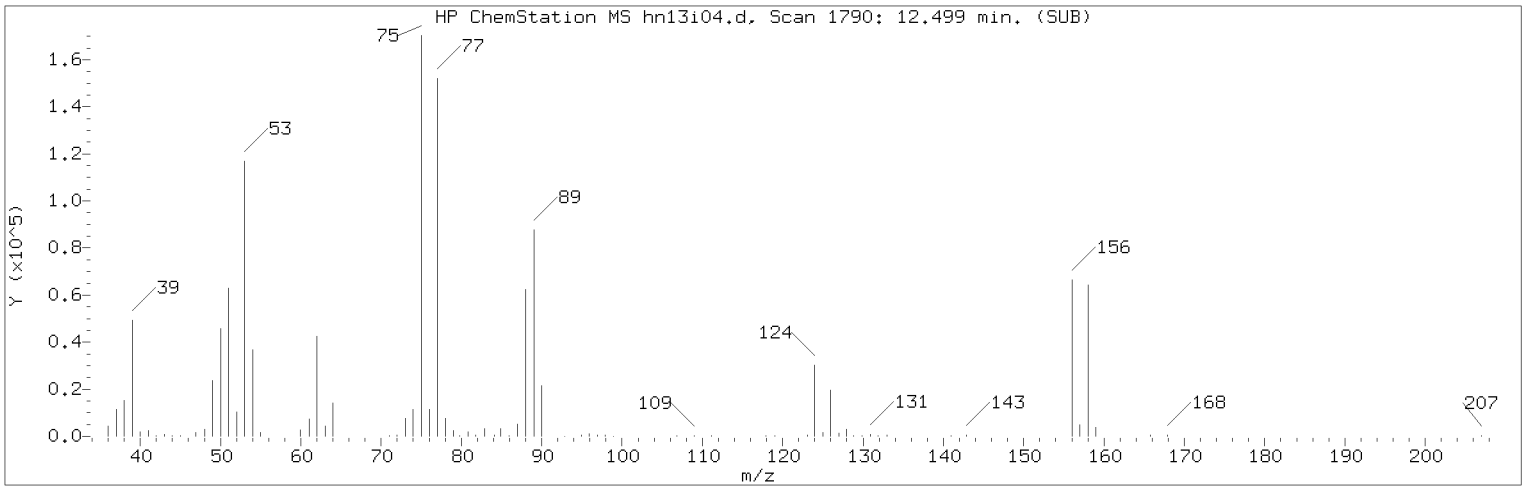
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

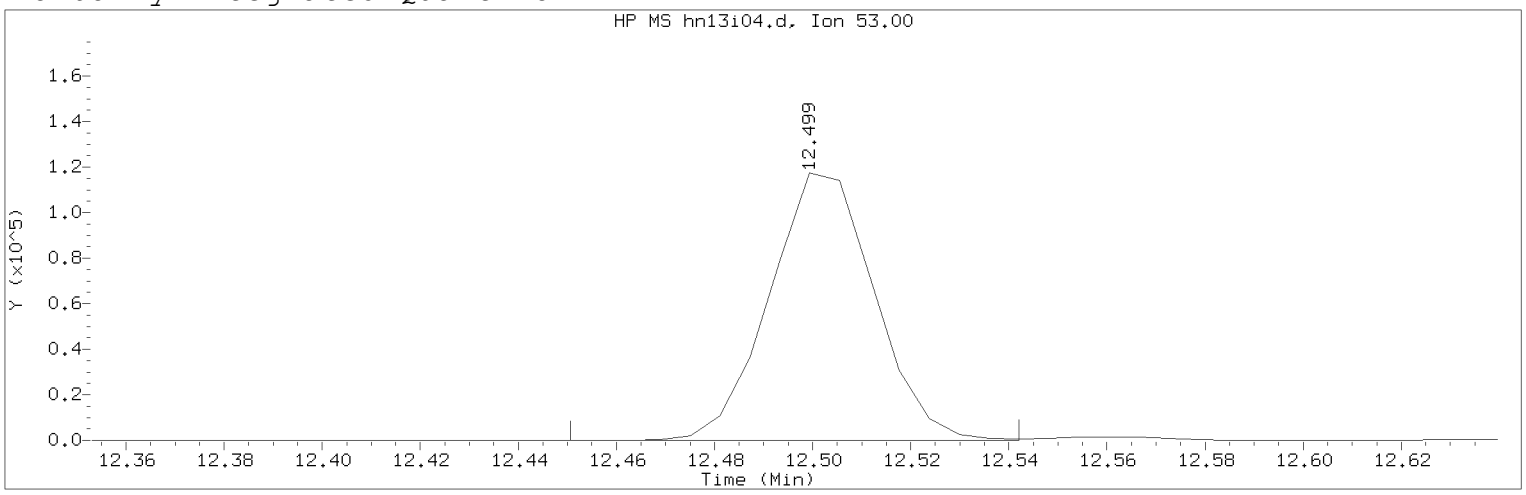
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1535
Retention Time (minutes): 10.945
Quant Ion : 43.00
Area : 4365
On-column Amount (ng) : 0.3399
Integration start scan : 1530 Integration stop scan: 1564
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

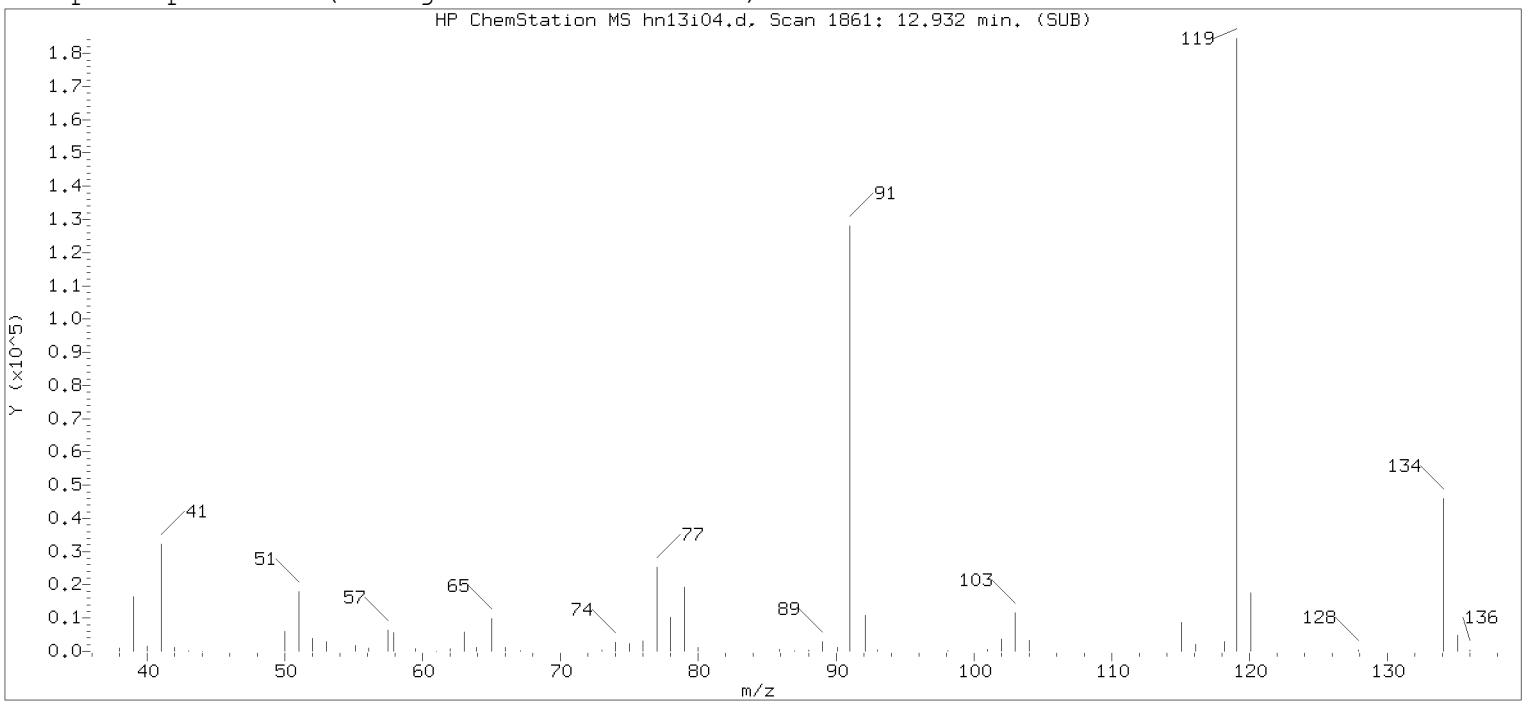
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1790
Retention Time (minutes): 12.499
Quant Ion : 53.00
Area (flag) : 174468M
On-Column Amount (ng) : 19.0715
Integration start scan : 1781 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

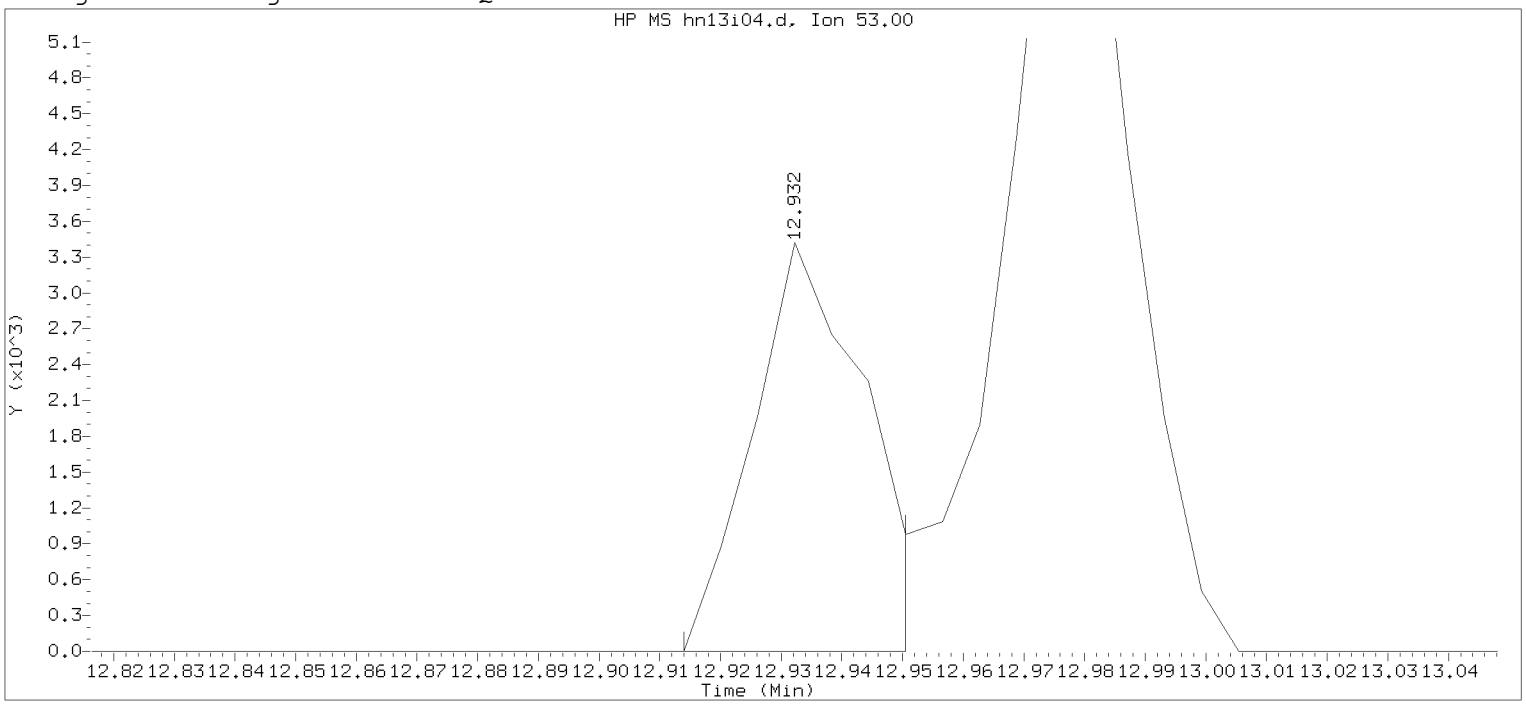
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

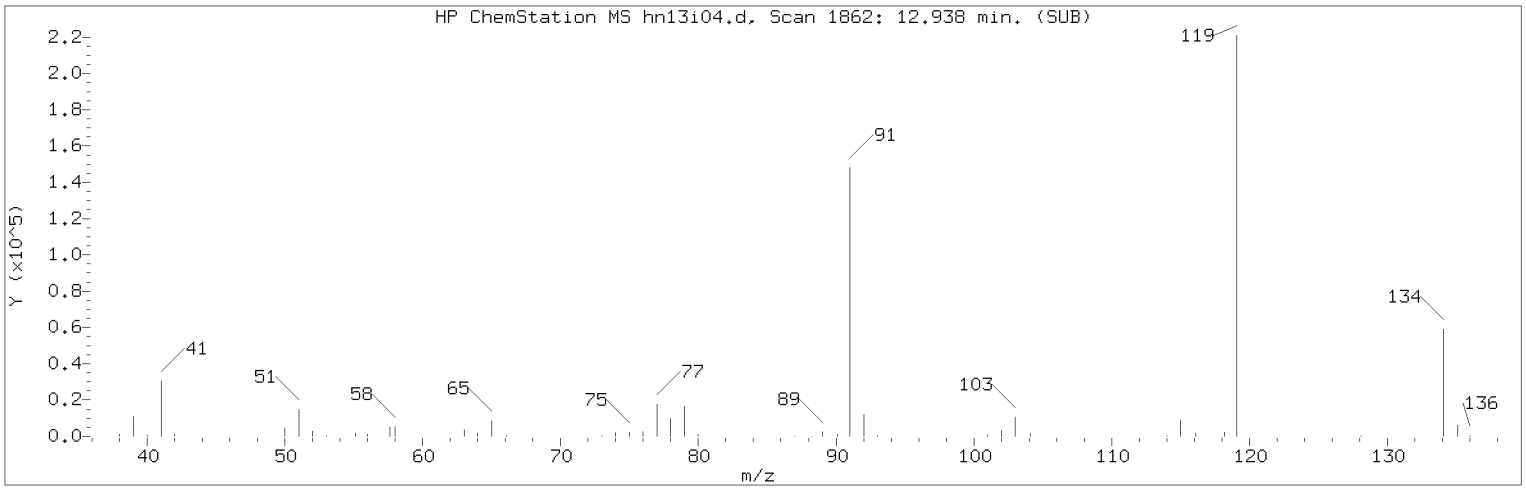
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

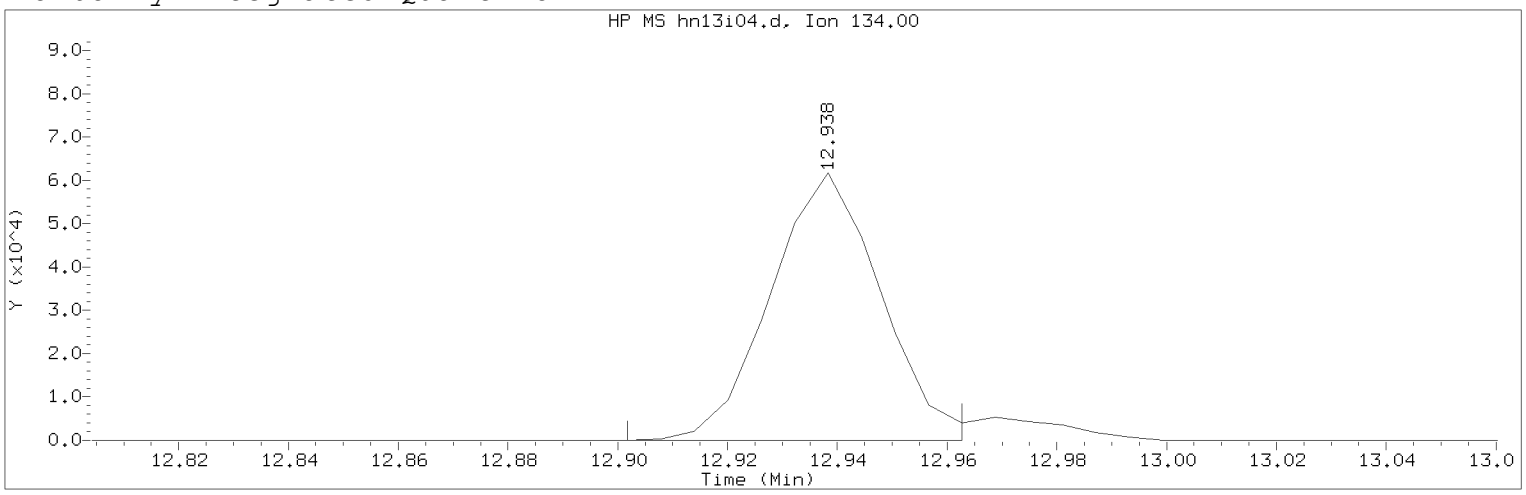
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 53.00
Area : 4263
On-column Amount (ng) : 0.6423
Integration start scan : 1857 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 645 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

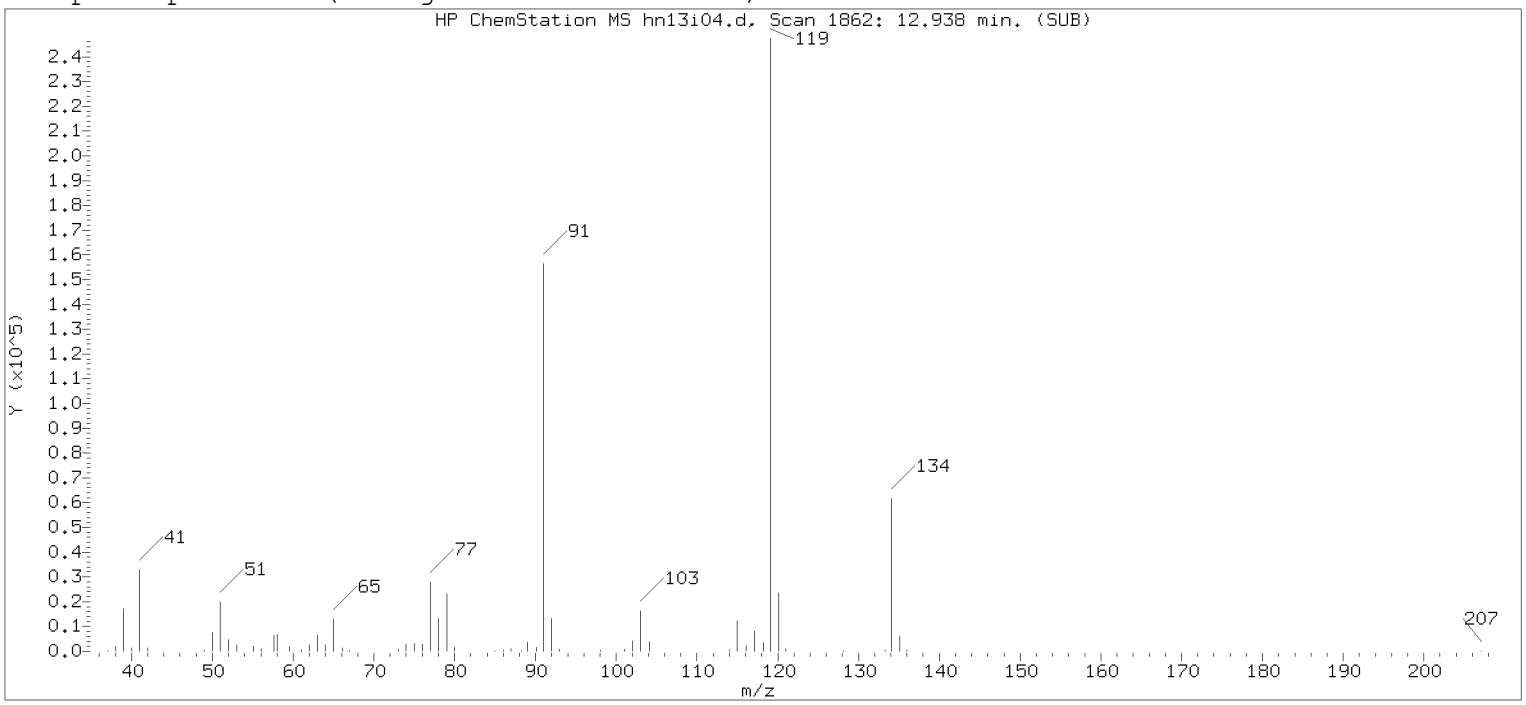
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 86016M
On-Column Amount (ng) : 1.9988
Integration start scan : 1855 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

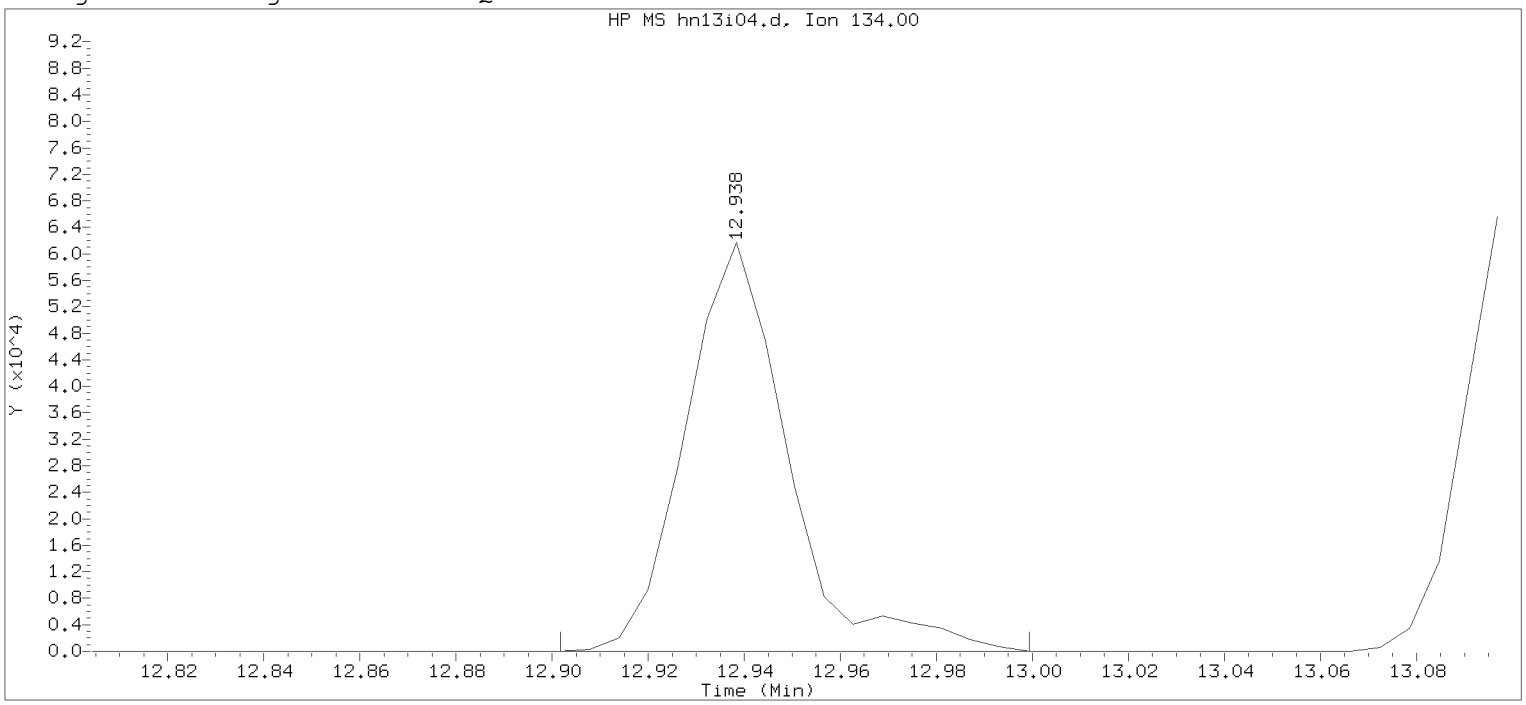
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

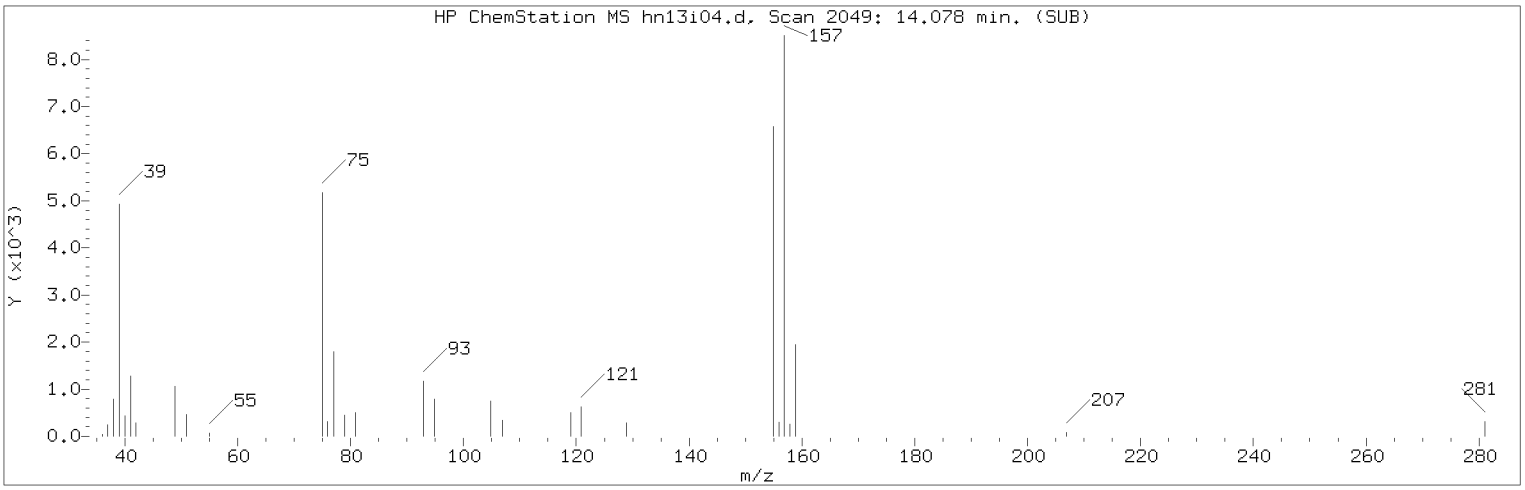
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

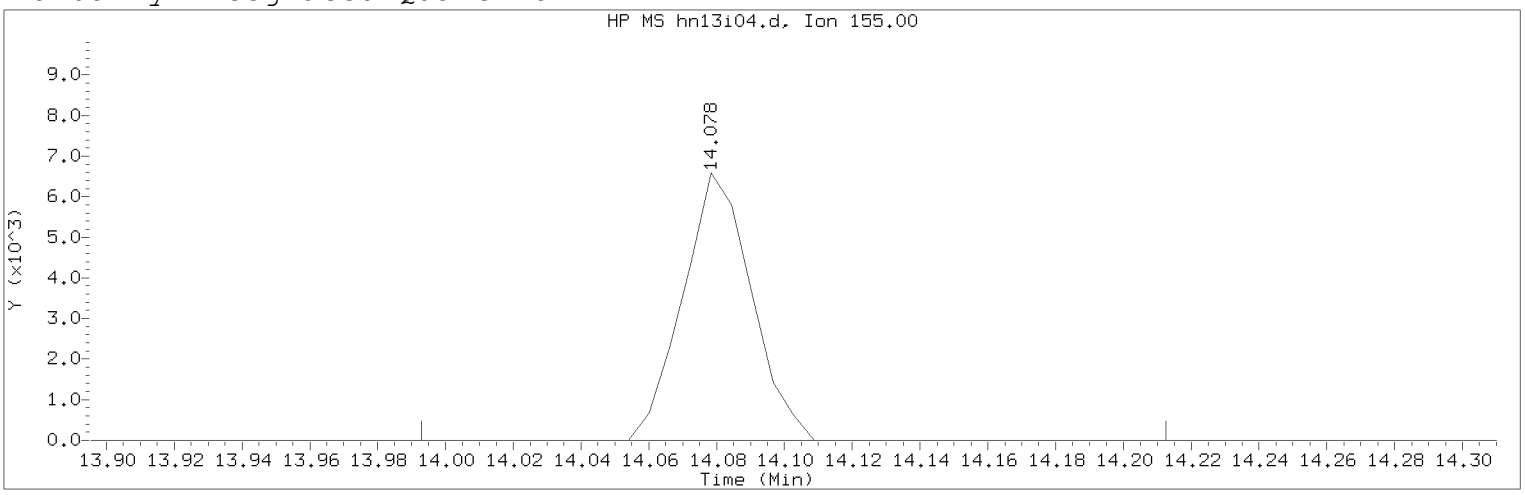
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 91700
On-column Amount (ng) : 2.0558
Integration start scan : 1855 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 647 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

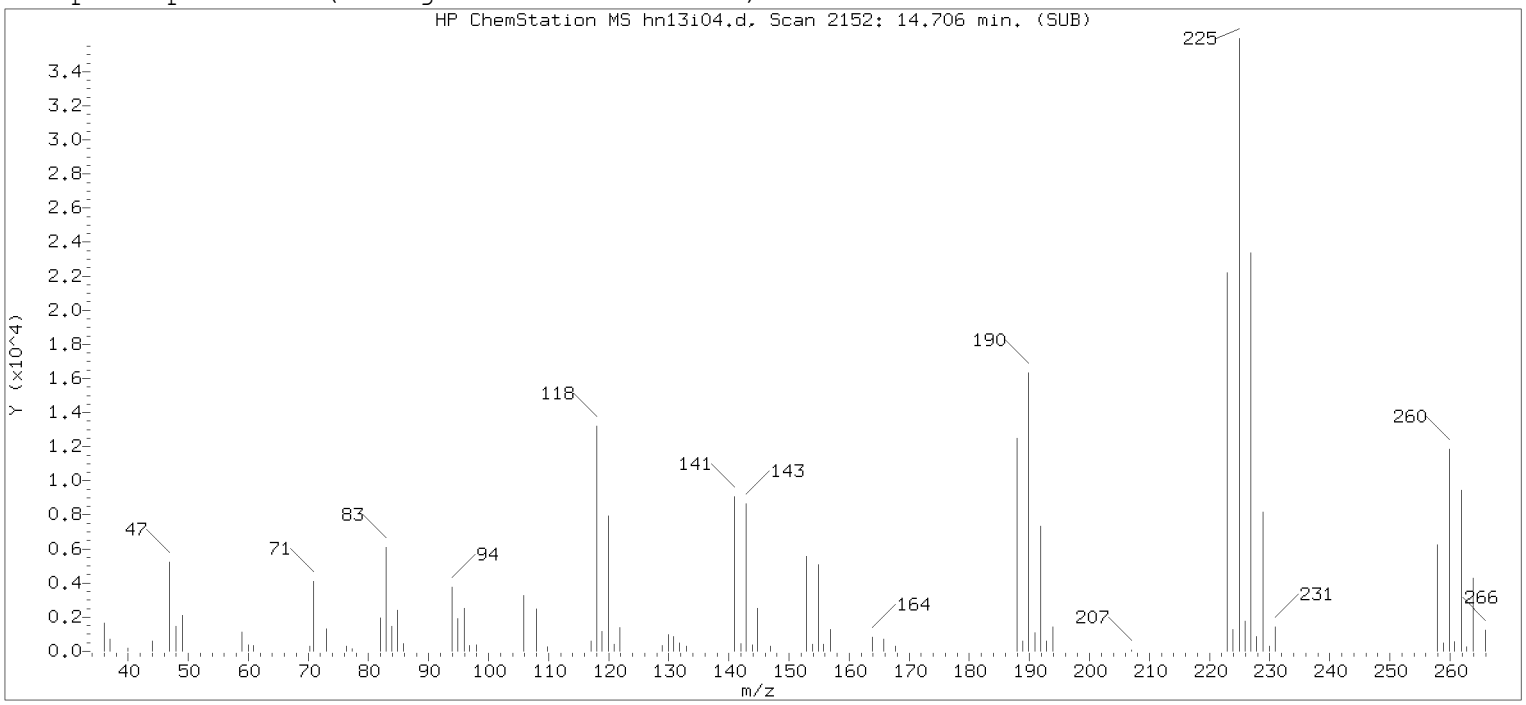
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2049
Retention Time (minutes): 14.078
Quant Ion : 155.00
Area (flag) : 9244M
On-Column Amount (ng) : 1.9572
Integration start scan : 2034 Integration stop scan: 2070
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

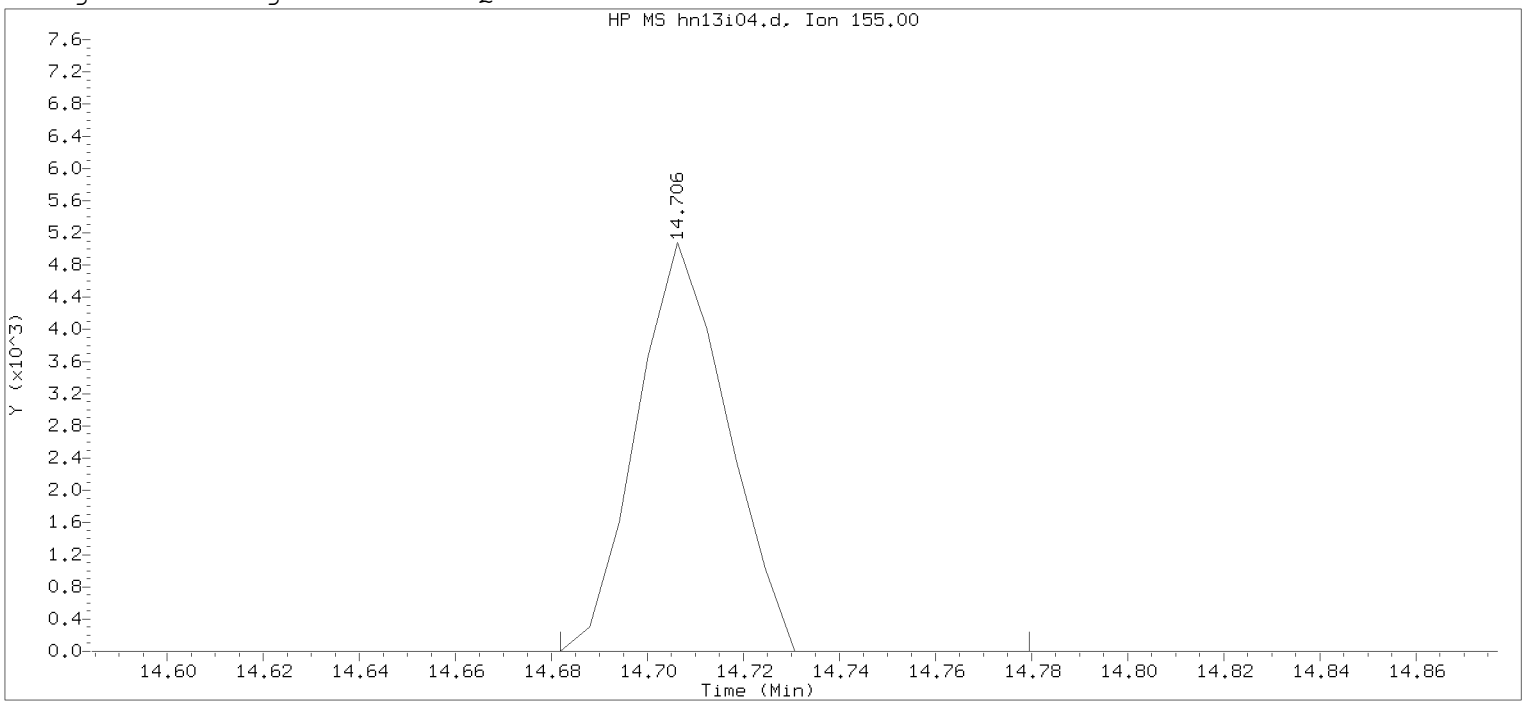
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



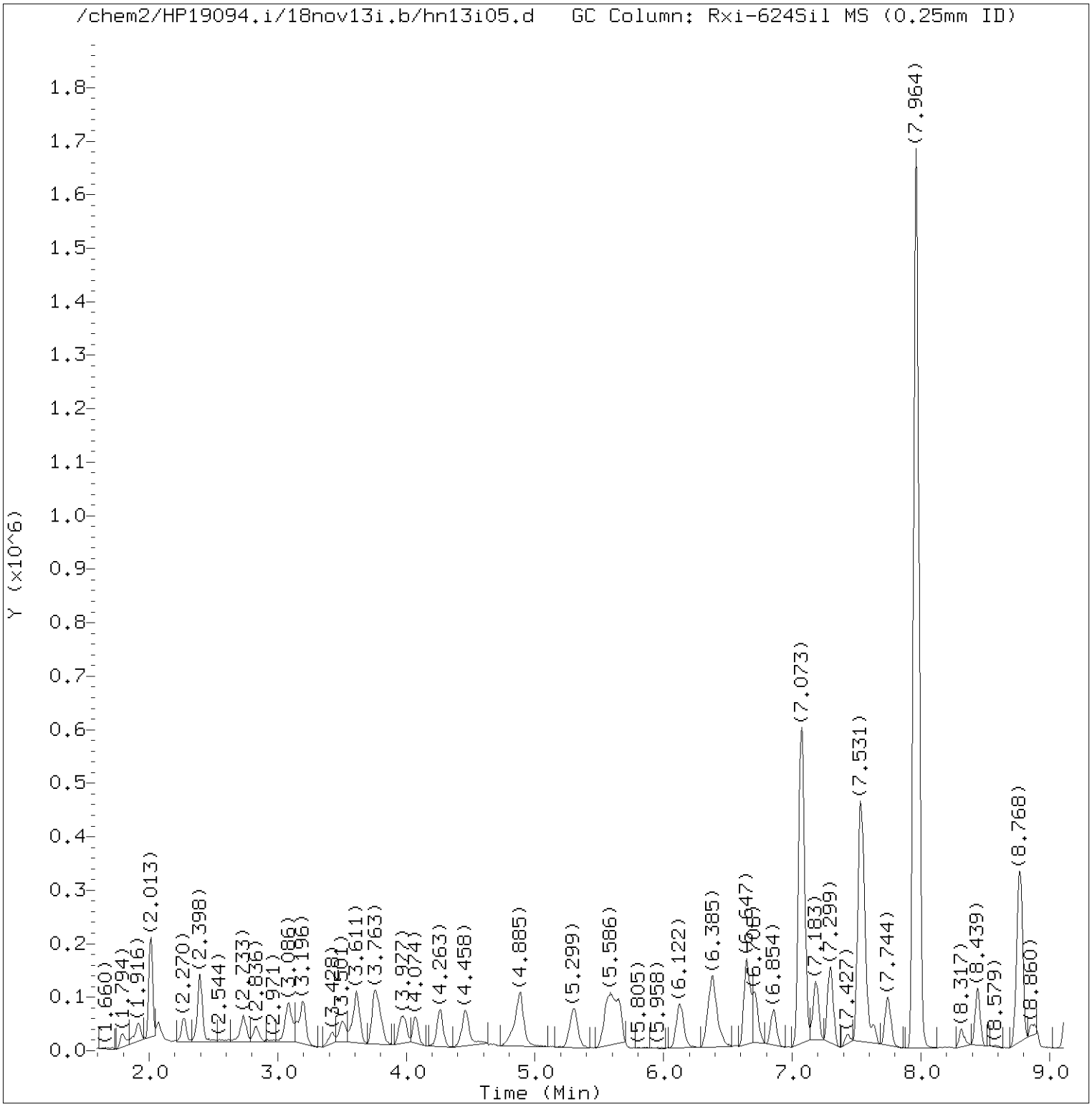
Data File: /chem2/HP19094.i/18nov13i.b/hn13i04.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 16:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2152
Retention Time (minutes): 14.706
Quant Ion : 155.00
Area : 6599
On-column Amount (ng) : 1.5010
Integration start scan : 2147 Integration stop scan: 2163
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

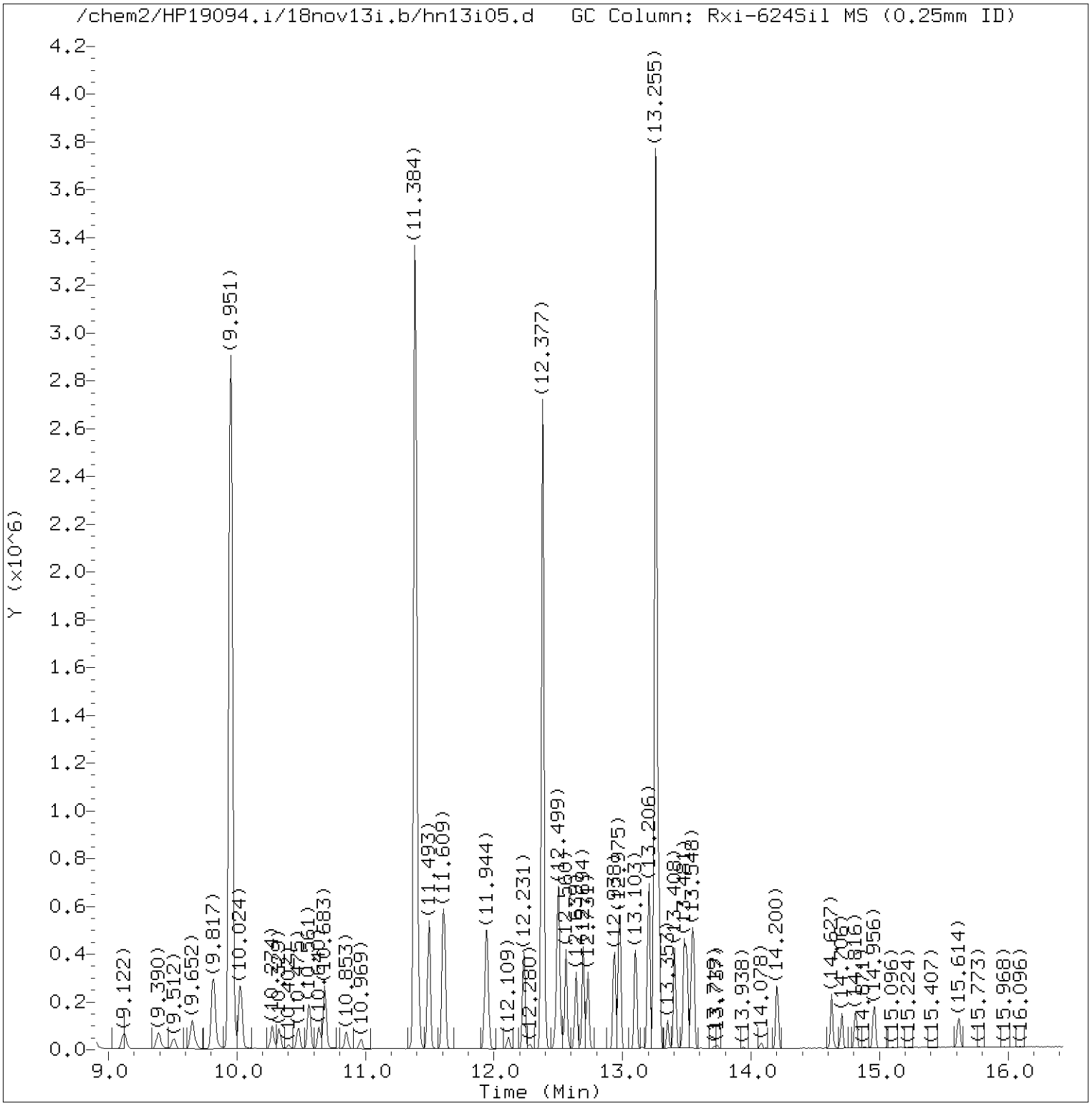
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.074	85	73195	0.978
2) Chloromethane	(2)	2.270	50	70896	0.979
5) Vinyl Chloride	(2)	2.391	62	64384	0.980
6) 1,3-Butadiene	(2)	2.398	39	57762M	1.069
7) Bromomethane	(2)	2.733	94	49735	0.998
8) Chloroethane	(2)	2.836	64	38572	0.984
9) Dichlorofluoromethane	(2)	3.074	67	97959	0.957
10) Trichlorofluoromethane	(2)	3.141	101	86917	0.982
11) Ethyl ether	(2)	3.416	59	30134	1.000
12) Freon 123a	(2)	3.507	67	63965	1.046
13) Acrolein	(1)	3.611	56	195420	47.448
15) 1,1-Dichloroethene	(2)	3.751	96	43671	1.060
16) Freon 113	(2)	3.781	101	50053	1.057
14) Acetone	(1)	3.788	43	50121M	9.777
17) Methyl Iodide	(2)	3.958	142	88535	1.059
18) Carbon Disulfide	(2)	4.068	76	135788	1.071
21) Methyl Acetate	(1)	4.214	43	16753	0.942
22) Allyl Chloride	(2)	4.257	41	88705	1.008
23) Methylene Chloride	(2)	4.464	84	47175	1.067
26)*t-Butyl Alcohol-d10	(1)	4.464	65	103411M	50.000
28) t-Butyl Alcohol	(1)	4.611	59	30955	22.683
29) Acrylonitrile	(1)	4.812	53	37781	5.179
30) Methyl Tertiary Butyl Ether	(2)	4.860	73	98981	1.077
31) trans-1,2-Dichloroethene	(2)	4.891	96	48258	1.045
32) n-Hexane	(2)	5.299	57	84772	1.071
33) 1,1-Dichloroethane	(2)	5.549	63	96032	1.065
34) di-Isopropyl Ether	(2)	5.586	45	178244	1.065
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	87459	1.048
40) 1,2-Dichloroethene (Total)	(2)		96	102407	2.099
37) Ethyl t-butyl ether	(2)	6.129	59	147247	1.077
38) 2-Butanone	(1)	6.336	43	108770M	10.376
39) cis-1,2-Dichloroethene	(2)	6.372	96	54149	1.054
41) 2,2-Dichloropropane	(2)	6.385	77	79004	1.075
42) Propionitrile	(1)	6.439	54	58886M	21.983
45) Methacrylonitrile	(1)	6.647	67	100466	10.241
47) Bromochloromethane	(2)	6.714	128	20052	0.993
48) Tetrahydrofuran	(1)	6.714	71	24366	9.723
49) Chloroform	(2)	6.854	83	88903	1.078

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.067	113	560615	10.038
50)$Dibromofluoromethane	(2)	7.073	111	574998	10.031
51) 1,1,1-Trichloroethane	(2)	7.092	97	78110	1.046
52) Cyclohexane	(2)	7.183	56	106002	1.078
52) Cyclohexane	(2)	7.189	84	82428	1.037
52) Cyclohexane	(2)	7.189	69	32200	1.072
54) Carbon Tetrachloride	(2)	7.299	117	69930	1.041
55) 1,1-Dichloropropene	(2)	7.299	75	70366	1.043
56) Isobutyl Alcohol	(1)	7.427	41	35687M	51.206
57)$1,2-Dichloroethane-d4	(2)	7.531	102	98288	10.040
57)$1,2-Dichloroethane-d4	(2)	7.525	65	461025	10.143
57)$1,2-Dichloroethane-d4	(2)	7.525	104	62729	10.119
58) Benzene	(2)	7.567	78	206026	1.053
59) 1,2-Dichloroethane	(2)	7.634	62	45305	1.043
60) t-Amyl methyl ether	(2)	7.744	73	122205	1.085
62) n-Heptane	(2)	7.964	43	91035	1.059
63)*Fluorobenzene	(2)	7.964	96	2234002	10.000
65) n-Butanol	(1)	8.317	56	53333M	101.693
67) Trichloroethene	(2)	8.439	95	53756	1.065
69) Methylcyclohexane	(2)	8.756	83	96880	0.996
70) 1,2-Dichloropropane	(2)	8.780	63	53099	1.074
71) Methyl Methacrylate	(1)	8.860	69	22266	1.083
72) 1,4-Dioxane	(1)	8.884	88	4688M	52.558
73) Dibromomethane	(2)	8.890	93	20374	1.085
74) Bromodichloromethane	(2)	9.122	83	58553	1.045
76) 2-Nitropropane	(1)	9.390	41	63145	10.501
80) cis-1,3-Dichloropropene	(2)	9.652	75	73791	1.066
81) 4-Methyl-2-Pentanone	(1)	9.817	43	270985M	10.442
82)$Toluene-d8	(3)	9.951	98	2307211	10.021
82)$Toluene-d8	(3)	9.951	100	1484187	9.916
83) Toluene	(3)	10.024	92	127349	1.042
85) 1,3-Dichloropropene (total)	(3)		75	130644	2.126
84) trans-1,3-Dichloropropene	(3)	10.274	75	56853	1.060
86) Ethyl Methacrylate	(3)	10.329	69	46476	1.052
88) 1,1,2-Trichloroethane	(3)	10.481	97	29566	1.088
89) Tetrachloroethene	(3)	10.561	166	59224	1.041
90) 1,3-Dichloropropane	(3)	10.640	76	53186	1.078
91) 2-Hexanone	(1)	10.683	43	191461M	10.616

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	39110	1.055
95) 1,2-Dibromoethane	(3)	10.963	107	27991	1.074
97)*Chlorobenzene-d5	(3)	11.384	117	1782832	10.000
96) 1-Chlorohexane	(3)	11.390	91	79113MA	1.027
98) Chlorobenzene	(3)	11.414	112	135875	1.039
100) Ethylbenzene	(3)	11.493	91	253144	1.043
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	48956	1.060
101) m+p-Xylene	(3)	11.609	106	194593	2.125
105) Xylene (Total)	(3)		106	289728	3.191
104) o-Xylene	(3)	11.938	106	95135	1.066
106) Styrene	(3)	11.951	104	150243	1.052
107) Bromoform	(3)	12.109	173	22182	1.054
108) Isopropylbenzene	(3)	12.231	105	255109	1.042
111)$4-Bromofluorobenzene	(3)	12.377	95	862868	10.011
111)$4-Bromofluorobenzene	(3)	12.377	174	743666	10.076
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	36405	1.103
114) Bromobenzene	(4)	12.499	156	55150	1.046
115) trans-1,4-Dichloro-2-butene	(1)	12.505	53	90485M	10.117
116) 1,2,3-Trichloropropane	(4)	12.530	110	9250	1.080
117) n-Propylbenzene	(4)	12.560	91	295849	1.027
119) 2-Chlorotoluene	(4)	12.639	126	58540	1.035
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	207179	1.023
122) 4-Chlorotoluene	(4)	12.731	126	58615	1.041
125) tert-Butylbenzene	(4)	12.938	134	44999	1.026
126) Pentachloroethane	(4)	12.975	167	34015	0.979
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	207234	1.014
128) sec-Butylbenzene	(4)	13.103	105	263197	1.010
131) 1,3-Dichlorobenzene	(4)	13.200	146	108738	1.029
132) p-Isopropyltoluene	(4)	13.206	119	225736	1.015
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	954468	10.000
134) 1,4-Dichlorobenzene	(4)	13.280	146	109328	1.057
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	85415M	0.981
136) Benzyl Chloride	(4)	13.353	126	15549	1.037
138) n-Butylbenzene	(4)	13.499	92	107526	1.027
139) 1,2-Dichlorobenzene	(4)	13.536	146	96228	1.058
143) 1,2-Dibromo-3-chloropropane	(1)	14.078	155	4729M	1.024
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	79481	1.021
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	63943	1.026

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

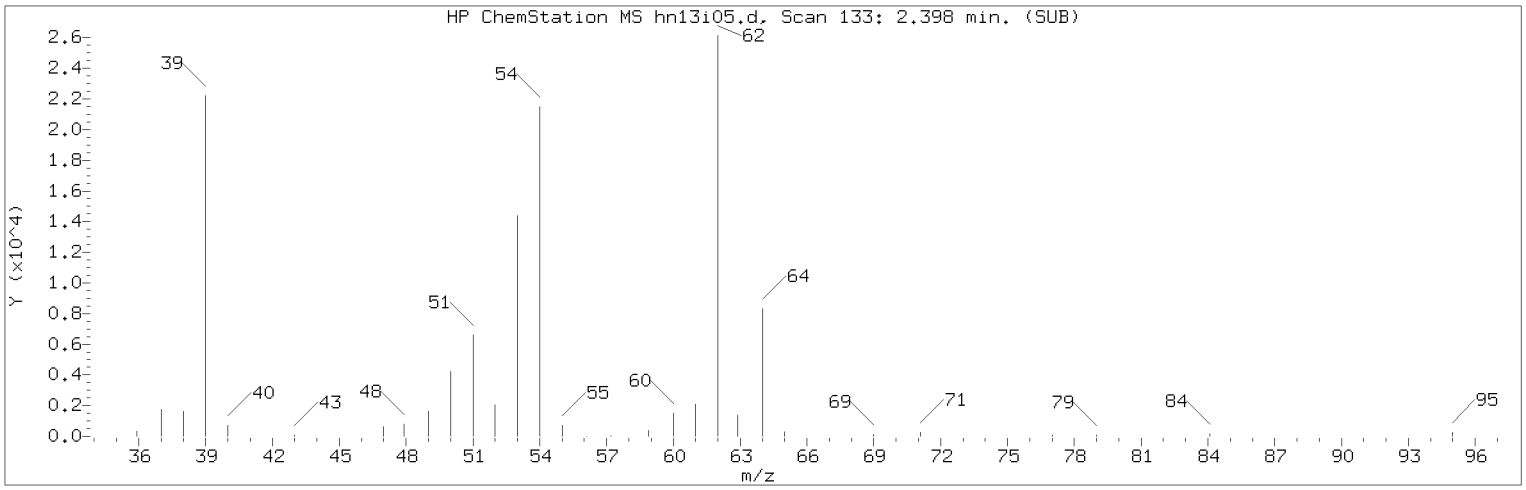
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

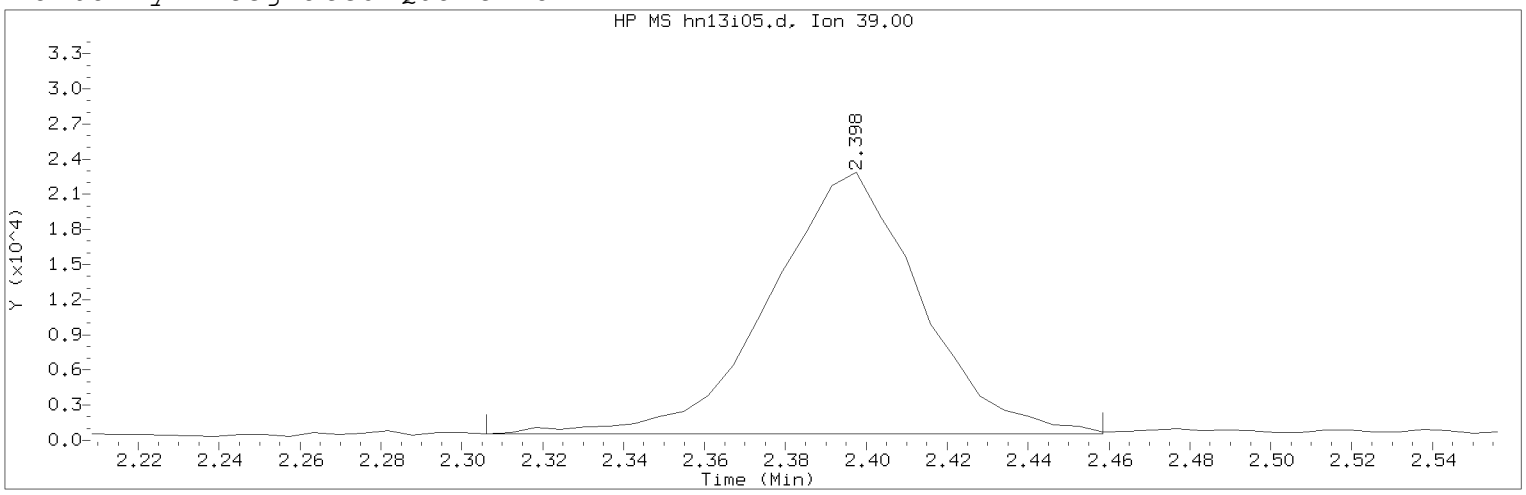
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	25155	1.000
147) Naphthalene	(4)	14.816	128	111120	1.065
148) 1,2,3-Trichlorobenzene	(4)	14.962	180	54247	1.045

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

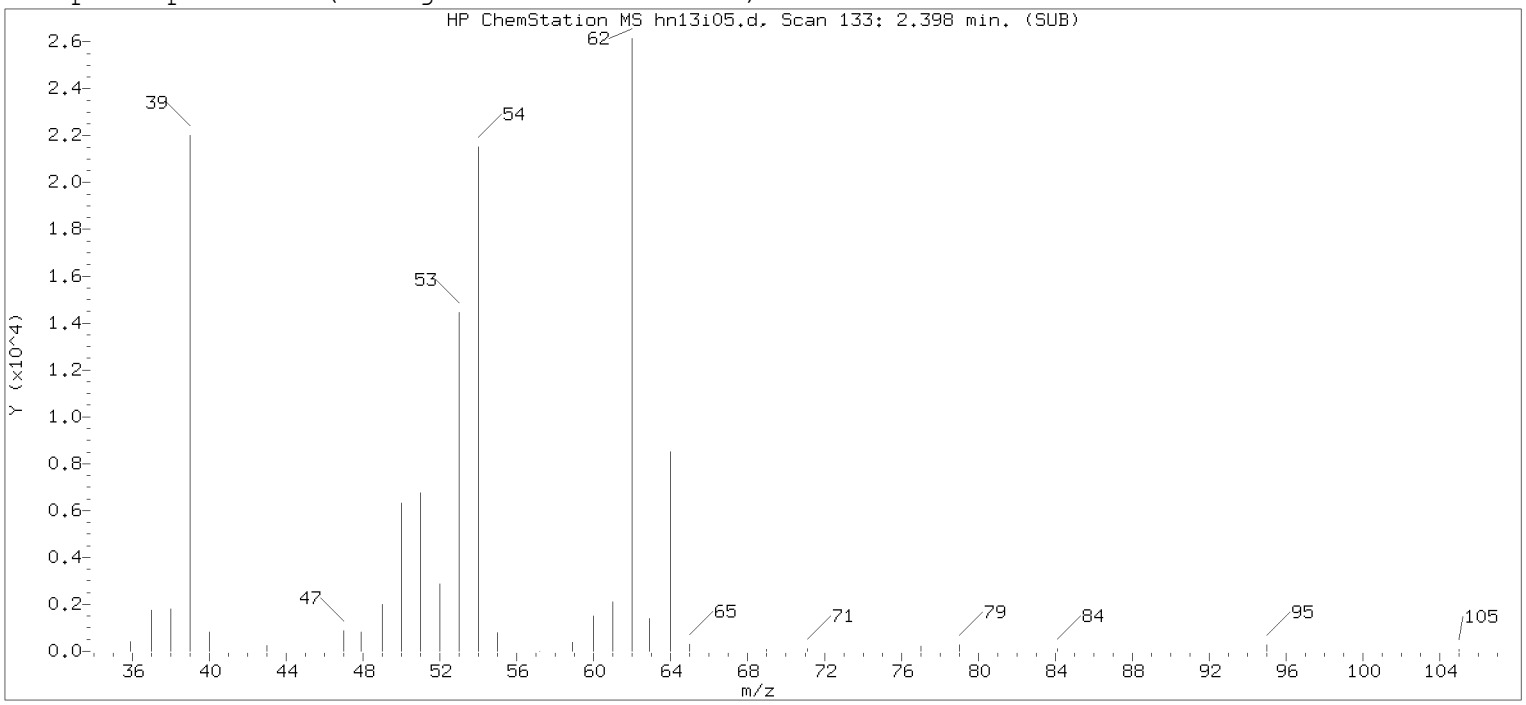
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area (flag) : 57762M
On-Column Amount (ng) : 1.0694
Integration start scan : 117 Integration stop scan: 142
Y at integration start : 550 Y at integration end: 550

Reason for manual integration: improper integration

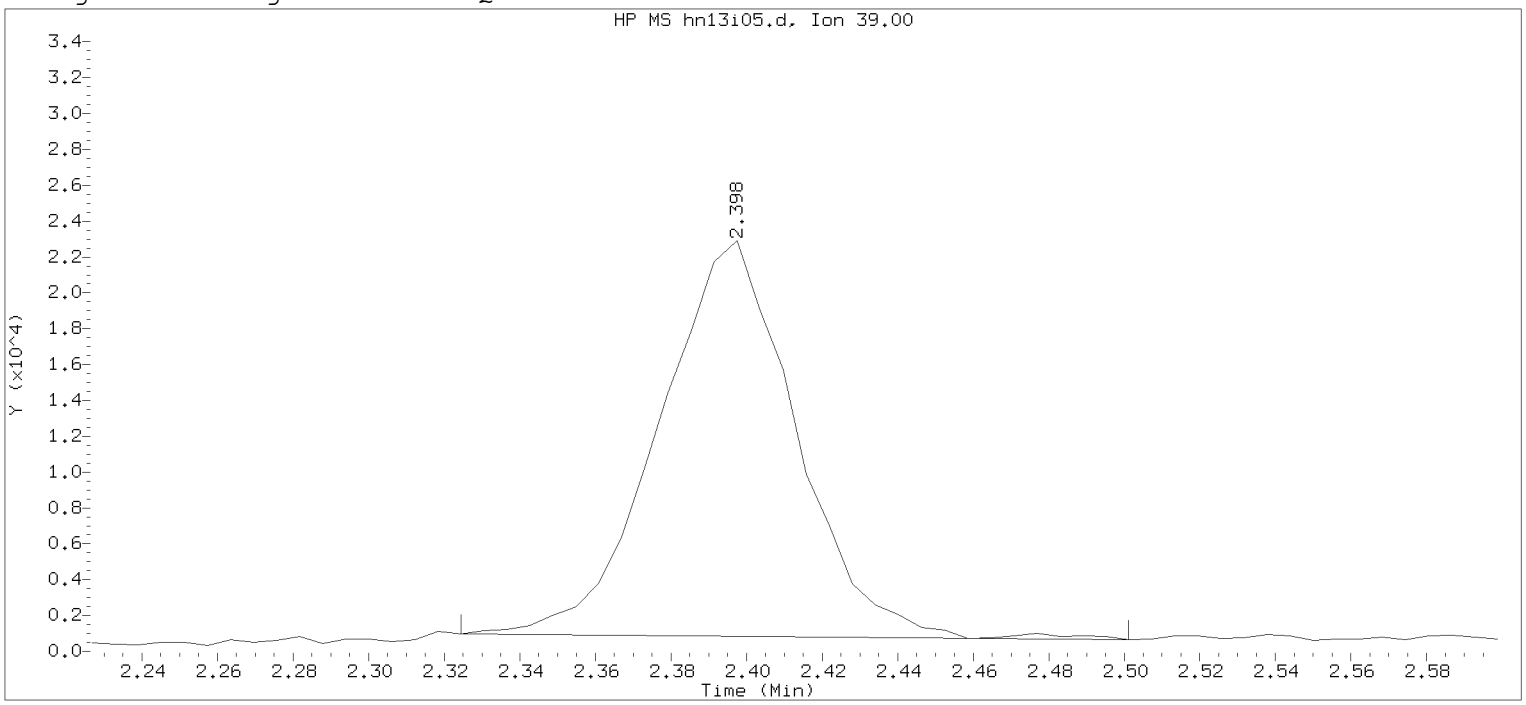
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

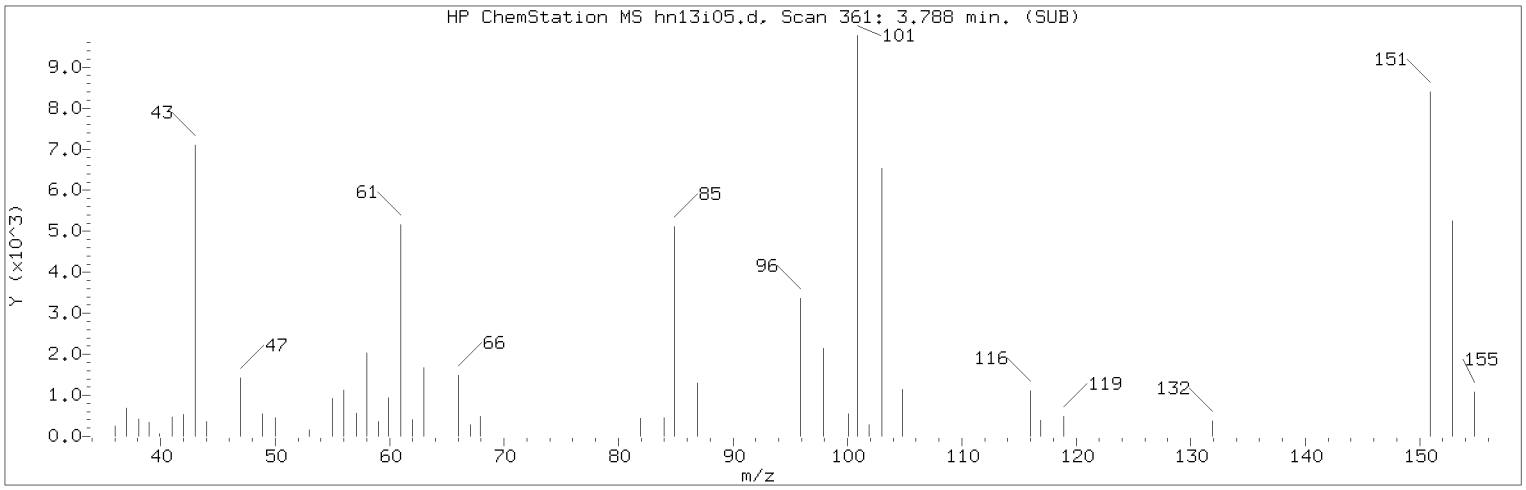
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

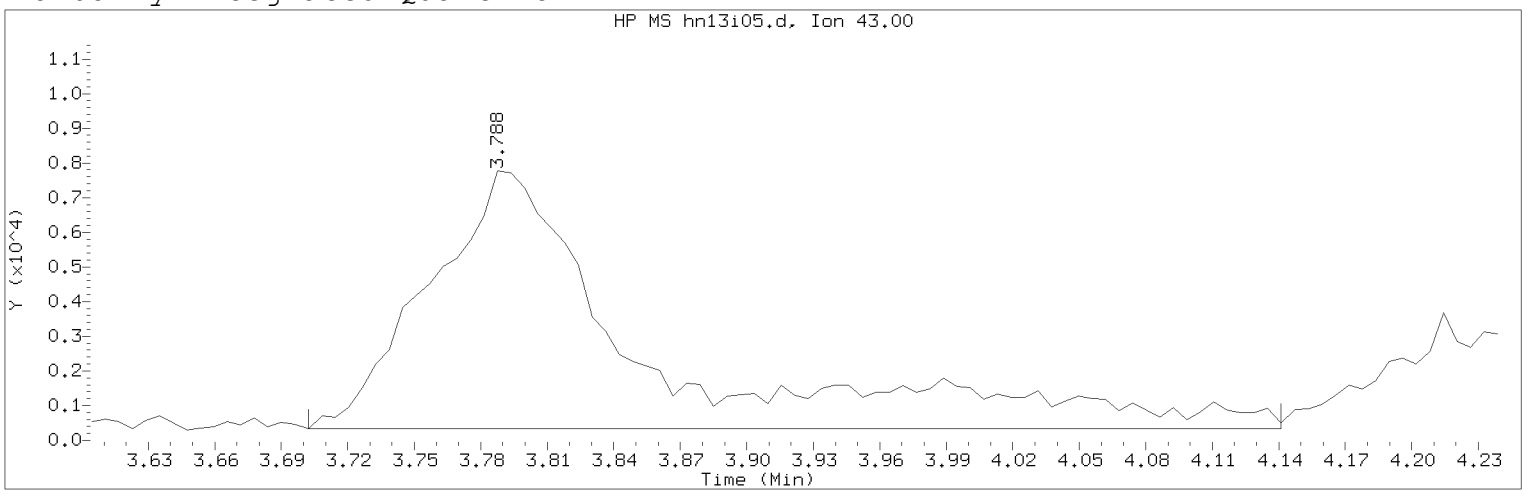
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area : 55513
On-column Amount (ng) : 1.0550
Integration start scan : 120 Integration stop scan: 149
Y at integration start : 957 Y at integration end: 639

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 657 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

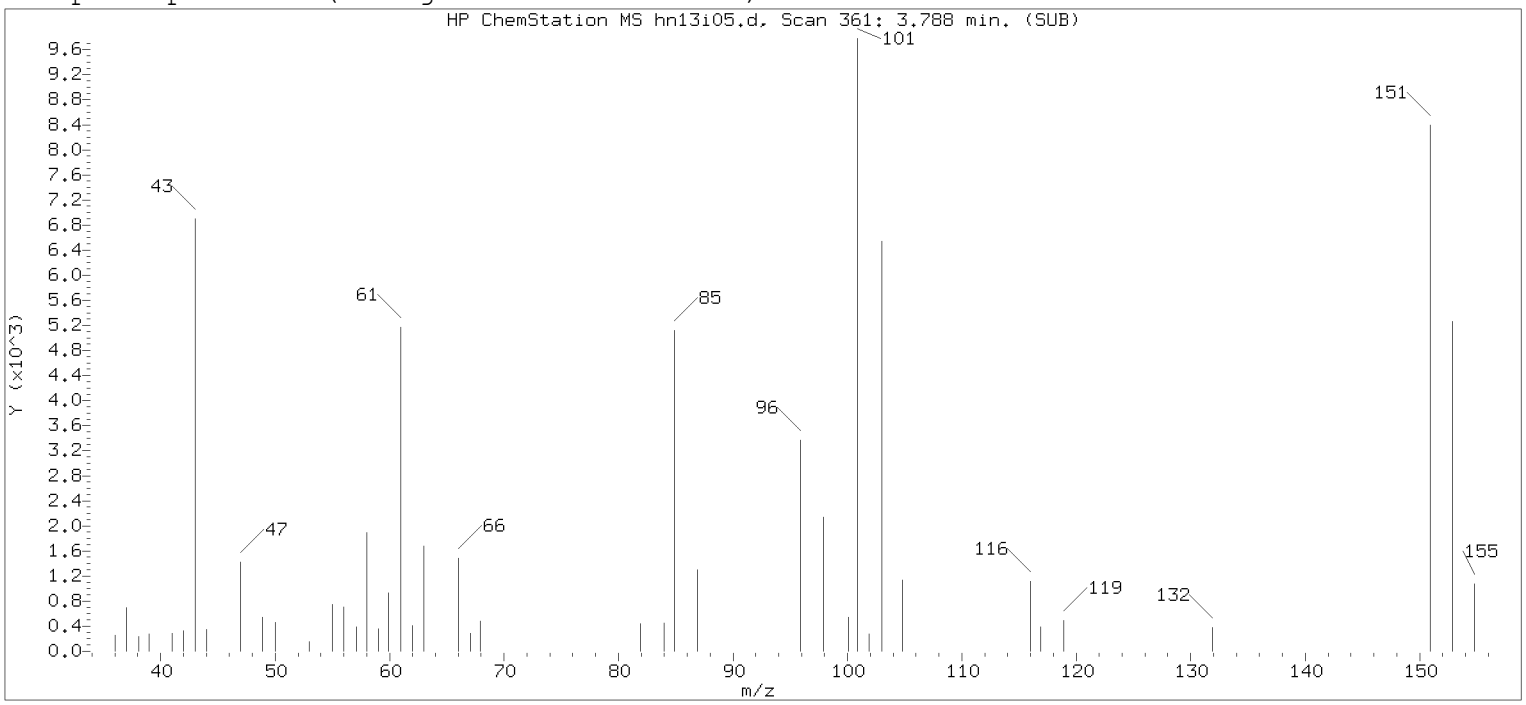
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.788
Quant Ion : 43.00
Area (flag) : 50121M
On-Column Amount (ng) : 9.7769
Integration start scan : 346 Integration stop scan: 418
Y at integration start : 334 Y at integration end: 334

Reason for manual integration: improper integration

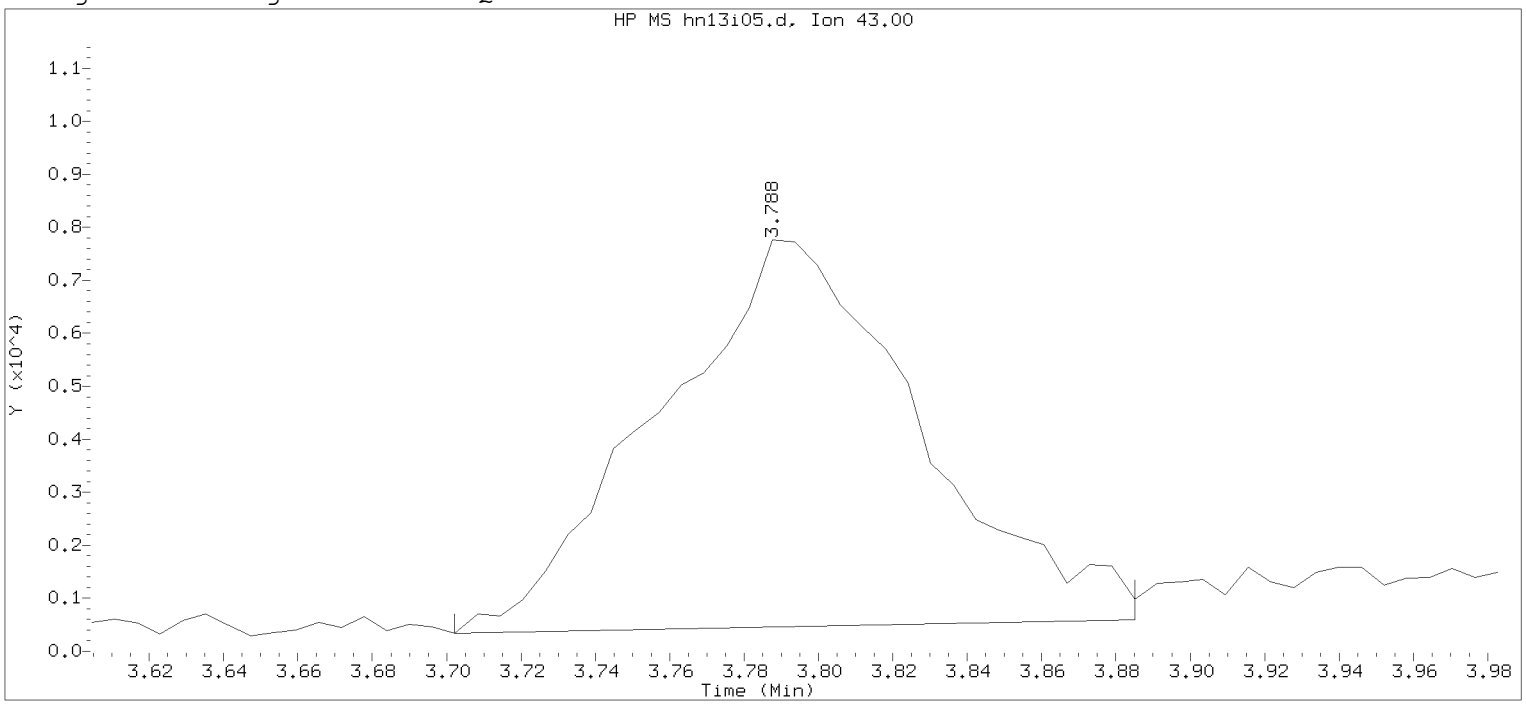
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 361		
Retention Time (minutes)	: 3.788		
Quant Ion	: 43.00		
Area	: 35362		
On-column Amount (ng)	: 8.6686		
Integration start scan	: 346	Integration stop scan:	376
Y at integration start	: 340	Y at integration end:	594

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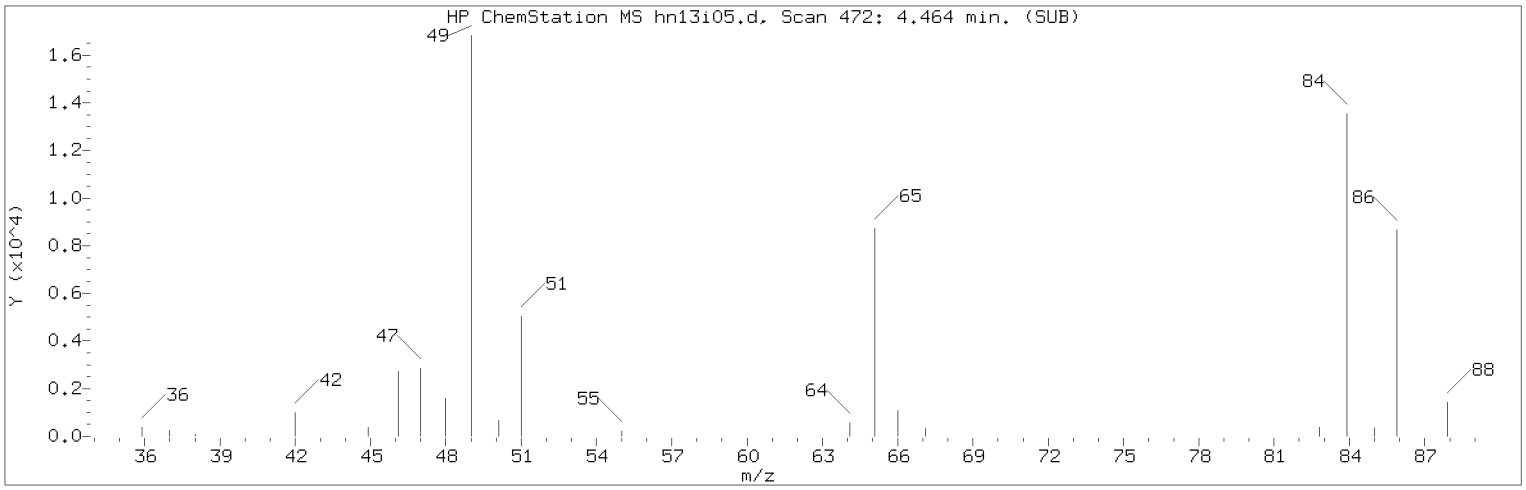
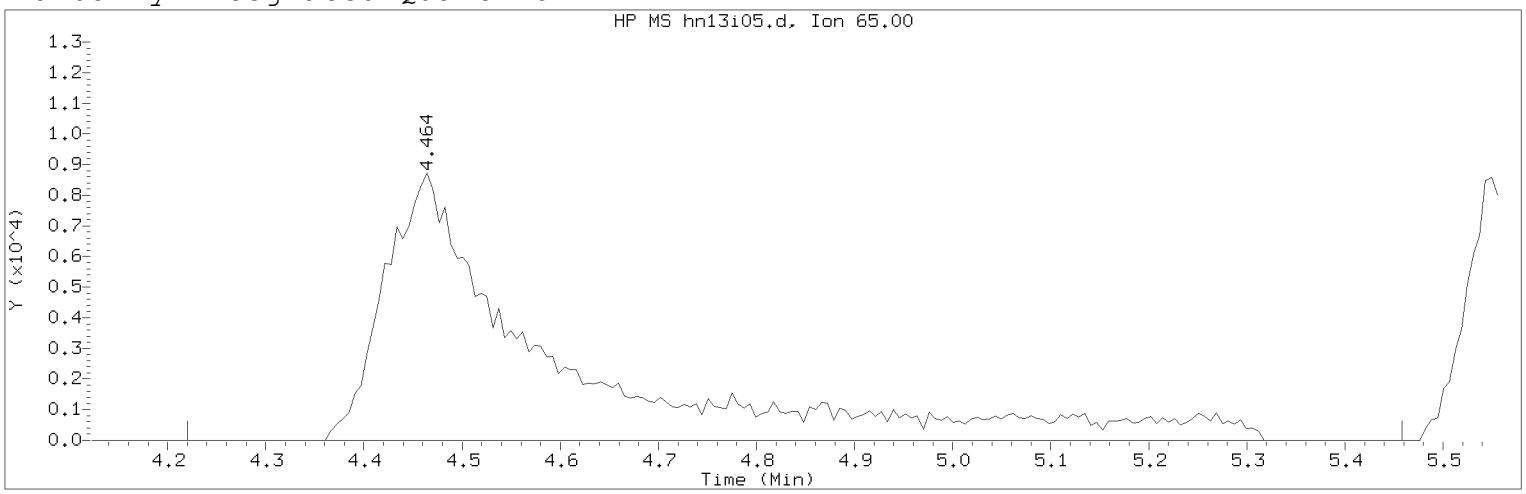
Target 3.5 esignature used. AE35 Page 659 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

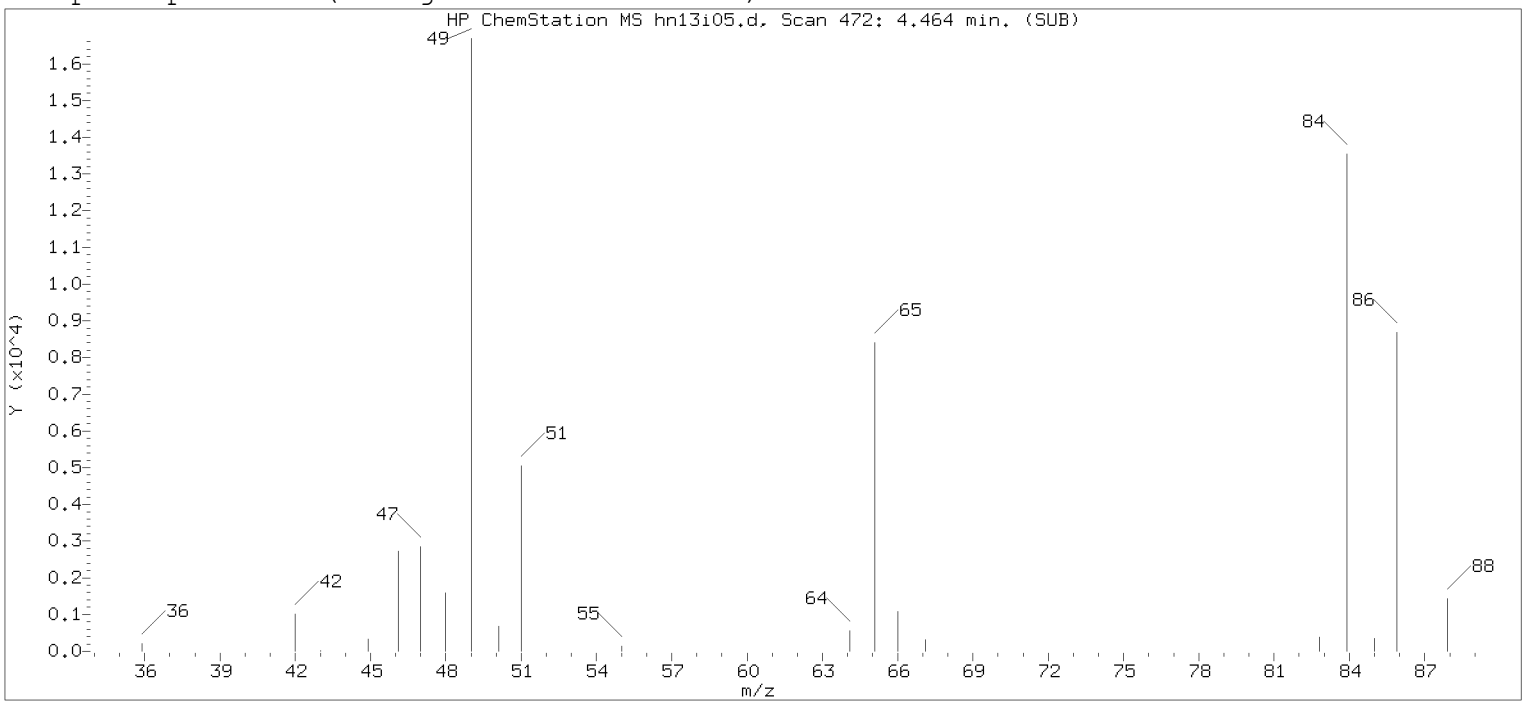
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 472
Retention Time (minutes): 4.464
Quant Ion : 65.00
Area (flag) : 103411M
On-Column Amount (ng) : 50.0000
Integration start scan : 431 Integration stop scan: 634
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

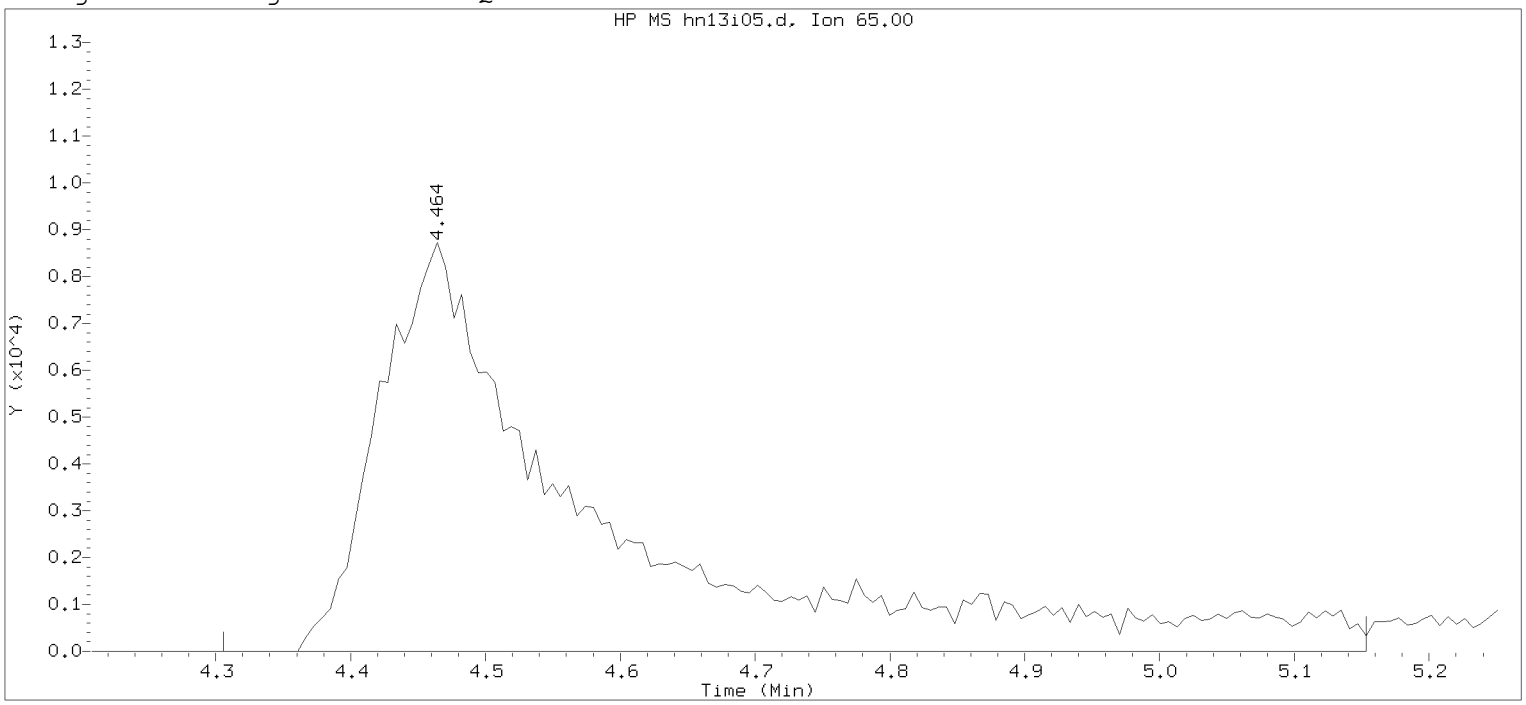
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 26		
Compound Name	: t-Butyl Alcohol-d10		
Scan Number	: 472		
Retention Time (minutes)	: 4.464		
Quant Ion	: 65.00		
Area	: 97417		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 445	Integration stop scan:	584
Y at integration start	: 0	Y at integration end:	0

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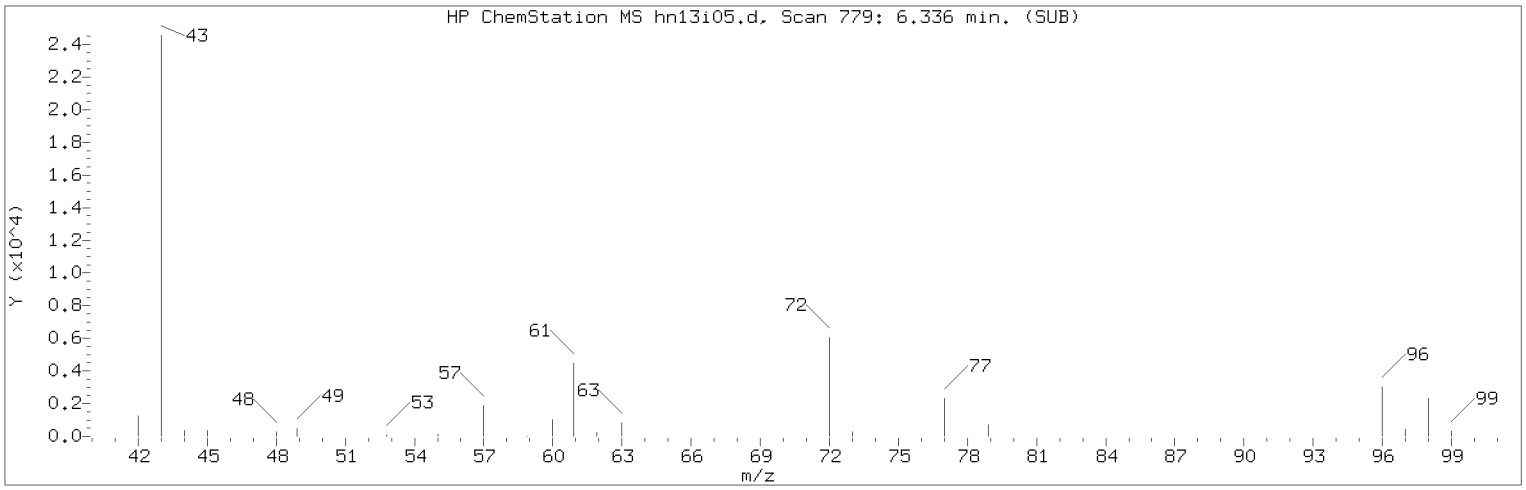
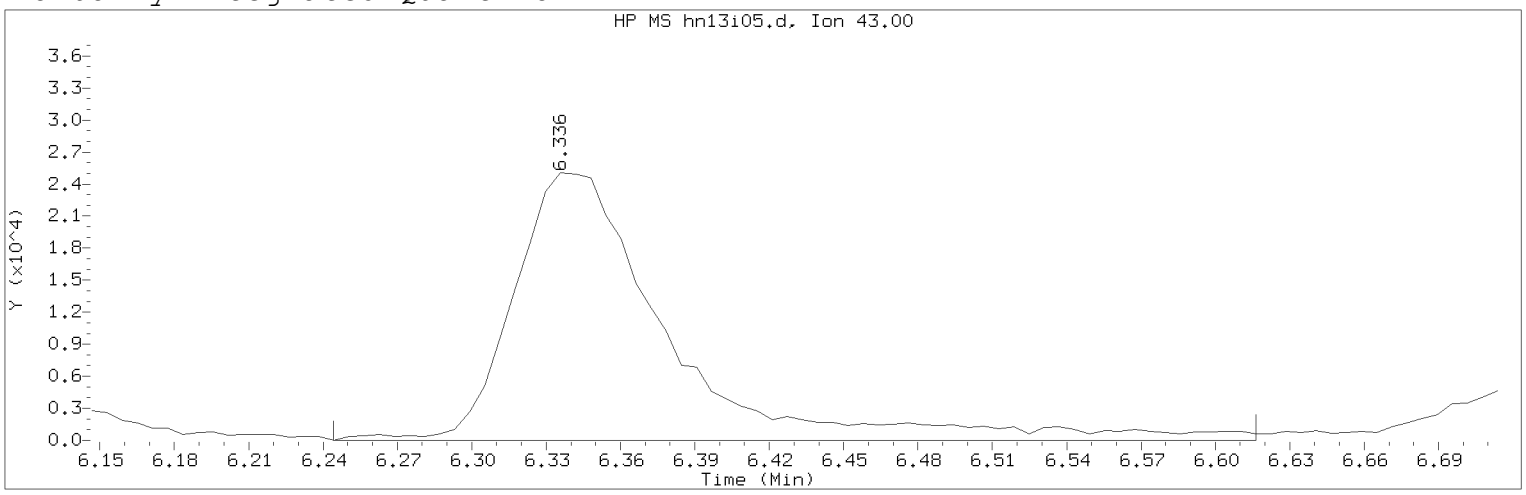
Target 3.5 esignature used. Page 661

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

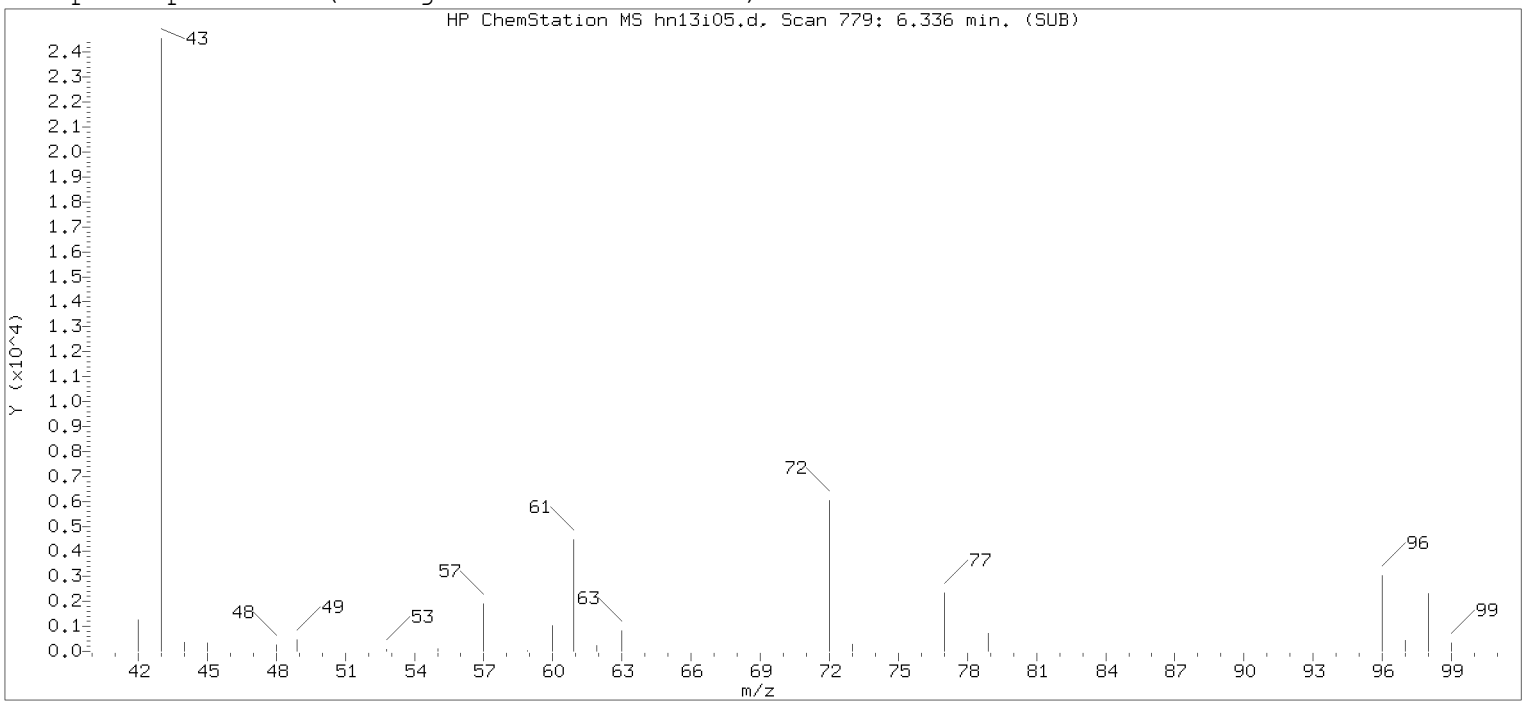
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 779
Retention Time (minutes): 6.336
Quant Ion : 43.00
Area (flag) : 108770M
On-Column Amount (ng) : 10.3765
Integration start scan : 763 Integration stop scan: 824
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

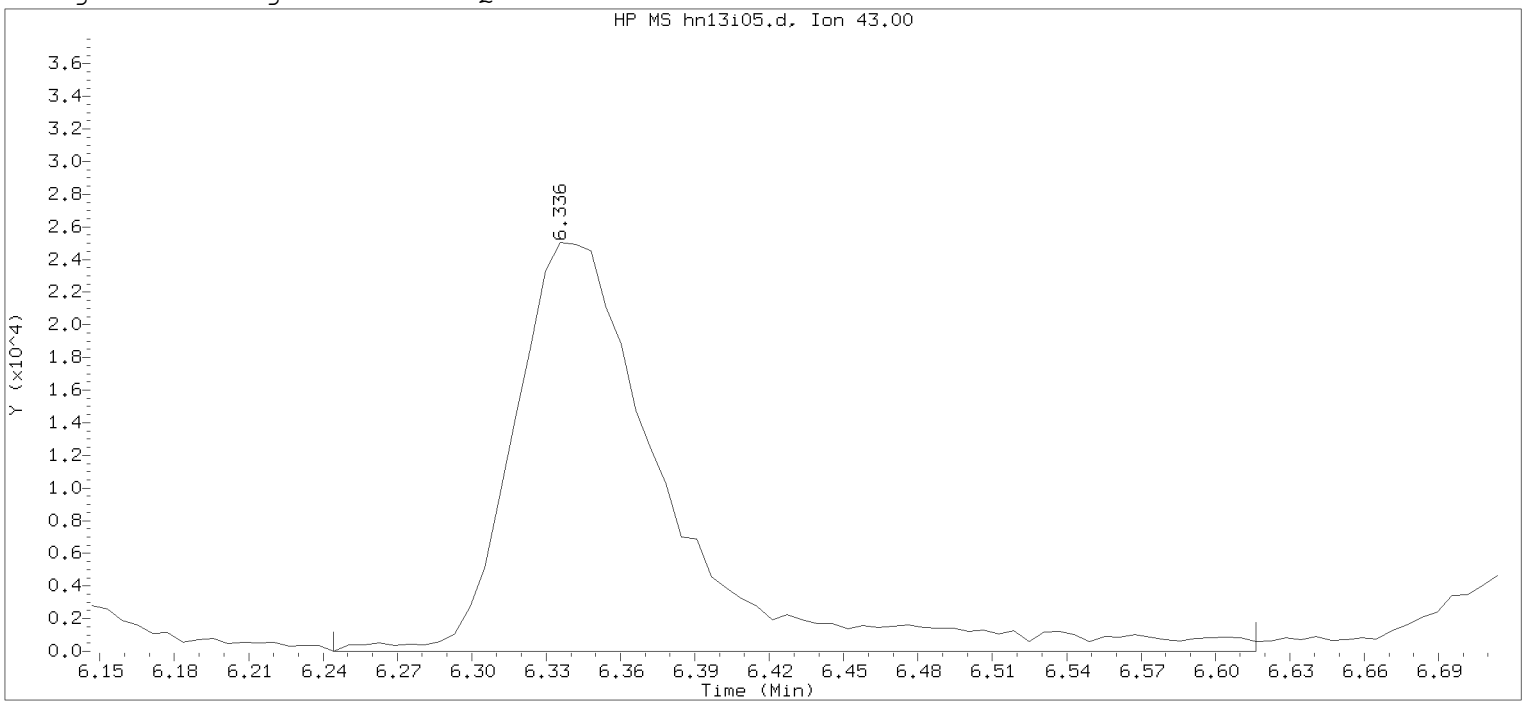
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 38		
Compound Name	: 2-Butanone		
Scan Number	: 779		
Retention Time (minutes)	: 6.336		
Quant Ion	: 43.00		
Area	: 108665		
On-column Amount (ng)	: 11.8624		
Integration start scan	: 763	Integration stop scan:	824
Y at integration start	: 0	Y at integration end:	0

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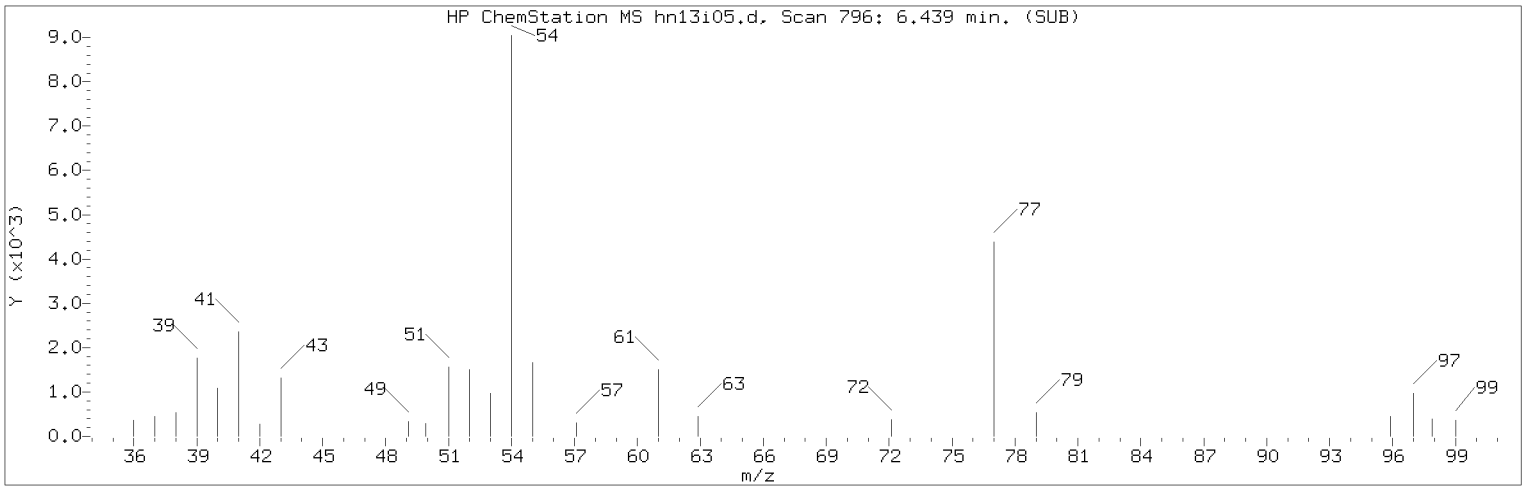
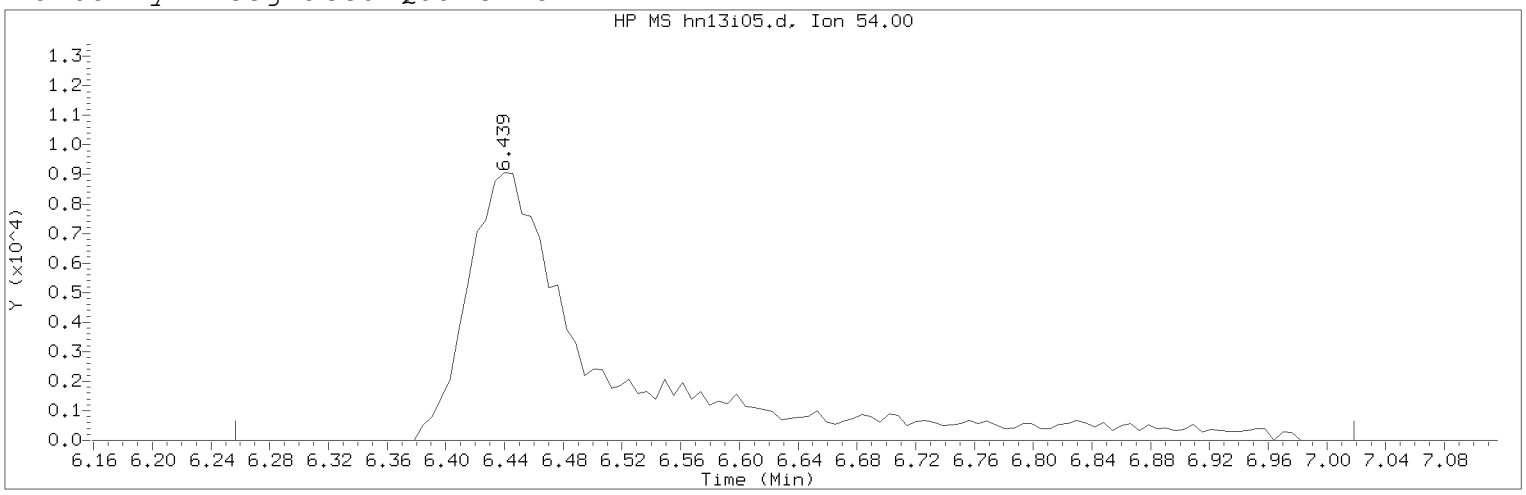
Target 3.5 esignature used. AE35 Page 663 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

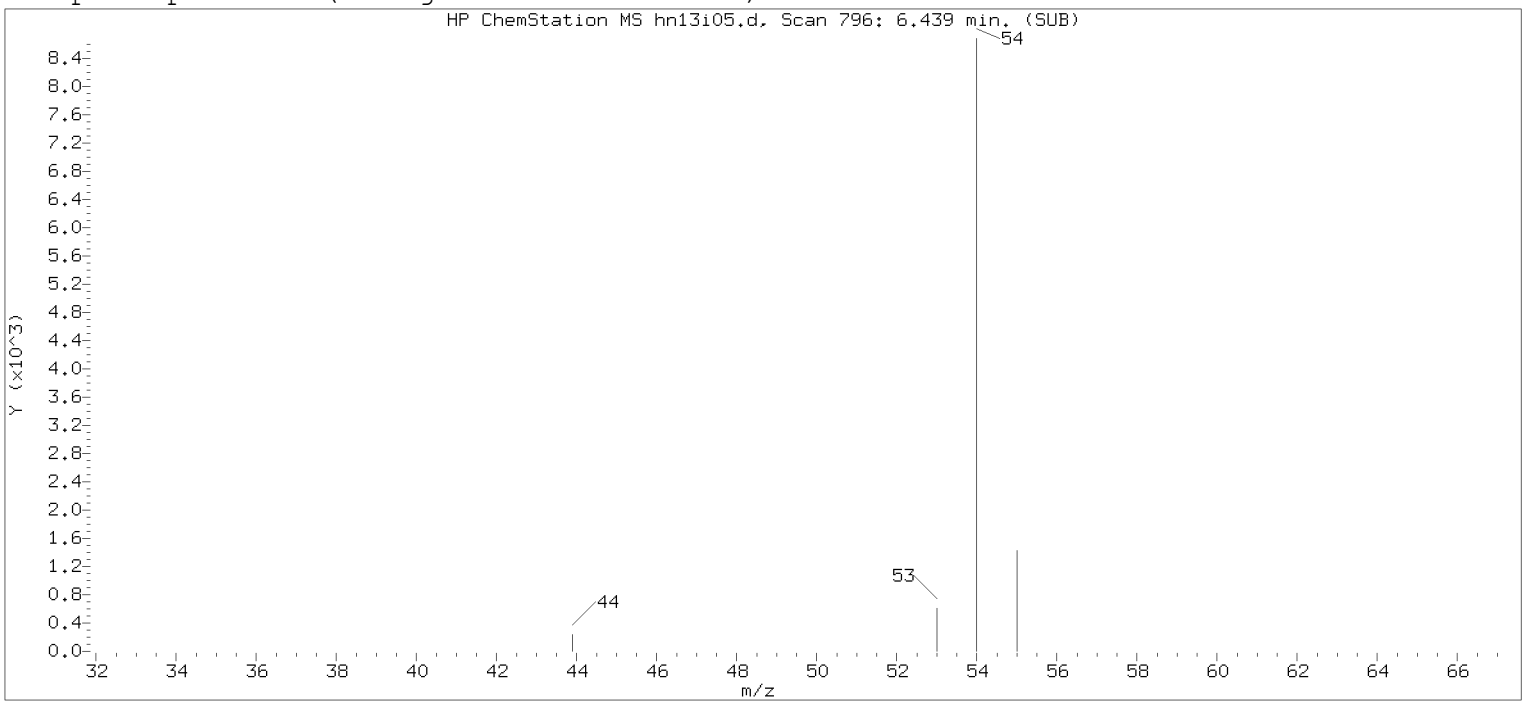
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 796
Retention Time (minutes): 6.439
Quant Ion : 54.00
Area (flag) : 58886M
On-Column Amount (ng) : 21.9831
Integration start scan : 765 Integration stop scan: 890
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

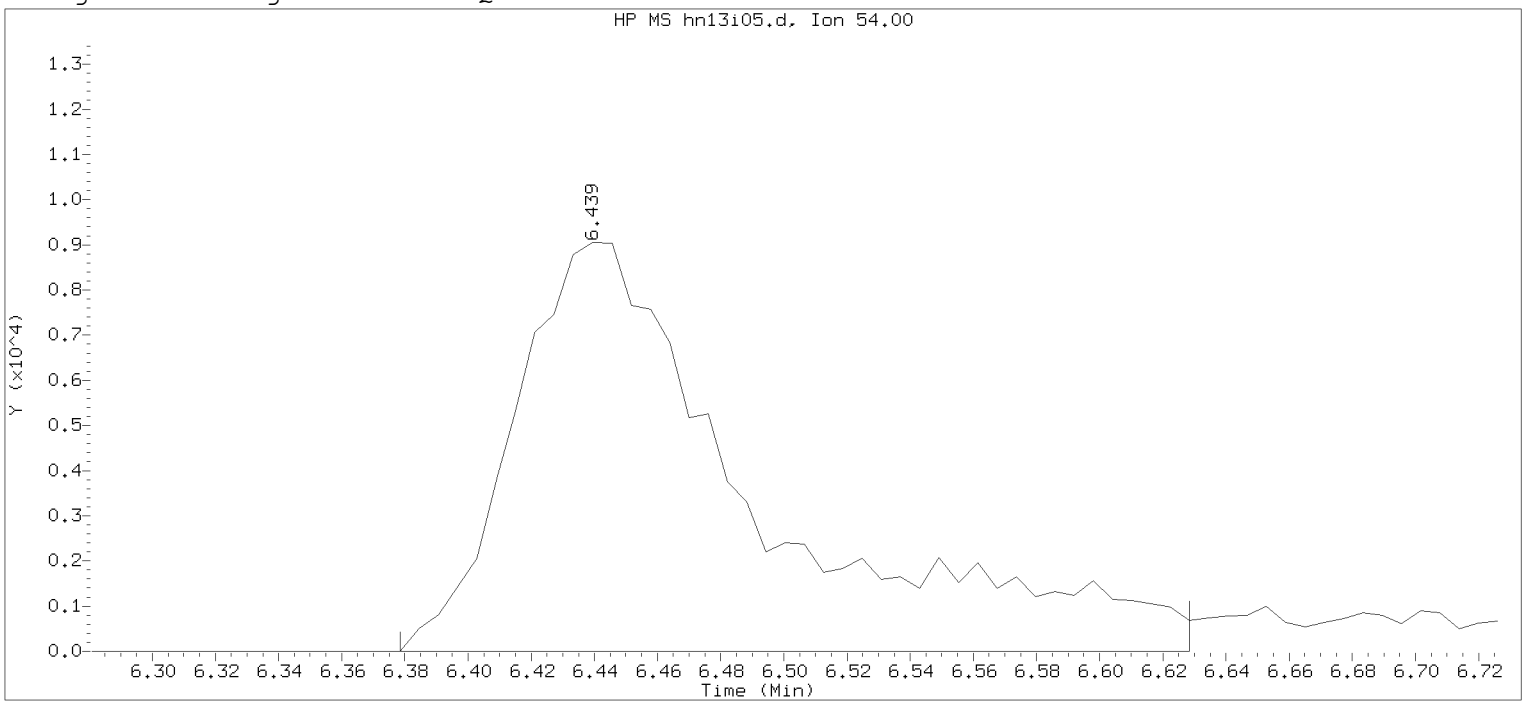
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

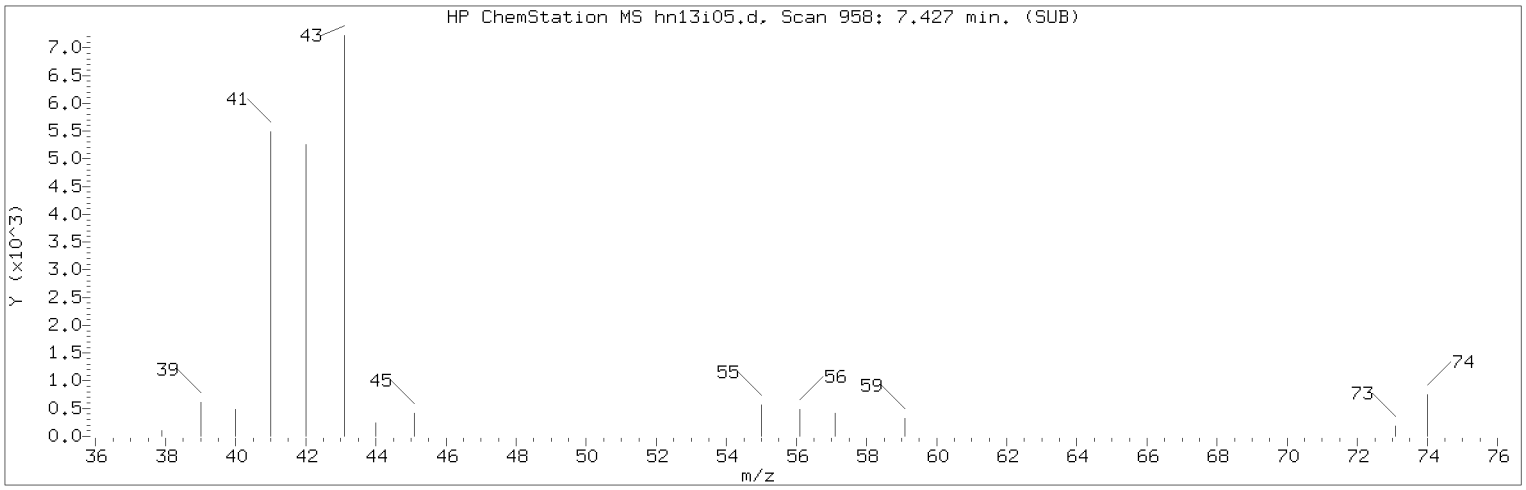
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

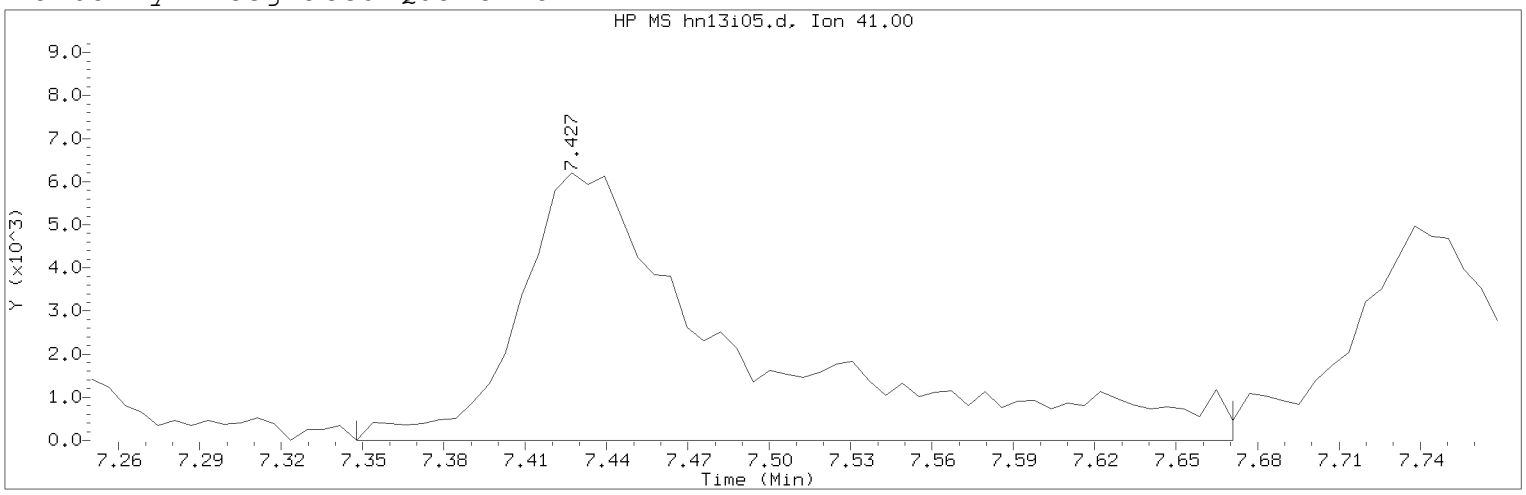
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 796
Retention Time (minutes): 6.439
Quant Ion : 54.00
Area : 47804
On-column Amount (ng) : 20.0334
Integration start scan : 785 Integration stop scan: 826
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

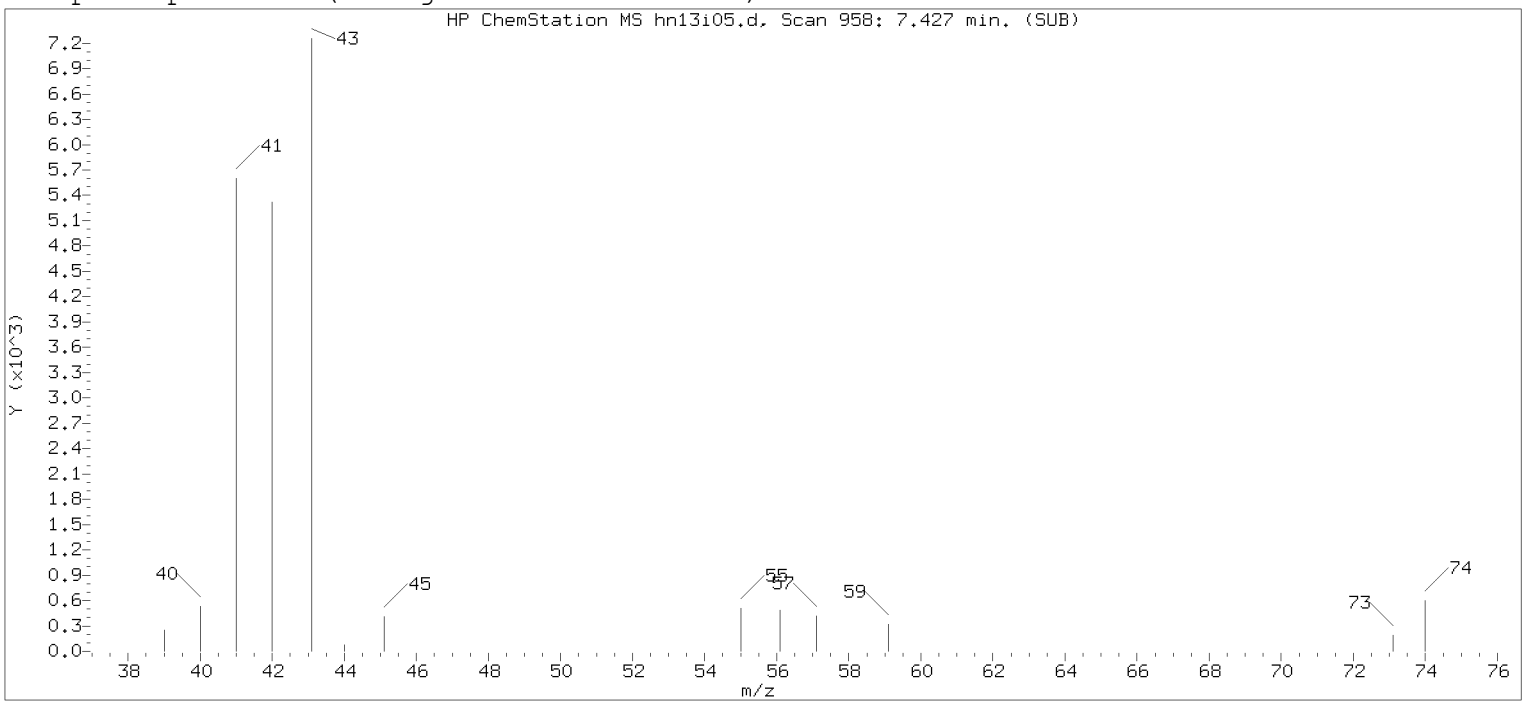
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 958
Retention Time (minutes): 7.427
Quant Ion : 41.00
Area (flag) : 35687M
On-Column Amount (ng) : 51.2055
Integration start scan : 944 Integration stop scan: 997
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

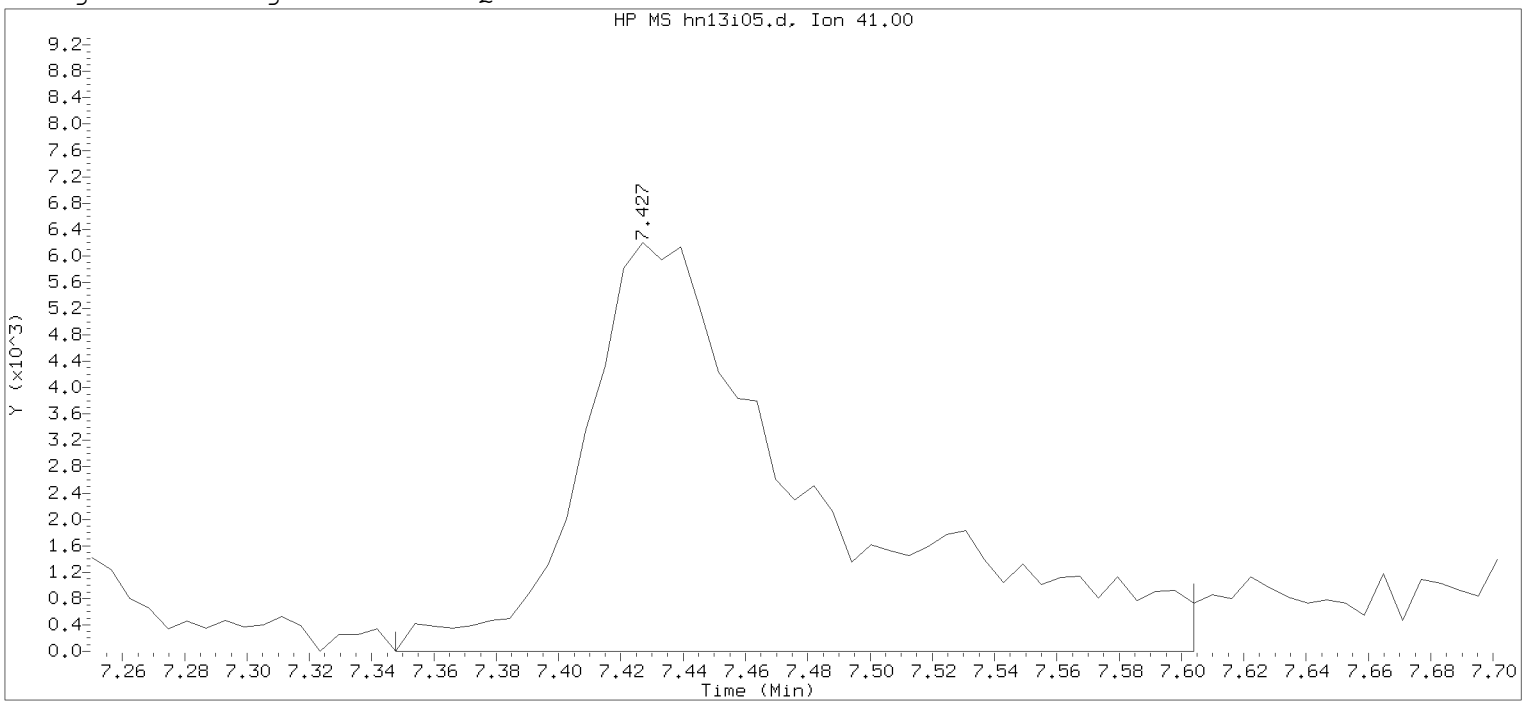
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

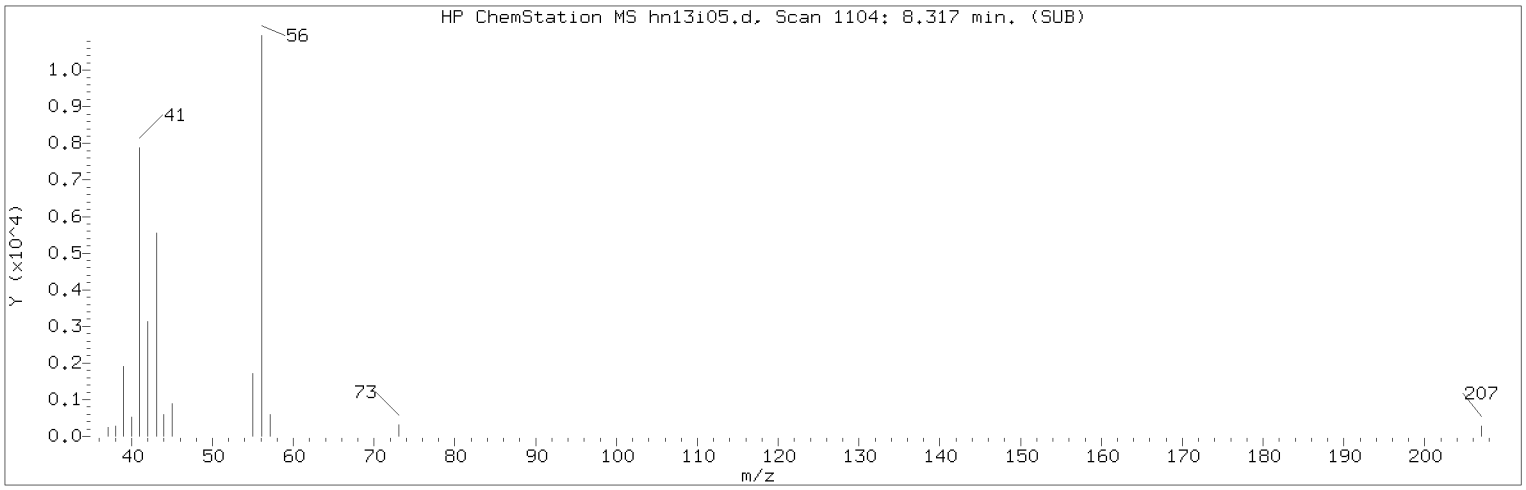
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

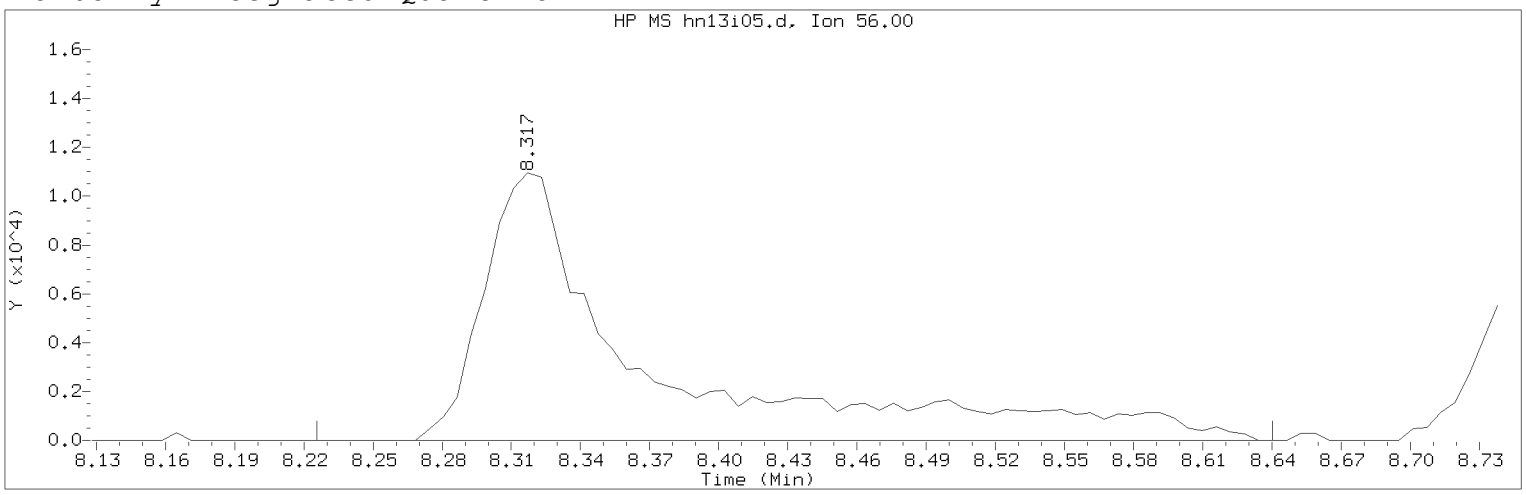
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 958
Retention Time (minutes): 7.427
Quant Ion : 41.00
Area : 32260
On-column Amount (ng) : 56.8045
Integration start scan : 944 Integration stop scan: 986
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. Reason: I approve this record.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

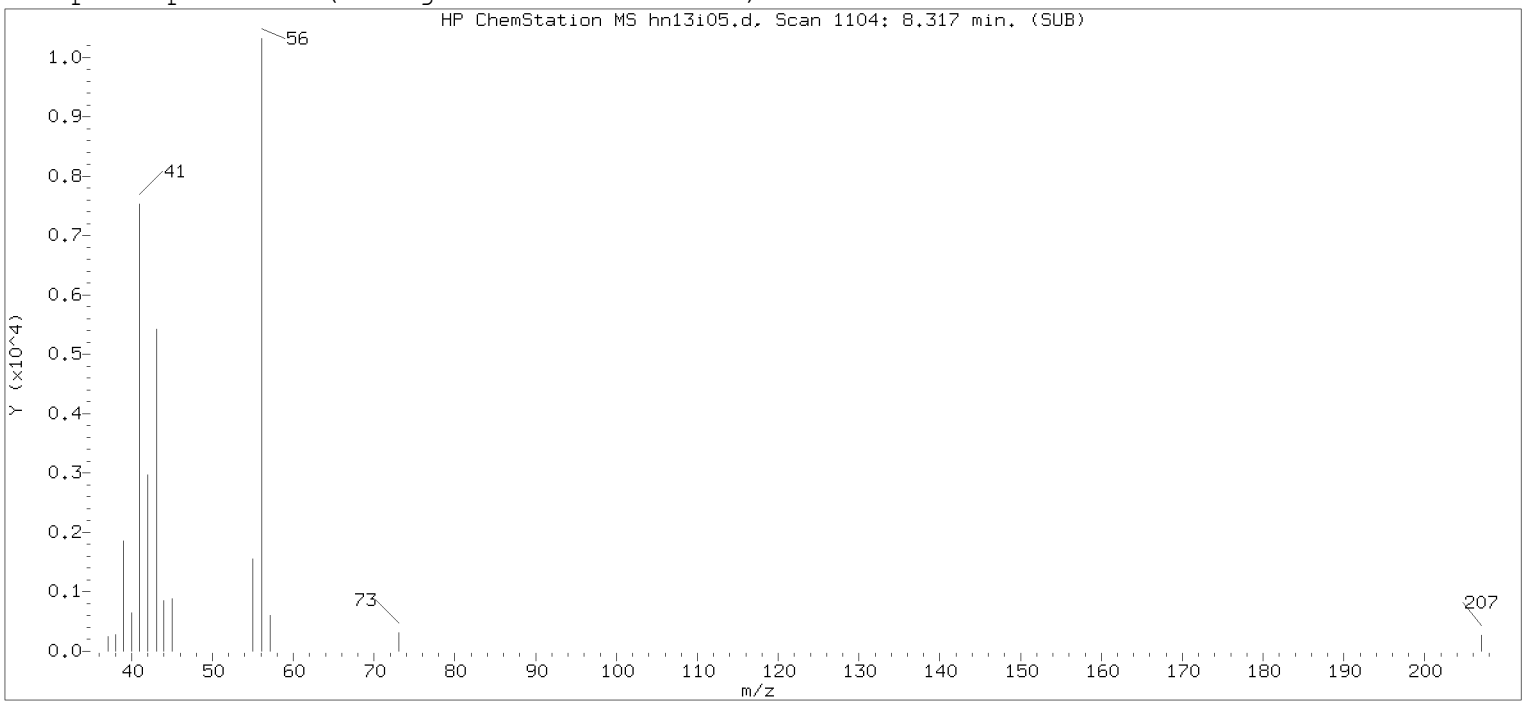
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1104
Retention Time (minutes): 8.317
Quant Ion : 56.00
Area (flag) : 53333M
On-Column Amount (ng) : 101.6931
Integration start scan : 1088 Integration stop scan: 1156
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

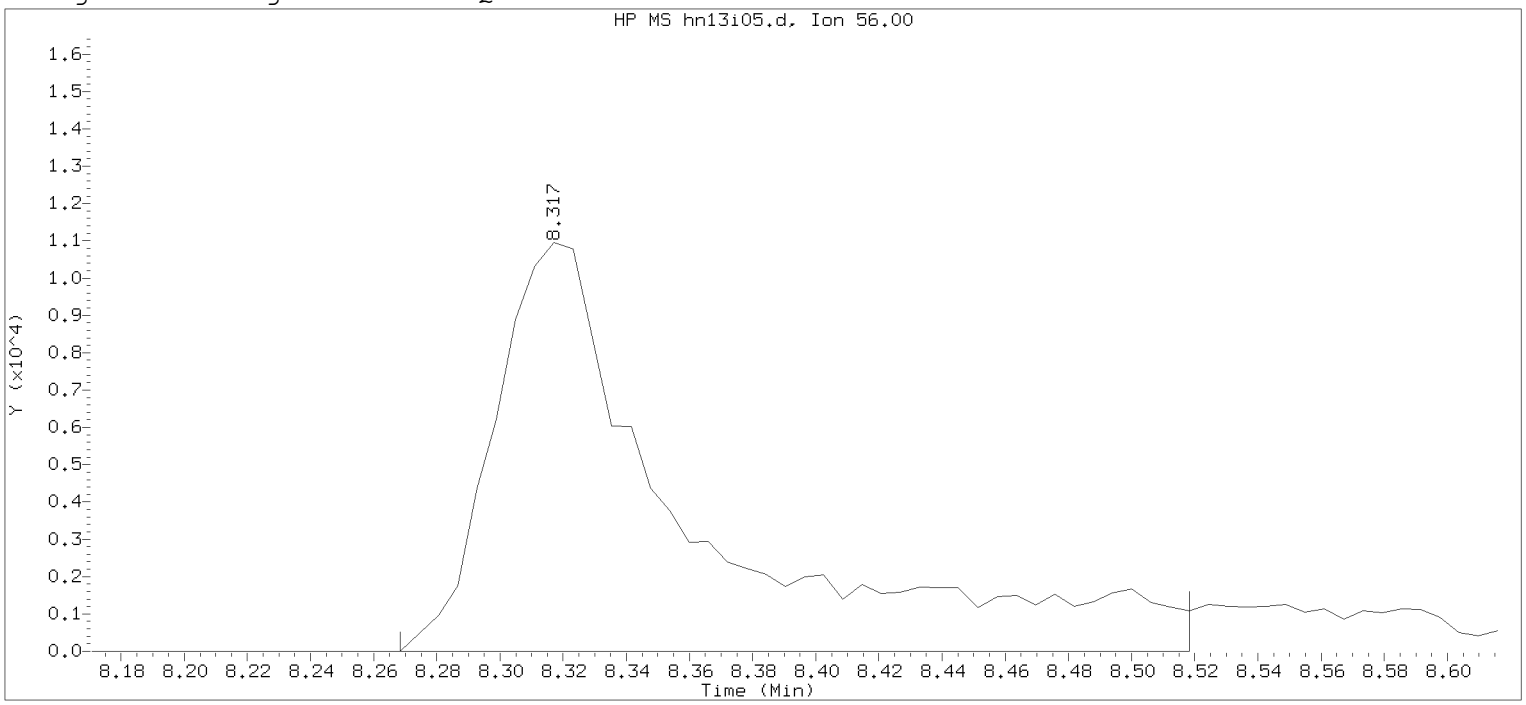
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

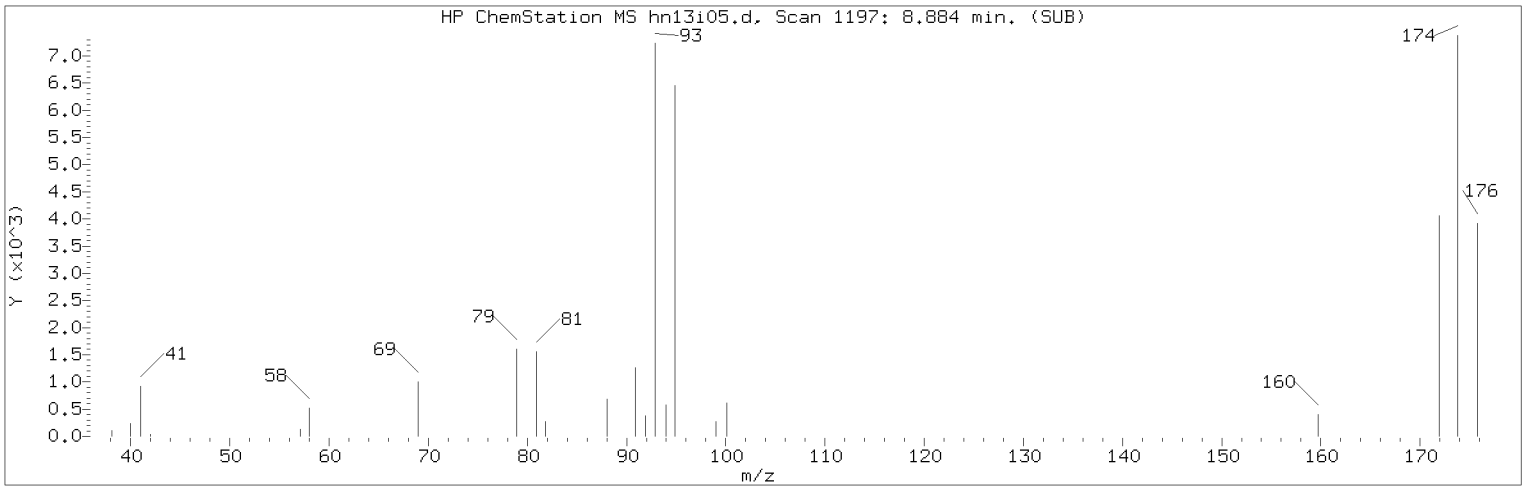
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

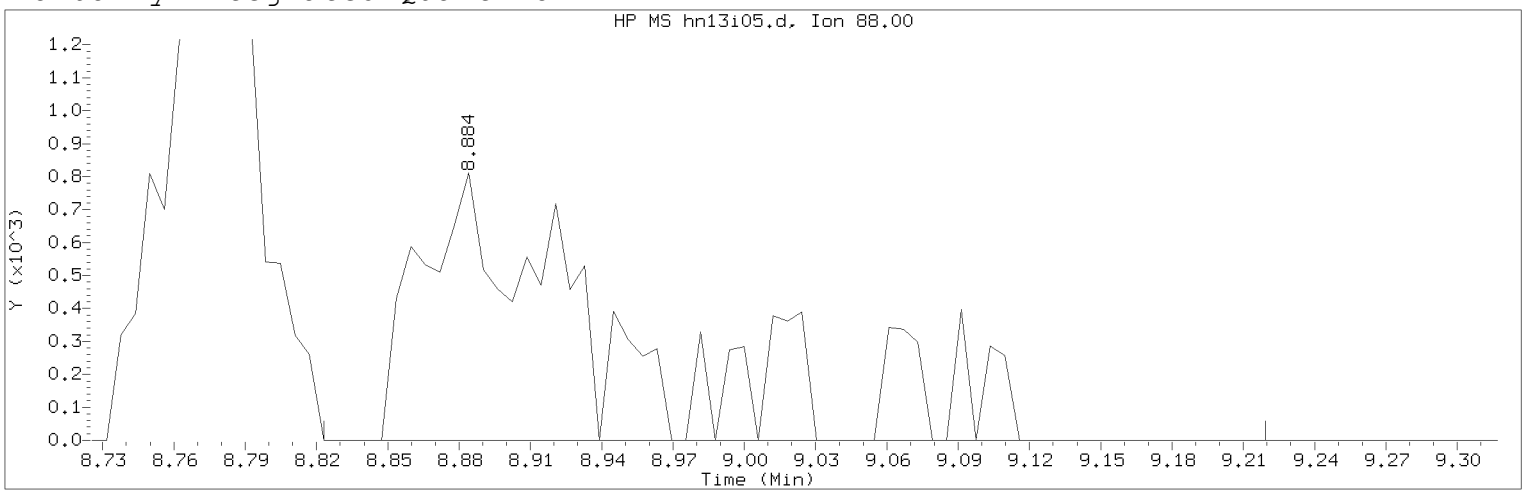
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1104
Retention Time (minutes): 8.317
Quant Ion : 56.00
Area : 47106
On-column Amount (ng) : 97.9812
Integration start scan : 1095 Integration stop scan: 1136
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. RAF35 Page 669 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

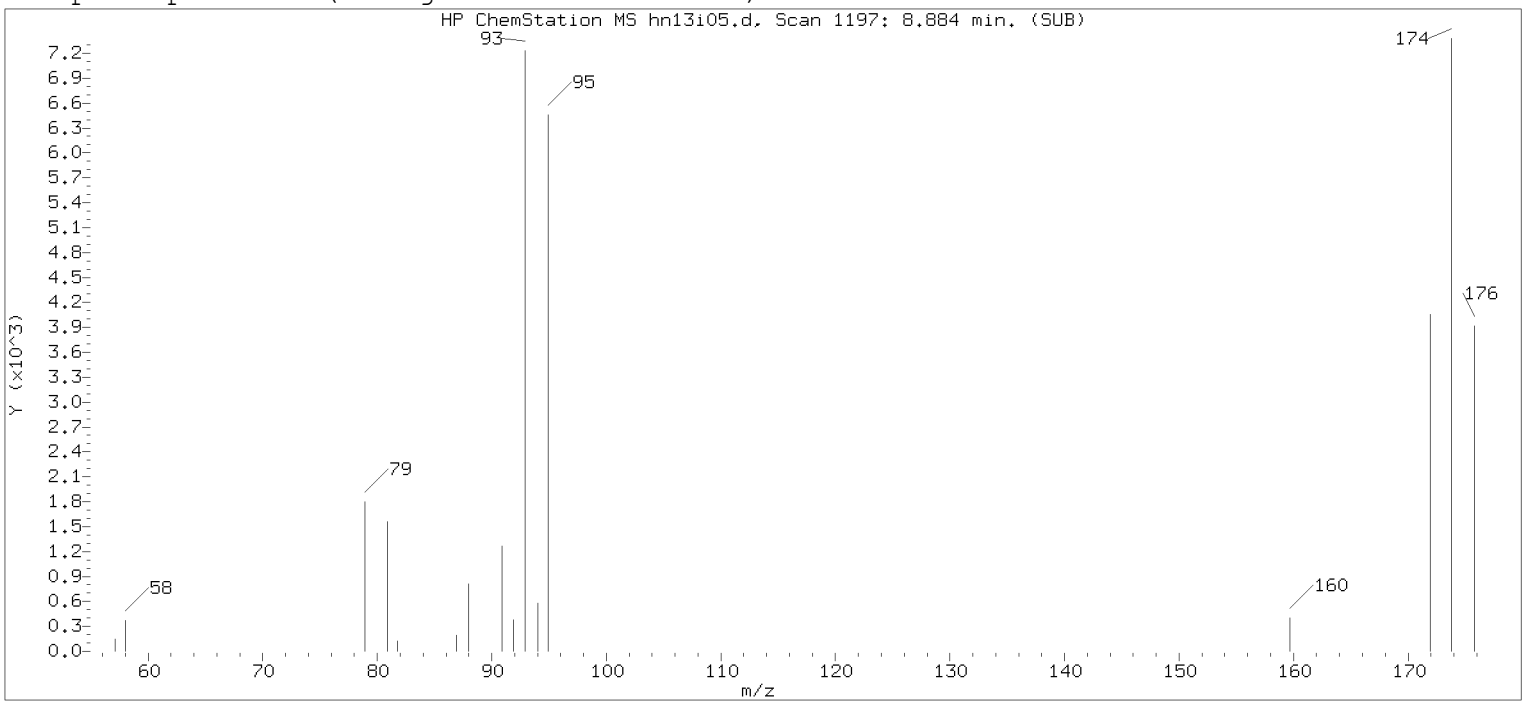
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1197
Retention Time (minutes): 8.884
Quant Ion : 88.00
Area (flag) : 4688M
On-Column Amount (ng) : 52.5582
Integration start scan : 1186 Integration stop scan: 1251
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

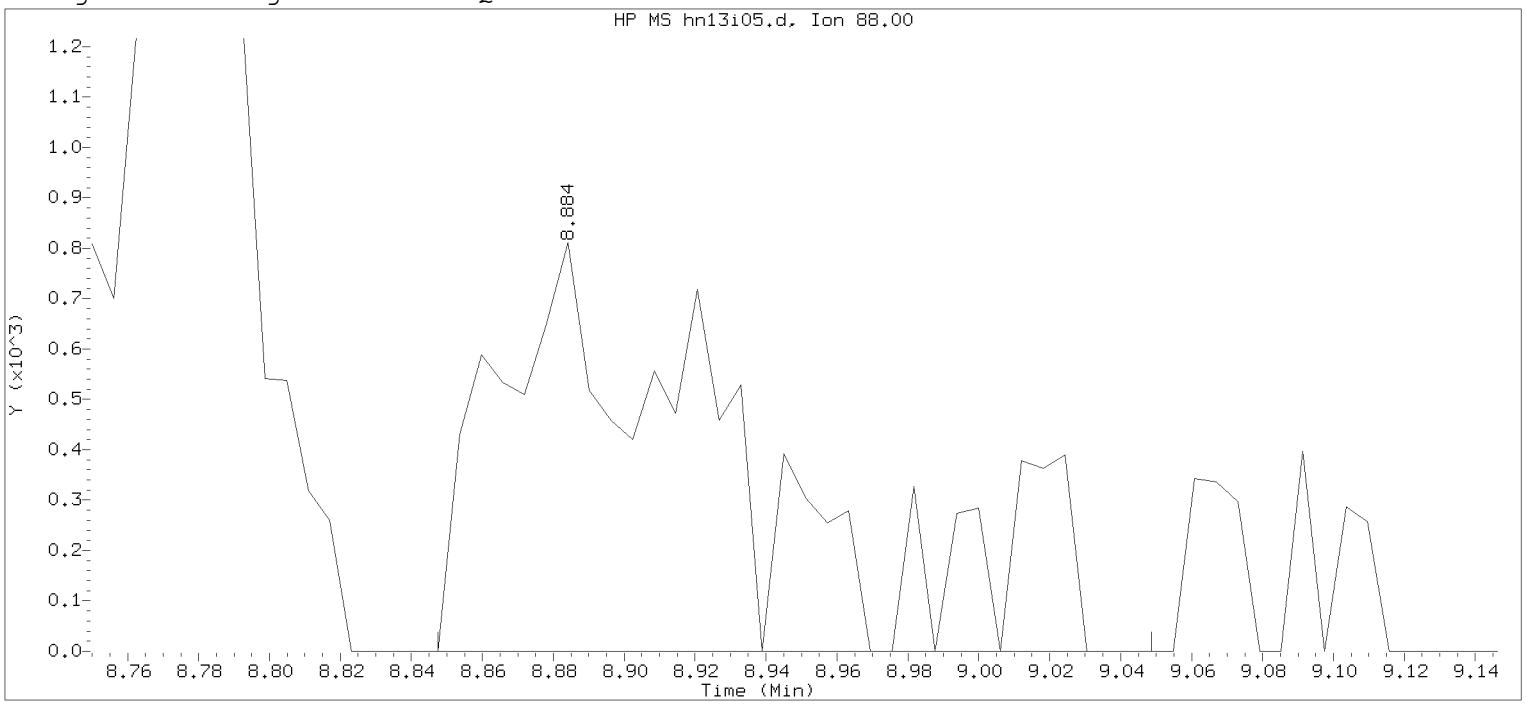
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

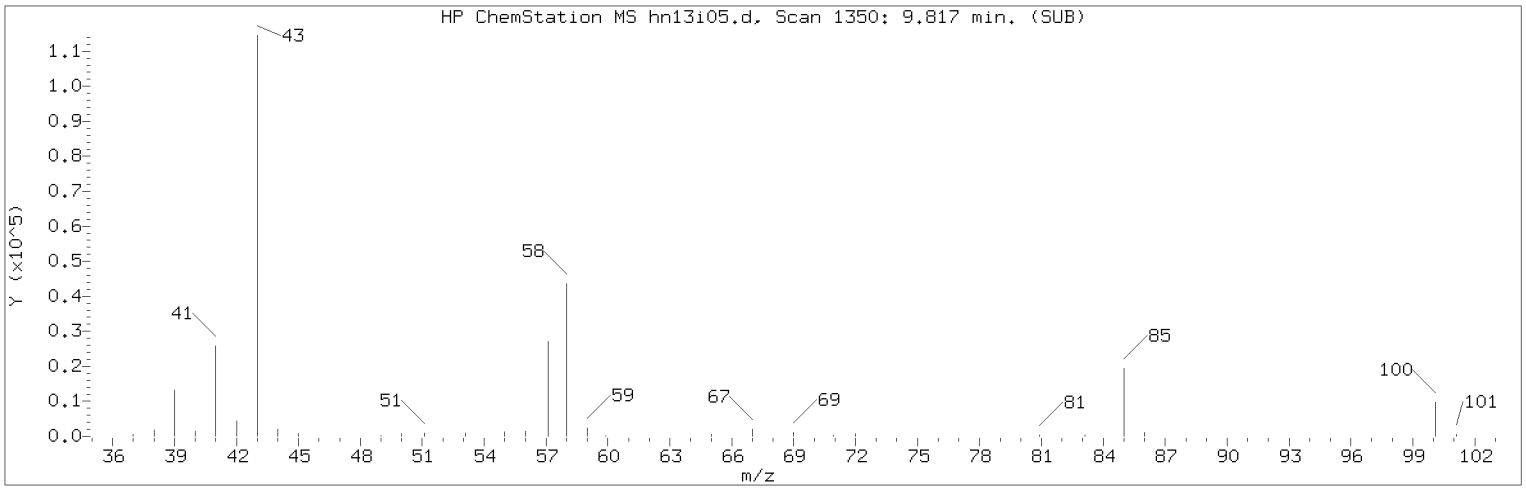
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

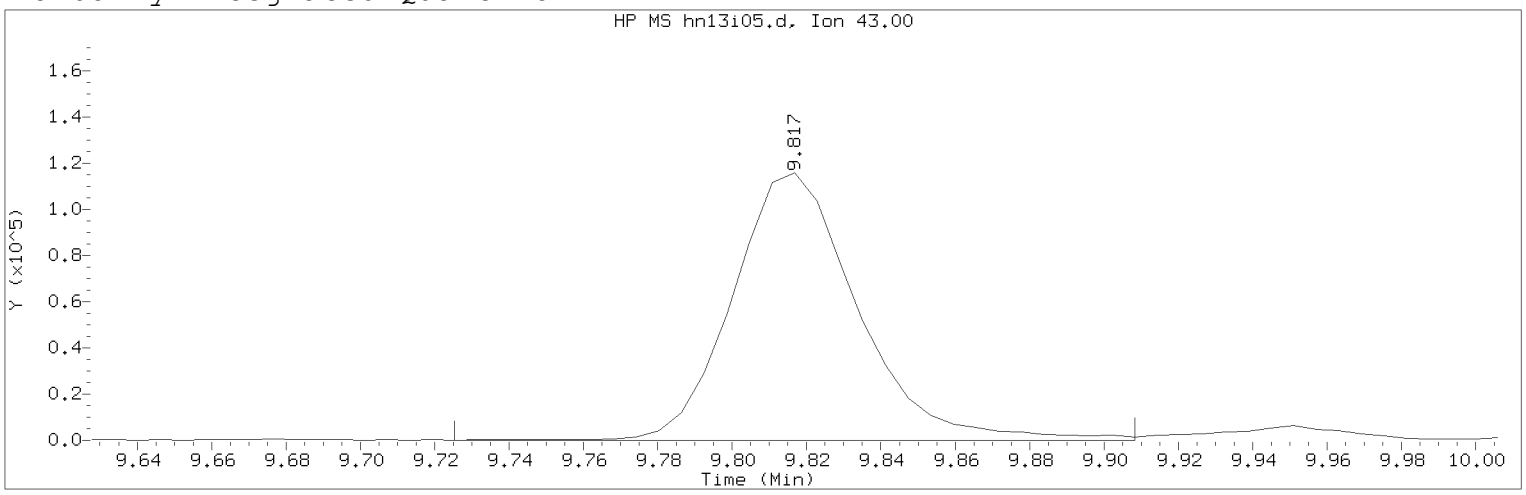
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1197		
Retention Time (minutes)	: 8.884		
Quant Ion	: 88.00		
Area	: 3987		
On-column Amount (ng)	: 37.6535		
Integration start scan	: 1190	Integration stop scan:	1223
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 671

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

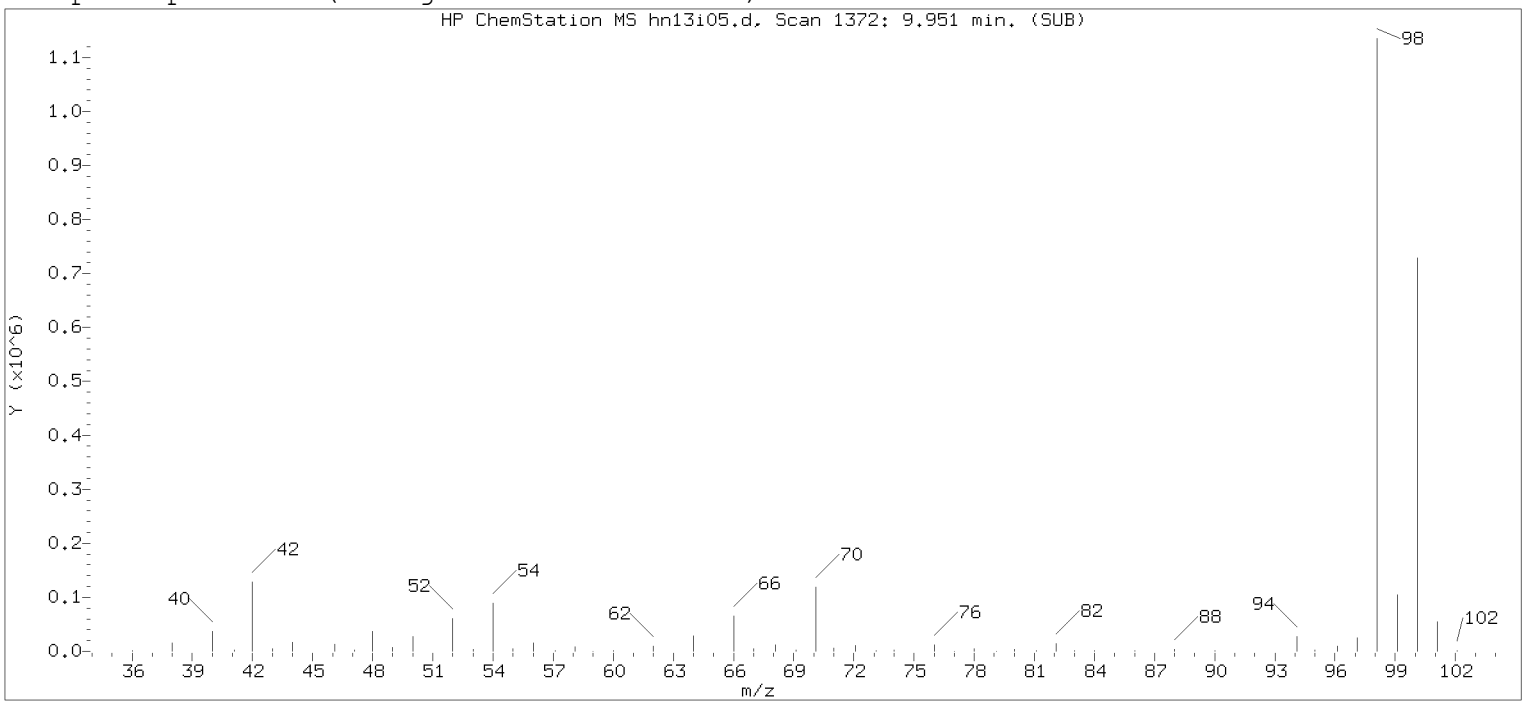
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 270985M
On-Column Amount (ng) : 10.4425
Integration start scan : 1334 Integration stop scan: 1364
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

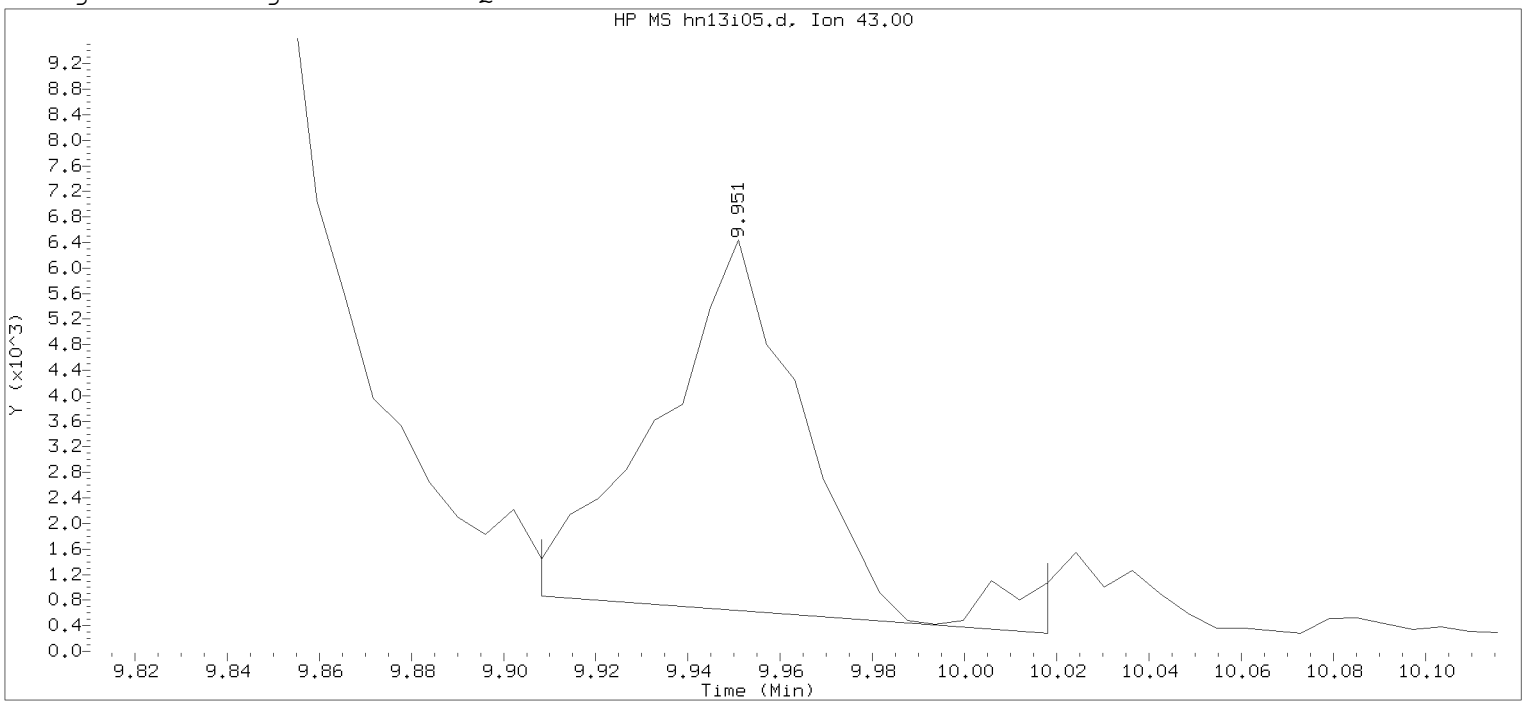
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1372
Retention Time (minutes): 9.951
Quant Ion : 43.00
Area : 12974
On-column Amount (ng) : 0.8960
Integration start scan : 1364 Integration stop scan: 1382
Y at integration start : 864 Y at integration end: 280

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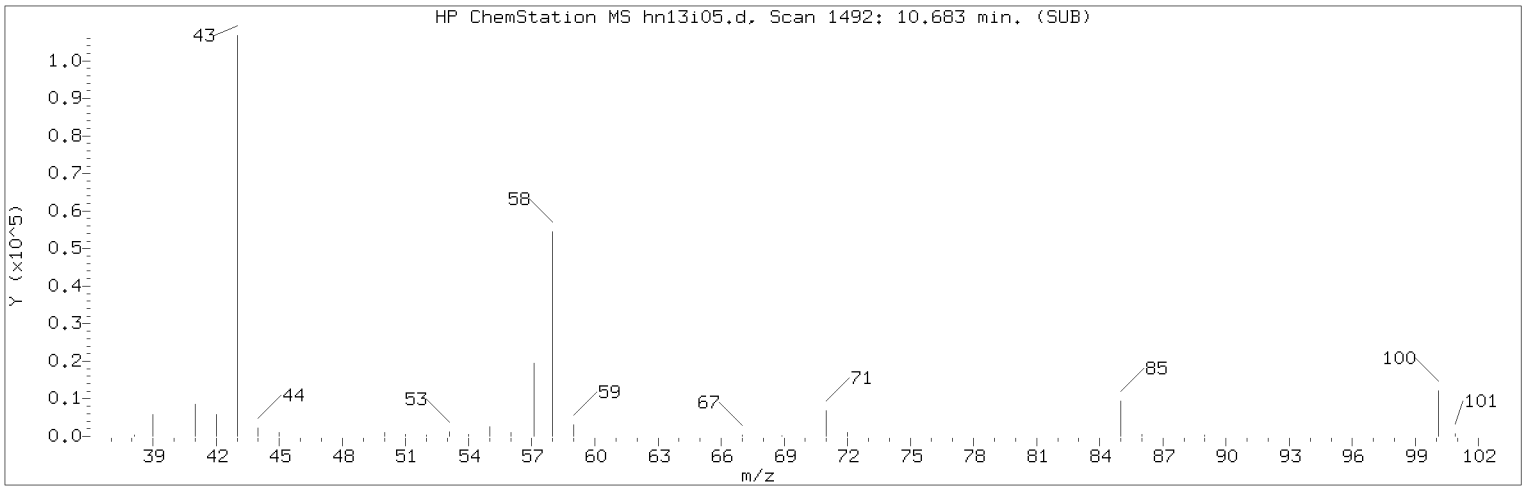
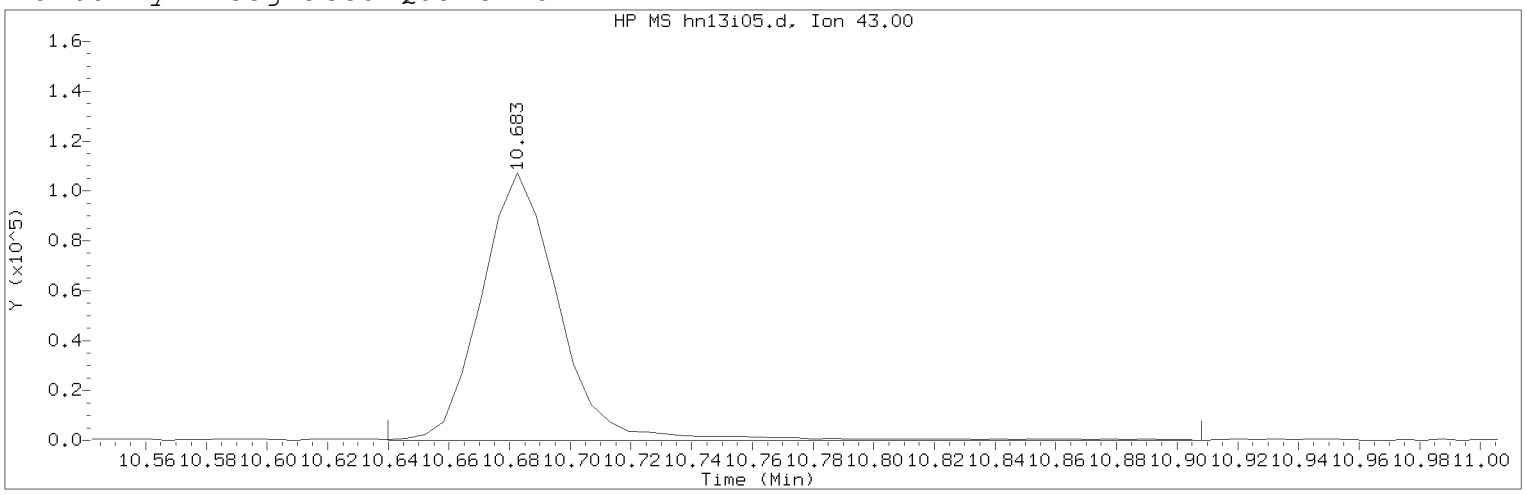
Target 3.5 esignature used. AE35 Page 673

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

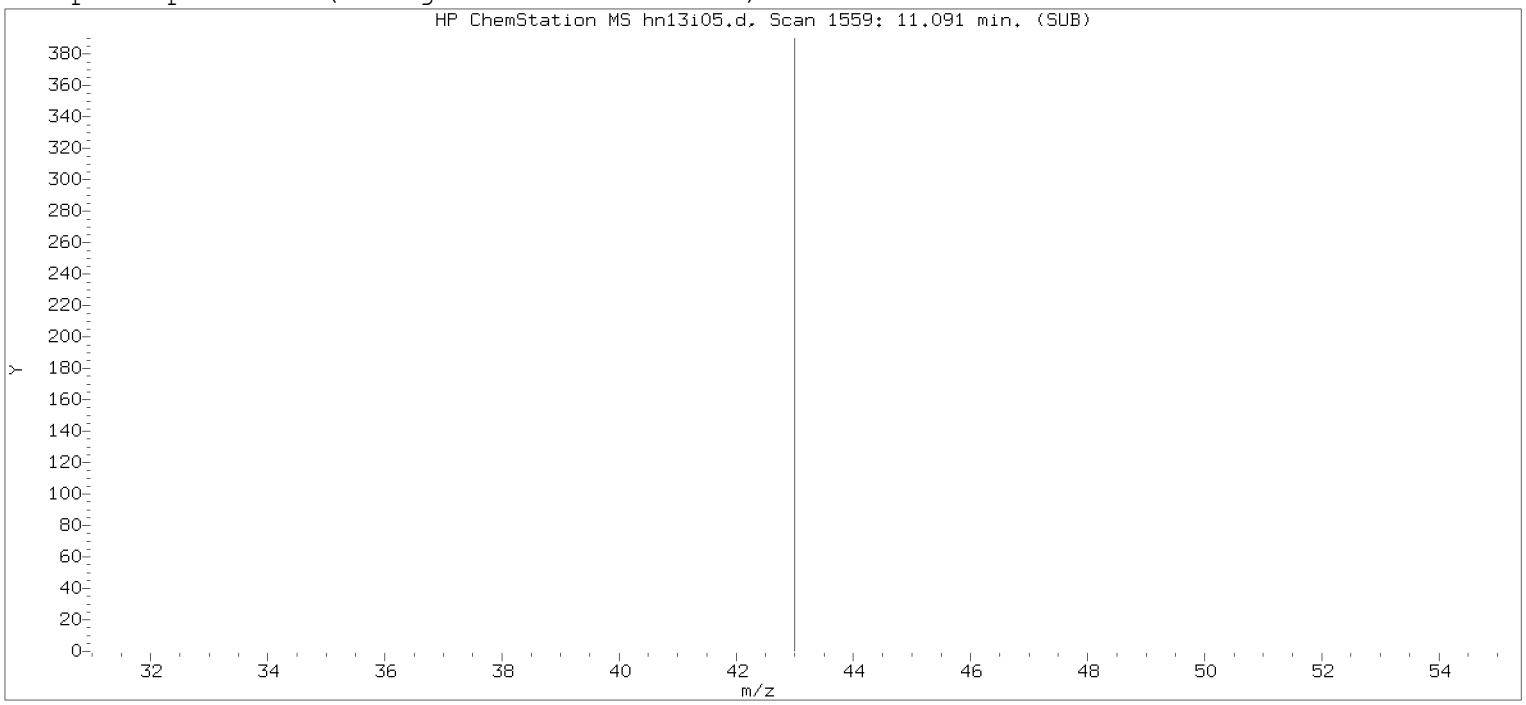
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.683
Quant Ion : 43.00
Area (flag) : 191461M
On-Column Amount (ng) : 10.6163
Integration start scan : 1484 Integration stop scan: 1528
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

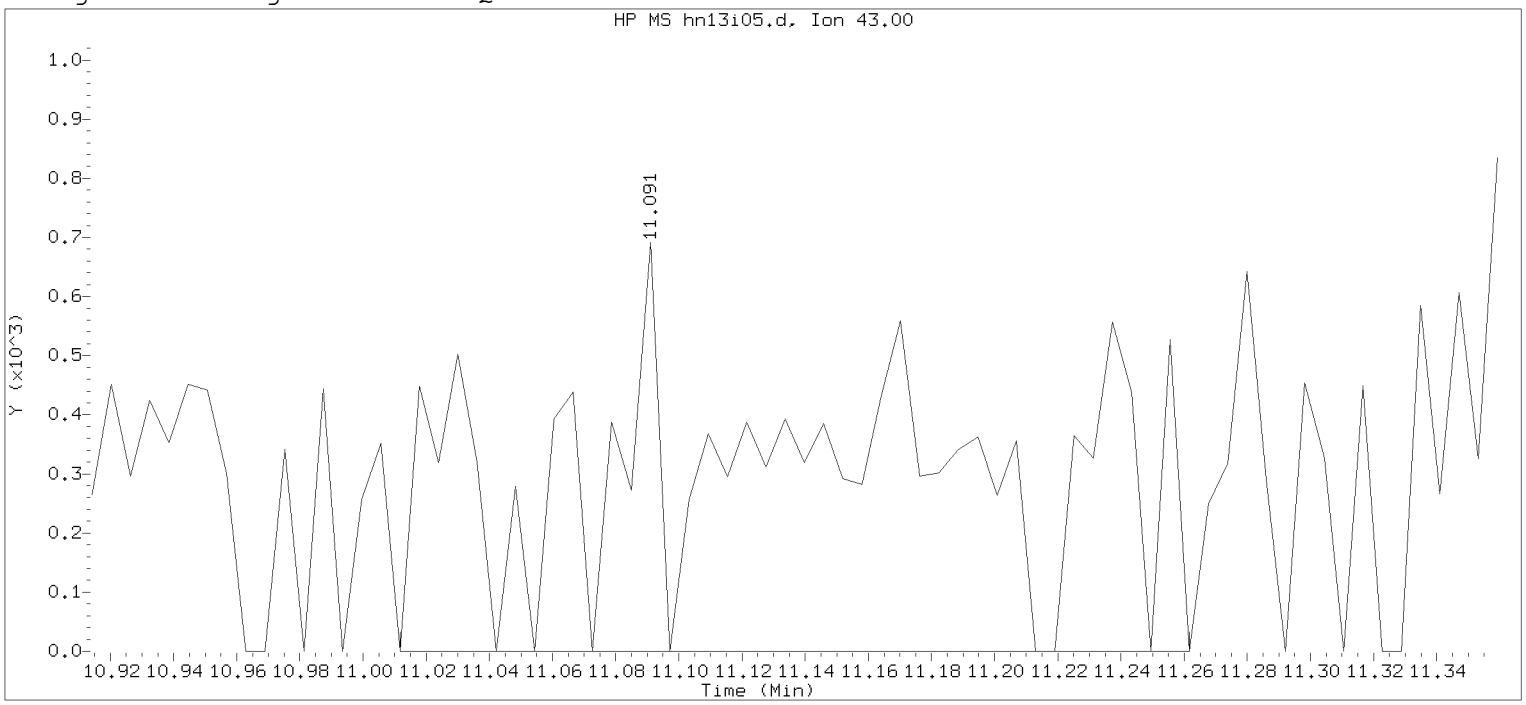
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

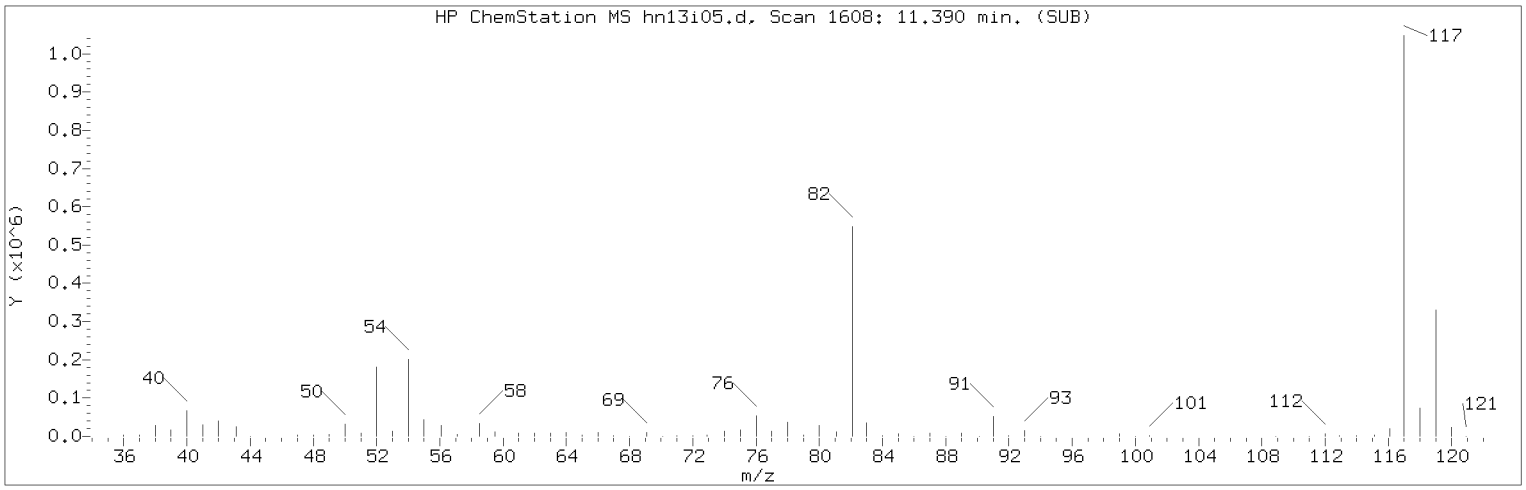
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

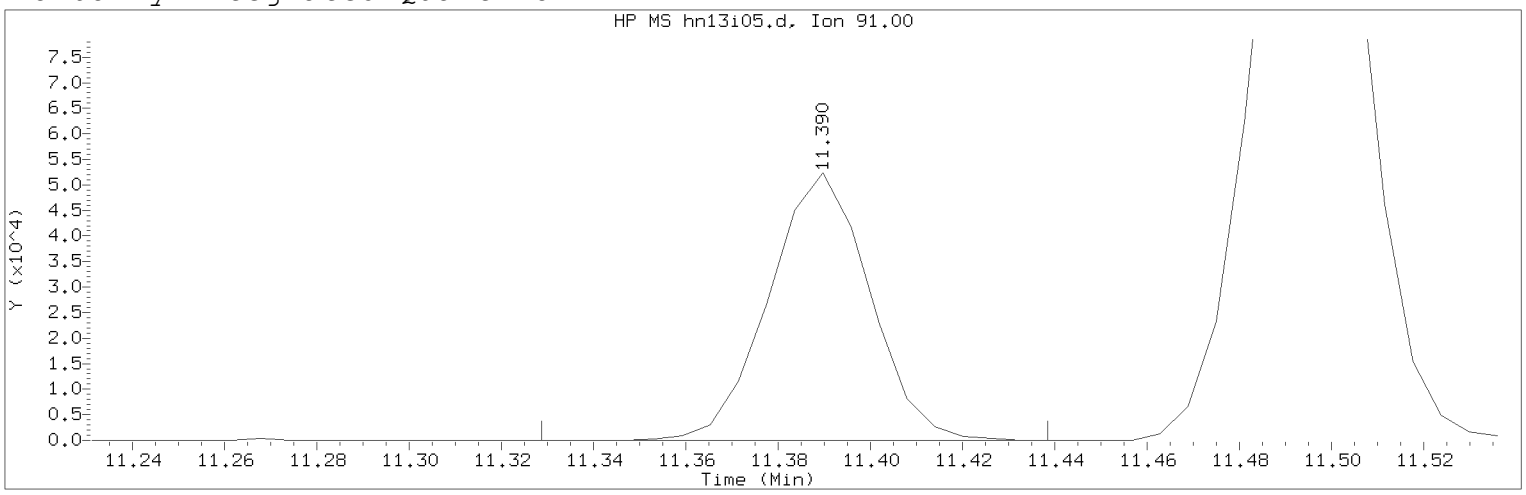
Compound Number	: 91		
Compound Name	: 2-Hexanone		
Scan Number	: 1559		
Retention Time (minutes)	: 11.091		
Quant Ion	: 43.00		
Area	: 4558		
On-column Amount (ng)	: 0.4713		
Integration start scan	: 1545	Integration stop scan:	1586
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

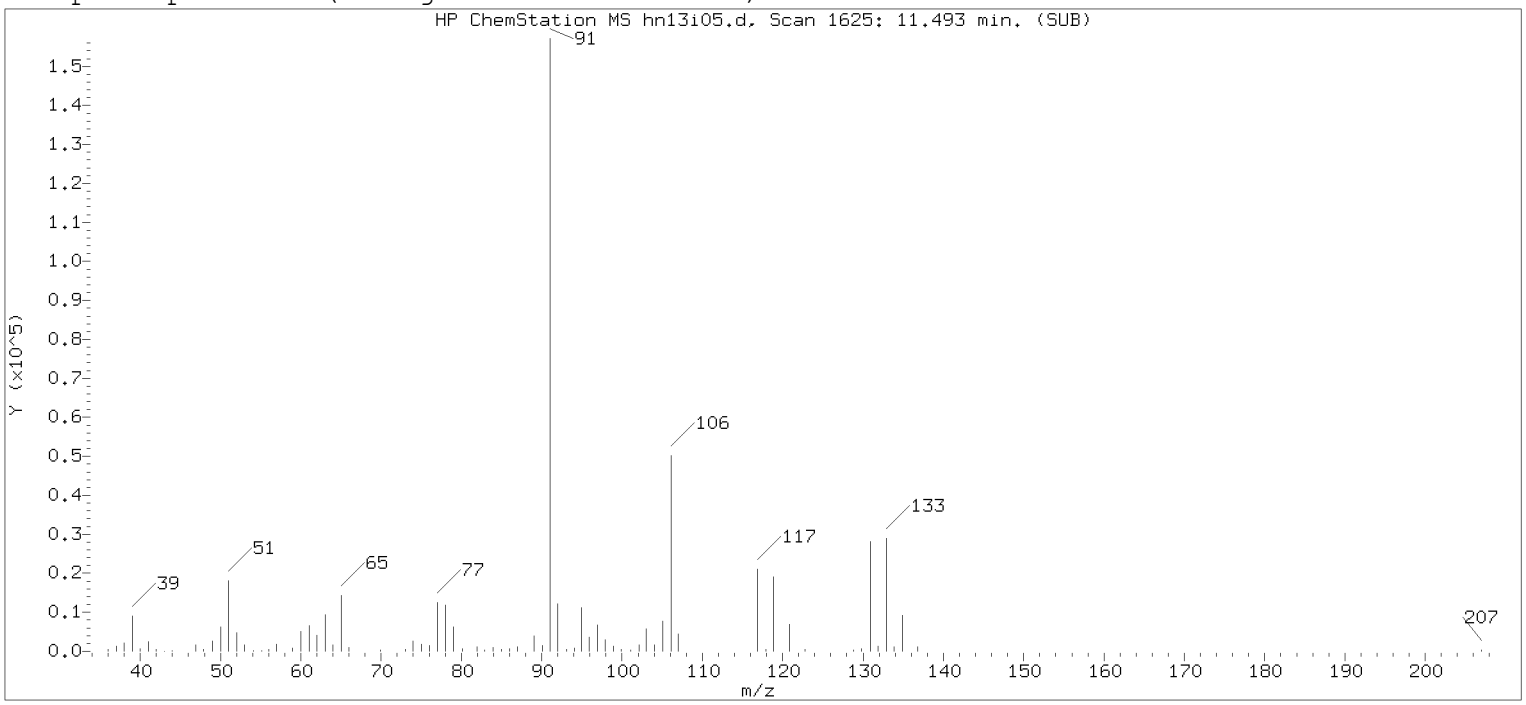
Compound Number : 96
Compound Name : 1-Chlorohexane
Scan Number : 1608
Retention Time (minutes): 11.390
Quant Ion : 91.00
Area (flag) : 79113MA
On-Column Amount (ng) : 1.0271
Integration start scan : 1597 Integration stop scan: 1615
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

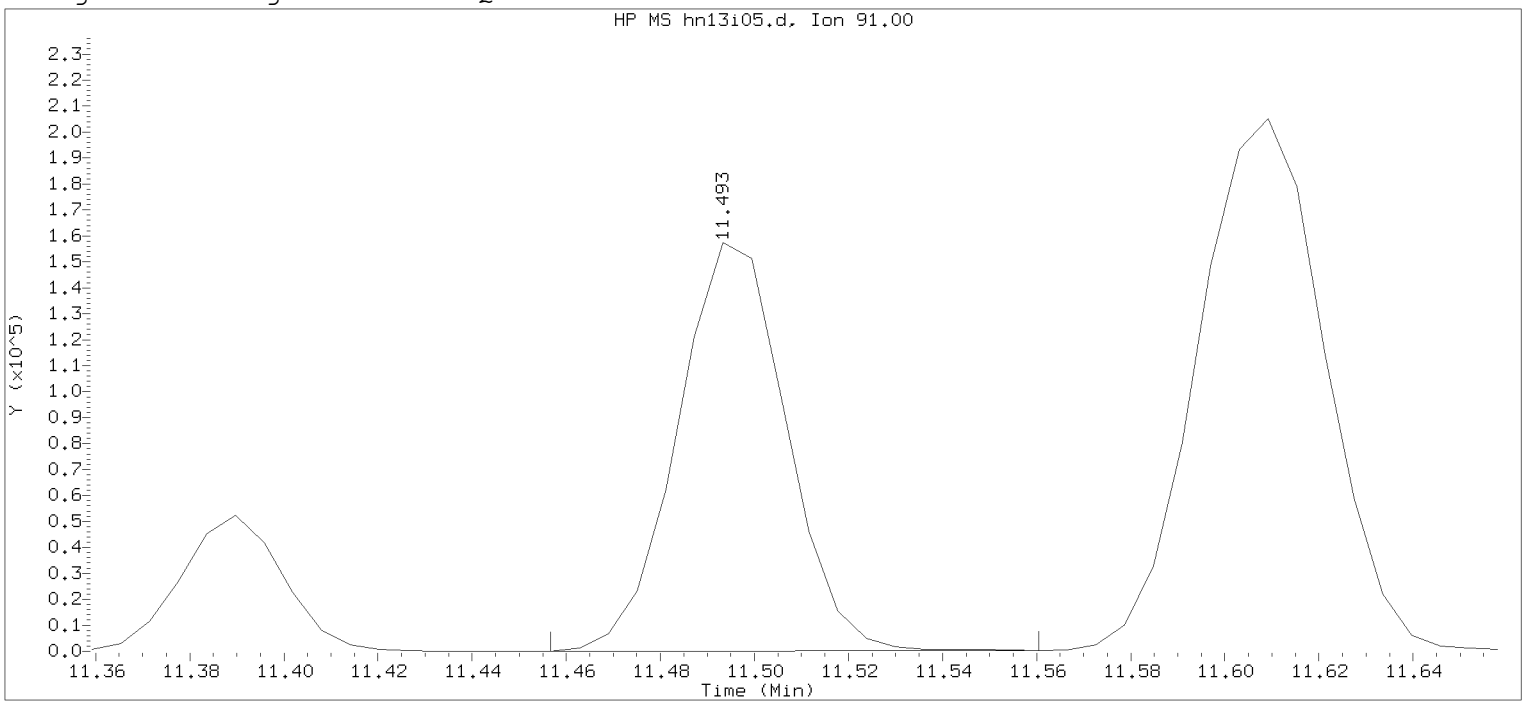
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 96		
Compound Name	: 1-Chlorohexane		
Scan Number	: 1625		
Retention Time (minutes)	: 11.493		
Quant Ion	: 91.00		
Area	: 253008		
On-column Amount (ng)	: 2.3077		
Integration start scan	: 1618	Integration stop scan:	1635
Y at integration start	: 0	Y at integration end:	179

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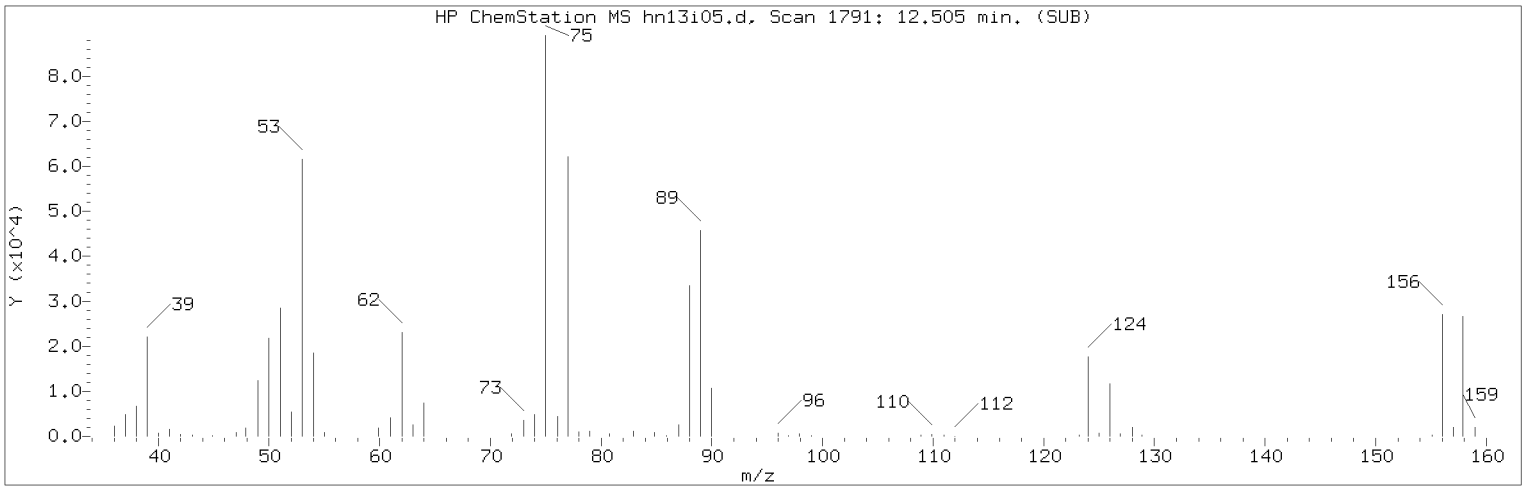
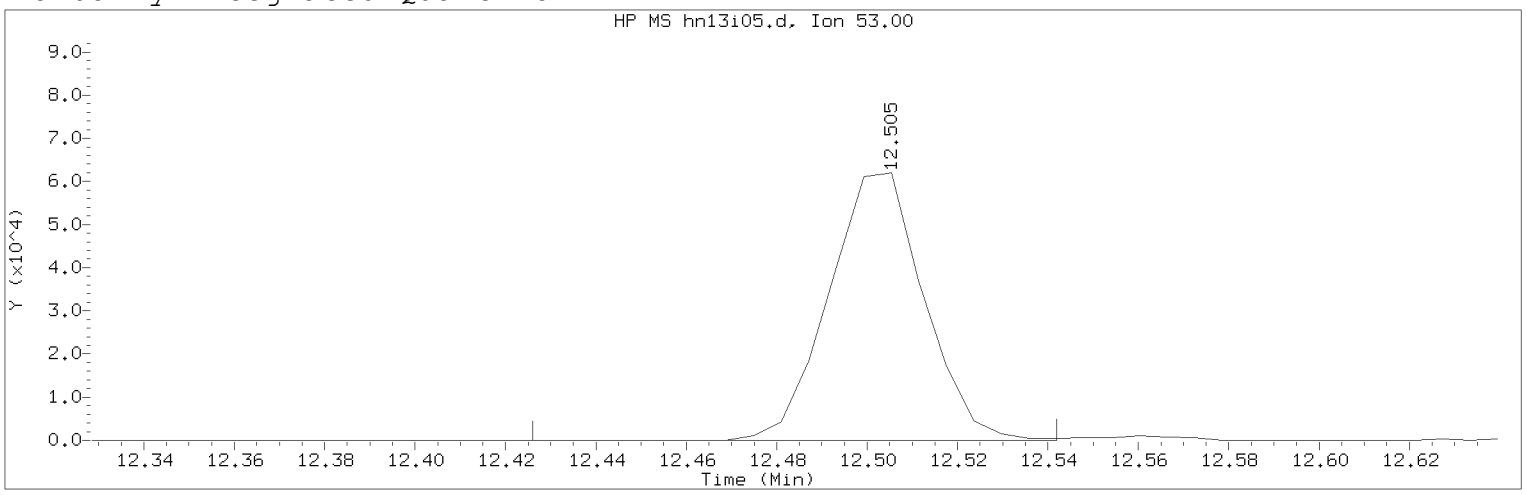
Target 3.5 esignature used. AE35 Page 677

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

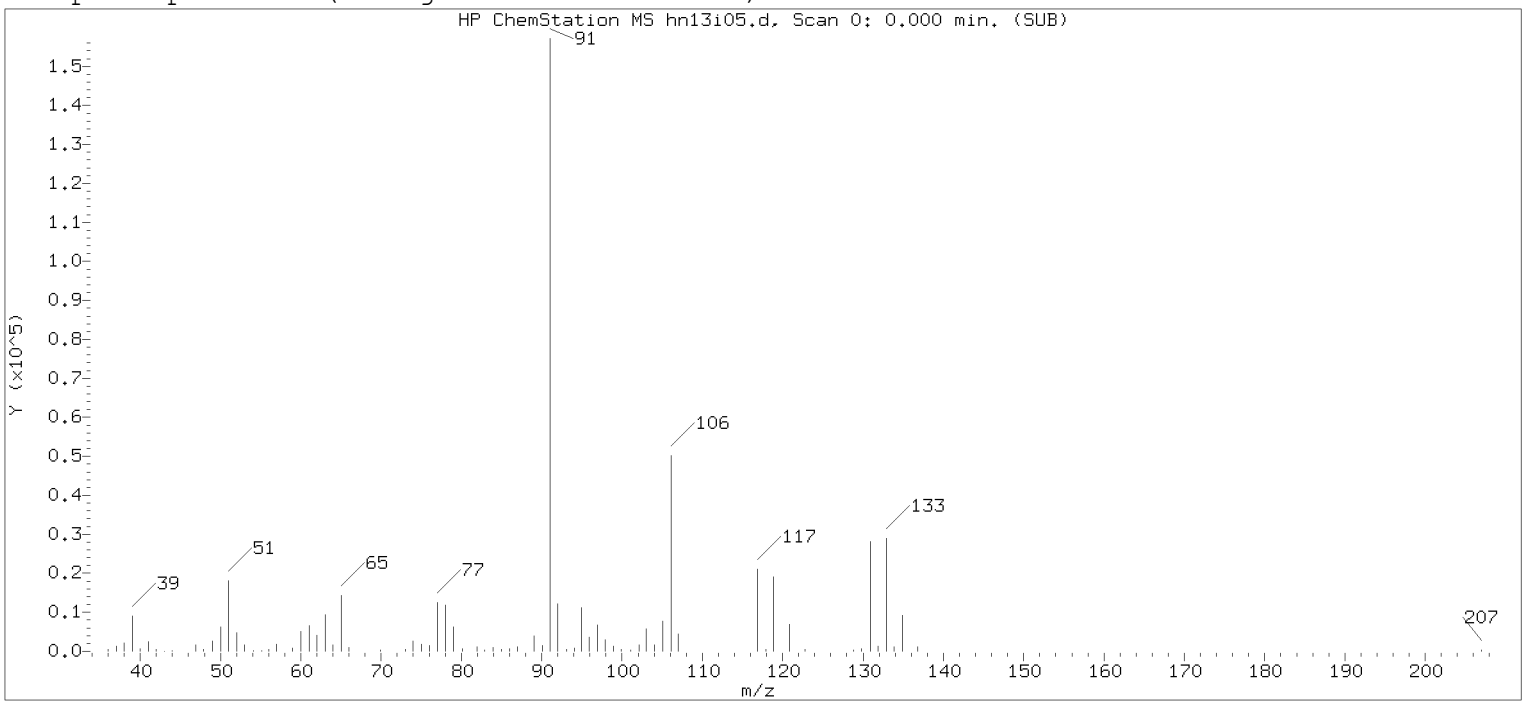
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1791
Retention Time (minutes): 12.505
Quant Ion : 53.00
Area (flag) : 90485M
On-Column Amount (ng) : 10.1174
Integration start scan : 1777 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

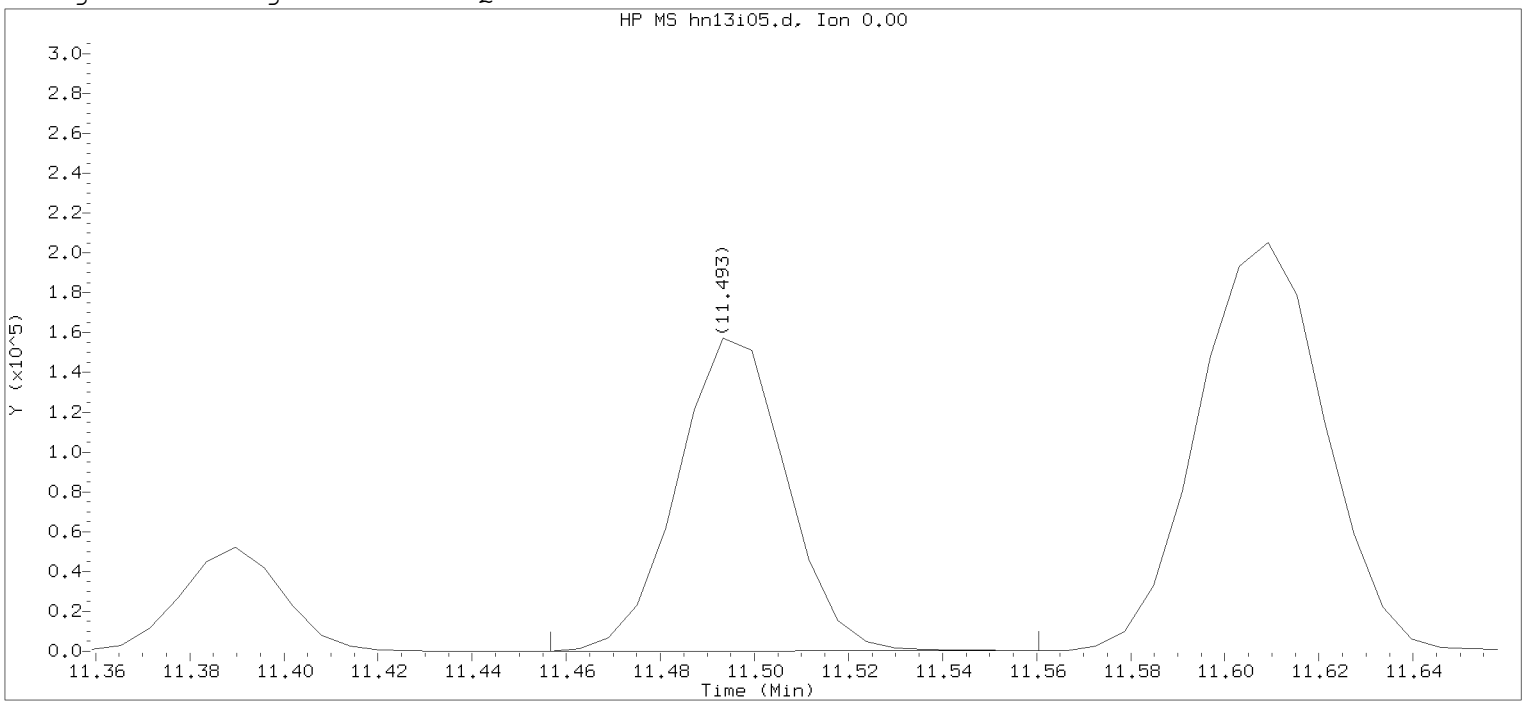
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

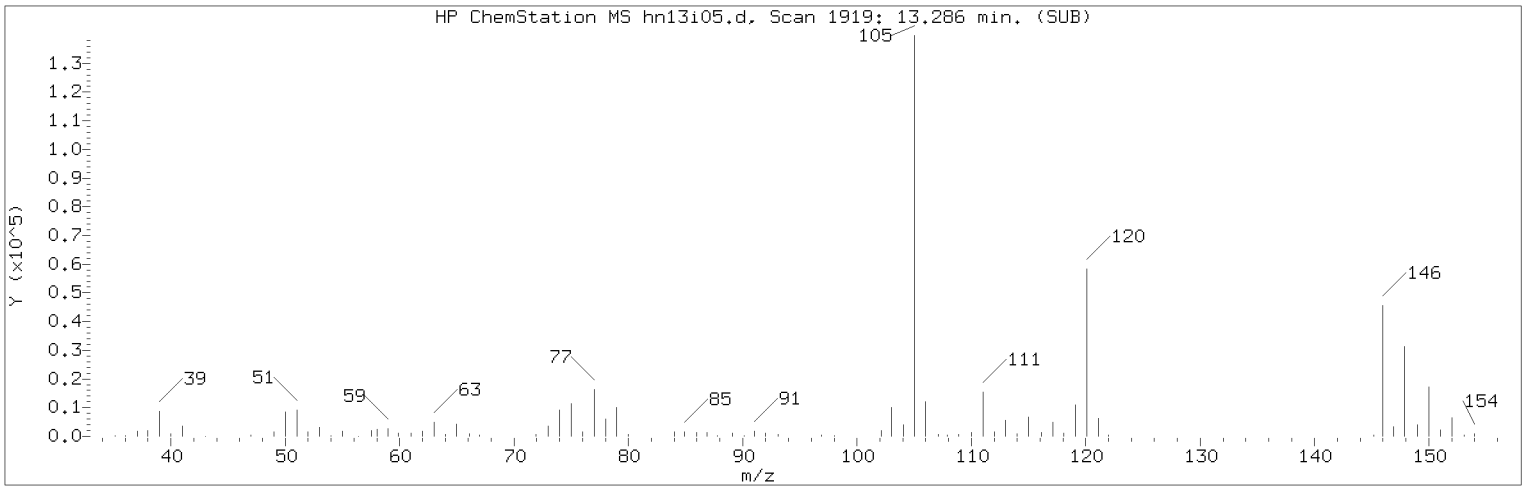
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

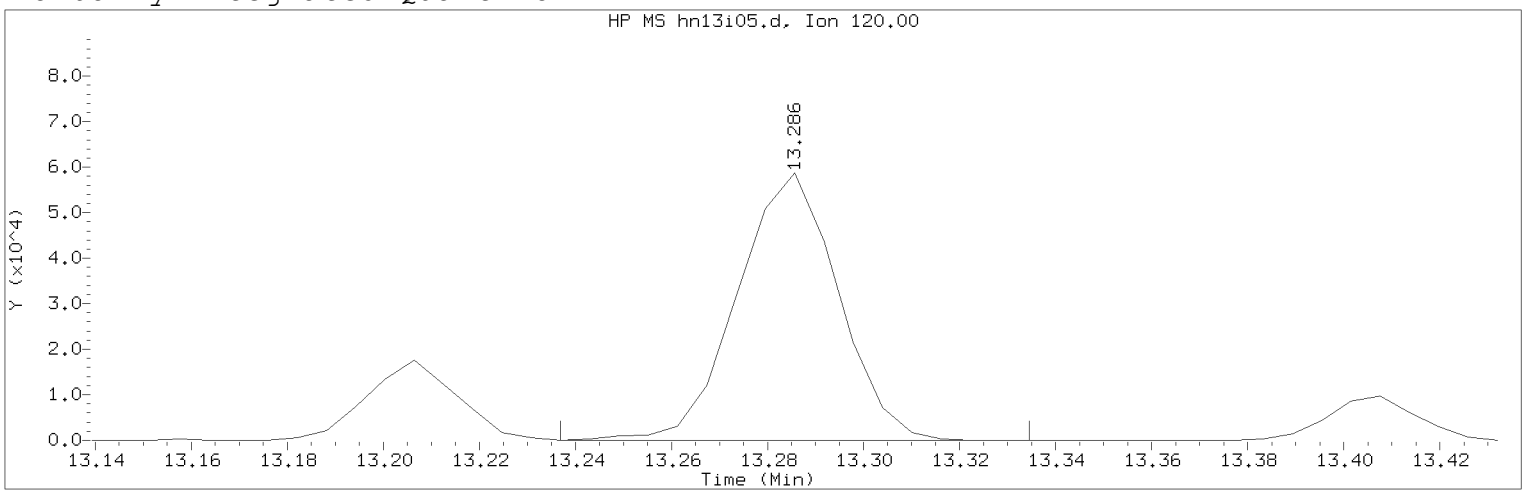
Compound Number : 0
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 0 Integration stop scan: 0
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used. AE35 Page 679 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

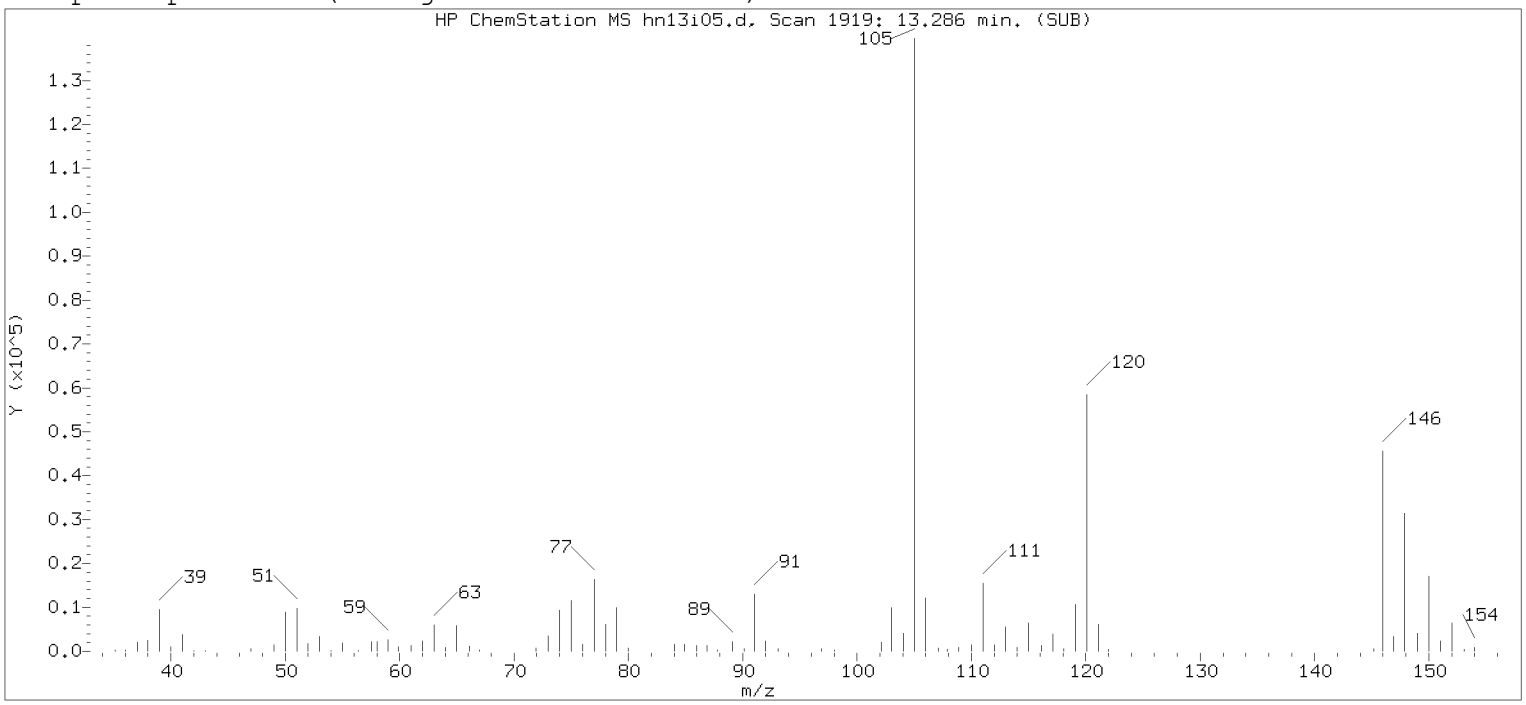
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1919
Retention Time (minutes): 13.286
Quant Ion : 120.00
Area (flag) : 85415M
On-Column Amount (ng) : 0.9805
Integration start scan : 1910 Integration stop scan: 1926
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

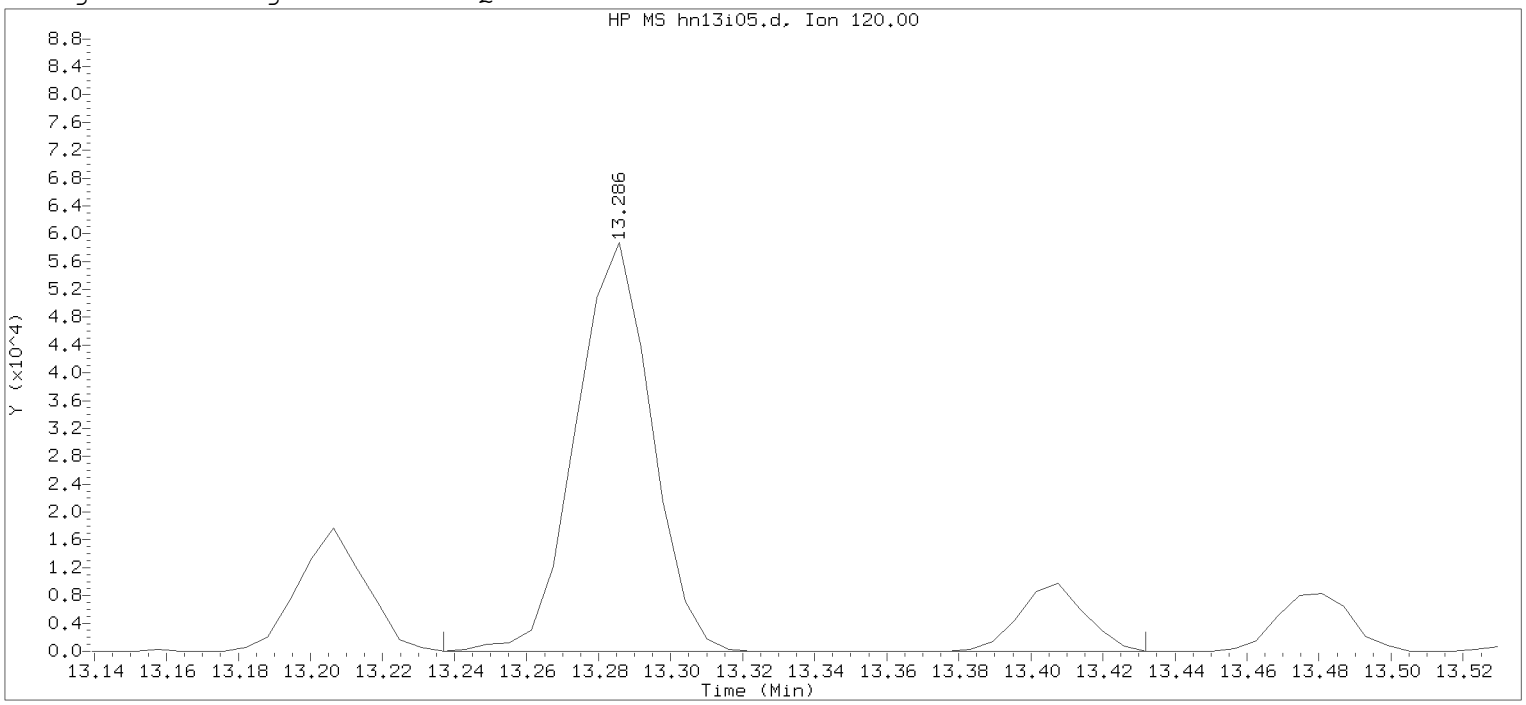
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

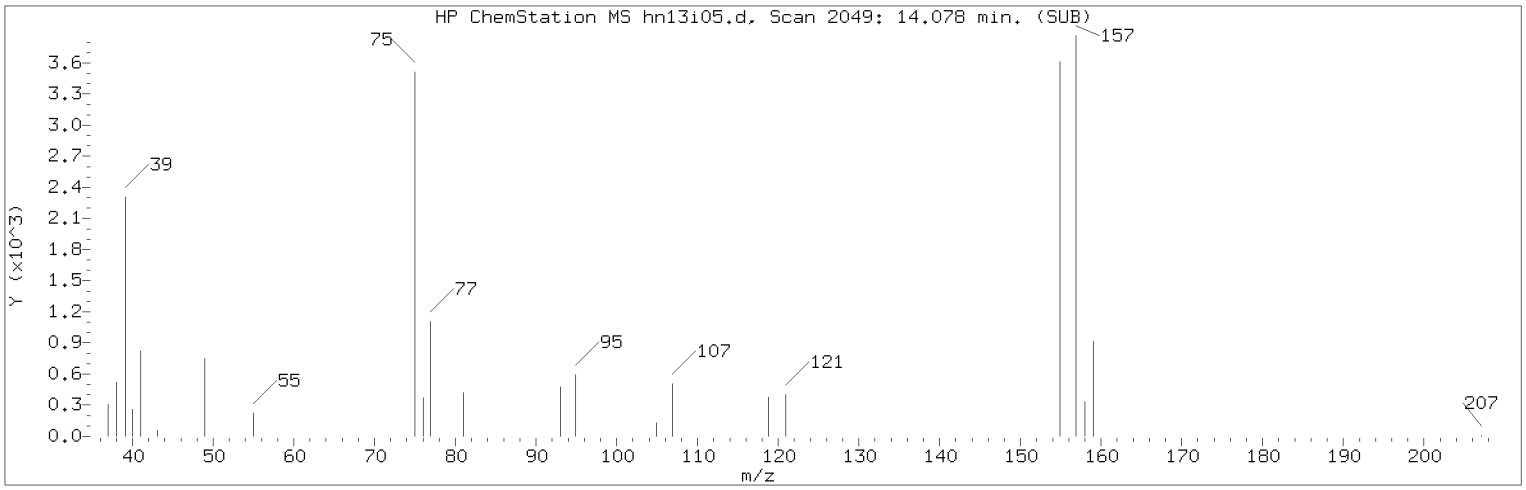
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

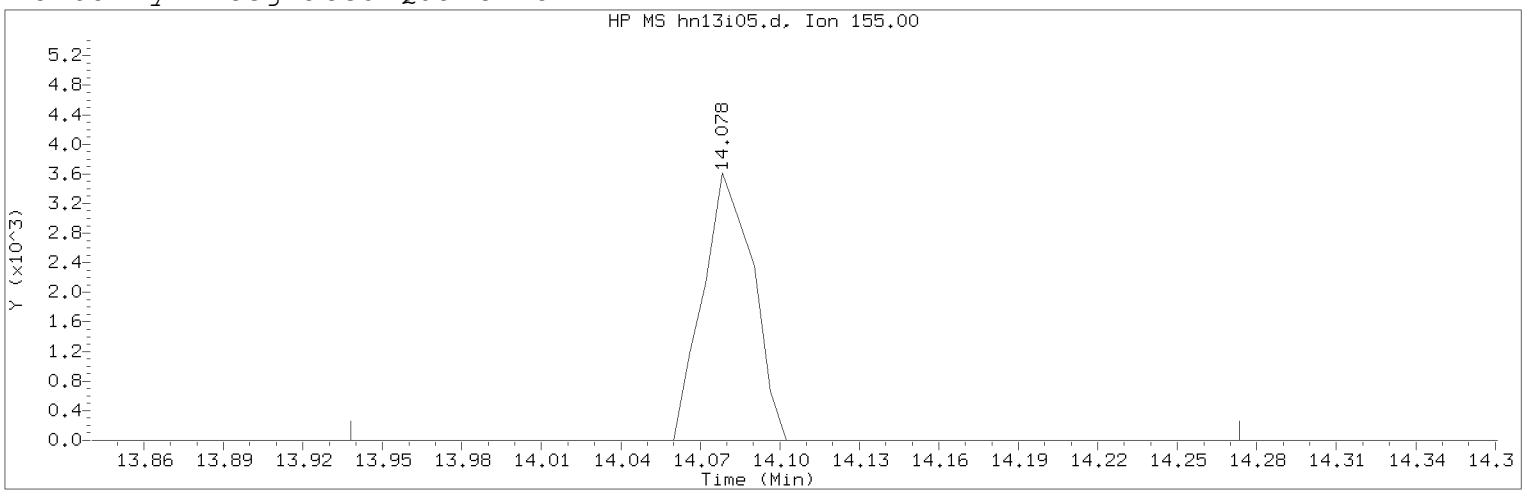
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1919
Retention Time (minutes): 13.286
Quant Ion : 120.00
Area : 97933
On-column Amount (ng) : 1.0969
Integration start scan : 1910 Integration stop scan: 1942
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 16-Nov-2018 12:33 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

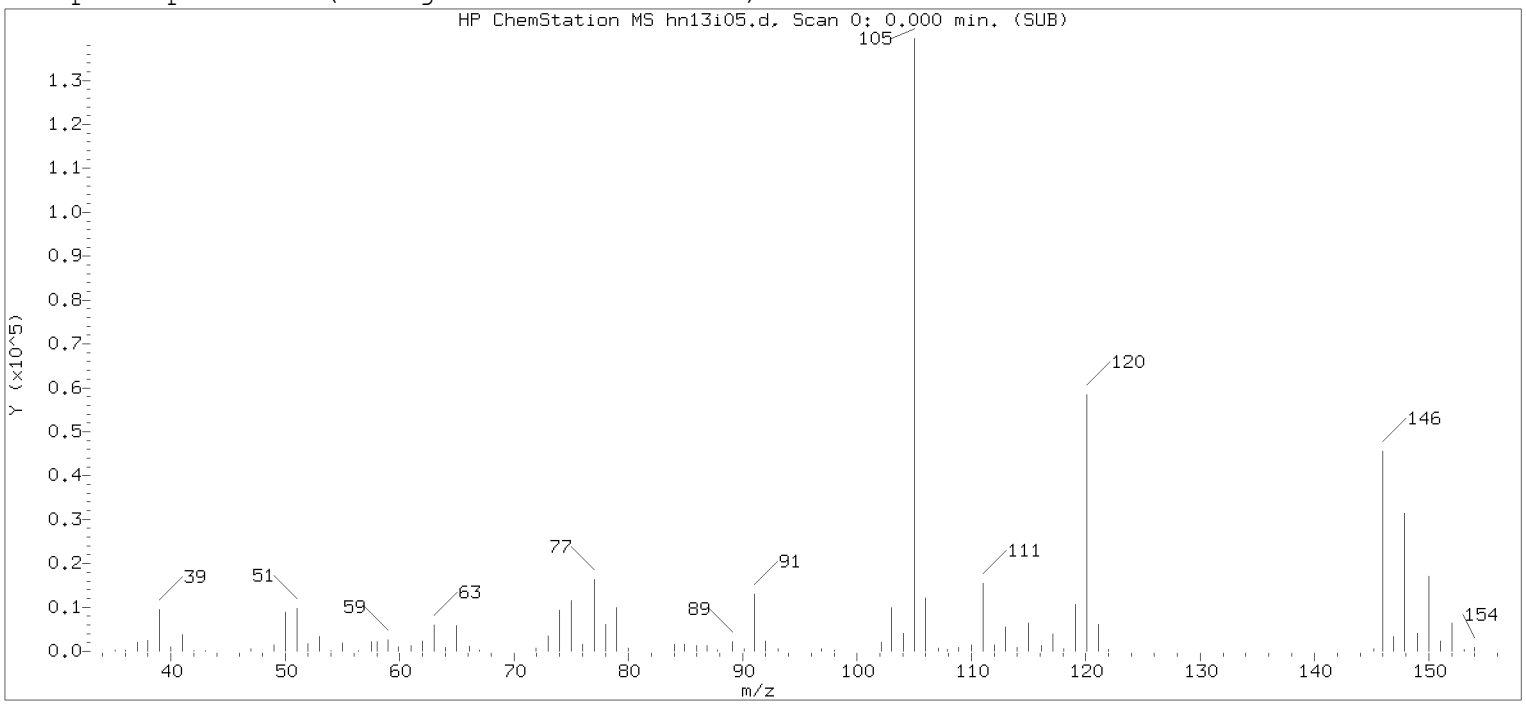
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2049
Retention Time (minutes): 14.078
Quant Ion : 155.00
Area (flag) : 4729M
On-Column Amount (ng) : 1.0242
Integration start scan : 2025 Integration stop scan: 2080
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

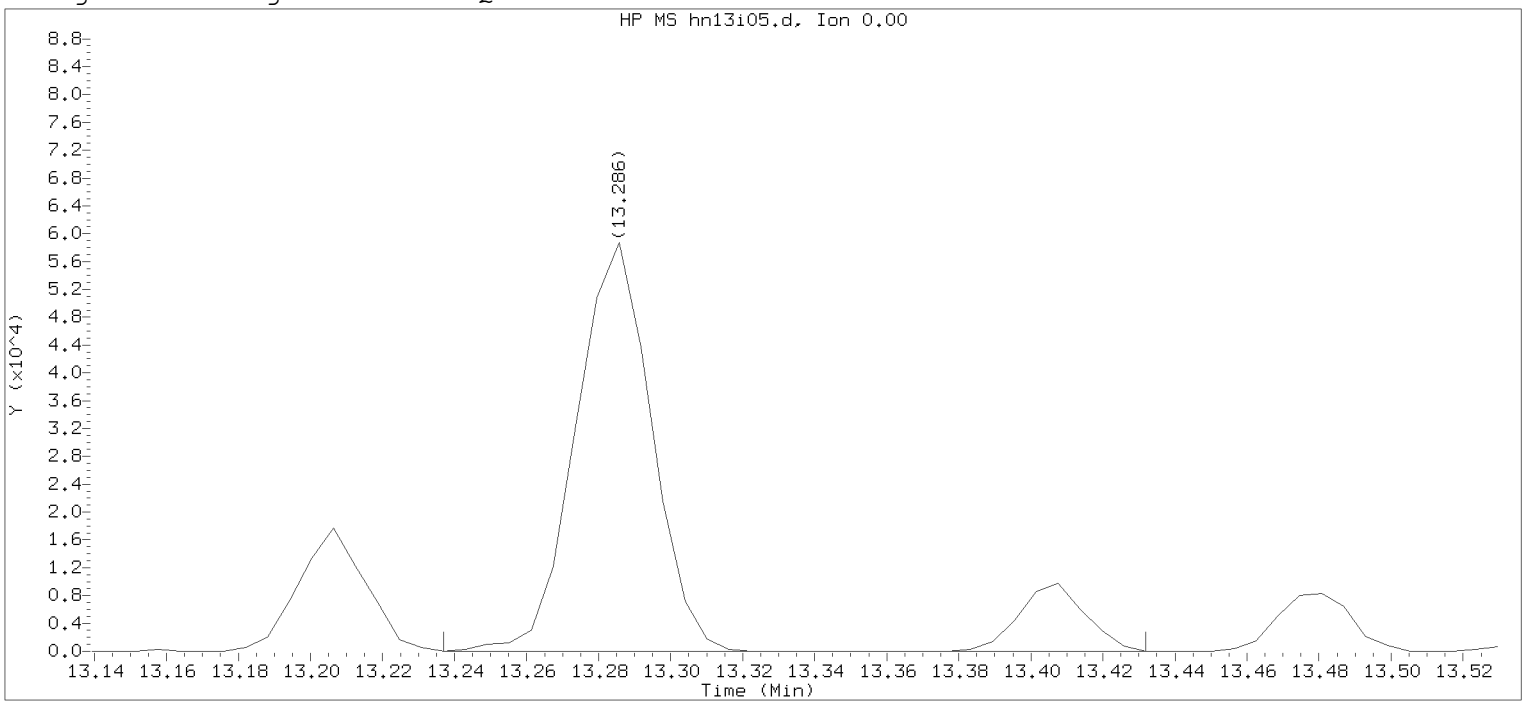
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



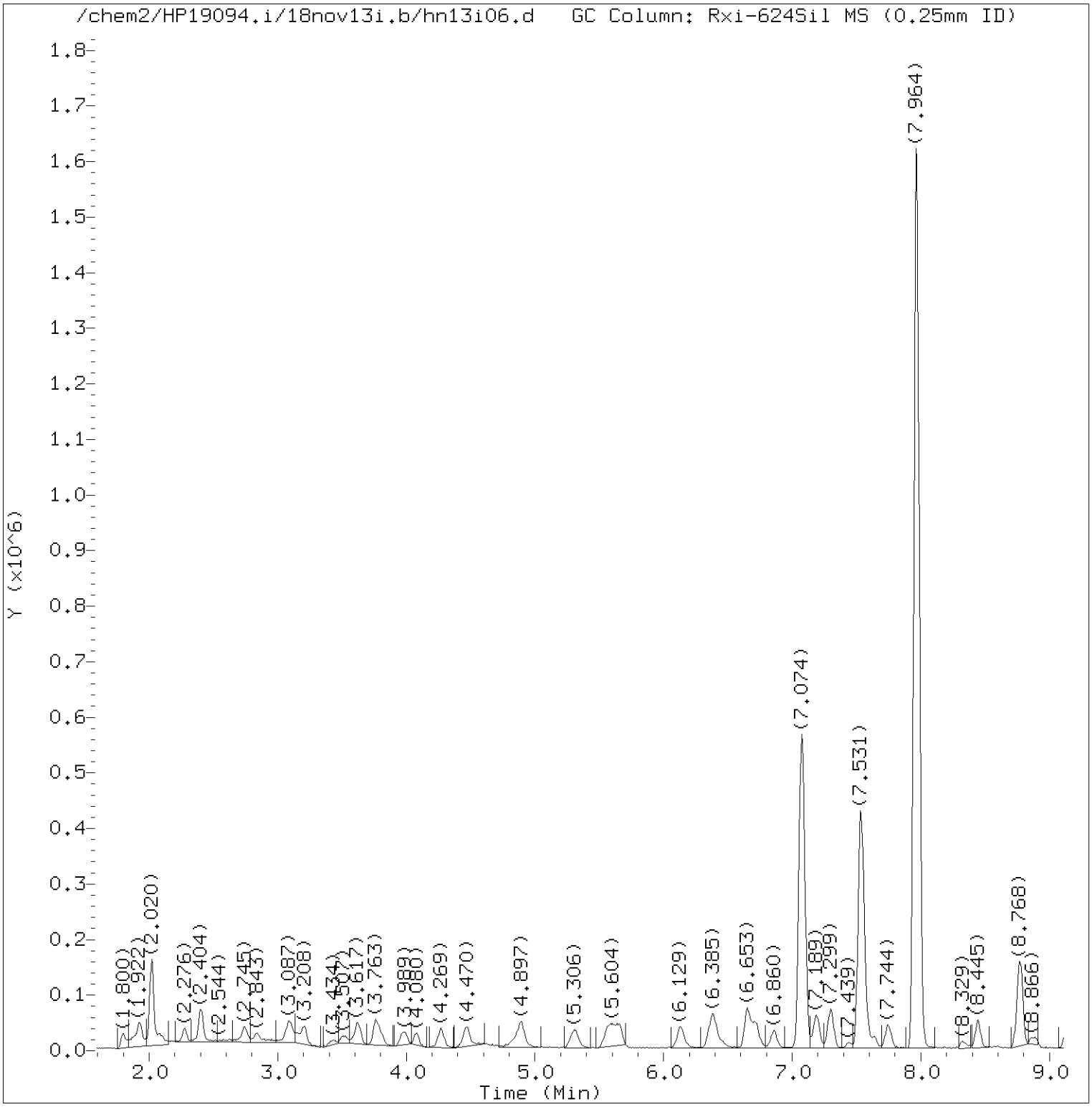
Data File: /chem2/HP19094.i/18nov13i.b/hn13i05.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:29
Date, time and analyst ID of latest file update: 13-Nov-2018 17:29 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 0
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 228880 Integration stop scan: 2215459
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:33.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

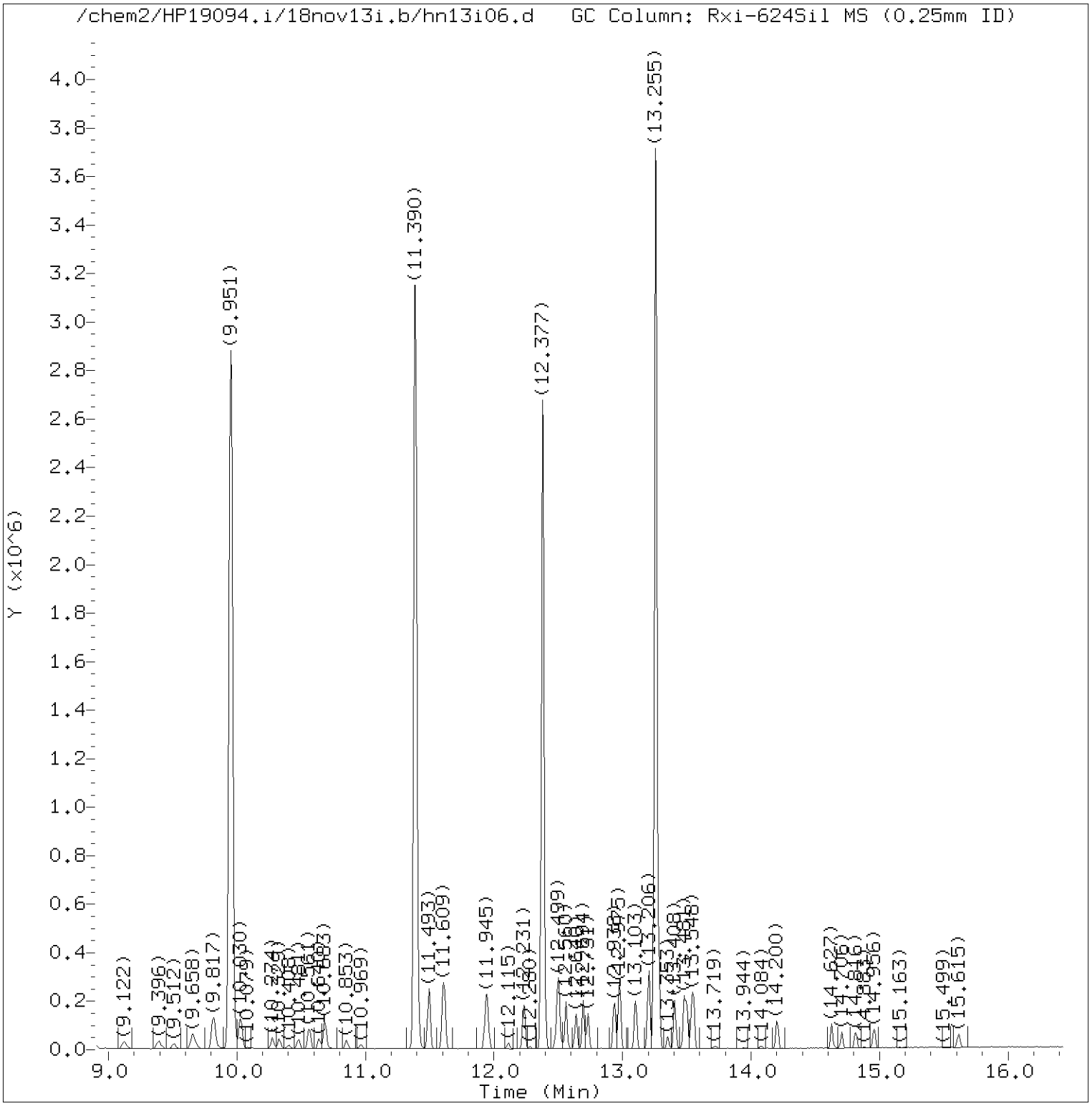
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	36603	0.492
2) Chloromethane	(2)	2.276	50	34652	0.482
6) 1,3-Butadiene	(2)	2.398	39	26581M	0.495
5) Vinyl Chloride	(2)	2.404	62	32031	0.491
7) Bromomethane	(2)	2.739	94	25555	0.516
8) Chloroethane	(2)	2.837	64	18969	0.487
9) Dichlorofluoromethane	(2)	3.087	67	49875	0.491
10) Trichlorofluoromethane	(2)	3.154	101	41813	0.476
11) Ethyl ether	(2)	3.422	59	14020	0.468
12) Freon 123a	(2)	3.519	67	30061	0.495
13) Acrolein	(1)	3.623	56	90549	26.366
15) 1,1-Dichloroethene	(2)	3.763	96	19831	0.485
16) Freon 113	(2)	3.788	101	22399	0.476
14) Acetone	(1)	3.794	43	23055M	5.393
17) Methyl Iodide	(2)	3.964	142	40270	0.485
18) Carbon Disulfide	(2)	4.080	76	60102	0.477
21) Methyl Acetate	(1)	4.239	43	8746	0.590
22) Allyl Chloride	(2)	4.269	41	44937	0.514
23) Methylene Chloride	(2)	4.464	84	22460	0.511
26)*t-Butyl Alcohol-d10	(1)	4.476	65	86230M	50.000
28) t-Butyl Alcohol	(1)	4.604	59	10827	9.514
29) Acrylonitrile	(1)	4.812	53	16980	2.791
30) Methyl Tertiary Butyl Ether	(2)	4.879	73	44283	0.485
31) trans-1,2-Dichloroethene	(2)	4.903	96	22713	0.495
32) n-Hexane	(2)	5.306	57	37935	0.483
33) 1,1-Dichloroethane	(2)	5.562	63	43239	0.483
34) di-Isopropyl Ether	(2)	5.592	45	80867	0.486
35) 2-Chloro-1,3-Butadiene	(2)	5.665	53	40985	0.495
40) 1,2-Dichloroethene (Total)	(2)		96	47472	0.981
37) Ethyl t-butyl ether	(2)	6.135	59	65072	0.479
38) 2-Butanone	(1)	6.348	43	49388M	5.650
39) cis-1,2-Dichloroethene	(2)	6.379	96	24759	0.485
41) 2,2-Dichloropropane	(2)	6.409	77	34863	0.478
42) Propionitrile	(1)	6.452	54	22873M	10.240
45) Methacrylonitrile	(1)	6.653	67	44260	5.411
47) Bromochloromethane	(2)	6.720	128	10027	0.500
48) Tetrahydrofuran	(1)	6.726	71	11581	5.542
49) Chloroform	(2)	6.860	83	39165	0.478

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.074	113	552670	9.963
50)$Dibromofluoromethane	(2)	7.074	111	568694	9.988
51) 1,1,1-Trichloroethane	(2)	7.098	97	36572	0.493
52) Cyclohexane	(2)	7.189	56	49735M	0.509
52) Cyclohexane	(2)	7.195	84	38190	0.484
52) Cyclohexane	(2)	7.189	69	15183	0.509
54) Carbon Tetrachloride	(2)	7.299	117	32148	0.482
55) 1,1-Dichloropropene	(2)	7.299	75	32337	0.483
56) Isobutyl Alcohol	(1)	7.439	41	17310	29.266
57)$1,2-Dichloroethane-d4	(2)	7.537	102	95360M	9.808
57)$1,2-Dichloroethane-d4	(2)	7.531	65	449679	9.961
57)$1,2-Dichloroethane-d4	(2)	7.531	104	60655	9.851
58) Benzene	(2)	7.561	78	93591	0.482
59) 1,2-Dichloroethane	(2)	7.641	62	21487	0.498
60) t-Amyl methyl ether	(2)	7.744	73	54165	0.484
62) n-Heptane	(2)	7.964	43	41828M	0.490
63)*Fluorobenzene	(2)	7.964	96	2218902	10.000
65) n-Butanol	(1)	8.329	56	21454M	49.058
67) Trichloroethene	(2)	8.451	95	23858	0.476
69) Methylcyclohexane	(2)	8.756	83	45248	0.468
70) 1,2-Dichloropropane	(2)	8.787	63	23648	0.482
71) Methyl Methacrylate	(1)	8.854	69	9523M	0.555
73) Dibromomethane	(2)	8.890	93	8995	0.482
72) 1,4-Dioxane	(1)	8.896	88	553	6.676
74) Bromodichloromethane	(2)	9.128	83	26493	0.476
76) 2-Nitropropane	(1)	9.396	41	29203	5.824
80) cis-1,3-Dichloropropene	(2)	9.652	75	31796	0.462
81) 4-Methyl-2-Pentanone	(1)	9.817	43	118819M	5.491
82)$Toluene-d8	(3)	9.951	98	2299545	10.061
82)$Toluene-d8	(3)	9.951	100	1486417	10.004
83) Toluene	(3)	10.030	92	59827	0.493
85) 1,3-Dichloropropene (total)	(3)		75	56869	0.933
84) trans-1,3-Dichloropropene	(3)	10.274	75	25073	0.471
86) Ethyl Methacrylate	(3)	10.329	69	20902M	0.477
88) 1,1,2-Trichloroethane	(3)	10.481	97	12963M	0.480
89) Tetrachloroethene	(3)	10.567	166	26941	0.477
90) 1,3-Dichloropropane	(3)	10.640	76	23918	0.488
91) 2-Hexanone	(1)	10.683	43	85741M	5.701

M = Compound was manually integrated.
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on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	17507	0.476
95) 1,2-Dibromoethane	(3)	10.963	107	12426	0.480
96) 1-Chlorohexane	(3)	11.390	91	38299	0.501
97)*Chlorobenzene-d5	(3)	11.390	117	1769758	10.000
98) Chlorobenzene	(3)	11.414	112	63147	0.487
100) Ethylbenzene	(3)	11.493	91	115152	0.478
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	21291	0.464
101) m+p-Xylene	(3)	11.609	106	86169	0.948
105) Xylene (Total)	(3)		106	127058	1.410
104) o-Xylene	(3)	11.932	106	40889	0.462
106) Styrene	(3)	11.951	104	68697	0.485
107) Bromoform	(3)	12.115	173	9856	0.472
108) Isopropylbenzene	(3)	12.231	105	115951	0.477
111)$4-Bromofluorobenzene	(3)	12.377	95	853981	9.981
111)$4-Bromofluorobenzene	(3)	12.383	174	731939	9.990
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	15357M	0.474
114) Bromobenzene	(4)	12.499	156	24199	0.468
115) trans-1,4-Dichloro-2-butene	(1)	12.505	53	40063M	5.372
116) 1,2,3-Trichloropropane	(4)	12.524	110	4029	0.479
117) n-Propylbenzene	(4)	12.560	91	134309	0.475
119) 2-Chlorotoluene	(4)	12.640	126	25998	0.468
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	95147	0.479
122) 4-Chlorotoluene	(4)	12.731	126	26774	0.485
125) tert-Butylbenzene	(4)	12.938	134	20433M	0.475
126) Pentachloroethane	(4)	12.975	167	15697	0.460
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	95538	0.476
128) sec-Butylbenzene	(4)	13.103	105	122065M	0.477
131) 1,3-Dichlorobenzene	(4)	13.200	146	49839	0.481
132) p-Isopropyltoluene	(4)	13.206	119	103385	0.474
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	936632	10.000
134) 1,4-Dichlorobenzene	(4)	13.274	146	47871	0.472
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	42106	0.493
136) Benzyl Chloride	(4)	13.353	126	6709	0.456
138) n-Butylbenzene	(4)	13.499	92	48545	0.472
139) 1,2-Dichlorobenzene	(4)	13.536	146	43459	0.487
143) 1,2-Dibromo-3-chloropropane	(1)	14.078	155	1938M	0.503
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	35589	0.466
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	28270	0.462

M = Compound was manually integrated.
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on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	11655	0.472
147) Naphthalene	(4)	14.816	128	48700	0.475
148) 1,2,3-Trichlorobenzene	(4)	14.962	180	23779	0.467

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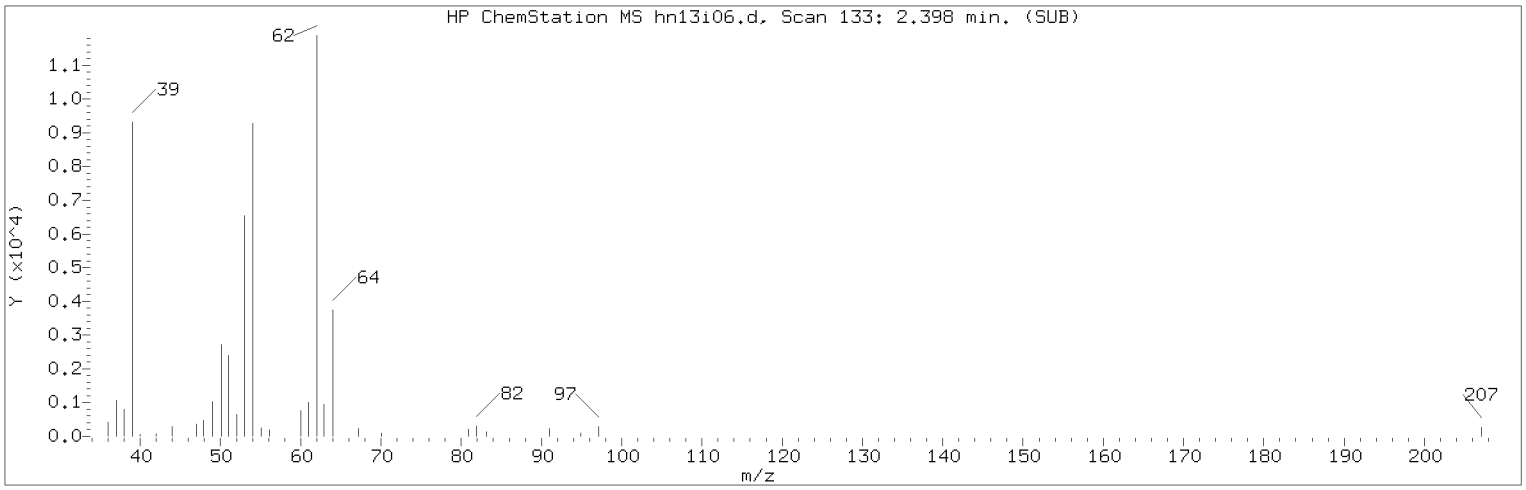
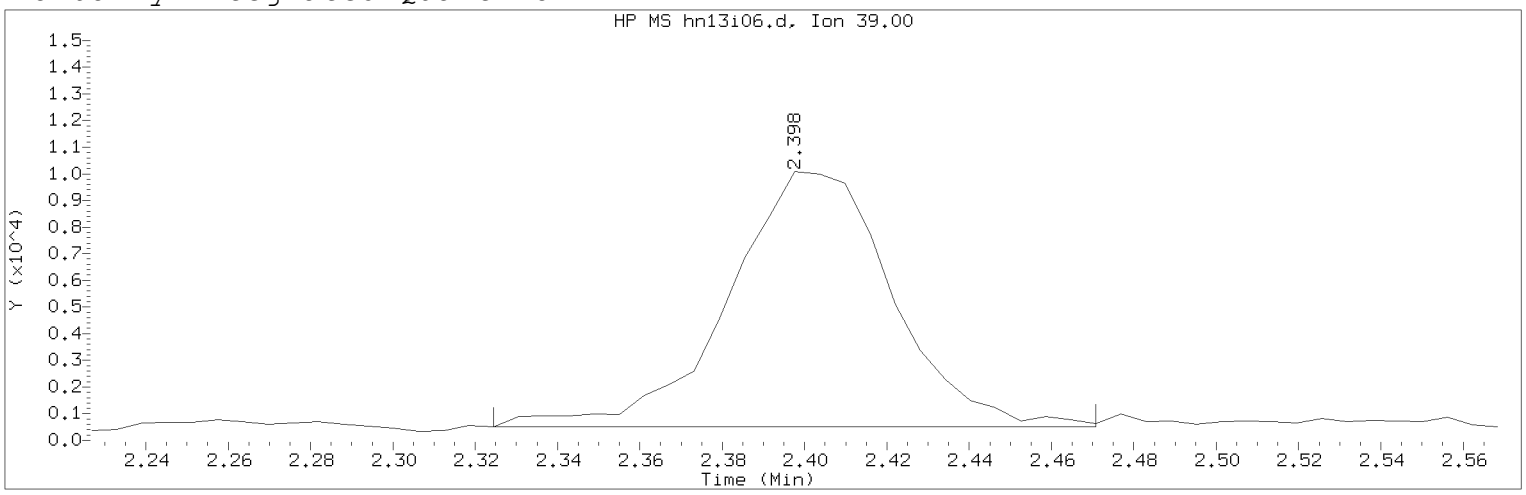
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

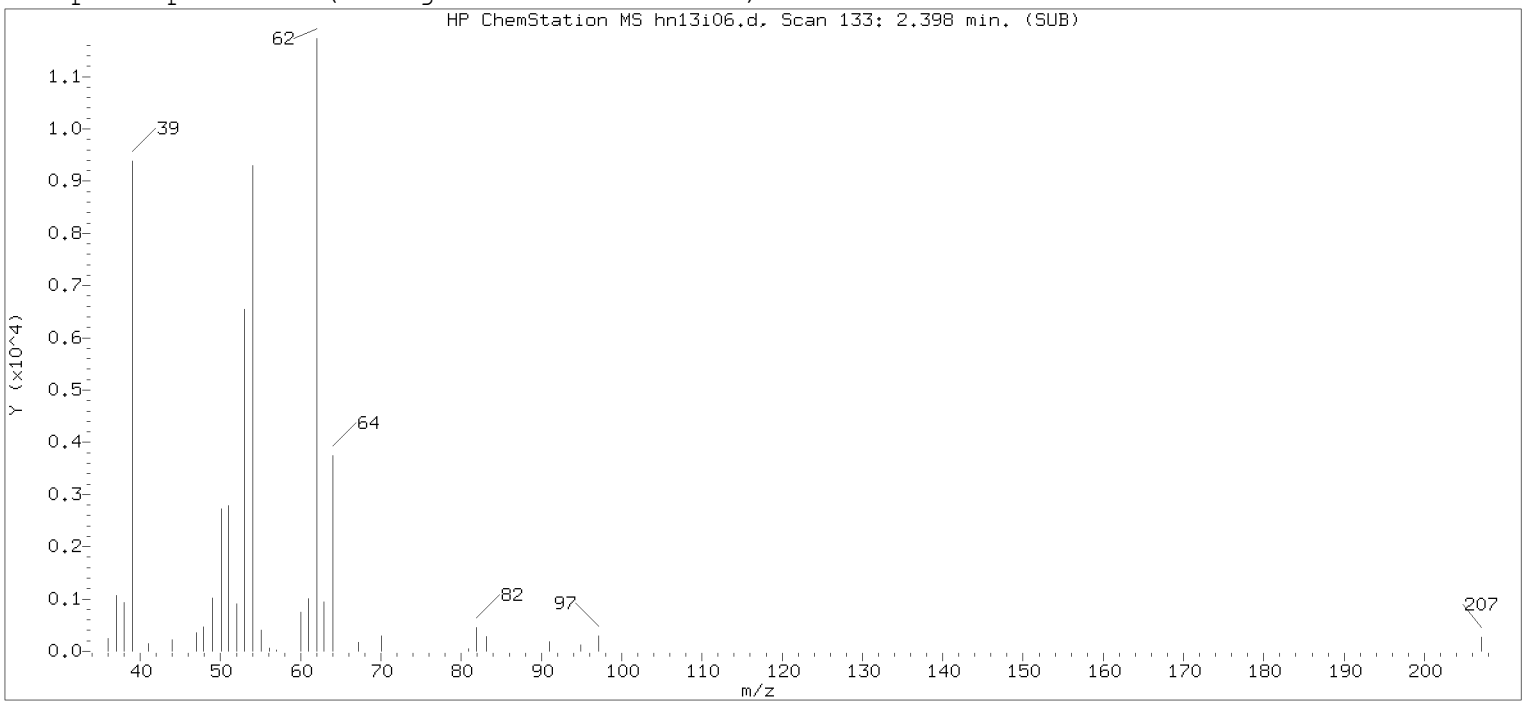
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area (flag) : 26581M
On-Column Amount (ng) : 0.4955
Integration start scan : 120 Integration stop scan: 144
Y at integration start : 509 Y at integration end: 509

Reason for manual integration: improper integration

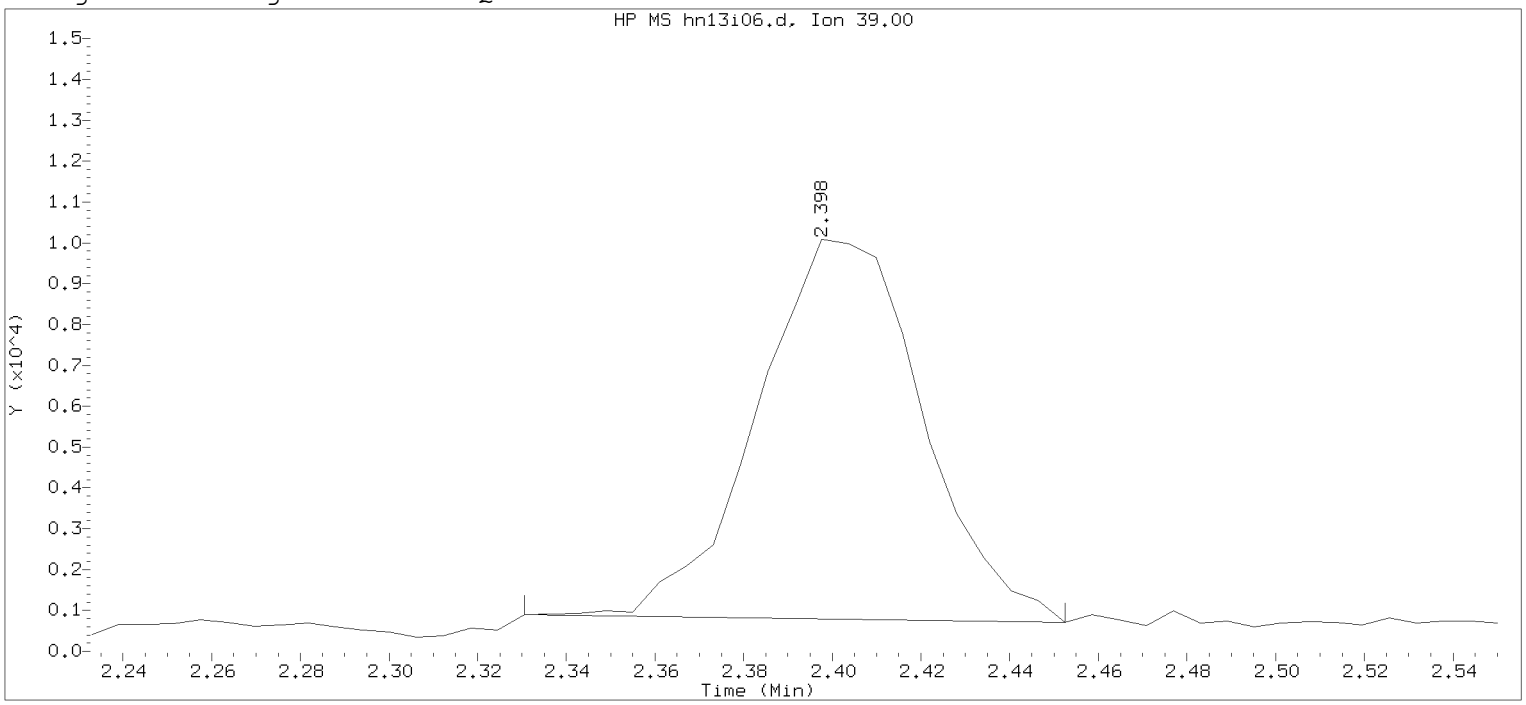
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

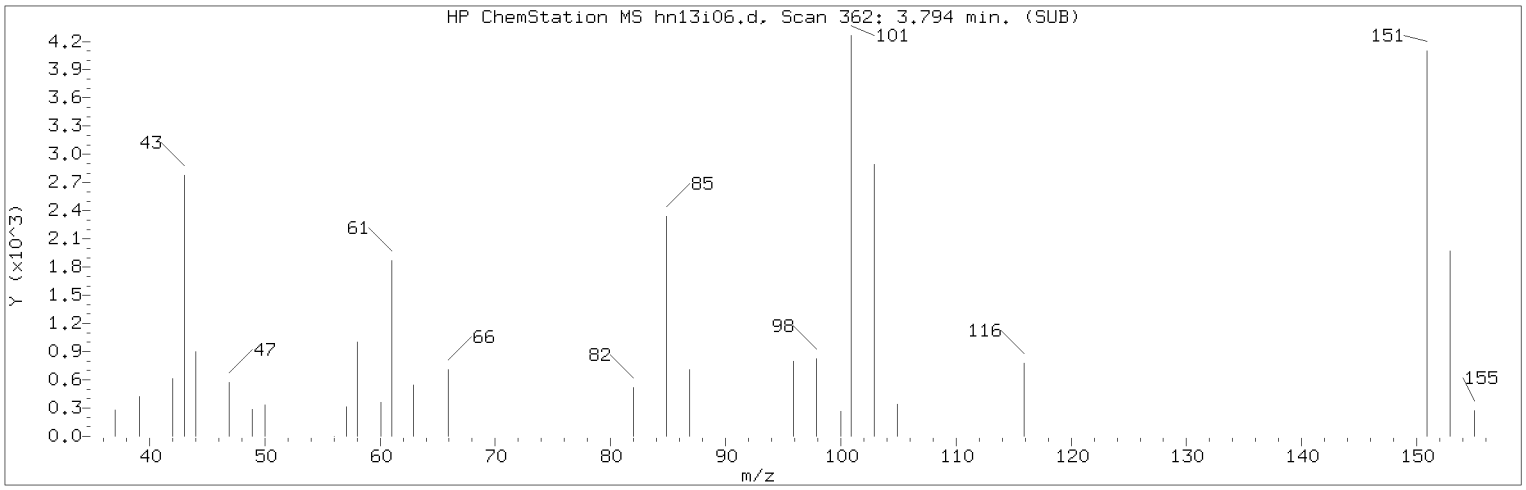
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

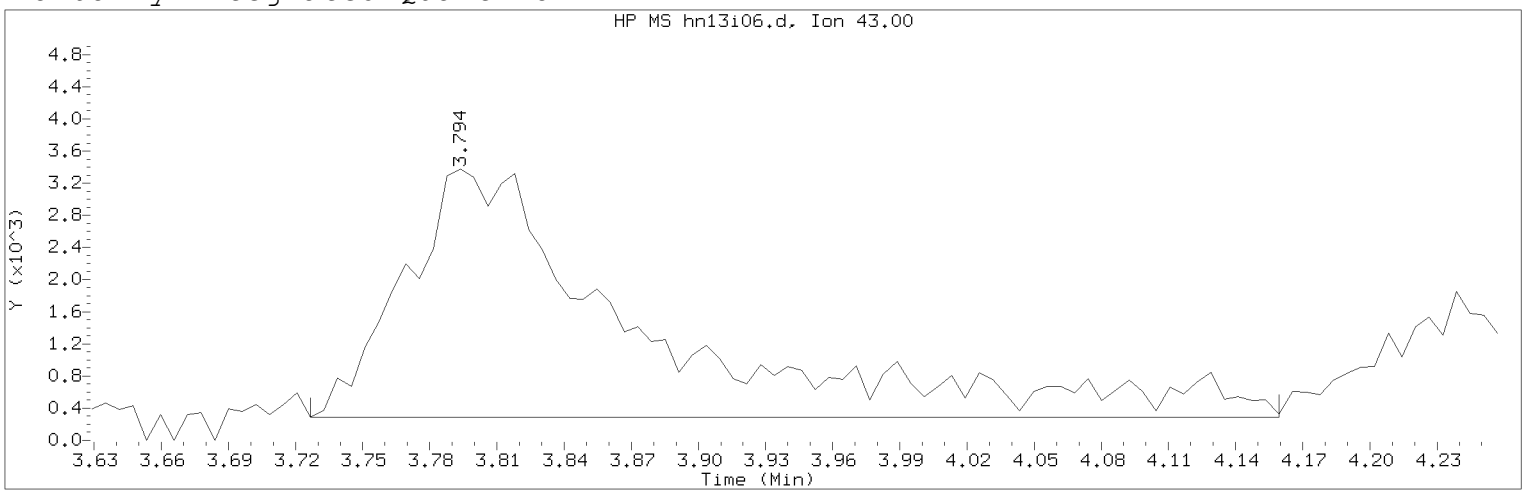
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area : 24035
On-column Amount (ng) : 0.4602
Integration start scan : 121 Integration stop scan: 141
Y at integration start : 897 Y at integration end: 711

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

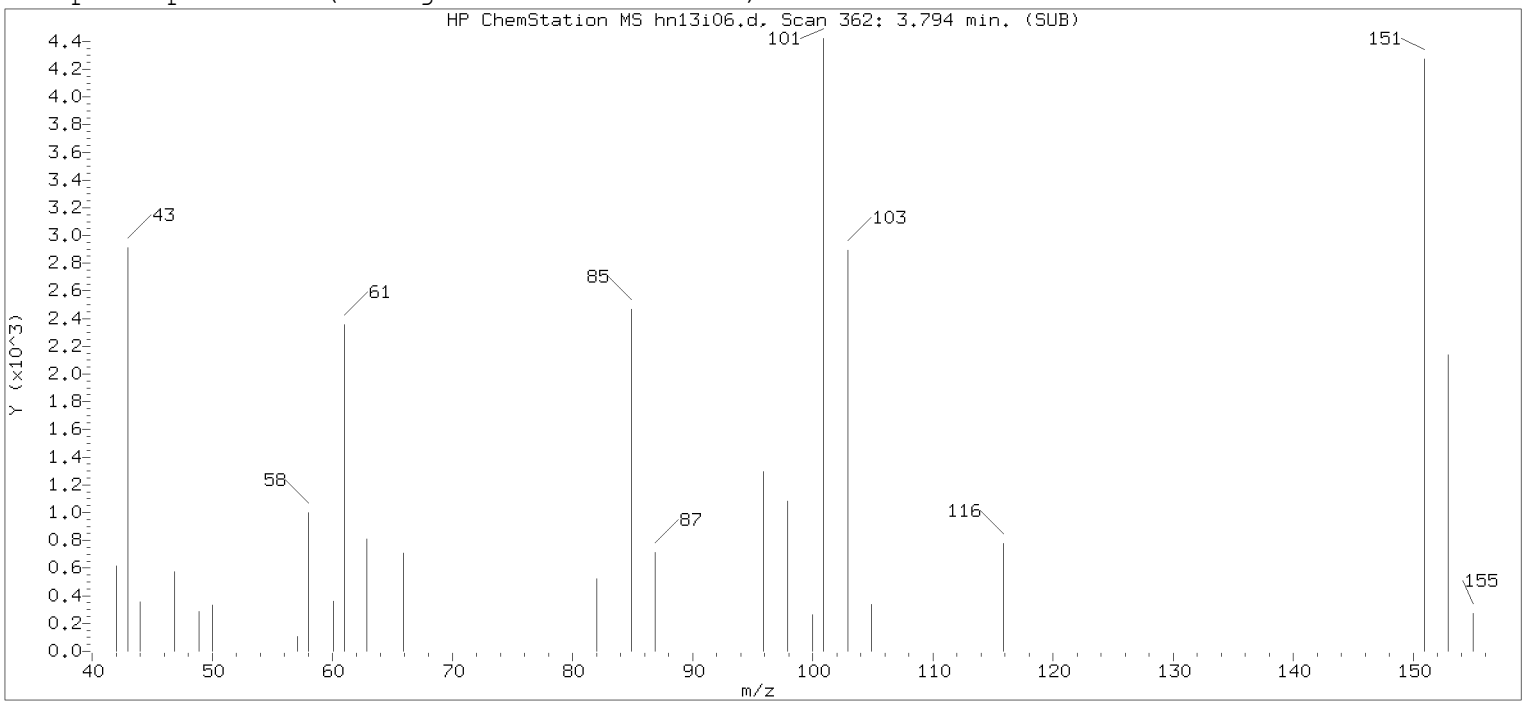
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area (flag) : 23055M
On-Column Amount (ng) : 5.3933
Integration start scan : 350 Integration stop scan: 421
Y at integration start : 285 Y at integration end: 285

Reason for manual integration: improper integration

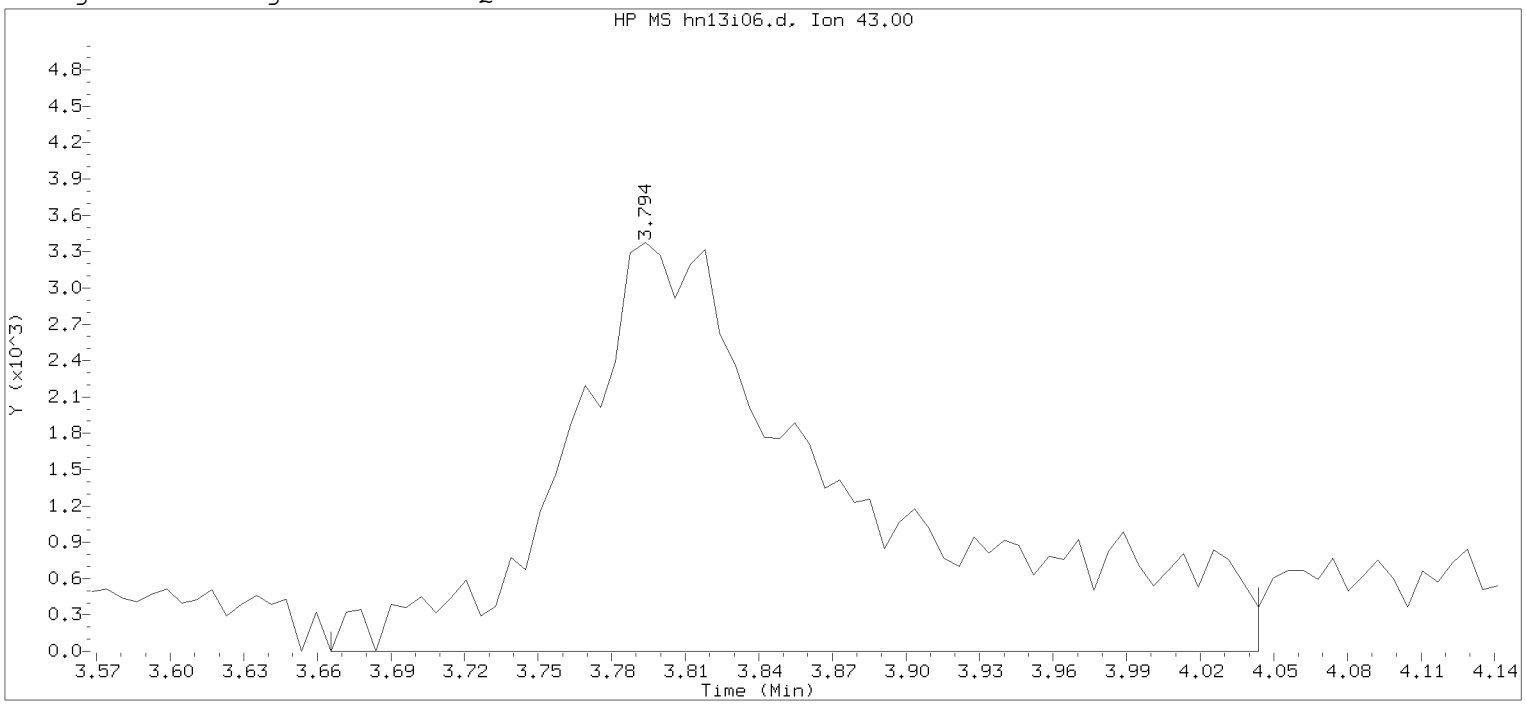
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

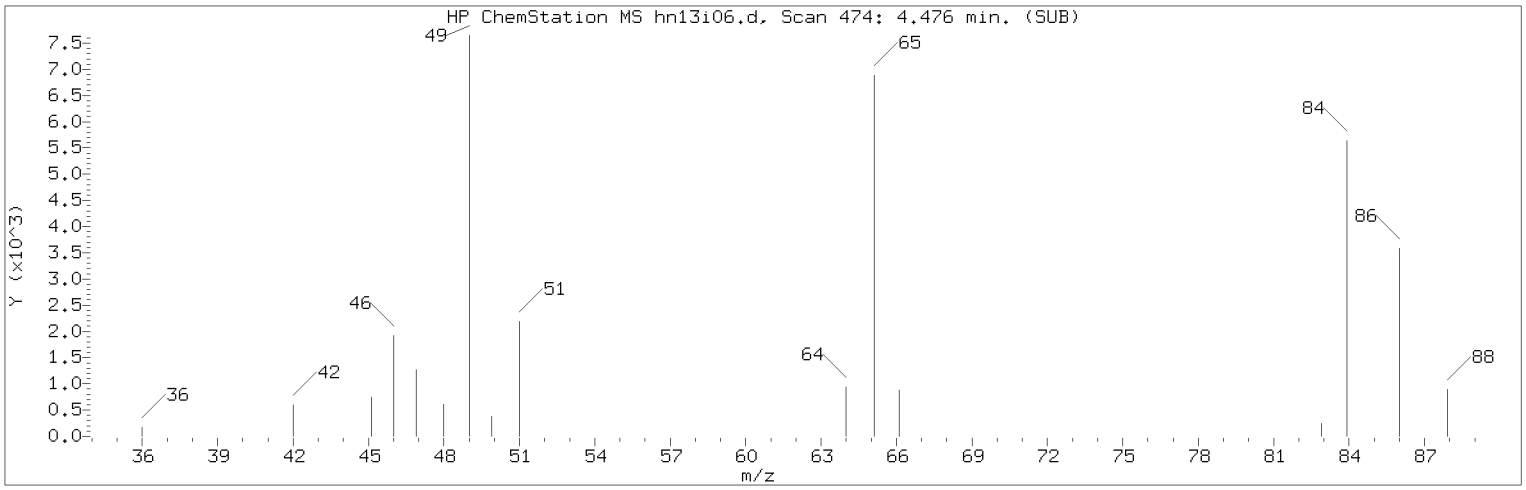
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

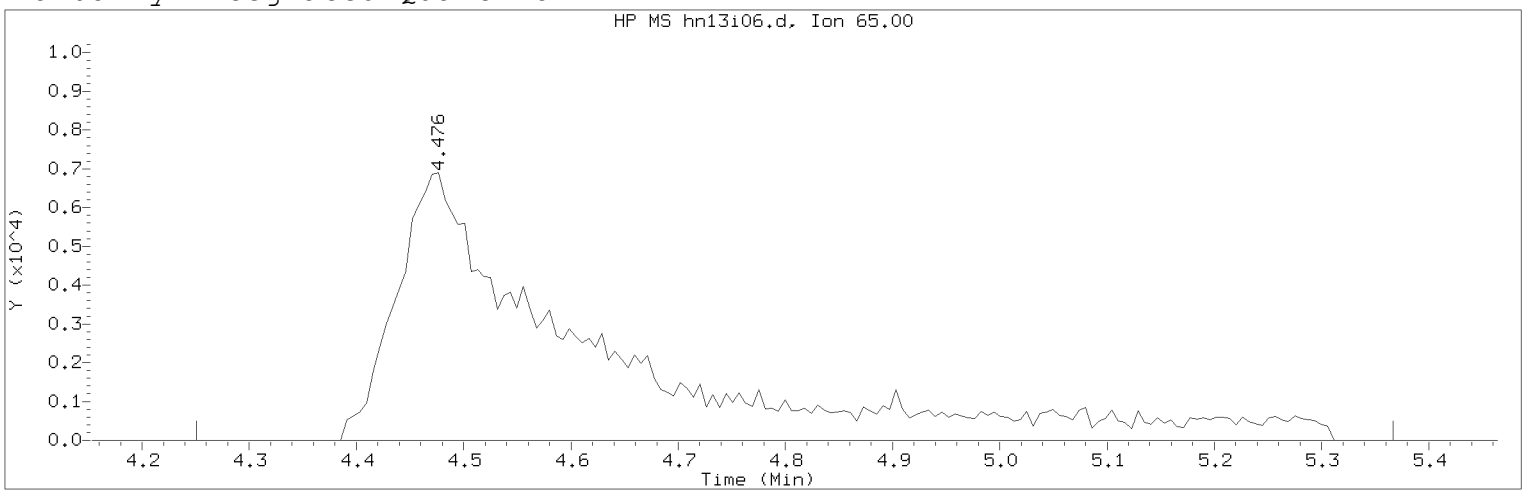
Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 362		
Retention Time (minutes)	: 3.794		
Quant Ion	: 43.00		
Area	: 27530		
On-column Amount (ng)	: 6.7554		
Integration start scan	: 340	Integration stop scan:	402
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

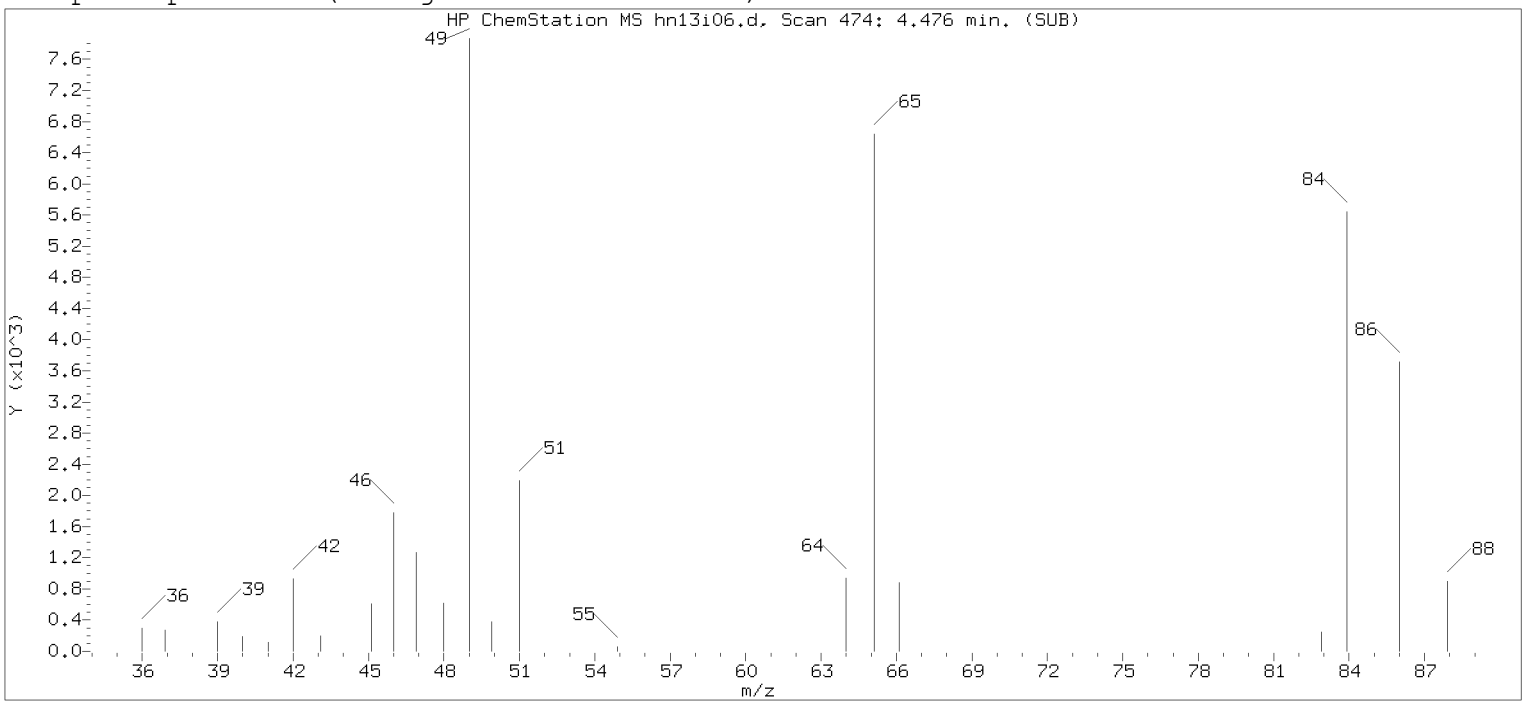
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.476
Quant Ion : 65.00
Area (flag) : 86230M
On-Column Amount (ng) : 50.0000
Integration start scan : 436 Integration stop scan: 619
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

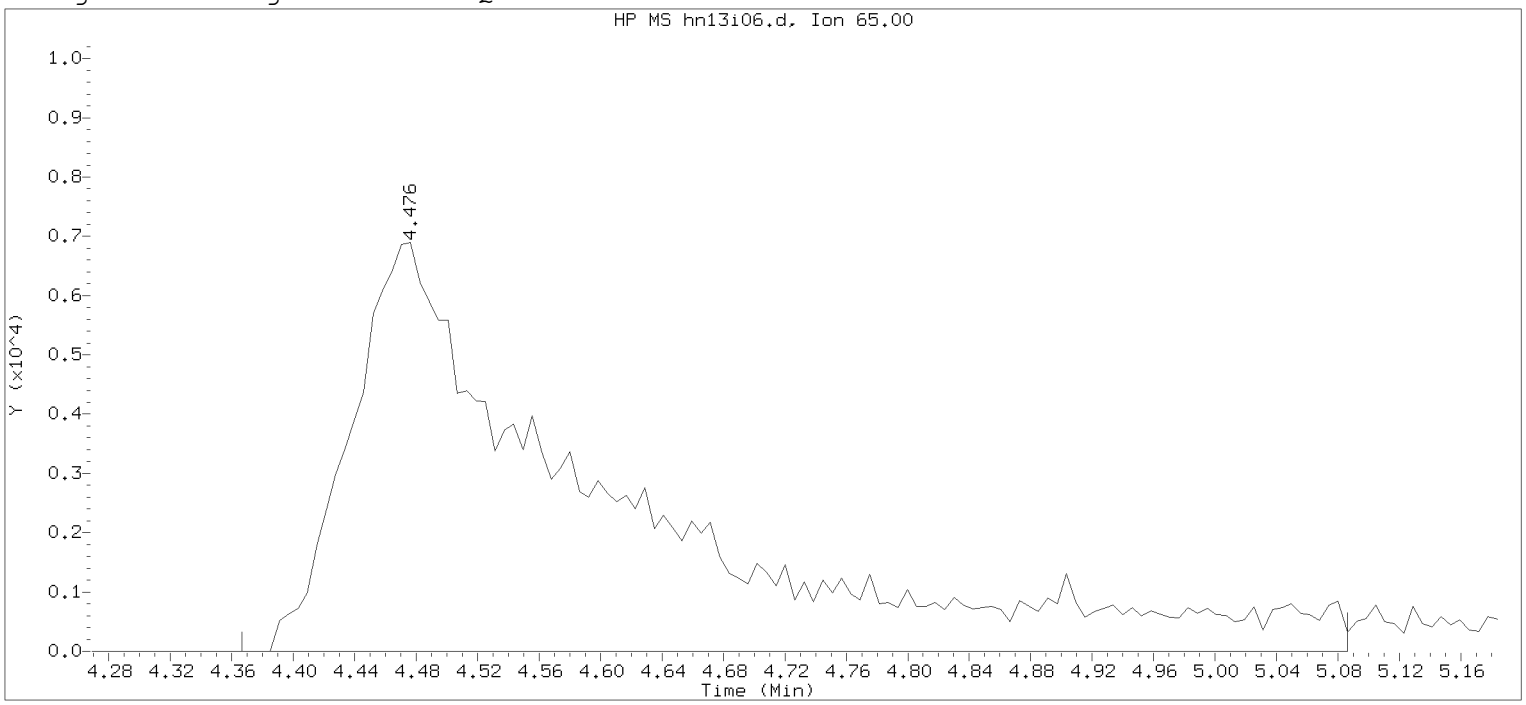
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 26		
Compound Name	: t-Butyl Alcohol-d10		
Scan Number	: 474		
Retention Time (minutes)	: 4.476		
Quant Ion	: 65.00		
Area	: 79416		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 455	Integration stop scan:	573
Y at integration start	: 0	Y at integration end:	0

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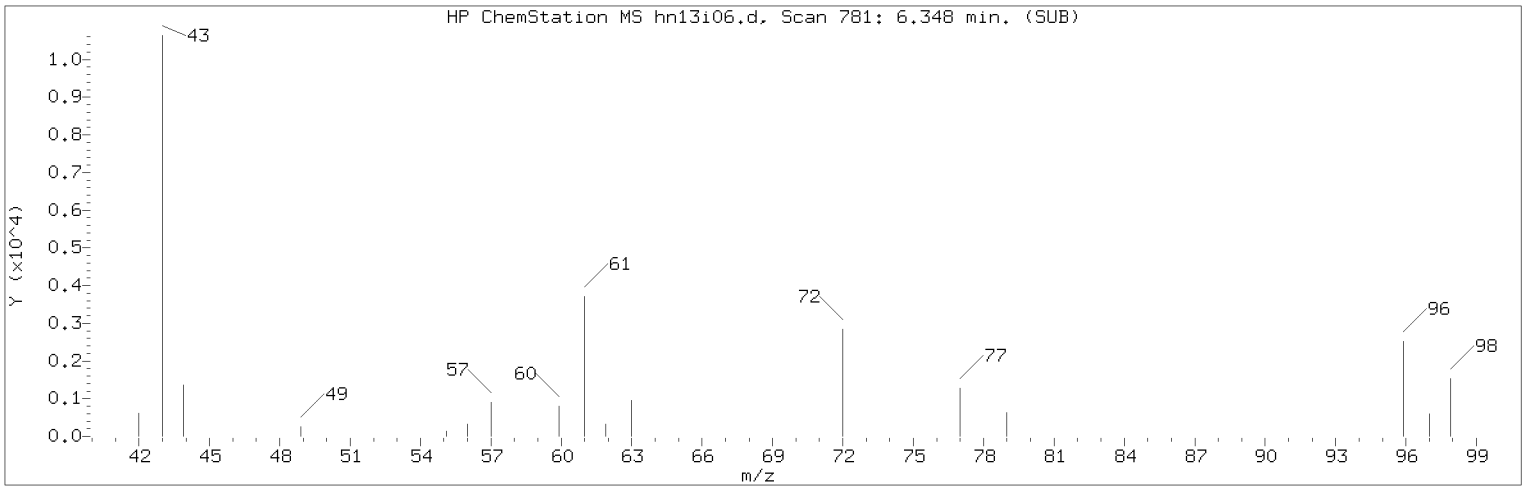
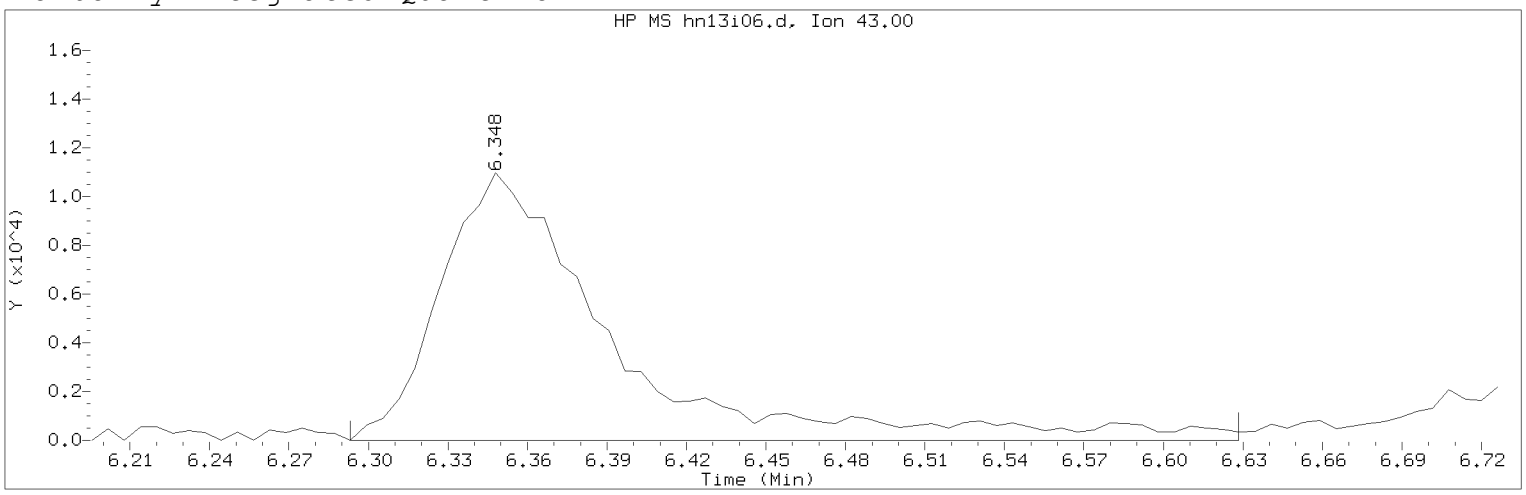
Target 3.5 esignature used. RAF35 Page 695 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

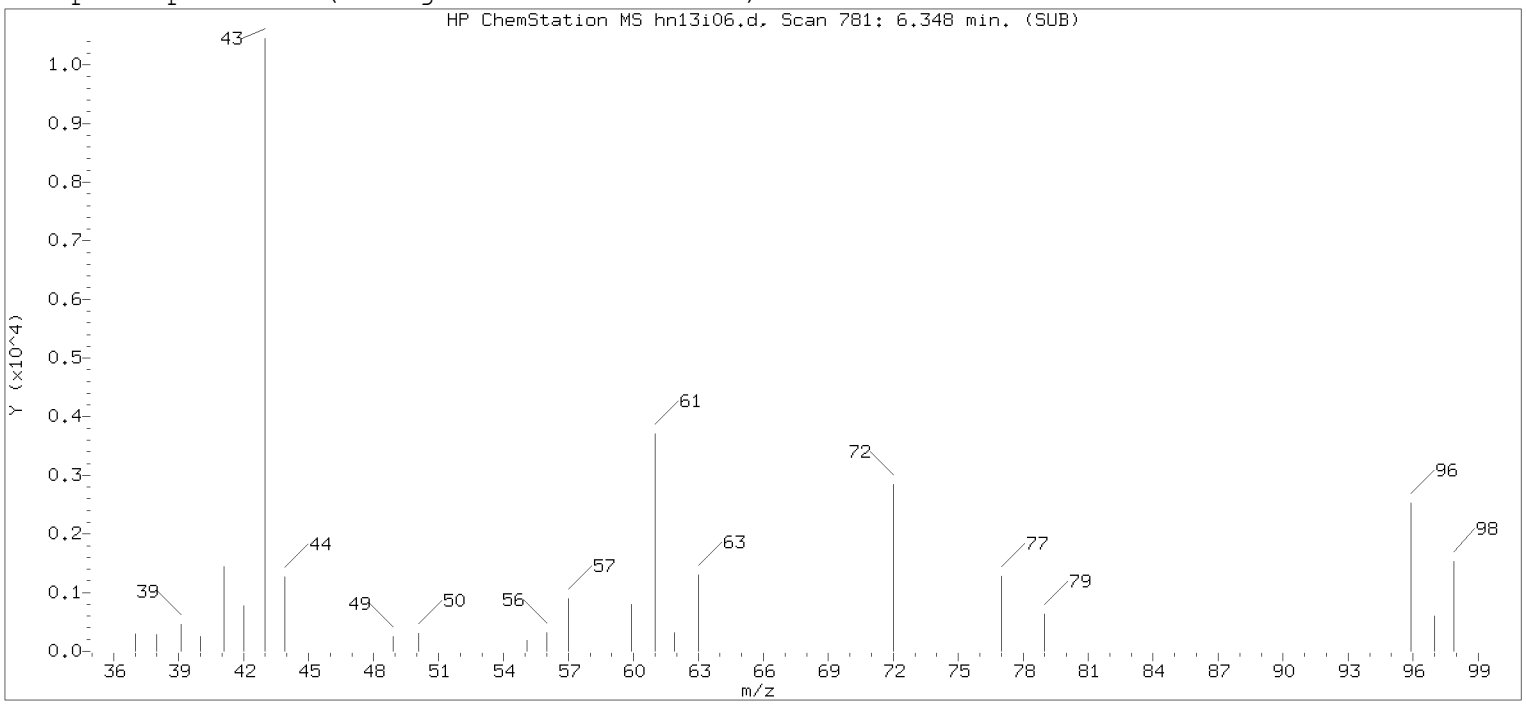
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 781
Retention Time (minutes): 6.348
Quant Ion : 43.00
Area (flag) : 49388M
On-Column Amount (ng) : 5.6503
Integration start scan : 771 Integration stop scan: 826
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

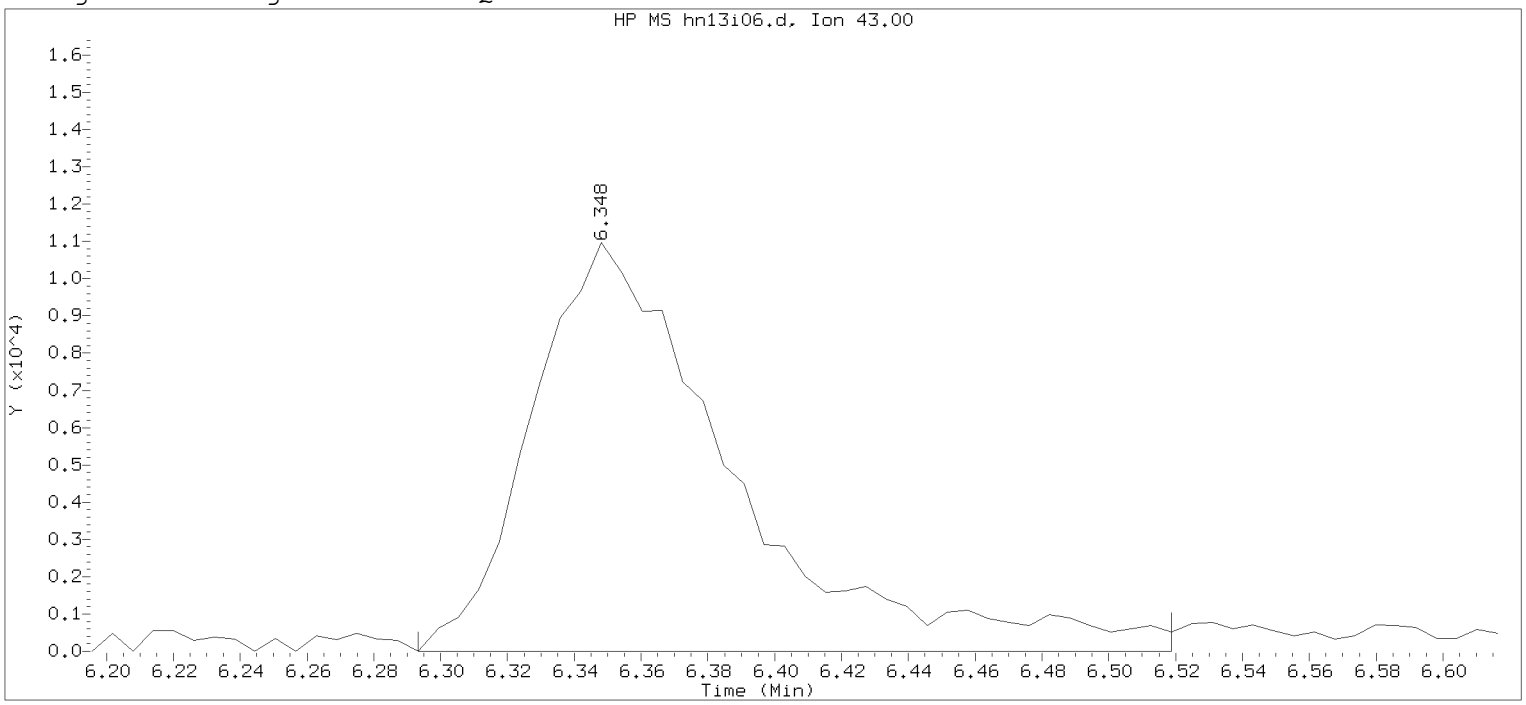
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

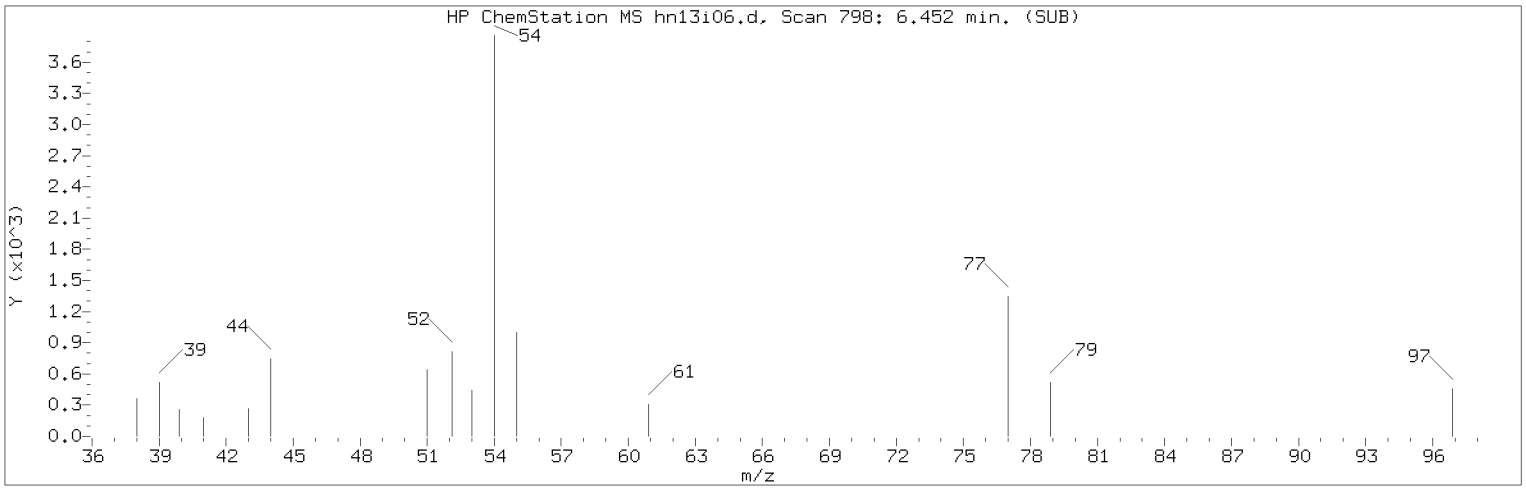
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

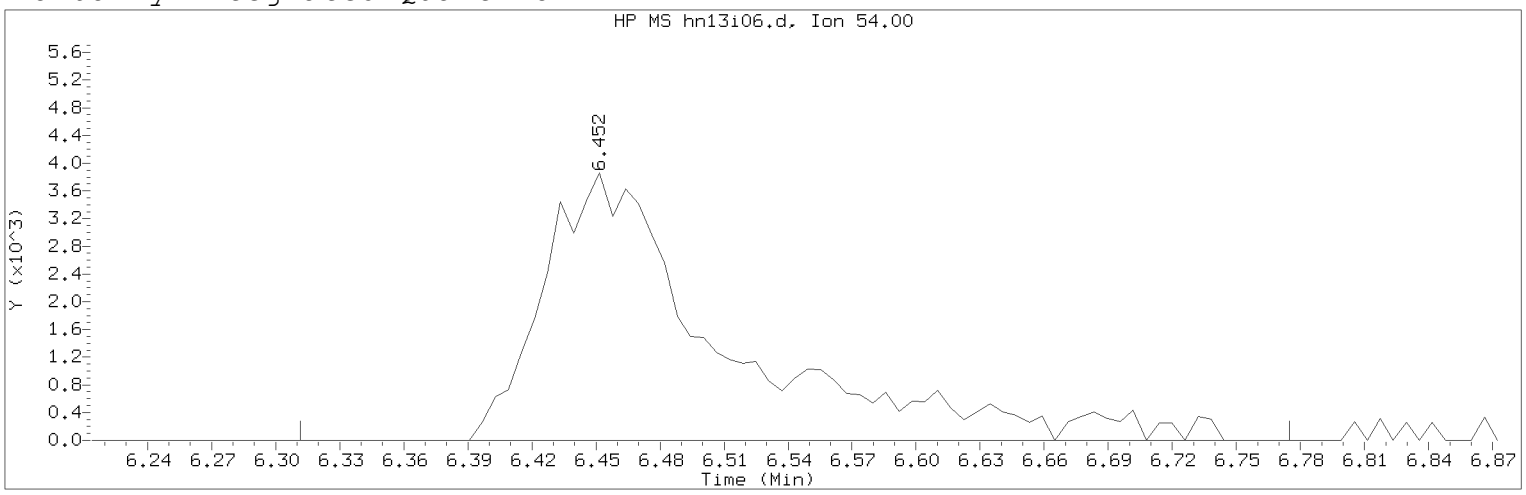
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 781
Retention Time (minutes): 6.348
Quant Ion : 43.00
Area : 45777
On-column Amount (ng) : 5.9852
Integration start scan : 771 Integration stop scan: 808
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

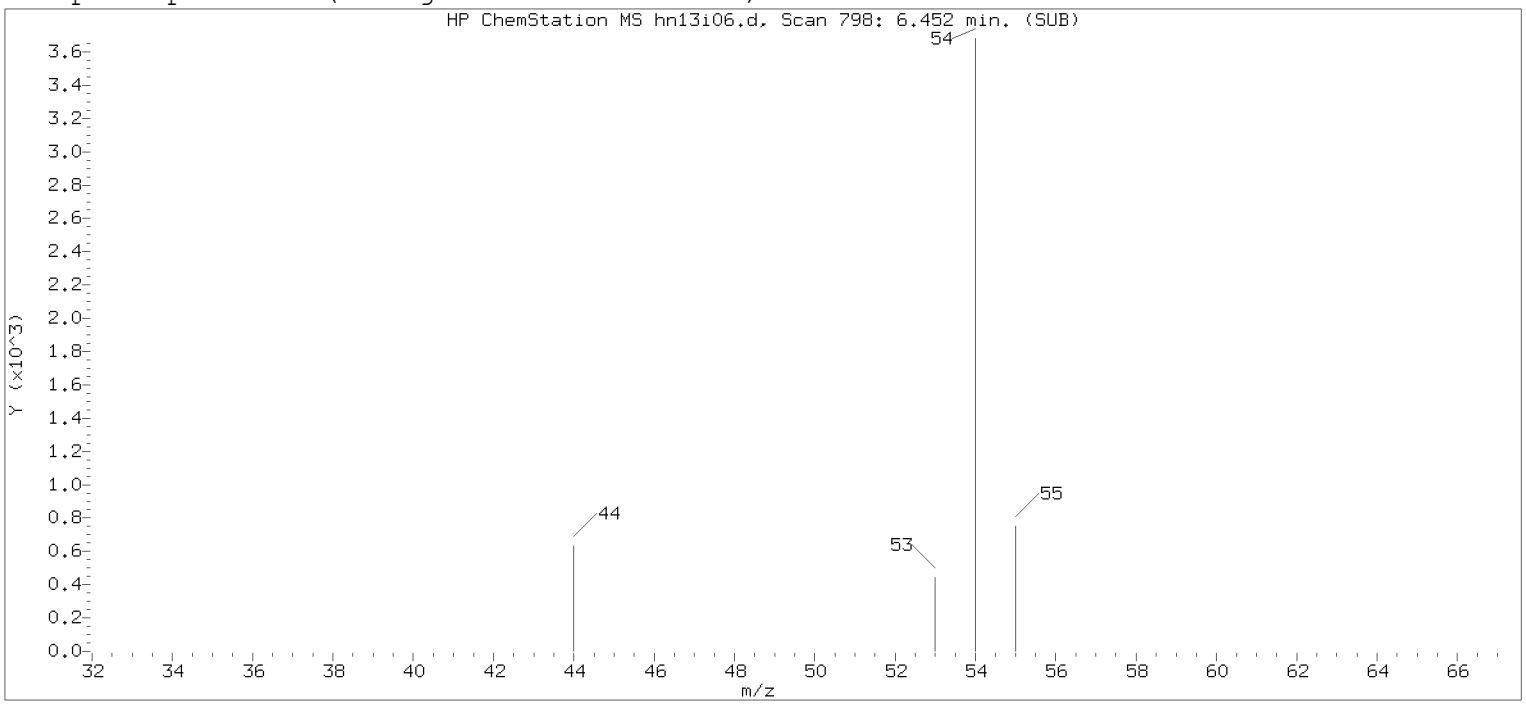
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 798
Retention Time (minutes): 6.452
Quant Ion : 54.00
Area (flag) : 22873M
On-Column Amount (ng) : 10.2402
Integration start scan : 774 Integration stop scan: 850
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

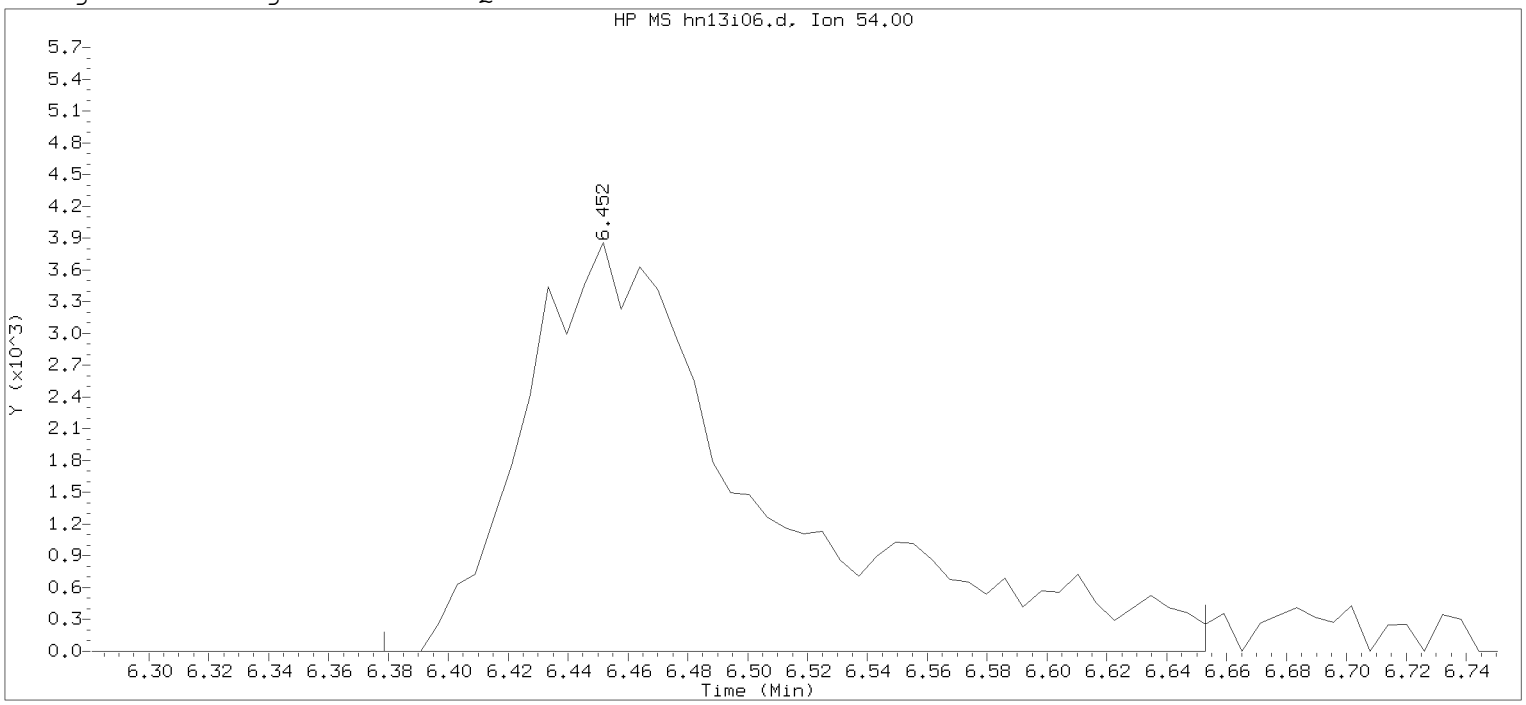
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

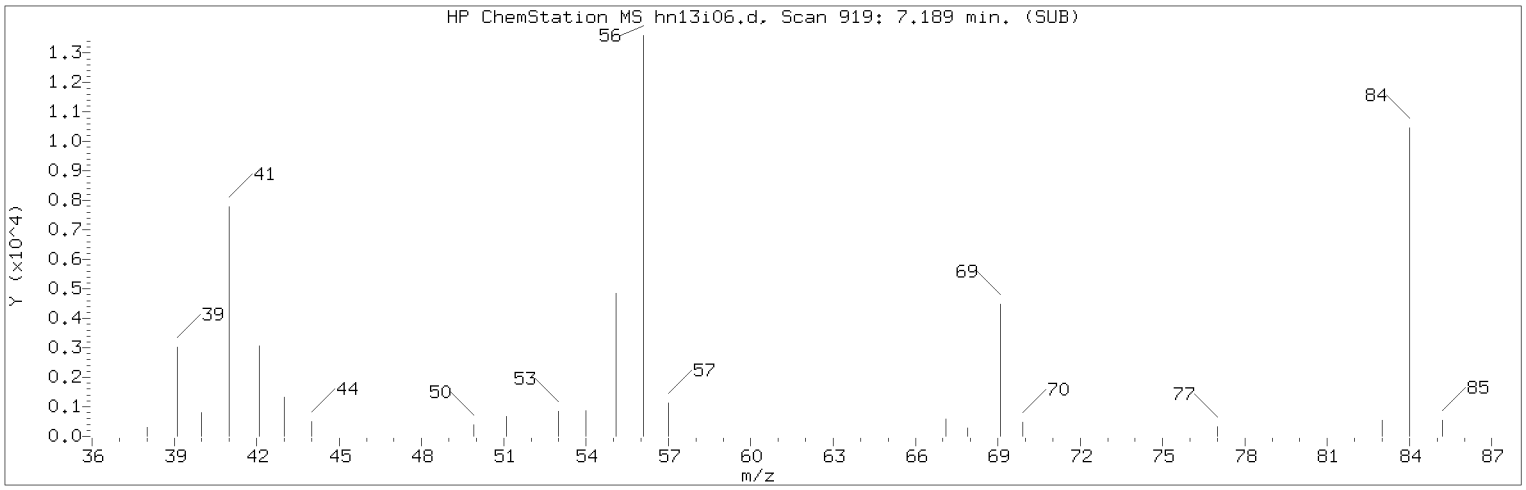
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

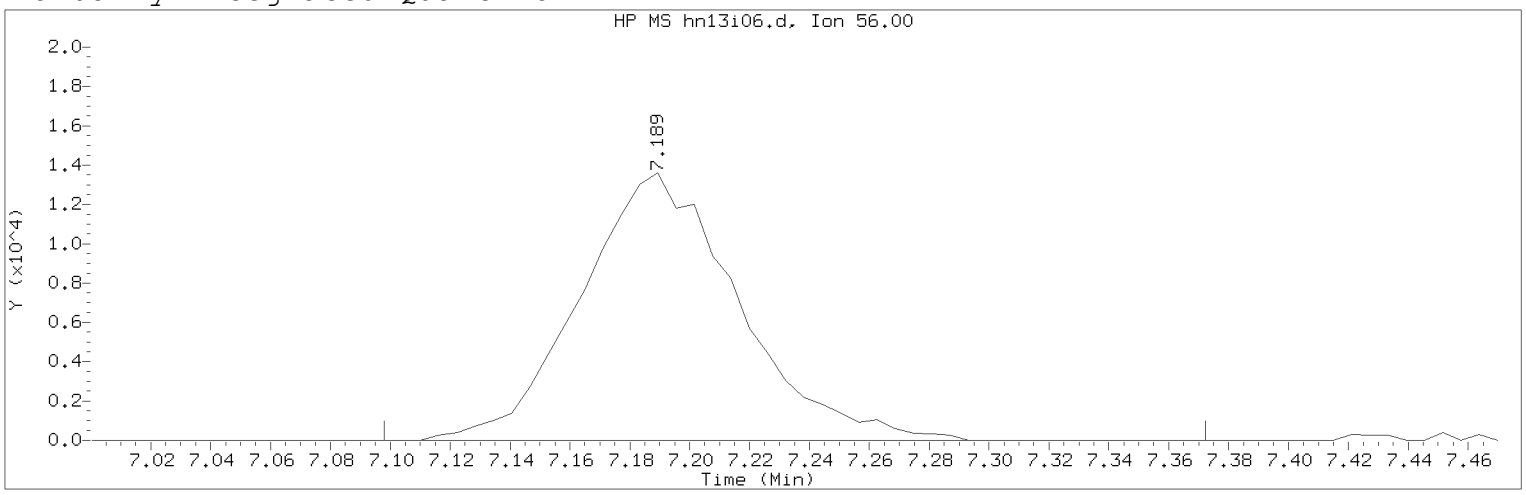
Compound Number	: 42		
Compound Name	: Propionitrile		
Scan Number	: 798		
Retention Time (minutes)	: 6.452		
Quant Ion	: 54.00		
Area	: 21529		
On-column Amount (ng)	: 10.4620		
Integration start scan	: 785	Integration stop scan:	830
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

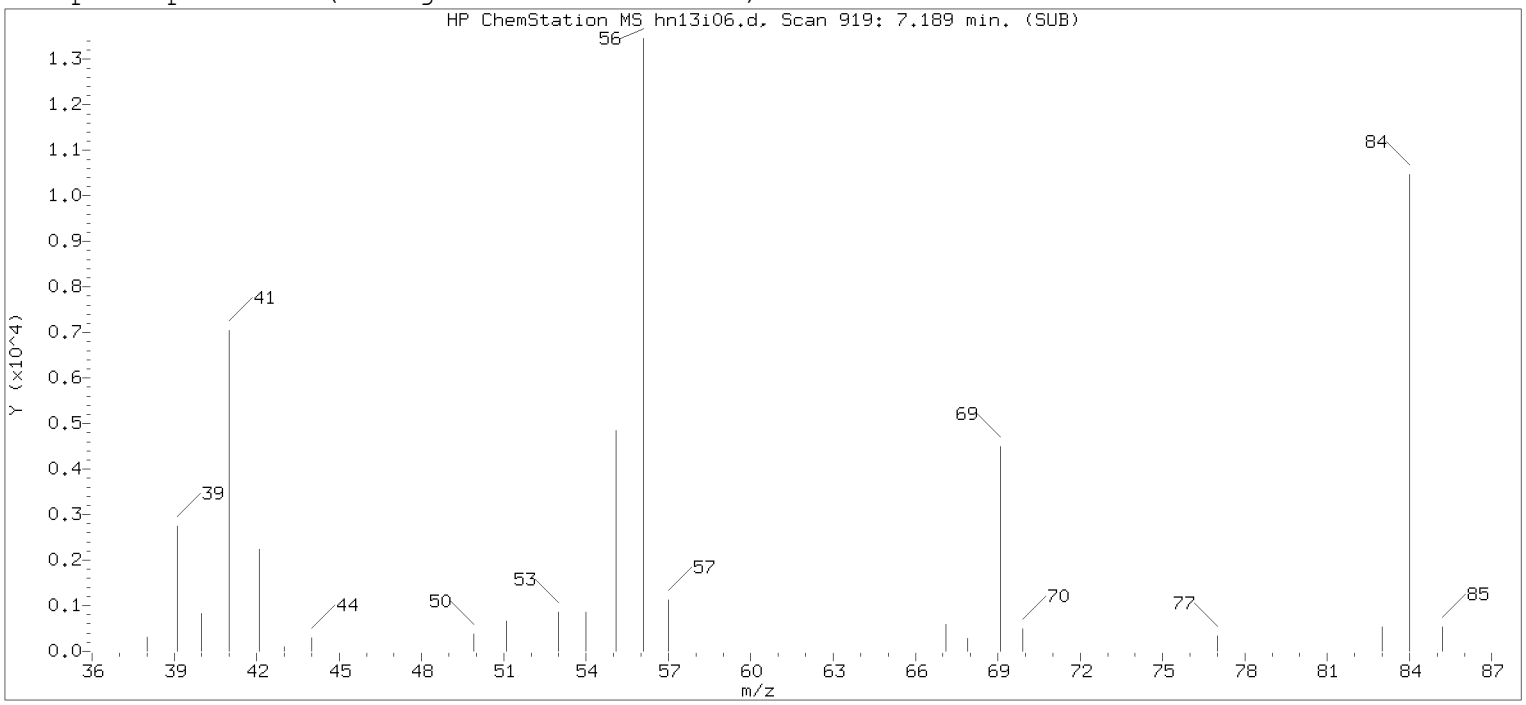
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 919
Retention Time (minutes): 7.189
Quant Ion : 56.00
Area (flag) : 49735M
On-Column Amount (ng) : 0.5091
Integration start scan : 903 Integration stop scan: 948
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

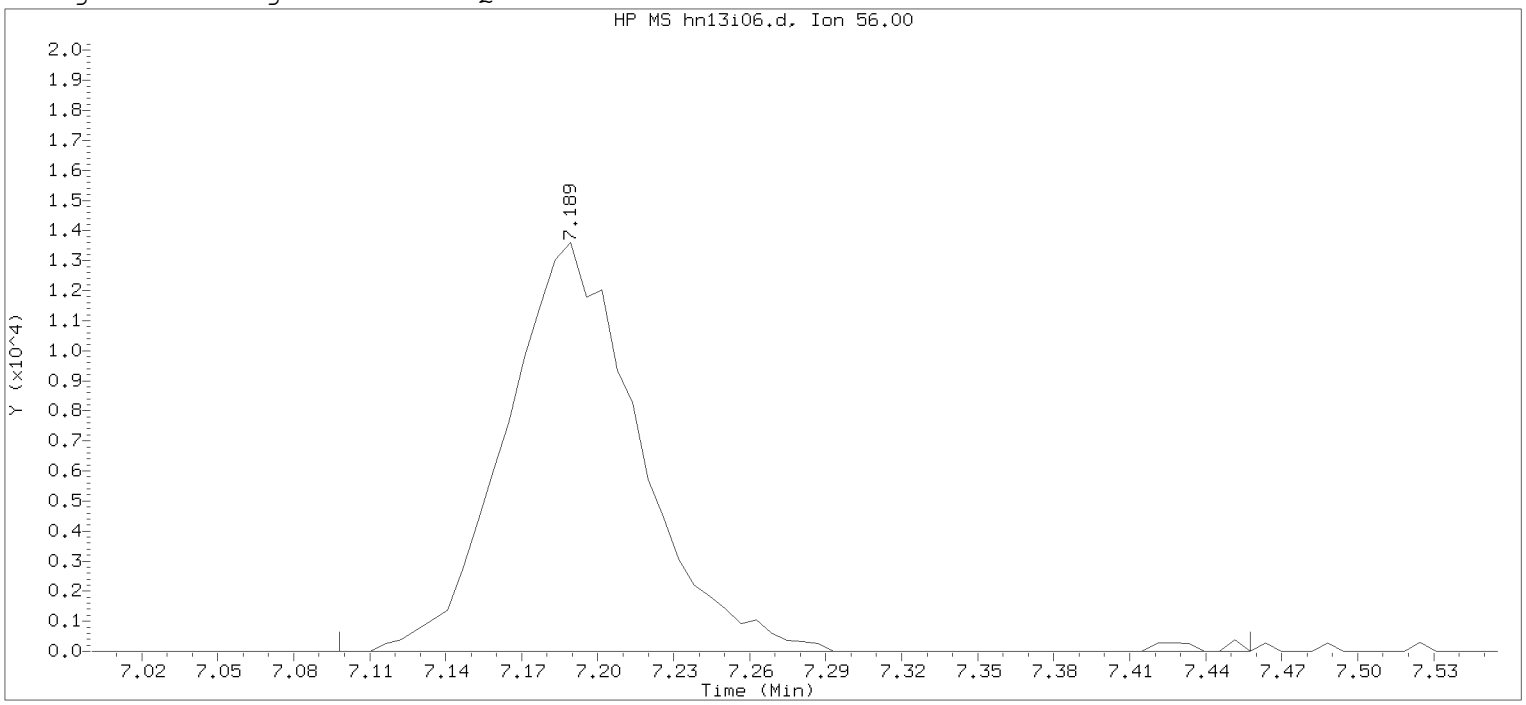
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

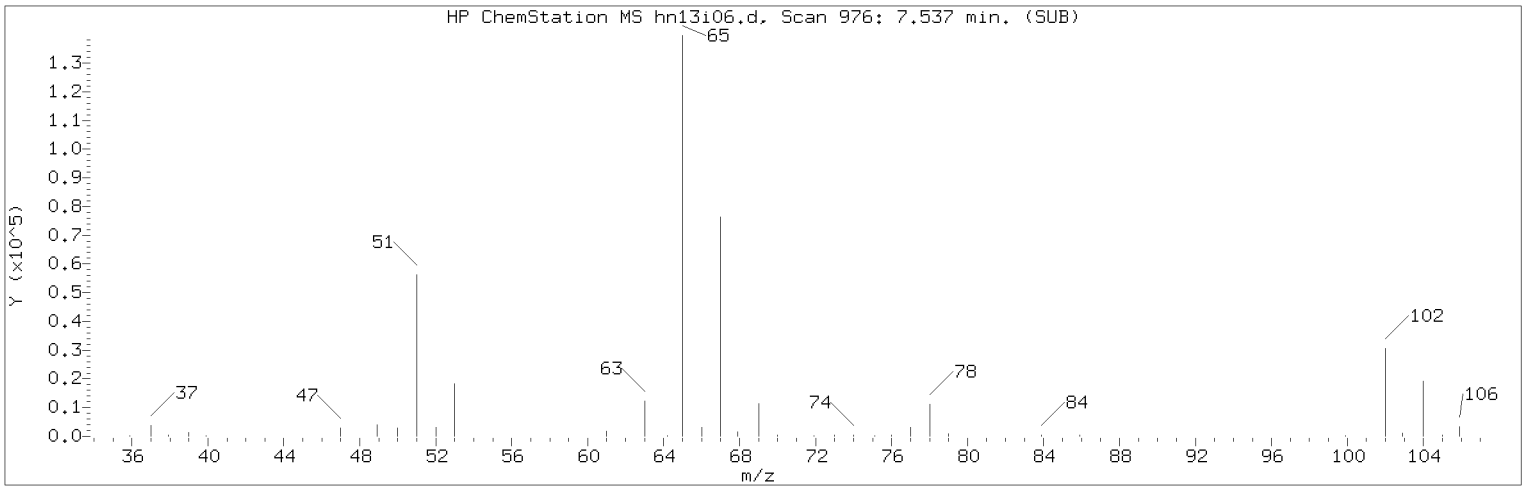
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

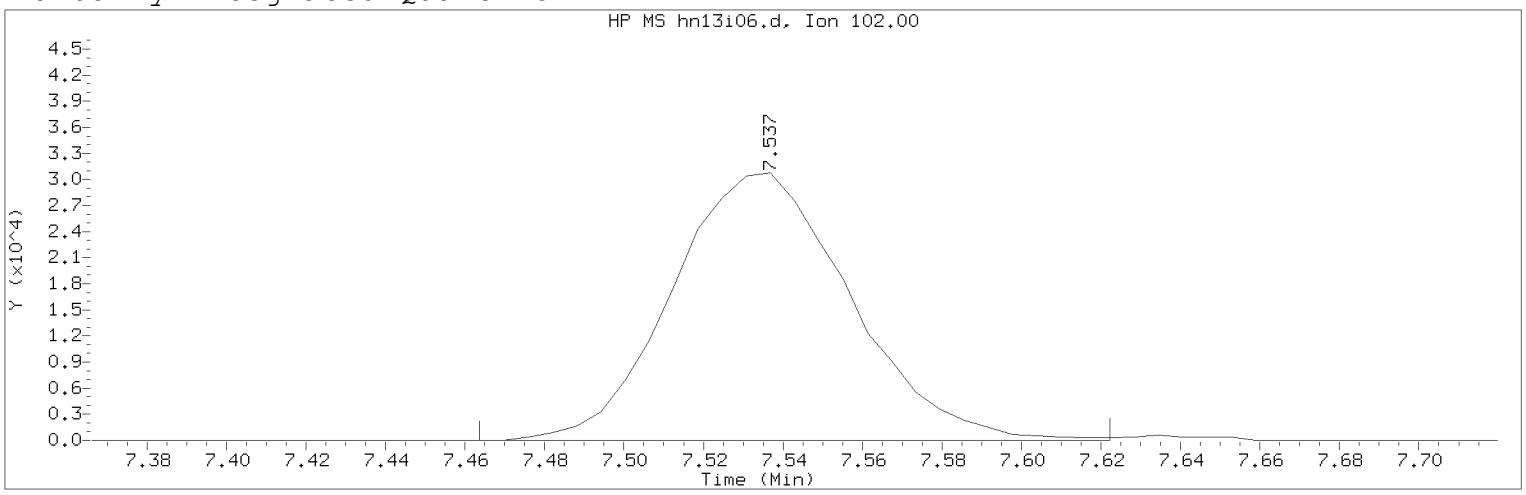
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 919
Retention Time (minutes): 7.189
Quant Ion : 56.00
Area : 50173
On-column Amount (ng) : 0.5102
Integration start scan : 903 Integration stop scan: 962
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 701 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

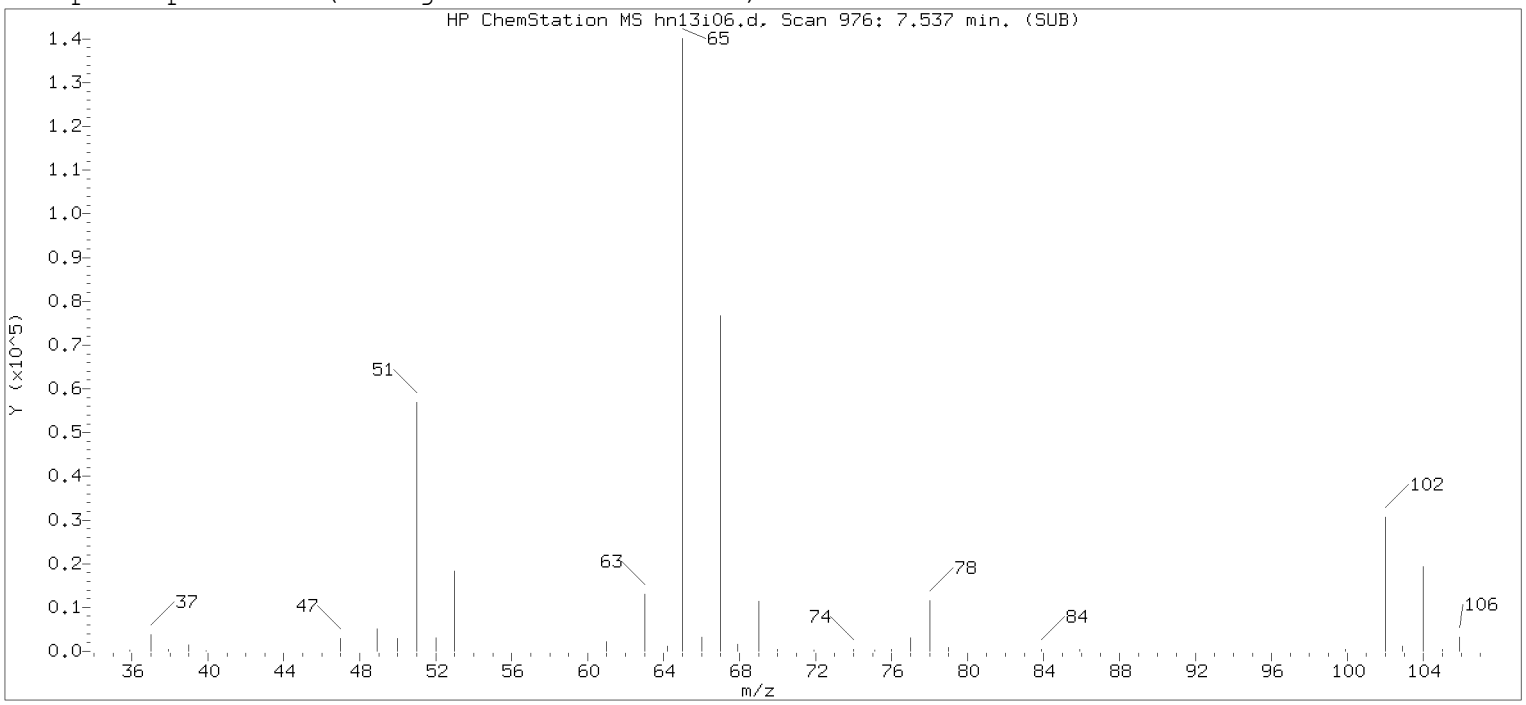
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 976
Retention Time (minutes): 7.537
Quant Ion : 102.00
Area (flag) : 95360M
On-Column Amount (ng) : 9.8076
Integration start scan : 963 Integration stop scan: 989
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

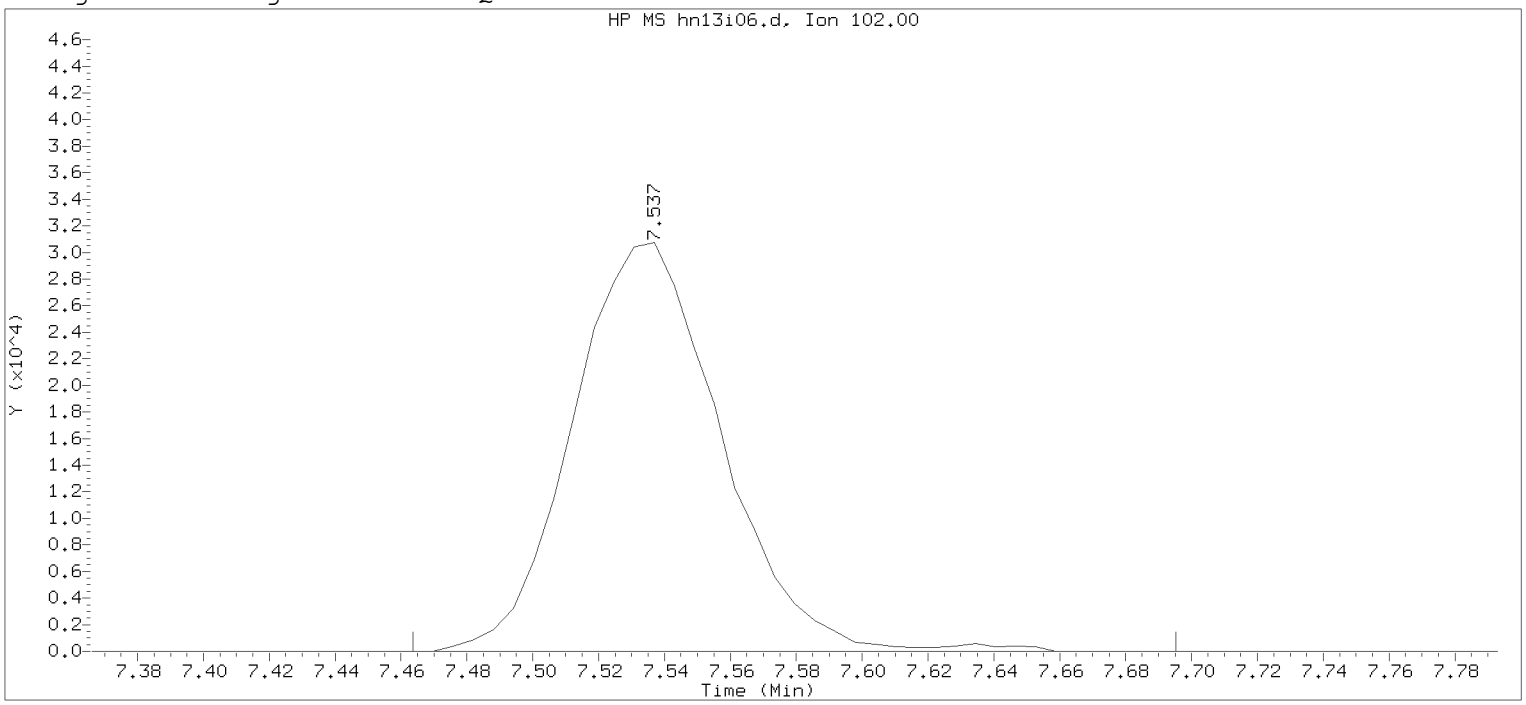
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

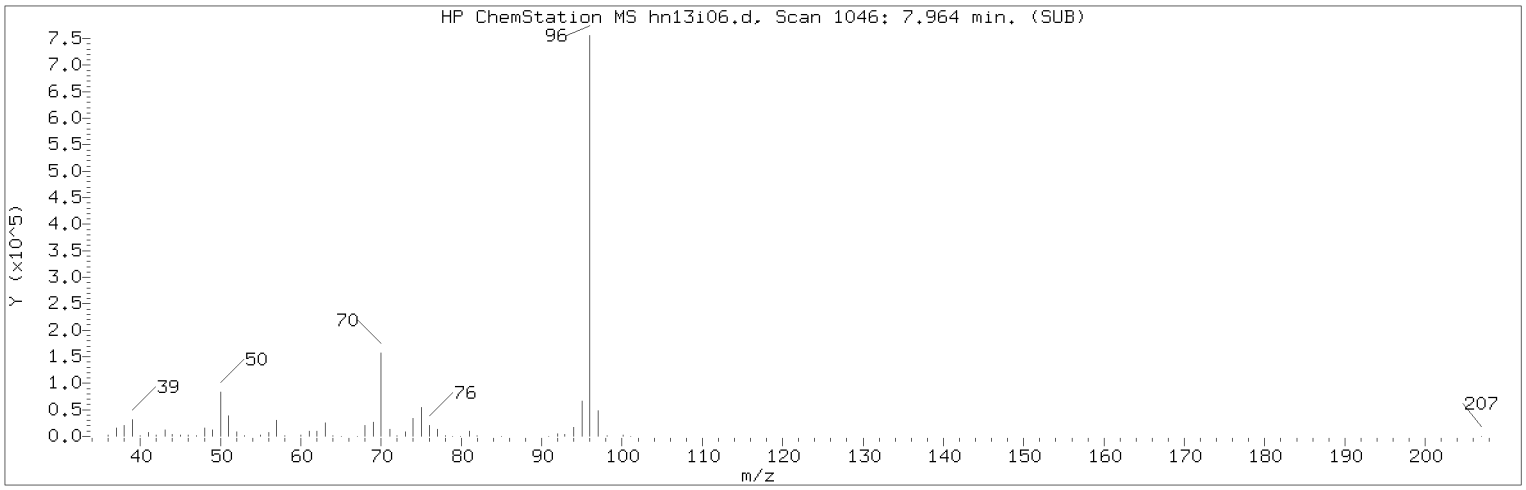
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

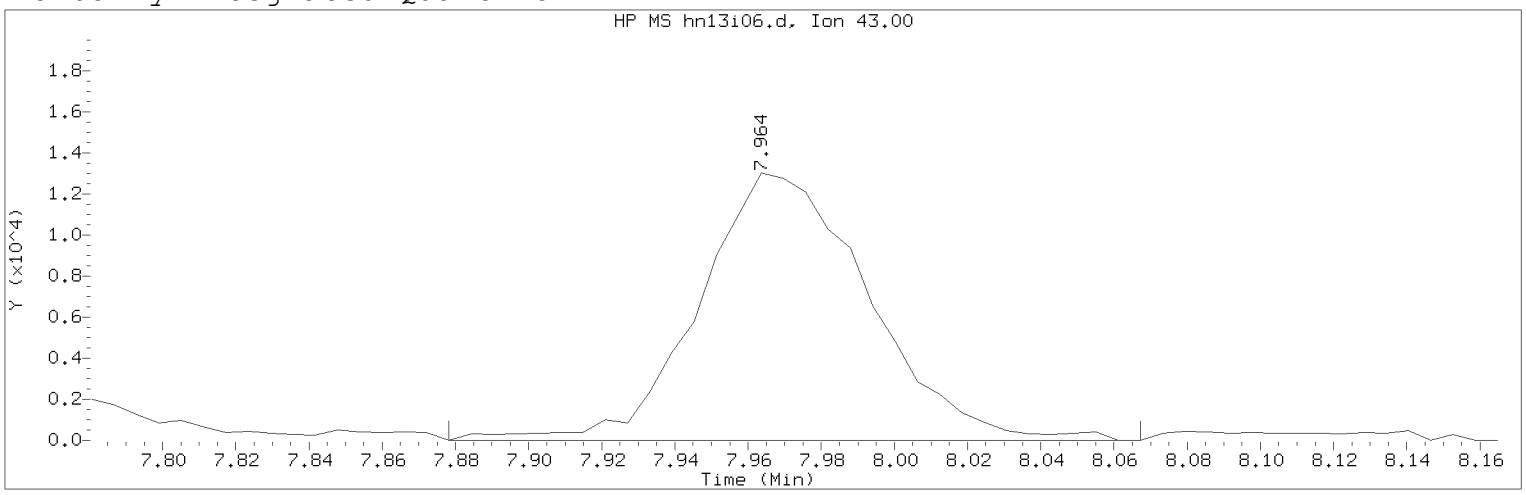
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 976
Retention Time (minutes): 7.537
Quant Ion : 102.00
Area : 96099
On-column Amount (ng) : 9.8900
Integration start scan : 963 Integration stop scan: 1001
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 703 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

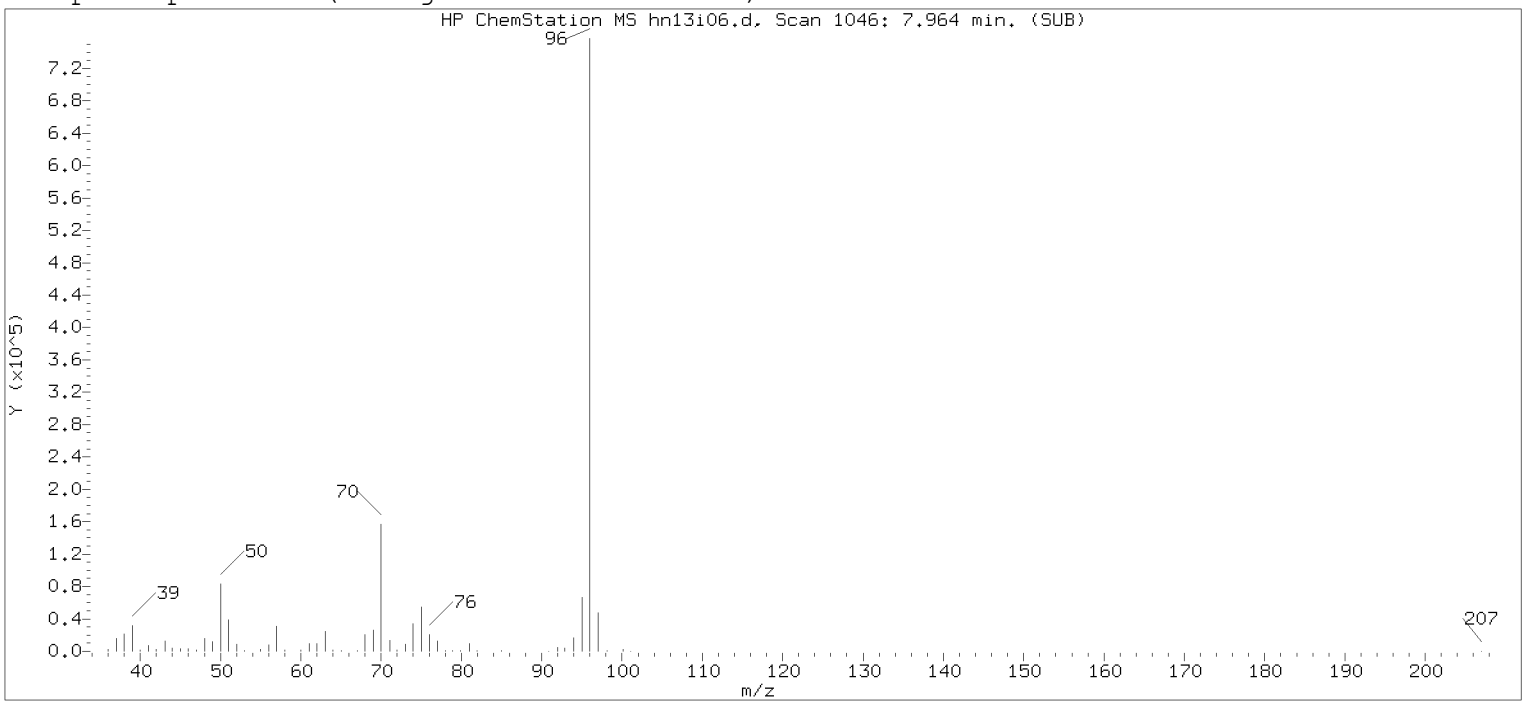
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1046
Retention Time (minutes): 7.964
Quant Ion : 43.00
Area (flag) : 41828M
On-Column Amount (ng) : 0.4901
Integration start scan : 1031 Integration stop scan: 1062
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

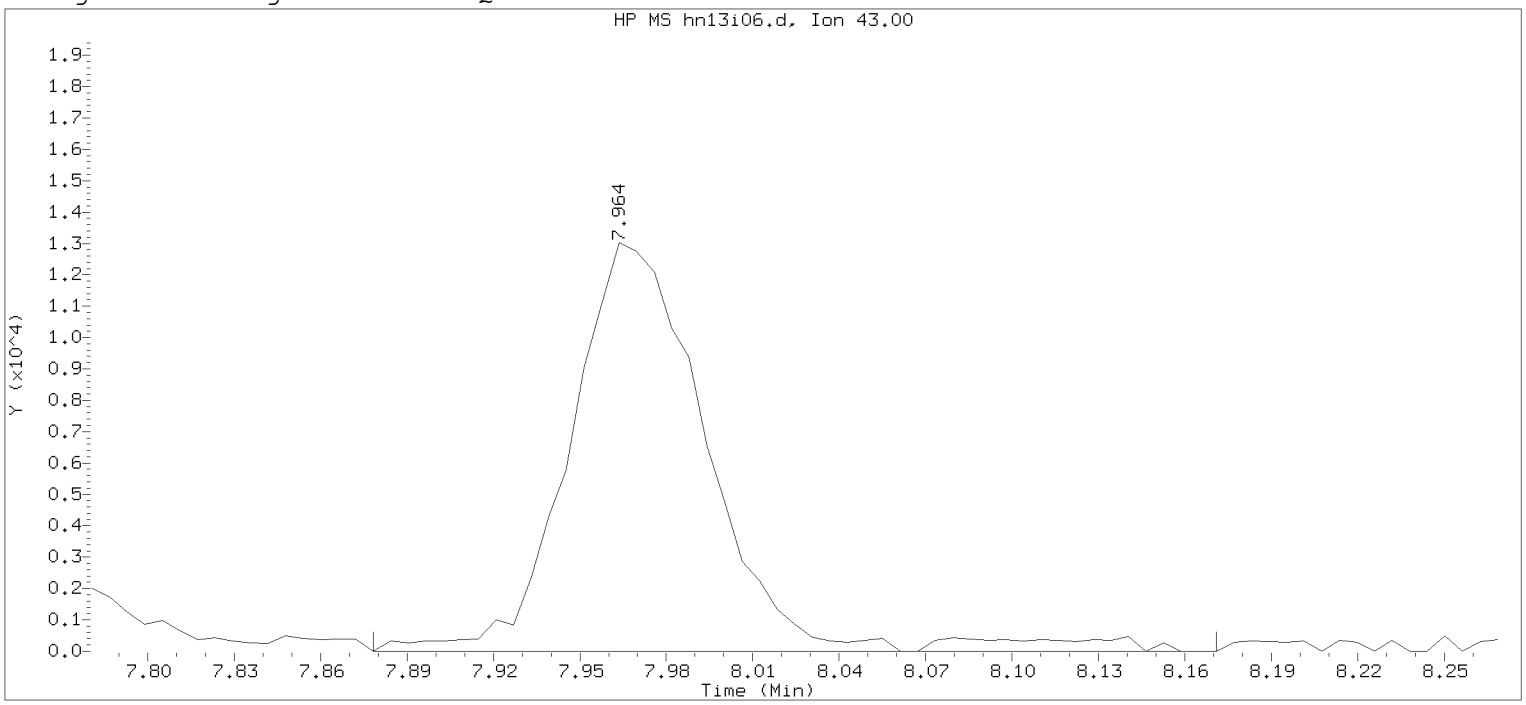
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

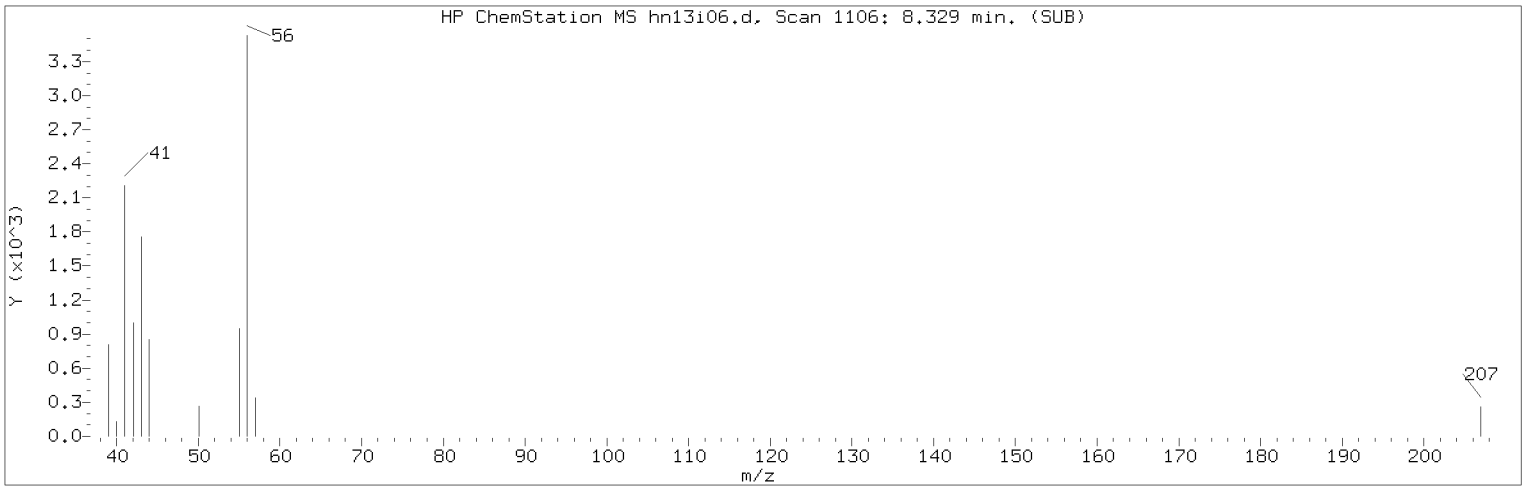
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

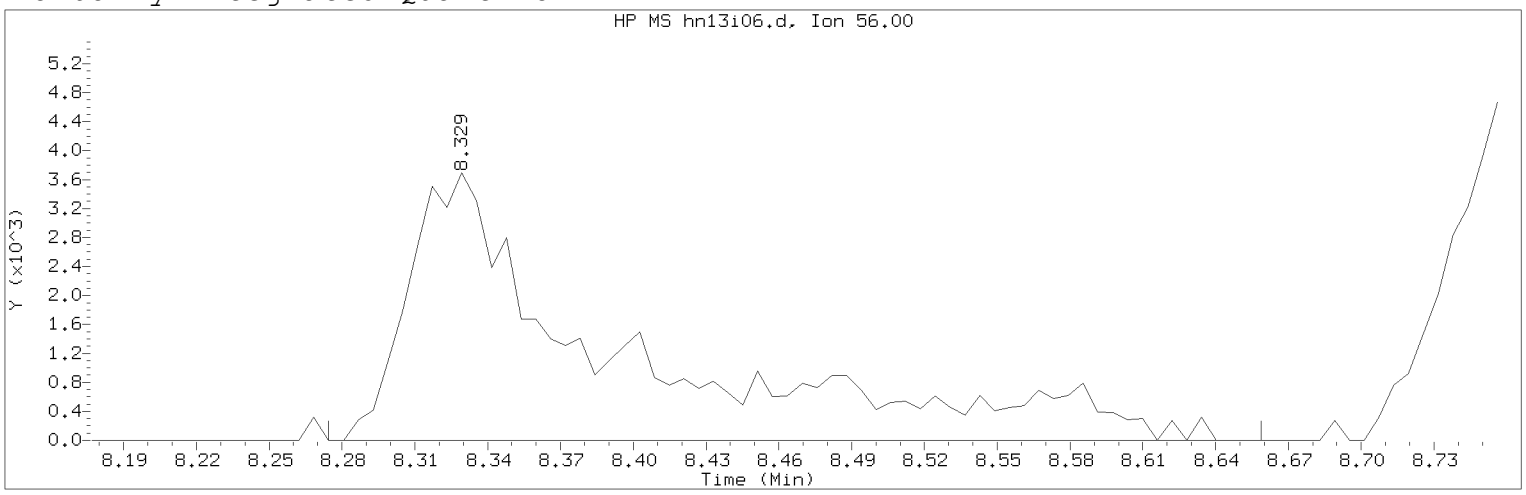
Compound Number	: 62		
Compound Name	: n-Heptane		
Scan Number	: 1046		
Retention Time (minutes)	: 7.964		
Quant Ion	: 43.00		
Area	: 43549		
On-column Amount (ng)	: 0.5087		
Integration start scan	: 1031	Integration stop scan:	1079
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 705 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

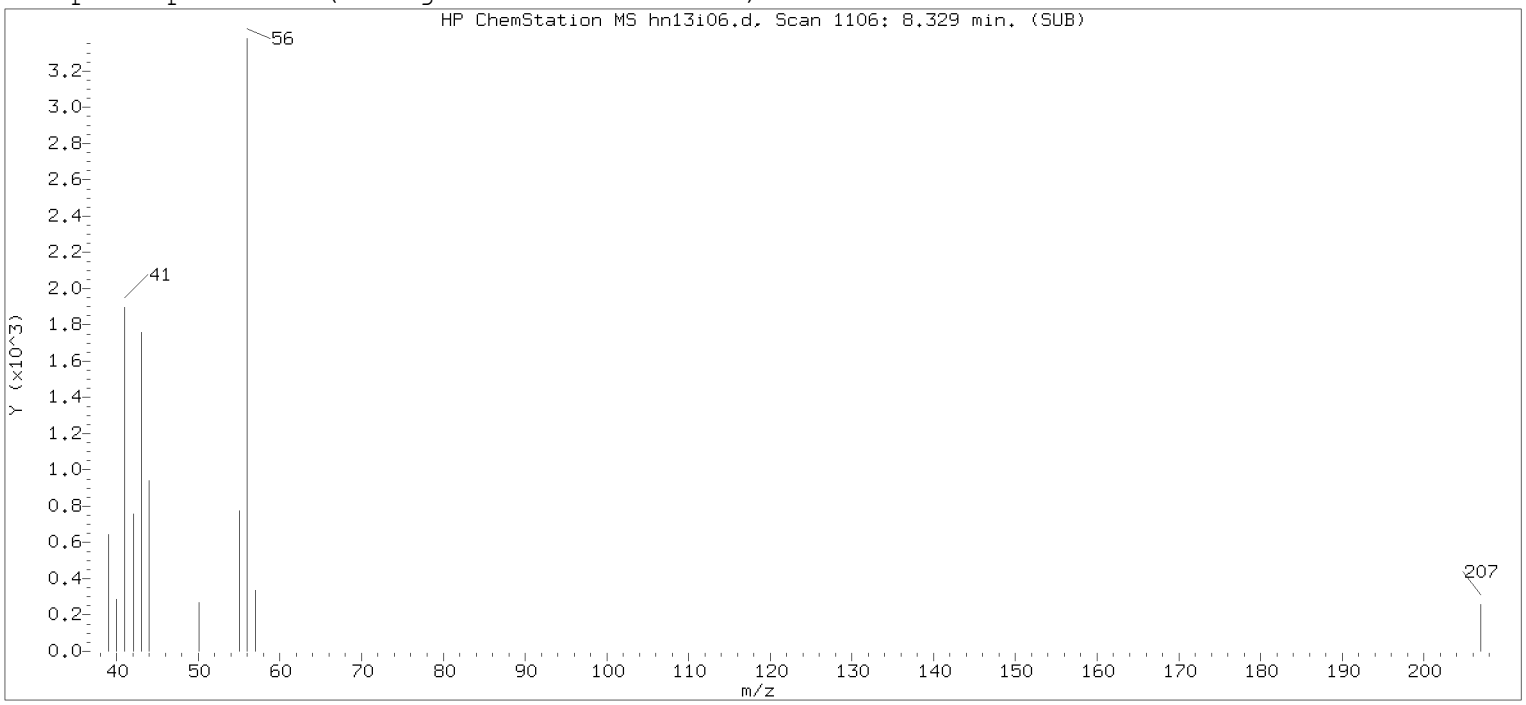
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1106
Retention Time (minutes): 8.329
Quant Ion : 56.00
Area (flag) : 21454M
On-Column Amount (ng) : 49.0582
Integration start scan : 1096 Integration stop scan: 1159
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

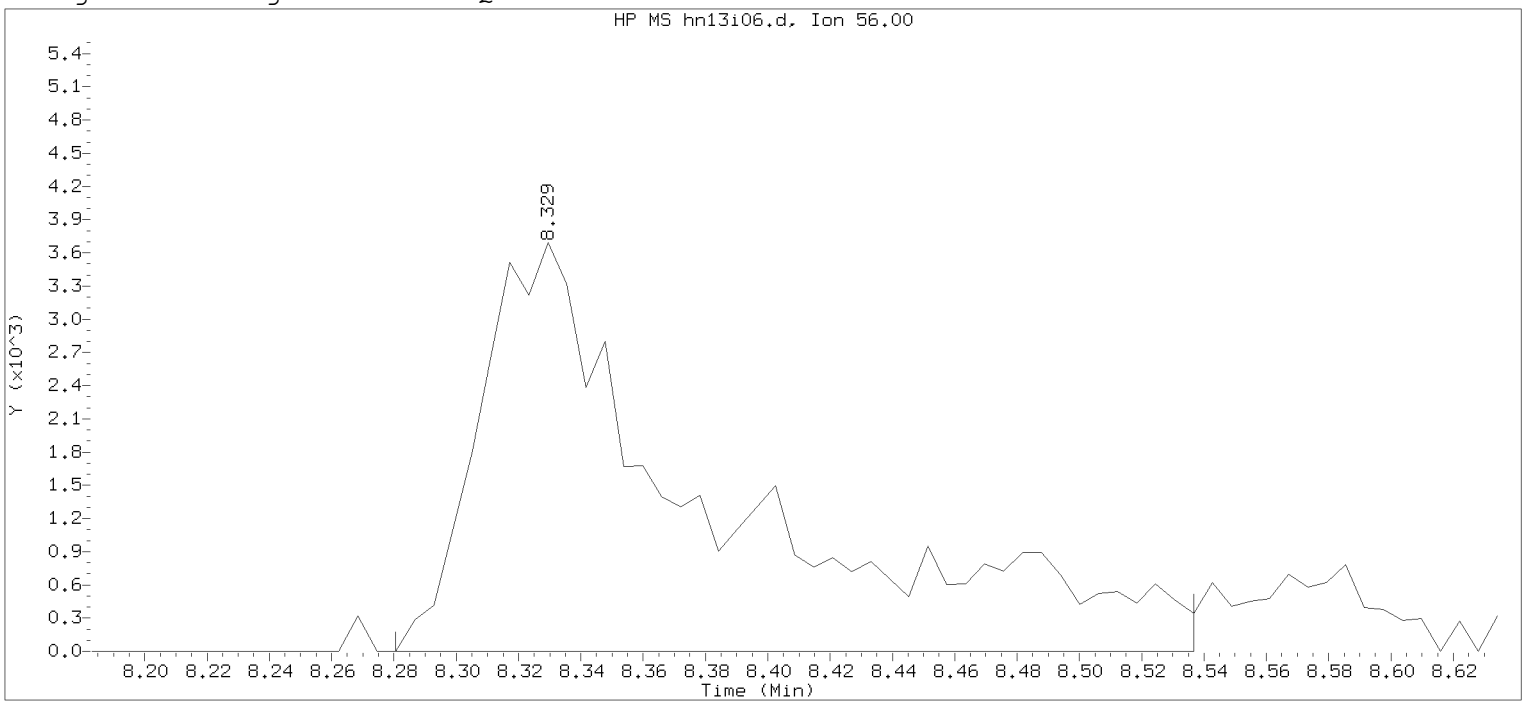
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

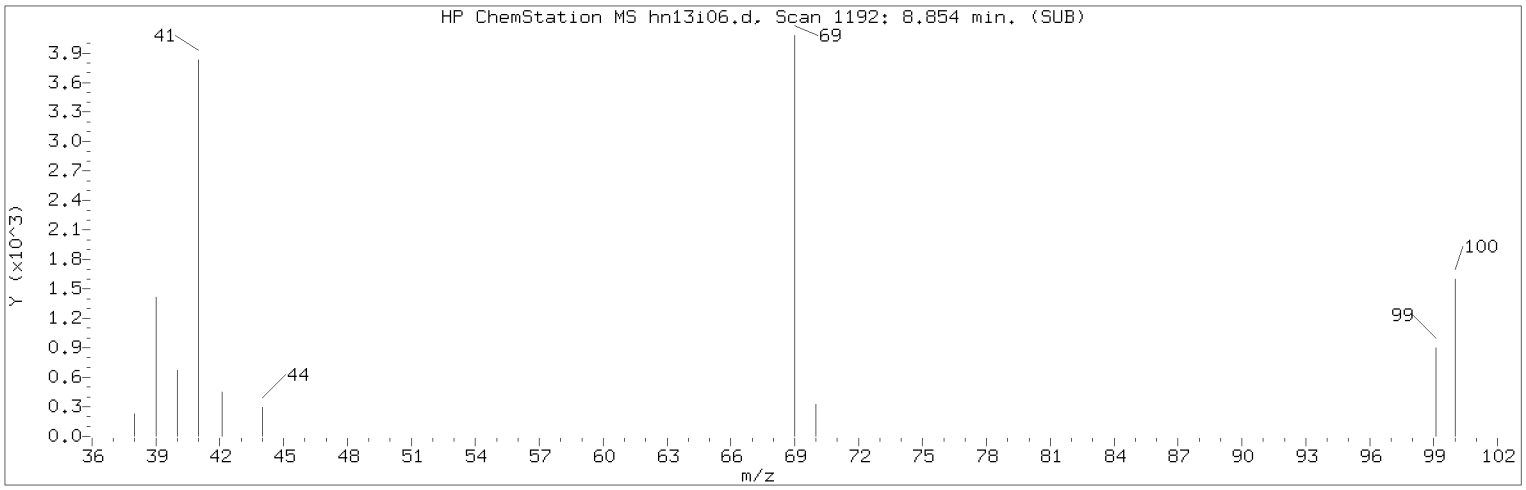
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

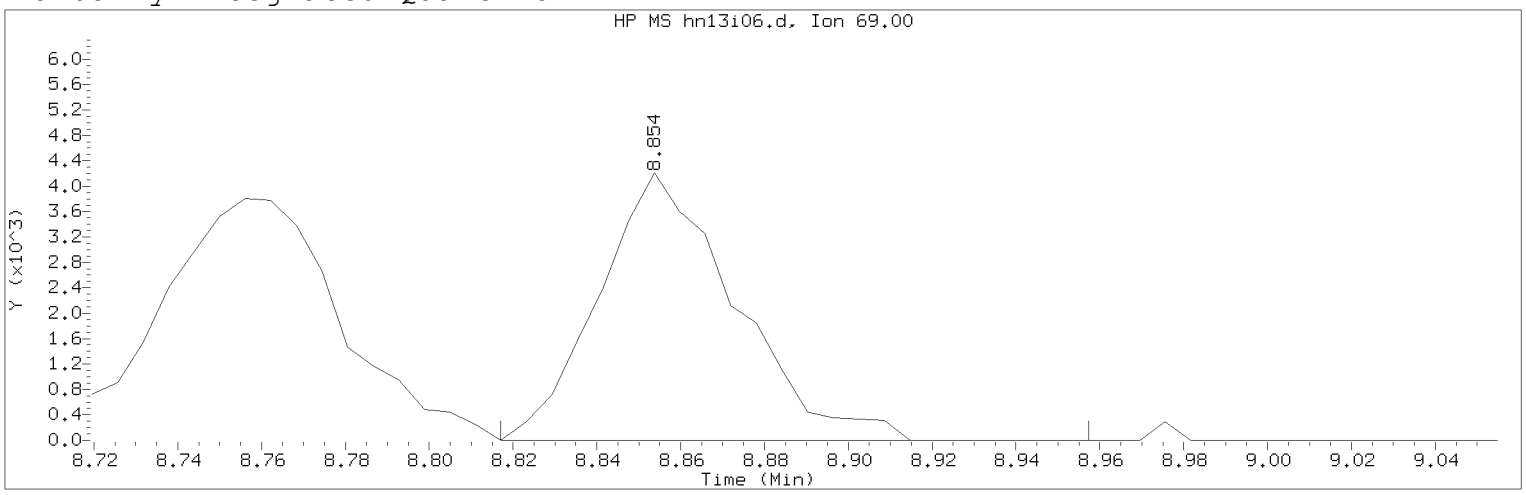
Compound Number	: 65		
Compound Name	: n-Butanol		
Scan Number	: 1106		
Retention Time (minutes)	: 8.329		
Quant Ion	: 56.00		
Area	: 18986		
On-column Amount (ng)	: 47.4250		
Integration start scan	: 1097	Integration stop scan:	1139
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 707

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

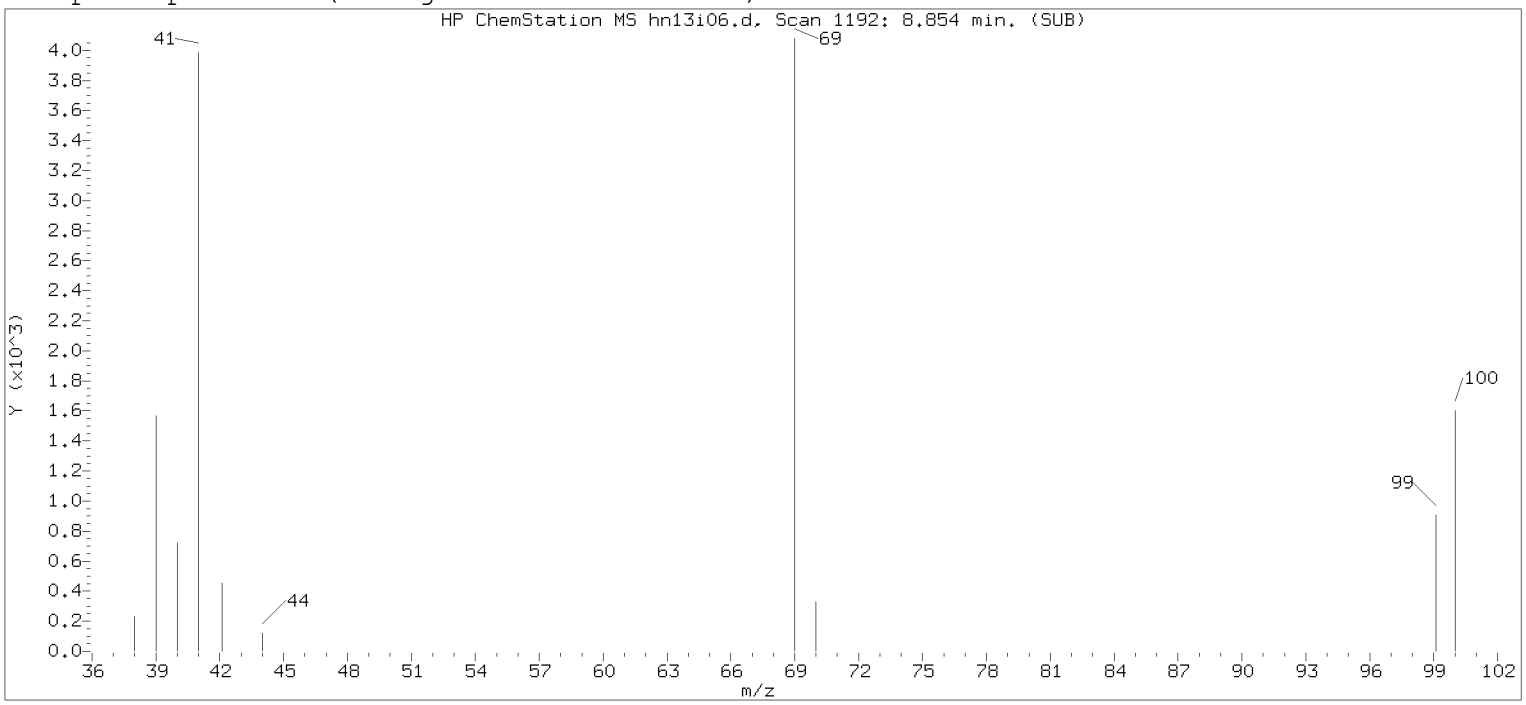
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area (flag) : 9523M
On-Column Amount (ng) : 0.5553
Integration start scan : 1185 Integration stop scan: 1208
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

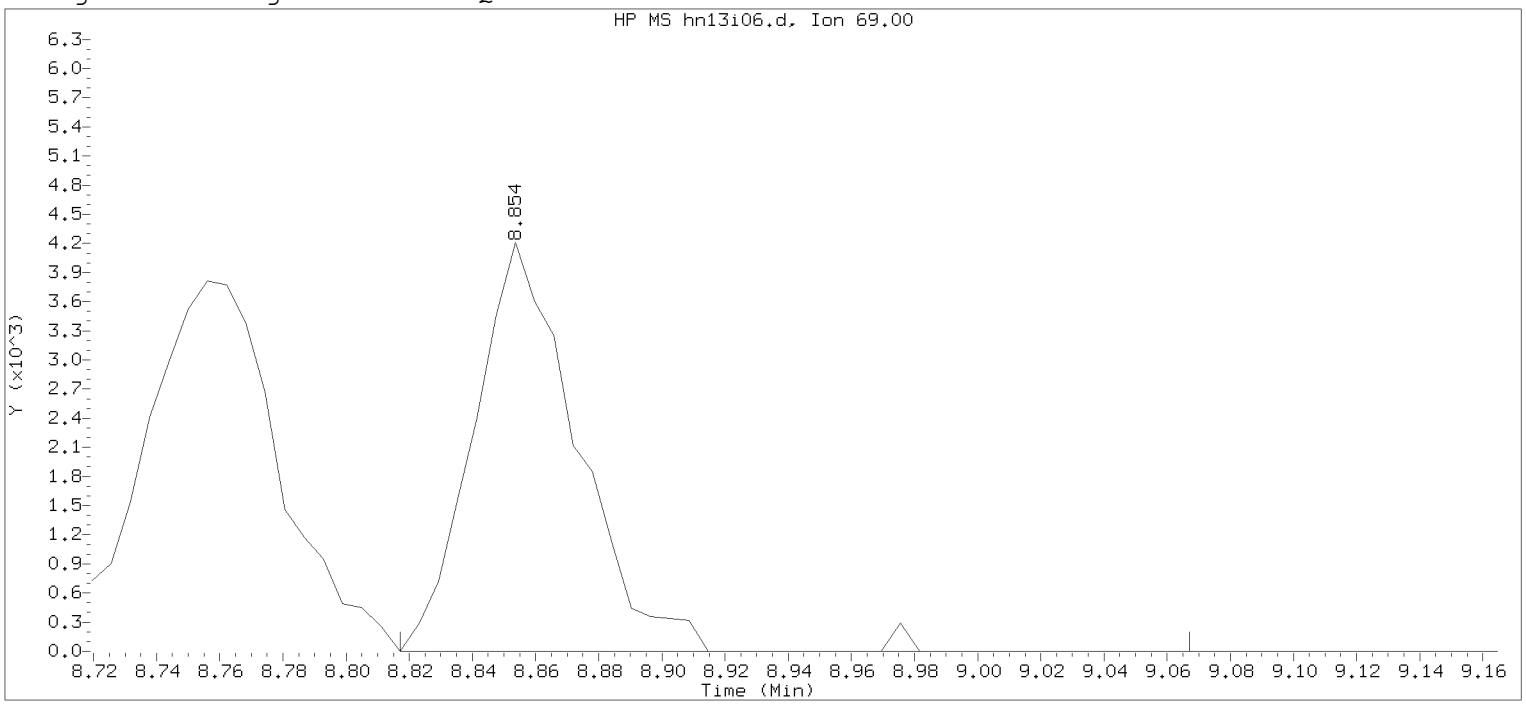
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

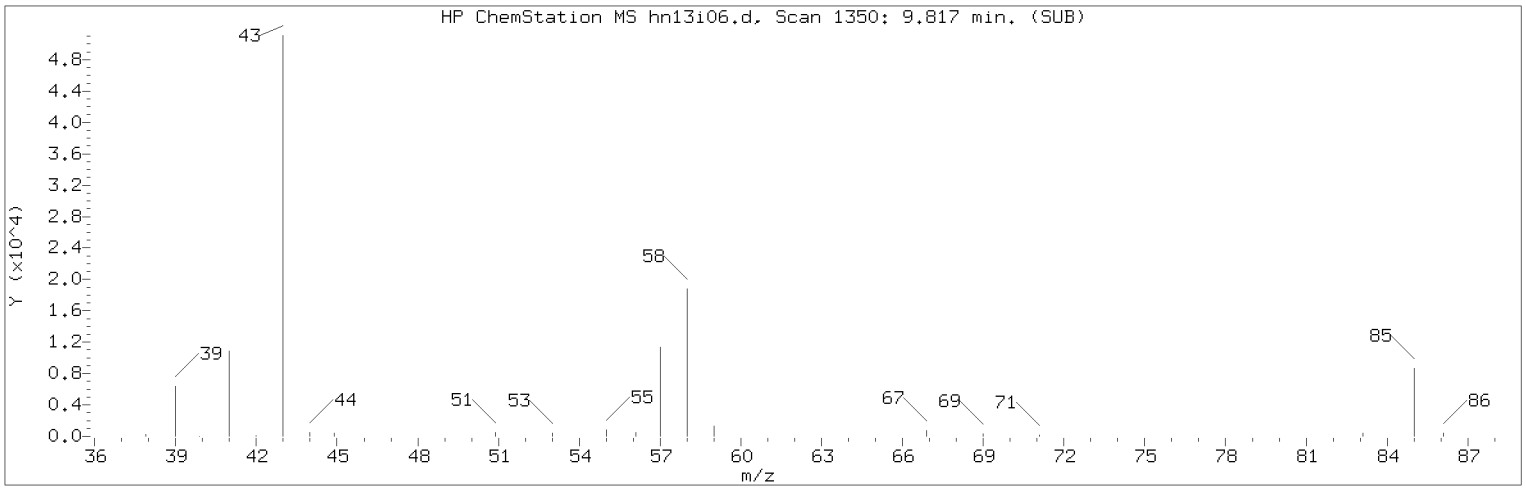
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

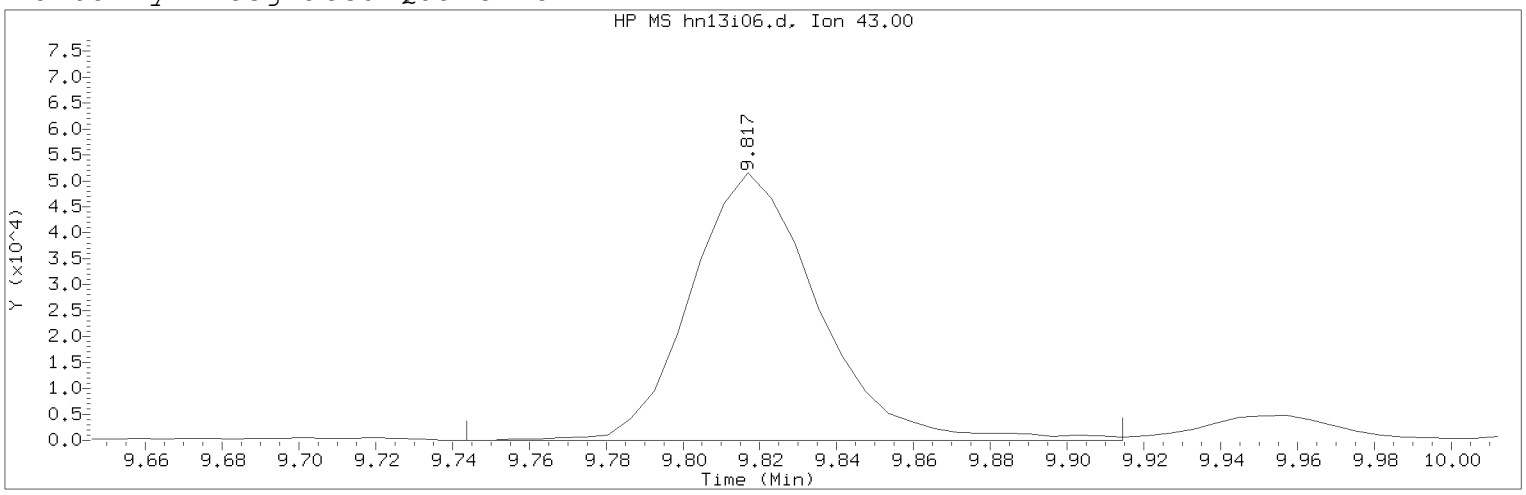
Compound Number	: 71		
Compound Name	: Methyl Methacrylate		
Scan Number	: 1192		
Retention Time (minutes)	: 8.854		
Quant Ion	: 69.00		
Area	: 9629		
On-column Amount (ng)	: 0.6065		
Integration start scan	: 1185	Integration stop scan:	1226
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 709 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

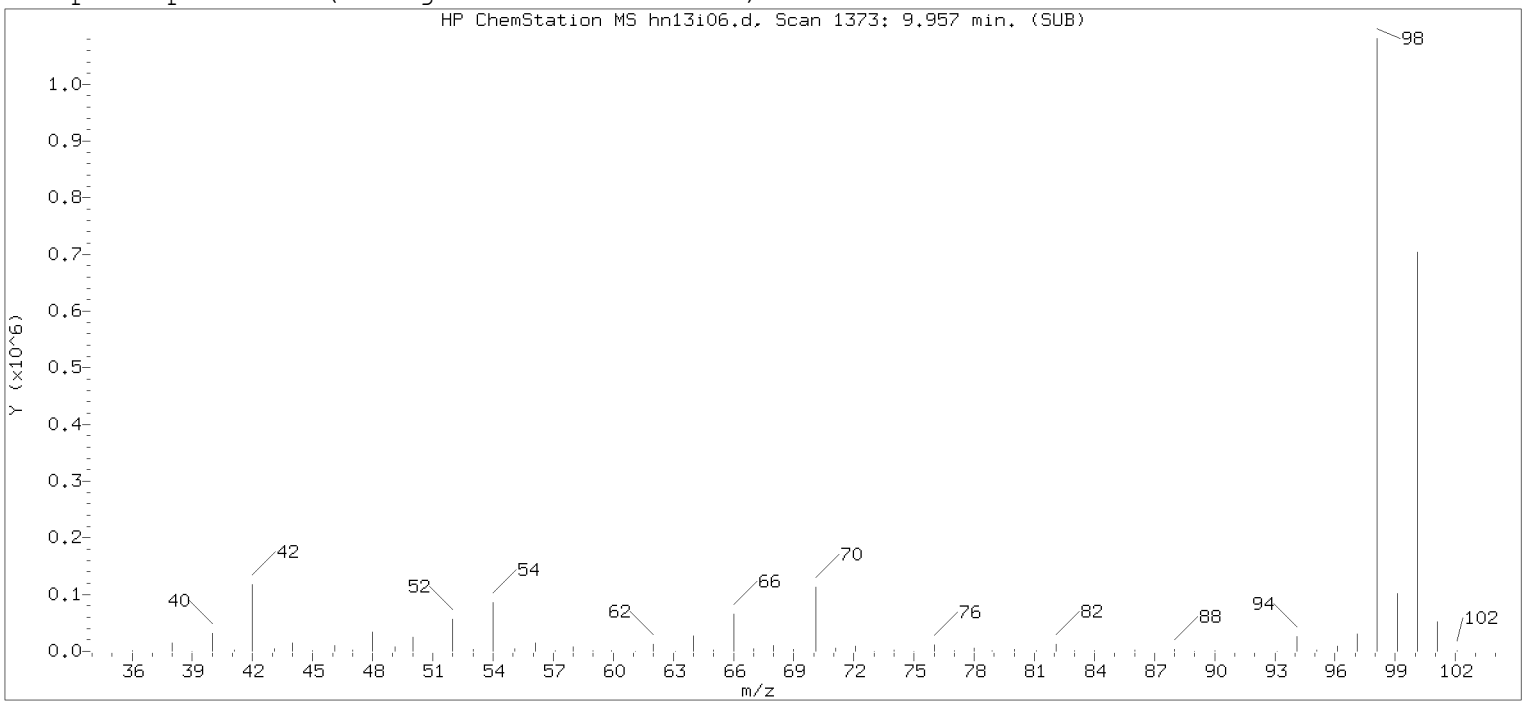
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 118819M
On-Column Amount (ng) : 5.4910
Integration start scan : 1337 Integration stop scan: 1365
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

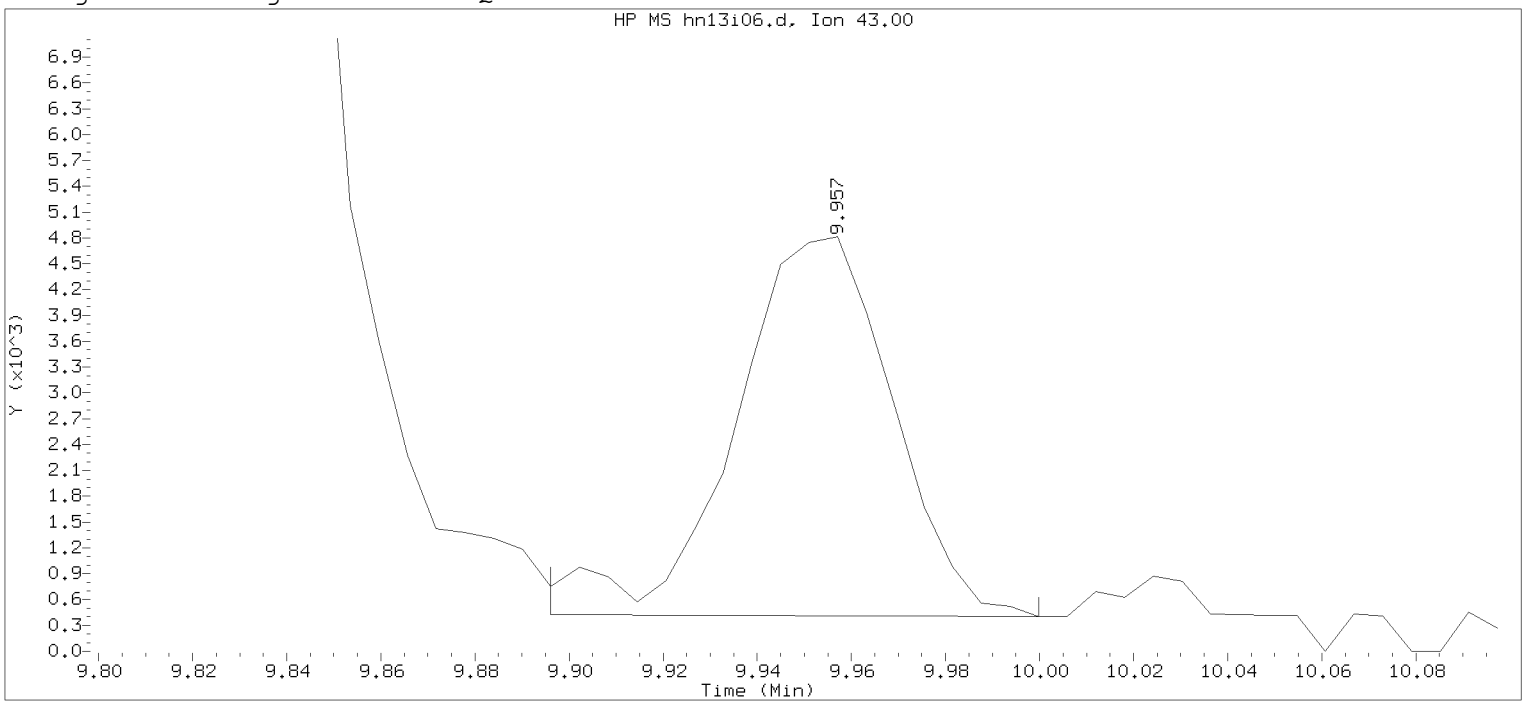
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 81		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1373		
Retention Time (minutes)	: 9.957		
Quant Ion	: 43.00		
Area	: 10302		
On-column Amount (ng)	: 0.6277		
Integration start scan	: 1362	Integration stop scan:	1379
Y at integration start	: 426	Y at integration end:	400

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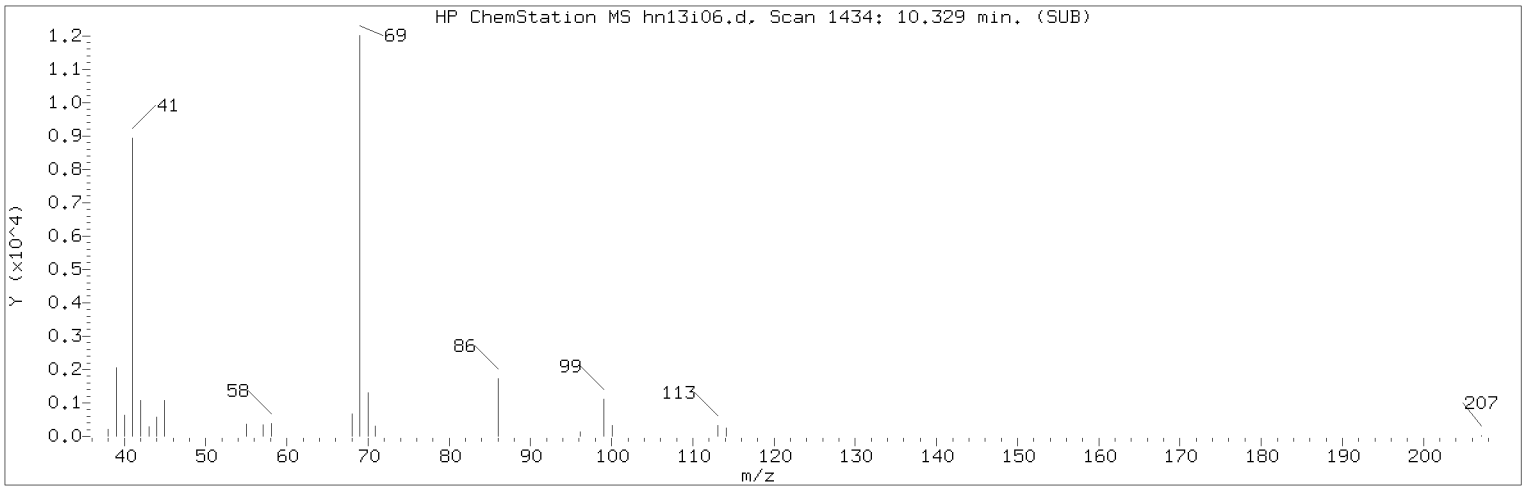
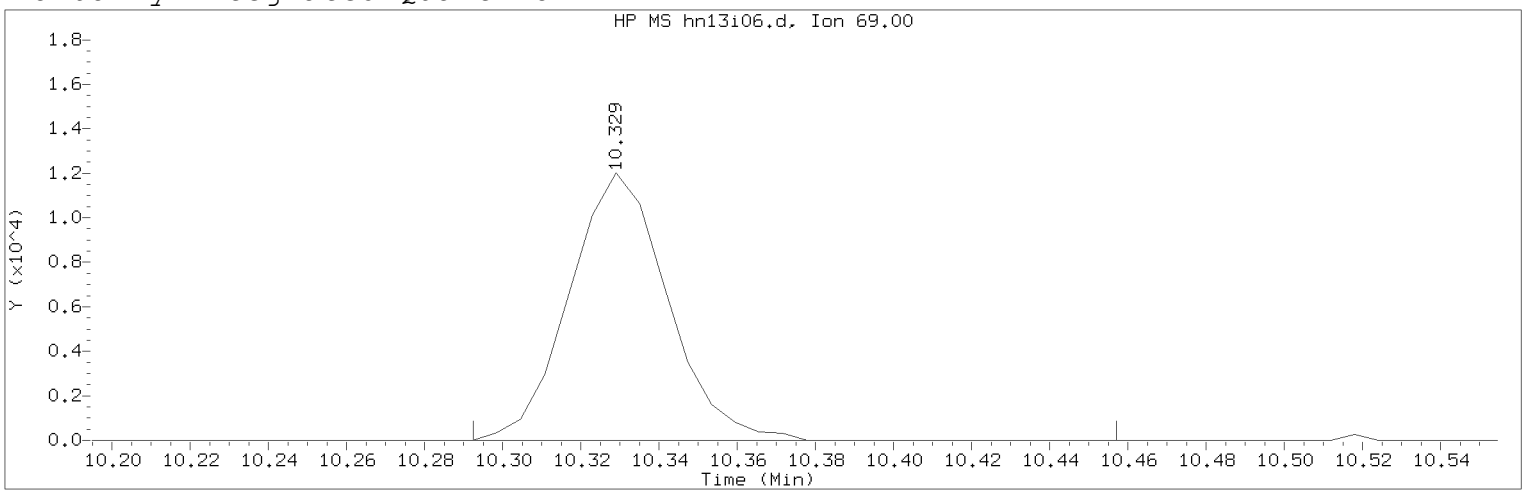
Target 3.5 esignature used. AE35 Page 711

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

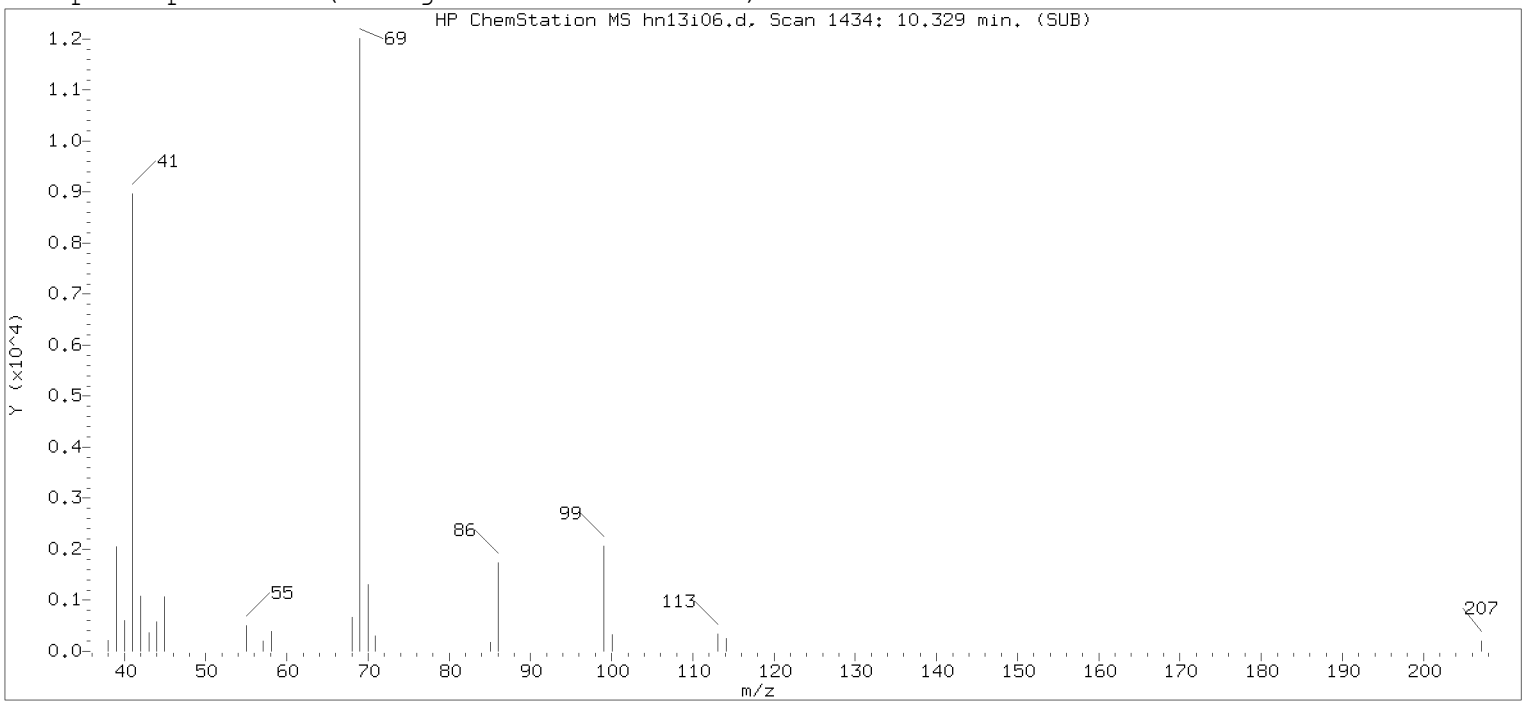
Compound Number : 86
Compound Name : Ethyl Methacrylate
Scan Number : 1434
Retention Time (minutes): 10.329
Quant Ion : 69.00
Area (flag) : 20902M
On-Column Amount (ng) : 0.4765
Integration start scan : 1427 Integration stop scan: 1454
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

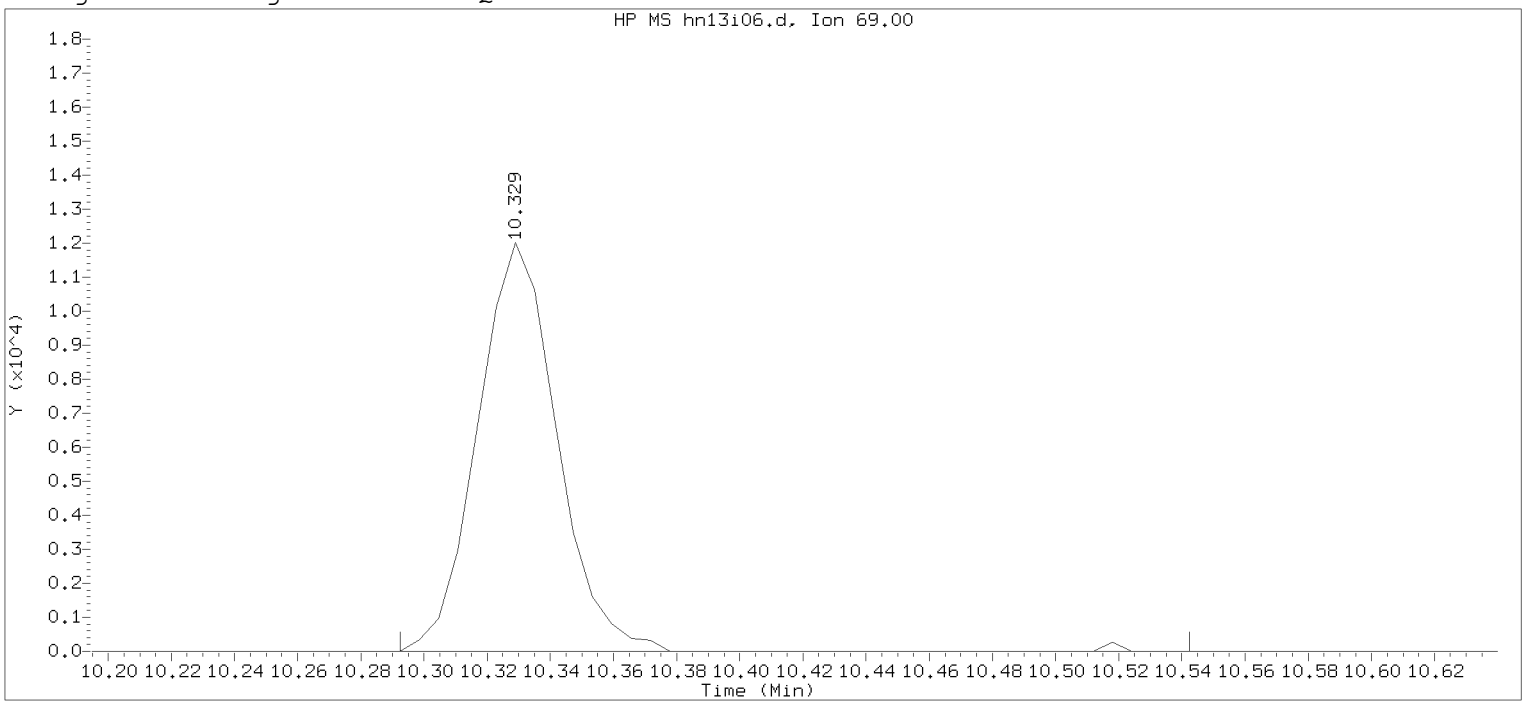
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 86
Compound Name : Ethyl Methacrylate
Scan Number : 1434
Retention Time (minutes): 10.329
Quant Ion : 69.00
Area : 21000
On-column Amount (ng) : 0.4801
Integration start scan : 1427 Integration stop scan: 1468
Y at integration start : 0 Y at integration end: 0

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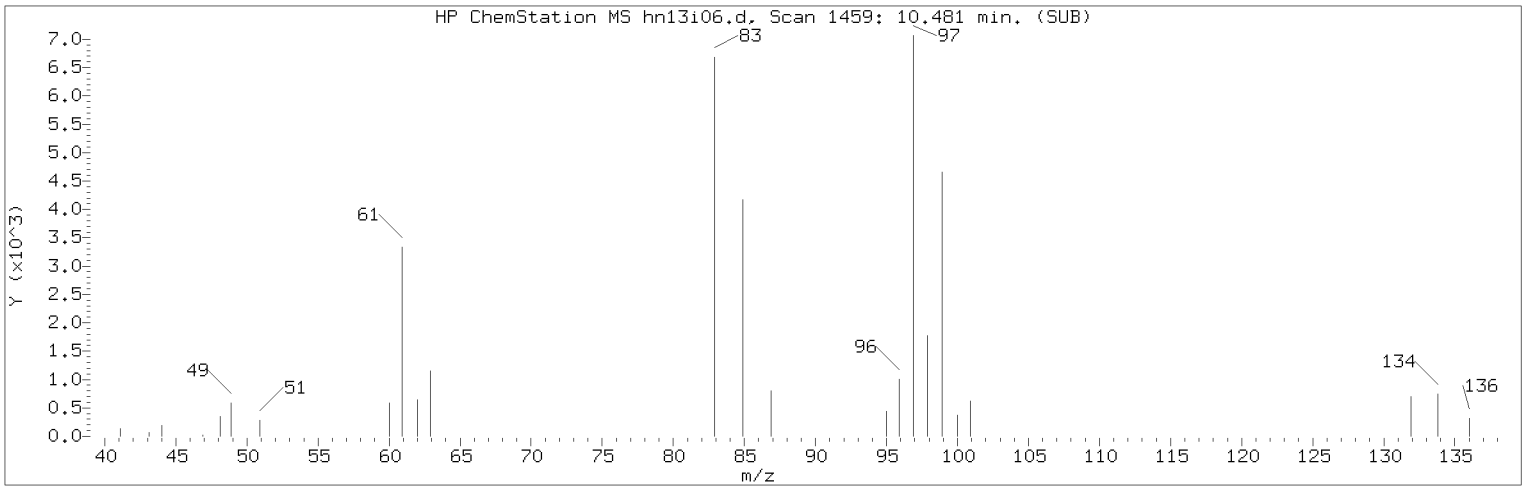
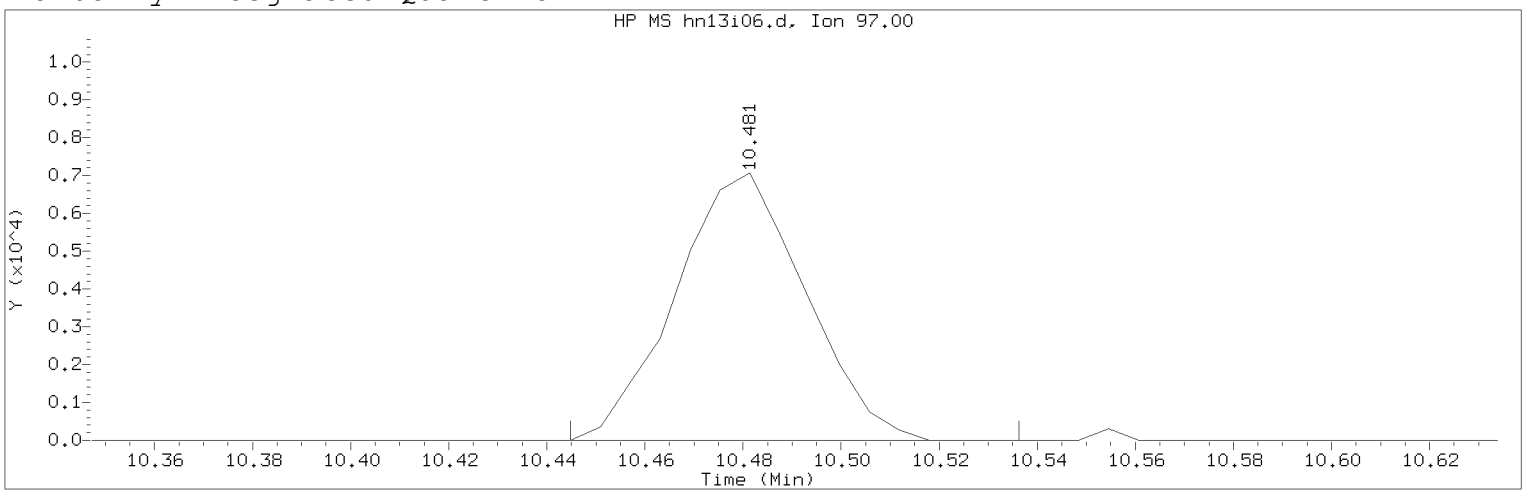
Target 3.5 esignature used. AE35 Page 713

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

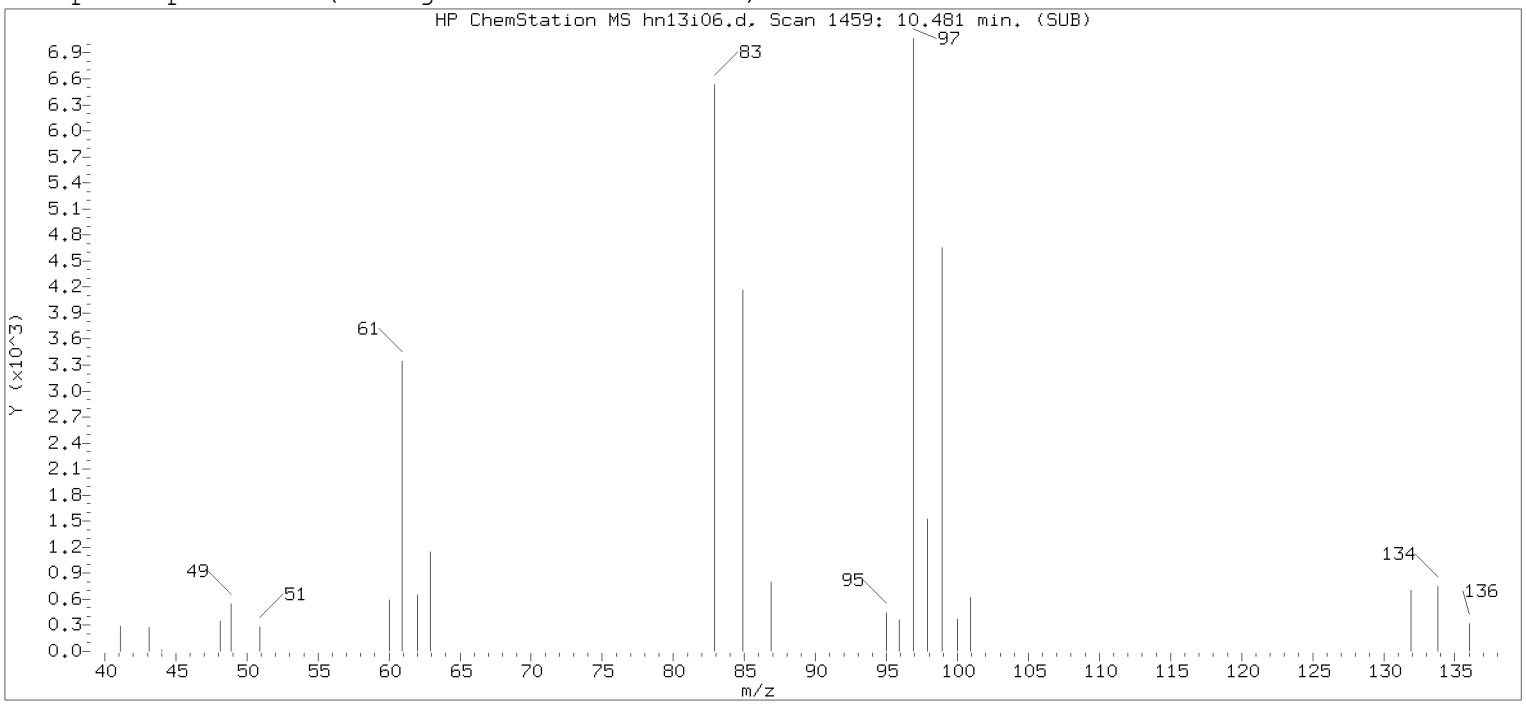
Compound Number : 88
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1459
Retention Time (minutes): 10.481
Quant Ion : 97.00
Area (flag) : 12963M
On-Column Amount (ng) : 0.4805
Integration start scan : 1452 Integration stop scan: 1467
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

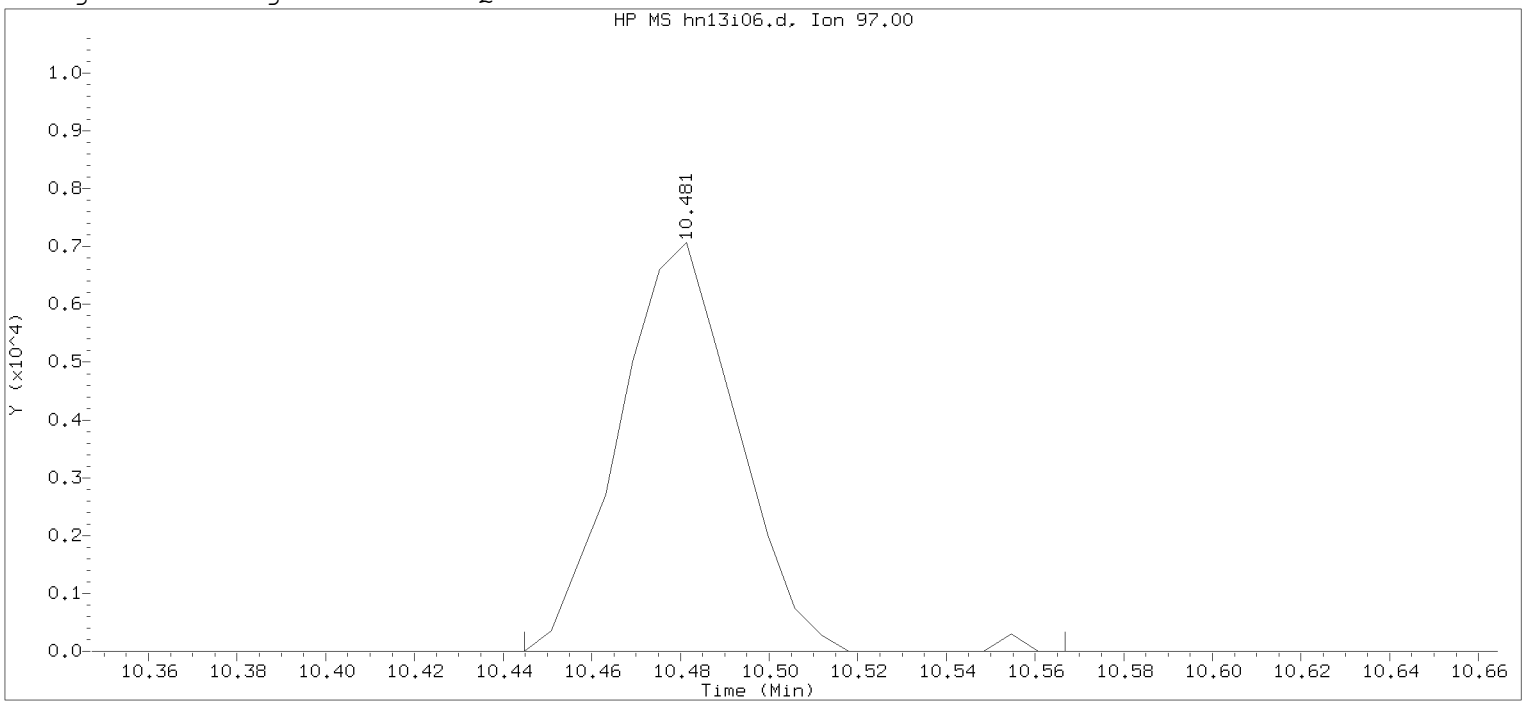
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

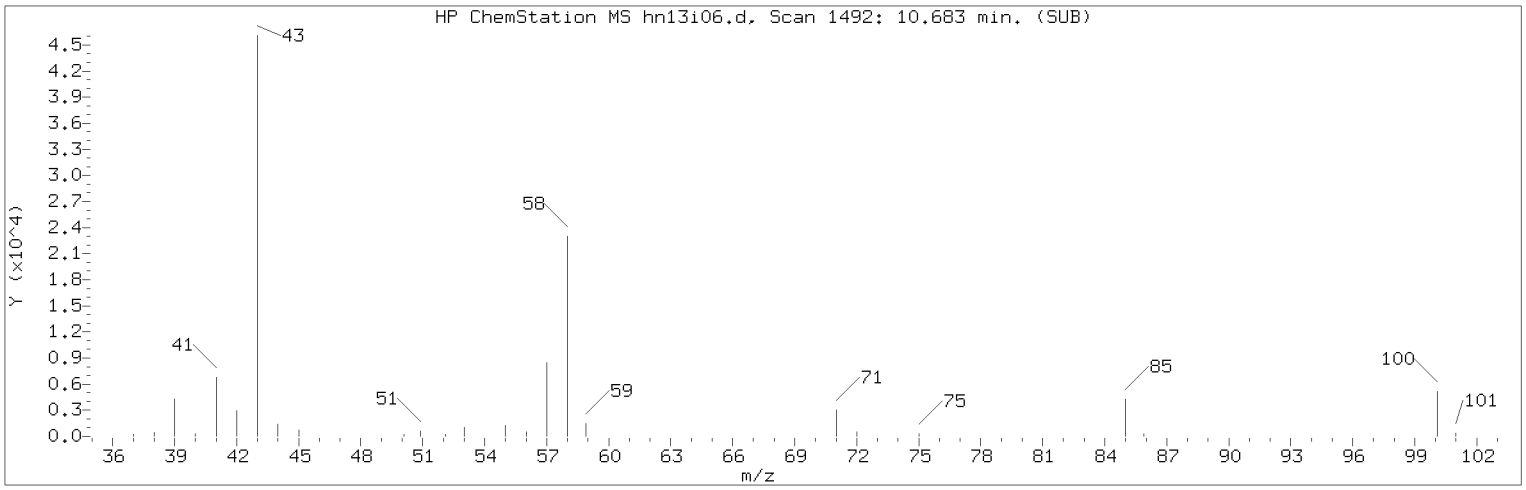
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

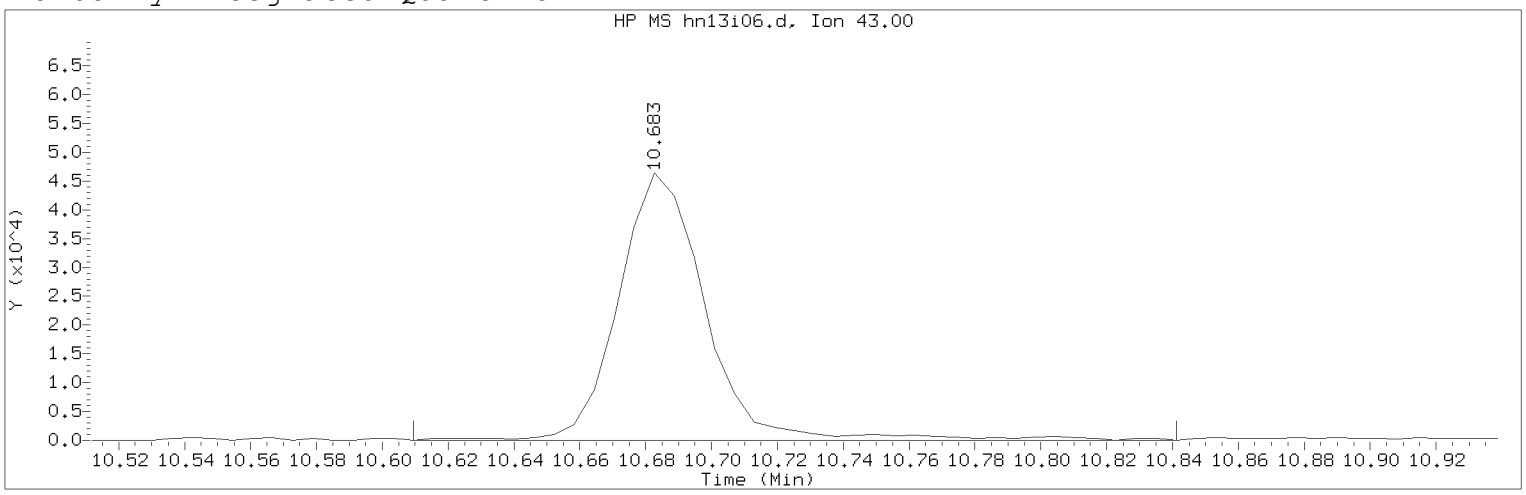
Compound Number	: 88		
Compound Name	: 1,1,2-Trichloroethane		
Scan Number	: 1459		
Retention Time (minutes)	: 10.481		
Quant Ion	: 97.00		
Area	: 13074		
On-column Amount (ng)	: 0.4813		
Integration start scan	: 1452	Integration stop scan:	1472
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 715

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

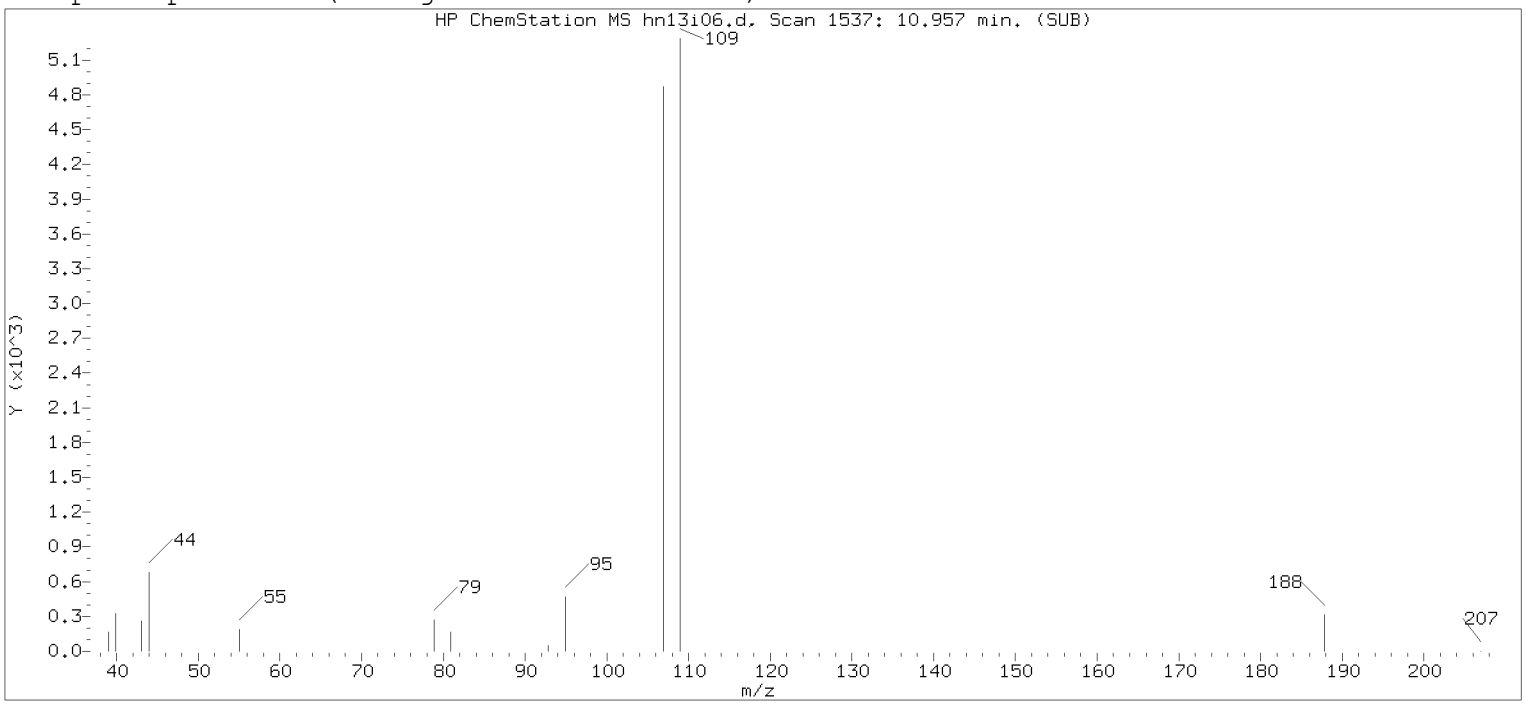
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.683
Quant Ion : 43.00
Area (flag) : 85741M
On-Column Amount (ng) : 5.7015
Integration start scan : 1479 Integration stop scan: 1517
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

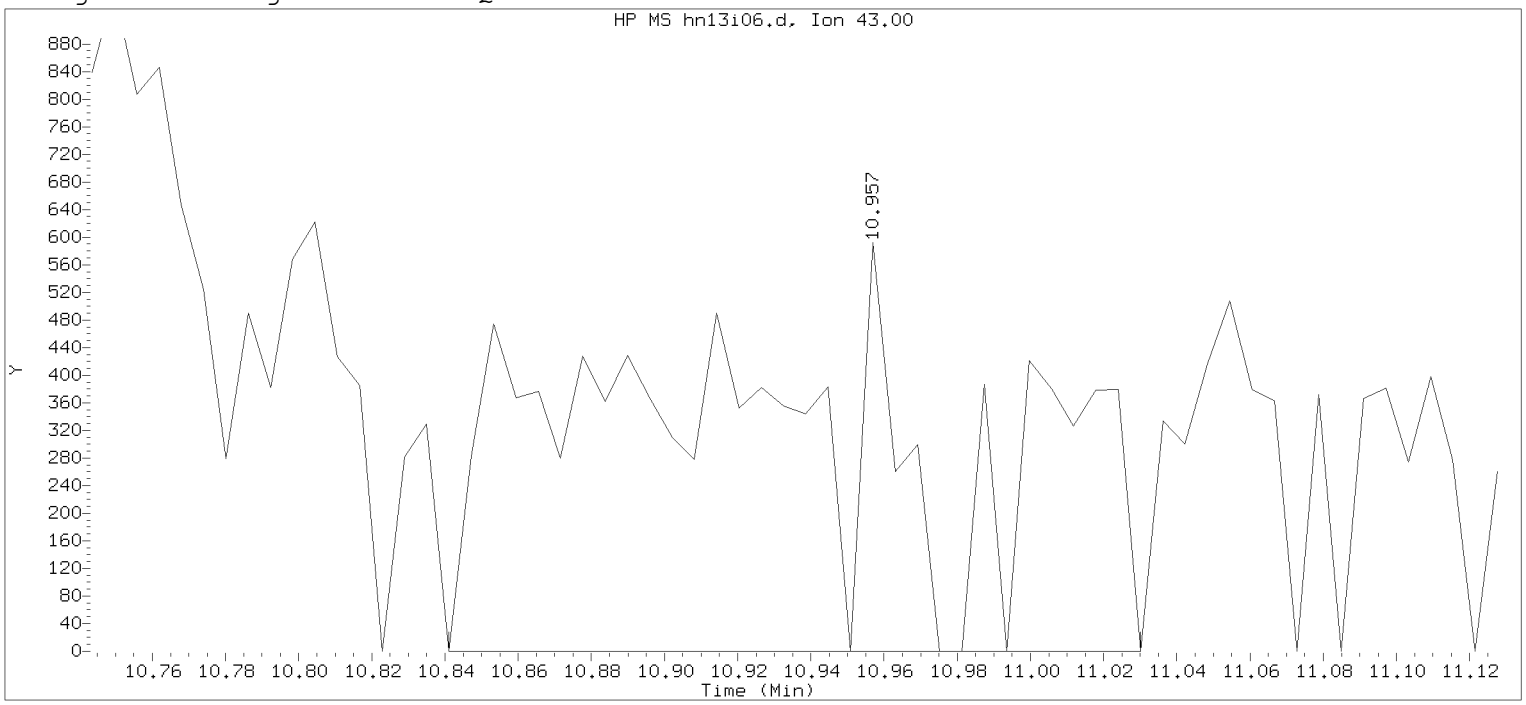
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

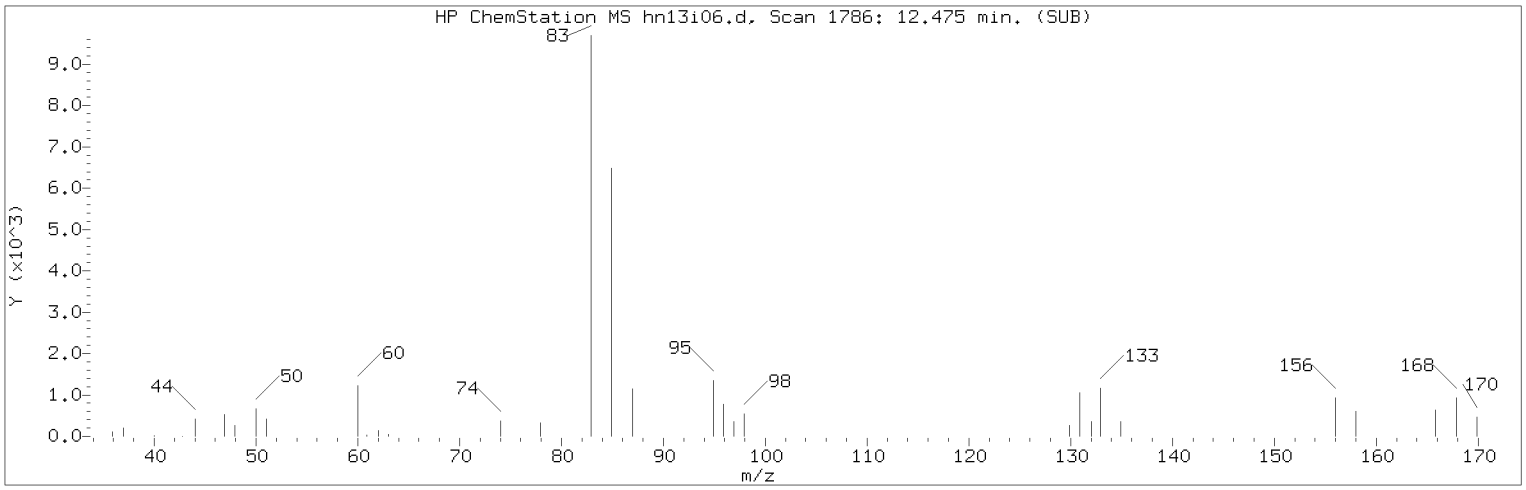
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

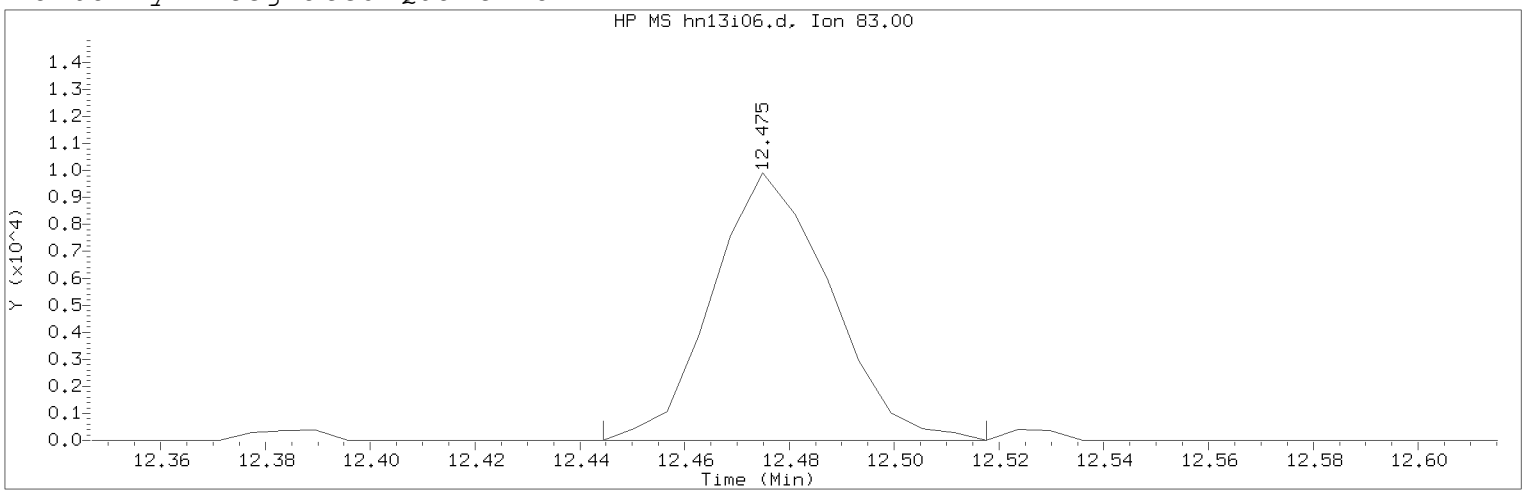
Compound Number	: 91		
Compound Name	: 2-Hexanone		
Scan Number	: 1537		
Retention Time (minutes)	: 10.957		
Quant Ion	: 43.00		
Area	: 3541		
On-column Amount (ng)	: 0.3165		
Integration start scan	: 1517	Integration stop scan:	1548
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 717

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

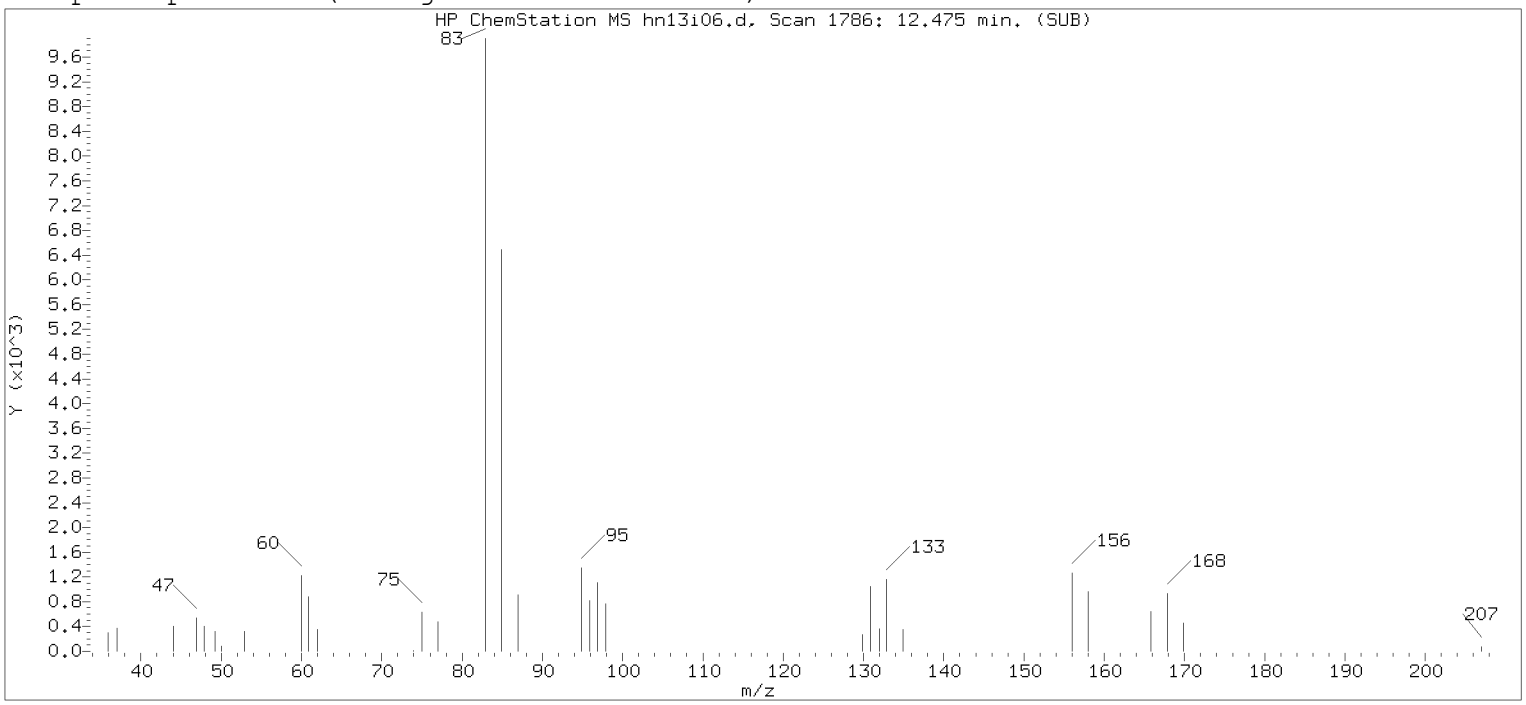
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 15357M
On-Column Amount (ng) : 0.4743
Integration start scan : 1780 Integration stop scan: 1792
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

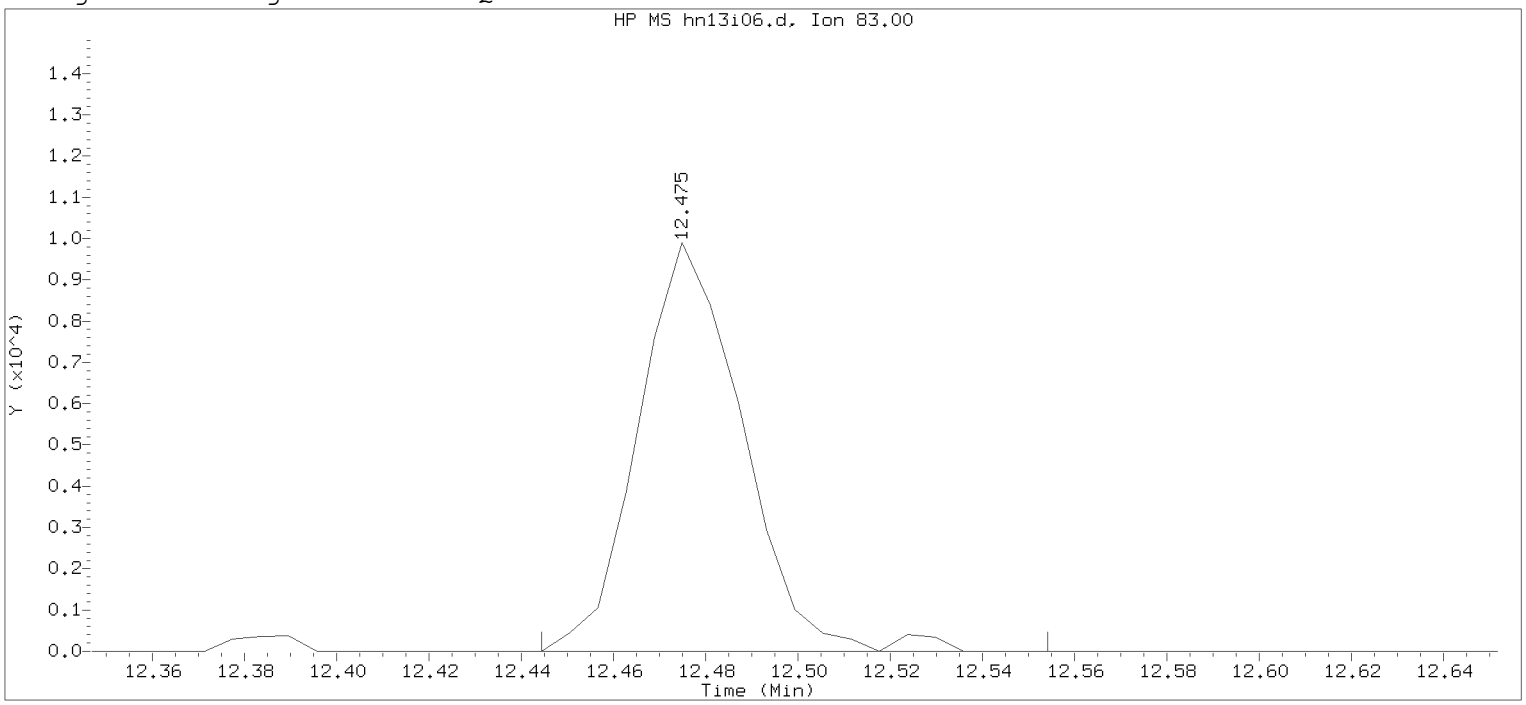
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

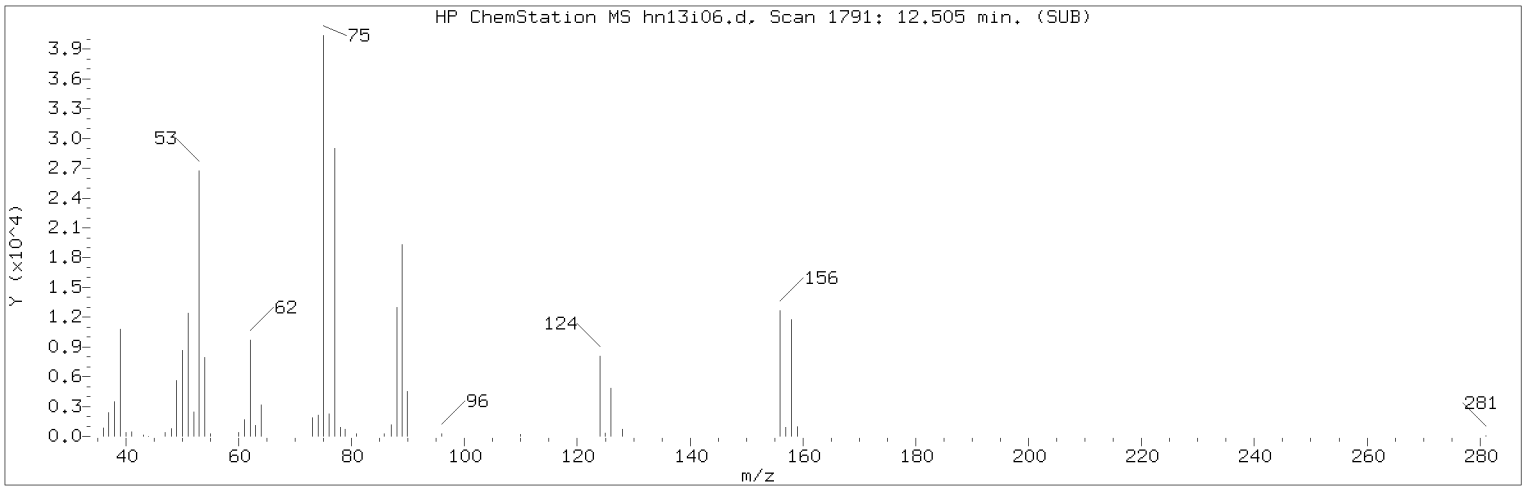
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

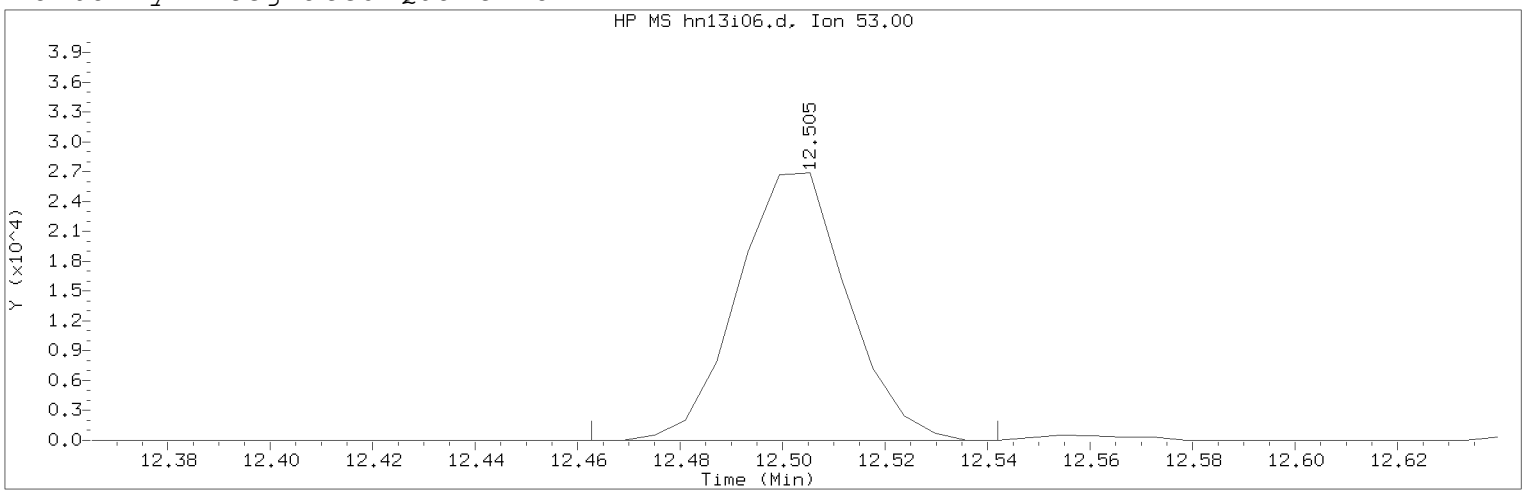
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 15633
On-column Amount (ng) : 0.4763
Integration start scan : 1780 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 719

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

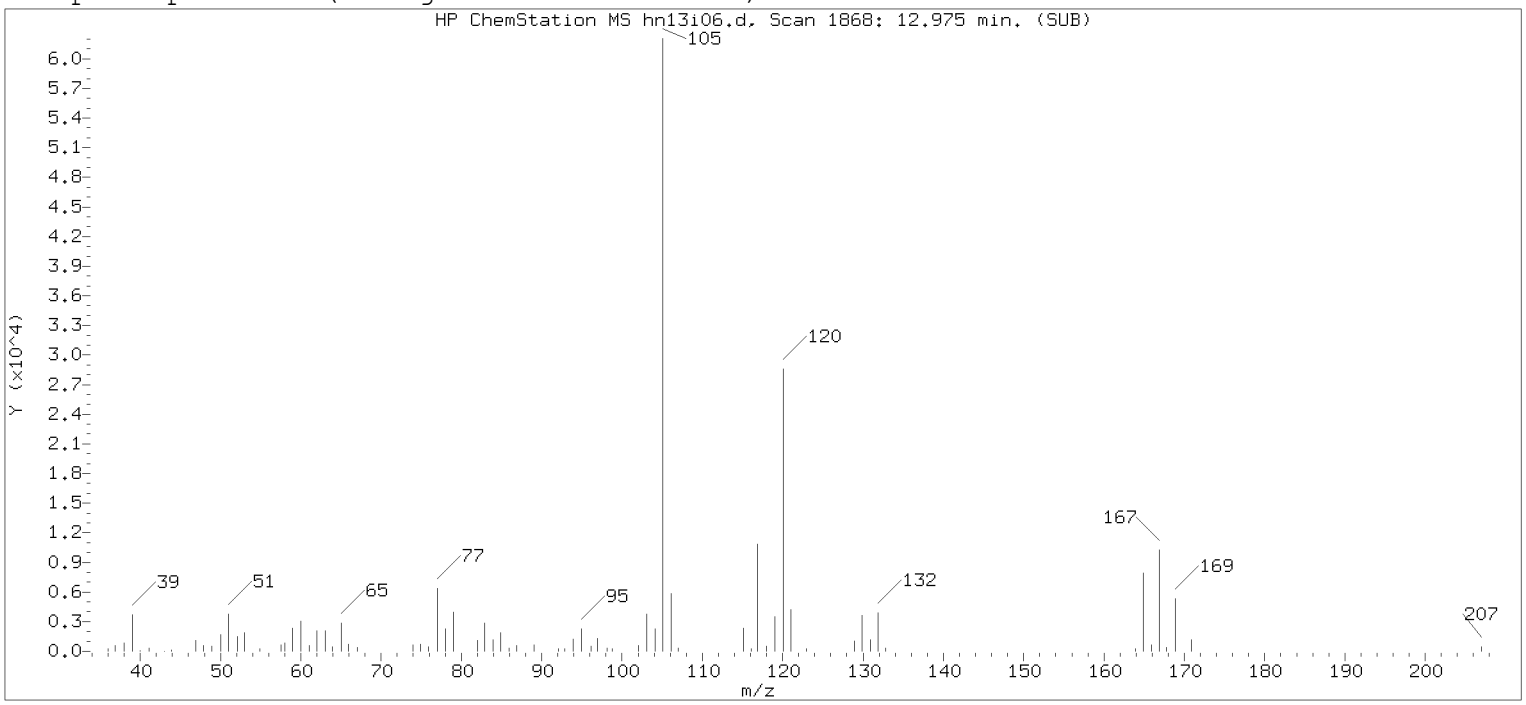
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1791
Retention Time (minutes): 12.505
Quant Ion : 53.00
Area (flag) : 40063M
On-Column Amount (ng) : 5.3721
Integration start scan : 1783 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

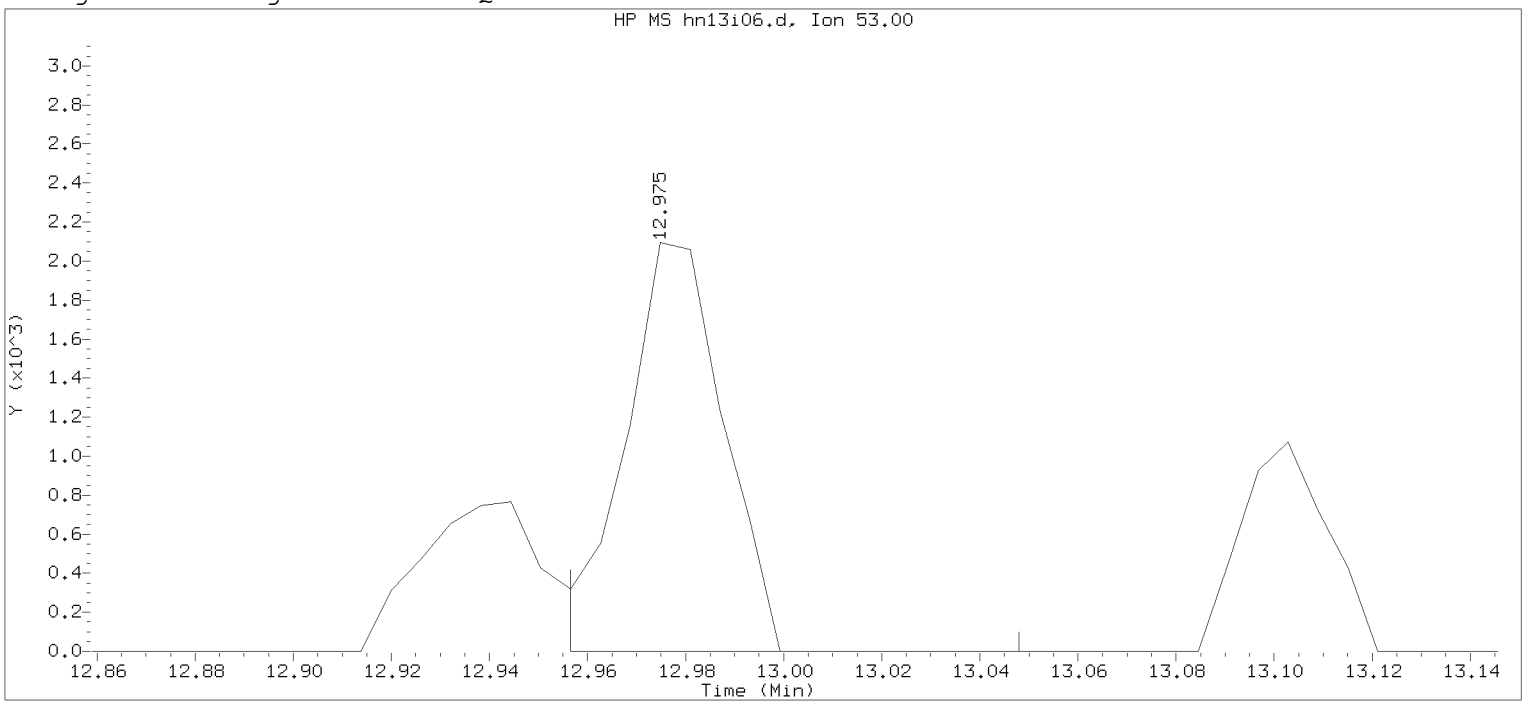
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

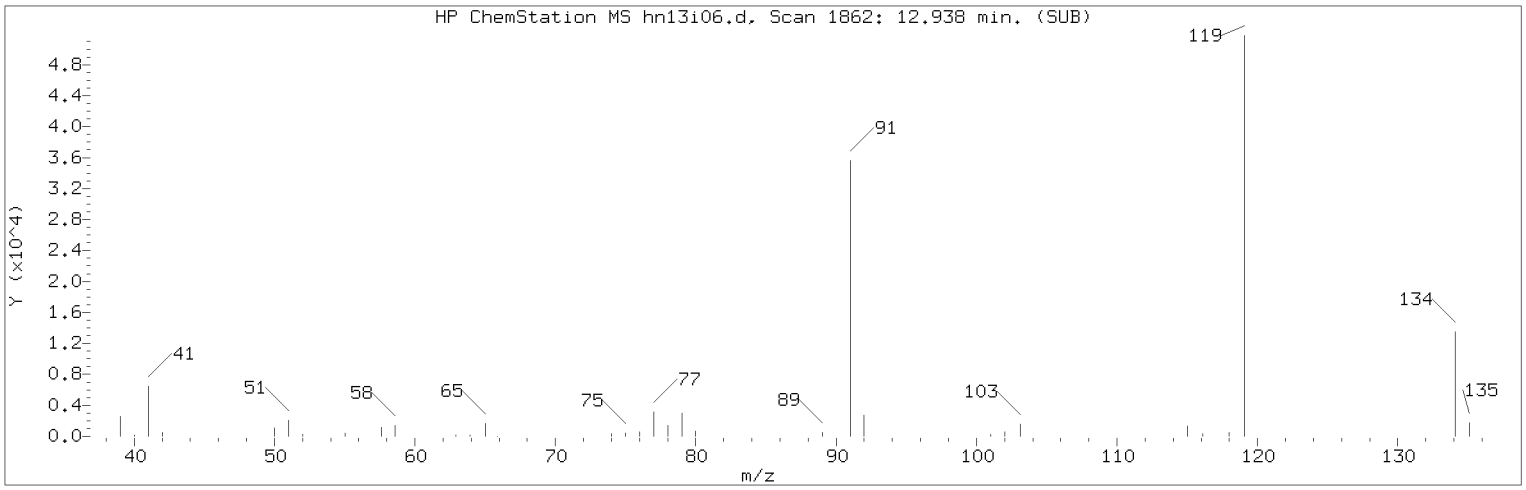
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

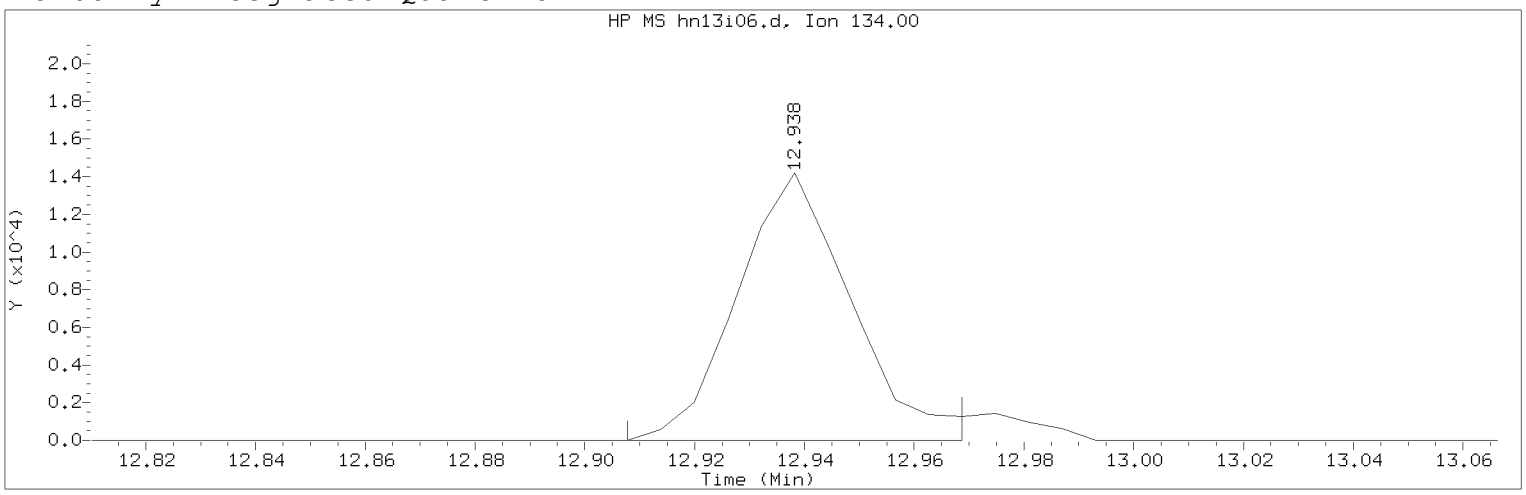
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 53.00
Area : 2899
On-column Amount (ng) : 0.5101
Integration start scan : 1864 Integration stop scan: 1879
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

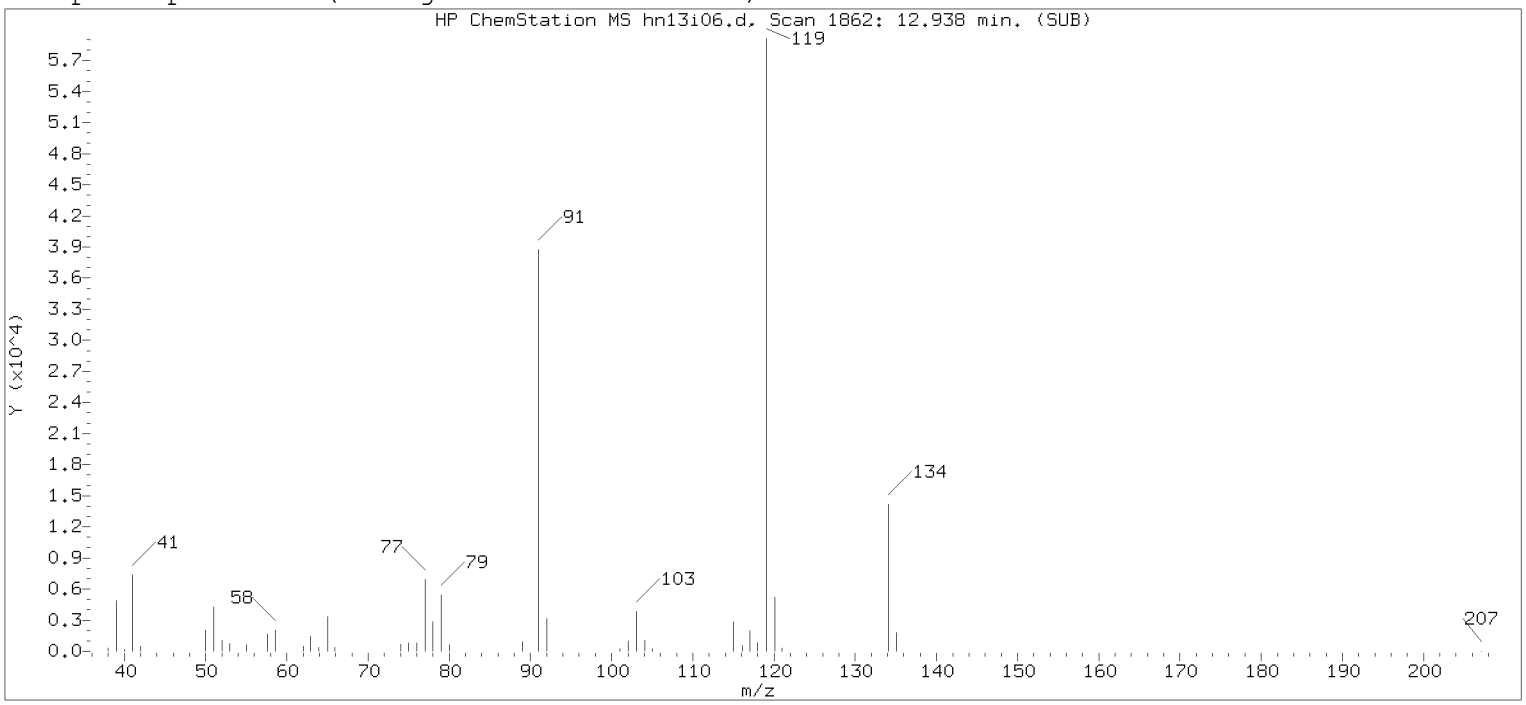
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 20433M
On-Column Amount (ng) : 0.4749
Integration start scan : 1856 Integration stop scan: 1866
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

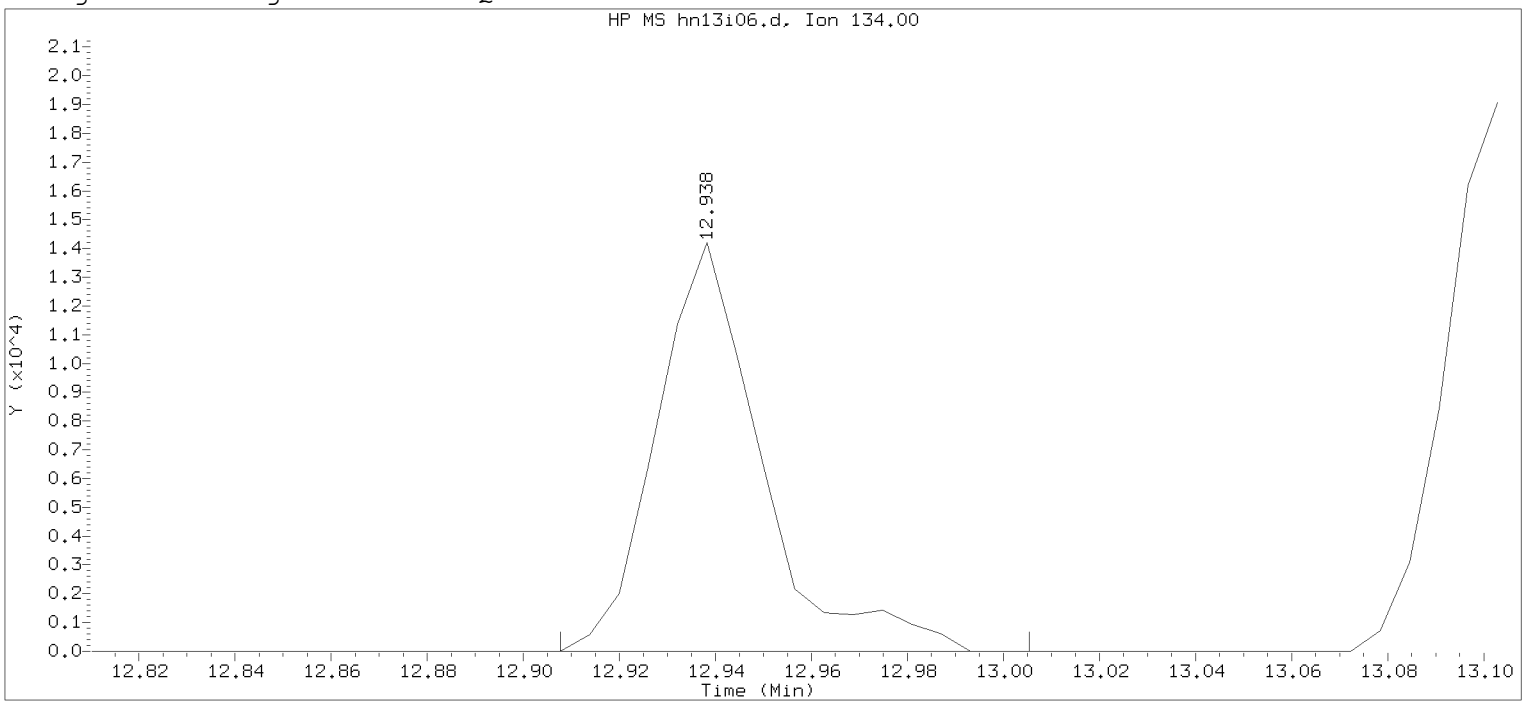
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

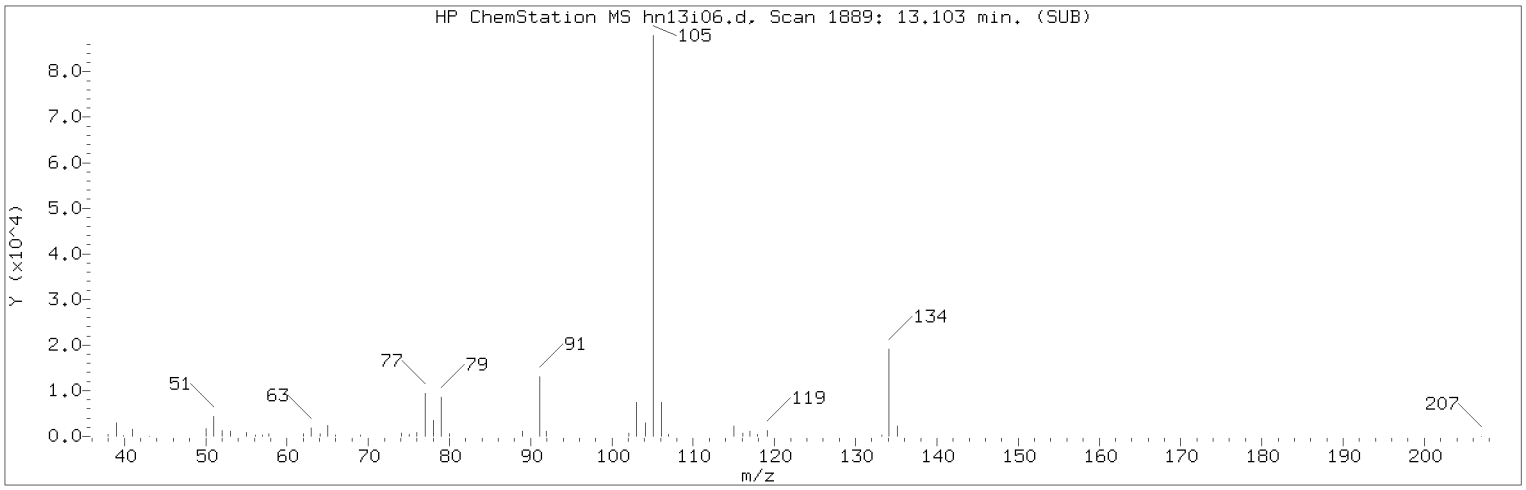
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

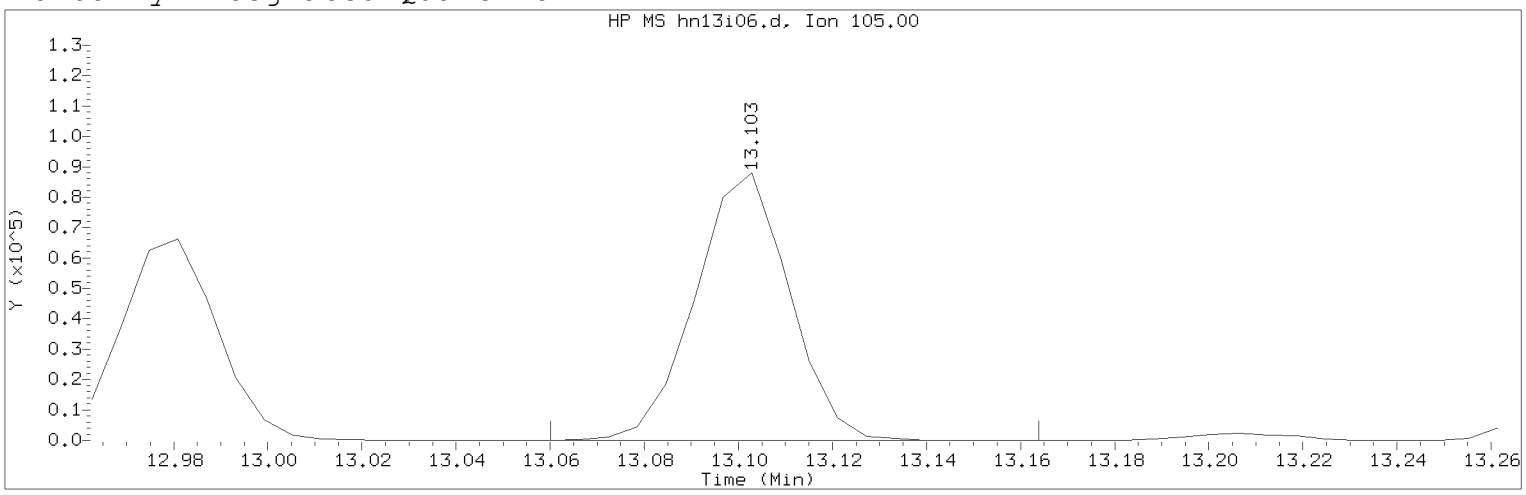
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 21519
On-column Amount (ng) : 0.4914
Integration start scan : 1856 Integration stop scan: 1872
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 723 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

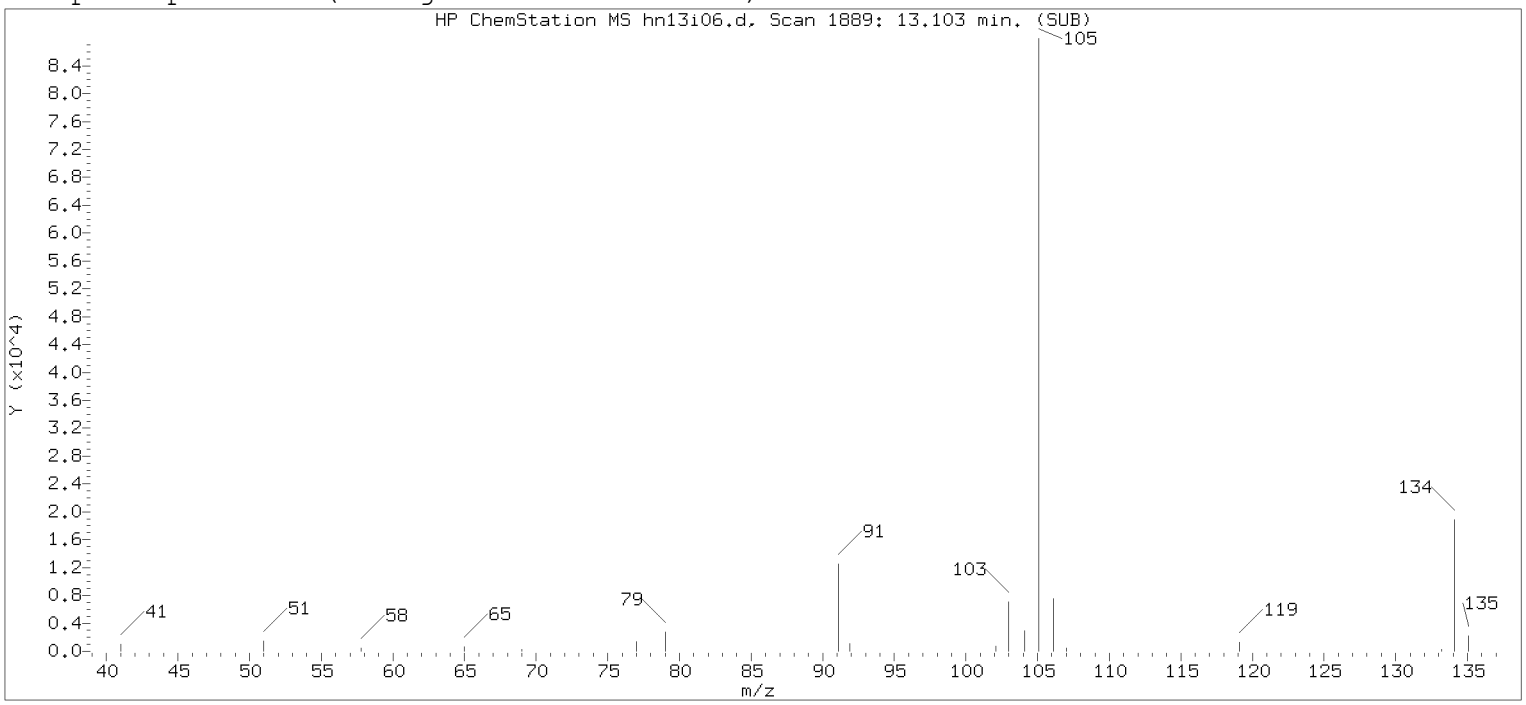
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1889
Retention Time (minutes): 13.103
Quant Ion : 105.00
Area (flag) : 122065M
On-Column Amount (ng) : 0.4775
Integration start scan : 1881 Integration stop scan: 1898
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

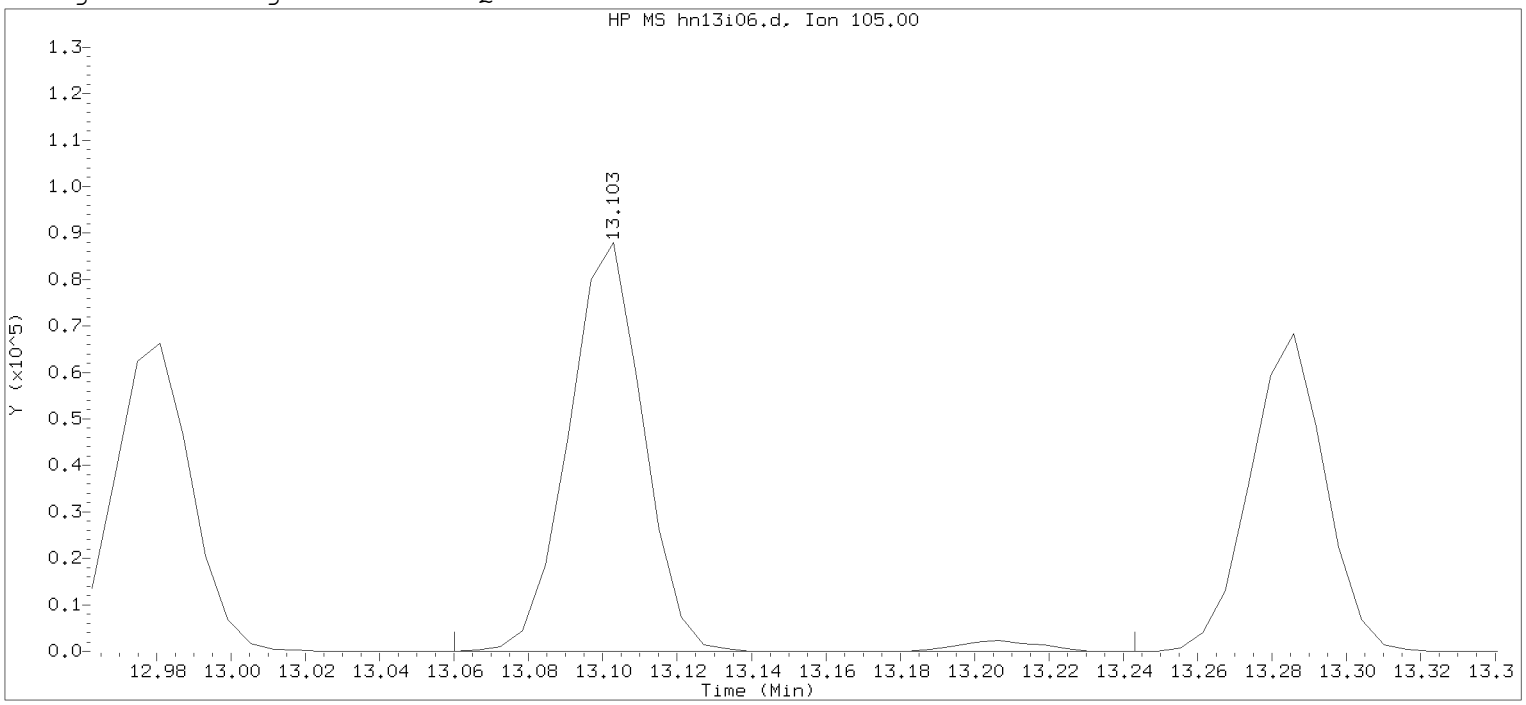
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1889
Retention Time (minutes): 13.103
Quant Ion : 105.00
Area : 125483
On-column Amount (ng) : 0.4872
Integration start scan : 1881 Integration stop scan: 1911
Y at integration start : 0 Y at integration end: 0

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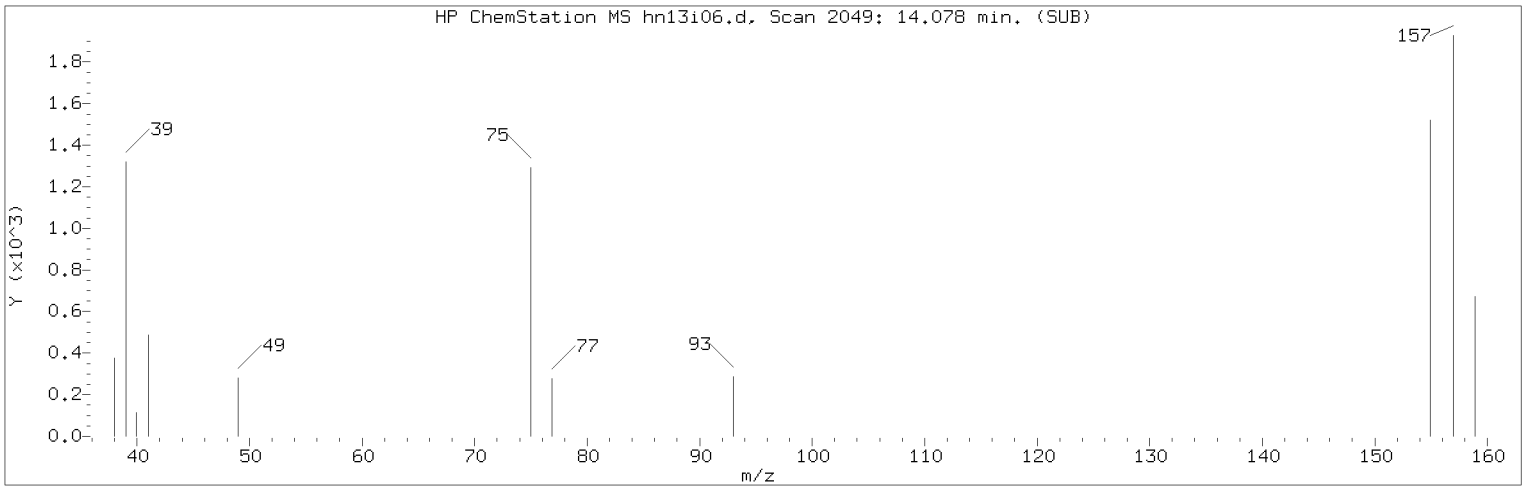
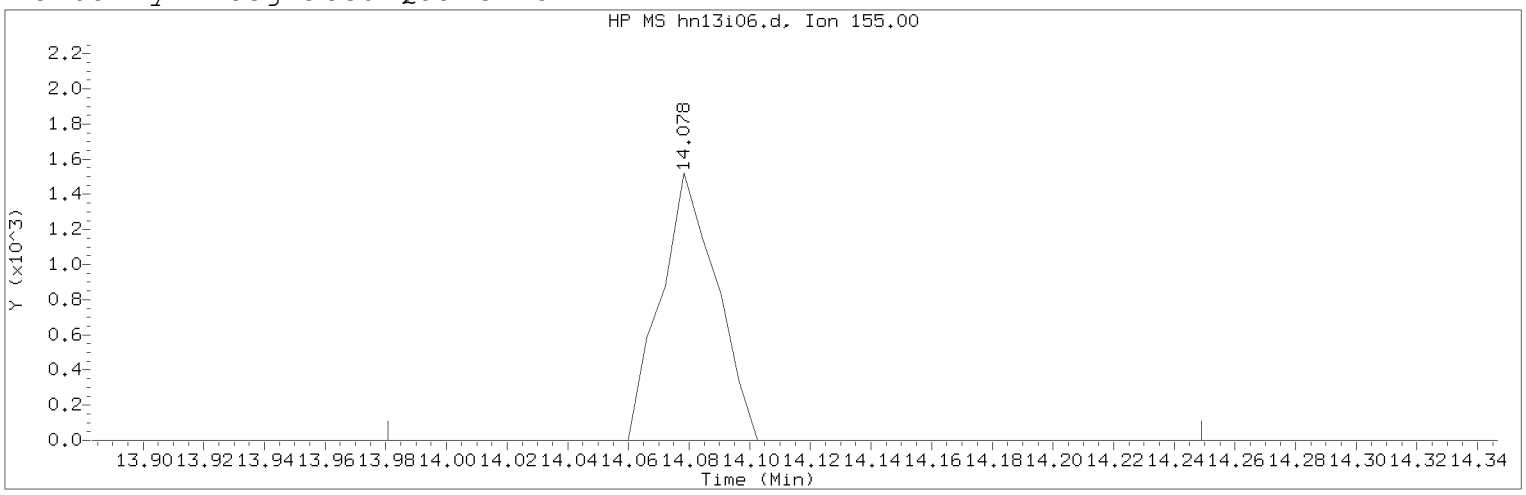
Target 3.5 esignature used. AE35 Page 725

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:27
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

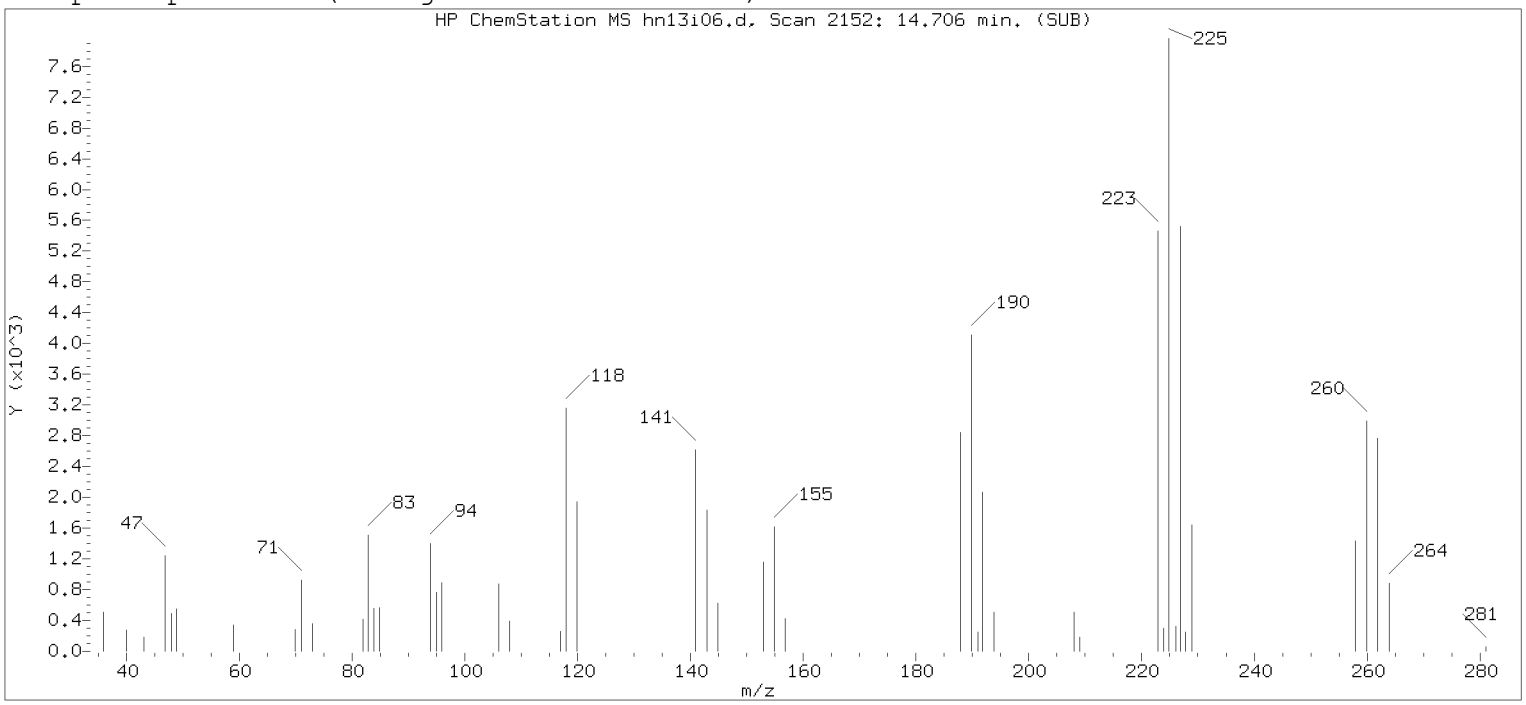
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2049
Retention Time (minutes): 14.078
Quant Ion : 155.00
Area (flag) : 1938M
On-Column Amount (ng) : 0.5033
Integration start scan : 2032 Integration stop scan: 2076
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

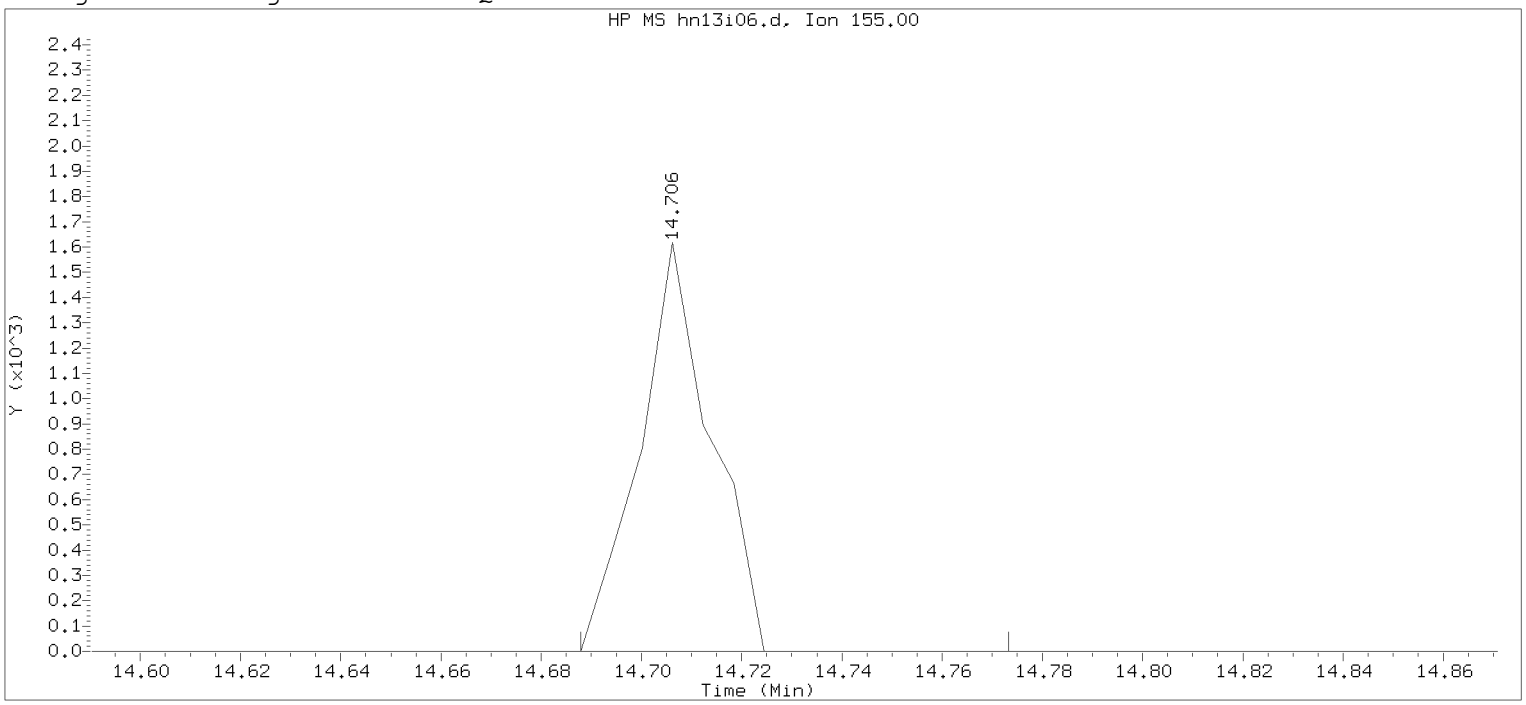
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



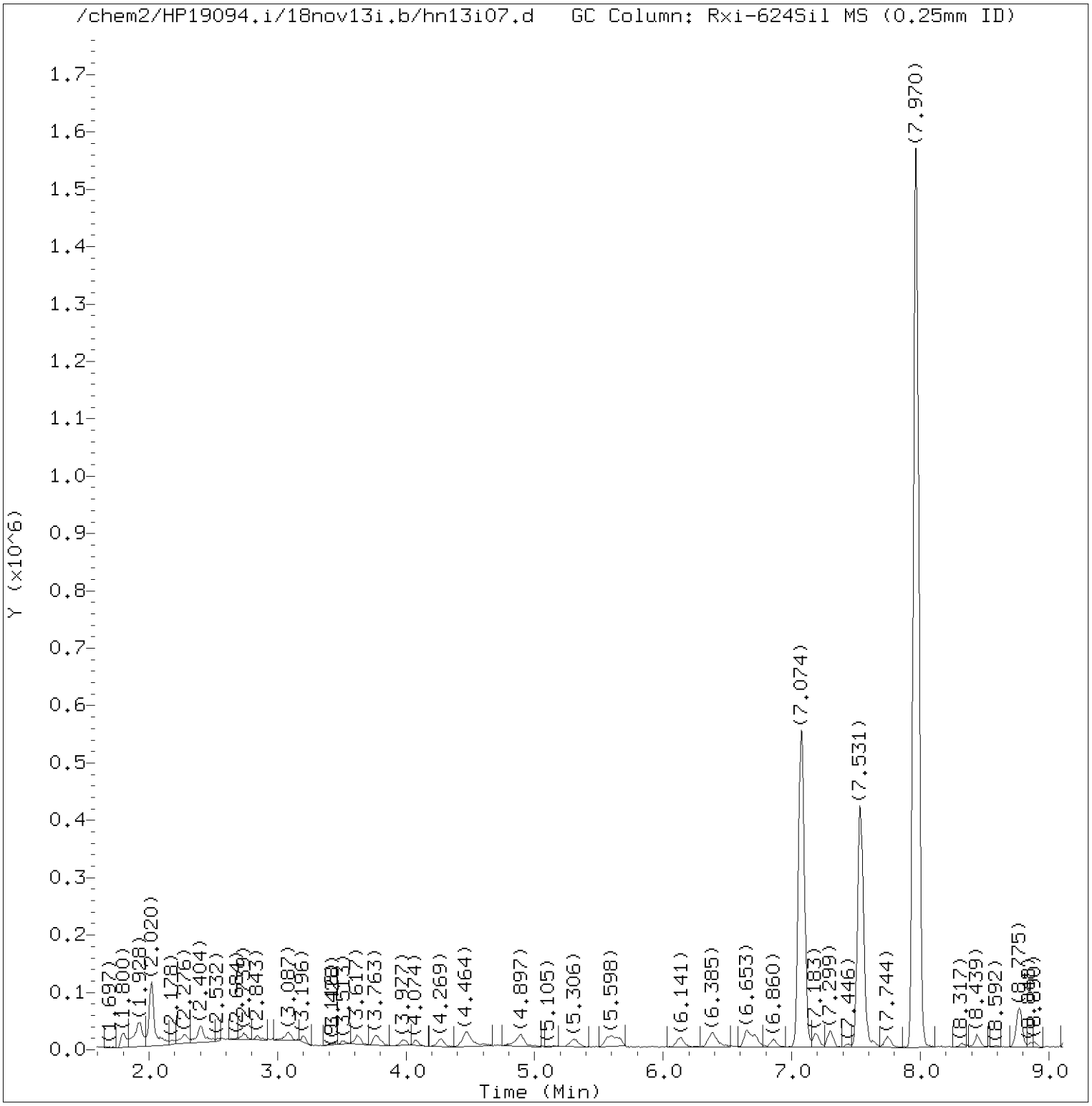
Data File: /chem2/HP19094.i/18nov13i.b/hn13i06.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 17:51
Date, time and analyst ID of latest file update: 13-Nov-2018 17:51 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2152
Retention Time (minutes): 14.706
Quant Ion : 155.00
Area : 1598
On-column Amount (ng) : 0.4533
Integration start scan : 2148 Integration stop scan: 2162
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

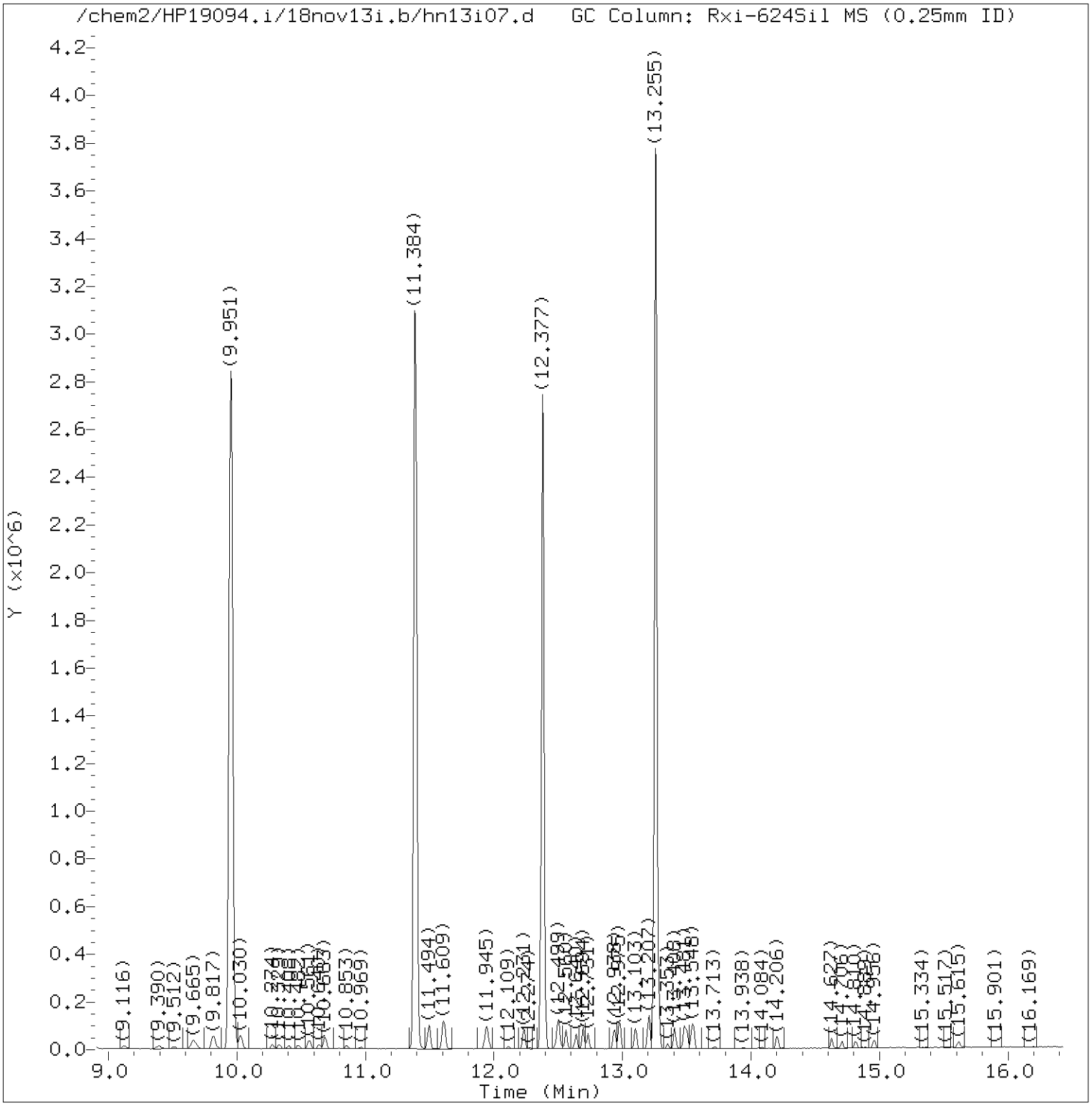
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	14610	0.195
2) Chloromethane	(2)	2.276	50	15436	0.213
5) Vinyl Chloride	(2)	2.404	62	13353	0.203
6) 1,3-Butadiene	(2)	2.404	39	11521M	0.213
7) Bromomethane	(2)	2.745	94	10170	0.204
8) Chloroethane	(2)	2.831	64	8258	0.210
9) Dichlorofluoromethane	(2)	3.087	67	24386	0.238
10) Trichlorofluoromethane	(2)	3.154	101	18377	0.207
11) Ethyl ether	(2)	3.434	59	6221	0.206
12) Freon 123a	(2)	3.513	67	12619	0.206
13) Acrolein	(1)	3.617	56	41364	10.997
15) 1,1-Dichloroethene	(2)	3.745	96	8837	0.214
16) Freon 113	(2)	3.800	101	8670	0.183
14) Acetone	(1)	3.806	43	12883M	2.752
17) Methyl Iodide	(2)	3.971	142	16444	0.196
18) Carbon Disulfide	(2)	4.074	76	26585M	0.209
21) Methyl Acetate	(1)	4.269	43	4324M	0.266
22) Allyl Chloride	(2)	4.275	41	19870	0.225
23) Methylene Chloride	(2)	4.458	84	9882	0.223
26)*t-Butyl Alcohol-d10	(1)	4.464	65	94440	50.000
28) t-Butyl Alcohol	(1)	4.605	59	4063M	3.260
29) Acrylonitrile	(1)	4.824	53	6714	1.008
30) Methyl Tertiary Butyl Ether	(2)	4.873	73	18513	0.201
31) trans-1,2-Dichloroethene	(2)	4.897	96	9996	0.216
32) n-Hexane	(2)	5.306	57	15545	0.196
33) 1,1-Dichloroethane	(2)	5.562	63	18169	0.201
34) di-Isopropyl Ether	(2)	5.598	45	34205	0.204
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	16980M	0.203
40) 1,2-Dichloroethene (Total)	(2)		96	20644	0.423
37) Ethyl t-butyl ether	(2)	6.135	59	28051	0.205
38) 2-Butanone	(1)	6.342	43	23783M	2.484
39) cis-1,2-Dichloroethene	(2)	6.379	96	10648	0.207
41) 2,2-Dichloropropane	(2)	6.397	77	15125	0.205
42) Propionitrile	(1)	6.458	54	9986M	4.082
45) Methacrylonitrile	(1)	6.647	67	19800	2.210
47) Bromochloromethane	(2)	6.714	128	3859	0.191
48) Tetrahydrofuran	(1)	6.714	71	5013	2.190
49) Chloroform	(2)	6.866	83	16875	0.204

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.074	113	562358	10.046
50)$Dibromofluoromethane	(2)	7.074	111	571569	9.949
51) 1,1,1-Trichloroethane	(2)	7.092	97	15040	0.201
52) Cyclohexane	(2)	7.183	56	19094	0.194
52) Cyclohexane	(2)	7.189	84	16160	0.203
52) Cyclohexane	(2)	7.177	69	6358	0.211
54) Carbon Tetrachloride	(2)	7.299	117	13163	0.196
55) 1,1-Dichloropropene	(2)	7.299	75	13342	0.197
56) Isobutyl Alcohol	(1)	7.446	41	9493M	14.655
57)$1,2-Dichloroethane-d4	(2)	7.531	102	99234	10.114
57)$1,2-Dichloroethane-d4	(2)	7.531	65	458874	10.074
57)$1,2-Dichloroethane-d4	(2)	7.537	104	63214	10.175
58) Benzene	(2)	7.561	78	39696	0.202
59) 1,2-Dichloroethane	(2)	7.641	62	9902	0.228
60) t-Amyl methyl ether	(2)	7.750	73	22267	0.197
62) n-Heptane	(2)	7.970	43	17600M	0.204
63)*Fluorobenzene	(2)	7.970	96	2238985	10.000
65) n-Butanol	(1)	8.329	56	9557M	19.954
72) 1,4-Dioxane	(1)	8.366	88	0M	0.000
67) Trichloroethene	(2)	8.439	95	9836	0.194
69) Methylcyclohexane	(2)	8.762	83	20417	0.209
70) 1,2-Dichloropropane	(2)	8.787	63	10445	0.211
71) Methyl Methacrylate	(1)	8.860	69	4050M	0.216
73) Dibromomethane	(2)	8.890	93	3422	0.182
74) Bromodichloromethane	(2)	9.128	83	11546	0.206
76) 2-Nitropropane	(1)	9.390	41	12558	2.287
80) cis-1,3-Dichloropropene	(2)	9.652	75	13949	0.201
81) 4-Methyl-2-Pentanone	(1)	9.817	43	50447M	2.129
82)$Toluene-d8	(3)	9.951	98	2288057	9.906
82)$Toluene-d8	(3)	9.951	100	1487306	9.905
83) Toluene	(3)	10.030	92	24446M	0.199
85) 1,3-Dichloropropene (total)	(3)		75	24503	0.397
84) trans-1,3-Dichloropropene	(3)	10.274	75	10554	0.196
86) Ethyl Methacrylate	(3)	10.335	69	9048M	0.204
88) 1,1,2-Trichloroethane	(3)	10.482	97	5272	0.193
89) Tetrachloroethene	(3)	10.561	166	11161	0.195
90) 1,3-Dichloropropane	(3)	10.640	76	9836	0.199
91) 2-Hexanone	(1)	10.683	43	35010M	2.126

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	7605	0.204
95) 1,2-Dibromoethane	(3)	10.969	107	4823	0.184
96) 1-Chlorohexane	(3)	11.384	91	17591	0.228
97)*Chlorobenzene-d5	(3)	11.390	117	1788432	10.000
98) Chlorobenzene	(3)	11.414	112	26121	0.199
100) Ethylbenzene	(3)	11.494	91	48725	0.200
99) 1,1,1,2-Tetrachloroethane	(3)	11.494	131	8997	0.194
101) m+p-Xylene	(3)	11.609	106	36221	0.394
105) Xylene (Total)	(3)		106	54475	0.598
104) o-Xylene	(3)	11.932	106	18254	0.204
106) Styrene	(3)	11.951	104	27623	0.193
107) Bromoform	(3)	12.115	173	3957	0.187
108) Isopropylbenzene	(3)	12.231	105	50692	0.206
111)$4-Bromofluorobenzene	(3)	12.377	95	876558	10.138
111)$4-Bromofluorobenzene	(3)	12.384	174	741006	10.009
113) 1,1,2,2-Tetrachloroethane	(4)	12.481	83	6172	0.187
114) Bromobenzene	(4)	12.499	156	10551	0.200
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	17063M	2.089
116) 1,2,3-Trichloropropane	(4)	12.524	110	1776	0.207
117) n-Propylbenzene	(4)	12.560	91	57623	0.200
119) 2-Chlorotoluene	(4)	12.646	126	11844	0.209
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	40248	0.198
122) 4-Chlorotoluene	(4)	12.731	126	10967	0.195
125) tert-Butylbenzene	(4)	12.938	134	8290	0.189
126) Pentachloroethane	(4)	12.975	167	6811	0.196
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	41180	0.201
128) sec-Butylbenzene	(4)	13.103	105	51219M	0.196
131) 1,3-Dichlorobenzene	(4)	13.200	146	21280	0.201
132) p-Isopropyltoluene	(4)	13.207	119	43684	0.196
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	956011	10.000
134) 1,4-Dichlorobenzene	(4)	13.274	146	21185	0.205
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	18044M	0.207
136) Benzyl Chloride	(4)	13.353	126	2730	0.182
138) n-Butylbenzene	(4)	13.499	92	20564	0.196
139) 1,2-Dichlorobenzene	(4)	13.536	146	17638	0.194
143) 1,2-Dibromo-3-chloropropane	(1)	14.084	155	782M	0.185
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	15618	0.200
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	11900	0.191

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.706	225	5003	0.199
147) Naphthalene	(4)	14.816	128	20172	0.193
148) 1,2,3-Trichlorobenzene	(4)	14.962	180	10226	0.197

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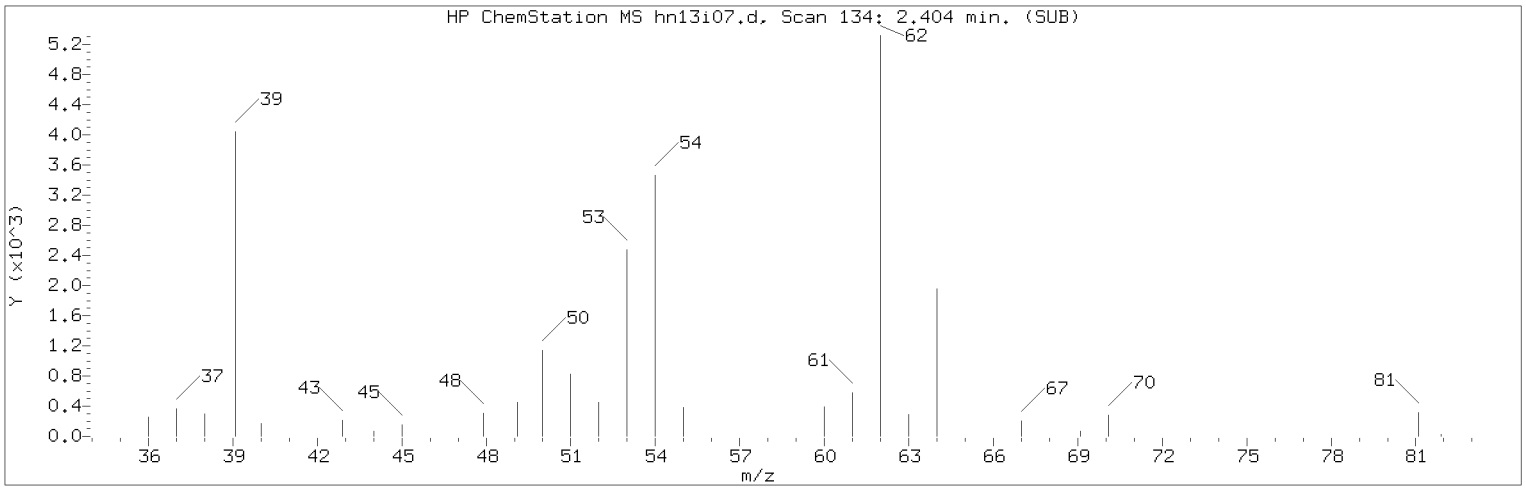
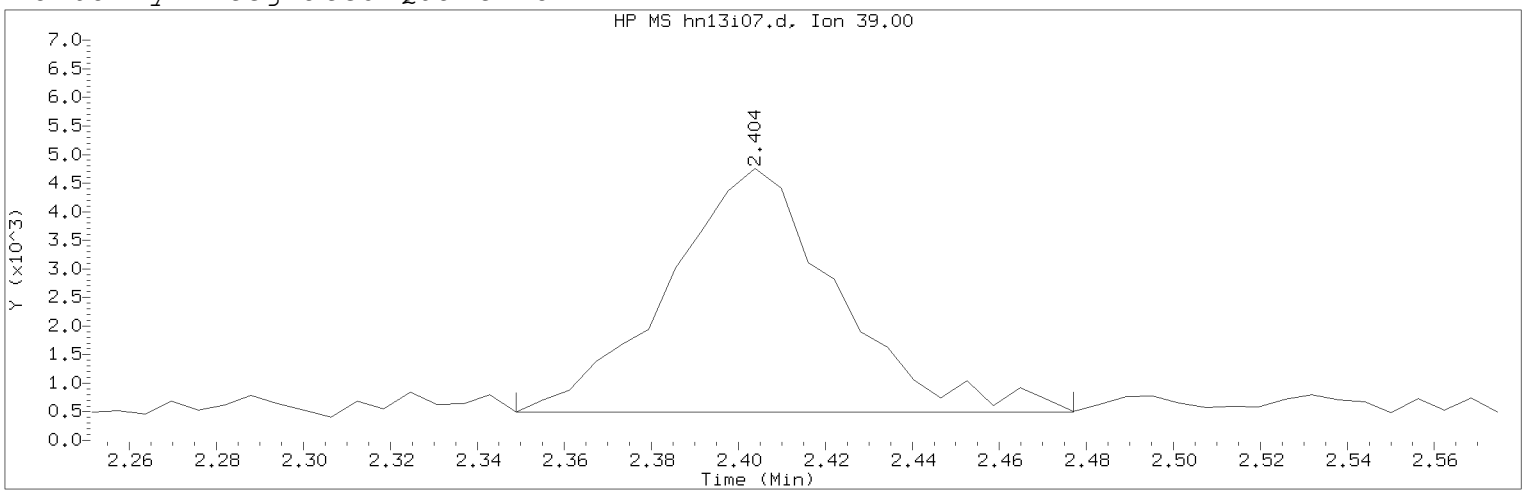
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

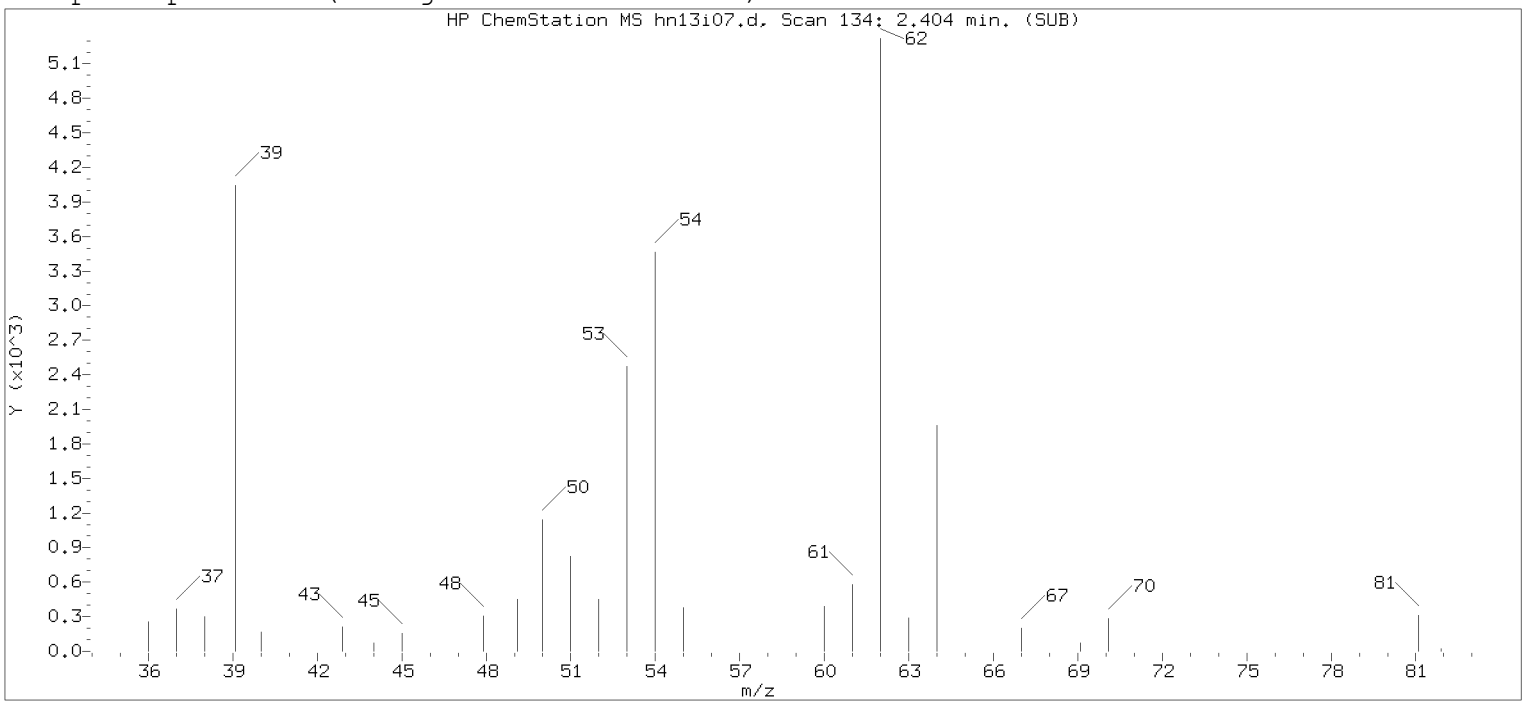
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 134
Retention Time (minutes): 2.404
Quant Ion : 39.00
Area (flag) : 11521M
On-Column Amount (ng) : 0.2128
Integration start scan : 124 Integration stop scan: 145
Y at integration start : 493 Y at integration end: 493

Reason for manual integration: improper integration

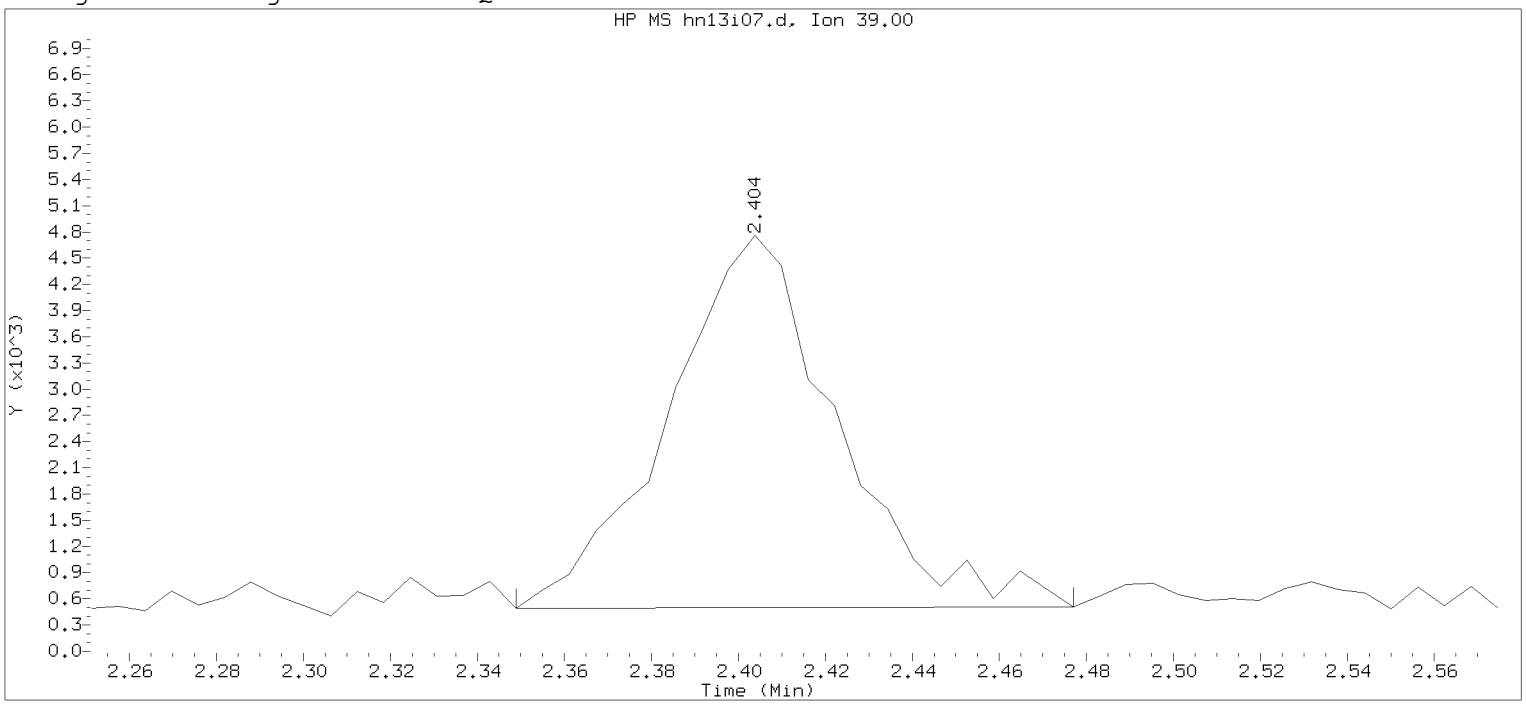
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

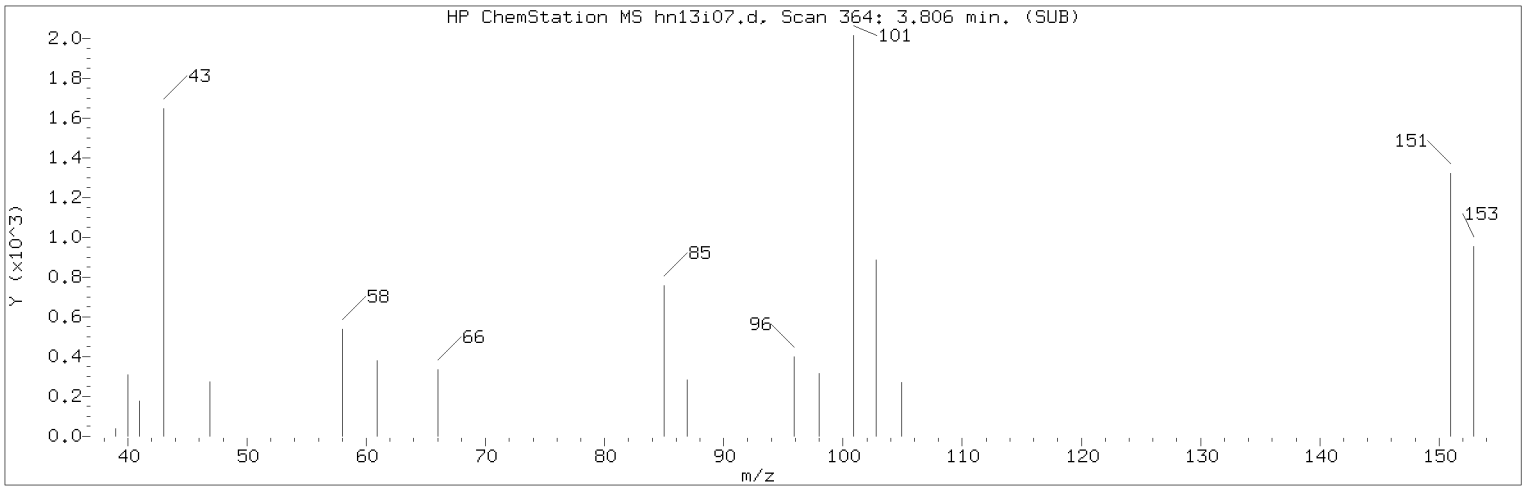
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

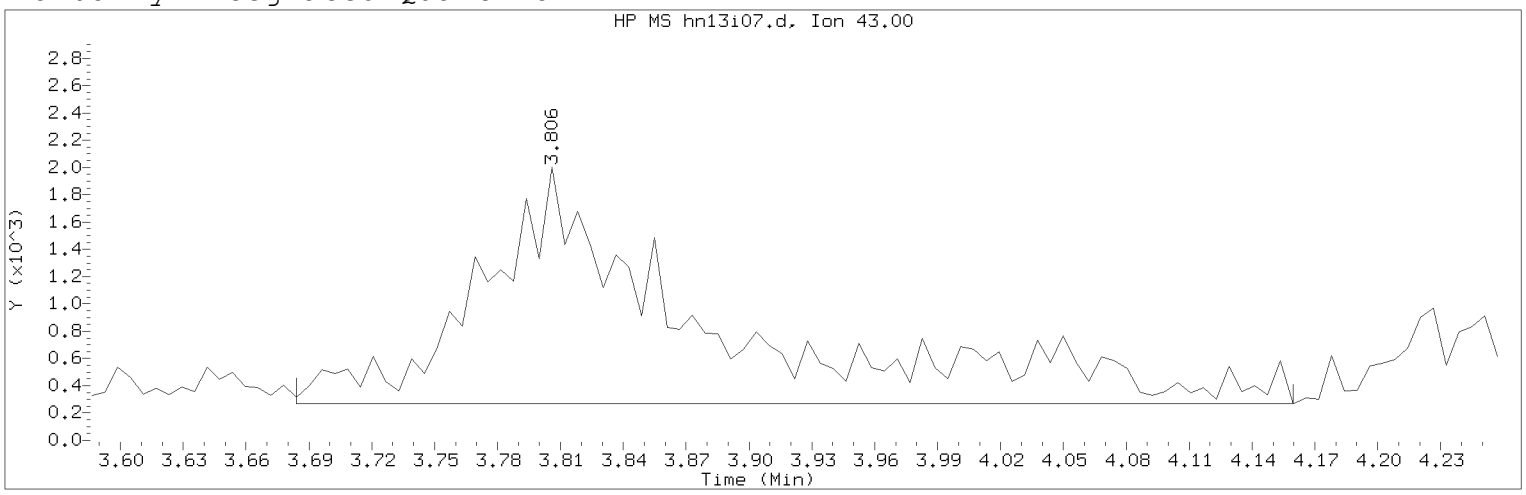
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 134
Retention Time (minutes): 2.404
Quant Ion : 39.00
Area : 11461
On-column Amount (ng) : 0.2148
Integration start scan : 124 Integration stop scan: 145
Y at integration start : 495 Y at integration end: 506

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

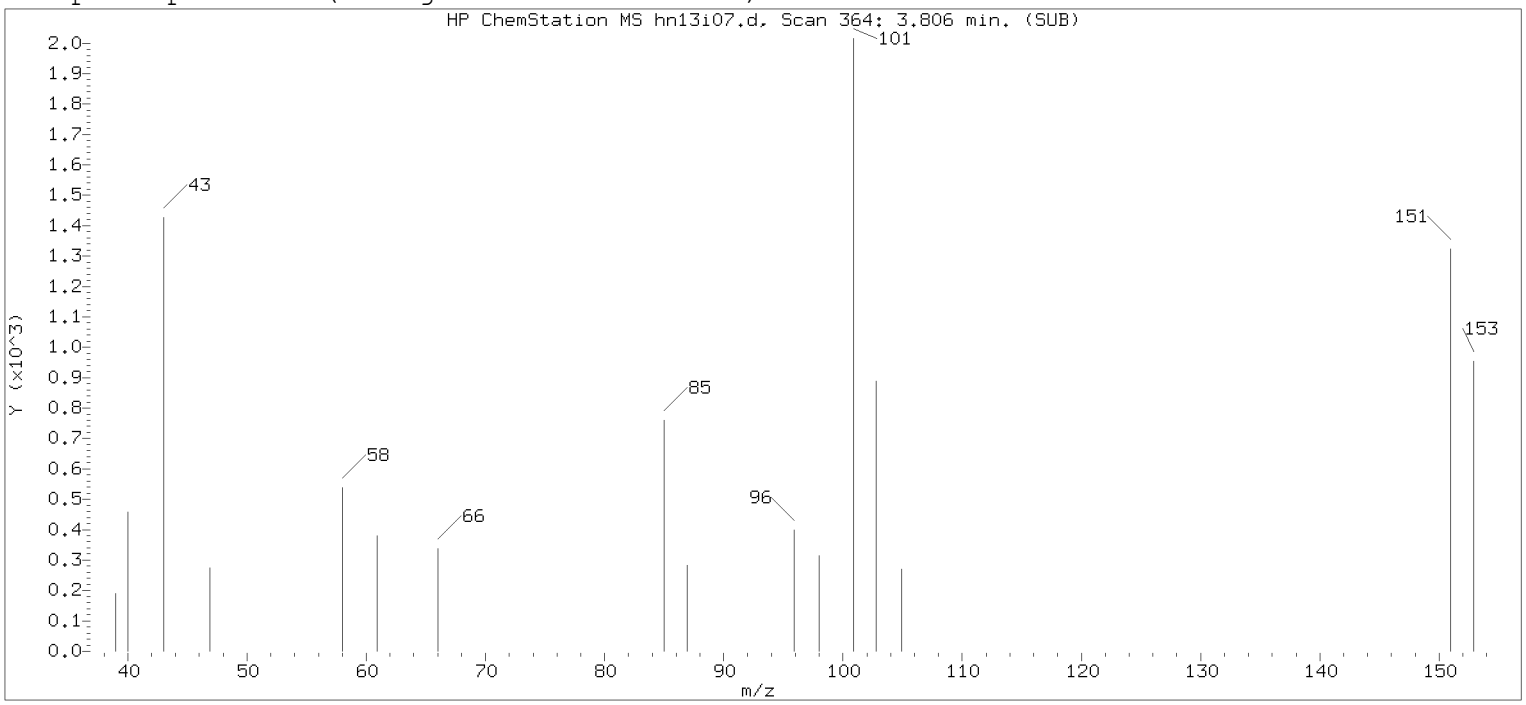
Compound Number : 14
Compound Name : Acetone
Scan Number : 364
Retention Time (minutes): 3.806
Quant Ion : 43.00
Area (flag) : 12883M
On-Column Amount (ng) : 2.7517
Integration start scan : 343 Integration stop scan: 421
Y at integration start : 267 Y at integration end: 267

Reason for manual integration: improper integration

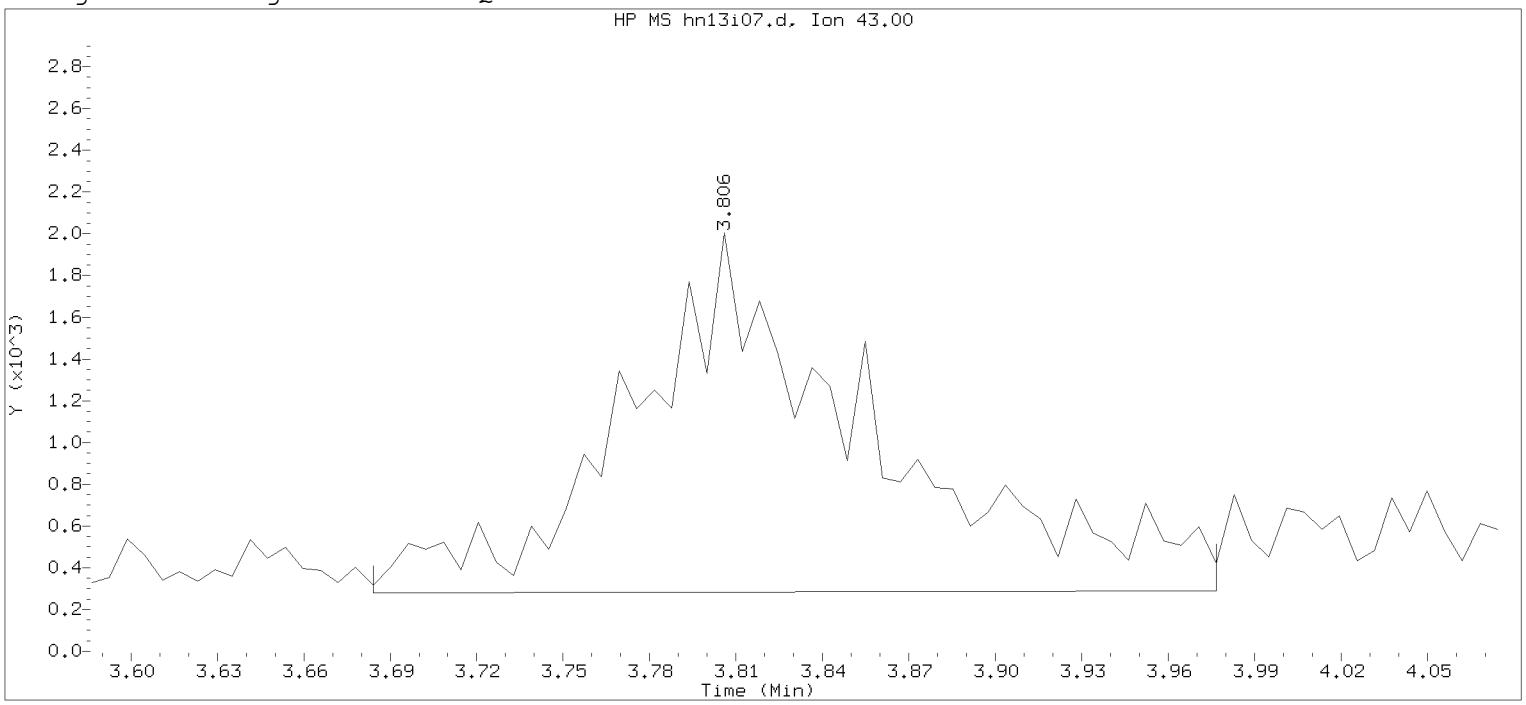
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 14
Compound Name : Acetone
Scan Number : 364
Retention Time (minutes): 3.806
Quant Ion : 43.00
Area : 9967
On-column Amount (ng) : 2.0484
Integration start scan : 343 Integration stop scan: 391
Y at integration start : 281 Y at integration end: 289

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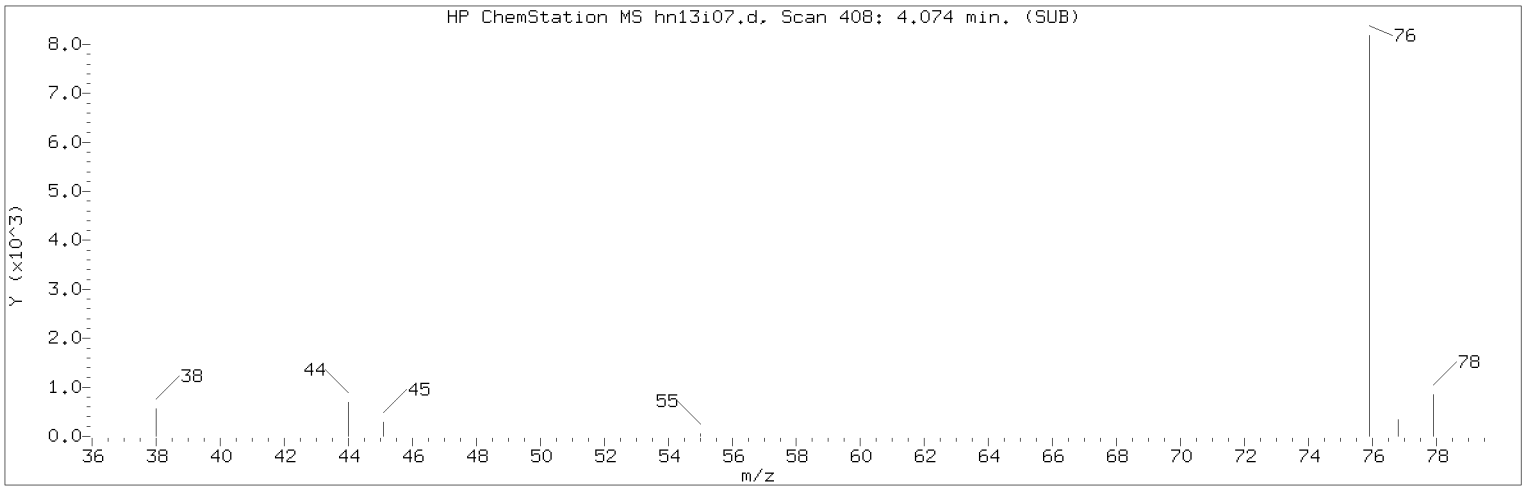
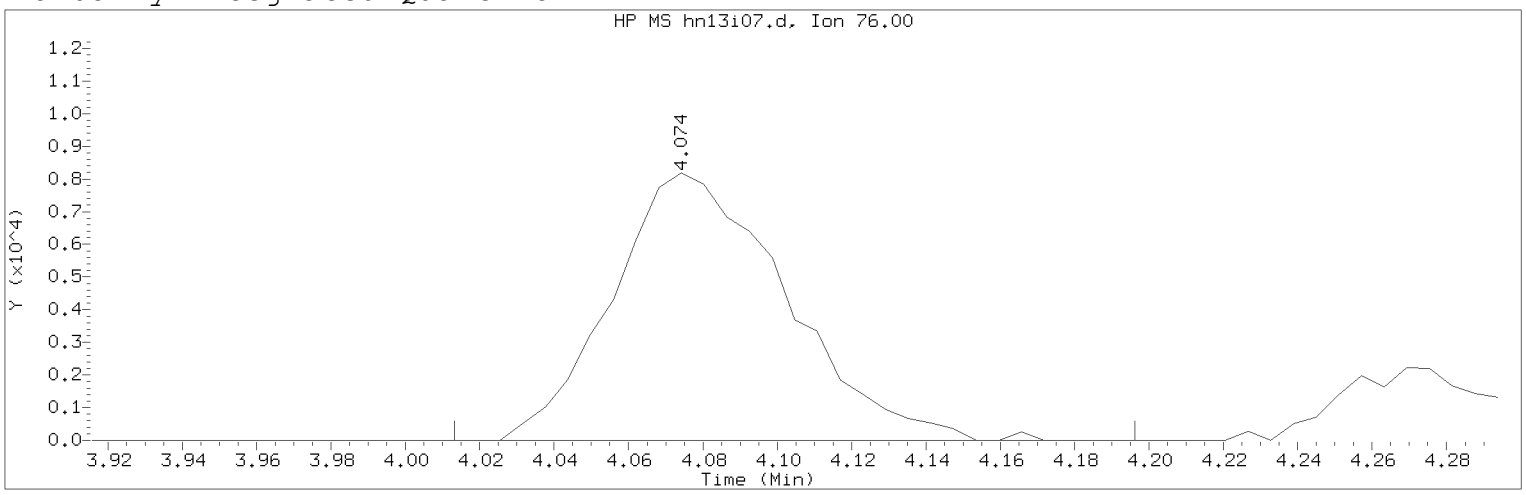
Target 3.5 esignature used. AE35 Page 732

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

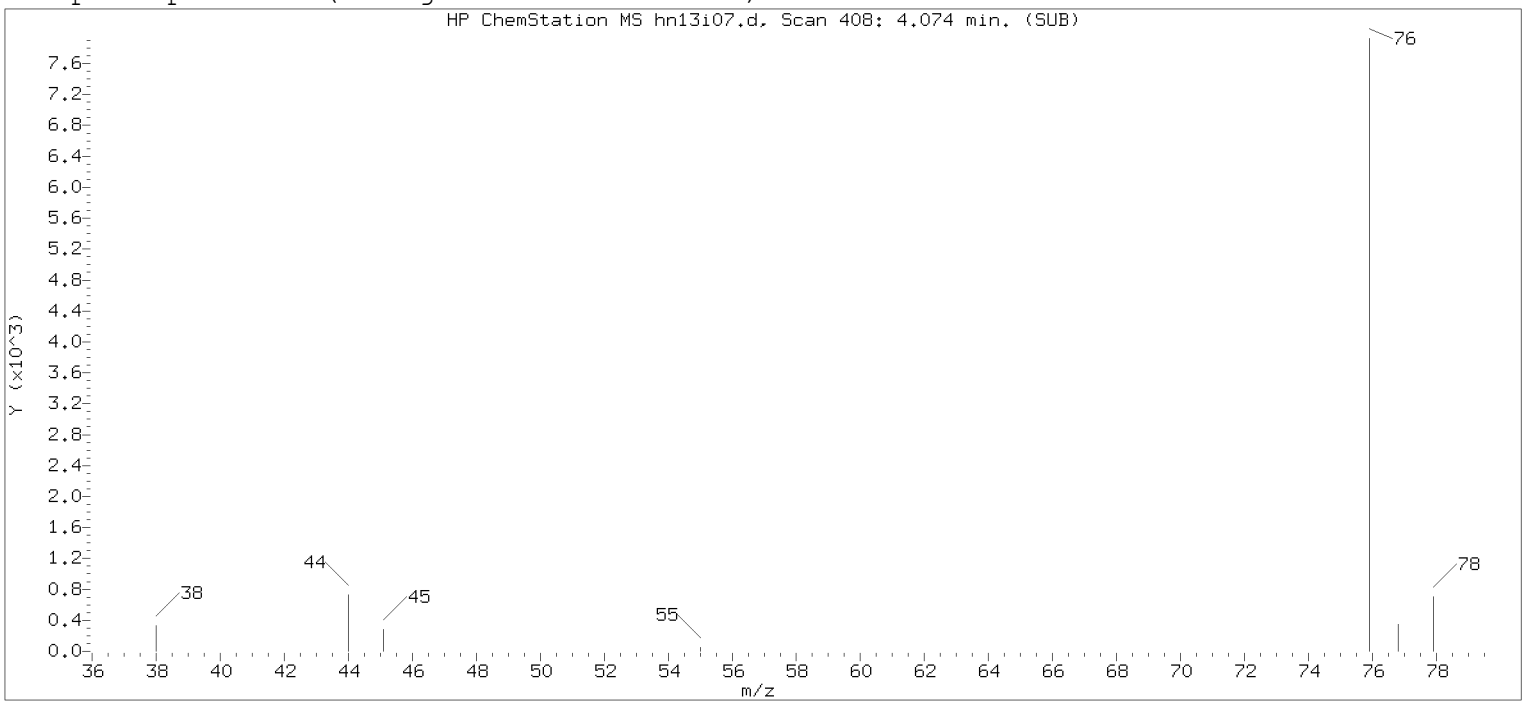
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 408
Retention Time (minutes): 4.074
Quant Ion : 76.00
Area (flag) : 26585M
On-Column Amount (ng) : 0.2092
Integration start scan : 397 Integration stop scan: 427
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

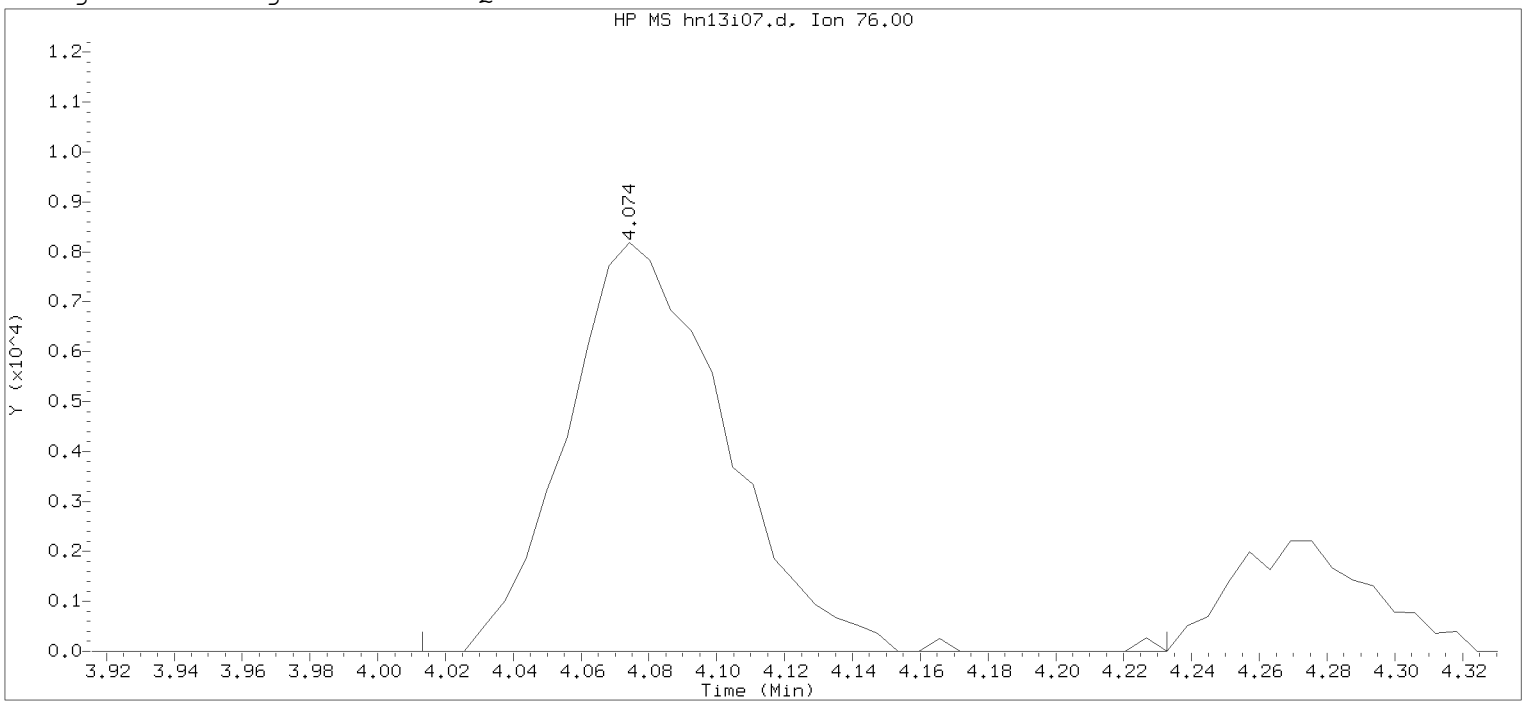
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 408
Retention Time (minutes): 4.074
Quant Ion : 76.00
Area : 26684
On-column Amount (ng) : 0.2099
Integration start scan : 397 Integration stop scan: 433
Y at integration start : 0 Y at integration end: 0

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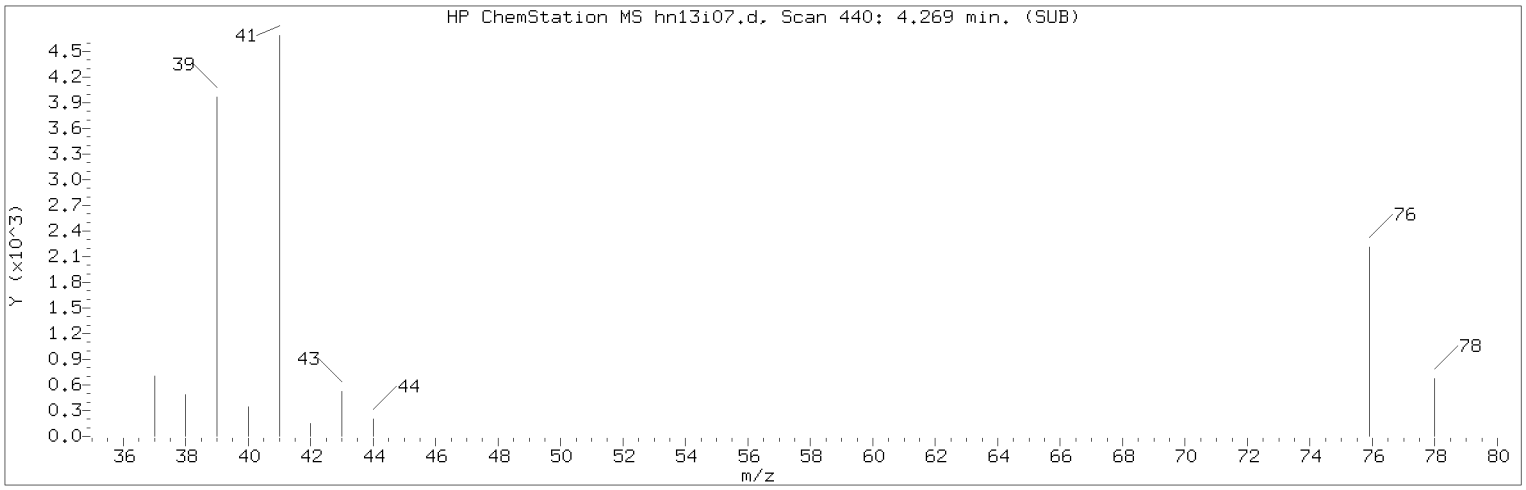
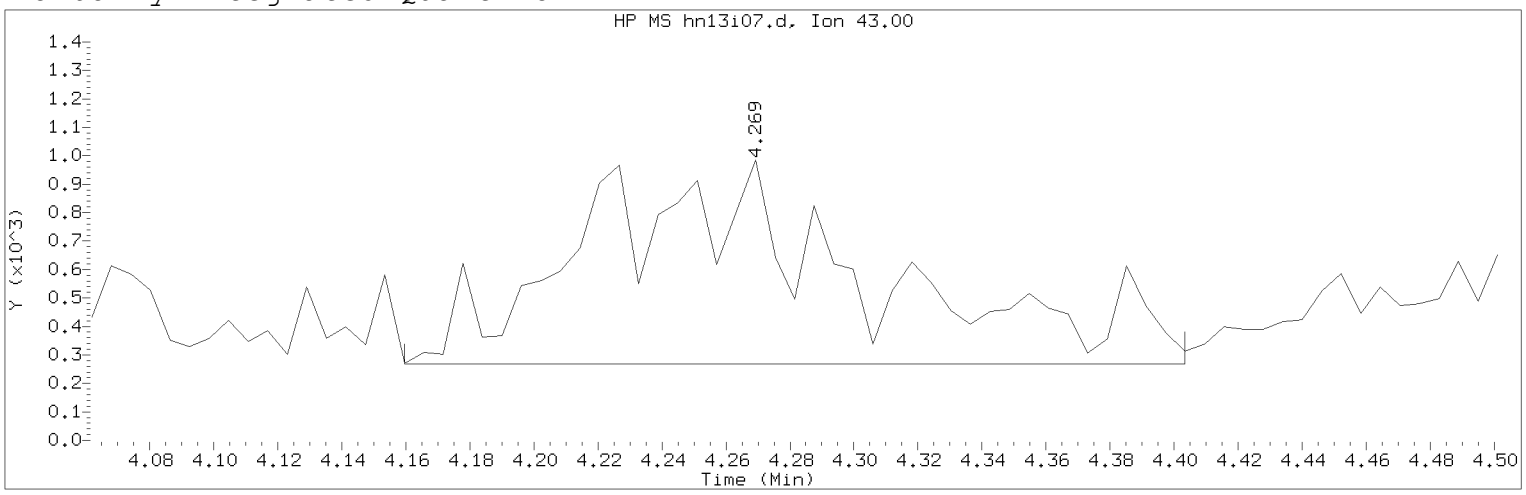
Target 3.5 esignature used. AE35 Page 739 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

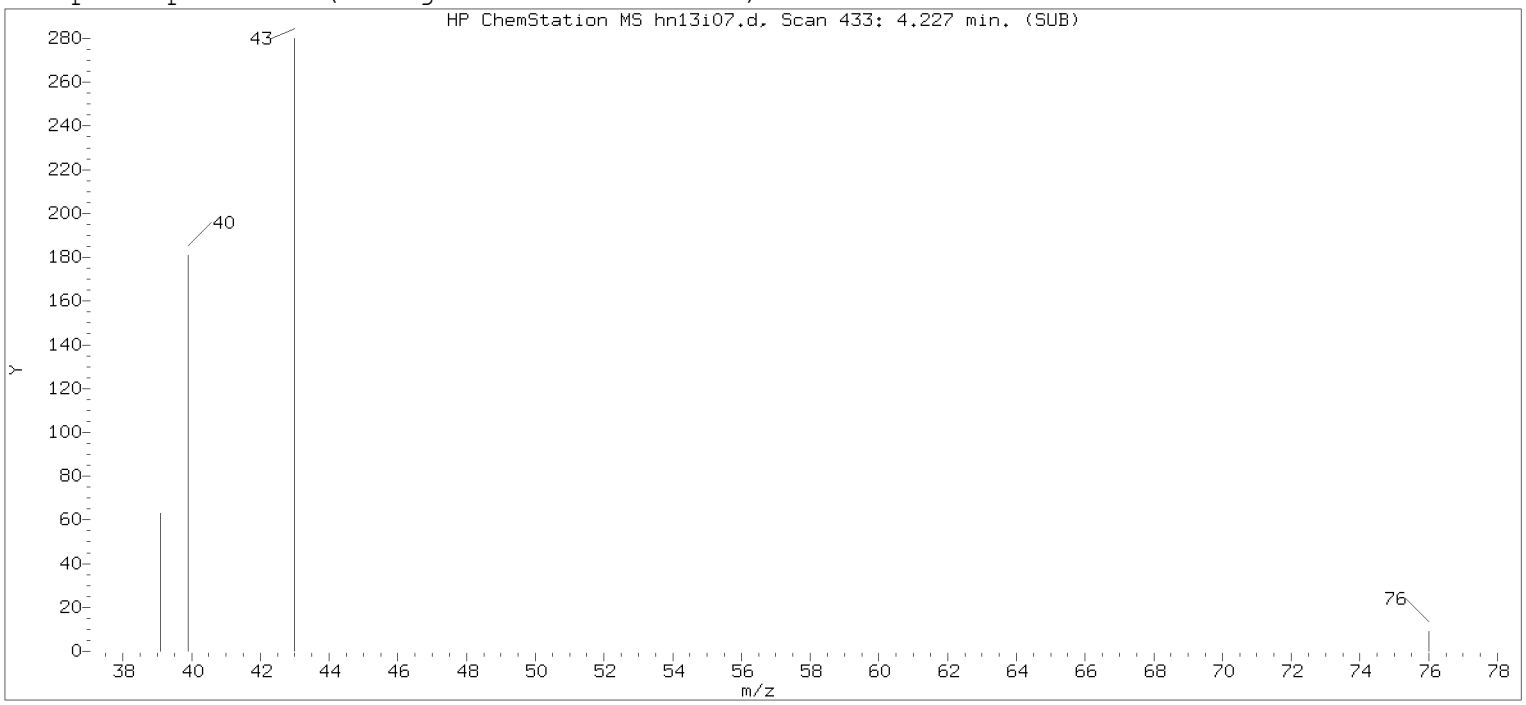
Compound Number : 21
Compound Name : Methyl Acetate
Scan Number : 440
Retention Time (minutes): 4.269
Quant Ion : 43.00
Area (flag) : 4324M
On-Column Amount (ng) : 0.2663
Integration start scan : 421 Integration stop scan: 461
Y at integration start : 269 Y at integration end: 269

Reason for manual integration: improper integration

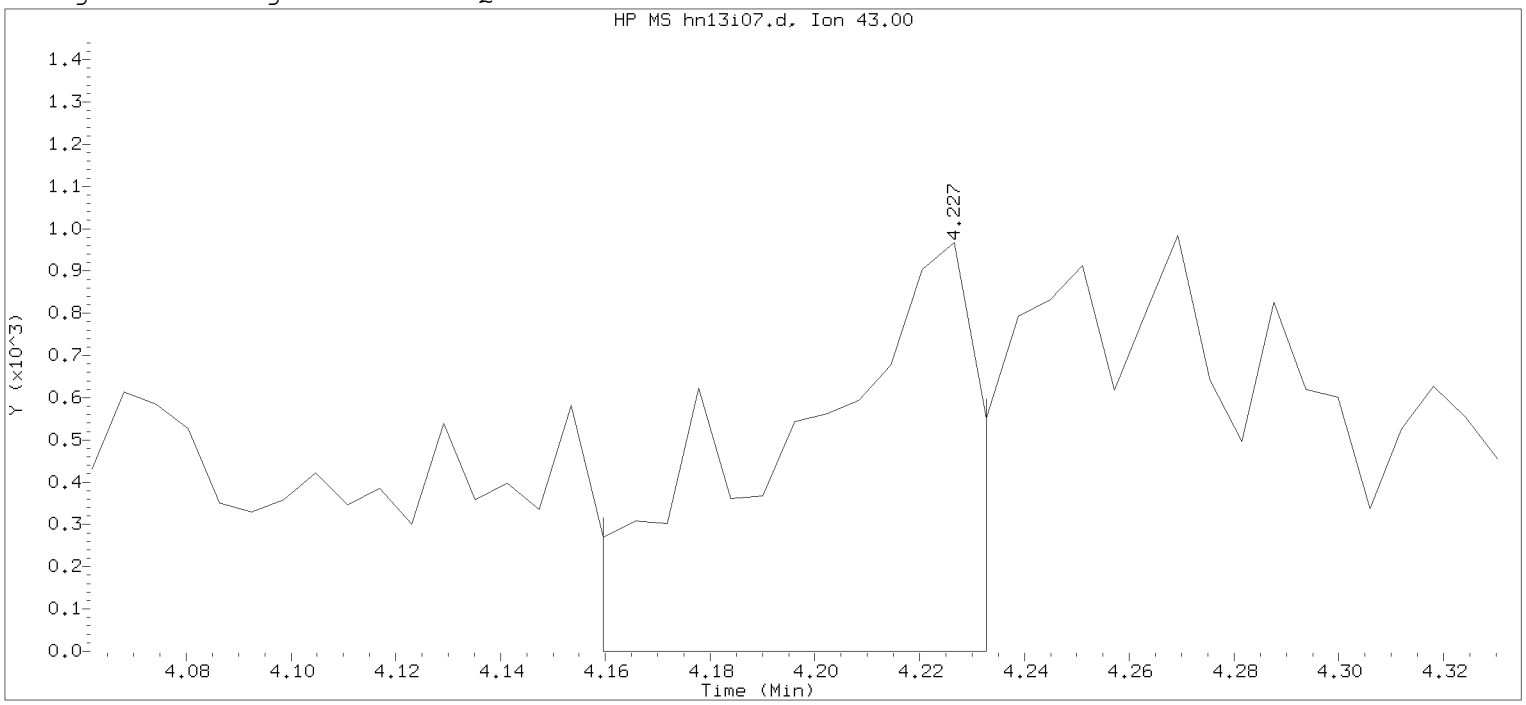
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 21
Compound Name : Methyl Acetate
Scan Number : 433
Retention Time (minutes): 4.227
Quant Ion : 43.00
Area : 2421
On-column Amount (ng) : 0.1602
Integration start scan : 421 Integration stop scan: 433
Y at integration start : 0 Y at integration end: 0

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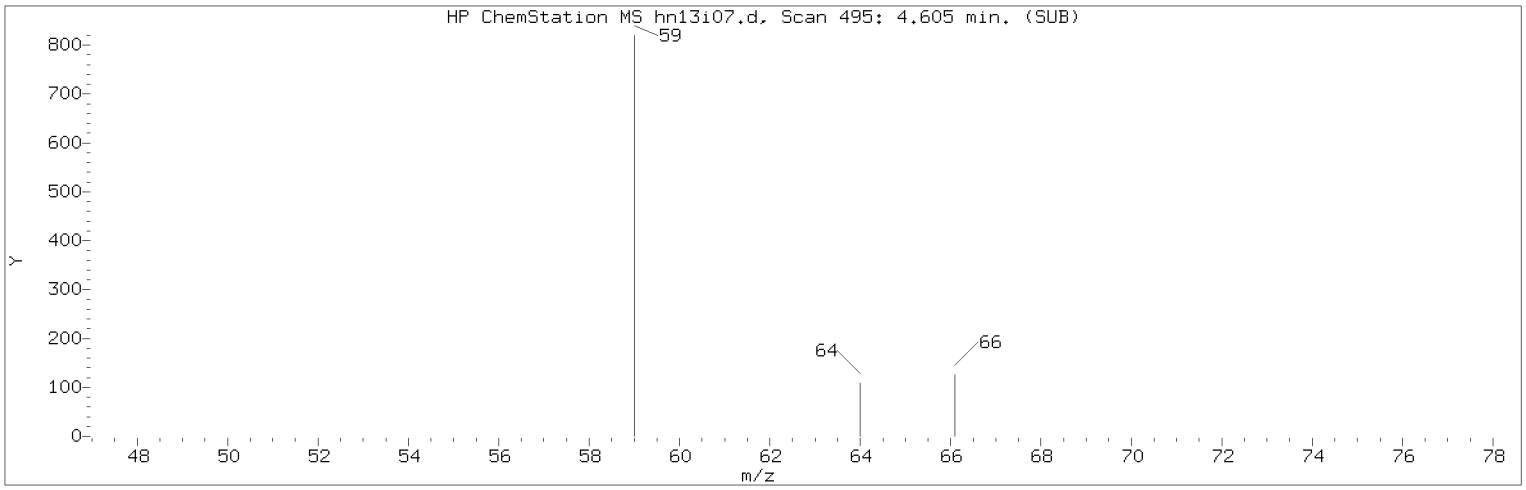
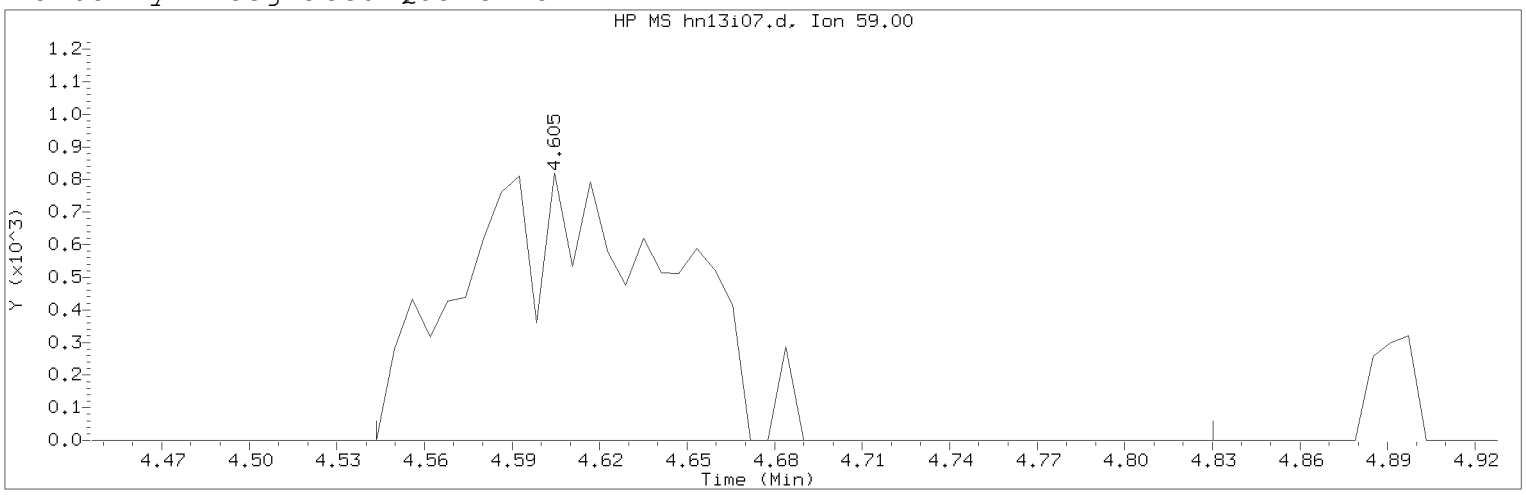
Target 3.5 esignature user

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

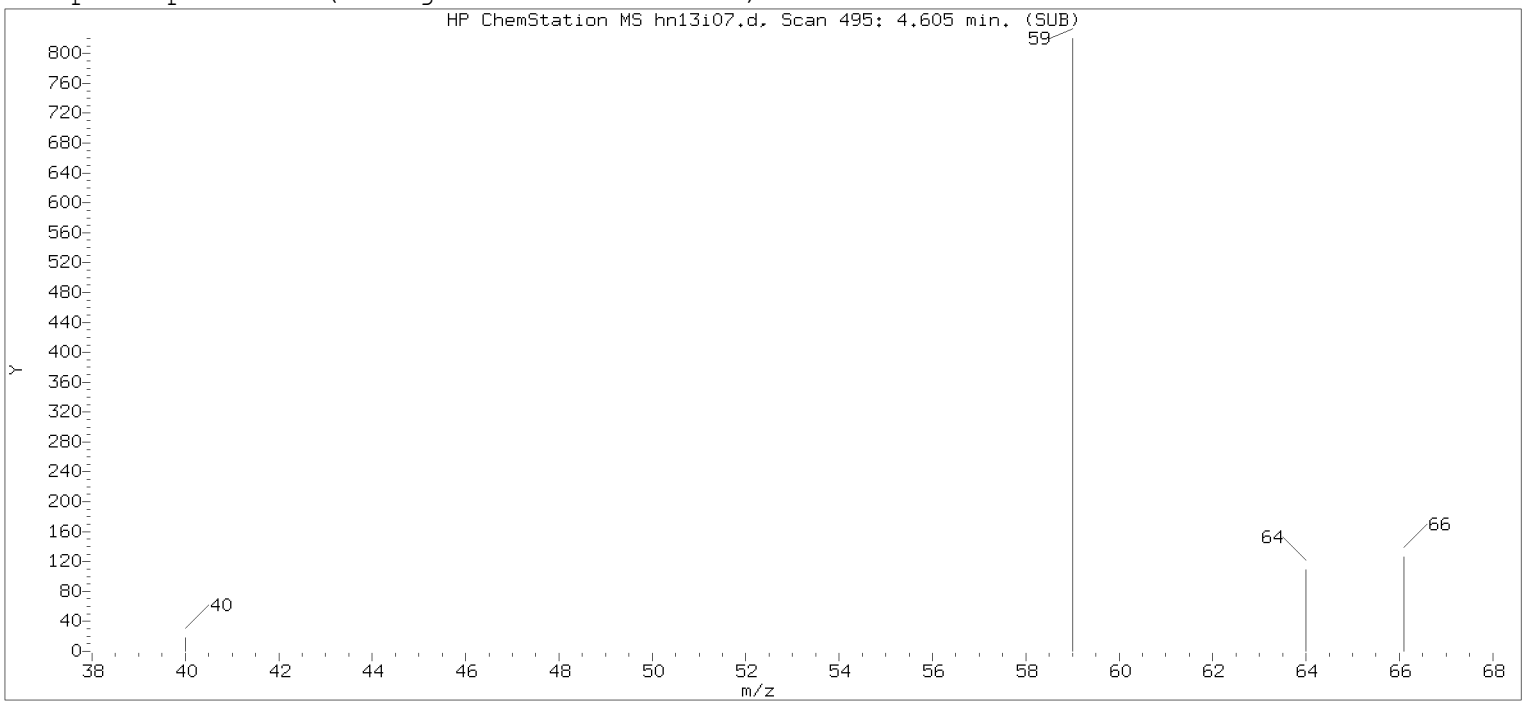
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.605
Quant Ion : 59.00
Area (flag) : 4063M
On-Column Amount (ng) : 3.2601
Integration start scan : 484 Integration stop scan: 531
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

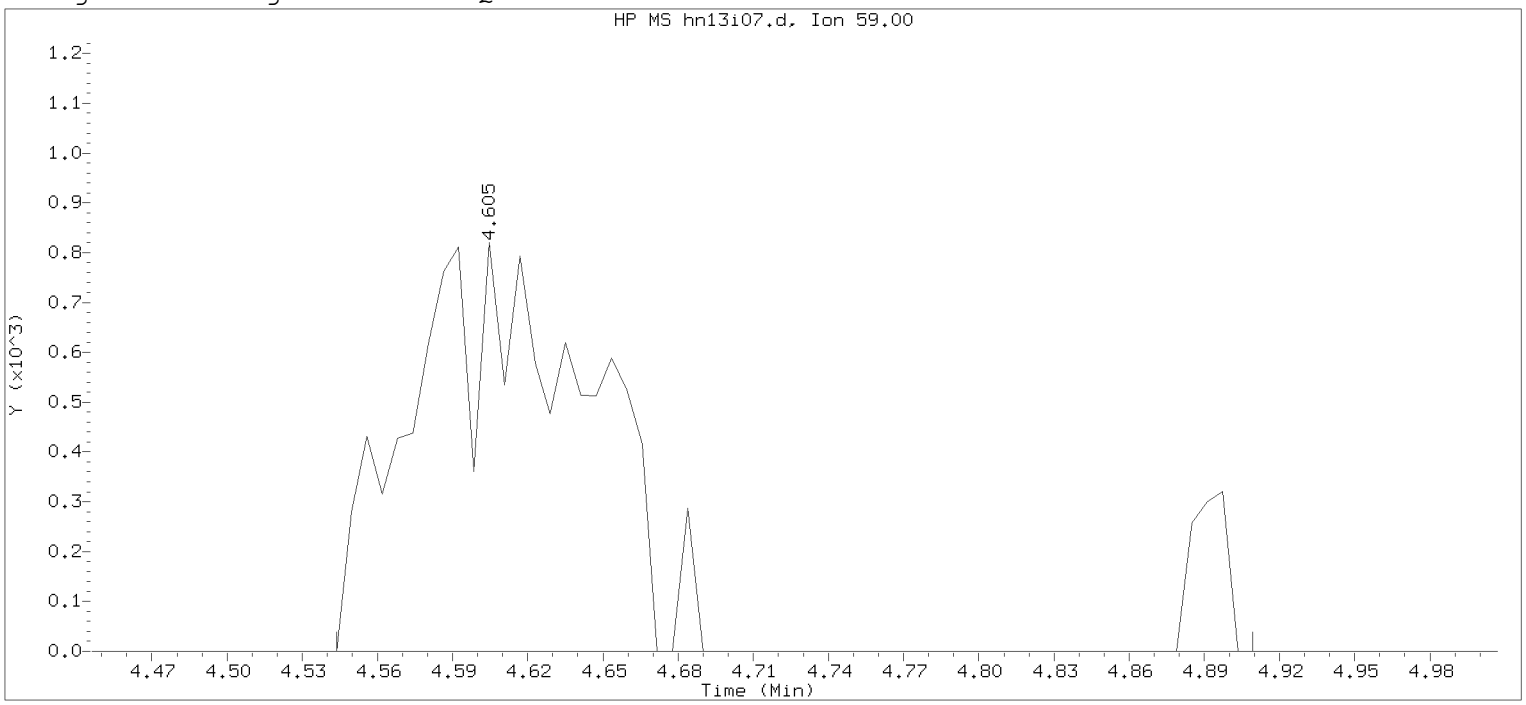
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

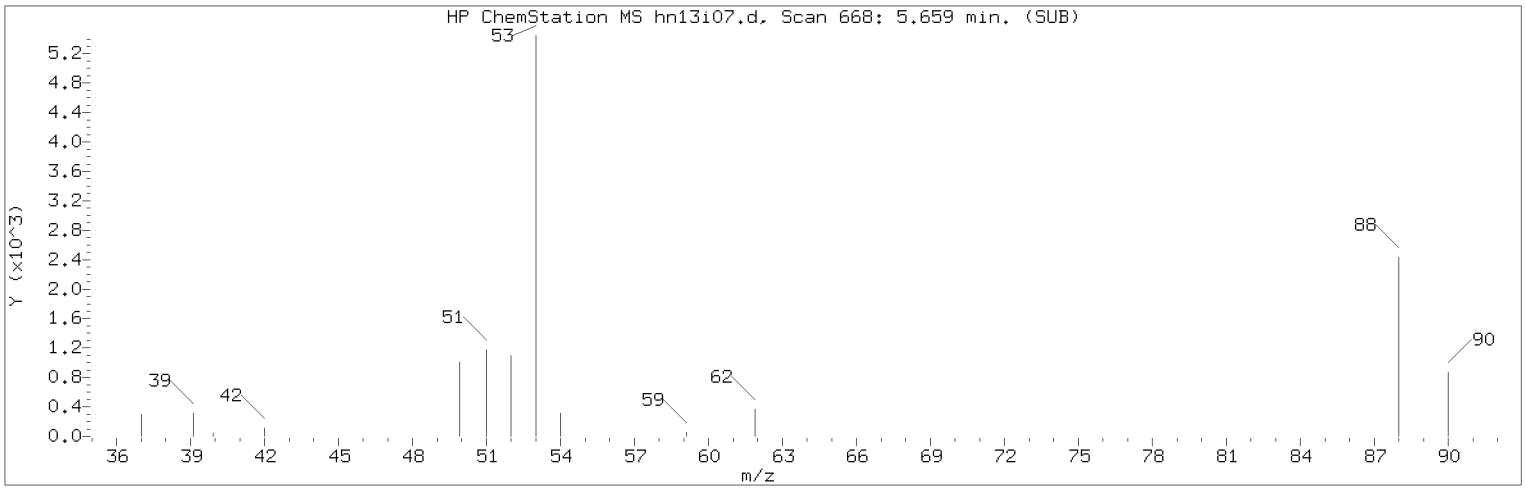
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

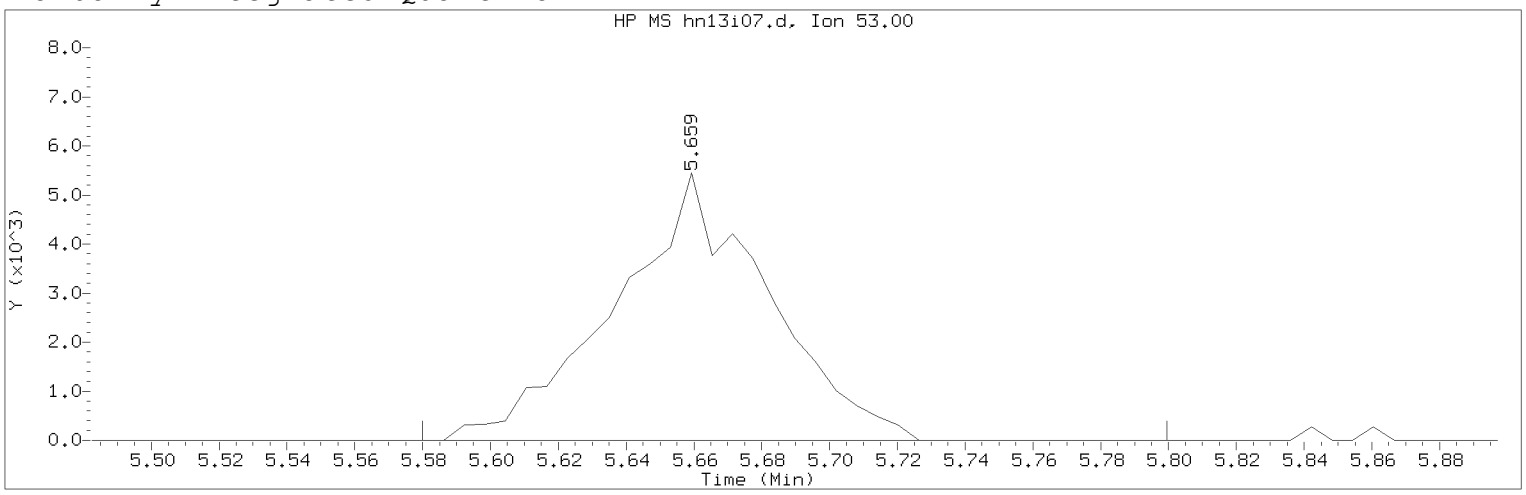
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.605
Quant Ion : 59.00
Area : 4385
On-column Amount (ng) : 3.4465
Integration start scan : 484 Integration stop scan: 544
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

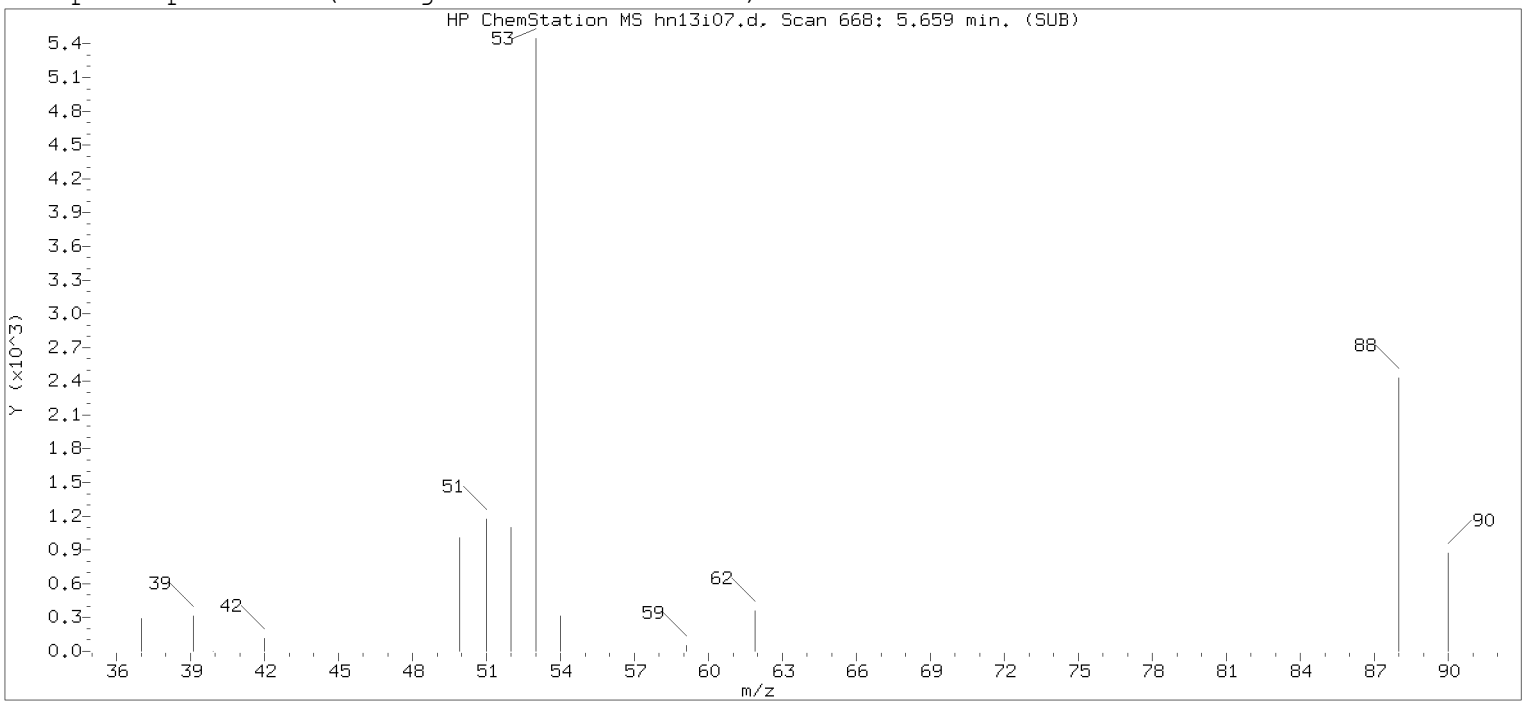
Compound Number : 35
Compound Name : 2-Chloro-1,3-Butadiene
Scan Number : 668
Retention Time (minutes): 5.659
Quant Ion : 53.00
Area (flag) : 16980M
On-Column Amount (ng) : 0.2031
Integration start scan : 654 Integration stop scan: 690
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

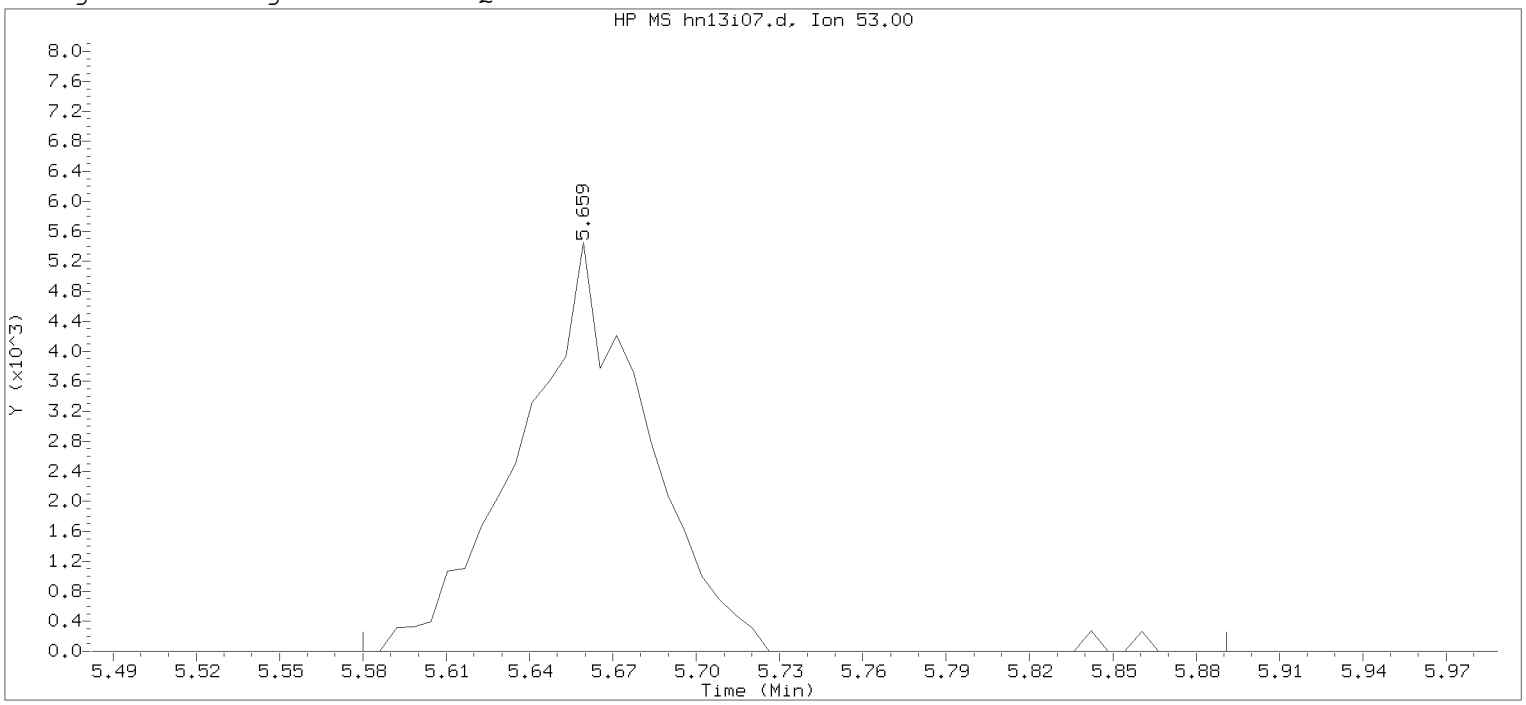
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

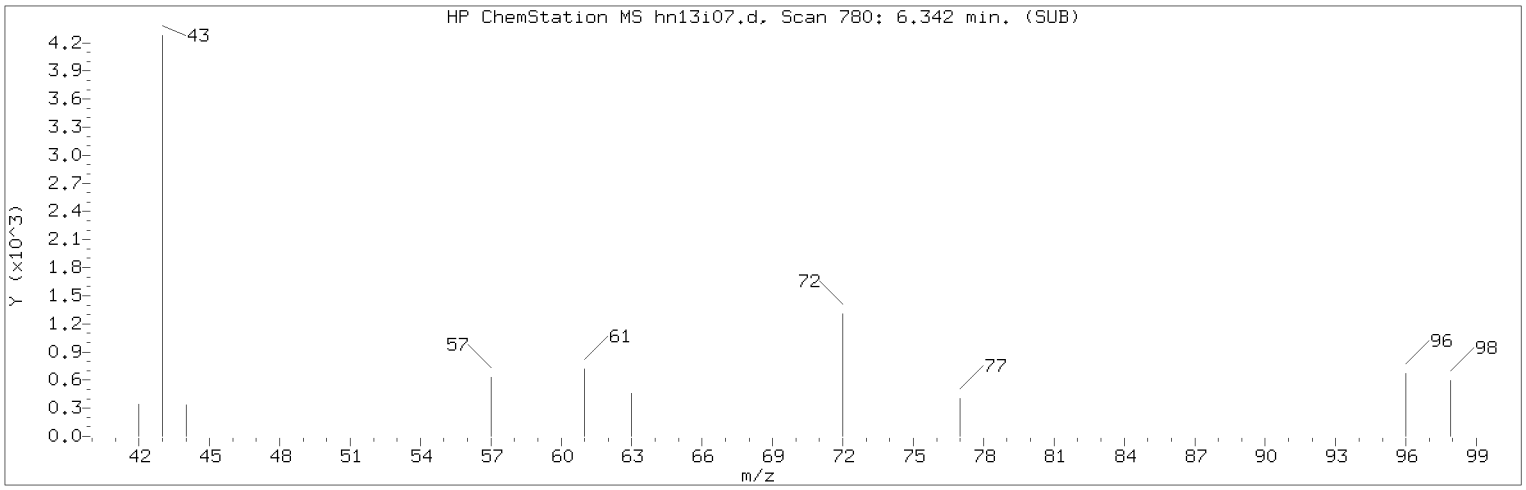
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

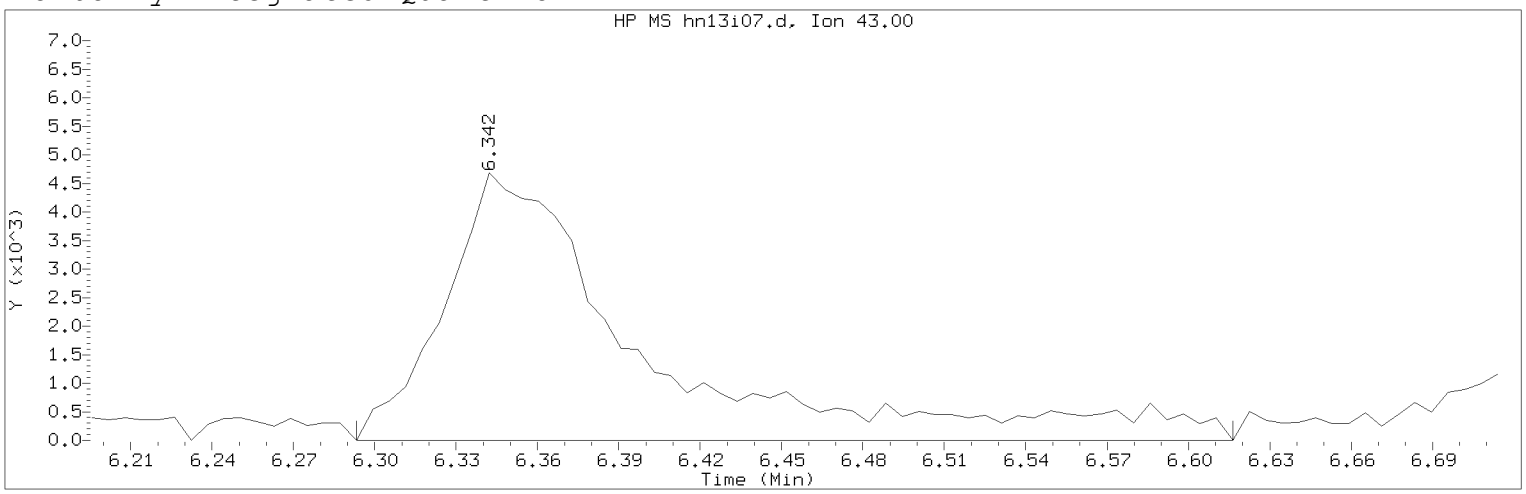
Compound Number : 35
Compound Name : 2-Chloro-1,3-Butadiene
Scan Number : 668
Retention Time (minutes): 5.659
Quant Ion : 53.00
Area : 17180
On-column Amount (ng) : 0.2052
Integration start scan : 654 Integration stop scan: 705
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 745

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

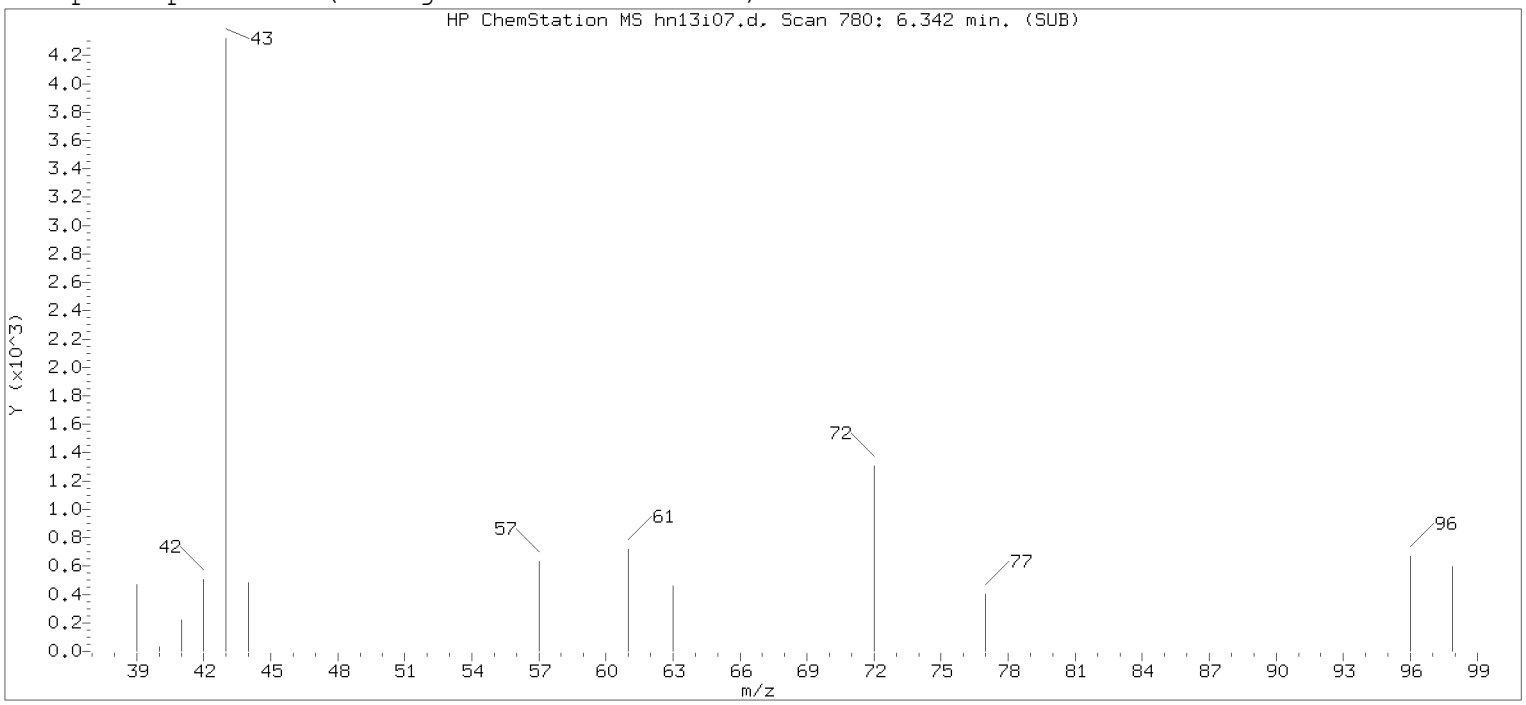
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area (flag) : 23783M
On-Column Amount (ng) : 2.4844
Integration start scan : 771 Integration stop scan: 824
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

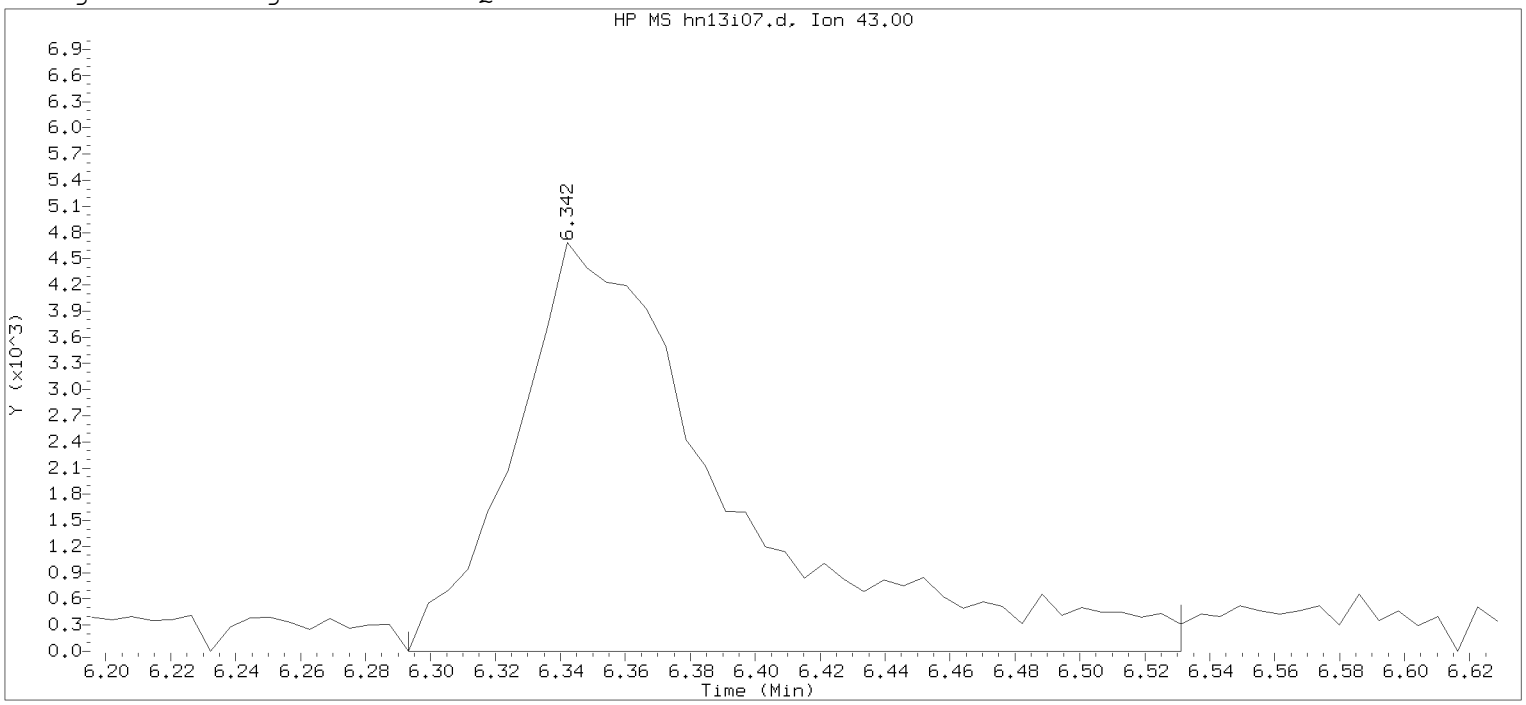
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

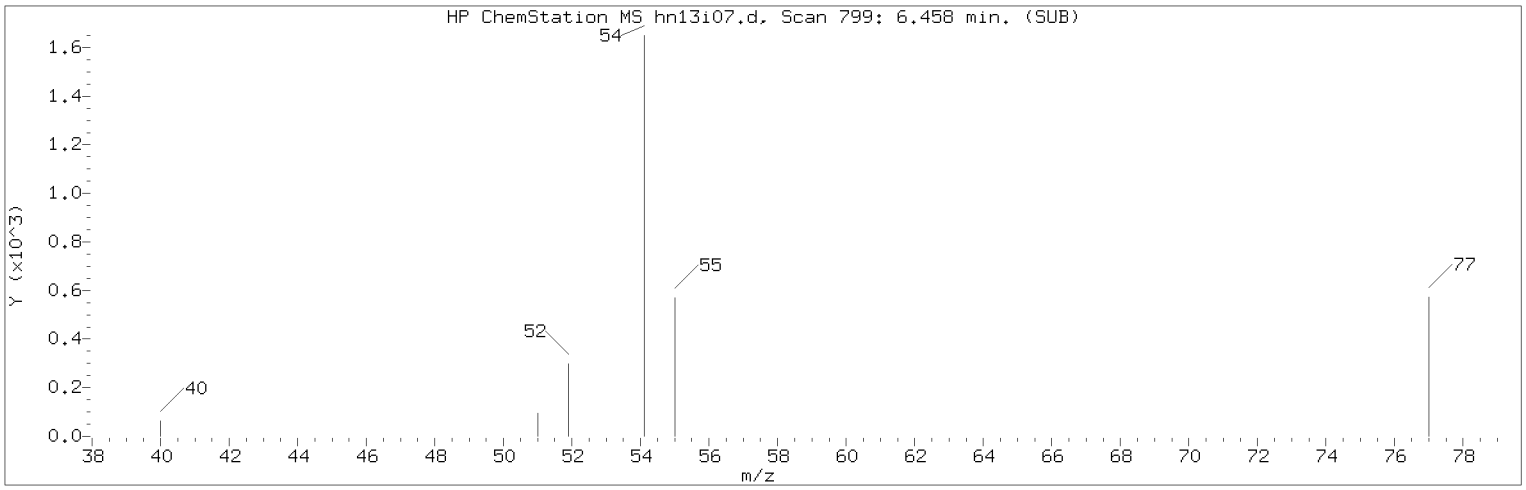
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

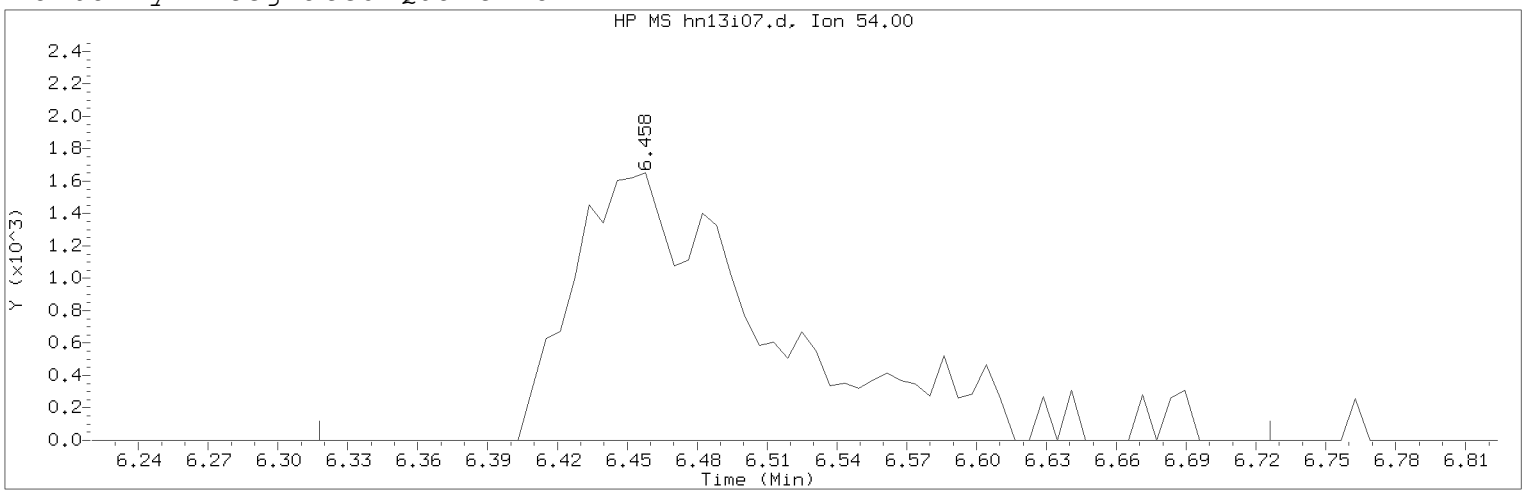
Compound Number : 38
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.342
Quant Ion : 43.00
Area : 21647
On-column Amount (ng) : 2.3172
Integration start scan : 771 Integration stop scan: 810
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 747

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

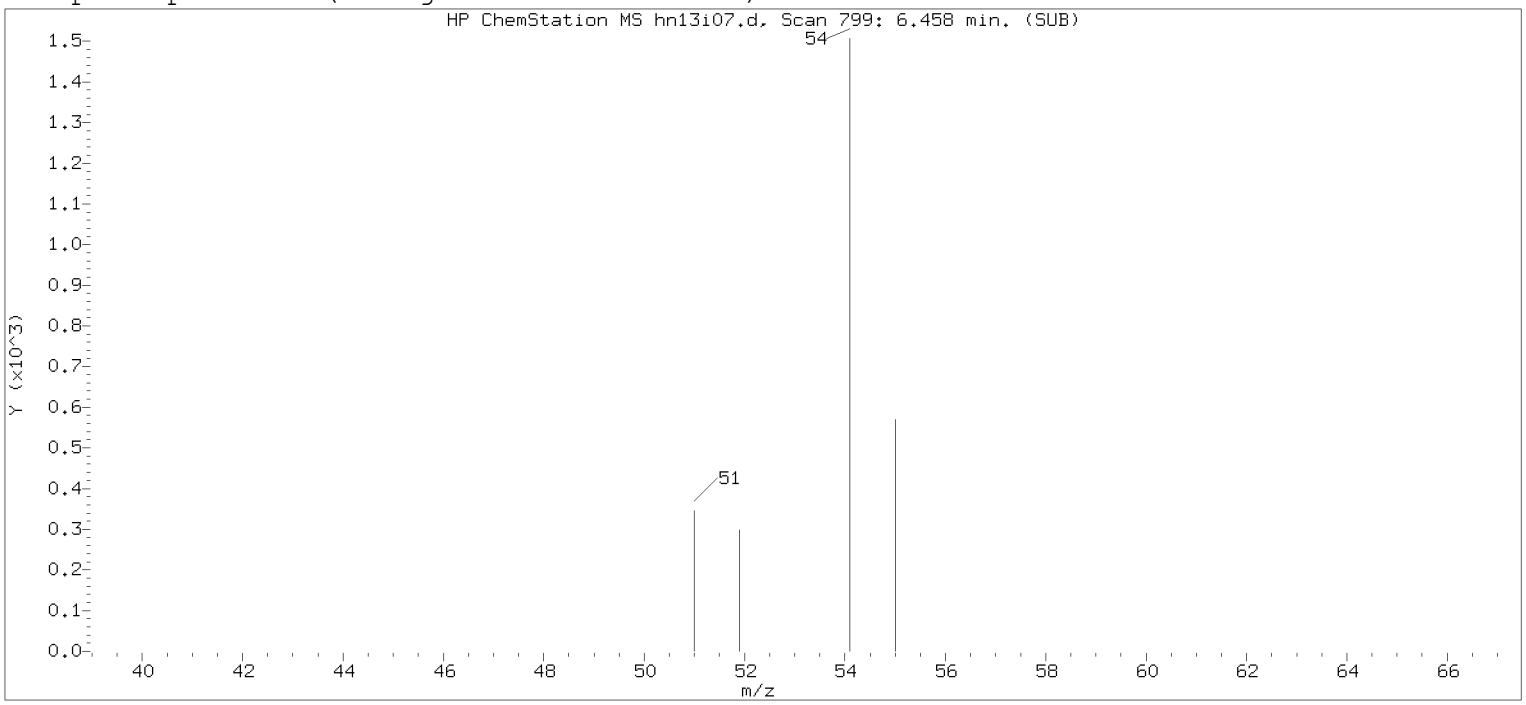
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 799
Retention Time (minutes): 6.458
Quant Ion : 54.00
Area (flag) : 9986M
On-Column Amount (ng) : 4.0821
Integration start scan : 775 Integration stop scan: 842
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

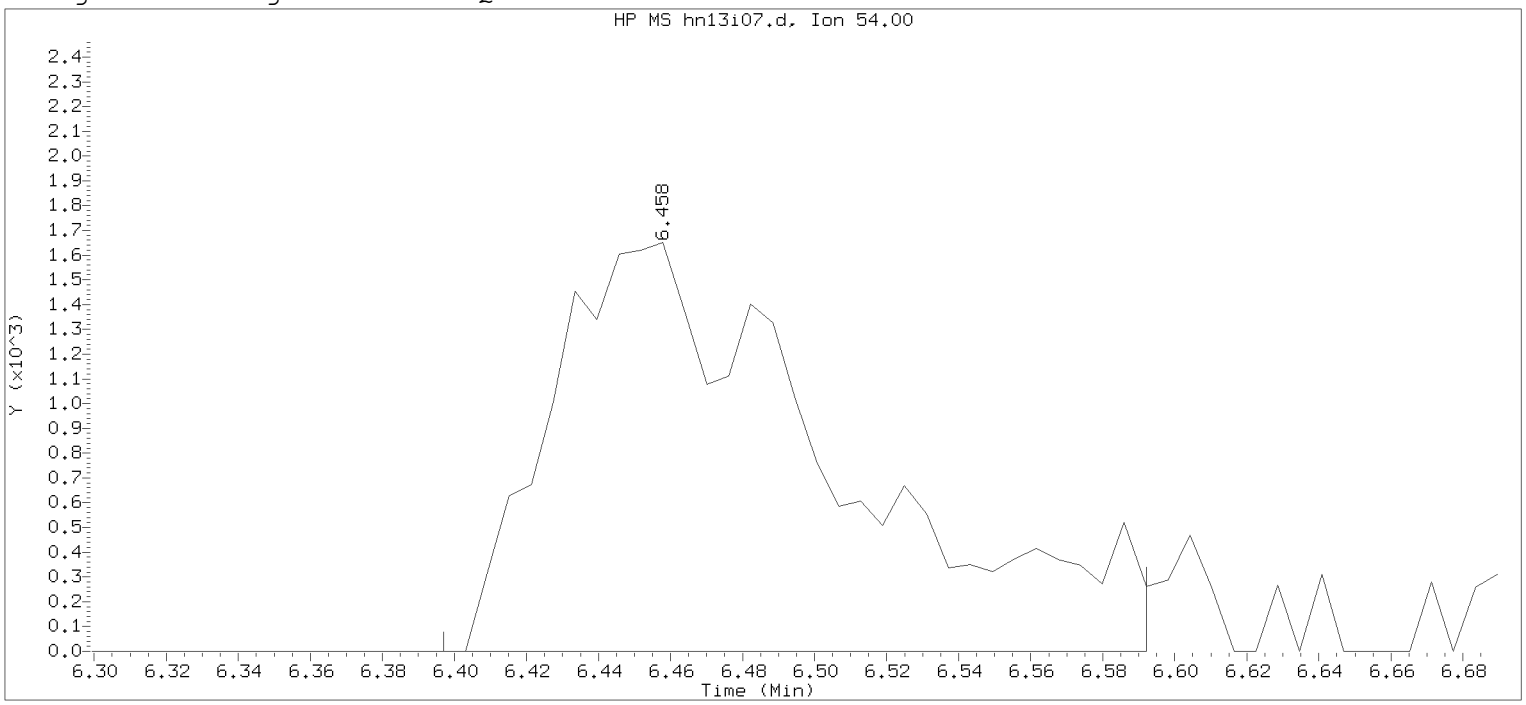
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

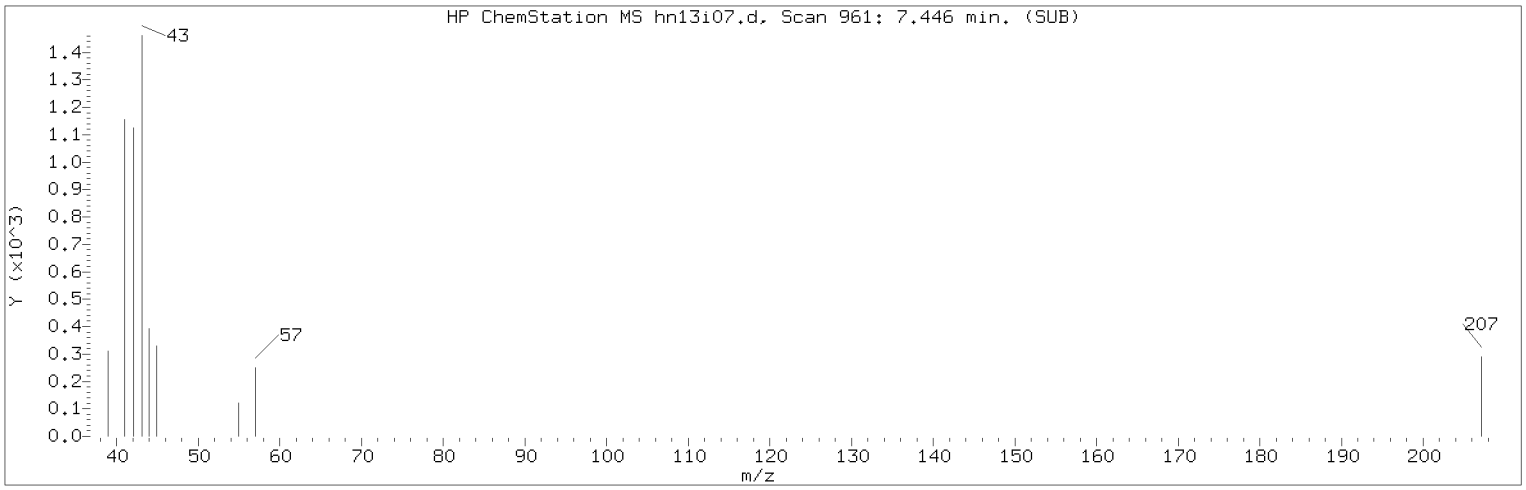
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

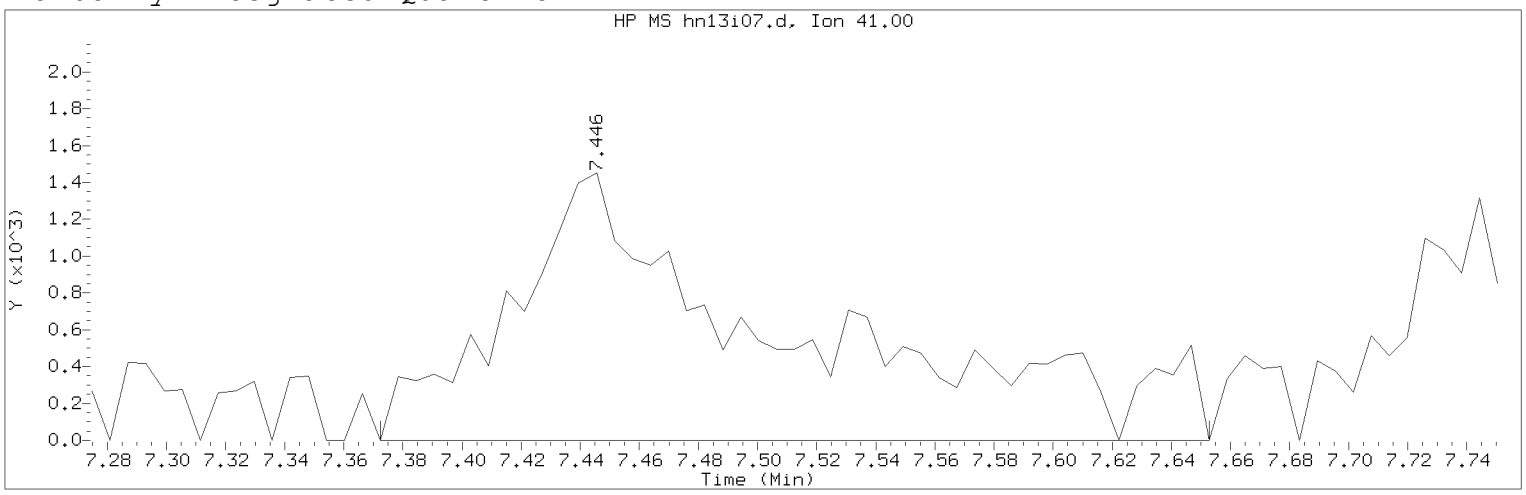
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 799
Retention Time (minutes): 6.458
Quant Ion : 54.00
Area : 9046
On-column Amount (ng) : 3.7371
Integration start scan : 788 Integration stop scan: 820
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 749 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

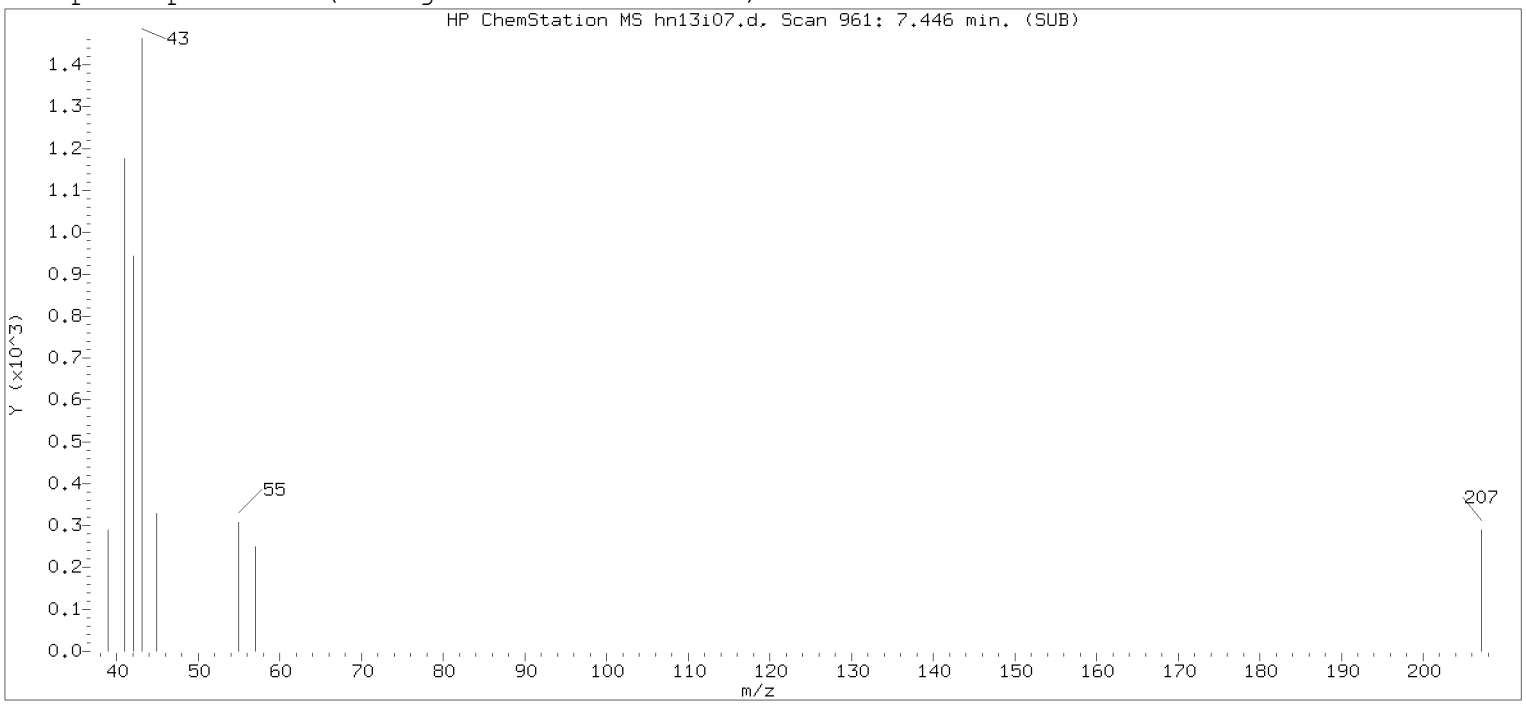
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 961
Retention Time (minutes): 7.446
Quant Ion : 41.00
Area (flag) : 9493M
On-Column Amount (ng) : 14.6545
Integration start scan : 948 Integration stop scan: 994
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

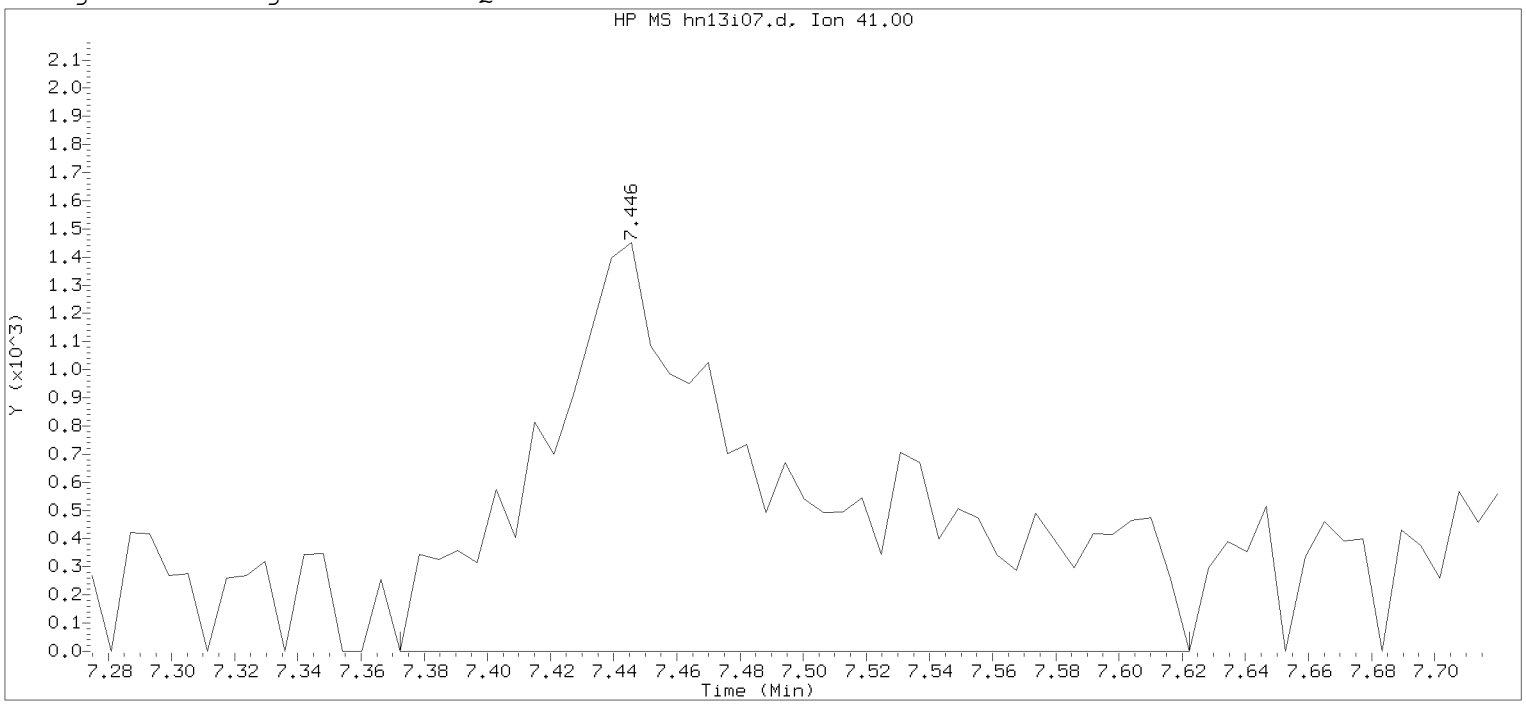
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

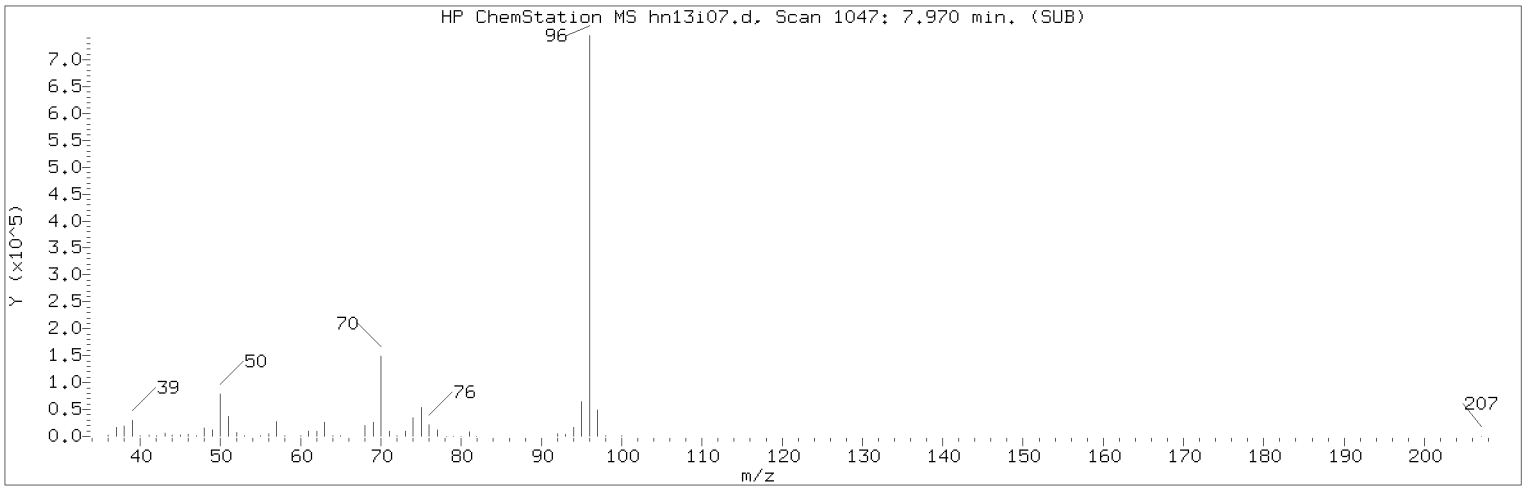
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

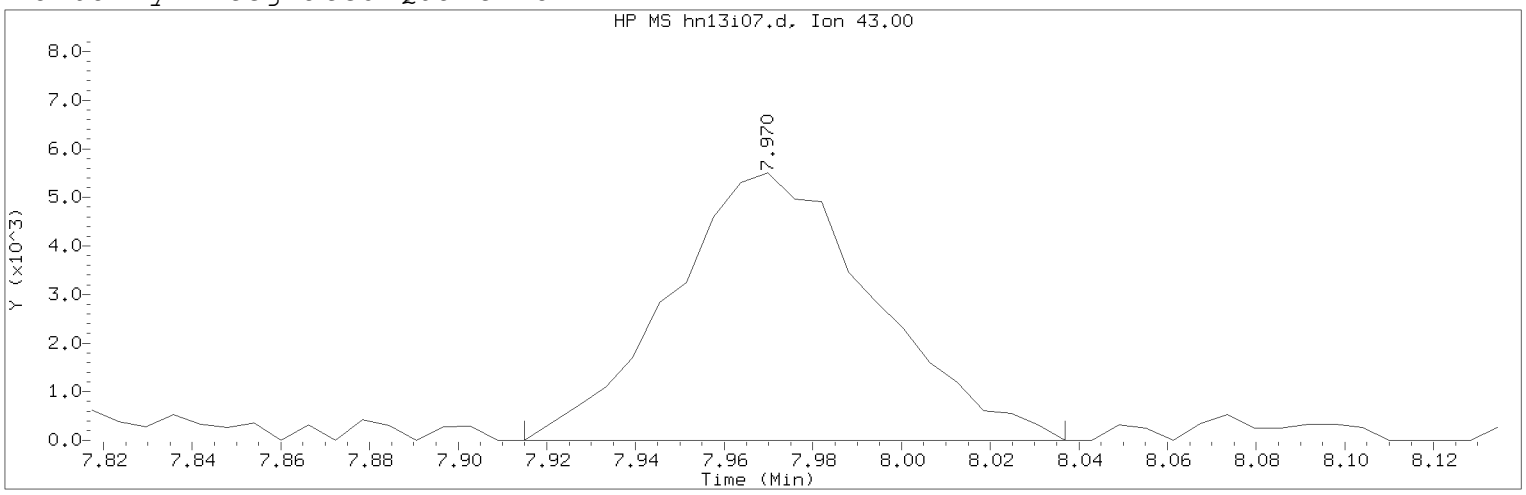
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 961
Retention Time (minutes): 7.446
Quant Ion : 41.00
Area : 8924
On-column Amount (ng) : 14.1153
Integration start scan : 948 Integration stop scan: 989
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

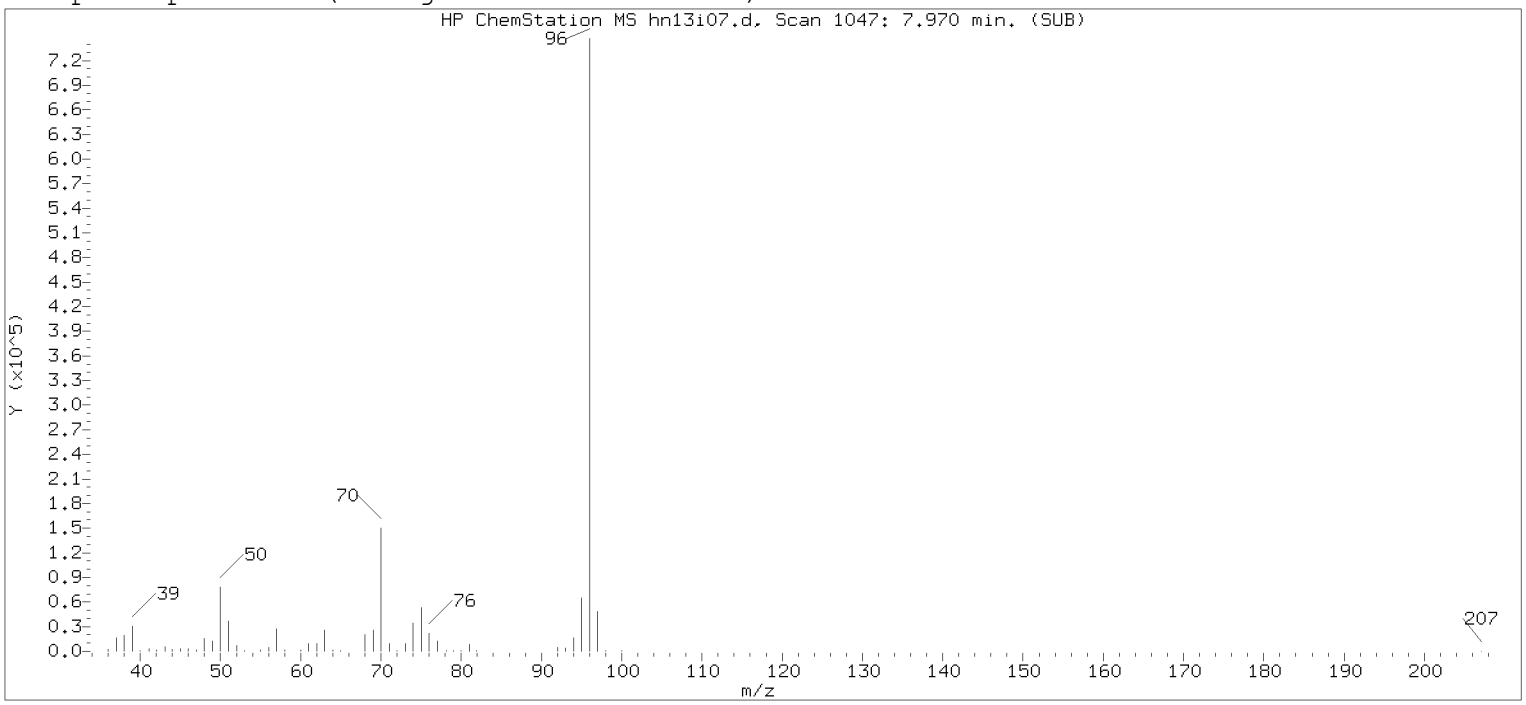
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1047
Retention Time (minutes): 7.970
Quant Ion : 43.00
Area (flag) : 17600M
On-Column Amount (ng) : 0.2044
Integration start scan : 1037 Integration stop scan: 1057
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

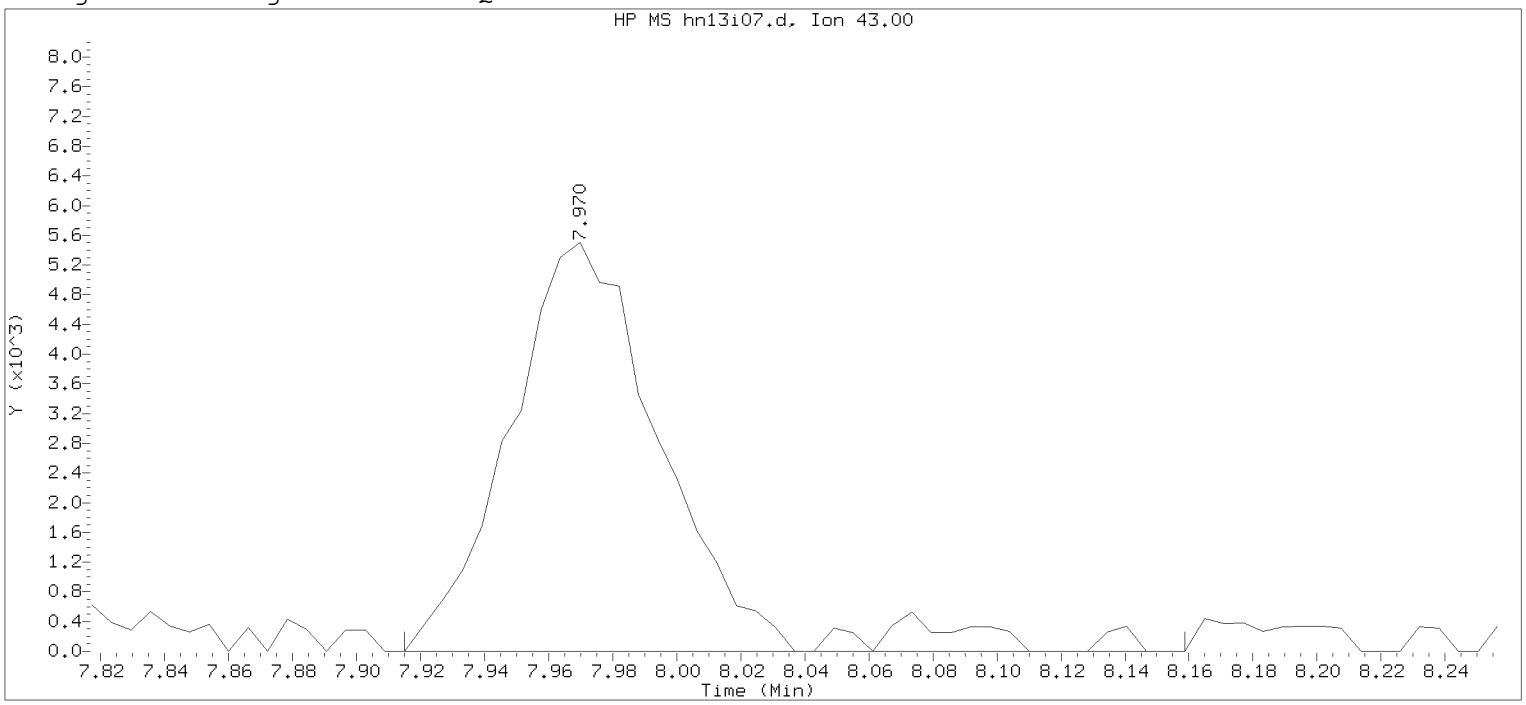
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

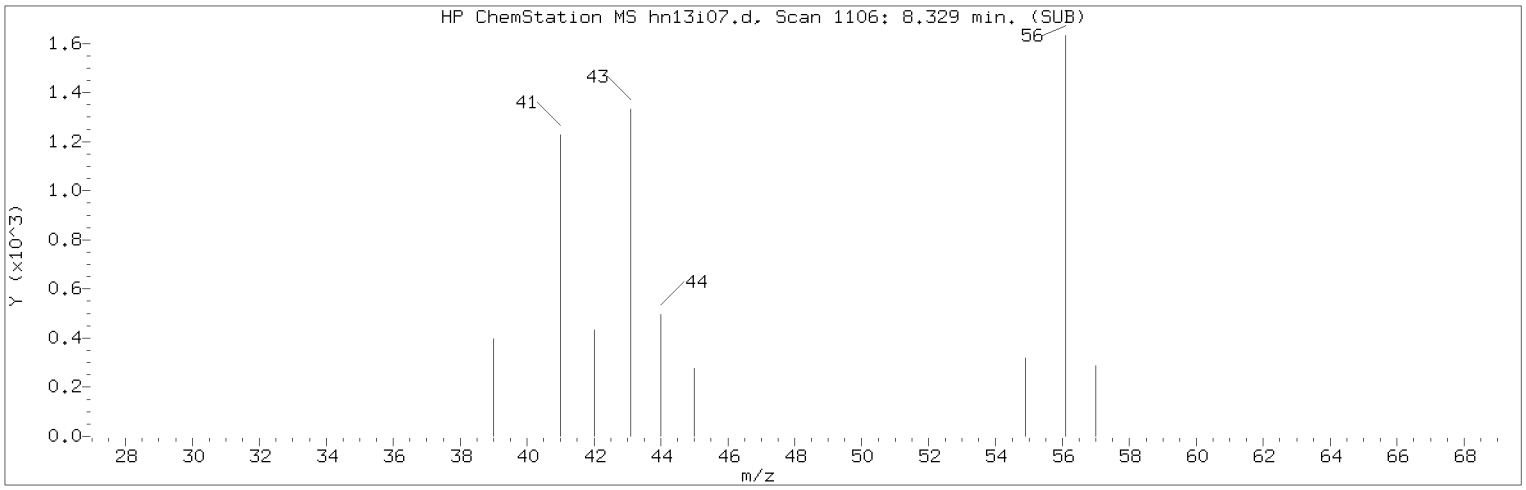
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

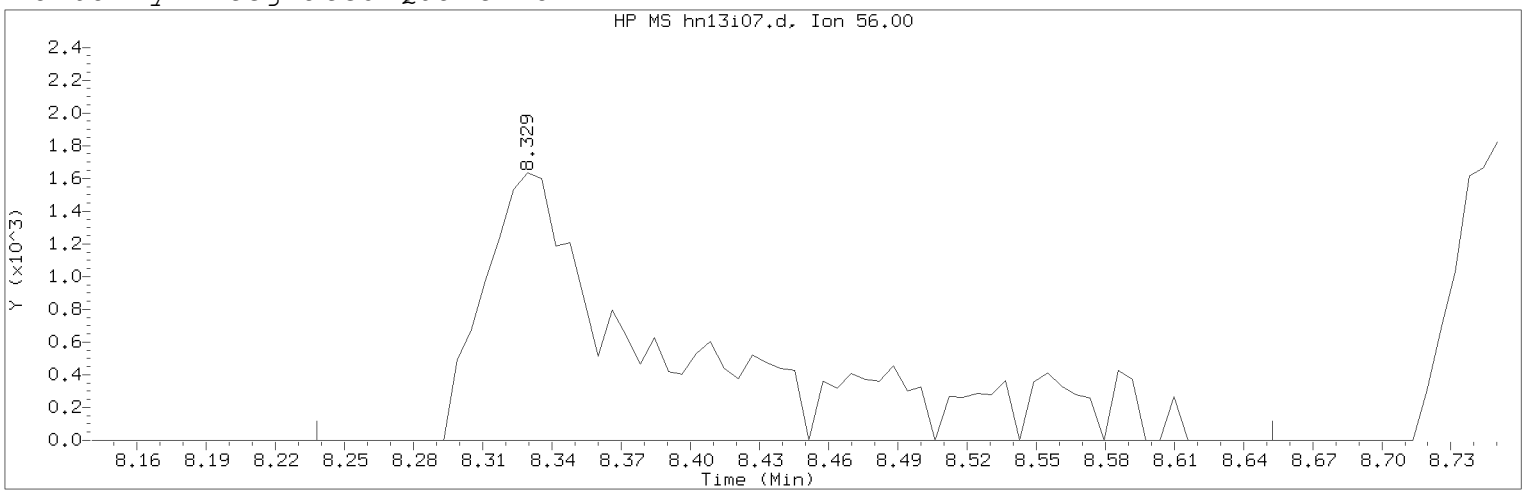
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1047
Retention Time (minutes): 7.970
Quant Ion : 43.00
Area : 18870
On-column Amount (ng) : 0.2156
Integration start scan : 1037 Integration stop scan: 1077
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

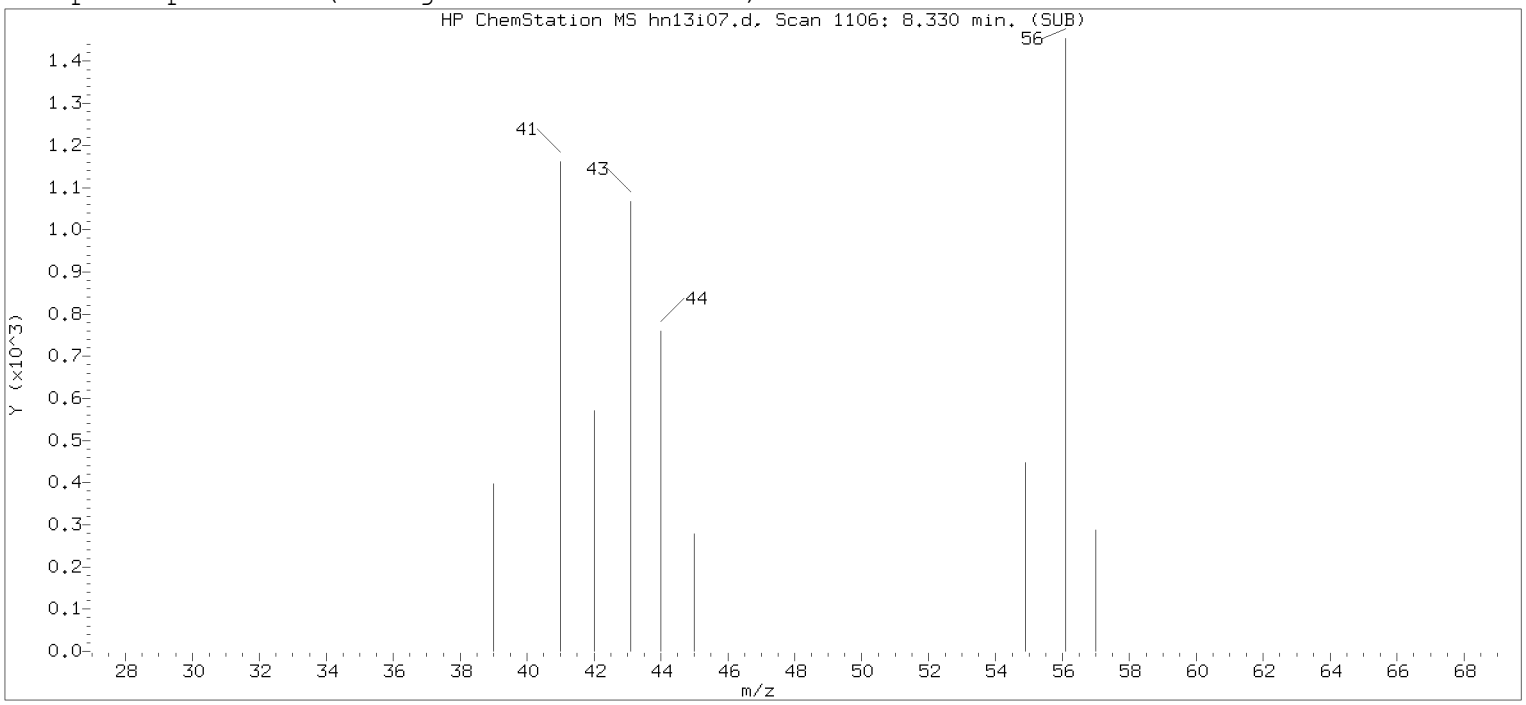
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1106
Retention Time (minutes): 8.329
Quant Ion : 56.00
Area (flag) : 9557M
On-Column Amount (ng) : 19.9539
Integration start scan : 1090 Integration stop scan: 1158
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

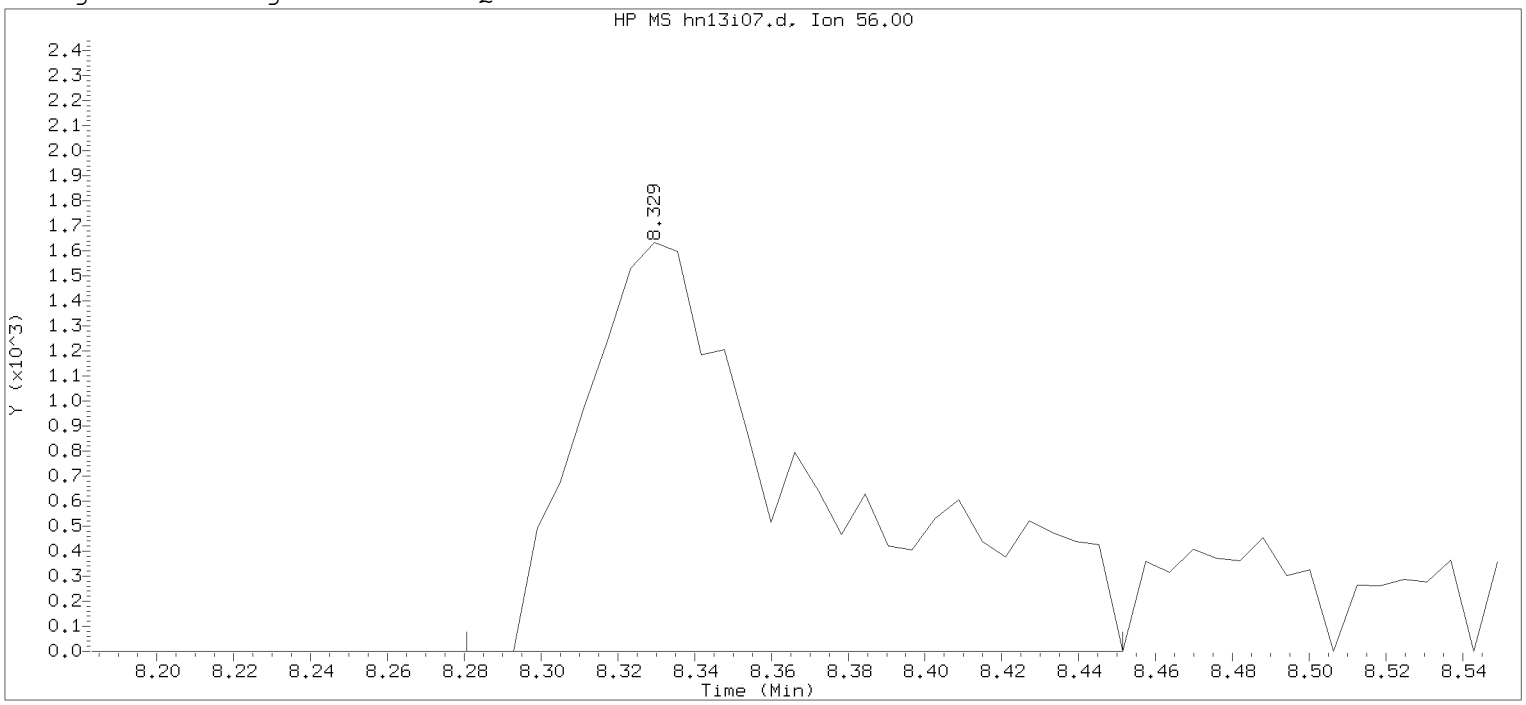
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

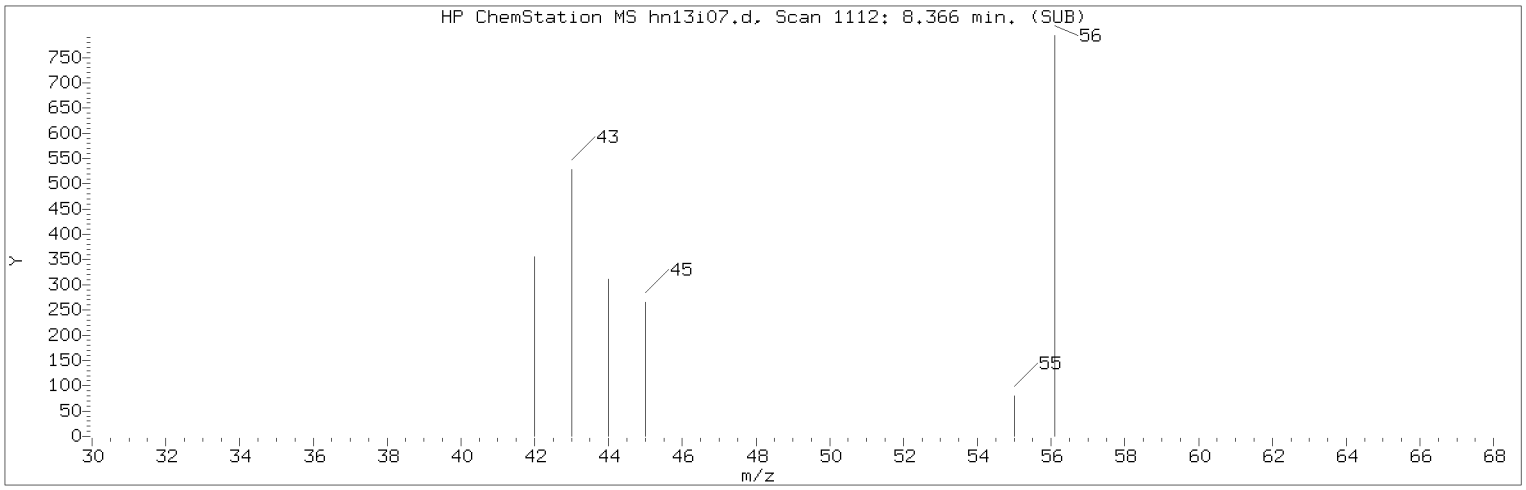
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

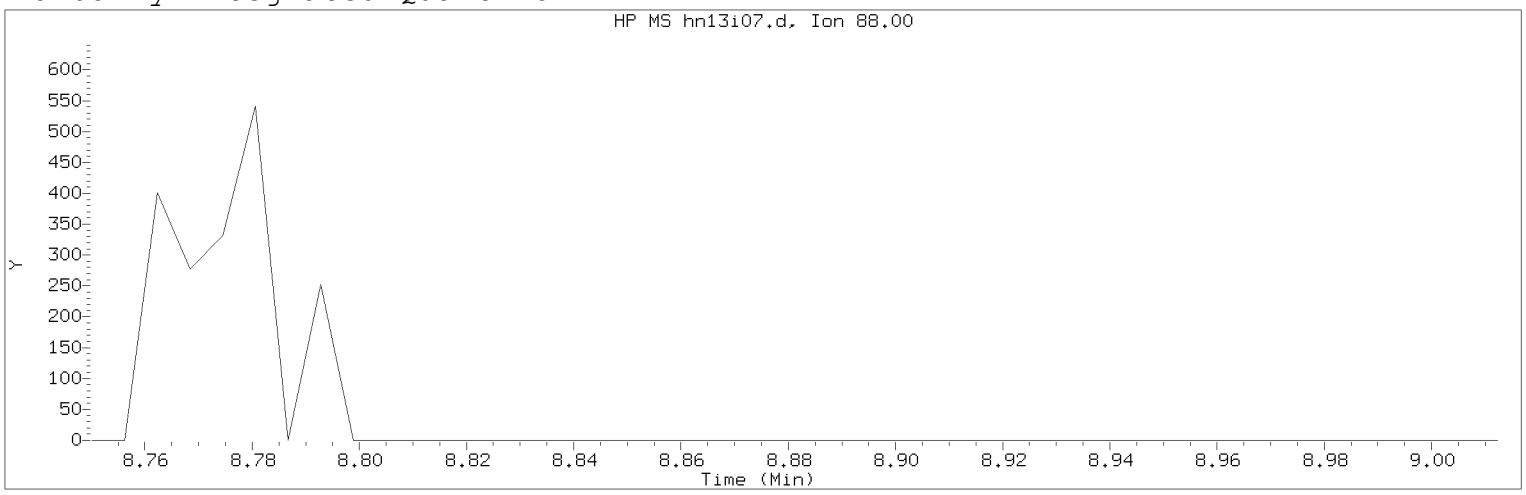
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1106
Retention Time (minutes): 8.329
Quant Ion : 56.00
Area : 6978
On-column Amount (ng) : 15.2391
Integration start scan : 1097 Integration stop scan: 1125
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 755 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

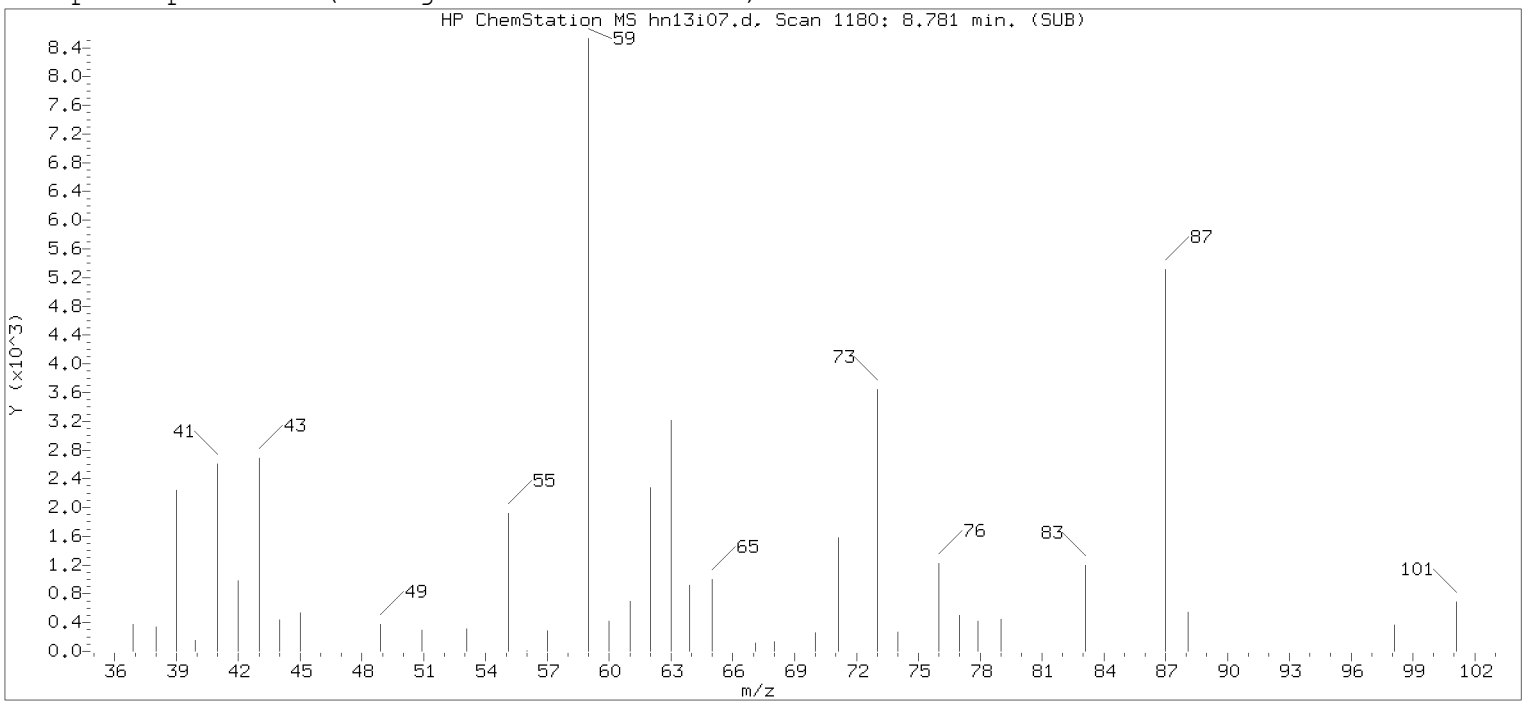
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1112
Retention Time (minutes): 8.366
Quant Ion : 88.00
Area (flag) : 0M
On-Column Amount (ng) : 0.0000
Integration start scan : 1190 Integration stop scan: 1201
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

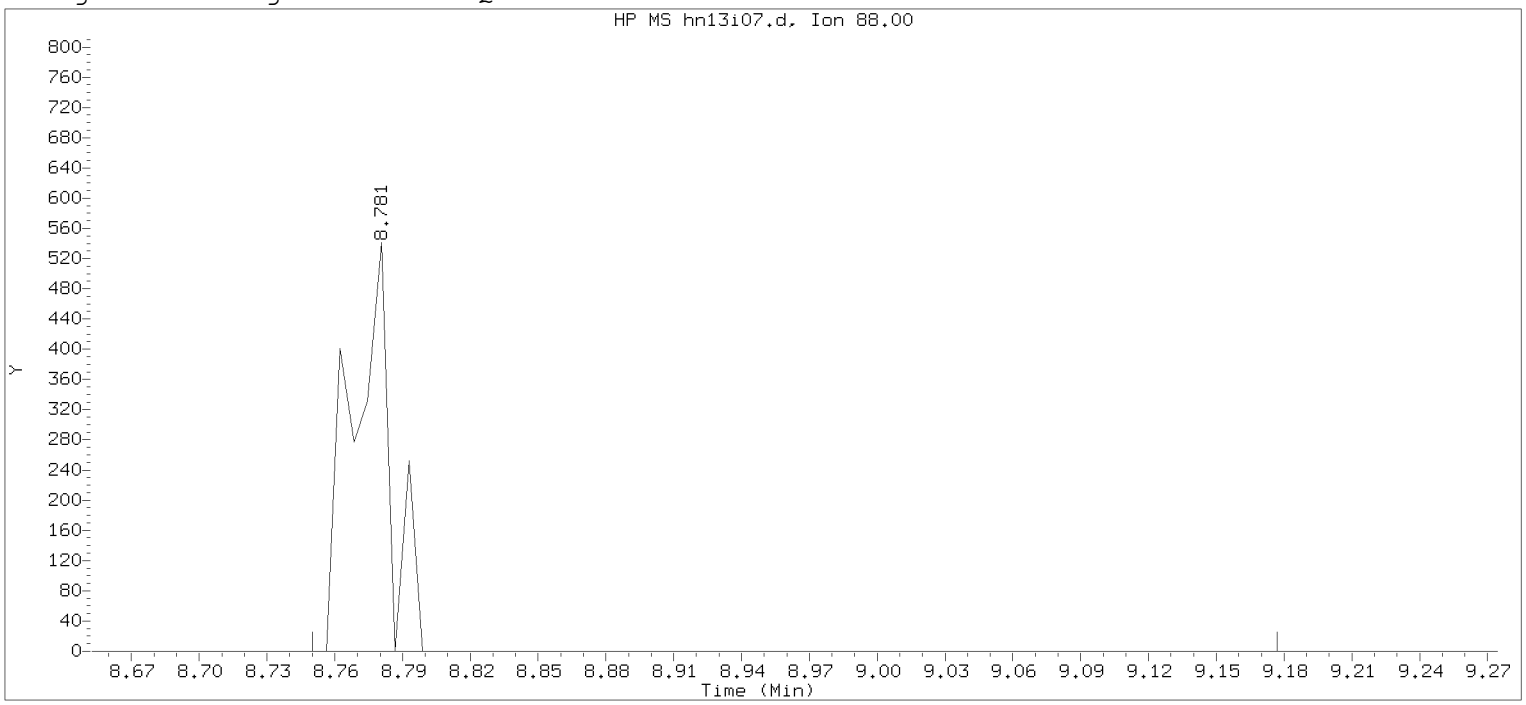
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

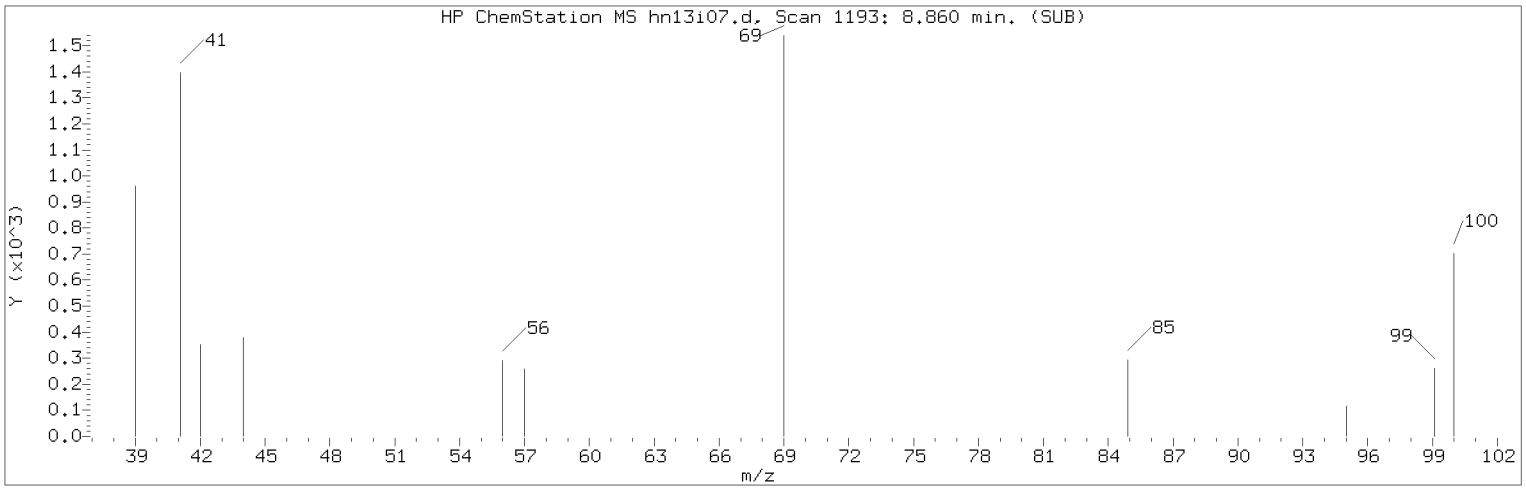
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

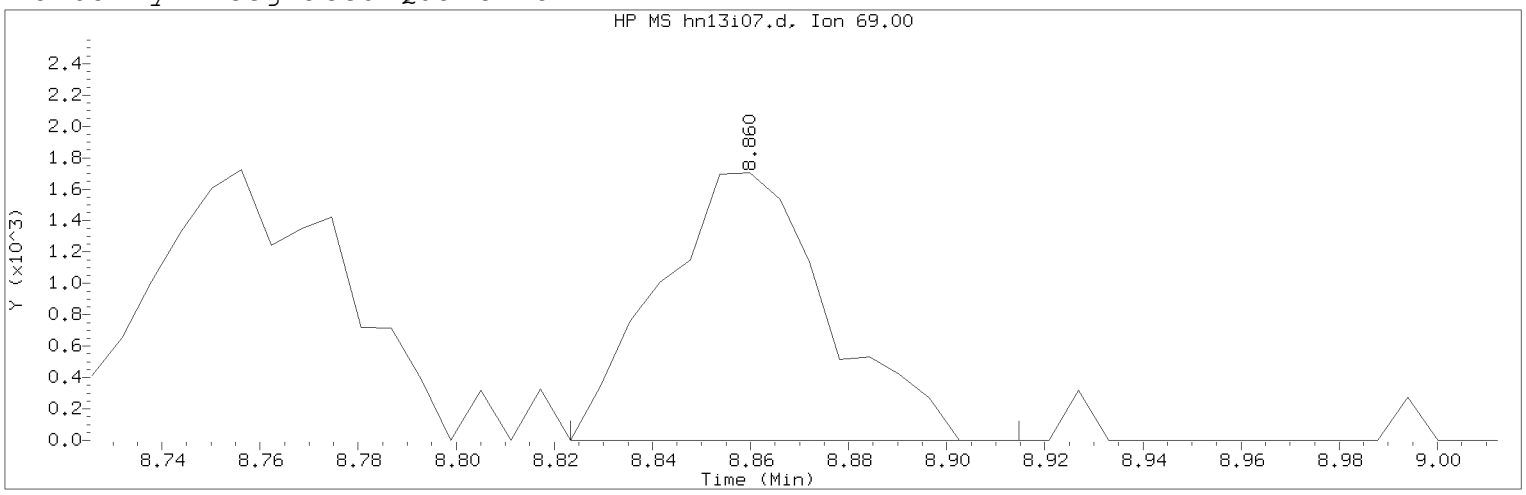
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1180		
Retention Time (minutes)	: 8.781		
Quant Ion	: 88.00		
Area	: 659		
On-column Amount (ng)	: 7.5352		
Integration start scan	: 1174	Integration stop scan:	1244
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

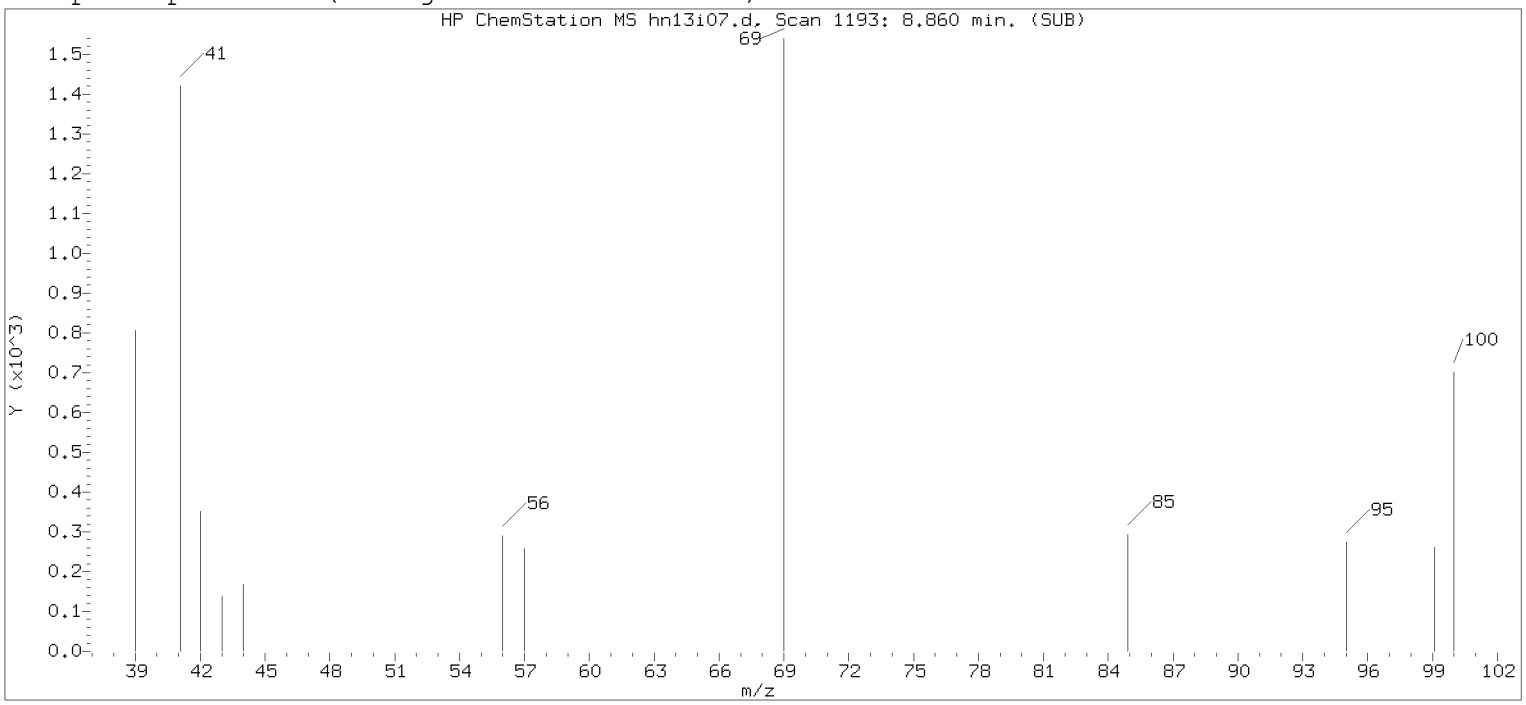
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1193
Retention Time (minutes): 8.860
Quant Ion : 69.00
Area (flag) : 4050M
On-Column Amount (ng) : 0.2156
Integration start scan : 1186 Integration stop scan: 1201
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

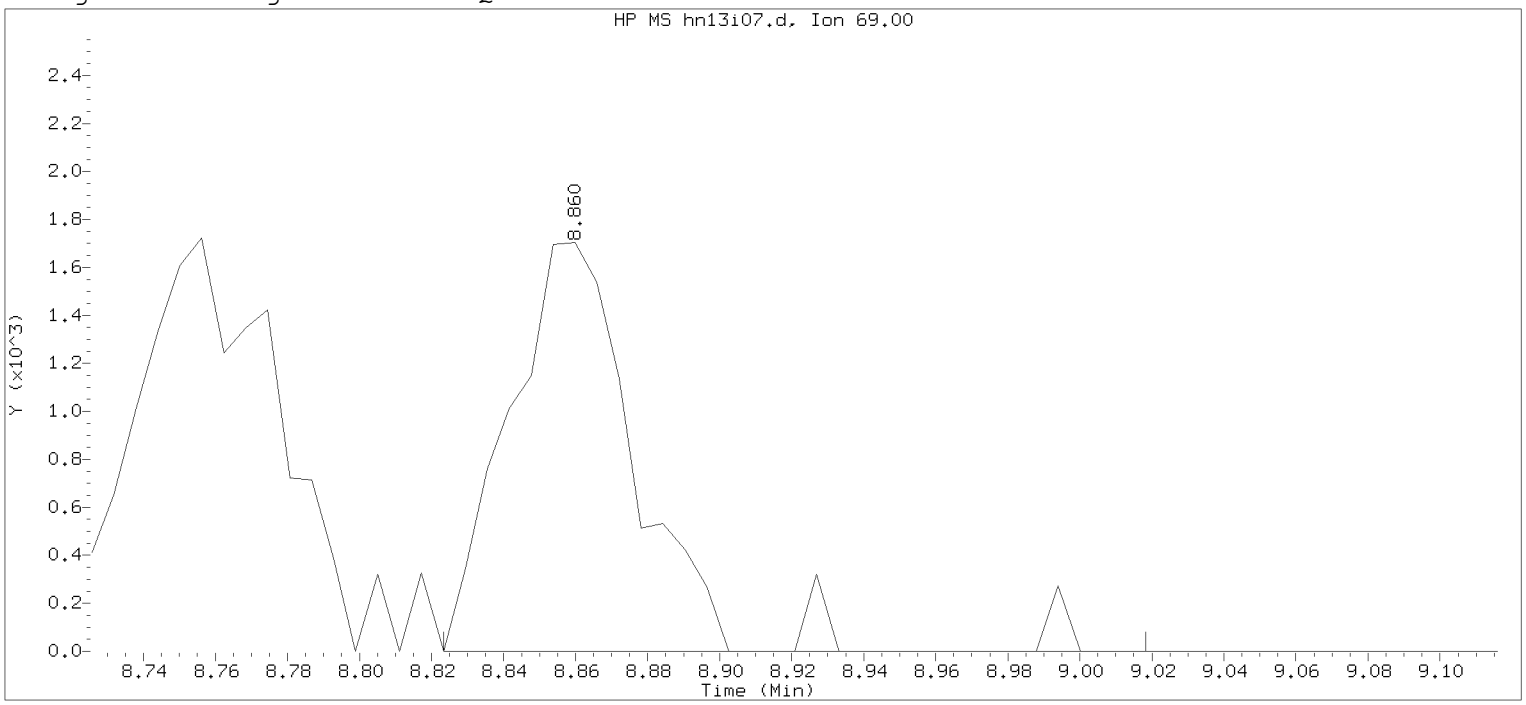
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

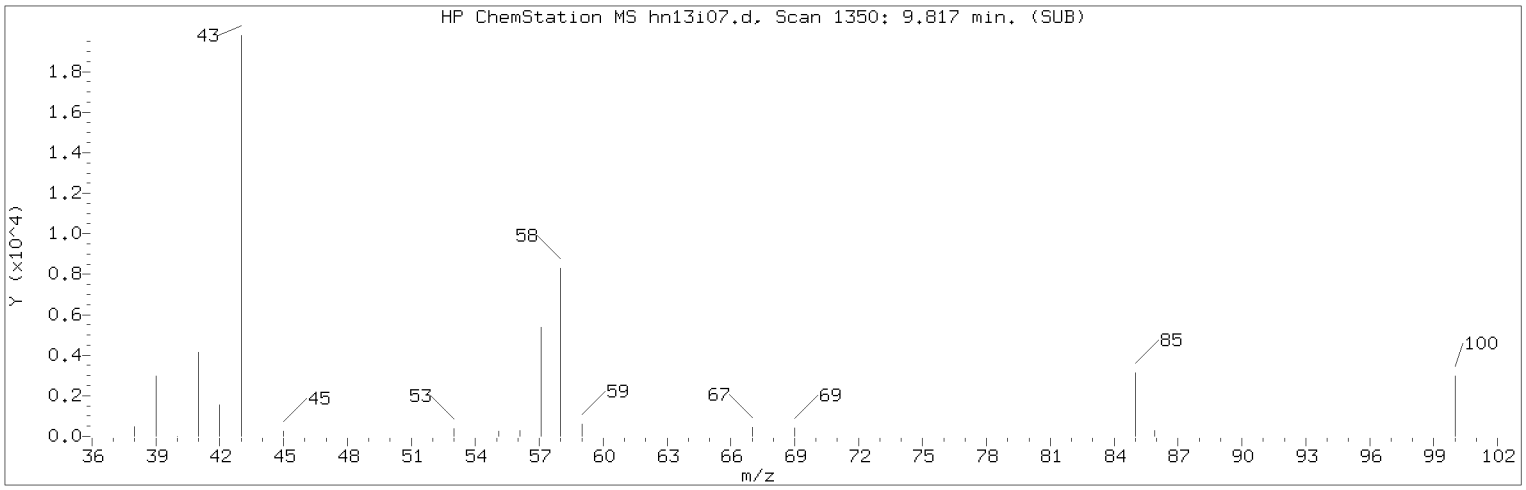
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

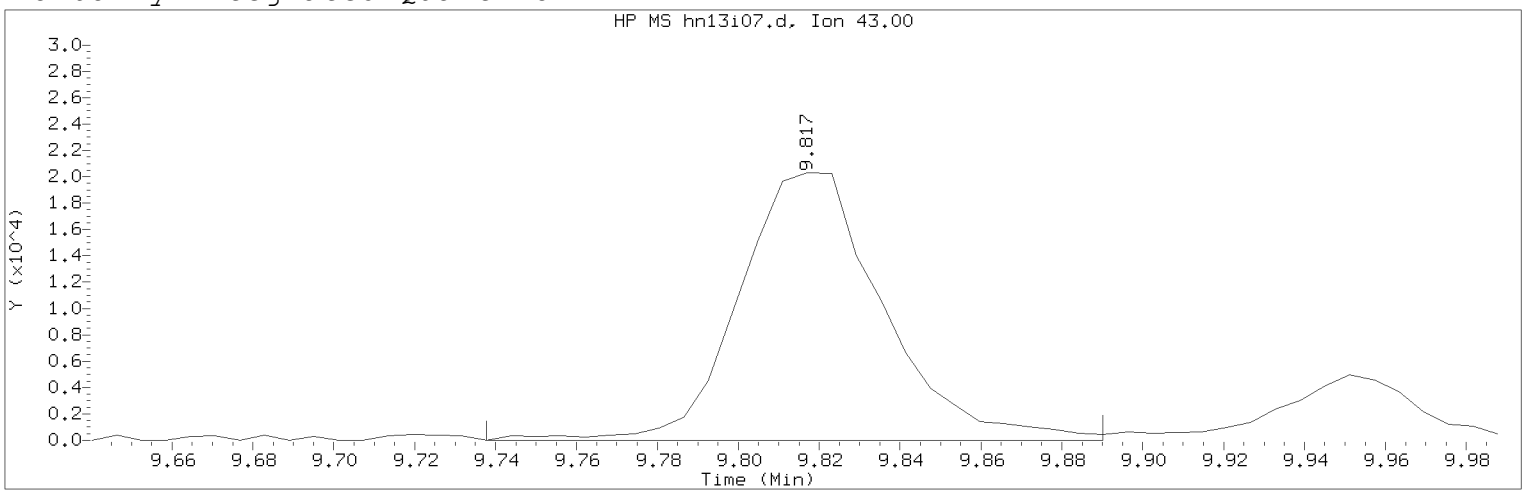
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1193
Retention Time (minutes): 8.860
Quant Ion : 69.00
Area : 4267
On-column Amount (ng) : 0.2219
Integration start scan : 1186 Integration stop scan: 1218
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

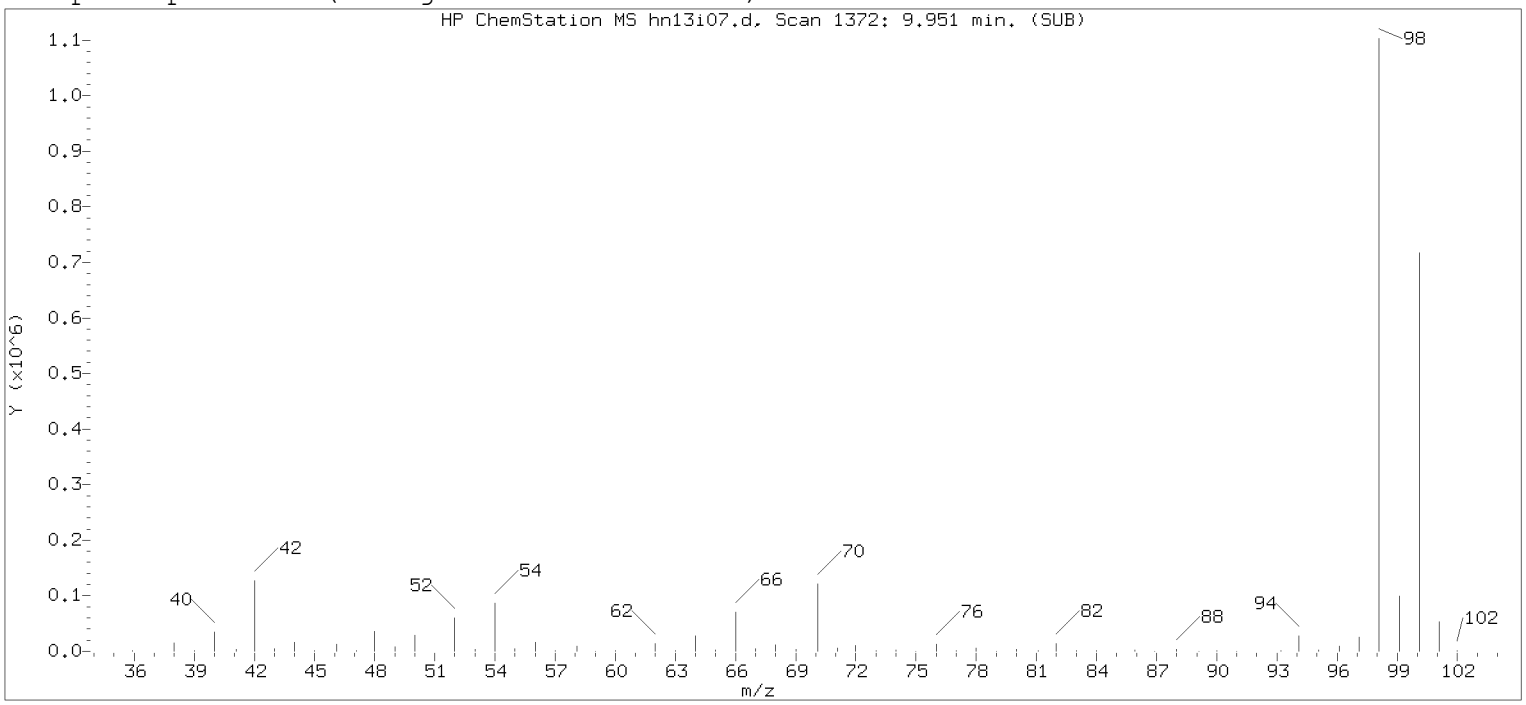
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 50447M
On-Column Amount (ng) : 2.1286
Integration start scan : 1336 Integration stop scan: 1361
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

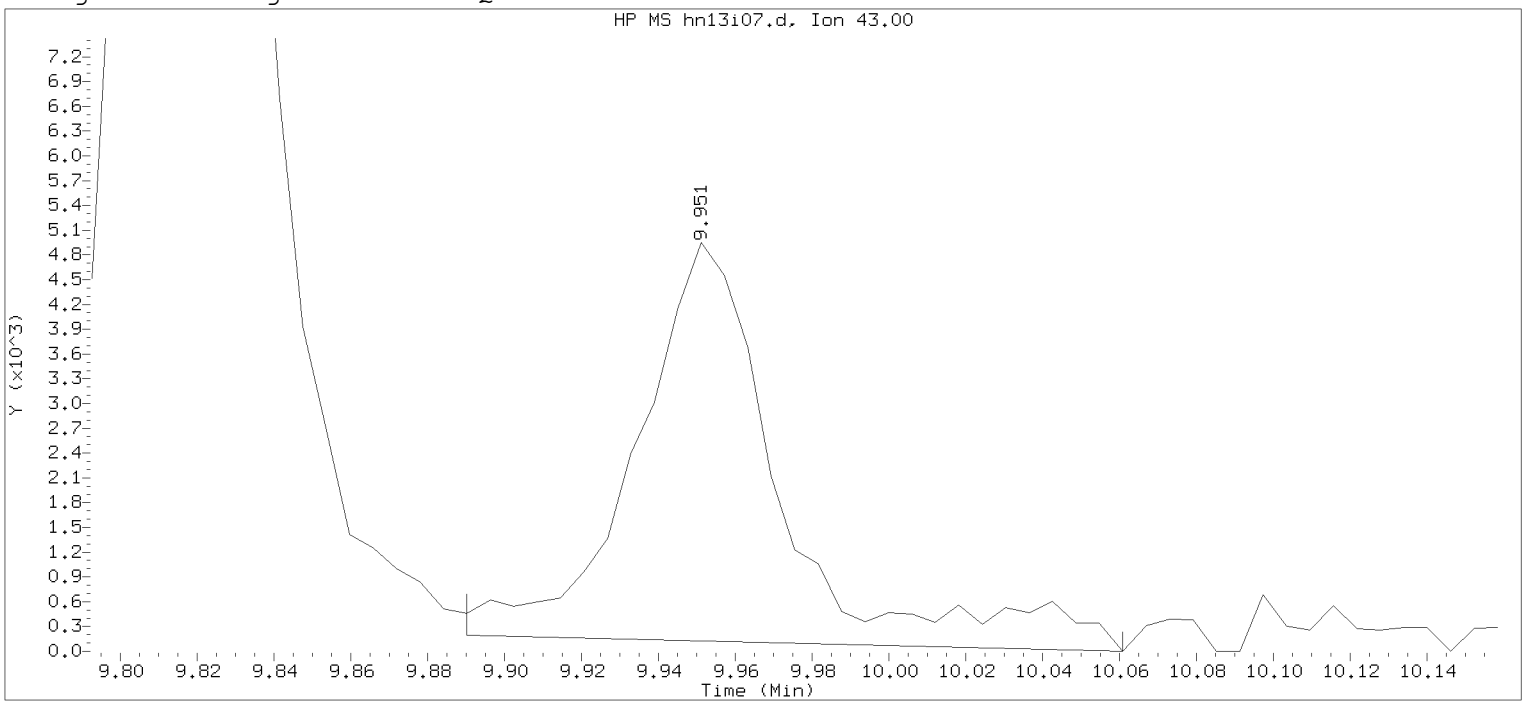
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number	: 81		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1372		
Retention Time (minutes)	: 9.951		
Quant Ion	: 43.00		
Area	: 12675		
On-column Amount (ng)	: 0.7189		
Integration start scan	: 1361	Integration stop scan:	1389
Y at integration start	: 195	Y at integration end:	0

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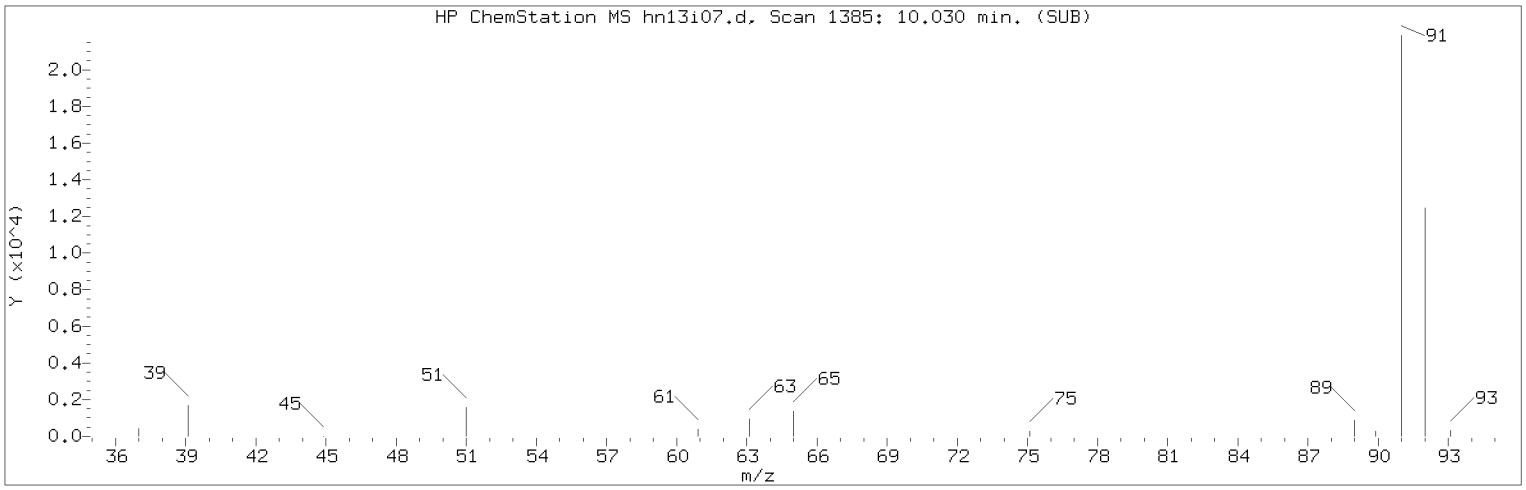
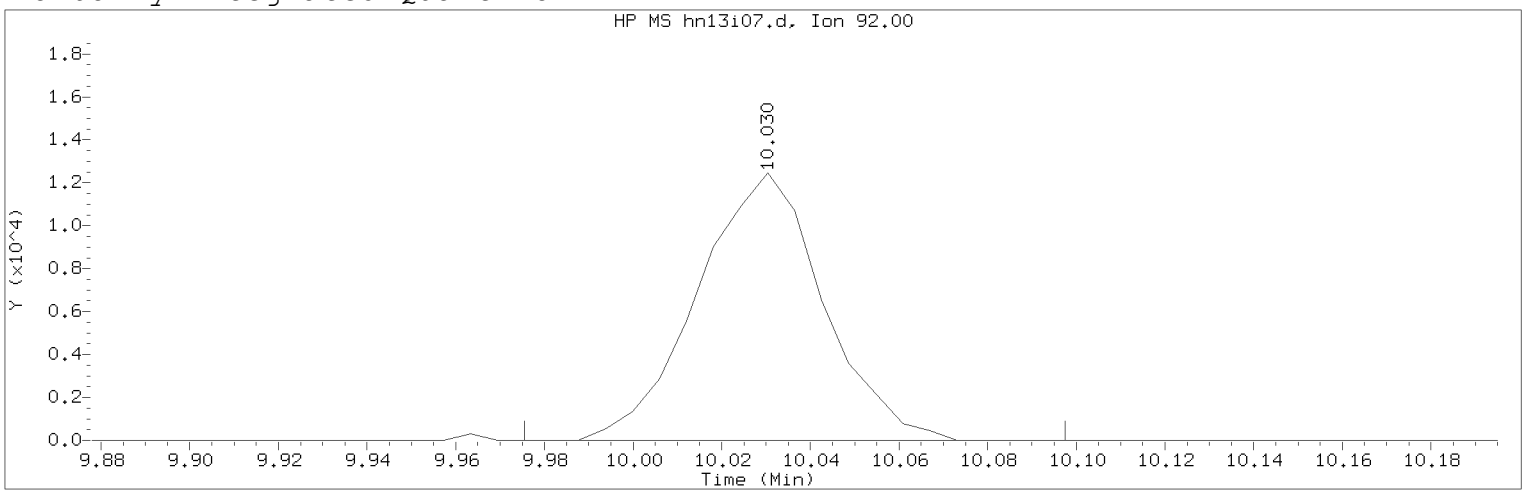
Target 3.5 esignature used. AE35 Page 761 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

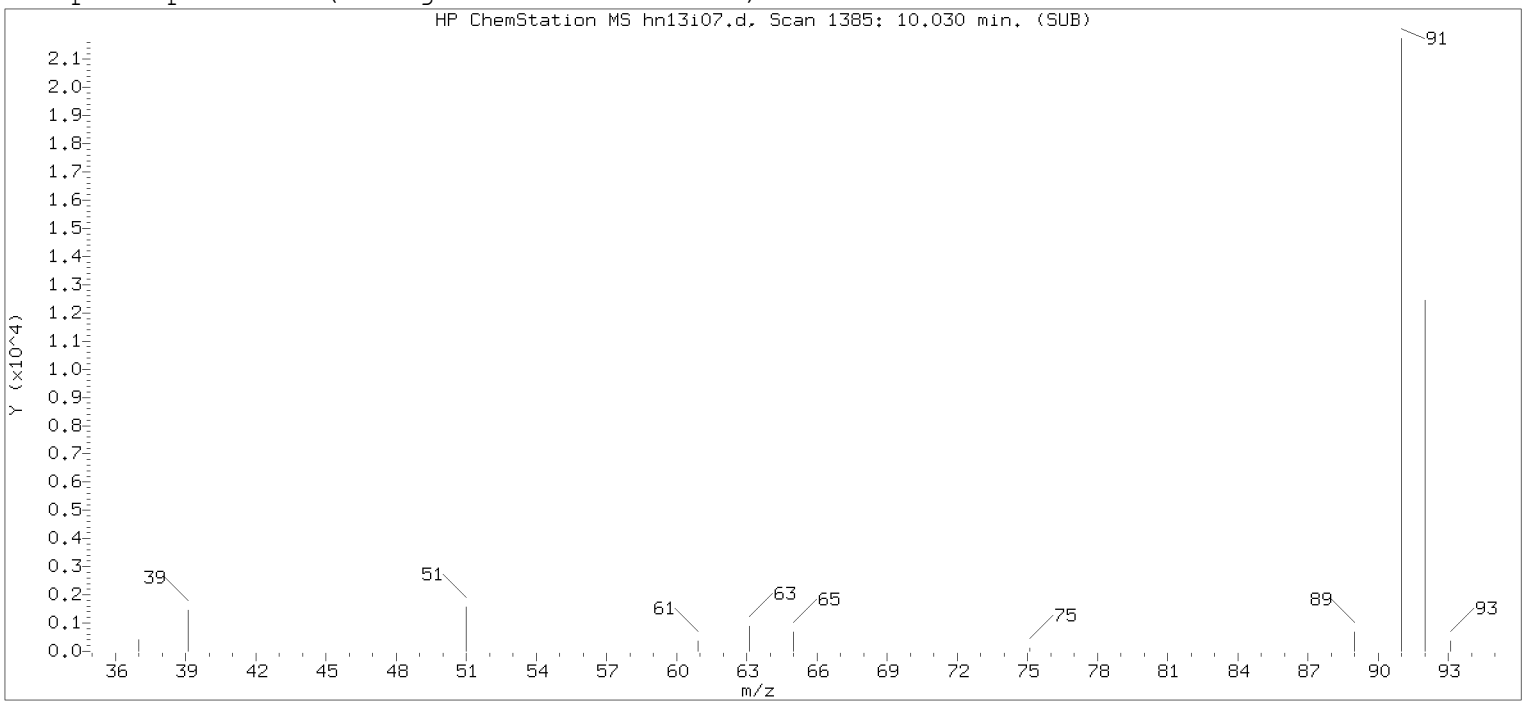
Compound Number : 83
Compound Name : Toluene
Scan Number : 1385
Retention Time (minutes): 10.030
Quant Ion : 92.00
Area (flag) : 24446M
On-Column Amount (ng) : 0.1994
Integration start scan : 1375 Integration stop scan: 1395
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

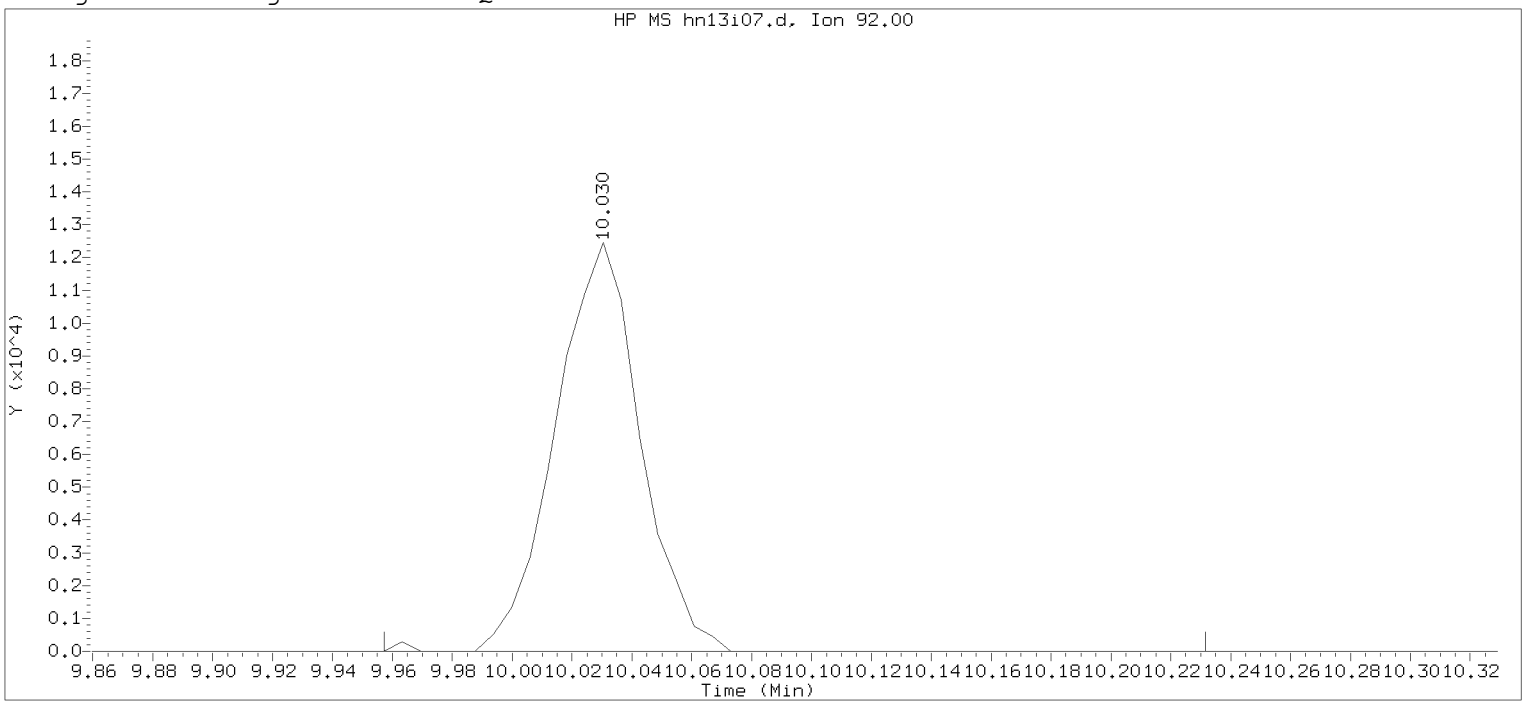
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

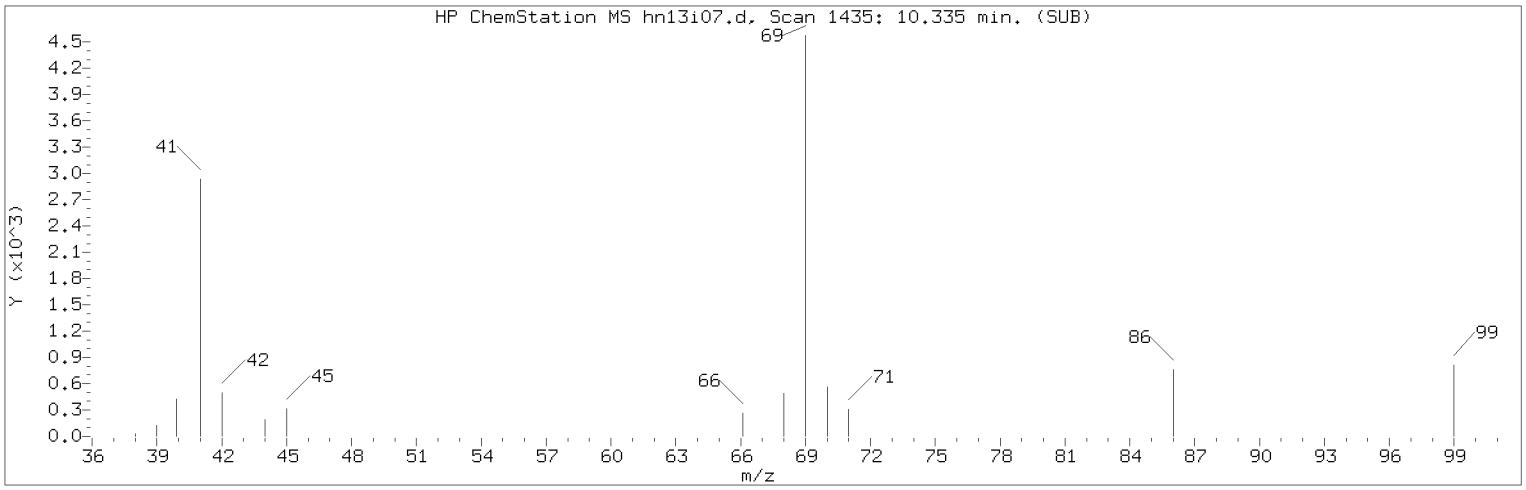
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

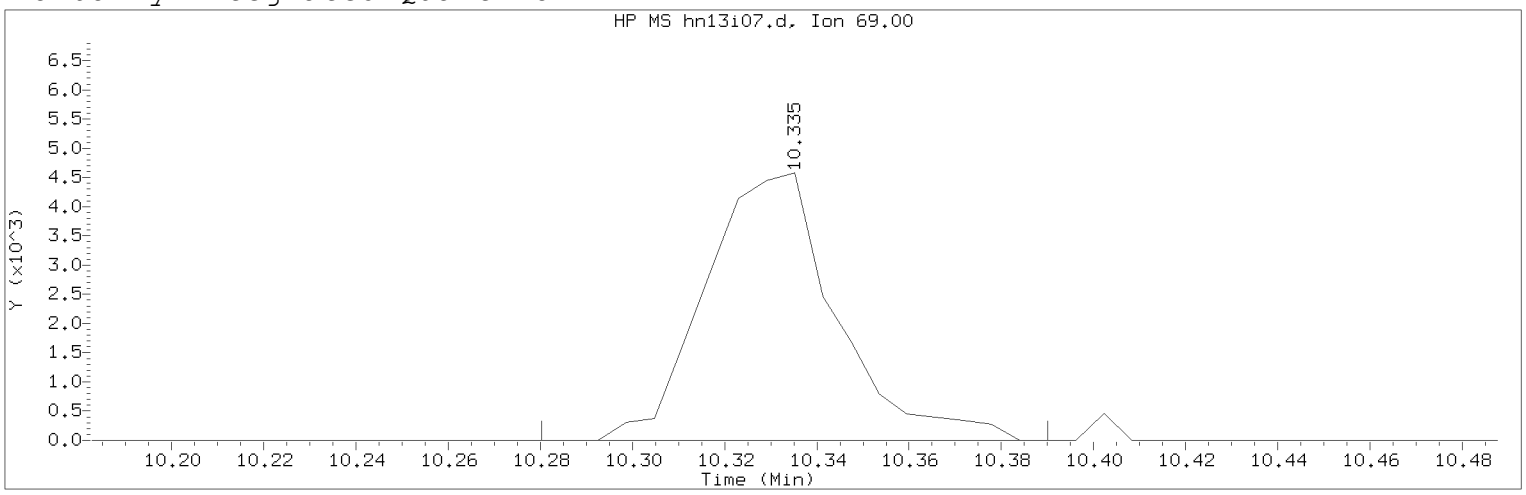
Compound Number	: 83		
Compound Name	: Toluene		
Scan Number	: 1385		
Retention Time (minutes)	: 10.030		
Quant Ion	: 92.00		
Area	: 24556		
On-column Amount (ng)	: 0.2001		
Integration start scan	: 1372	Integration stop scan:	1417
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 763 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

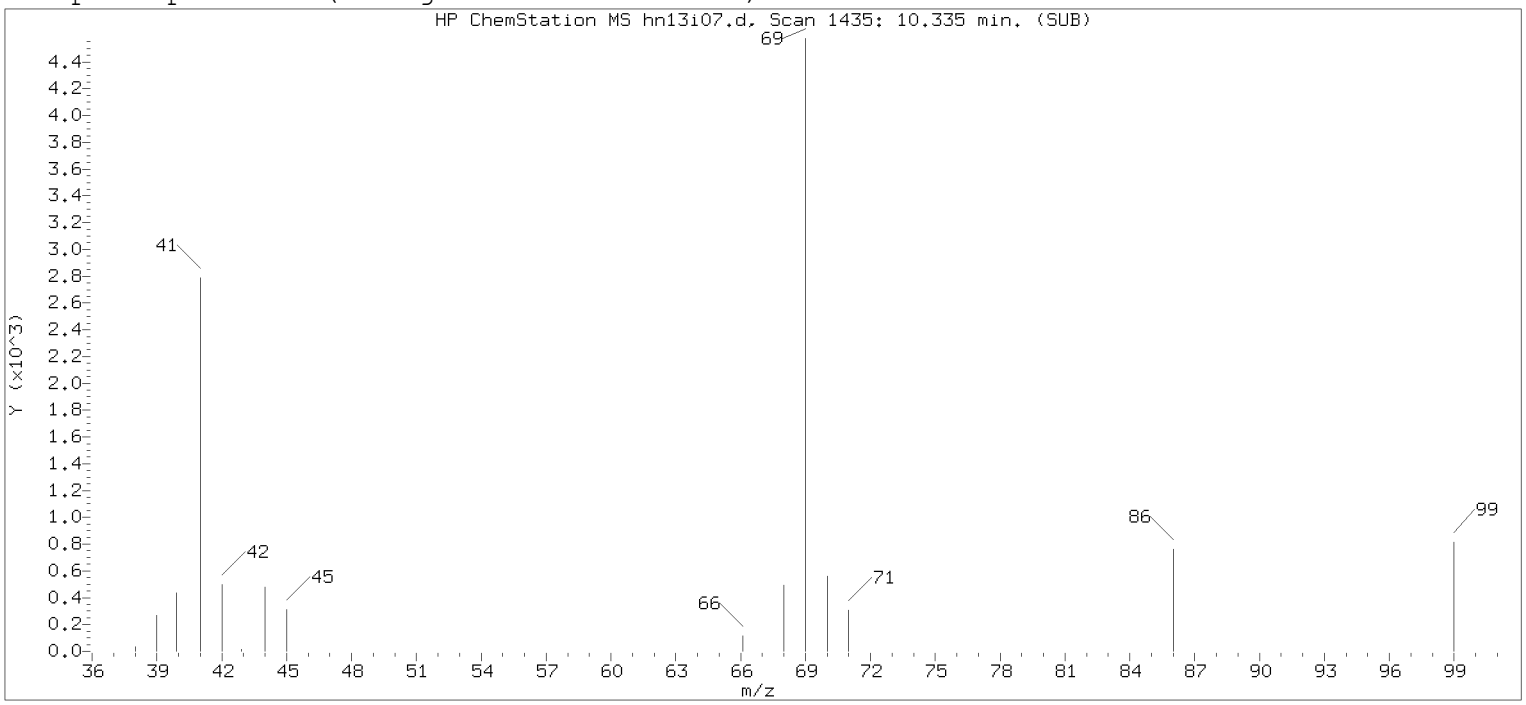
Compound Number : 86
Compound Name : Ethyl Methacrylate
Scan Number : 1435
Retention Time (minutes): 10.335
Quant Ion : 69.00
Area (flag) : 9048M
On-Column Amount (ng) : 0.2041
Integration start scan : 1425 Integration stop scan: 1443
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

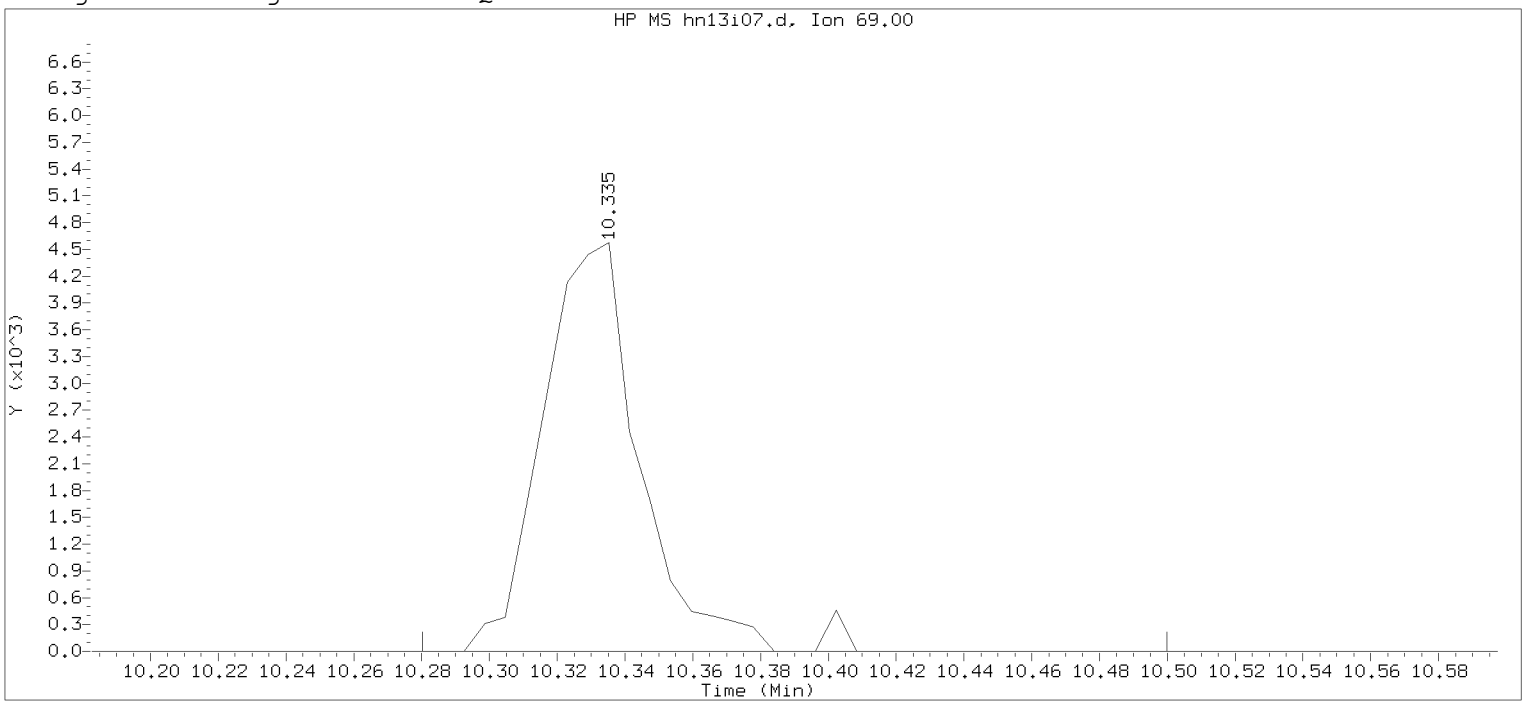
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

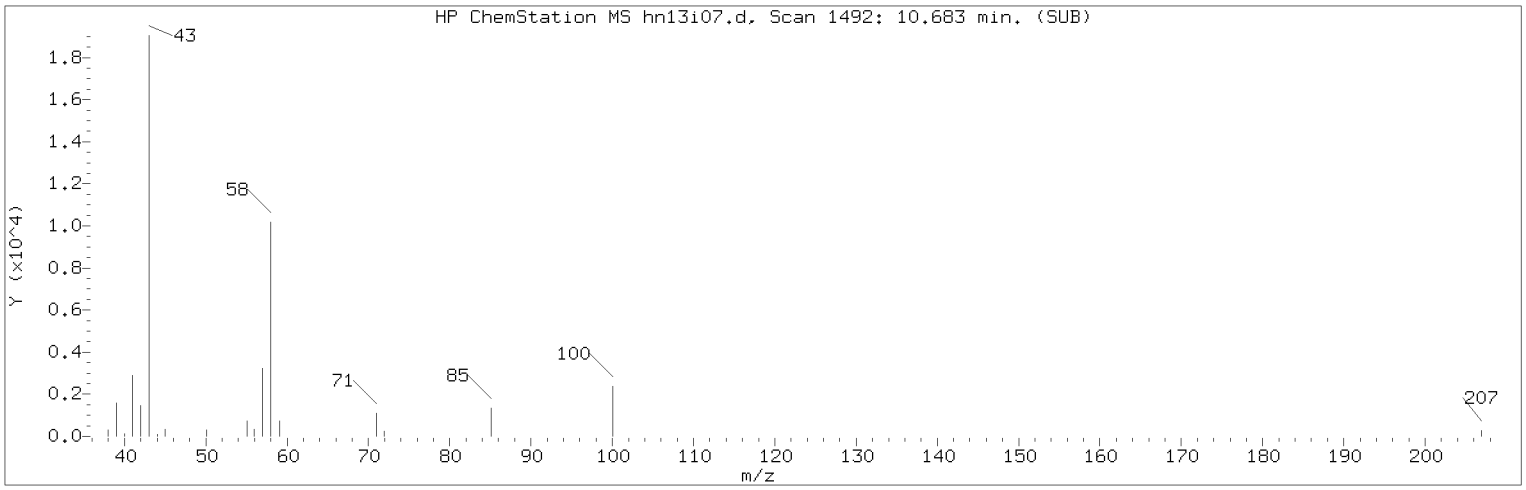
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

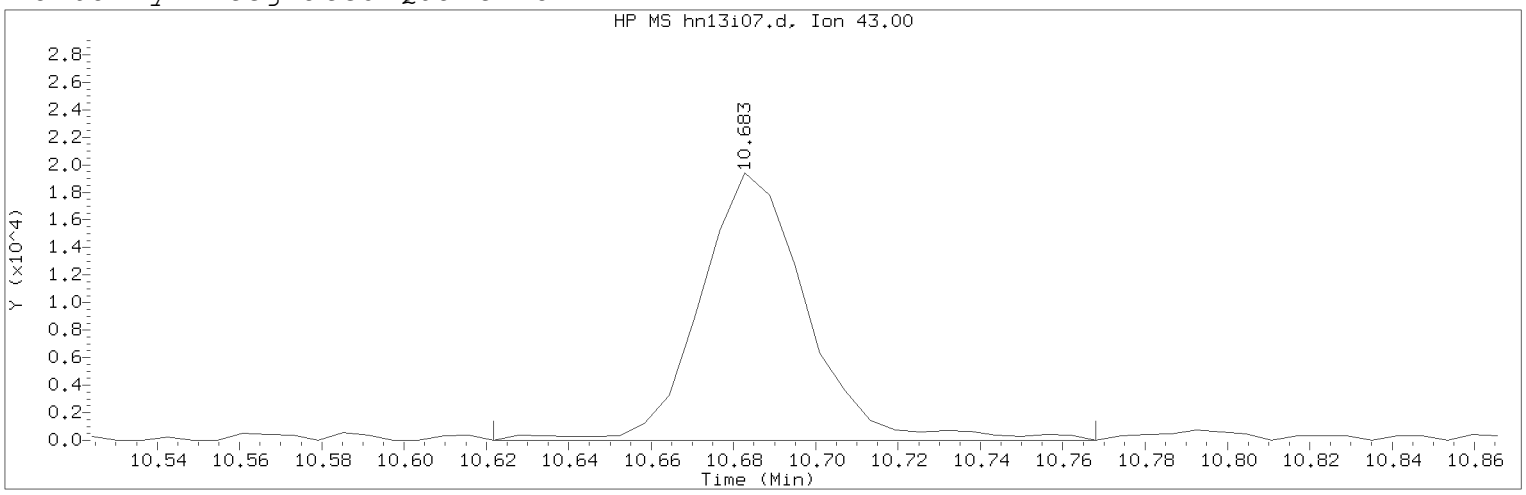
Compound Number : 86
Compound Name : Ethyl Methacrylate
Scan Number : 1435
Retention Time (minutes): 10.335
Quant Ion : 69.00
Area : 9215
On-column Amount (ng) : 0.2072
Integration start scan : 1425 Integration stop scan: 1461
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 765 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

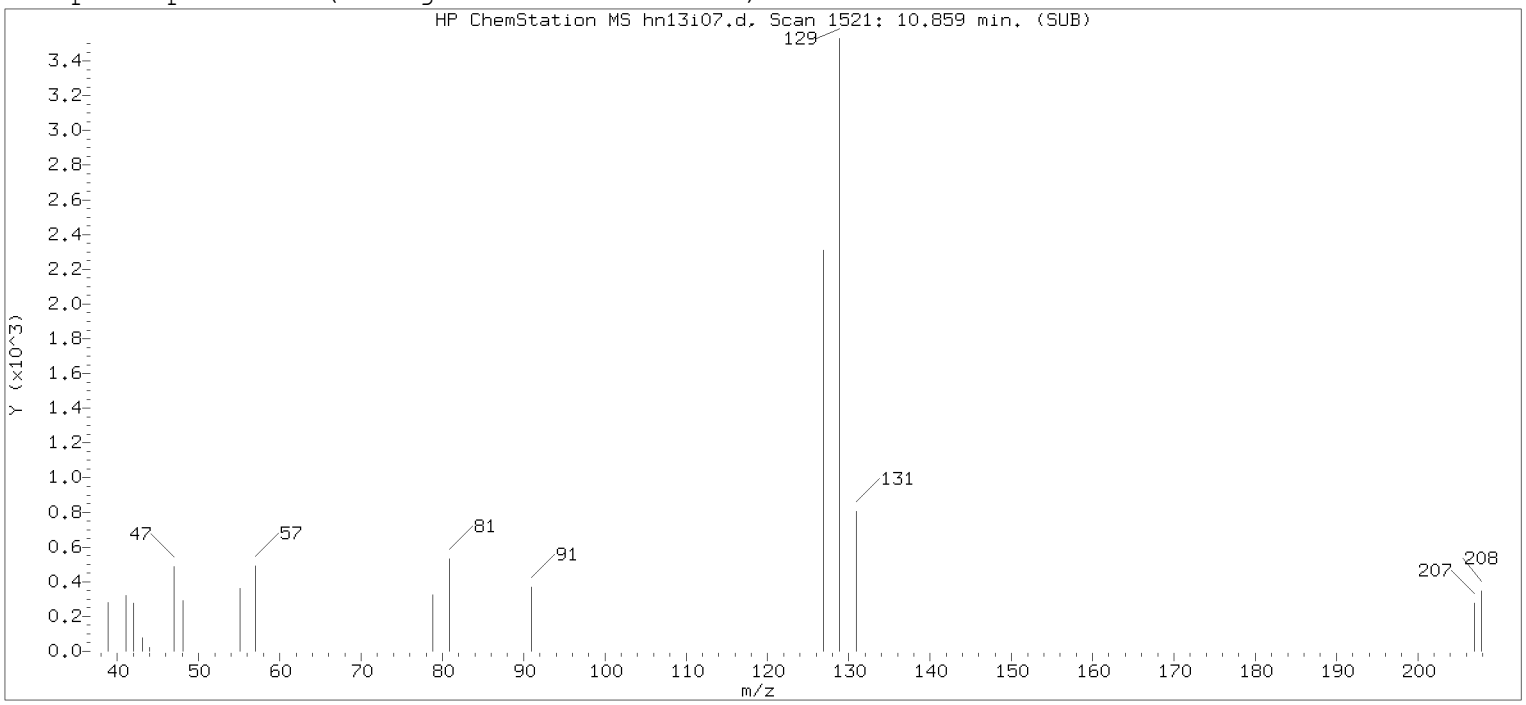
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.683
Quant Ion : 43.00
Area (flag) : 35010M
On-Column Amount (ng) : 2.1257
Integration start scan : 1481 Integration stop scan: 1505
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

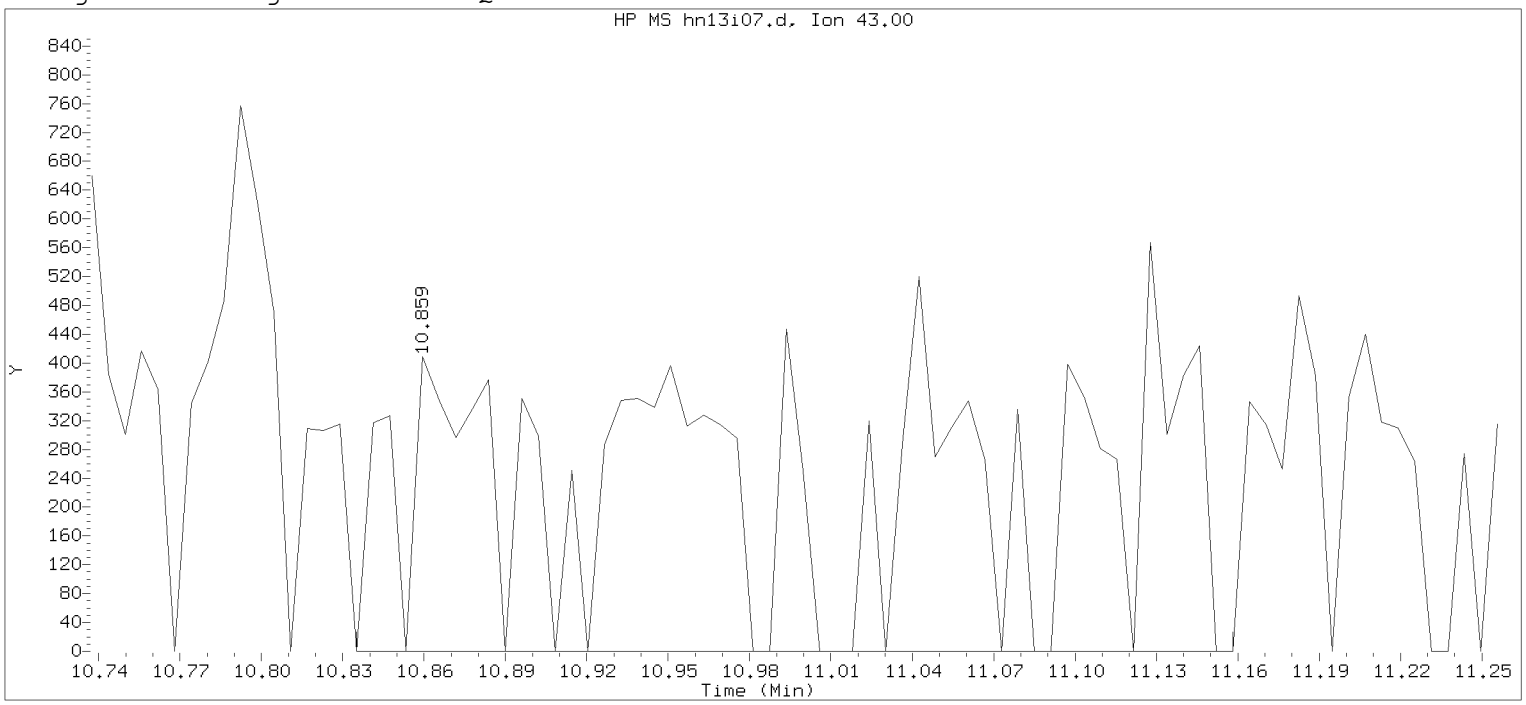
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

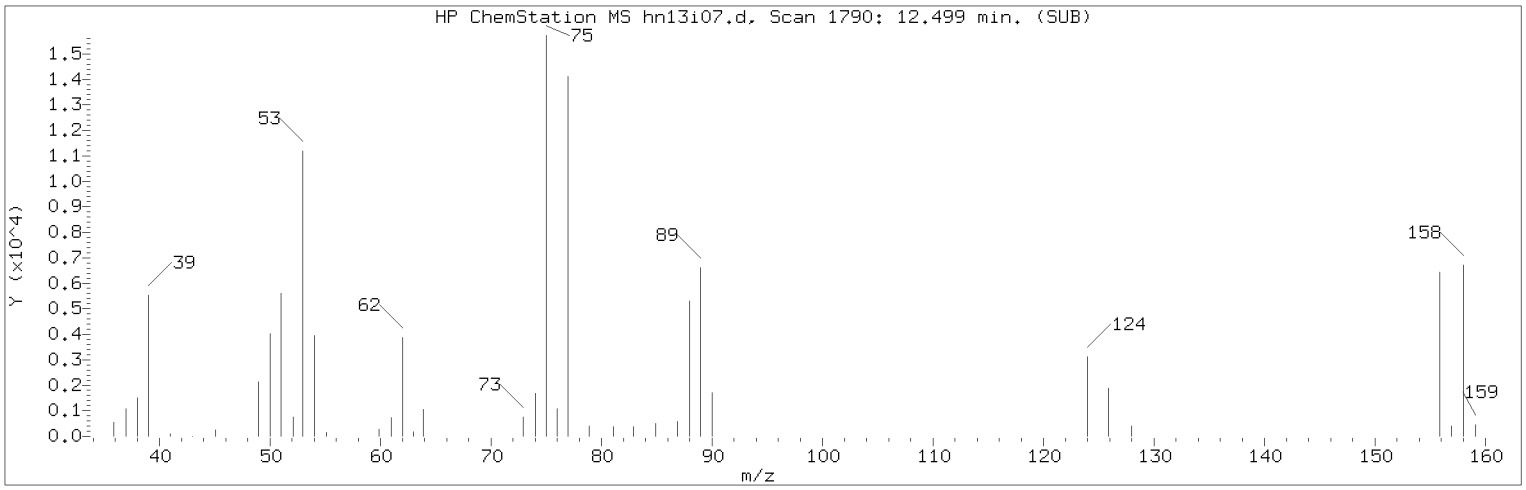
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

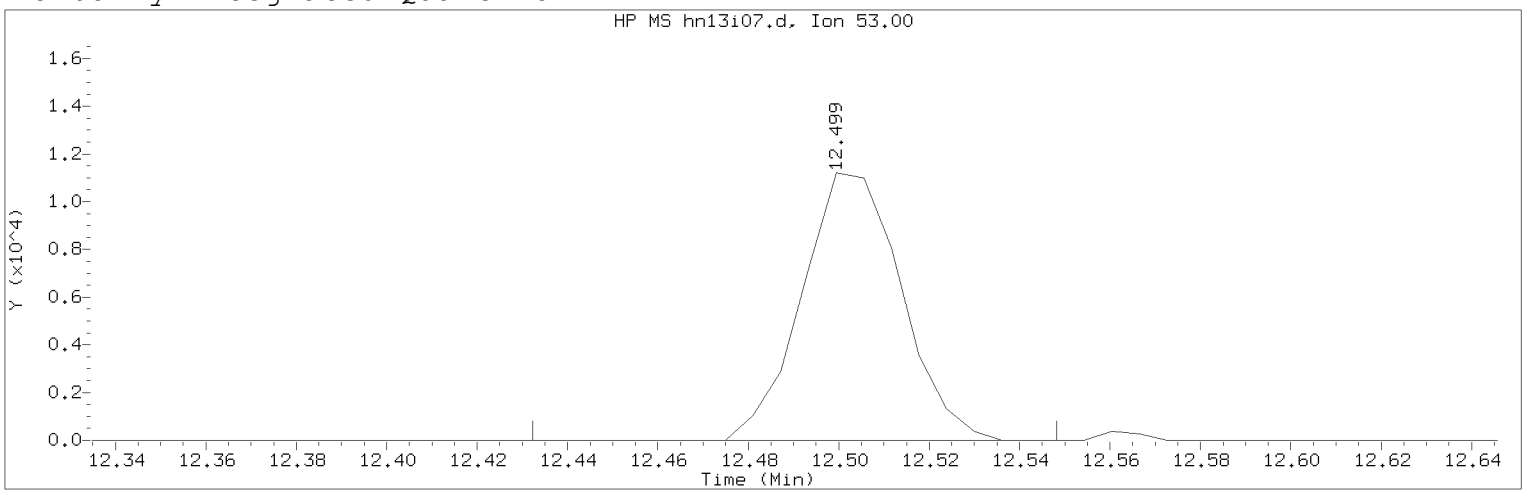
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1521
Retention Time (minutes): 10.859
Quant Ion : 43.00
Area : 4612
On-column Amount (ng) : 0.3930
Integration start scan : 1516 Integration stop scan: 1569
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 767 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

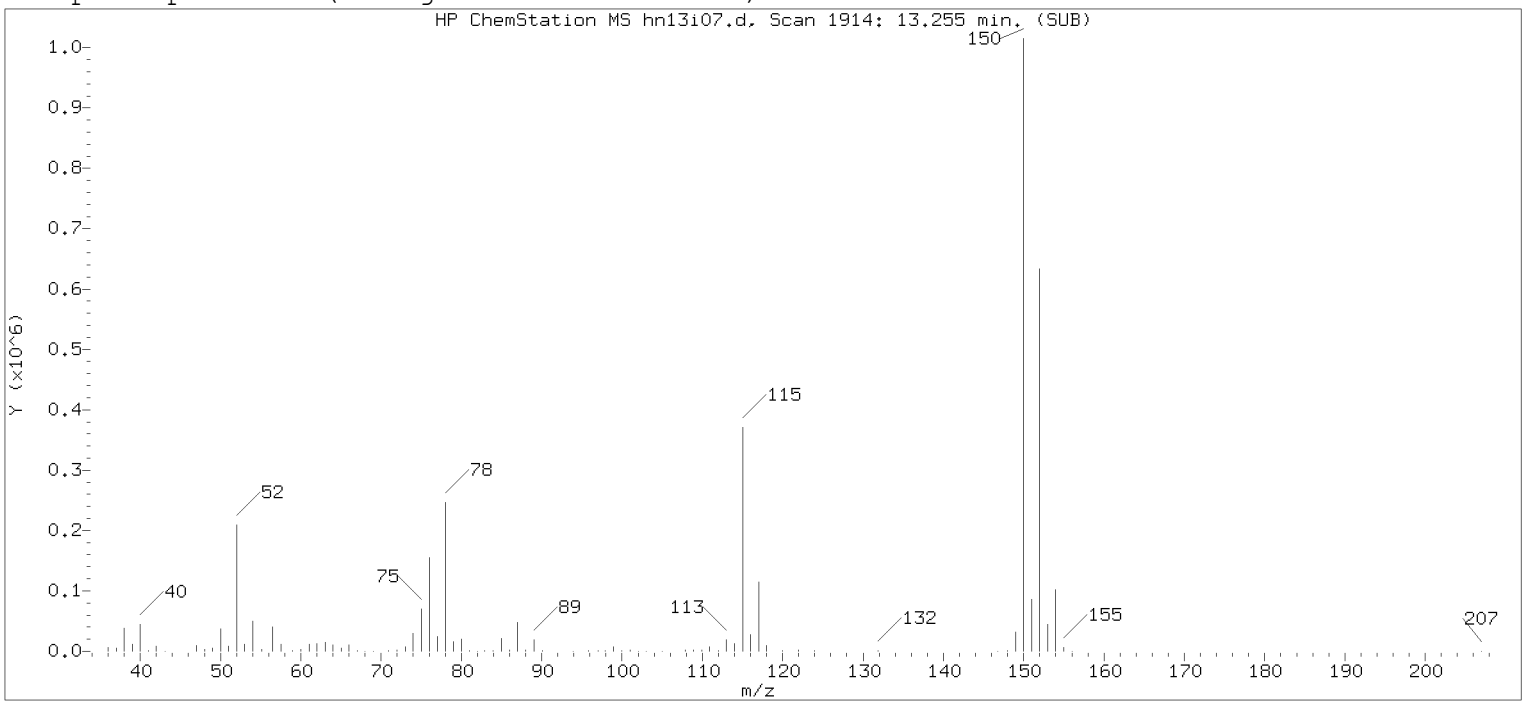
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1790
Retention Time (minutes): 12.499
Quant Ion : 53.00
Area (flag) : 17063M
On-Column Amount (ng) : 2.0891
Integration start scan : 1778 Integration stop scan: 1797
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

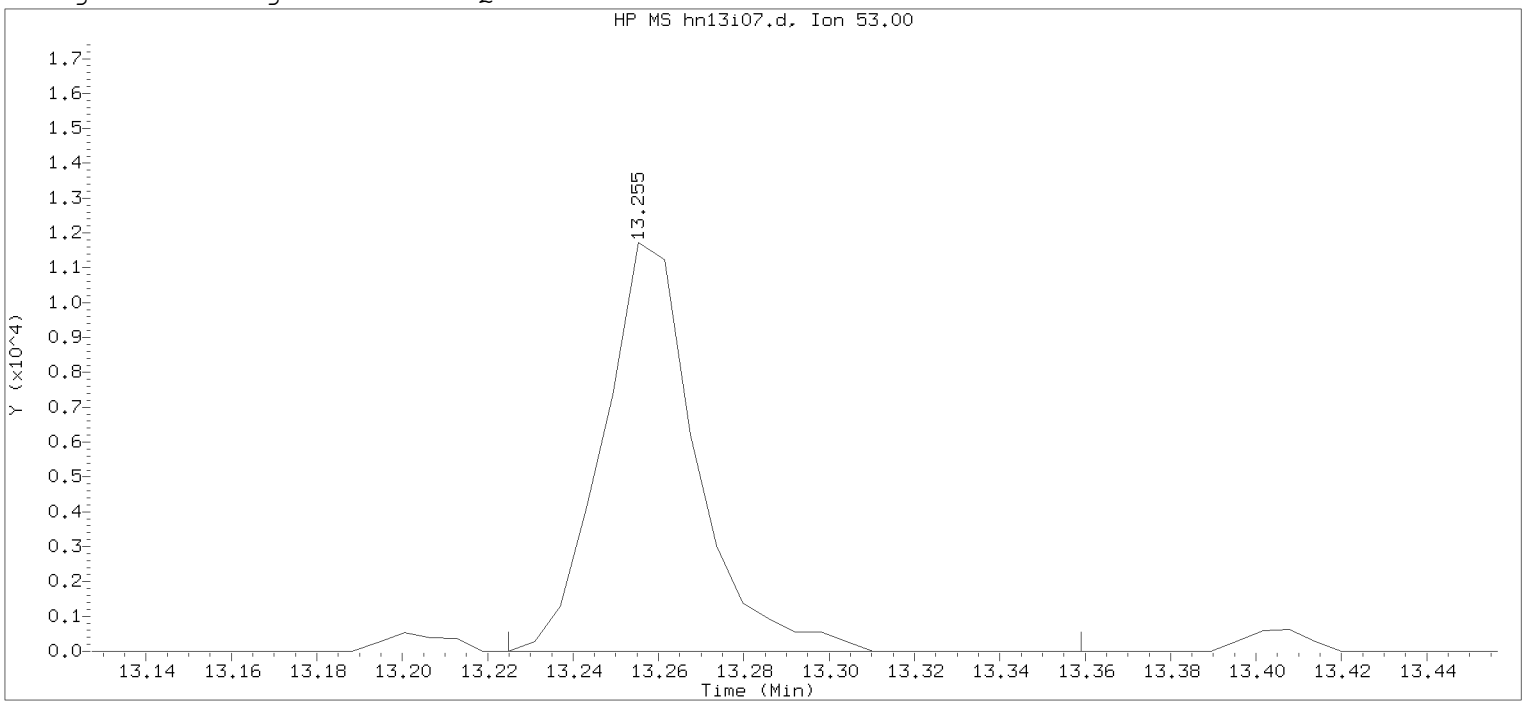
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

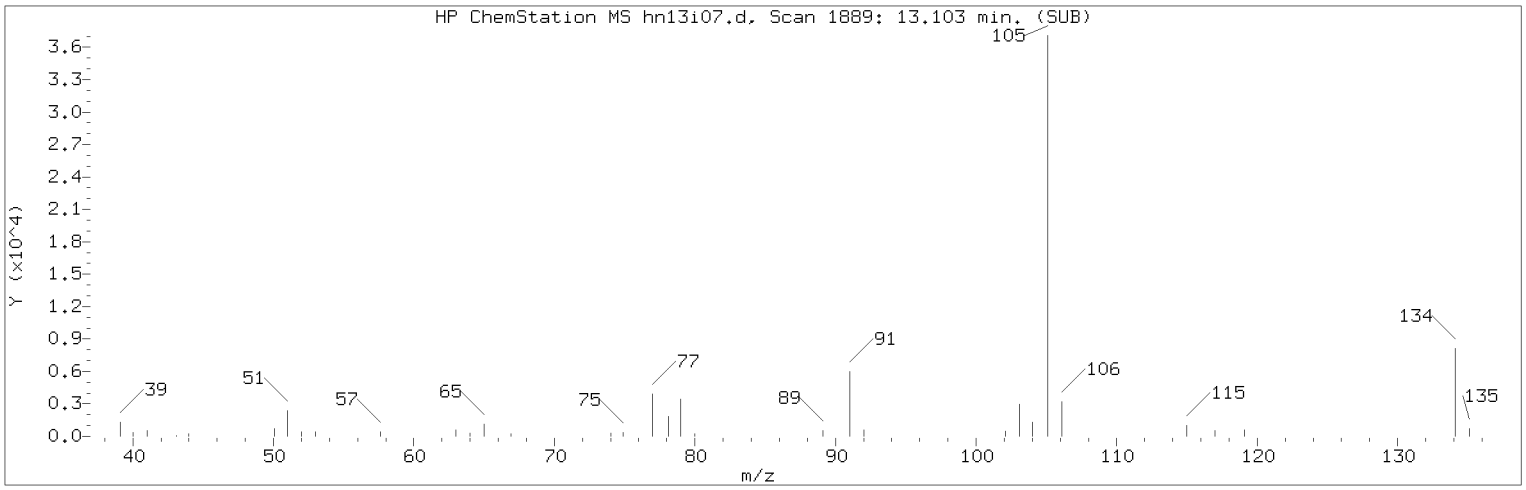
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

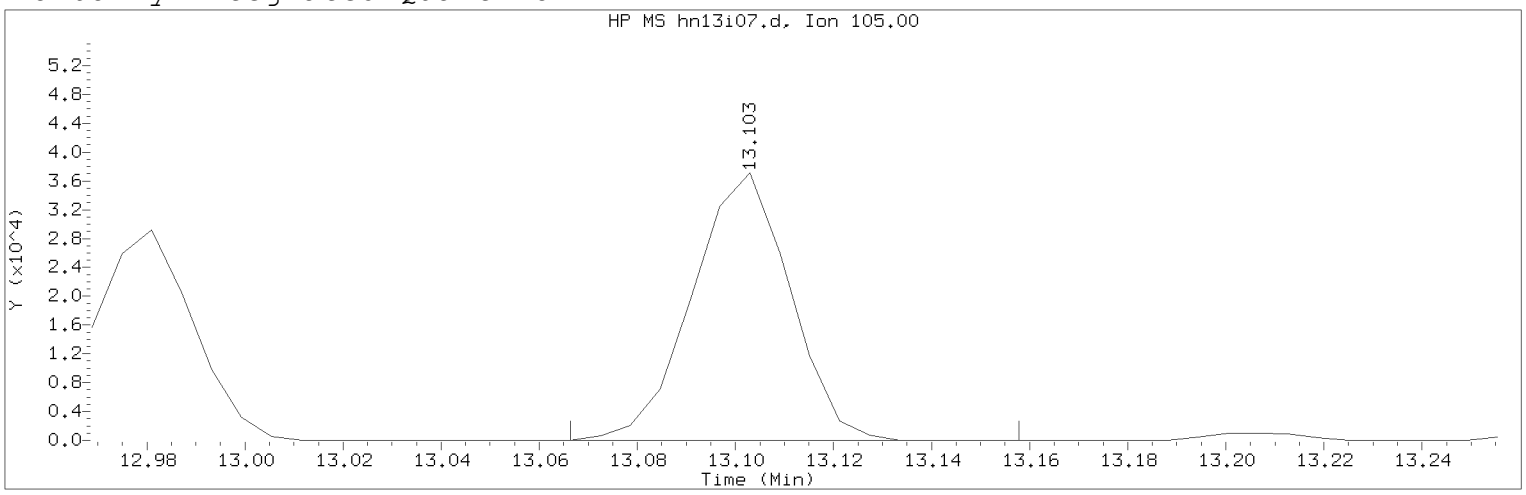
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1914
Retention Time (minutes): 13.255
Quant Ion : 53.00
Area : 17903
On-column Amount (ng) : 2.5314
Integration start scan : 1908 Integration stop scan: 1930
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 769 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

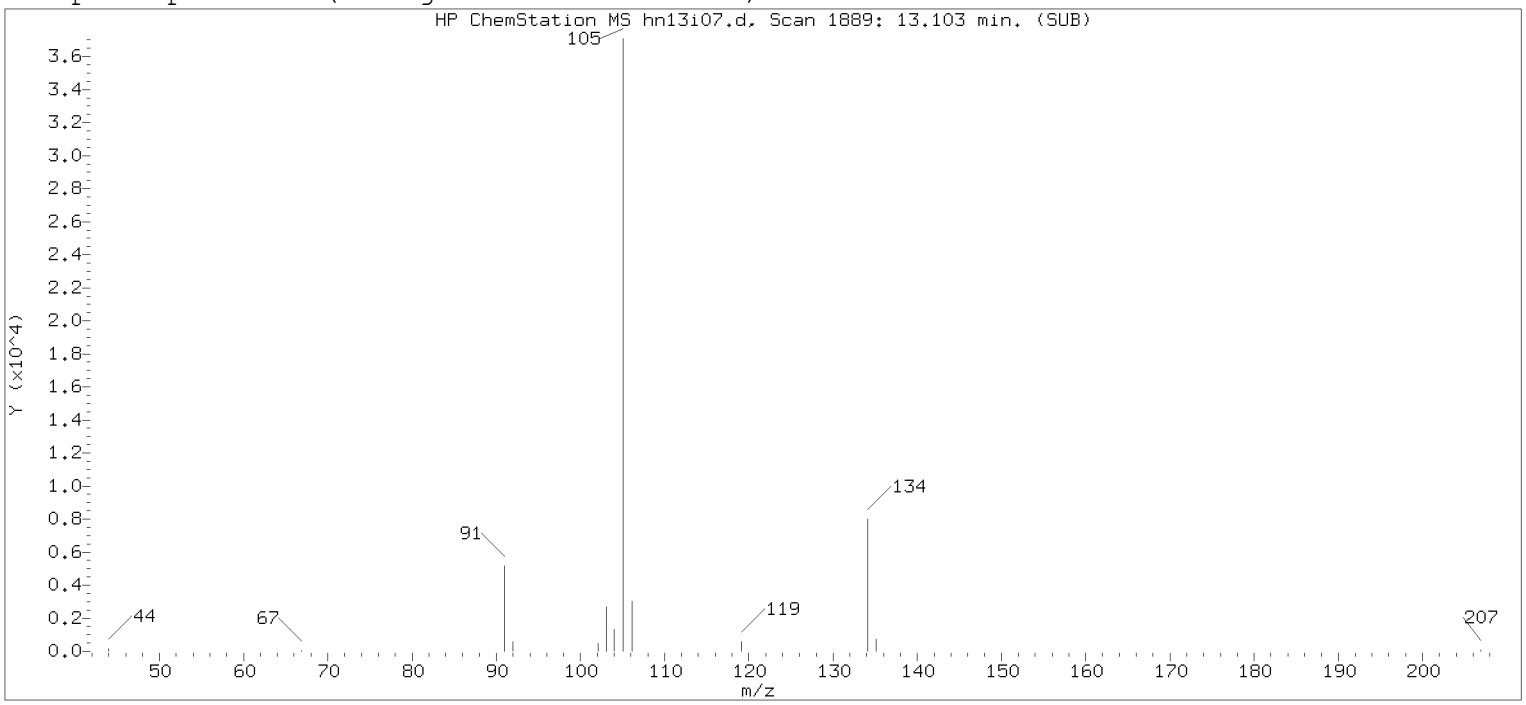
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1889
Retention Time (minutes): 13.103
Quant Ion : 105.00
Area (flag) : 51219M
On-Column Amount (ng) : 0.1963
Integration start scan : 1882 Integration stop scan: 1897
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

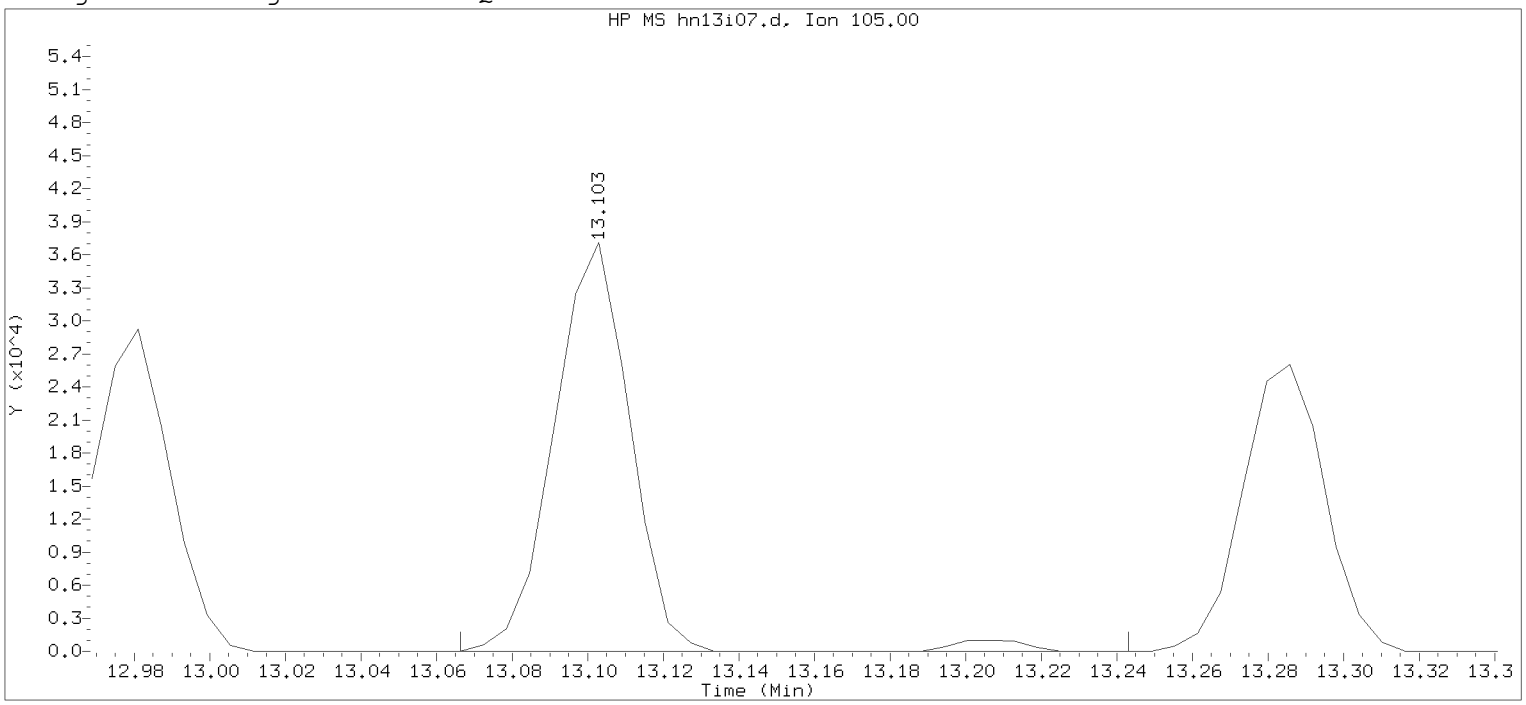
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

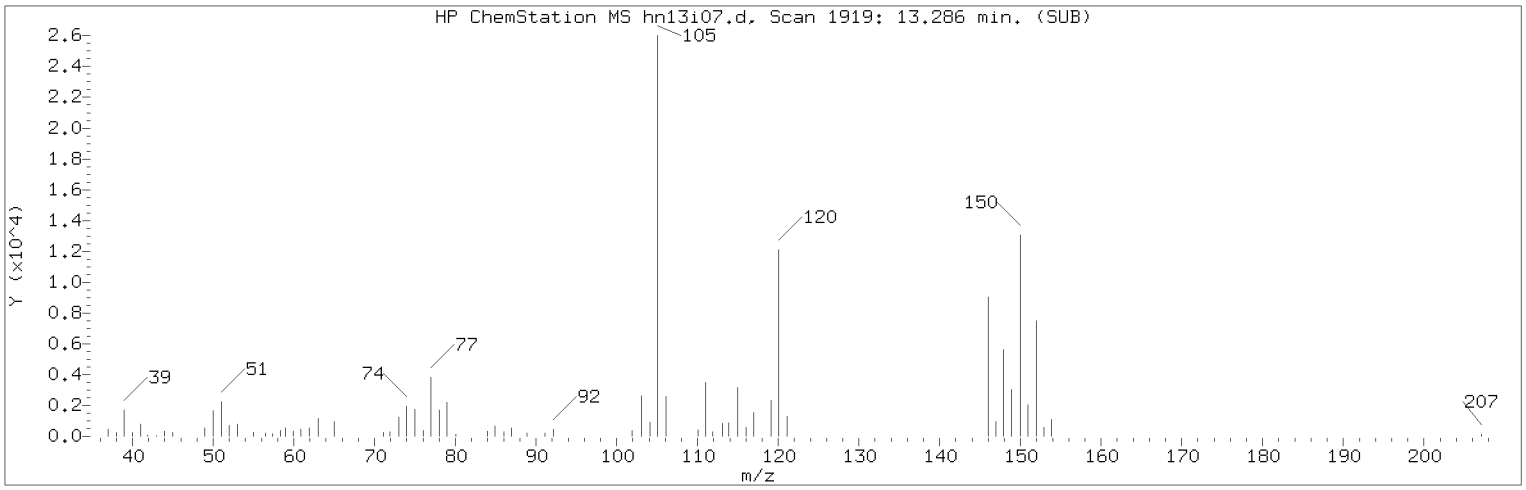
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

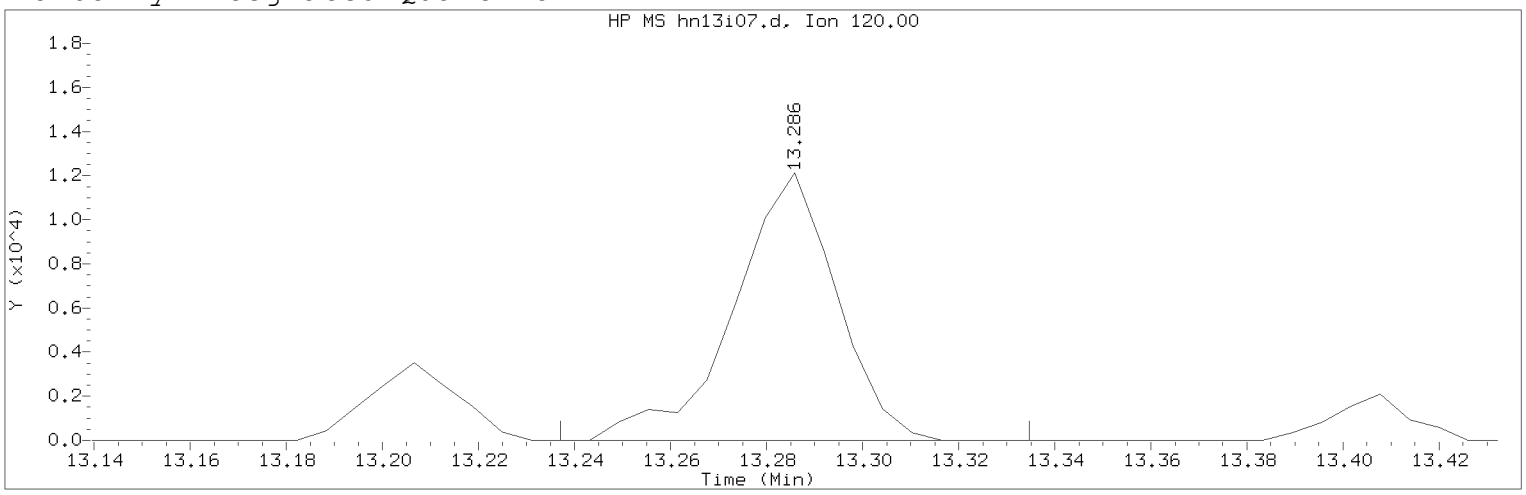
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1889
Retention Time (minutes): 13.103
Quant Ion : 105.00
Area : 52566
On-column Amount (ng) : 0.2000
Integration start scan : 1882 Integration stop scan: 1911
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

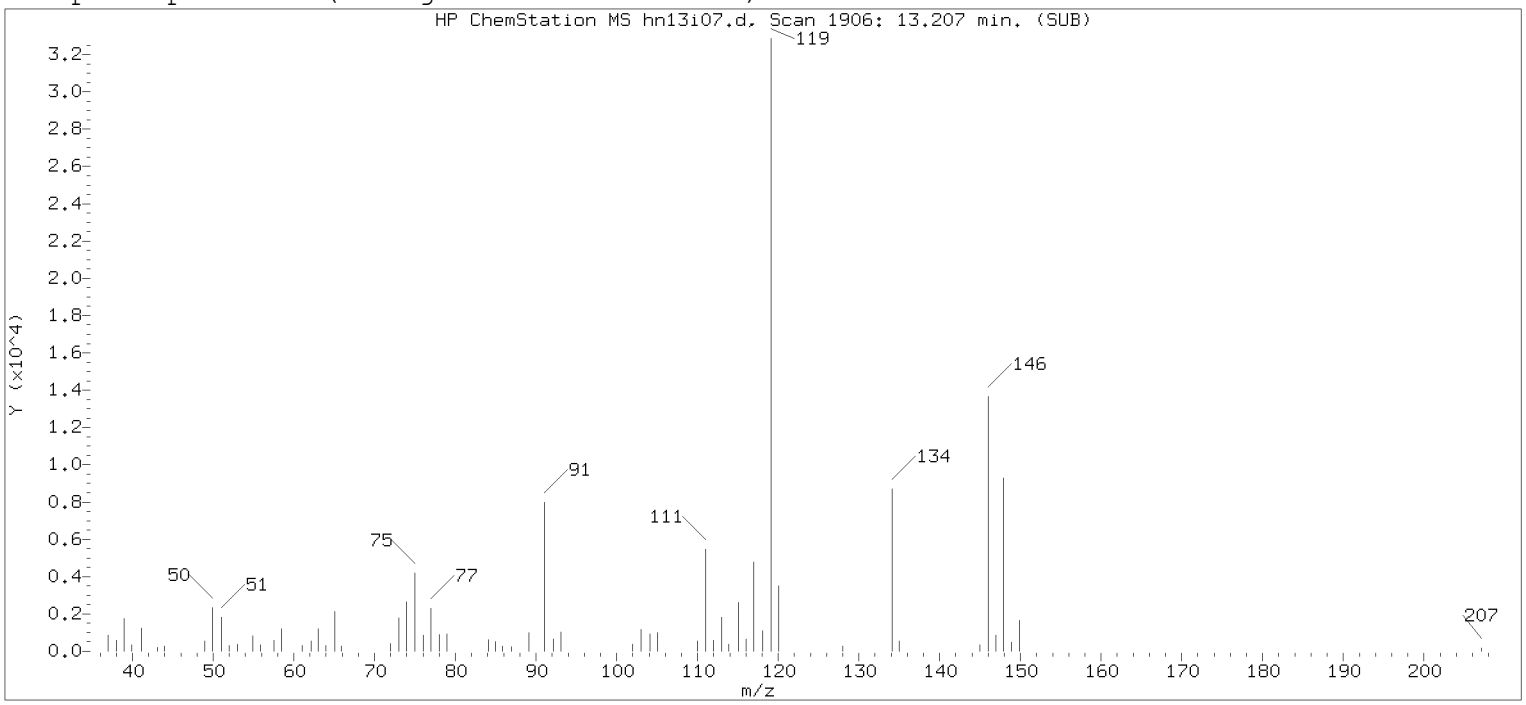
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1919
Retention Time (minutes): 13.286
Quant Ion : 120.00
Area (flag) : 18044M
On-Column Amount (ng) : 0.2068
Integration start scan : 1910 Integration stop scan: 1926
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

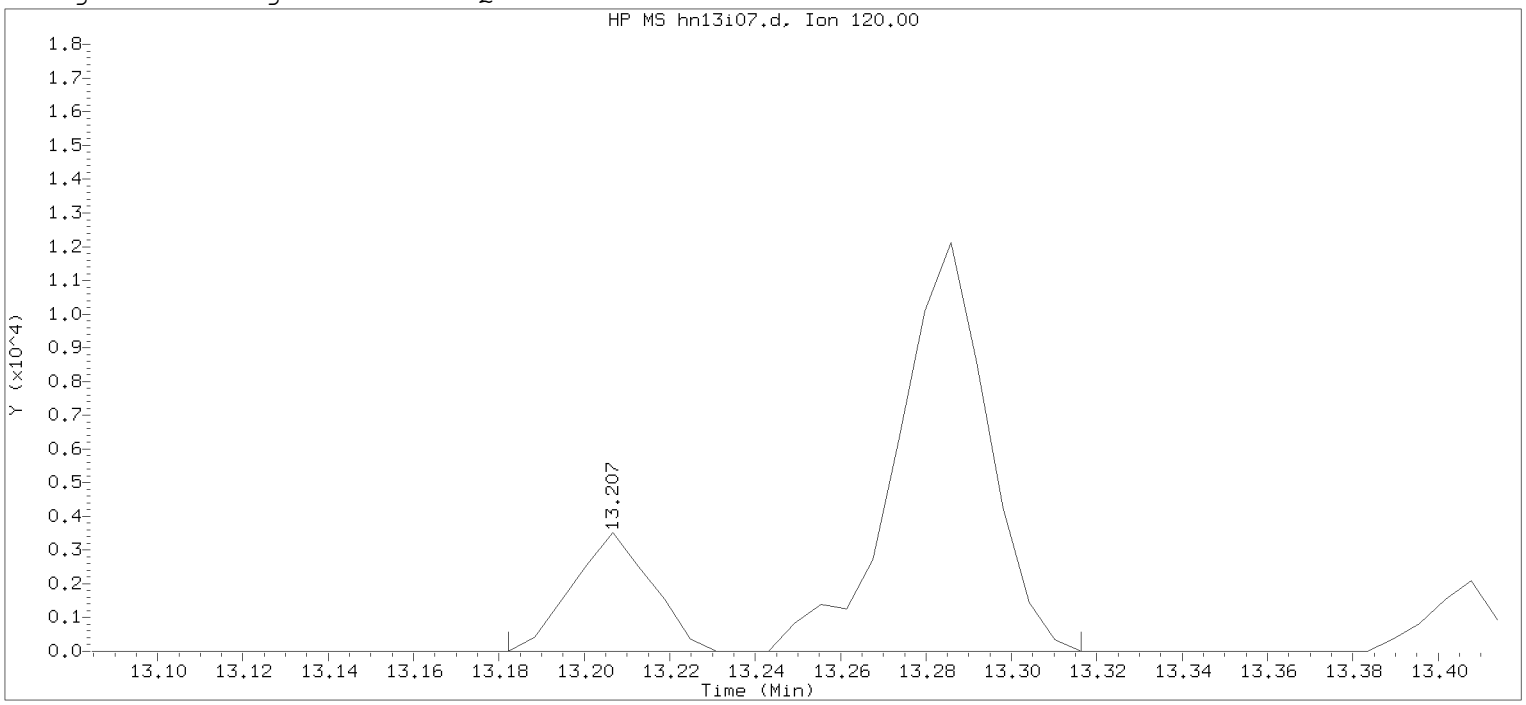
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

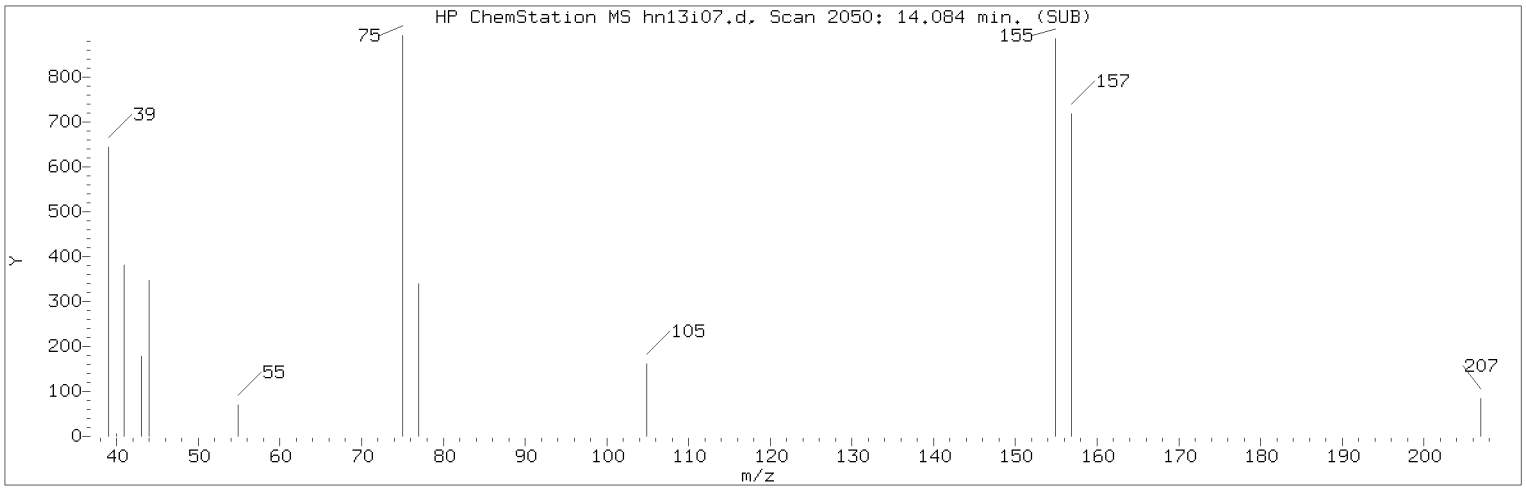
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

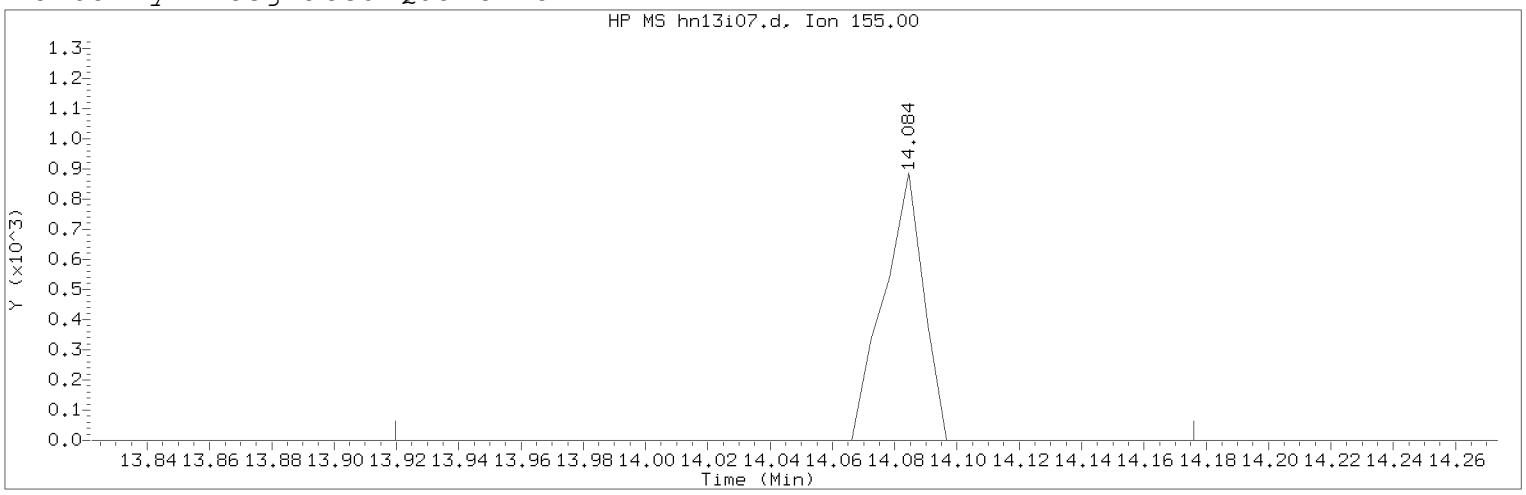
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1906
Retention Time (minutes): 13.207
Quant Ion : 120.00
Area : 22567
On-column Amount (ng) : 0.2494
Integration start scan : 1901 Integration stop scan: 1923
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:28
Date, time and analyst ID of latest file update: 14-Nov-2018 06:28 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

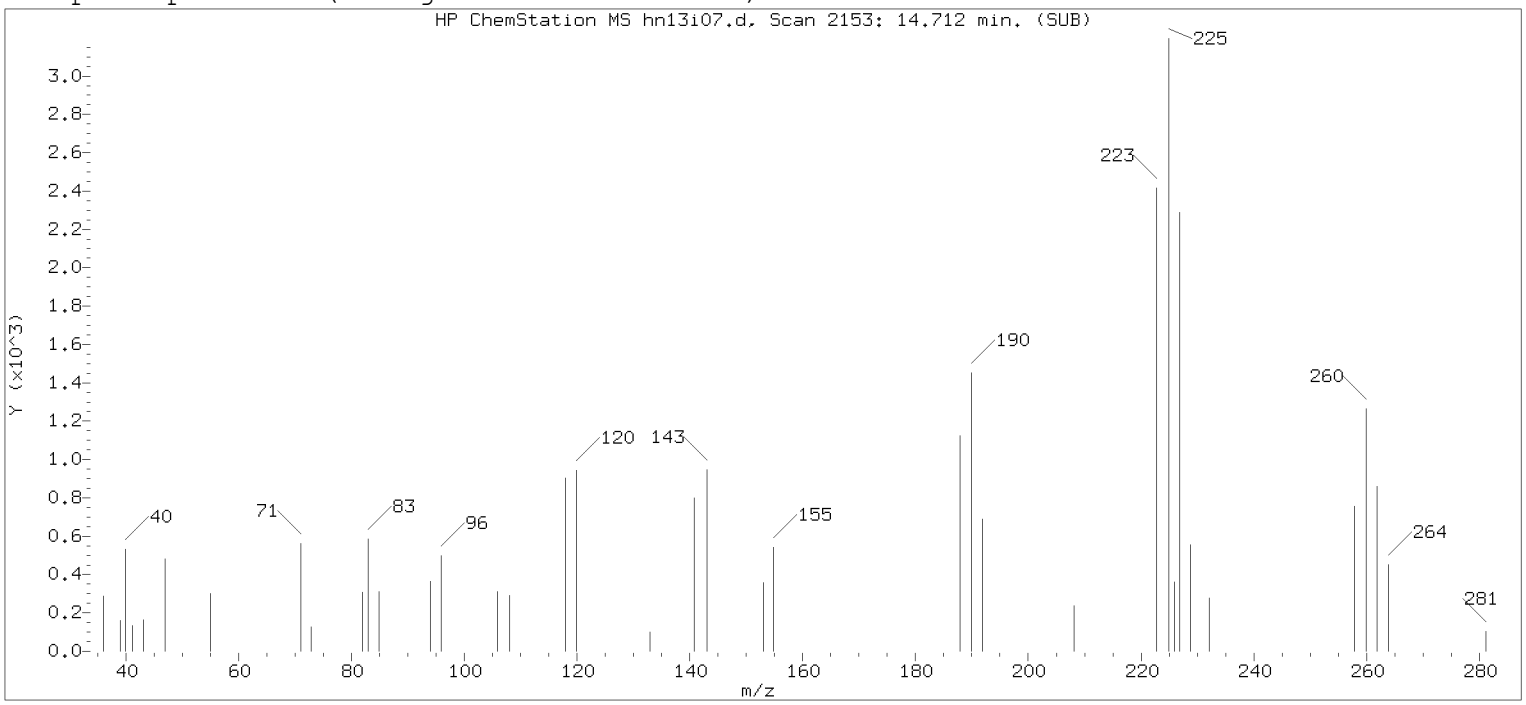
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2050
Retention Time (minutes): 14.084
Quant Ion : 155.00
Area (flag) : 782M
On-Column Amount (ng) : 0.1854
Integration start scan : 2022 Integration stop scan: 2064
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

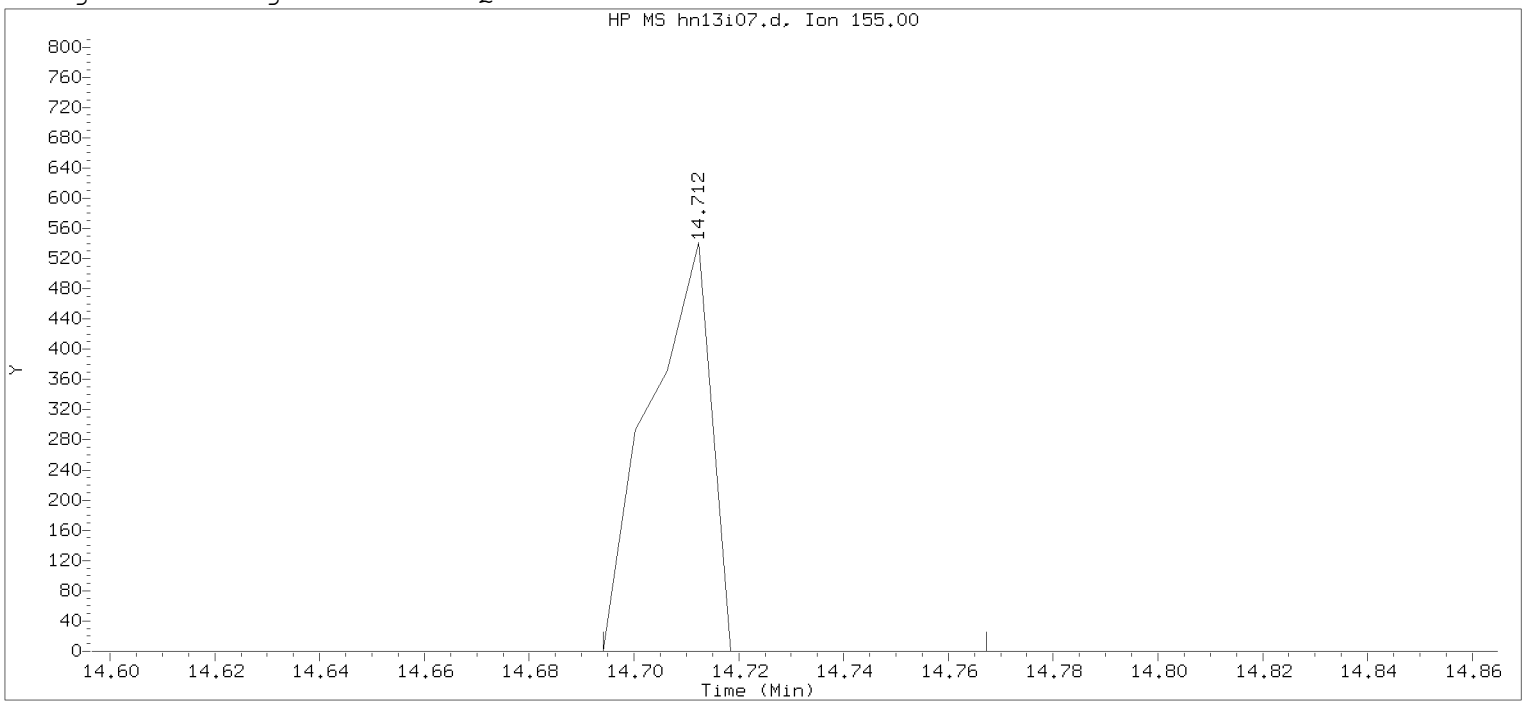
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/14/2018 at 06:58.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:36.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



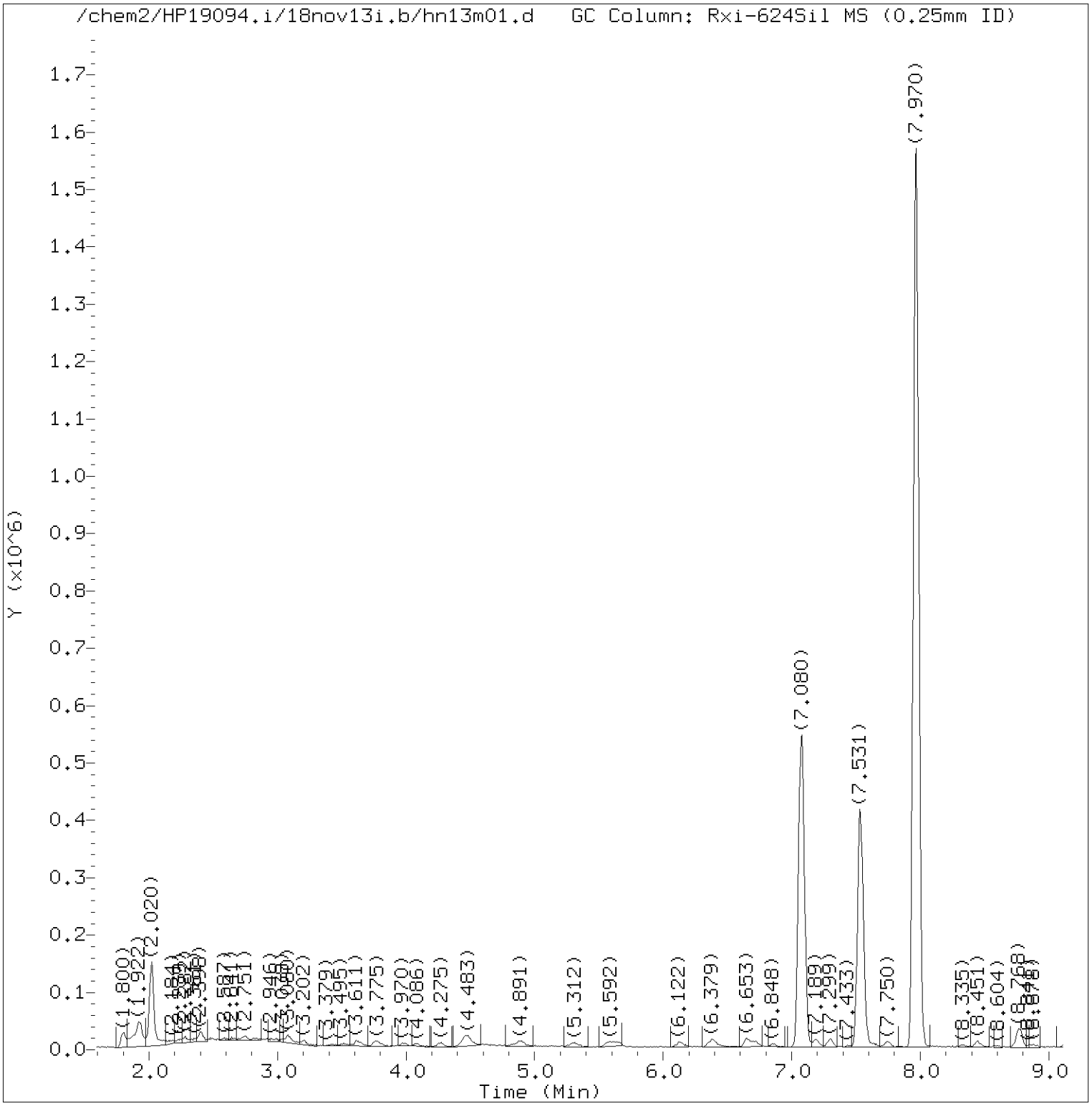
Data File: /chem2/HP19094.i/18nov13i.b/hn13i07.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 17:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 13-NOV-2018 18:12
Date, time and analyst ID of latest file update: 13-Nov-2018 18:12 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2153
Retention Time (minutes): 14.712
Quant Ion : 155.00
Area : 440
On-column Amount (ng) : 0.1127
Integration start scan : 2149 Integration stop scan: 2161
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/14/2018 at 06:58.
Target 3.5 esignature used. AE35 Page 775



Total Ion Chromatogram (TIC)

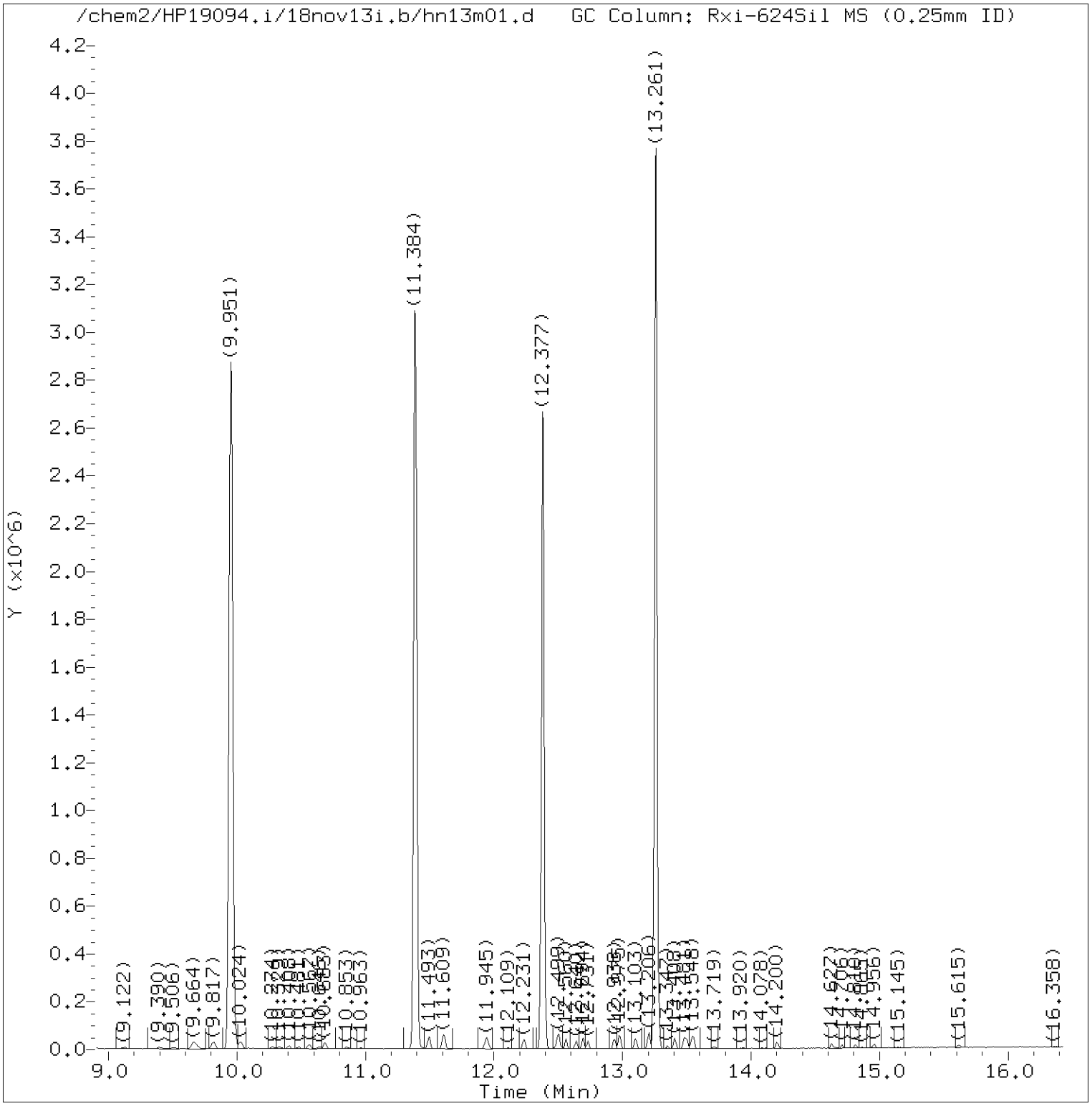
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	8247	0.110
2) Chloromethane	(2)	2.276	50	8166	0.113
6) 1,3-Butadiene	(2)	2.398	39	5580M	0.103
5) Vinyl Chloride	(2)	2.404	62	6661	0.101
7) Bromomethane	(2)	2.733	94	5738M	0.115
8) Chloroethane	(2)	2.843	64	4989	0.127
9) Dichlorofluoromethane	(2)	3.074	67	13056	0.128
10) Trichlorofluoromethane	(2)	3.147	101	8819	0.100
11) Ethyl ether	(2)	3.434	59	3142	0.104
12) Freon 123a	(2)	3.513	67	6521	0.107
13) Acrolein	(1)	3.629	56	21245	5.404
15) 1,1-Dichloroethene	(2)	3.769	96	4164	0.101
16) Freon 113	(2)	3.788	101	4330	0.091
14) Acetone	(1)	3.830	43	6881M	1.406
17) Methyl Iodide	(2)	3.983	142	8171	0.098
18) Carbon Disulfide	(2)	4.086	76	13446	0.106
21) Methyl Acetate	(1)	4.233	43	1986M	0.117
22) Allyl Chloride	(2)	4.275	41	12277	0.139
23) Methylene Chloride	(2)	4.470	84	5556	0.126
26)*t-Butyl Alcohol-d10	(1)	4.483	65	98711	50.000
28) t-Butyl Alcohol	(1)	4.617	59	1334	1.024
29) Acrylonitrile	(1)	4.836	53	3115	0.447
30) Methyl Tertiary Butyl Ether	(2)	4.873	73	9162	0.100
31) trans-1,2-Dichloroethene	(2)	4.891	96	4403	0.095
32) n-Hexane	(2)	5.312	57	8702	0.110
33) 1,1-Dichloroethane	(2)	5.549	63	8874	0.098
34) di-Isopropyl Ether	(2)	5.604	45	17501	0.105
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	8286	0.099
40) 1,2-Dichloroethene (Total)	(2)		96	9416	0.193
37) Ethyl t-butyl ether	(2)	6.135	59	13551	0.099
38) 2-Butanone	(1)	6.354	43	13730	1.372
39) cis-1,2-Dichloroethene	(2)	6.385	96	5013	0.098
41) 2,2-Dichloropropane	(2)	6.409	77	8001	0.109
42) Propionitrile	(1)	6.464	54	3829	1.497
45) Methacrylonitrile	(1)	6.653	67	9780	1.044
47) Bromochloromethane	(2)	6.708	128	1588	0.079
48) Tetrahydrofuran	(1)	6.720	71	2895	1.210
49) Chloroform	(2)	6.860	83	8554	0.104

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.080	113	555603	9.943
51) 1,1,1-Trichloroethane	(2)	7.086	97	7566	0.101
52) Cyclohexane	(2)	7.195	56	11122	0.113
55) 1,1-Dichloropropene	(2)	7.293	75	6623	0.098
54) Carbon Tetrachloride	(2)	7.305	117	6868	0.102
56) Isobutyl Alcohol	(1)	7.433	41	8248M	1.165
57)$1,2-Dichloroethane-d4	(2)	7.531	102	99229	10.131
58) Benzene	(2)	7.567	78	20264	0.104
59) 1,2-Dichloroethane	(2)	7.641	62	6167	0.142
60) t-Amyl methyl ether	(2)	7.750	73	12153	0.108
62) n-Heptane	(2)	7.970	43	10840M	0.126
63)*Fluorobenzene	(2)	7.970	96	2235182	10.000
65) n-Butanol	(1)	8.329	56	5794M	11.574
67) Trichloroethene	(2)	8.445	95	5271	0.104
69) Methylcyclohexane	(2)	8.756	83	10103	0.104
70) 1,2-Dichloropropane	(2)	8.793	63	5816	0.118
71) Methyl Methacrylate	(1)	8.860	69	2682	0.137
73) Dibromomethane	(2)	8.890	93	1818	0.097
74) Bromodichloromethane	(2)	9.128	83	5912	0.105
76) 2-Nitropropane	(1)	9.396	41	6769M	1.179
80) cis-1,3-Dichloropropene	(2)	9.652	75	7472	0.108
81) 4-Methyl-2-Pentanone	(1)	9.823	43	26802M	1.082
82)$Toluene-d8	(3)	9.951	98	2297699	9.978
83) Toluene	(3)	10.024	92	12215	0.100
85) 1,3-Dichloropropene (total)	(3)		75	12918	0.209
84) trans-1,3-Dichloropropene	(3)	10.274	75	5446	0.102
86) Ethyl Methacrylate	(3)	10.329	69	4468	0.101
88) 1,1,2-Trichloroethane	(3)	10.469	97	2439	0.090
89) Tetrachloroethene	(3)	10.561	166	5783	0.102
90) 1,3-Dichloropropane	(3)	10.640	76	4679	0.095
91) 2-Hexanone	(1)	10.689	43	18495M	1.074
93) Dibromochloromethane	(3)	10.853	129	3676	0.099
95) 1,2-Dibromoethane	(3)	10.969	107	2399	0.092
96) 1-Chlorohexane	(3)	11.384	91	11124	0.144
97)*Chlorobenzene-d5	(3)	11.390	117	1783135	10.000
98) Chlorobenzene	(3)	11.414	112	13078	0.100
100) Ethylbenzene	(3)	11.493	91	23998	0.099
99) 1,1,1,2-Tetrachloroethane	(3)	11.499	131	4393	0.095

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) m+p-Xylene	(3)	11.609	106	18122	0.198
105) Xylene (Total)	(3)		106	26787	0.295
104) o-Xylene	(3)	11.938	106	8665	0.097
106) Styrene	(3)	11.957	104	13699	0.096
107) Bromoform	(3)	12.109	173	1904	0.090
108) Isopropylbenzene	(3)	12.231	105	24846	0.101
111)$4-Bromofluorobenzene	(3)	12.377	95	860220	9.979
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	3487	0.106
114) Bromobenzene	(4)	12.499	156	4831	0.092
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	8012M	0.939
116) 1,2,3-Trichloropropane	(4)	12.530	110	857	0.100
117) n-Propylbenzene	(4)	12.560	91	30177	0.105
119) 2-Chlorotoluene	(4)	12.640	126	5515	0.098
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	19691	0.097
122) 4-Chlorotoluene	(4)	12.731	126	5382	0.096
125) tert-Butylbenzene	(4)	12.938	134	4127M	0.094
126) Pentachloroethane	(4)	12.975	167	3353	0.097
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	20648	0.101
128) sec-Butylbenzene	(4)	13.103	105	26001M	0.100
131) 1,3-Dichlorobenzene	(4)	13.206	146	10409	0.099
132) p-Isopropyltoluene	(4)	13.206	119	22126	0.100
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	952560	10.000
134) 1,4-Dichlorobenzene	(4)	13.274	146	10690	0.104
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	9968M	0.115
136) Benzyl Chloride	(4)	13.353	126	1396	0.093
138) n-Butylbenzene	(4)	13.499	92	10687M	0.102
139) 1,2-Dichlorobenzene	(4)	13.536	146	9252	0.102
143) 1,2-Dibromo-3-chloropropane	(1)	14.084	155	267M	0.061
144) 1,3,5-Trichlorobenzene	(4)	14.200	180	7670	0.099
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	6198	0.100
146) Hexachlorobutadiene	(4)	14.712	225	2578	0.103
147) Naphthalene	(4)	14.816	128	9781	0.094
148) 1,2,3-Trichlorobenzene	(4)	14.956	180	4993	0.096

M = Compound was manually integrated.
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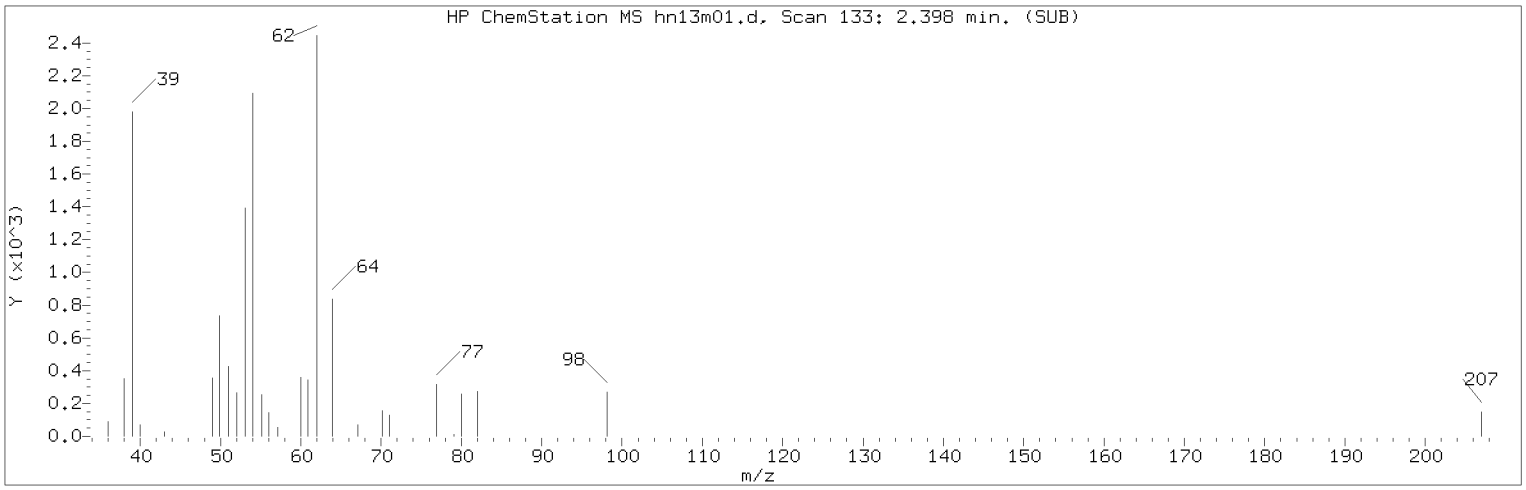
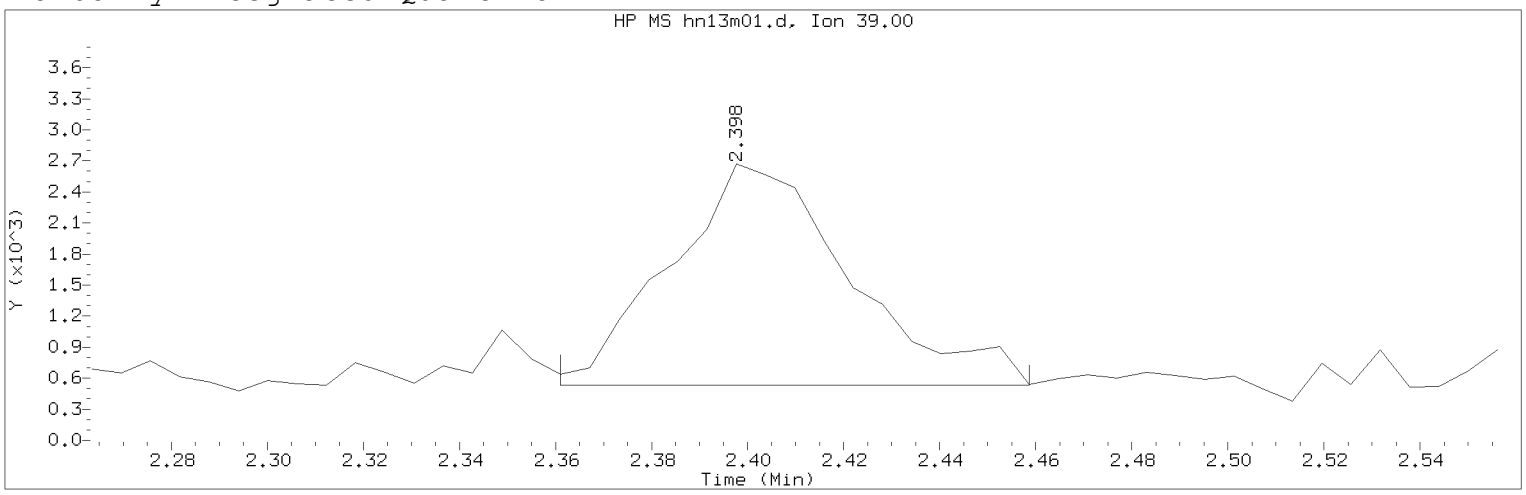
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

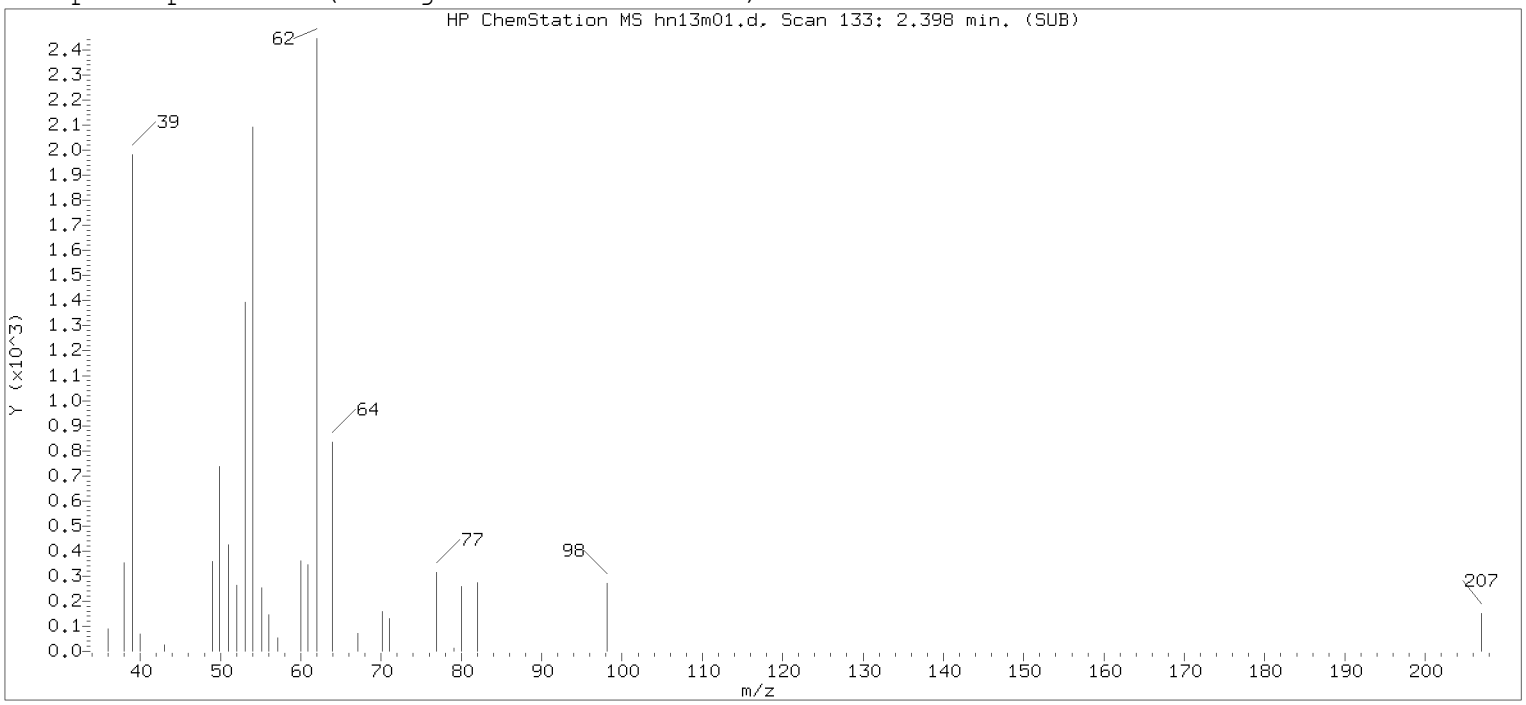
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area (flag) : 5580M
On-Column Amount (ng) : 0.1033
Integration start scan : 126 Integration stop scan: 142
Y at integration start : 532 Y at integration end: 532

Reason for manual integration: improper integration

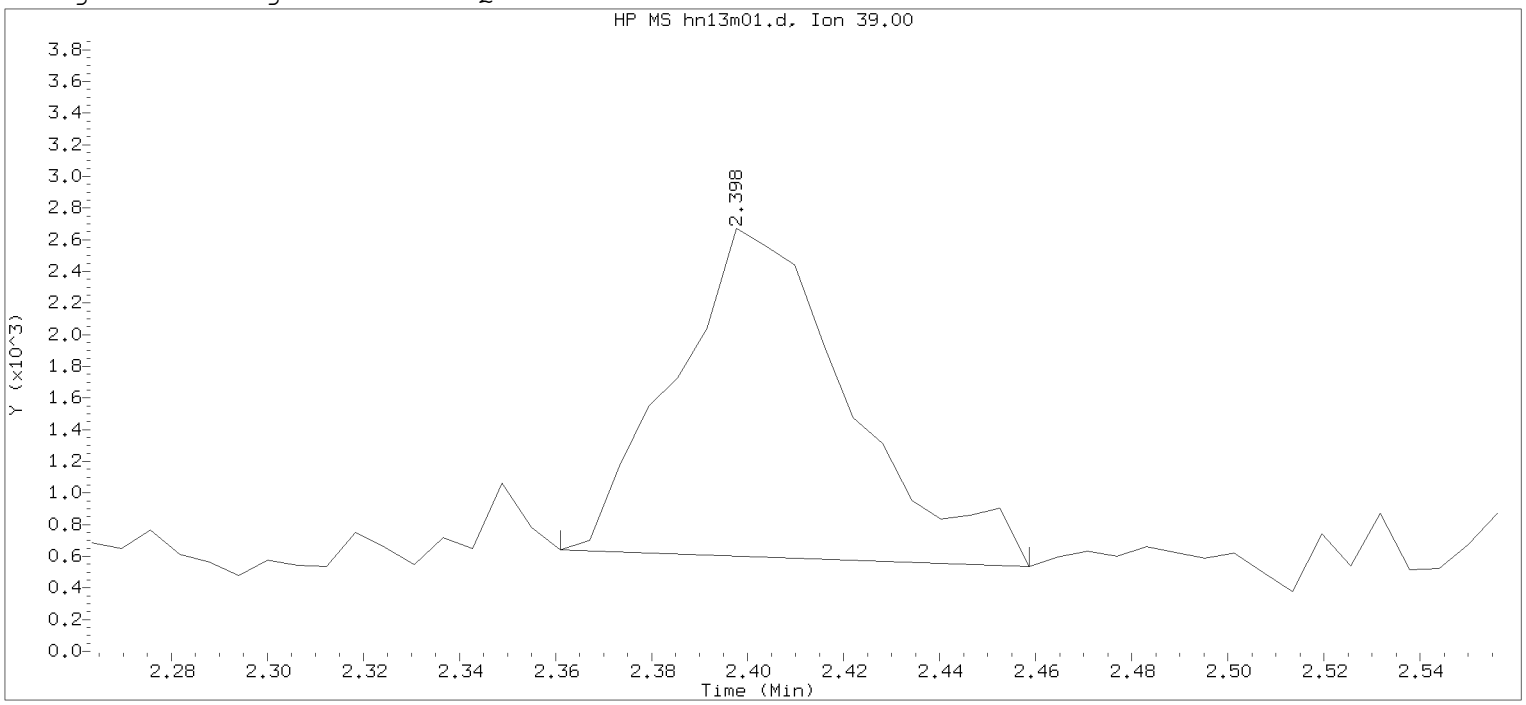
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

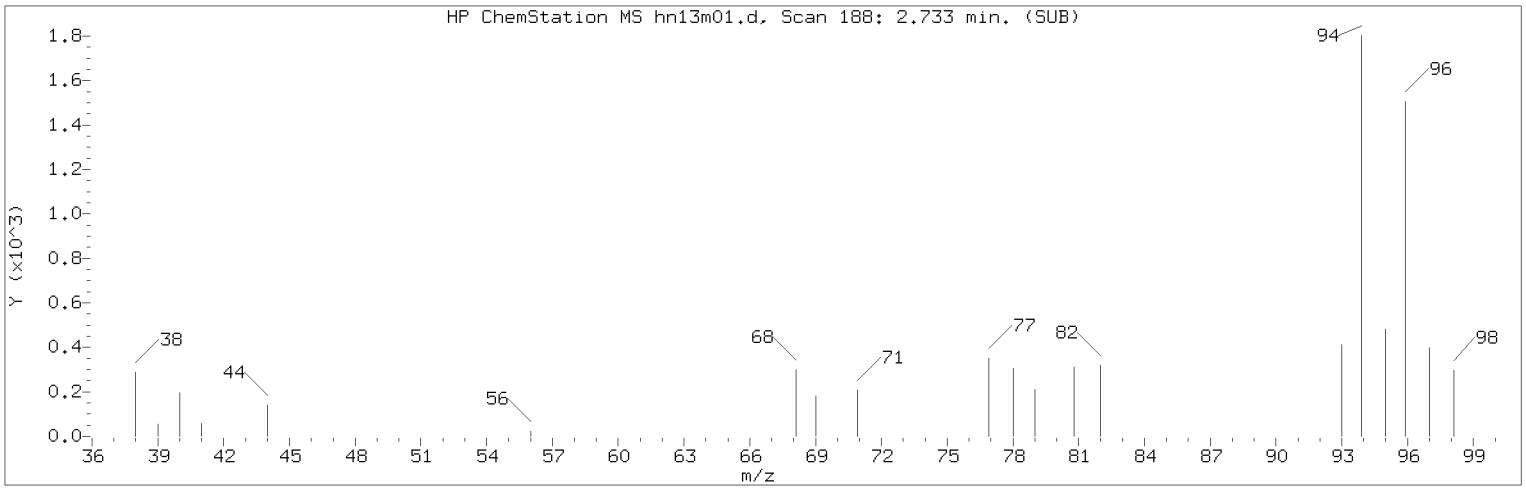
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

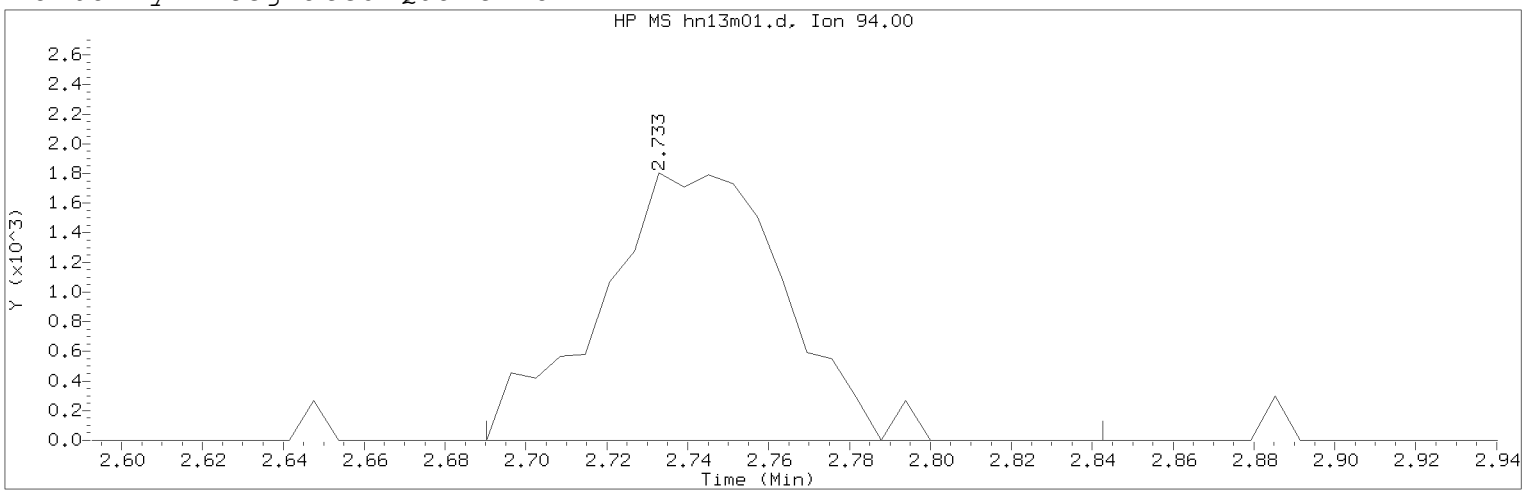
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area : 5225
On-column Amount (ng) : 0.0967
Integration start scan : 126 Integration stop scan: 142
Y at integration start : 641 Y at integration end: 537

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

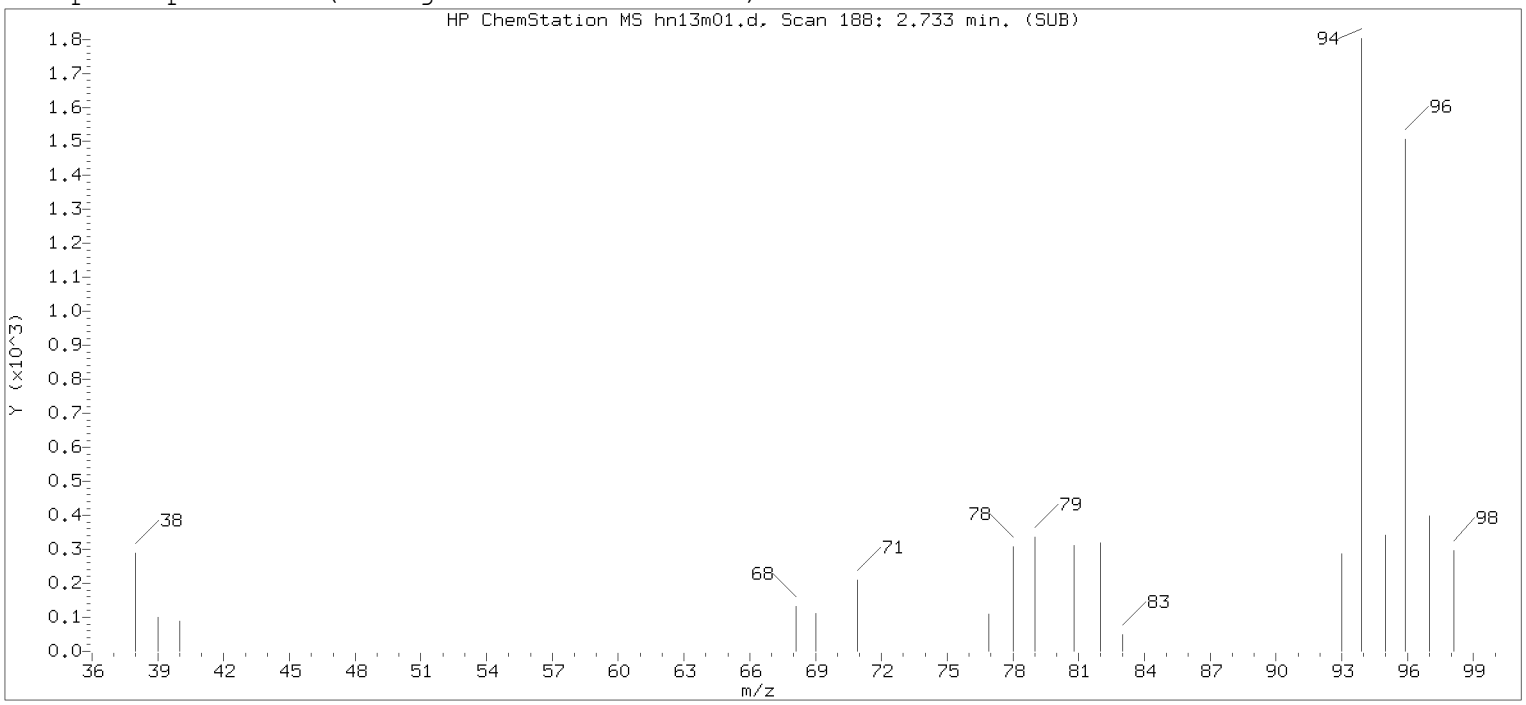
Compound Number : 7
Compound Name : Bromomethane
Scan Number : 188
Retention Time (minutes): 2.733
Quant Ion : 94.00
Area (flag) : 5738M
On-Column Amount (ng) : 0.1151
Integration start scan : 180 Integration stop scan: 205
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

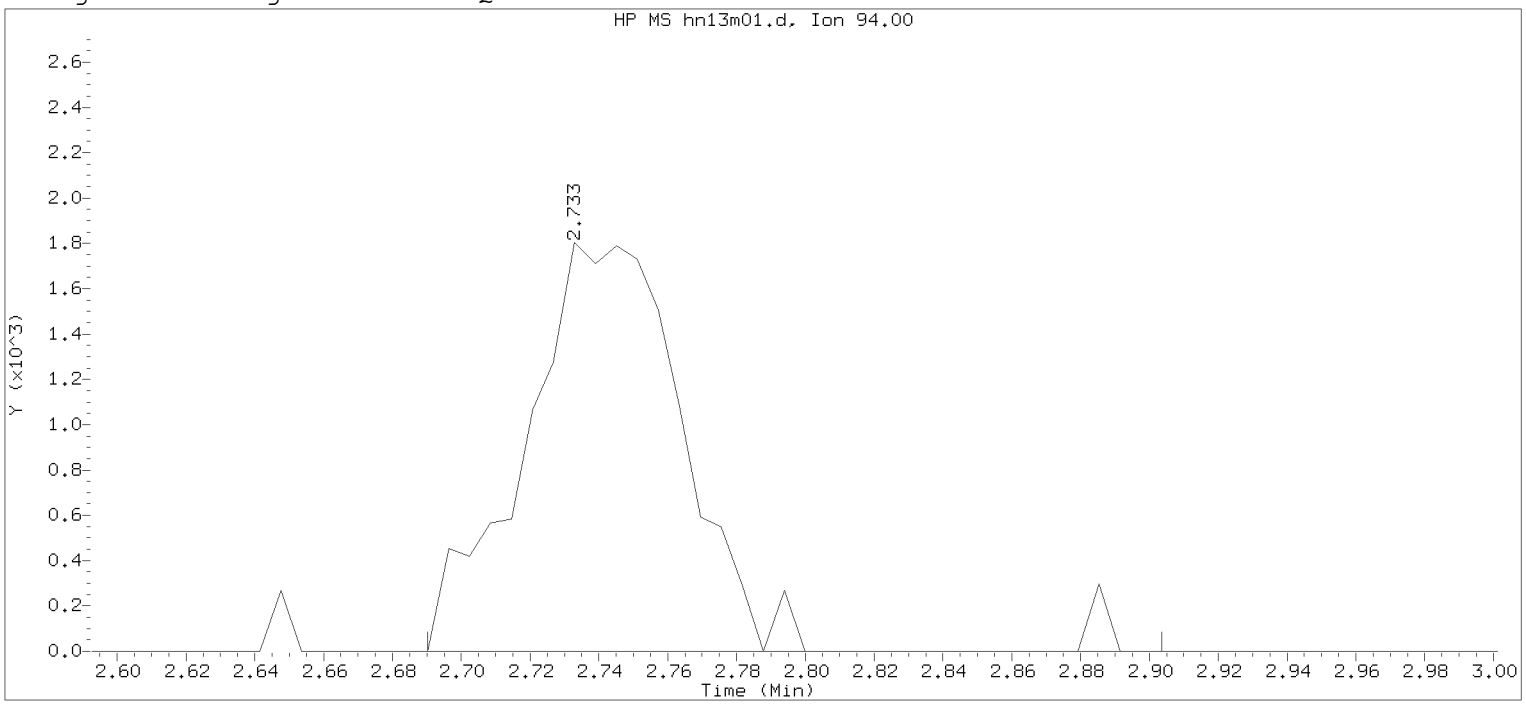
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

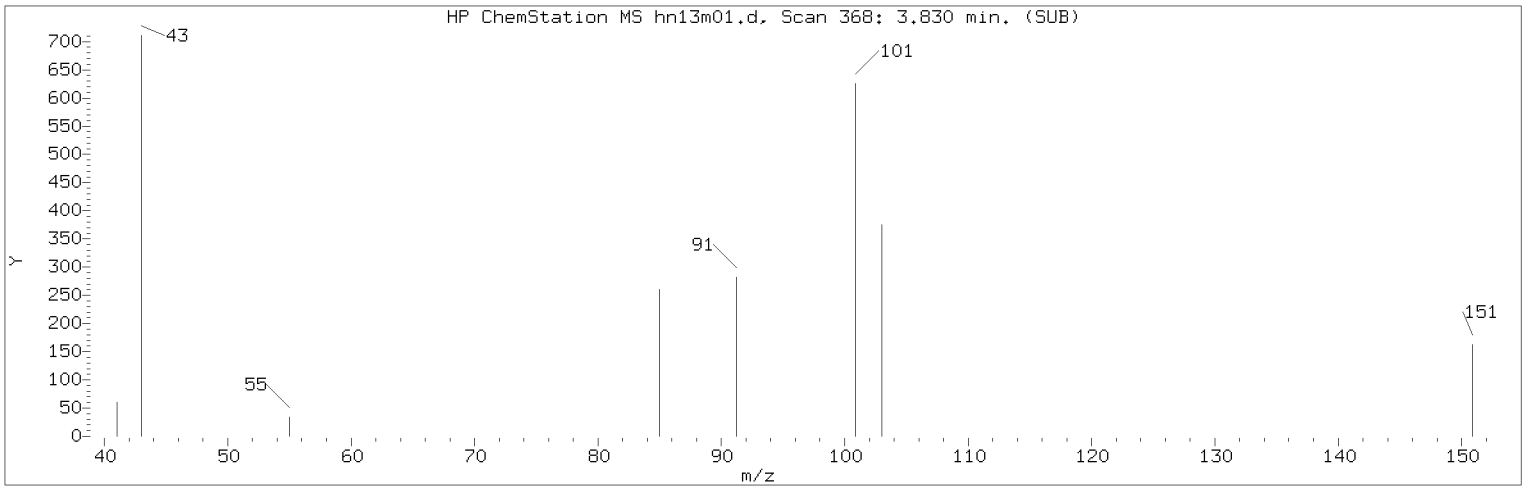
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

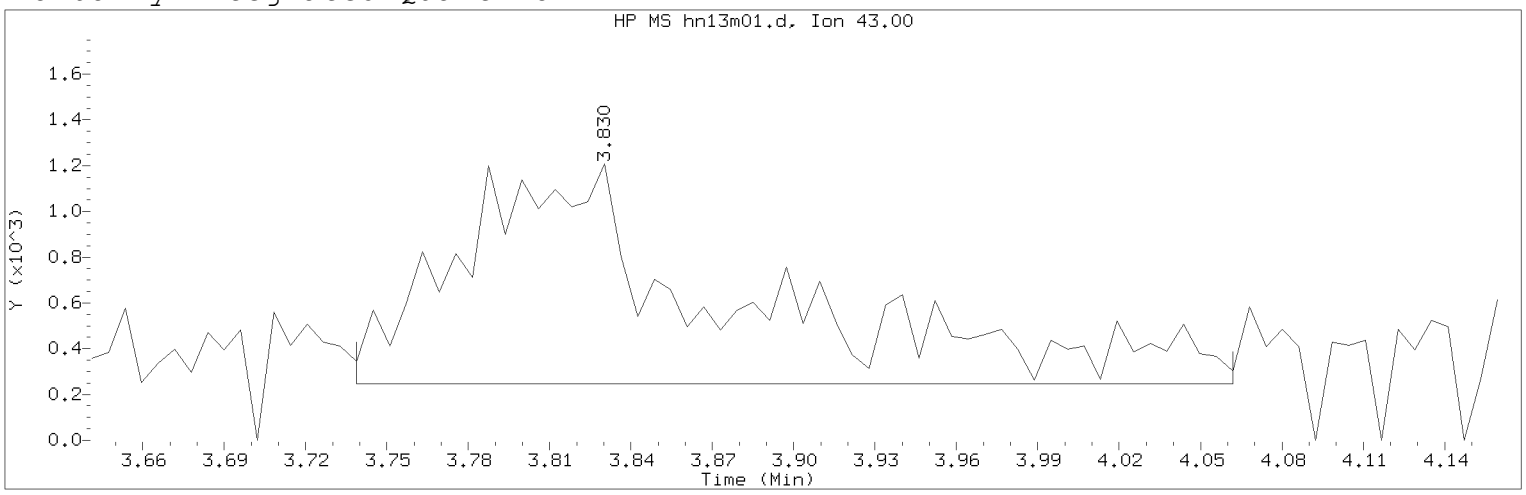
Compound Number : 7
Compound Name : Bromomethane
Scan Number : 188
Retention Time (minutes): 2.733
Quant Ion : 94.00
Area : 5847
On-column Amount (ng) : 0.1173
Integration start scan : 180 Integration stop scan: 215
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. AE35 Page 784 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

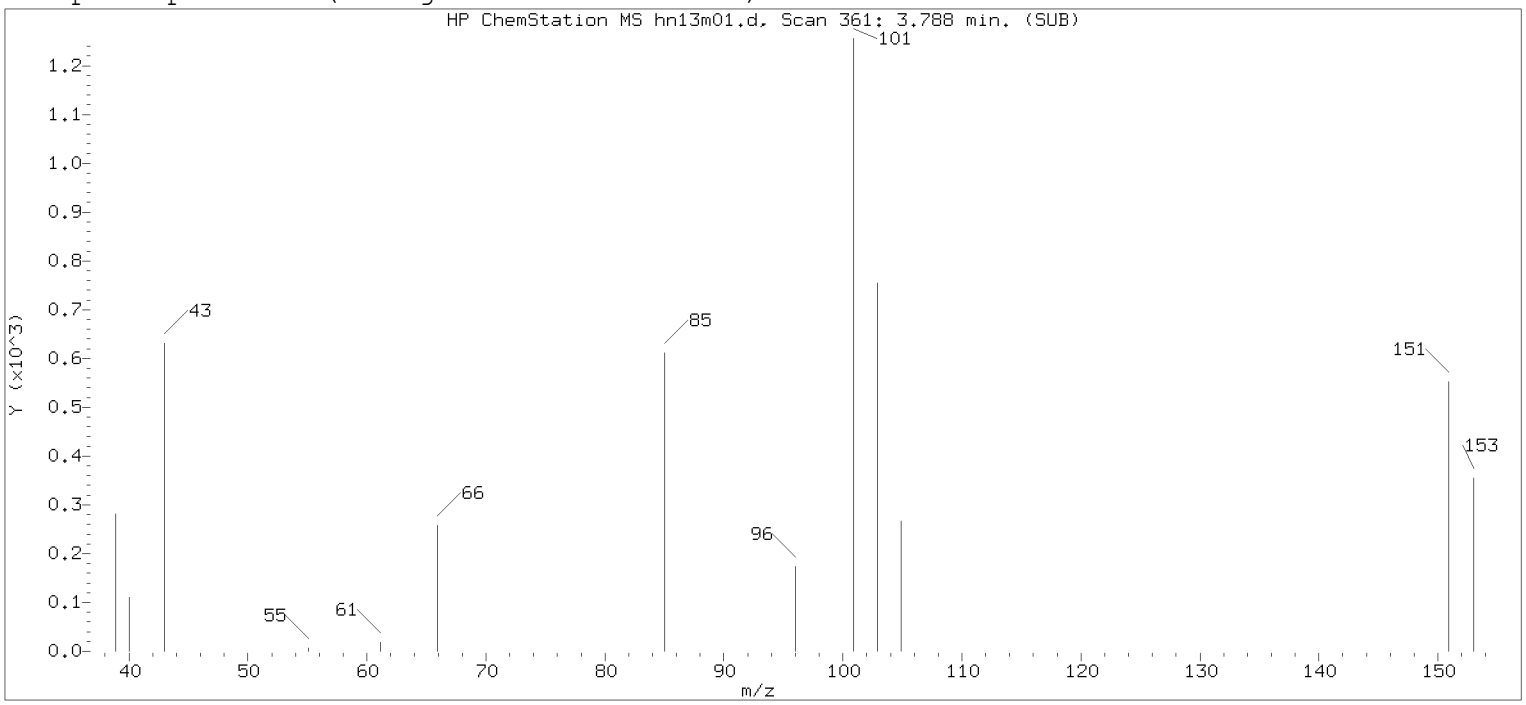
Compound Number : 14
Compound Name : Acetone
Scan Number : 368
Retention Time (minutes): 3.830
Quant Ion : 43.00
Area (flag) : 6881M
On-Column Amount (ng) : 1.4062
Integration start scan : 352 Integration stop scan: 405
Y at integration start : 247 Y at integration end: 247

Reason for manual integration: improper integration

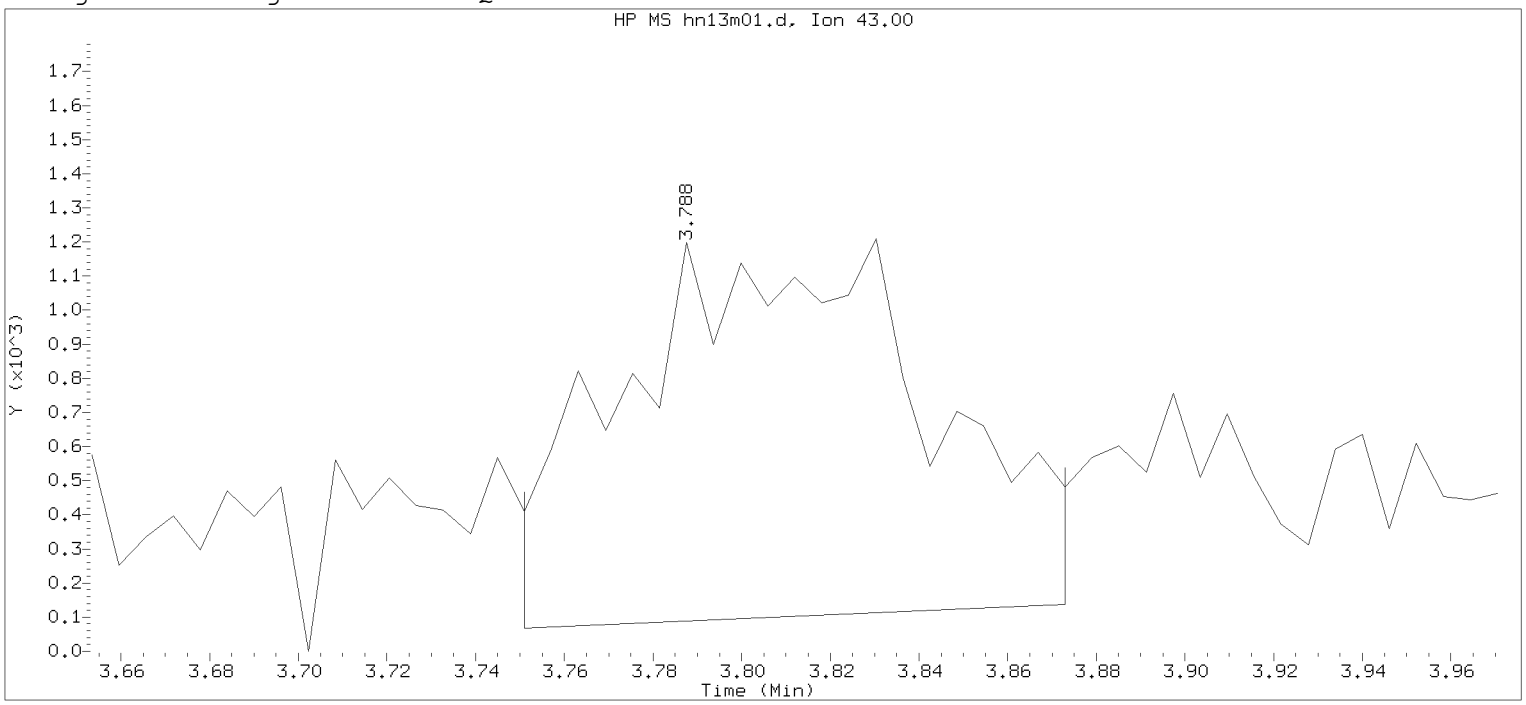
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

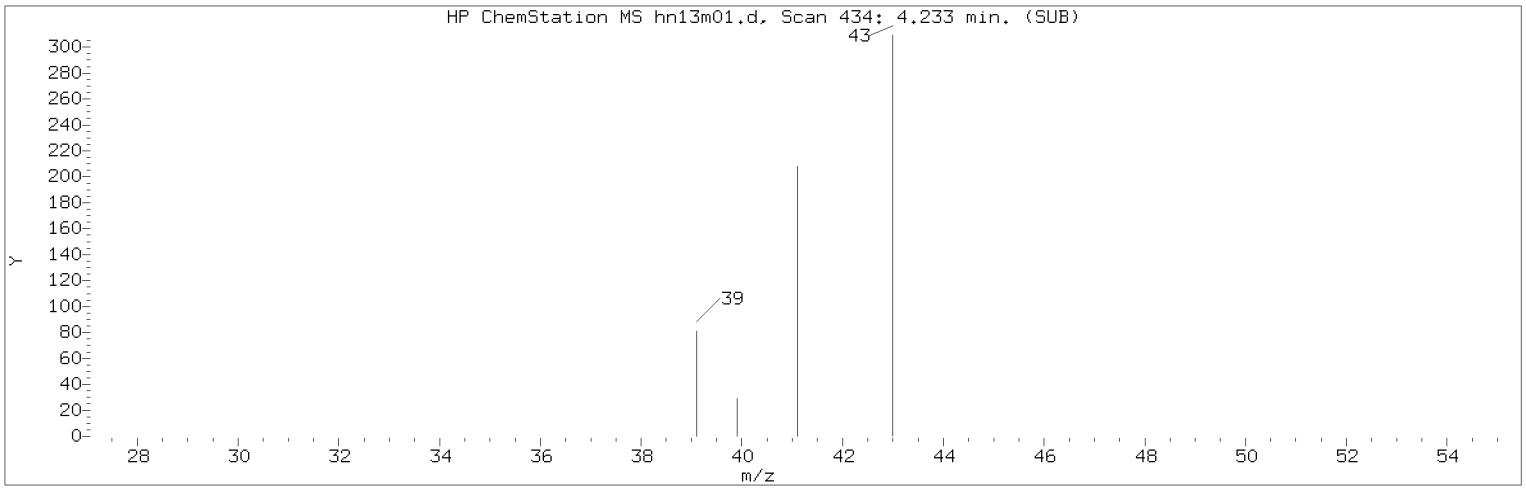
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

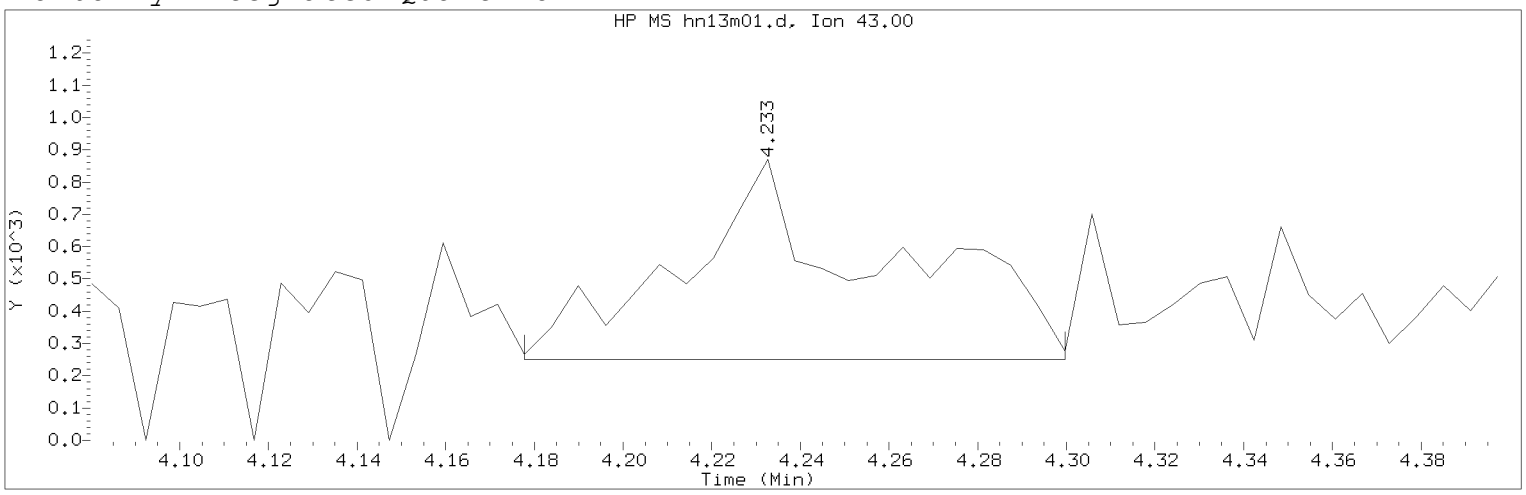
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.788
Quant Ion : 43.00
Area : 5264
On-column Amount (ng) : 1.0758
Integration start scan : 354 Integration stop scan: 374
Y at integration start : 67 Y at integration end: 138

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

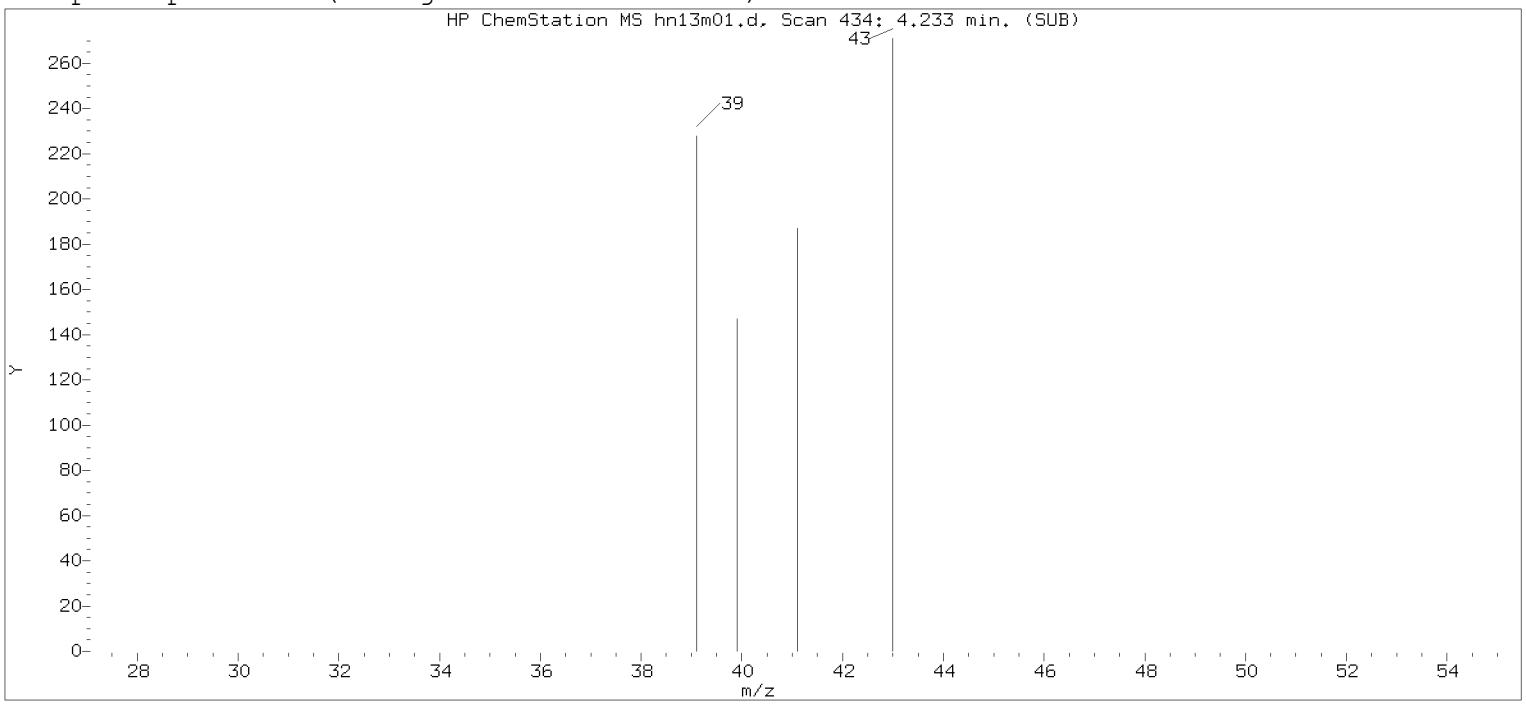
Compound Number : 21
Compound Name : Methyl Acetate
Scan Number : 434
Retention Time (minutes): 4.233
Quant Ion : 43.00
Area (flag) : 1986M
On-Column Amount (ng) : 0.1170
Integration start scan : 424 Integration stop scan: 444
Y at integration start : 251 Y at integration end: 251

Reason for manual integration: improper integration

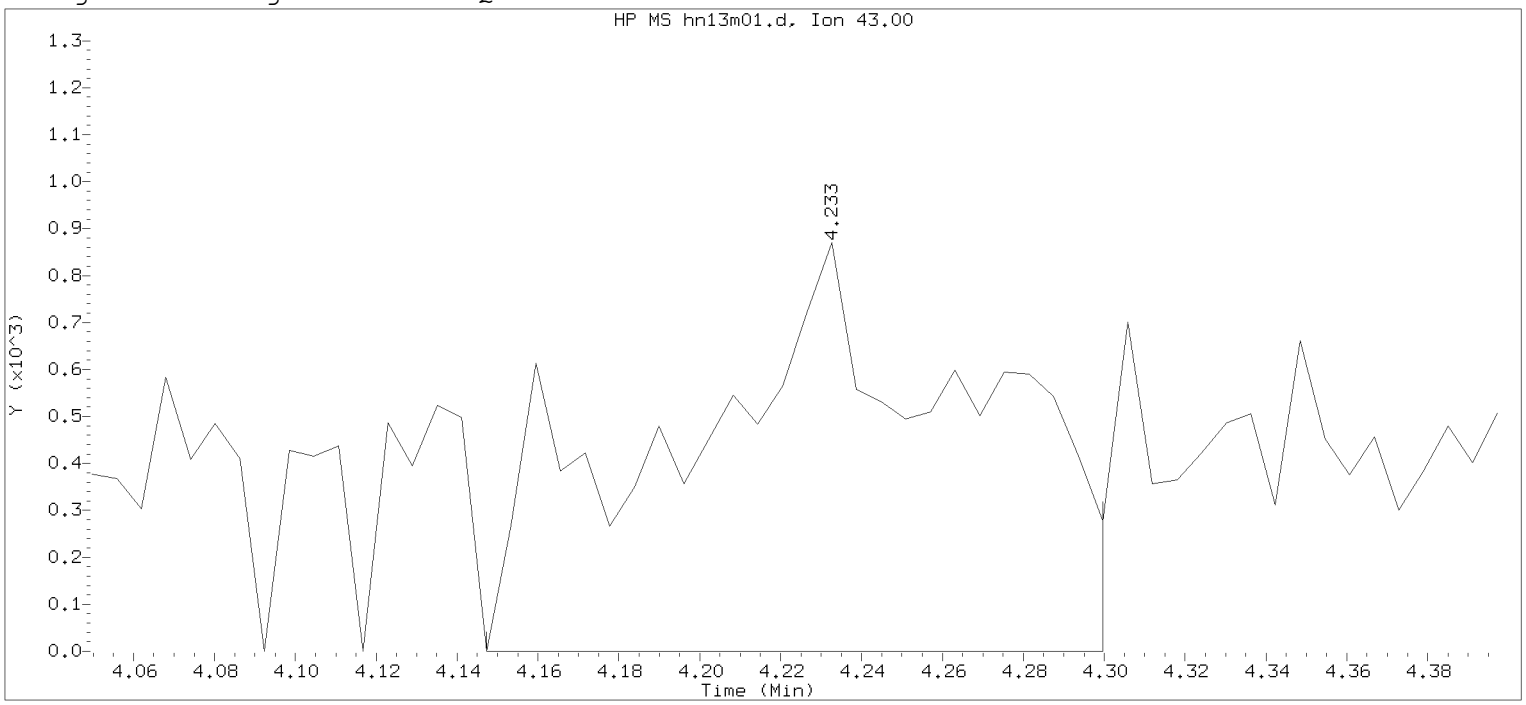
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 21
Compound Name : Methyl Acetate
Scan Number : 434
Retention Time (minutes): 4.233
Quant Ion : 43.00
Area : 4480
On-column Amount (ng) : 0.2640
Integration start scan : 419 Integration stop scan: 444
Y at integration start : 0 Y at integration end: 0

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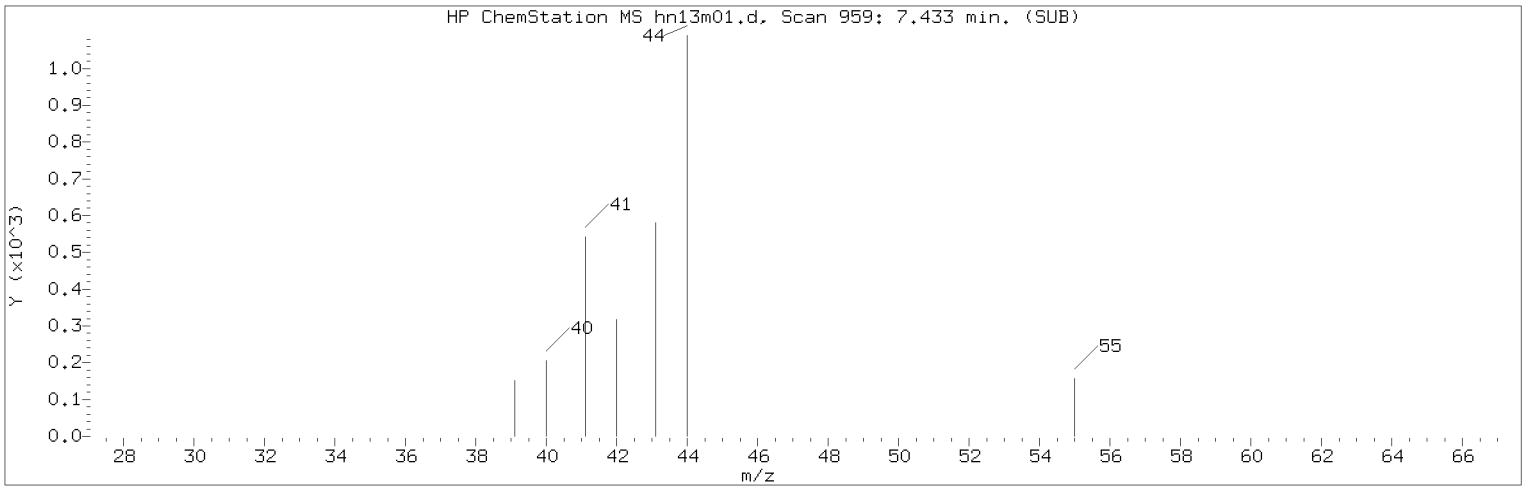
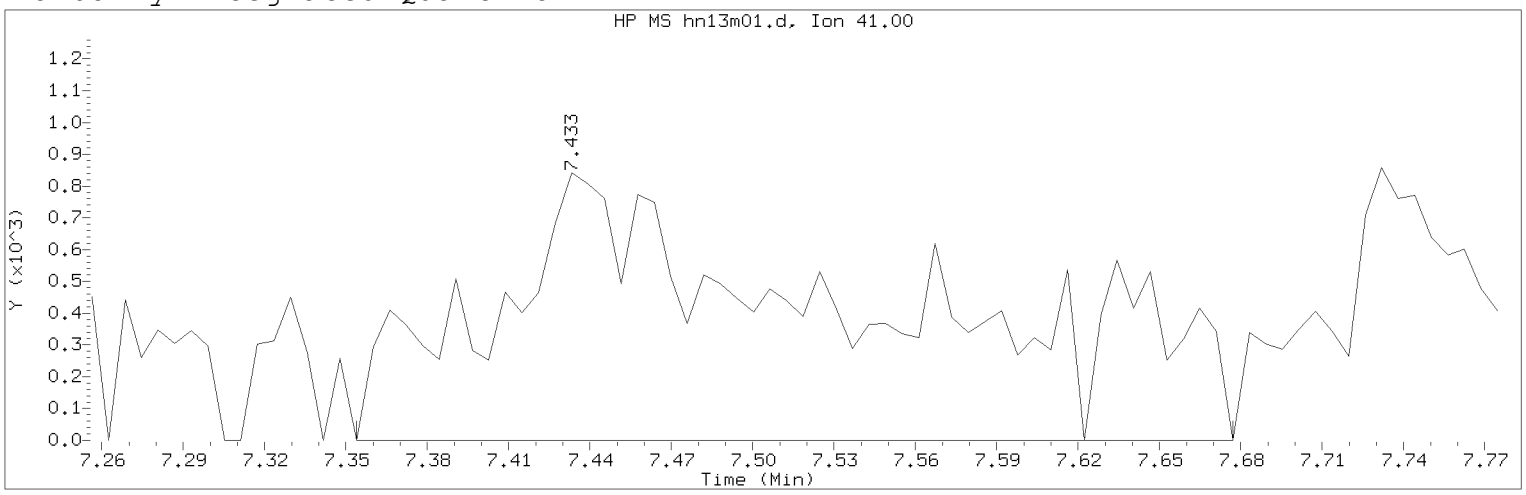
Target 3.5 esignature used. AE35 Page 0782

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

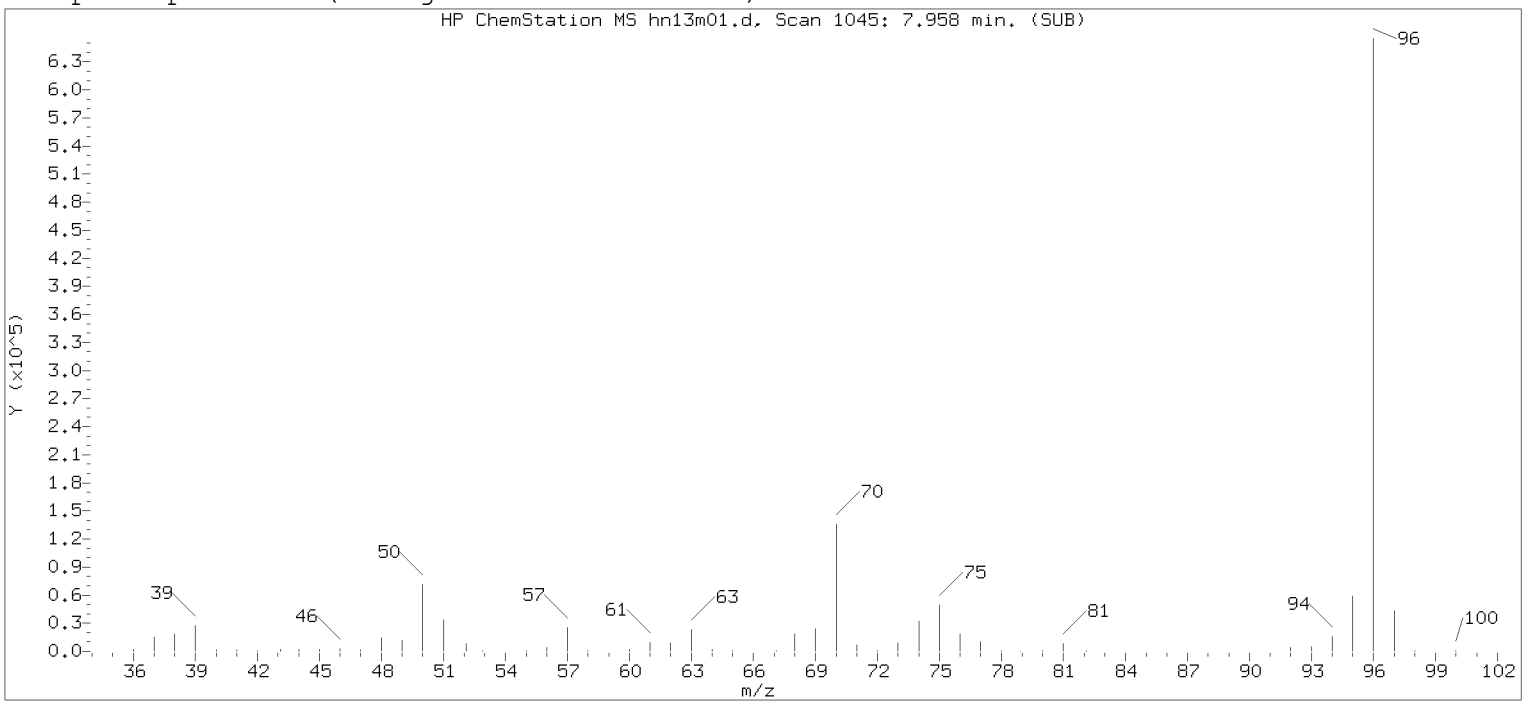
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area (flag) : 8248M
On-Column Amount (ng) : 1.1650
Integration start scan : 945 Integration stop scan: 998
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

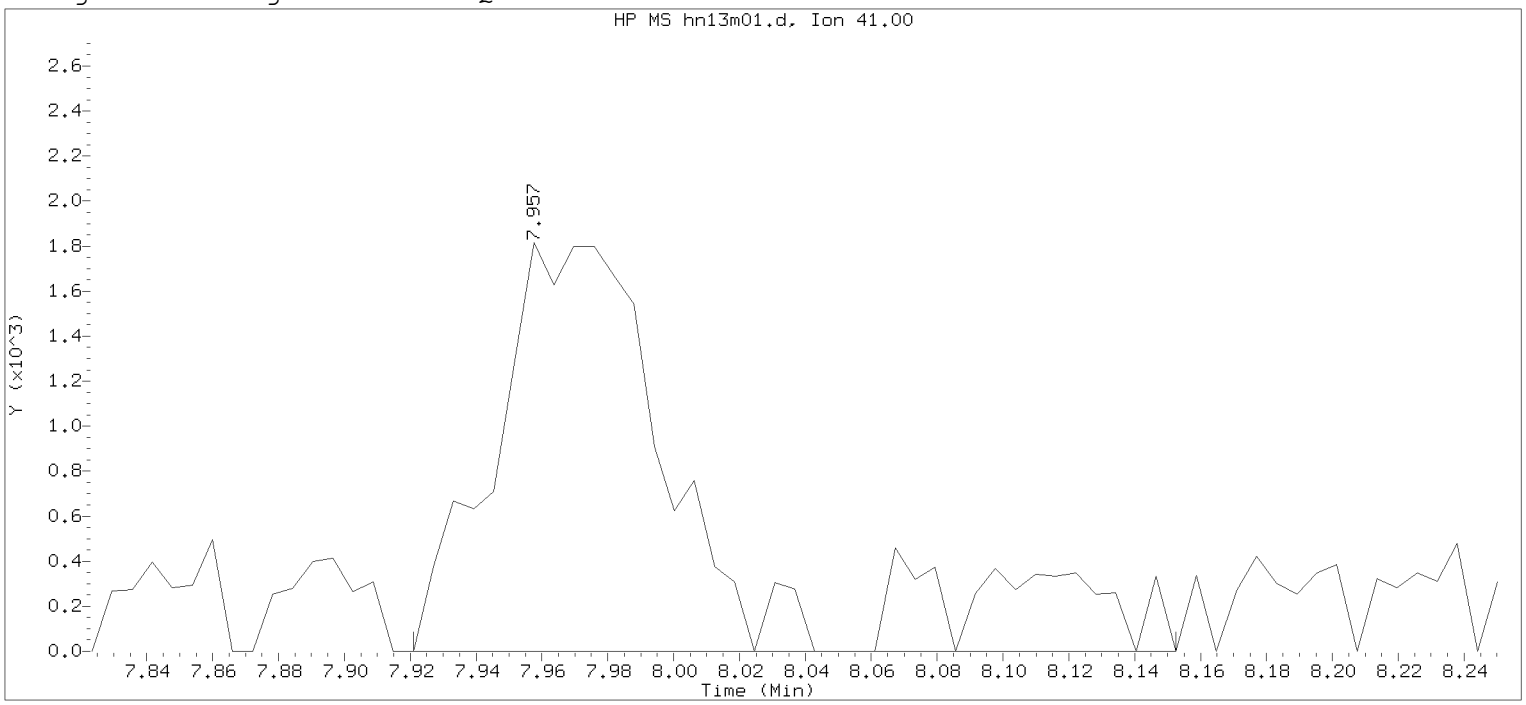
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

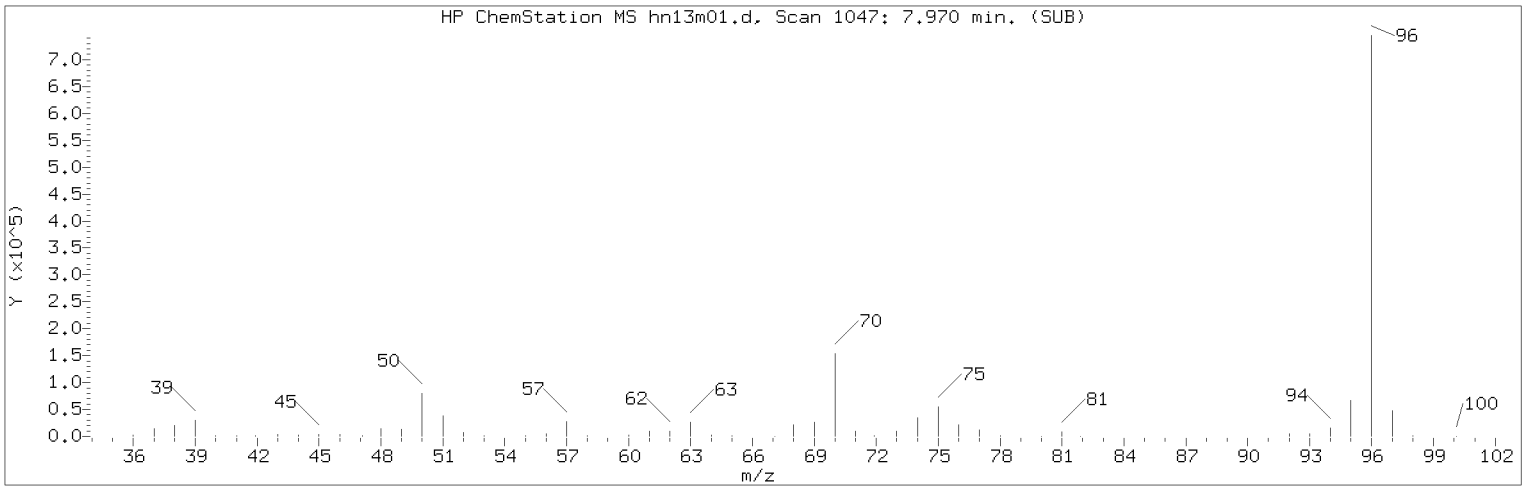
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

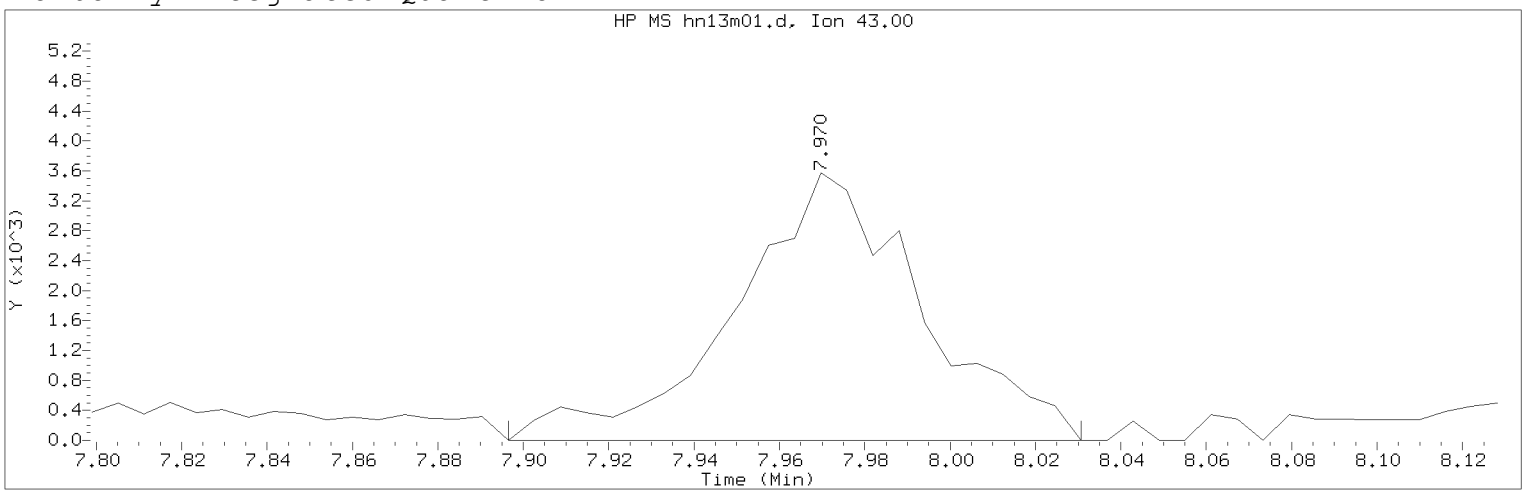
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 1045
Retention Time (minutes): 7.957
Quant Ion : 41.00
Area : 7814
On-column Amount (ng) : 0.3229
Integration start scan : 1038 Integration stop scan: 1076
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. AE35 Page 790 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

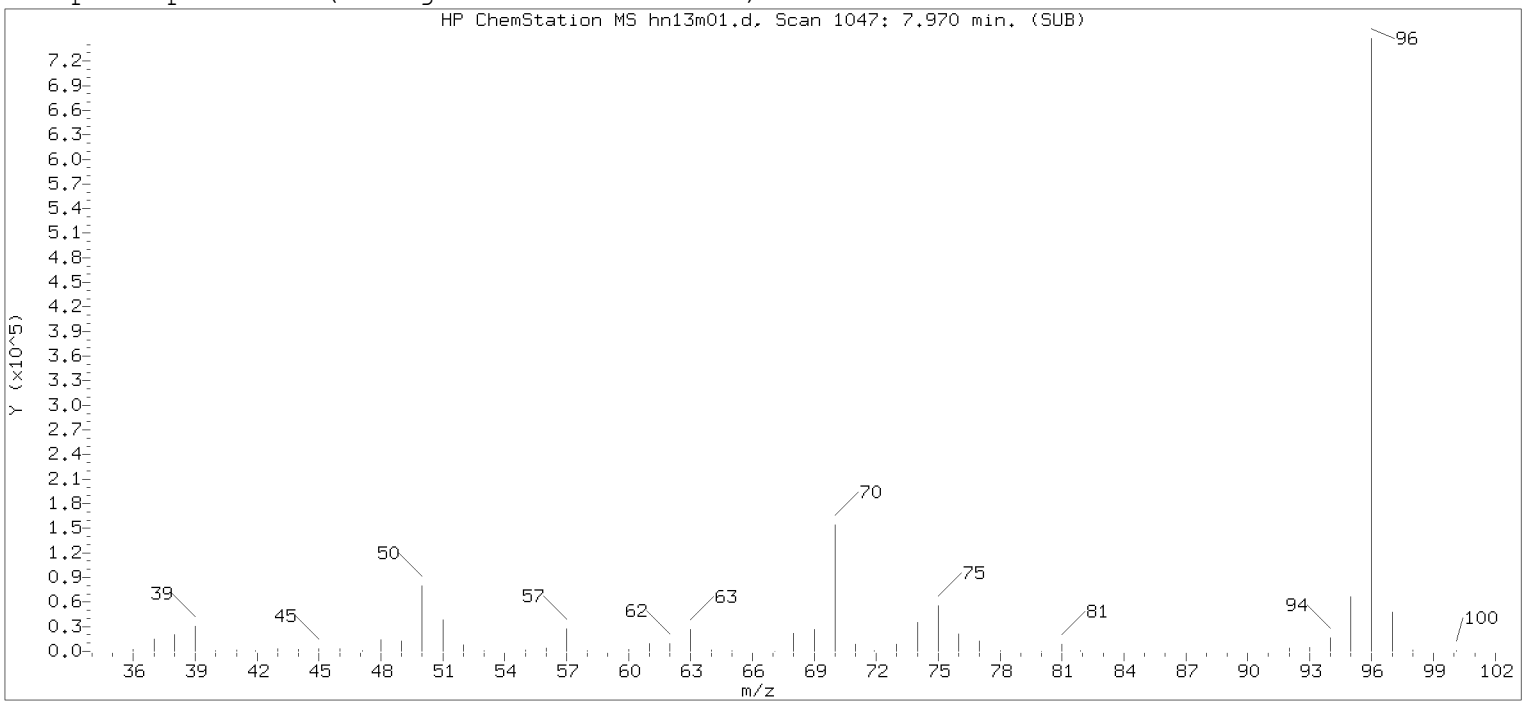
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1047
Retention Time (minutes): 7.970
Quant Ion : 43.00
Area (flag) : 10840M
On-Column Amount (ng) : 0.1261
Integration start scan : 1034 Integration stop scan: 1056
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

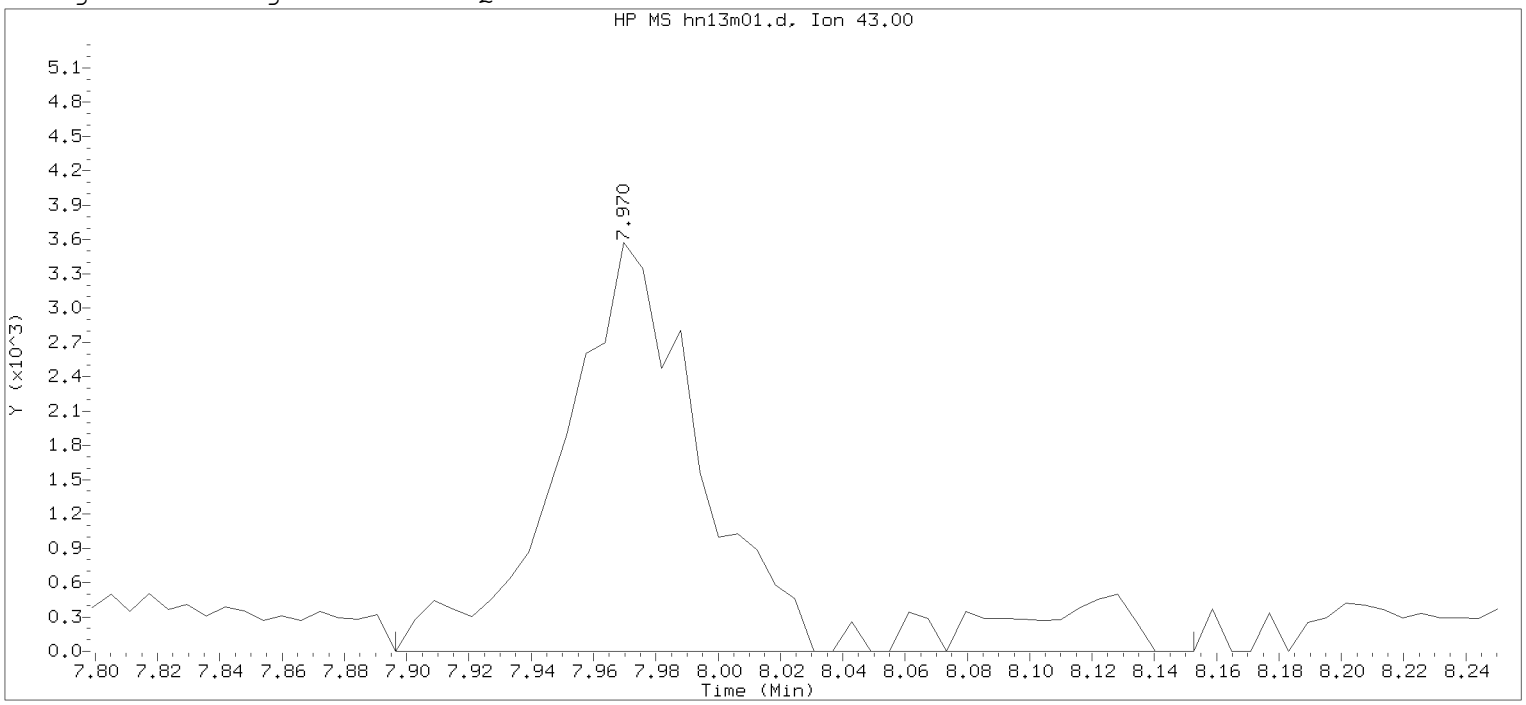
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

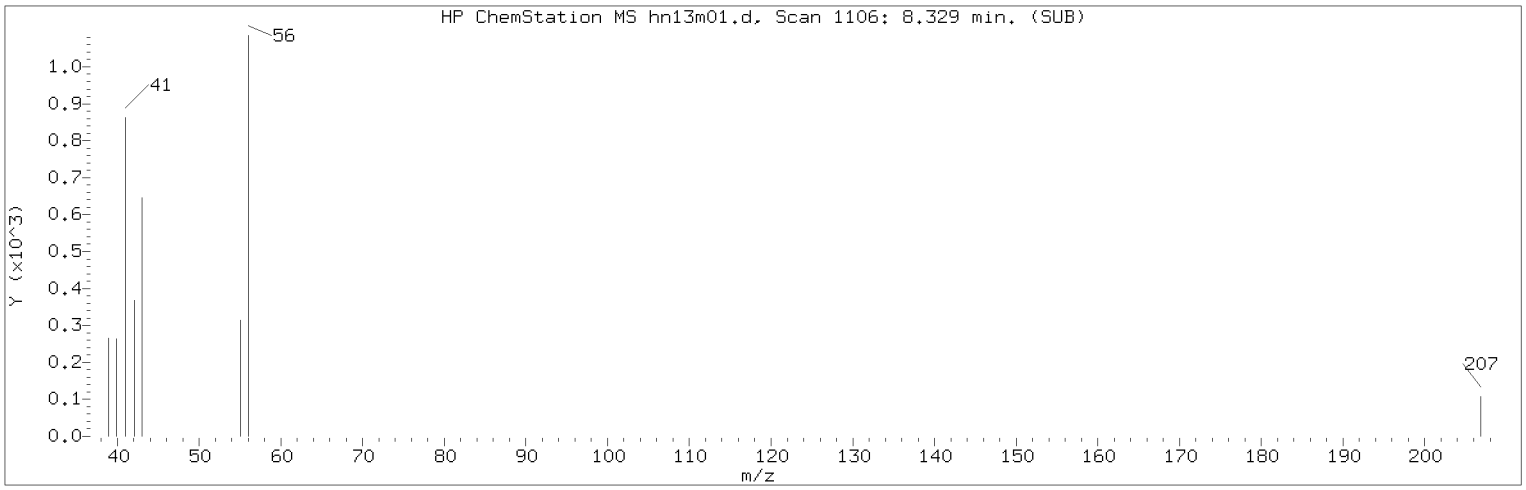
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

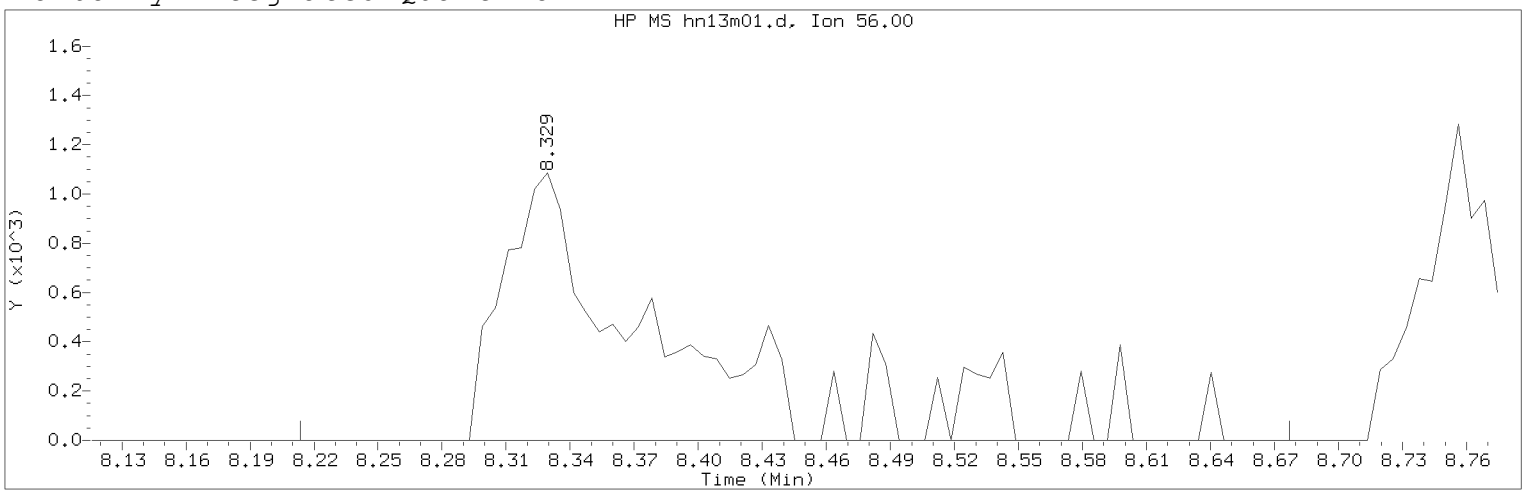
Compound Number	: 62		
Compound Name	: n-Heptane		
Scan Number	: 1047		
Retention Time (minutes)	: 7.970		
Quant Ion	: 43.00		
Area	: 12385		
On-column Amount (ng)	: 0.1441		
Integration start scan	: 1034	Integration stop scan:	1076
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. Reason: I am the author of this document

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

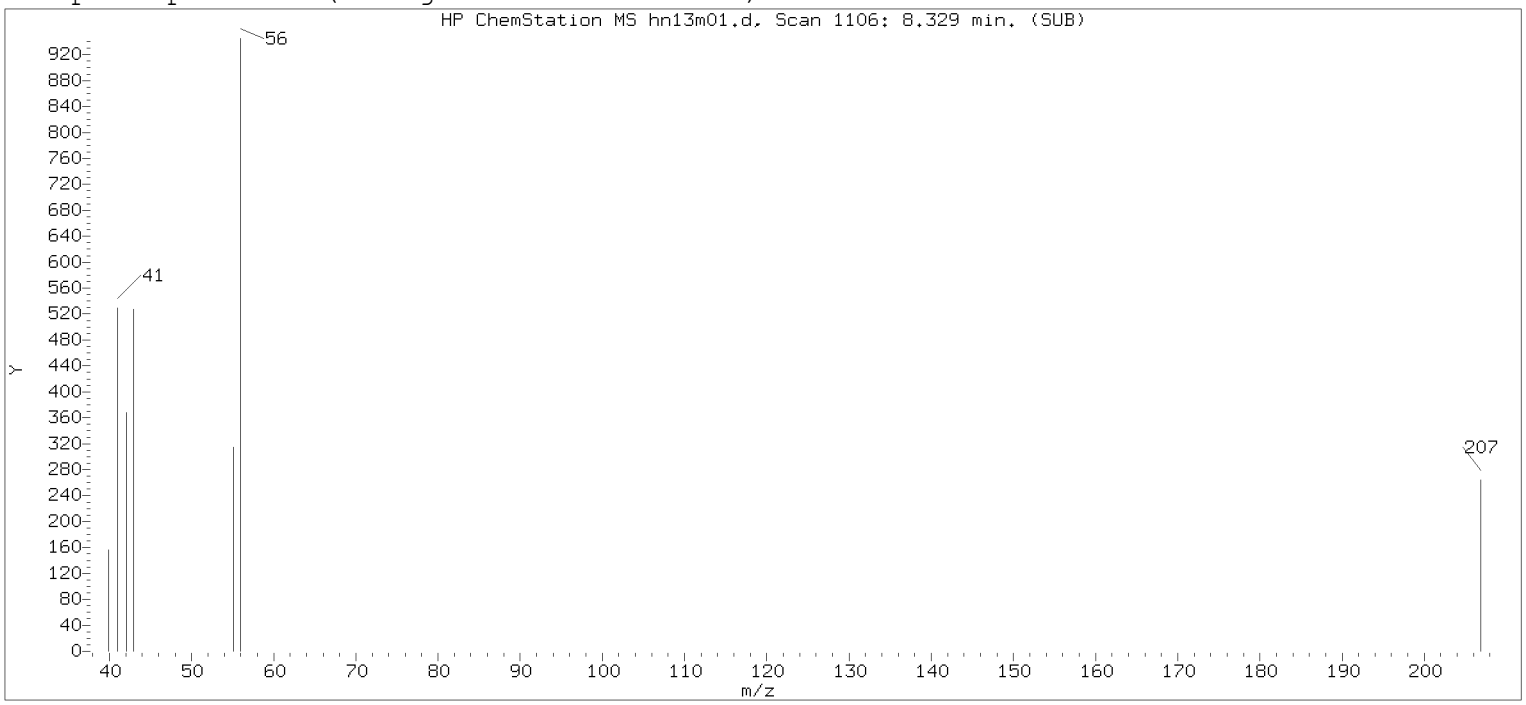
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1106
Retention Time (minutes): 8.329
Quant Ion : 56.00
Area (flag) : 5794M
On-Column Amount (ng) : 11.5738
Integration start scan : 1086 Integration stop scan: 1162
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

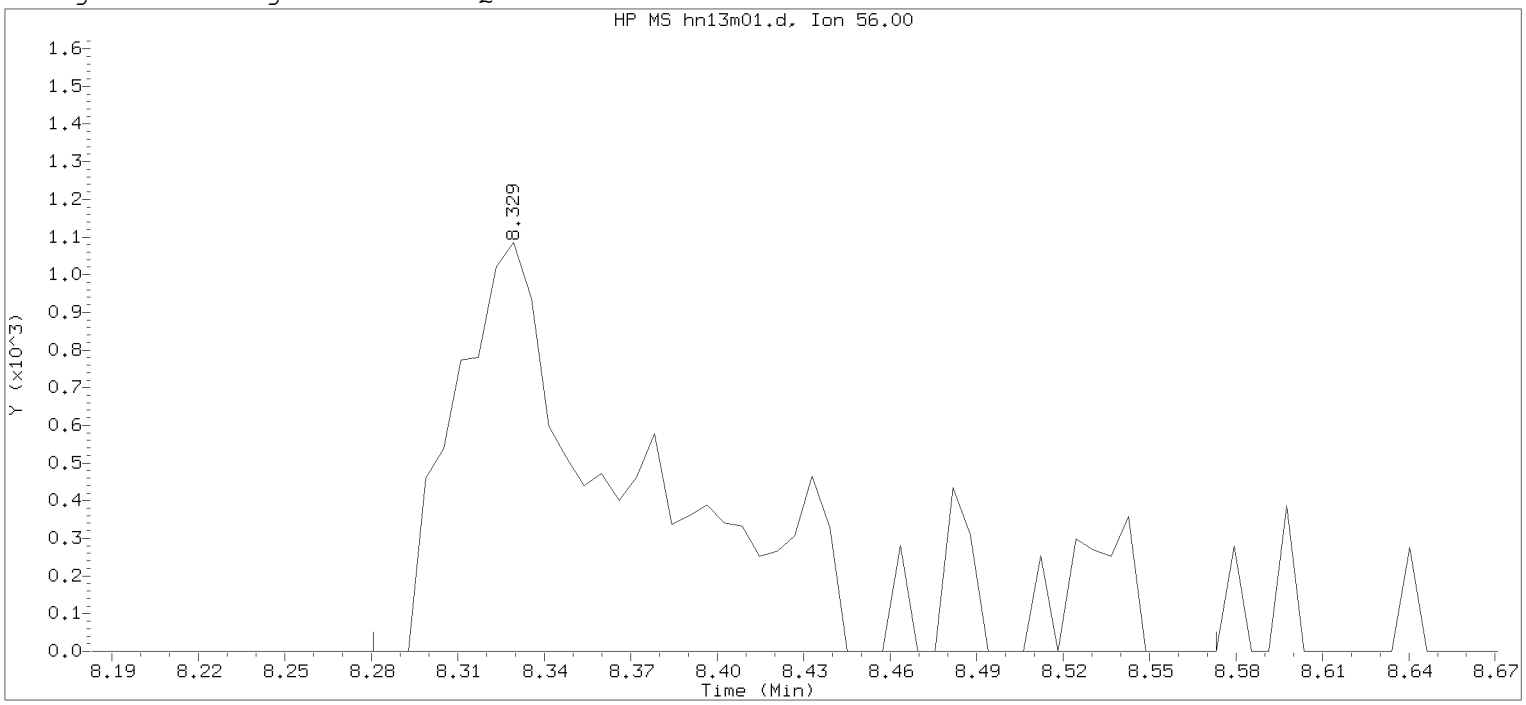
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

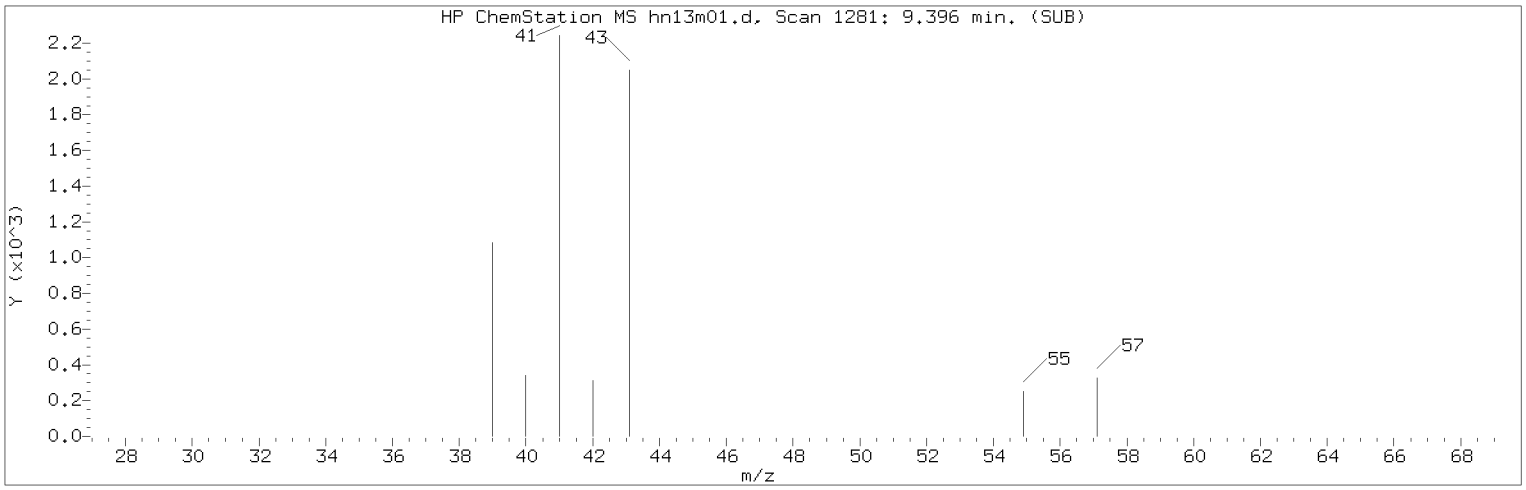
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

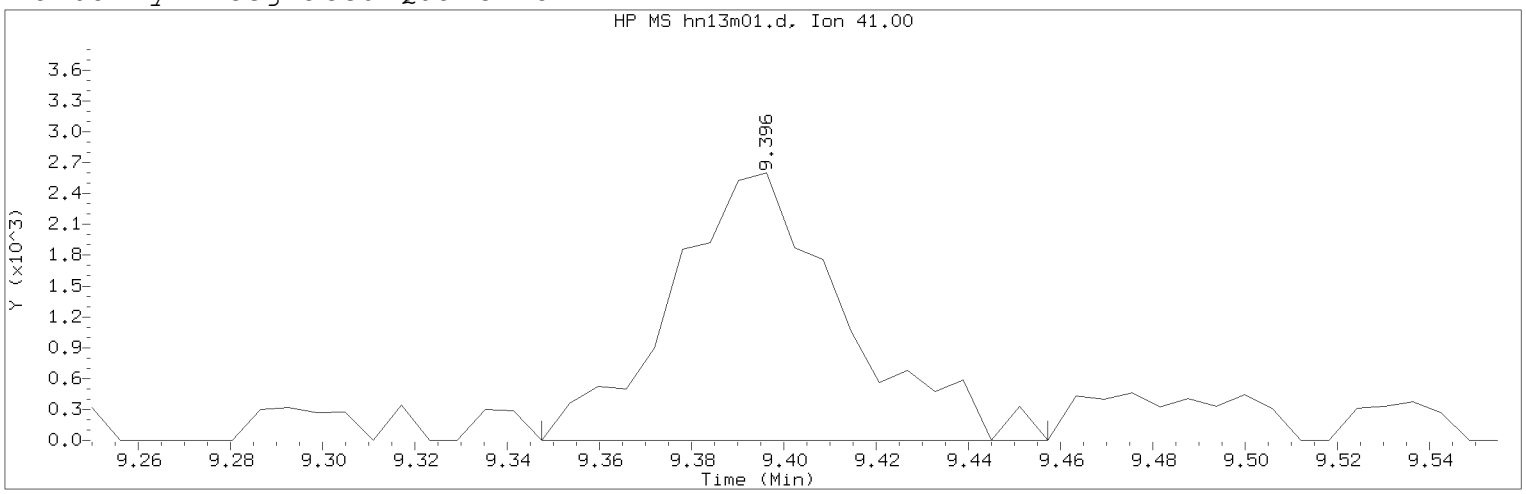
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1106
Retention Time (minutes): 8.329
Quant Ion : 56.00
Area : 5449
On-column Amount (ng) : 10.8854
Integration start scan : 1097 Integration stop scan: 1145
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

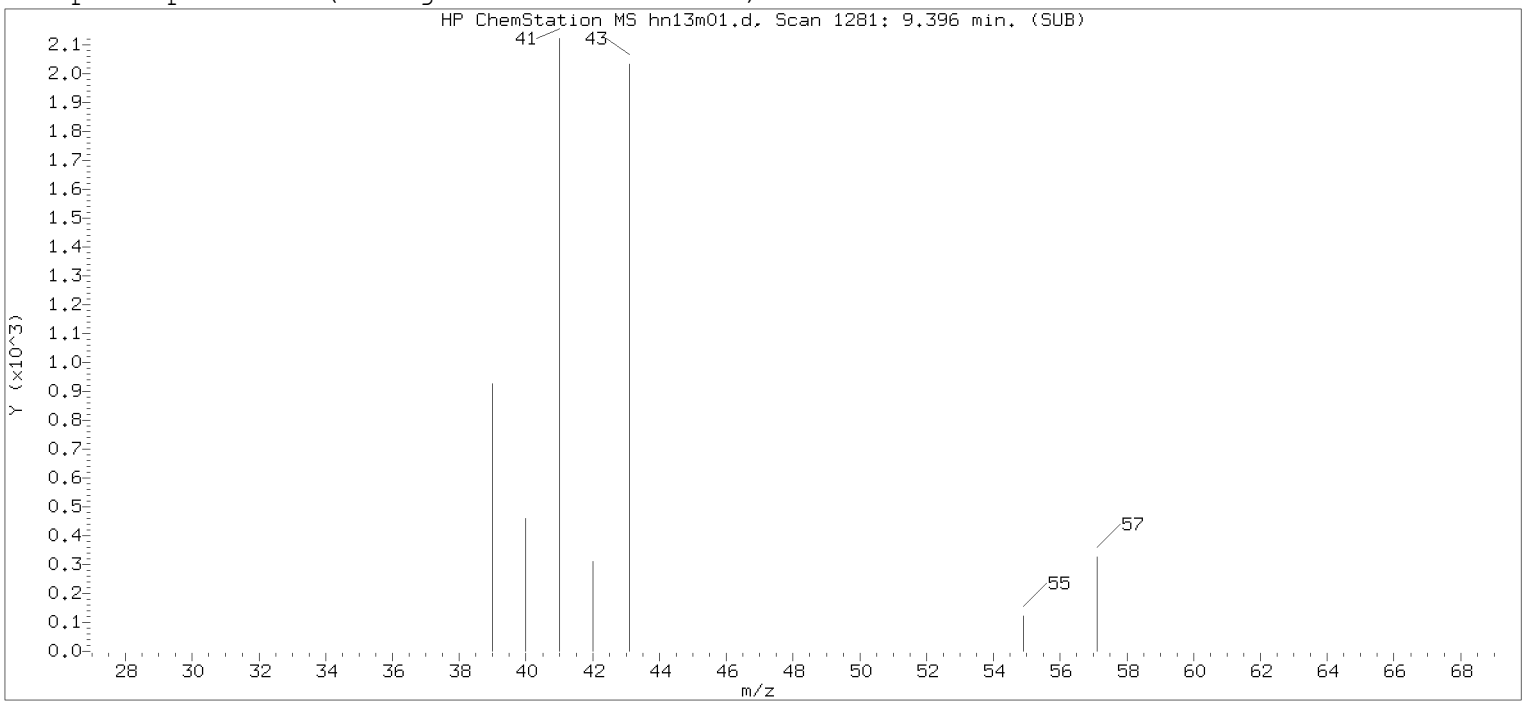
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1281
Retention Time (minutes): 9.396
Quant Ion : 41.00
Area (flag) : 6769M
On-Column Amount (ng) : 1.1793
Integration start scan : 1272 Integration stop scan: 1290
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

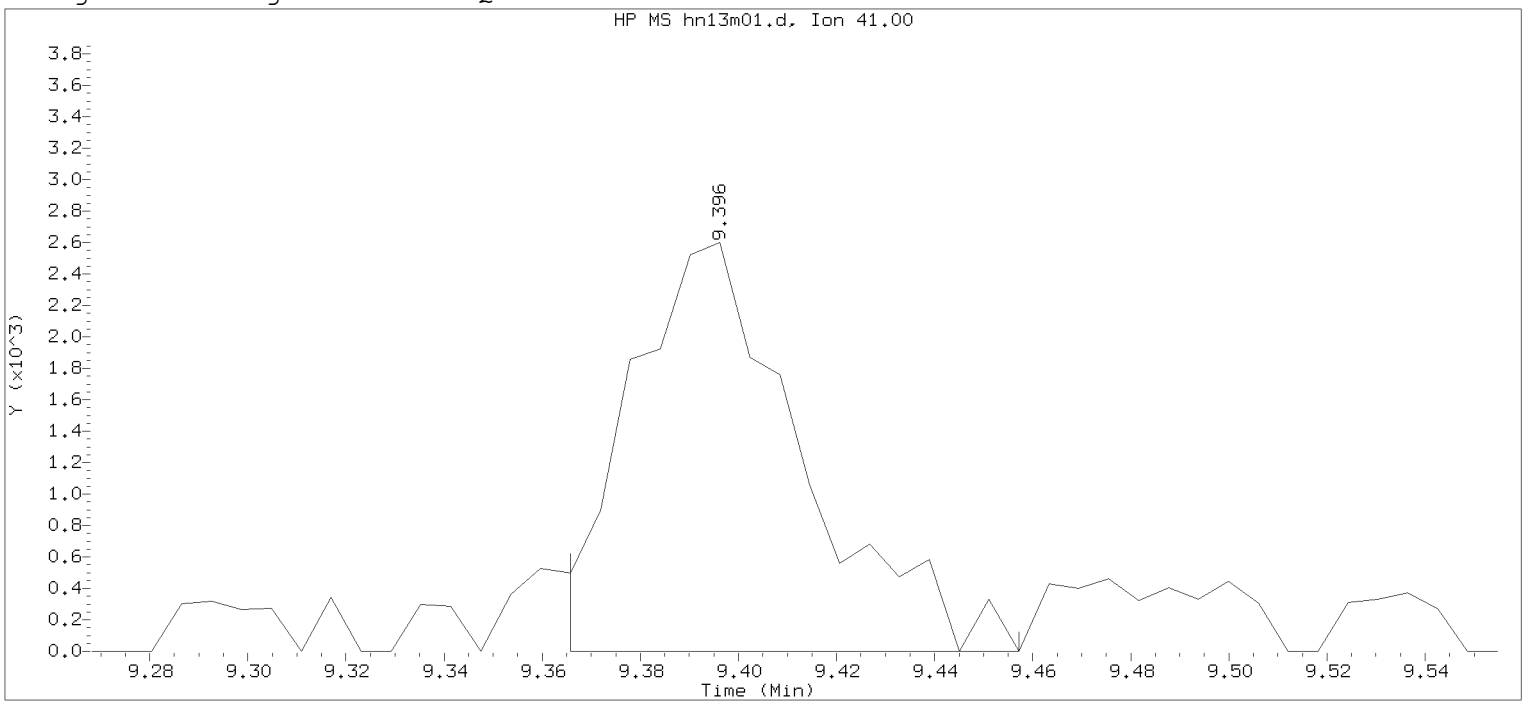
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

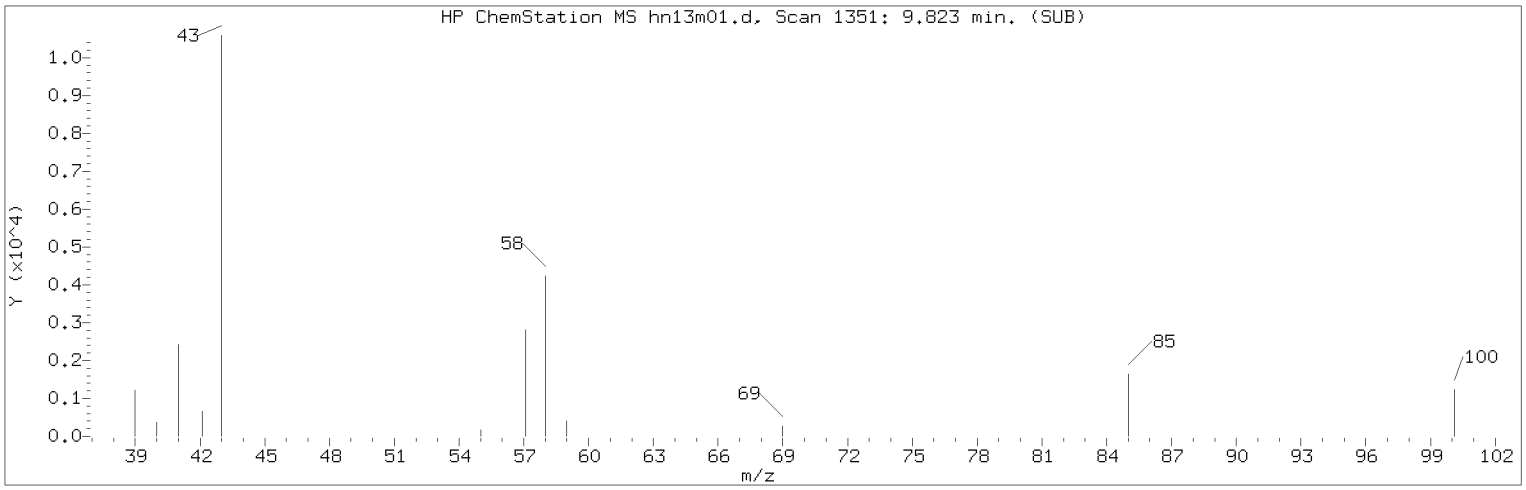
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

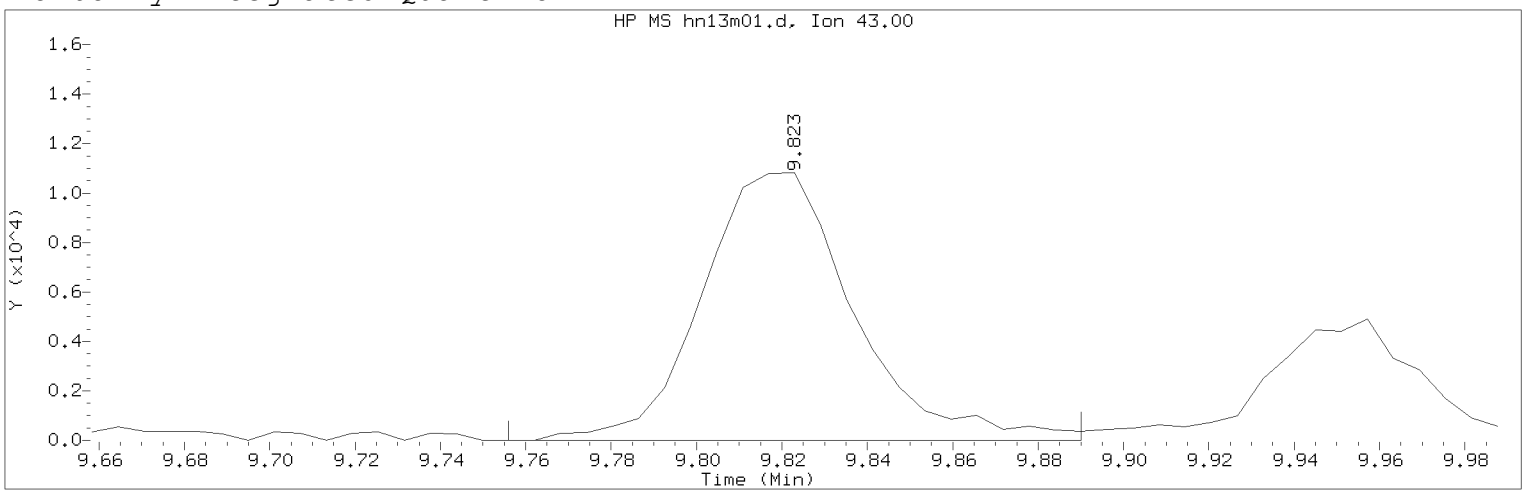
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1281
Retention Time (minutes): 9.396
Quant Ion : 41.00
Area : 6353
On-column Amount (ng) : 1.1069
Integration start scan : 1275 Integration stop scan: 1290
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

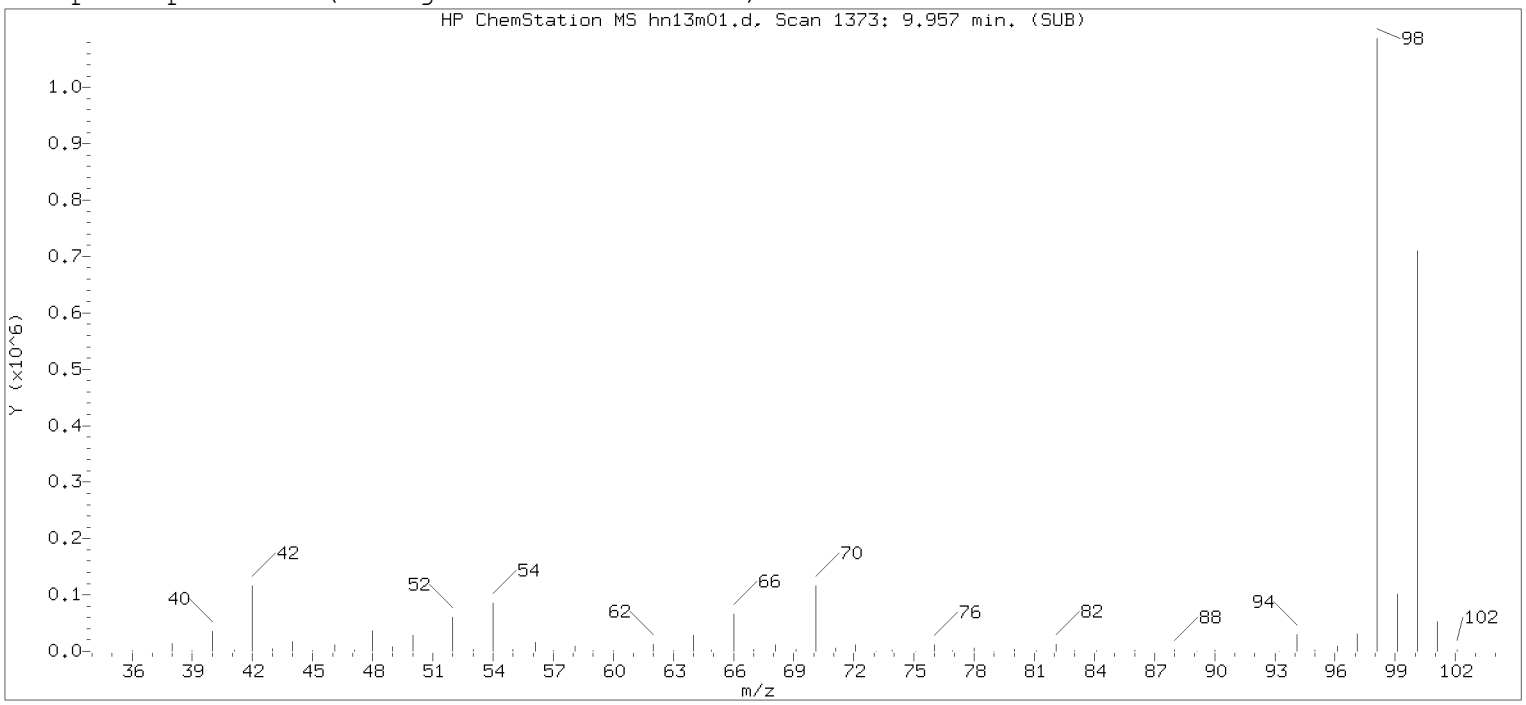
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1351
Retention Time (minutes): 9.823
Quant Ion : 43.00
Area (flag) : 26802M
On-Column Amount (ng) : 1.0820
Integration start scan : 1339 Integration stop scan: 1361
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

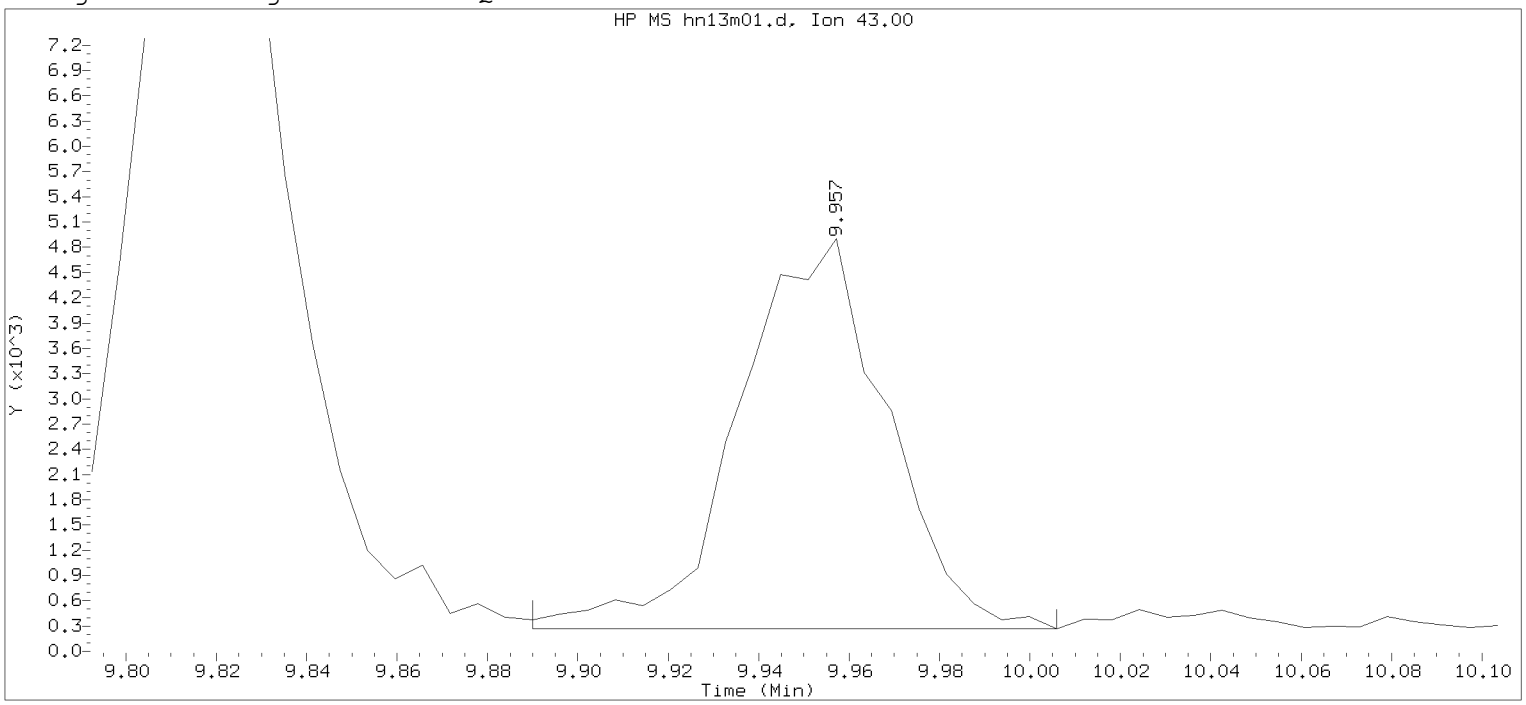
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1373
Retention Time (minutes): 9.957
Quant Ion : 43.00
Area : 10555
On-column Amount (ng) : 0.4261
Integration start scan : 1361 Integration stop scan: 1380
Y at integration start : 267 Y at integration end: 267

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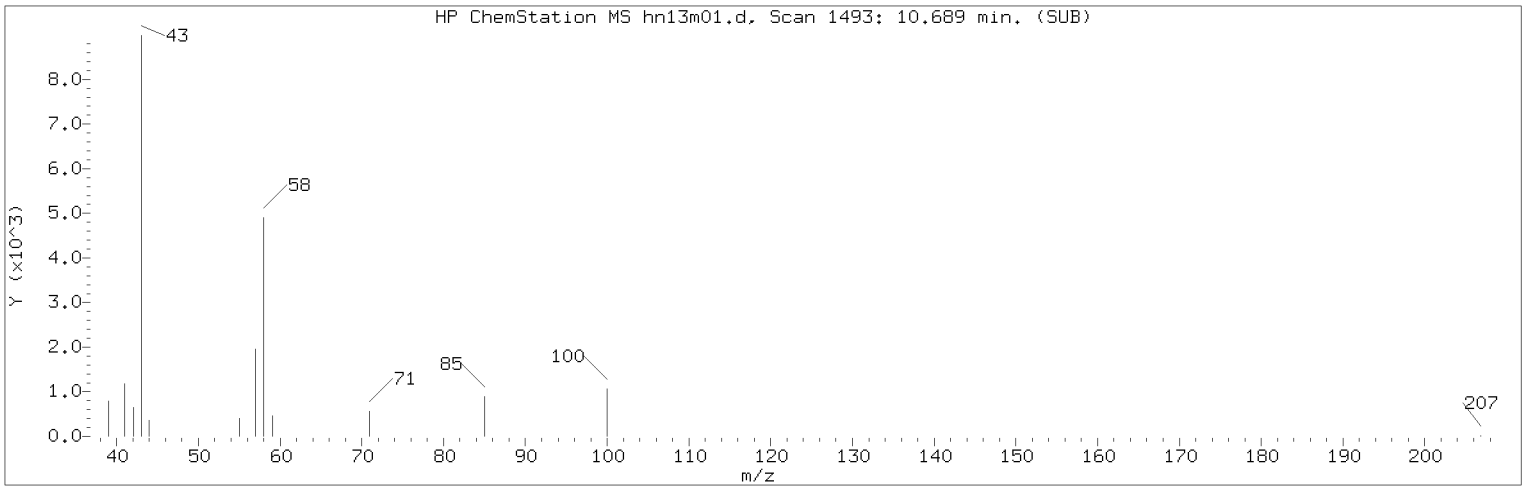
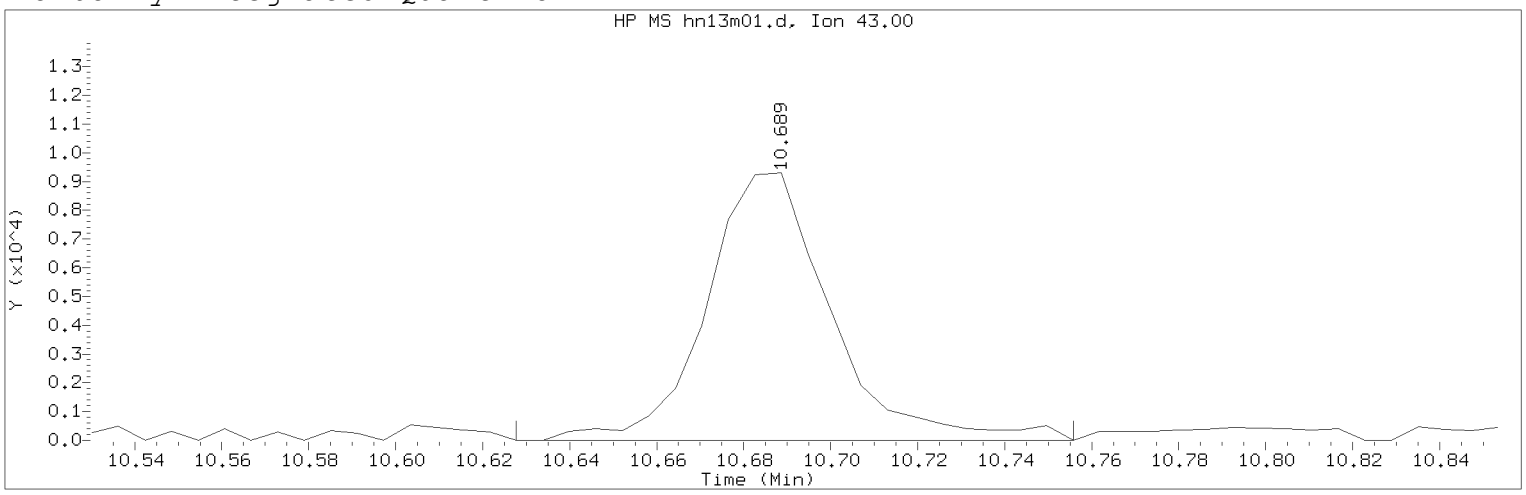
Target 3.5 esignature used. AE35 Page 798

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

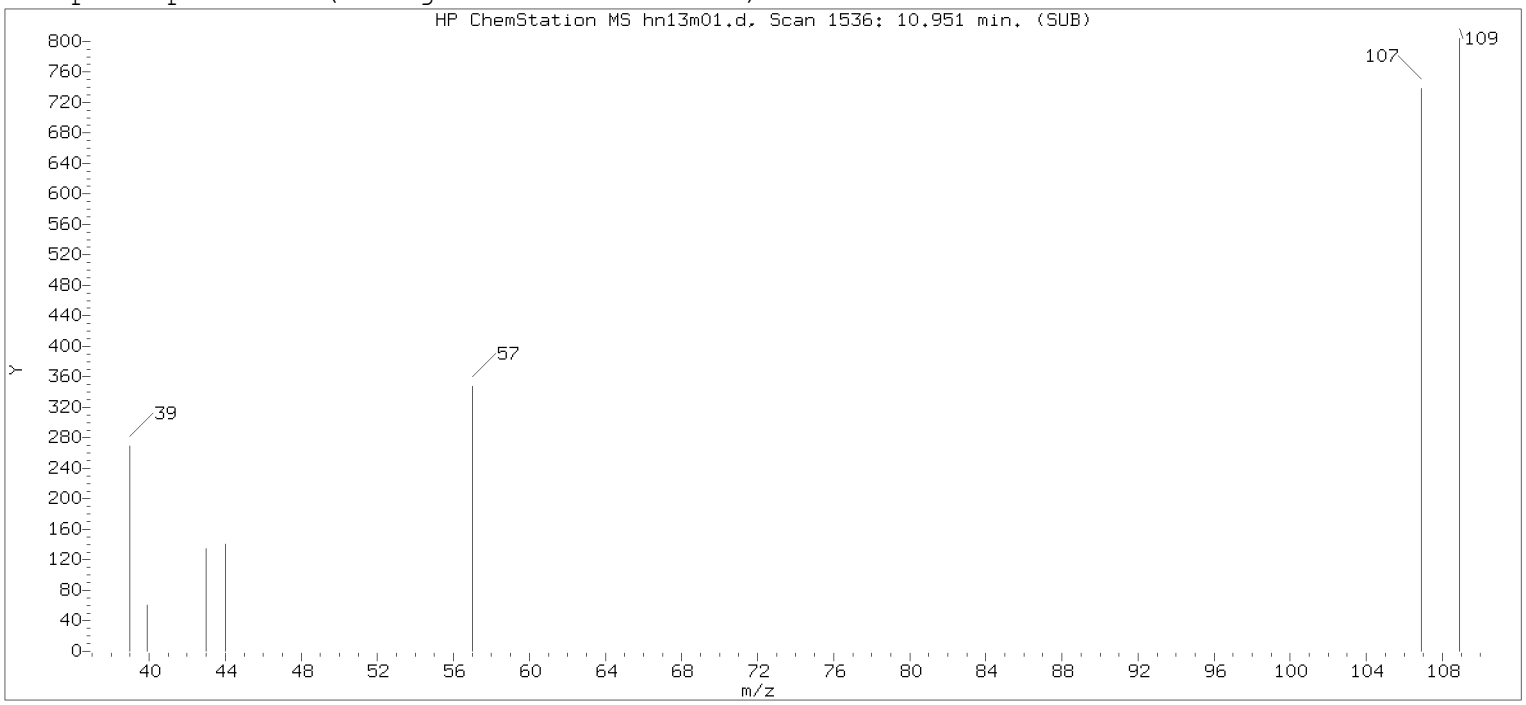
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1493
Retention Time (minutes): 10.689
Quant Ion : 43.00
Area (flag) : 18495M
On-Column Amount (ng) : 1.0744
Integration start scan : 1482 Integration stop scan: 1503
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

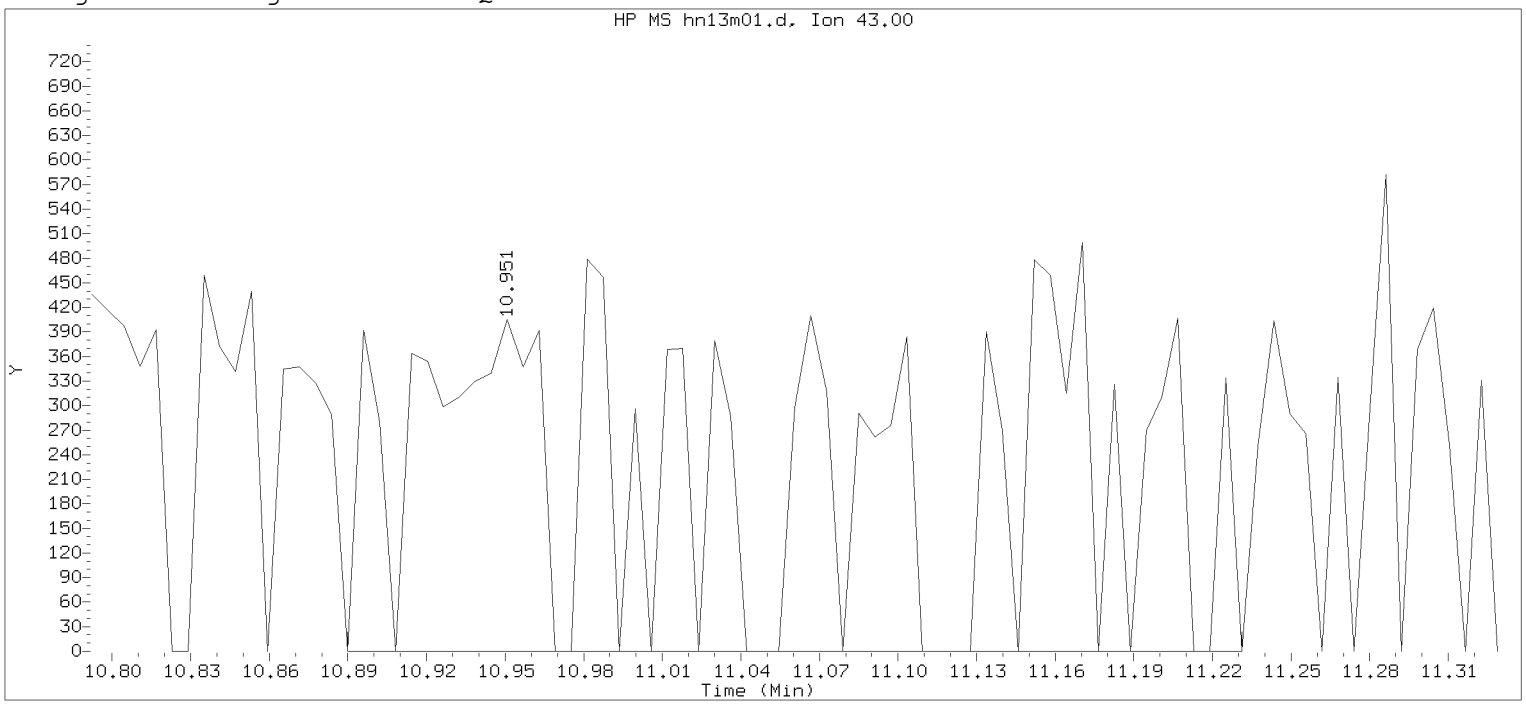
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

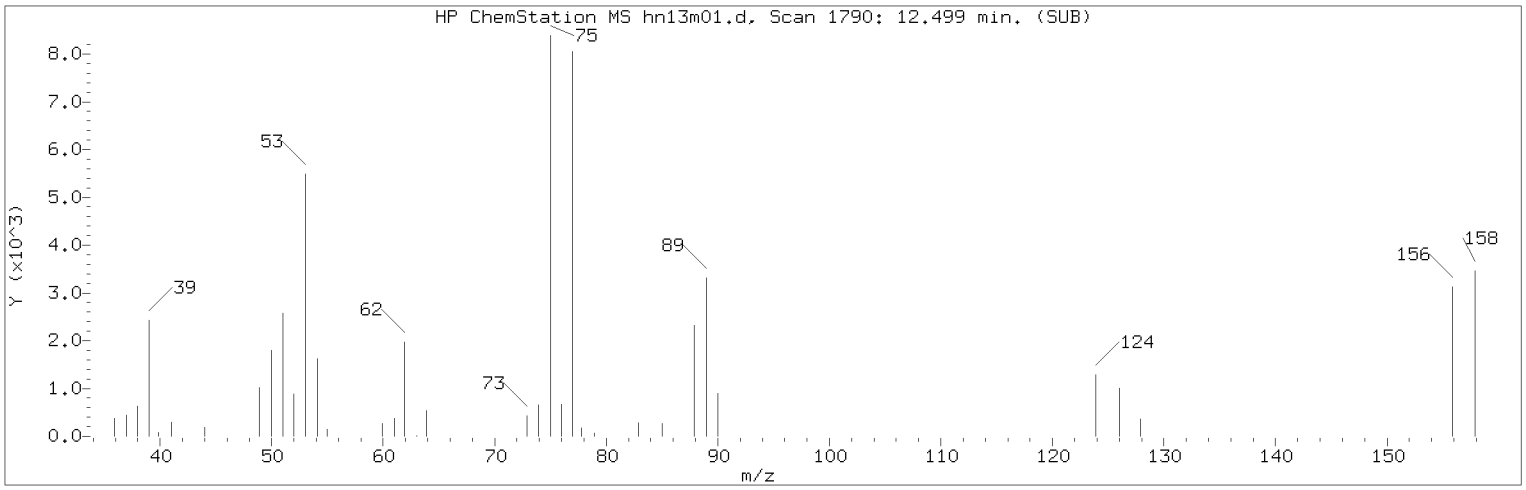
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

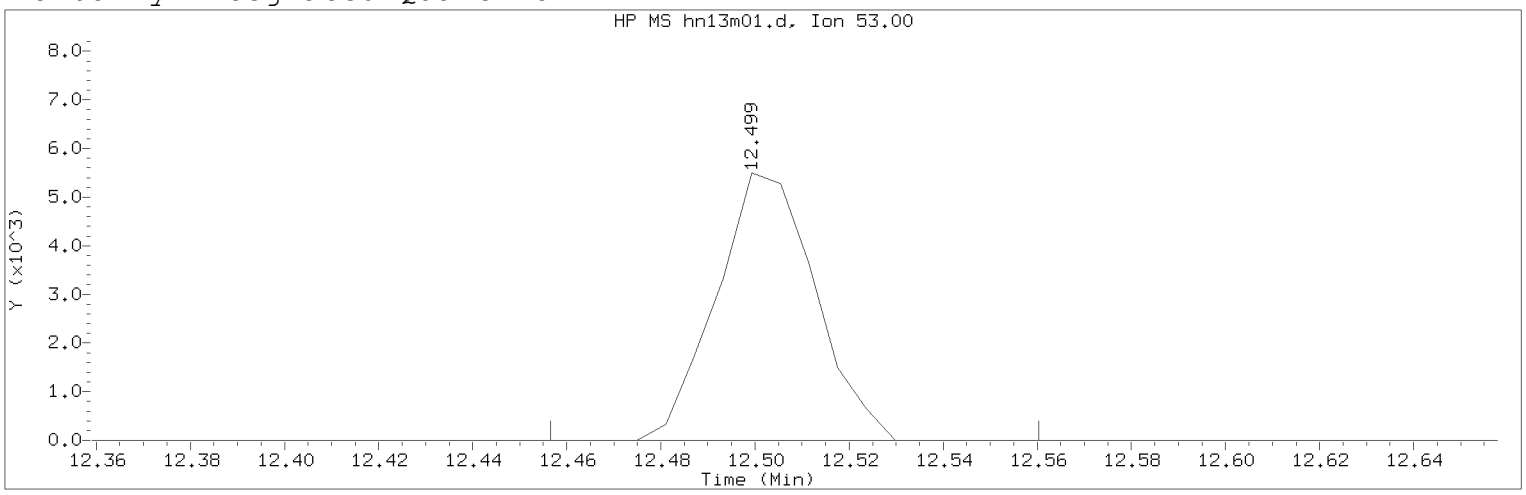
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1536
Retention Time (minutes): 10.951
Quant Ion : 43.00
Area : 4661
On-column Amount (ng) : 0.2708
Integration start scan : 1525 Integration stop scan: 1581
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

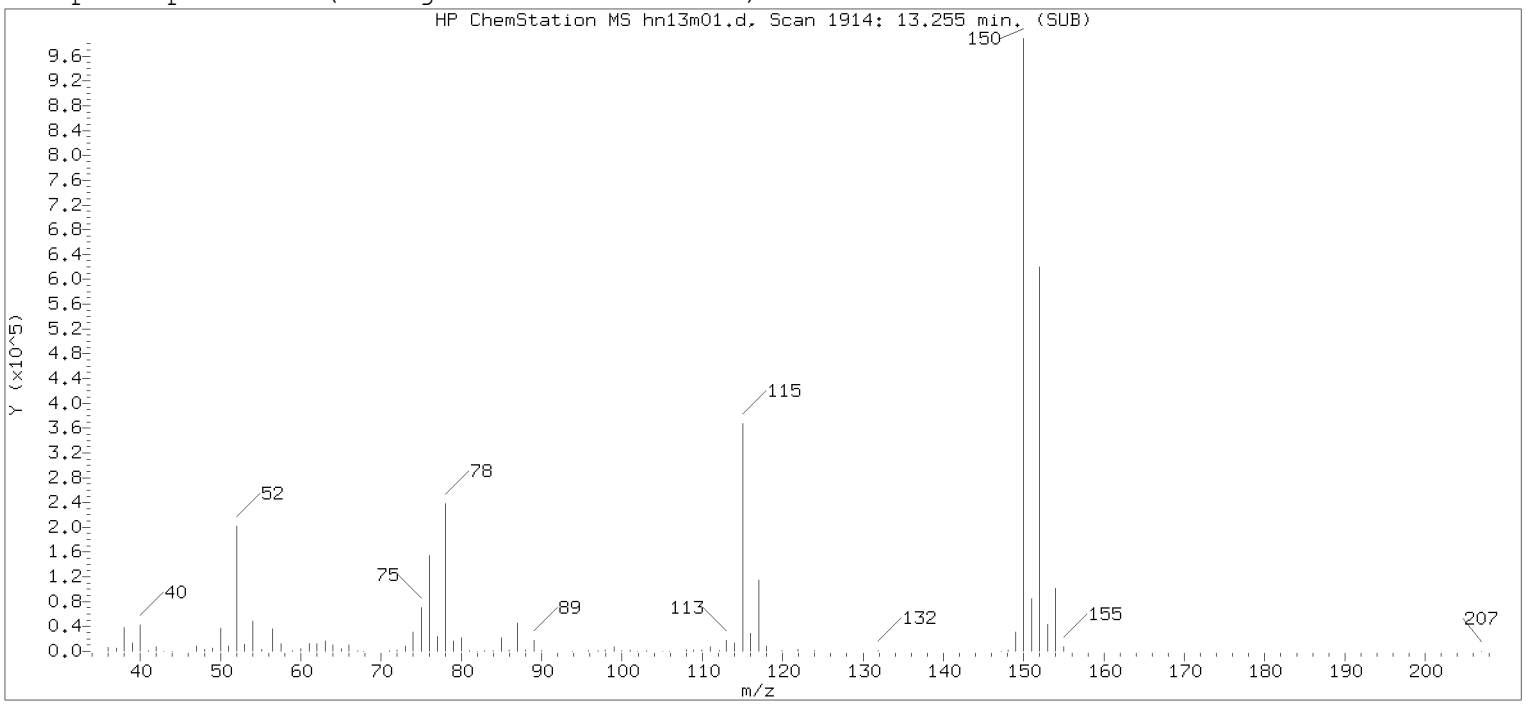
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1790
Retention Time (minutes): 12.499
Quant Ion : 53.00
Area (flag) : 8012M
On-Column Amount (ng) : 0.9385
Integration start scan : 1782 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

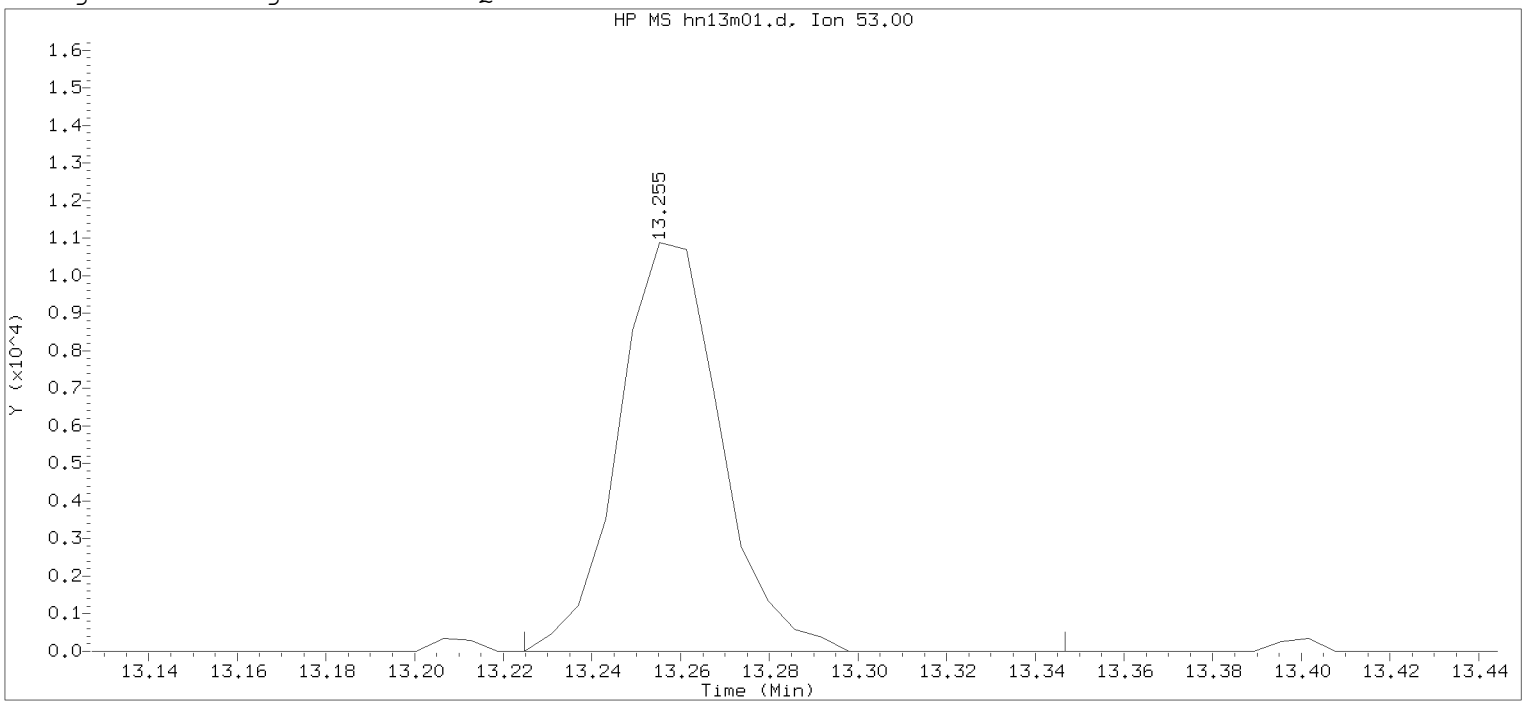
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

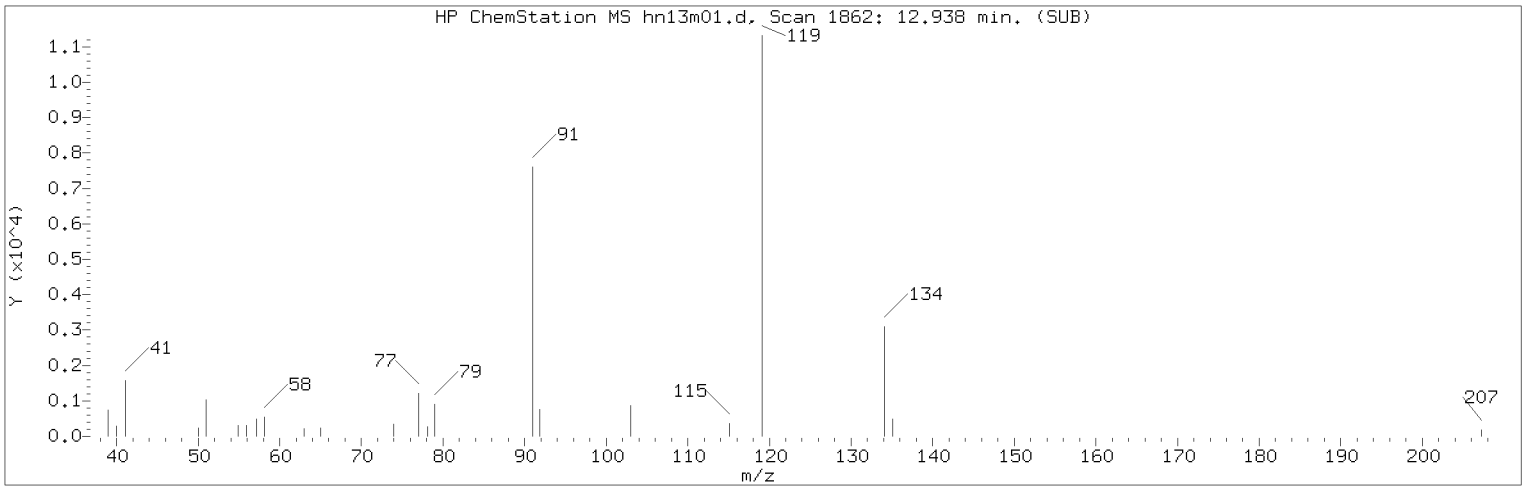
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

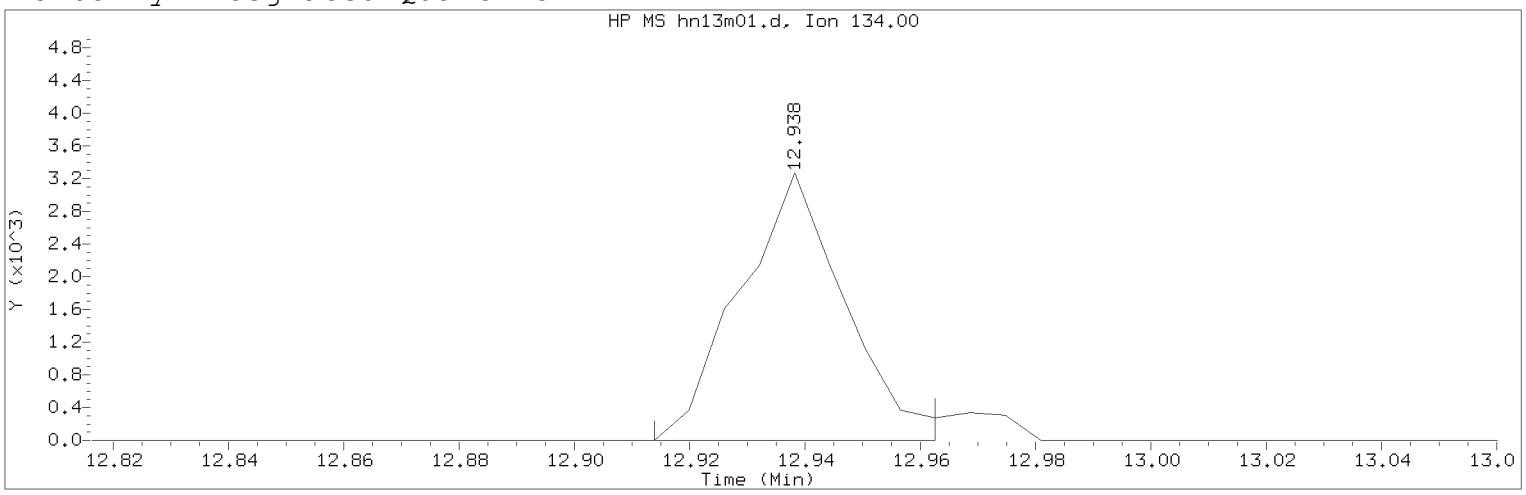
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1914
Retention Time (minutes): 13.255
Quant Ion : 53.00
Area : 17335
On-column Amount (ng) : 2.0306
Integration start scan : 1908 Integration stop scan: 1928
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

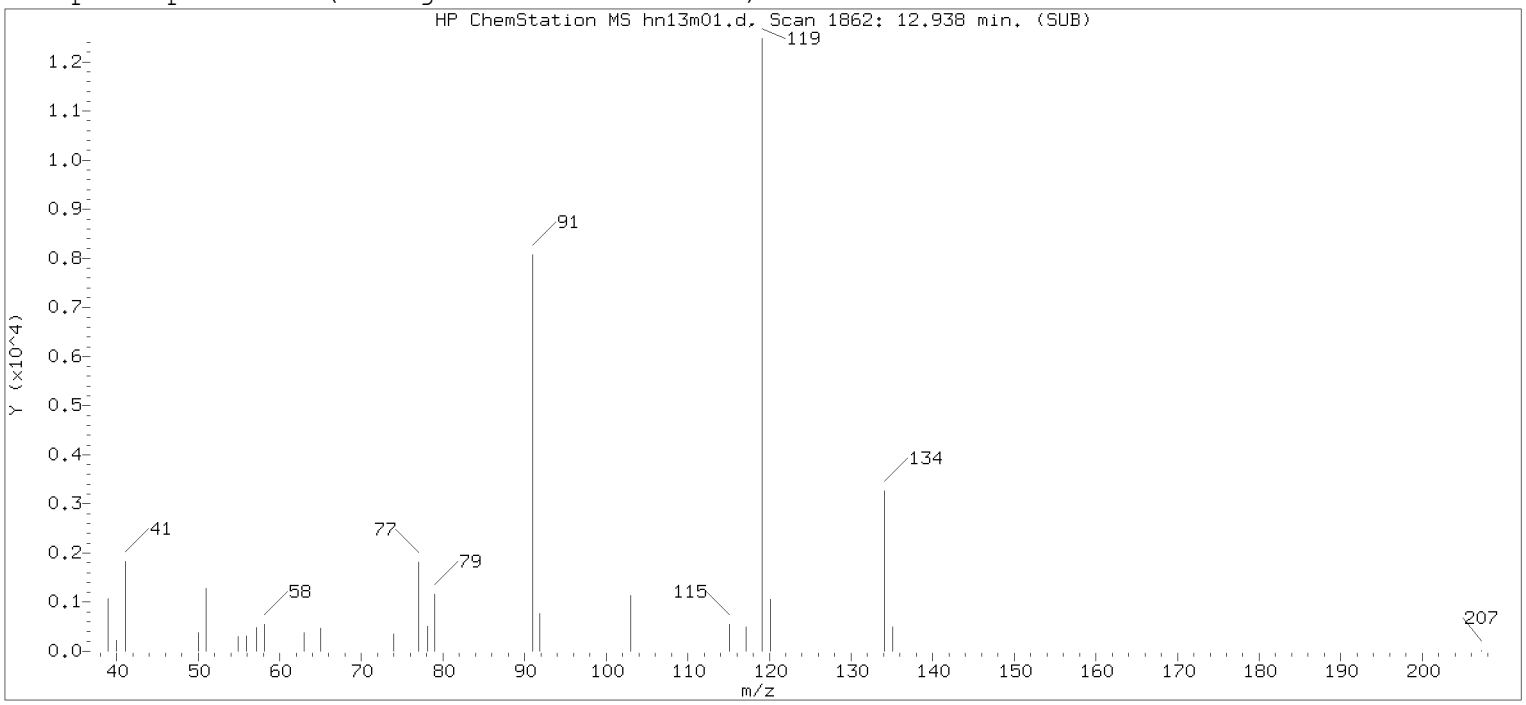
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 4127M
On-Column Amount (ng) : 0.0943
Integration start scan : 1857 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

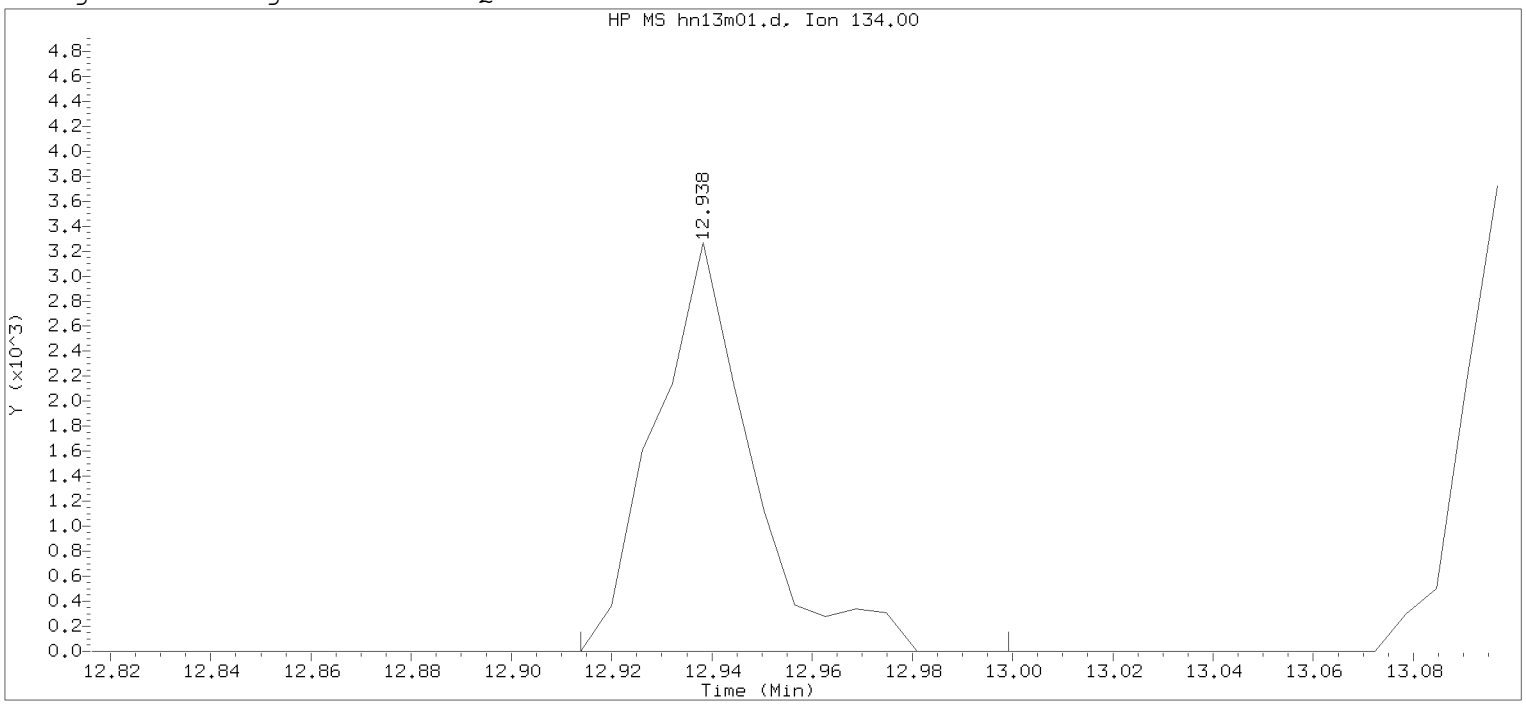
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

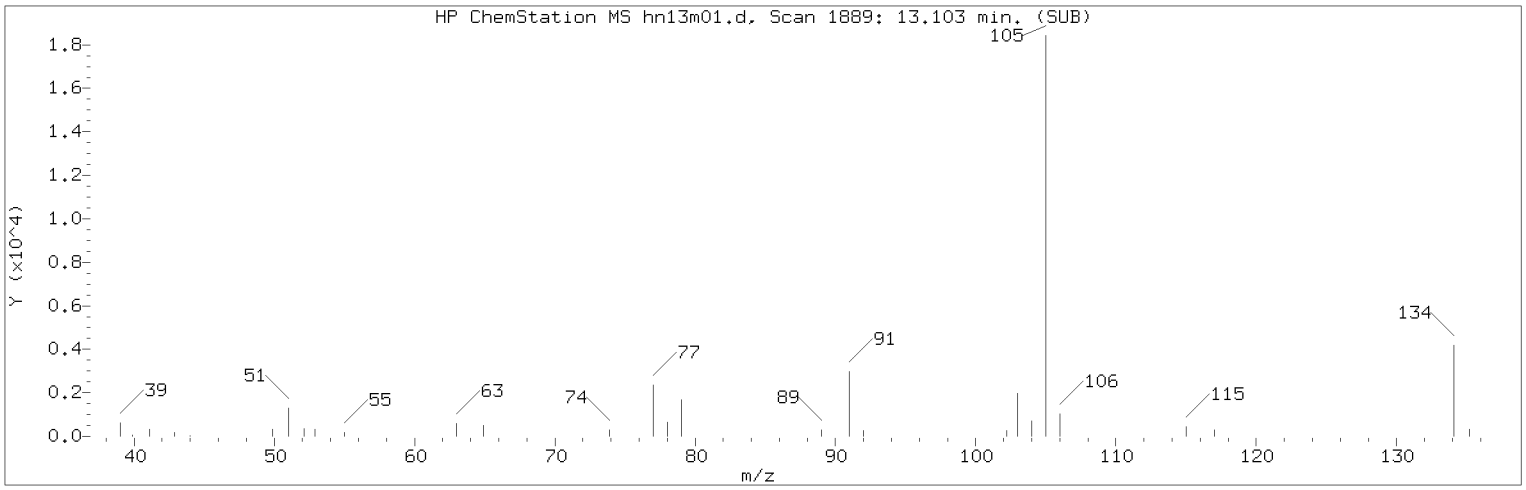
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

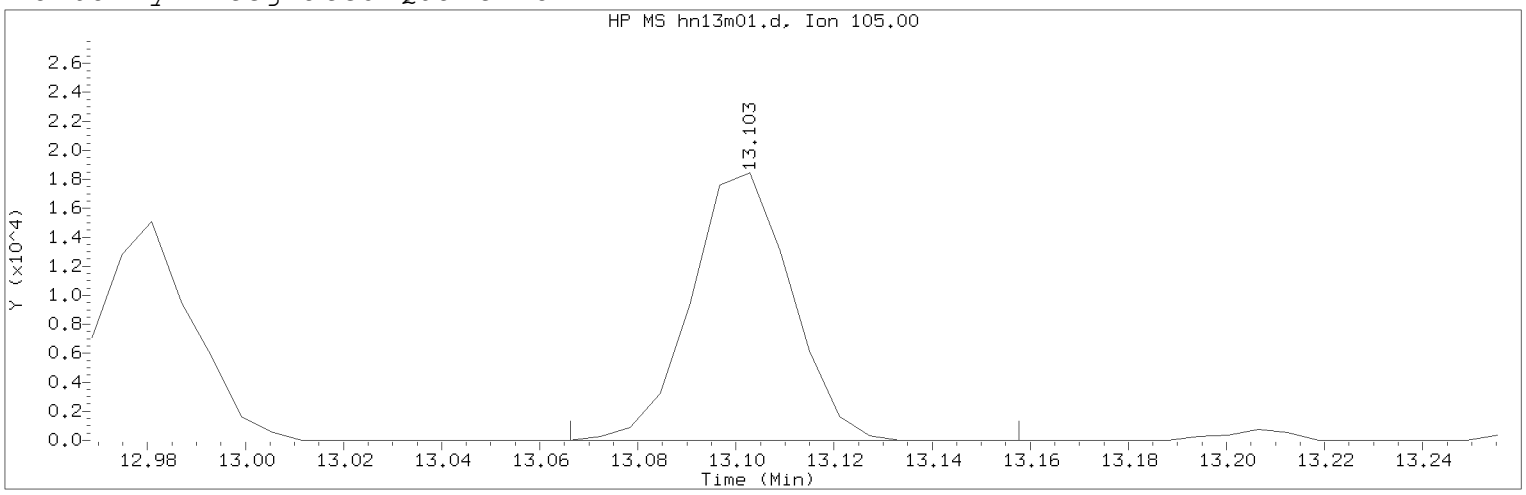
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 4364
On-column Amount (ng) : 0.0997
Integration start scan : 1857 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

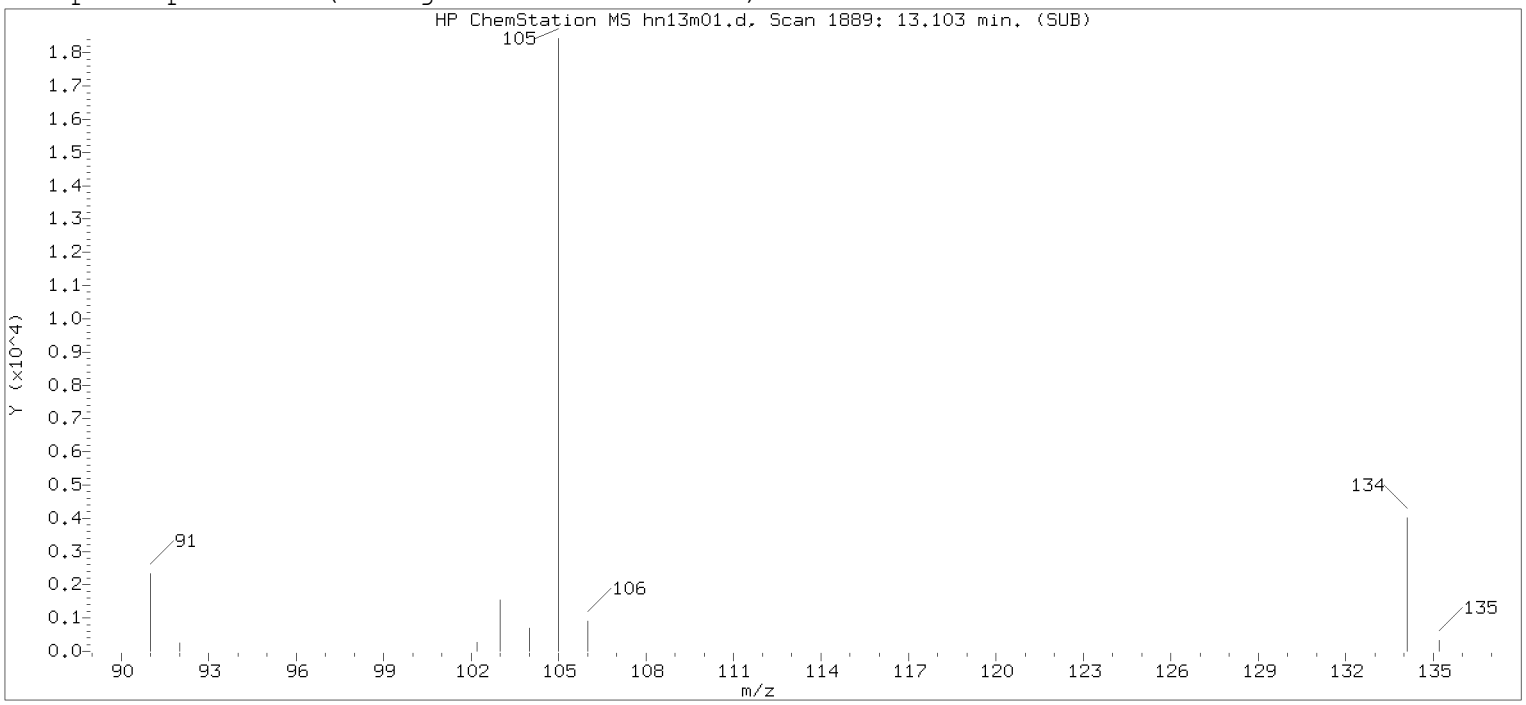
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1889
Retention Time (minutes): 13.103
Quant Ion : 105.00
Area (flag) : 26001M
On-Column Amount (ng) : 0.1000
Integration start scan : 1882 Integration stop scan: 1897
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

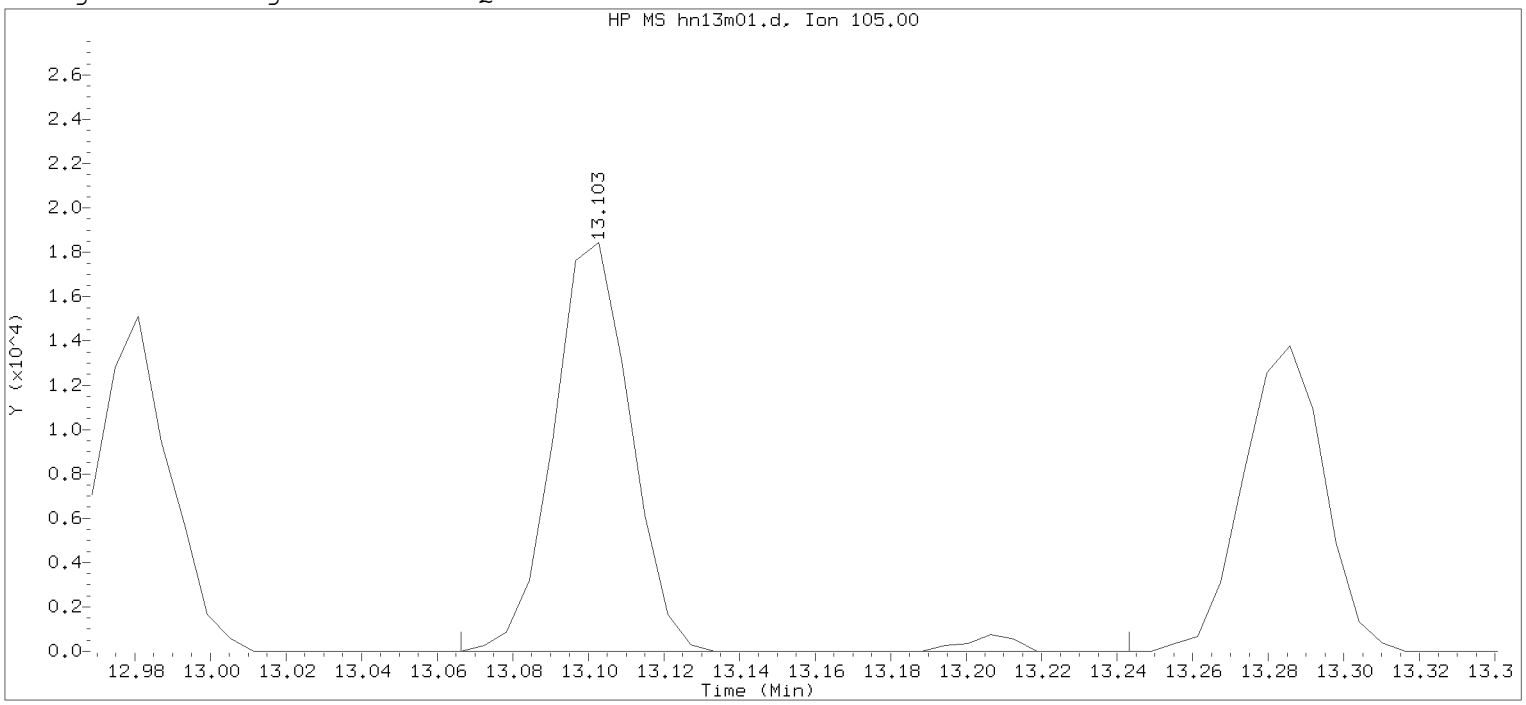
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

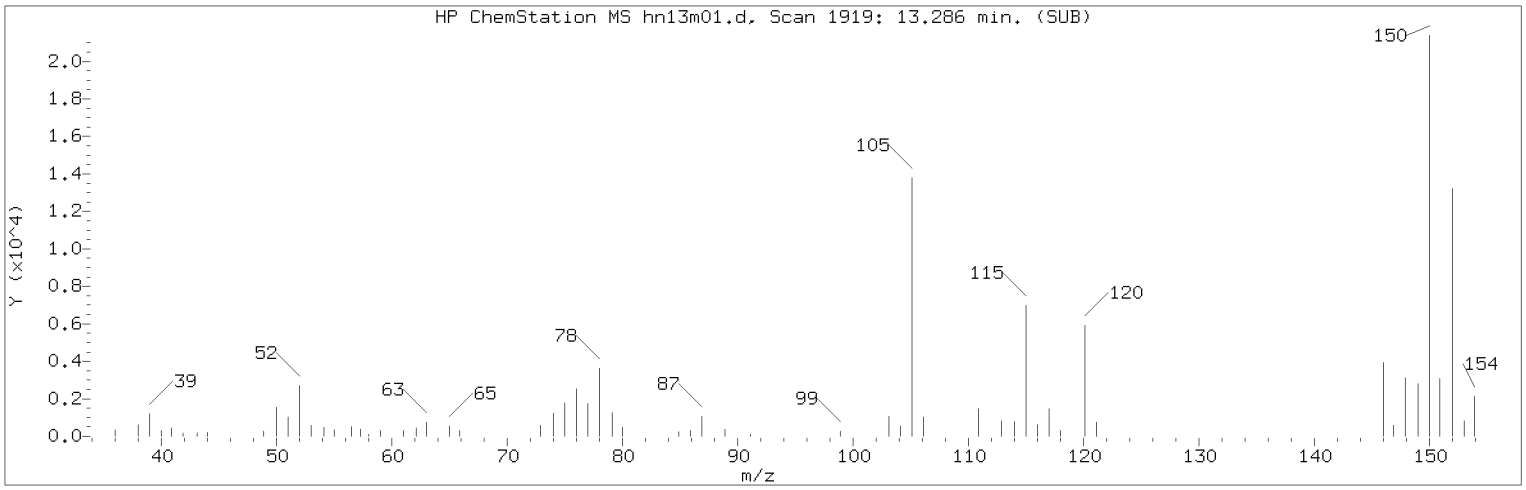
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

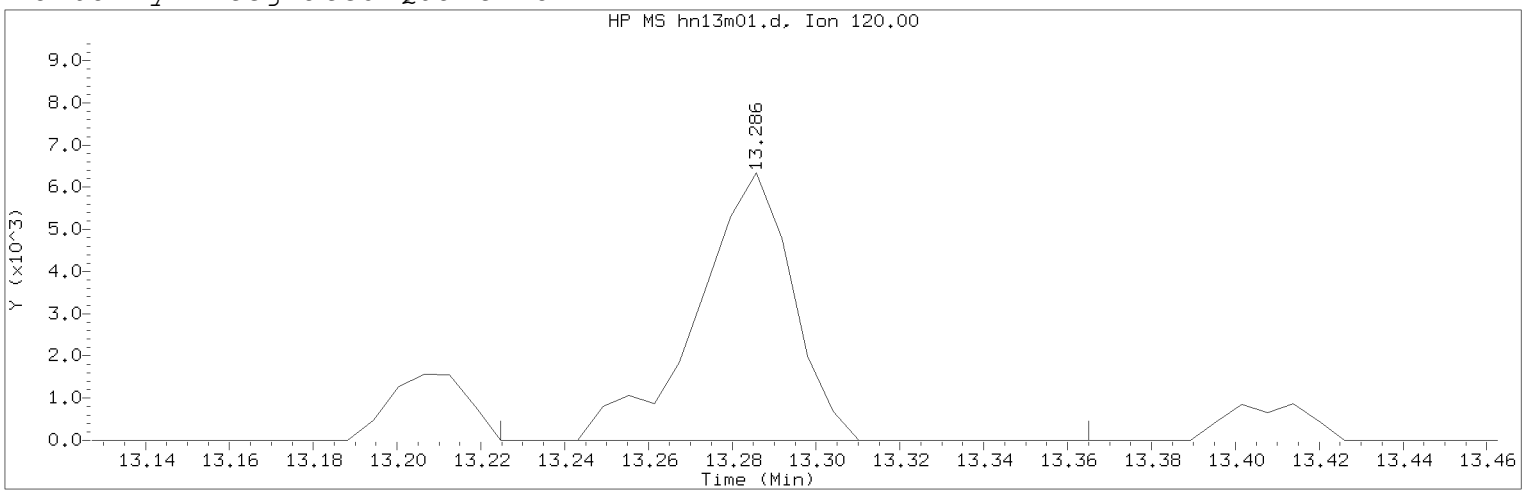
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1889
Retention Time (minutes): 13.103
Quant Ion : 105.00
Area : 26692
On-column Amount (ng) : 0.1027
Integration start scan : 1882 Integration stop scan: 1911
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

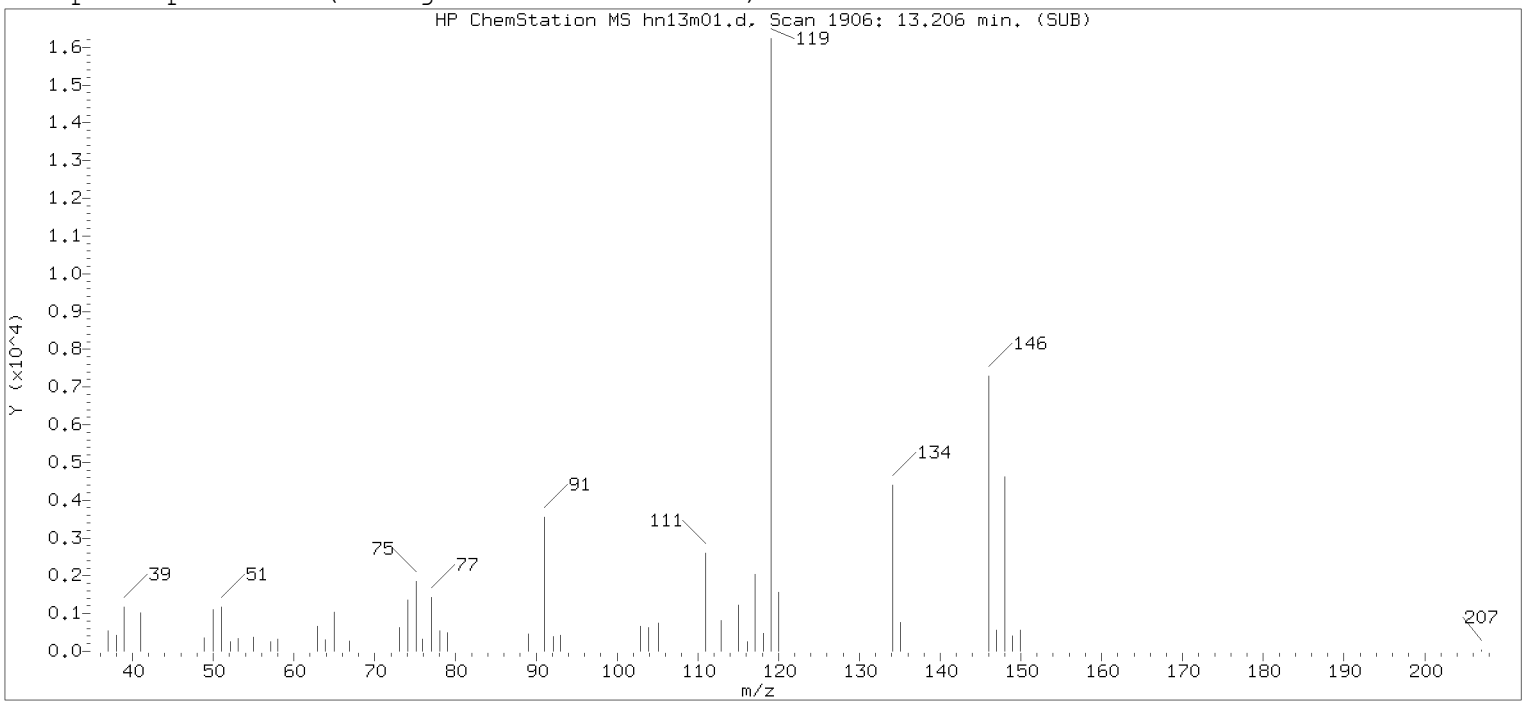
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1919
Retention Time (minutes): 13.286
Quant Ion : 120.00
Area (flag) : 9968M
On-Column Amount (ng) : 0.1147
Integration start scan : 1908 Integration stop scan: 1931
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

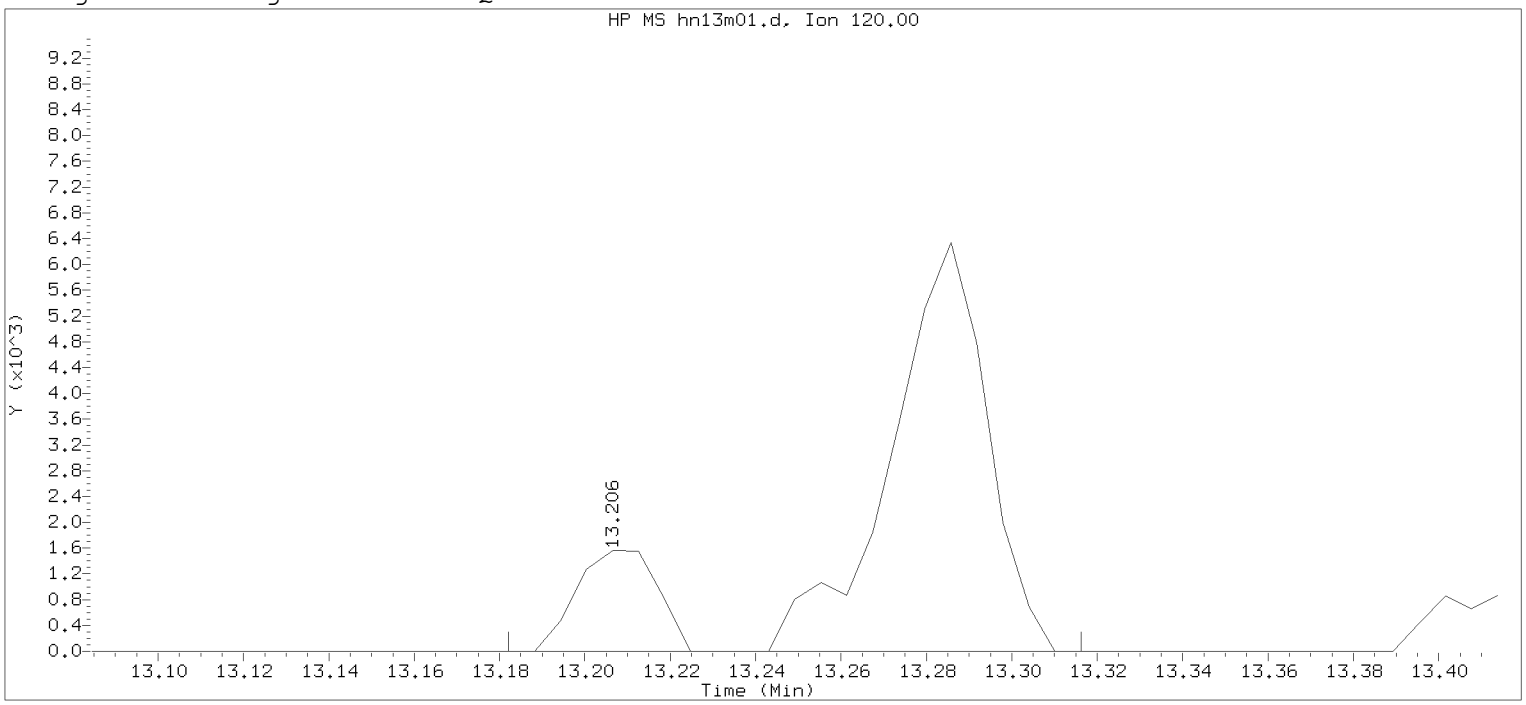
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

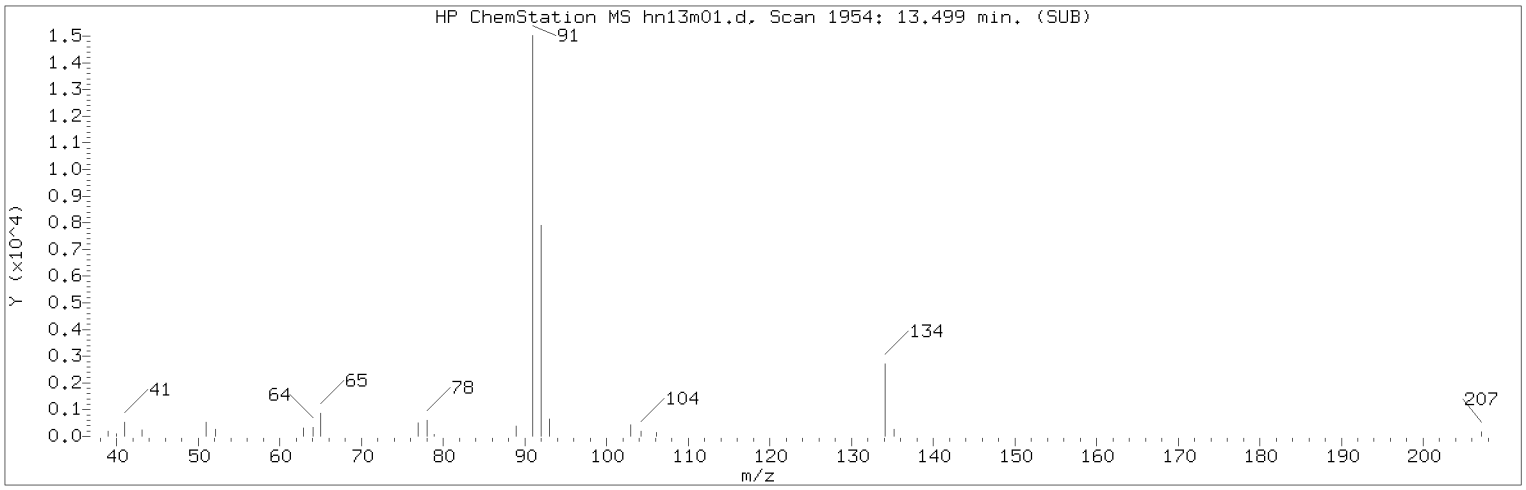
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

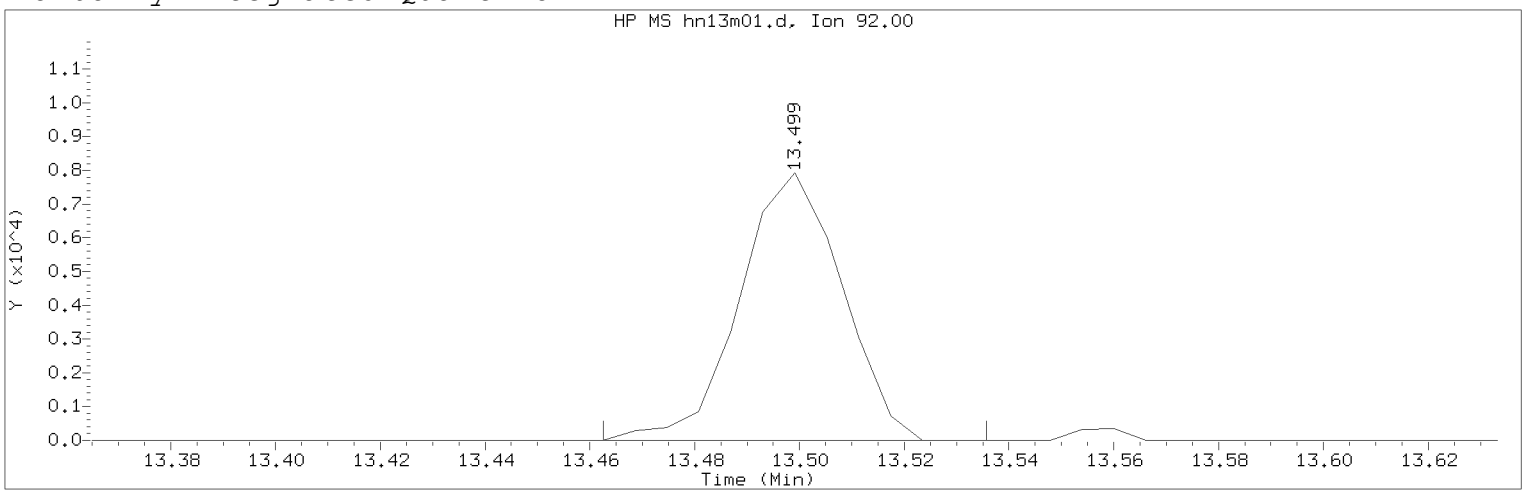
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1906
Retention Time (minutes): 13.206
Quant Ion : 120.00
Area : 12039
On-column Amount (ng) : 0.1385
Integration start scan : 1901 Integration stop scan: 1923
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

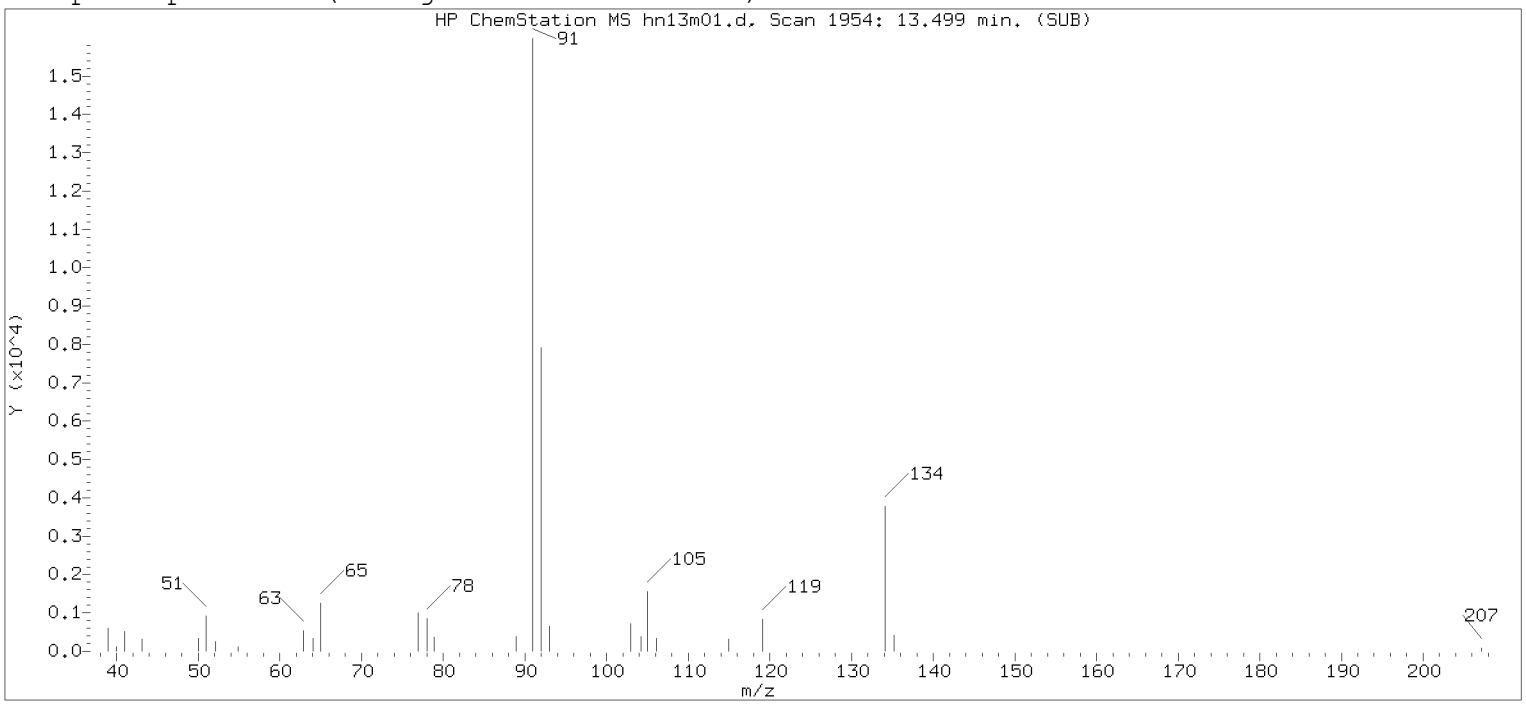
Compound Number : 138
Compound Name : n-Butylbenzene
Scan Number : 1954
Retention Time (minutes): 13.499
Quant Ion : 92.00
Area (flag) : 10687M
On-Column Amount (ng) : 0.1022
Integration start scan : 1947 Integration stop scan: 1959
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

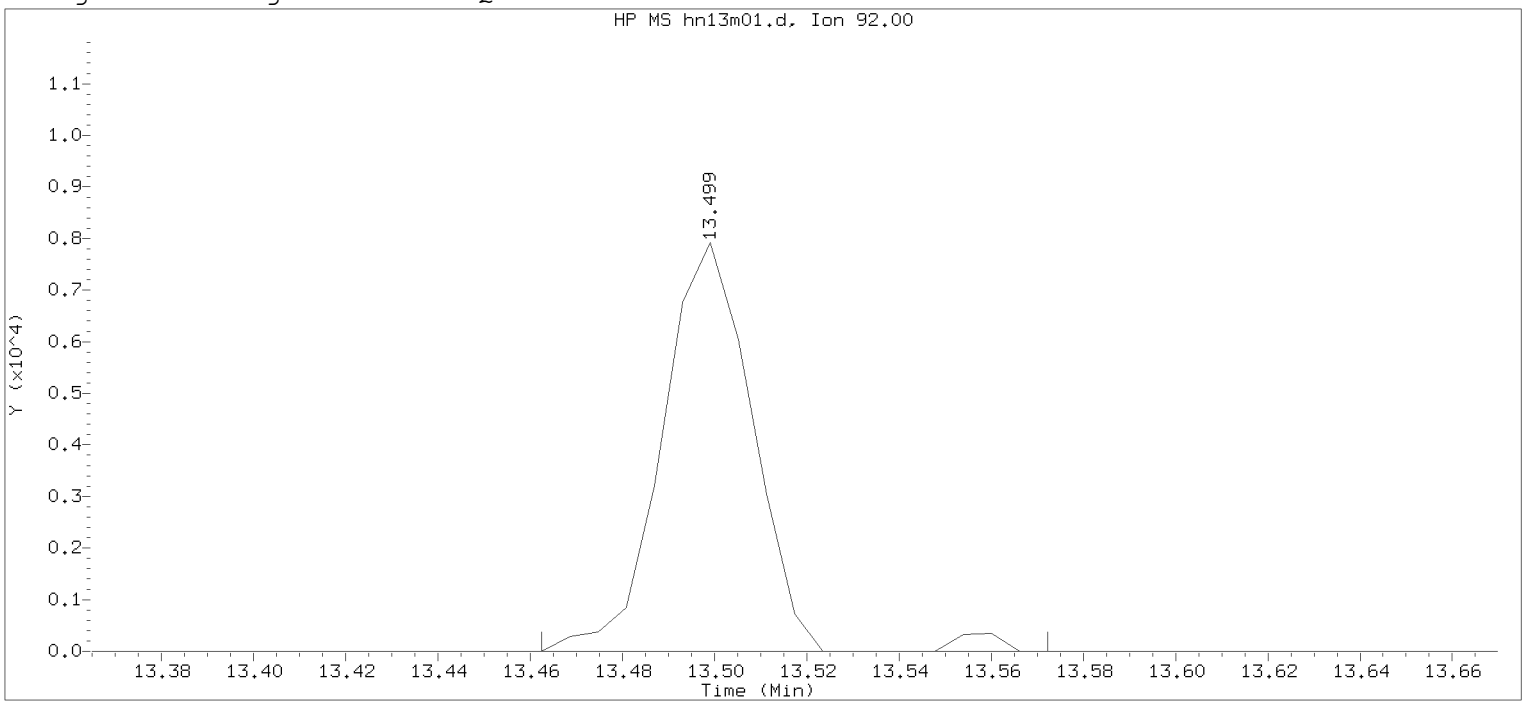
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

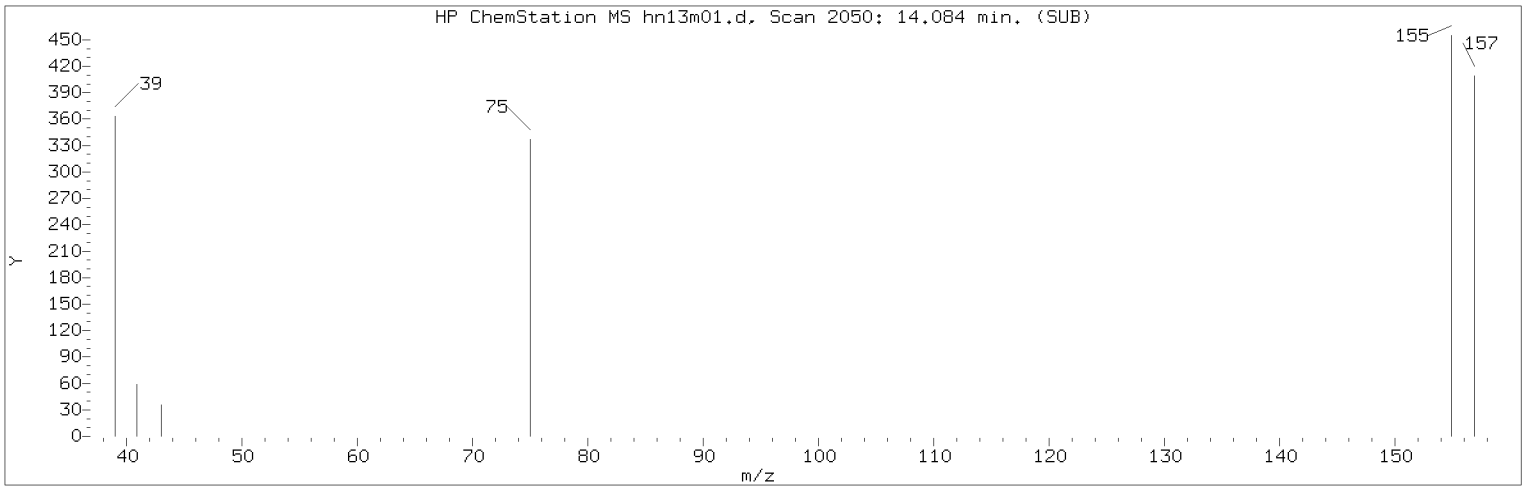
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

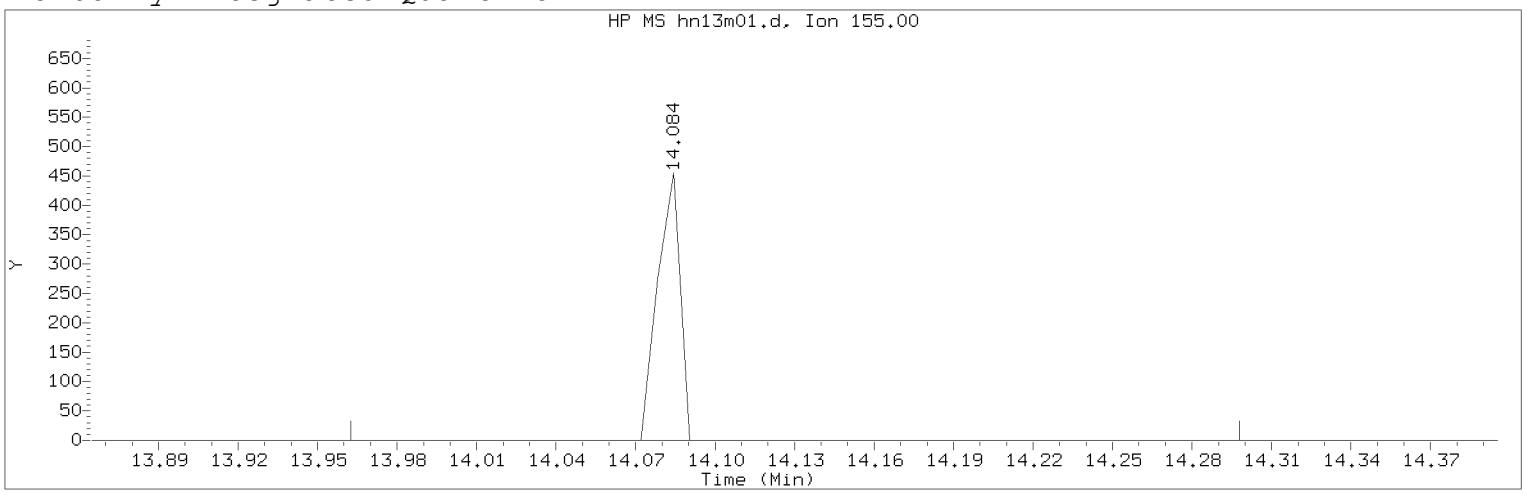
Compound Number : 138
Compound Name : n-Butylbenzene
Scan Number : 1954
Retention Time (minutes): 13.499
Quant Ion : 92.00
Area : 10935
On-column Amount (ng) : 0.1046
Integration start scan : 1947 Integration stop scan: 1965
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

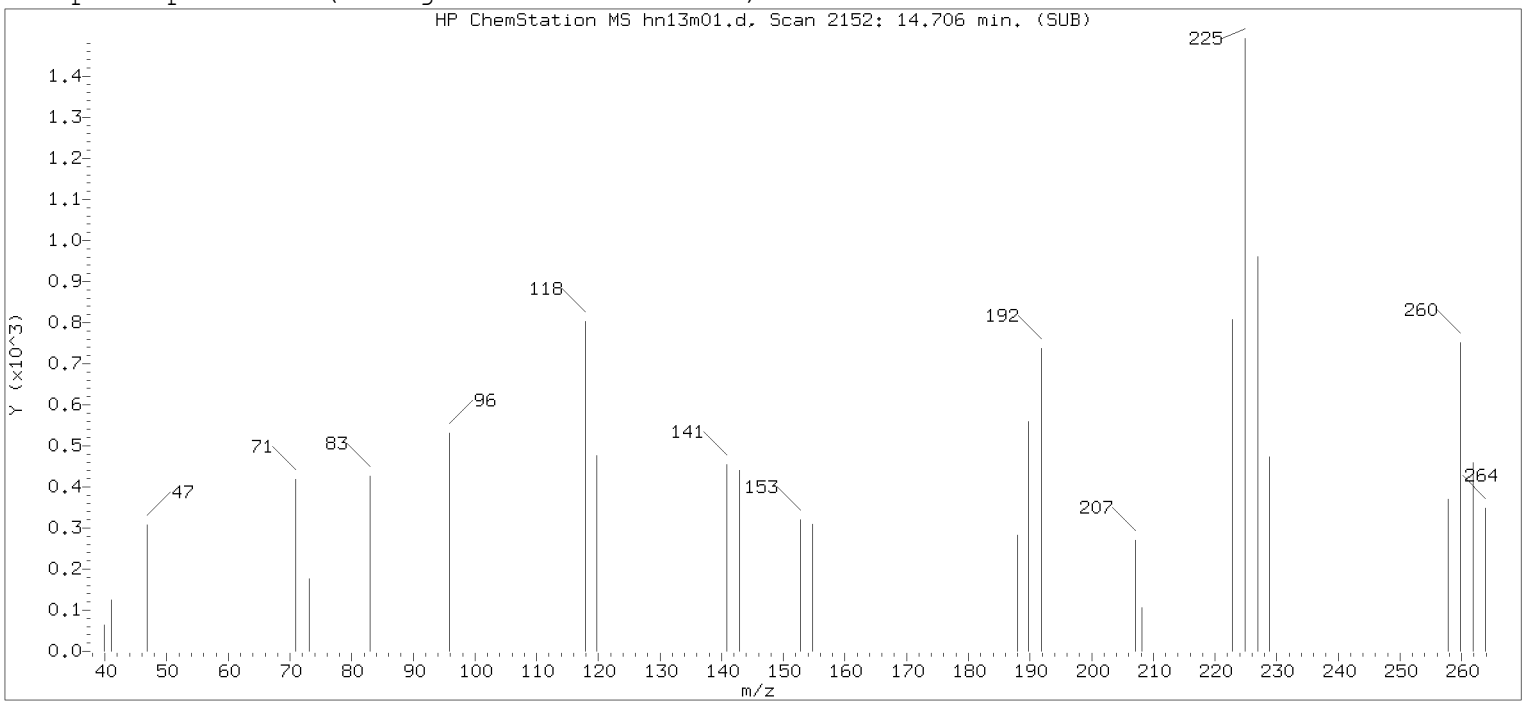
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2050
Retention Time (minutes): 14.084
Quant Ion : 155.00
Area (flag) : 267M
On-Column Amount (ng) : 0.0606
Integration start scan : 2029 Integration stop scan: 2084
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

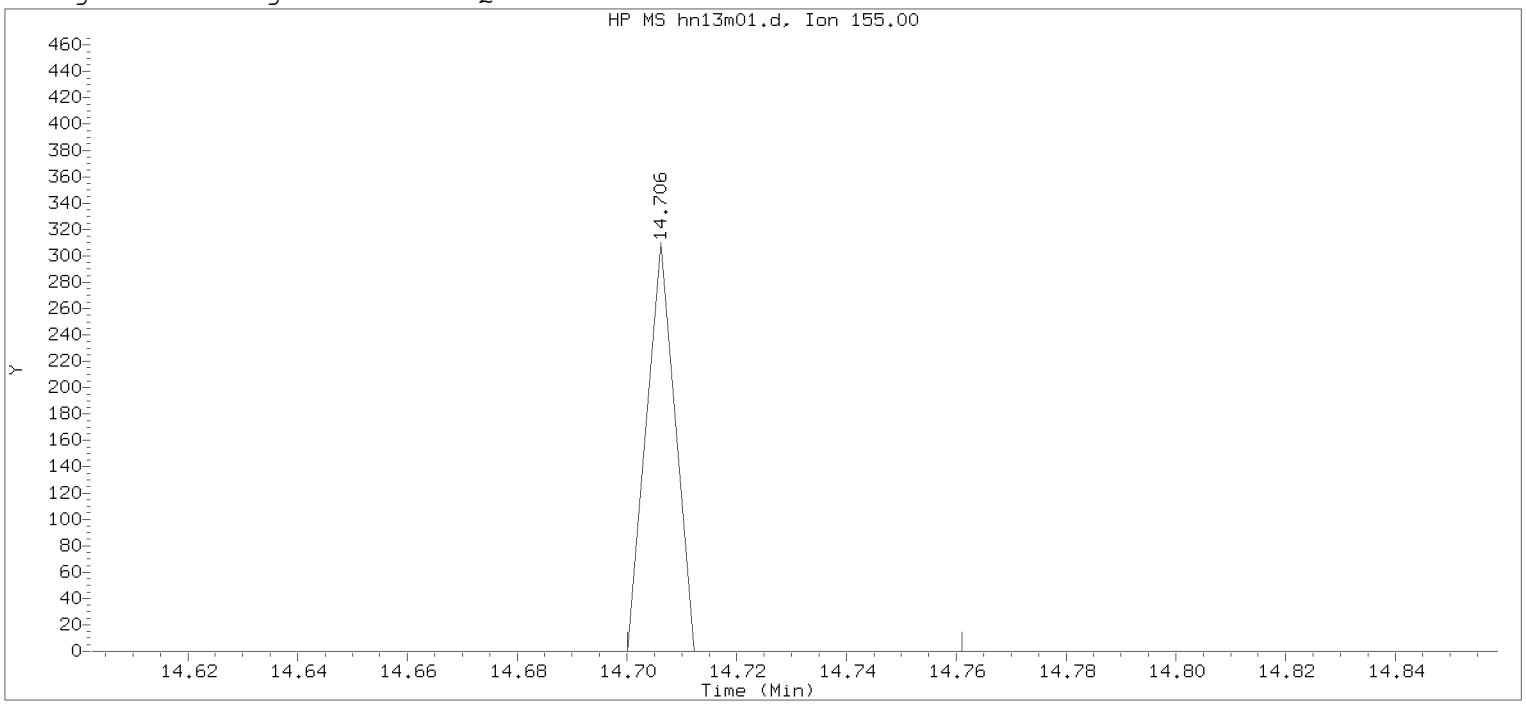
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



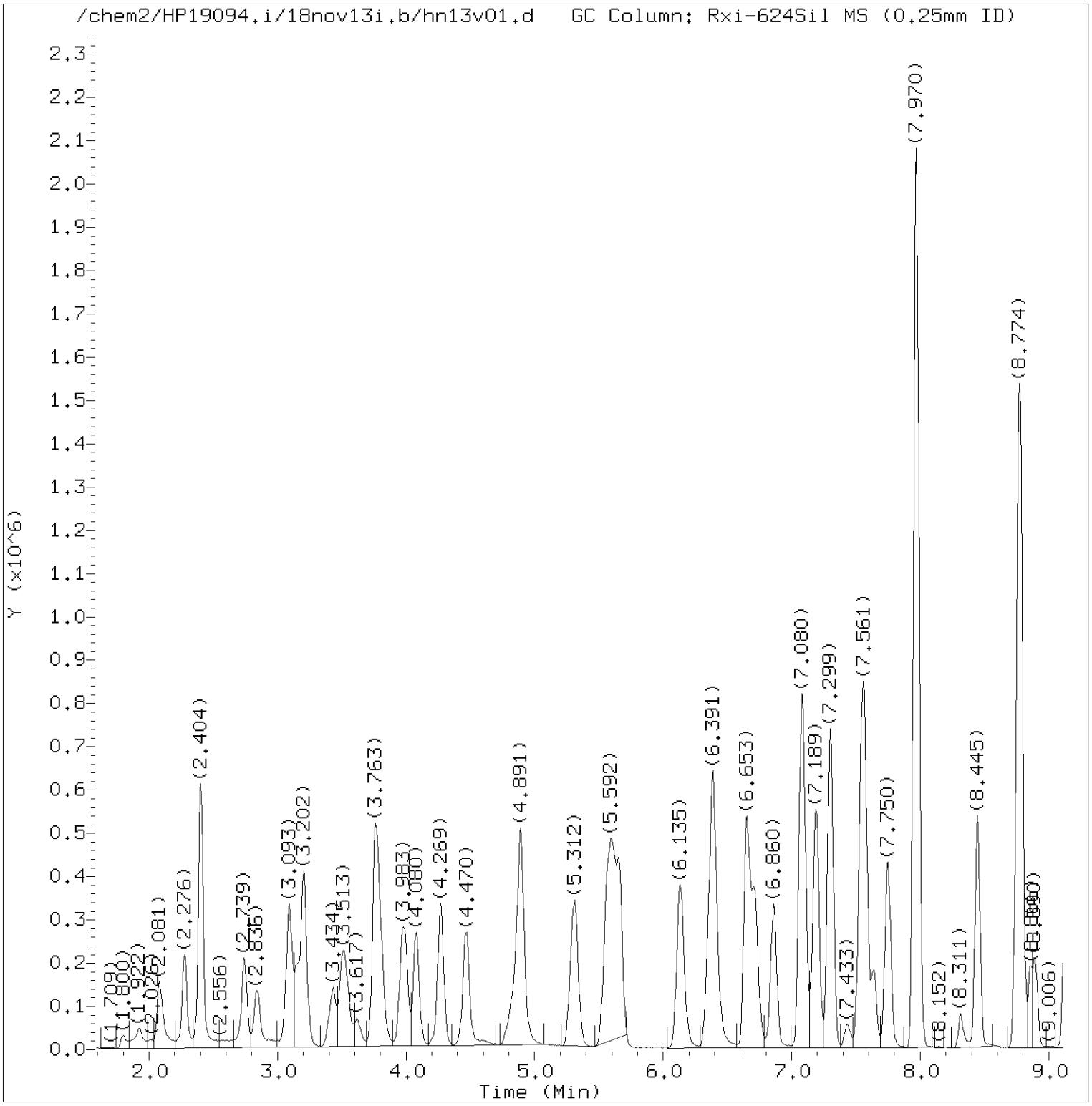
Data File: /chem2/HP19094.i/18nov13i.b/hn13m01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:15 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2152
Retention Time (minutes): 14.706
Quant Ion : 155.00
Area : 113
On-column Amount (ng) : 0.0257
Integration start scan : 2150 Integration stop scan: 2160
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

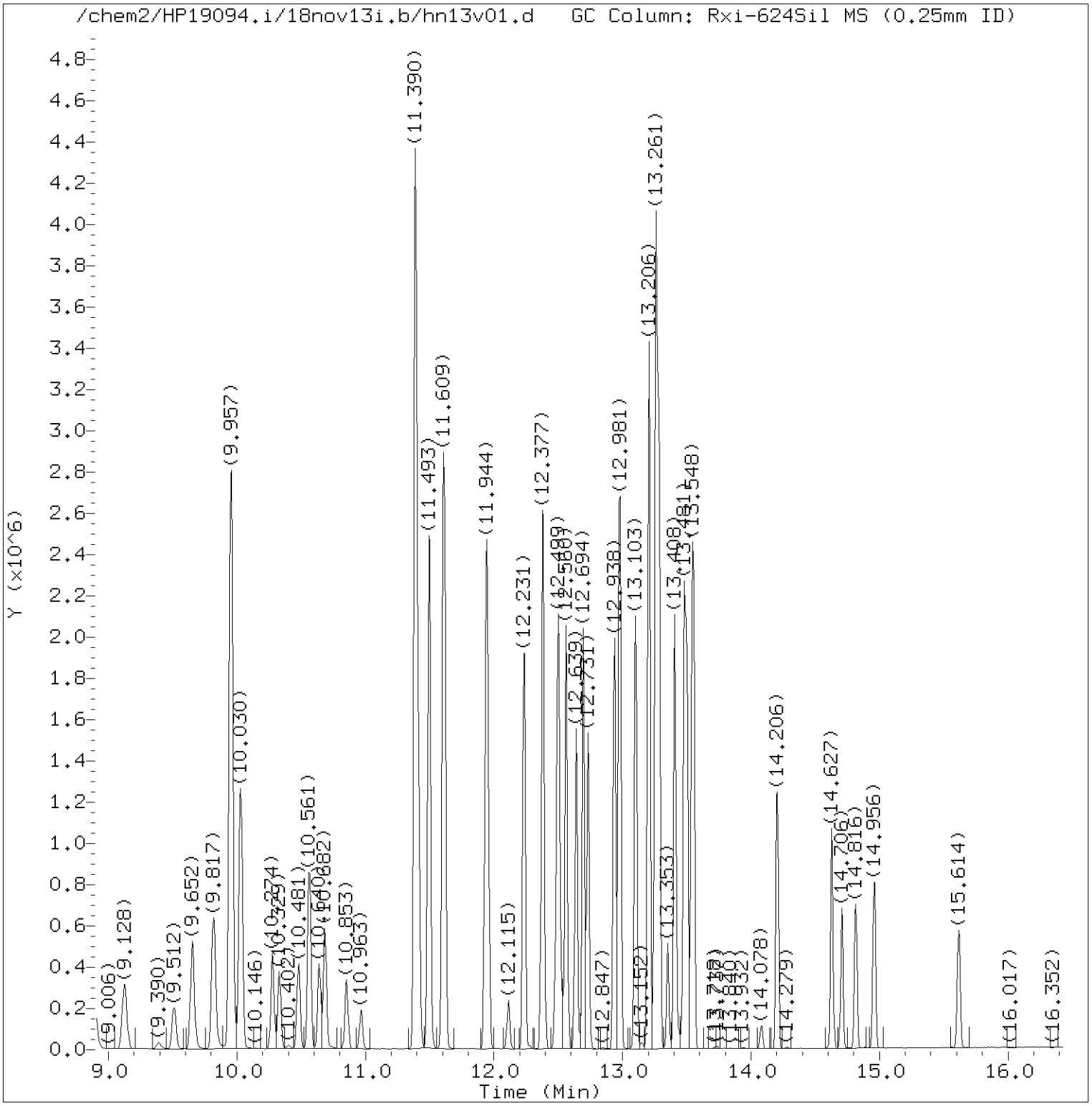
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.081	85	281147	3.781
2) Chloromethane	(2)	2.276	50	326725	4.542
6) 1,3-Butadiene	(2)	2.398	39	274272	5.113
5) Vinyl Chloride	(2)	2.404	62	314964	4.827
7) Bromomethane	(2)	2.739	94	208871	4.222
8) Chloroethane	(2)	2.843	64	183894	4.724
9) Dichlorofluoromethane	(2)	3.086	67	430333	4.234
10) Trichlorofluoromethane	(2)	3.147	101	395314	4.499
11) Ethyl ether	(2)	3.434	59	155565	5.197
12) Freon 123a	(2)	3.513	67	303643	5.000
13) Acrolein	(1)	3.617	56	142821	37.101
15) 1,1-Dichloroethene	(2)	3.763	96	223606	5.466
16) Freon 113	(2)	3.788	101	248296	5.278
14) Acetone	(1)	3.800	43	157445M	32.859
17) Methyl Iodide	(2)	3.970	142	427717	5.149
18) Carbon Disulfide	(2)	4.080	76	640191	5.084
21) Methyl Acetate	(1)	4.233	43	80232	4.827
22) Allyl Chloride	(2)	4.269	41	400123	4.580
23) Methylene Chloride	(2)	4.464	84	227090	5.171
26)*t-Butyl Alcohol-d10	(1)	4.489	65	96654	50.000
28) t-Butyl Alcohol	(1)	4.586	59	55269	43.331
29) Acrylonitrile	(1)	4.830	53	175093	25.678
30) Methyl Tertiary Butyl Ether	(2)	4.879	73	454367	4.976
31) trans-1,2-Dichloroethene	(2)	4.897	96	244238	5.325
32) n-Hexane	(2)	5.312	57	386966	4.923
33) 1,1-Dichloroethane	(2)	5.555	63	461081	5.149
34) di-Isopropyl Ether	(2)	5.604	45	844171	5.079
35) 2-Chloro-1,3-Butadiene	(2)	5.665	53	407620	4.920
40) 1,2-Dichloroethene (Total)	(2)		96	513159	10.597
37) Ethyl t-butyl ether	(2)	6.128	59	668304	4.923
38) 2-Butanone	(1)	6.342	43	346443	35.361
39) cis-1,2-Dichloroethene	(2)	6.378	96	268921	5.271
41) 2,2-Dichloropropane	(2)	6.391	77	383022	5.249
42) Propionitrile	(1)	6.439	54	89073	35.577
45) Methacrylonitrile	(1)	6.653	67	357219M	38.960
47) Bromochloromethane	(2)	6.714	128	99283	4.948
48) Tetrahydrofuran	(1)	6.714	71	60018	25.625
49) Chloroform	(2)	6.860	83	429262	5.241

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	554585	9.998
51) 1,1,1-Trichloroethane	(2)	7.092	97	381573M	5.145
52) Cyclohexane	(2)	7.189	56	468560	4.797
54) Carbon Tetrachloride	(2)	7.305	117	350374	5.252
55) 1,1-Dichloropropene	(2)	7.305	75	348453	5.201
56) Isobutyl Alcohol	(1)	7.433	41	62300M	108.229
57)$1,2-Dichloroethane-d4	(2)	7.531	102	98365M	10.117
58) Benzene	(2)	7.567	78	1000730	5.149
59) 1,2-Dichloroethane	(2)	7.640	62	223062	5.172
60) t-Amyl methyl ether	(2)	7.750	73	557562	4.985
62) n-Heptane	(2)	7.970	43	411267	4.819
63)*Fluorobenzene	(2)	7.970	96	2218779	10.000
65) n-Butanol	(1)	8.311	56	100804M	205.646
67) Trichloroethene	(2)	8.445	95	263021	5.245
69) Methylcyclohexane	(2)	8.756	83	446054	4.615
70) 1,2-Dichloropropane	(2)	8.787	63	253963	5.172
71) Methyl Methacrylate	(1)	8.854	69	95312M	4.958
72) 1,4-Dioxane	(1)	8.878	88	9324	83.075
73) Dibromomethane	(2)	8.896	93	98203	5.264
74) Bromodichloromethane	(2)	9.122	83	292839	5.262
76) 2-Nitropropane	(1)	9.390	41	29943M	5.328
80) cis-1,3-Dichloropropene	(2)	9.652	75	355637	5.171
81) 4-Methyl-2-Pentanone	(1)	9.817	43	604906M	24.940
82)$Toluene-d8	(3)	9.957	98	2300978	10.042
83) Toluene	(3)	10.030	92	625261	5.140
85) 1,3-Dichloropropene (total)	(3)		75	627227	10.259
84) trans-1,3-Dichloropropene	(3)	10.274	75	271590	5.088
86) Ethyl Methacrylate	(3)	10.329	69	209675	4.768
88) 1,1,2-Trichloroethane	(3)	10.481	97	144692	5.350
89) Tetrachloroethene	(3)	10.567	166	293748	5.186
90) 1,3-Dichloropropane	(3)	10.640	76	250331	5.097
91) 2-Hexanone	(1)	10.682	43	418897M	24.851
93) Dibromochloromethane	(3)	10.853	129	190591	5.164
95) 1,2-Dibromoethane	(3)	10.969	107	134407	5.180
96) 1-Chlorohexane	(3)	11.390	91	371062	4.841
97)*Chlorobenzene-d5	(3)	11.390	117	1774220	10.000
98) Chlorobenzene	(3)	11.414	112	669265	5.145
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	235944	5.132

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
100) Ethylbenzene	(3)	11.499	91	1228455	5.085
101) m+p-Xylene	(3)	11.609	106	946792	10.390
105) Xylene (Total)	(3)		106	1400323	15.498
104) o-Xylene	(3)	11.938	106	453531	5.108
106) Styrene	(3)	11.951	104	738595	5.197
107) Bromoform	(3)	12.115	173	107946	5.153
108) Isopropylbenzene	(3)	12.237	105	1242003	5.097
111)$4-Bromofluorobenzene	(3)	12.377	95	851364	9.926
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	164648	5.095
114) Bromobenzene	(4)	12.499	156	265630	5.145
115) trans-1,4-Dichloro-2-butene	(1)	12.505	53	217829M	26.059
116) 1,2,3-Trichloropropane	(4)	12.530	110	42803M	5.101
117) n-Propylbenzene	(4)	12.560	91	1458265	5.170
119) 2-Chlorotoluene	(4)	12.639	126	283749	5.122
121) 1,3,5-Trimethylbenzene	(4)	12.694	105	1008514	5.082
122) 4-Chlorotoluene	(4)	12.731	126	284143	5.154
125) tert-Butylbenzene	(4)	12.938	134	224058M	5.217
126) Pentachloroethane	(4)	12.975	167	173934	5.108
127) 1,2,4-Trimethylbenzene	(4)	12.981	105	1019400	5.092
128) sec-Butylbenzene	(4)	13.103	105	1313471	5.147
131) 1,3-Dichlorobenzene	(4)	13.206	146	521677	5.039
132) p-Isopropyltoluene	(4)	13.206	119	1109754	5.092
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	934963	10.000
134) 1,4-Dichlorobenzene	(4)	13.280	146	510626	5.042
135) 1,2,3-Trimethylbenzene	(4)	13.286	120	429996	5.039
136) Benzyl Chloride	(4)	13.353	126	72273	4.923
138) n-Butylbenzene	(4)	13.499	92	516993	5.039
139) 1,2-Dichlorobenzene	(4)	13.536	146	454643	5.104
143) 1,2-Dibromo-3-chloropropane	(1)	14.084	155	23965M	5.553
144) 1,3,5-Trichlorobenzene	(4)	14.206	180	383037	5.025
145) 1,2,4-Trichlorobenzene	(4)	14.627	180	312369	5.116
146) Hexachlorobutadiene	(4)	14.706	225	123667	5.020
147) Naphthalene	(4)	14.816	128	507957	4.968
148) 1,2,3-Trichlorobenzene	(4)	14.962	180	255335	5.020

M = Compound was manually integrated.
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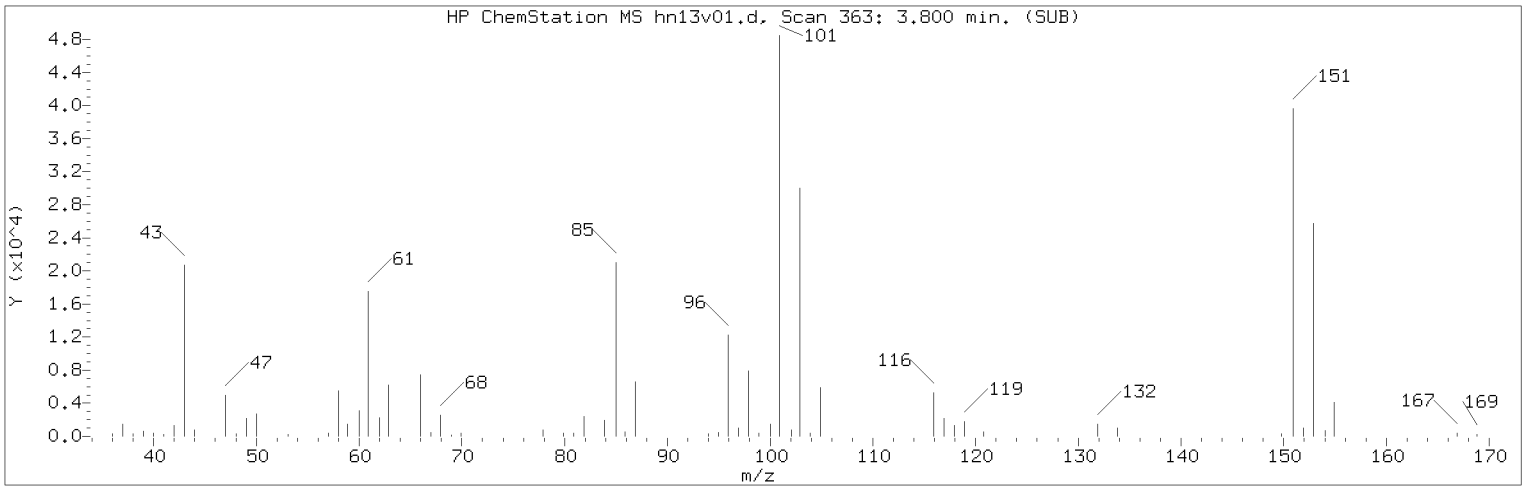
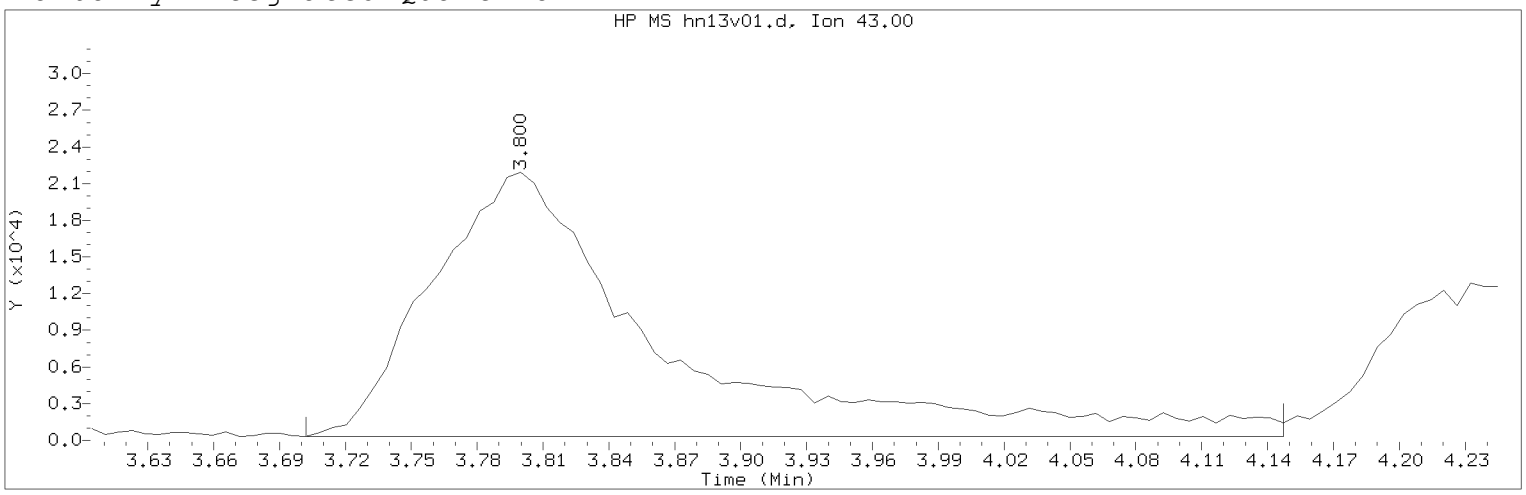
Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

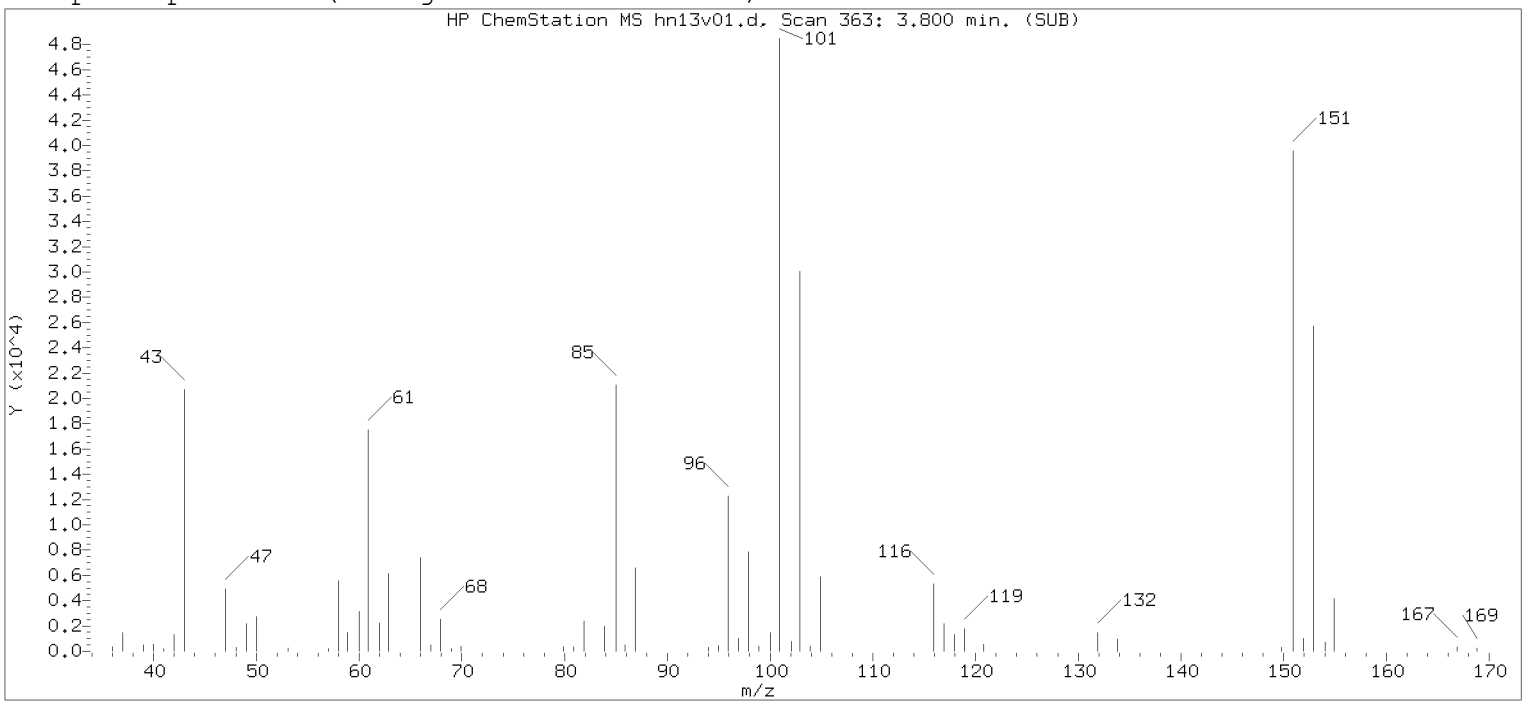
Compound Number : 14
Compound Name : Acetone
Scan Number : 363
Retention Time (minutes): 3.800
Quant Ion : 43.00
Area (flag) : 157445M
On-Column Amount (ng) : 32.8591
Integration start scan : 346 Integration stop scan: 419
Y at integration start : 329 Y at integration end: 329

Reason for manual integration: improper integration

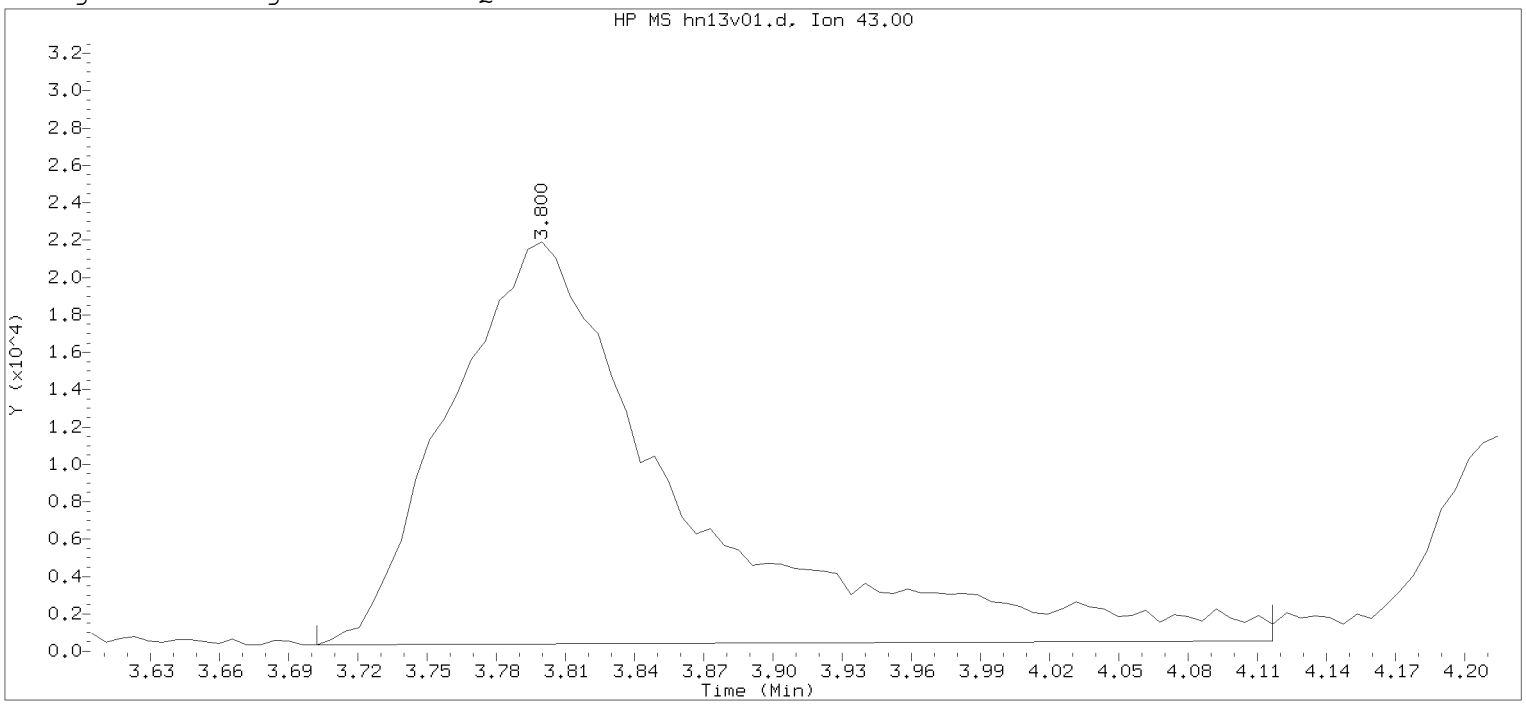
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

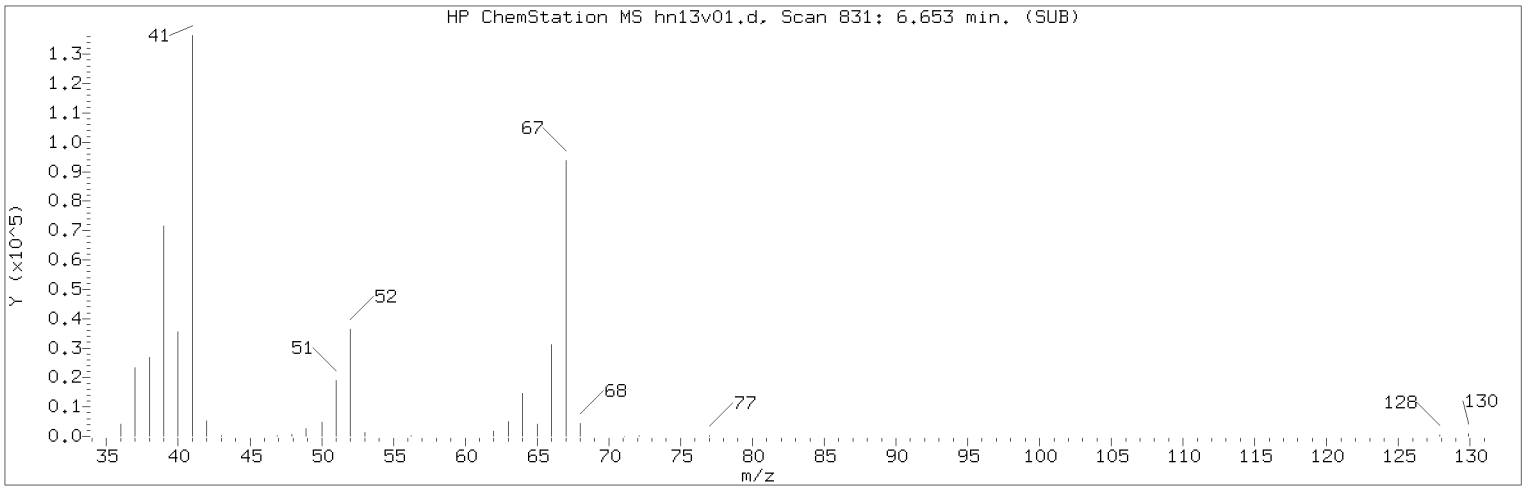
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

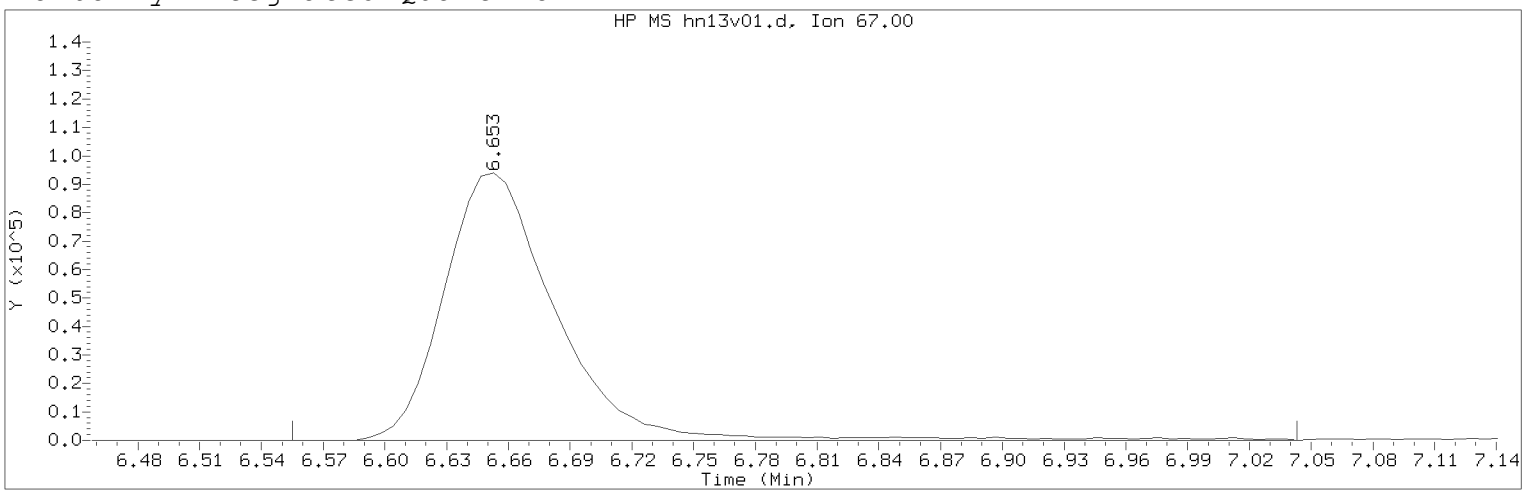
Compound Number : 14
Compound Name : Acetone
Scan Number : 363
Retention Time (minutes): 3.800
Quant Ion : 43.00
Area : 151780
On-column Amount (ng) : 31.6769
Integration start scan : 346 Integration stop scan: 414
Y at integration start : 330 Y at integration end: 551

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

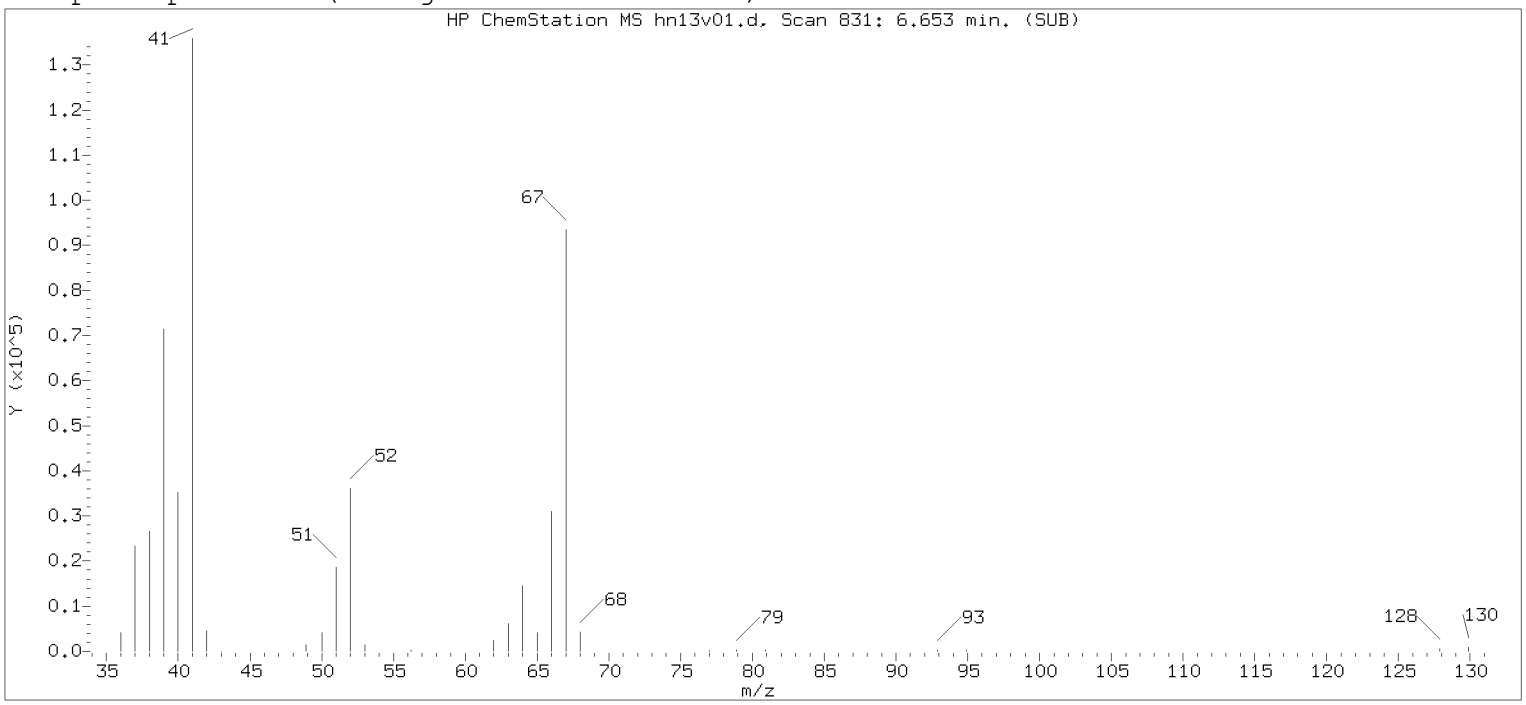
Compound Number : 45
Compound Name : Methacrylonitrile
Scan Number : 831
Retention Time (minutes): 6.653
Quant Ion : 67.00
Area (flag) : 357219M
On-Column Amount (ng) : 38.9599
Integration start scan : 814 Integration stop scan: 894
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

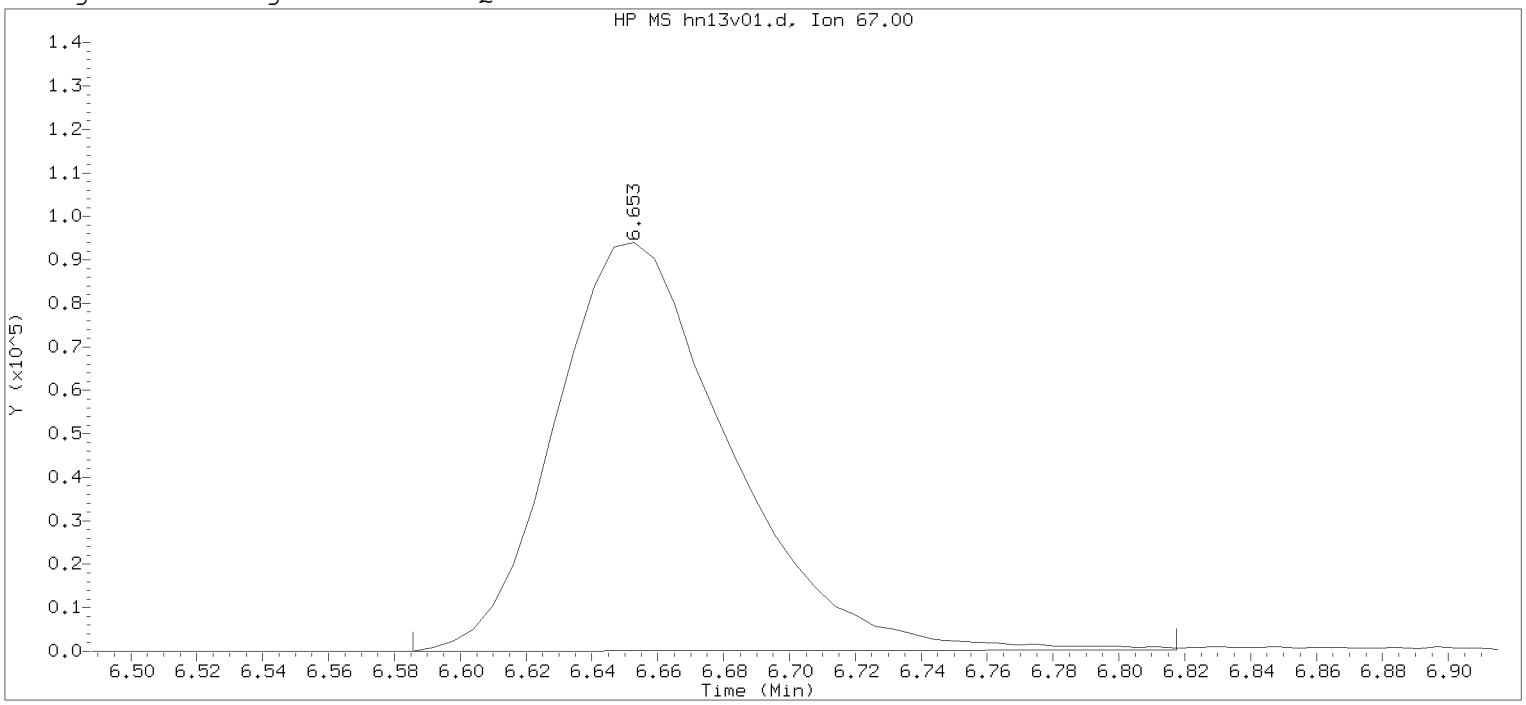
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

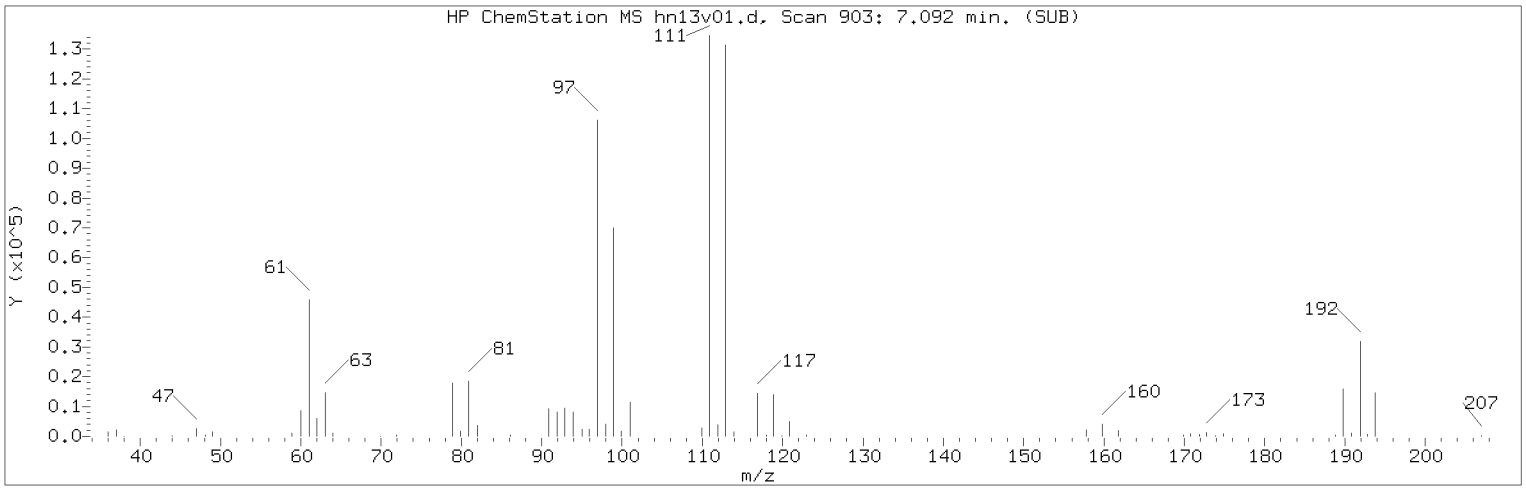
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

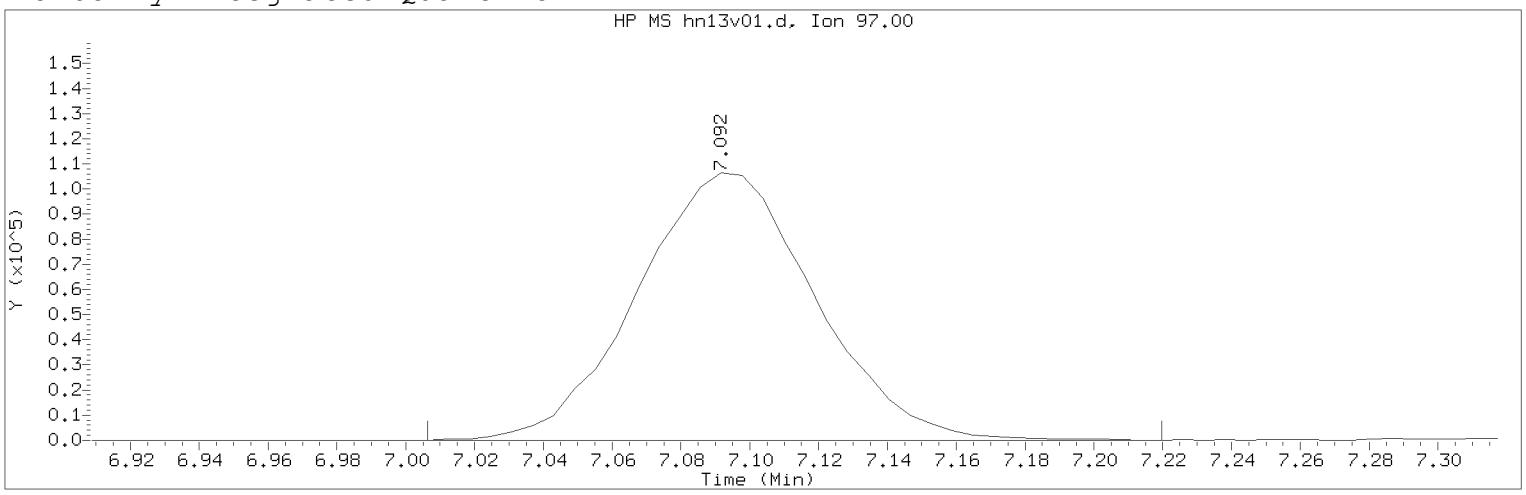
Compound Number : 45
Compound Name : Methacrylonitrile
Scan Number : 831
Retention Time (minutes): 6.653
Quant Ion : 67.00
Area : 345494
On-column Amount (ng) : 37.6811
Integration start scan : 819 Integration stop scan: 857
Y at integration start : 0 Y at integration end: 364

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

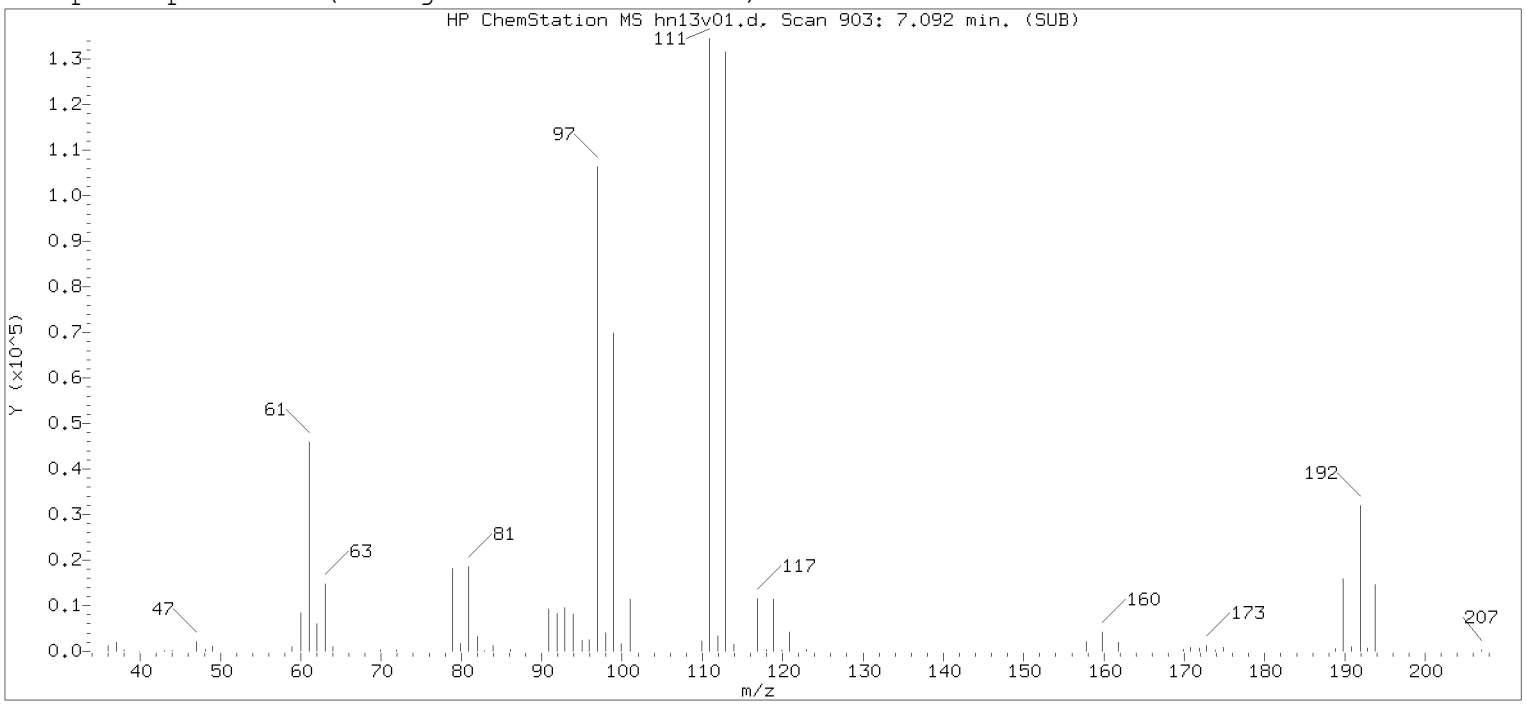
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 903
Retention Time (minutes): 7.092
Quant Ion : 97.00
Area (flag) : 381573M
On-Column Amount (ng) : 5.1447
Integration start scan : 888 Integration stop scan: 923
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

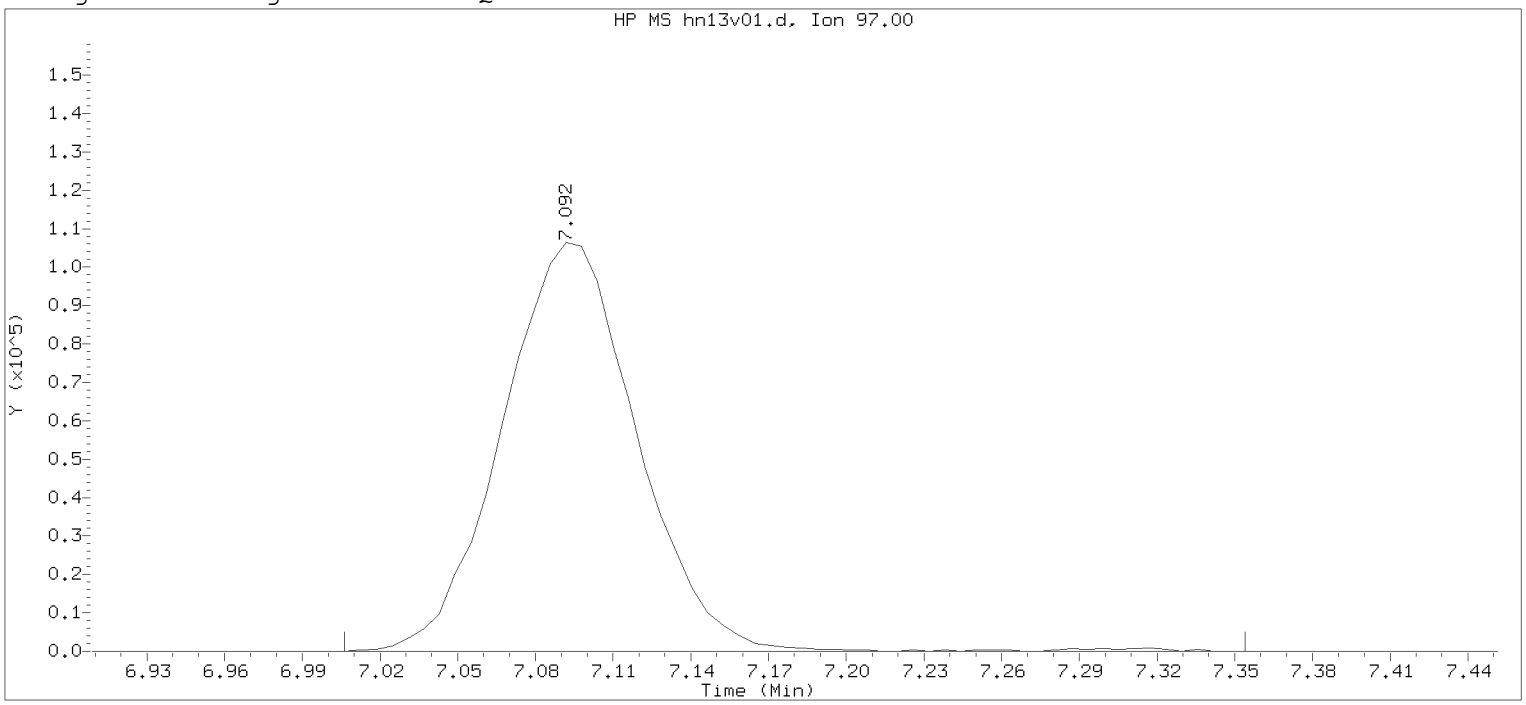
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

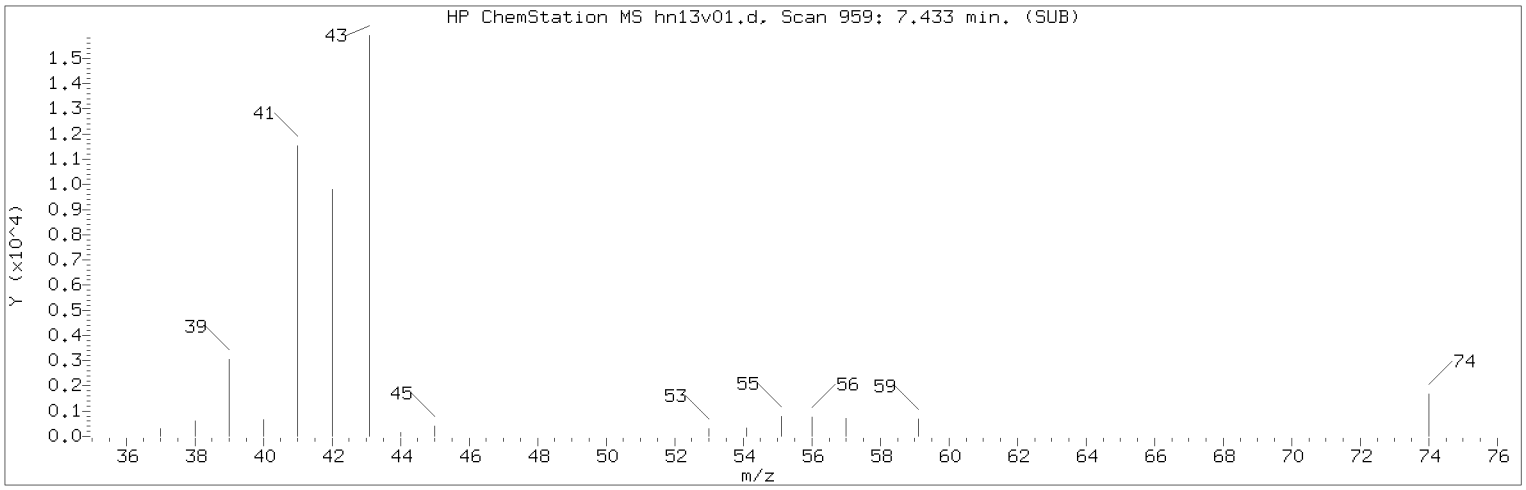
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

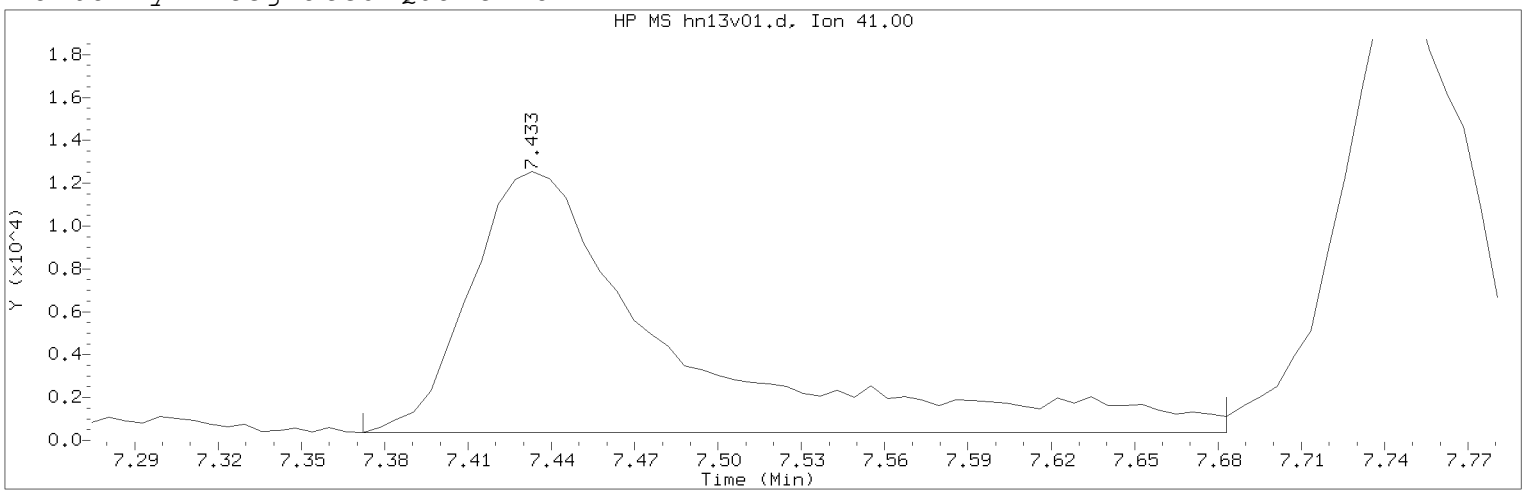
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 903
Retention Time (minutes): 7.092
Quant Ion : 97.00
Area : 384055
On-column Amount (ng) : 5.1782
Integration start scan : 888 Integration stop scan: 945
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

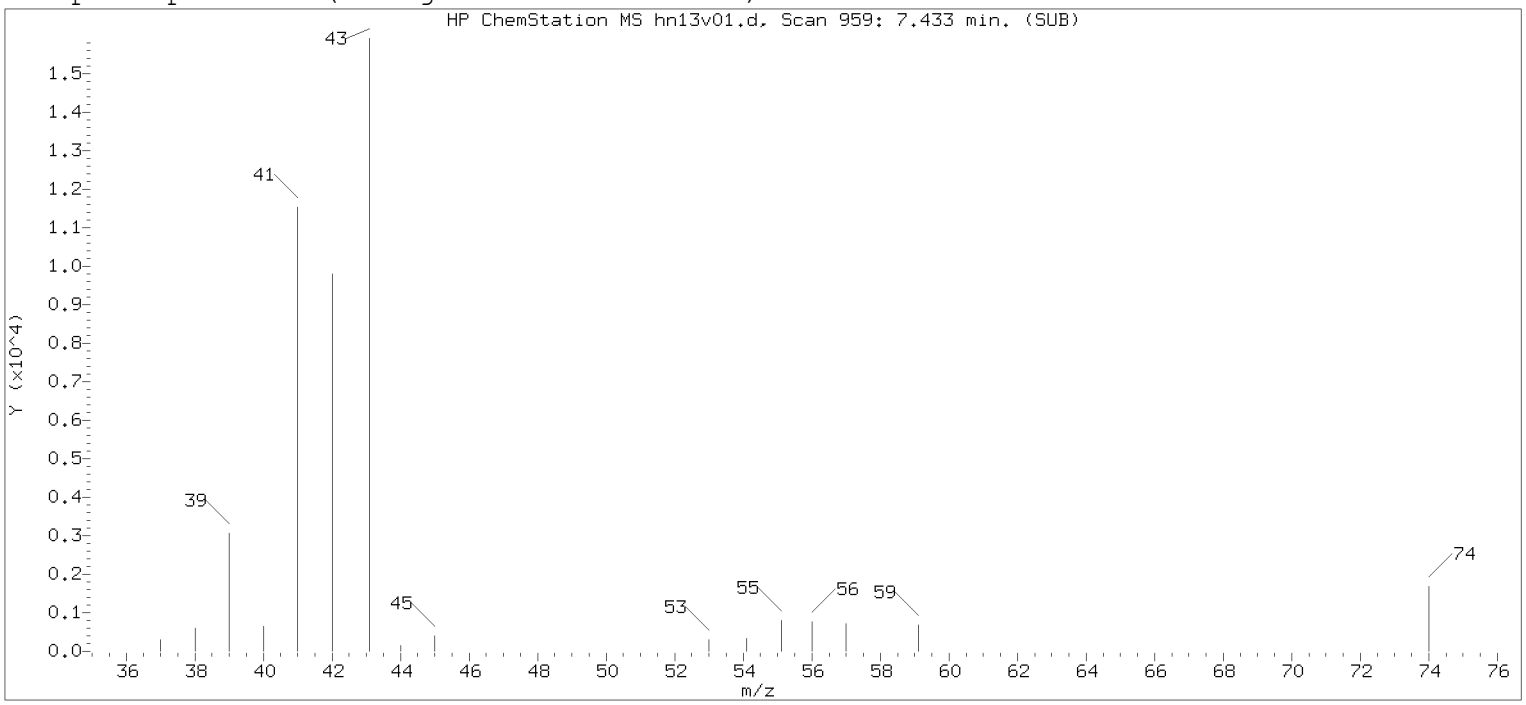
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area (flag) : 62300M
On-Column Amount (ng) : 108.2293
Integration start scan : 948 Integration stop scan: 999
Y at integration start : 369 Y at integration end: 369

Reason for manual integration: improper integration

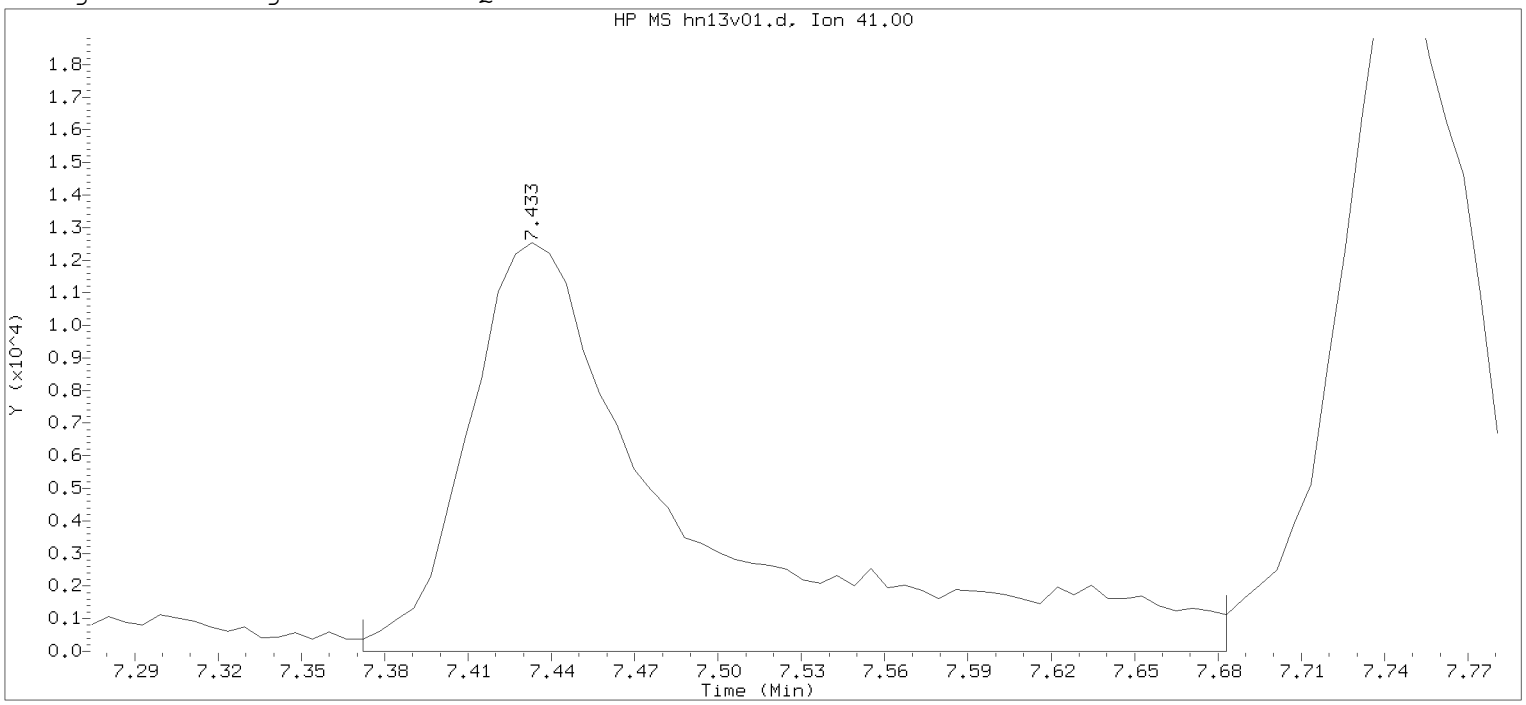
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

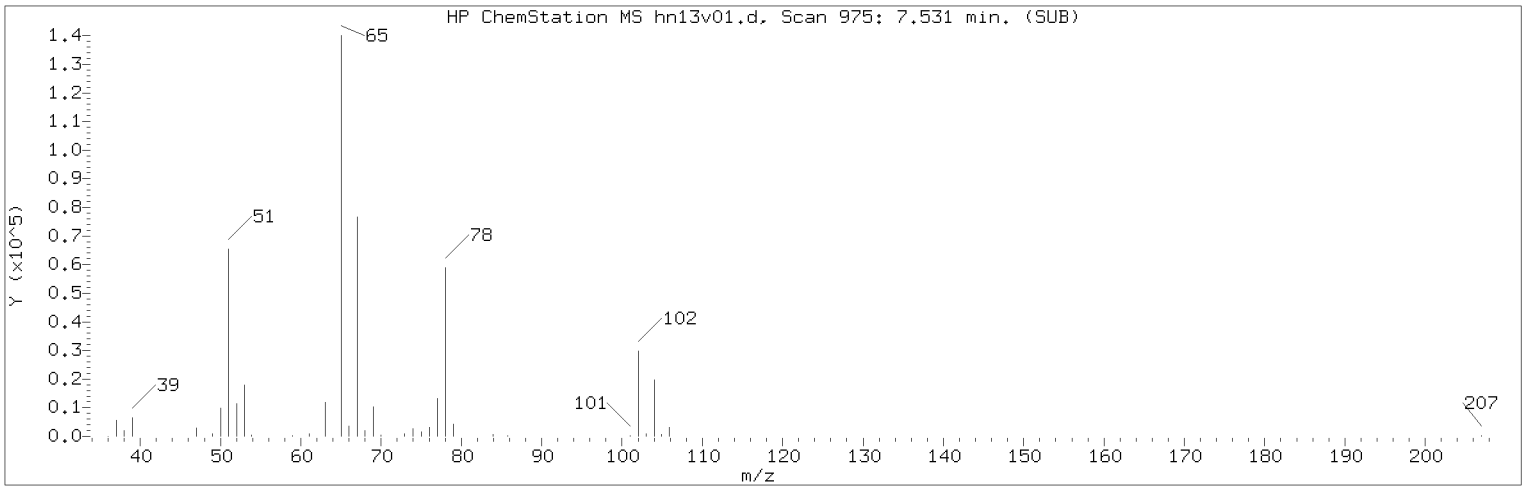
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

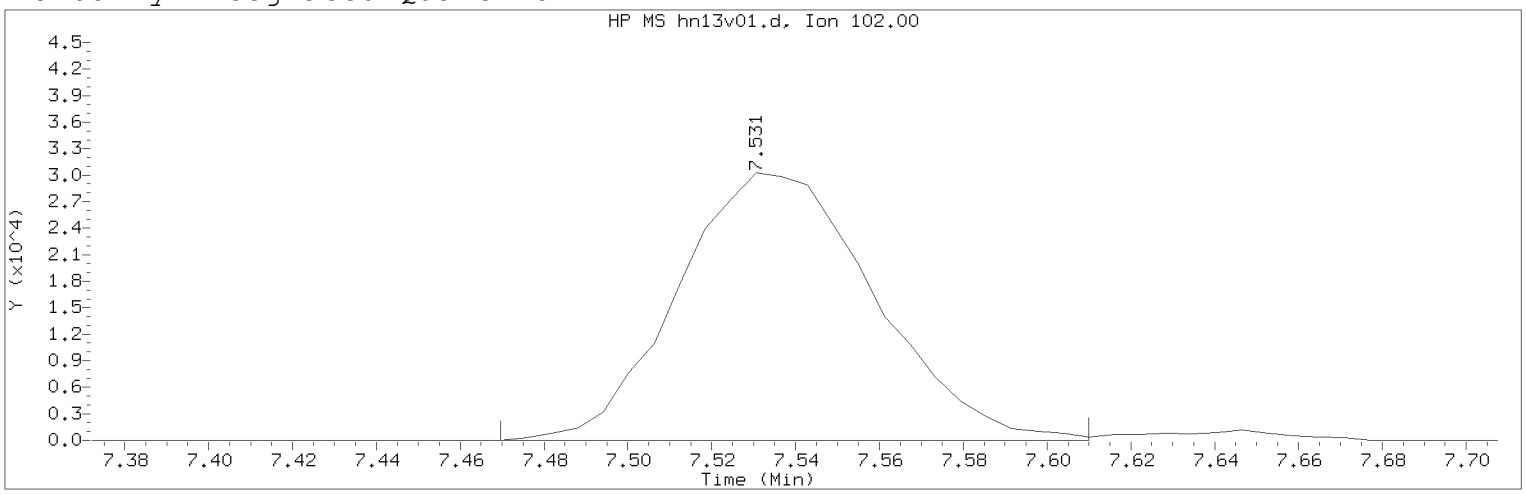
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area : 69047
On-column Amount (ng) : 121.4799
Integration start scan : 948 Integration stop scan: 999
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

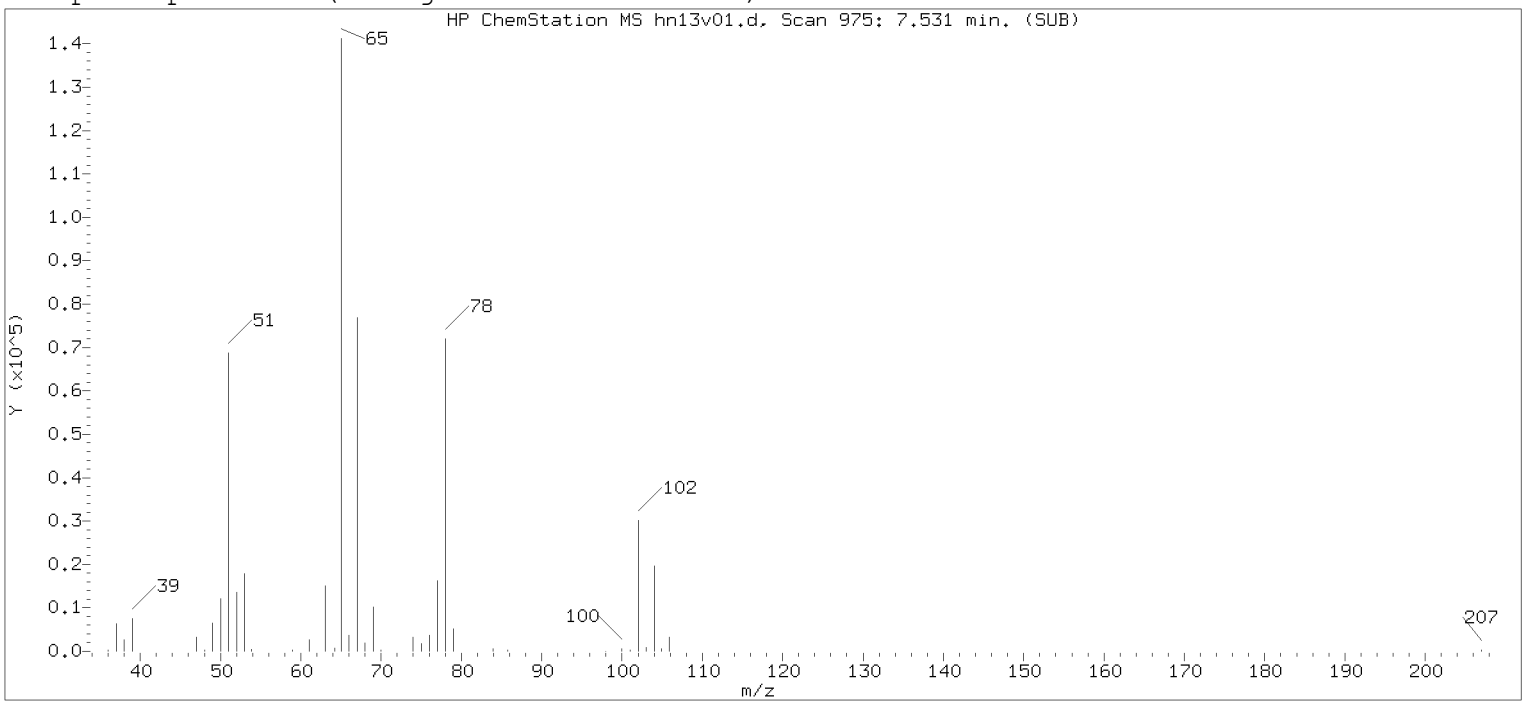
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 975
Retention Time (minutes): 7.531
Quant Ion : 102.00
Area (flag) : 98365M
On-Column Amount (ng) : 10.1172
Integration start scan : 964 Integration stop scan: 987
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

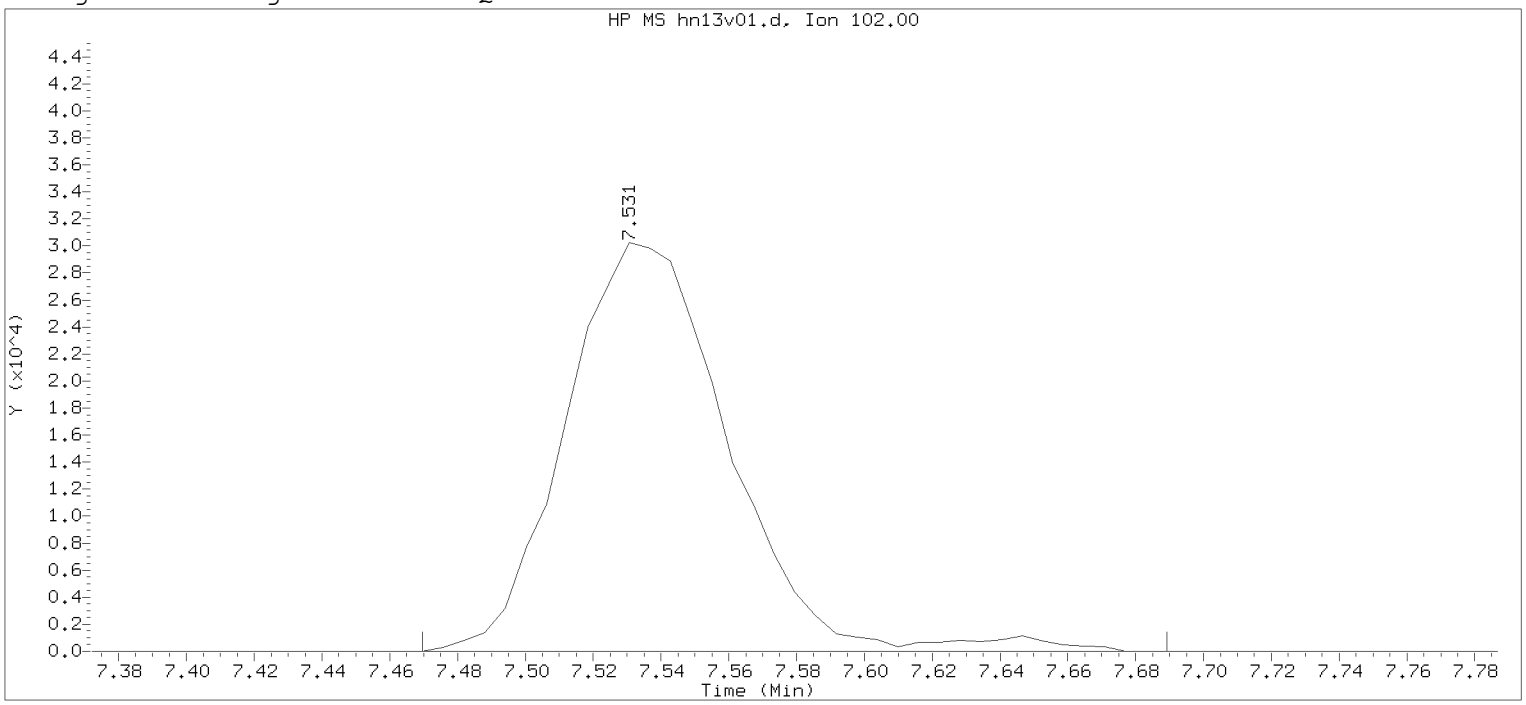
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

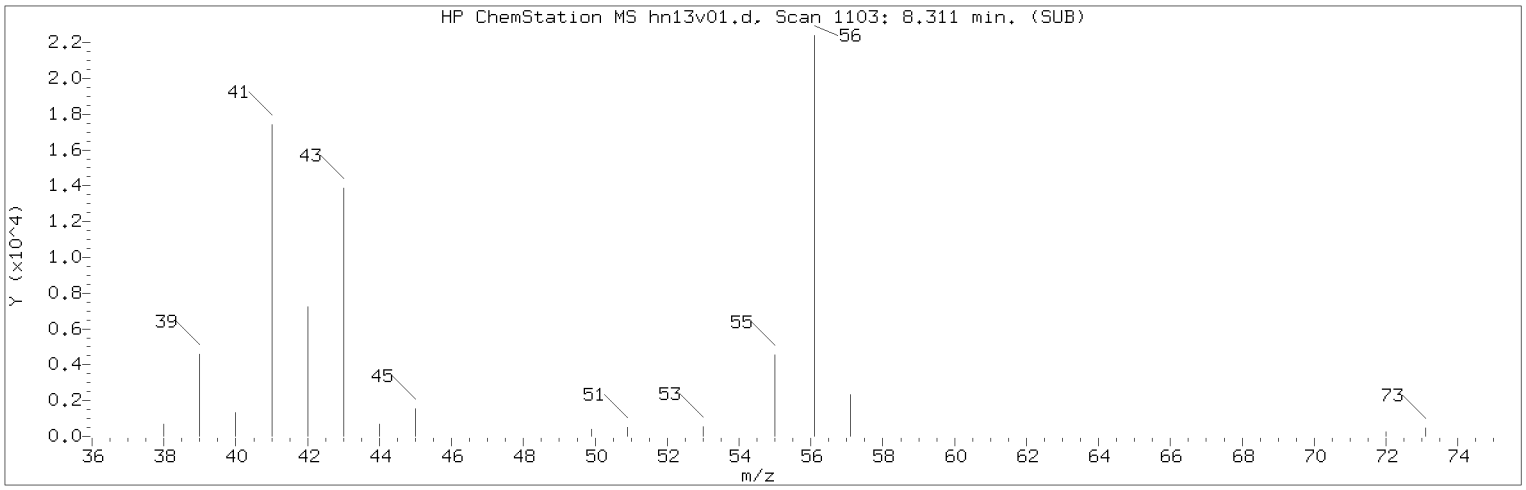
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

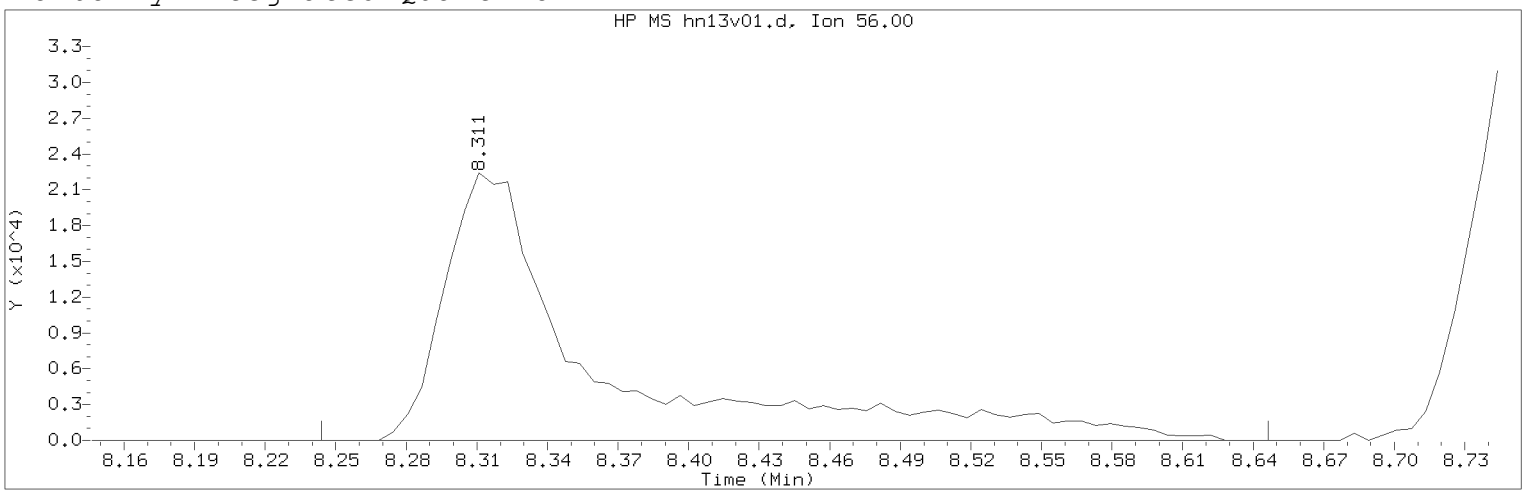
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 975
Retention Time (minutes): 7.531
Quant Ion : 102.00
Area : 100874
On-column Amount (ng) : 10.3753
Integration start scan : 964 Integration stop scan: 1000
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. ATE35 Page 827

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

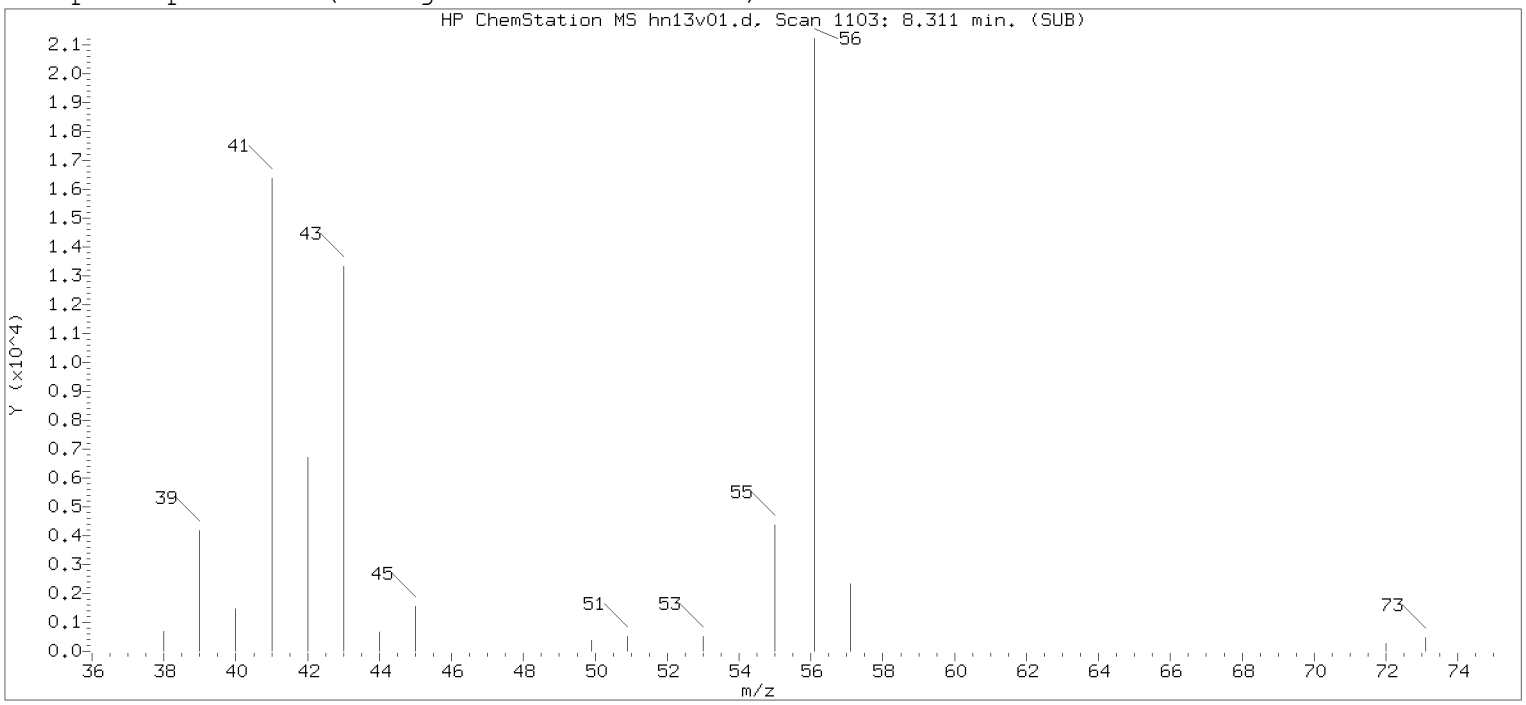
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1103
Retention Time (minutes): 8.311
Quant Ion : 56.00
Area (flag) : 100804M
On-Column Amount (ng) : 205.6459
Integration start scan : 1091 Integration stop scan: 1157
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

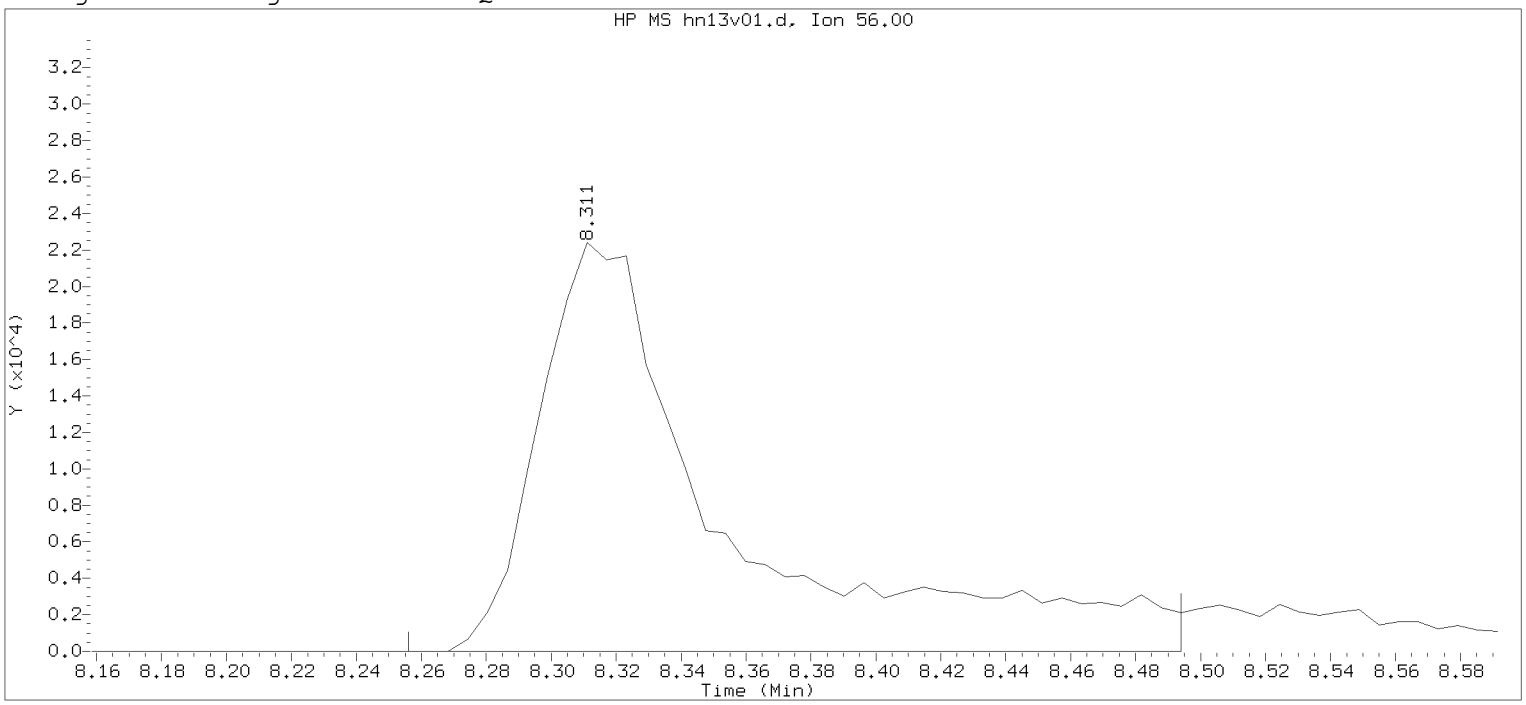
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

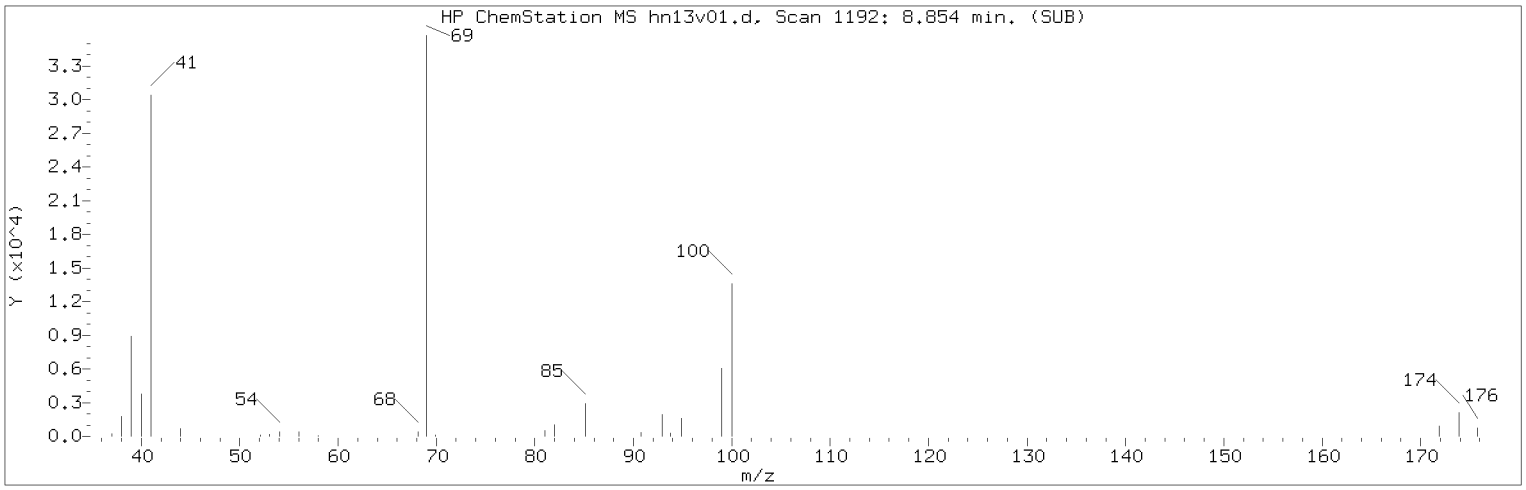
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

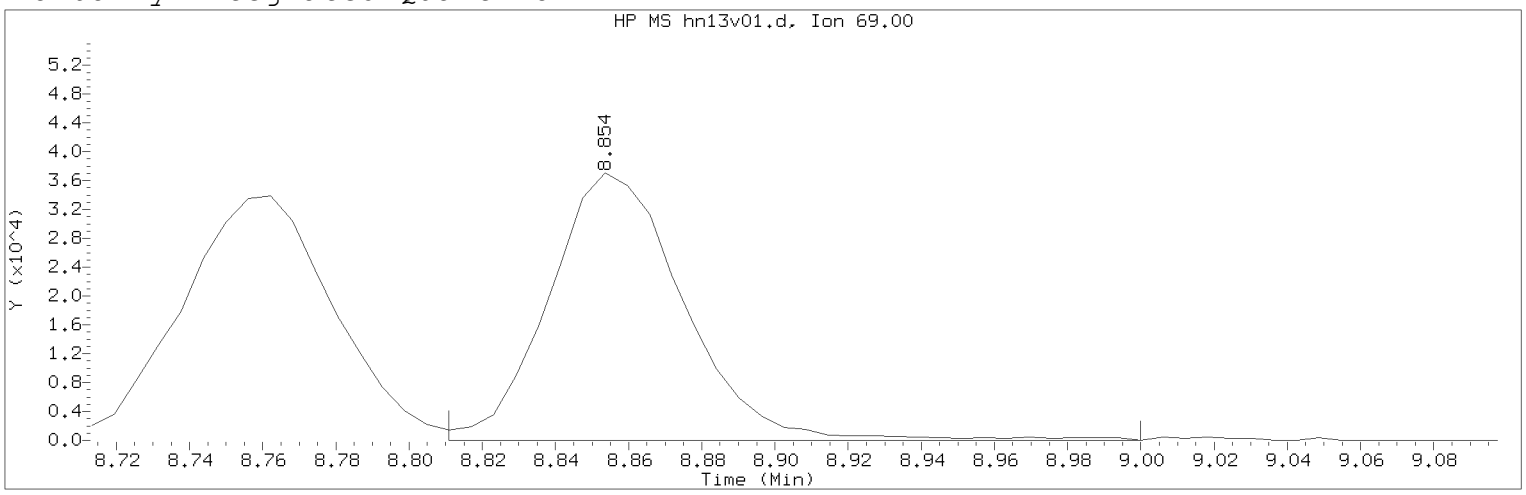
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1103
Retention Time (minutes): 8.311
Quant Ion : 56.00
Area : 88630
On-column Amount (ng) : 180.8104
Integration start scan : 1093 Integration stop scan: 1132
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

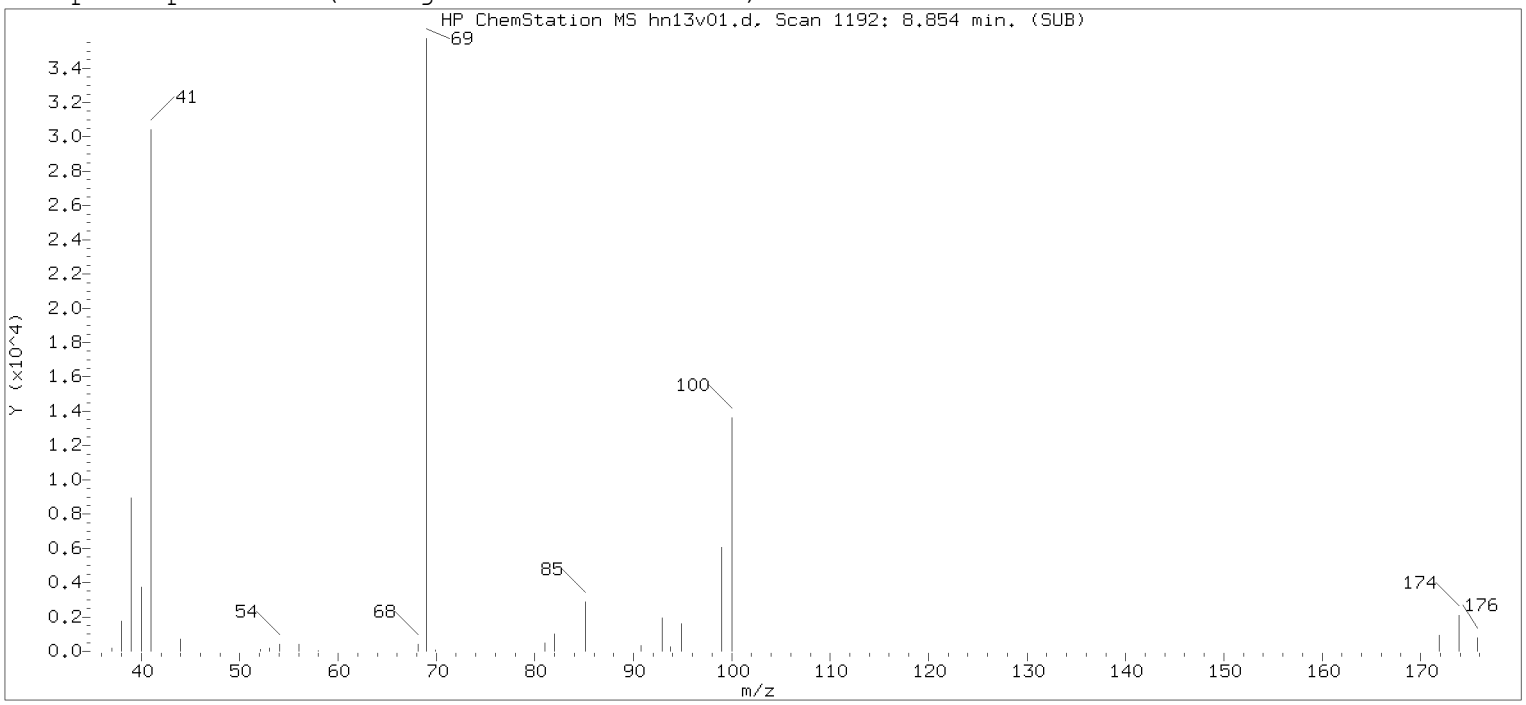
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area (flag) : 95312M
On-Column Amount (ng) : 4.9579
Integration start scan : 1184 Integration stop scan: 1215
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

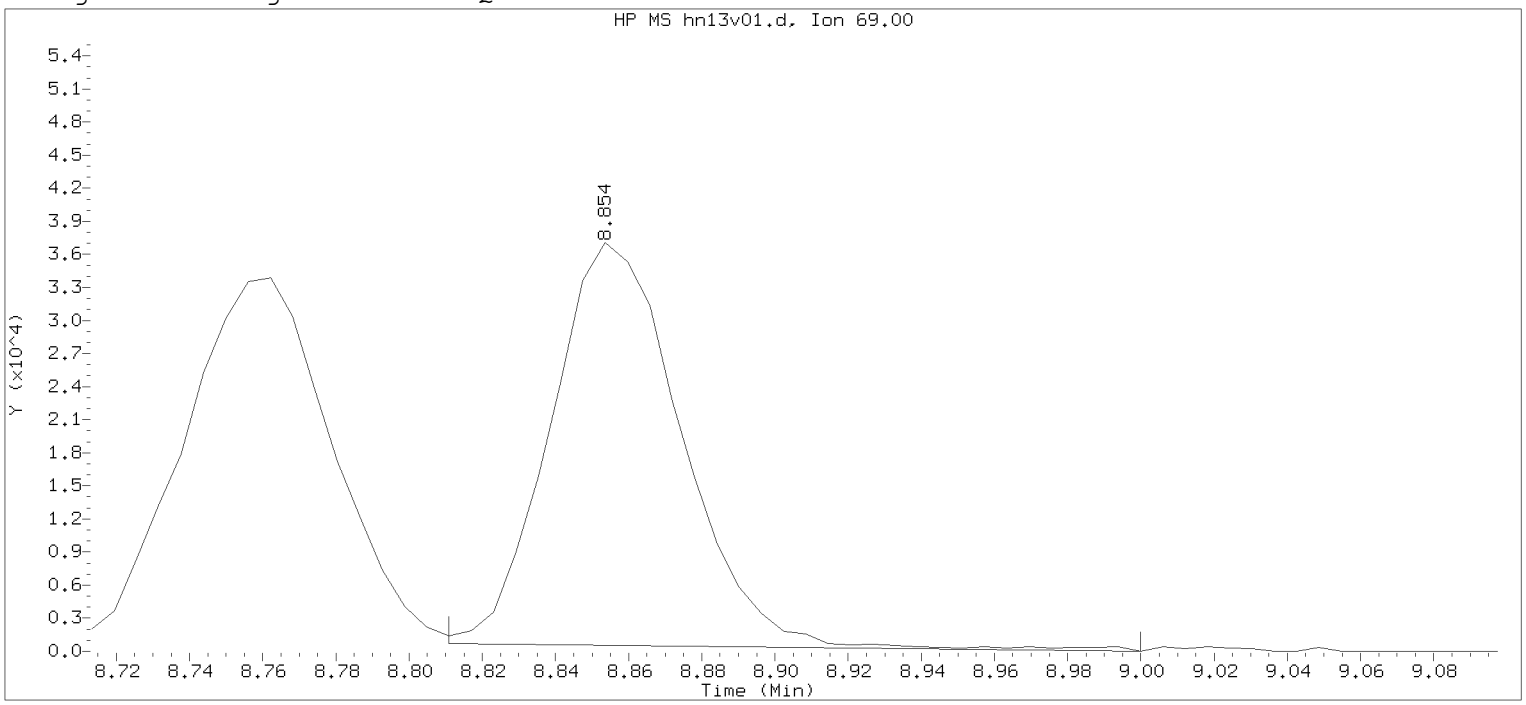
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

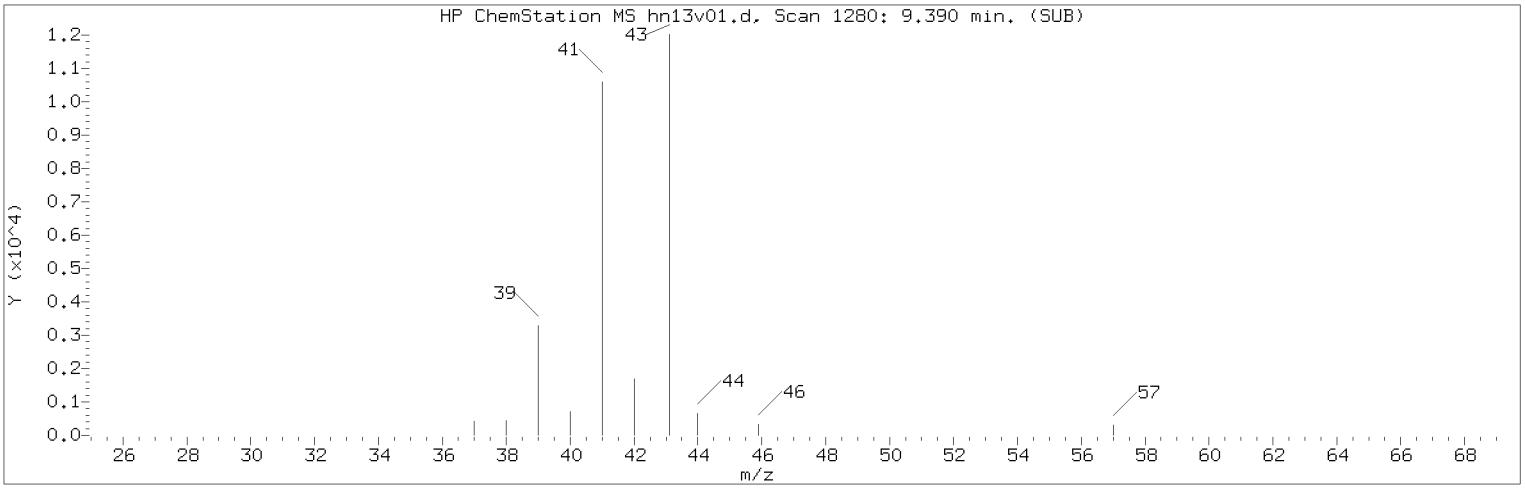
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

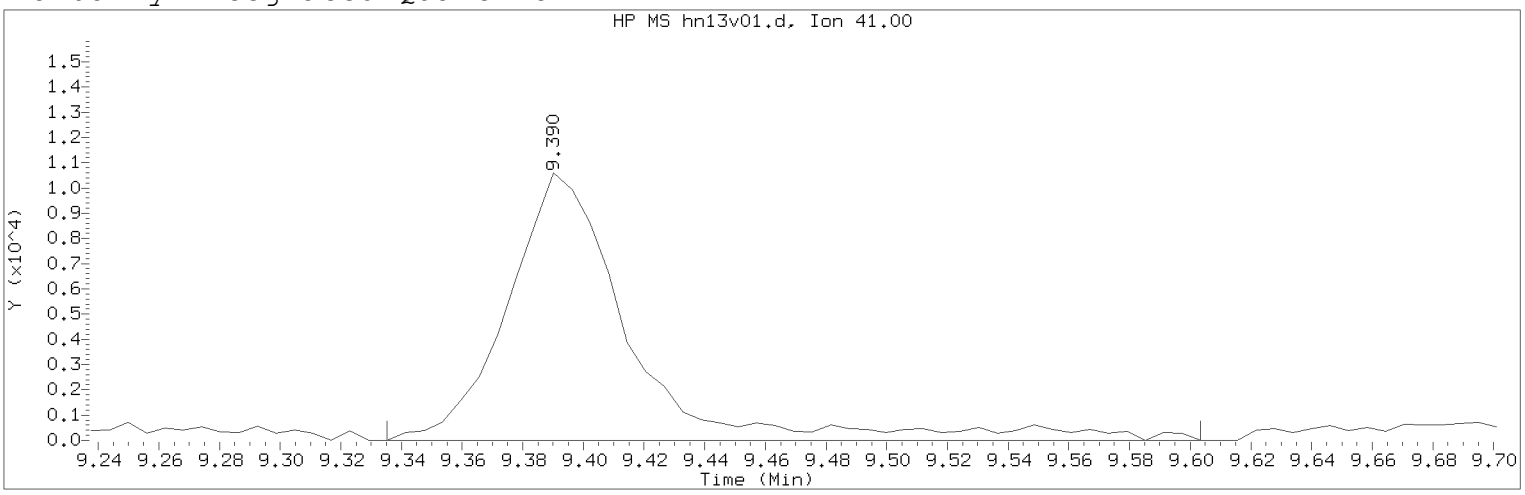
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area : 91062
On-column Amount (ng) : 4.7369
Integration start scan : 1184 Integration stop scan: 1215
Y at integration start : 704 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

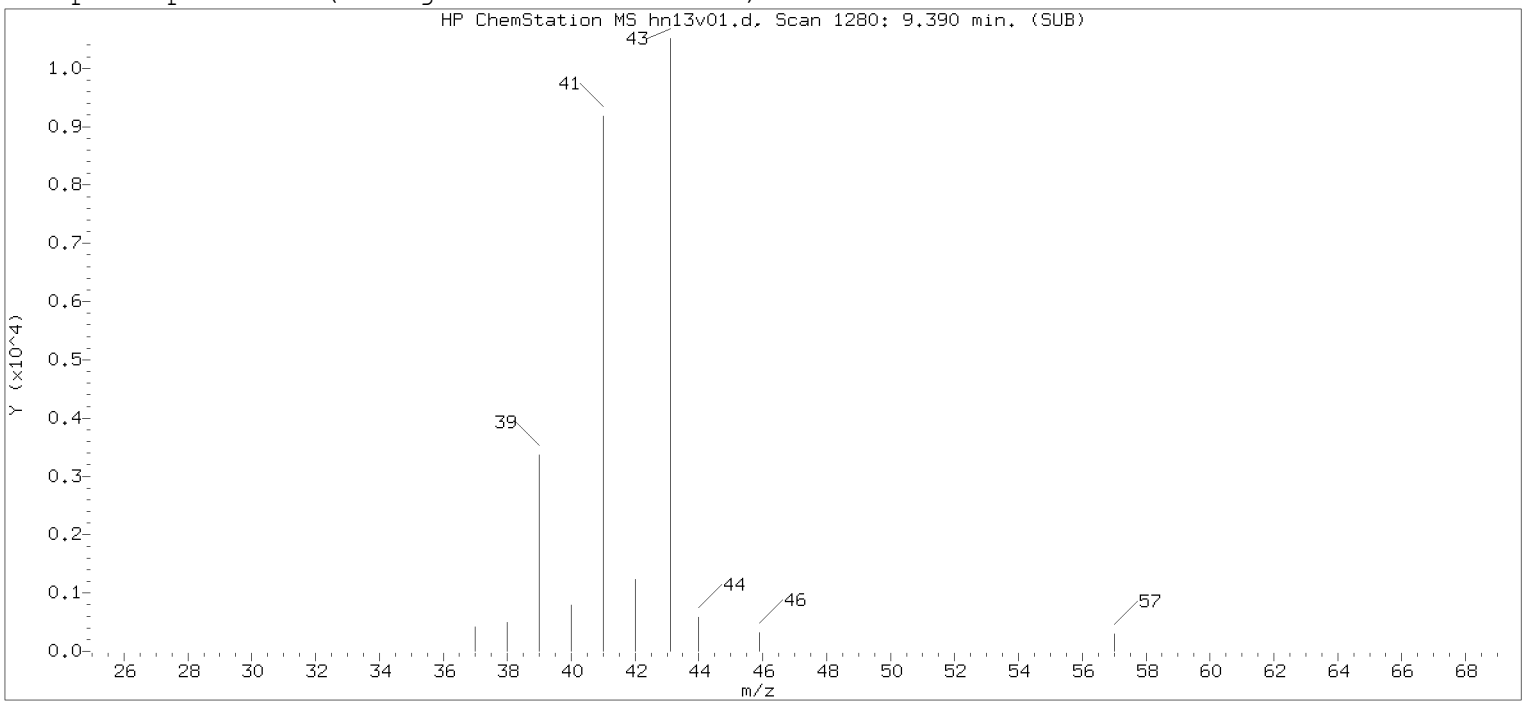
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1280
Retention Time (minutes): 9.390
Quant Ion : 41.00
Area (flag) : 29943M
On-Column Amount (ng) : 5.3278
Integration start scan : 1270 Integration stop scan: 1314
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

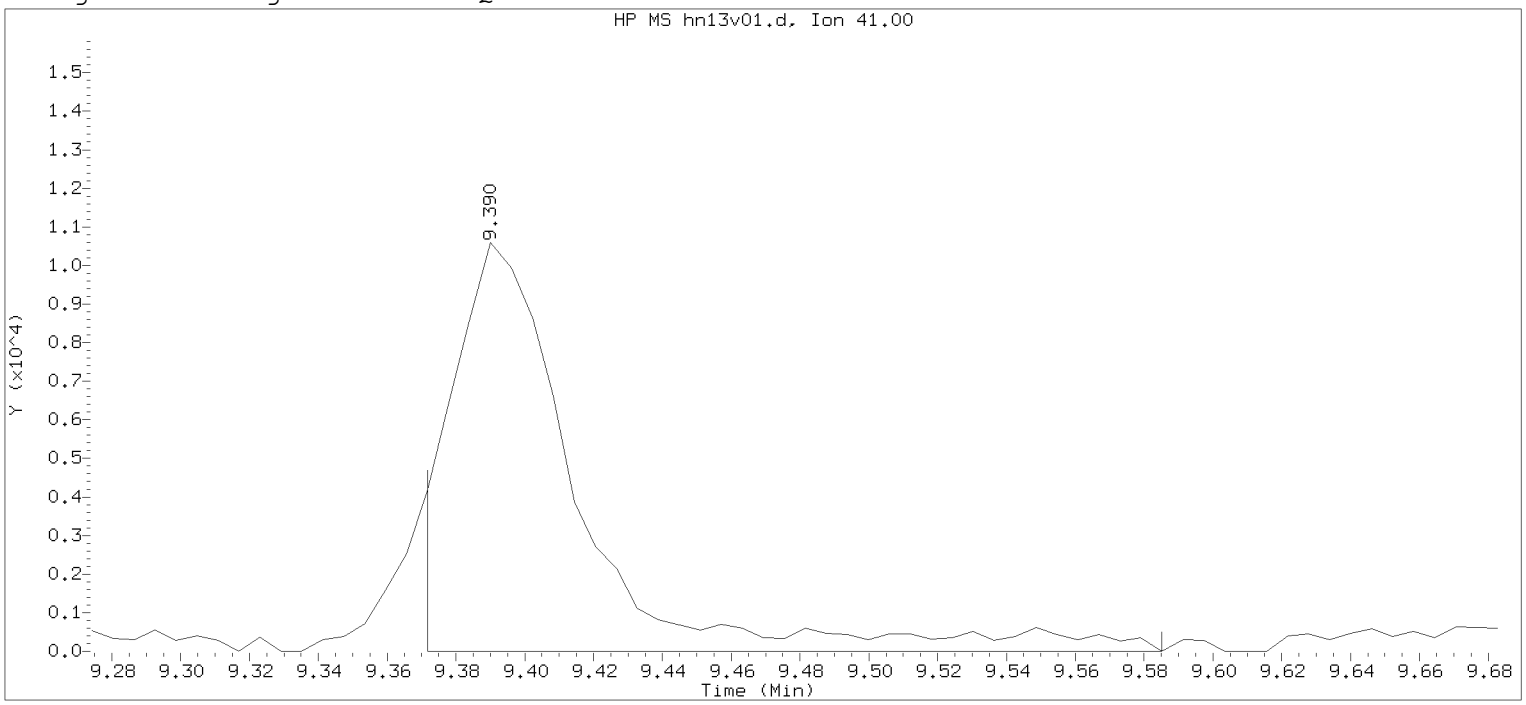
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

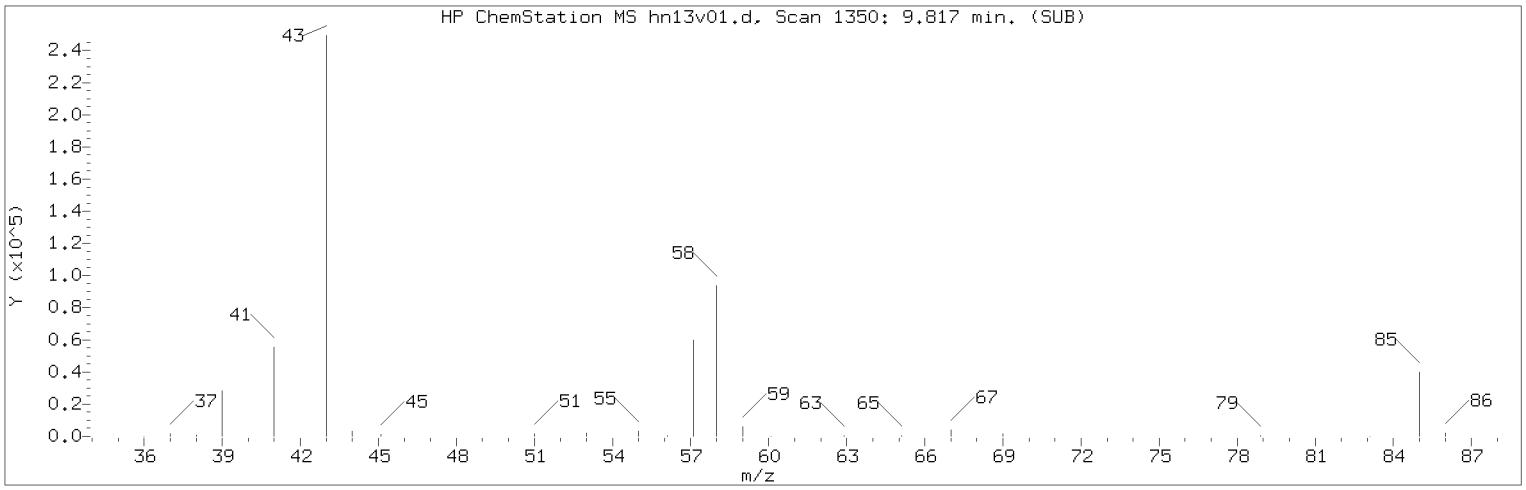
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

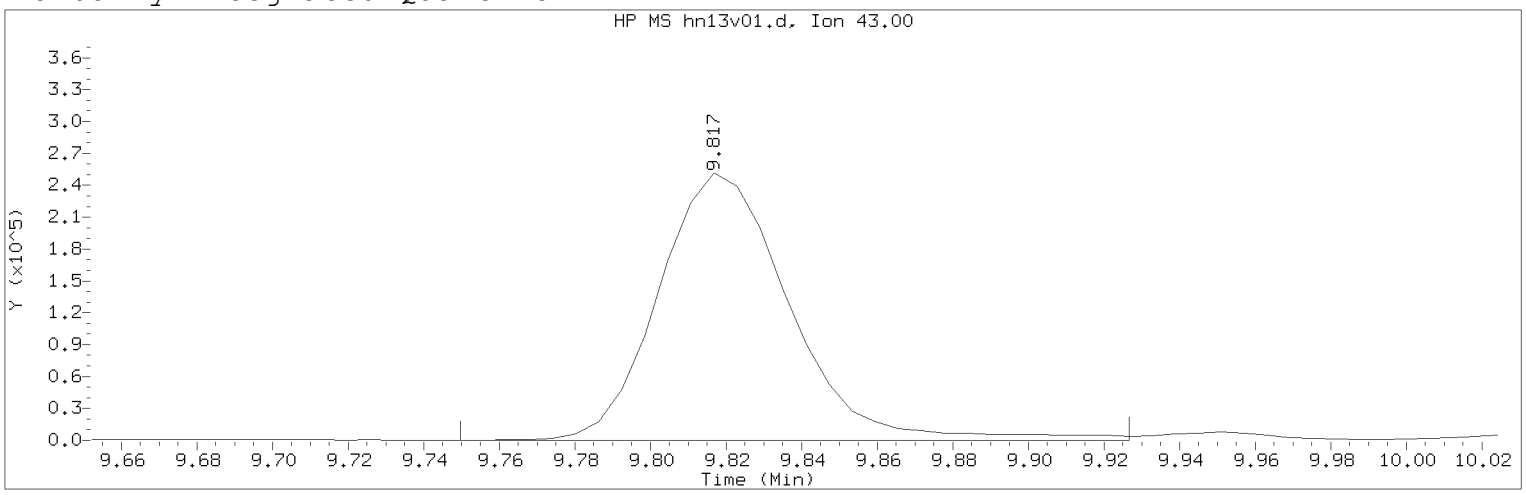
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1280
Retention Time (minutes): 9.390
Quant Ion : 41.00
Area : 26951
On-column Amount (ng) : 4.7954
Integration start scan : 1276 Integration stop scan: 1311
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

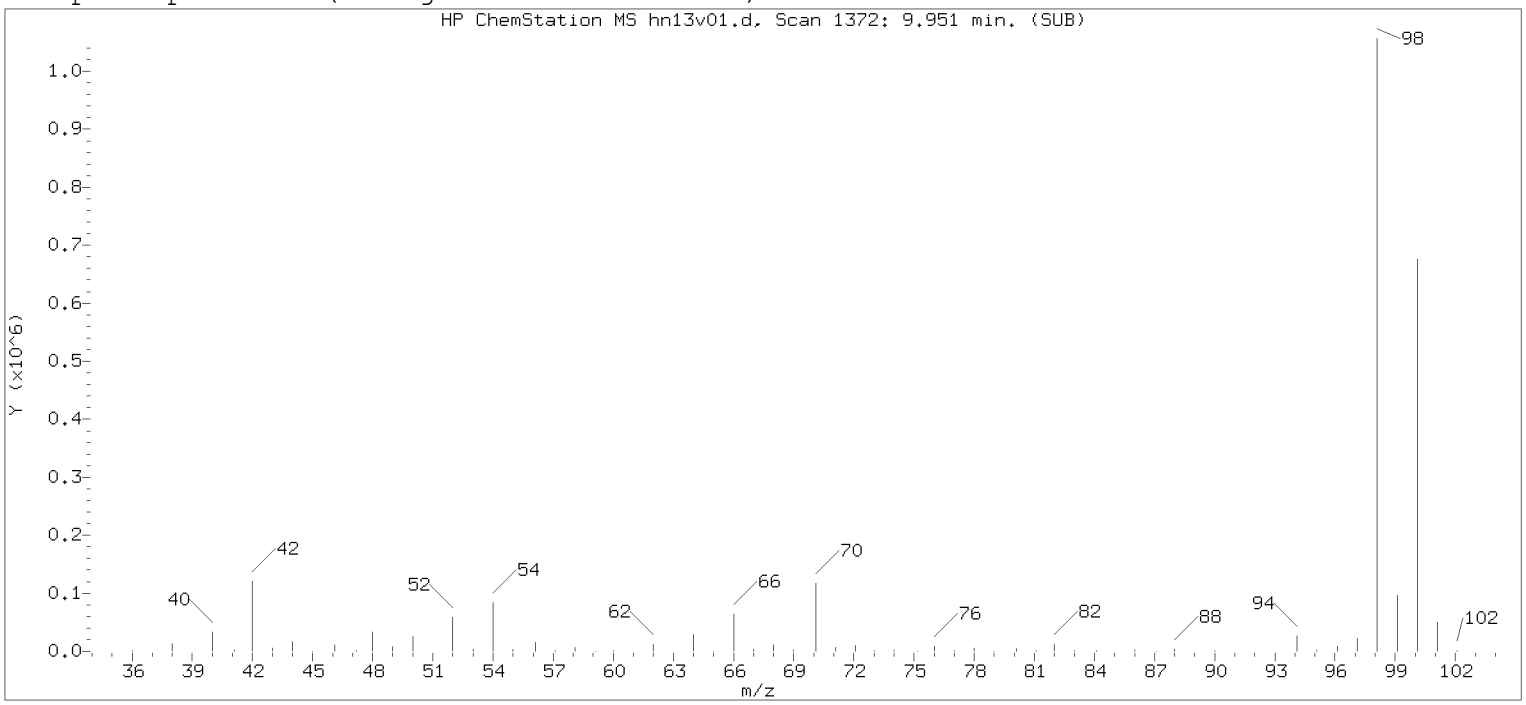
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1350
Retention Time (minutes): 9.817
Quant Ion : 43.00
Area (flag) : 604906M
On-Column Amount (ng) : 24.9397
Integration start scan : 1338 Integration stop scan: 1367
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

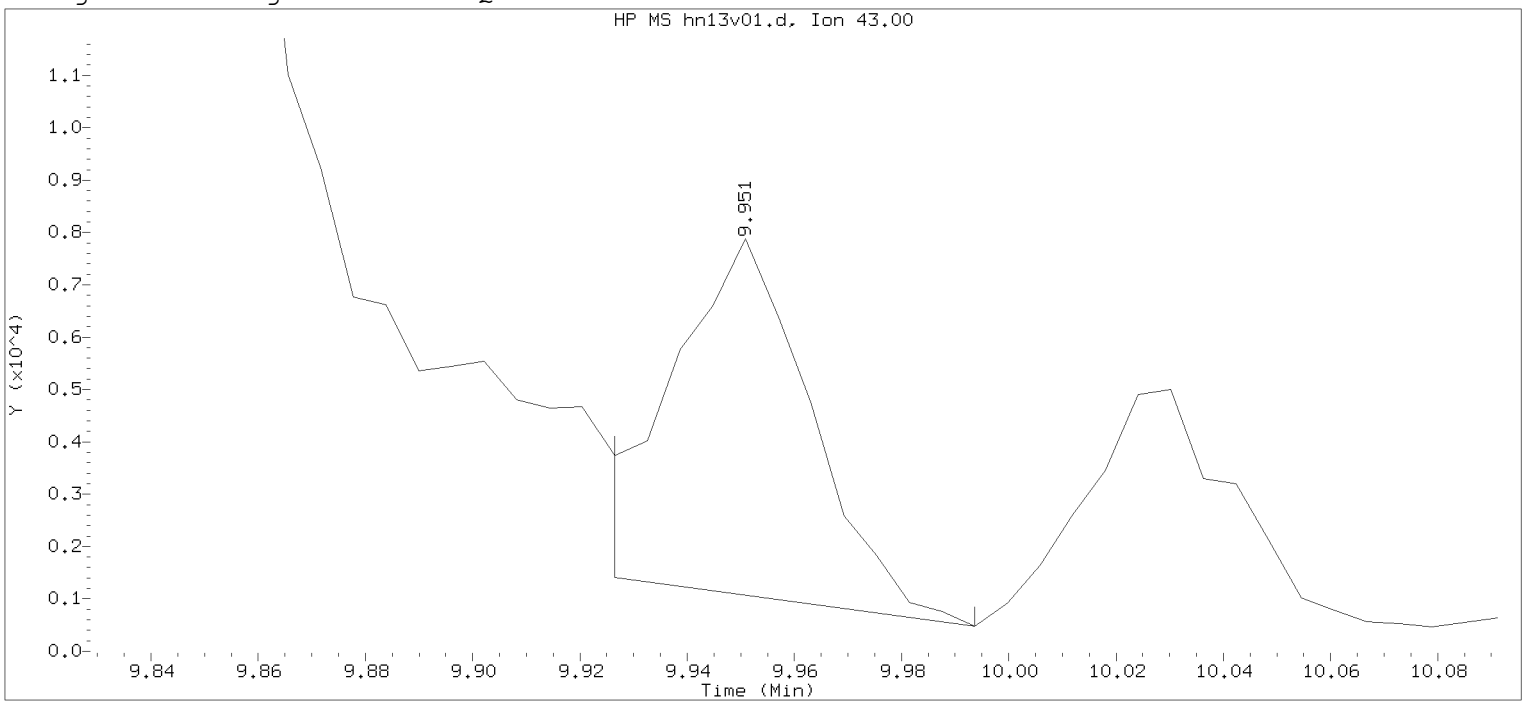
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1372
Retention Time (minutes): 9.951
Quant Ion : 43.00
Area : 12169
On-column Amount (ng) : 0.5017
Integration start scan : 1367 Integration stop scan: 1378
Y at integration start : 1404 Y at integration end: 476

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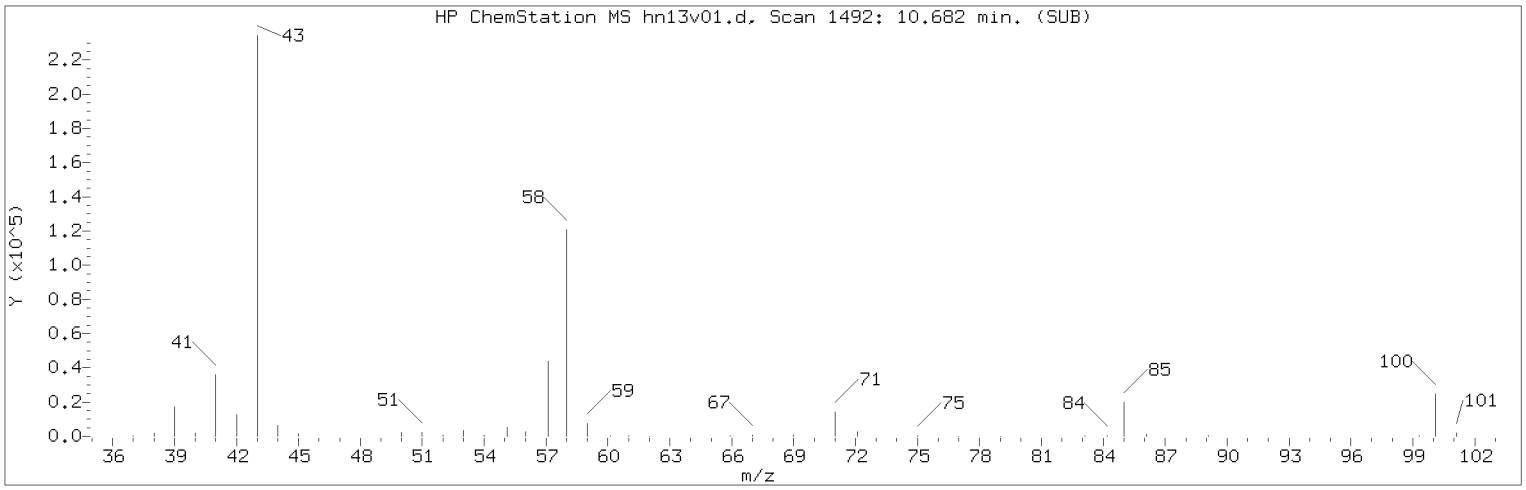
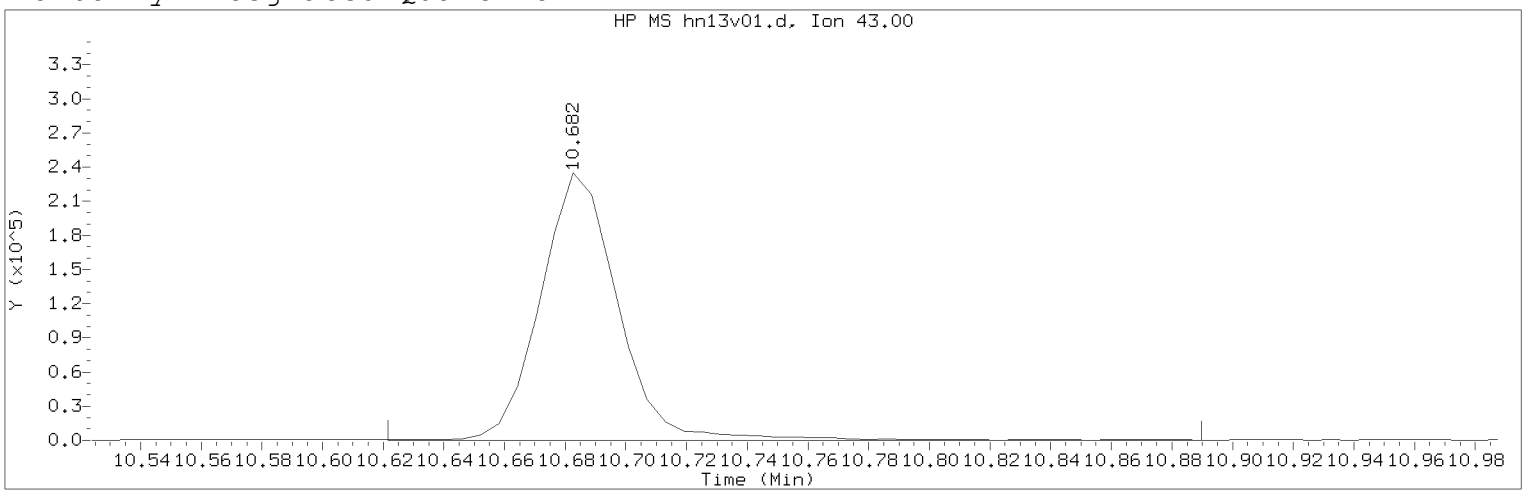
Target 3.5 esignature used. AE35 Page 835 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

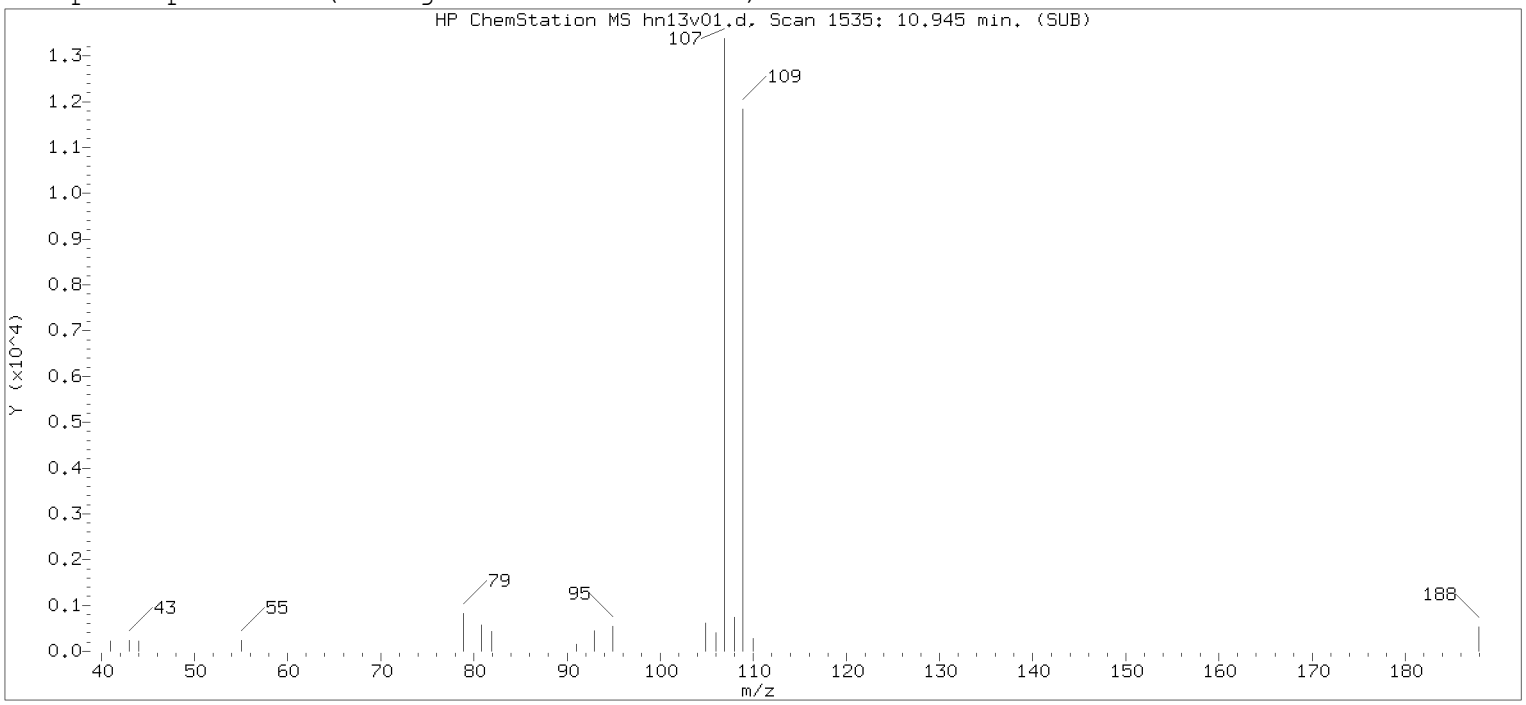
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1492
Retention Time (minutes): 10.682
Quant Ion : 43.00
Area (flag) : 418897M
On-Column Amount (ng) : 24.8511
Integration start scan : 1481 Integration stop scan: 1525
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

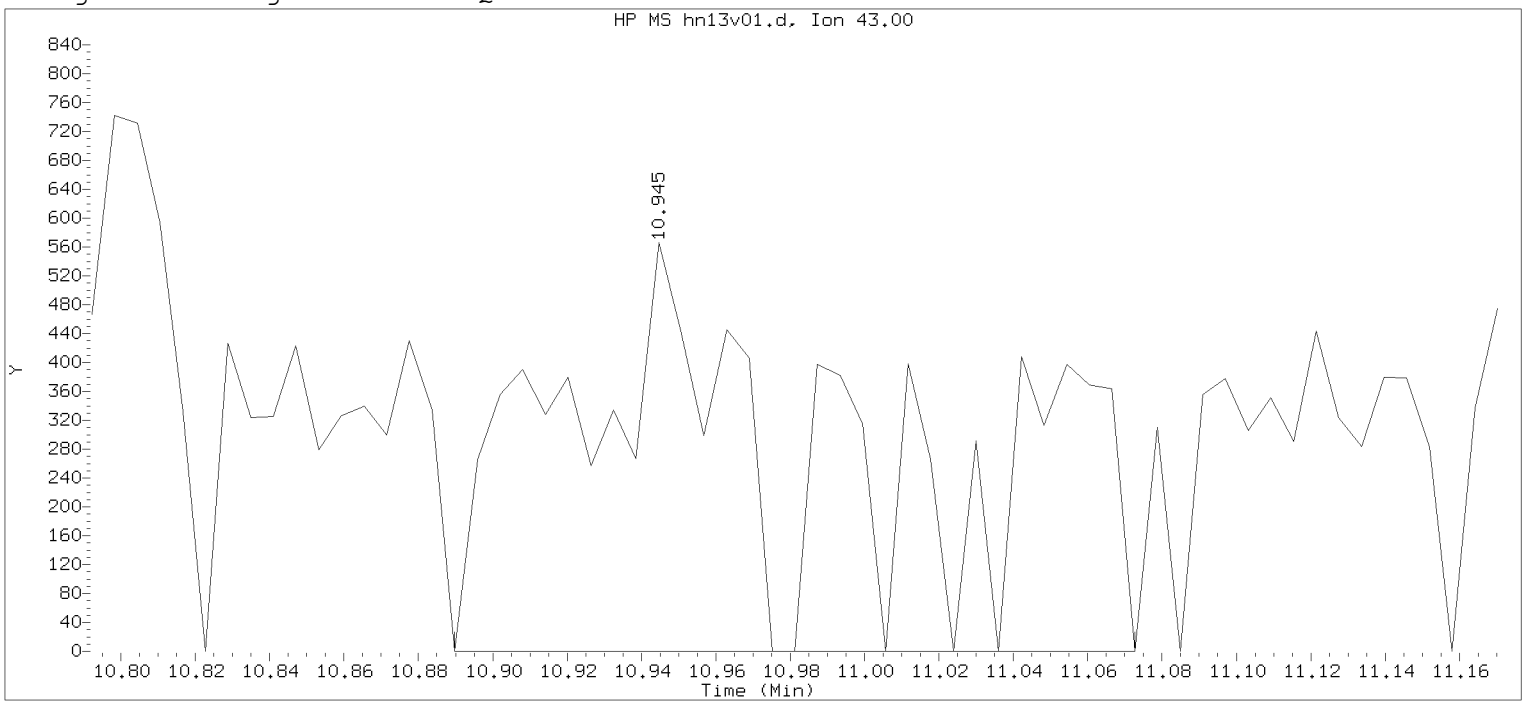
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

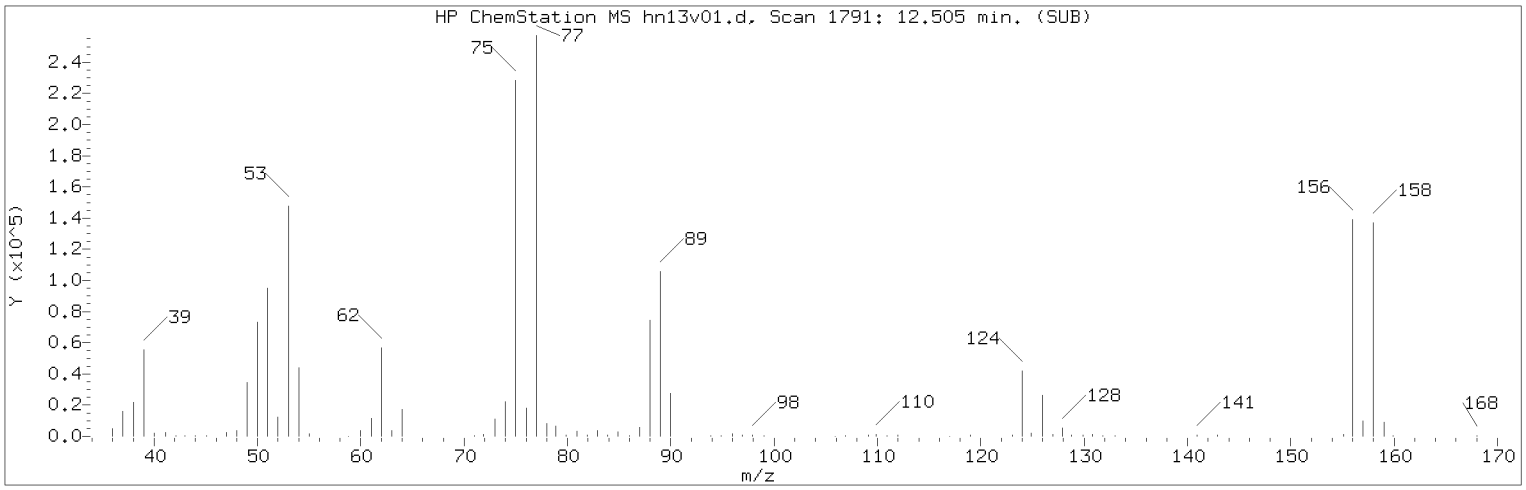
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

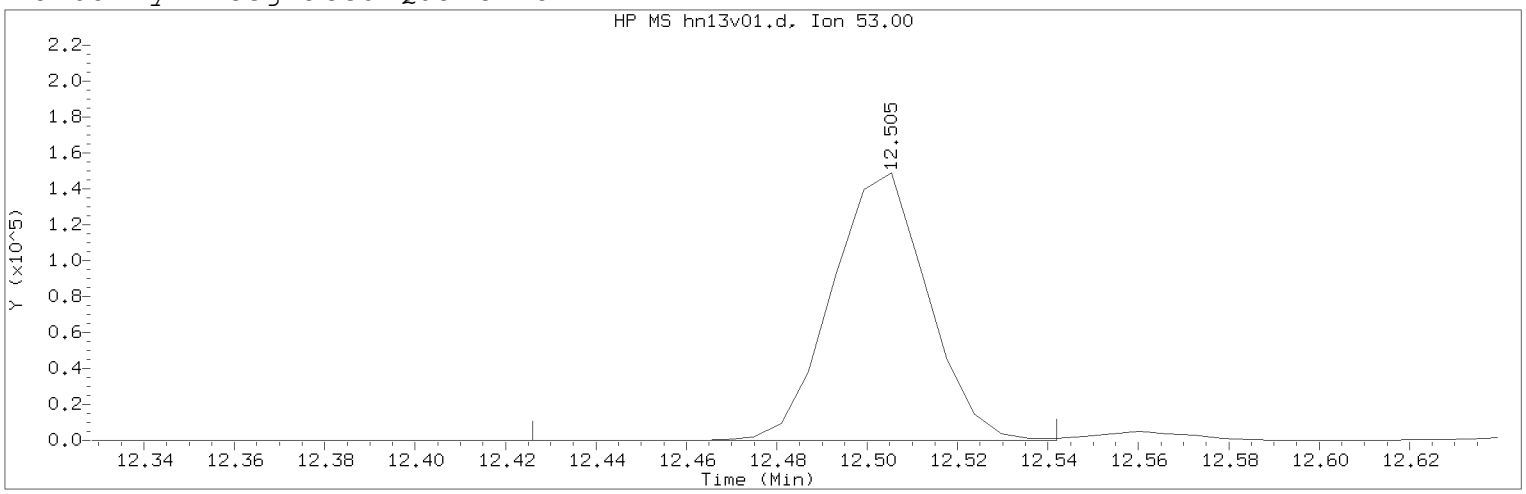
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1535
Retention Time (minutes): 10.945
Quant Ion : 43.00
Area : 3158
On-column Amount (ng) : 0.1874
Integration start scan : 1525 Integration stop scan: 1555
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

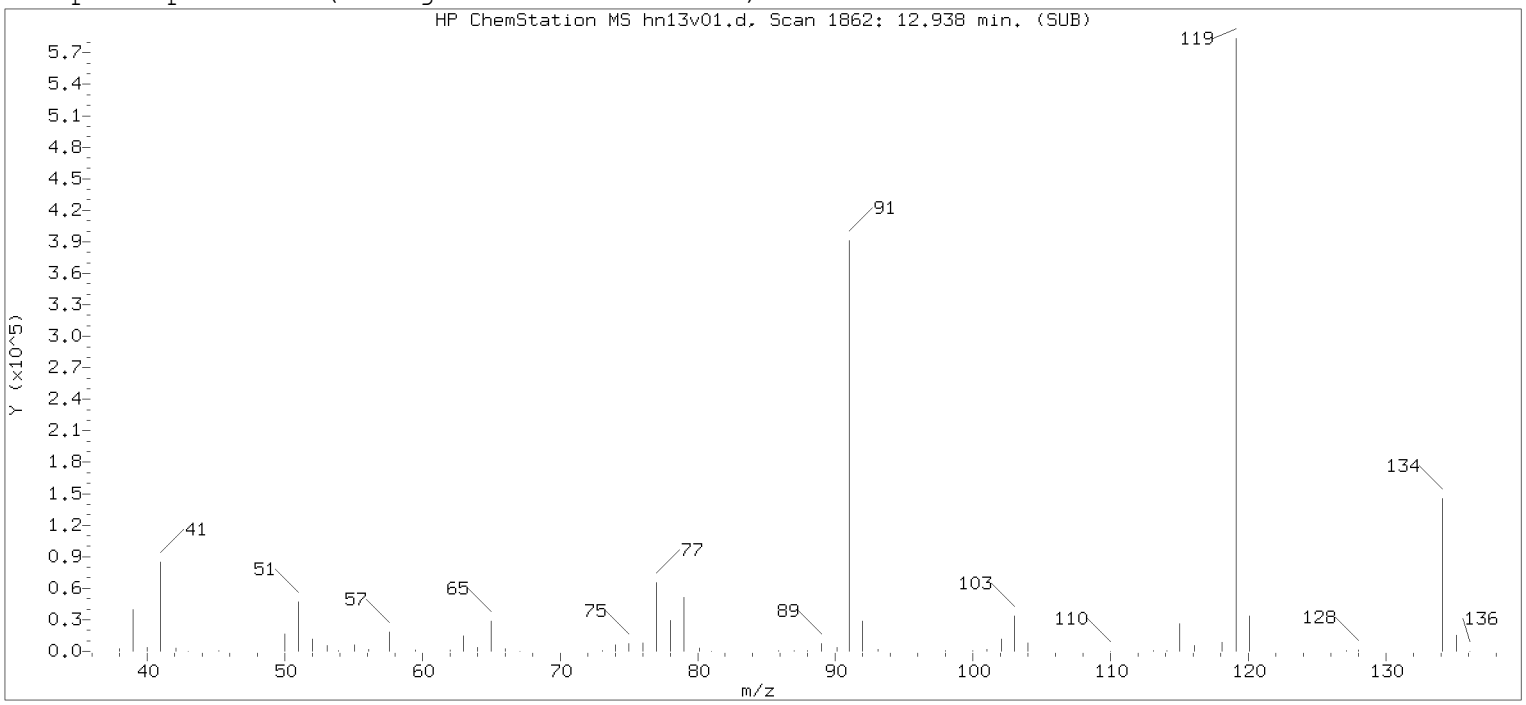
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1791
Retention Time (minutes): 12.505
Quant Ion : 53.00
Area (flag) : 217829M
On-Column Amount (ng) : 26.0589
Integration start scan : 1777 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

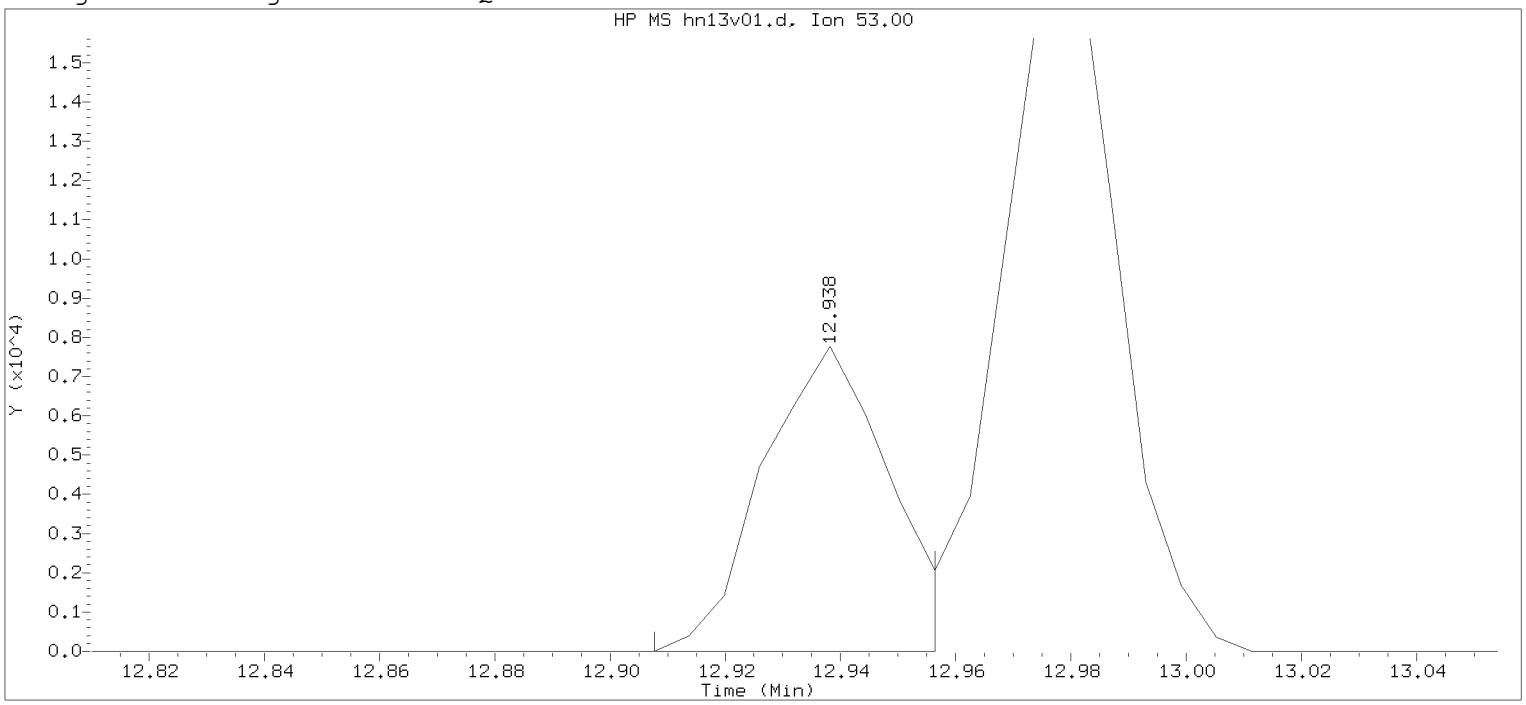
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

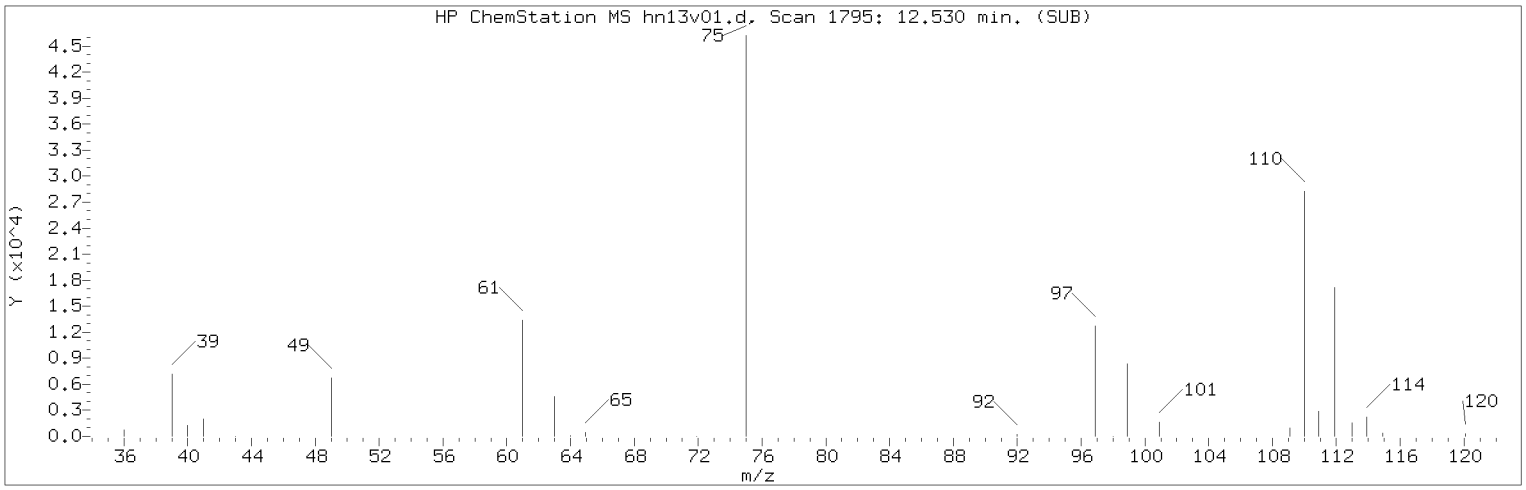
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

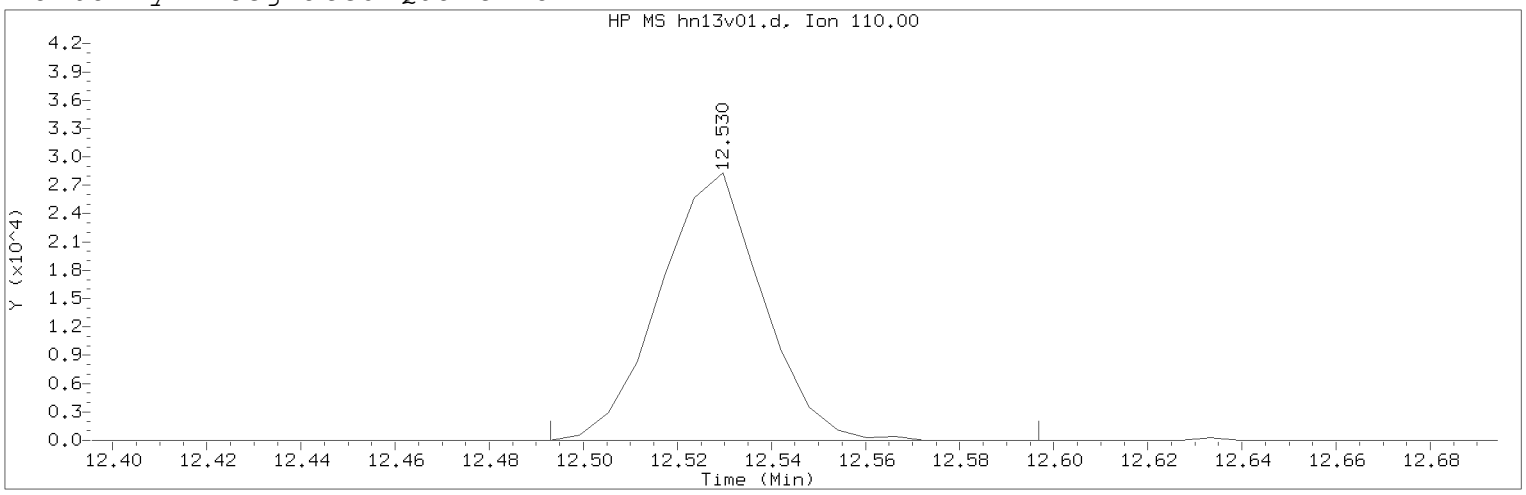
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 53.00
Area : 11515
On-column Amount (ng) : 1.3776
Integration start scan : 1856 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

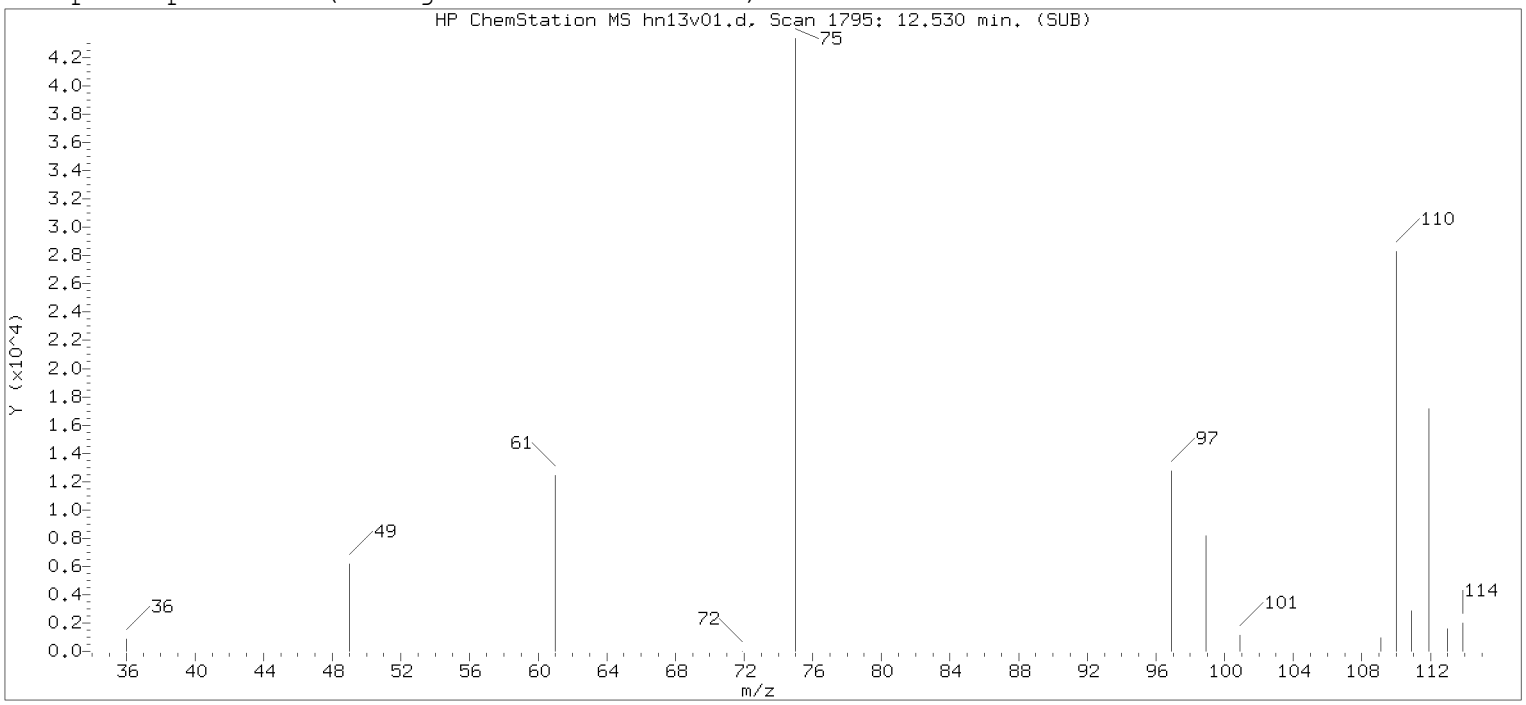
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1795
Retention Time (minutes): 12.530
Quant Ion : 110.00
Area (flag) : 42803M
On-Column Amount (ng) : 5.1013
Integration start scan : 1788 Integration stop scan: 1805
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

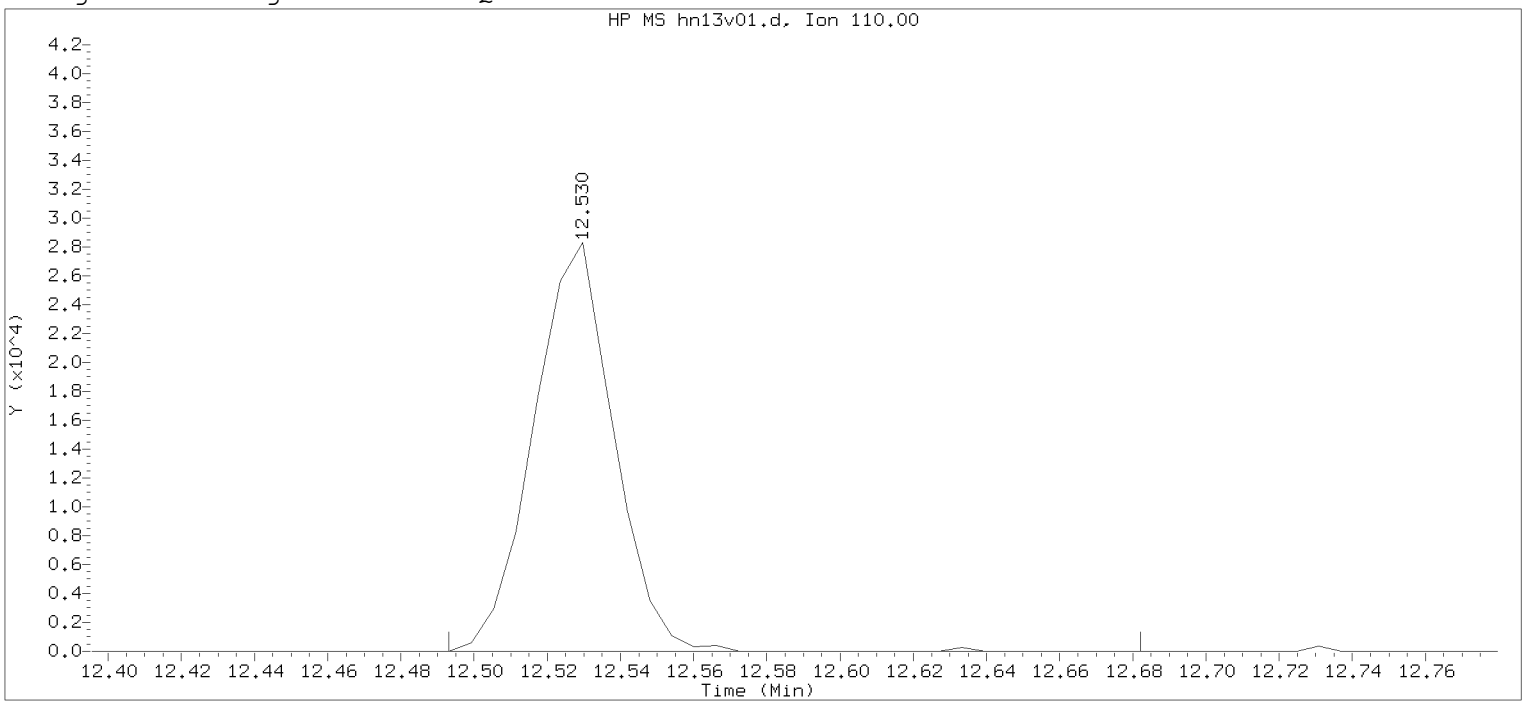
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

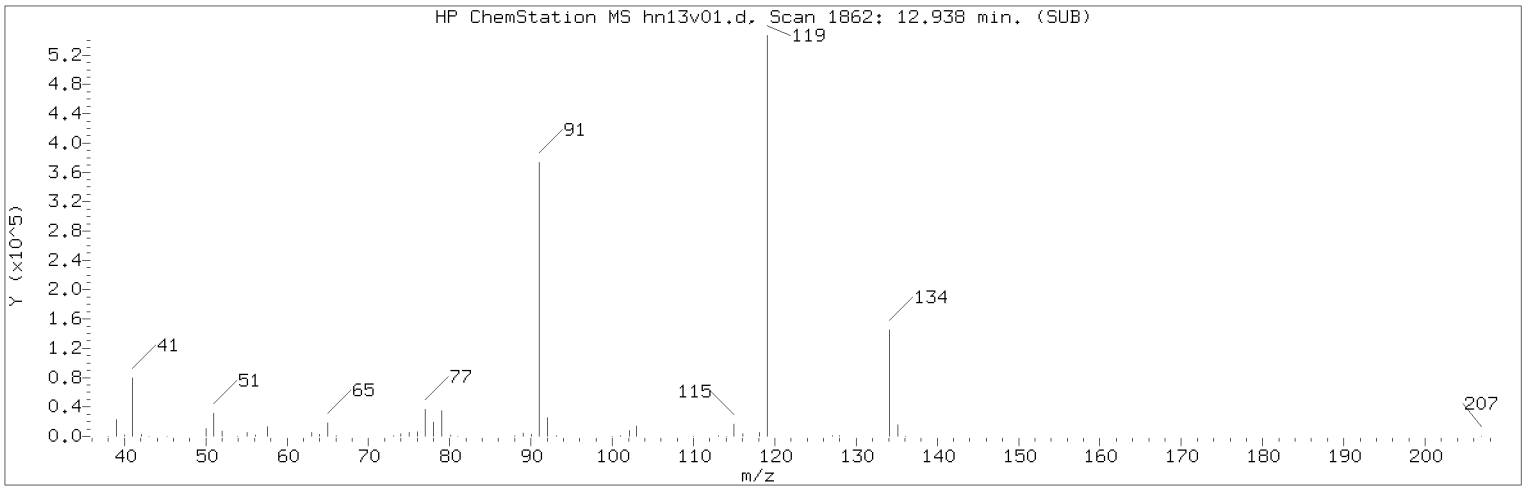
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

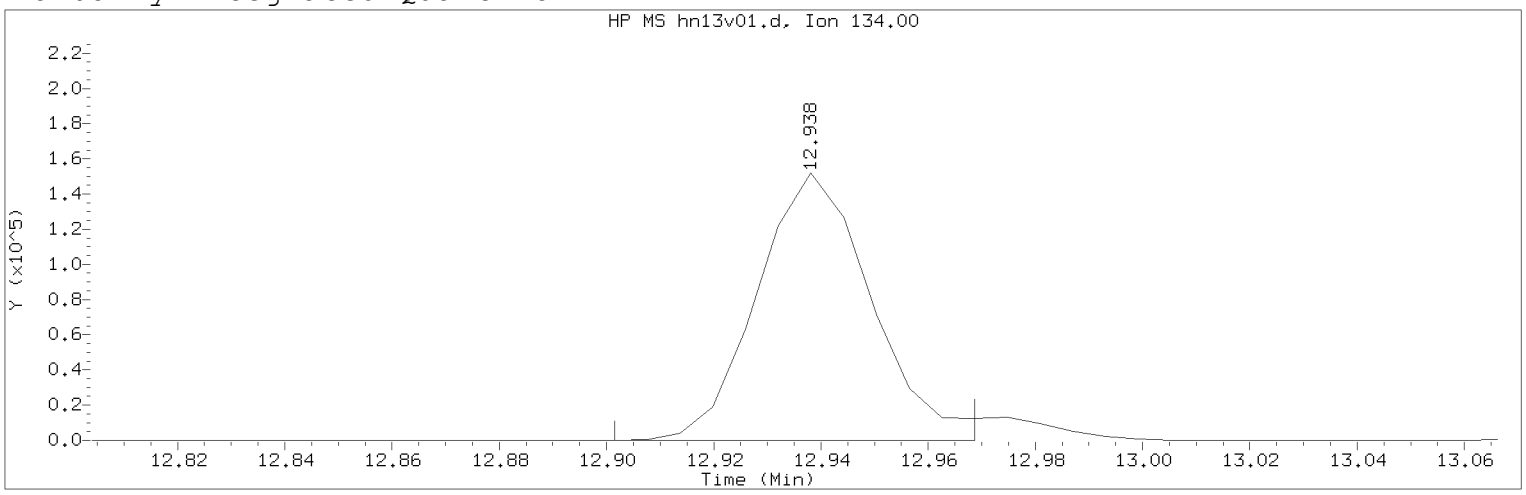
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1795
Retention Time (minutes): 12.530
Quant Ion : 110.00
Area : 42902
On-column Amount (ng) : 5.1131
Integration start scan : 1788 Integration stop scan: 1819
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. AE35 Page 841 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

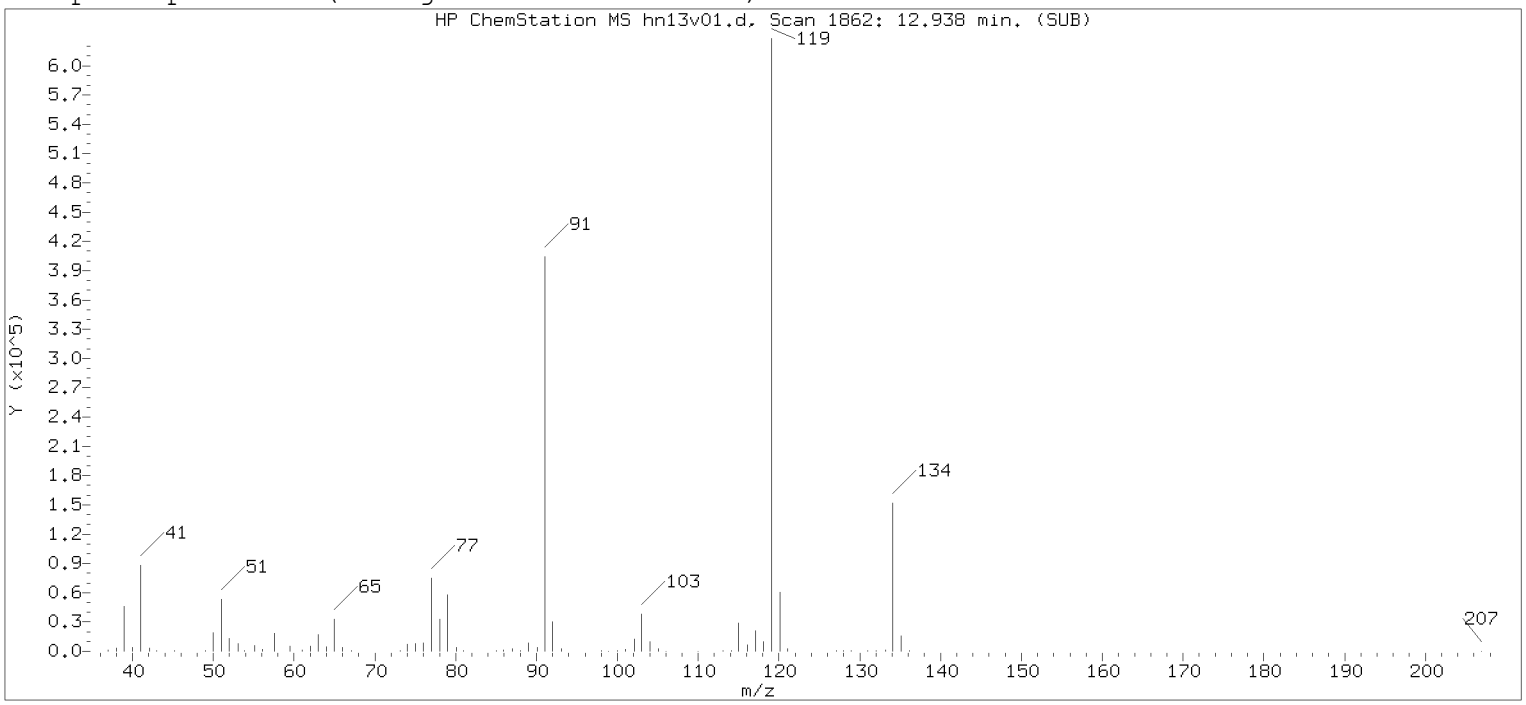
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area (flag) : 224058M
On-Column Amount (ng) : 5.2168
Integration start scan : 1855 Integration stop scan: 1866
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

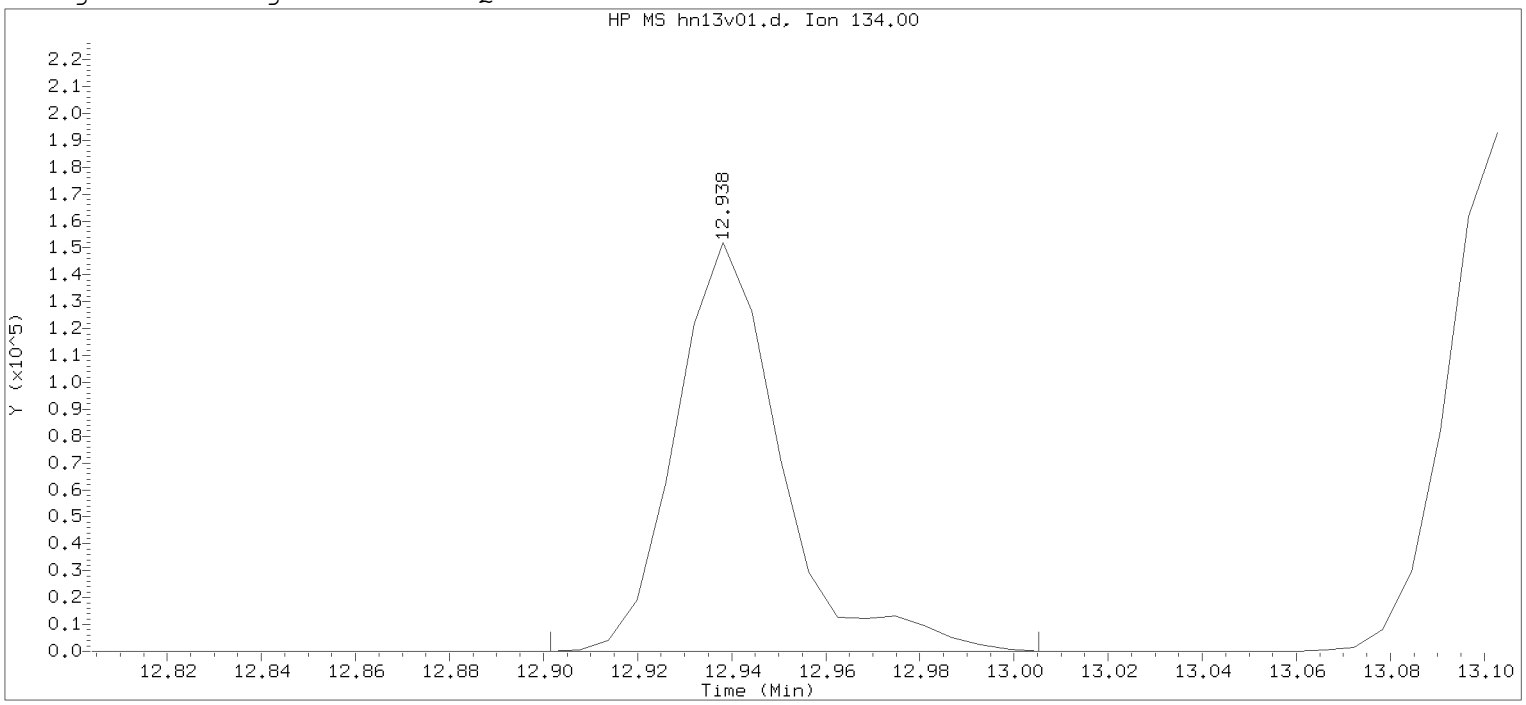
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

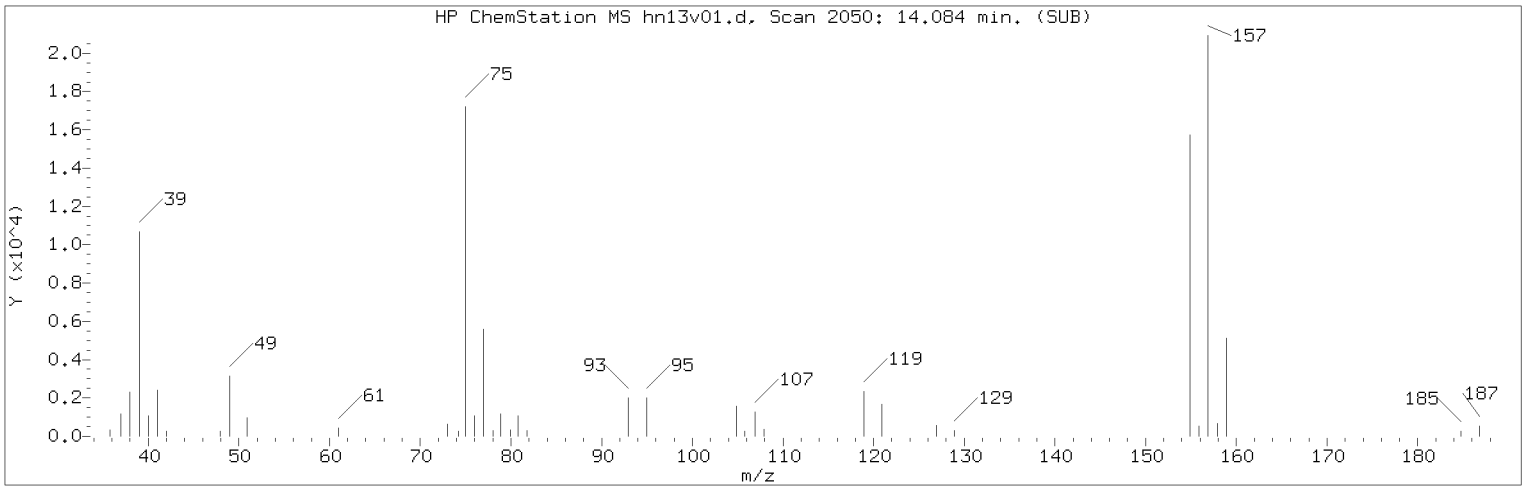
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

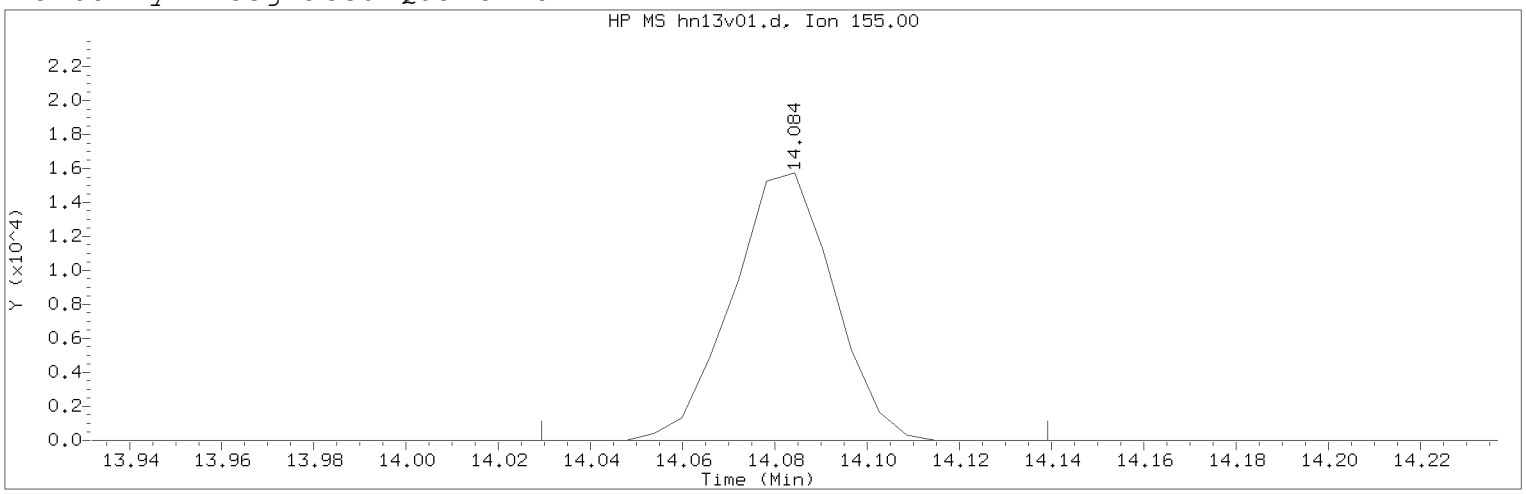
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1862
Retention Time (minutes): 12.938
Quant Ion : 134.00
Area : 235346
On-column Amount (ng) : 5.4796
Integration start scan : 1855 Integration stop scan: 1872
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 16-NOV-2018 12:34
Date, time and analyst ID of latest file update: 16-Nov-2018 12:34 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

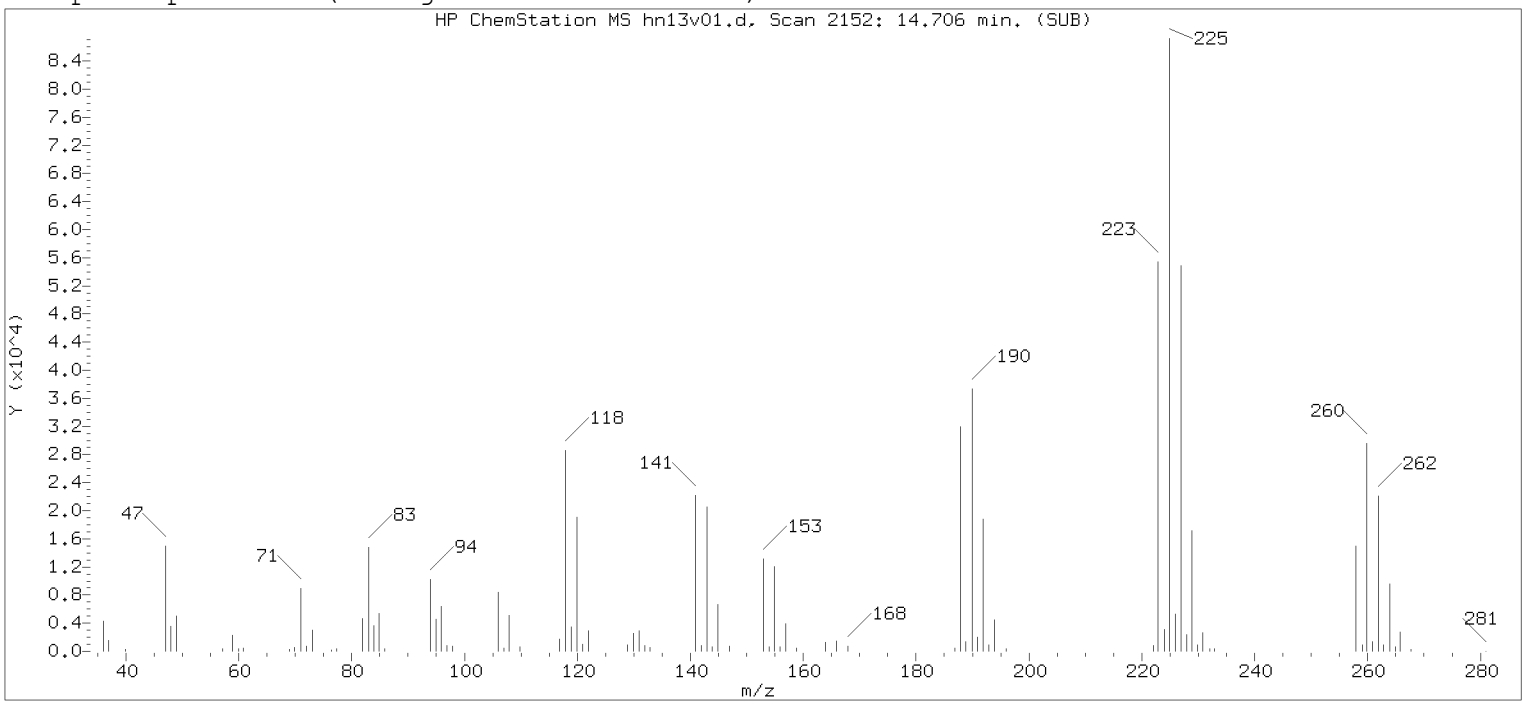
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2050
Retention Time (minutes): 14.084
Quant Ion : 155.00
Area (flag) : 23965M
On-Column Amount (ng) : 5.5530
Integration start scan : 2040 Integration stop scan: 2058
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

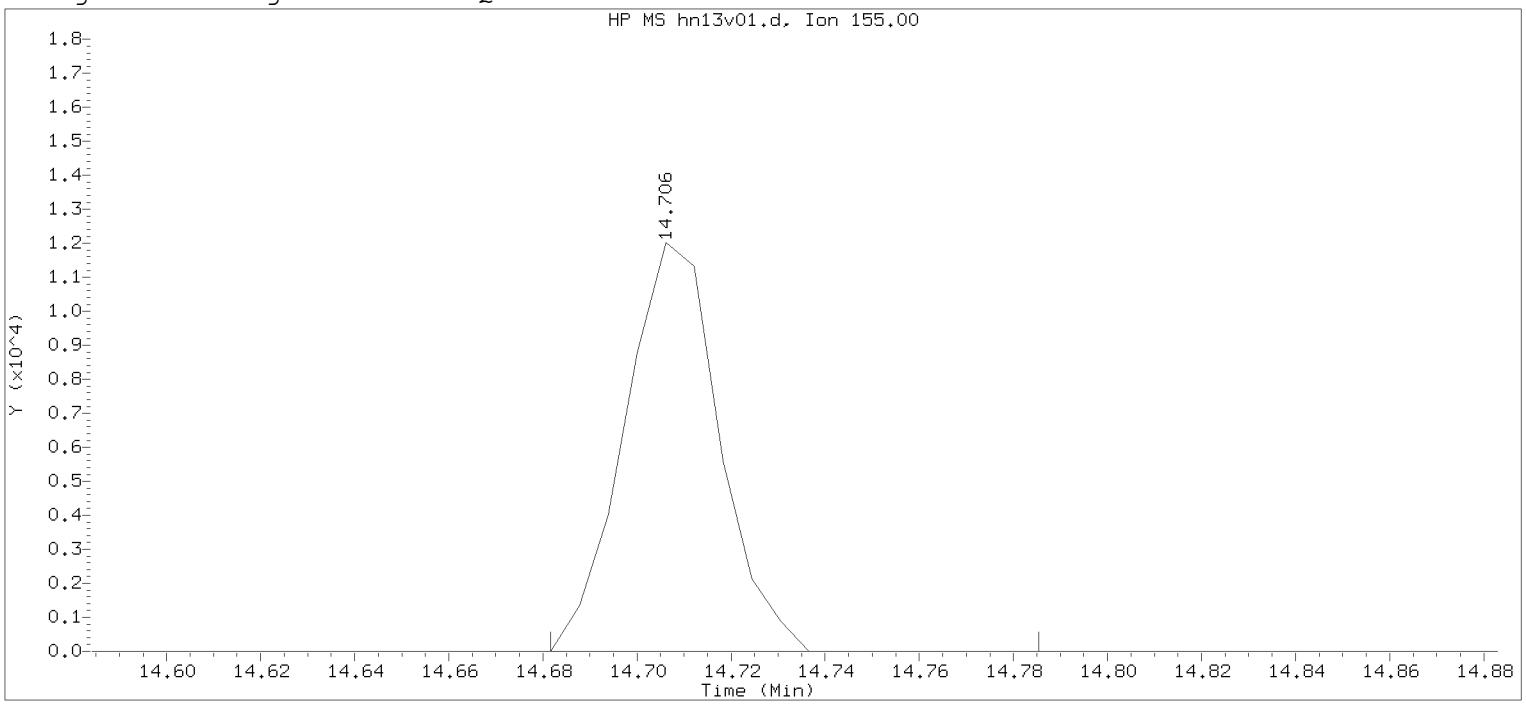
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/16/2018 at 12:35.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 13:55.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v01.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 18:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 14-NOV-2018 06:56
Date, time and analyst ID of latest file update: 14-Nov-2018 06:56 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2152
Retention Time (minutes): 14.706
Quant Ion : 155.00
Area : 16862
On-column Amount (ng) : 3.9072
Integration start scan : 2147 Integration stop scan: 2164
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/16/2018 at 12:35.
Target 3.5 esignature used. [illegible]

Data File: /chem2/HP19094.i/19apr22b.b/ha22t03.d

Date : 22-APR-2019 20:44

Client ID: BFB 50ng

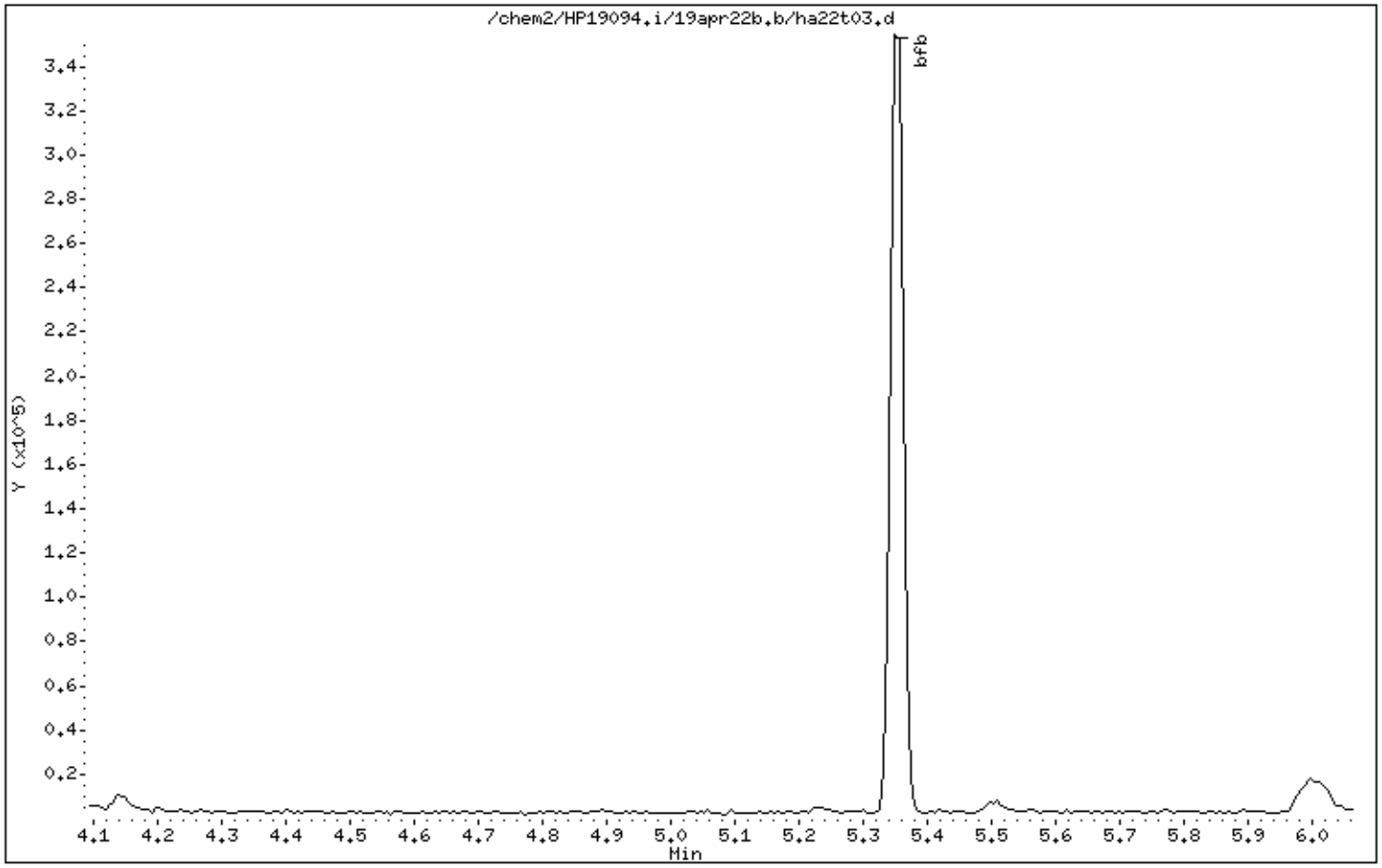
Instrument: HP19094.i

Sample Info: BFB 50ng;BFB FEB05-19;1;3;;;;;

Operator: MEC29284

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Miranda E. Campbell on 04/22/2019 at 21:02.
Target 3.5 esignature user ID: mec29284

Data File: /chem2/HP19094.i/19apr22b.b/ha22t03.d

Date : 22-APR-2019 20:44

Client ID: BFB 50ng

Instrument: HP19094.i

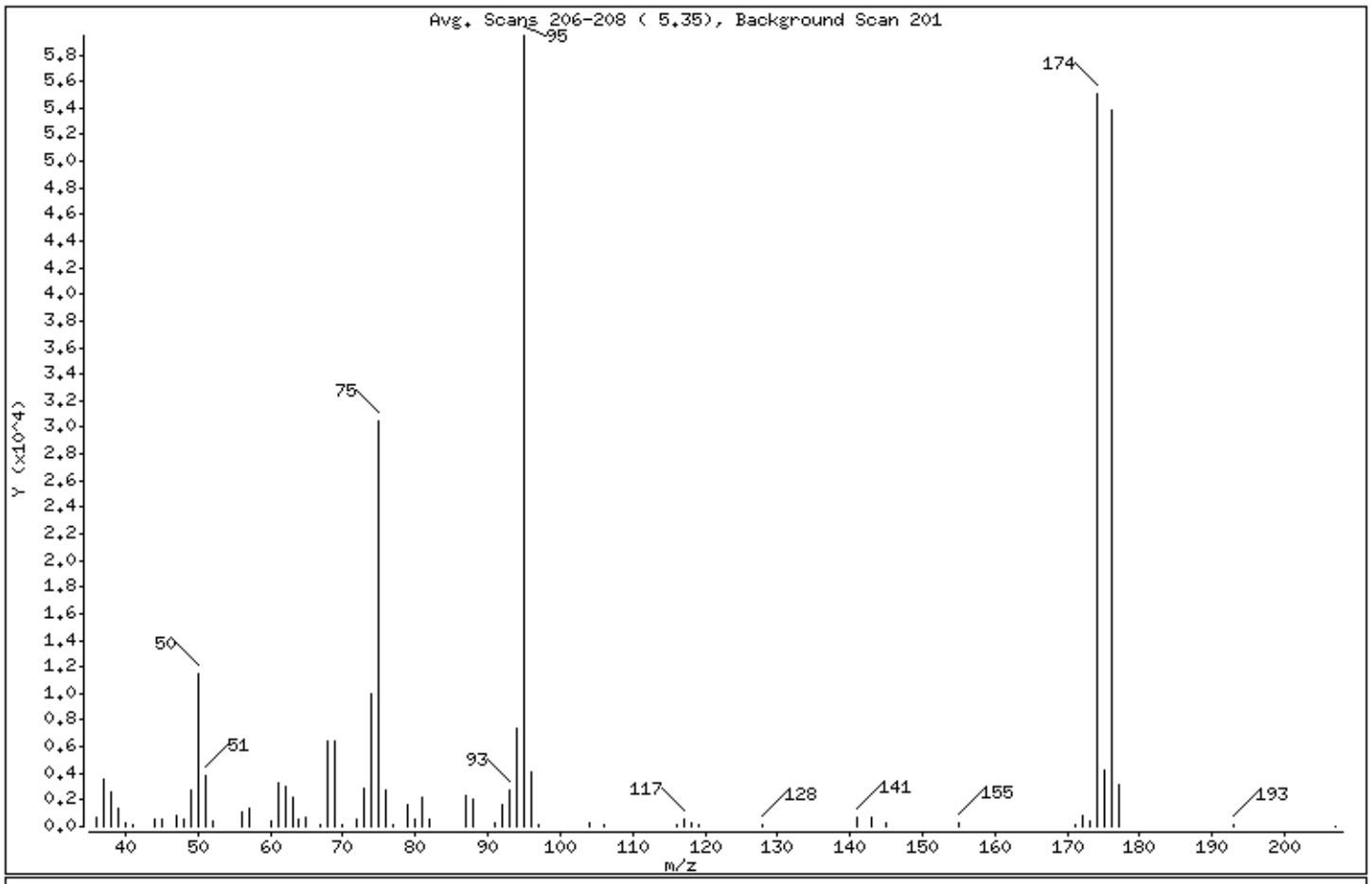
Sample Info: BFB 50ng;BFB FEB05-19;1;3;;;;;

Operator: MEC29284

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.41
75	30.00 - 60.00% of mass 95	51.16
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.73 (0.79)
174	50.00 - 100.00% of mass 95	92.64
175	5.00 - 9.00% of mass 174	7.24 (7.81)
176	95.00 - 101.00% of mass 174	90.50 (97.69)
177	5.00 - 9.00% of mass 176	5.23 (5.77)

Digitally signed by Miranda E. Campbell on 04/22/2019 at 21:02.
Target 3.5 esignature user ID: mec29284

Data File: /chem2/HP19094.i/19apr22b.b/ha22t03.d

Date : 22-APR-2019 20:44

Client ID: BFB 50ng

Instrument: HP19094.i

Sample Info: BFB 50ng;BFB FEB05-19;1;3;;;;;

Operator: MEC29284

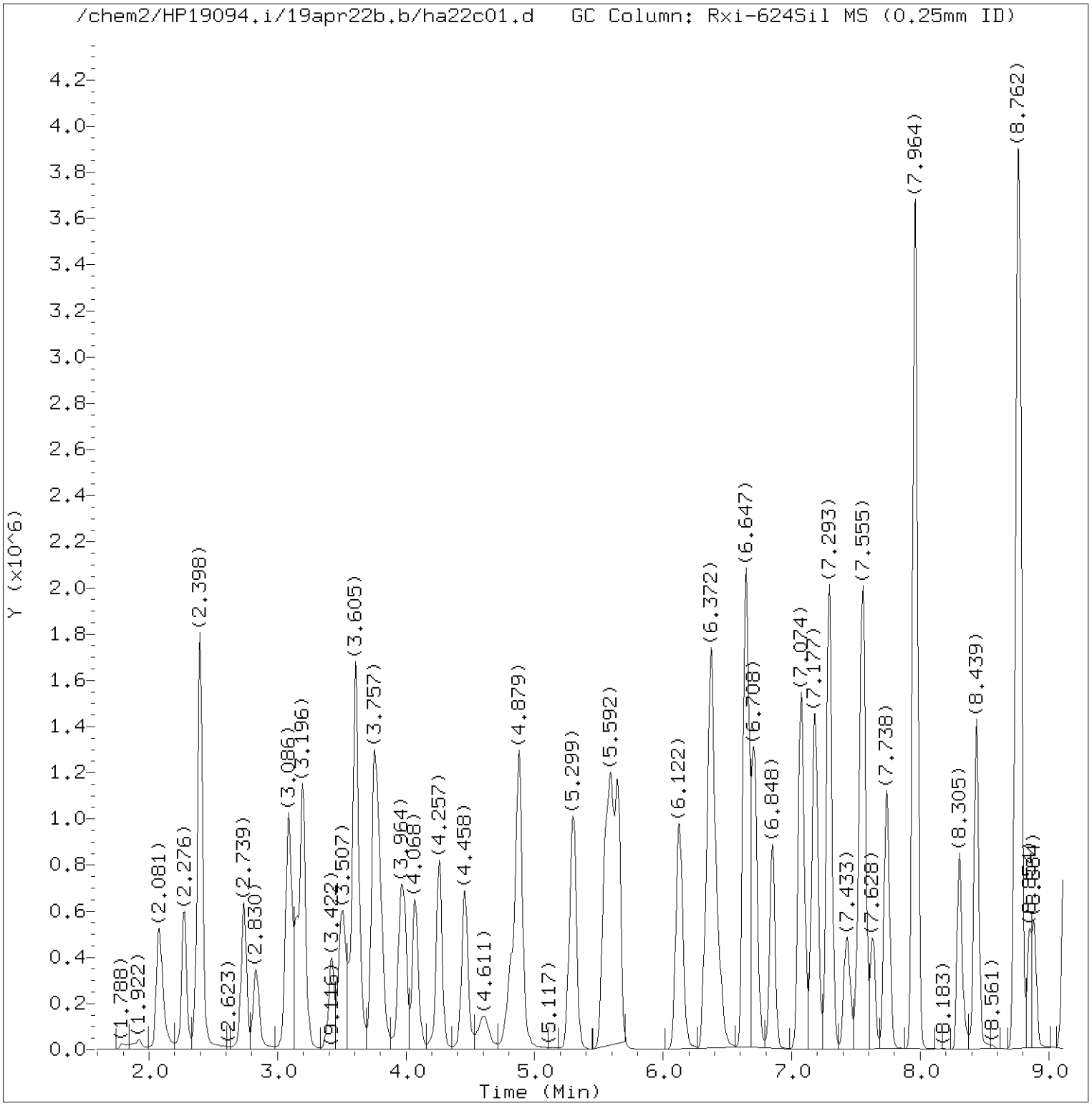
Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: ha22t03.d
Spectrum: Avg. Scans 206-208 (5.35), Background Scan 201
Location of Maximum: 95.00
Number of points: 65

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	692	61.00	3275	81.00	2130	128.00	177
37.00	3487	62.00	2991	82.00	559	141.00	730
38.00	2663	63.00	2131	87.00	2377	143.00	674
39.00	1424	64.00	509	88.00	2018	145.00	291
40.00	224	65.00	747	91.00	255	155.00	240
41.00	103	67.00	86	92.00	1607	171.00	88
44.00	544	68.00	6415	93.00	2696	172.00	876
45.00	513	69.00	6411	94.00	7385	173.00	434
47.00	840	70.00	164	95.00	59448	174.00	55072
48.00	606	72.00	544	96.00	4079	175.00	4303
49.00	2766	73.00	2876	97.00	132	176.00	53800
50.00	11540	74.00	9925	104.00	308	177.00	3107
51.00	3821	75.00	30416	106.00	161	193.00	155
52.00	361	76.00	2758	116.00	108	207.00	36
56.00	1086	77.00	191	117.00	488		
57.00	1343	79.00	1661	118.00	218		
60.00	377	80.00	575	119.00	157		

Digitally signed by Miranda E. Campbell on 04/22/2019 at 21:02.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

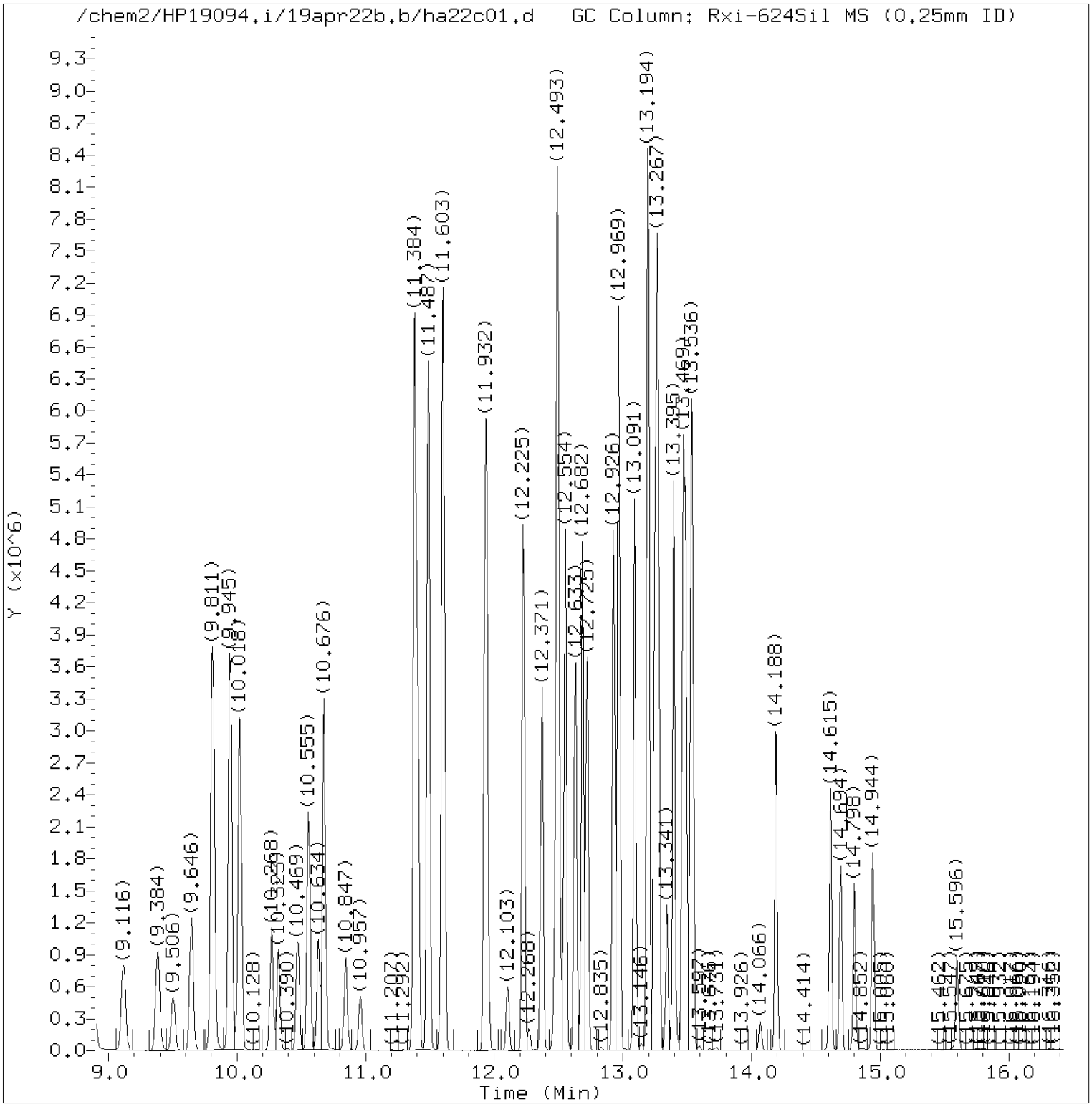
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.074	85	1131231	11.733
2) Chloromethane	(2)	2.270	50	986412	10.574
5) Vinyl Chloride	(2)	2.398	62	923495	10.914
6) 1,3-Butadiene	(2)	2.398	39	961480M	13.822
7) Bromomethane	(2)	2.733	94	677764	10.564
8) Chloroethane	(2)	2.837	64	532627	10.552
9) Dichlorofluoromethane	(2)	3.080	67	1287494	9.768
10) Trichlorofluoromethane	(2)	3.141	101	1280184M	11.235
11) Ethyl ether	(2)	3.422	59	361321	9.308
12) Freon 123a	(2)	3.507	67	768408	9.757
13) Acrolein	(1)	3.605	56	2721177	449.542
15) 1,1-Dichloroethene	(2)	3.745	96	507356	9.564
16) Freon 113	(2)	3.788	101	632521	10.369
14) Acetone	(1)	3.788	43	734861M	97.533
17) Methyl Iodide	(2)	3.958	142	1034991	9.609
18) Carbon Disulfide	(2)	4.068	76	1580105	9.677
21) Methyl Acetate	(1)	4.226	43	181141	6.931
22) Allyl Chloride	(2)	4.257	41	879970	7.768
23) Methylene Chloride	(2)	4.458	84	538951	9.465
26)*t-Butyl Alcohol-d10	(1)	4.476	65	151985	50.000
28) t-Butyl Alcohol	(1)	4.611	59	498637M	248.611
29) Acrylonitrile	(1)	4.812	53	492537	45.935
30) Methyl Tertiary Butyl Ether	(2)	4.861	73	1097912	9.272
31) trans-1,2-Dichloroethene	(2)	4.885	96	566831	9.531
32) n-Hexane	(2)	5.306	57	953334	9.353
33) 1,1-Dichloroethane	(2)	5.543	63	1102119M	9.492
34) di-Isopropyl Ether	(2)	5.592	45	1917754	8.897
35) 2-Chloro-1,3-Butadiene	(2)	5.647	53	1026831	9.558
40) 1,2-Dichloroethene (Total)	(2)		96	1198887	19.086
37) Ethyl t-butyl ether	(2)	6.129	59	1572467	8.933
38) 2-Butanone	(1)	6.336	43	1270404	82.461
39) cis-1,2-Dichloroethene	(2)	6.372	96	632056	9.554
41) 2,2-Dichloropropane	(2)	6.385	77	910944	9.627
42) Propionitrile	(1)	6.433	54	717462M	182.239
45) Methacrylonitrile	(1)	6.647	67	1220868	84.678
47) Bromochloromethane	(2)	6.708	128	248337	9.545
48) Tetrahydrofuran	(1)	6.714	71	328552	89.207
49) Chloroform	(2)	6.848	83	1041666	9.808

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.067	113	715110	9.942
50)$Dibromofluoromethane	(2)	7.067	111	726932	9.846
51) 1,1,1-Trichloroethane	(2)	7.086	97	960009M	9.982
52) Cyclohexane	(2)	7.177	56	1179800	9.314
52) Cyclohexane	(2)	7.183	84	964587	9.425
52) Cyclohexane	(2)	7.177	69	354287	9.156
54) Carbon Tetrachloride	(2)	7.293	117	877929	10.149
55) 1,1-Dichloropropene	(2)	7.293	75	848929	9.772
56) Isobutyl Alcohol	(1)	7.433	41	483005M	578.960
57)$1,2-Dichloroethane-d4	(2)	7.525	102	130273M	10.333
57)$1,2-Dichloroethane-d4	(2)	7.525	65	631750	10.793
57)$1,2-Dichloroethane-d4	(2)	7.531	104	81007	10.147
58) Benzene	(2)	7.555	78	2425549	9.625
59) 1,2-Dichloroethane	(2)	7.628	62	570518	10.200
60) t-Amyl methyl ether	(2)	7.744	73	1315092	9.068
62) n-Heptane	(2)	7.964	43	990594	8.951
63)*Fluorobenzene	(2)	7.964	96	2877128	10.000
65) n-Butanol	(1)	8.305	56	808843	1049.363
67) Trichloroethene	(2)	8.439	95	631701	9.714
69) Methylcyclohexane	(2)	8.750	83	1081490	8.630
70) 1,2-Dichloropropane	(2)	8.780	63	593607	9.322
71) Methyl Methacrylate	(1)	8.848	69	229975	7.608
72) 1,4-Dioxane	(1)	8.860	88	99103M	568.642
73) Dibromomethane	(2)	8.884	93	248775	10.283
74) Bromodichloromethane	(2)	9.116	83	703139	9.744
76) 2-Nitropropane	(1)	9.384	41	764813	86.542
80) cis-1,3-Dichloropropene	(2)	9.646	75	836718	9.383
81) 4-Methyl-2-Pentanone	(1)	9.811	43	3197604M	83.839
82)$Toluene-d8	(3)	9.945	98	2899651	10.295
82)$Toluene-d8	(3)	9.945	100	1853130	10.120
83) Toluene	(3)	10.018	92	1517307	10.147
85) 1,3-Dichloropropene (total)	(3)		75	1504992	19.567
84) trans-1,3-Dichloropropene	(3)	10.268	75	668274	10.184
86) Ethyl Methacrylate	(3)	10.323	69	504865	9.340
88) 1,1,2-Trichloroethane	(3)	10.469	97	355542	10.694
89) Tetrachloroethene	(3)	10.555	166	721864	10.368
90) 1,3-Dichloropropane	(3)	10.634	76	627871	10.399
91) 2-Hexanone	(1)	10.676	43	2196988	82.887

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	467290	10.300
95) 1,2-Dibromoethane	(3)	10.957	107	343243	10.761
97)*Chlorobenzene-d5	(3)	11.378	117	2180963	10.000
96) 1-Chlorohexane	(3)	11.384	91	873072	9.265
98) Chlorobenzene	(3)	11.408	112	1642352	10.270
100) Ethylbenzene	(3)	11.487	91	3012562	10.145
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	578338	10.233
101) m+p-Xylene	(3)	11.603	106	2300279	20.535
105) Xylene (Total)	(3)		106	3403140	30.642
104) o-Xylene	(3)	11.926	106	1102861	10.105
106) Styrene	(3)	11.945	104	1793606	10.267
107) Bromoform	(3)	12.103	173	269063	10.449
108) Isopropylbenzene	(3)	12.225	105	2972798	9.925
111)$4-Bromofluorobenzene	(3)	12.371	95	1010210	9.581
111)$4-Bromofluorobenzene	(3)	12.371	174	898661	9.953
113) 1,1,2,2-Tetrachloroethane	(4)	12.469	83	422563	10.685
114) Bromobenzene	(4)	12.487	156	672087	10.638
115) trans-1,4-Dichloro-2-butene	(1)	12.493	53	1110182	84.461
116) 1,2,3-Trichloropropane	(4)	12.518	110	108753	10.592
117) n-Propylbenzene	(4)	12.554	91	3533014	10.236
119) 2-Chlorotoluene	(4)	12.633	126	678217	10.005
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	2476213	10.198
122) 4-Chlorotoluene	(4)	12.725	126	689072	10.214
125) tert-Butylbenzene	(4)	12.932	134	517897M	9.854
126) Pentachloroethane	(4)	12.963	167	427354	10.258
127) 1,2,4-Trimethylbenzene	(4)	12.969	105	2515680	10.270
128) sec-Butylbenzene	(4)	13.091	105	3173263	10.163
131) 1,3-Dichlorobenzene	(4)	13.194	146	1315585	10.385
132) p-Isopropyltoluene	(4)	13.200	119	2681810	10.056
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1144051	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	1268161	10.234
135) 1,2,3-Trimethylbenzene	(4)	13.274	120	1040288	9.963
136) Benzyl Chloride	(4)	13.341	126	182860	10.179
138) n-Butylbenzene	(4)	13.487	92	1269938	10.115
139) 1,2-Dichlorobenzene	(4)	13.530	146	1121976	10.294
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	55657	8.201
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	907630	9.731
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	689144	9.225

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

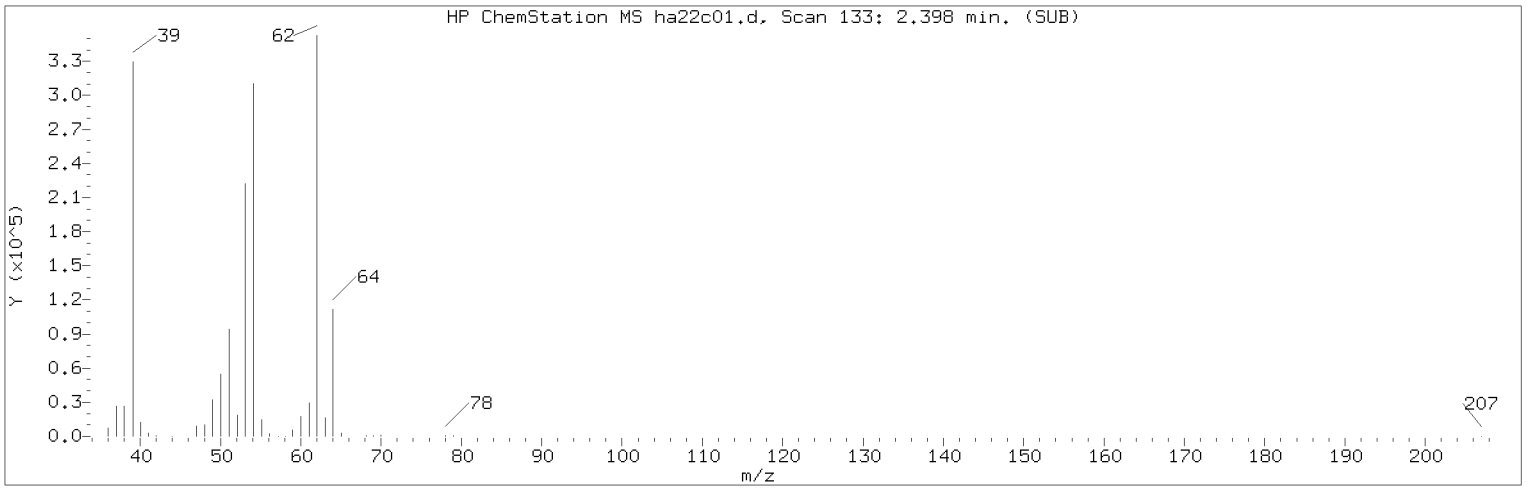
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

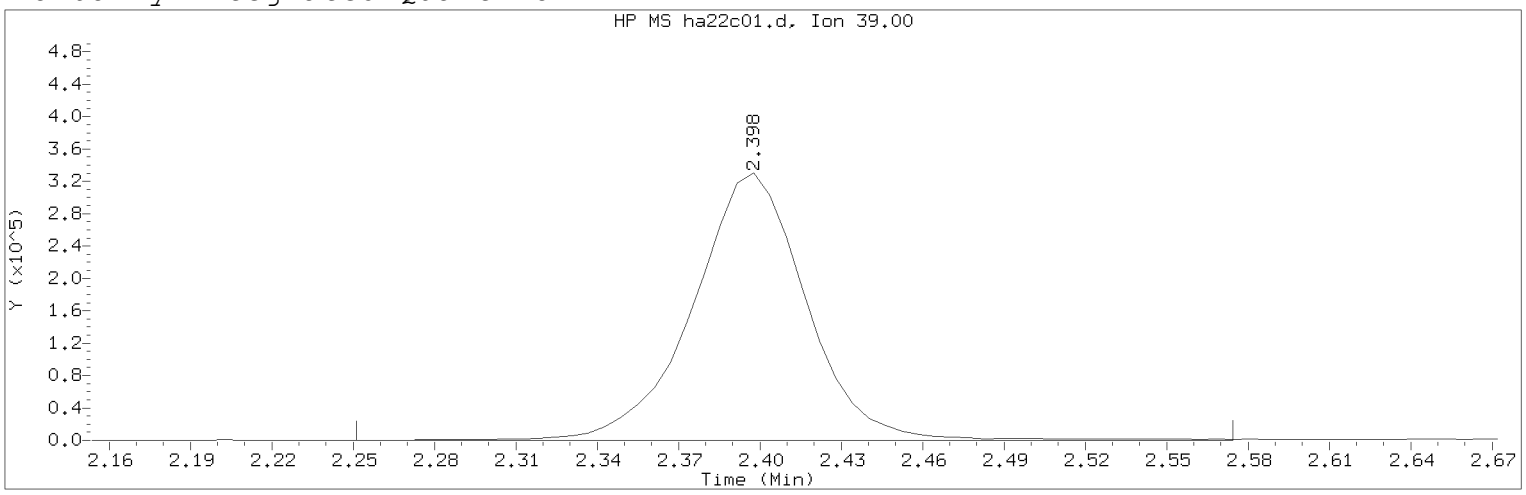
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.694	225	298614	9.905
147) Naphthalene	(4)	14.798	128	1114863	8.911
148) 1,2,3-Trichlorobenzene	(4)	14.944	180	556677	8.945

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

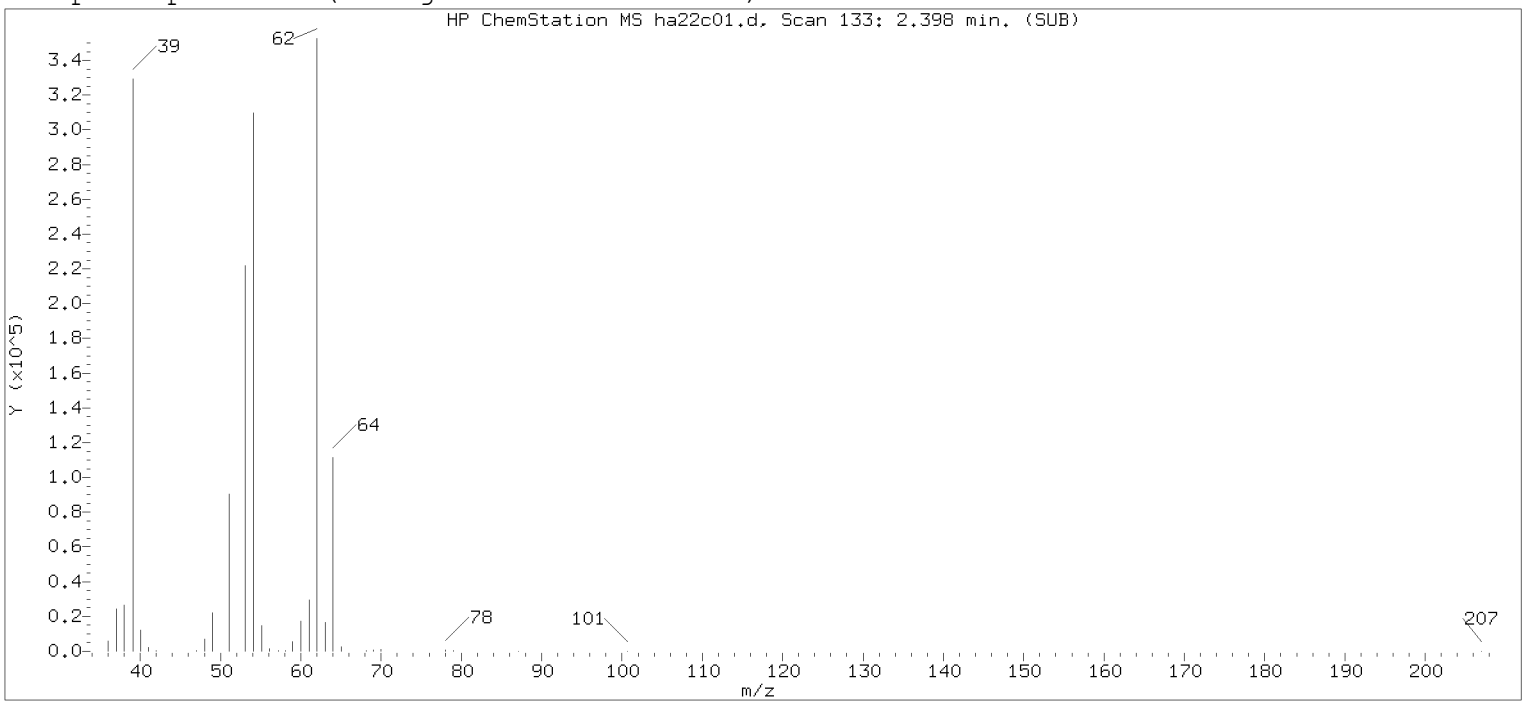
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area (flag) : 961480M
On-Column Amount (ng) : 13.8217
Integration start scan : 108 Integration stop scan: 161
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

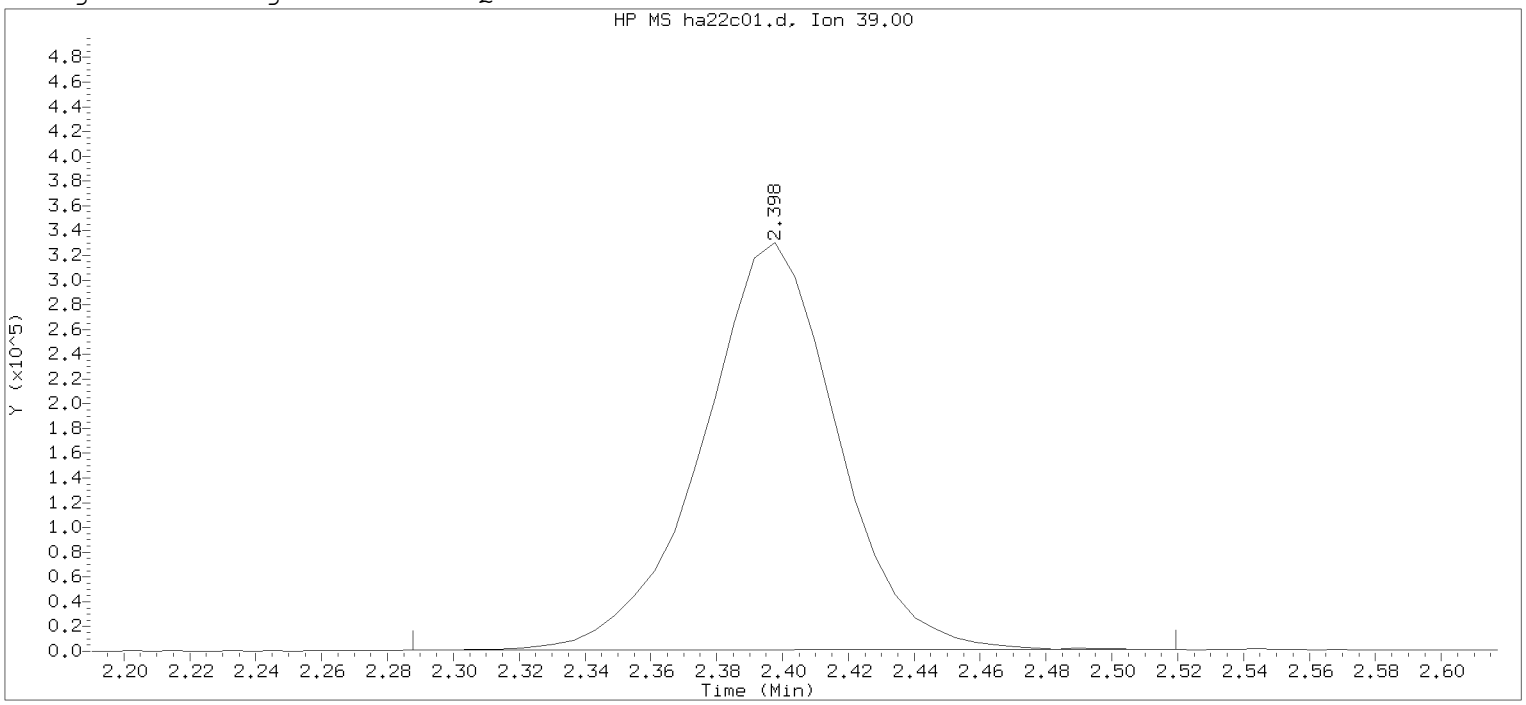
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

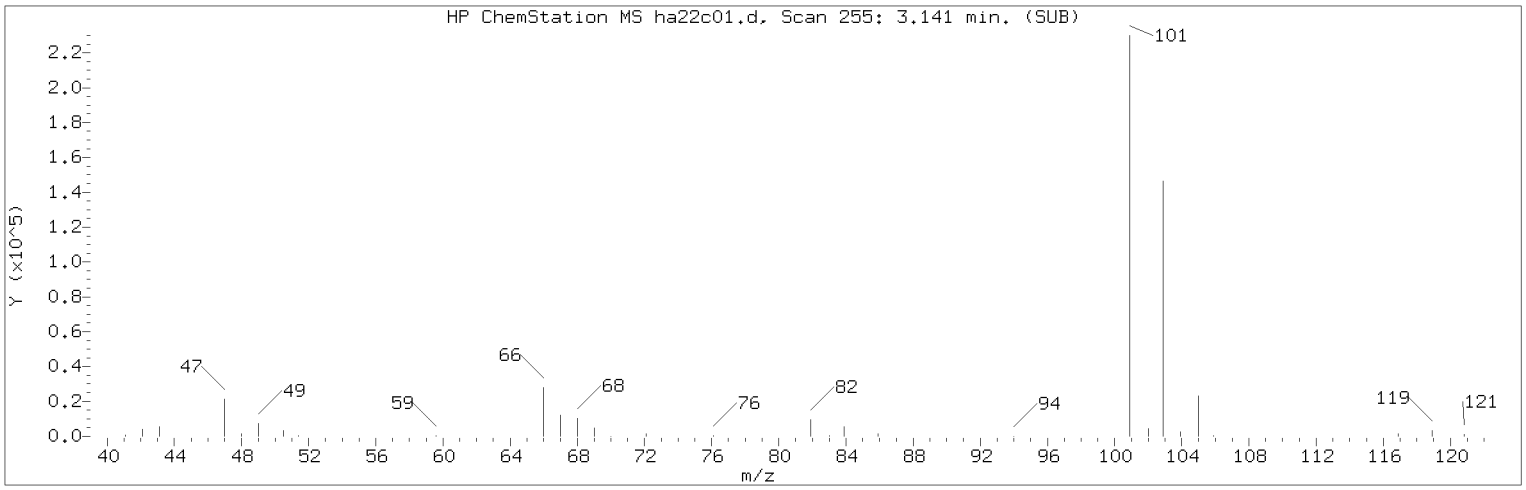
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

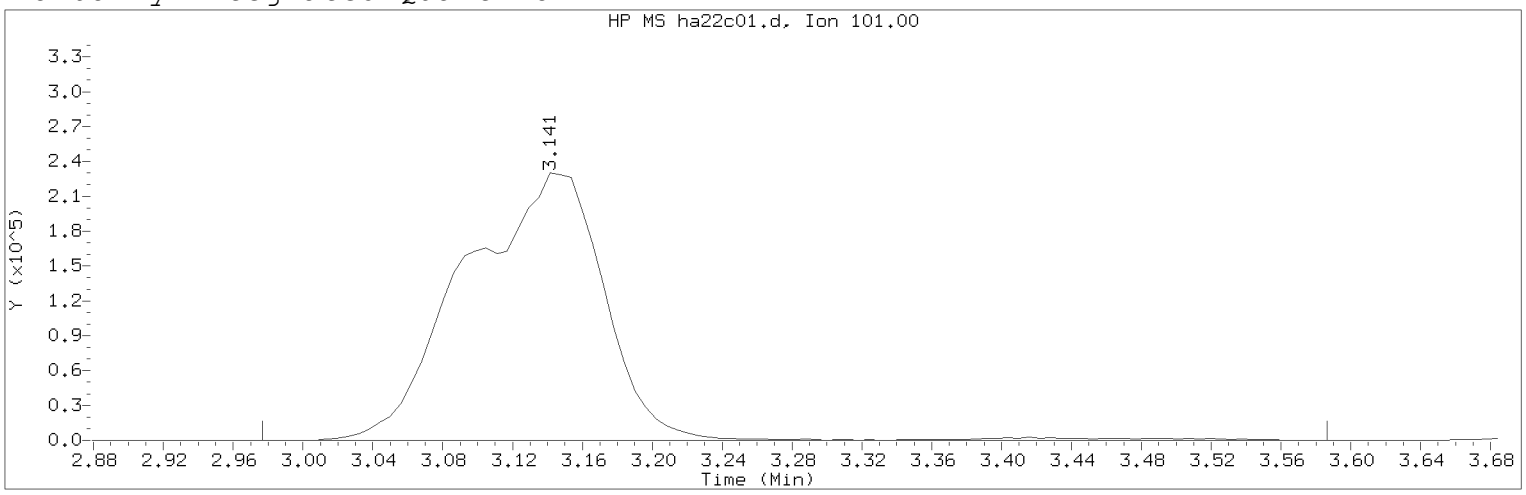
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 133
Retention Time (minutes): 2.398
Quant Ion : 39.00
Area : 939004
On-column Amount (ng) : 13.4986
Integration start scan : 114 Integration stop scan: 152
Y at integration start : 796 Y at integration end: 1581

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

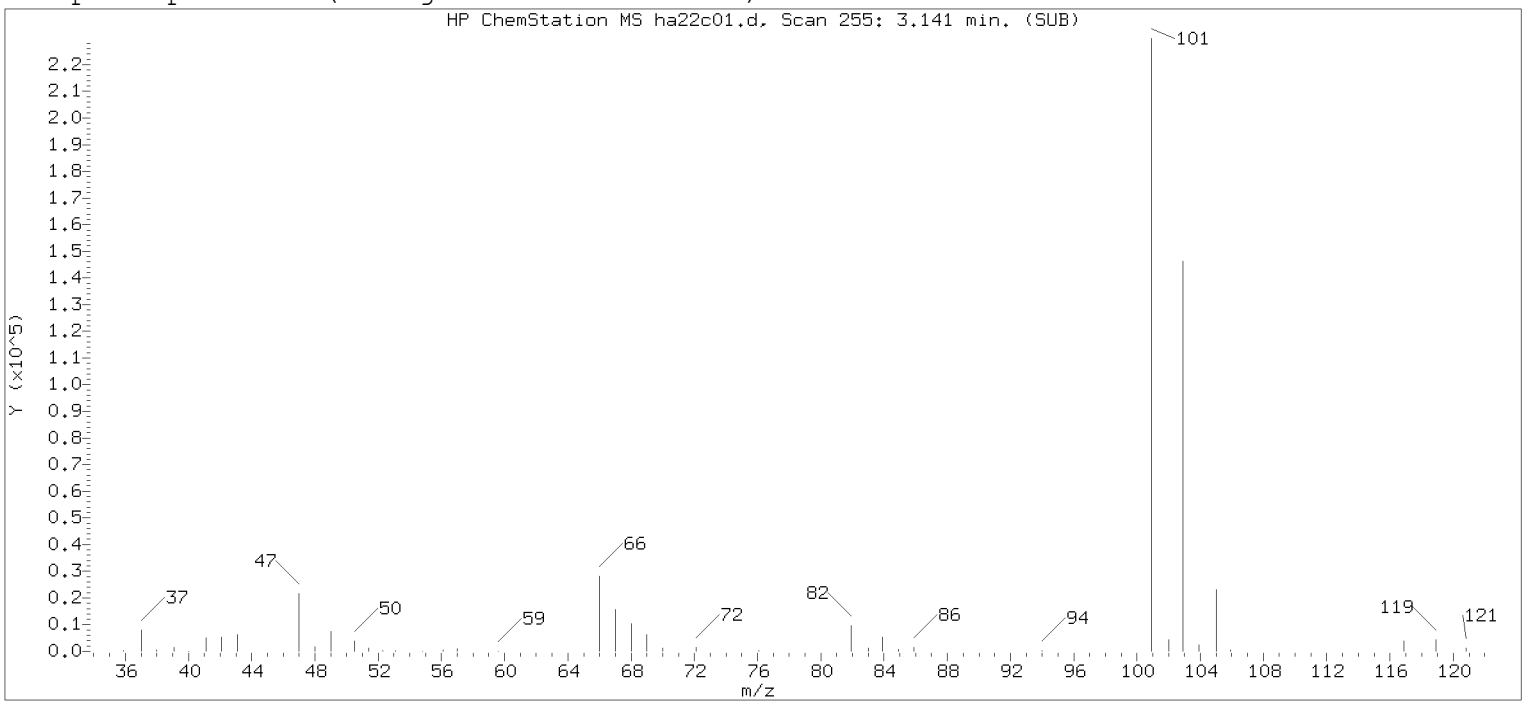
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 255
Retention Time (minutes): 3.141
Quant Ion : 101.00
Area (flag) : 1280184M
On-Column Amount (ng) : 11.2354
Integration start scan : 227 Integration stop scan: 327
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

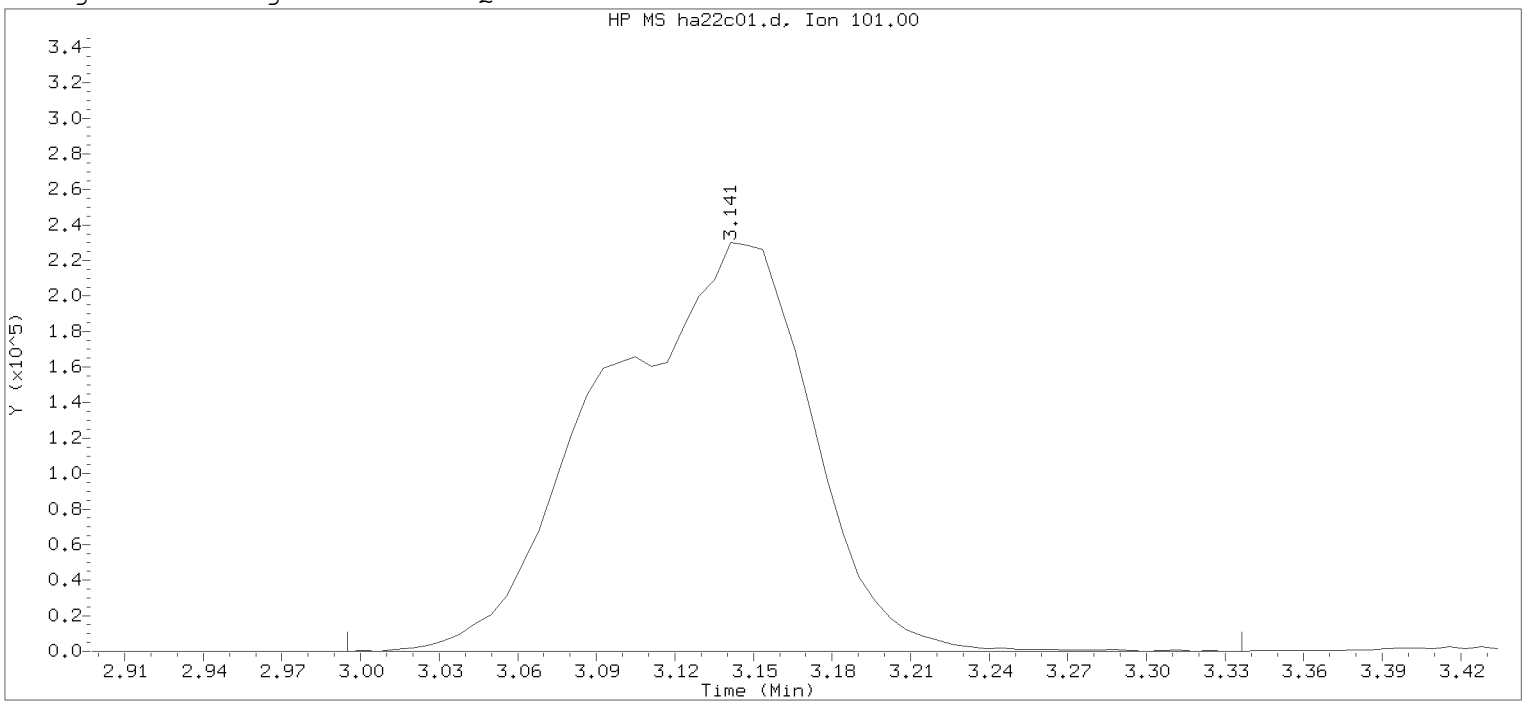
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

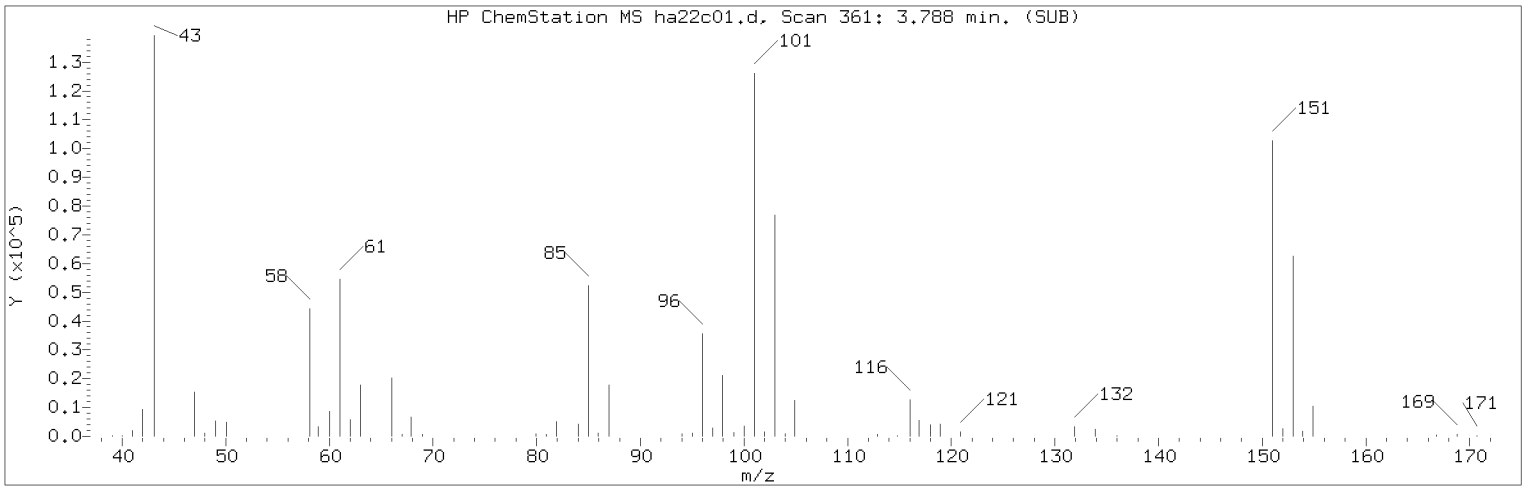
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

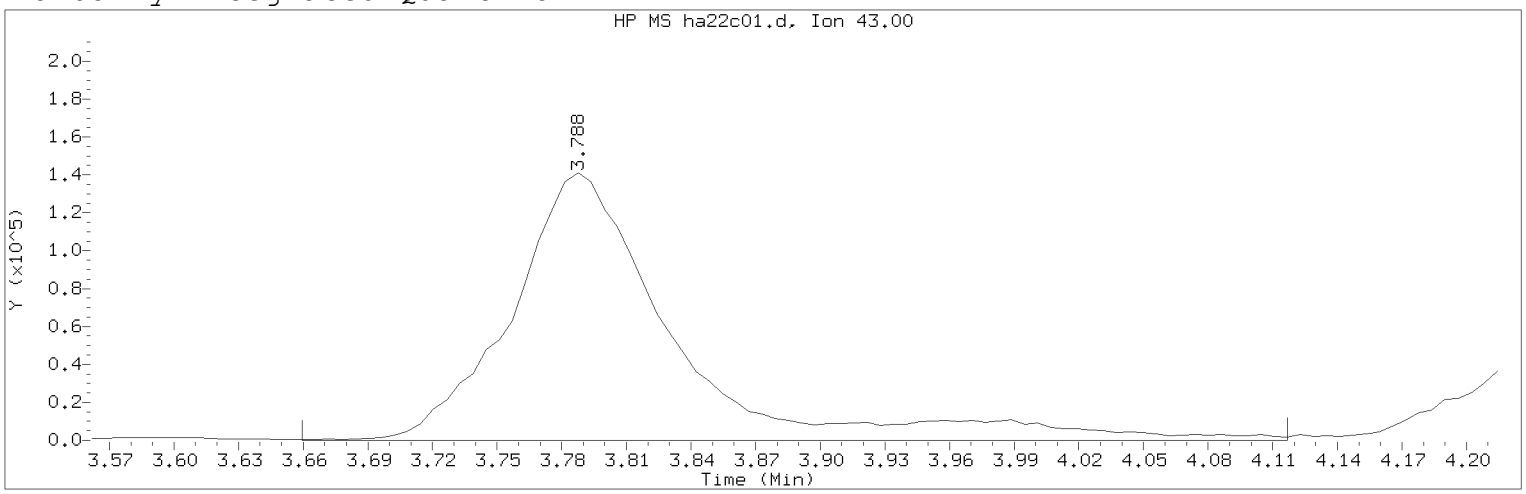
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 255
Retention Time (minutes): 3.141
Quant Ion : 101.00
Area : 1263702
On-column Amount (ng) : 11.0907
Integration start scan : 230 Integration stop scan: 286
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. AE35 Page 858 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

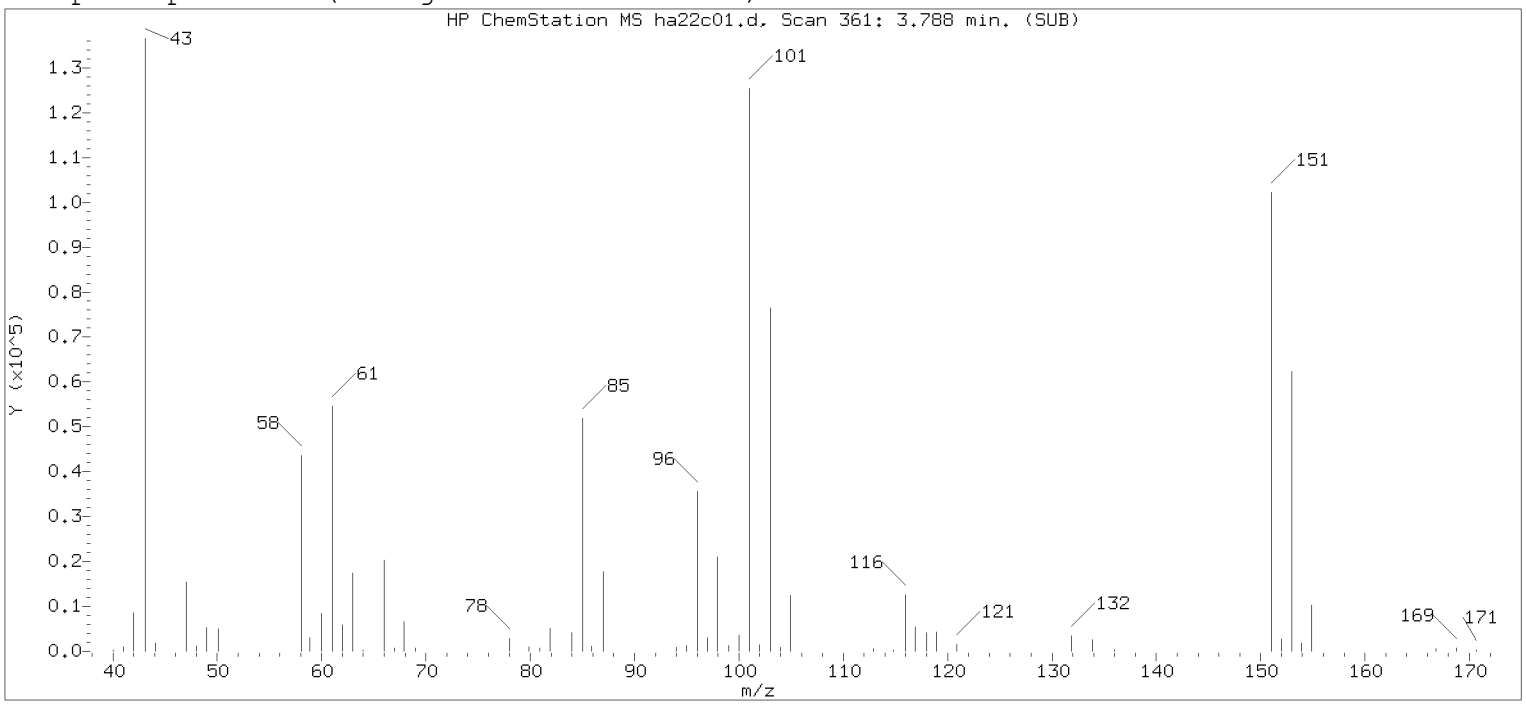
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.788
Quant Ion : 43.00
Area (flag) : 734861M
On-Column Amount (ng) : 97.5329
Integration start scan : 339 Integration stop scan: 414
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

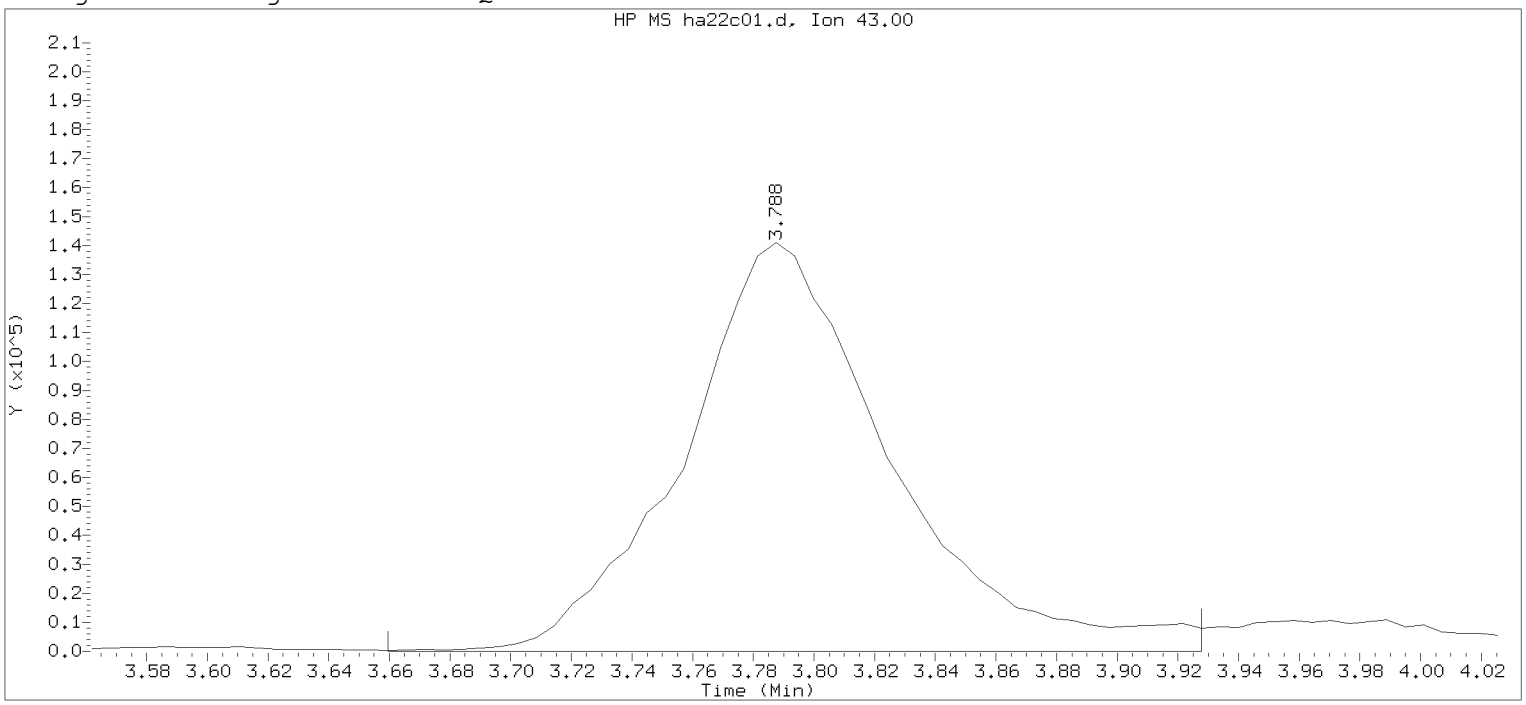
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

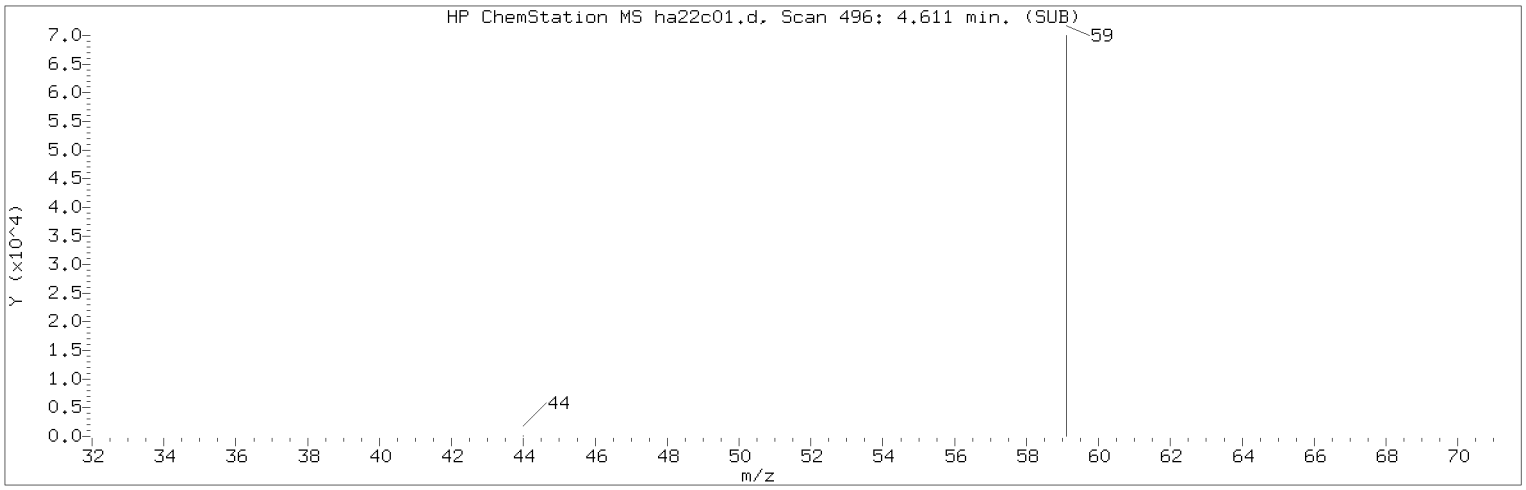
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

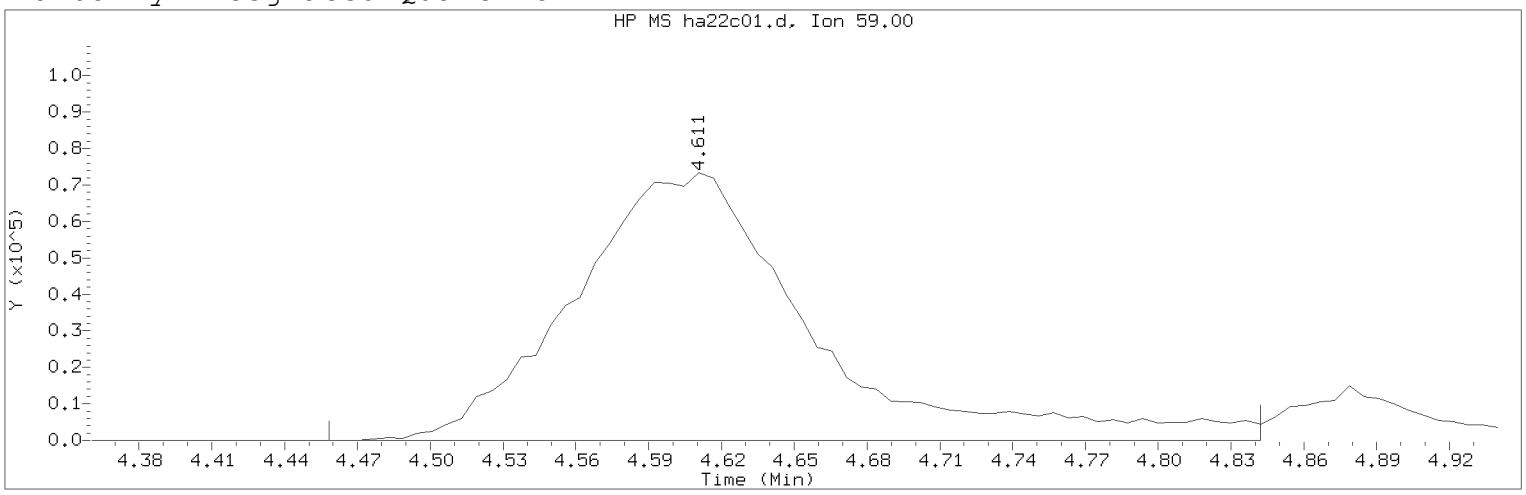
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.788
Quant Ion : 43.00
Area : 663983
On-column Amount (ng) : 88.1257
Integration start scan : 339 Integration stop scan: 383
Y at integration start : 42 Y at integration end: 80

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

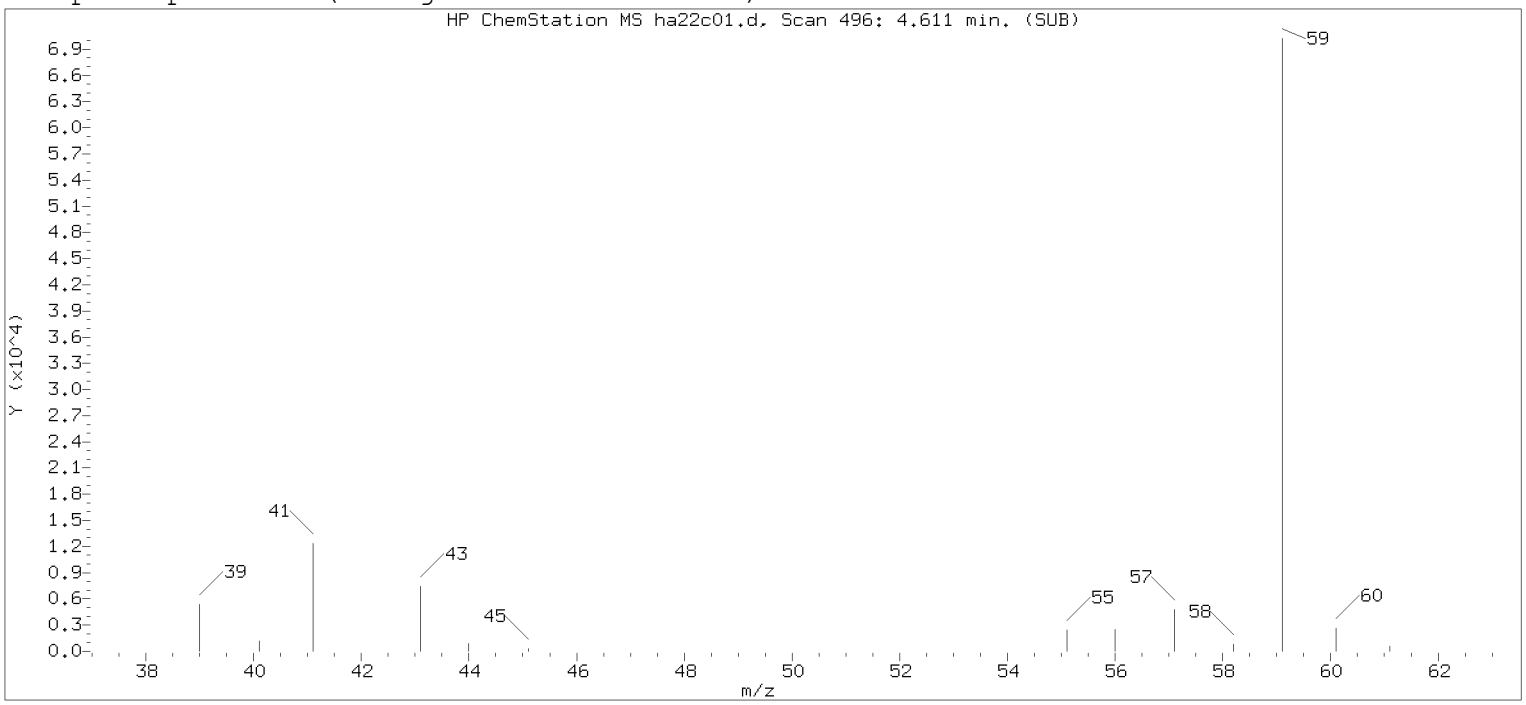
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 496
Retention Time (minutes): 4.611
Quant Ion : 59.00
Area (flag) : 498637M
On-Column Amount (ng) : 248.6107
Integration start scan : 470 Integration stop scan: 533
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

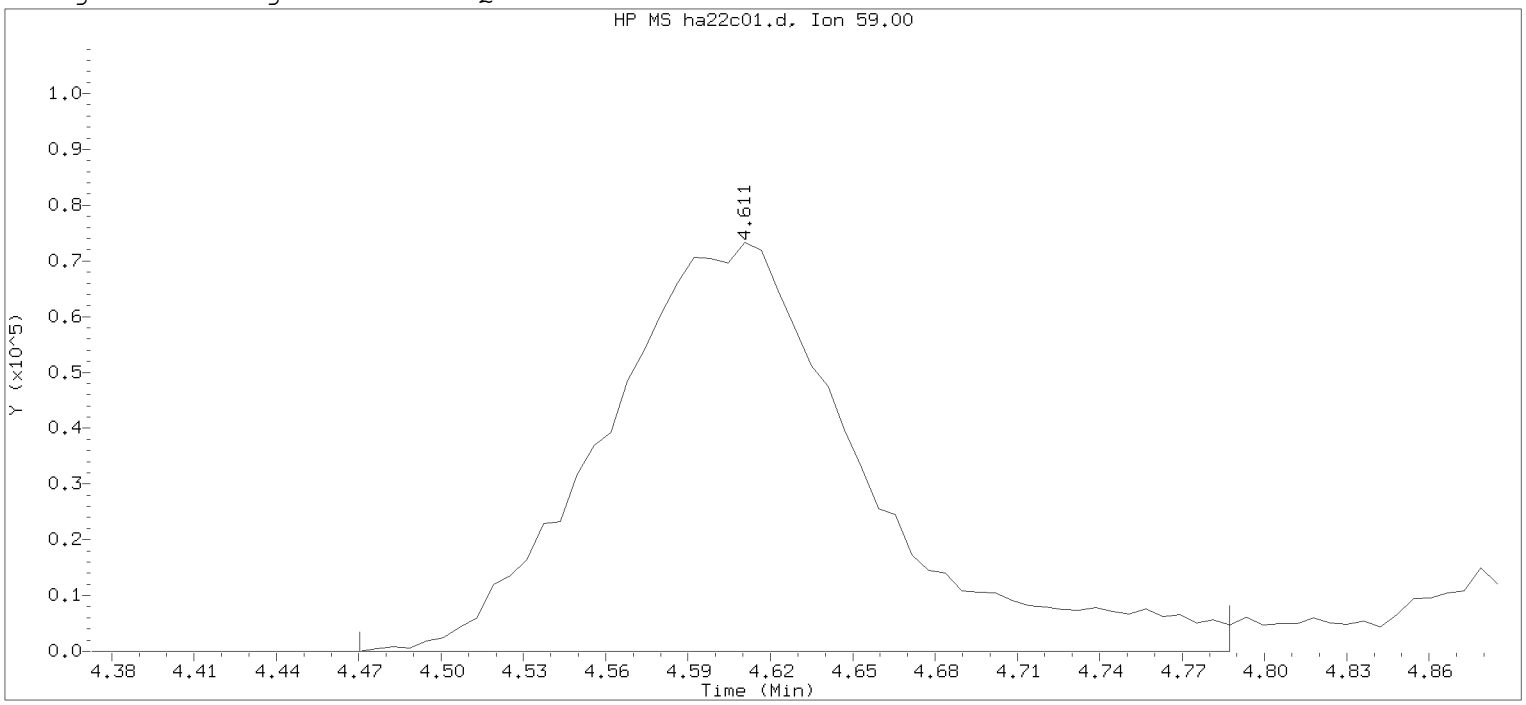
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

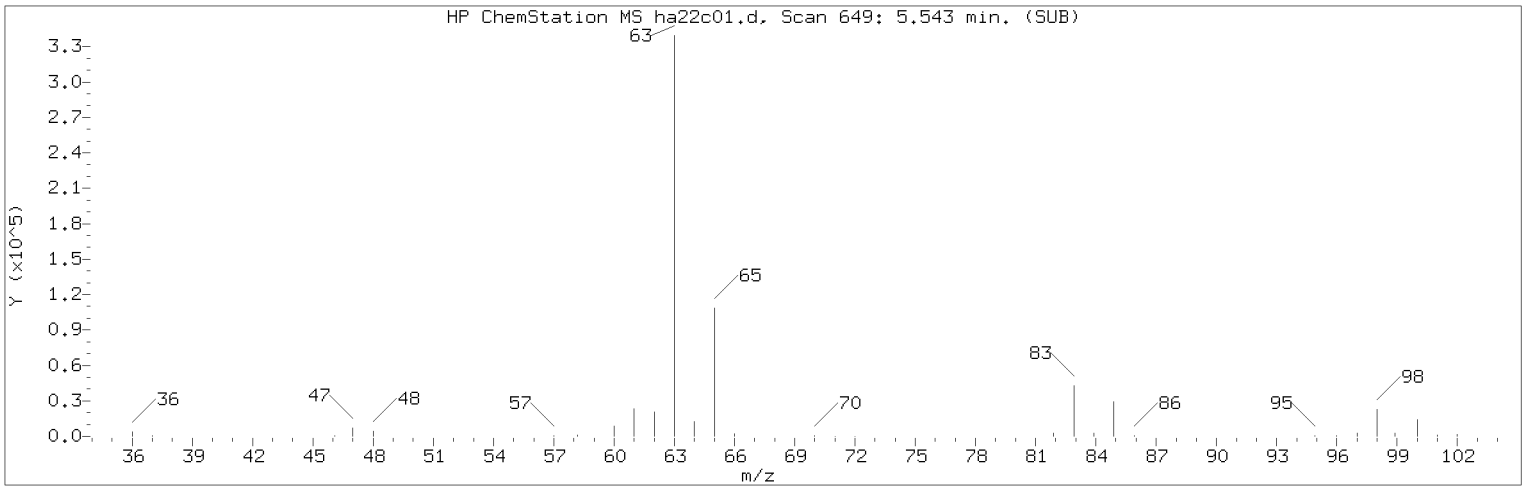
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

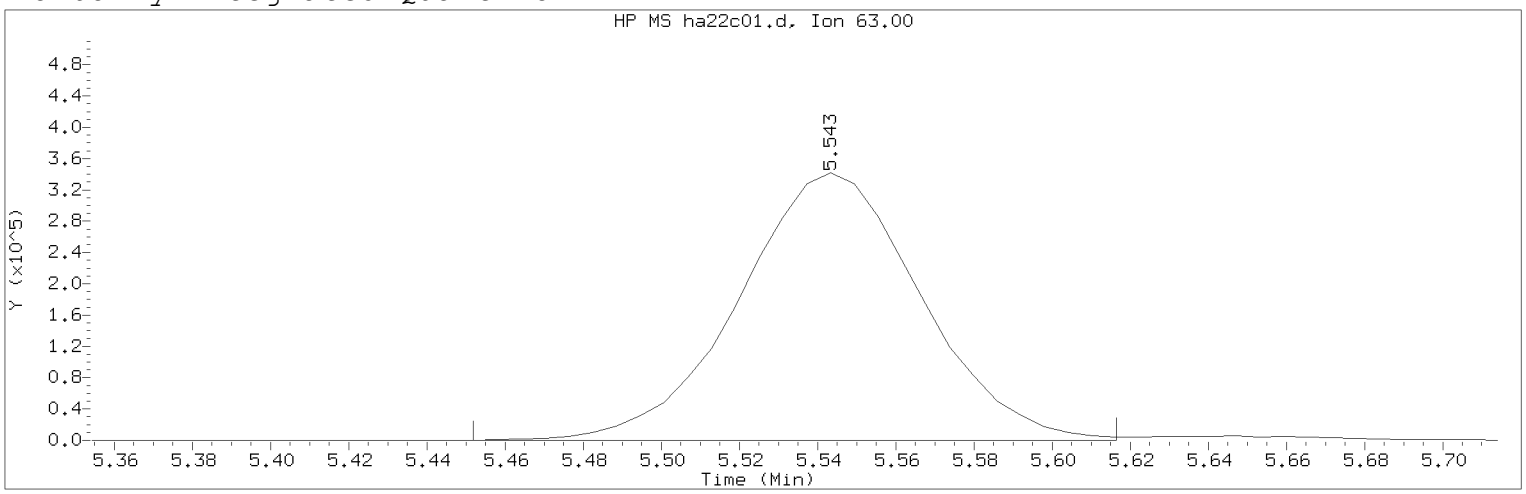
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 496
Retention Time (minutes): 4.611
Quant Ion : 59.00
Area : 480851
On-column Amount (ng) : 239.7430
Integration start scan : 472 Integration stop scan: 524
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature user [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

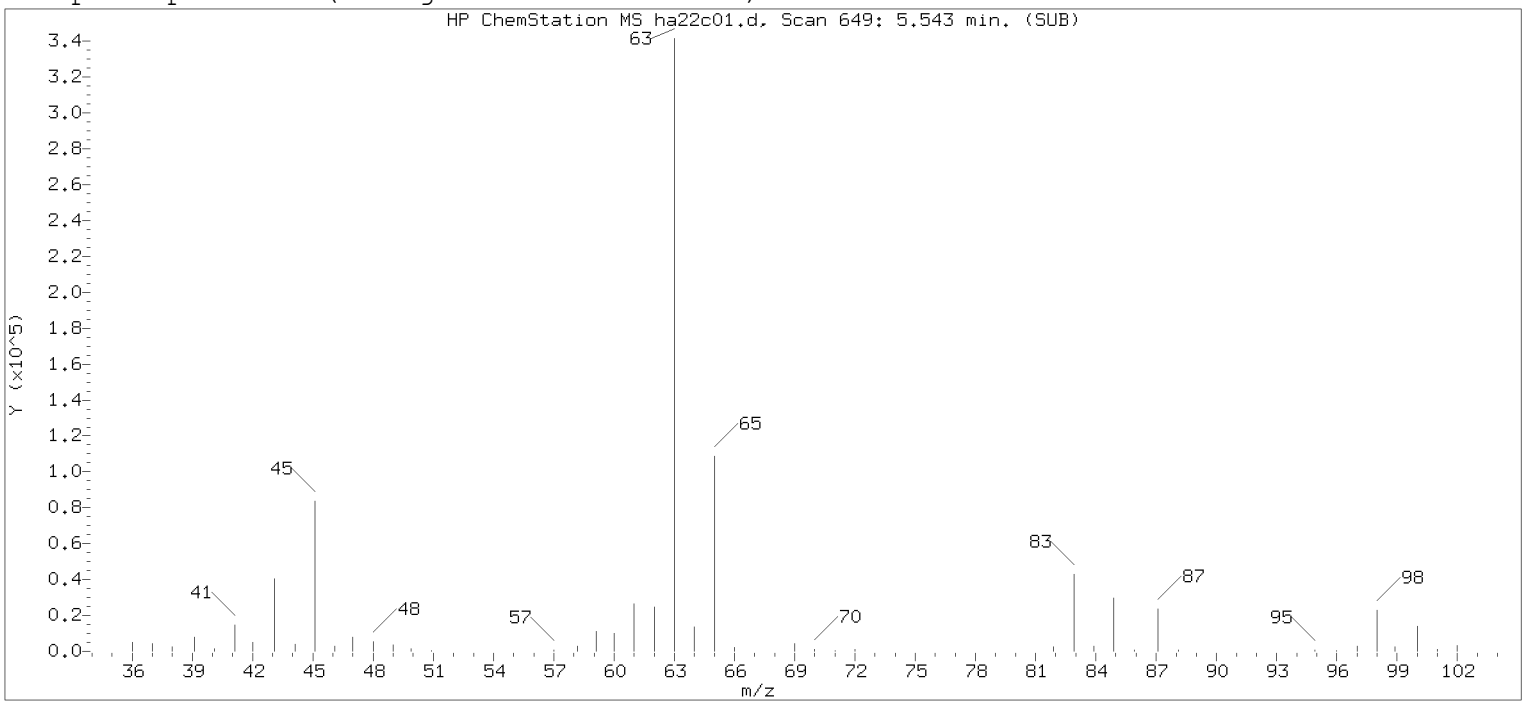
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 649
Retention Time (minutes): 5.543
Quant Ion : 63.00
Area (flag) : 1102119M
On-Column Amount (ng) : 9.4919
Integration start scan : 633 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

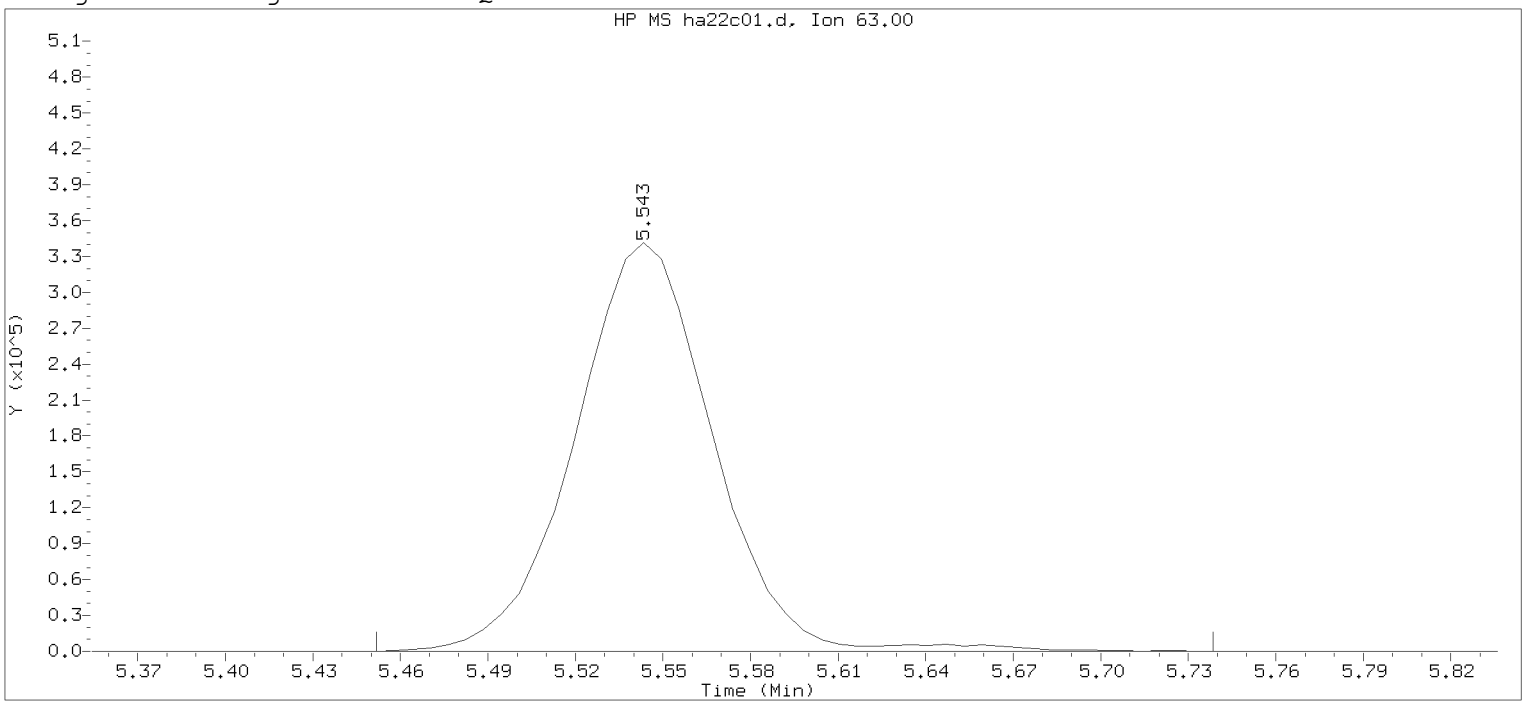
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

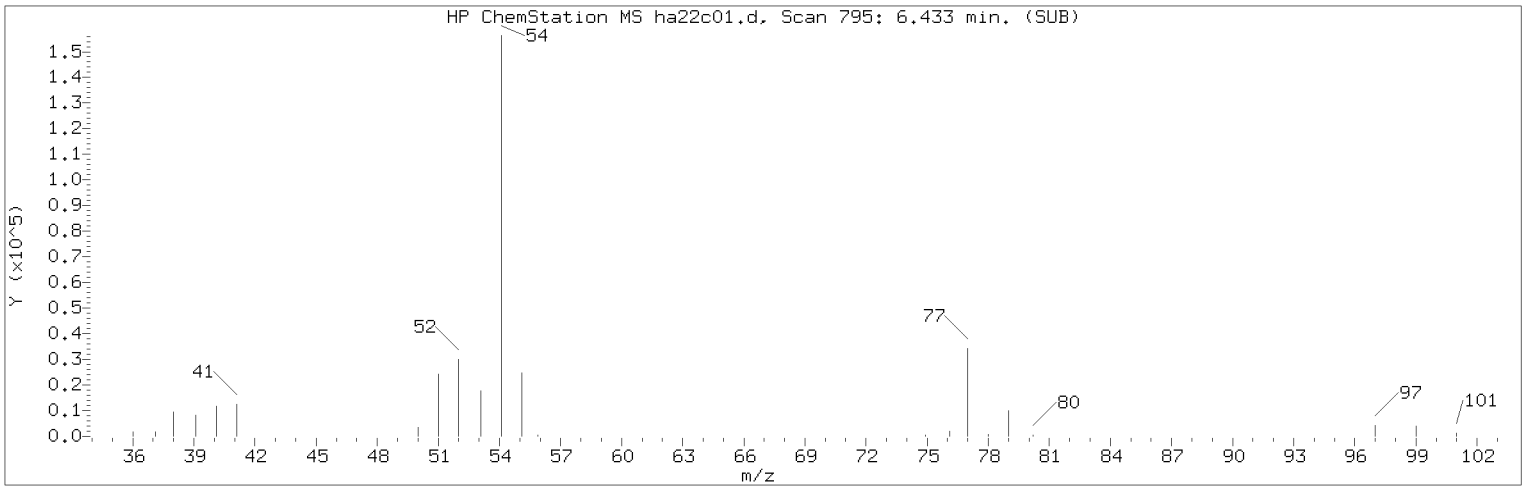
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

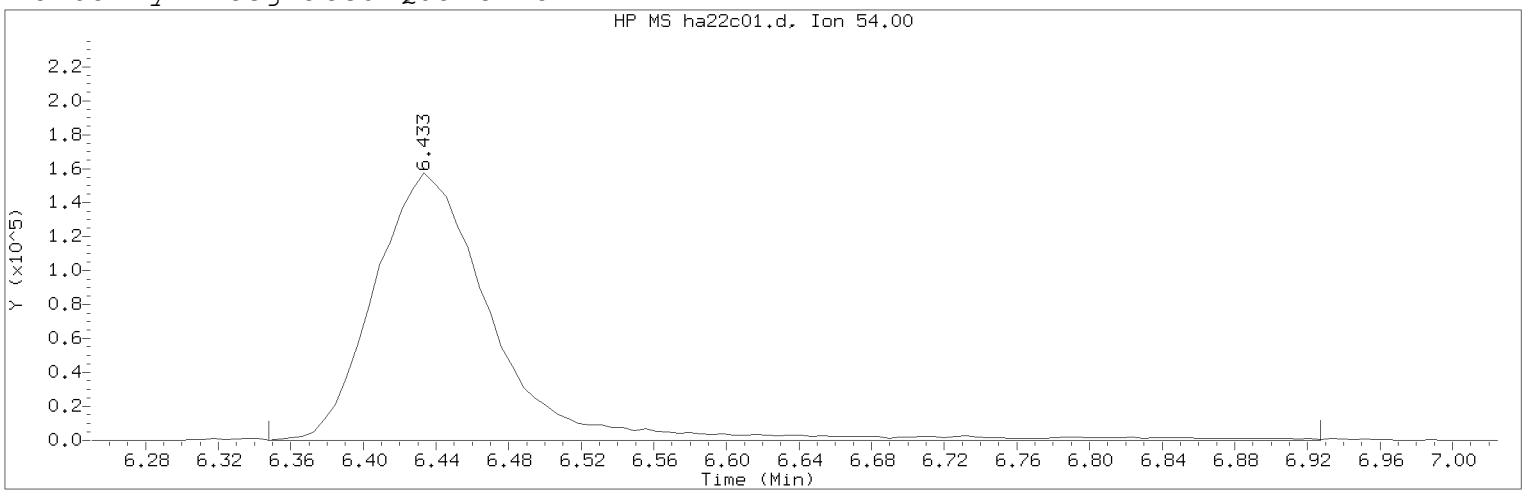
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 649
Retention Time (minutes): 5.543
Quant Ion : 63.00
Area : 1120147
On-column Amount (ng) : 9.6472
Integration start scan : 633 Integration stop scan: 680
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

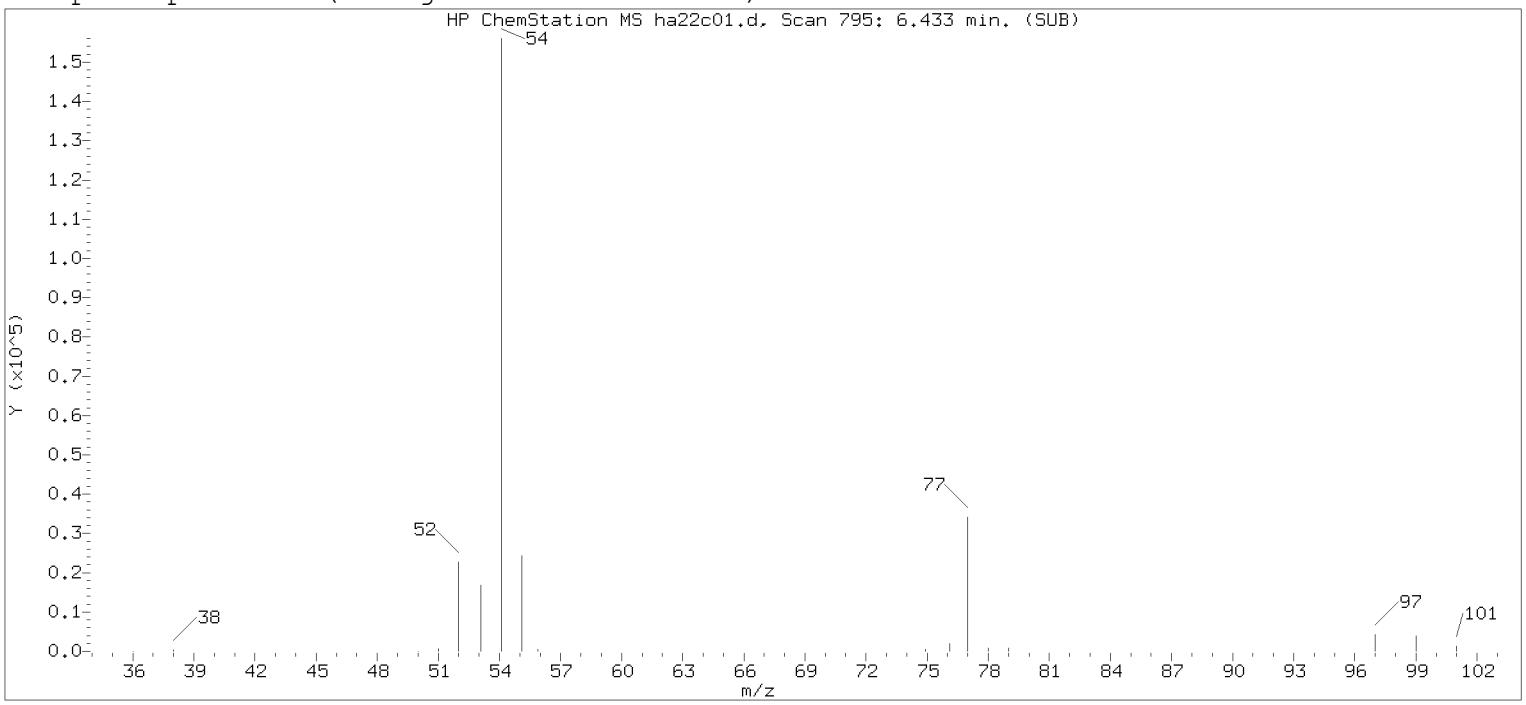
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 795
Retention Time (minutes): 6.433
Quant Ion : 54.00
Area (flag) : 717462M
On-Column Amount (ng) : 182.2391
Integration start scan : 780 Integration stop scan: 875
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

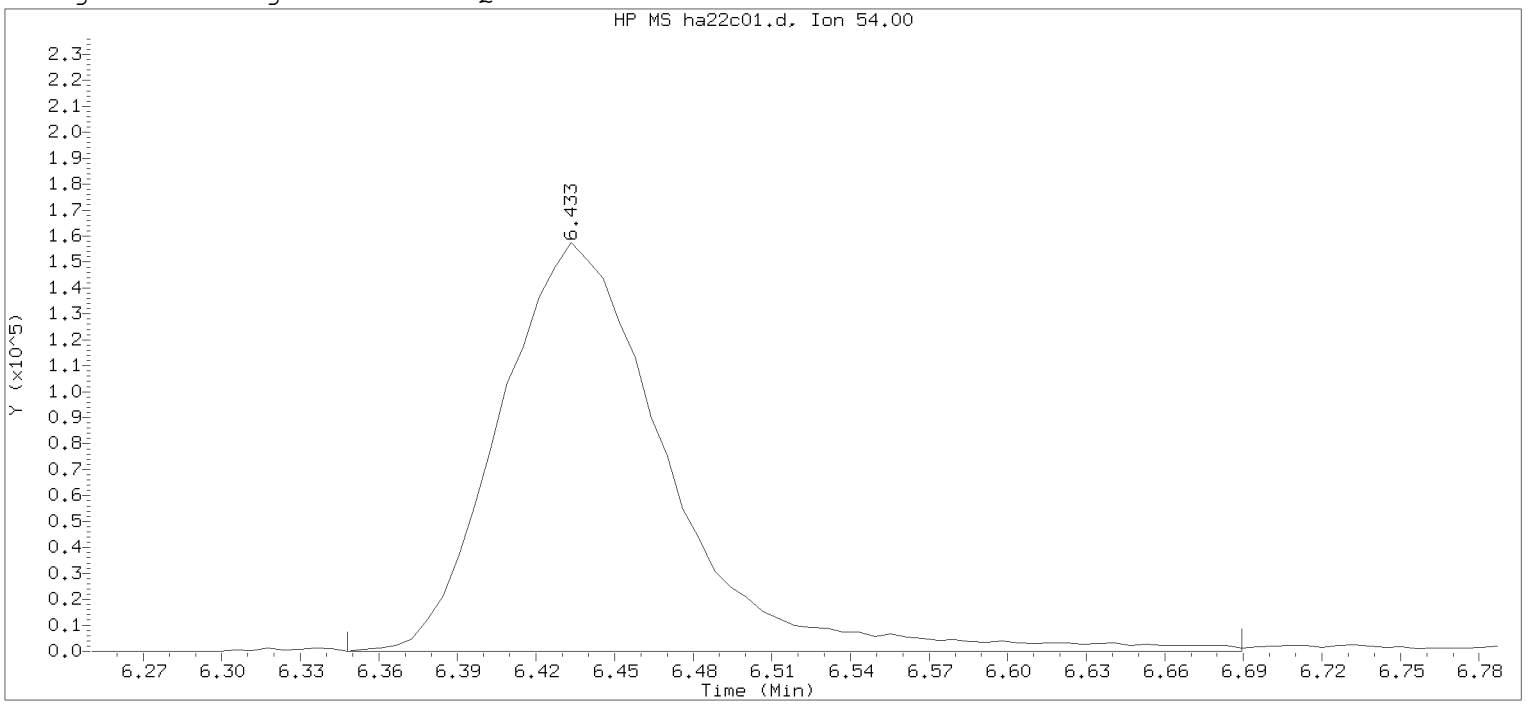
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

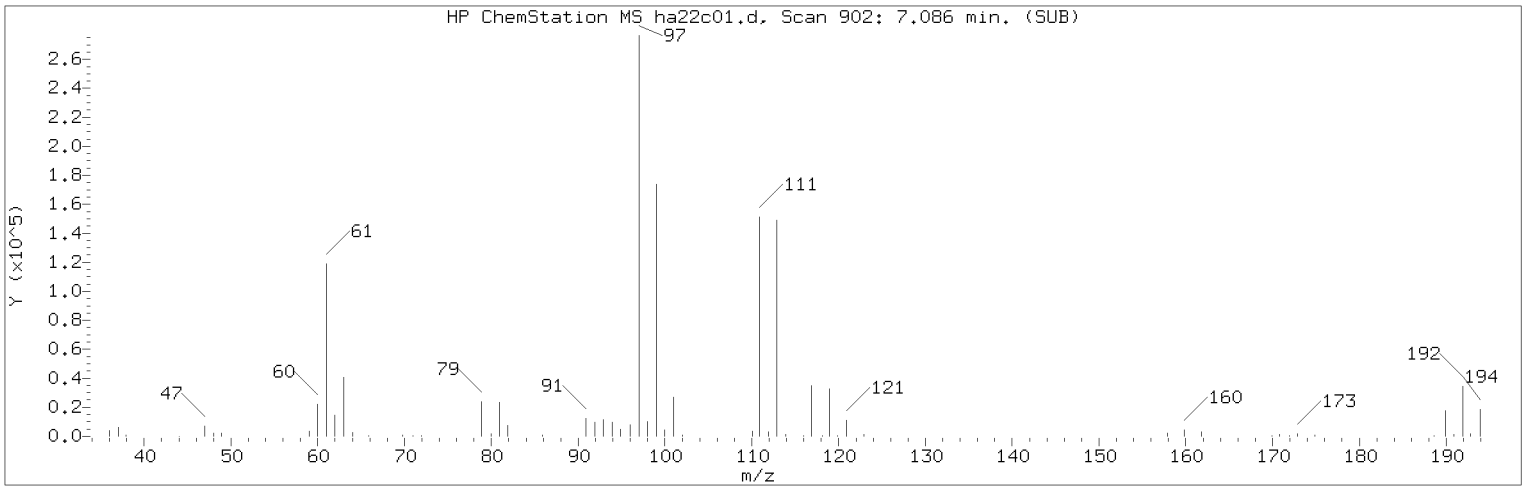
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

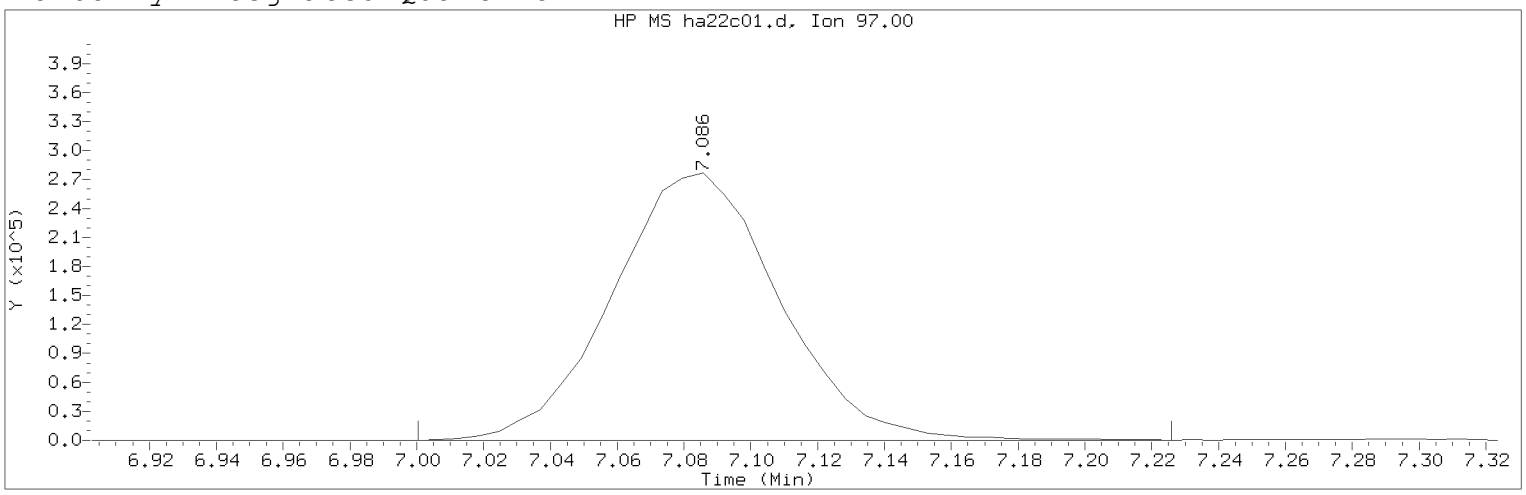
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 795
Retention Time (minutes): 6.433
Quant Ion : 54.00
Area : 696543
On-column Amount (ng) : 176.9255
Integration start scan : 780 Integration stop scan: 836
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

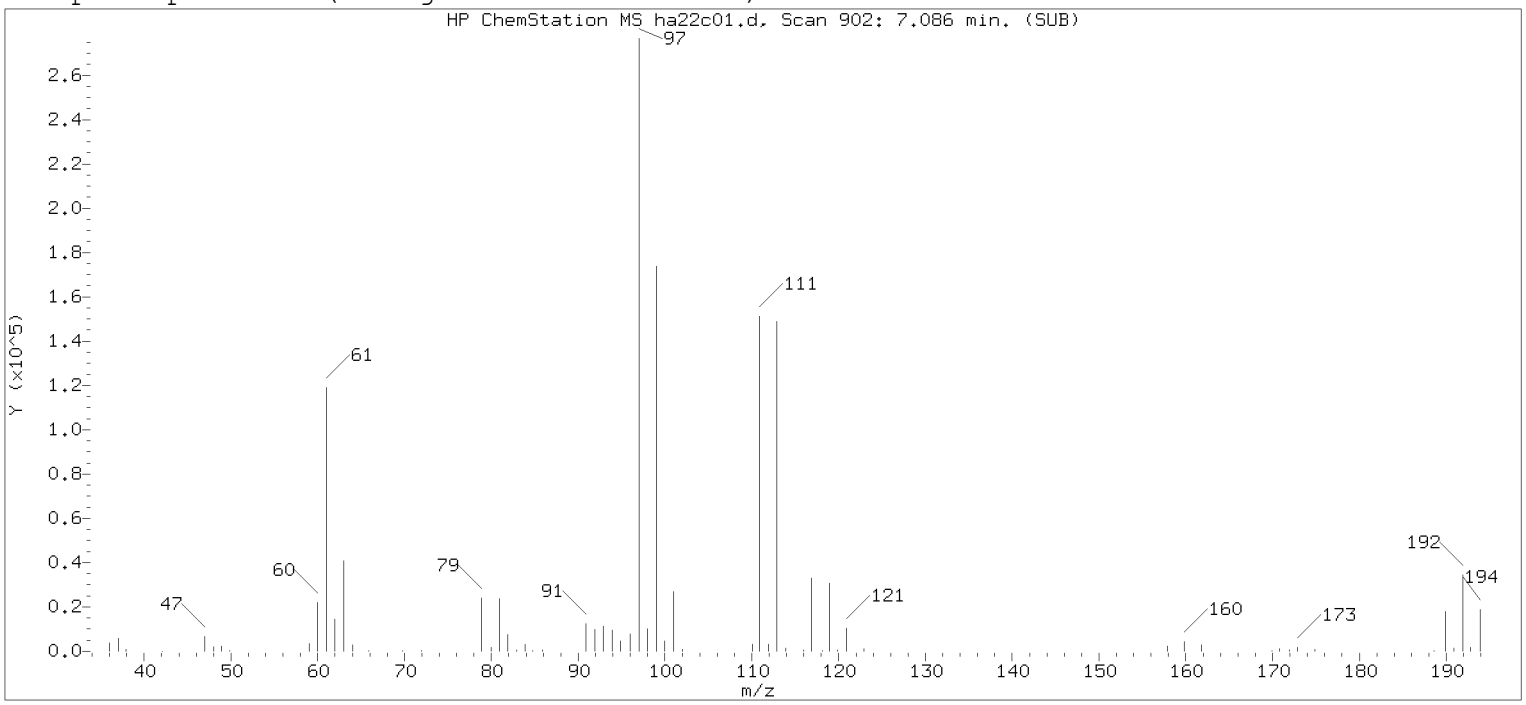
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 902
Retention Time (minutes): 7.086
Quant Ion : 97.00
Area (flag) : 960009M
On-Column Amount (ng) : 9.9819
Integration start scan : 887 Integration stop scan: 924
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

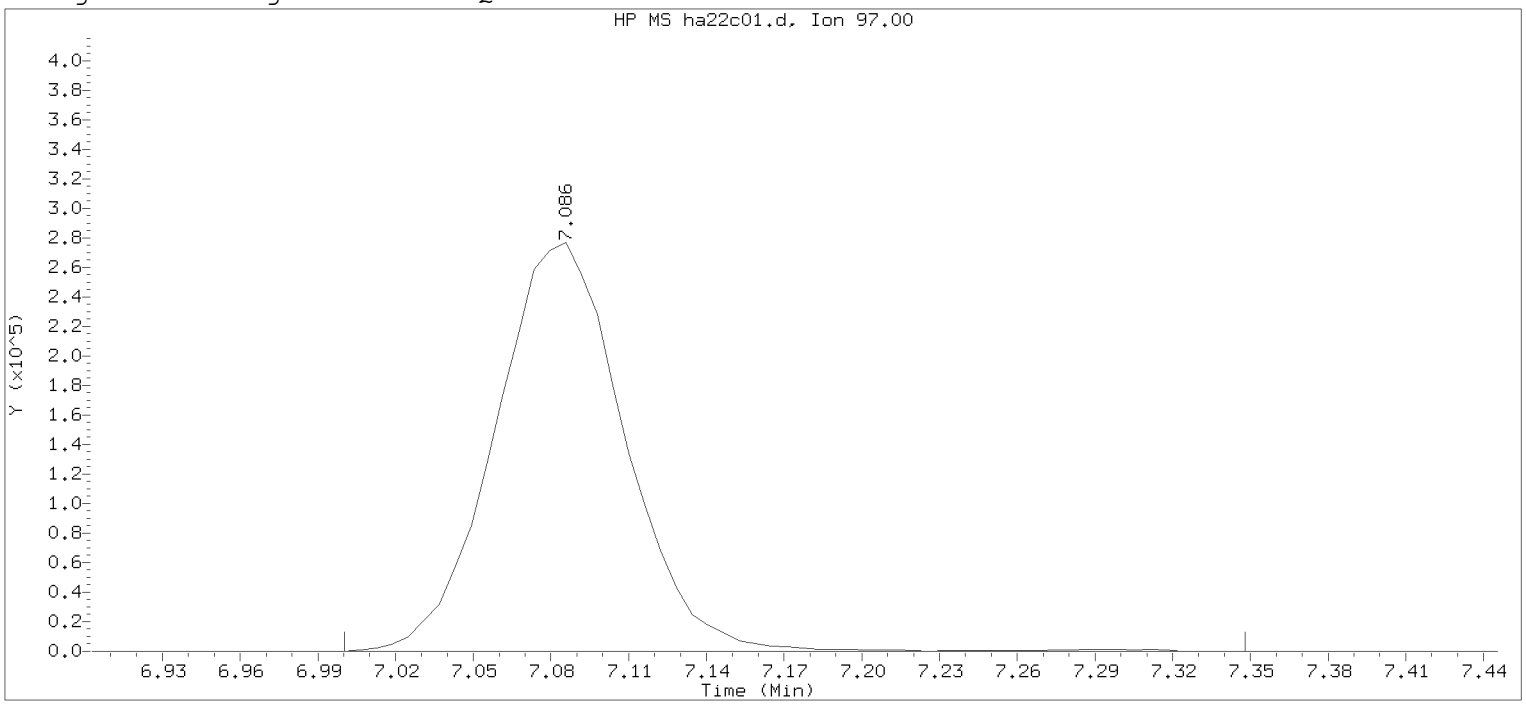
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

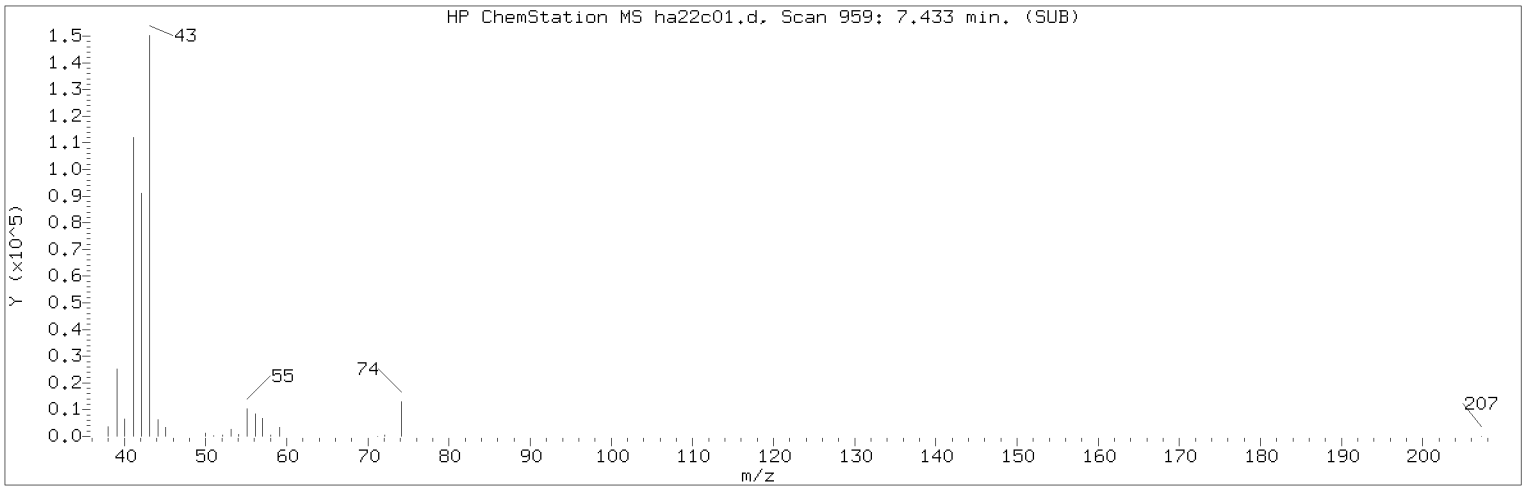
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

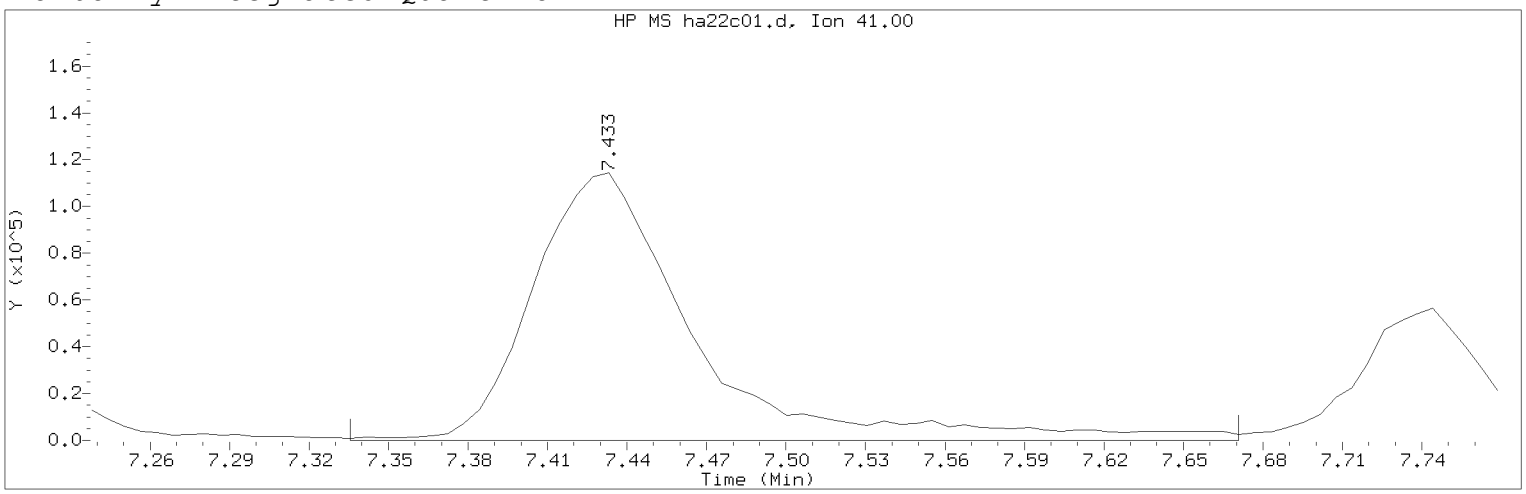
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 902
Retention Time (minutes): 7.086
Quant Ion : 97.00
Area : 964156
On-column Amount (ng) : 10.0250
Integration start scan : 887 Integration stop scan: 944
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

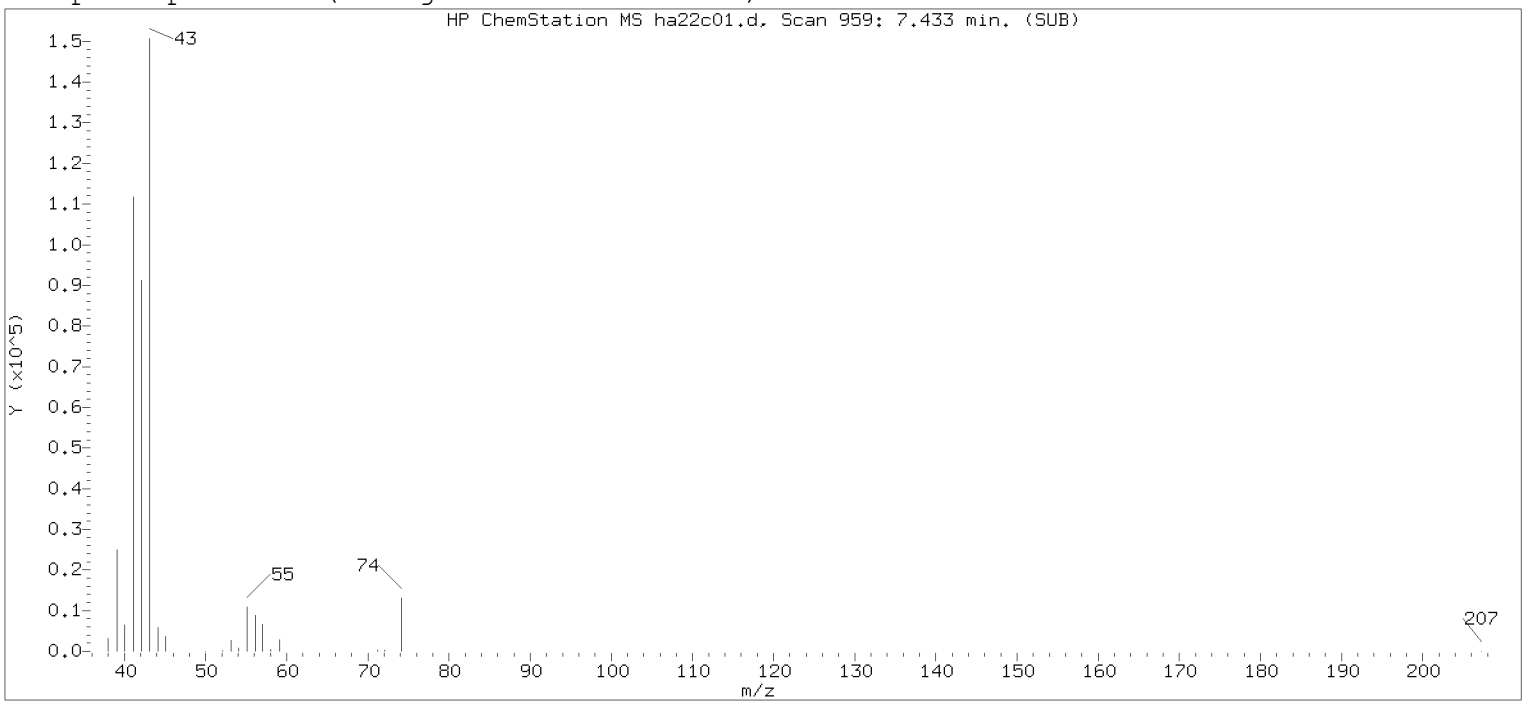
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area (flag) : 483005M
On-Column Amount (ng) : 578.9600
Integration start scan : 942 Integration stop scan: 997
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

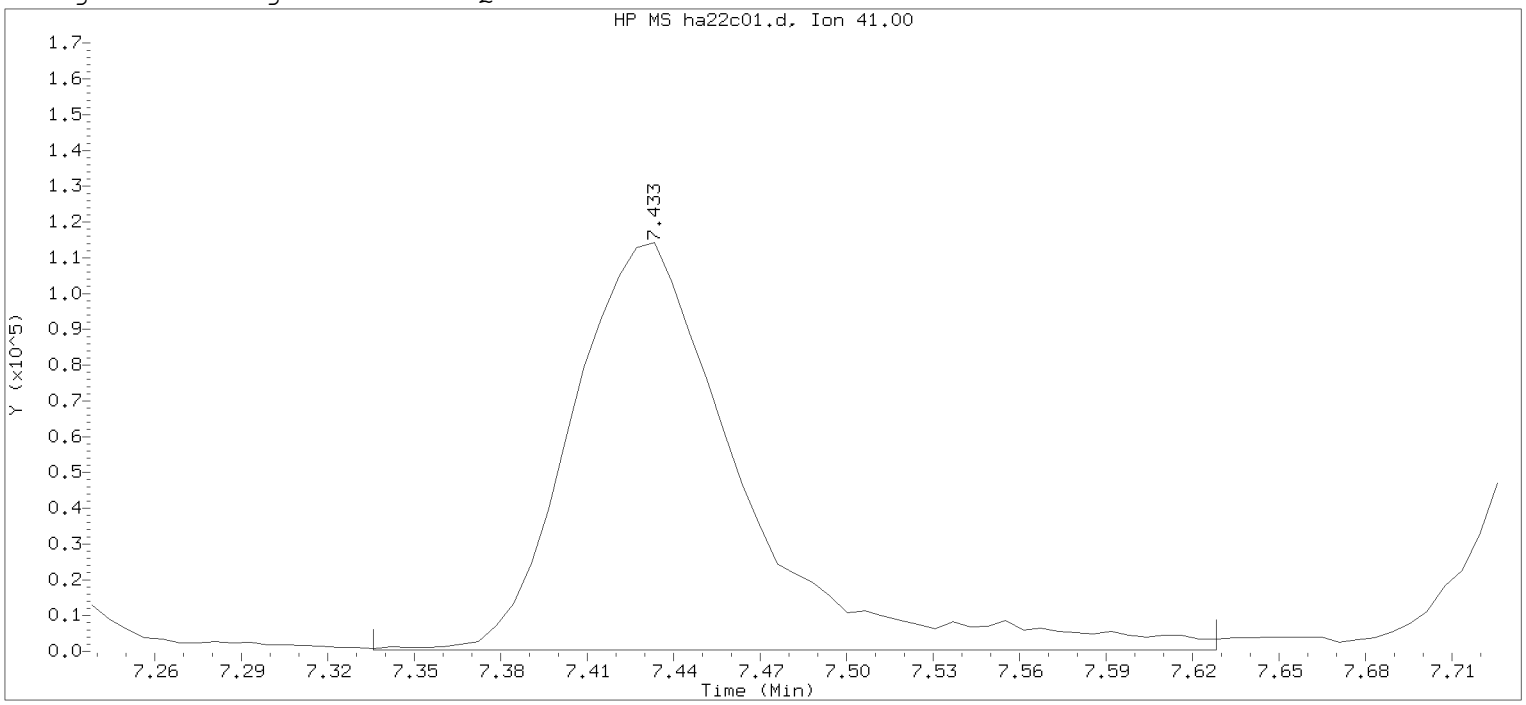
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

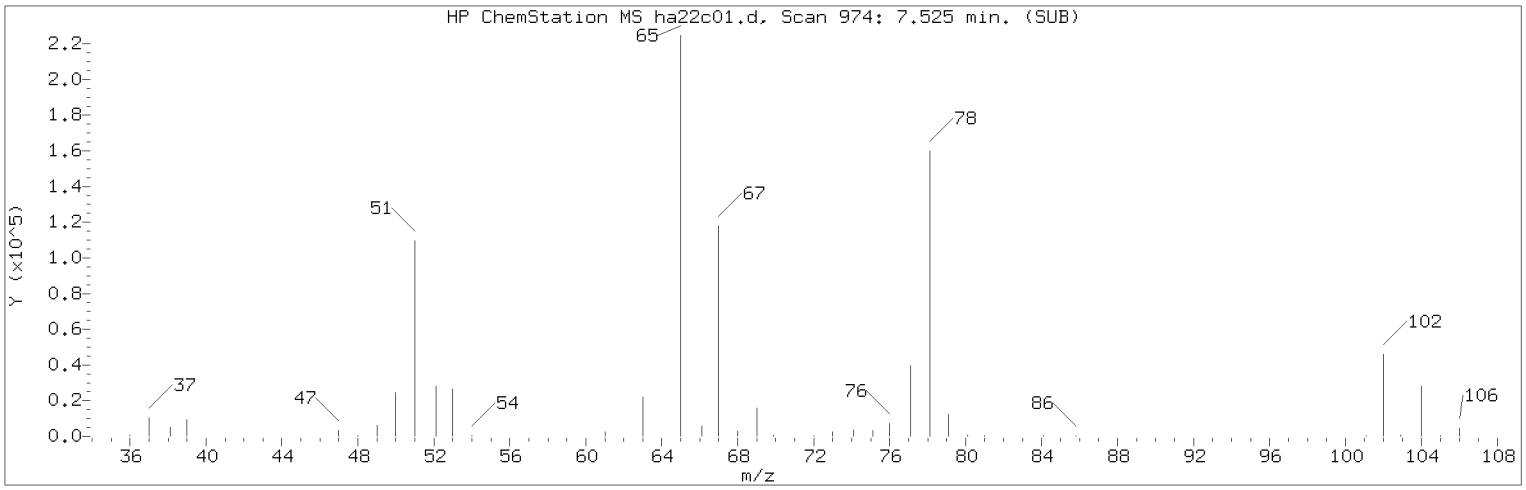
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

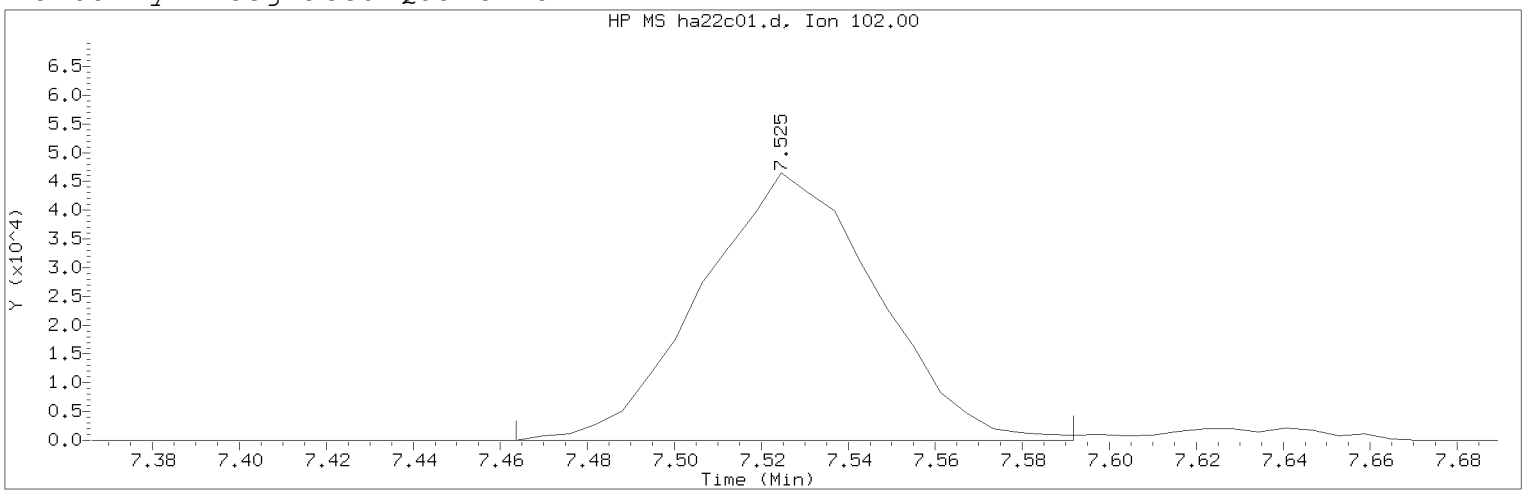
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 959
Retention Time (minutes): 7.433
Quant Ion : 41.00
Area : 467823
On-column Amount (ng) : 560.7948
Integration start scan : 942 Integration stop scan: 990
Y at integration start : 283 Y at integration end: 283

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. AE35 Page 870 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

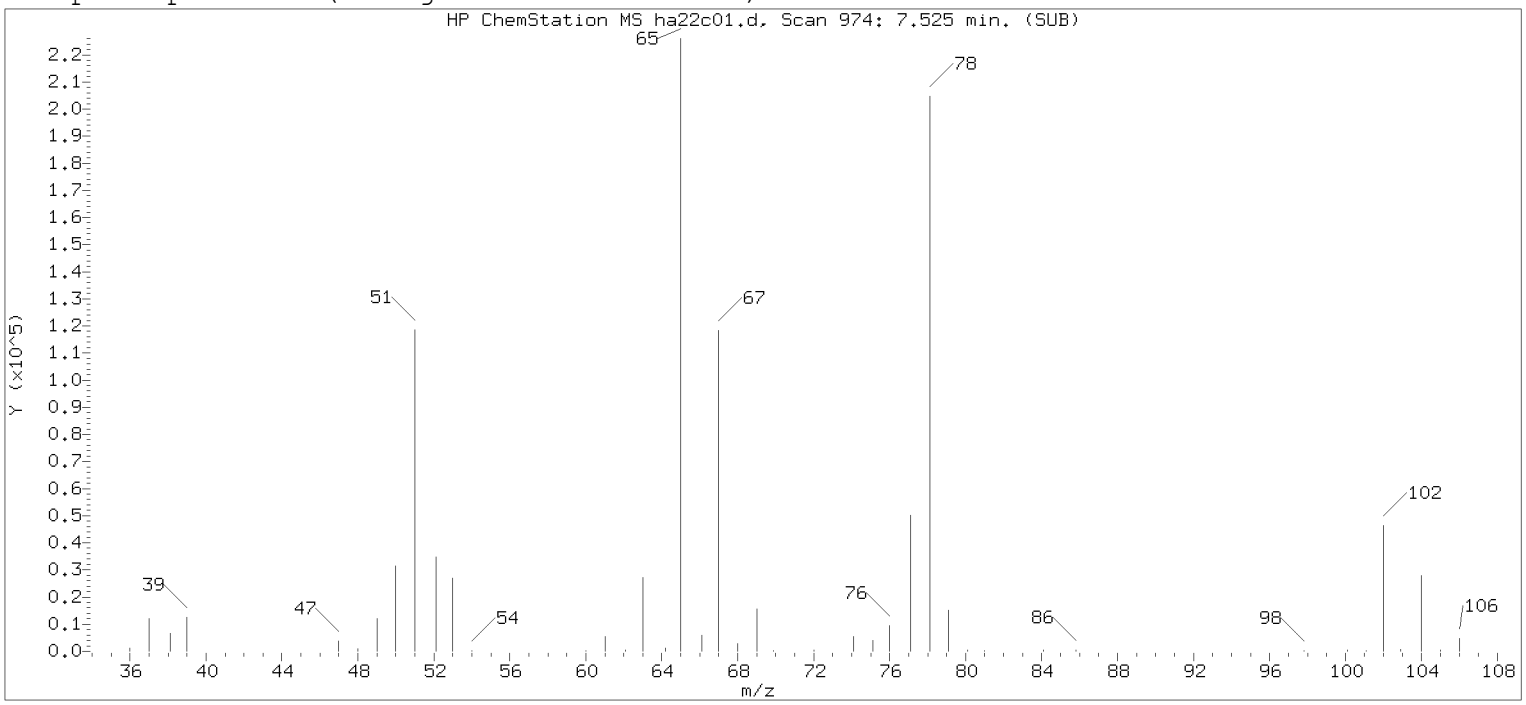
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 974
Retention Time (minutes): 7.525
Quant Ion : 102.00
Area (flag) : 130273M
On-Column Amount (ng) : 10.3331
Integration start scan : 963 Integration stop scan: 984
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

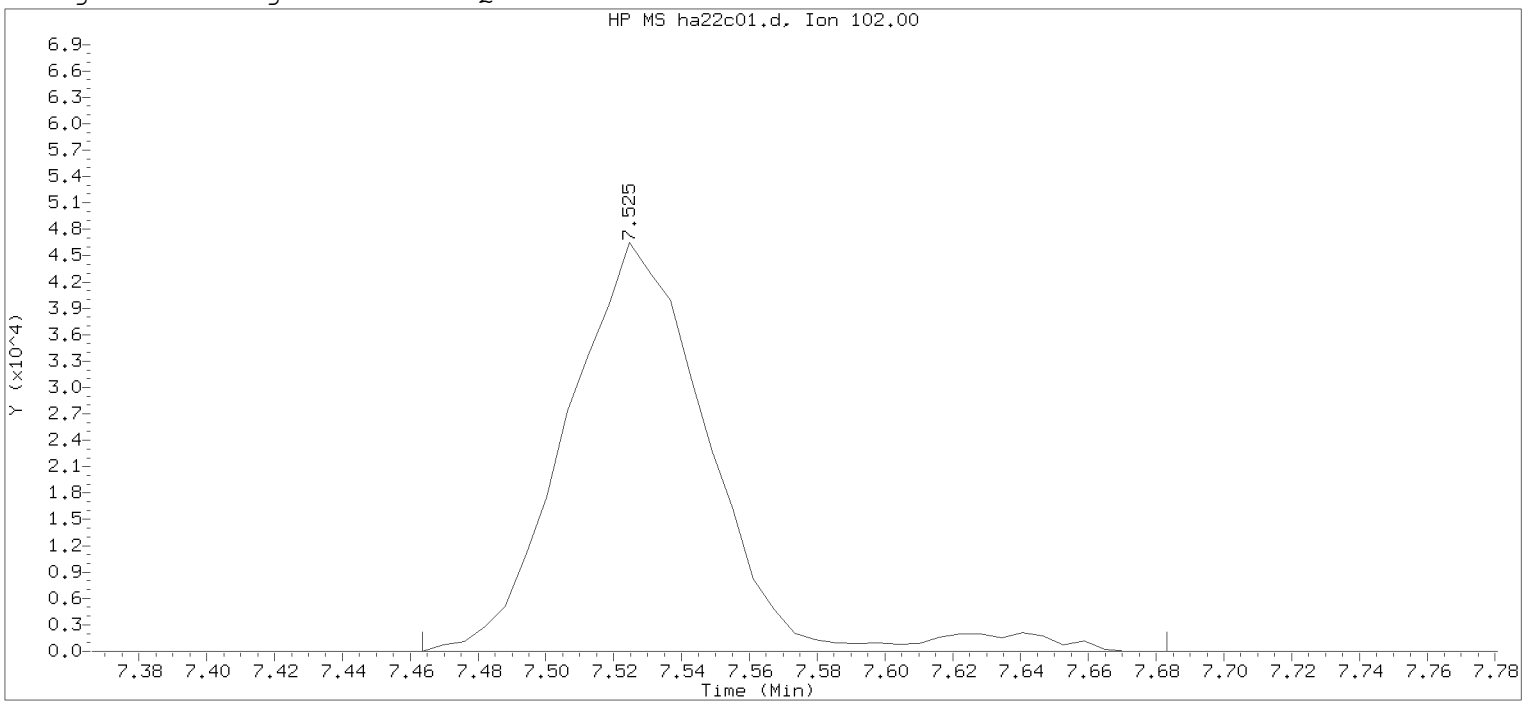
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

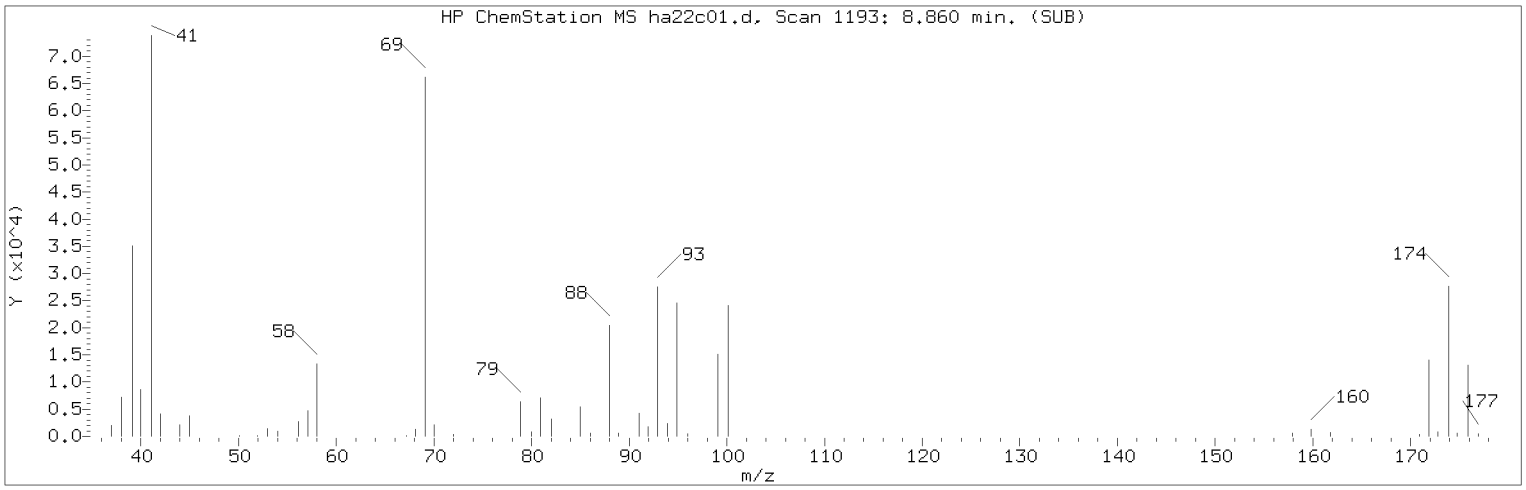
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

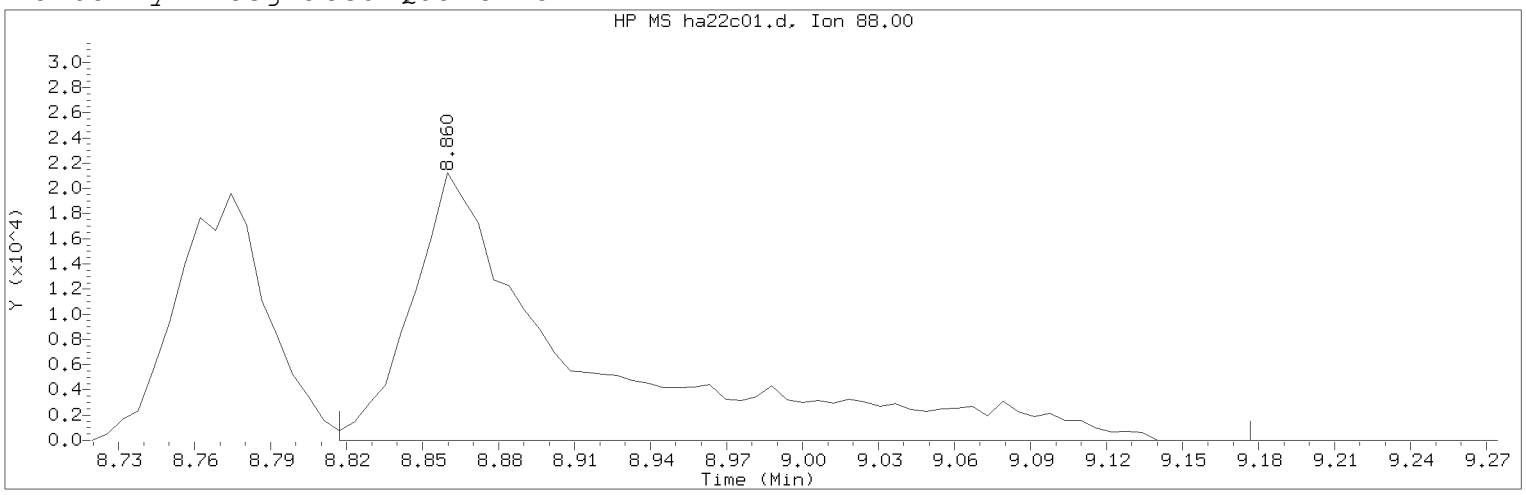
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 974
Retention Time (minutes): 7.525
Quant Ion : 102.00
Area : 136028
On-column Amount (ng) : 10.7896
Integration start scan : 963 Integration stop scan: 999
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature user

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

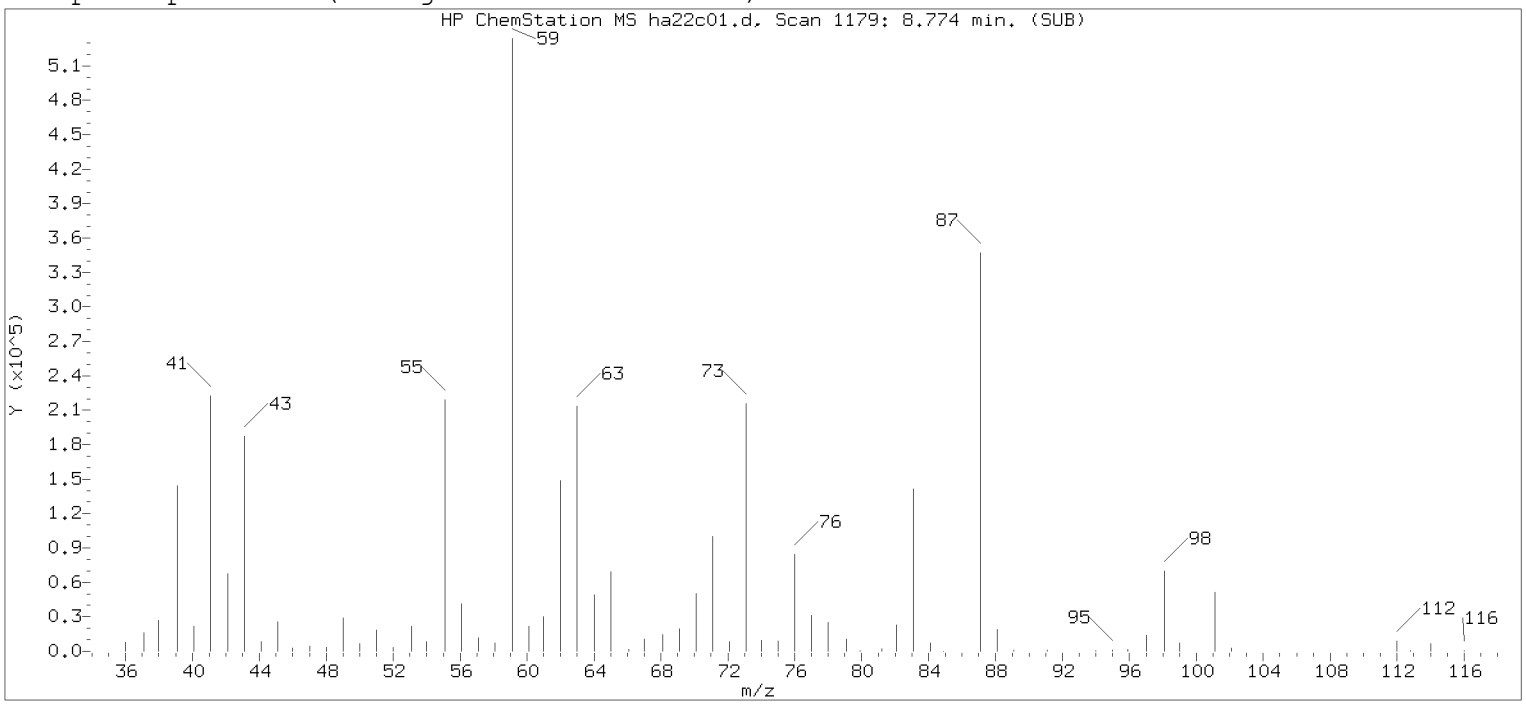
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1193
Retention Time (minutes): 8.860
Quant Ion : 88.00
Area (flag) : 99103M
On-Column Amount (ng) : 568.6415
Integration start scan : 1185 Integration stop scan: 1244
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

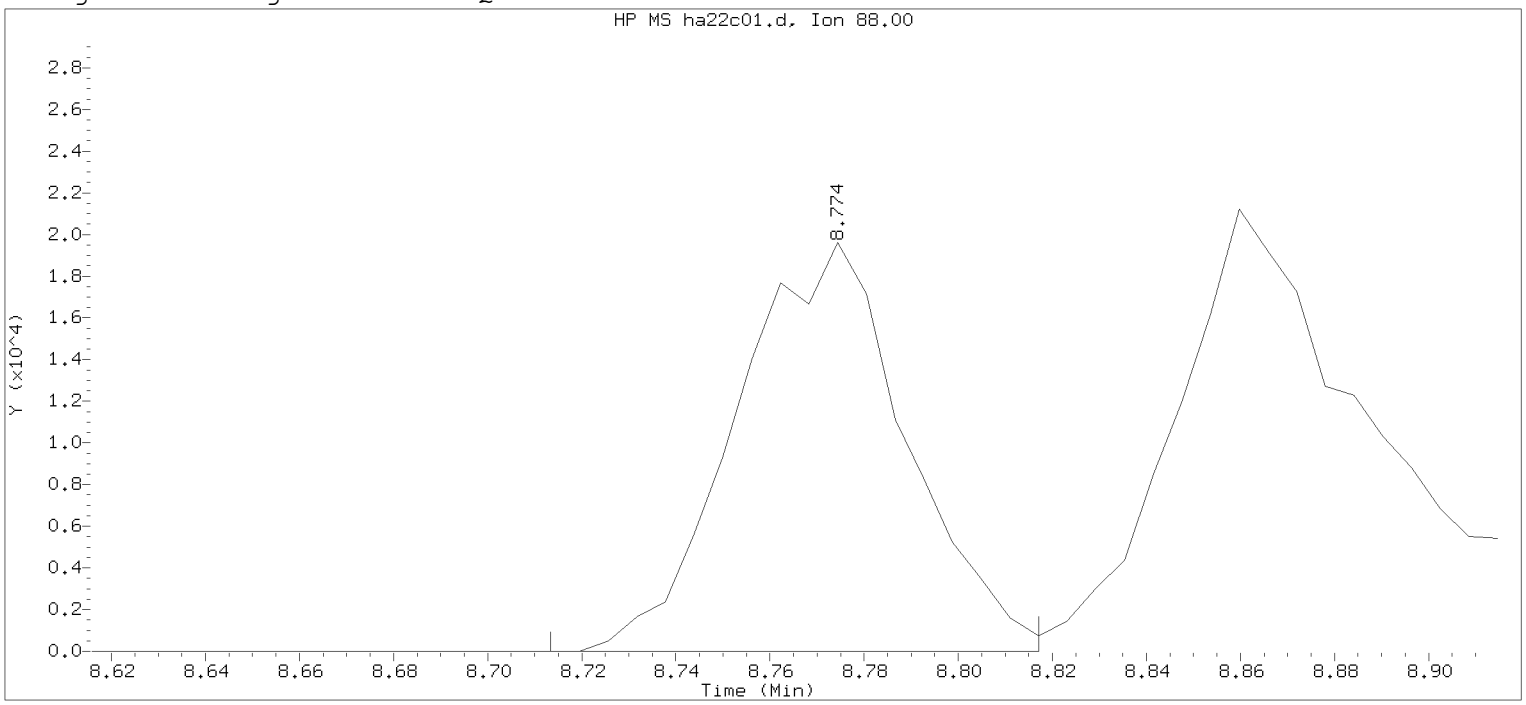
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

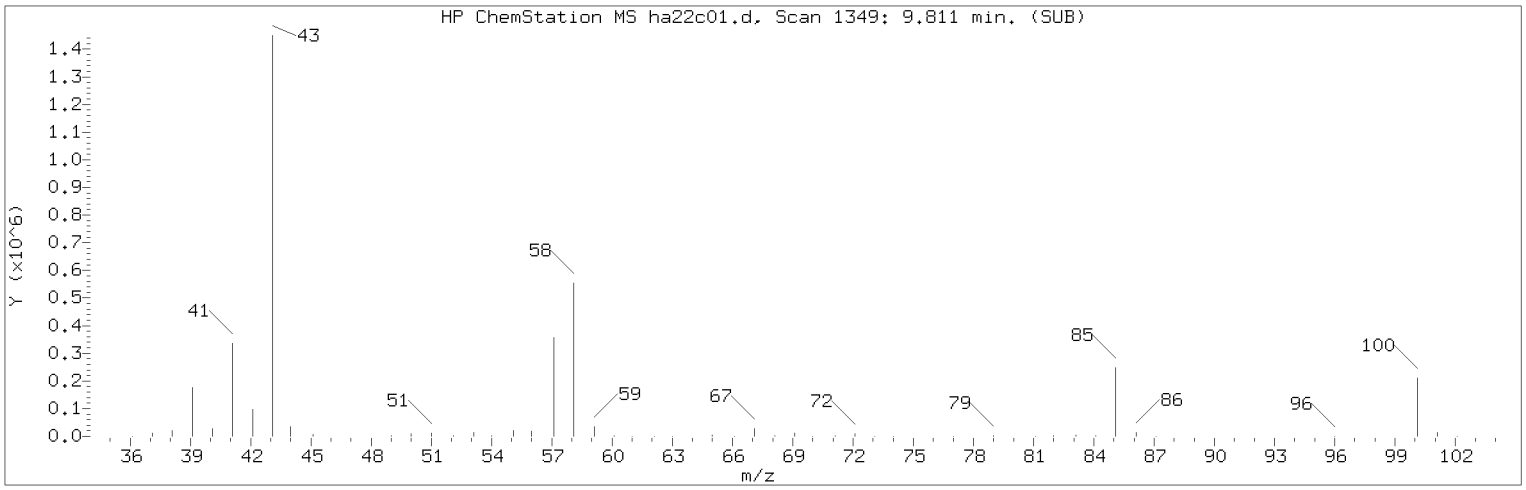
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

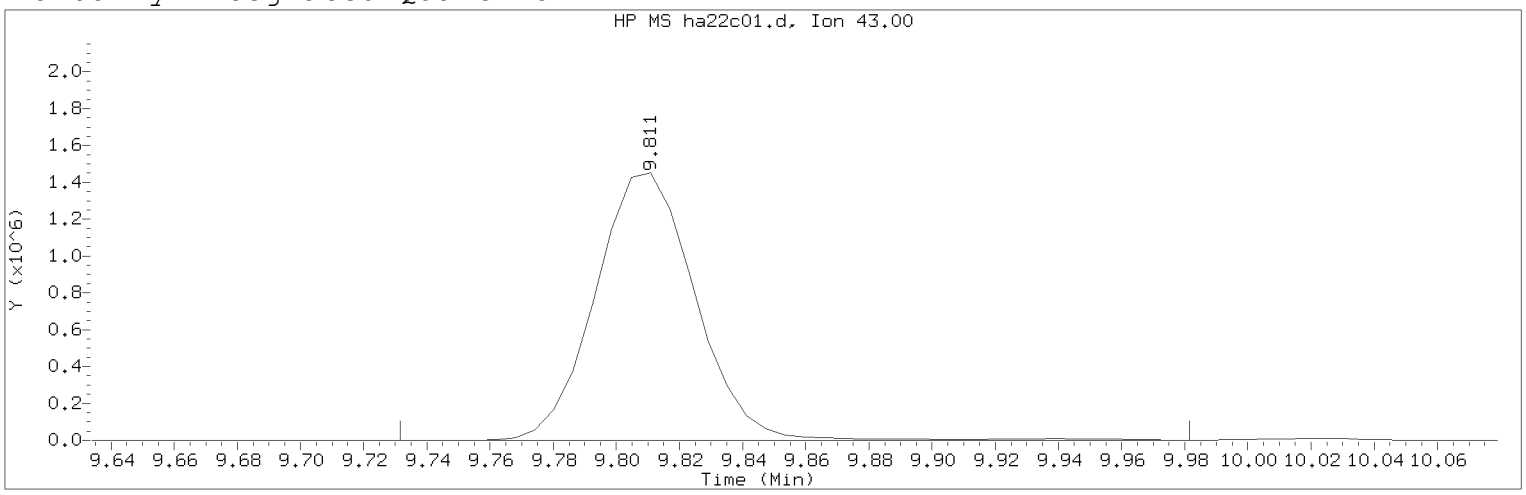
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1179		
Retention Time (minutes)	: 8.774		
Quant Ion	: 88.00		
Area	: 49296		
On-column Amount (ng)	: 248.1191		
Integration start scan	: 1168	Integration stop scan:	1185
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. RAF35 Page 874 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

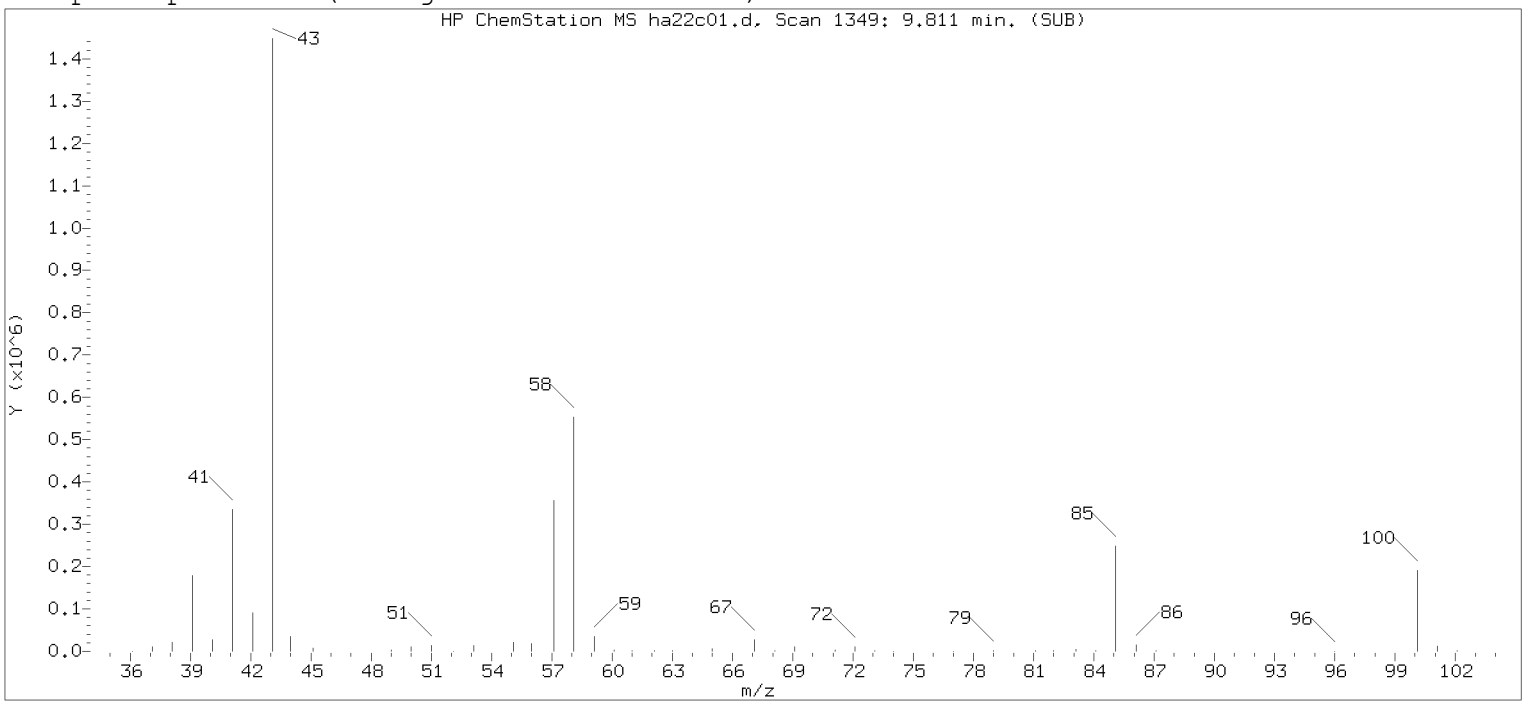
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 43.00
Area (flag) : 3197604M
On-Column Amount (ng) : 83.8393
Integration start scan : 1335 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

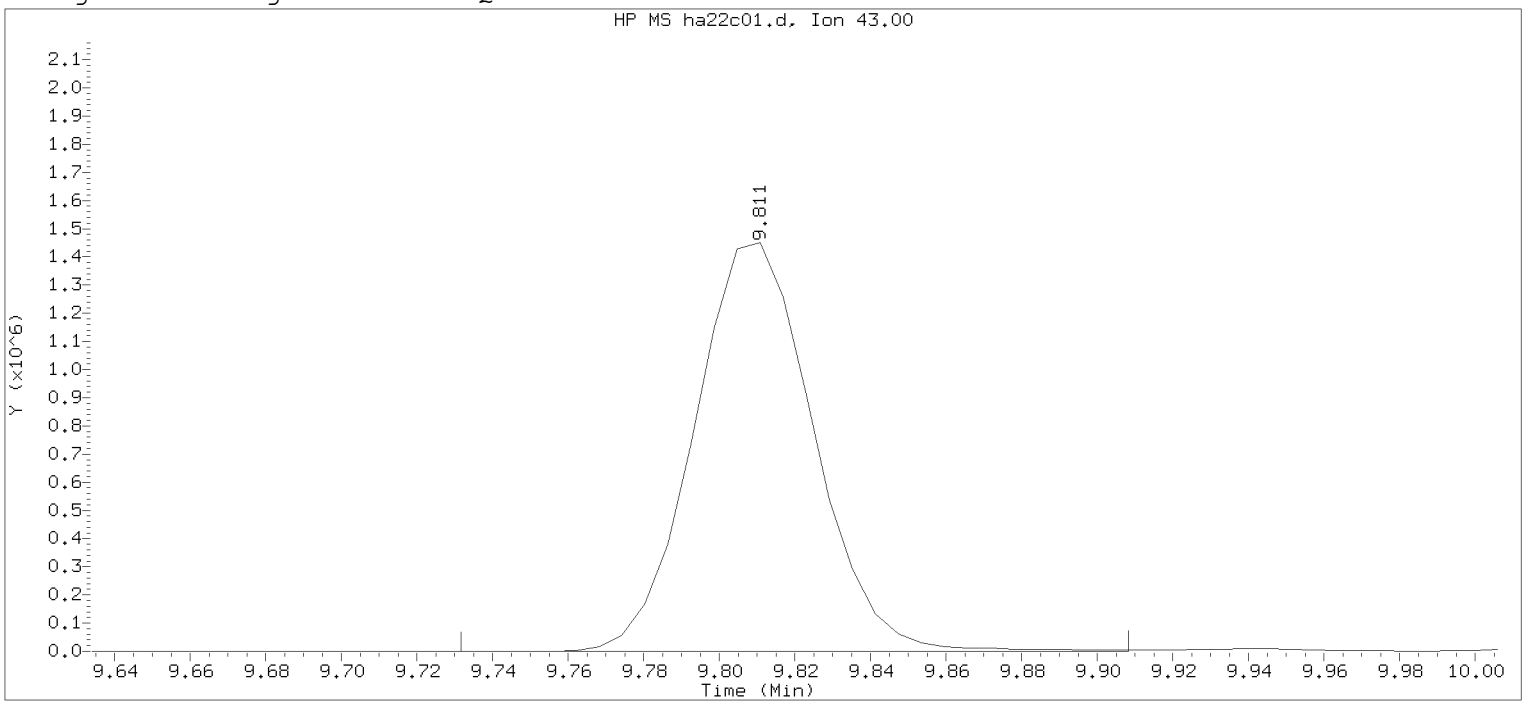
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

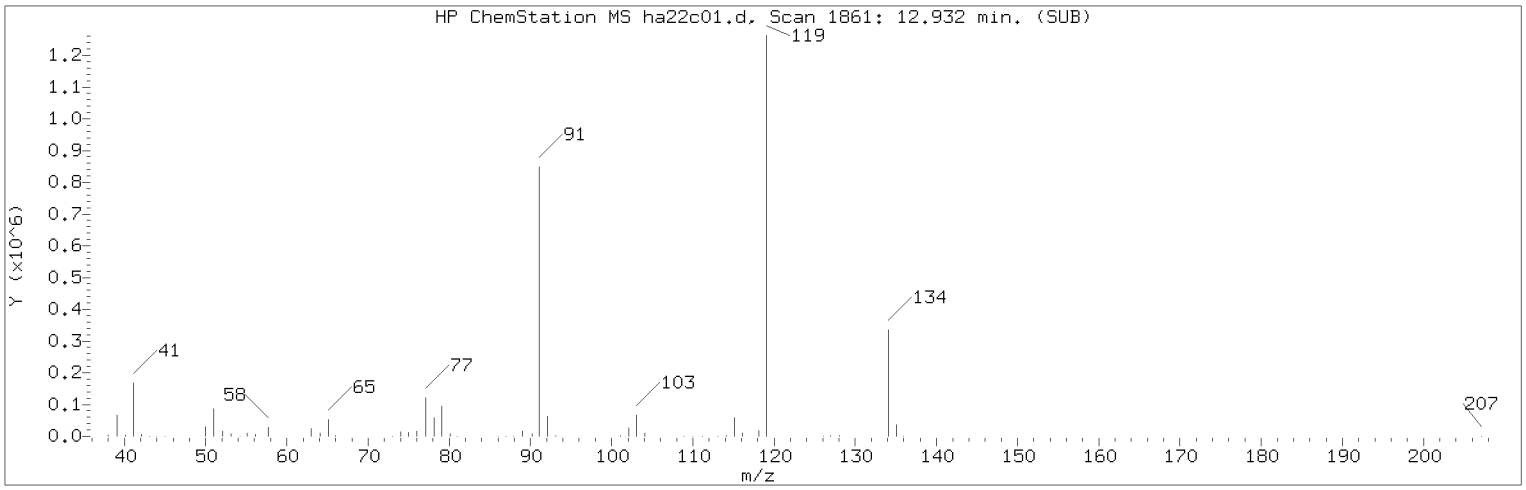
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

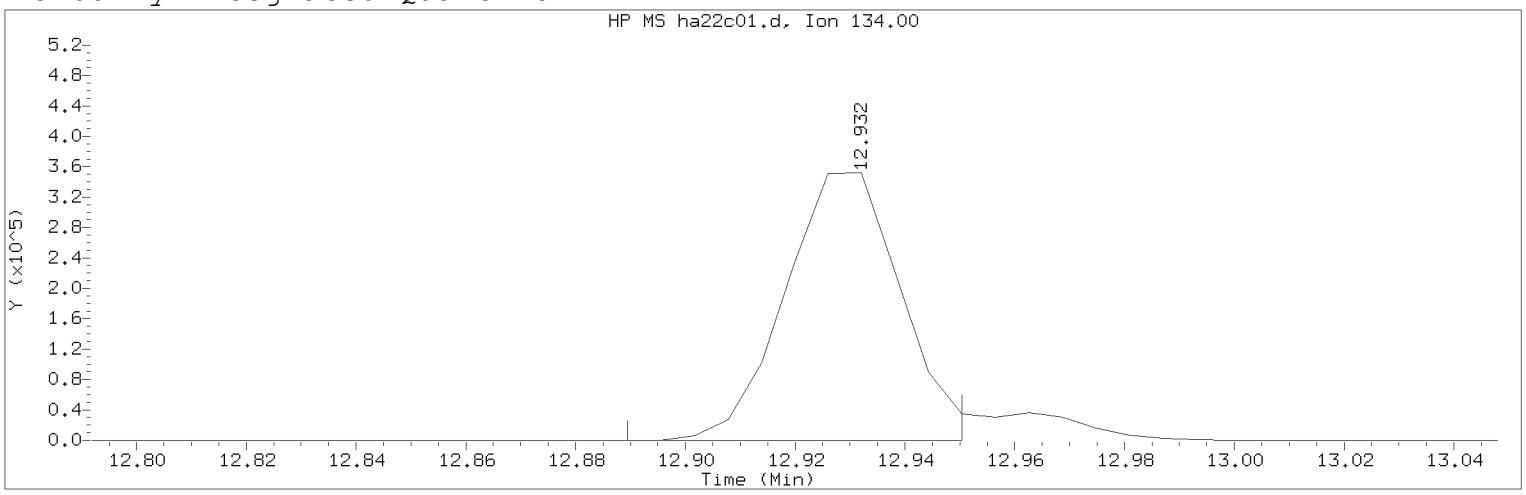
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 43.00
Area : 3175087
On-column Amount (ng) : 83.2488
Integration start scan : 1335 Integration stop scan: 1364
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. AE35 Page 876 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 22:45 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

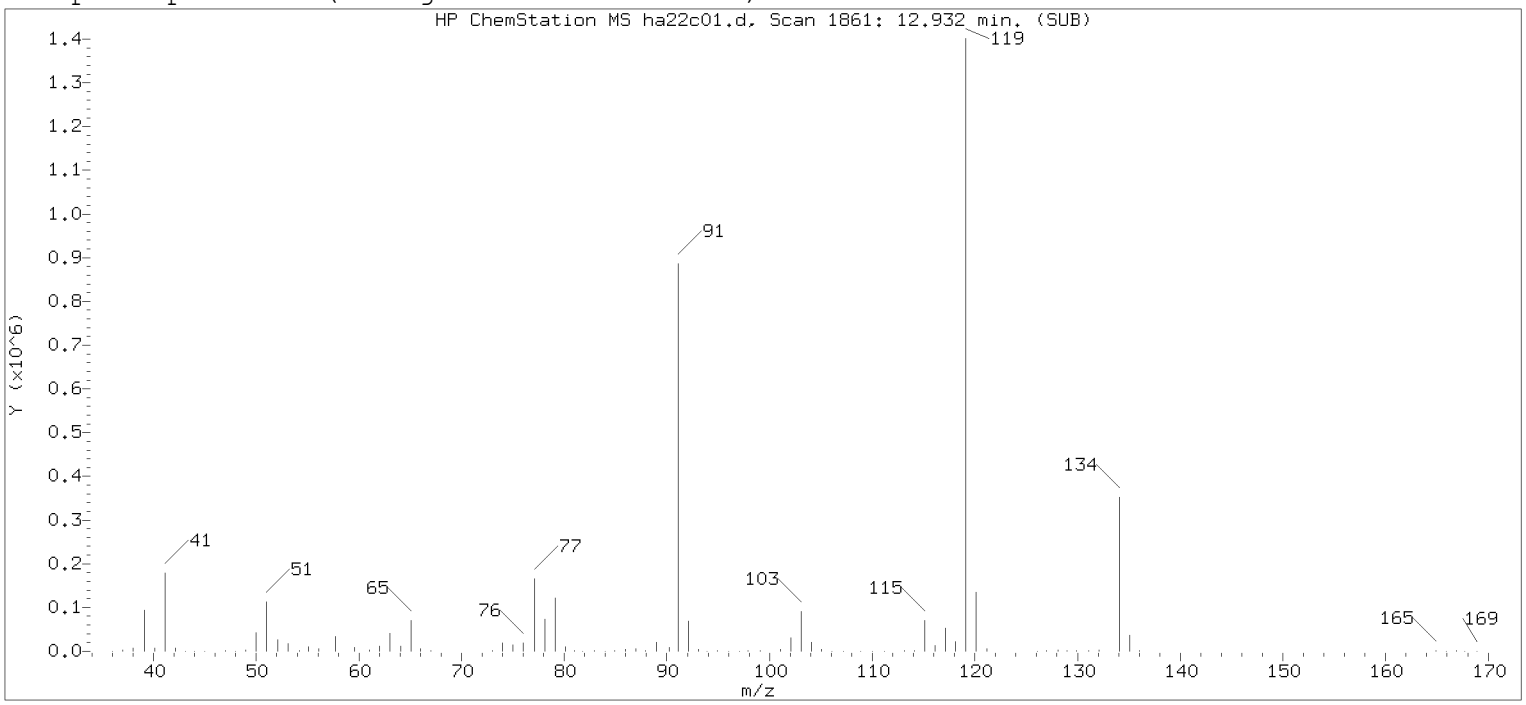
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 517897M
On-Column Amount (ng) : 9.8545
Integration start scan : 1853 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

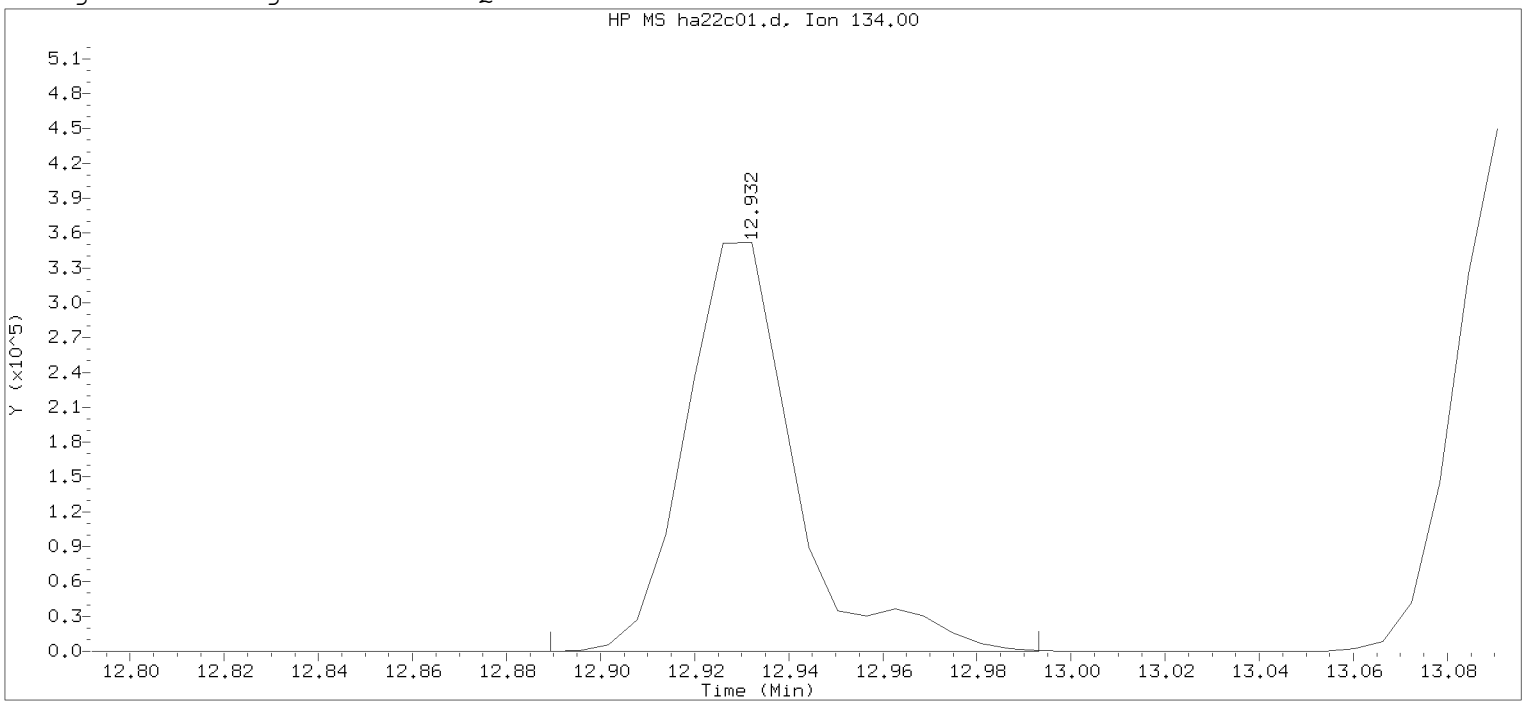
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:14.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c01.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:16 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2019 21:33
Date, time and analyst ID of latest file update: 22-Apr-2019 21:33 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 562912
On-column Amount (ng) : 10.7110
Integration start scan : 1853 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:14.
Target 3.5 esignature used. AE35 Page 878 of 2326

Data File: /chem2/HP19094.i/18nov13i.b/hn13t02.d

Date : 13-NOV-2018 11:59

Client ID: BFB 50ng

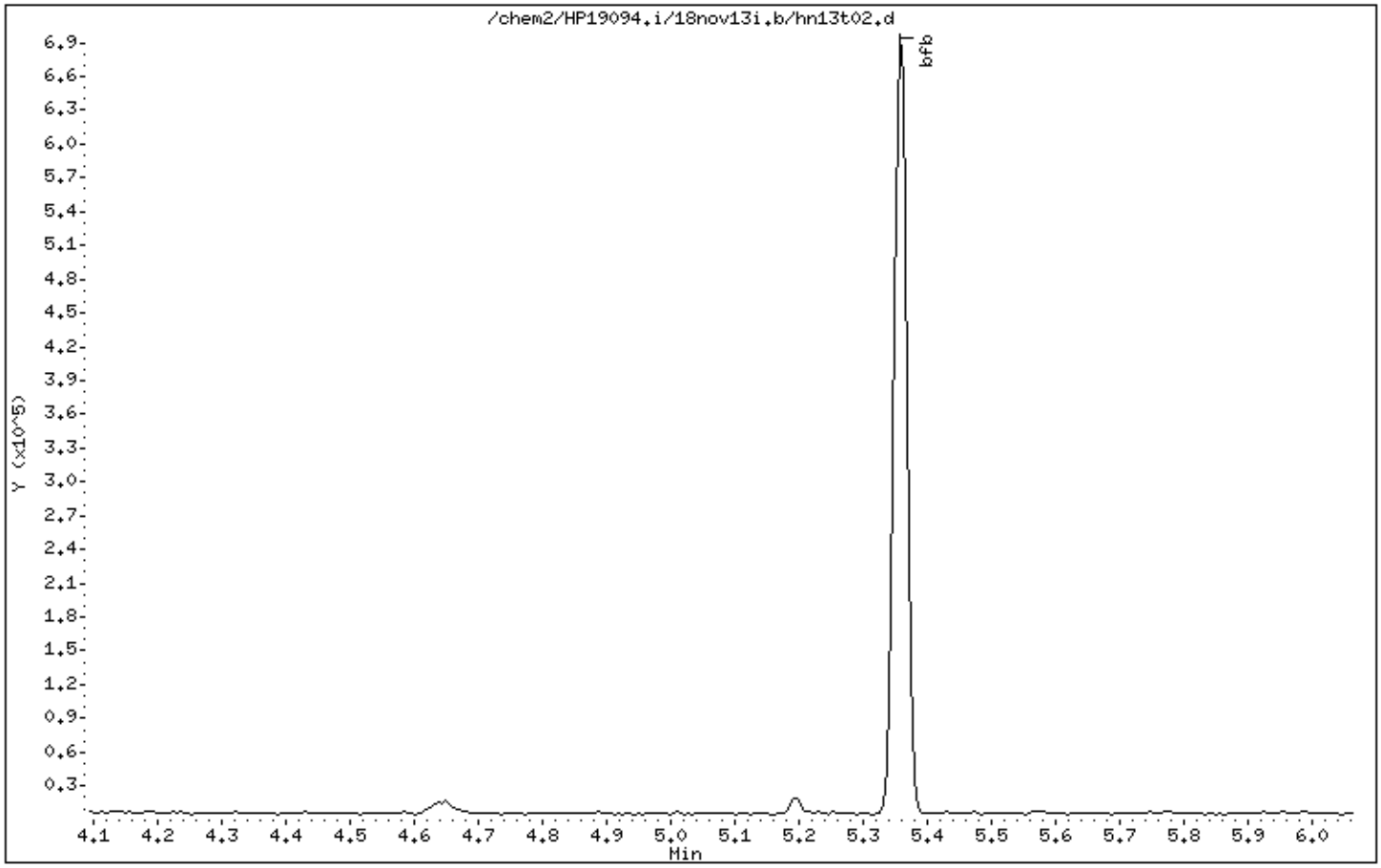
Instrument: HP19094.i

Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Jennifer K. Howe on 11/13/2018 at 12:05.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19094.i/18nov13i.b/hn13t02.d

Date : 13-NOV-2018 11:59

Client ID: BFB 50ng

Instrument: HP19094.i

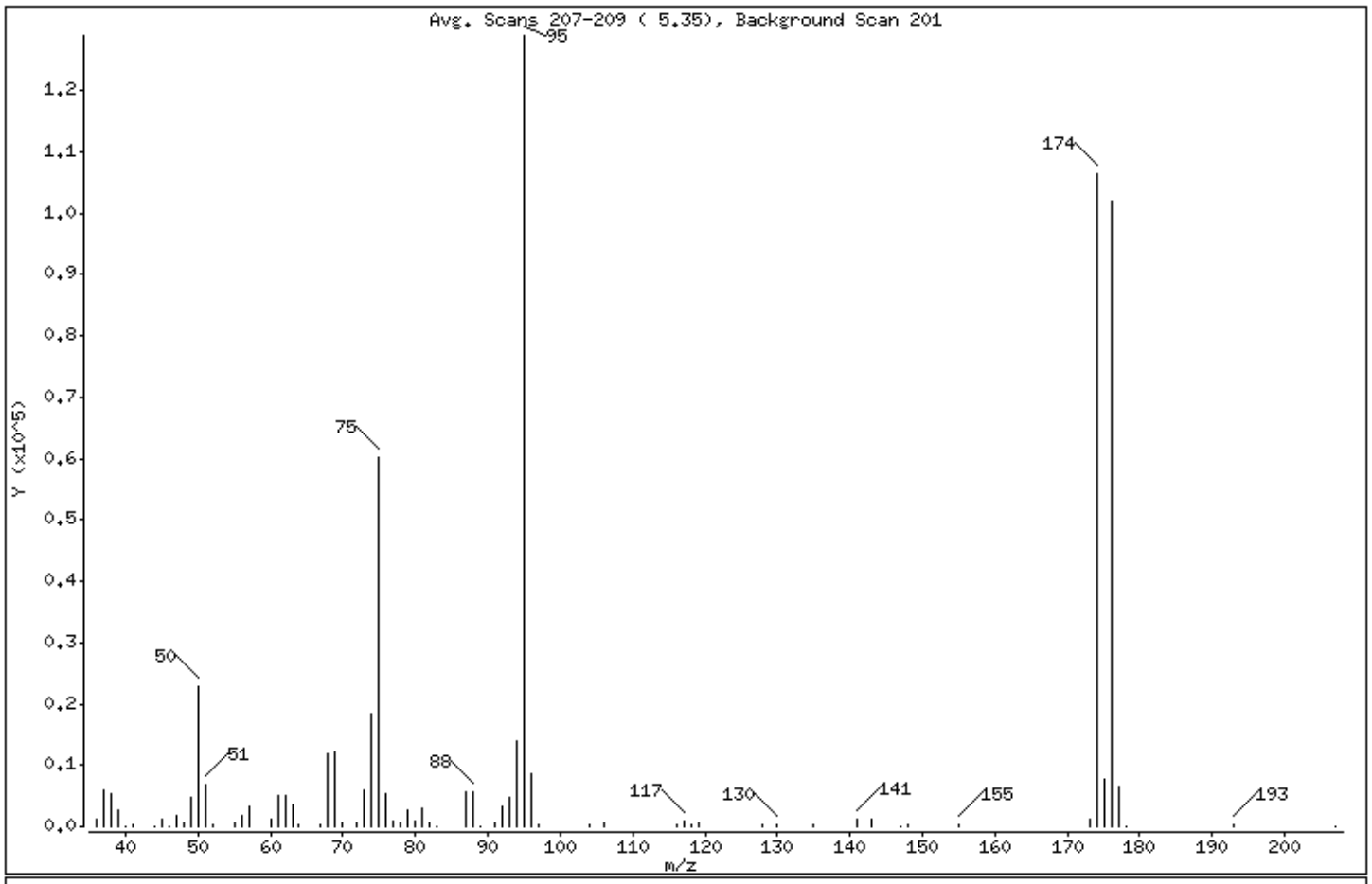
Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.80
75	30.00 - 60.00% of mass 95	46.67
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.89 (1.08)
174	50.00 - 100.00% of mass 95	82.49
175	5.00 - 9.00% of mass 174	6.02 (7.30)
176	95.00 - 101.00% of mass 174	79.11 (95.91)
177	5.00 - 9.00% of mass 176	5.17 (6.53)

Digitally signed by Jennifer K. Howe on 11/13/2018 at 12:05.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19094.i/18nov13i.b/hn13t02.d

Date : 13-NOV-2018 11:59

Client ID: BFB 50ng

Instrument: HP19094.i

Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

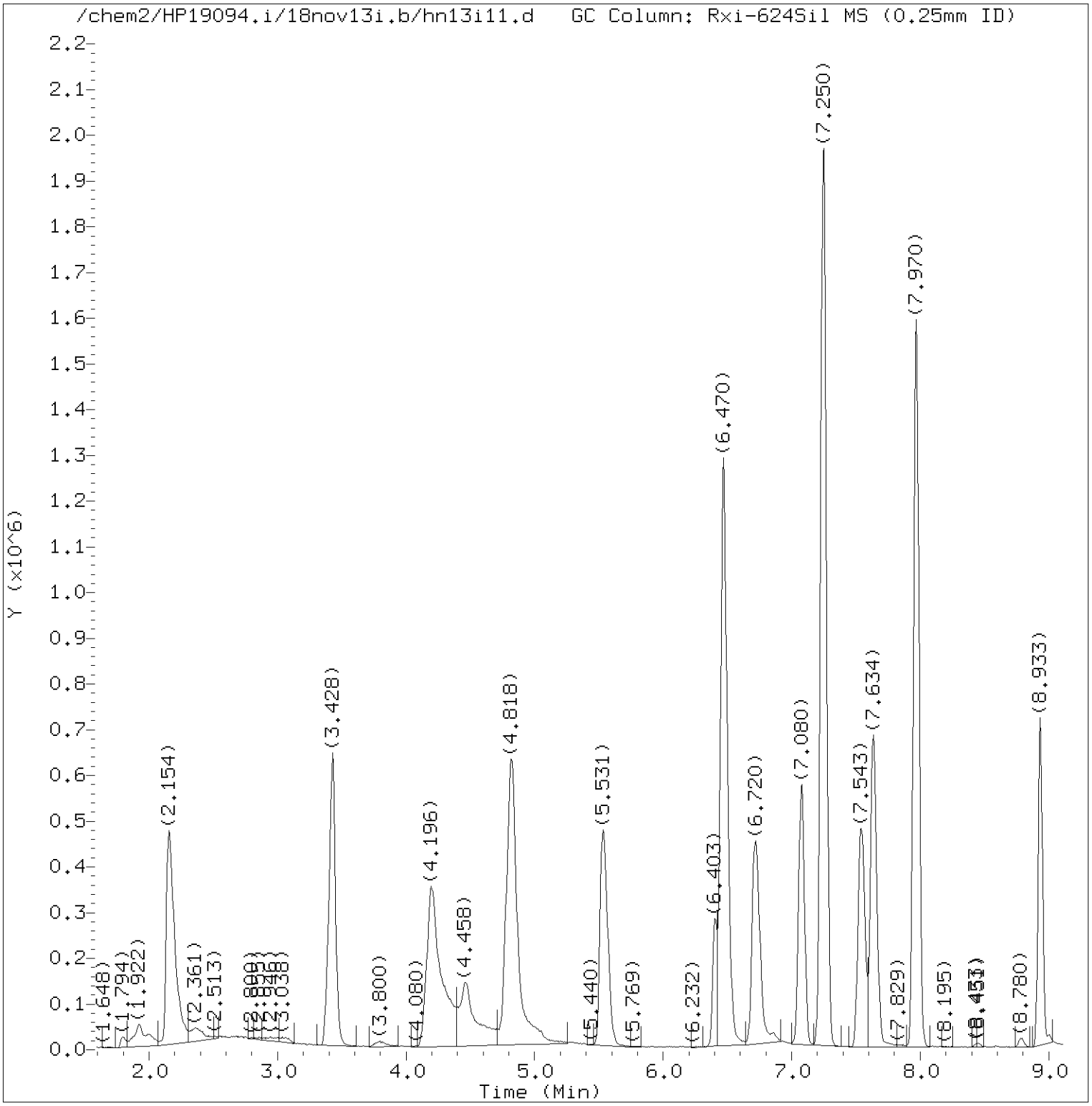
Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: hn13t02.d
Spectrum: Avg. Scans 207-209 (5.35), Background Scan 201
Location of Maximum: 95.00
Number of points: 71

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1242	60.00	1107	81.00	2894	119.00	494
37.00	5994	61.00	4914	82.00	659	128.00	268
38.00	5252	62.00	4971	83.00	100	130.00	399
39.00	2556	63.00	3580	87.00	5558	135.00	226
40.00	3	64.00	187	88.00	5676	141.00	1162
41.00	364	67.00	423	89.00	94	143.00	1087
44.00	132	68.00	11722	91.00	475	147.00	113
45.00	1129	69.00	12006	92.00	3214	148.00	285
46.00	95	70.00	714	93.00	4686	155.00	366
47.00	1904	72.00	502	94.00	13958	173.00	1144
48.00	524	73.00	5829	95.00	128936	174.00	106352
49.00	4726	74.00	18400	96.00	8577	175.00	7766
50.00	22944	75.00	60168	97.00	385	176.00	102000
51.00	6886	76.00	5482	104.00	414	177.00	6660
52.00	255	77.00	805	106.00	462	178.00	127
55.00	541	78.00	583	116.00	397	193.00	182
56.00	1641	79.00	2735	117.00	743	207.00	91
57.00	3132	80.00	809	118.00	298		

Digitally signed by Jennifer K. Howe on 11/13/2018 at 12:05.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

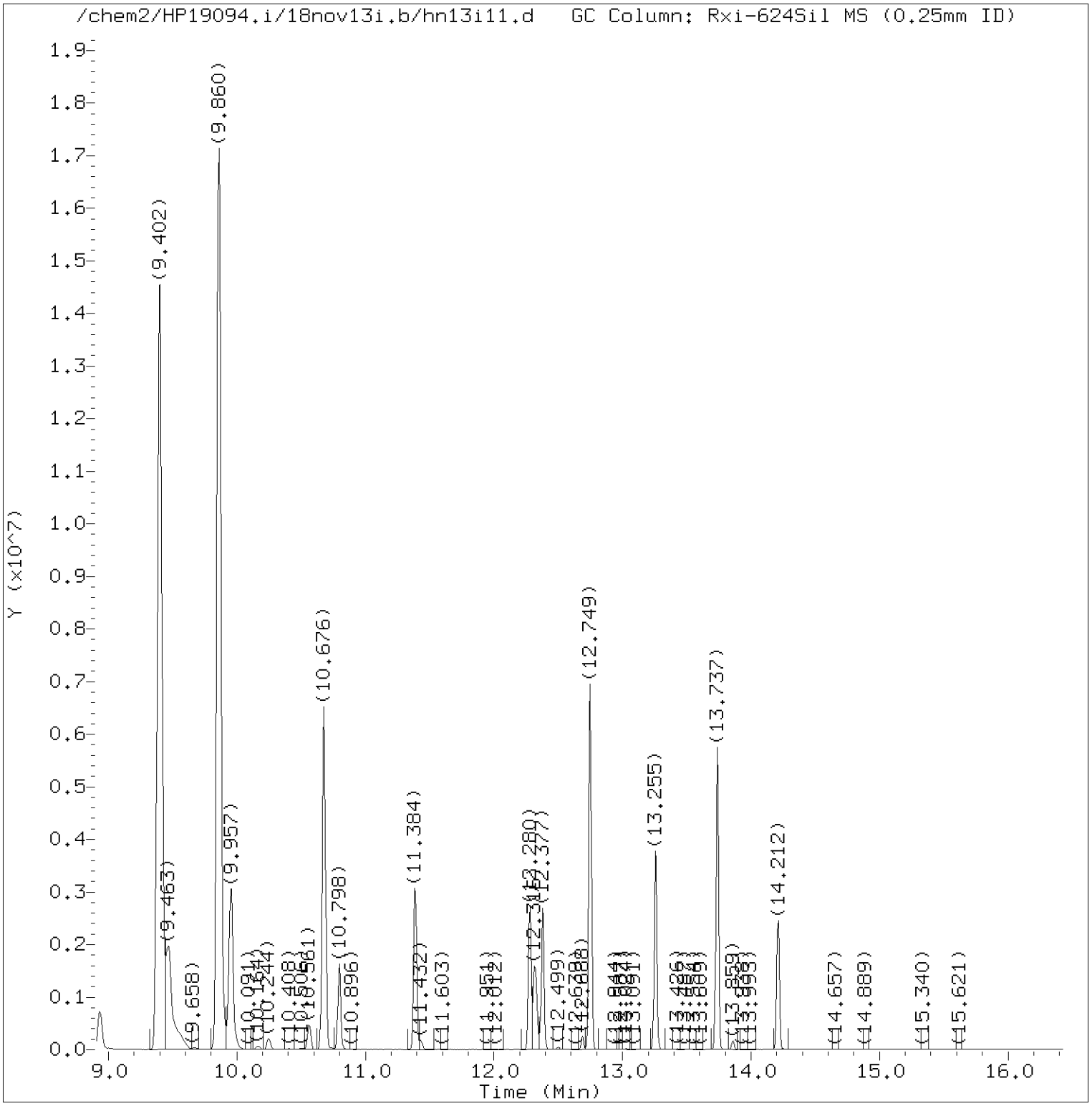
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

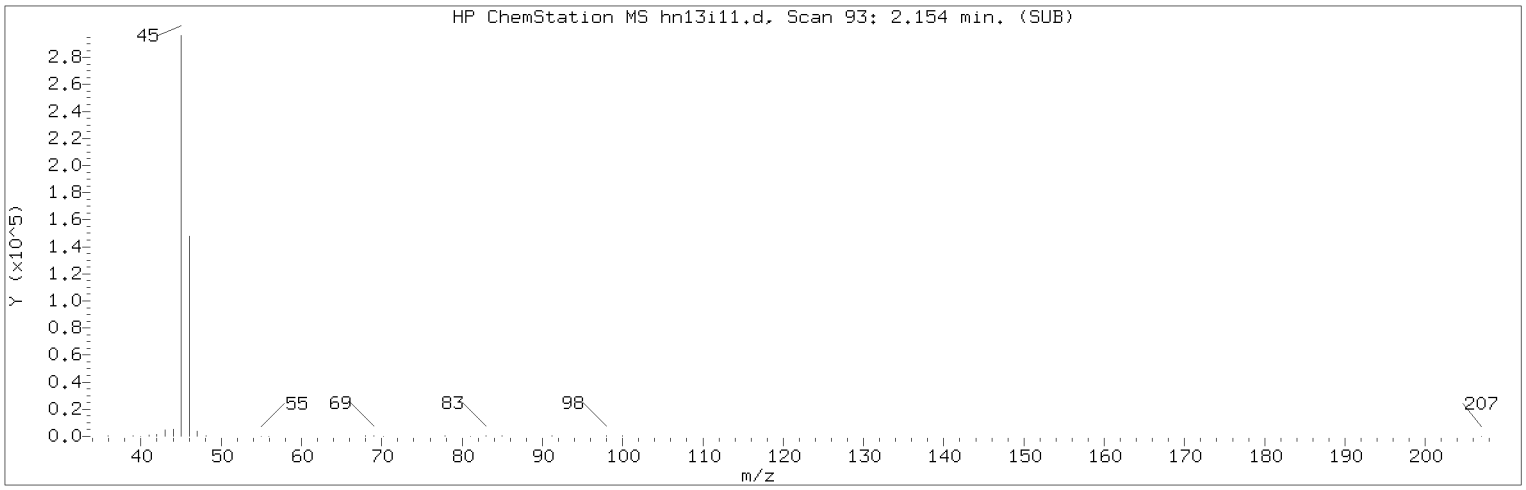
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.154	45	1416648M	24.057
25) Acetonitrile	(1)	4.196	41	2311518M	662.587
26)*t-Butyl Alcohol-d10	(1)	4.476	65	115186M	50.000
36) Vinyl Acetate	(2)	5.531	43	1619944	23.548
43) Methyl Acrylate	(2)	6.470	55	2765427	126.060
53) 1-Chlorobutane	(2)	7.244	56	2585763	24.568
63)*Fluorobenzene	(2)	7.970	96	2301590	10.000
77) Chloroacetonitrile	(2)	9.451	75	1342543	1533.398
78) 2-Chloroethyl vinyl ether	(2)	9.475	63	474028	24.867
97)*Chlorobenzene-d5	(3)	11.390	117	1790529	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	593133	42.122
112) Cyclohexanone	(1)	12.316	55	862817M	1176.136
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	950619	10.000
142) Hexachloroethane	(4)	13.737	117	1102296	26.733

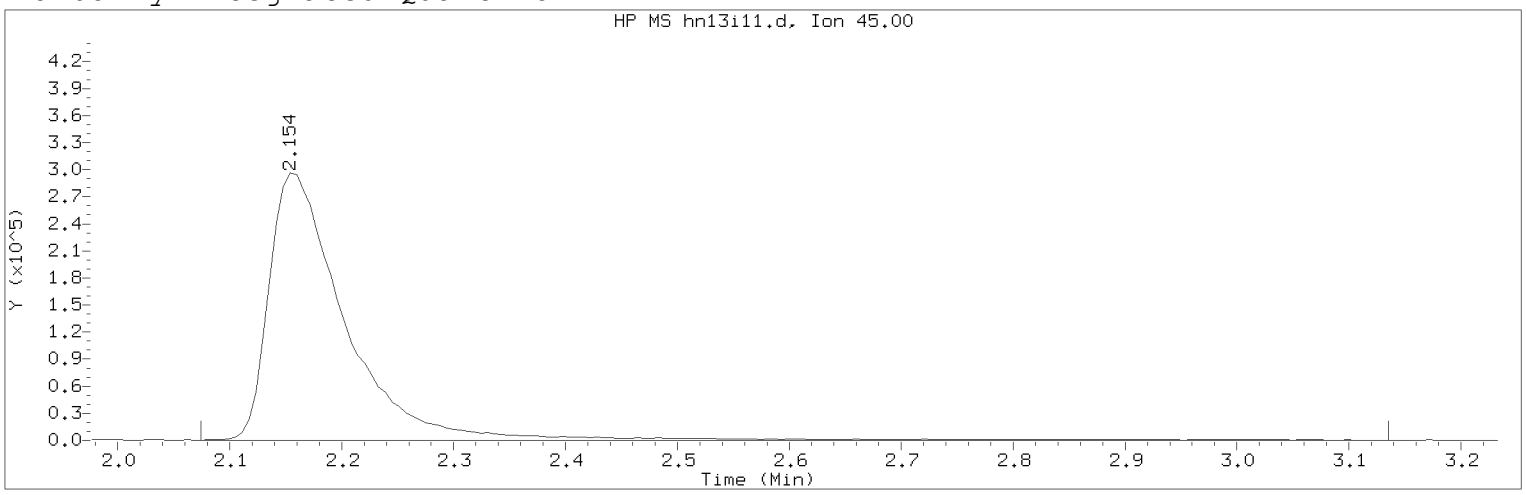
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

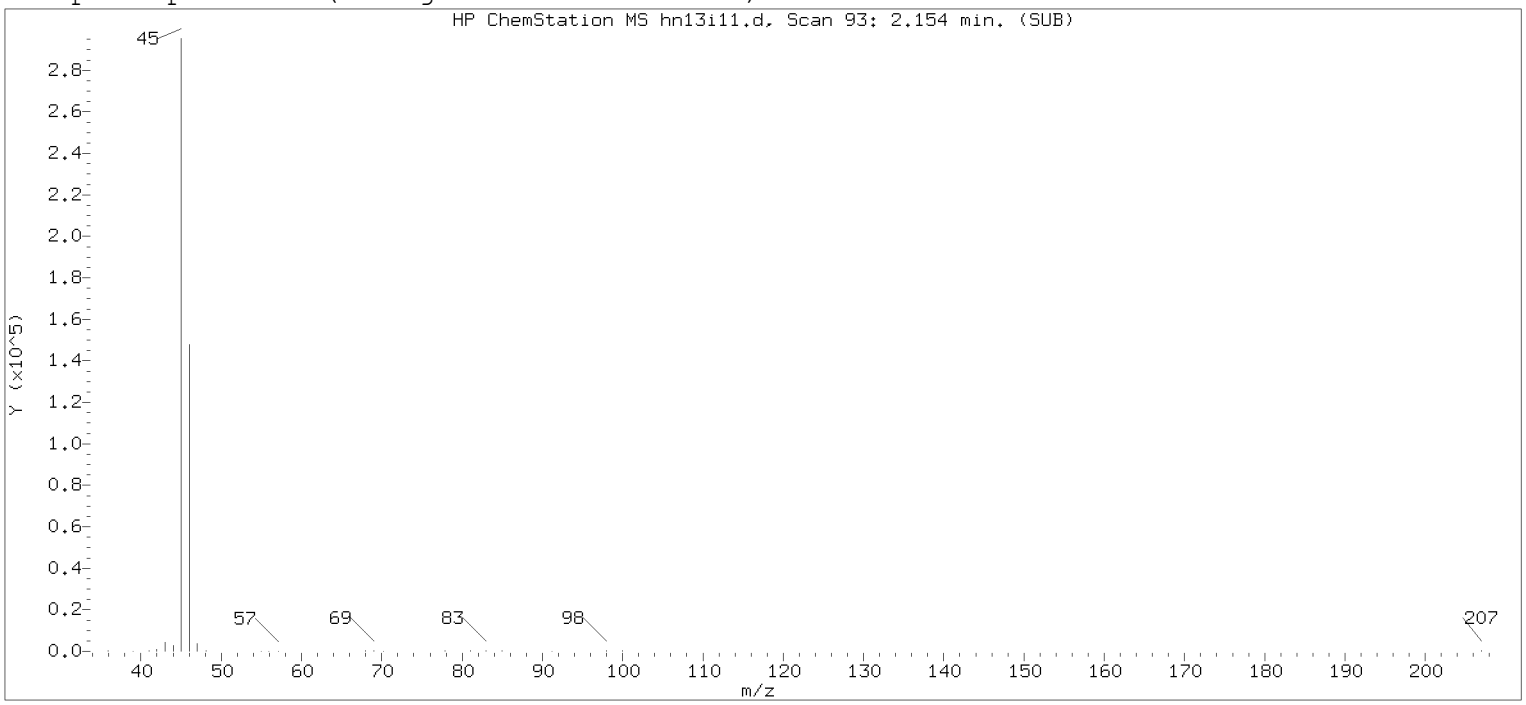
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area (flag) : 1416648M
On-Column Amount (ng) : 24.0568
Integration start scan : 79 Integration stop scan: 253
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

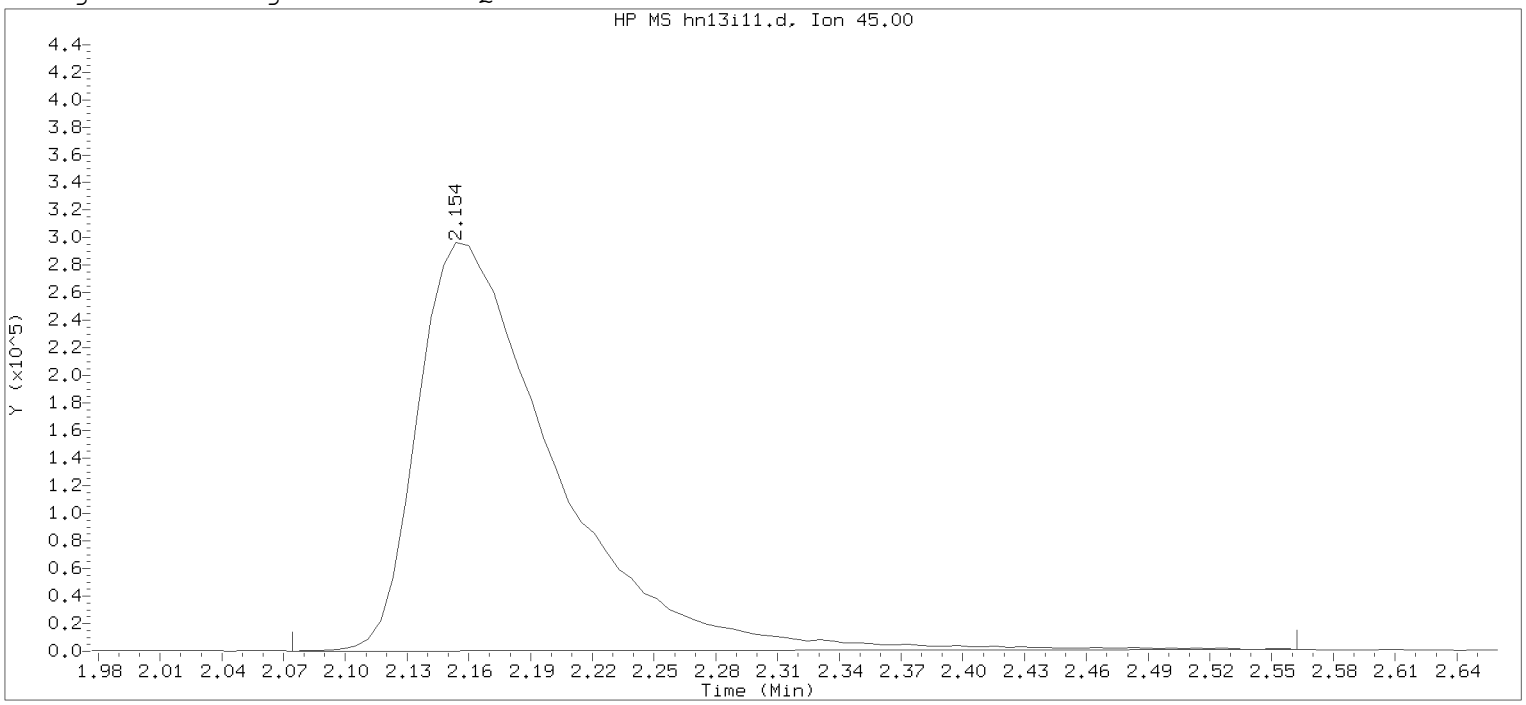
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

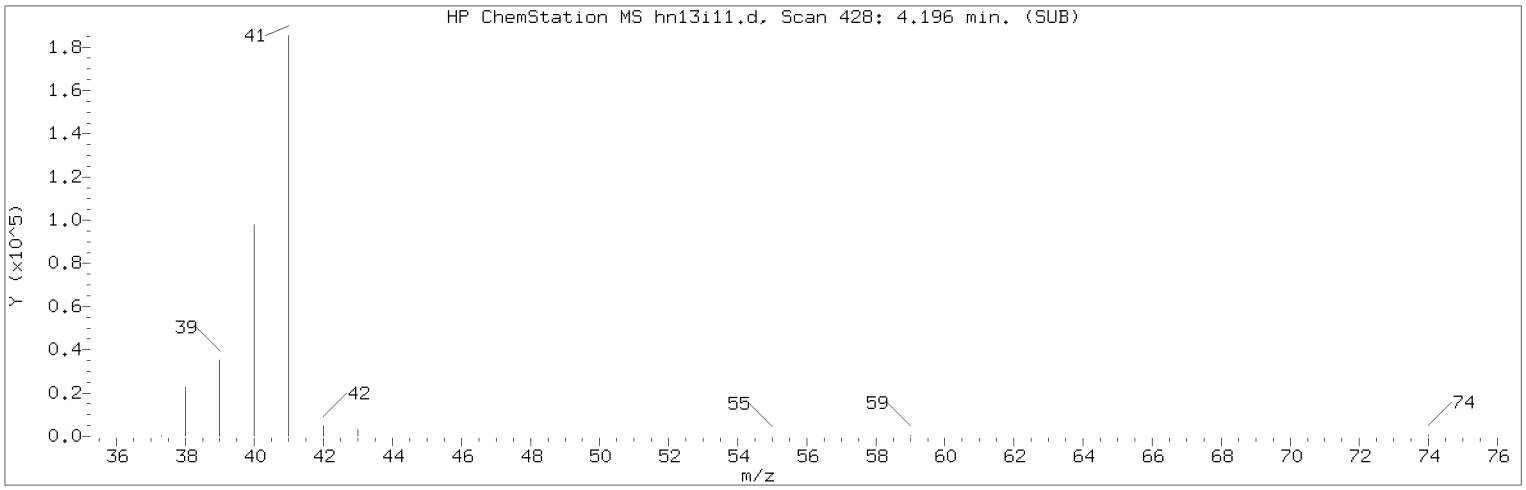
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

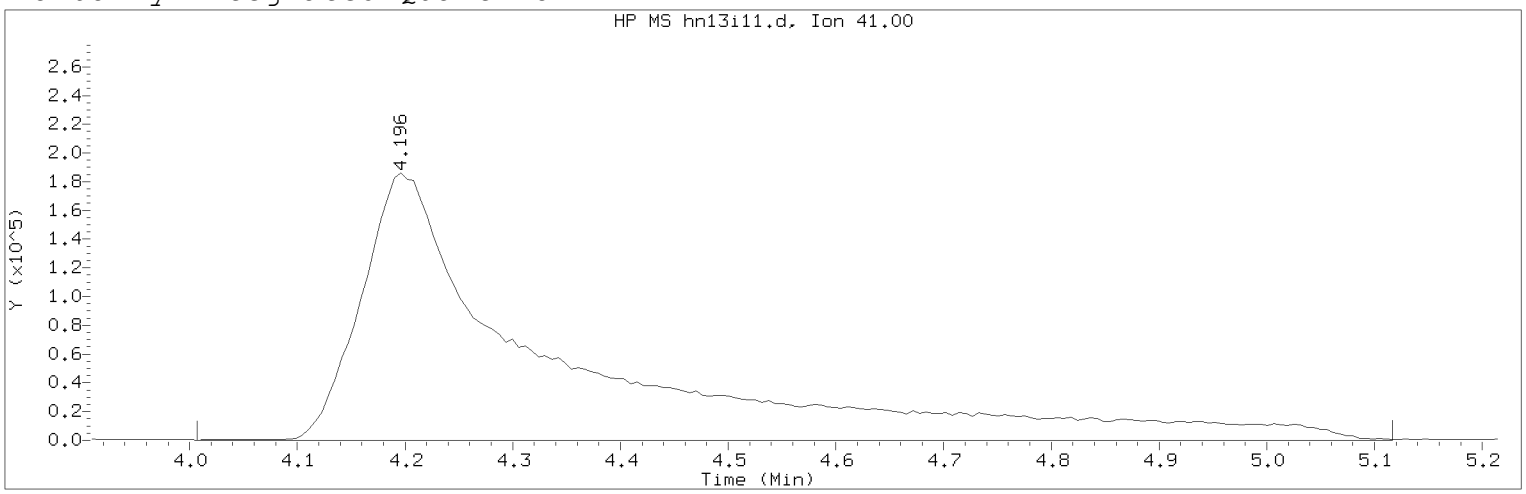
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area : 1371312
On-column Amount (ng) : 24.9993
Integration start scan : 79 Integration stop scan: 159
Y at integration start : 0 Y at integration end: 1525

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

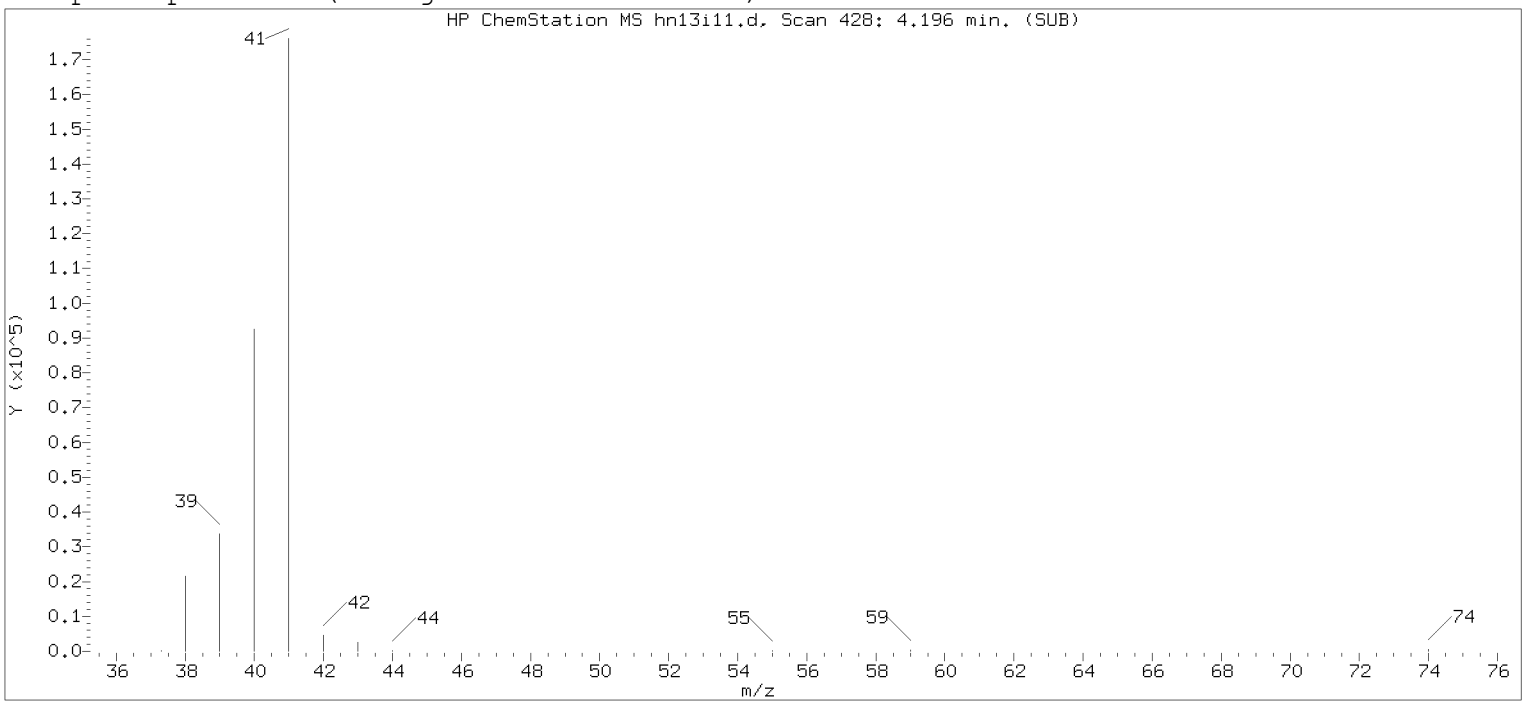
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area (flag) : 2311518M
On-Column Amount (ng) : 662.5873
Integration start scan : 396 Integration stop scan: 578
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

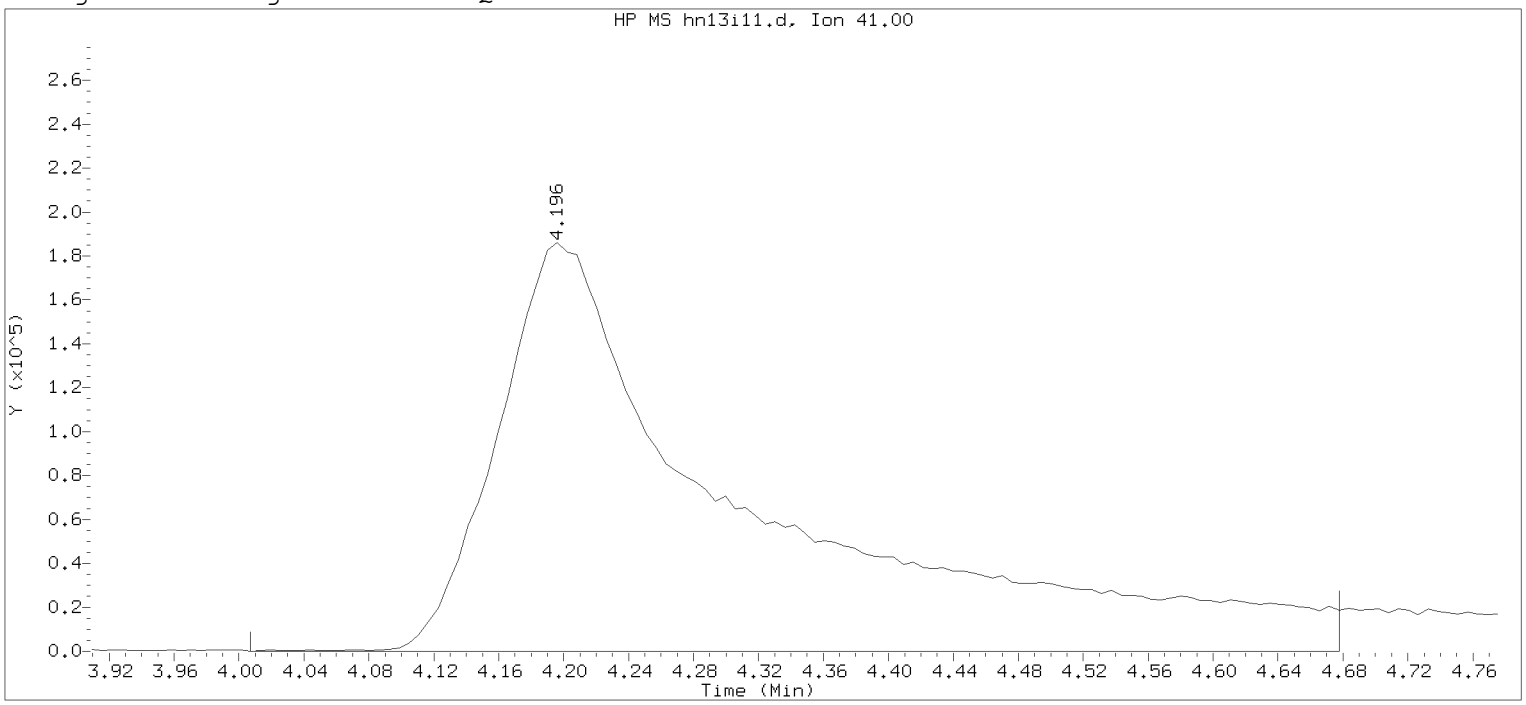
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

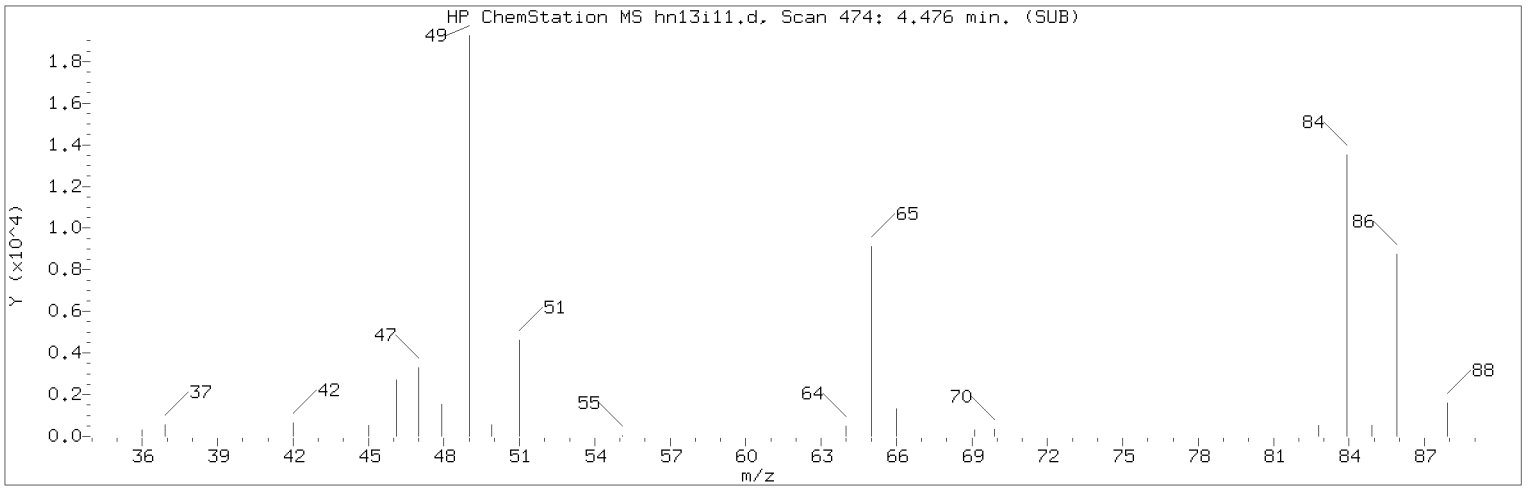
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

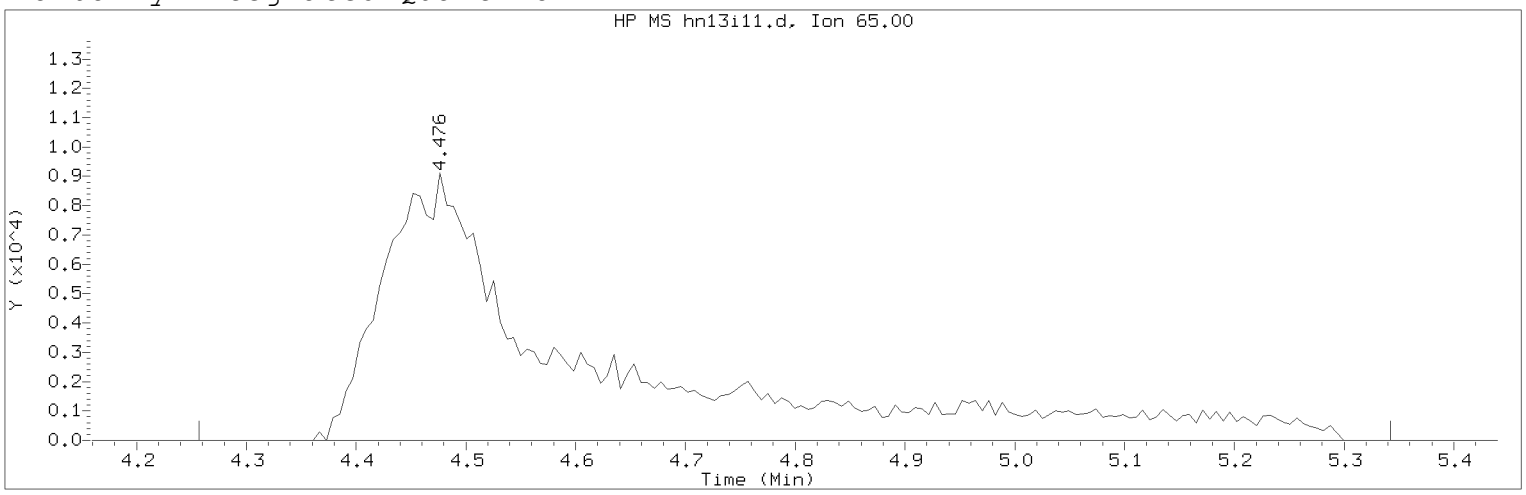
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area : 1981770
On-column Amount (ng) : 999.7371
Integration start scan : 396 Integration stop scan: 506
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

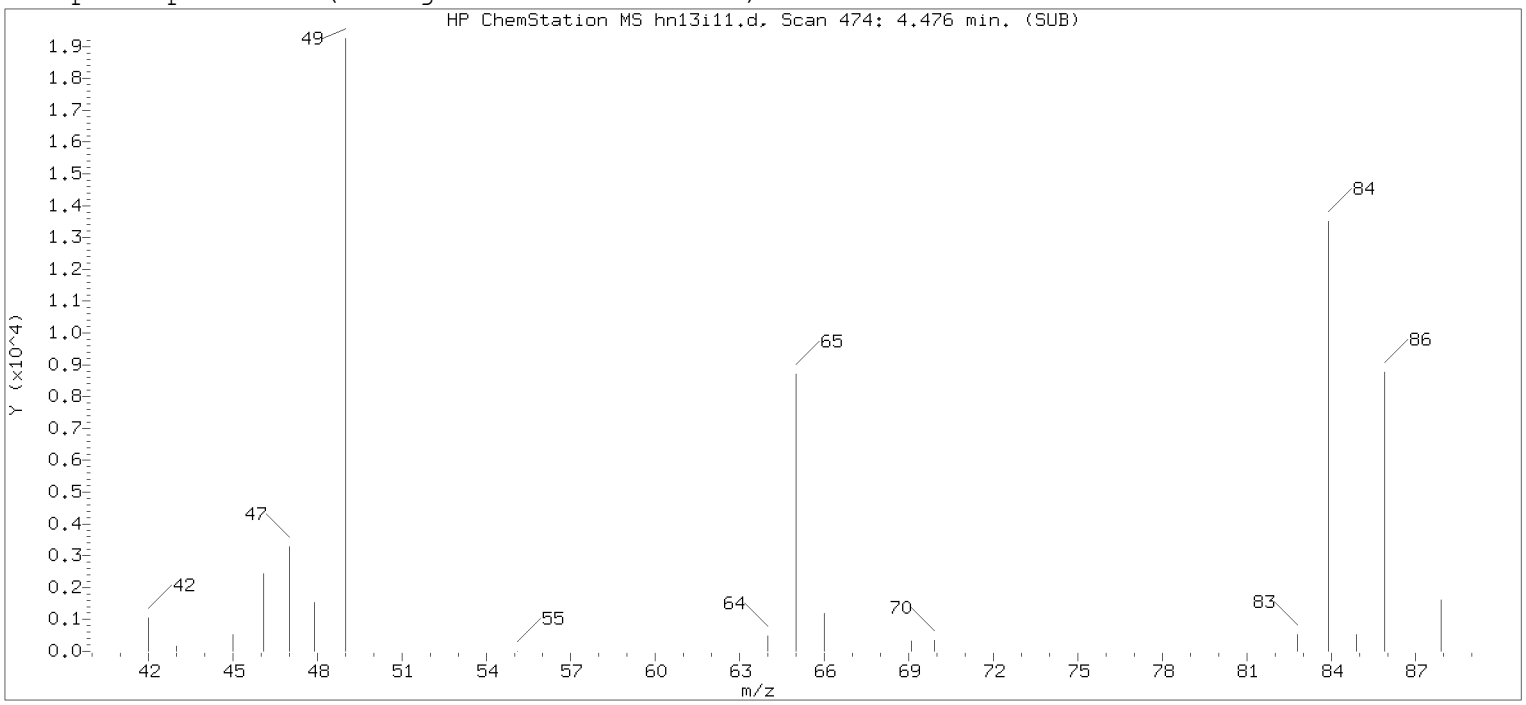
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.476
Quant Ion : 65.00
Area (flag) : 115186M
On-Column Amount (ng) : 50.0000
Integration start scan : 437 Integration stop scan: 615
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

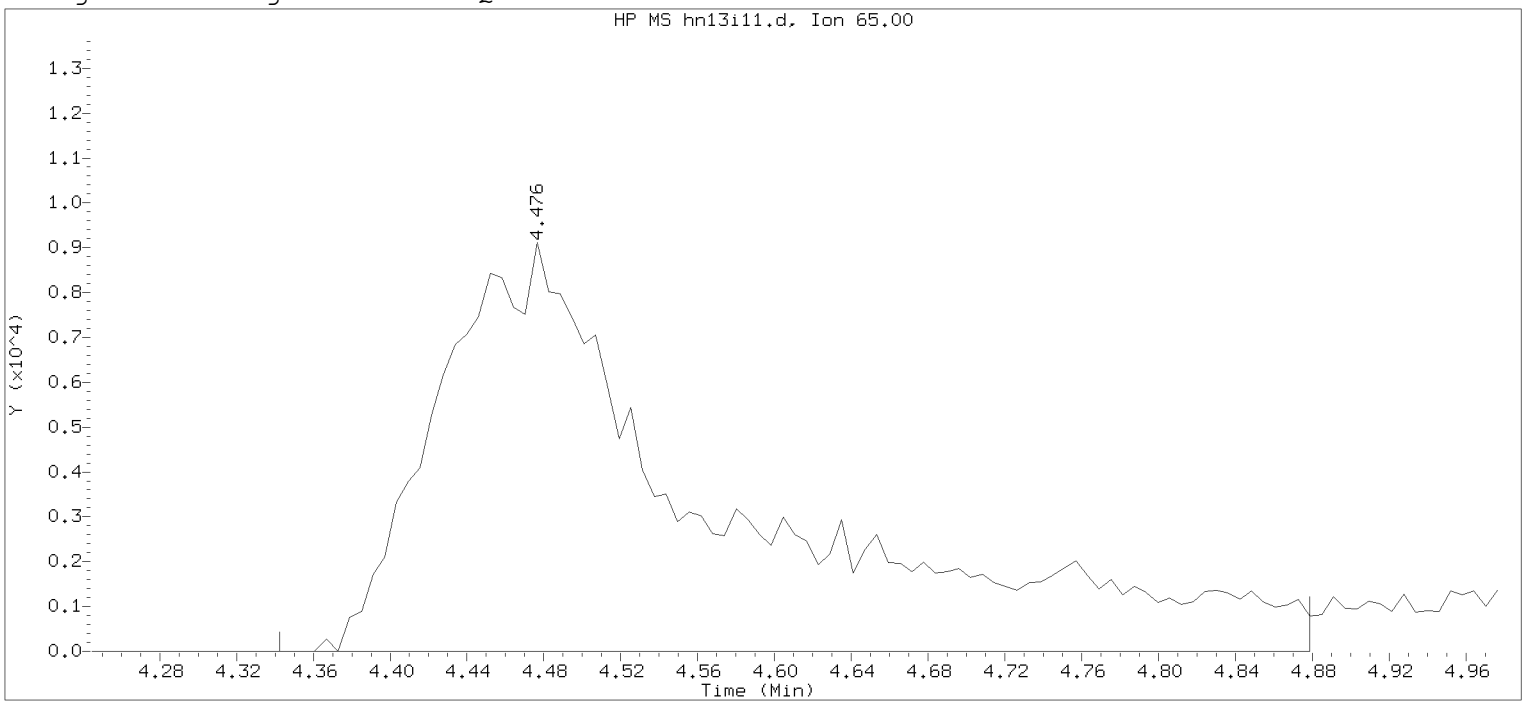
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

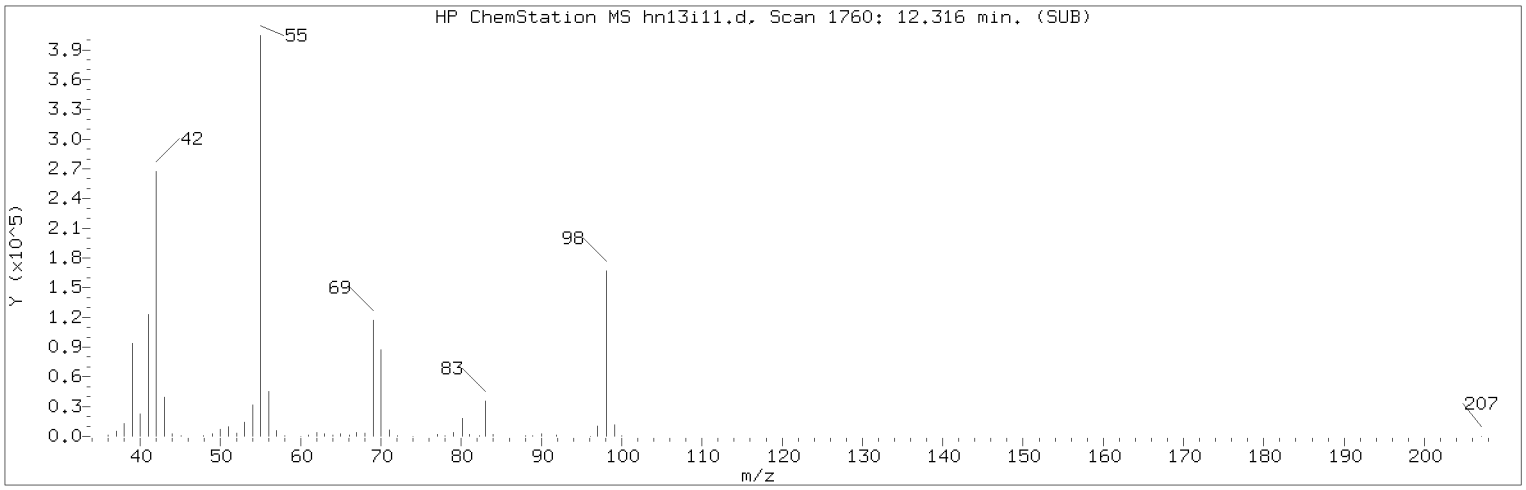
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

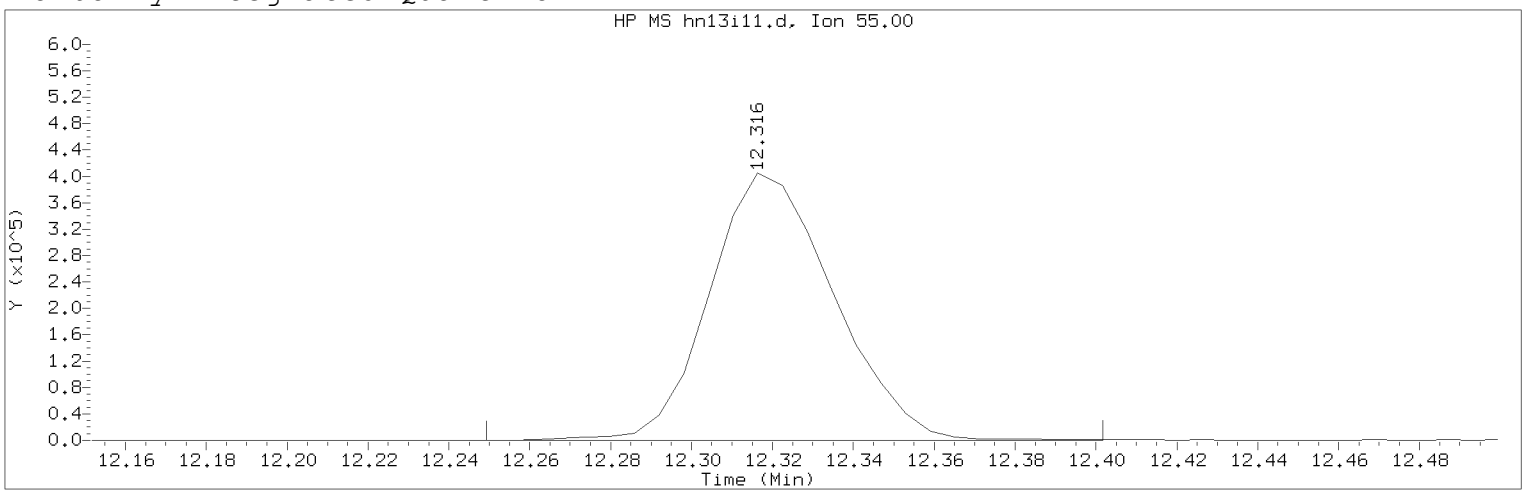
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.476
Quant Ion : 65.00
Area : 93648
On-column Amount (ng) : 50.0000
Integration start scan : 451 Integration stop scan: 539
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 890 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

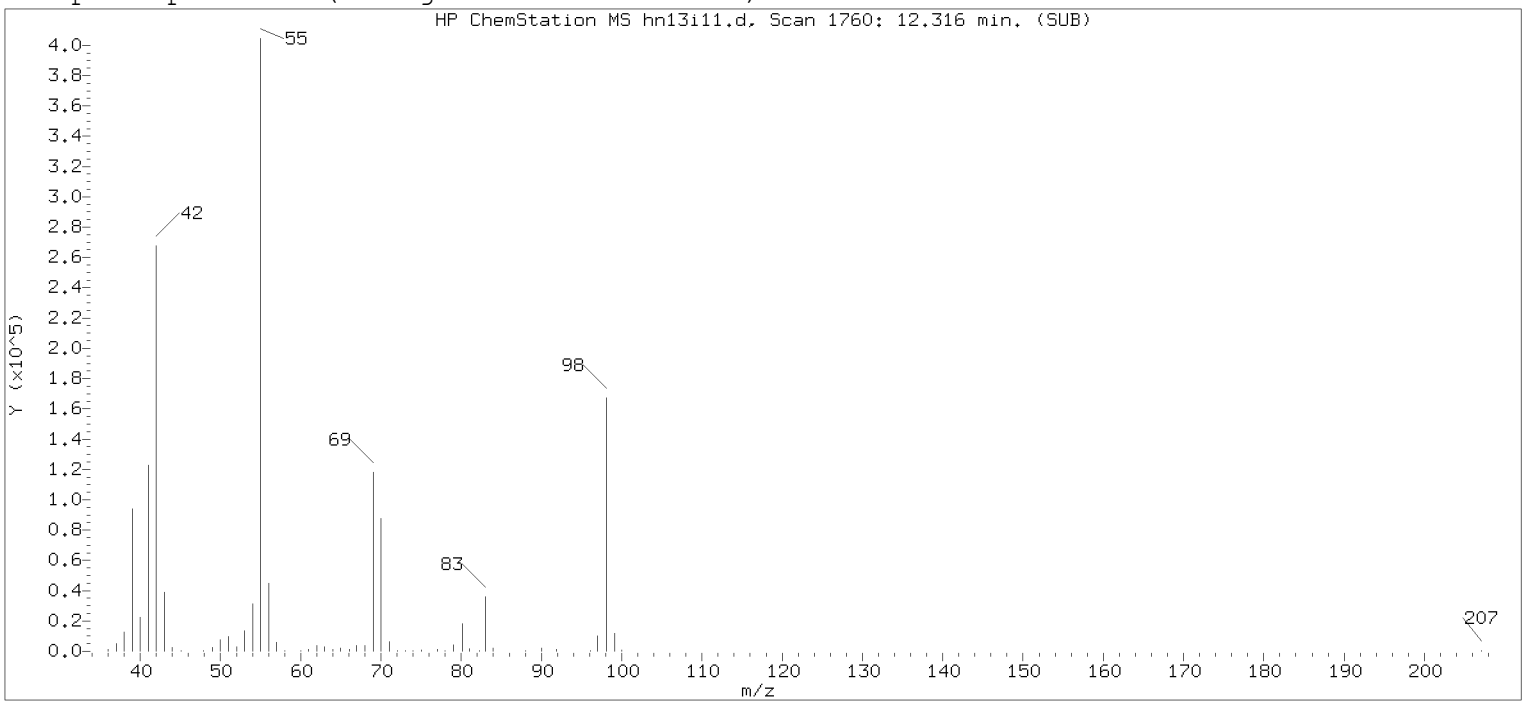
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1760
Retention Time (minutes): 12.316
Quant Ion : 55.00
Area (flag) : 862817M
On-Column Amount (ng) : 1176.1365
Integration start scan : 1748 Integration stop scan: 1773
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

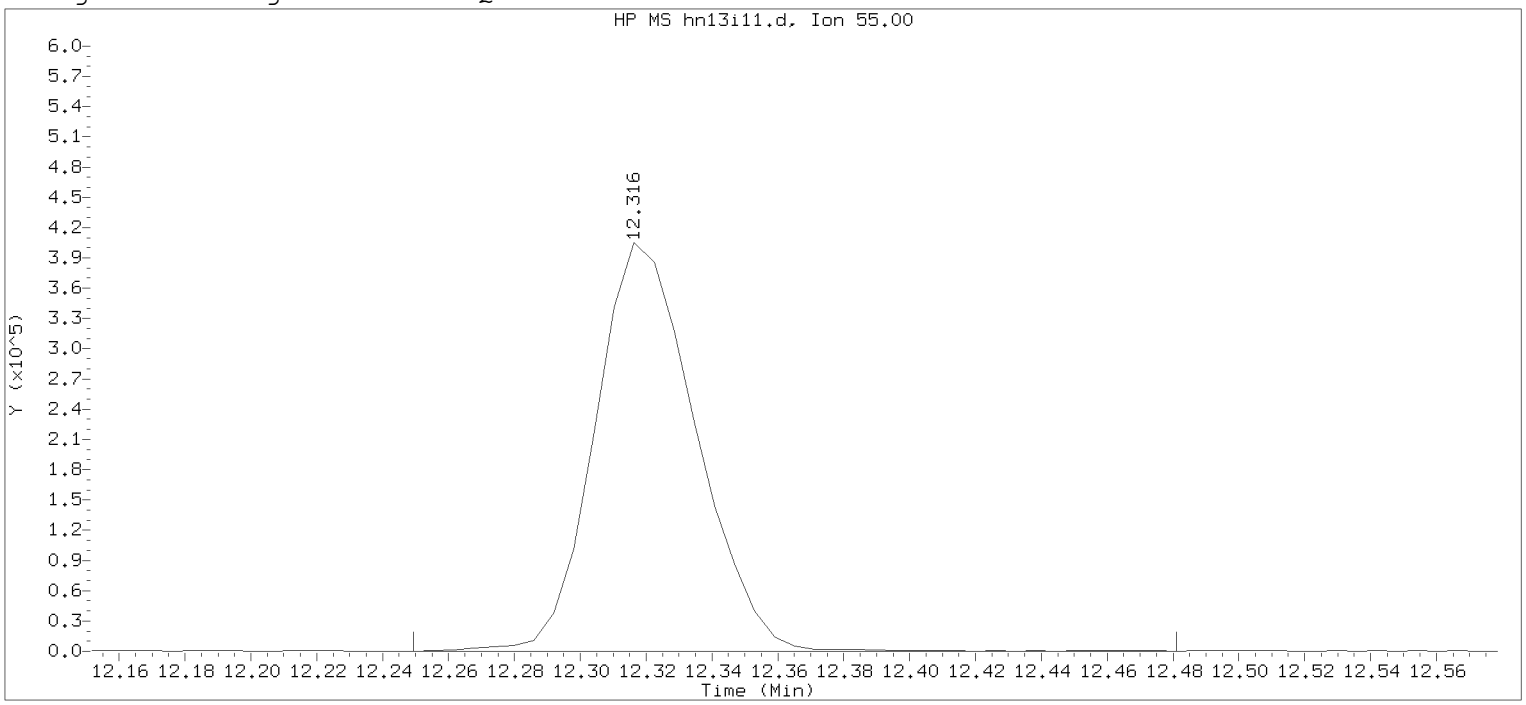
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



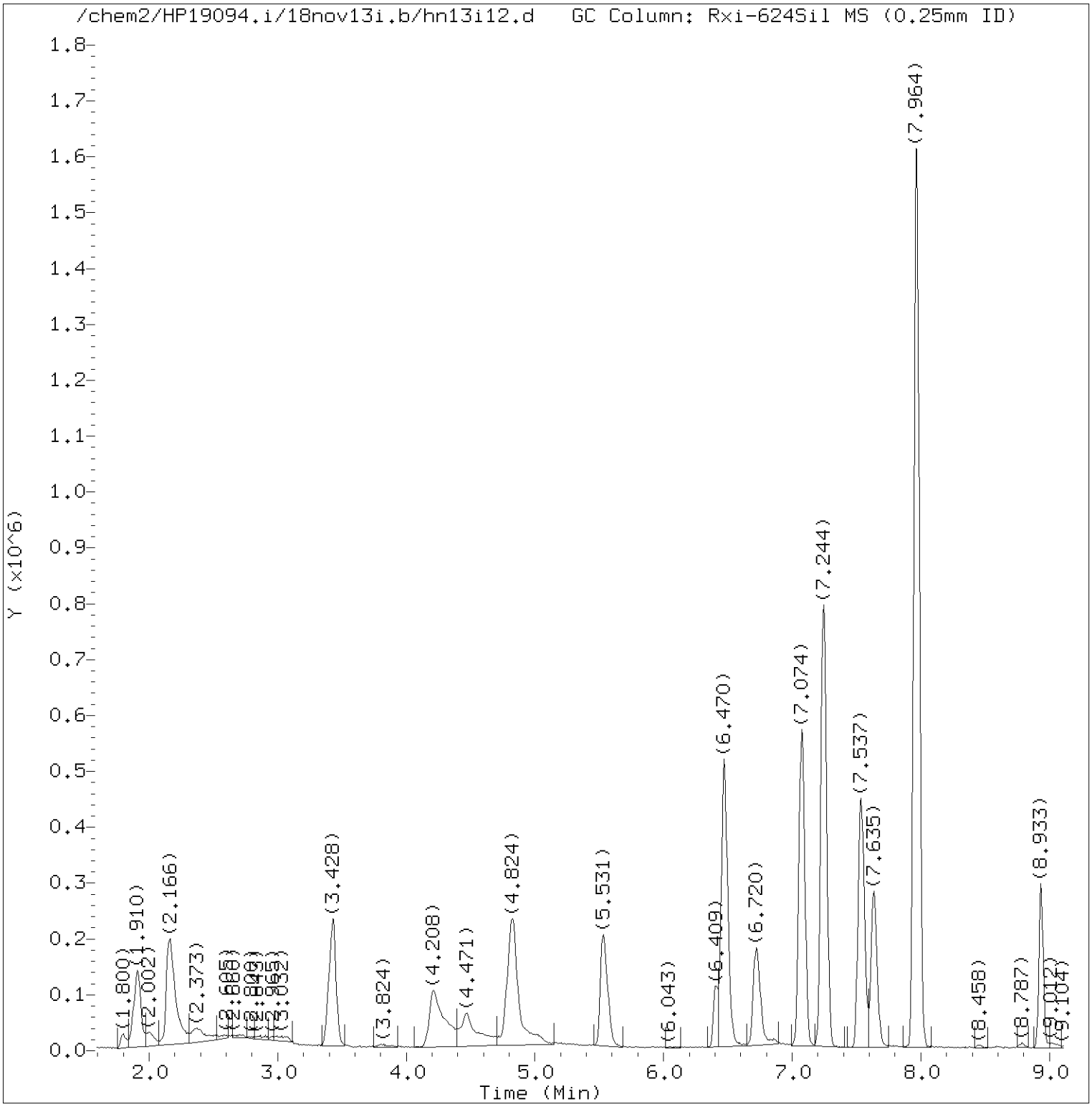
Data File: /chem2/HP19094.i/18nov13i.b/hn13i11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1760
Retention Time (minutes): 12.316
Quant Ion : 55.00
Area : 864809
On-column Amount (ng) : 1362.8685
Integration start scan : 1748 Integration stop scan: 1786
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. [illegible]



Total Ion Chromatogram (TIC)

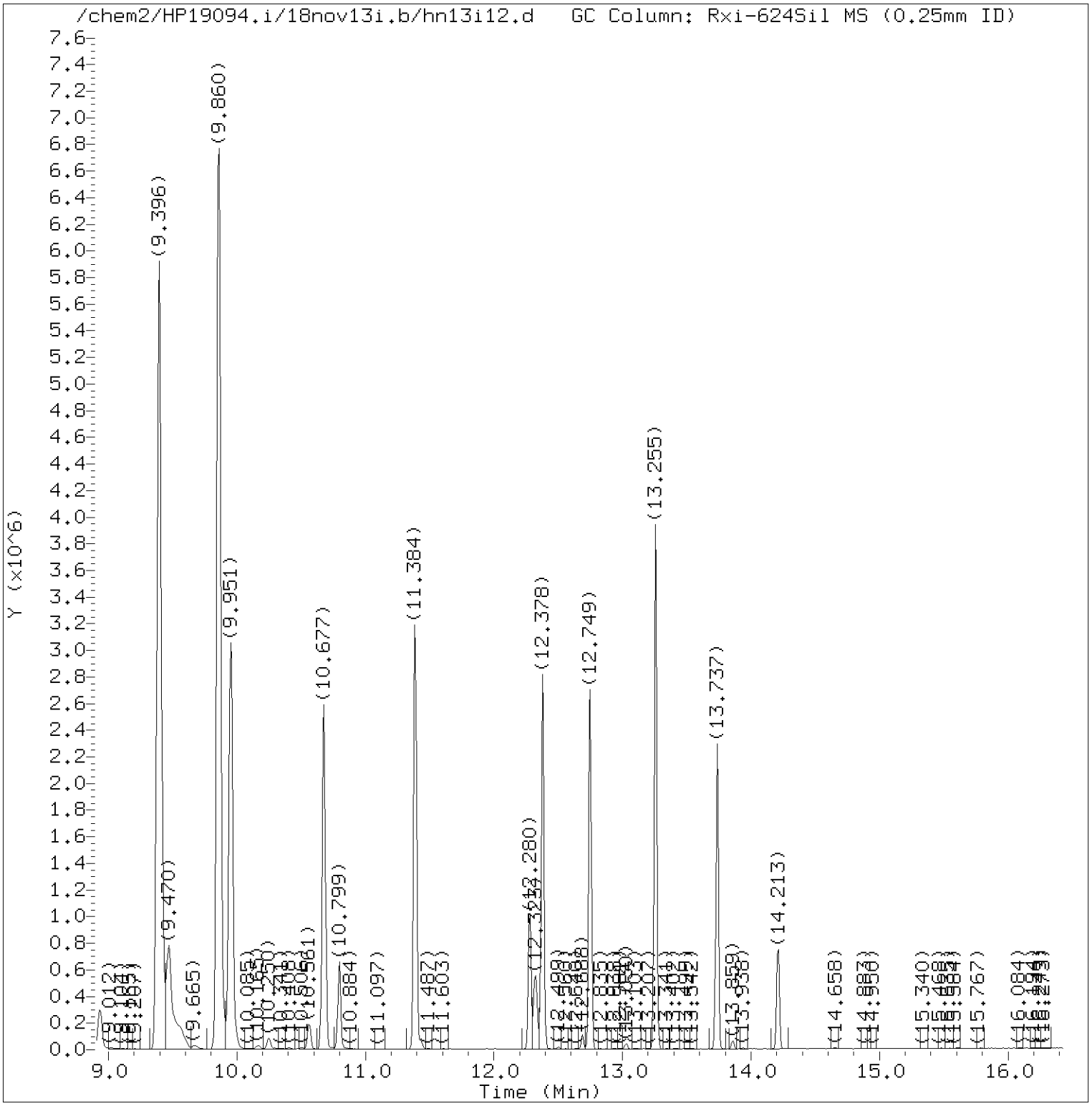
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

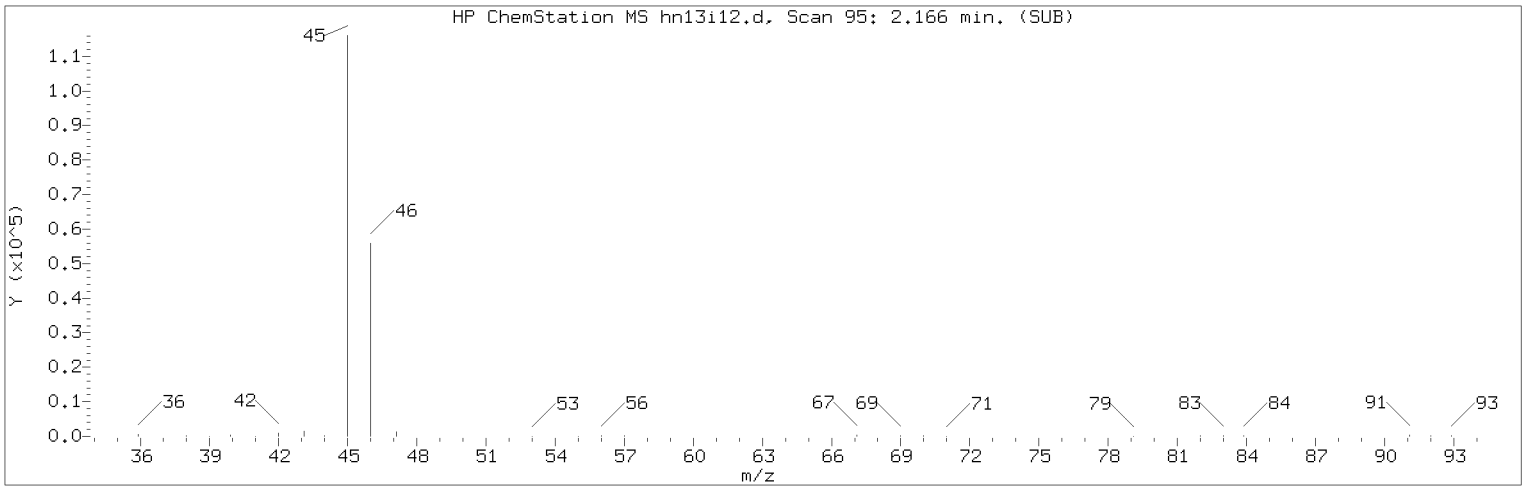
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.166	45	562043M	9.315
25) Acetonitrile	(1)	4.208	41	819156M	279.632
26)*t-Butyl Alcohol-d10	(1)	4.495	65	96722	50.000
36) Vinyl Acetate	(2)	5.531	43	641743	9.105
43) Methyl Acrylate	(2)	6.470	55	1079245	48.016
53) 1-Chlorobutane	(2)	7.244	56	1043444	9.676
63)*Fluorobenzene	(2)	7.964	96	2358172	10.000
77) Chloroacetonitrile	(2)	9.463	75	444007	494.959
78) 2-Chloroethyl vinyl ether	(2)	9.470	63	194016	9.934
97)*Chlorobenzene-d5	(3)	11.384	117	1810932	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	222094M	18.783
112) Cyclohexanone	(1)	12.323	55	297071M	482.252
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	972712	10.000
142) Hexachloroethane	(4)	13.737	117	429106	10.170

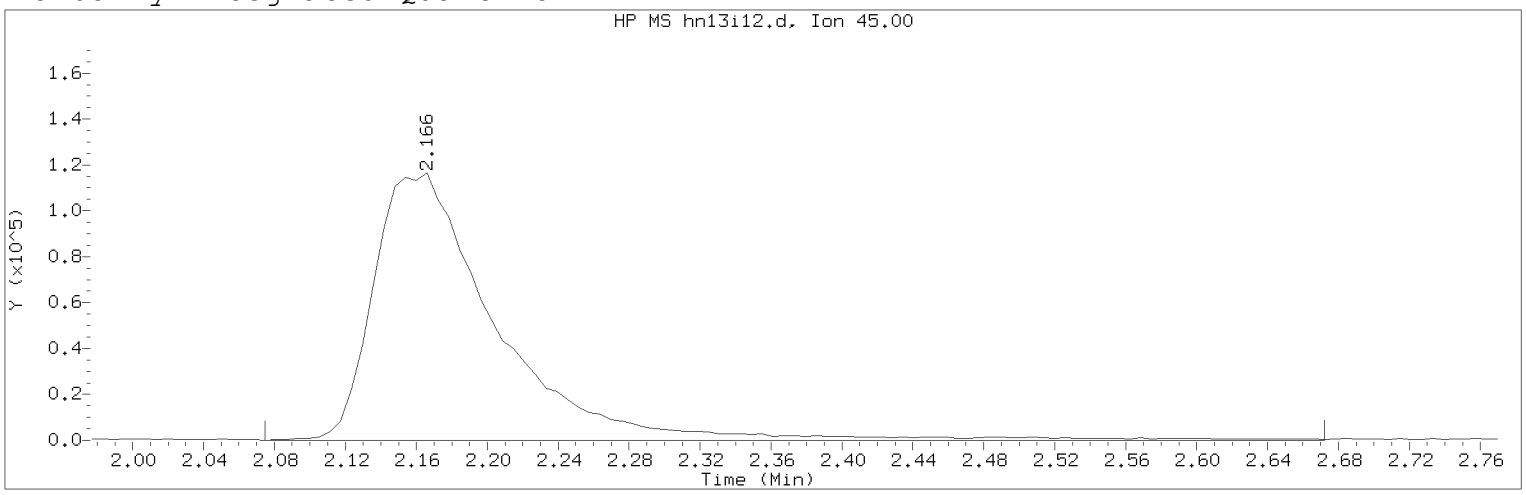
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

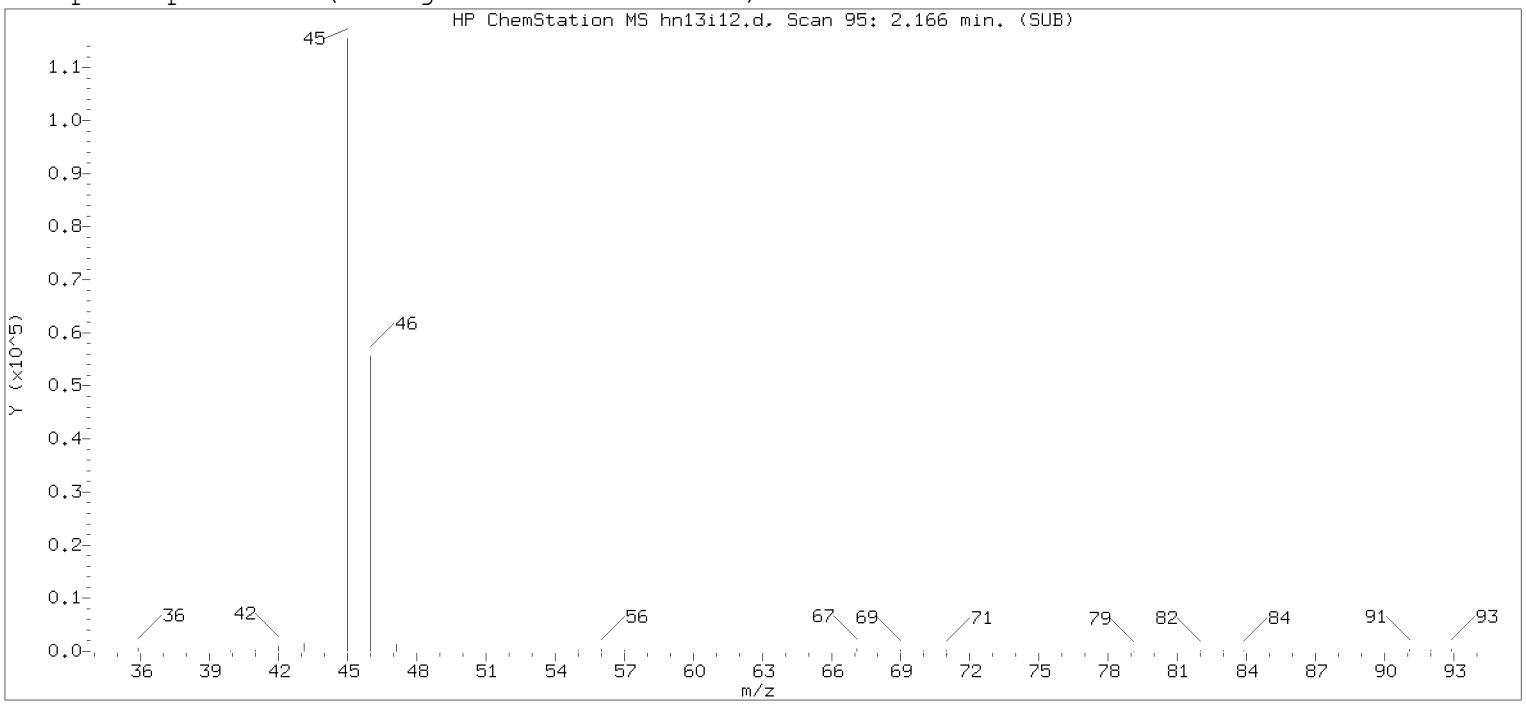
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 95
Retention Time (minutes): 2.166
Quant Ion : 45.00
Area (flag) : 562043M
On-Column Amount (ng) : 9.3153
Integration start scan : 79 Integration stop scan: 177
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

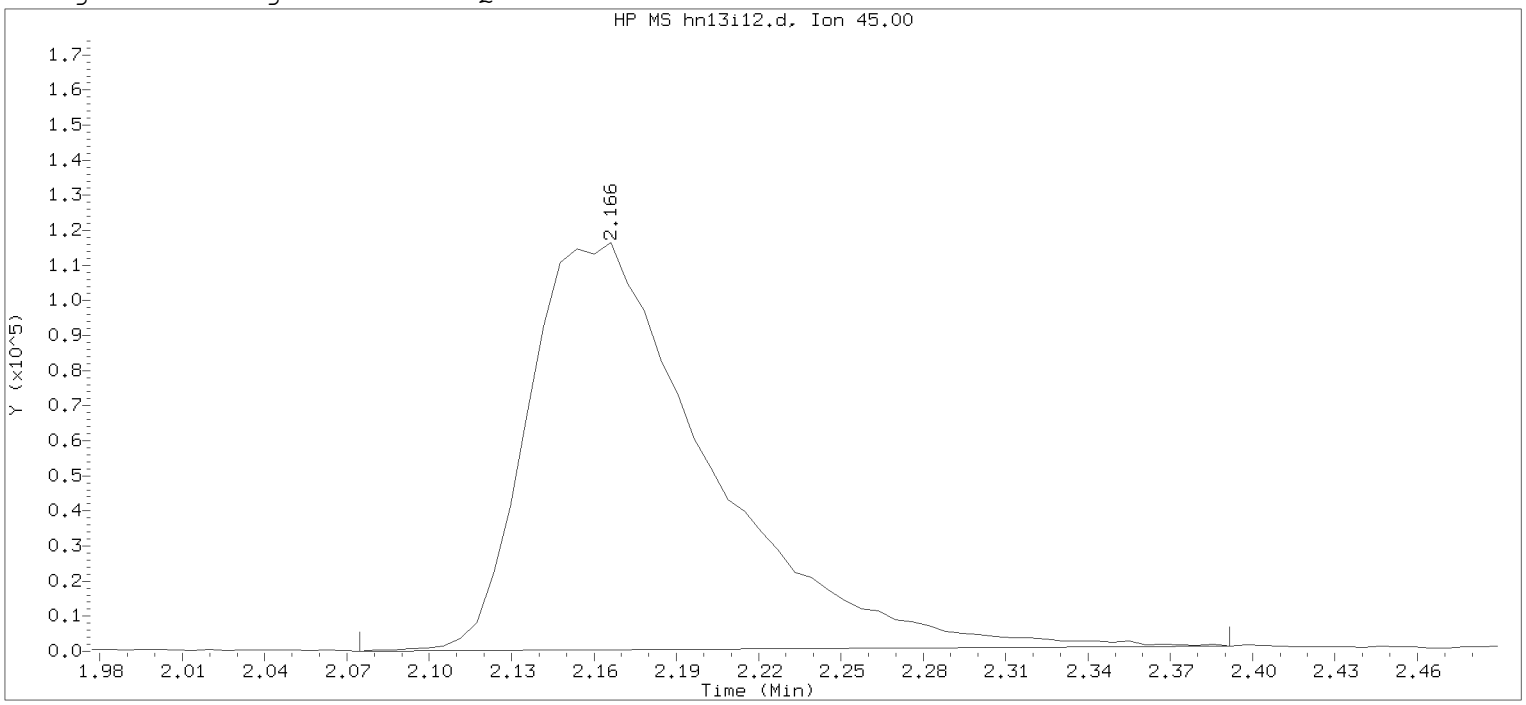
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

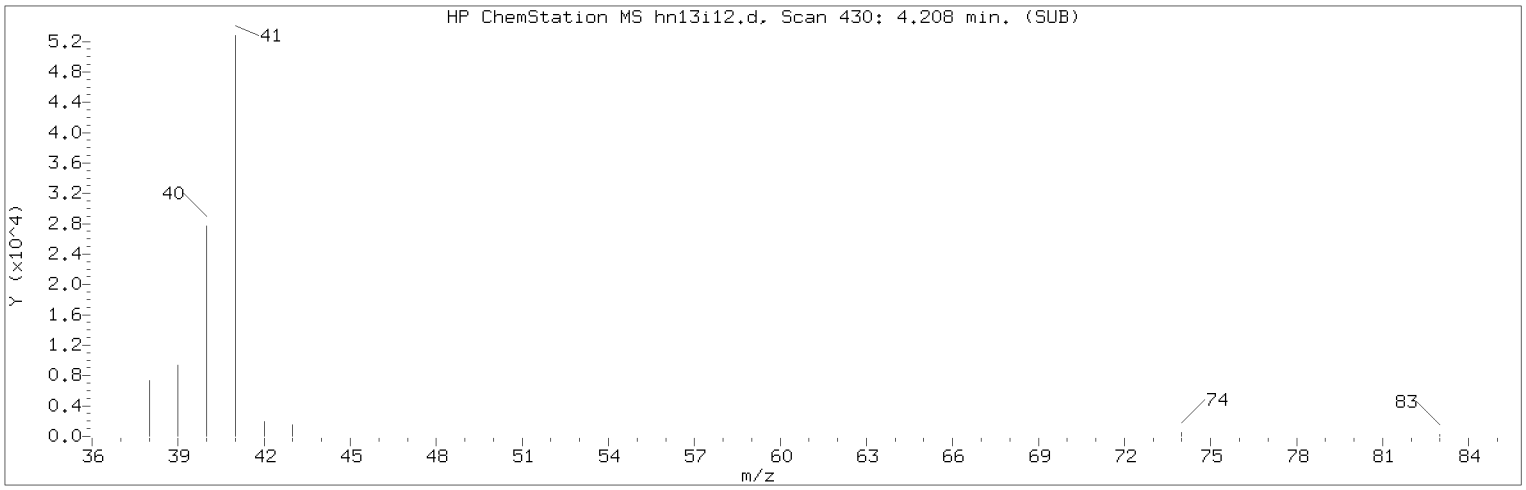
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 13:12
Date, time and analyst ID of latest file update: 13-Nov-2018 13:12 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

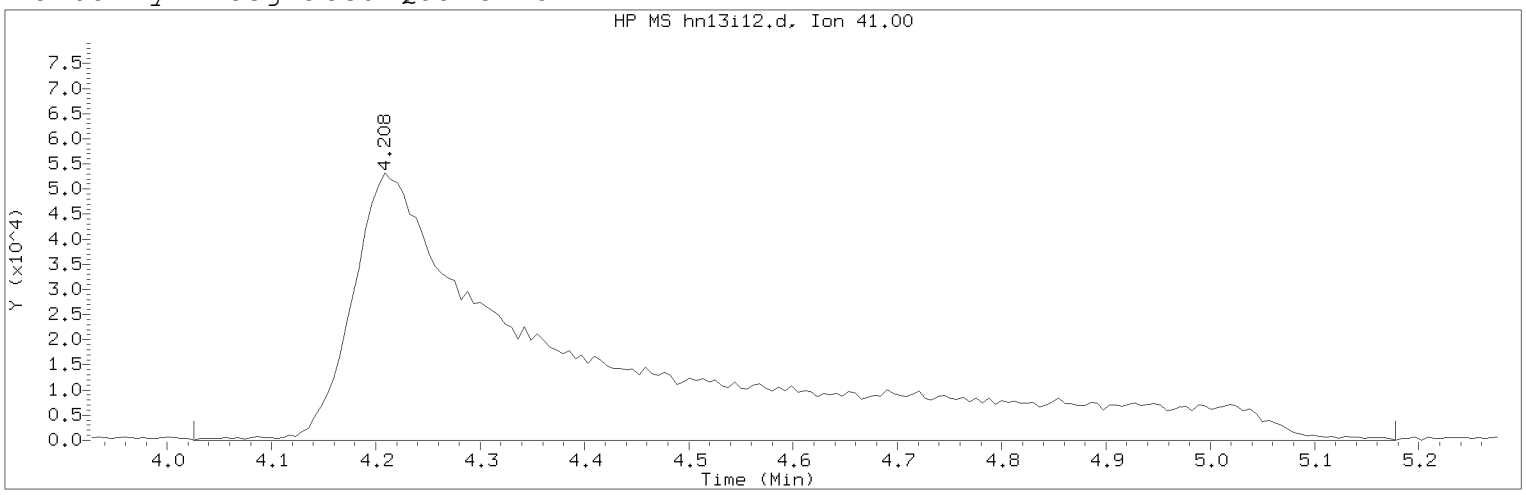
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 95
Retention Time (minutes): 2.166
Quant Ion : 45.00
Area : 530720
On-column Amount (ng) : 7.6089
Integration start scan : 79 Integration stop scan: 131
Y at integration start : 0 Y at integration end: 1543

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 897

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

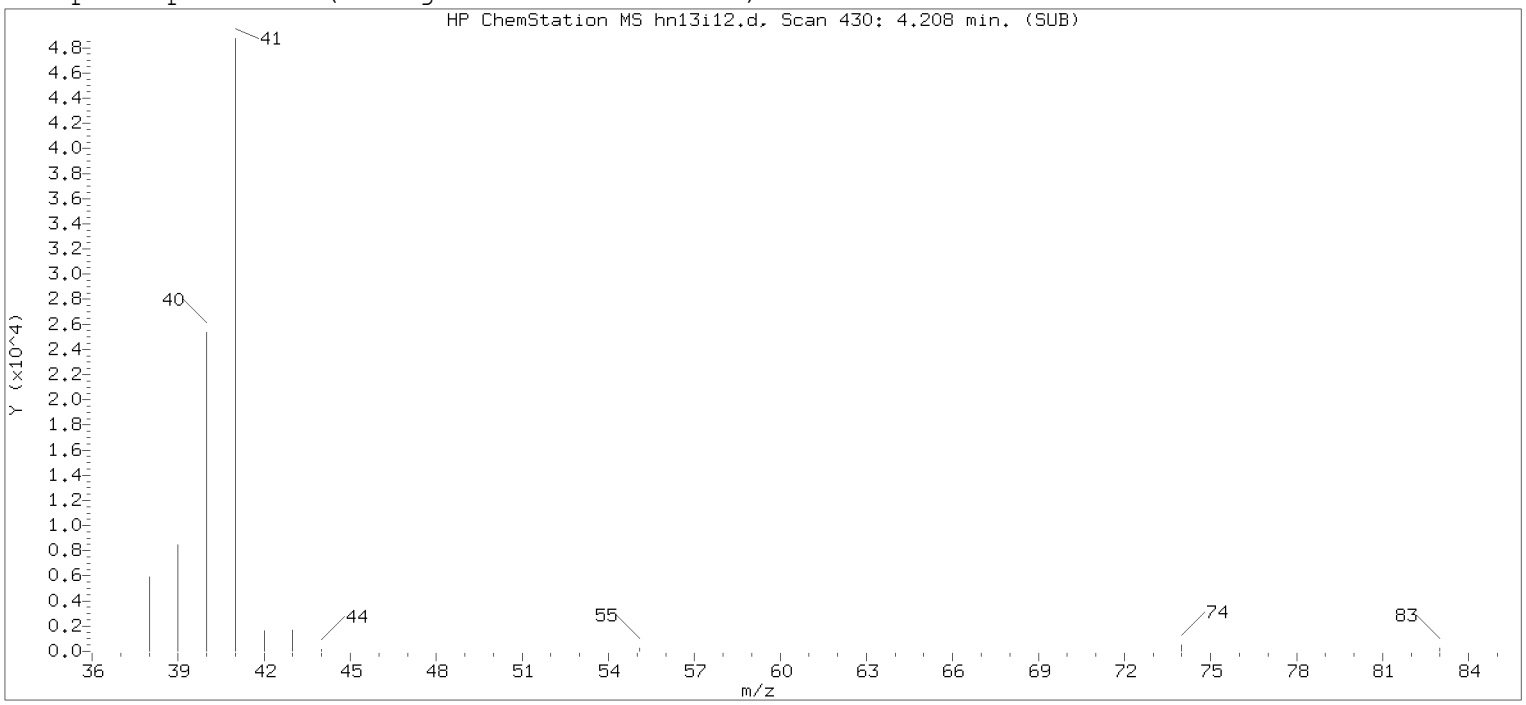
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area (flag) : 819156M
On-Column Amount (ng) : 279.6320
Integration start scan : 399 Integration stop scan: 588
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

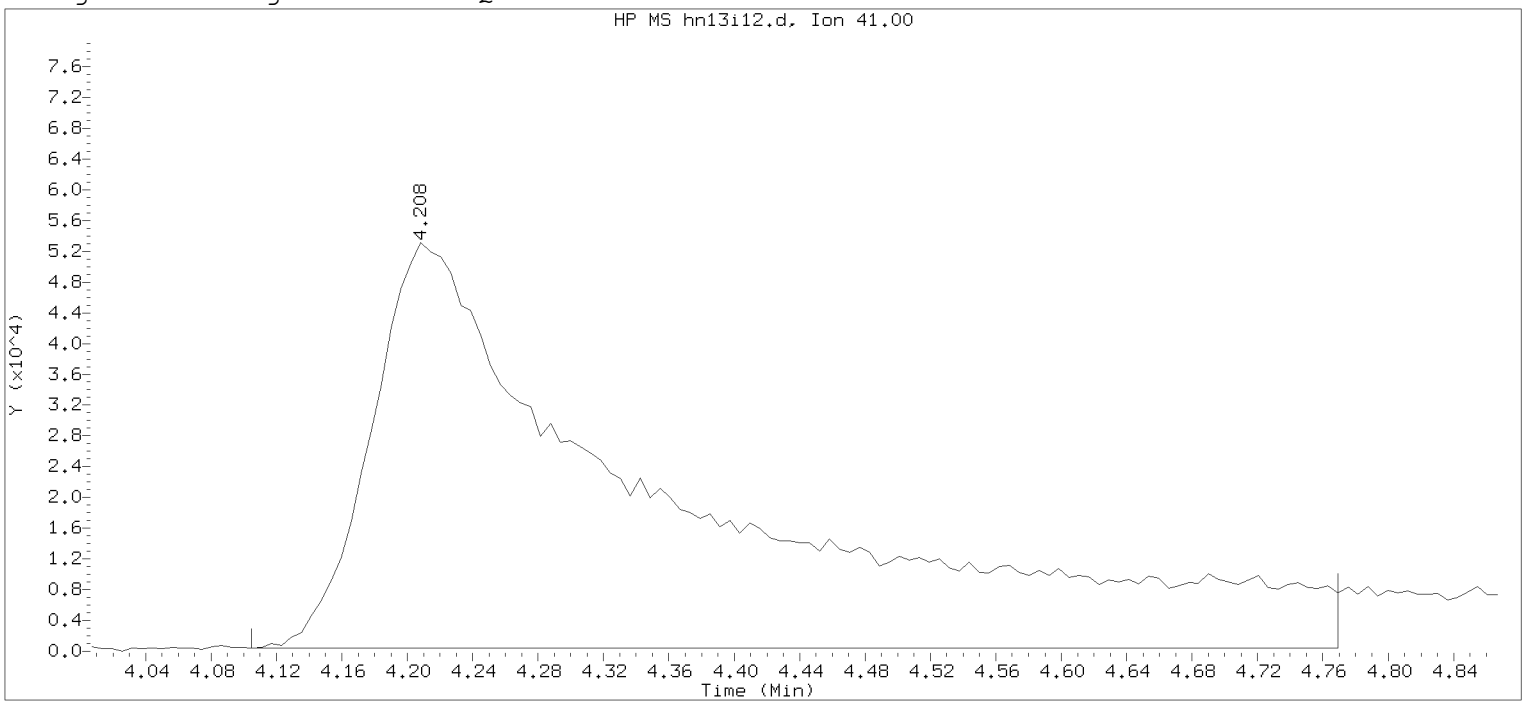
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 13:12
Date, time and analyst ID of latest file update: 13-Nov-2018 13:12 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area : 674093
On-column Amount (ng) : 294.0443
Integration start scan : 412 Integration stop scan: 521
Y at integration start : 398 Y at integration end: 398

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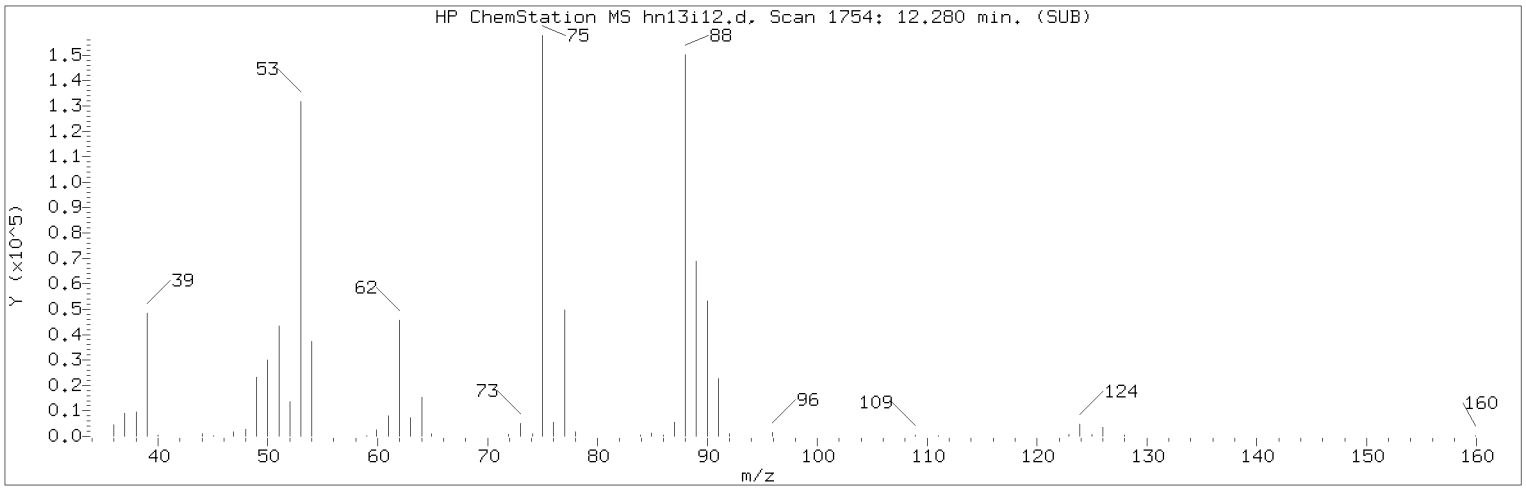
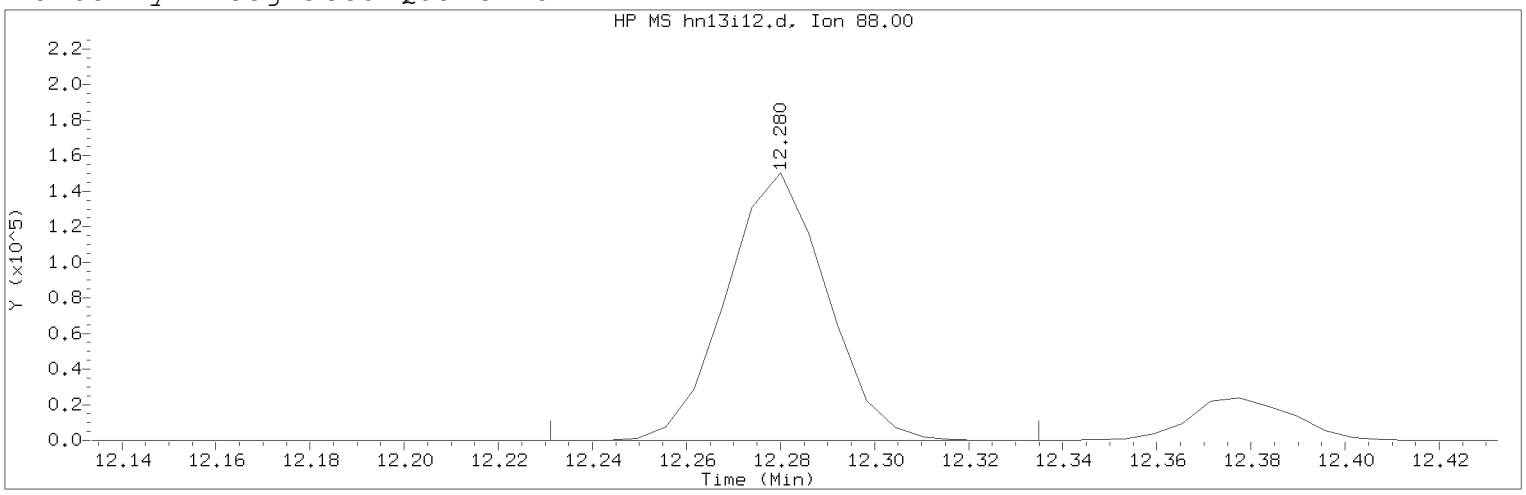
Target 3.5 esignature used. AE35 Page 899 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

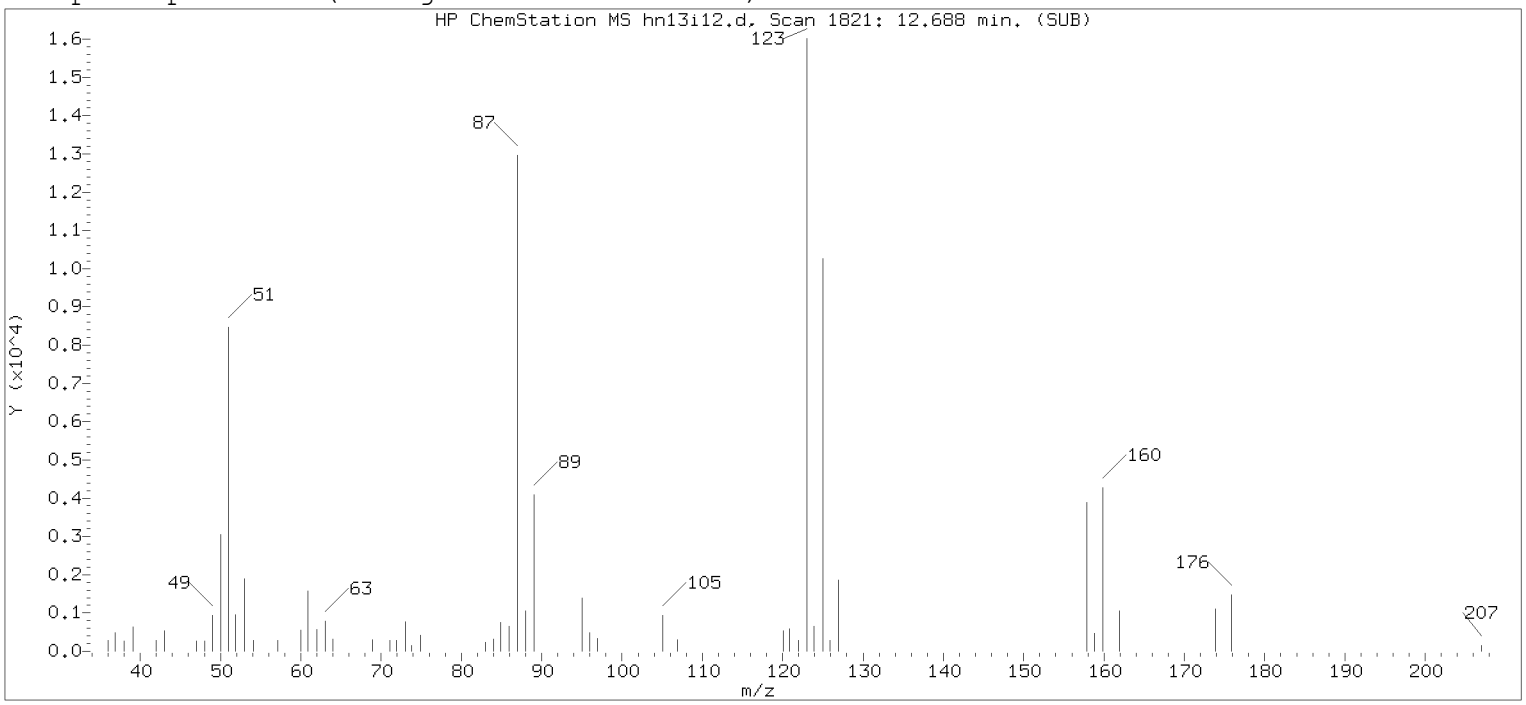
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1754
Retention Time (minutes): 12.280
Quant Ion : 88.00
Area (flag) : 222094M
On-Column Amount (ng) : 18.7832
Integration start scan : 1745 Integration stop scan: 1762
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

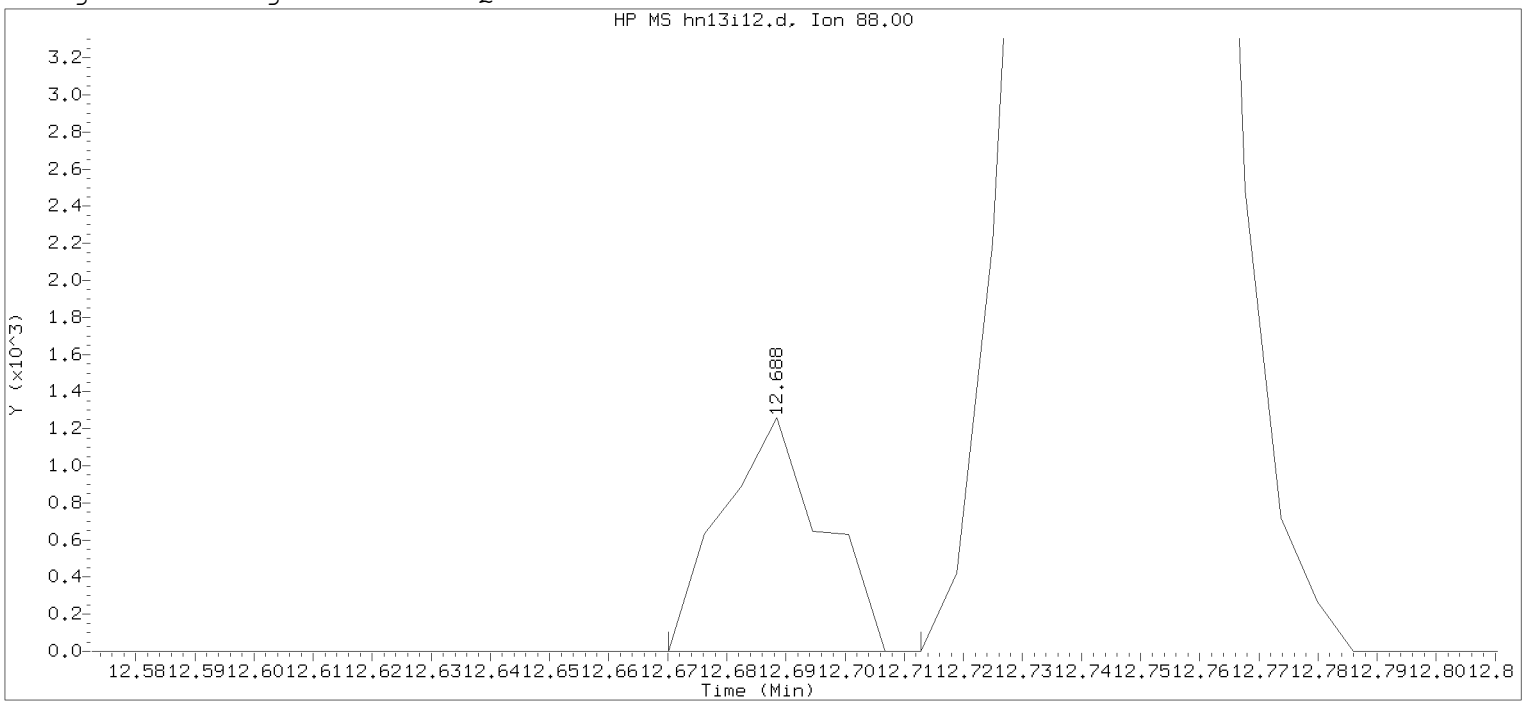
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 13:12
Date, time and analyst ID of latest file update: 13-Nov-2018 13:12 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1821
Retention Time (minutes): 12.688
Quant Ion : 88.00
Area : 1483
On-column Amount (ng) : 0.1673
Integration start scan : 1817 Integration stop scan: 1824
Y at integration start : 0 Y at integration end: 0

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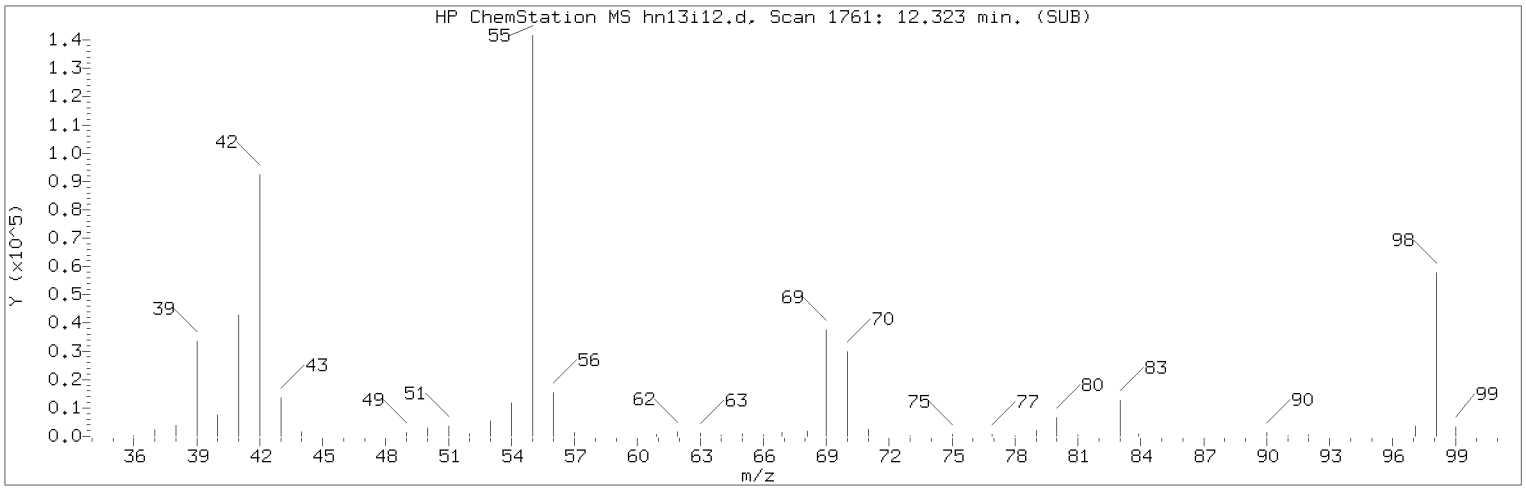
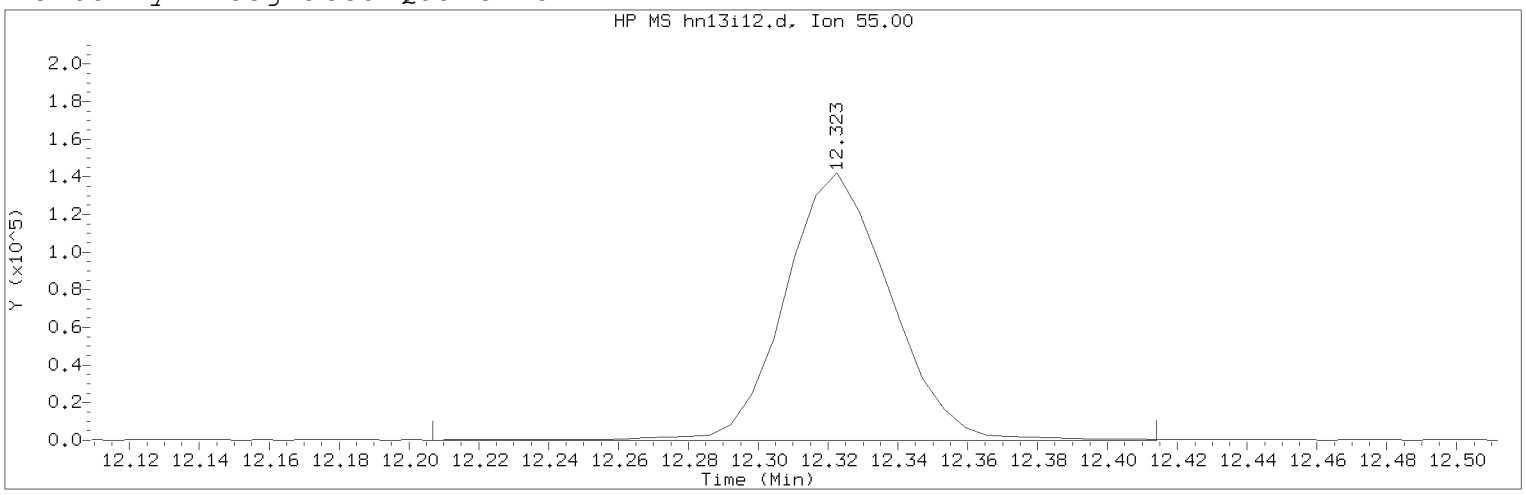
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

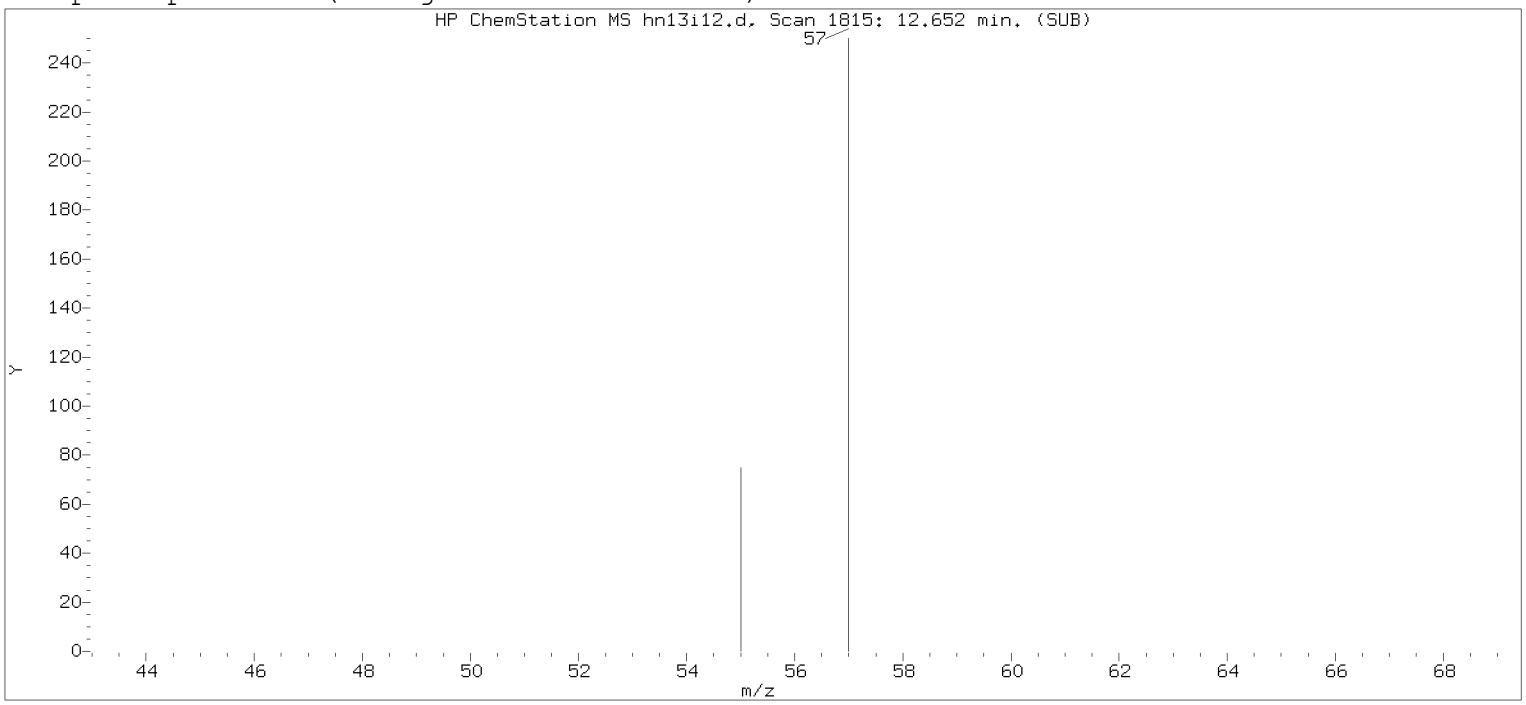
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.323
Quant Ion : 55.00
Area (flag) : 297071M
On-Column Amount (ng) : 482.2516
Integration start scan : 1741 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

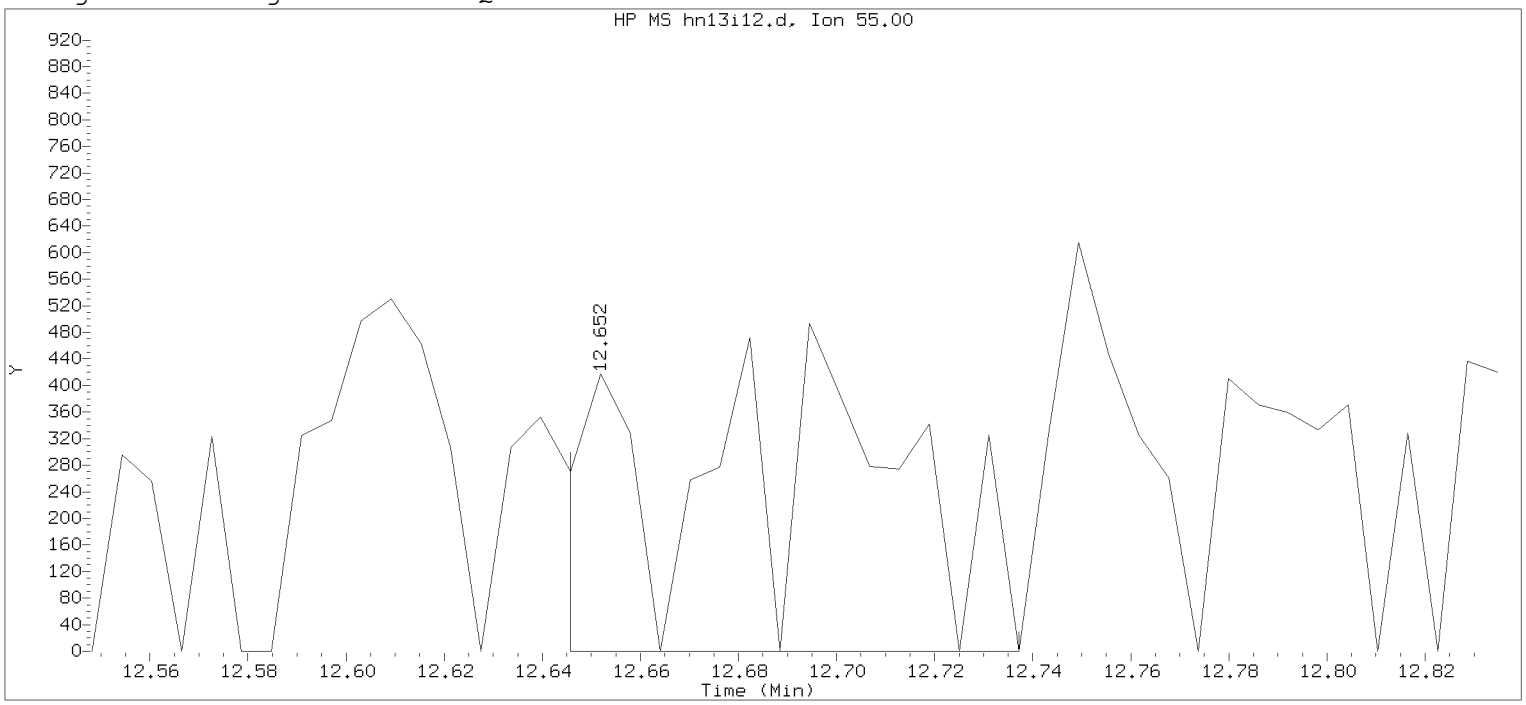
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i12.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 12:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 13:12
Date, time and analyst ID of latest file update: 13-Nov-2018 13:12 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1815
Retention Time (minutes): 12.652
Quant Ion : 55.00
Area : 1459
On-column Amount (ng) : 3.2951
Integration start scan : 1813 Integration stop scan: 1828
Y at integration start : 0 Y at integration end: 0

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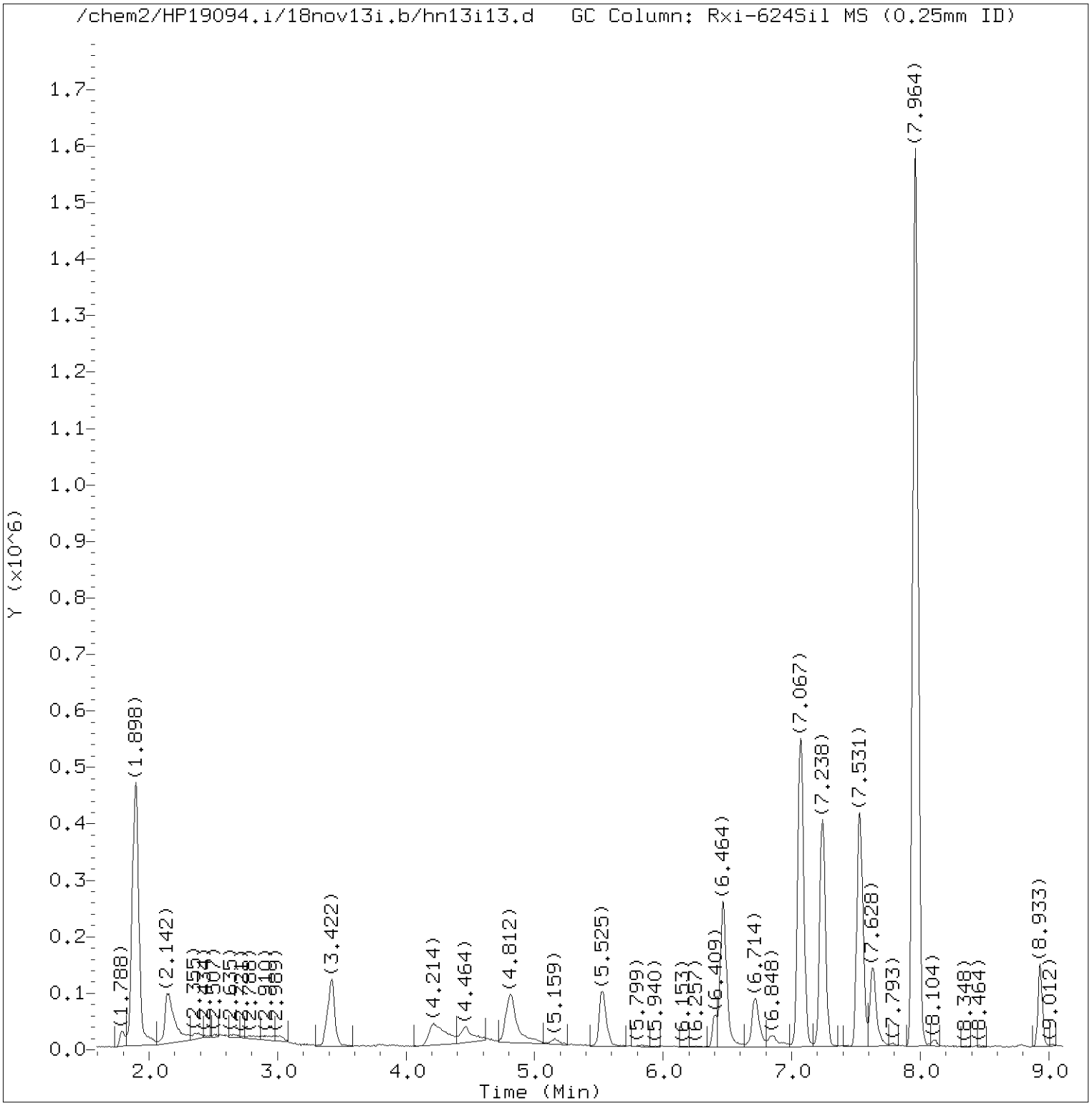
Target 3.5 esignature used. AE35 Page 903 of 2326



Total Ion Chromatogram (TIC)

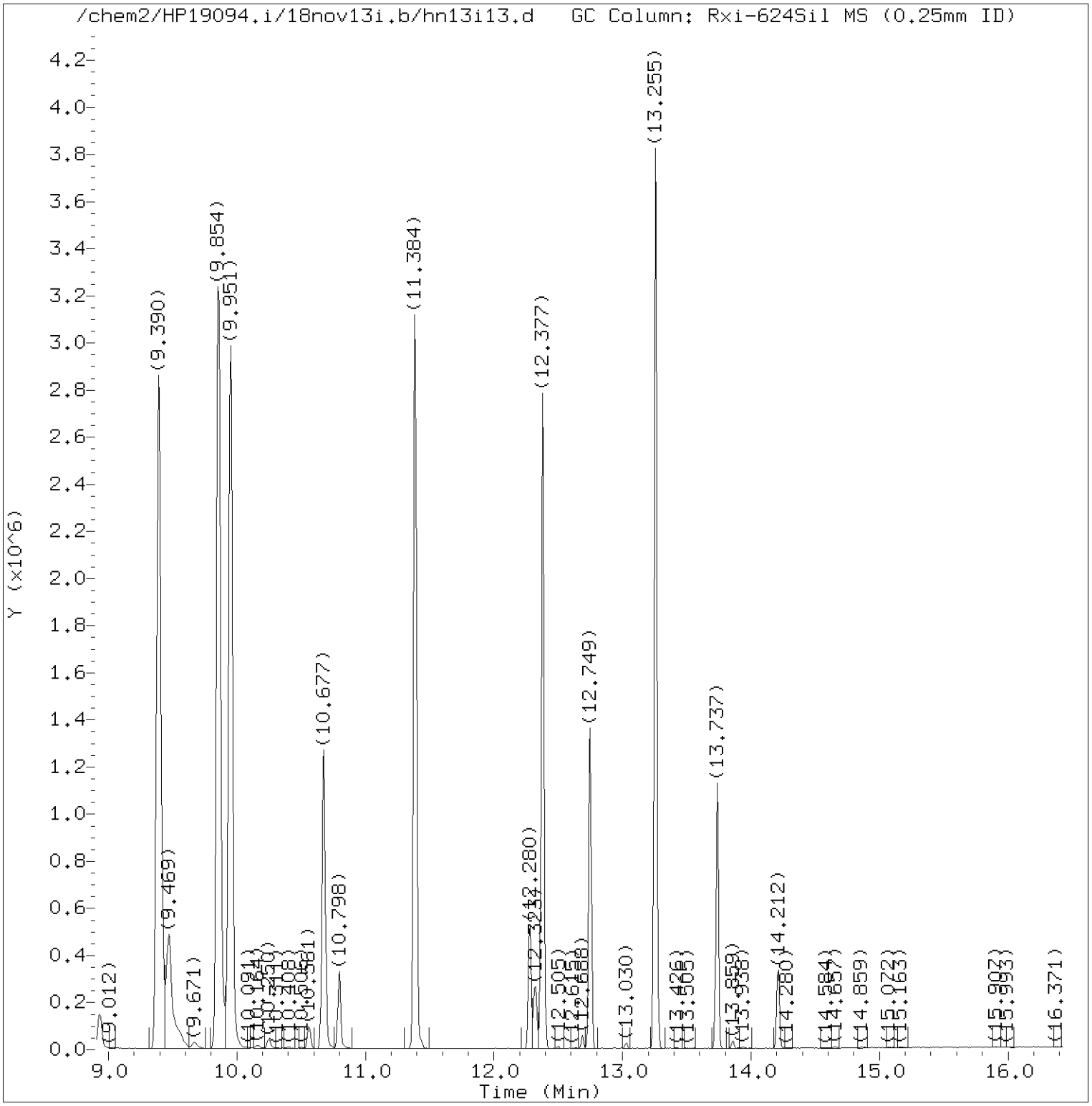
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

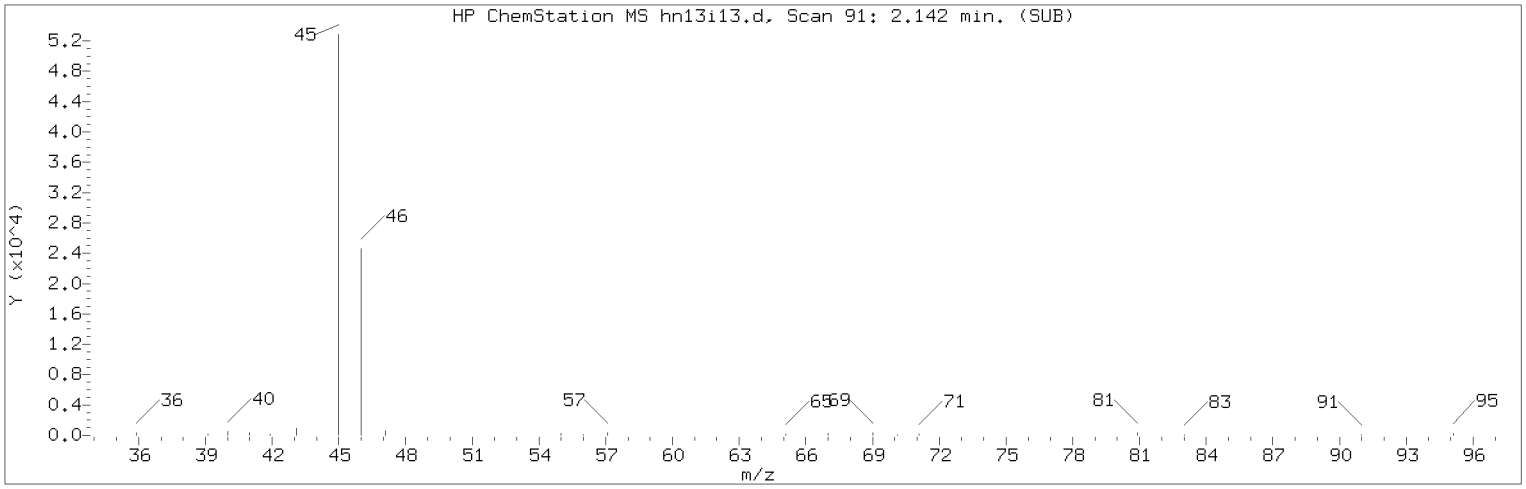
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.142	45	255231M	4.341
25) Acetonitrile	(1)	4.214	41	388146M	147.760
26)*t-Butyl Alcohol-d10	(1)	4.495	65	86733	50.000
36) Vinyl Acetate	(2)	5.525	43	308777	4.495
43) Methyl Acrylate	(2)	6.464	55	522945M	23.875
53) 1-Chlorobutane	(2)	7.238	56	514014M	4.891
63)*Fluorobenzene	(2)	7.964	96	2298067	10.000
77) Chloroacetonitrile	(2)	9.469	75	203507	232.794
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	97889	5.143
97)*Chlorobenzene-d5	(3)	11.384	117	1797211	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	114681	10.816
112) Cyclohexanone	(1)	12.323	55	132075M	239.097
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	962321	10.000
142) Hexachloroethane	(4)	13.737	117	210577	5.045

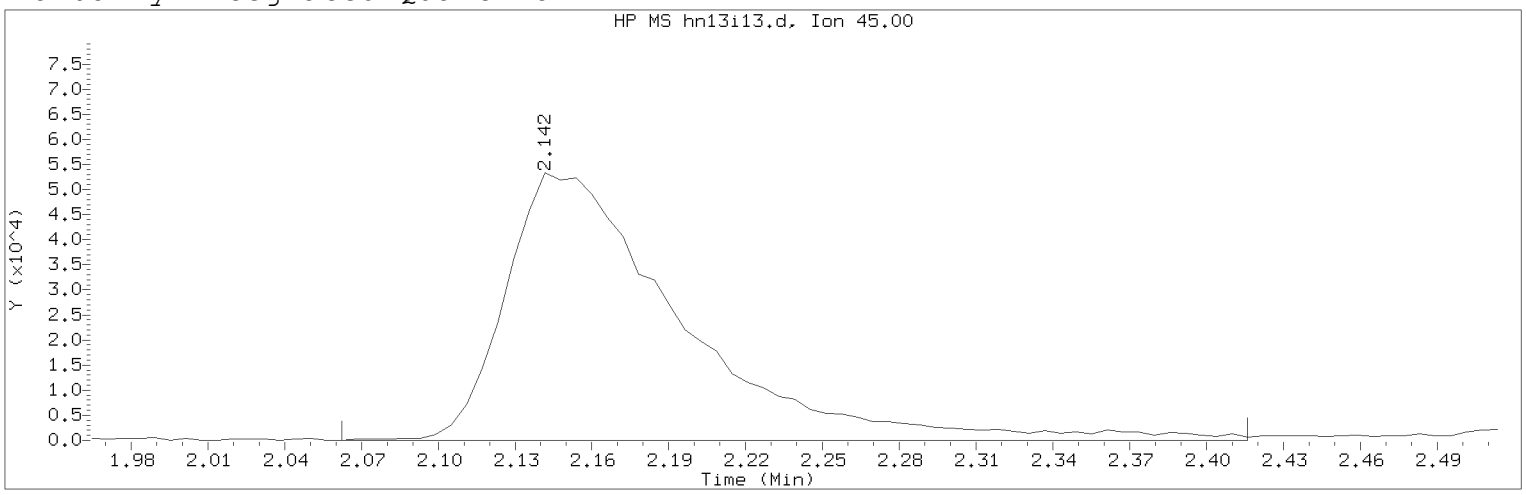
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

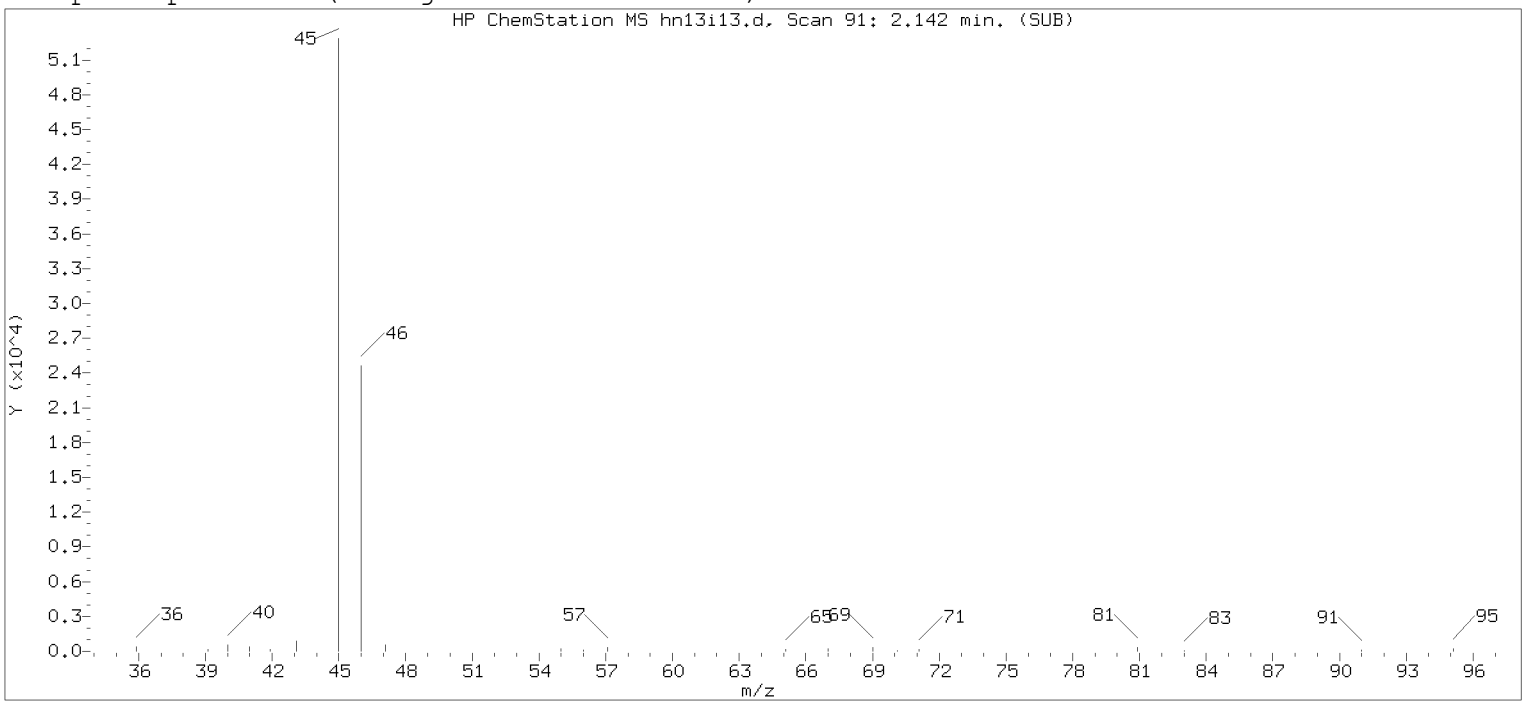
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 91
Retention Time (minutes): 2.142
Quant Ion : 45.00
Area (flag) : 255231M
On-Column Amount (ng) : 4.3409
Integration start scan : 77 Integration stop scan: 135
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

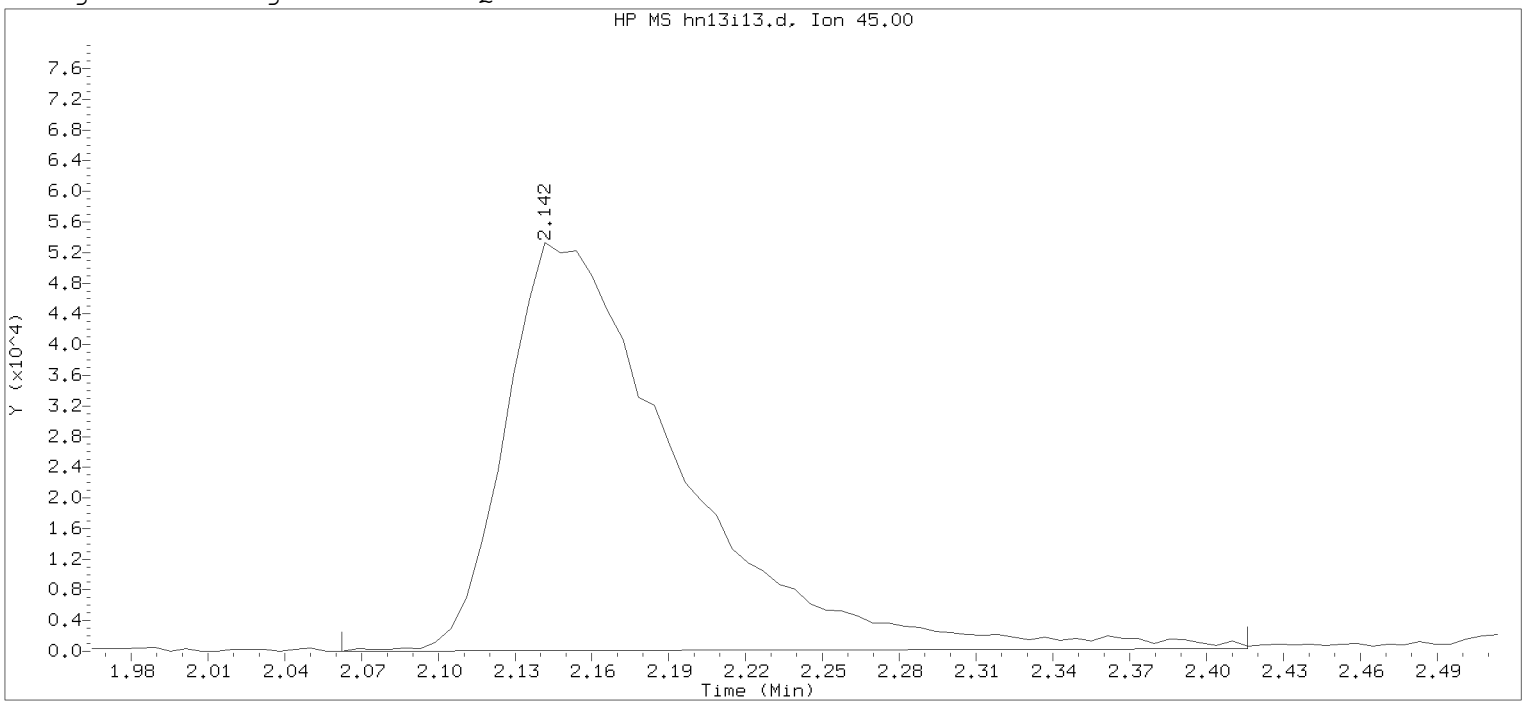
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 91		
Retention Time (minutes)	: 2.142		
Quant Ion	: 45.00		
Area	: 251326		
On-column Amount (ng)	: 4.7181		
Integration start scan	: 77	Integration stop scan:	135
Y at integration start	: 0	Y at integration end:	357

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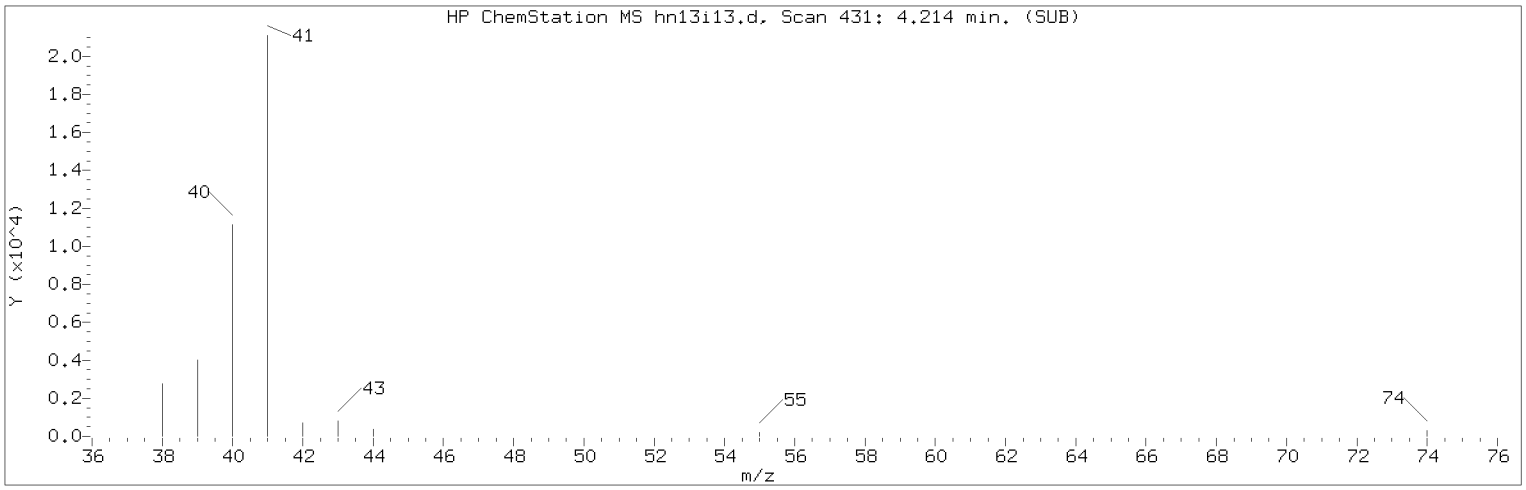
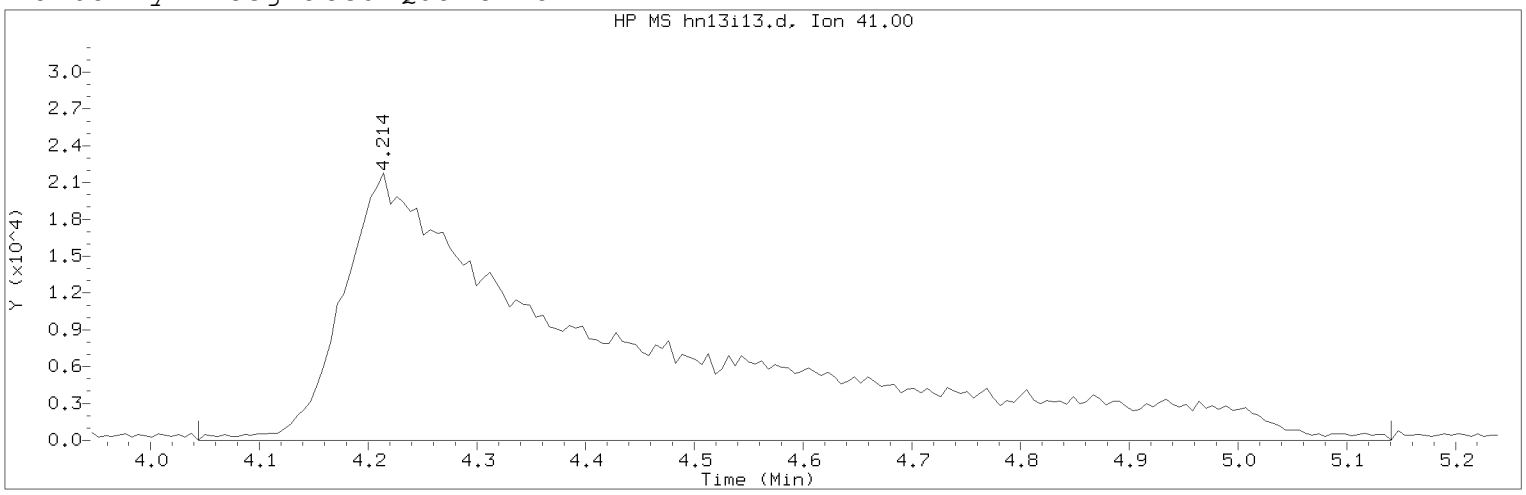
Target 3.5 esignature used. AE35 Page 908 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

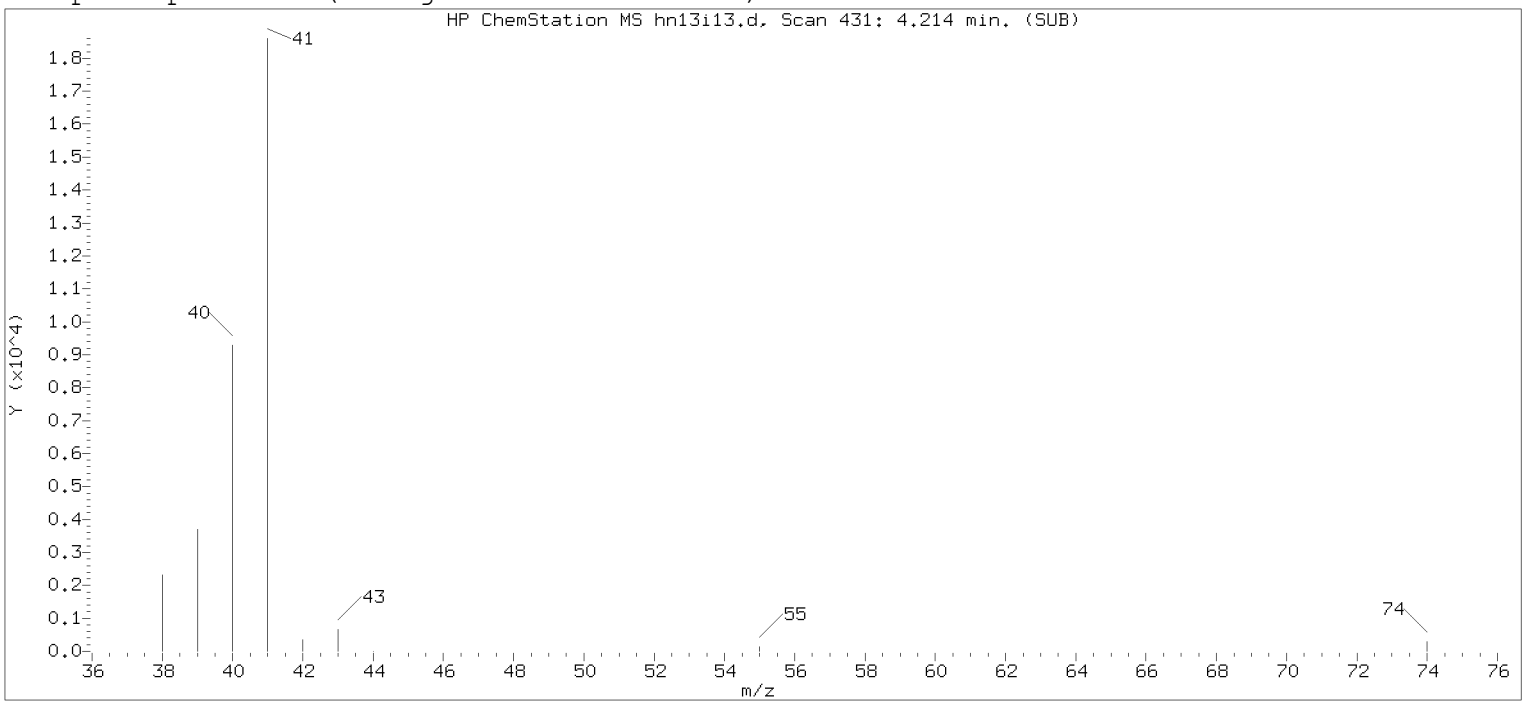
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area (flag) : 388146M
On-Column Amount (ng) : 147.7598
Integration start scan : 402 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

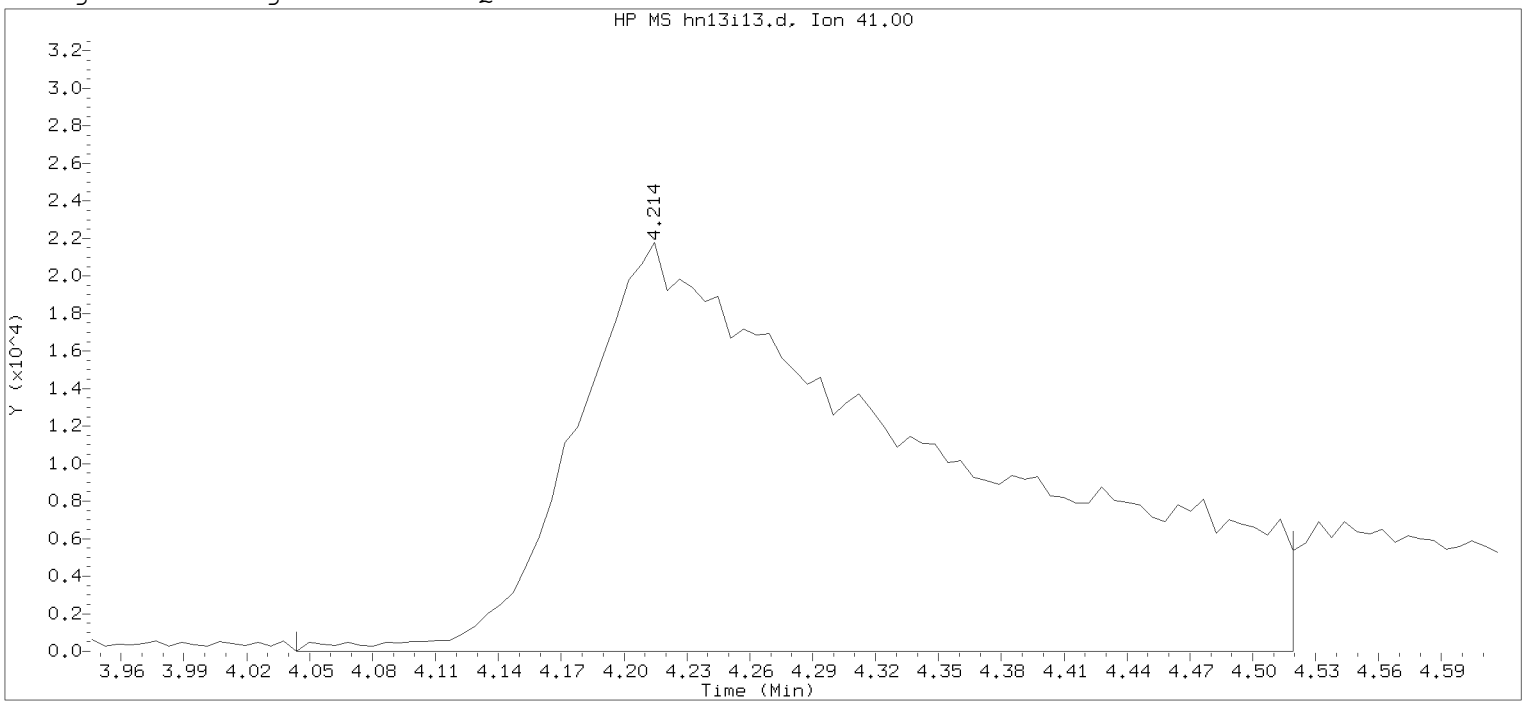
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

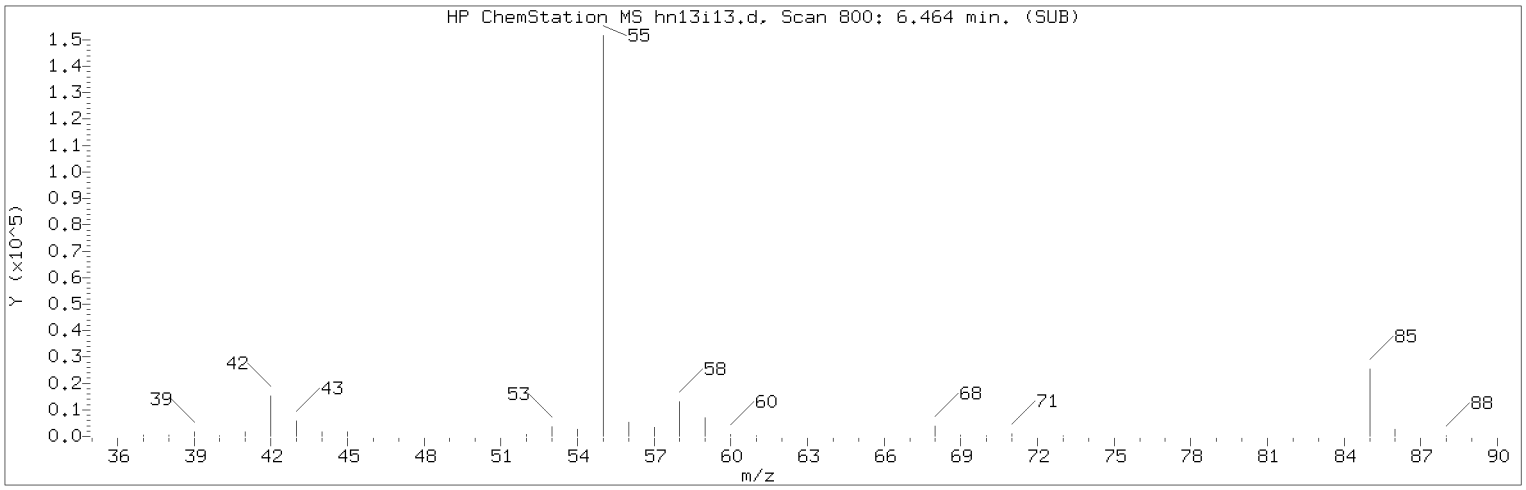
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

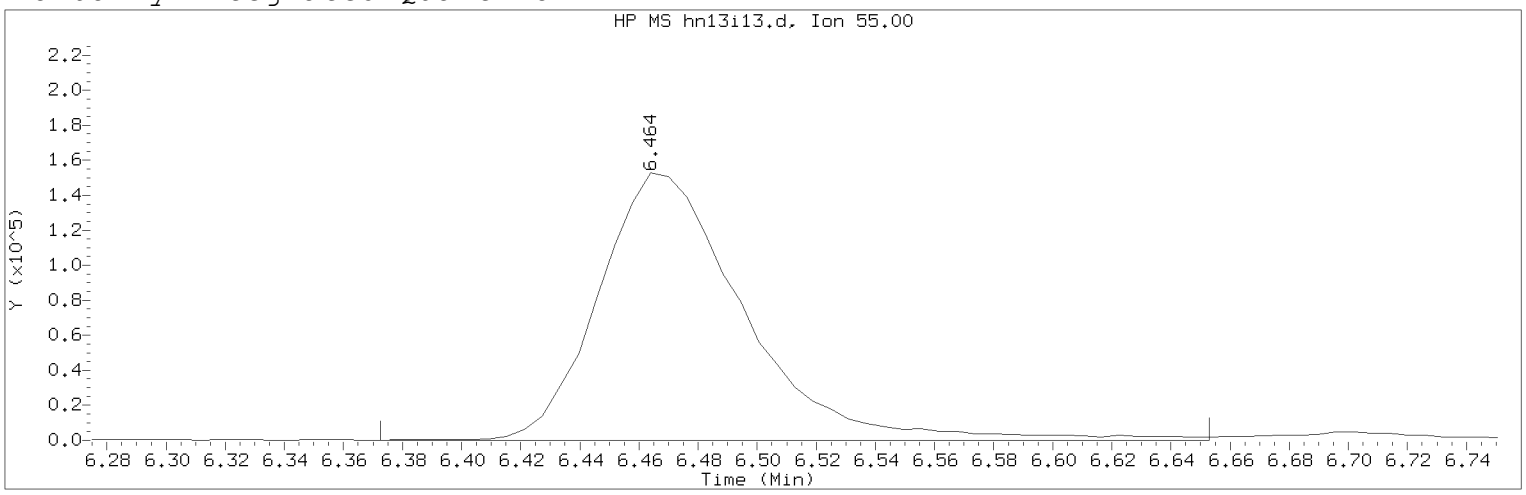
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area : 262816
On-column Amount (ng) : 158.1350
Integration start scan : 402 Integration stop scan: 480
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

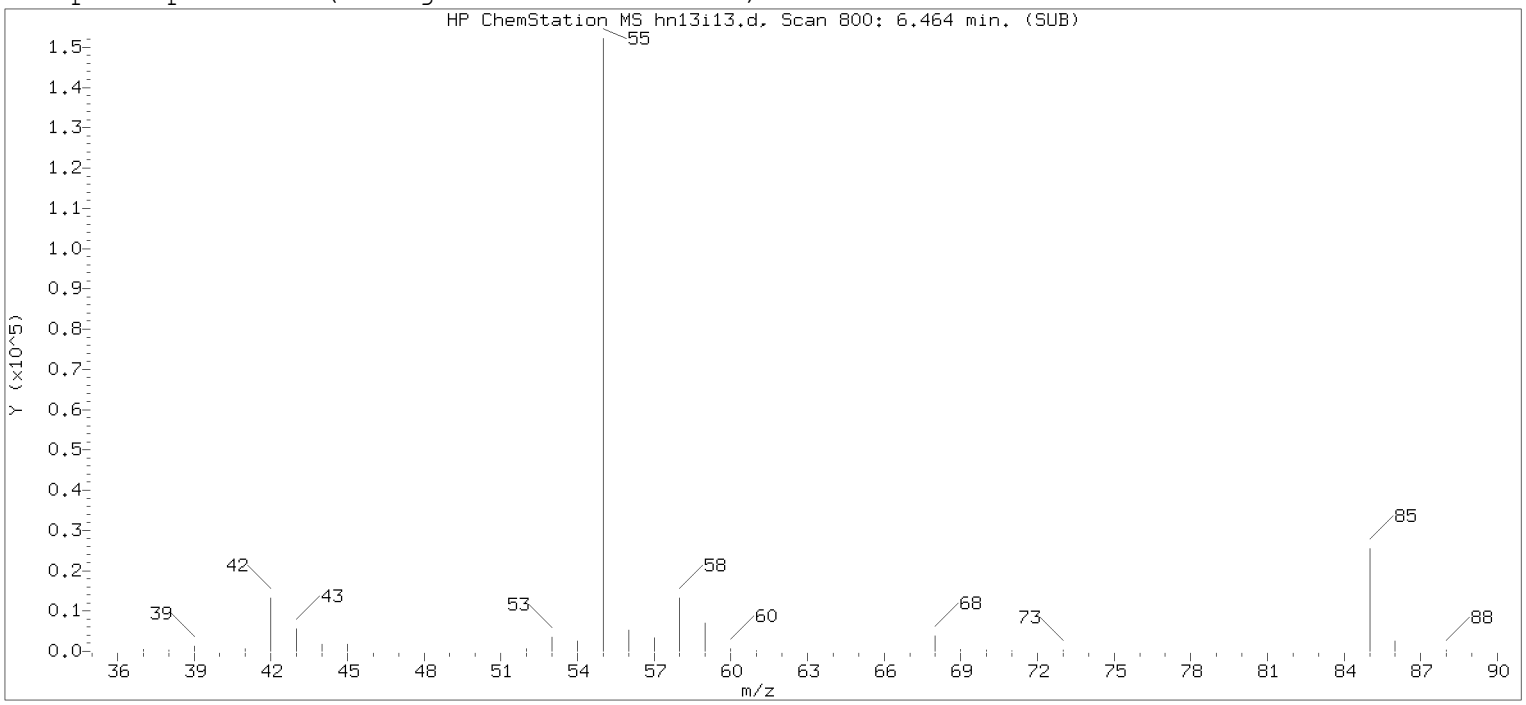
Compound Number : 43
Compound Name : Methyl Acrylate
Scan Number : 800
Retention Time (minutes): 6.464
Quant Ion : 55.00
Area (flag) : 522945M
On-Column Amount (ng) : 23.8746
Integration start scan : 784 Integration stop scan: 830
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

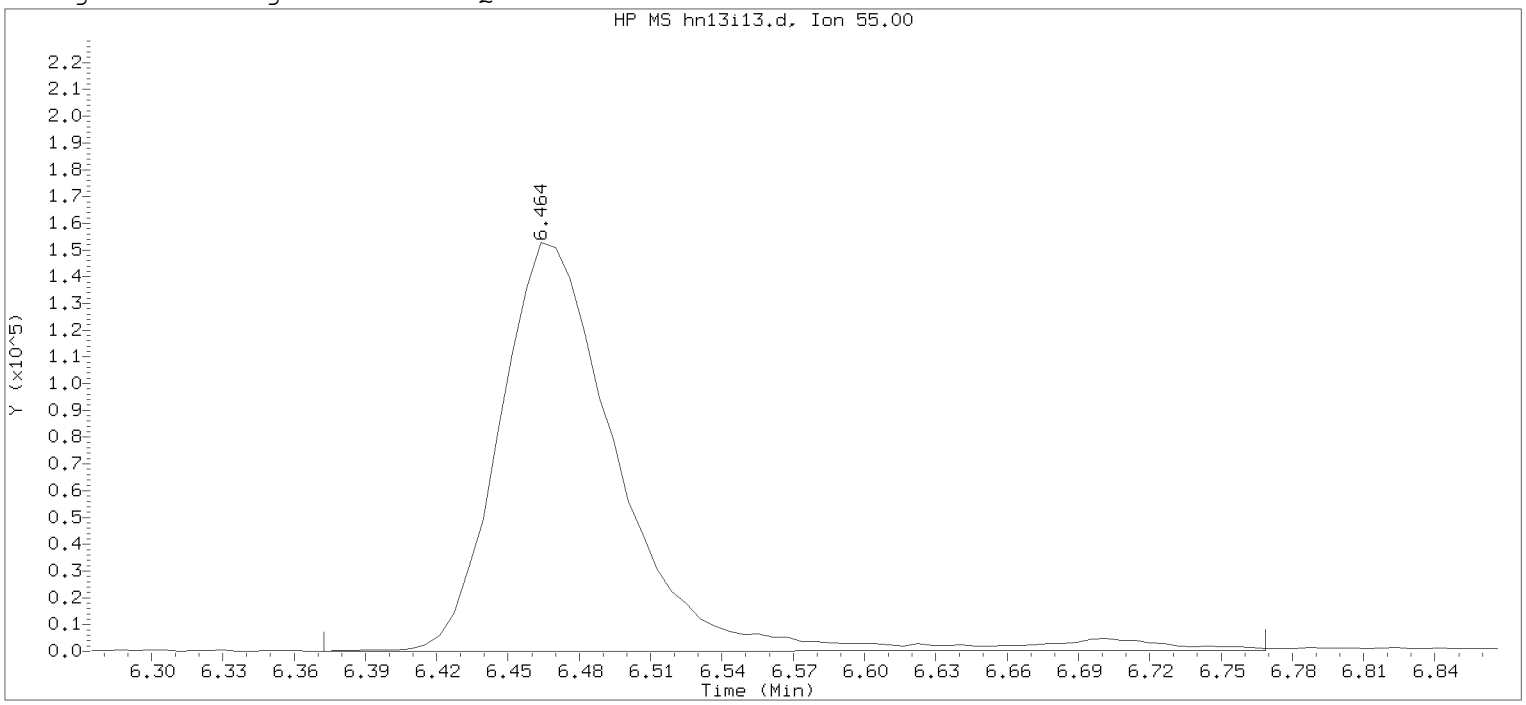
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 43
Compound Name : Methyl Acrylate
Scan Number : 800
Retention Time (minutes): 6.464
Quant Ion : 55.00
Area : 538931
On-column Amount (ng) : 24.9962
Integration start scan : 784 Integration stop scan: 849
Y at integration start : 0 Y at integration end: 202

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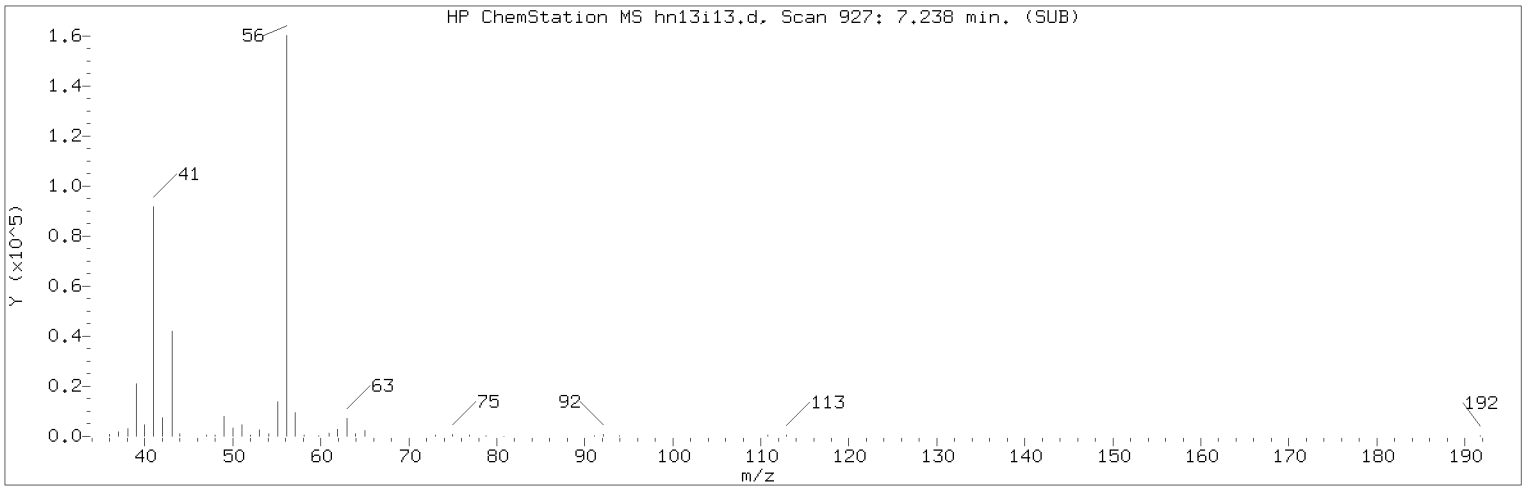
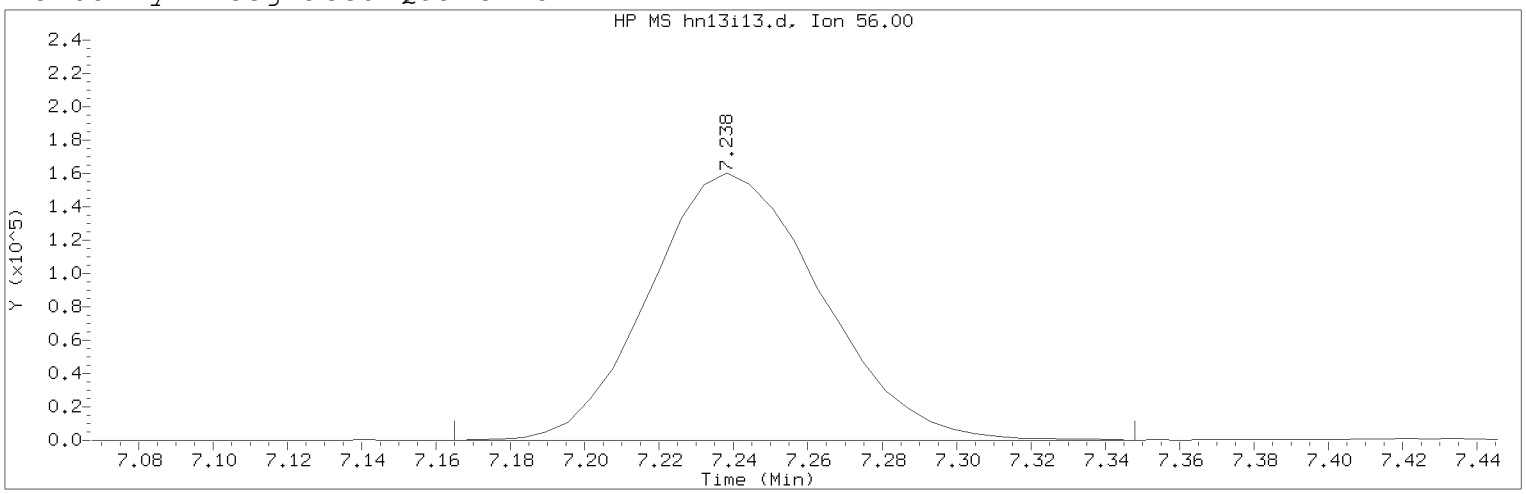
Target 3.5 esignature used. AE35 Page 912

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

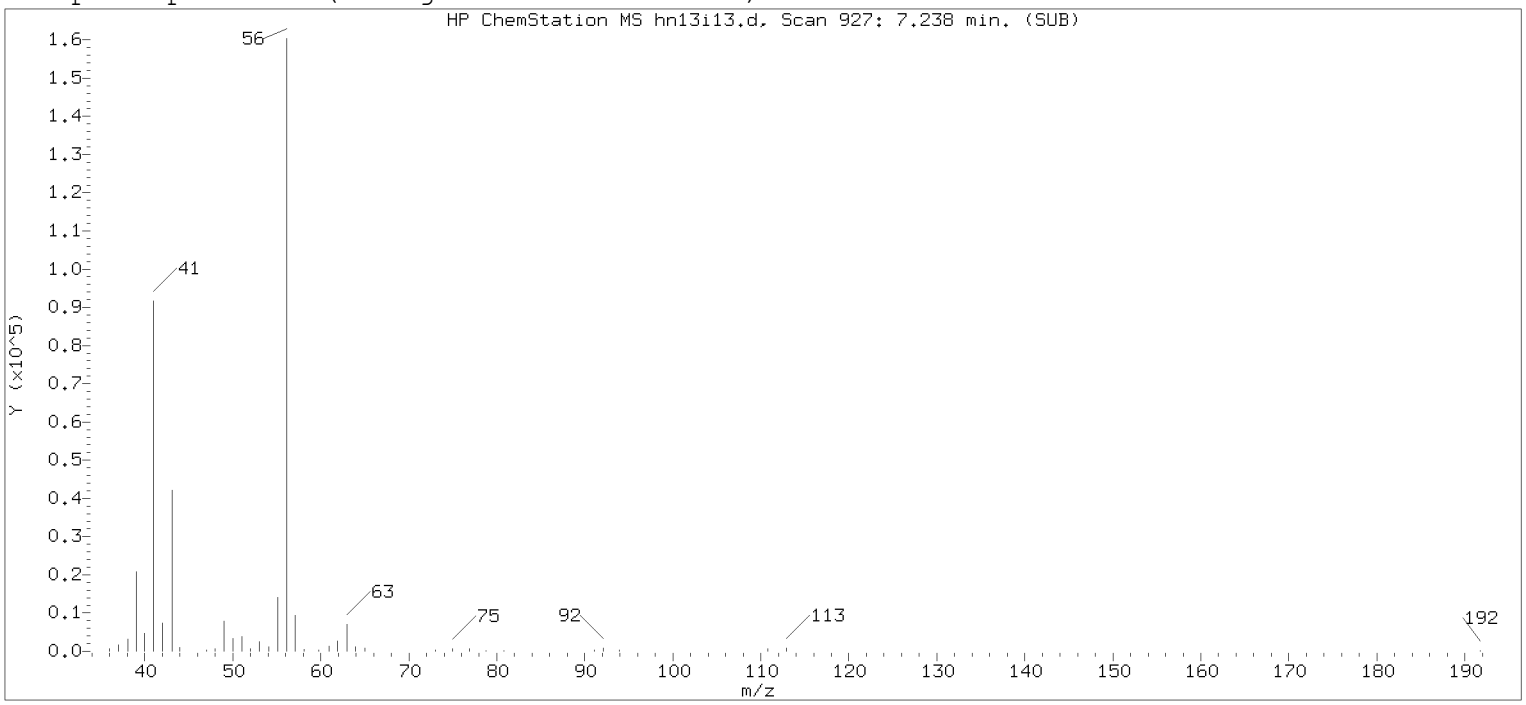
Compound Number : 53
Compound Name : 1-Chlorobutane
Scan Number : 927
Retention Time (minutes): 7.238
Quant Ion : 56.00
Area (flag) : 514014M
On-Column Amount (ng) : 4.8912
Integration start scan : 914 Integration stop scan: 944
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

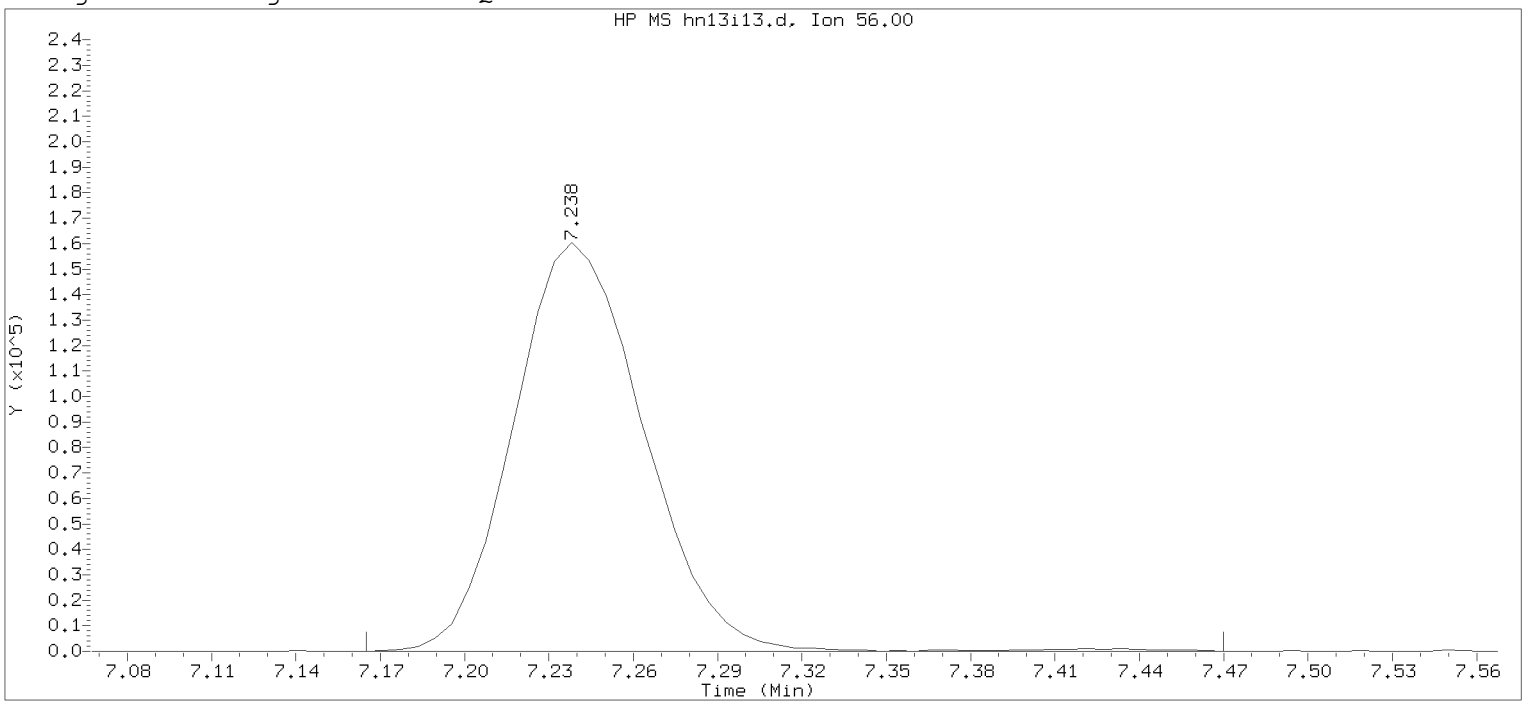
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

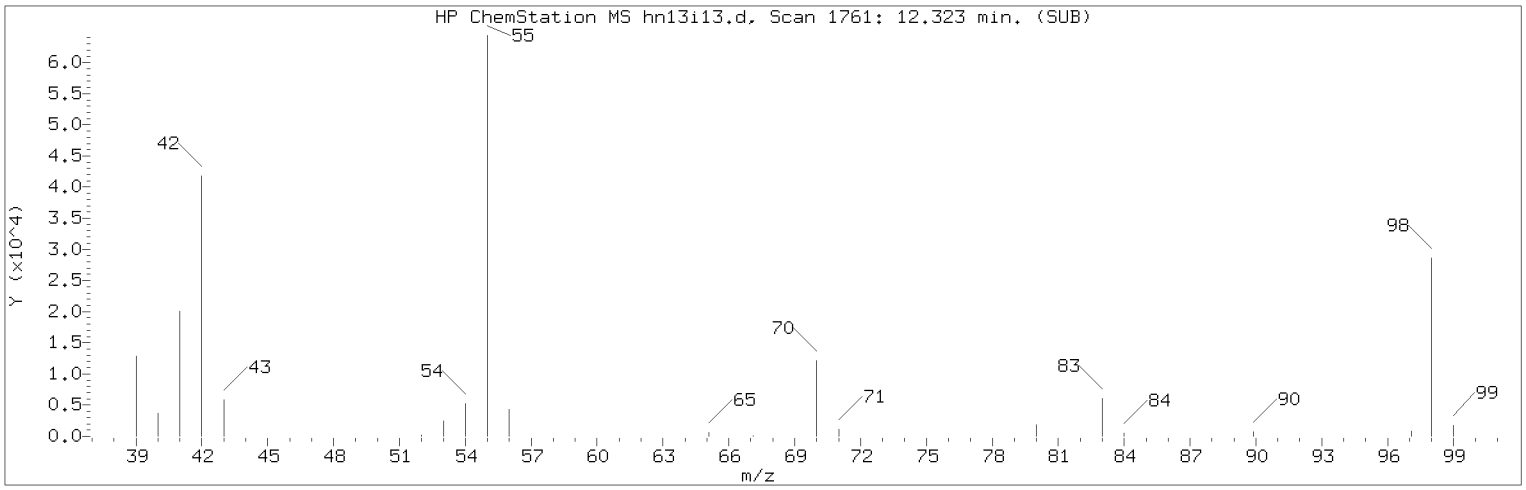
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

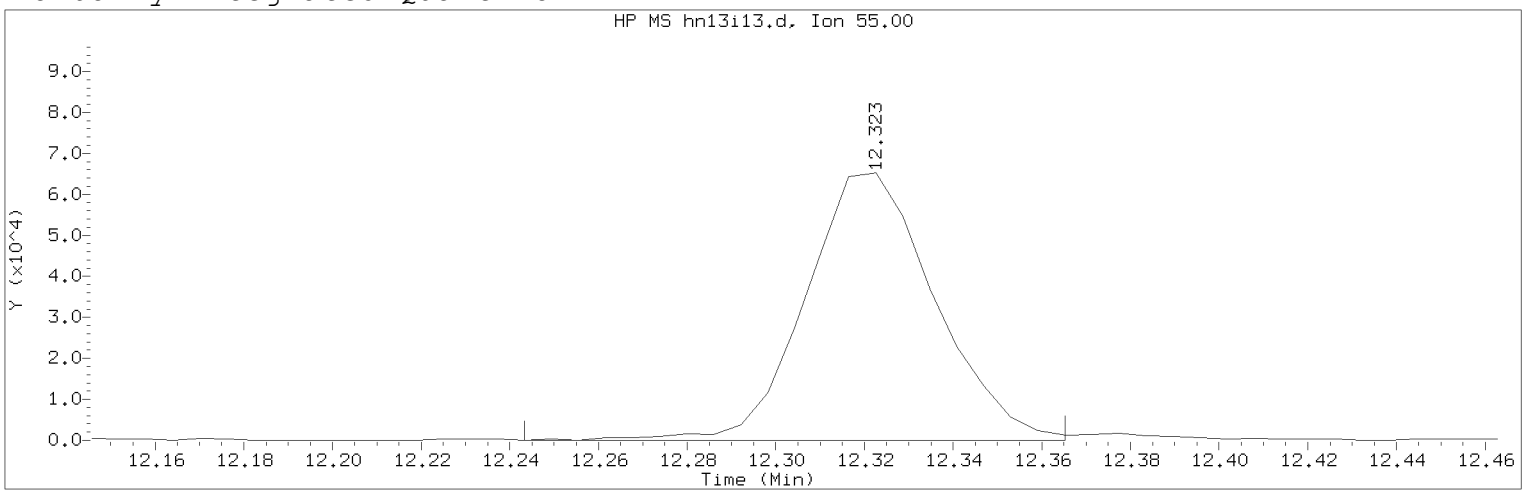
Compound Number : 53
Compound Name : 1-Chlorobutane
Scan Number : 927
Retention Time (minutes): 7.238
Quant Ion : 56.00
Area : 517698
On-column Amount (ng) : 5.0344
Integration start scan : 914 Integration stop scan: 964
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 914 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

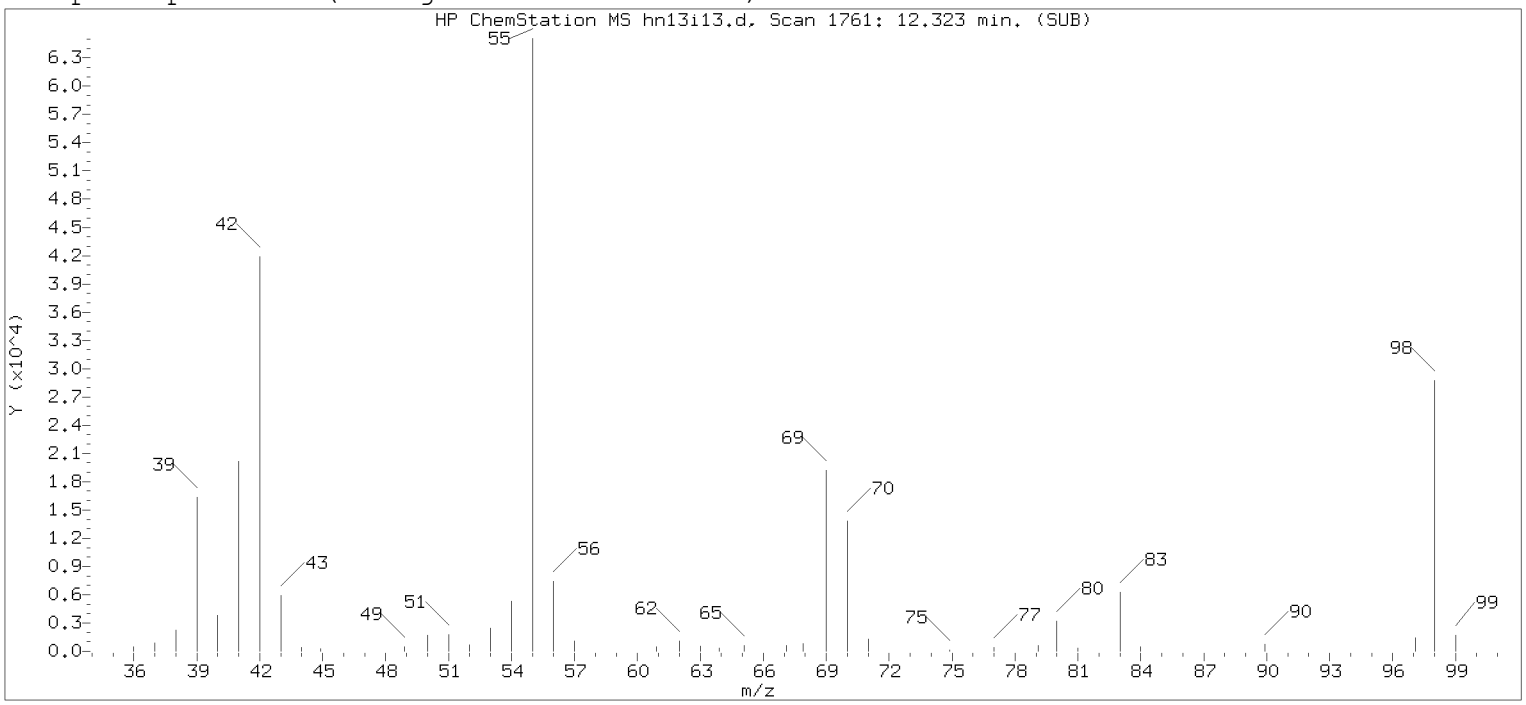
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.323
Quant Ion : 55.00
Area (flag) : 132075M
On-Column Amount (ng) : 239.0975
Integration start scan : 1747 Integration stop scan: 1767
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

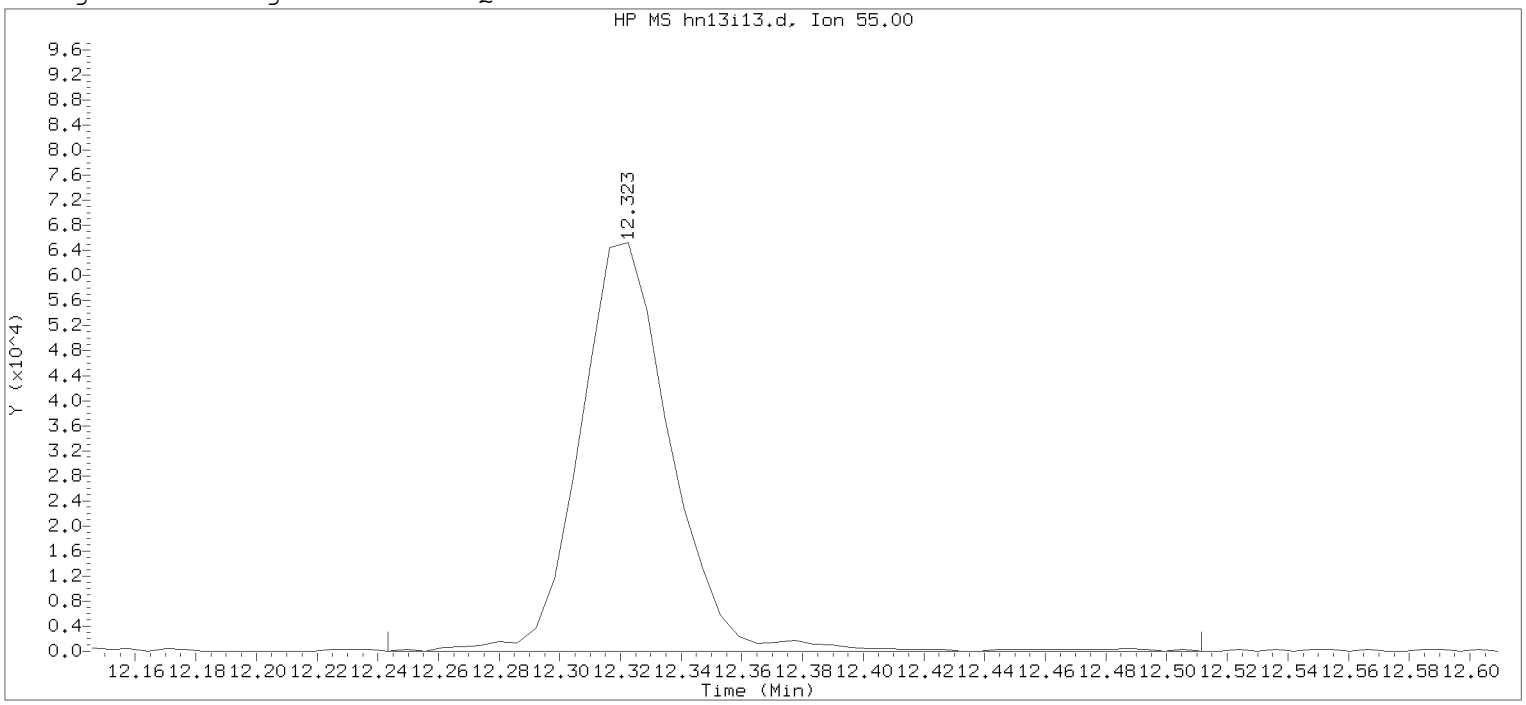
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



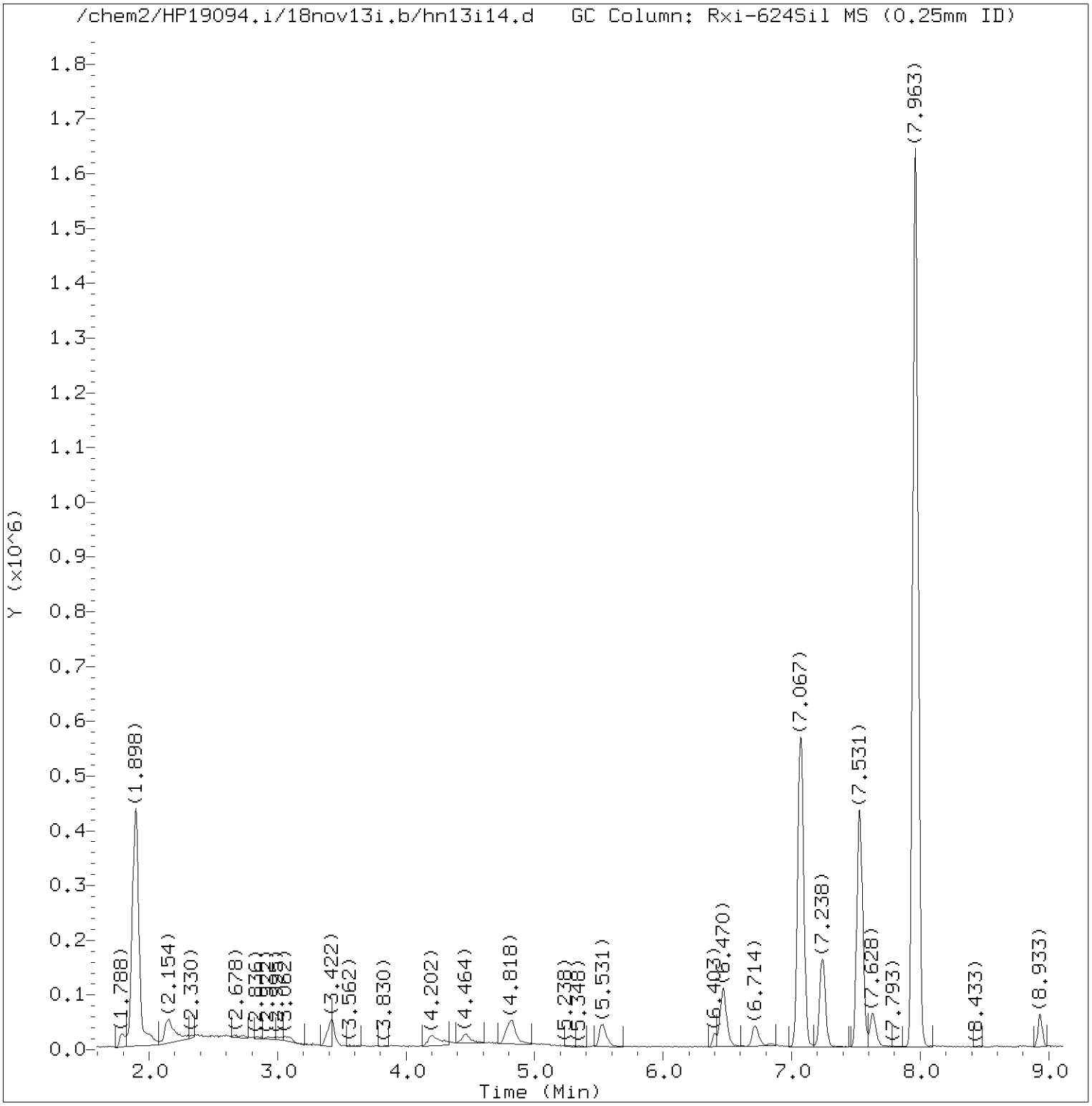
Data File: /chem2/HP19094.i/18nov13i.b/hn13i13.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:26
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.323
Quant Ion : 55.00
Area : 136059
On-column Amount (ng) : 237.3637
Integration start scan : 1747 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 916



Total Ion Chromatogram (TIC)

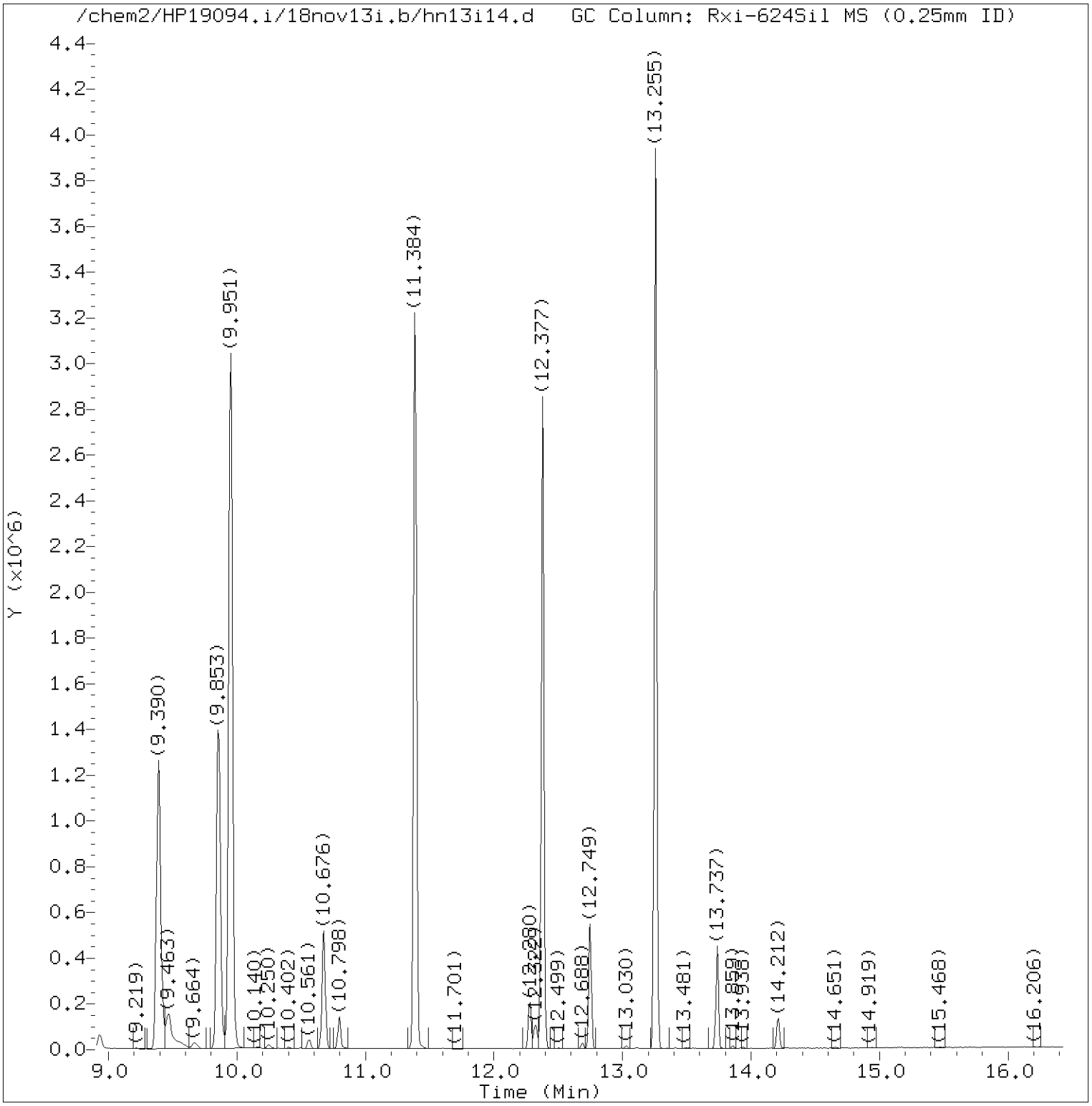
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

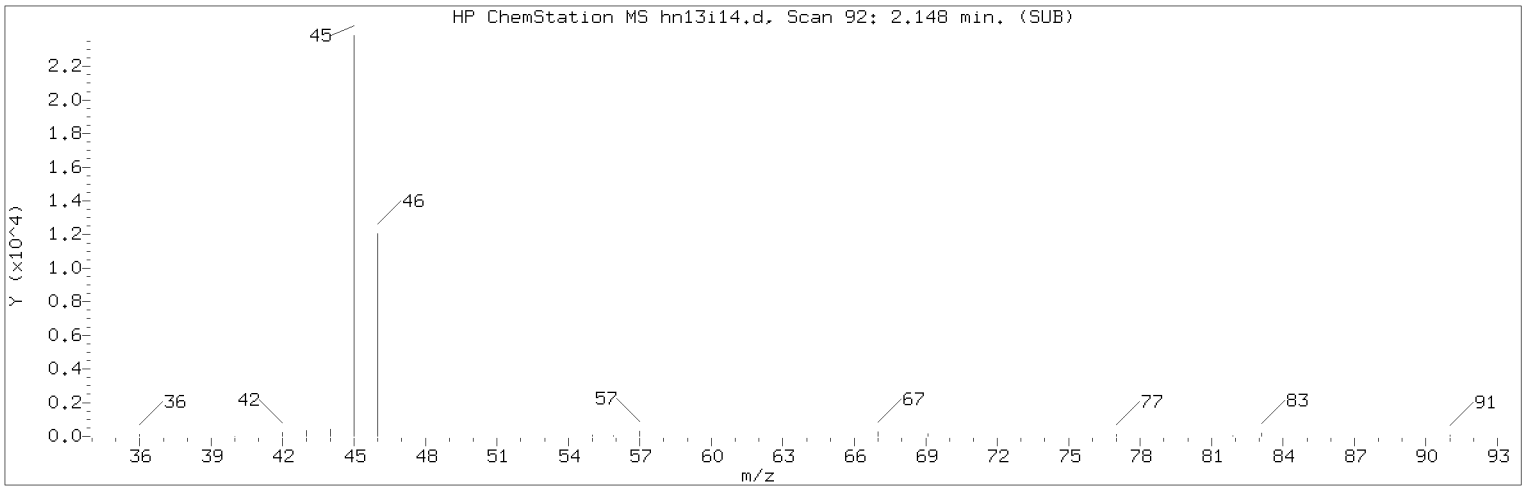
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.148	45	117745M	1.952
25) Acetonitrile	(1)	4.202	41	180758M	65.854
26)*t-Butyl Alcohol-d10	(1)	4.476	65	90627M	50.000
36) Vinyl Acetate	(2)	5.519	43	135244	1.919
43) Methyl Acrylate	(2)	6.470	55	222301	9.894
53) 1-Chlorobutane	(2)	7.238	56	208670	1.936
63)*Fluorobenzene	(2)	7.963	96	2357327	10.000
77) Chloroacetonitrile	(2)	9.457	75	86811	96.808
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	40584	2.079
97)*Chlorobenzene-d5	(3)	11.384	117	1837672	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	44613	4.027
112) Cyclohexanone	(1)	12.322	55	57375MA	99.404
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	980600	10.000
142) Hexachloroethane	(4)	13.737	117	82874	1.948

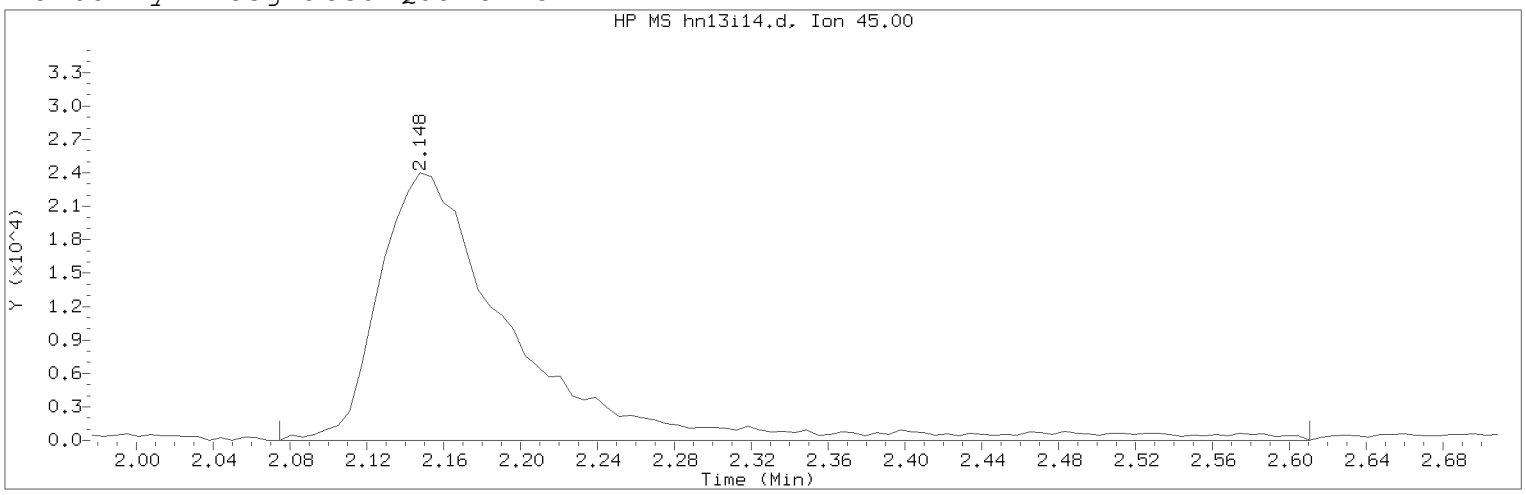
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

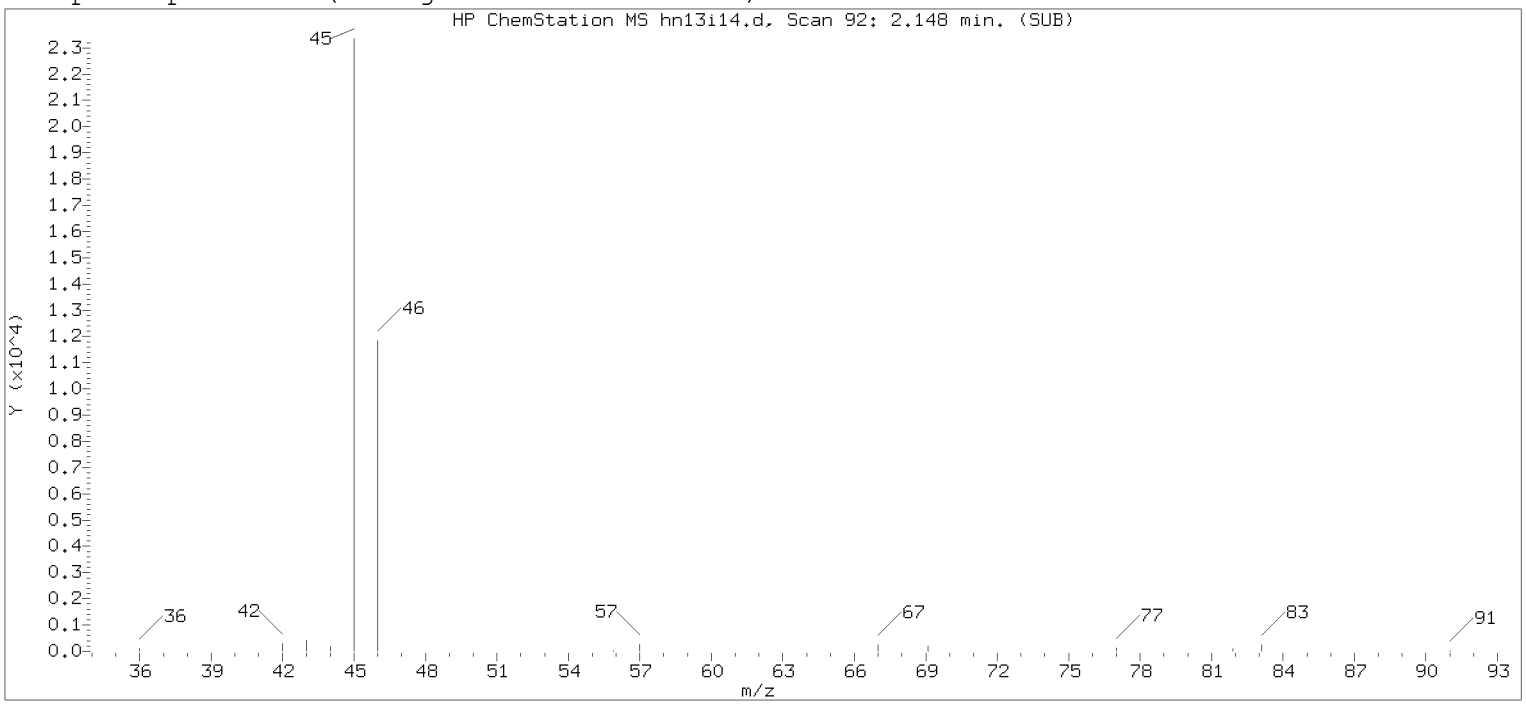
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 92
Retention Time (minutes): 2.148
Quant Ion : 45.00
Area (flag) : 117745M
On-Column Amount (ng) : 1.9522
Integration start scan : 79 Integration stop scan: 167
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

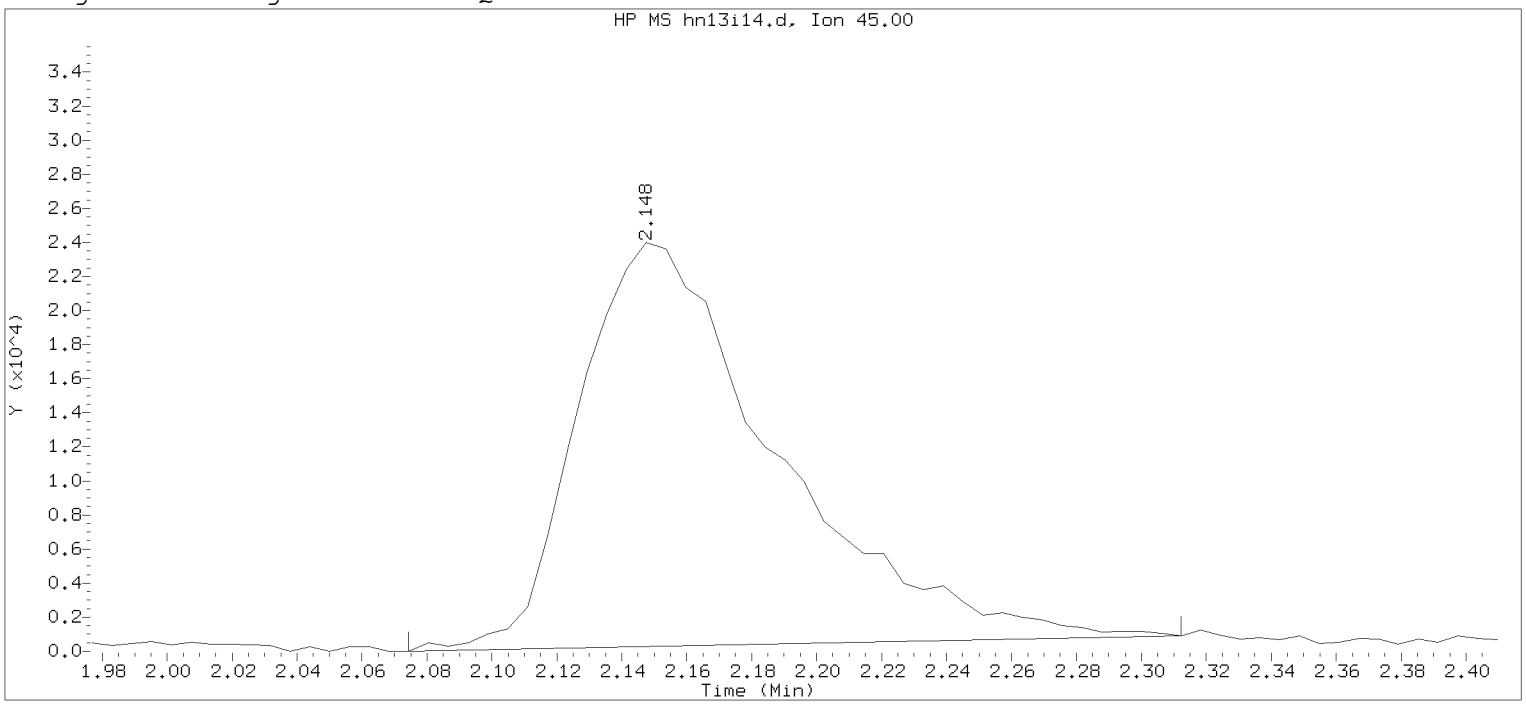
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

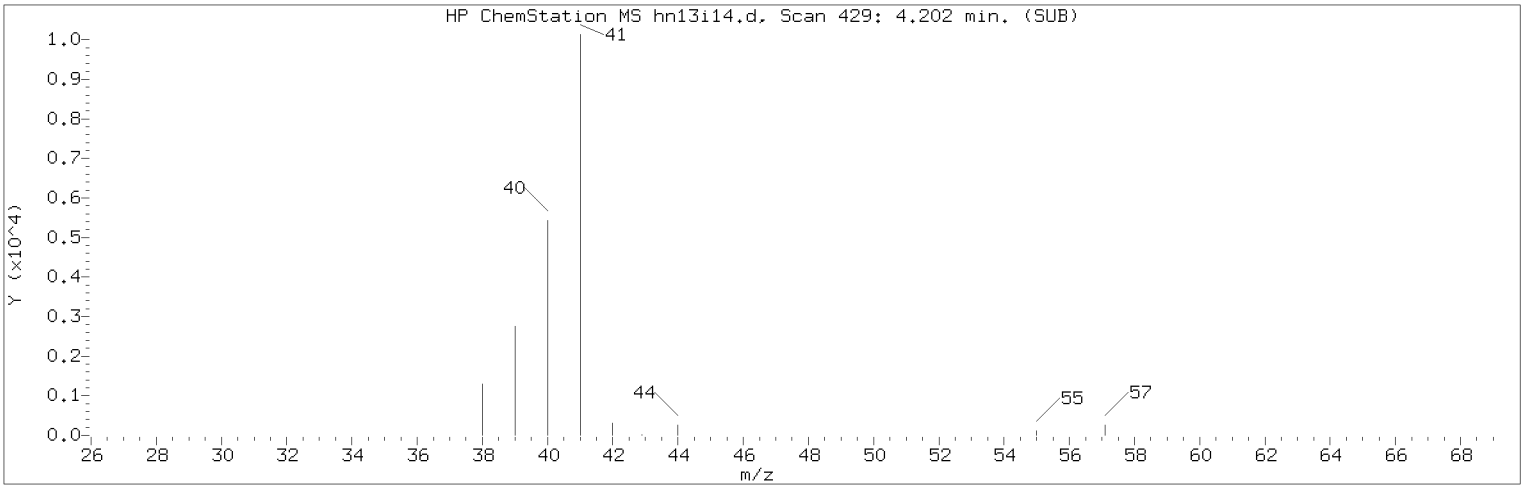
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

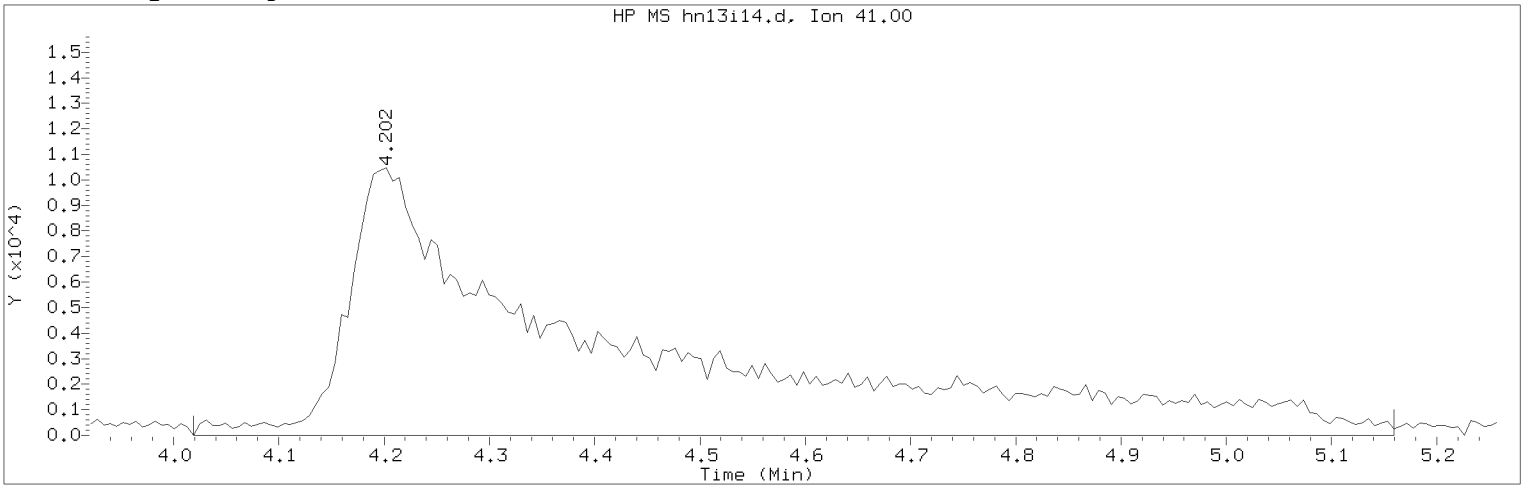
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 92
Retention Time (minutes): 2.148
Quant Ion : 45.00
Area : 100486
On-column Amount (ng) : 1.8768
Integration start scan : 79 Integration stop scan: 118
Y at integration start : 0 Y at integration end: 918

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 921

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

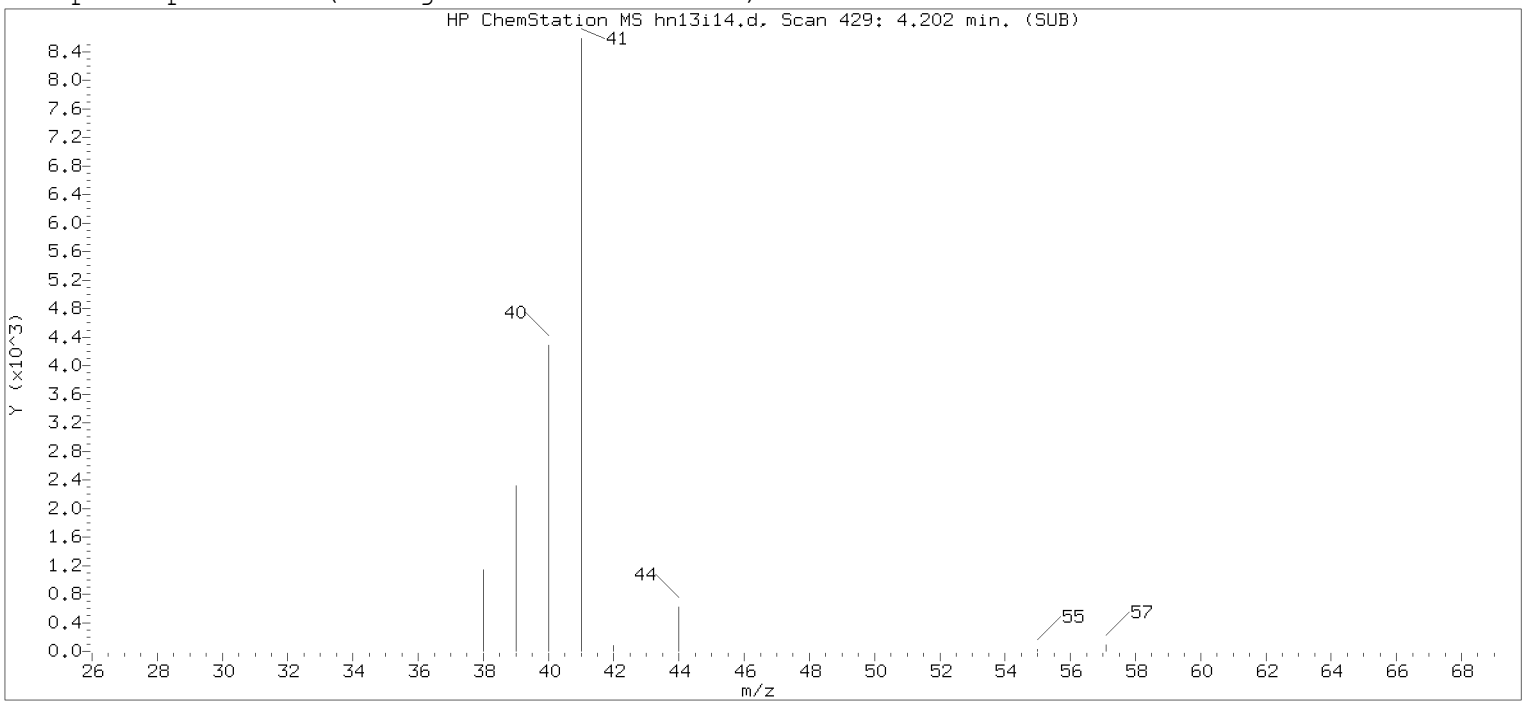
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 429
Retention Time (minutes): 4.202
Quant Ion : 41.00
Area (flag) : 180758M
On-Column Amount (ng) : 65.8545
Integration start scan : 398 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

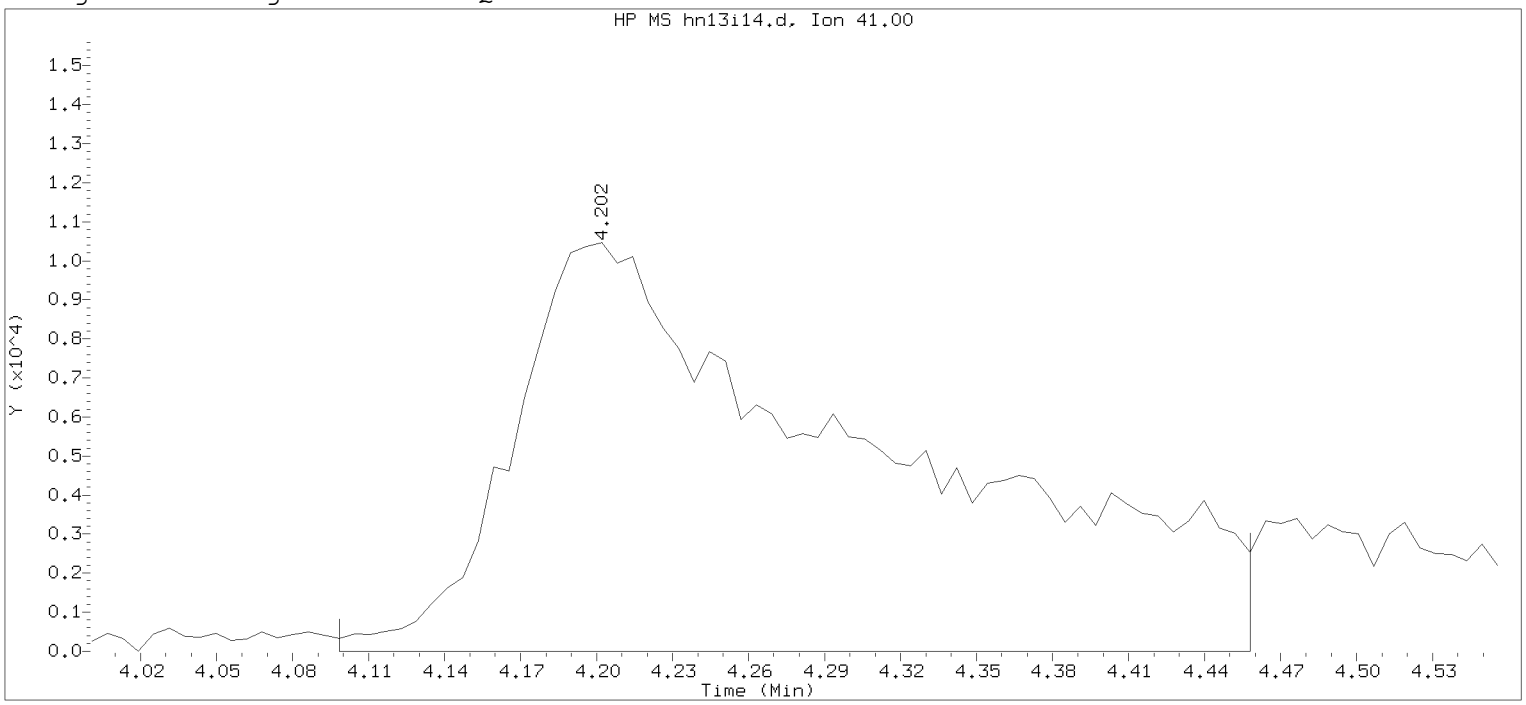
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

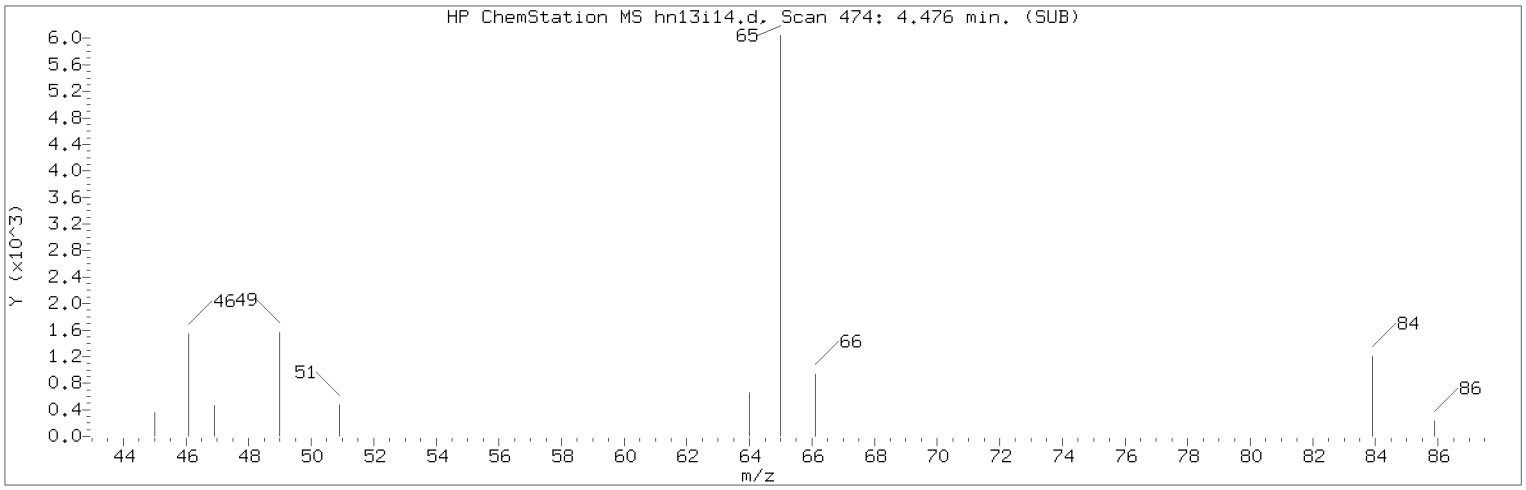
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

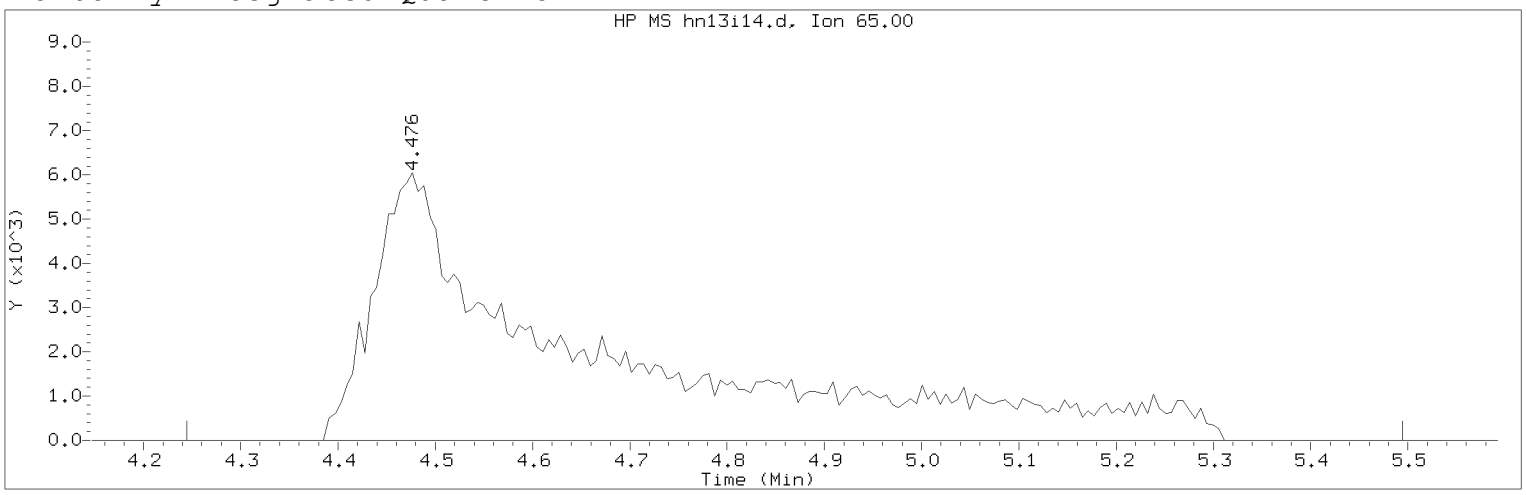
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 429
Retention Time (minutes): 4.202
Quant Ion : 41.00
Area : 106071
On-column Amount (ng) : 68.3538
Integration start scan : 411 Integration stop scan: 470
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

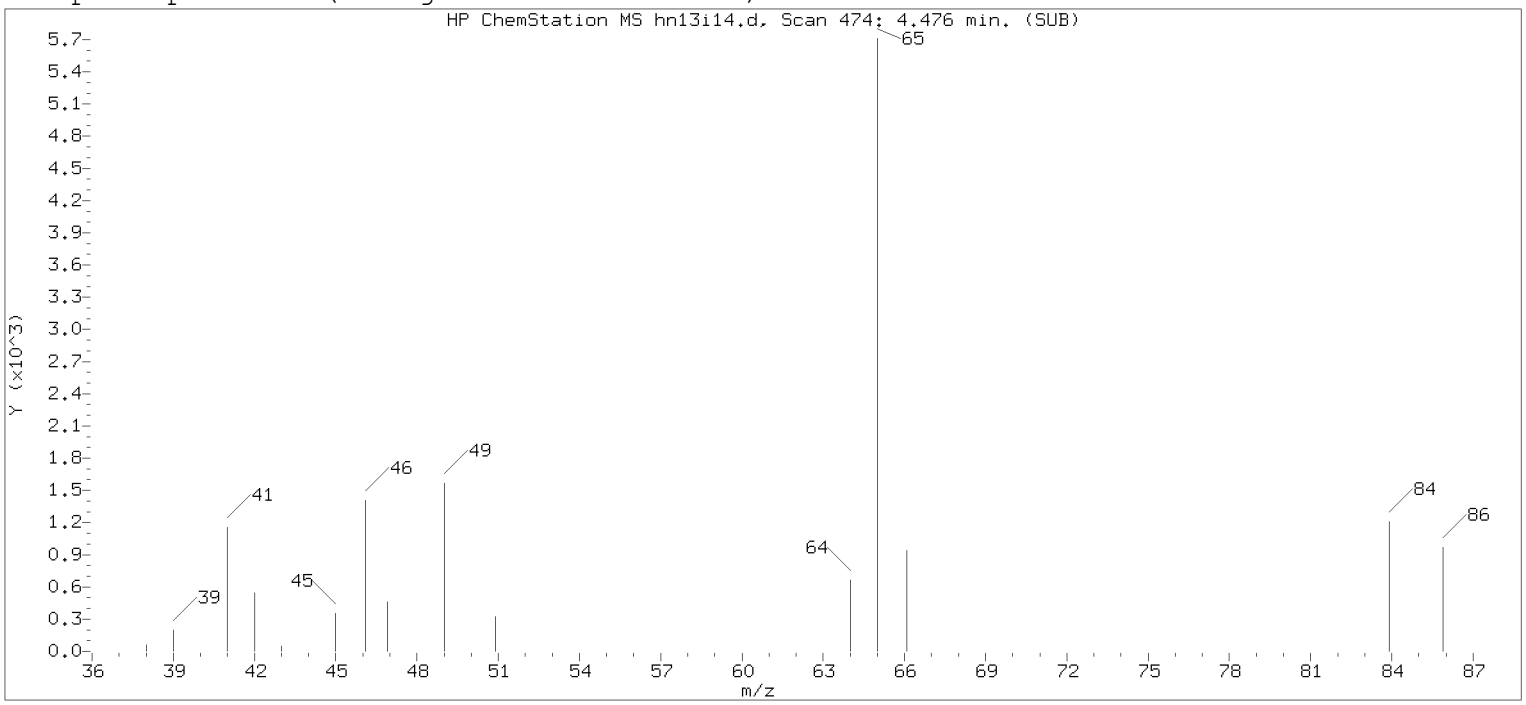
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.476
Quant Ion : 65.00
Area (flag) : 90627M
On-Column Amount (ng) : 50.0000
Integration start scan : 435 Integration stop scan: 640
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

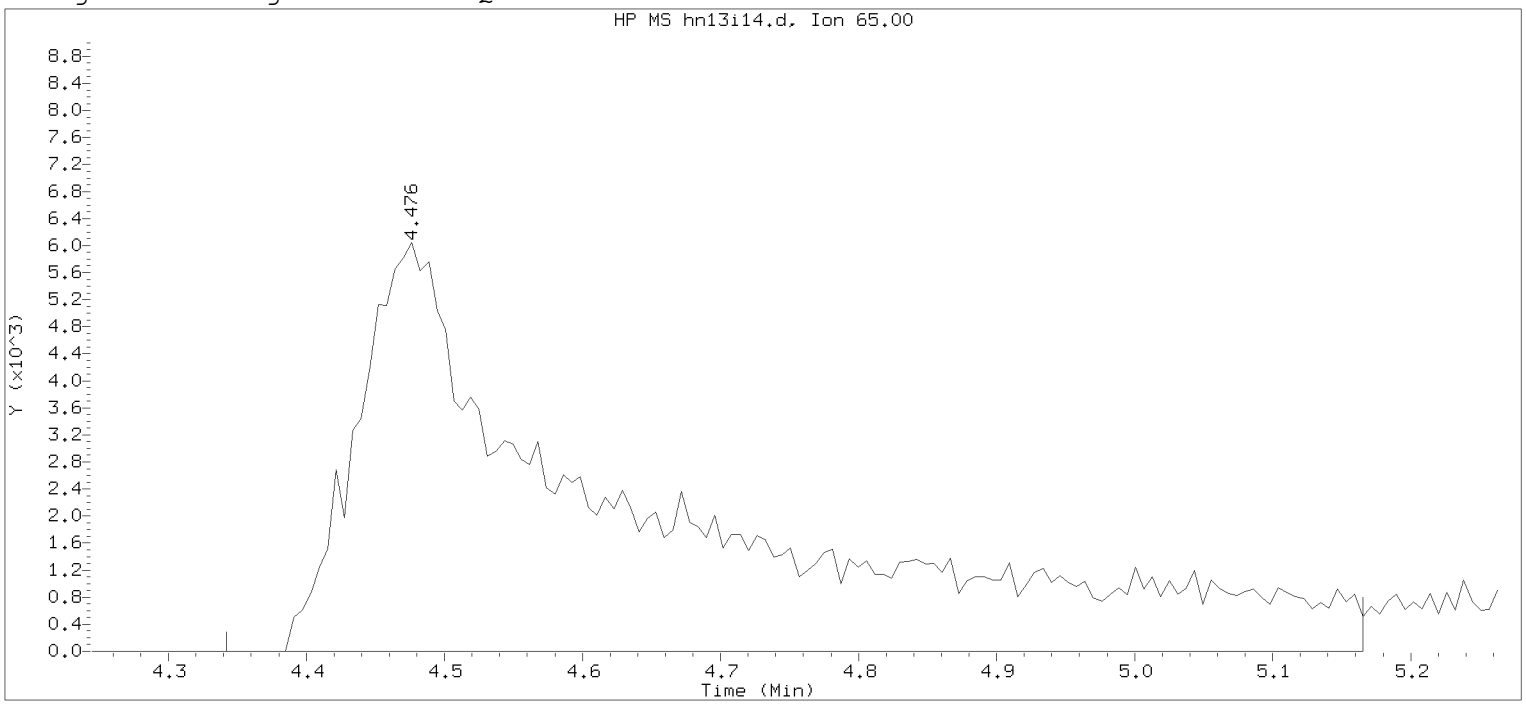
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

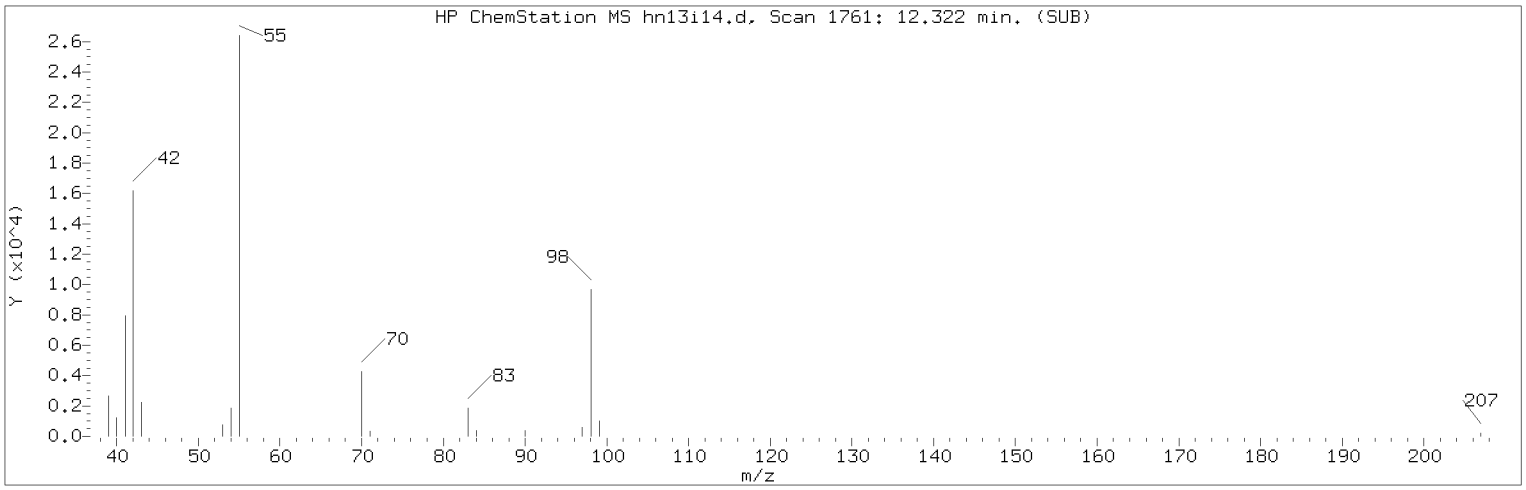
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

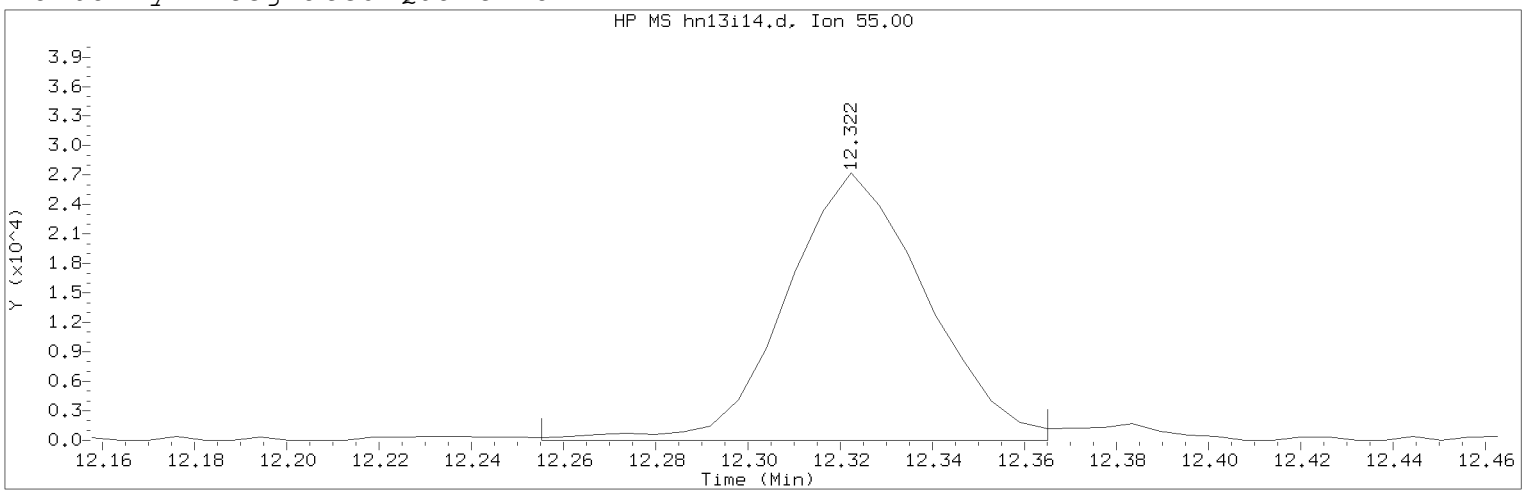
Compound Number	: 26		
Compound Name	: t-Butyl Alcohol-d10		
Scan Number	: 474		
Retention Time (minutes)	: 4.476		
Quant Ion	: 65.00		
Area	: 84913		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 451	Integration stop scan:	586
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 925

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

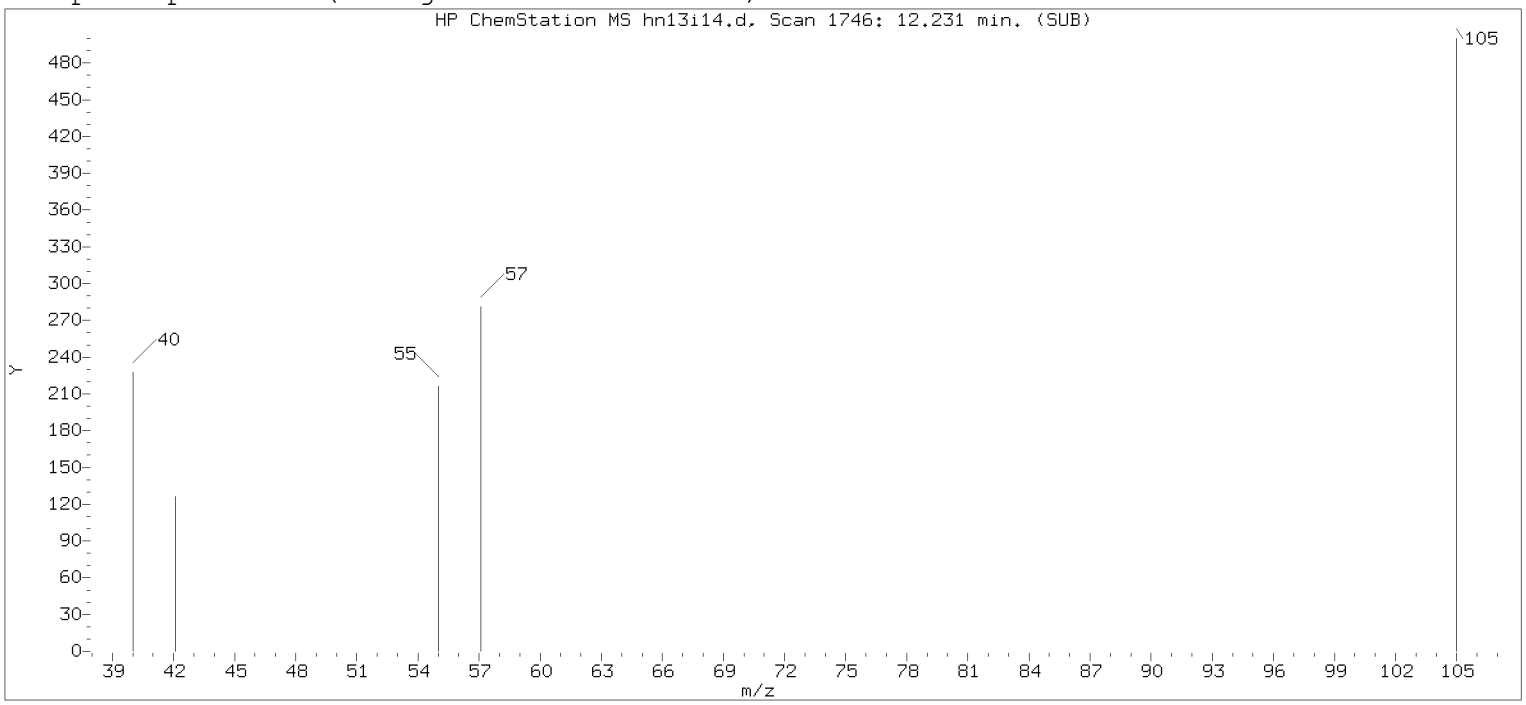
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.322
Quant Ion : 55.00
Area (flag) : 57375MA
On-Column Amount (ng) : 99.4040
Integration start scan : 1749 Integration stop scan: 1767
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

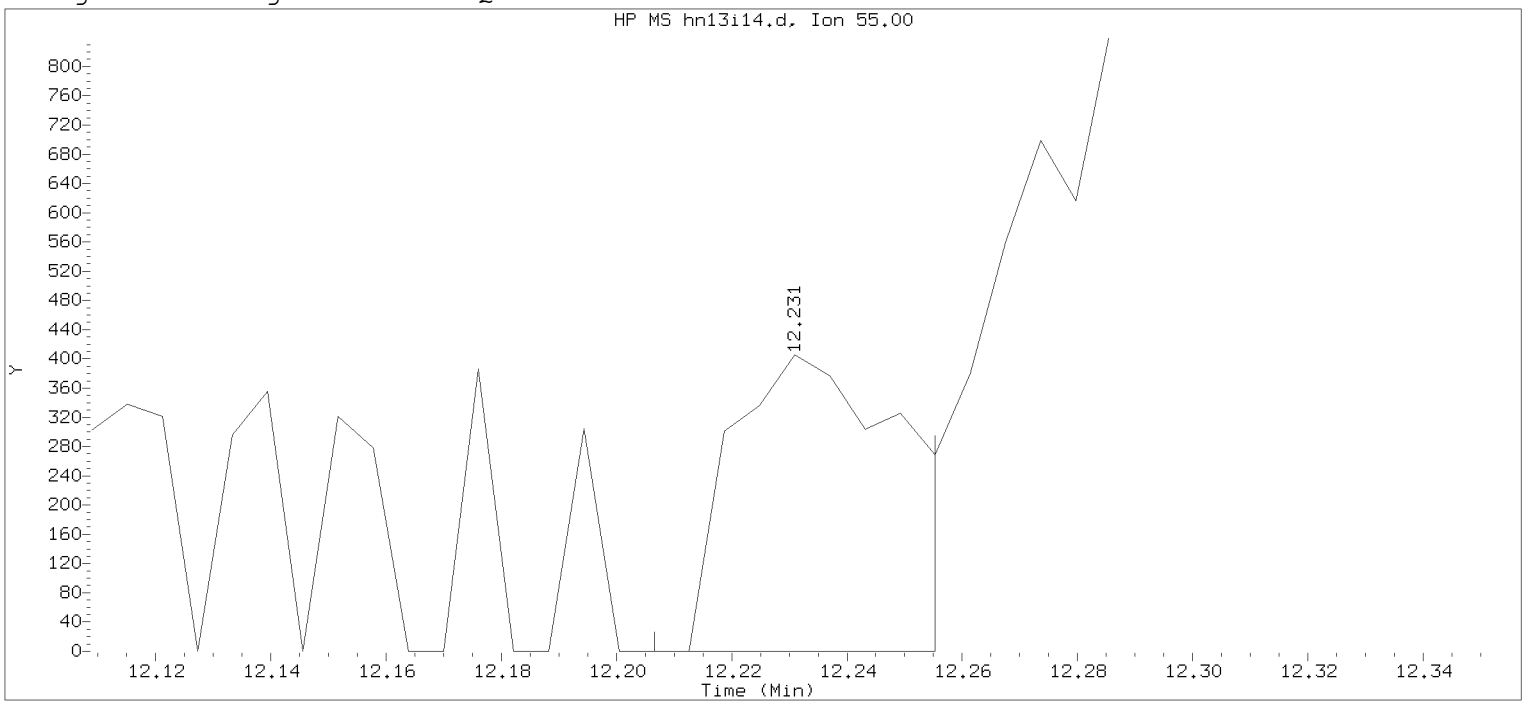
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i14.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1746
Retention Time (minutes): 12.231
Quant Ion : 55.00
Area : 799
On-column Amount (ng) : 1.8895
Integration start scan : 1741 Integration stop scan: 1749
Y at integration start : 0 Y at integration end: 0

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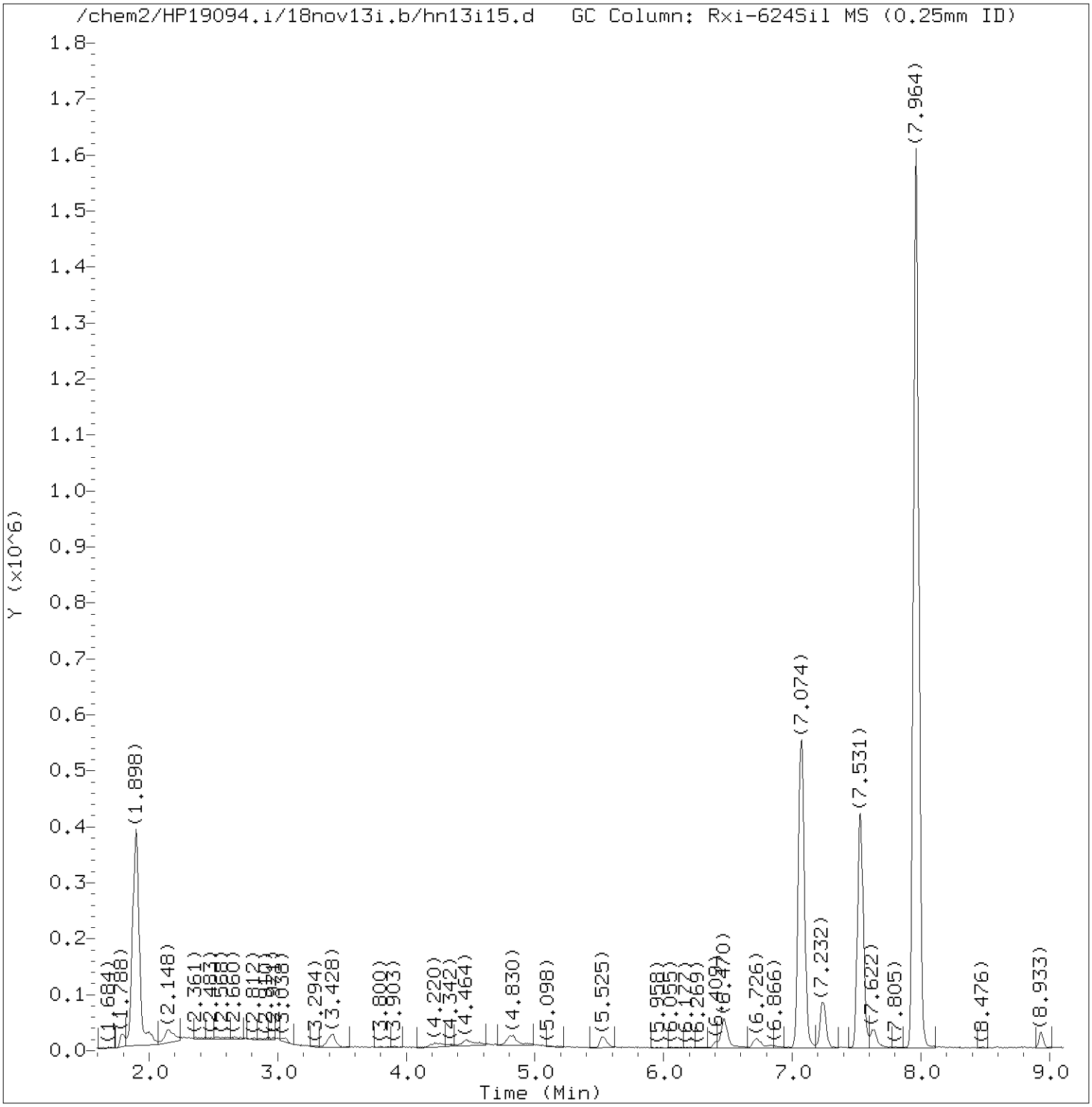
Target 3.5 esignature used. AE35 Page 927



Total Ion Chromatogram (TIC)

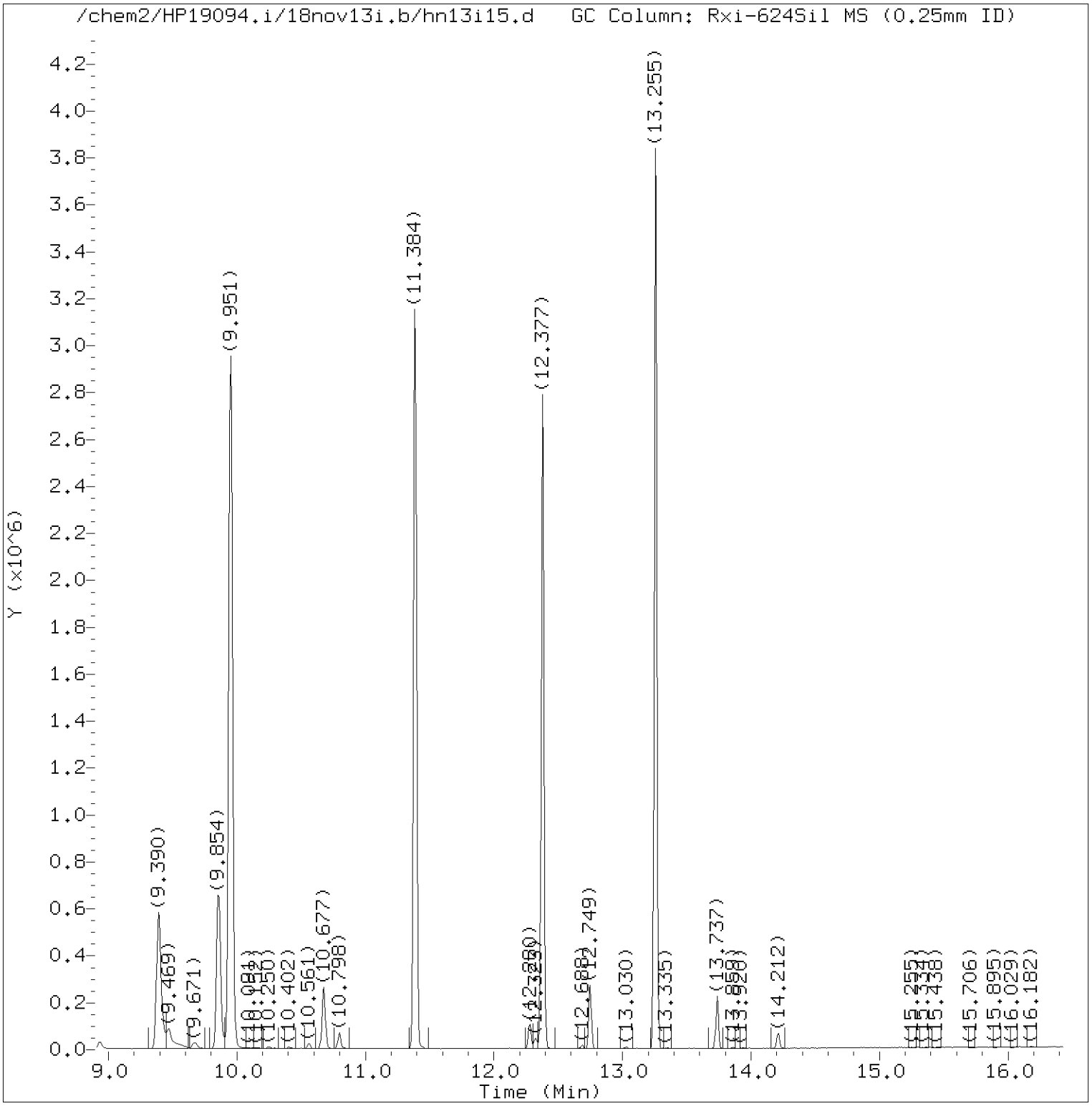
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

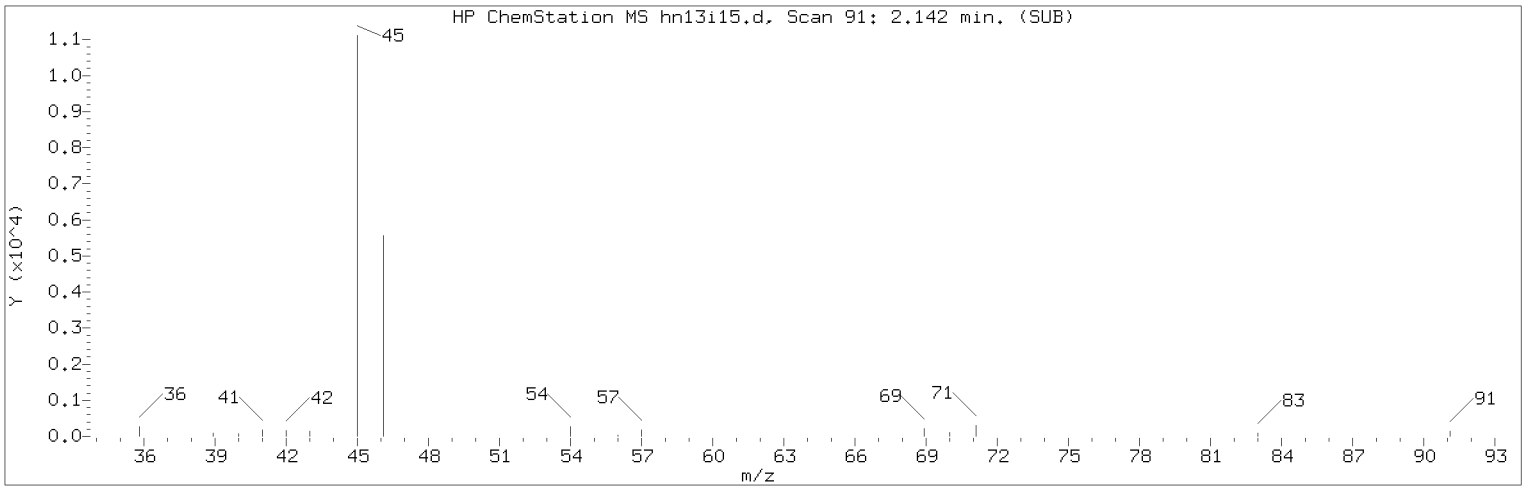
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.142	45	61106M	1.043
25) Acetonitrile	(1)	4.220	41	100610M	39.771
26)*t-Butyl Alcohol-d10	(1)	4.501	65	83526M	50.000
36) Vinyl Acetate	(2)	5.525	43	69071	1.009
43) Methyl Acrylate	(2)	6.470	55	110632	5.070
53) 1-Chlorobutane	(2)	7.238	56	106792	1.020
63)*Fluorobenzene	(2)	7.964	96	2289401	10.000
77) Chloroacetonitrile	(2)	9.469	75	43878	50.382
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	19644	1.036
97)*Chlorobenzene-d5	(3)	11.384	117	1803450	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	22875	2.240
112) Cyclohexanone	(1)	12.323	55	25842M	48.578
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	956629	10.000
142) Hexachloroethane	(4)	13.737	117	41416	0.998

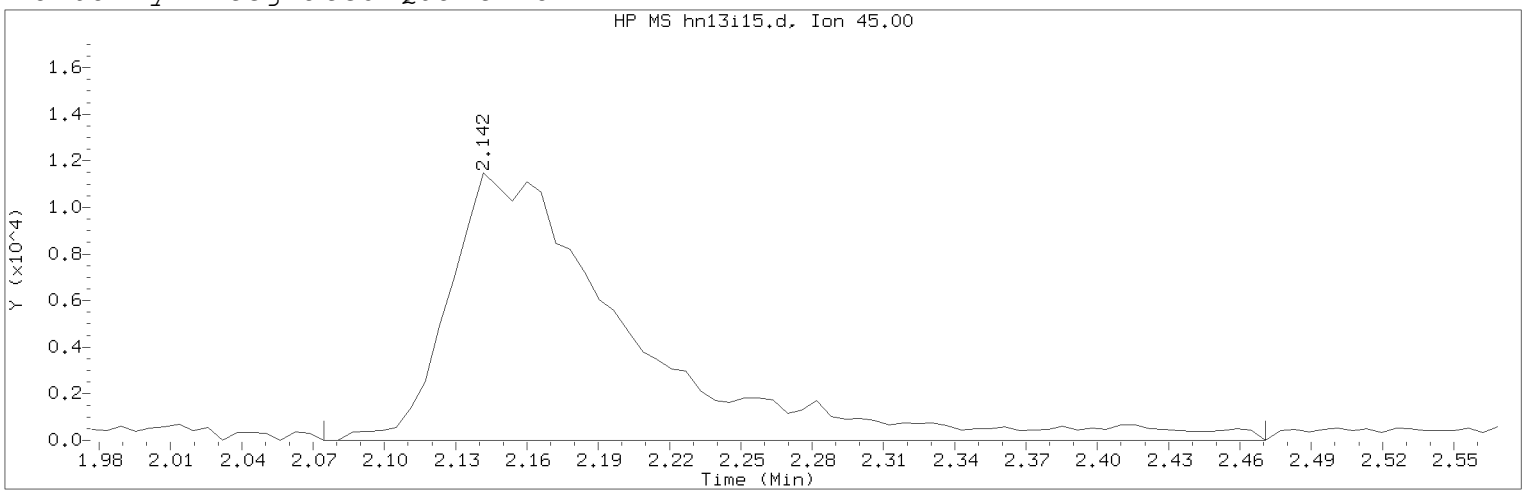
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

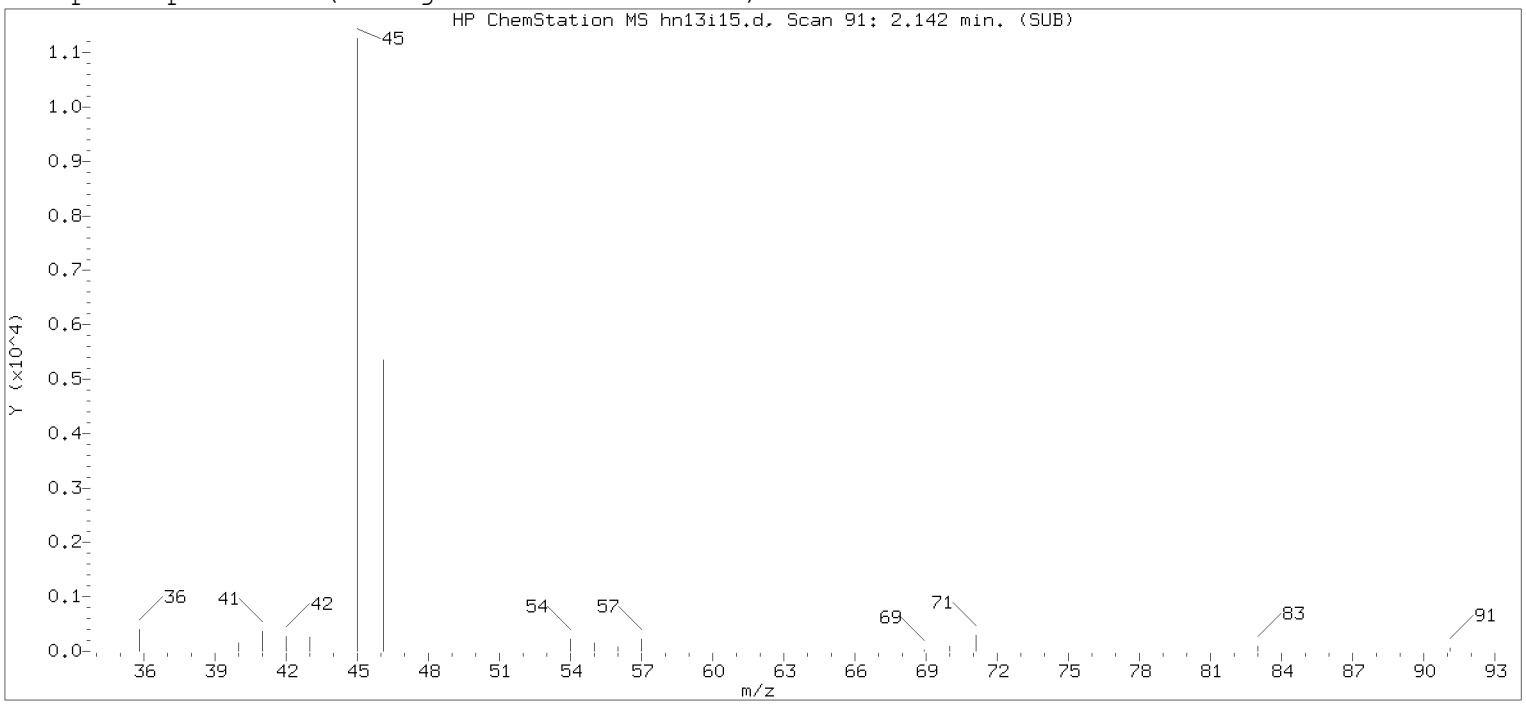
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 91
Retention Time (minutes): 2.142
Quant Ion : 45.00
Area (flag) : 61106M
On-Column Amount (ng) : 1.0432
Integration start scan : 79 Integration stop scan: 144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

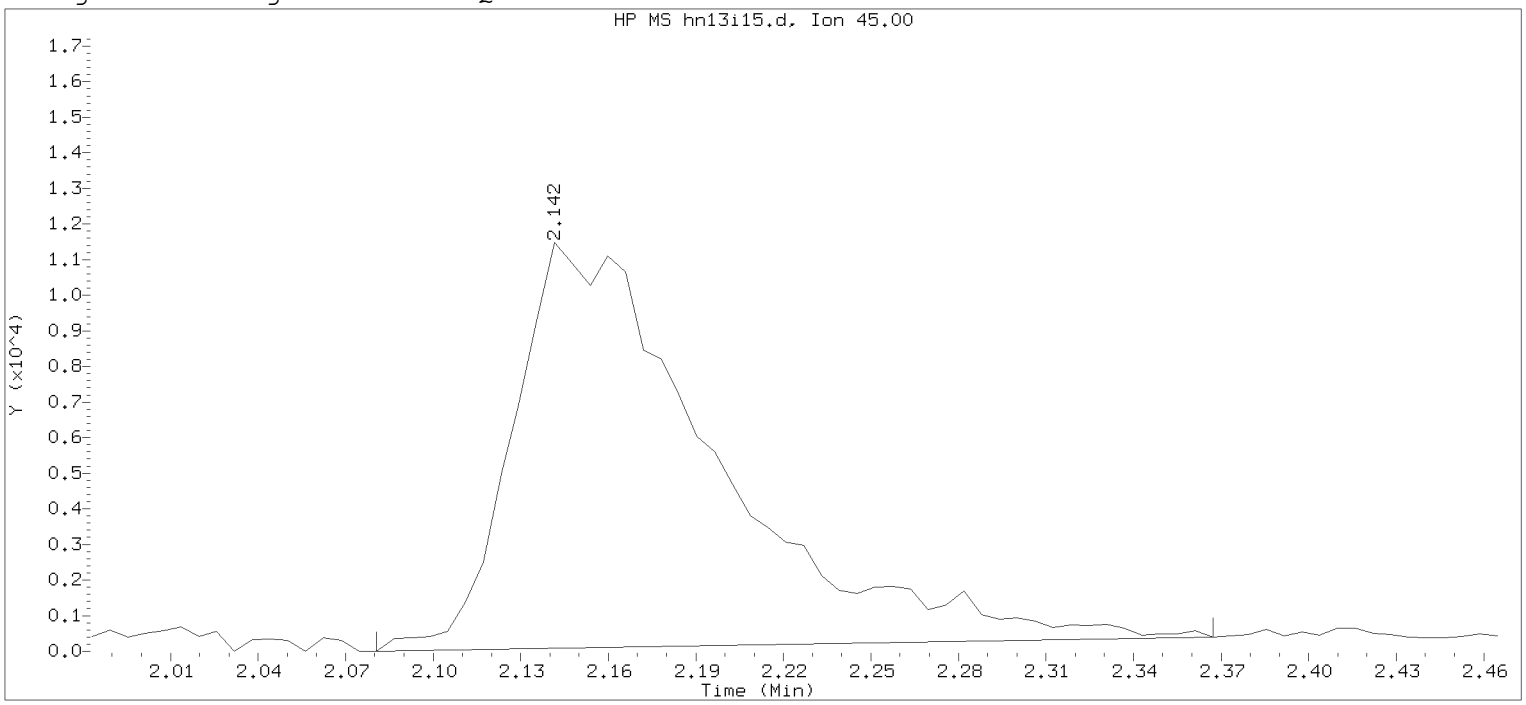
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 91		
Retention Time (minutes)	: 2.142		
Quant Ion	: 45.00		
Area	: 54771		
On-column Amount (ng)	: 1.0422		
Integration start scan	: 80	Integration stop scan:	127
Y at integration start	: 0	Y at integration end:	401

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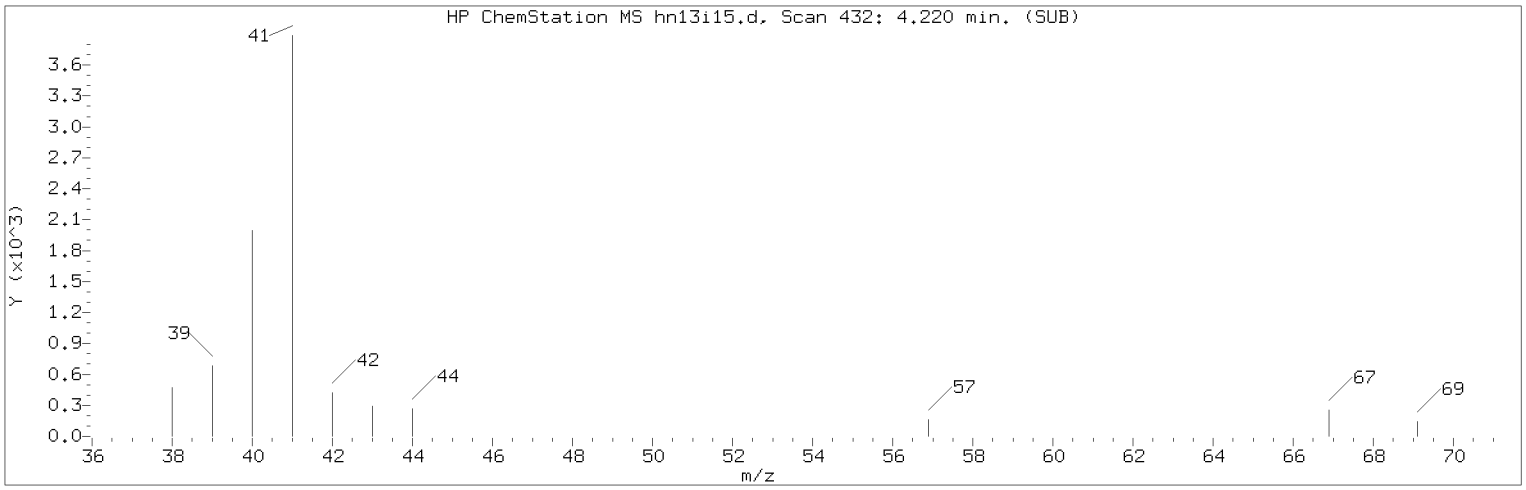
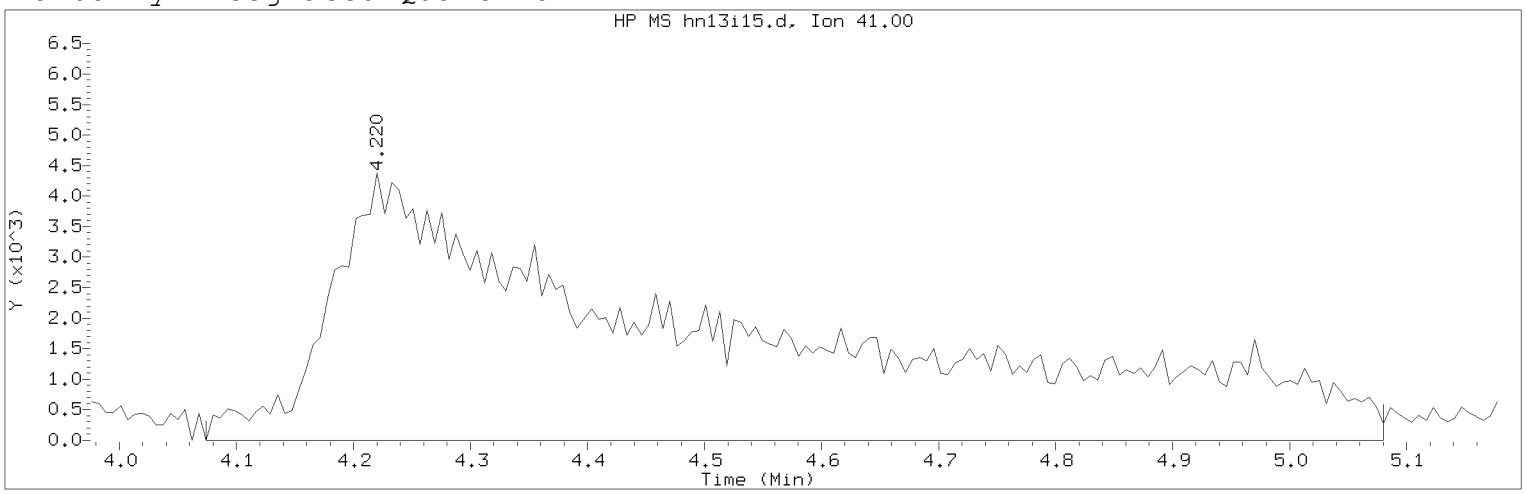
Target 3.5 esignature used. AE35 Page 932

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

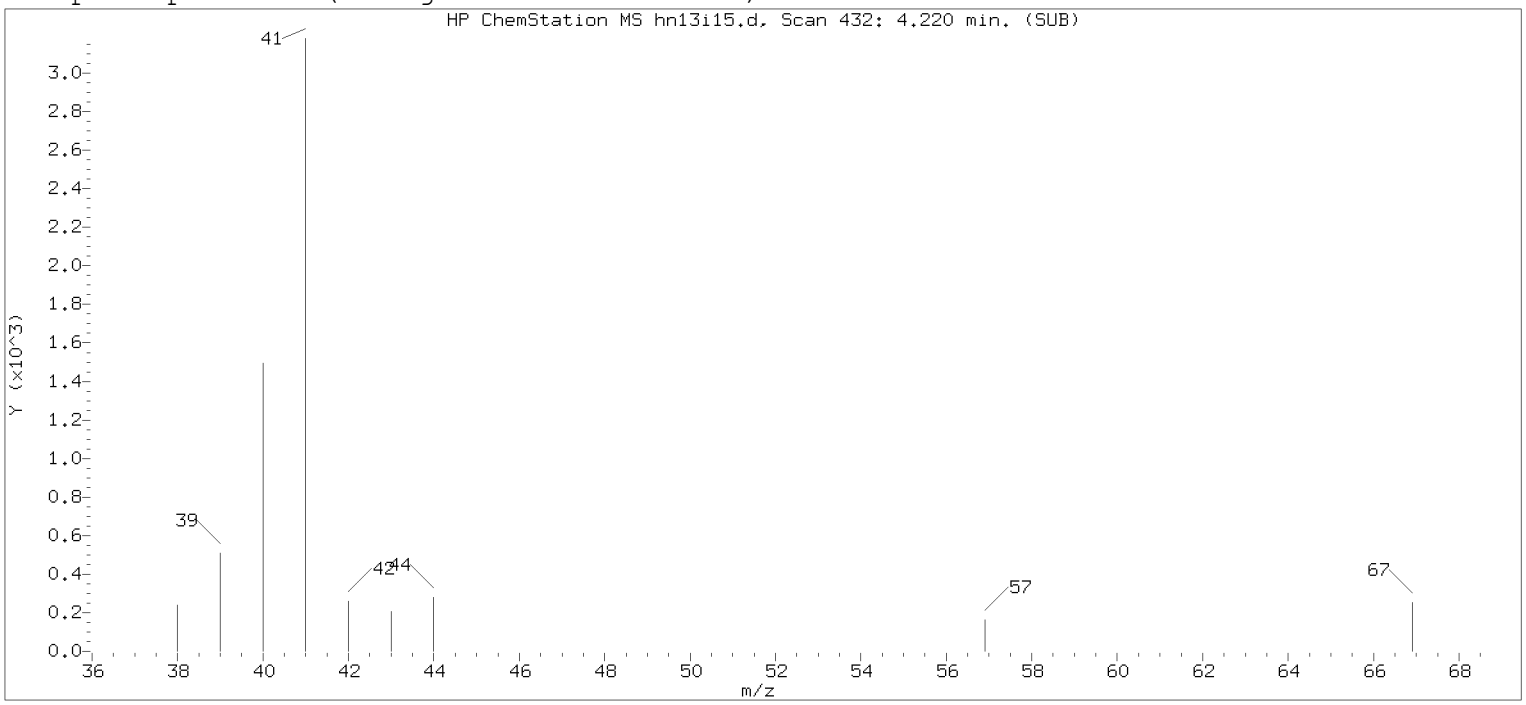
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 432
Retention Time (minutes): 4.220
Quant Ion : 41.00
Area (flag) : 100610M
On-Column Amount (ng) : 39.7709
Integration start scan : 407 Integration stop scan: 572
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

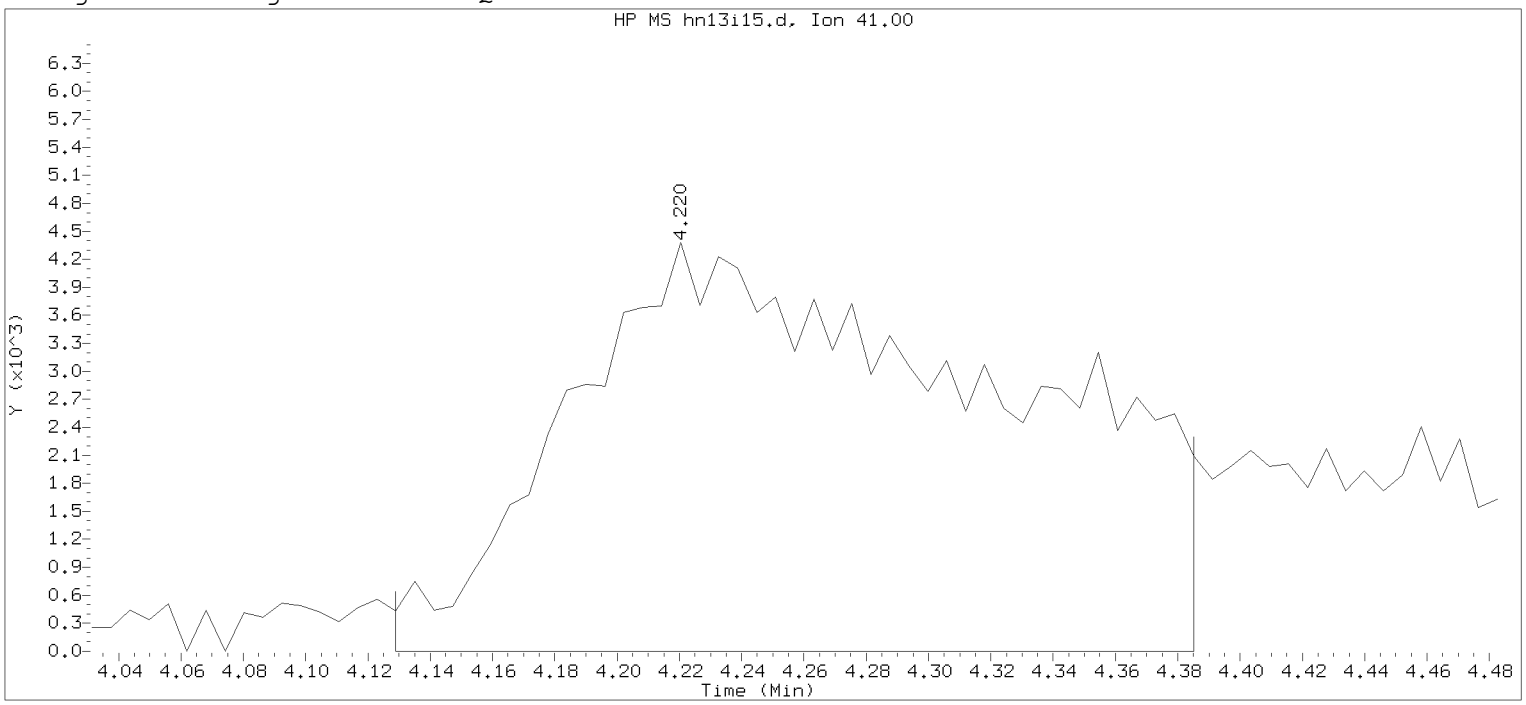
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

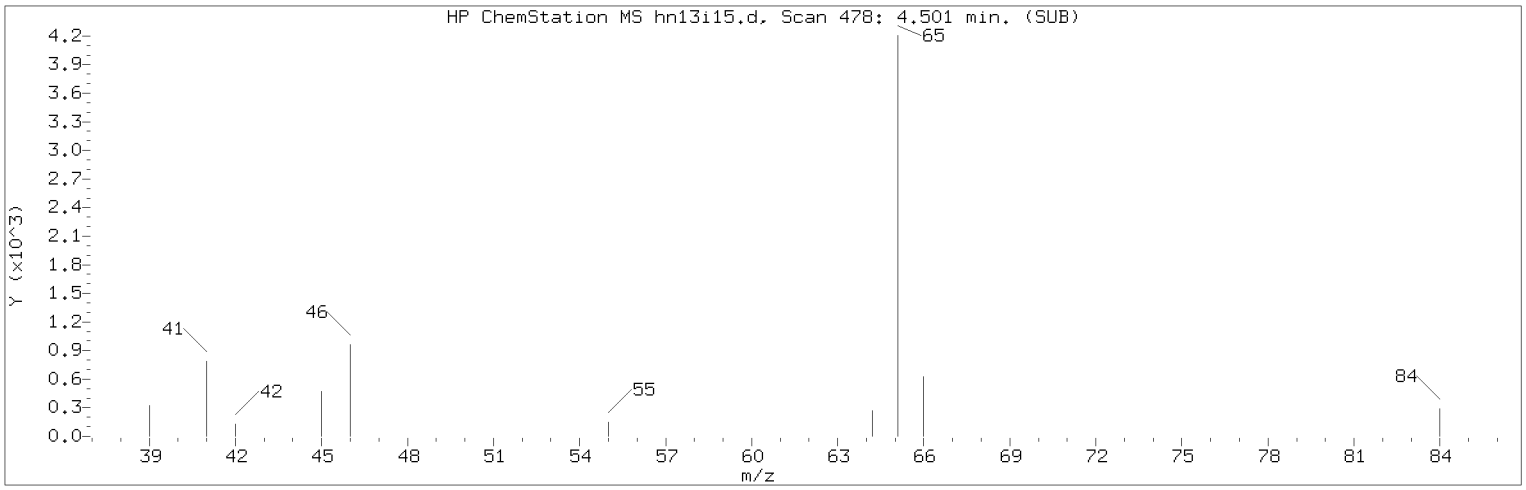
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

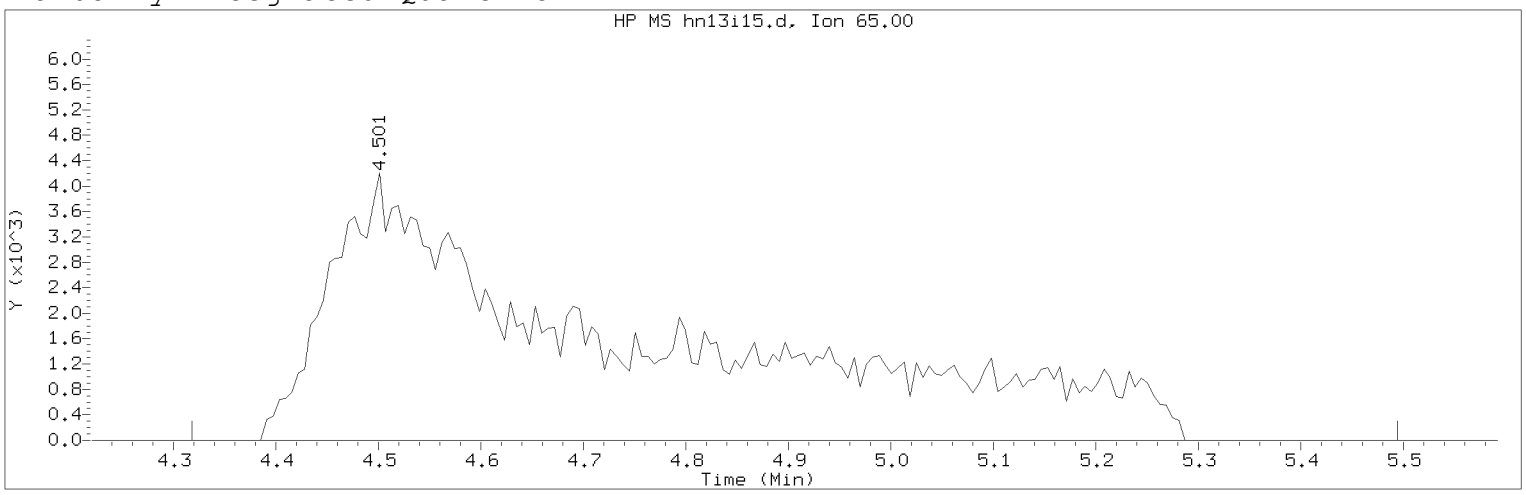
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 432
Retention Time (minutes): 4.220
Quant Ion : 41.00
Area : 42195
On-column Amount (ng) : 34.5361
Integration start scan : 416 Integration stop scan: 458
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

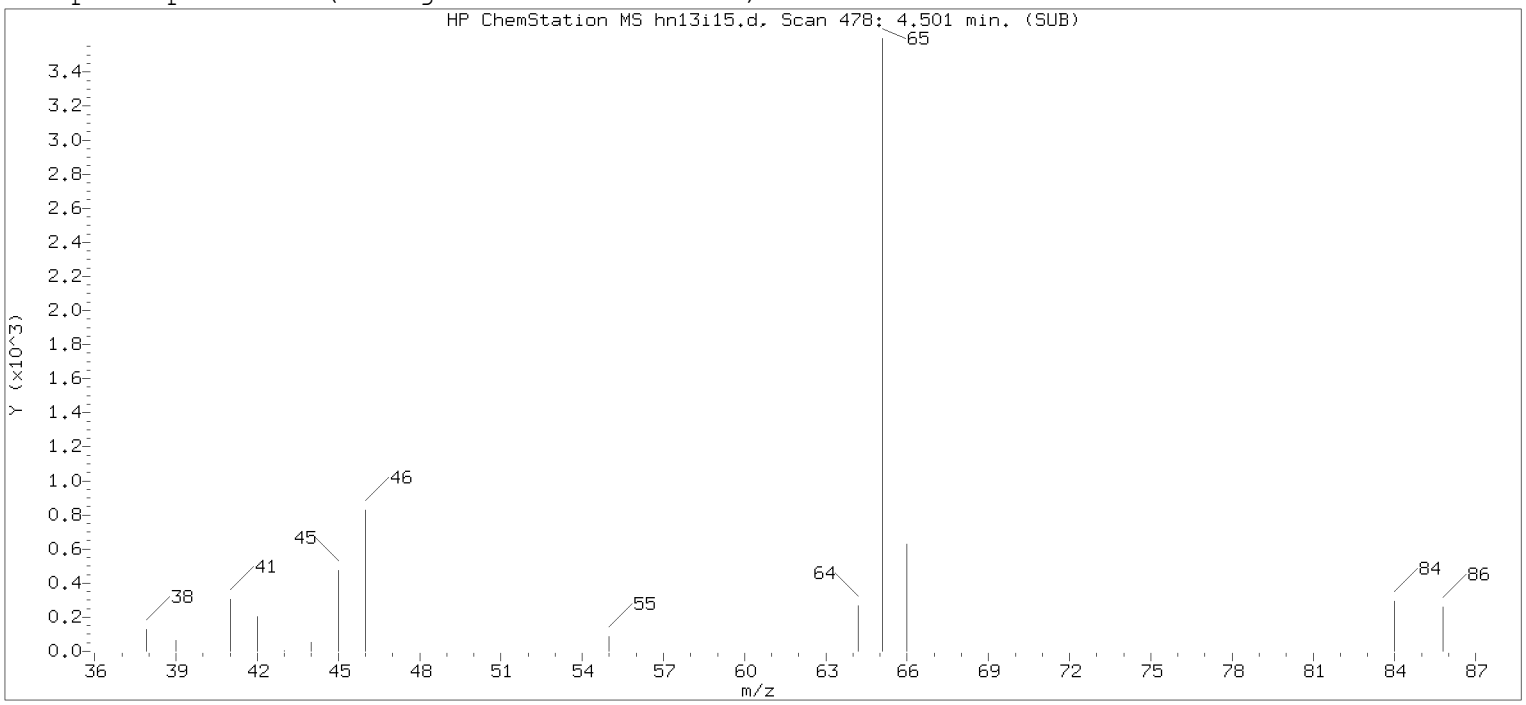
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 478
Retention Time (minutes): 4.501
Quant Ion : 65.00
Area (flag) : 83526M
On-Column Amount (ng) : 50.0000
Integration start scan : 447 Integration stop scan: 640
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

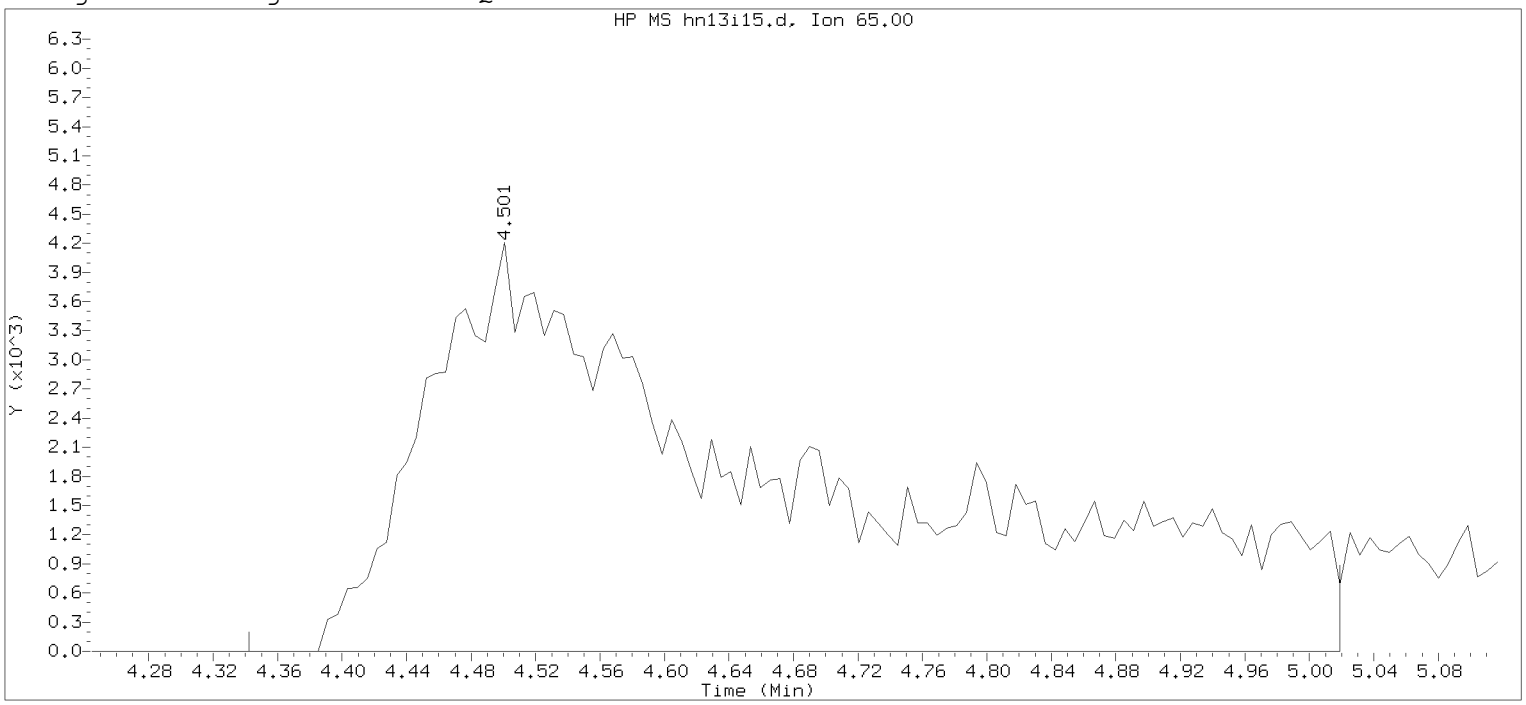
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 478
Retention Time (minutes): 4.501
Quant Ion : 65.00
Area : 69138
On-column Amount (ng) : 50.0000
Integration start scan : 451 Integration stop scan: 562
Y at integration start : 0 Y at integration end: 0

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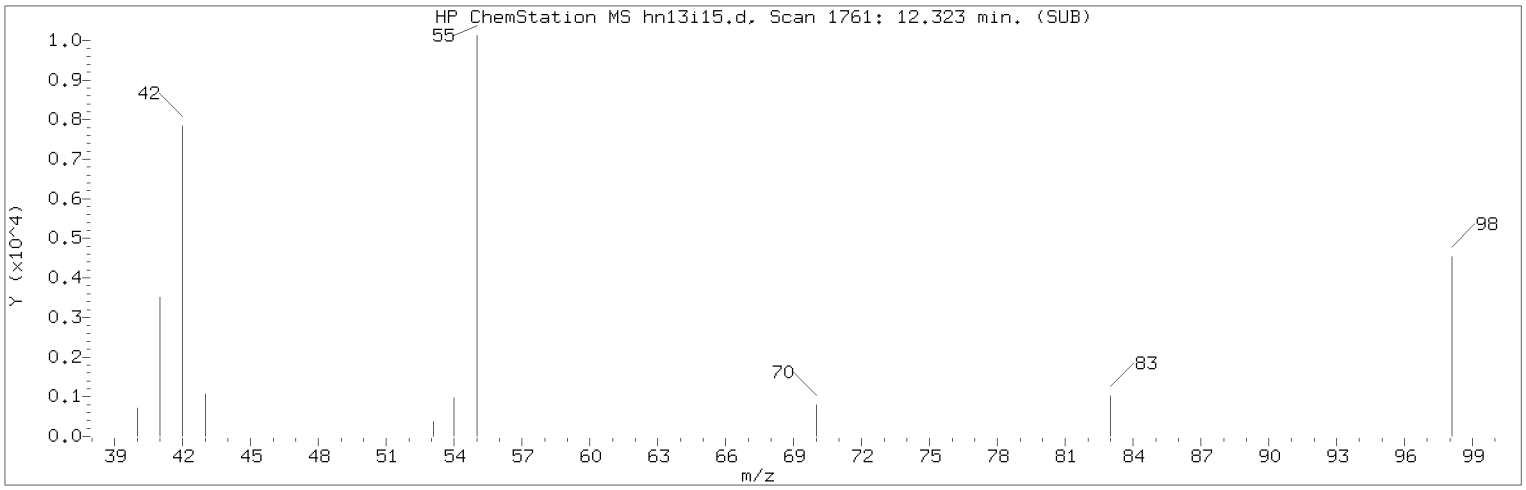
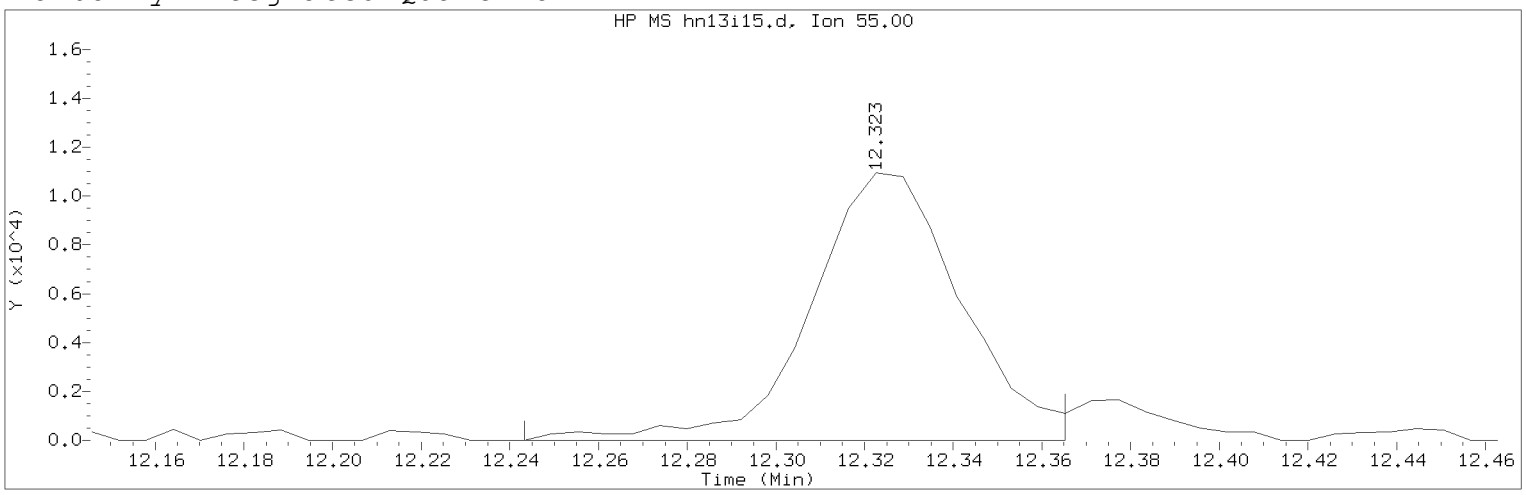
Target 3.5 esignature used. AE35 Page 936

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

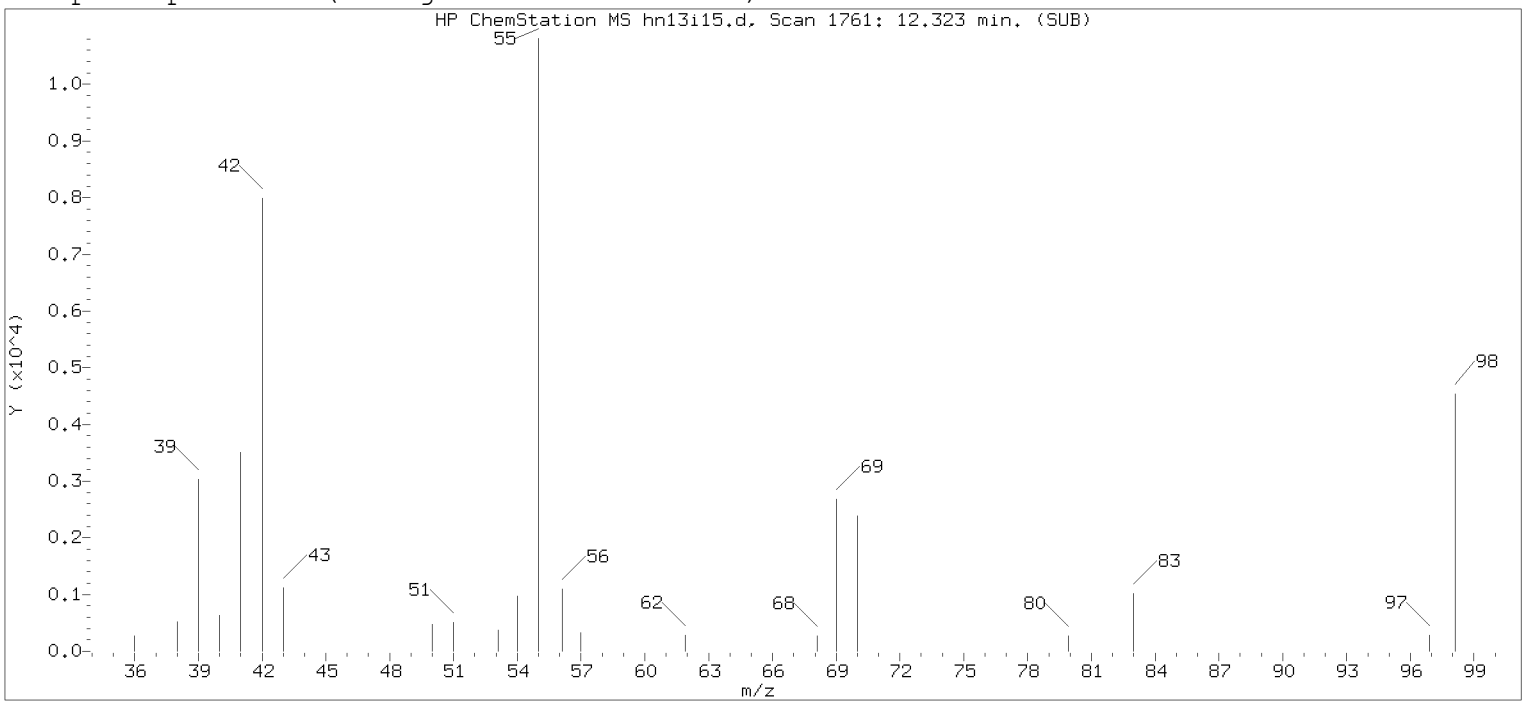
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.323
Quant Ion : 55.00
Area (flag) : 25842M
On-Column Amount (ng) : 48.5784
Integration start scan : 1747 Integration stop scan: 1767
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

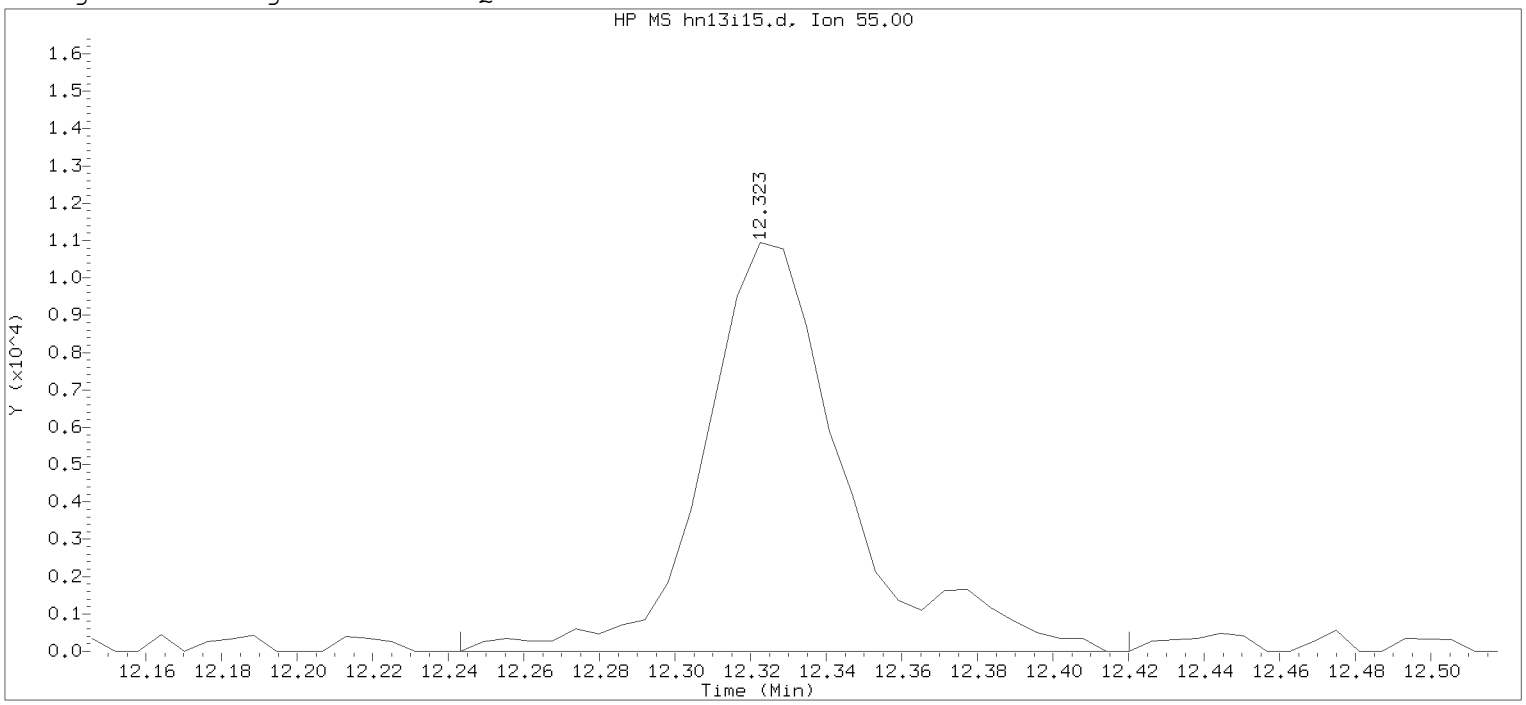
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



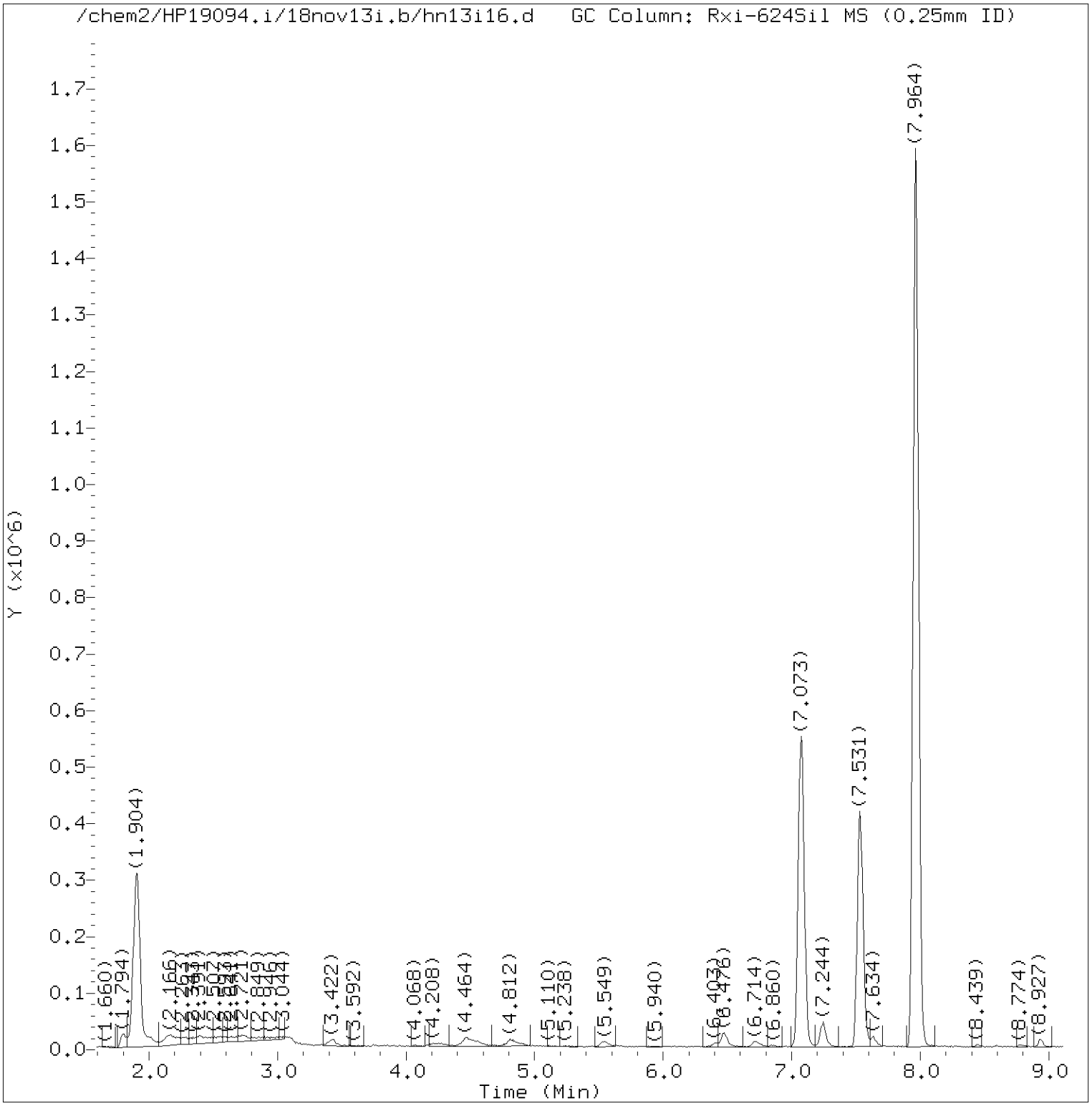
Data File: /chem2/HP19094.i/18nov13i.b/hn13i15.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 13:58 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.323
Quant Ion : 55.00
Area : 28197
On-column Amount (ng) : 72.6279
Integration start scan : 1747 Integration stop scan: 1776
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

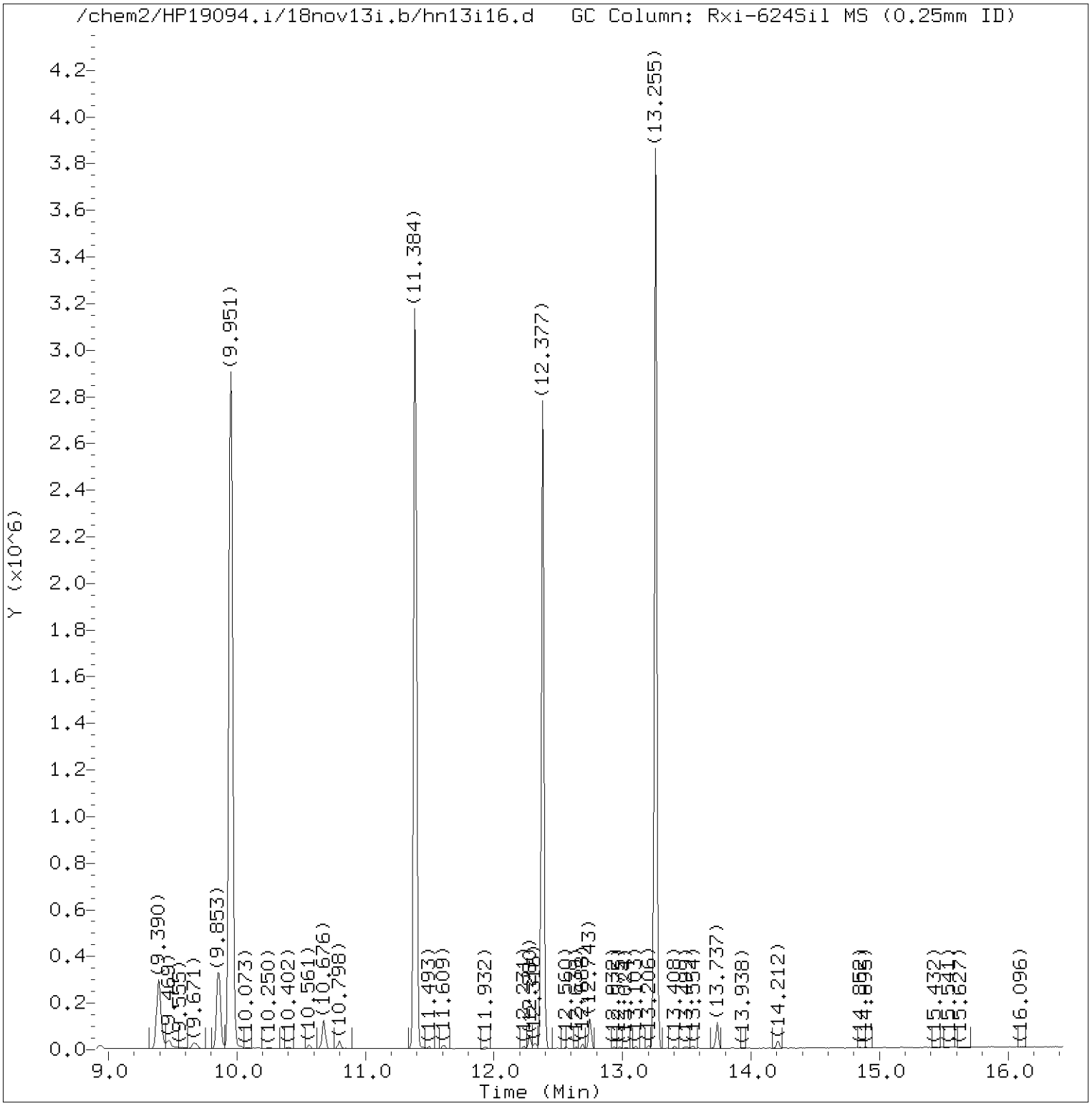
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

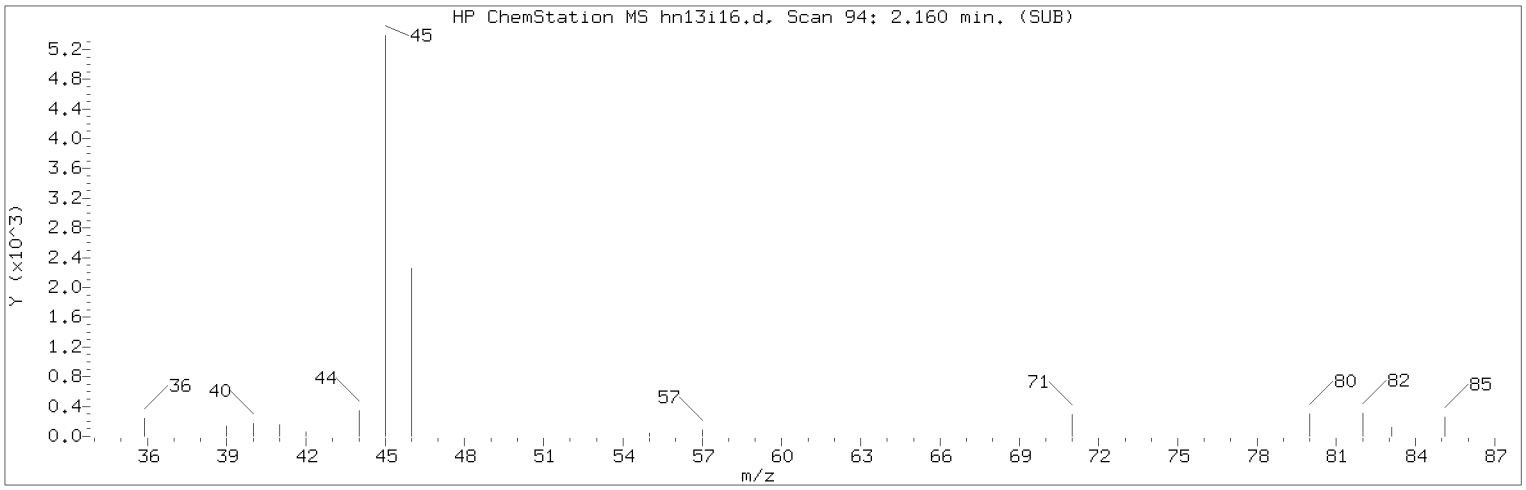
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	28620M	0.490
25) Acetonitrile	(1)	4.251	41	58110M	23.002
26)*t-Butyl Alcohol-d10	(1)	4.507	65	83412M	50.000
36) Vinyl Acetate	(2)	5.537	43	35646	0.522
43) Methyl Acrylate	(2)	6.476	55	55043	2.529
53) 1-Chlorobutane	(2)	7.244	56	54557	0.523
63)*Fluorobenzene	(2)	7.964	96	2283110	10.000
77) Chloroacetonitrile	(2)	9.469	75	20420	23.512
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	9374	0.496
97)*Chlorobenzene-d5	(3)	11.384	117	1793522	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	10083	0.989
112) Cyclohexanone	(1)	12.316	55	12725M	23.953
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	967449	10.000
142) Hexachloroethane	(4)	13.737	117	20164	0.481

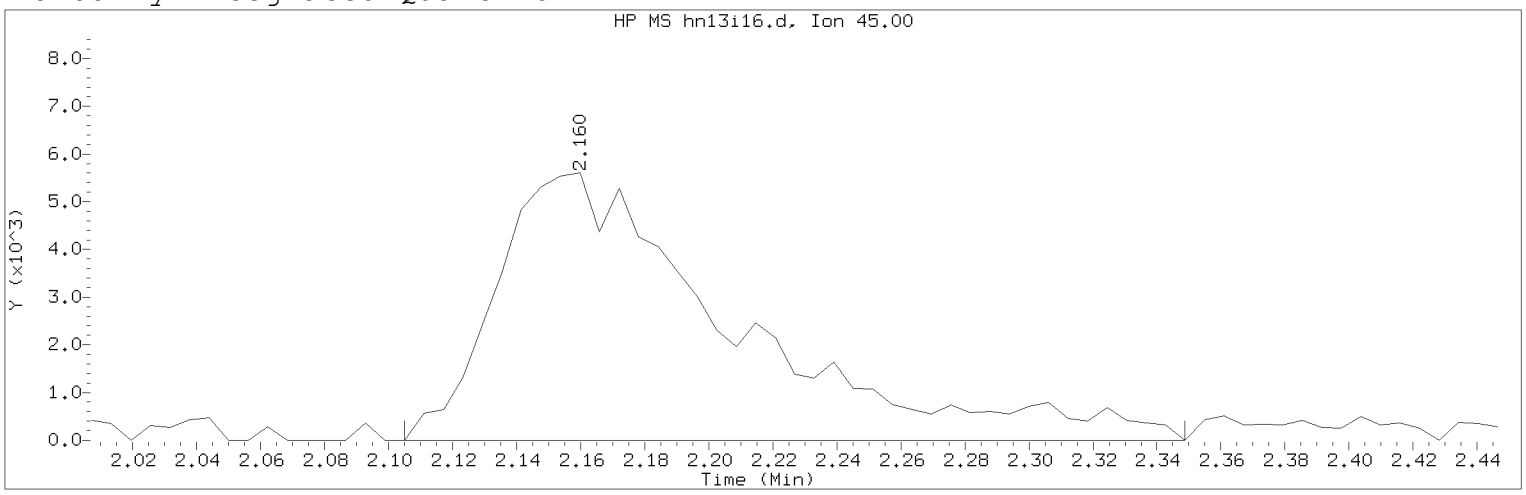
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

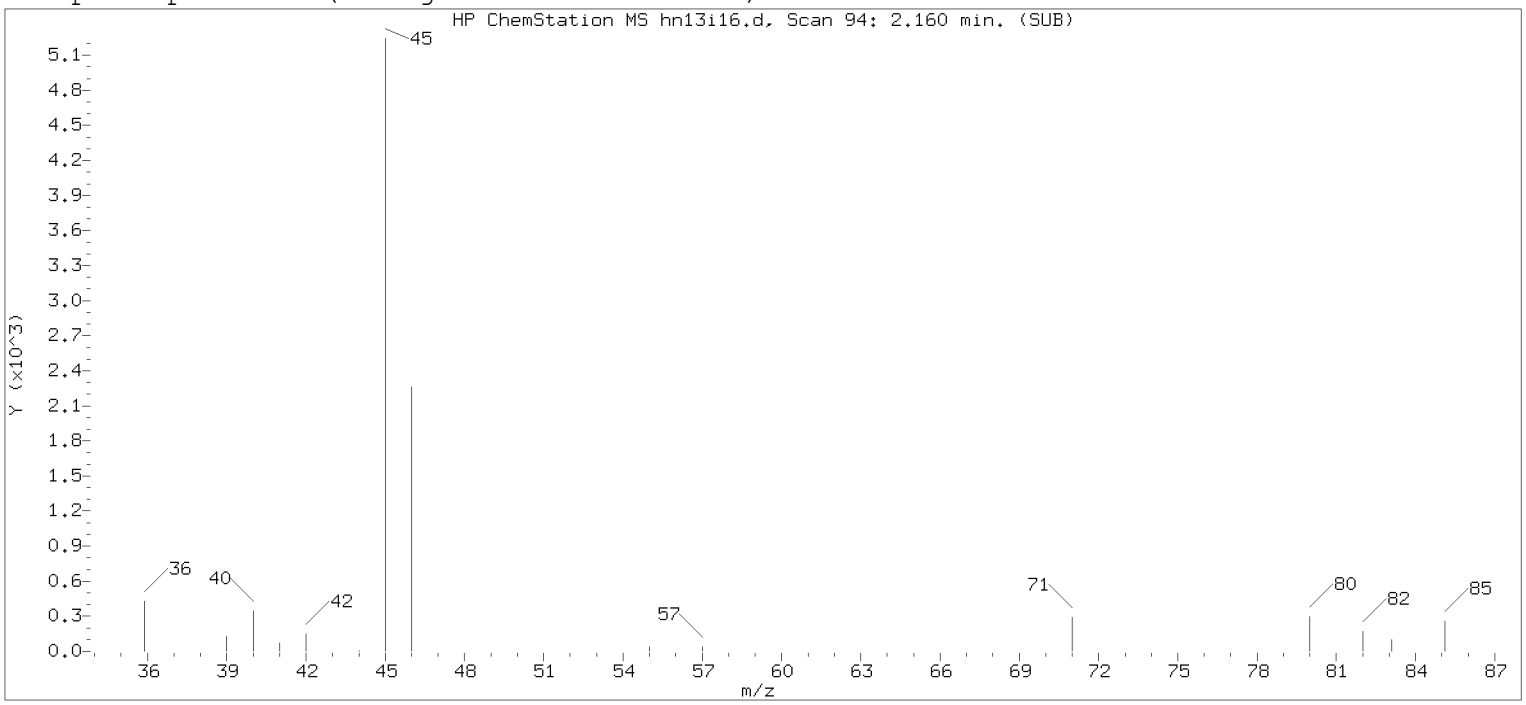
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 28620M
On-Column Amount (ng) : 0.4899
Integration start scan : 84 Integration stop scan: 124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

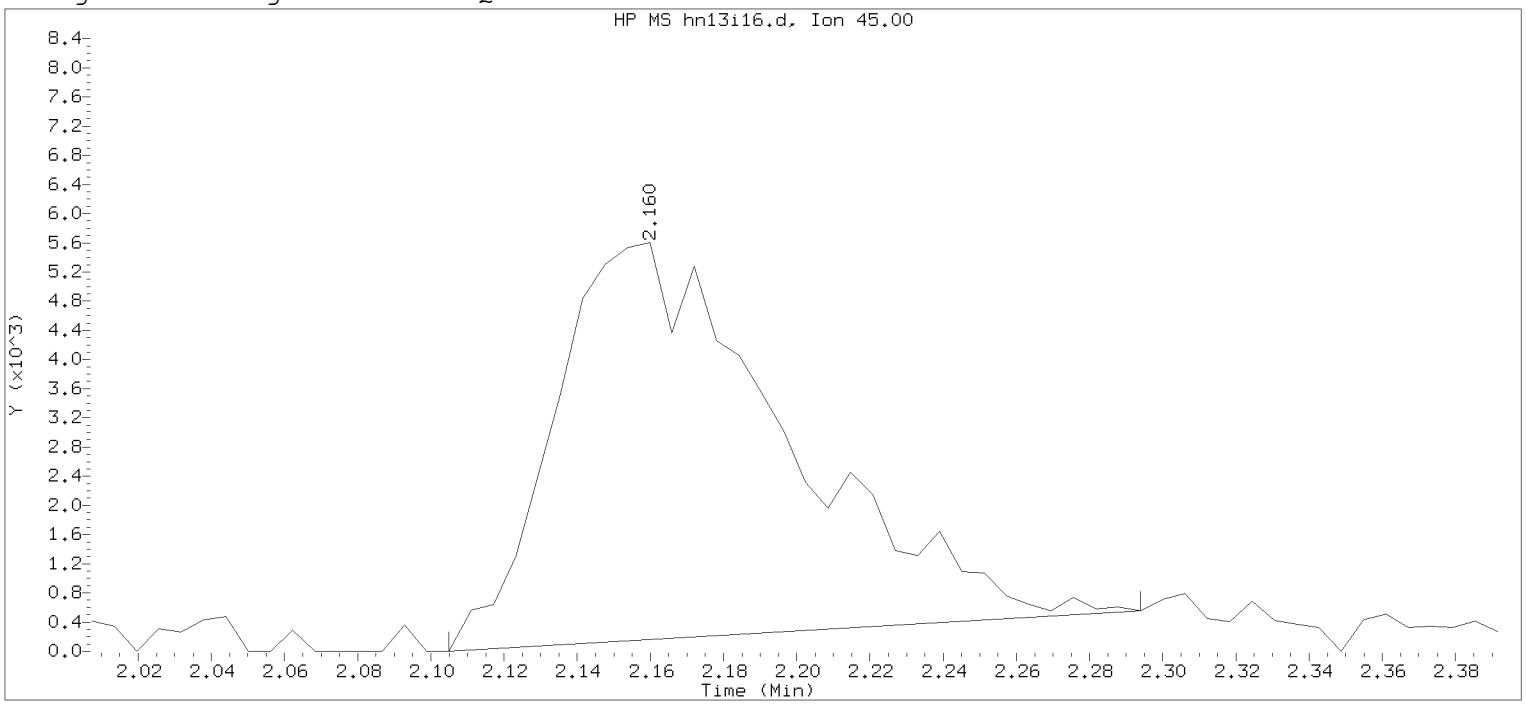
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

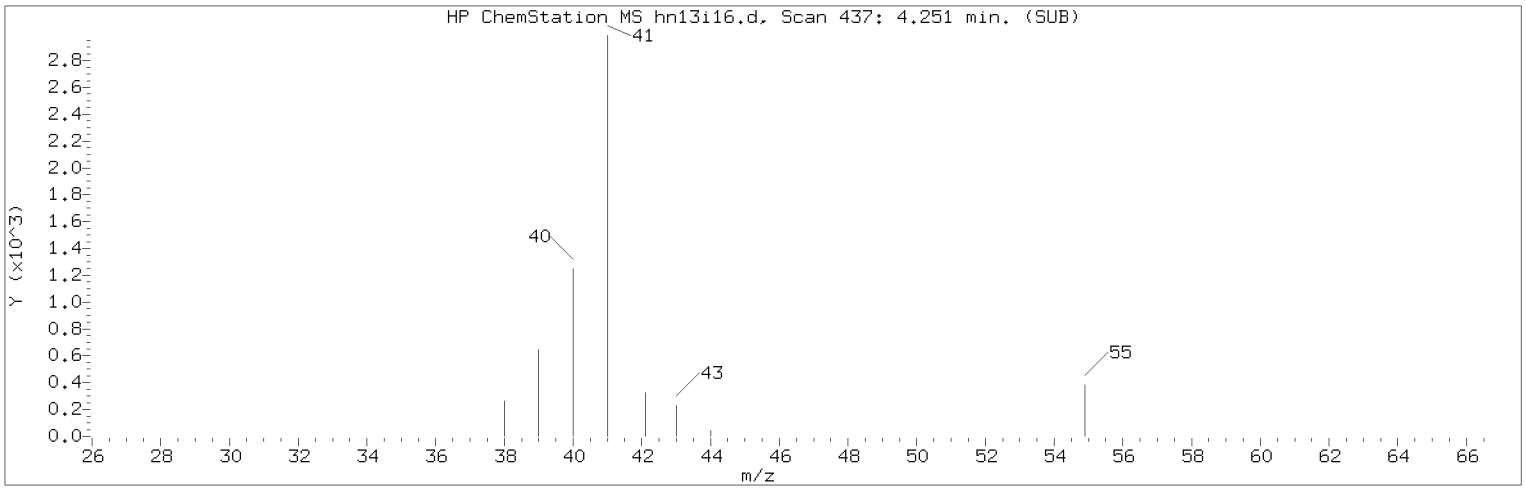
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

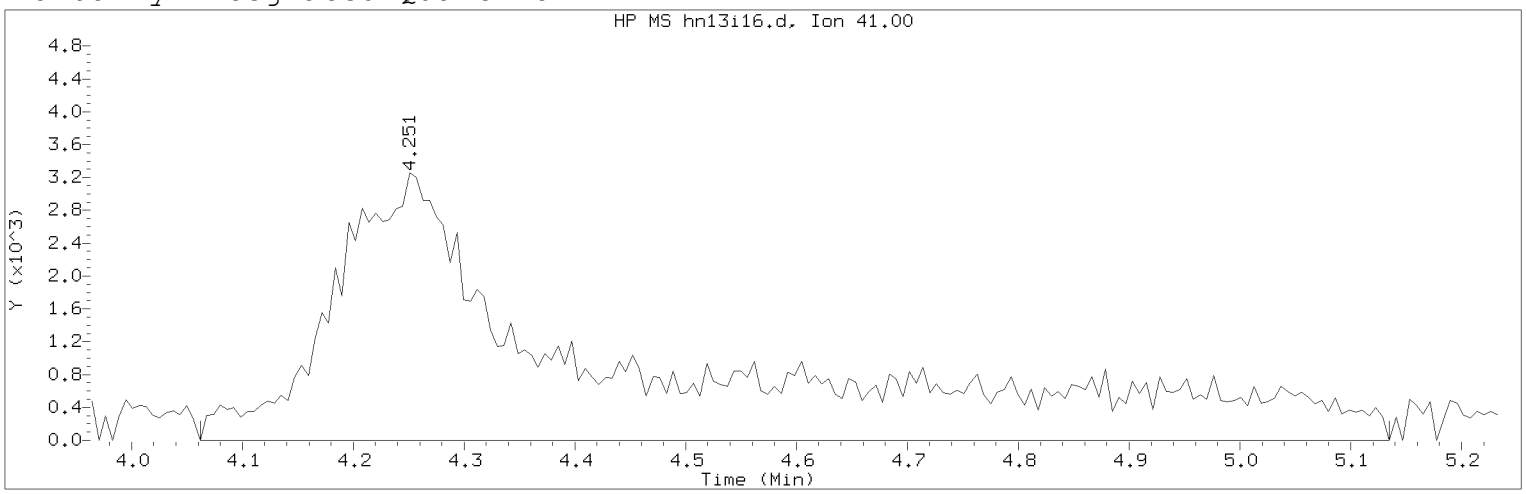
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area : 23858
On-column Amount (ng) : 0.4621
Integration start scan : 84 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 553

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

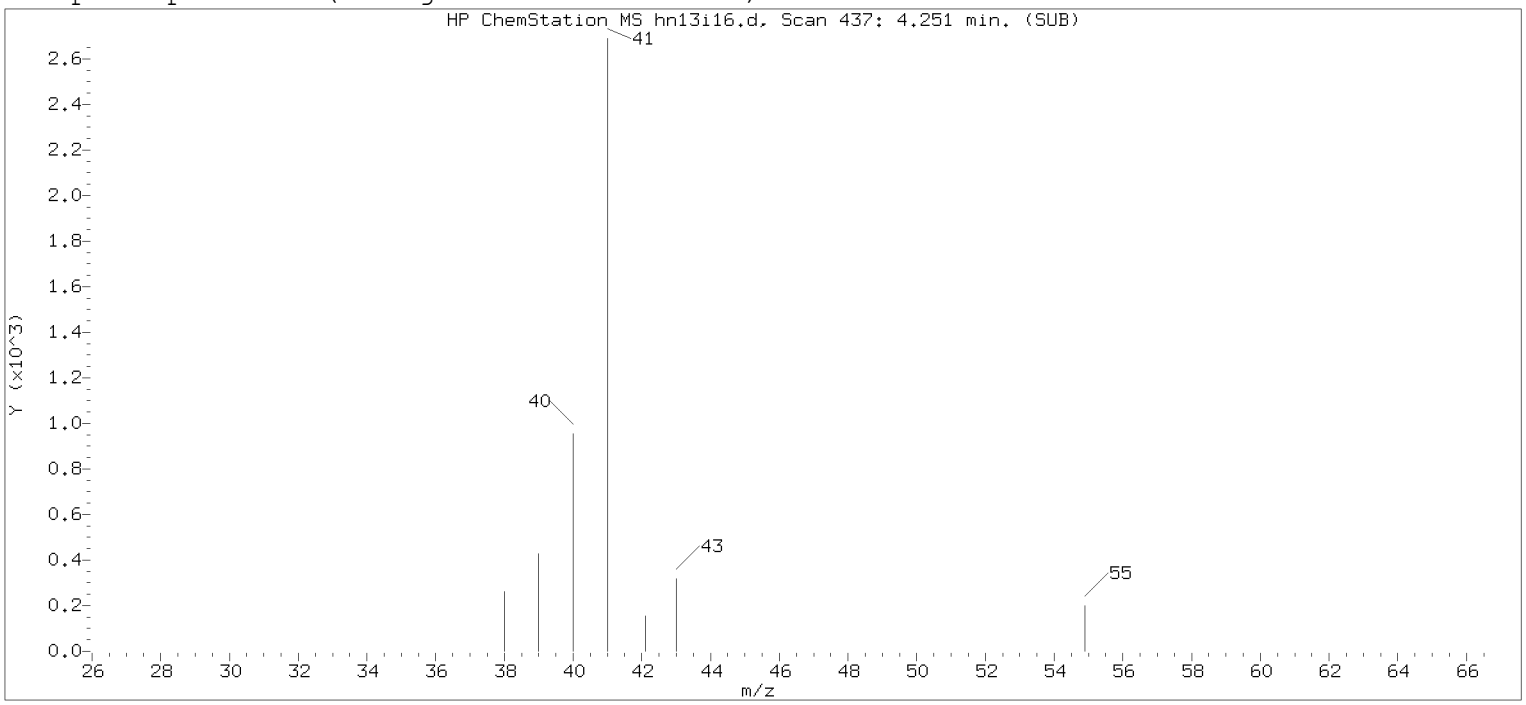
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 437
Retention Time (minutes): 4.251
Quant Ion : 41.00
Area (flag) : 58110M
On-Column Amount (ng) : 23.0021
Integration start scan : 405 Integration stop scan: 581
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

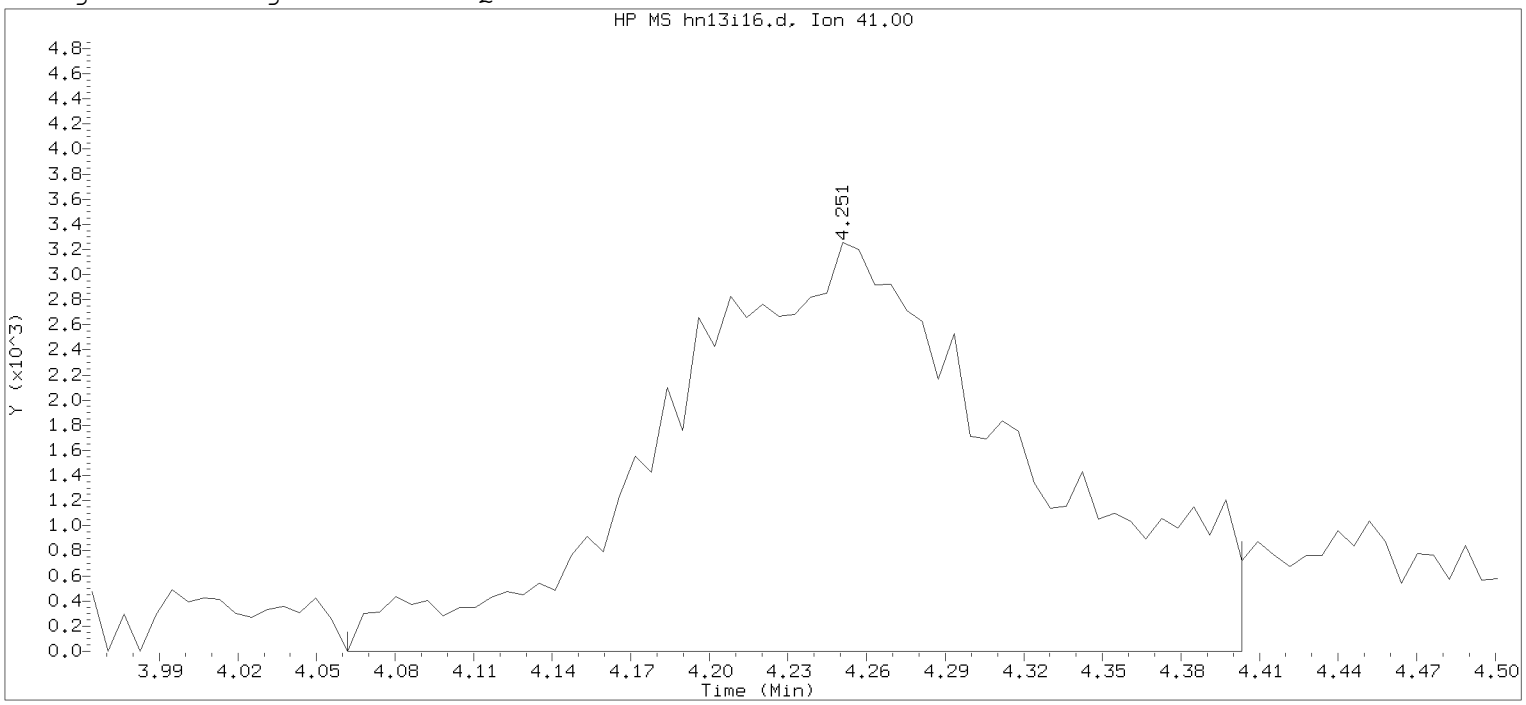
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

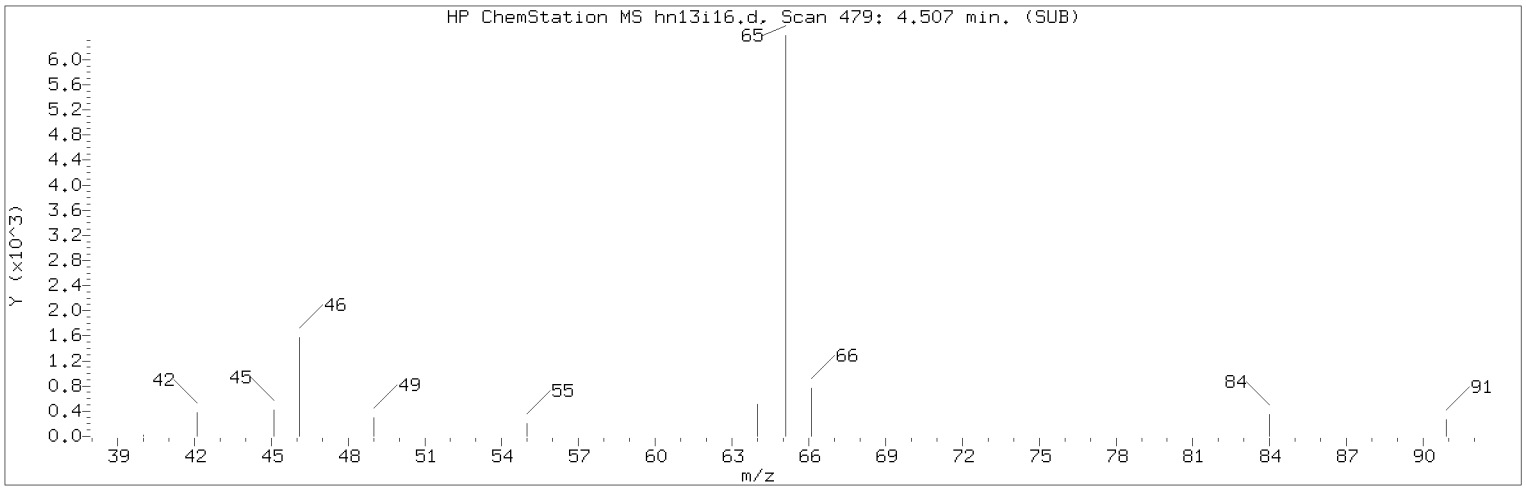
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

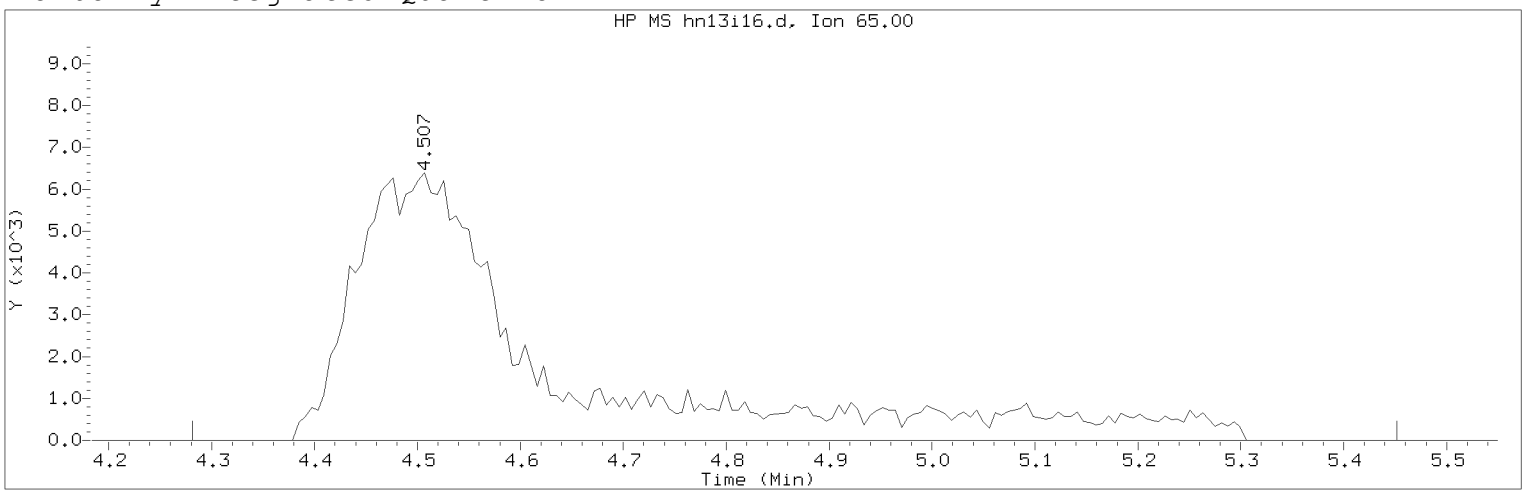
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 437
Retention Time (minutes): 4.251
Quant Ion : 41.00
Area : 30810
On-column Amount (ng) : 22.5320
Integration start scan : 405 Integration stop scan: 461
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 945

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

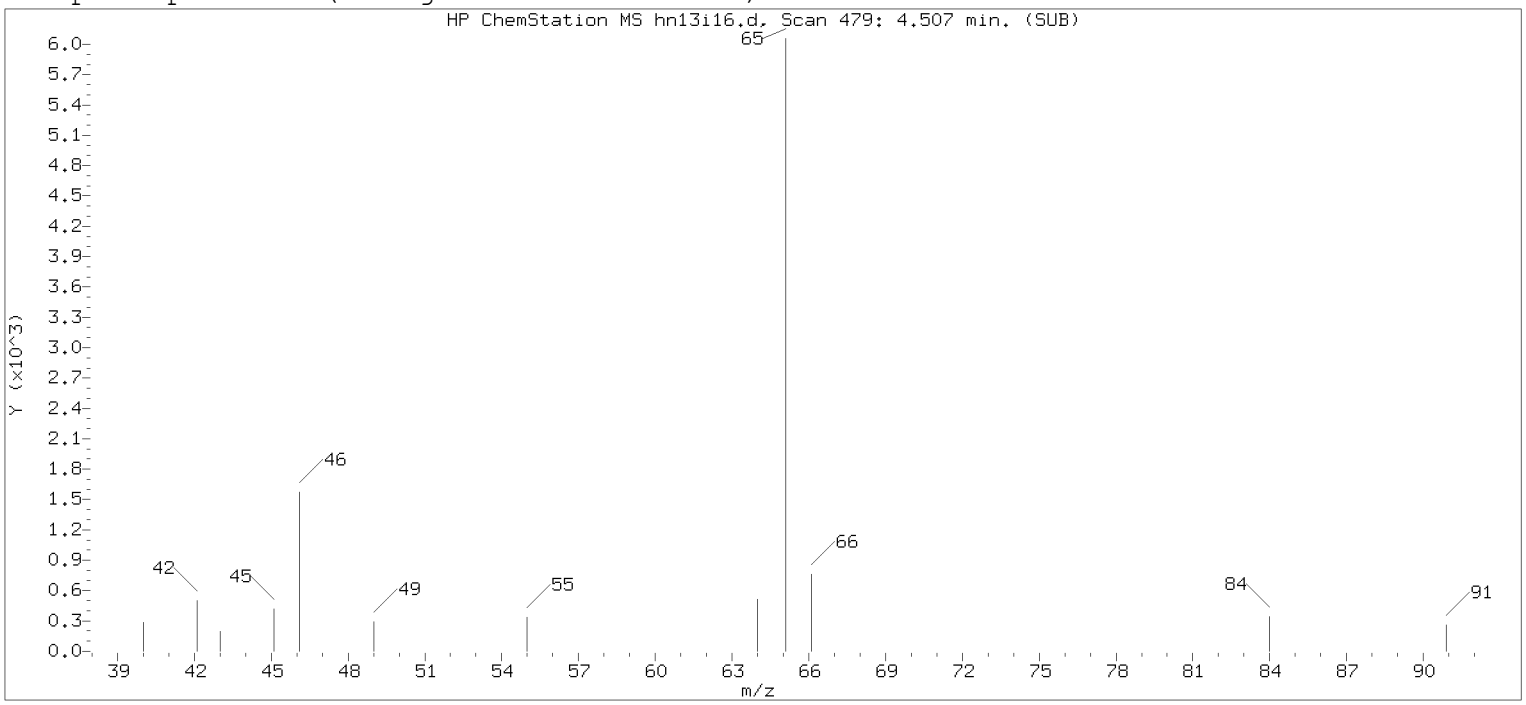
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 479
Retention Time (minutes): 4.507
Quant Ion : 65.00
Area (flag) : 83412M
On-Column Amount (ng) : 50.0000
Integration start scan : 441 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

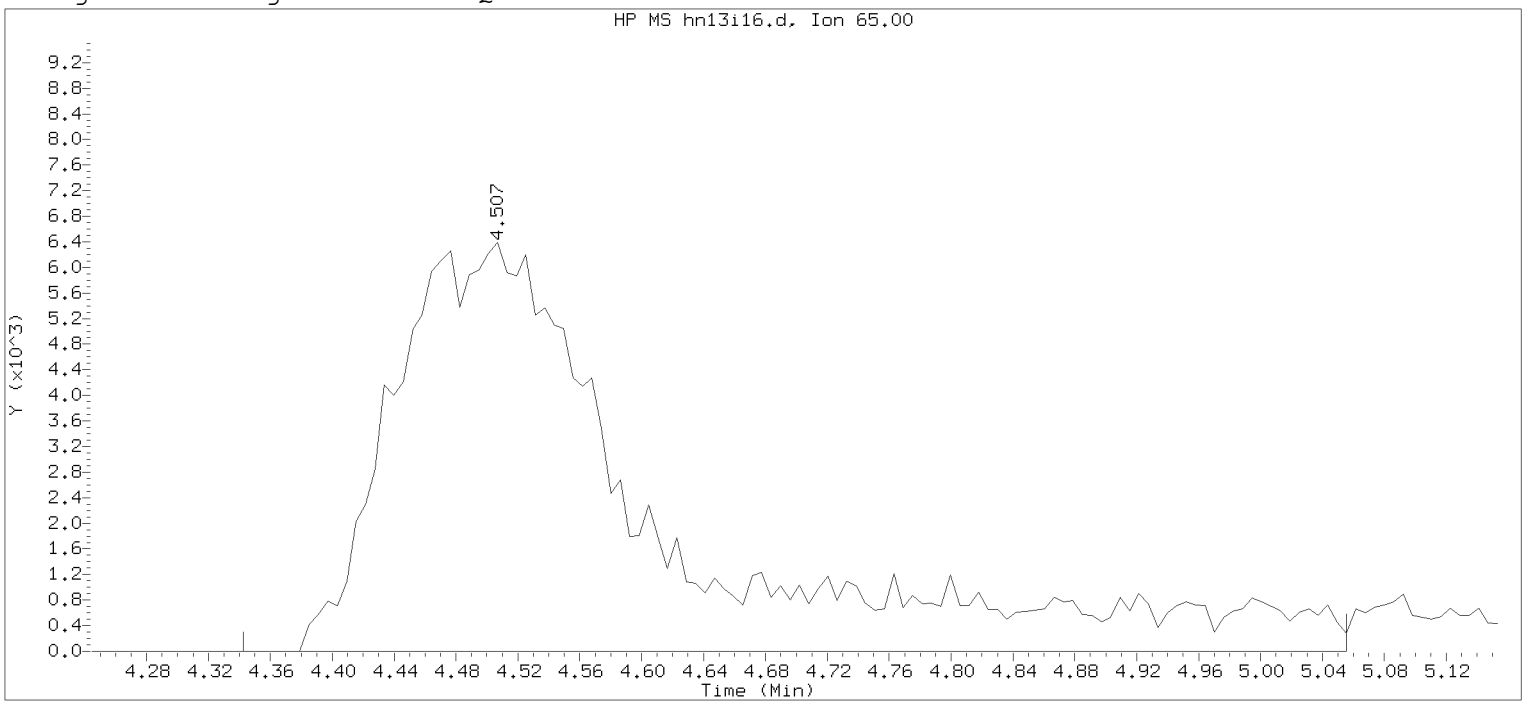
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 479
Retention Time (minutes): 4.507
Quant Ion : 65.00
Area : 75419
On-column Amount (ng) : 50.0000
Integration start scan : 451 Integration stop scan: 568
Y at integration start : 0 Y at integration end: 0

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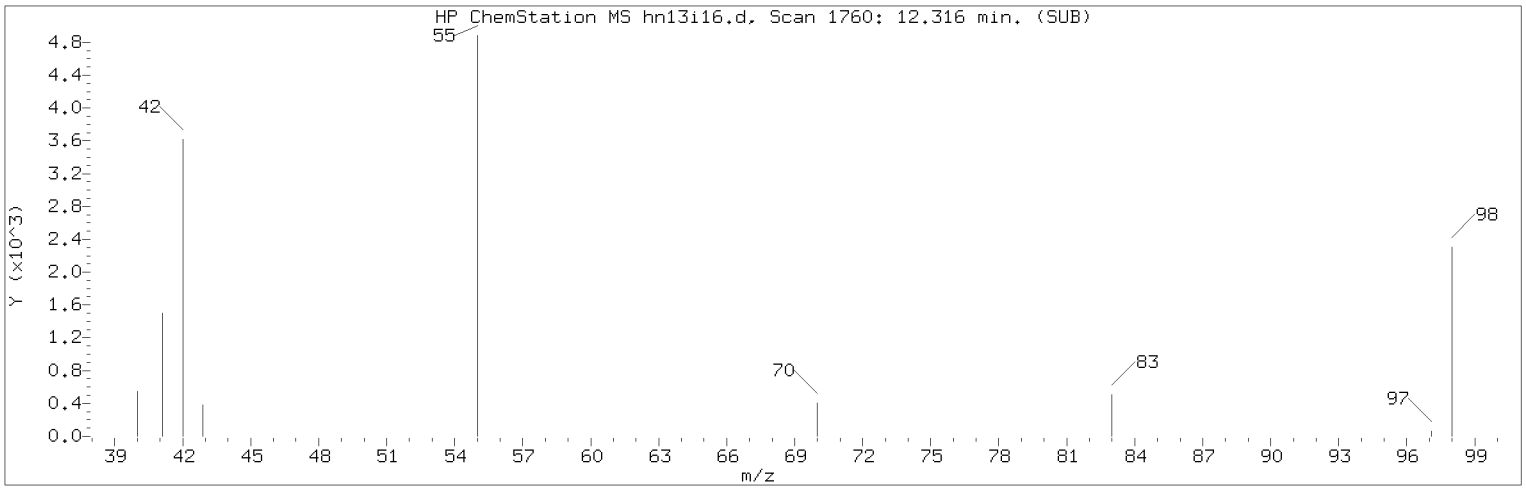
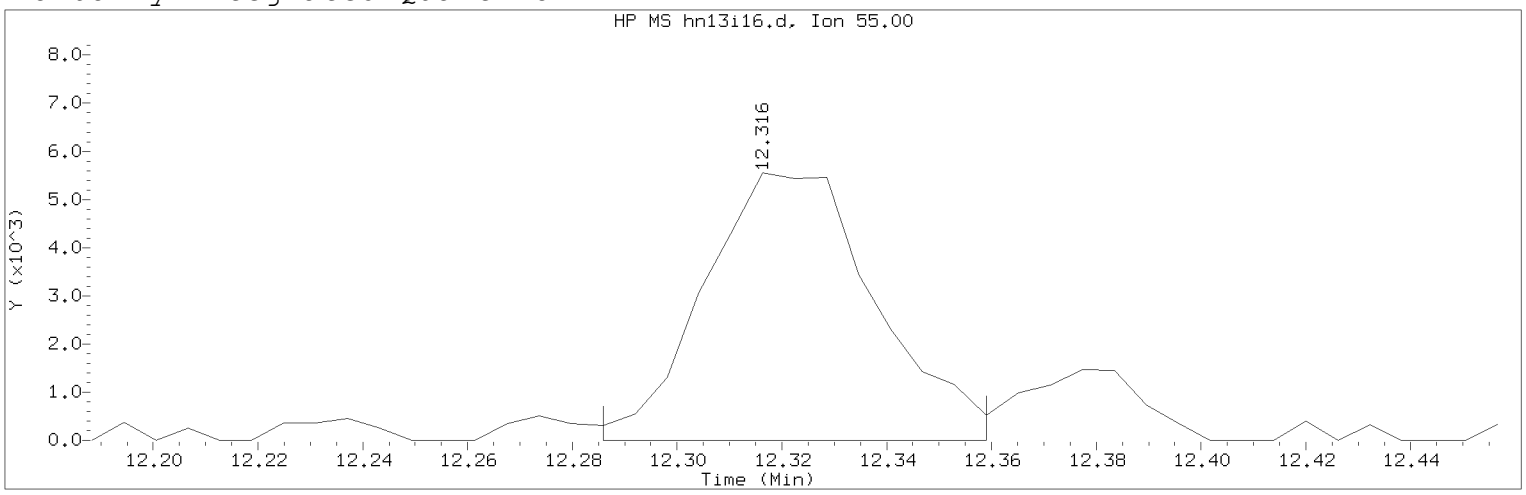
Target 3.5 esignature used. AE35 Page 947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:36 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

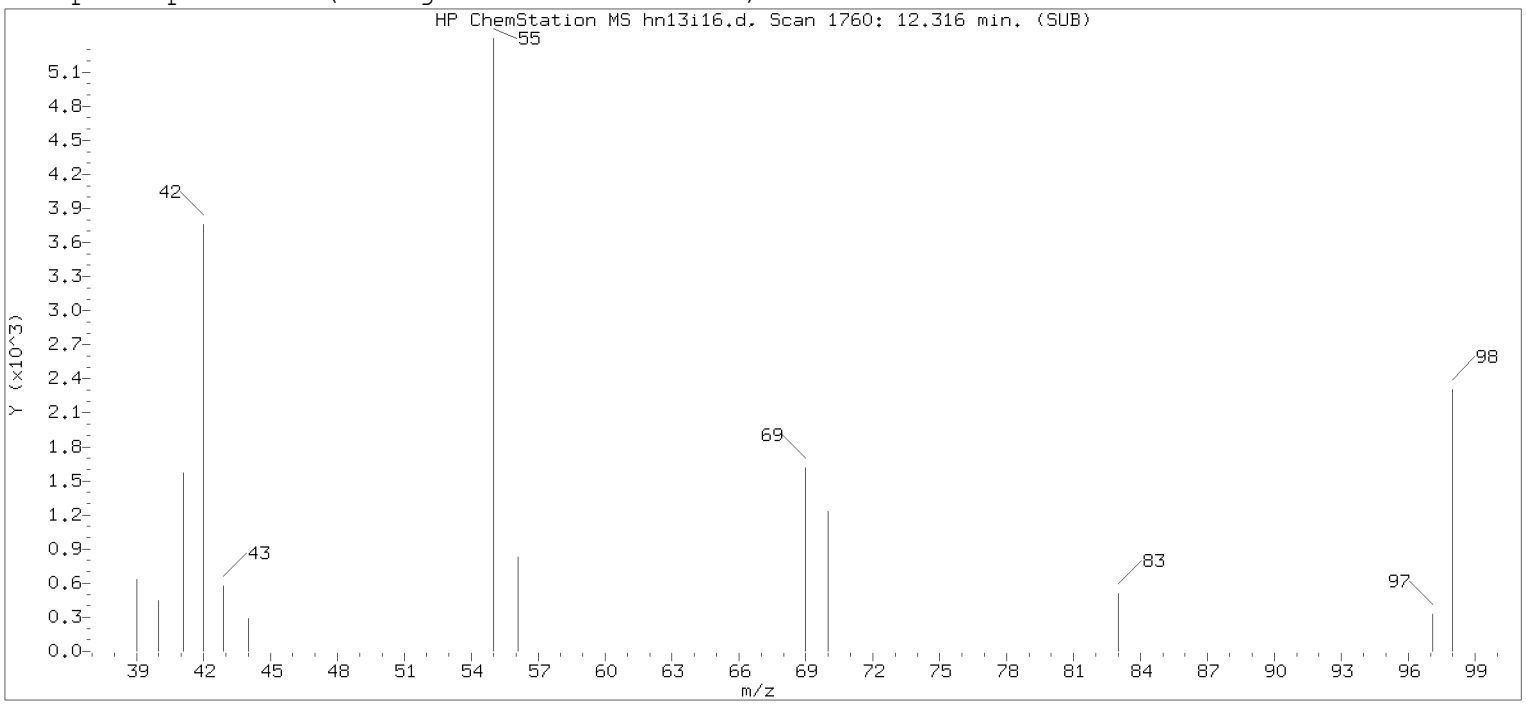
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1760
Retention Time (minutes): 12.316
Quant Ion : 55.00
Area (flag) : 12725M
On-Column Amount (ng) : 23.9534
Integration start scan : 1754 Integration stop scan: 1766
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

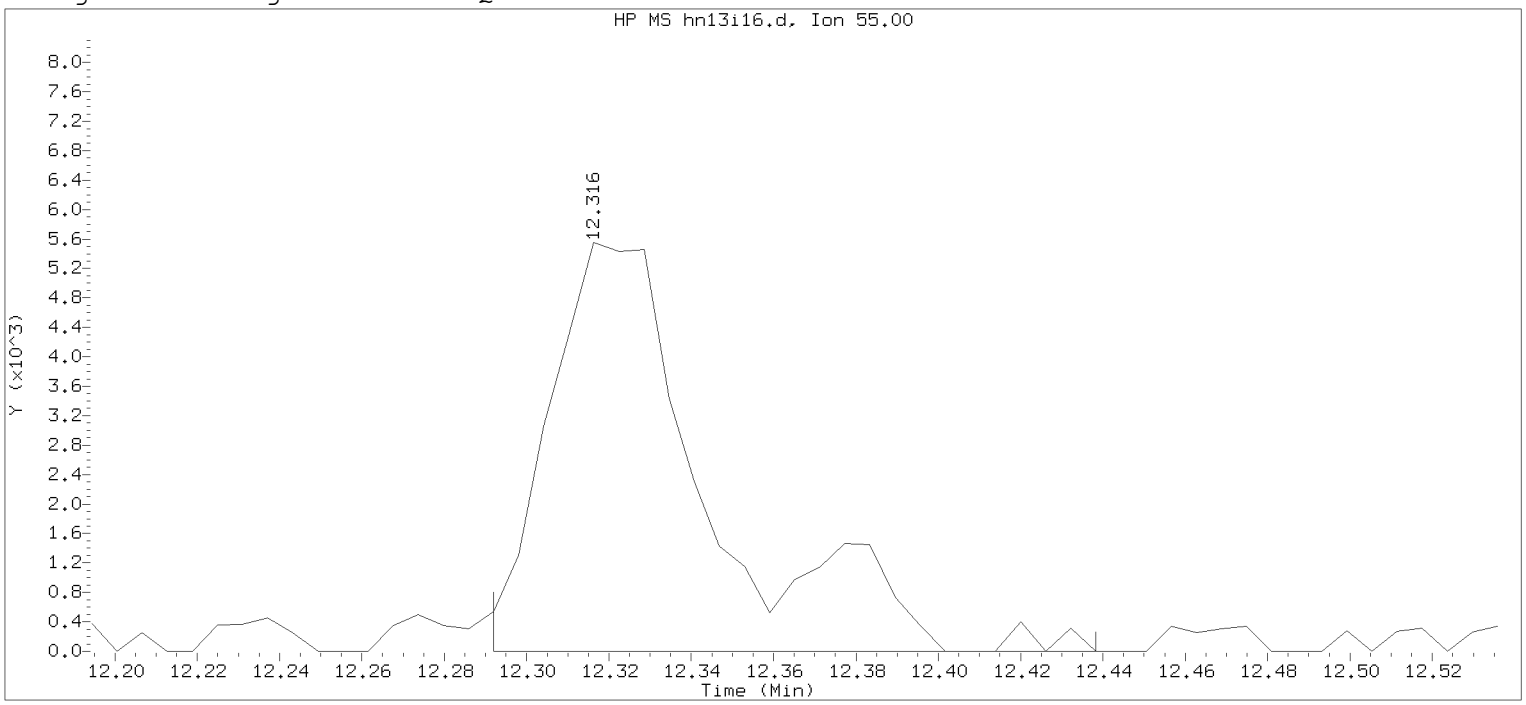
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



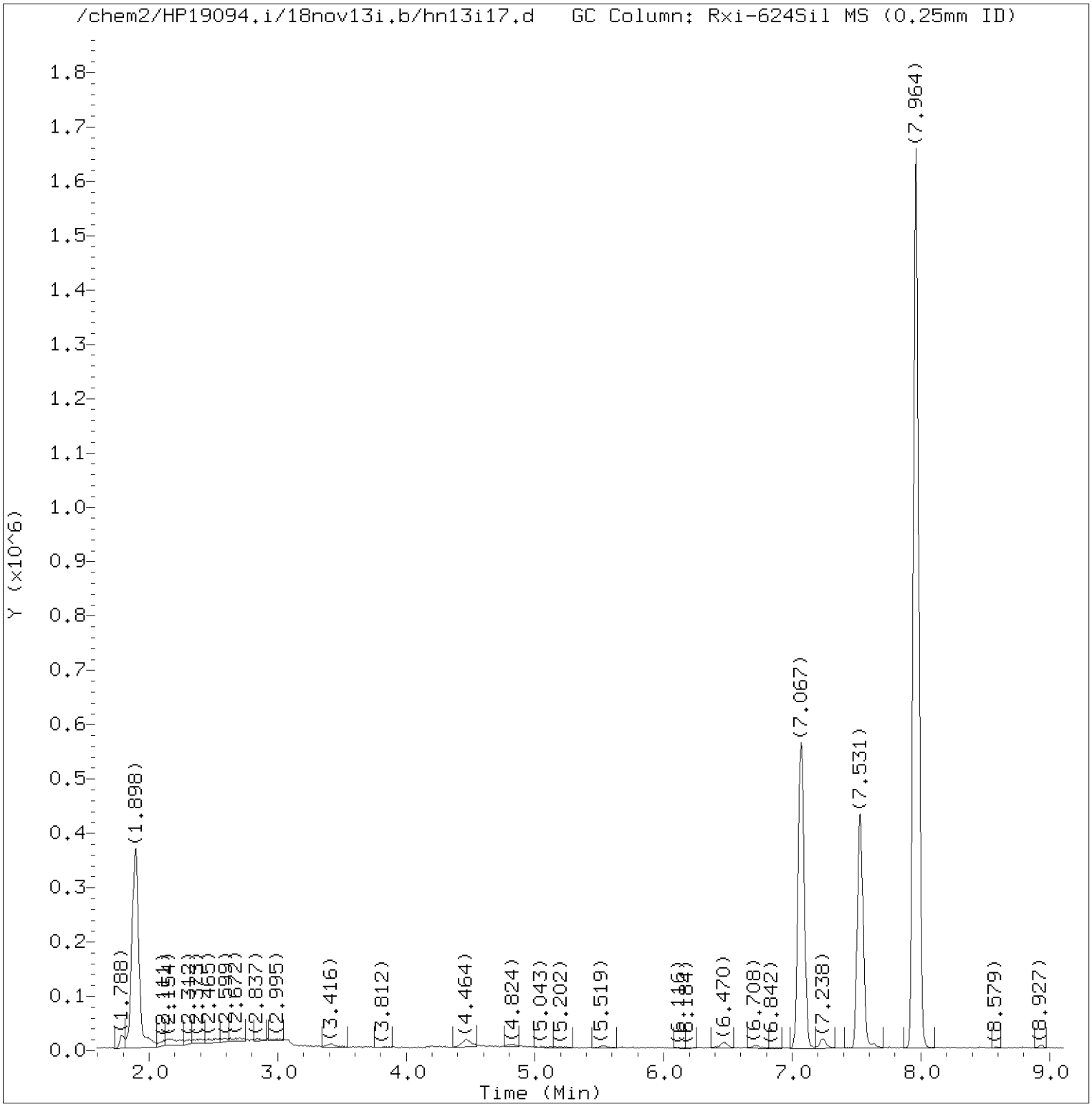
Data File: /chem2/HP19094.i/18nov13i.b/hn13i16.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1760
Retention Time (minutes): 12.316
Quant Ion : 55.00
Area : 15016
On-column Amount (ng) : 33.1452
Integration start scan : 1755 Integration stop scan: 1779
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 949 of 2326



Total Ion Chromatogram (TIC)

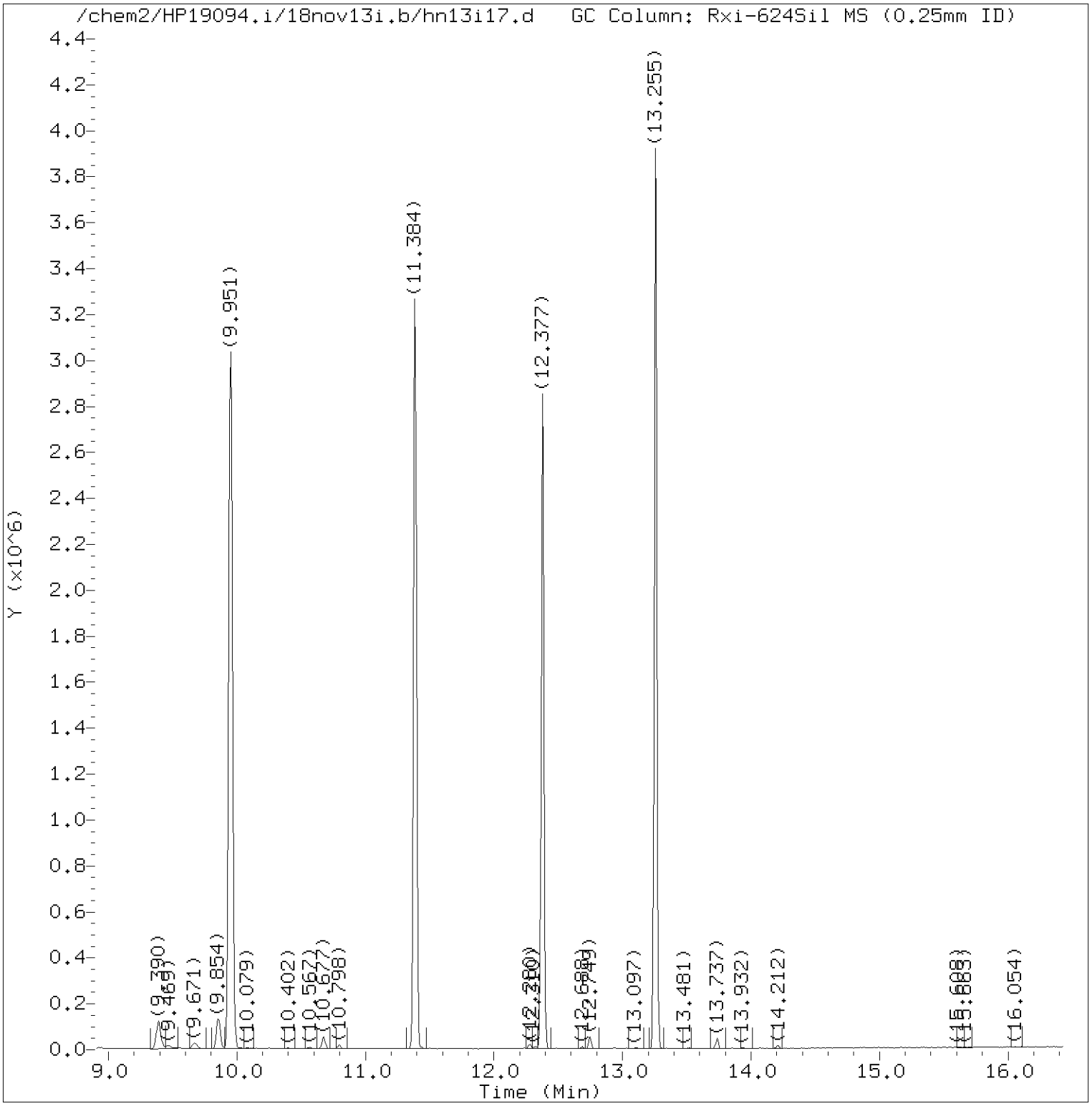
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:41 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:41 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:41 jkh09052

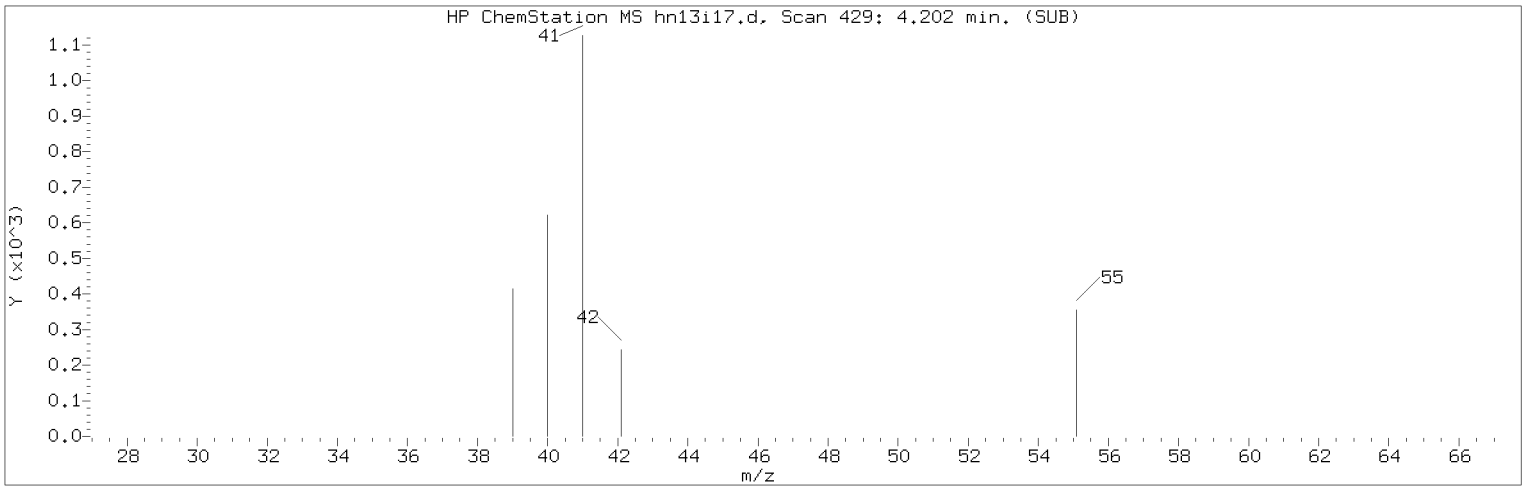
Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.148	45	14829	0.248
25) Acetonitrile	(1)	4.202	41	30436M	12.857
26)*t-Butyl Alcohol-d10	(1)	4.470	65	83171M	50.000
36) Vinyl Acetate	(2)	5.519	43	17267	0.247
43) Methyl Acrylate	(2)	6.482	55	23658	1.061
53) 1-Chlorobutane	(2)	7.244	56	22216	0.208
63)*Fluorobenzene	(2)	7.964	96	2339232	10.000
77) Chloroacetonitrile	(2)	9.463	75	8329	9.360
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	3552	0.183
97)*Chlorobenzene-d5	(3)	11.384	117	1845320	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	4153	0.408
112) Cyclohexanone	(1)	12.323	55	6433MA	12.145
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	976473	10.000
142) Hexachloroethane	(4)	13.737	117	8229	0.194

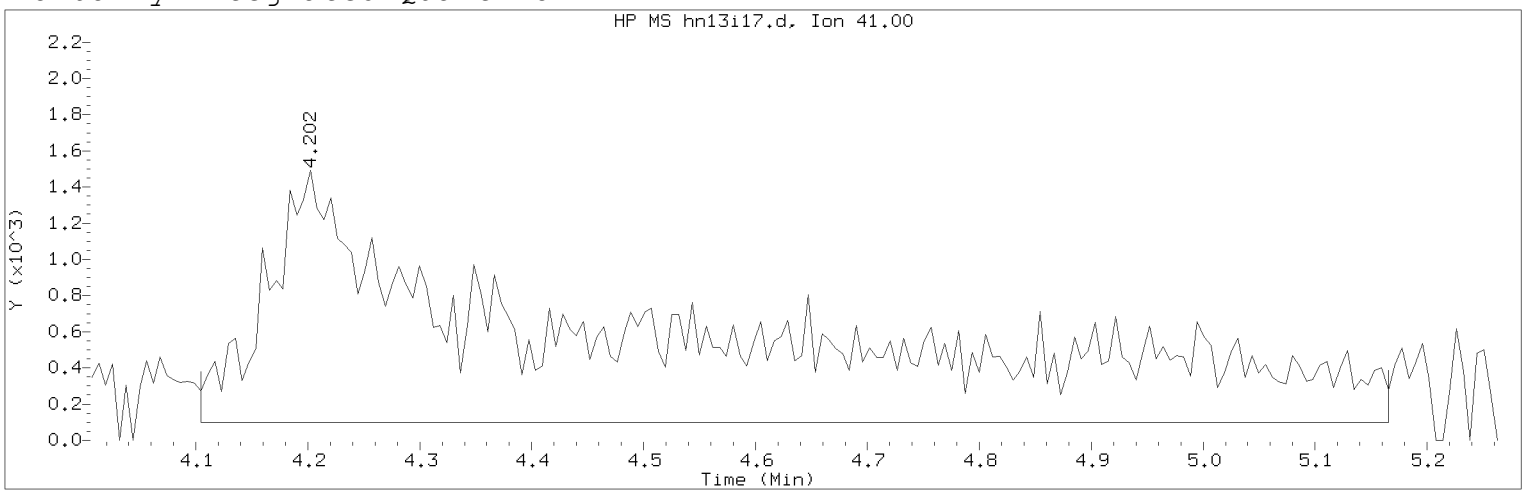
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:41 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

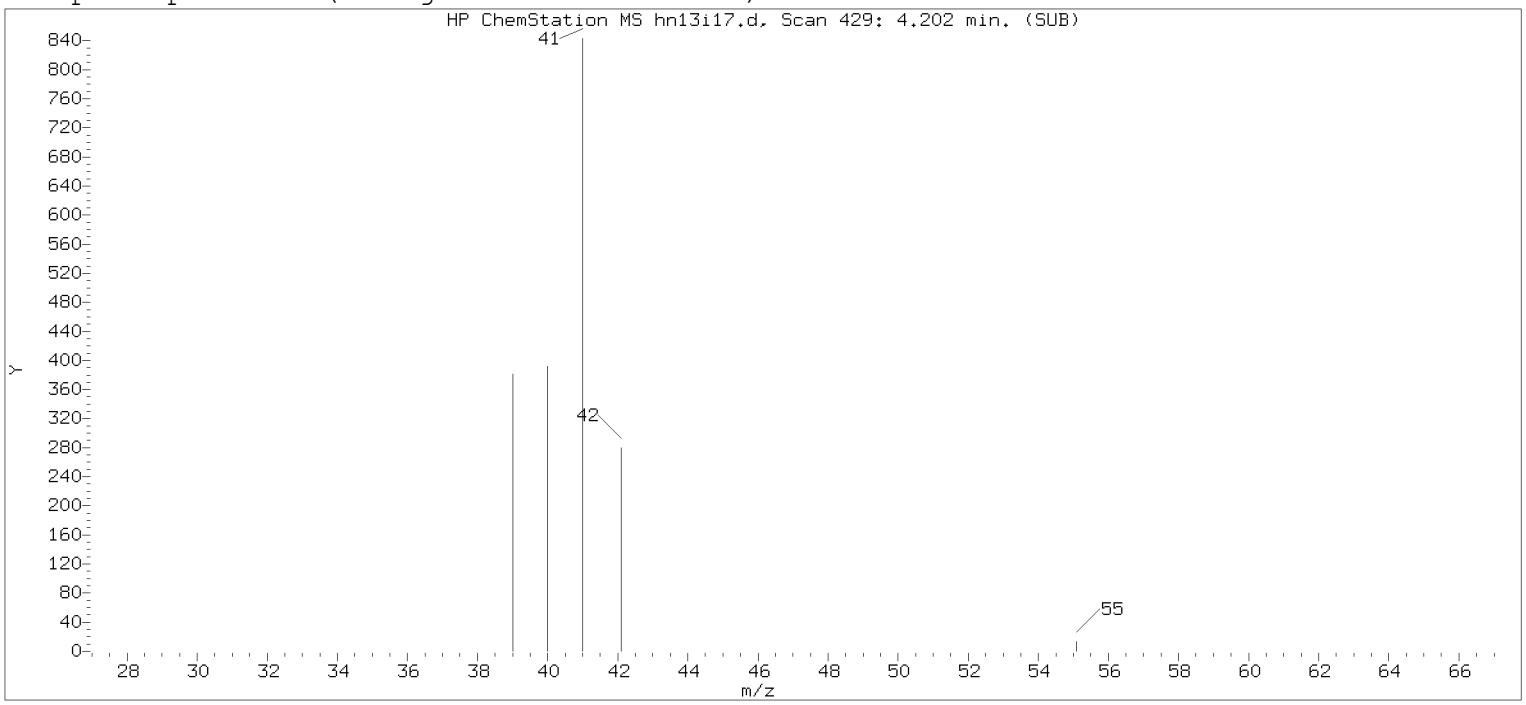
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 429
Retention Time (minutes): 4.202
Quant Ion : 41.00
Area (flag) : 30436M
On-Column Amount (ng) : 12.8572
Integration start scan : 412 Integration stop scan: 586
Y at integration start : 100 Y at integration end: 100

Reason for manual integration: improper integration

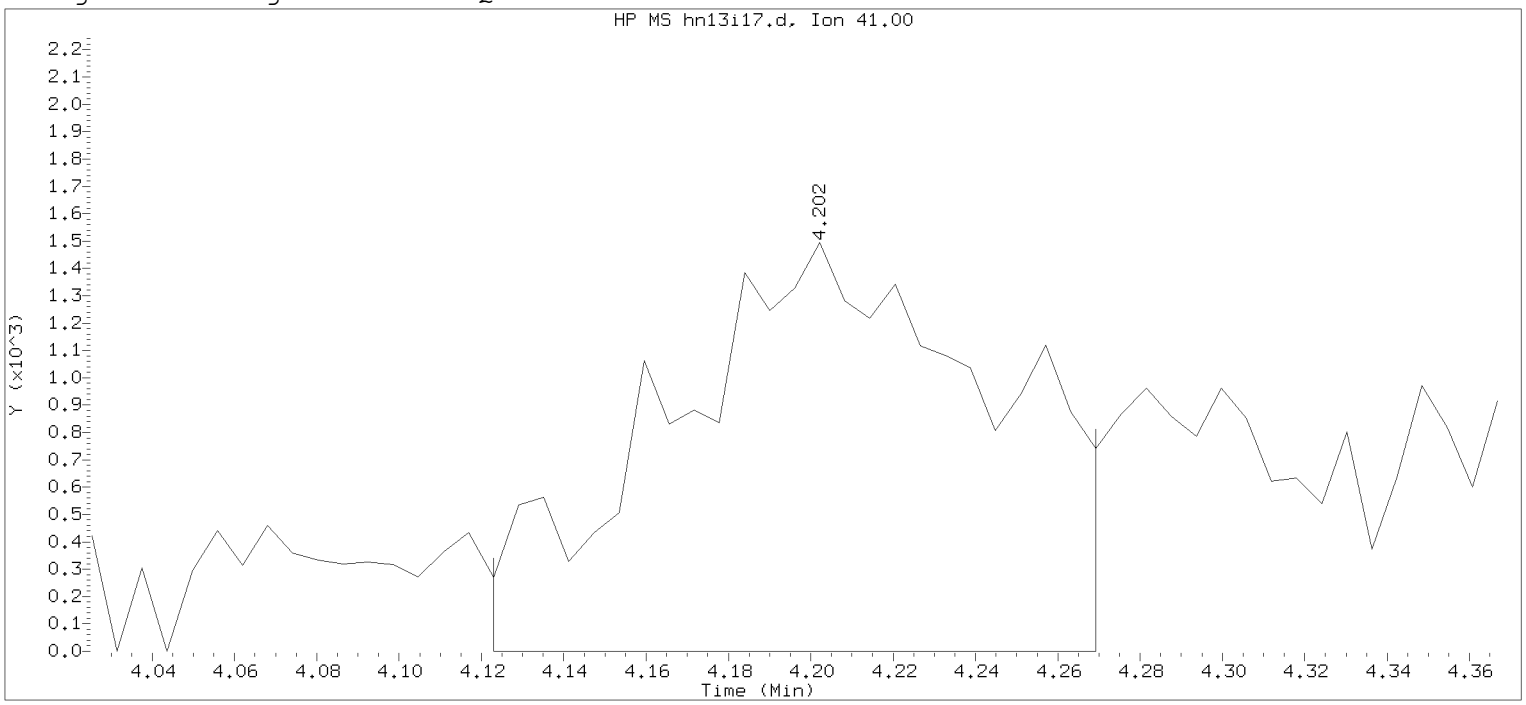
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

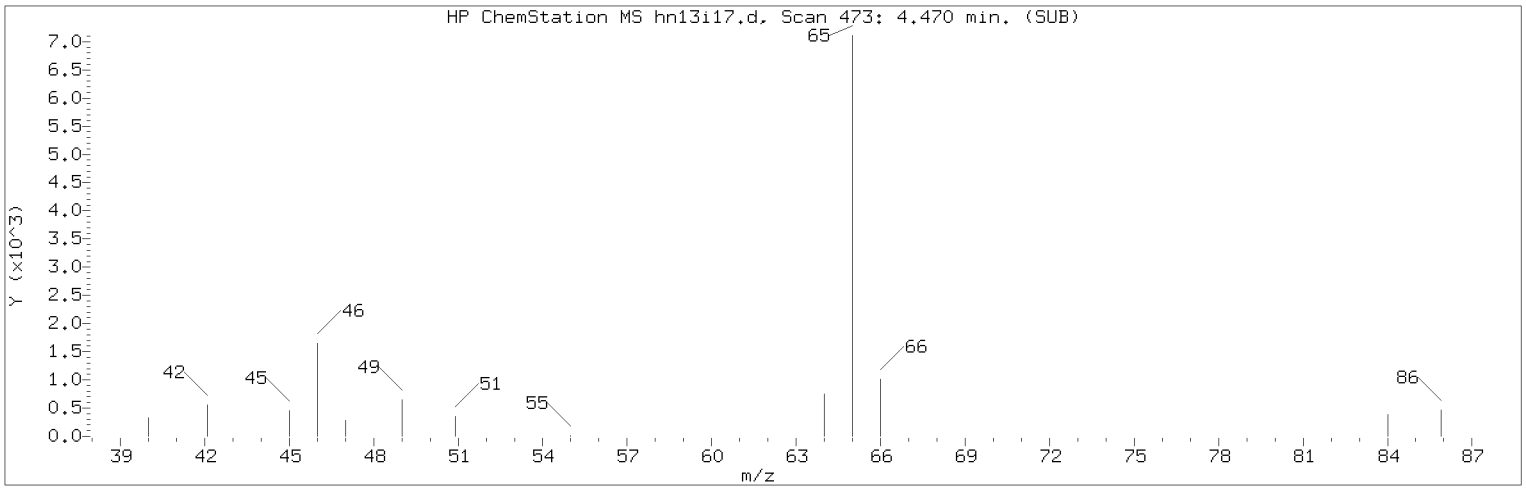
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

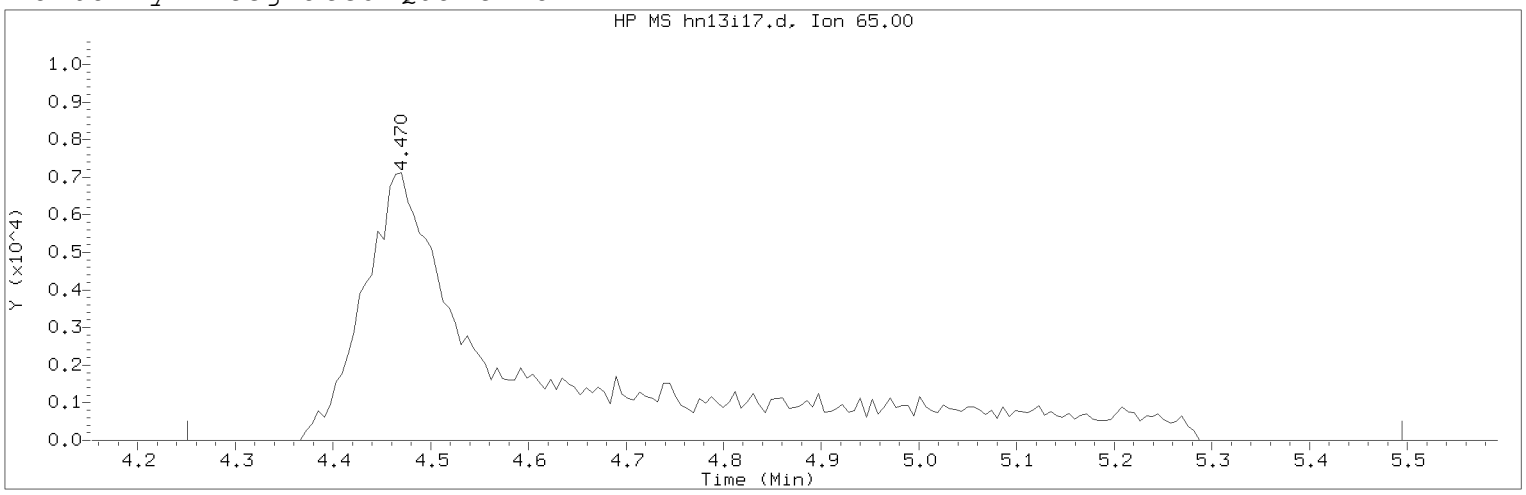
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 429
Retention Time (minutes): 4.202
Quant Ion : 41.00
Area : 8326
On-column Amount (ng) : 5.8237
Integration start scan : 415 Integration stop scan: 439
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:41 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

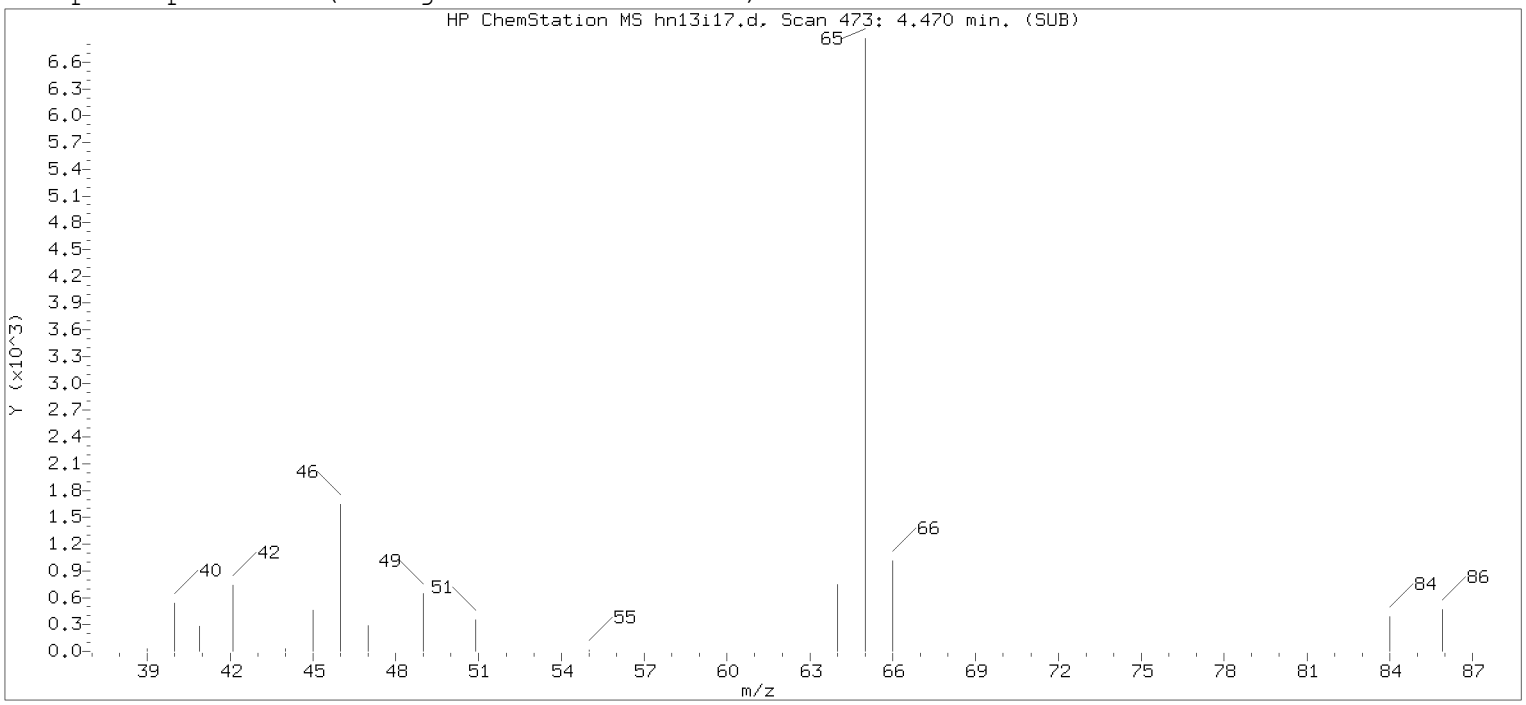
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area (flag) : 83171M
On-Column Amount (ng) : 50.0000
Integration start scan : 436 Integration stop scan: 640
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

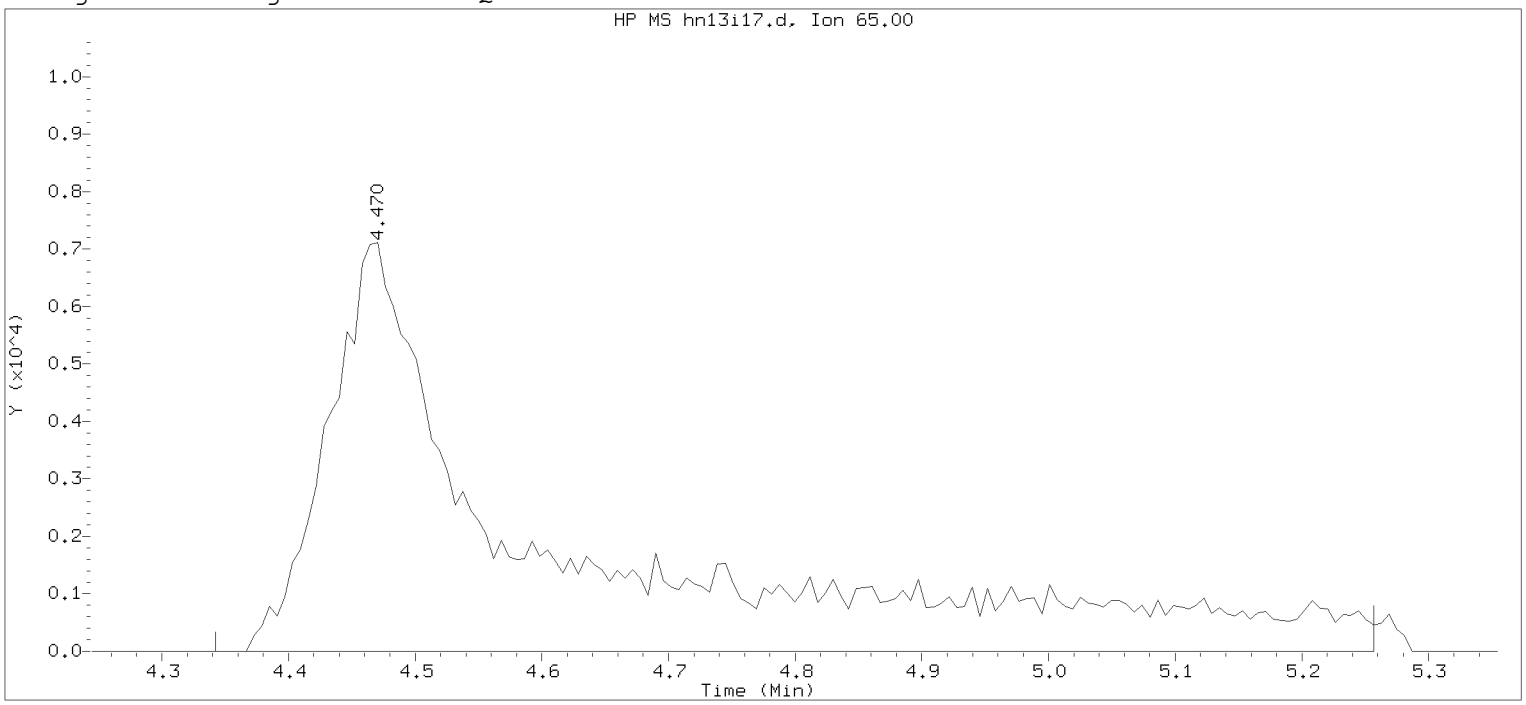
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

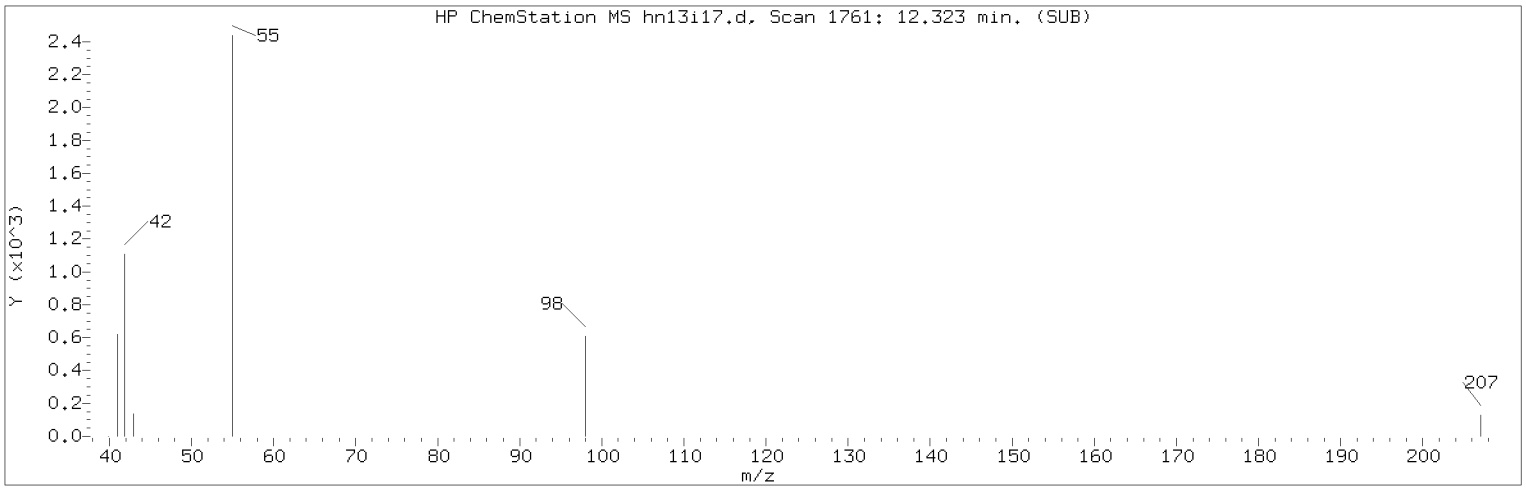
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

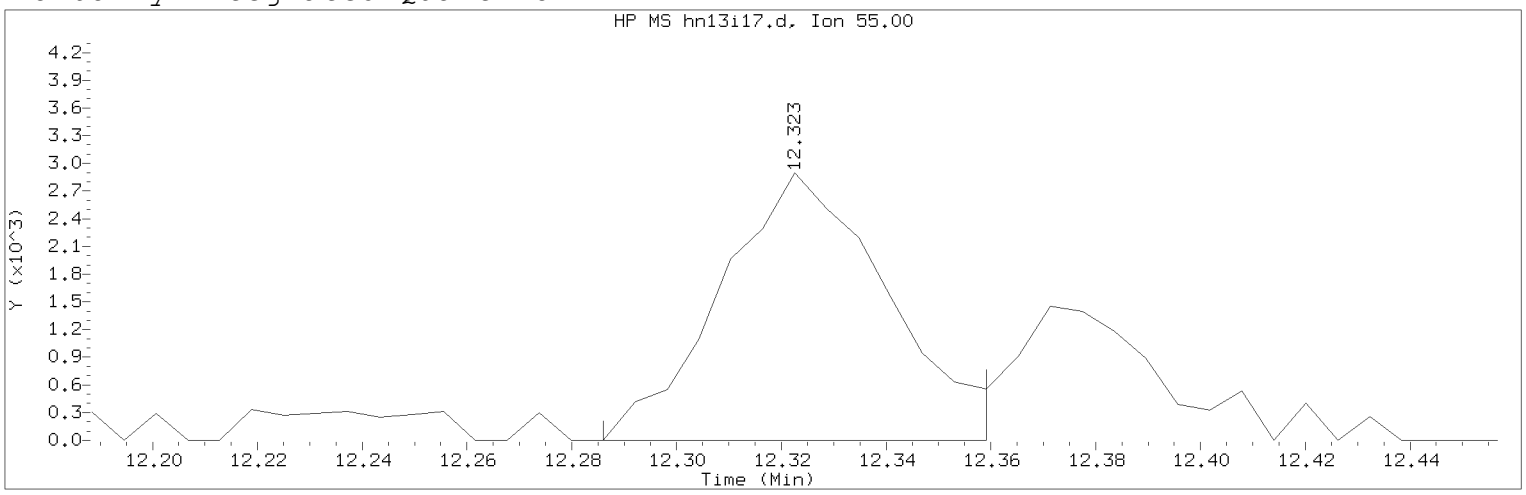
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area : 82434
On-column Amount (ng) : 50.0000
Integration start scan : 451 Integration stop scan: 601
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 956 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:36
Date, time and analyst ID of latest file update: 13-Nov-2018 16:41 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

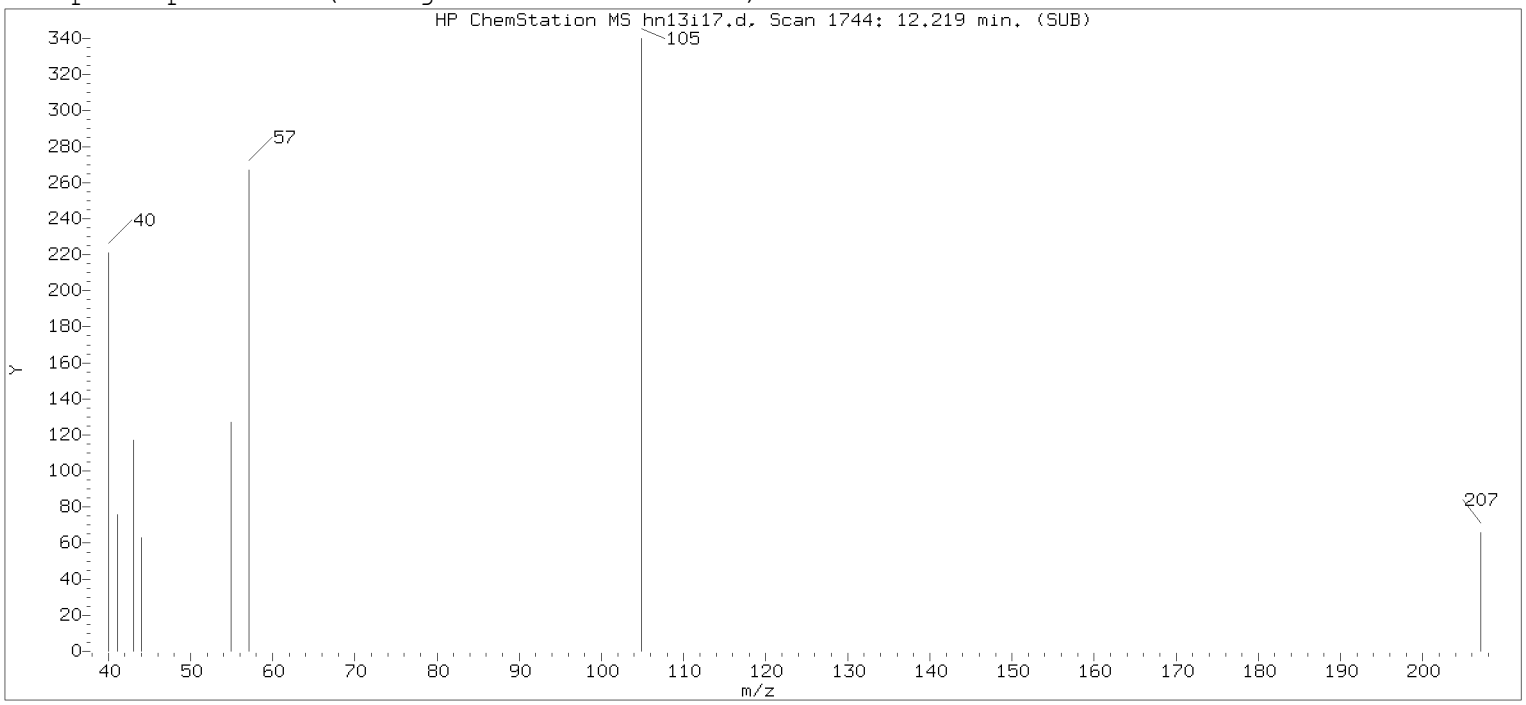
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.323
Quant Ion : 55.00
Area (flag) : 6433MA
On-Column Amount (ng) : 12.1445
Integration start scan : 1754 Integration stop scan: 1766
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

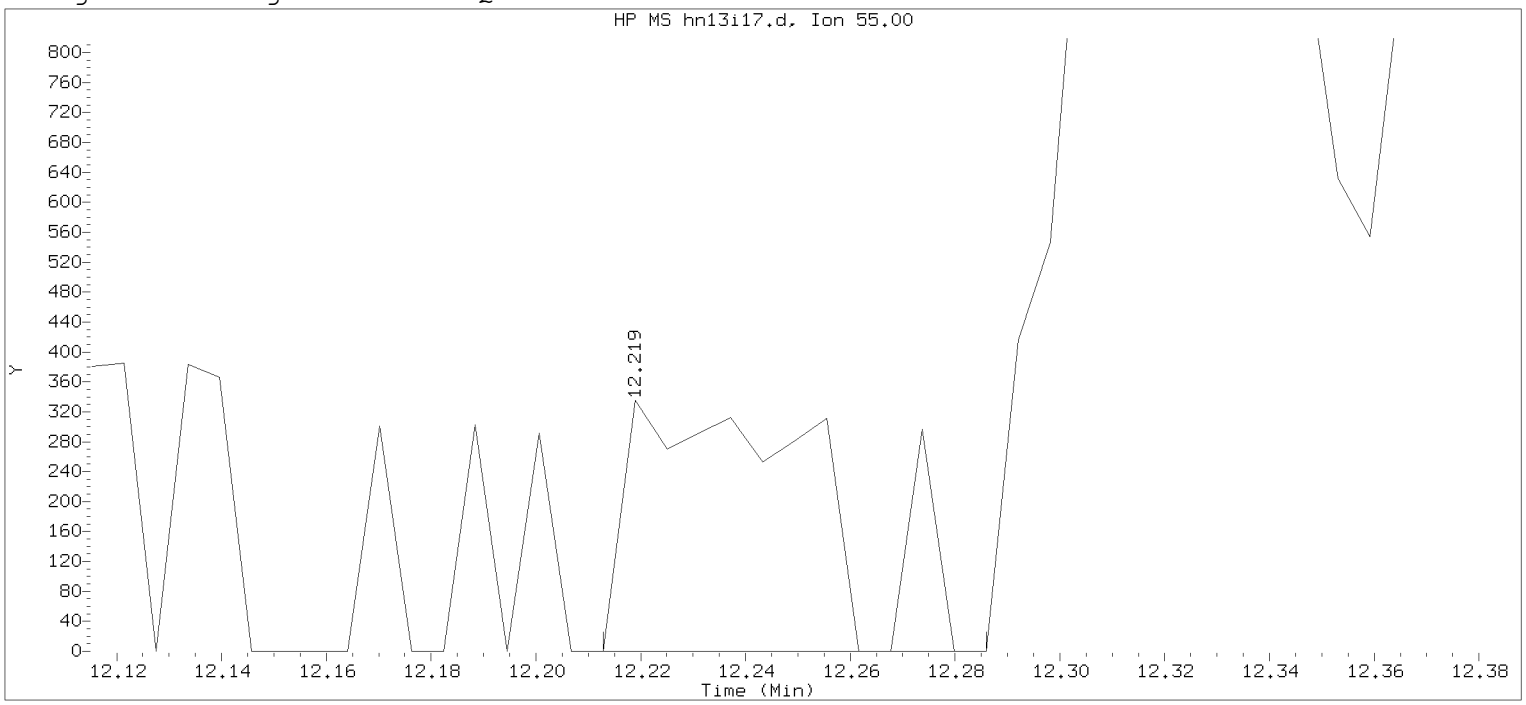
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 16:51.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:18.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



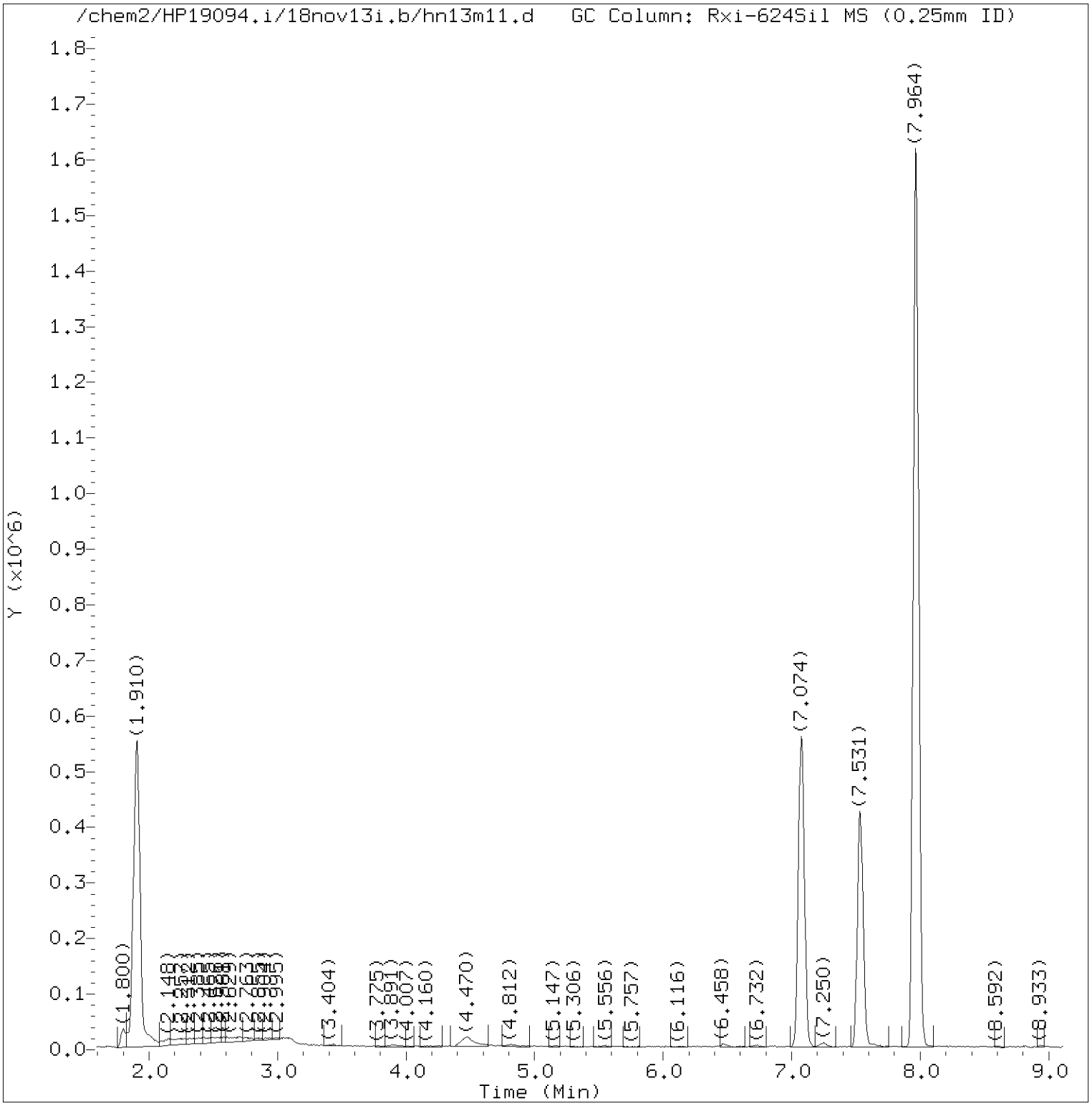
Data File: /chem2/HP19094.i/18nov13i.b/hn13i17.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 14:41 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 13-NOV-2018 16:27
Date, time and analyst ID of latest file update: 13-Nov-2018 16:27 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1744
Retention Time (minutes): 12.219
Quant Ion : 55.00
Area : 859
On-column Amount (ng) : 1.9691
Integration start scan : 1742 Integration stop scan: 1754
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 16:51.
Target 3.5 esignature used. AE35 Page 958 of 2326



Total Ion Chromatogram (TIC)

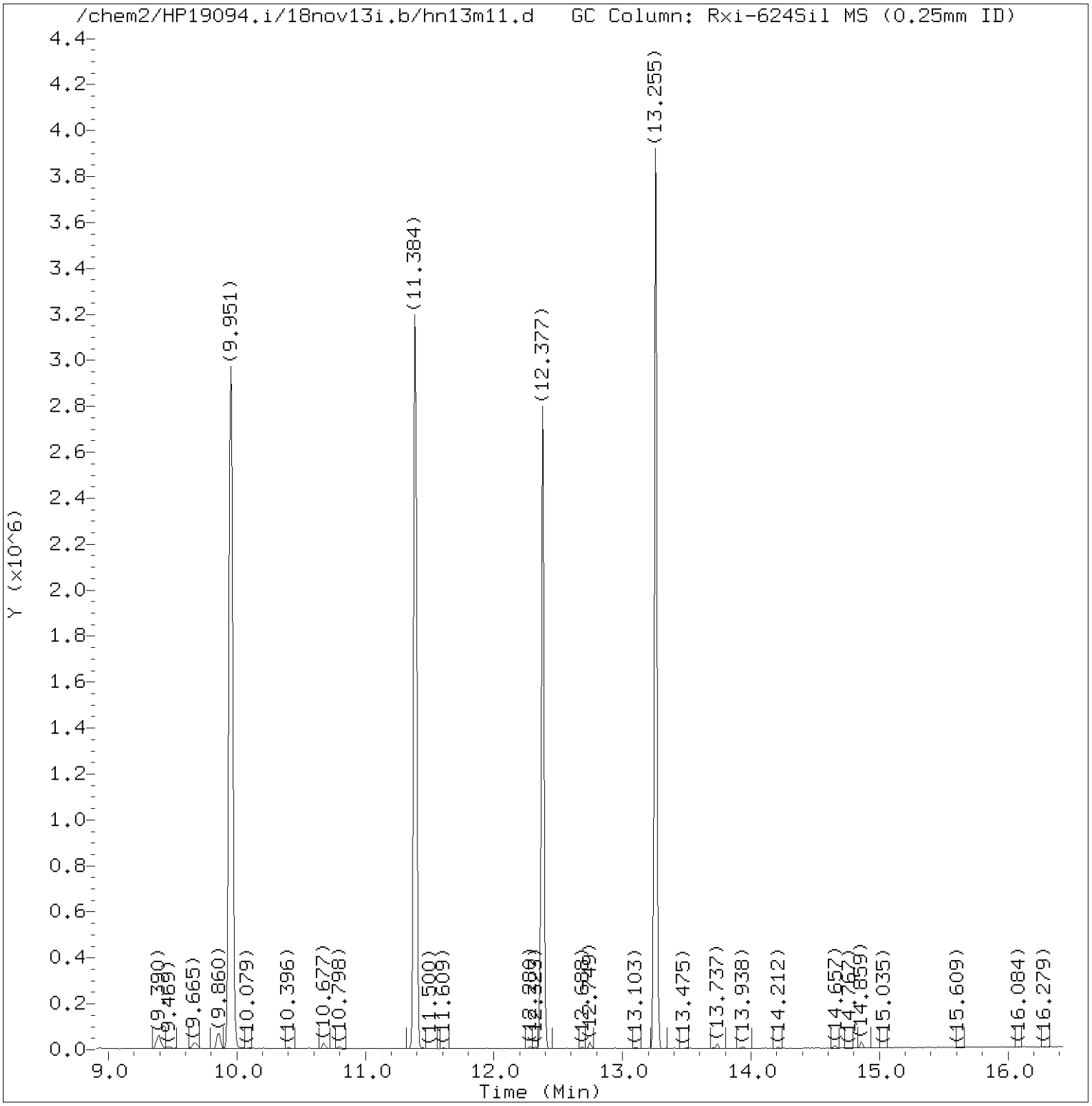
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:03 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:03 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:03 jkh09052

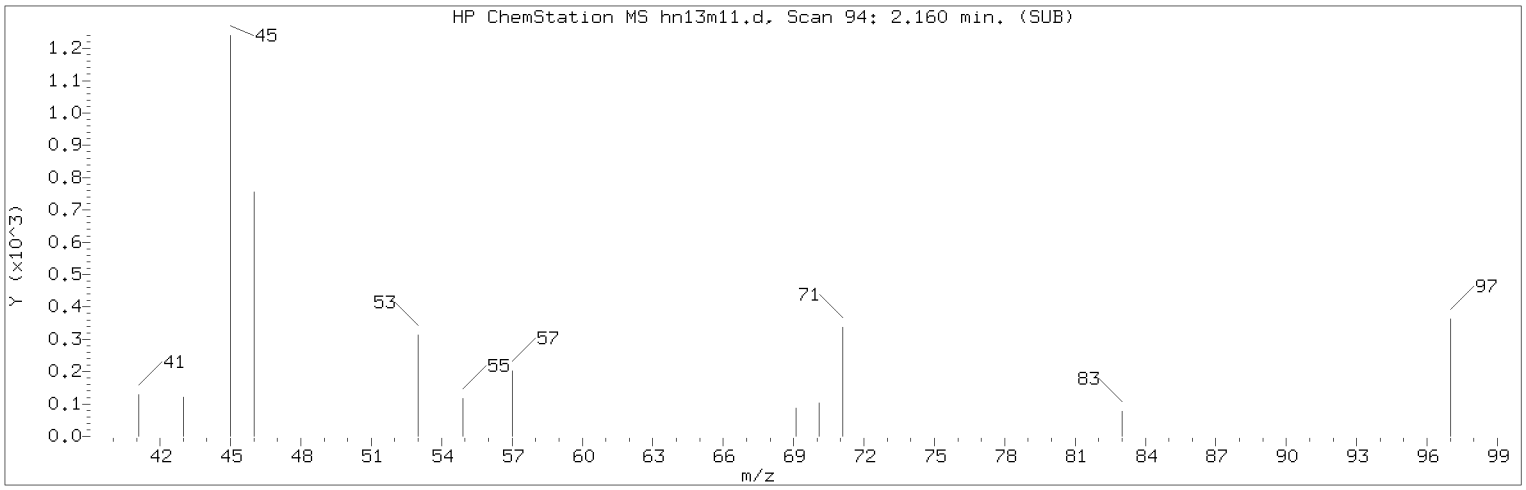
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	7757M	0.130
25) Acetonitrile	(1)	4.233	41	25886M	1.327
26)*t-Butyl Alcohol-d10	(1)	4.489	65	92454M	50.000
36) Vinyl Acetate	(2)	5.556	43	11356	0.163
43) Methyl Acrylate	(2)	6.464	55	14103	0.635
50)$Dibromofluoromethane	(2)	7.074	113	577665	9.910
53) 1-Chlorobutane	(2)	7.250	56	9694	0.091
57)$1,2-Dichloroethane-d4	(2)	7.537	102	102816	10.050
63)*Fluorobenzene	(2)	7.964	96	2329850	10.000
77) Chloroacetonitrile	(2)	9.469	75	3567	4.025
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	1993	0.103
82)$Toluene-d8	(3)	9.951	98	2384492	10.023
97)*Chlorobenzene-d5	(3)	11.384	117	1839188	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	1702	0.151
112) Cyclohexanone	(1)	12.323	55	3726	6.328
111)$4-Bromofluorobenzene	(3)	12.377	95	899629	10.027
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	988709	10.000
142) Hexachloroethane	(4)	13.743	117	3497	0.082

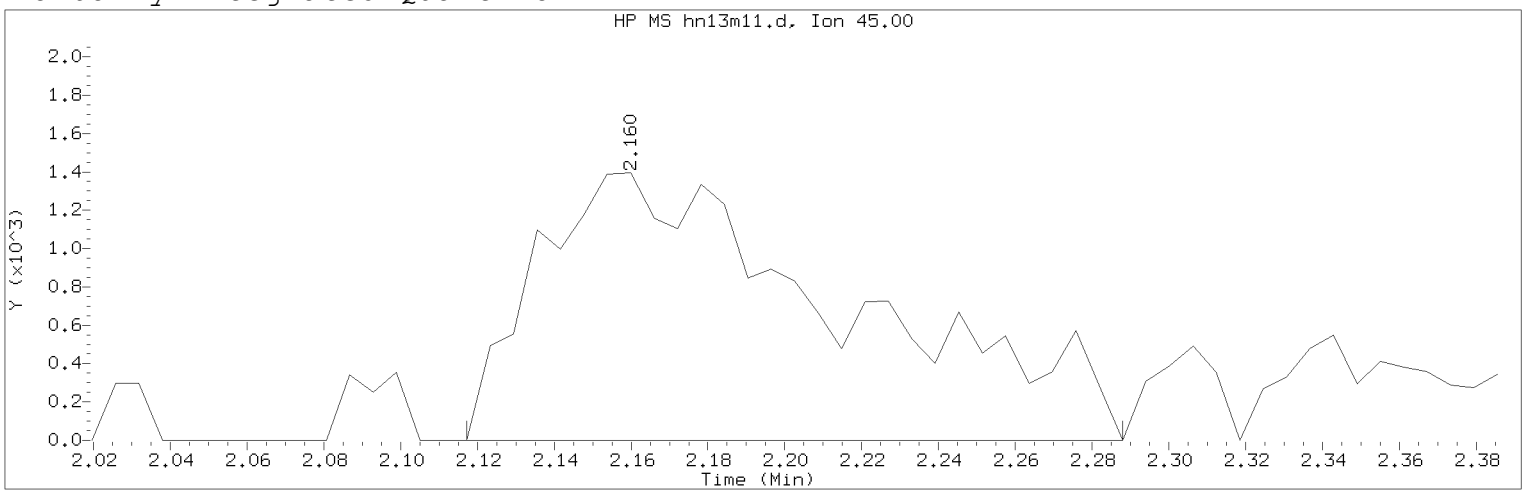
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:03 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

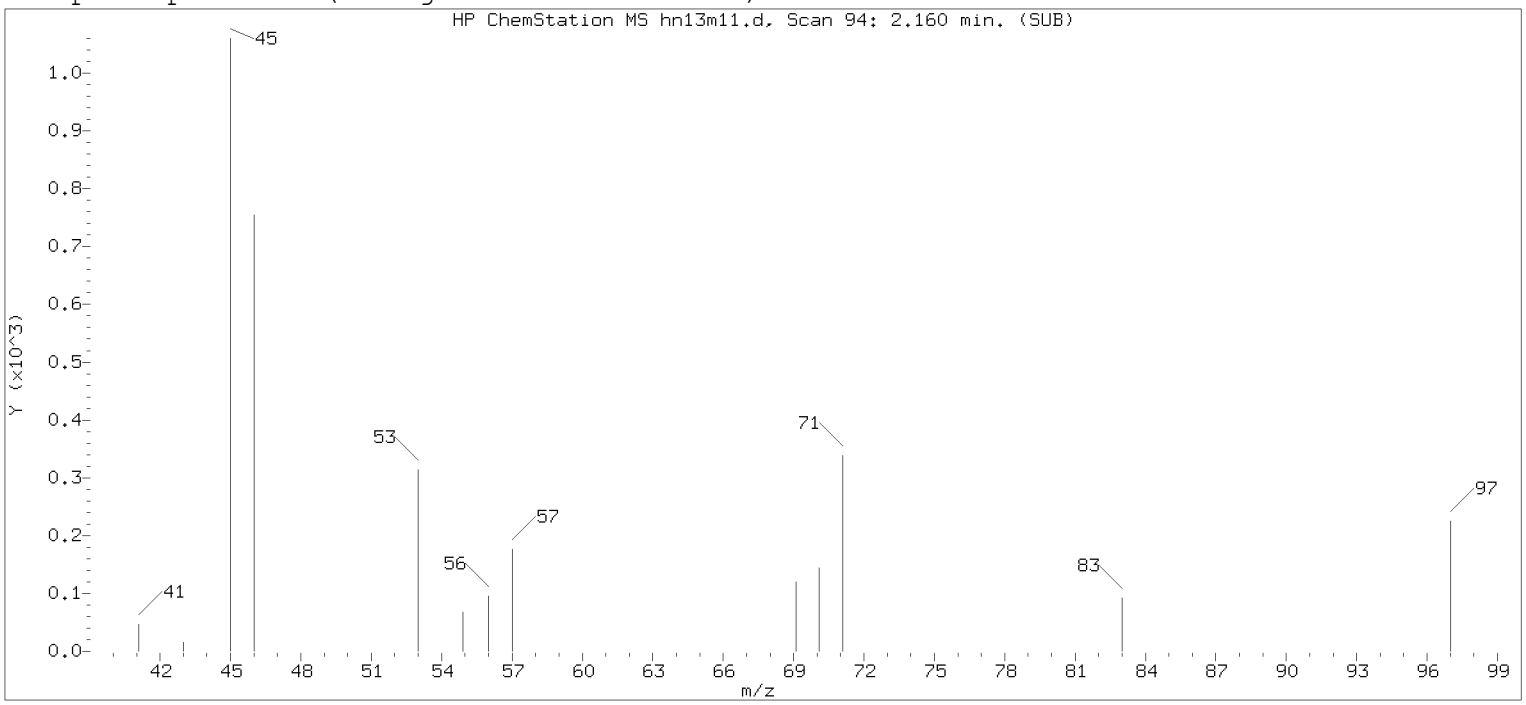
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 7757M
On-Column Amount (ng) : 0.1301
Integration start scan : 86 Integration stop scan: 114
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

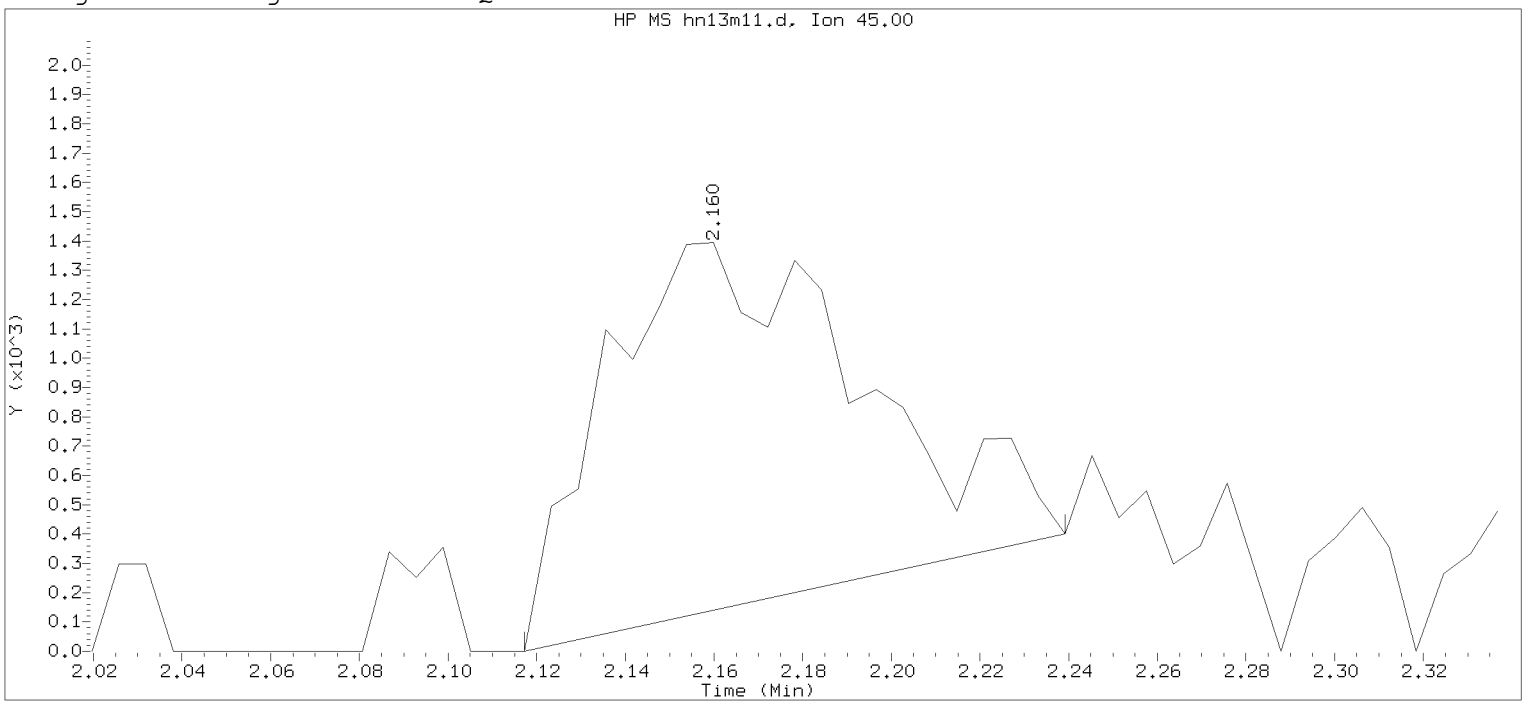
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:21.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

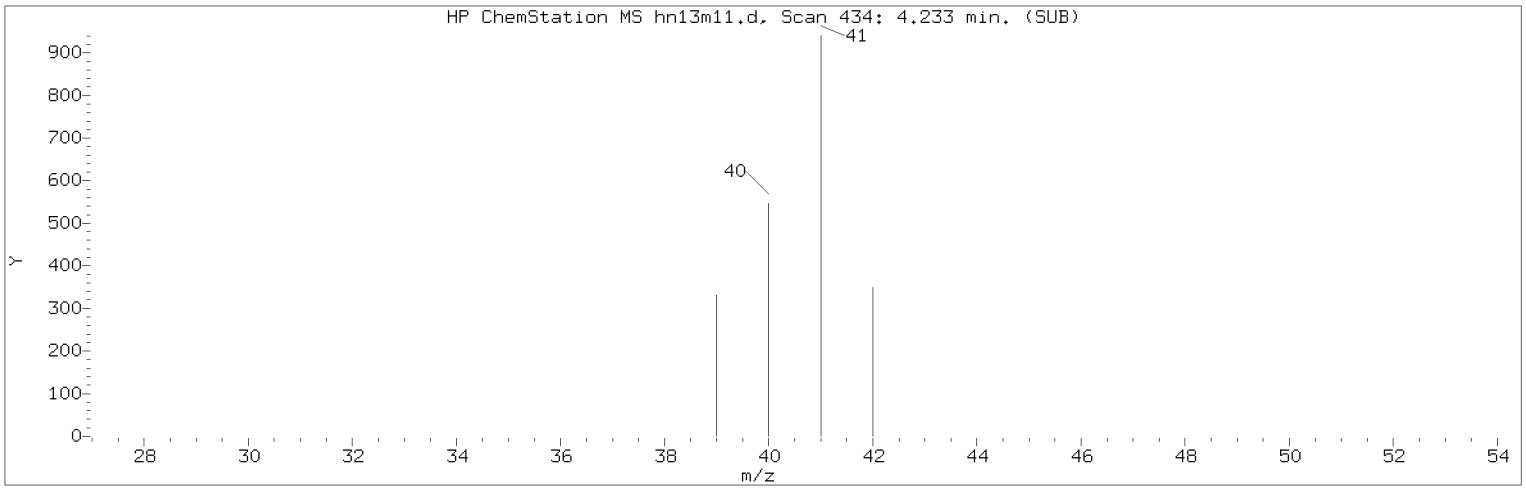
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:43
Date, time and analyst ID of latest file update: 13-Nov-2018 16:43 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

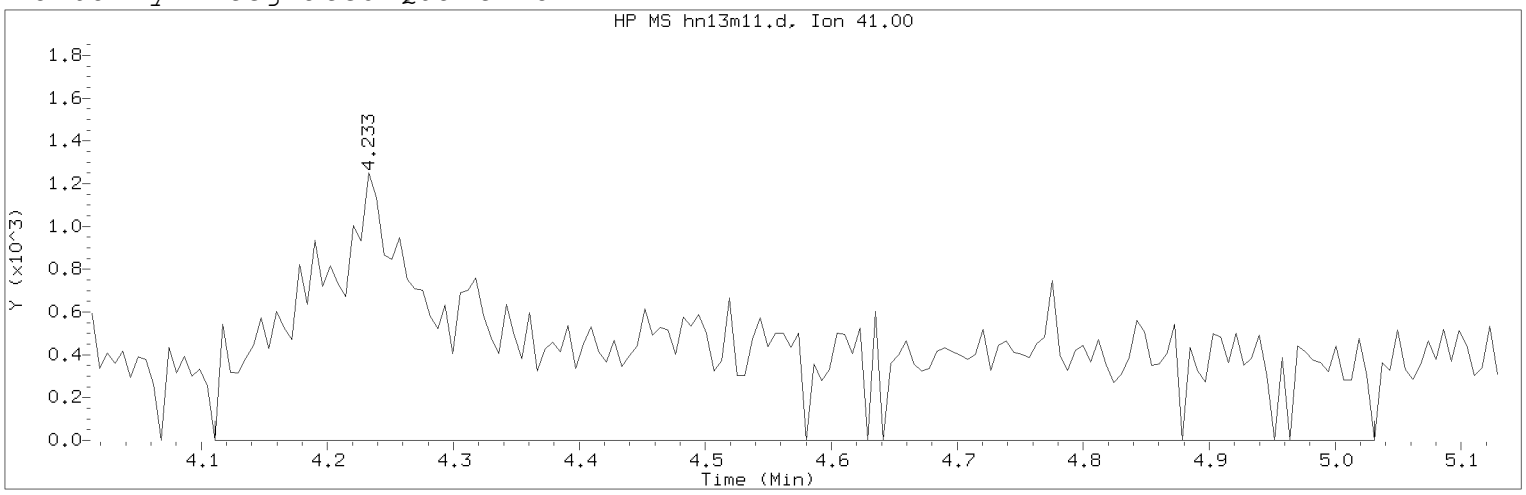
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area : 5051
On-column Amount (ng) : 0.0847
Integration start scan : 86 Integration stop scan: 106
Y at integration start : 0 Y at integration end: 401

Digitally signed by Jennifer K. Howe on 11/13/2018 at 17:12.
Target 3.5 esignature used. AE35 Page 963

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:03 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

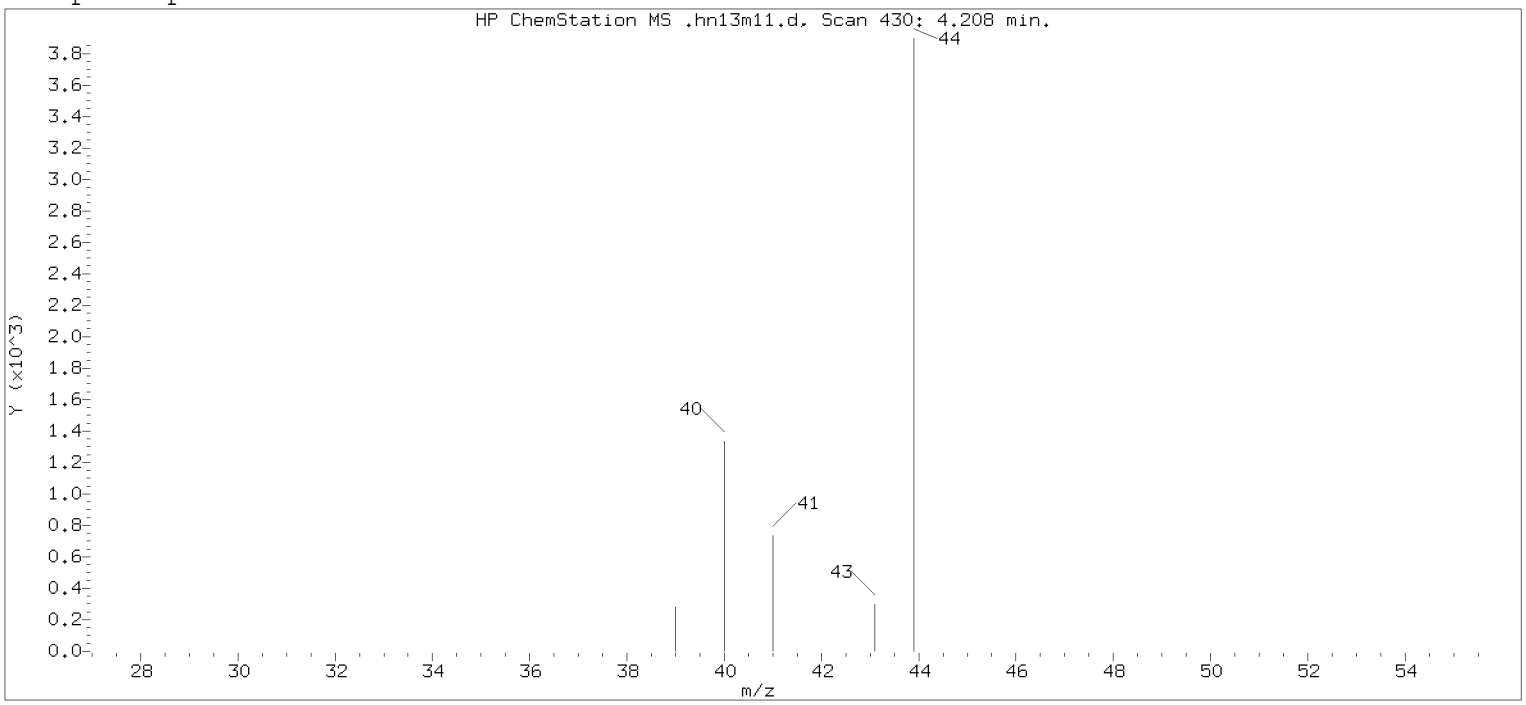
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 434
Retention Time (minutes): 4.233
Quant Ion : 41.00
Area (flag) : 25886M
On-Column Amount (ng) : 1.3272
Integration start scan : 413 Integration stop scan: 564
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

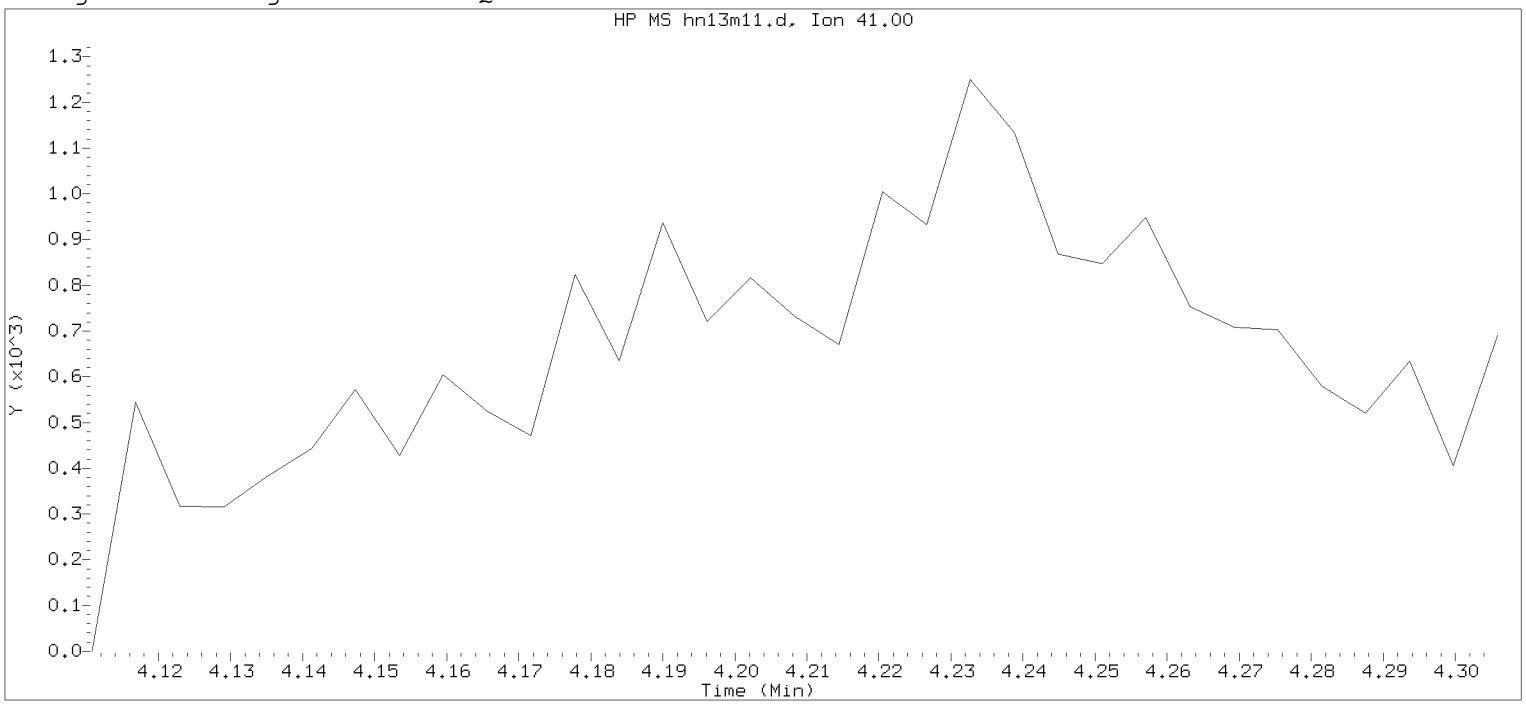
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:21.
PARALLAX ID: kek01027

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

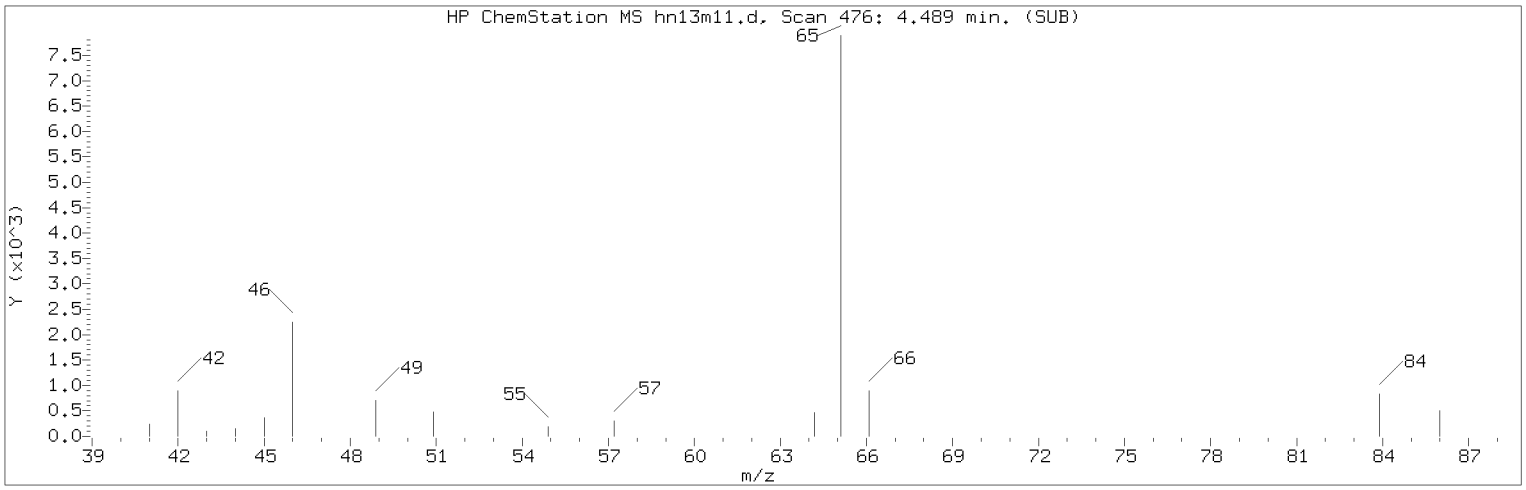
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:43
Date, time and analyst ID of latest file update: 13-Nov-2018 16:43 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

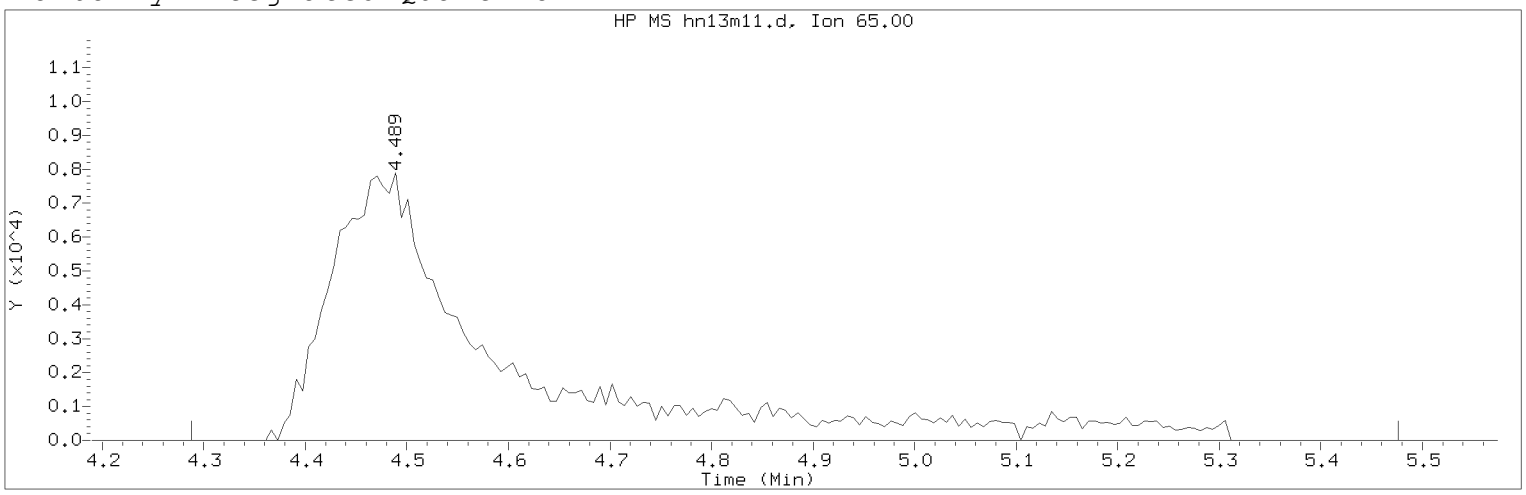
Compound Number : 25
Compound Name : Acetonitrile
Expected RT (minutes) : 4.208
Quant Ion : 41.00

Digitally signed by Jennifer K. Howe on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:03 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

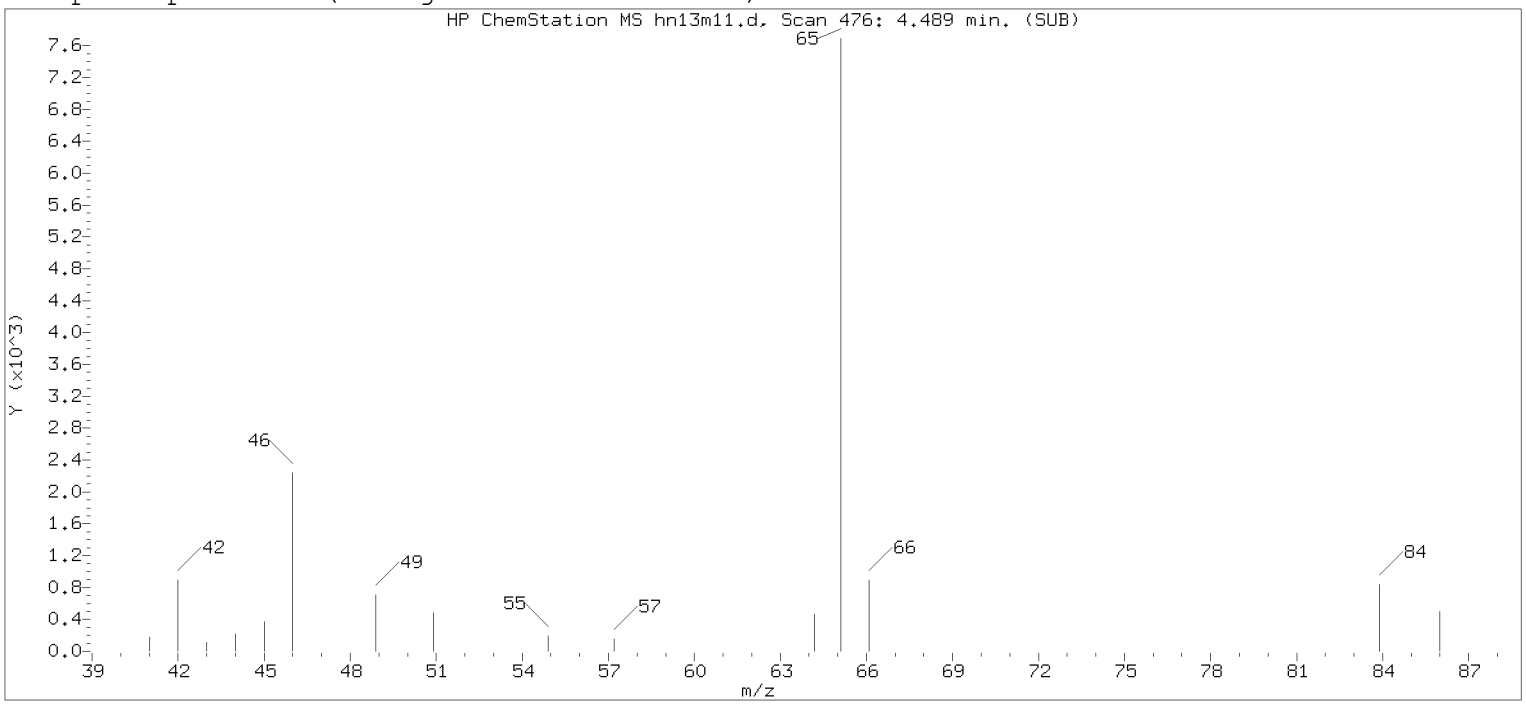
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 476
Retention Time (minutes): 4.489
Quant Ion : 65.00
Area (flag) : 92454M
On-Column Amount (ng) : 50.0000
Integration start scan : 442 Integration stop scan: 637
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

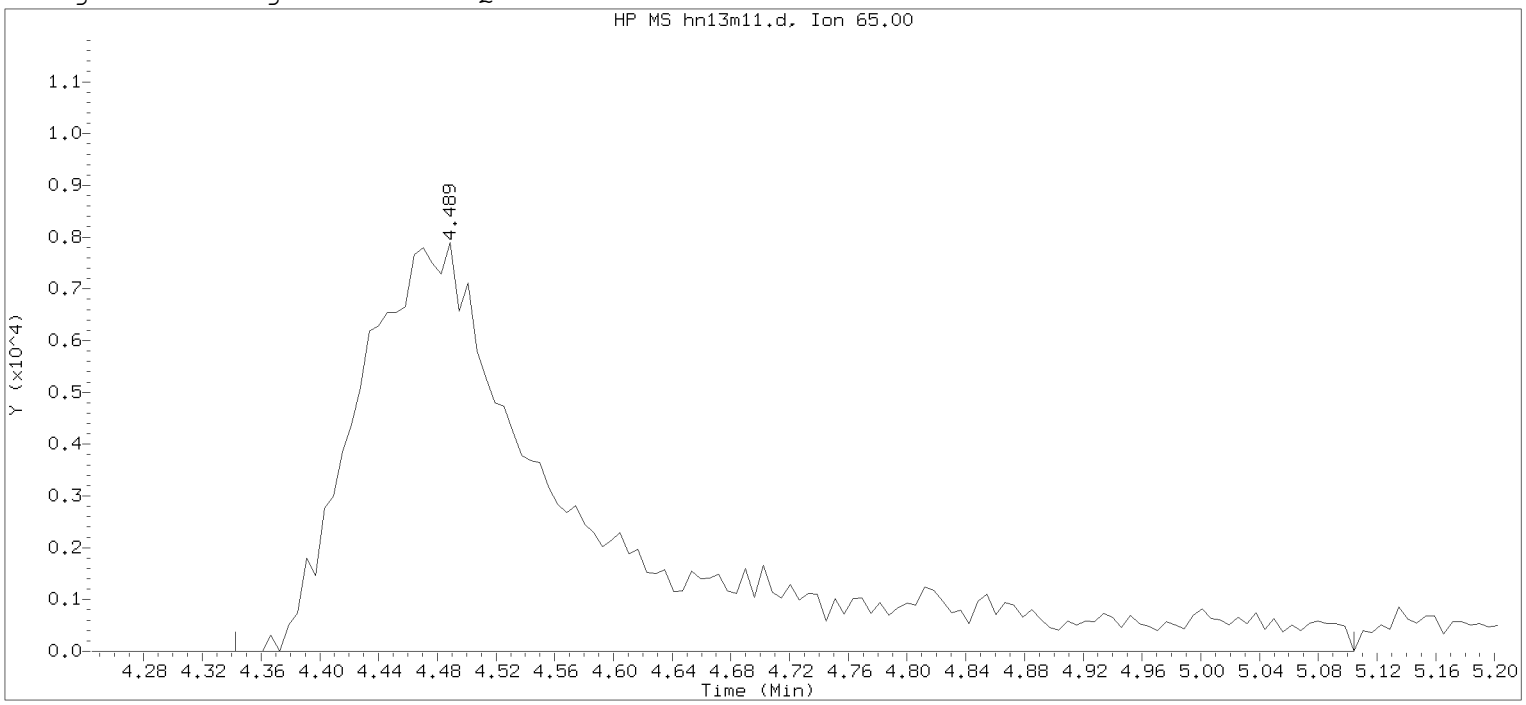
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:21.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



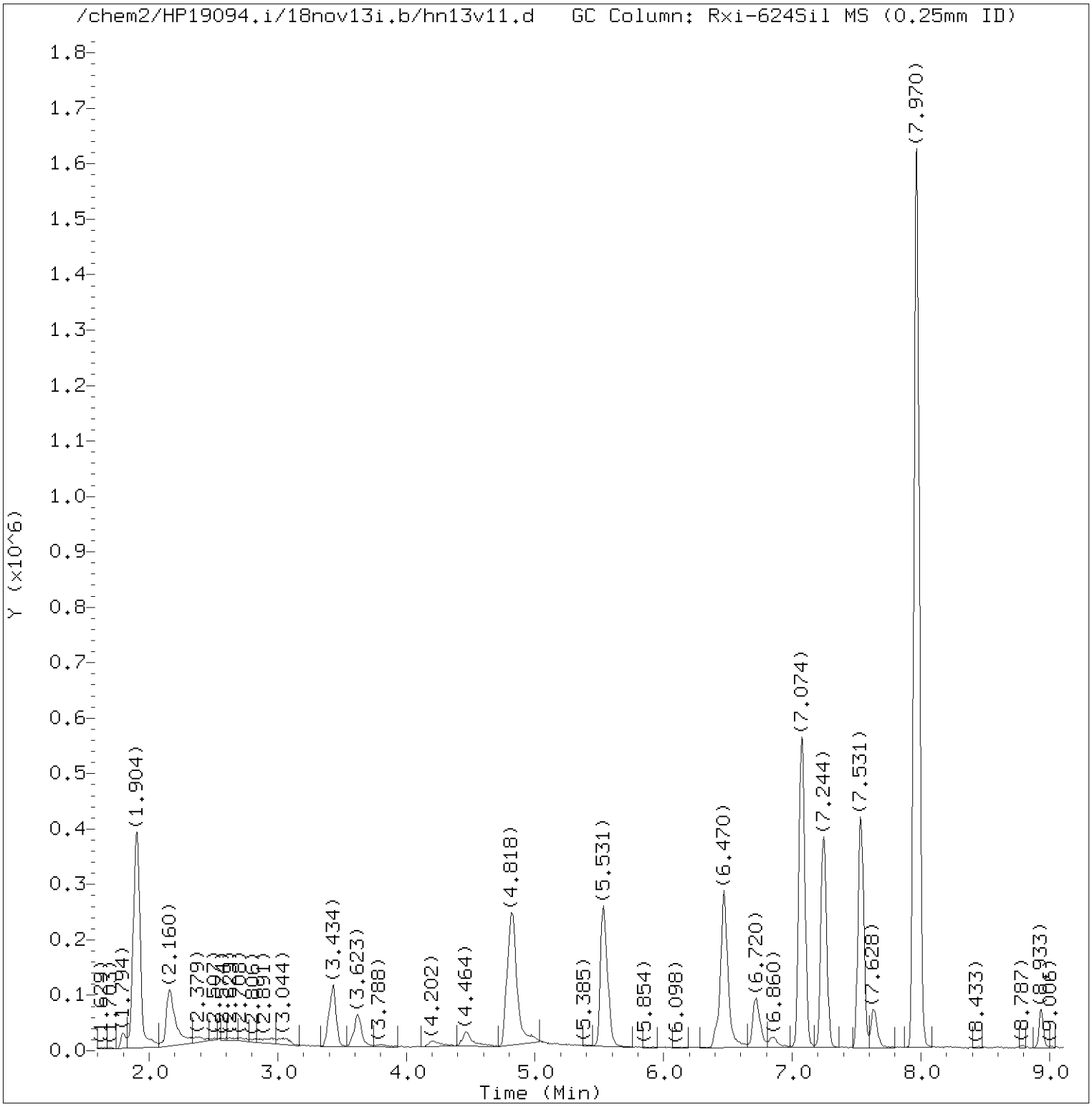
Data File: /chem2/HP19094.i/18nov13i.b/hn13m11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:03 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:43
Date, time and analyst ID of latest file update: 13-Nov-2018 16:43 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 476
Retention Time (minutes): 4.489
Quant Ion : 65.00
Area : 86627
On-column Amount (ng) : 50.0000
Integration start scan : 451 Integration stop scan: 576
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 17:12.
Target 3.5 esignature used. AE35 Page 967



Total Ion Chromatogram (TIC)

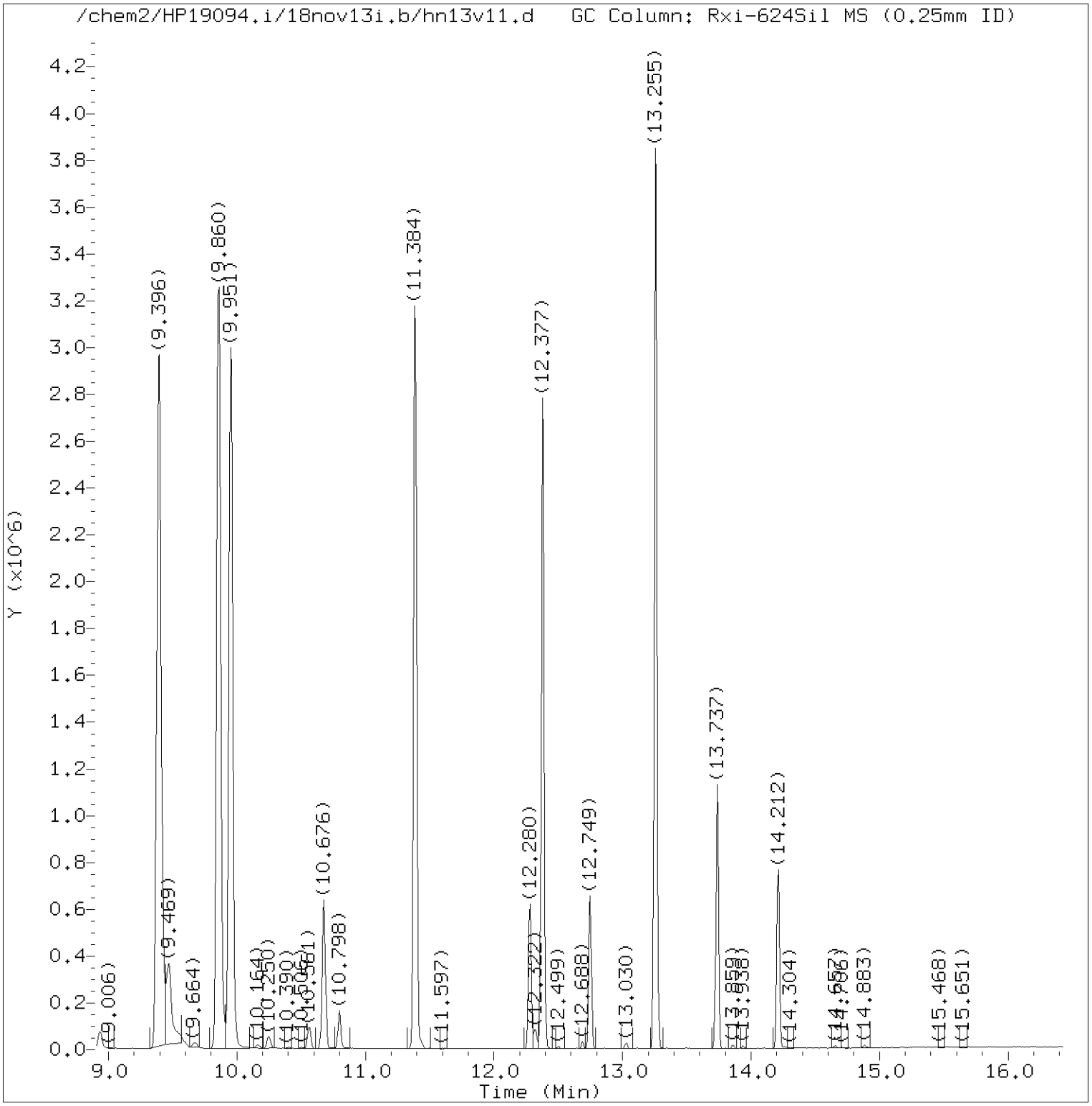
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:09 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:09 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:09 jkh09052

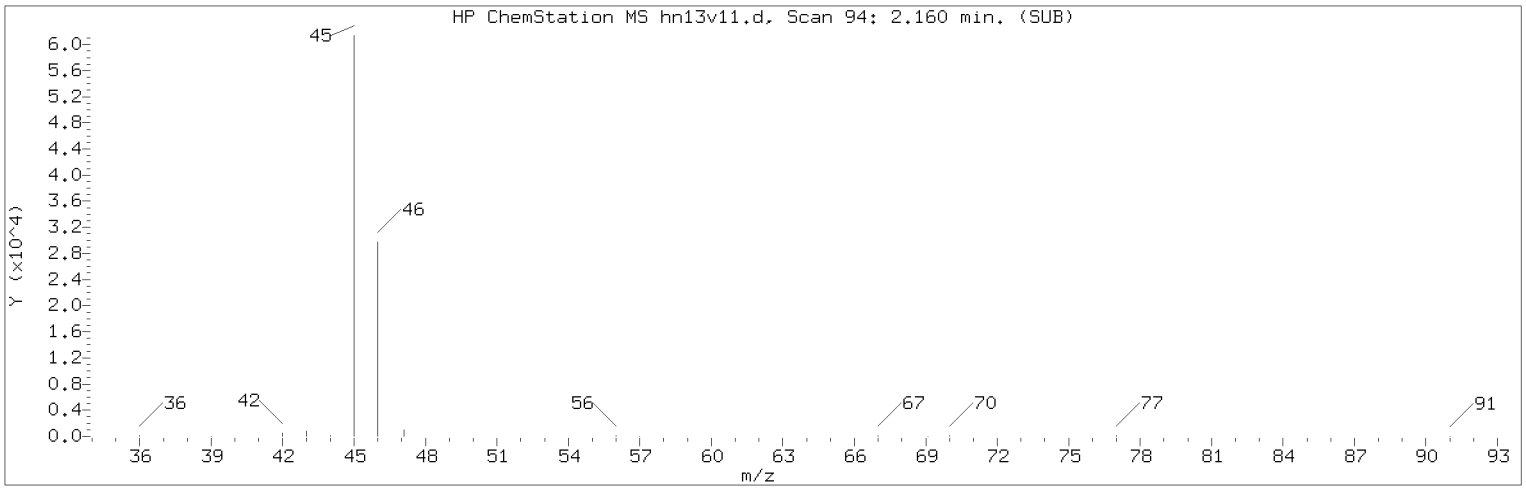
Sample Name: ICVHSM Lab Sample ID: ICVHSM

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	285536M	4.804
25) Acetonitrile	(1)	4.196	41	86102M	35.895
26)*t-Butyl Alcohol-d10	(1)	4.476	65	82882	50.000
36) Vinyl Acetate	(2)	5.531	43	799878	11.521
43) Methyl Acrylate	(2)	6.470	55	546439	24.681
50)$Dibromofluoromethane	(2)	7.074	113	578890	9.960
53) 1-Chlorobutane	(2)	7.244	56	498665	4.695
57)$1,2-Dichloroethane-d4	(2)	7.537	102	101195	9.921
63)*Fluorobenzene	(2)	7.970	96	2322845	10.000
77) Chloroacetonitrile	(2)	9.463	75	178920	202.485
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	96210	5.001
82)$Toluene-d8	(3)	9.951	98	2355724	9.980
97)*Chlorobenzene-d5	(3)	11.384	117	1824792	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.280	88	133992	13.224
112) Cyclohexanone	(1)	12.322	55	45516M	86.227
111)$4-Bromofluorobenzene	(3)	12.377	95	891410	10.013
133)*1,4-Dichlorobenzene-d4	(4)	13.261	152	978078	10.000
142) Hexachloroethane	(4)	13.737	117	208464	4.914

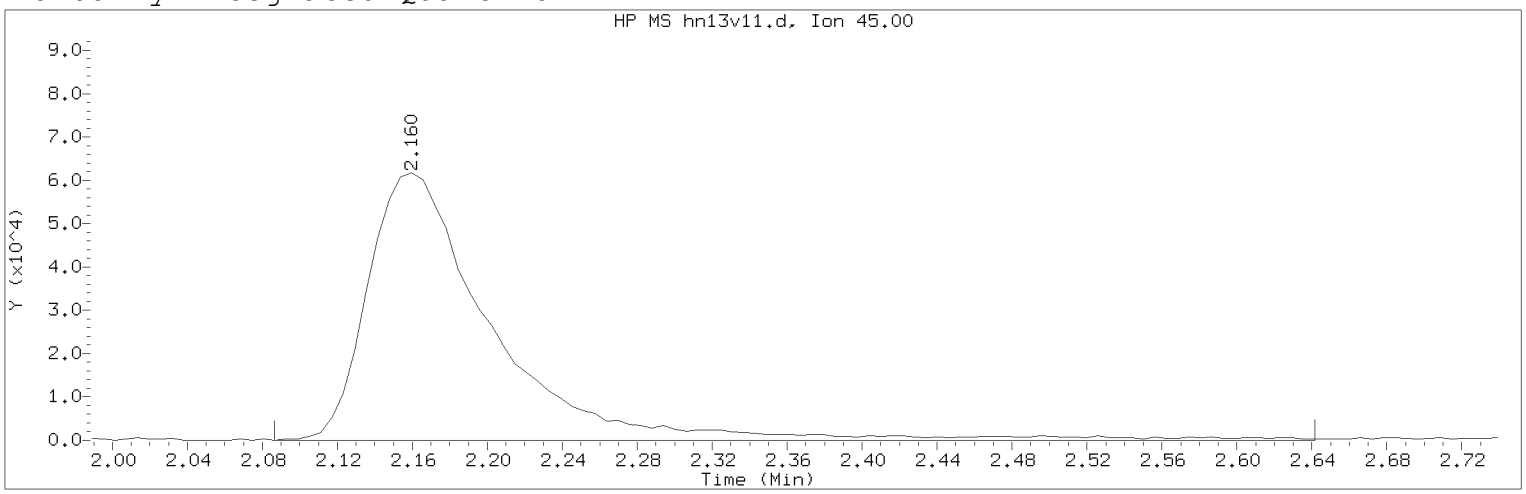
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:09 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

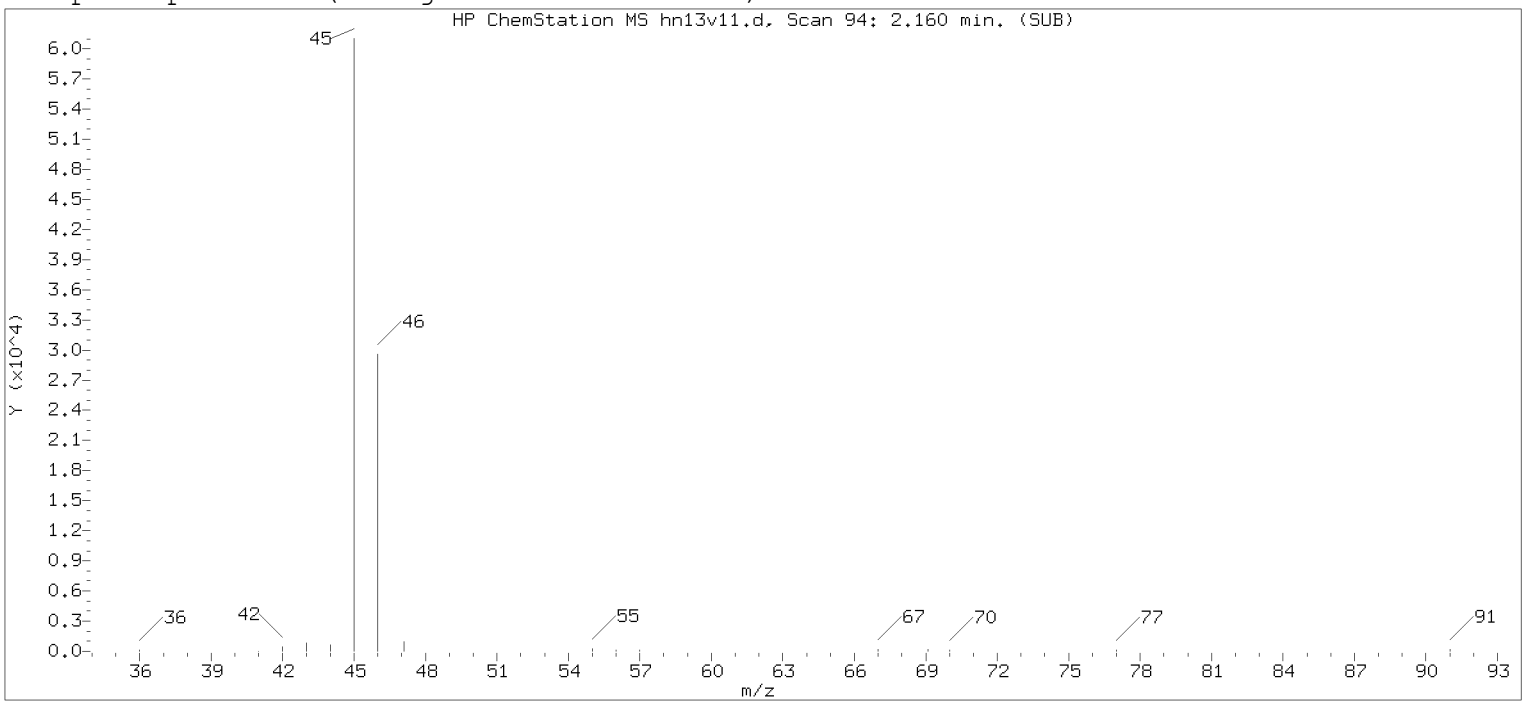
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 285536M
On-Column Amount (ng) : 4.8045
Integration start scan : 81 Integration stop scan: 172
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

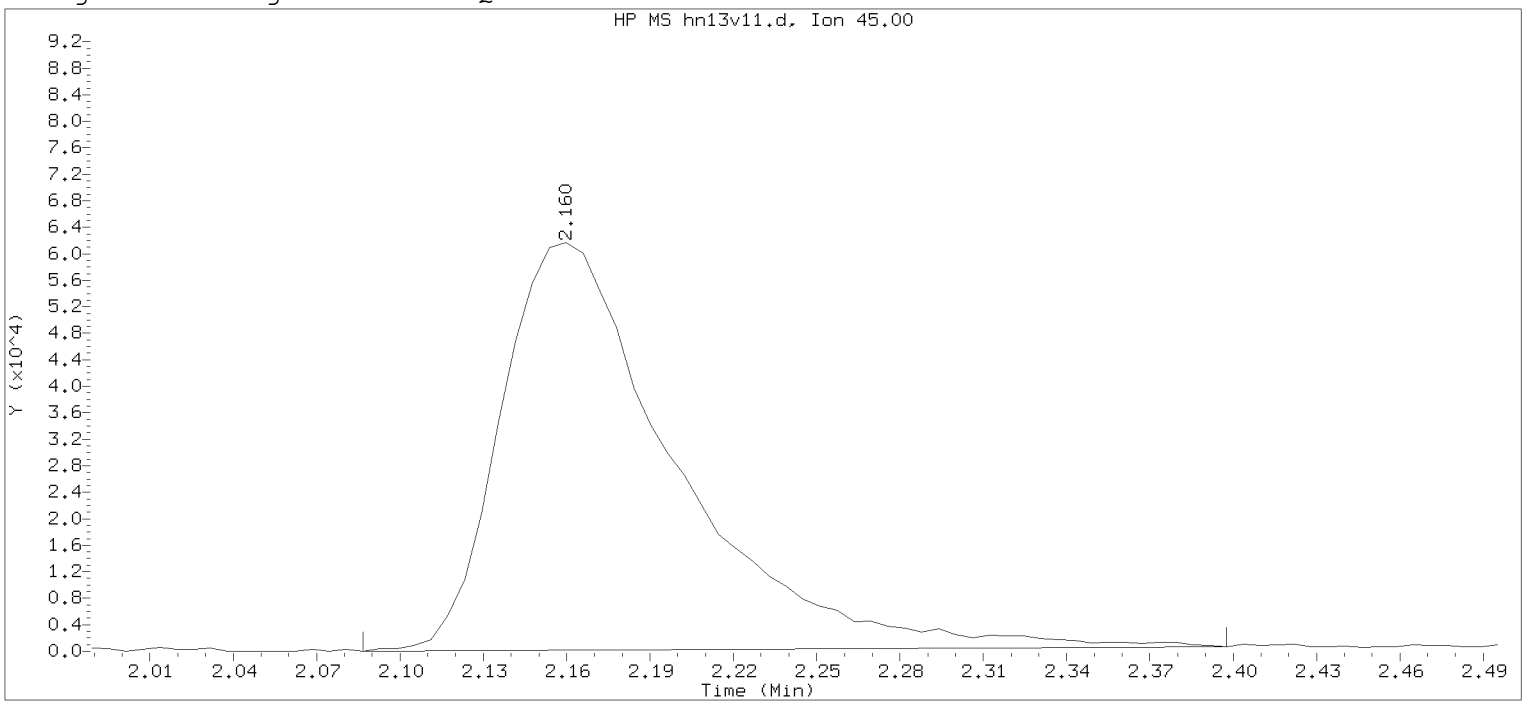
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:21.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

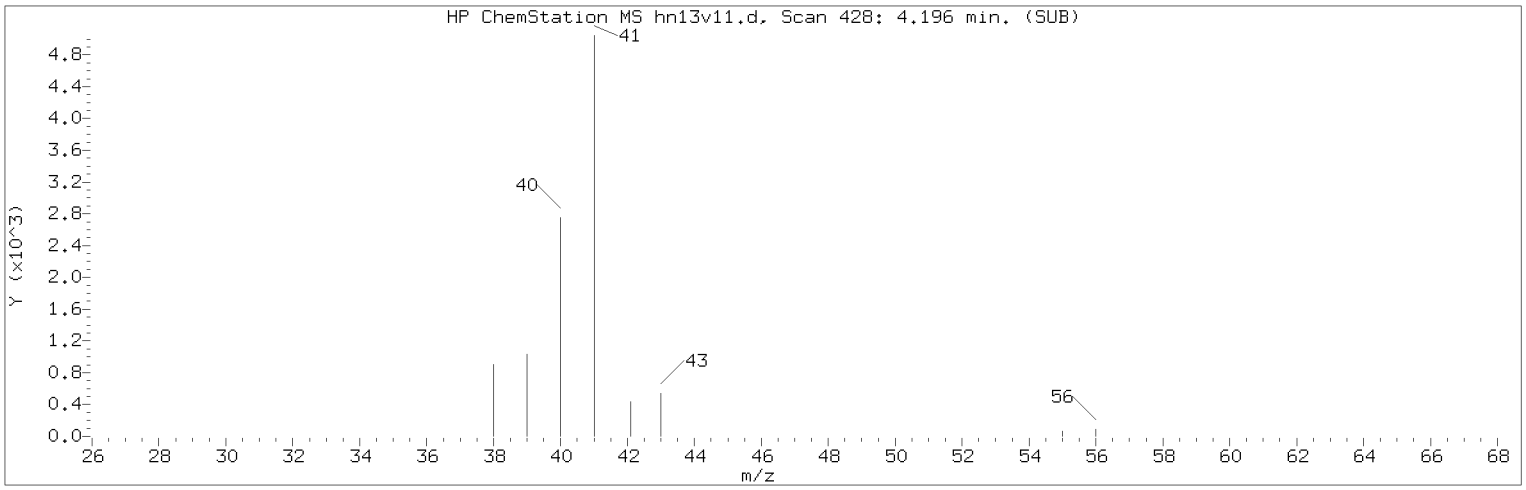
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:43
Date, time and analyst ID of latest file update: 13-Nov-2018 16:43 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

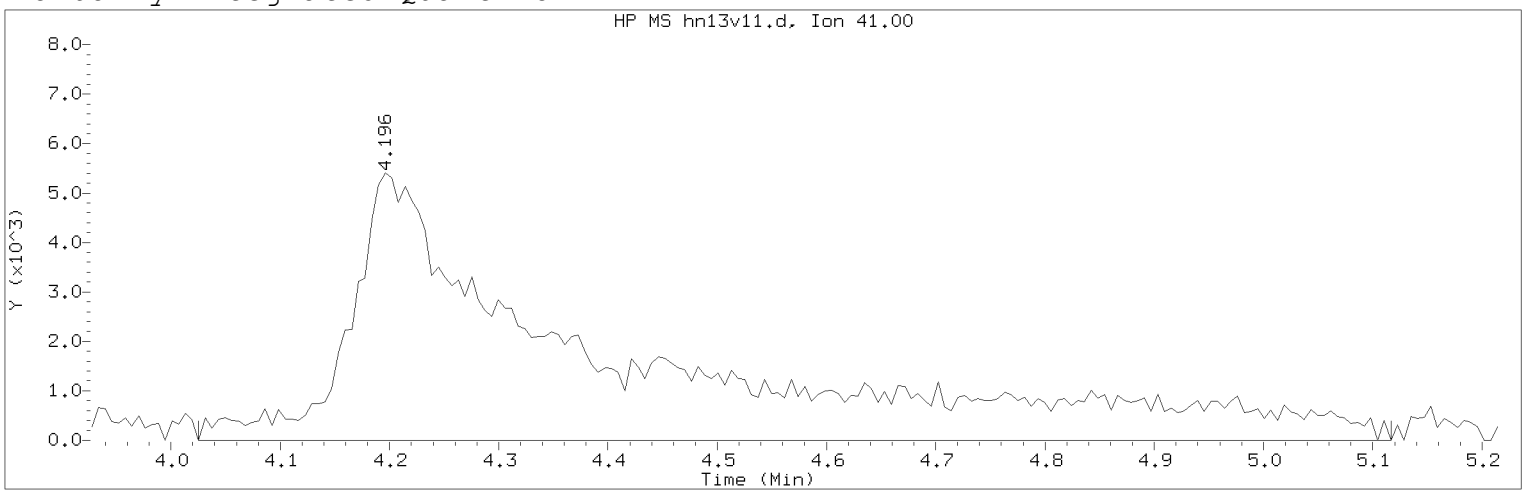
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area : 269173
On-column Amount (ng) : 4.5291
Integration start scan : 81 Integration stop scan: 132
Y at integration start : 0 Y at integration end: 677

Digitally signed by Jennifer K. Howe on 11/13/2018 at 17:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:09 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

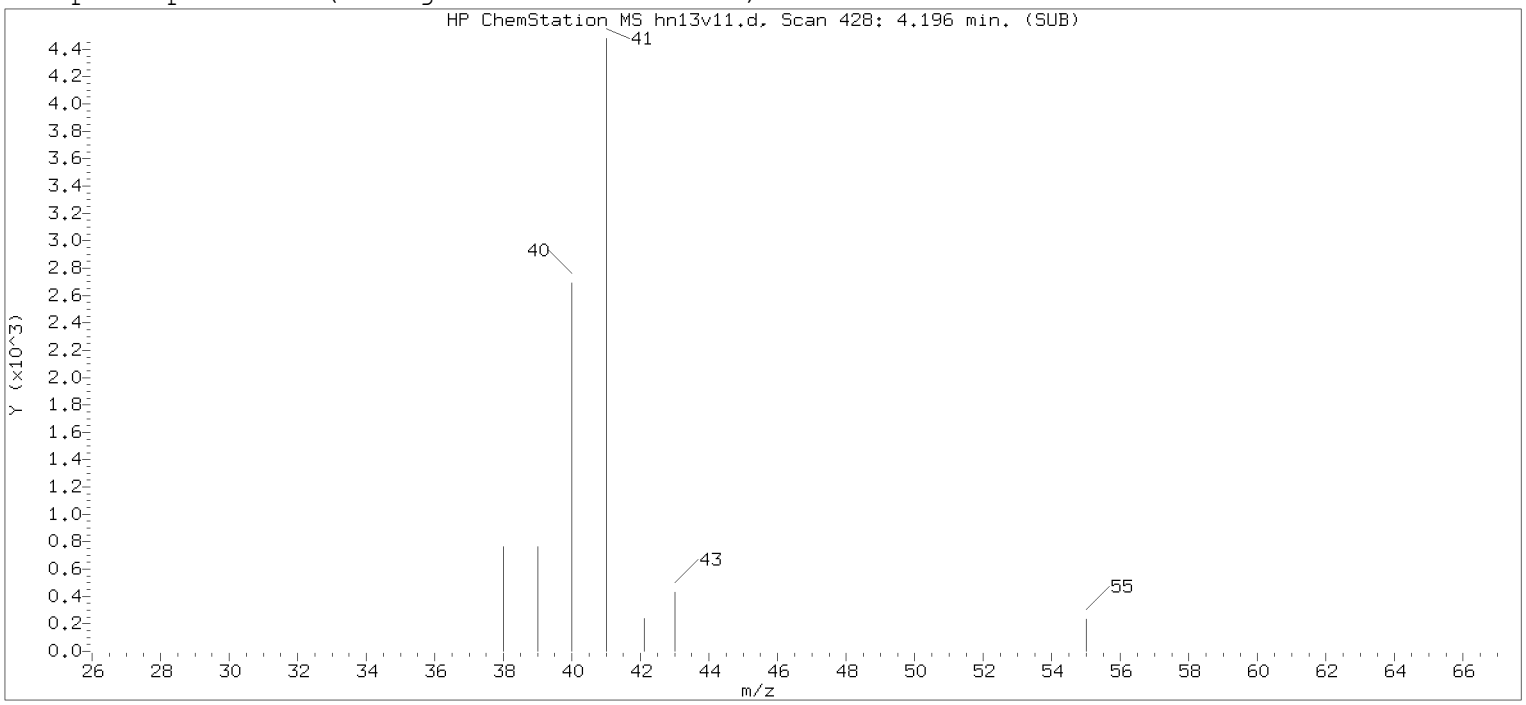
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area (flag) : 86102M
On-Column Amount (ng) : 35.8950
Integration start scan : 399 Integration stop scan: 578
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

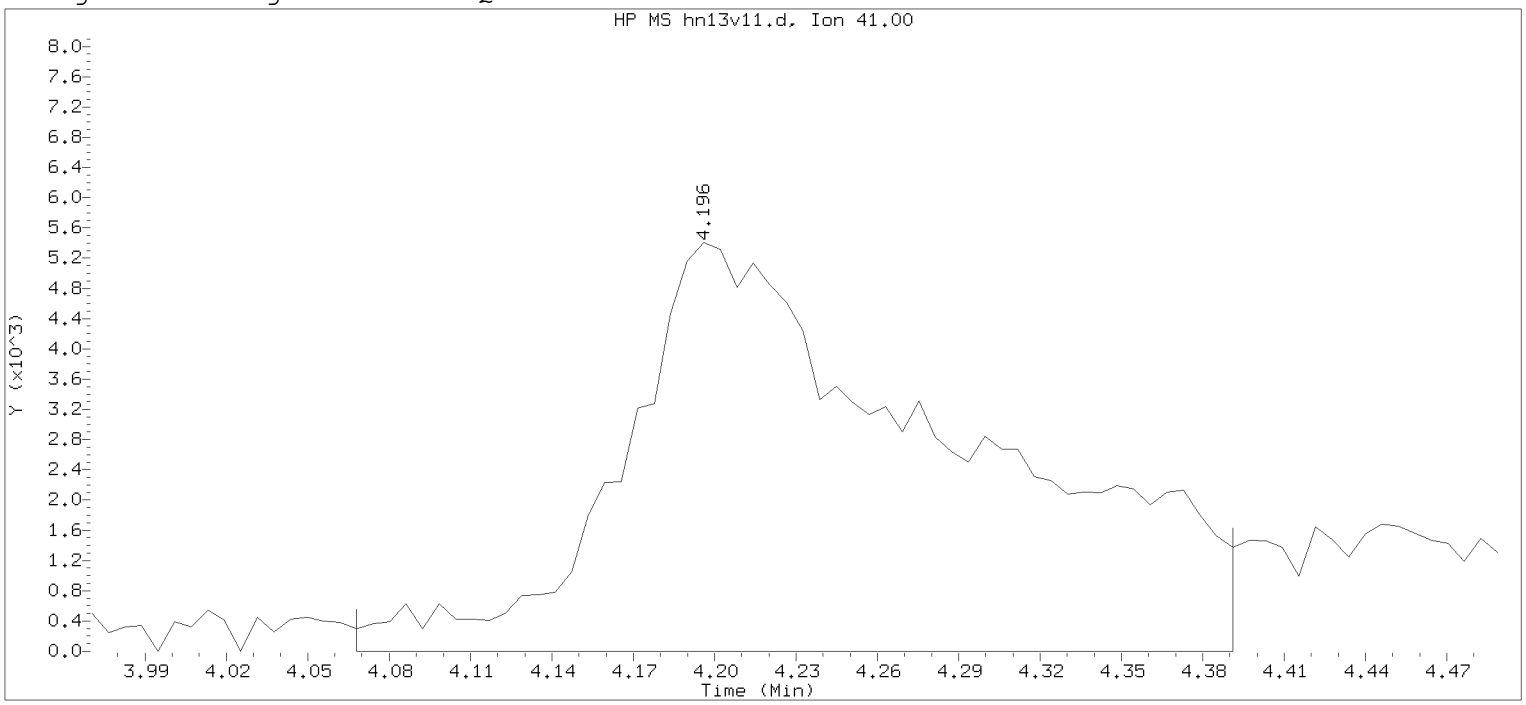
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:21.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

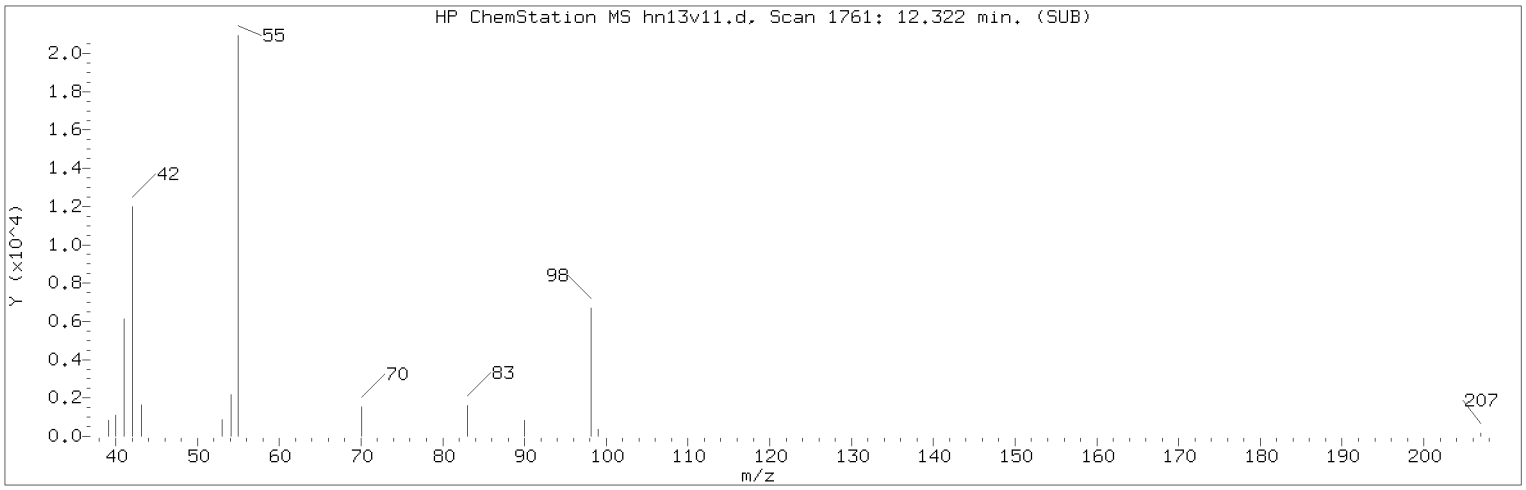
Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:43
Date, time and analyst ID of latest file update: 13-Nov-2018 16:43 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

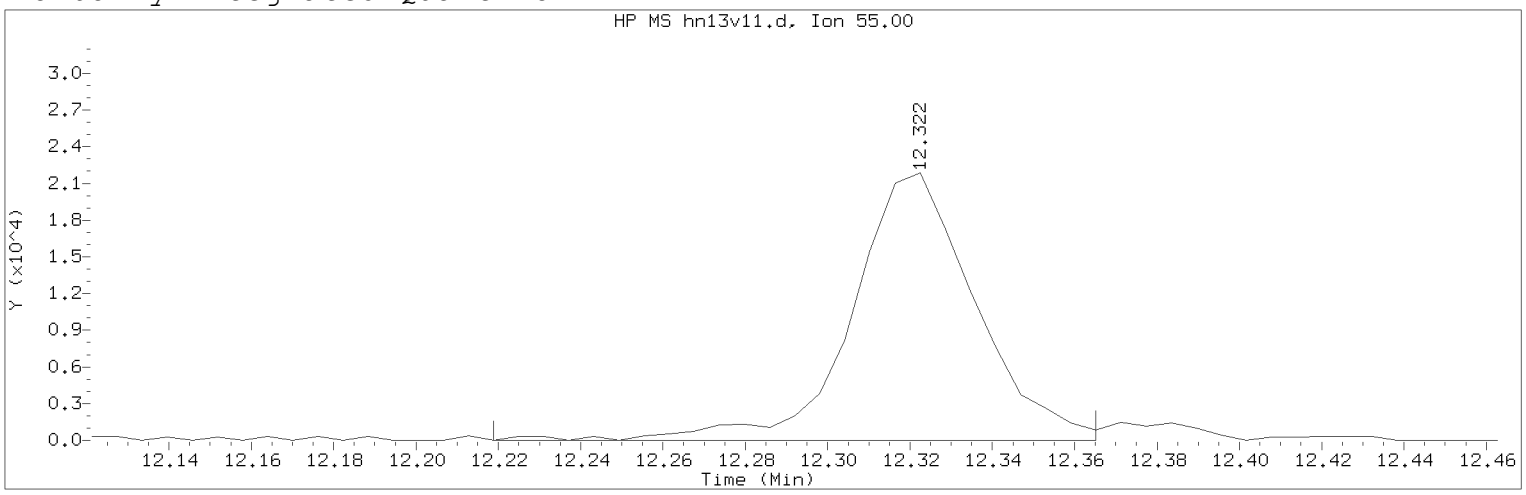
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area : 47025
On-column Amount (ng) : 13.3938
Integration start scan : 406 Integration stop scan: 459
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 17:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:48
Date, time and analyst ID of latest file update: 13-Nov-2018 17:09 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

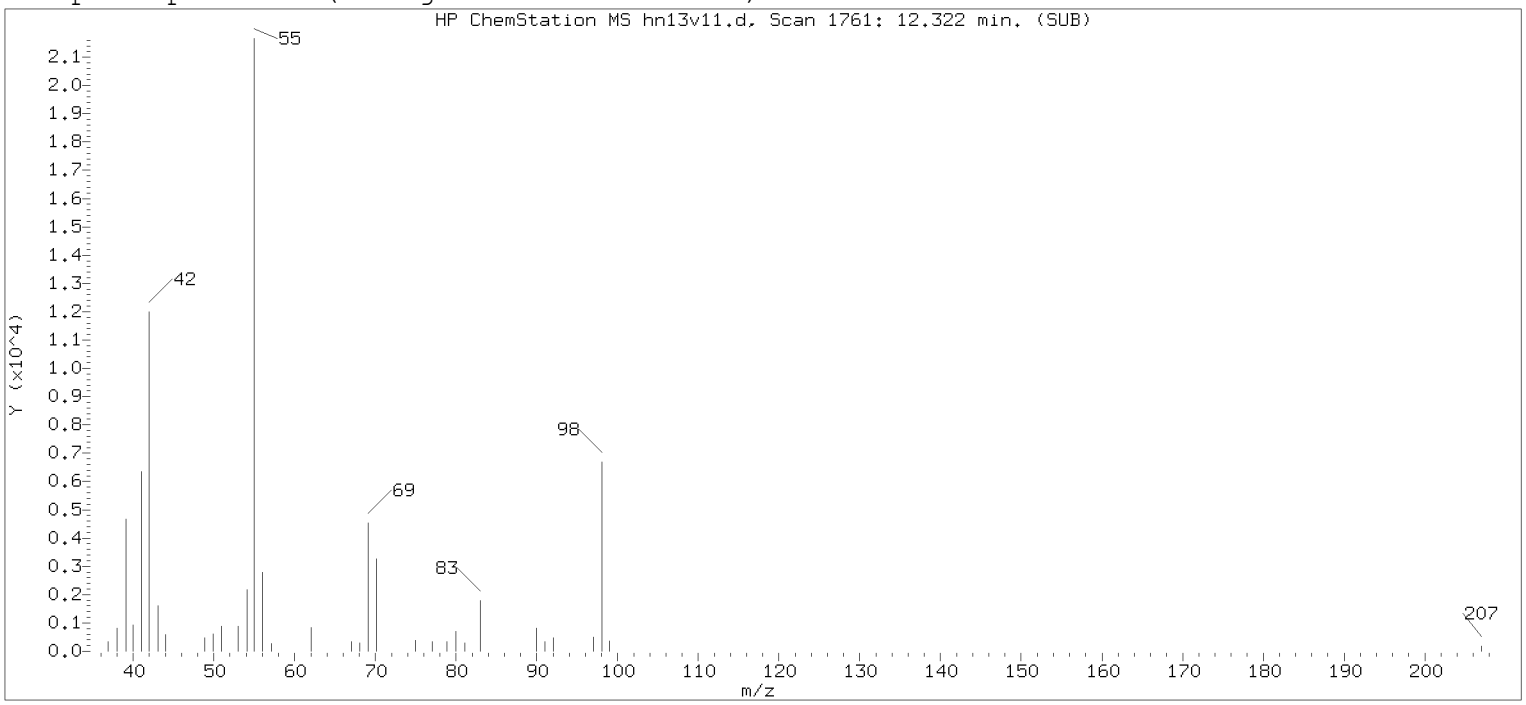
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.322
Quant Ion : 55.00
Area (flag) : 45516M
On-Column Amount (ng) : 86.2269
Integration start scan : 1743 Integration stop scan: 1767
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

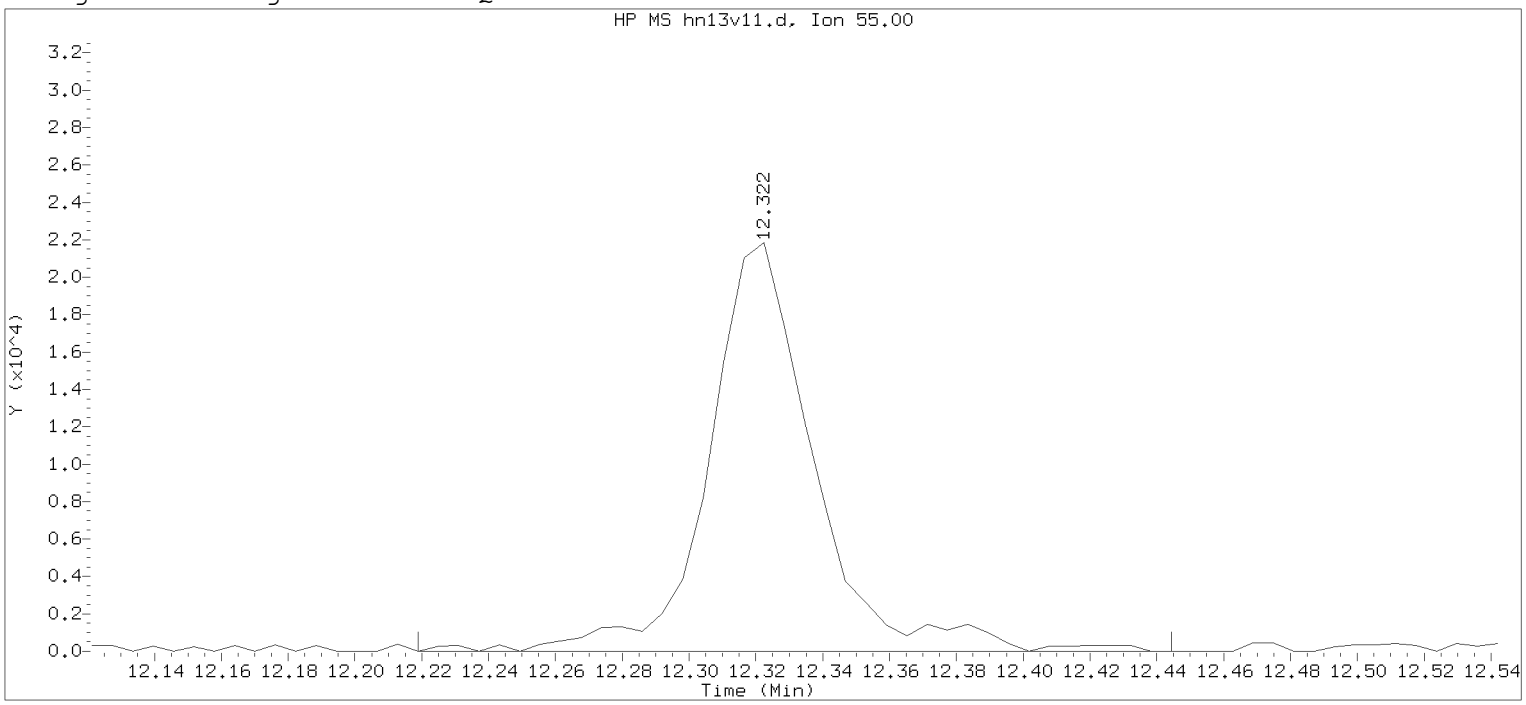
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/13/2018 at 17:12.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 11/16/2018 at 12:21.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



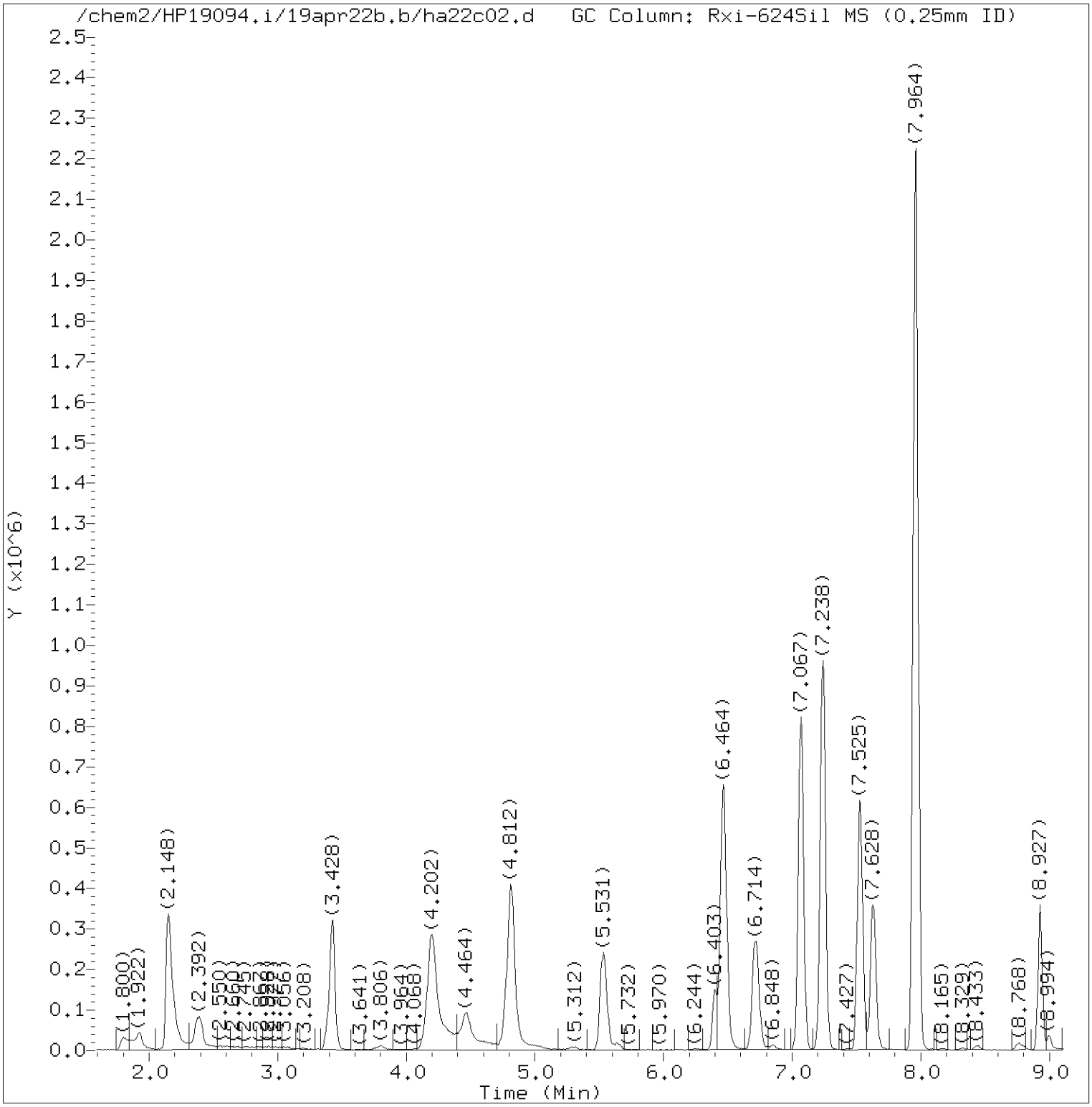
Data File: /chem2/HP19094.i/18nov13i.b/hn13v11.d Instrument ID: HP19094.i
Injection date and time: 13-NOV-2018 15:25 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18nov13i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 13-NOV-2018 16:43
Date, time and analyst ID of latest file update: 13-Nov-2018 16:43 jkh09052

Sample Name: ICVHSM Lab Sample ID: ICVHSM

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1761
Retention Time (minutes): 12.322
Quant Ion : 55.00
Area : 48042
On-column Amount (ng) : 91.0122
Integration start scan : 1743 Integration stop scan: 1780
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/13/2018 at 17:12.
Target 3.5 esignature used. AE35 Page 976



Total Ion Chromatogram (TIC)

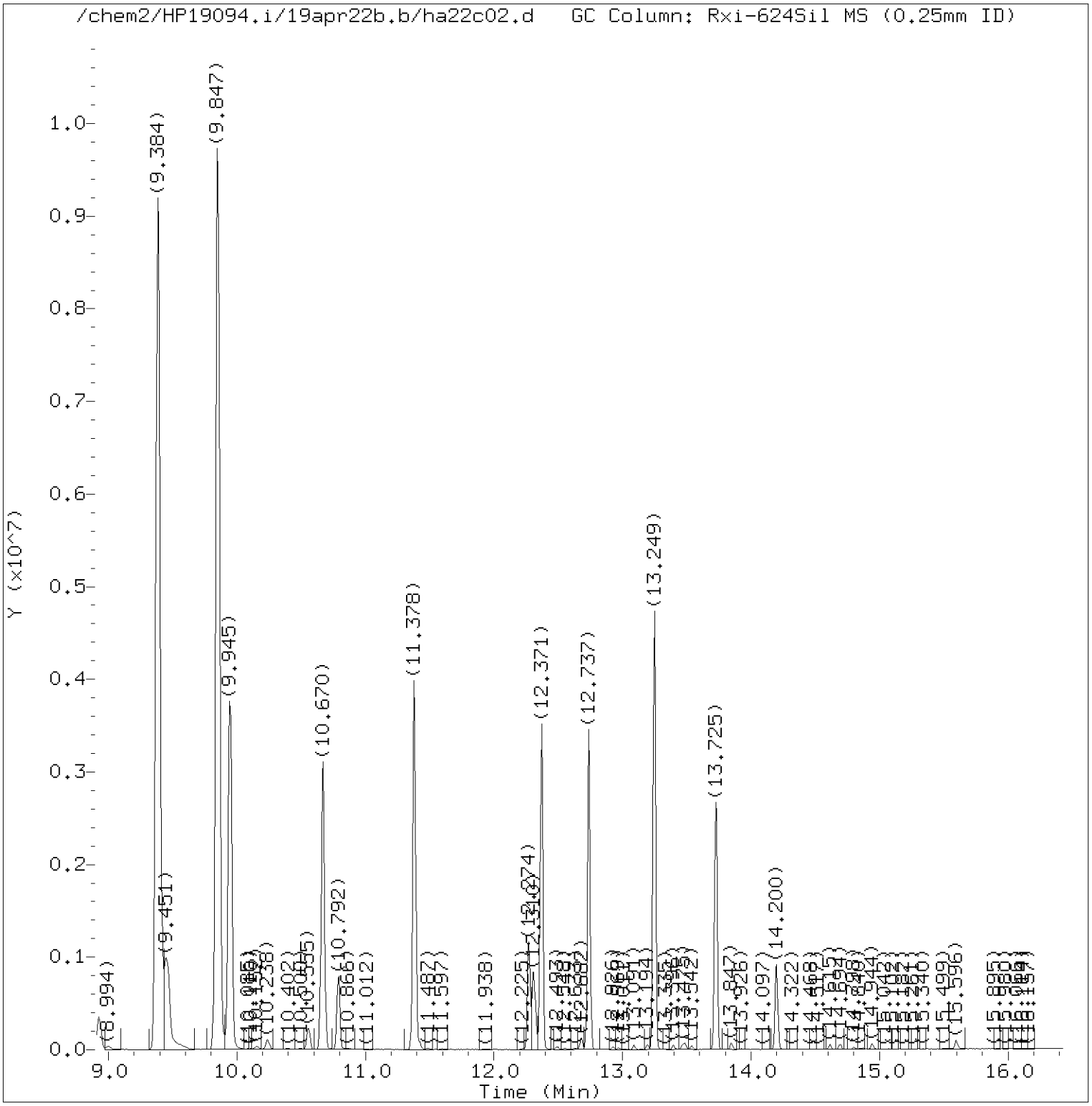
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

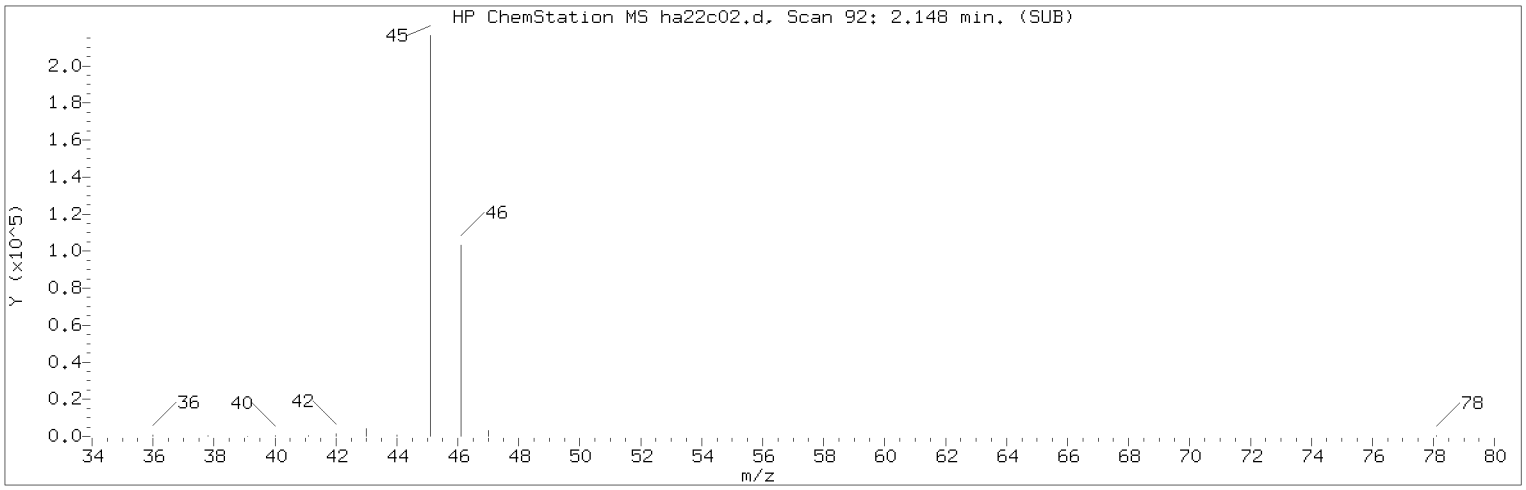
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.148	45	832686M	11.035
25) Acetonitrile	(1)	4.196	41	1254484M	393.735
26)*t-Butyl Alcohol-d10	(1)	4.495	65	150365M	50.000
36) Vinyl Acetate	(2)	5.531	43	724797M	8.222
43) Methyl Acrylate	(2)	6.464	55	1306447	46.476
53) 1-Chlorobutane	(2)	7.238	56	1145052	8.490
63)*Fluorobenzene	(2)	7.964	96	2949244	10.000
77) Chloroacetonitrile	(2)	9.439	75	758336	675.936
78) 2-Chloroethyl vinyl ether	(2)	9.463	63	239453	9.803
97)*Chlorobenzene-d5	(3)	11.378	117	2188731	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.274	88	263243A	14.321
112) Cyclohexanone	(1)	12.310	55	415852M	434.239
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1149616	10.000
142) Hexachloroethane	(4)	13.725	117	491650	9.859

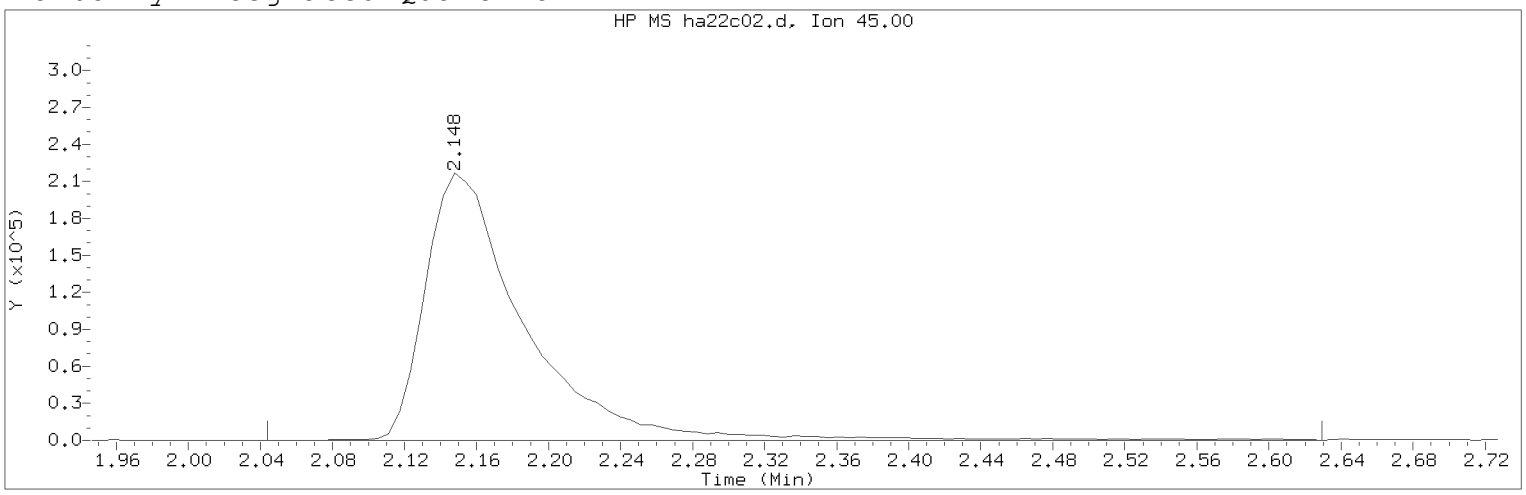
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

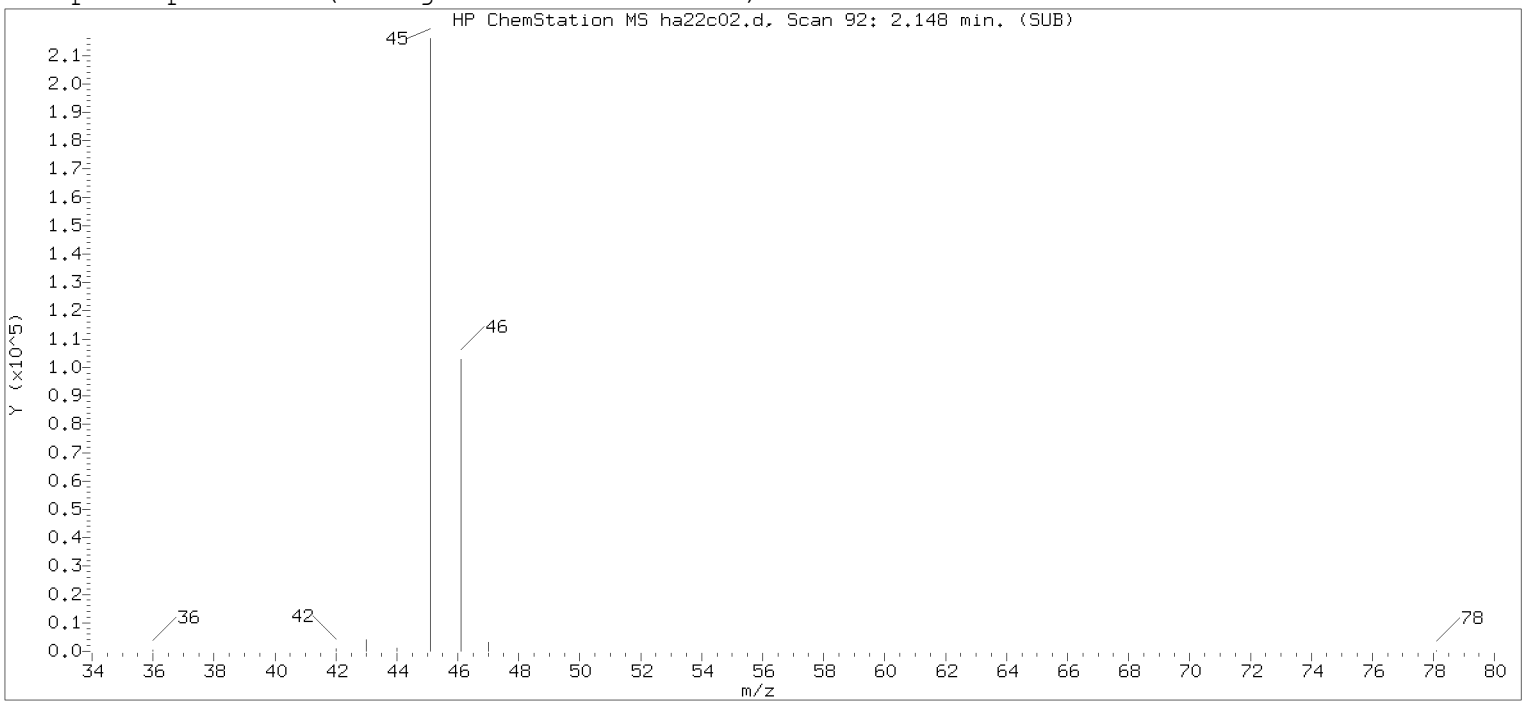
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 92
Retention Time (minutes): 2.148
Quant Ion : 45.00
Area (flag) : 832686M
On-Column Amount (ng) : 11.0351
Integration start scan : 74 Integration stop scan: 170
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

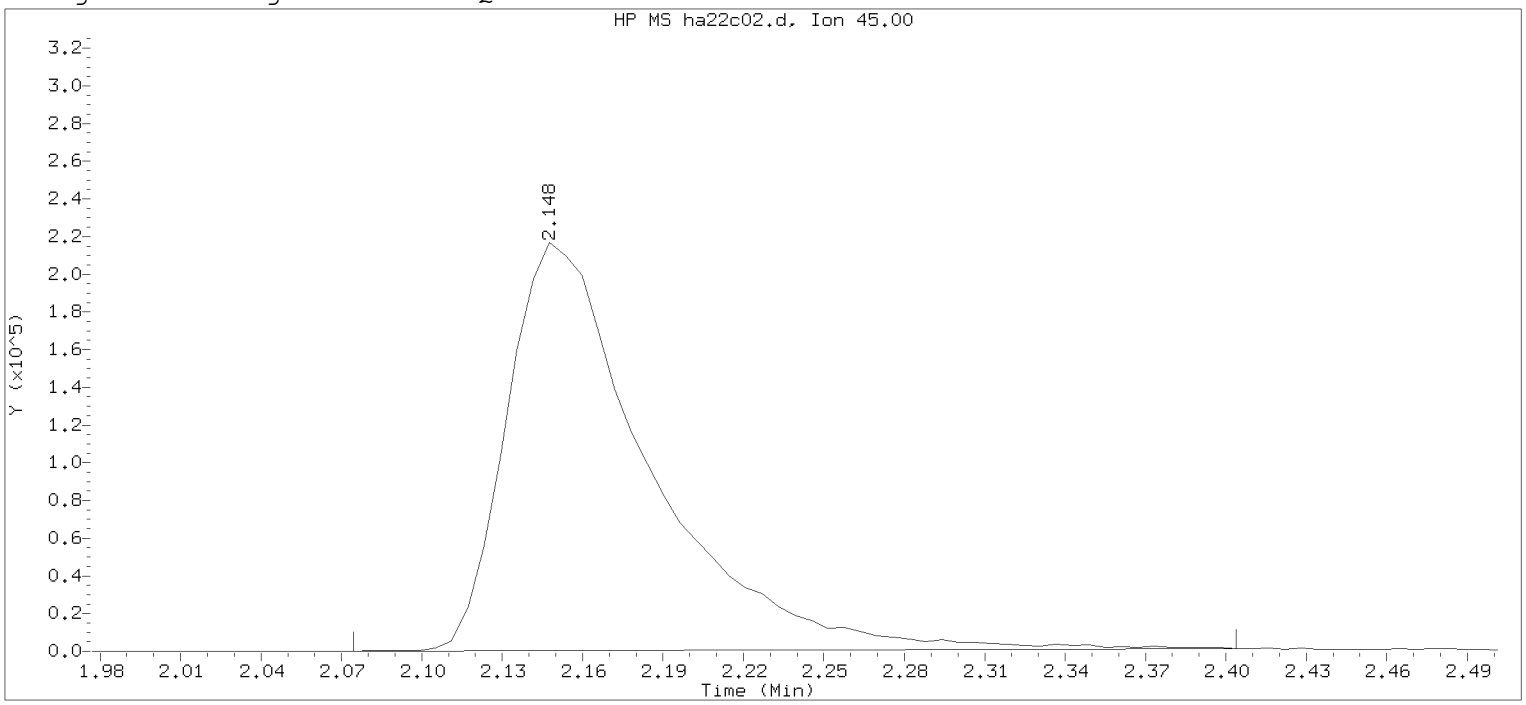
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

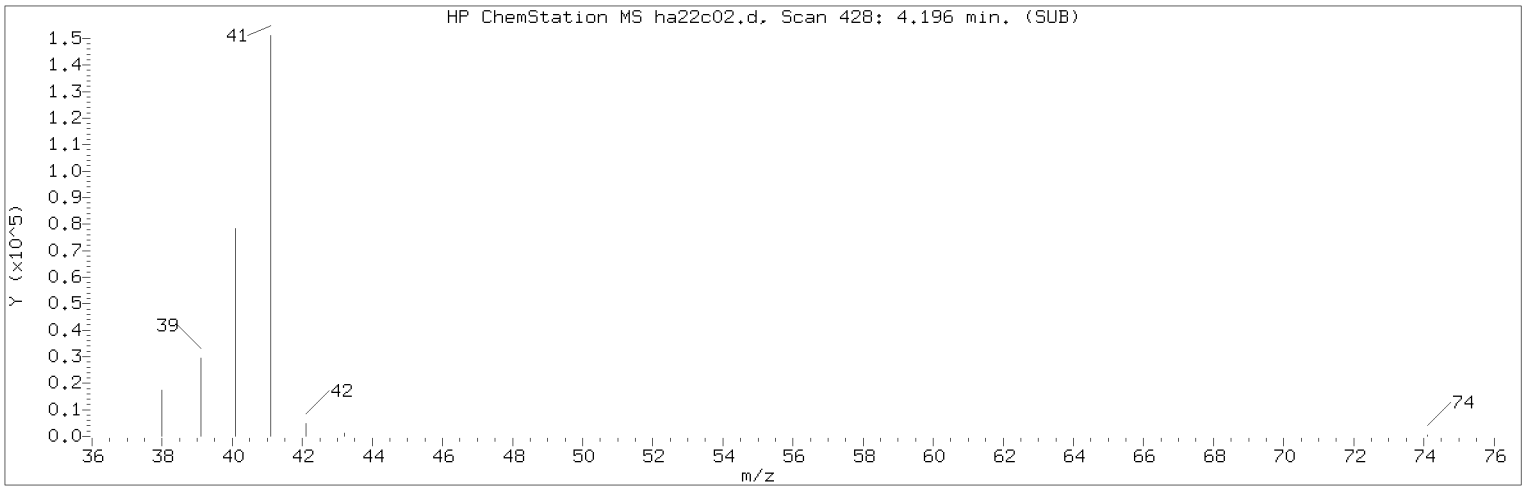
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:55 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

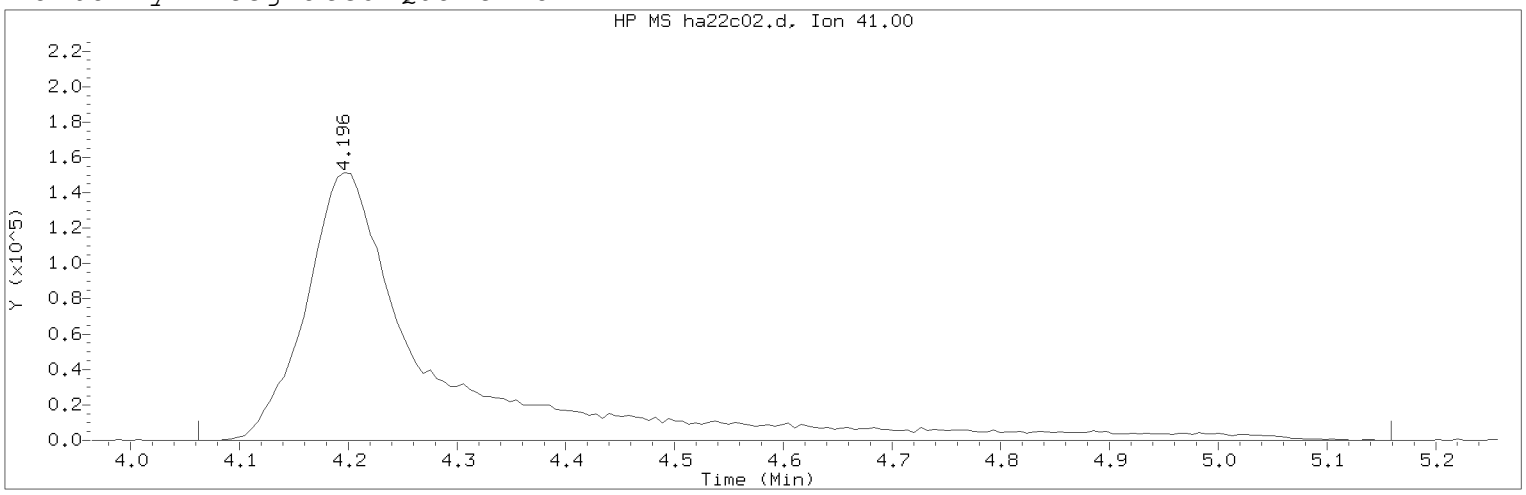
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 92
Retention Time (minutes): 2.148
Quant Ion : 45.00
Area : 805063
On-column Amount (ng) : 10.6690
Integration start scan : 79 Integration stop scan: 133
Y at integration start : 0 Y at integration end: 1479

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:08.
Target 3.5 esignature used. AE35 Page 981

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

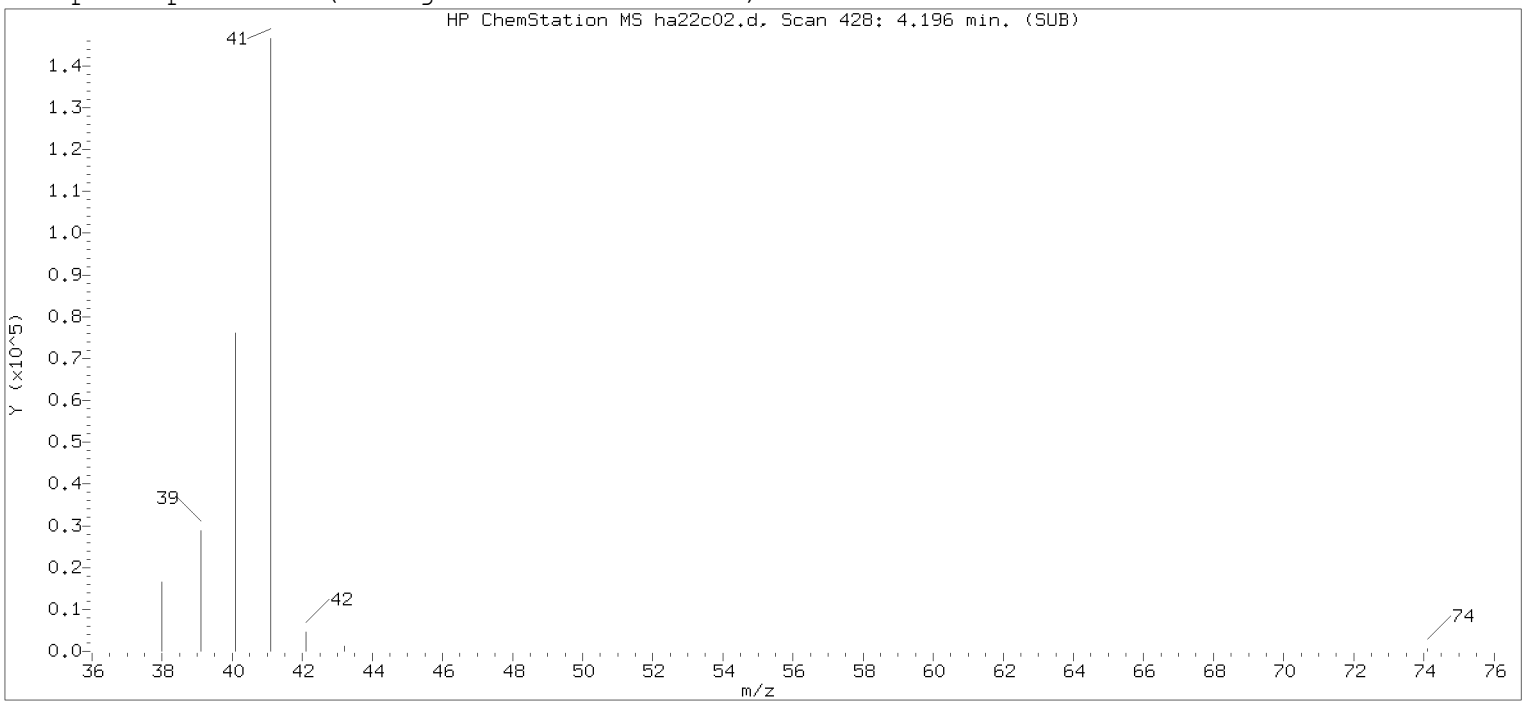
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area (flag) : 1254484M
On-Column Amount (ng) : 393.7351
Integration start scan : 405 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

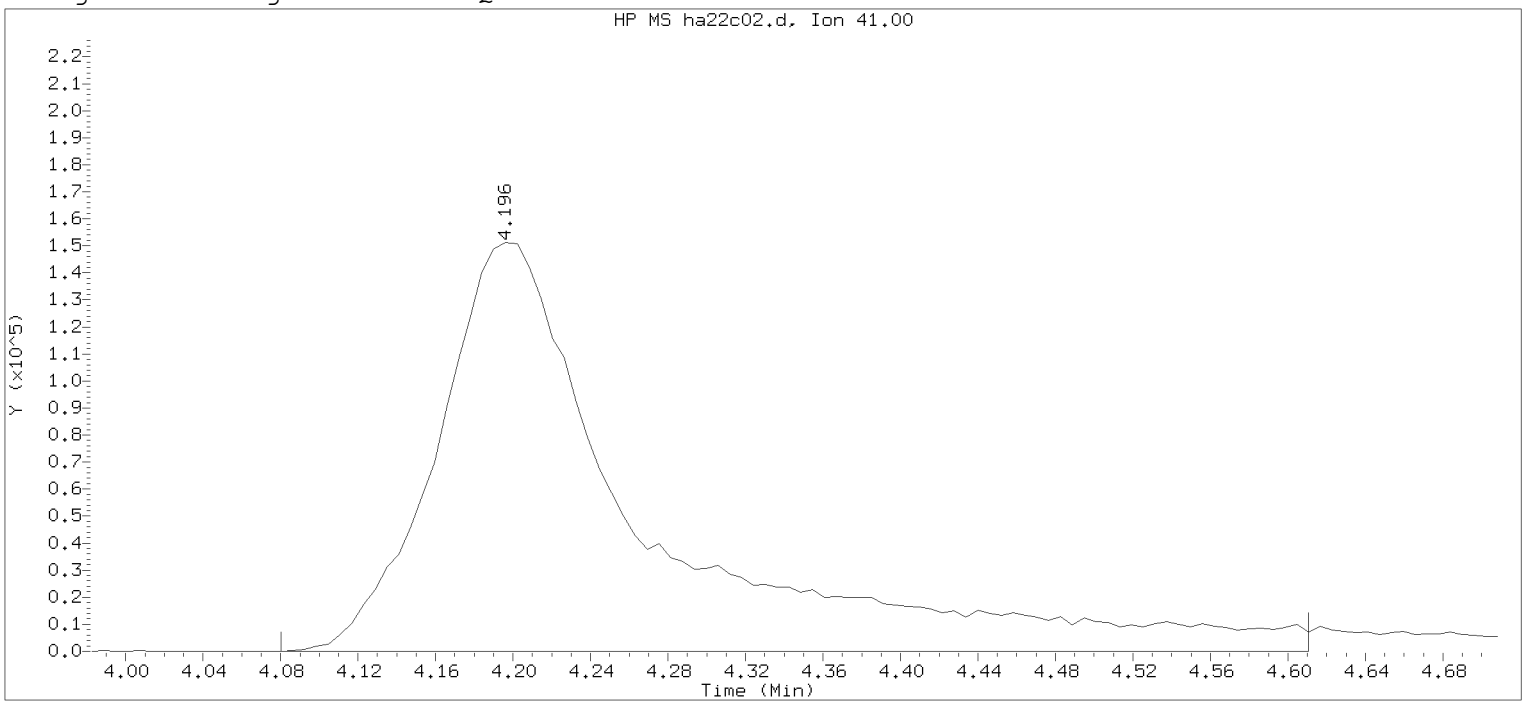
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

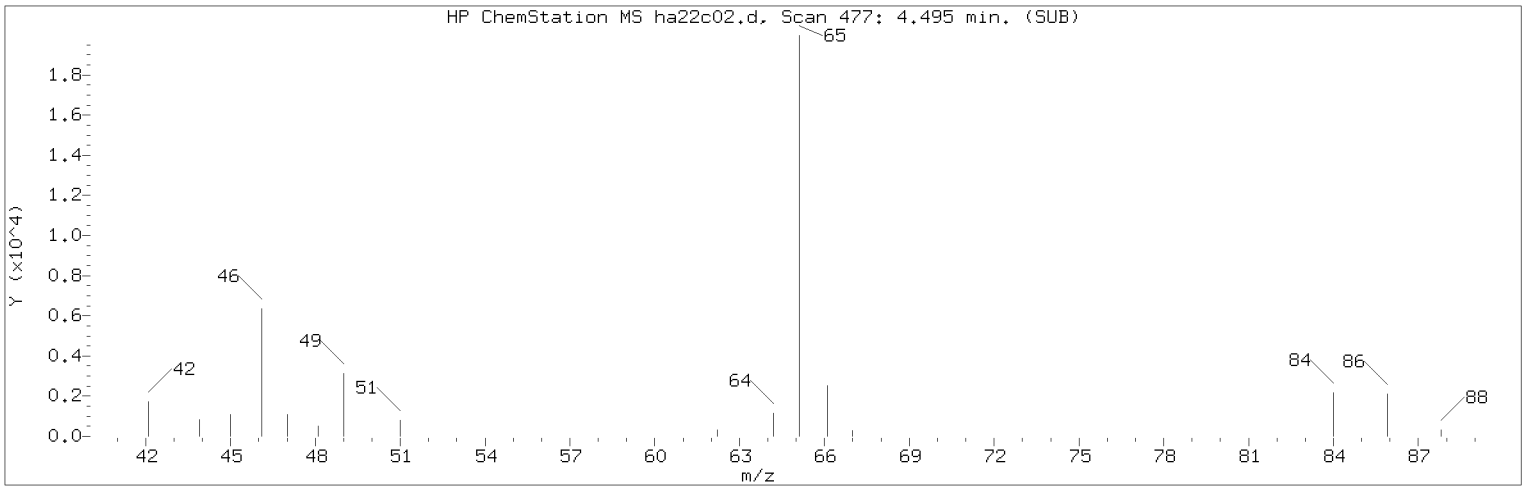
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:55 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

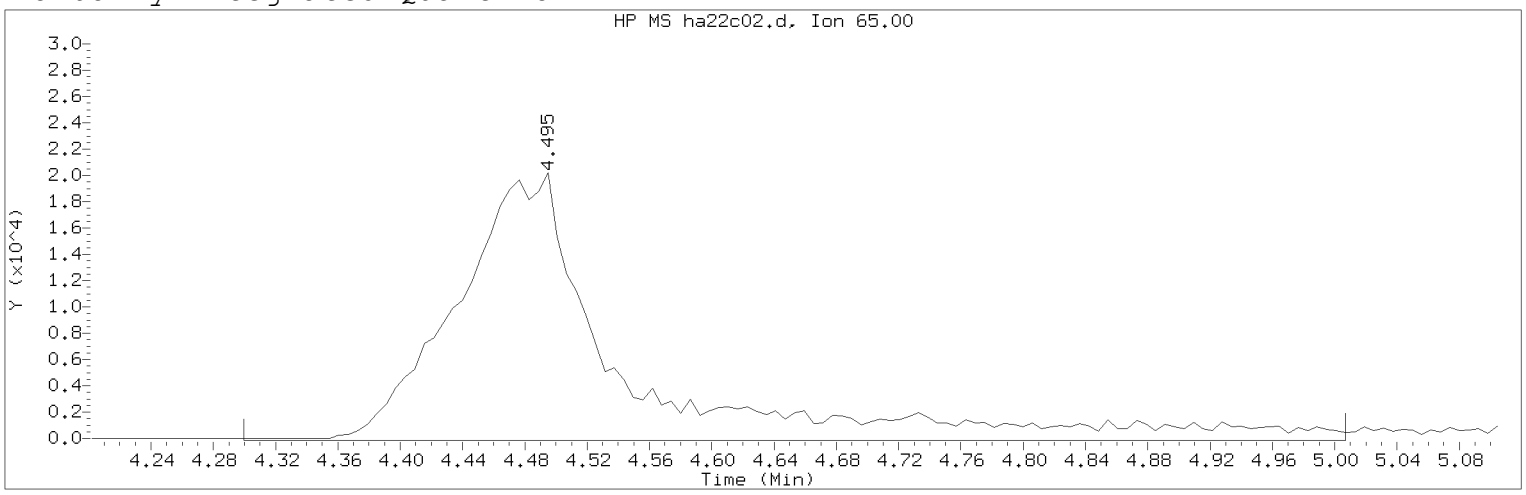
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area : 1120777
On-column Amount (ng) : 359.5035
Integration start scan : 408 Integration stop scan: 495
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:08.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

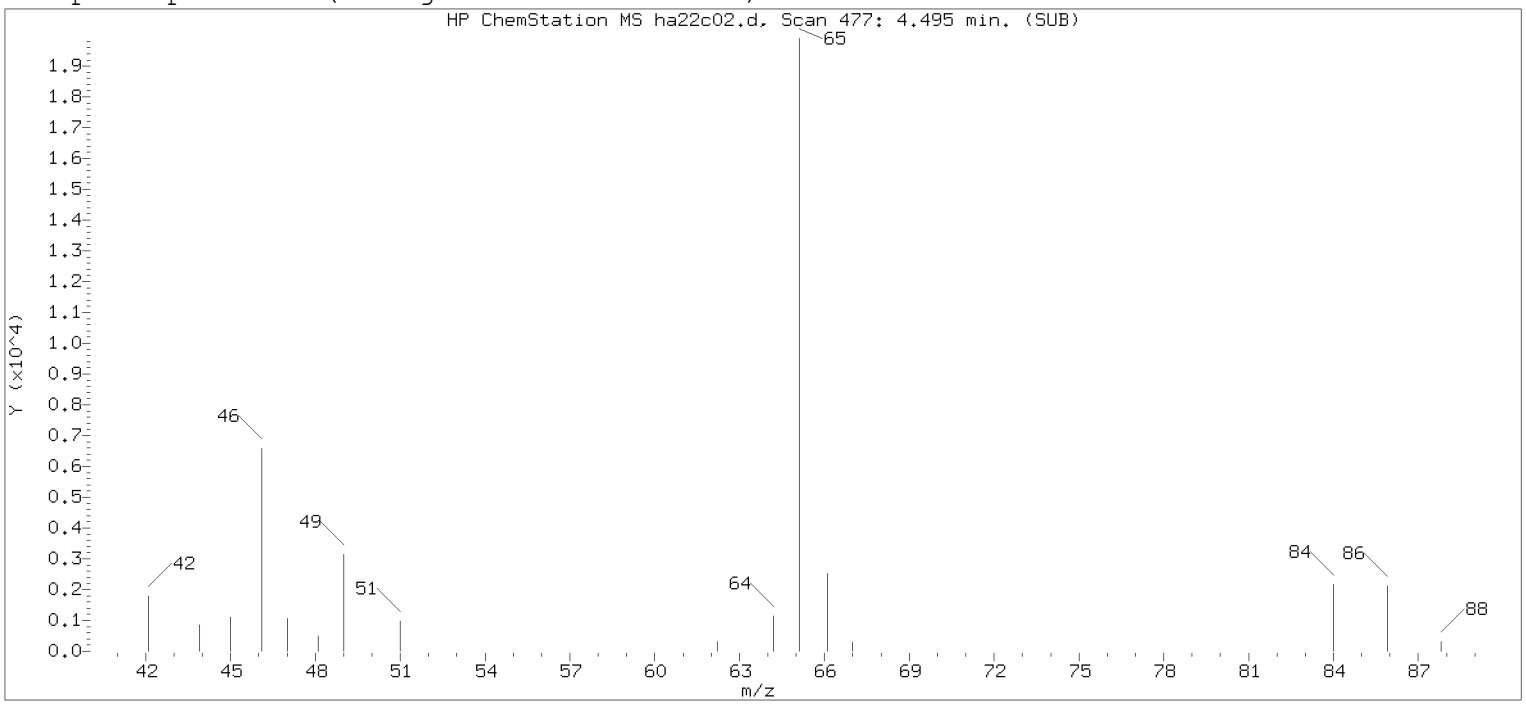
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 477
Retention Time (minutes): 4.495
Quant Ion : 65.00
Area (flag) : 150365M
On-Column Amount (ng) : 50.0000
Integration start scan : 444 Integration stop scan: 560
Y at integration start : -145 Y at integration end: -145

Reason for manual integration: improper integration

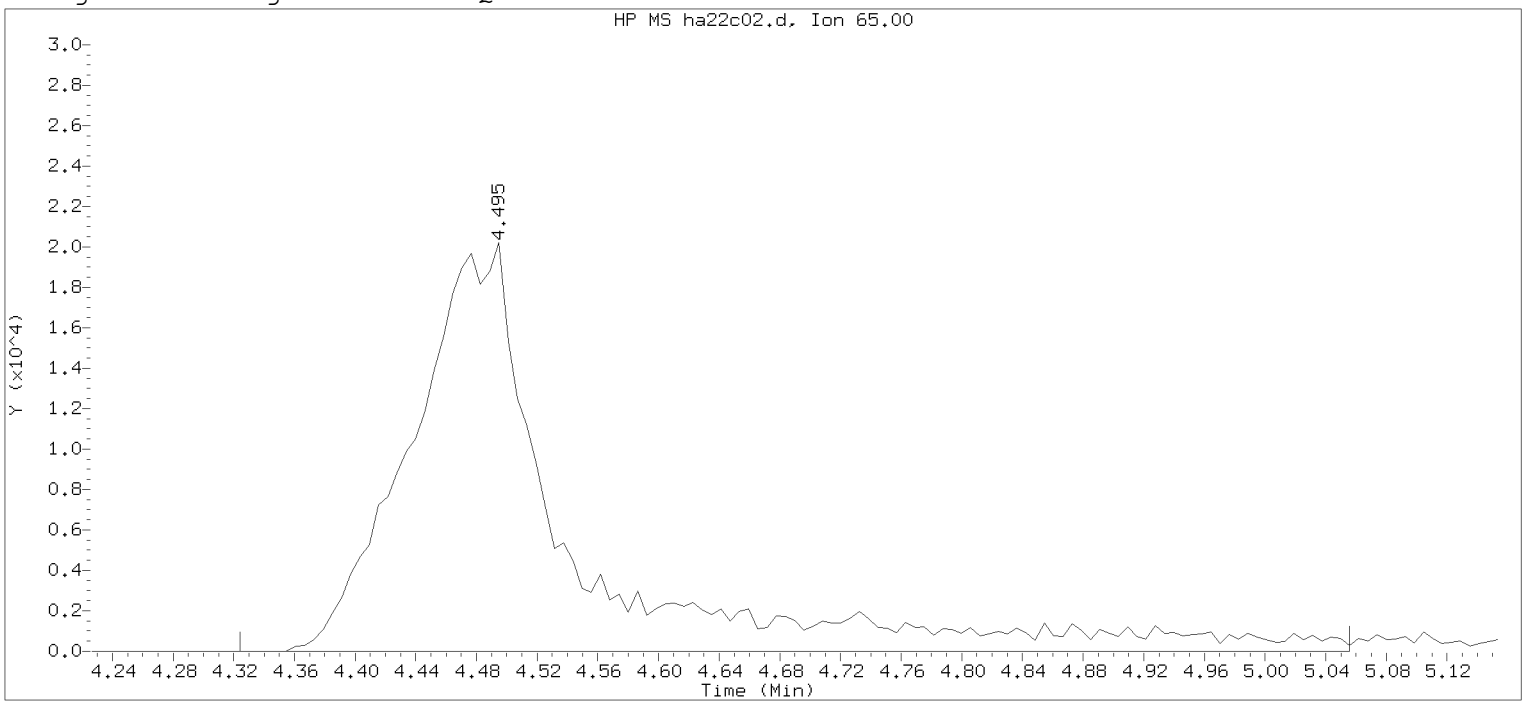
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

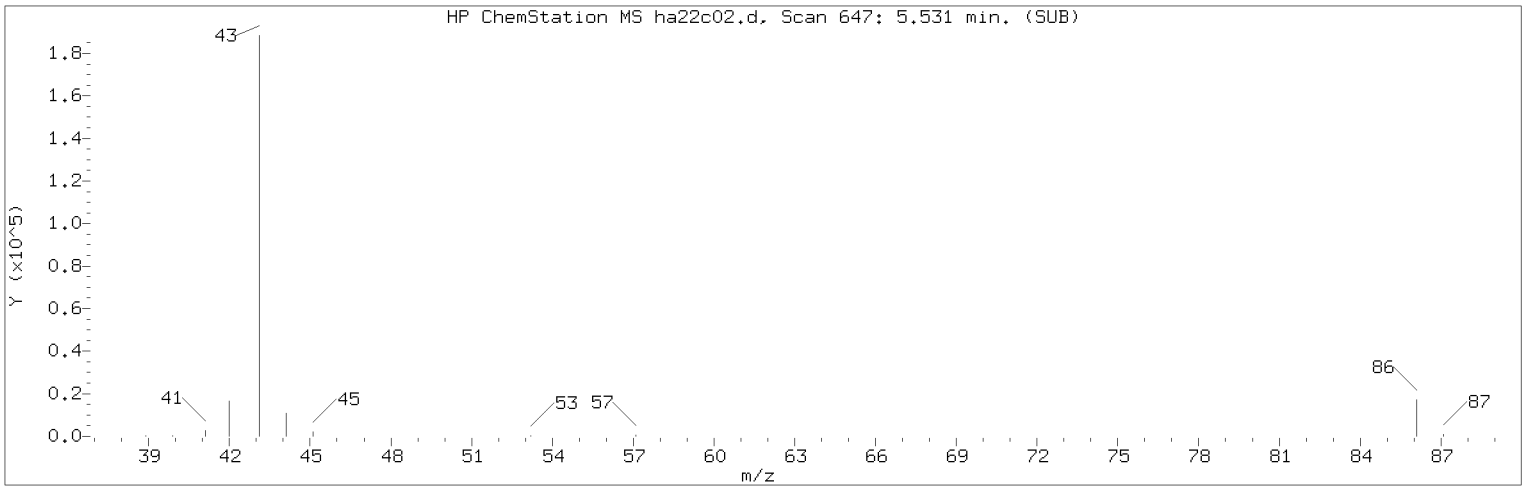
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:55 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

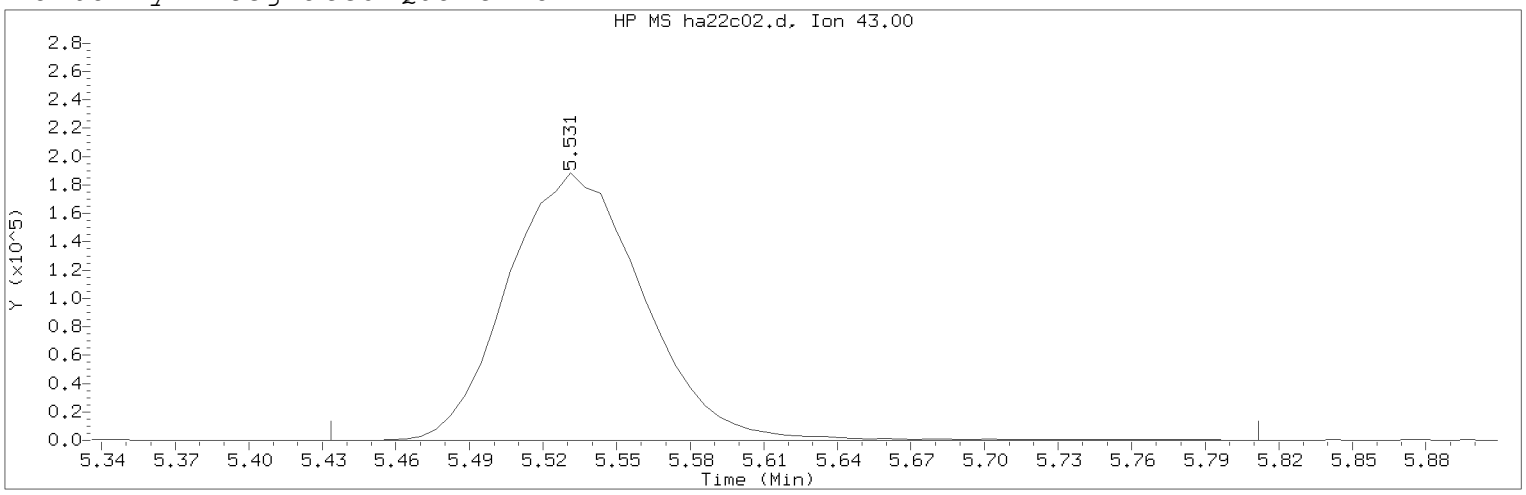
Compound Number	: 26		
Compound Name	: t-Butyl Alcohol-d10		
Scan Number	: 477		
Retention Time (minutes)	: 4.495		
Quant Ion	: 65.00		
Area	: 145889		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 448	Integration stop scan:	568
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:08.
Target 3.5 esignature used. AE35 Page 985

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

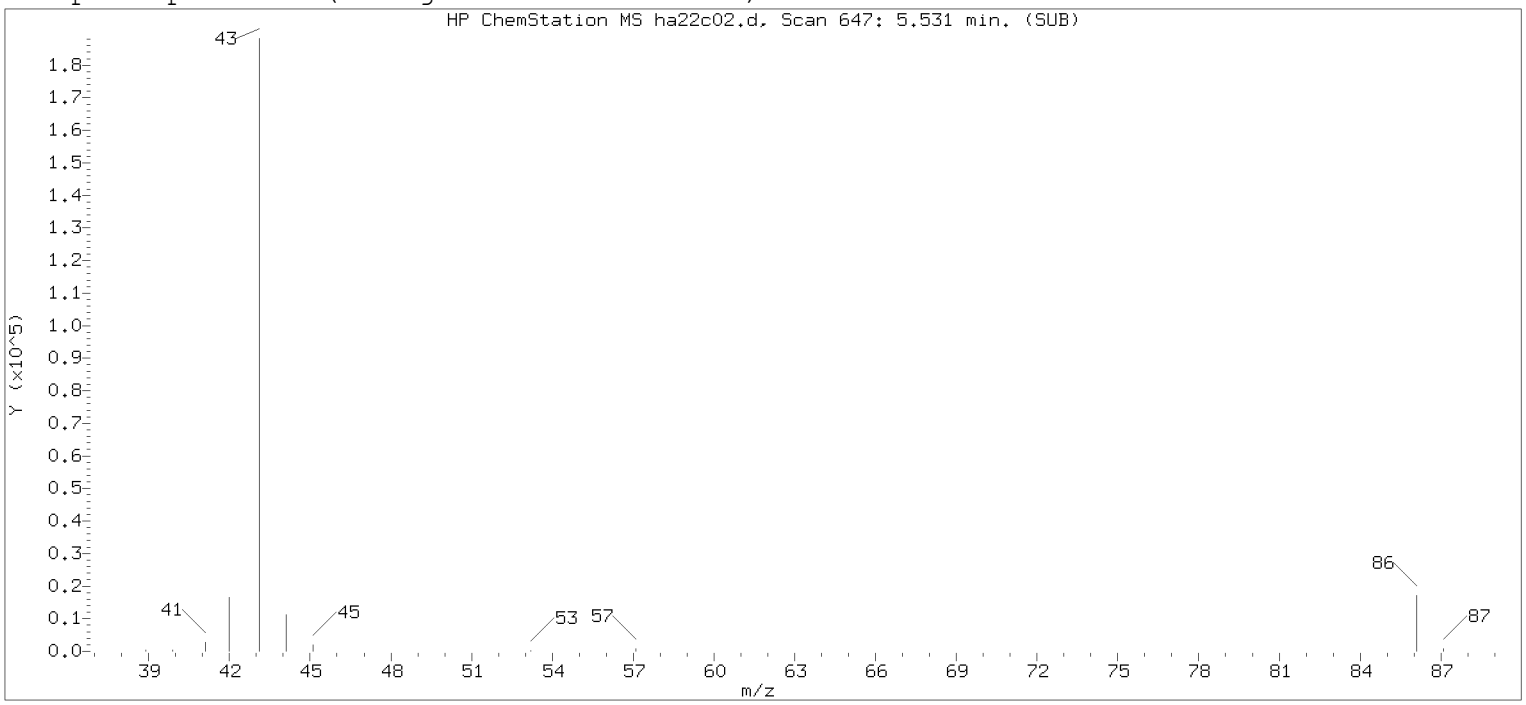
Compound Number : 36
Compound Name : Vinyl Acetate
Scan Number : 647
Retention Time (minutes): 5.531
Quant Ion : 43.00
Area (flag) : 724797M
On-Column Amount (ng) : 8.2221
Integration start scan : 630 Integration stop scan: 692
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

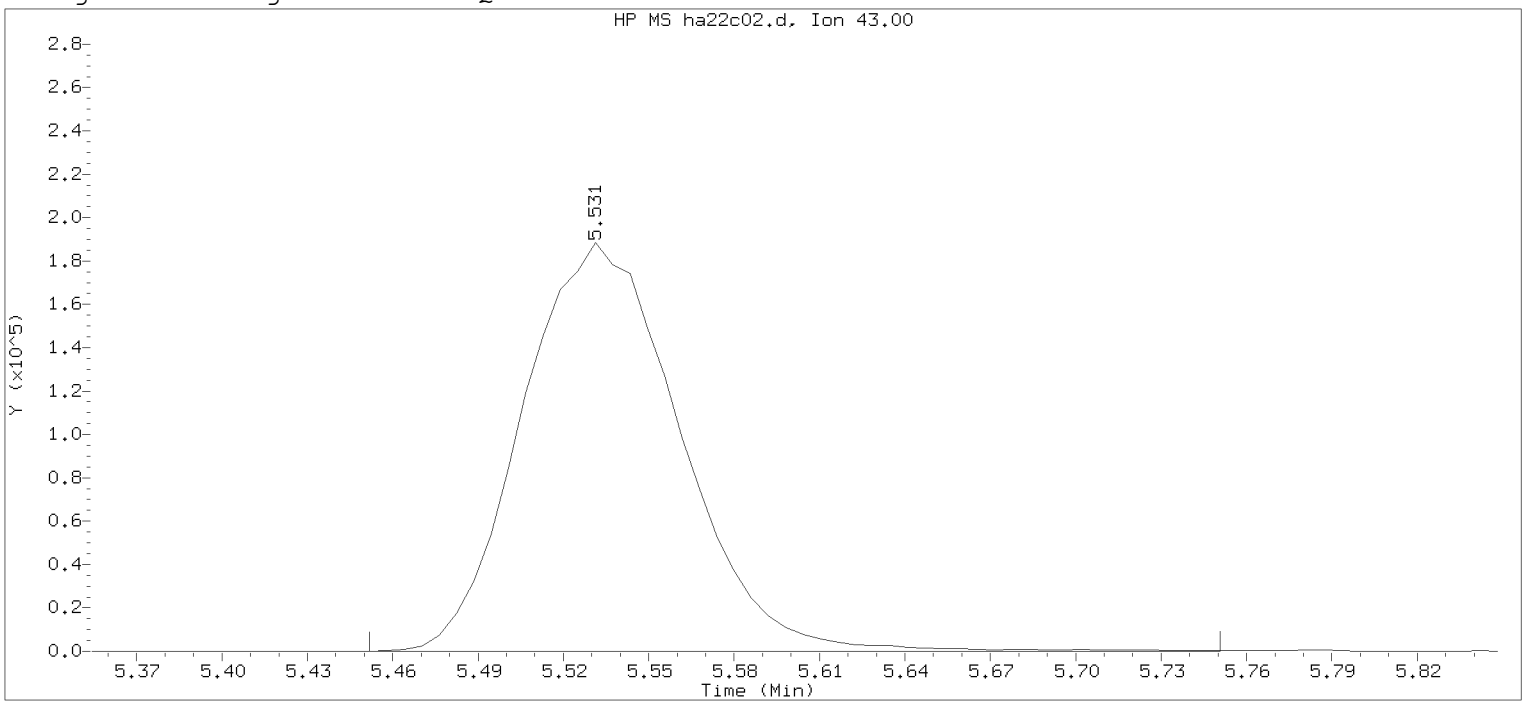
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

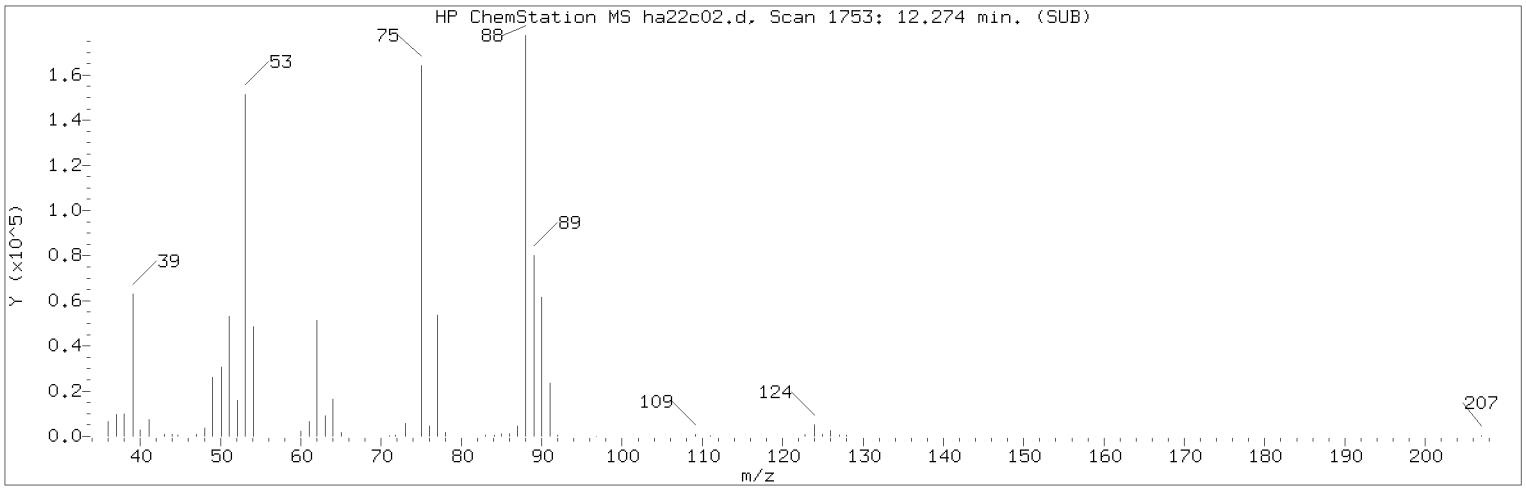
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:55 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

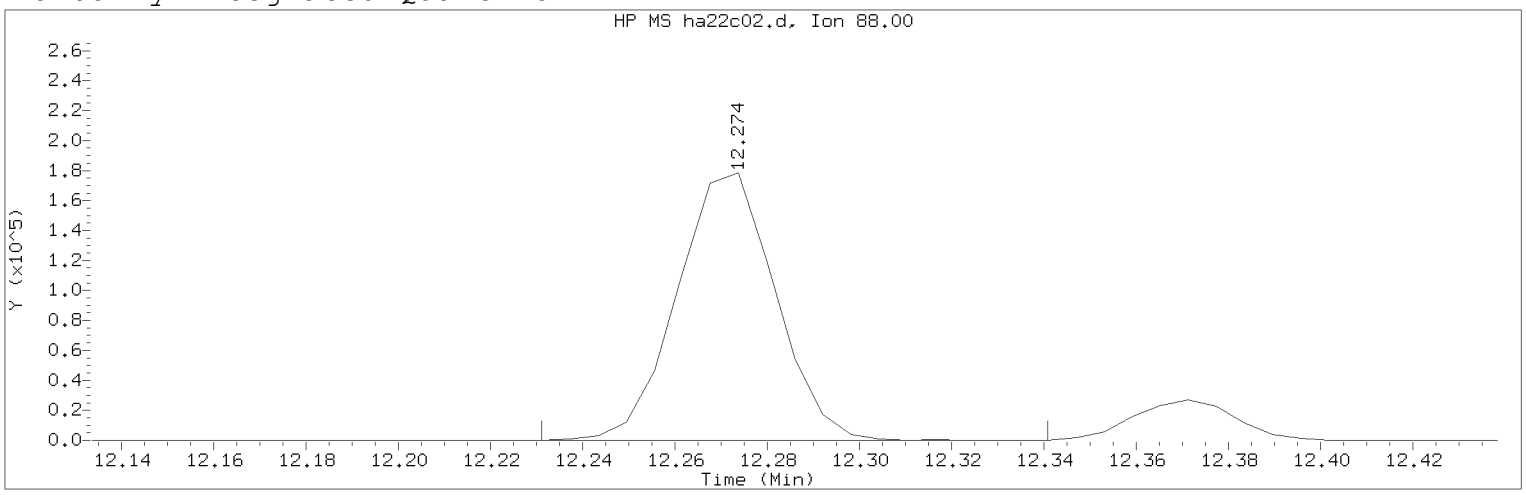
Compound Number	: 36		
Compound Name	: Vinyl Acetate		
Scan Number	: 647		
Retention Time (minutes)	: 5.531		
Quant Ion	: 43.00		
Area	: 723734		
On-column Amount (ng)	: 8.2100		
Integration start scan	: 633	Integration stop scan:	682
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:08.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

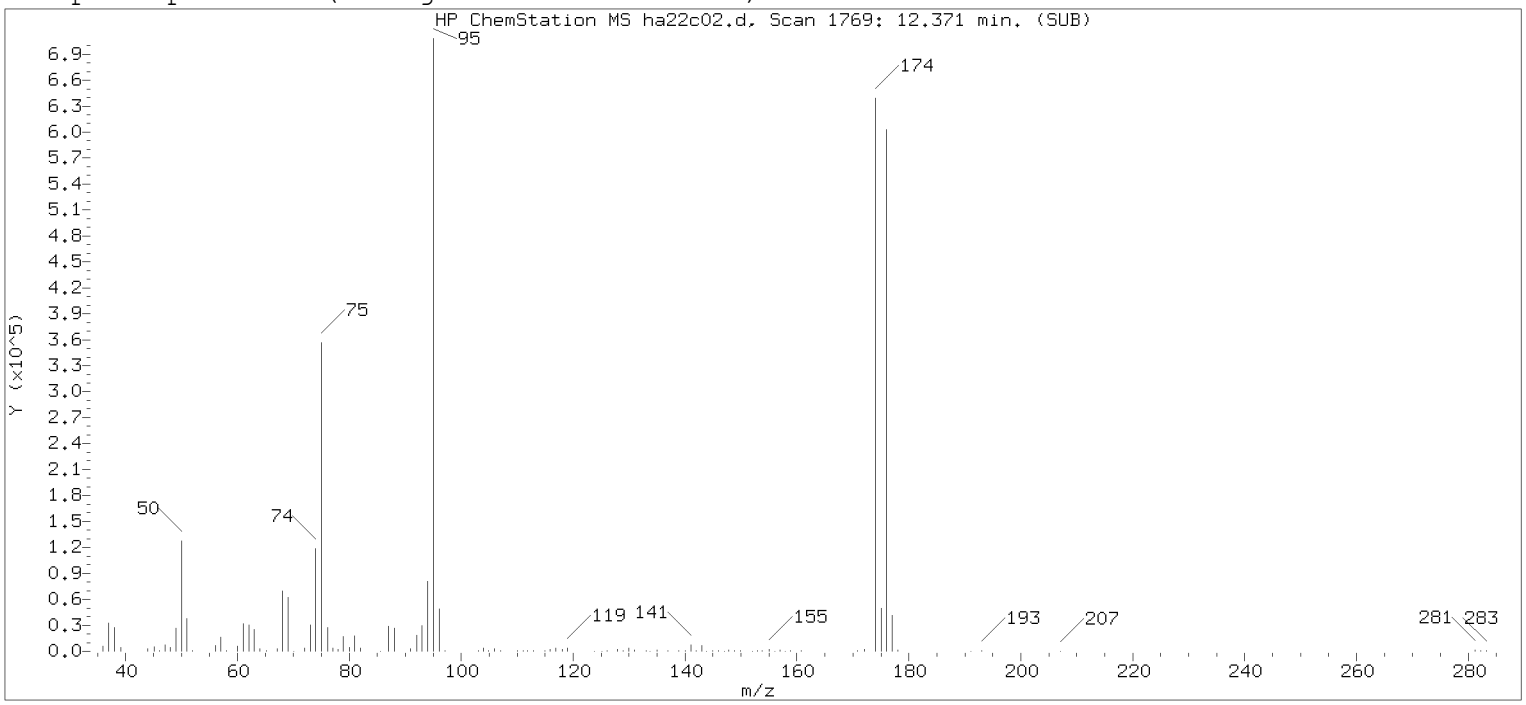
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1753
Retention Time (minutes): 12.274
Quant Ion : 88.00
Area (flag) : 263243A
On-Column Amount (ng) : 14.3208
Integration start scan : 1745 Integration stop scan: 1763
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

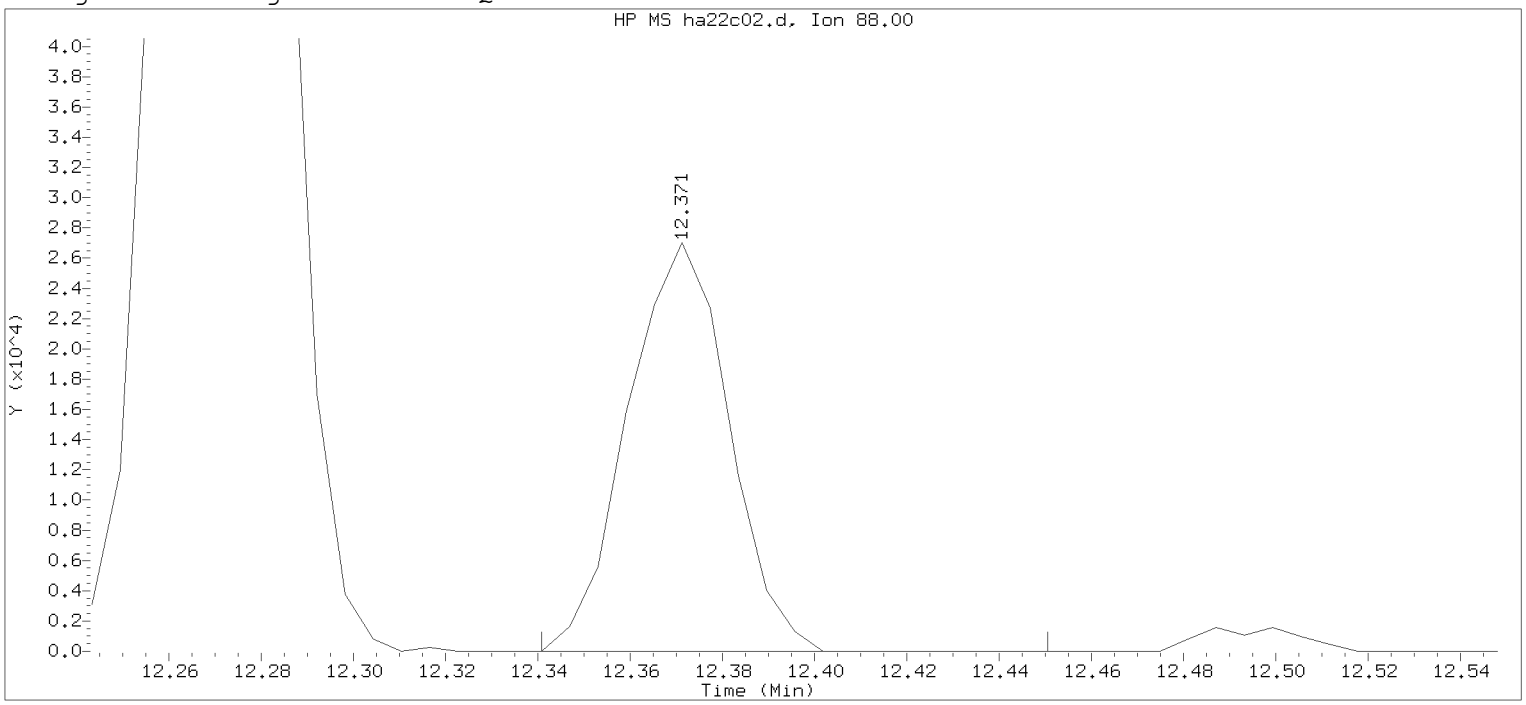
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

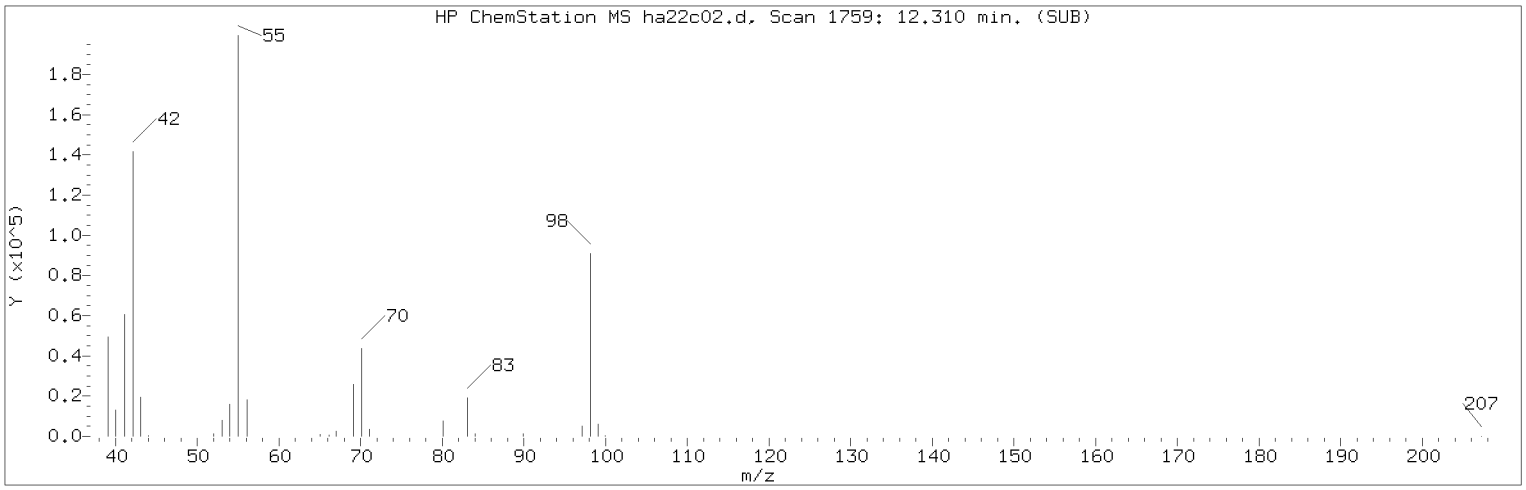
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:55 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

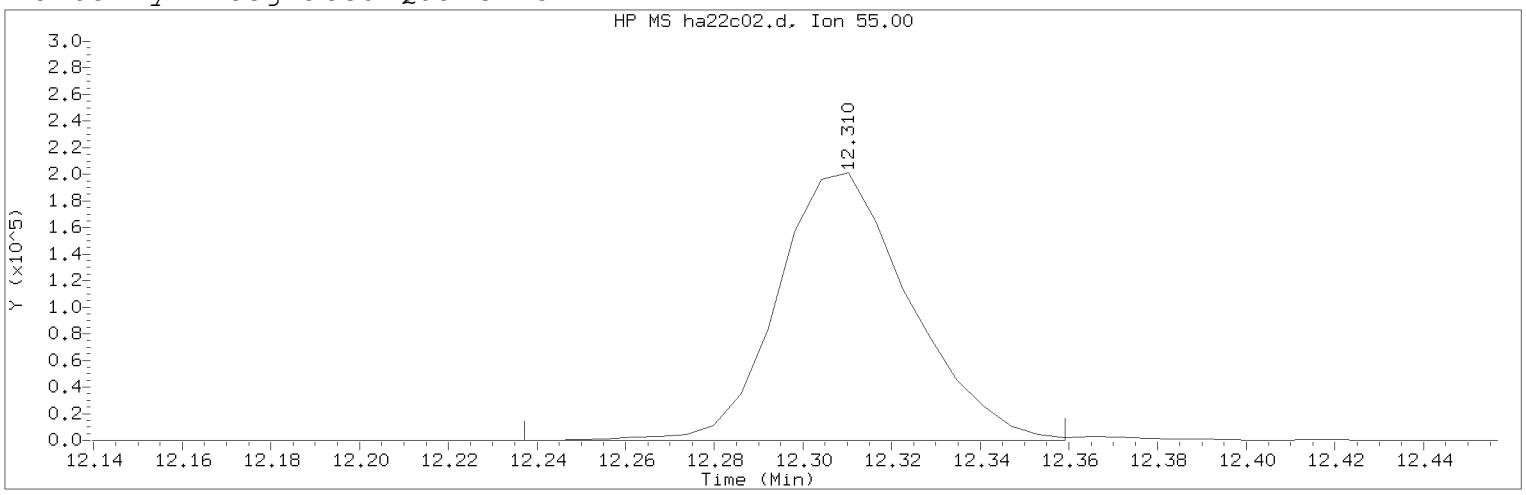
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1769
Retention Time (minutes): 12.371
Quant Ion : 88.00
Area : 41234
On-column Amount (ng) : 2.3120
Integration start scan : 1763 Integration stop scan: 1781
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:08.
Target 3.5 esignature used. AE35 Page 989 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:59 mec29284

Sample Name: VSTD010 Lab Sample ID: VSTD010

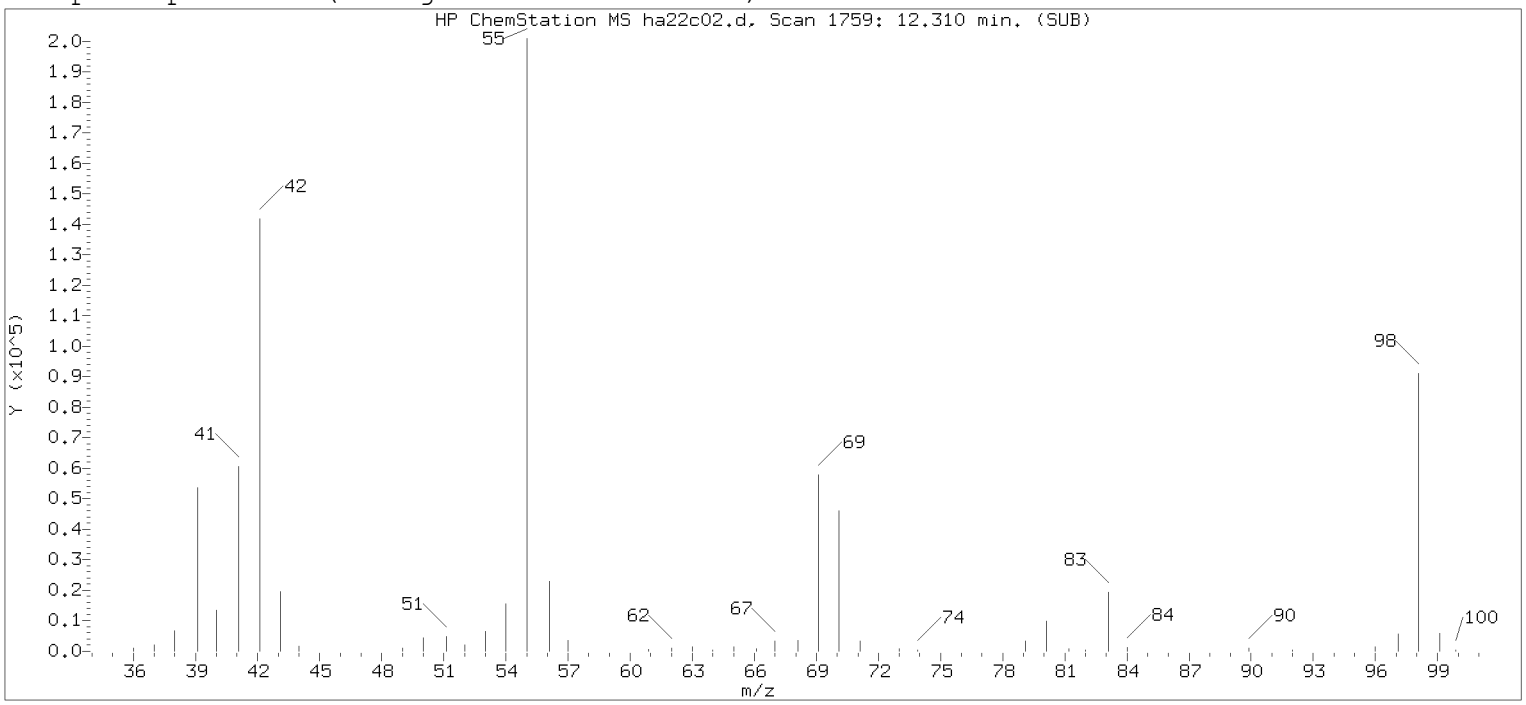
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1759
Retention Time (minutes): 12.310
Quant Ion : 55.00
Area (flag) : 415852M
On-Column Amount (ng) : 434.2391
Integration start scan : 1746 Integration stop scan: 1766
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

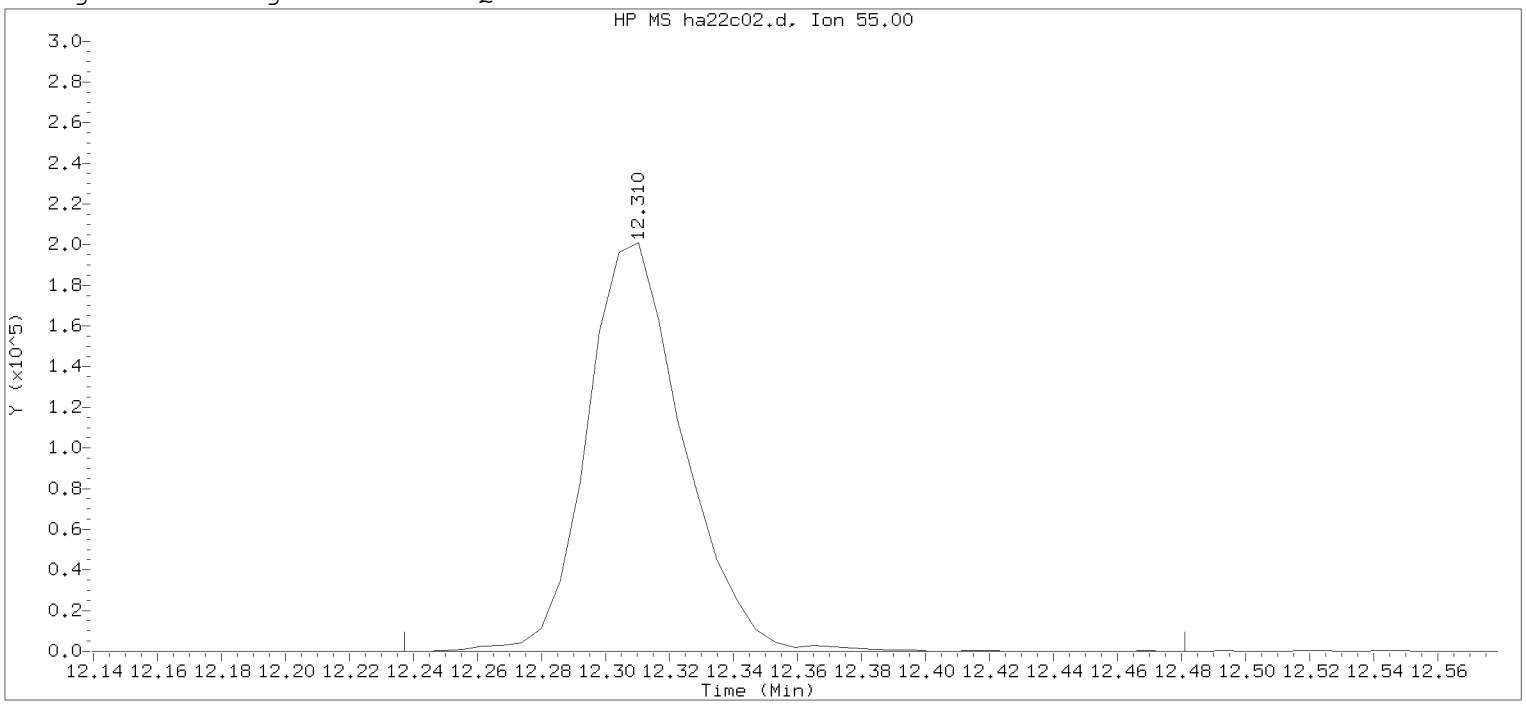
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22c02.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:37 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 21:55 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 112		
Compound Name	: Cyclohexanone		
Scan Number	: 1759		
Retention Time (minutes)	: 12.310		
Quant Ion	: 55.00		
Area	: 419538		
On-column Amount (ng)	: 451.5310		
Integration start scan	: 1746	Integration stop scan:	1786
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:08.
Target 3.5 esignature used. Reason: Approved

Data File: /chem2/HP19930.i/19apr08a.b/ia08t01.d

Date : 08-APR-2019 15:37

Client ID: BFB FEB05-19

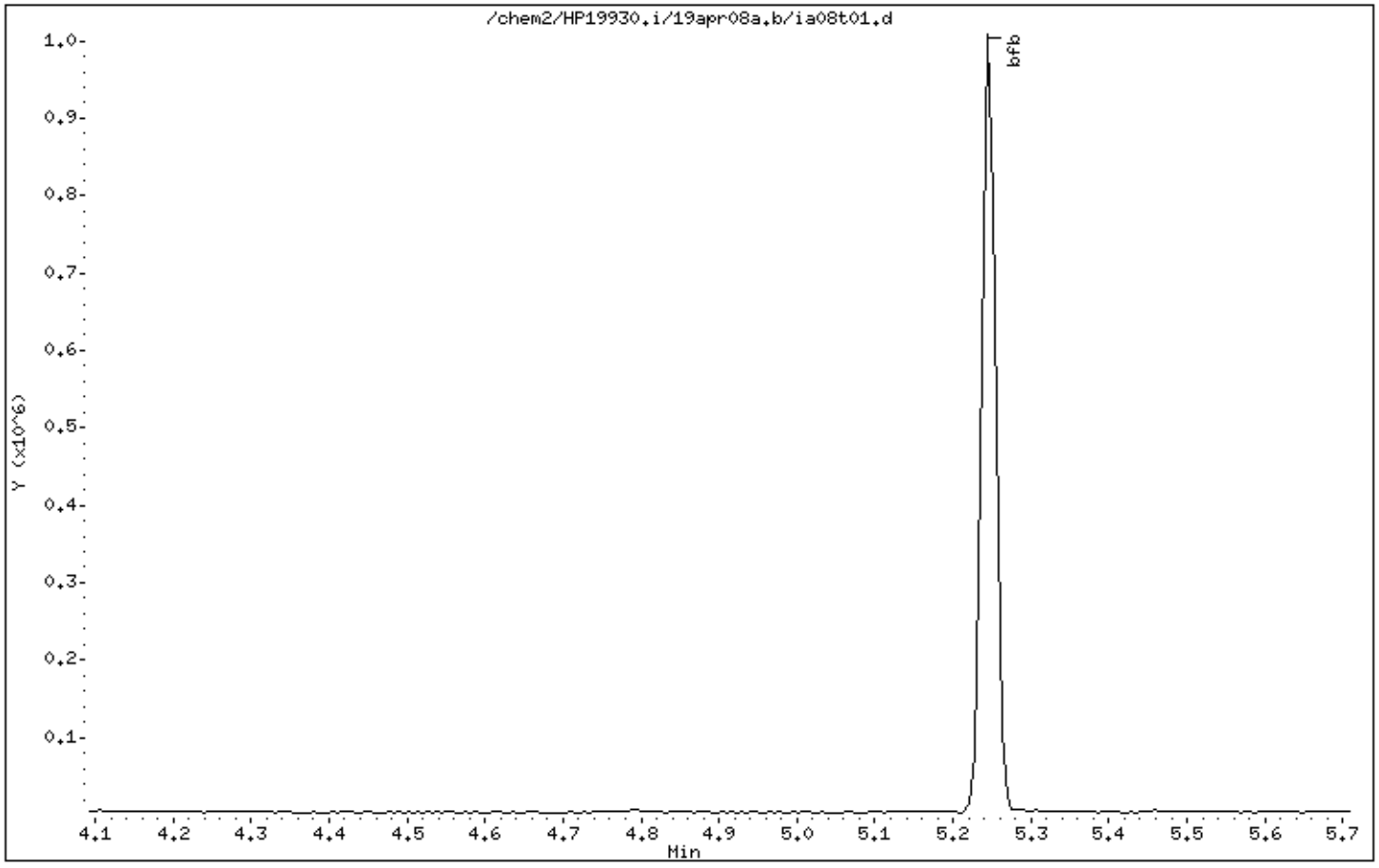
Instrument: HP19930.i

Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: MEC29284

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Jennifer K. Howe on 04/09/2019 at 10:38.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19930.i/19apr08a.b/ia08t01.d

Date : 08-APR-2019 15:37

Client ID: BFB FEB05-19

Instrument: HP19930.i

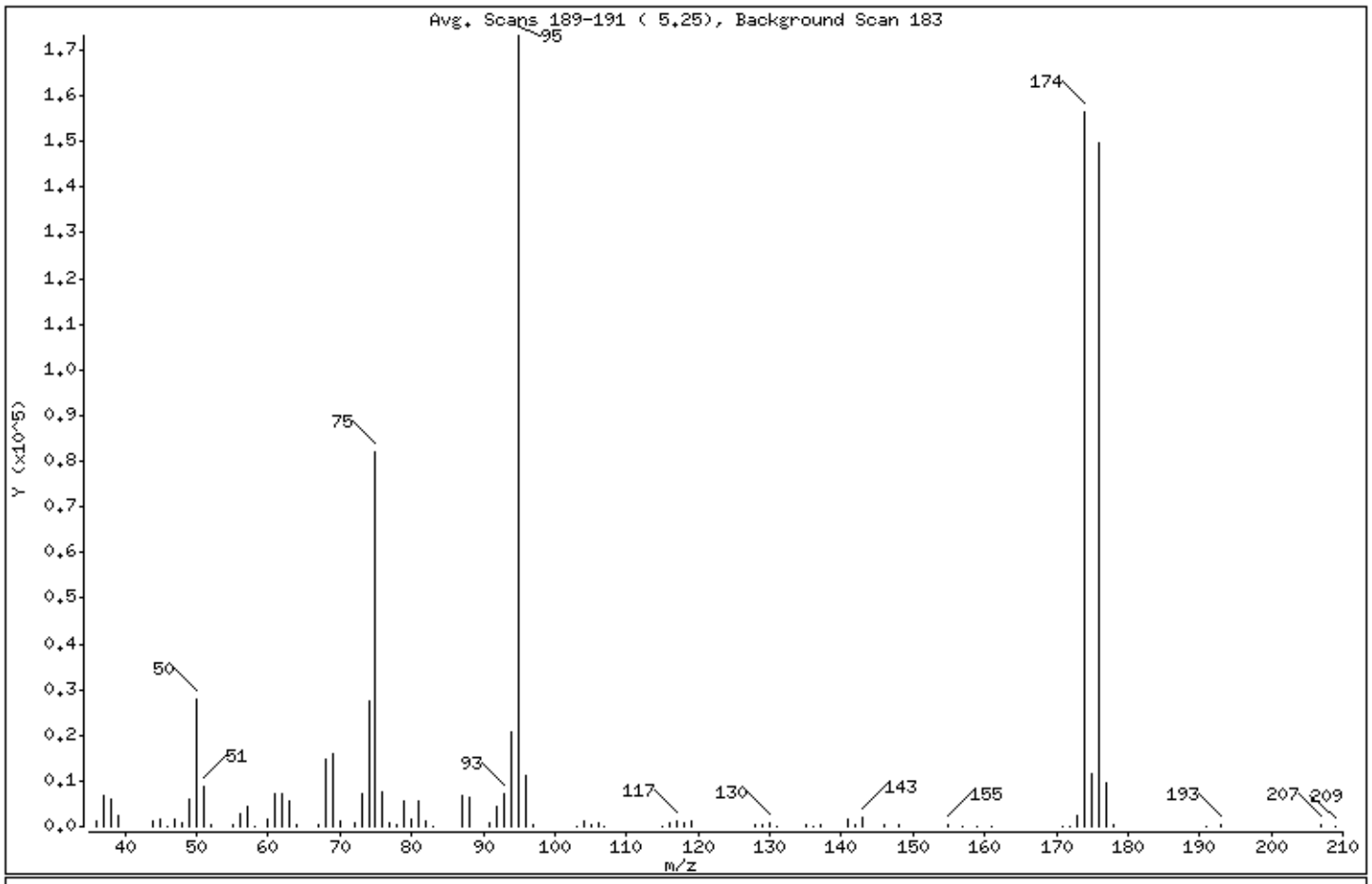
Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: MEC29284

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.17
75	30.00 - 60.00% of mass 95	47.26
96	5.00 - 9.00% of mass 95	6.52
173	Less than 2.00% of mass 174	1.39 (1.54)
174	50.00 - 100.00% of mass 95	90.35
175	5.00 - 9.00% of mass 174	6.71 (7.43)
176	95.00 - 101.00% of mass 174	86.37 (95.59)
177	5.00 - 9.00% of mass 176	5.60 (6.48)

Digitally signed by Jennifer K. Howe on 04/09/2019 at 10:38.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19930.i/19apr08a.b/ia08t01.d

Date : 08-APR-2019 15:37

Client ID: BFB FEB05-19

Instrument: HP19930.i

Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: MEC29284

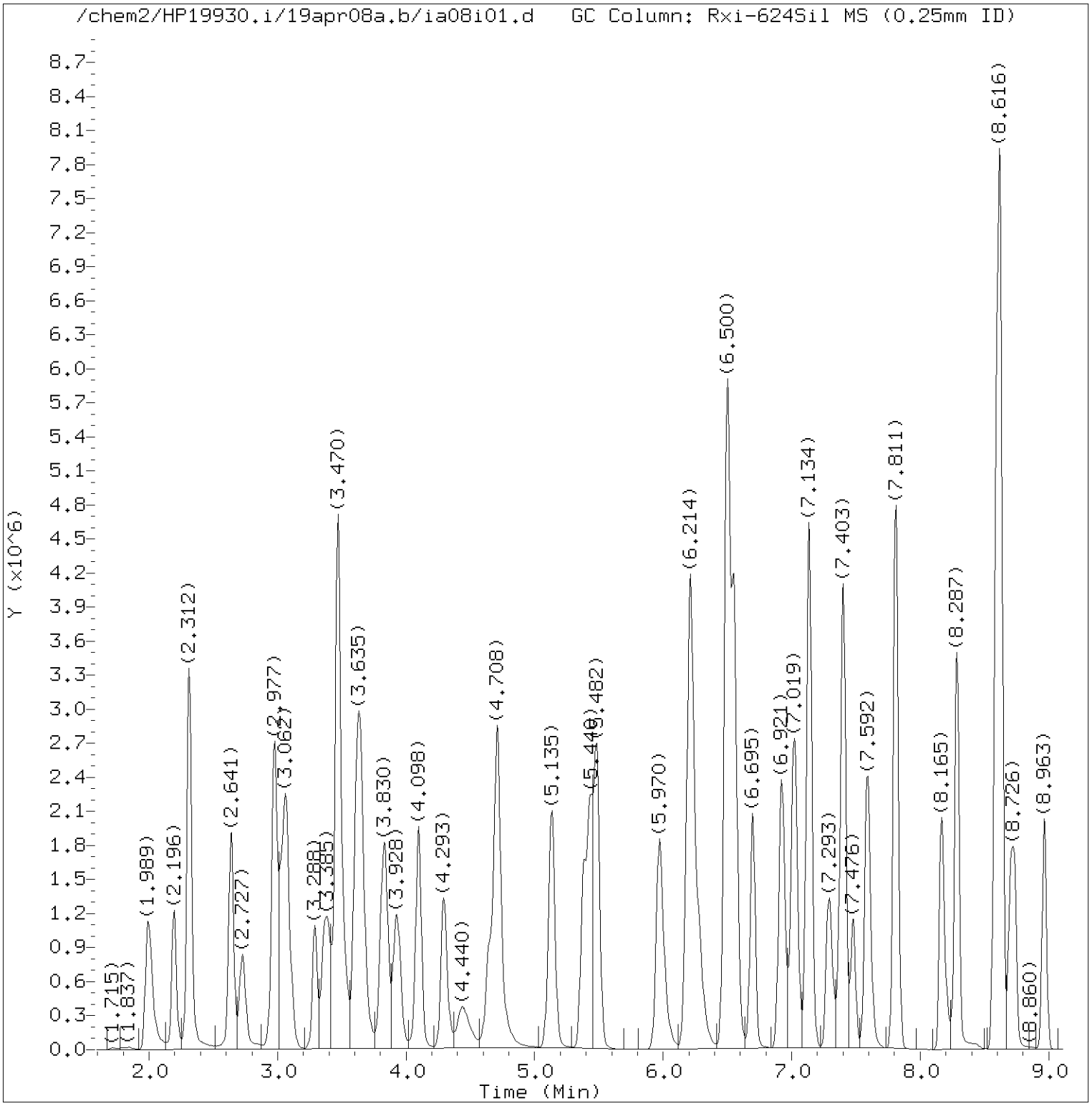
Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: ia08t01.d
Spectrum: Avg. Scans 189-191 (5.25), Background Scan 183
Location of Maximum: 95.00
Number of points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1317	67.00	559	95.00	173184	143.00	2120
37.00	6921	68.00	14790	96.00	11298	146.00	295
38.00	6126	69.00	16003	97.00	403	148.00	239
39.00	2572	70.00	1276	103.00	91	155.00	555
44.00	1259	72.00	717	104.00	1020	157.00	197
45.00	1412	73.00	7104	105.00	348	159.00	101
46.00	87	74.00	27488	106.00	731	161.00	138
47.00	1522	75.00	81840	107.00	92	171.00	196
48.00	798	76.00	7410	115.00	112	172.00	116
49.00	6104	77.00	859	116.00	901	173.00	2402
50.00	28000	78.00	593	117.00	1099	174.00	156480
51.00	8772	79.00	5609	118.00	736	175.00	11623
52.00	405	80.00	1659	119.00	1022	176.00	149568
55.00	468	81.00	5574	128.00	537	177.00	9697
56.00	2758	82.00	1055	129.00	302	178.00	382
57.00	4507	83.00	154	130.00	811	191.00	141
58.00	95	87.00	6788	131.00	102	193.00	239
60.00	1456	88.00	6266	135.00	399	207.00	369
61.00	7166	91.00	898	136.00	94	209.00	157
62.00	7050	92.00	4523	137.00	443		
63.00	5415	93.00	7174	141.00	1679		
64.00	454	94.00	20760	142.00	207		

Digitally signed by Jennifer K. Howe on 04/09/2019 at 10:38.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

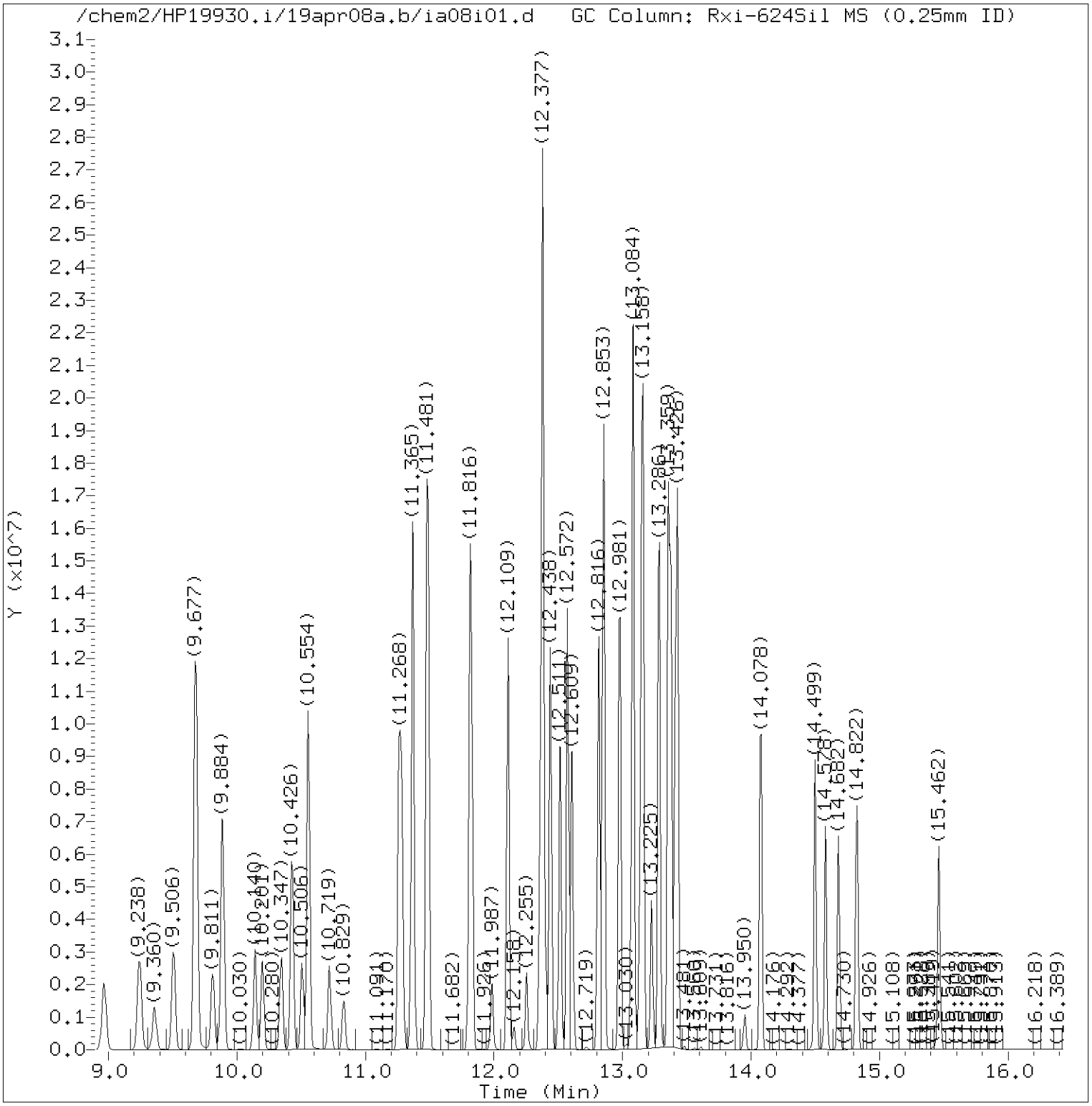
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.989	85	2702753	25.362
2) Chloromethane	(2)	2.196	50	1874759	23.751
5) Vinyl Chloride	(2)	2.312	62	1968192	24.526
6) 1,3-Butadiene	(2)	2.312	39	1478629M	22.278
7) Bromomethane	(2)	2.641	94	1867383	26.172
8) Chloroethane	(2)	2.727	64	1208062	25.914
9) Dichlorofluoromethane	(2)	2.977	67	3078902	25.561
10) Trichlorofluoromethane	(2)	3.032	101	3511073M	26.187
11) Ethyl ether	(2)	3.288	59	901892	25.546
12) Freon 123a	(2)	3.373	67	1523068MA	25.264
13) Acrolein	(1)	3.470	56	7916016	1366.385
15) 1,1-Dichloroethene	(2)	3.611	96	1177157	25.317
14) Acetone	(1)	3.641	43	1944148M	243.119
16) Freon 113	(2)	3.647	101	1459682	25.979
17) Methyl Iodide	(2)	3.818	142	2563816	25.706
18) Carbon Disulfide	(2)	3.928	76	3340647	24.535
21) Methyl Acetate	(1)	4.074	43	523698	24.784
22) Allyl Chloride	(2)	4.098	41	1791923	25.053
23) Methylene Chloride	(2)	4.293	84	1206522	25.366
26)*t-Butyl Alcohol-d10	(1)	4.312	65	136489M	50.000
28) t-Butyl Alcohol	(1)	4.440	59	1613359	486.751
29) Acrylonitrile	(1)	4.641	53	1275715	133.368
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	3004451	24.704
31) trans-1,2-Dichloroethene	(2)	4.708	96	1274557	24.492
32) n-Hexane	(2)	5.135	57	1924019	26.271
33) 1,1-Dichloroethane	(2)	5.379	63	2118415M	25.027
34) di-Isopropyl Ether	(2)	5.434	45	3647207	25.678
35) 2-Chloro-1,3-Butadiene	(2)	5.482	53	1984350	26.108
37) Ethyl t-butyl ether	(2)	5.970	59	3427208	24.305
40) 1,2-Dichloroethene (Total)	(2)		96	2734425	49.675
38) 2-Butanone	(1)	6.189	43	3490340	268.714
39) cis-1,2-Dichloroethene	(2)	6.214	96	1459868	25.182
41) 2,2-Dichloropropane	(2)	6.226	77	1994187	25.311
42) Propionitrile	(1)	6.281	54	1774736	508.887
45) Methacrylonitrile	(1)	6.500	67	3535845	275.492
47) Bromochloromethane	(2)	6.549	128	712166	24.961
48) Tetrahydrofuran	(1)	6.561	71	1079049	265.668
49) Chloroform	(2)	6.695	83	2309445	25.038

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	469936	9.959
50)$Dibromofluoromethane	(2)	6.915	111	482047	9.994
51) 1,1,1-Trichloroethane	(2)	6.927	97	2269796	25.456
52) Cyclohexane	(2)	7.019	56	2271119	25.903
52) Cyclohexane	(2)	7.019	84	2141825M	25.893
52) Cyclohexane	(2)	7.019	69	728462M	25.301
54) Carbon Tetrachloride	(2)	7.134	117	2180926	25.903
55) 1,1-Dichloropropene	(2)	7.134	75	1770152	25.646
56) Isobutyl Alcohol	(1)	7.293	41	1260907	1231.683
57)$1,2-Dichloroethane-d4	(2)	7.372	102	90292	9.929
57)$1,2-Dichloroethane-d4	(2)	7.372	65	409918	10.057
57)$1,2-Dichloroethane-d4	(2)	7.378	104	56189	9.787
58) Benzene	(2)	7.403	78	5193807	25.591
59) 1,2-Dichloroethane	(2)	7.482	62	1316258	24.177
59) 1,2-Dichloroethane	(2)	7.476	98	130274	25.653
60) t-Amyl methyl ether	(2)	7.586	73	3319556	24.408
63)*Fluorobenzene	(2)	7.805	96	1828378	10.000
62) n-Heptane	(2)	7.811	43	2012199	26.758
65) n-Butanol	(1)	8.165	56	2244233	2627.151
67) Trichloroethene	(2)	8.287	95	1459234	25.697
69) Methylcyclohexane	(2)	8.591	83	2792499	27.540
70) 1,2-Dichloropropane	(2)	8.622	63	1224526	26.058
71) Methyl Methacrylate	(1)	8.701	69	690524	28.111
72) 1,4-Dioxane	(1)	8.707	88	249520M	1188.053
72) 1,4-Dioxane	(1)	8.701	58	152106M	1215.337
73) Dibromomethane	(2)	8.732	93	674465	25.532
74) Bromodichloromethane	(2)	8.963	83	1735361	26.608
76) 2-Nitropropane	(1)	9.238	41	2346708	287.113
80) cis-1,3-Dichloropropene	(2)	9.506	75	1963353	26.537
81) 4-Methyl-2-Pentanone	(1)	9.677	43	9428018	286.717
82)$Toluene-d8	(3)	9.811	98	1796518	9.776
82)$Toluene-d8	(3)	9.811	100	1145662	9.721
83) Toluene	(3)	9.884	92	3527231	25.530
84) trans-1,3-Dichloropropene	(3)	10.140	75	1694851	26.025
85) 1,3-Dichloropropene (total)	(3)		75	3658204	52.562
86) Ethyl Methacrylate	(3)	10.201	69	1482797	26.961
88) 1,1,2-Trichloroethane	(3)	10.347	97	972479	25.472
89) Tetrachloroethene	(3)	10.426	166	1865969	25.522

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	1560738	25.399
91) 2-Hexanone	(1)	10.554	43	6639006	284.729
93) Dibromochloromethane	(3)	10.719	129	1397256	26.927
95) 1,2-Dibromoethane	(3)	10.829	107	1005470	25.861
97)*Chlorobenzene-d5	(3)	11.256	117	1498173	10.000
96) 1-Chlorohexane	(3)	11.262	91	2113948	25.413
98) Chlorobenzene	(3)	11.286	112	4044333	25.500
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	1609784	26.910
100) Ethylbenzene	(3)	11.371	91	7272177	26.210
101) m+p-Xylene	(3)	11.481	106	5842268	52.873
105) Xylene (Total)	(3)		106	8674233	79.426
104) o-Xylene	(3)	11.810	106	2831965	26.553
106) Styrene	(3)	11.822	104	4647296	27.485
107) Bromoform	(3)	11.987	173	912458	28.591
108) Isopropylbenzene	(3)	12.109	105	7516284	26.090
111)$4-Bromofluorobenzene	(3)	12.255	95	670496	9.737
111)$4-Bromofluorobenzene	(3)	12.255	174	652625	9.901
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	1261135	26.443
114) Bromobenzene	(4)	12.371	156	1938694	26.711
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	3638712	315.531
116) 1,2,3-Trichloropropane	(4)	12.402	110	365225	25.806
117) n-Propylbenzene	(4)	12.438	91	8444345	26.013
119) 2-Chlorotoluene	(4)	12.517	126	1799212	25.775
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	6440046	26.857
122) 4-Chlorotoluene	(4)	12.609	126	1811113	25.821
125) tert-Butylbenzene	(4)	12.816	134	1464844M	26.808
126) Pentachloroethane	(4)	12.847	167	1338909	27.824
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	6638877	27.171
128) sec-Butylbenzene	(4)	12.981	105	8411065	27.098
131) 1,3-Dichlorobenzene	(4)	13.078	146	3791003	27.288
132) p-Isopropyltoluene	(4)	13.084	119	7691551	28.238
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	835590	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	3683670	26.533
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	3070899	26.895
136) Benzyl Chloride	(4)	13.225	126	636102	28.307
138) n-Butylbenzene	(4)	13.377	92	3640985	29.388
139) 1,2-Dichlorobenzene	(4)	13.408	146	3378596	26.642
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	218788	29.265

M = Compound was manually integrated.
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on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	2890396	28.534
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	2506950	28.232
146) Hexachlorobutadiene	(4)	14.578	225	1120396	30.879
147) Naphthalene	(4)	14.682	128	4534780	25.501
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	2167375	27.108

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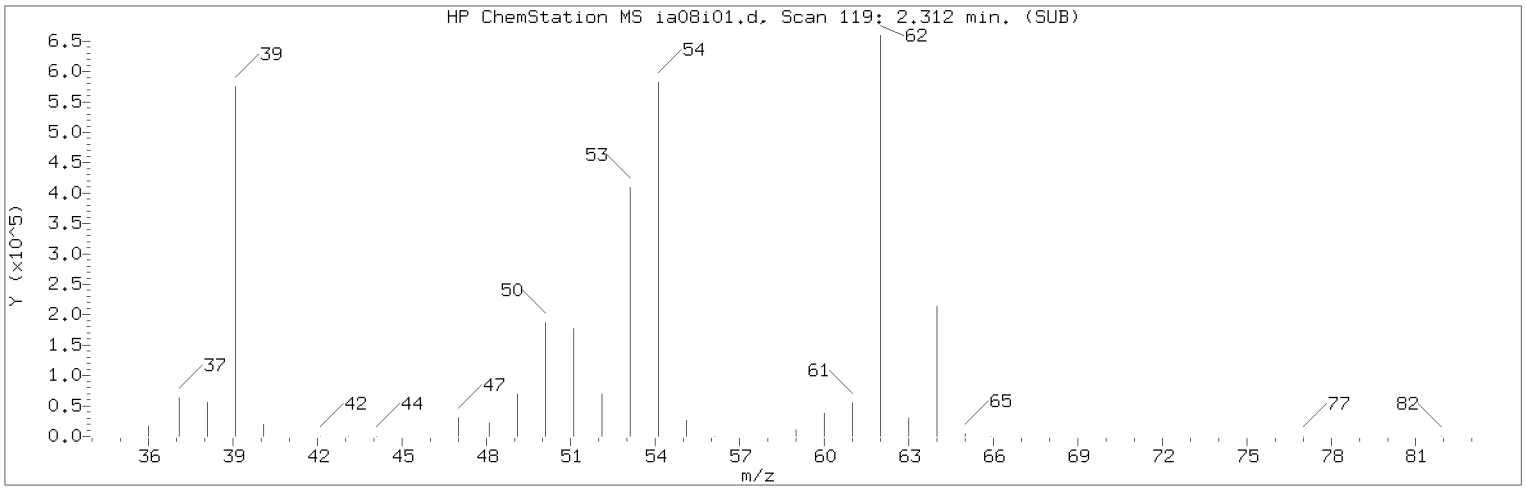
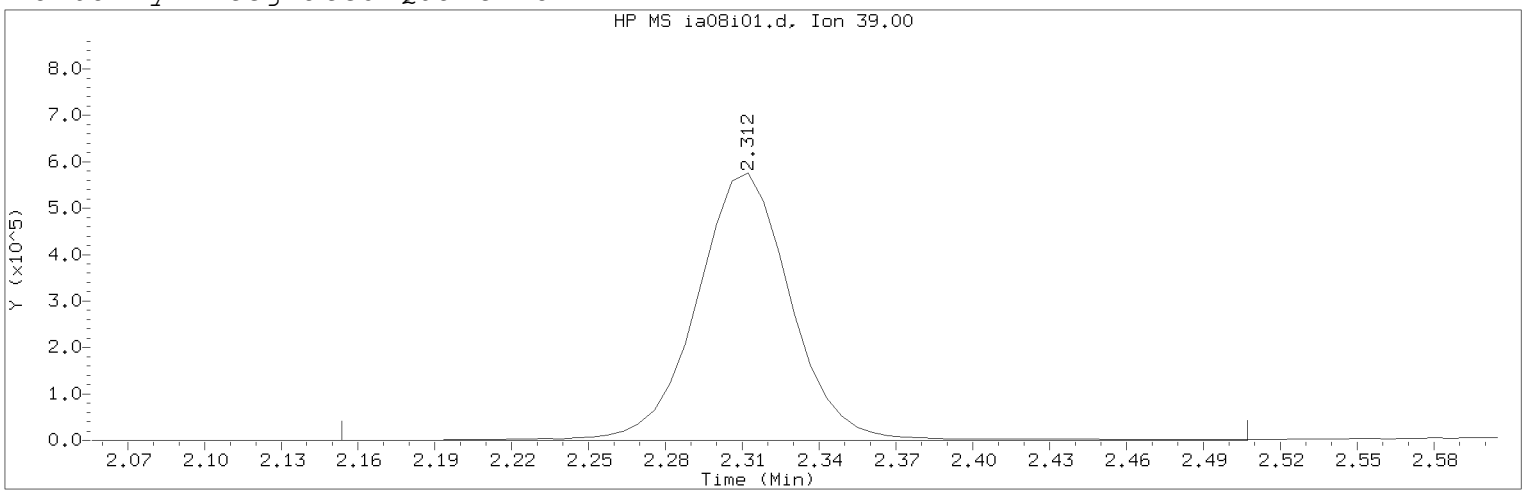
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

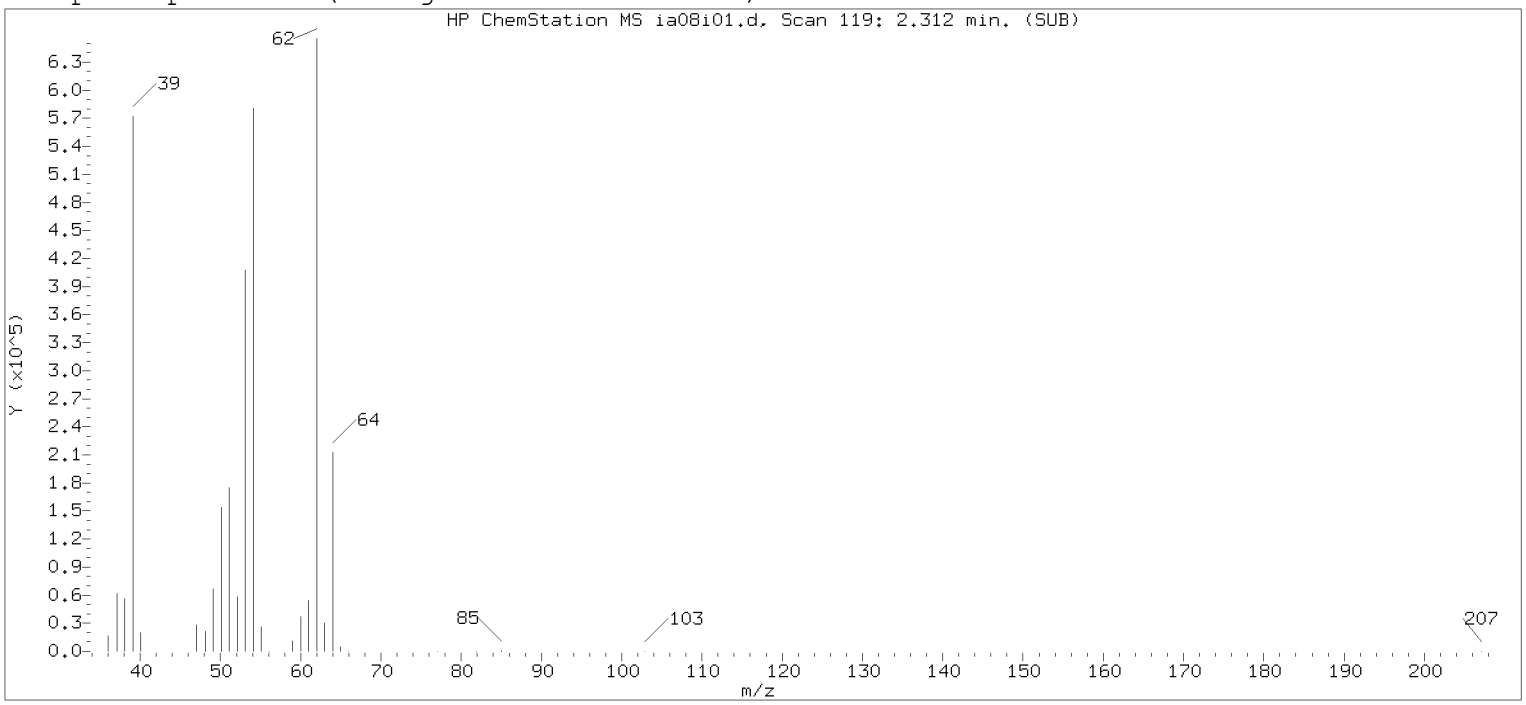
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area (flag) : 1478629M
On-Column Amount (ng) : 22.2784
Integration start scan : 92 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

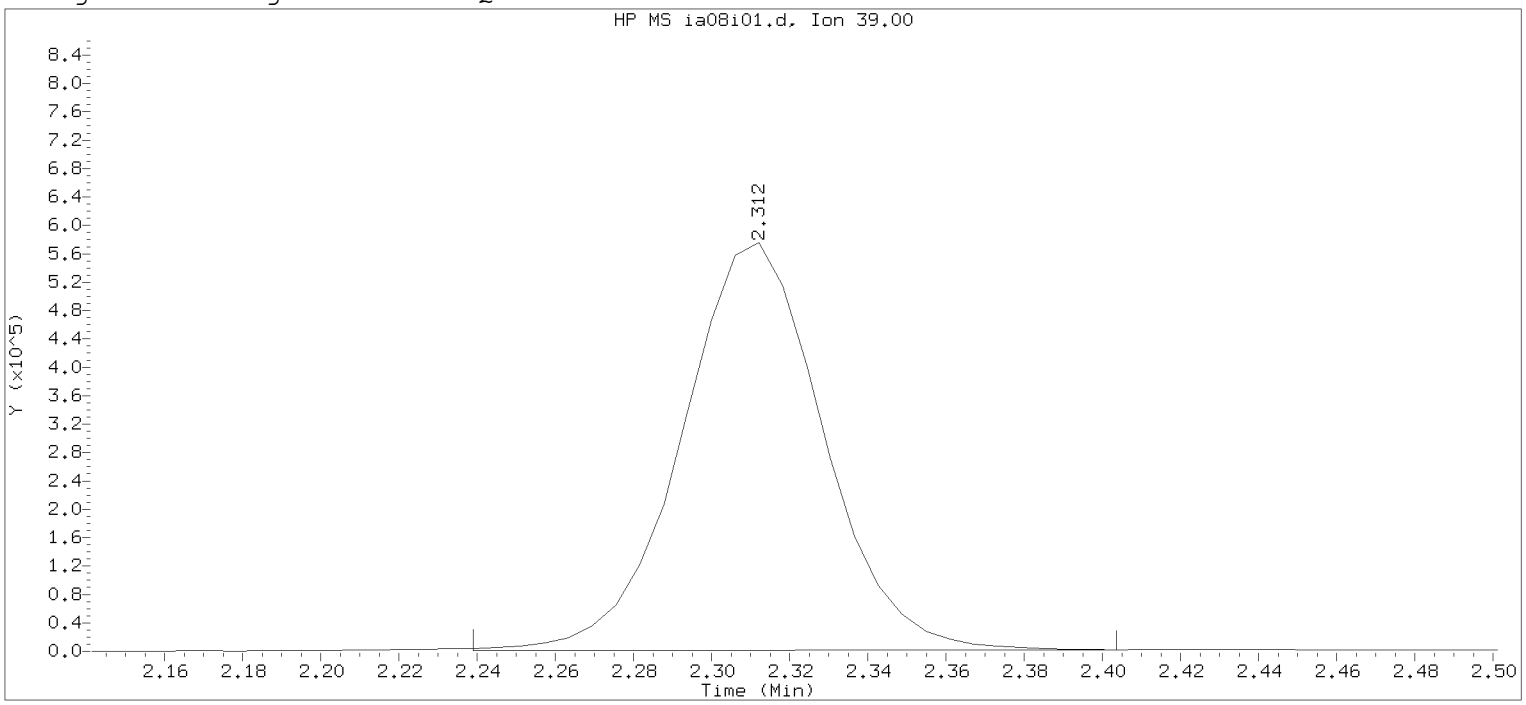
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area : 1443188
On-column Amount (ng) : 23.9537
Integration start scan : 106 Integration stop scan: 133
Y at integration start : 868 Y at integration end: 2212

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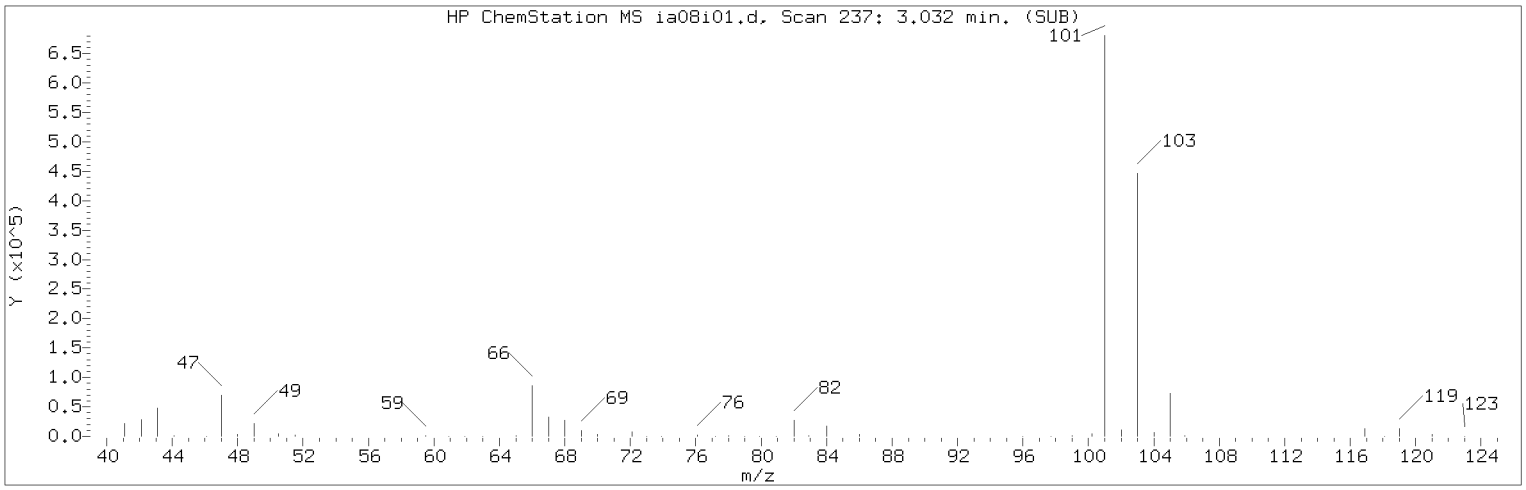
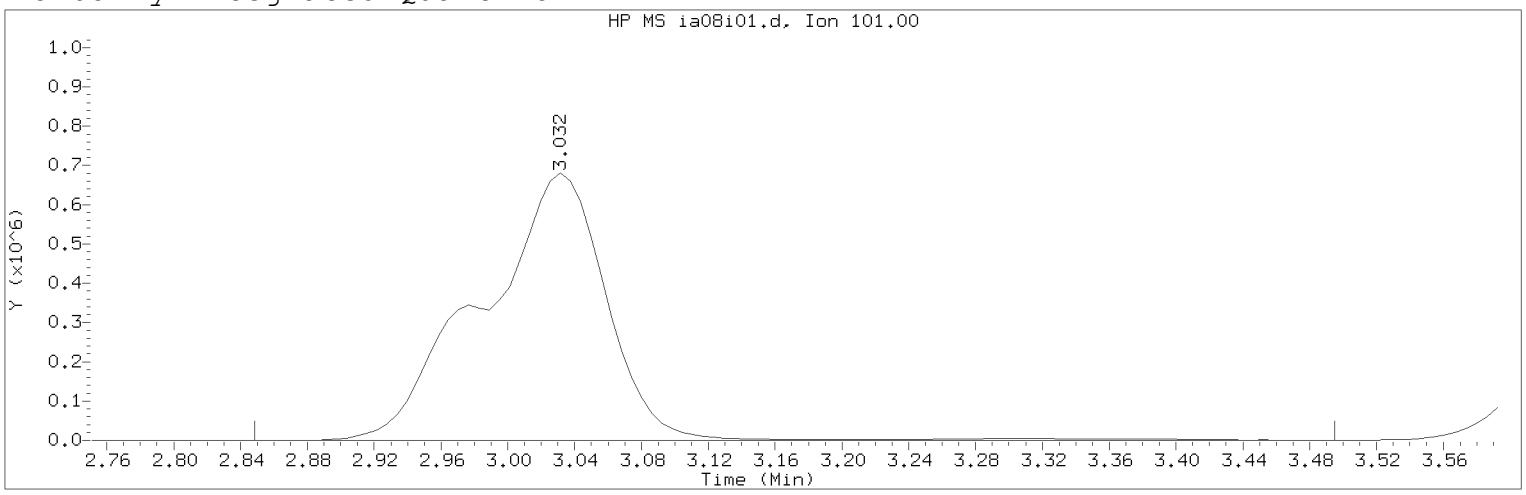
Target 3.5 esignature user: Page 1002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

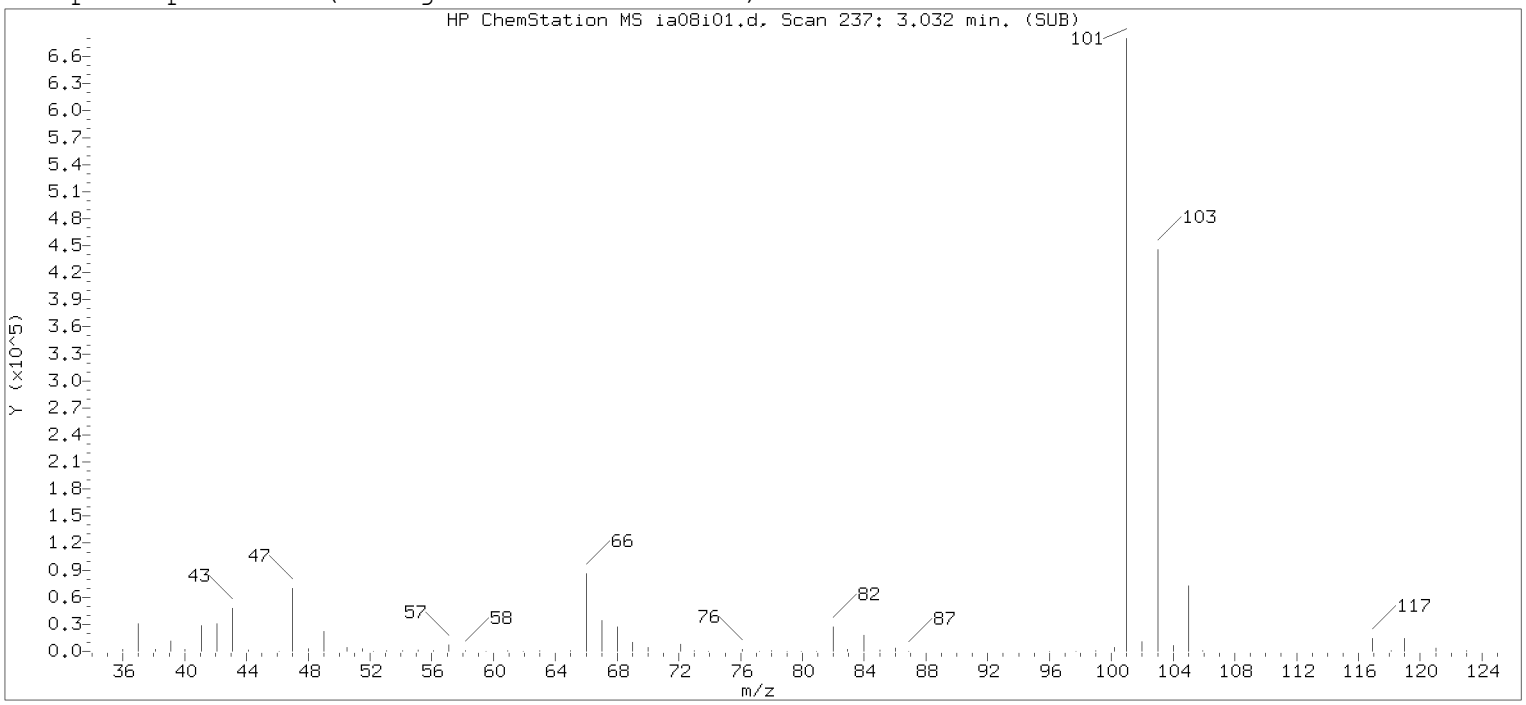
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 237
Retention Time (minutes): 3.032
Quant Ion : 101.00
Area (flag) : 3511073M
On-Column Amount (ng) : 26.1873
Integration start scan : 206 Integration stop scan: 312
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

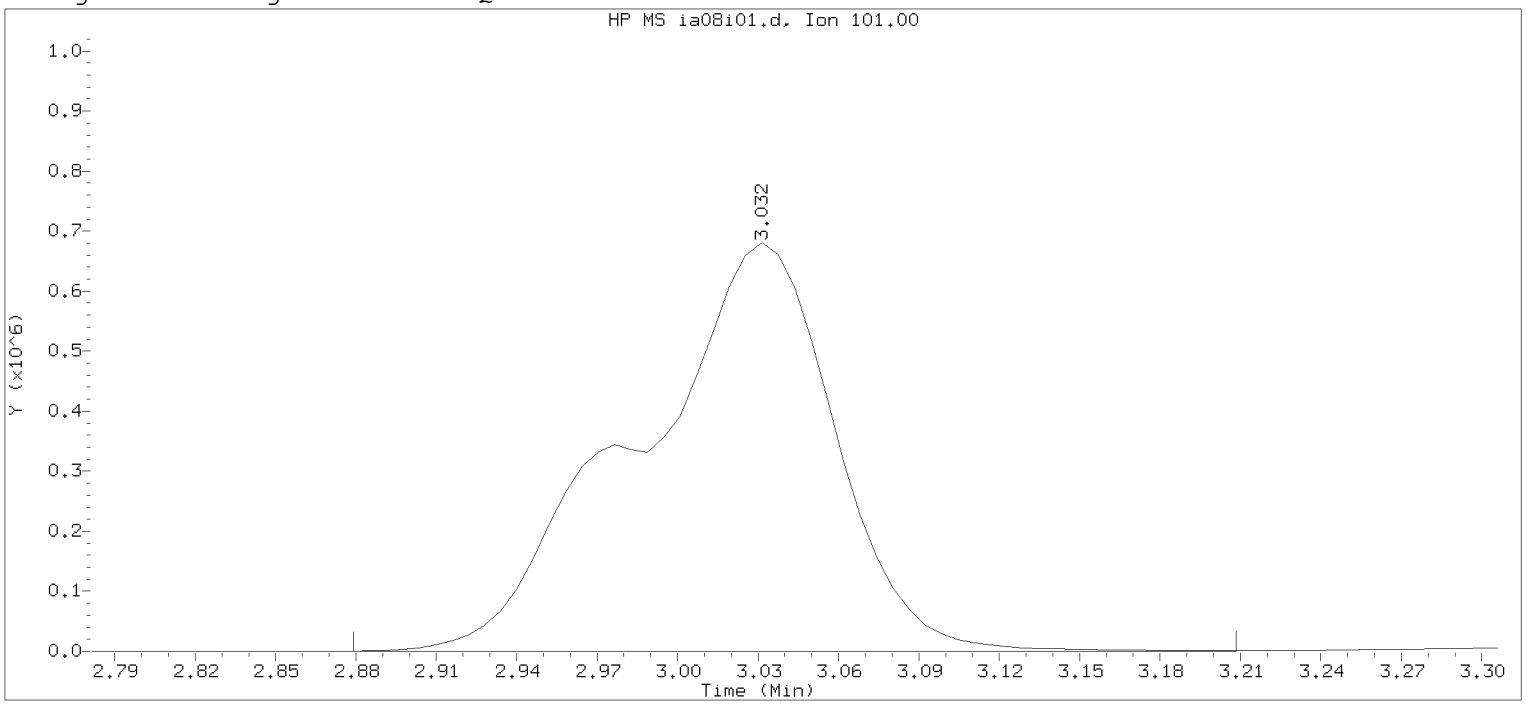
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 237
Retention Time (minutes): 3.032
Quant Ion : 101.00
Area : 3469295
On-column Amount (ng) : 25.3242
Integration start scan : 211 Integration stop scan: 265
Y at integration start : 0 Y at integration end: 0

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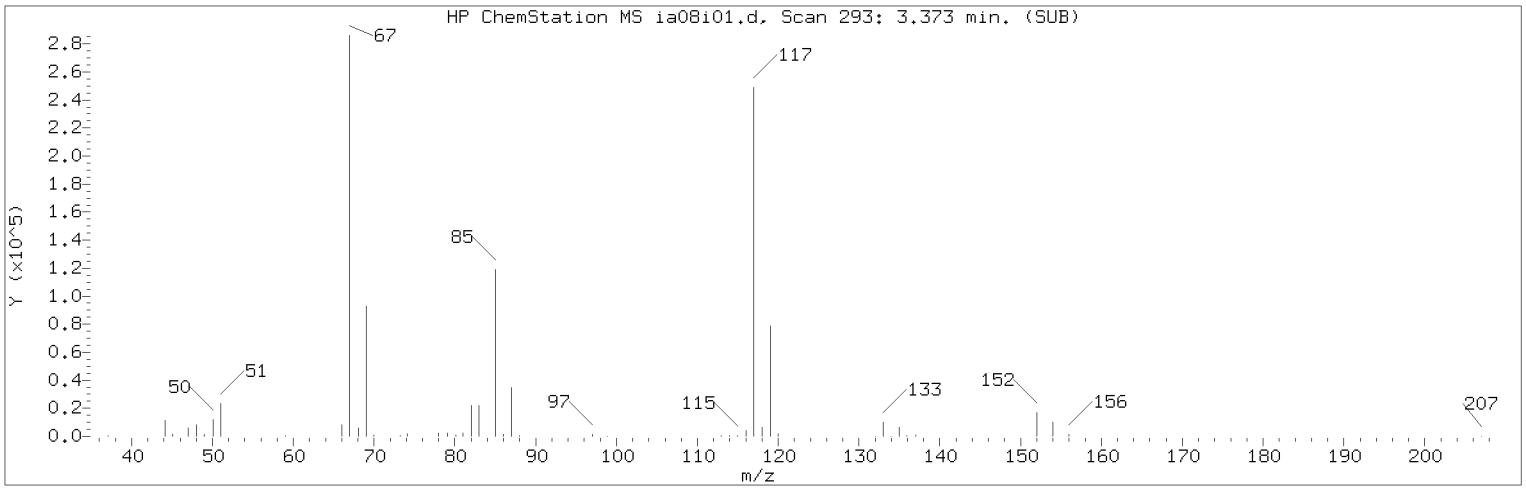
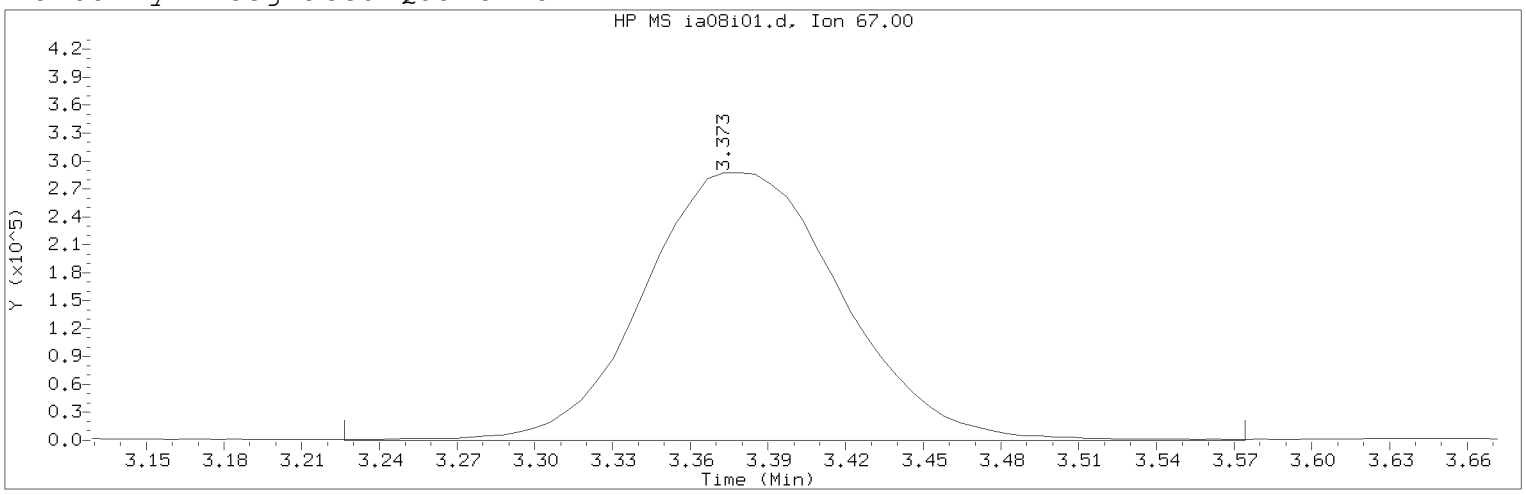
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

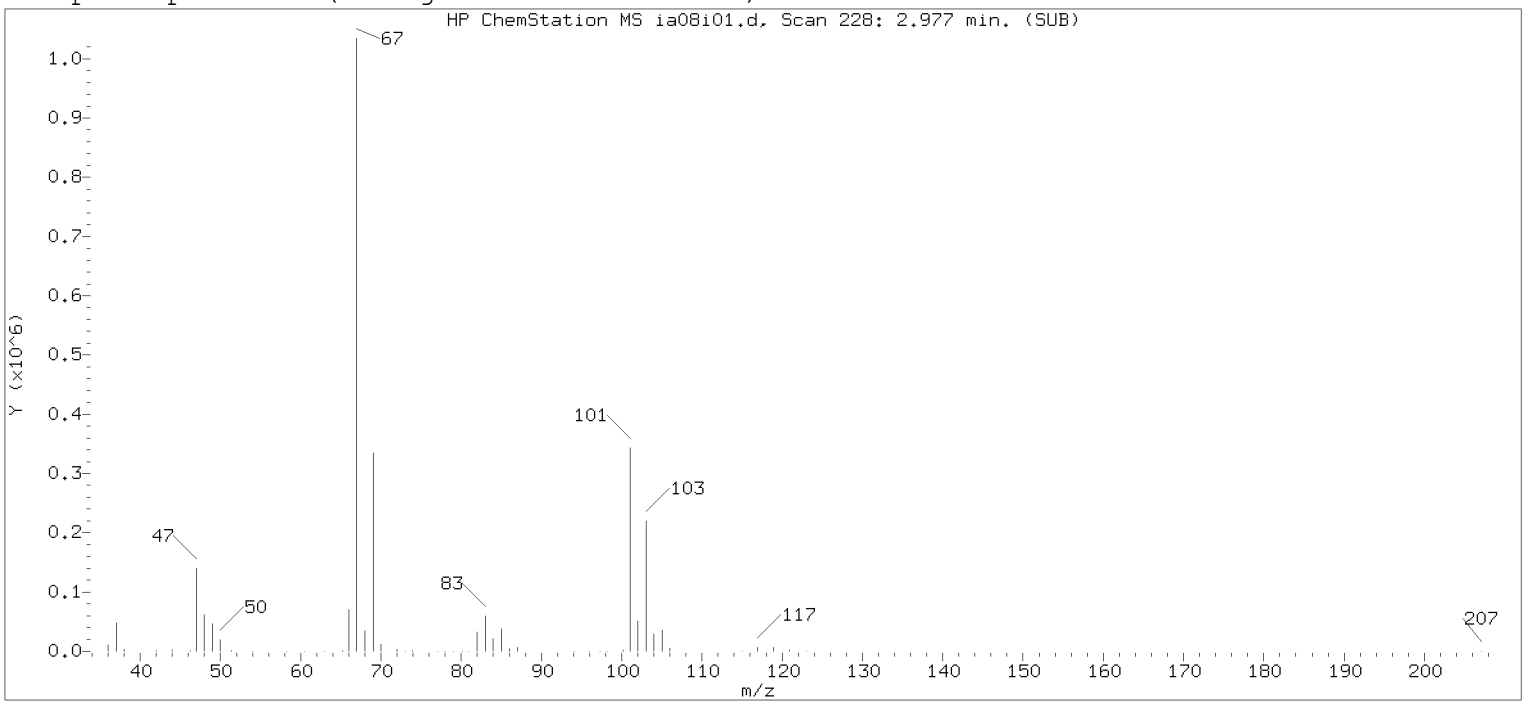
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area (flag) : 1523068MA
On-Column Amount (ng) : 25.2639
Integration start scan : 268 Integration stop scan: 325
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

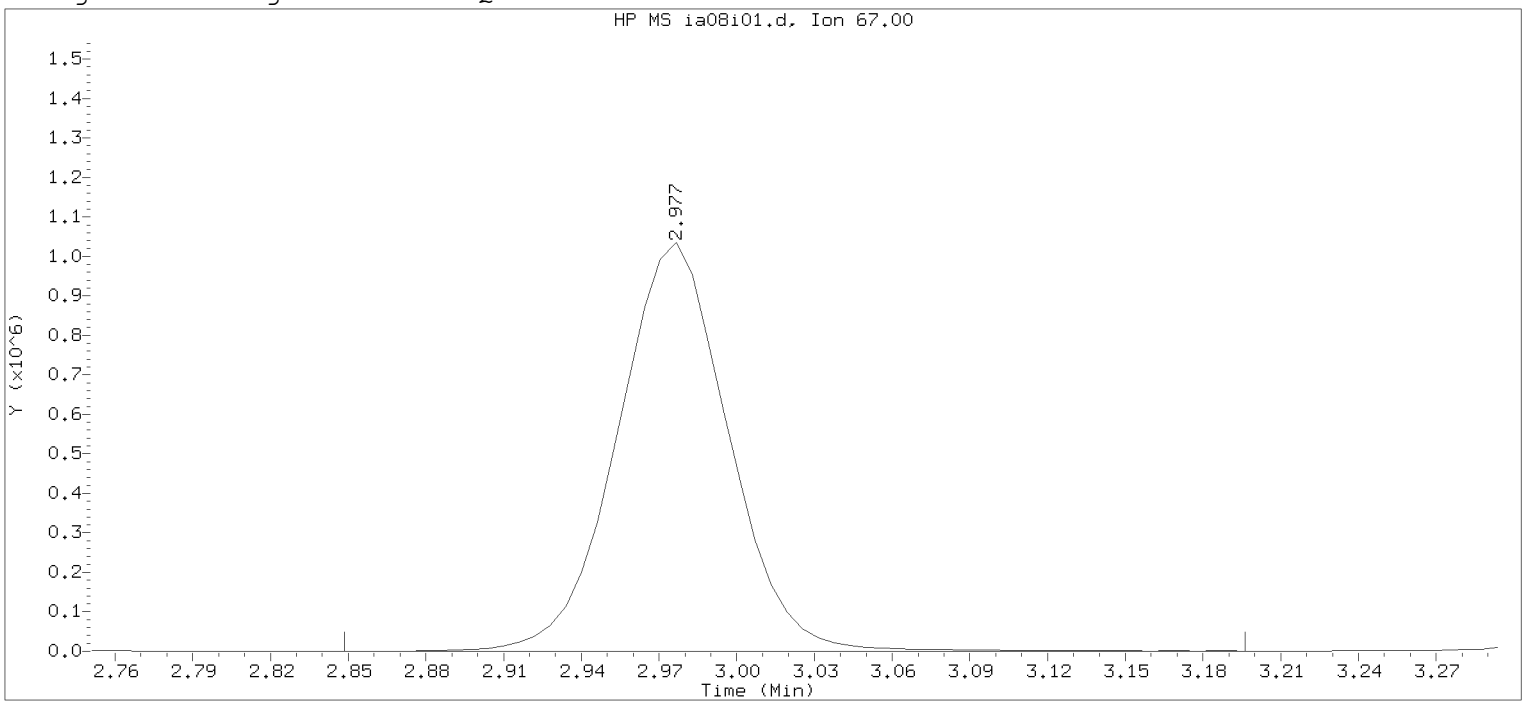
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

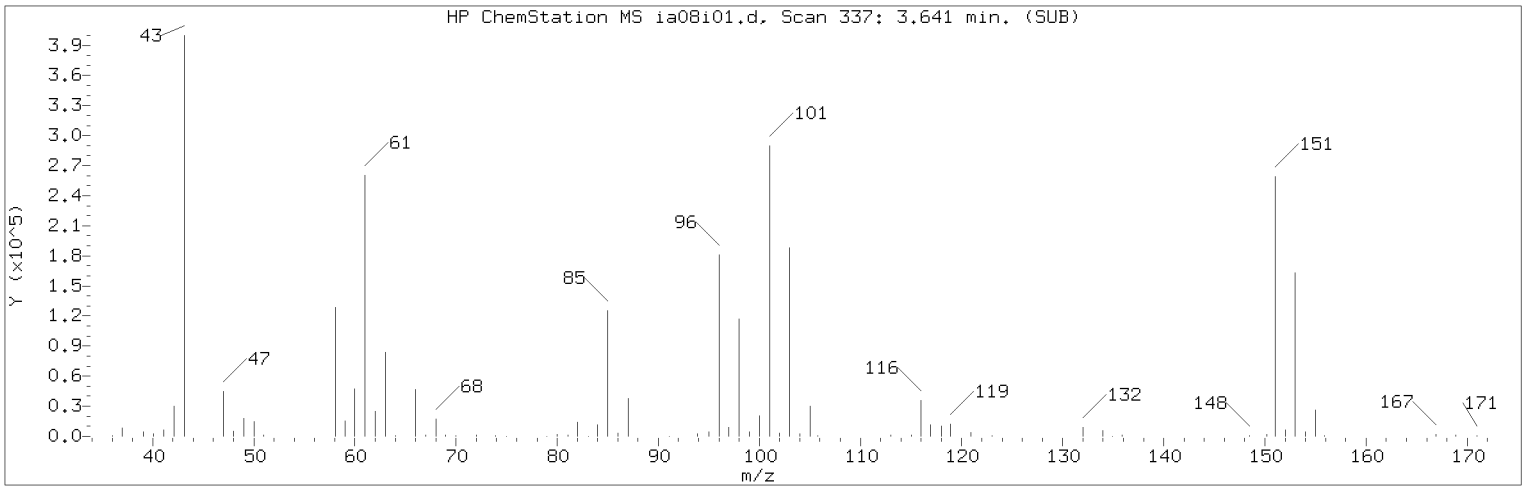
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

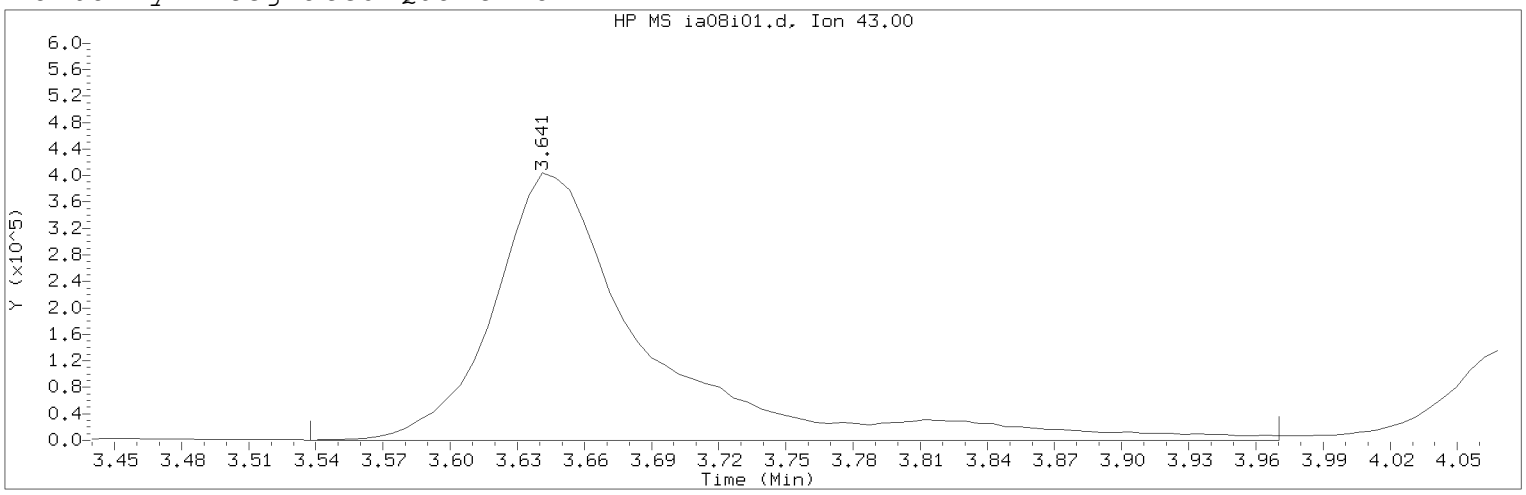
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 228
Retention Time (minutes): 2.977
Quant Ion : 67.00
Area : 3077841
On-column Amount (ng) : 25.3056
Integration start scan : 206 Integration stop scan: 263
Y at integration start : 0 Y at integration end: 315

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

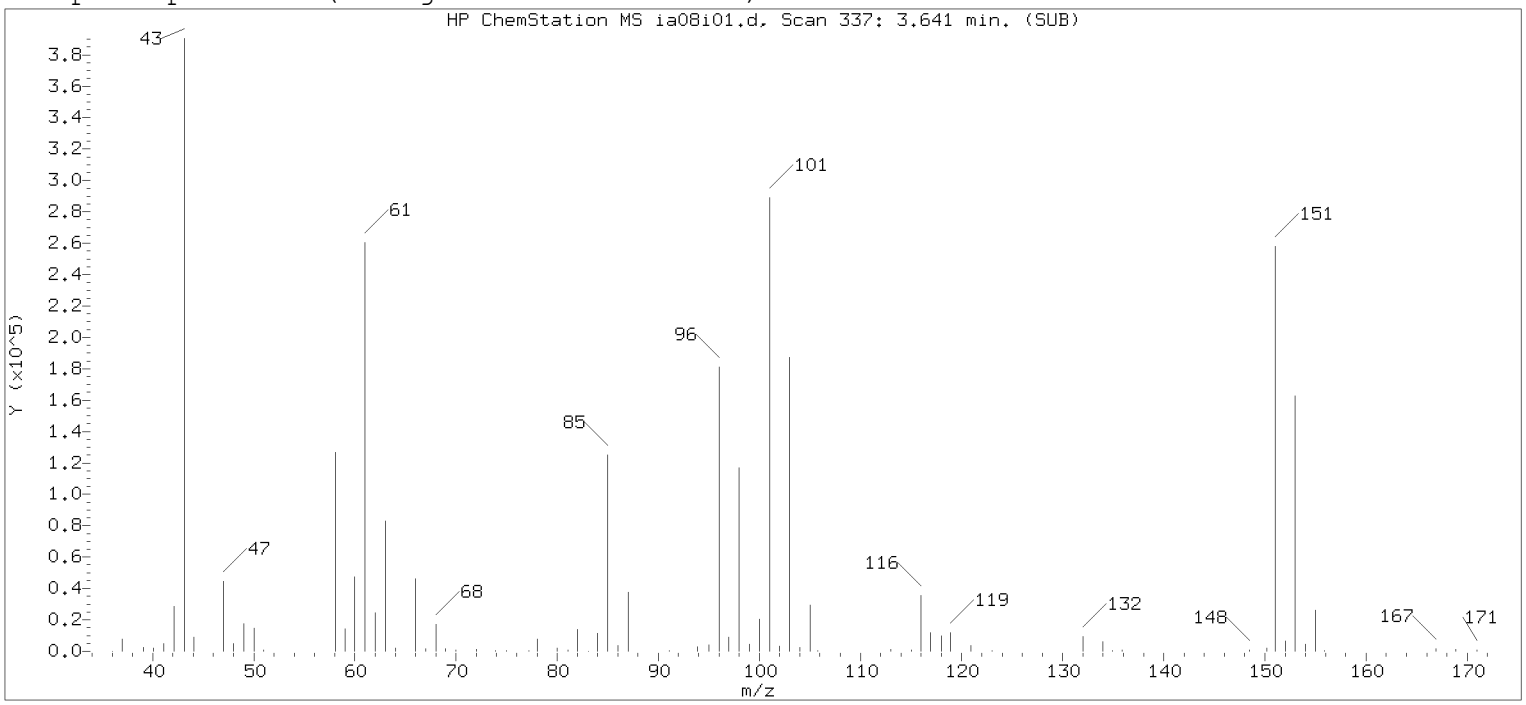
Compound Number : 14
Compound Name : Acetone
Scan Number : 337
Retention Time (minutes): 3.641
Quant Ion : 43.00
Area (flag) : 1944148M
On-Column Amount (ng) : 243.1190
Integration start scan : 319 Integration stop scan: 390
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

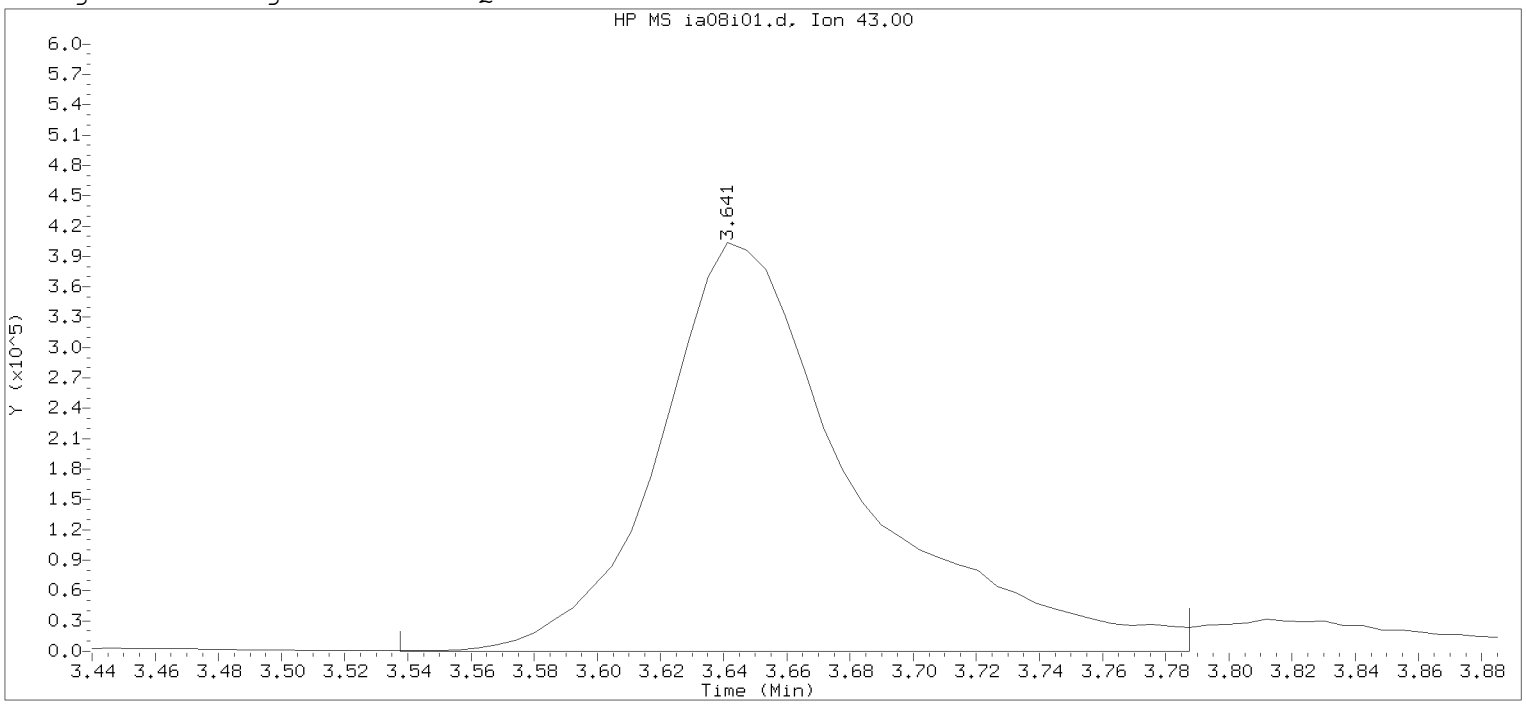
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

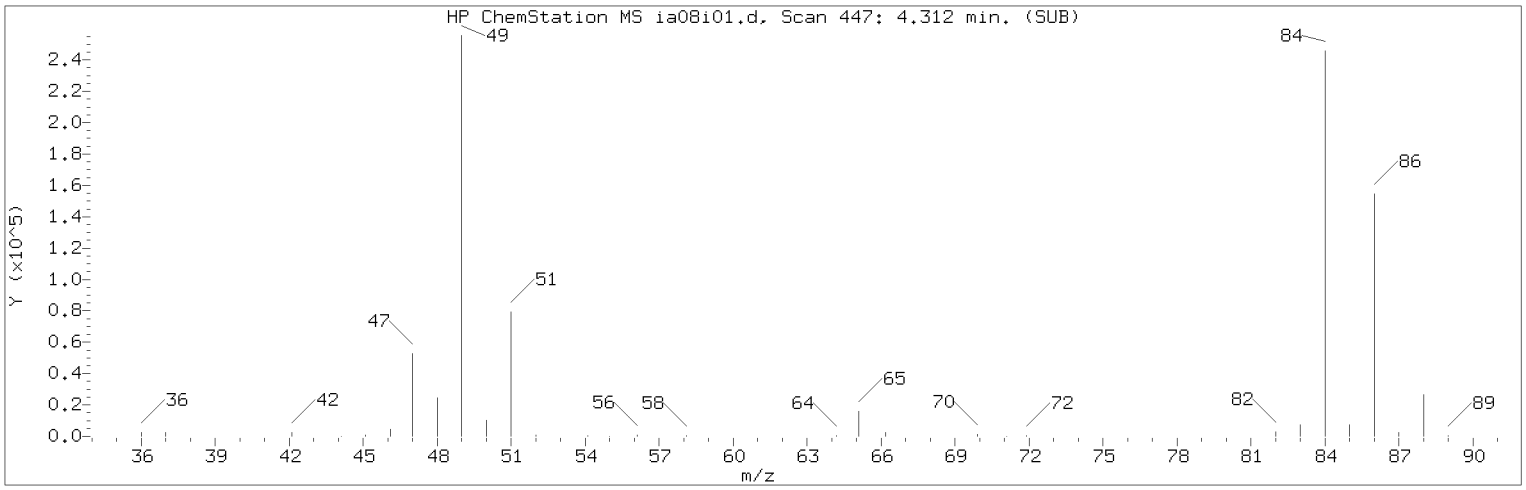
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

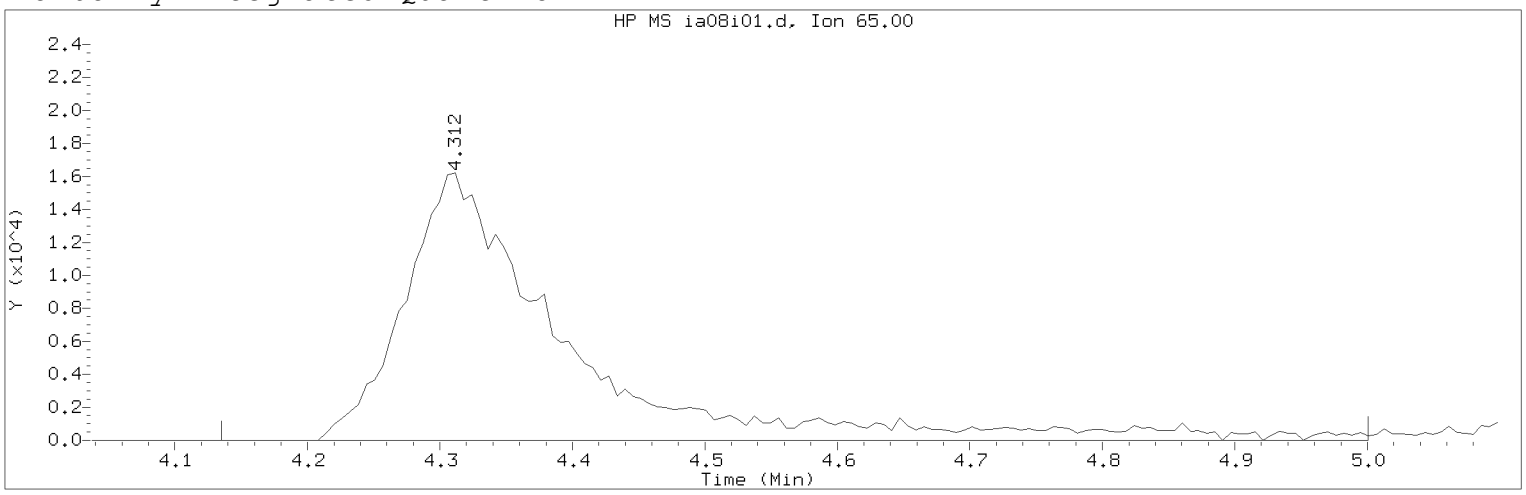
Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 337		
Retention Time (minutes)	: 3.641		
Quant Ion	: 43.00		
Area	: 1754779		
On-column Amount (ng)	: 232.6087		
Integration start scan	: 319	Integration stop scan:	360
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

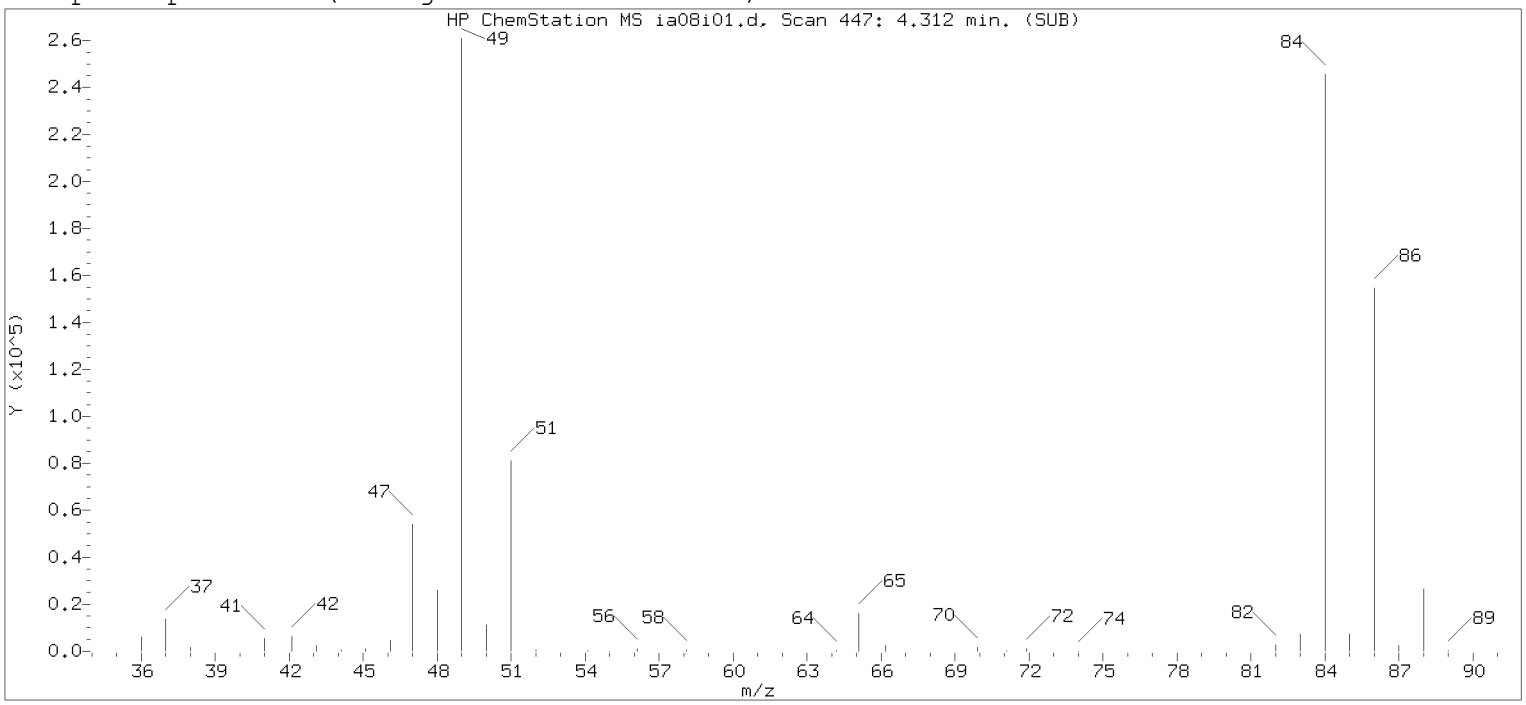
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area (flag) : 136489M
On-Column Amount (ng) : 50.0000
Integration start scan : 417 Integration stop scan: 559
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

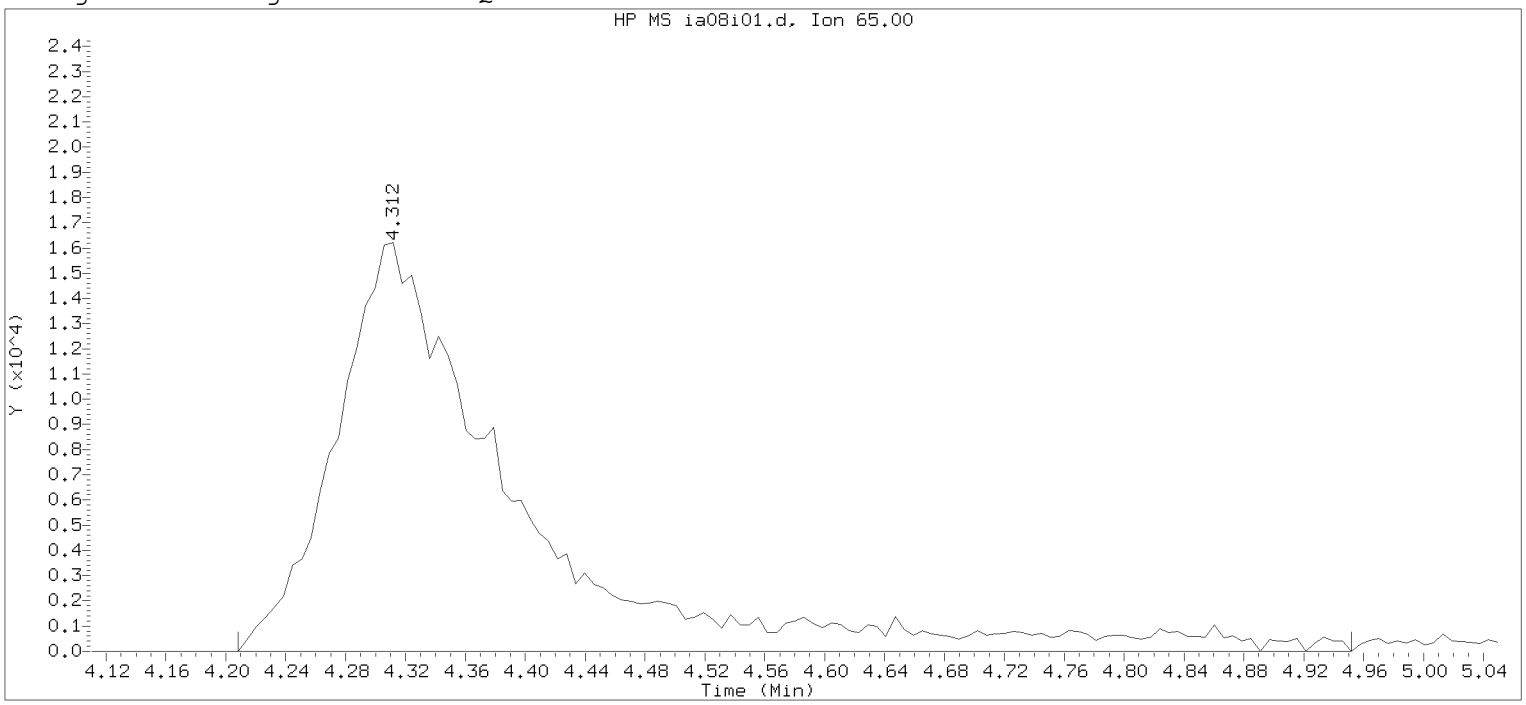
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

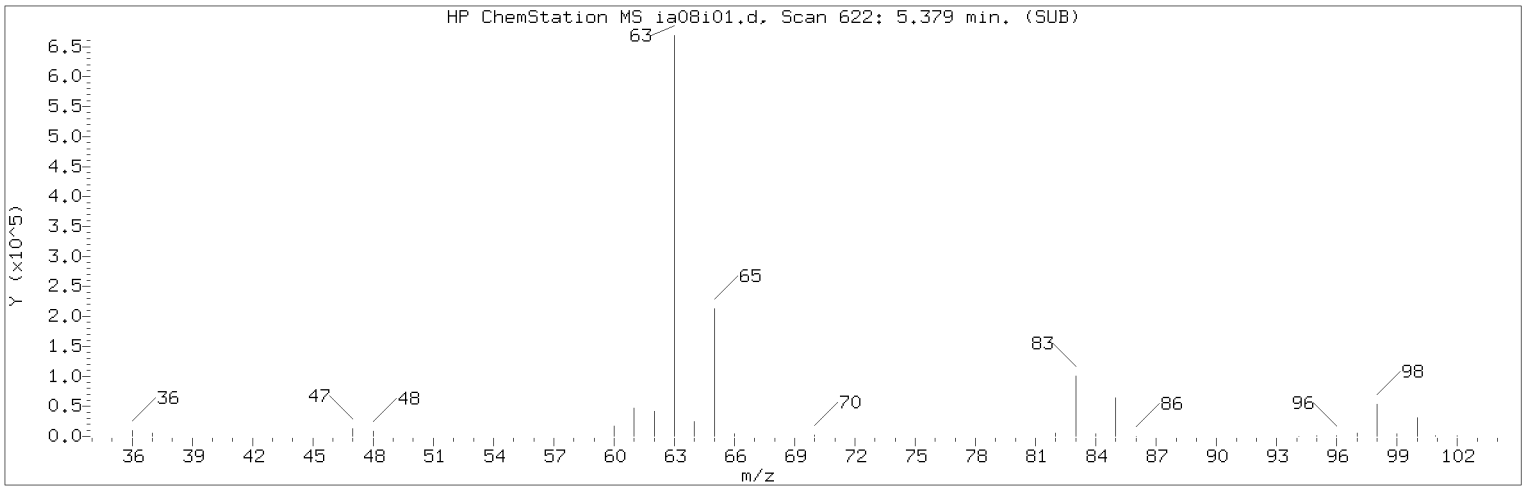
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

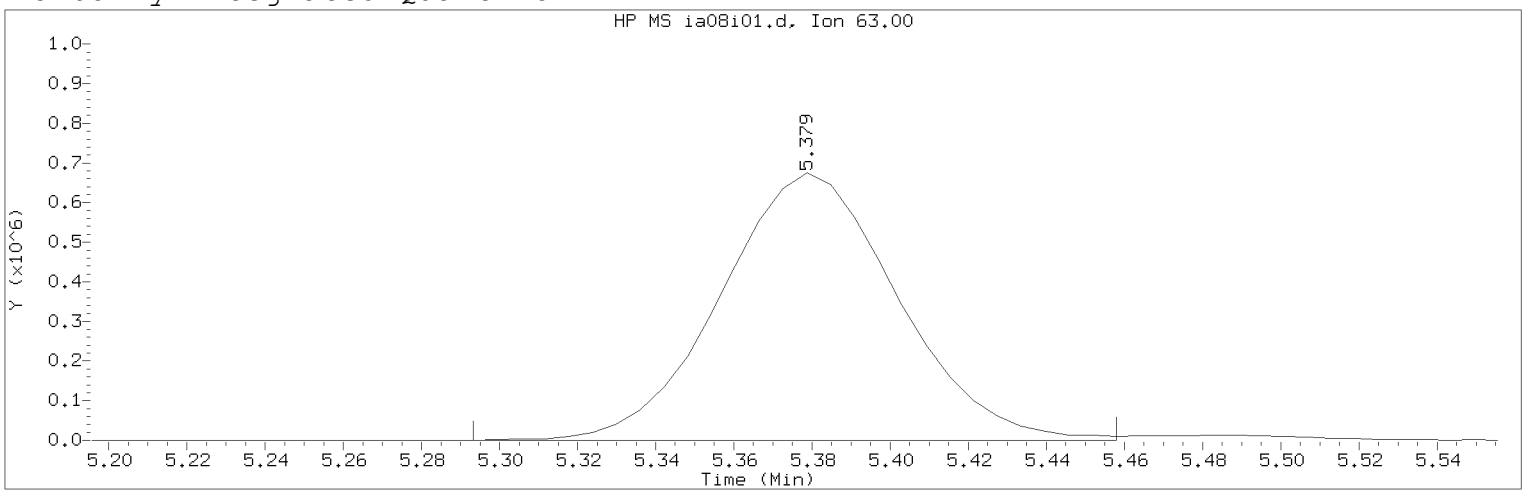
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area : 135396
On-column Amount (ng) : 50.0000
Integration start scan : 429 Integration stop scan: 551
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Page 1010

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

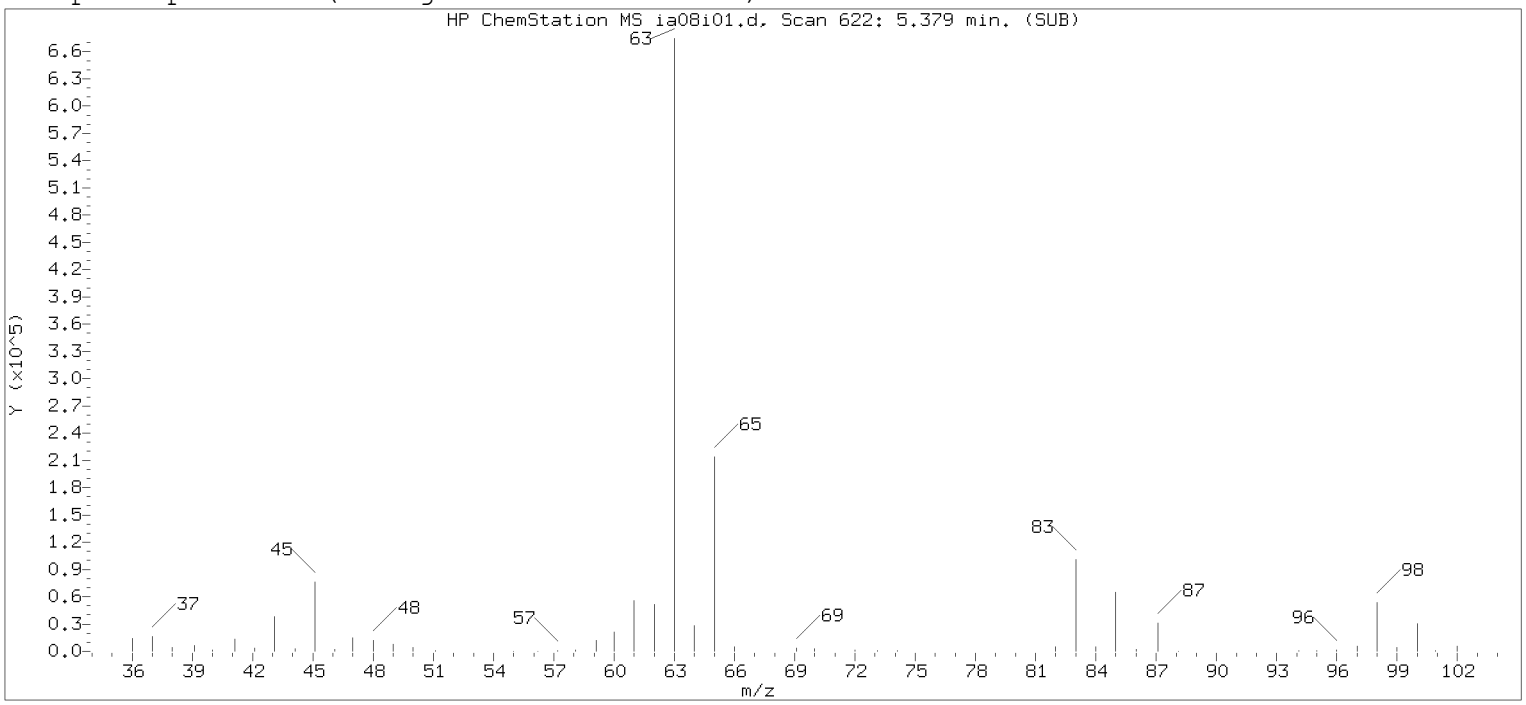
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 622
Retention Time (minutes): 5.379
Quant Ion : 63.00
Area (flag) : 2118415M
On-Column Amount (ng) : 25.0272
Integration start scan : 607 Integration stop scan: 634
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

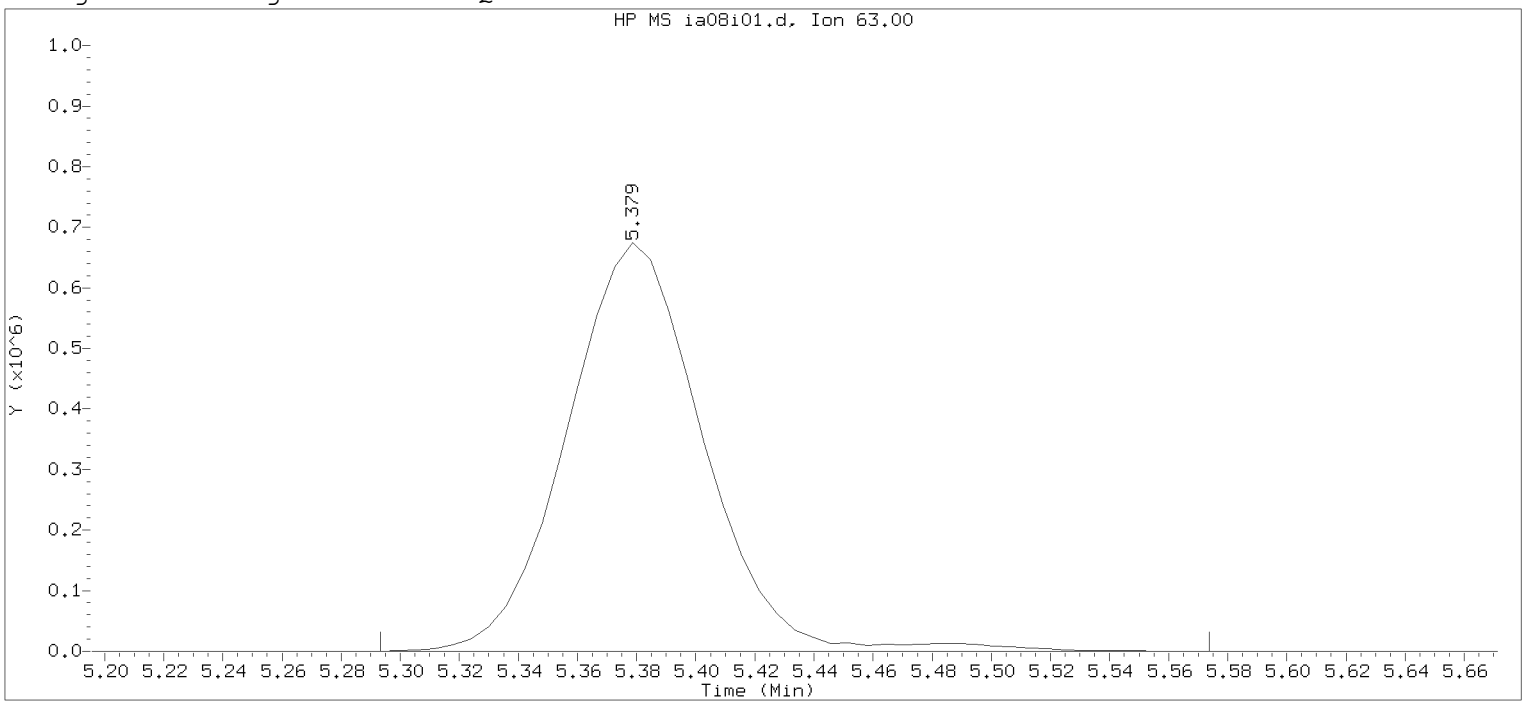
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

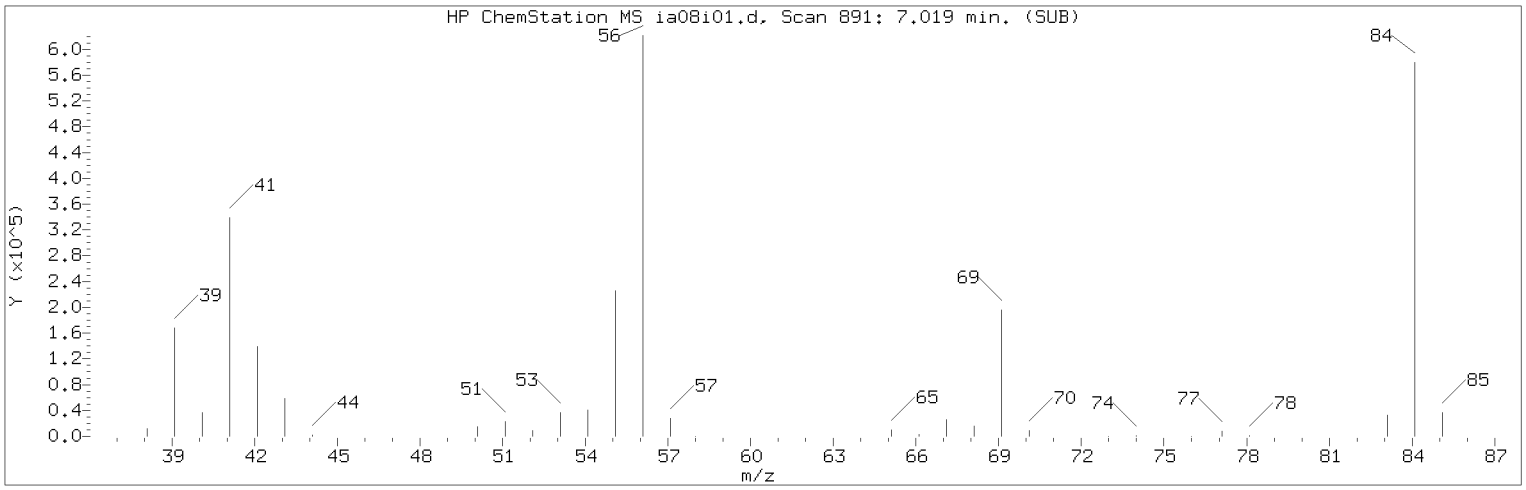
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

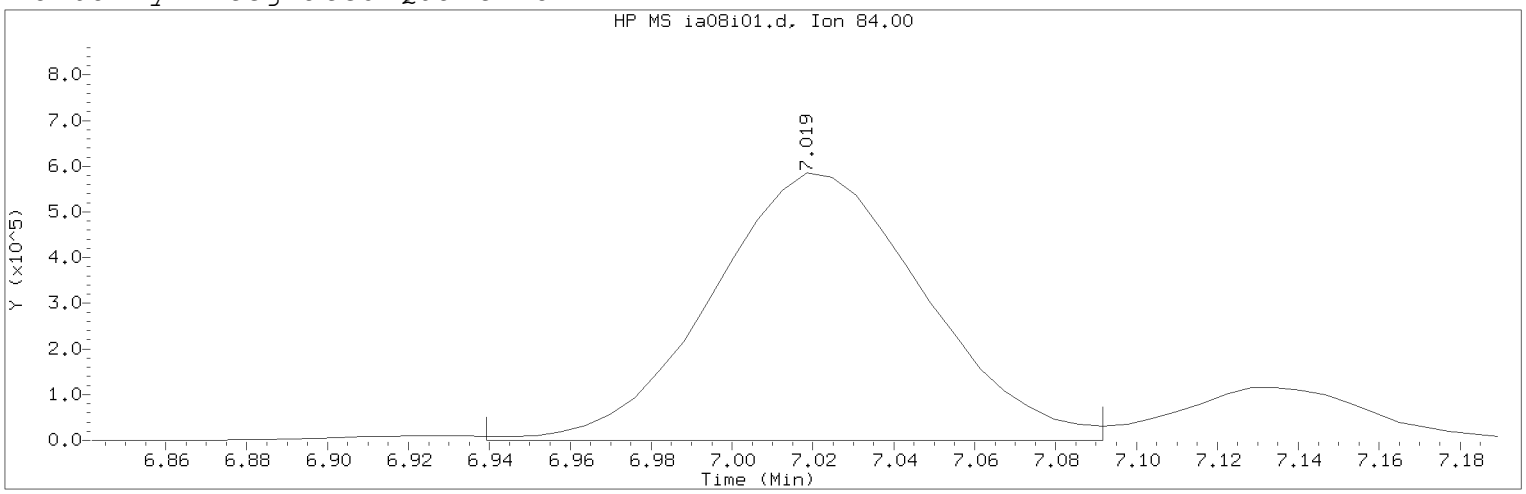
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 622
Retention Time (minutes): 5.379
Quant Ion : 63.00
Area : 2156342
On-column Amount (ng) : 25.1749
Integration start scan : 607 Integration stop scan: 653
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

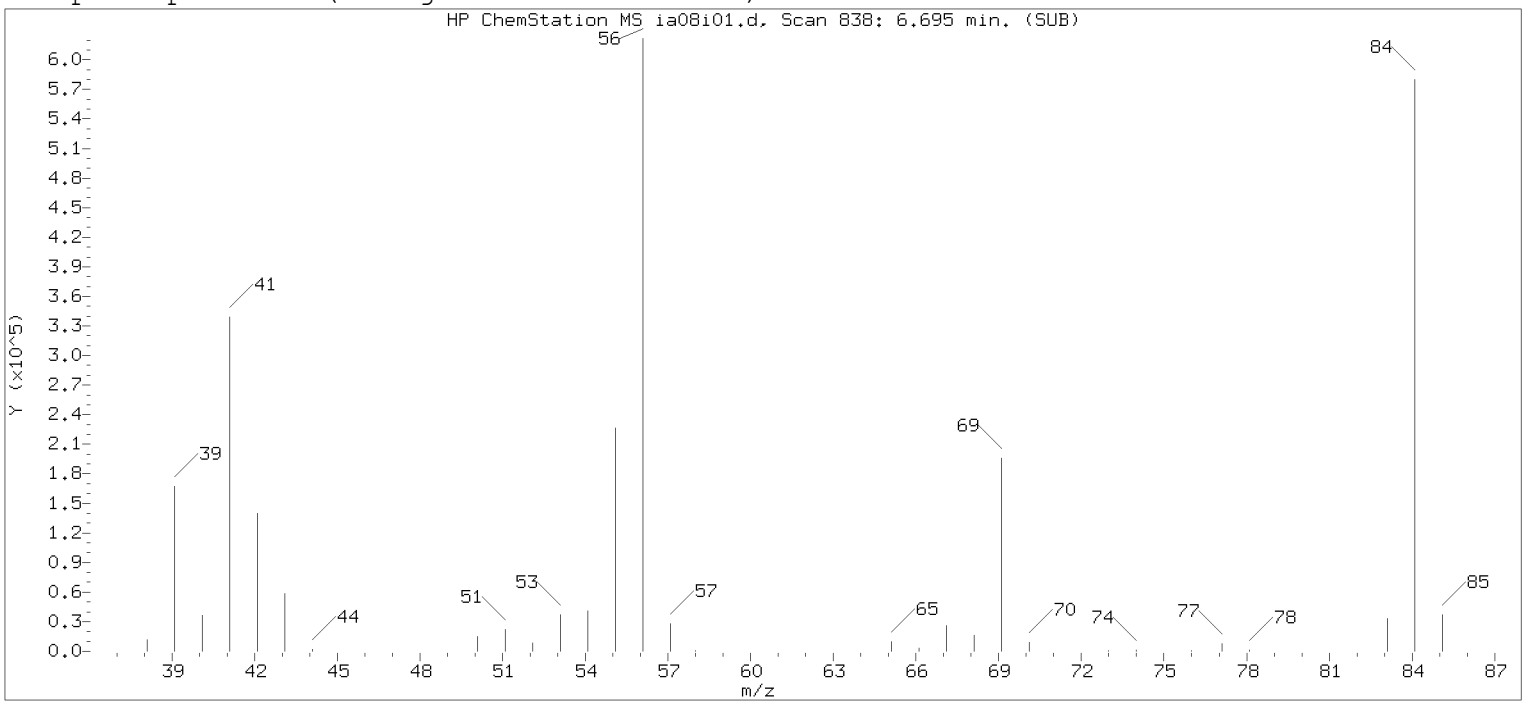
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 84.00
Area (flag) : 2141825M
On-Column Amount (ng) : 25.8934
Integration start scan : 877 Integration stop scan: 902
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

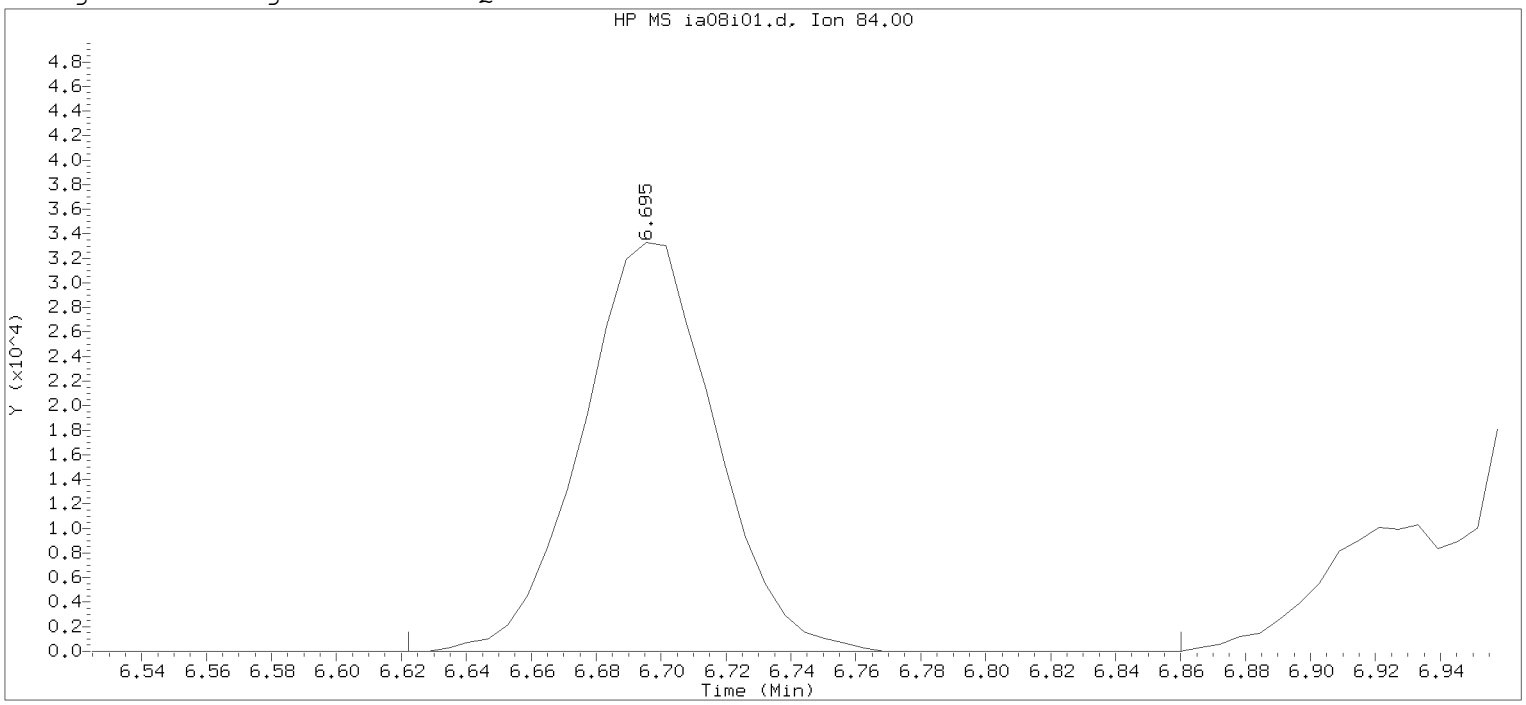
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

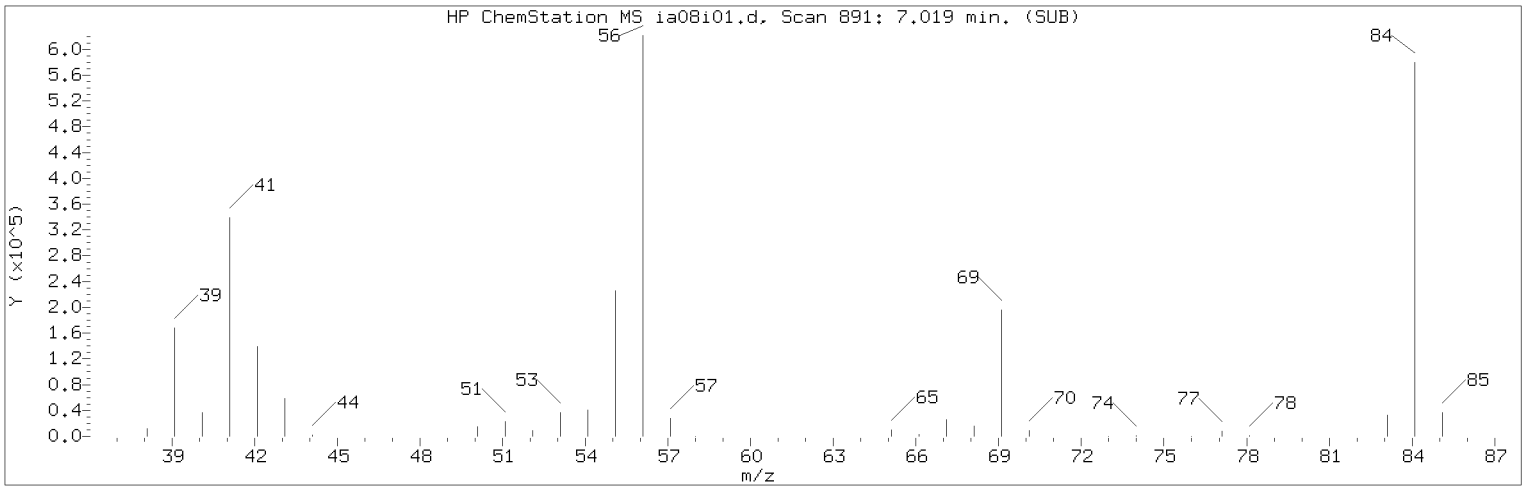
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

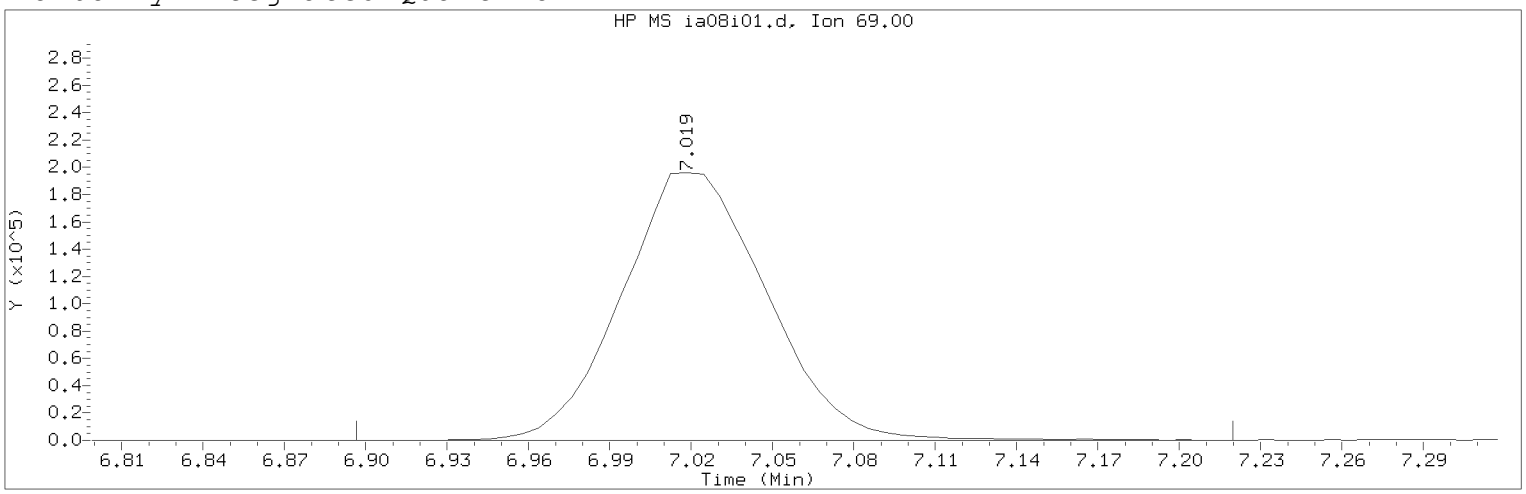
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 838
Retention Time (minutes): 6.695
Quant Ion : 84.00
Area : 94664
On-column Amount (ng) : 24.9934
Integration start scan : 825 Integration stop scan: 864
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

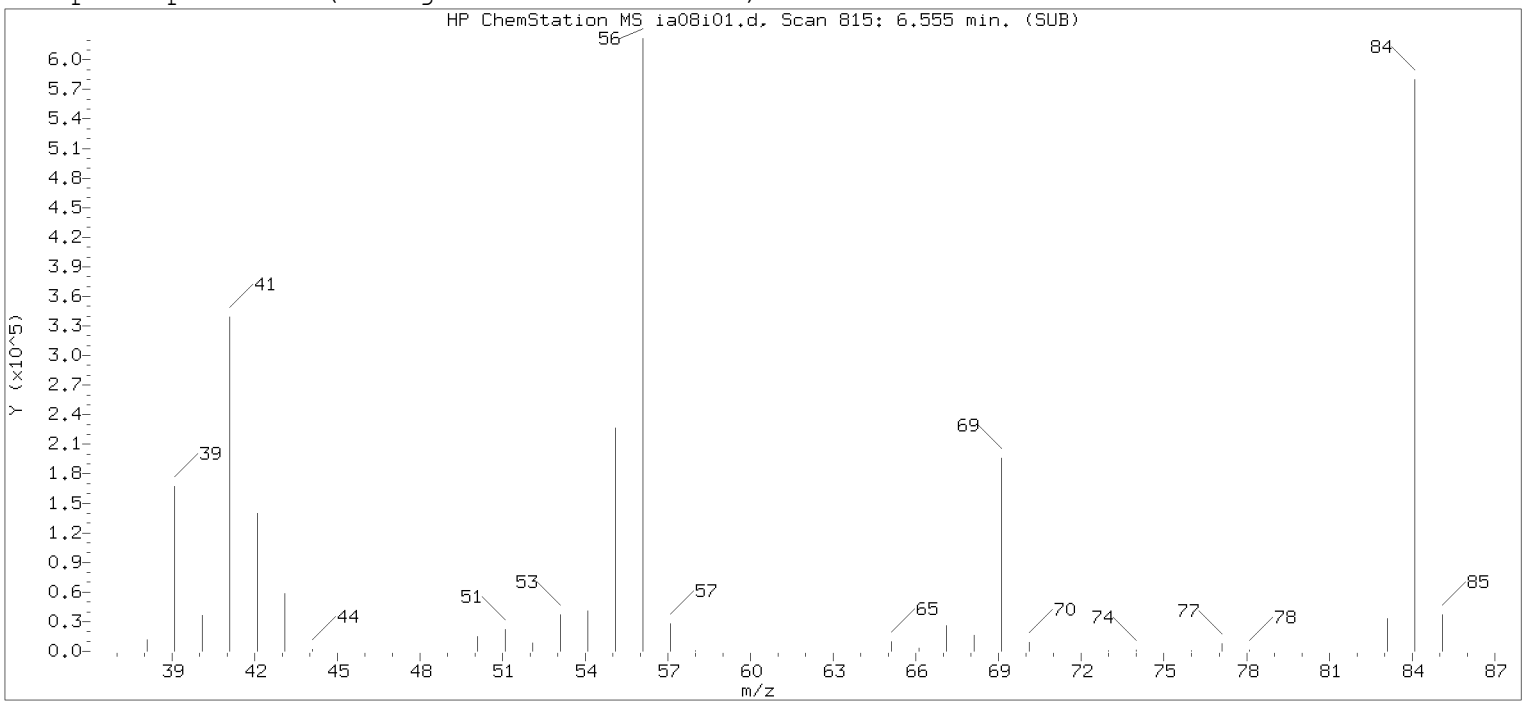
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 69.00
Area (flag) : 728462M
On-Column Amount (ng) : 25.3014
Integration start scan : 870 Integration stop scan: 923
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

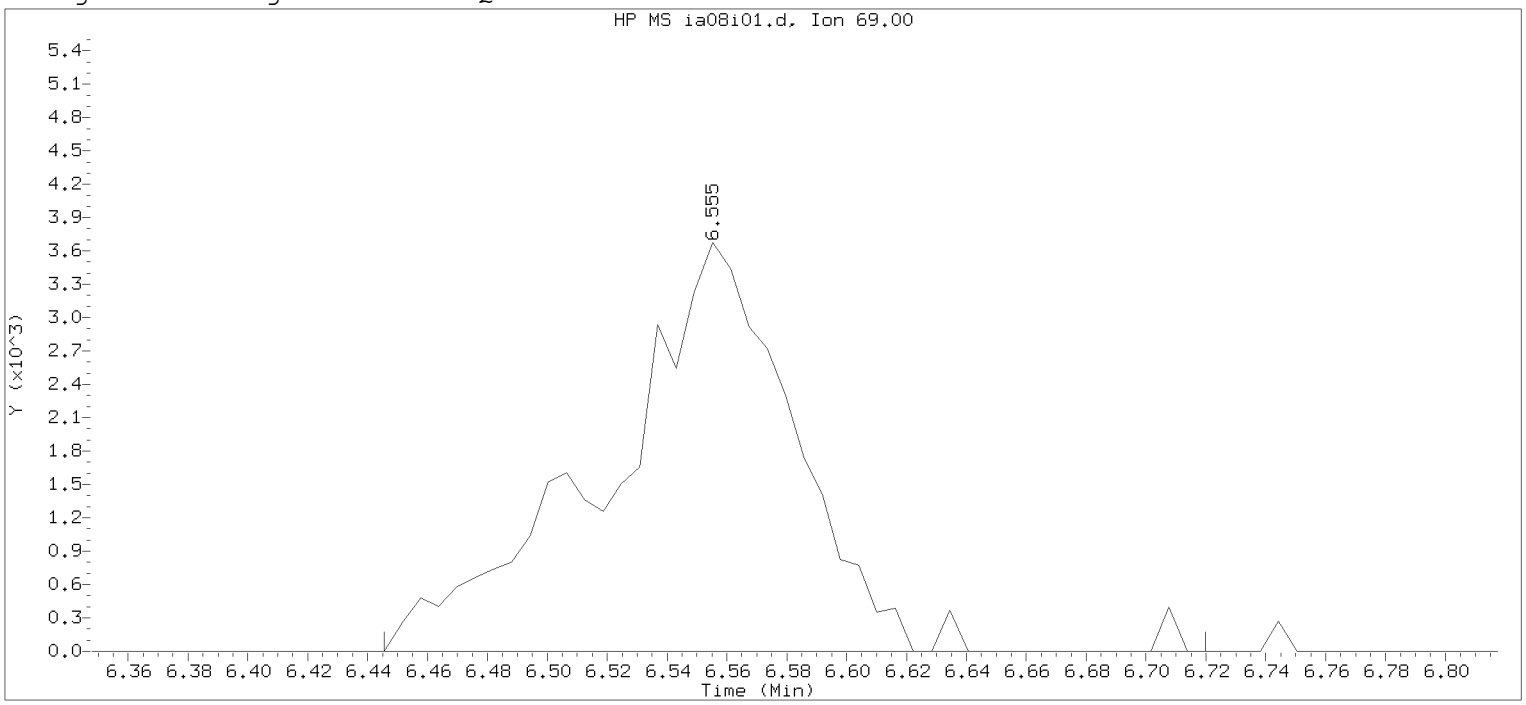
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

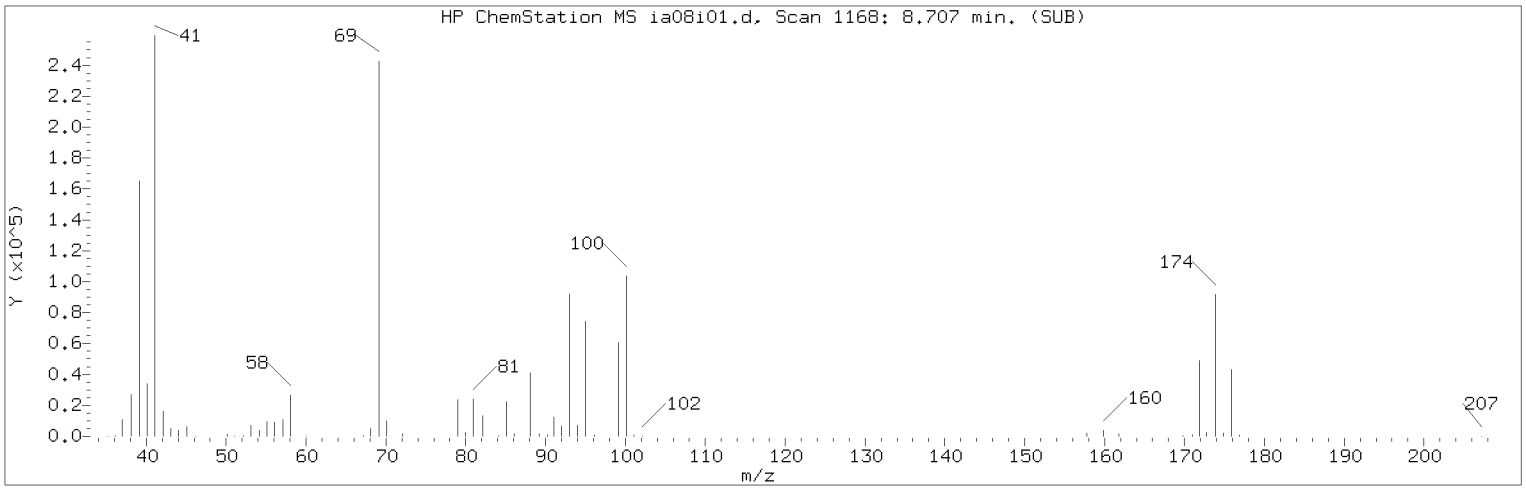
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

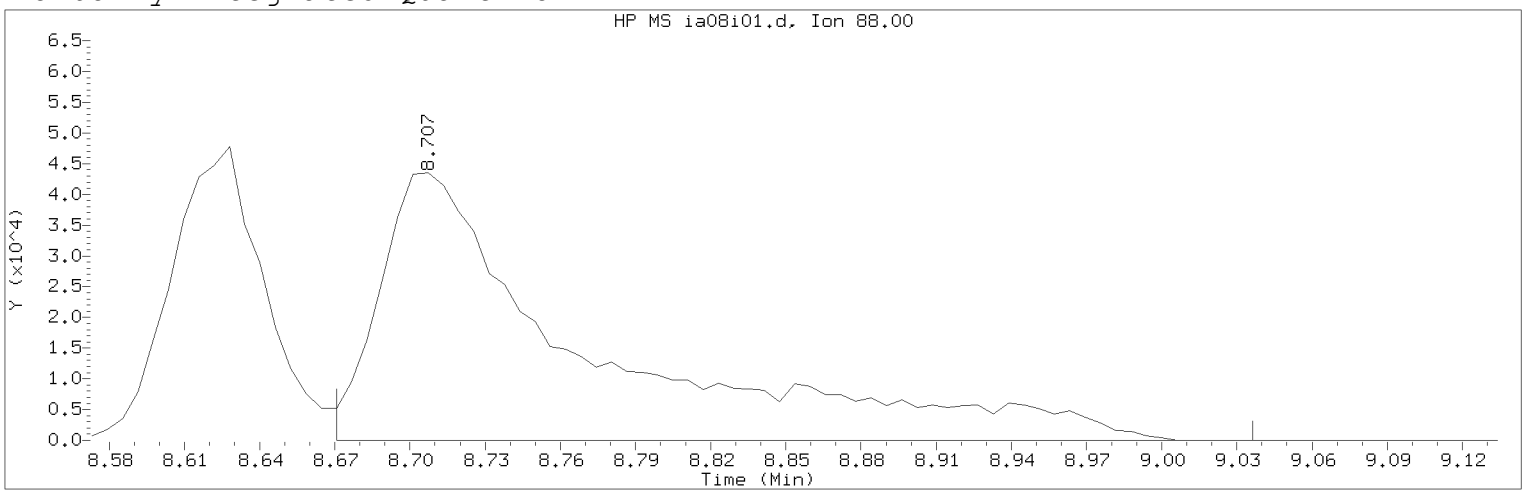
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 815
Retention Time (minutes): 6.555
Quant Ion : 69.00
Area : 16058
On-column Amount (ng) : 25.2207
Integration start scan : 796 Integration stop scan: 841
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

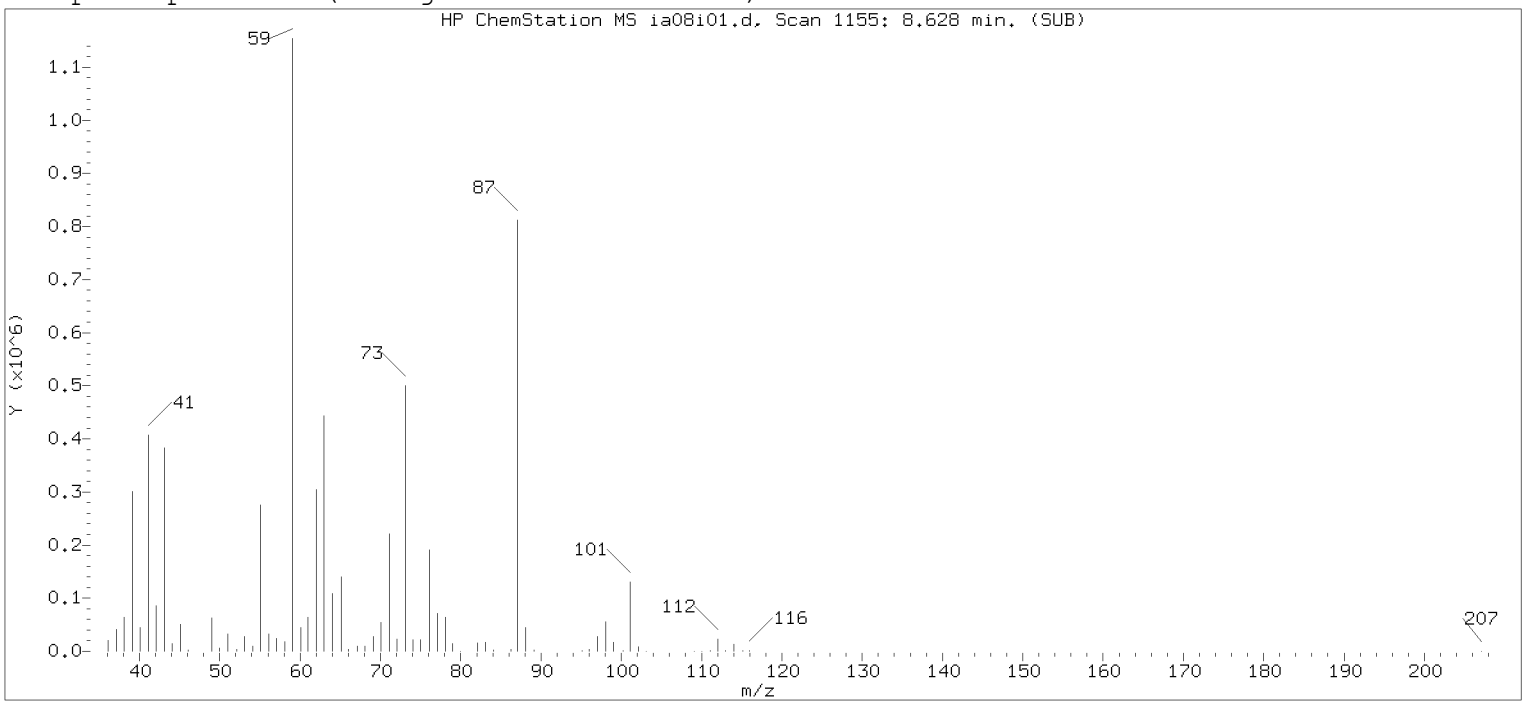
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1168
Retention Time (minutes): 8.707
Quant Ion : 88.00
Area (flag) : 249520M
On-Column Amount (ng) : 1188.0529
Integration start scan : 1161 Integration stop scan: 1221
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

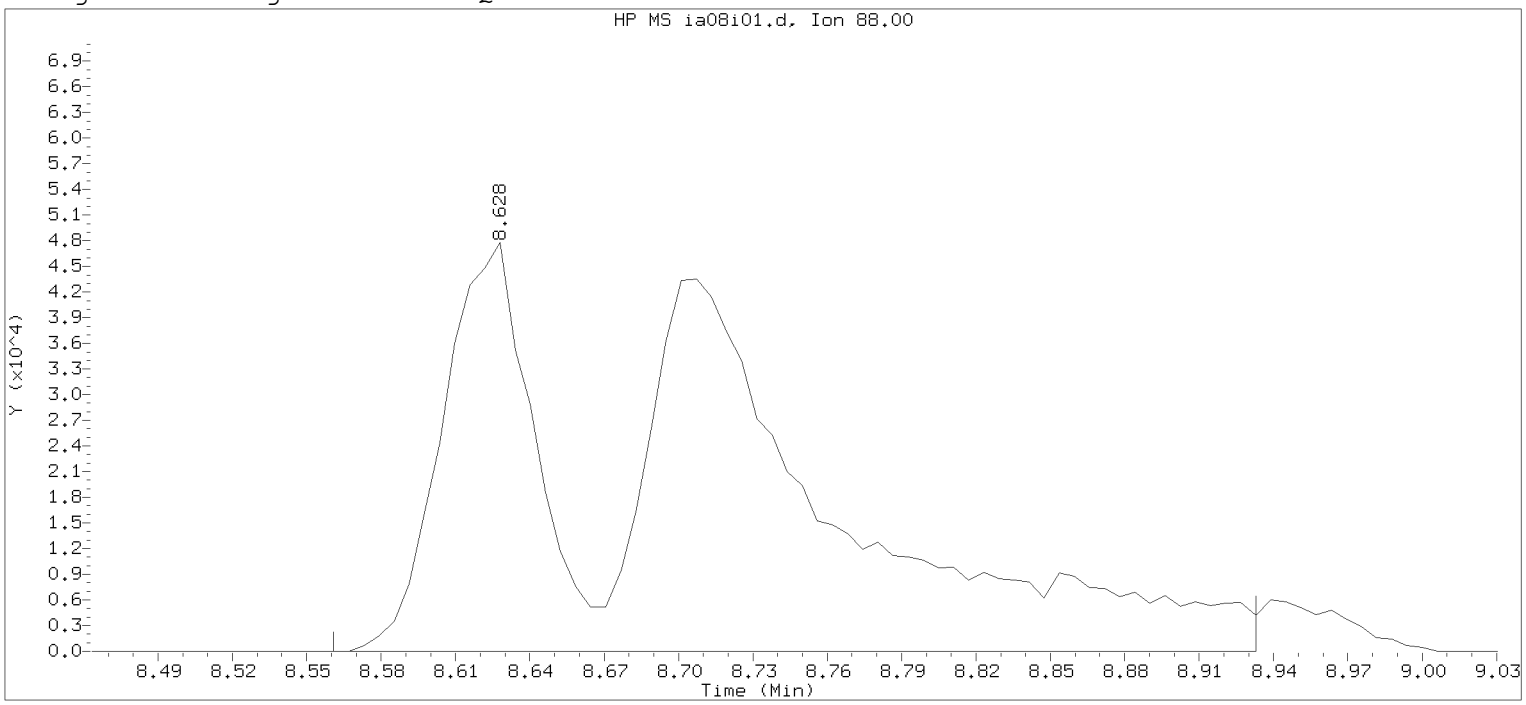
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

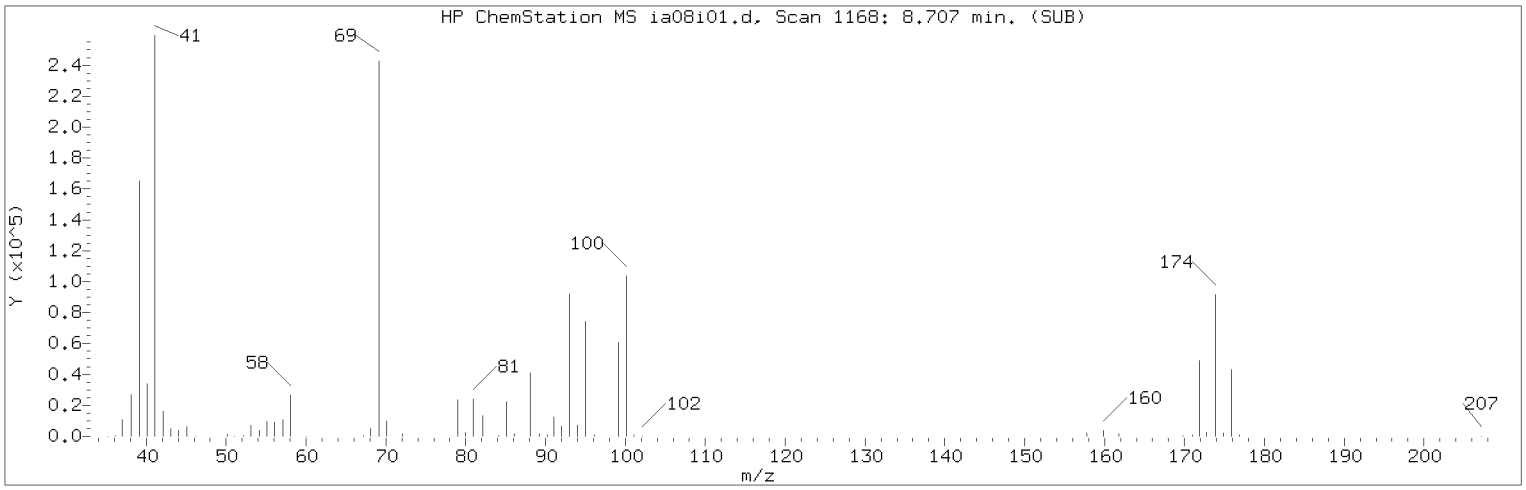
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

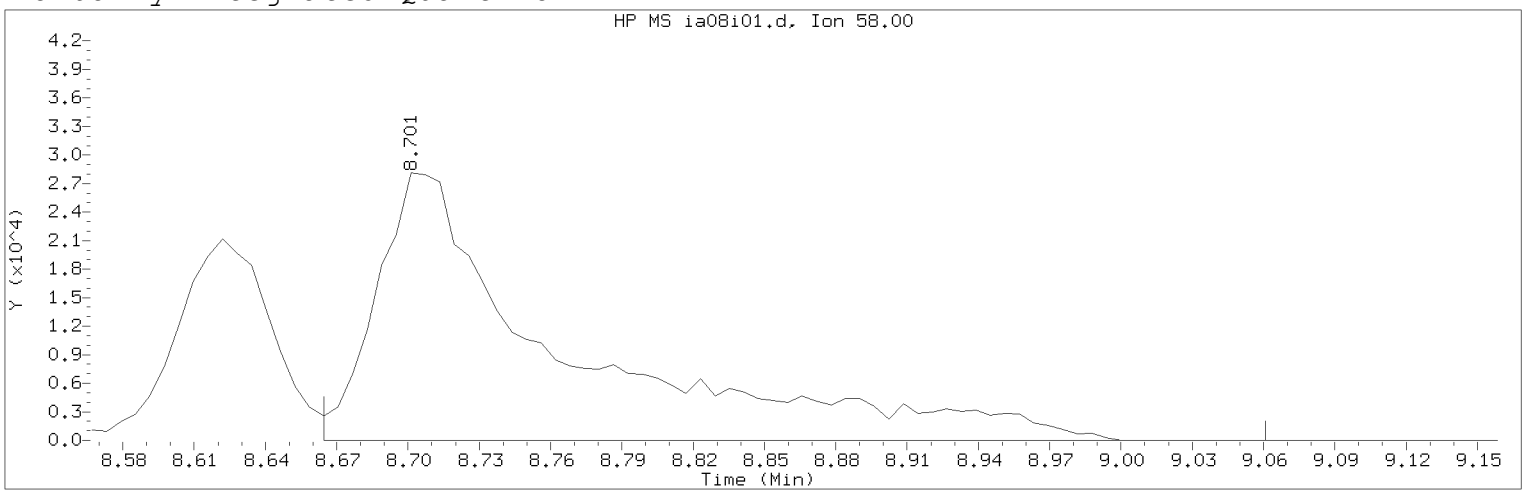
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1155
Retention Time (minutes): 8.628
Quant Ion : 88.00
Area : 357152
On-column Amount (ng) : 1424.3471
Integration start scan : 1143 Integration stop scan: 1204
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

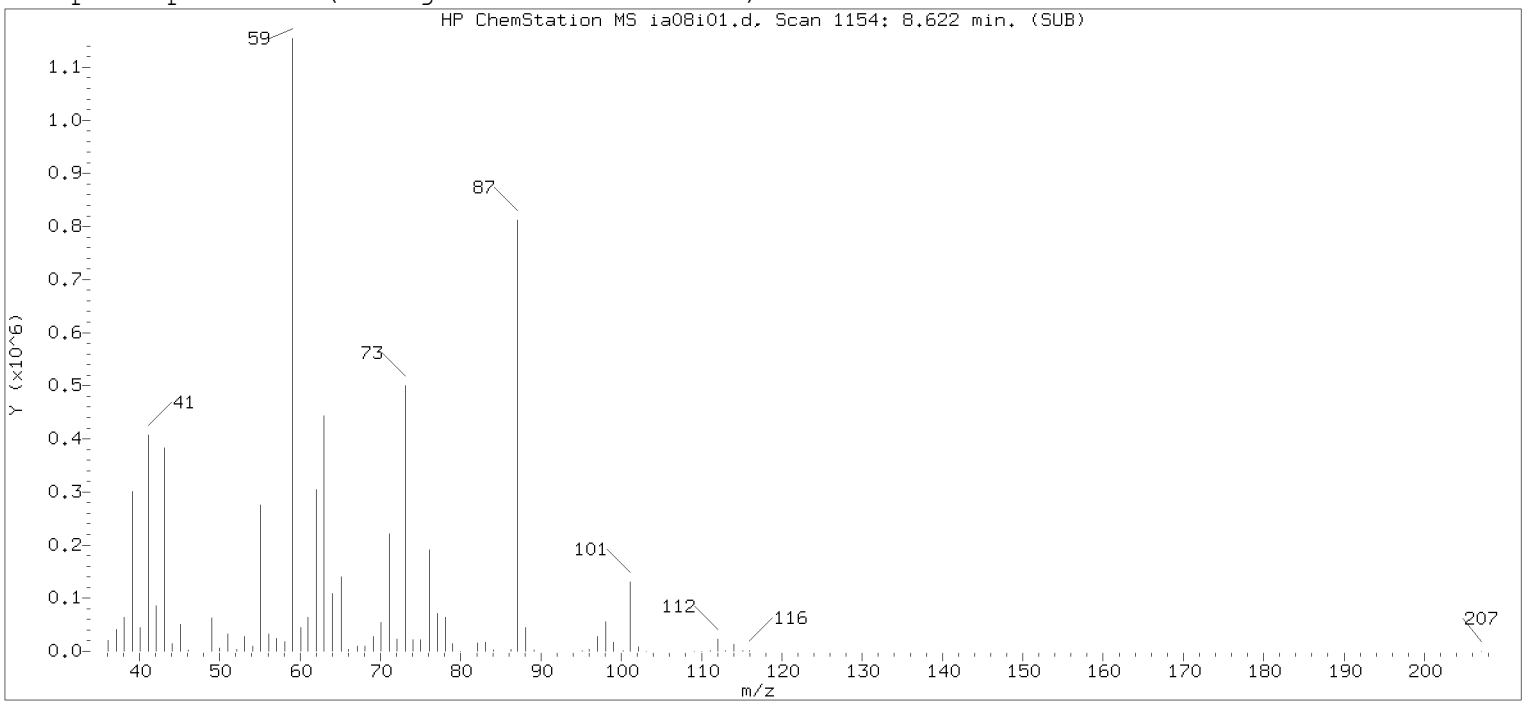
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1167
Retention Time (minutes): 8.701
Quant Ion : 58.00
Area (flag) : 152106M
On-Column Amount (ng) : 1215.3374
Integration start scan : 1160 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

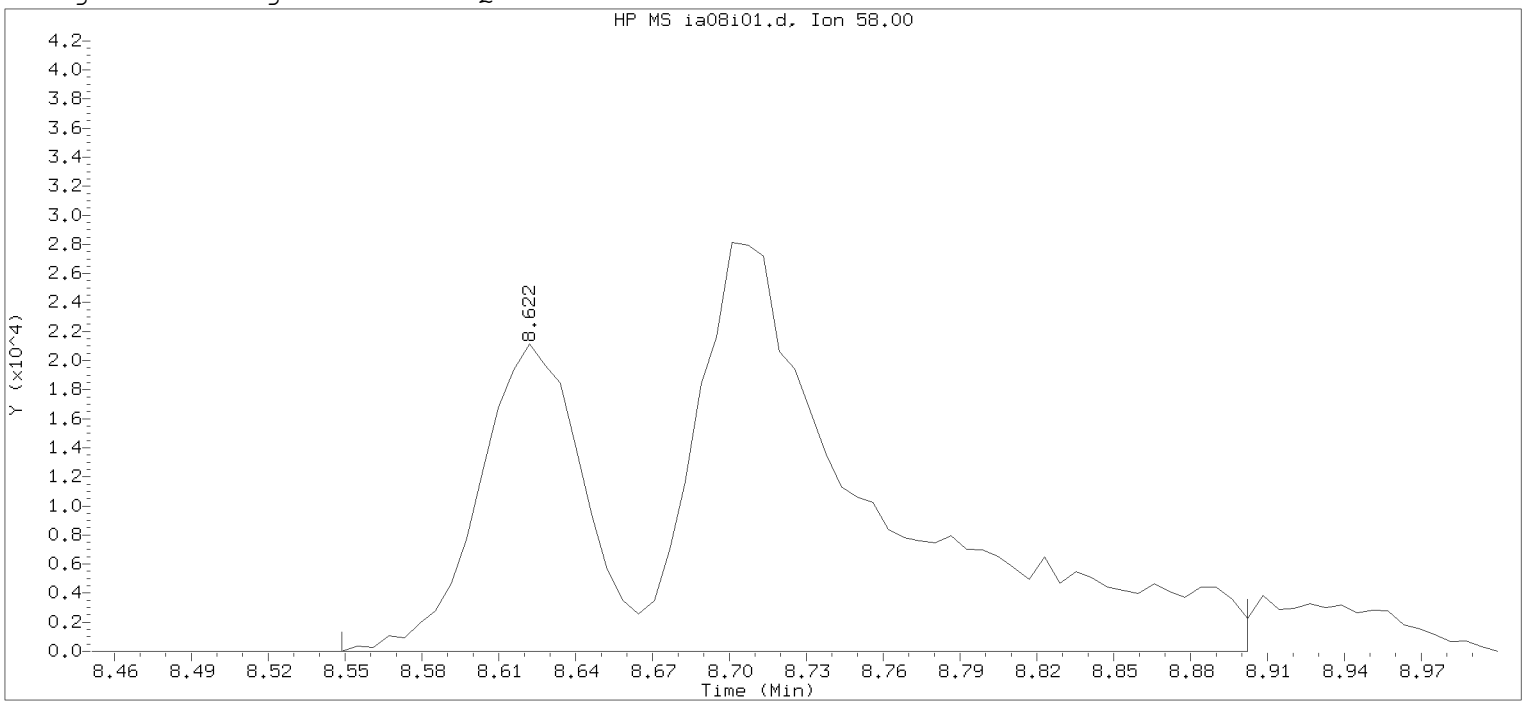
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

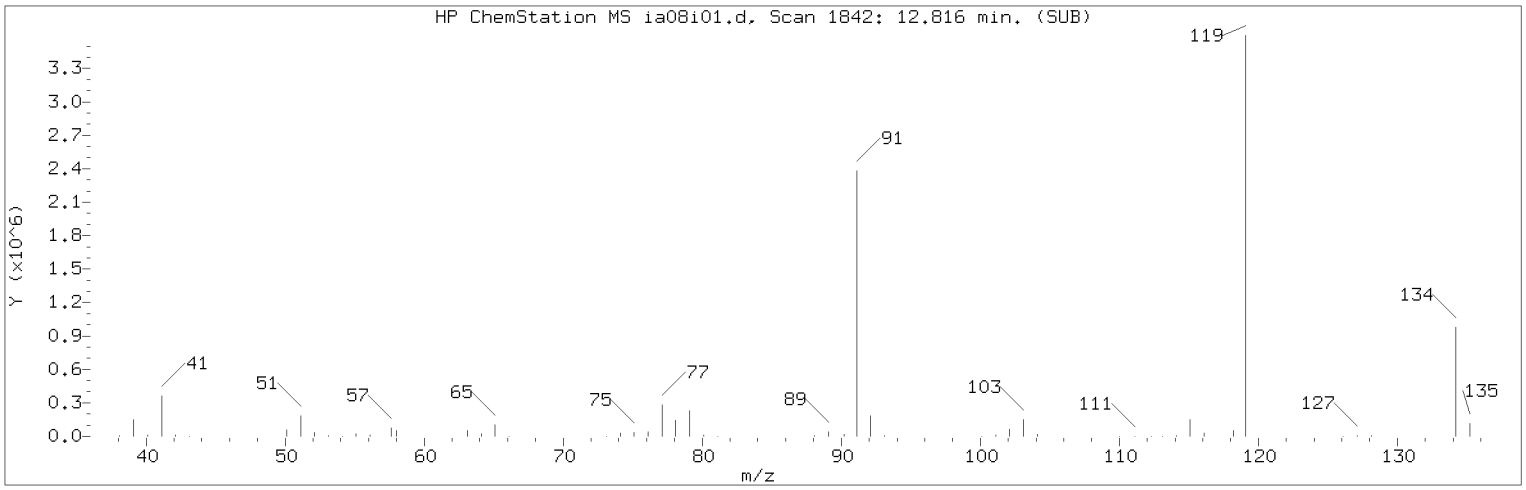
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

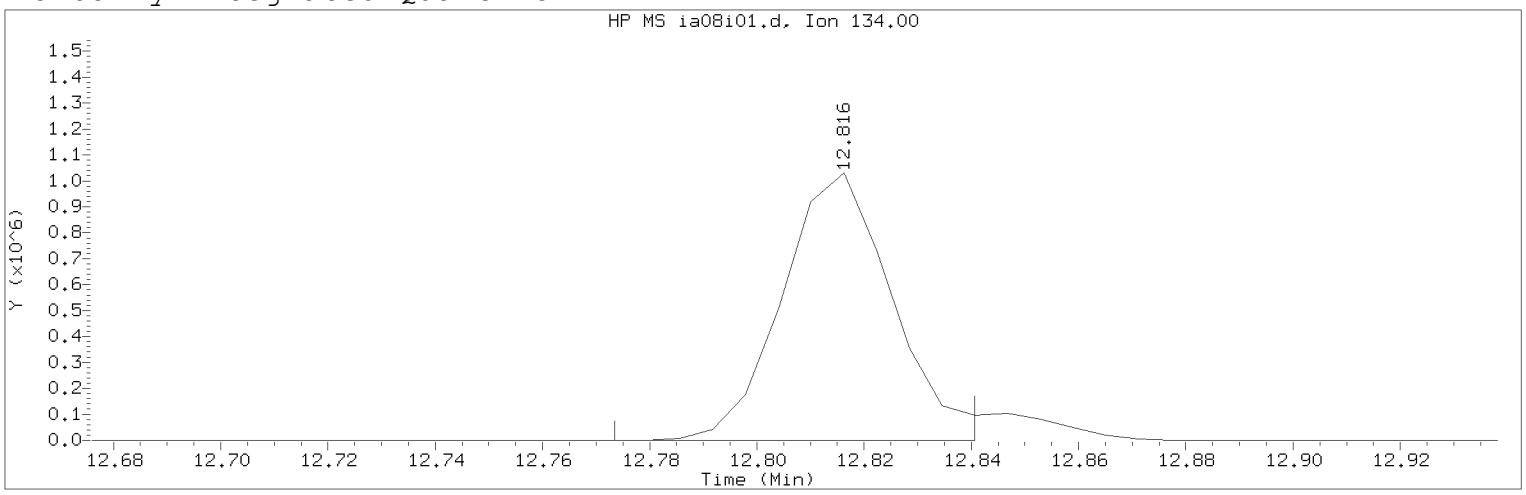
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1154
Retention Time (minutes): 8.622
Quant Ion : 58.00
Area : 197843
On-column Amount (ng) : 1323.7562
Integration start scan : 1141 Integration stop scan: 1199
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1020

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

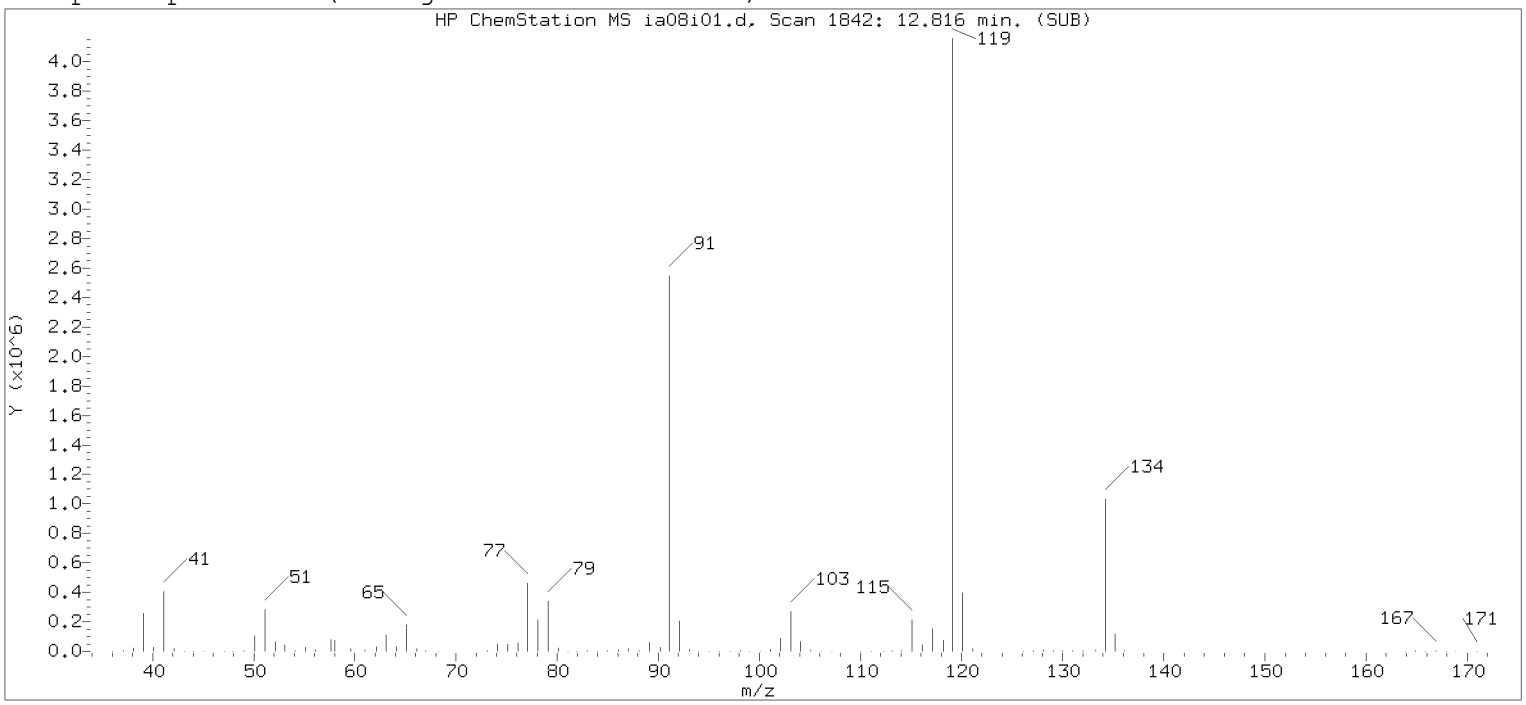
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 1464844M
On-Column Amount (ng) : 26.8079
Integration start scan : 1834 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

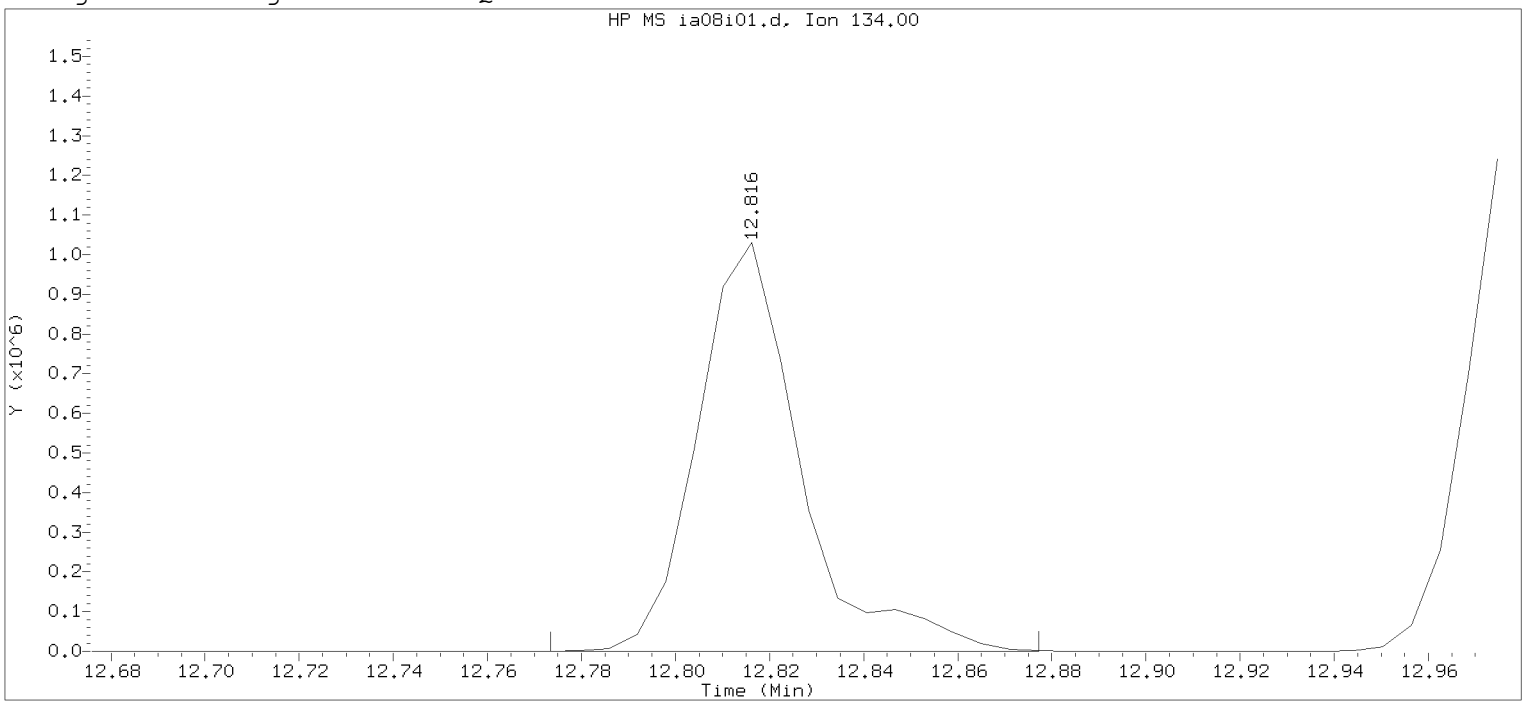
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 10:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:13 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 1560441
On-column Amount (ng) : 26.0697
Integration start scan : 1834 Integration stop scan: 1851
Y at integration start : 0 Y at integration end: 0

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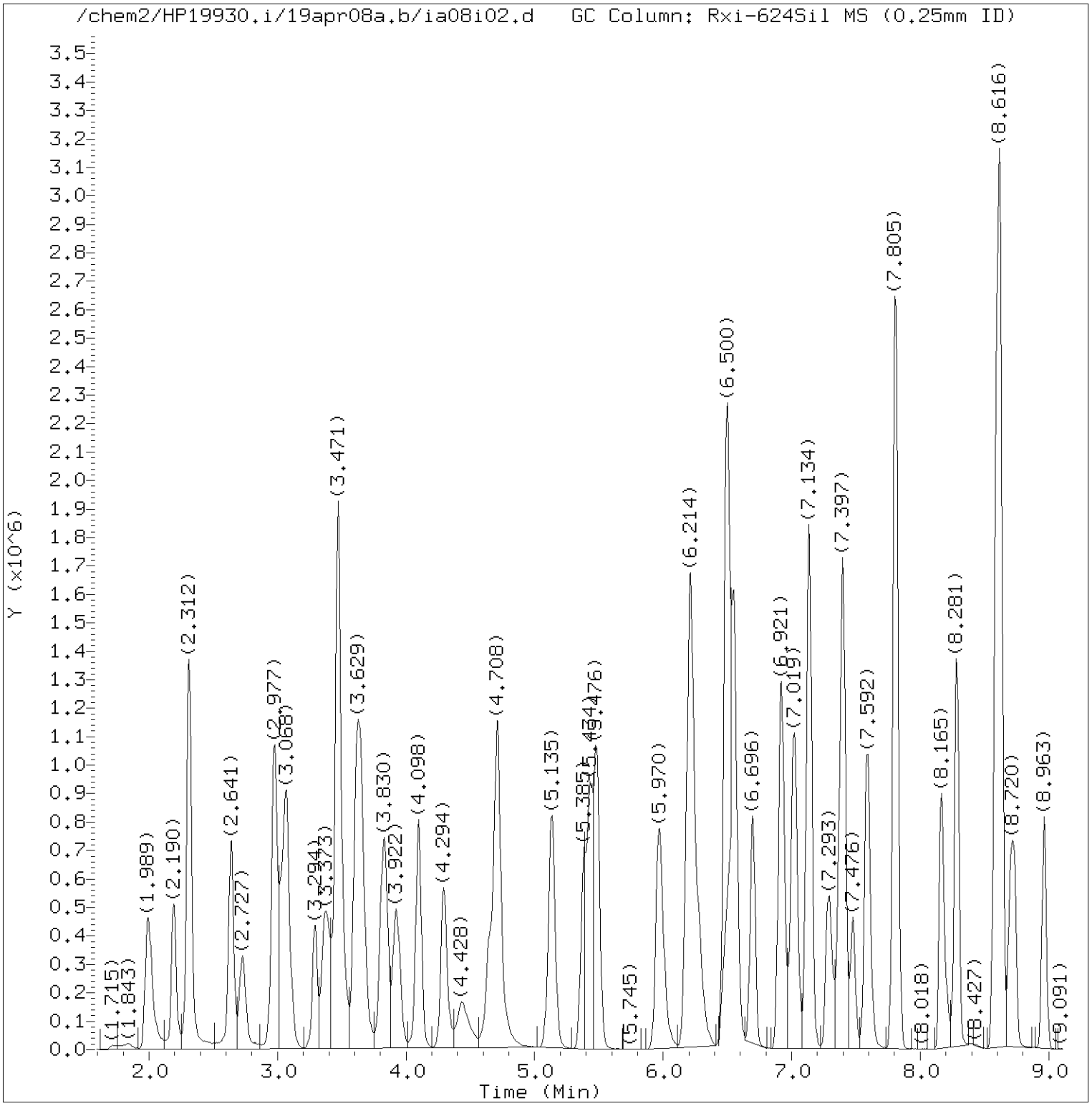
Target 3.5 esignature used. Page 1022



Total Ion Chromatogram (TIC)

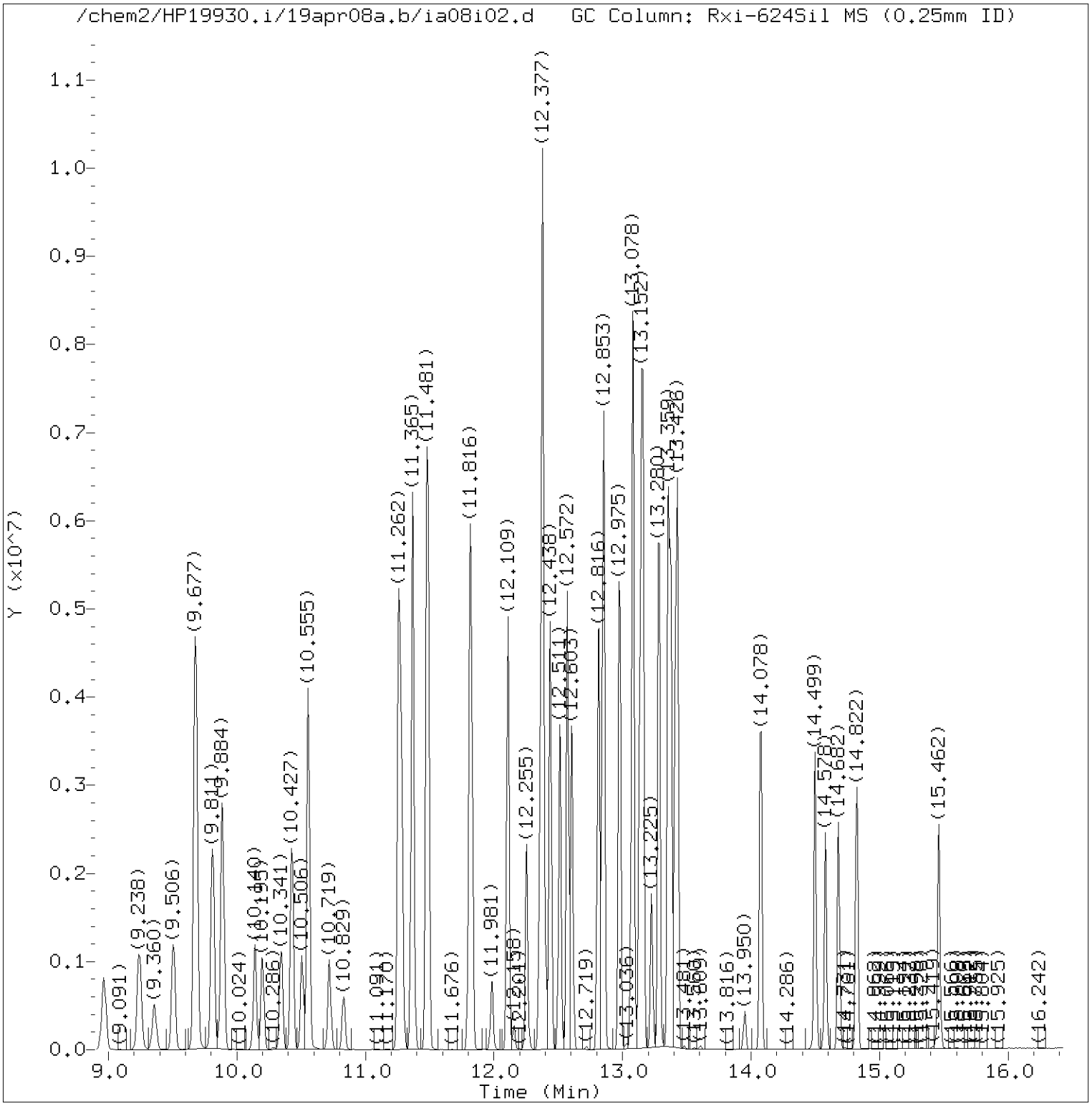
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.989	85	1071661	10.021
2) Chloromethane	(2)	2.190	50	784750M	9.907
5) Vinyl Chloride	(2)	2.312	62	810019	10.059
6) 1,3-Butadiene	(2)	2.312	39	629898M	9.458
7) Bromomethane	(2)	2.641	94	711125M	9.932
8) Chloroethane	(2)	2.727	64	468299M	10.010
9) Dichlorofluoromethane	(2)	2.977	67	1205684M	9.975
10) Trichlorofluoromethane	(2)	3.032	101	1356902M	10.085
11) Ethyl ether	(2)	3.288	59	373248	10.535
12) Freon 123a	(2)	3.373	67	610295M	10.088
13) Acrolein	(1)	3.471	56	3136143	546.301
15) 1,1-Dichloroethene	(2)	3.611	96	476760	10.218
14) Acetone	(1)	3.647	43	805979M	101.715
16) Freon 113	(2)	3.653	101	583964M	10.357
17) Methyl Iodide	(2)	3.812	142	1028608	10.277
18) Carbon Disulfide	(2)	3.922	76	1349756M	9.879
21) Methyl Acetate	(1)	4.074	43	205496	9.814
22) Allyl Chloride	(2)	4.098	41	736727M	10.264
23) Methylene Chloride	(2)	4.294	84	484234M	10.145
26)*t-Butyl Alcohol-d10	(1)	4.324	65	135247M	50.000
28) t-Butyl Alcohol	(1)	4.428	59	683763	208.186
29) Acrylonitrile	(1)	4.641	53	520042	54.866
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	1269529M	10.402
31) trans-1,2-Dichloroethene	(2)	4.714	96	515158	9.865
32) n-Hexane	(2)	5.135	57	784077M	10.669
33) 1,1-Dichloroethane	(2)	5.379	63	853519M	10.049
34) di-Isopropyl Ether	(2)	5.434	45	1487933M	10.439
35) 2-Chloro-1,3-Butadiene	(2)	5.482	53	796502M	10.443
37) Ethyl t-butyl ether	(2)	5.964	59	1423714M	10.062
40) 1,2-Dichloroethene (Total)	(2)		96	1105408	20.011
38) 2-Butanone	(1)	6.190	43	1414257	109.881
39) cis-1,2-Dichloroethene	(2)	6.214	96	590250	10.146
41) 2,2-Dichloropropane	(2)	6.232	77	799721	10.115
42) Propionitrile	(1)	6.287	54	753819M	218.135
45) Methacrylonitrile	(1)	6.500	67	1392131M	109.463
47) Bromochloromethane	(2)	6.549	128	286405	10.003
48) Tetrahydrofuran	(1)	6.555	71	434997	108.082
49) Chloroform	(2)	6.696	83	936929M	10.122

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	470610	9.939
50)$Dibromofluoromethane	(2)	6.915	111	485255	10.026
51) 1,1,1-Trichloroethane	(2)	6.921	97	920216M	10.284
52) Cyclohexane	(2)	7.019	56	919785M	10.454
52) Cyclohexane	(2)	7.019	84	856707M	10.321
52) Cyclohexane	(2)	7.025	69	293581M	10.161
54) Carbon Tetrachloride	(2)	7.134	117	873580M	10.340
55) 1,1-Dichloropropene	(2)	7.134	75	712801M	10.291
56) Isobutyl Alcohol	(1)	7.293	41	531559M	524.007
57)$1,2-Dichloroethane-d4	(2)	7.372	102	90588M	9.927
57)$1,2-Dichloroethane-d4	(2)	7.372	65	408026M	9.976
57)$1,2-Dichloroethane-d4	(2)	7.372	104	57424	9.968
58) Benzene	(2)	7.397	78	2078869M	10.208
59) 1,2-Dichloroethane	(2)	7.476	62	537979M	9.847
59) 1,2-Dichloroethane	(2)	7.482	98	52654M	10.332
60) t-Amyl methyl ether	(2)	7.592	73	1394137M	10.215
63)*Fluorobenzene	(2)	7.805	96	1834755M	10.000
62) n-Heptane	(2)	7.811	43	803174M	10.643
65) n-Butanol	(1)	8.165	56	919238M	1085.963
67) Trichloroethene	(2)	8.281	95	578338M	10.149
69) Methylcyclohexane	(2)	8.591	83	1122903M	11.036
70) 1,2-Dichloropropane	(2)	8.622	63	486469M	10.316
71) Methyl Methacrylate	(1)	8.701	69	270591M	11.117
72) 1,4-Dioxane	(1)	8.707	88	107768	517.834
72) 1,4-Dioxane	(1)	8.701	58	70241	566.384
73) Dibromomethane	(2)	8.732	93	268687M	10.136
74) Bromodichloromethane	(2)	8.963	83	685081M	10.468
76) 2-Nitropropane	(1)	9.238	41	923046M	113.969
80) cis-1,3-Dichloropropene	(2)	9.506	75	783316	10.551
81) 4-Methyl-2-Pentanone	(1)	9.677	43	3688164M	113.191
82)$Toluene-d8	(3)	9.811	98	1808851M	10.002
82)$Toluene-d8	(3)	9.811	100	1162221M	10.021
83) Toluene	(3)	9.884	92	1388935	10.215
84) trans-1,3-Dichloropropene	(3)	10.140	75	676919	10.562
85) 1,3-Dichloropropene (total)	(3)		75	1460235	21.113
86) Ethyl Methacrylate	(3)	10.195	69	583560	10.781
88) 1,1,2-Trichloroethane	(3)	10.347	97	385369	10.257
89) Tetrachloroethene	(3)	10.427	166	736504	10.236

M = Compound was manually integrated.
* = Compound is an internal standard.
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on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	622754	10.298
91) 2-Hexanone	(1)	10.555	43	2587116M	111.973
93) Dibromochloromethane	(3)	10.719	129	549680	10.764
95) 1,2-Dibromoethane	(3)	10.829	107	393571	10.286
97)*Chlorobenzene-d5	(3)	11.256	117	1474409	10.000
96) 1-Chlorohexane	(3)	11.262	91	831202M	10.153
98) Chlorobenzene	(3)	11.280	112	1591631	10.197
100) Ethylbenzene	(3)	11.365	91	2835582M	10.384
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	623767	10.595
101) m+p-Xylene	(3)	11.481	106	2264672	20.826
105) Xylene (Total)	(3)		106	3364240	31.302
104) o-Xylene	(3)	11.810	106	1099568	10.476
106) Styrene	(3)	11.823	104	1791510	10.766
107) Bromoform	(3)	11.987	173	350929	11.173
108) Isopropylbenzene	(3)	12.109	105	2986520	10.534
111)$4-Bromofluorobenzene	(3)	12.255	95	671989	9.916
111)$4-Bromofluorobenzene	(3)	12.255	174	648060	9.990
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	491013	10.426
114) Bromobenzene	(4)	12.371	156	734715	10.251
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	1348519M	118.011
116) 1,2,3-Trichloropropane	(4)	12.402	110	146354M	10.472
117) n-Propylbenzene	(4)	12.438	91	3384825	10.559
119) 2-Chlorotoluene	(4)	12.511	126	710453	10.307
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	2495352	10.538
122) 4-Chlorotoluene	(4)	12.609	126	715599	10.332
125) tert-Butylbenzene	(4)	12.816	134	565781M	10.486
126) Pentachloroethane	(4)	12.847	167	506769	10.665
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	2557284	10.599
128) sec-Butylbenzene	(4)	12.975	105	3305323	10.784
131) 1,3-Dichlorobenzene	(4)	13.078	146	1421993	10.365
132) p-Isopropyltoluene	(4)	13.085	119	2930259	10.894
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	825128	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	1414631	10.318
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	1161727	10.304
136) Benzyl Chloride	(4)	13.225	126	247776M	11.166
138) n-Butylbenzene	(4)	13.377	92	1358140	11.101
139) 1,2-Dichlorobenzene	(4)	13.408	146	1306986	10.437
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	85736M	11.573

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	1087447	10.871
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	945935	10.788
146) Hexachlorobutadiene	(4)	14.578	225	405337	11.313
147) Naphthalene	(4)	14.682	128	1826001	10.399
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	847636	10.736

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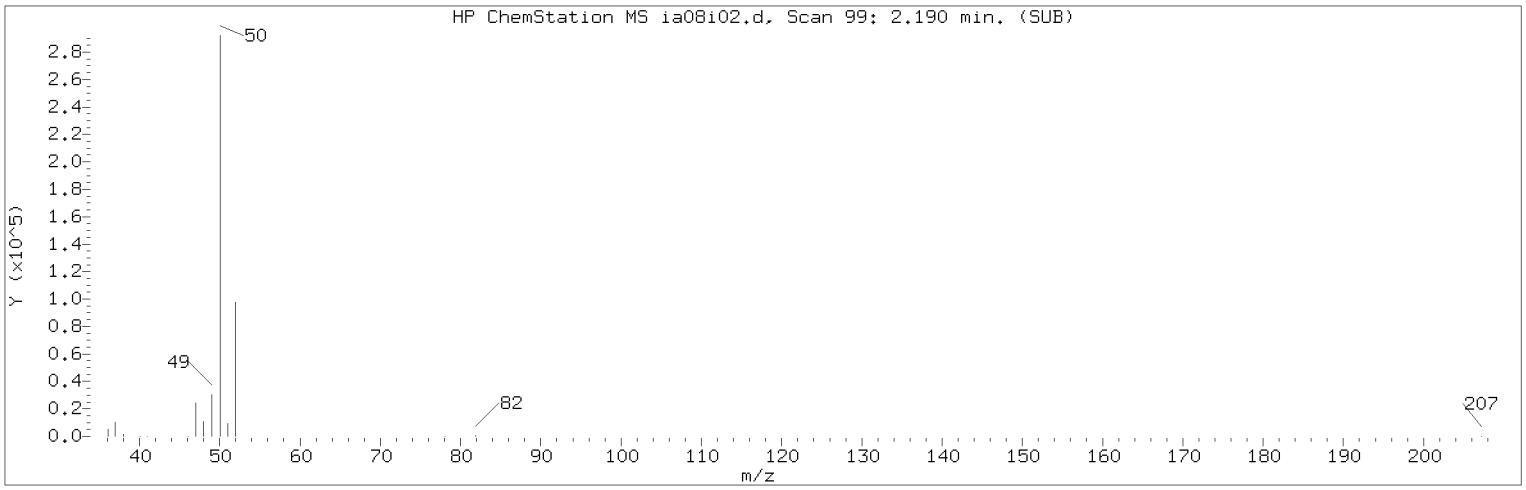
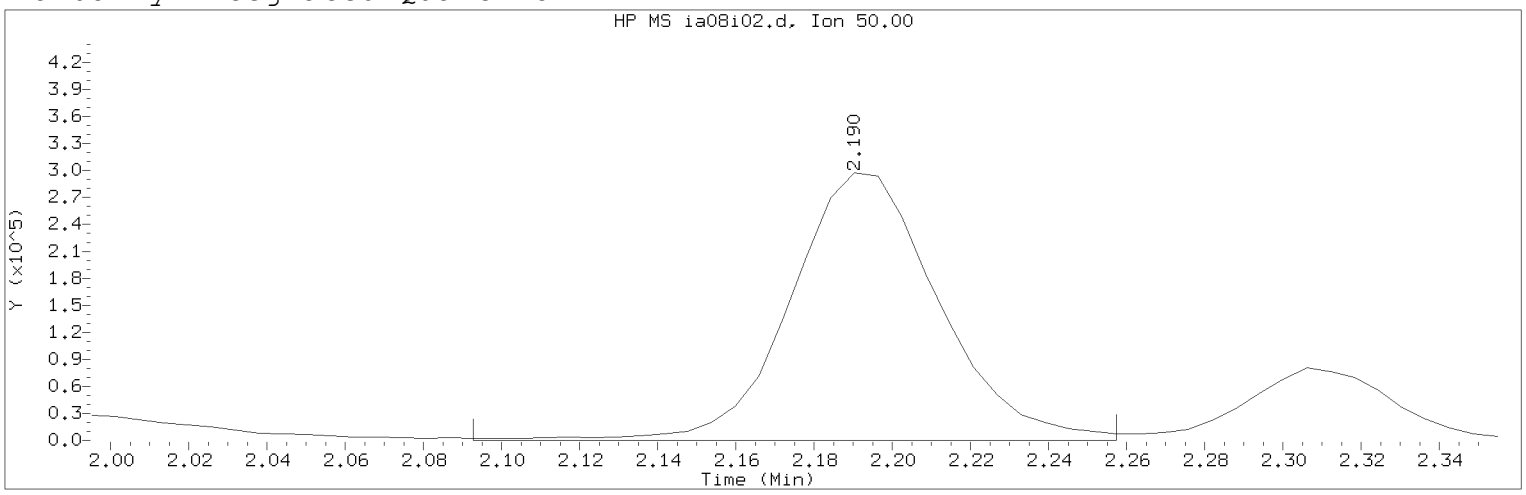
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

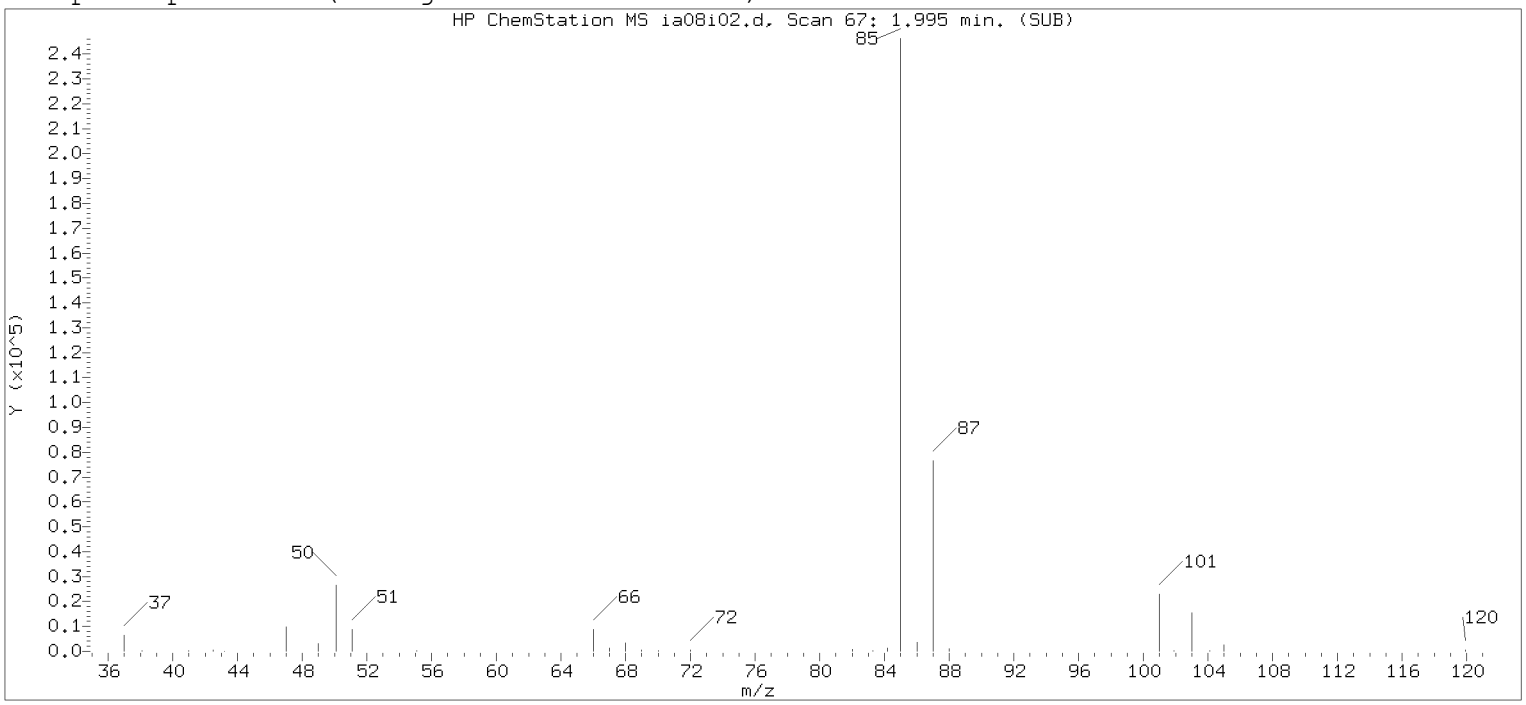
Compound Number : 2
Compound Name : Chloromethane
Scan Number : 99
Retention Time (minutes): 2.190
Quant Ion : 50.00
Area (flag) : 784750M
On-Column Amount (ng) : 9.9073
Integration start scan : 82 Integration stop scan: 109
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

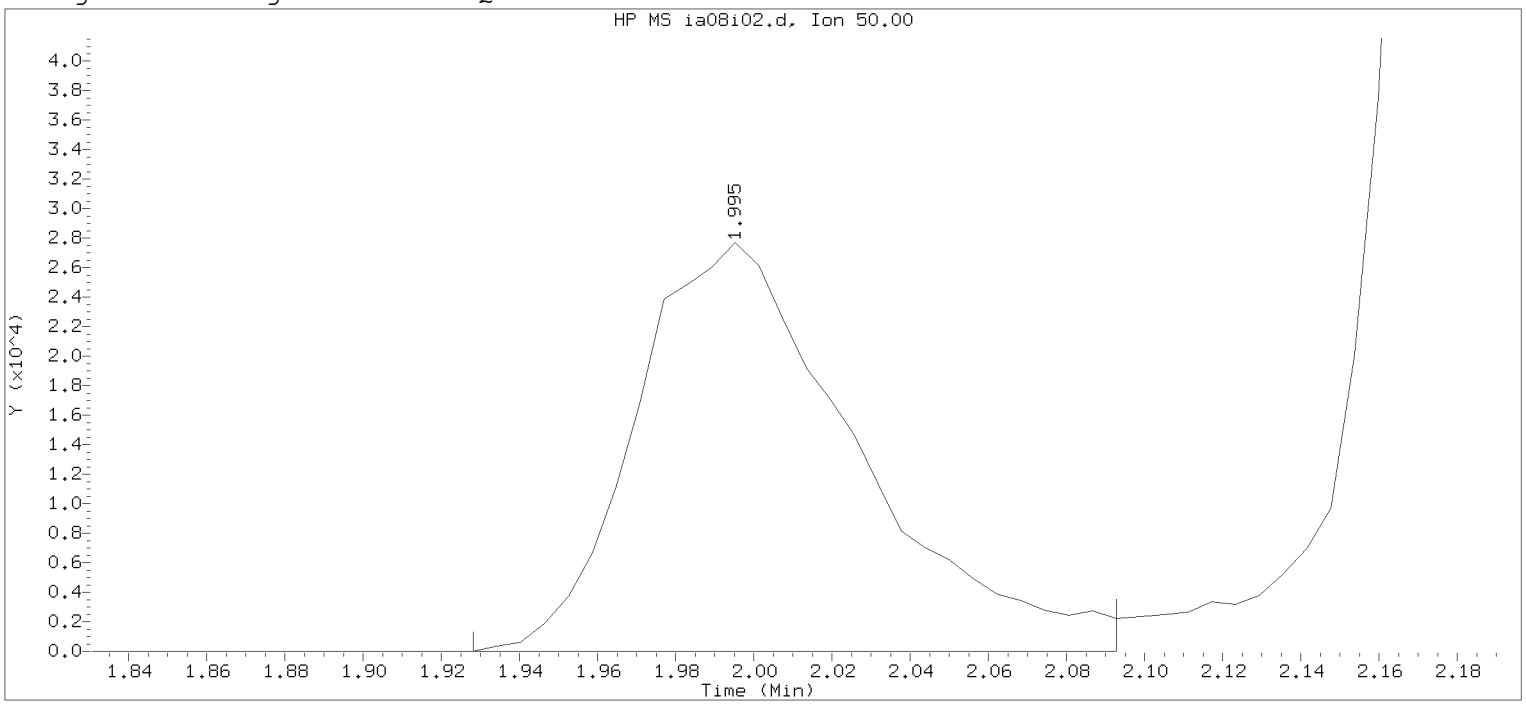
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

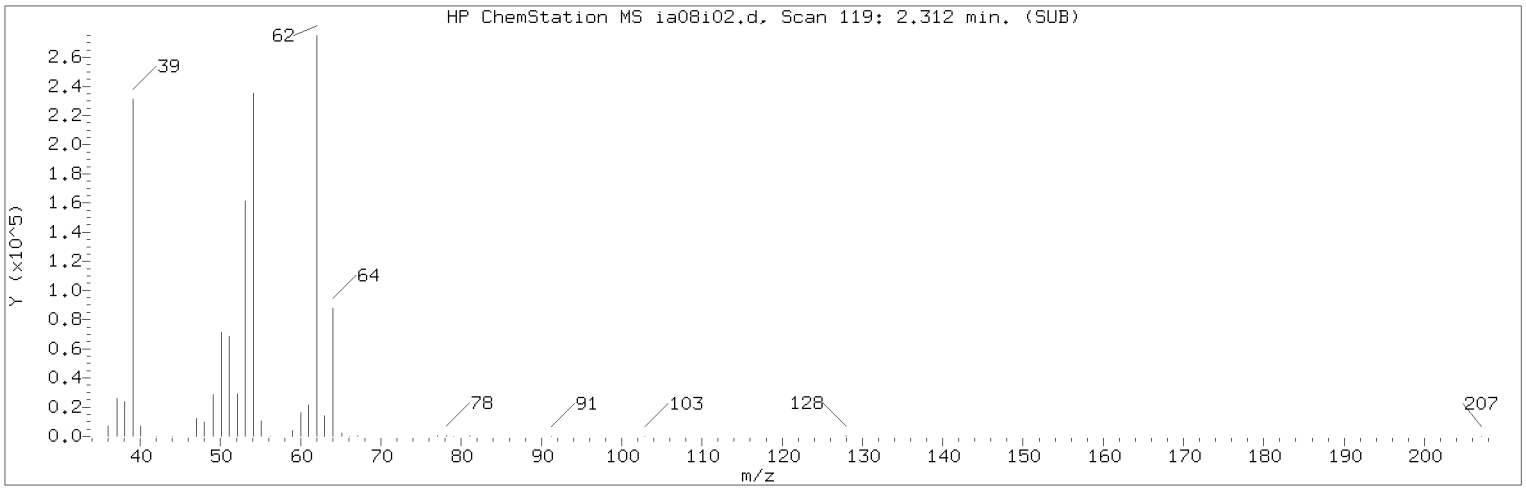
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

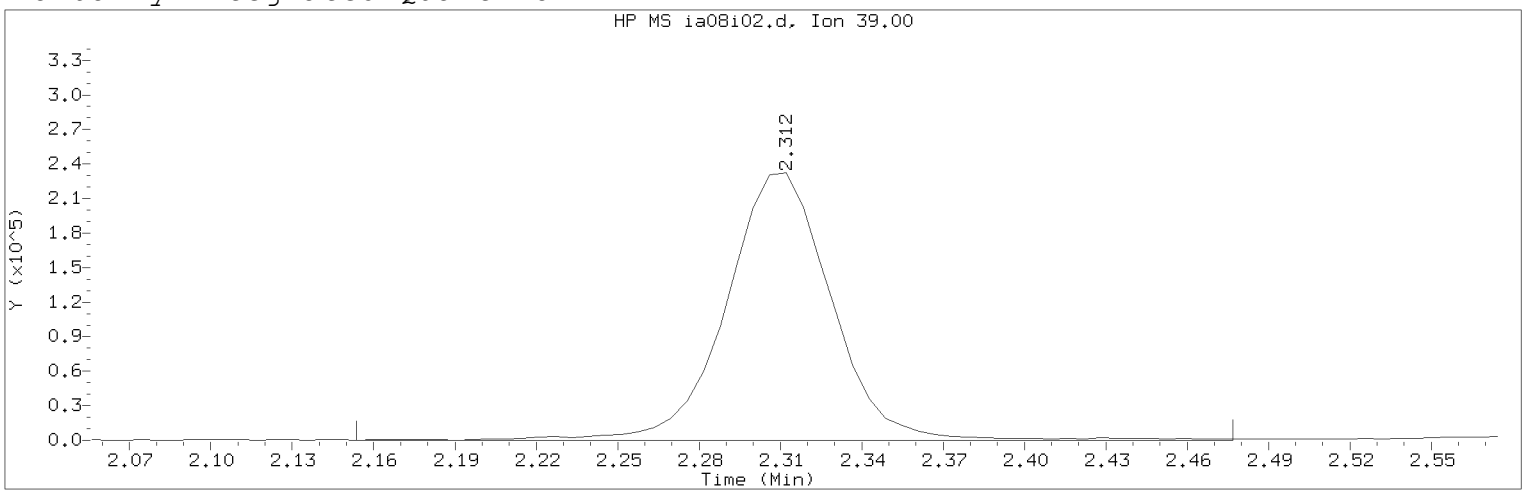
Compound Number : 2
Compound Name : Chloromethane
Scan Number : 67
Retention Time (minutes): 1.995
Quant Ion : 50.00
Area : 108686
On-column Amount (ng) : 46.7627
Integration start scan : 55 Integration stop scan: 82
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

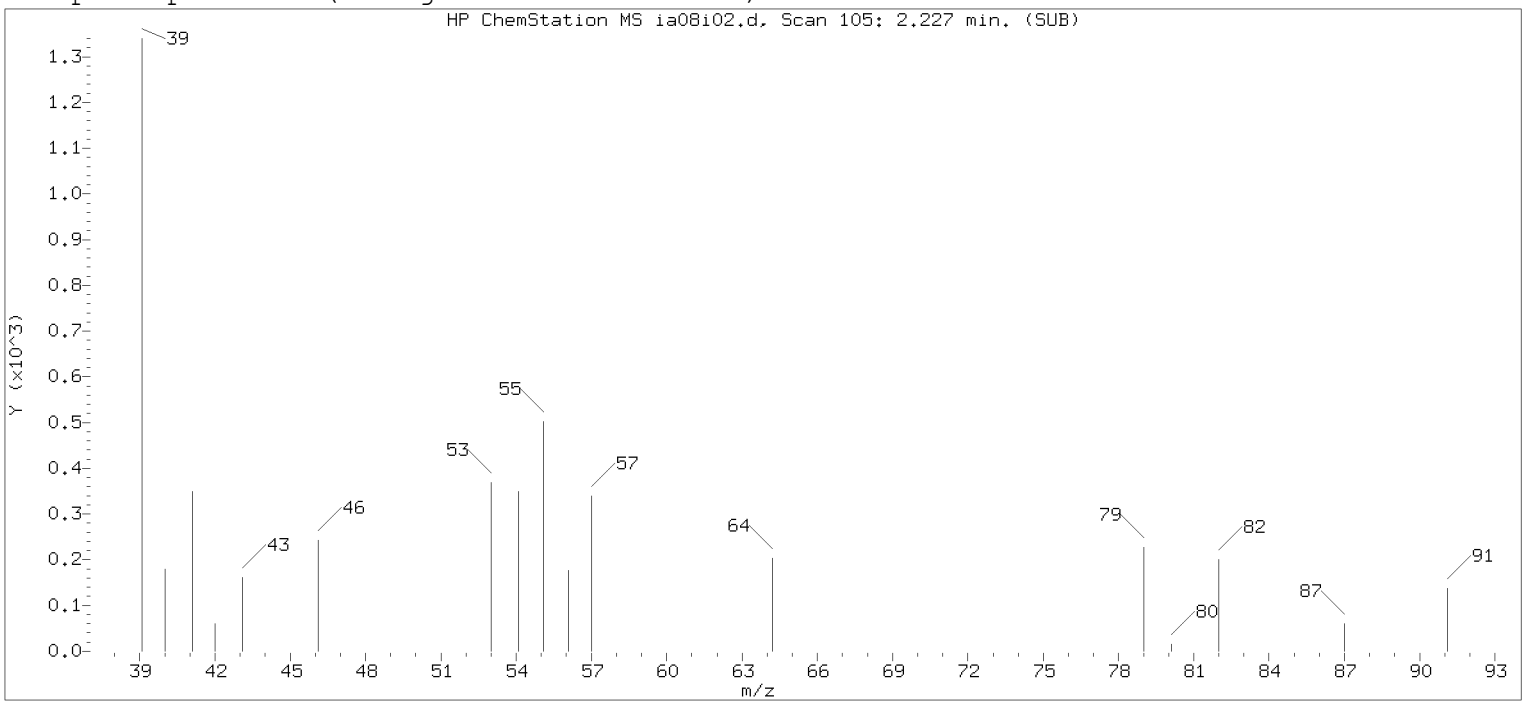
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area (flag) : 629898M
On-Column Amount (ng) : 9.4576
Integration start scan : 92 Integration stop scan: 145
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

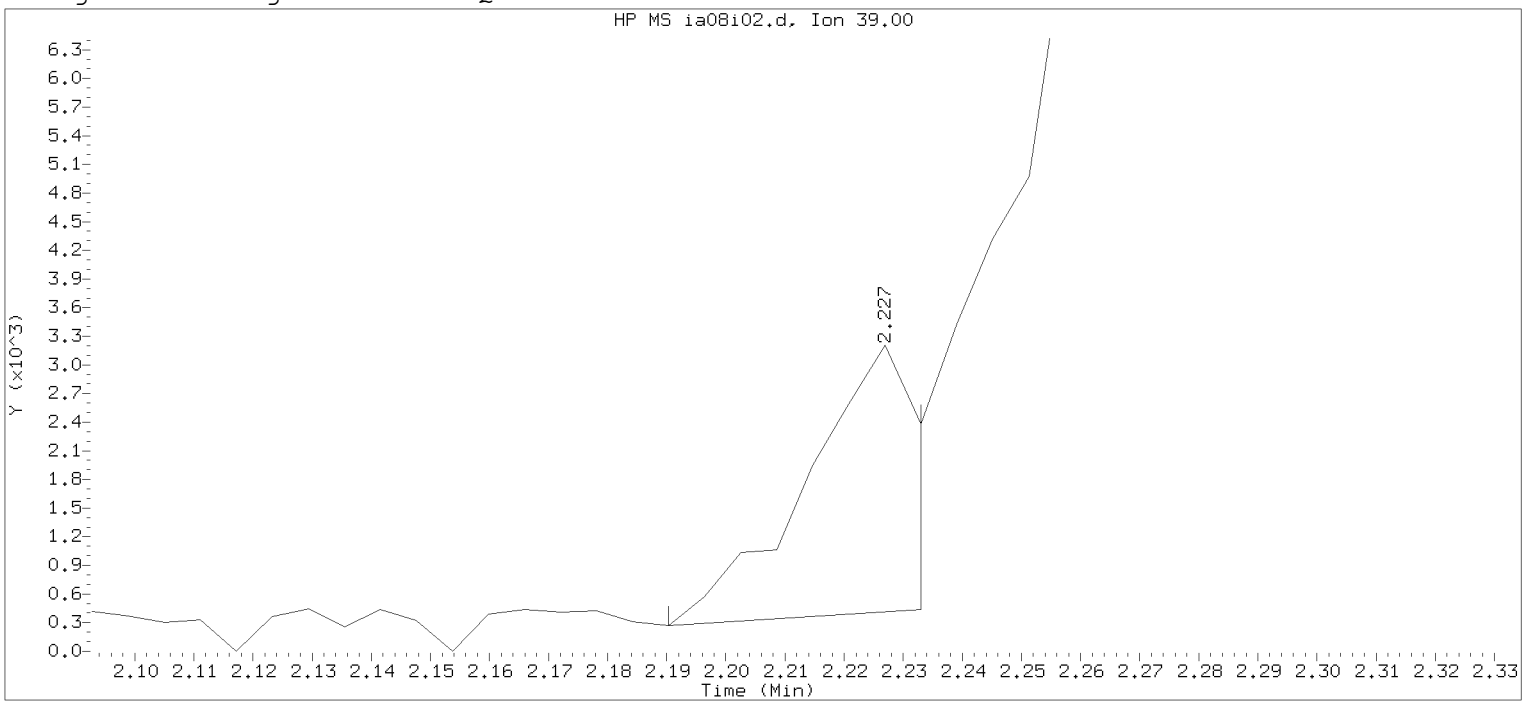
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 105
Retention Time (minutes): 2.227
Quant Ion : 39.00
Area : 3393
On-column Amount (ng) : 36.4468
Integration start scan : 98 Integration stop scan: 105
Y at integration start : 268 Y at integration end: 435

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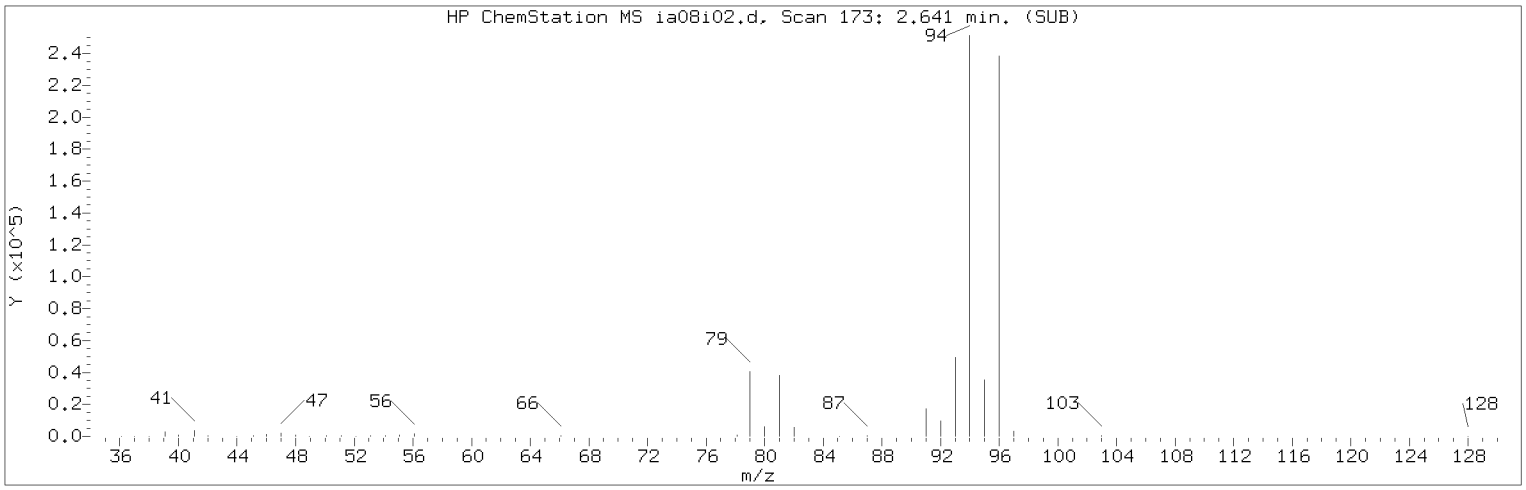
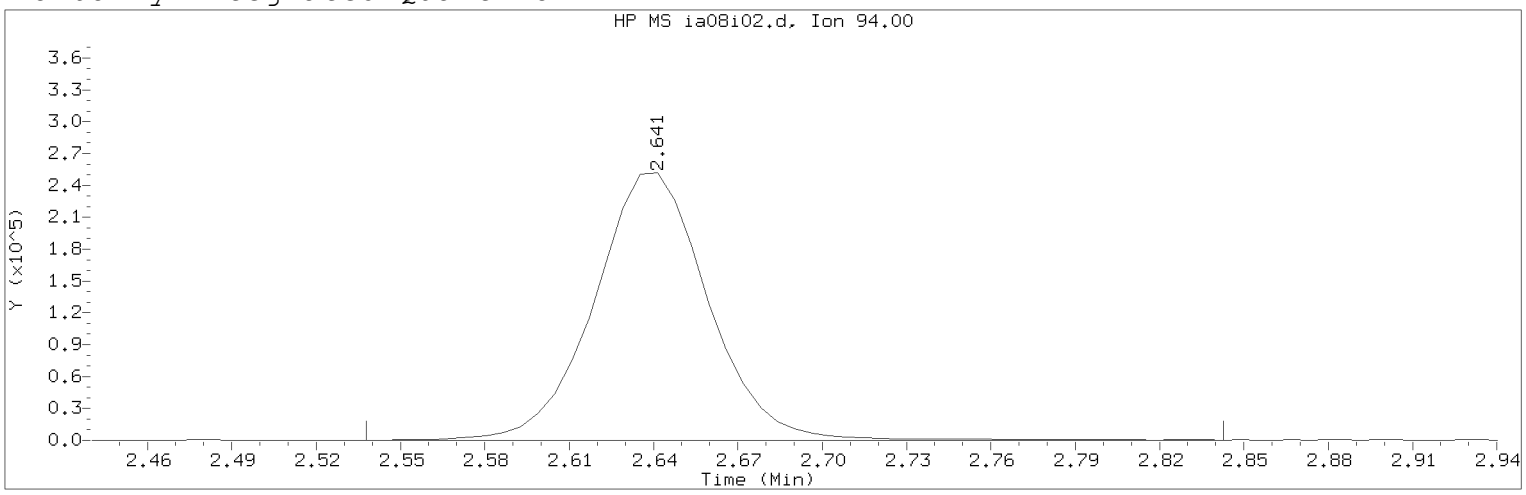
Target 3.5 esignature user: F35 Page 1032

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

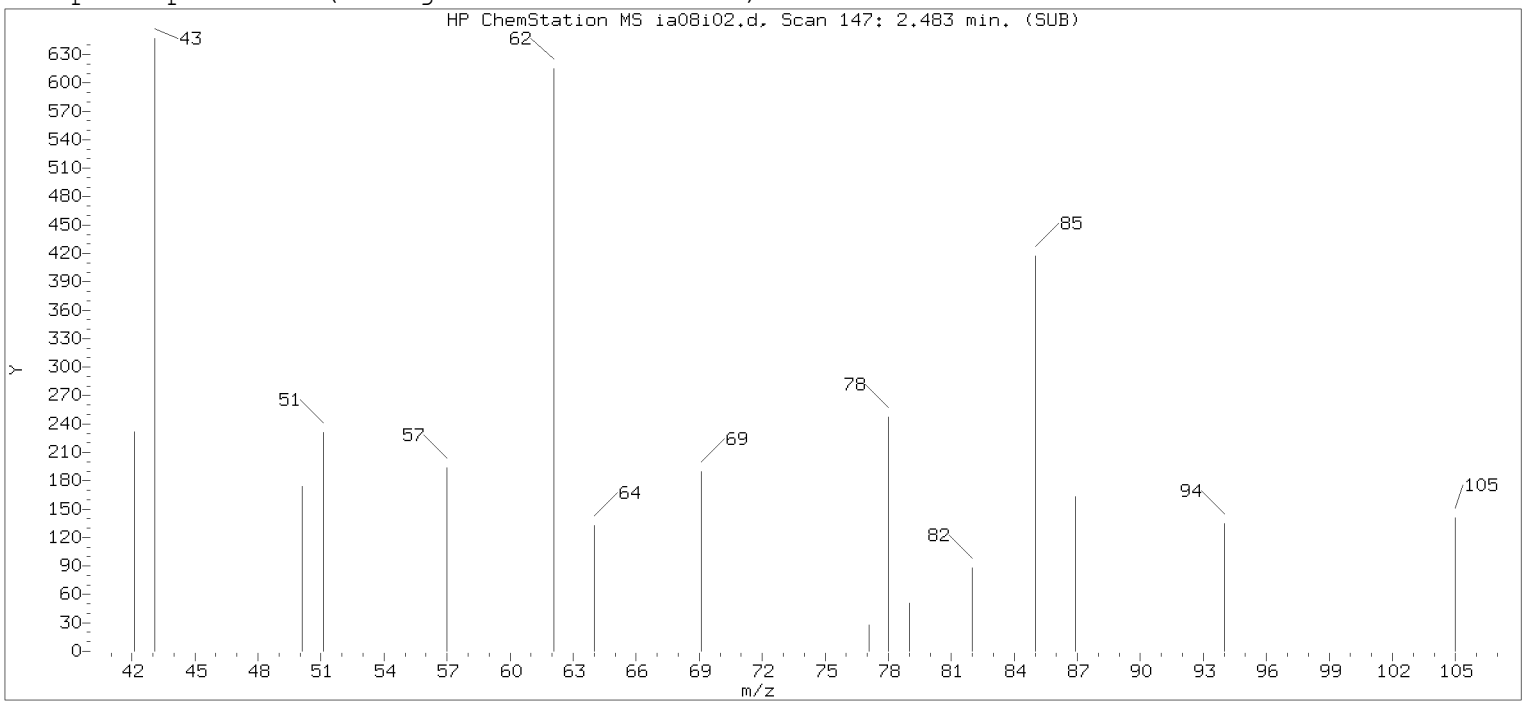
Compound Number : 7
Compound Name : Bromomethane
Scan Number : 173
Retention Time (minutes): 2.641
Quant Ion : 94.00
Area (flag) : 711125M
On-Column Amount (ng) : 9.9321
Integration start scan : 155 Integration stop scan: 205
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

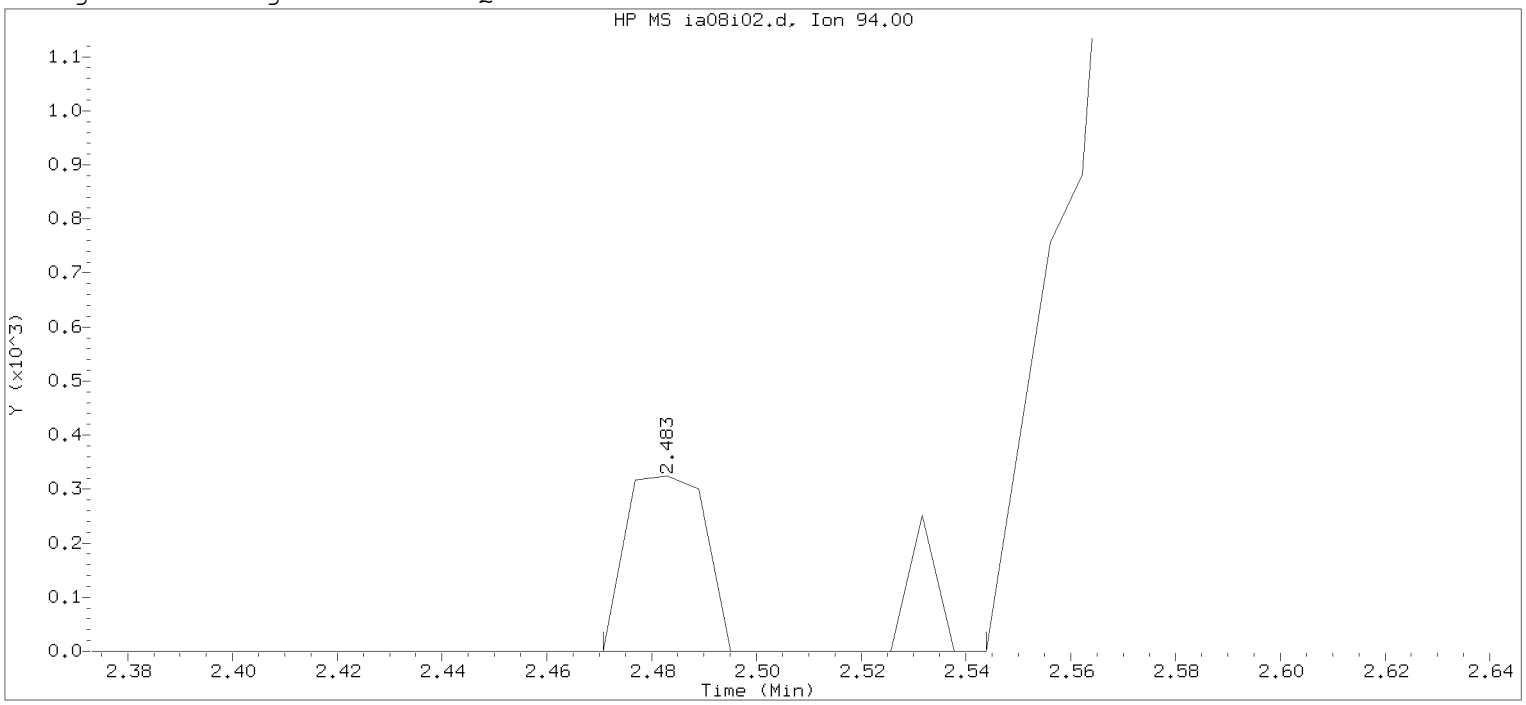
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 7
Compound Name : Bromomethane
Scan Number : 147
Retention Time (minutes): 2.483
Quant Ion : 94.00
Area : 436
On-column Amount (ng) : 0.0876
Integration start scan : 144 Integration stop scan: 156
Y at integration start : 0 Y at integration end: 0

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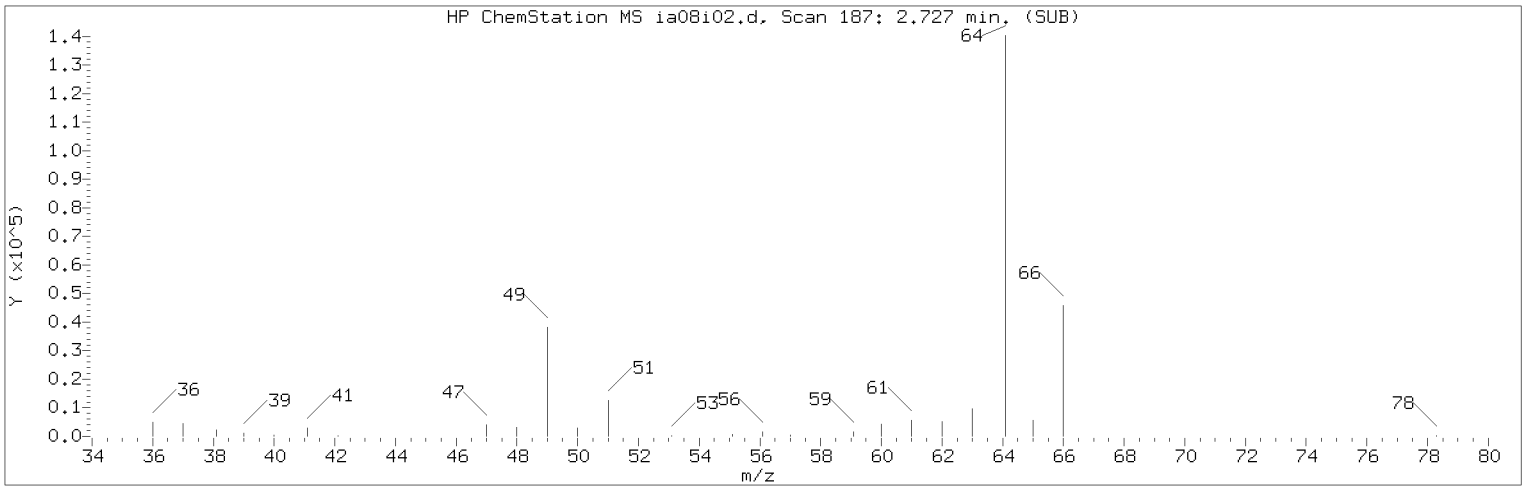
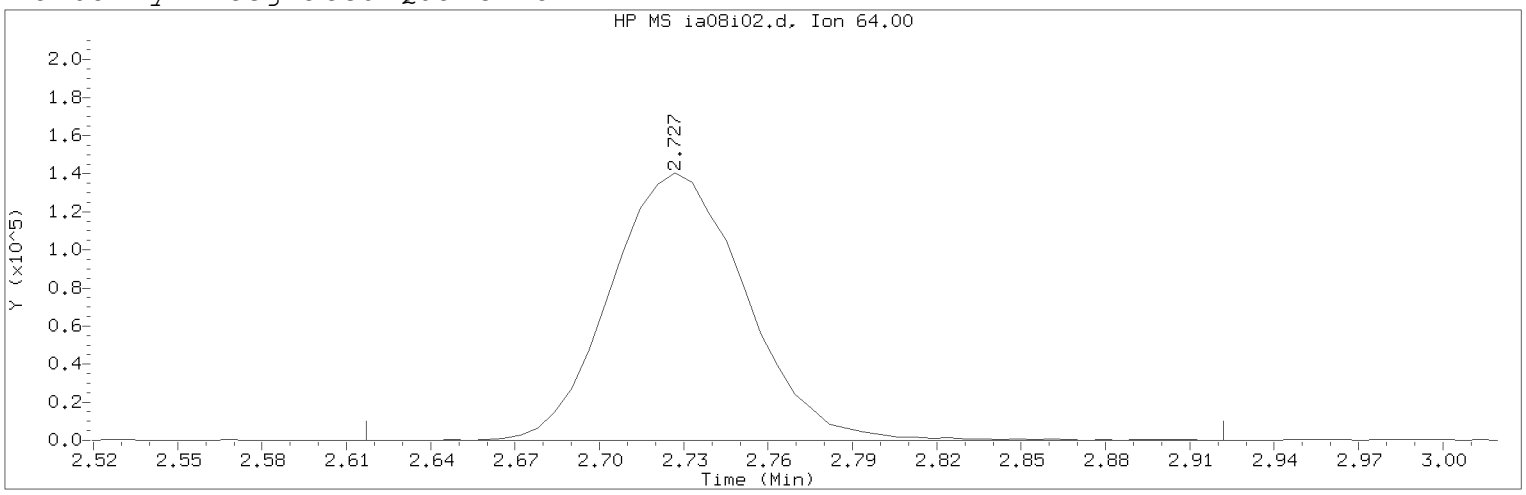
Target 3.5 esignature user: Page 1034

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

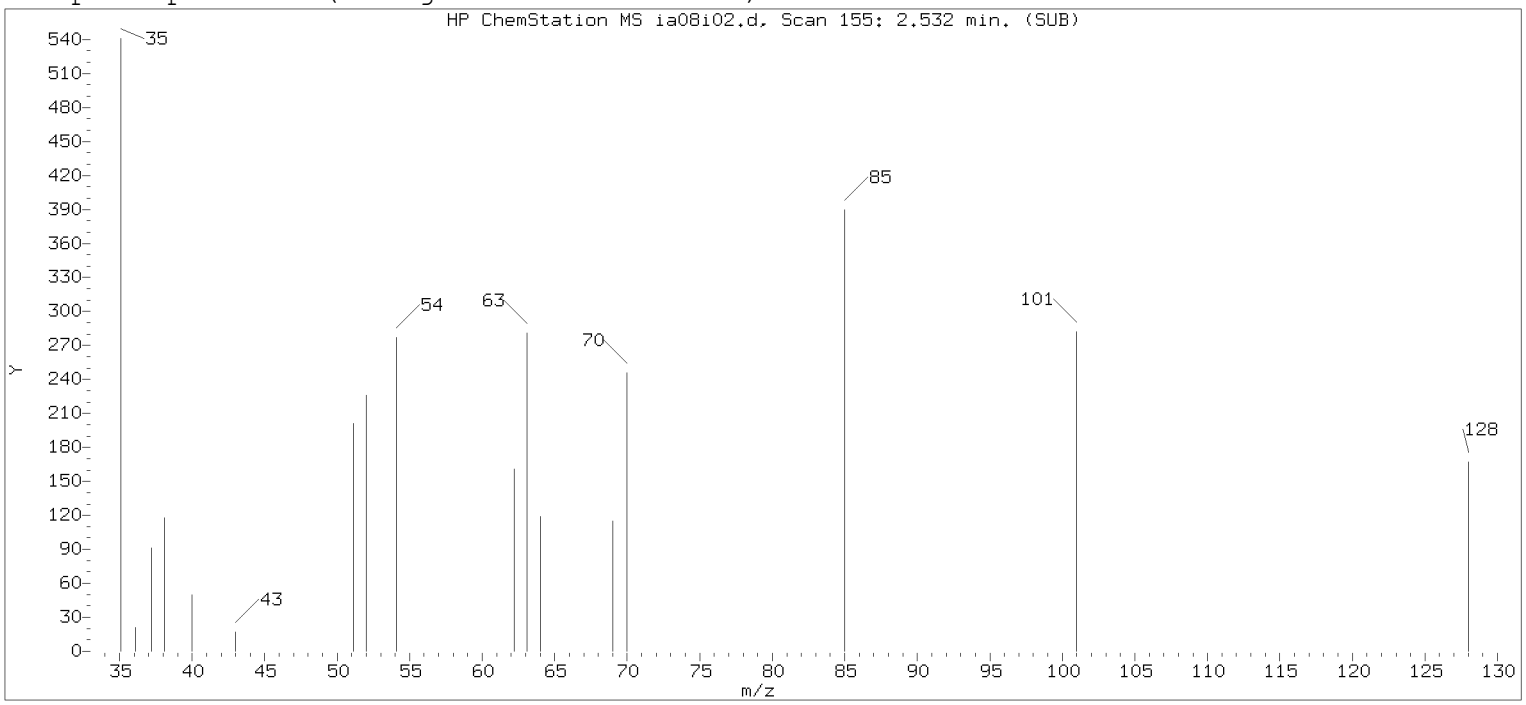
Compound Number : 8
Compound Name : Chloroethane
Scan Number : 187
Retention Time (minutes): 2.727
Quant Ion : 64.00
Area (flag) : 468299M
On-Column Amount (ng) : 10.0104
Integration start scan : 168 Integration stop scan: 218
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

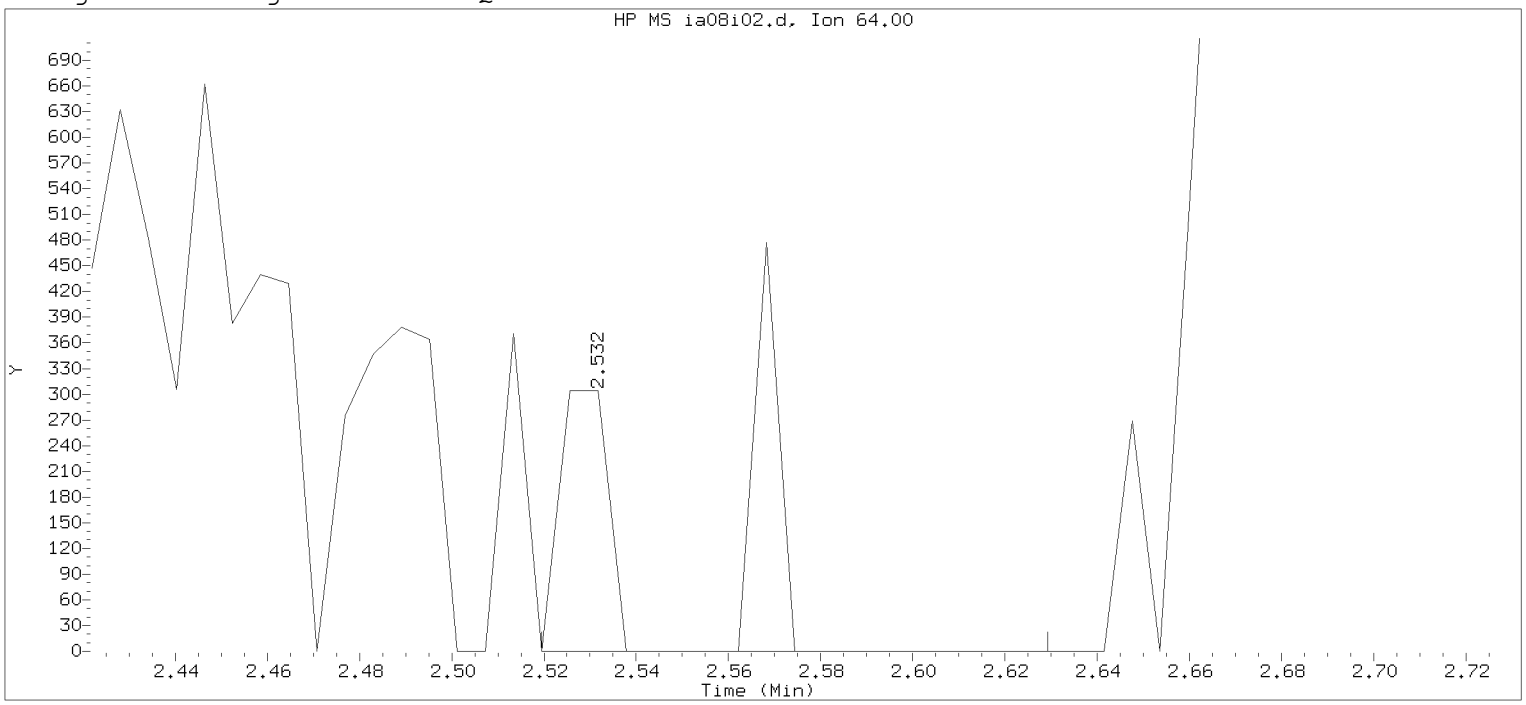
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 155
Retention Time (minutes): 2.532
Quant Ion : 64.00
Area : 396
On-column Amount (ng) : 10.1733
Integration start scan : 152 Integration stop scan: 170
Y at integration start : 0 Y at integration end: 0

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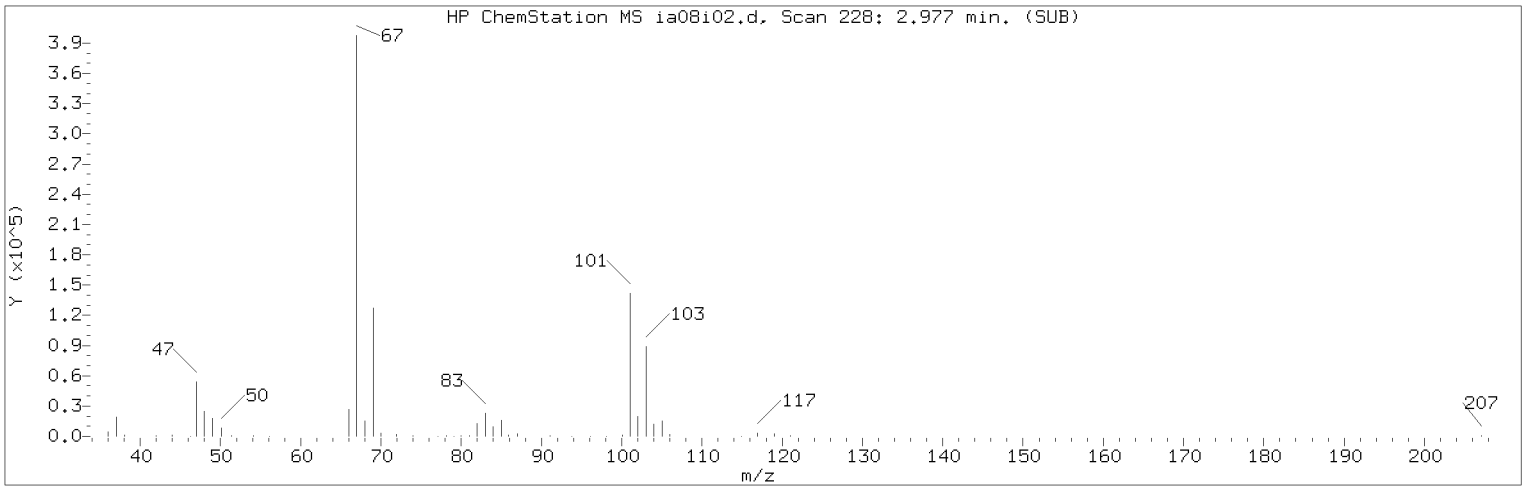
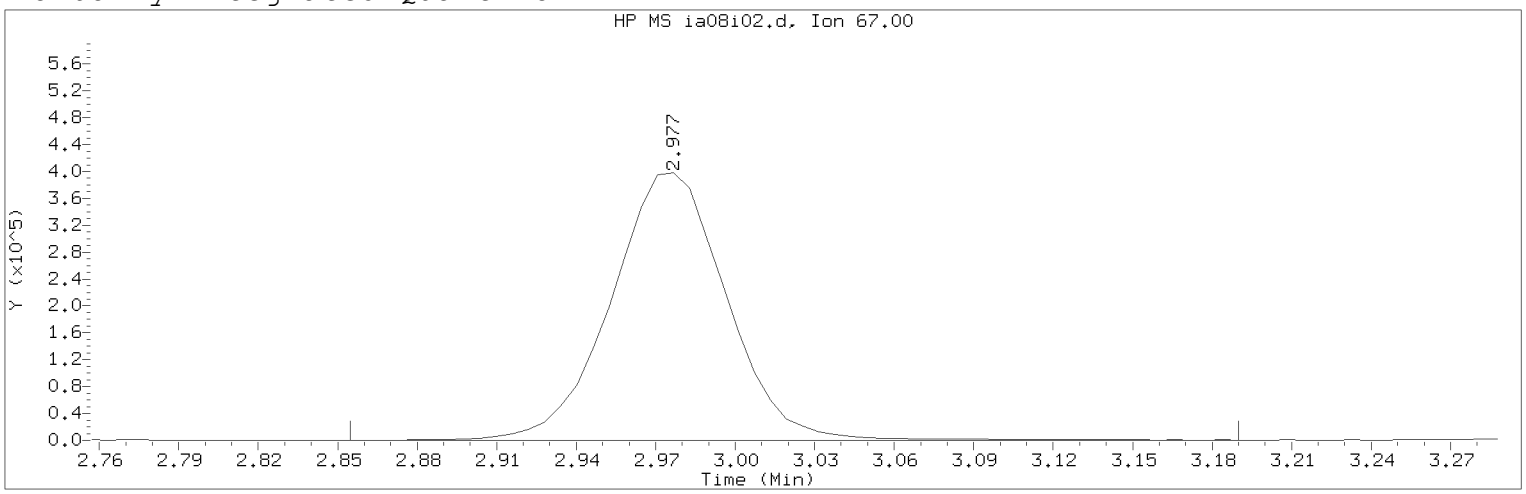
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

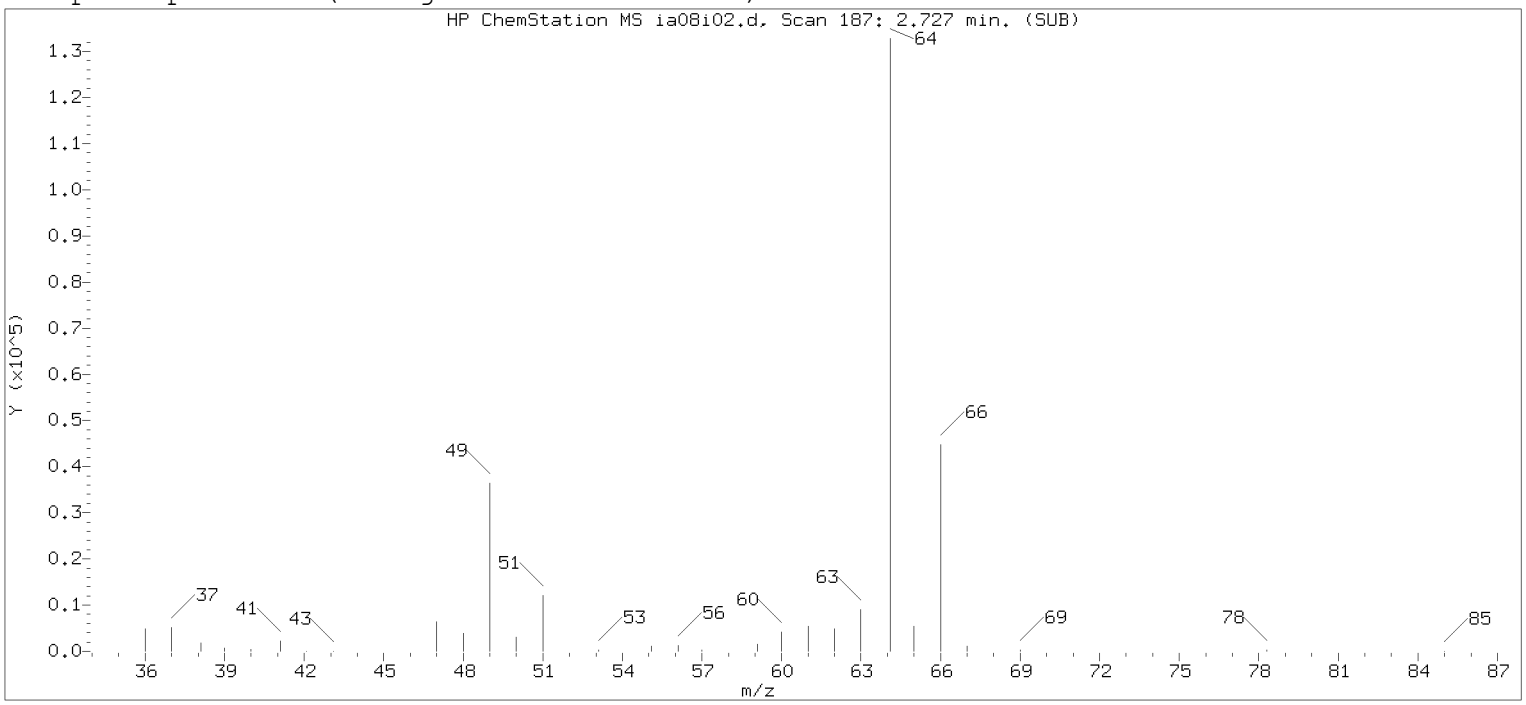
Compound Number : 9
Compound Name : Dichlorofluoromethane
Scan Number : 228
Retention Time (minutes): 2.977
Quant Ion : 67.00
Area (flag) : 1205684M
On-Column Amount (ng) : 9.9746
Integration start scan : 207 Integration stop scan: 262
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

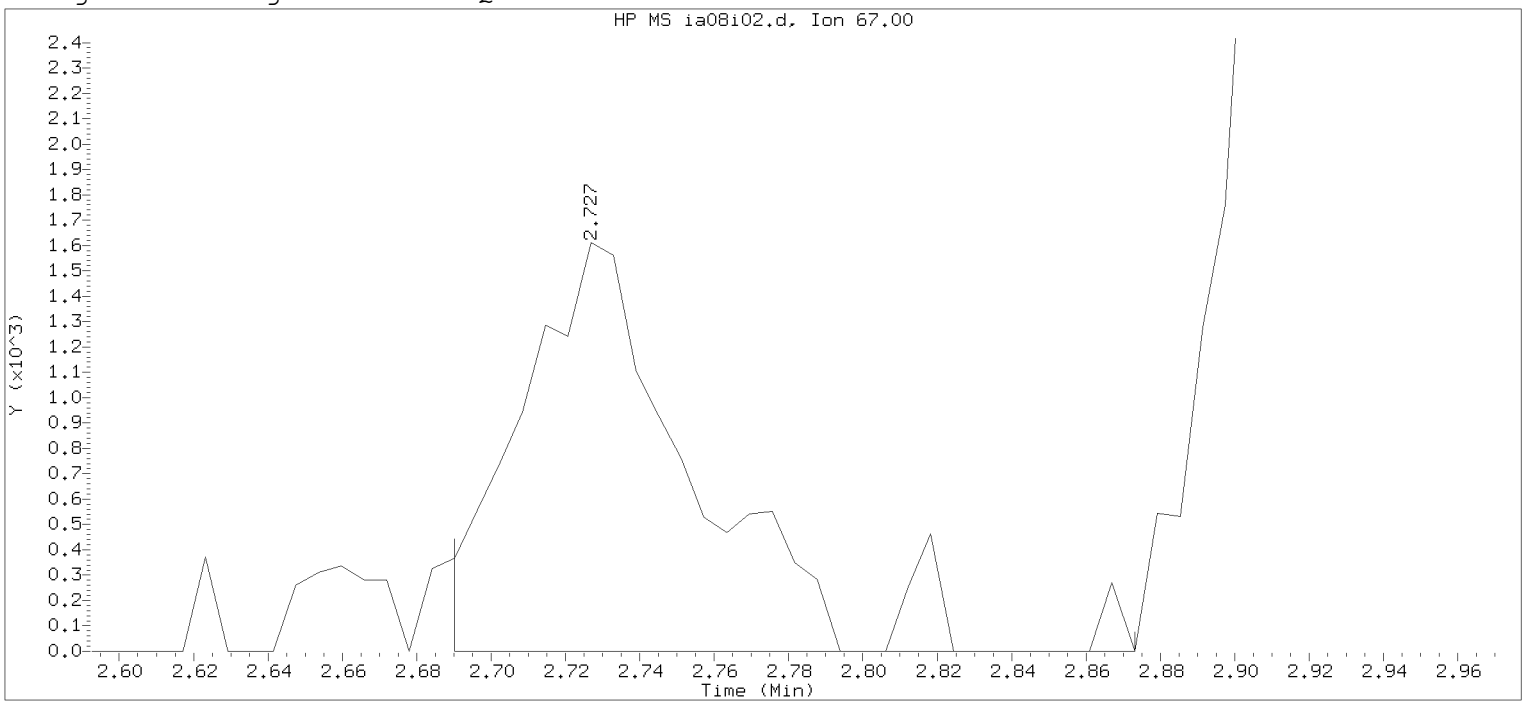
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 9
Compound Name : Dichlorofluoromethane
Scan Number : 187
Retention Time (minutes): 2.727
Quant Ion : 67.00
Area : 5352
On-column Amount (ng) : 29.5940
Integration start scan : 180 Integration stop scan: 210
Y at integration start : 0 Y at integration end: 0

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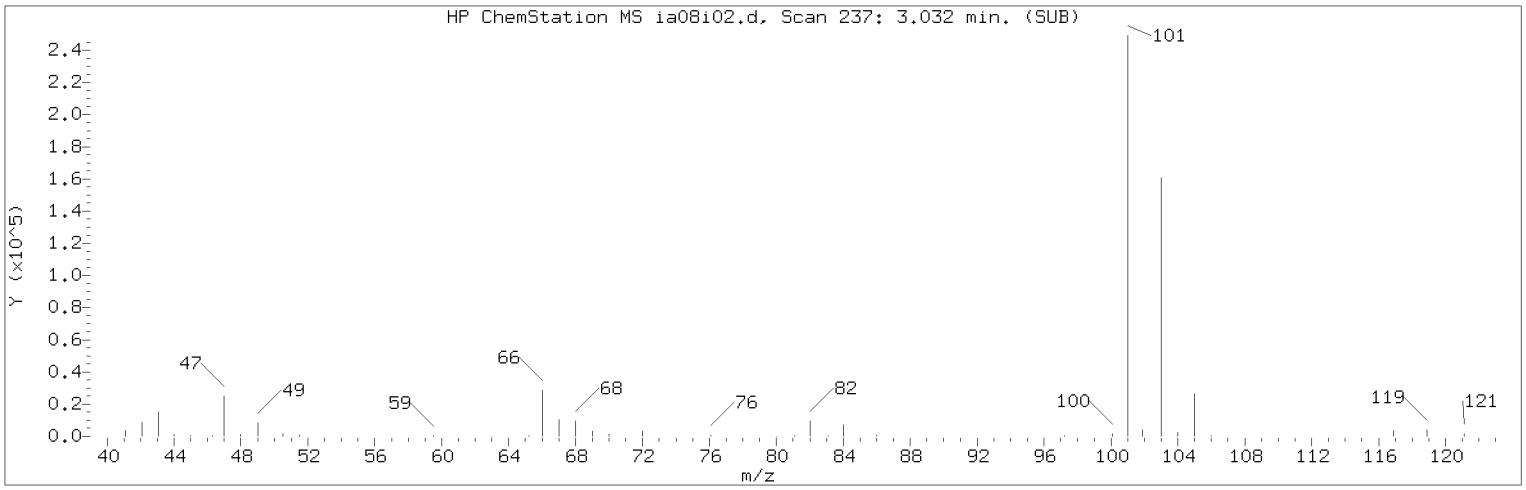
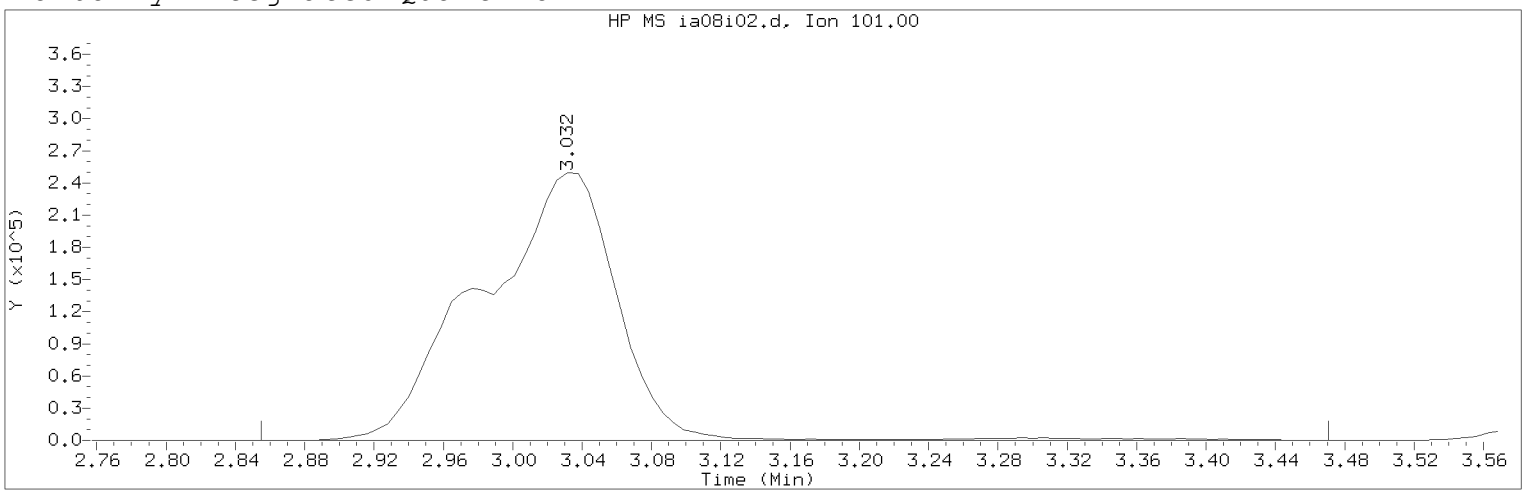
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

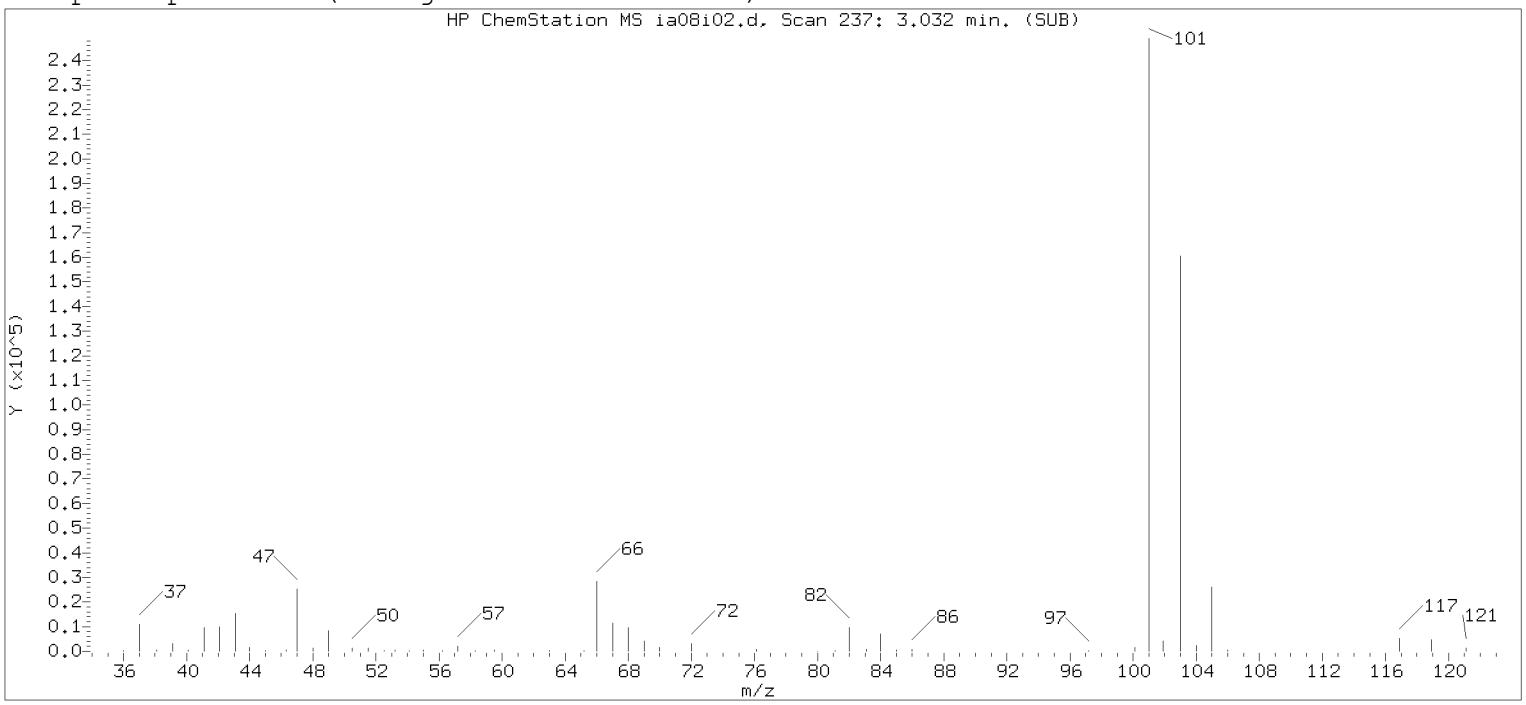
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 237
Retention Time (minutes): 3.032
Quant Ion : 101.00
Area (flag) : 1356902M
On-Column Amount (ng) : 10.0853
Integration start scan : 207 Integration stop scan: 308
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

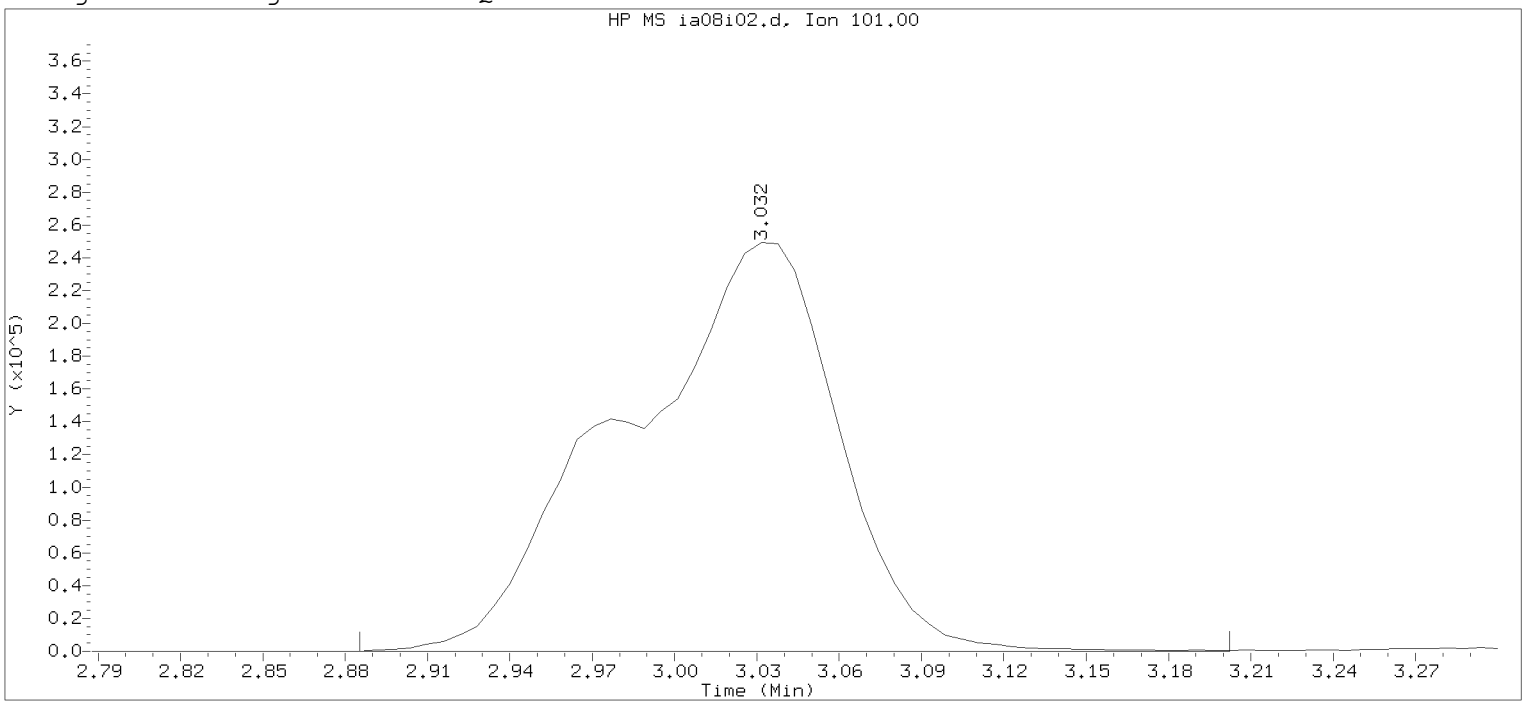
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 237
Retention Time (minutes): 3.032
Quant Ion : 101.00
Area : 1339707
On-column Amount (ng) : 47.1903
Integration start scan : 212 Integration stop scan: 264
Y at integration start : 0 Y at integration end: 0

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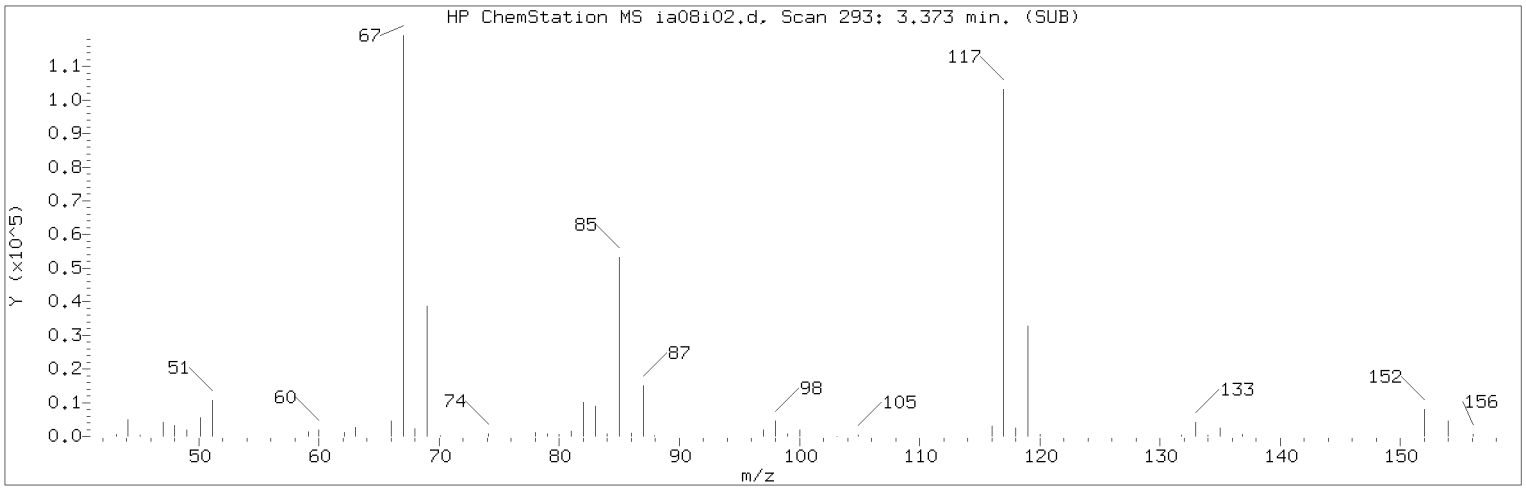
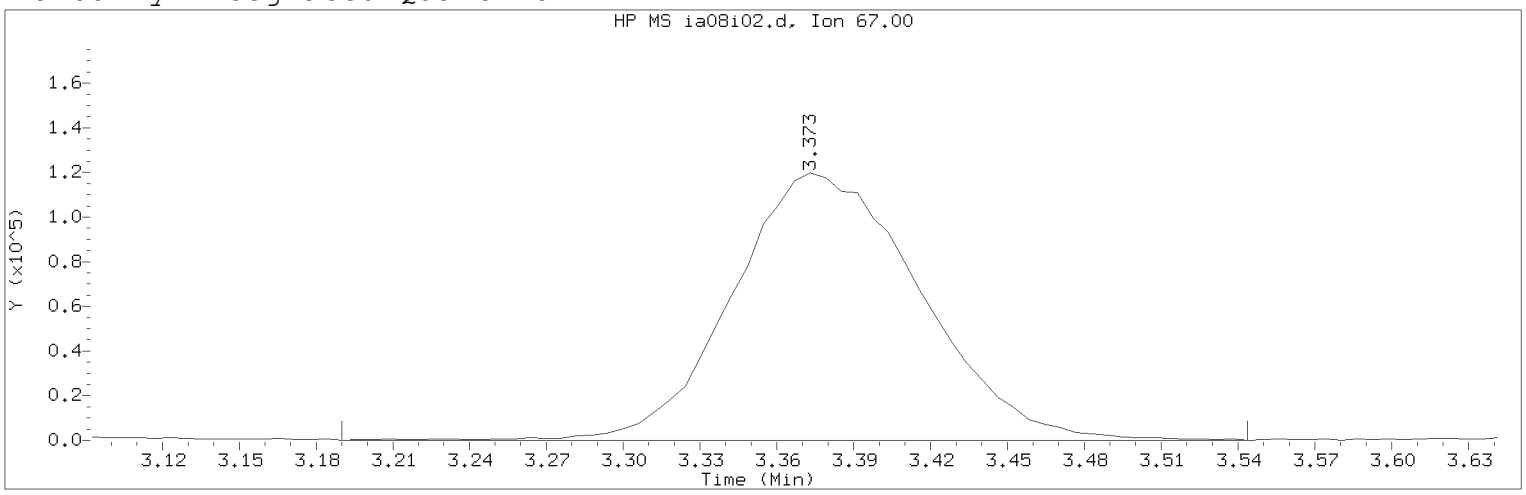
Target 3.5 esignature user: F35 Page 1040

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

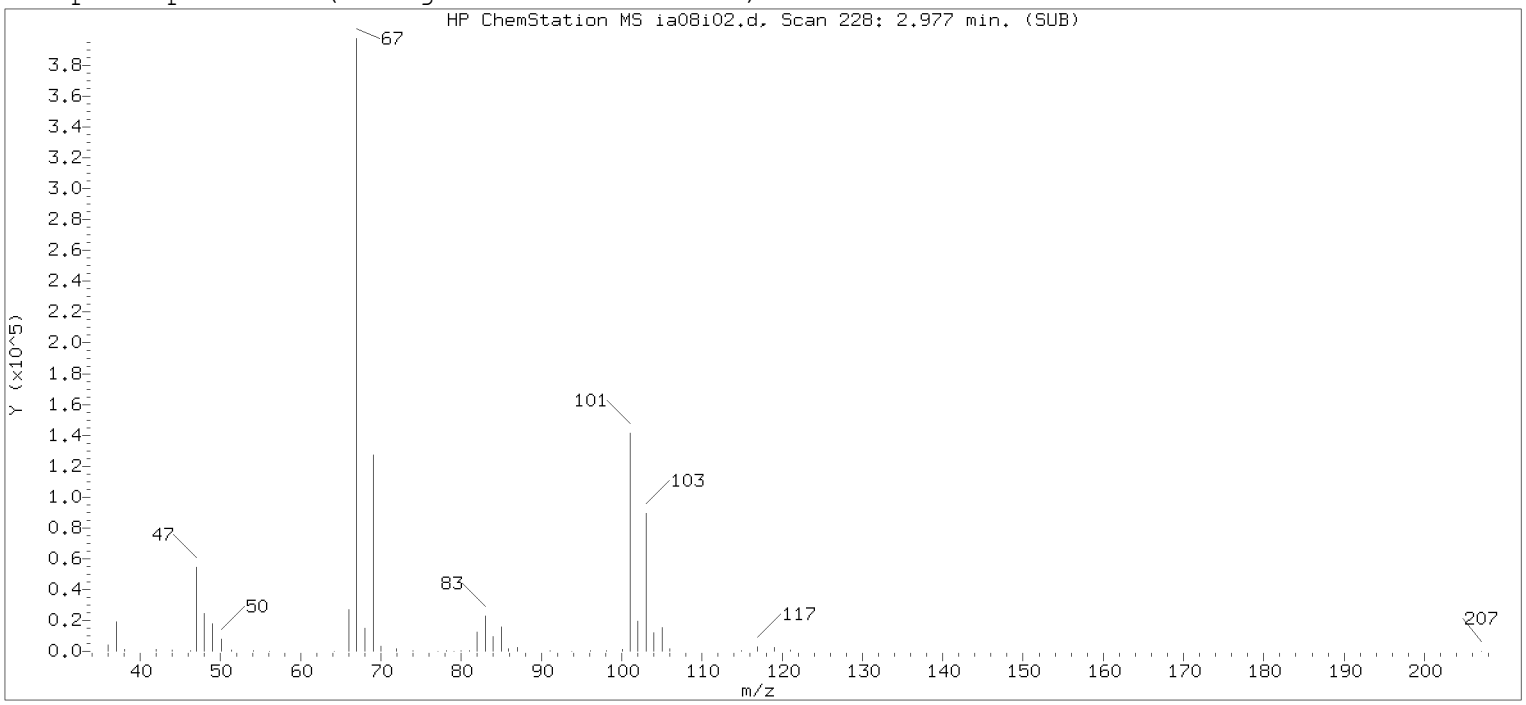
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area (flag) : 610295M
On-Column Amount (ng) : 10.0881
Integration start scan : 262 Integration stop scan: 320
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

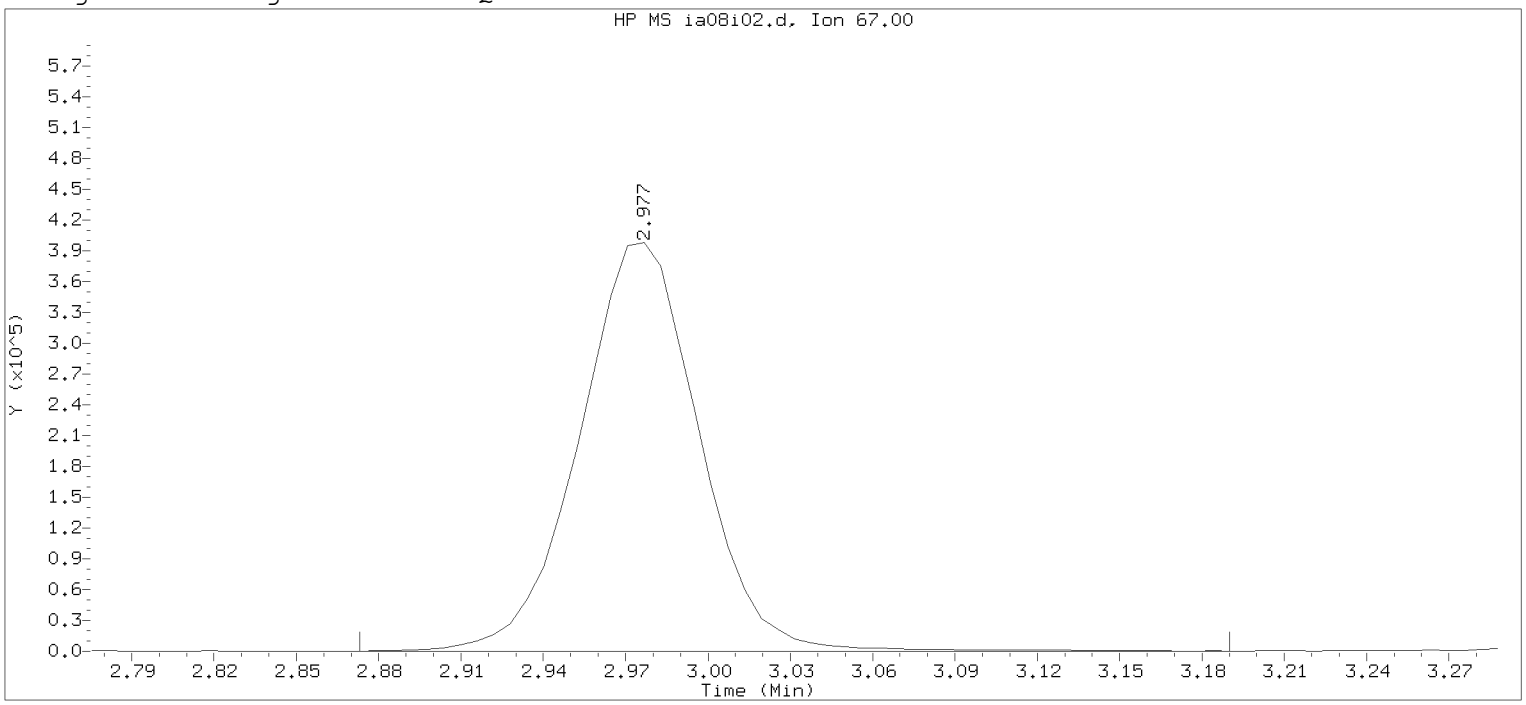
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

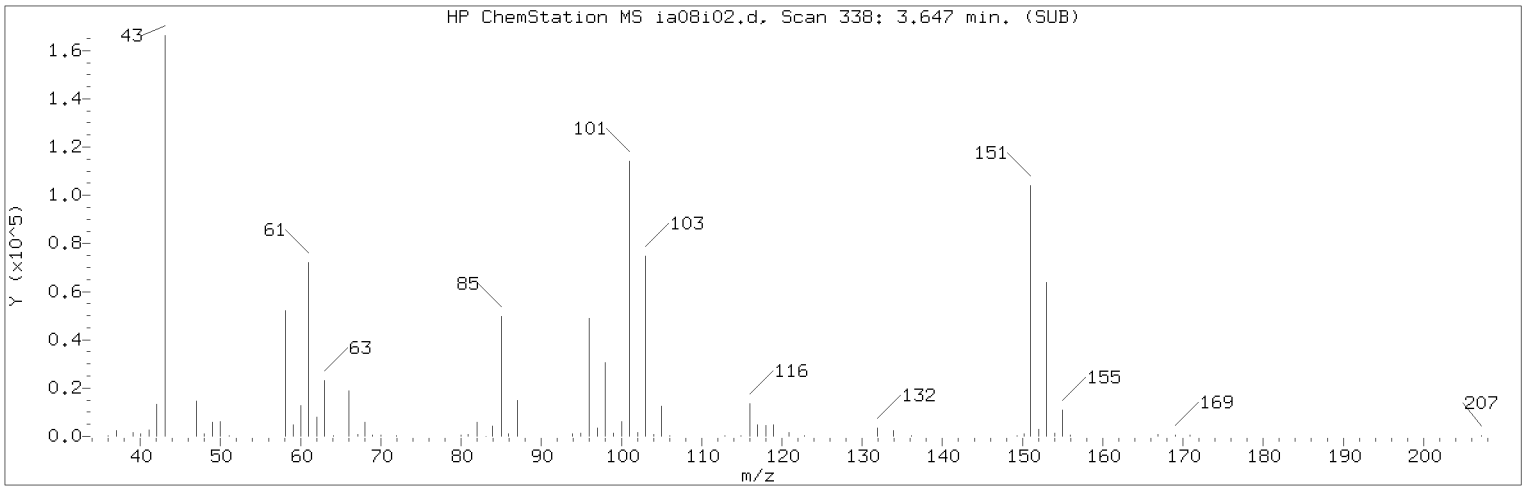
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

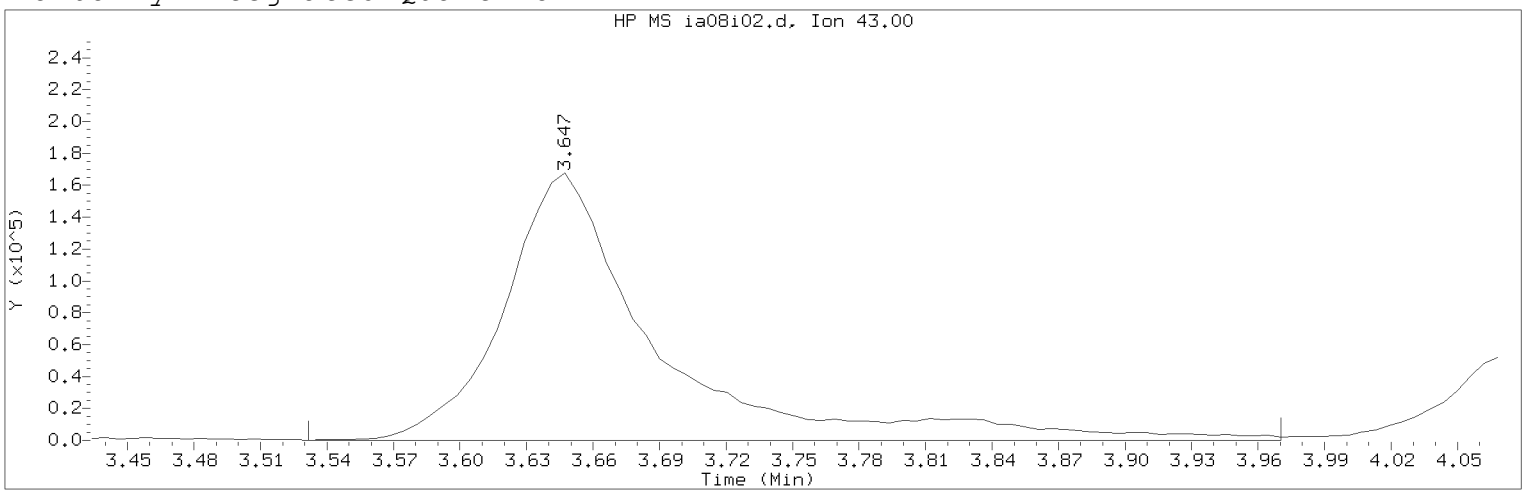
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 228
Retention Time (minutes): 2.977
Quant Ion : 67.00
Area : 1205589
On-column Amount (ng) : 47.4705
Integration start scan : 210 Integration stop scan: 262
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1042

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

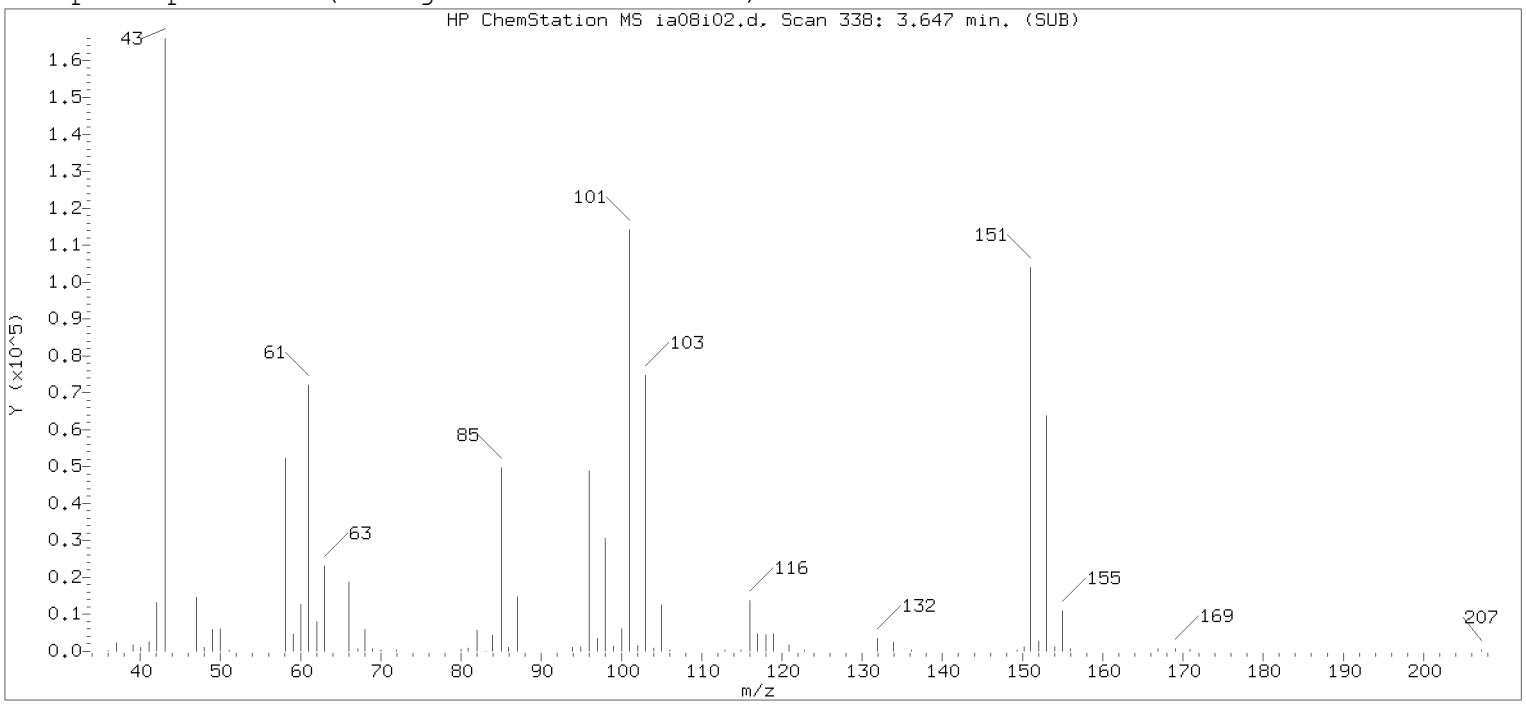
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area (flag) : 805979M
On-Column Amount (ng) : 101.7146
Integration start scan : 318 Integration stop scan: 390
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

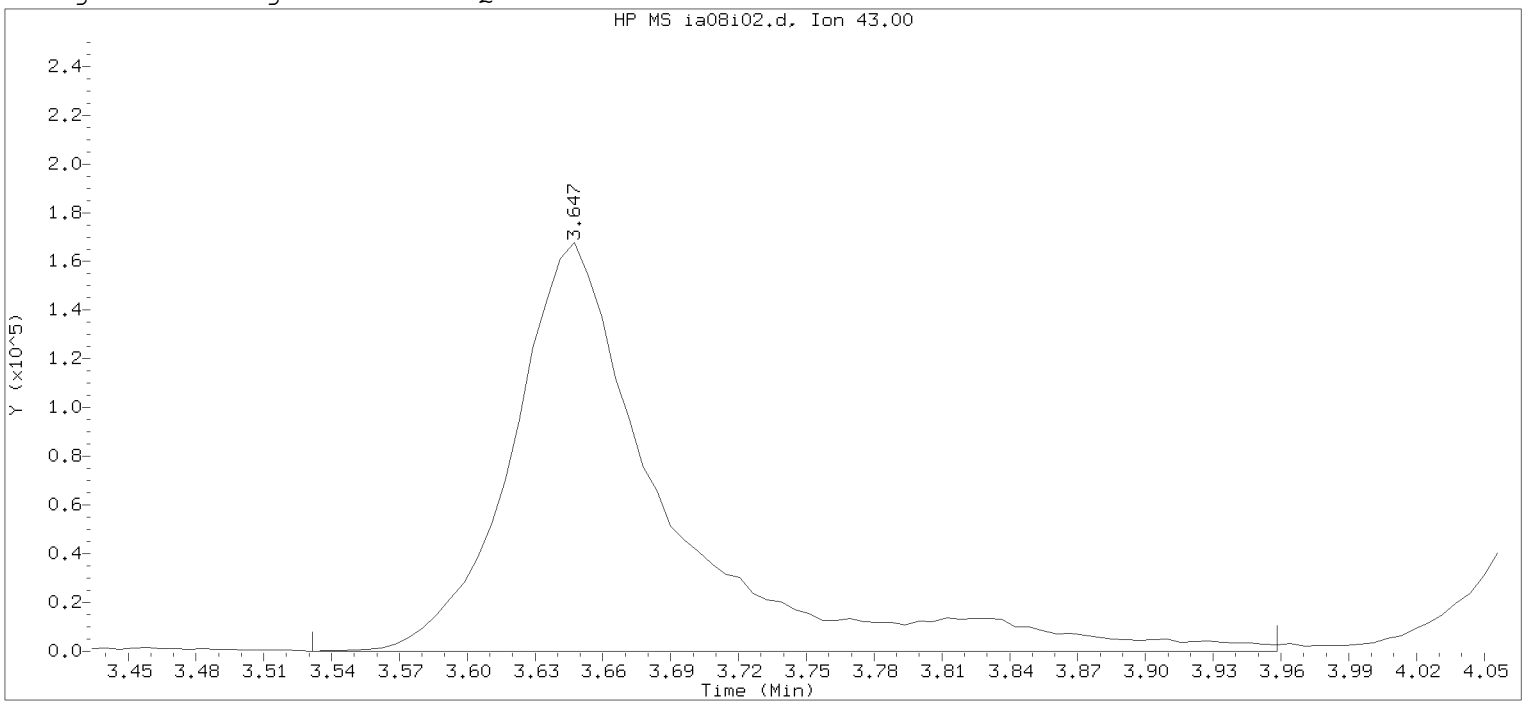
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

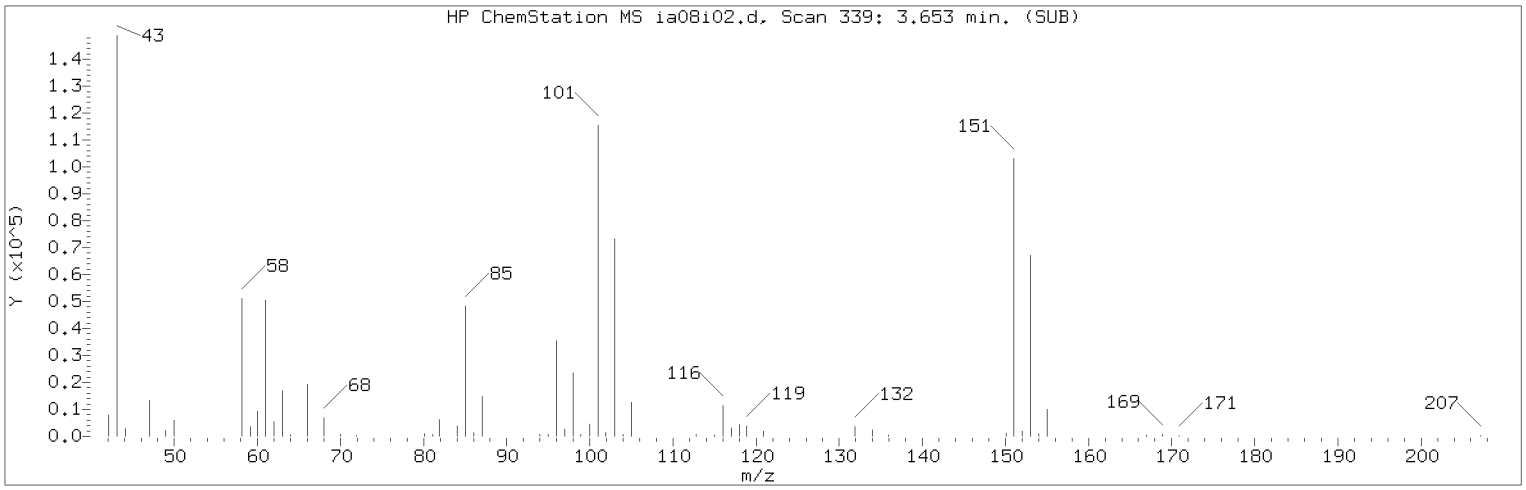
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

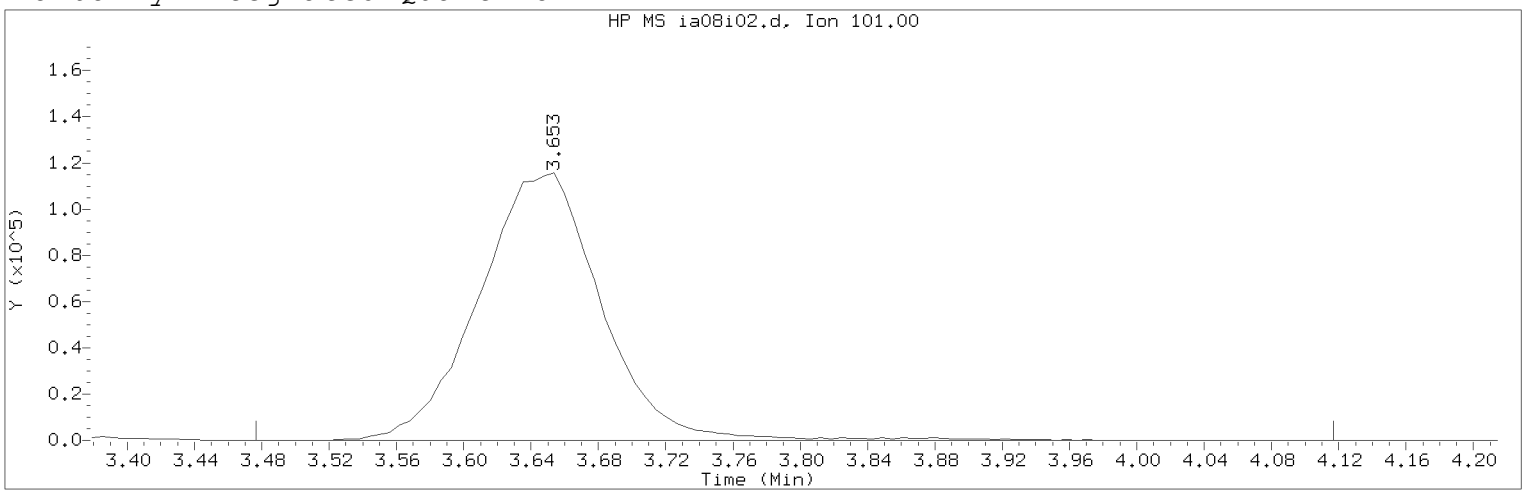
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area : 803613
On-column Amount (ng) : 21.5341
Integration start scan : 318 Integration stop scan: 388
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

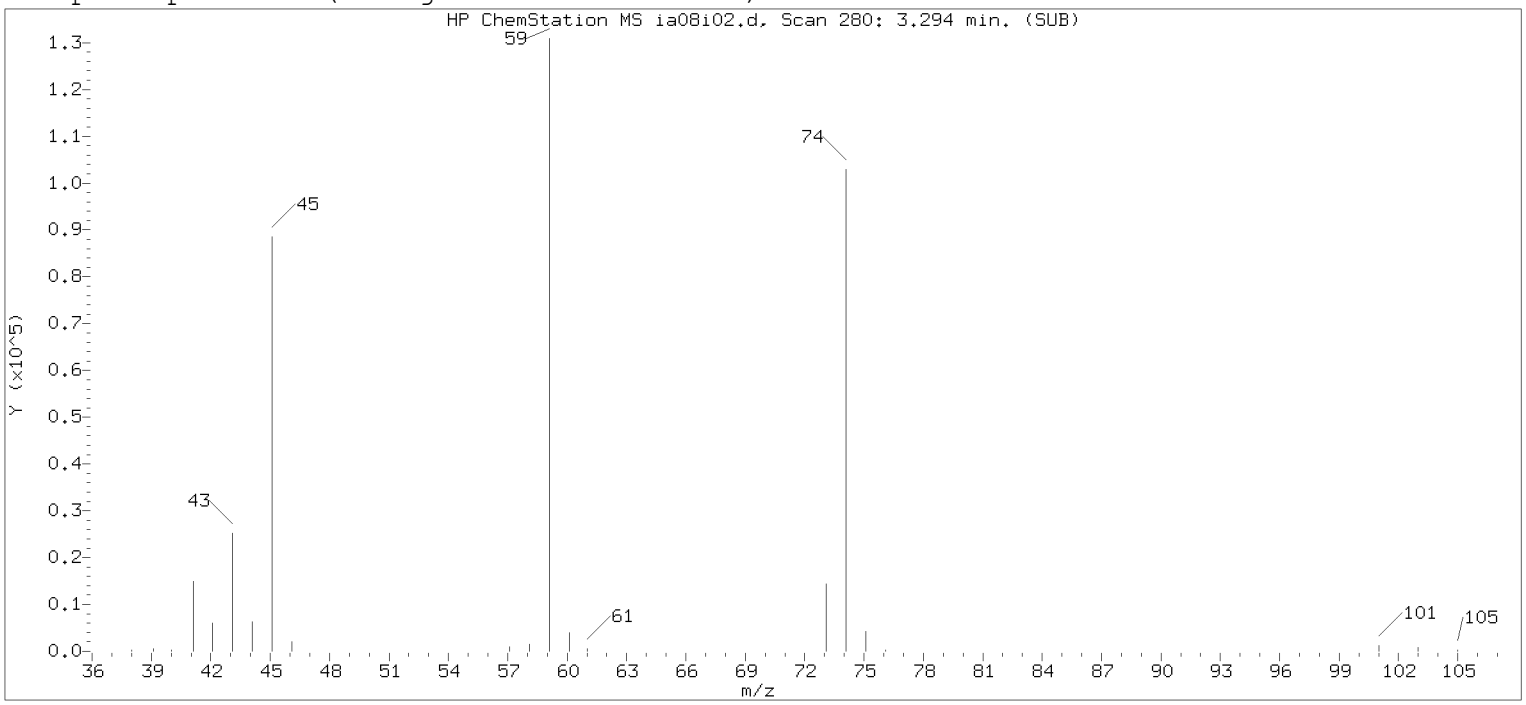
Compound Number : 16
Compound Name : Freon 113
Scan Number : 339
Retention Time (minutes): 3.653
Quant Ion : 101.00
Area (flag) : 583964M
On-Column Amount (ng) : 10.3573
Integration start scan : 309 Integration stop scan: 414
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

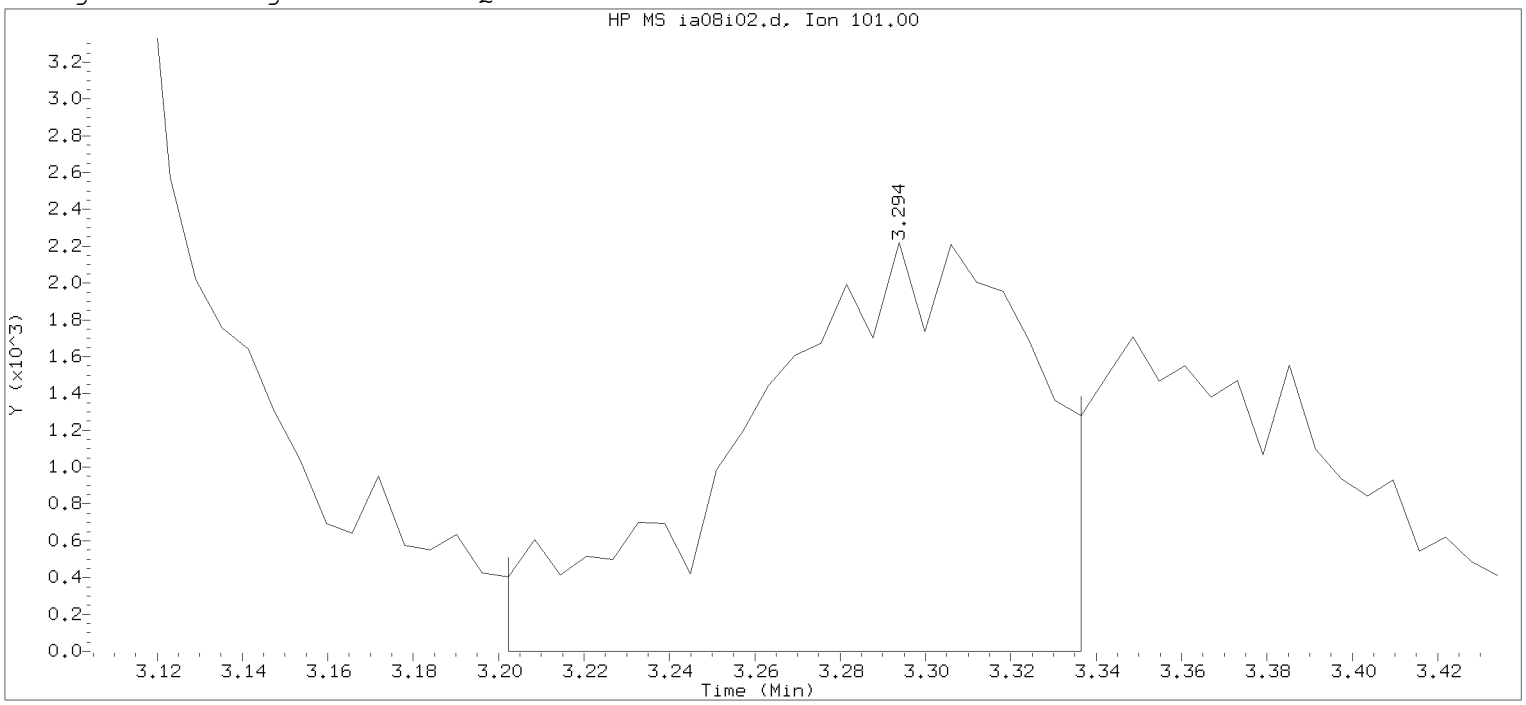
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

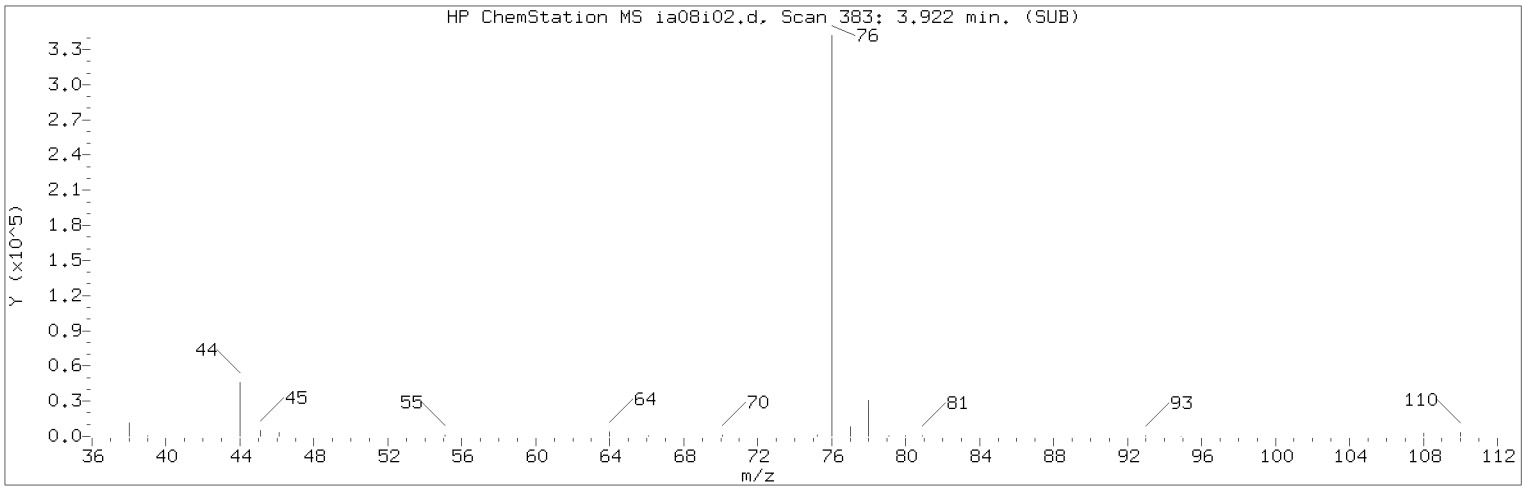
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

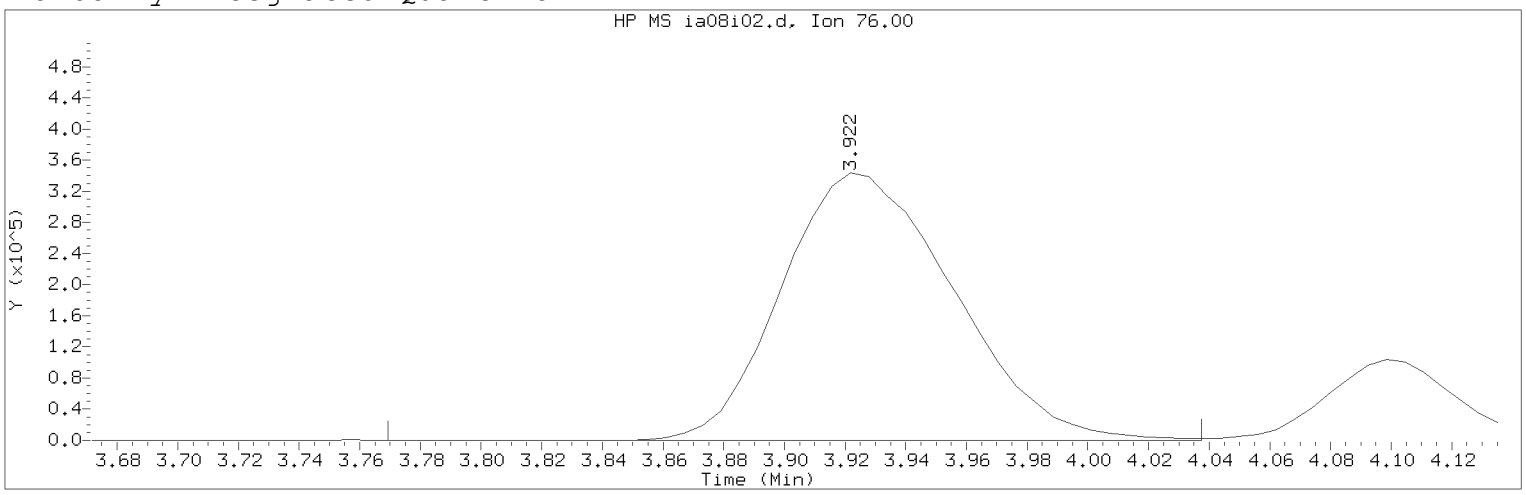
Compound Number : 16
Compound Name : Freon 113
Scan Number : 280
Retention Time (minutes): 3.294
Quant Ion : 101.00
Area : 10408
On-column Amount (ng) : 35.9963
Integration start scan : 264 Integration stop scan: 286
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

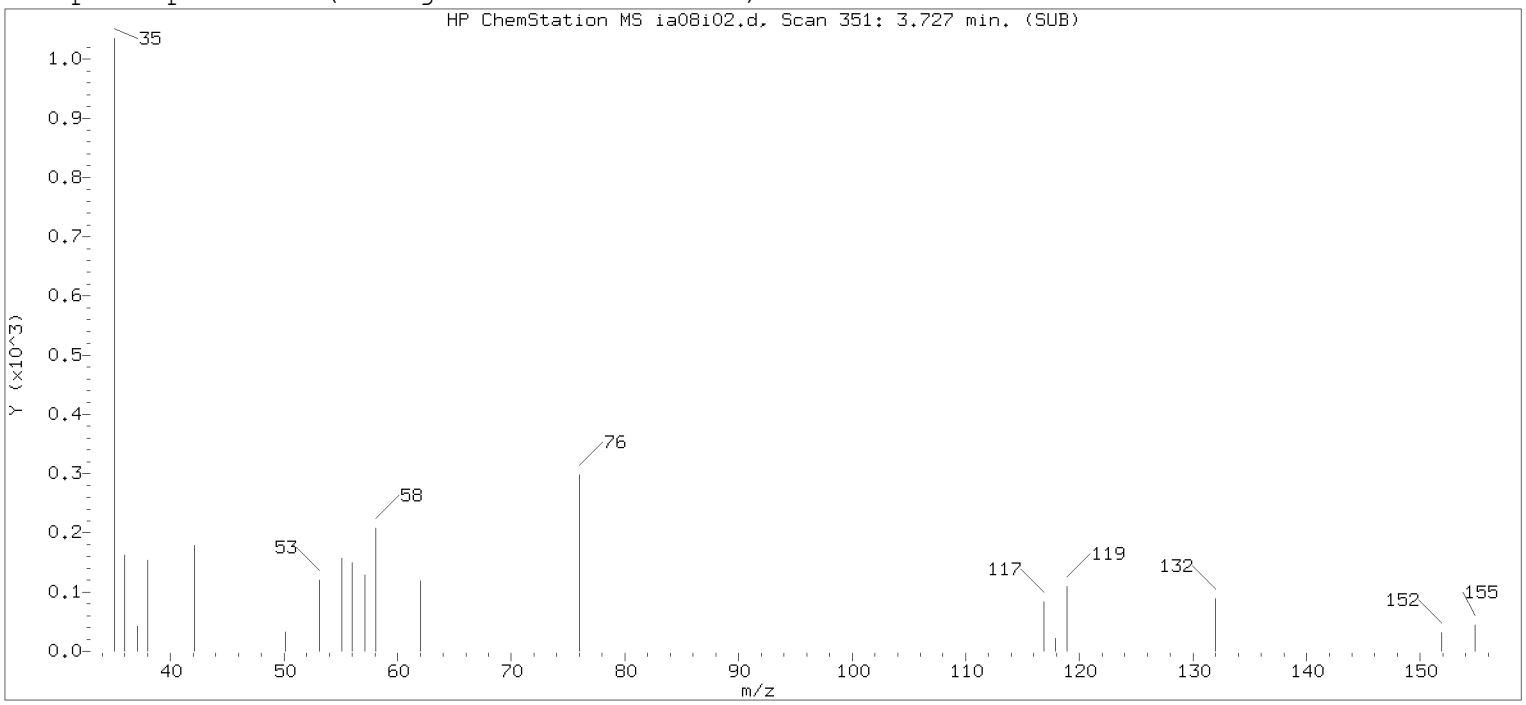
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 383
Retention Time (minutes): 3.922
Quant Ion : 76.00
Area (flag) : 1349756M
On-Column Amount (ng) : 9.8785
Integration start scan : 357 Integration stop scan: 401
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

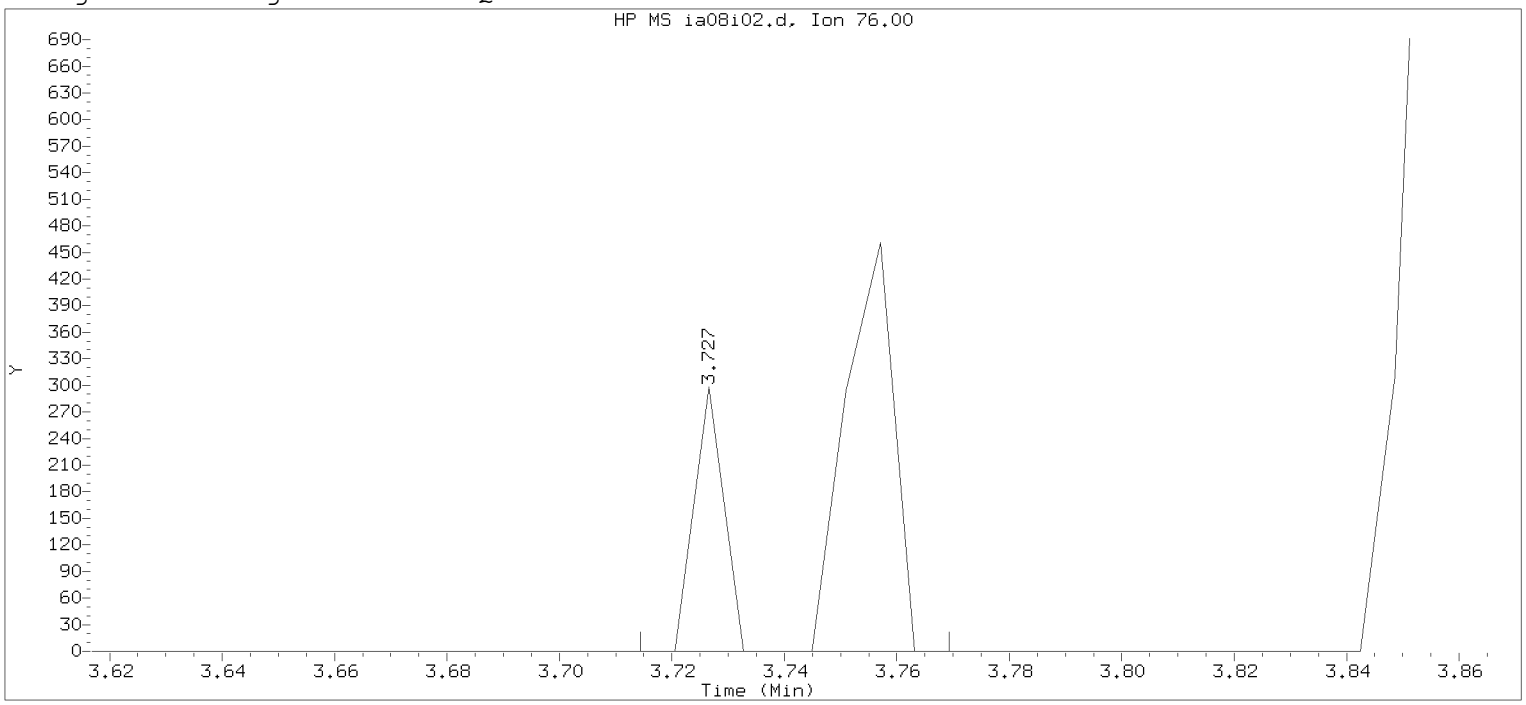
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

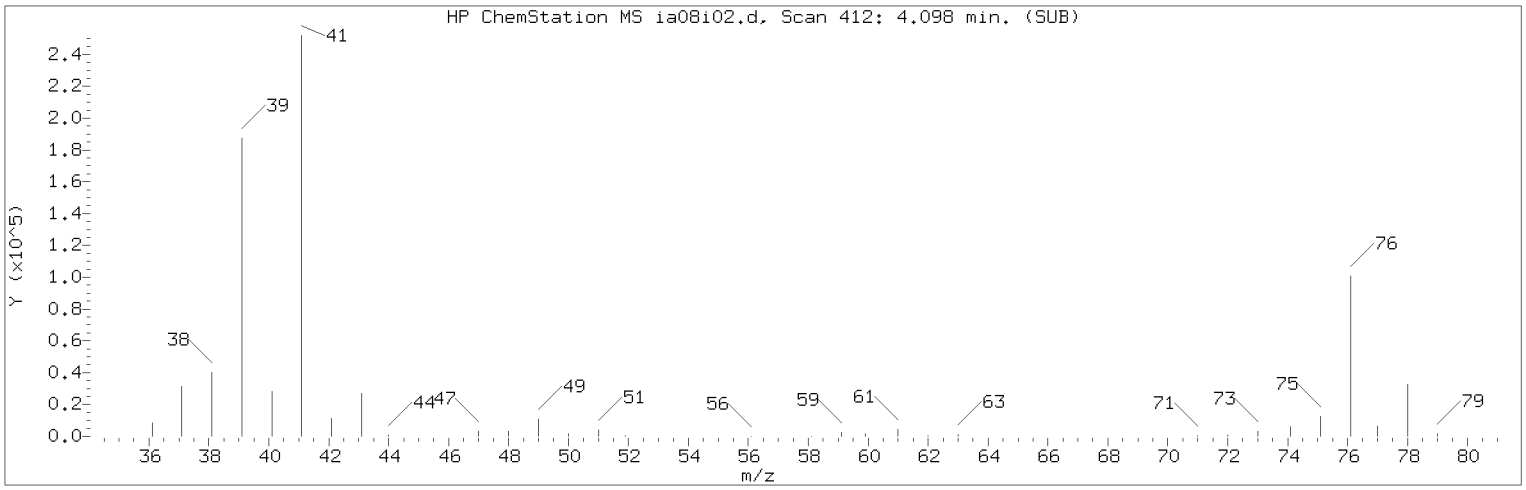
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

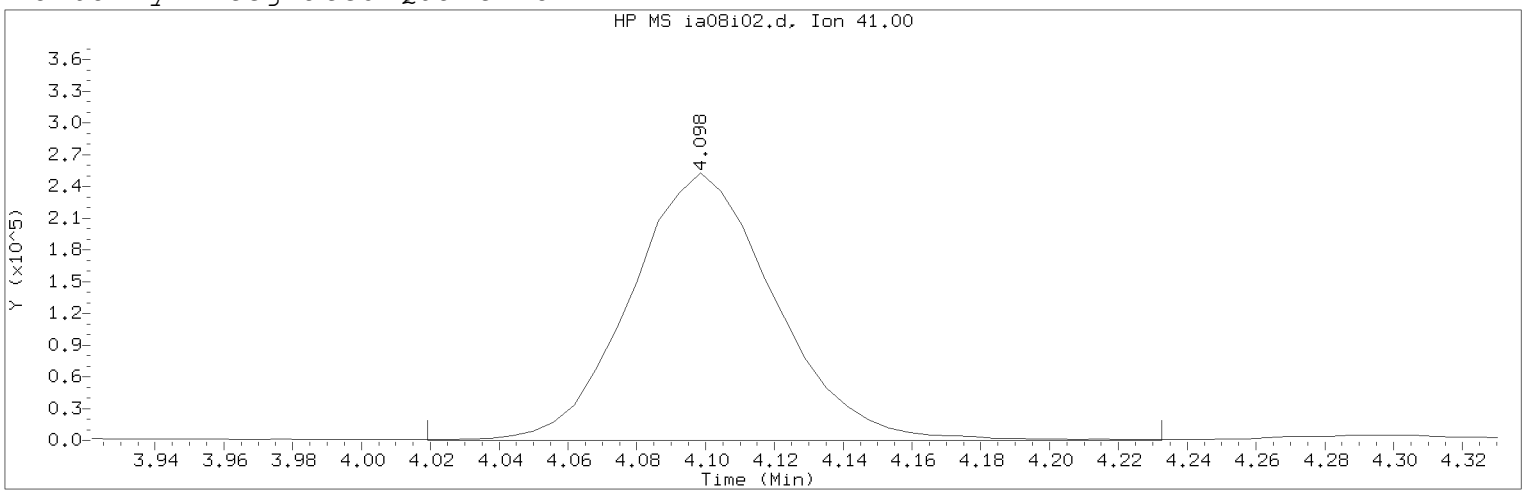
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 351
Retention Time (minutes): 3.727
Quant Ion : 76.00
Area : 385
On-column Amount (ng) : 4.1072
Integration start scan : 348 Integration stop scan: 357
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: F35 Page 1048

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

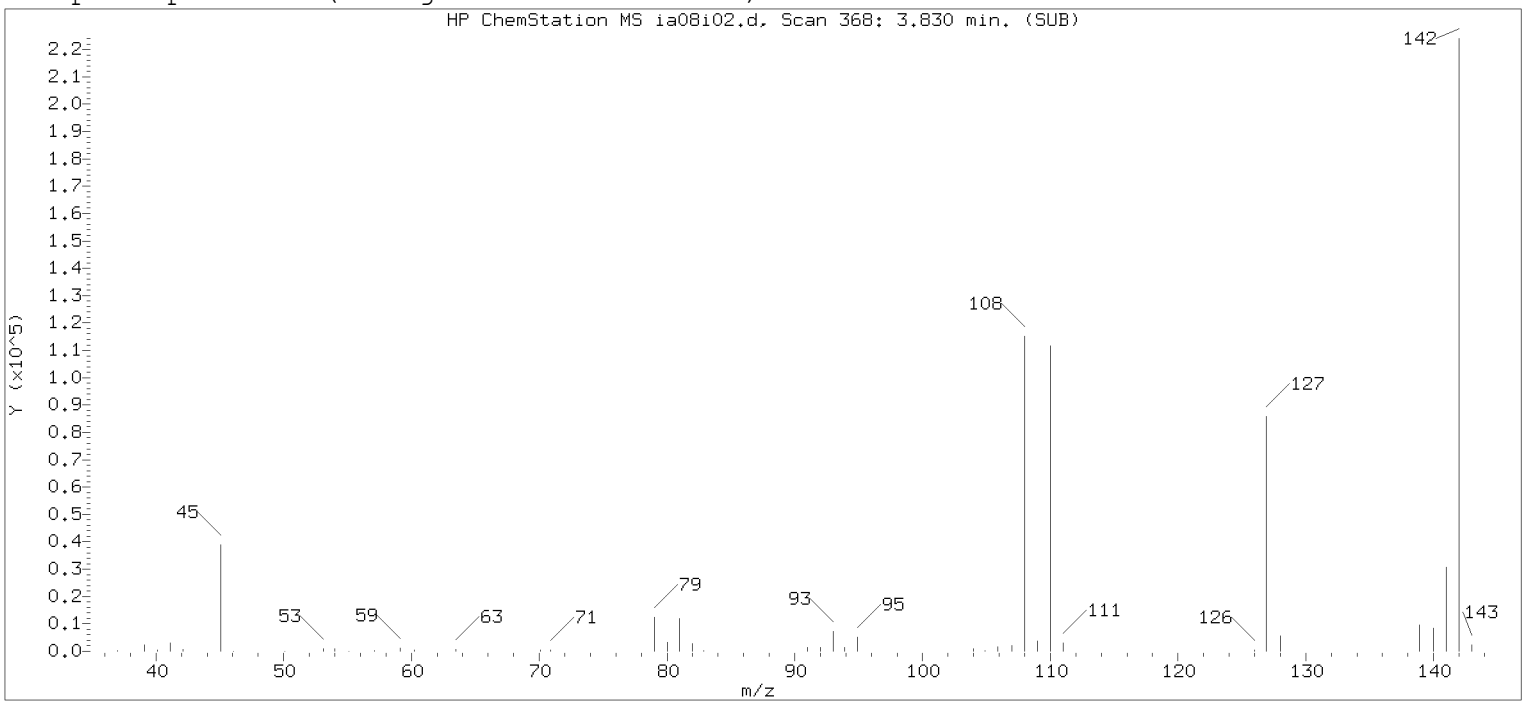
Compound Number : 22
Compound Name : Allyl Chloride
Scan Number : 412
Retention Time (minutes): 4.098
Quant Ion : 41.00
Area (flag) : 736727M
On-Column Amount (ng) : 10.2643
Integration start scan : 398 Integration stop scan: 433
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

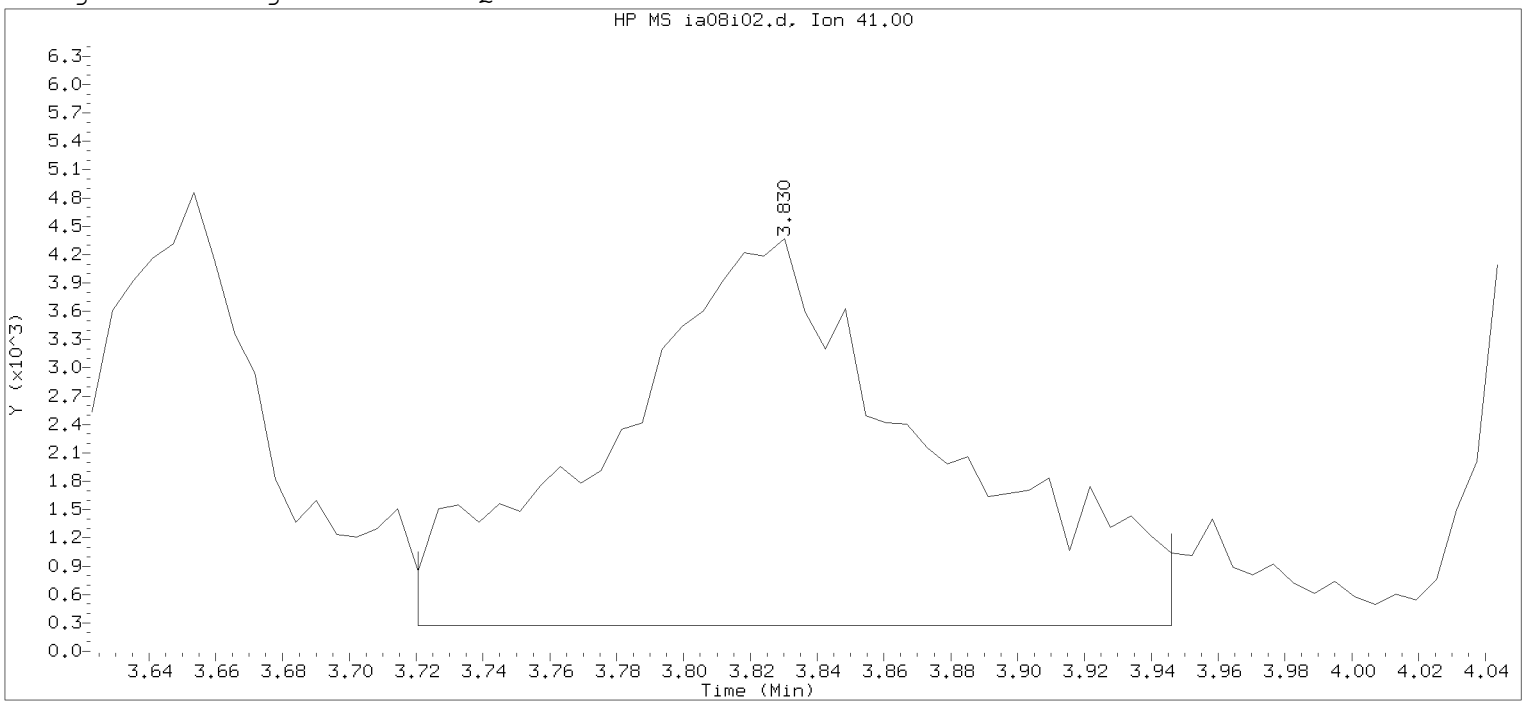
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

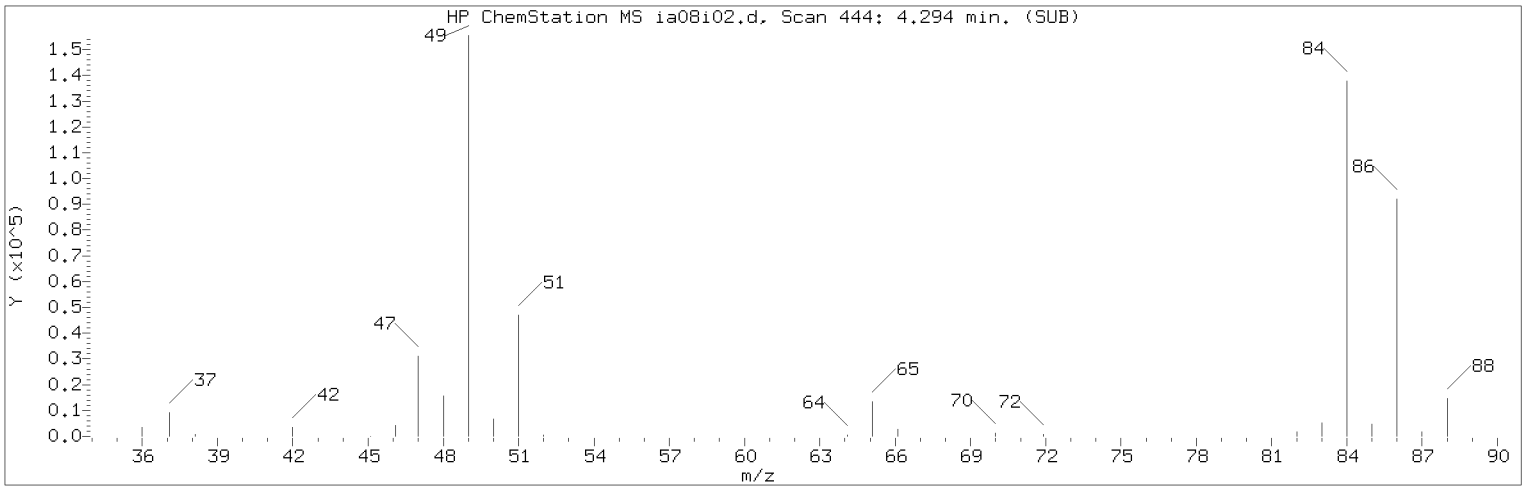
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

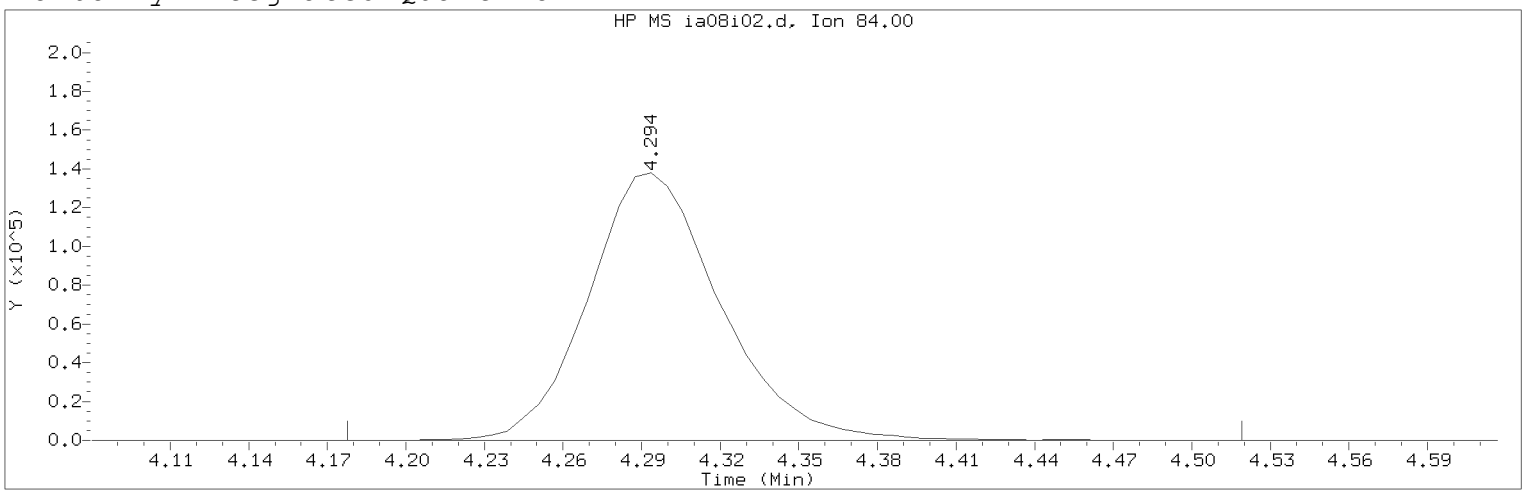
Compound Number : 22
Compound Name : Allyl Chloride
Scan Number : 368
Retention Time (minutes): 3.830
Quant Ion : 41.00
Area : 27464
On-column Amount (ng) : 58.9706
Integration start scan : 349 Integration stop scan: 386
Y at integration start : 271 Y at integration end: 271

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

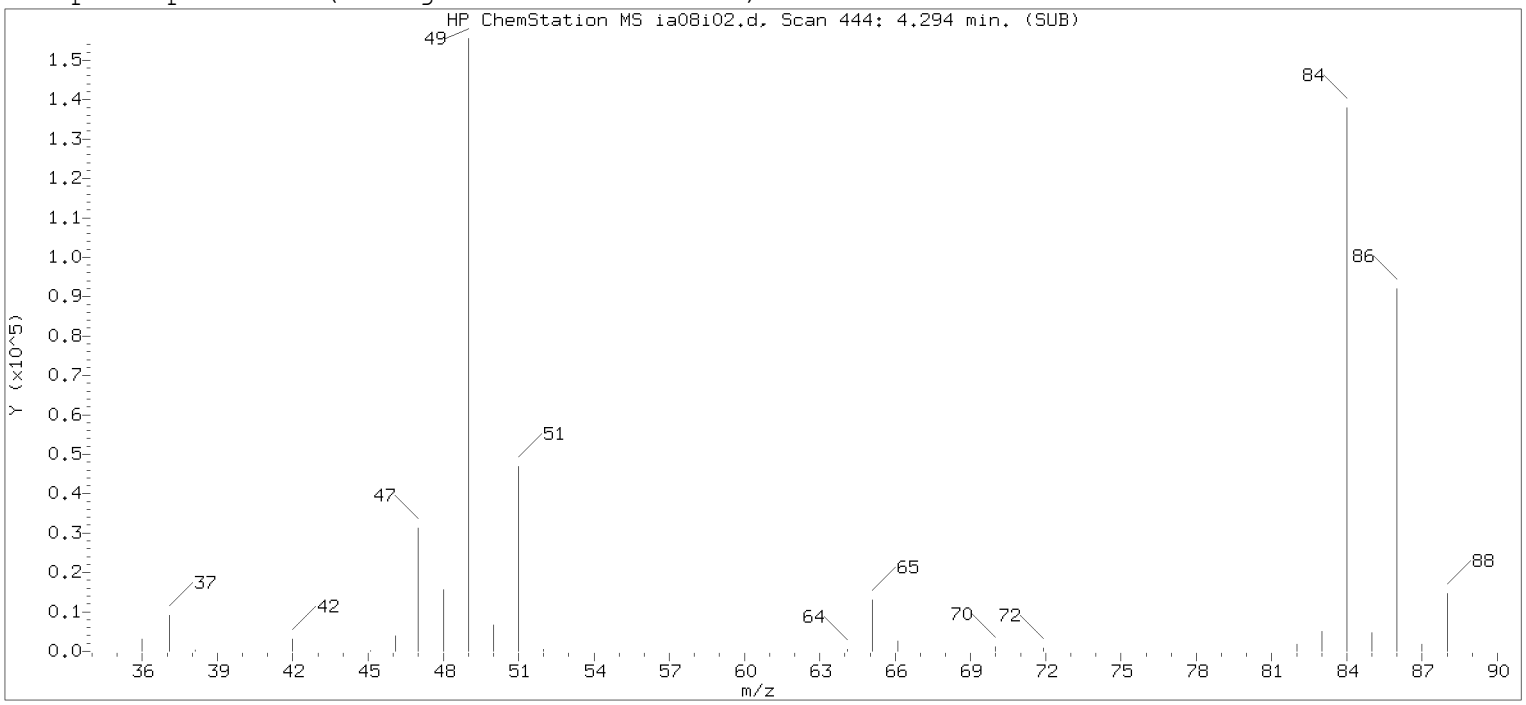
Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 444
Retention Time (minutes): 4.294
Quant Ion : 84.00
Area (flag) : 484234M
On-Column Amount (ng) : 10.1452
Integration start scan : 424 Integration stop scan: 480
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

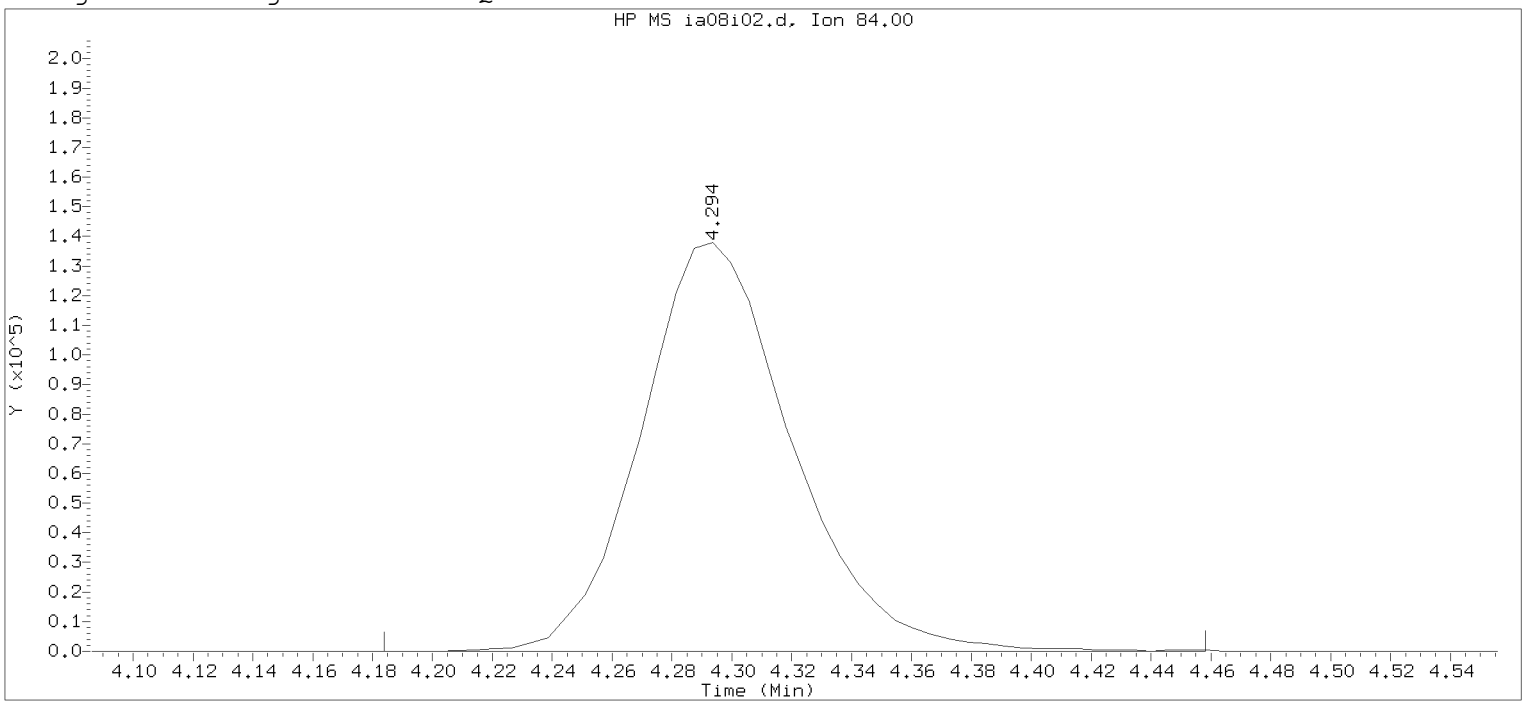
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

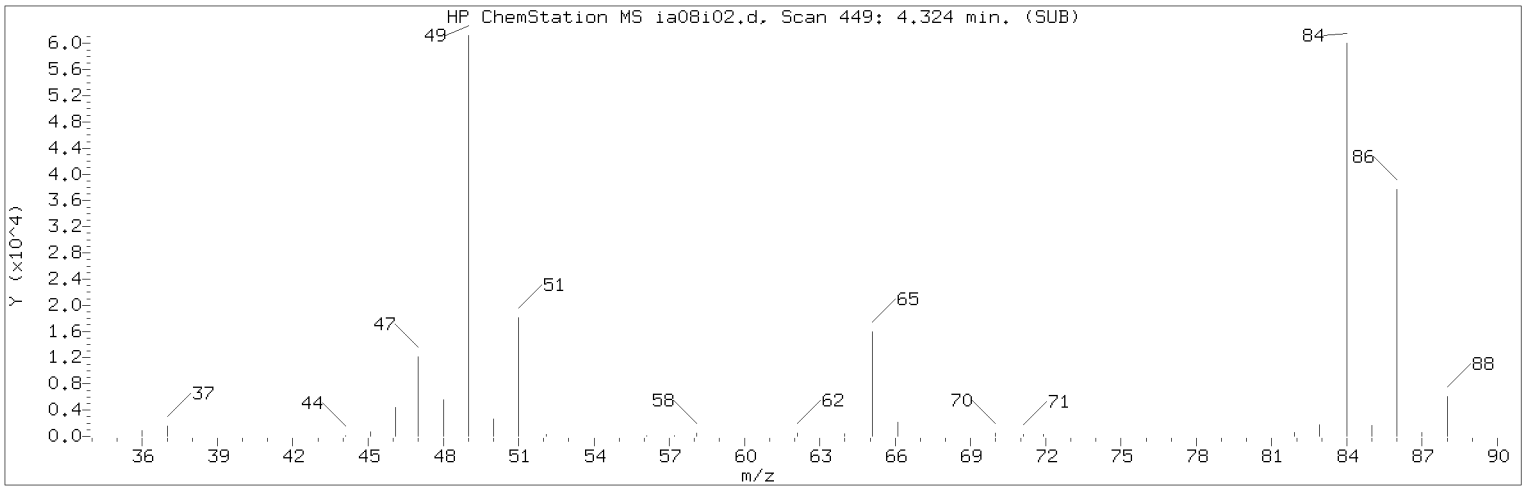
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

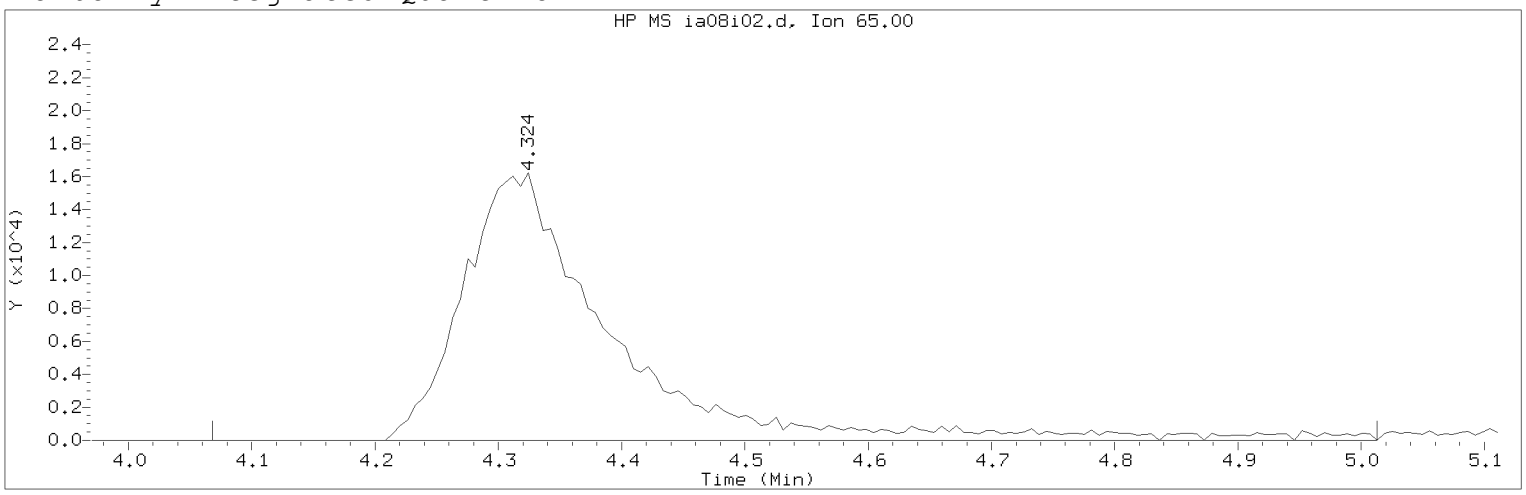
Compound Number : 23
Compound Name : Methylene Chloride
Scan Number : 444
Retention Time (minutes): 4.294
Quant Ion : 84.00
Area : 484182
On-column Amount (ng) : 68.2600
Integration start scan : 425 Integration stop scan: 470
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

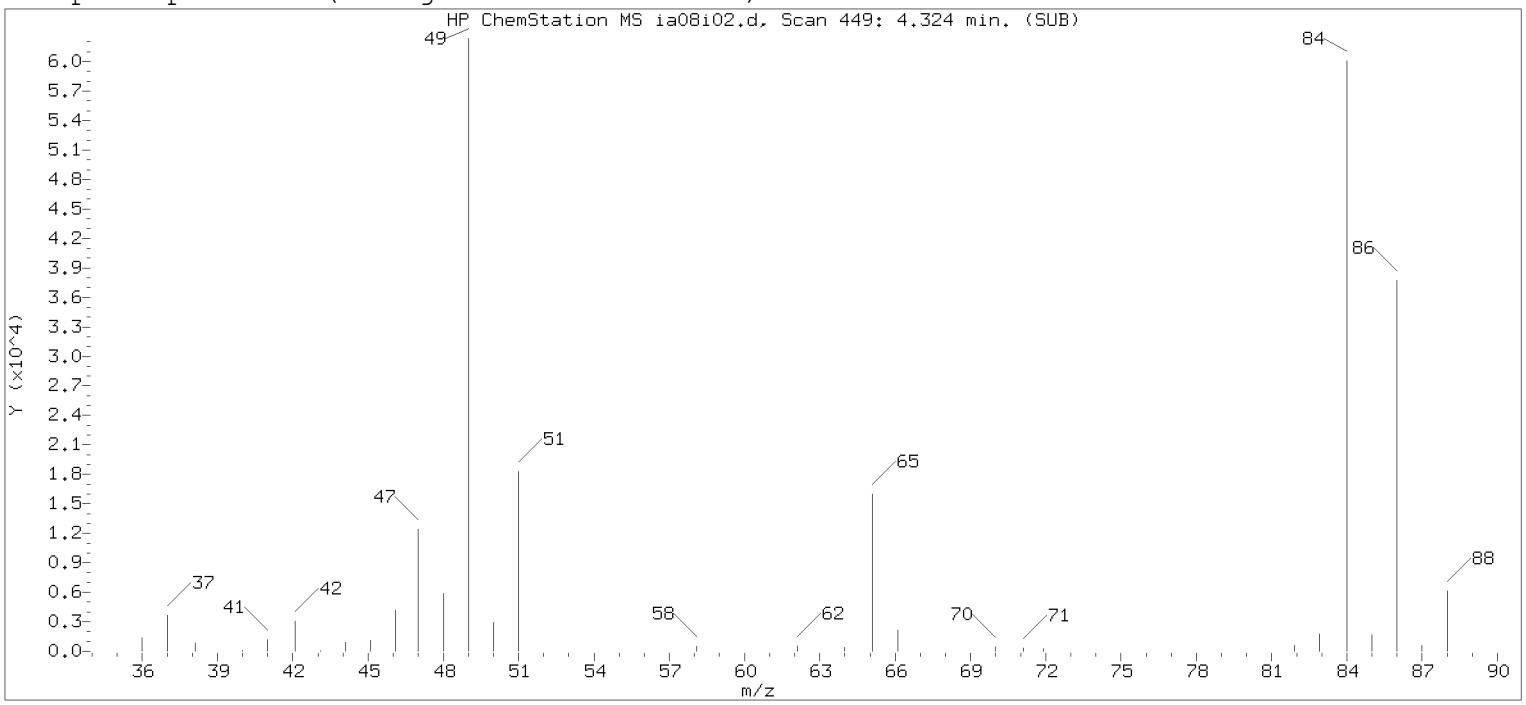
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 449
Retention Time (minutes): 4.324
Quant Ion : 65.00
Area (flag) : 135247M
On-Column Amount (ng) : 50.0000
Integration start scan : 406 Integration stop scan: 561
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

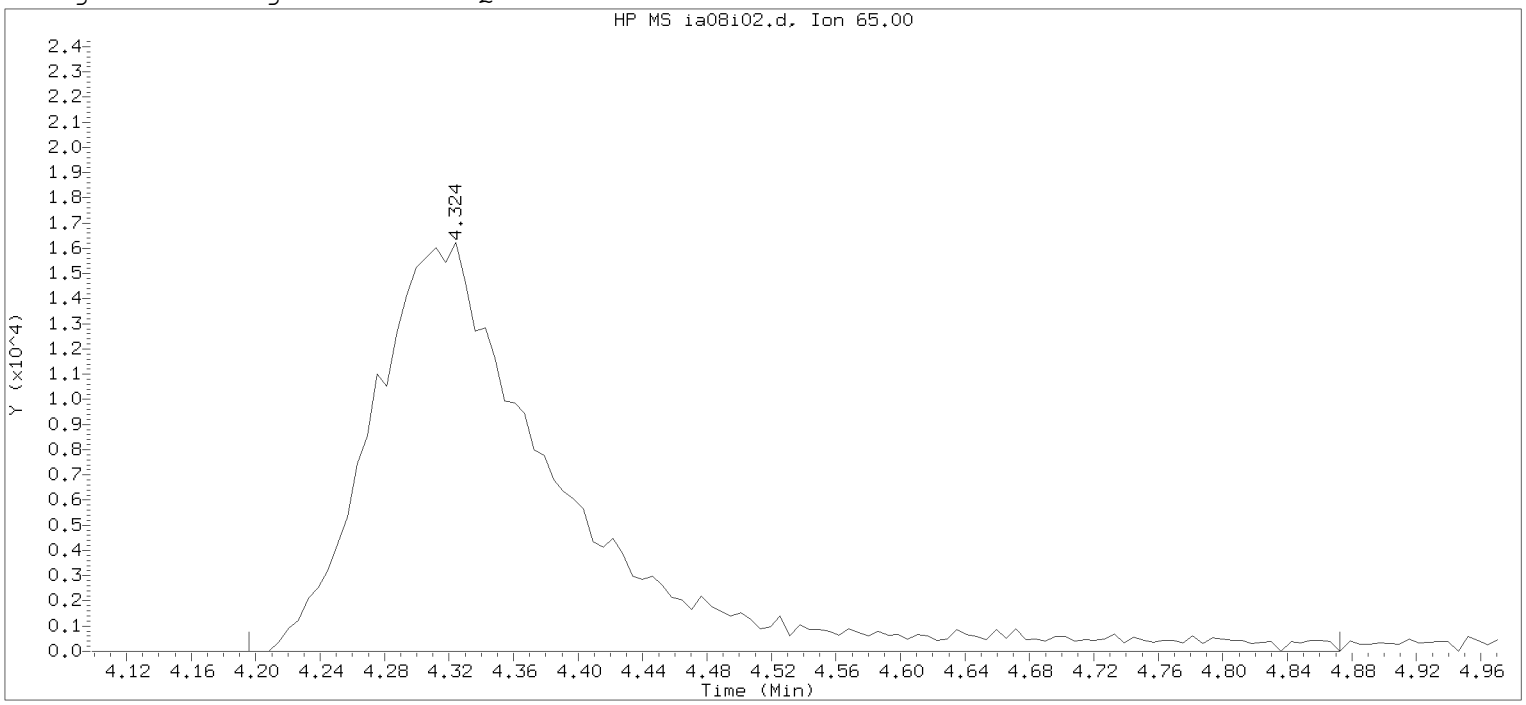
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

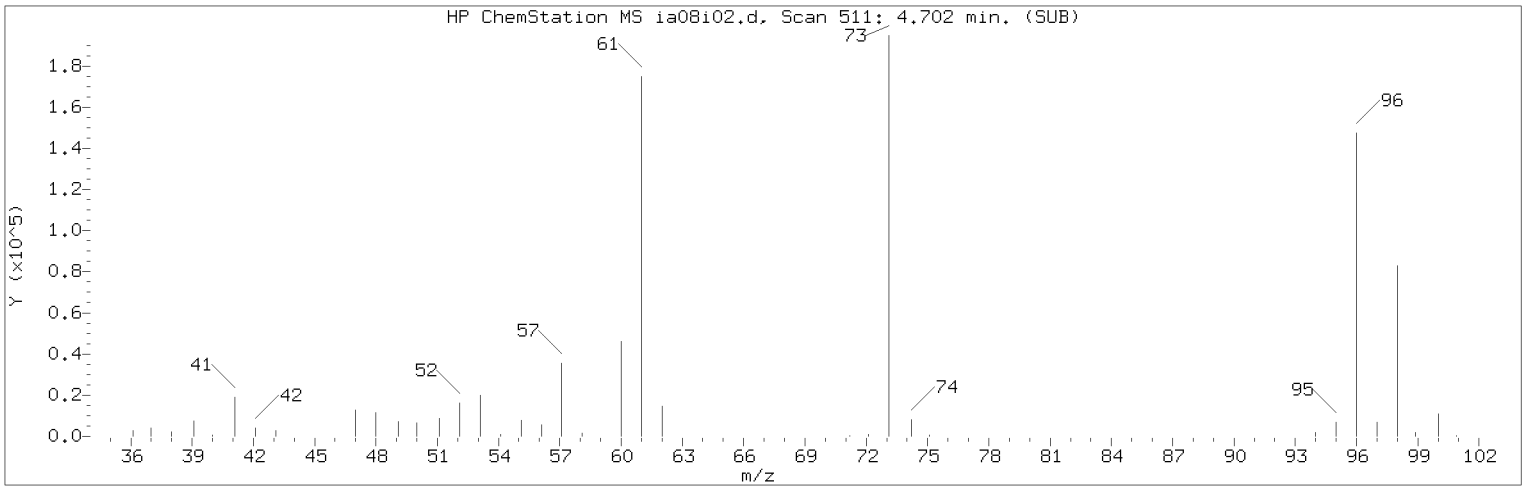
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

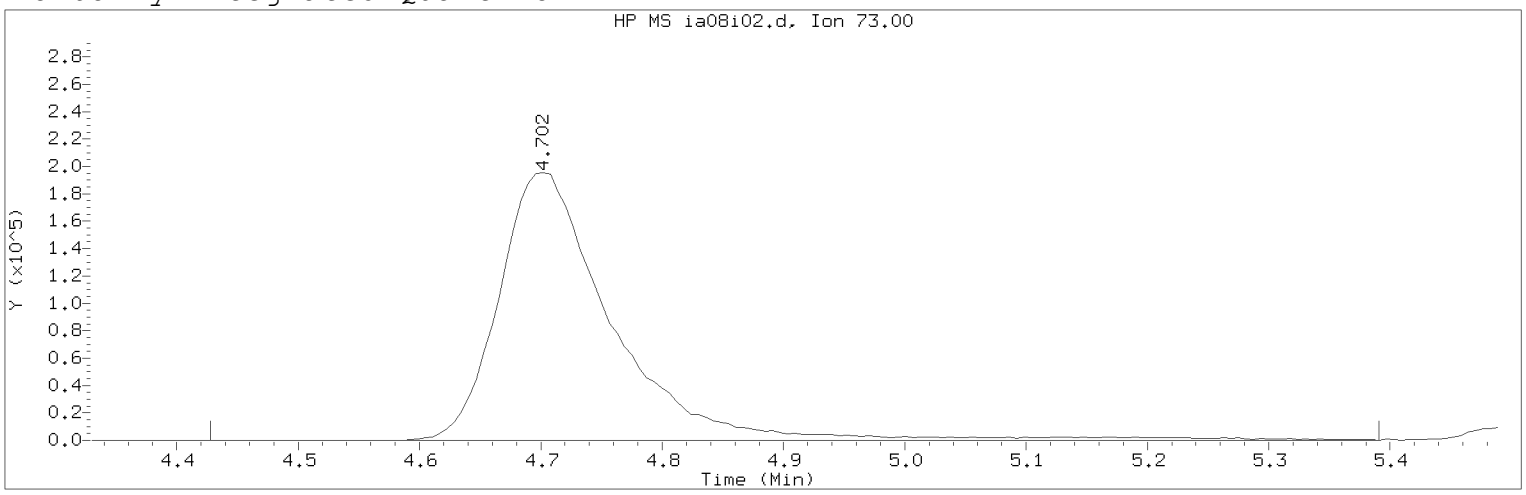
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 449
Retention Time (minutes): 4.324
Quant Ion : 65.00
Area : 132455
On-column Amount (ng) : 50.0000
Integration start scan : 427 Integration stop scan: 538
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

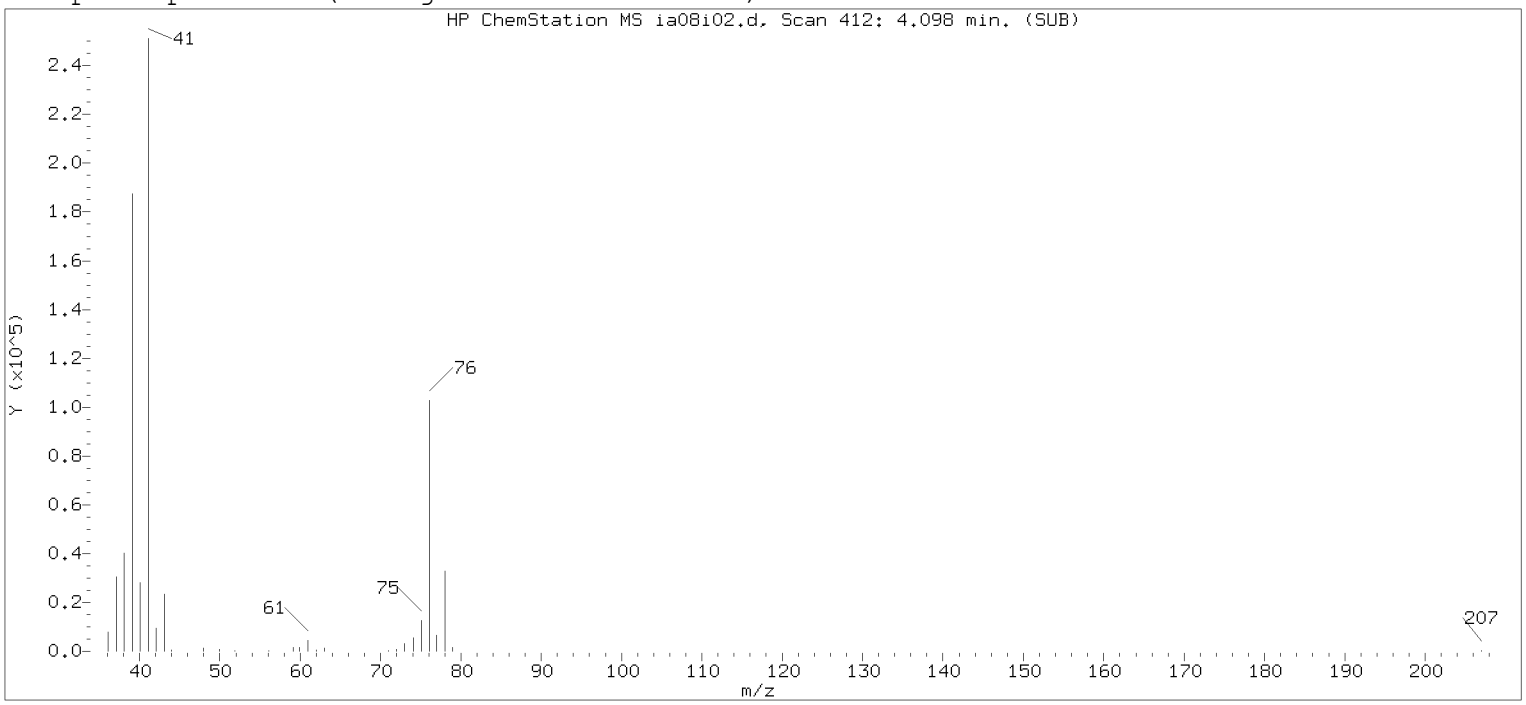
Compound Number : 30
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 511
Retention Time (minutes): 4.702
Quant Ion : 73.00
Area (flag) : 1269529M
On-Column Amount (ng) : 10.4022
Integration start scan : 465 Integration stop scan: 623
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

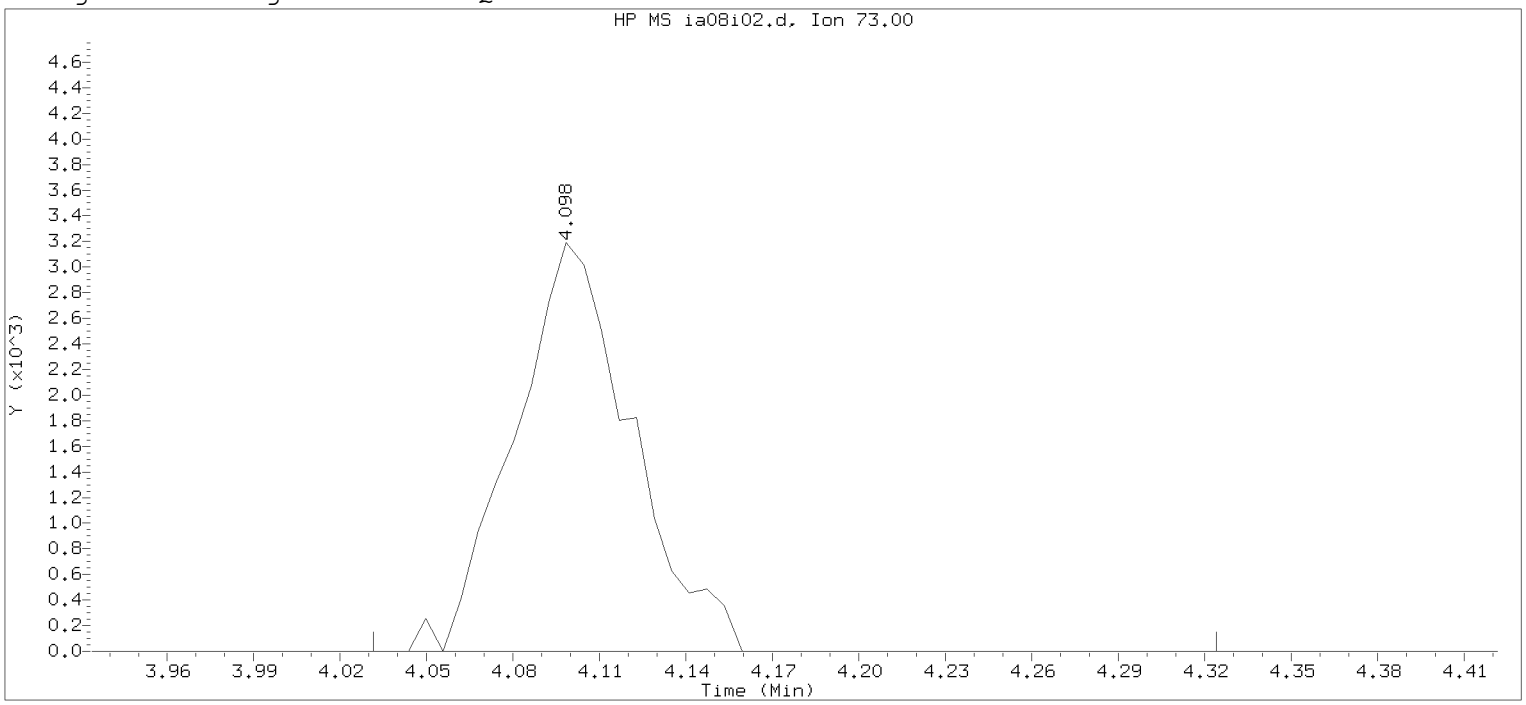
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

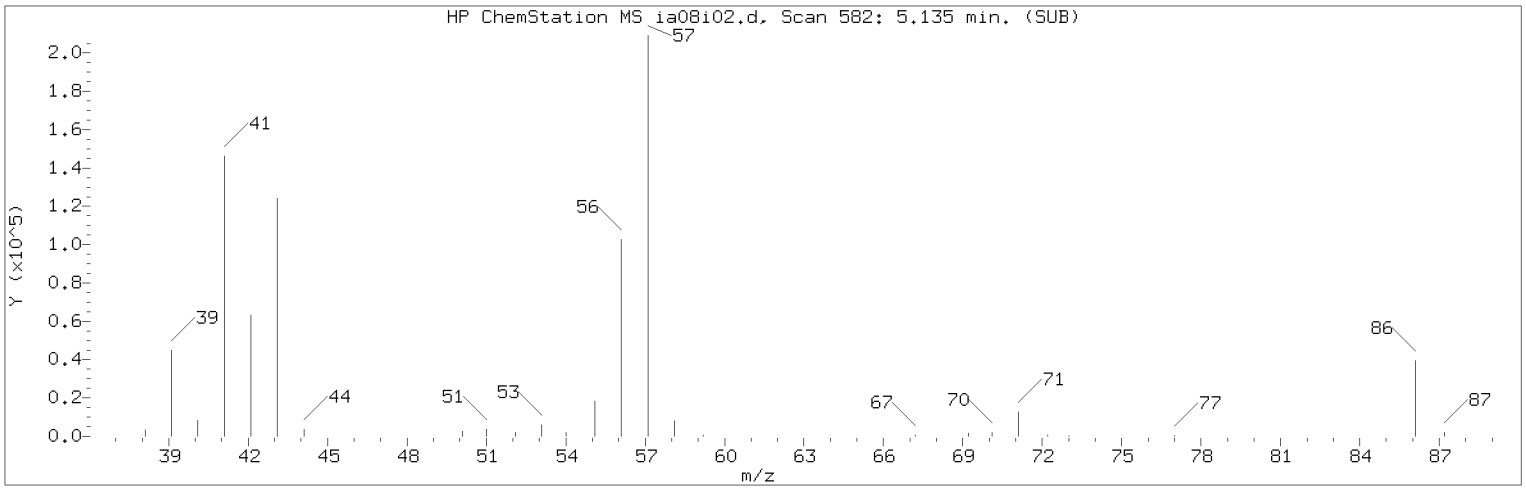
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

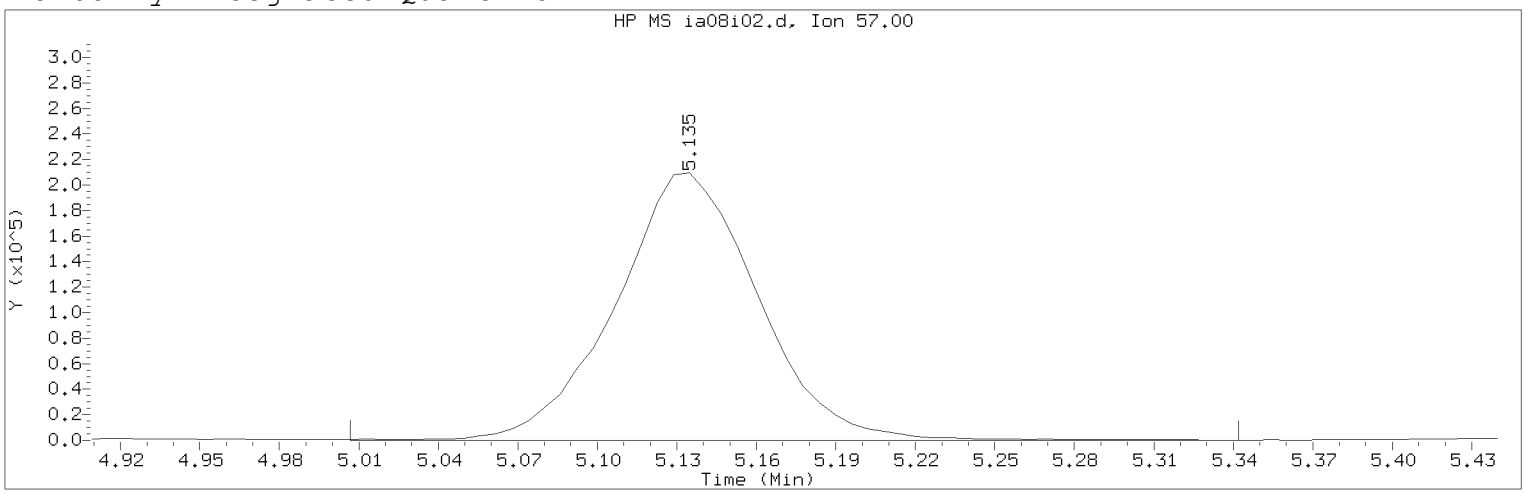
Compound Number : 30
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 412
Retention Time (minutes): 4.098
Quant Ion : 73.00
Area : 9025
On-column Amount (ng) : 34.9160
Integration start scan : 400 Integration stop scan: 448
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

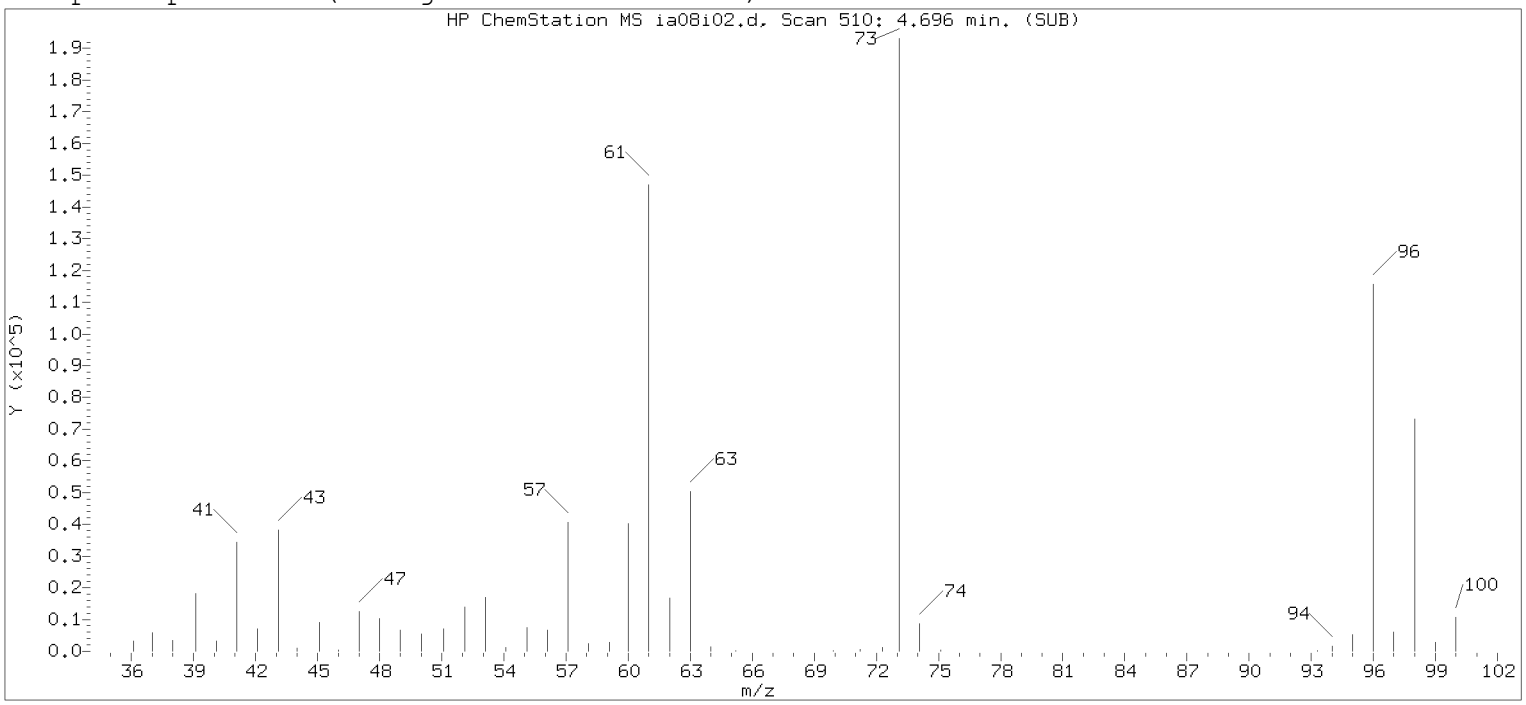
Compound Number : 32
Compound Name : n-Hexane
Scan Number : 582
Retention Time (minutes): 5.135
Quant Ion : 57.00
Area (flag) : 784077M
On-Column Amount (ng) : 10.6689
Integration start scan : 560 Integration stop scan: 615
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

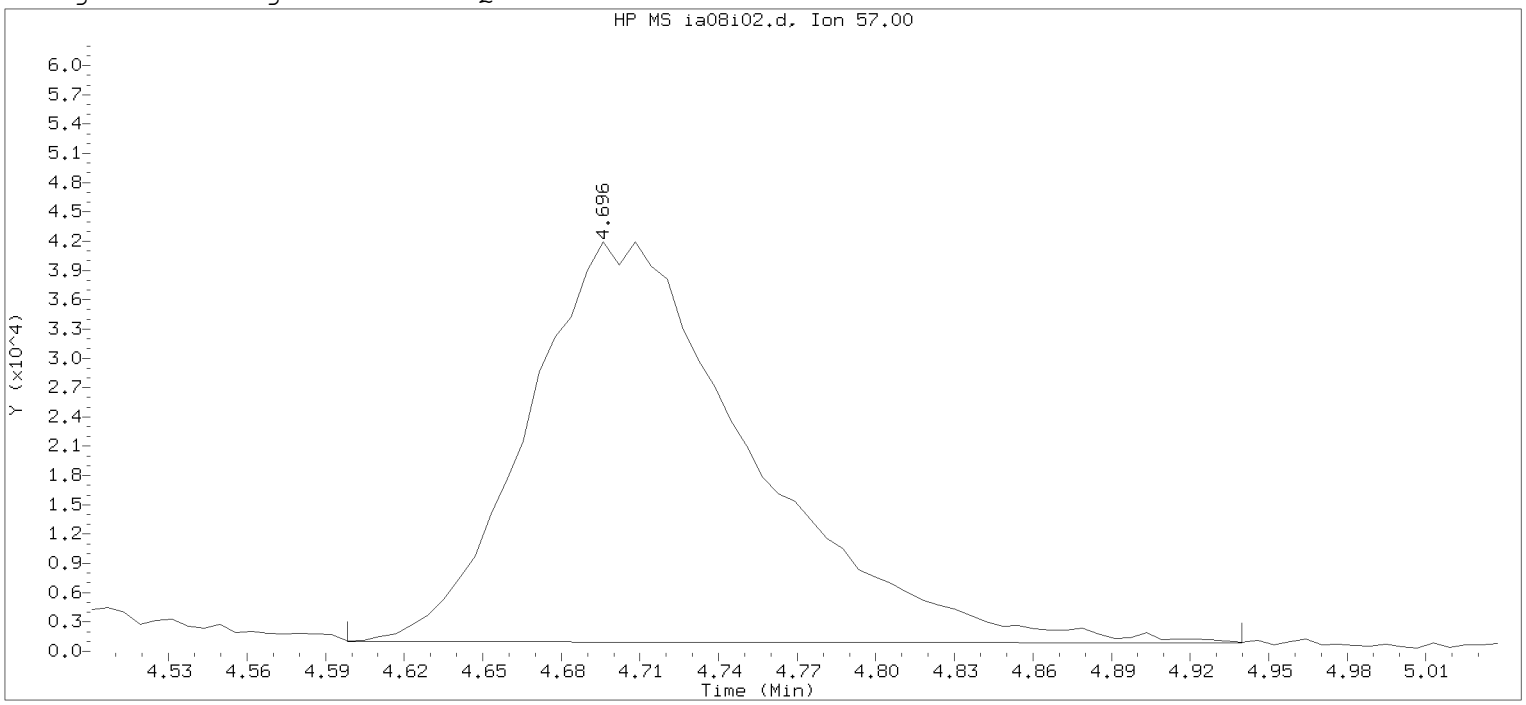
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

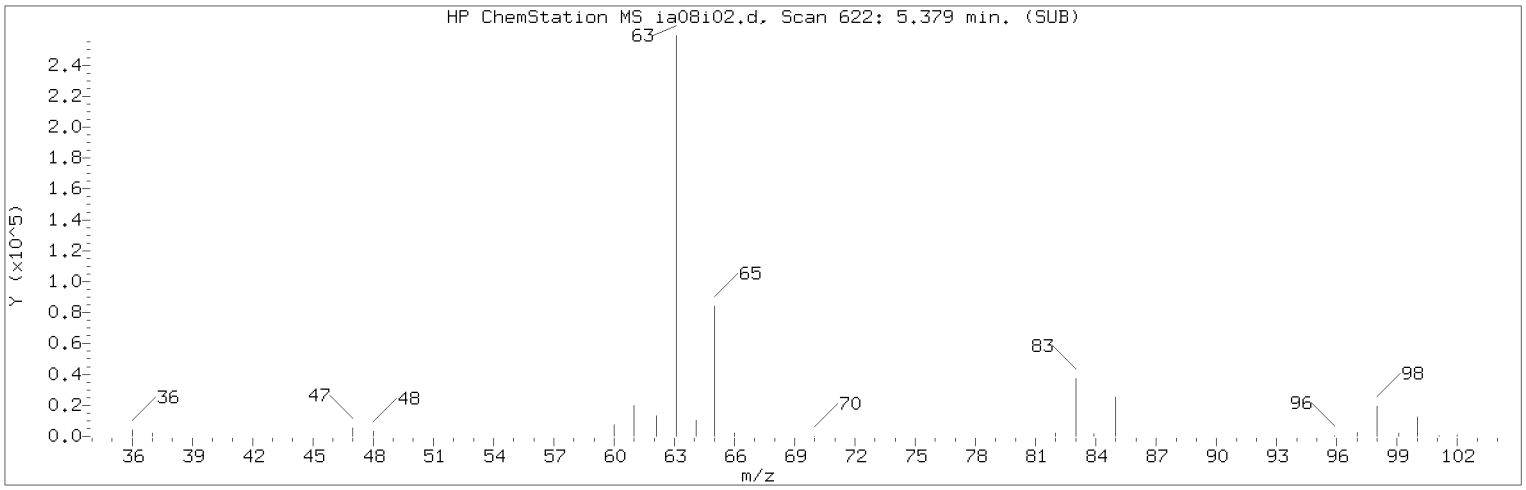
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

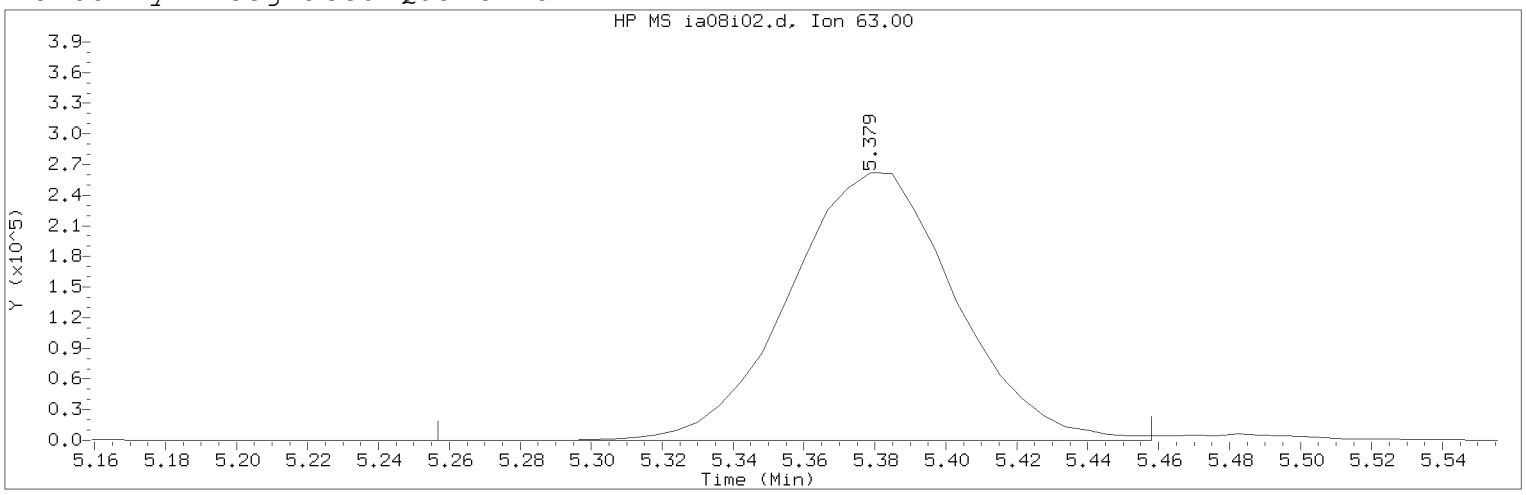
Compound Number : 32
Compound Name : n-Hexane
Scan Number : 510
Retention Time (minutes): 4.696
Quant Ion : 57.00
Area : 243866
On-column Amount (ng) : 47.0183
Integration start scan : 493 Integration stop scan: 549
Y at integration start : 967 Y at integration end: 882

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1058

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

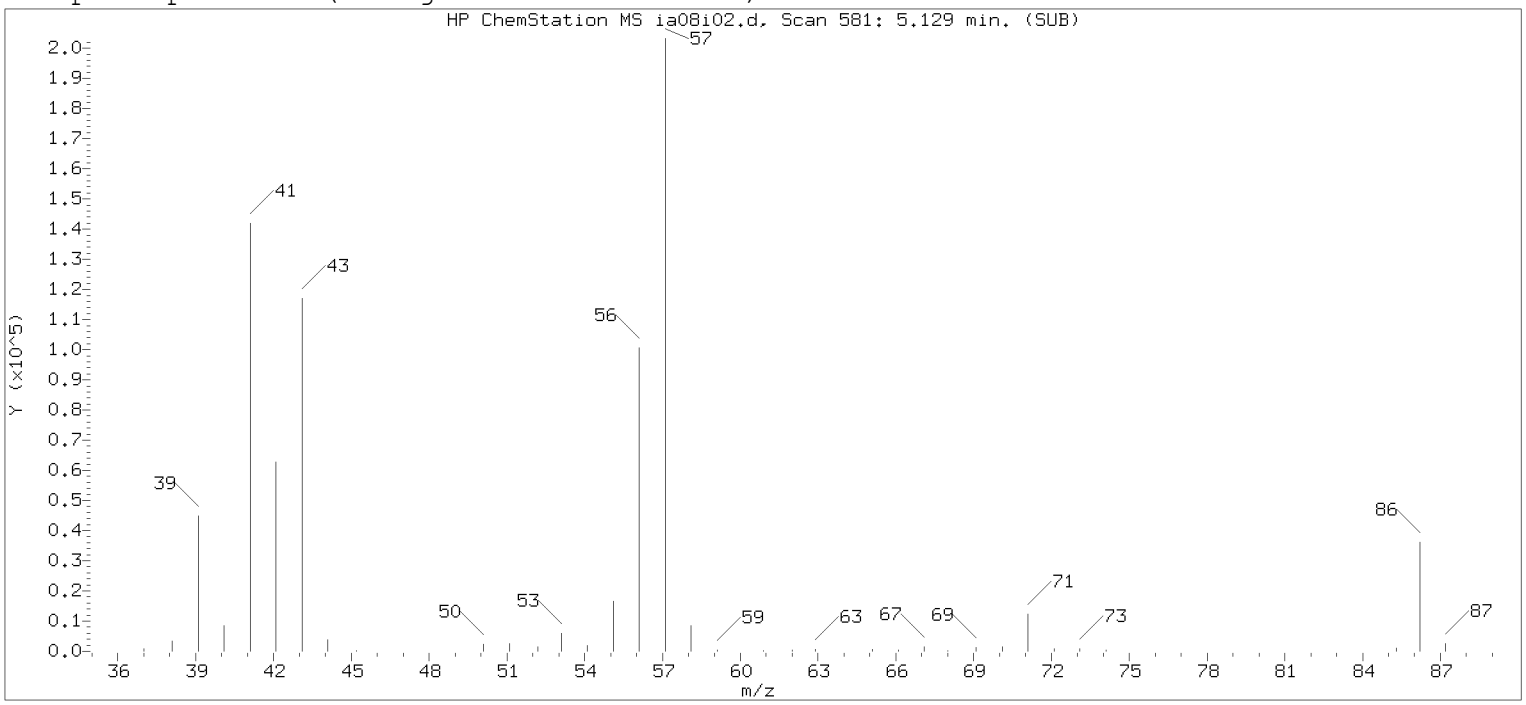
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 622
Retention Time (minutes): 5.379
Quant Ion : 63.00
Area (flag) : 853519M
On-Column Amount (ng) : 10.0485
Integration start scan : 601 Integration stop scan: 634
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

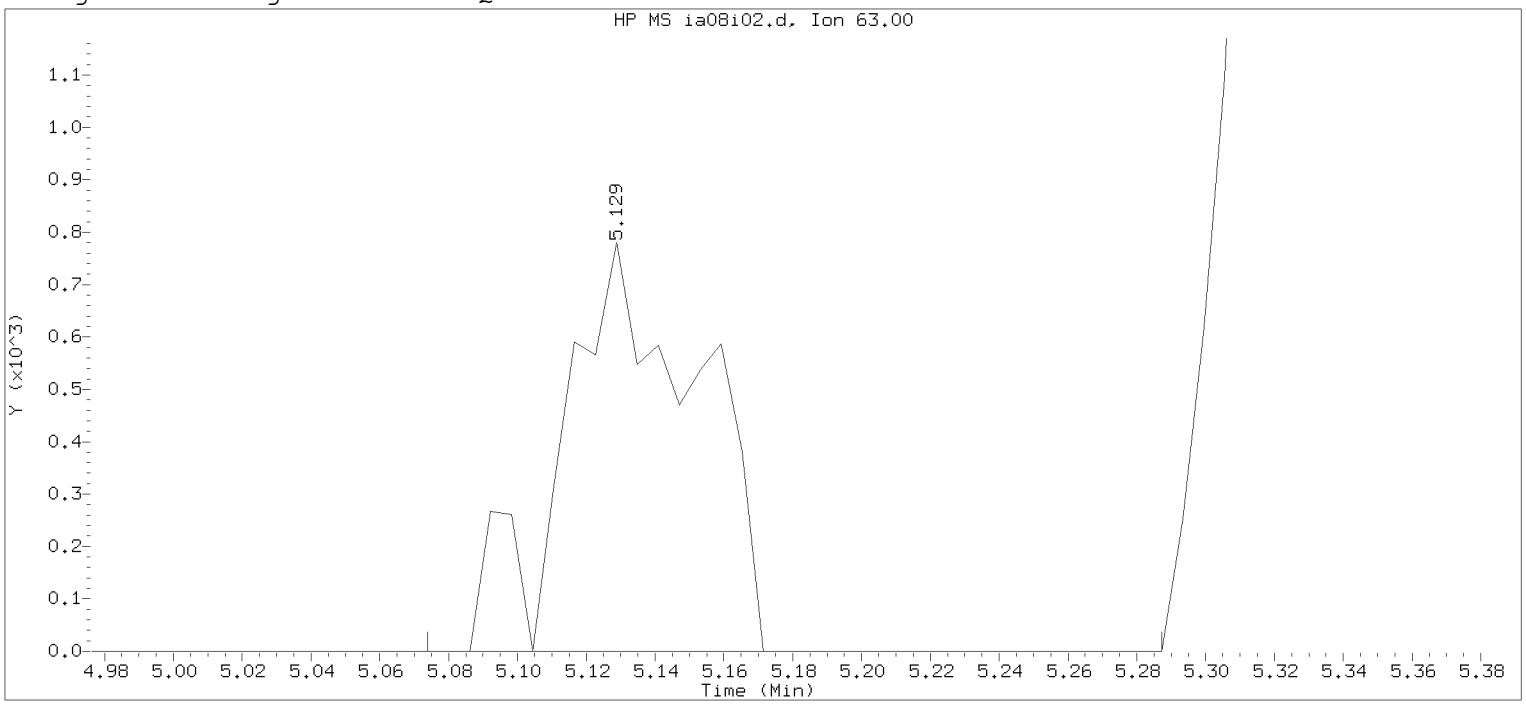
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

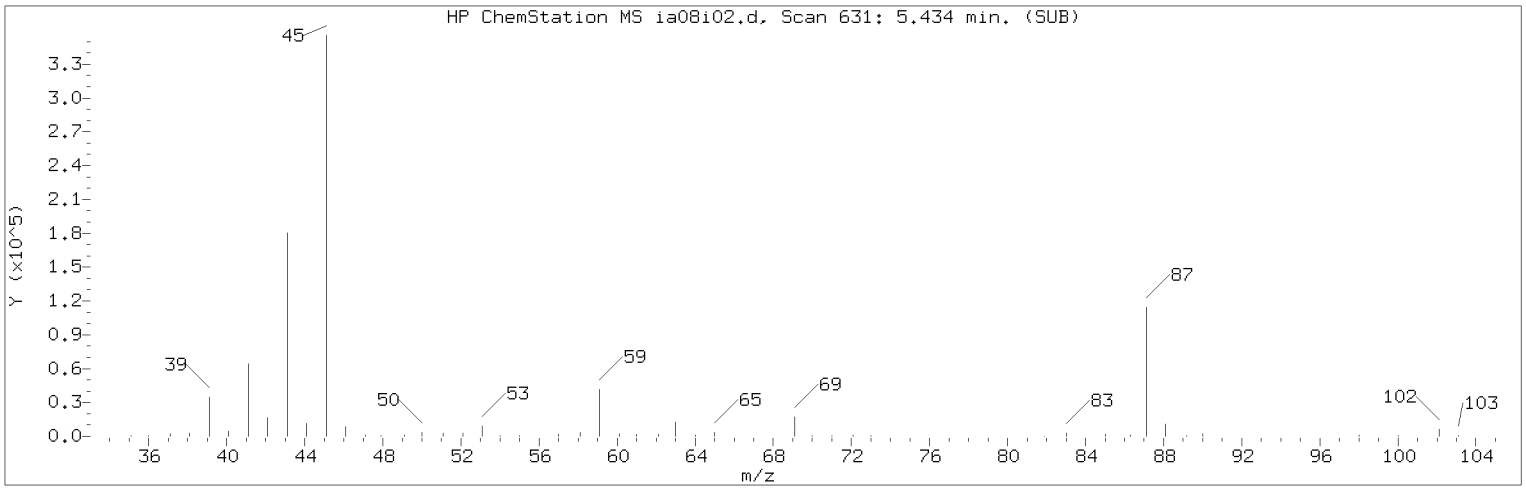
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

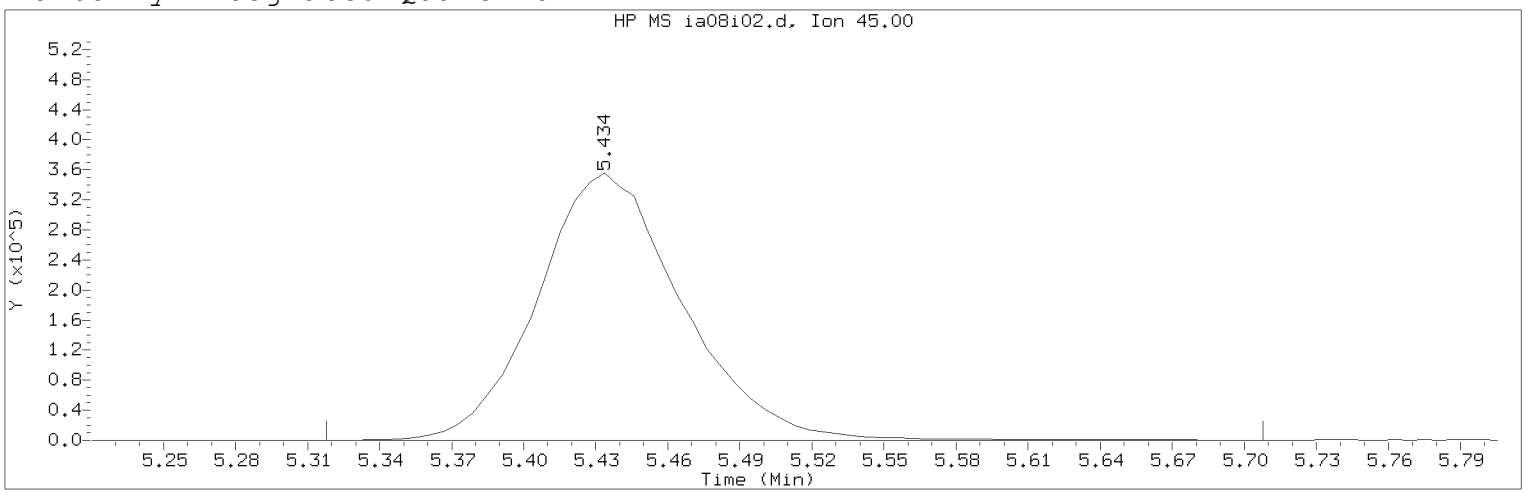
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 581
Retention Time (minutes): 5.129
Quant Ion : 63.00
Area : 2151
On-column Amount (ng) : 21.2217
Integration start scan : 571 Integration stop scan: 606
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

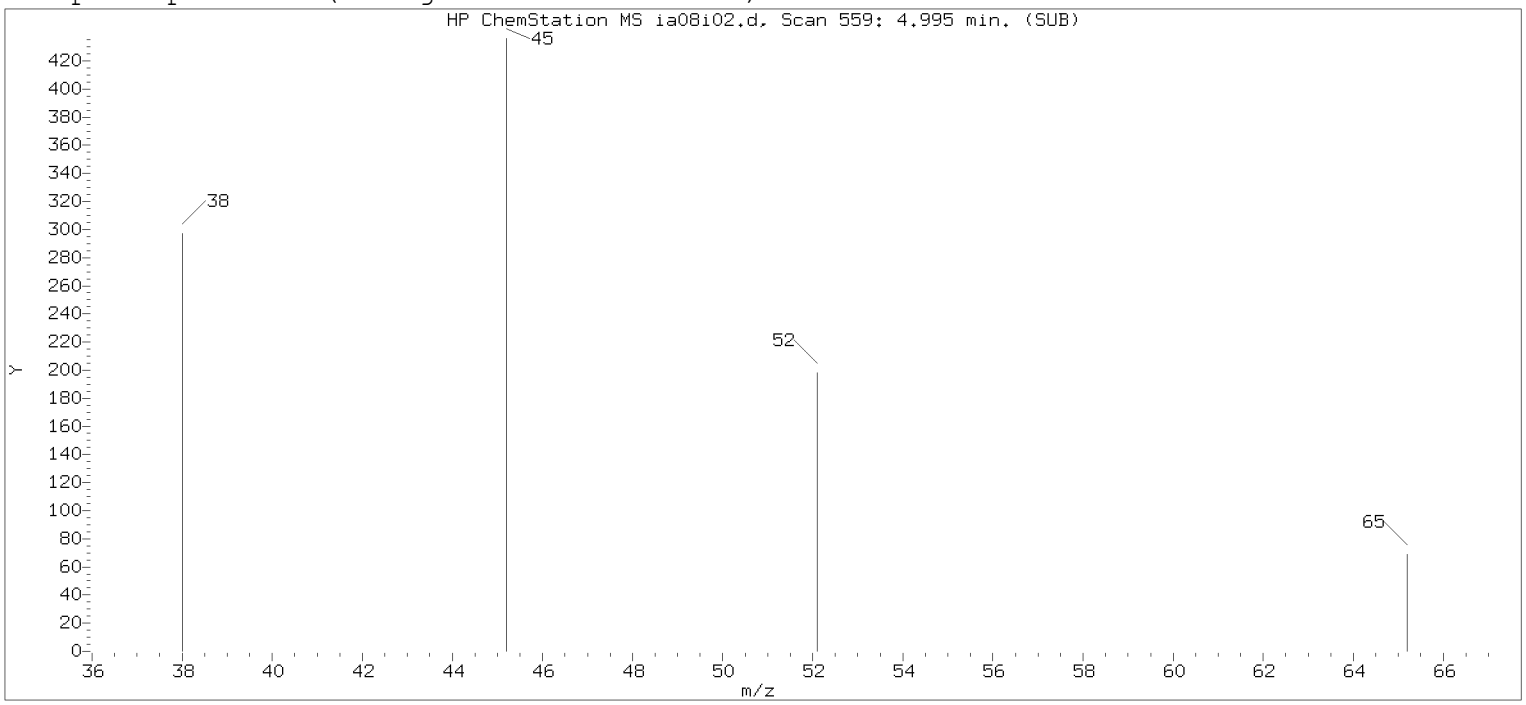
Compound Number : 34
Compound Name : di-Isopropyl Ether
Scan Number : 631
Retention Time (minutes): 5.434
Quant Ion : 45.00
Area (flag) : 1487933M
On-Column Amount (ng) : 10.4394
Integration start scan : 611 Integration stop scan: 675
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

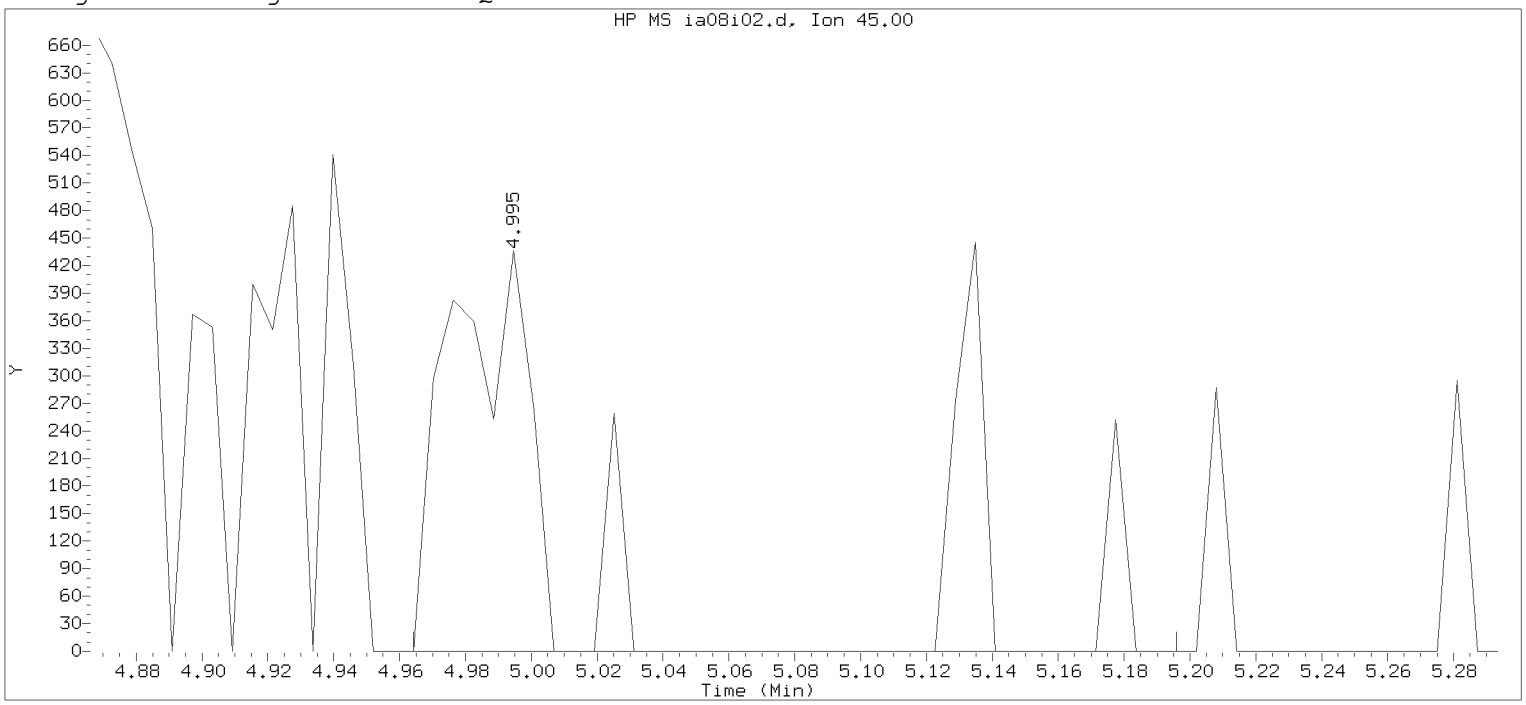
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

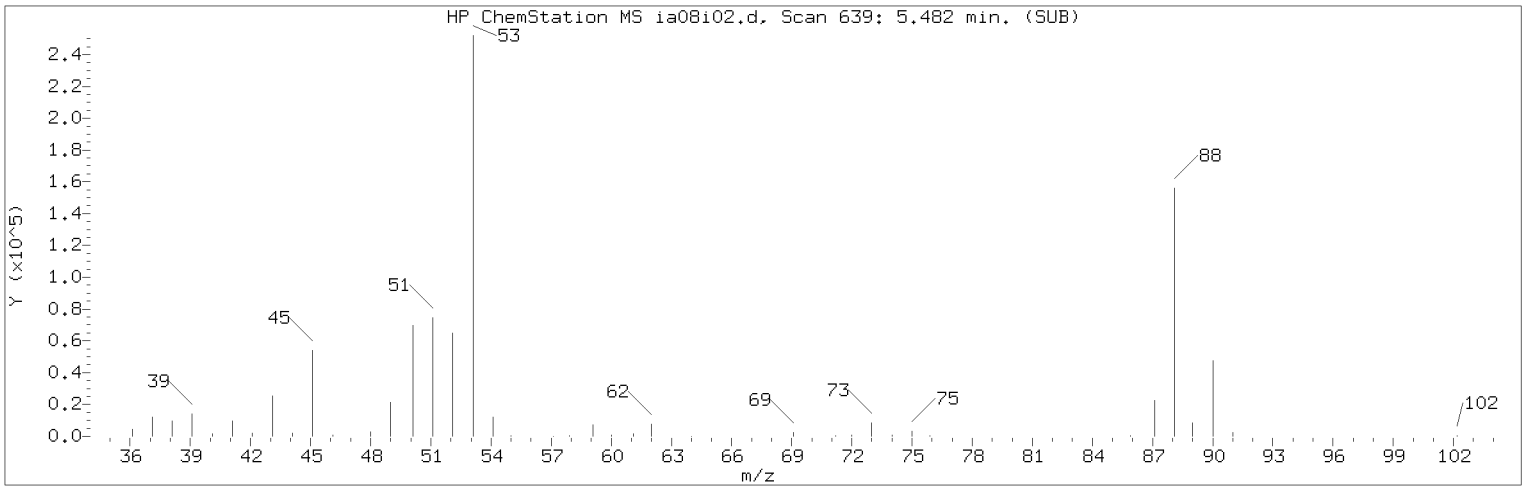
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

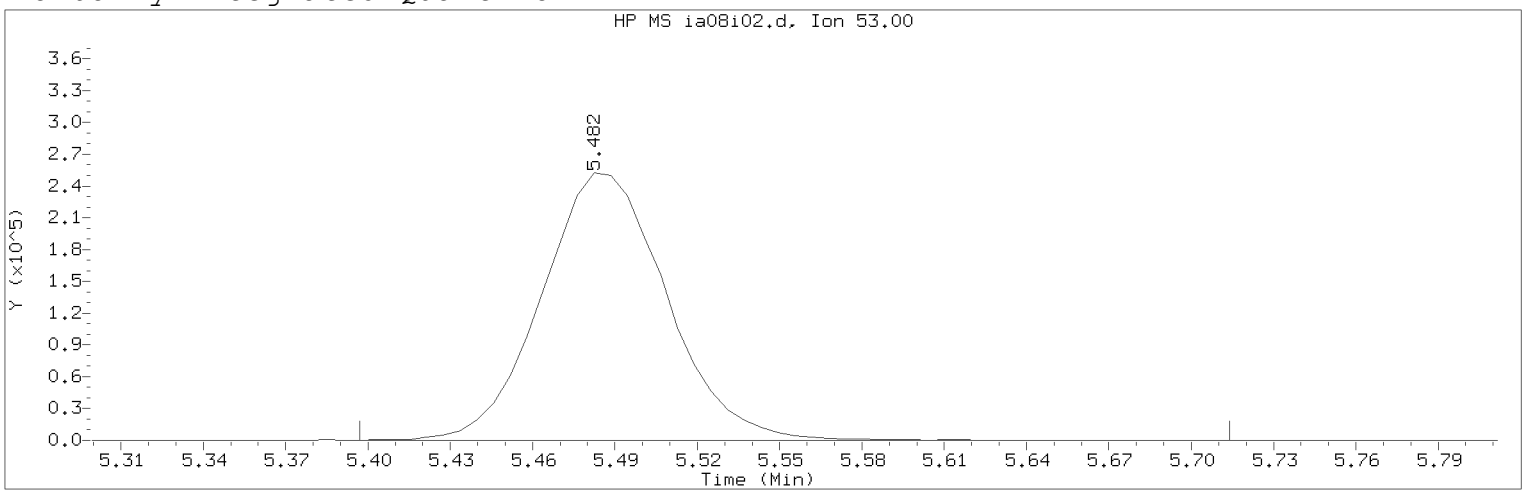
Compound Number : 34
Compound Name : di-Isopropyl Ether
Scan Number : 559
Retention Time (minutes): 4.995
Quant Ion : 45.00
Area : 1177
On-column Amount (ng) : 10.6353
Integration start scan : 553 Integration stop scan: 591
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

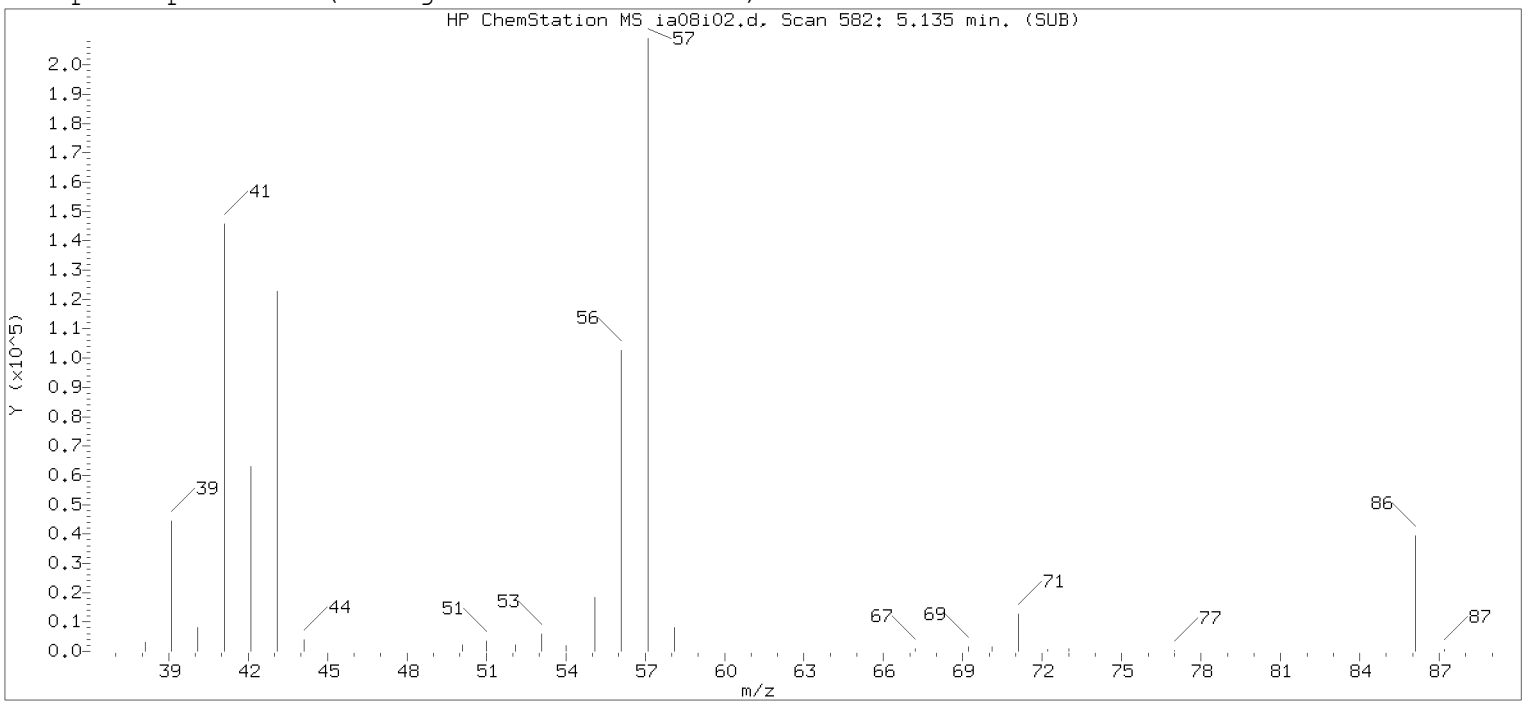
Compound Number : 35
Compound Name : 2-Chloro-1,3-Butadiene
Scan Number : 639
Retention Time (minutes): 5.482
Quant Ion : 53.00
Area (flag) : 796502M
On-Column Amount (ng) : 10.4430
Integration start scan : 624 Integration stop scan: 676
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

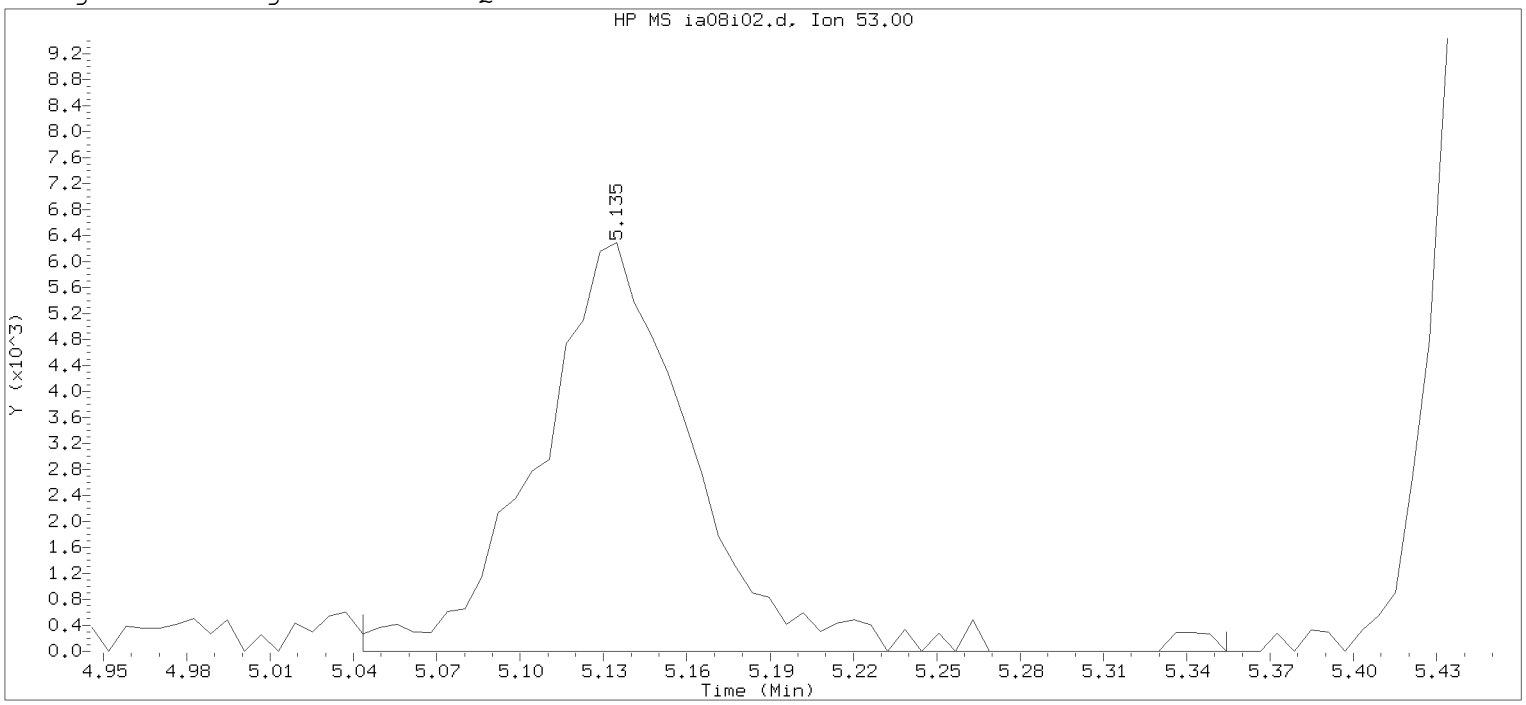
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

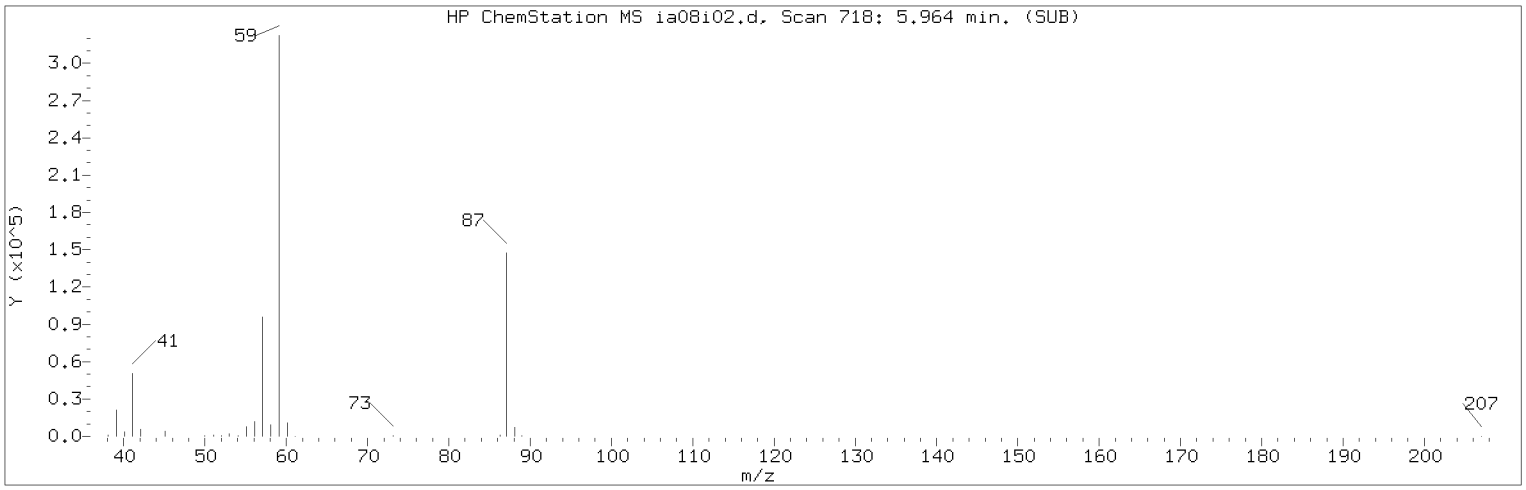
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

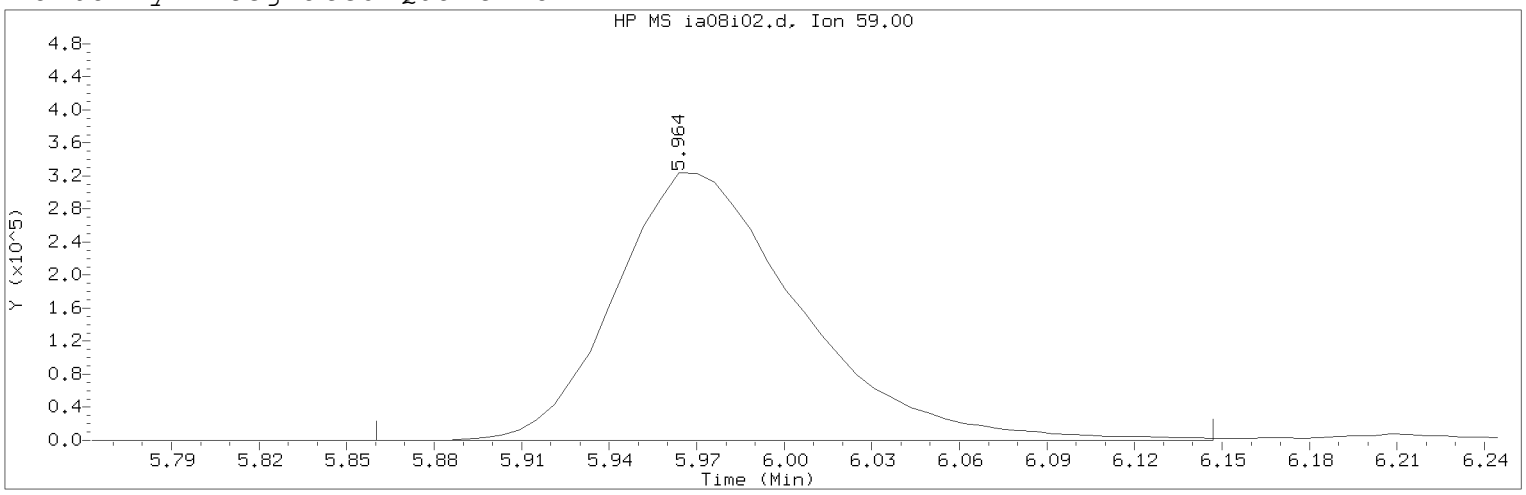
Compound Number : 35
Compound Name : 2-Chloro-1,3-Butadiene
Scan Number : 582
Retention Time (minutes): 5.135
Quant Ion : 53.00
Area : 24375
On-column Amount (ng) : 43.6848
Integration start scan : 566 Integration stop scan: 617
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: JHOWE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

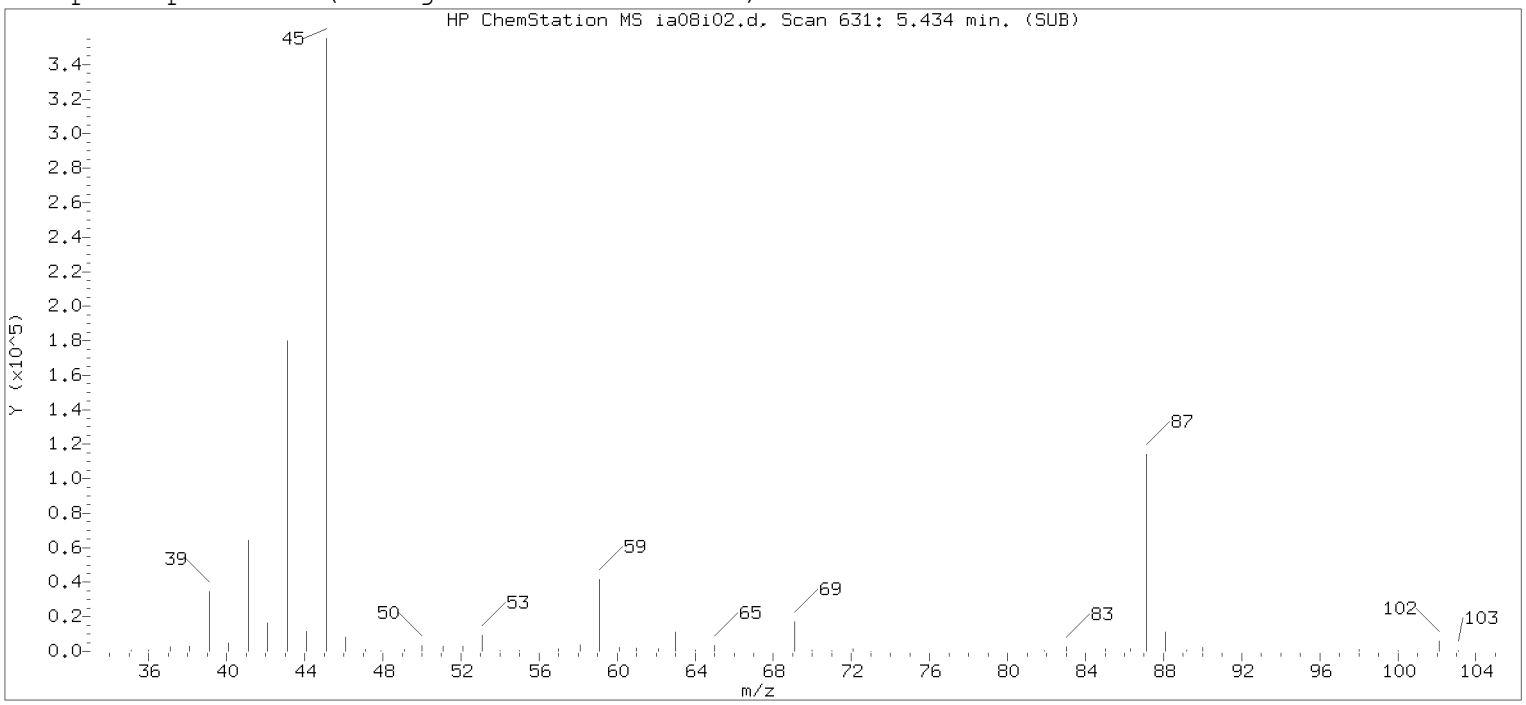
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 718
Retention Time (minutes): 5.964
Quant Ion : 59.00
Area (flag) : 1423714M
On-Column Amount (ng) : 10.0616
Integration start scan : 700 Integration stop scan: 747
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

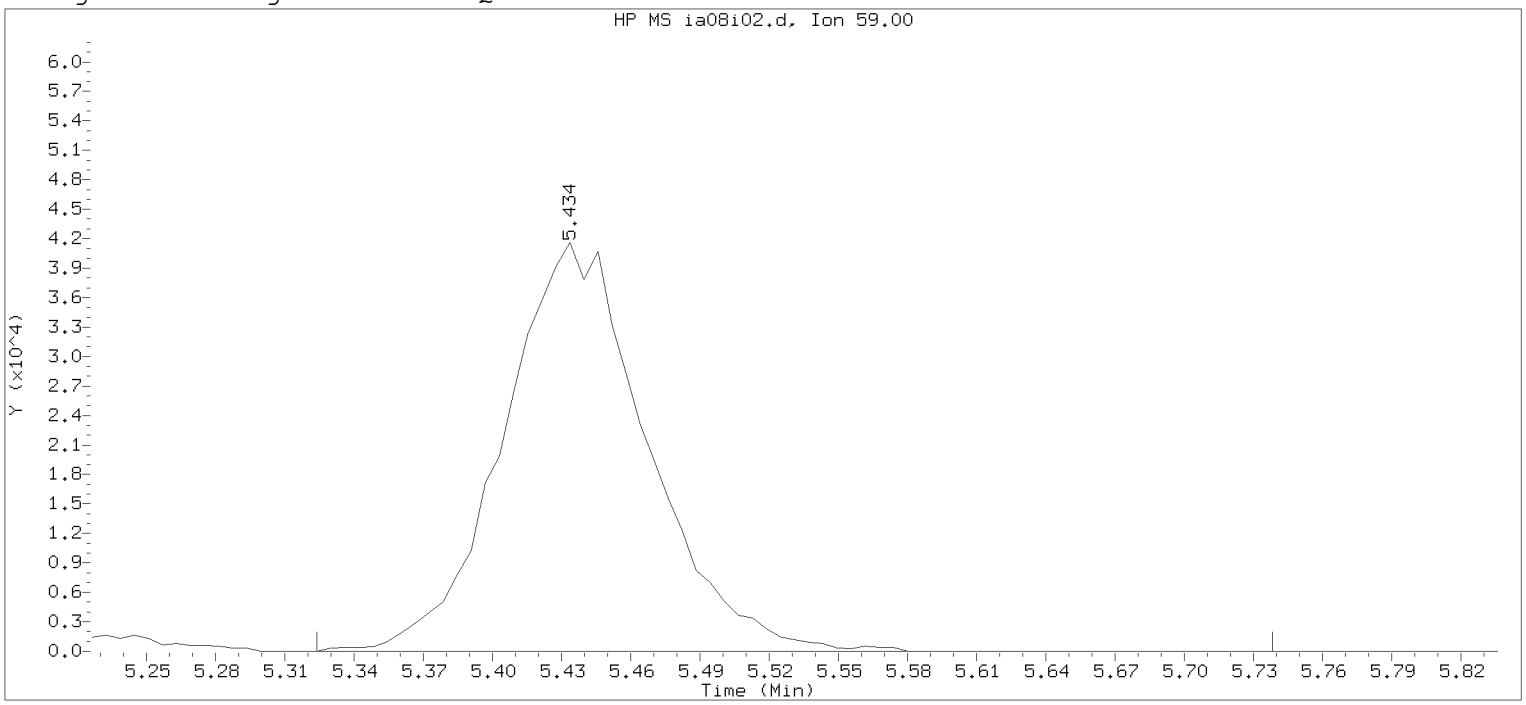
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

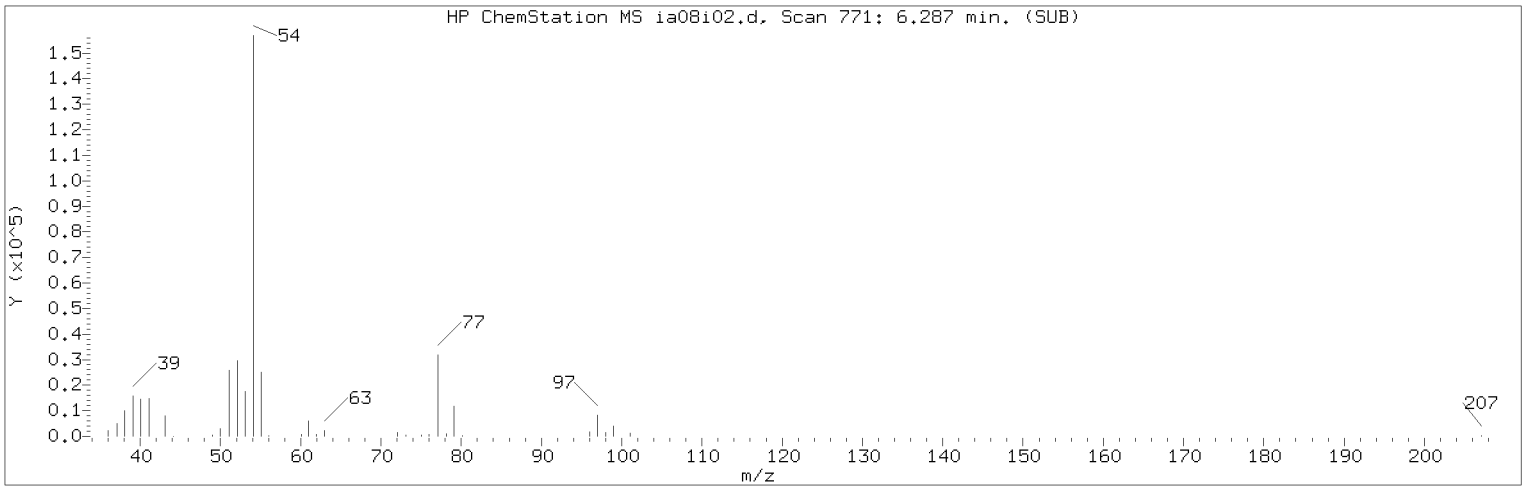
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

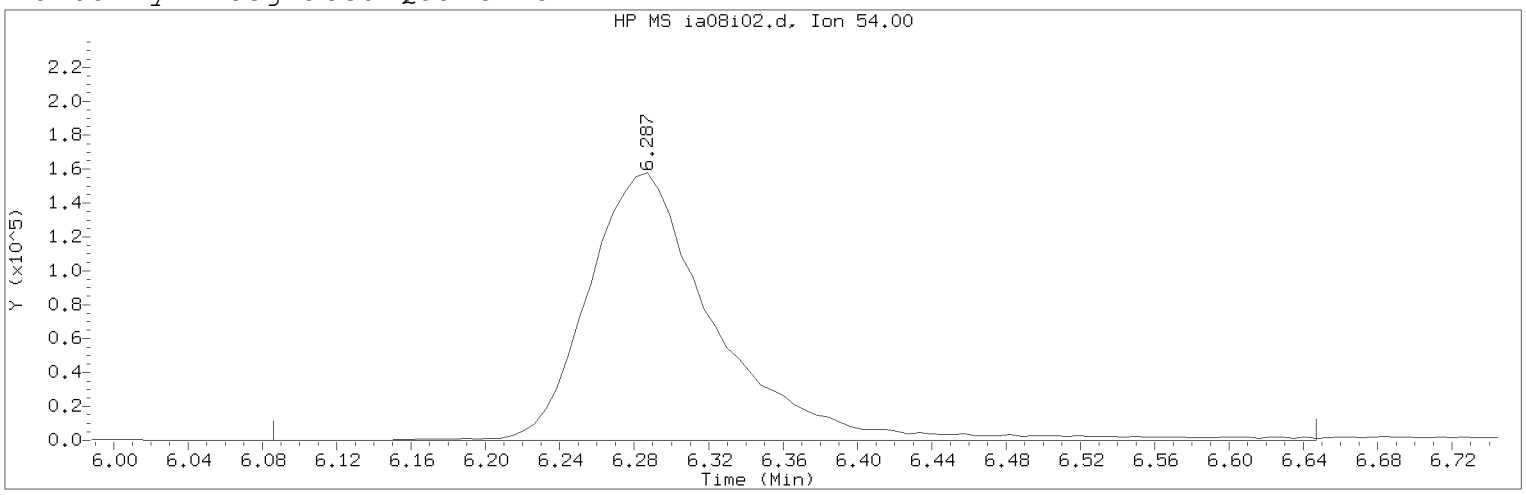
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 631
Retention Time (minutes): 5.434
Quant Ion : 59.00
Area : 180051
On-column Amount (ng) : 67.6755
Integration start scan : 612 Integration stop scan: 680
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

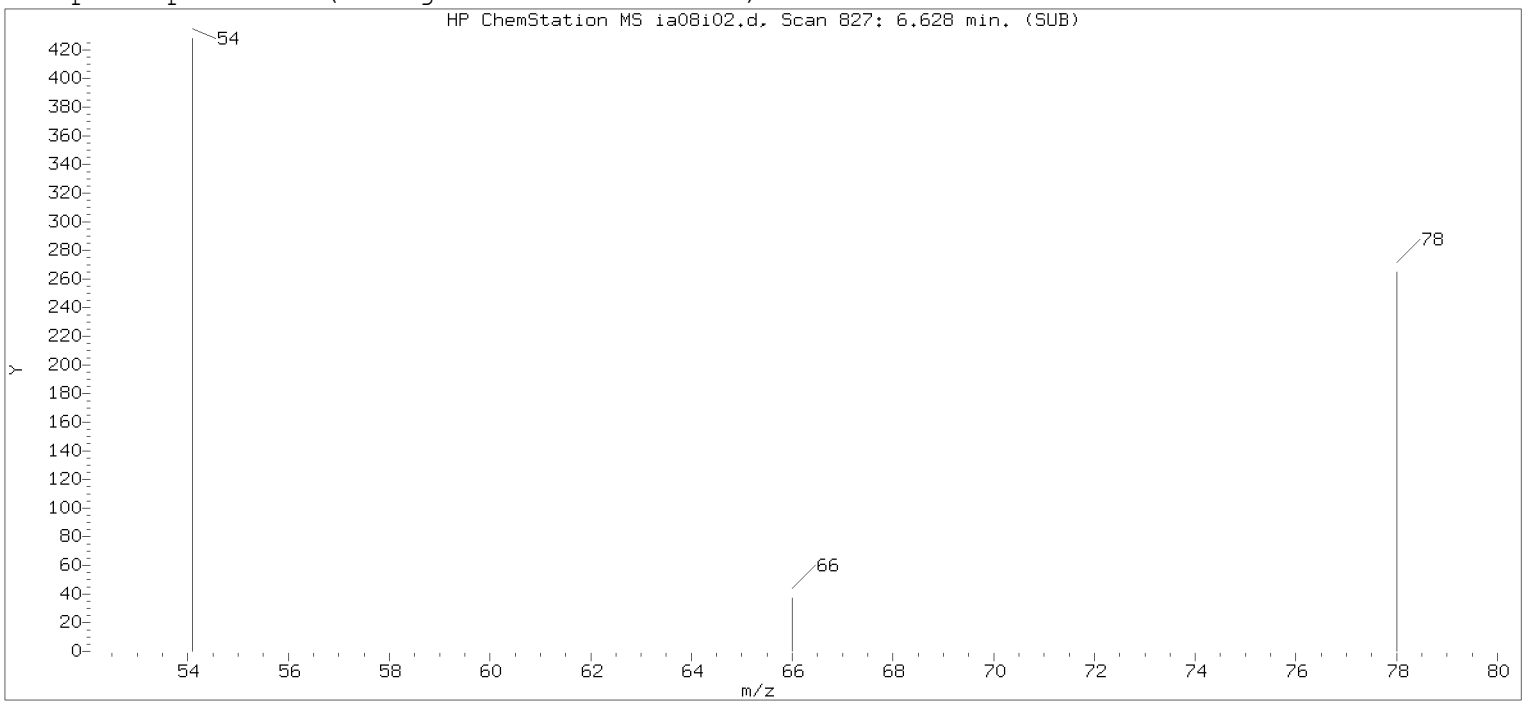
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 771
Retention Time (minutes): 6.287
Quant Ion : 54.00
Area (flag) : 753819M
On-Column Amount (ng) : 218.1345
Integration start scan : 737 Integration stop scan: 829
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

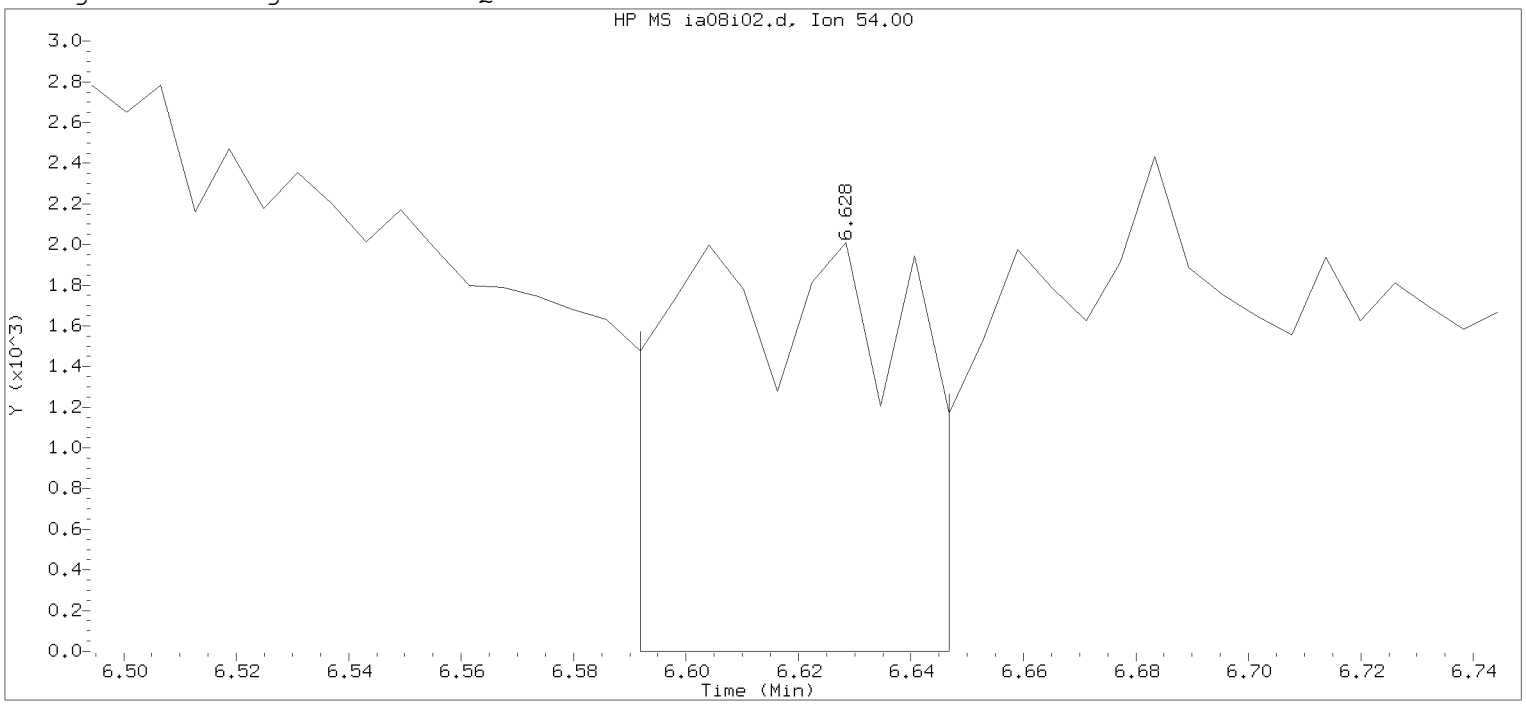
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

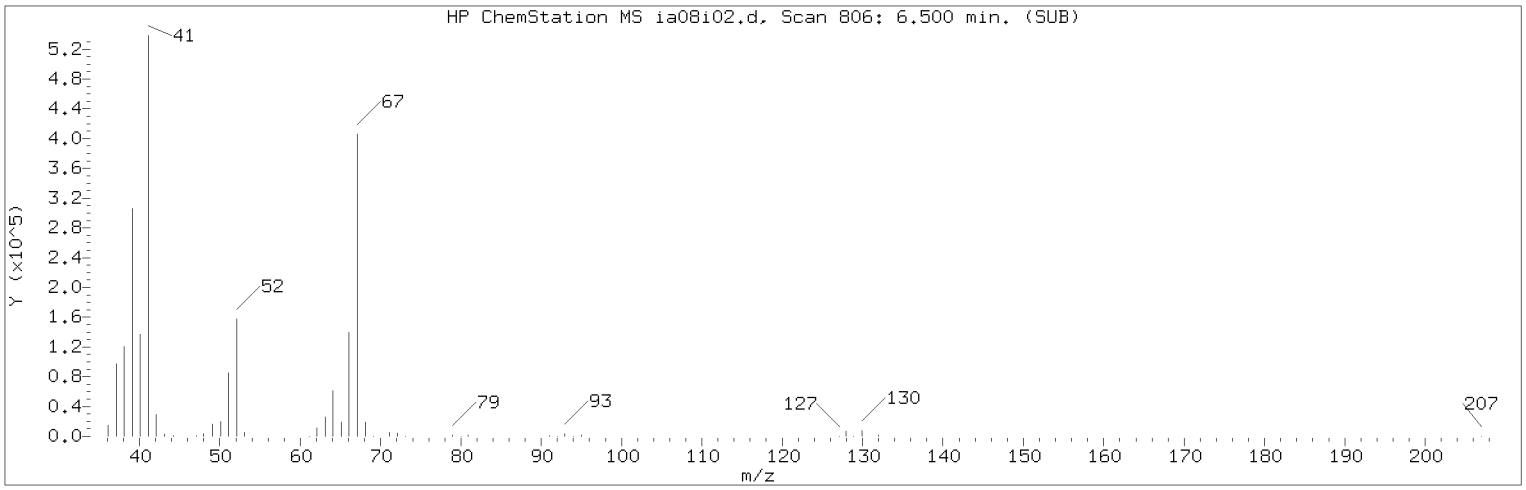
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

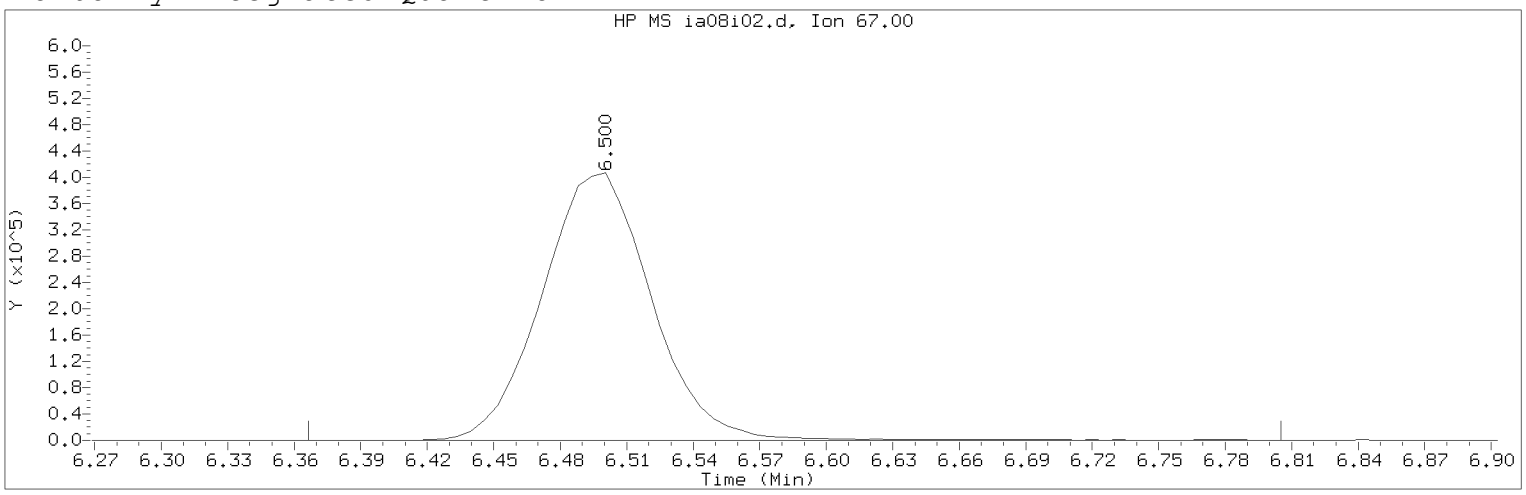
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 827
Retention Time (minutes): 6.628
Quant Ion : 54.00
Area : 5517
On-column Amount (ng) : 2.3585
Integration start scan : 820 Integration stop scan: 829
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1068

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

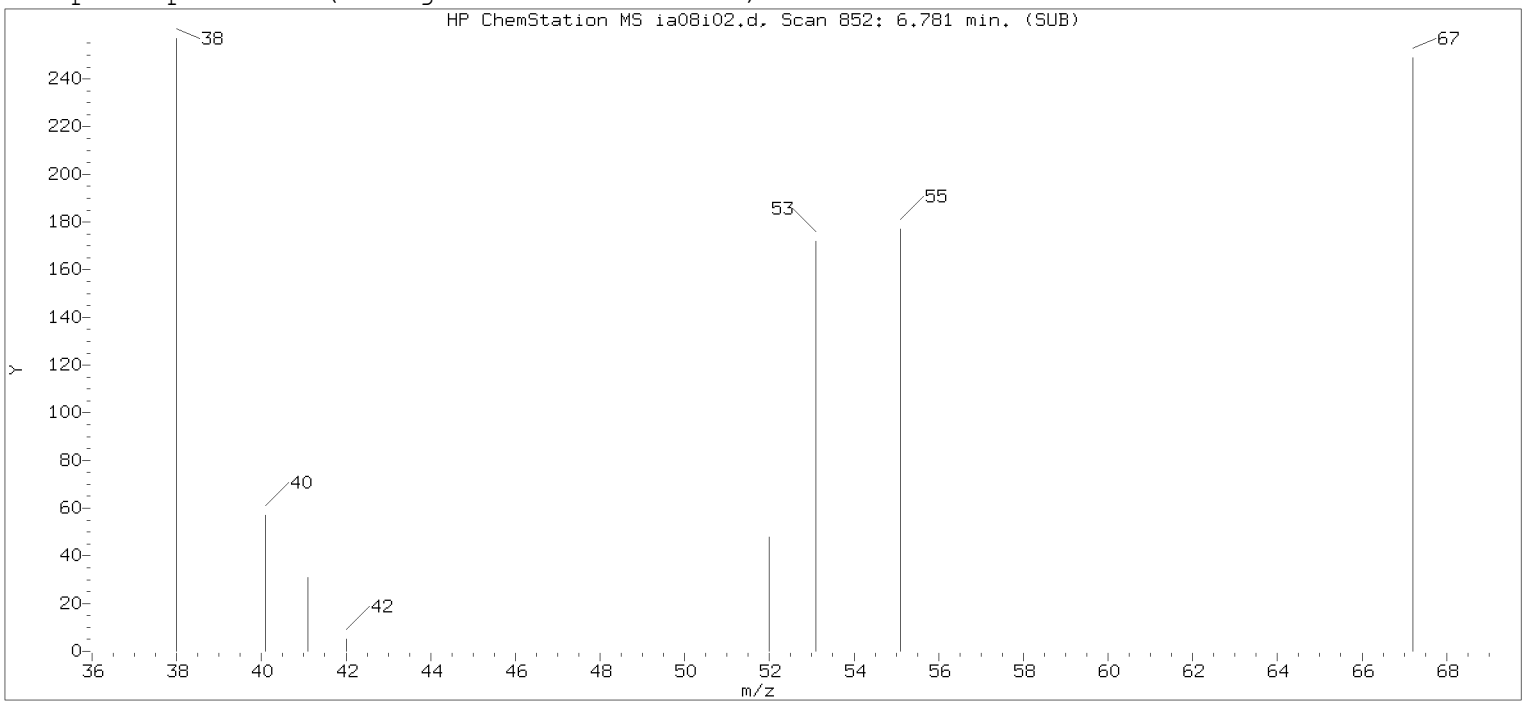
Compound Number : 45
Compound Name : Methacrylonitrile
Scan Number : 806
Retention Time (minutes): 6.500
Quant Ion : 67.00
Area (flag) : 1392131M
On-Column Amount (ng) : 109.4627
Integration start scan : 783 Integration stop scan: 855
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

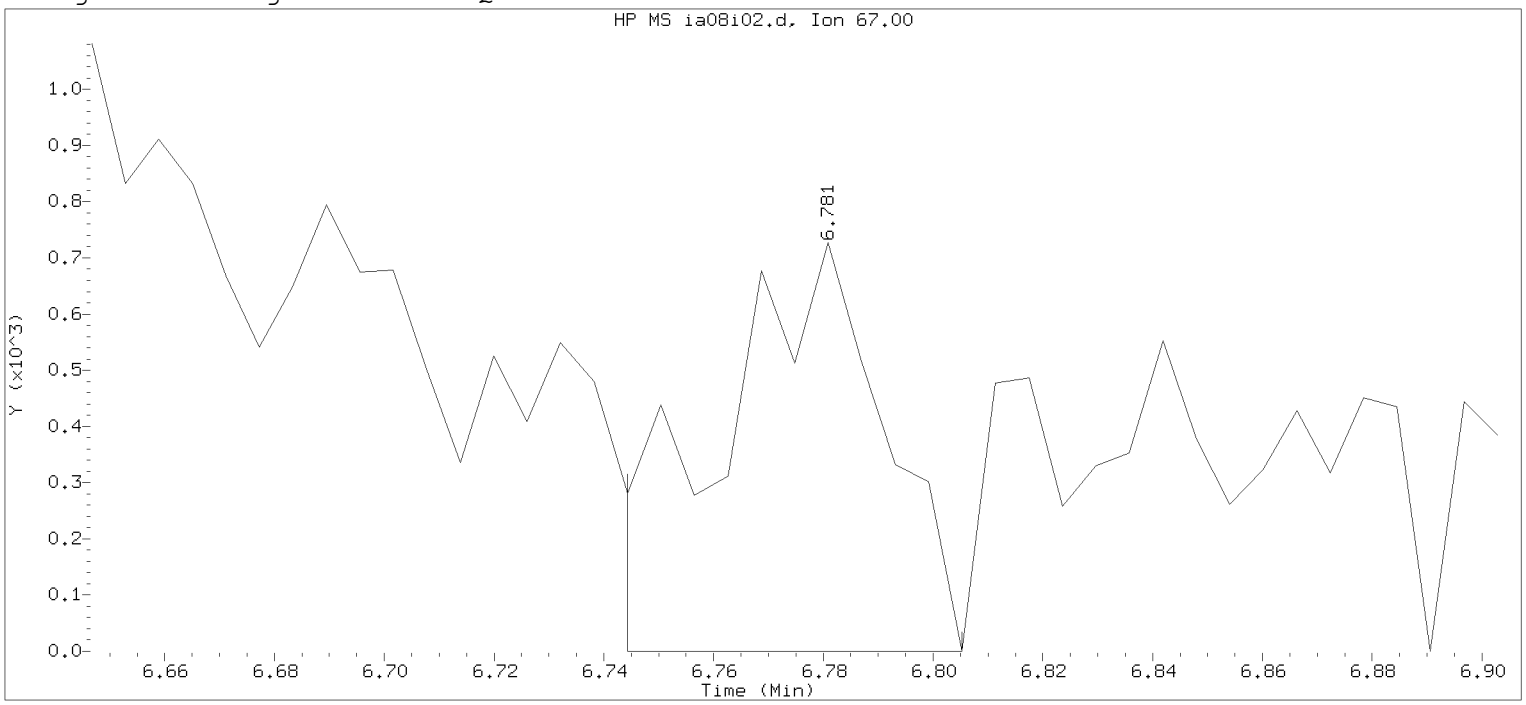
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

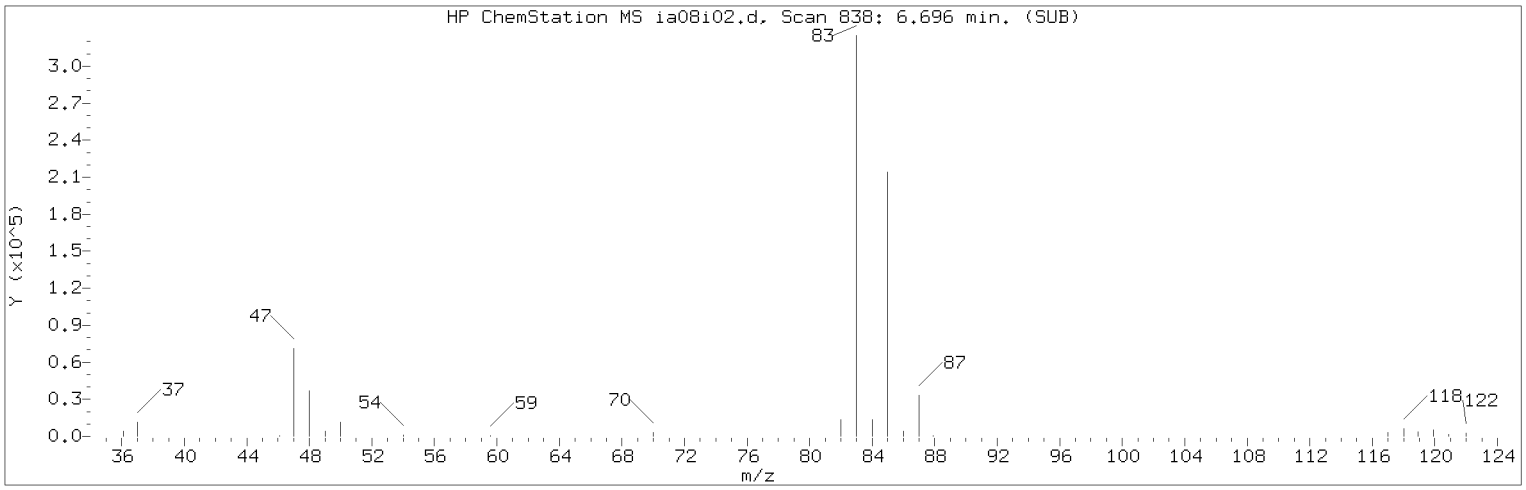
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

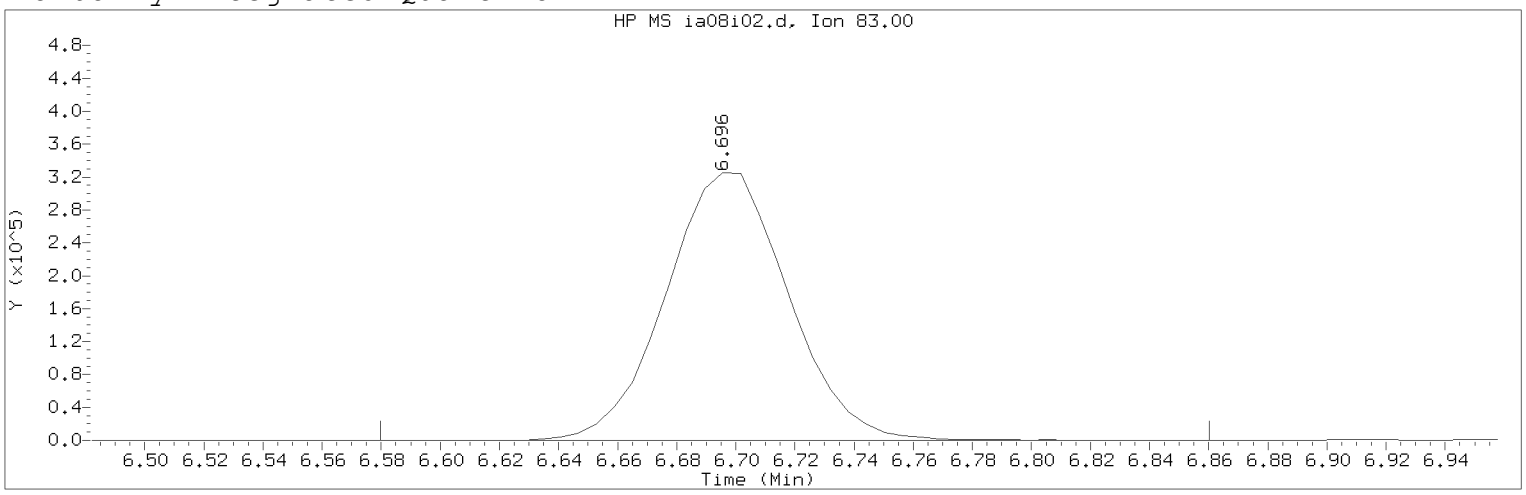
Compound Number : 45
Compound Name : Methacrylonitrile
Scan Number : 852
Retention Time (minutes): 6.781
Quant Ion : 67.00
Area : 1548
On-column Amount (ng) : 0.1925
Integration start scan : 845 Integration stop scan: 855
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature used. Page 1070

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

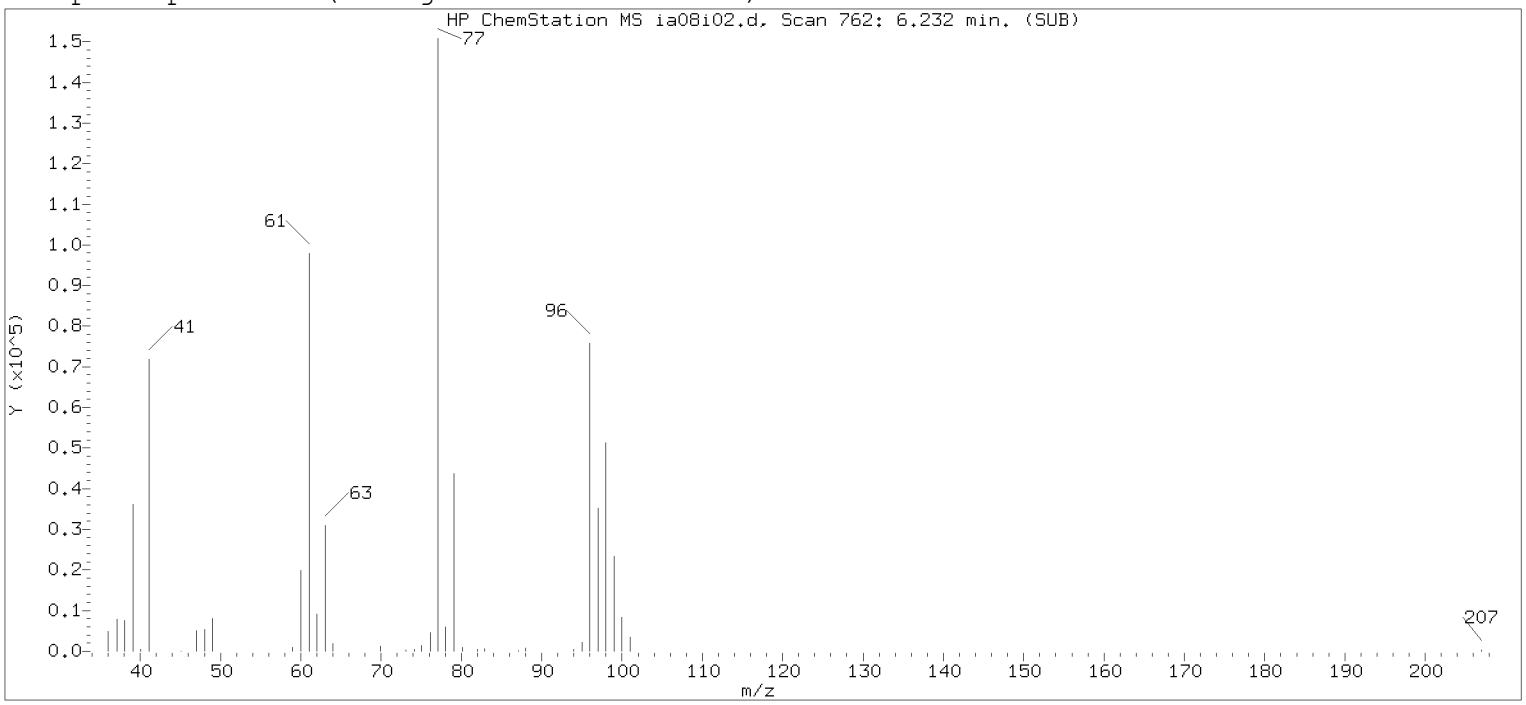
Compound Number : 49
Compound Name : Chloroform
Scan Number : 838
Retention Time (minutes): 6.696
Quant Ion : 83.00
Area (flag) : 936929M
On-Column Amount (ng) : 10.1225
Integration start scan : 818 Integration stop scan: 864
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

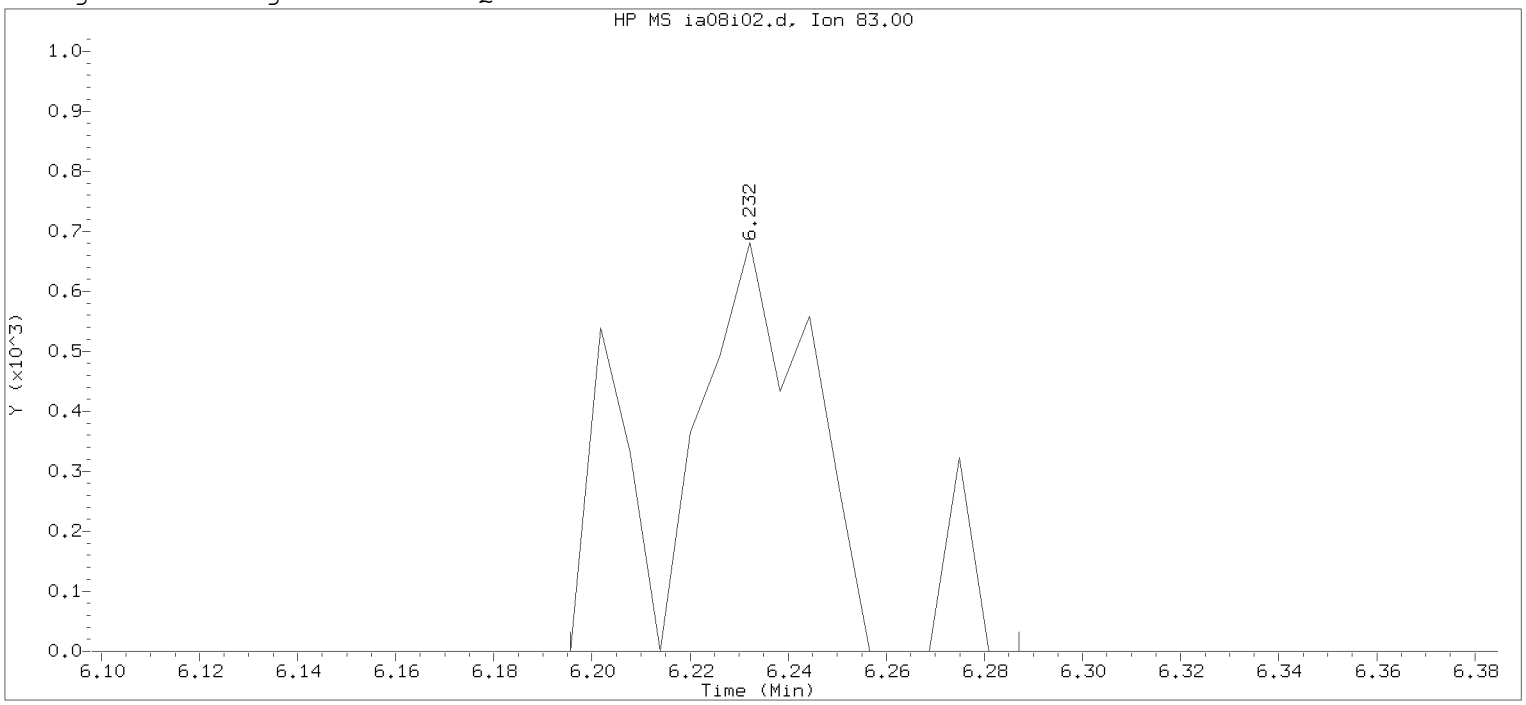
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 49
Compound Name : Chloroform
Scan Number : 762
Retention Time (minutes): 6.232
Quant Ion : 83.00
Area : 1460
On-column Amount (ng) : 15.9175
Integration start scan : 755 Integration stop scan: 770
Y at integration start : 0 Y at integration end: 0

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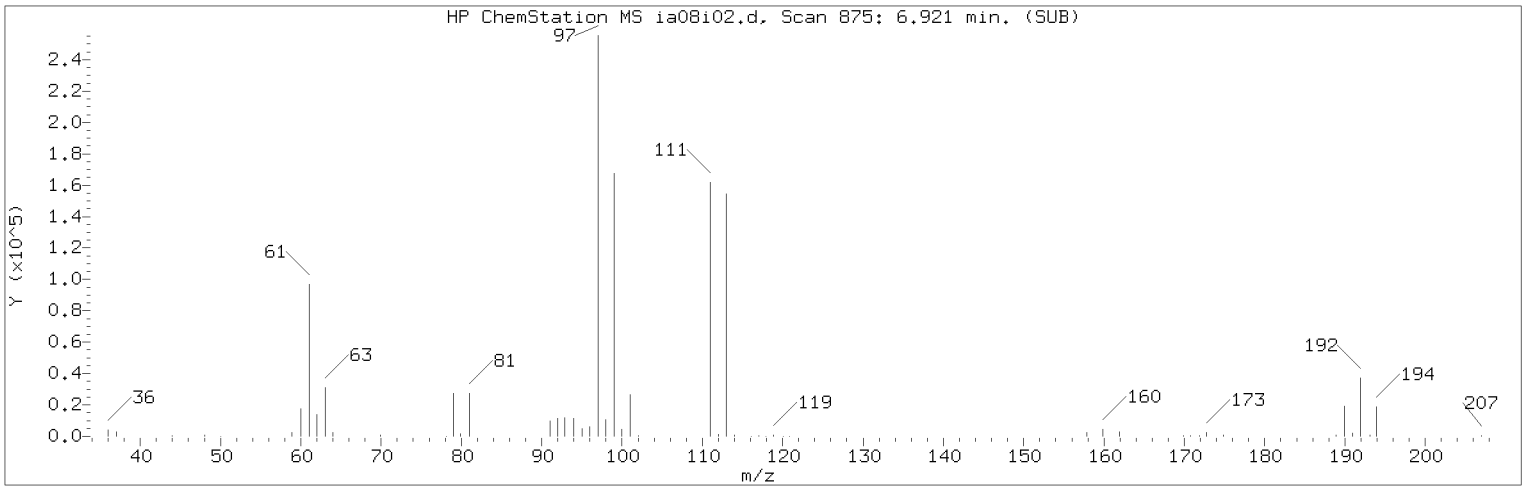
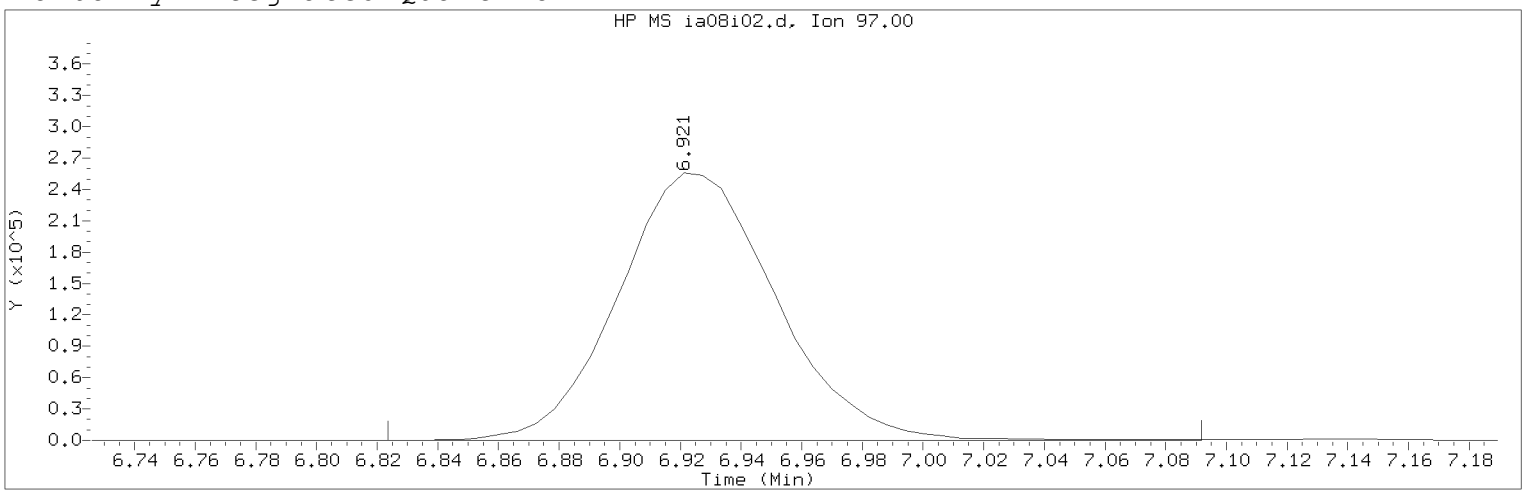
Target 3.5 esignature user: F35 Page 1072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

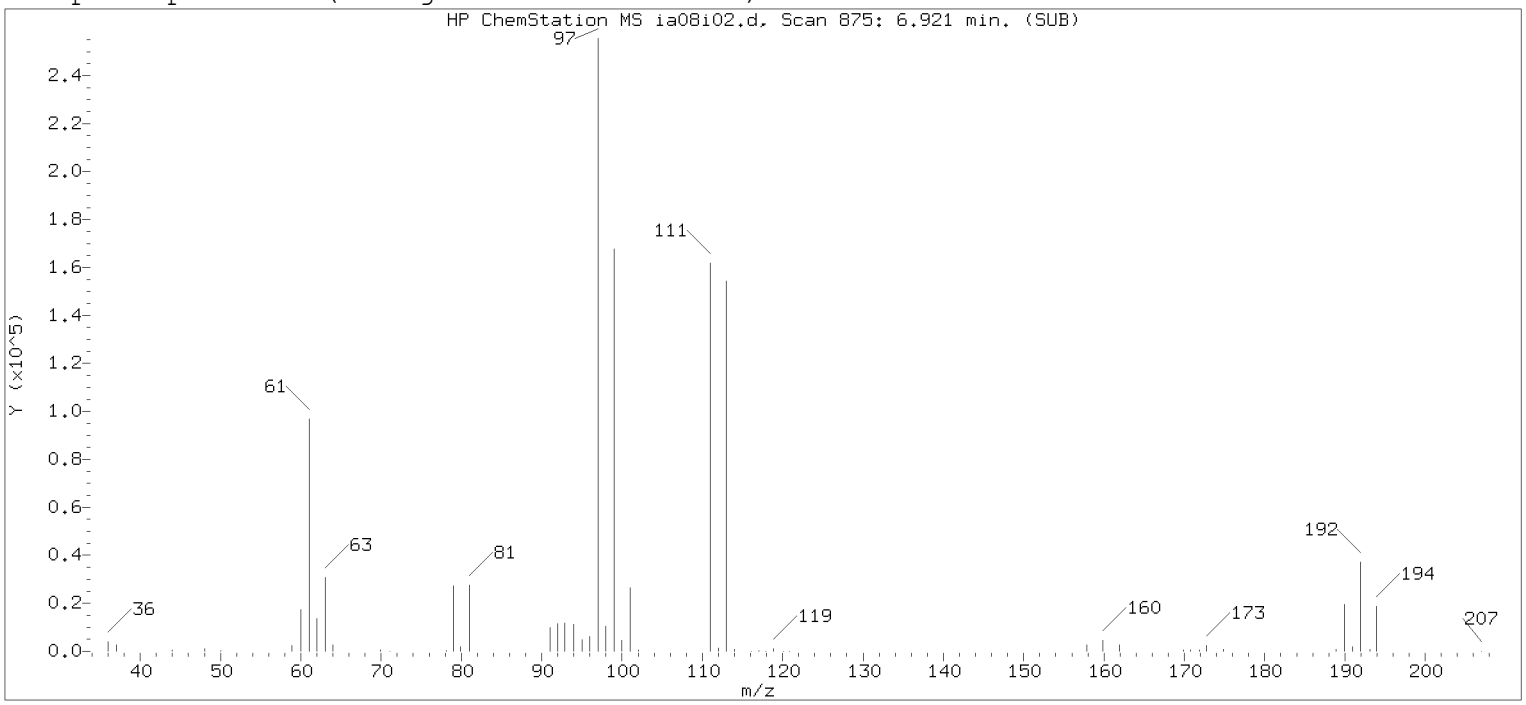
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area (flag) : 920216M
On-Column Amount (ng) : 10.2844
Integration start scan : 858 Integration stop scan: 902
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

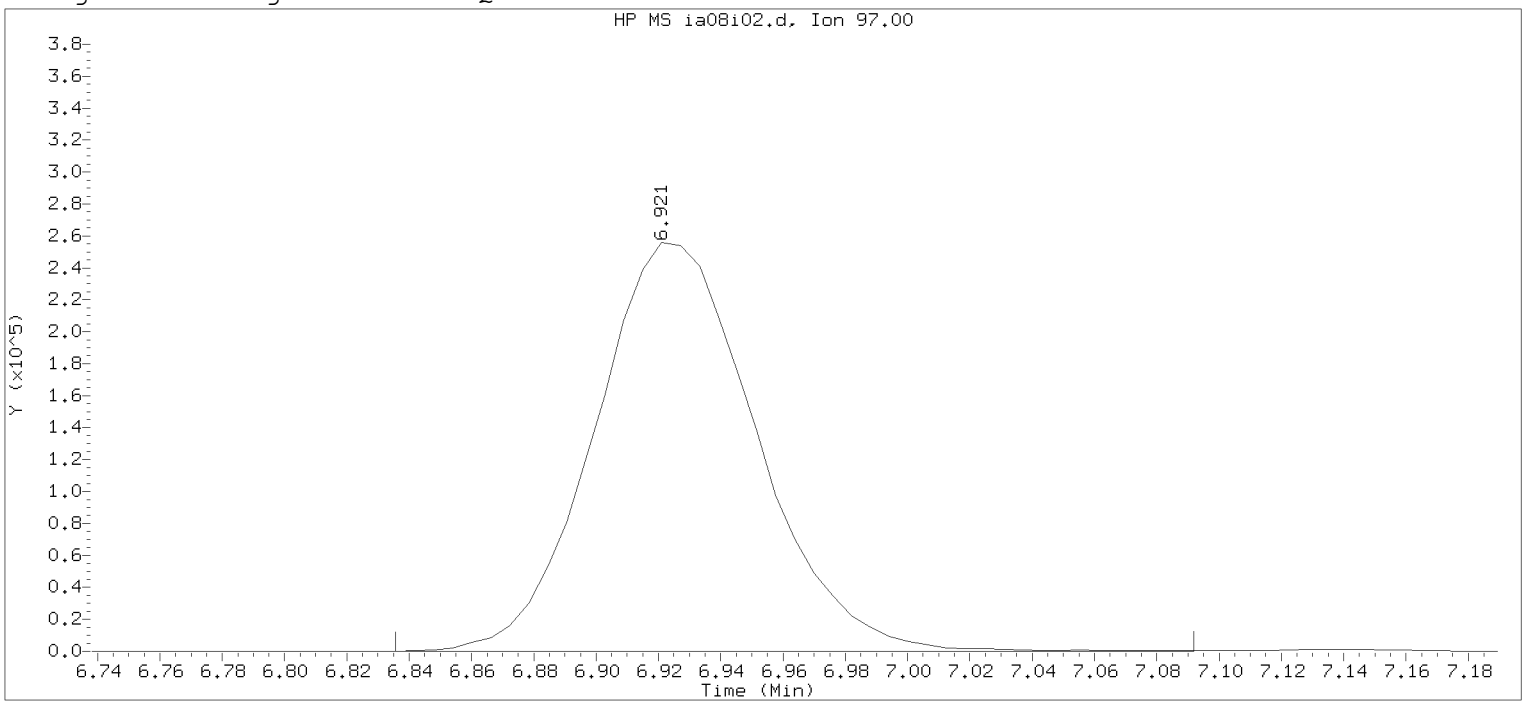
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area : 918931
On-column Amount (ng) : 47.9224
Integration start scan : 860 Integration stop scan: 902
Y at integration start : 0 Y at integration end: 162

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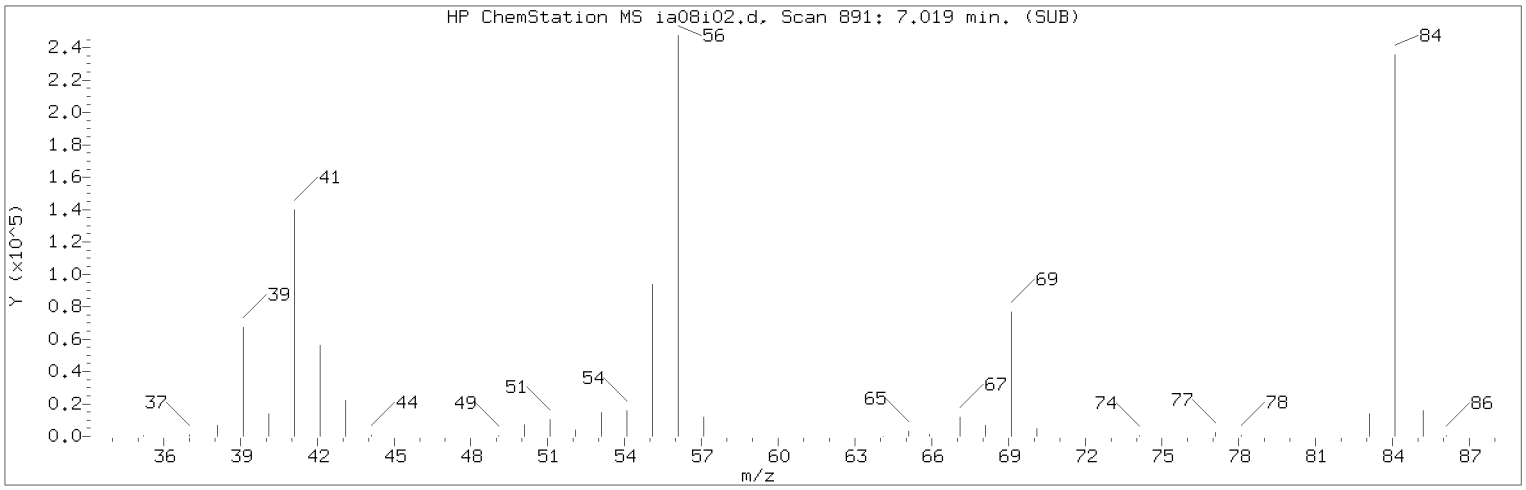
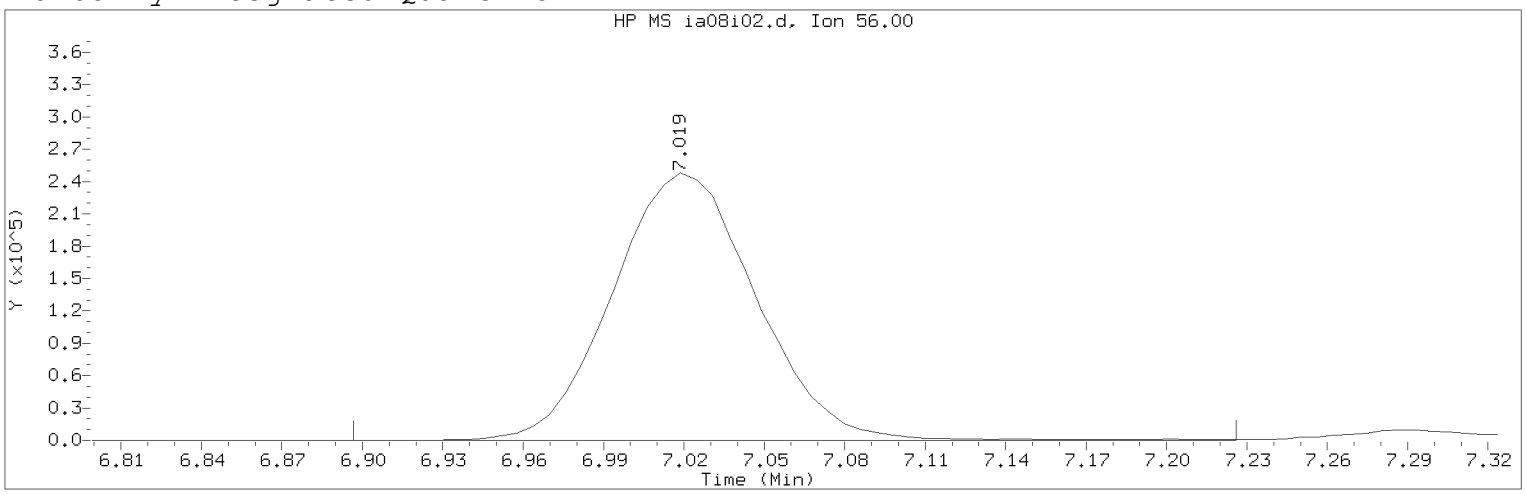
Target 3.5 esignature user: Page 1074

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

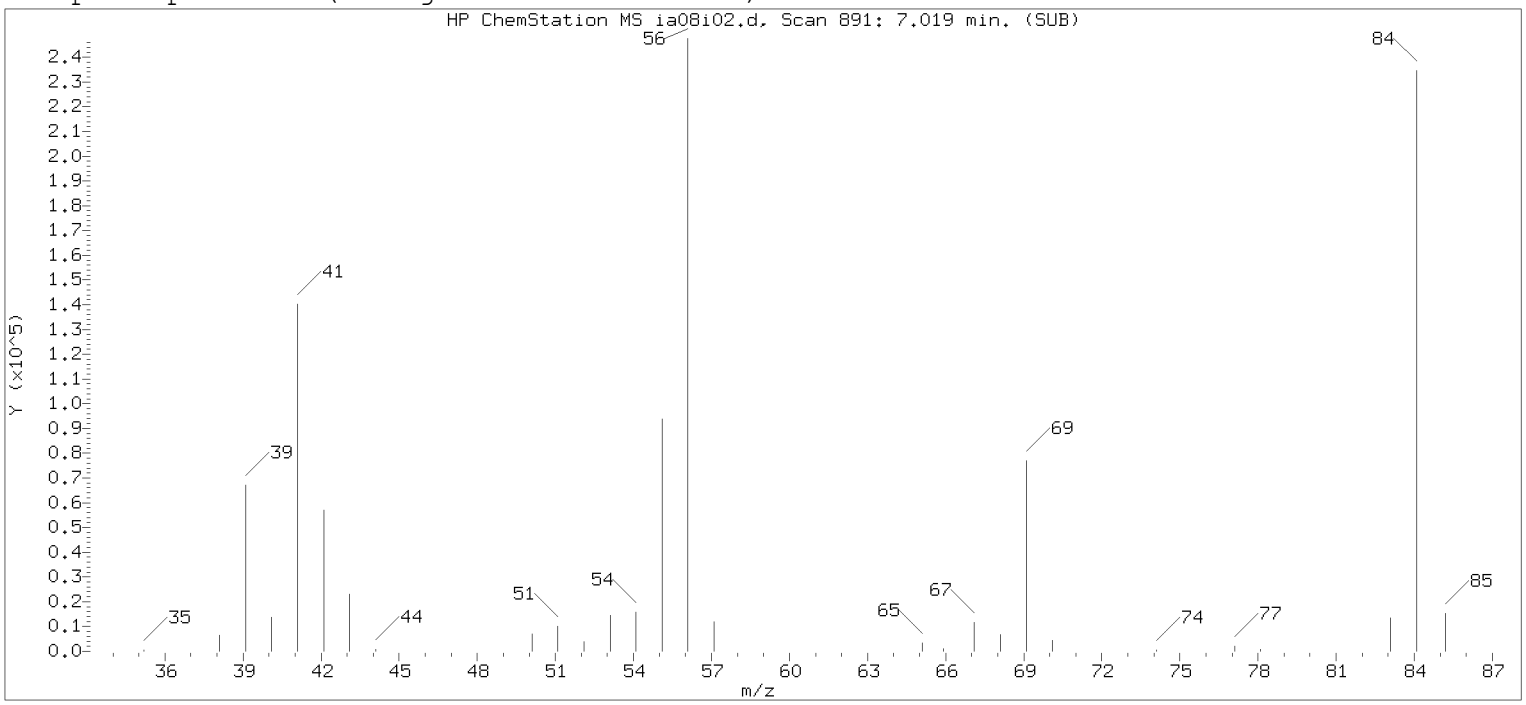
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 56.00
Area (flag) : 919785M
On-Column Amount (ng) : 10.4540
Integration start scan : 870 Integration stop scan: 924
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

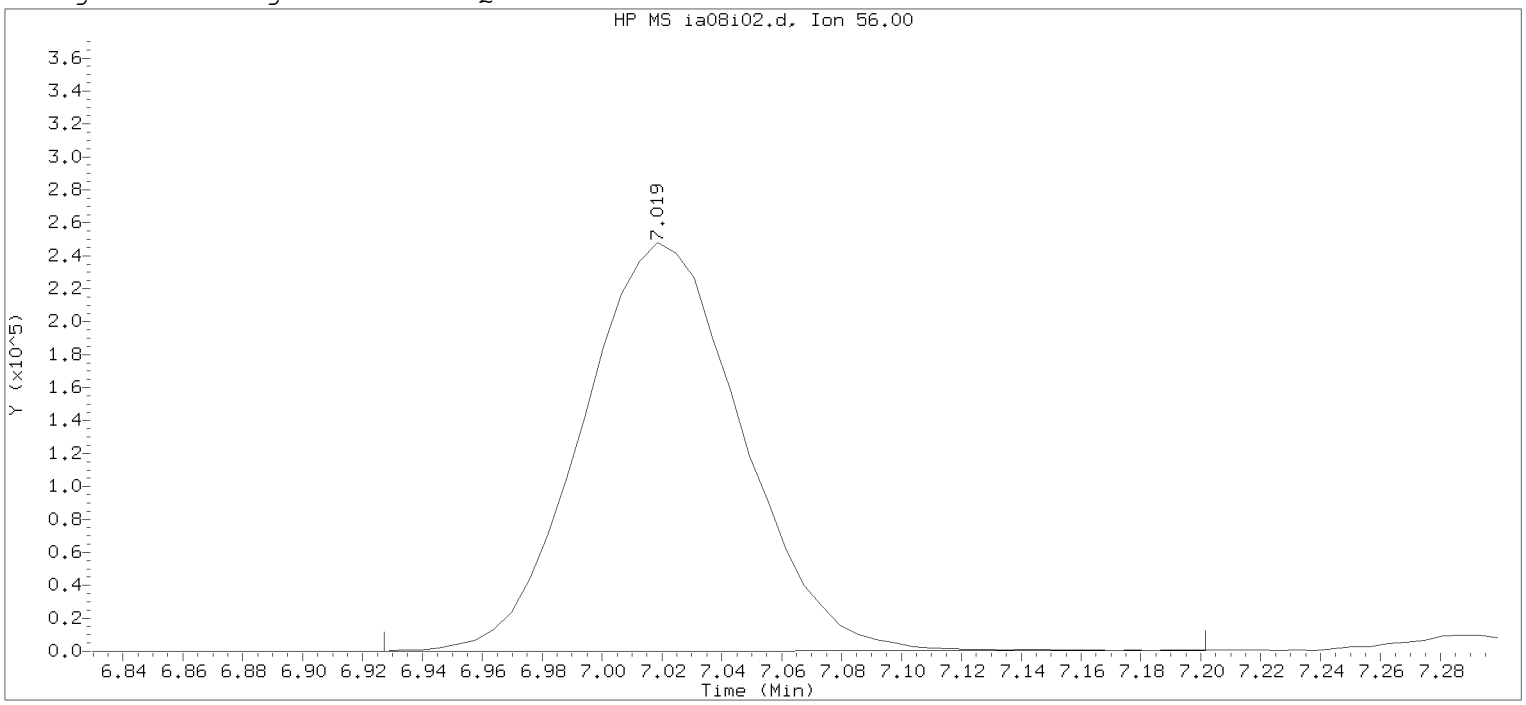
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 56.00
Area : 914793
On-column Amount (ng) : 47.8701
Integration start scan : 875 Integration stop scan: 920
Y at integration start : 0 Y at integration end: 467

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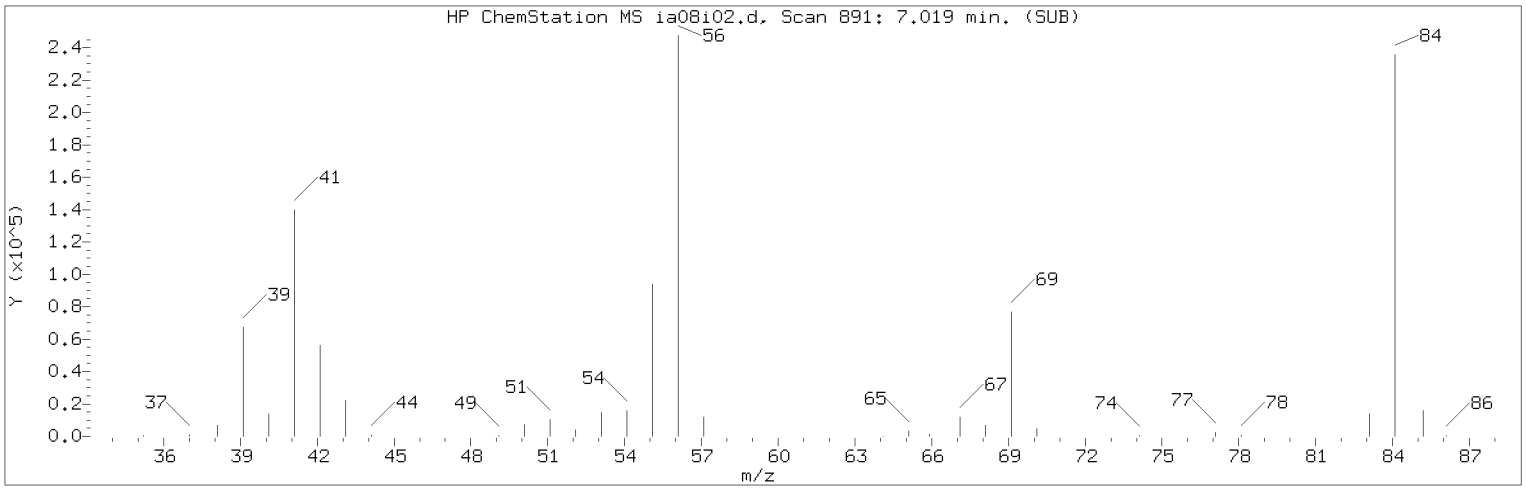
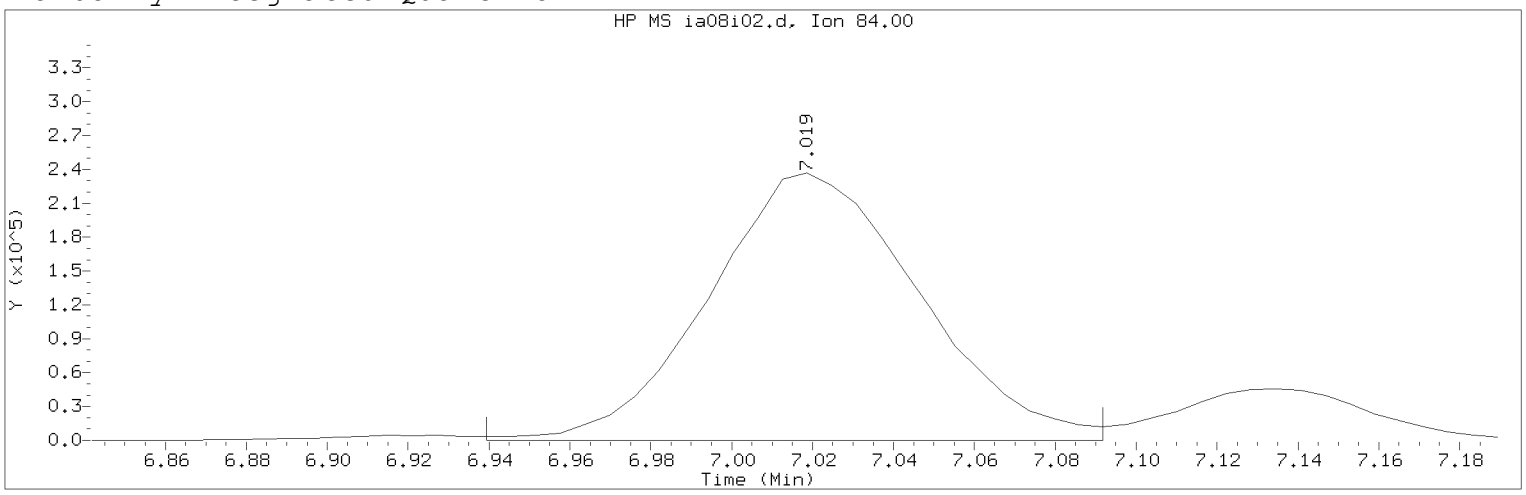
Target 3.5 esignature user: Page 1076

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

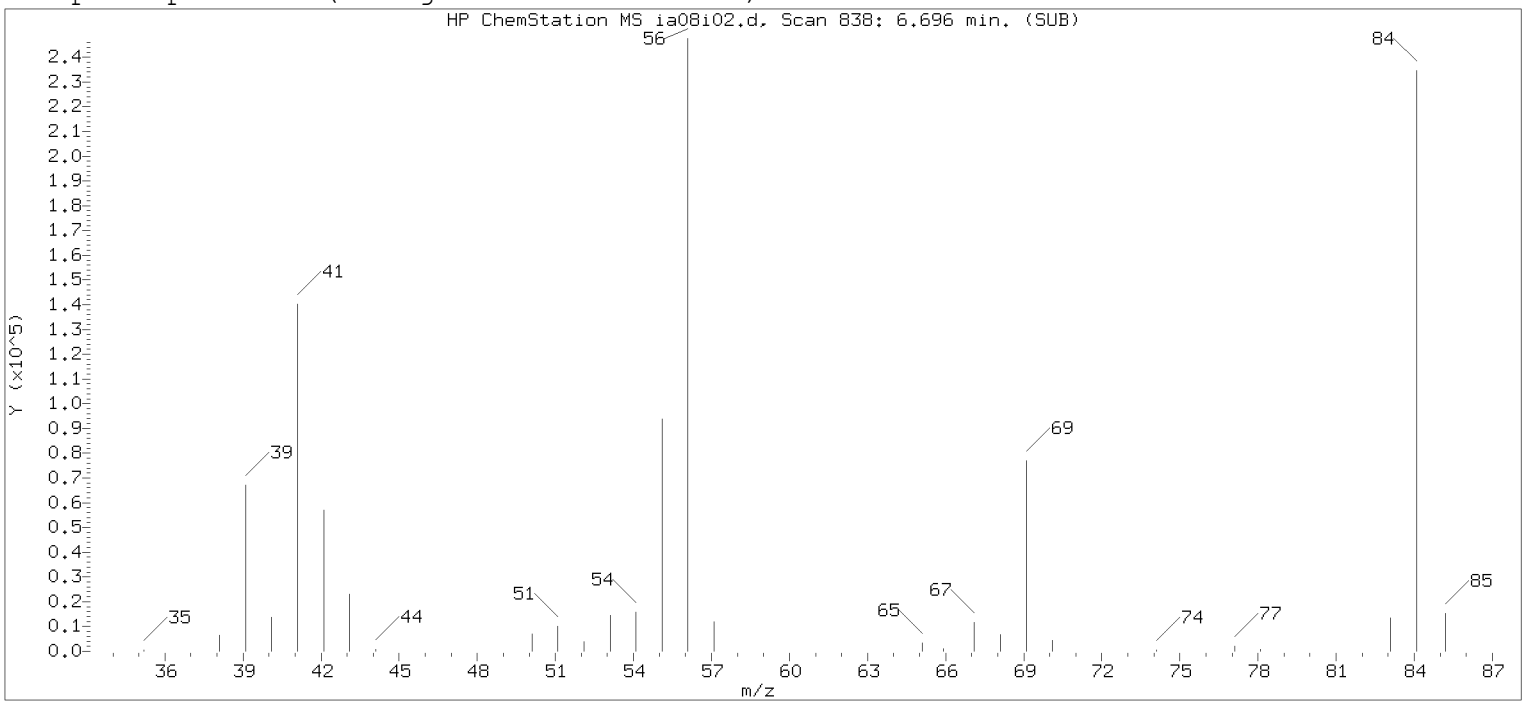
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 84.00
Area (flag) : 856707M
On-Column Amount (ng) : 10.3211
Integration start scan : 877 Integration stop scan: 902
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

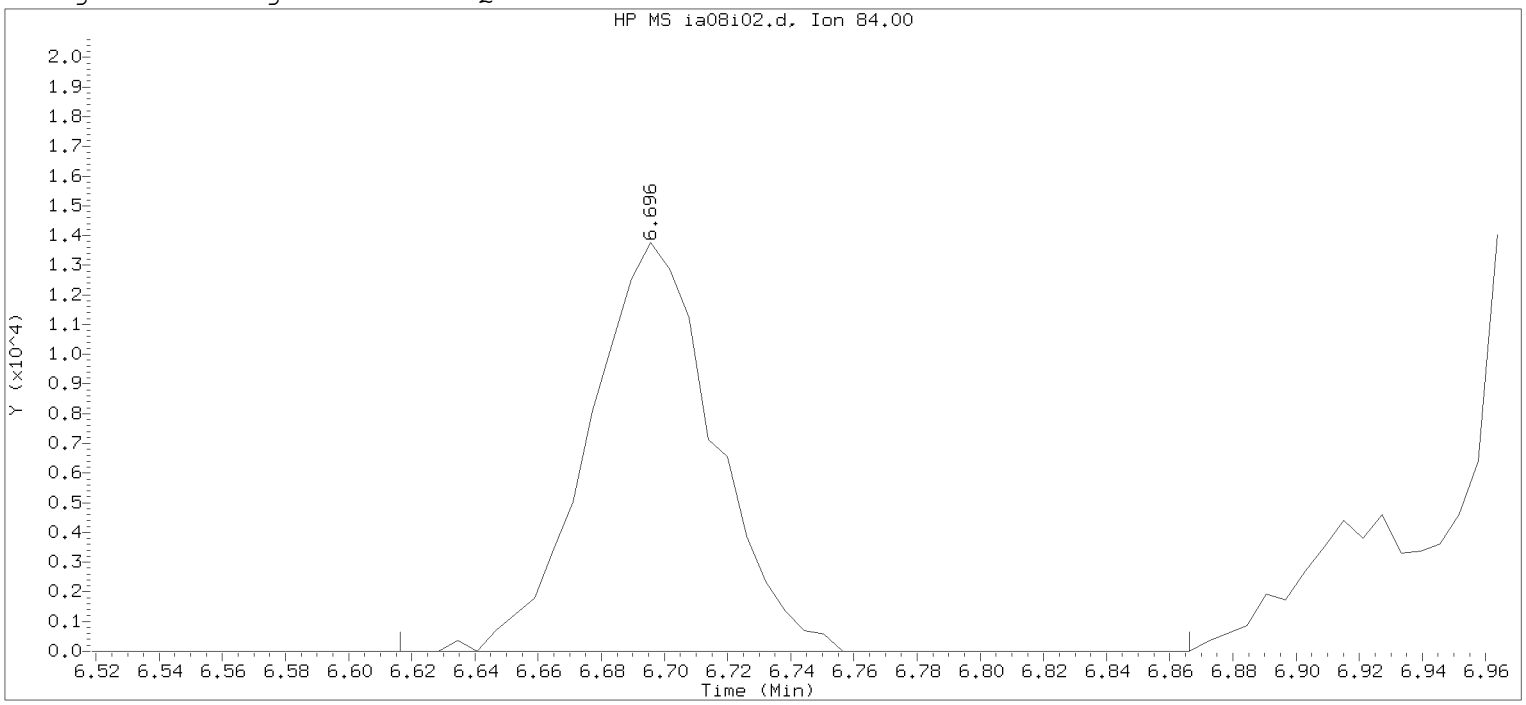
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

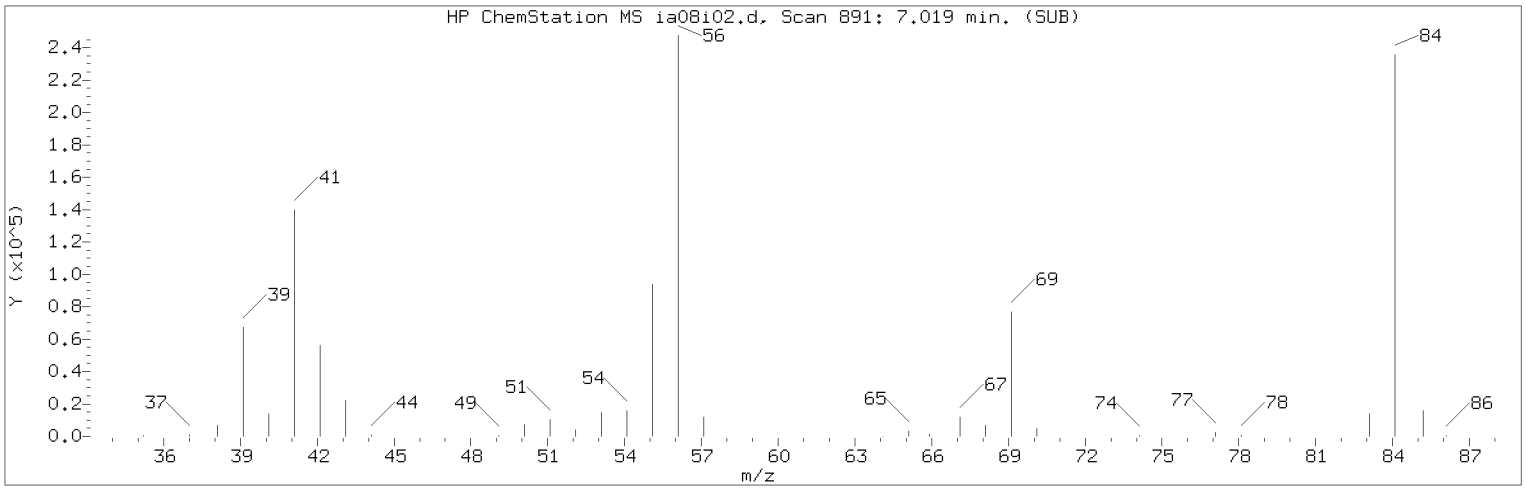
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

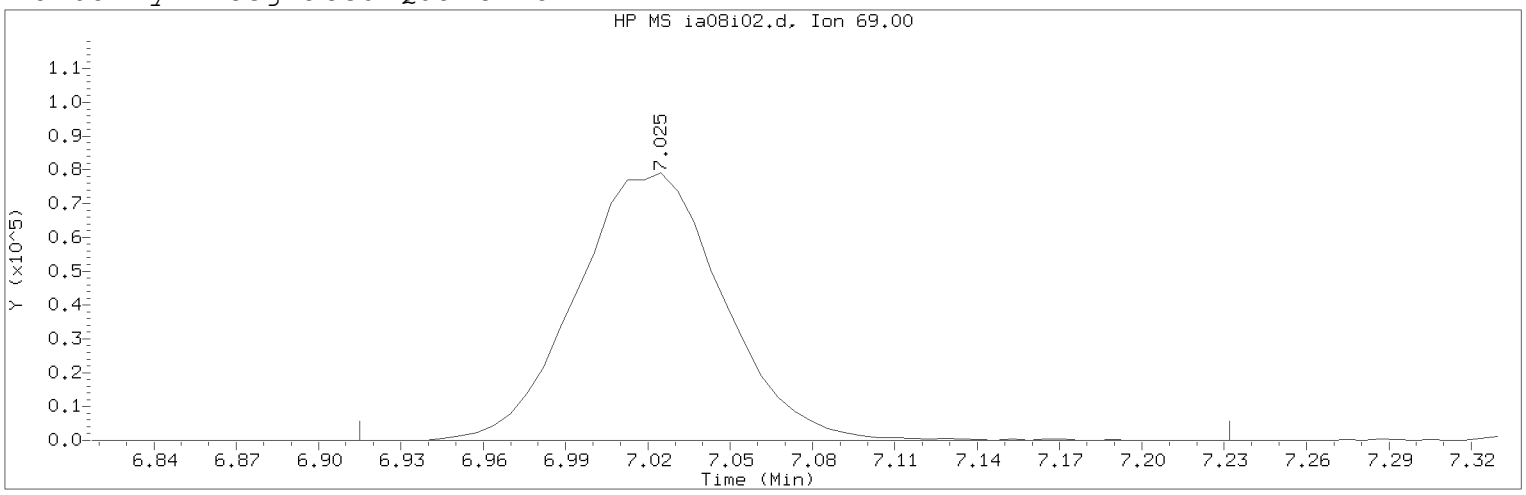
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 838
Retention Time (minutes): 6.696
Quant Ion : 84.00
Area : 38018
On-column Amount (ng) : 45.1415
Integration start scan : 824 Integration stop scan: 865
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: F35 Page 1078 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

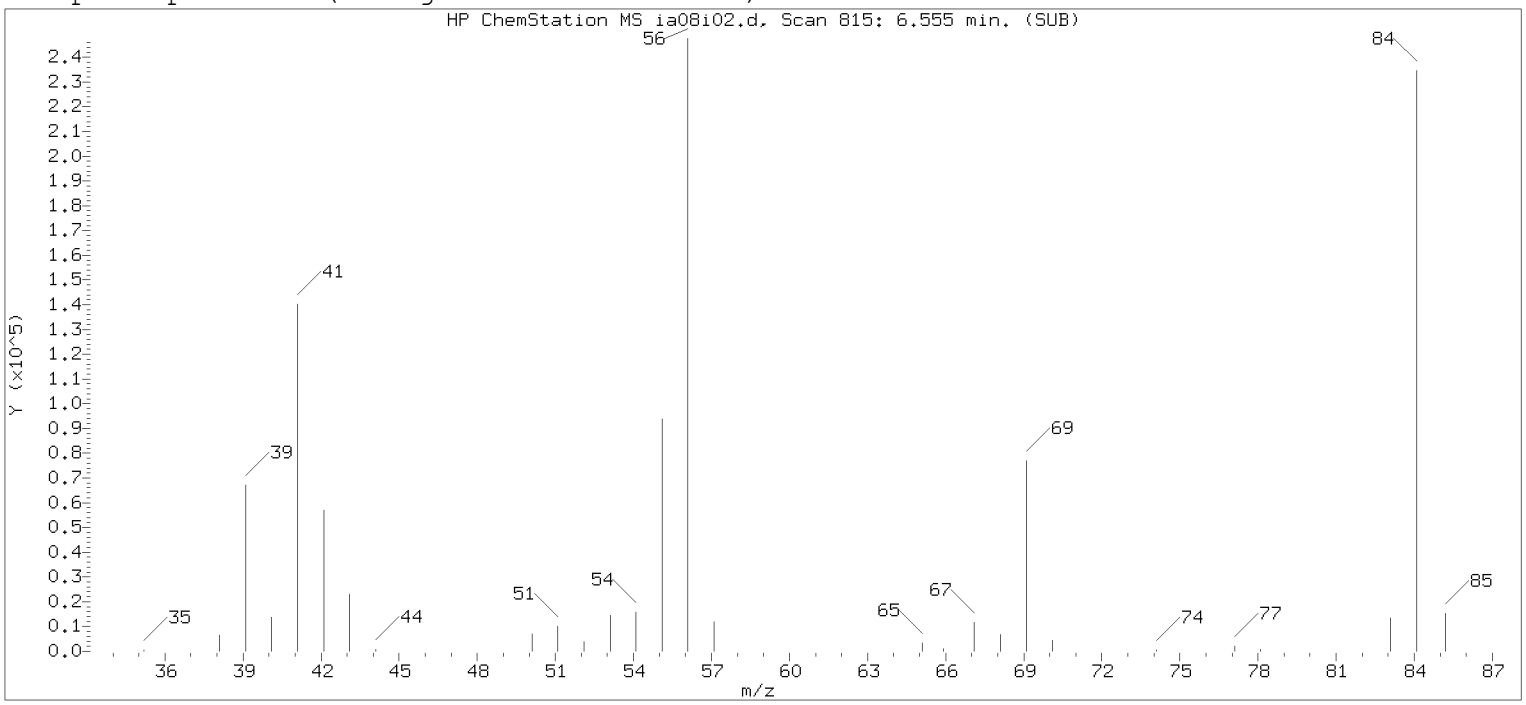
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 69.00
Area (flag) : 293581M
On-Column Amount (ng) : 10.1614
Integration start scan : 873 Integration stop scan: 925
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

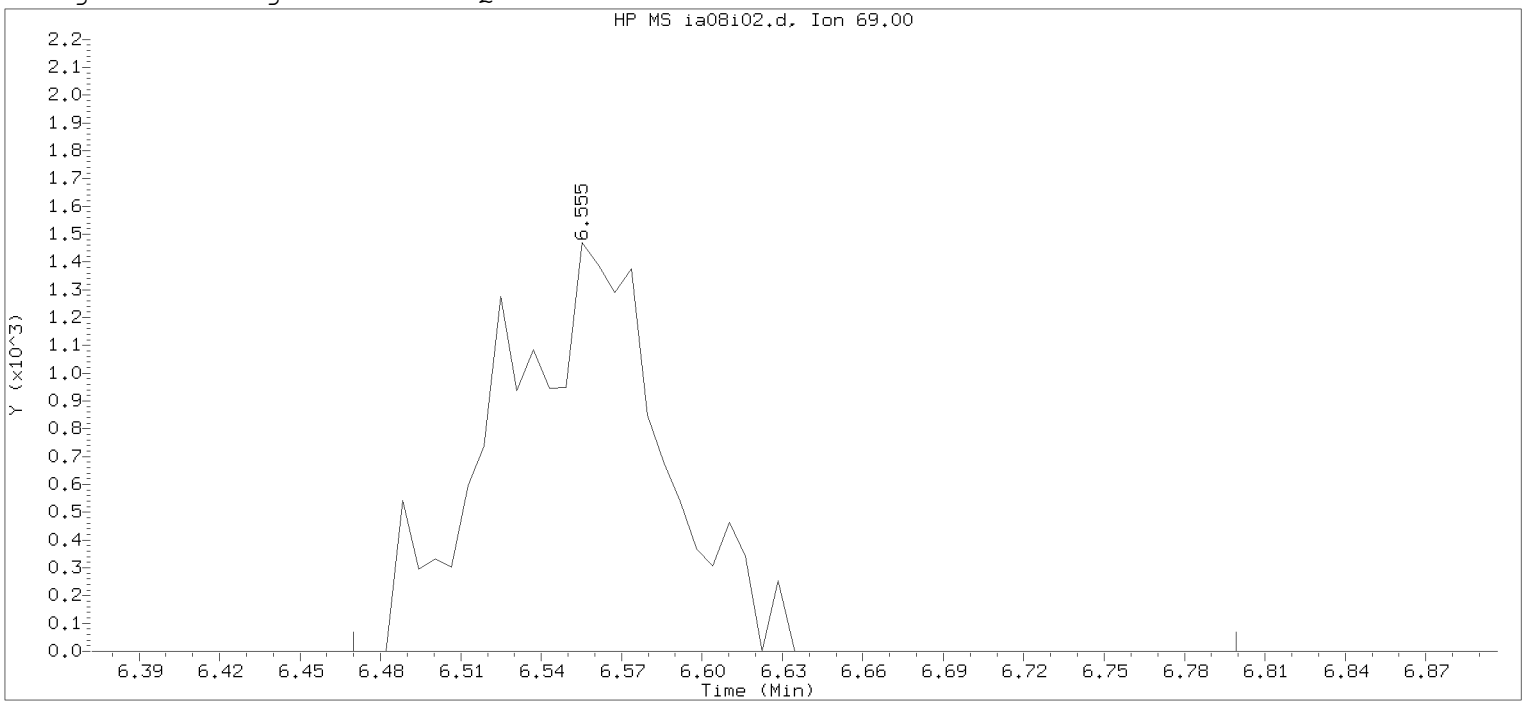
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

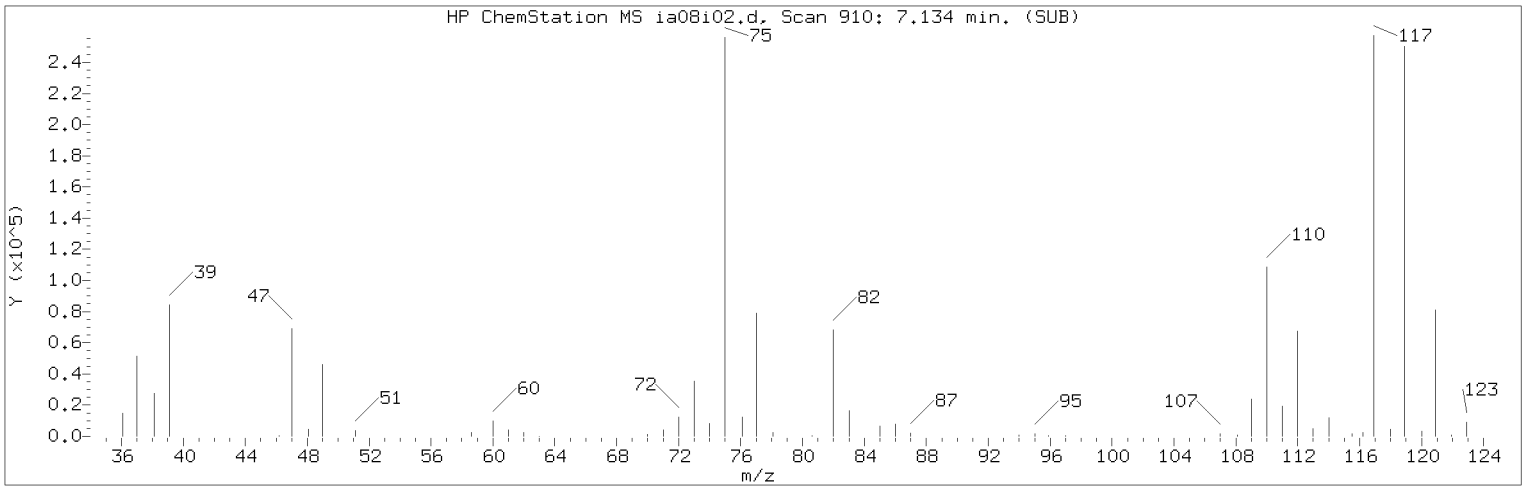
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

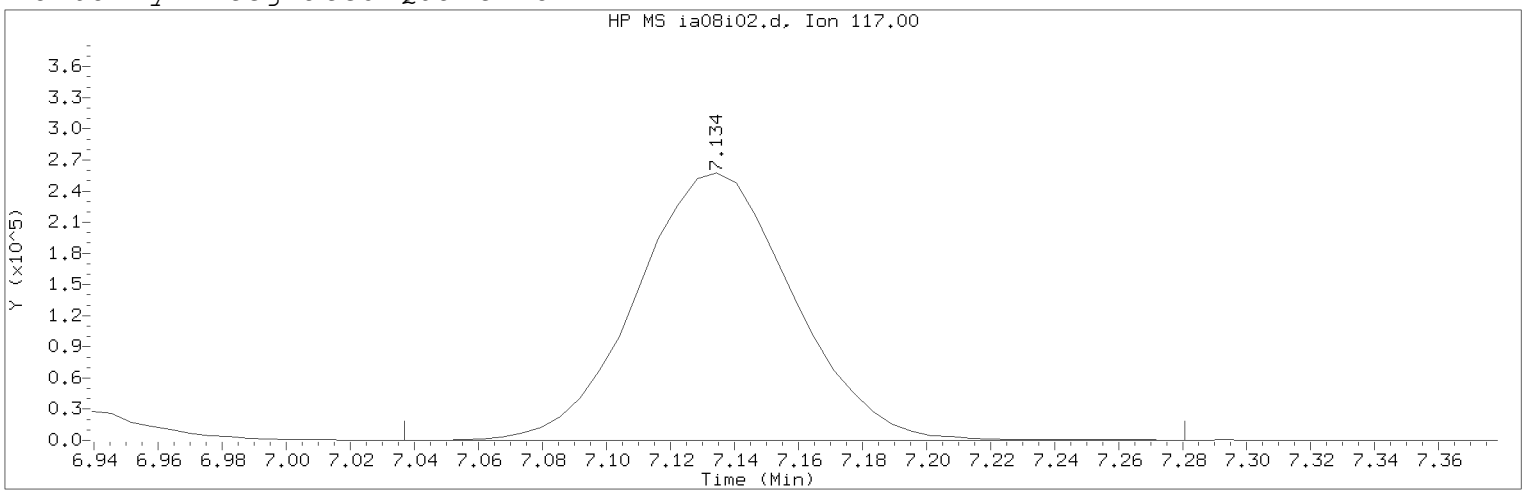
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 815
Retention Time (minutes): 6.555
Quant Ion : 69.00
Area : 6333
On-column Amount (ng) : 42.4323
Integration start scan : 800 Integration stop scan: 854
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

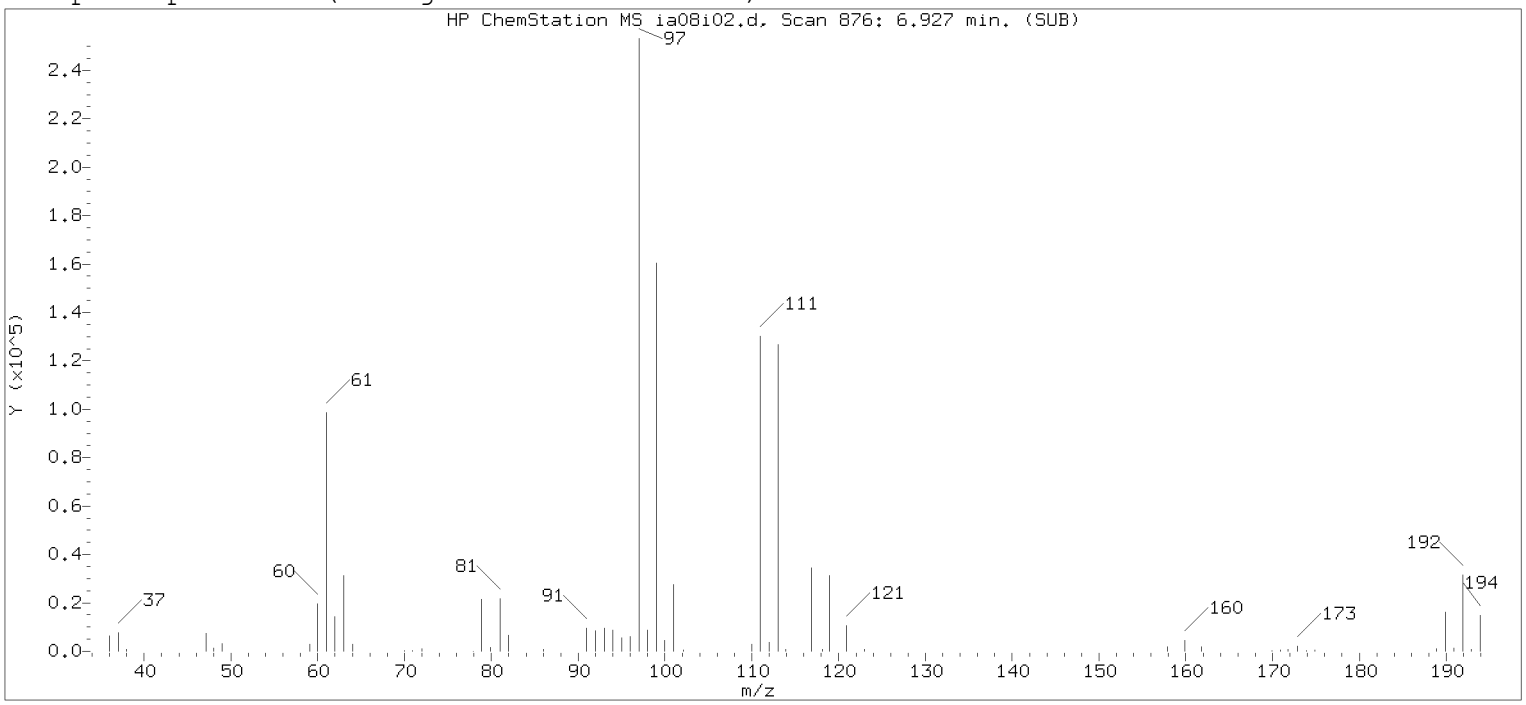
Compound Number : 54
Compound Name : Carbon Tetrachloride
Scan Number : 910
Retention Time (minutes): 7.134
Quant Ion : 117.00
Area (flag) : 873580M
On-Column Amount (ng) : 10.3396
Integration start scan : 893 Integration stop scan: 933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

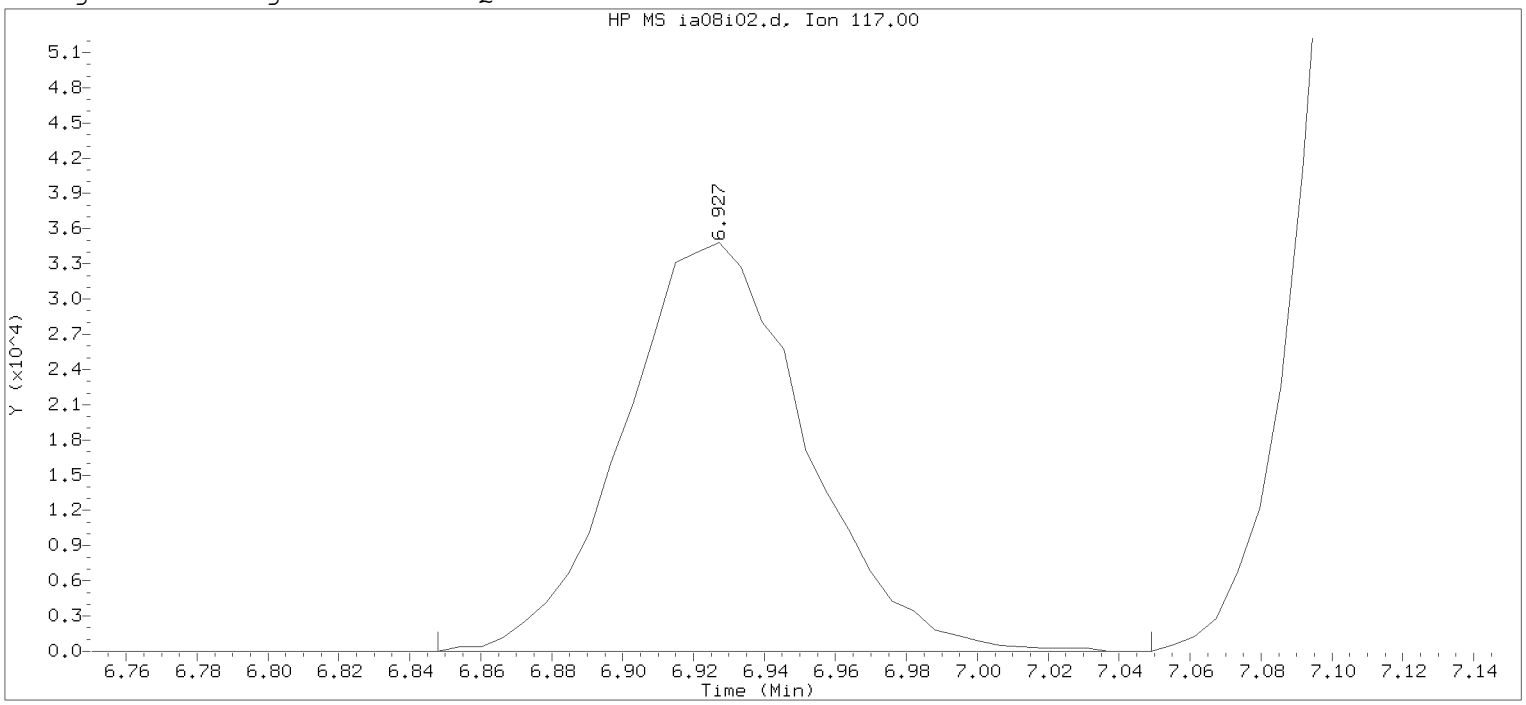
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

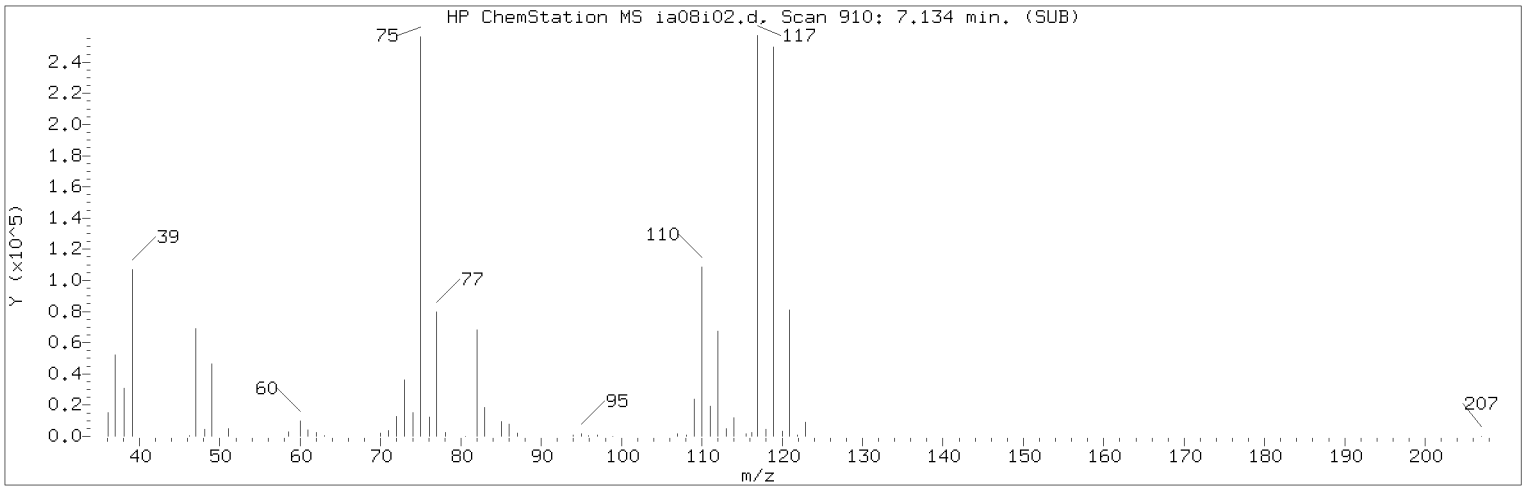
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

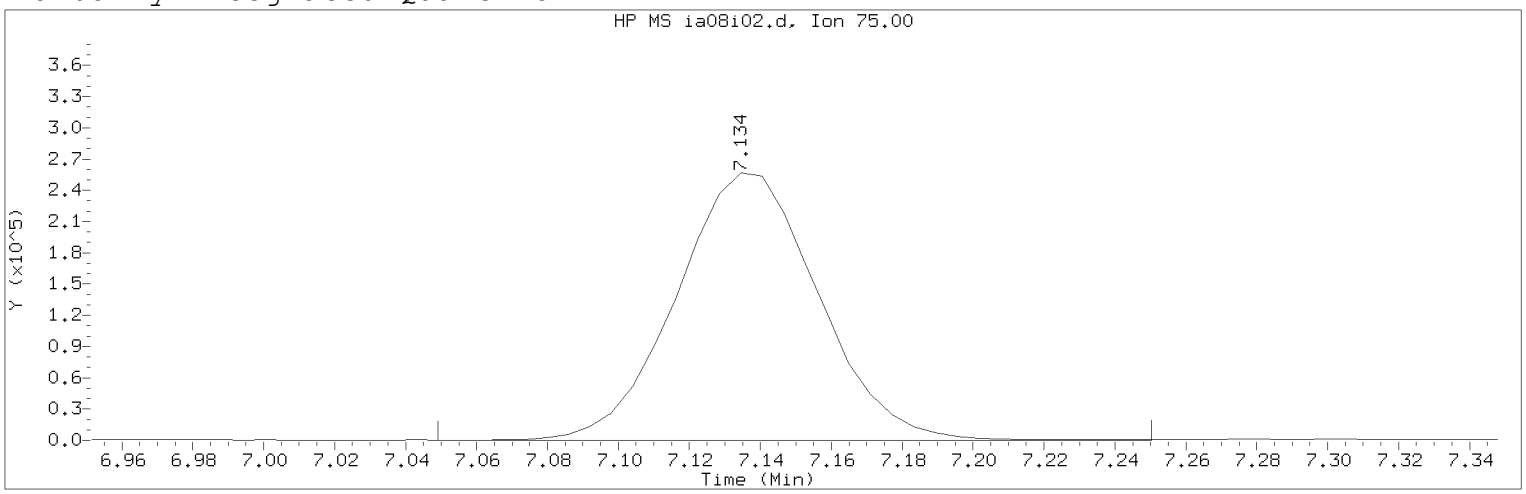
Compound Number : 54
Compound Name : Carbon Tetrachloride
Scan Number : 876
Retention Time (minutes): 6.927
Quant Ion : 117.00
Area : 123946
On-column Amount (ng) : 65.3708
Integration start scan : 862 Integration stop scan: 895
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

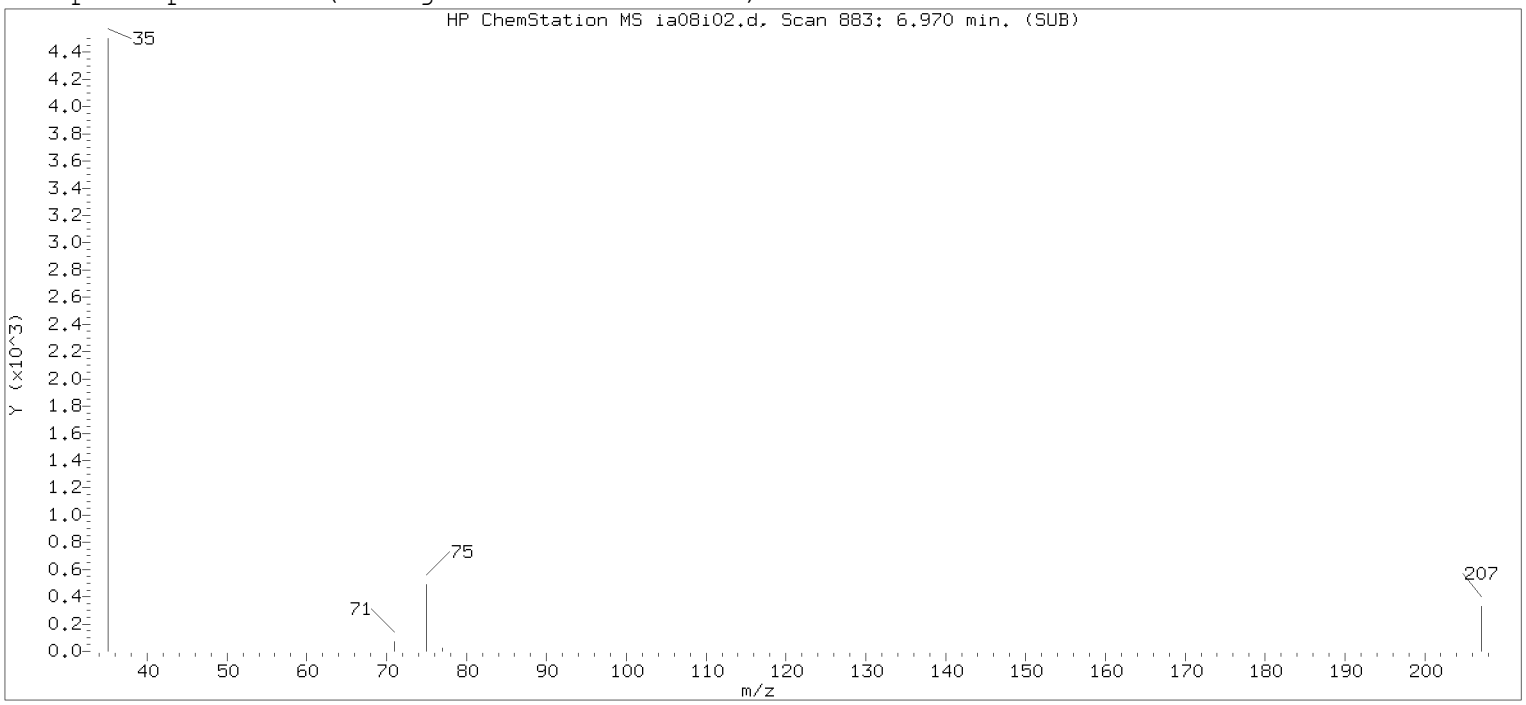
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 910
Retention Time (minutes): 7.134
Quant Ion : 75.00
Area (flag) : 712801M
On-Column Amount (ng) : 10.2910
Integration start scan : 895 Integration stop scan: 928
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

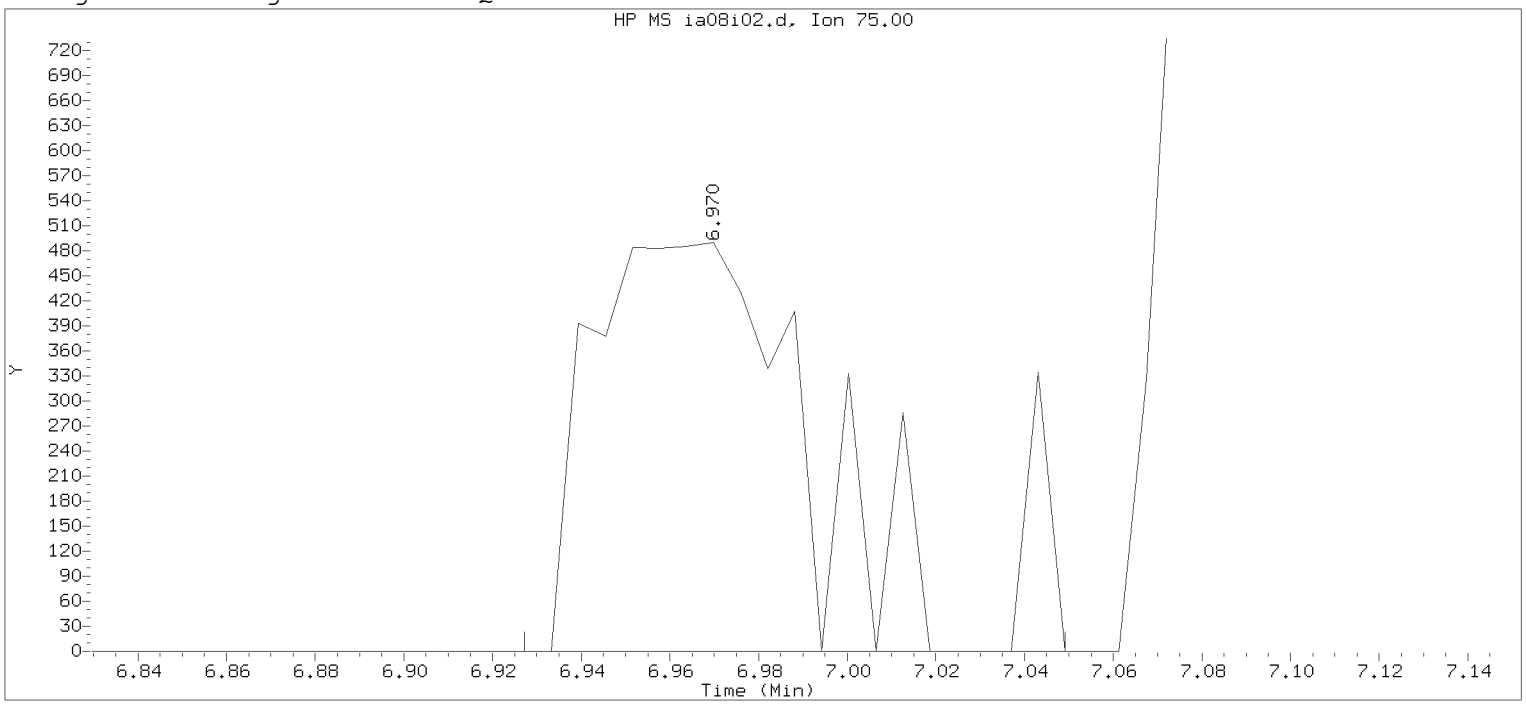
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

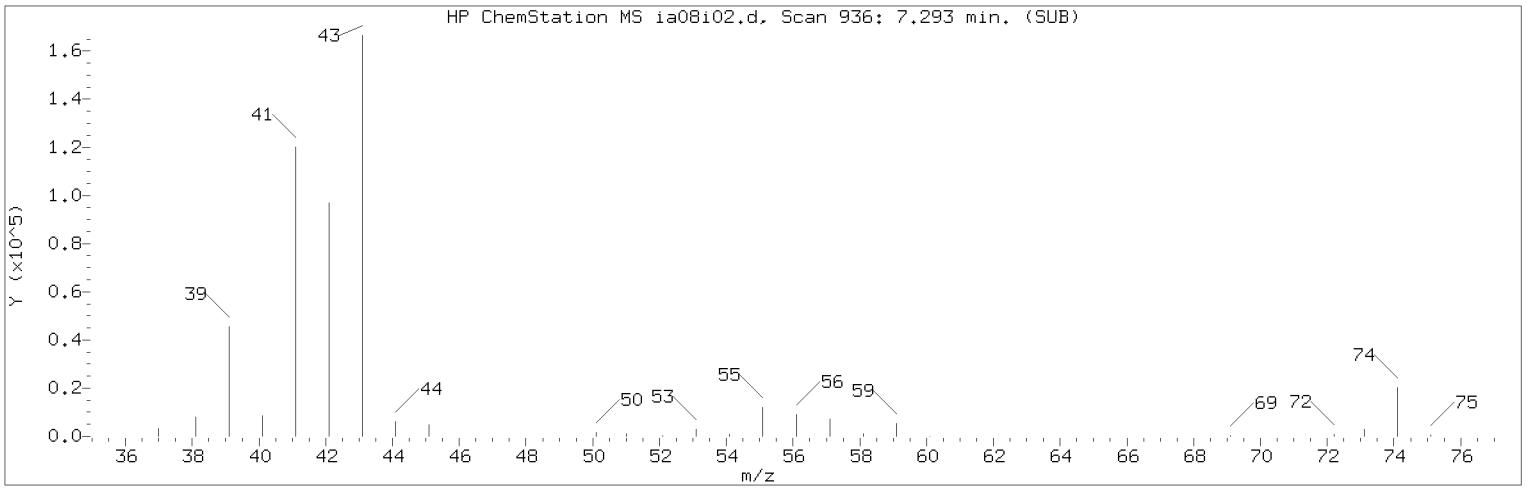
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

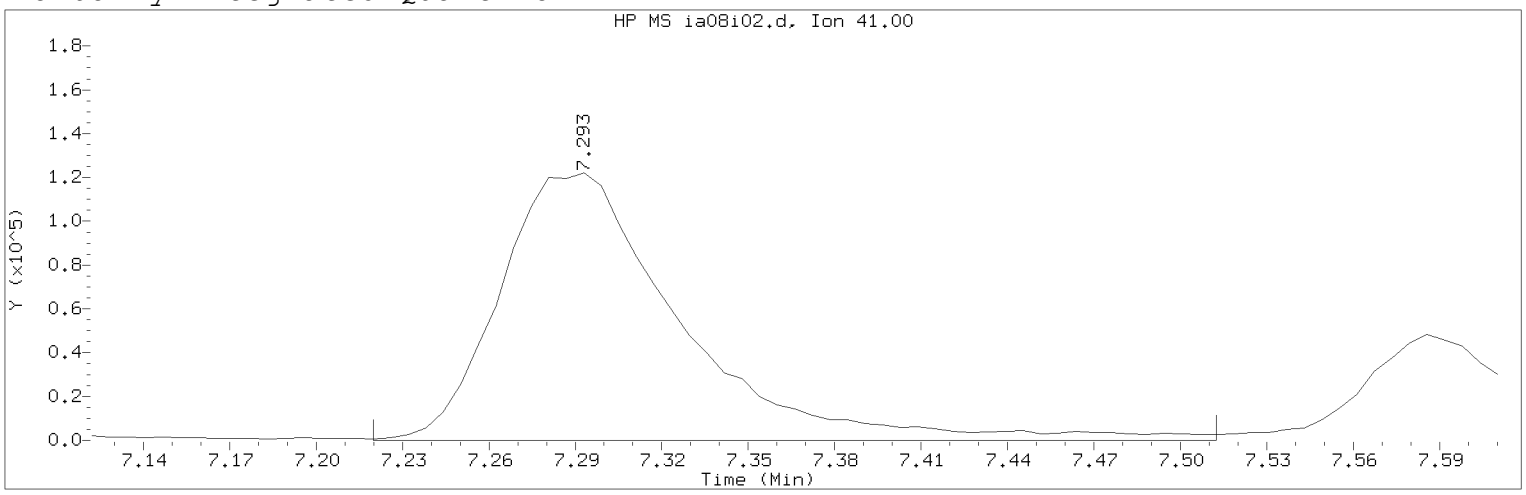
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 883
Retention Time (minutes): 6.970
Quant Ion : 75.00
Area : 1772
On-column Amount (ng) : 20.9710
Integration start scan : 875 Integration stop scan: 895
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

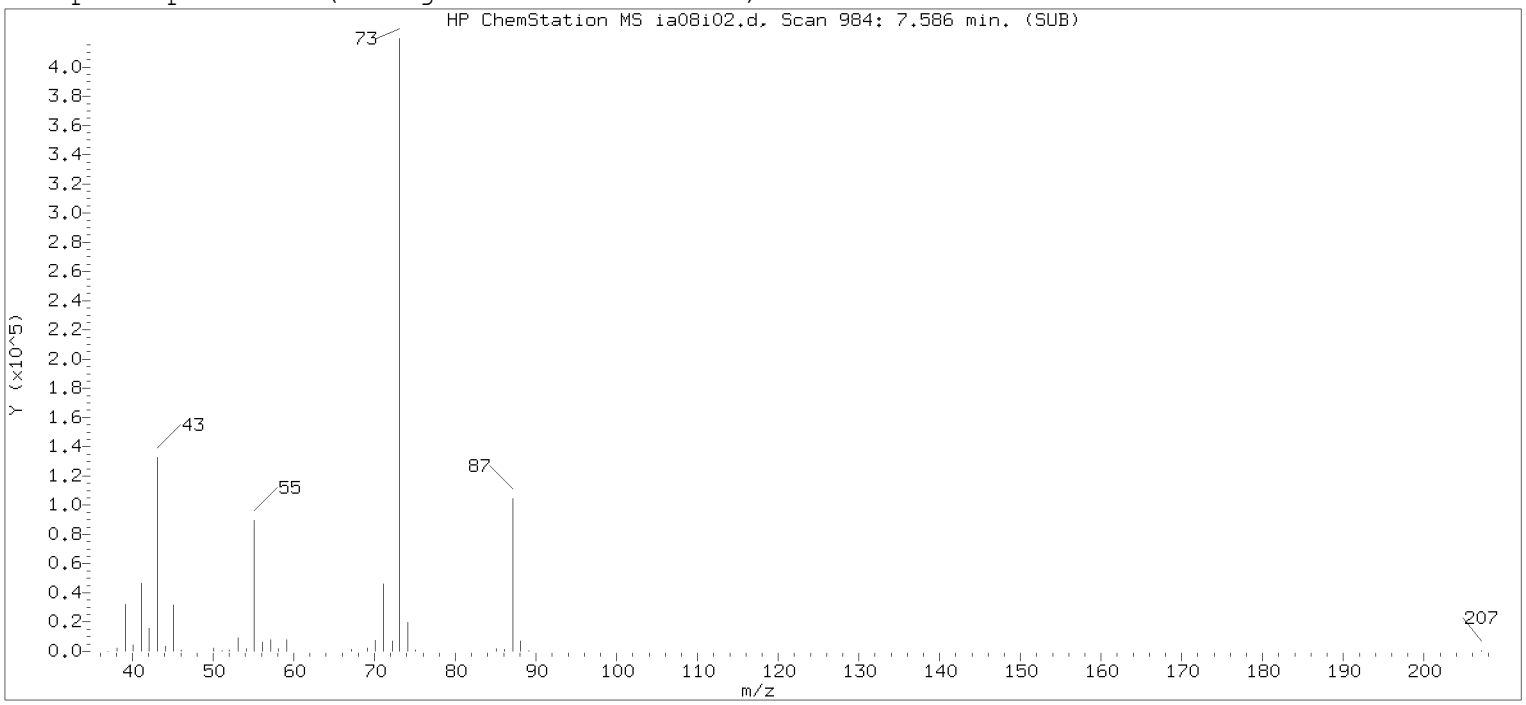
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 936
Retention Time (minutes): 7.293
Quant Ion : 41.00
Area (flag) : 531559M
On-Column Amount (ng) : 524.0073
Integration start scan : 923 Integration stop scan: 971
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

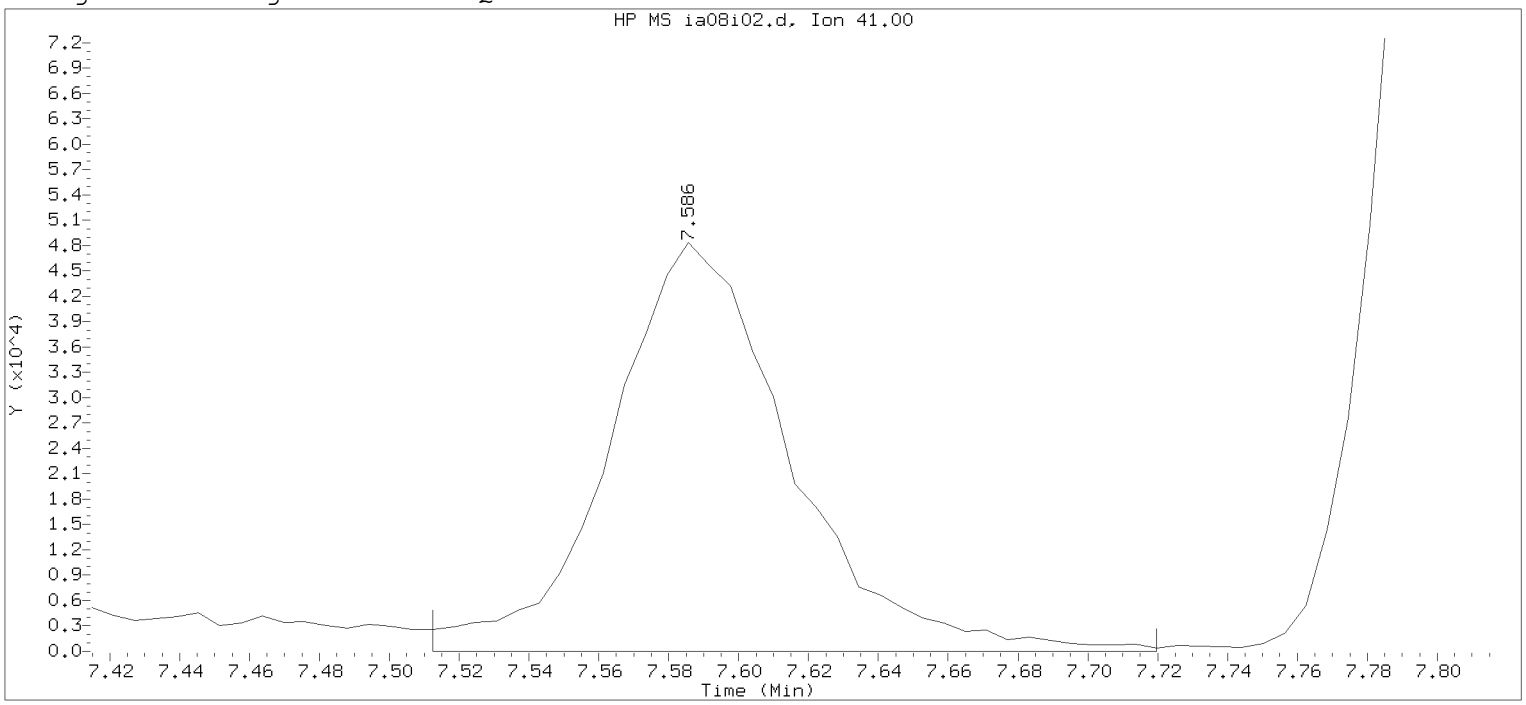
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

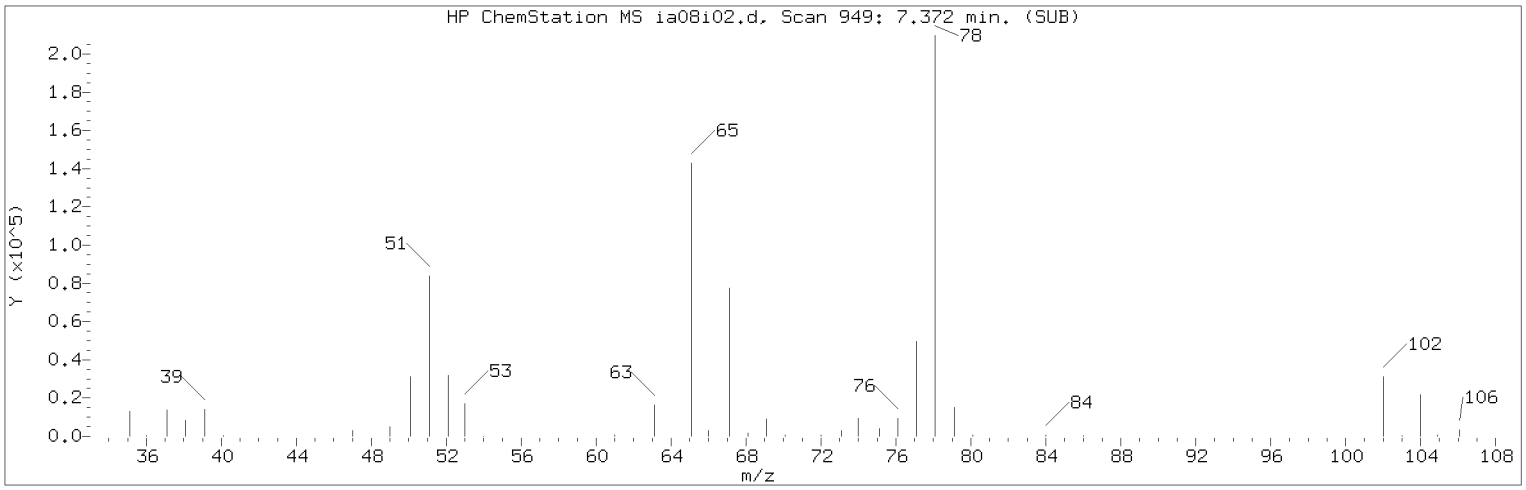
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

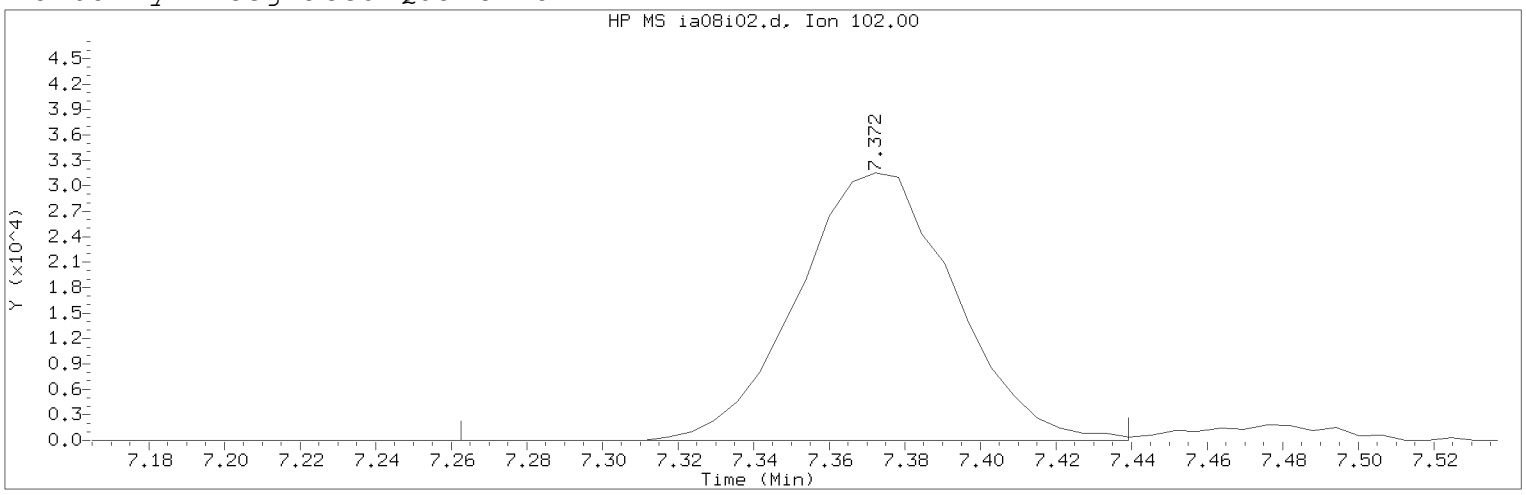
Compound Number : 56
Compound Name : Isobutyl Alcohol
Scan Number : 984
Retention Time (minutes): 7.586
Quant Ion : 41.00
Area : 172975
On-column Amount (ng) : 187.1168
Integration start scan : 971 Integration stop scan: 1005
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

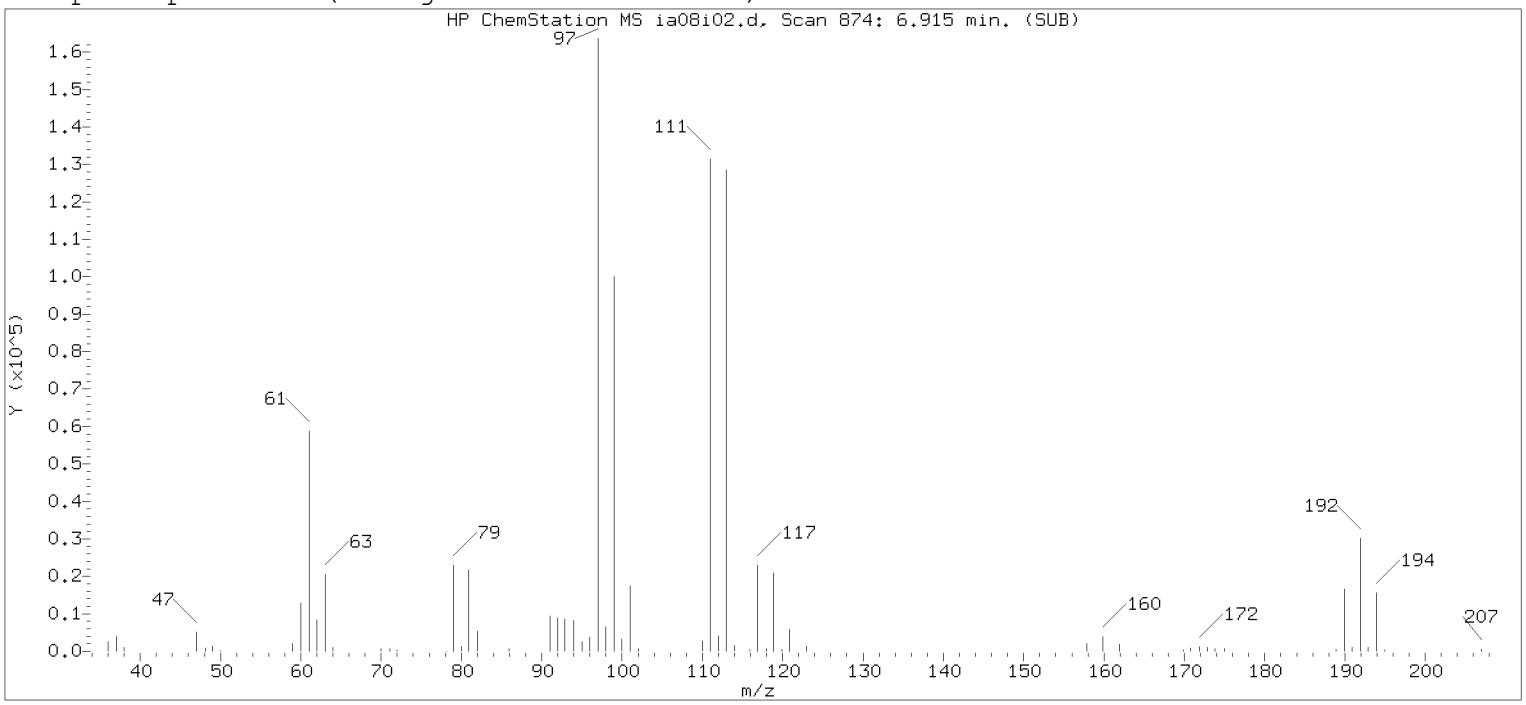
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 949
Retention Time (minutes): 7.372
Quant Ion : 102.00
Area (flag) : 90588M
On-Column Amount (ng) : 9.9271
Integration start scan : 930 Integration stop scan: 959
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

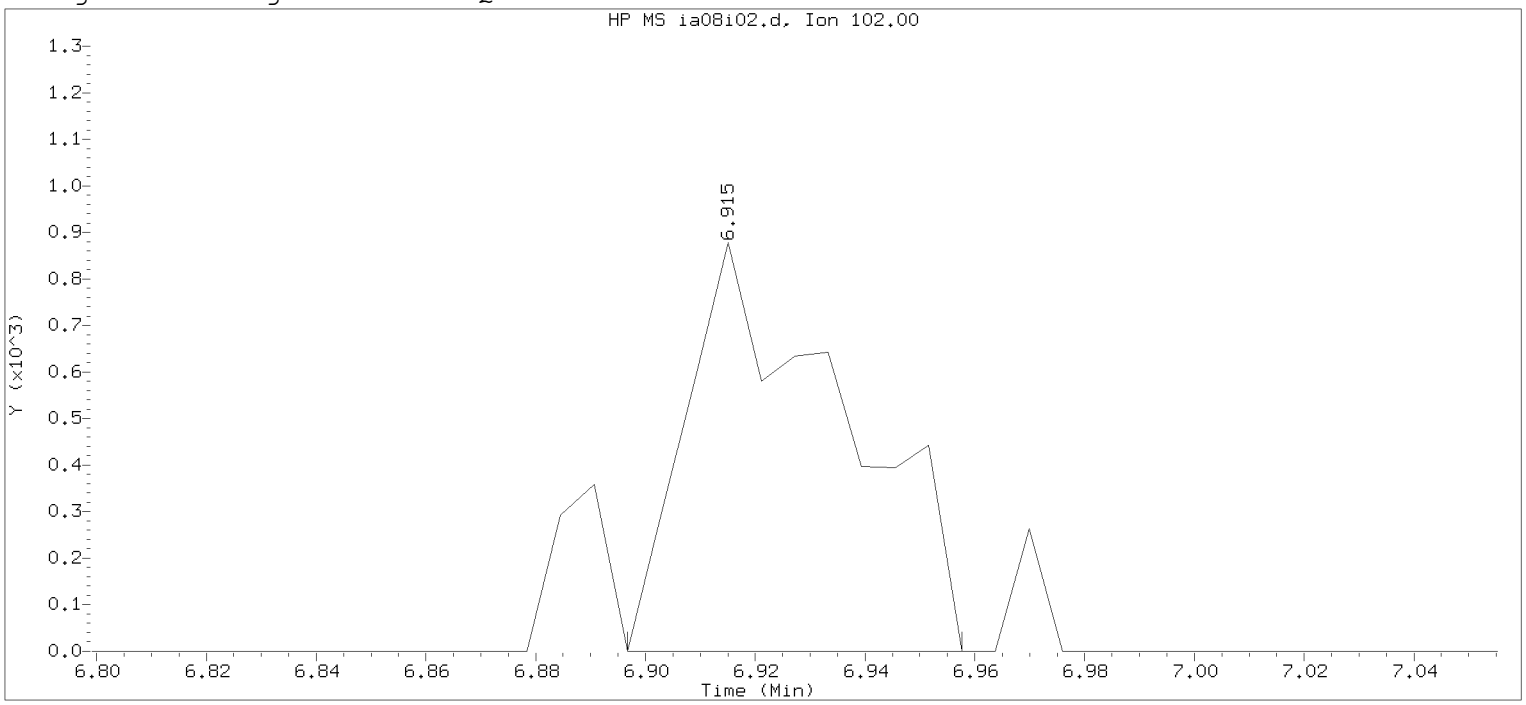
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

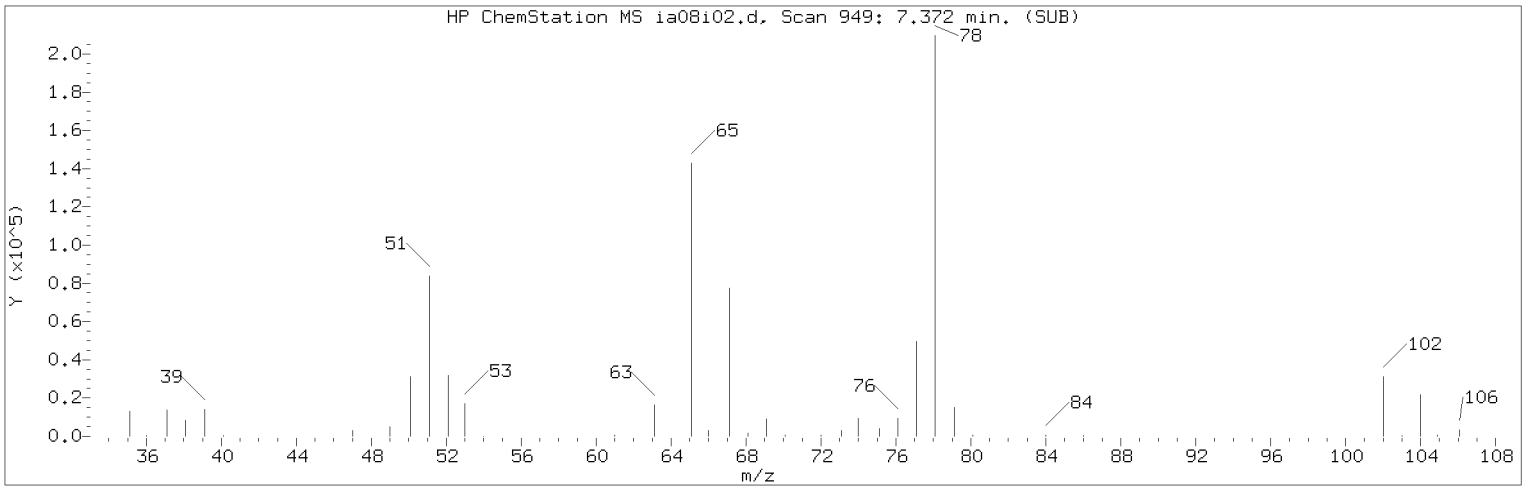
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

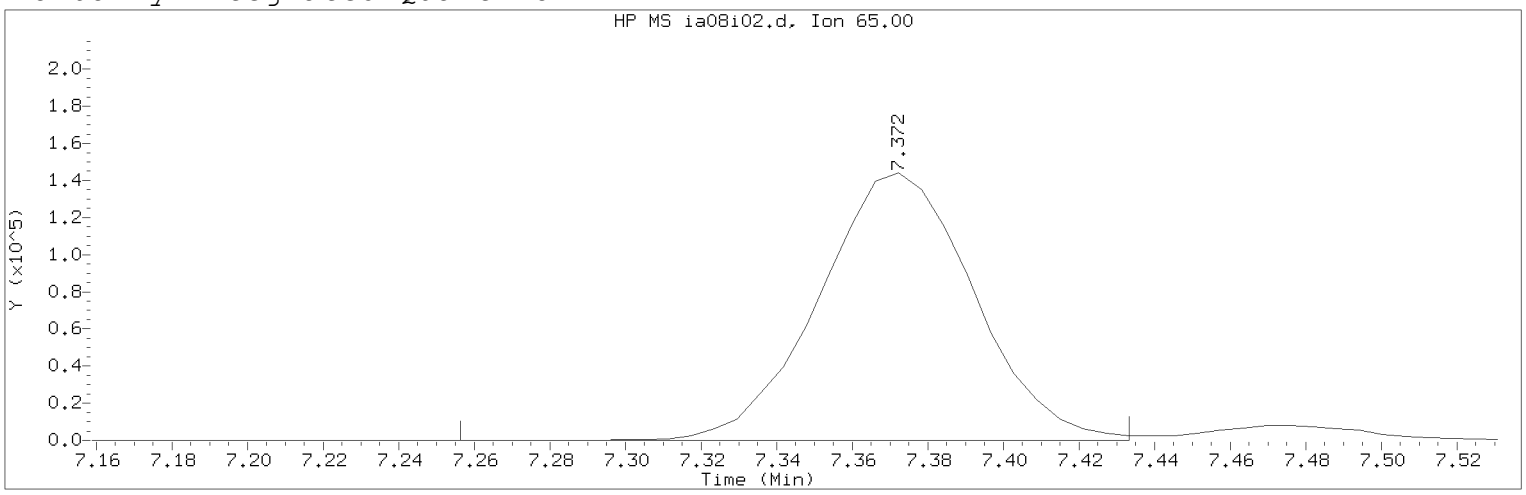
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 874
Retention Time (minutes): 6.915
Quant Ion : 102.00
Area : 1769
On-column Amount (ng) : 28.2677
Integration start scan : 870 Integration stop scan: 880
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

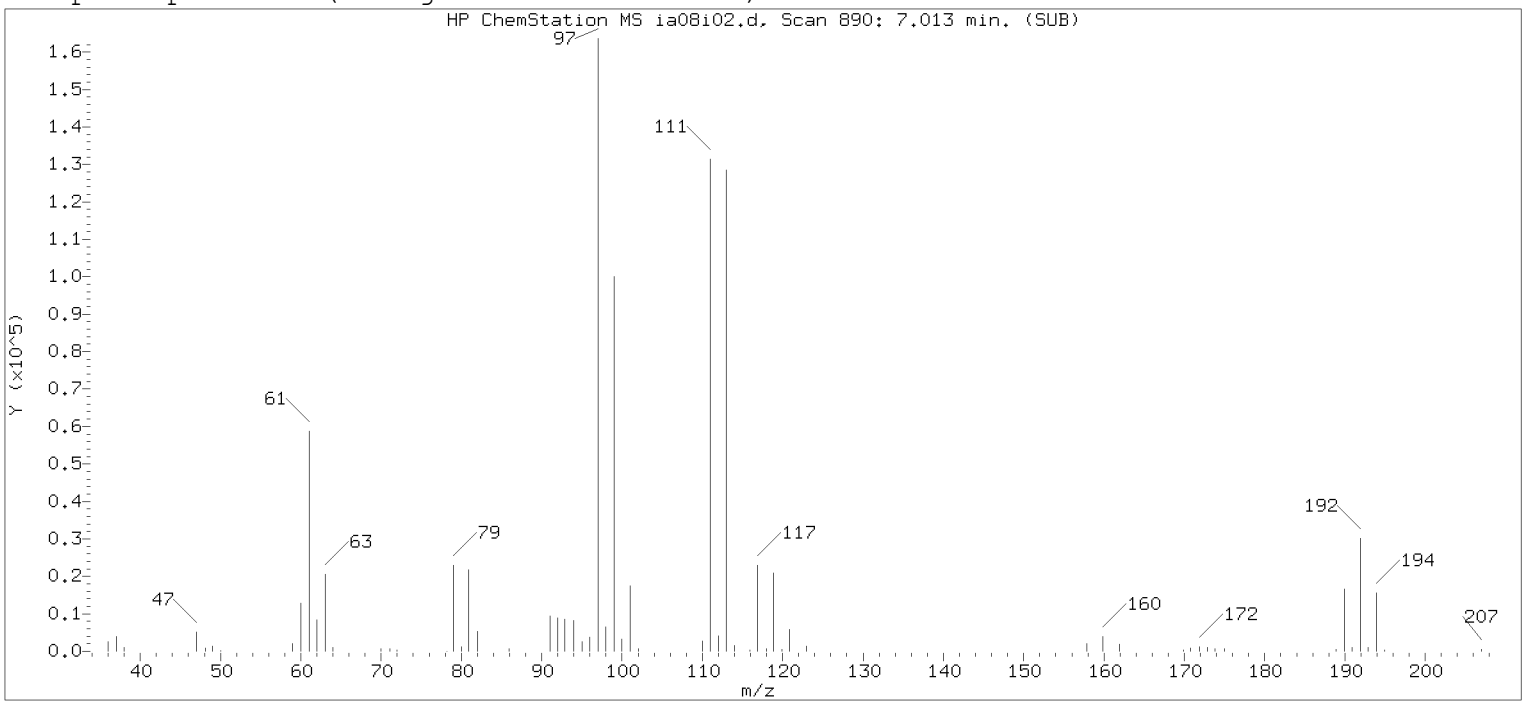
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 949
Retention Time (minutes): 7.372
Quant Ion : 65.00
Area (flag) : 408026M
On-Column Amount (ng) : 9.9762
Integration start scan : 929 Integration stop scan: 958
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

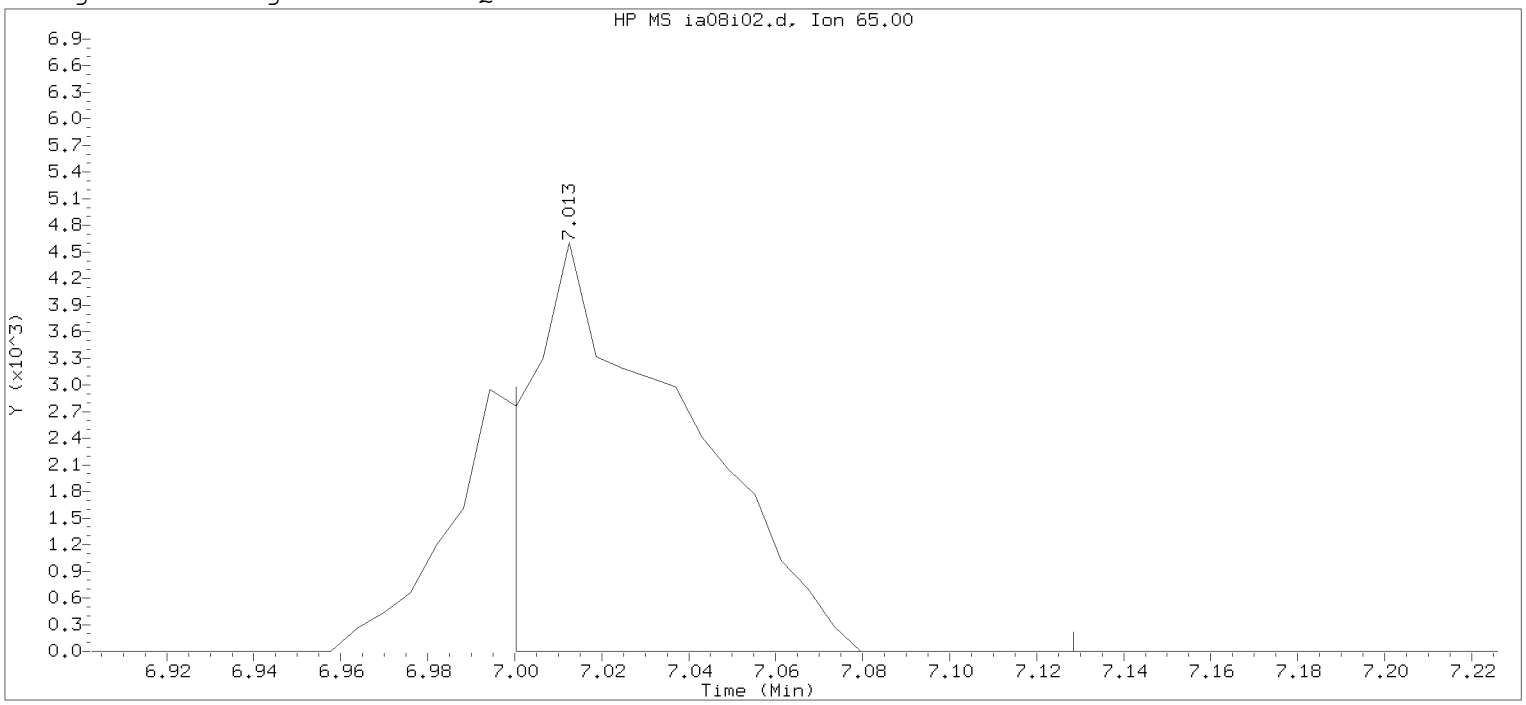
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

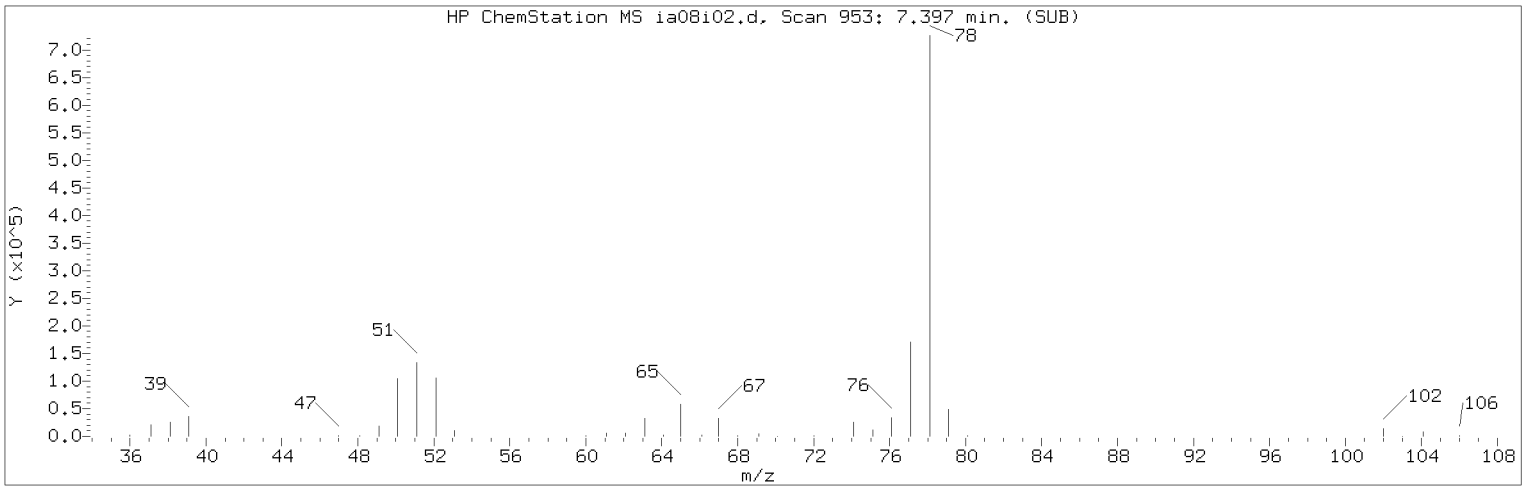
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

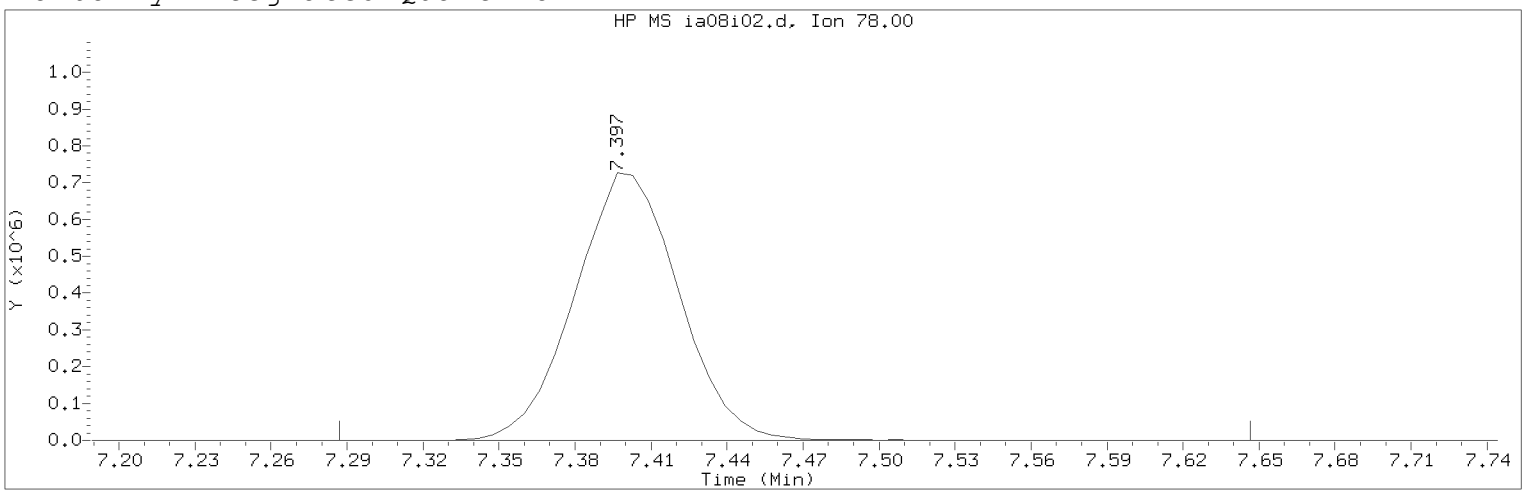
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 890
Retention Time (minutes): 7.013
Quant Ion : 65.00
Area : 11005
On-column Amount (ng) : 52.1062
Integration start scan : 887 Integration stop scan: 908
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1090

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

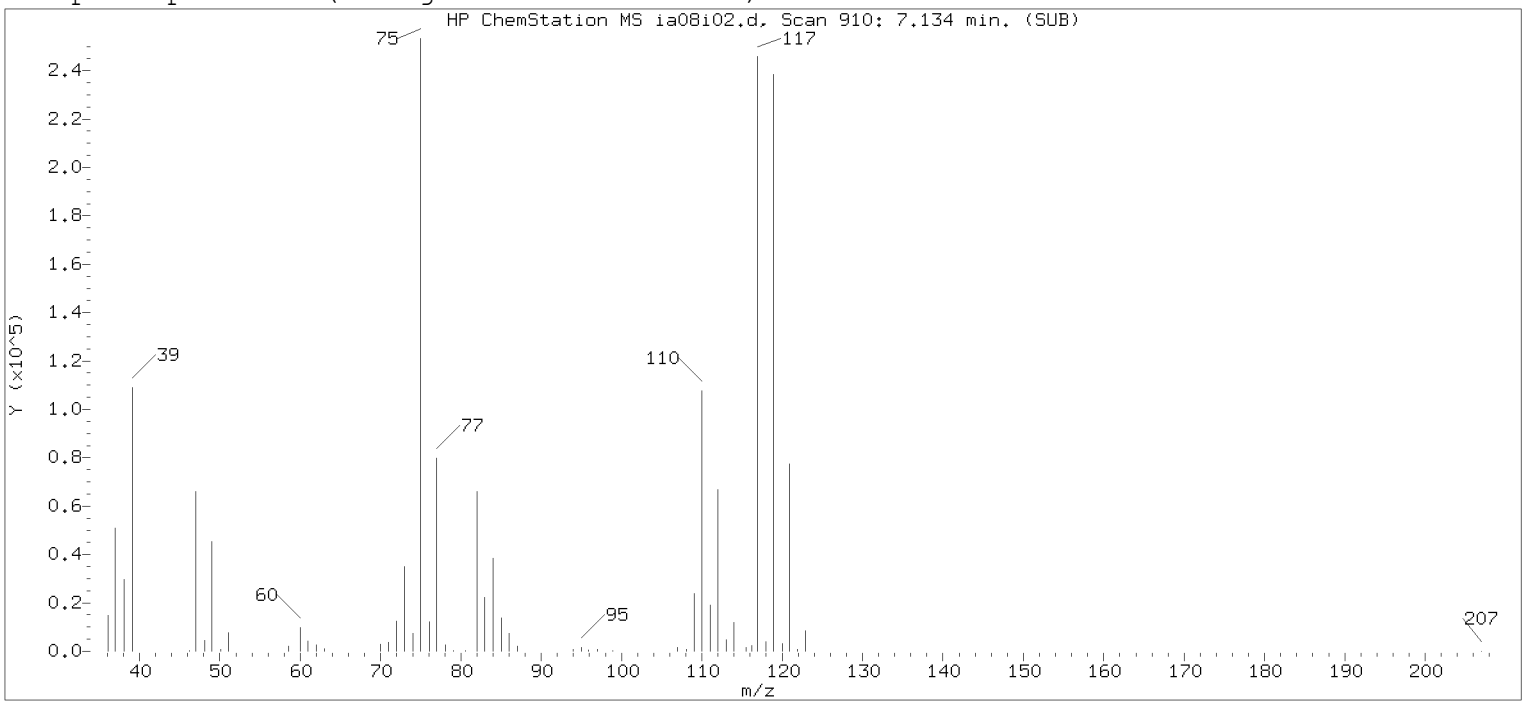
Compound Number : 58
Compound Name : Benzene
Scan Number : 953
Retention Time (minutes): 7.397
Quant Ion : 78.00
Area (flag) : 2078869M
On-Column Amount (ng) : 10.2076
Integration start scan : 934 Integration stop scan: 993
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

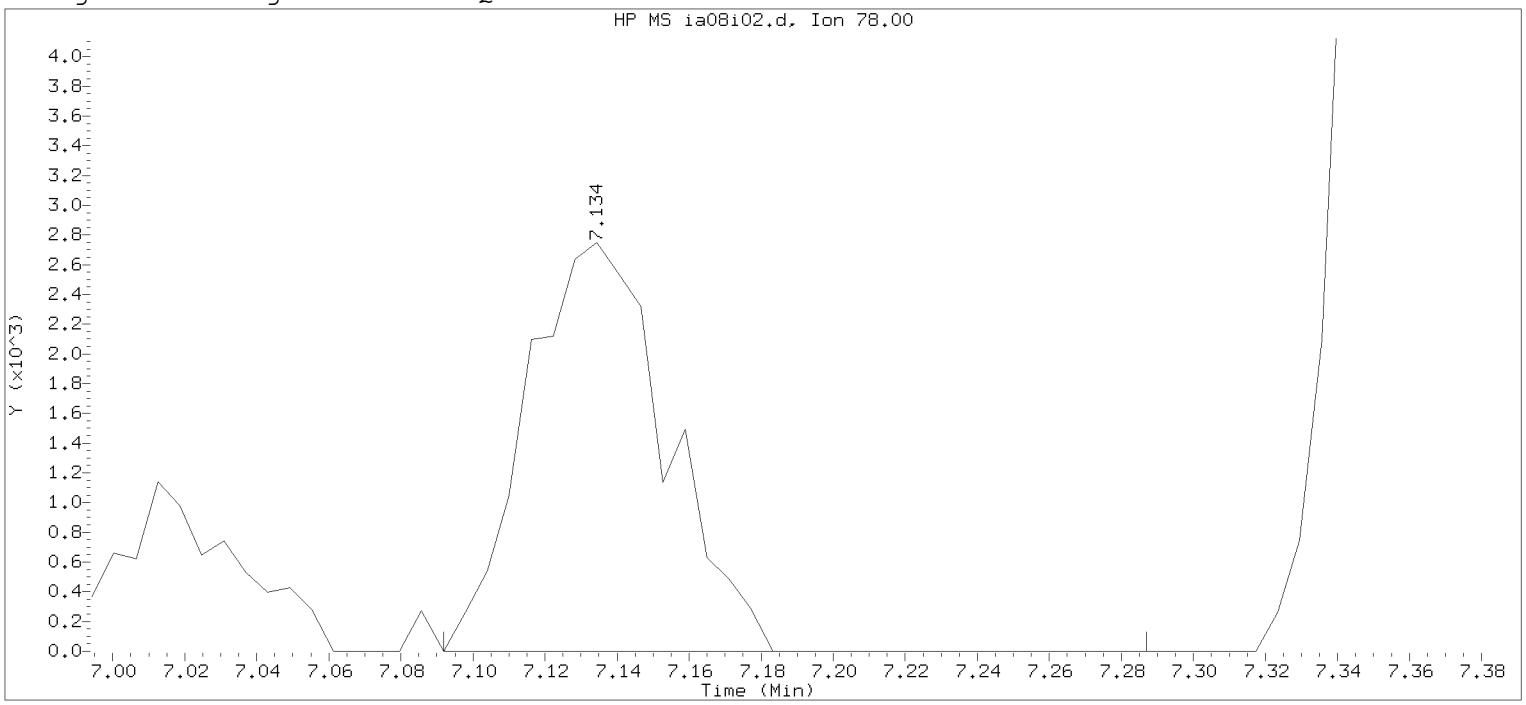
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

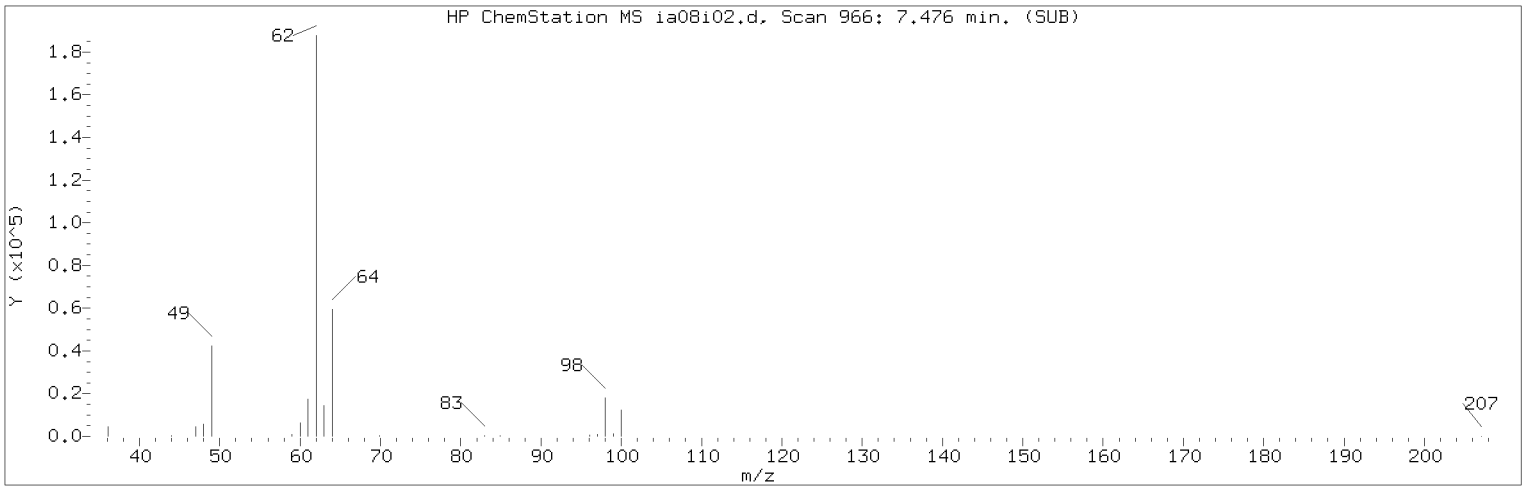
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

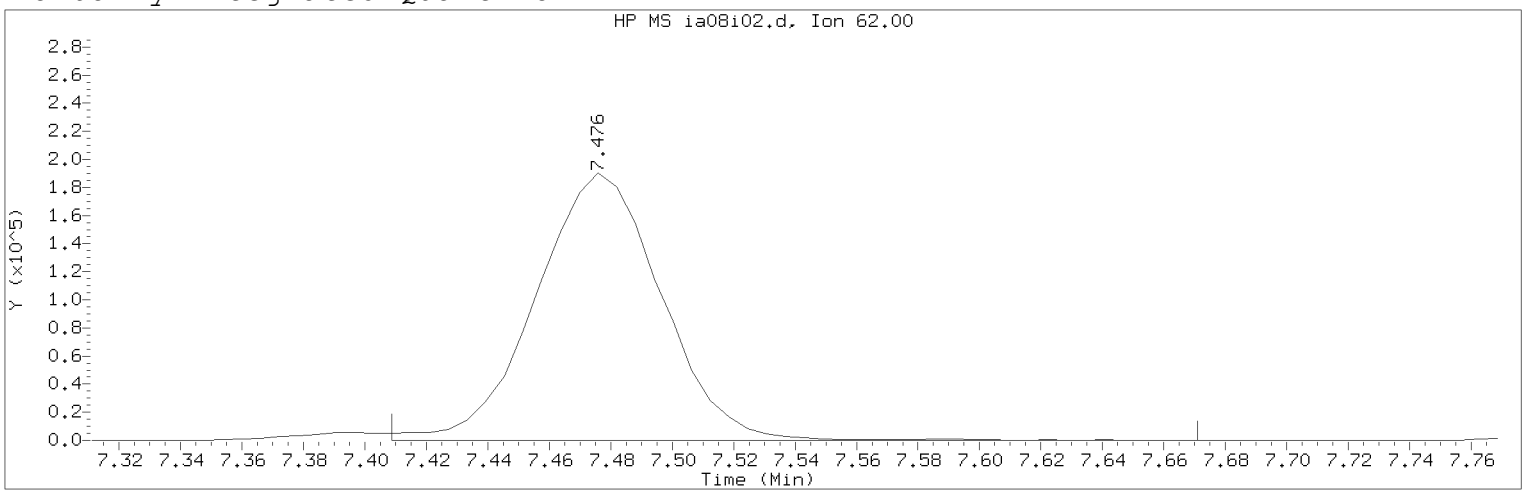
Compound Number : 58
Compound Name : Benzene
Scan Number : 910
Retention Time (minutes): 7.134
Quant Ion : 78.00
Area : 7441
On-column Amount (ng) : 29.2673
Integration start scan : 902 Integration stop scan: 934
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

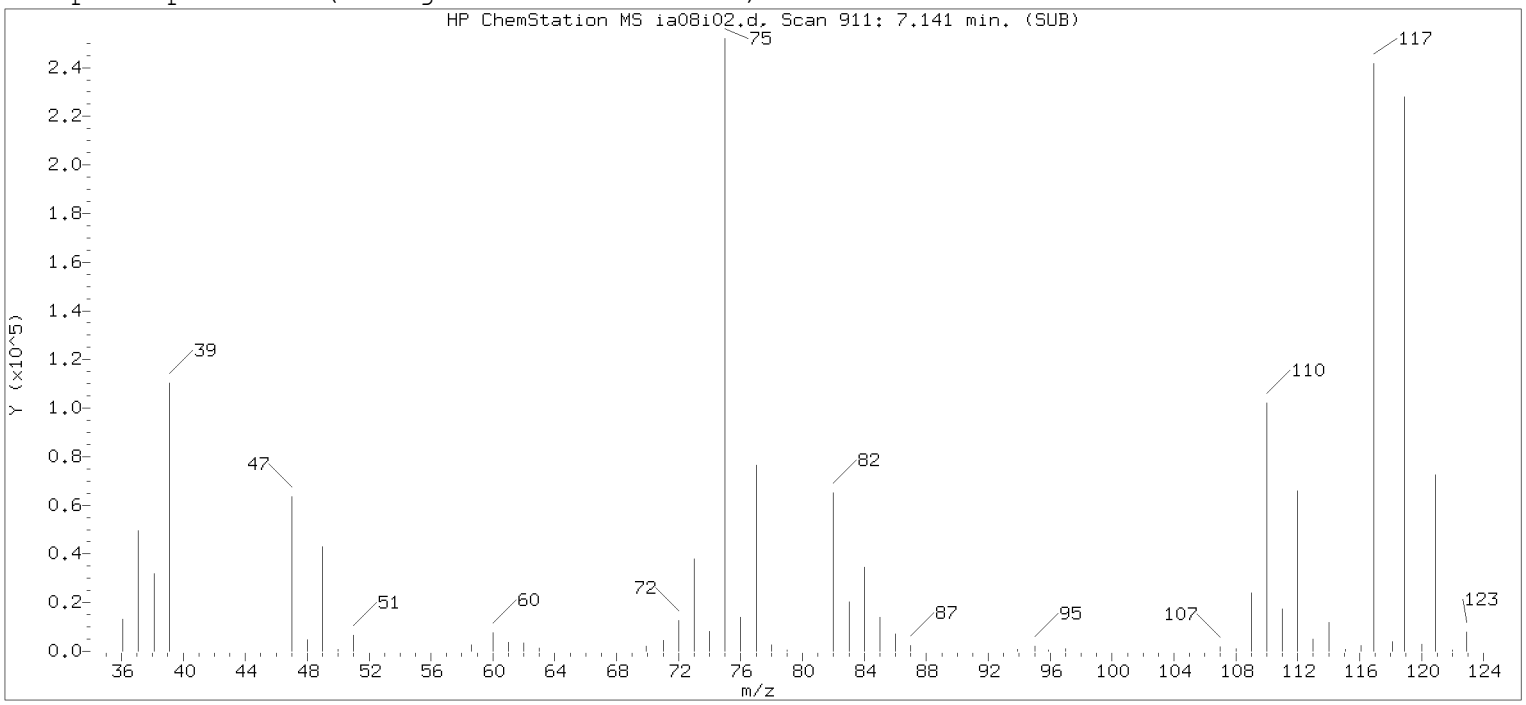
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area (flag) : 537979M
On-Column Amount (ng) : 9.8474
Integration start scan : 954 Integration stop scan: 997
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

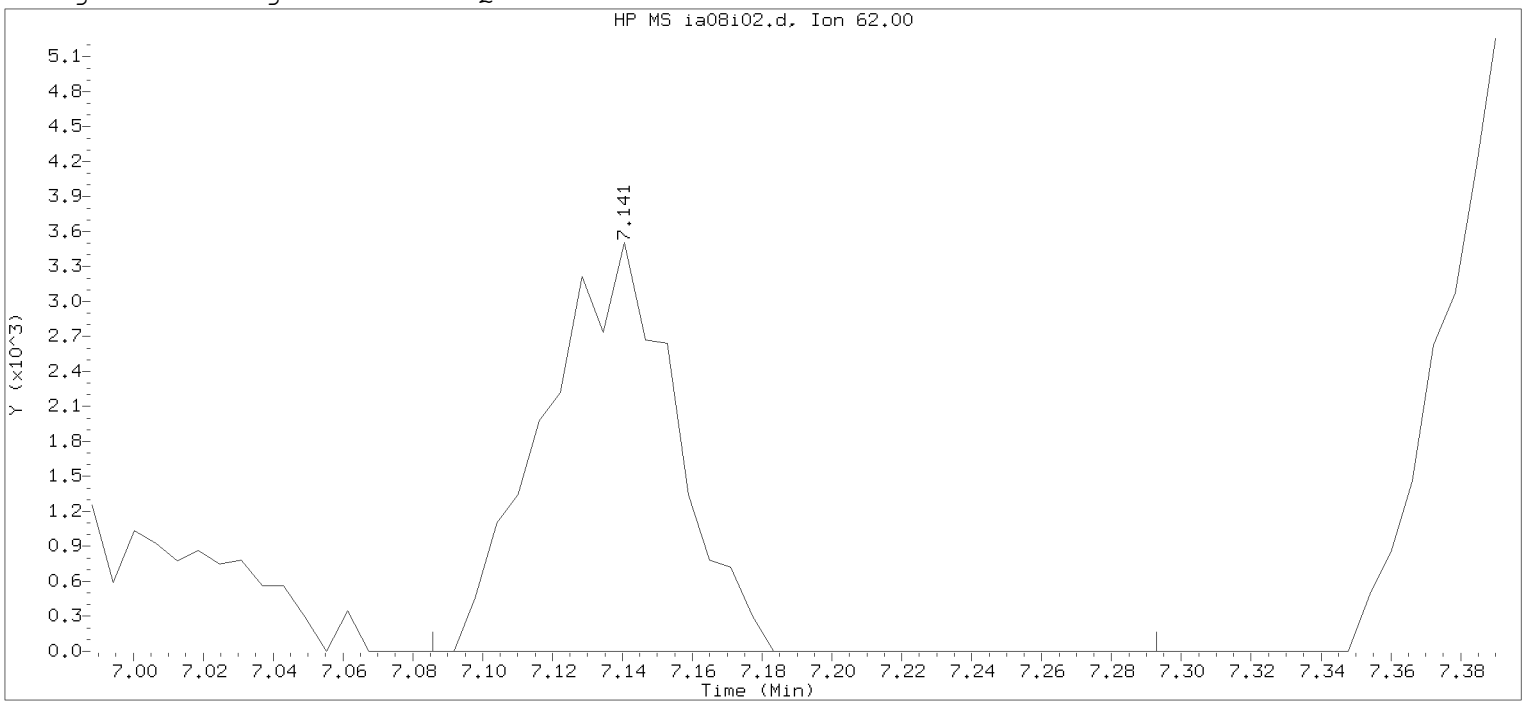
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

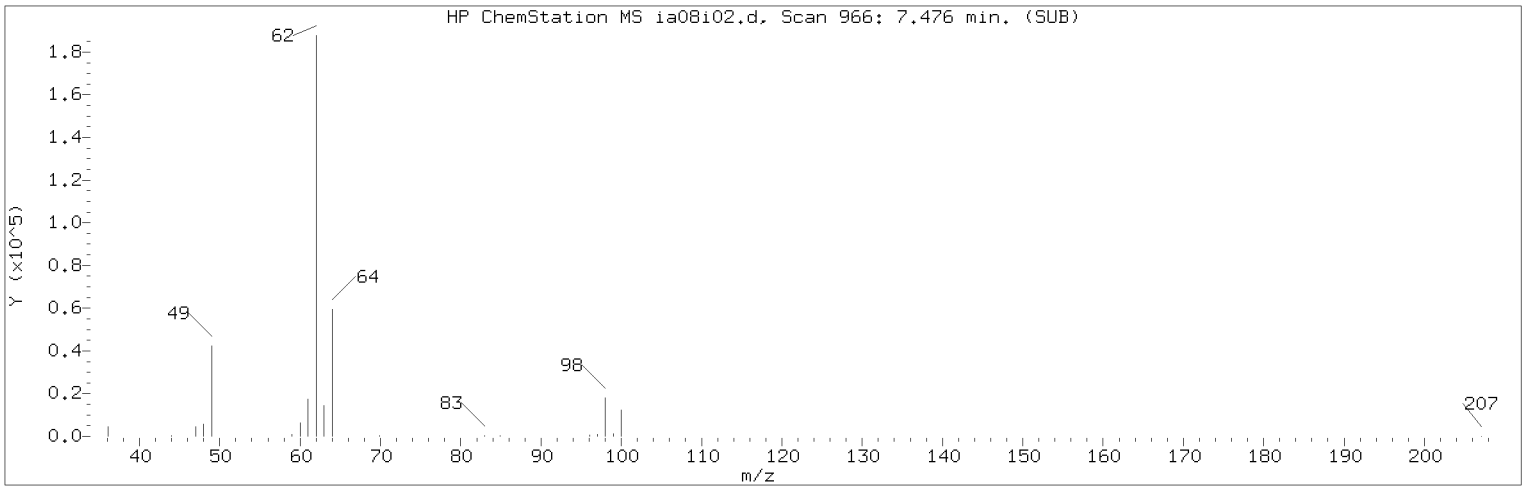
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

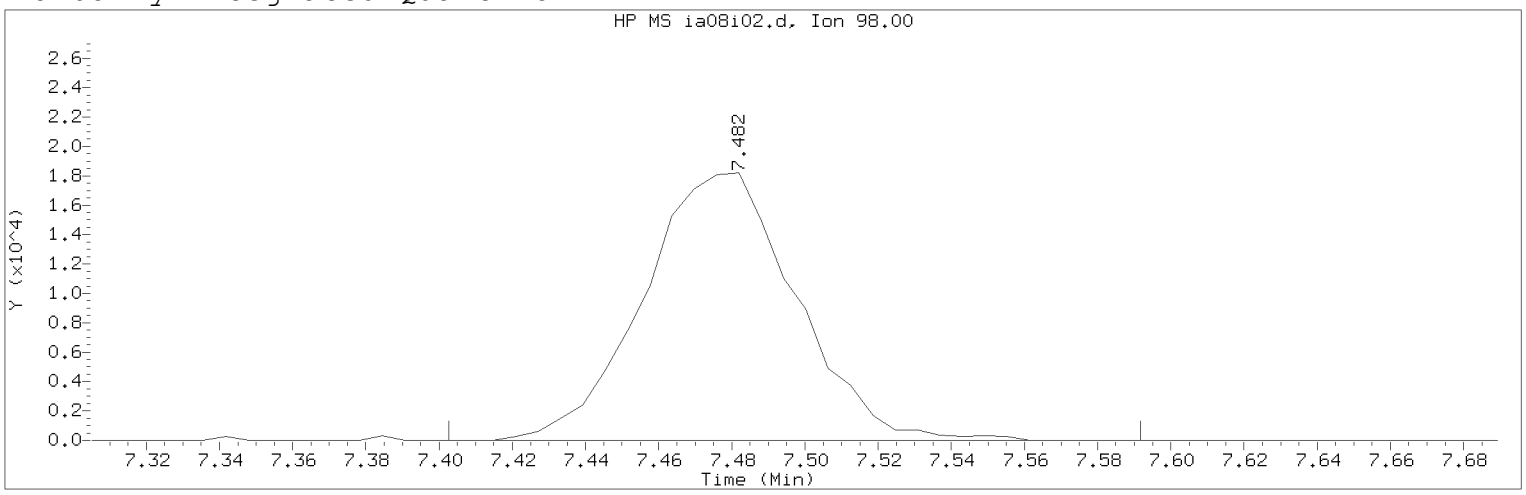
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 911
Retention Time (minutes): 7.141
Quant Ion : 62.00
Area : 9148
On-column Amount (ng) : 41.2552
Integration start scan : 901 Integration stop scan: 935
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1094

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

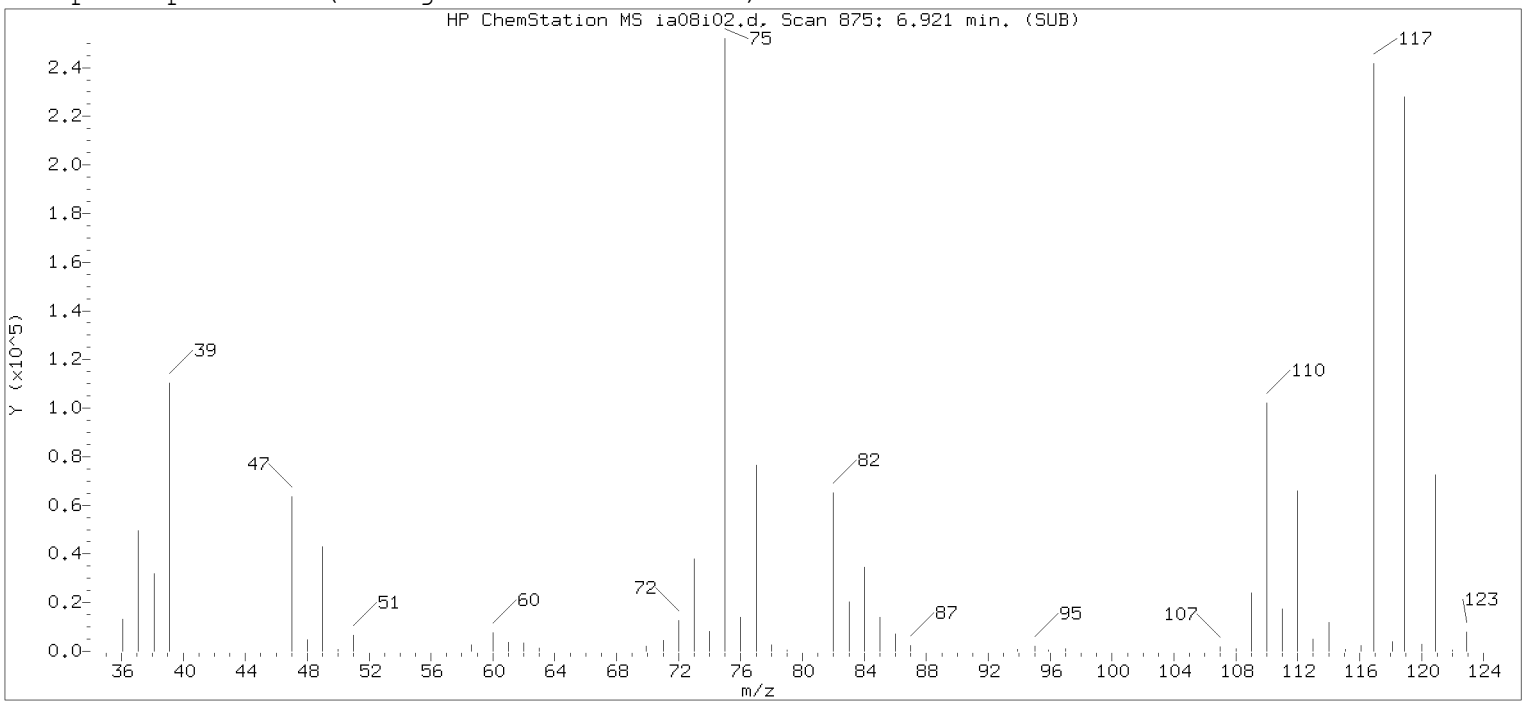
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 967
Retention Time (minutes): 7.482
Quant Ion : 98.00
Area (flag) : 52654M
On-Column Amount (ng) : 10.3325
Integration start scan : 953 Integration stop scan: 984
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

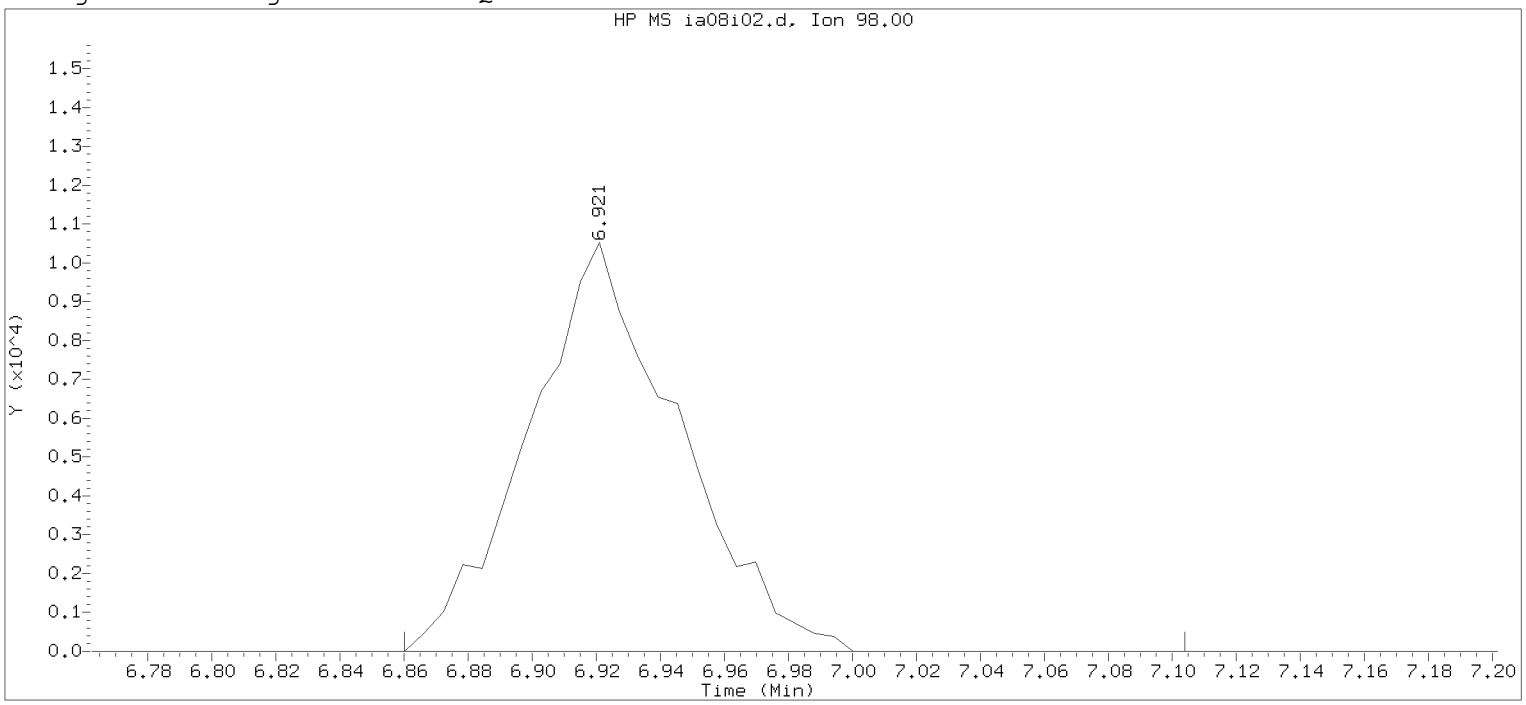
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

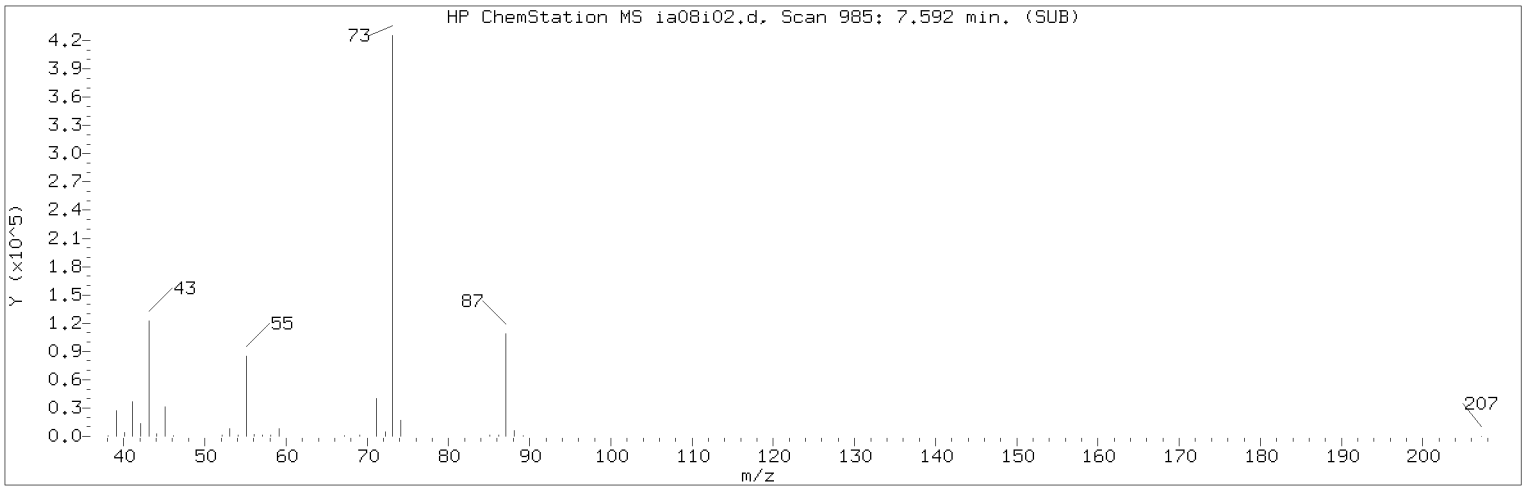
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

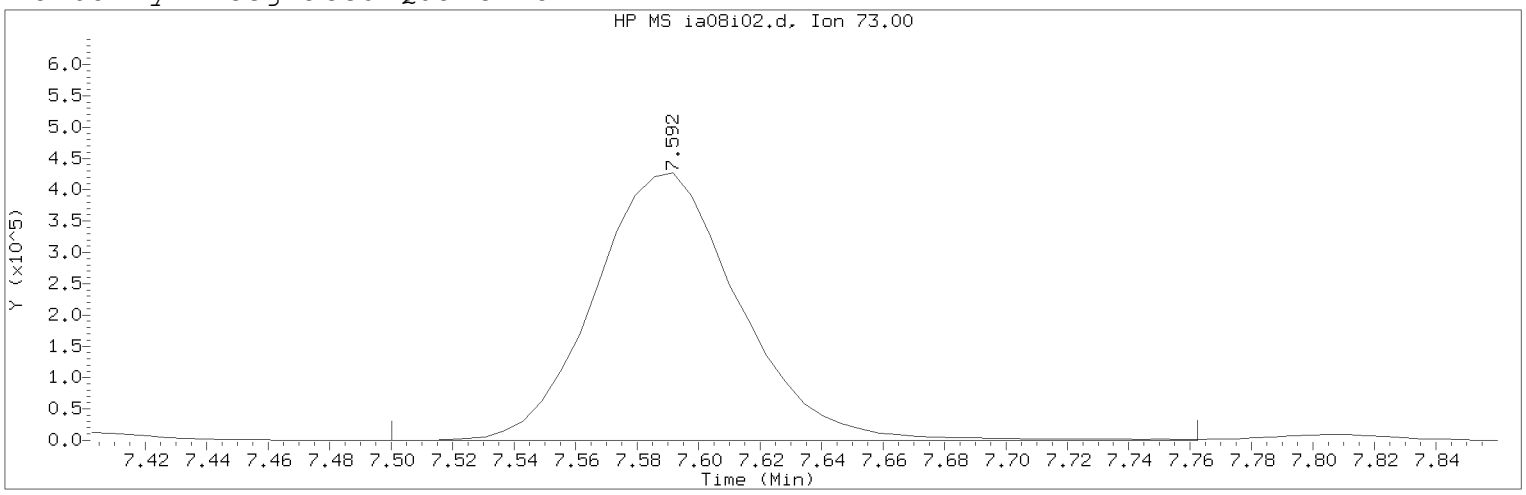
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 98.00
Area : 34086
On-column Amount (ng) : 69.1020
Integration start scan : 864 Integration stop scan: 904
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1096

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

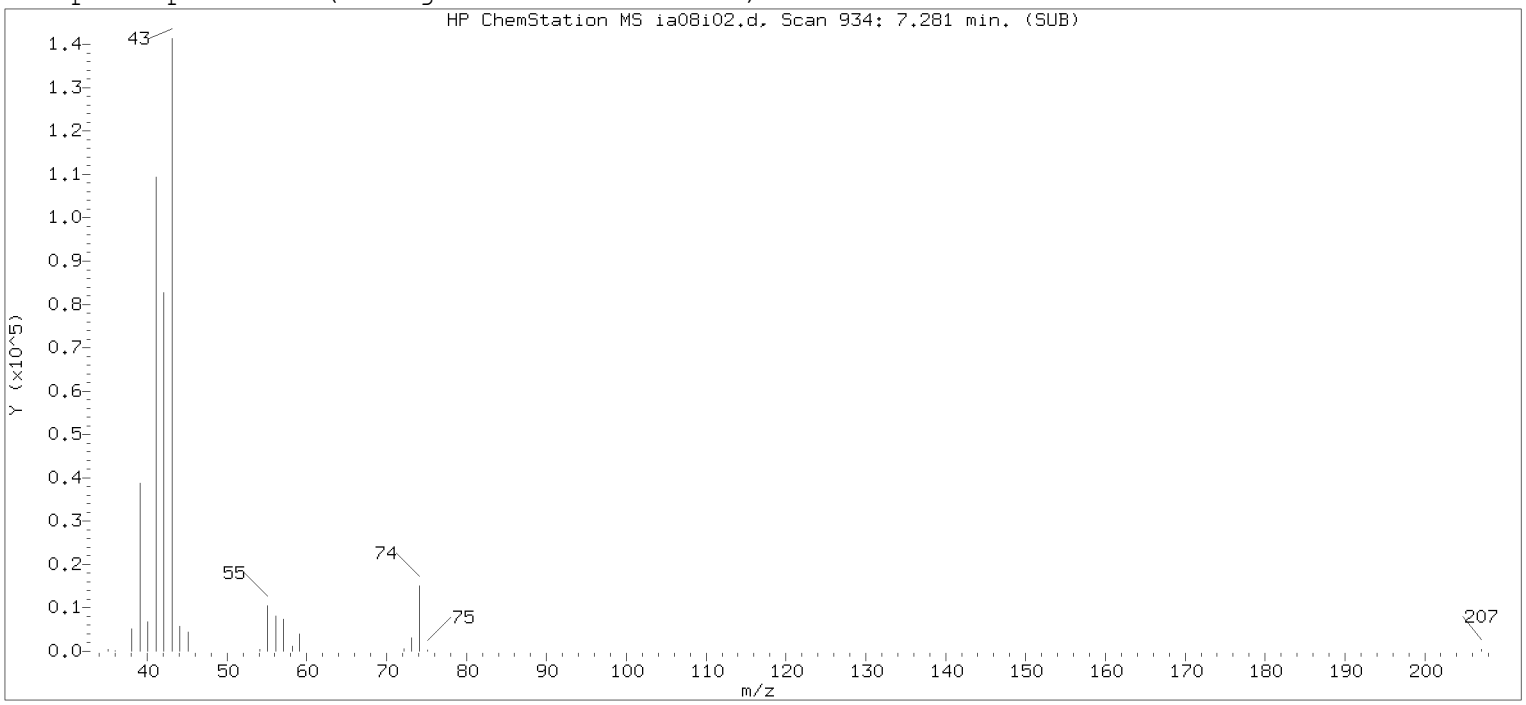
Compound Number : 60
Compound Name : t-Amyl methyl ether
Scan Number : 985
Retention Time (minutes): 7.592
Quant Ion : 73.00
Area (flag) : 1394137M
On-Column Amount (ng) : 10.2153
Integration start scan : 969 Integration stop scan: 1012
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

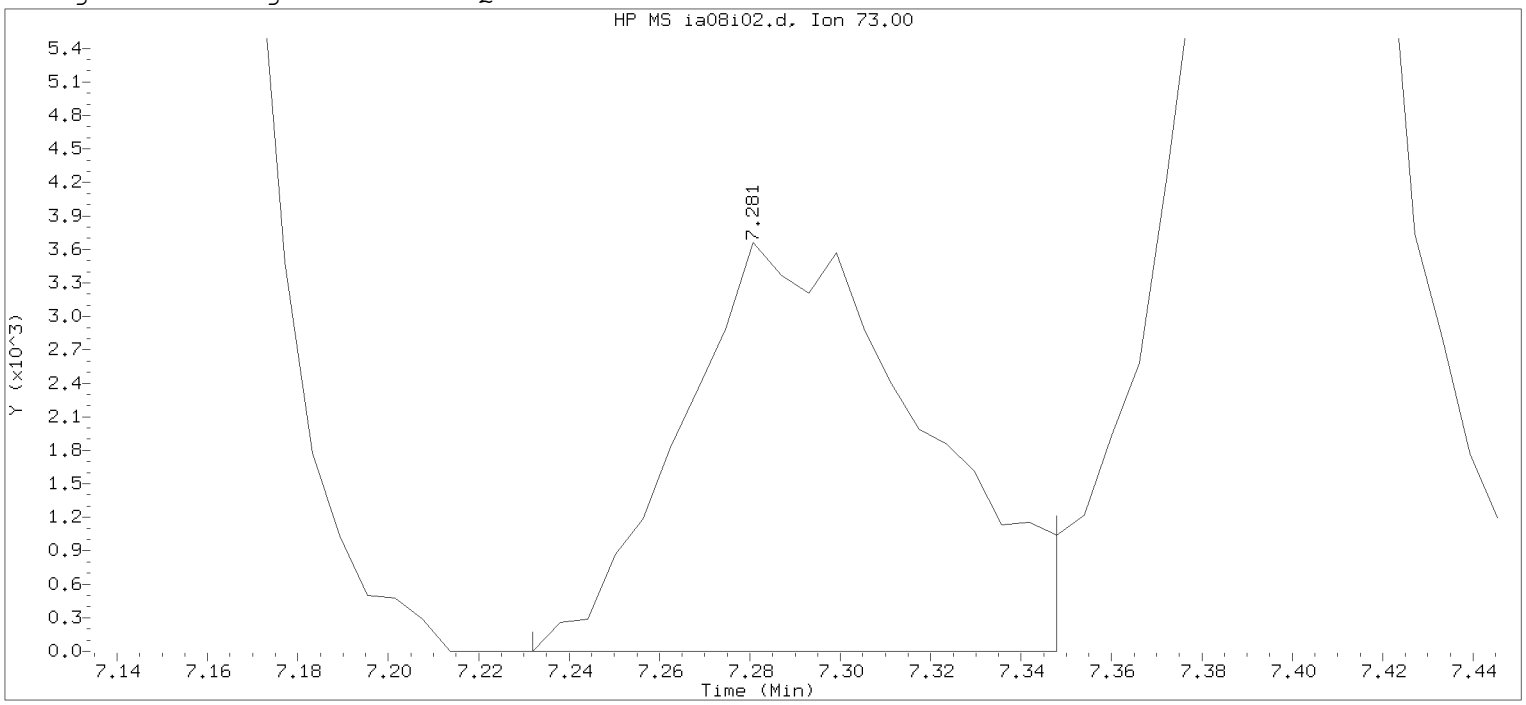
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

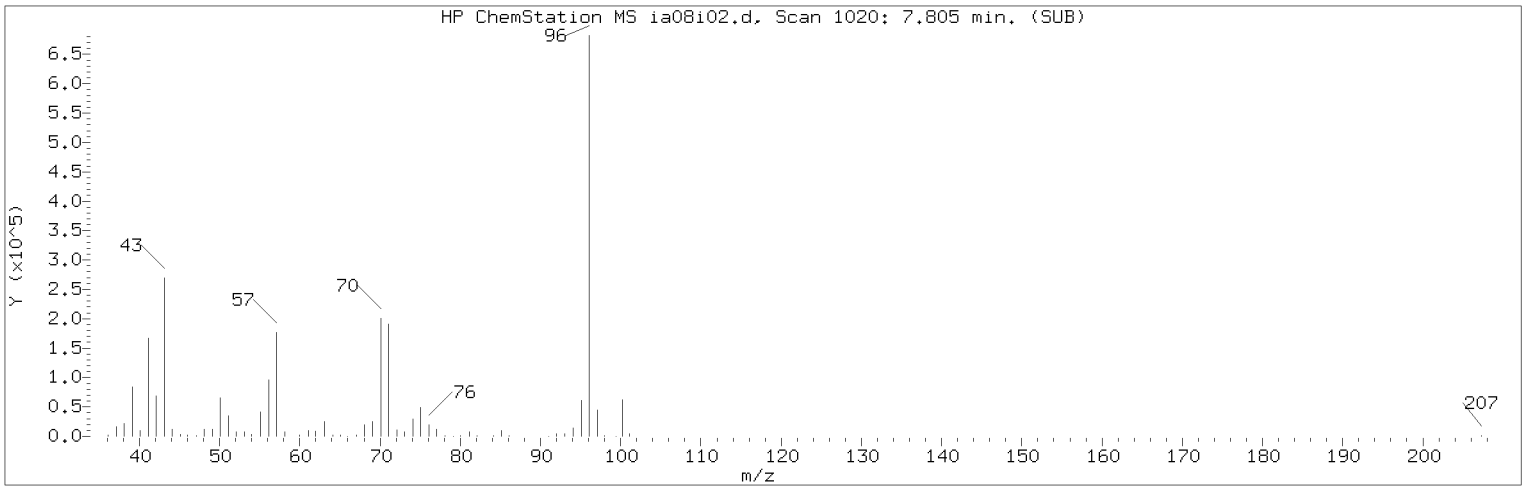
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

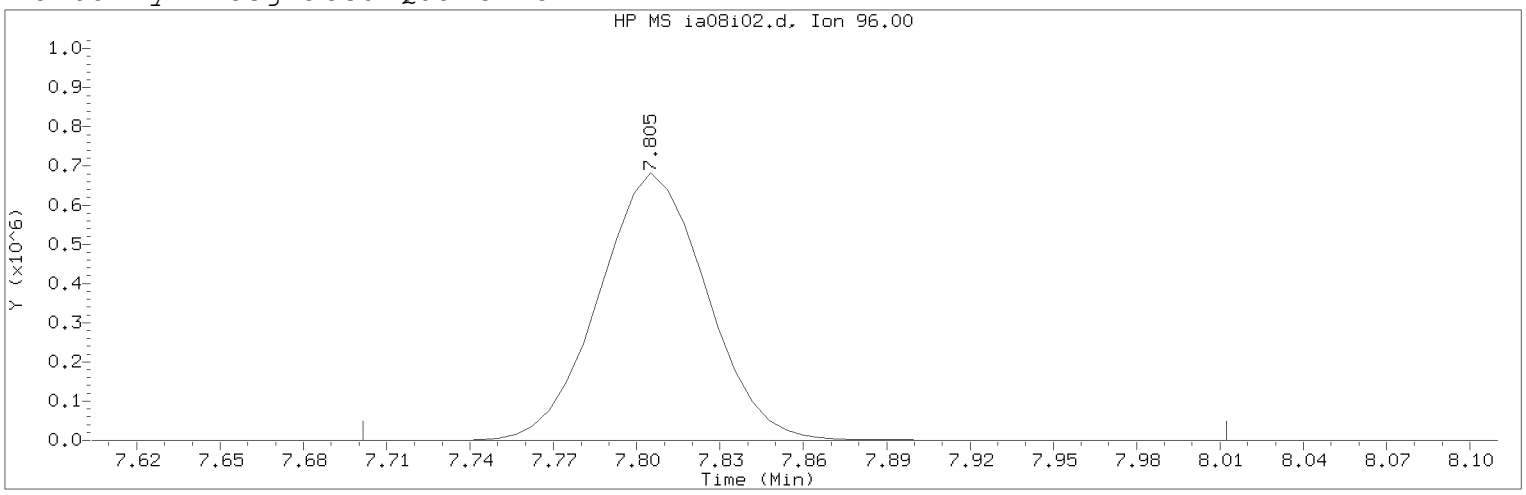
Compound Number : 60
Compound Name : t-Amyl methyl ether
Scan Number : 934
Retention Time (minutes): 7.281
Quant Ion : 73.00
Area : 13553
On-column Amount (ng) : 37.2300
Integration start scan : 925 Integration stop scan: 944
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

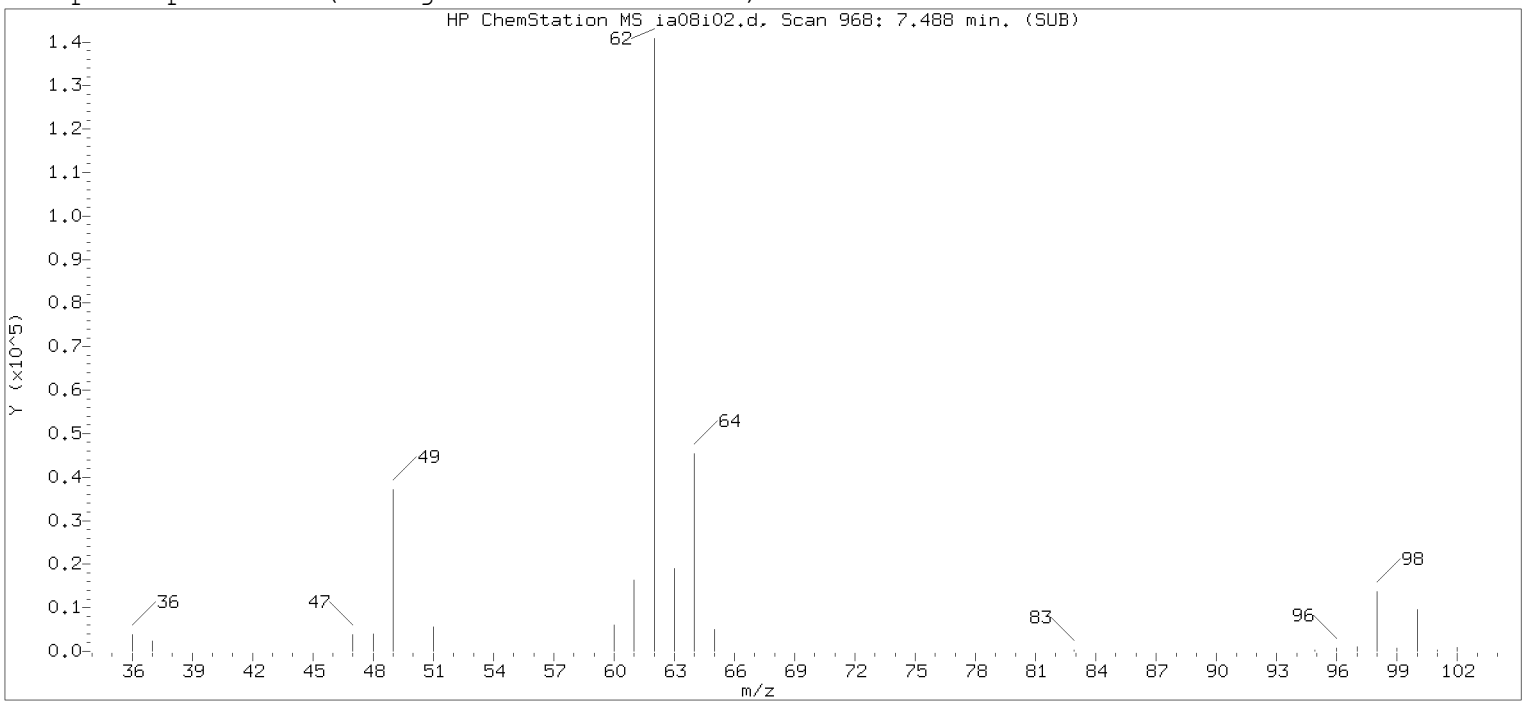
Compound Number : 63
Compound Name : Fluorobenzene
Scan Number : 1020
Retention Time (minutes): 7.805
Quant Ion : 96.00
Area (flag) : 1834755M
On-Column Amount (ng) : 10.0000
Integration start scan : 1002 Integration stop scan: 1053
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

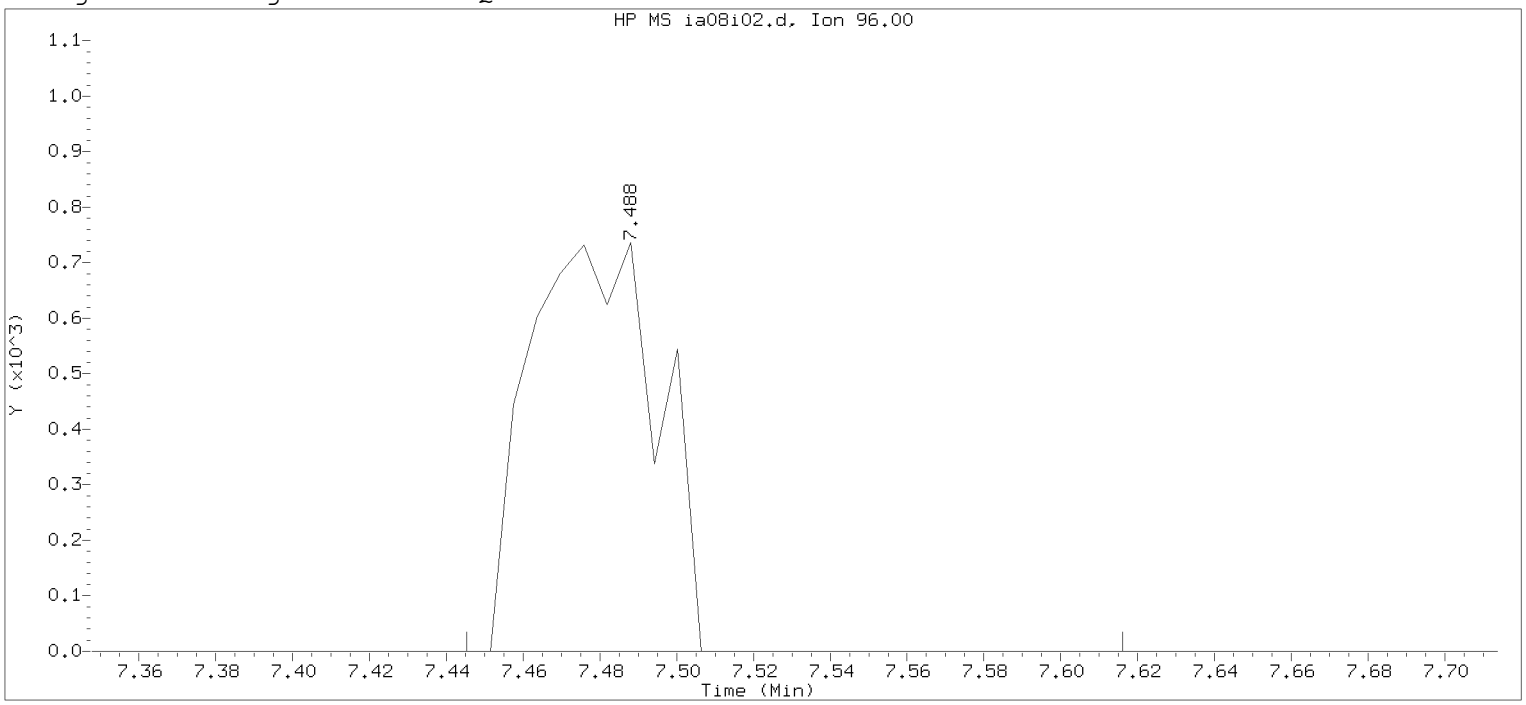
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

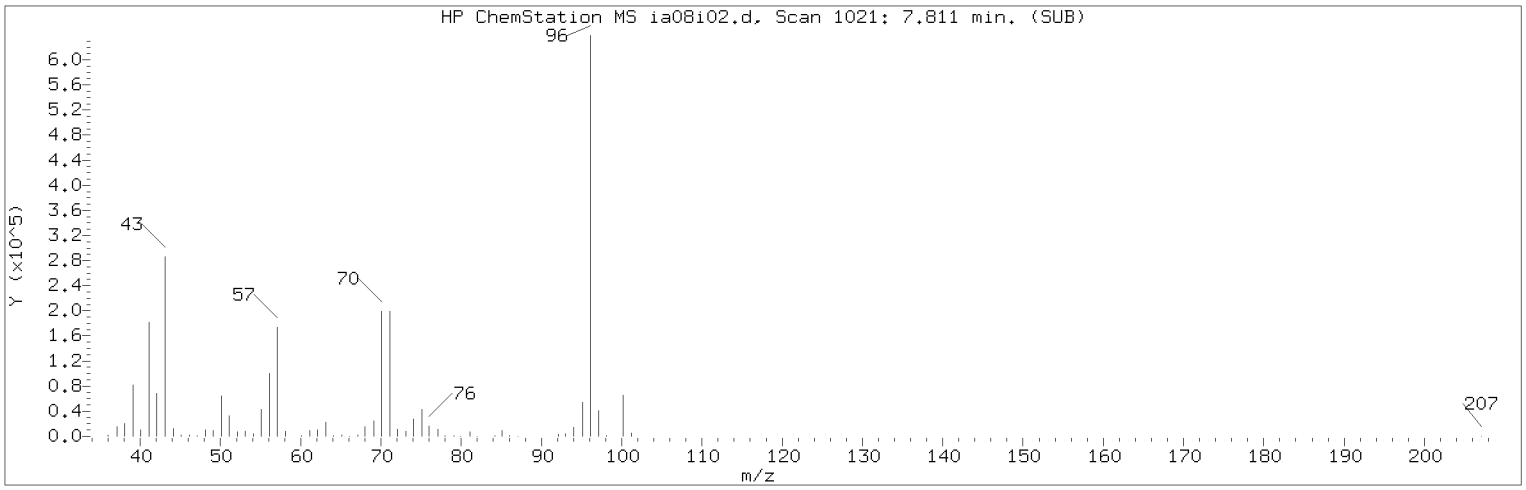
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

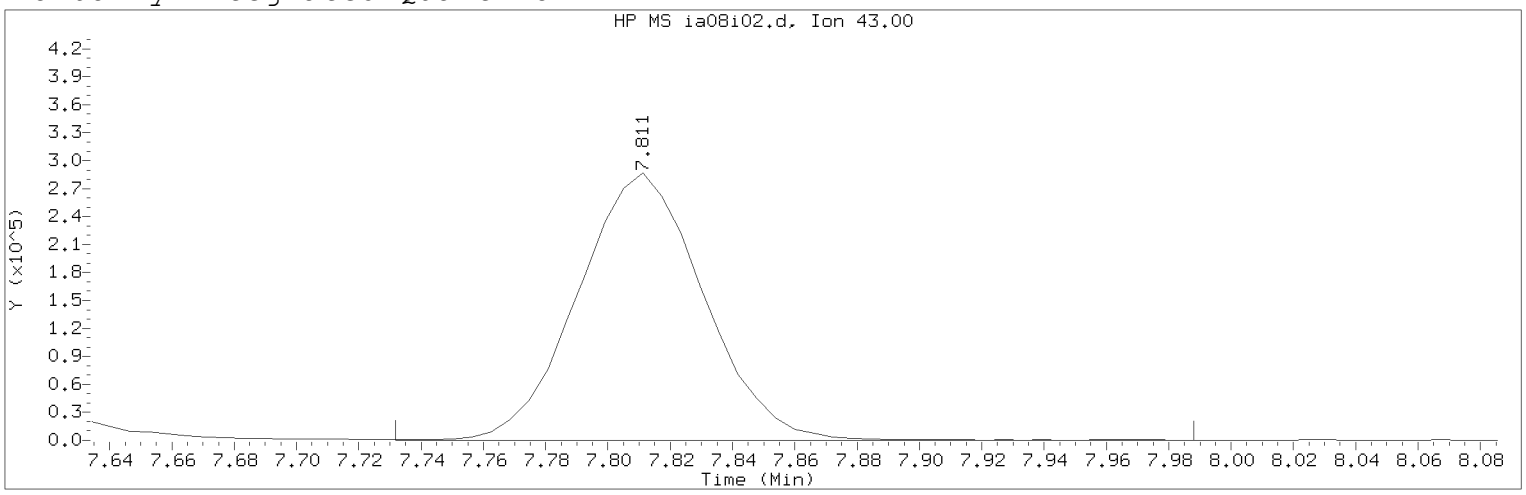
Compound Number : 63
Compound Name : Fluorobenzene
Scan Number : 968
Retention Time (minutes): 7.488
Quant Ion : 96.00
Area : 1720
On-column Amount (ng) : 10.0000
Integration start scan : 960 Integration stop scan: 988
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: F35 Page 1100

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

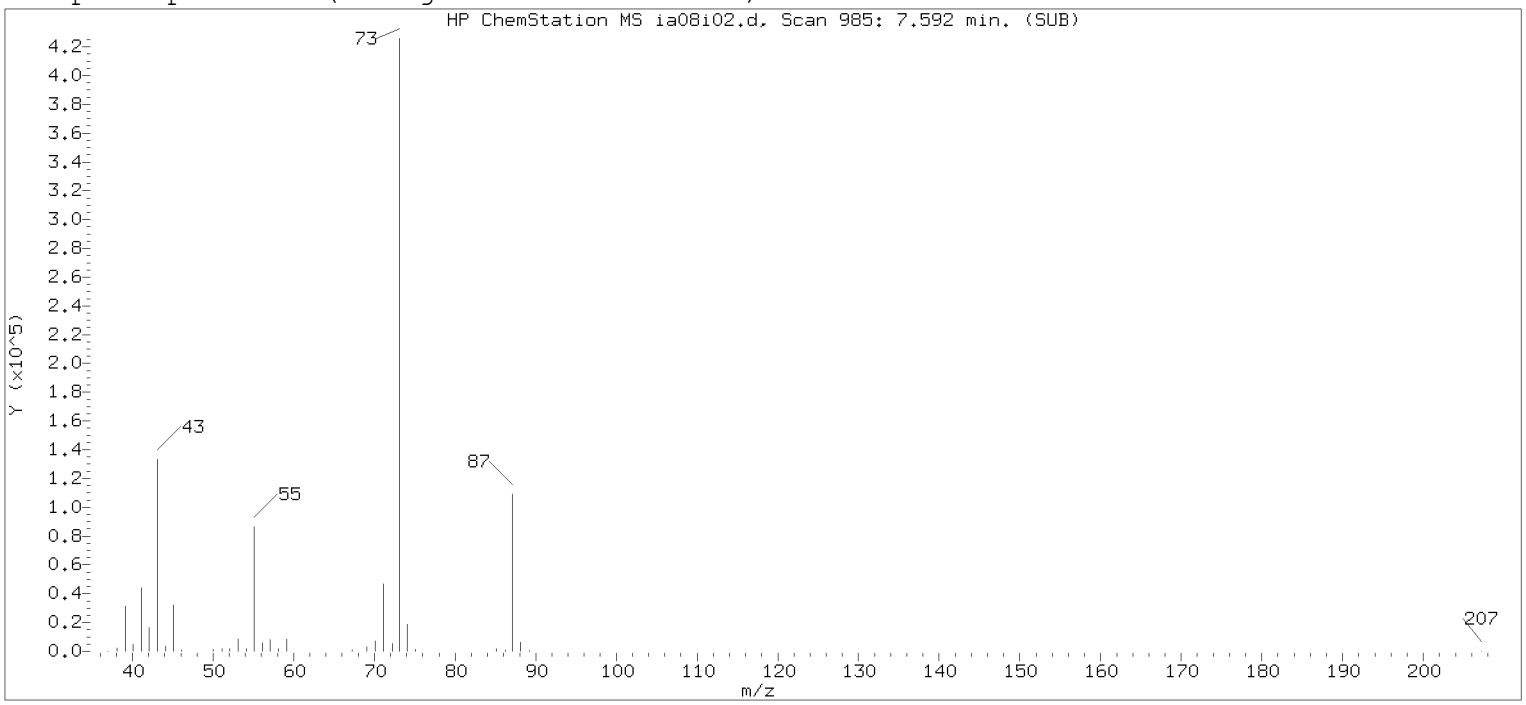
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1021
Retention Time (minutes): 7.811
Quant Ion : 43.00
Area (flag) : 803174M
On-Column Amount (ng) : 10.6433
Integration start scan : 1007 Integration stop scan: 1049
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

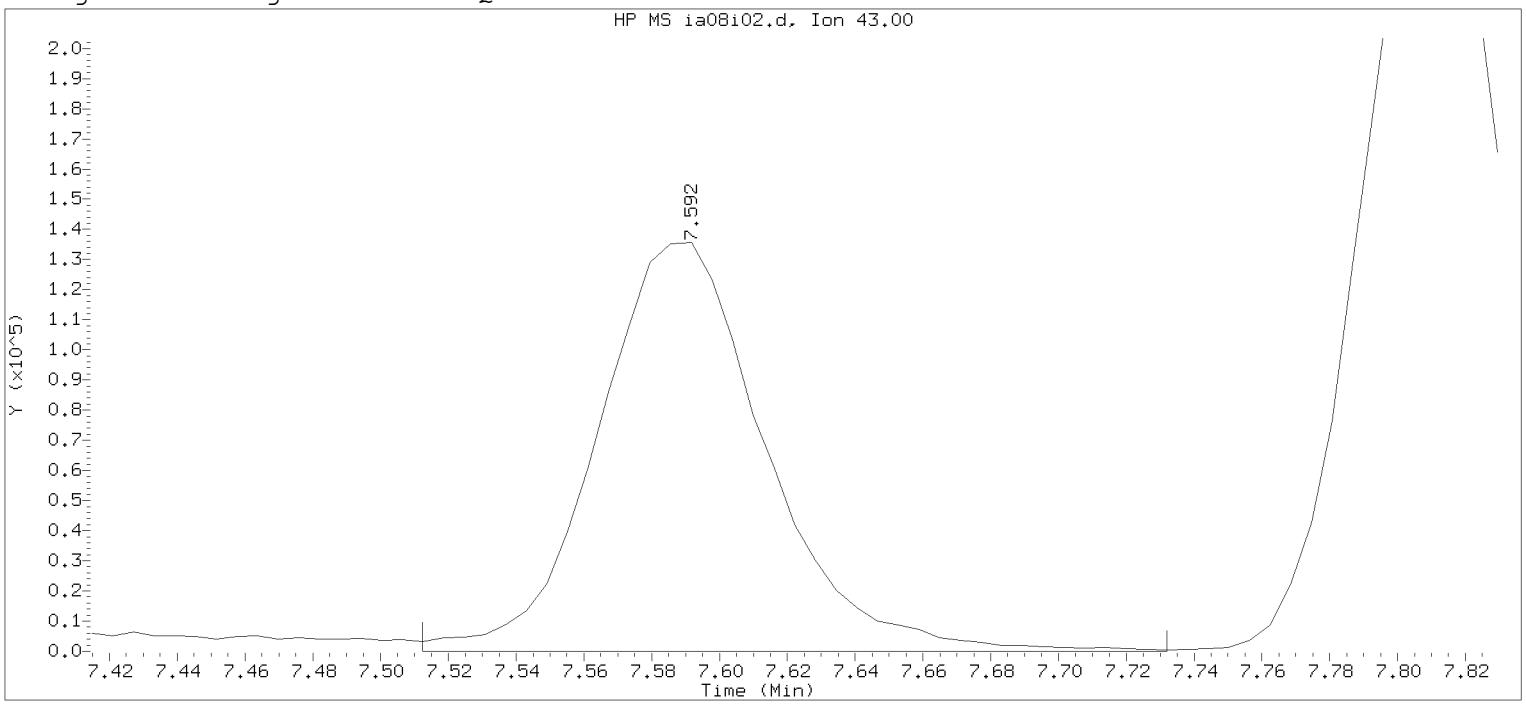
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

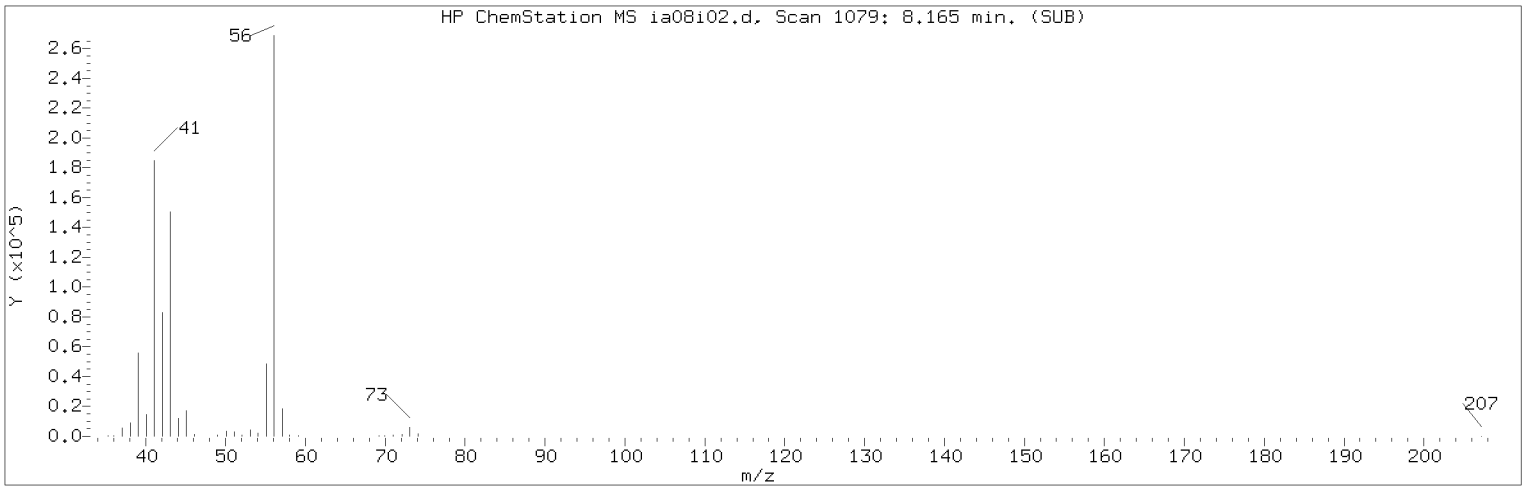
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

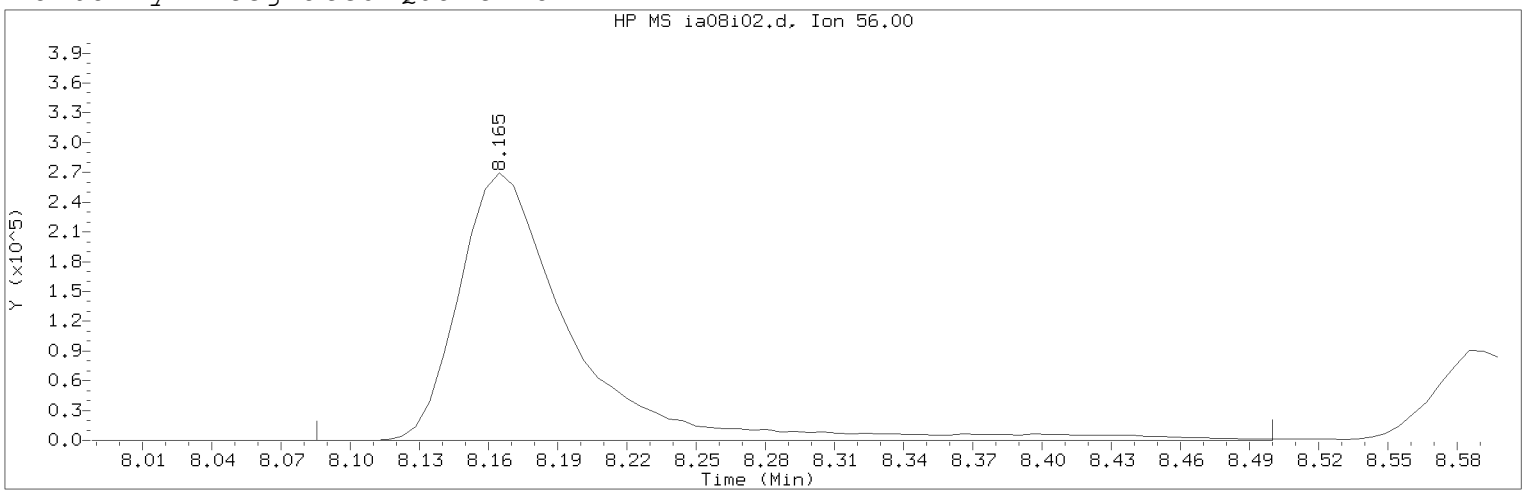
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 985
Retention Time (minutes): 7.592
Quant Ion : 43.00
Area : 466723
On-column Amount (ng) : 48.3029
Integration start scan : 971 Integration stop scan: 1007
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

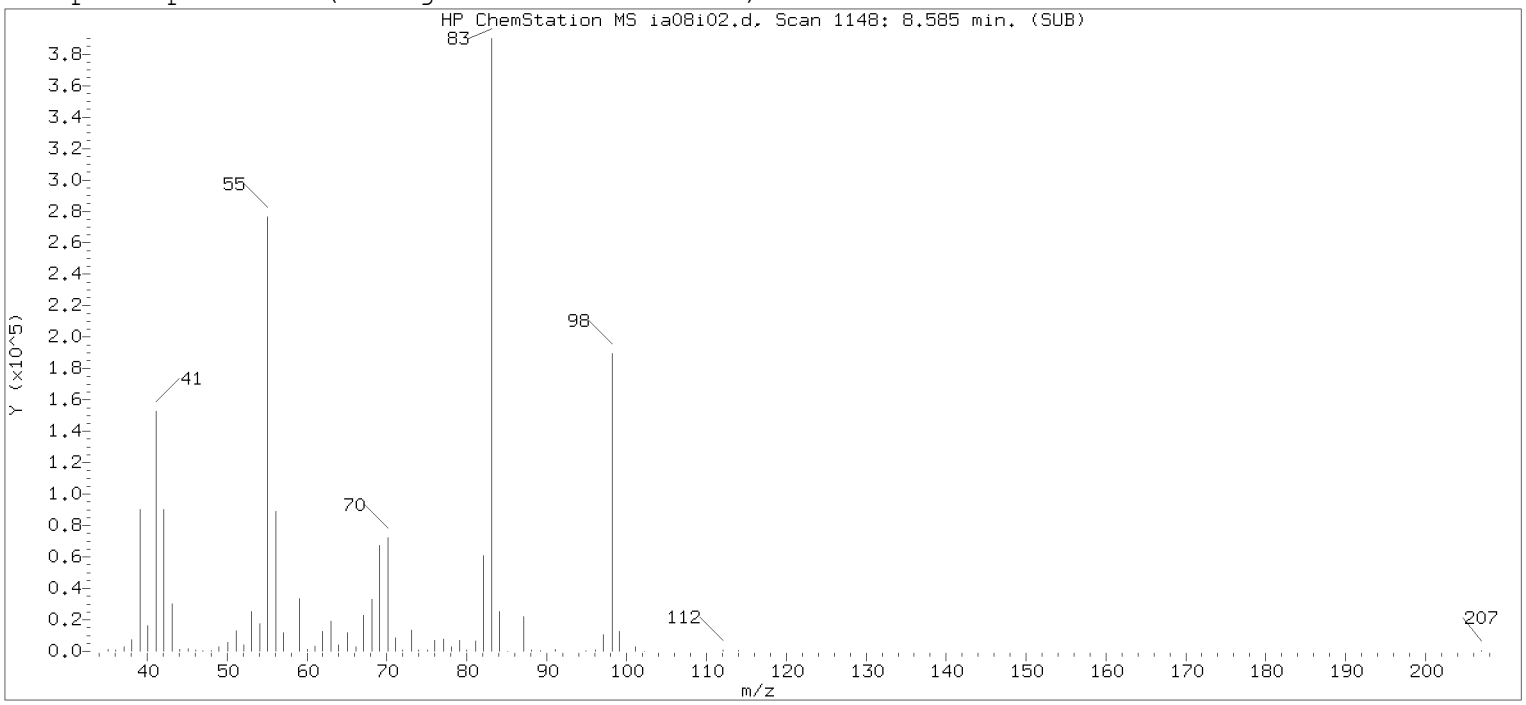
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1079
Retention Time (minutes): 8.165
Quant Ion : 56.00
Area (flag) : 919238M
On-Column Amount (ng) : 1085.9632
Integration start scan : 1065 Integration stop scan: 1133
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

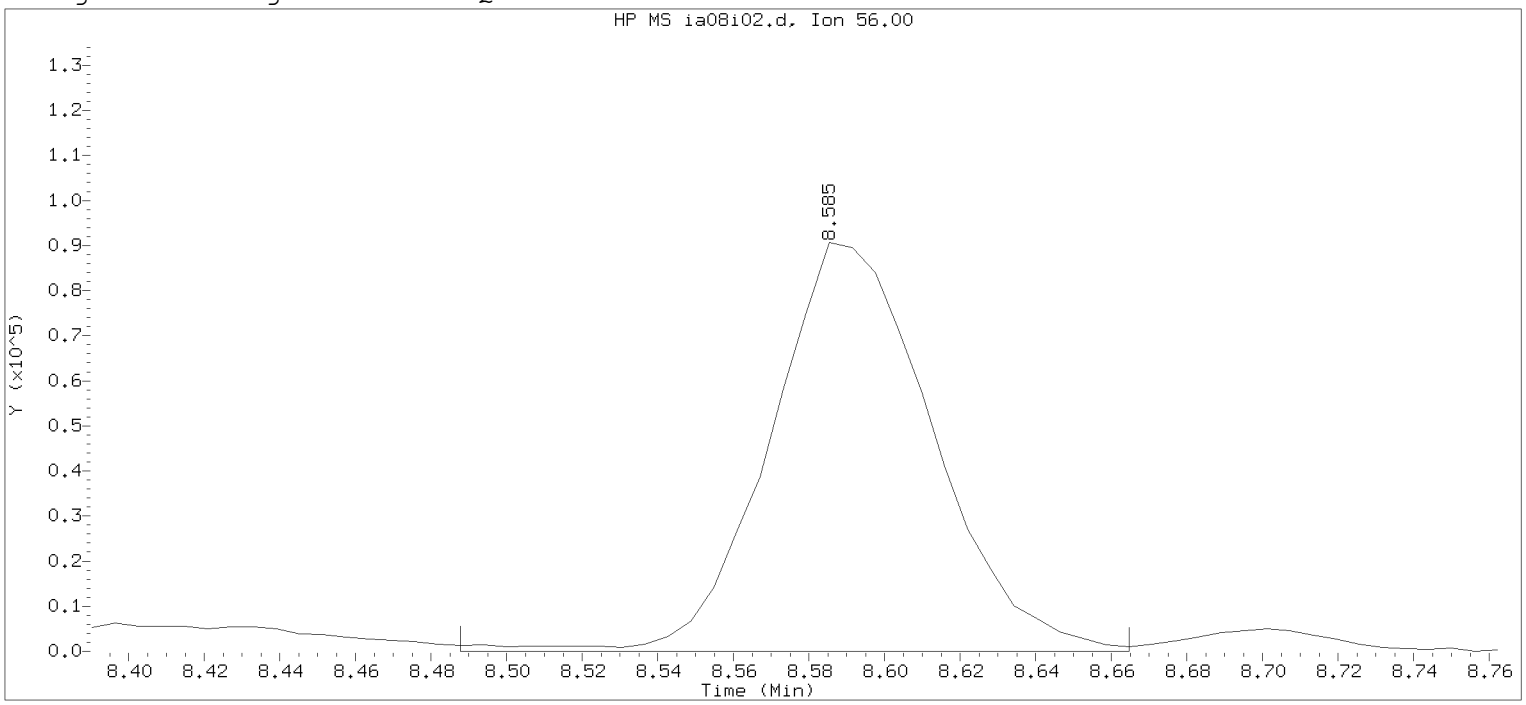
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

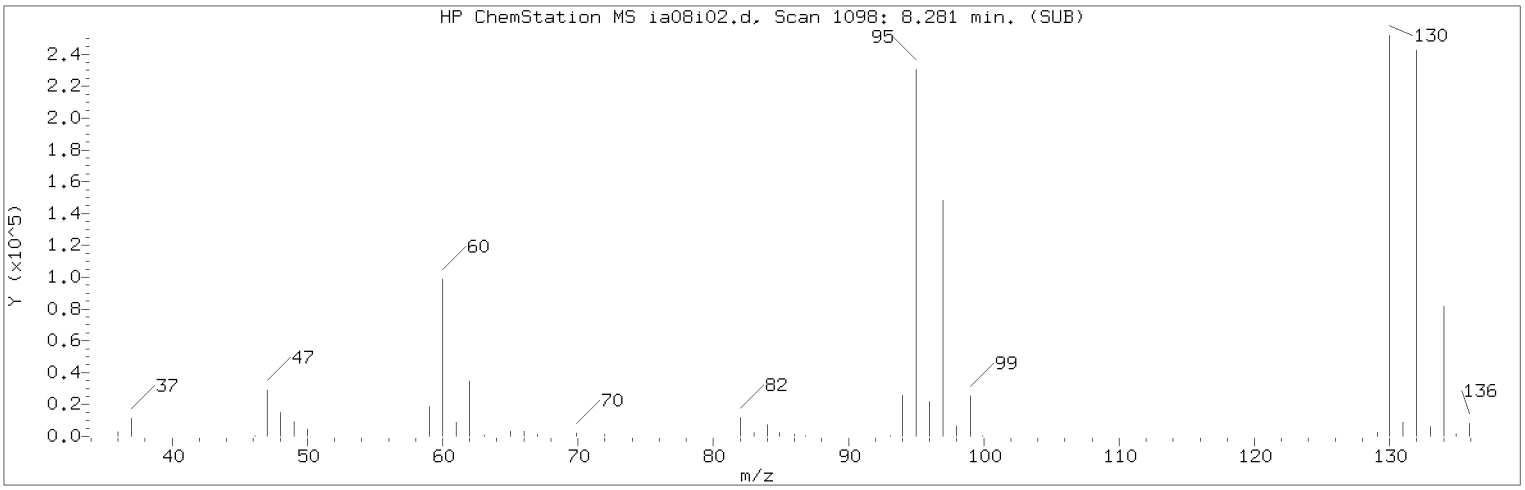
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

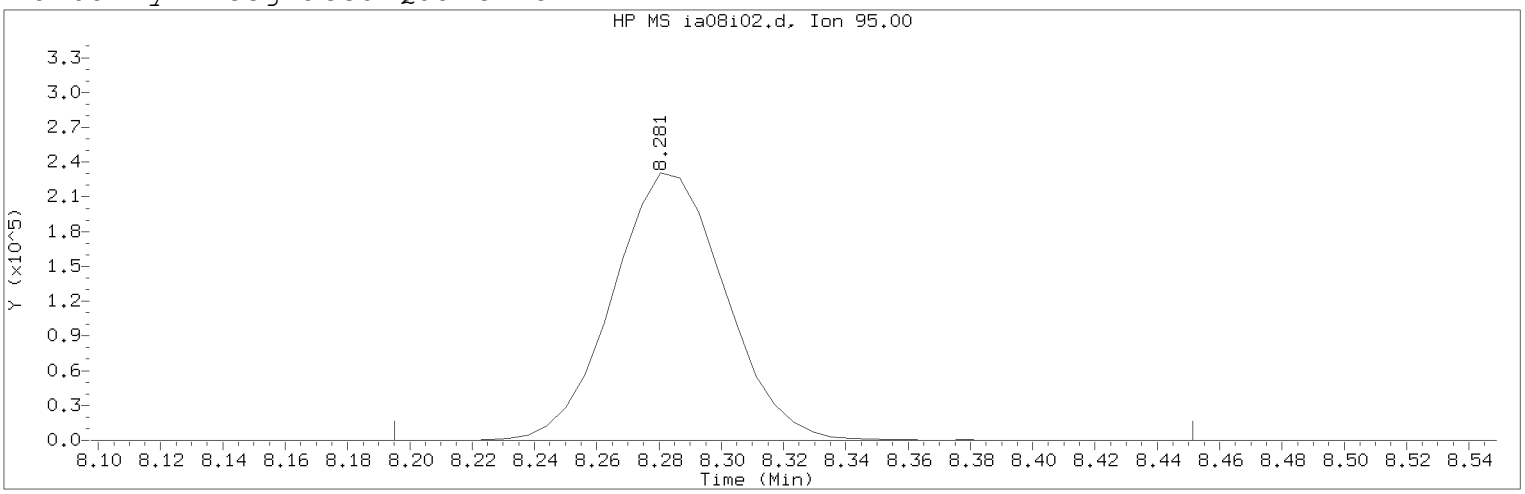
Compound Number	: 65		
Compound Name	: n-Butanol		
Scan Number	: 1148		
Retention Time (minutes)	: 8.585		
Quant Ion	: 56.00		
Area	: 270310		
On-column Amount (ng)	: 312.9859		
Integration start scan	: 1131	Integration stop scan:	1160
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: JKHOWE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

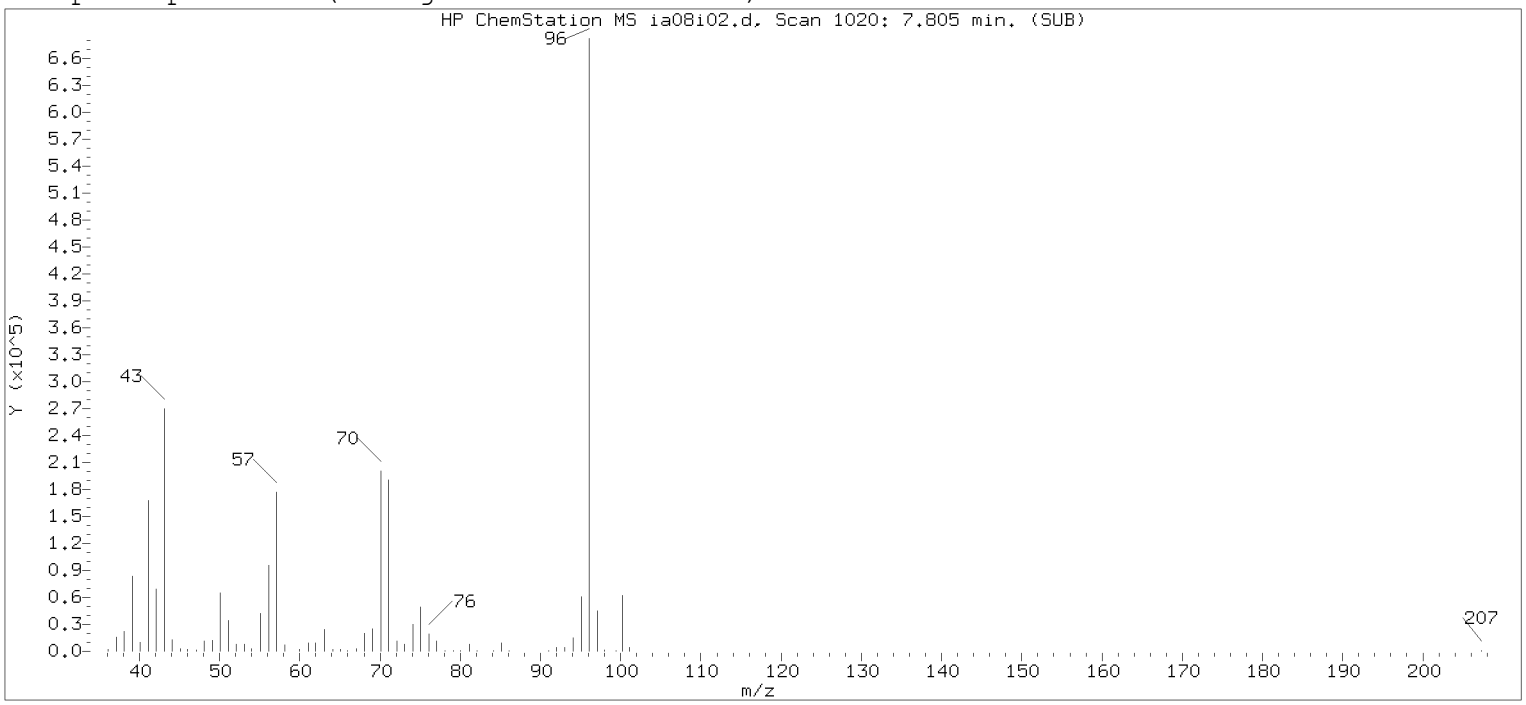
Compound Number : 67
Compound Name : Trichloroethene
Scan Number : 1098
Retention Time (minutes): 8.281
Quant Ion : 95.00
Area (flag) : 578338M
On-Column Amount (ng) : 10.1492
Integration start scan : 1083 Integration stop scan: 1125
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

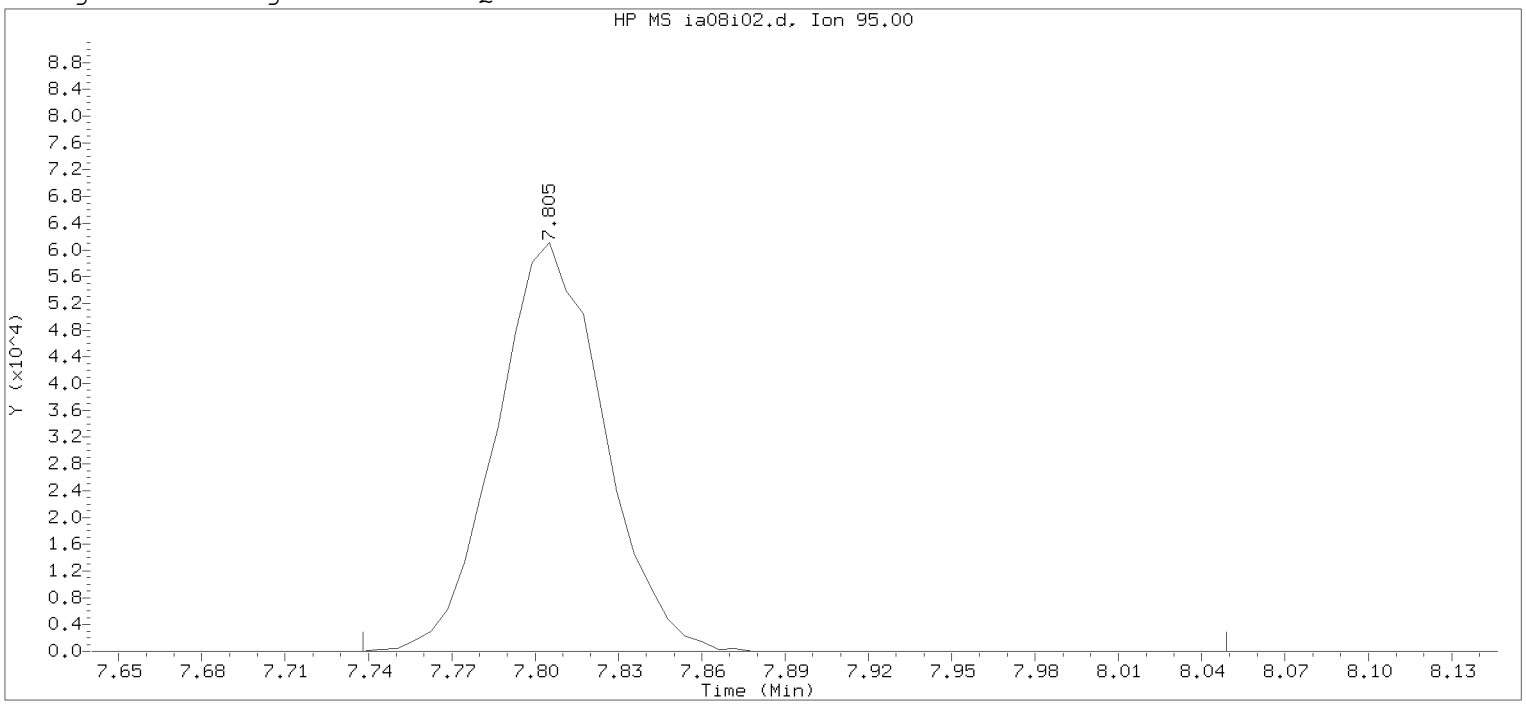
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

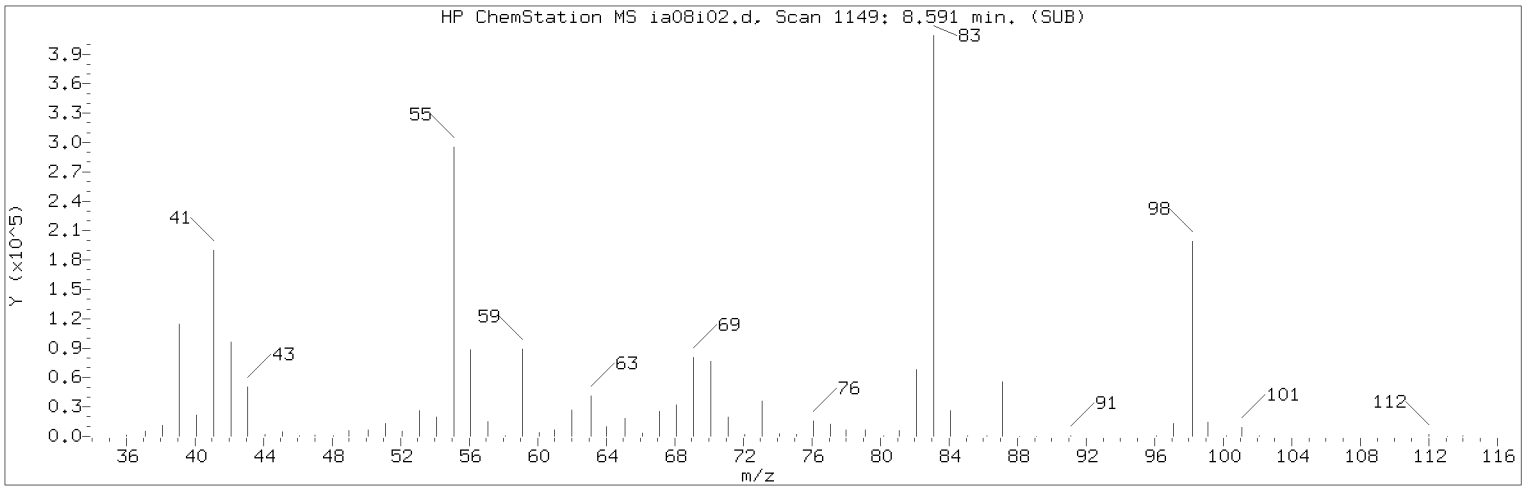
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

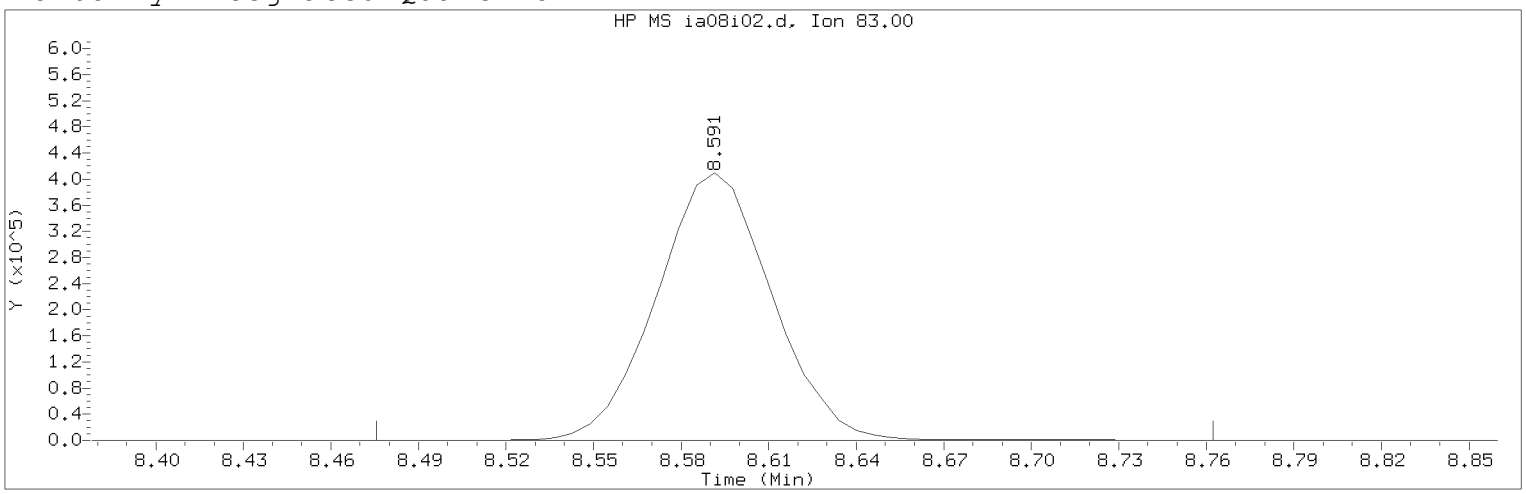
Compound Number : 67
Compound Name : Trichloroethene
Scan Number : 1020
Retention Time (minutes): 7.805
Quant Ion : 95.00
Area : 163885
On-column Amount (ng) : 58.2041
Integration start scan : 1008 Integration stop scan: 1059
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

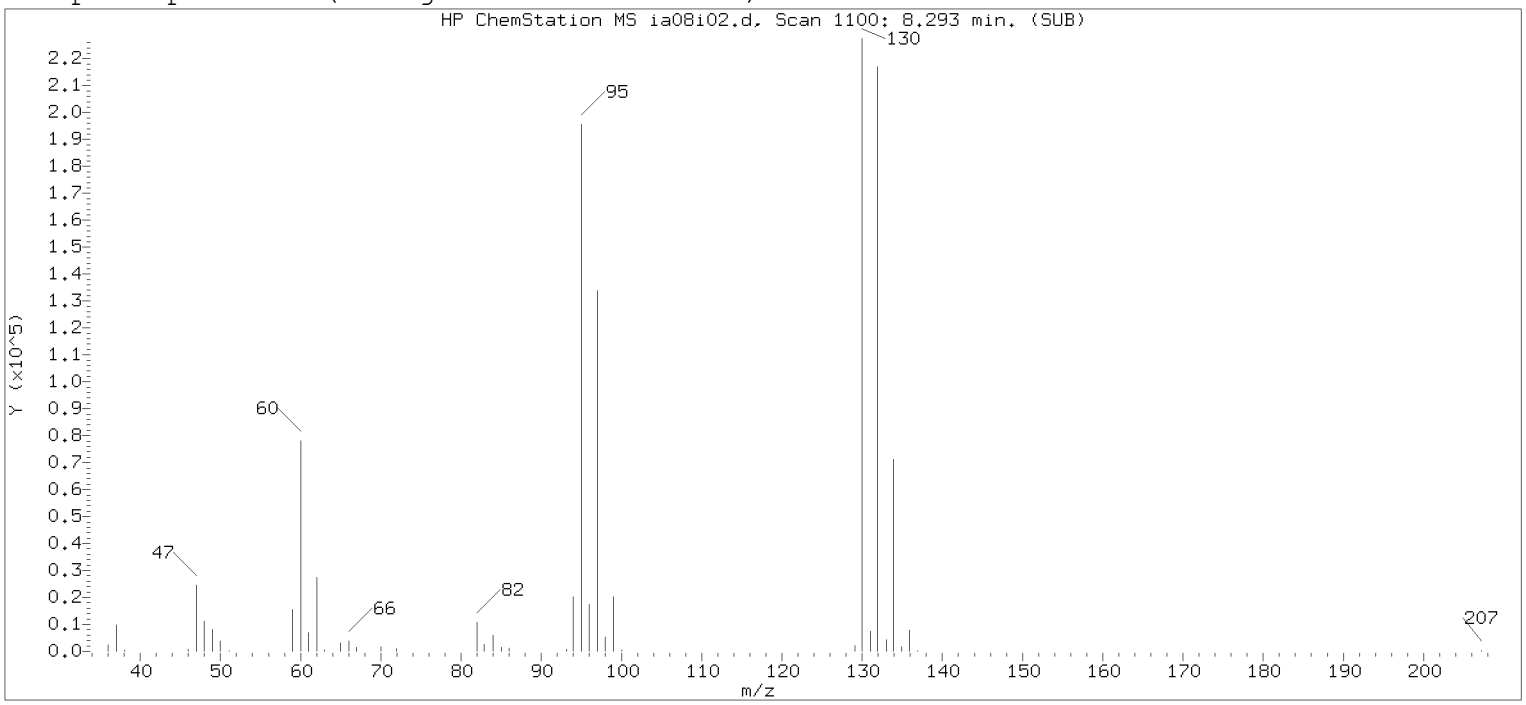
Compound Number : 69
Compound Name : Methylcyclohexane
Scan Number : 1149
Retention Time (minutes): 8.591
Quant Ion : 83.00
Area (flag) : 1122903M
On-Column Amount (ng) : 11.0359
Integration start scan : 1129 Integration stop scan: 1176
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

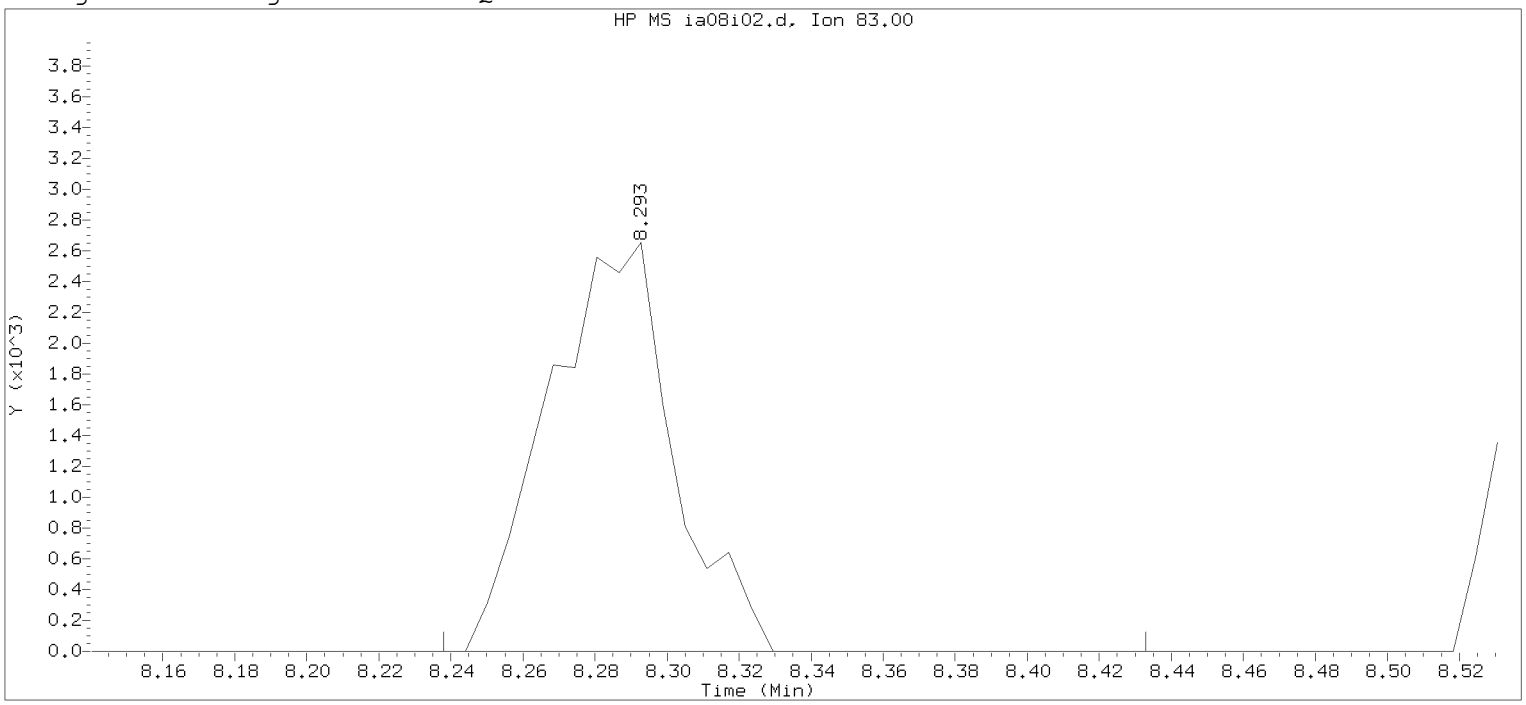
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

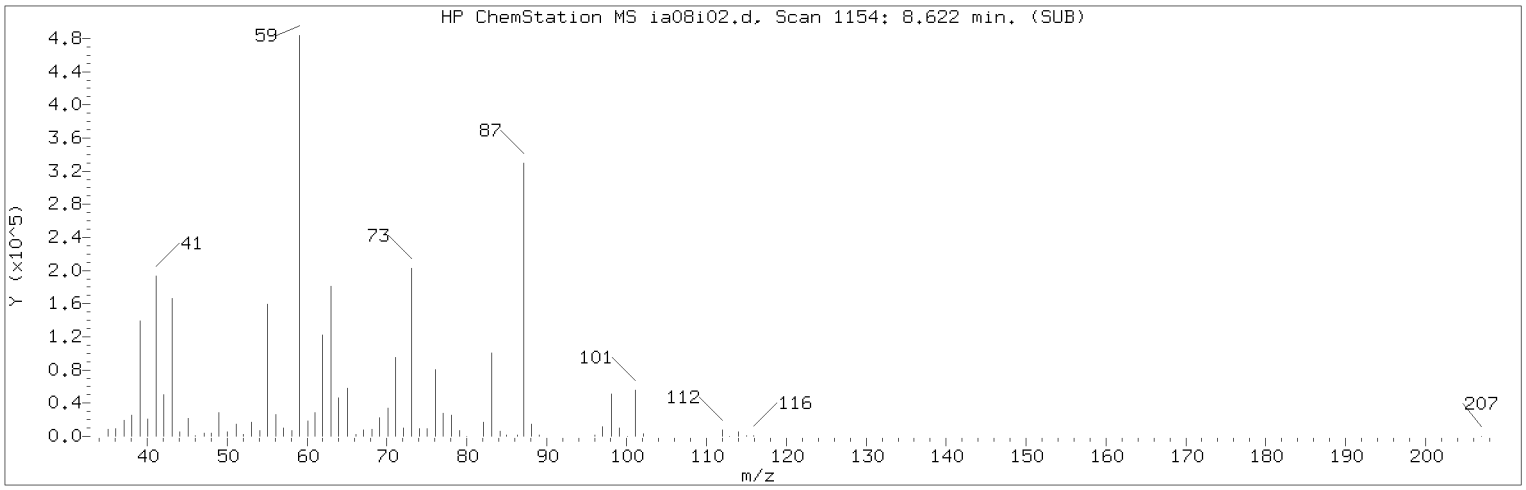
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

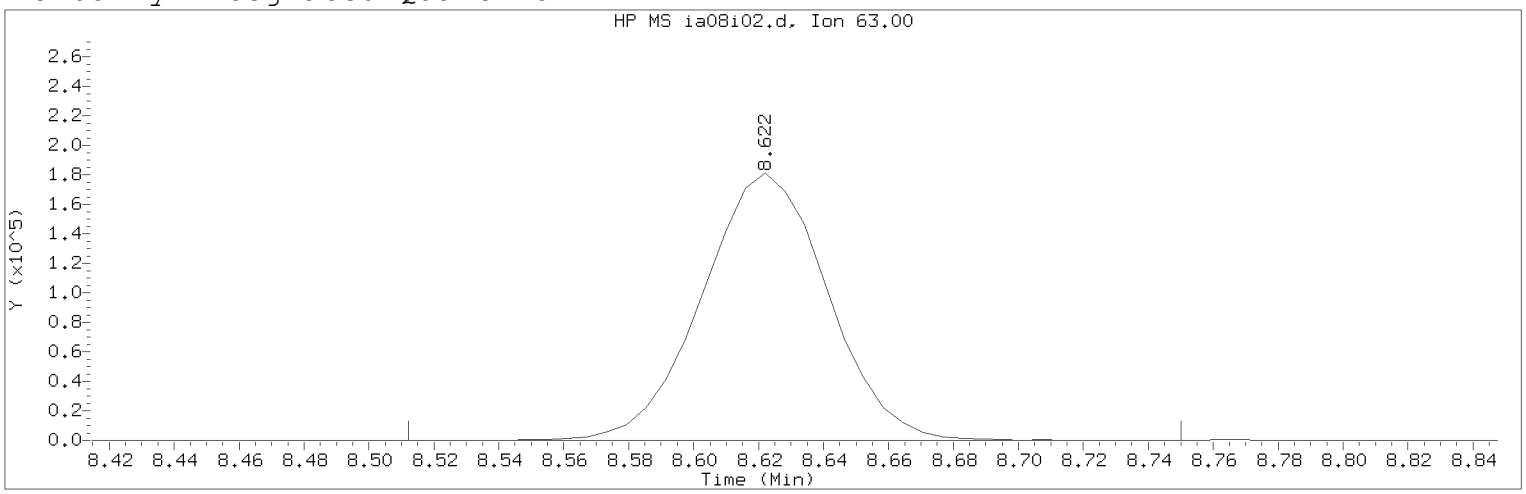
Compound Number : 69
Compound Name : Methylcyclohexane
Scan Number : 1100
Retention Time (minutes): 8.293
Quant Ion : 83.00
Area : 6447
On-column Amount (ng) : 31.3543
Integration start scan : 1090 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

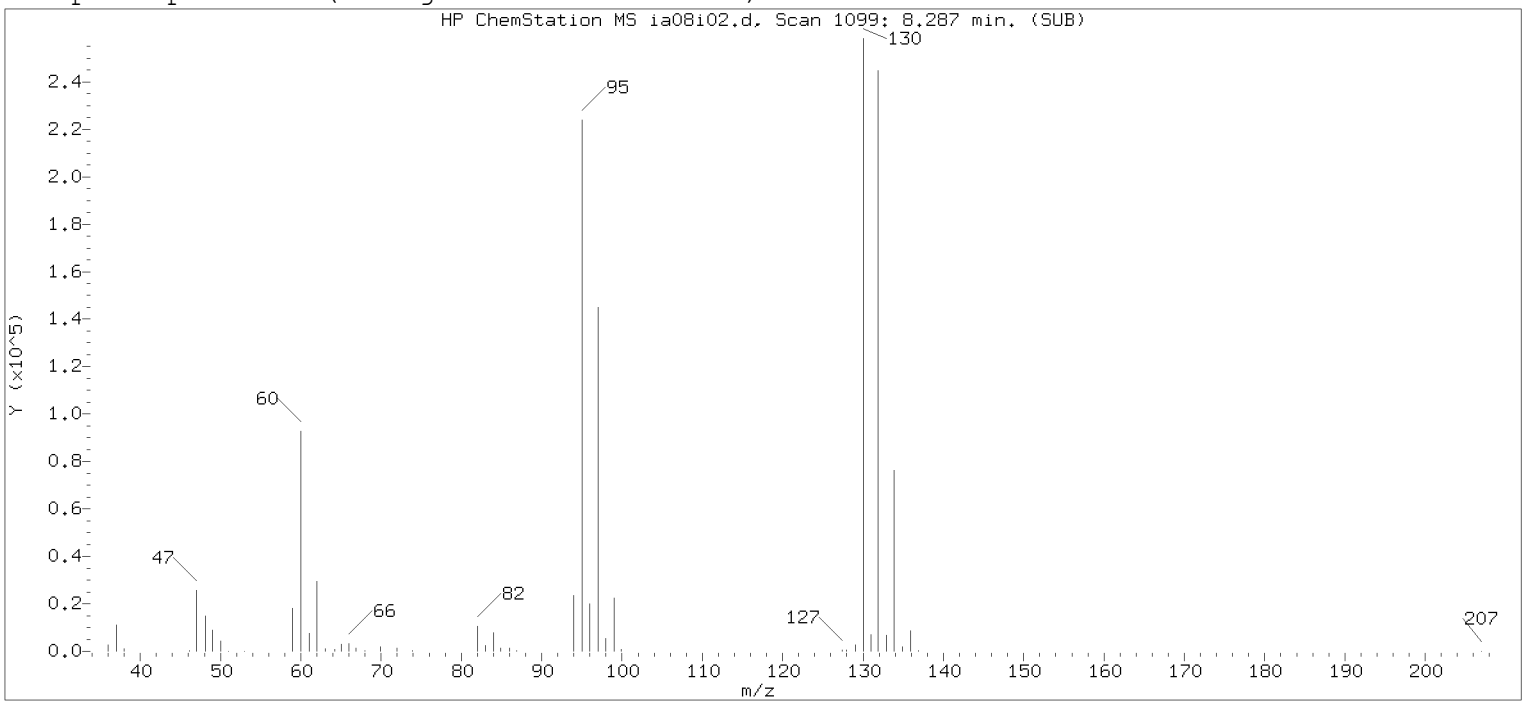
Compound Number : 70
Compound Name : 1,2-Dichloropropane
Scan Number : 1154
Retention Time (minutes): 8.622
Quant Ion : 63.00
Area (flag) : 486469M
On-Column Amount (ng) : 10.3163
Integration start scan : 1135 Integration stop scan: 1174
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

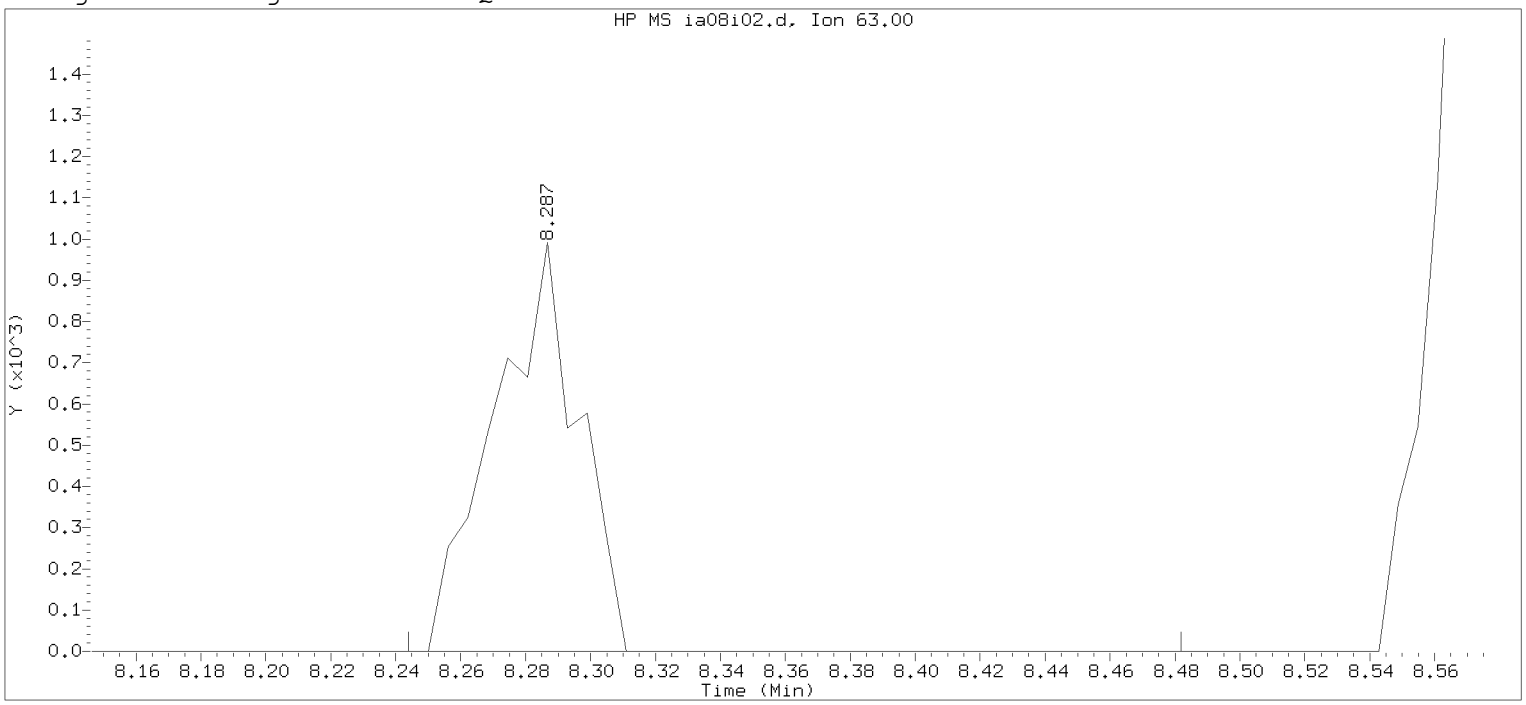
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

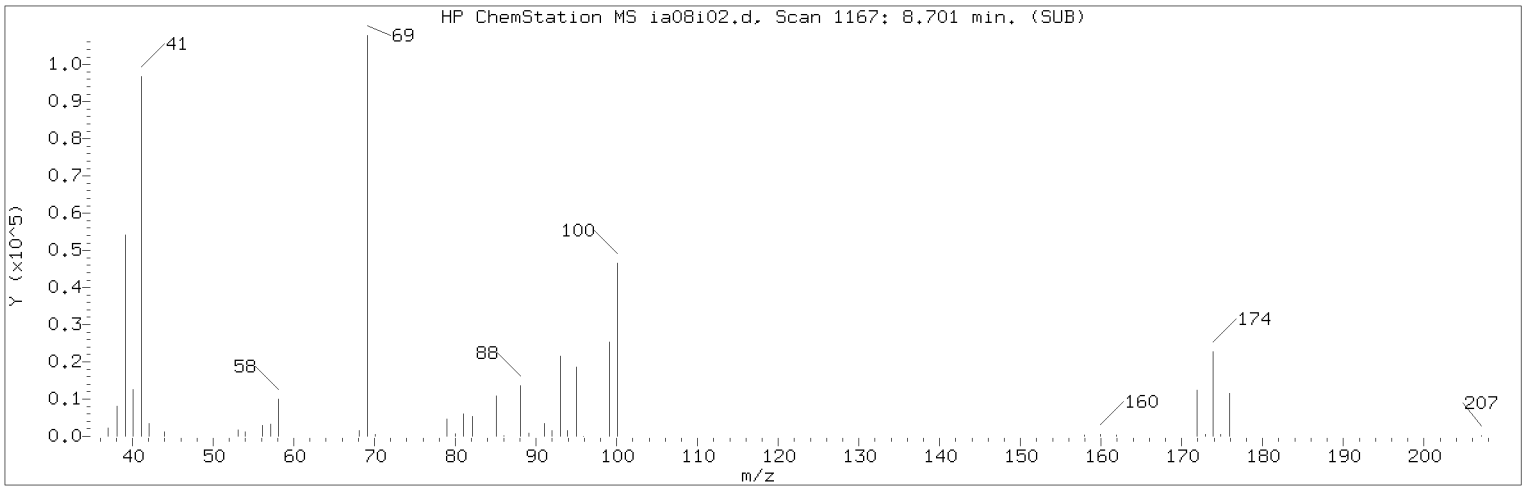
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

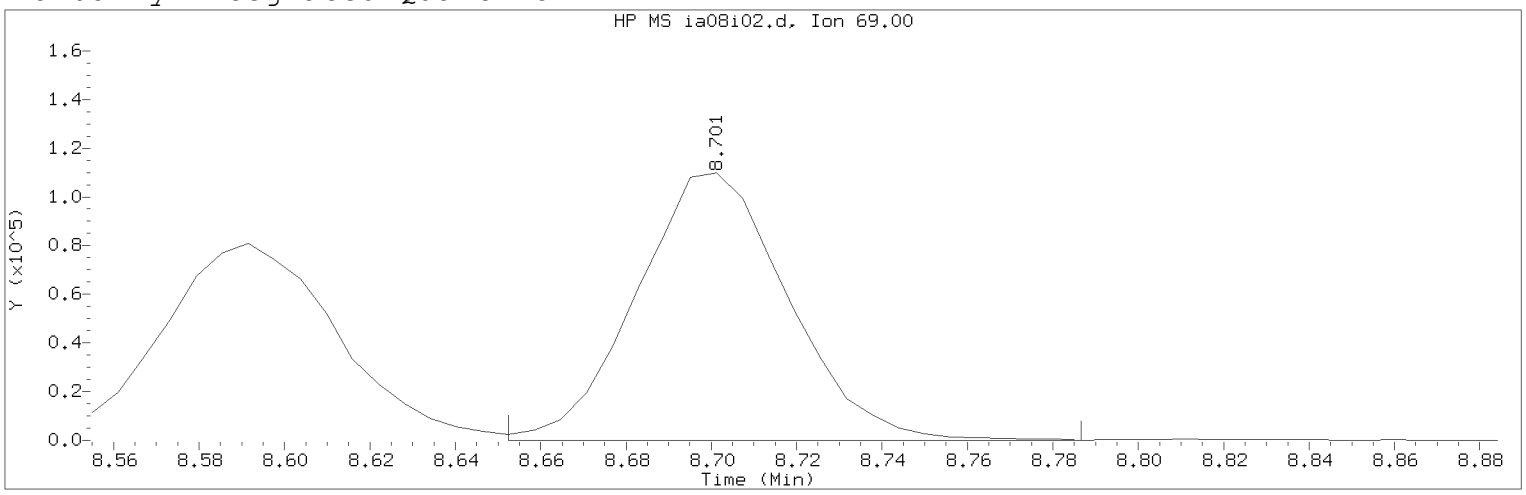
Compound Number : 70
Compound Name : 1,2-Dichloropropane
Scan Number : 1099
Retention Time (minutes): 8.287
Quant Ion : 63.00
Area : 1785
On-column Amount (ng) : 26.3325
Integration start scan : 1091 Integration stop scan: 1130
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: JHOWE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

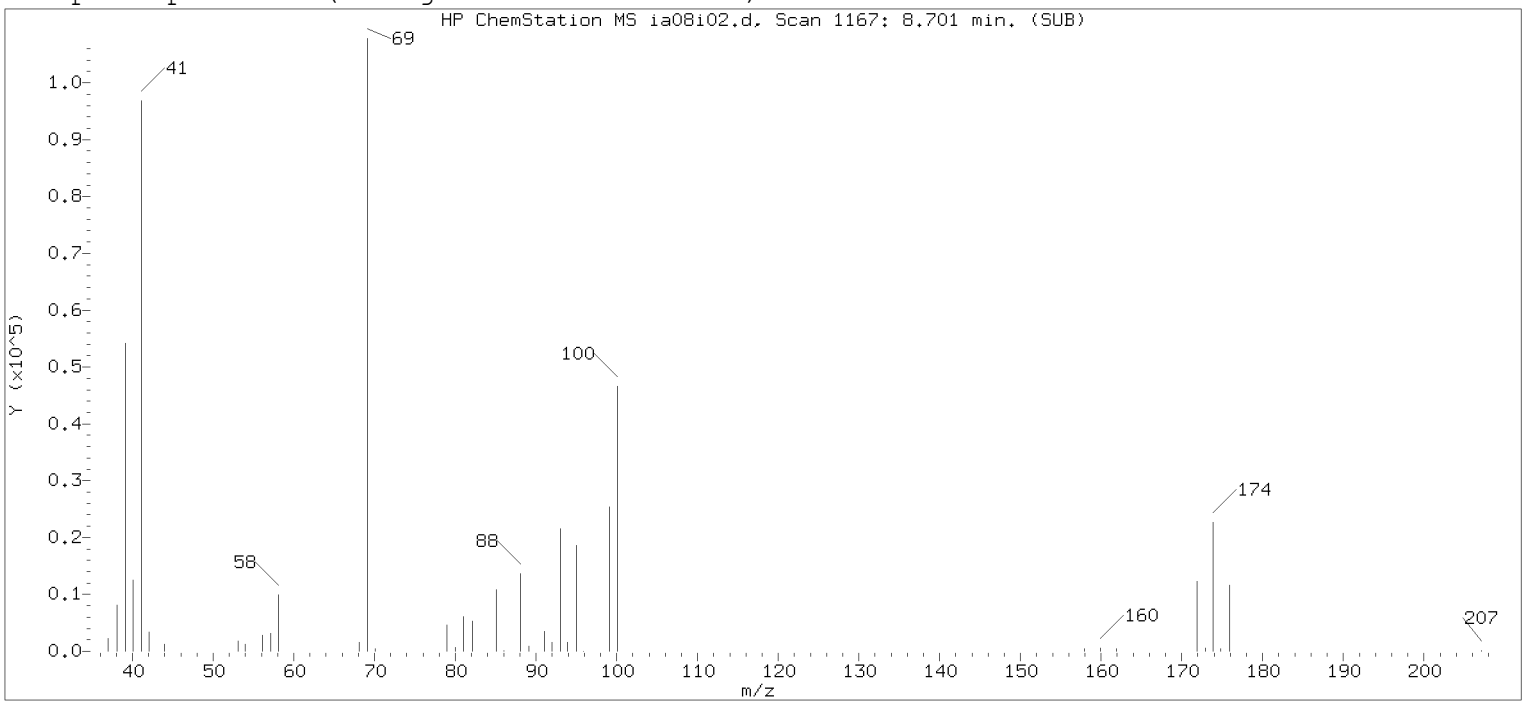
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1167
Retention Time (minutes): 8.701
Quant Ion : 69.00
Area (flag) : 270591M
On-Column Amount (ng) : 11.1167
Integration start scan : 1158 Integration stop scan: 1180
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

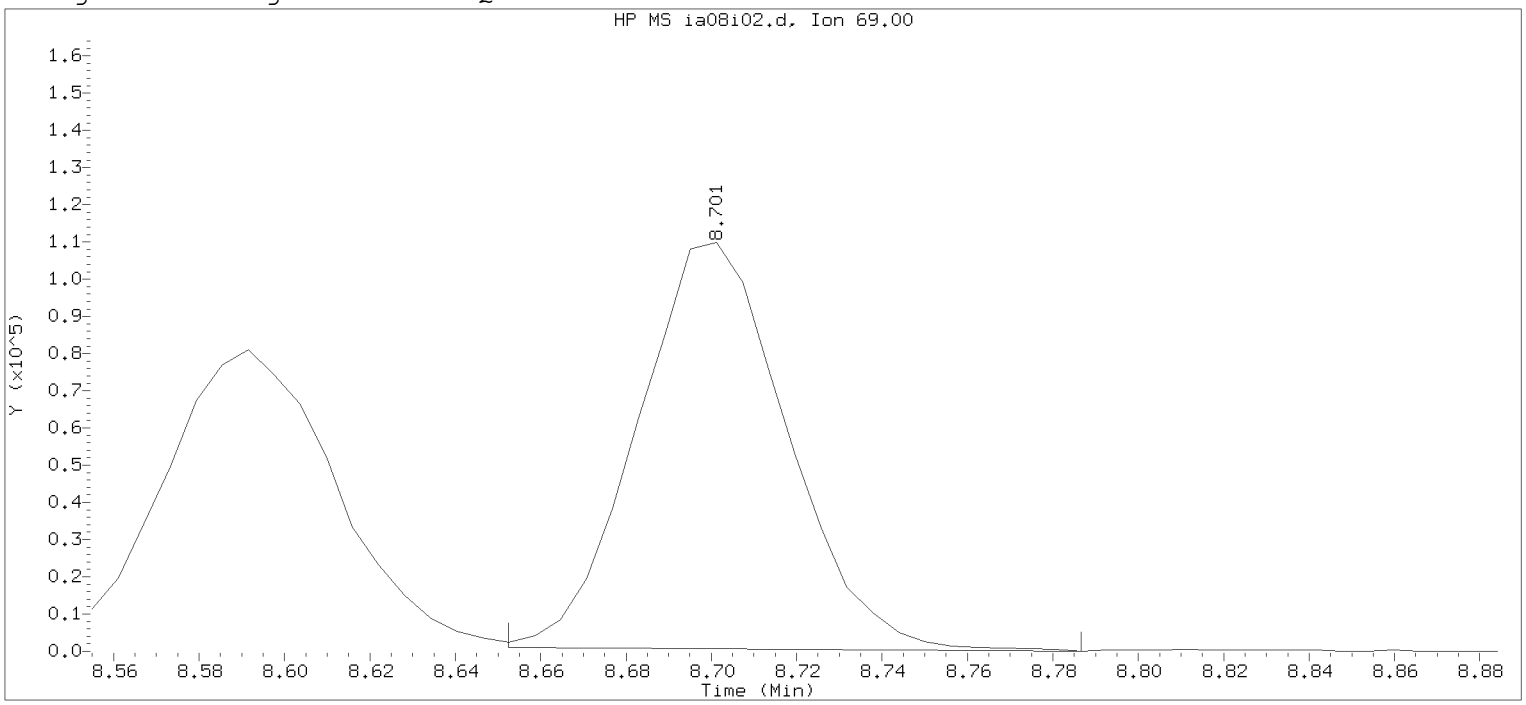
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

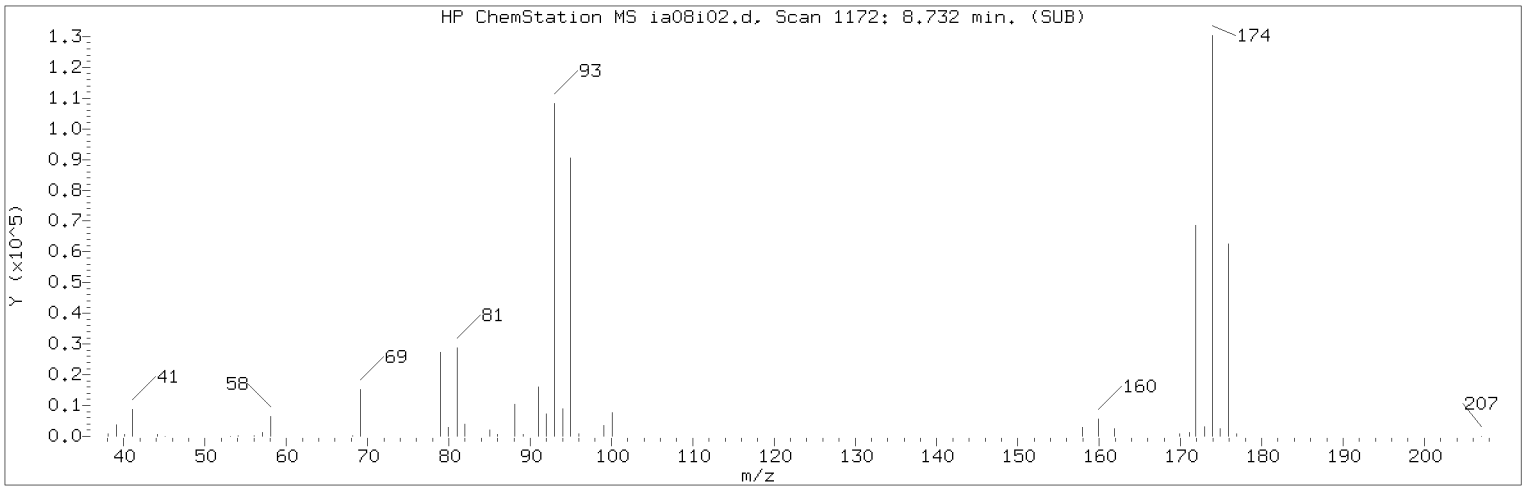
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

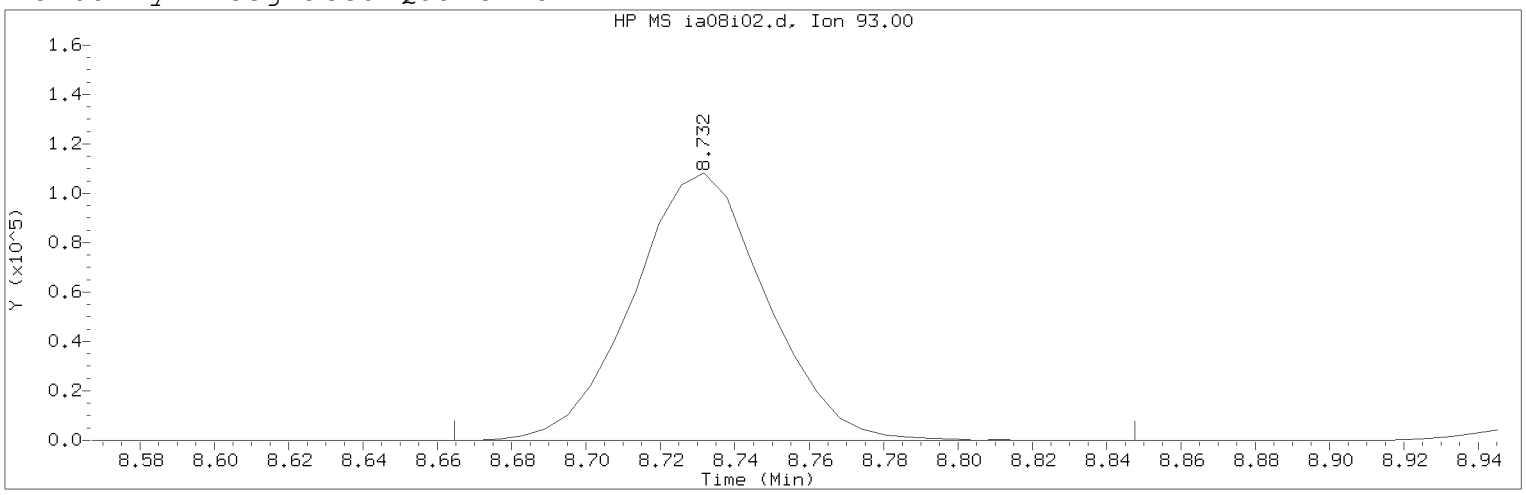
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1167
Retention Time (minutes): 8.701
Quant Ion : 69.00
Area : 266086
On-column Amount (ng) : 11.6240
Integration start scan : 1158 Integration stop scan: 1180
Y at integration start : 1009 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

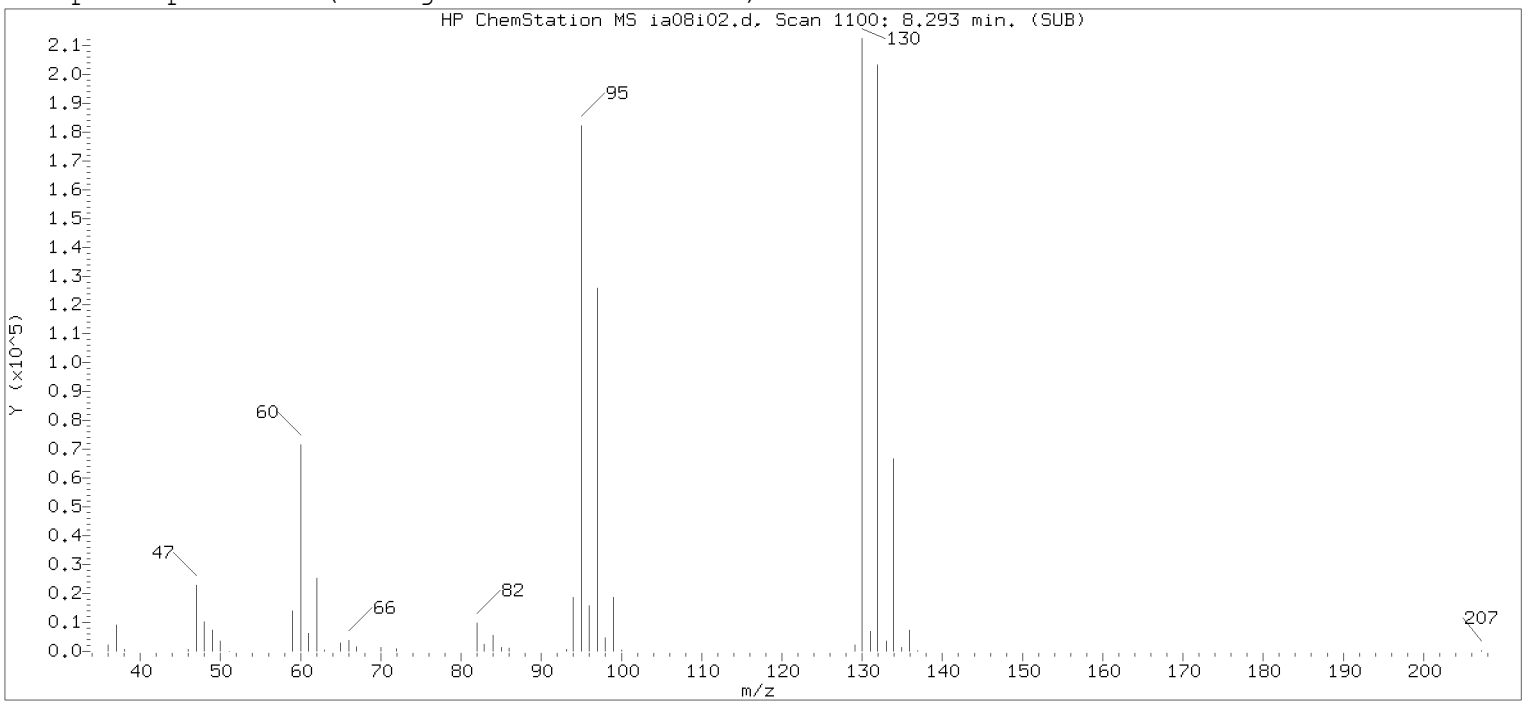
Compound Number : 73
Compound Name : Dibromomethane
Scan Number : 1172
Retention Time (minutes): 8.732
Quant Ion : 93.00
Area (flag) : 268687M
On-Column Amount (ng) : 10.1357
Integration start scan : 1160 Integration stop scan: 1190
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

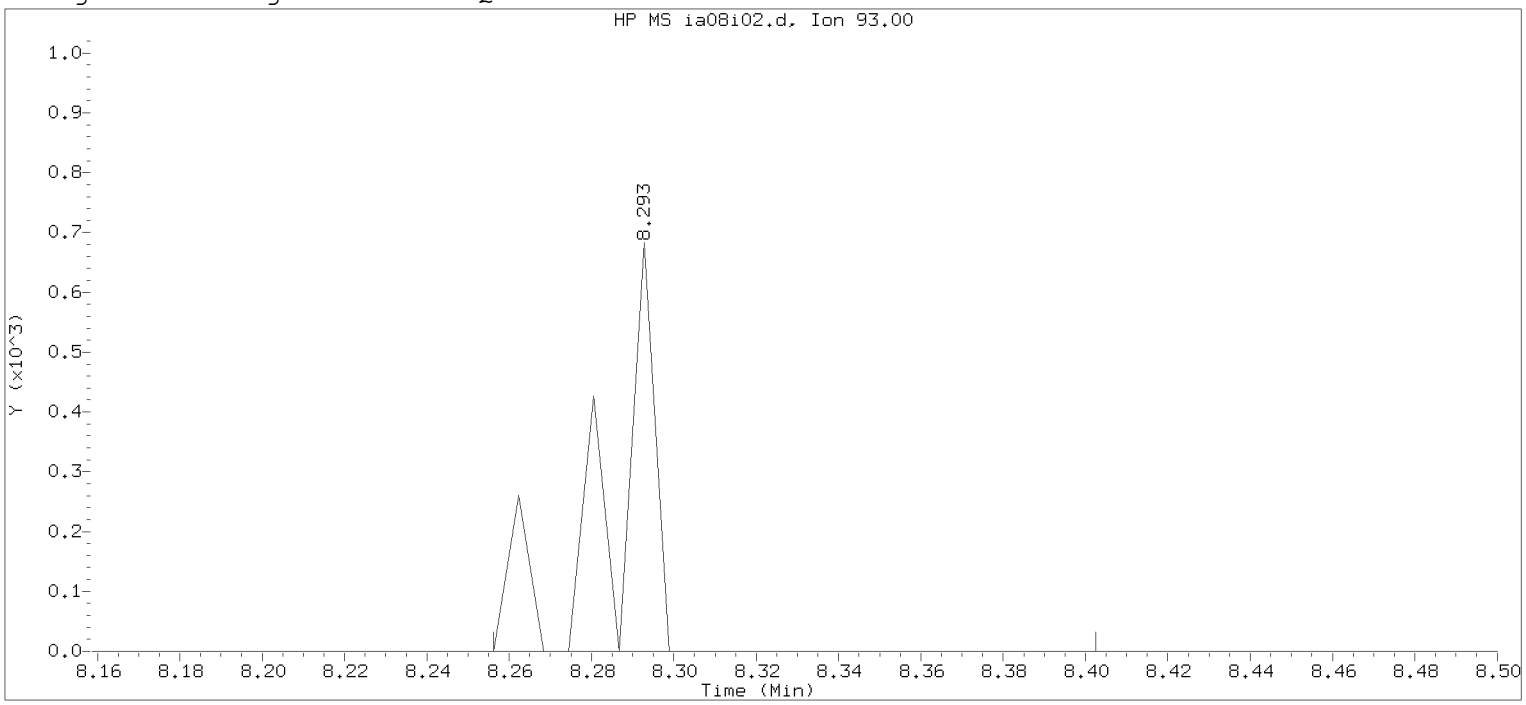
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

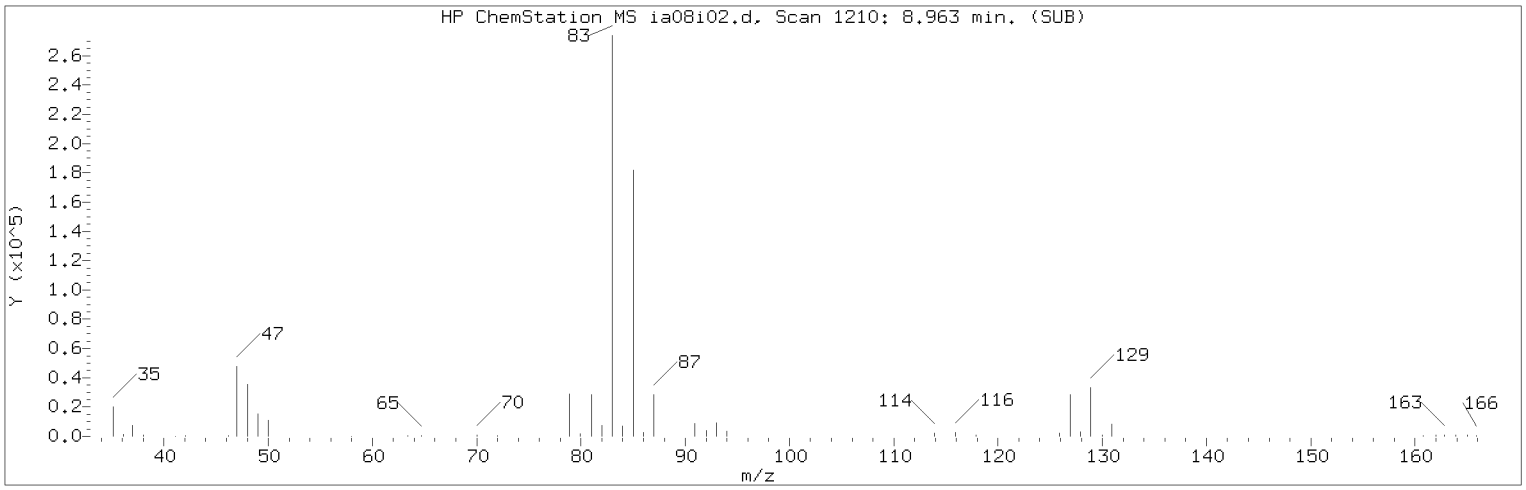
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

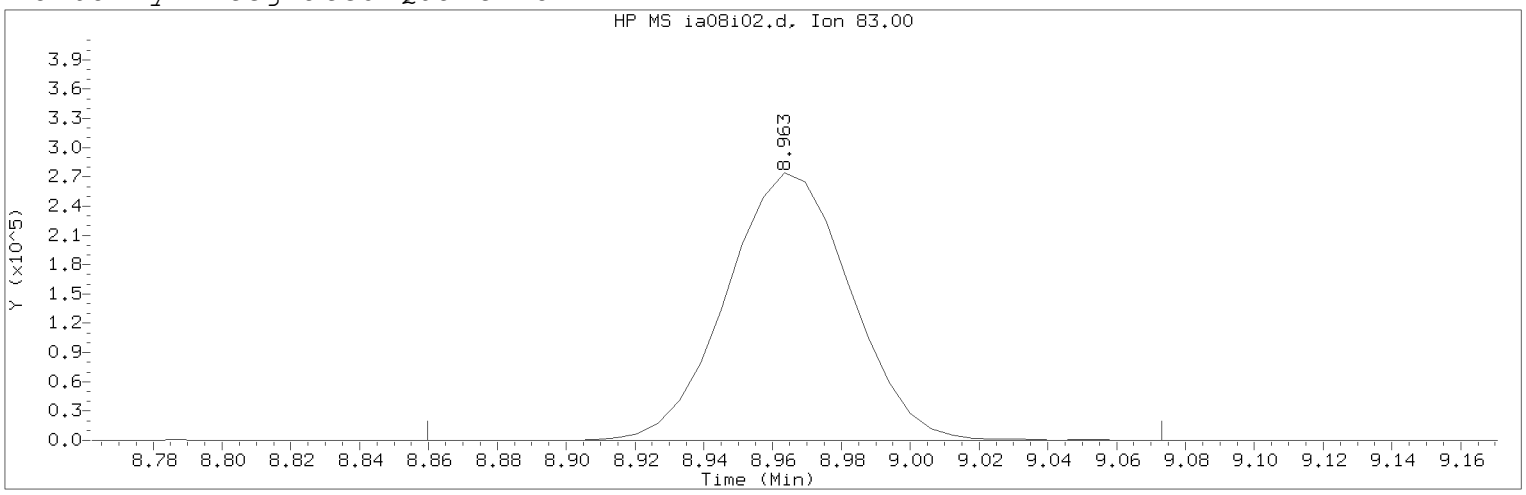
Compound Number : 73
Compound Name : Dibromomethane
Scan Number : 1100
Retention Time (minutes): 8.293
Quant Ion : 93.00
Area : 501
On-column Amount (ng) : 21.7377
Integration start scan : 1093 Integration stop scan: 1117
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

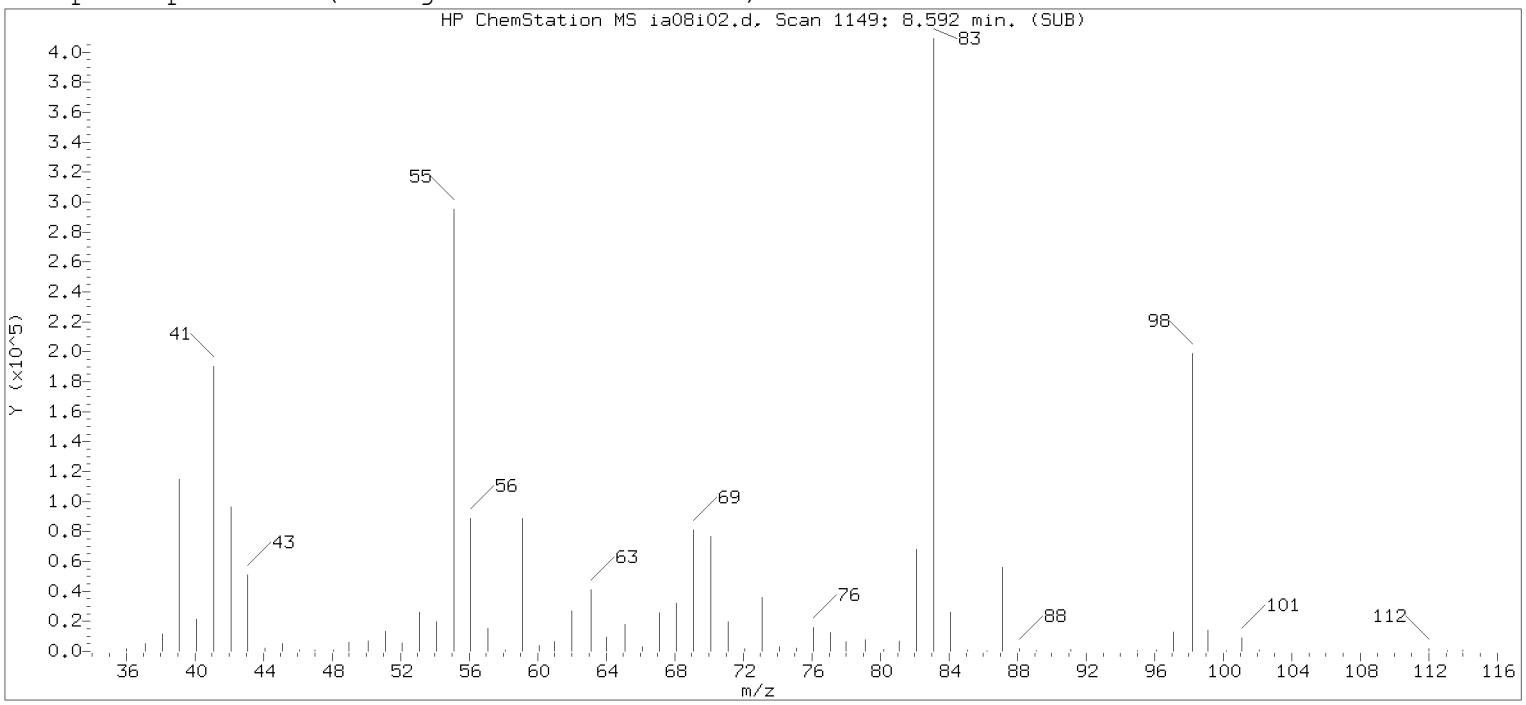
Compound Number : 74
Compound Name : Bromodichloromethane
Scan Number : 1210
Retention Time (minutes): 8.963
Quant Ion : 83.00
Area (flag) : 685081M
On-Column Amount (ng) : 10.4676
Integration start scan : 1192 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

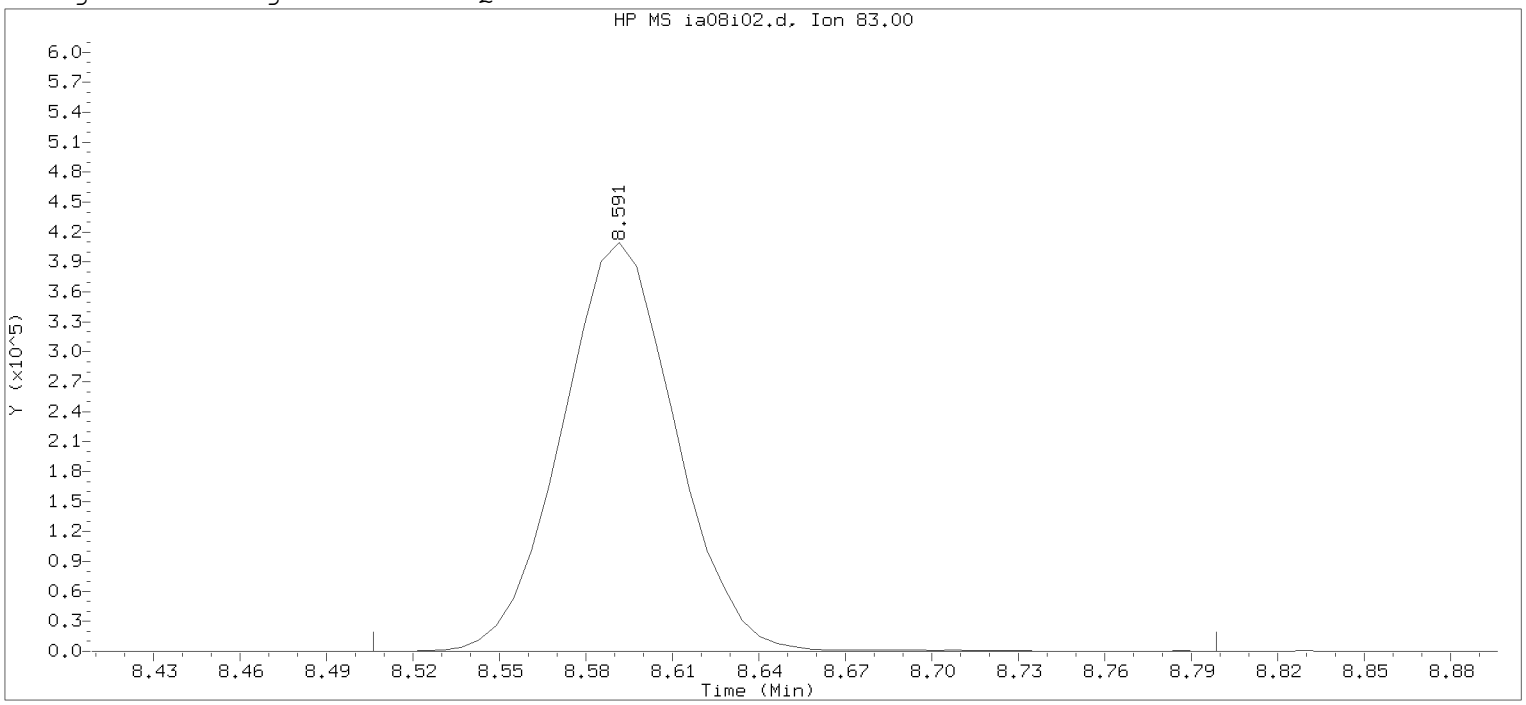
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

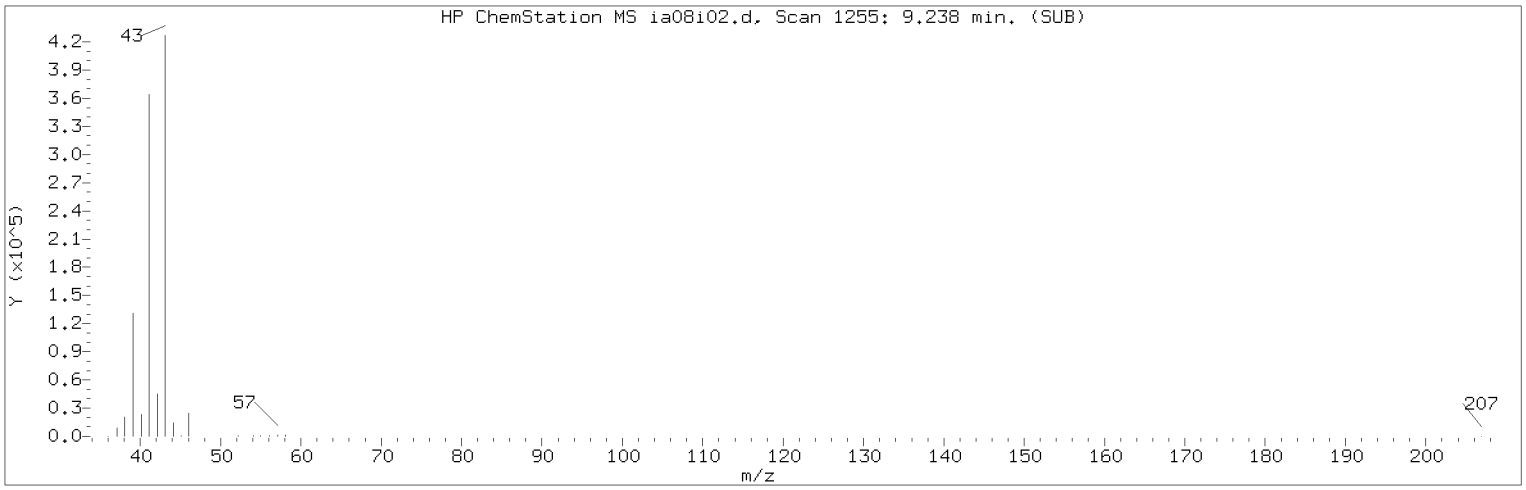
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

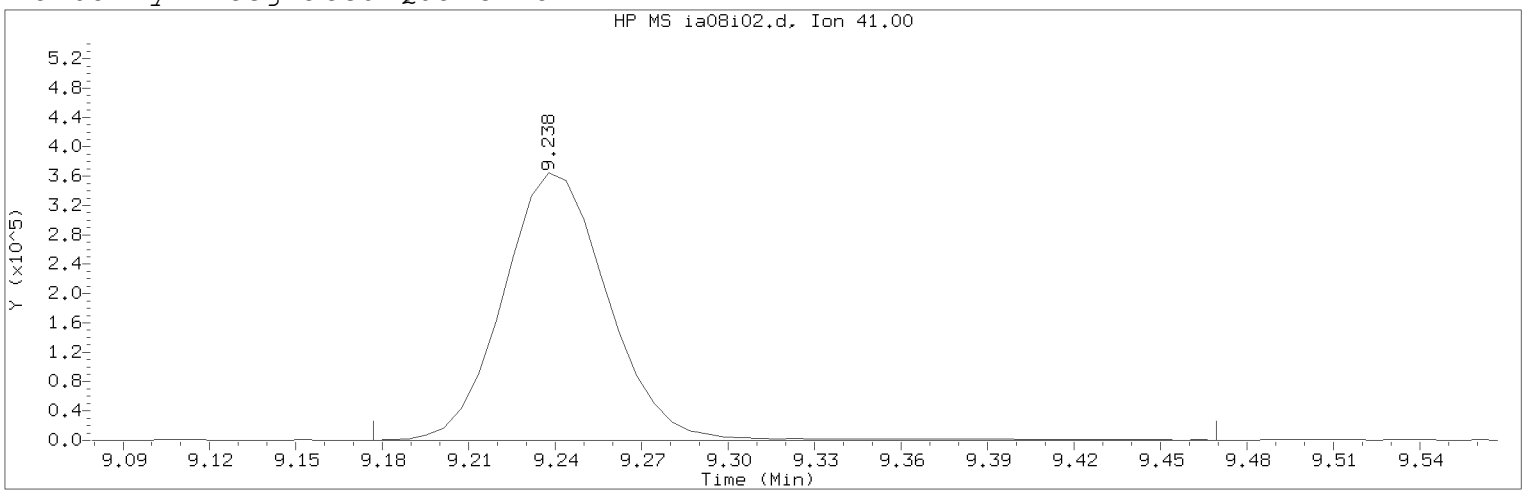
Compound Number : 74
Compound Name : Bromodichloromethane
Scan Number : 1149
Retention Time (minutes): 8.591
Quant Ion : 83.00
Area : 1123009
On-column Amount (ng) : 47.8571
Integration start scan : 1134 Integration stop scan: 1182
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 1116

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

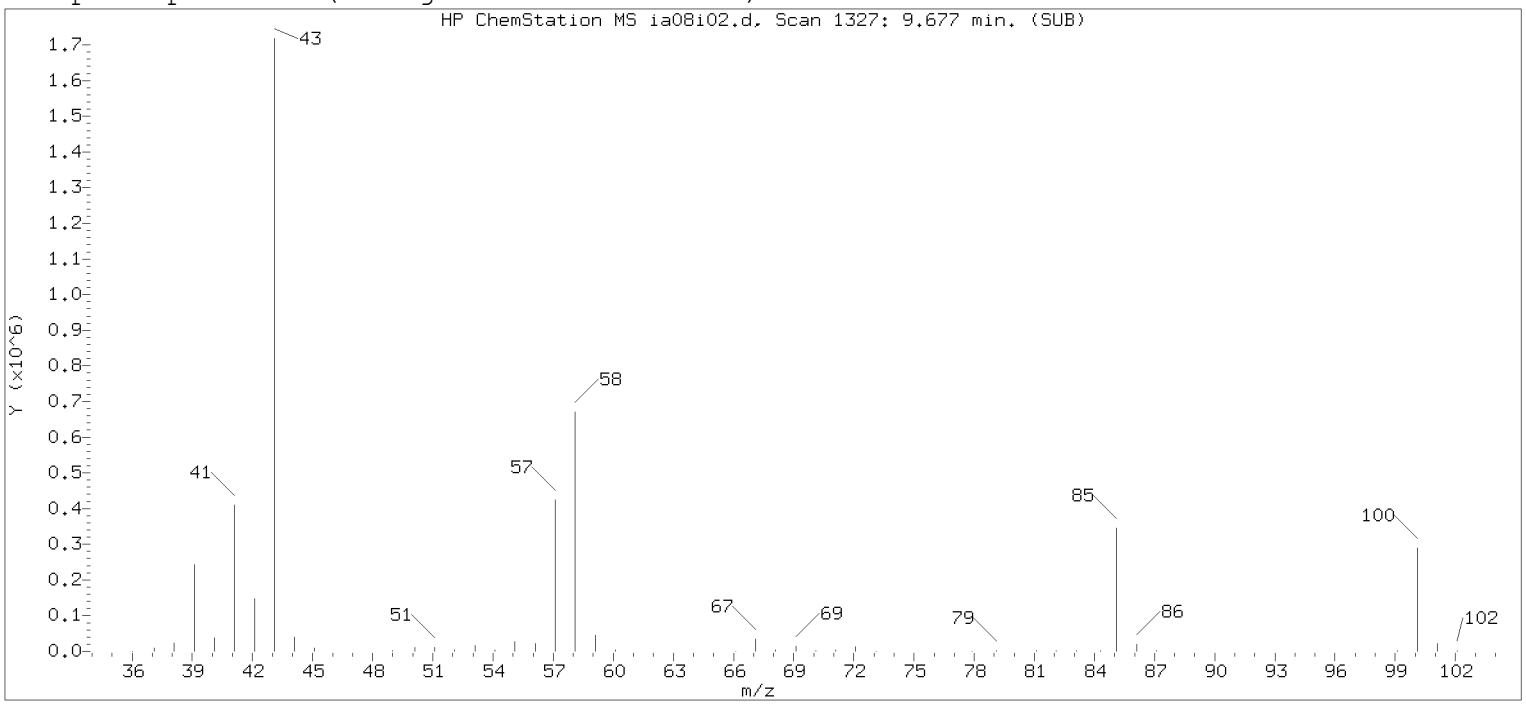
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1255
Retention Time (minutes): 9.238
Quant Ion : 41.00
Area (flag) : 923046M
On-Column Amount (ng) : 113.9693
Integration start scan : 1244 Integration stop scan: 1292
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

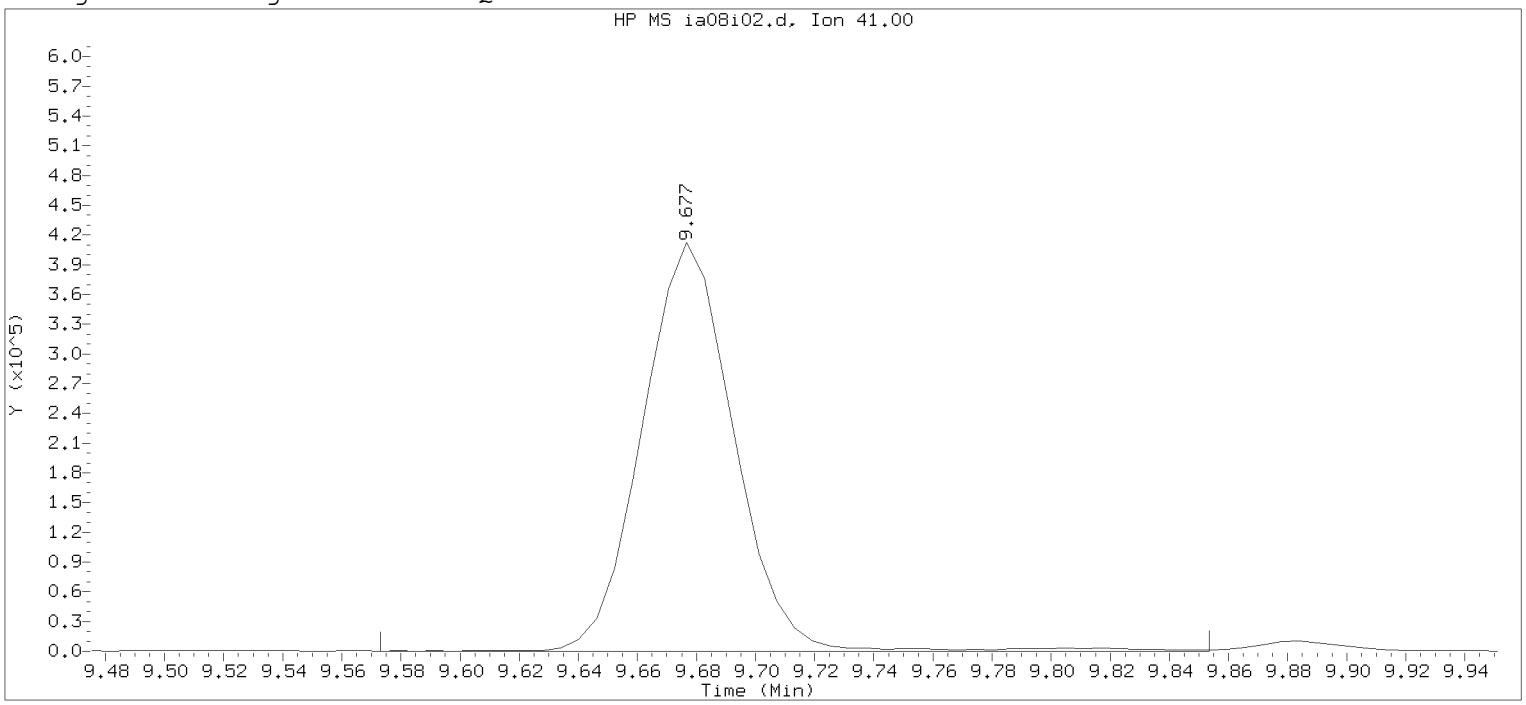
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

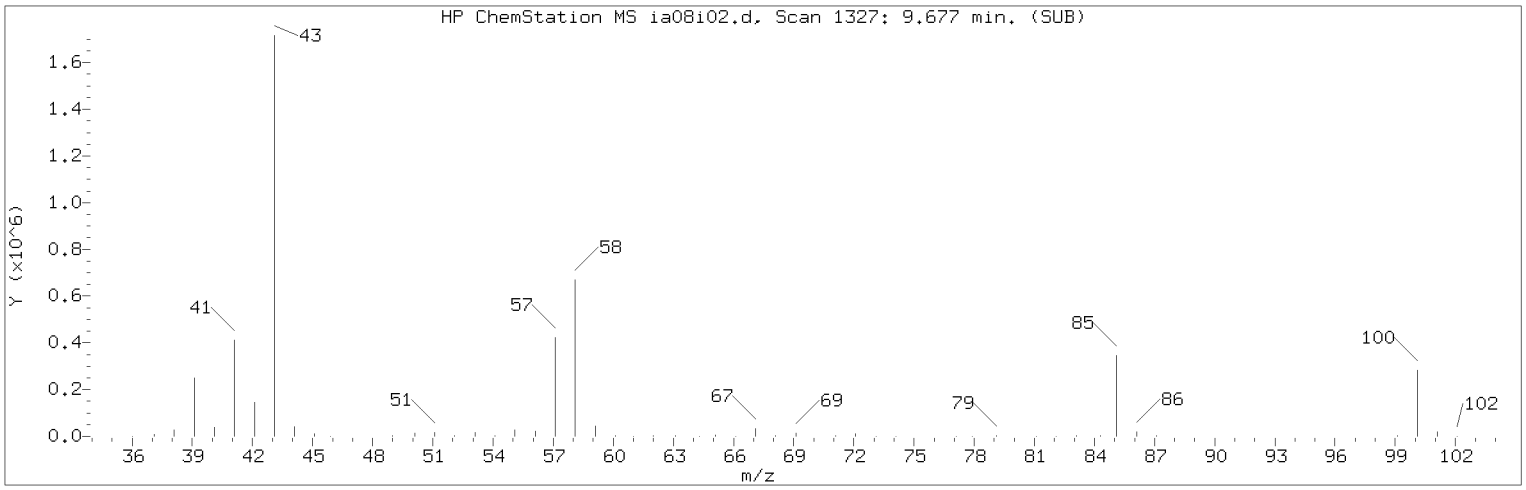
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

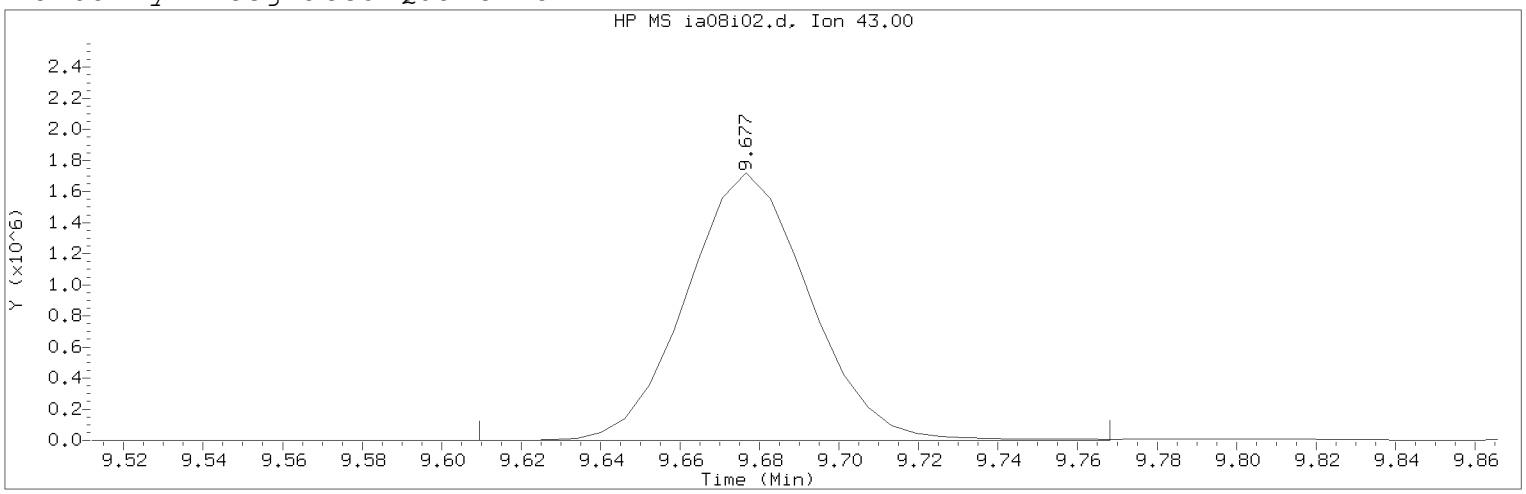
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 41.00
Area : 892740
On-column Amount (ng) : 7.3322
Integration start scan : 1309 Integration stop scan: 1355
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: F35 Page 1118

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

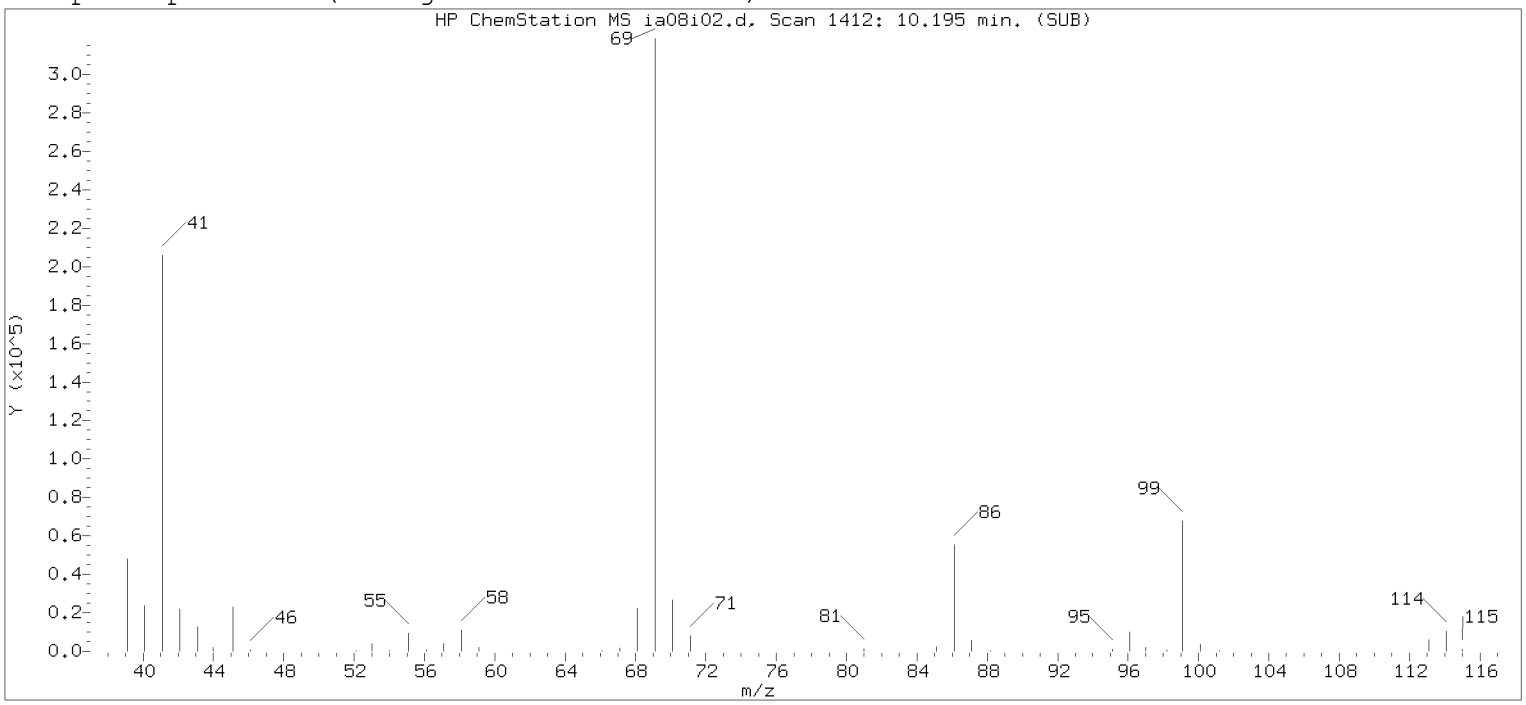
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 43.00
Area (flag) : 3688164M
On-Column Amount (ng) : 113.1912
Integration start scan : 1315 Integration stop scan: 1341
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

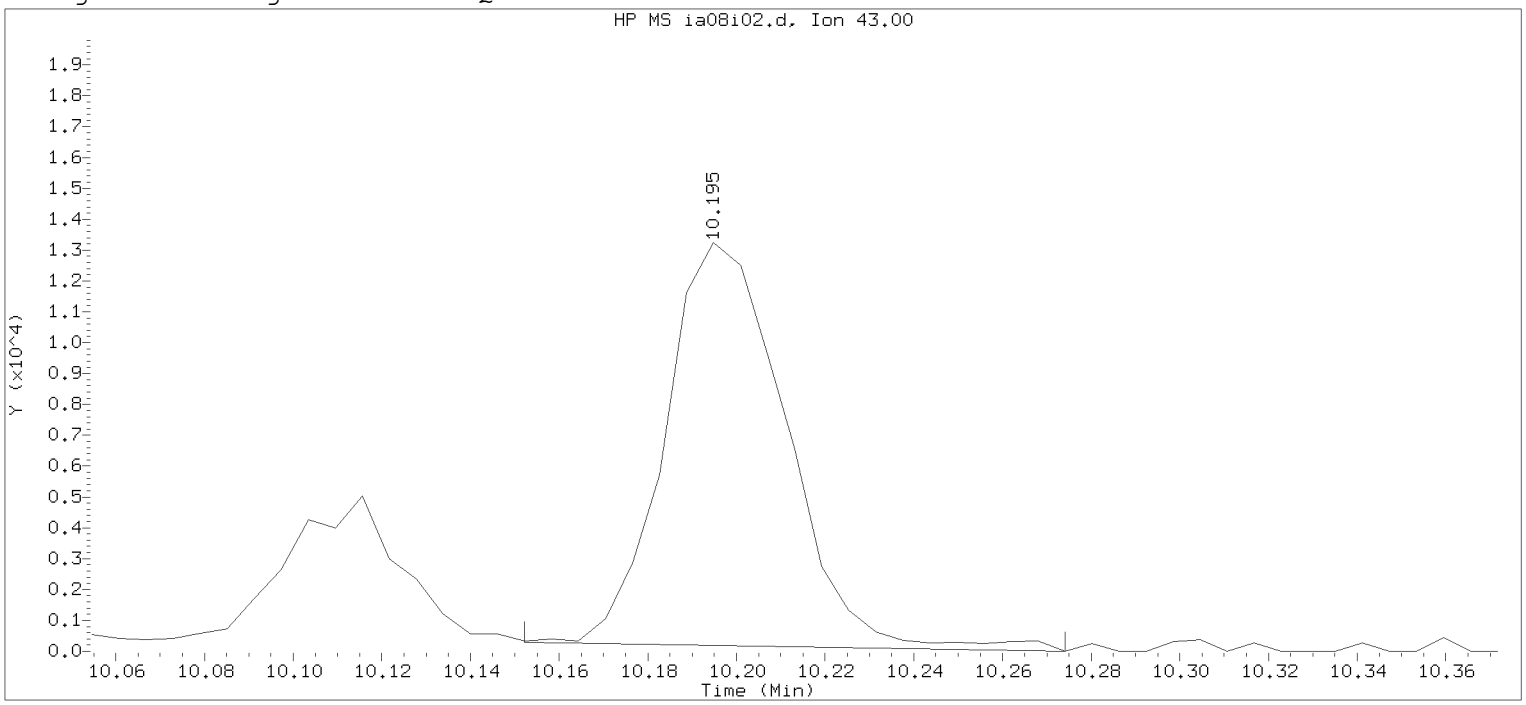
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

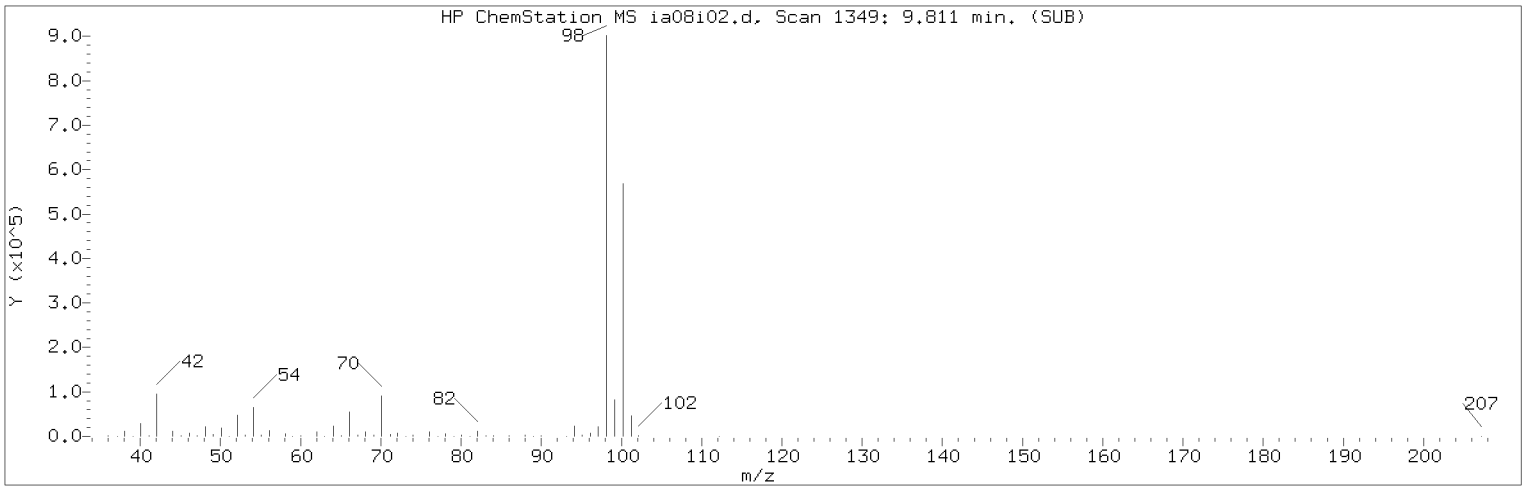
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

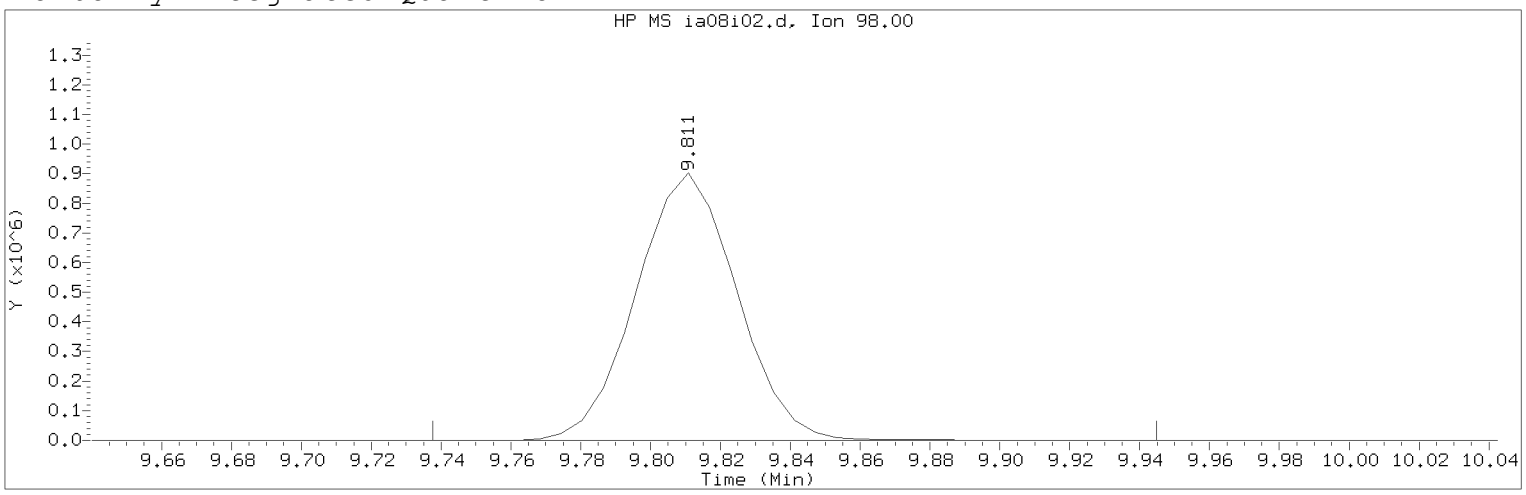
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1412
Retention Time (minutes): 10.195
Quant Ion : 43.00
Area : 24731
On-column Amount (ng) : 0.0603
Integration start scan : 1404 Integration stop scan: 1424
Y at integration start : 287 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user F35 Page 1120

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

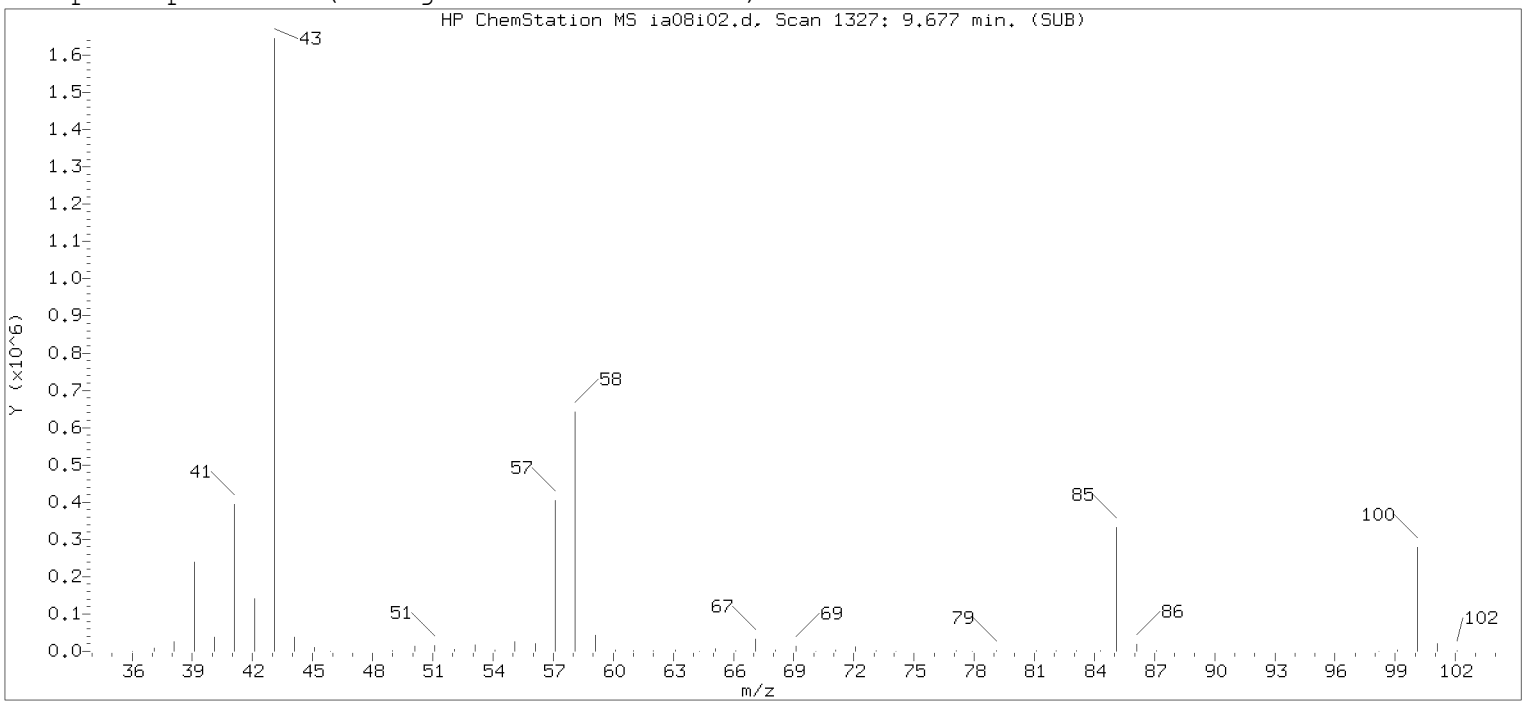
Compound Number : 82
Compound Name : Toluene-d8
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 98.00
Area (flag) : 1808851M
On-Column Amount (ng) : 10.0021
Integration start scan : 1336 Integration stop scan: 1370
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

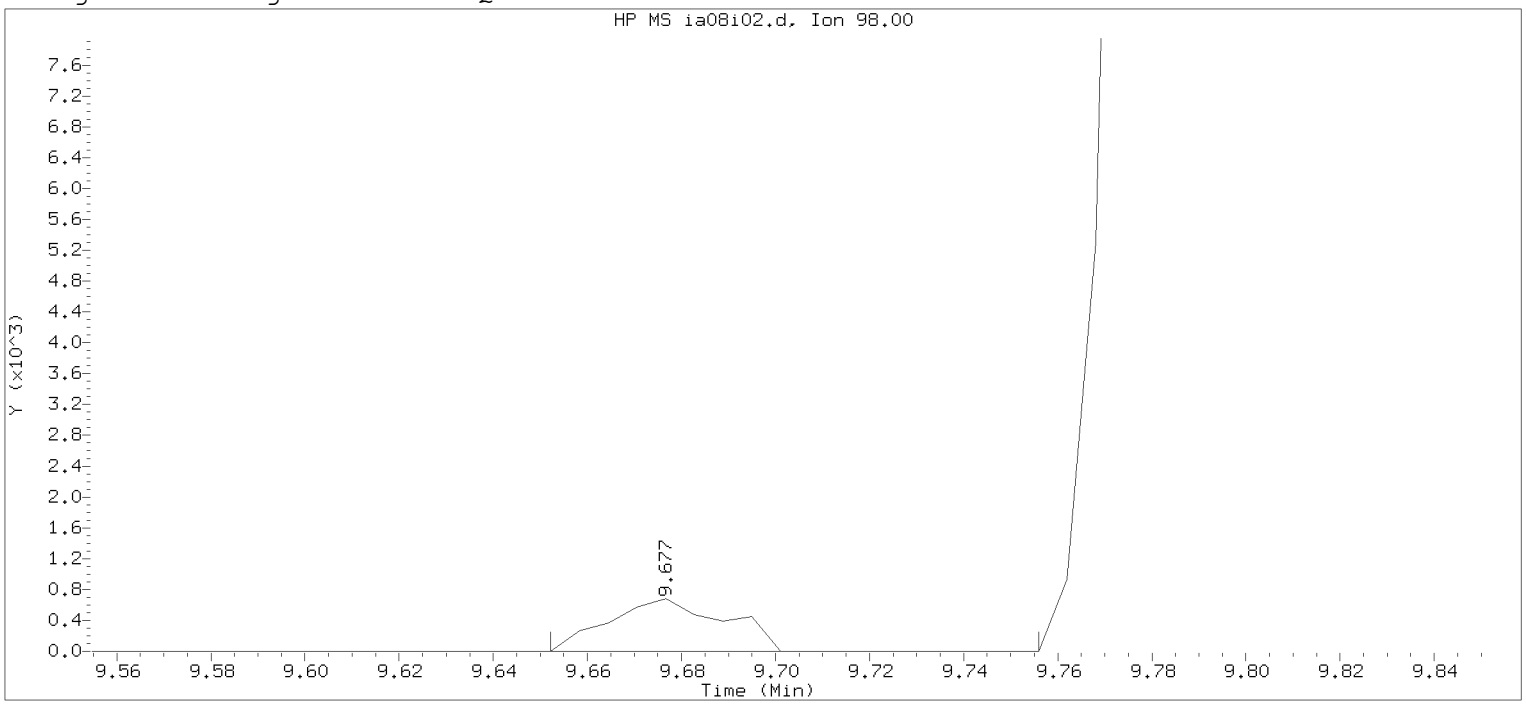
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

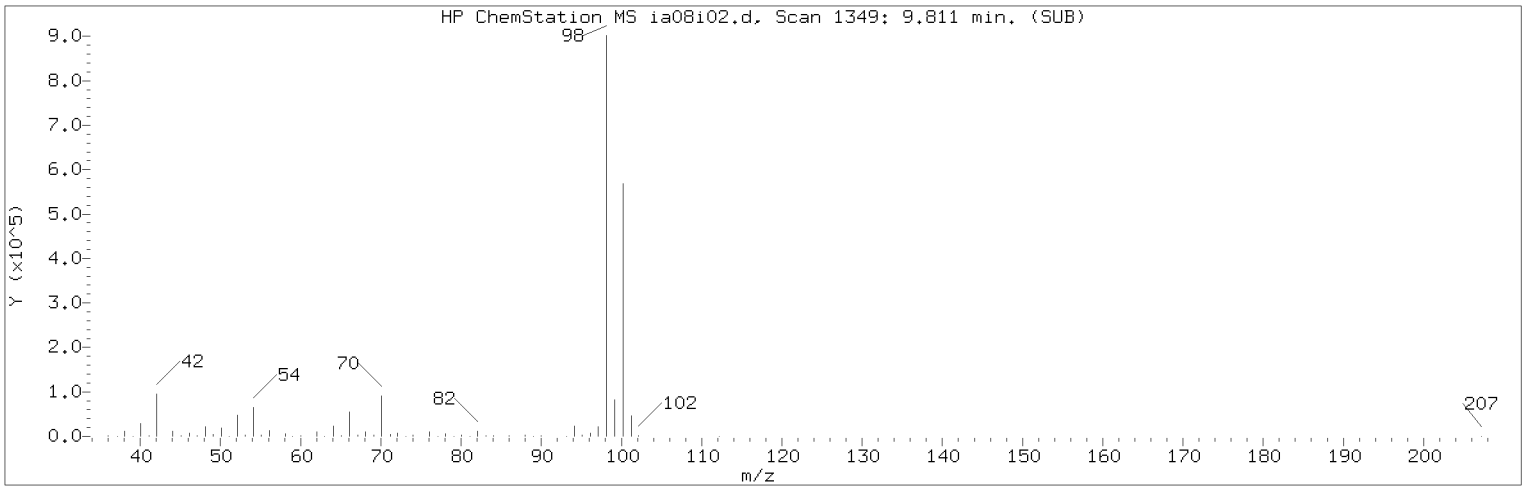
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

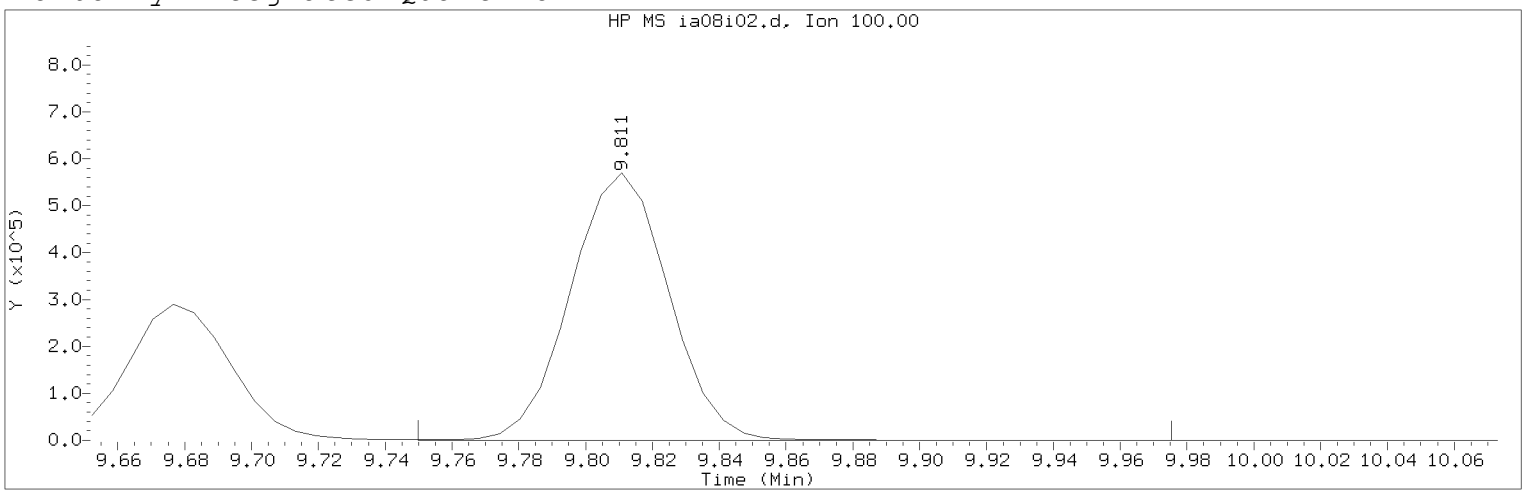
Compound Number : 82
Compound Name : Toluene-d8
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 98.00
Area : 1173
On-column Amount (ng) : 0.0085
Integration start scan : 1322 Integration stop scan: 1339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Page 112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

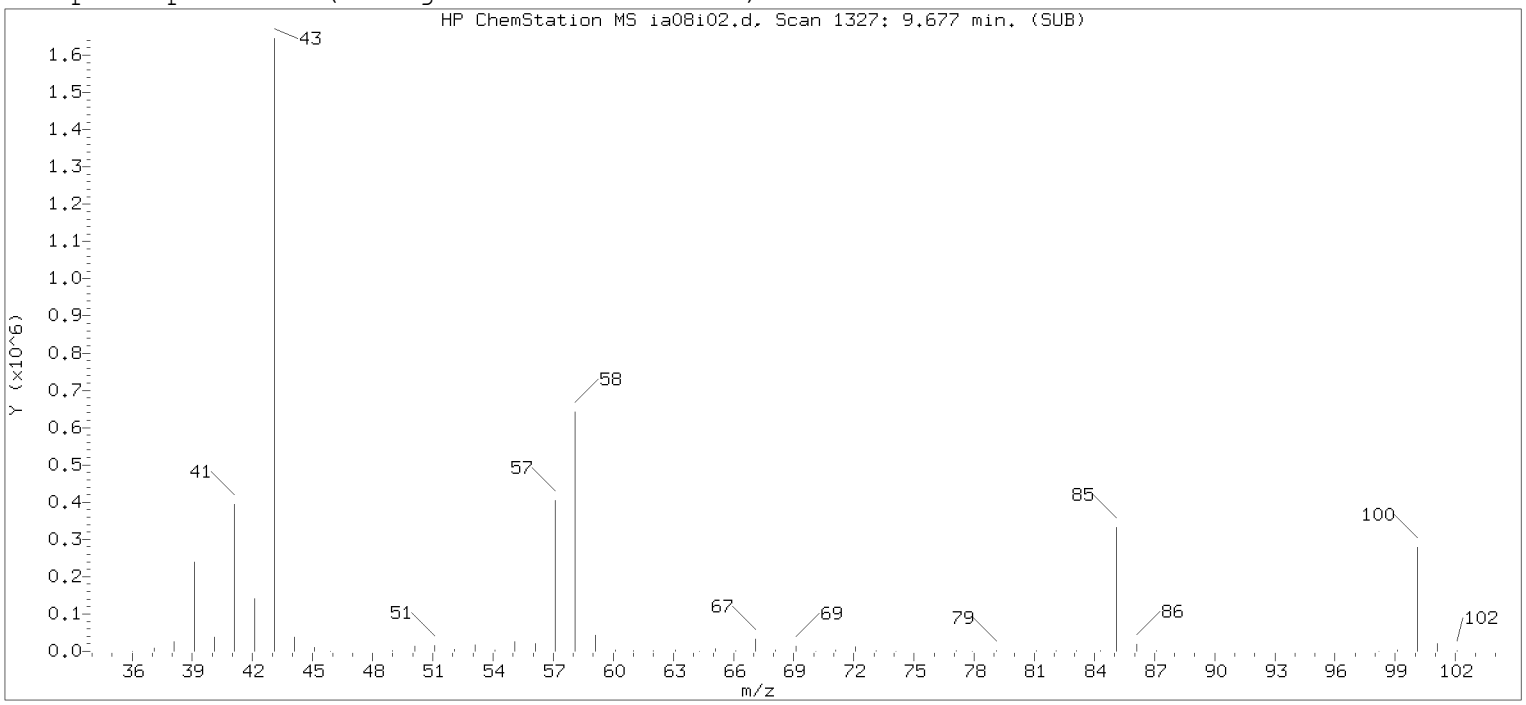
Compound Number : 82
Compound Name : Toluene-d8
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 100.00
Area (flag) : 1162221M
On-Column Amount (ng) : 10.0206
Integration start scan : 1338 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

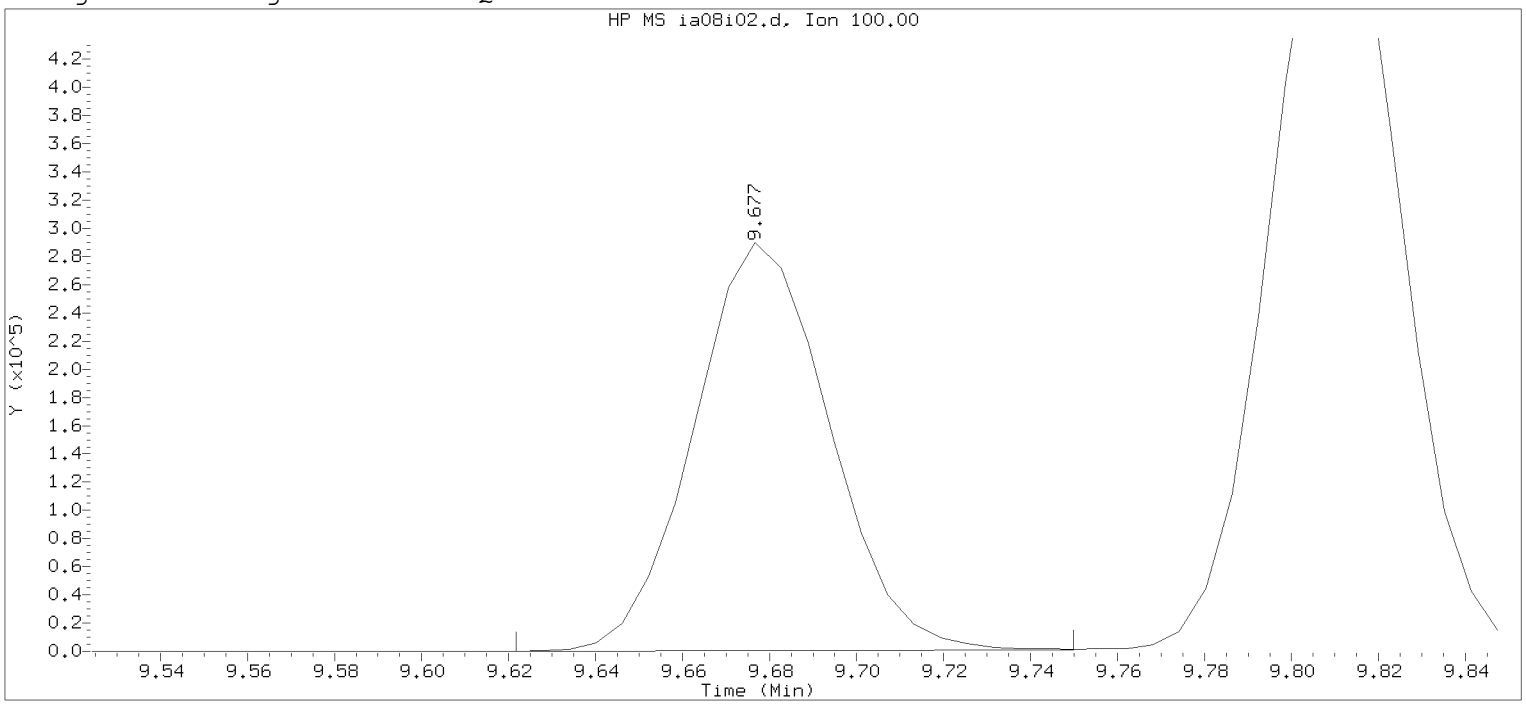
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

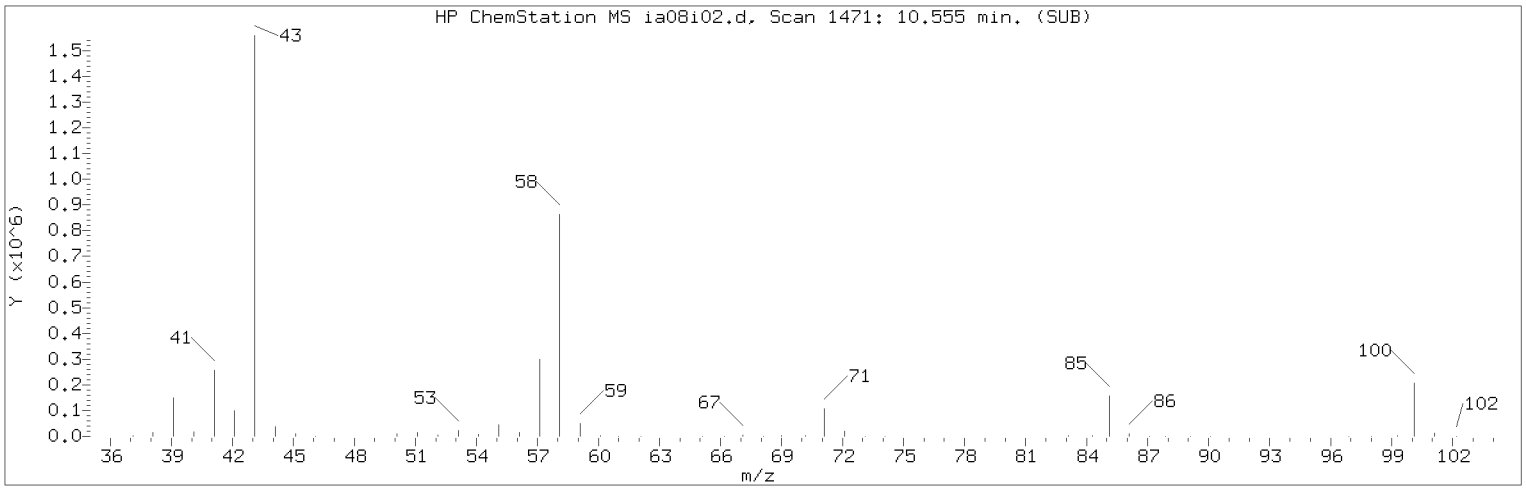
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

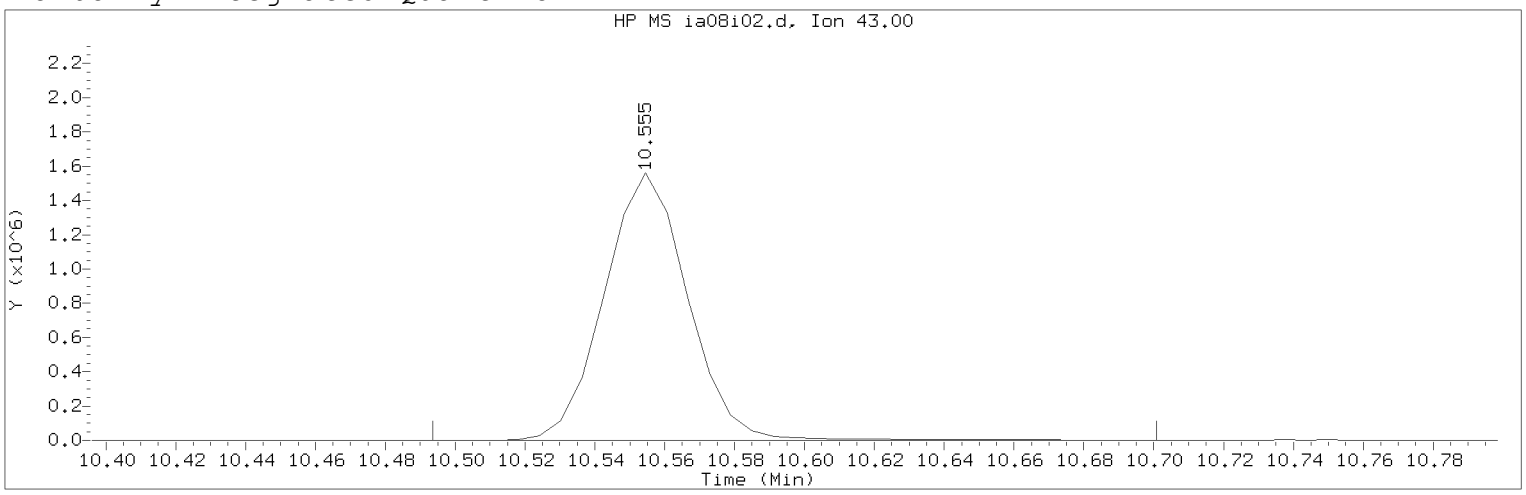
Compound Number : 82
Compound Name : Toluene-d8
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 100.00
Area : 627041
On-column Amount (ng) : 5.1849
Integration start scan : 1317 Integration stop scan: 1338
Y at integration start : 0 Y at integration end: 699

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

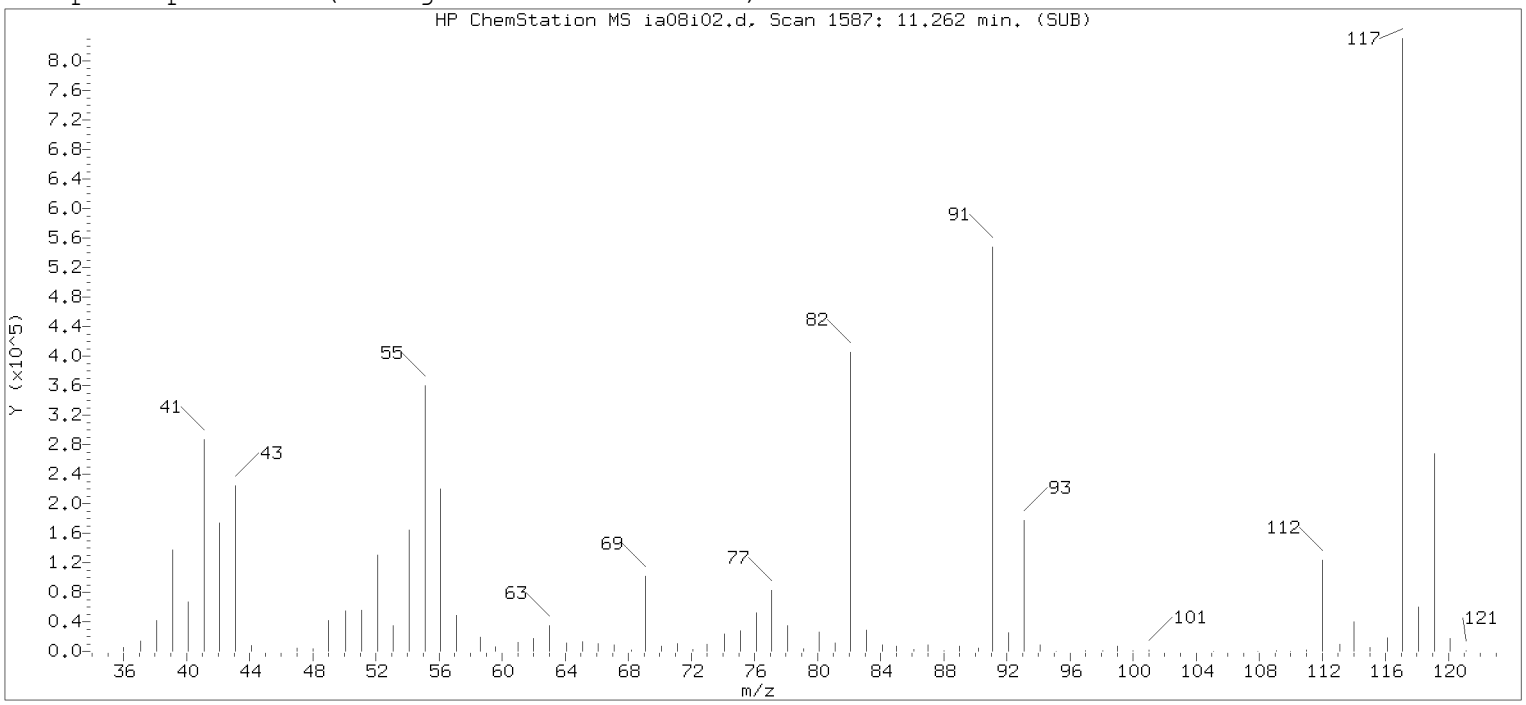
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1471
Retention Time (minutes): 10.555
Quant Ion : 43.00
Area (flag) : 2587116M
On-Column Amount (ng) : 111.9734
Integration start scan : 1460 Integration stop scan: 1494
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

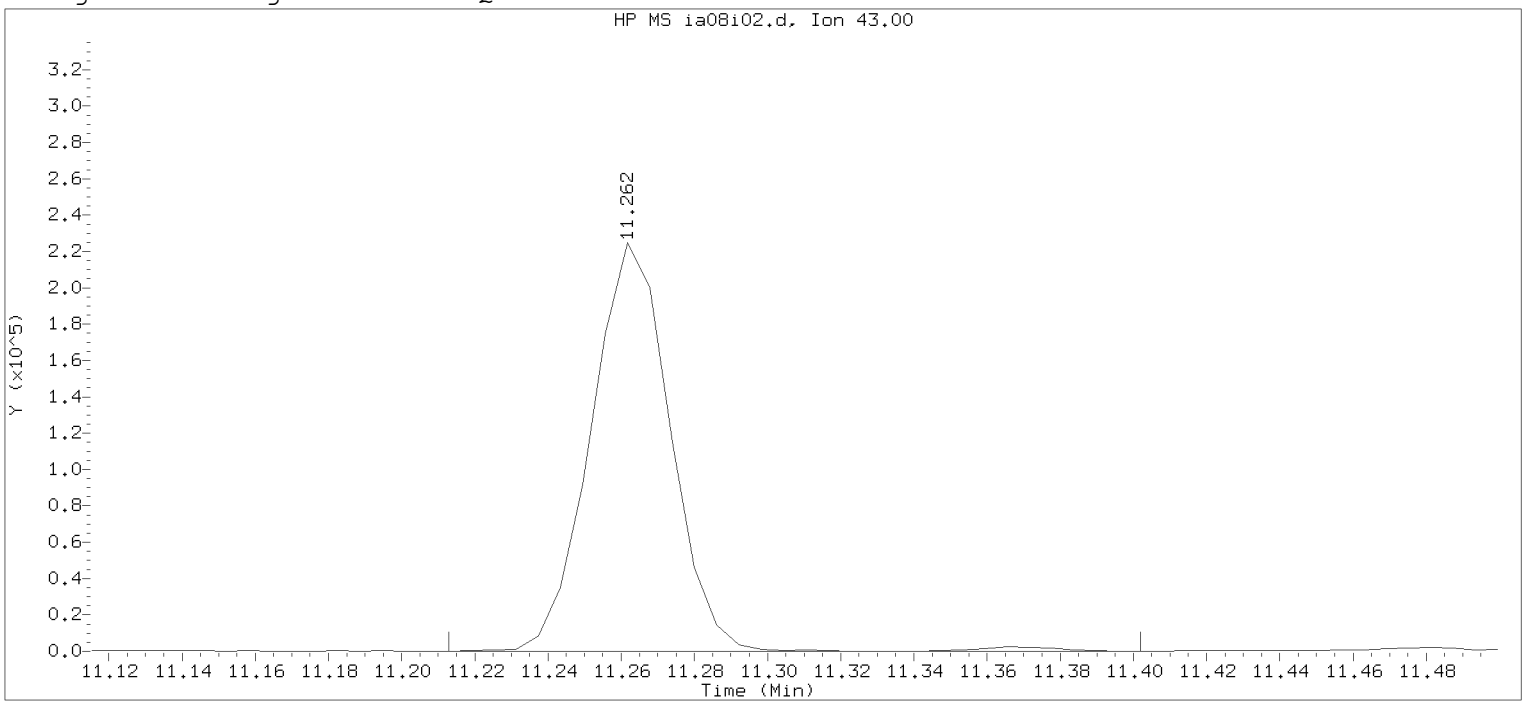
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1587
Retention Time (minutes): 11.262
Quant Ion : 43.00
Area : 339481
On-column Amount (ng) : 24.2510
Integration start scan : 1578 Integration stop scan: 1609
Y at integration start : 0 Y at integration end: 0

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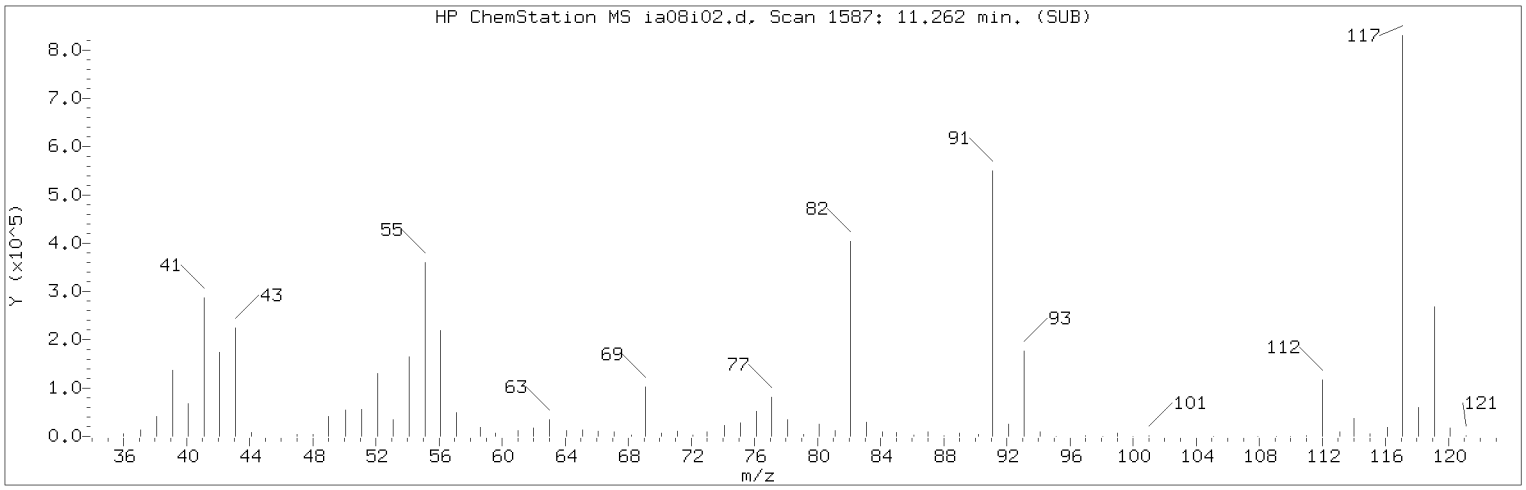
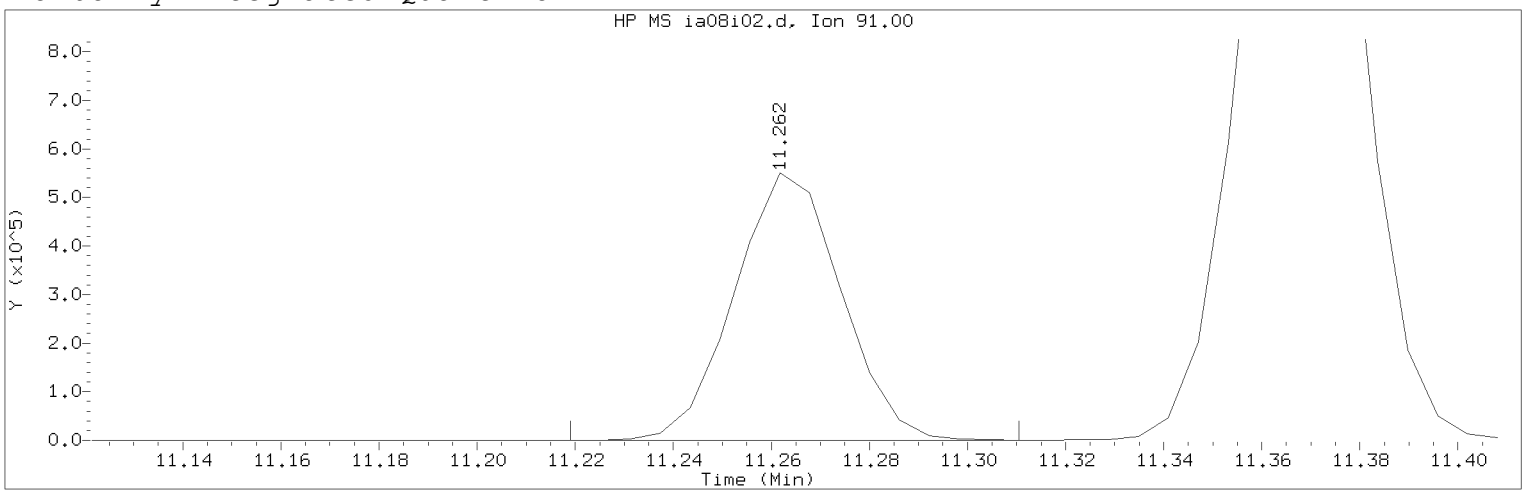
Target 3.5 esignature user: Page 1126

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

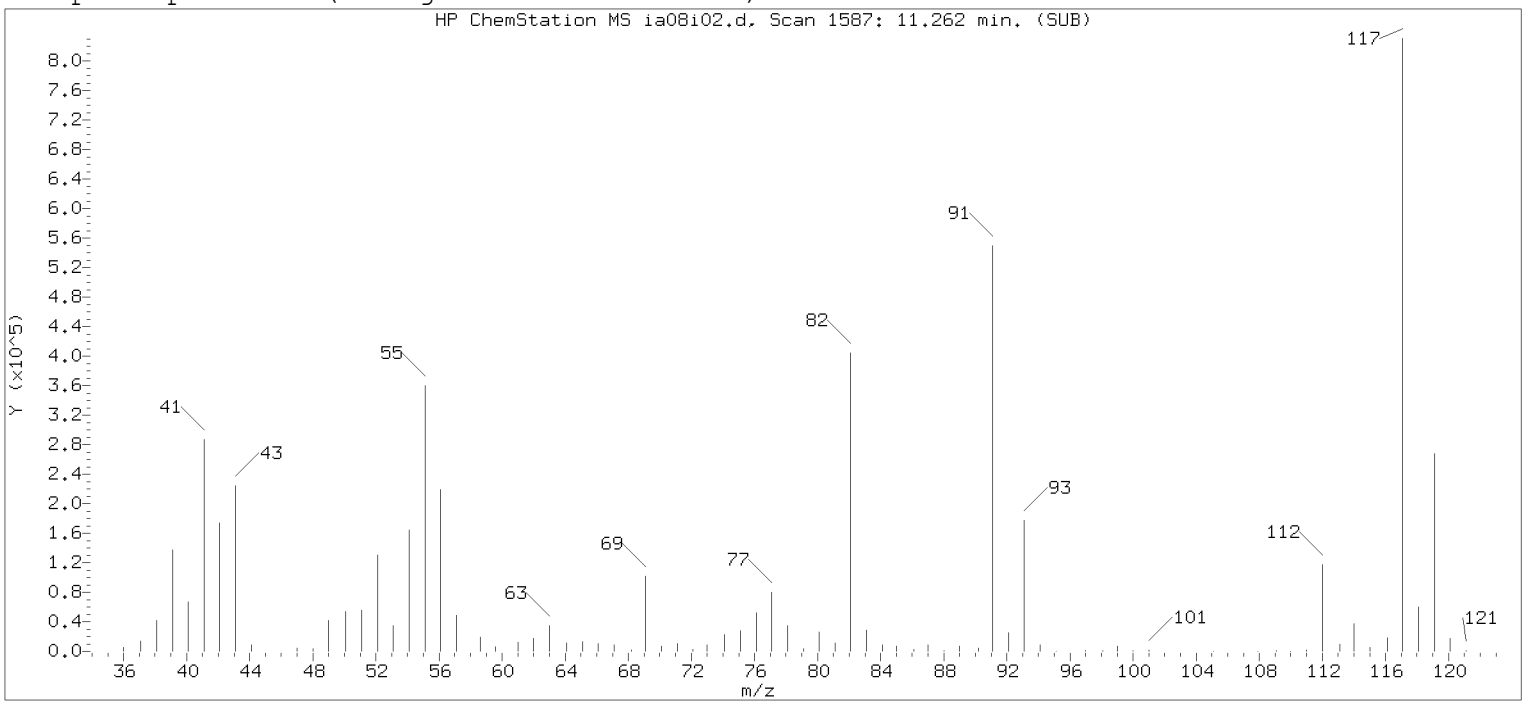
Compound Number : 96
Compound Name : 1-Chlorohexane
Scan Number : 1587
Retention Time (minutes): 11.262
Quant Ion : 91.00
Area (flag) : 831202M
On-Column Amount (ng) : 10.1533
Integration start scan : 1579 Integration stop scan: 1594
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

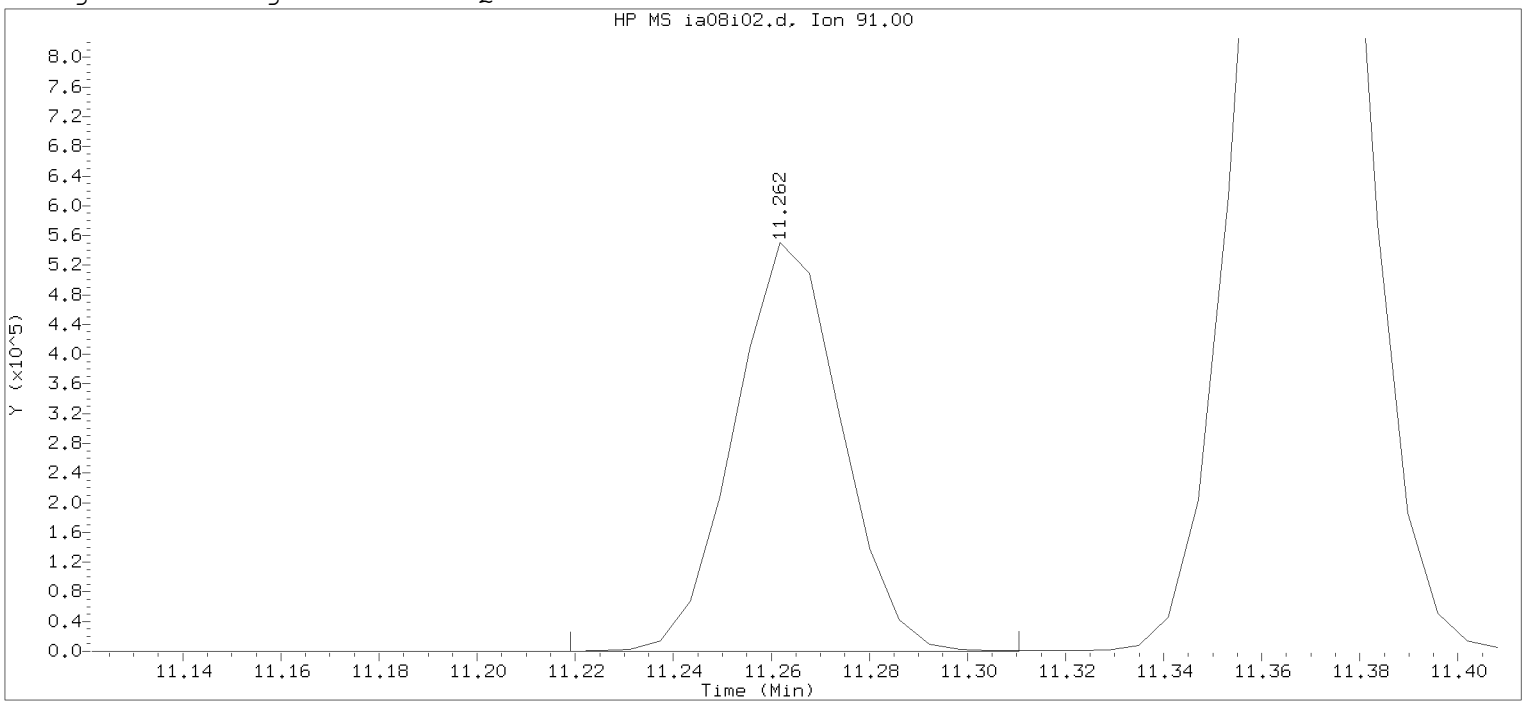
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 96
Compound Name : 1-Chlorohexane
Scan Number : 1587
Retention Time (minutes): 11.262
Quant Ion : 91.00
Area : 830094
On-column Amount (ng) : 10.2666
Integration start scan : 1579 Integration stop scan: 1594
Y at integration start : 0 Y at integration end: 368

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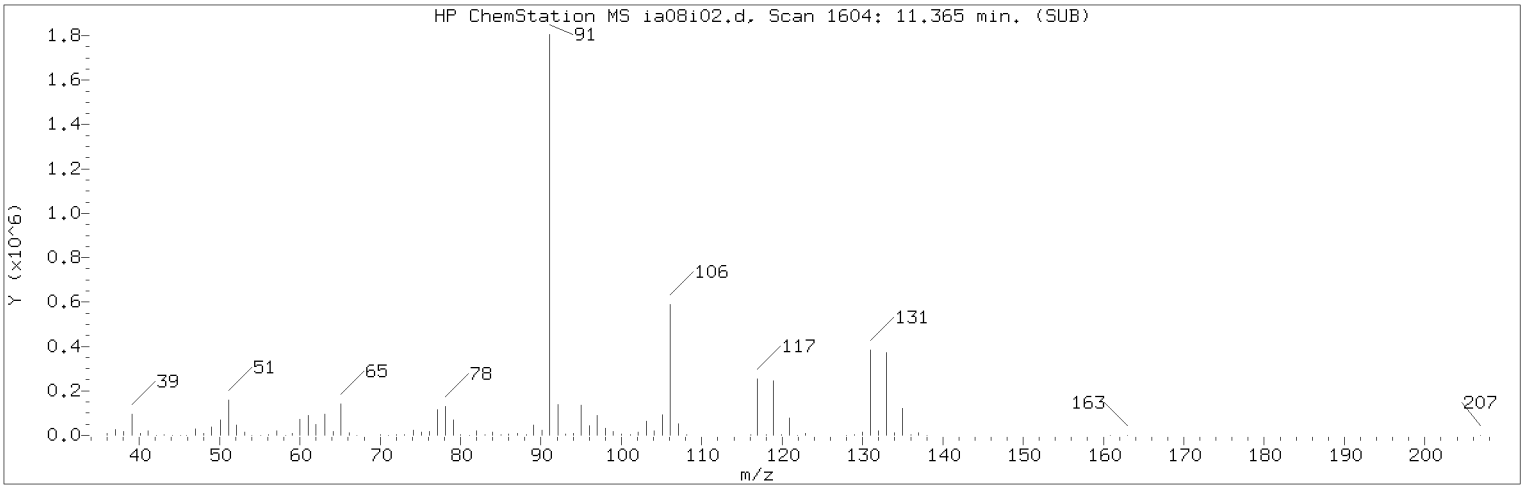
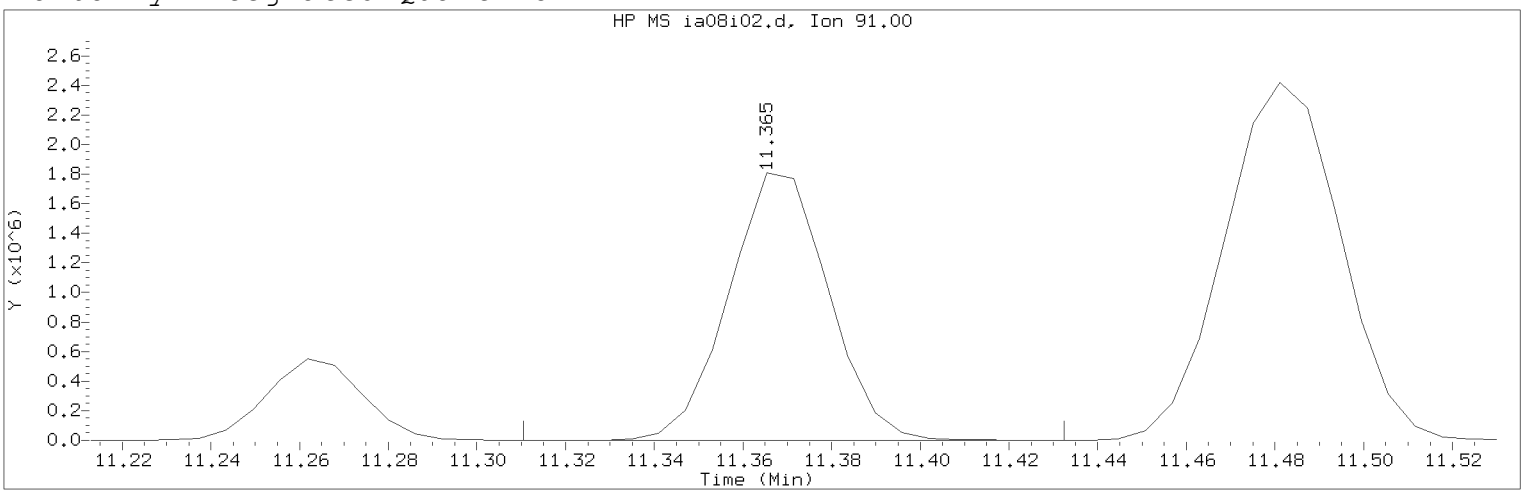
Target 3.5 esignature user: Page 1128

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

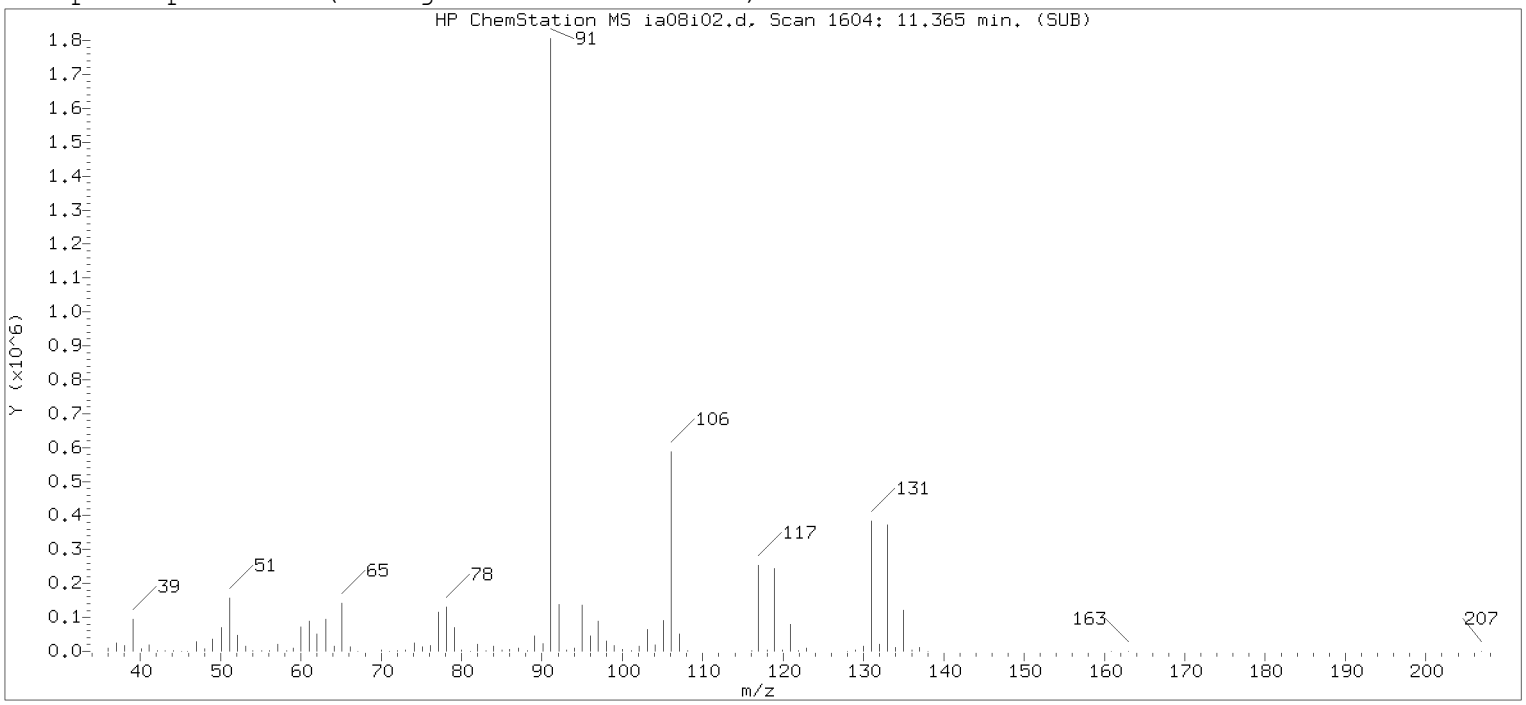
Compound Number : 100
Compound Name : Ethylbenzene
Scan Number : 1604
Retention Time (minutes): 11.365
Quant Ion : 91.00
Area (flag) : 2835582M
On-Column Amount (ng) : 10.3845
Integration start scan : 1594 Integration stop scan: 1614
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

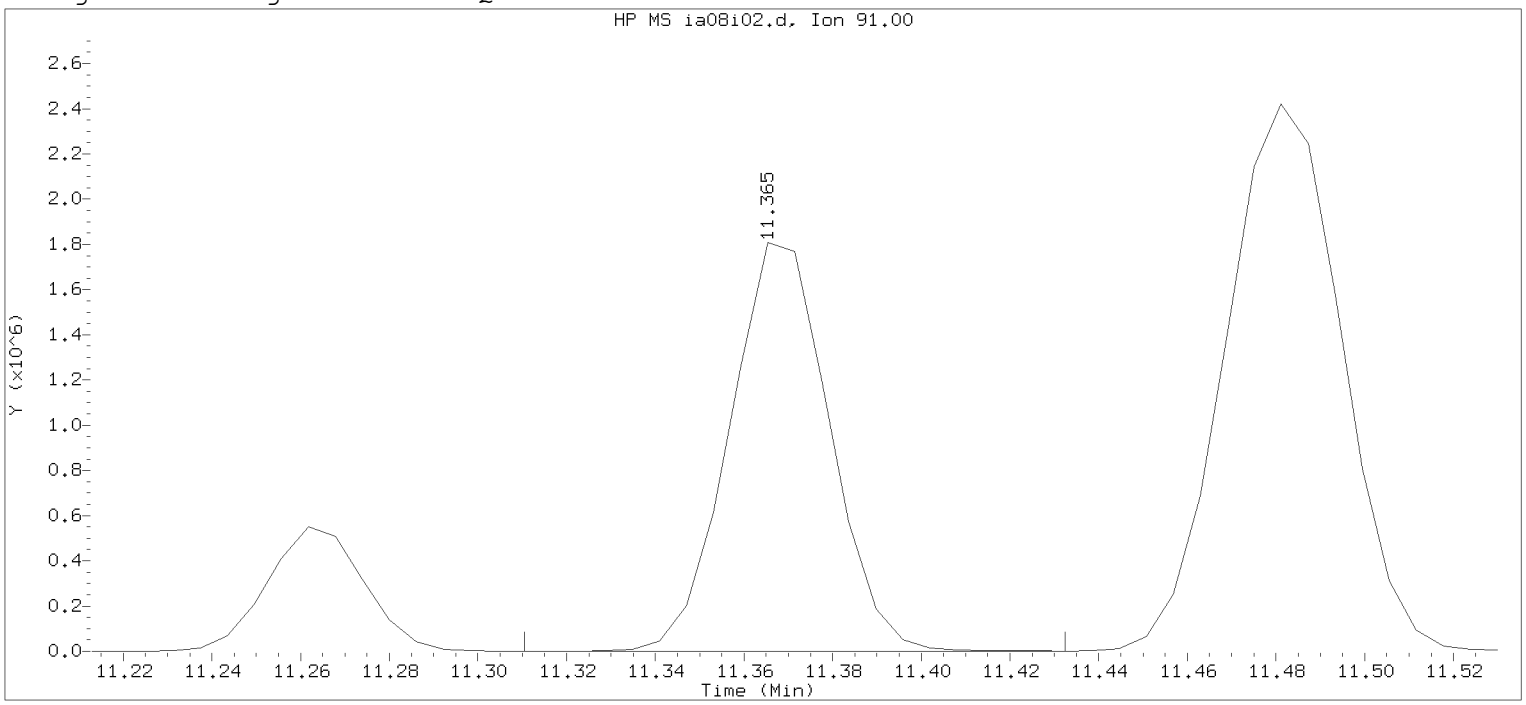
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

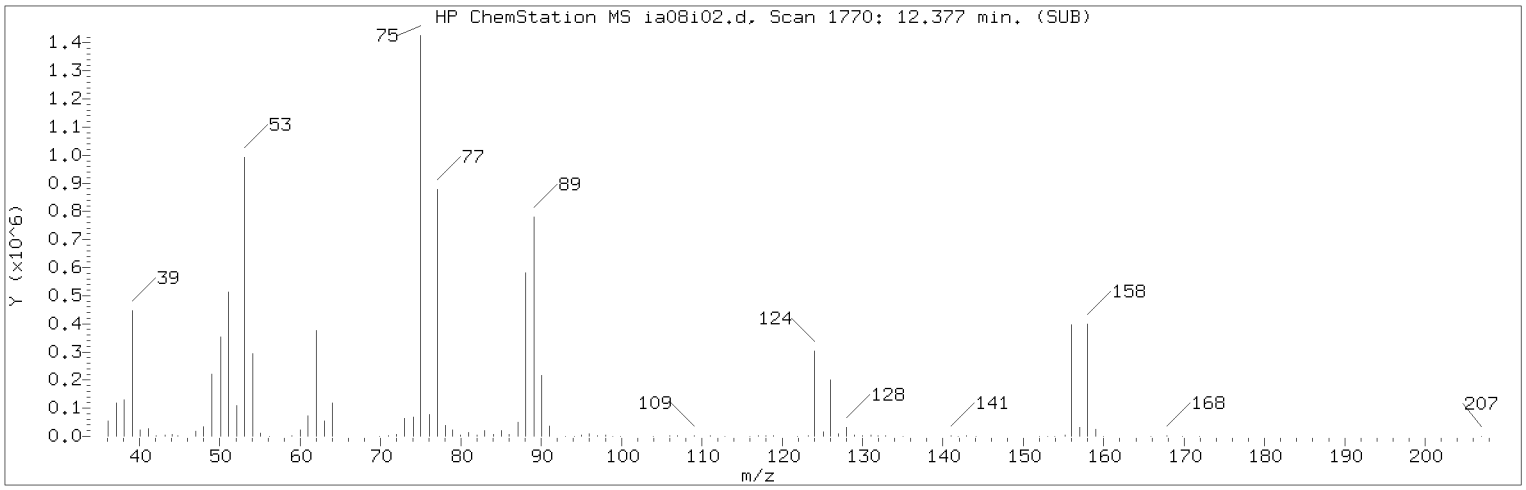
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

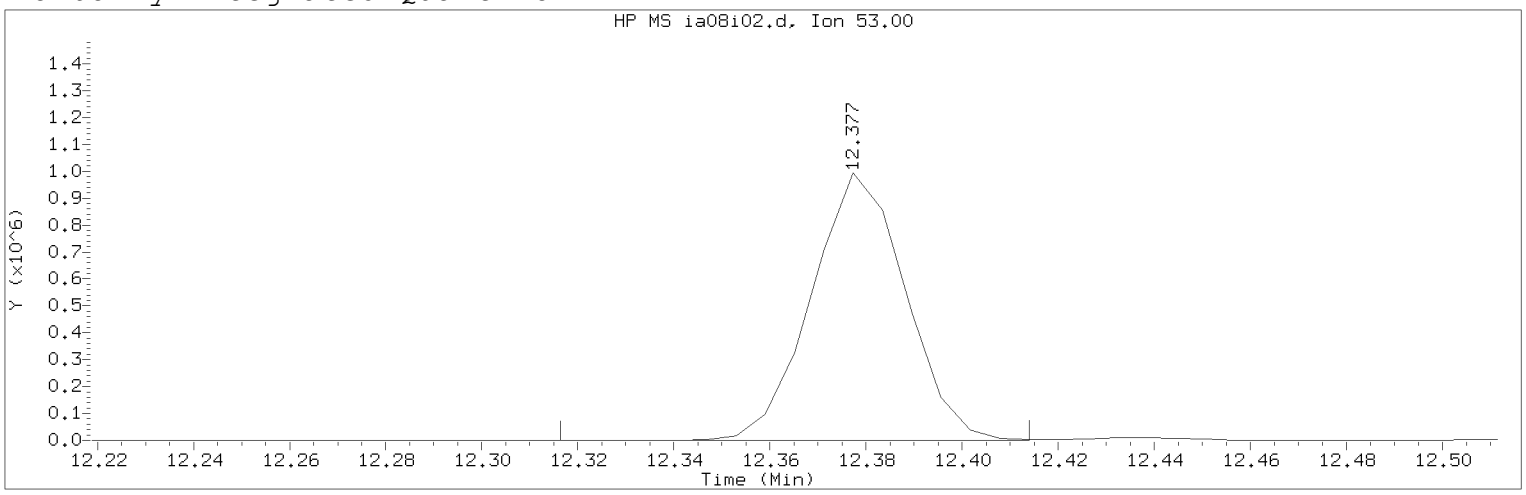
Compound Number : 100
Compound Name : Ethylbenzene
Scan Number : 1604
Retention Time (minutes): 11.365
Quant Ion : 91.00
Area : 2831157
On-column Amount (ng) : 10.0819
Integration start scan : 1594 Integration stop scan: 1614
Y at integration start : 368 Y at integration end: 736

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

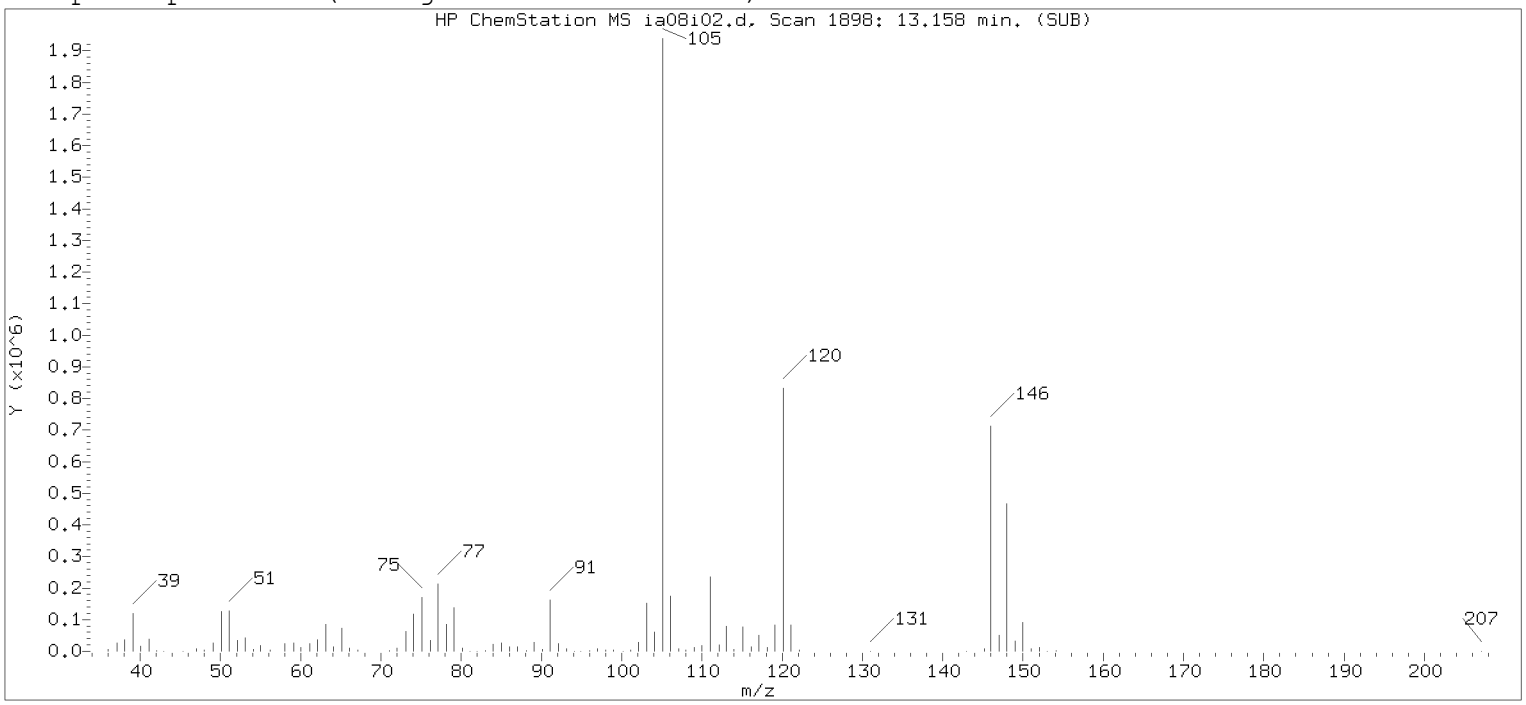
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1770
Retention Time (minutes): 12.377
Quant Ion : 53.00
Area (flag) : 1348519M
On-Column Amount (ng) : 118.0105
Integration start scan : 1759 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

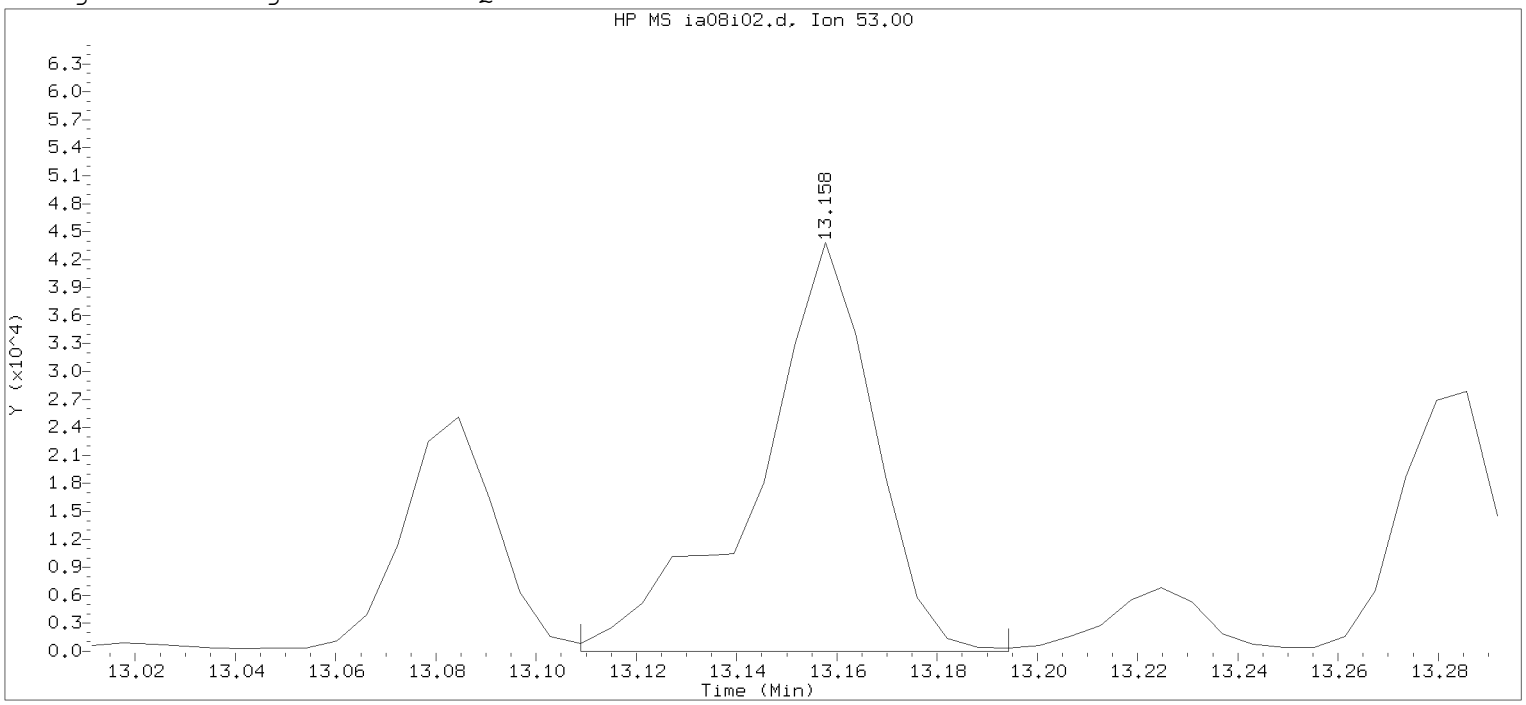
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1898
Retention Time (minutes): 13.158
Quant Ion : 53.00
Area : 70960
On-column Amount (ng) : 2.4690
Integration start scan : 1889 Integration stop scan: 1903
Y at integration start : 0 Y at integration end: 0

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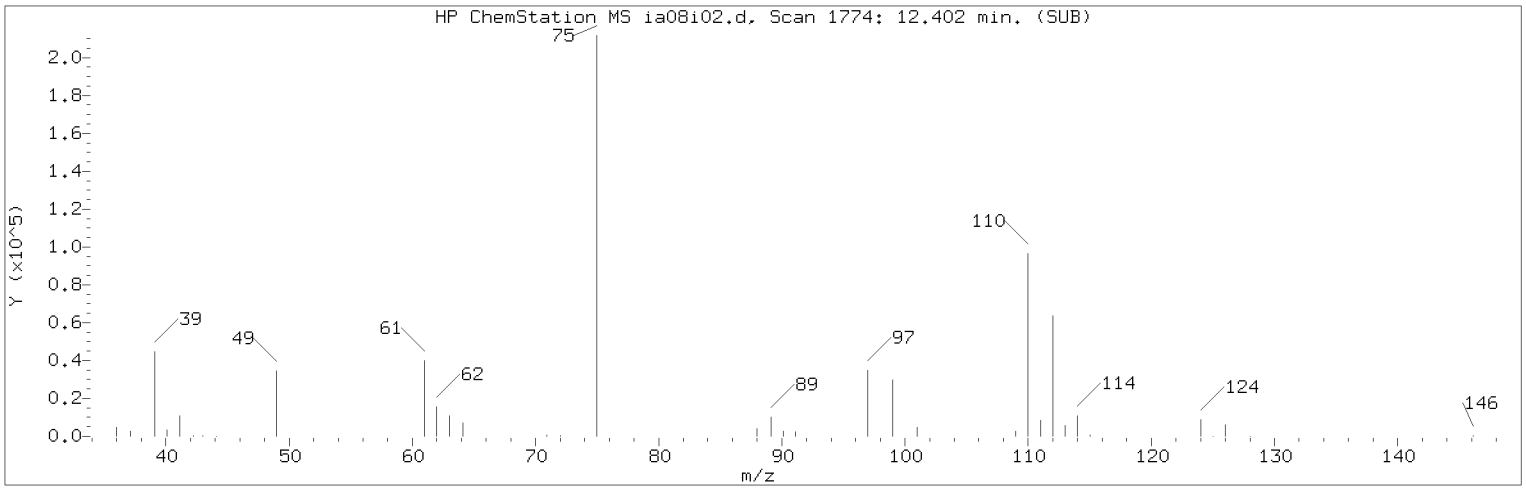
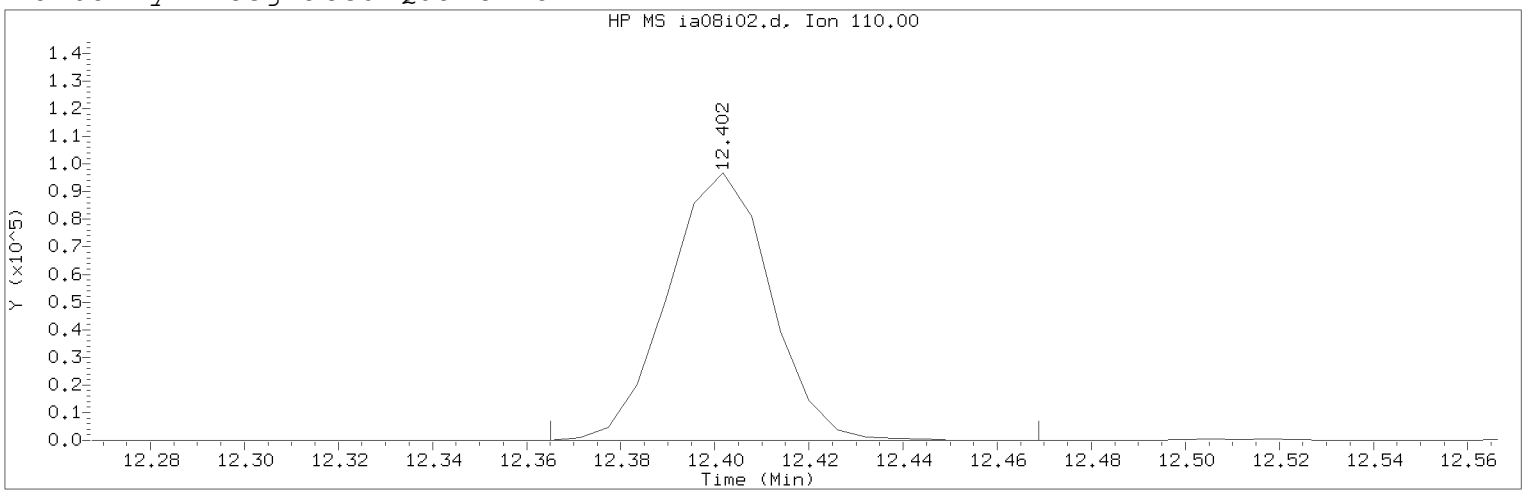
Target 3.5 esignature user: Page 1132

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

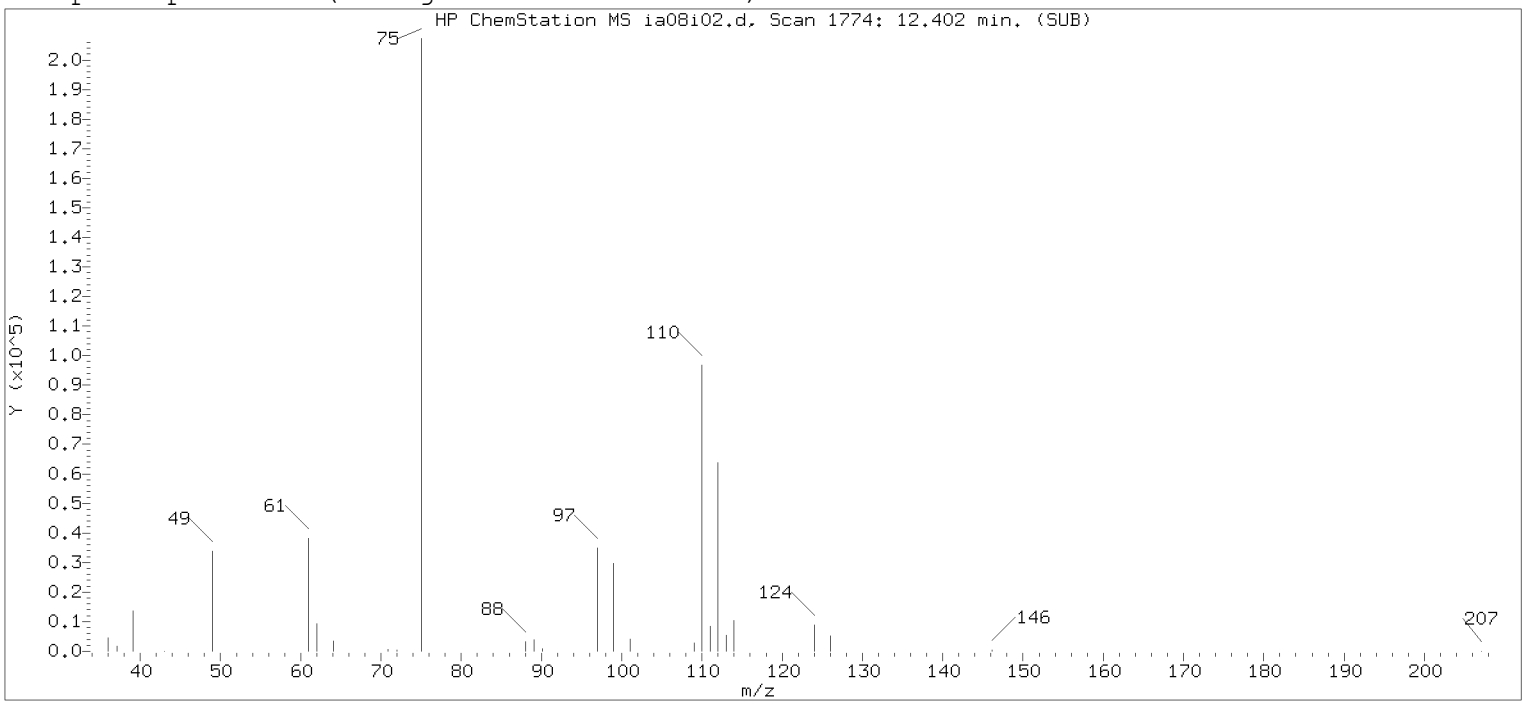
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area (flag) : 146354M
On-Column Amount (ng) : 10.4723
Integration start scan : 1767 Integration stop scan: 1784
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

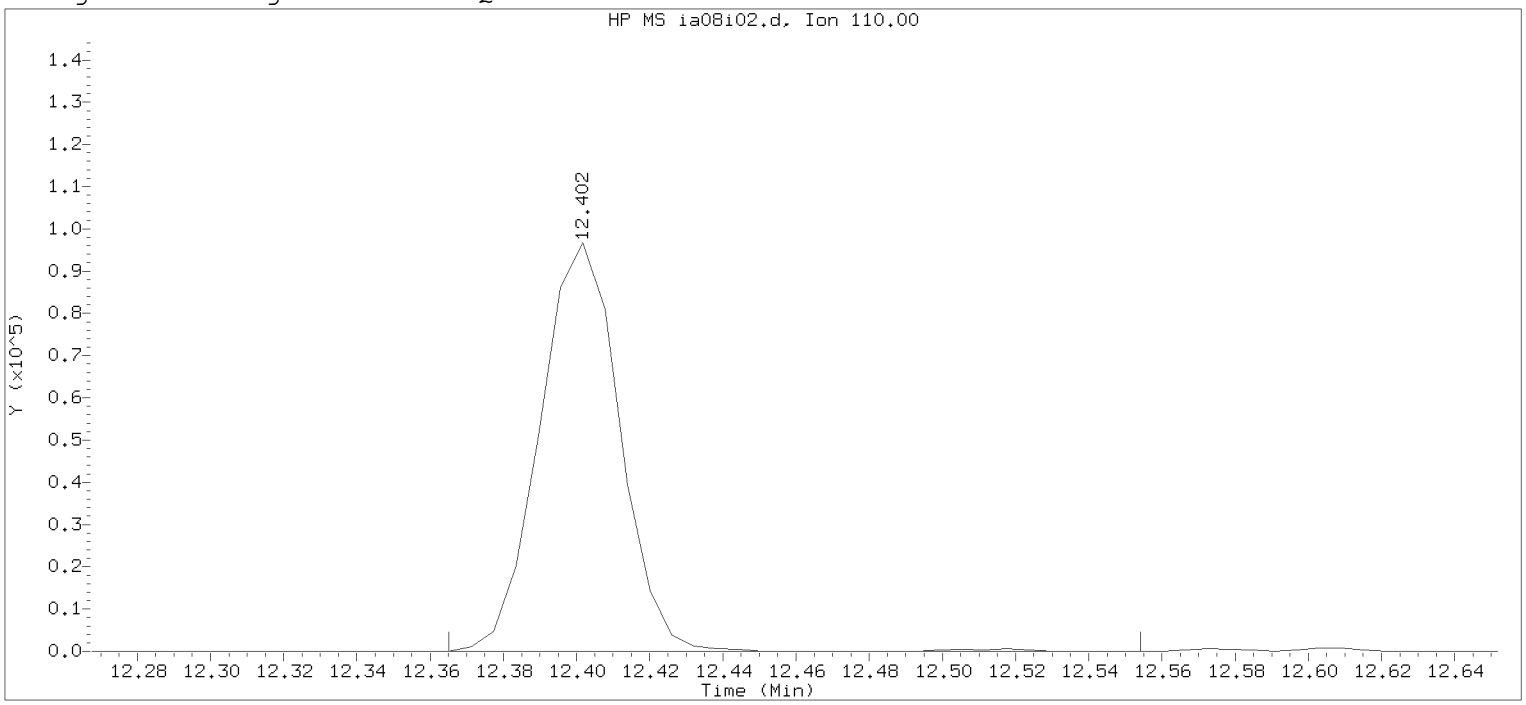
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

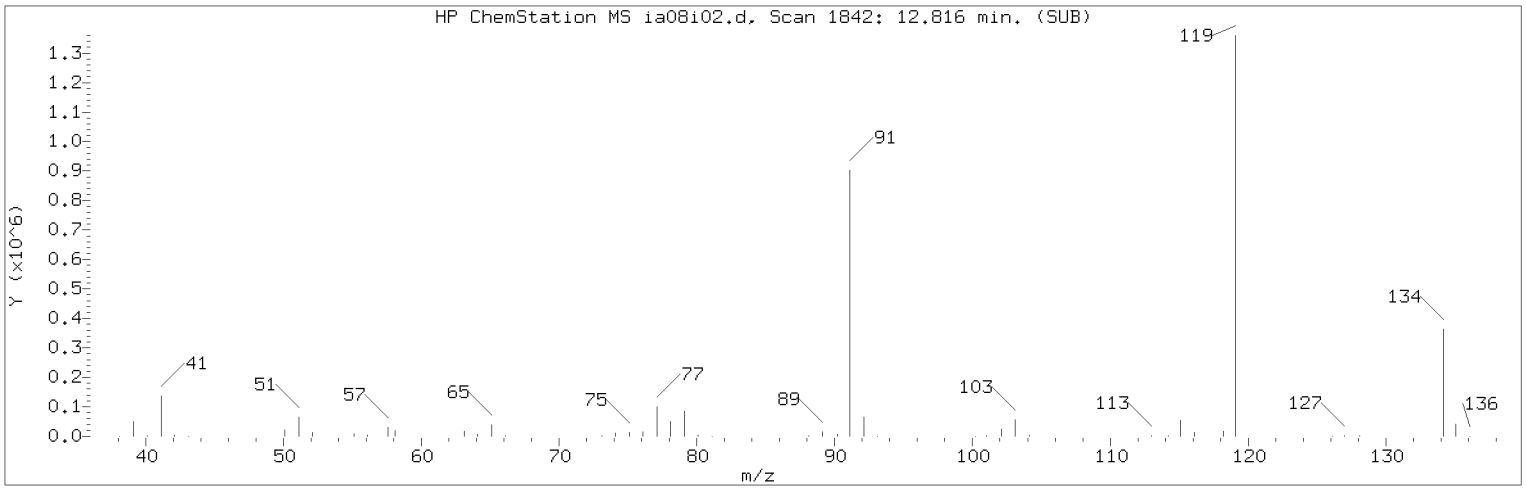
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

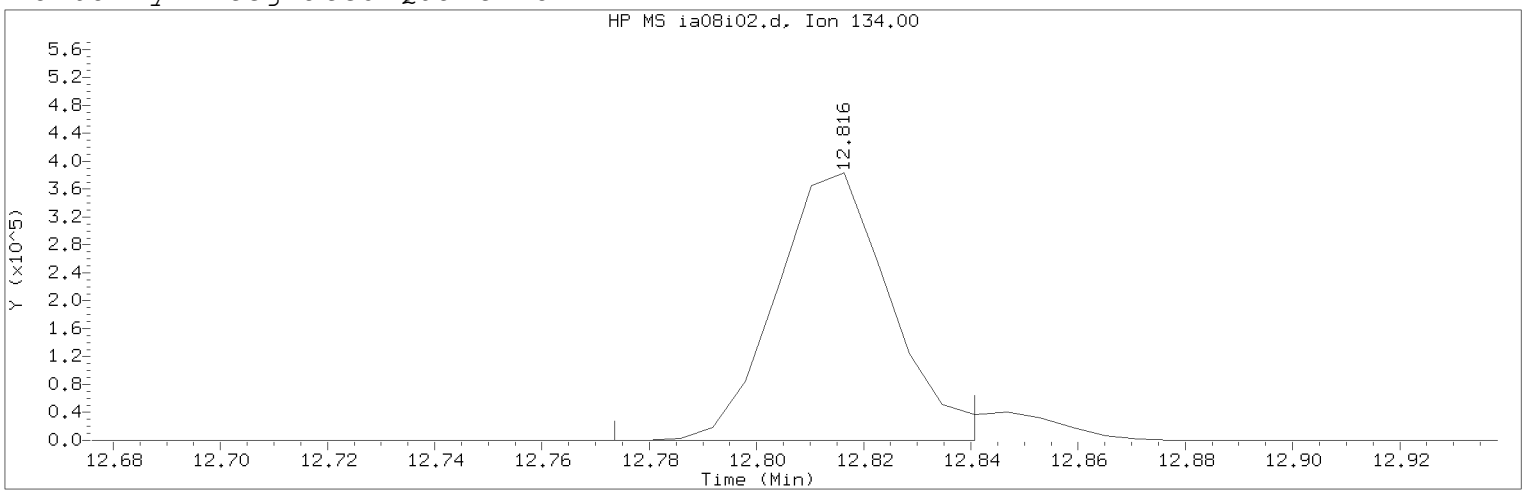
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area : 147084
On-column Amount (ng) : 0.0476
Integration start scan : 1767 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

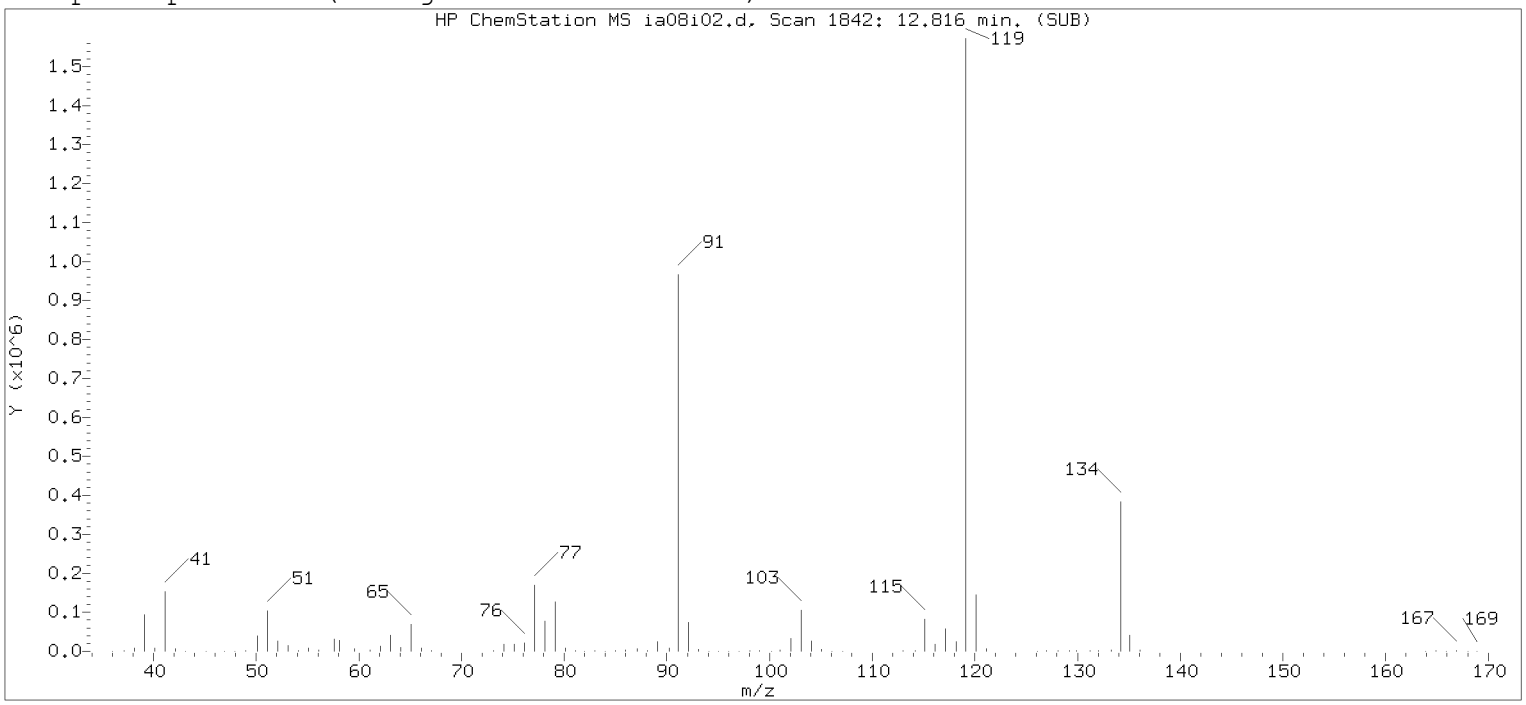
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 565781M
On-Column Amount (ng) : 10.4856
Integration start scan : 1834 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

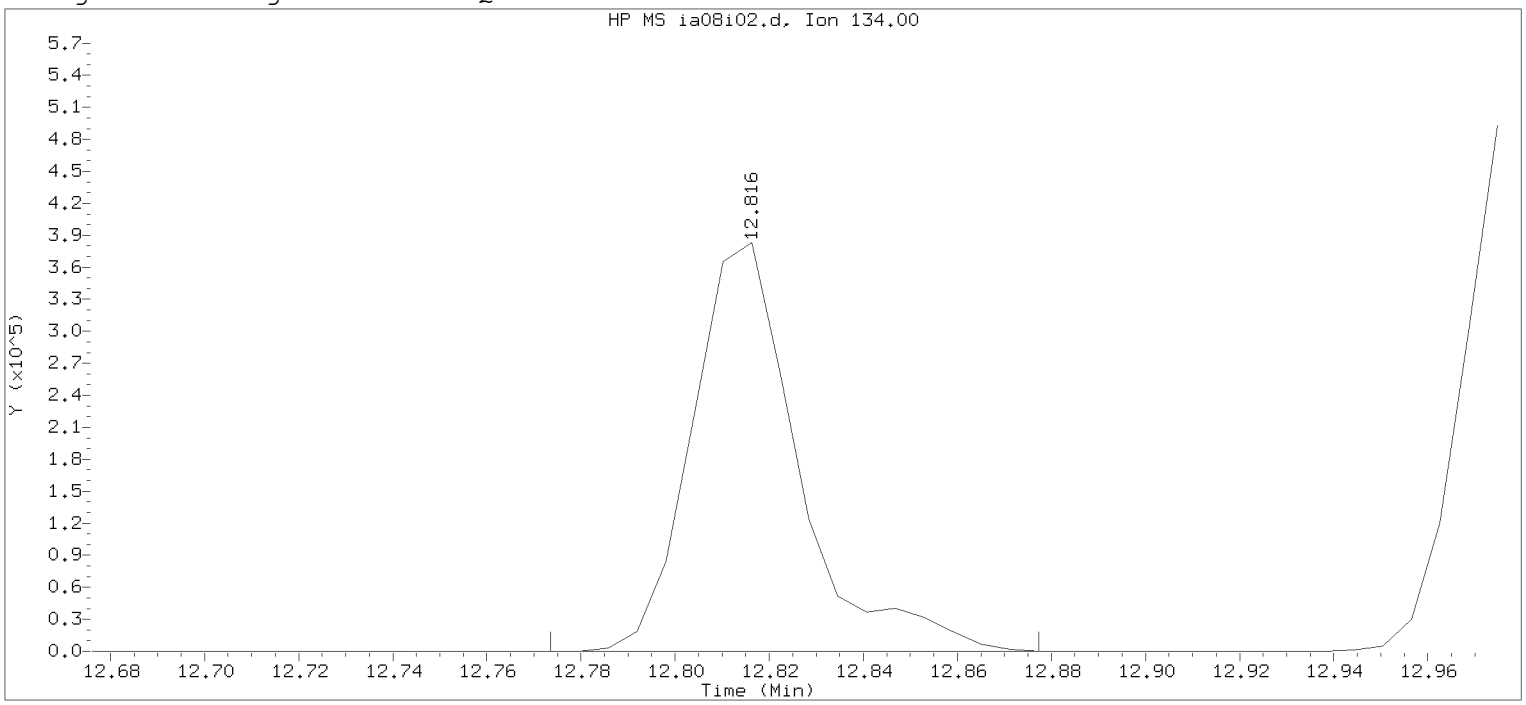
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

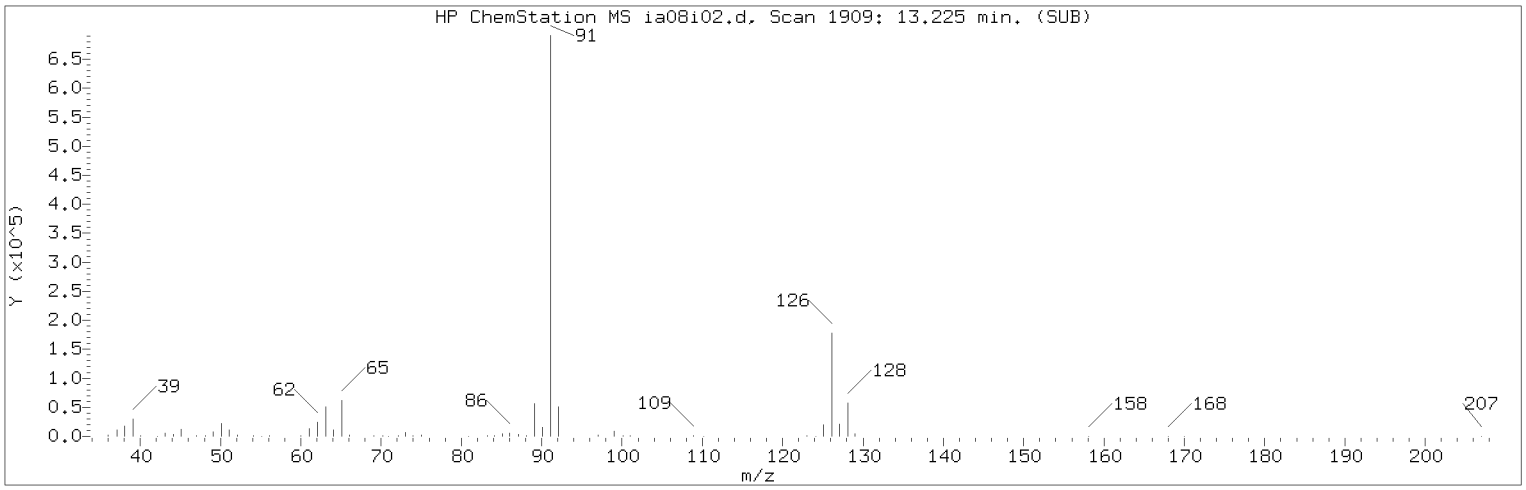
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

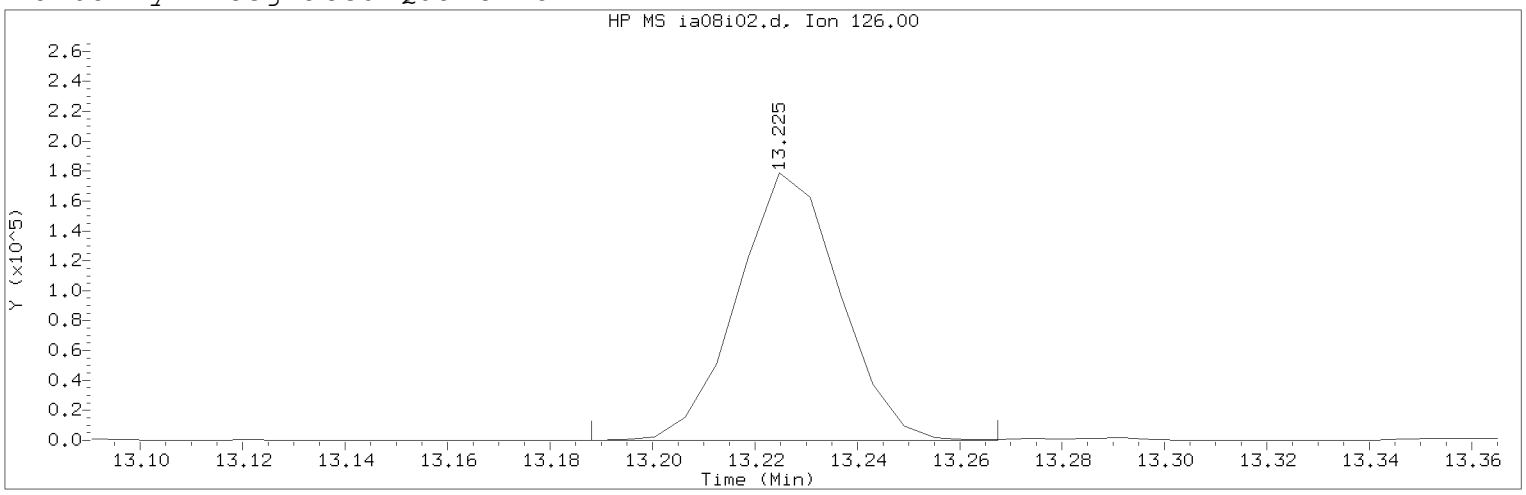
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 602038
On-column Amount (ng) : 0.0457
Integration start scan : 1834 Integration stop scan: 1851
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

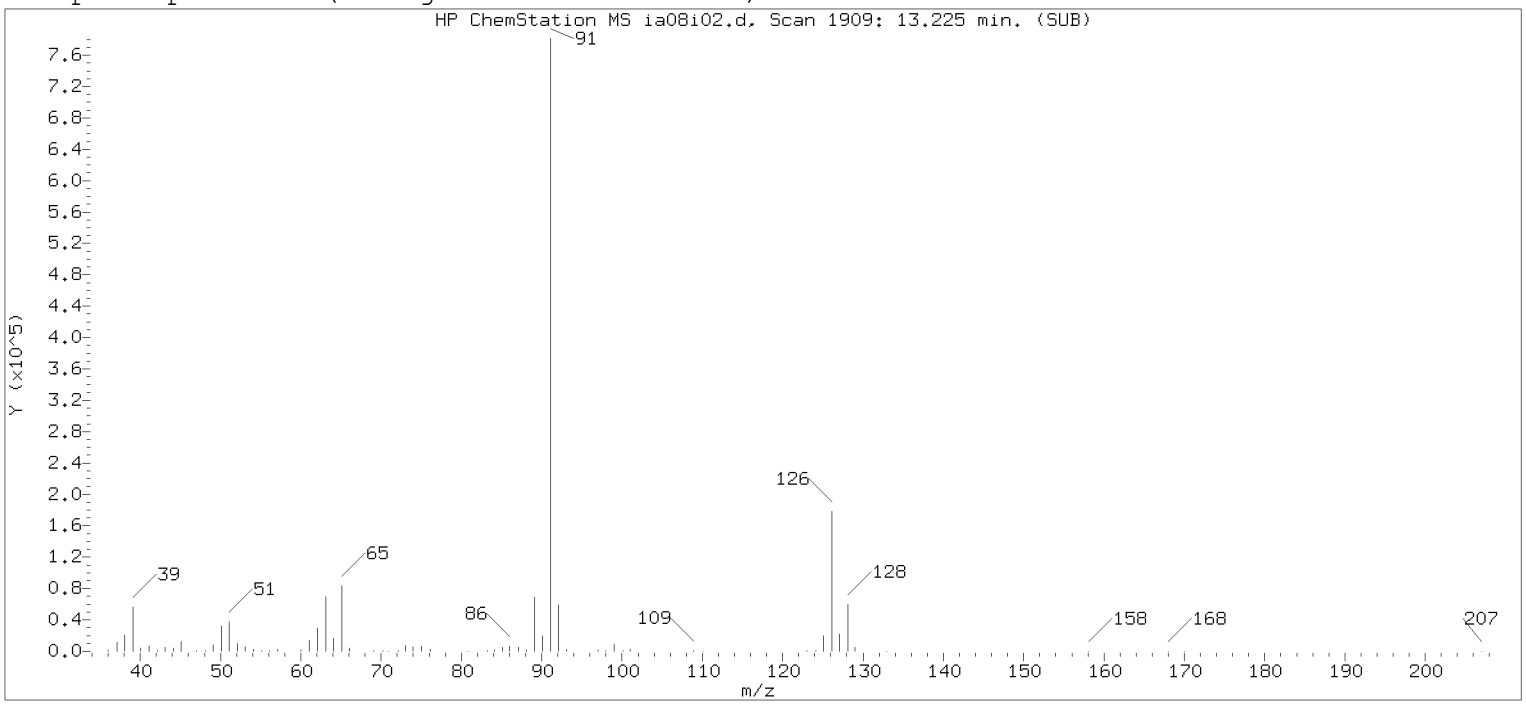
Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1909
Retention Time (minutes): 13.225
Quant Ion : 126.00
Area (flag) : 247776M
On-Column Amount (ng) : 11.1660
Integration start scan : 1902 Integration stop scan: 1915
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

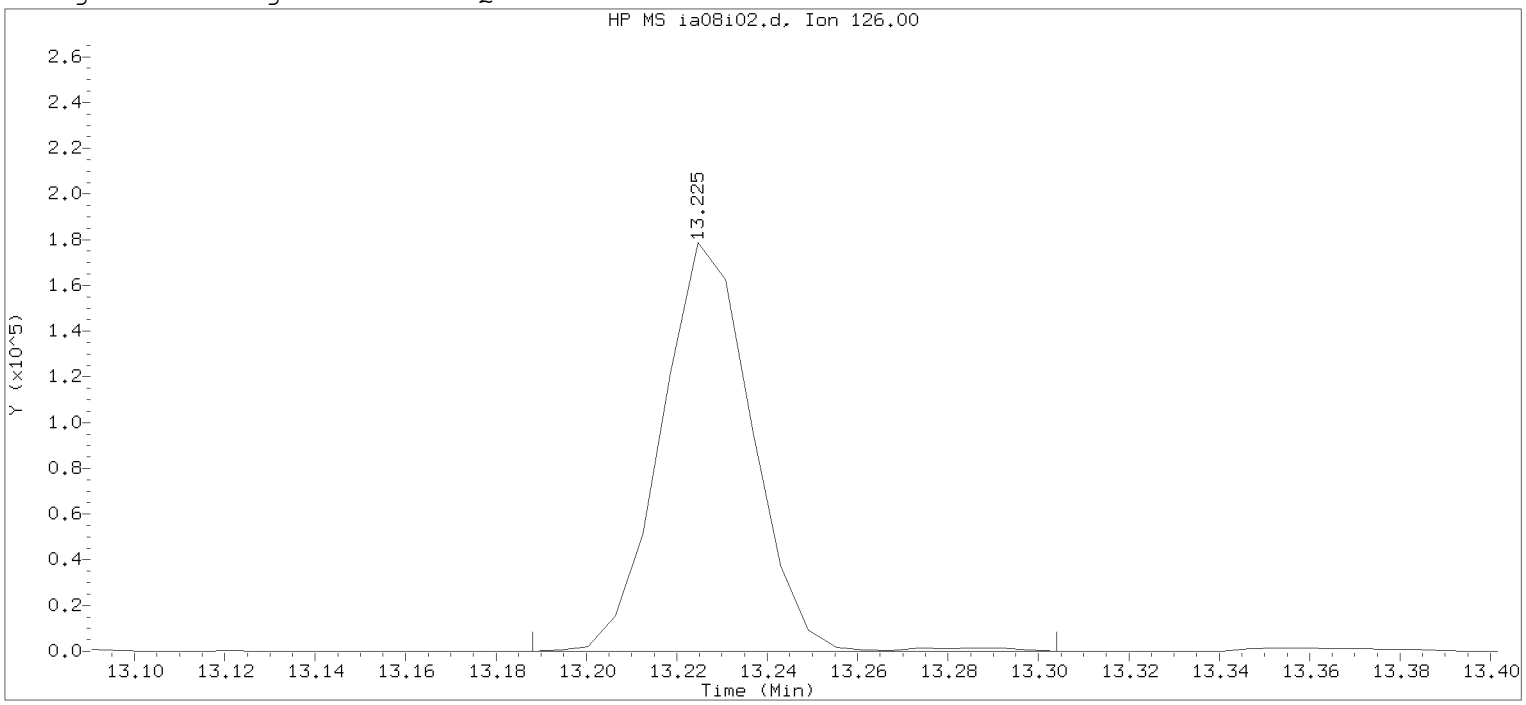
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

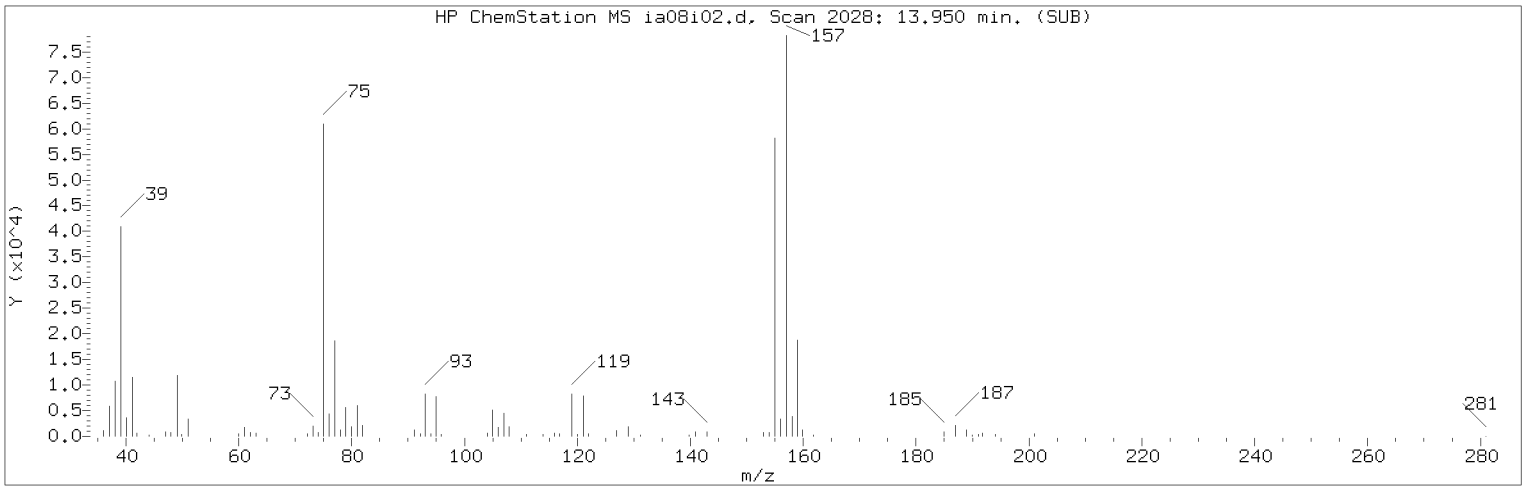
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

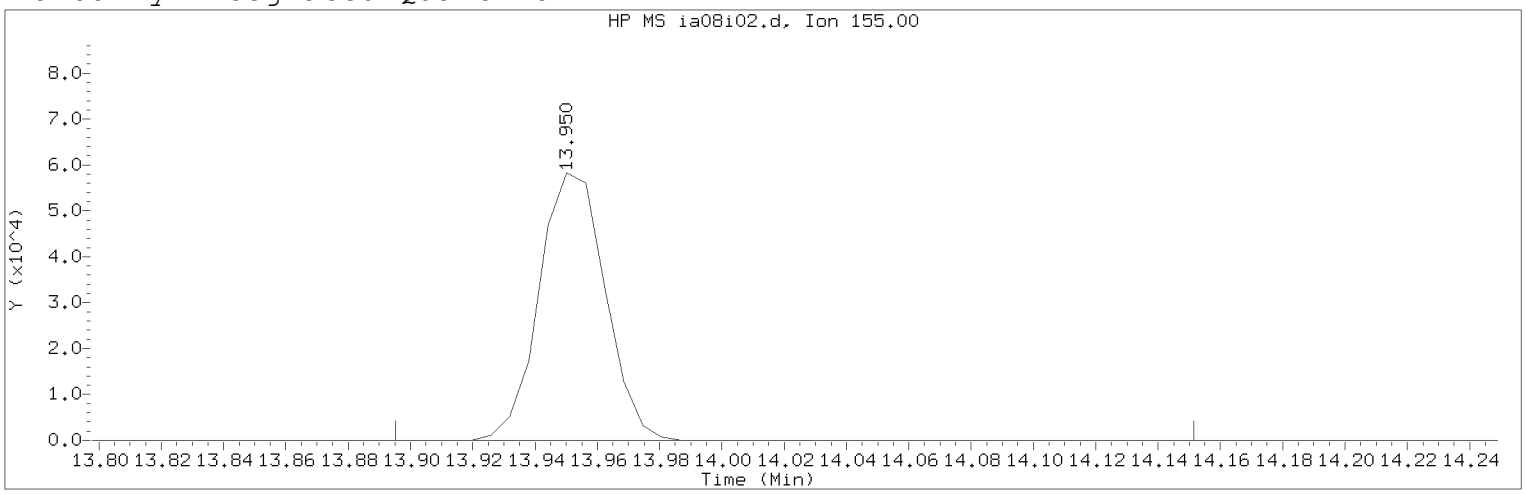
Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1909
Retention Time (minutes): 13.225
Quant Ion : 126.00
Area : 249938
On-column Amount (ng) : 0.0399
Integration start scan : 1902 Integration stop scan: 1921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: JHOWE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 10:07
Date, time and analyst ID of latest file update: 11-Apr-2019 10:07 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

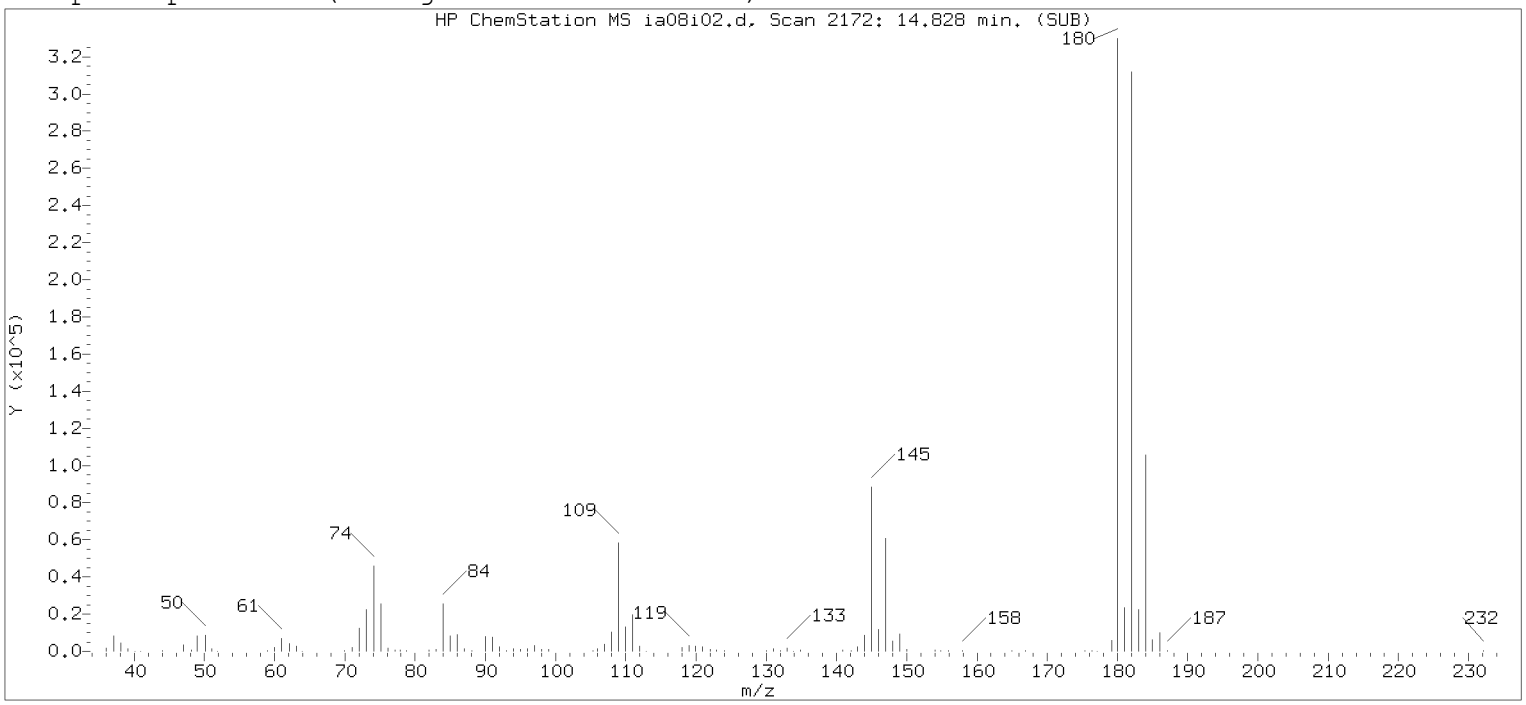
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2028
Retention Time (minutes): 13.950
Quant Ion : 155.00
Area (flag) : 85736M
On-Column Amount (ng) : 11.5734
Integration start scan : 2018 Integration stop scan: 2060
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

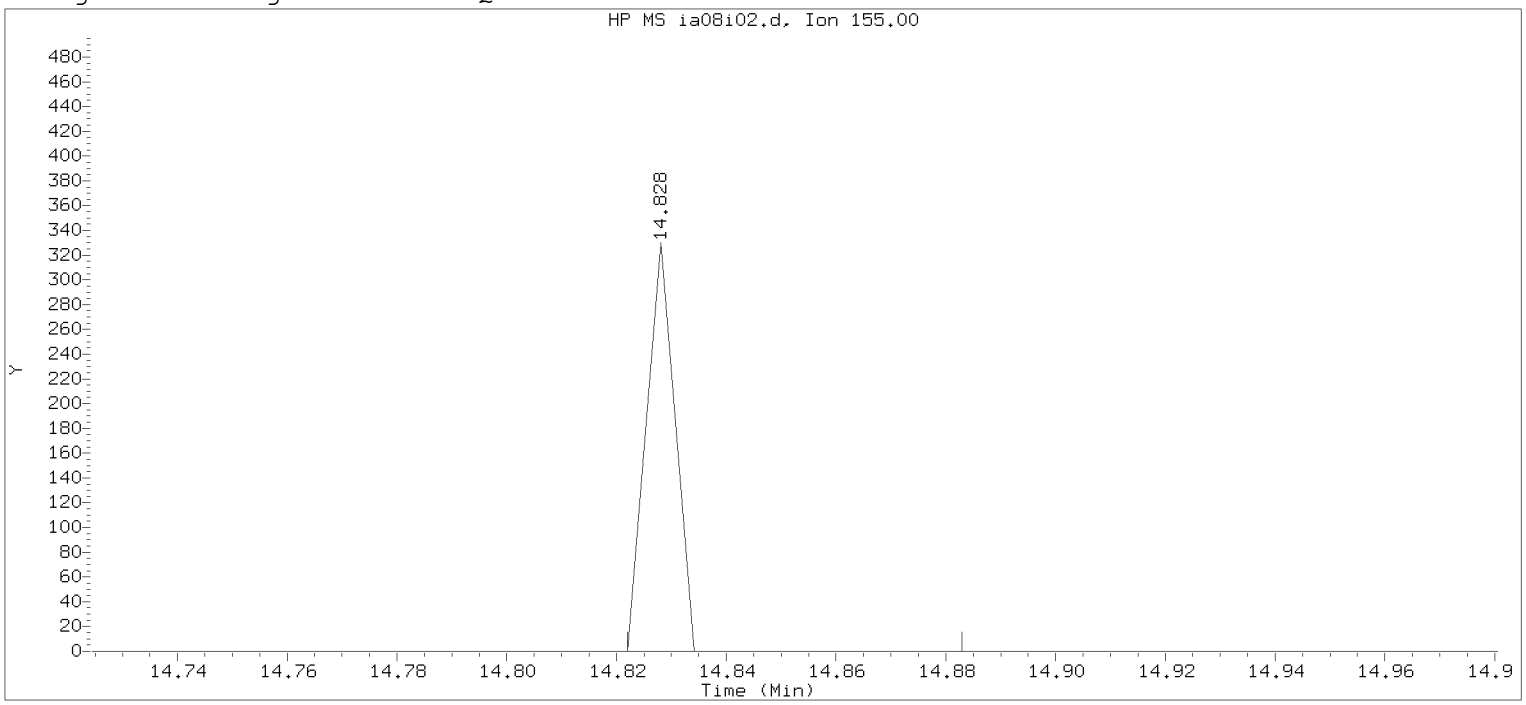
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i02.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:34 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 08-APR-2019 16:52
Date, time and analyst ID of latest file update: 08-Apr-2019 16:52 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2172
Retention Time (minutes): 14.828
Quant Ion : 155.00
Area : 120
On-column Amount (ng) : 0.0220
Integration start scan : 2170 Integration stop scan: 2180
Y at integration start : 0 Y at integration end: 0

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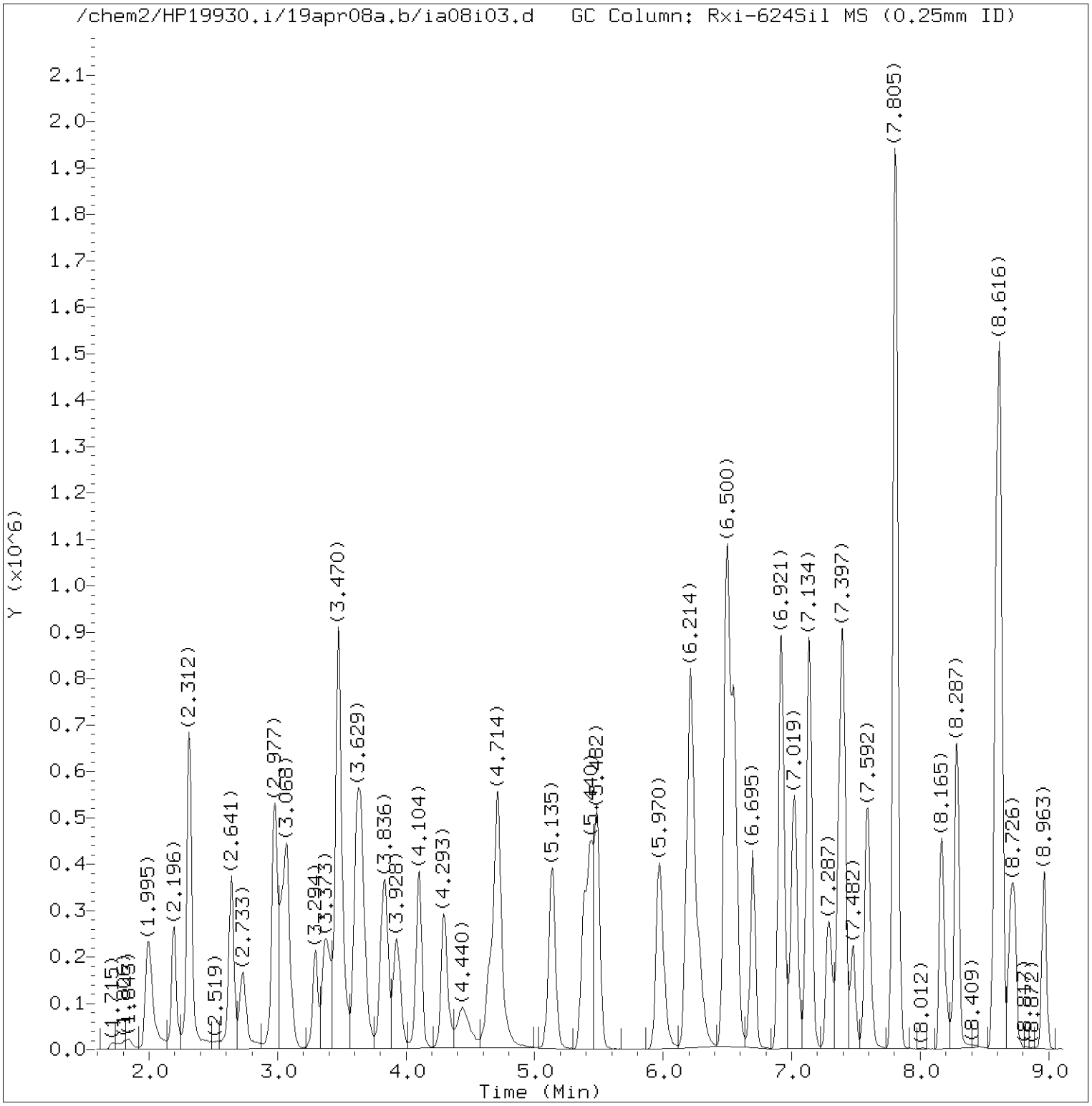
Target 3.5 esignature user: F35 Page 1140



Total Ion Chromatogram (TIC)

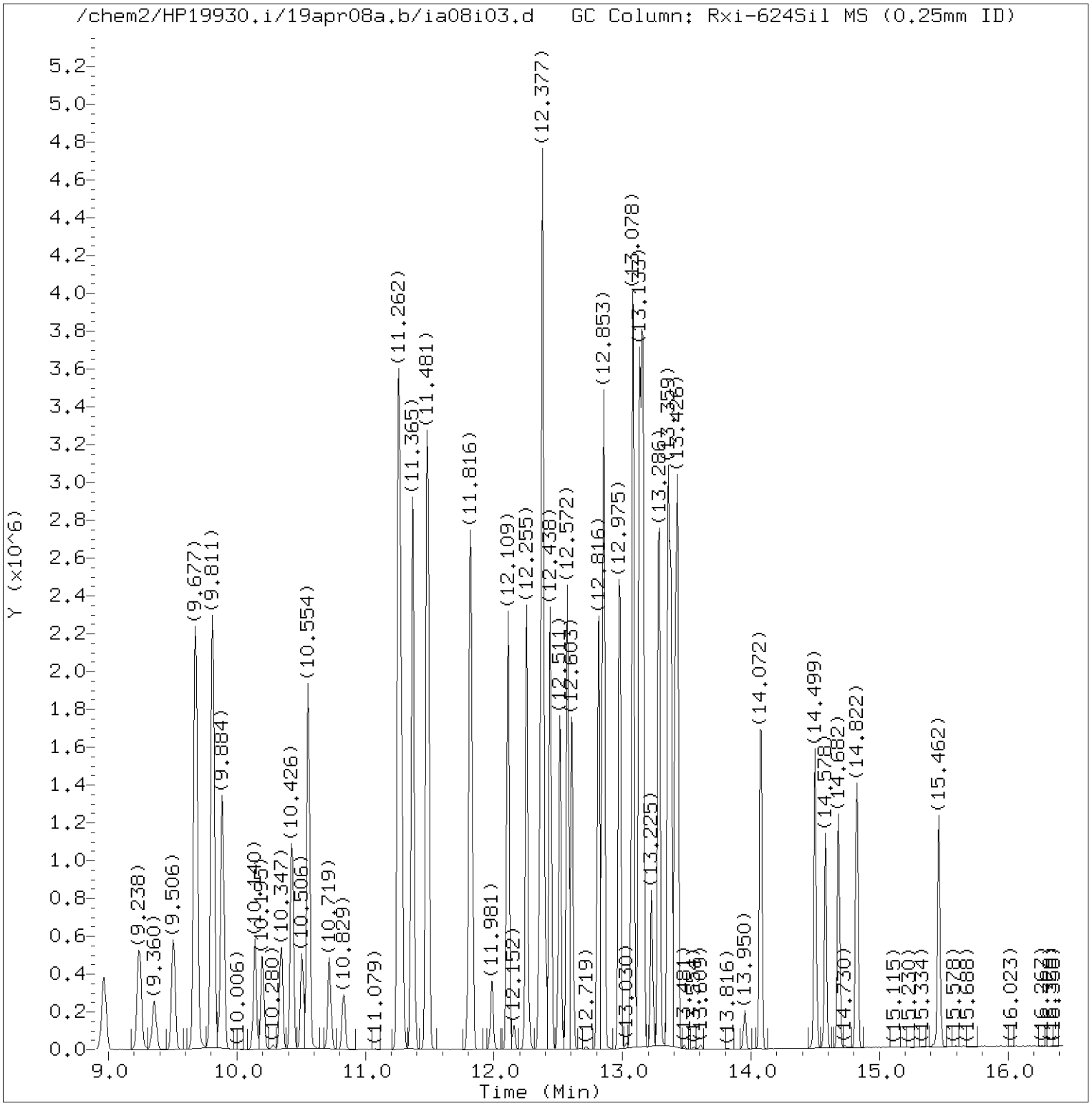
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.995	85	540464	5.108
2) Chloromethane	(2)	2.196	50	384331	4.904
5) Vinyl Chloride	(2)	2.312	62	399758	5.017
6) 1,3-Butadiene	(2)	2.312	39	295779	4.488
7) Bromomethane	(2)	2.641	94	351529	4.962
8) Chloroethane	(2)	2.733	64	228108	4.928
9) Dichlorofluoromethane	(2)	2.977	67	591450	4.945
10) Trichlorofluoromethane	(2)	3.038	101	683262M	5.132
11) Ethyl ether	(2)	3.294	59	182033	5.193
12) Freon 123a	(2)	3.373	67	294965MA	4.928
13) Acrolein	(1)	3.470	56	1515815	245.820
15) 1,1-Dichloroethene	(2)	3.611	96	227511	4.928
16) Freon 113	(2)	3.647	101	282539	5.064
14) Acetone	(1)	3.647	43	403041M	47.352
17) Methyl Iodide	(2)	3.812	142	503440	5.084
18) Carbon Disulfide	(2)	3.928	76	653903	4.837
21) Methyl Acetate	(1)	4.074	43	115161	5.120
22) Allyl Chloride	(2)	4.098	41	355248	5.002
23) Methylene Chloride	(2)	4.293	84	237082	5.020
26)*t-Butyl Alcohol-d10	(1)	4.306	65	145276M	50.000
28) t-Butyl Alcohol	(1)	4.440	59	347853	98.600
29) Acrylonitrile	(1)	4.641	53	252380	24.789
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	610478	5.055
31) trans-1,2-Dichloroethene	(2)	4.708	96	250956	4.857
32) n-Hexane	(2)	5.135	57	373863	5.141
33) 1,1-Dichloroethane	(2)	5.385	63	418818M	4.983
34) di-Isopropyl Ether	(2)	5.440	45	719048	5.099
35) 2-Chloro-1,3-Butadiene	(2)	5.488	53	378777	5.019
37) Ethyl t-butyl ether	(2)	5.970	59	709087	5.065
40) 1,2-Dichloroethene (Total)	(2)		96	532670	9.751
38) 2-Butanone	(1)	6.189	43	692881	50.117
39) cis-1,2-Dichloroethene	(2)	6.214	96	281714	4.894
41) 2,2-Dichloropropane	(2)	6.226	77	385663	4.930
42) Propionitrile	(1)	6.287	54	376917	101.540
45) Methacrylonitrile	(1)	6.494	67	682699	49.975
47) Bromochloromethane	(2)	6.543	128	143080	5.051
48) Tetrahydrofuran	(1)	6.561	71	213488	49.383
49) Chloroform	(2)	6.695	83	453395	4.951

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	469354	10.018
50)$Dibromofluoromethane	(2)	6.915	111	479657	10.016
51) 1,1,1-Trichloroethane	(2)	6.921	97	444509M	5.021
52) Cyclohexane	(2)	7.019	56	444051	5.101
52) Cyclohexane	(2)	7.019	84	419574M	5.109
52) Cyclohexane	(2)	7.019	69	141722M	4.957
54) Carbon Tetrachloride	(2)	7.134	117	420924	5.035
55) 1,1-Dichloropropene	(2)	7.140	75	345863	5.047
56) Isobutyl Alcohol	(1)	7.287	41	269610	247.432
57)$1,2-Dichloroethane-d4	(2)	7.372	102	89460	9.908
57)$1,2-Dichloroethane-d4	(2)	7.372	65	406362	10.041
57)$1,2-Dichloroethane-d4	(2)	7.372	104	57946	10.165
58) Benzene	(2)	7.403	78	1014134	5.033
59) 1,2-Dichloroethane	(2)	7.476	62	259343M	4.798
59) 1,2-Dichloroethane	(2)	7.476	98	25743	5.105
60) t-Amyl methyl ether	(2)	7.592	73	679805	5.034
63)*Fluorobenzene	(2)	7.805	96	1815436	10.000
62) n-Heptane	(2)	7.811	43	379998	5.089
65) n-Butanol	(1)	8.165	56	473863M	521.163
67) Trichloroethene	(2)	8.280	95	280824	4.981
69) Methylcyclohexane	(2)	8.591	83	546272	5.426
70) 1,2-Dichloropropane	(2)	8.622	63	236033	5.059
71) Methyl Methacrylate	(1)	8.701	69	131803	5.041
72) 1,4-Dioxane	(1)	8.713	88	56008M	250.544
72) 1,4-Dioxane	(1)	8.713	58	35226M	264.434
73) Dibromomethane	(2)	8.732	93	132144	5.038
74) Bromodichloromethane	(2)	8.963	83	332561	5.135
76) 2-Nitropropane	(1)	9.238	41	447403	51.428
80) cis-1,3-Dichloropropene	(2)	9.506	75	372521	5.071
81) 4-Methyl-2-Pentanone	(1)	9.677	43	1785700	51.021
82)$Toluene-d8	(3)	9.811	98	1790443	10.005
82)$Toluene-d8	(3)	9.811	100	1154418	10.058
83) Toluene	(3)	9.884	92	672582	4.999
84) trans-1,3-Dichloropropene	(3)	10.140	75	323031	5.093
85) 1,3-Dichloropropene (total)	(3)		75	695552	10.164
86) Ethyl Methacrylate	(3)	10.201	69	279399	5.216
88) 1,1,2-Trichloroethane	(3)	10.347	97	188339	5.066
89) Tetrachloroethene	(3)	10.426	166	351388	4.935

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	301097	5.031
91) 2-Hexanone	(1)	10.554	43	1251330	50.420
93) Dibromochloromethane	(3)	10.719	129	260728	5.160
95) 1,2-Dibromoethane	(3)	10.829	107	189659	5.009
97)*Chlorobenzene-d5	(3)	11.256	117	1459007	10.000
96) 1-Chlorohexane	(3)	11.262	91	398527	4.919
98) Chlorobenzene	(3)	11.286	112	761950	4.933
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	297695	5.110
100) Ethylbenzene	(3)	11.371	91	1345811	4.981
101) m+p-Xylene	(3)	11.481	106	1082754	10.062
105) Xylene (Total)	(3)		106	1613567	15.173
104) o-Xylene	(3)	11.810	106	530813	5.111
106) Styrene	(3)	11.829	104	847454	5.147
107) Bromoform	(3)	11.987	173	165094	5.312
108) Isopropylbenzene	(3)	12.109	105	1417383	5.052
111)$4-Bromofluorobenzene	(3)	12.255	95	670110	9.993
111)$4-Bromofluorobenzene	(3)	12.255	174	657648	10.245
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	237508	5.036
114) Bromobenzene	(4)	12.371	156	354173	4.935
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	629156	51.257
116) 1,2,3-Trichloropropane	(4)	12.402	110	70516M	5.038
117) n-Propylbenzene	(4)	12.438	91	1618323	5.041
119) 2-Chlorotoluene	(4)	12.511	126	338263	4.900
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	1195163	5.040
122) 4-Chlorotoluene	(4)	12.609	126	344757	4.970
125) tert-Butylbenzene	(4)	12.816	134	269926M	4.995
126) Pentachloroethane	(4)	12.847	167	245341	5.156
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	1201854	4.974
128) sec-Butylbenzene	(4)	12.975	105	1560364	5.083
131) 1,3-Dichlorobenzene	(4)	13.078	146	677553	4.932
132) p-Isopropyltoluene	(4)	13.084	119	1379475	5.121
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	826324	10.000
134) 1,4-Dichlorobenzene	(4)	13.151	146	673450	4.905
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	565664	5.010
136) Benzyl Chloride	(4)	13.225	126	116100	5.224
138) n-Butylbenzene	(4)	13.377	92	630862	5.149
139) 1,2-Dichlorobenzene	(4)	13.408	146	624725	4.982
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	39759	4.997

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

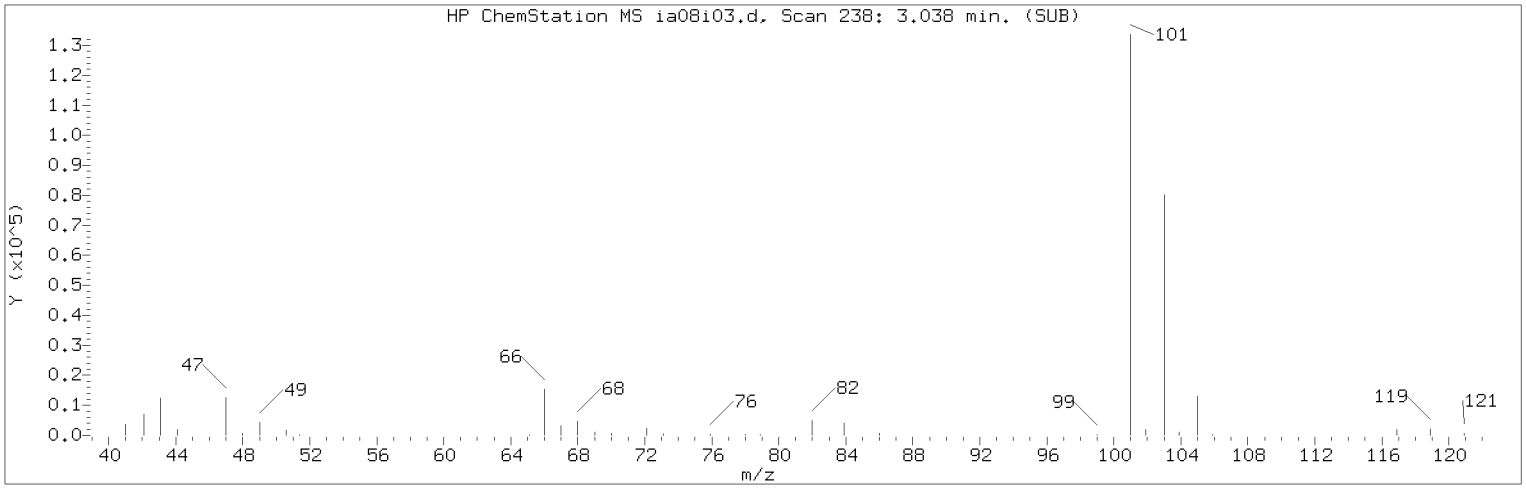
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

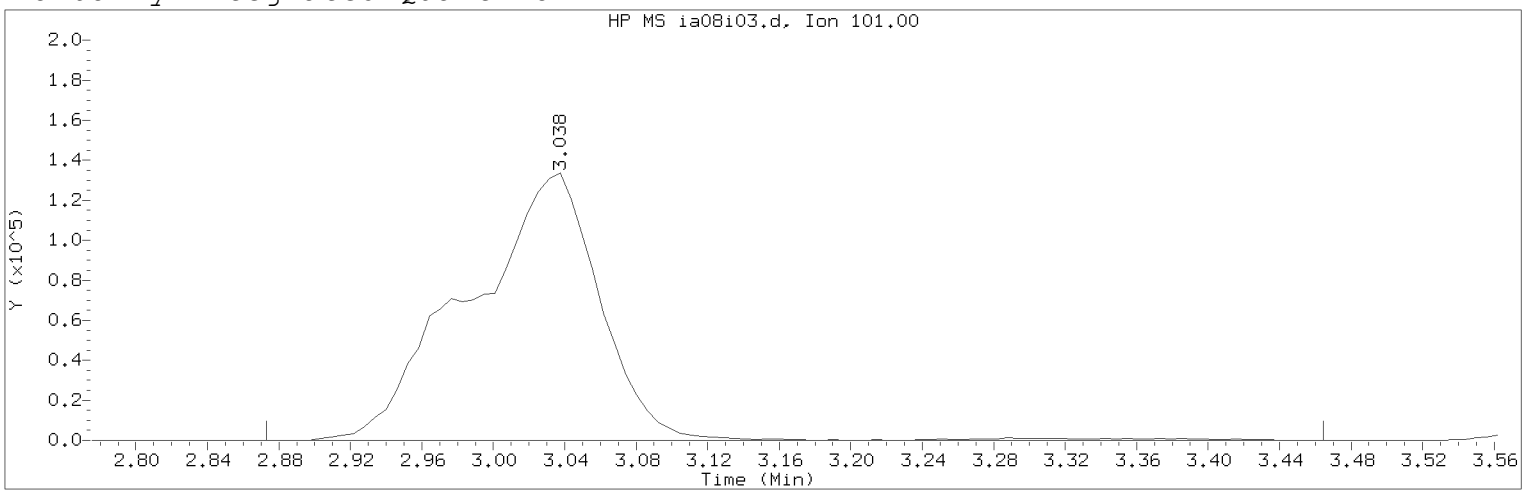
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	507014	5.061
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	444851	5.066
146) Hexachlorobutadiene	(4)	14.578	225	183178	5.105
147) Naphthalene	(4)	14.682	128	880542	5.007
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	401211	5.074

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

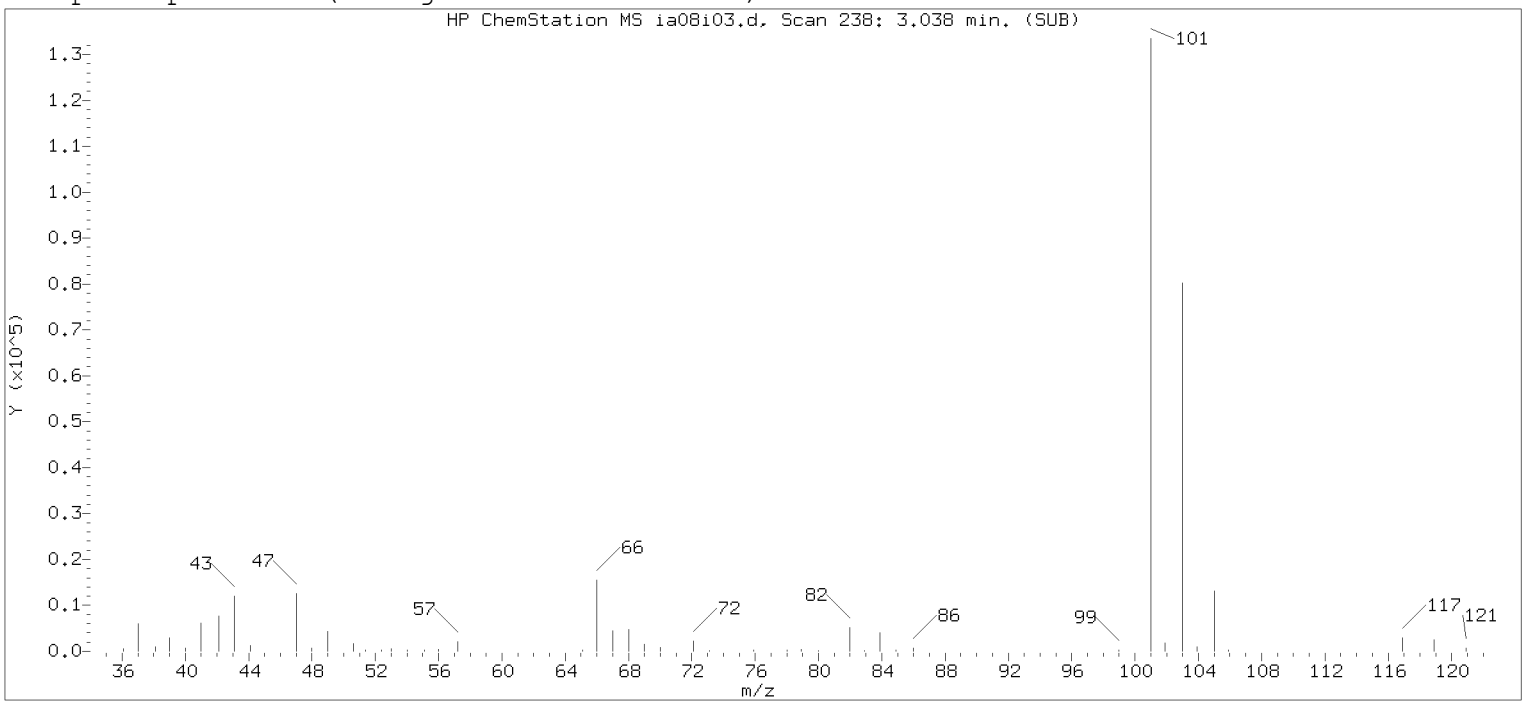
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 238
Retention Time (minutes): 3.038
Quant Ion : 101.00
Area (flag) : 683262M
On-Column Amount (ng) : 5.1324
Integration start scan : 210 Integration stop scan: 307
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

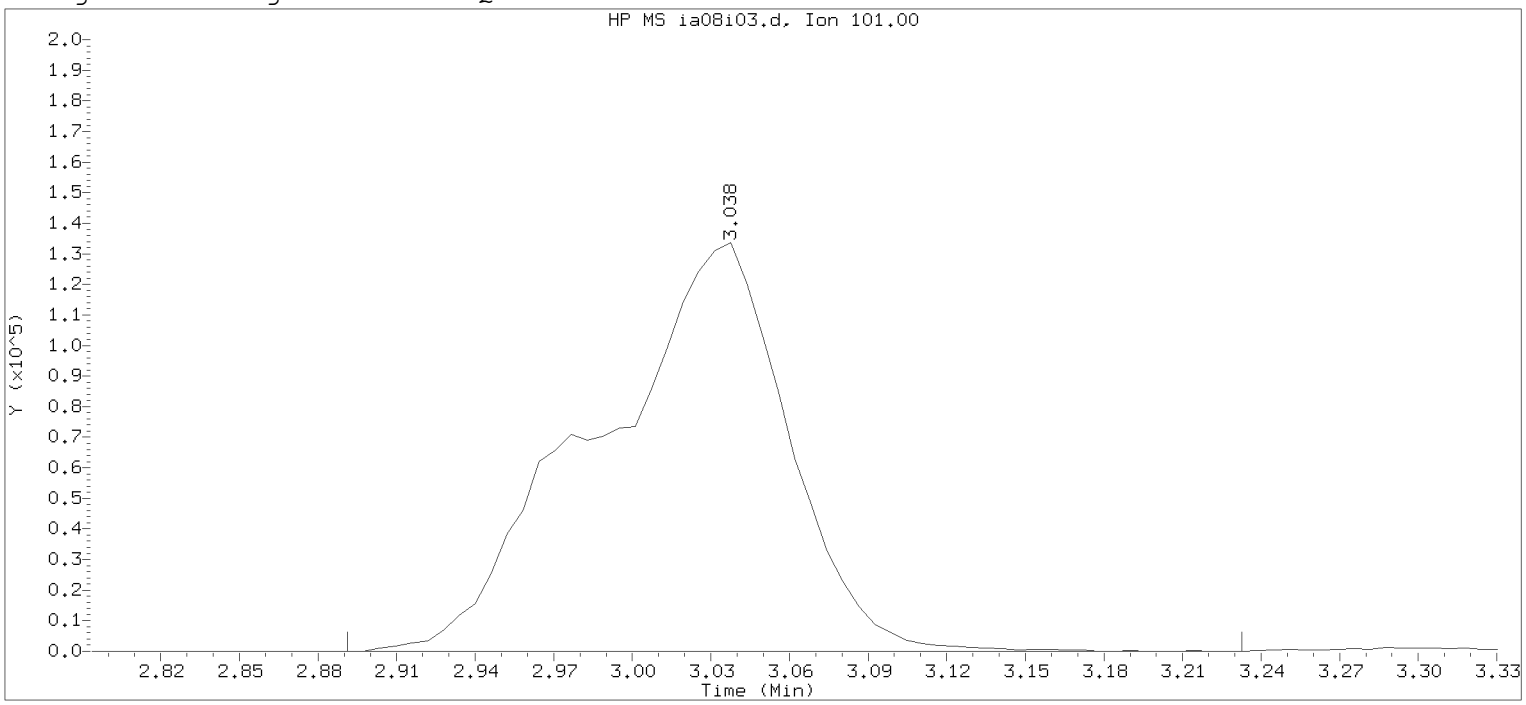
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

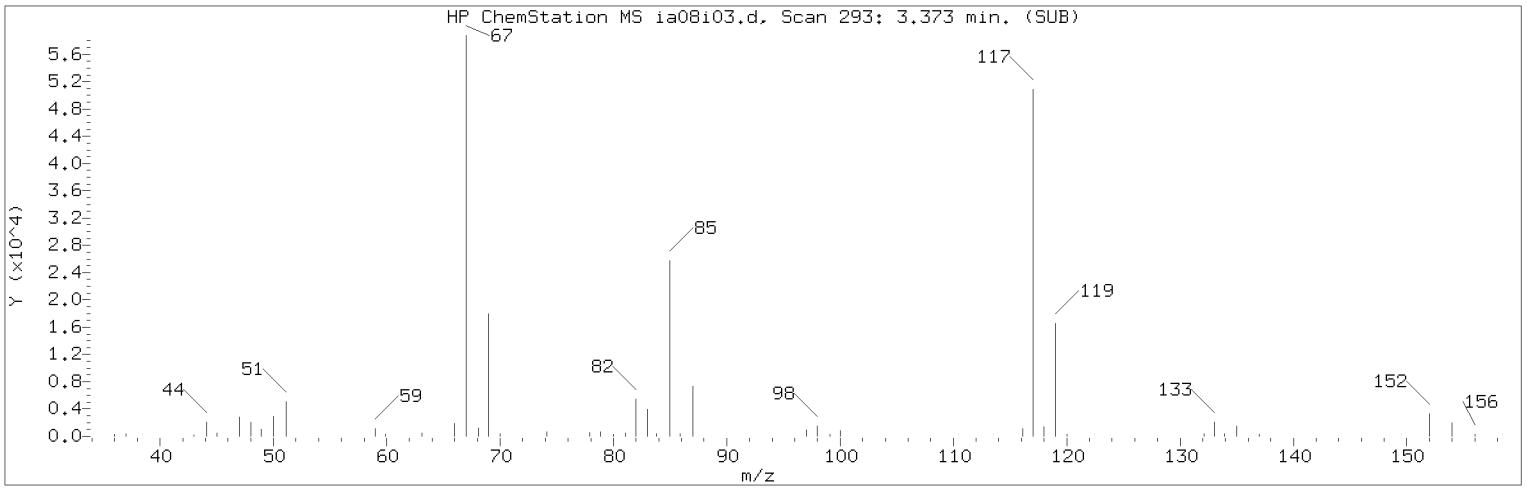
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

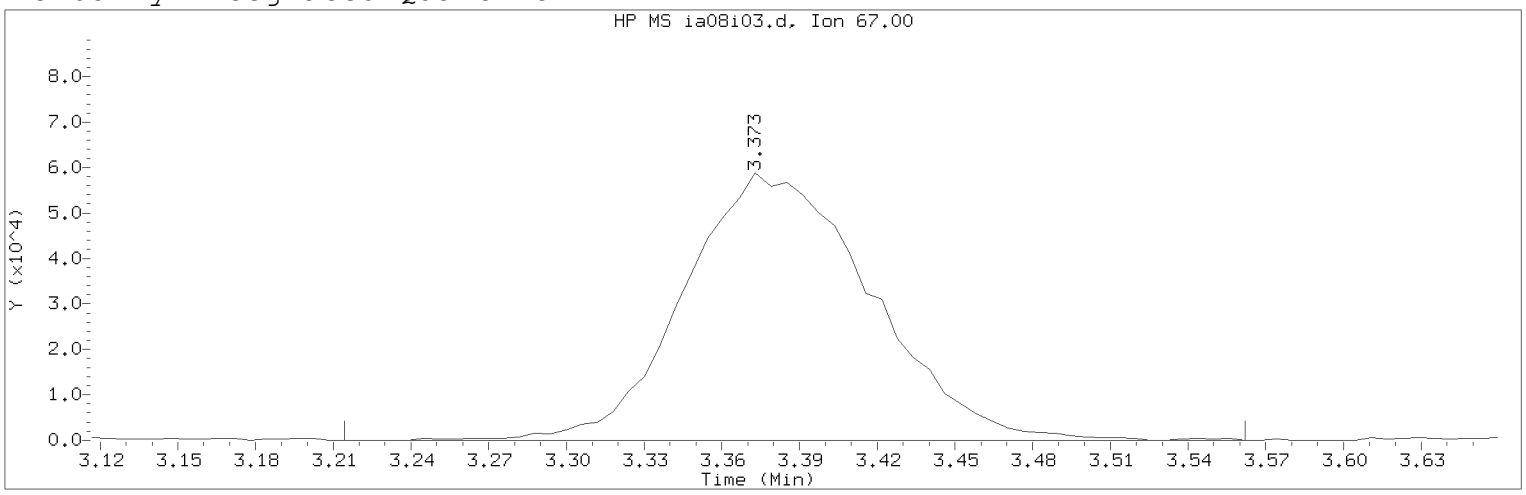
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 238
Retention Time (minutes): 3.038
Quant Ion : 101.00
Area : 675068
On-column Amount (ng) : 4.9751
Integration start scan : 213 Integration stop scan: 269
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1148

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

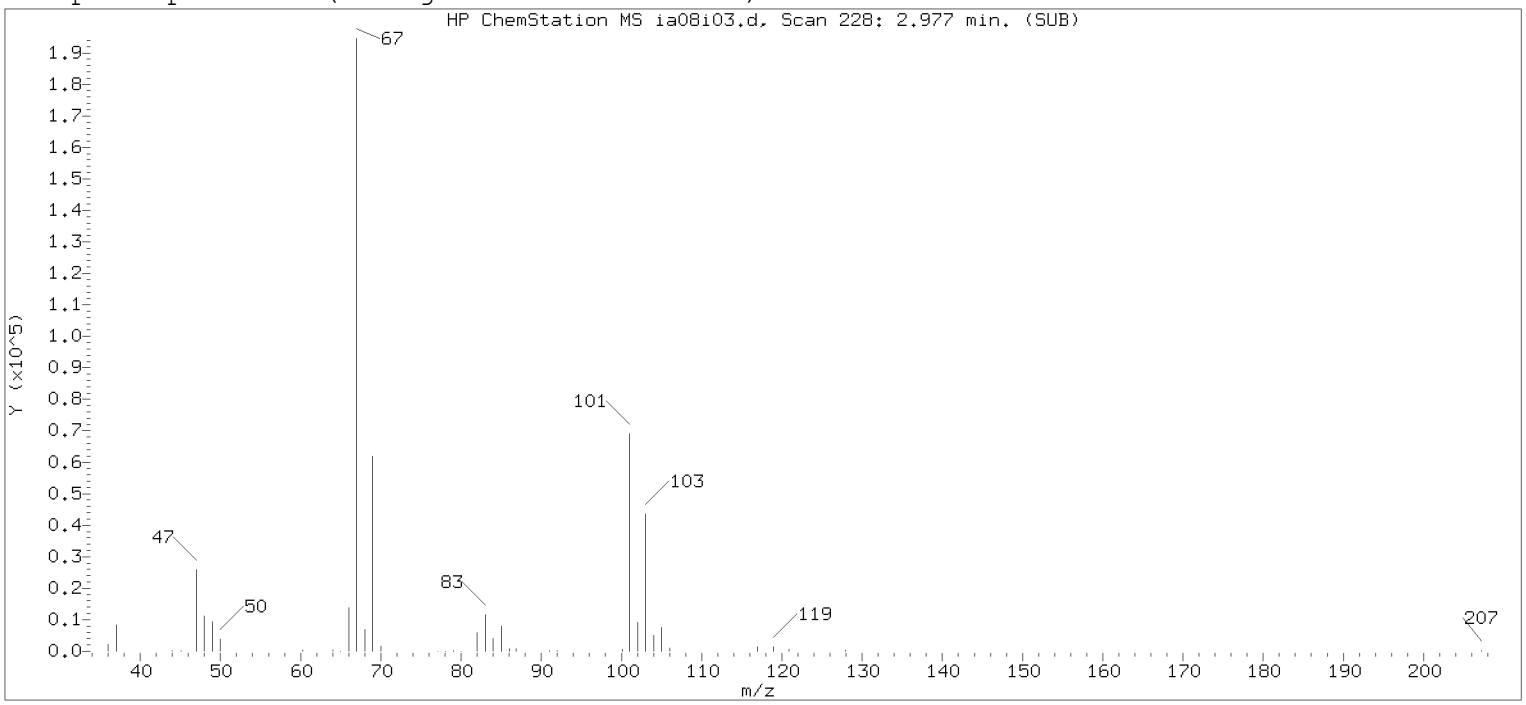
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area (flag) : 294965MA
On-Column Amount (ng) : 4.9276
Integration start scan : 266 Integration stop scan: 323
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

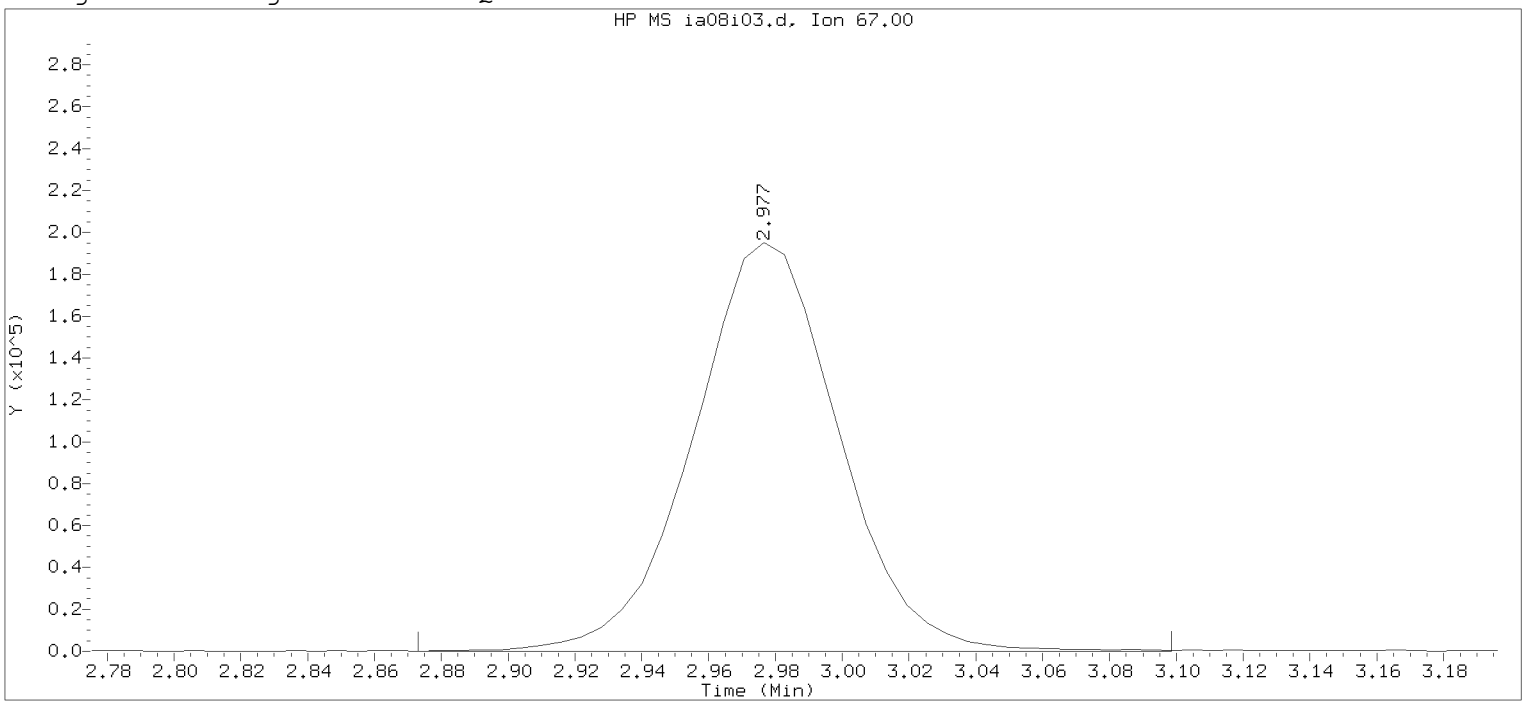
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 12
Compound Name : Freon 123a
Scan Number : 228
Retention Time (minutes): 2.977
Quant Ion : 67.00
Area : 590340
On-column Amount (ng) : 4.9250
Integration start scan : 210 Integration stop scan: 247
Y at integration start : 0 Y at integration end: 0

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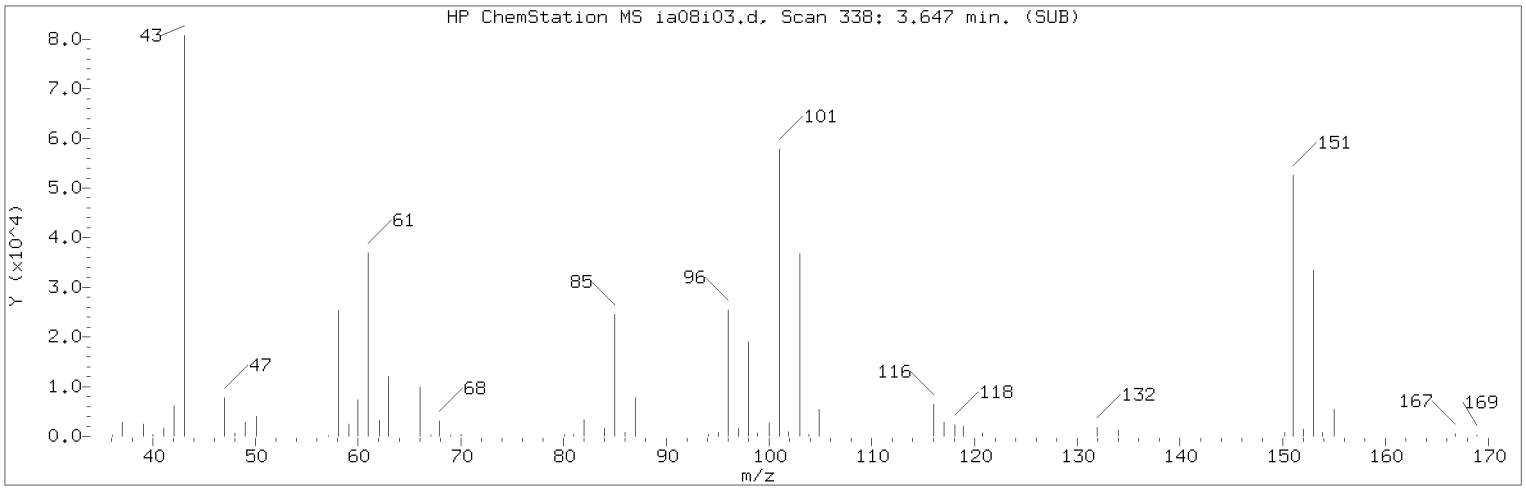
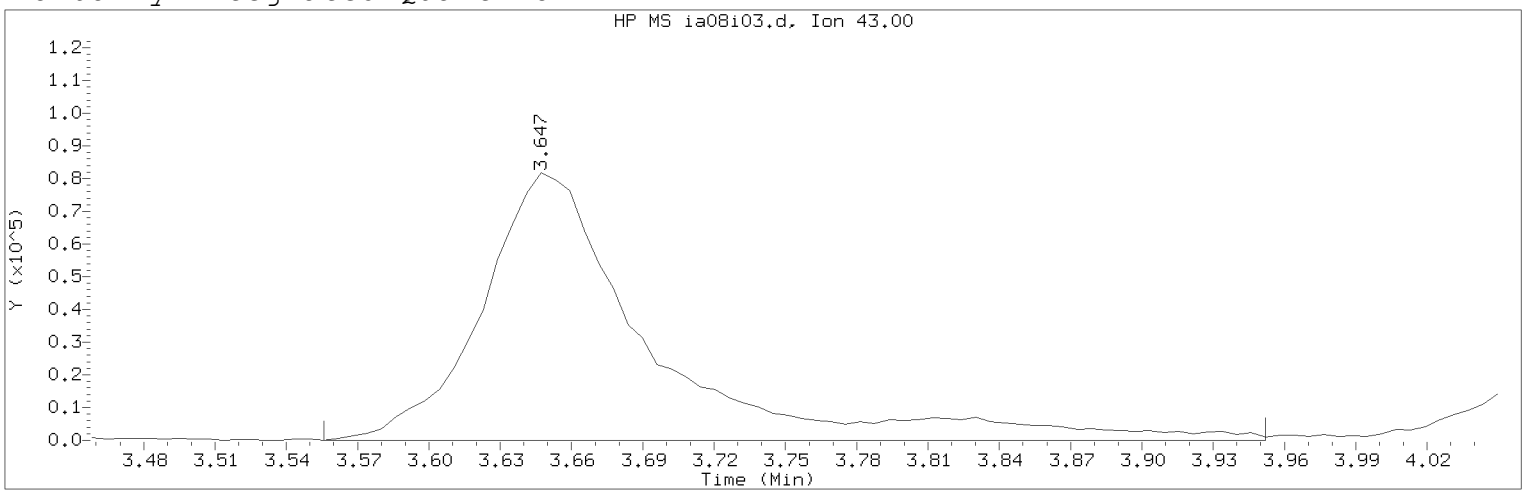
Target 3.5 esignature user: F35 Page 1150

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

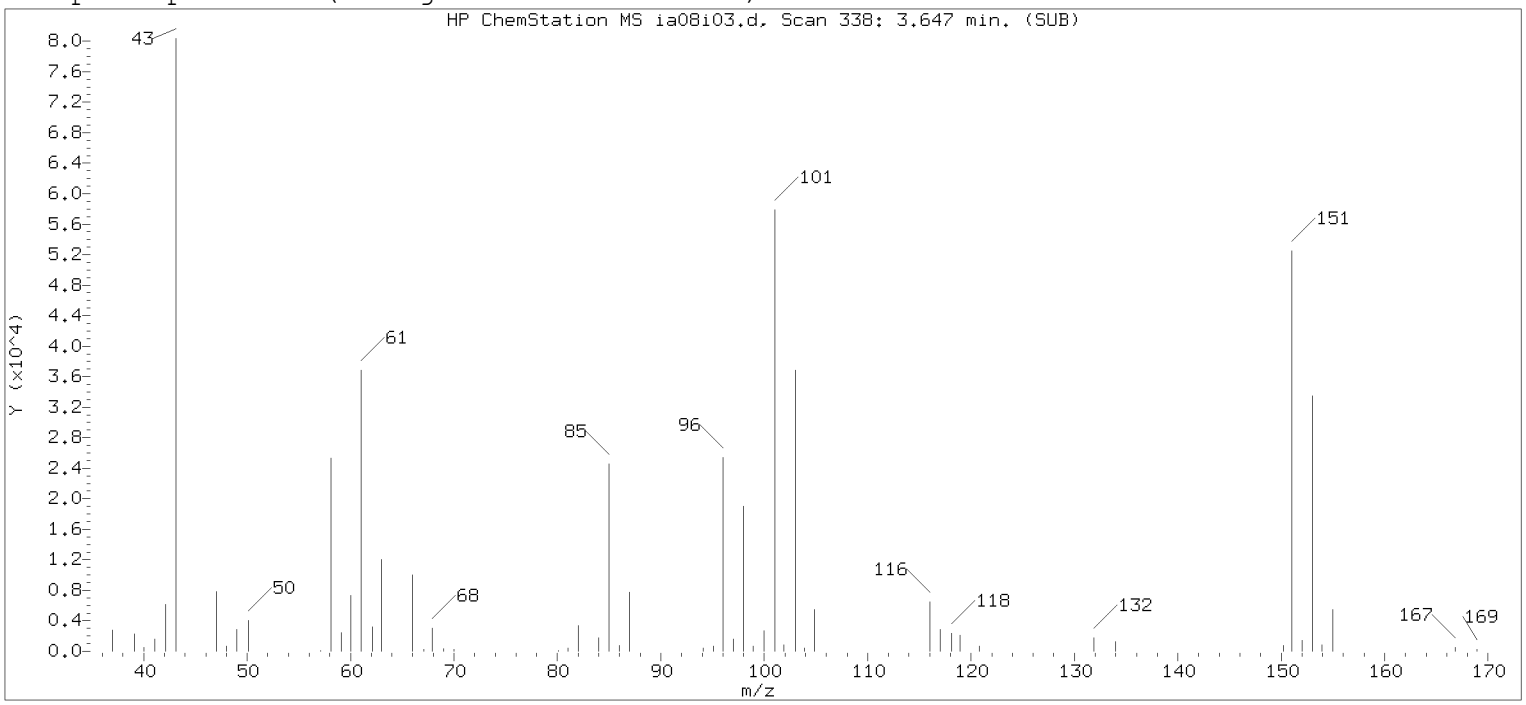
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area (flag) : 403041M
On-Column Amount (ng) : 47.3525
Integration start scan : 322 Integration stop scan: 387
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

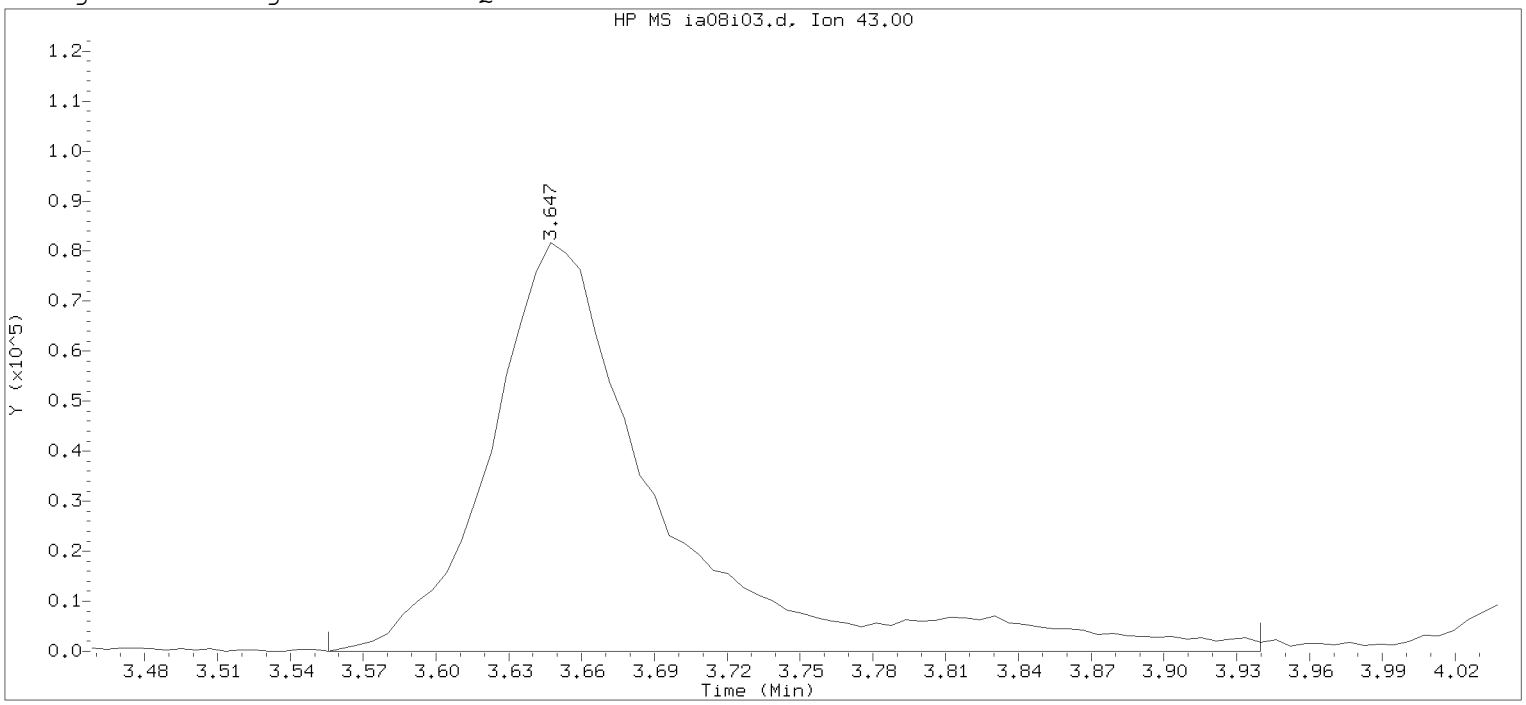
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

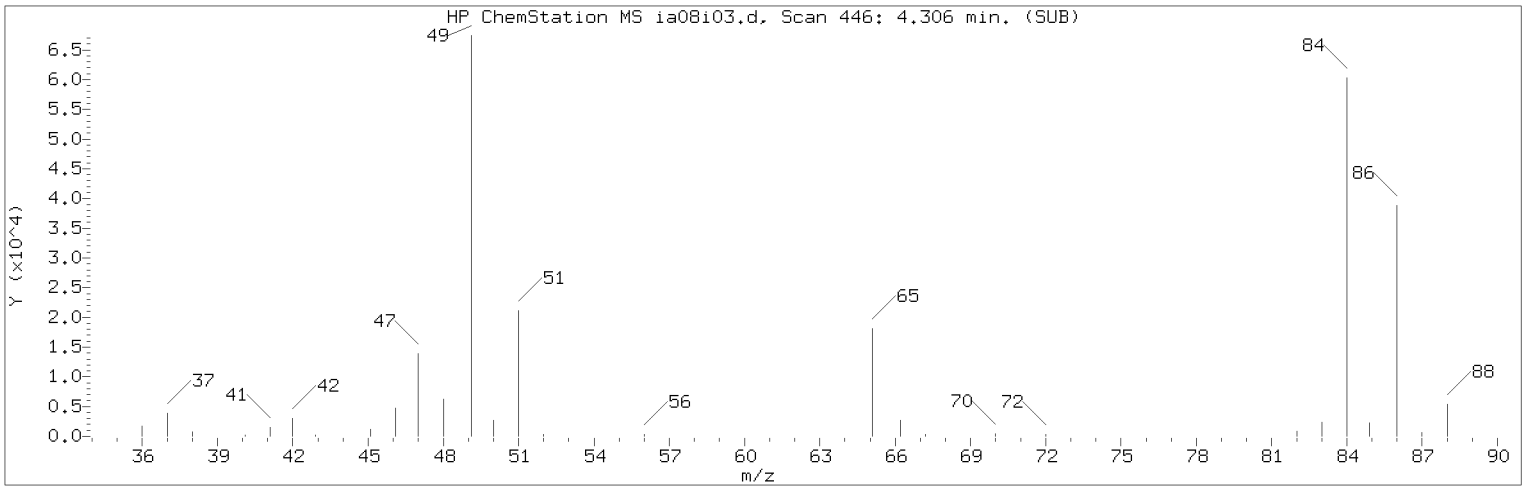
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

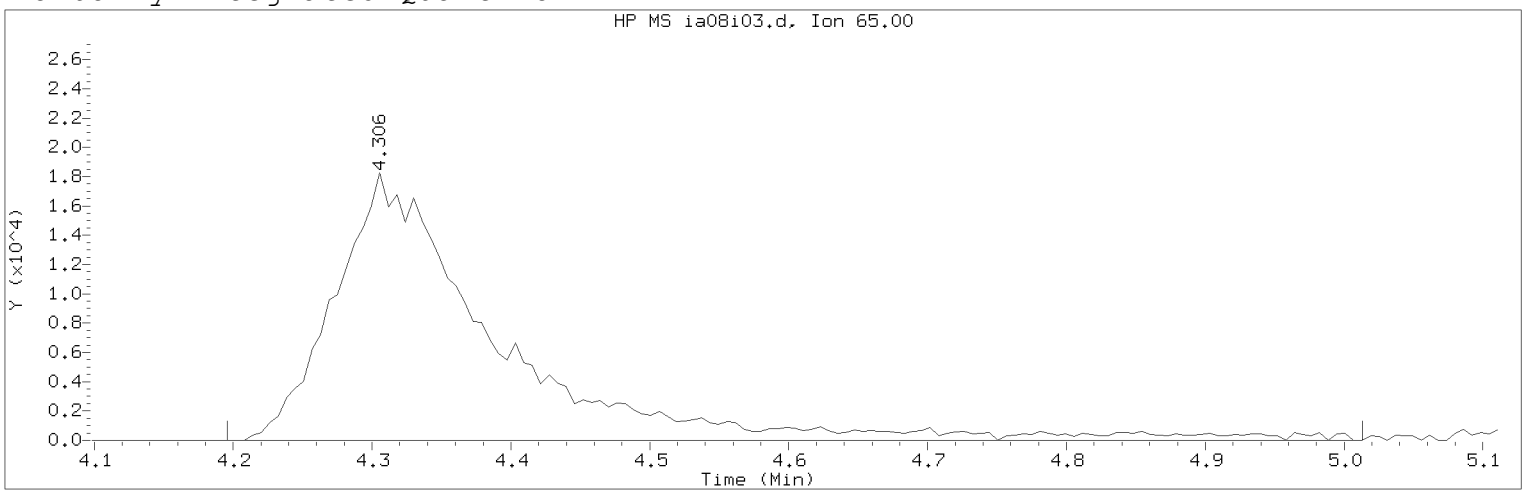
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area : 401497
On-column Amount (ng) : 49.5768
Integration start scan : 322 Integration stop scan: 385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

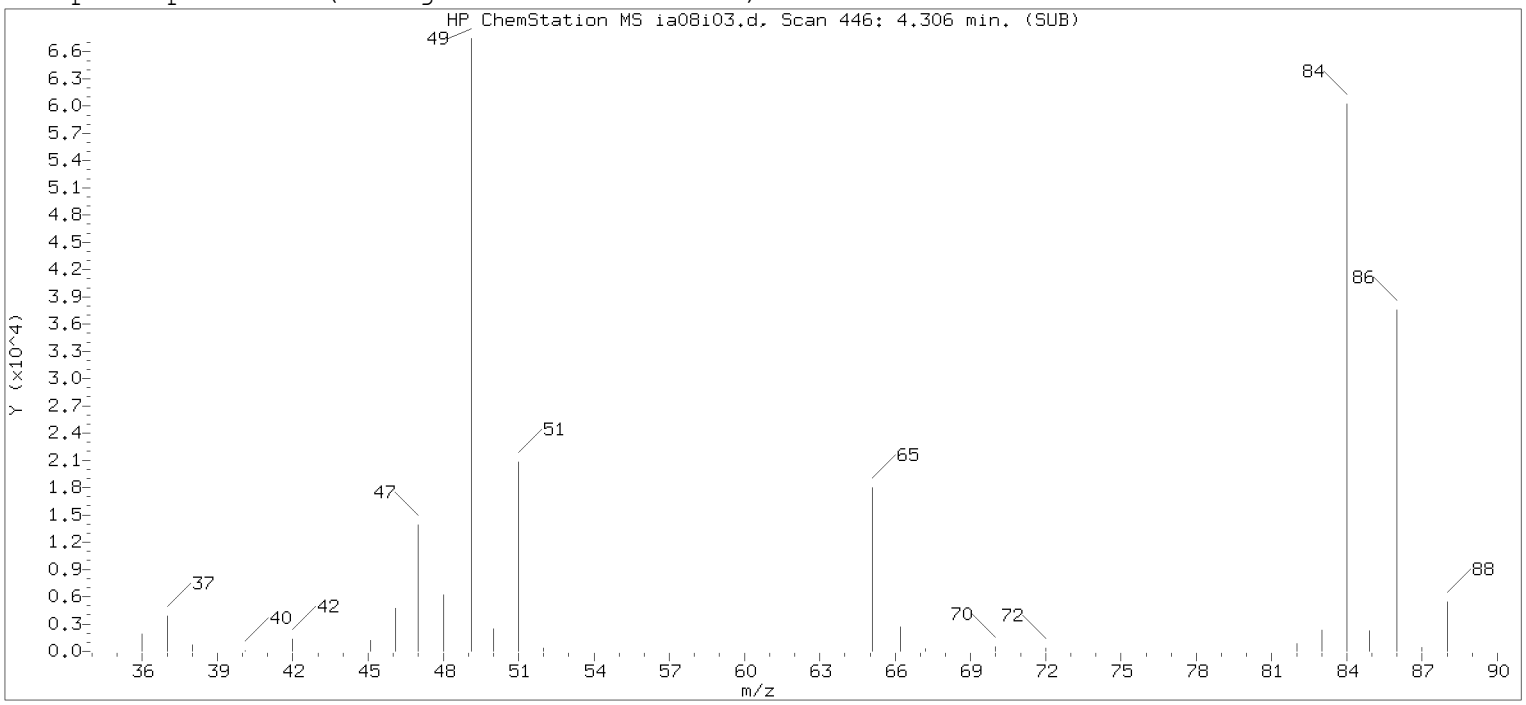
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area (flag) : 145276M
On-Column Amount (ng) : 50.0000
Integration start scan : 427 Integration stop scan: 561
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

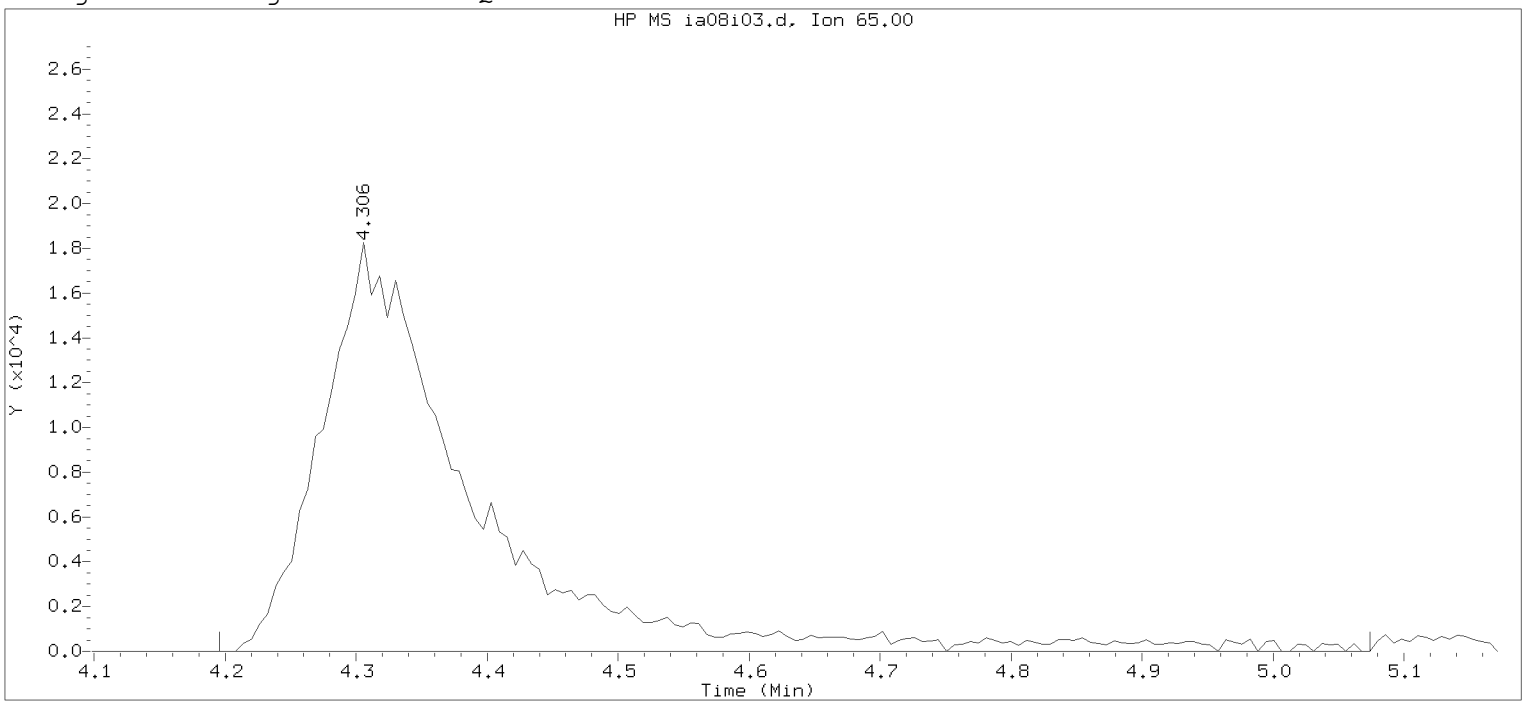
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area : 145964
On-column Amount (ng) : 50.0000
Integration start scan : 427 Integration stop scan: 571
Y at integration start : 0 Y at integration end: 0

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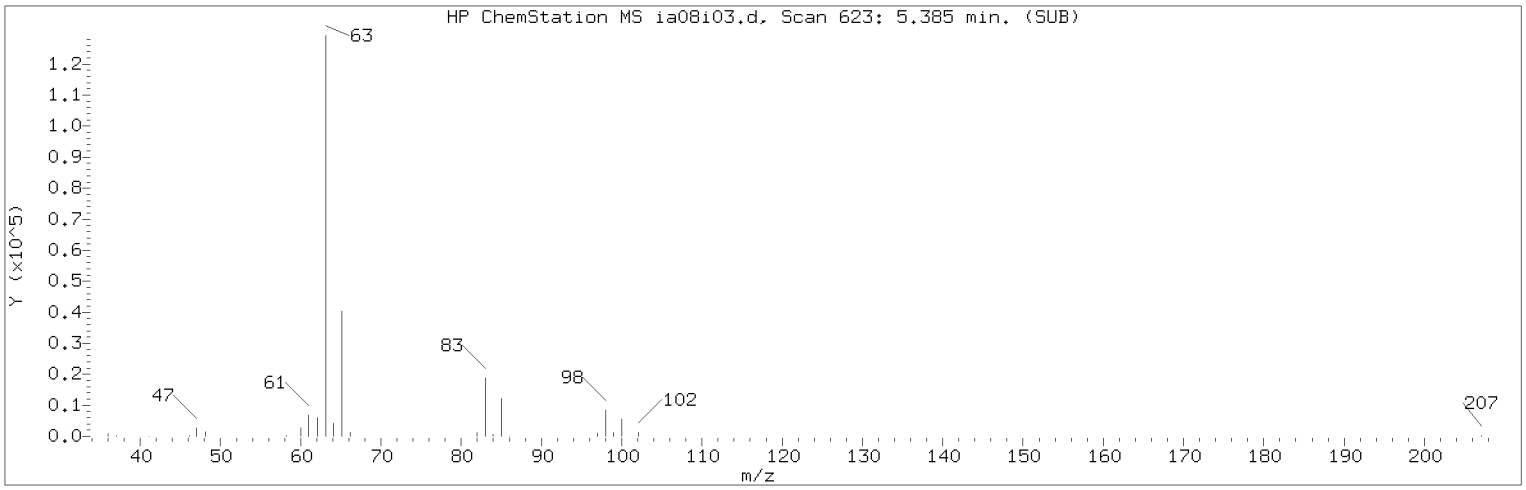
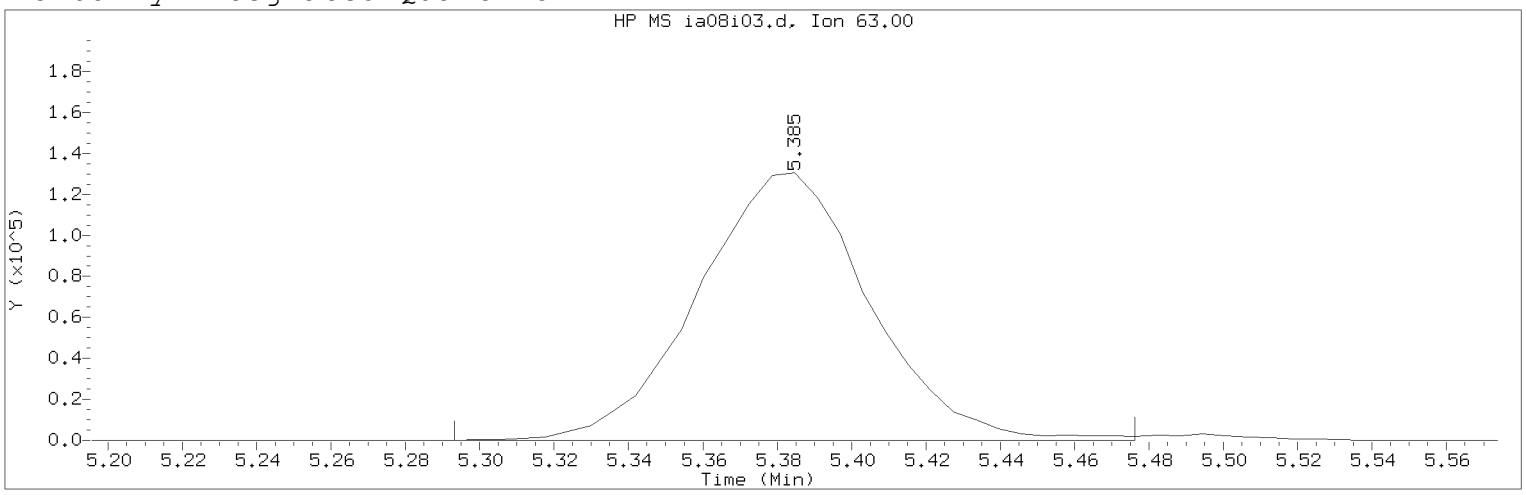
Target 3.5 esignature user: Page 1154

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

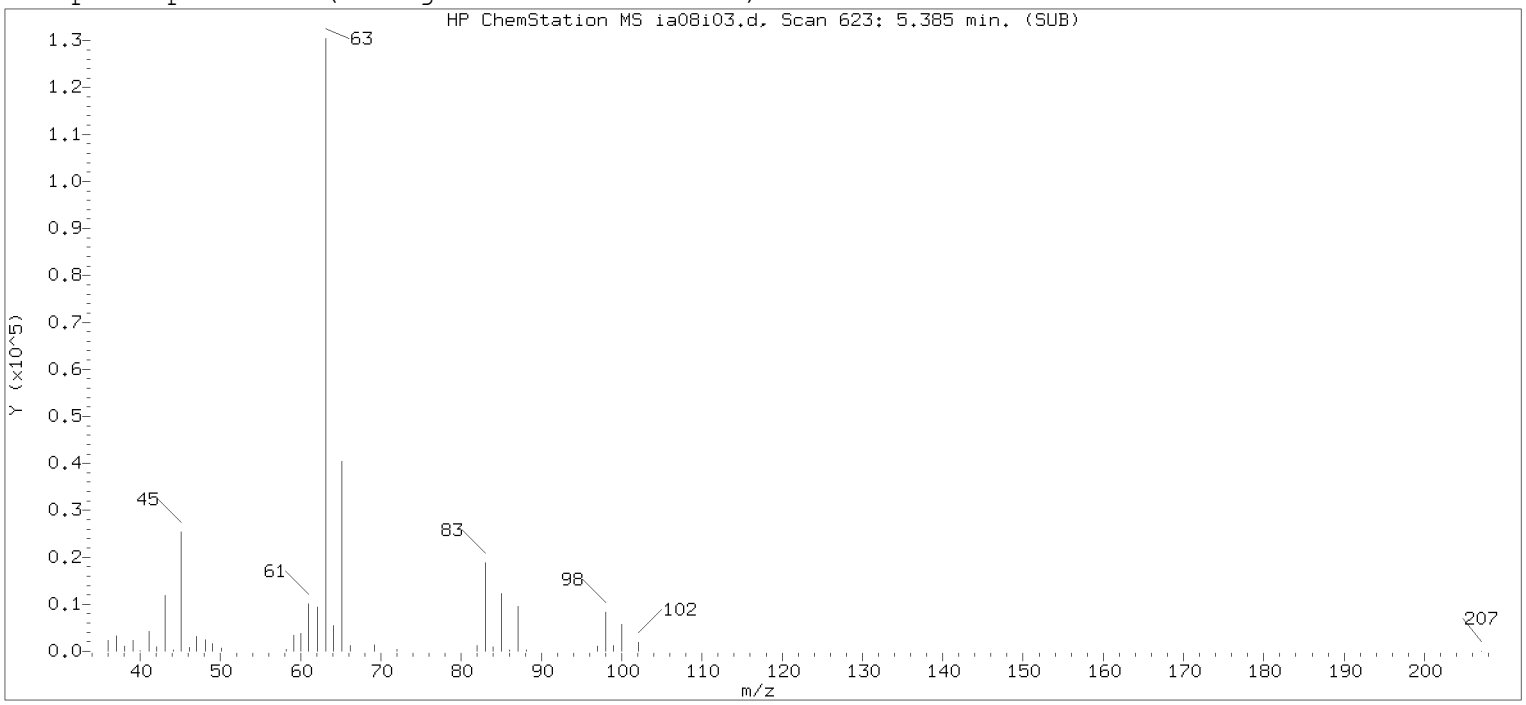
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 623
Retention Time (minutes): 5.385
Quant Ion : 63.00
Area (flag) : 418818M
On-Column Amount (ng) : 4.9832
Integration start scan : 607 Integration stop scan: 637
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

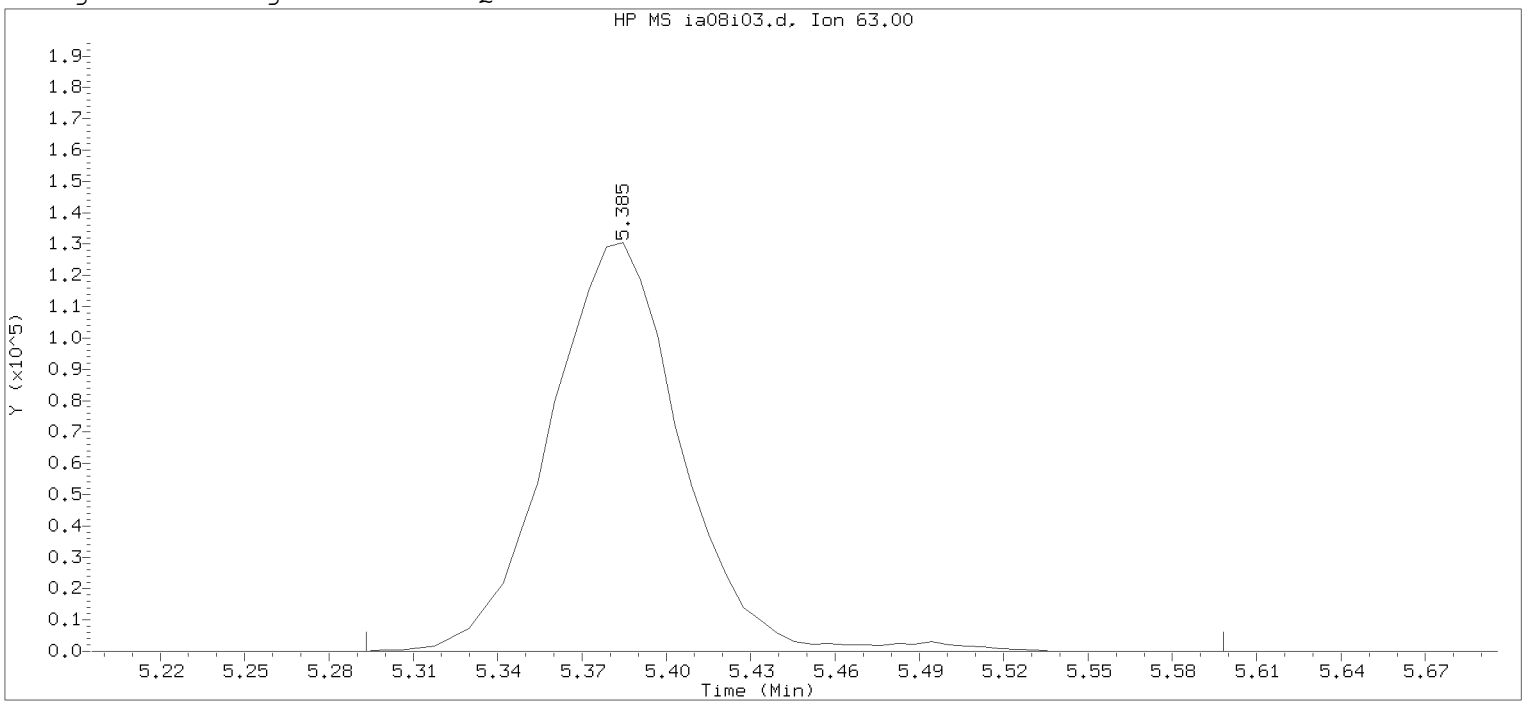
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

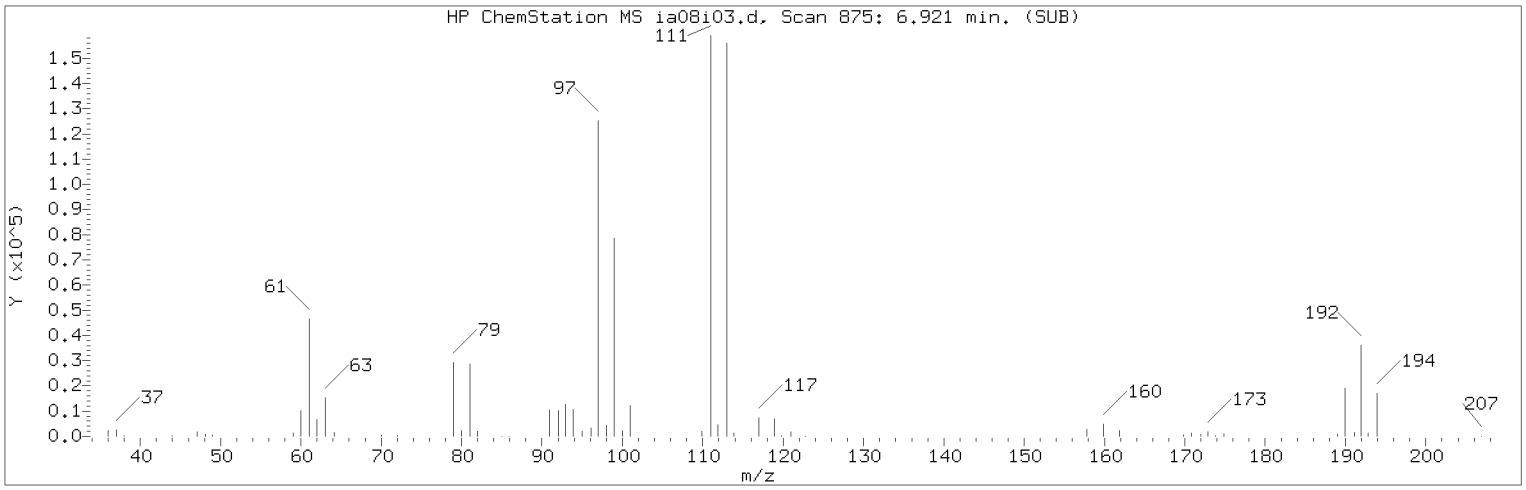
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

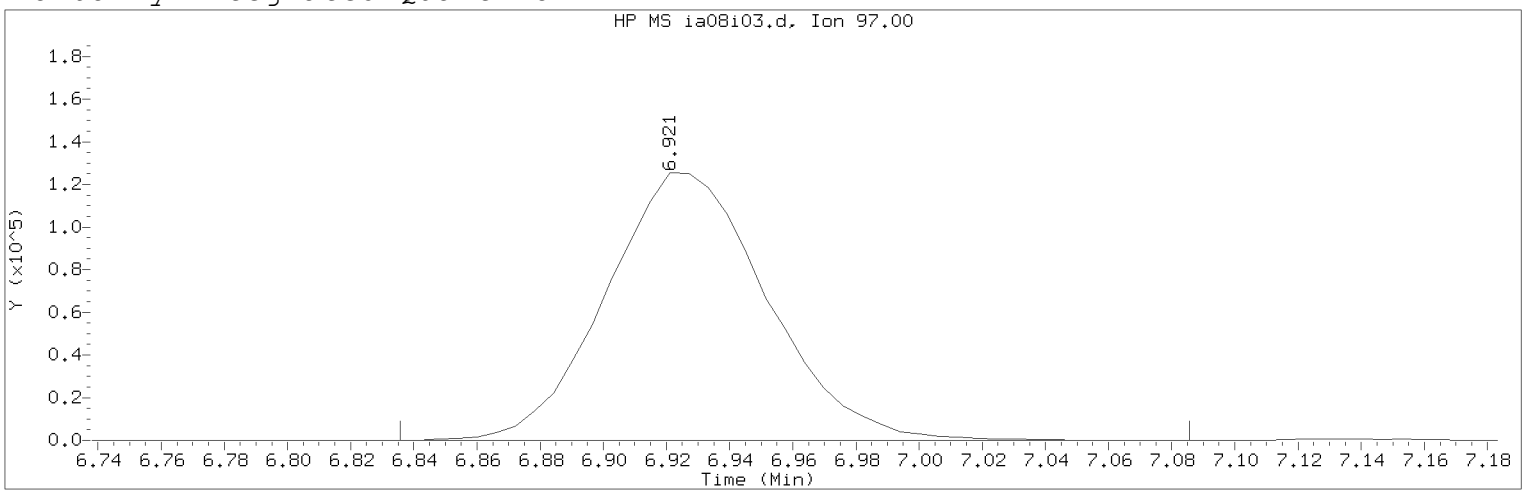
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 623
Retention Time (minutes): 5.385
Quant Ion : 63.00
Area : 424096
On-column Amount (ng) : 4.9910
Integration start scan : 607 Integration stop scan: 657
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

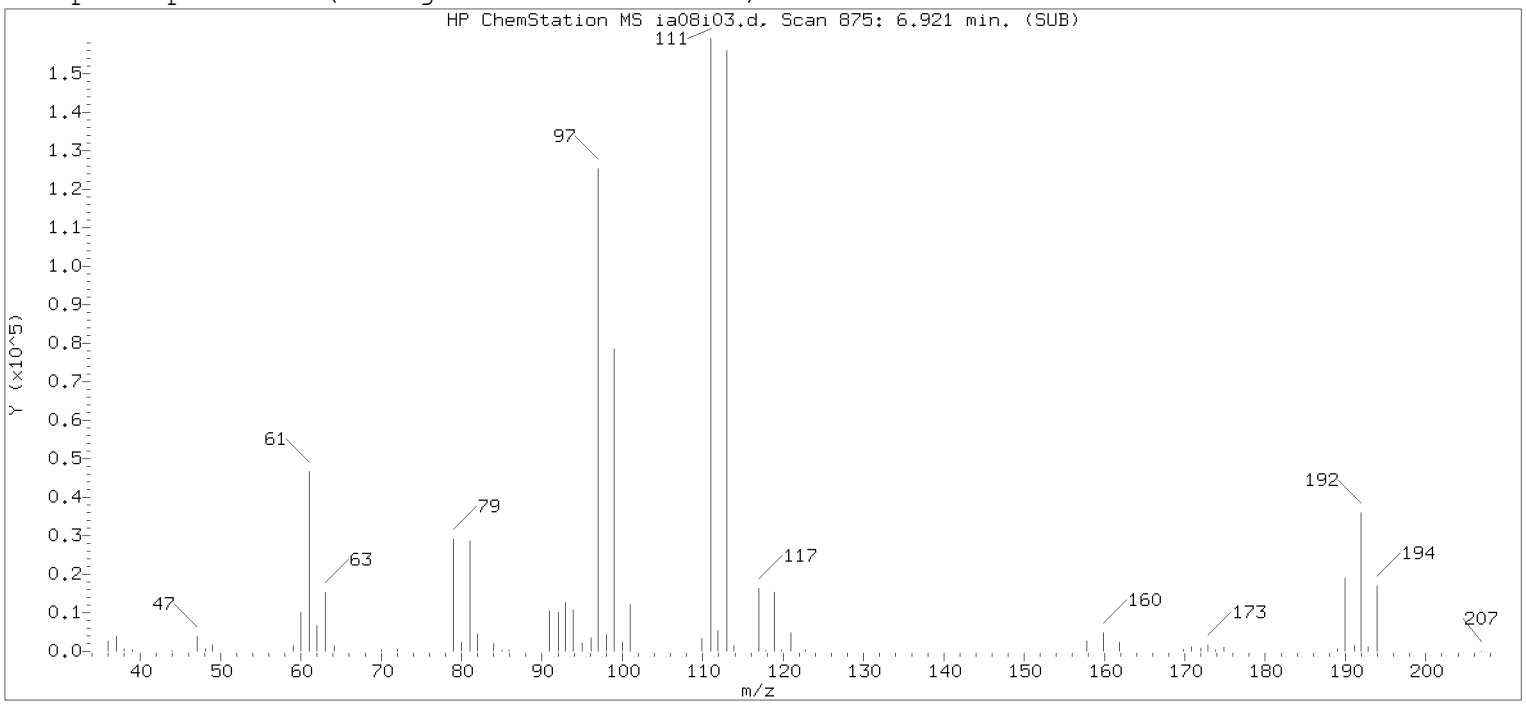
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area (flag) : 444509M
On-Column Amount (ng) : 5.0207
Integration start scan : 860 Integration stop scan: 901
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

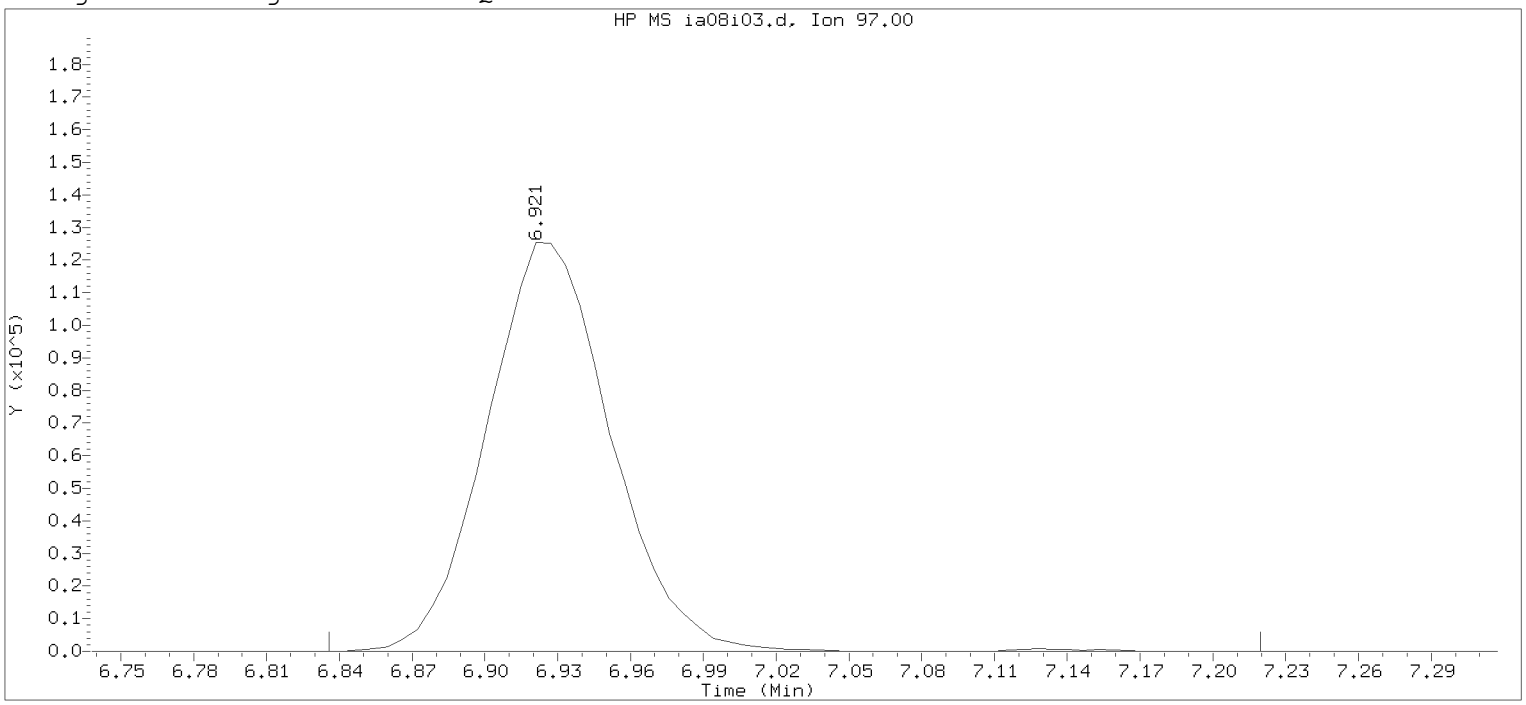
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

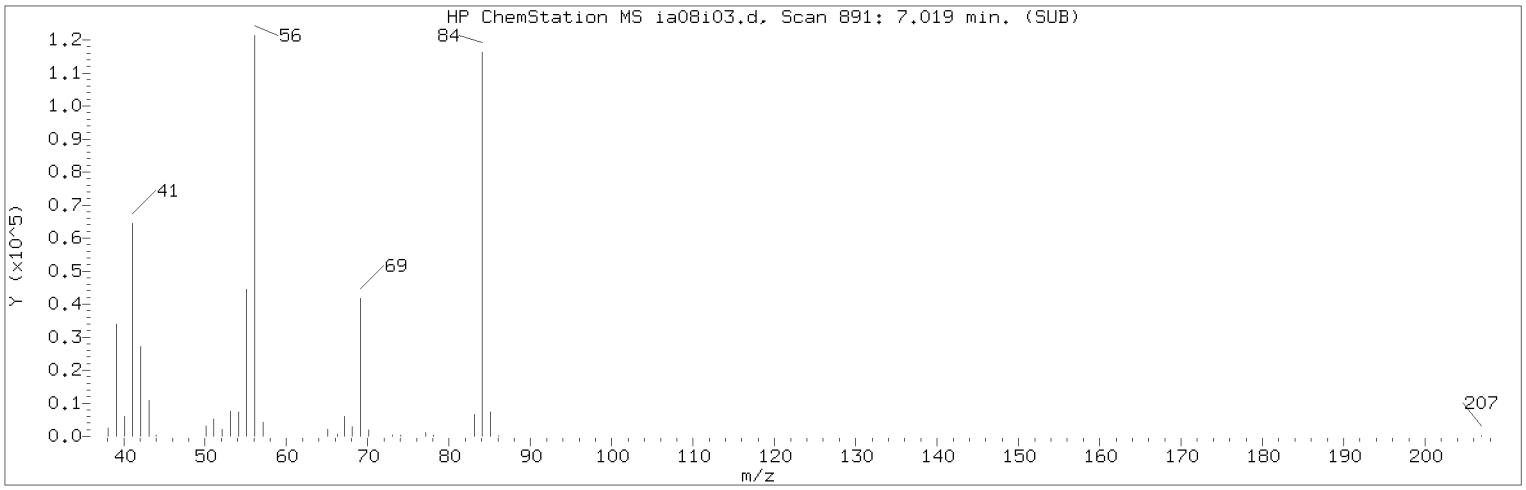
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

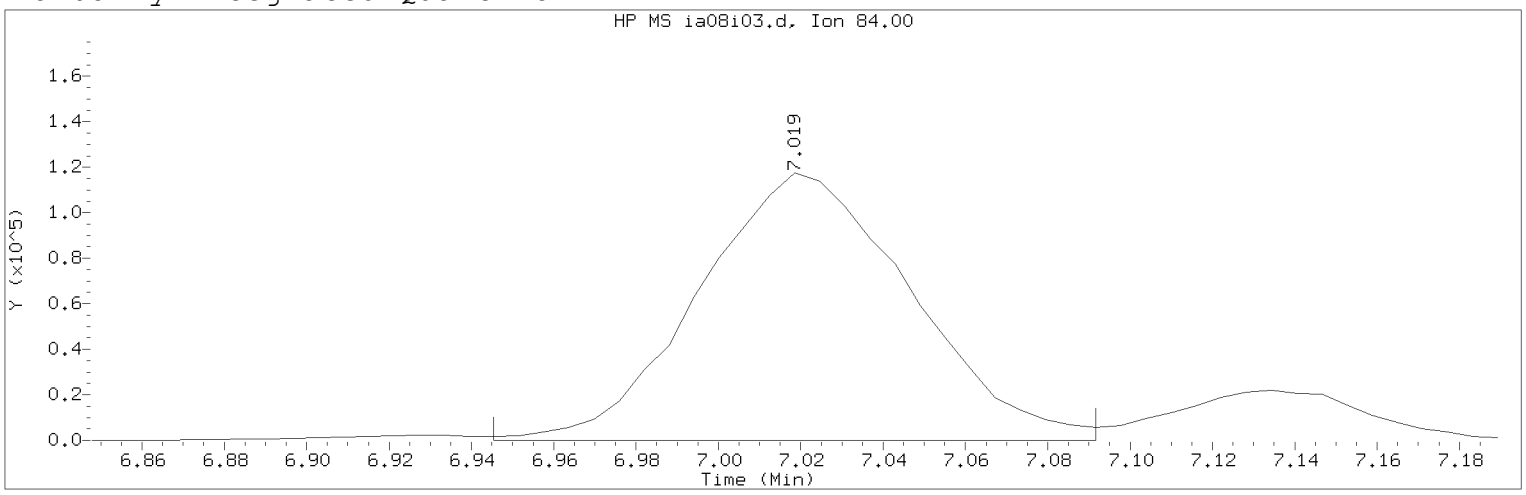
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area : 446045
On-column Amount (ng) : 4.9485
Integration start scan : 860 Integration stop scan: 923
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1158

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

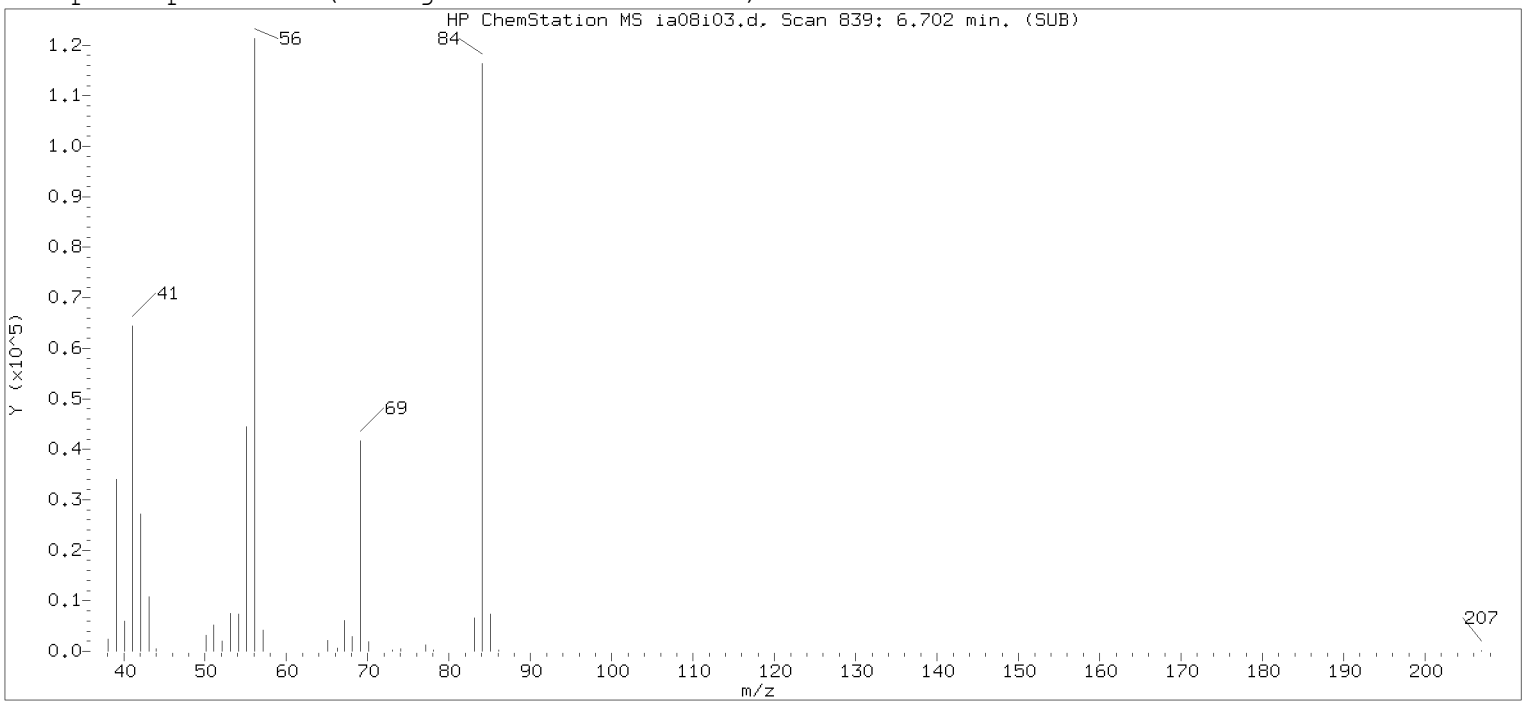
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 84.00
Area (flag) : 419574M
On-Column Amount (ng) : 5.1086
Integration start scan : 878 Integration stop scan: 902
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

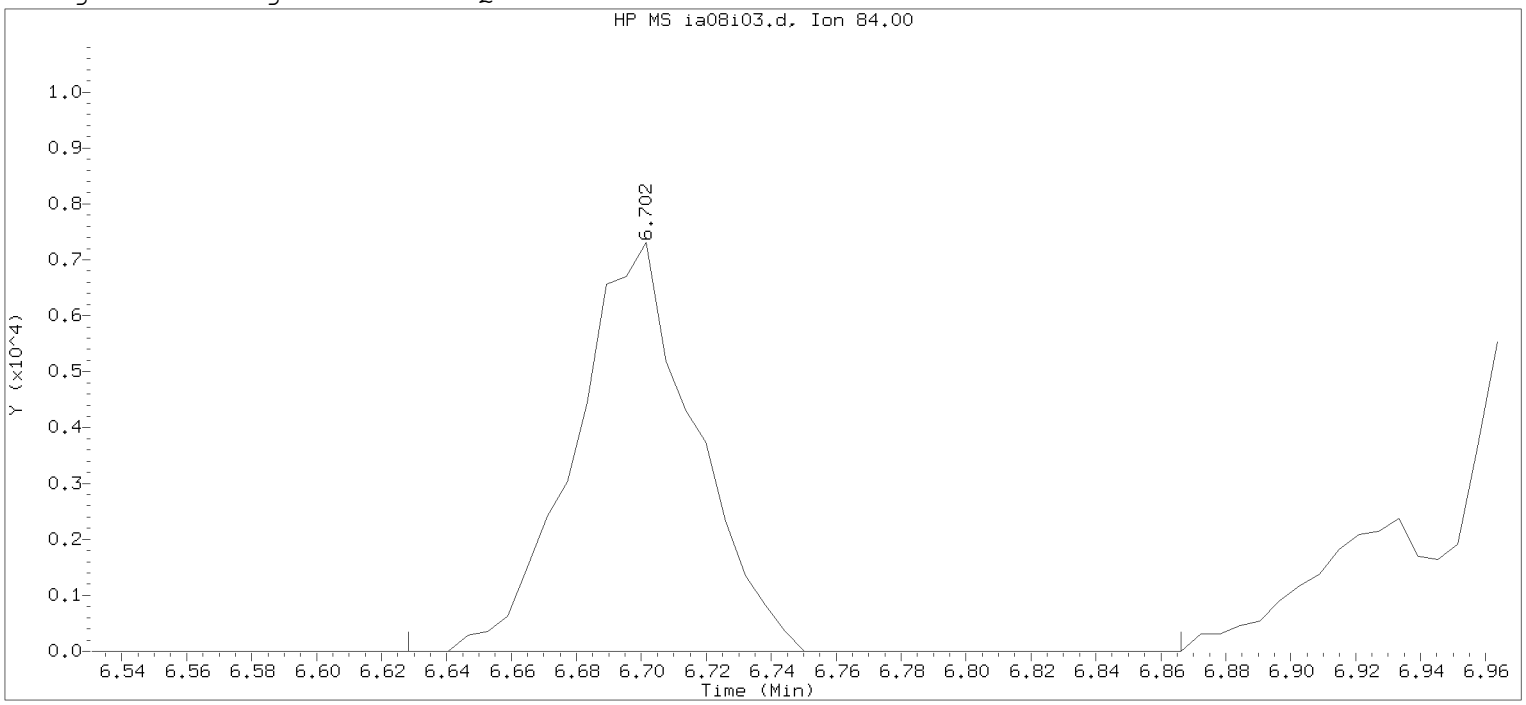
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

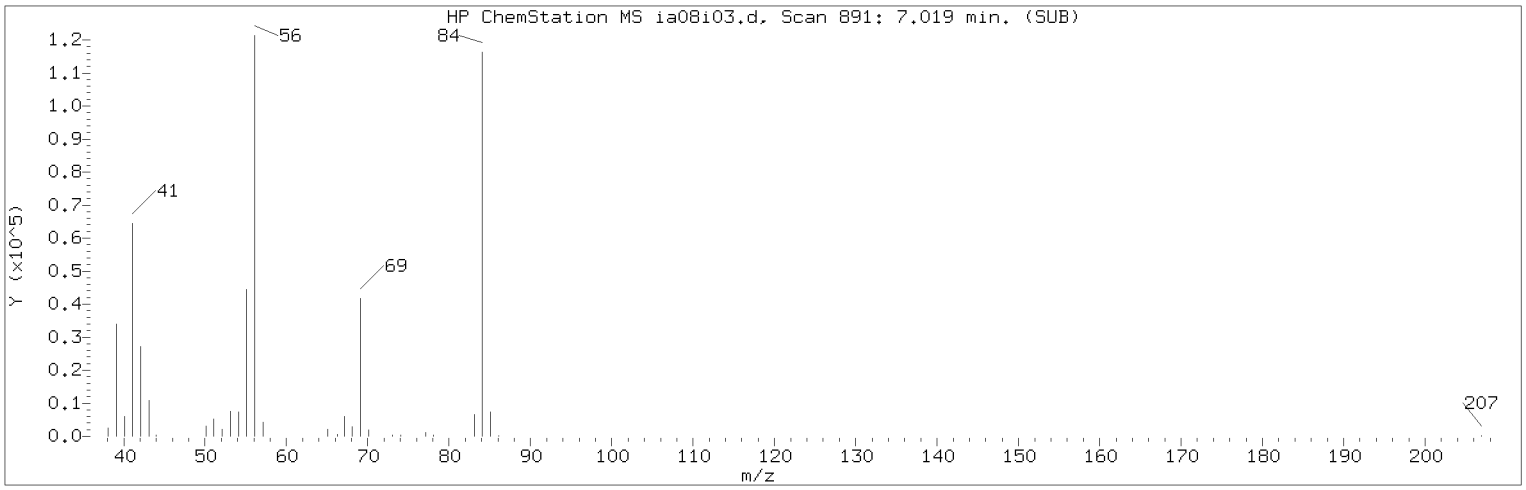
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

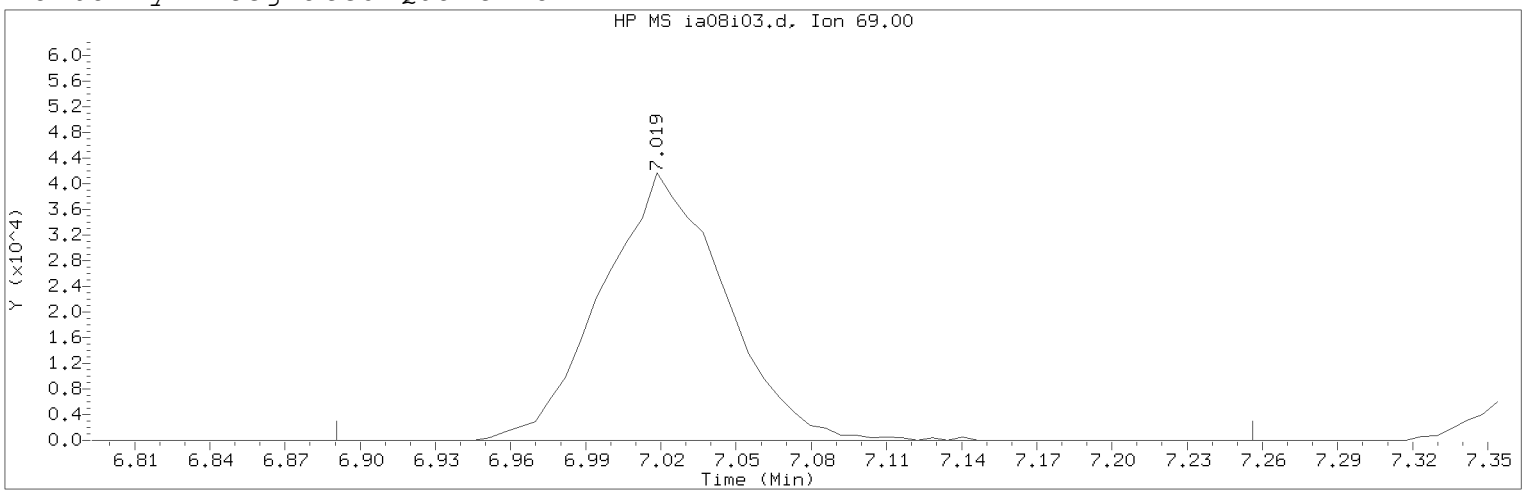
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 839
Retention Time (minutes): 6.702
Quant Ion : 84.00
Area : 18781
On-column Amount (ng) : 4.9961
Integration start scan : 826 Integration stop scan: 865
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: F35 Page 1160

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

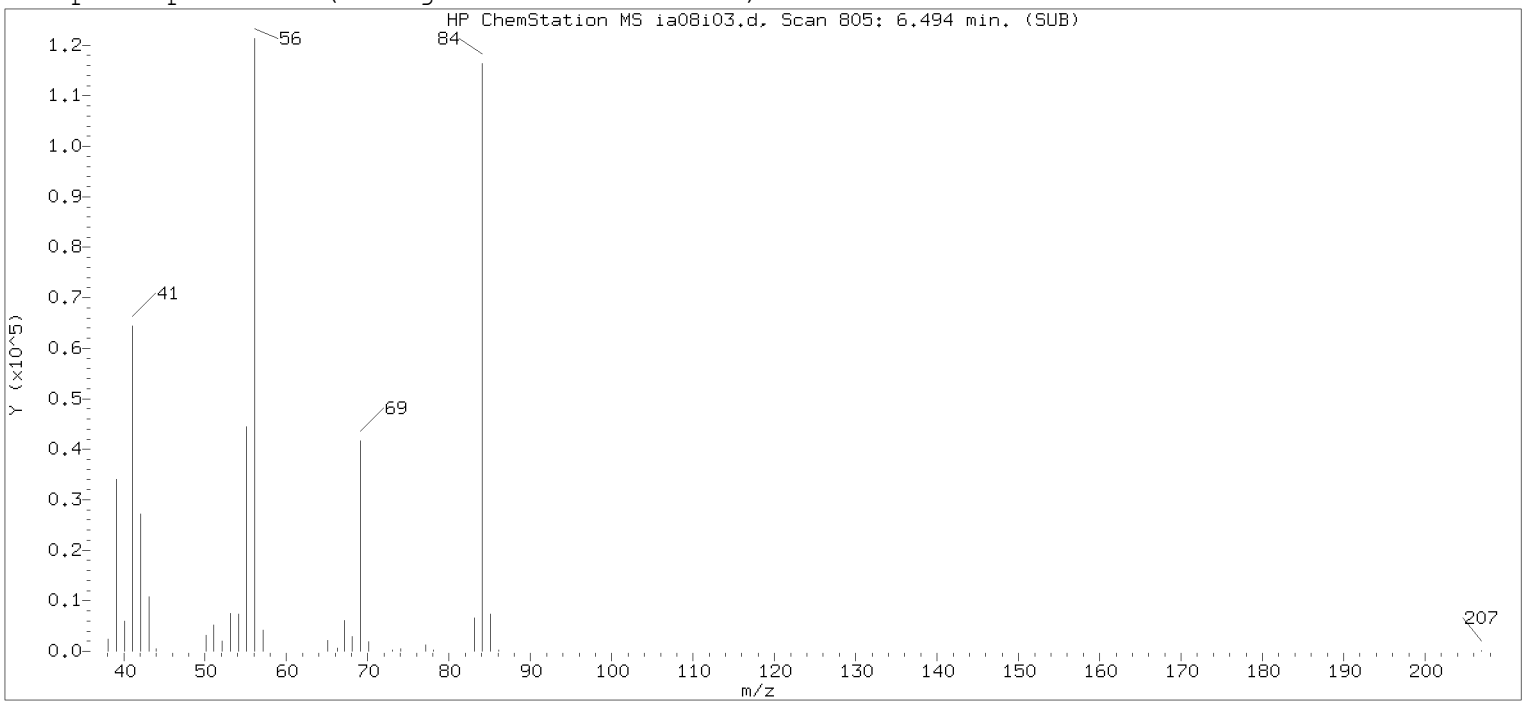
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 69.00
Area (flag) : 141722M
On-Column Amount (ng) : 4.9575
Integration start scan : 869 Integration stop scan: 929
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

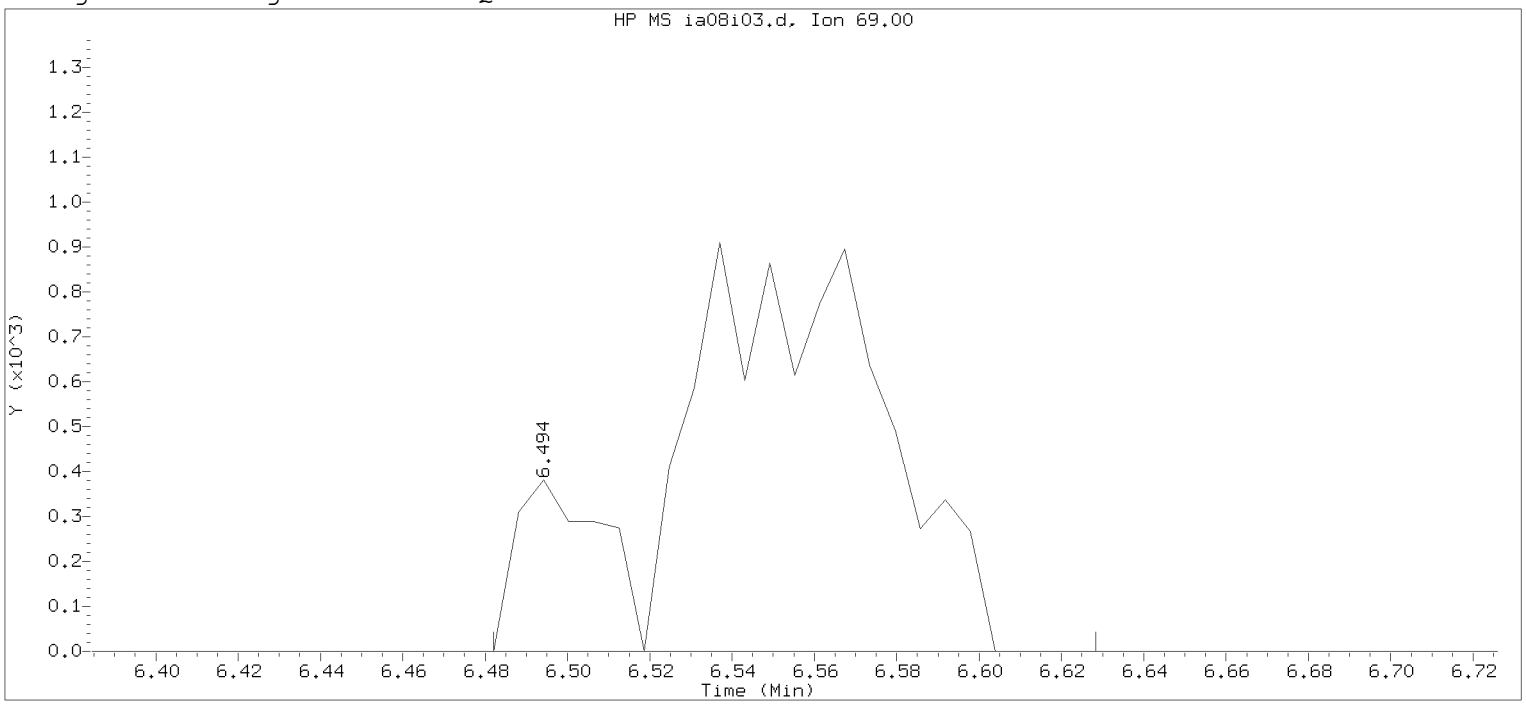
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

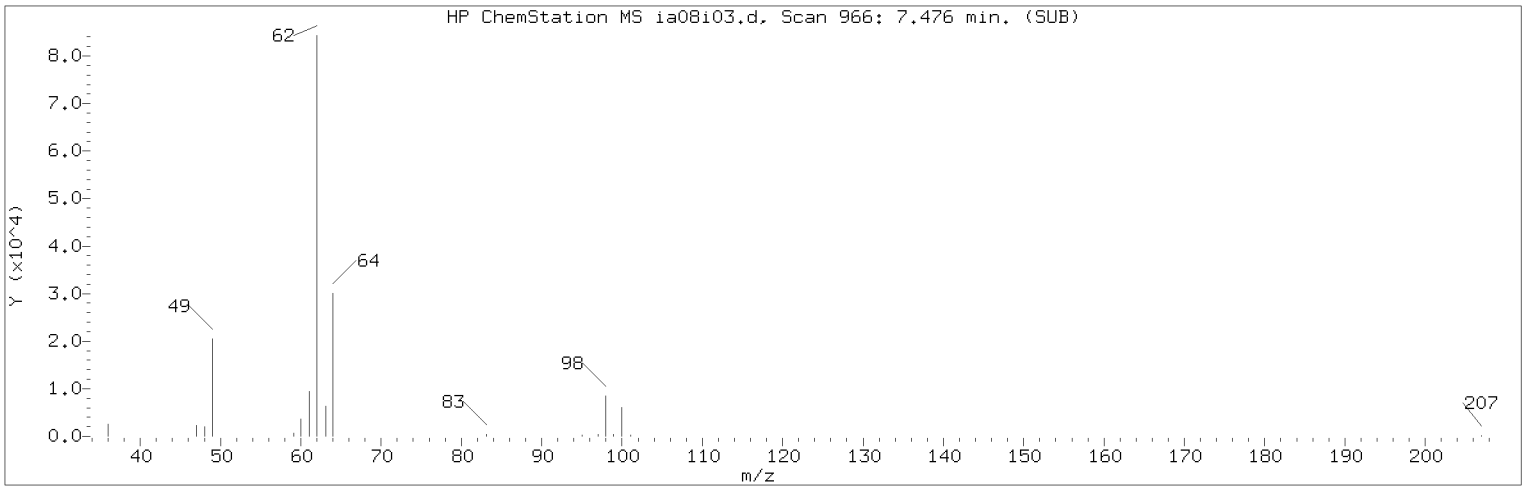
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

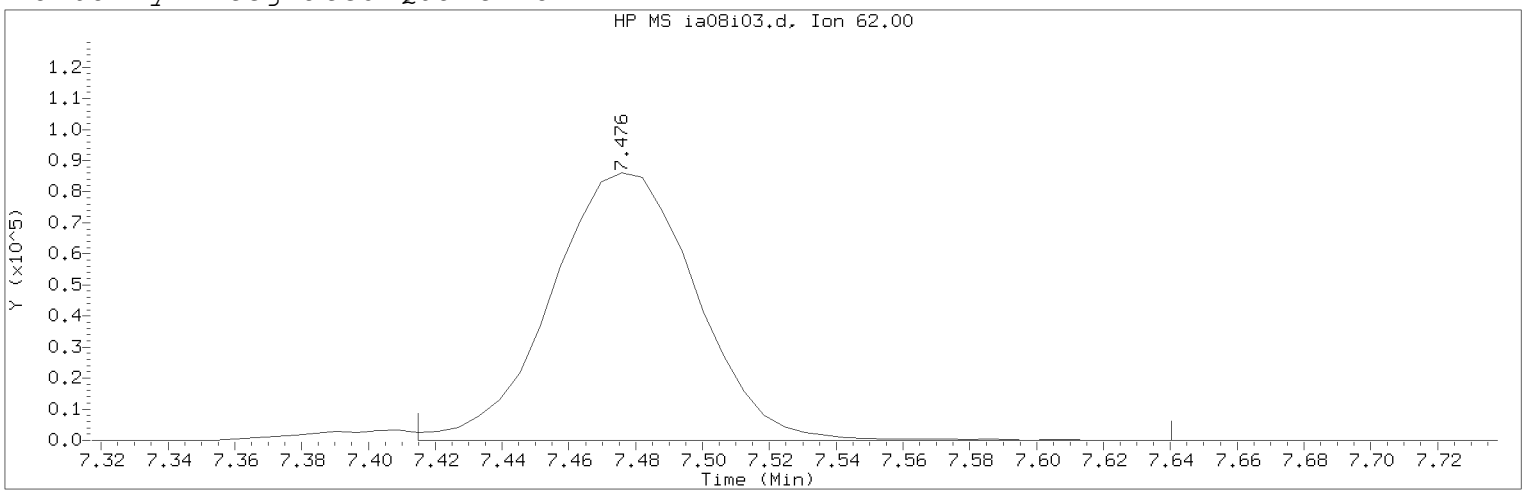
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 805
Retention Time (minutes): 6.494
Quant Ion : 69.00
Area : 3367
On-column Amount (ng) : 5.2133
Integration start scan : 802 Integration stop scan: 826
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

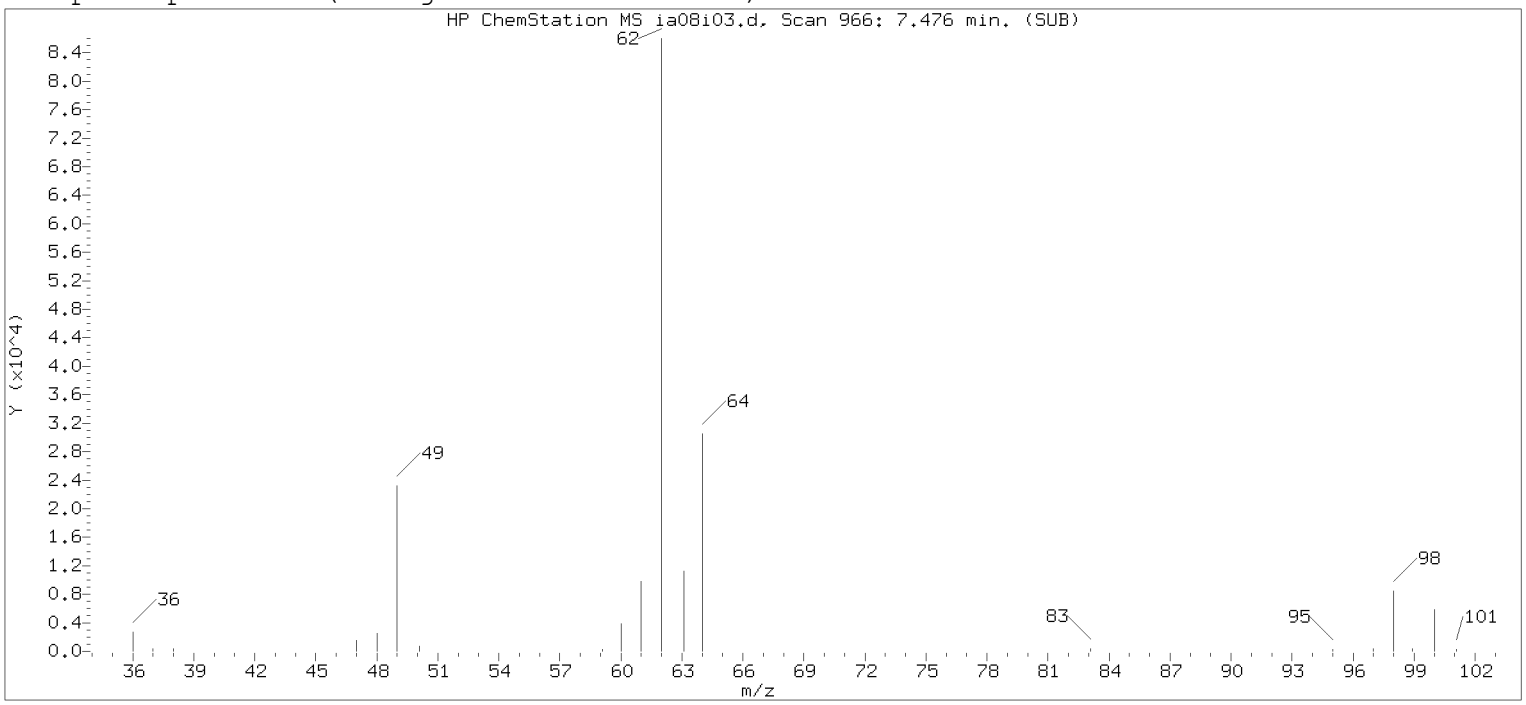
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area (flag) : 259343M
On-Column Amount (ng) : 4.7976
Integration start scan : 955 Integration stop scan: 992
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

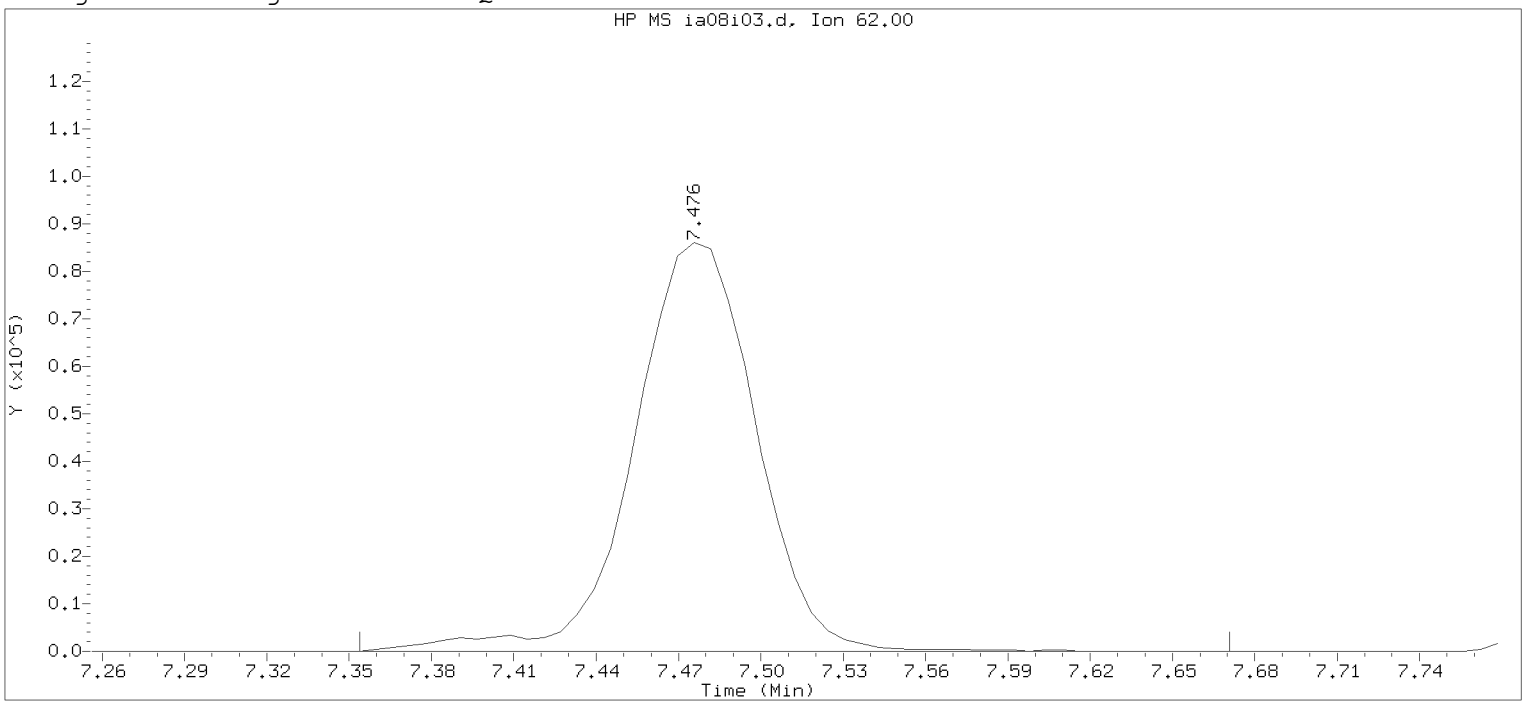
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

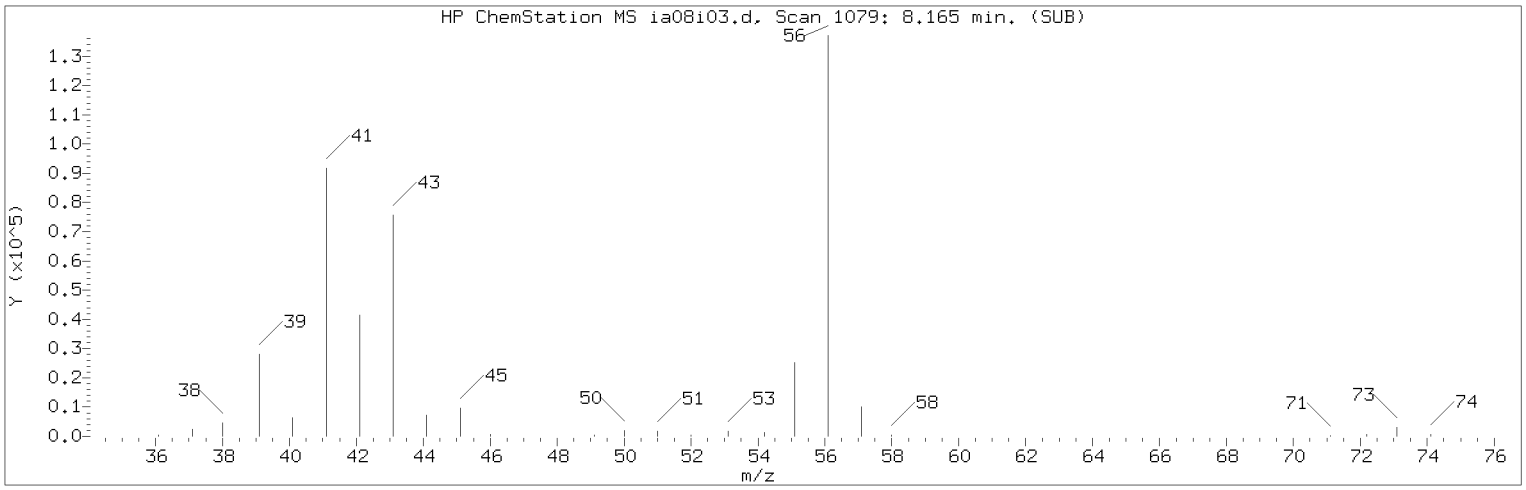
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

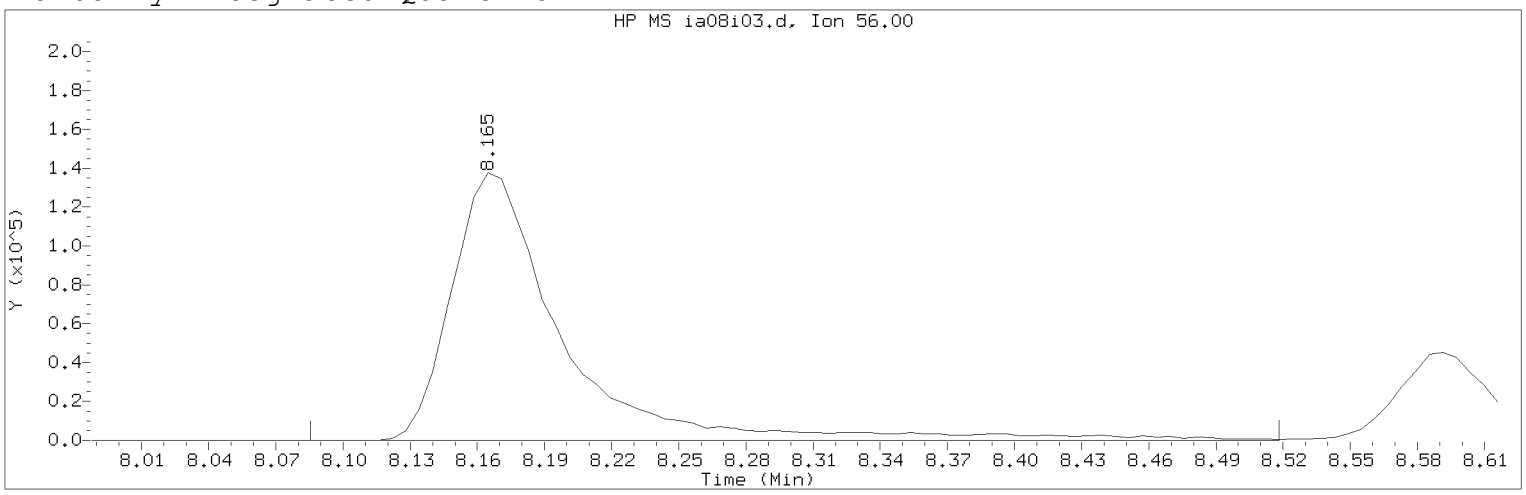
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area : 265974
On-column Amount (ng) : 5.0277
Integration start scan : 945 Integration stop scan: 997
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: F35 Page 1164

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

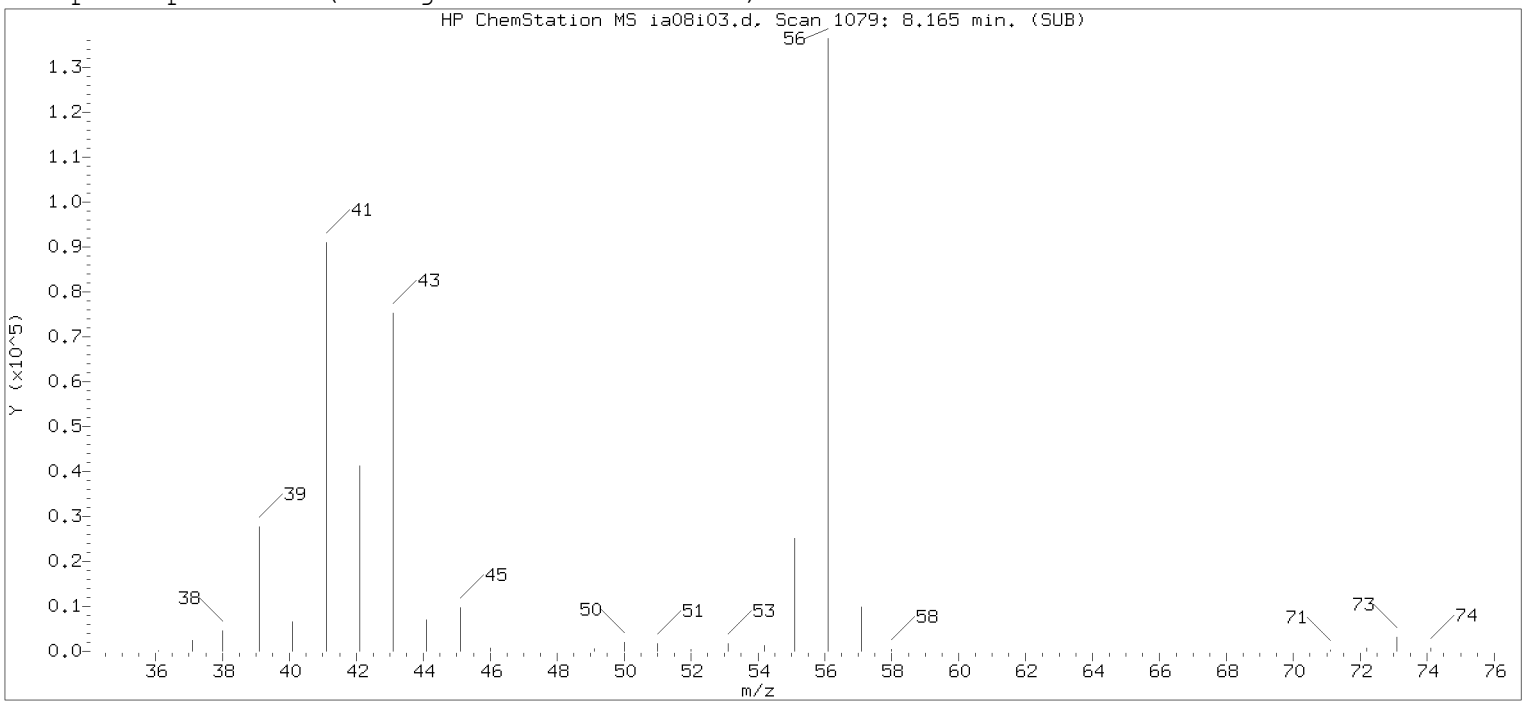
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1079
Retention Time (minutes): 8.165
Quant Ion : 56.00
Area (flag) : 473863M
On-Column Amount (ng) : 521.1632
Integration start scan : 1065 Integration stop scan: 1136
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

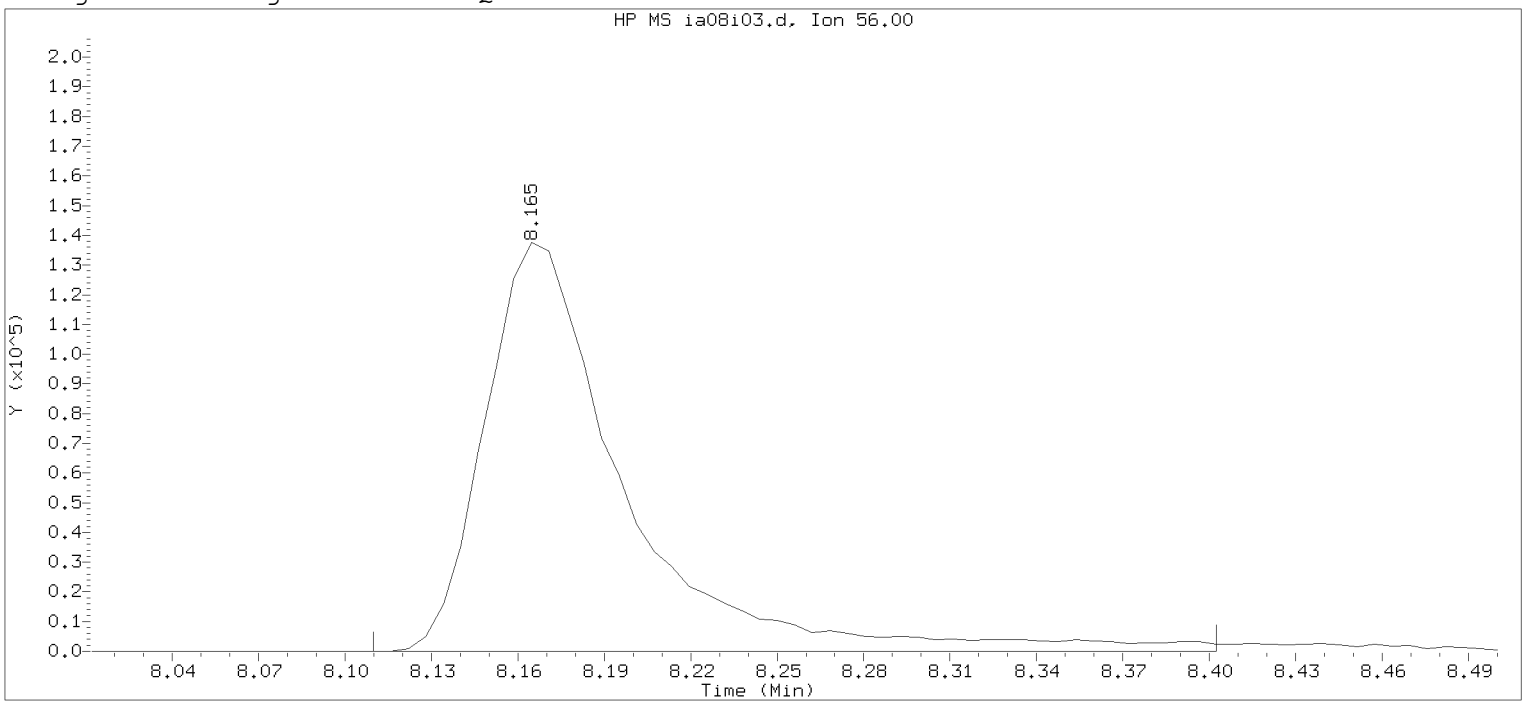
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

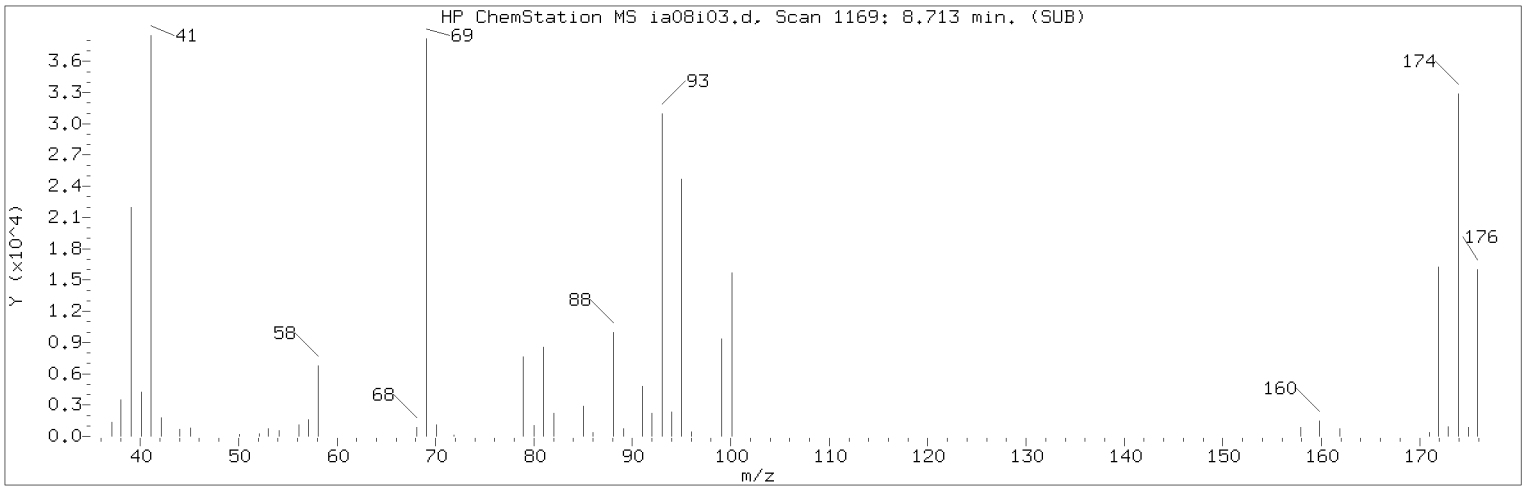
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

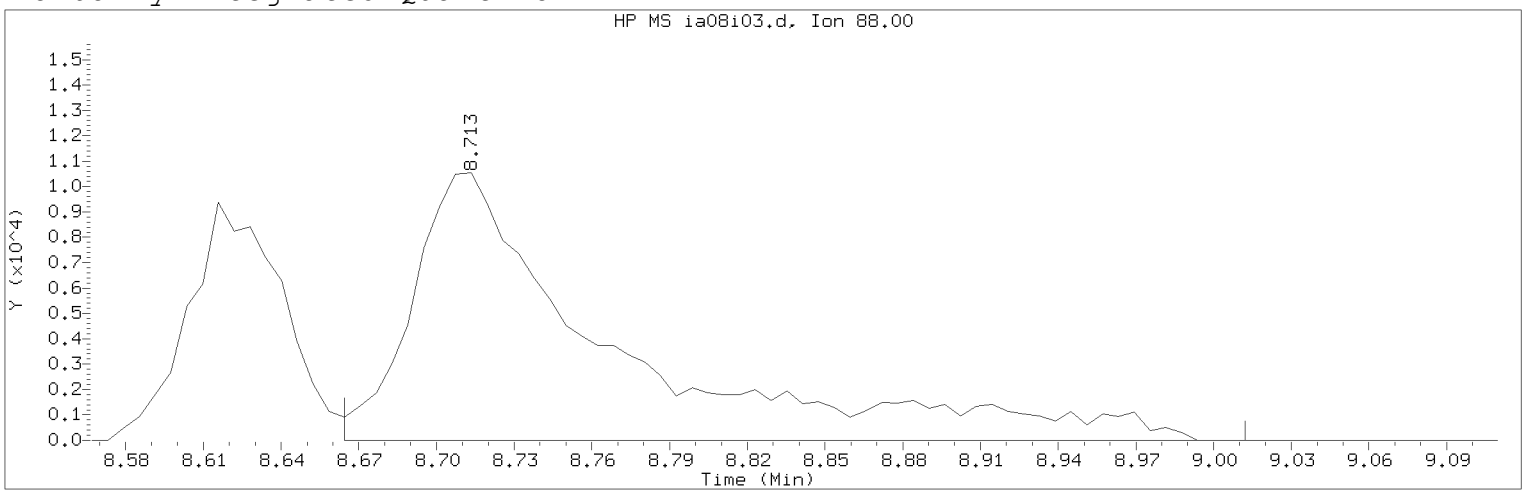
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1079
Retention Time (minutes): 8.165
Quant Ion : 56.00
Area : 462154
On-column Amount (ng) : 480.7169
Integration start scan : 1069 Integration stop scan: 1117
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Page 1166

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

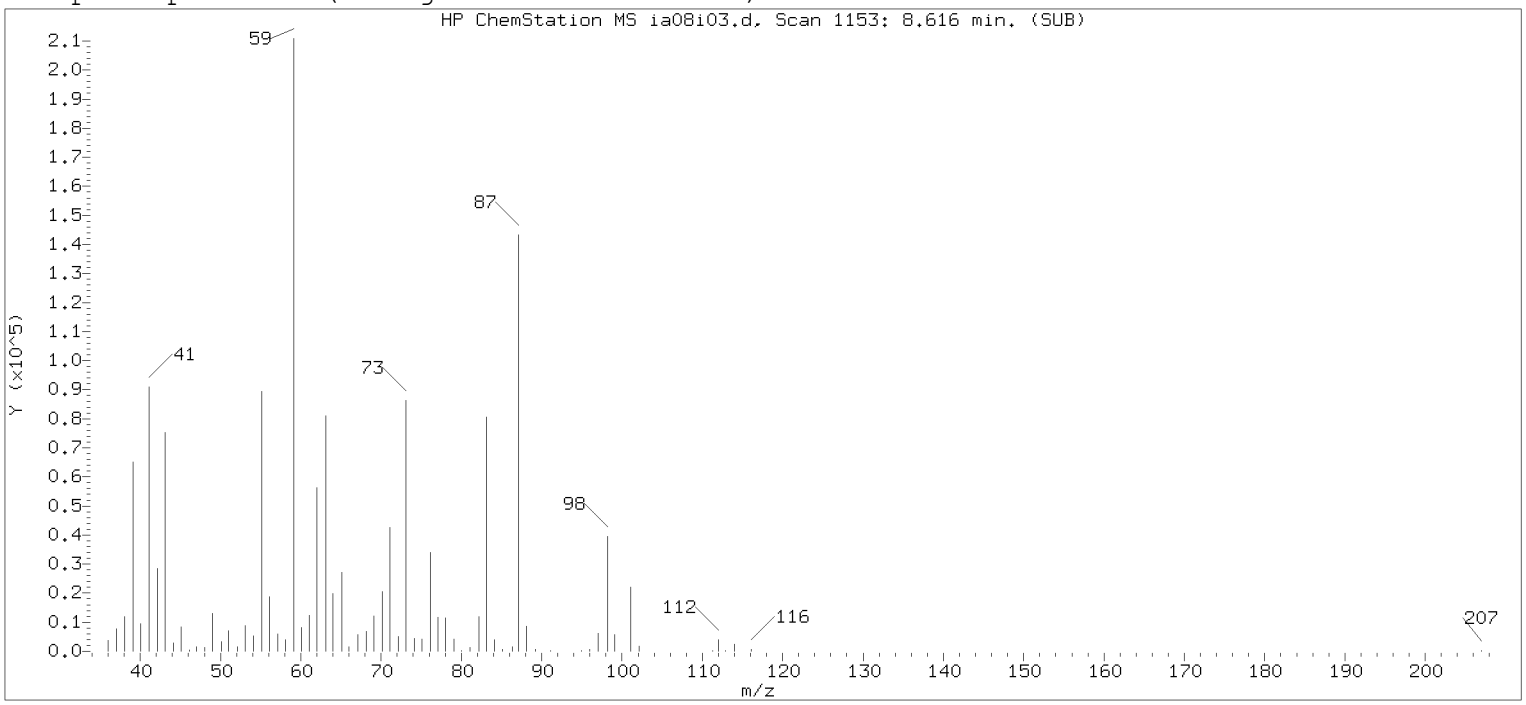
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.713
Quant Ion : 88.00
Area (flag) : 56008M
On-Column Amount (ng) : 250.5442
Integration start scan : 1160 Integration stop scan: 1217
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

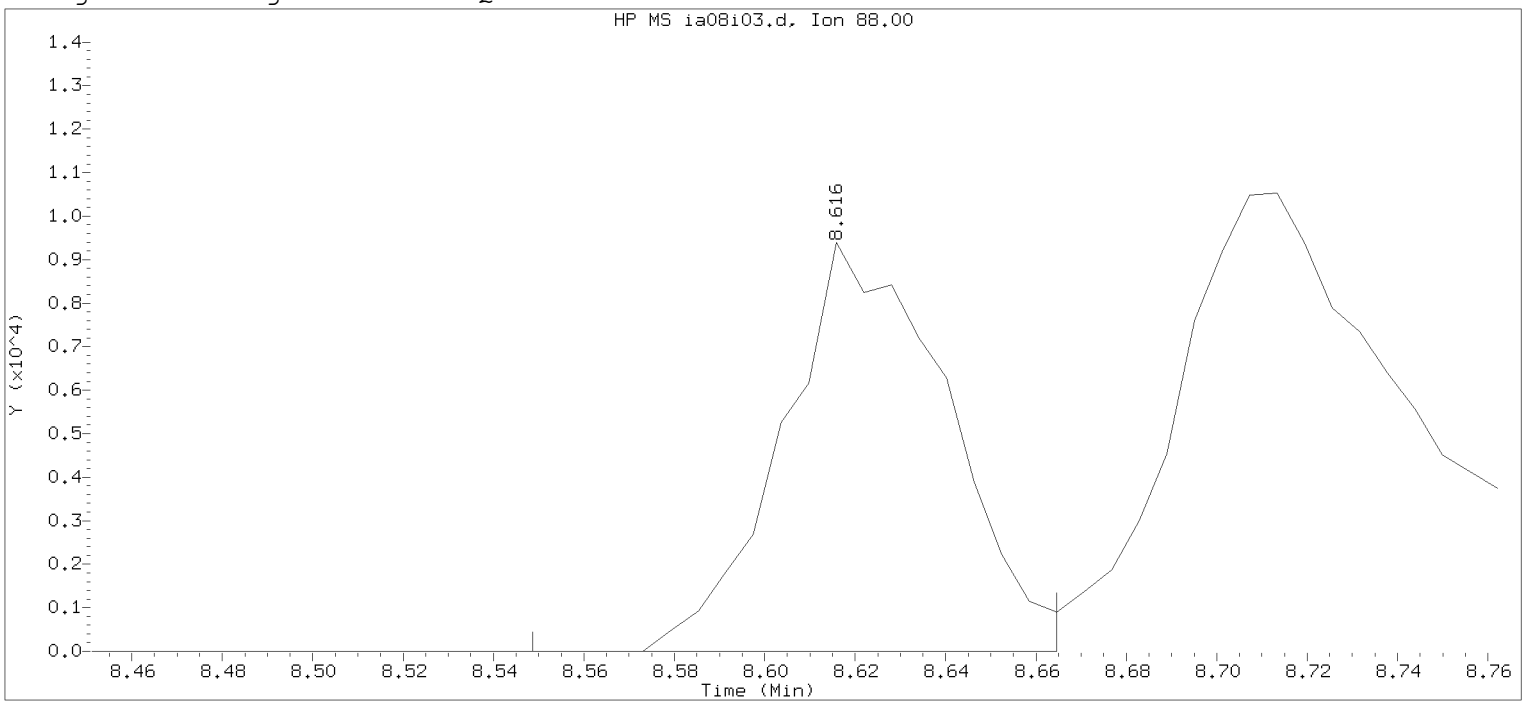
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

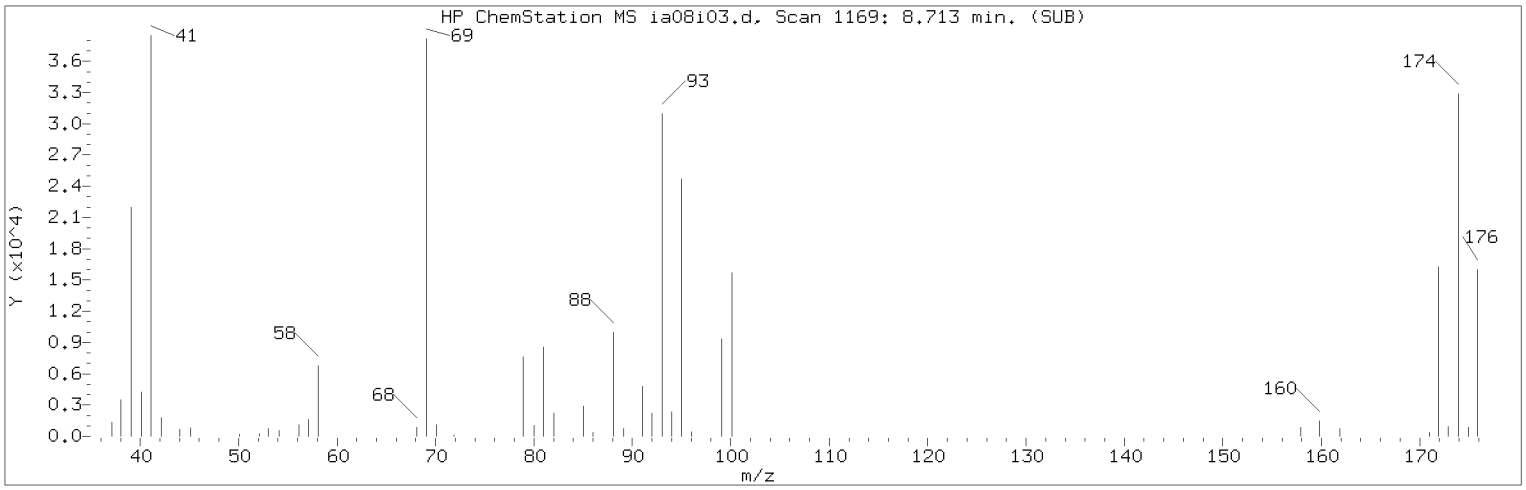
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

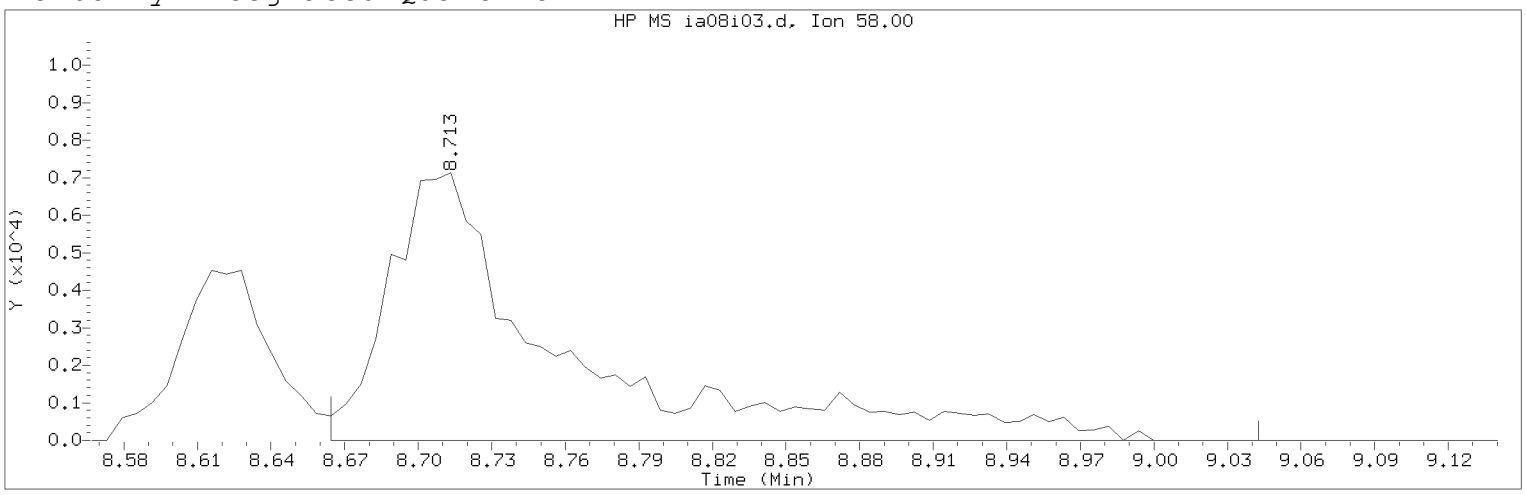
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1153
Retention Time (minutes): 8.616
Quant Ion : 88.00
Area : 23630
On-column Amount (ng) : 111.6117
Integration start scan : 1141 Integration stop scan: 1160
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user F35 Page 1168

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

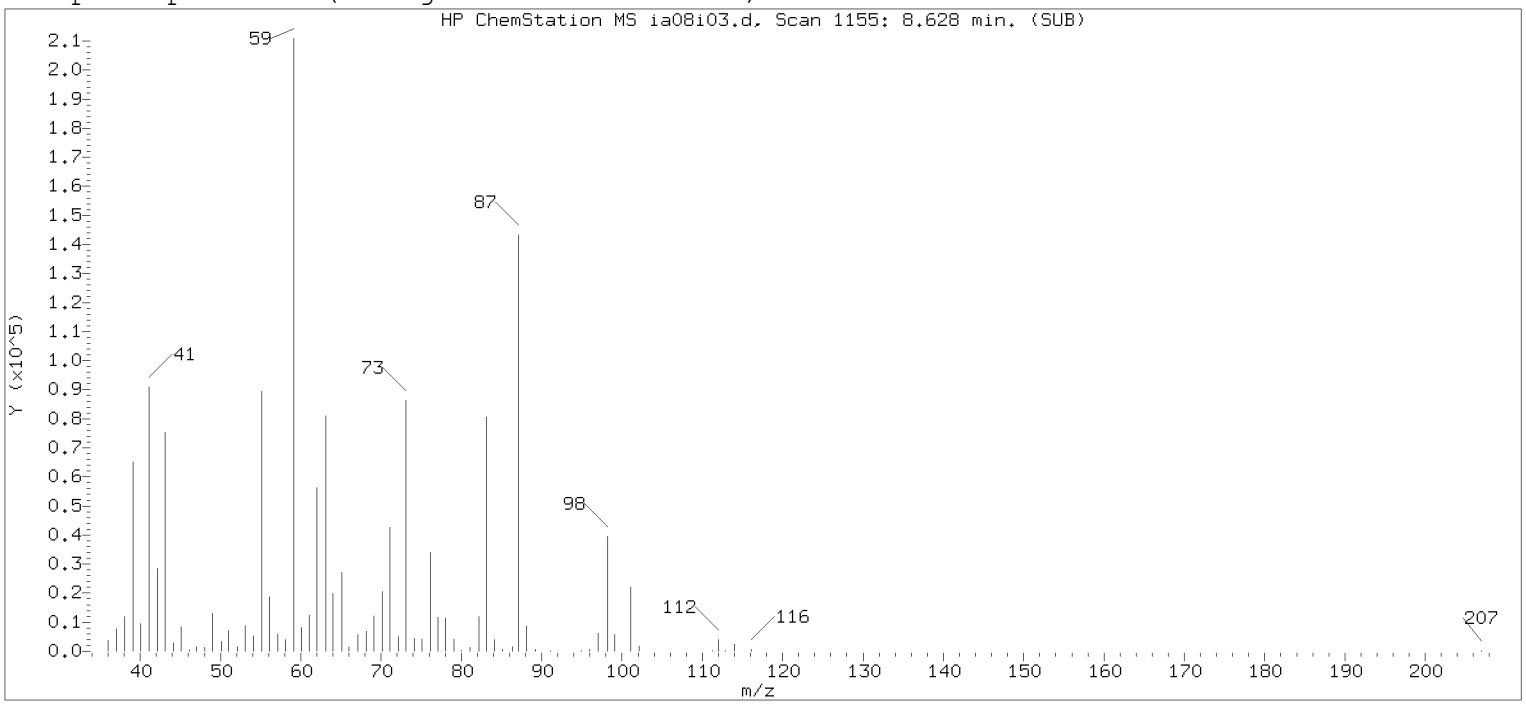
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.713
Quant Ion : 58.00
Area (flag) : 35226M
On-Column Amount (ng) : 264.4342
Integration start scan : 1160 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

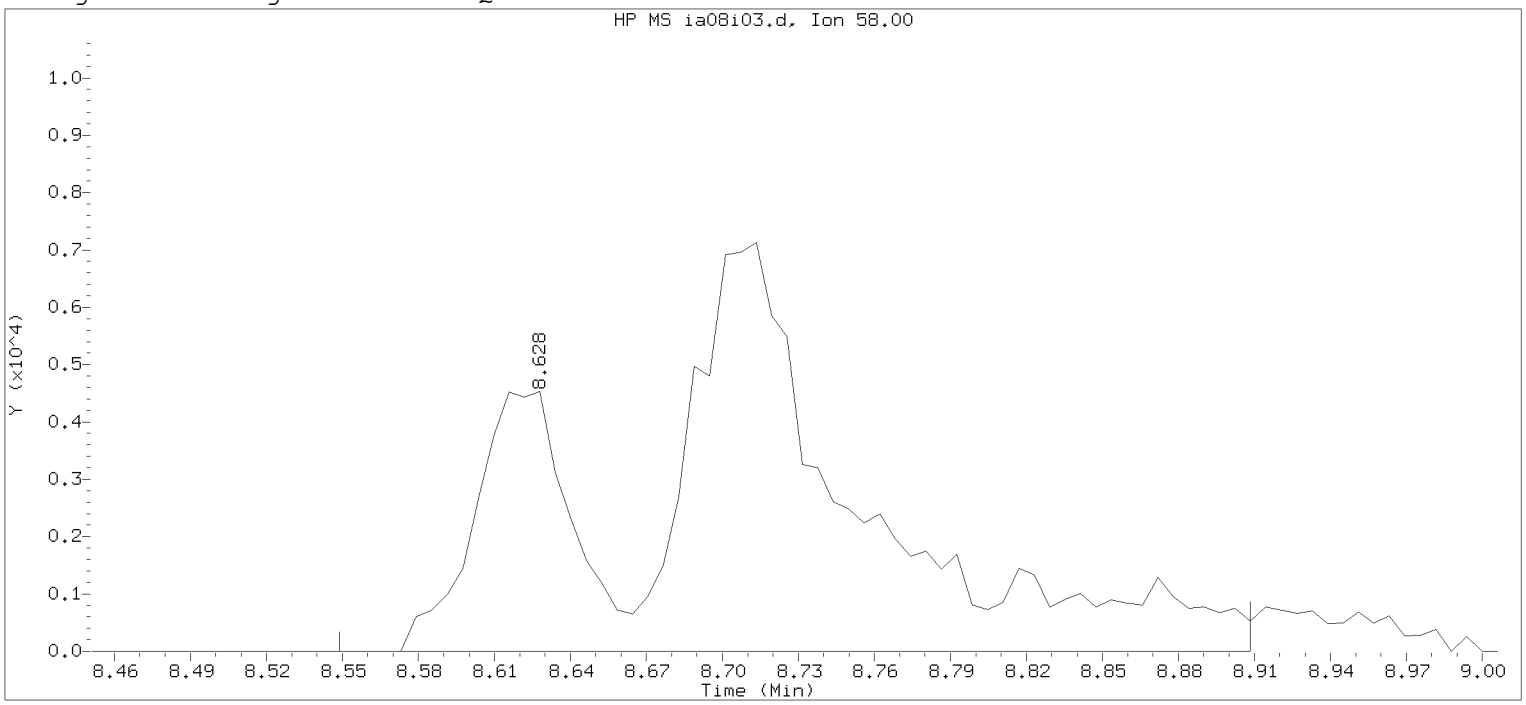
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

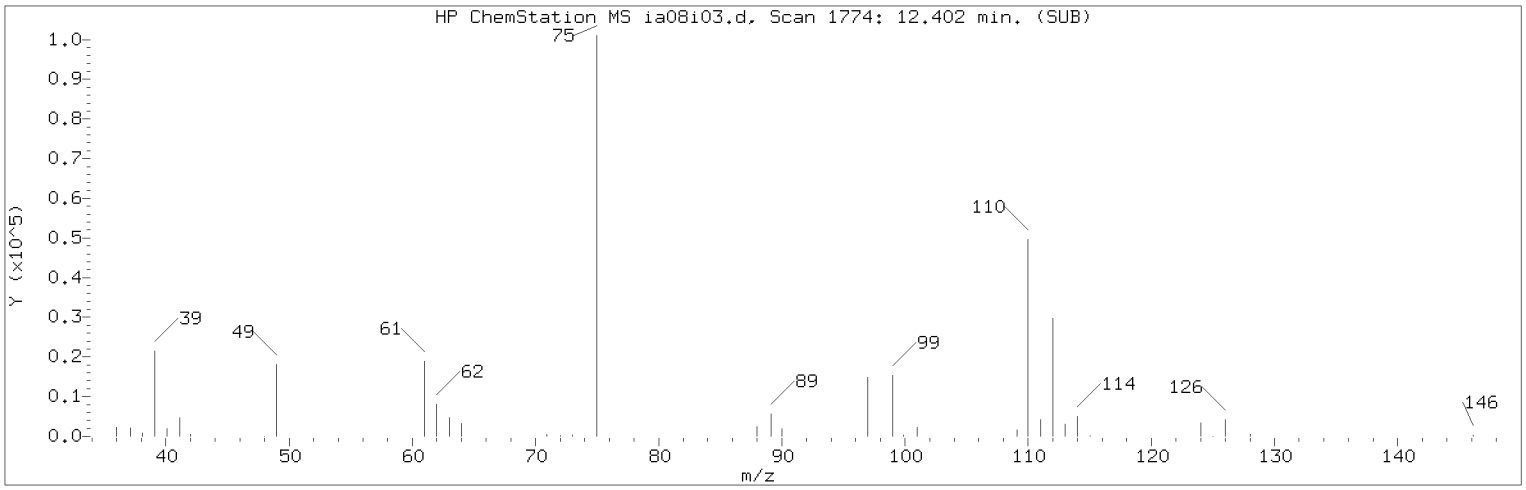
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

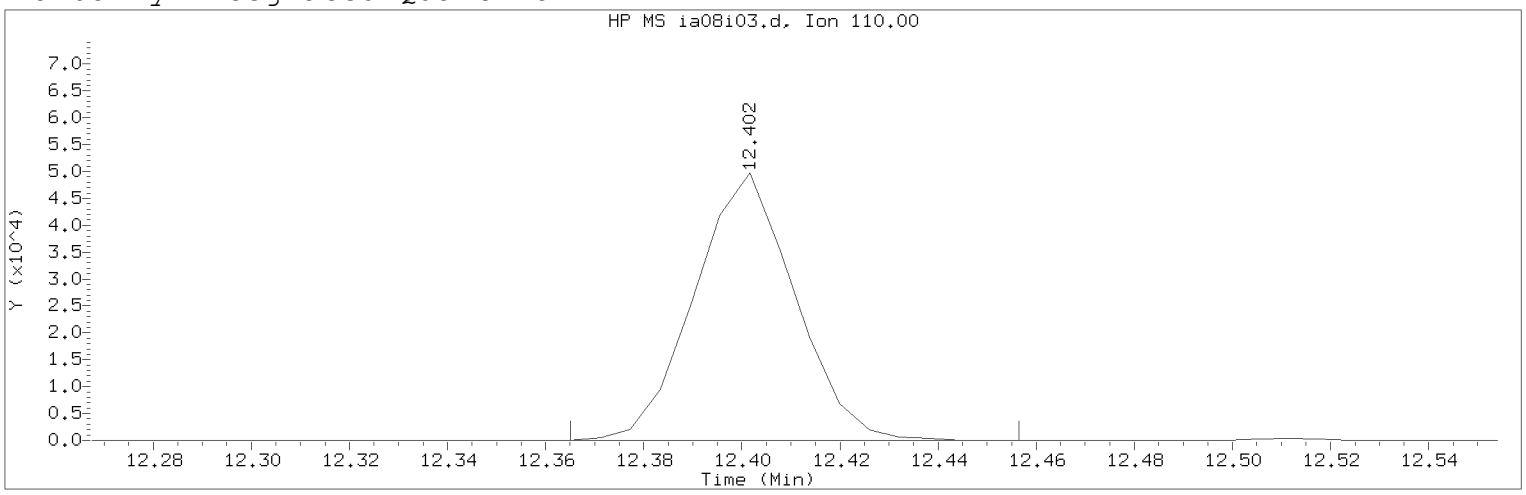
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1155		
Retention Time (minutes)	: 8.628		
Quant Ion	: 58.00		
Area	: 44557		
On-column Amount (ng)	: 267.0908		
Integration start scan	: 1141	Integration stop scan:	1200
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1170

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

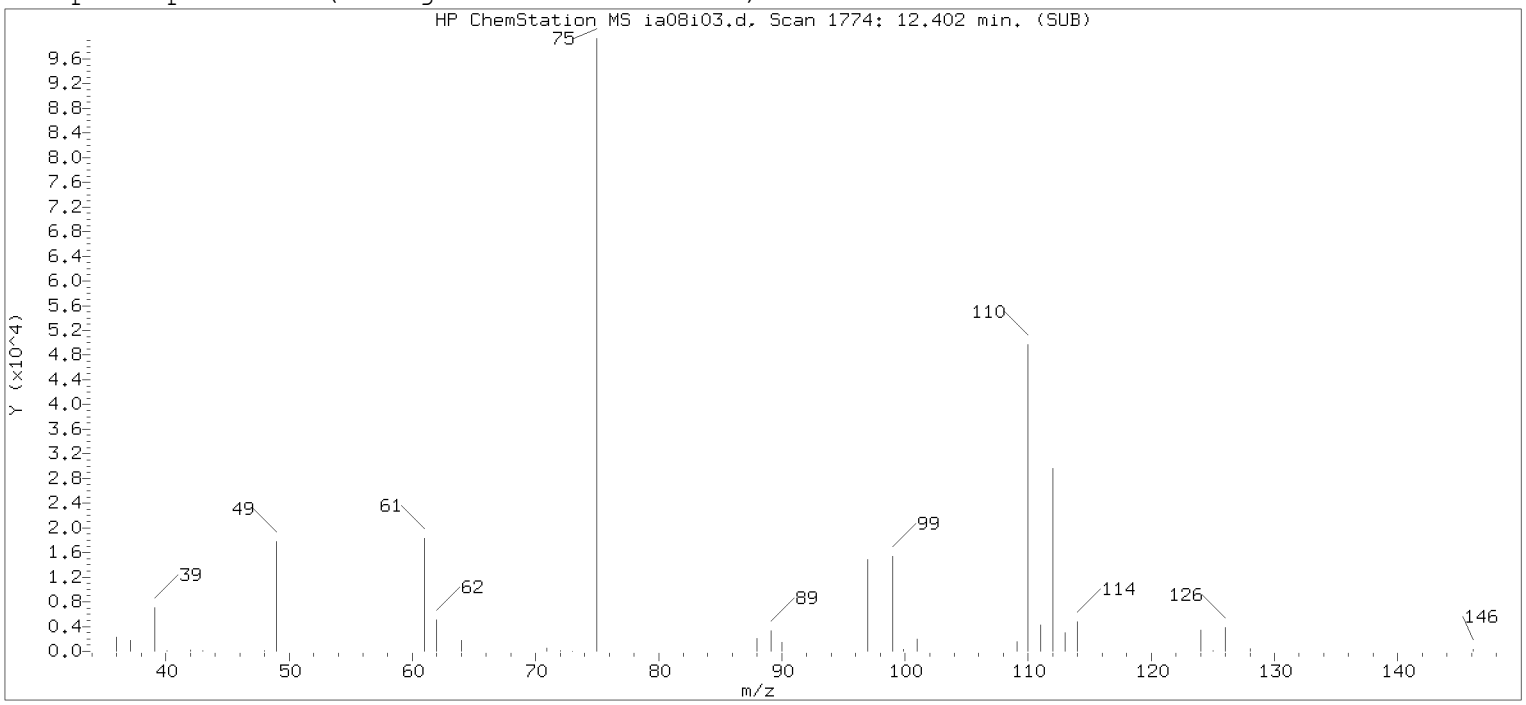
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area (flag) : 70516M
On-Column Amount (ng) : 5.0384
Integration start scan : 1767 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

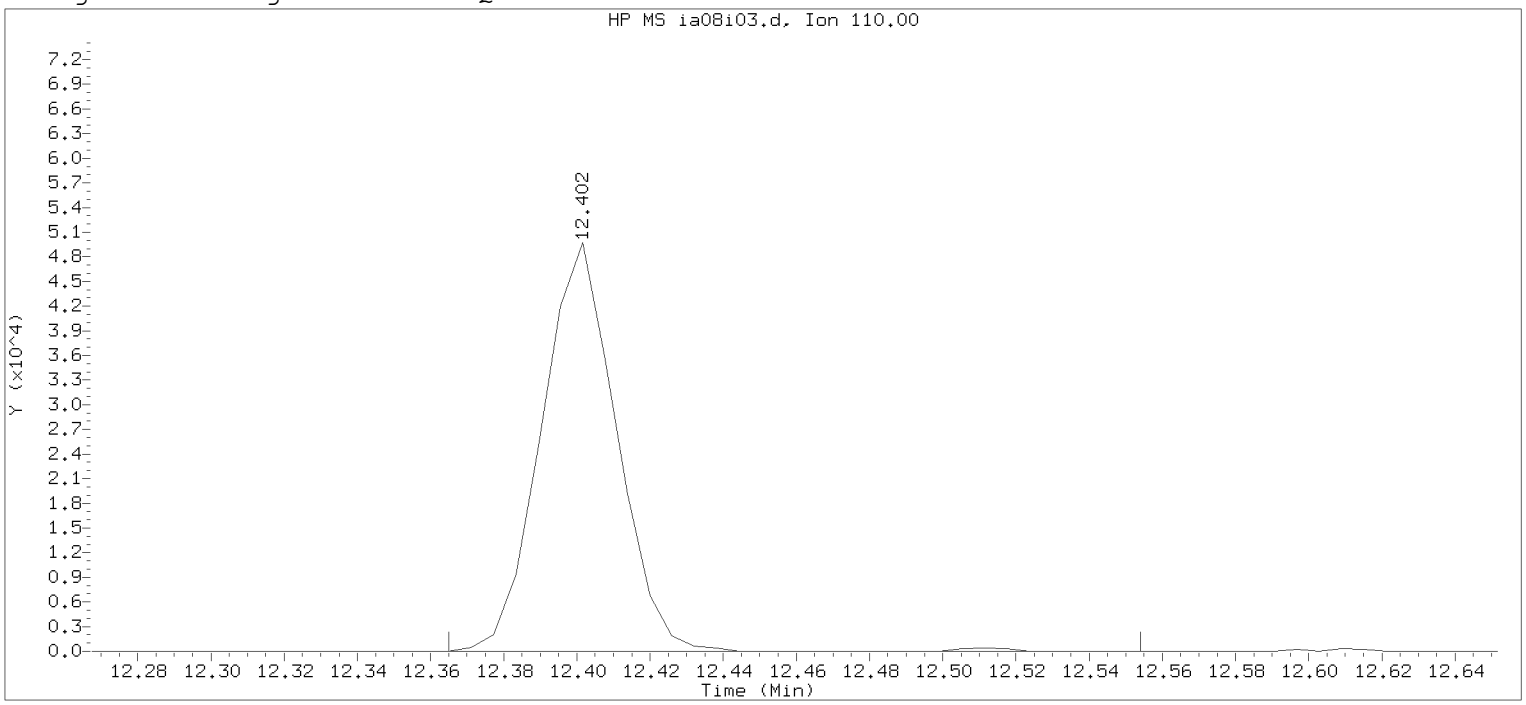
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

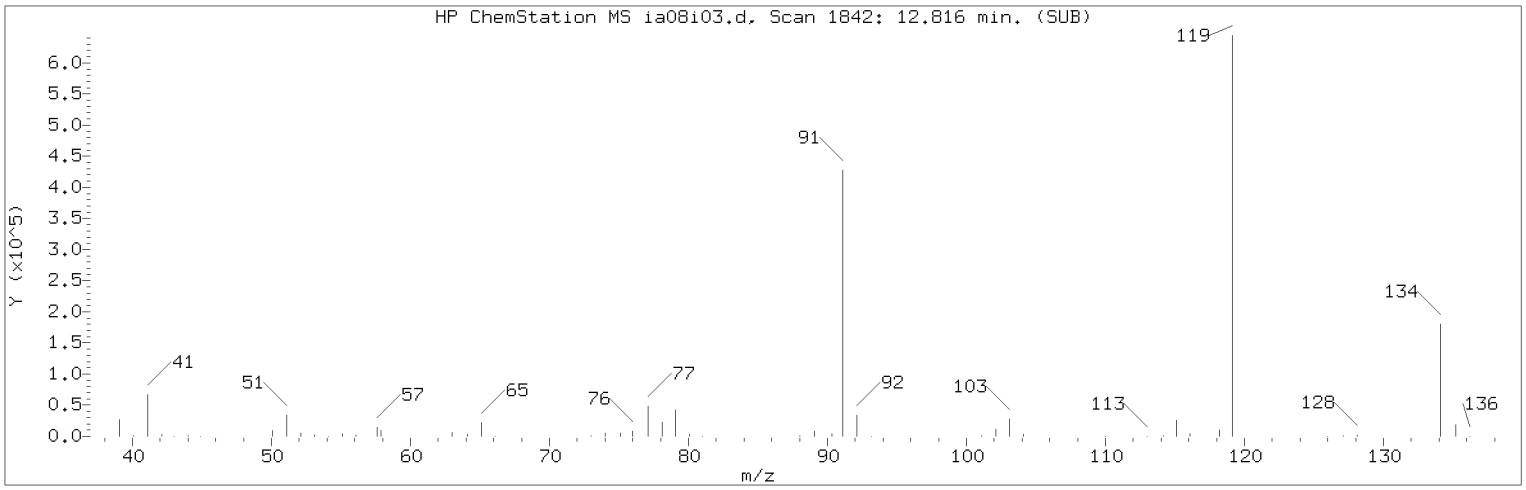
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

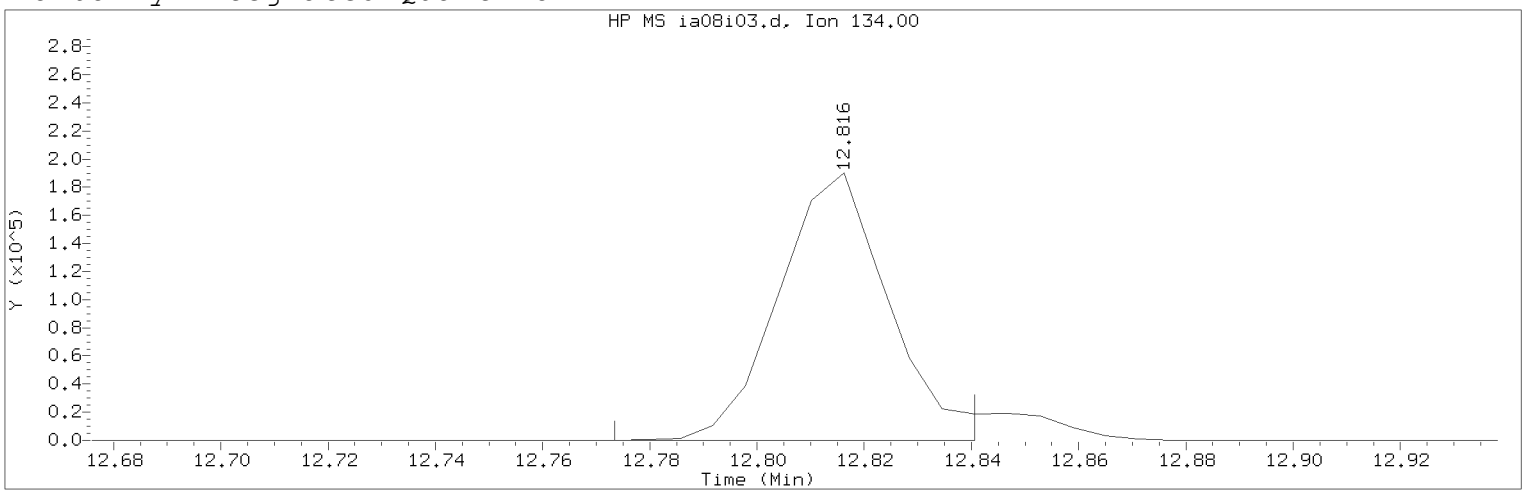
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area : 70860
On-column Amount (ng) : 4.9123
Integration start scan : 1767 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used by jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

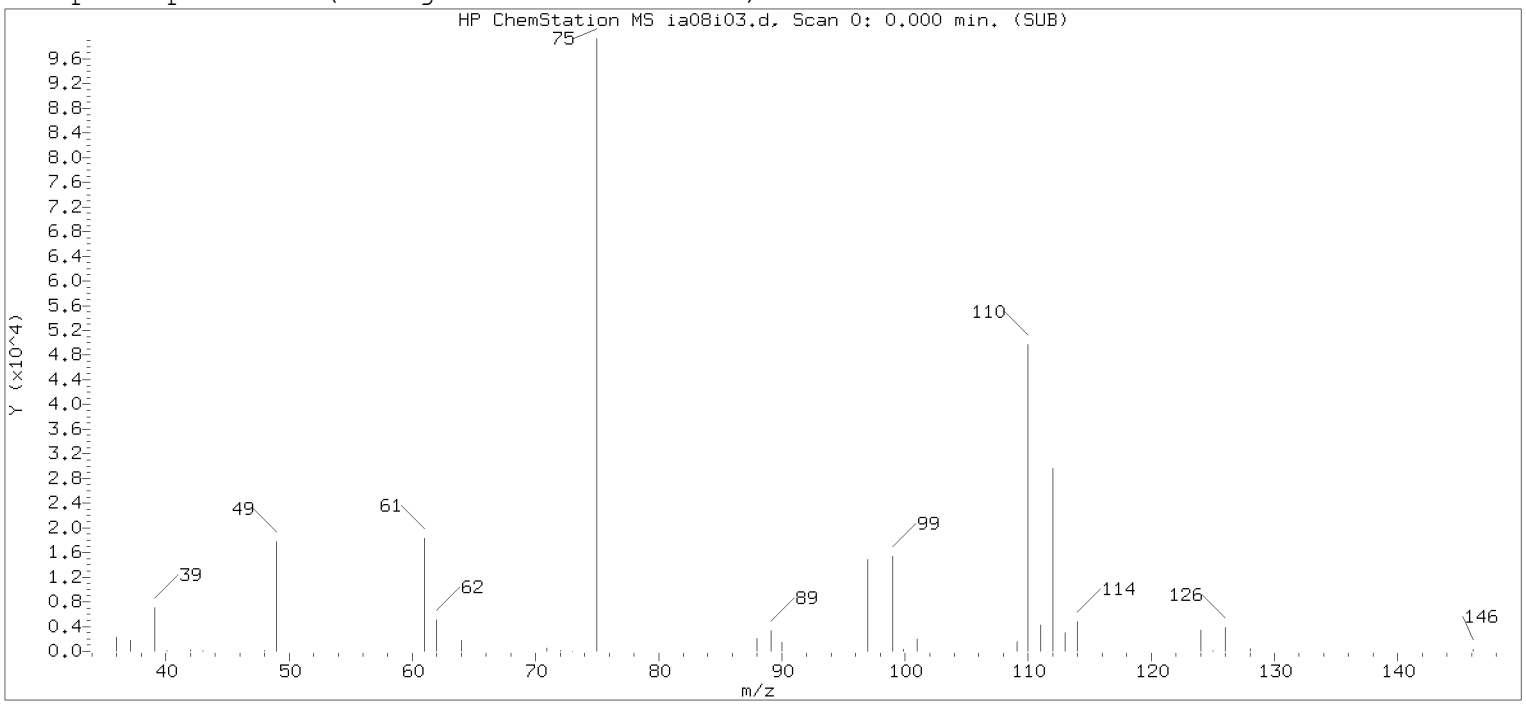
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 269926M
On-Column Amount (ng) : 4.9953
Integration start scan : 1834 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

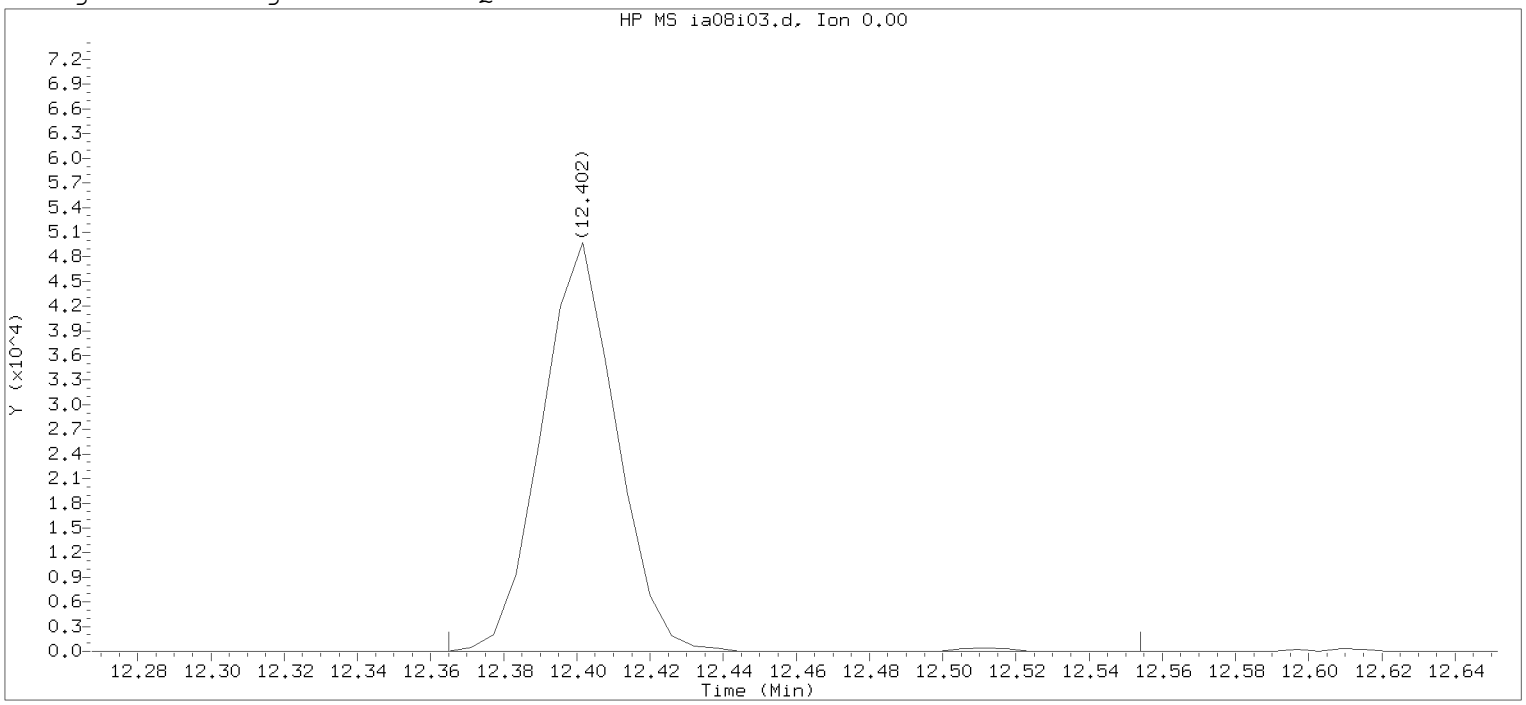
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



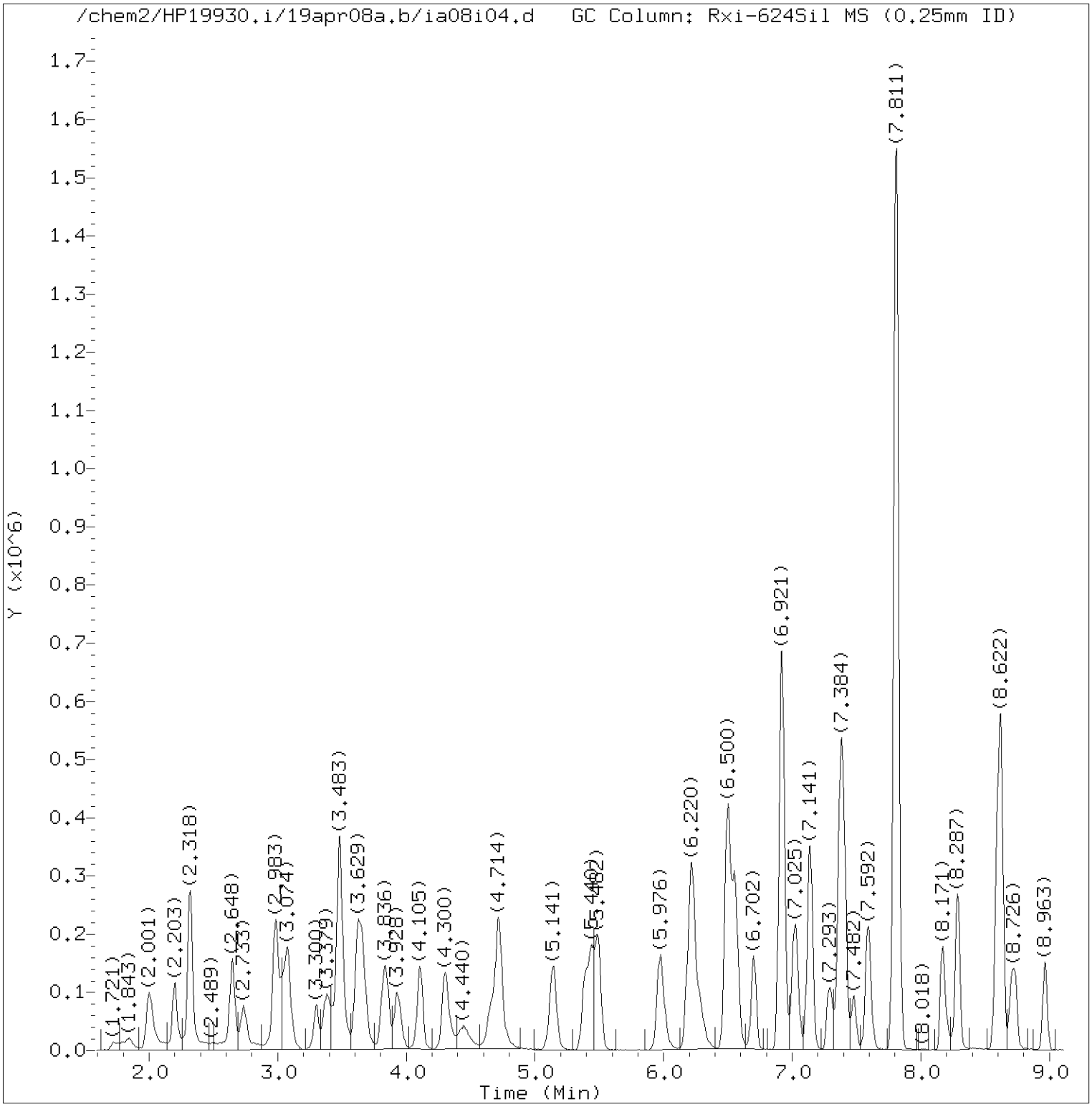
Data File: /chem2/HP19930.i/19apr08a.b/ia08i03.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 16:55 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 0
Compound Name : tert-Butylbenzene
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 5691 Integration stop scan: 654656
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used by Jennifer K. Howe



Total Ion Chromatogram (TIC)

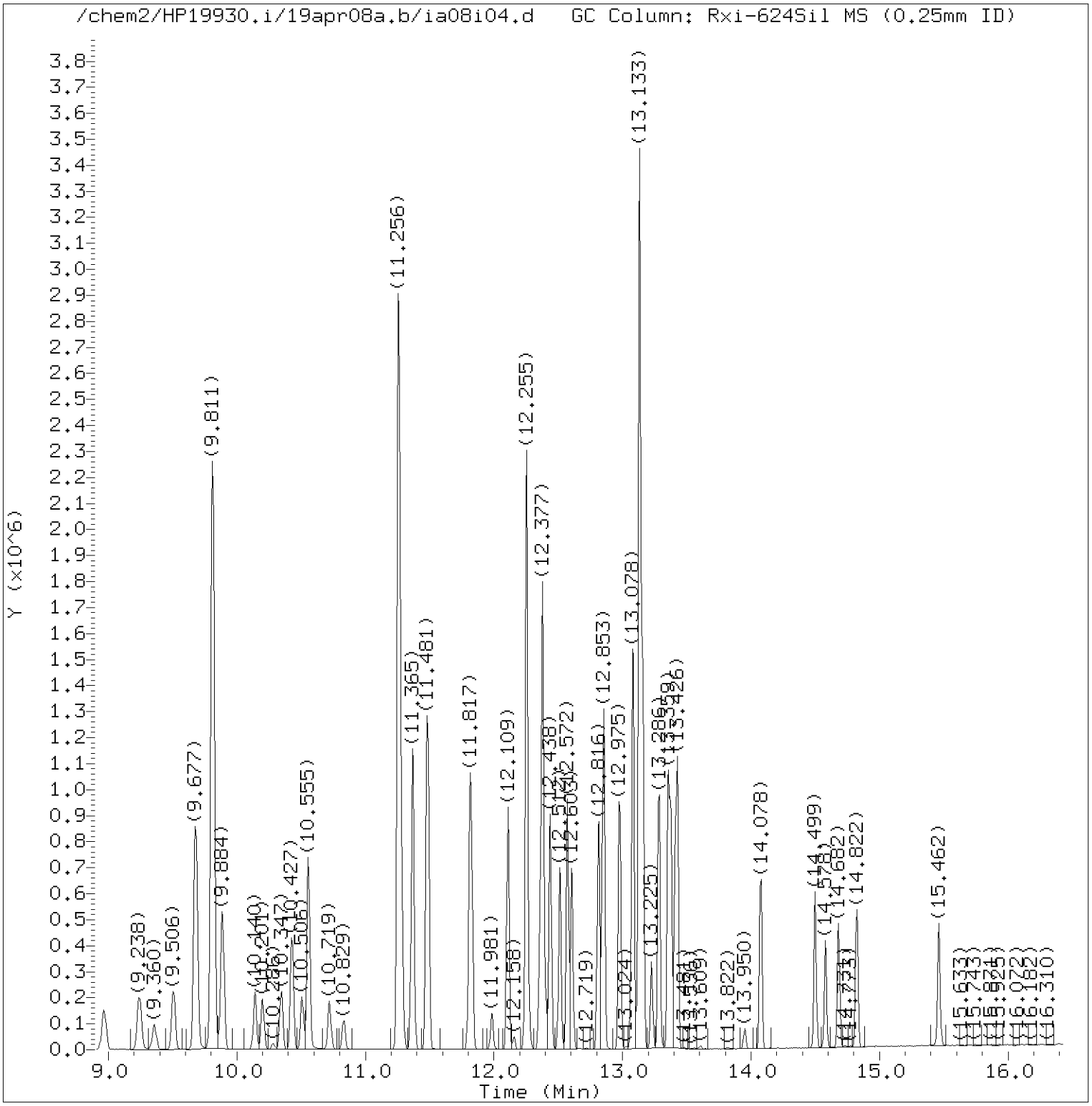
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.001	85	217469	2.030
2) Chloromethane	(2)	2.196	50	163362	2.058
6) 1,3-Butadiene	(2)	2.312	39	125860M	1.886
5) Vinyl Chloride	(2)	2.324	62	165144	2.047
7) Bromomethane	(2)	2.648	94	142370M	1.985
8) Chloroethane	(2)	2.733	64	95005	2.027
9) Dichlorofluoromethane	(2)	2.977	67	242955	2.006
10) Trichlorofluoromethane	(2)	3.038	101	271364M	2.013
11) Ethyl ether	(2)	3.300	59	66462	1.872
12) Freon 123a	(2)	3.379	67	117098MA	1.932
13) Acrolein	(1)	3.483	56	611794	99.875
15) 1,1-Dichloroethene	(2)	3.617	96	93231	1.994
16) Freon 113	(2)	3.654	101	110021	1.948
14) Acetone	(1)	3.660	43	161983M	19.158
17) Methyl Iodide	(2)	3.824	142	197932	1.974
18) Carbon Disulfide	(2)	3.928	76	262602	1.918
21) Methyl Acetate	(1)	4.086	43	43880	1.964
22) Allyl Chloride	(2)	4.105	41	134053	1.864
23) Methylene Chloride	(2)	4.300	84	93397	1.953
26)*t-Butyl Alcohol-d10	(1)	4.312	65	144315M	50.000
28) t-Butyl Alcohol	(1)	4.452	59	143621	40.981
29) Acrylonitrile	(1)	4.653	53	100255	9.913
30) Methyl Tertiary Butyl Ether	(2)	4.708	73	241023	1.971
31) trans-1,2-Dichloroethene	(2)	4.726	96	101574	1.941
32) n-Hexane	(2)	5.147	57	141460	1.921
33) 1,1-Dichloroethane	(2)	5.385	63	164907	1.938
34) di-Isopropyl Ether	(2)	5.440	45	287325	2.012
35) 2-Chloro-1,3-Butadiene	(2)	5.495	53	150166	1.965
37) Ethyl t-butyl ether	(2)	5.976	59	283780	2.002
40) 1,2-Dichloroethene (Total)	(2)		96	214959	3.887
38) 2-Butanone	(1)	6.190	43	271571	19.774
39) cis-1,2-Dichloroethene	(2)	6.214	96	113385	1.945
41) 2,2-Dichloropropane	(2)	6.238	77	153582	1.939
42) Propionitrile	(1)	6.281	54	147406	39.975
45) Methacrylonitrile	(1)	6.494	67	268259	19.768
47) Bromochloromethane	(2)	6.549	128	53093	1.851
48) Tetrahydrofuran	(1)	6.561	71	87414	20.355
49) Chloroform	(2)	6.702	83	179027	1.930

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

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on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	476853	10.051
50)$Dibromofluoromethane	(2)	6.921	111	484693	9.995
51) 1,1,1-Trichloroethane	(2)	6.921	97	176019M	1.963
52) Cyclohexane	(2)	7.025	56	176273	2.000
52) Cyclohexane	(2)	7.025	84	165104M	1.985
52) Cyclohexane	(2)	7.031	69	58888M	2.034
54) Carbon Tetrachloride	(2)	7.135	117	163720	1.934
55) 1,1-Dichloropropene	(2)	7.141	75	137462	1.981
56) Isobutyl Alcohol	(1)	7.299	41	104871	96.885
57)$1,2-Dichloroethane-d4	(2)	7.378	102	91455	10.003
57)$1,2-Dichloroethane-d4	(2)	7.378	65	406126	9.910
57)$1,2-Dichloroethane-d4	(2)	7.378	104	58382	10.114
58) Benzene	(2)	7.409	78	403820	1.979
59) 1,2-Dichloroethane	(2)	7.476	62	106676	1.949
59) 1,2-Dichloroethane	(2)	7.482	98	11112	2.176
60) t-Amyl methyl ether	(2)	7.592	73	274574	2.008
63)*Fluorobenzene	(2)	7.805	96	1838321	10.000
62) n-Heptane	(2)	7.811	43	148127	1.959
65) n-Butanol	(1)	8.171	56	183108	202.727
67) Trichloroethene	(2)	8.287	95	113412	1.986
69) Methylcyclohexane	(2)	8.592	83	183056	1.796
70) 1,2-Dichloropropane	(2)	8.628	63	92143	1.950
71) Methyl Methacrylate	(1)	8.707	69	50344	1.938
72) 1,4-Dioxane	(1)	8.726	88	23426M	105.491
72) 1,4-Dioxane	(1)	8.713	58	13042M	98.556
73) Dibromomethane	(2)	8.732	93	52235	1.967
74) Bromodichloromethane	(2)	8.963	83	129776	1.979
76) 2-Nitropropane	(1)	9.238	41	171901	19.891
80) cis-1,3-Dichloropropene	(2)	9.506	75	145320	1.954
81) 4-Methyl-2-Pentanone	(1)	9.677	43	685525M	19.717
82)$Toluene-d8	(3)	9.811	98	1812880	9.968
82)$Toluene-d8	(3)	9.811	100	1160389	9.948
83) Toluene	(3)	9.890	92	269936	1.974
84) trans-1,3-Dichloropropene	(3)	10.140	75	126794M	1.967
85) 1,3-Dichloropropene (total)	(3)		75	272114	3.921
86) Ethyl Methacrylate	(3)	10.201	69	104816	1.926
88) 1,1,2-Trichloroethane	(3)	10.347	97	75173	1.989
89) Tetrachloroethene	(3)	10.427	166	141096	1.950

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	120274	1.978
91) 2-Hexanone	(1)	10.555	43	487463	19.772
93) Dibromochloromethane	(3)	10.719	129	100458	1.956
95) 1,2-Dibromoethane	(3)	10.829	107	75573	1.964
97)*Chlorobenzene-d5	(3)	11.256	117	1482784	10.000
96) 1-Chlorohexane	(3)	11.262	91	158401	1.924
98) Chlorobenzene	(3)	11.286	112	307114	1.956
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	115944	1.958
100) Ethylbenzene	(3)	11.371	91	532999	1.941
101) m+p-Xylene	(3)	11.481	106	426787	3.903
105) Xylene (Total)	(3)		106	632961	5.856
104) o-Xylene	(3)	11.810	106	206174	1.953
106) Styrene	(3)	11.823	104	327041	1.954
107) Bromoform	(3)	11.981	173	62406	1.976
108) Isopropylbenzene	(3)	12.109	105	558084	1.957
111)$4-Bromofluorobenzene	(3)	12.255	95	678209	9.951
111)$4-Bromofluorobenzene	(3)	12.255	174	652684	10.005
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	92625	1.957
114) Bromobenzene	(4)	12.371	156	137036	1.902
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	237095	19.445
116) 1,2,3-Trichloropropane	(4)	12.402	110	27607	1.966
117) n-Propylbenzene	(4)	12.438	91	633735	1.967
119) 2-Chlorotoluene	(4)	12.512	126	135339	1.954
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	465380	1.956
122) 4-Chlorotoluene	(4)	12.609	126	134180	1.928
125) tert-Butylbenzene	(4)	12.816	134	105634M	1.948
126) Pentachloroethane	(4)	12.847	167	88593	1.855
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	470749	1.941
128) sec-Butylbenzene	(4)	12.975	105	599967	1.948
131) 1,3-Dichlorobenzene	(4)	13.078	146	264381	1.918
132) p-Isopropyltoluene	(4)	13.085	119	524040	1.939
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	829269	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	266231	1.932
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	210174	1.855
136) Benzyl Chloride	(4)	13.225	126	46528M	2.086
138) n-Butylbenzene	(4)	13.377	92	234342	1.906
139) 1,2-Dichlorobenzene	(4)	13.408	146	246371	1.958
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	15429	1.952

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

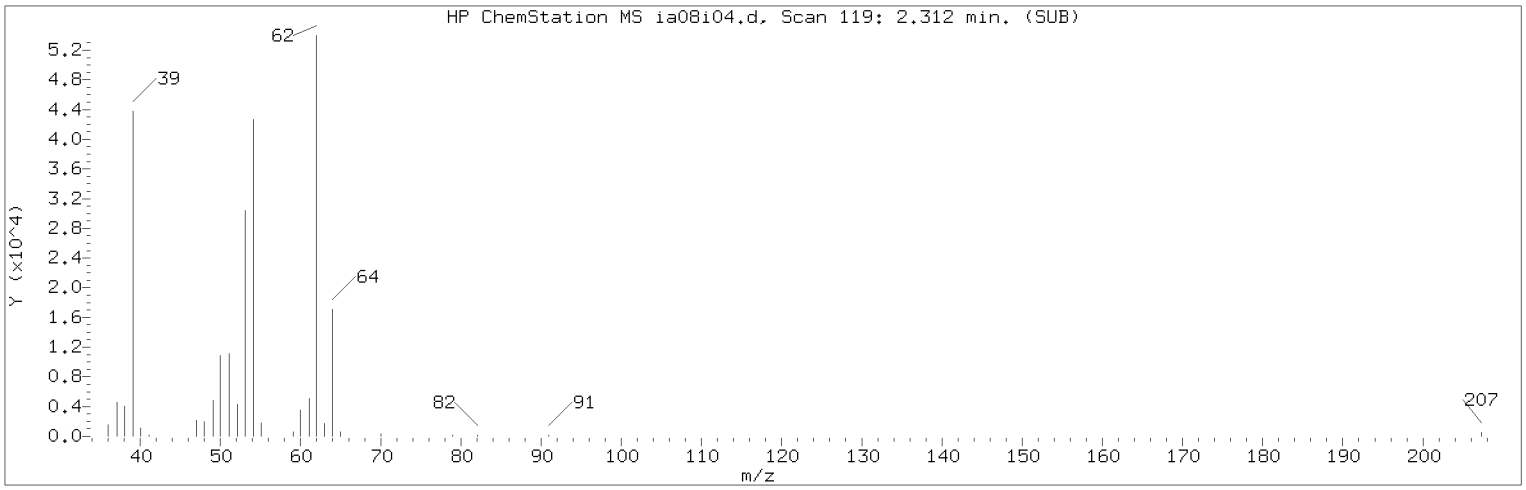
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

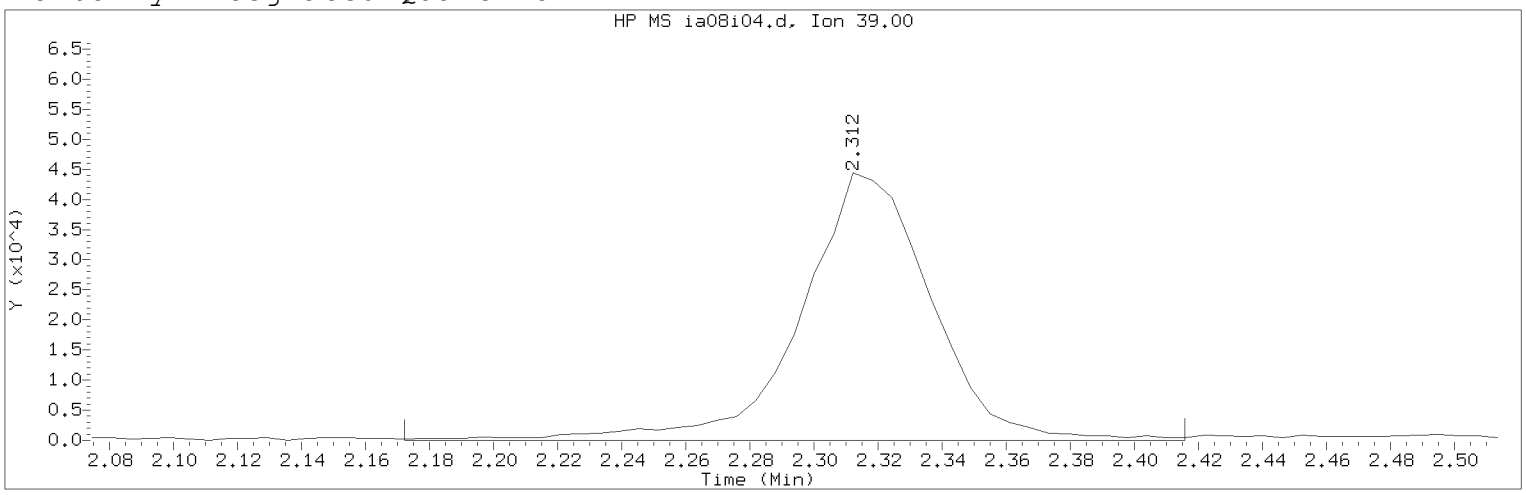
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	193433	1.924
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	168748	1.915
146) Hexachlorobutadiene	(4)	14.578	225	66199	1.838
147) Naphthalene	(4)	14.682	128	344494	1.952
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	152084	1.917

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

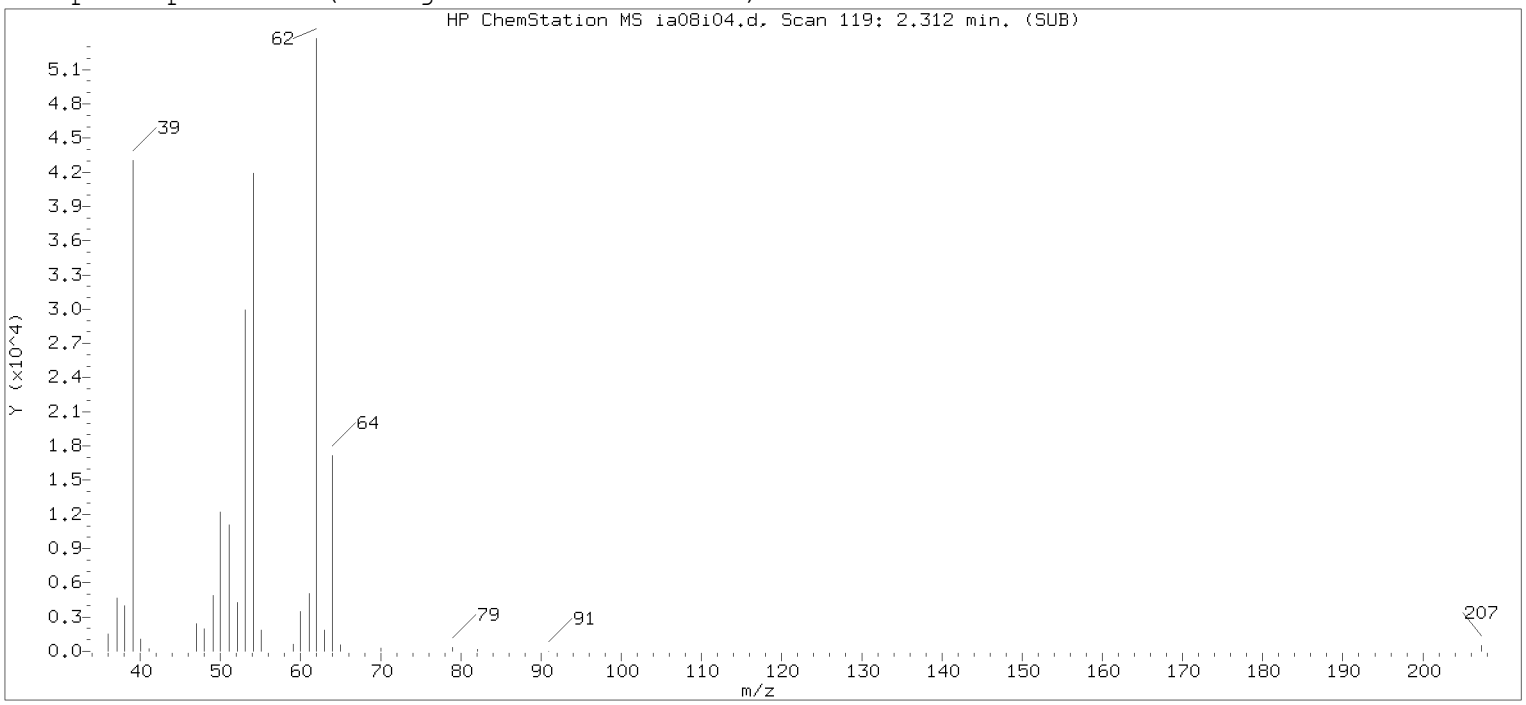
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area (flag) : 125860M
On-Column Amount (ng) : 1.8861
Integration start scan : 95 Integration stop scan: 135
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

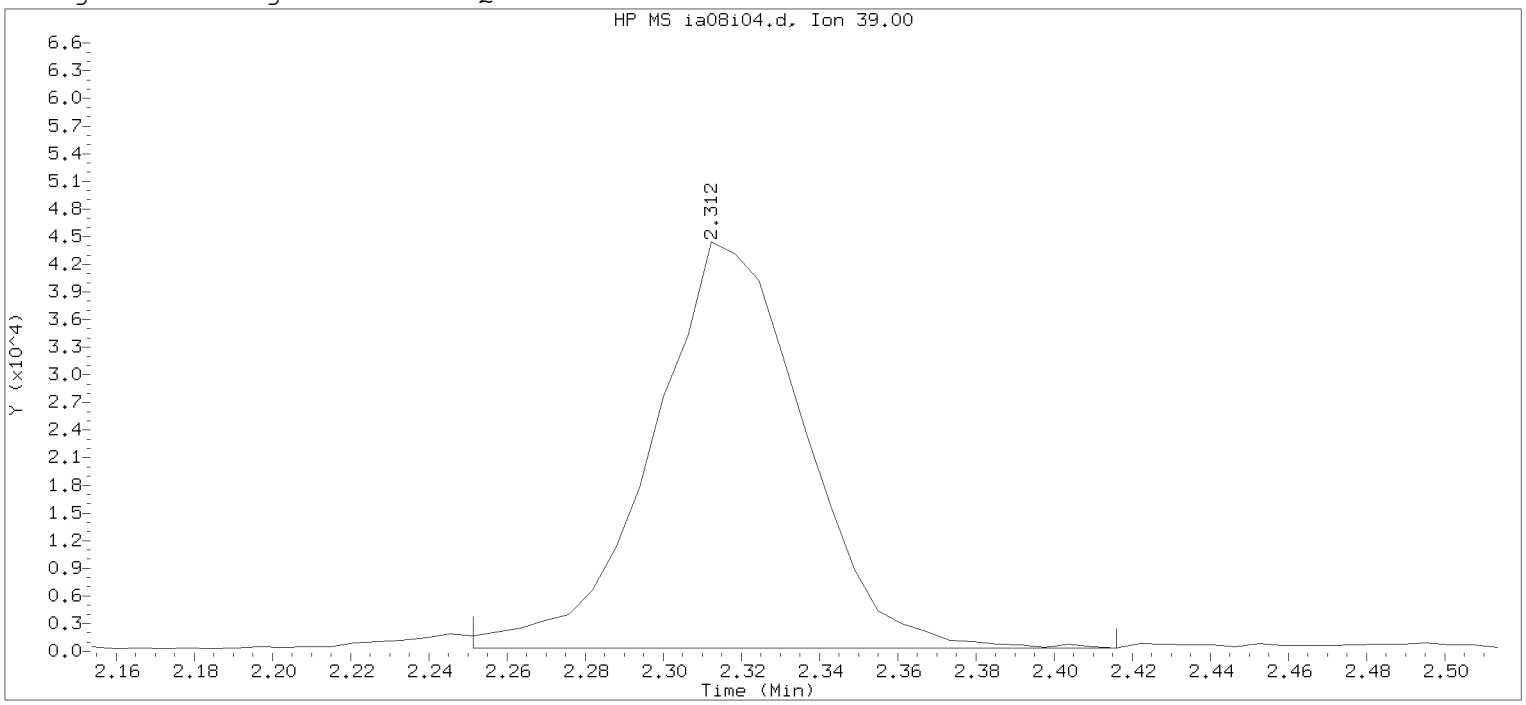
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

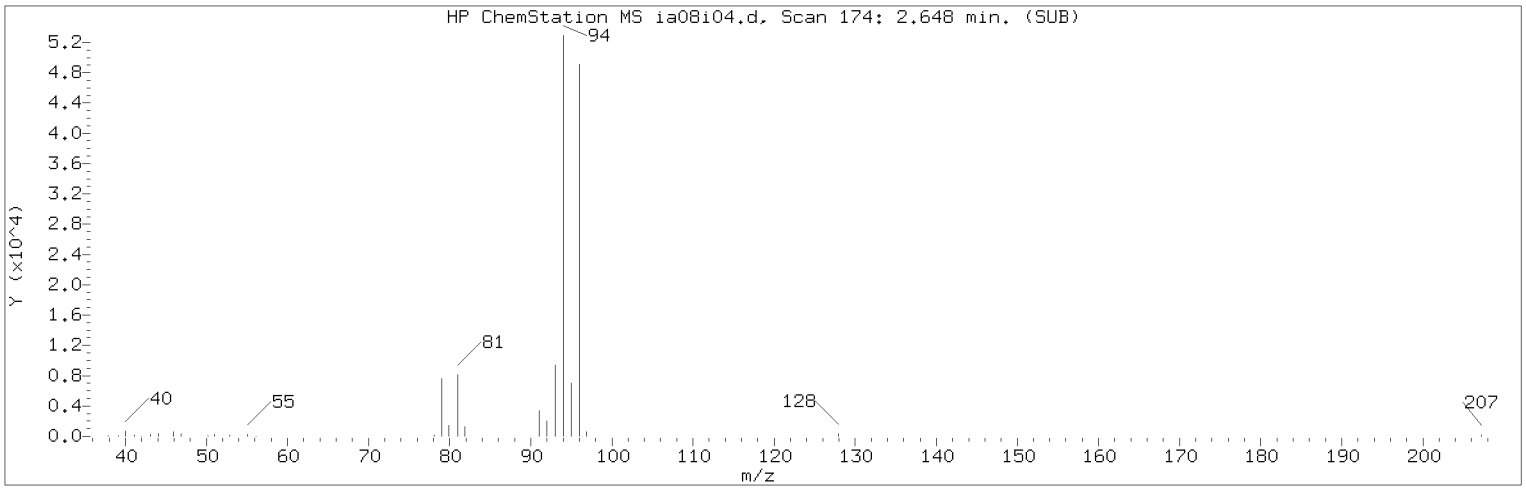
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

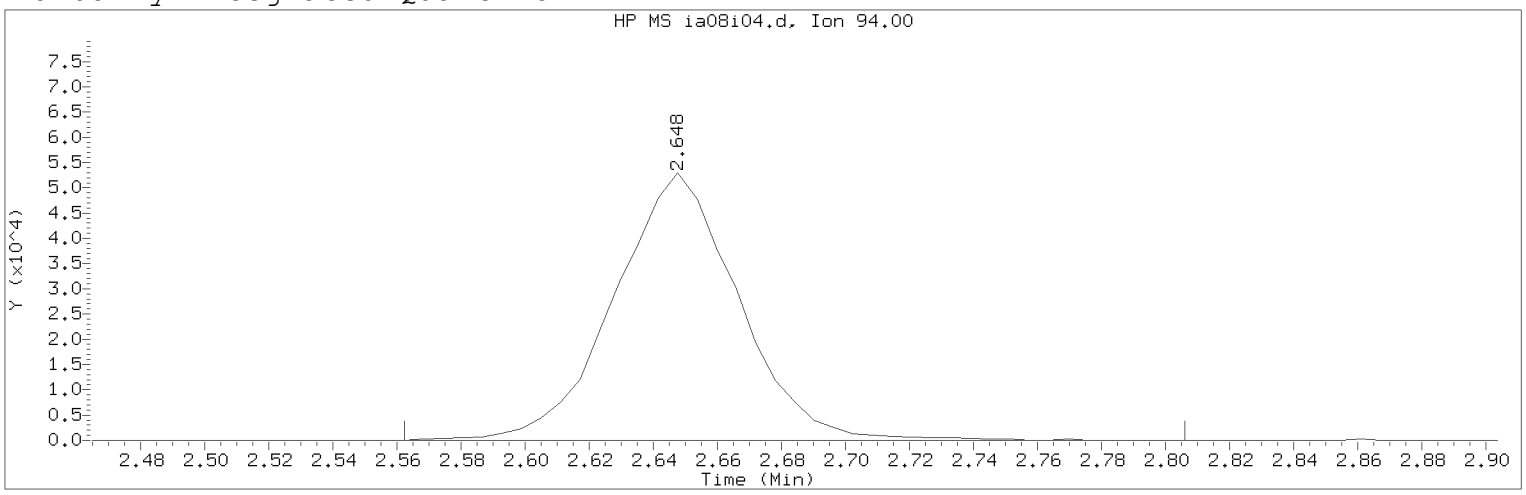
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area : 118337
On-column Amount (ng) : 1.9705
Integration start scan : 108 Integration stop scan: 135
Y at integration start : 357 Y at integration end: 376

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

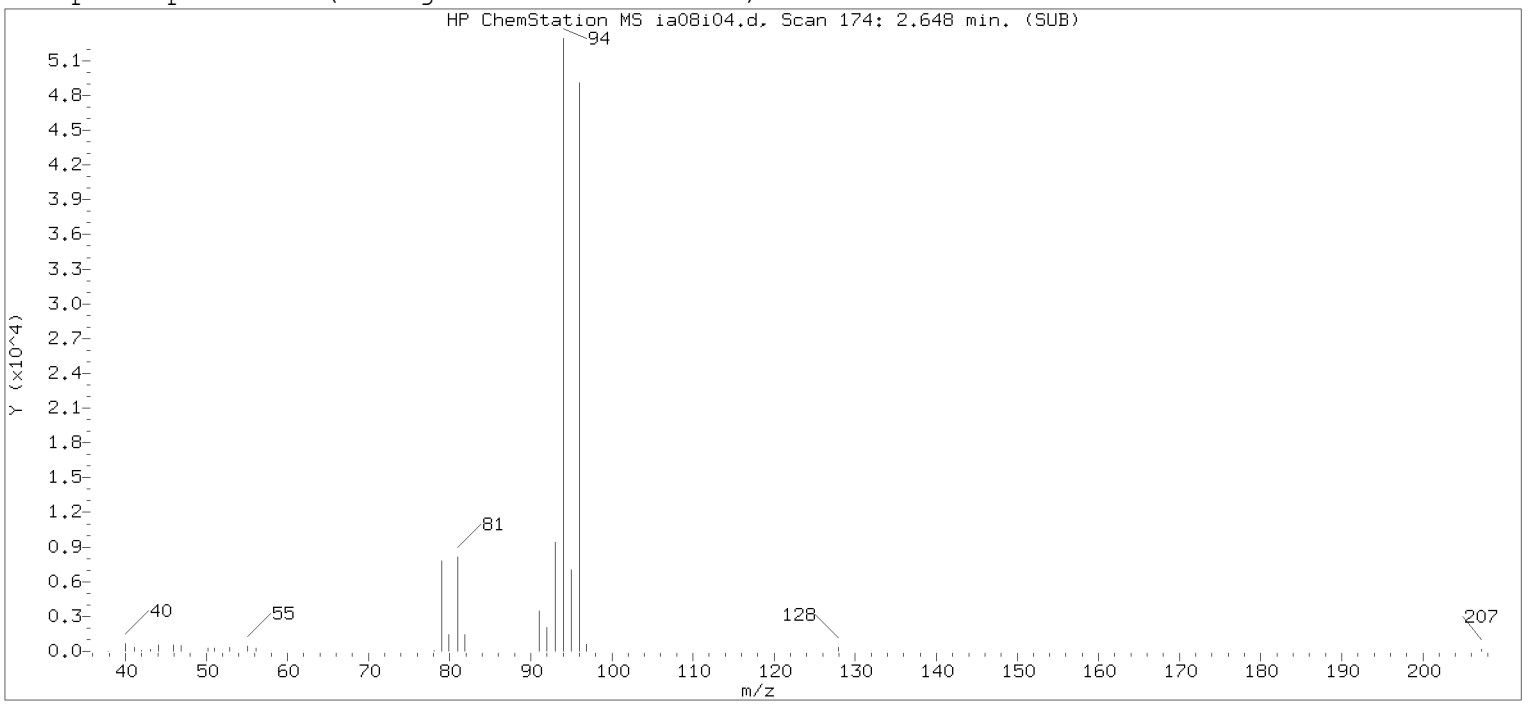
Compound Number : 7
Compound Name : Bromomethane
Scan Number : 174
Retention Time (minutes): 2.648
Quant Ion : 94.00
Area (flag) : 142370M
On-Column Amount (ng) : 1.9846
Integration start scan : 159 Integration stop scan: 199
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

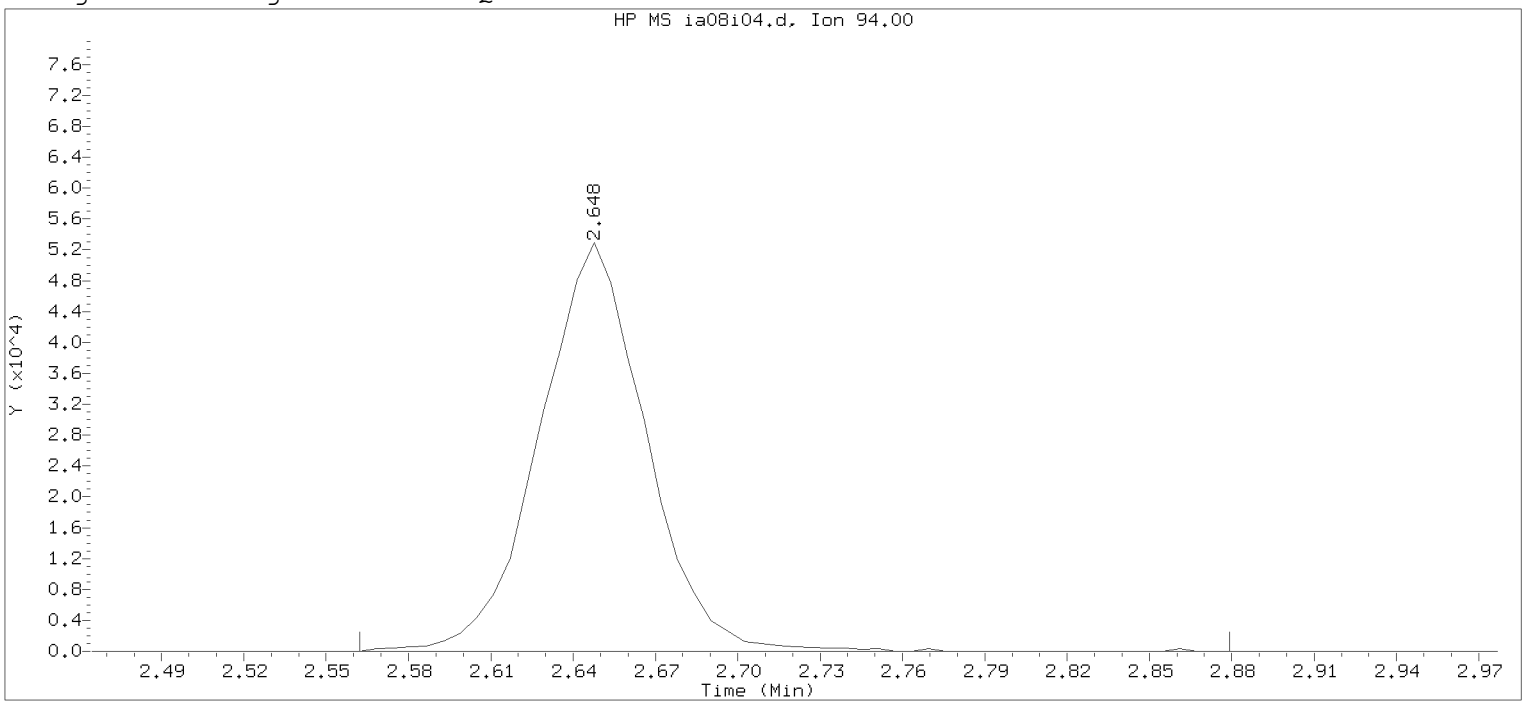
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

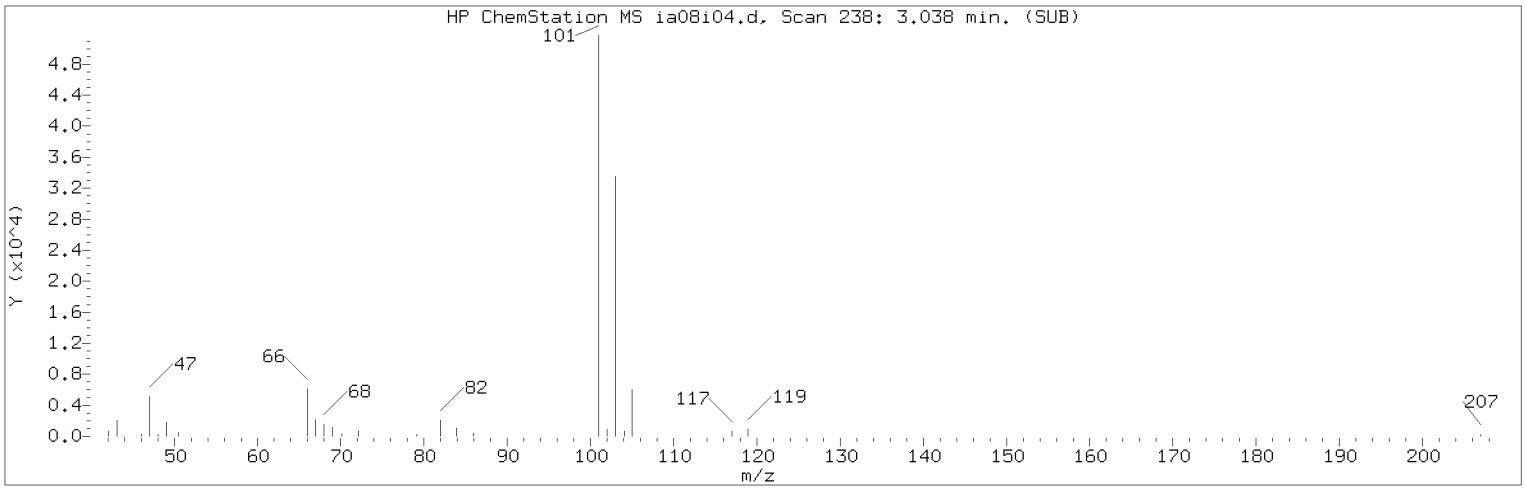
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

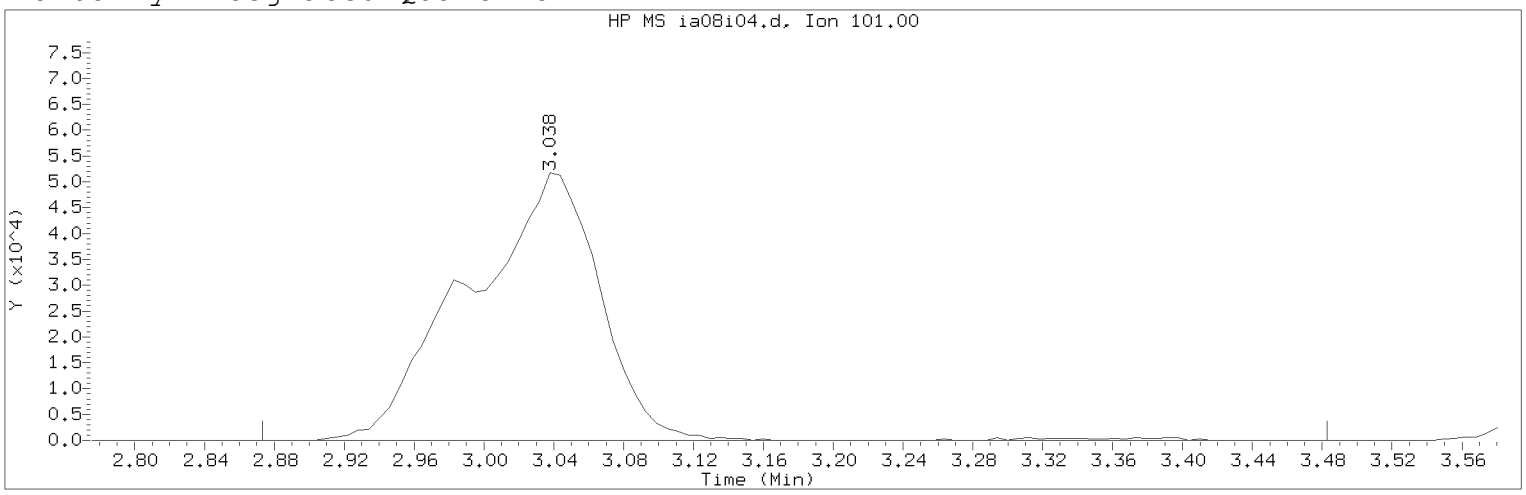
Compound Number : 7
Compound Name : Bromomethane
Scan Number : 174
Retention Time (minutes): 2.648
Quant Ion : 94.00
Area : 142482
On-column Amount (ng) : 1.9735
Integration start scan : 159 Integration stop scan: 211
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1184

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

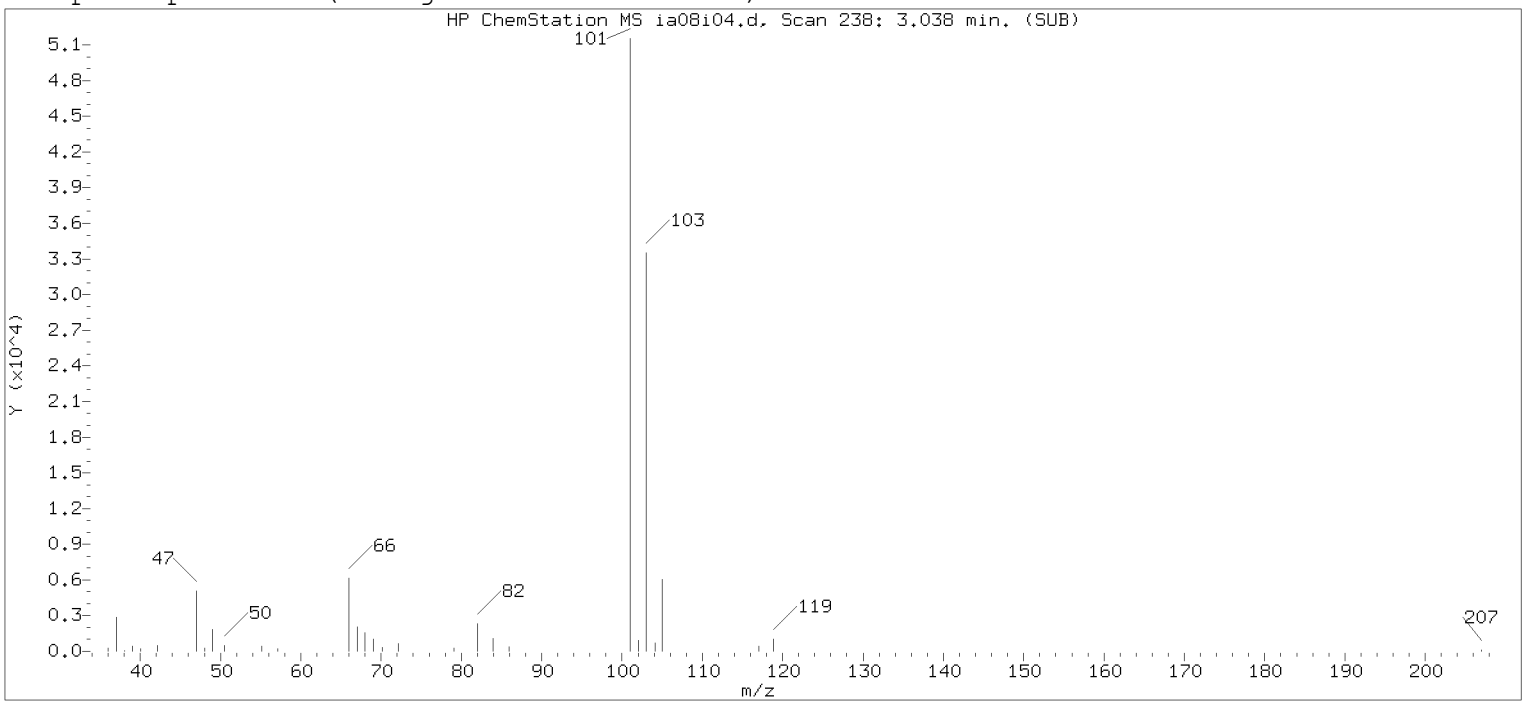
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 238
Retention Time (minutes): 3.038
Quant Ion : 101.00
Area (flag) : 271364M
On-Column Amount (ng) : 2.0130
Integration start scan : 210 Integration stop scan: 310
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

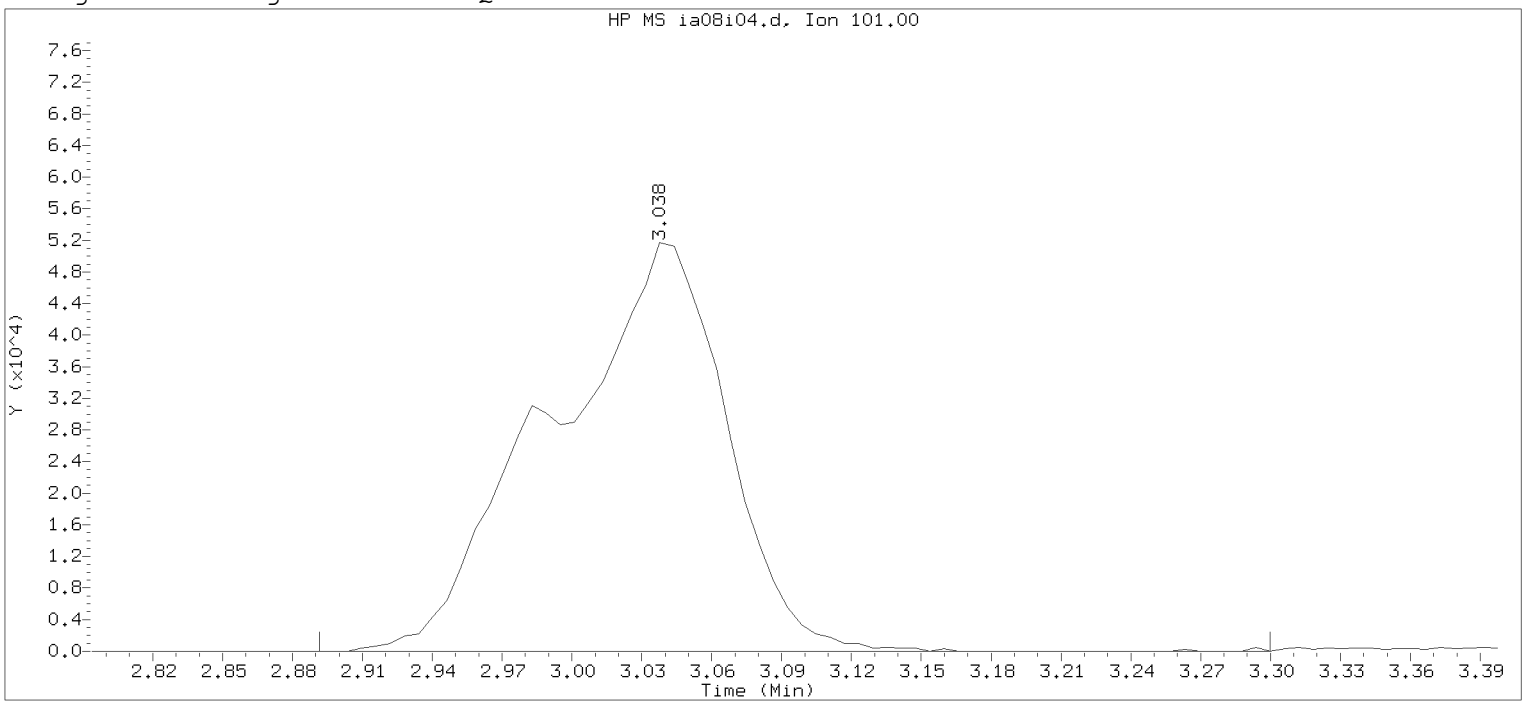
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

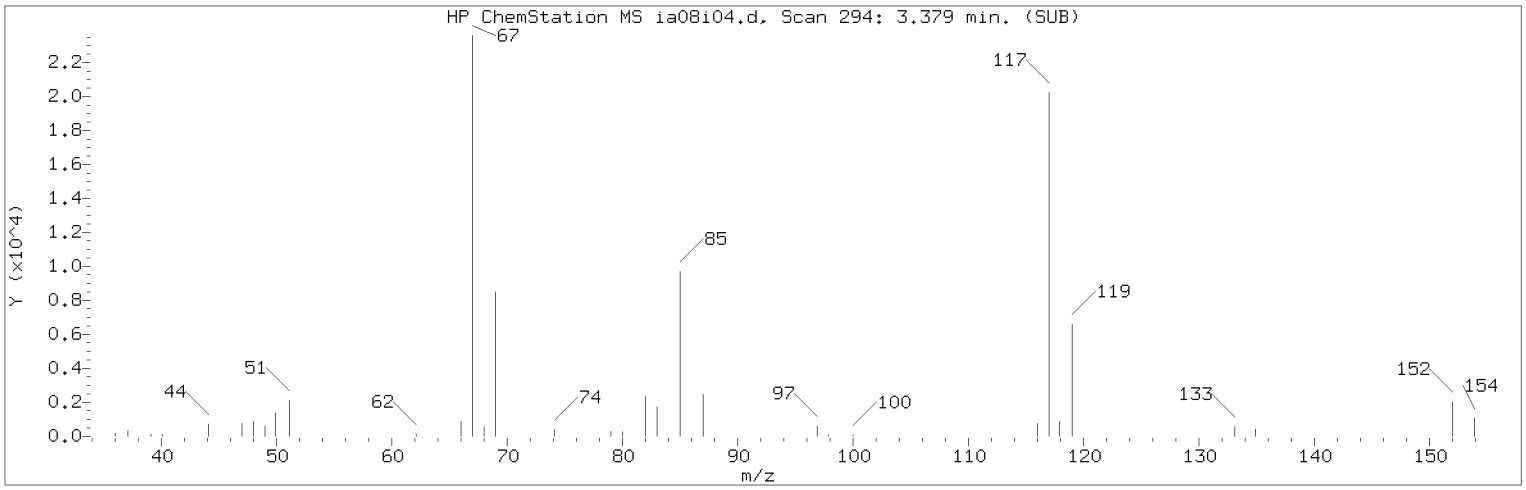
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

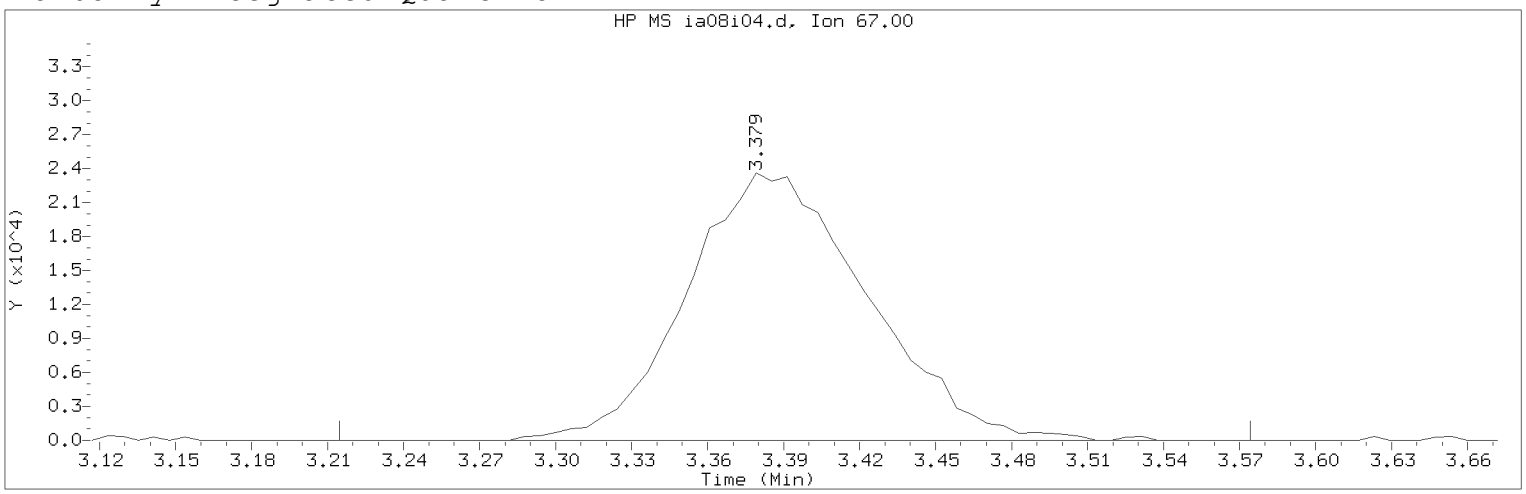
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 238
Retention Time (minutes): 3.038
Quant Ion : 101.00
Area : 269131
On-column Amount (ng) : 1.9689
Integration start scan : 213 Integration stop scan: 280
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

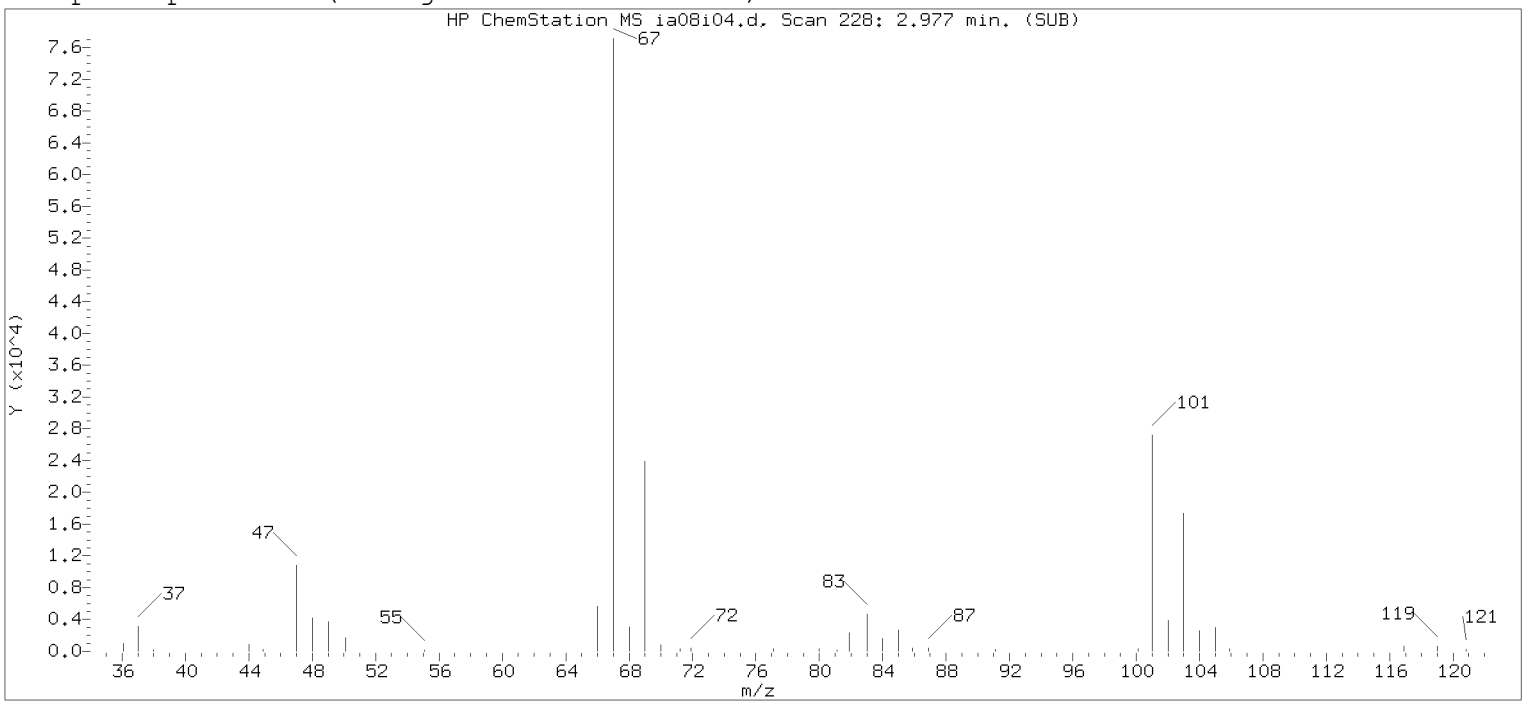
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 294
Retention Time (minutes): 3.379
Quant Ion : 67.00
Area (flag) : 117098MA
On-Column Amount (ng) : 1.9319
Integration start scan : 266 Integration stop scan: 325
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

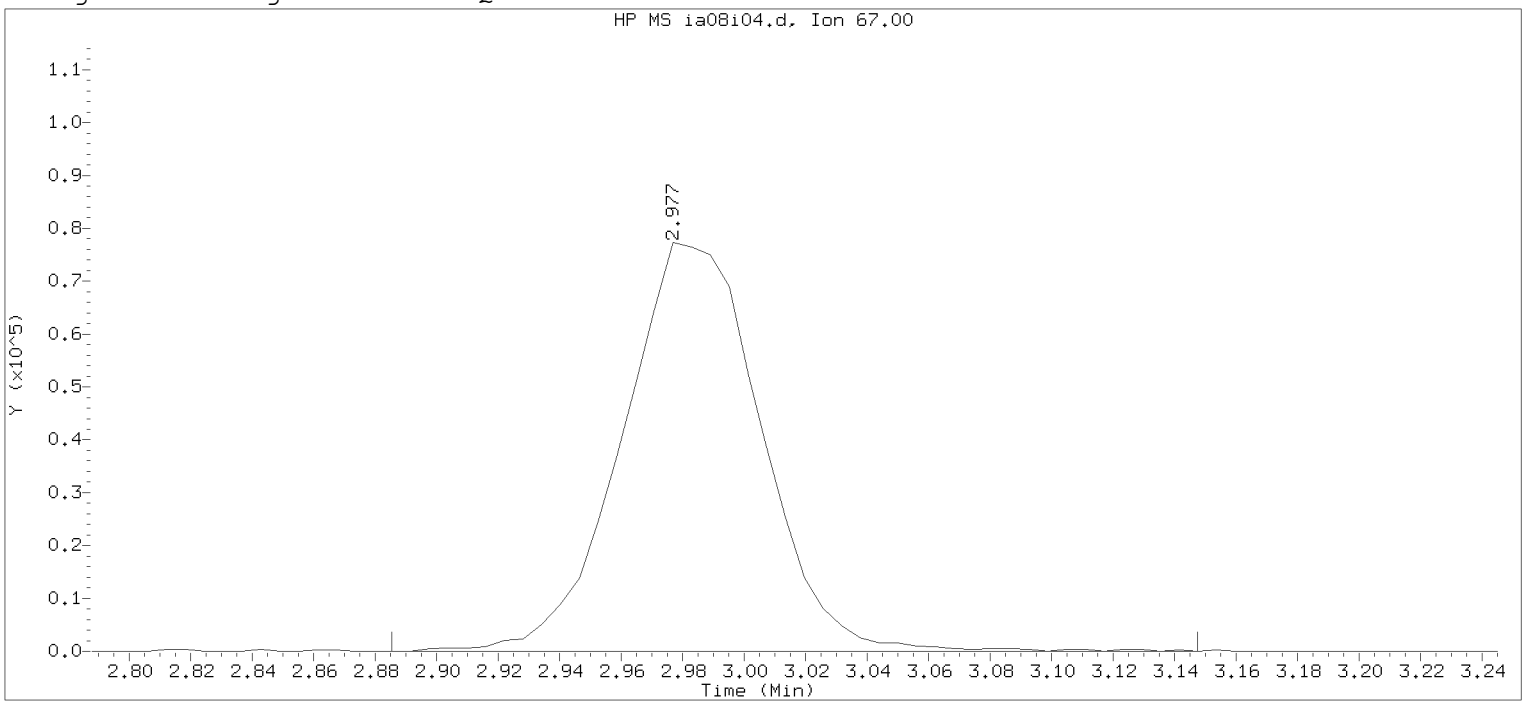
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

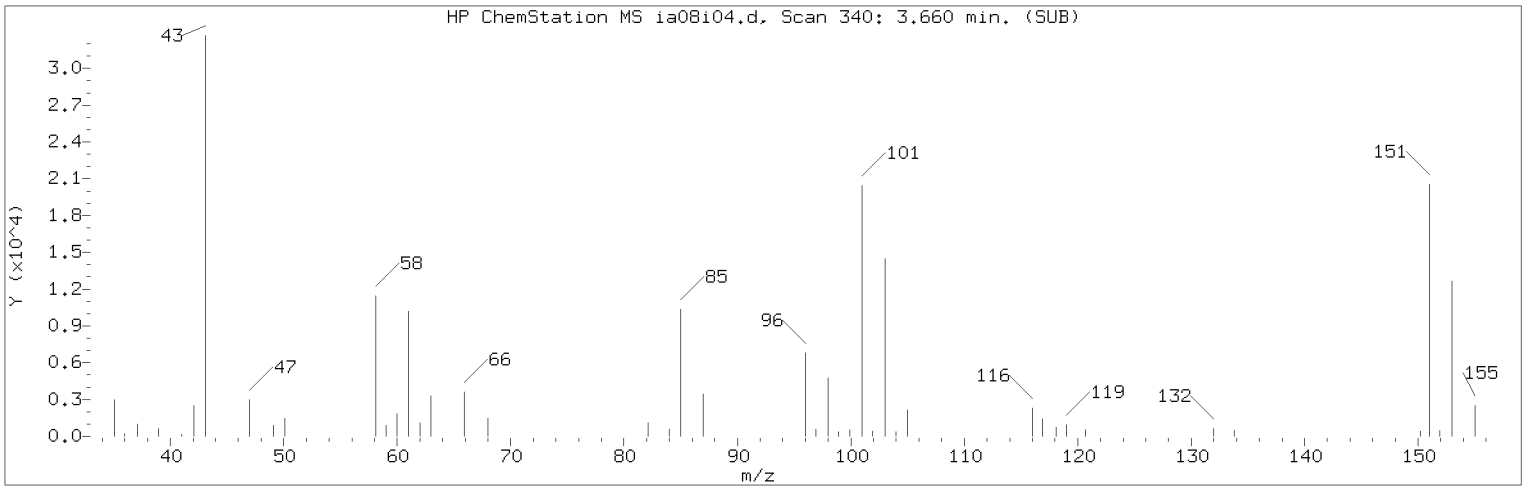
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

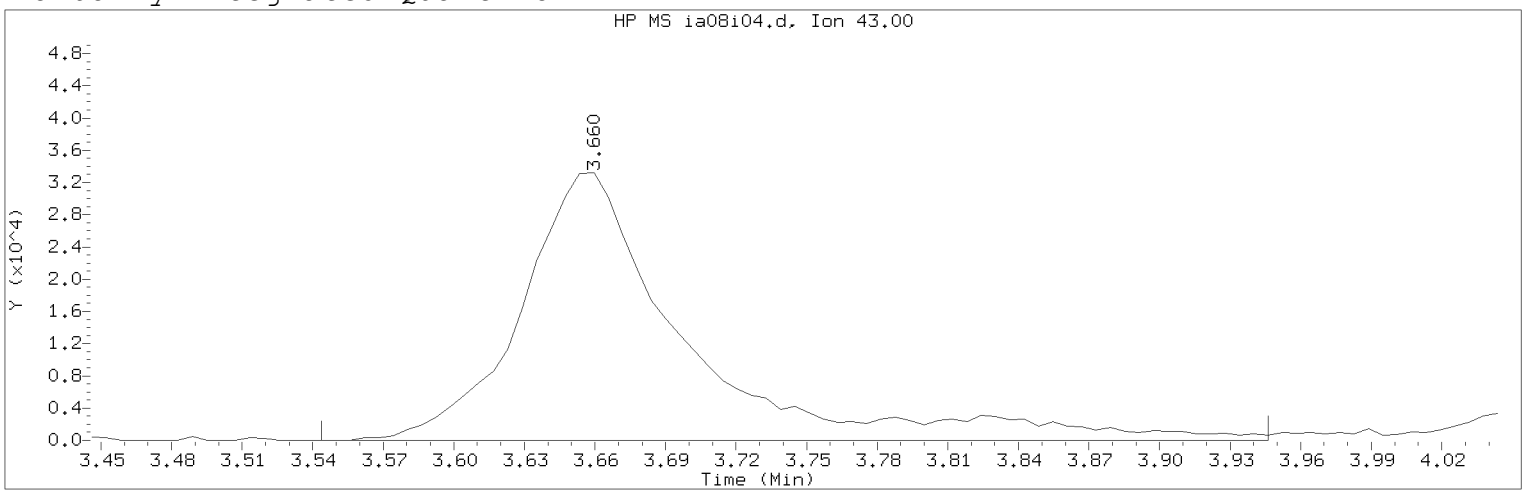
Compound Number	: 12		
Compound Name	: Freon 123a		
Scan Number	: 228		
Retention Time (minutes)	: 2.977		
Quant Ion	: 67.00		
Area	: 242857		
On-column Amount (ng)	: 2.0006		
Integration start scan	: 212	Integration stop scan:	255
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

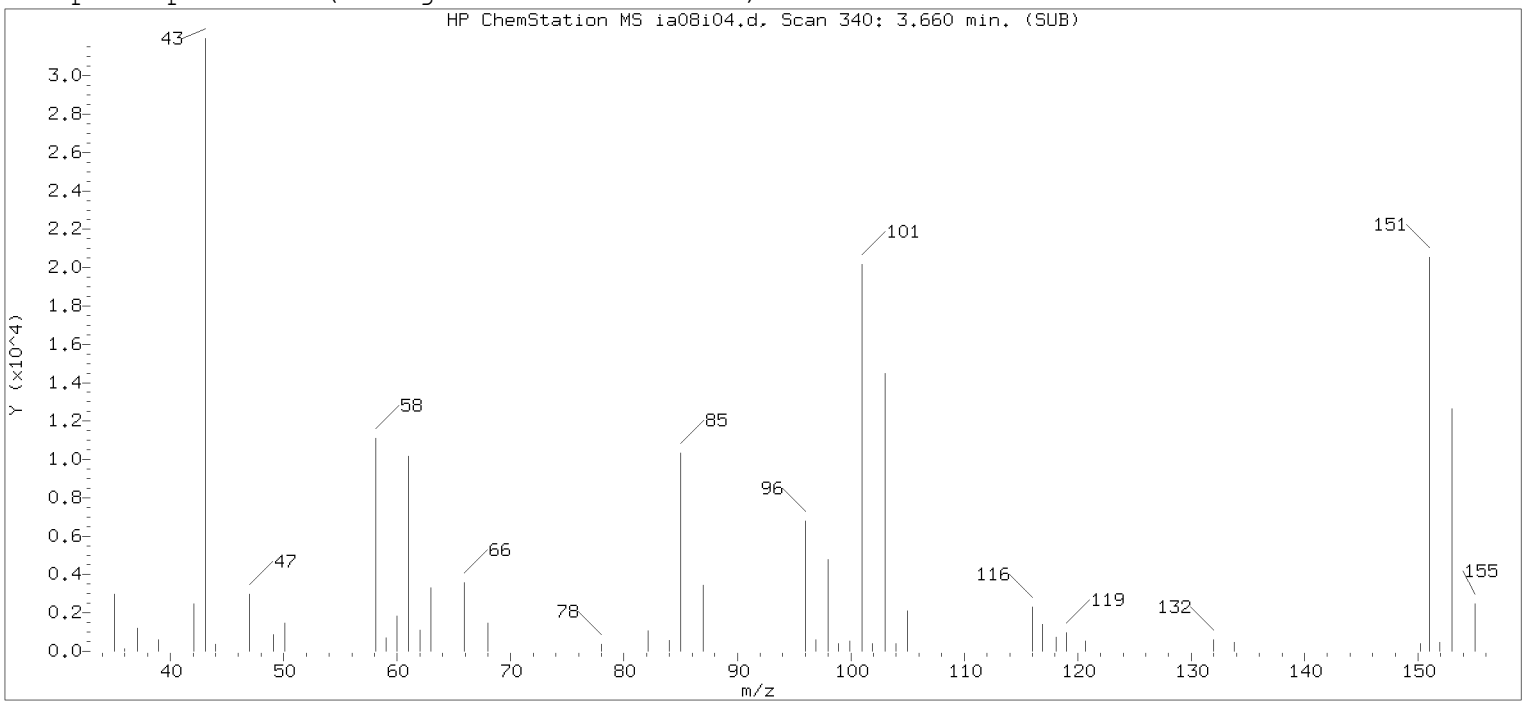
Compound Number : 14
Compound Name : Acetone
Scan Number : 340
Retention Time (minutes): 3.660
Quant Ion : 43.00
Area (flag) : 161983M
On-Column Amount (ng) : 19.1578
Integration start scan : 320 Integration stop scan: 386
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

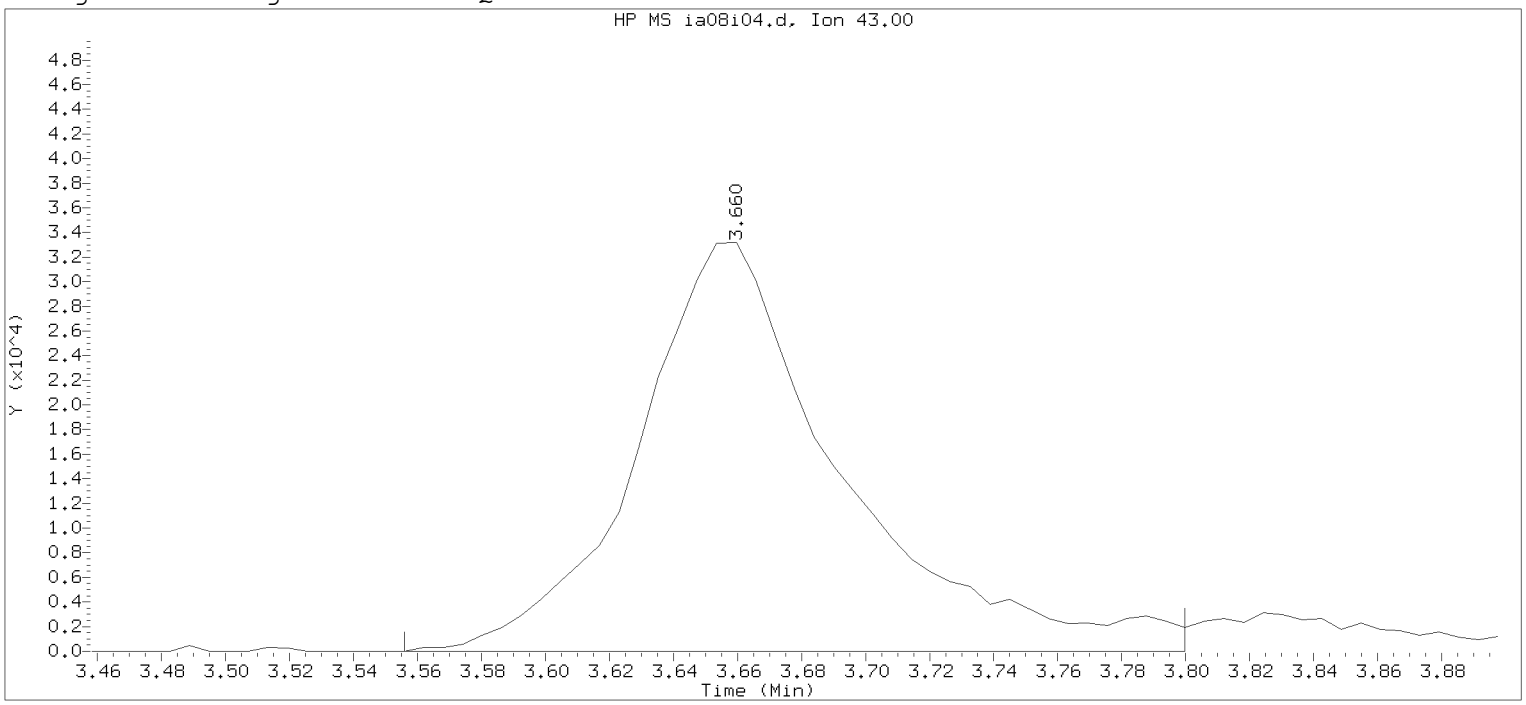
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 340		
Retention Time (minutes)	: 3.660		
Quant Ion	: 43.00		
Area	: 147292		
On-column Amount (ng)	: 18.6900		
Integration start scan	: 322	Integration stop scan:	362
Y at integration start	: 0	Y at integration end:	0

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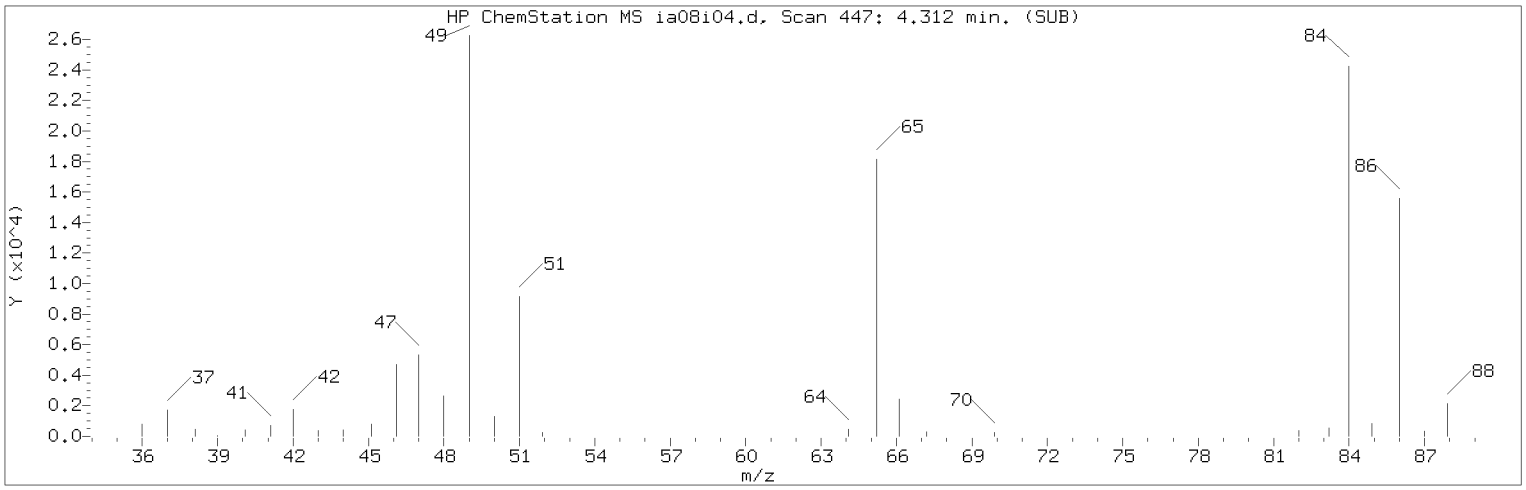
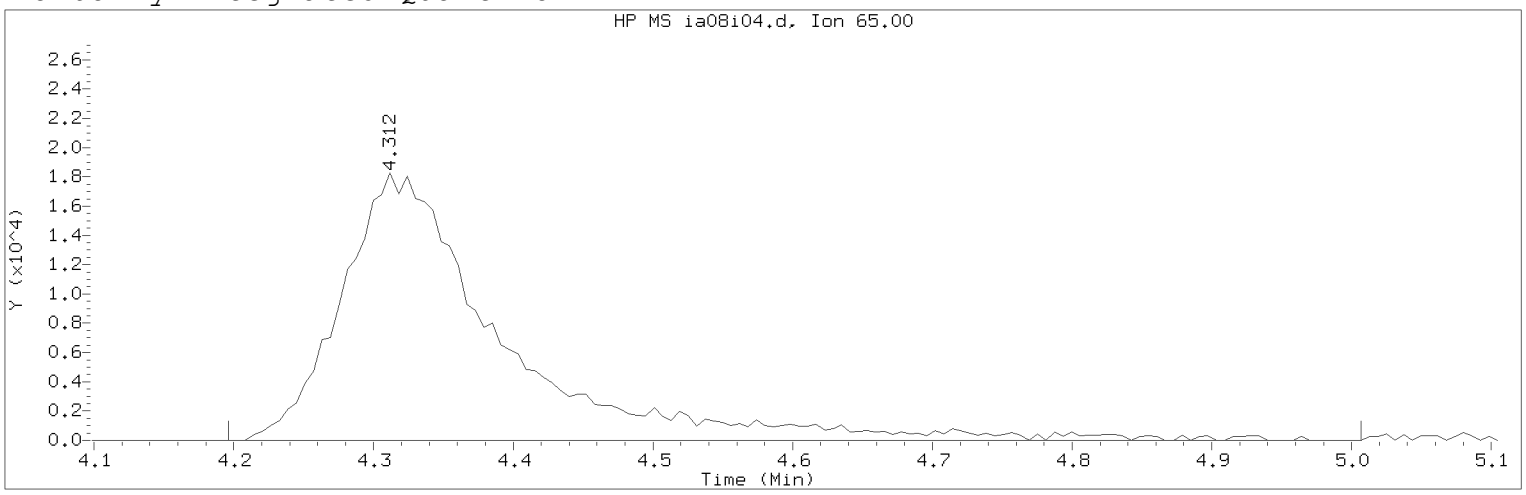
Target 3.5 esignature user: Page 1190

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

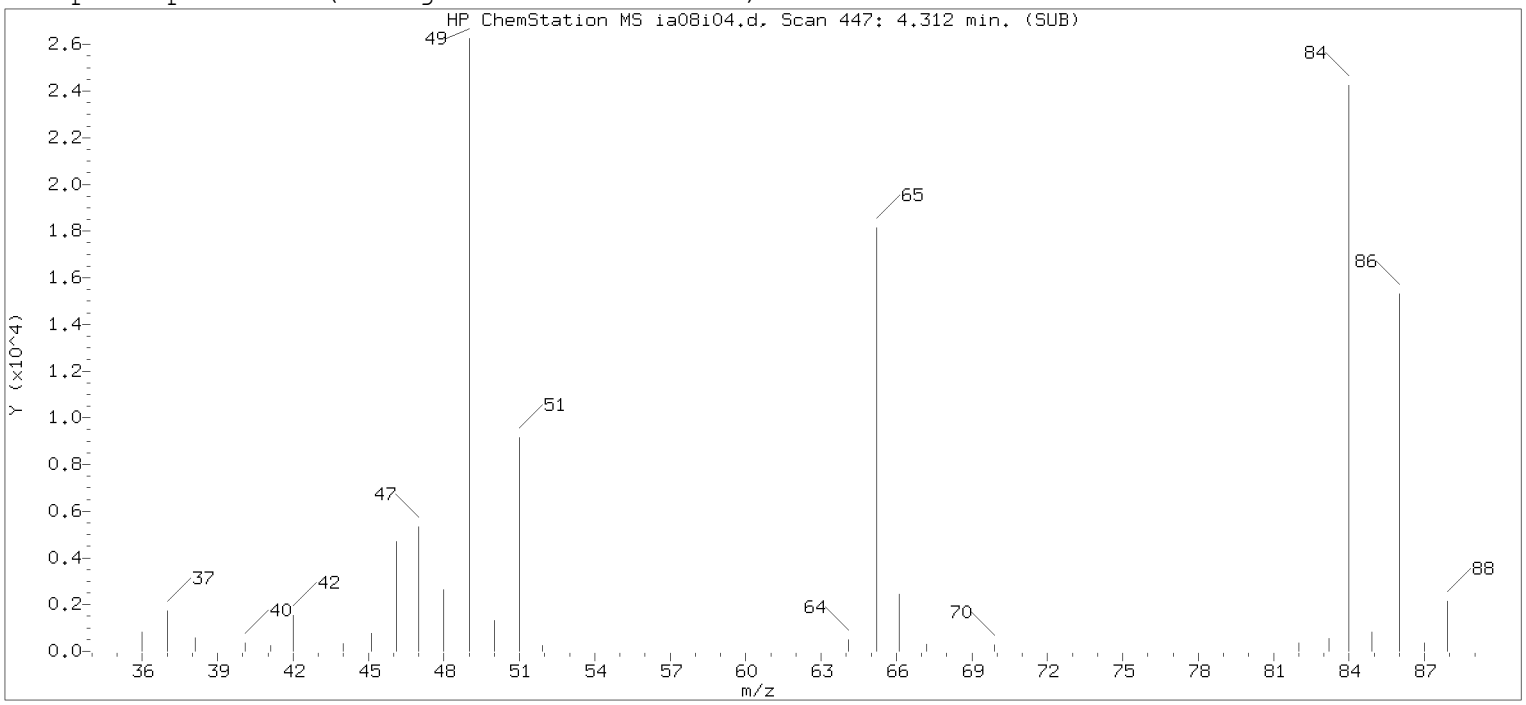
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area (flag) : 144315M
On-Column Amount (ng) : 50.0000
Integration start scan : 427 Integration stop scan: 560
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

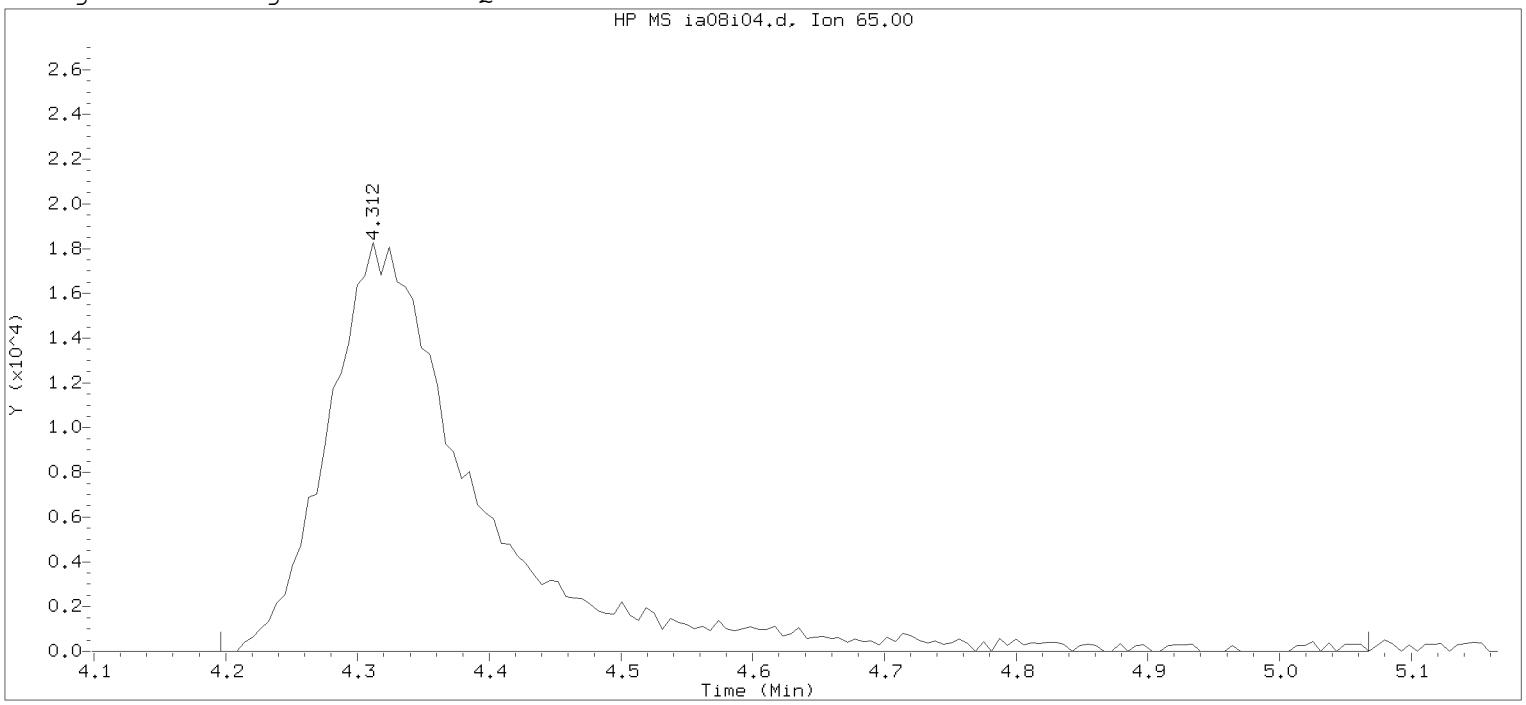
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

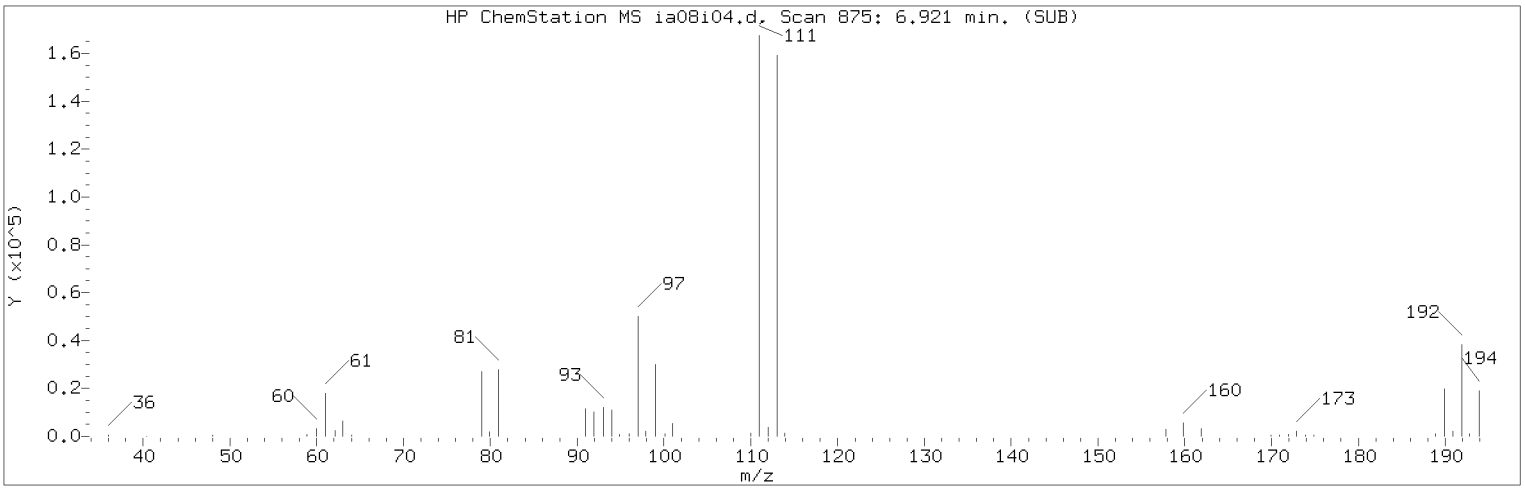
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

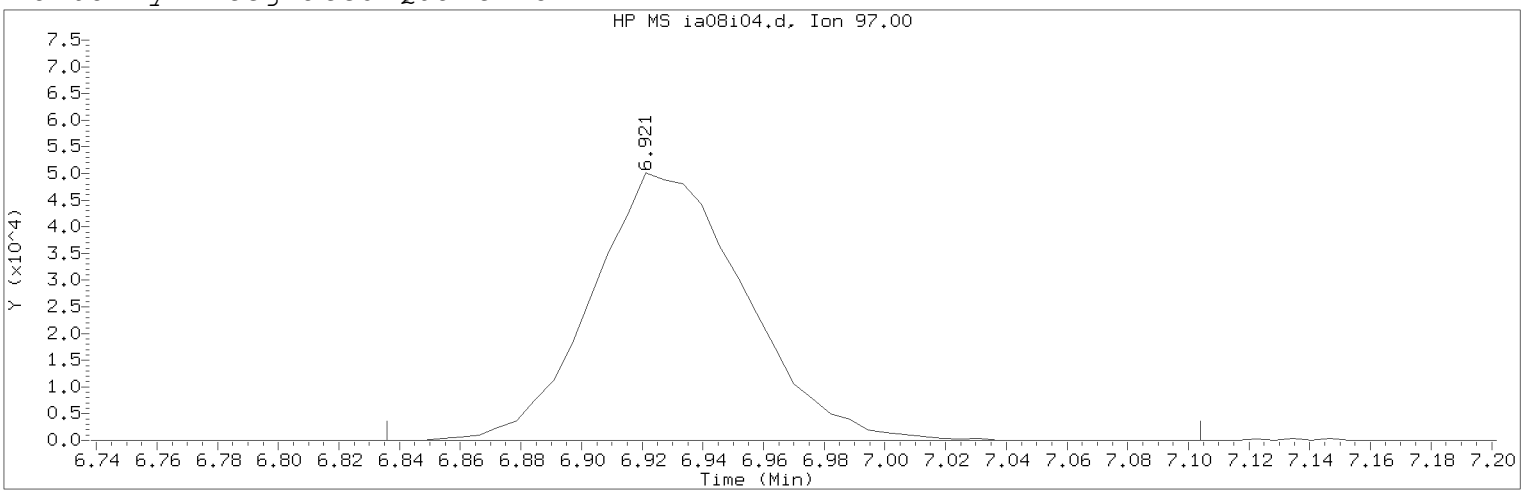
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area : 145143
On-column Amount (ng) : 50.0000
Integration start scan : 427 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

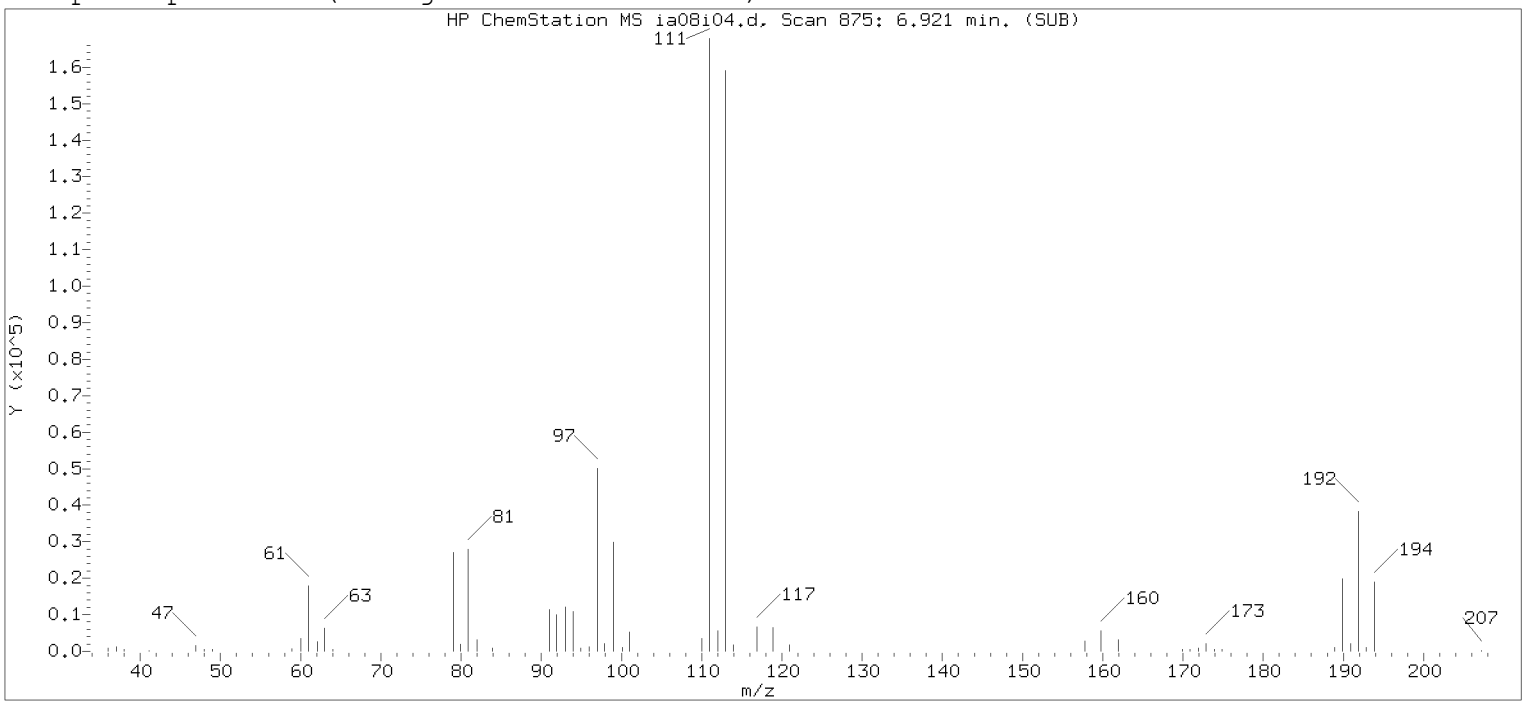
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area (flag) : 176019M
On-Column Amount (ng) : 1.9634
Integration start scan : 860 Integration stop scan: 904
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

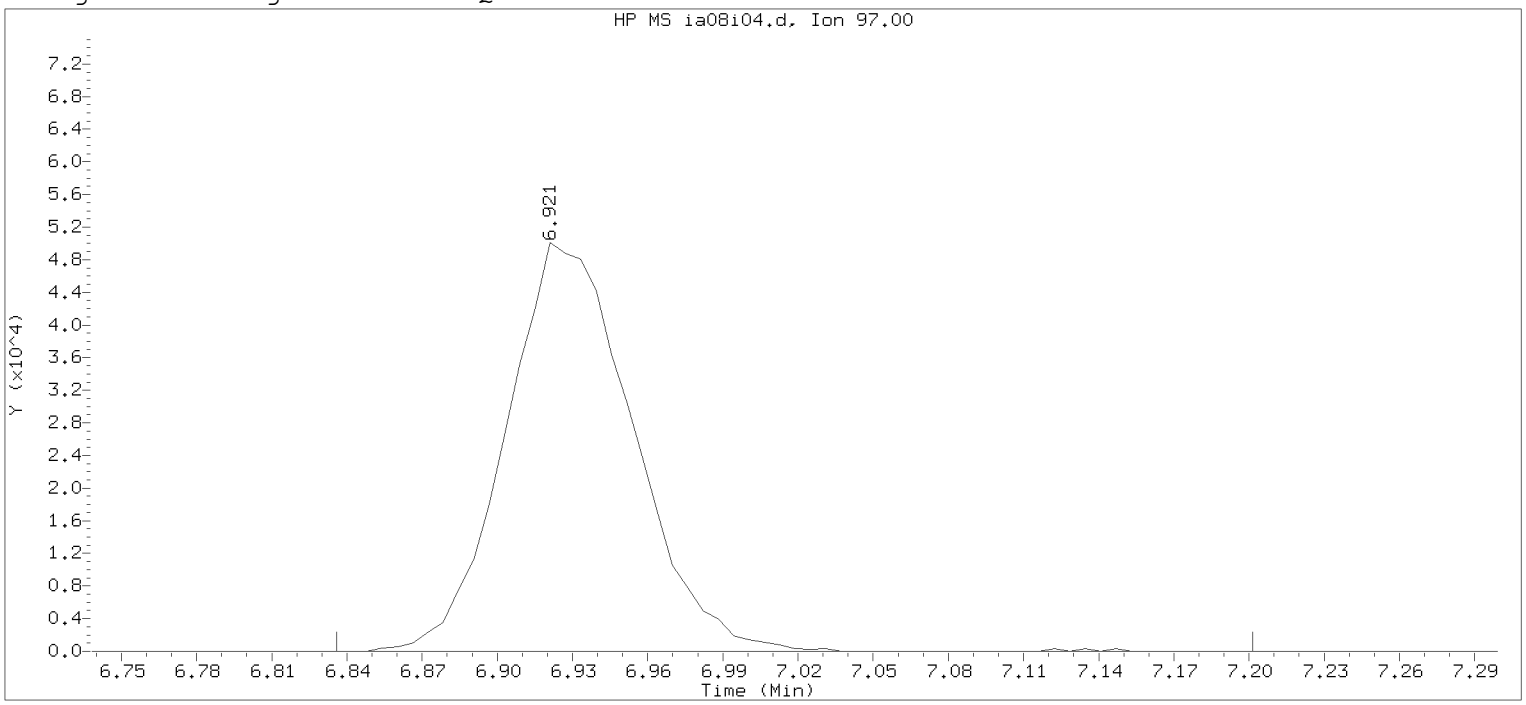
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

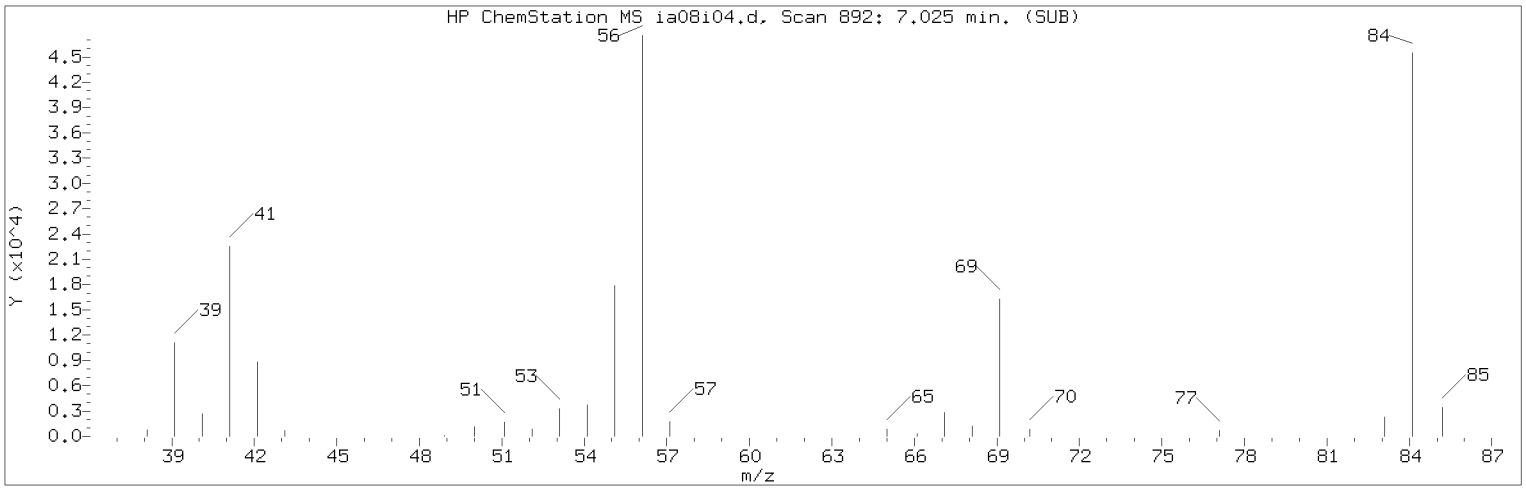
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

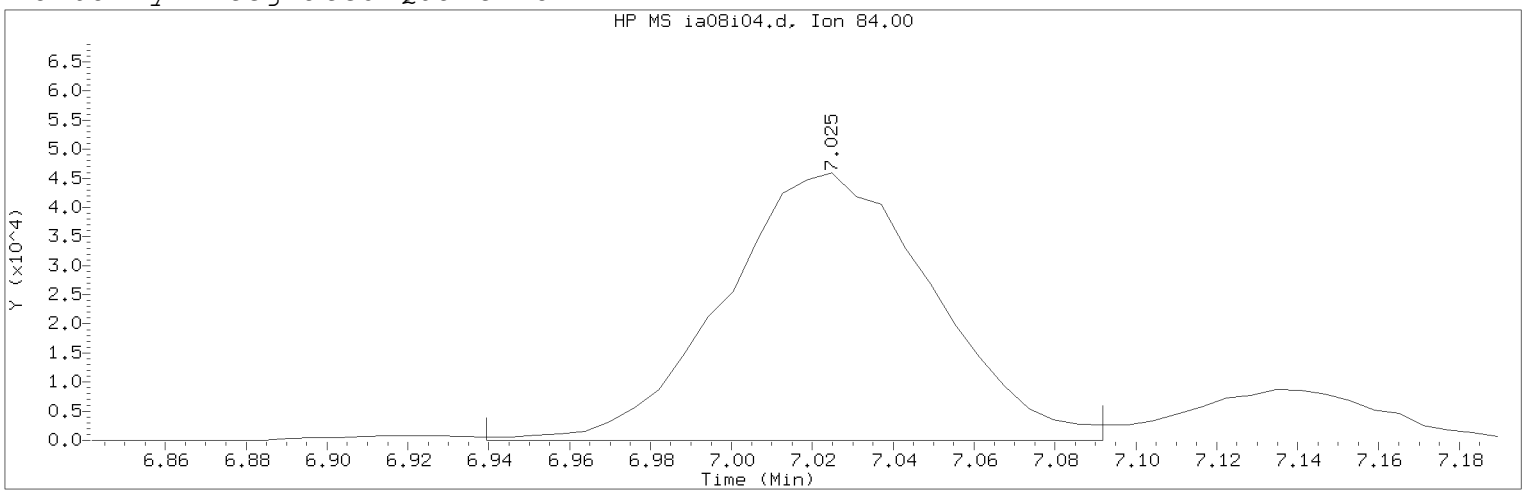
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area : 176351
On-column Amount (ng) : 1.9487
Integration start scan : 860 Integration stop scan: 920
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Page 1194

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

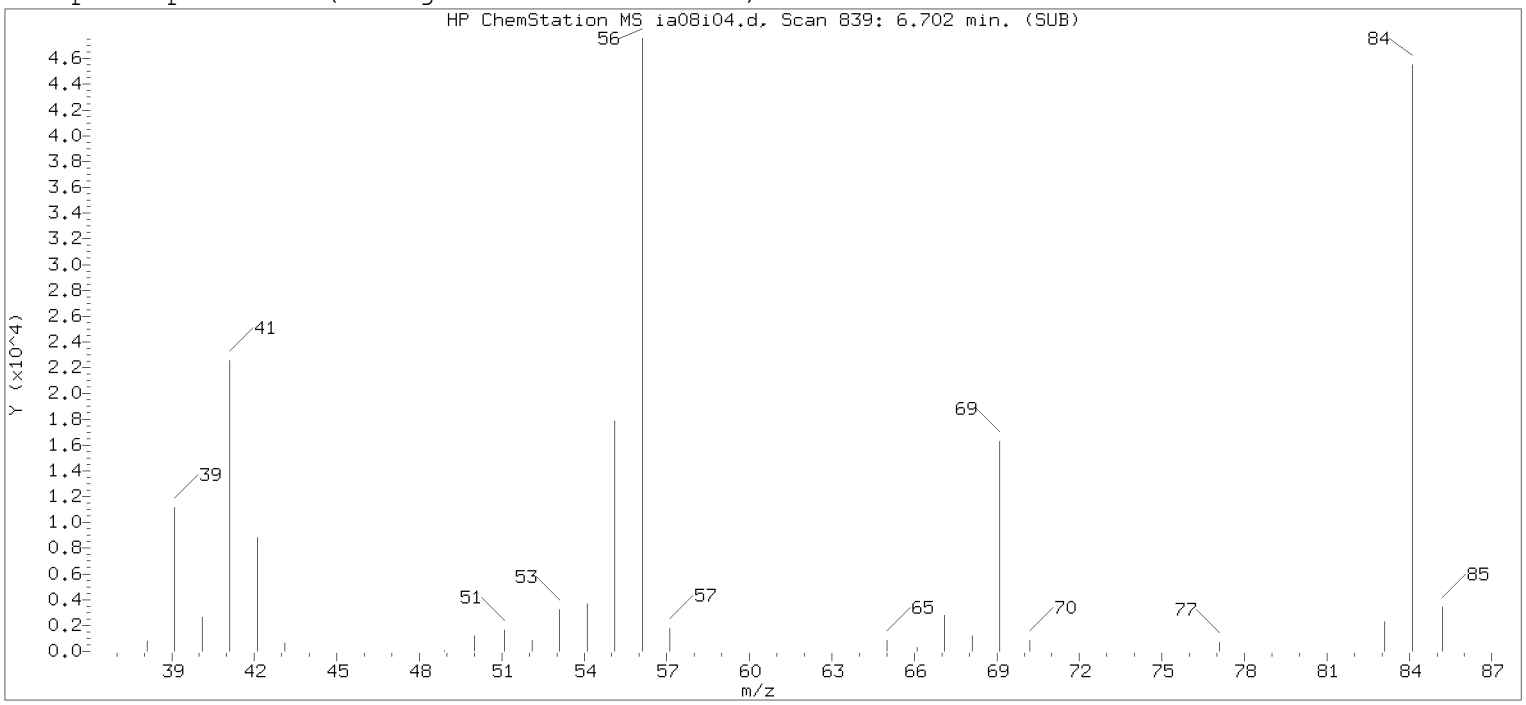
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 84.00
Area (flag) : 165104M
On-Column Amount (ng) : 1.9852
Integration start scan : 877 Integration stop scan: 902
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

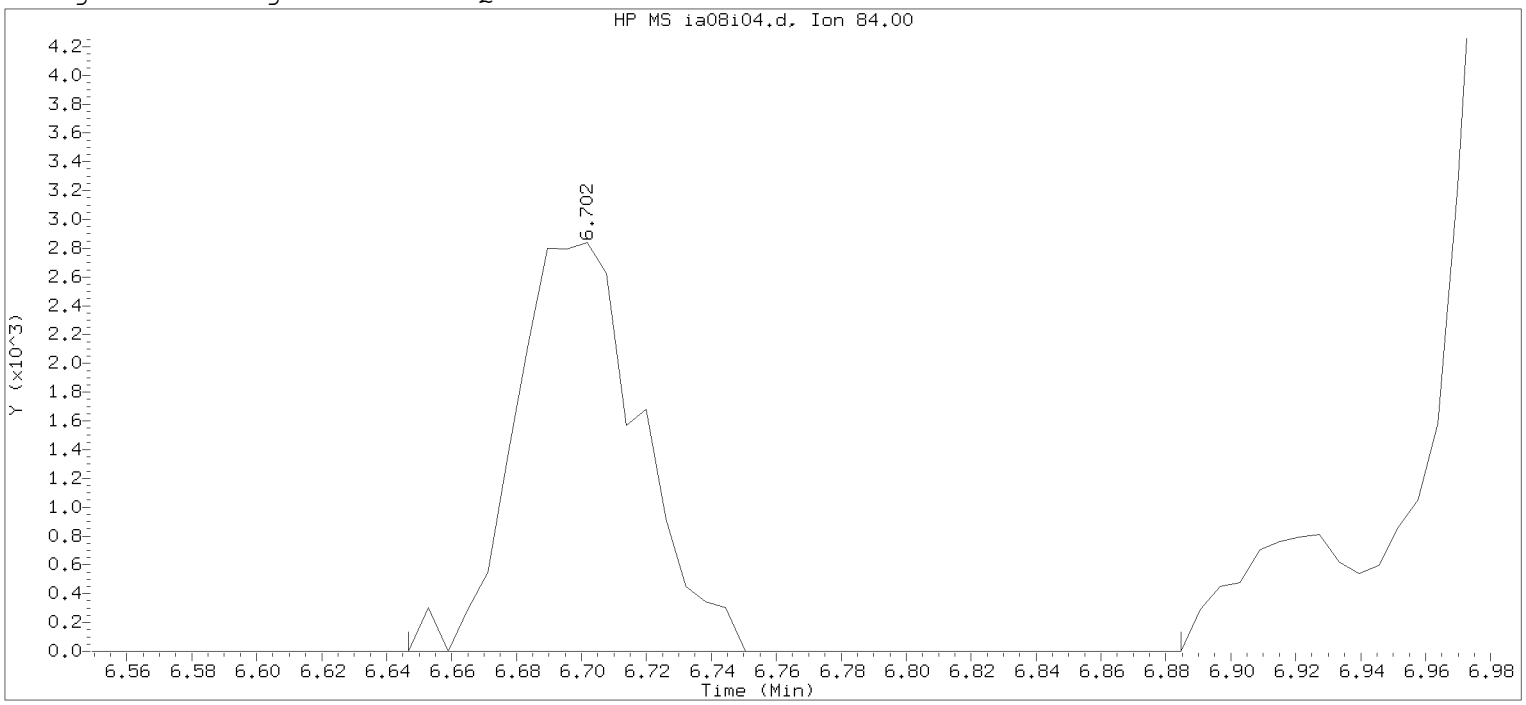
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

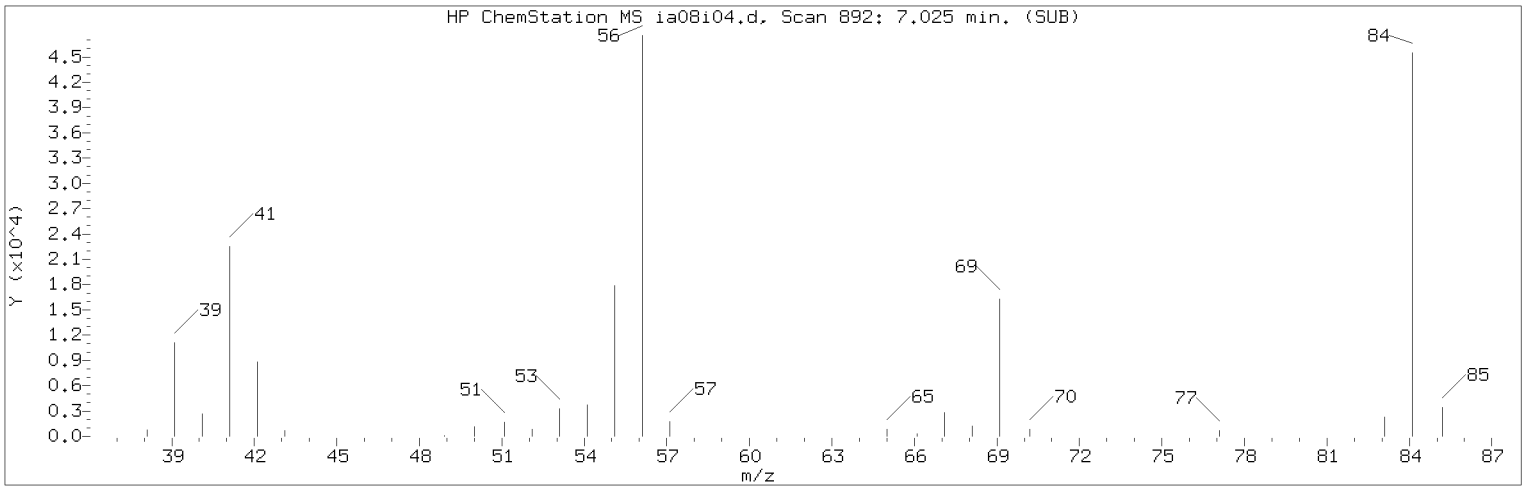
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

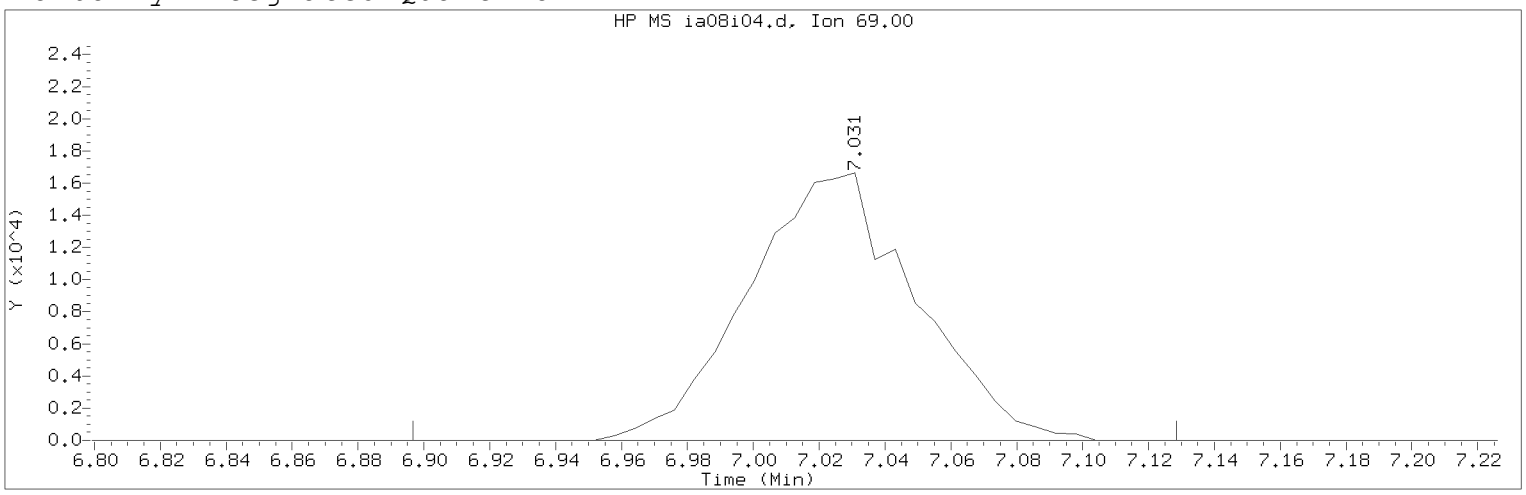
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 839
Retention Time (minutes): 6.702
Quant Ion : 84.00
Area : 7655
On-column Amount (ng) : 2.0084
Integration start scan : 829 Integration stop scan: 868
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1196

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

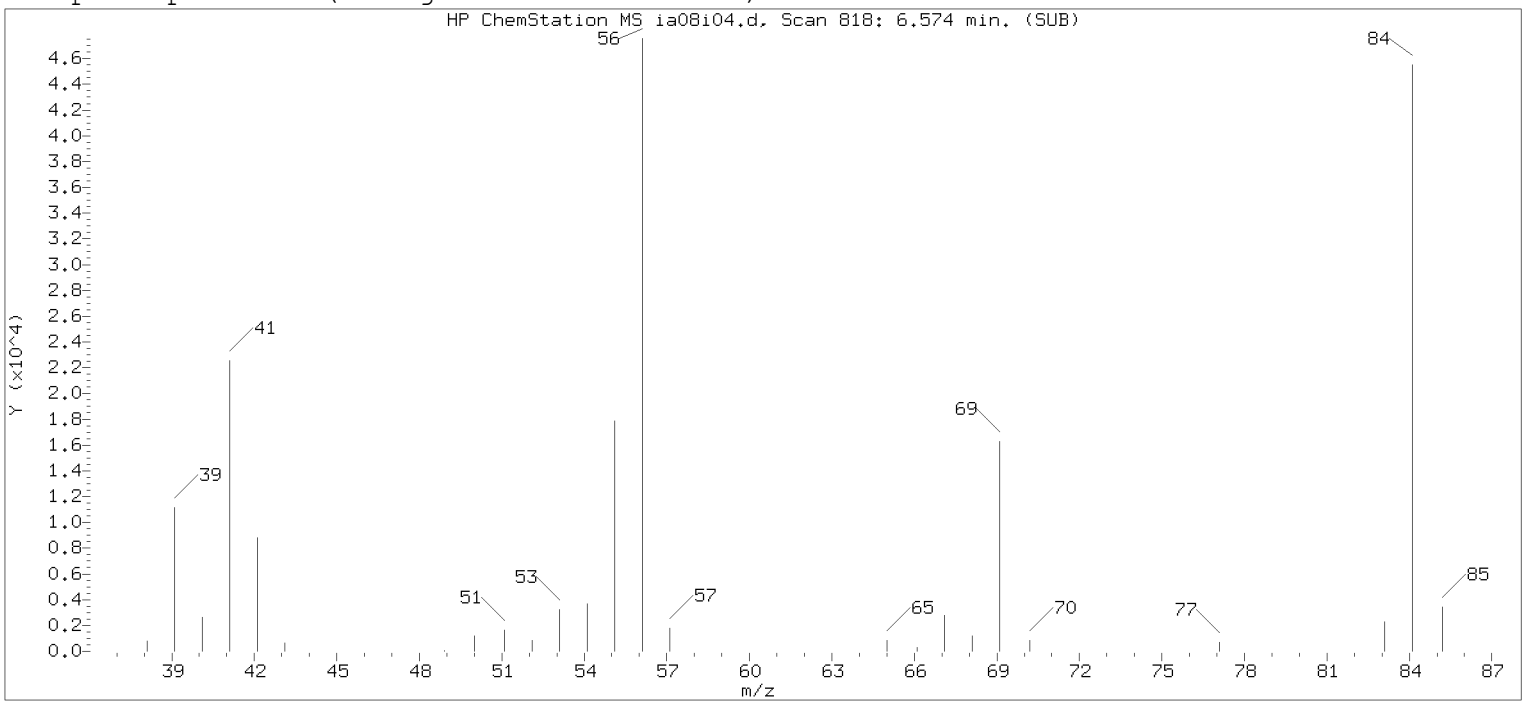
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 893
Retention Time (minutes): 7.031
Quant Ion : 69.00
Area (flag) : 58888M
On-Column Amount (ng) : 2.0343
Integration start scan : 870 Integration stop scan: 908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

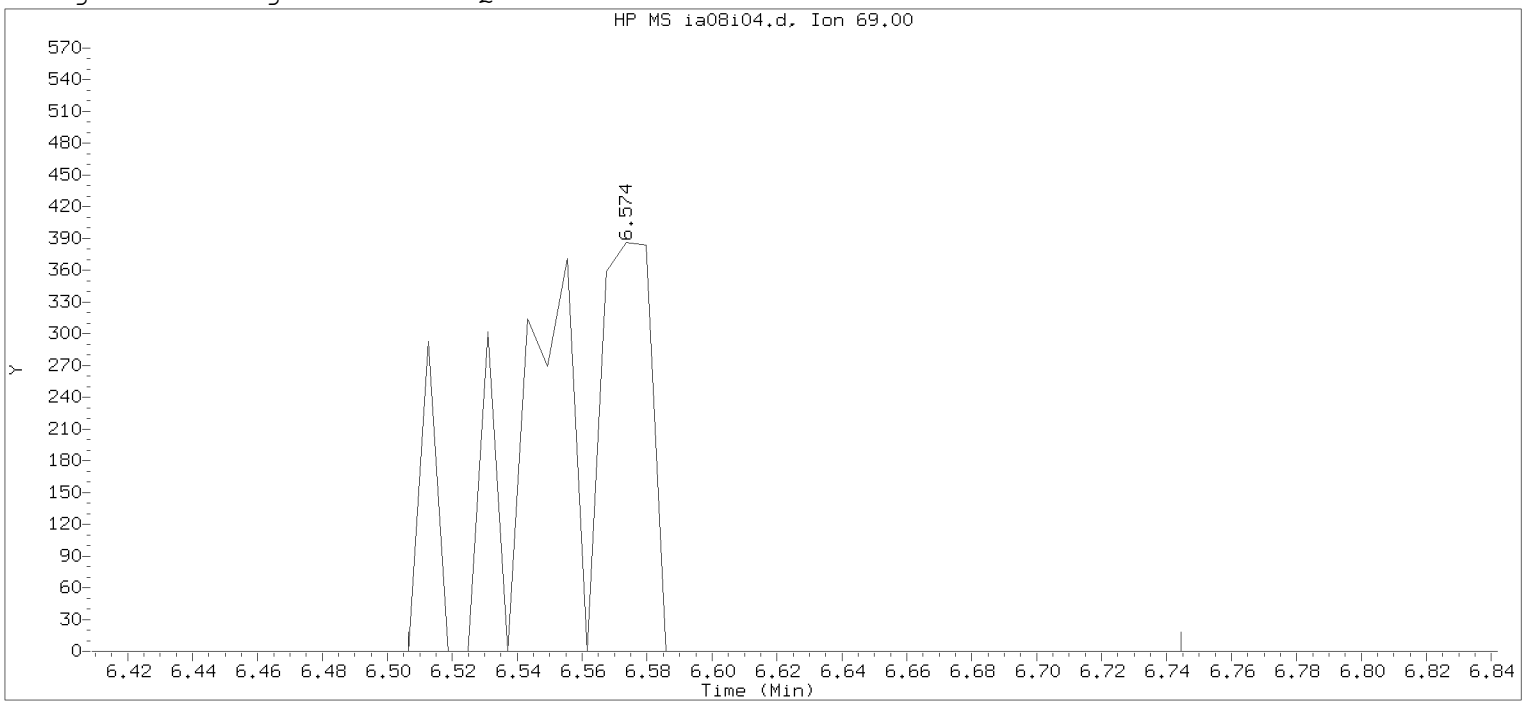
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 818
Retention Time (minutes): 6.574
Quant Ion : 69.00
Area : 979
On-column Amount (ng) : 1.5980
Integration start scan : 806 Integration stop scan: 845
Y at integration start : 0 Y at integration end: 0

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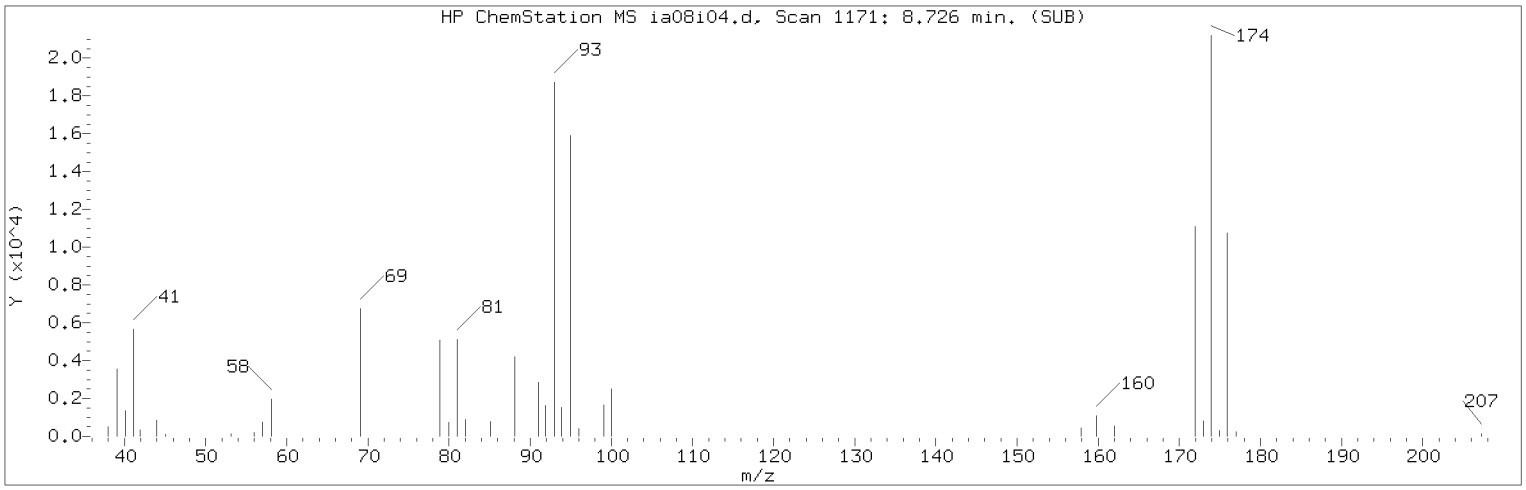
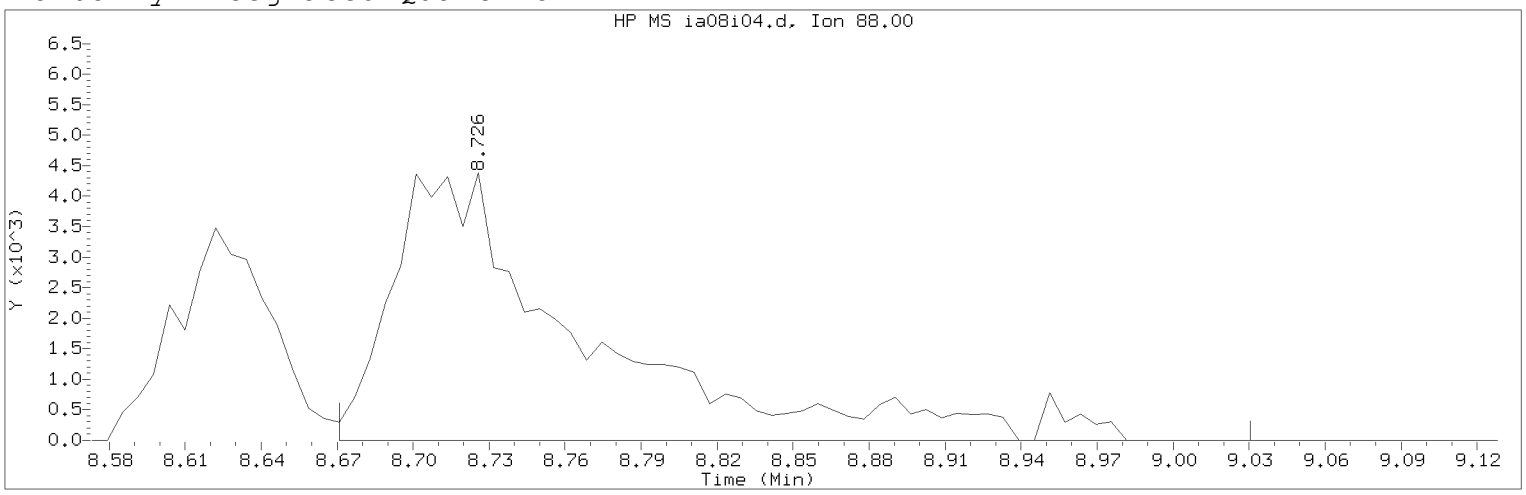
Target 3.5 esignature user: Page 1198

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

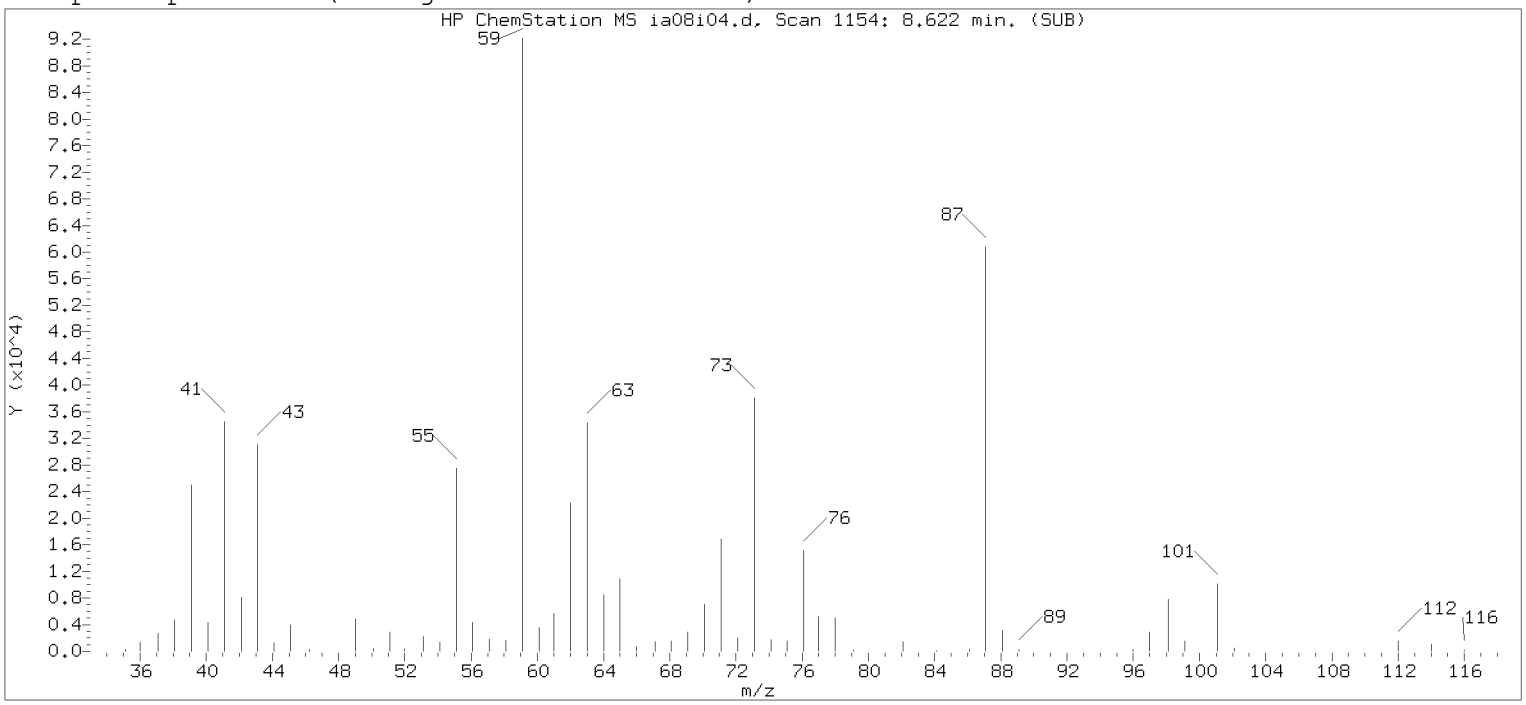
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1171
Retention Time (minutes): 8.726
Quant Ion : 88.00
Area (flag) : 23426M
On-Column Amount (ng) : 105.4908
Integration start scan : 1161 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

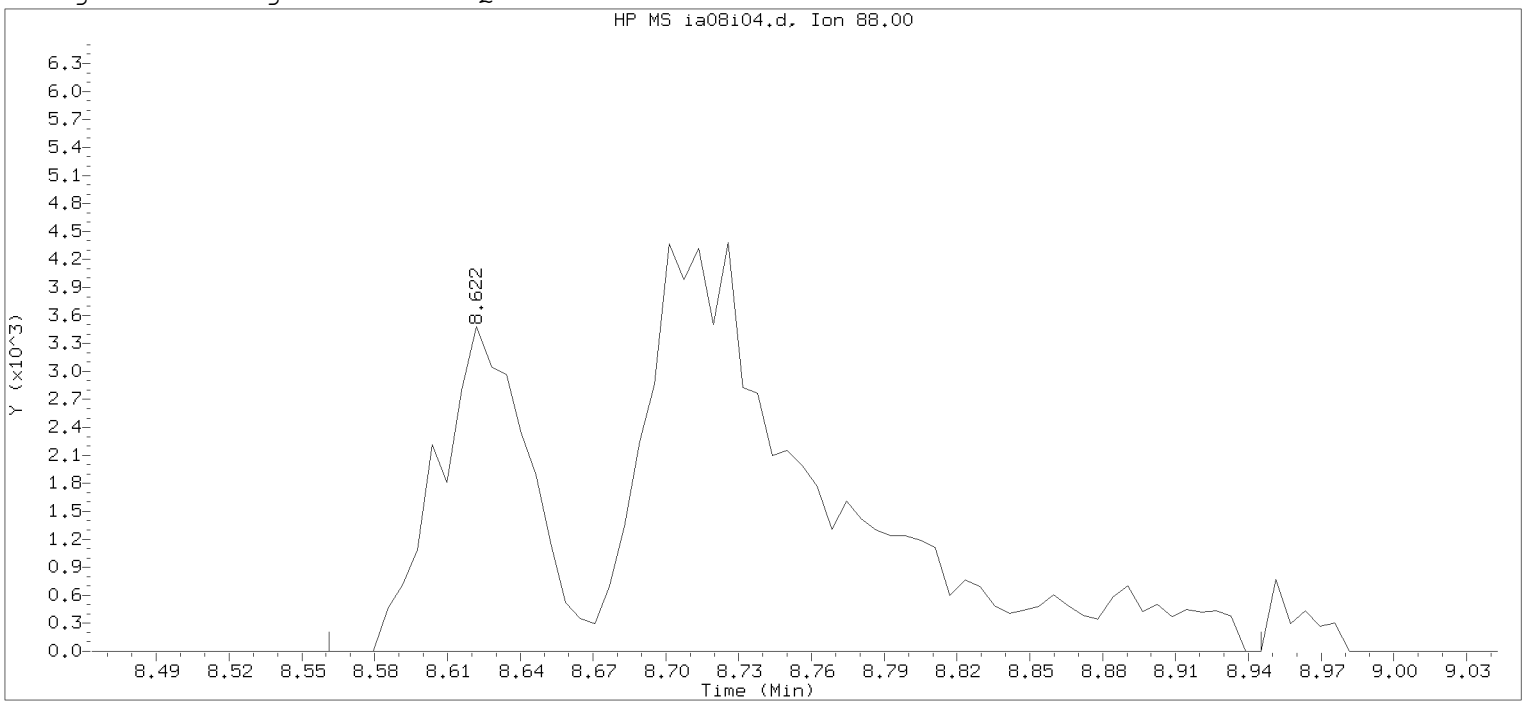
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1154		
Retention Time (minutes)	: 8.622		
Quant Ion	: 88.00		
Area	: 31752		
On-column Amount (ng)	: 133.8192		
Integration start scan	: 1143	Integration stop scan:	1206
Y at integration start	: 0	Y at integration end:	0

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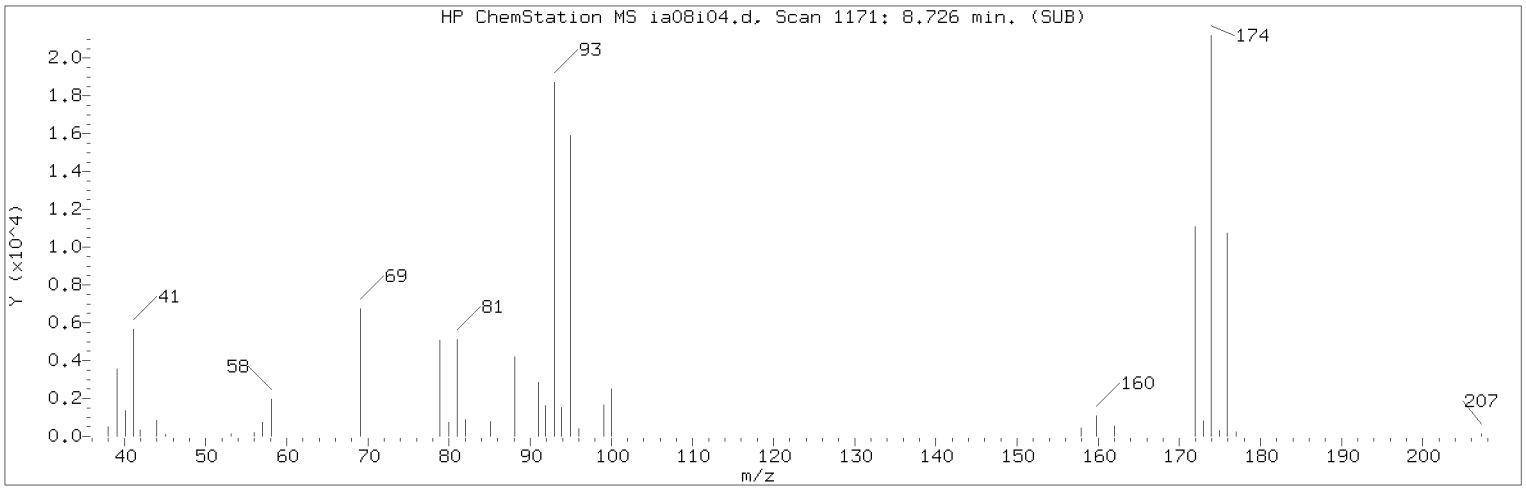
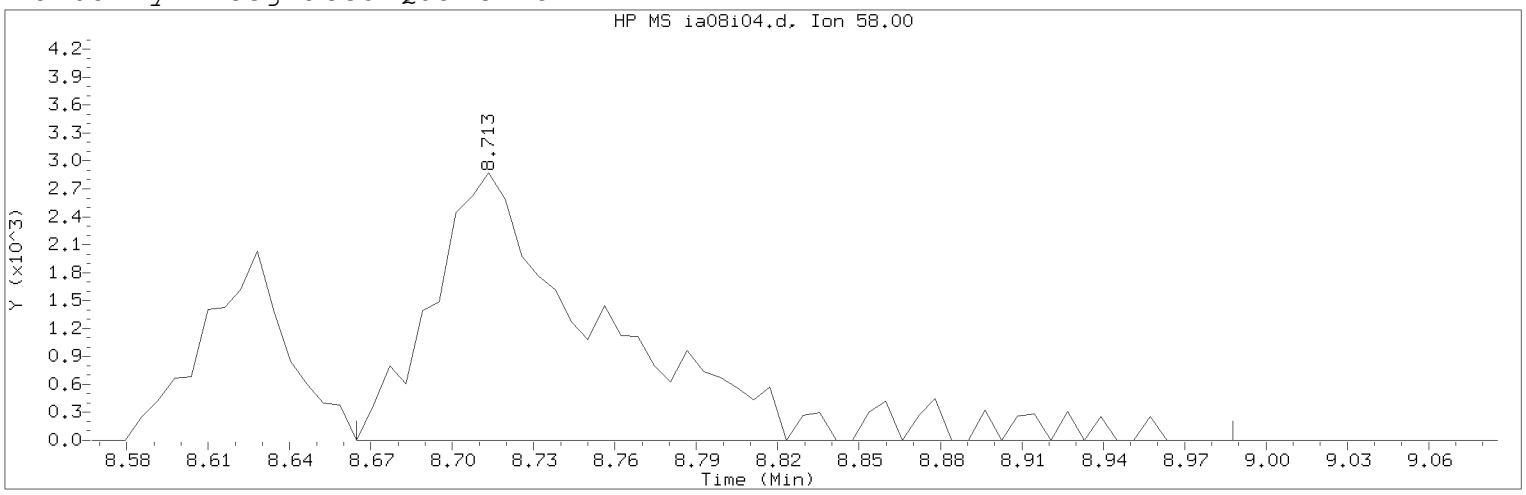
Target 3.5 esignature used. F35 Page 1200

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

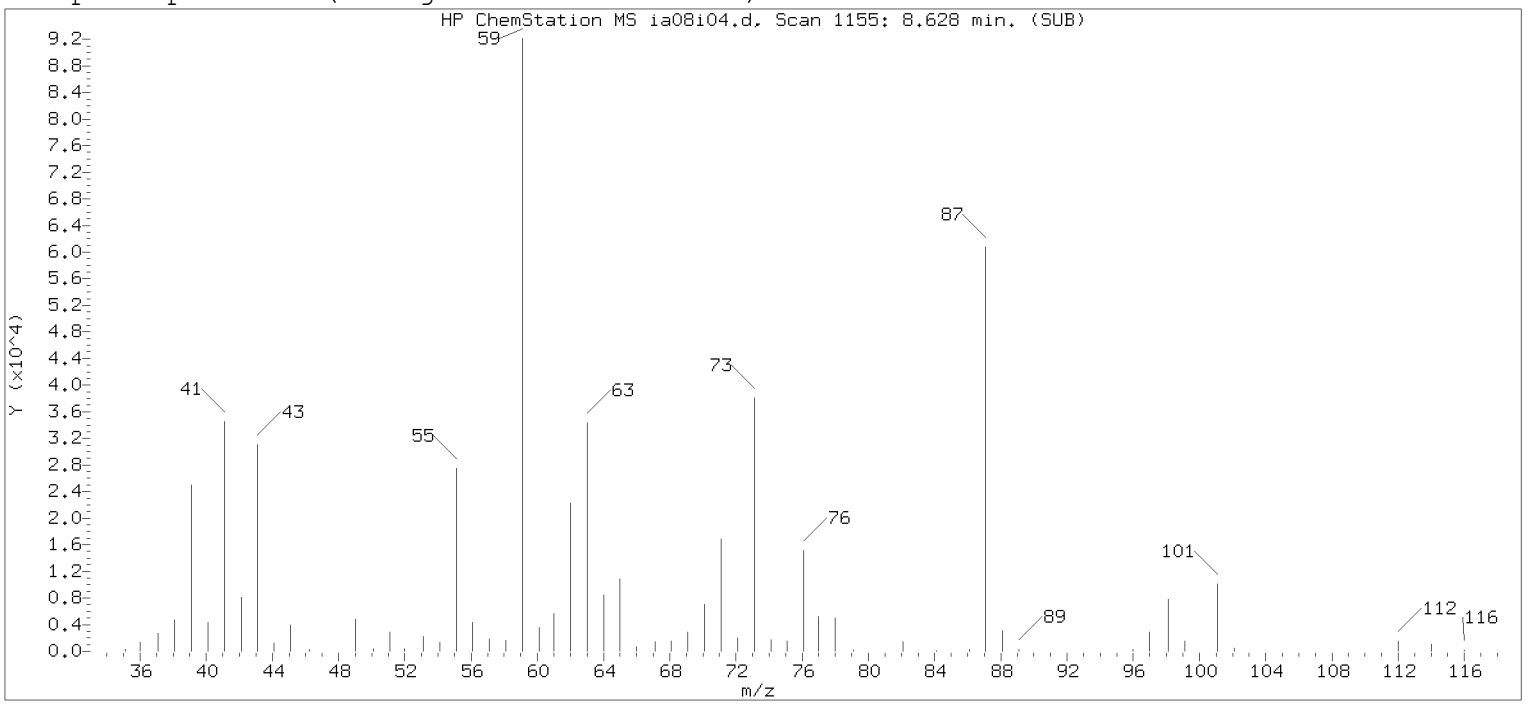
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.713
Quant Ion : 58.00
Area (flag) : 13042M
On-Column Amount (ng) : 98.5555
Integration start scan : 1160 Integration stop scan: 1213
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

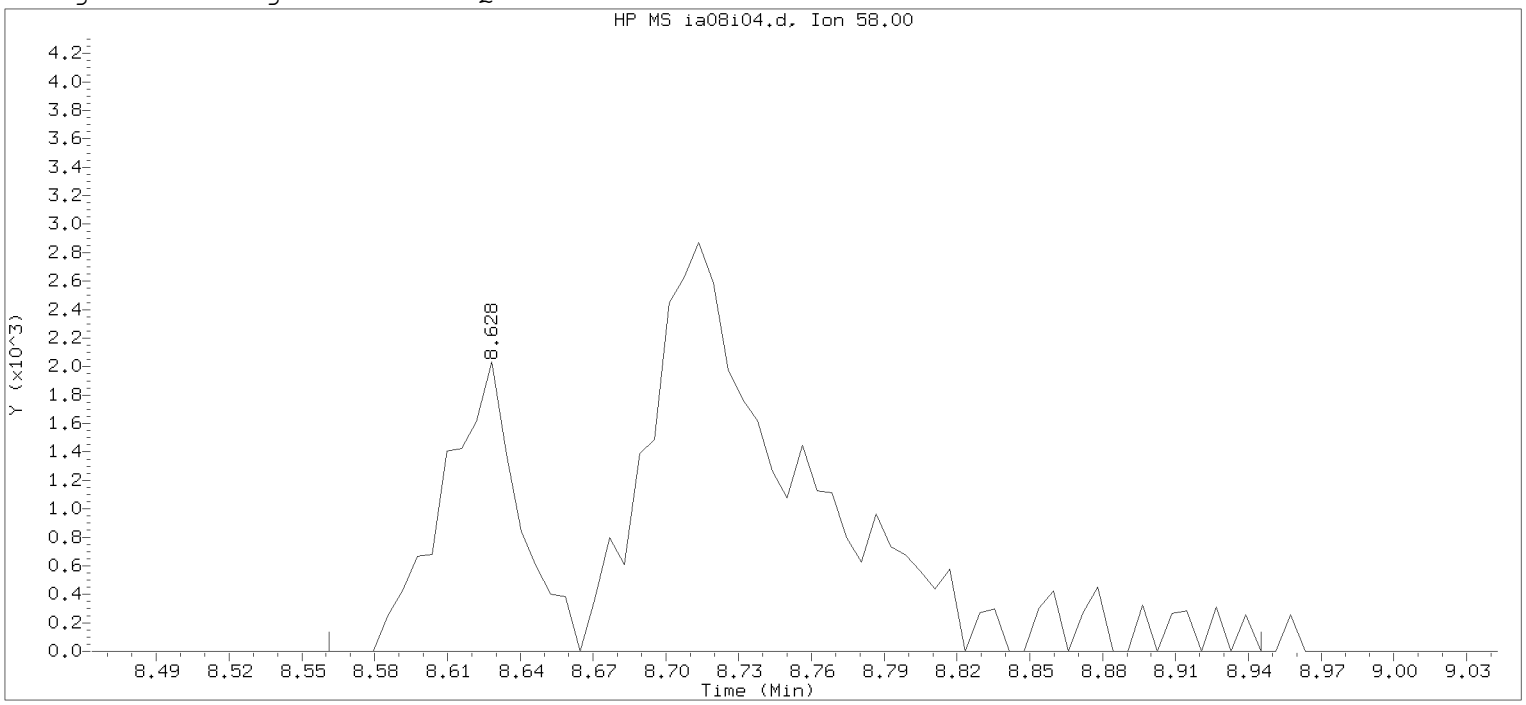
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1155		
Retention Time (minutes)	: 8.628		
Quant Ion	: 58.00		
Area	: 17381		
On-column Amount (ng)	: 103.5444		
Integration start scan	: 1143	Integration stop scan:	1206
Y at integration start	: 0	Y at integration end:	0

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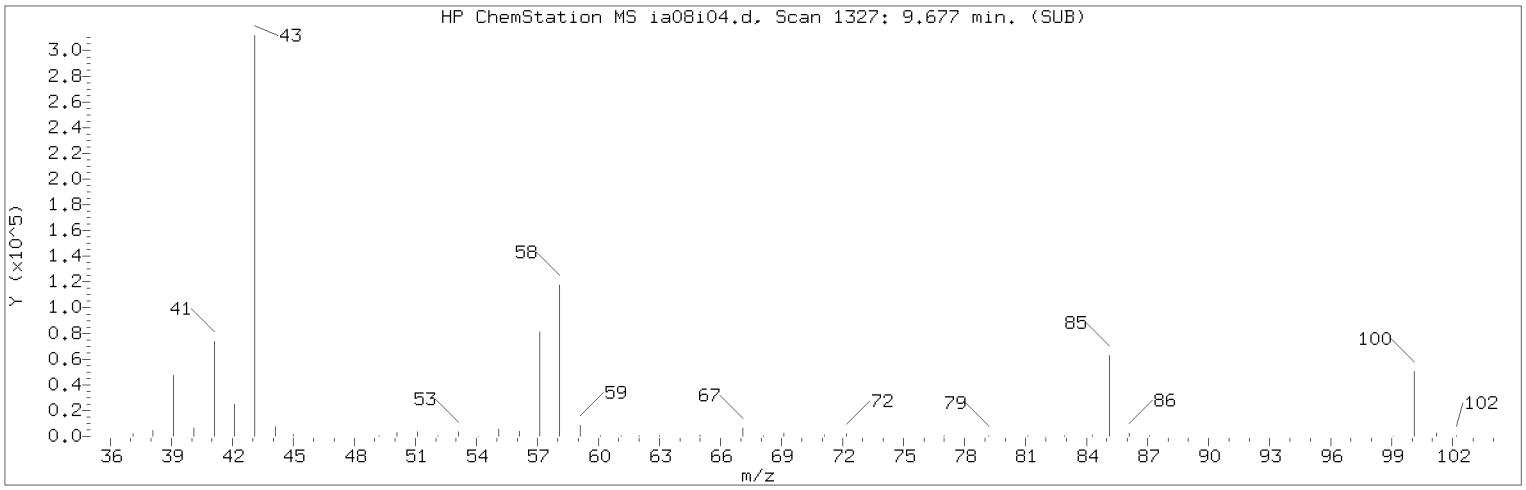
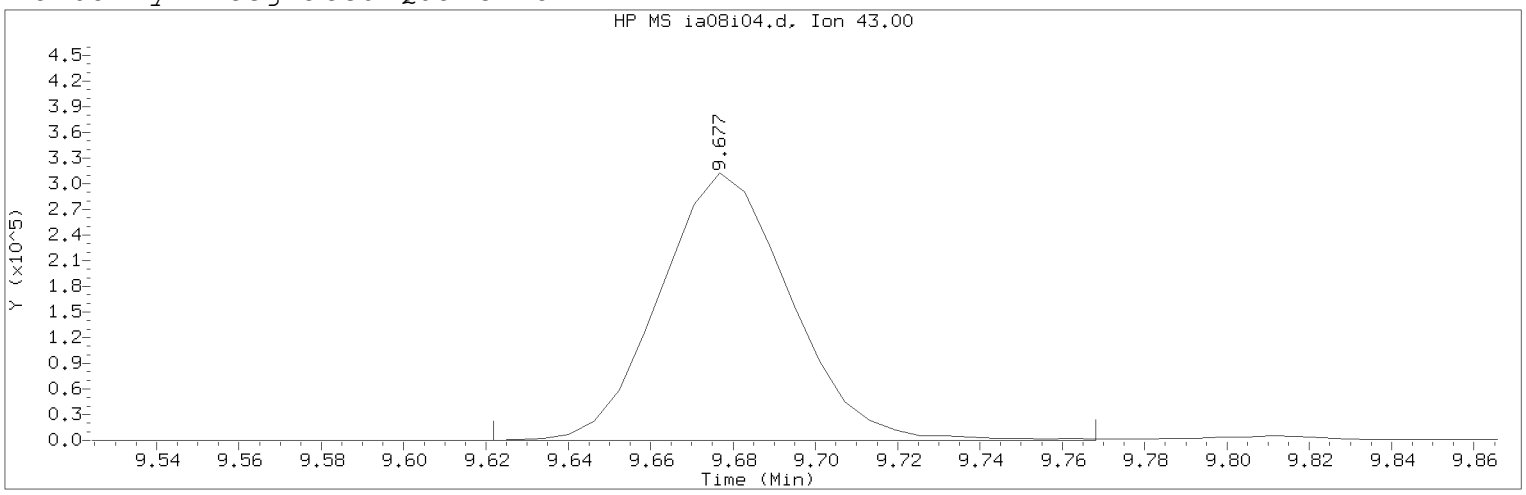
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

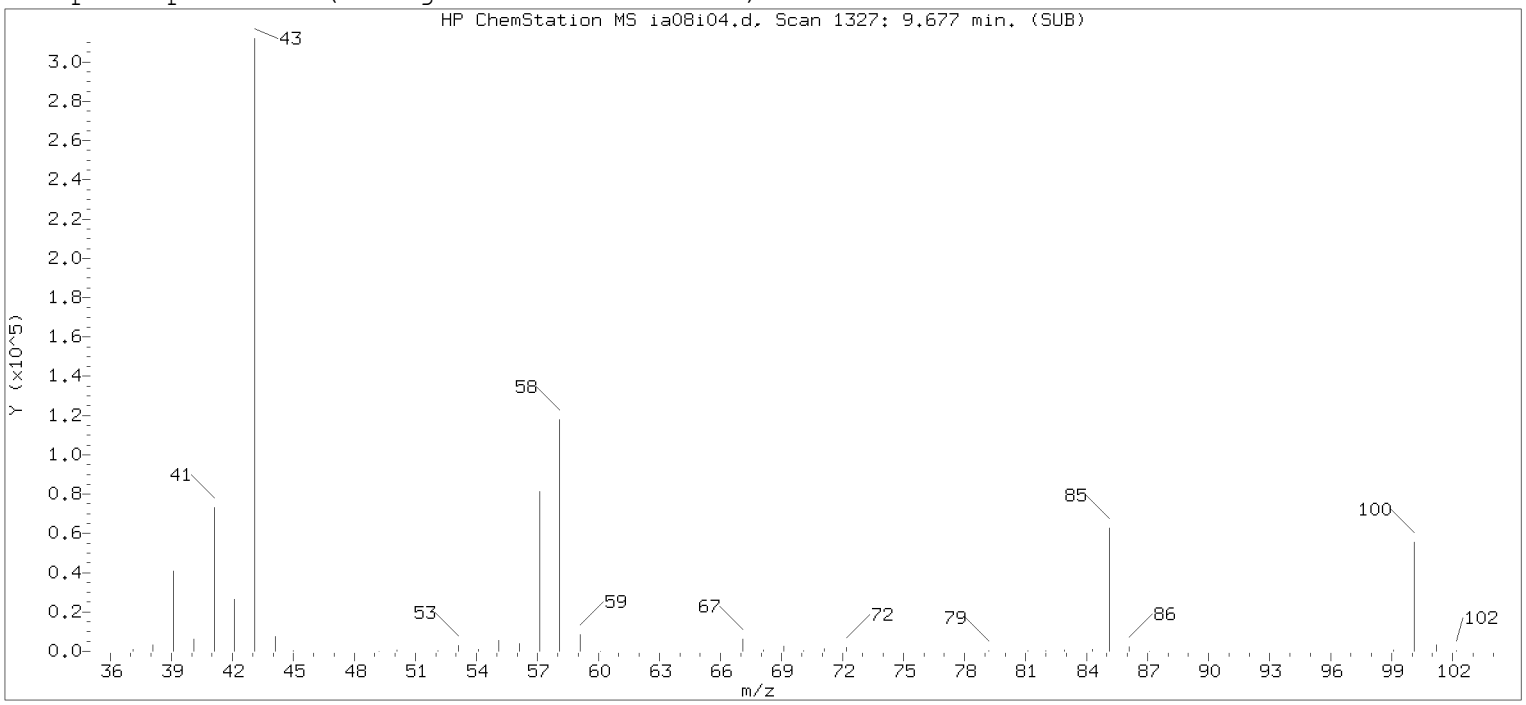
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 43.00
Area (flag) : 685525M
On-Column Amount (ng) : 19.7170
Integration start scan : 1317 Integration stop scan: 1341
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

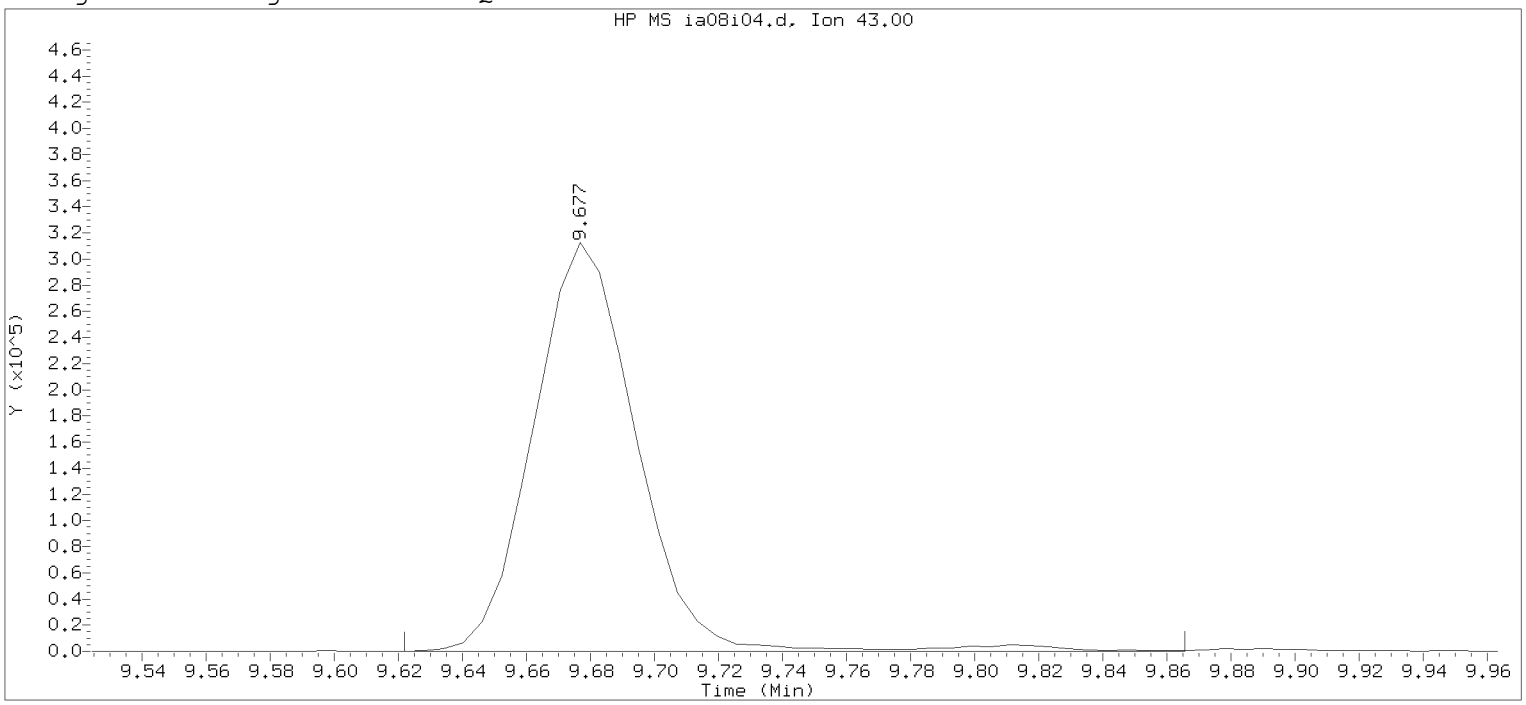
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

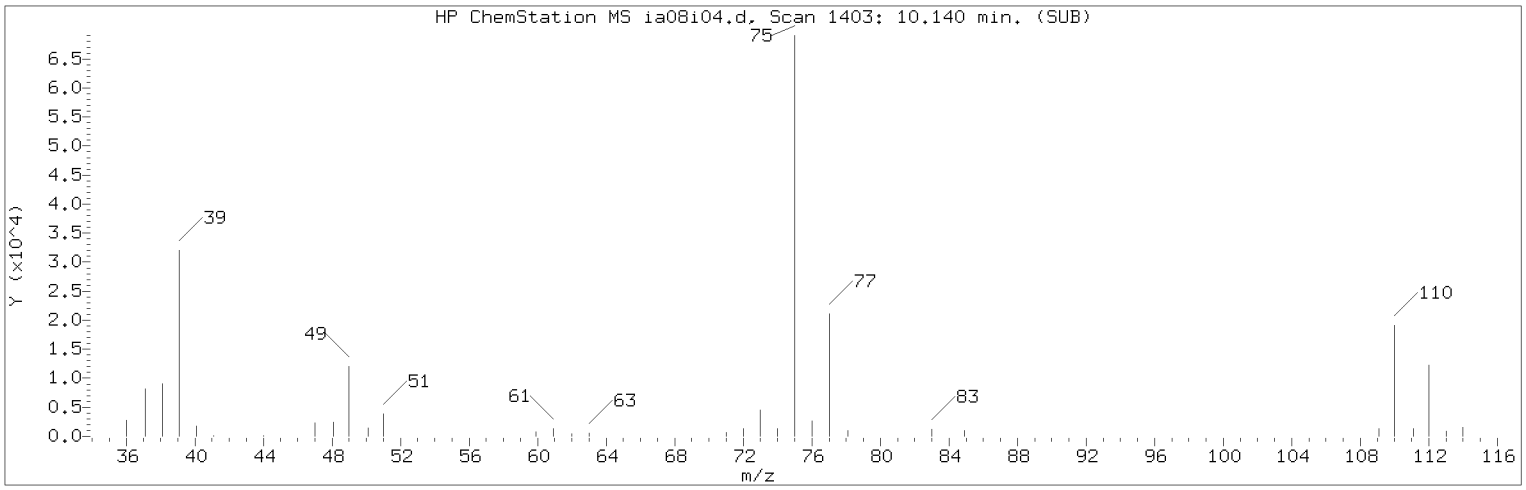
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

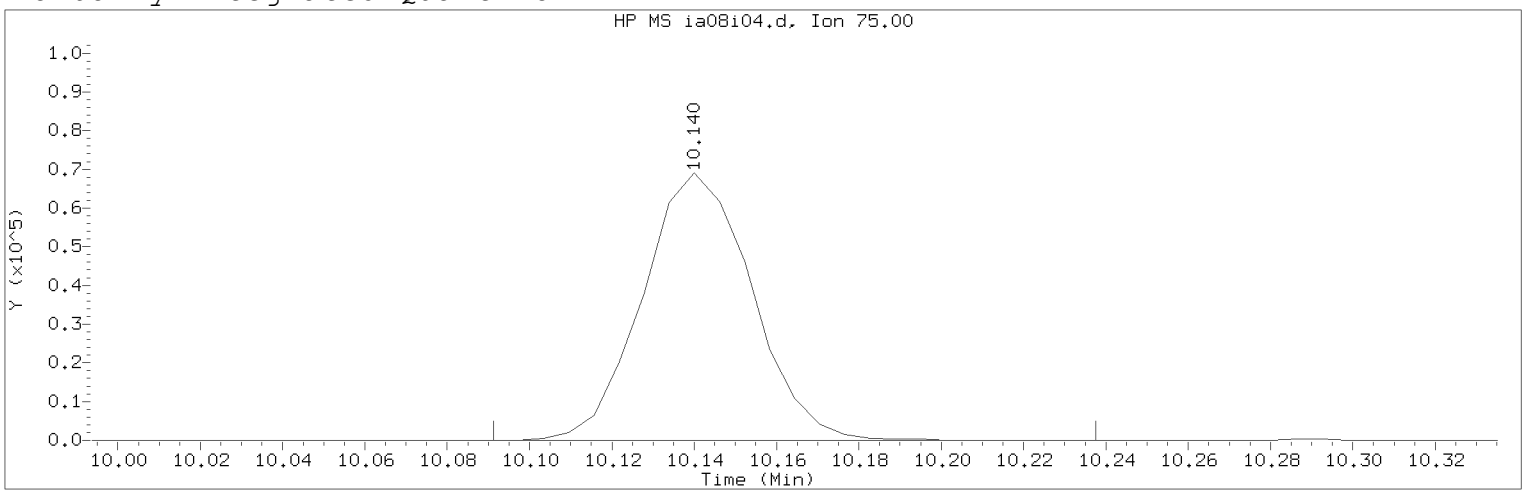
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 43.00
Area : 698112
On-column Amount (ng) : 18.5636
Integration start scan : 1317 Integration stop scan: 1357
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

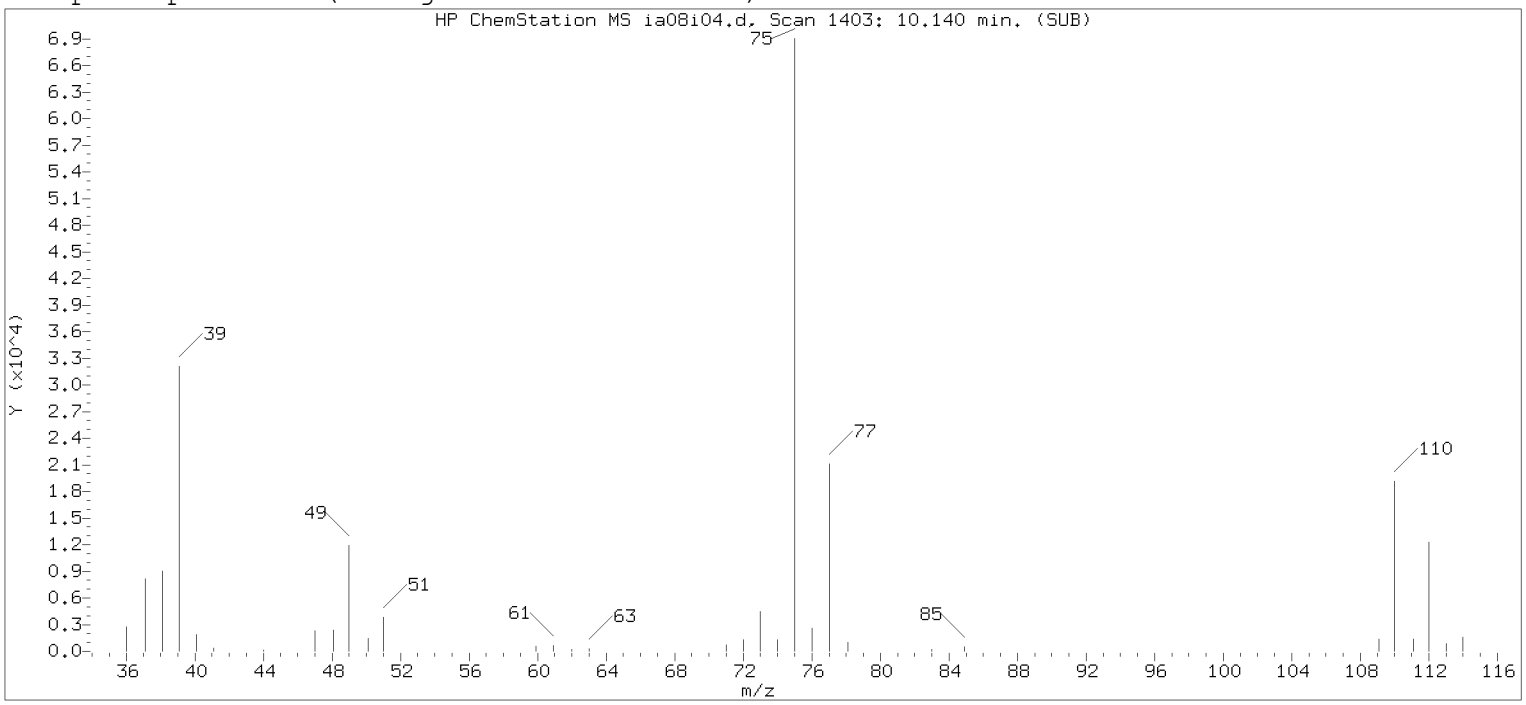
Compound Number : 84
Compound Name : trans-1,3-Dichloropropene
Scan Number : 1403
Retention Time (minutes): 10.140
Quant Ion : 75.00
Area (flag) : 126794M
On-Column Amount (ng) : 1.9672
Integration start scan : 1394 Integration stop scan: 1418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

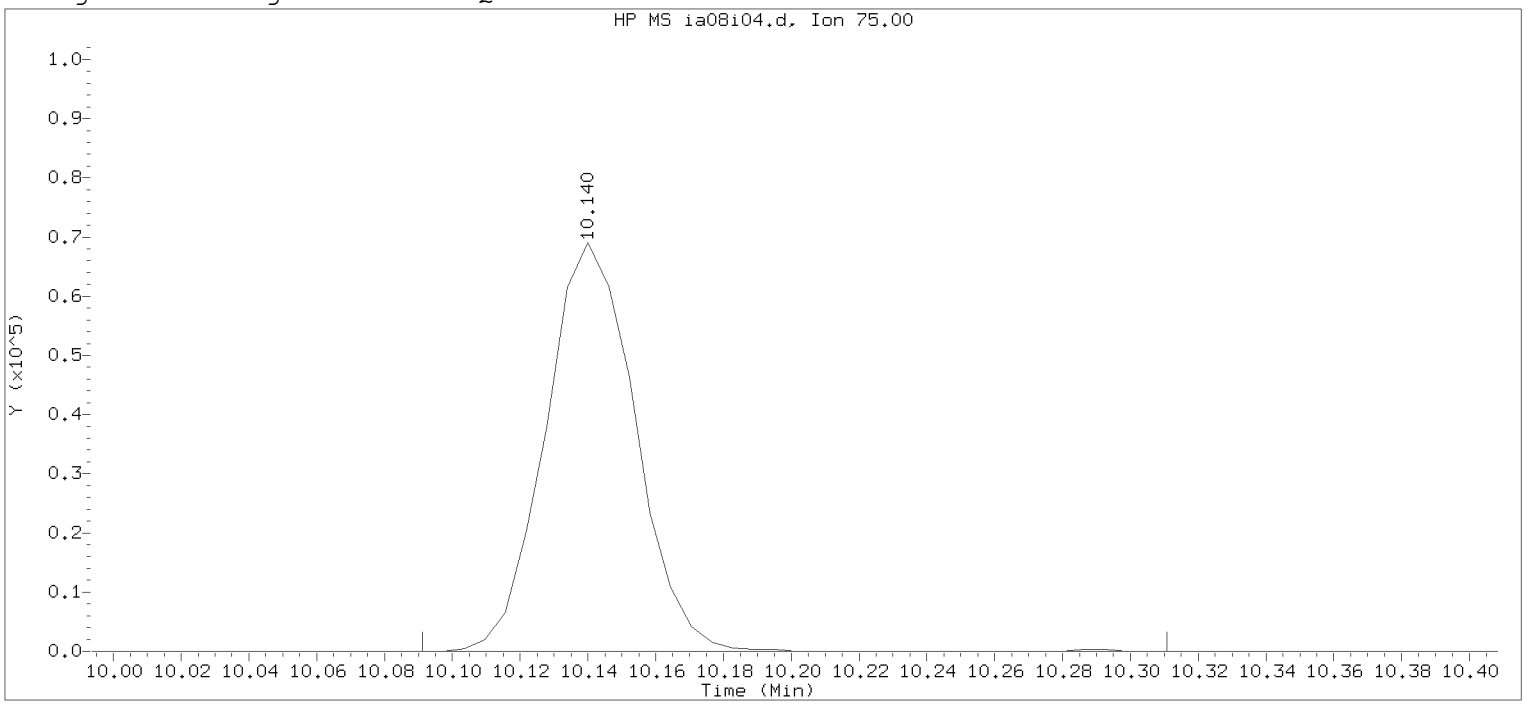
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

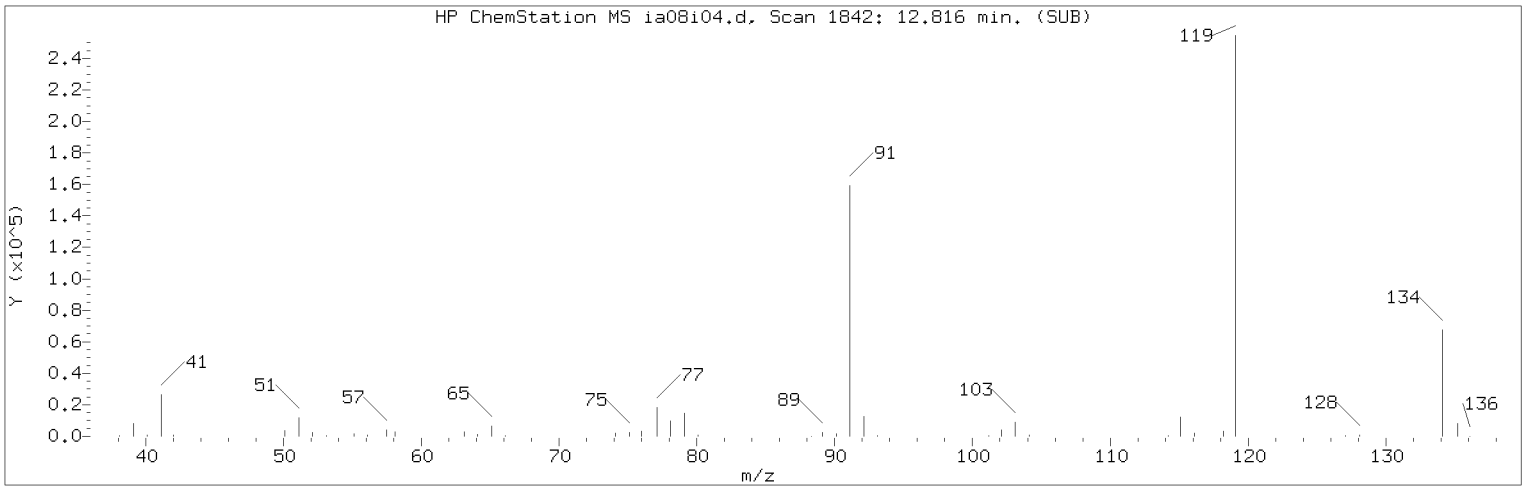
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

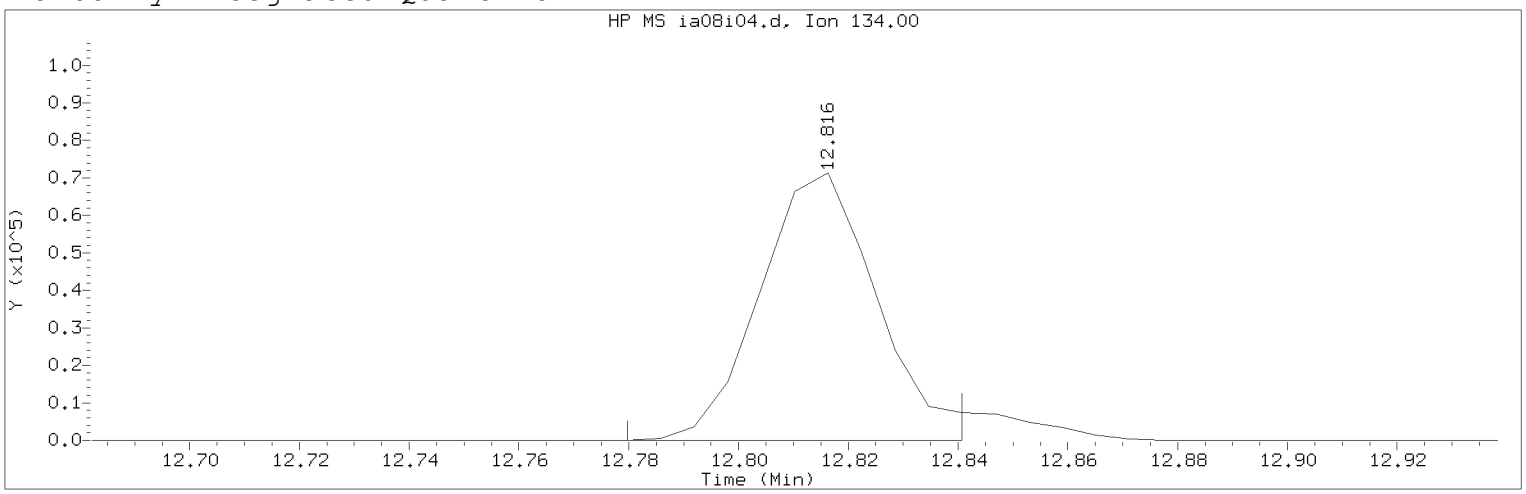
Compound Number : 84
Compound Name : trans-1,3-Dichloropropene
Scan Number : 1403
Retention Time (minutes): 10.140
Quant Ion : 75.00
Area : 127022
On-column Amount (ng) : 1.9221
Integration start scan : 1394 Integration stop scan: 1430
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

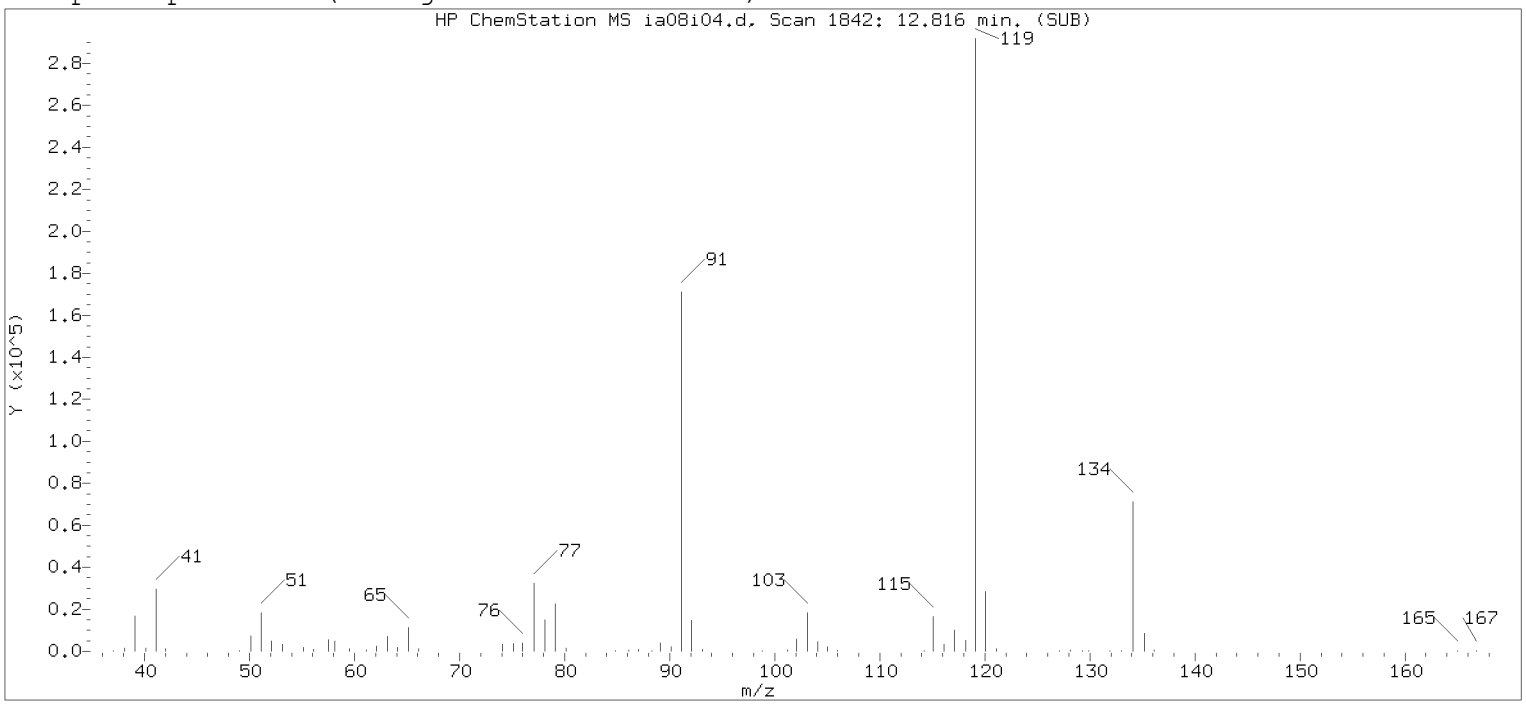
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 105634M
On-Column Amount (ng) : 1.9479
Integration start scan : 1835 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

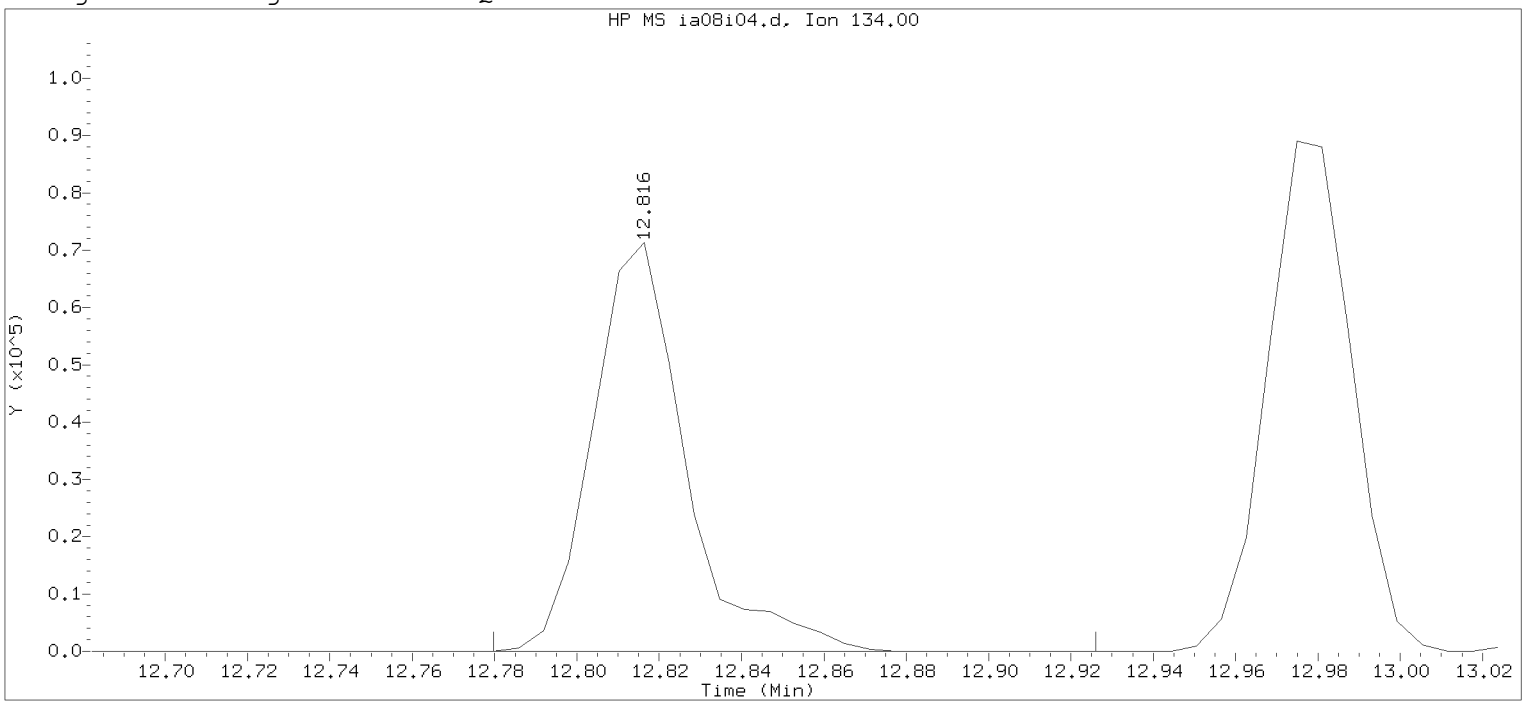
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

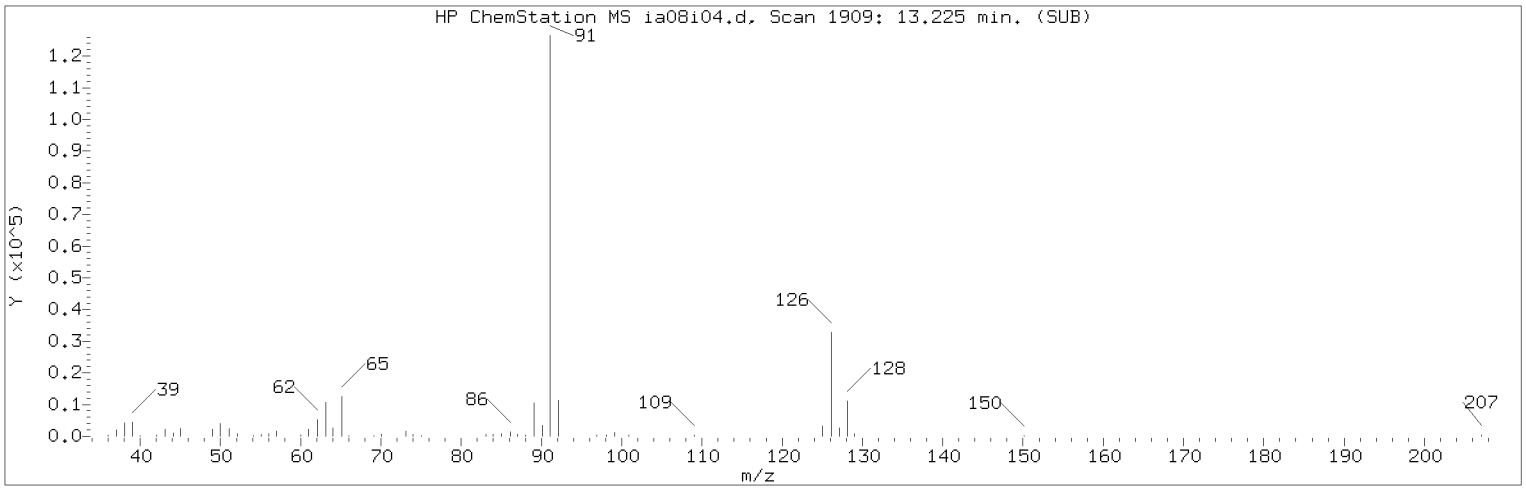
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

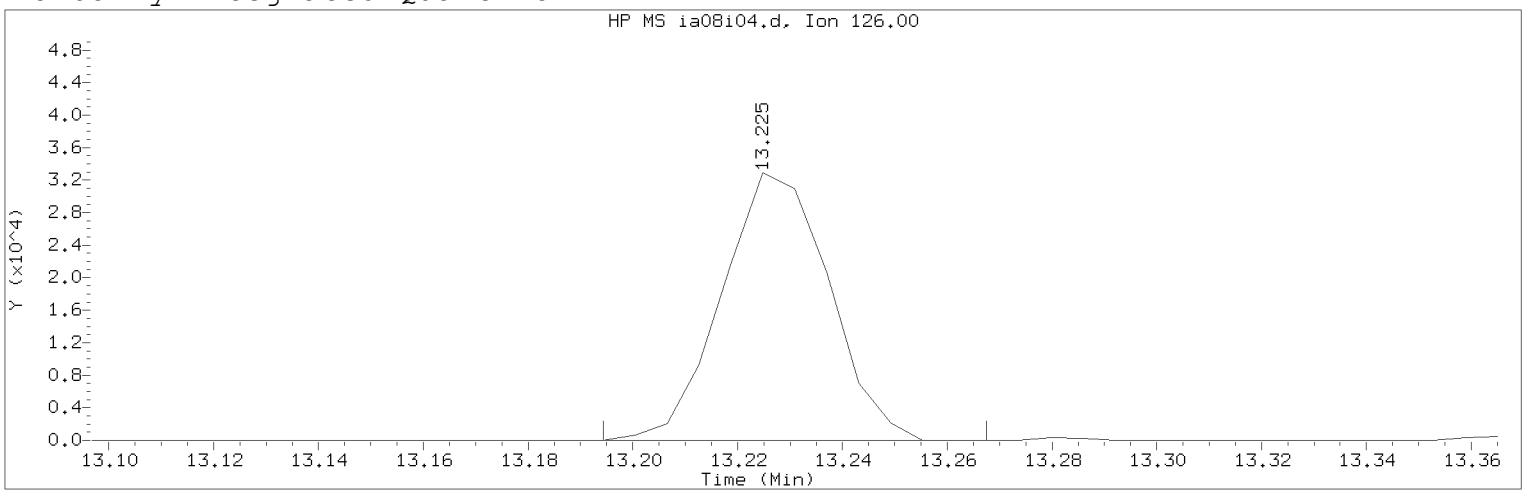
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 111803
On-column Amount (ng) : 1.9234
Integration start scan : 1835 Integration stop scan: 1859
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:04
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

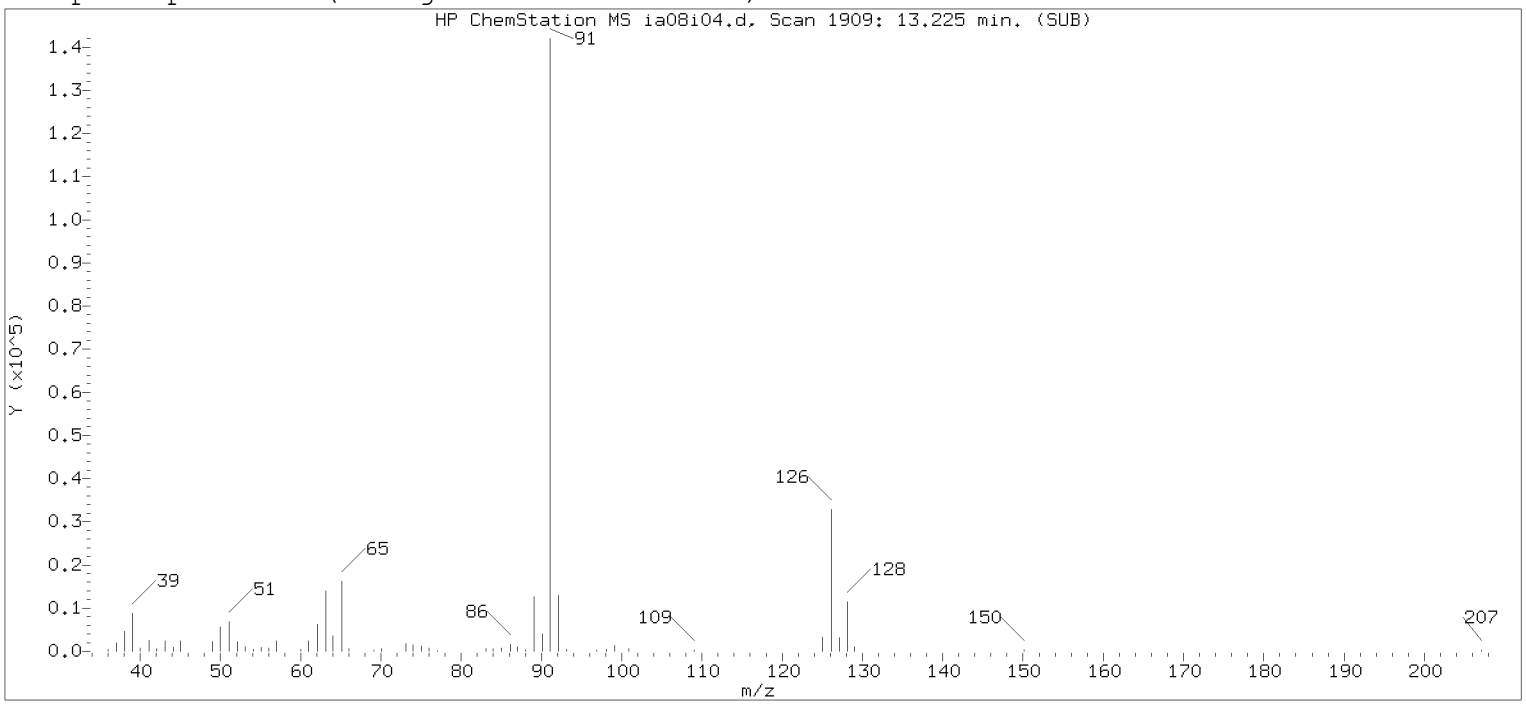
Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1909
Retention Time (minutes): 13.225
Quant Ion : 126.00
Area (flag) : 46528M
On-Column Amount (ng) : 2.0863
Integration start scan : 1903 Integration stop scan: 1915
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

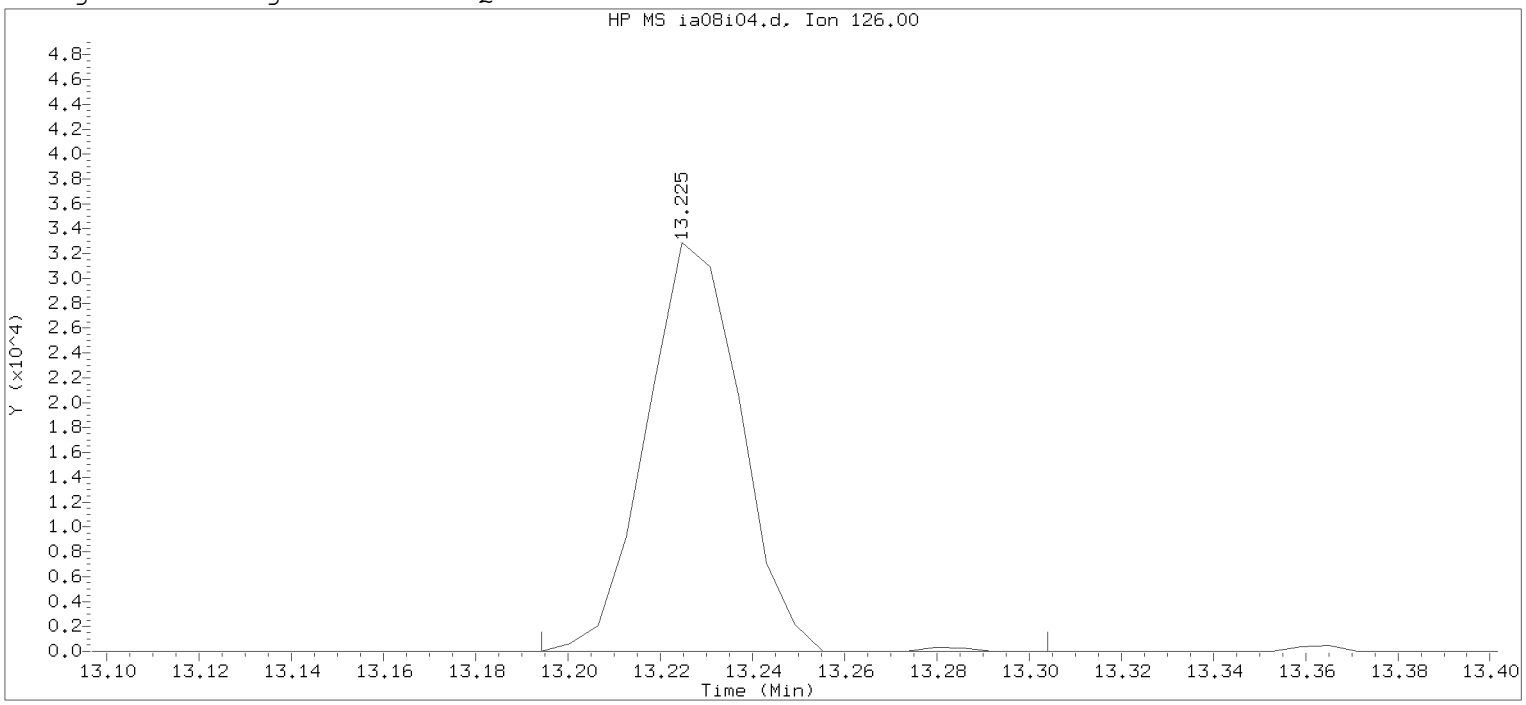
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



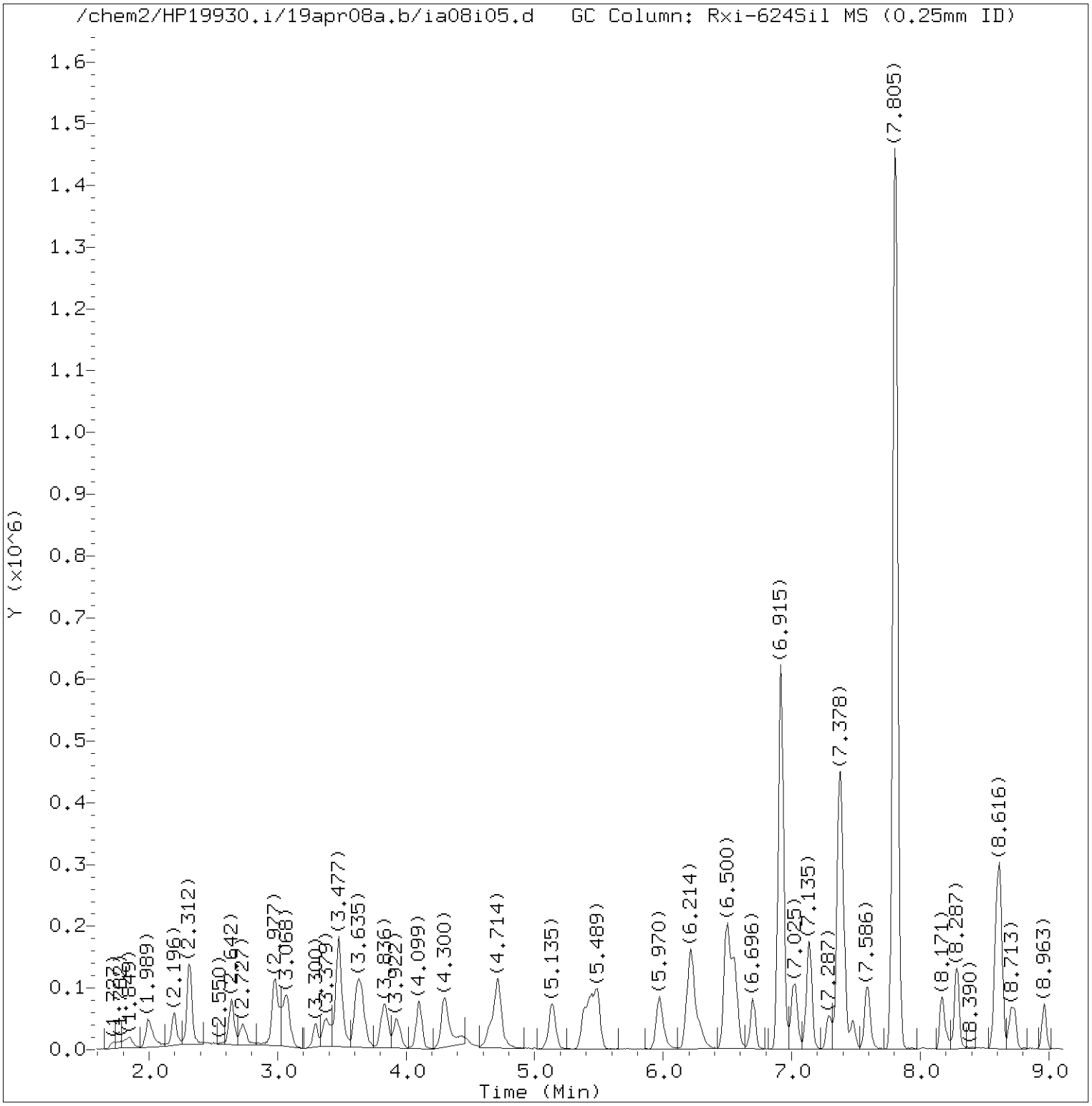
Data File: /chem2/HP19930.i/19apr08a.b/ia08i04.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1909
Retention Time (minutes): 13.225
Quant Ion : 126.00
Area : 46738
On-column Amount (ng) : 1.9308
Integration start scan : 1903 Integration stop scan: 1921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:05.
Target 3.5 esignature used. Page 1210



Total Ion Chromatogram (TIC)

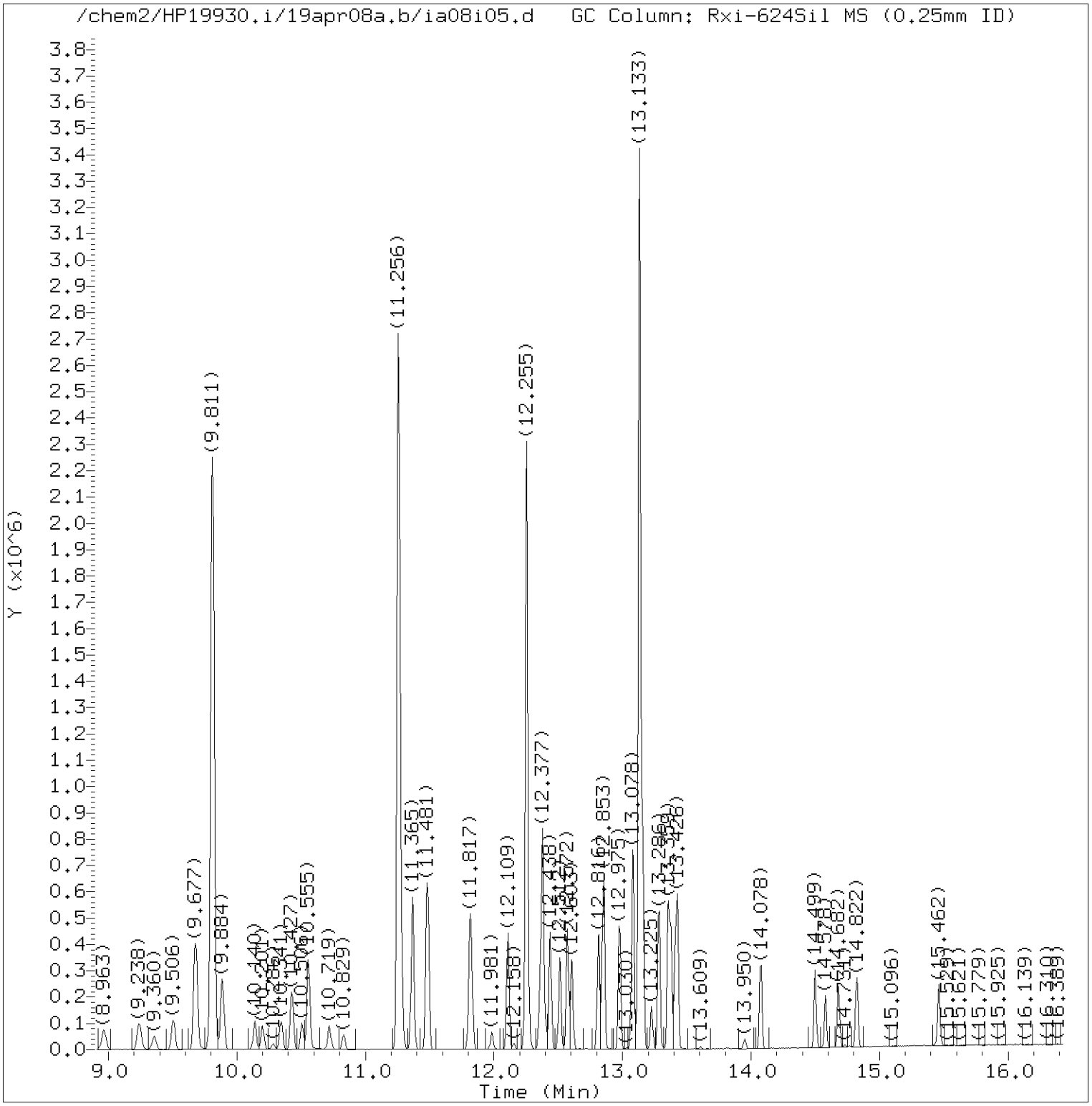
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.989	85	105481	0.980
2) Chloromethane	(2)	2.196	50	78007	0.978
5) Vinyl Chloride	(2)	2.312	62	79923	0.986
6) 1,3-Butadiene	(2)	2.318	39	66446M	0.991
7) Bromomethane	(2)	2.642	94	69055	0.958
8) Chloroethane	(2)	2.727	64	46015	0.977
9) Dichlorofluoromethane	(2)	2.983	67	117635	0.966
10) Trichlorofluoromethane	(2)	3.038	101	131337	0.969
11) Ethyl ether	(2)	3.294	59	35099	0.984
12) Freon 123a	(2)	3.367	67	60393MA	0.991
13) Acrolein	(1)	3.477	56	295518	47.787
15) 1,1-Dichloroethene	(2)	3.617	96	45957	0.978
16) Freon 113	(2)	3.647	101	57095	1.006
14) Acetone	(1)	3.660	43	81908	9.596
17) Methyl Iodide	(2)	3.812	142	97815	0.971
18) Carbon Disulfide	(2)	3.934	76	131366	0.955
21) Methyl Acetate	(1)	4.080	43	22698	1.006
22) Allyl Chloride	(2)	4.099	41	72903	1.009
23) Methylene Chloride	(2)	4.294	84	47651	0.991
26)*t-Butyl Alcohol-d10	(1)	4.306	65	145694	50.000
28) t-Butyl Alcohol	(1)	4.434	59	69150M	19.544
29) Acrylonitrile	(1)	4.647	53	49508	4.849
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	121987	0.993
31) trans-1,2-Dichloroethene	(2)	4.714	96	50822	0.967
32) n-Hexane	(2)	5.141	57	71476	0.966
33) 1,1-Dichloroethane	(2)	5.385	63	84778	0.991
34) di-Isopropyl Ether	(2)	5.440	45	137792	0.960
35) 2-Chloro-1,3-Butadiene	(2)	5.489	53	74445	0.969
37) Ethyl t-butyl ether	(2)	5.970	59	139486	0.979
40) 1,2-Dichloroethene (Total)	(2)		96	107571	1.935
38) 2-Butanone	(1)	6.183	43	131108	9.456
39) cis-1,2-Dichloroethene	(2)	6.214	96	56749	0.969
41) 2,2-Dichloropropane	(2)	6.220	77	77206	0.970
42) Propionitrile	(1)	6.293	54	72382	19.443
45) Methacrylonitrile	(1)	6.494	67	129916	9.483
47) Bromochloromethane	(2)	6.555	128	30141	1.045
48) Tetrahydrofuran	(1)	6.561	71	40853	9.423
49) Chloroform	(2)	6.702	83	92484	0.992

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

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on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	476944	10.003
50)$Dibromofluoromethane	(2)	6.915	111	487012	9.993
51) 1,1,1-Trichloroethane	(2)	6.921	97	88192	0.979
52) Cyclohexane	(2)	7.013	56	84789	0.957
52) Cyclohexane	(2)	7.025	84	82713M	0.990
52) Cyclohexane	(2)	7.019	69	29090M	1.000
54) Carbon Tetrachloride	(2)	7.135	117	82170	0.966
55) 1,1-Dichloropropene	(2)	7.135	75	67730	0.971
56) Isobutyl Alcohol	(1)	7.287	41	52826	48.341
57)$1,2-Dichloroethane-d4	(2)	7.372	102	92066	10.019
57)$1,2-Dichloroethane-d4	(2)	7.372	65	406119	9.861
57)$1,2-Dichloroethane-d4	(2)	7.378	104	57696	9.946
58) Benzene	(2)	7.403	78	198011	0.966
59) 1,2-Dichloroethane	(2)	7.476	62	53590	0.974
59) 1,2-Dichloroethane	(2)	7.476	98	5182	1.010
60) t-Amyl methyl ether	(2)	7.592	73	132802	0.966
62) n-Heptane	(2)	7.805	43	72730	0.957
63)*Fluorobenzene	(2)	7.805	96	1847494	10.000
65) n-Butanol	(1)	8.171	56	89444	98.090
67) Trichloroethene	(2)	8.281	95	54435	0.949
69) Methylcyclohexane	(2)	8.592	83	106280	1.037
70) 1,2-Dichloropropane	(2)	8.628	63	45676	0.962
71) Methyl Methacrylate	(1)	8.701	69	25052	0.955
72) 1,4-Dioxane	(1)	8.707	88	11737M	52.353
72) 1,4-Dioxane	(1)	8.713	58	6977M	52.225
73) Dibromomethane	(2)	8.738	93	25925	0.971
74) Bromodichloromethane	(2)	8.963	83	62864	0.954
76) 2-Nitropropane	(1)	9.244	41	81161	9.302
80) cis-1,3-Dichloropropene	(2)	9.506	75	71032	0.950
81) 4-Methyl-2-Pentanone	(1)	9.677	43	325711	9.279
82)$Toluene-d8	(3)	9.811	98	1812736	10.031
82)$Toluene-d8	(3)	9.811	100	1167000	10.069
83) Toluene	(3)	9.890	92	130574	0.961
84) trans-1,3-Dichloropropene	(3)	10.140	75	59917	0.936
85) 1,3-Dichloropropene (total)	(3)		75	130949	1.886
86) Ethyl Methacrylate	(3)	10.201	69	50400	0.932
88) 1,1,2-Trichloroethane	(3)	10.341	97	36175	0.964
89) Tetrachloroethene	(3)	10.427	166	71017	0.988

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	58056	0.961
91) 2-Hexanone	(1)	10.555	43	230891	9.277
93) Dibromochloromethane	(3)	10.719	129	47961	0.940
95) 1,2-Dibromoethane	(3)	10.829	107	36700	0.960
97)*Chlorobenzene-d5	(3)	11.256	117	1473334	10.000
96) 1-Chlorohexane	(3)	11.262	91	79384	0.970
98) Chlorobenzene	(3)	11.286	112	151831	0.973
100) Ethylbenzene	(3)	11.365	91	260656	0.955
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	56486	0.960
101) m+p-Xylene	(3)	11.481	106	208258	1.917
105) Xylene (Total)	(3)		106	310716	2.893
104) o-Xylene	(3)	11.810	106	102458	0.977
106) Styrene	(3)	11.829	104	158859	0.955
107) Bromoform	(3)	11.981	173	28575	0.910
108) Isopropylbenzene	(3)	12.109	105	276125	0.975
111)$4-Bromofluorobenzene	(3)	12.255	95	678569	10.020
111)$4-Bromofluorobenzene	(3)	12.255	174	648778	10.008
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	45166	0.957
114) Bromobenzene	(4)	12.371	156	68222	0.950
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	111006	9.018
116) 1,2,3-Trichloropropane	(4)	12.402	110	13304	0.950
117) n-Propylbenzene	(4)	12.438	91	306477	0.954
119) 2-Chlorotoluene	(4)	12.512	126	66629	0.964
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	227524	0.959
122) 4-Chlorotoluene	(4)	12.603	126	67843	0.977
125) tert-Butylbenzene	(4)	12.816	134	52604M	0.973
126) Pentachloroethane	(4)	12.847	167	48426	1.017
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	230949	0.955
128) sec-Butylbenzene	(4)	12.975	105	291306M	0.948
131) 1,3-Dichlorobenzene	(4)	13.078	146	132180	0.961
132) p-Isopropyltoluene	(4)	13.085	119	251672	0.934
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	826954	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	132031	0.961
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	112760	0.998
136) Benzyl Chloride	(4)	13.225	126	20584	0.926
138) n-Butylbenzene	(4)	13.377	92	115249	0.940
139) 1,2-Dichlorobenzene	(4)	13.408	146	119384	0.951
143) 1,2-Dibromo-3-chloropropane	(1)	13.956	155	7672	0.961

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	93002	0.928
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	81037	0.922
146) Hexachlorobutadiene	(4)	14.584	225	31939	0.889
147) Naphthalene	(4)	14.682	128	164279	0.933
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	75517	0.954

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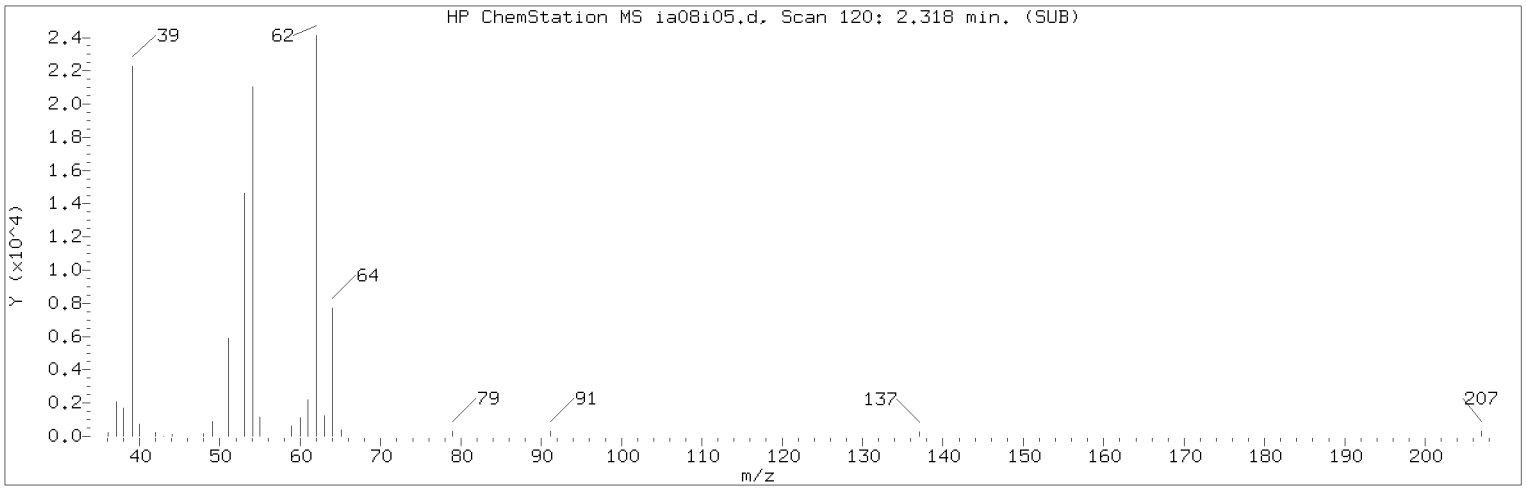
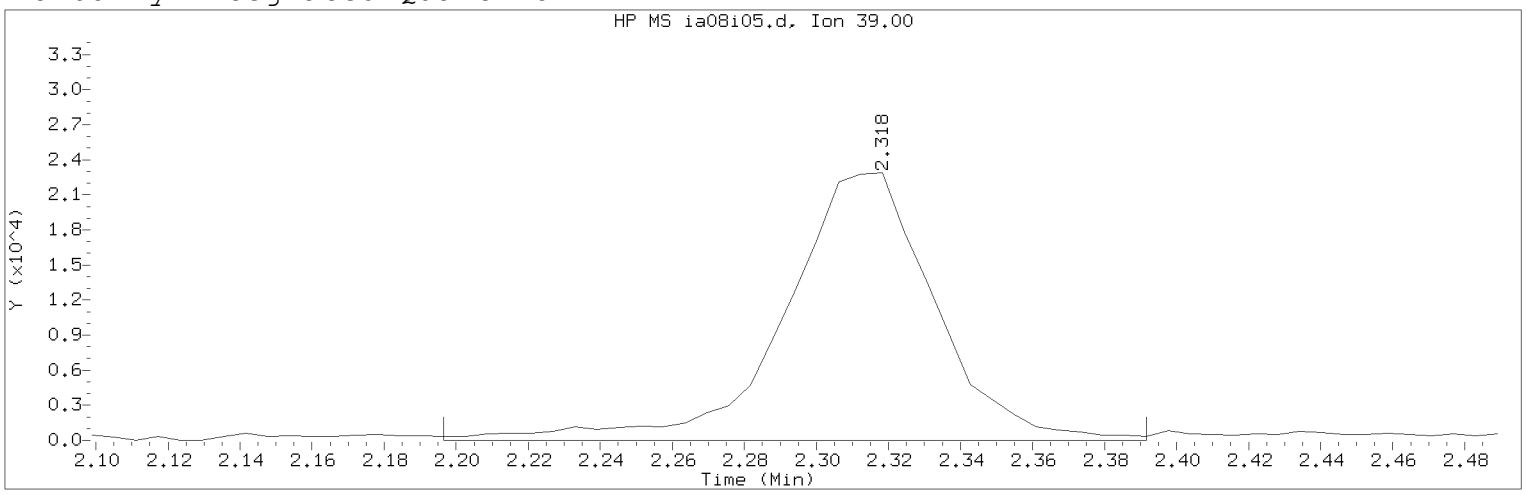
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

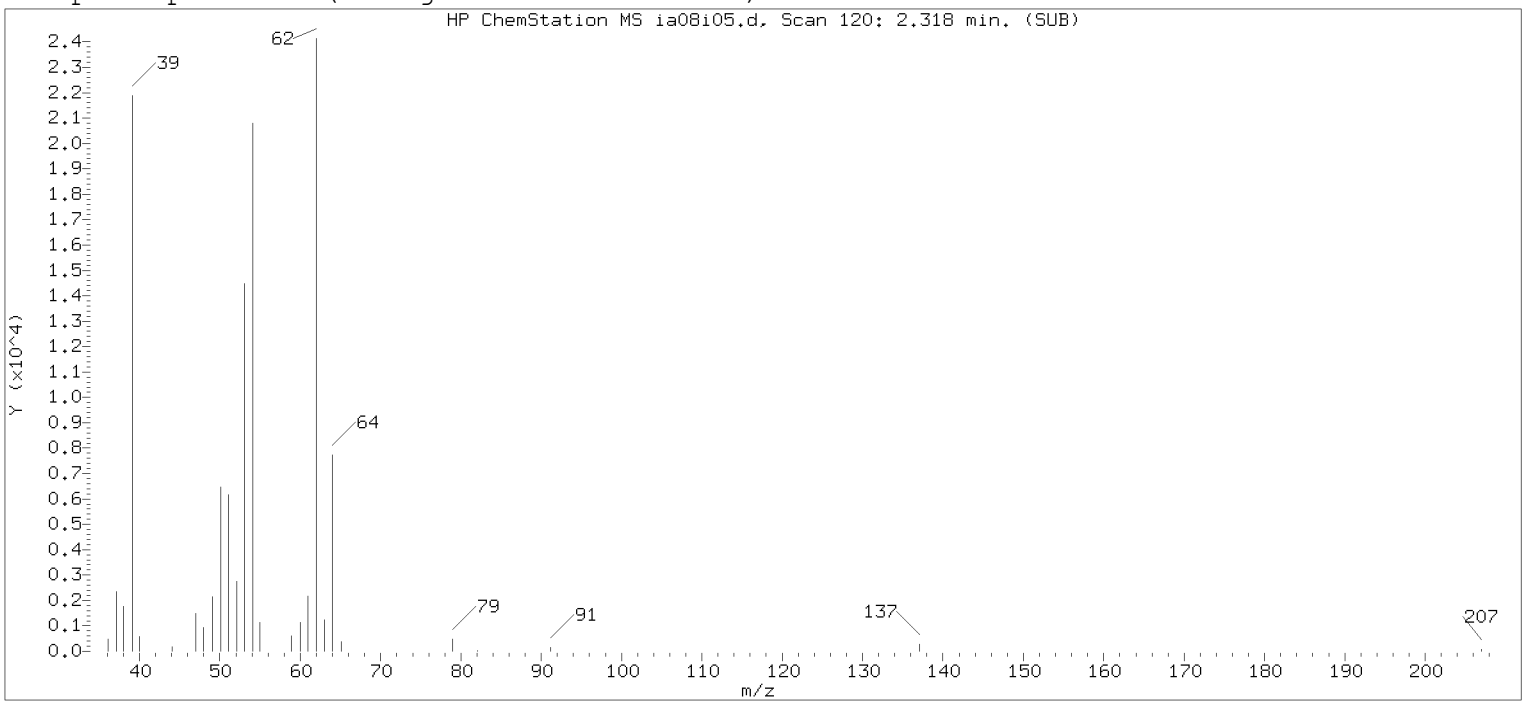
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 120
Retention Time (minutes): 2.318
Quant Ion : 39.00
Area (flag) : 66446M
On-Column Amount (ng) : 0.9908
Integration start scan : 99 Integration stop scan: 131
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

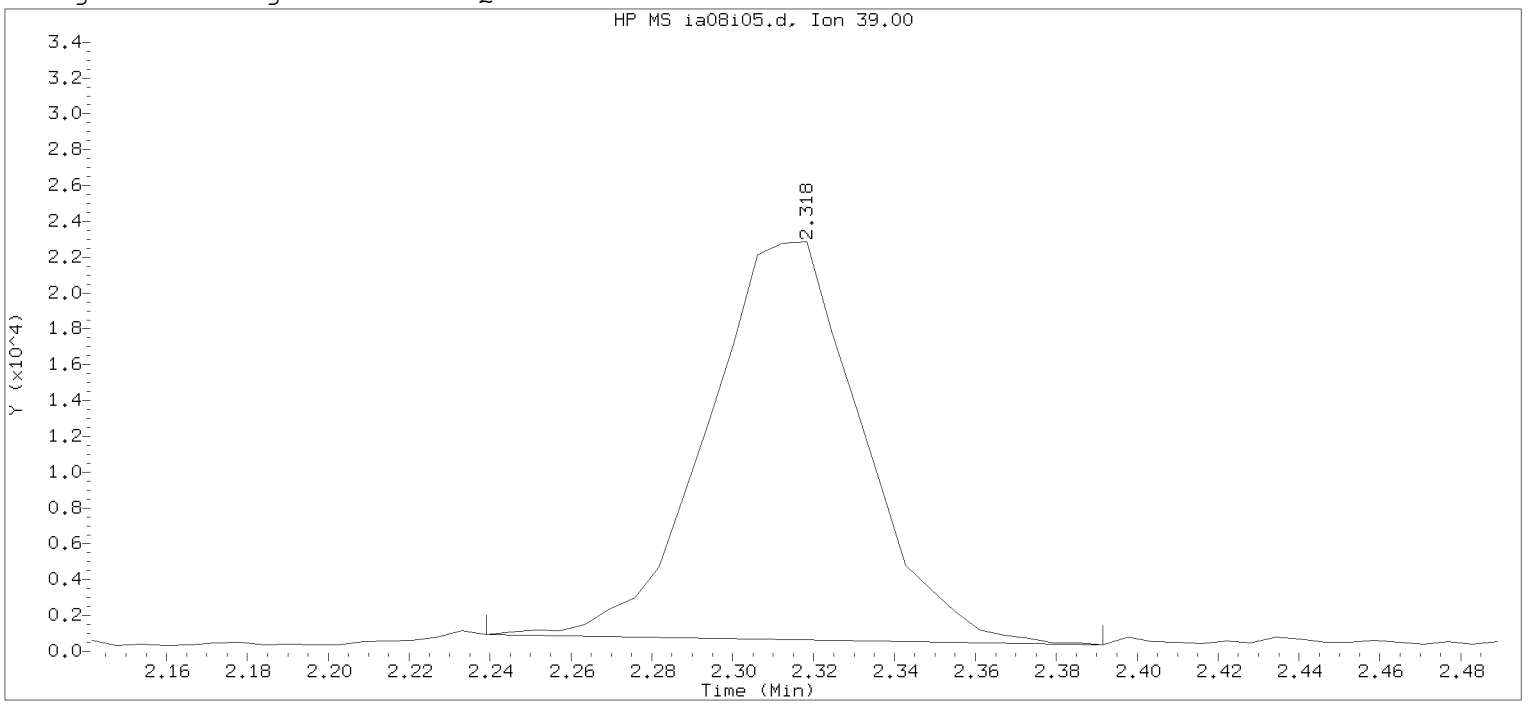
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 120
Retention Time (minutes): 2.318
Quant Ion : 39.00
Area : 58738
On-column Amount (ng) : 0.9784
Integration start scan : 106 Integration stop scan: 131
Y at integration start : 927 Y at integration end: 356

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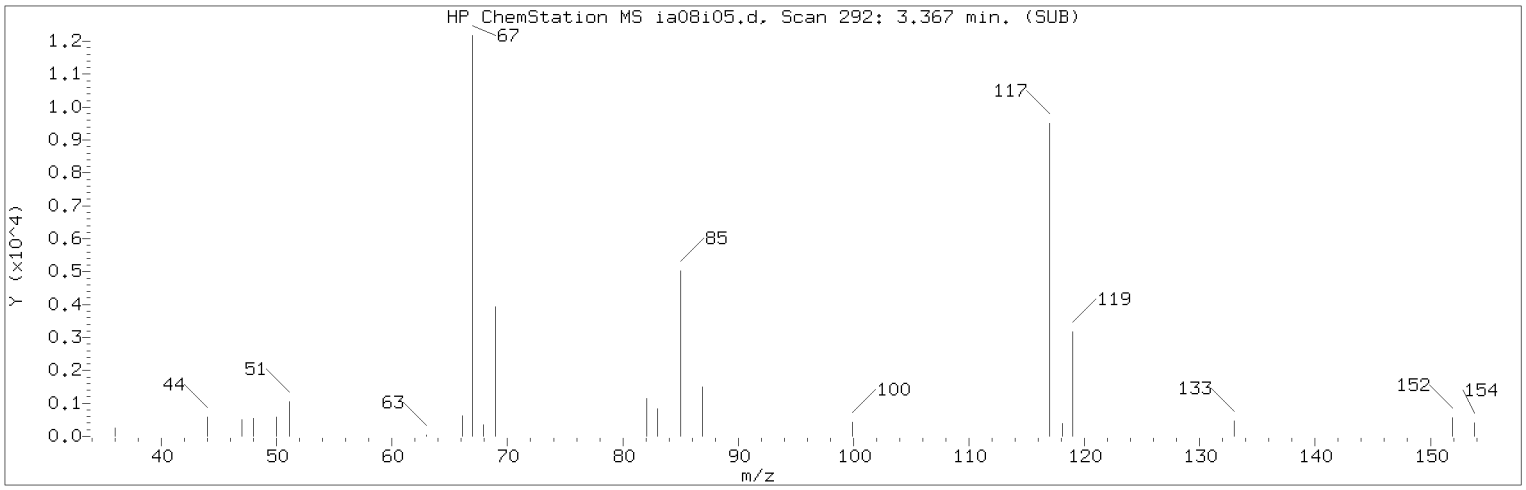
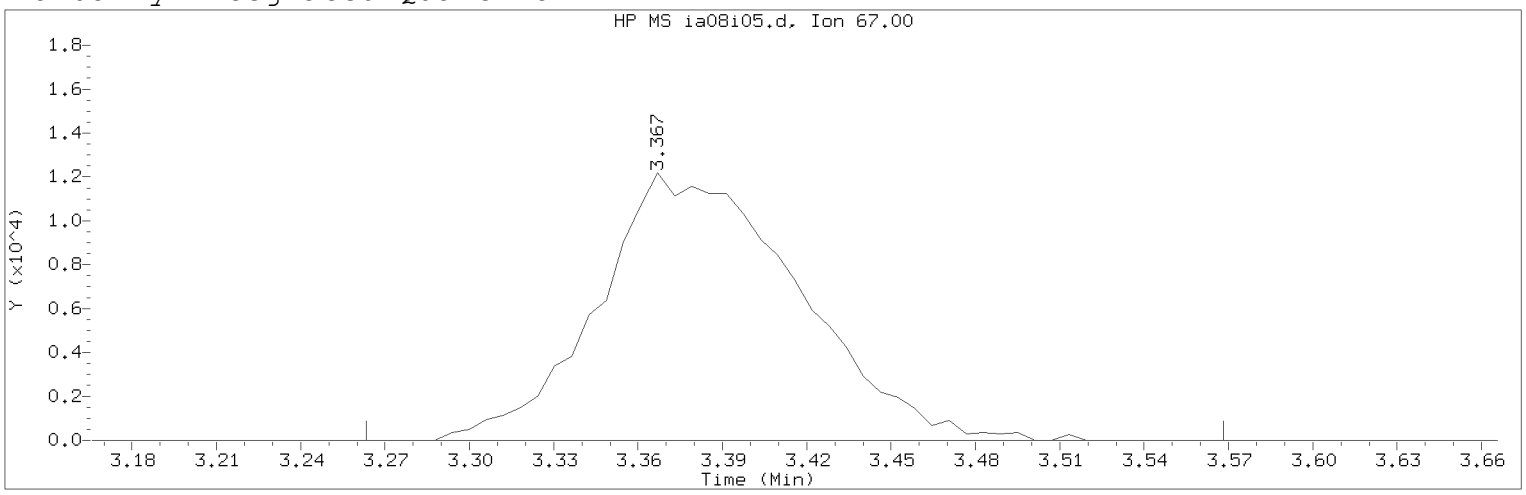
Target 3.5 esignature user: F35 Page 1218

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

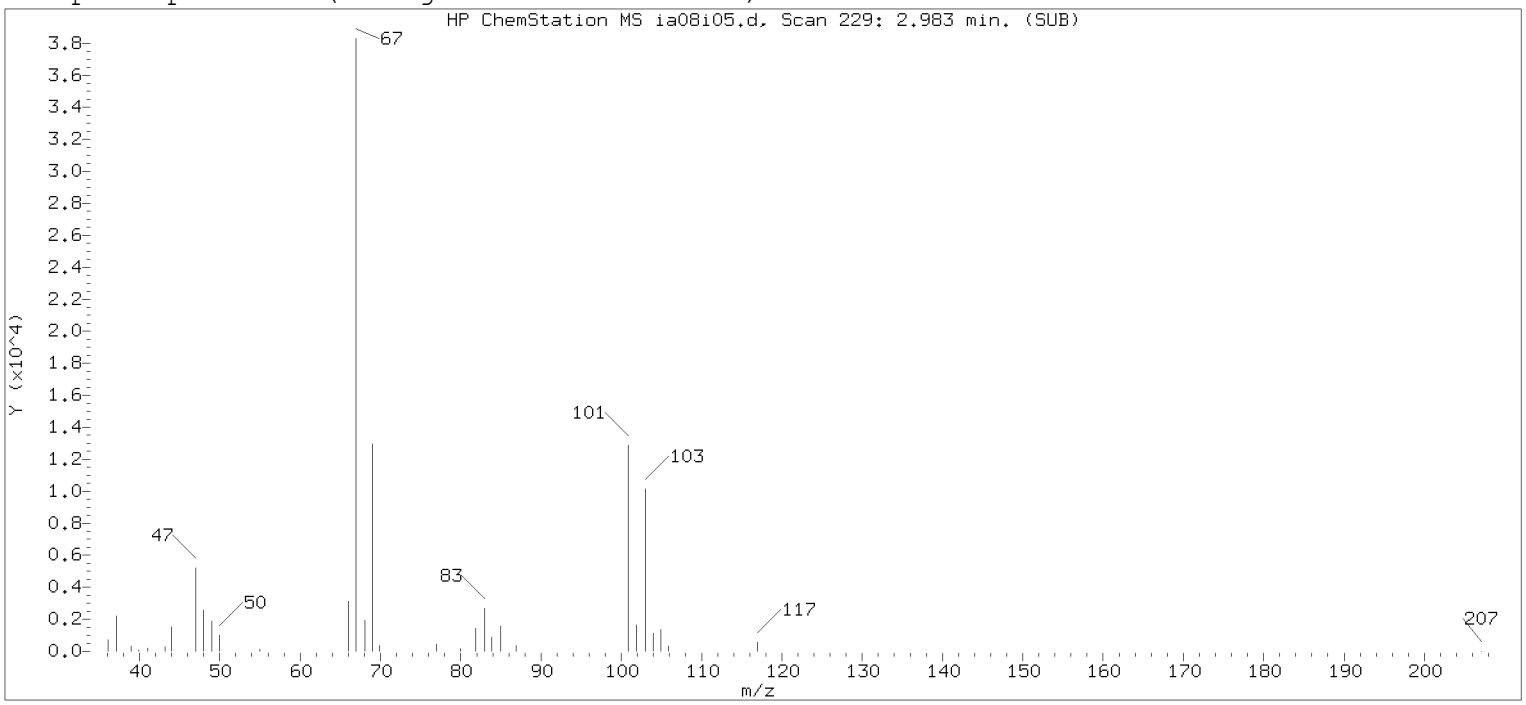
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 292
Retention Time (minutes): 3.367
Quant Ion : 67.00
Area (flag) : 60393MA
On-Column Amount (ng) : 0.9914
Integration start scan : 274 Integration stop scan: 324
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

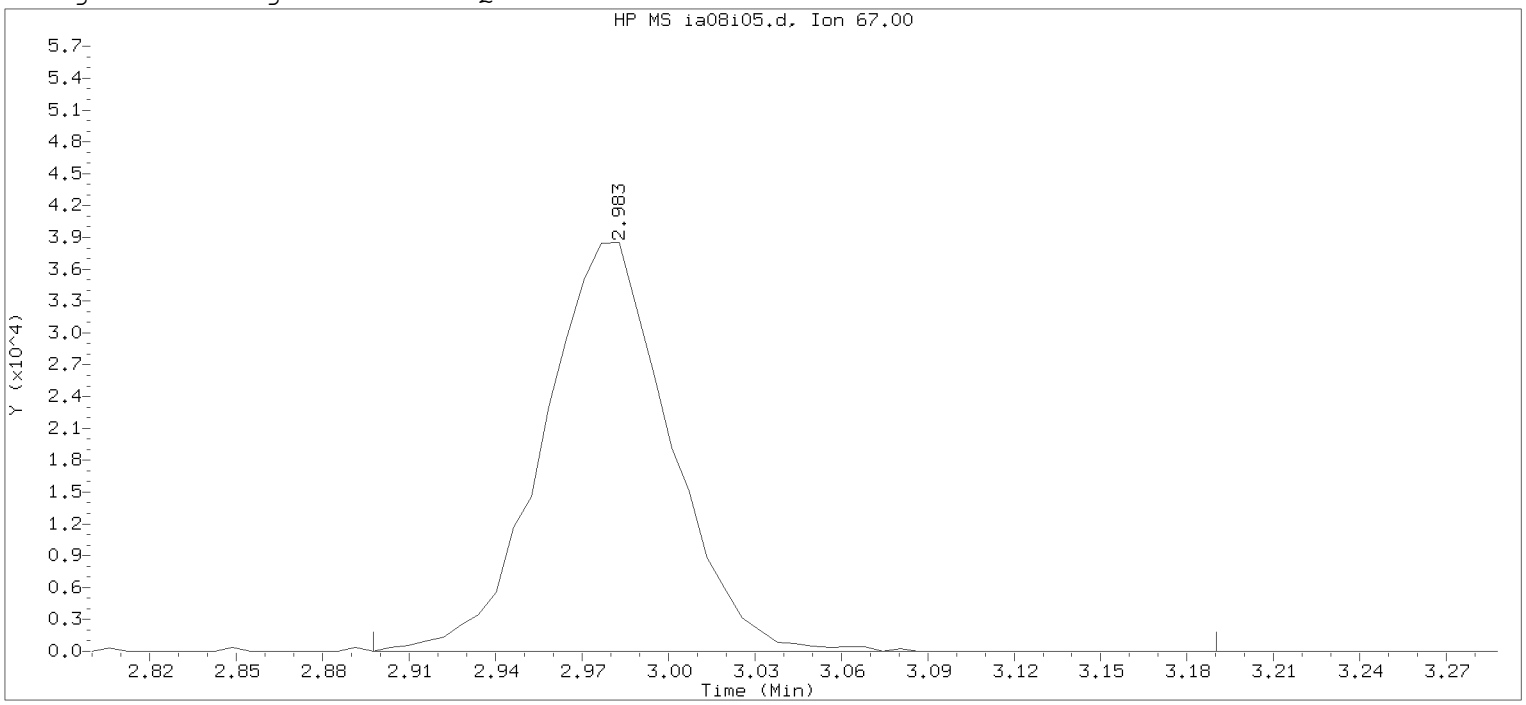
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 12
Compound Name : Freon 123a
Scan Number : 229
Retention Time (minutes): 2.983
Quant Ion : 67.00
Area : 117498
On-column Amount (ng) : 0.9703
Integration start scan : 214 Integration stop scan: 262
Y at integration start : 0 Y at integration end: 0

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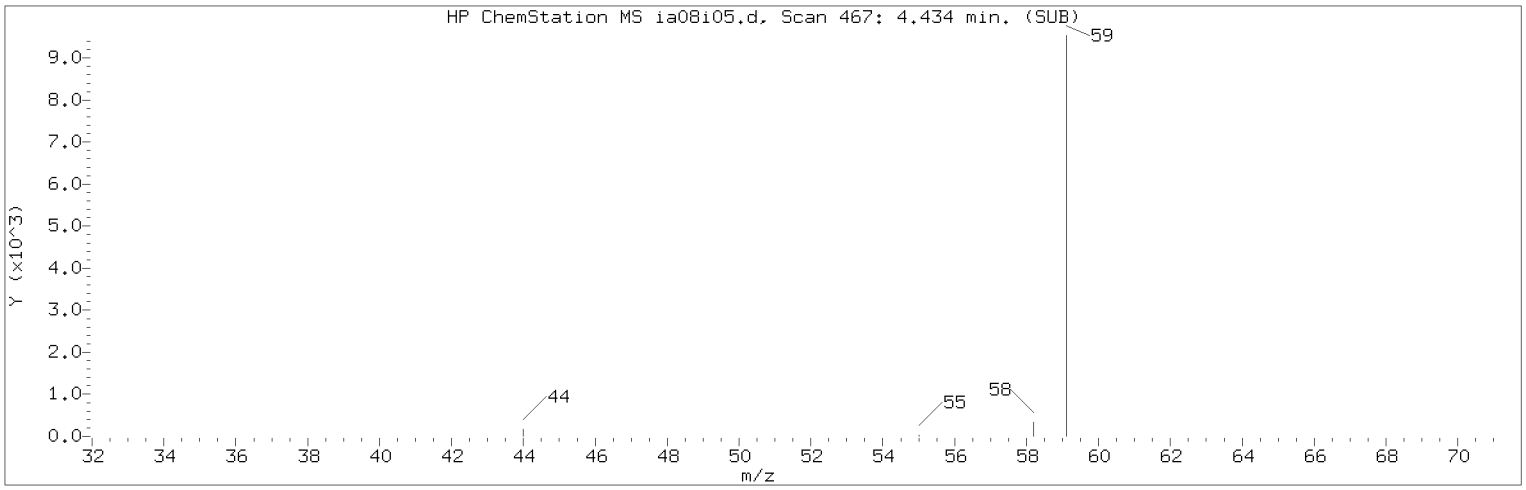
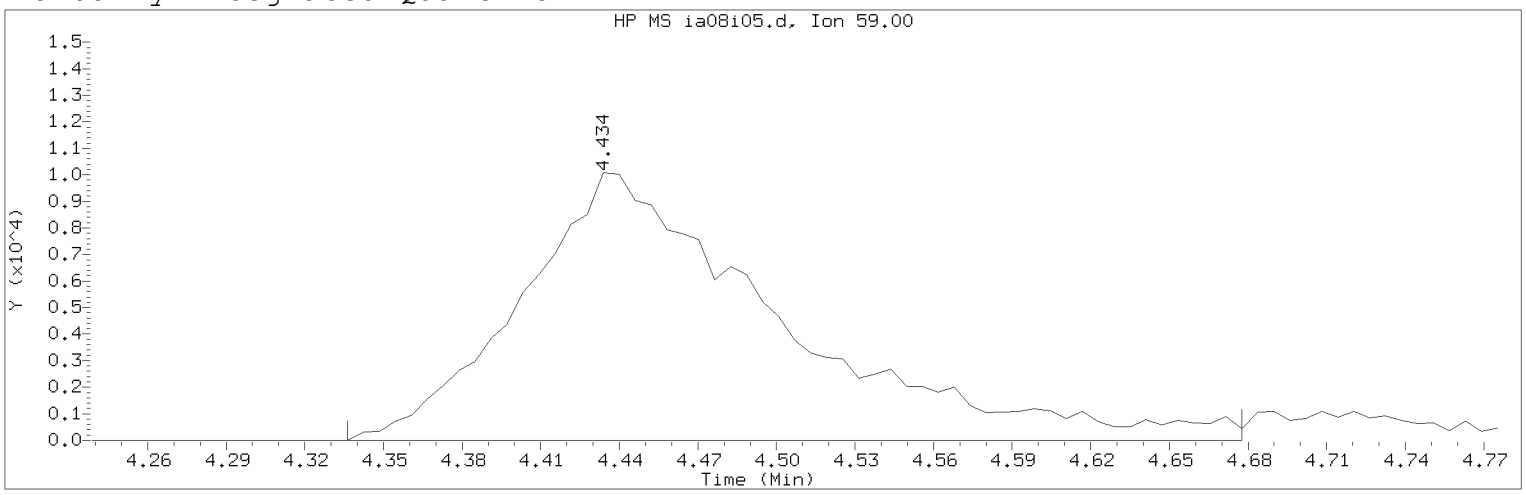
Target 3.5 esignature user: Page 1220

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

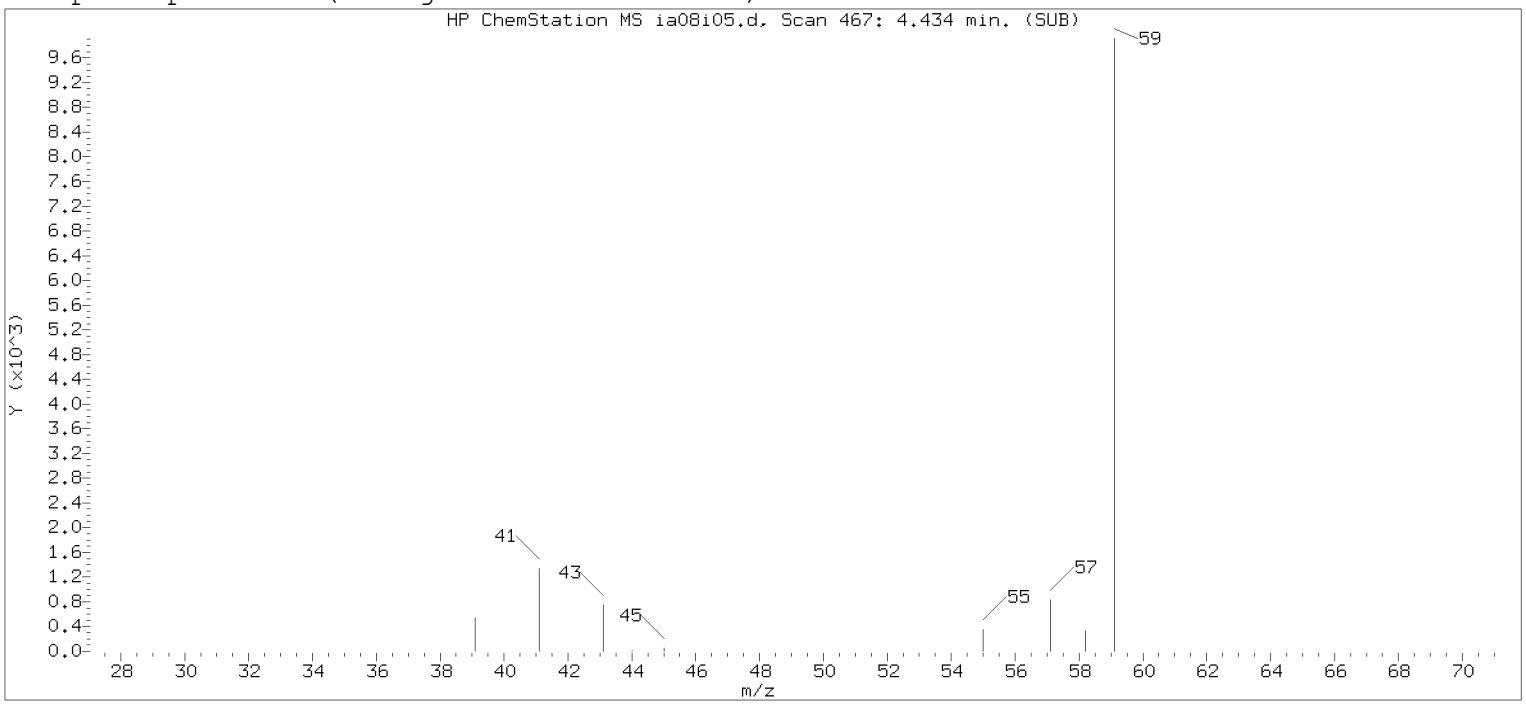
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 467
Retention Time (minutes): 4.434
Quant Ion : 59.00
Area (flag) : 69150M
On-Column Amount (ng) : 19.5445
Integration start scan : 450 Integration stop scan: 506
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

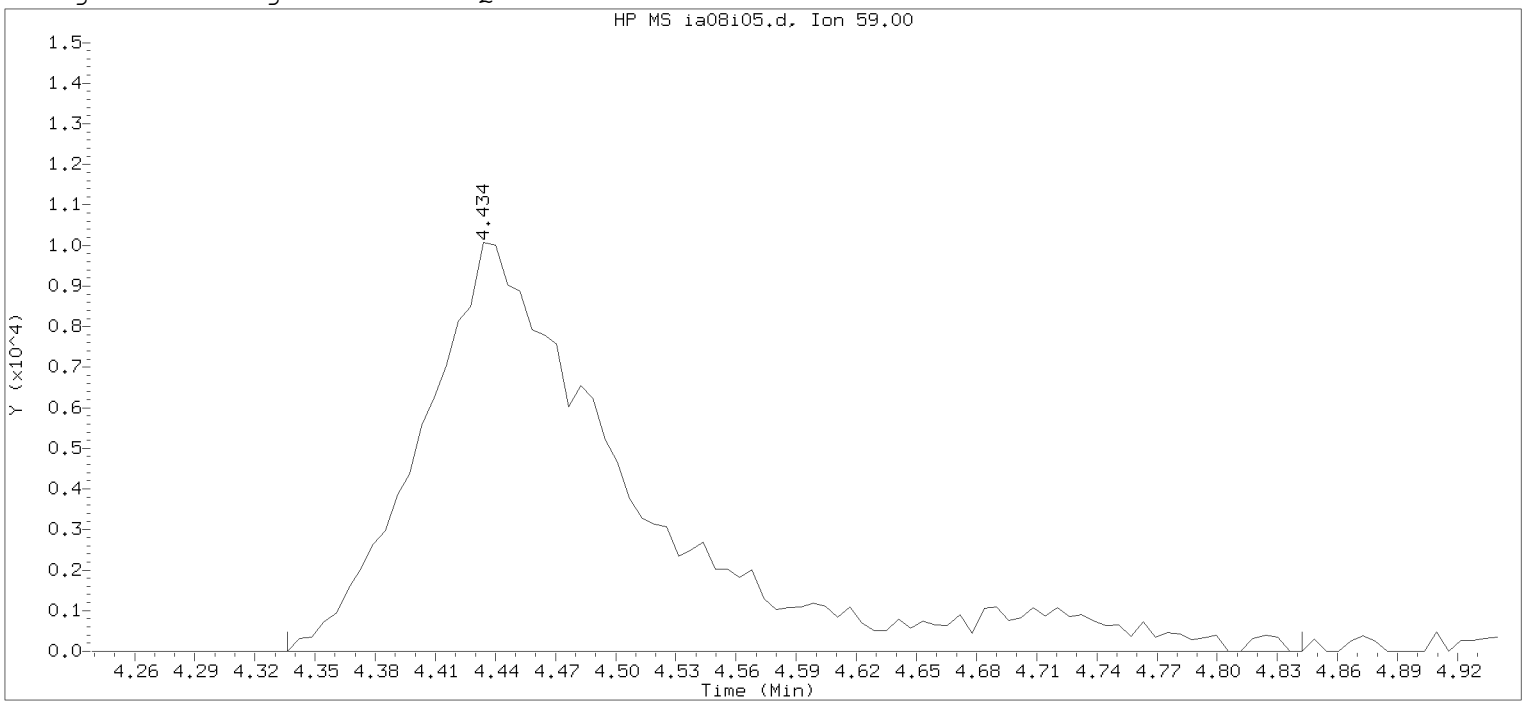
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 467
Retention Time (minutes): 4.434
Quant Ion : 59.00
Area : 74624
On-column Amount (ng) : 20.7721
Integration start scan : 450 Integration stop scan: 533
Y at integration start : 0 Y at integration end: 0

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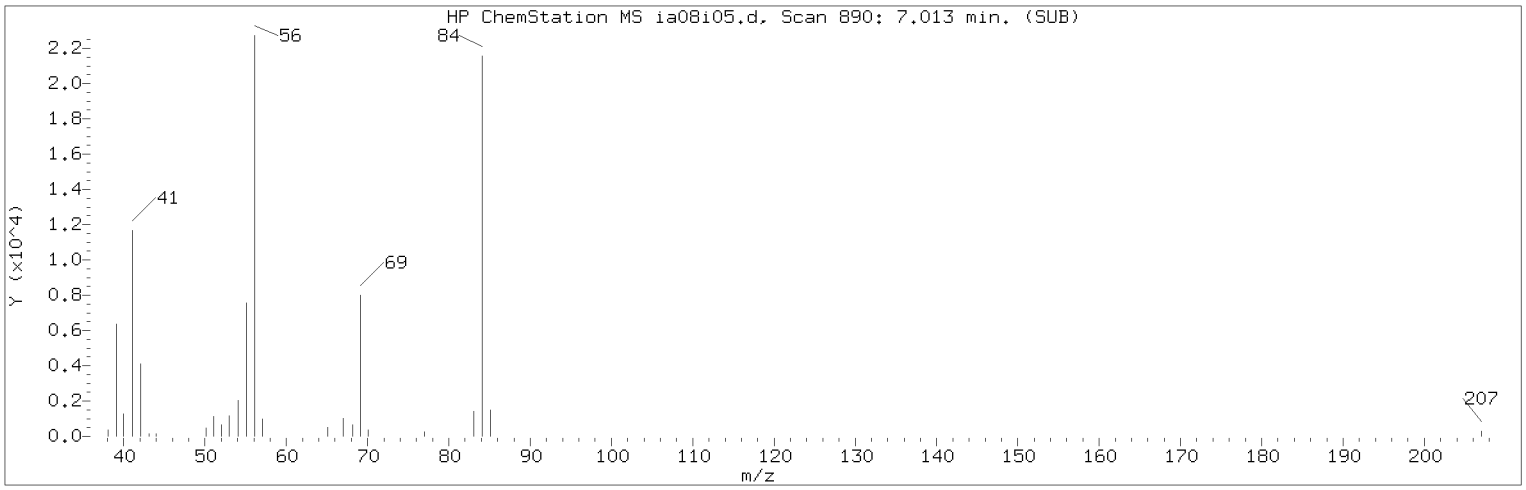
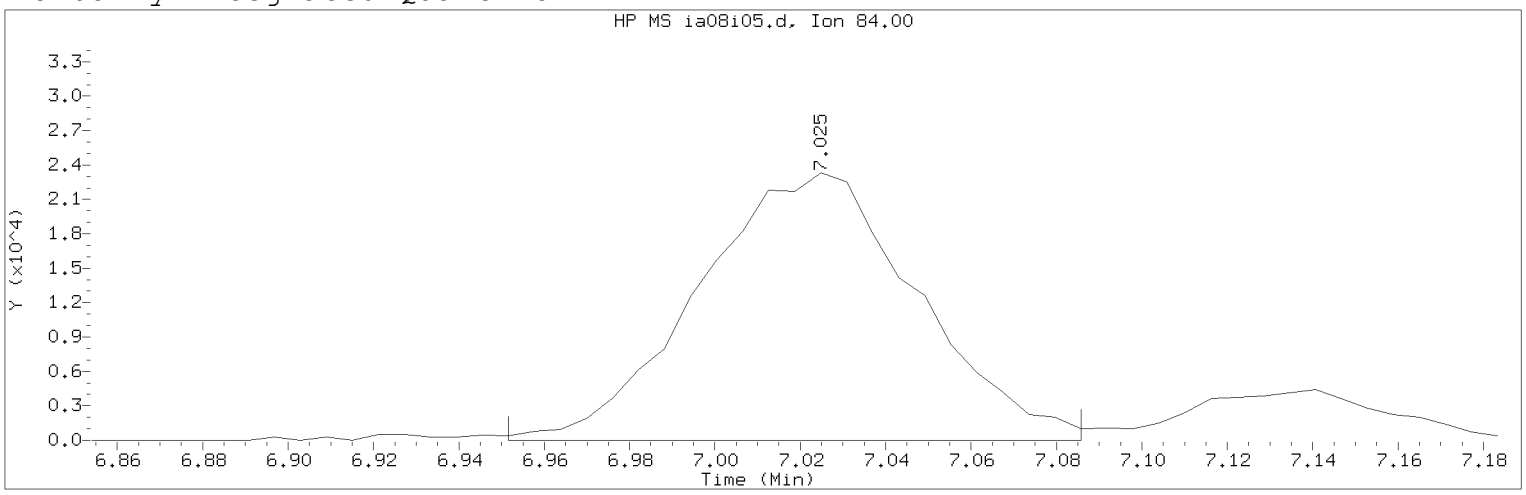
Target 3.5 esignature used. Page 122

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

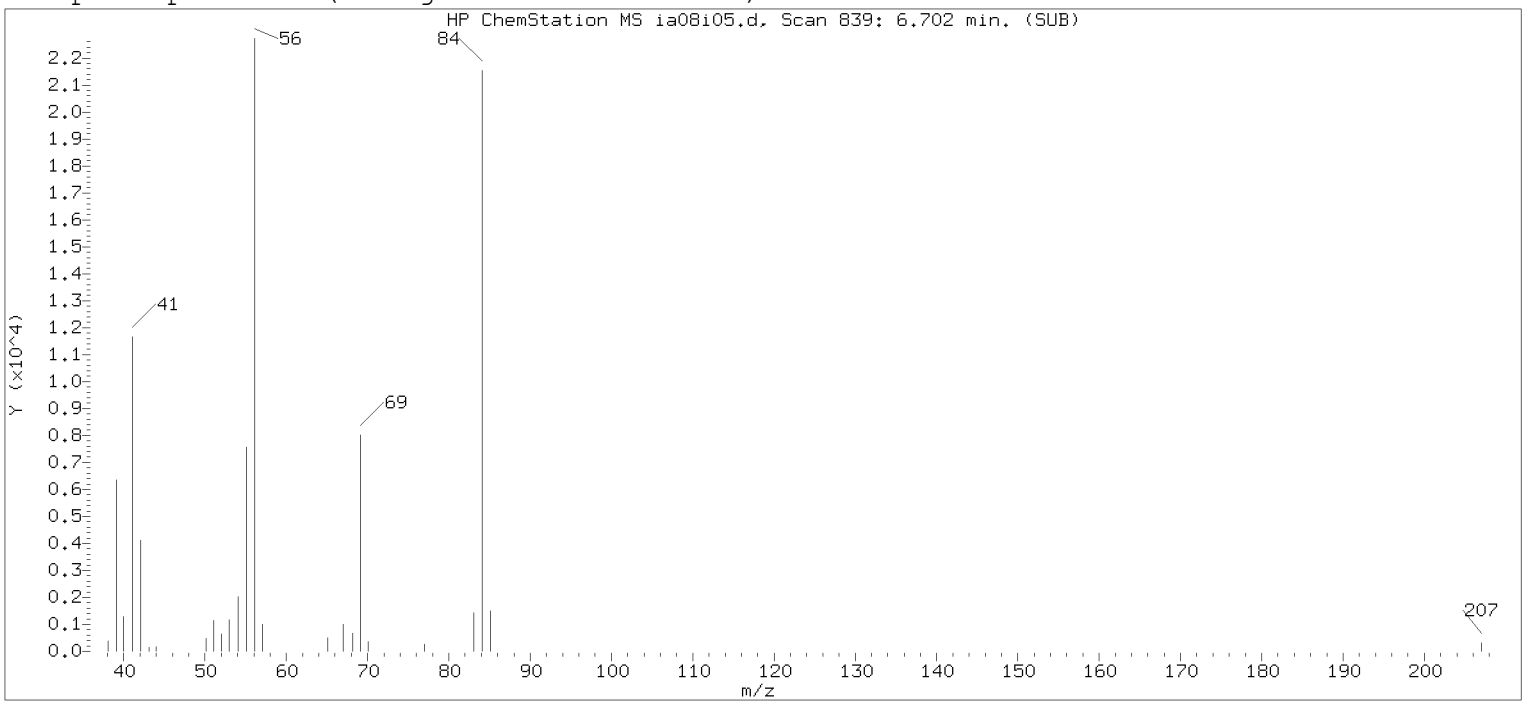
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 84.00
Area (flag) : 82713M
On-Column Amount (ng) : 0.9896
Integration start scan : 879 Integration stop scan: 901
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

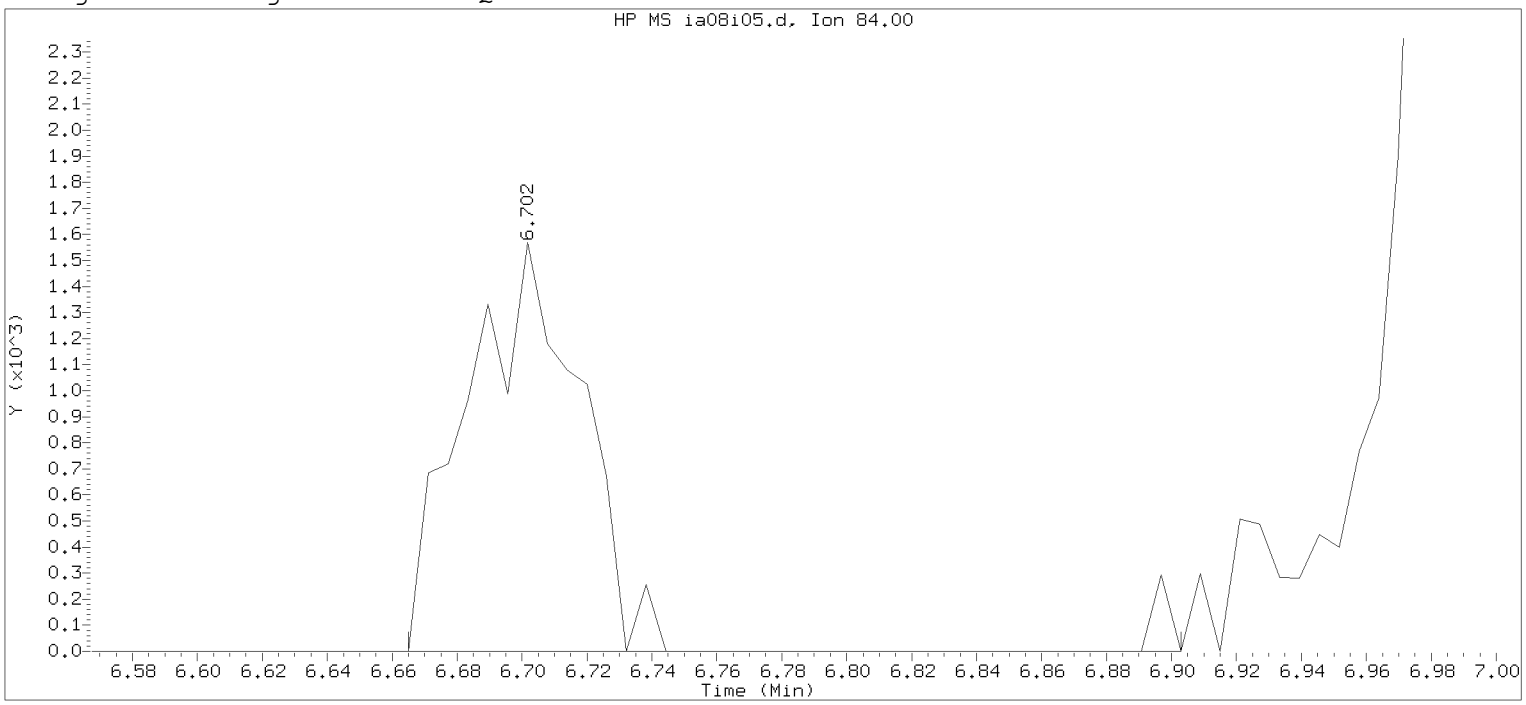
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 839
Retention Time (minutes): 6.702
Quant Ion : 84.00
Area : 3936
On-column Amount (ng) : 1.0219
Integration start scan : 832 Integration stop scan: 871
Y at integration start : 0 Y at integration end: 0

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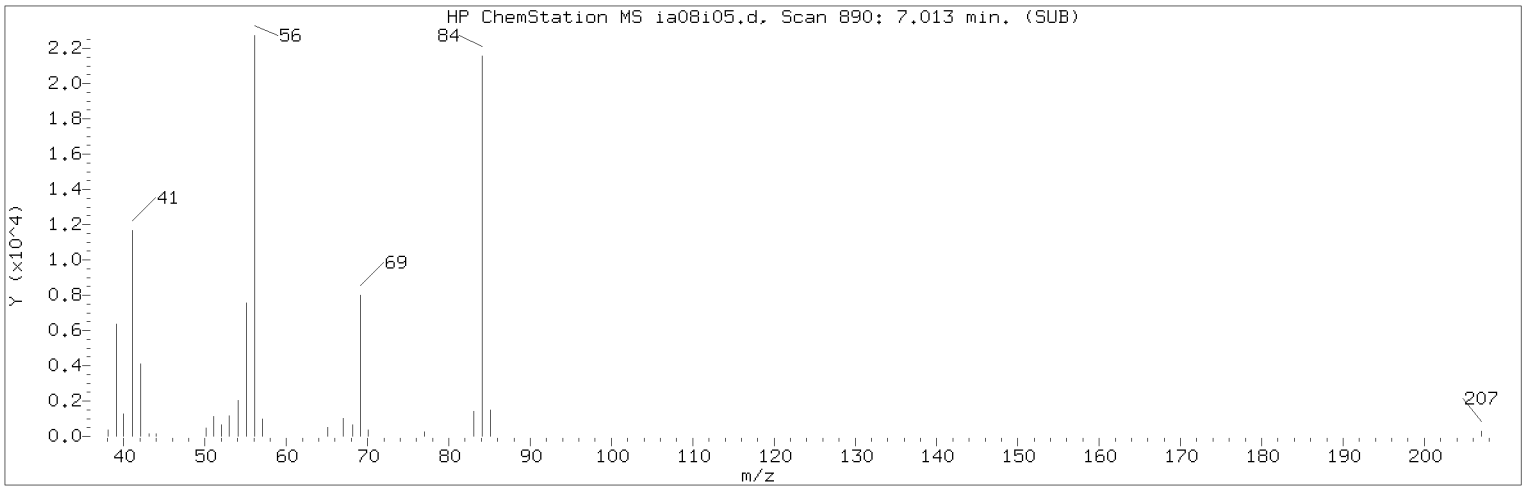
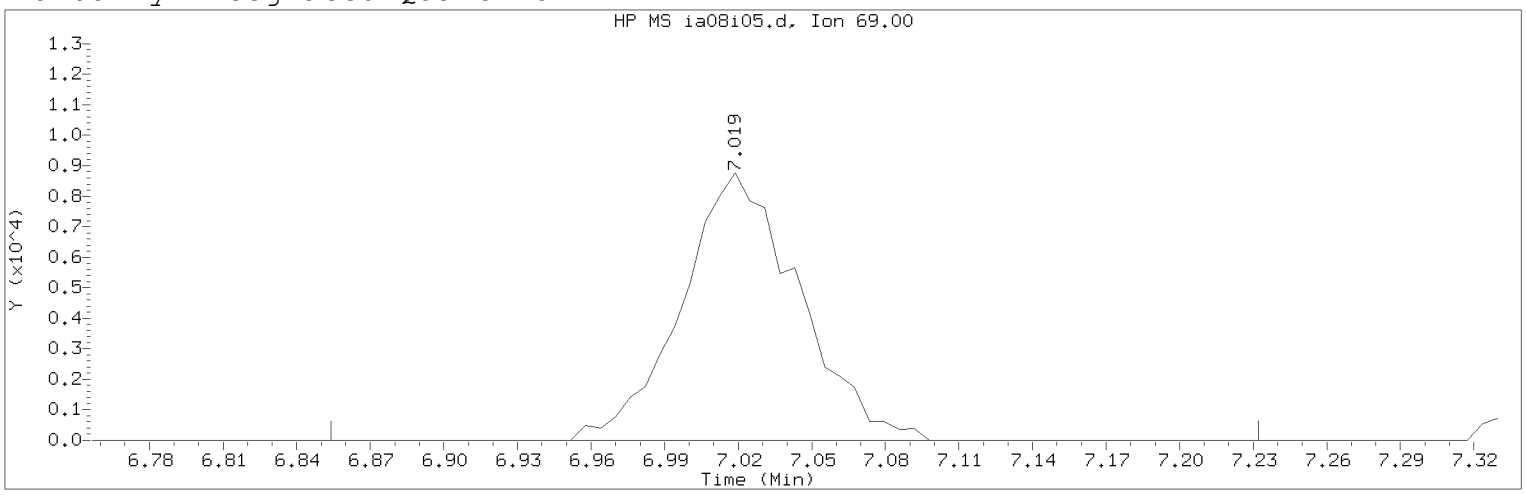
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

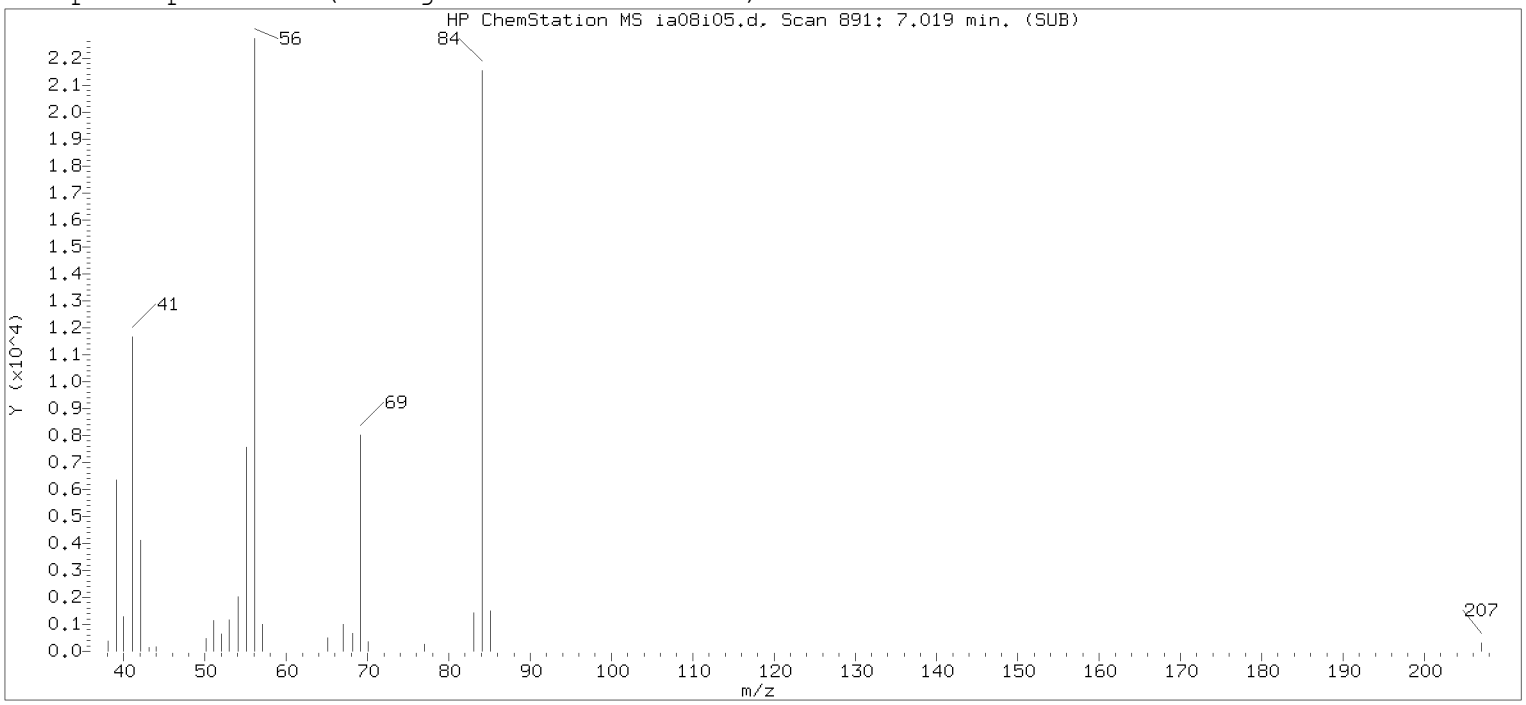
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 69.00
Area (flag) : 29090M
On-Column Amount (ng) : 0.9999
Integration start scan : 863 Integration stop scan: 925
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

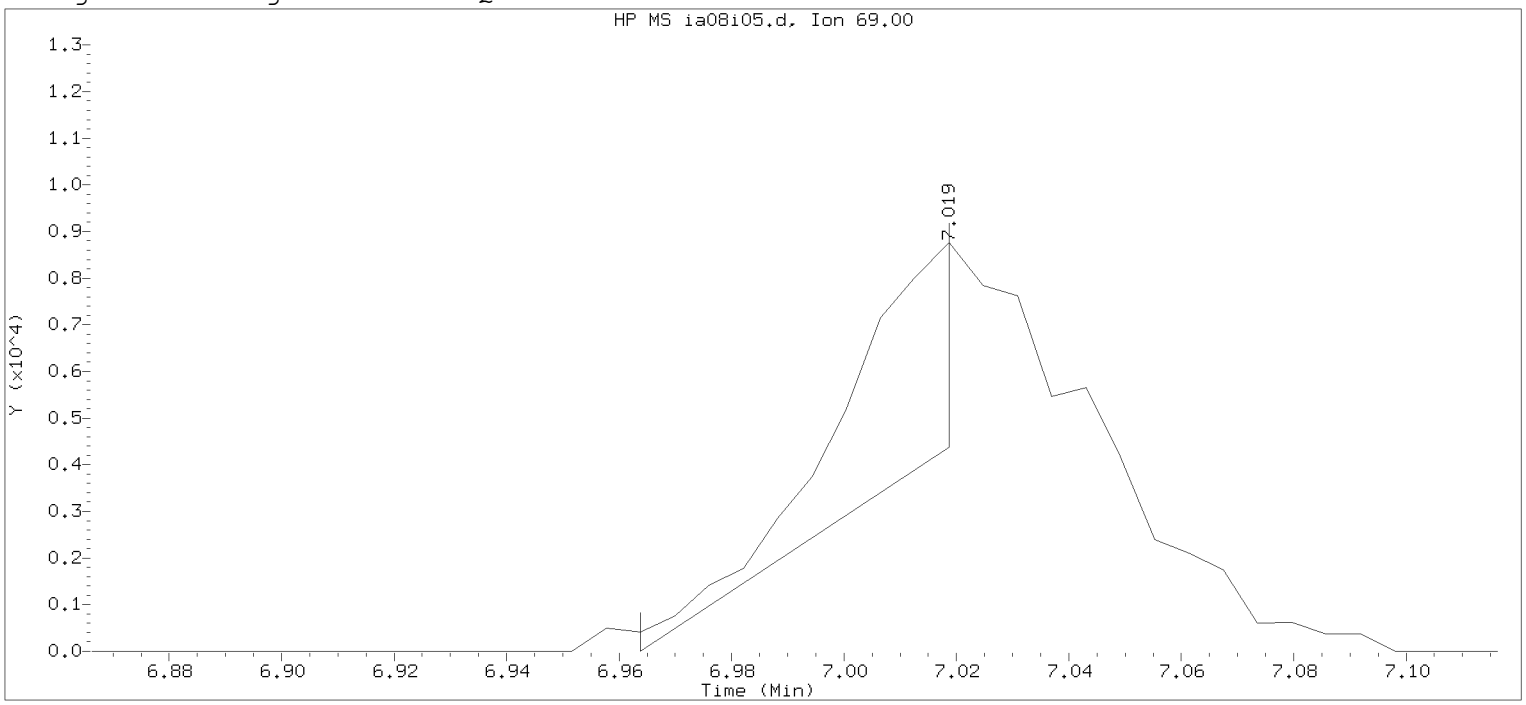
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 69.00
Area : 5759
On-column Amount (ng) : 3.5019
Integration start scan : 881 Integration stop scan: 890
Y at integration start : 0 Y at integration end: 4380

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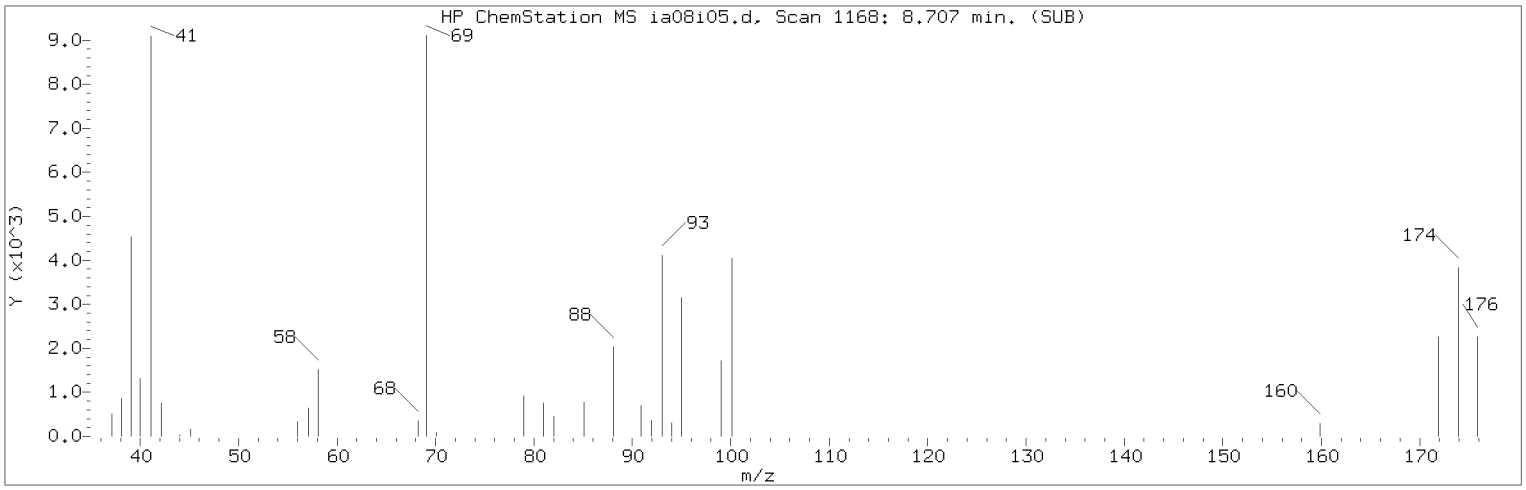
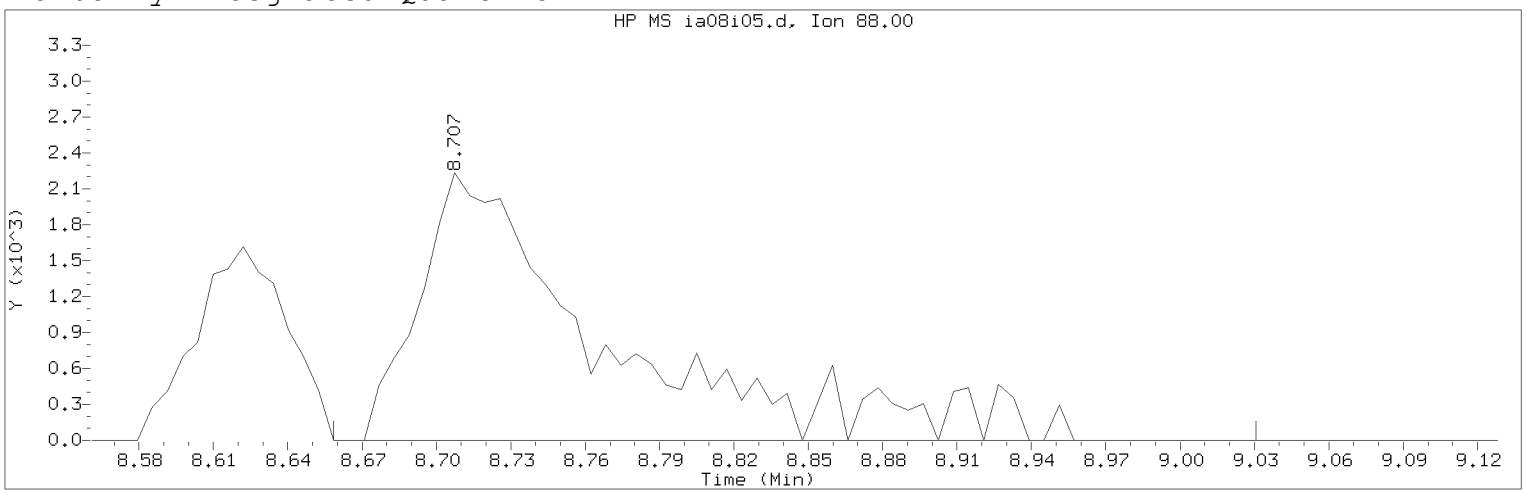
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

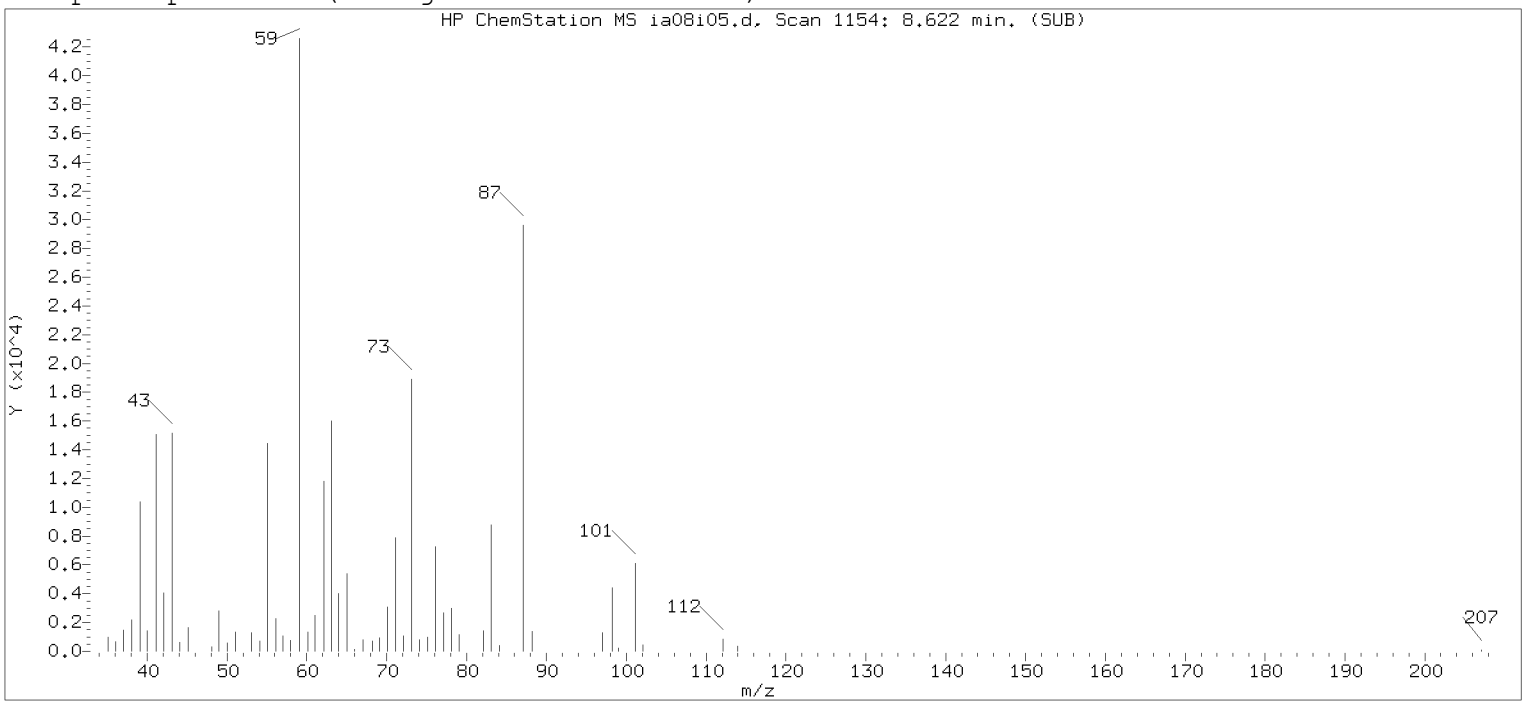
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1168
Retention Time (minutes): 8.707
Quant Ion : 88.00
Area (flag) : 11737M
On-Column Amount (ng) : 52.3532
Integration start scan : 1159 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

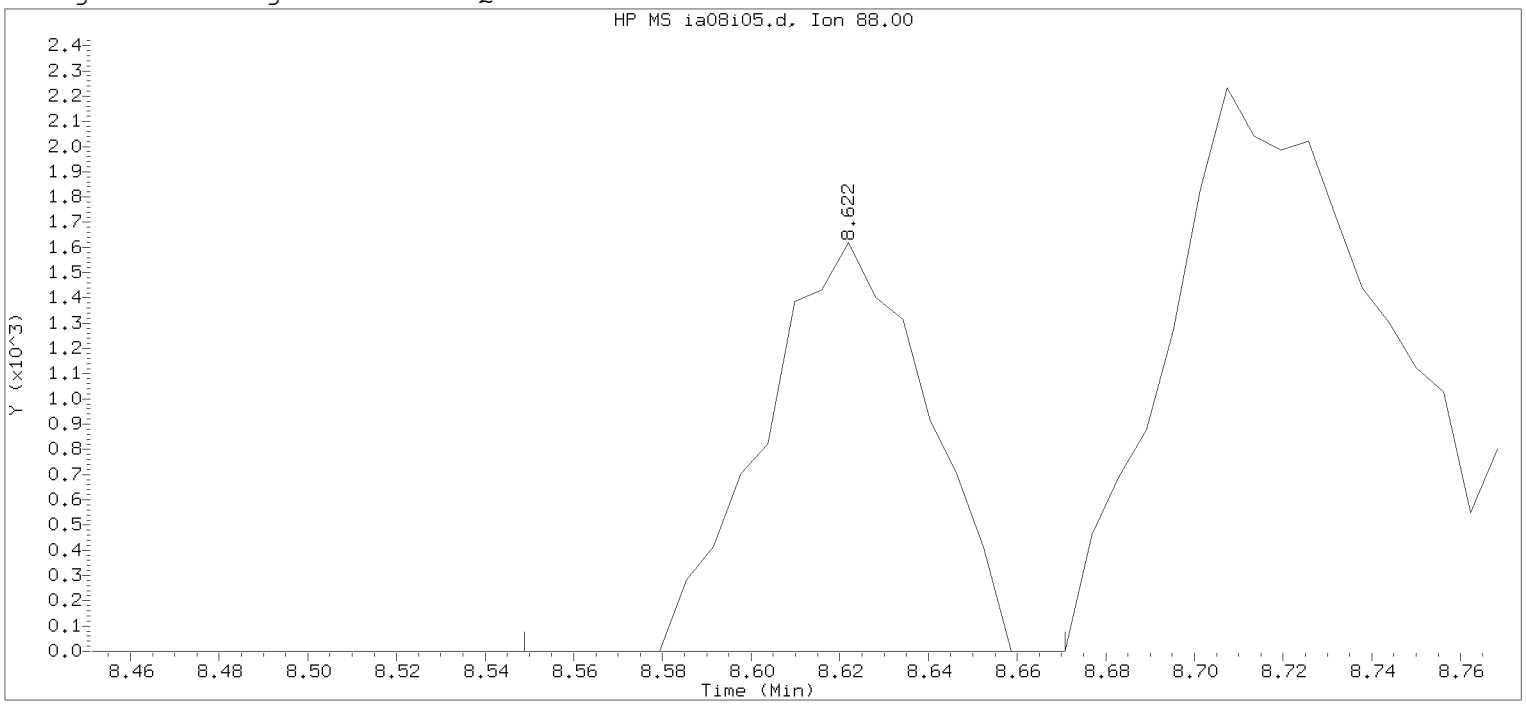
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1154
Retention Time (minutes): 8.622
Quant Ion : 88.00
Area : 4171
On-column Amount (ng) : 20.1296
Integration start scan : 1141 Integration stop scan: 1161
Y at integration start : 0 Y at integration end: 0

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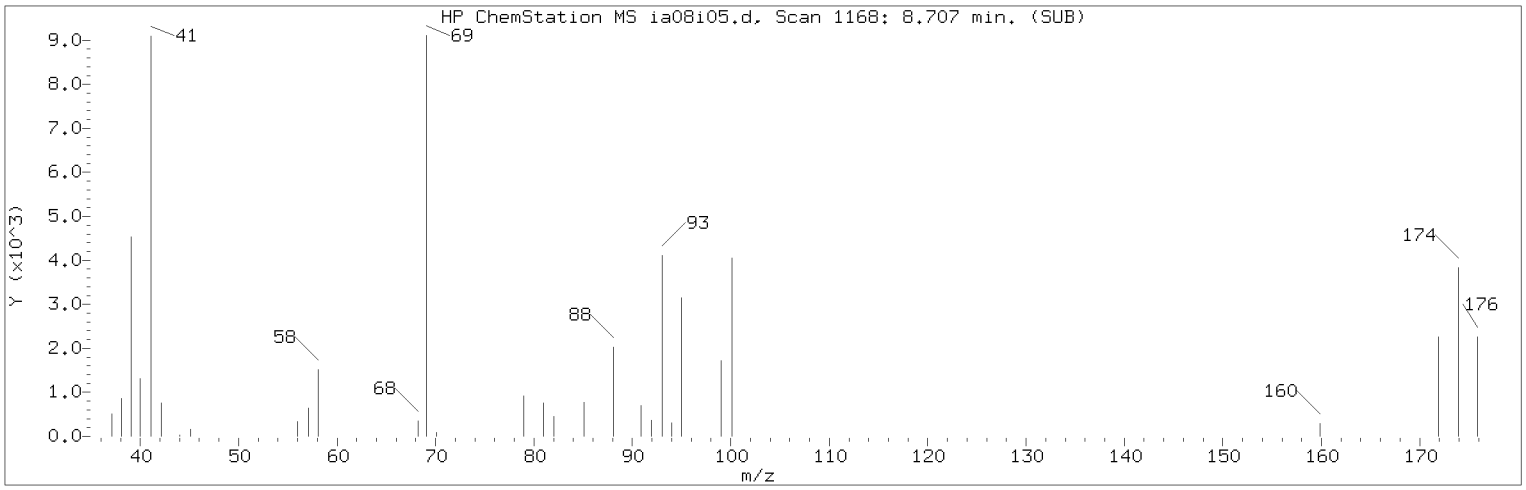
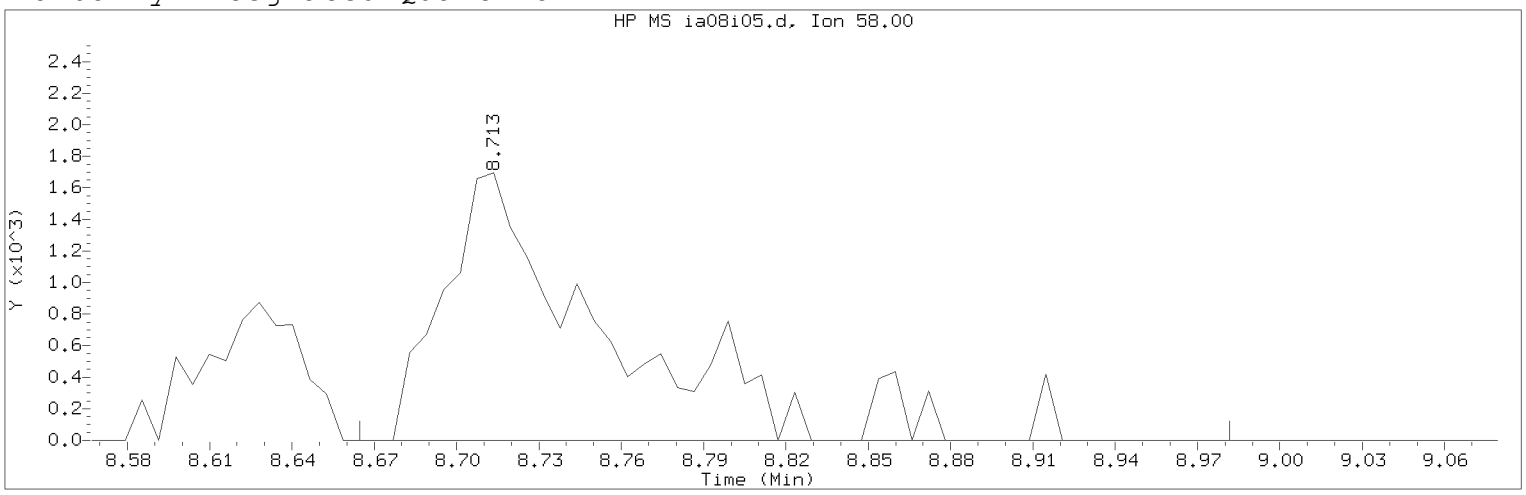
Target 3.5 esignature used. Page 1228

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

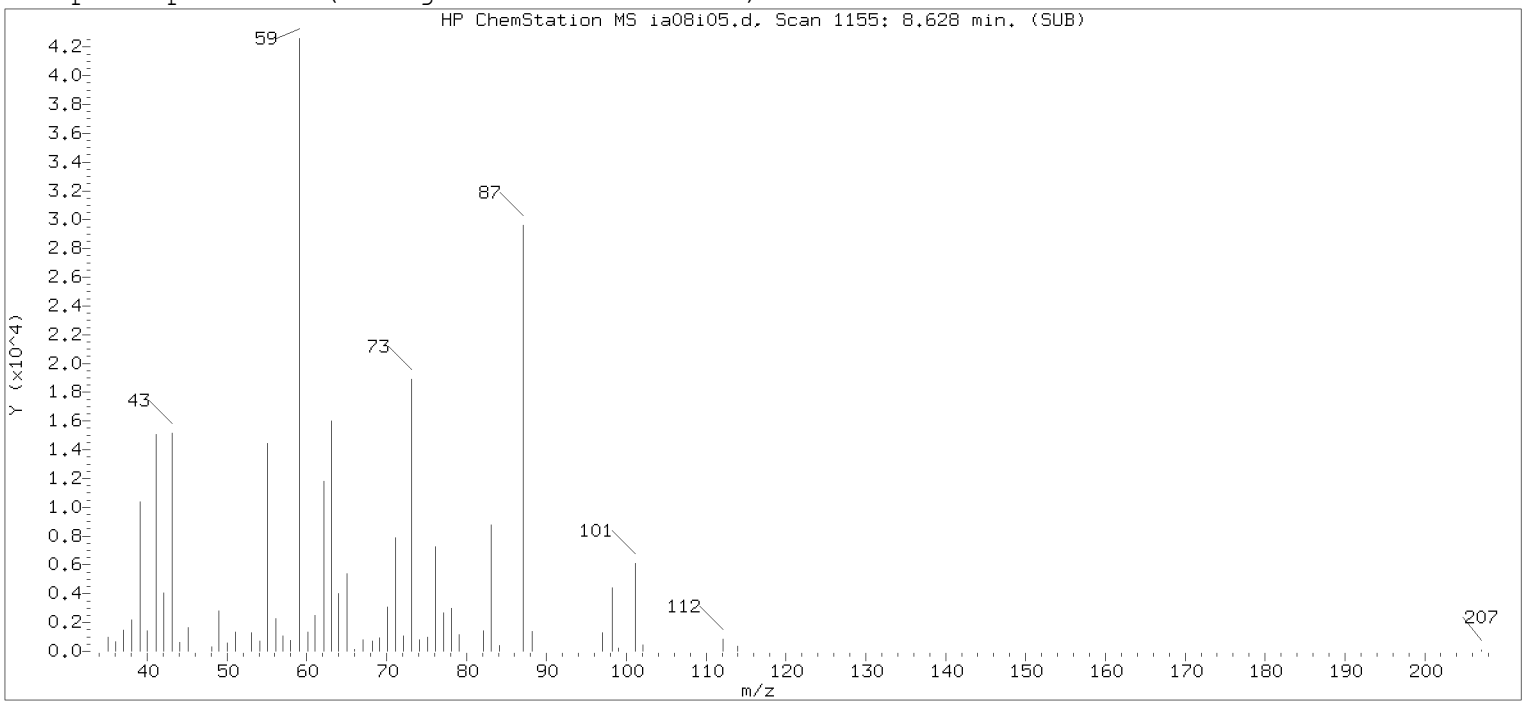
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.713
Quant Ion : 58.00
Area (flag) : 6977M
On-Column Amount (ng) : 52.2246
Integration start scan : 1160 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

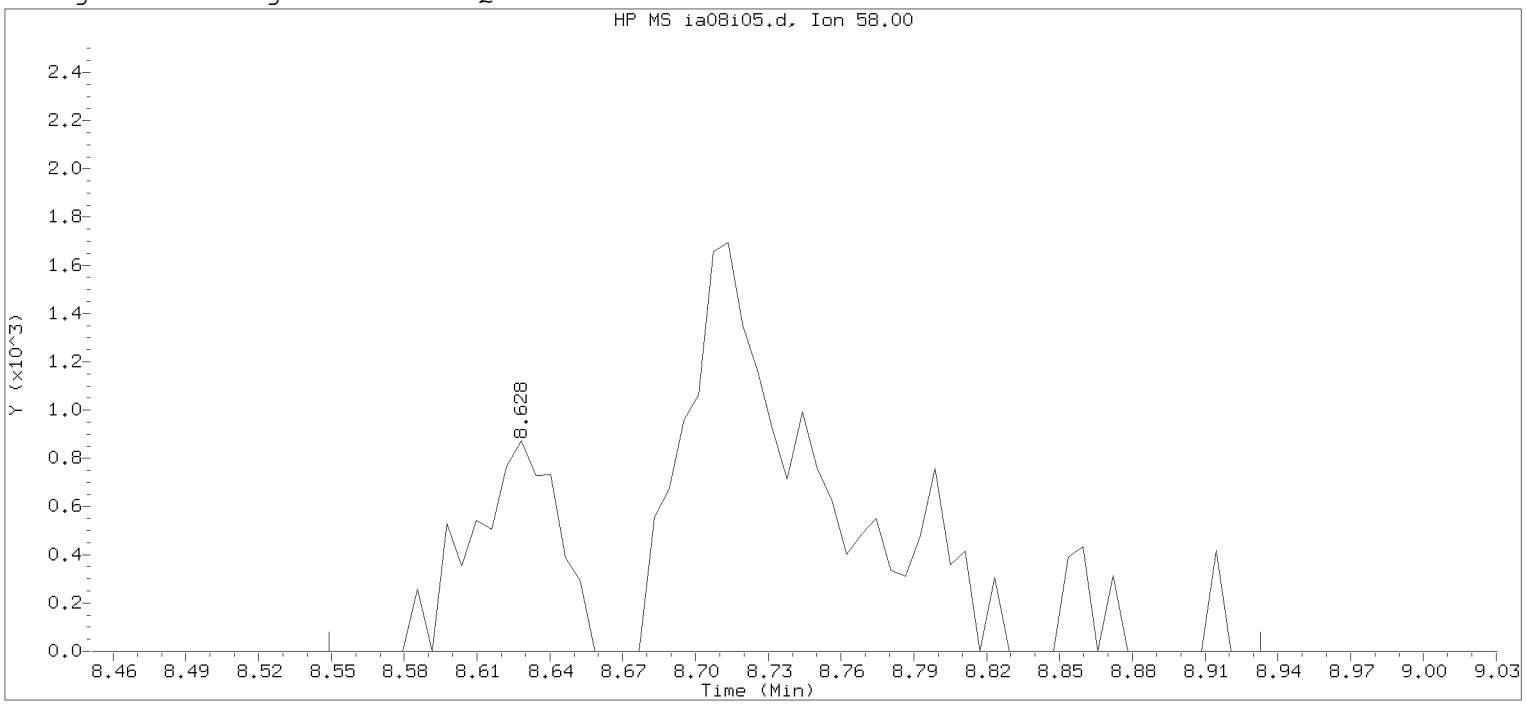
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

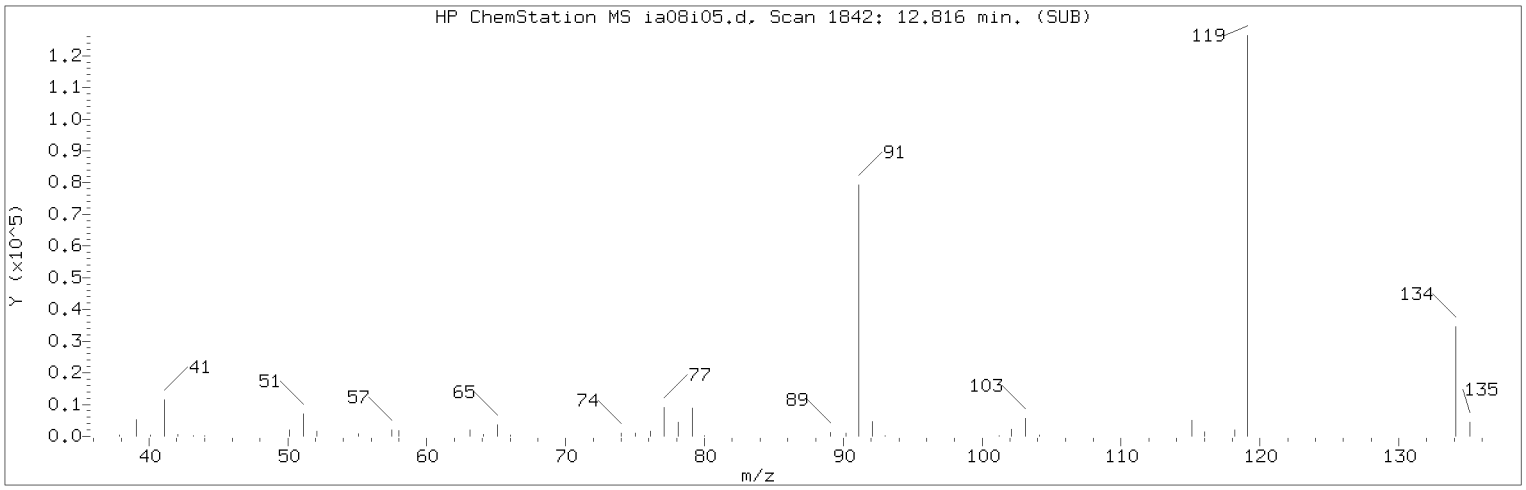
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

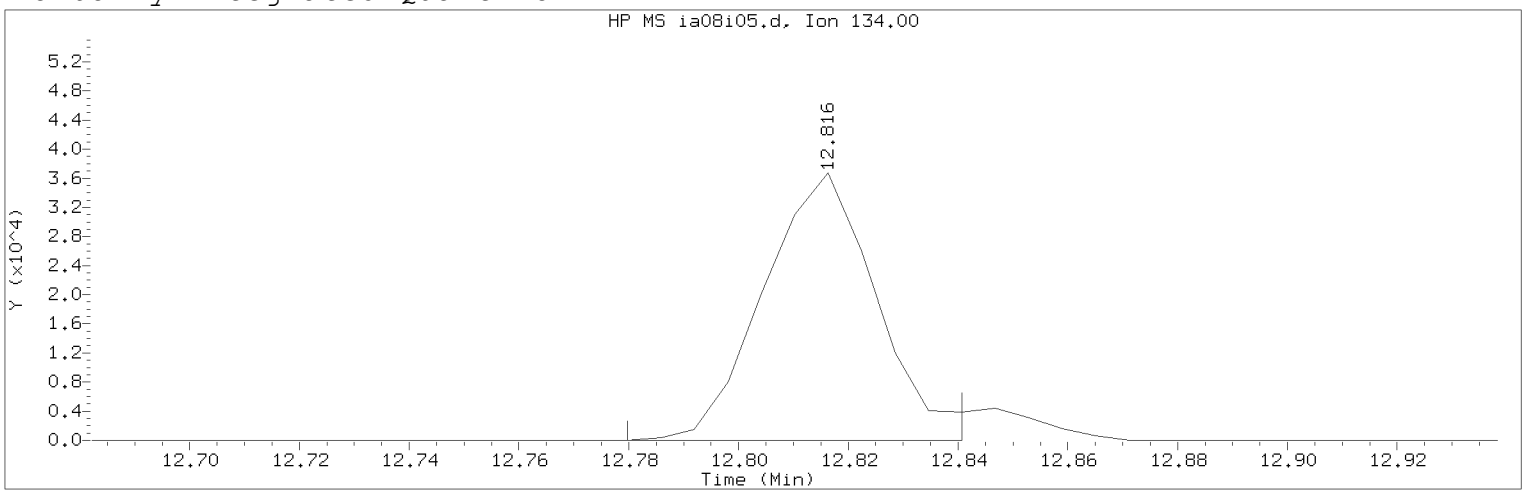
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1155
Retention Time (minutes): 8.628
Quant Ion : 58.00
Area : 9161
On-column Amount (ng) : 53.4372
Integration start scan : 1141 Integration stop scan: 1204
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1230

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

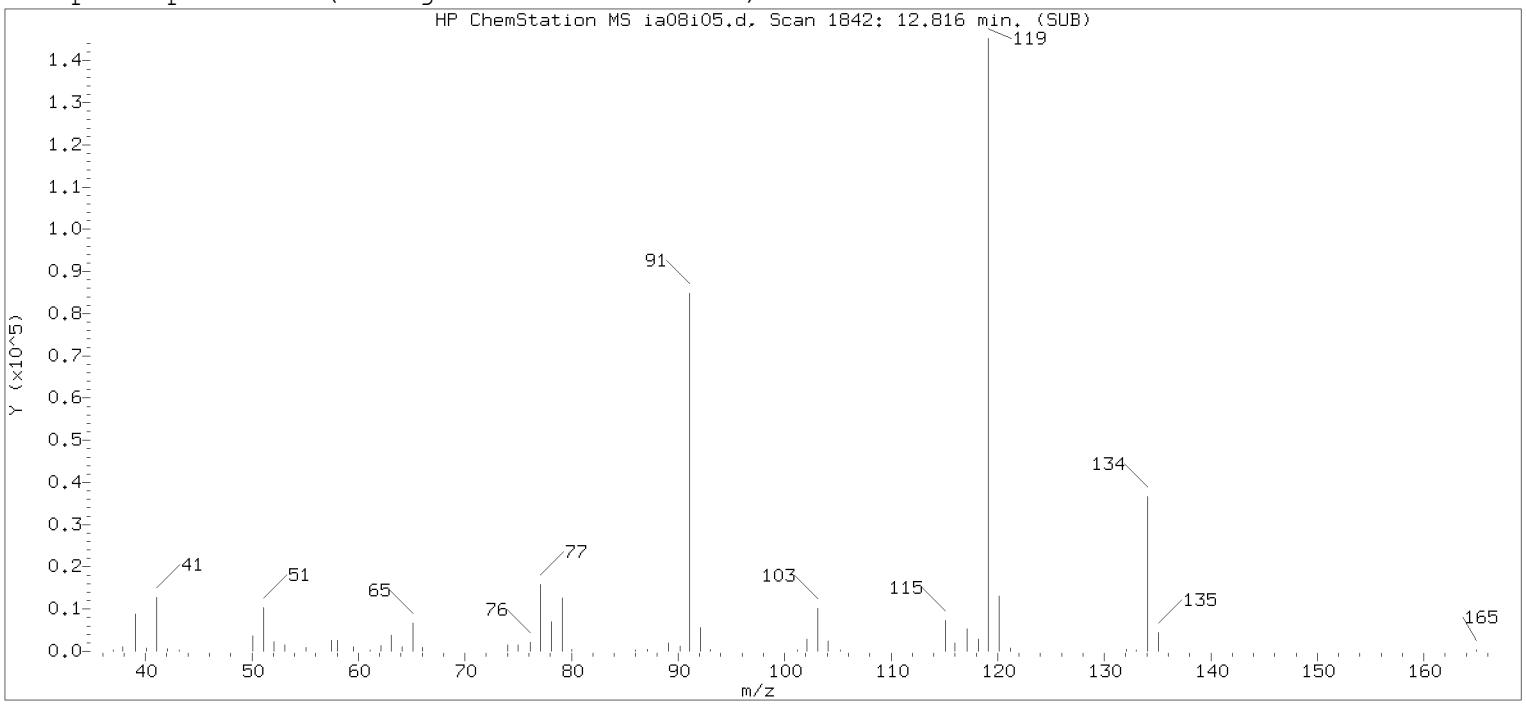
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 52604M
On-Column Amount (ng) : 0.9728
Integration start scan : 1835 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

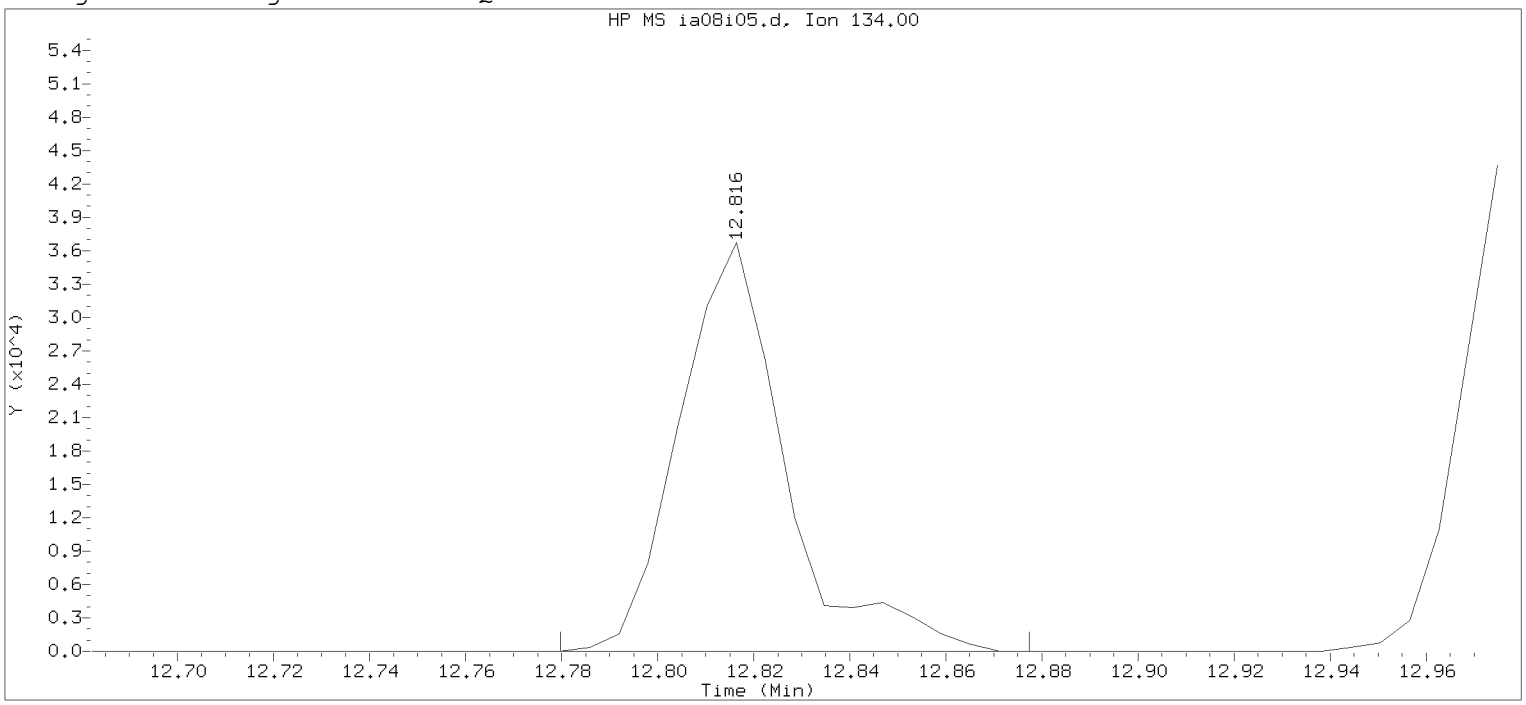
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

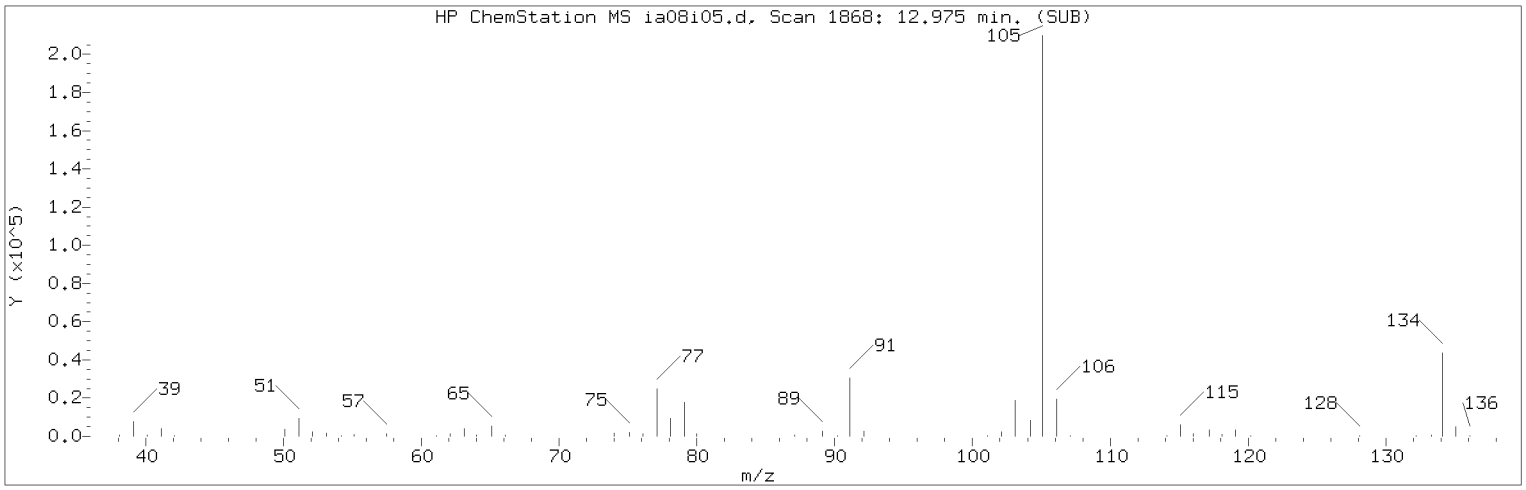
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

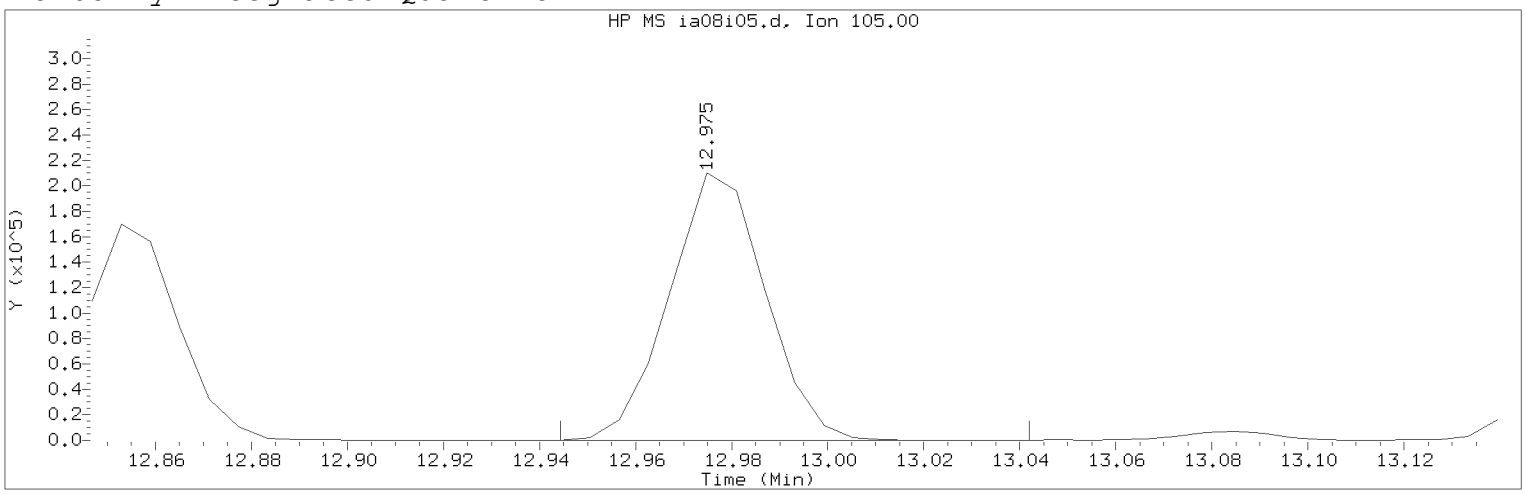
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 56151
On-column Amount (ng) : 0.9748
Integration start scan : 1835 Integration stop scan: 1851
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

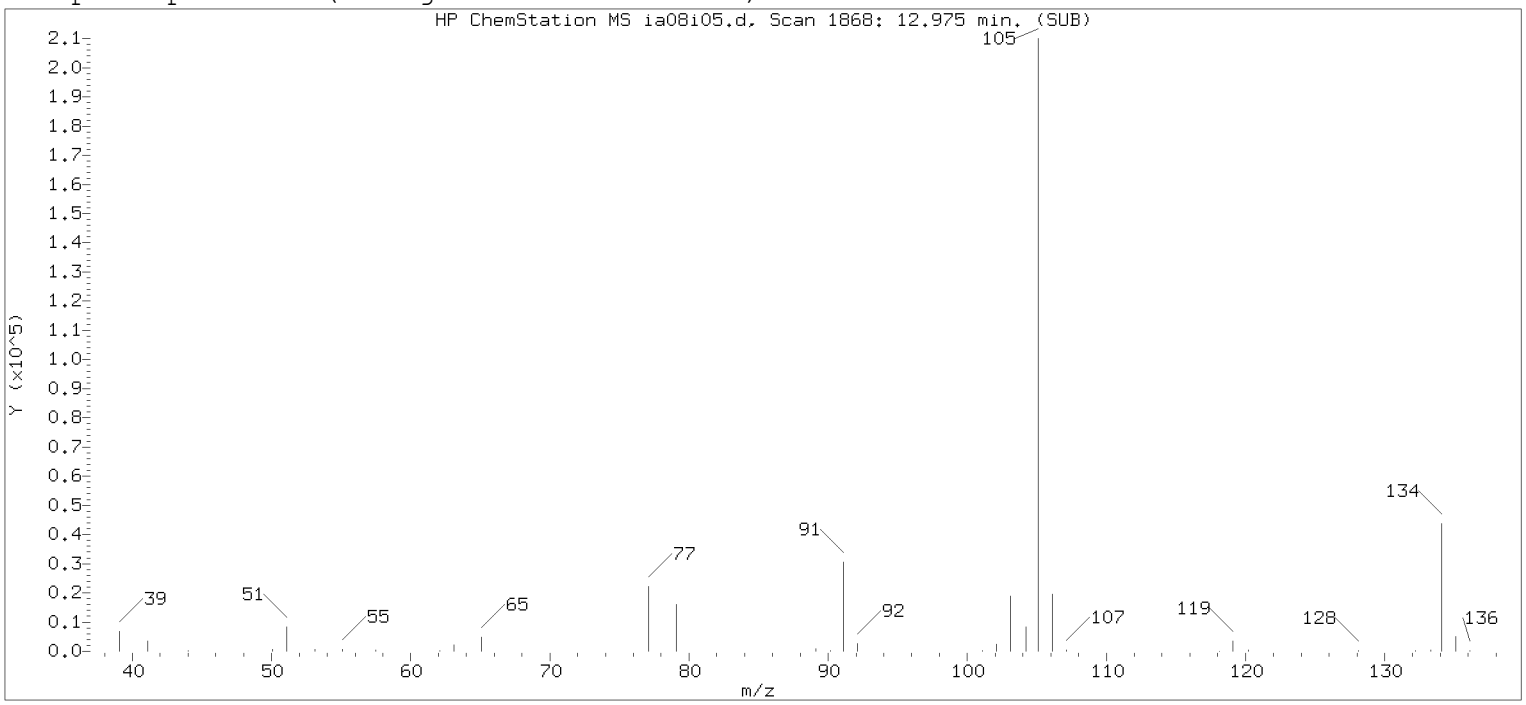
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 105.00
Area (flag) : 291306M
On-Column Amount (ng) : 0.9483
Integration start scan : 1862 Integration stop scan: 1878
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

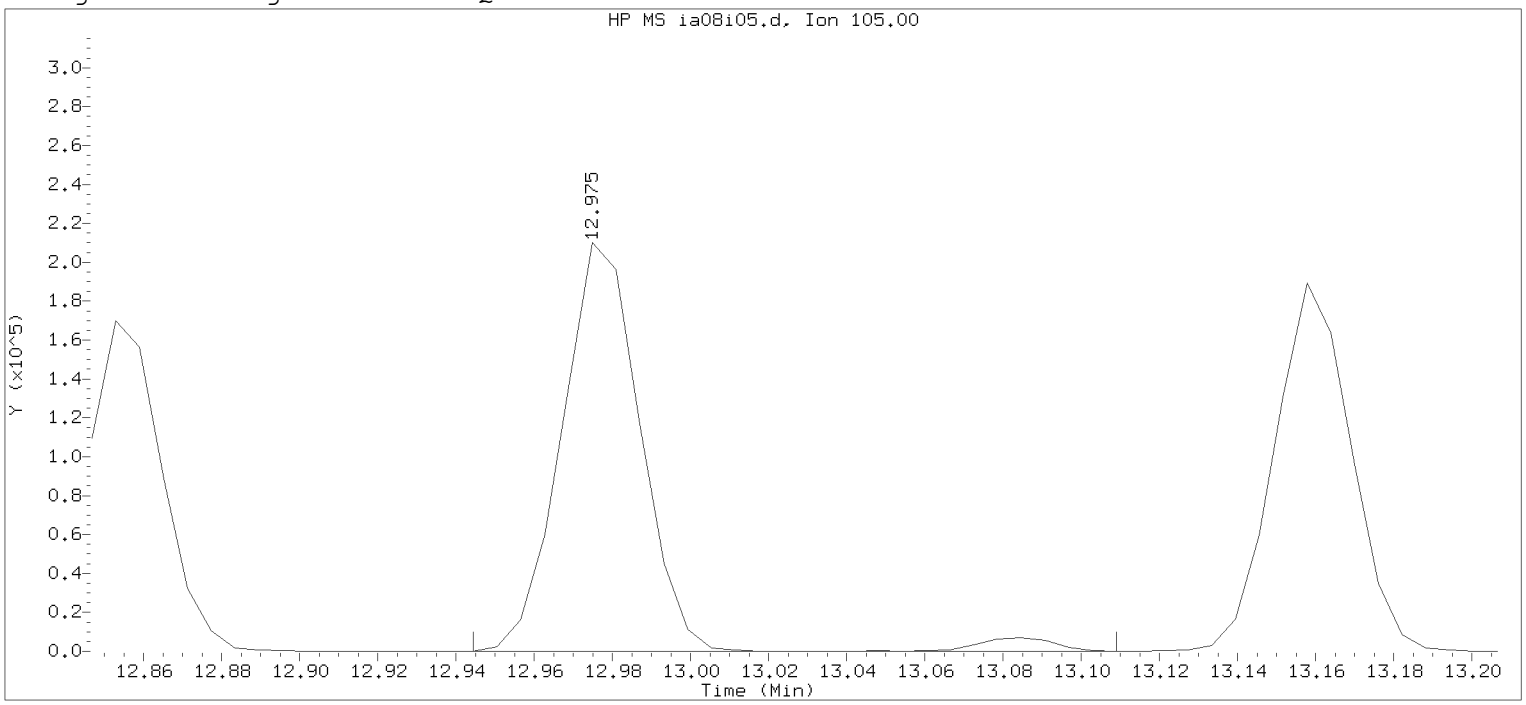
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



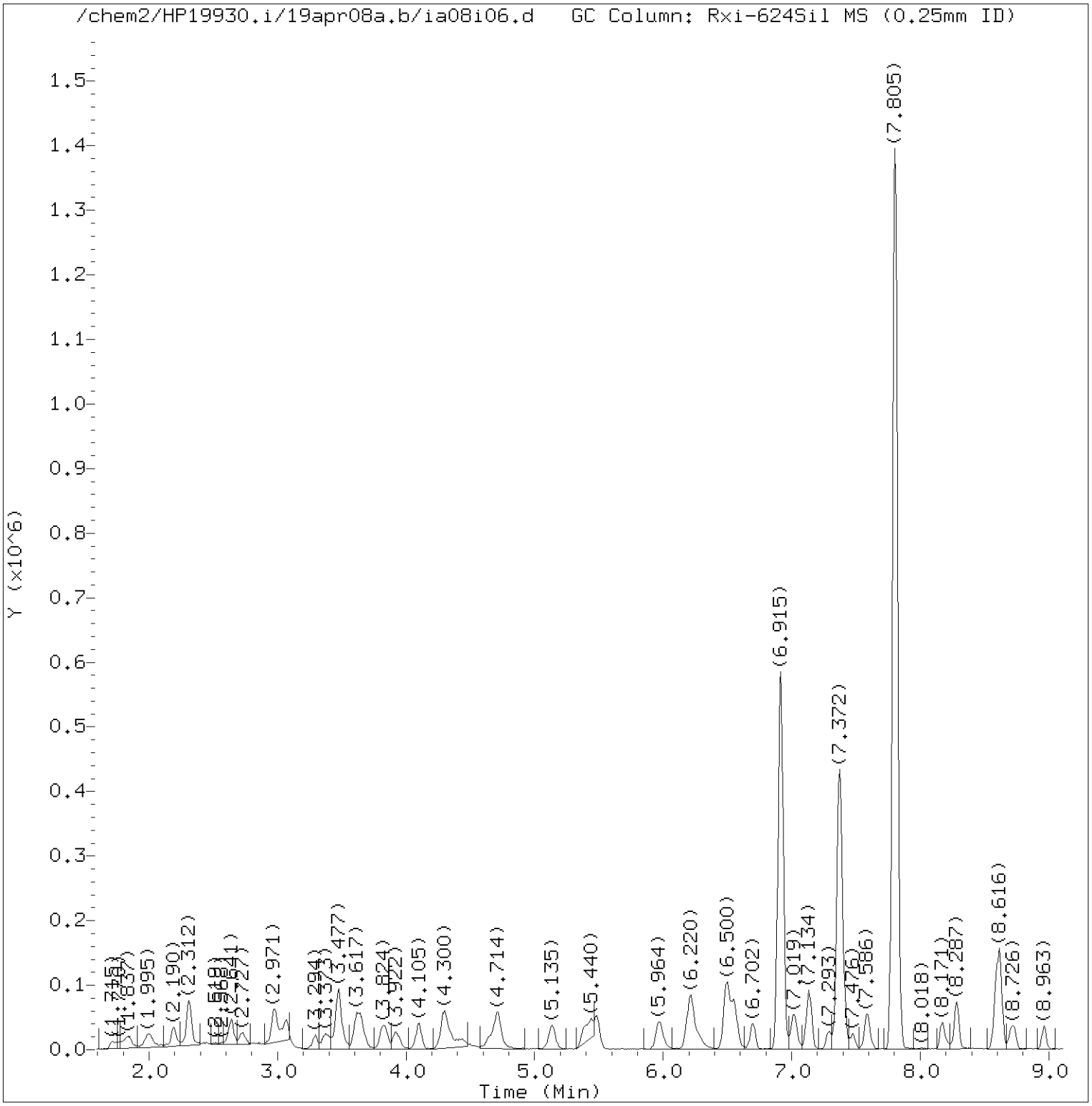
Data File: /chem2/HP19930.i/19apr08a.b/ia08i05.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:37 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 105.00
Area : 300712
On-column Amount (ng) : 0.9538
Integration start scan : 1862 Integration stop scan: 1889
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1234



Total Ion Chromatogram (TIC)

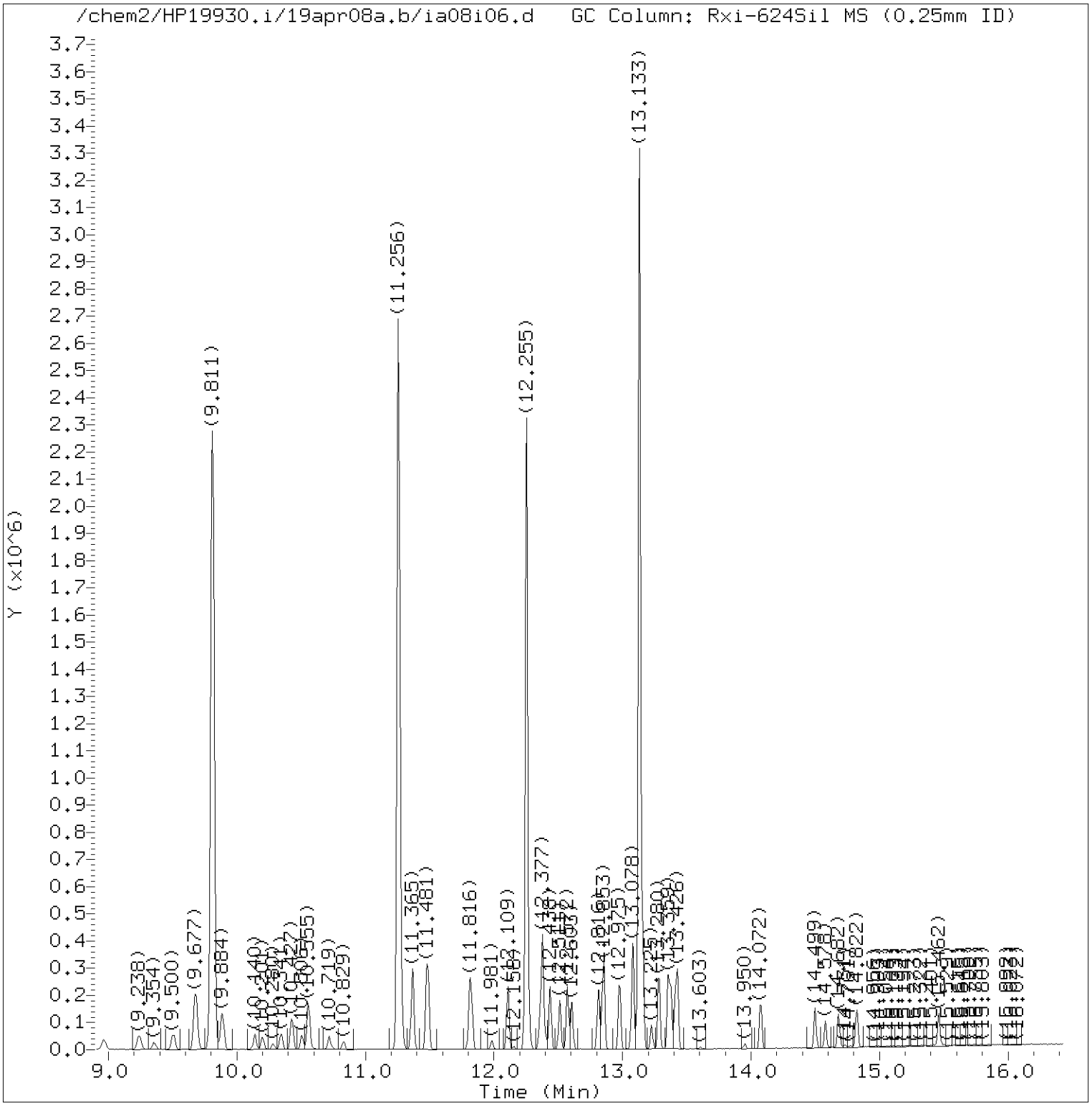
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.989	85	52262	0.486
2) Chloromethane	(2)	2.196	50	39846	0.500
5) Vinyl Chloride	(2)	2.312	62	41024	0.506
6) 1,3-Butadiene	(2)	2.312	39	35934M	0.536
7) Bromomethane	(2)	2.648	94	35637	0.495
8) Chloroethane	(2)	2.727	64	23497	0.499
9) Dichlorofluoromethane	(2)	2.977	67	60644	0.499
10) Trichlorofluoromethane	(2)	3.032	101	63541	0.470
11) Ethyl ether	(2)	3.294	59	18271	0.513
12) Freon 123a	(2)	3.373	67	30133A	0.495
13) Acrolein	(1)	3.477	56	150683	23.714
15) 1,1-Dichloroethene	(2)	3.617	96	23766	0.506
14) Acetone	(1)	3.641	43	45203M	5.154
16) Freon 113	(2)	3.647	101	26944	0.475
17) Methyl Iodide	(2)	3.812	142	50704	0.504
18) Carbon Disulfide	(2)	3.922	76	70954	0.516
21) Methyl Acetate	(1)	4.074	43	12372	0.534
22) Allyl Chloride	(2)	4.098	41	37366	0.518
23) Methylene Chloride	(2)	4.300	84	24291	0.506
26)*t-Butyl Alcohol-d10	(1)	4.312	65	149699	50.000
28) t-Butyl Alcohol	(1)	4.434	59	37410	10.291
29) Acrylonitrile	(1)	4.653	53	24996	2.383
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	62011	0.505
31) trans-1,2-Dichloroethene	(2)	4.714	96	26355	0.502
32) n-Hexane	(2)	5.129	57	35818	0.485
33) 1,1-Dichloroethane	(2)	5.379	63	45308	0.530
34) di-Isopropyl Ether	(2)	5.434	45	71008	0.495
35) 2-Chloro-1,3-Butadiene	(2)	5.482	53	37891	0.494
37) Ethyl t-butyl ether	(2)	5.976	59	71107M	0.500
40) 1,2-Dichloroethene (Total)	(2)		96	56166	1.011
38) 2-Butanone	(1)	6.183	43	67398	4.731
39) cis-1,2-Dichloroethene	(2)	6.214	96	29811	0.509
41) 2,2-Dichloropropane	(2)	6.232	77	40675	0.511
42) Propionitrile	(1)	6.287	54	37994	9.933
45) Methacrylonitrile	(1)	6.494	67	66057	4.693
47) Bromochloromethane	(2)	6.543	128	15002	0.521
48) Tetrahydrofuran	(1)	6.567	71	21667	4.864
49) Chloroform	(2)	6.696	83	47356	0.509

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

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on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	476547	10.005
50)$Dibromofluoromethane	(2)	6.915	111	488371	10.031
51) 1,1,1-Trichloroethane	(2)	6.921	97	45384	0.504
52) Cyclohexane	(2)	7.019	56	42012	0.475
52) Cyclohexane	(2)	7.013	84	40666M	0.487
52) Cyclohexane	(2)	7.025	69	14413M	0.496
55) 1,1-Dichloropropene	(2)	7.128	75	35683	0.512
54) Carbon Tetrachloride	(2)	7.134	117	42137	0.496
56) Isobutyl Alcohol	(1)	7.287	41	27336	24.346
57)$1,2-Dichloroethane-d4	(2)	7.372	102	93860	10.225
57)$1,2-Dichloroethane-d4	(2)	7.372	65	415026	10.088
57)$1,2-Dichloroethane-d4	(2)	7.366	104	57867	9.986
58) Benzene	(2)	7.403	78	103880	0.507
59) 1,2-Dichloroethane	(2)	7.476	62	28210	0.513
59) 1,2-Dichloroethane	(2)	7.476	98	2490	0.486
60) t-Amyl methyl ether	(2)	7.586	73	69143	0.504
62) n-Heptane	(2)	7.805	43	35437	0.467
63)*Fluorobenzene	(2)	7.805	96	1845545	10.000
65) n-Butanol	(1)	8.171	56	44259	47.239
67) Trichloroethene	(2)	8.274	95	29337	0.512
69) Methylcyclohexane	(2)	8.591	83	52653	0.514
70) 1,2-Dichloropropane	(2)	8.622	63	24059	0.507
71) Methyl Methacrylate	(1)	8.701	69	12871	0.478
72) 1,4-Dioxane	(1)	8.713	88	5239M	22.744
72) 1,4-Dioxane	(1)	8.707	58	2770M	20.179
73) Dibromomethane	(2)	8.726	93	13333	0.500
74) Bromodichloromethane	(2)	8.963	83	31733	0.482
76) 2-Nitropropane	(1)	9.238	41	41021	4.576
80) cis-1,3-Dichloropropene	(2)	9.506	75	36183	0.485
81) 4-Methyl-2-Pentanone	(1)	9.677	43	166871	4.627
82)$Toluene-d8	(3)	9.811	98	1818356	10.069
82)$Toluene-d8	(3)	9.811	100	1164634	10.056
83) Toluene	(3)	9.884	92	69522	0.512
84) trans-1,3-Dichloropropene	(3)	10.140	75	31413	0.491
85) 1,3-Dichloropropene (total)	(3)		75	67596	0.975
86) Ethyl Methacrylate	(3)	10.201	69	26746	0.495
88) 1,1,2-Trichloroethane	(3)	10.341	97	18090	0.482
89) Tetrachloroethene	(3)	10.427	166	36242	0.504

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	30216	0.500
91) 2-Hexanone	(1)	10.555	43	119869	4.687
93) Dibromochloromethane	(3)	10.719	129	25941	0.509
95) 1,2-Dibromoethane	(3)	10.829	107	19221	0.503
97)*Chlorobenzene-d5	(3)	11.256	117	1472238	10.000
96) 1-Chlorohexane	(3)	11.262	91	40541	0.496
98) Chlorobenzene	(3)	11.286	112	78117	0.501
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	28917	0.492
100) Ethylbenzene	(3)	11.371	91	137364	0.504
101) m+p-Xylene	(3)	11.481	106	107167	0.987
105) Xylene (Total)	(3)		106	158761	1.479
104) o-Xylene	(3)	11.810	106	51594	0.492
106) Styrene	(3)	11.829	104	79425	0.478
107) Bromoform	(3)	11.981	173	14198	0.453
108) Isopropylbenzene	(3)	12.109	105	140884	0.498
111)$4-Bromofluorobenzene	(3)	12.255	95	690711	10.207
111)$4-Bromofluorobenzene	(3)	12.255	174	647816	10.001
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	23184	0.494
114) Bromobenzene	(4)	12.371	156	36200	0.507
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	55889M	4.419
116) 1,2,3-Trichloropropane	(4)	12.402	110	7043	0.506
117) n-Propylbenzene	(4)	12.438	91	158730	0.497
119) 2-Chlorotoluene	(4)	12.511	126	35763	0.521
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	114795	0.486
122) 4-Chlorotoluene	(4)	12.609	126	33645	0.487
125) tert-Butylbenzene	(4)	12.816	134	26873M	0.500
126) Pentachloroethane	(4)	12.847	167	23145	0.489
127) 1,2,4-Trimethylbenzene	(4)	12.859	105	117615	0.489
128) sec-Butylbenzene	(4)	12.975	105	146808M	0.481
131) 1,3-Dichlorobenzene	(4)	13.078	146	67382	0.493
132) p-Isopropyltoluene	(4)	13.085	119	128603	0.480
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	822319	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	67258	0.492
135) 1,2,3-Trimethylbenzene	(4)	13.164	120	57607	0.513
136) Benzyl Chloride	(4)	13.225	126	10171	0.460
138) n-Butylbenzene	(4)	13.377	92	56536	0.464
139) 1,2-Dichlorobenzene	(4)	13.408	146	60471	0.485
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	3739	0.456

M = Compound was manually integrated.
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on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	46795	0.469
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	40779	0.467
146) Hexachlorobutadiene	(4)	14.578	225	16397	0.459
147) Naphthalene	(4)	14.682	128	86443	0.494
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	37205	0.473

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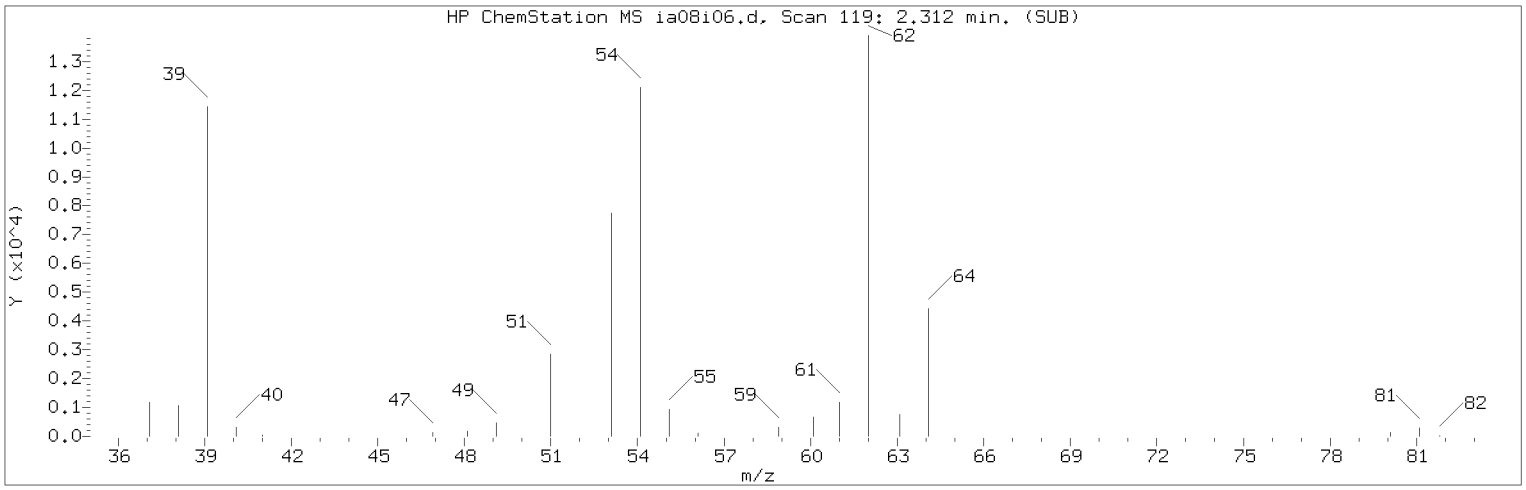
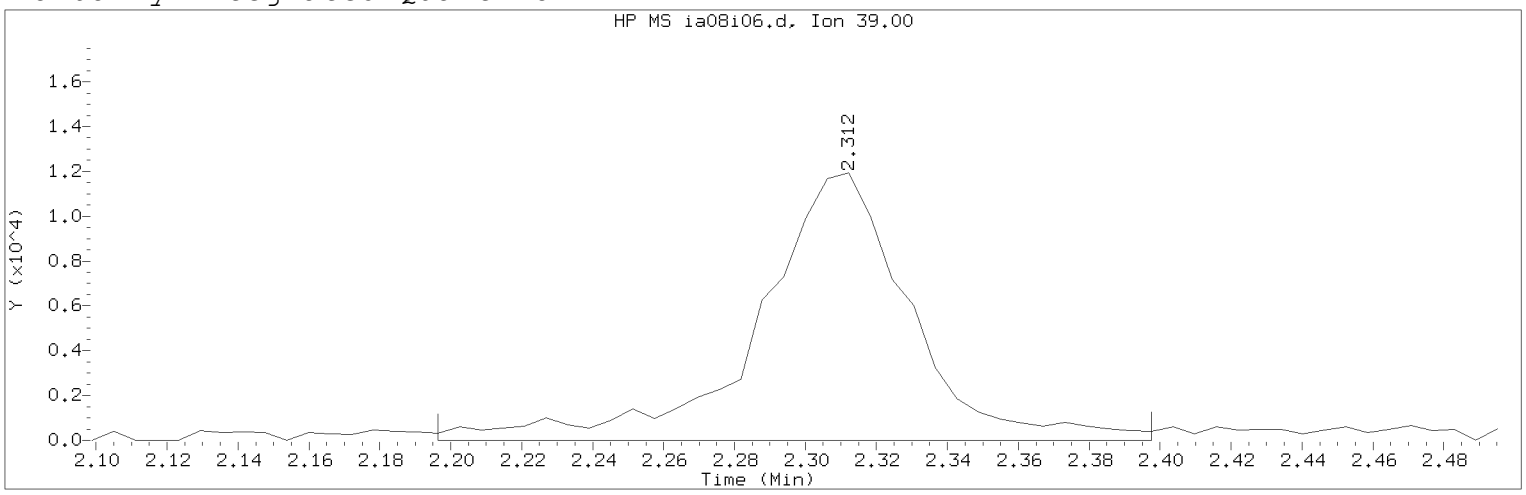
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

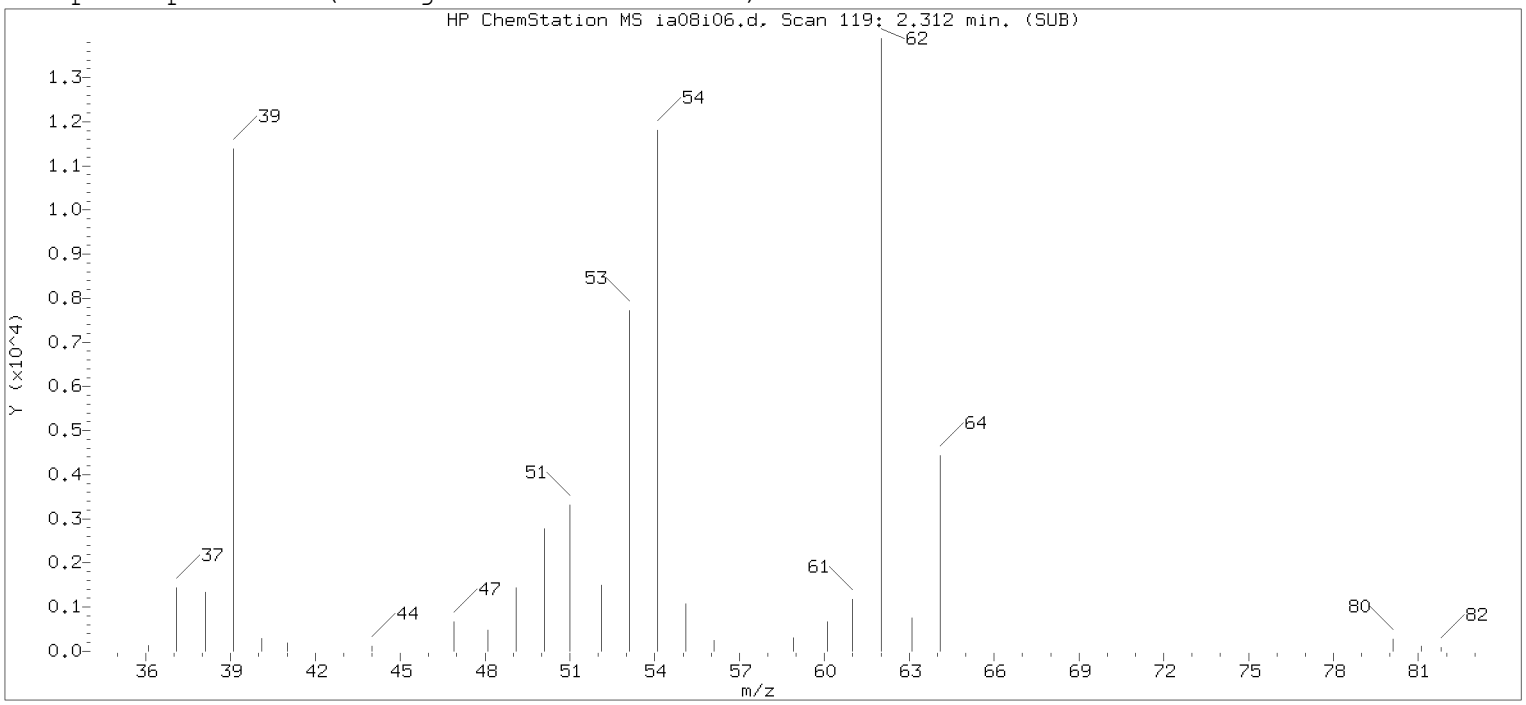
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area (flag) : 35934M
On-Column Amount (ng) : 0.5364
Integration start scan : 99 Integration stop scan: 132
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

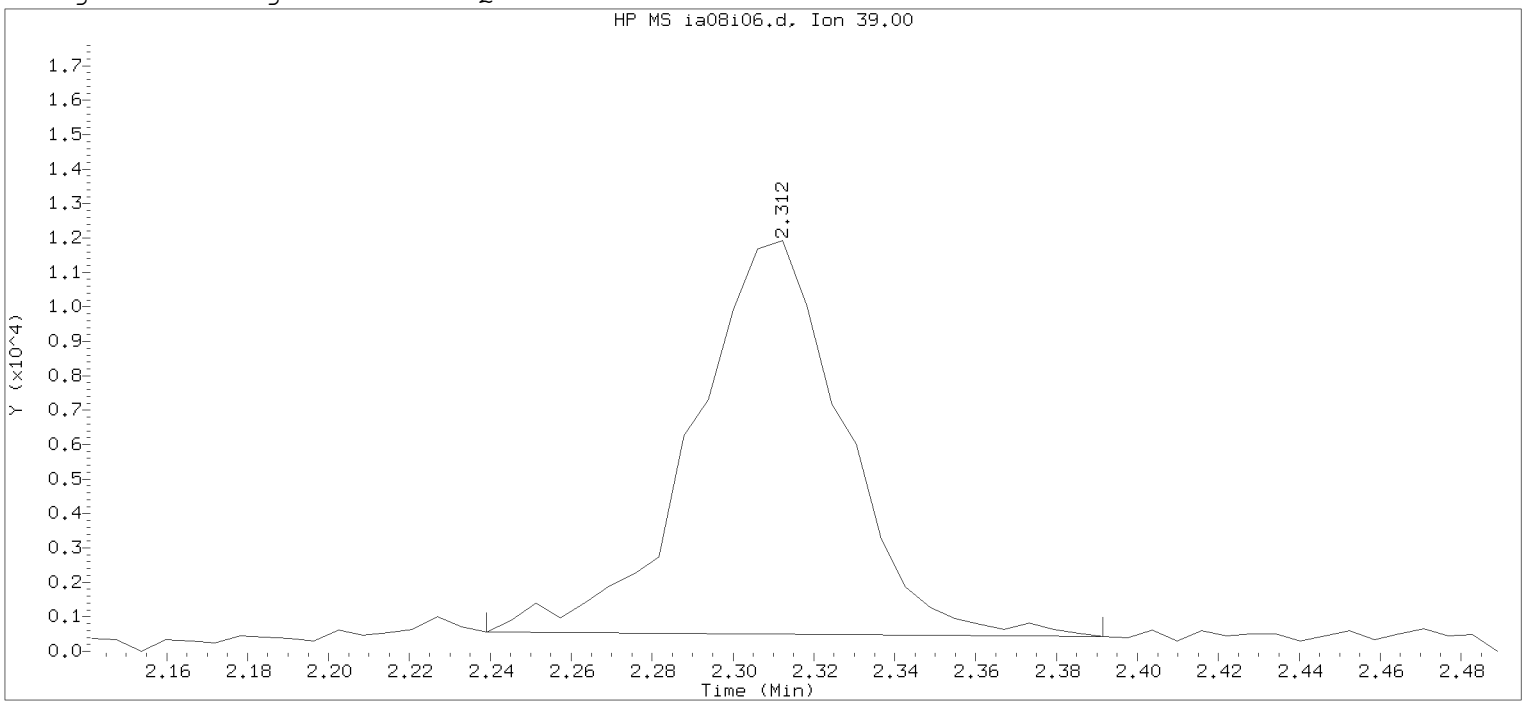
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

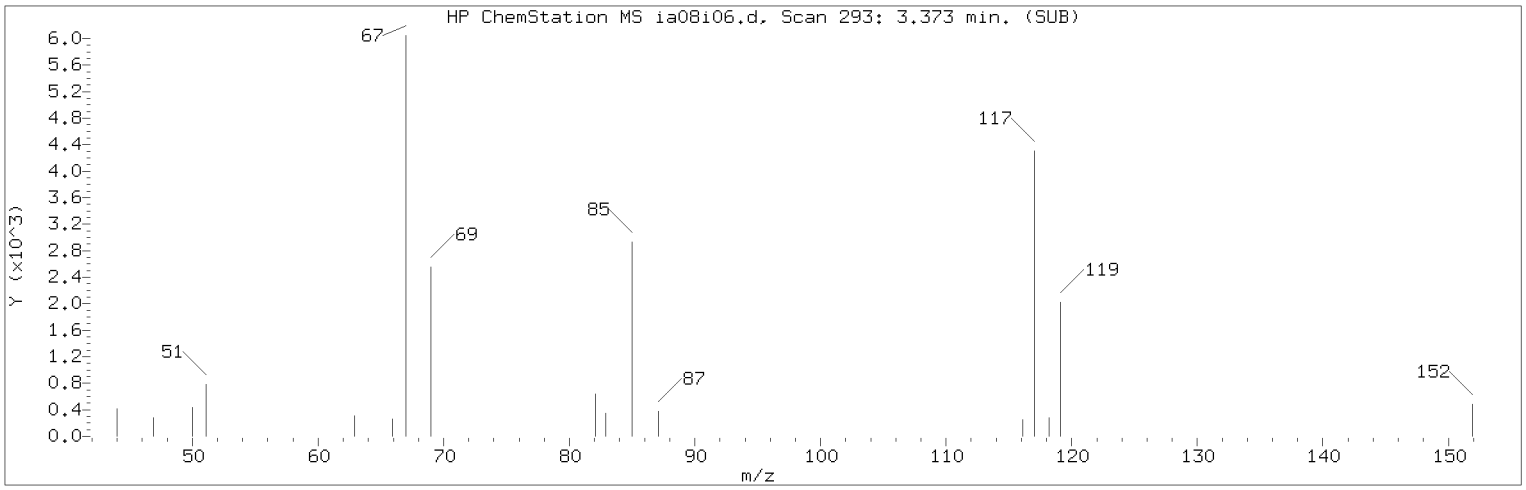
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

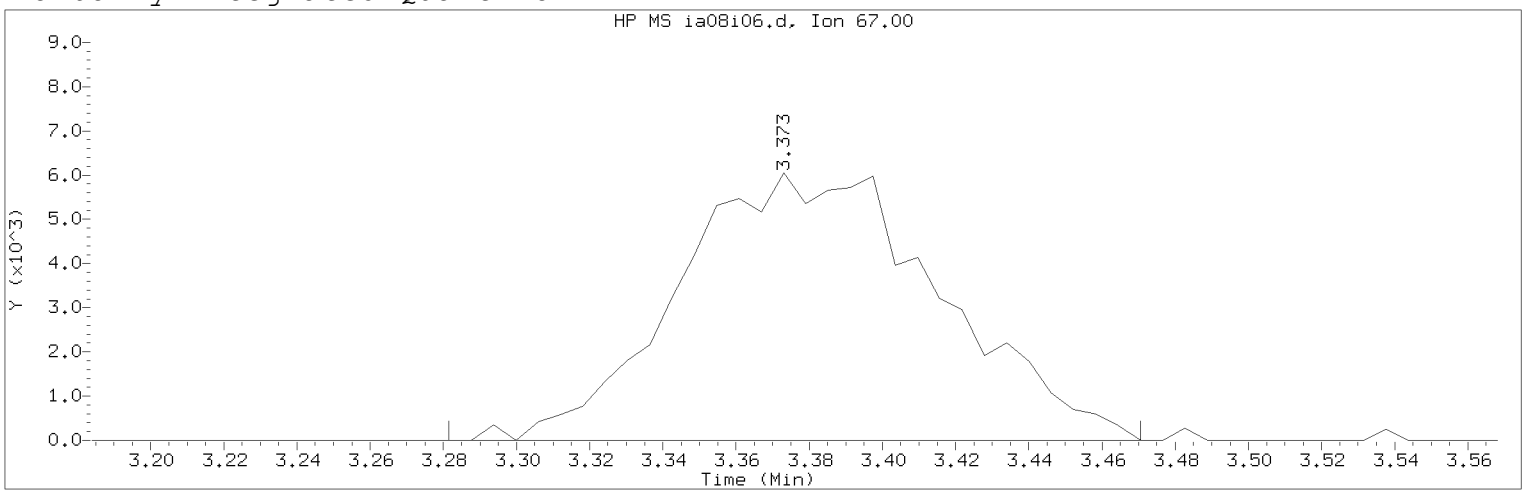
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area : 29521
On-column Amount (ng) : 0.4935
Integration start scan : 106 Integration stop scan: 131
Y at integration start : 554 Y at integration end: 437

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used by Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

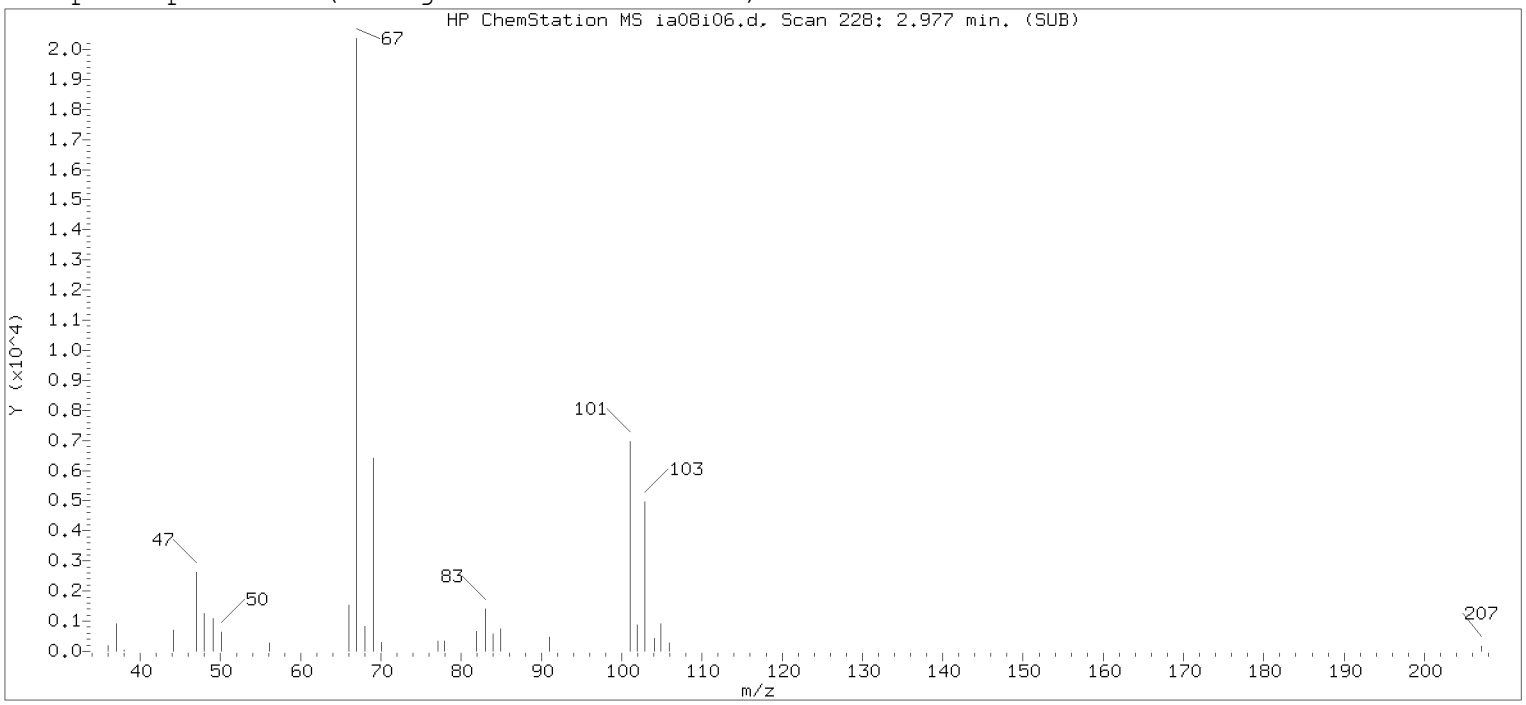
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area (flag) : 30133A
On-Column Amount (ng) : 0.4952
Integration start scan : 277 Integration stop scan: 308
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

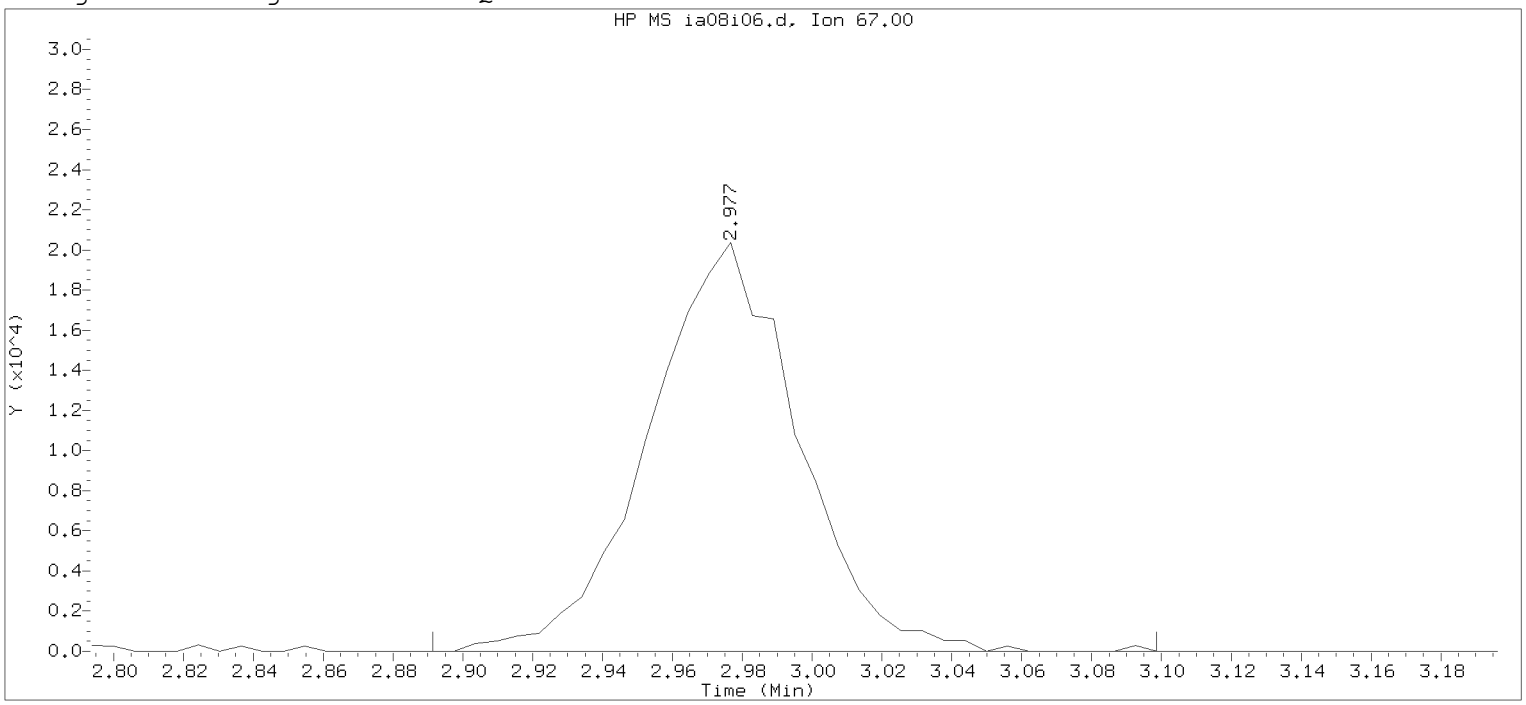
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 12
Compound Name : Freon 123a
Scan Number : 228
Retention Time (minutes): 2.977
Quant Ion : 67.00
Area : 60644
On-column Amount (ng) : 0.5011
Integration start scan : 213 Integration stop scan: 247
Y at integration start : 0 Y at integration end: 0

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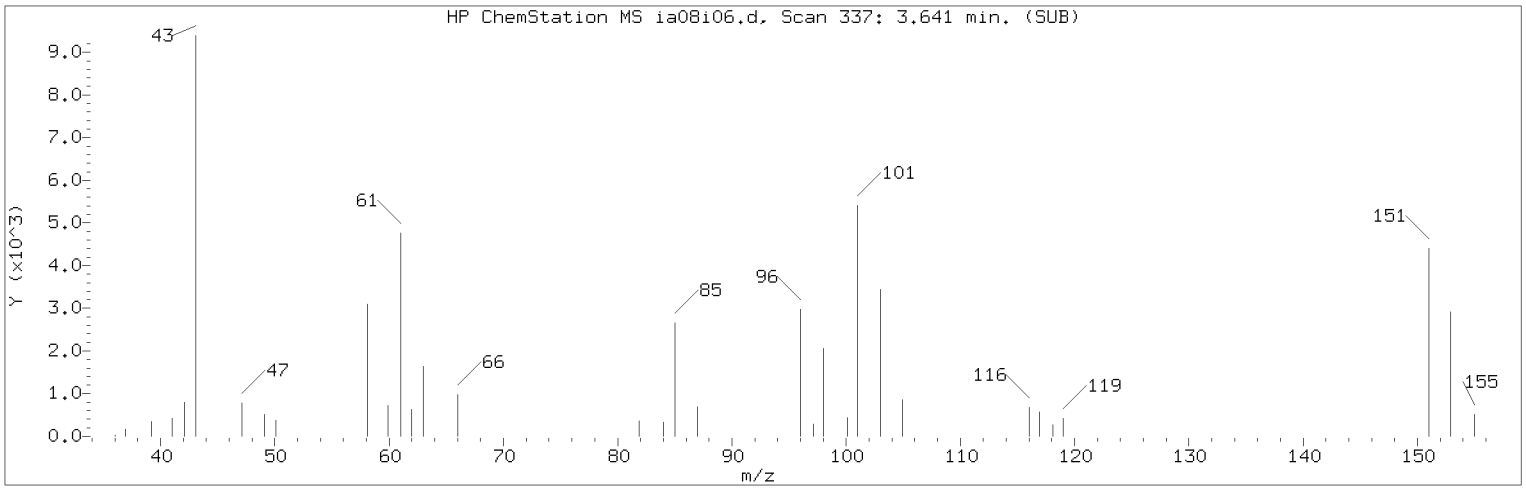
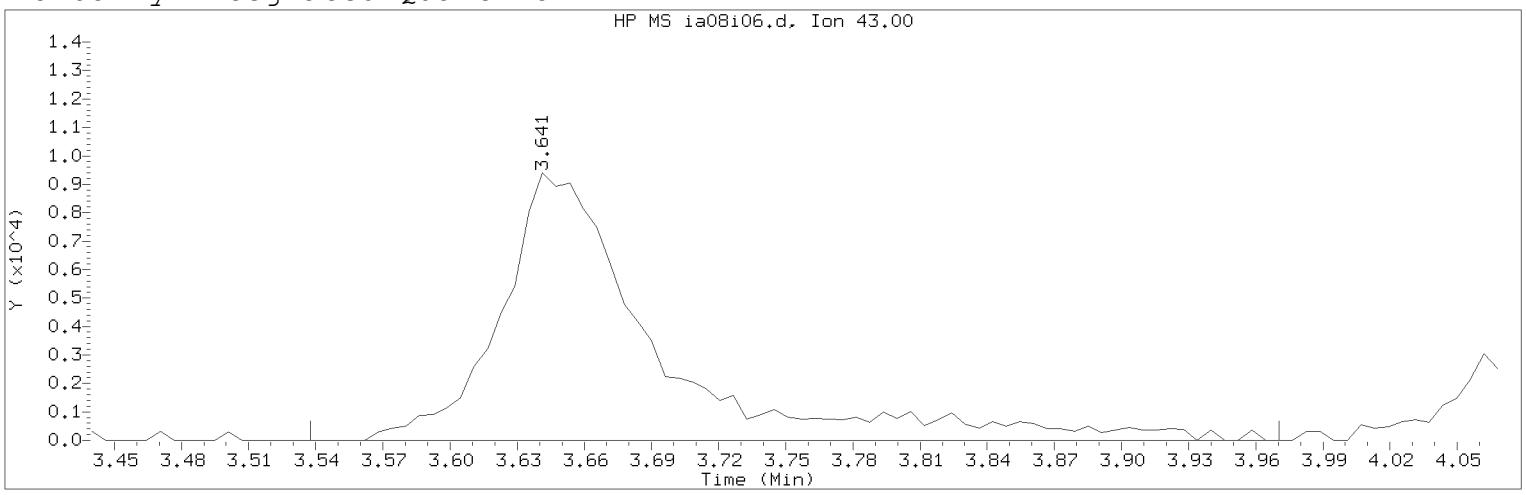
Target 3.5 esignature user: Page 1244 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

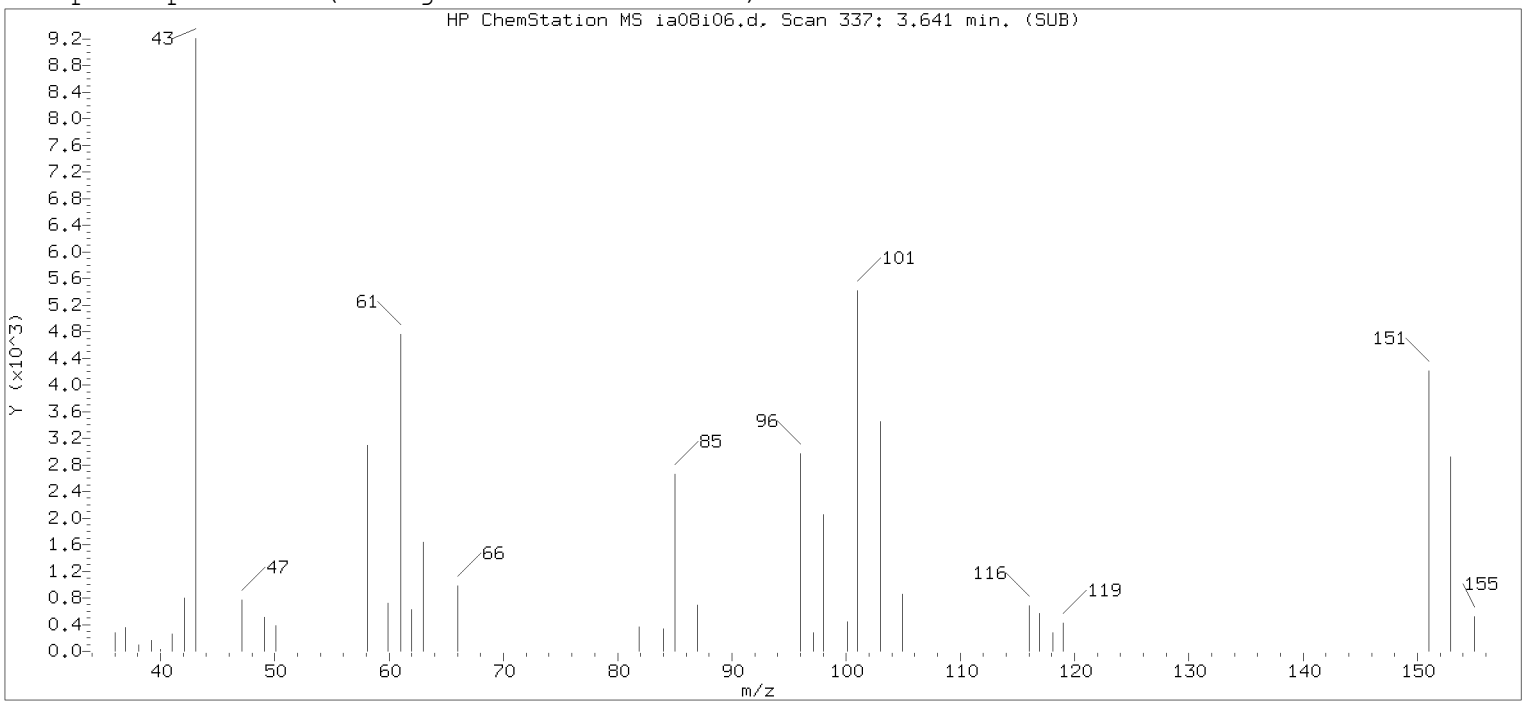
Compound Number : 14
Compound Name : Acetone
Scan Number : 337
Retention Time (minutes): 3.641
Quant Ion : 43.00
Area (flag) : 45203M
On-Column Amount (ng) : 5.1539
Integration start scan : 319 Integration stop scan: 390
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

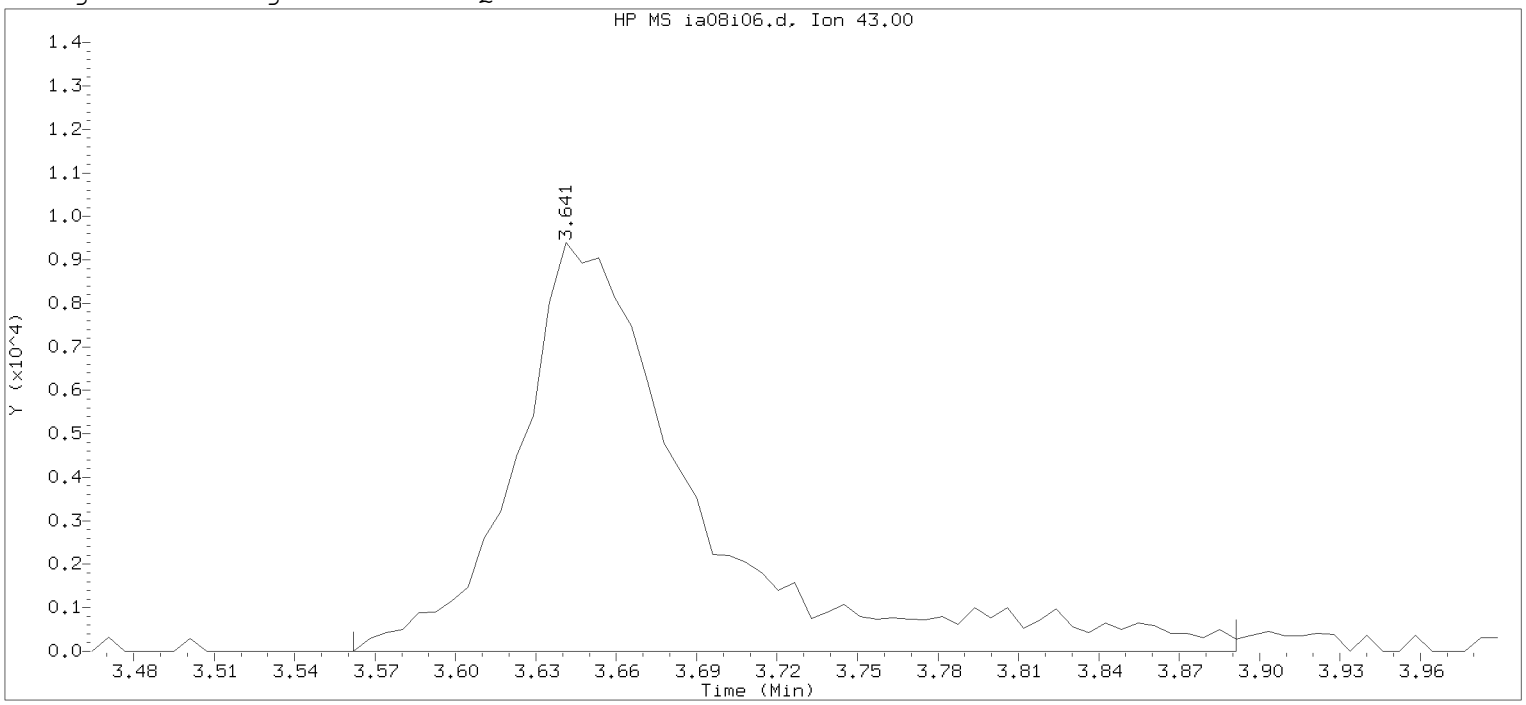
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

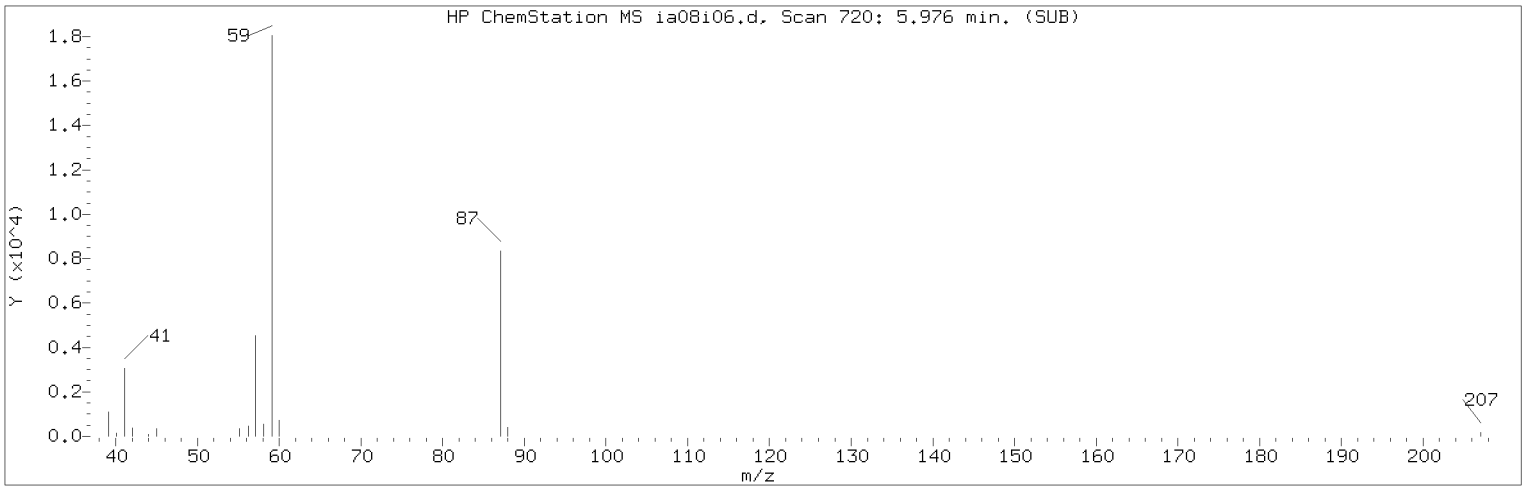
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

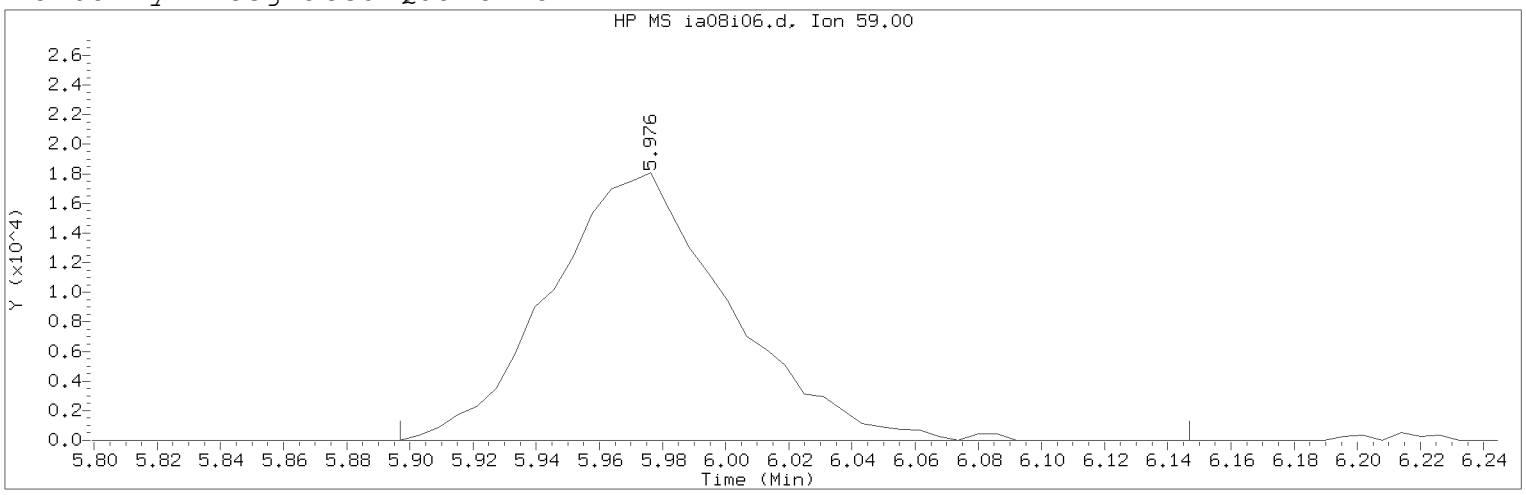
Compound Number : 14
Compound Name : Acetone
Scan Number : 337
Retention Time (minutes): 3.641
Quant Ion : 43.00
Area : 44028
On-column Amount (ng) : 5.3116
Integration start scan : 323 Integration stop scan: 377
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used by Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

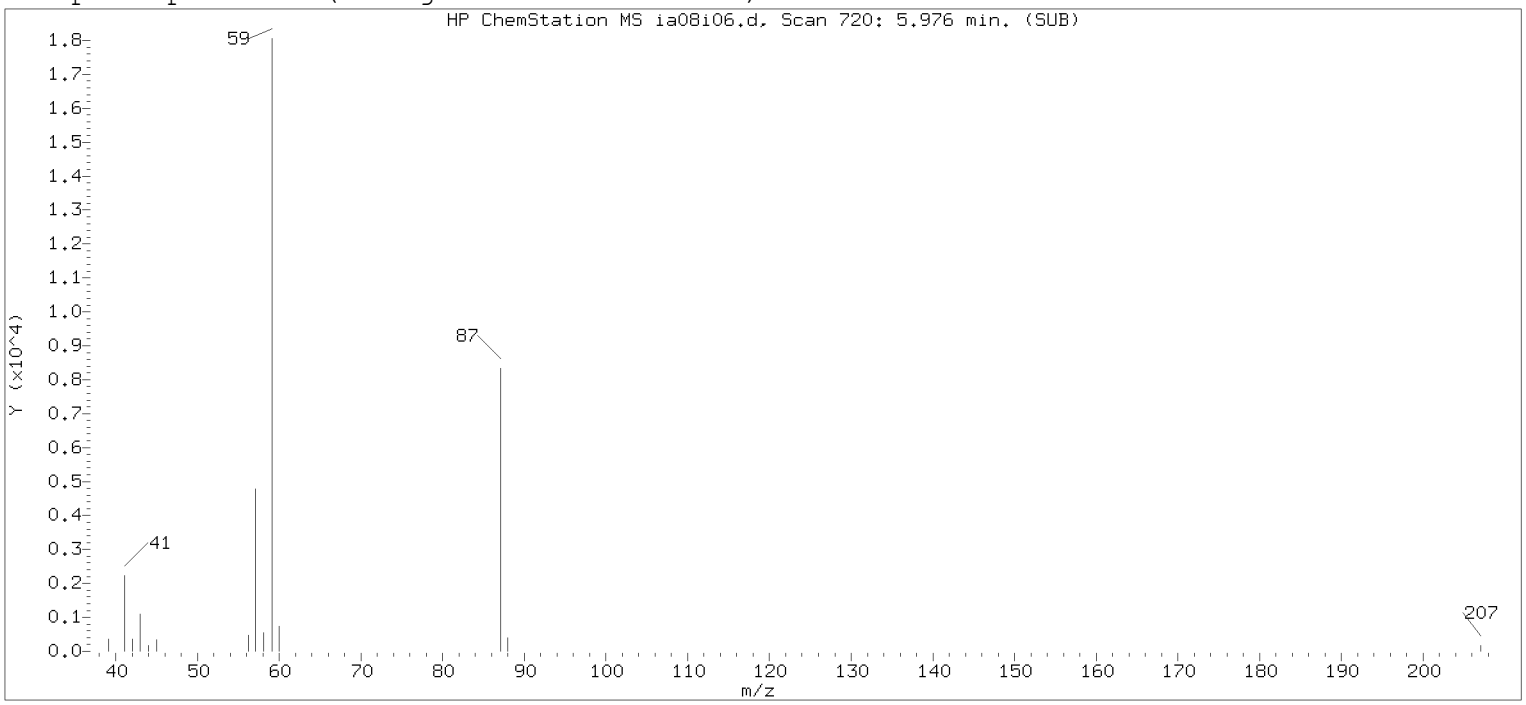
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 720
Retention Time (minutes): 5.976
Quant Ion : 59.00
Area (flag) : 71107M
On-Column Amount (ng) : 0.4996
Integration start scan : 706 Integration stop scan: 747
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

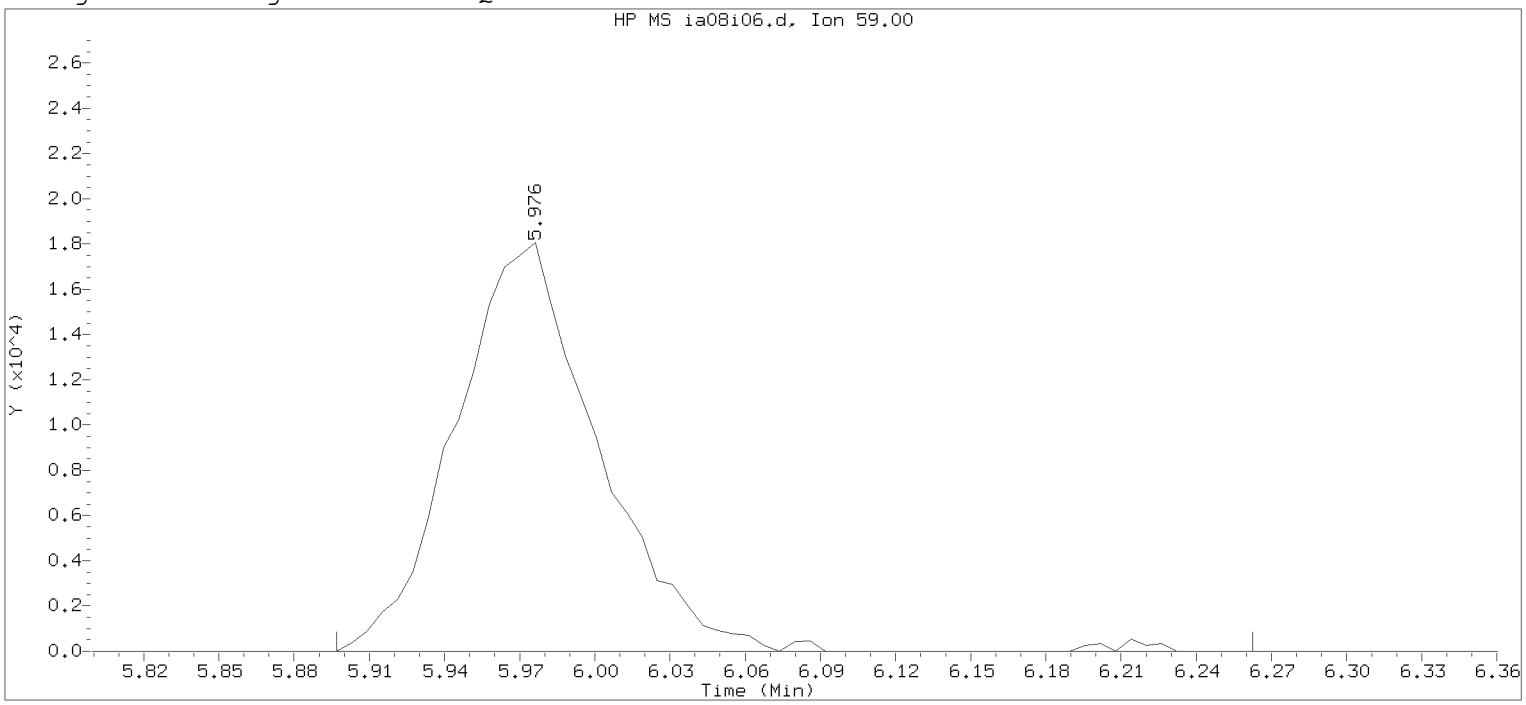
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

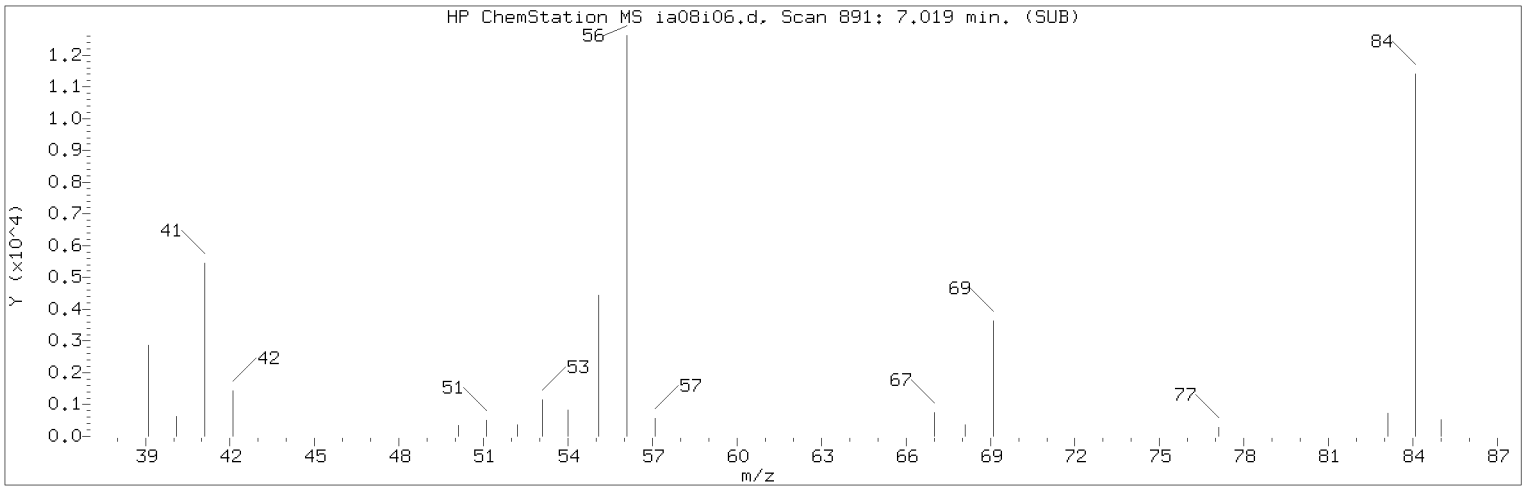
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

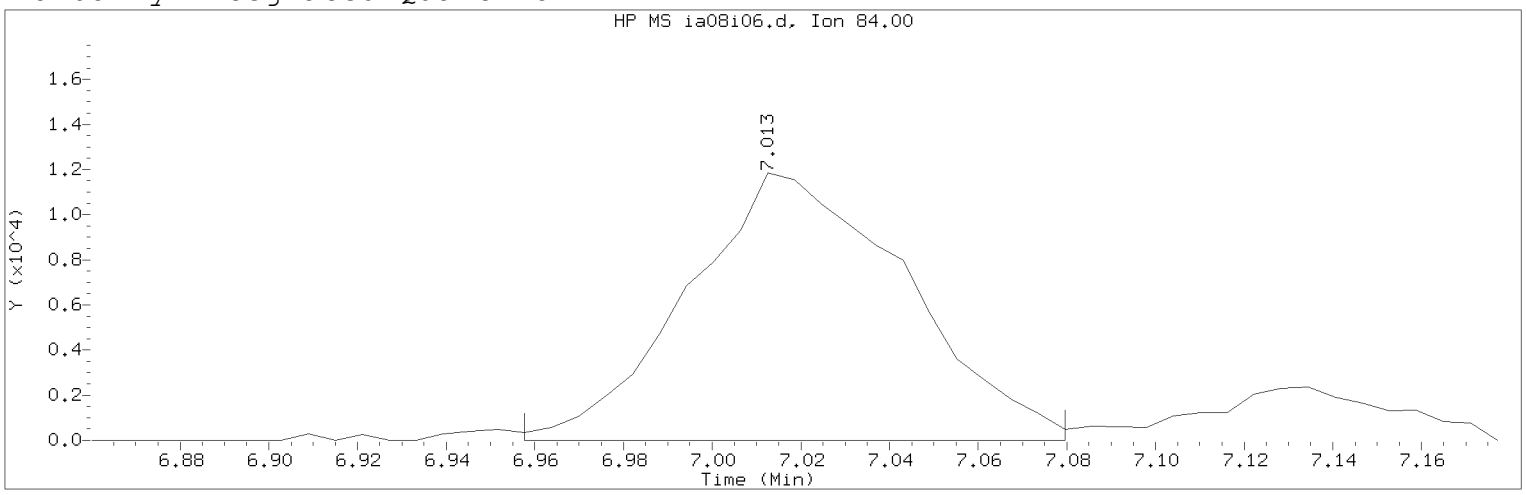
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 720
Retention Time (minutes): 5.976
Quant Ion : 59.00
Area : 71740
On-column Amount (ng) : 0.5058
Integration start scan : 706 Integration stop scan: 766
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Page 1248

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

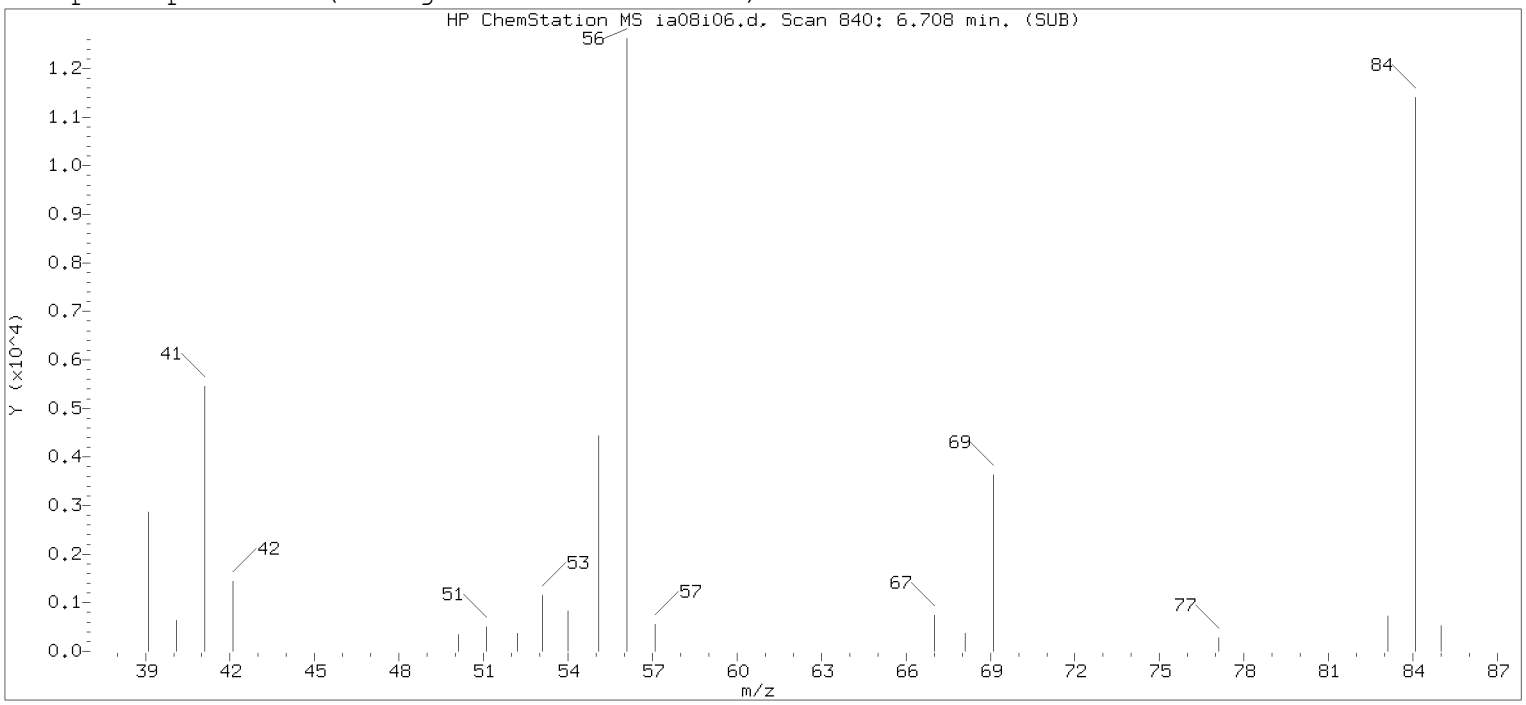
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 890
Retention Time (minutes): 7.013
Quant Ion : 84.00
Area (flag) : 40666M
On-Column Amount (ng) : 0.4871
Integration start scan : 880 Integration stop scan: 900
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

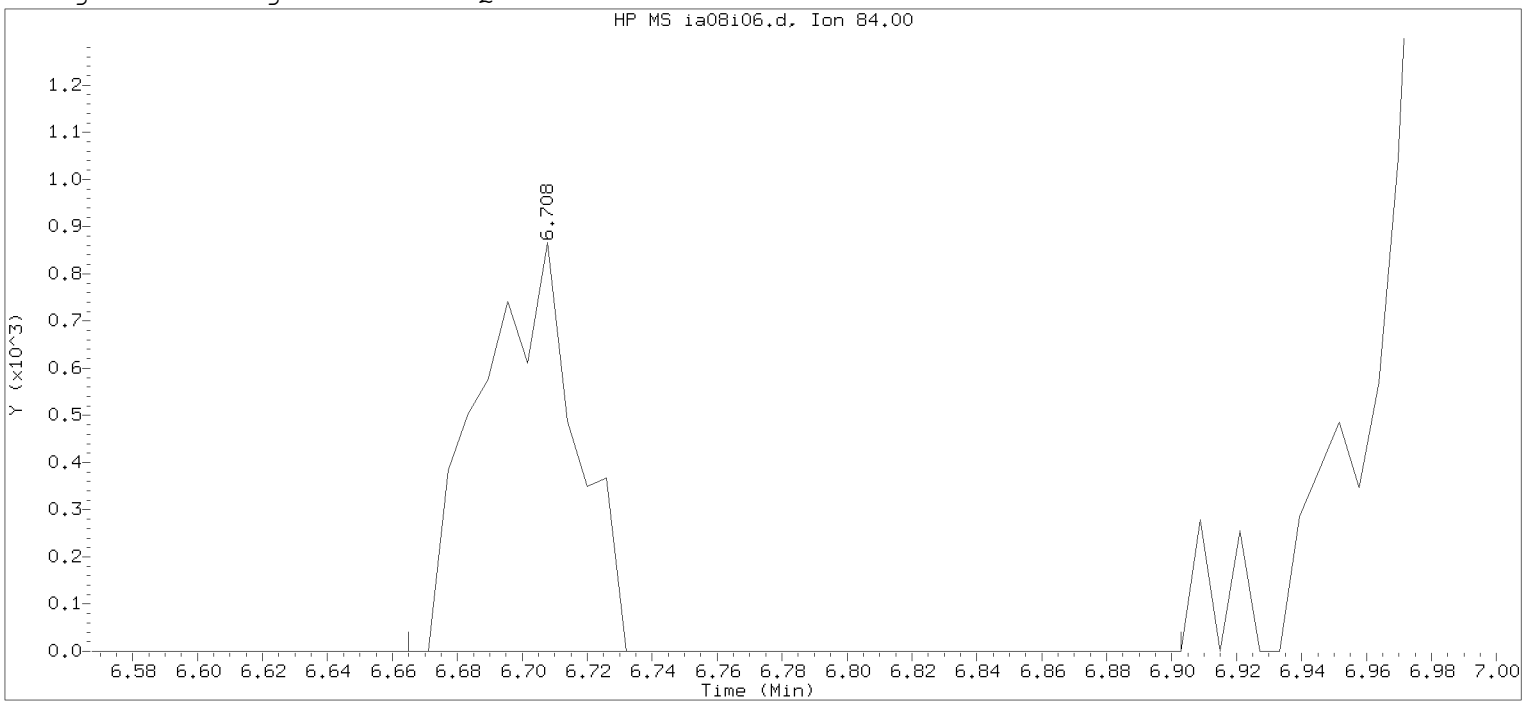
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

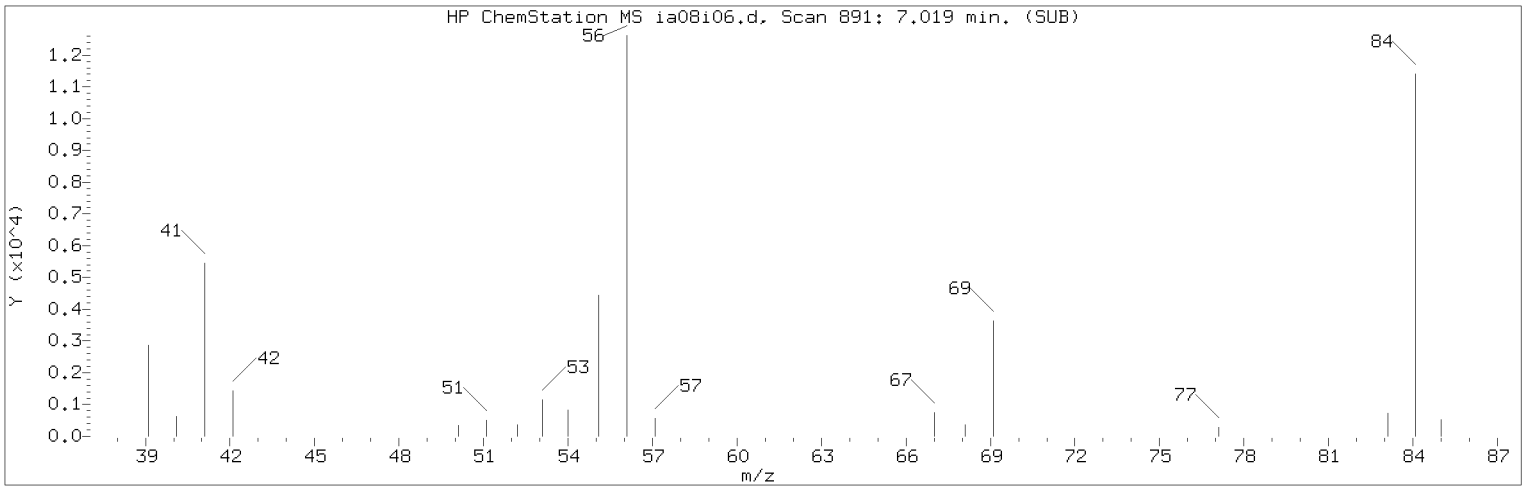
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

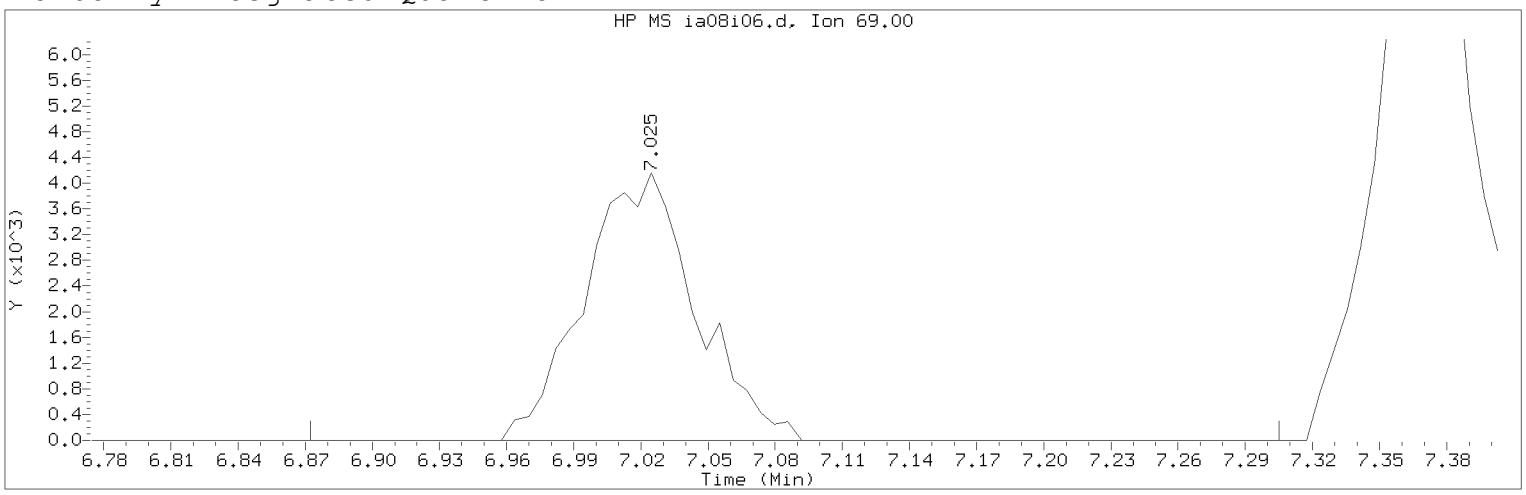
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 840
Retention Time (minutes): 6.708
Quant Ion : 84.00
Area : 1786
On-column Amount (ng) : 0.4699
Integration start scan : 832 Integration stop scan: 871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

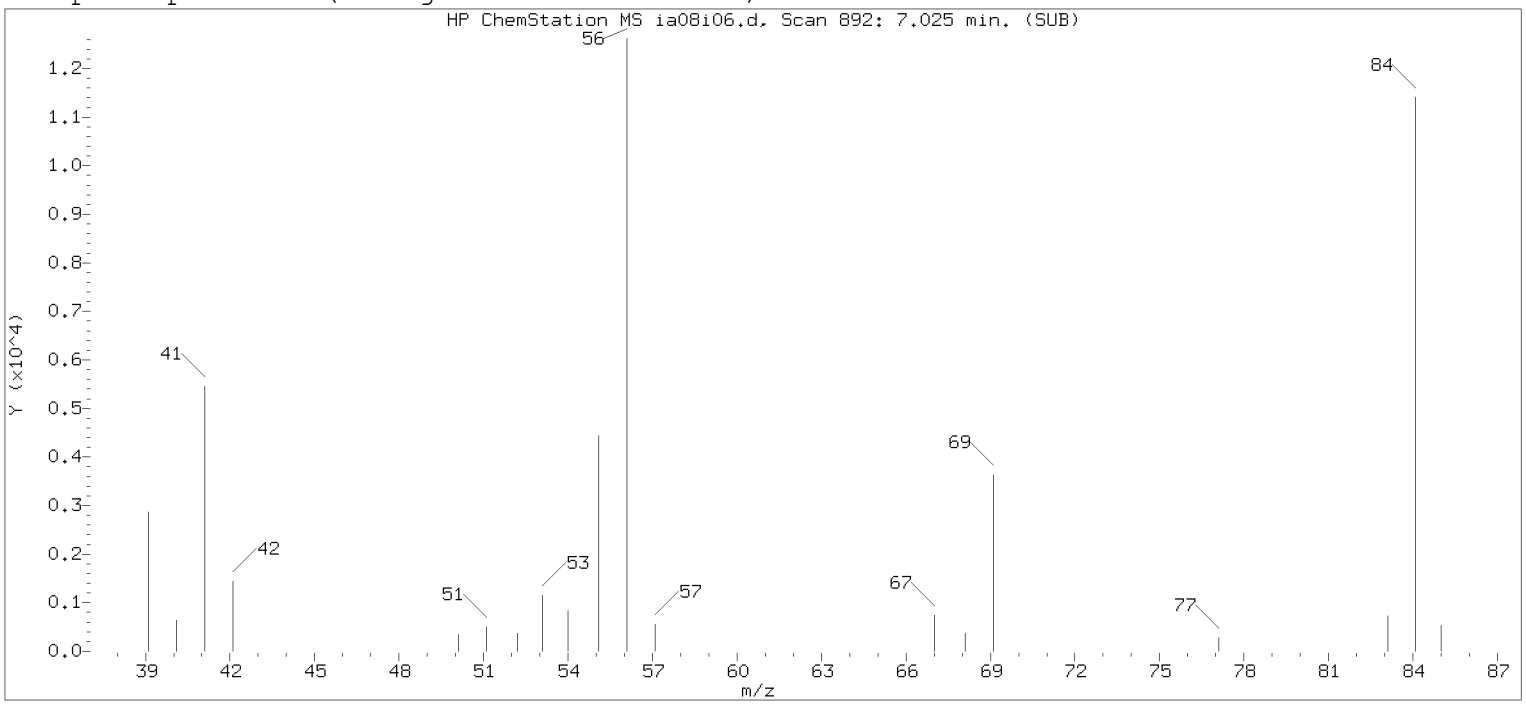
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 69.00
Area (flag) : 14413M
On-Column Amount (ng) : 0.4959
Integration start scan : 866 Integration stop scan: 937
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

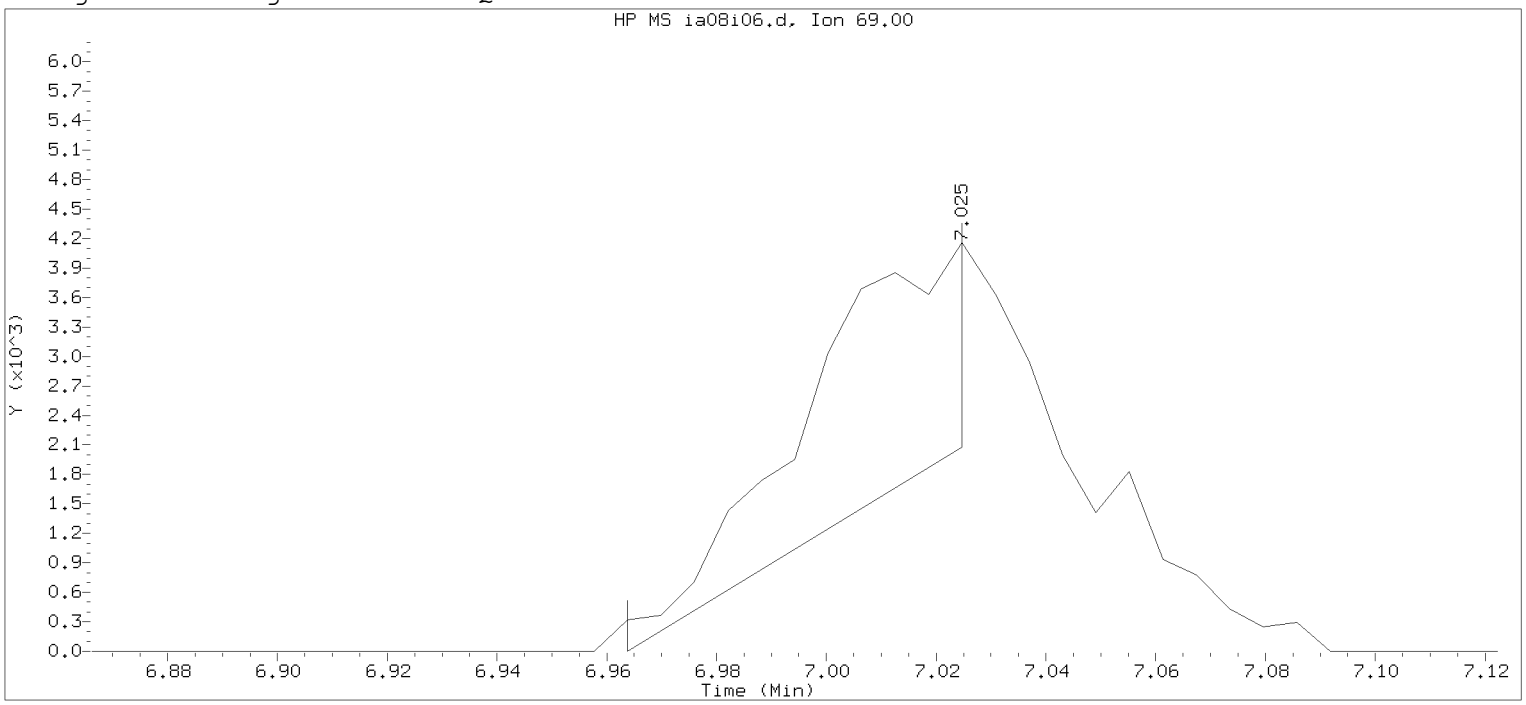
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

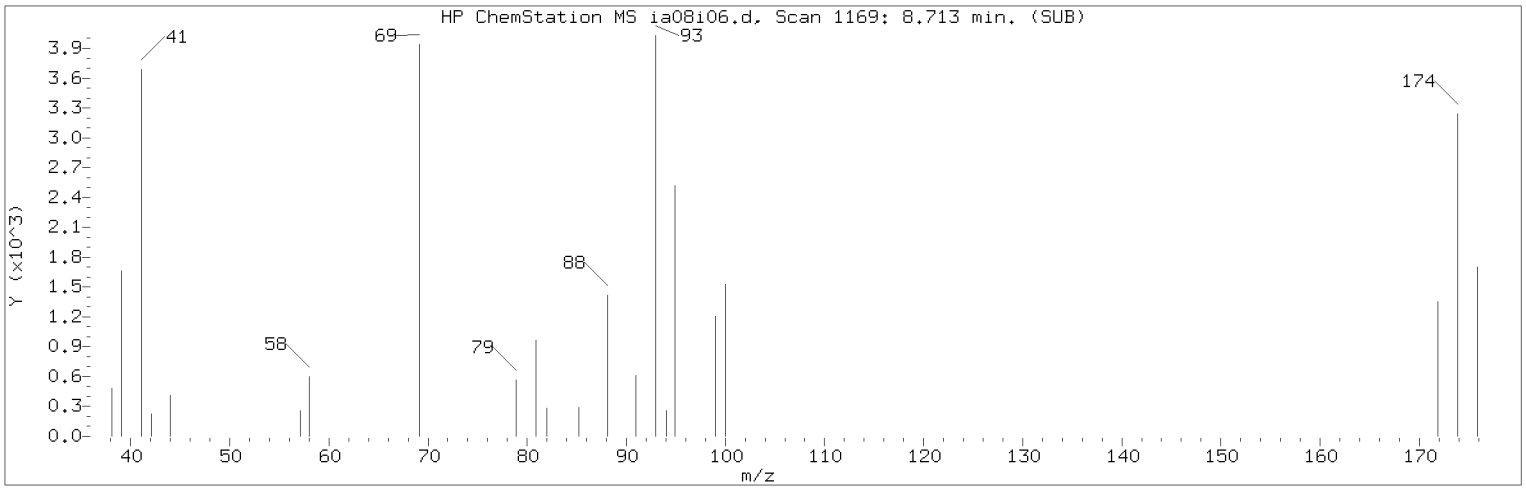
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

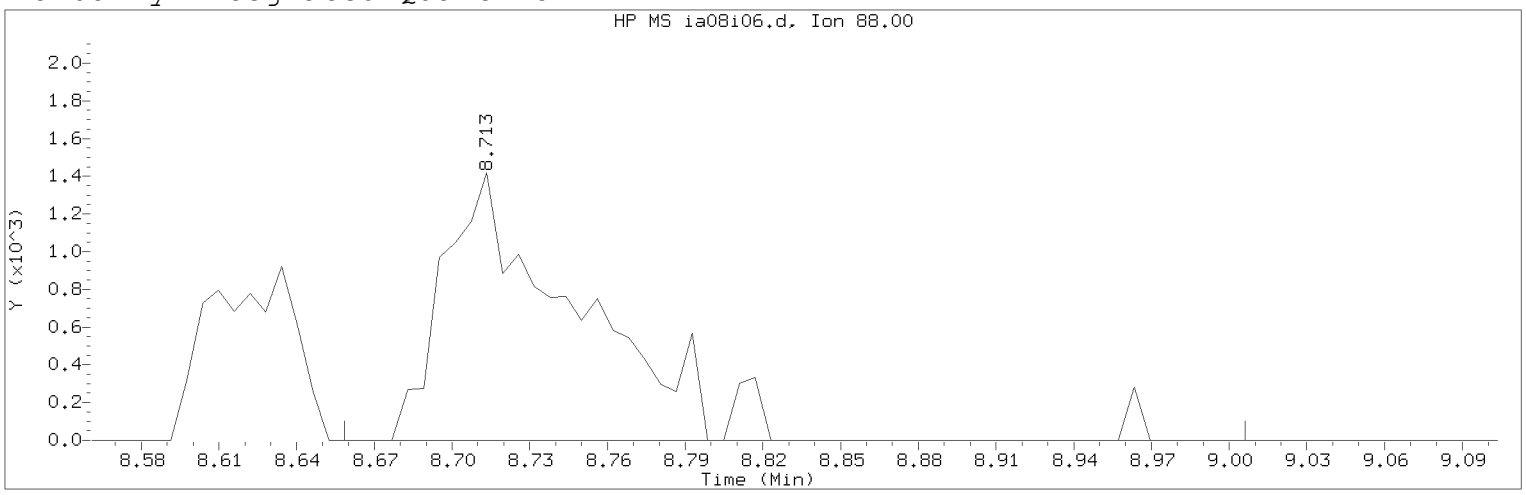
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 69.00
Area : 4481
On-column Amount (ng) : 1.5654
Integration start scan : 881 Integration stop scan: 891
Y at integration start : 0 Y at integration end: 2079

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

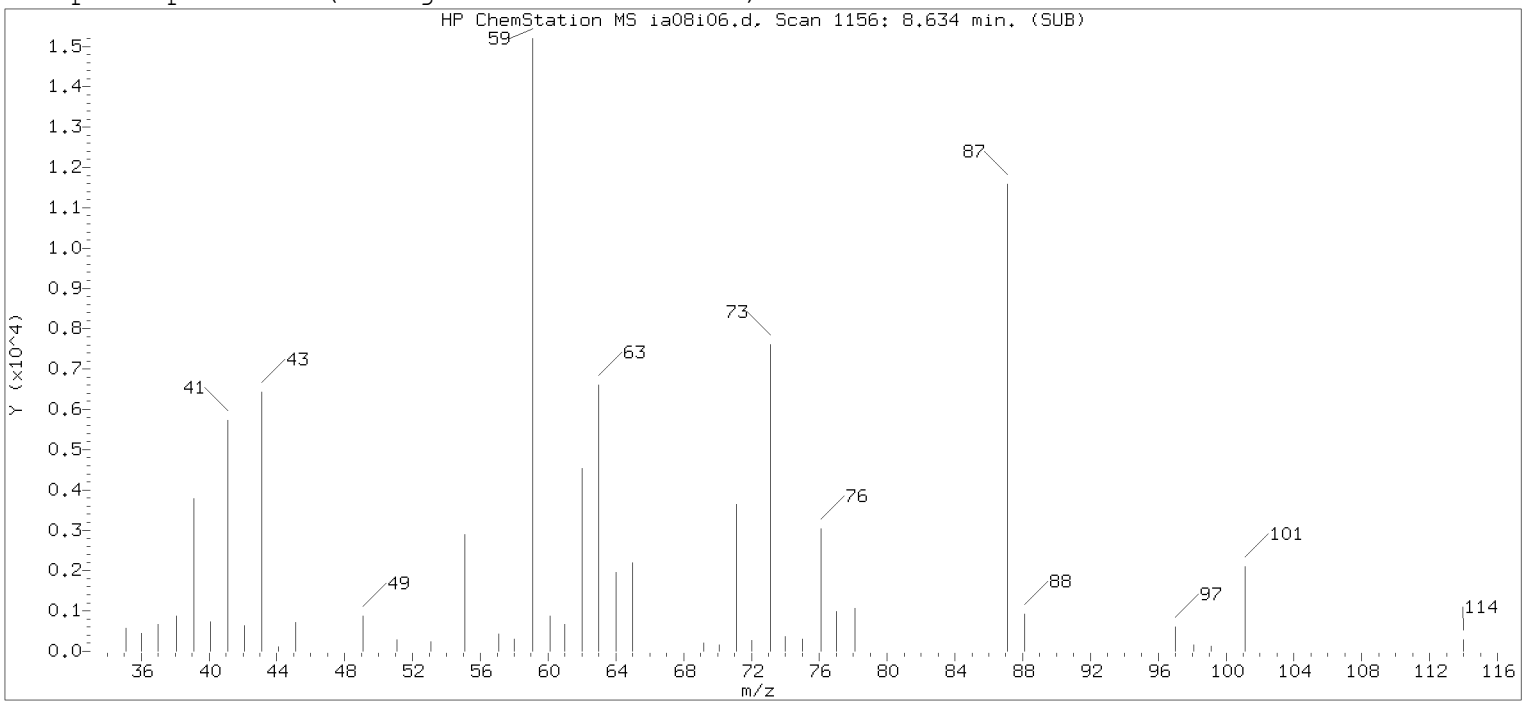
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.713
Quant Ion : 88.00
Area (flag) : 5239M
On-Column Amount (ng) : 22.7435
Integration start scan : 1159 Integration stop scan: 1216
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

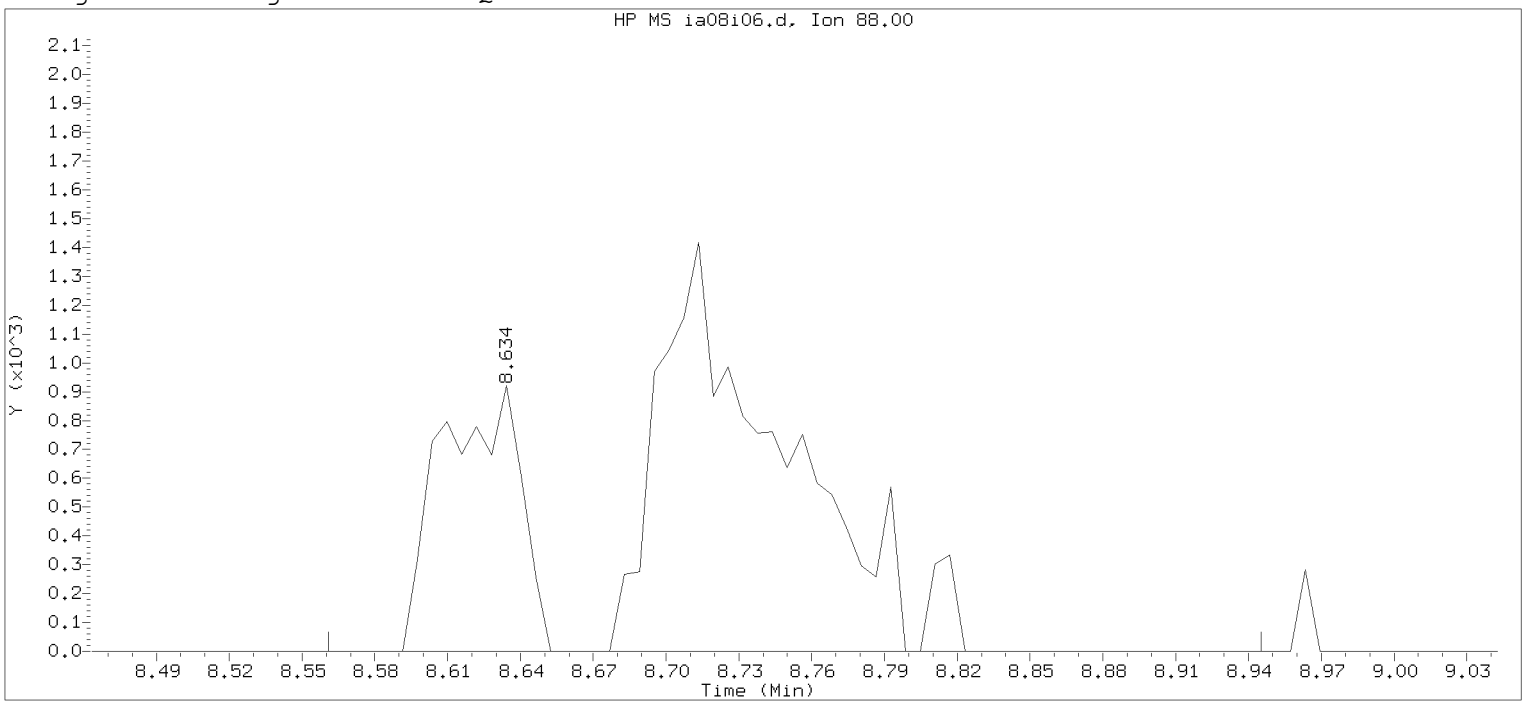
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

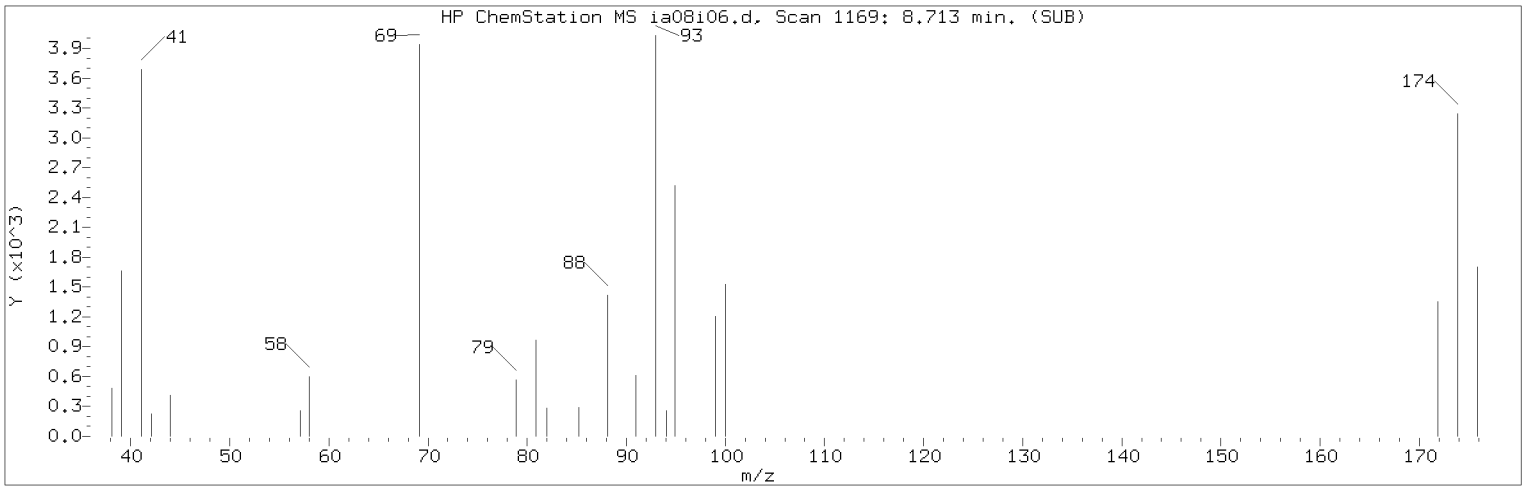
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

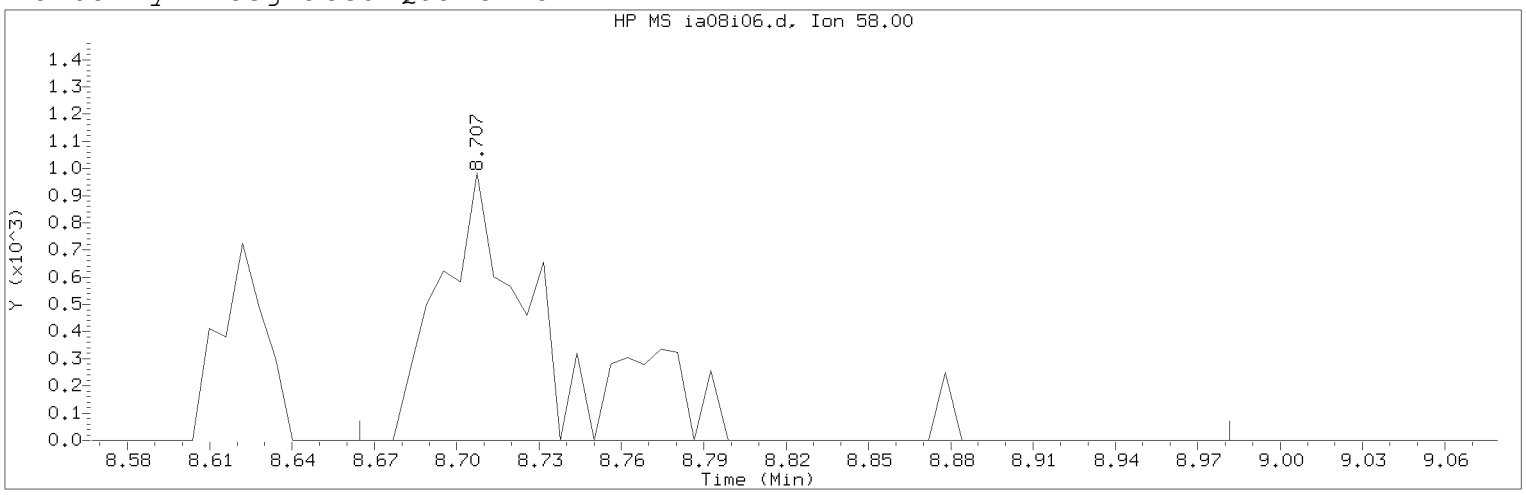
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1156
Retention Time (minutes): 8.634
Quant Ion : 88.00
Area : 7247
On-column Amount (ng) : 32.1041
Integration start scan : 1143 Integration stop scan: 1206
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1254

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

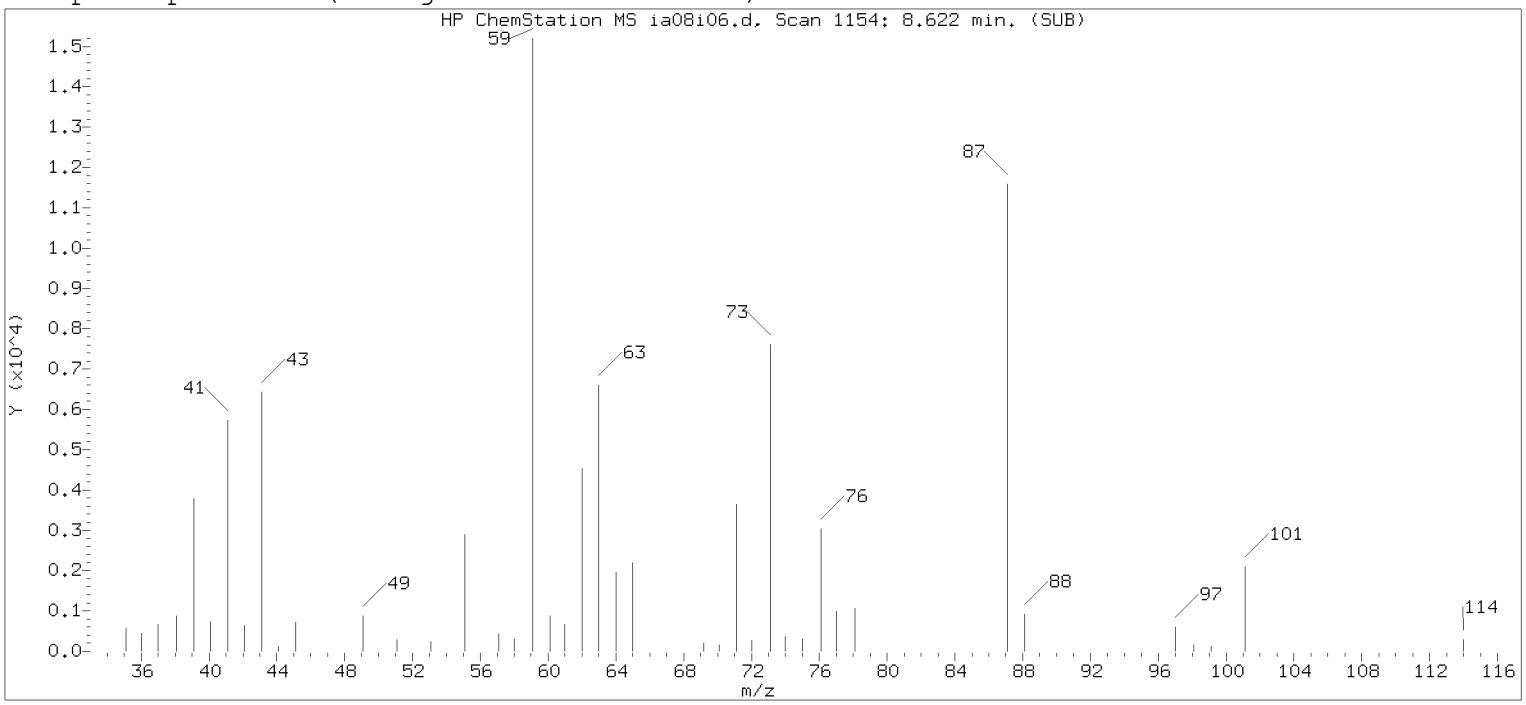
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1168
Retention Time (minutes): 8.707
Quant Ion : 58.00
Area (flag) : 2770M
On-Column Amount (ng) : 20.1794
Integration start scan : 1160 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

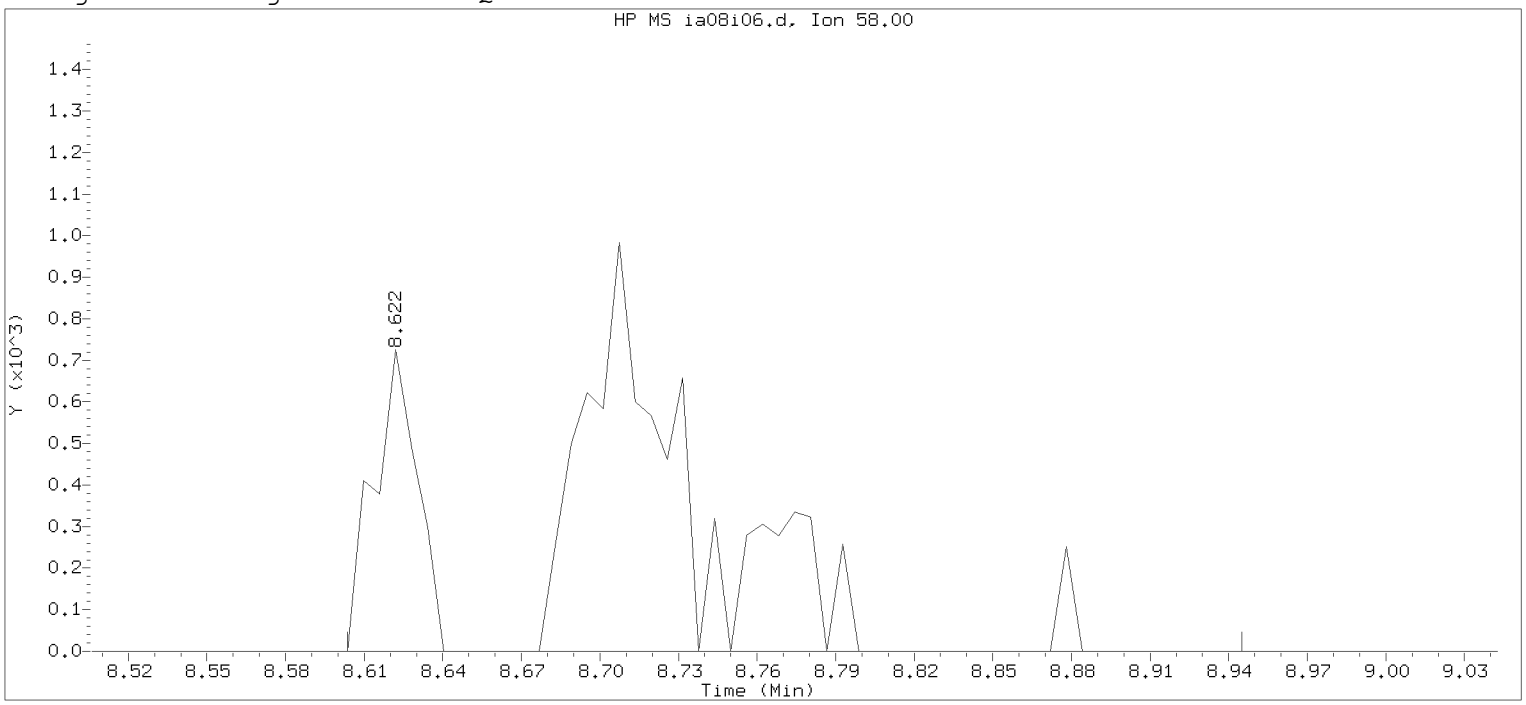
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

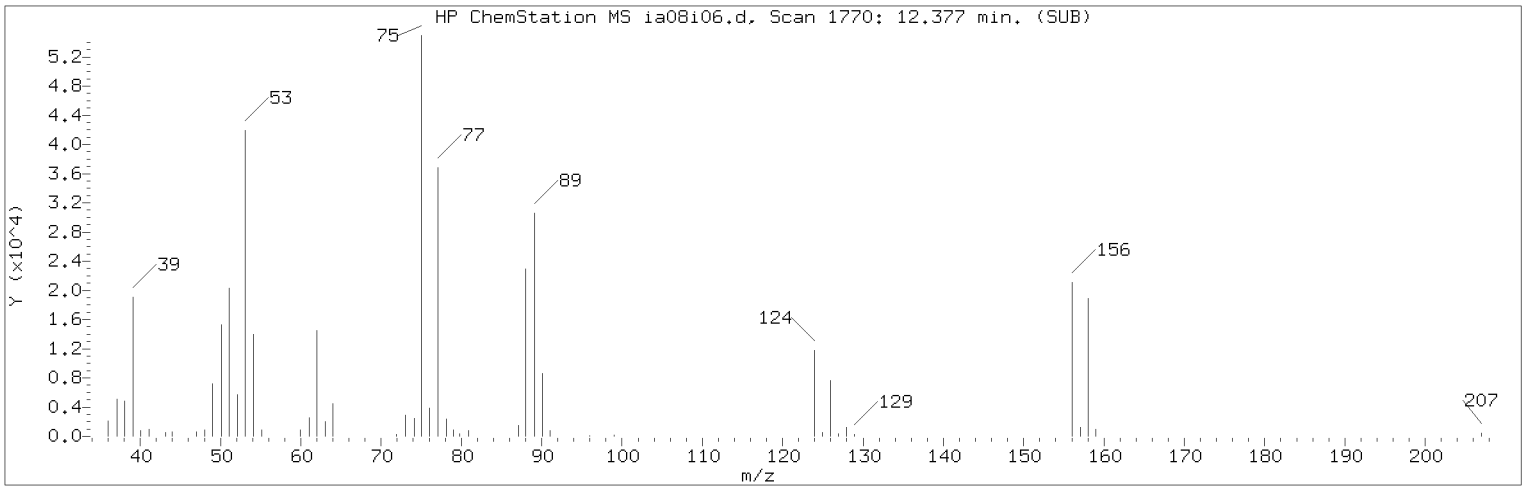
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

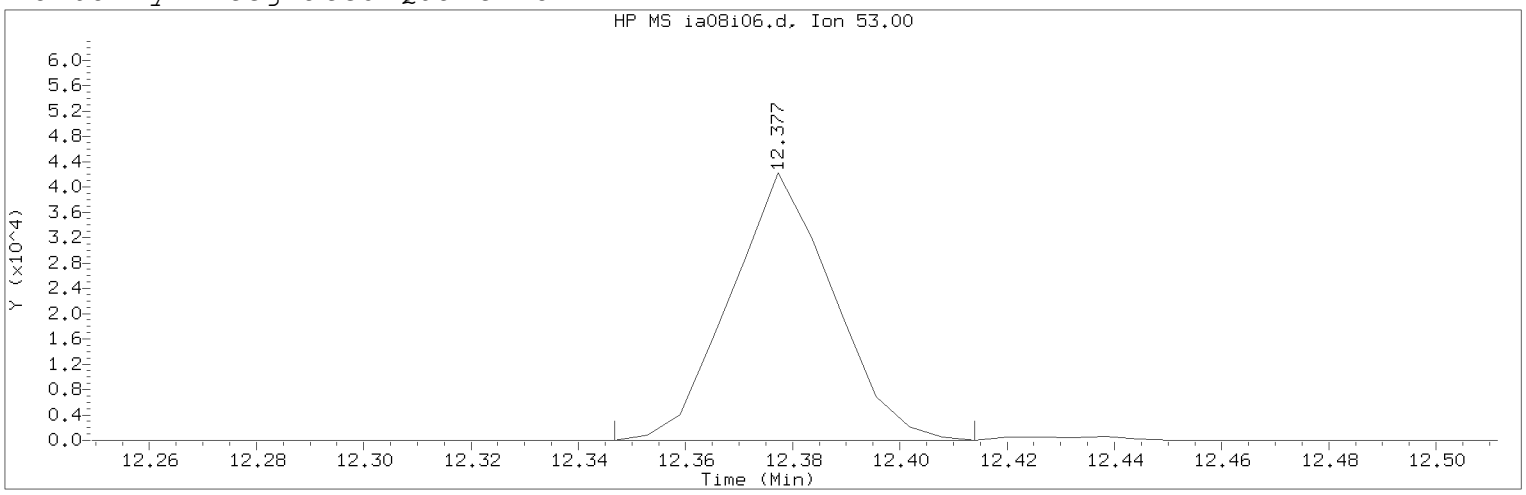
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1154
Retention Time (minutes): 8.622
Quant Ion : 58.00
Area : 3612
On-column Amount (ng) : 21.1399
Integration start scan : 1150 Integration stop scan: 1206
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Page 1256

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

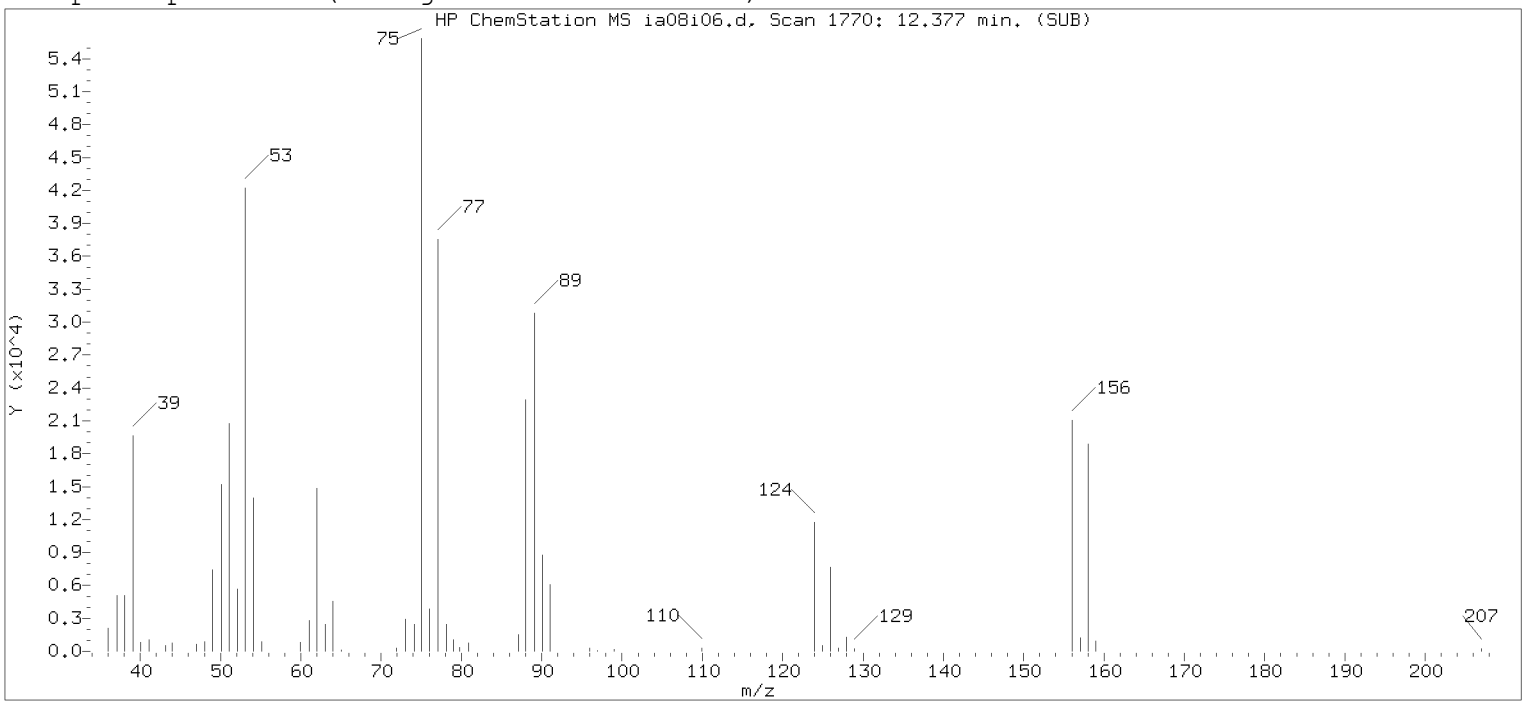
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1770
Retention Time (minutes): 12.377
Quant Ion : 53.00
Area (flag) : 55889M
On-Column Amount (ng) : 4.4187
Integration start scan : 1764 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

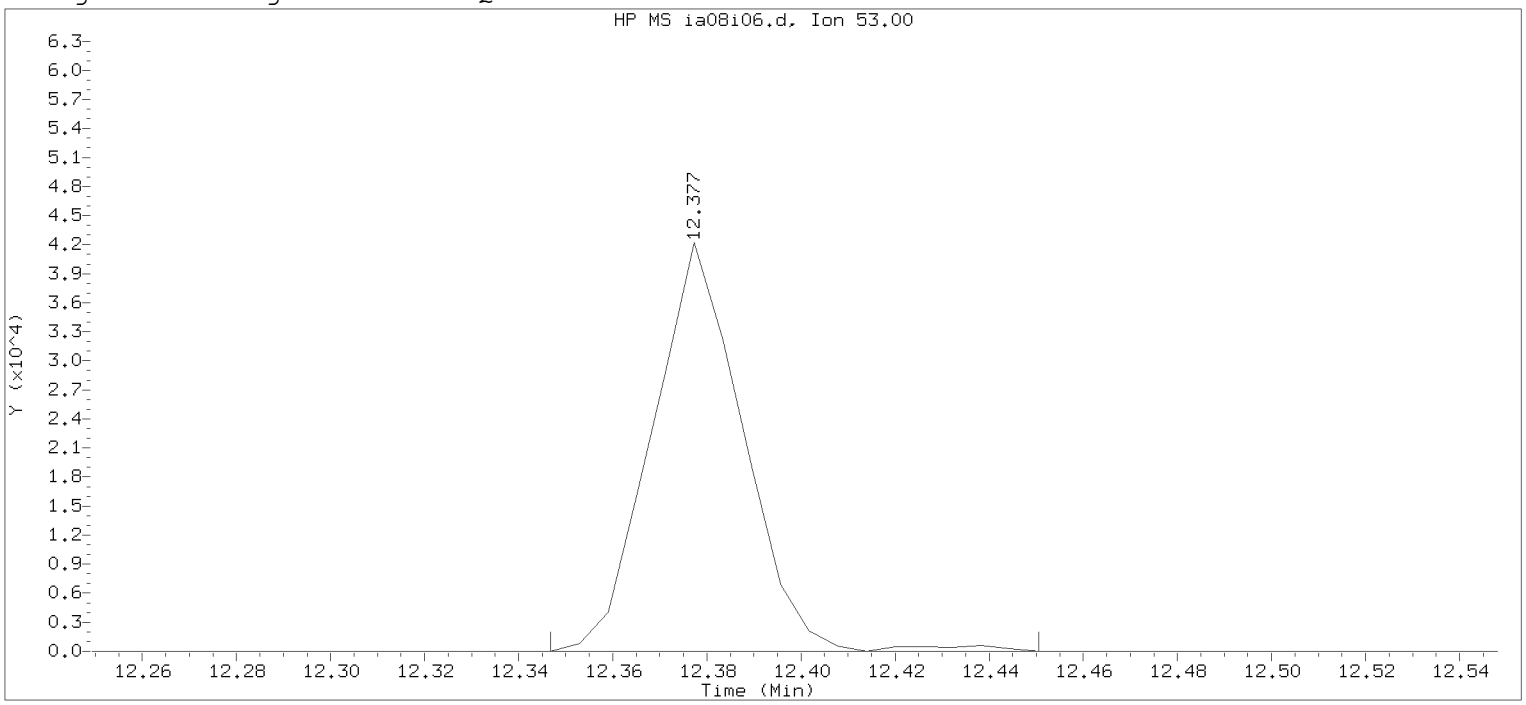
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

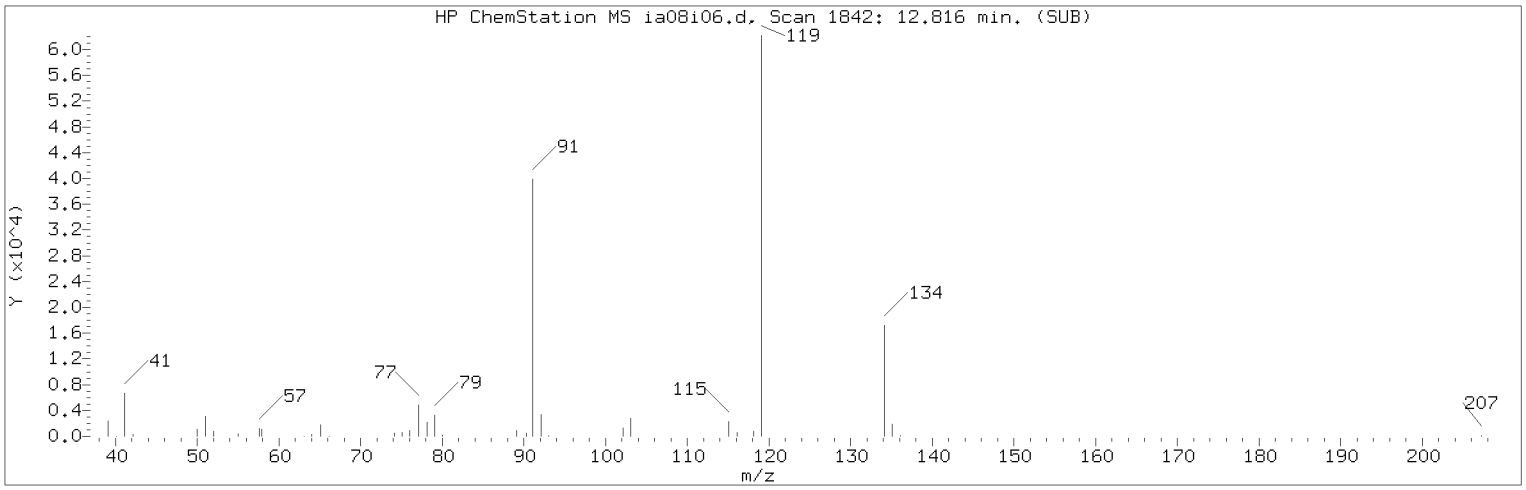
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

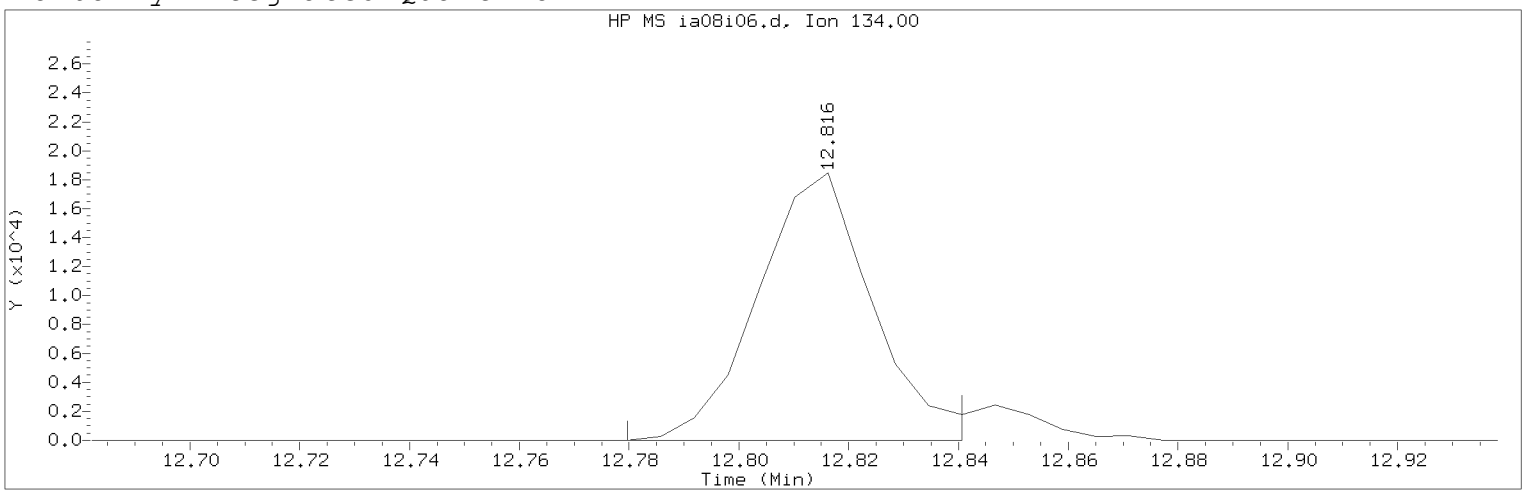
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1770
Retention Time (minutes): 12.377
Quant Ion : 53.00
Area : 56688
On-column Amount (ng) : 4.3112
Integration start scan : 1764 Integration stop scan: 1781
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

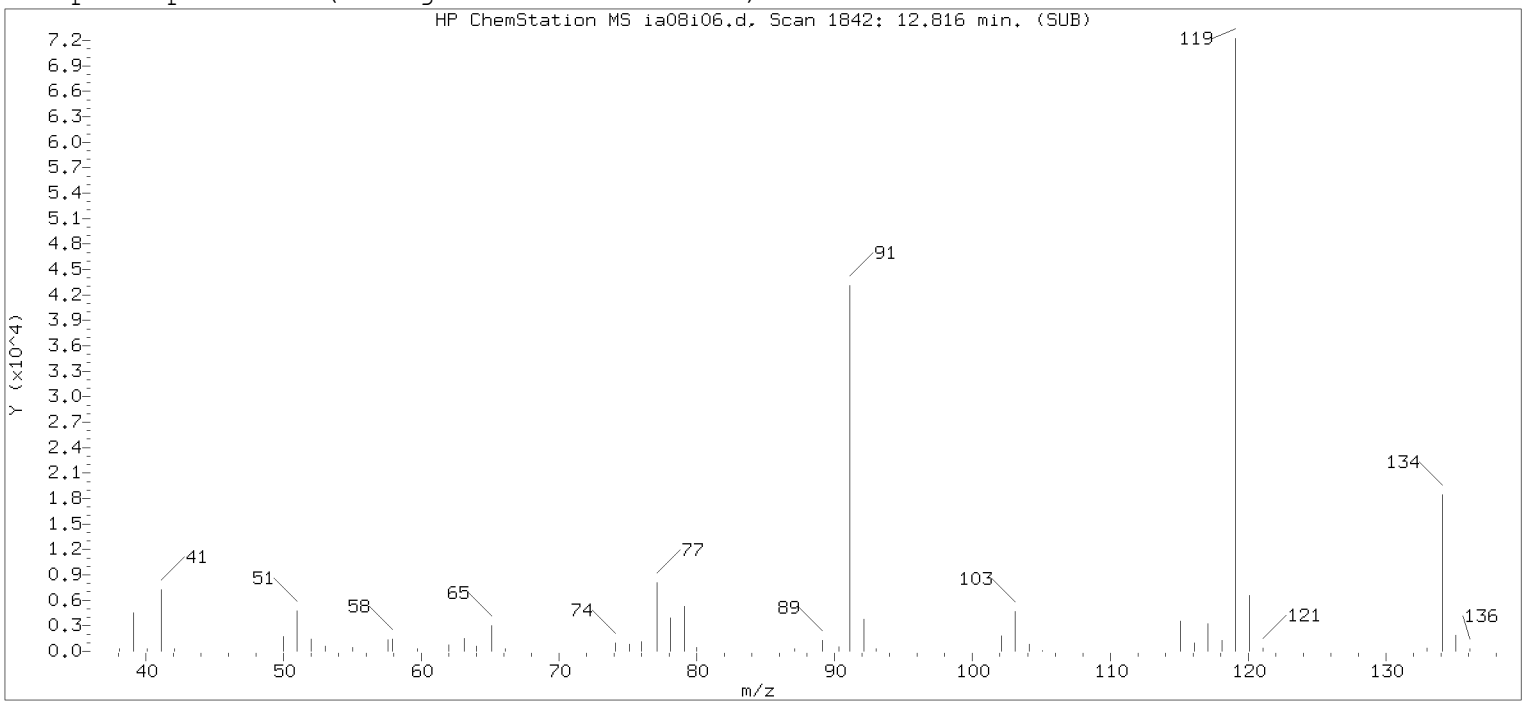
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 26873M
On-Column Amount (ng) : 0.4997
Integration start scan : 1835 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

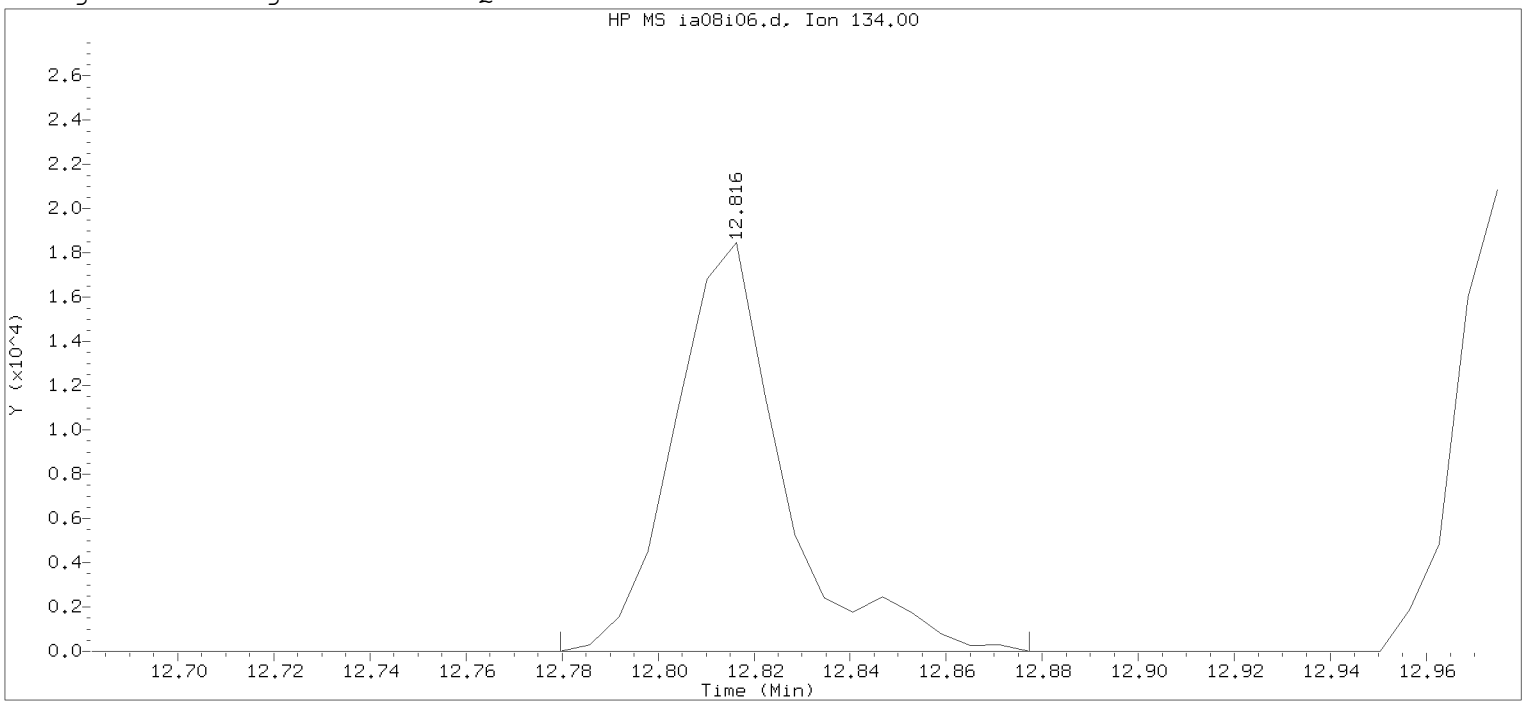
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

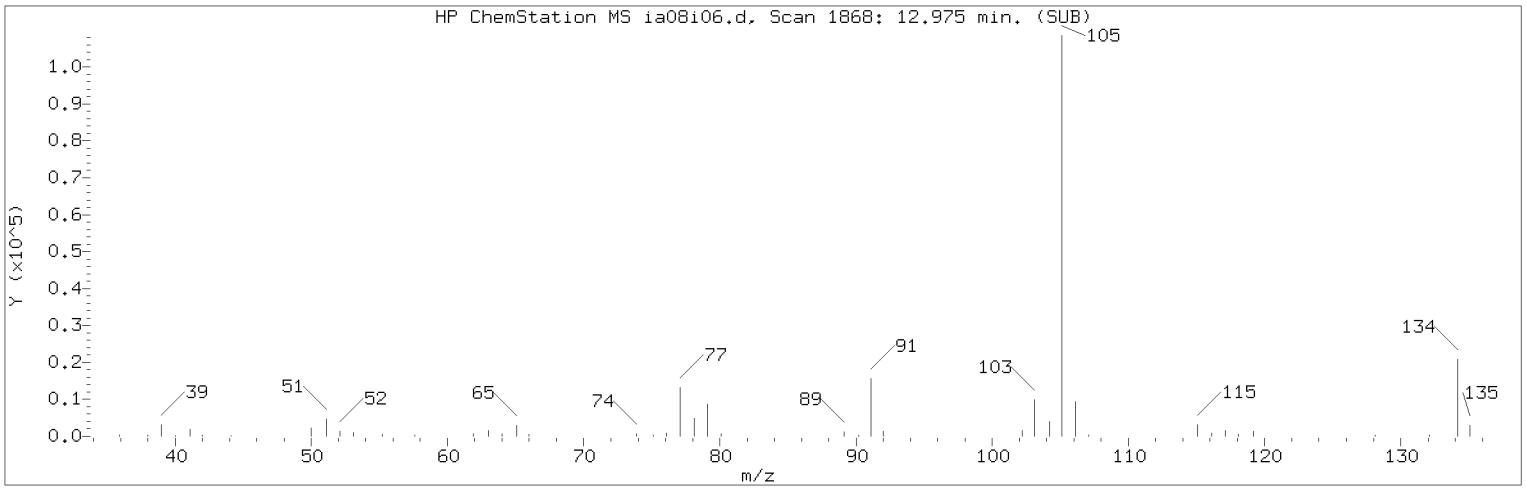
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

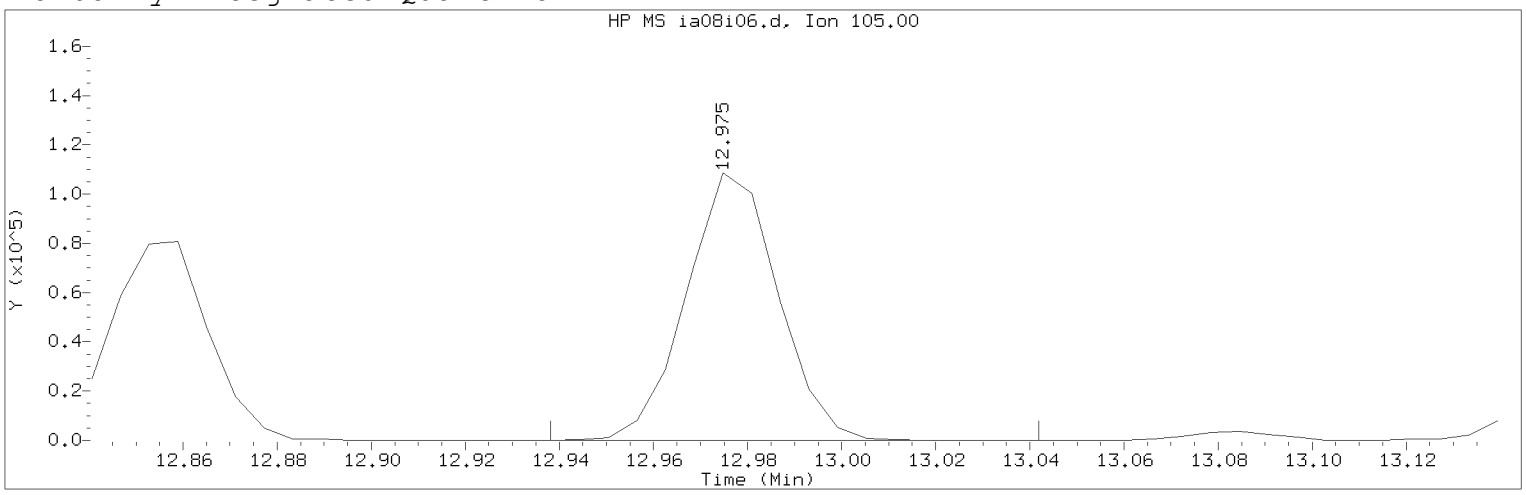
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 28898
On-column Amount (ng) : 0.5038
Integration start scan : 1835 Integration stop scan: 1851
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1260

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

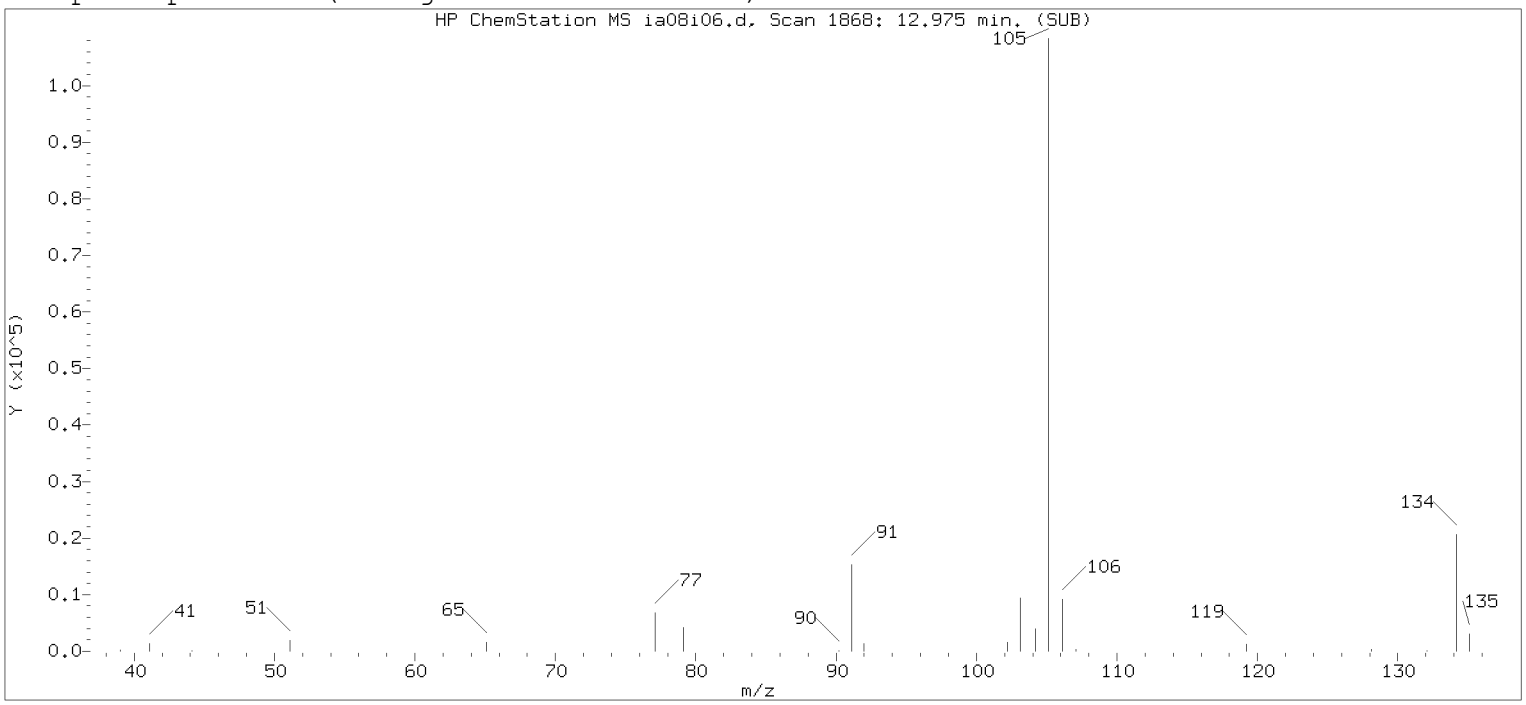
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 105.00
Area (flag) : 146808M
On-Column Amount (ng) : 0.4806
Integration start scan : 1861 Integration stop scan: 1878
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

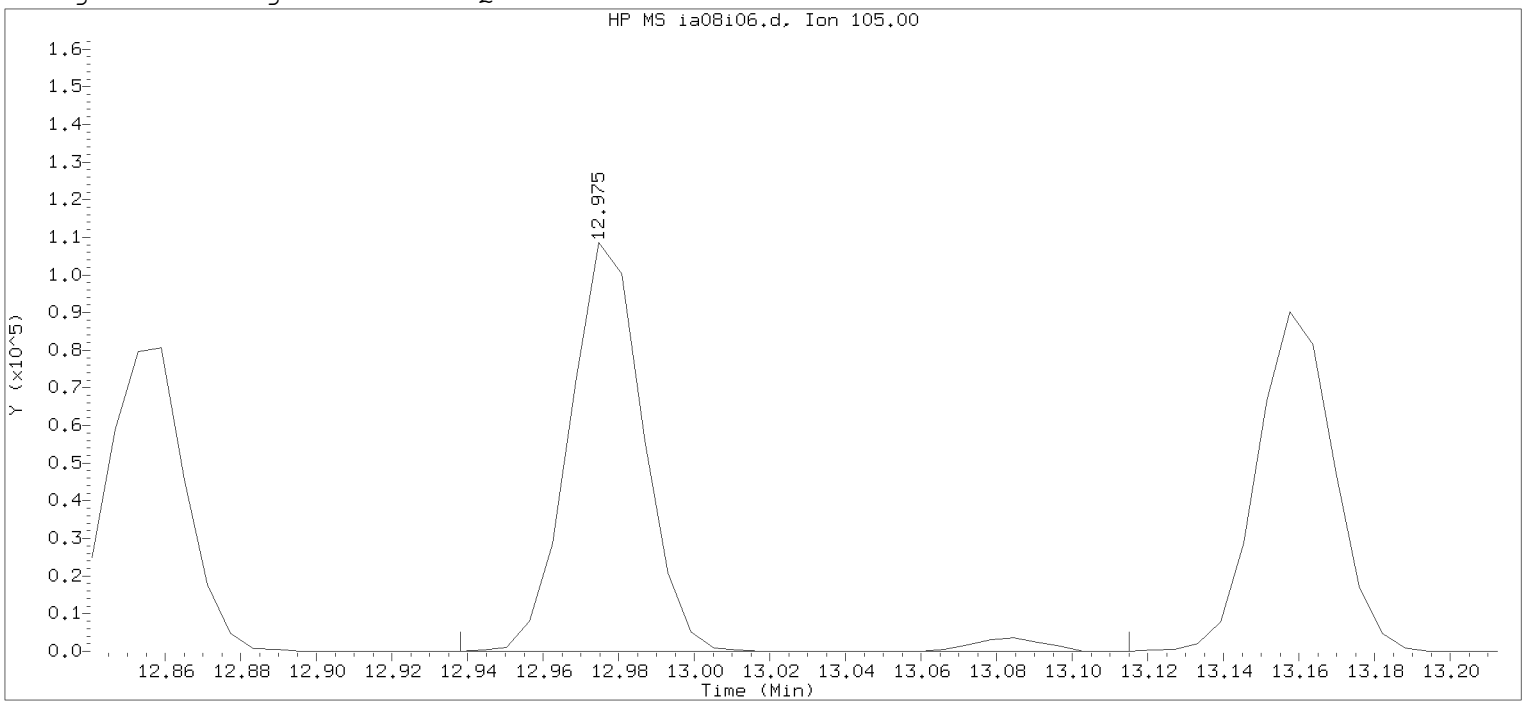
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i06.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 17:59 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 105.00
Area : 151377
On-column Amount (ng) : 0.4856
Integration start scan : 1861 Integration stop scan: 1890
Y at integration start : 0 Y at integration end: 0

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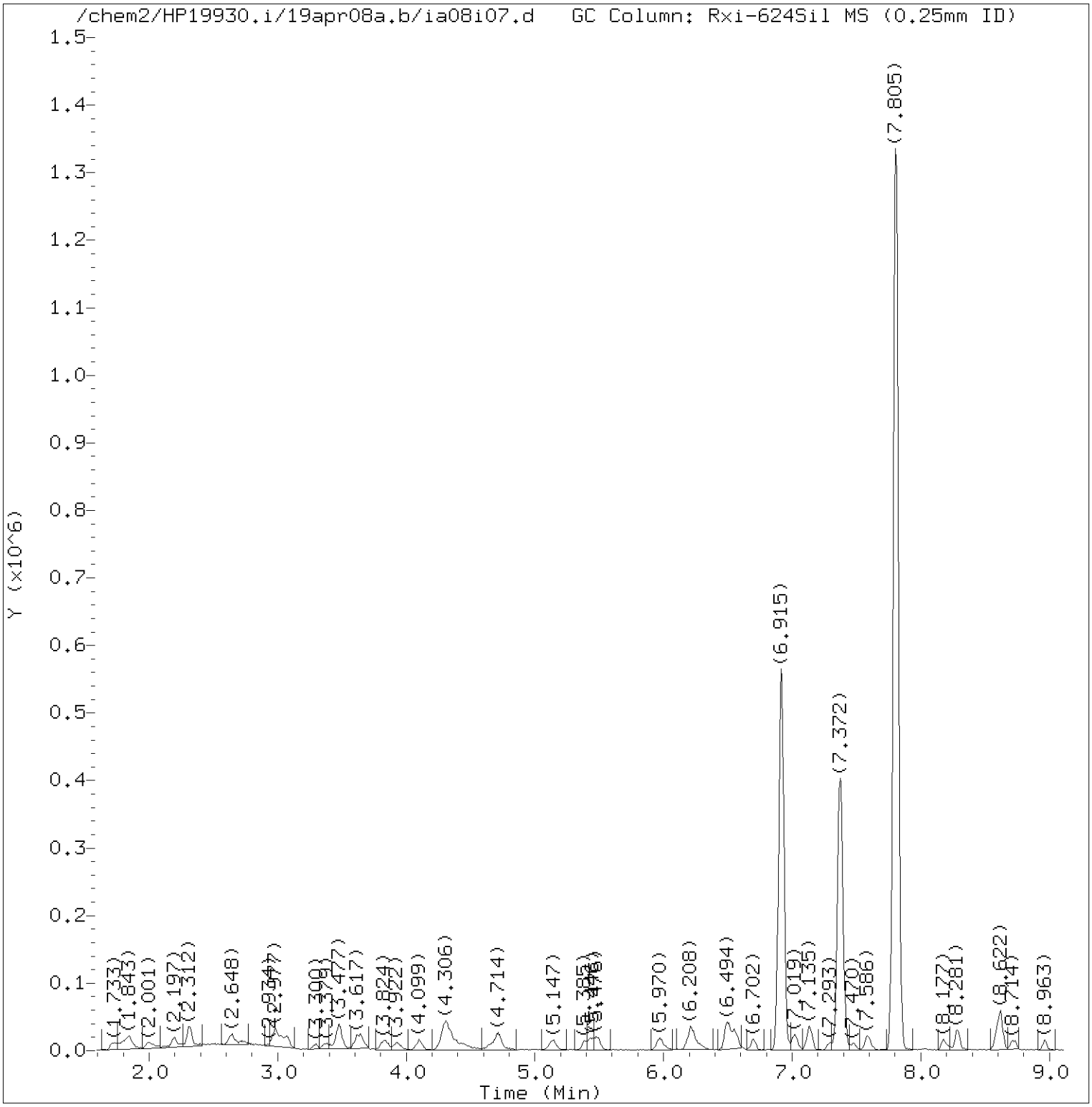
Target 3.5 esignature user: Page 1262



Total Ion Chromatogram (TIC)

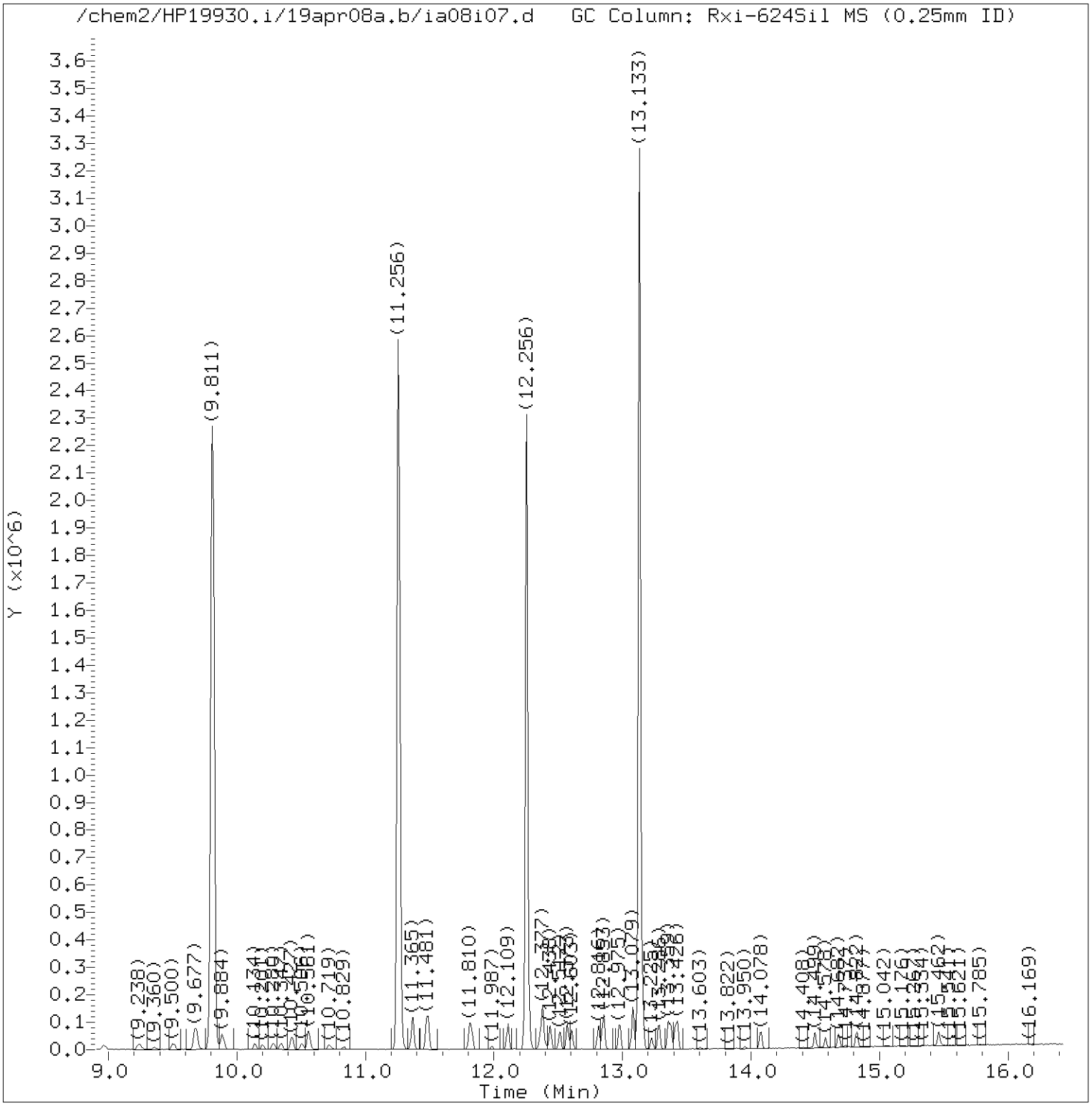
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.995	85	21339	0.199
2) Chloromethane	(2)	2.197	50	17001	0.214
5) Vinyl Chloride	(2)	2.312	62	15939	0.198
6) 1,3-Butadiene	(2)	2.312	39	16802M	0.252
7) Bromomethane	(2)	2.642	94	14746	0.206
8) Chloroethane	(2)	2.733	64	9261	0.198
9) Dichlorofluoromethane	(2)	2.983	67	24805	0.205
10) Trichlorofluoromethane	(2)	3.044	101	27030	0.201
11) Ethyl ether	(2)	3.294	59	6678	0.188
12) Freon 123a	(2)	3.385	67	12698MA	0.209
13) Acrolein	(1)	3.477	56	61784	9.280
15) 1,1-Dichloroethene	(2)	3.611	96	9274	0.198
14) Acetone	(1)	3.641	43	20496	2.230
16) Freon 113	(2)	3.654	101	11102	0.197
17) Methyl Iodide	(2)	3.824	142	19304	0.192
18) Carbon Disulfide	(2)	3.922	76	30585	0.223
21) Methyl Acetate	(1)	4.092	43	4600	0.189
22) Allyl Chloride	(2)	4.099	41	14315	0.199
23) Methylene Chloride	(2)	4.300	84	9441	0.197
26)*t-Butyl Alcohol-d10	(1)	4.306	65	156860	50.000
28) t-Butyl Alcohol	(1)	4.464	59	14761M	3.875
29) Acrylonitrile	(1)	4.653	53	10225	0.930
31) trans-1,2-Dichloroethene	(2)	4.708	96	11739	0.224
30) Methyl Tertiary Butyl Ether	(2)	4.714	73	23776	0.194
32) n-Hexane	(2)	5.153	57	14117	0.192
33) 1,1-Dichloroethane	(2)	5.385	63	16626	0.195
34) di-Isopropyl Ether	(2)	5.434	45	27208	0.191
35) 2-Chloro-1,3-Butadiene	(2)	5.495	53	14795	0.194
37) Ethyl t-butyl ether	(2)	5.970	59	29200	0.206
40) 1,2-Dichloroethene (Total)	(2)		96	23851	0.432
38) 2-Butanone	(1)	6.190	43	28169	1.887
39) cis-1,2-Dichloroethene	(2)	6.220	96	12112	0.208
41) 2,2-Dichloropropane	(2)	6.232	77	16286	0.206
42) Propionitrile	(1)	6.281	54	14610	3.645
45) Methacrylonitrile	(1)	6.501	67	27398	1.857
47) Bromochloromethane	(2)	6.549	128	5614	0.196
48) Tetrahydrofuran	(1)	6.574	71	8739	1.872
49) Chloroform	(2)	6.702	83	18944	0.204

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	475626	10.025
50)$Dibromofluoromethane	(2)	6.915	111	482350	9.946
51) 1,1,1-Trichloroethane	(2)	6.927	97	17575	0.196
52) Cyclohexane	(2)	7.019	56	17493	0.198
52) Cyclohexane	(2)	7.019	84	15871M	0.191
52) Cyclohexane	(2)	7.025	69	5624M	0.194
54) Carbon Tetrachloride	(2)	7.128	117	16905	0.200
55) 1,1-Dichloropropene	(2)	7.141	75	13186	0.190
56) Isobutyl Alcohol	(1)	7.293	41	12558	10.674
57)$1,2-Dichloroethane-d4	(2)	7.372	102	91328	9.988
57)$1,2-Dichloroethane-d4	(2)	7.372	65	412508	10.066
57)$1,2-Dichloroethane-d4	(2)	7.366	104	57923	10.034
58) Benzene	(2)	7.403	78	39990	0.196
59) 1,2-Dichloroethane	(2)	7.470	62	12189	0.223
59) 1,2-Dichloroethane	(2)	7.476	98	868	0.170
60) t-Amyl methyl ether	(2)	7.586	73	27831	0.204
63)*Fluorobenzene	(2)	7.805	96	1838389	10.000
62) n-Heptane	(2)	7.811	43	14777	0.195
65) n-Butanol	(1)	8.177	56	17309	17.631
67) Trichloroethene	(2)	8.281	95	11368	0.199
69) Methylcyclohexane	(2)	8.592	83	15203	0.149
70) 1,2-Dichloropropane	(2)	8.622	63	9098	0.193
71) Methyl Methacrylate	(1)	8.701	69	4944	0.175
73) Dibromomethane	(2)	8.732	93	5328	0.201
72) 1,4-Dioxane	(1)	8.732	88	1352M	5.601
72) 1,4-Dioxane	(1)	8.707	58	604	4.199
74) Bromodichloromethane	(2)	8.963	83	12517	0.191
76) 2-Nitropropane	(1)	9.238	41	15843	1.687
80) cis-1,3-Dichloropropene	(2)	9.512	75	14481	0.195
81) 4-Methyl-2-Pentanone	(1)	9.683	43	65123	1.723
82)$Toluene-d8	(3)	9.811	98	1814381	10.149
82)$Toluene-d8	(3)	9.811	100	1161037	10.126
83) Toluene	(3)	9.890	92	26485	0.197
84) trans-1,3-Dichloropropene	(3)	10.140	75	12459M	0.197
85) 1,3-Dichloropropene (total)	(3)		75	26940	0.391
86) Ethyl Methacrylate	(3)	10.201	69	9800	0.183
88) 1,1,2-Trichloroethane	(3)	10.347	97	7575	0.204
89) Tetrachloroethene	(3)	10.427	166	14182	0.199

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	11930	0.200
91) 2-Hexanone	(1)	10.561	43	47121	1.758
93) Dibromochloromethane	(3)	10.719	129	8877	0.176
95) 1,2-Dibromoethane	(3)	10.829	107	7468	0.197
97)*Chlorobenzene-d5	(3)	11.256	117	1457542	10.000
96) 1-Chlorohexane	(3)	11.262	91	17157	0.212
98) Chlorobenzene	(3)	11.286	112	31463	0.204
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	10695	0.184
100) Ethylbenzene	(3)	11.372	91	53108	0.197
101) m+p-Xylene	(3)	11.481	106	41888	0.390
105) Xylene (Total)	(3)		106	61193	0.576
104) o-Xylene	(3)	11.810	106	19305	0.186
106) Styrene	(3)	11.823	104	29811	0.181
107) Bromoform	(3)	11.981	173	5421	0.175
108) Isopropylbenzene	(3)	12.109	105	52921	0.189
111)$4-Bromofluorobenzene	(3)	12.256	95	681663	10.175
111)$4-Bromofluorobenzene	(3)	12.256	174	631671	9.850
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	8950	0.194
114) Bromobenzene	(4)	12.371	156	14122	0.201
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	20539	1.550
116) 1,2,3-Trichloropropane	(4)	12.402	110	2655	0.194
117) n-Propylbenzene	(4)	12.438	91	60602	0.193
119) 2-Chlorotoluene	(4)	12.518	126	13191	0.195
121) 1,3,5-Trimethylbenzene	(4)	12.573	105	44313	0.191
122) 4-Chlorotoluene	(4)	12.603	126	13906	0.205
125) tert-Butylbenzene	(4)	12.816	134	9881M	0.187
126) Pentachloroethane	(4)	12.847	167	8084	0.174
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	45152	0.191
128) sec-Butylbenzene	(4)	12.975	105	56352M	0.188
131) 1,3-Dichlorobenzene	(4)	13.079	146	26356	0.196
132) p-Isopropyltoluene	(4)	13.085	119	47175	0.179
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	808996	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	27268	0.203
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	20811	0.188
136) Benzyl Chloride	(4)	13.225	126	3558	0.164
138) n-Butylbenzene	(4)	13.371	92	20732	0.173
139) 1,2-Dichlorobenzene	(4)	13.408	146	24439	0.199
143) 1,2-Dibromo-3-chloropropane	(1)	13.944	155	1415	0.165

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

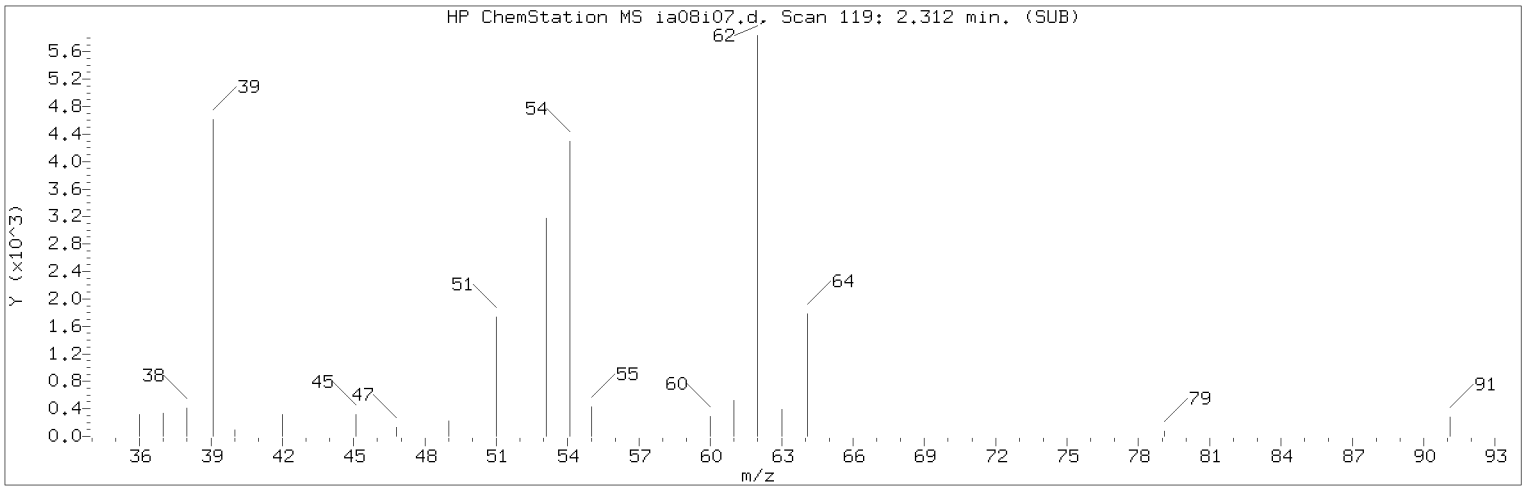
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

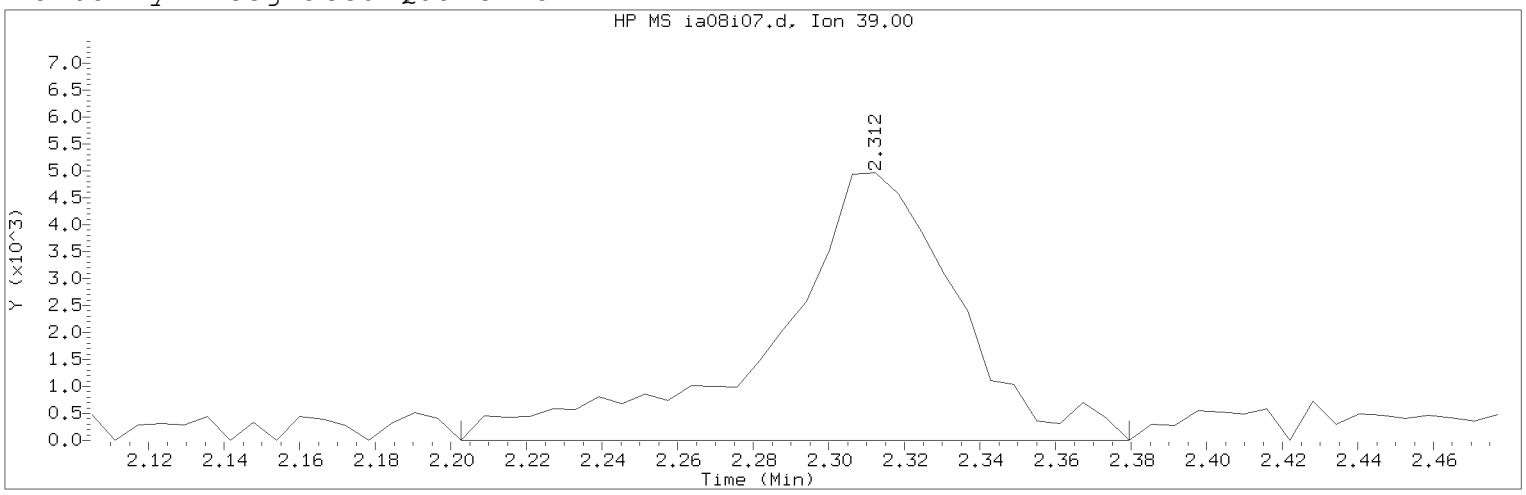
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	18253	0.186
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	16610	0.193
146) Hexachlorobutadiene	(4)	14.578	225	6221	0.177
147) Naphthalene	(4)	14.682	128	35857	0.208
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	14997	0.194

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

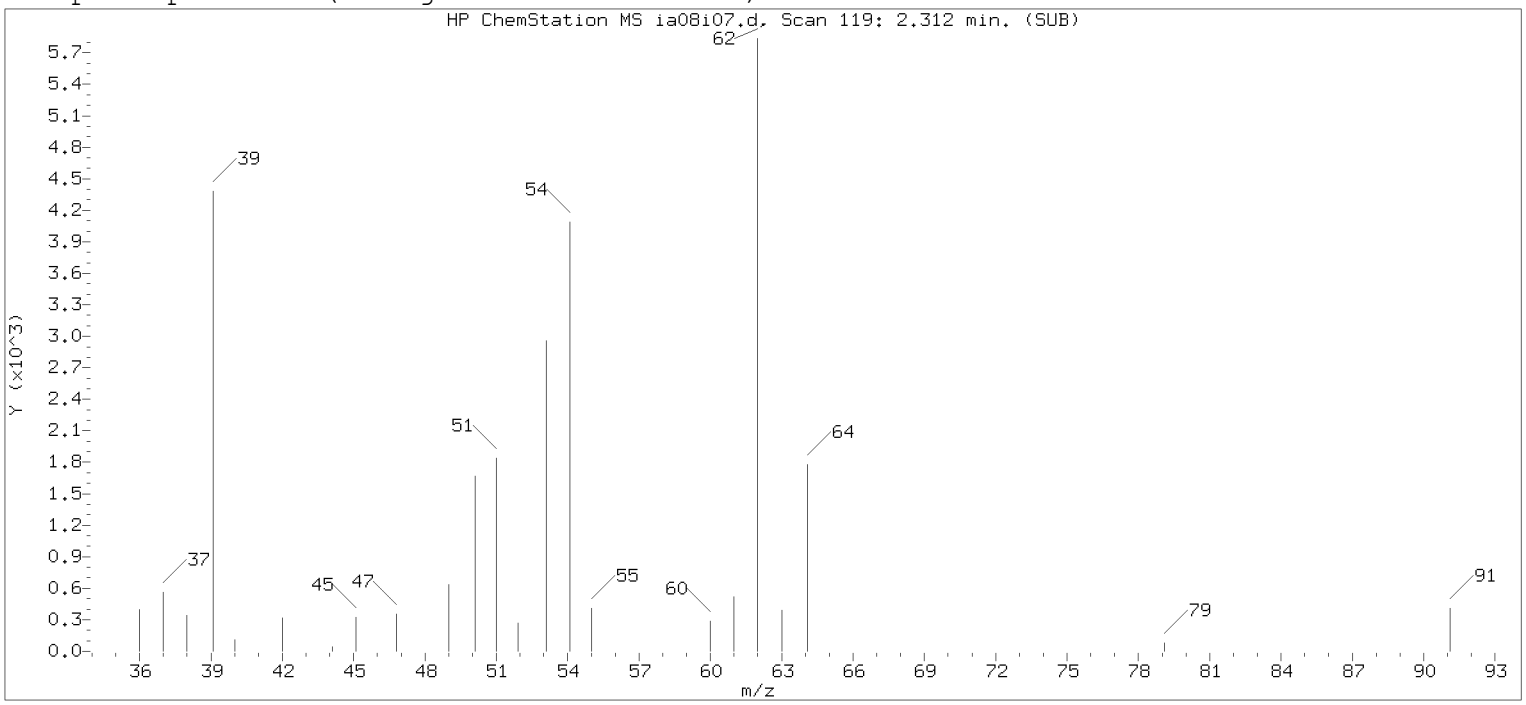
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area (flag) : 16802M
On-Column Amount (ng) : 0.2518
Integration start scan : 100 Integration stop scan: 129
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

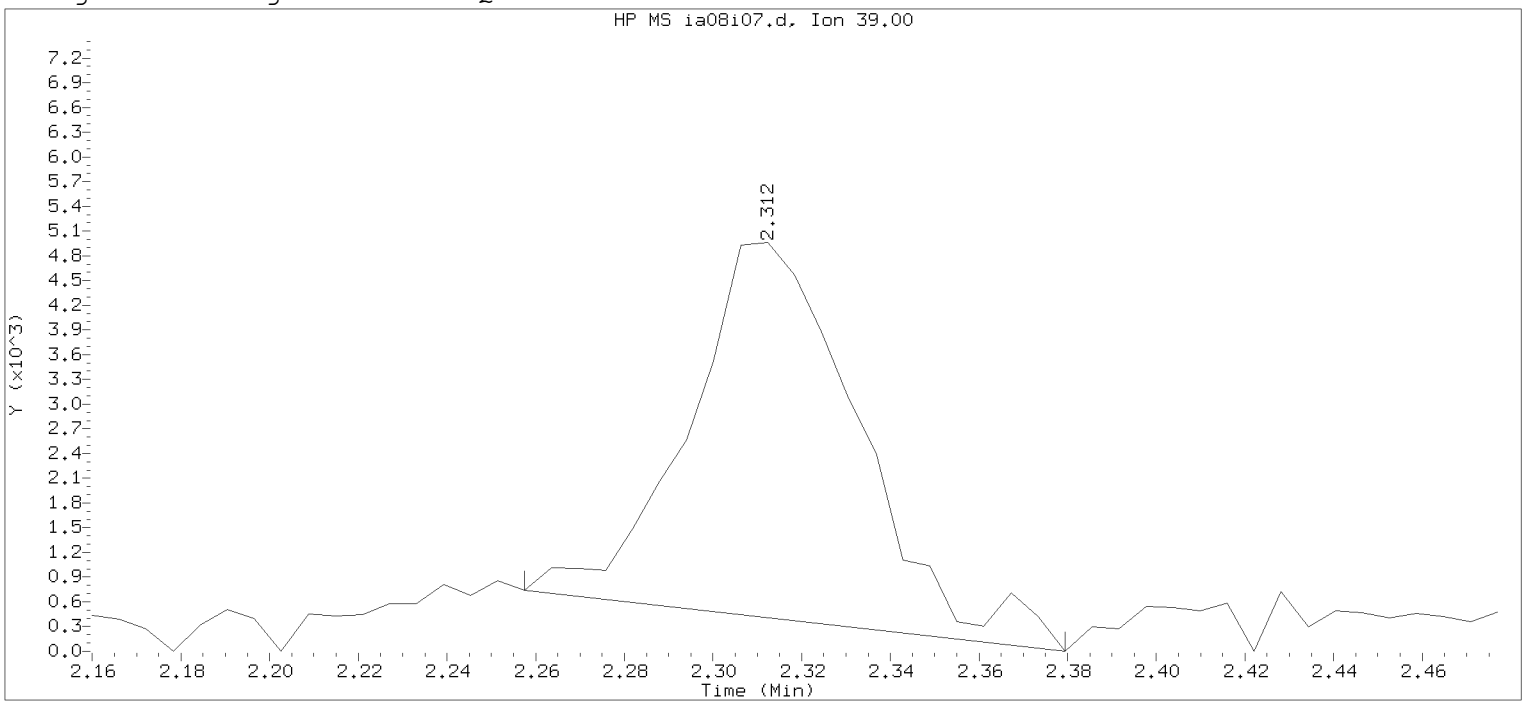
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 119
Retention Time (minutes): 2.312
Quant Ion : 39.00
Area : 12197
On-column Amount (ng) : 0.2040
Integration start scan : 109 Integration stop scan: 129
Y at integration start : 740 Y at integration end: 0

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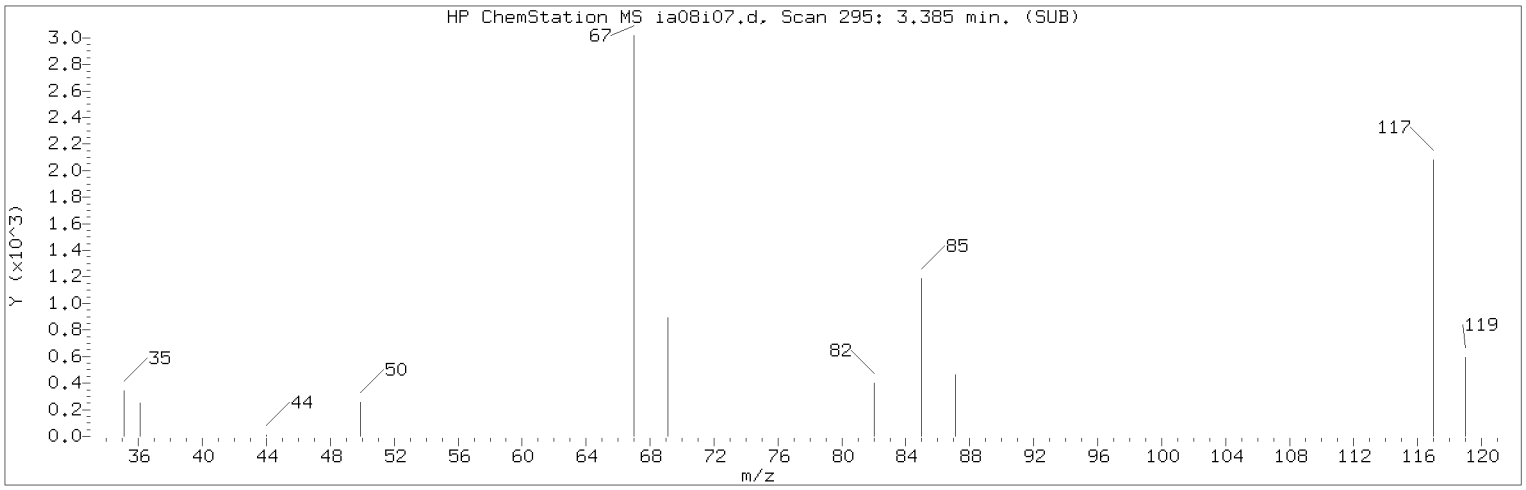
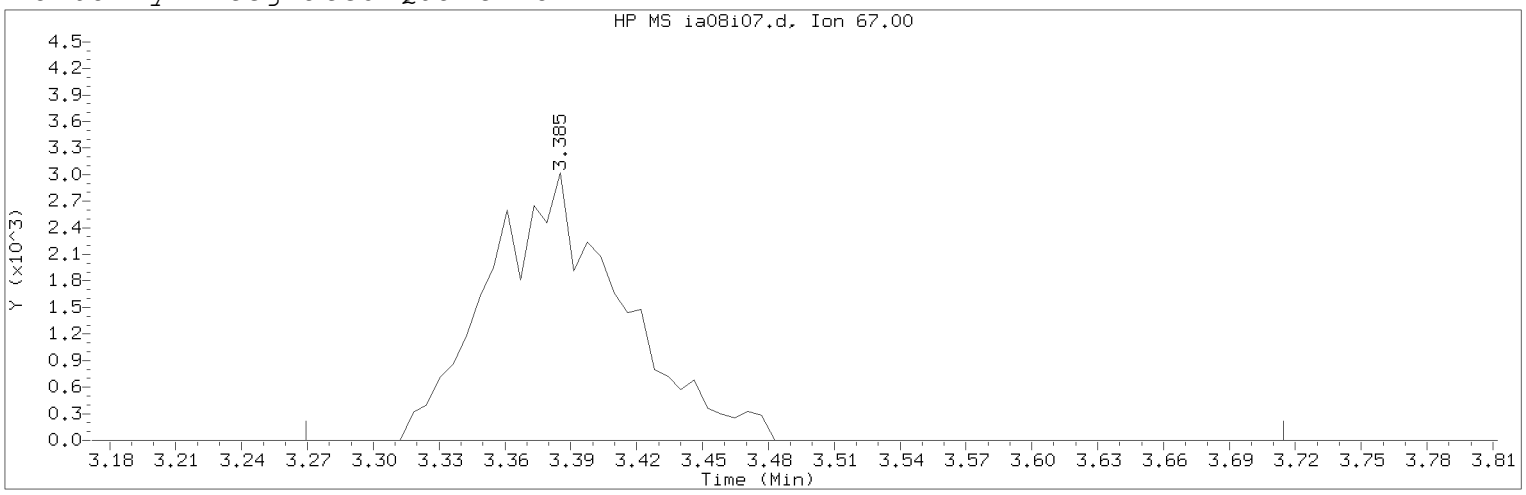
Target 3.5 esignature used. Page 1270

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

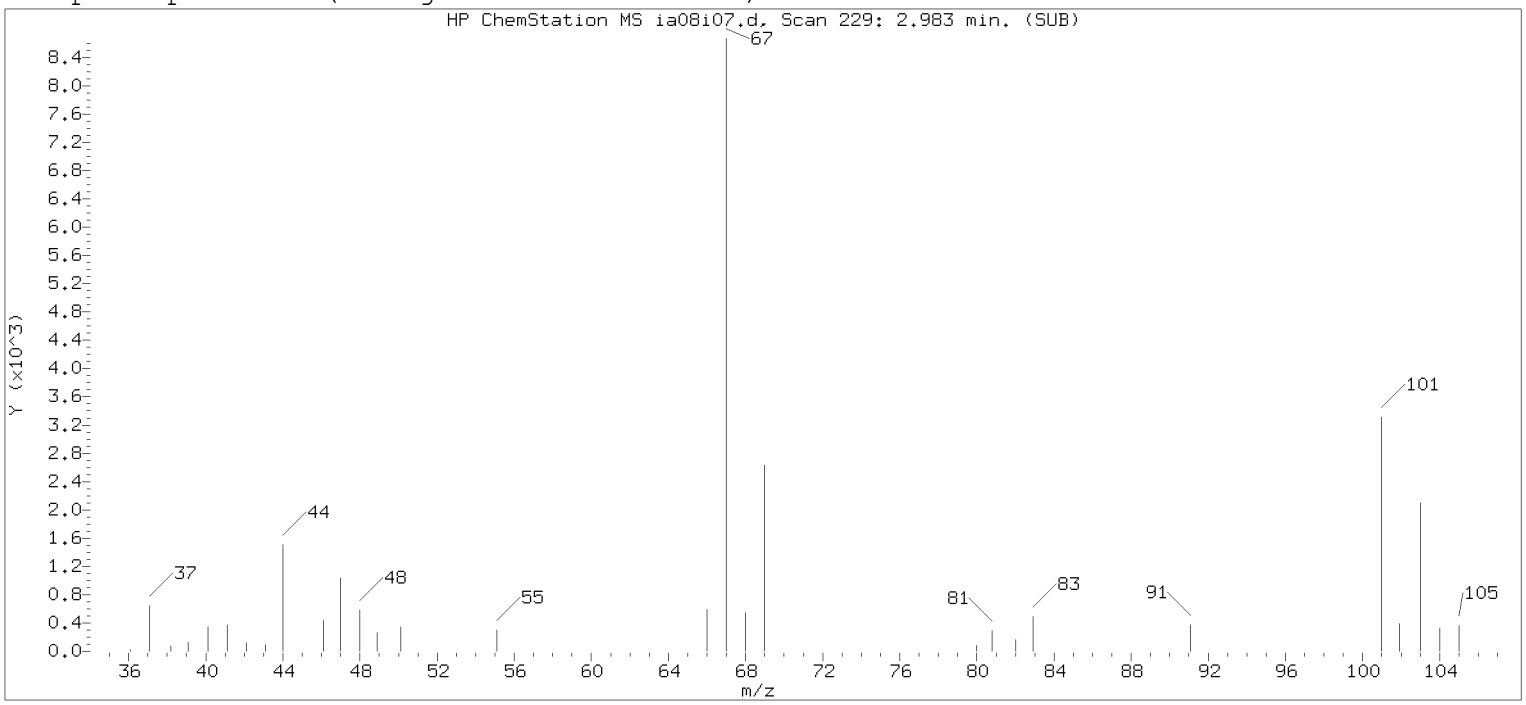
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 295
Retention Time (minutes): 3.385
Quant Ion : 67.00
Area (flag) : 12698MA
On-Column Amount (ng) : 0.2095
Integration start scan : 275 Integration stop scan: 348
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

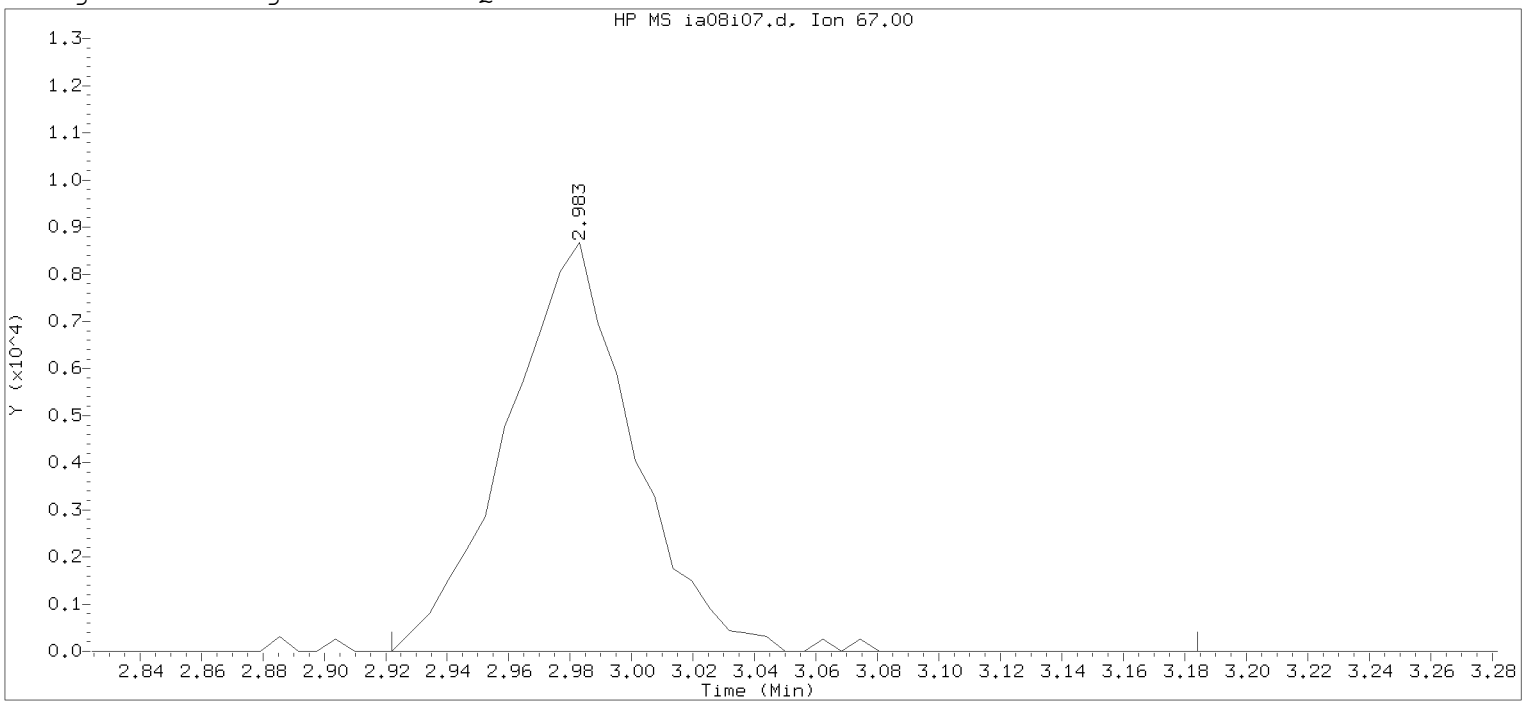
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number	: 12		
Compound Name	: Freon 123a		
Scan Number	: 229		
Retention Time (minutes)	: 2.983		
Quant Ion	: 67.00		
Area	: 24805		
On-column Amount (ng)	: 0.2049		
Integration start scan	: 218	Integration stop scan:	261
Y at integration start	: 0	Y at integration end:	0

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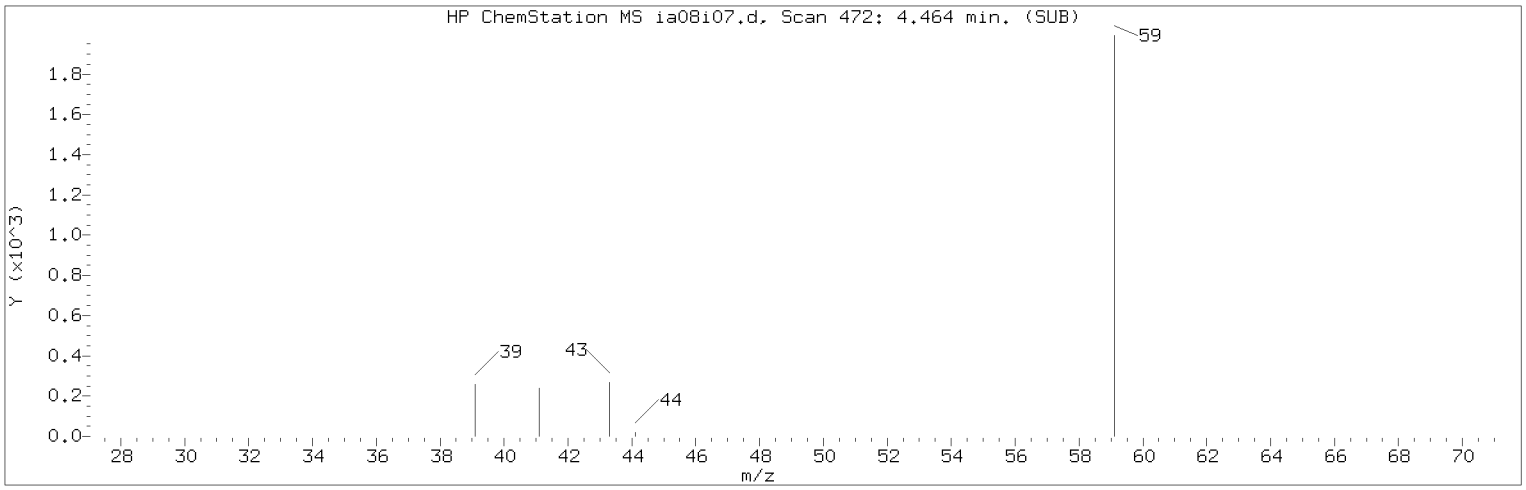
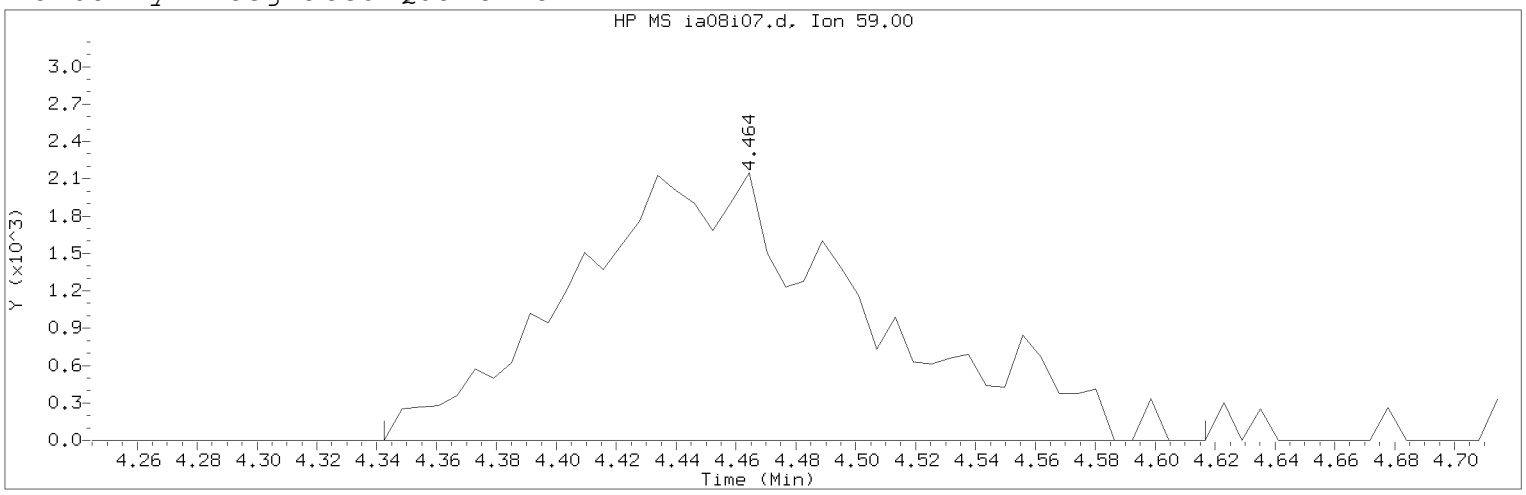
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

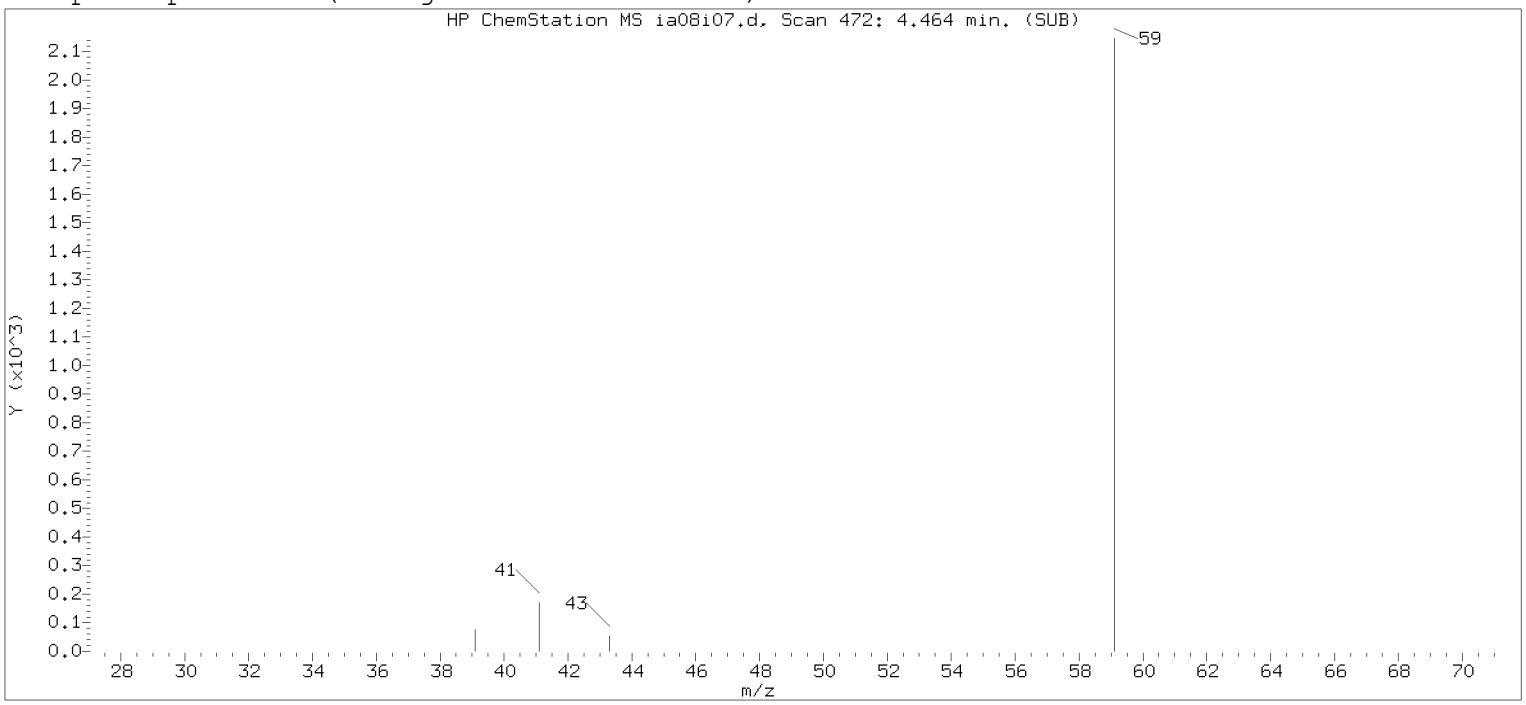
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 472
Retention Time (minutes): 4.464
Quant Ion : 59.00
Area (flag) : 14761M
On-Column Amount (ng) : 3.8750
Integration start scan : 451 Integration stop scan: 496
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

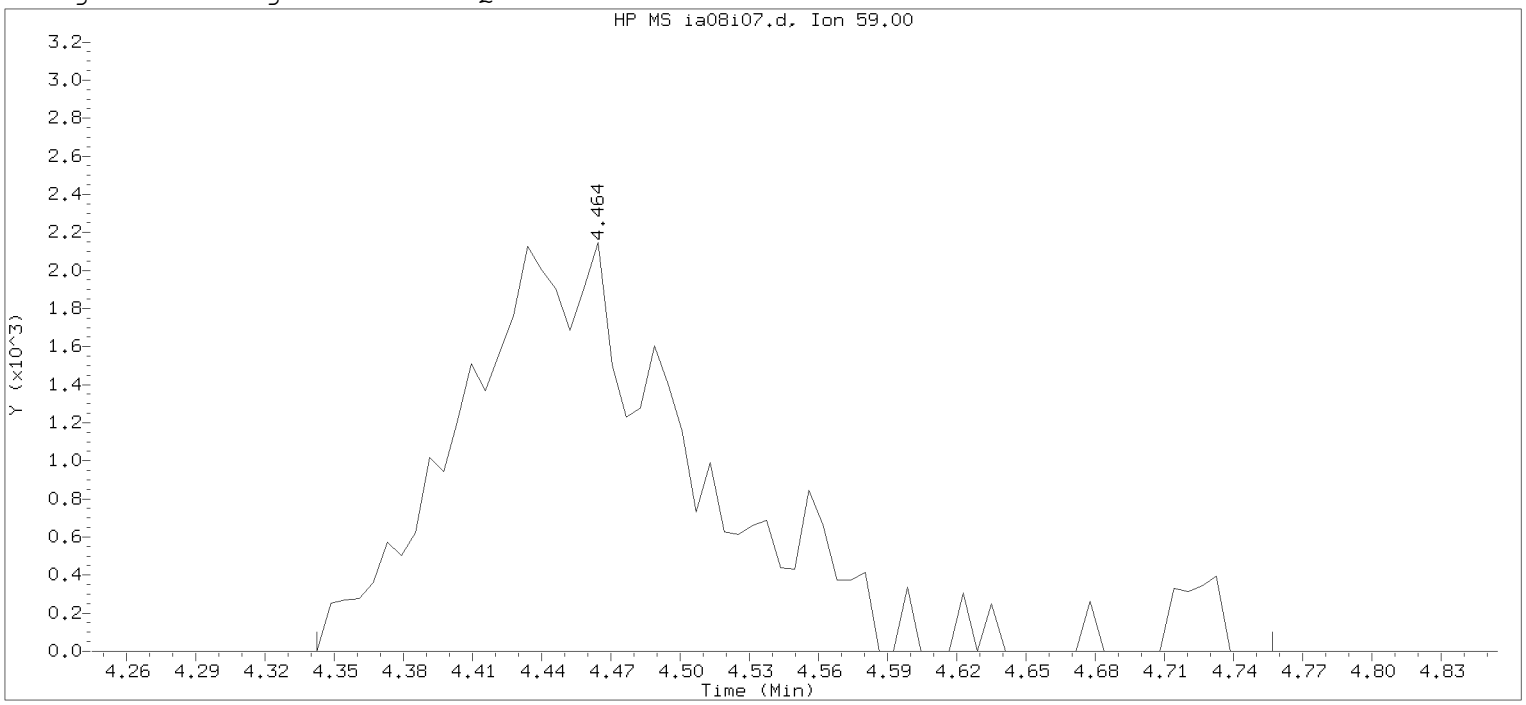
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

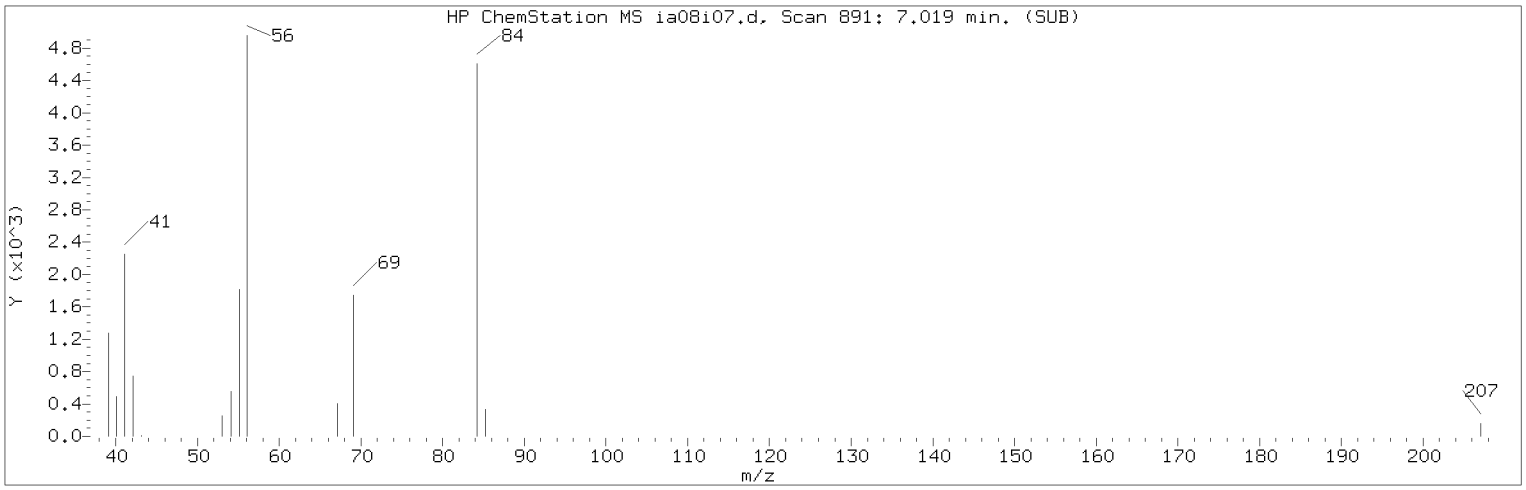
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

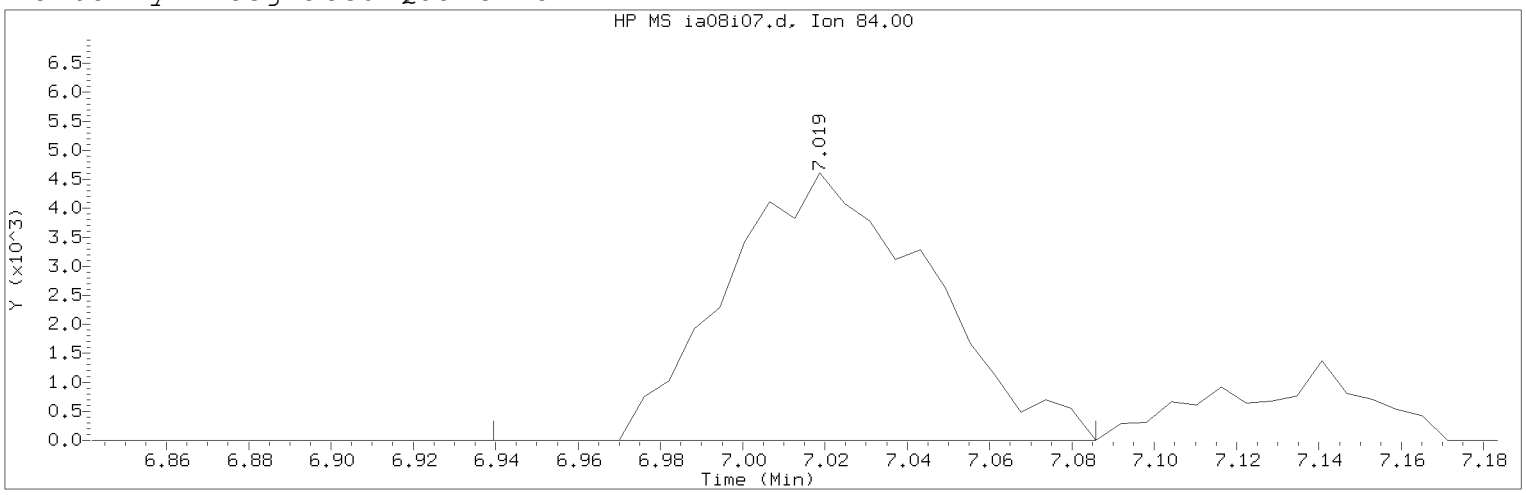
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 472
Retention Time (minutes): 4.464
Quant Ion : 59.00
Area : 15567
On-column Amount (ng) : 4.0136
Integration start scan : 451 Integration stop scan: 519
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used by Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

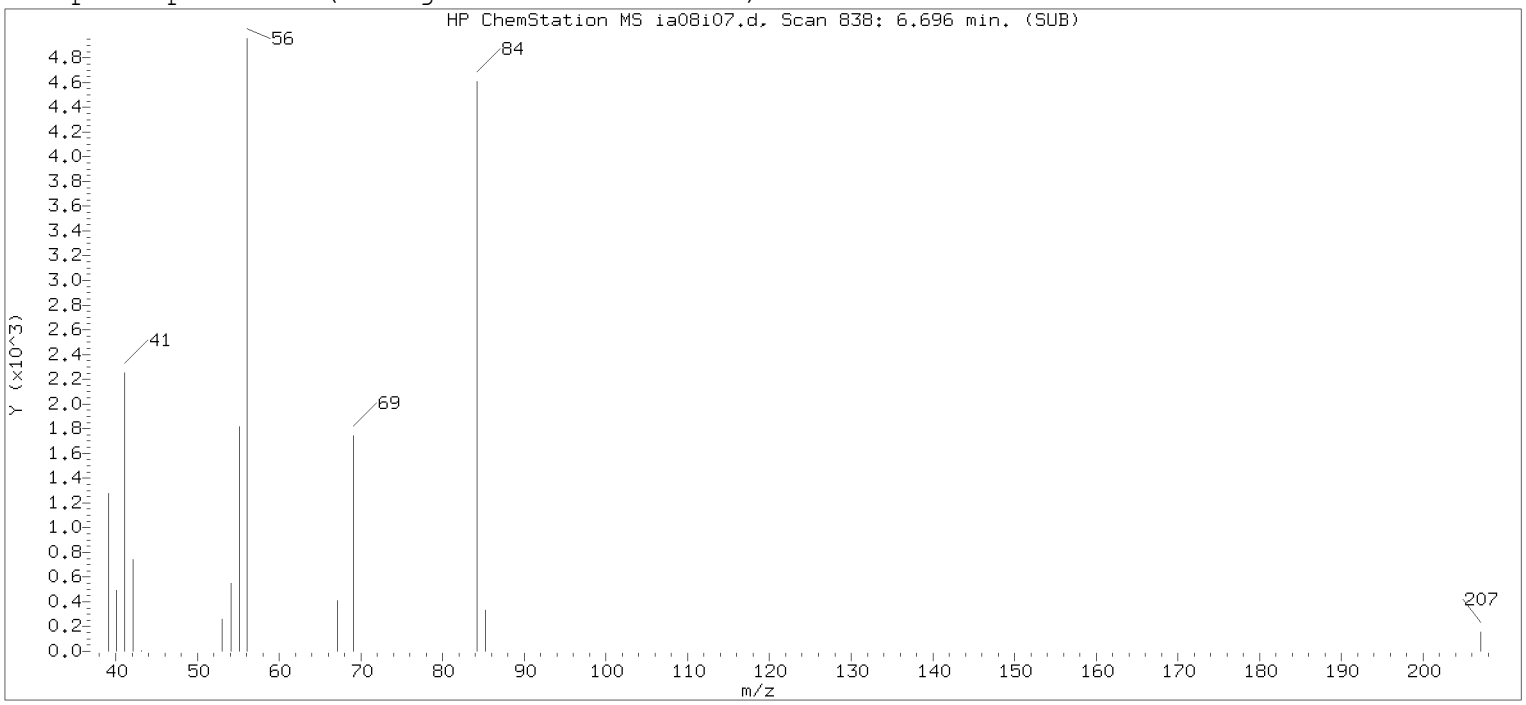
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 84.00
Area (flag) : 15871M
On-Column Amount (ng) : 0.1908
Integration start scan : 877 Integration stop scan: 901
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

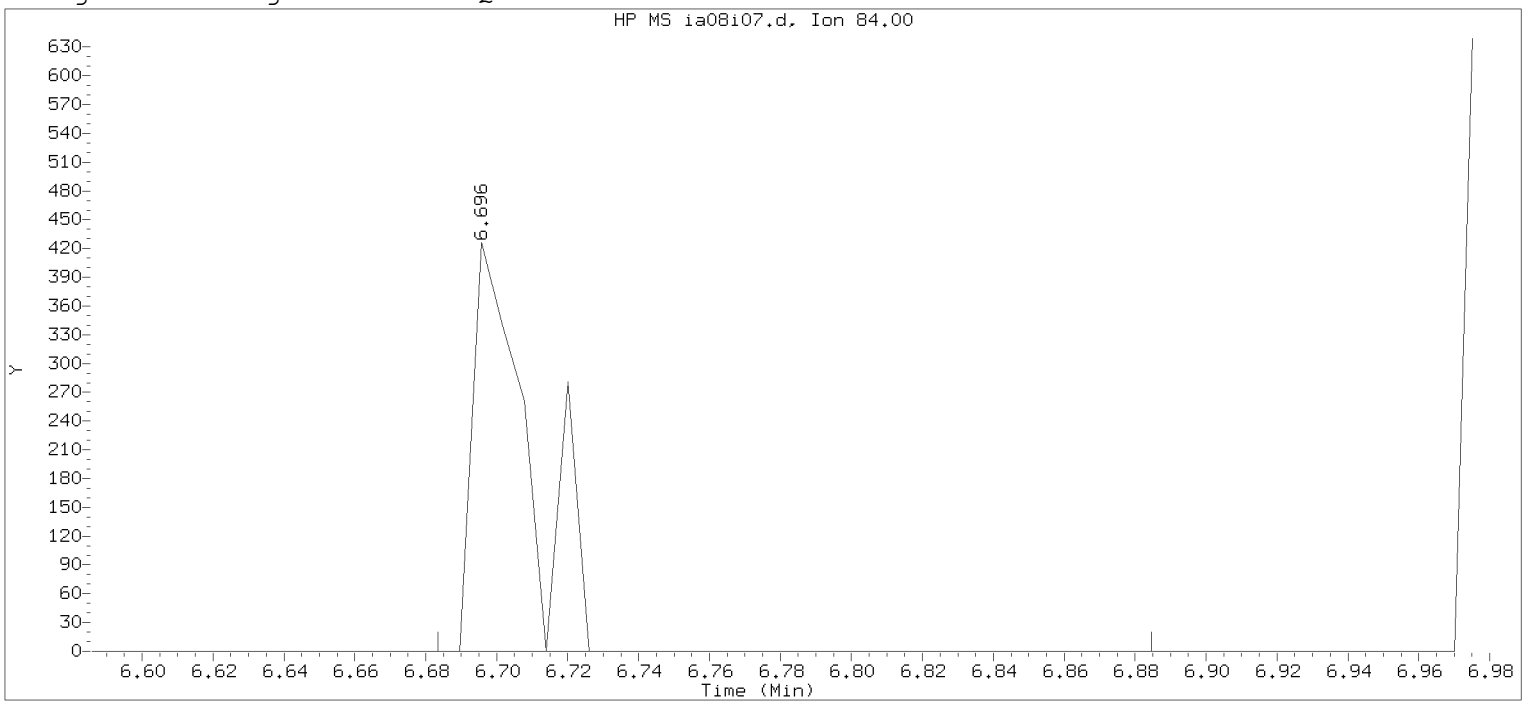
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

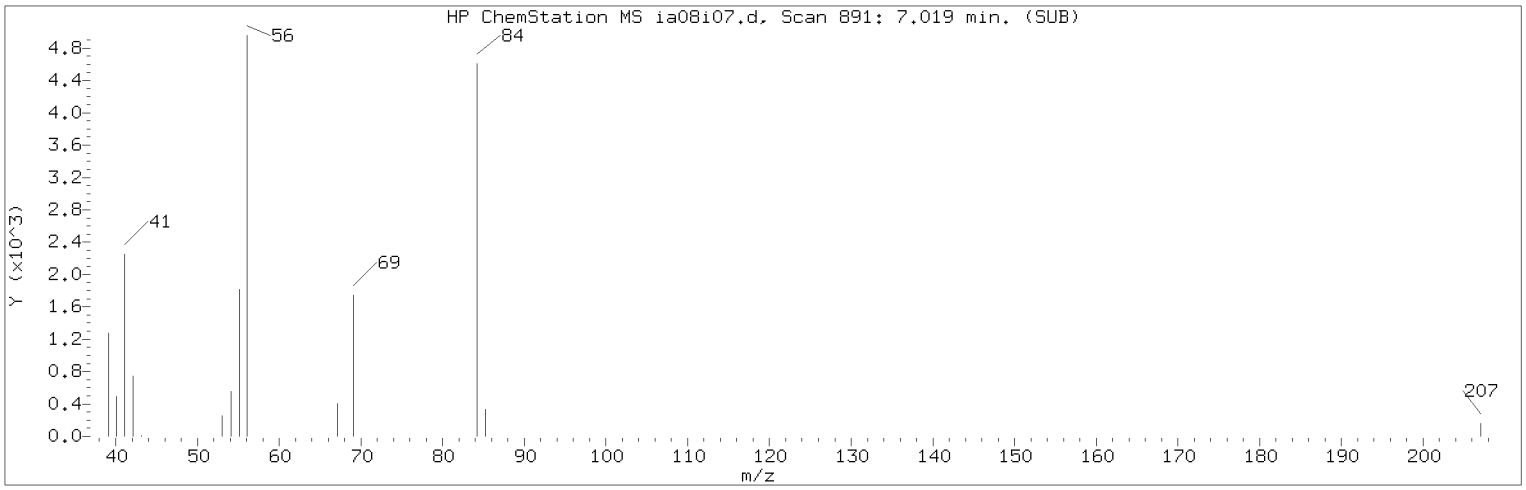
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

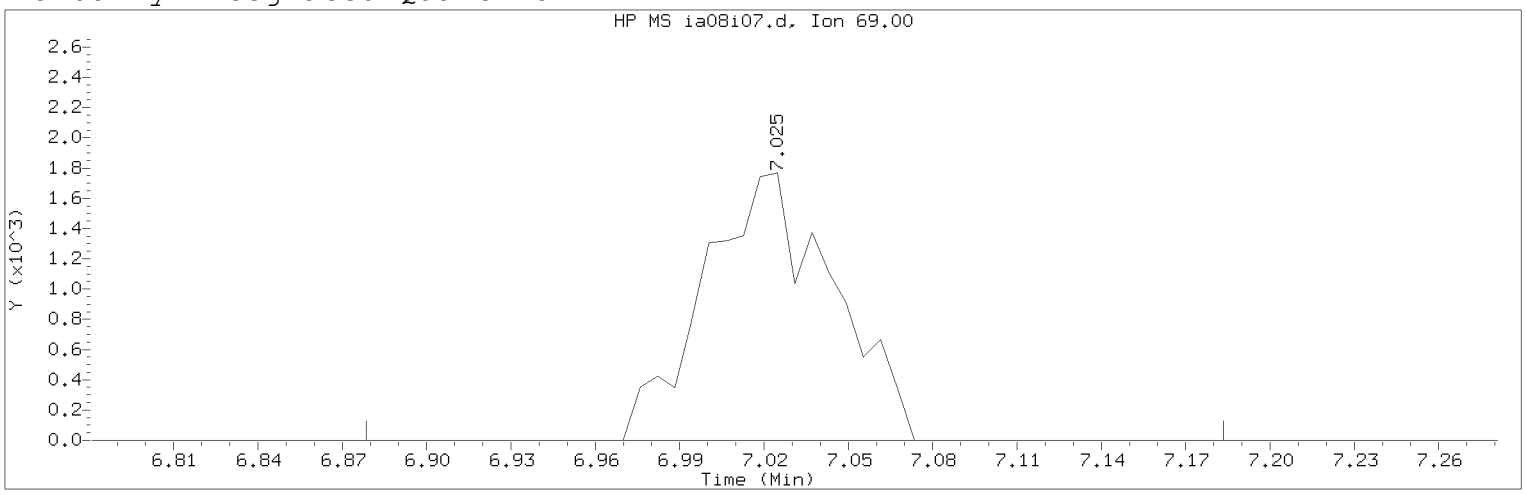
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 838
Retention Time (minutes): 6.696
Quant Ion : 84.00
Area : 478
On-column Amount (ng) : 0.1333
Integration start scan : 835 Integration stop scan: 868
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used for this page

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

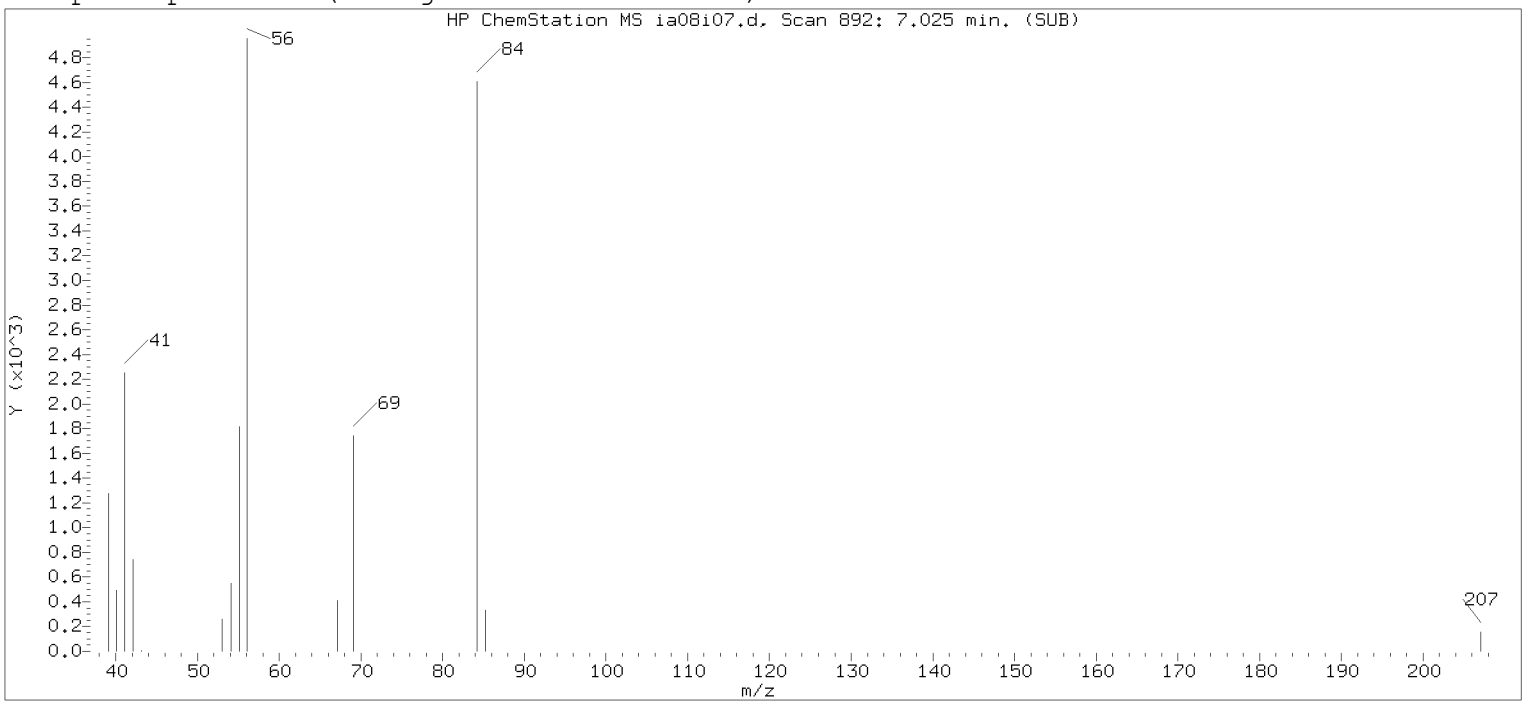
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 69.00
Area (flag) : 5624M
On-Column Amount (ng) : 0.1943
Integration start scan : 867 Integration stop scan: 917
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

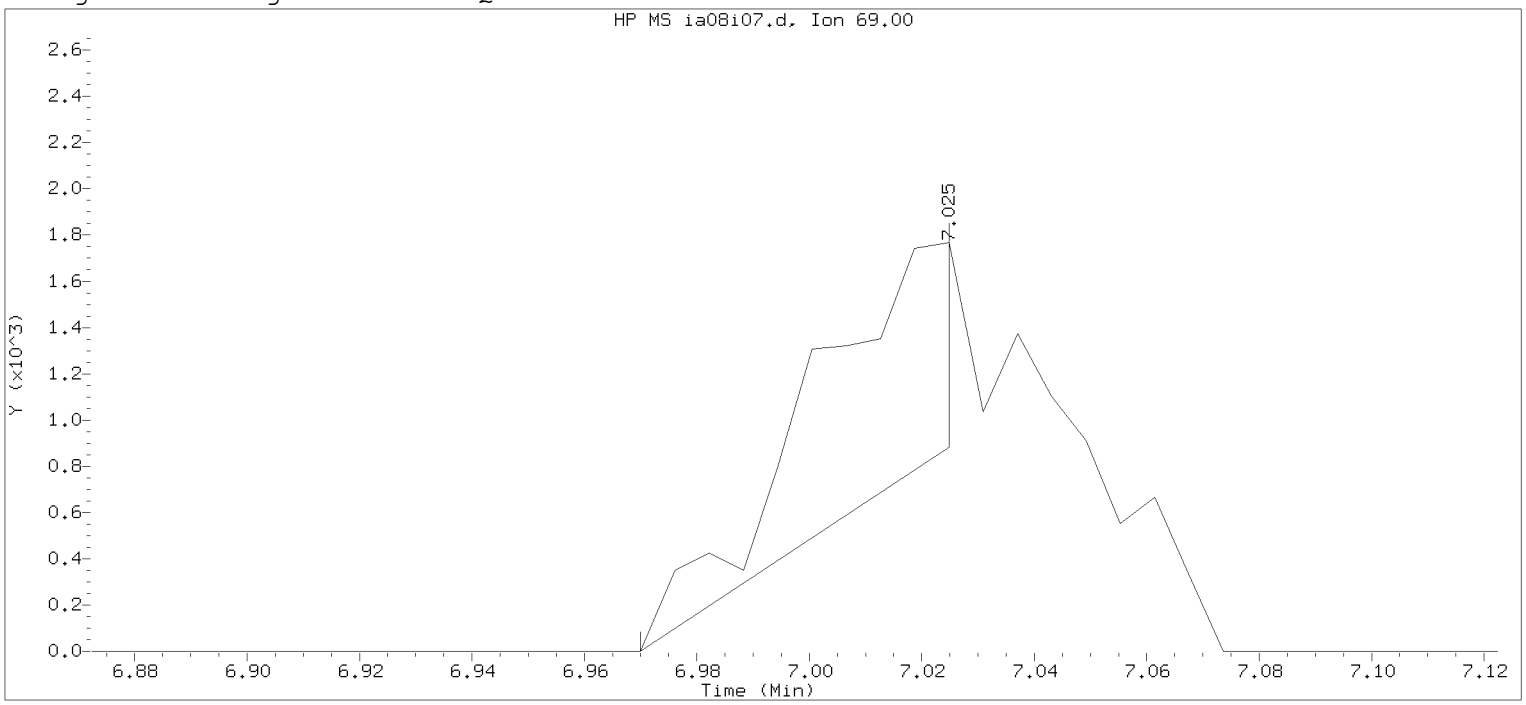
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 892
Retention Time (minutes): 7.025
Quant Ion : 69.00
Area : 1664
On-column Amount (ng) : 0.4582
Integration start scan : 882 Integration stop scan: 891
Y at integration start : 0 Y at integration end: 883

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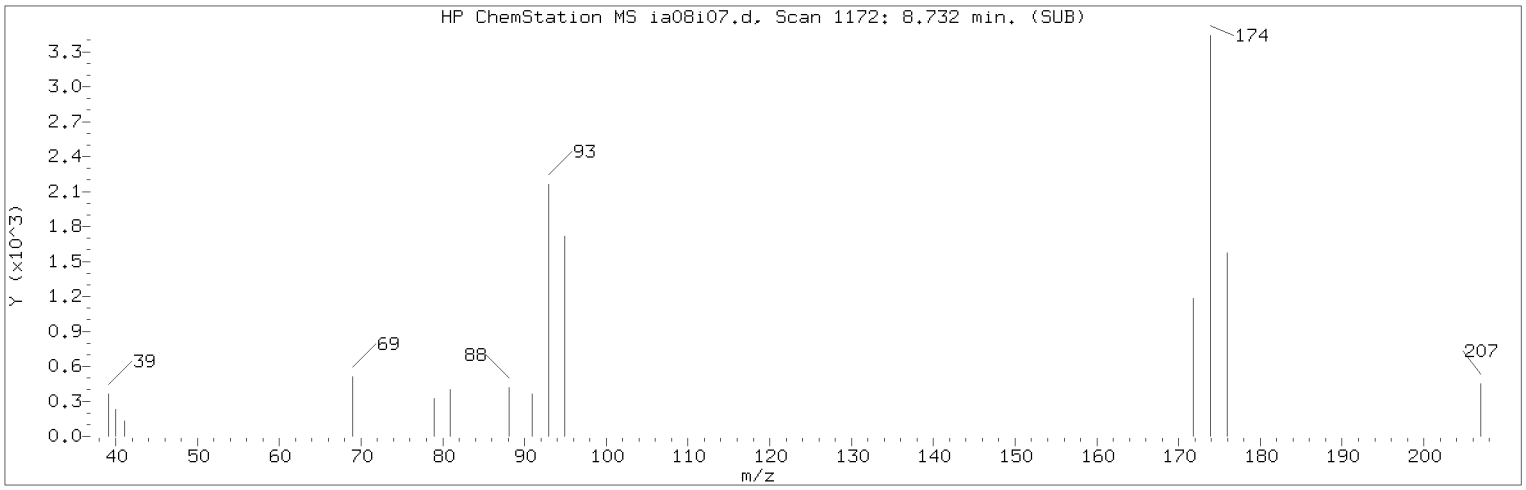
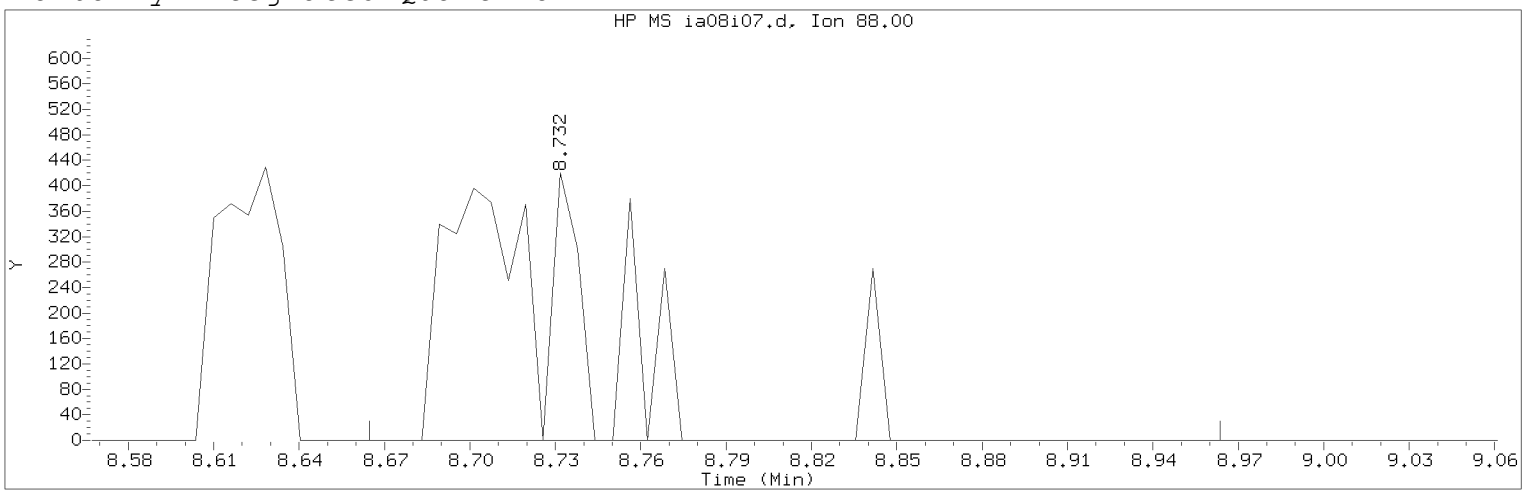
Target 3.5 esignature used. Page 1278

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

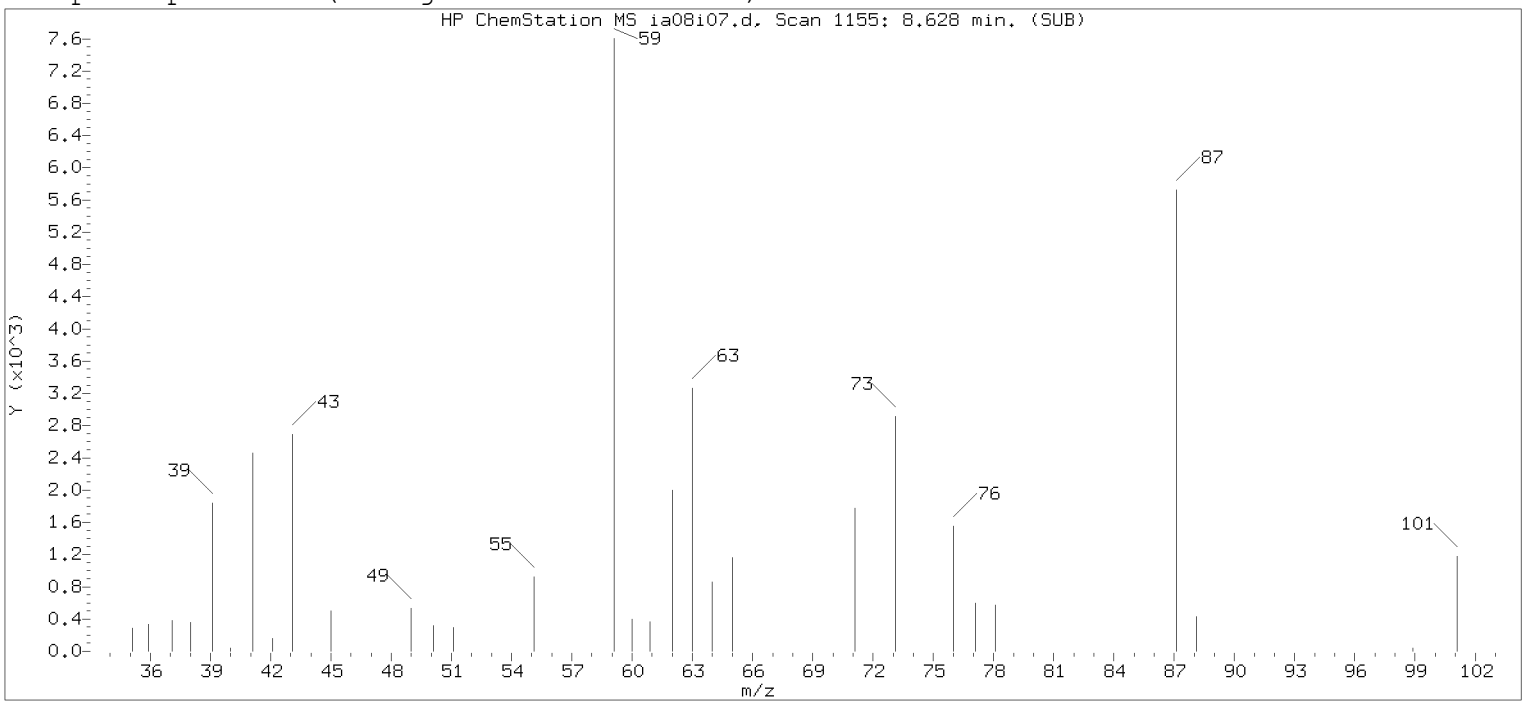
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1172
Retention Time (minutes): 8.732
Quant Ion : 88.00
Area (flag) : 1352M
On-Column Amount (ng) : 5.6013
Integration start scan : 1160 Integration stop scan: 1209
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

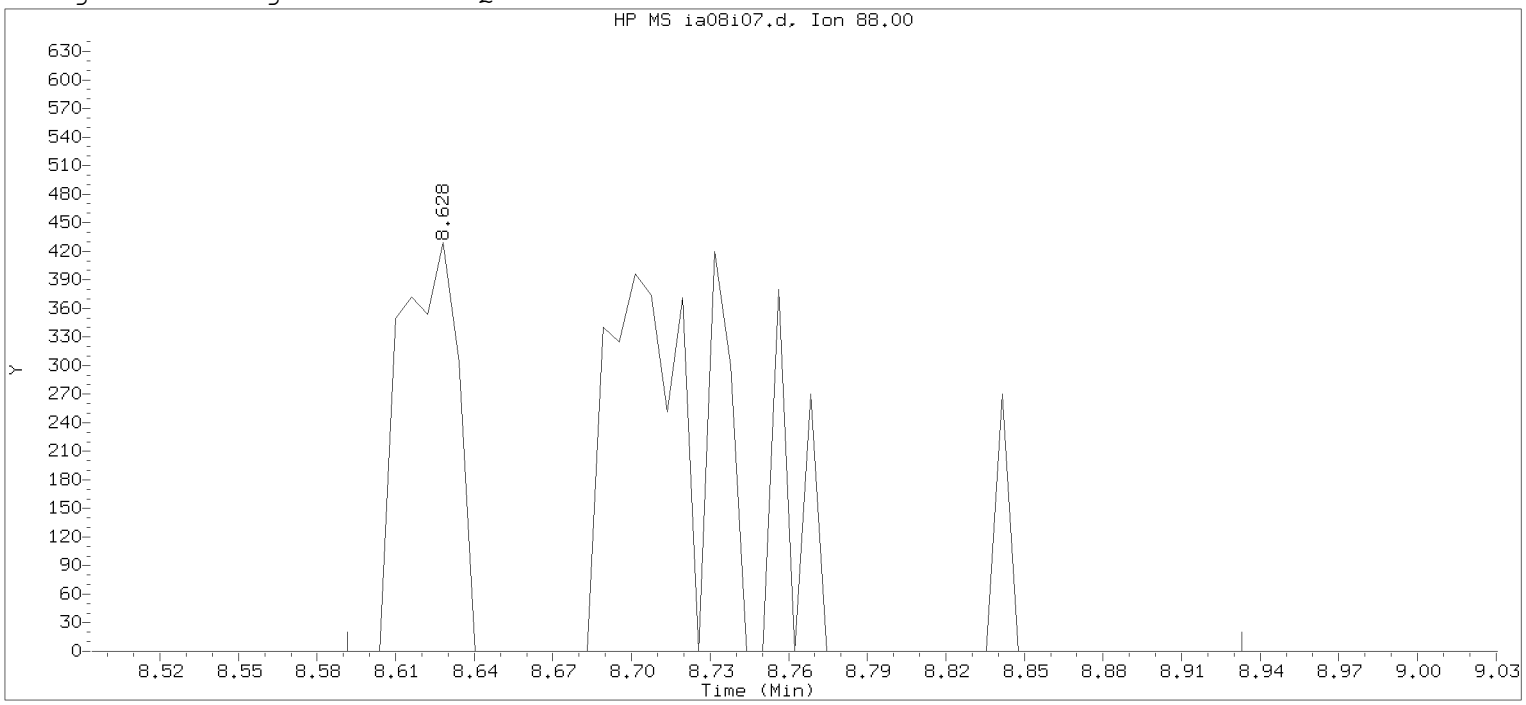
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

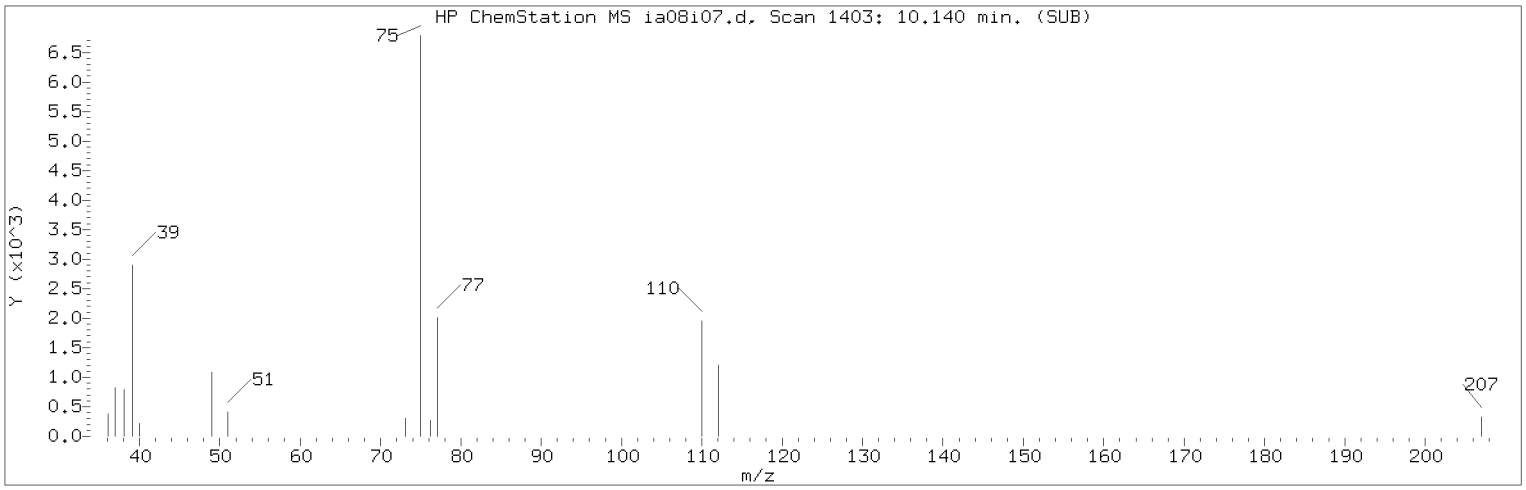
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

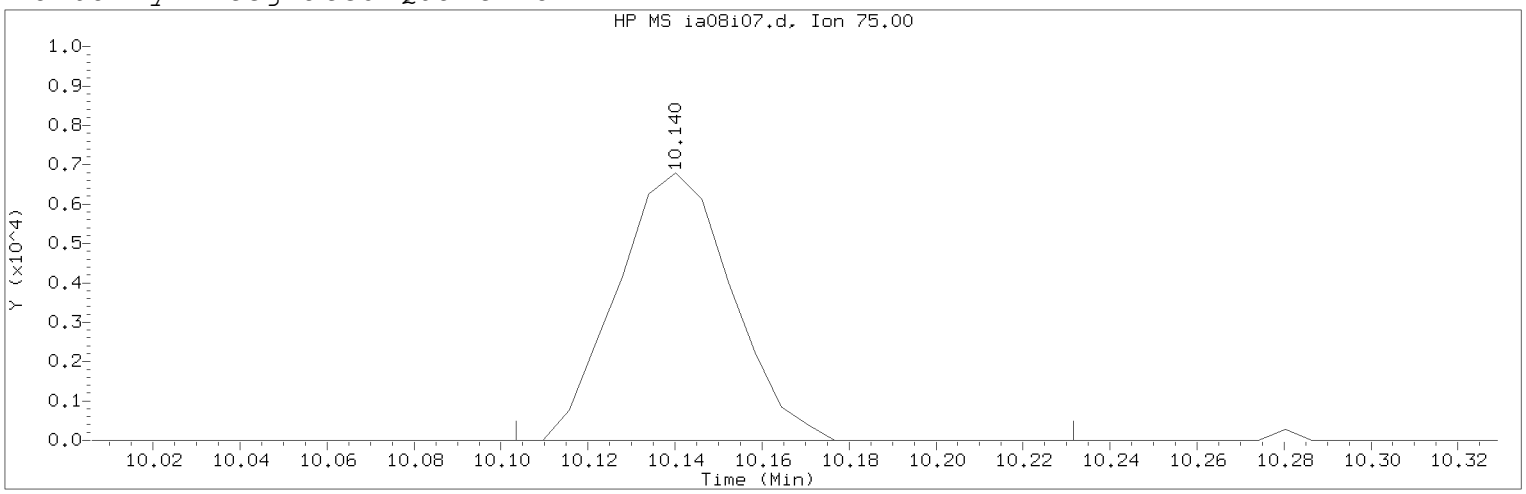
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1155
Retention Time (minutes): 8.628
Quant Ion : 88.00
Area : 2013
On-column Amount (ng) : 8.6987
Integration start scan : 1148 Integration stop scan: 1204
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Page 1280

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

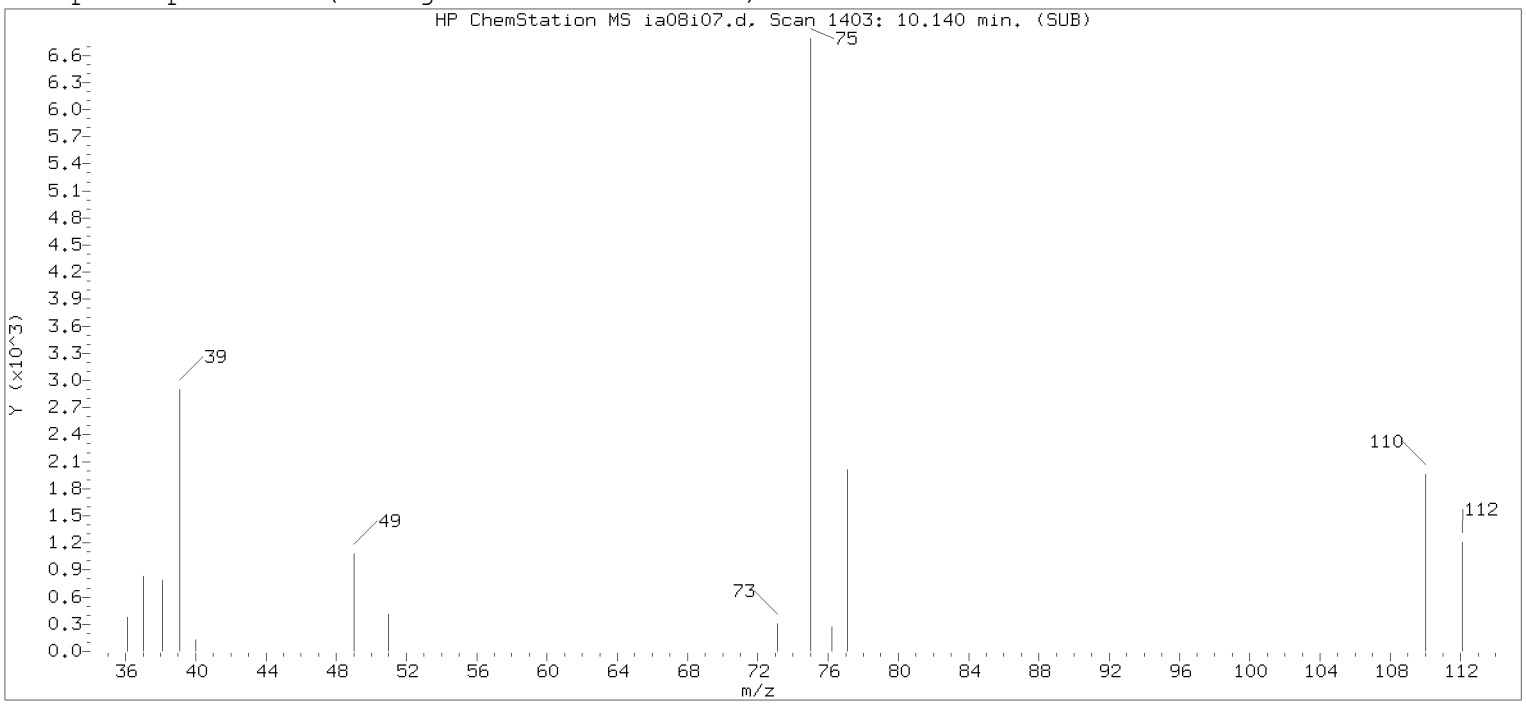
Compound Number : 84
Compound Name : trans-1,3-Dichloropropene
Scan Number : 1403
Retention Time (minutes): 10.140
Quant Ion : 75.00
Area (flag) : 12459M
On-Column Amount (ng) : 0.1966
Integration start scan : 1396 Integration stop scan: 1417
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

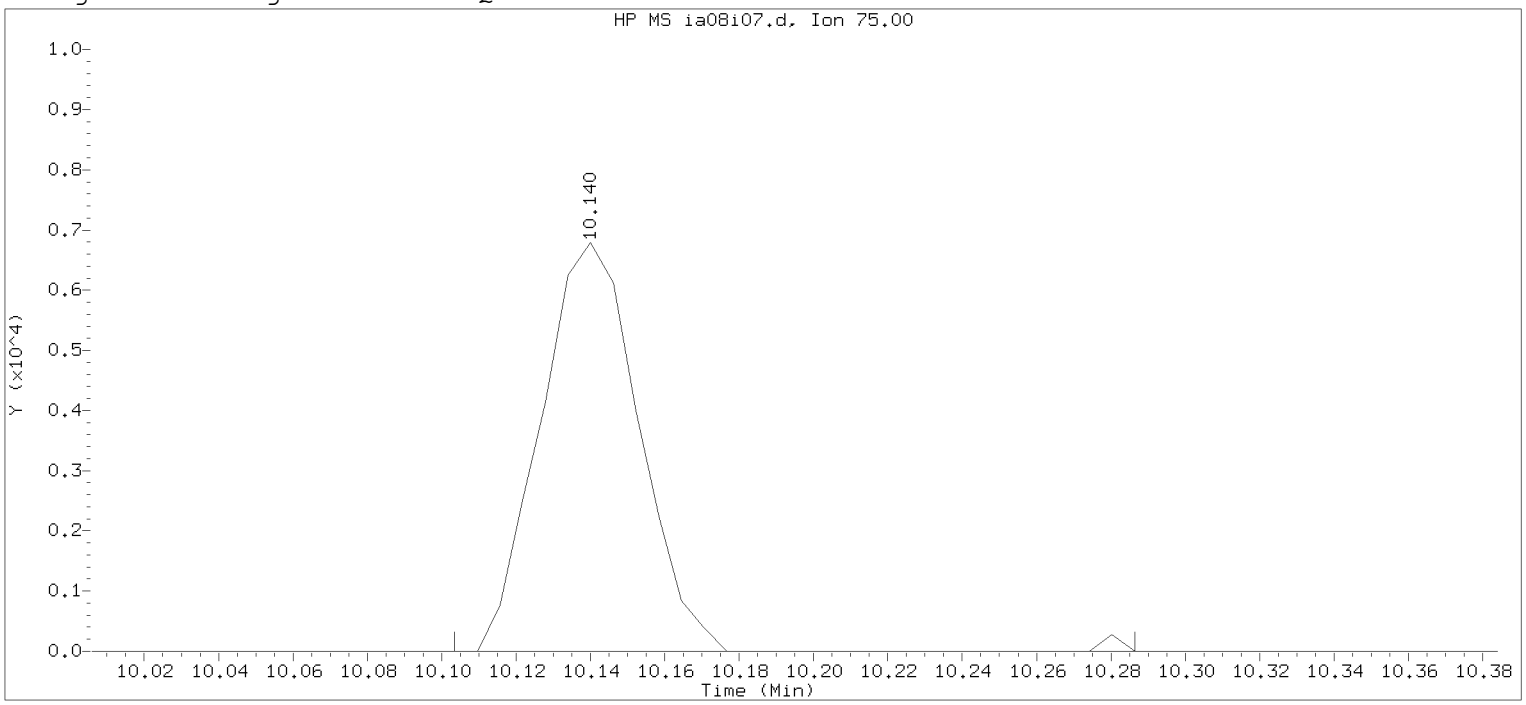
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

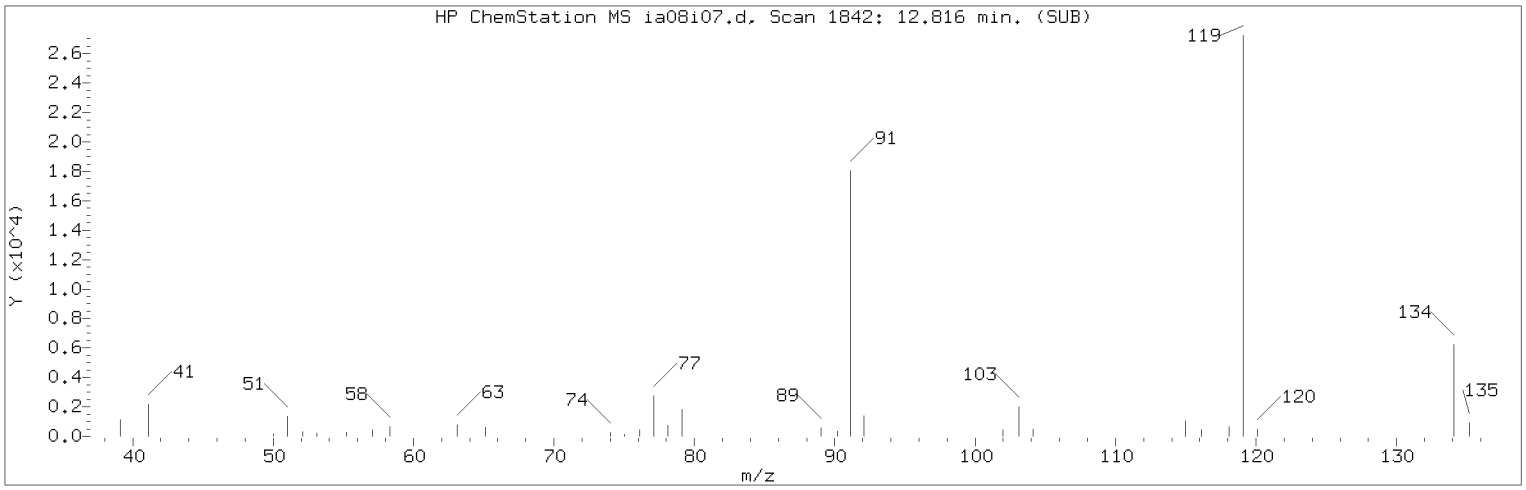
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

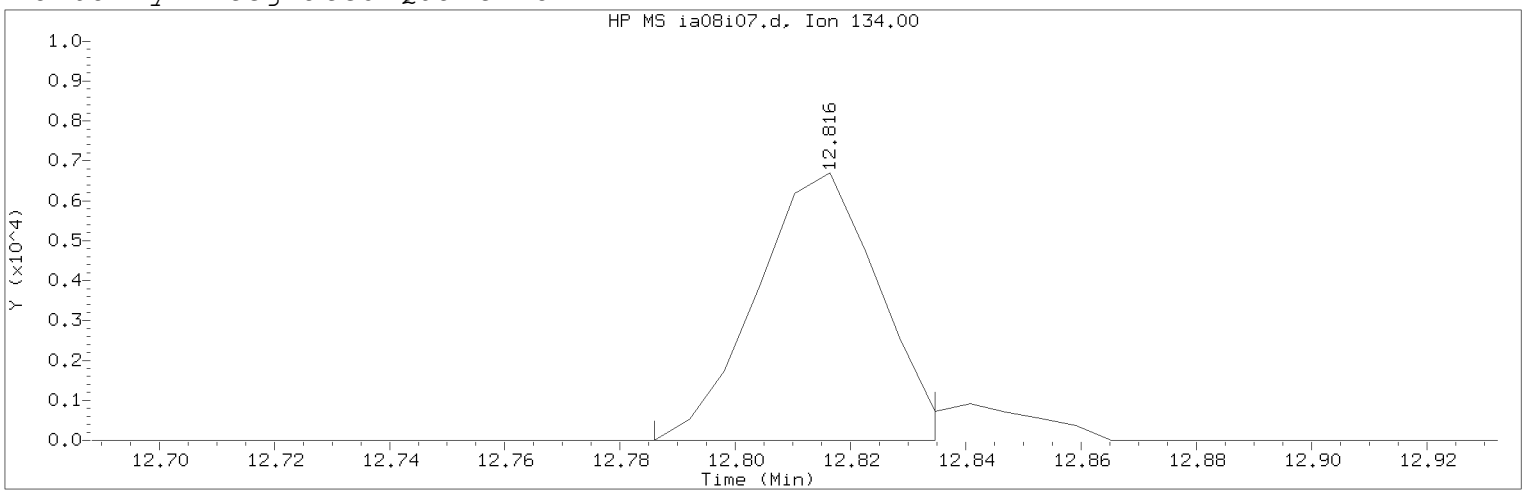
Compound Number : 84
Compound Name : trans-1,3-Dichloropropene
Scan Number : 1403
Retention Time (minutes): 10.140
Quant Ion : 75.00
Area : 12558
On-column Amount (ng) : 0.1980
Integration start scan : 1396 Integration stop scan: 1426
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Page 1282

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

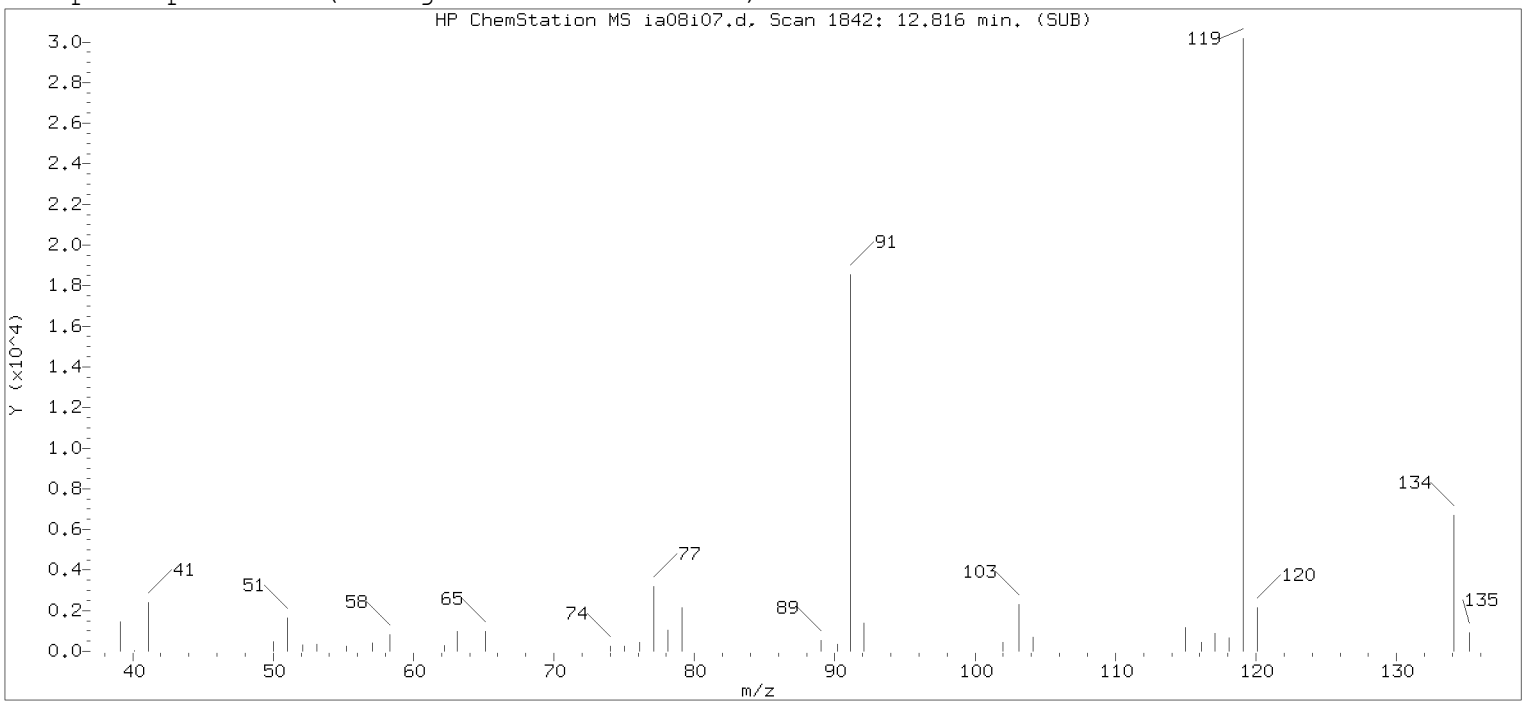
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 9881M
On-Column Amount (ng) : 0.1868
Integration start scan : 1836 Integration stop scan: 1844
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

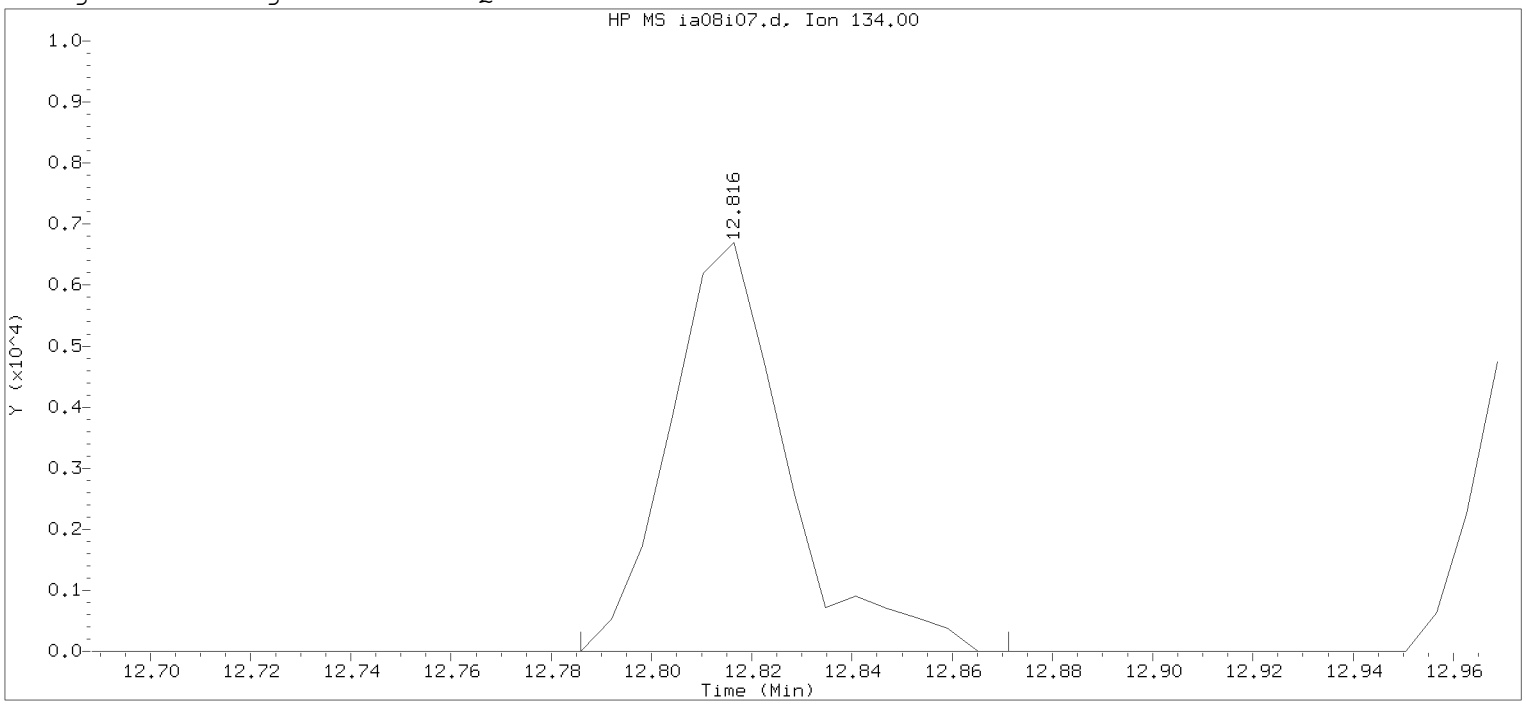
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

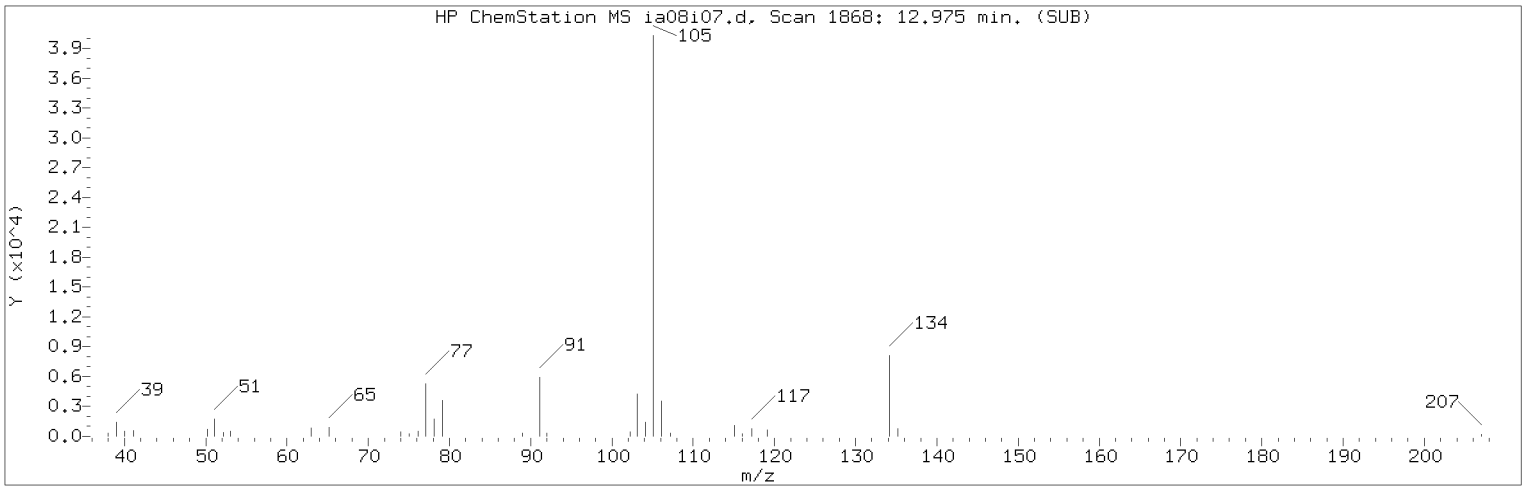
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

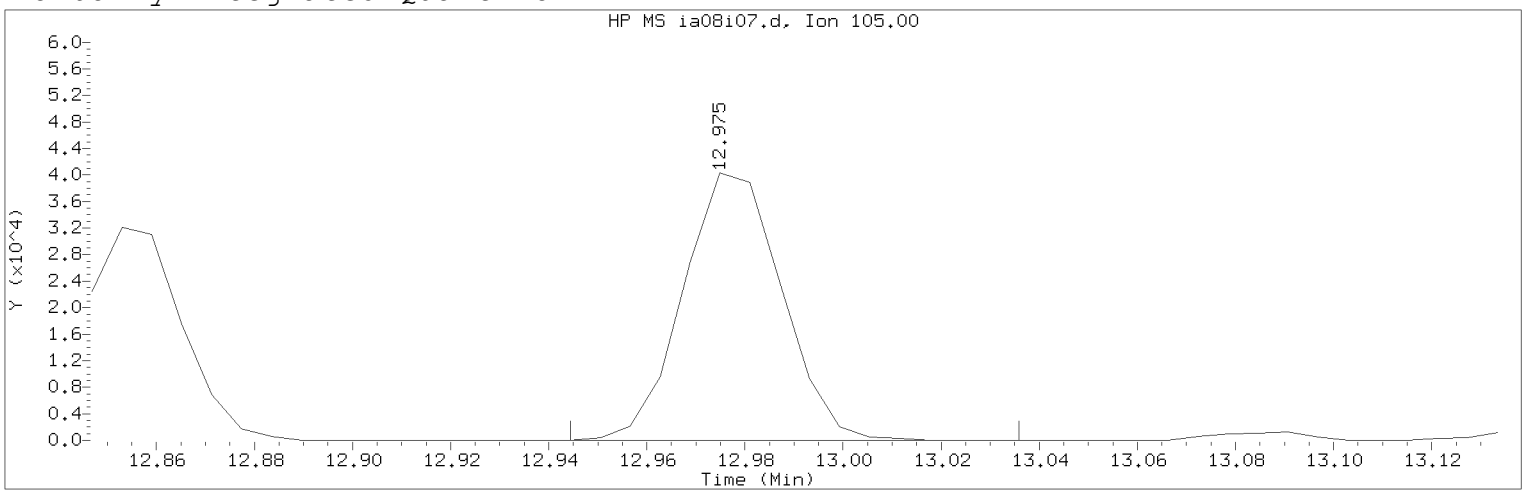
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 10808
On-column Amount (ng) : 0.1927
Integration start scan : 1836 Integration stop scan: 1850
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:05 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

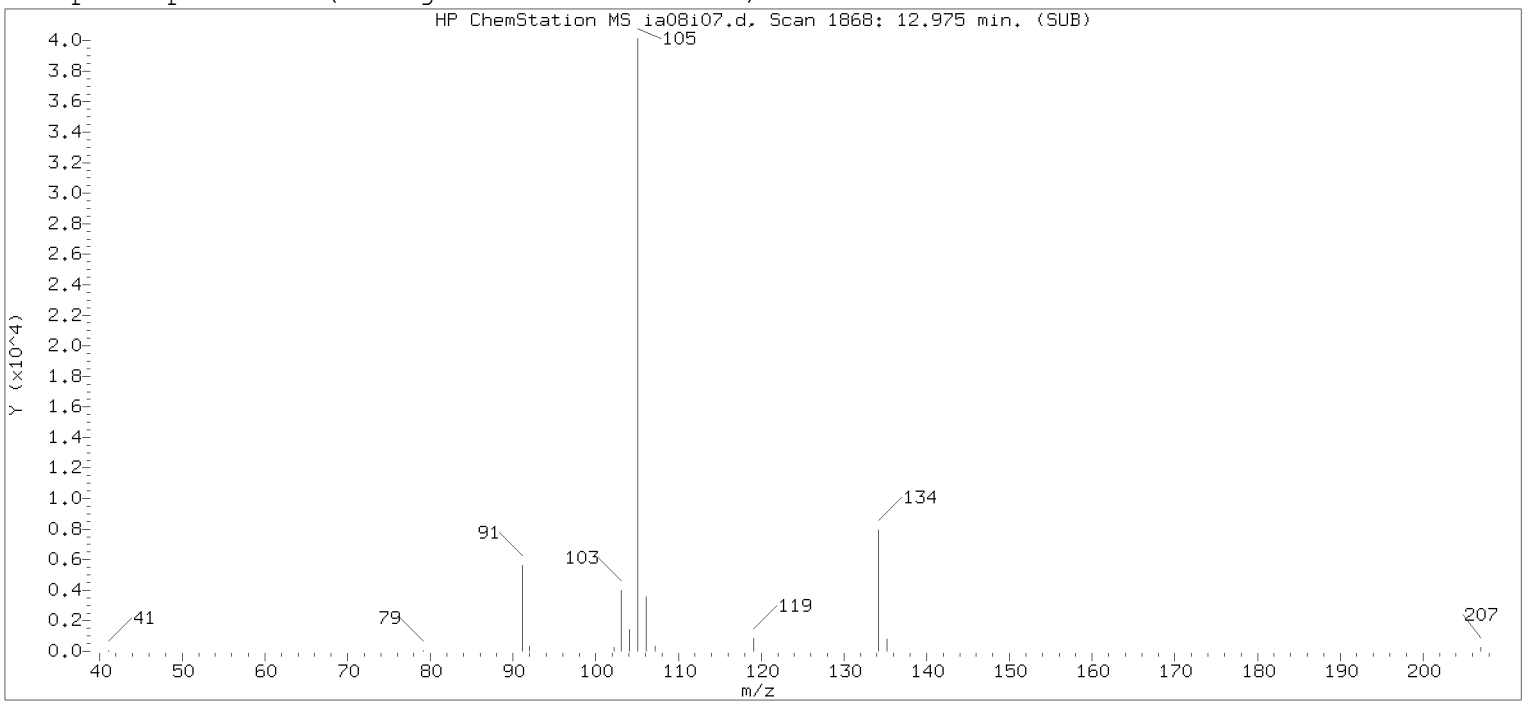
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 105.00
Area (flag) : 56352M
On-Column Amount (ng) : 0.1875
Integration start scan : 1862 Integration stop scan: 1877
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

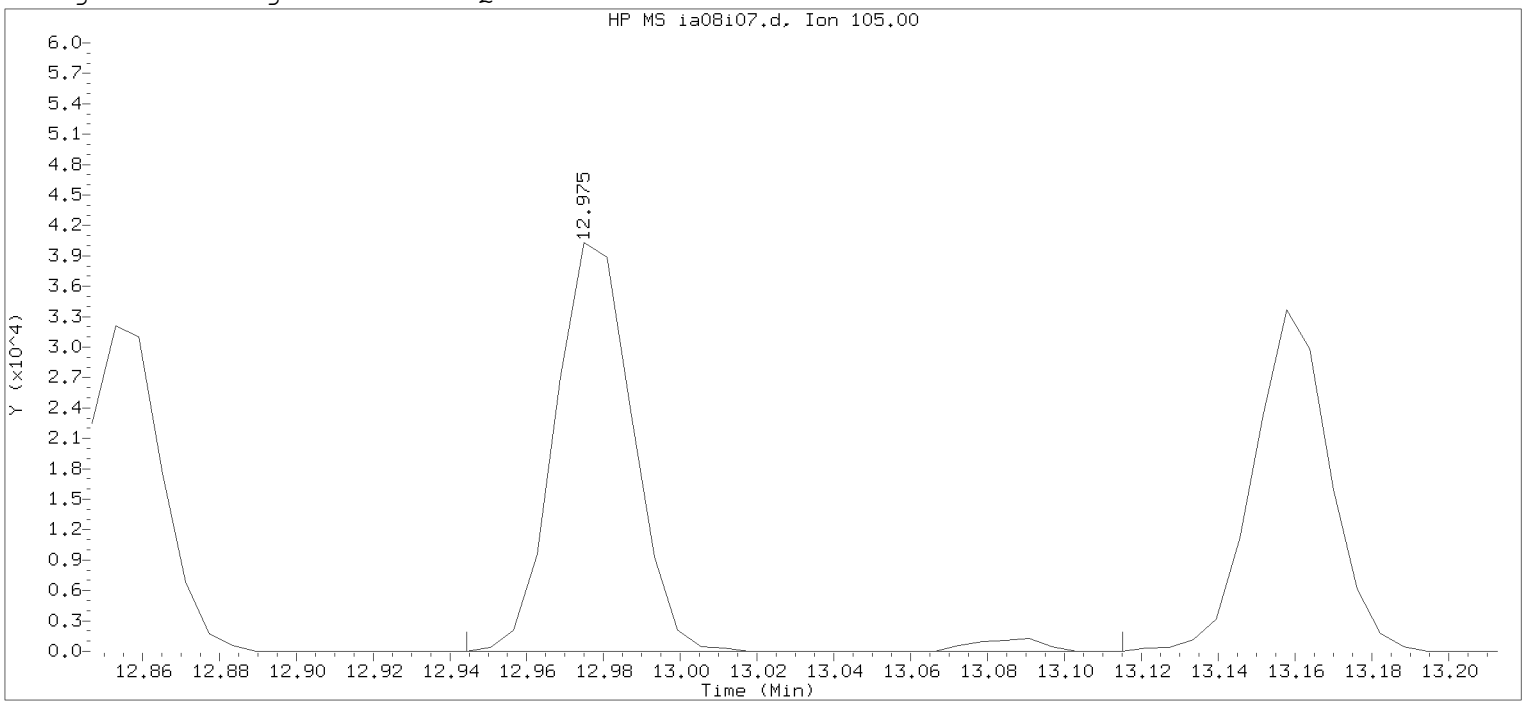
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



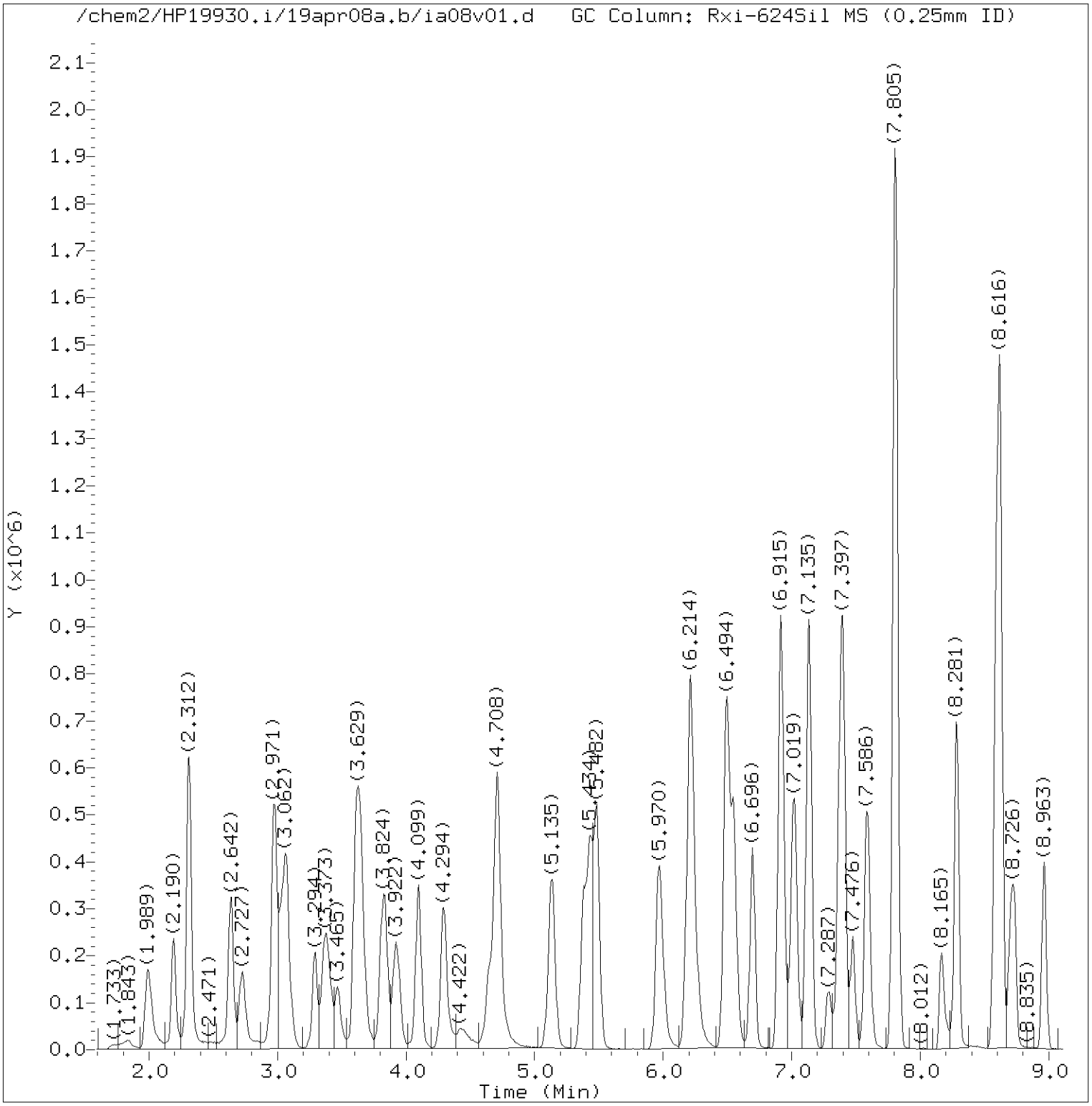
Data File: /chem2/HP19930.i/19apr08a.b/ia08i07.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:20 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:04
Date, time and analyst ID of latest file update: 09-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1868
Retention Time (minutes): 12.975
Quant Ion : 105.00
Area : 57952
On-column Amount (ng) : 0.1905
Integration start scan : 1862 Integration stop scan: 1890
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used for this report



Total Ion Chromatogram (TIC)

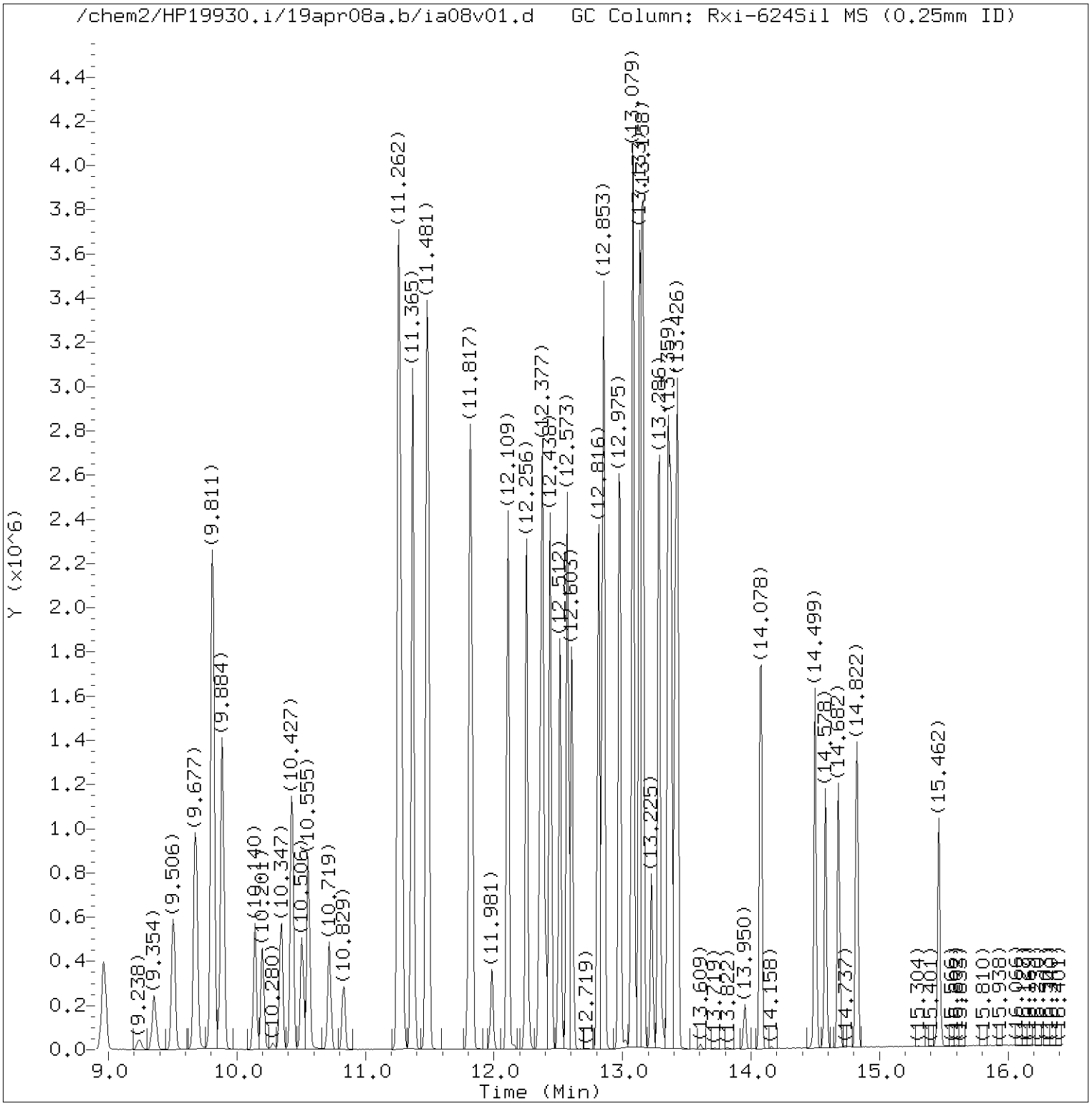
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	1.989	85	391134	3.664
2) Chloromethane	(2)	2.190	50	344440	4.356
5) Vinyl Chloride	(2)	2.306	62	366902	4.564
6) 1,3-Butadiene	(2)	2.306	39	288606M	4.341
7) Bromomethane	(2)	2.642	94	310555	4.345
8) Chloroethane	(2)	2.727	64	223888	4.795
9) Dichlorofluoromethane	(2)	2.971	67	598889	4.964
10) Trichlorofluoromethane	(2)	3.032	101	611977M	4.557
11) Ethyl ether	(2)	3.288	59	174047	4.922
12) Freon 123a	(2)	3.373	67	297982MA	4.935
13) Acrolein	(1)	3.471	56	209344	33.508
15) 1,1-Dichloroethene	(2)	3.611	96	255375	5.483
16) Freon 113	(2)	3.641	101	289708	5.148
14) Acetone	(1)	3.641	43	267216M	30.986
17) Methyl Iodide	(2)	3.806	142	491619	4.921
18) Carbon Disulfide	(2)	3.922	76	645340	4.732
21) Methyl Acetate	(1)	4.074	43	96606	4.239
22) Allyl Chloride	(2)	4.099	41	324555	4.530
23) Methylene Chloride	(2)	4.288	84	250438	5.256
26)*t-Butyl Alcohol-d10	(1)	4.300	65	147191M	50.000
28) t-Butyl Alcohol	(1)	4.428	59	163948	45.867
29) Acrylonitrile	(1)	4.641	53	233601	22.646
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	593383	4.871
31) trans-1,2-Dichloroethene	(2)	4.708	96	272633	5.230
32) n-Hexane	(2)	5.135	57	353545	4.819
33) 1,1-Dichloroethane	(2)	5.379	63	439011	5.178
34) di-Isopropyl Ether	(2)	5.434	45	727106	5.111
35) 2-Chloro-1,3-Butadiene	(2)	5.482	53	379182	4.980
37) Ethyl t-butyl ether	(2)	5.970	59	689852	4.884
40) 1,2-Dichloroethene (Total)	(2)		96	583050	10.576
38) 2-Butanone	(1)	6.190	43	473145	33.778
39) cis-1,2-Dichloroethene	(2)	6.214	96	310417	5.346
41) 2,2-Dichloropropane	(2)	6.226	77	410950	5.207
42) Propionitrile	(1)	6.281	54	132309	35.180
45) Methacrylonitrile	(1)	6.494	67	488218	35.273
47) Bromochloromethane	(2)	6.543	128	131297	4.594
48) Tetrahydrofuran	(1)	6.561	71	96304	21.987
49) Chloroform	(2)	6.696	83	484270	5.241

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	470225	9.949
51) 1,1,1-Trichloroethane	(2)	6.921	97	468999	5.251
52) Cyclohexane	(2)	7.019	56	433882	4.940
54) Carbon Tetrachloride	(2)	7.135	117	442368	5.245
55) 1,1-Dichloropropene	(2)	7.135	75	357231	5.167
56) Isobutyl Alcohol	(1)	7.281	41	129971	117.728
57)$1,2-Dichloroethane-d4	(2)	7.372	102	88731	9.741
58) Benzene	(2)	7.397	78	1052838	5.179
59) 1,2-Dichloroethane	(2)	7.476	62	274123	5.027
60) t-Amyl methyl ether	(2)	7.586	73	676308	4.964
63)*Fluorobenzene	(2)	7.805	96	1831440	10.000
62) n-Heptane	(2)	7.811	43	353311	4.690
65) n-Butanol	(1)	8.165	56	228951	248.528
67) Trichloroethene	(2)	8.287	95	295600	5.197
69) Methylcyclohexane	(2)	8.592	83	488084	4.806
70) 1,2-Dichloropropane	(2)	8.622	63	247286	5.254
71) Methyl Methacrylate	(1)	8.701	69	125639	4.743
72) 1,4-Dioxane	(1)	8.714	88	32080M	141.638
73) Dibromomethane	(2)	8.732	93	135294	5.113
74) Bromodichloromethane	(2)	8.963	83	342222	5.238
76) 2-Nitropropane	(1)	9.244	41	38114	4.324
80) cis-1,3-Dichloropropene	(2)	9.506	75	382035	5.155
81) 4-Methyl-2-Pentanone	(1)	9.677	43	790036	22.279
82)$Toluene-d8	(3)	9.811	98	1822737	10.088
83) Toluene	(3)	9.884	92	706171	5.198
84) trans-1,3-Dichloropropene	(3)	10.140	75	319477	4.989
85) 1,3-Dichloropropene (total)	(3)		75	701512	10.144
86) Ethyl Methacrylate	(3)	10.195	69	258348	4.777
88) 1,1,2-Trichloroethane	(3)	10.347	97	199681	5.319
89) Tetrachloroethene	(3)	10.427	166	372416	5.180
90) 1,3-Dichloropropane	(3)	10.506	76	302784	5.011
91) 2-Hexanone	(1)	10.555	43	563781MA	22.421
93) Dibromochloromethane	(3)	10.719	129	271461	5.320
95) 1,2-Dibromoethane	(3)	10.829	107	194705	5.093
97)*Chlorobenzene-d5	(3)	11.256	117	1473136	10.000
96) 1-Chlorohexane	(3)	11.262	91	414117	5.063
98) Chlorobenzene	(3)	11.286	112	803400	5.152
100) Ethylbenzene	(3)	11.365	91	1394283	5.111

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	309383	5.260
101) m+p-Xylene	(3)	11.481	106	1131673	10.416
105) Xylene (Total)	(3)		106	1678084	15.626
104) o-Xylene	(3)	11.810	106	546411	5.210
106) Styrene	(3)	11.829	104	875490	5.266
107) Bromoform	(3)	11.981	173	163168	5.200
108) Isopropylbenzene	(3)	12.109	105	1503268	5.307
111)$4-Bromofluorobenzene	(3)	12.256	95	669568	9.889
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	237158	5.079
114) Bromobenzene	(4)	12.371	156	362054	5.095
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	293728	23.619
116) 1,2,3-Trichloropropane	(4)	12.402	110	70396	5.080
117) n-Propylbenzene	(4)	12.438	91	1695252	5.334
119) 2-Chlorotoluene	(4)	12.512	126	355322	5.199
121) 1,3,5-Trimethylbenzene	(4)	12.573	105	1228907	5.234
122) 4-Chlorotoluene	(4)	12.603	126	354678	5.165
125) tert-Butylbenzene	(4)	12.816	134	283372M	5.297
126) Pentachloroethane	(4)	12.847	167	233708	4.960
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	1250127	5.226
128) sec-Butylbenzene	(4)	12.975	105	1637145	5.387
131) 1,3-Dichlorobenzene	(4)	13.079	146	695115	5.110
132) p-Isopropyltoluene	(4)	13.085	119	1428398	5.356
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	818147	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	703063	5.172
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	572642	5.122
136) Benzyl Chloride	(4)	13.225	126	109515	4.977
138) n-Butylbenzene	(4)	13.377	92	637821	5.258
139) 1,2-Dichlorobenzene	(4)	13.408	146	647035	5.211
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	39800	4.937
144) 1,3,5-Trichlorobenzene	(4)	14.078	180	520750	5.250
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	448264	5.156
146) Hexachlorobutadiene	(4)	14.578	225	191397	5.387
147) Naphthalene	(4)	14.682	128	846809	4.863
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	393122	5.022

M = Compound was manually integrated.
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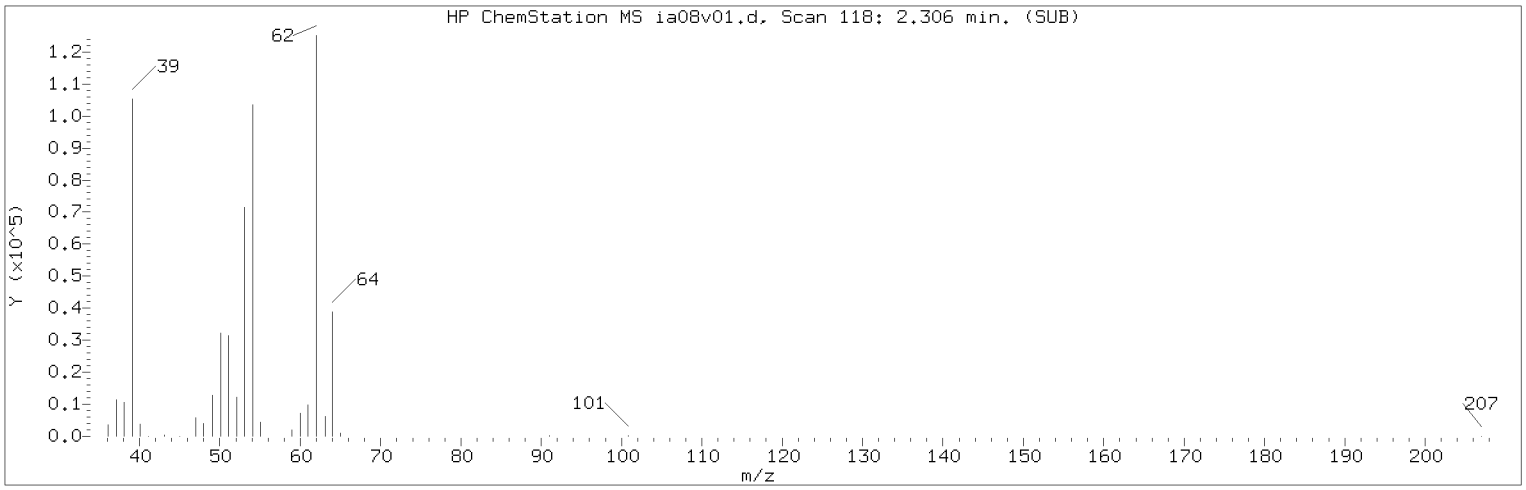
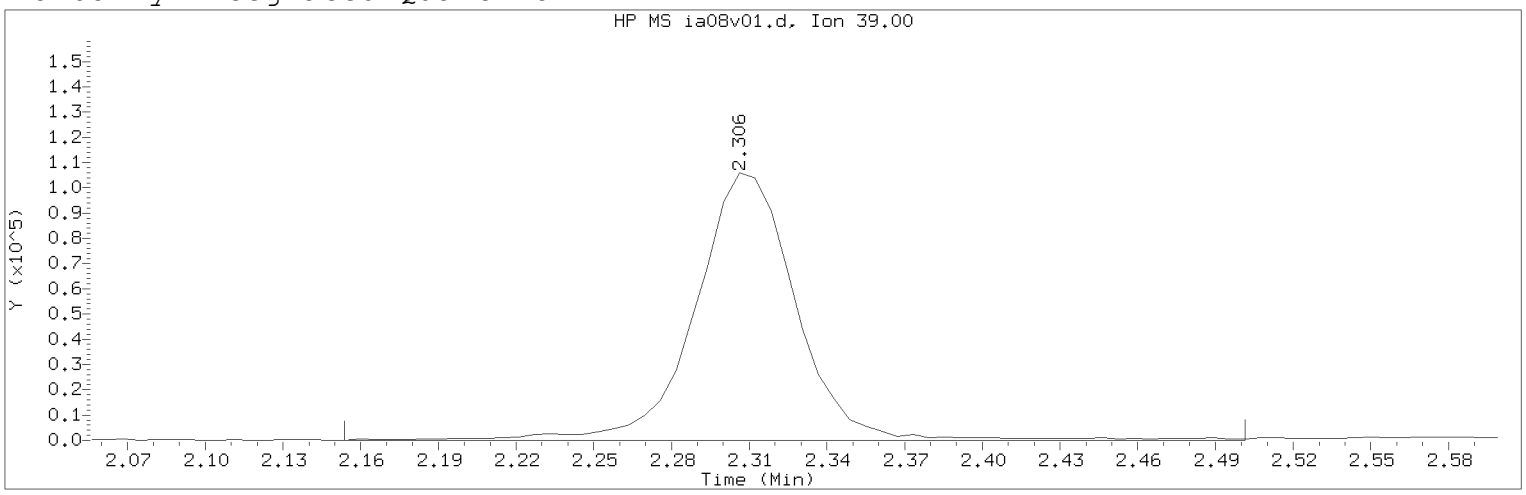
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

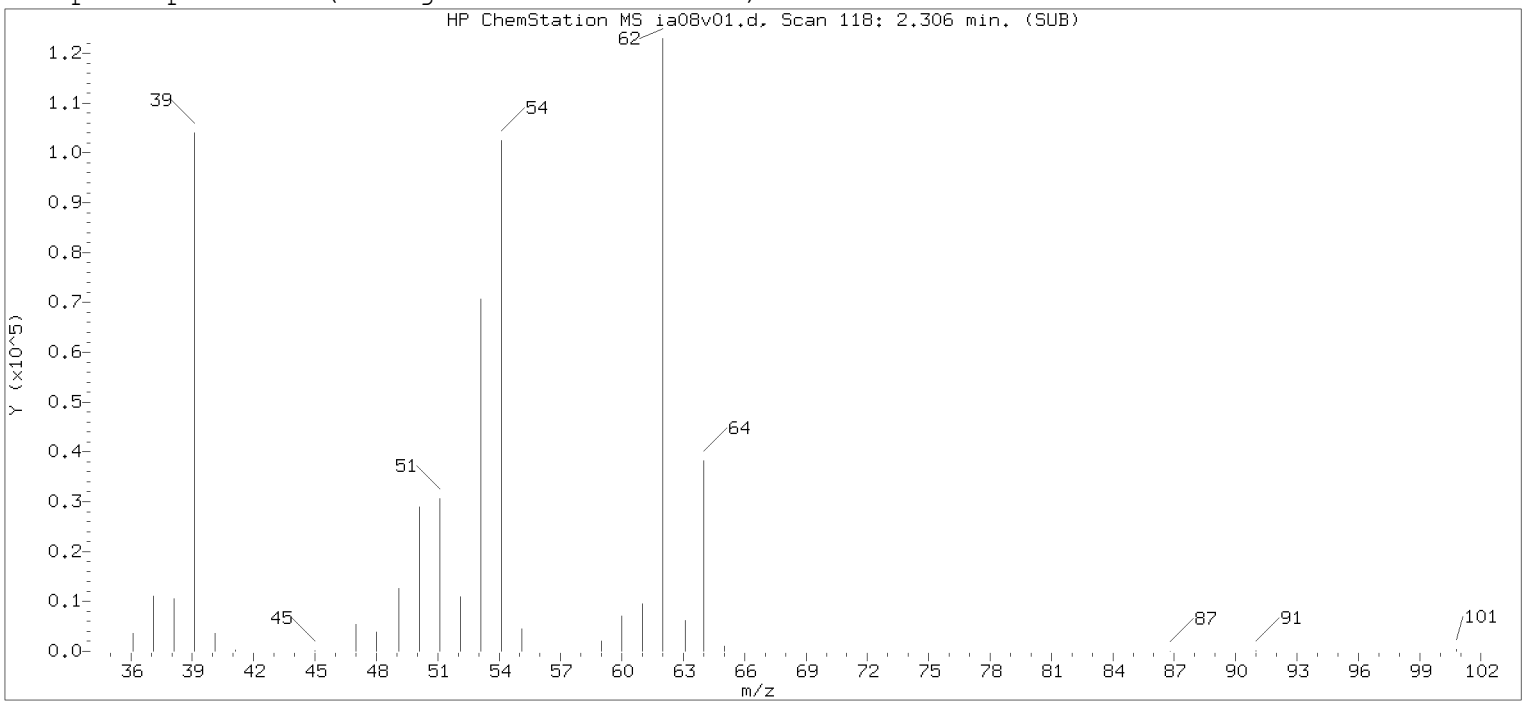
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 118
Retention Time (minutes): 2.306
Quant Ion : 39.00
Area (flag) : 288606M
On-Column Amount (ng) : 4.3411
Integration start scan : 92 Integration stop scan: 149
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

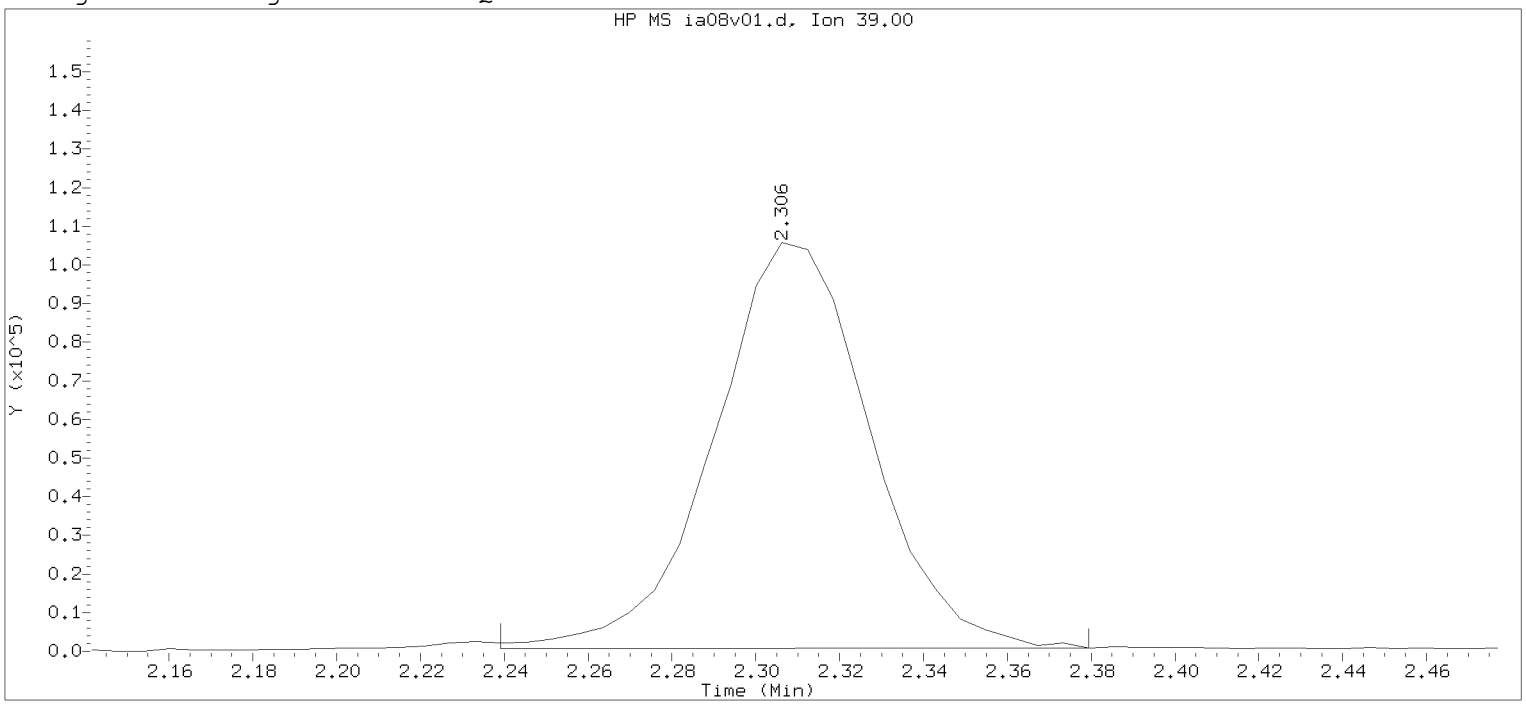
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

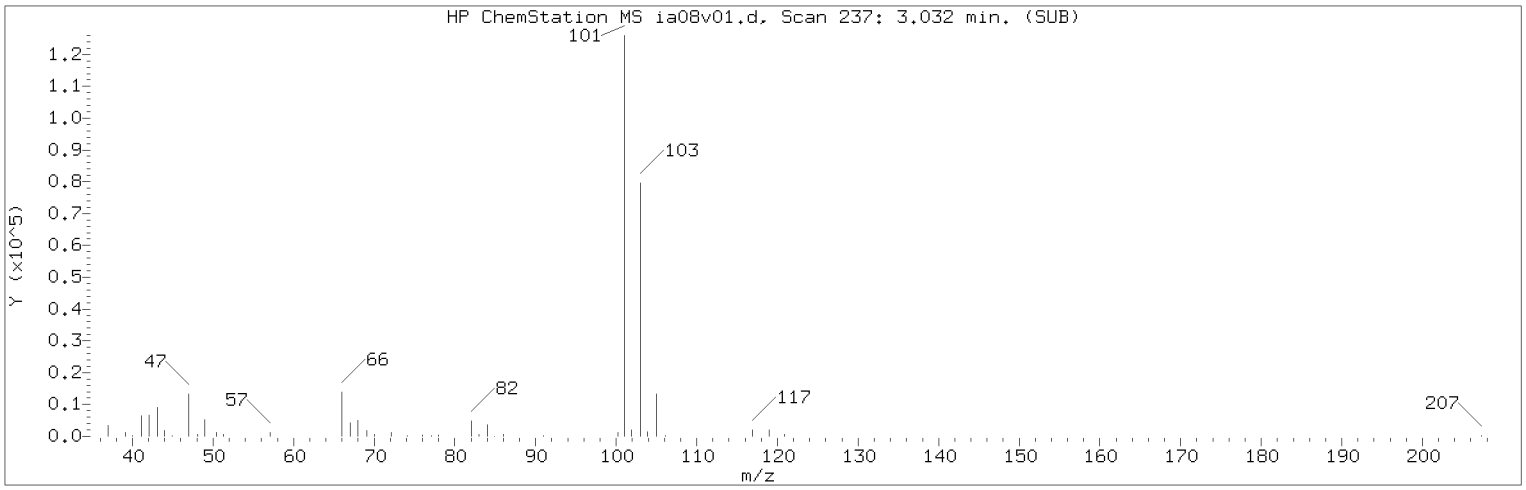
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

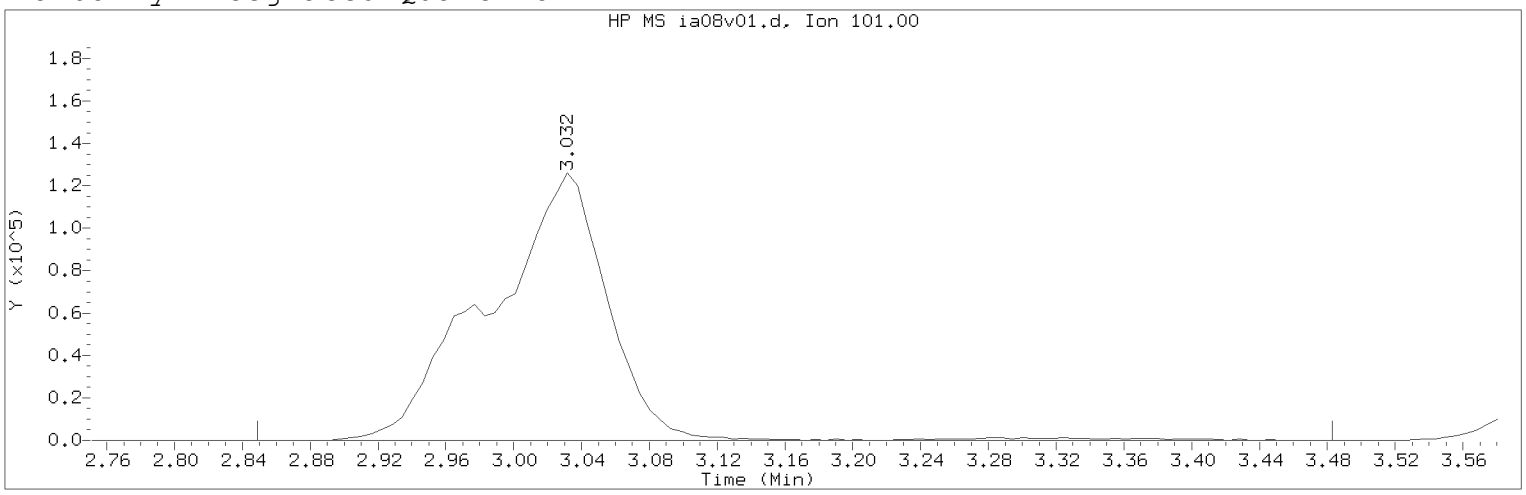
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 118
Retention Time (minutes): 2.306
Quant Ion : 39.00
Area : 271034
On-column Amount (ng) : 4.0768
Integration start scan : 106 Integration stop scan: 129
Y at integration start : 717 Y at integration end: 911

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1293

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

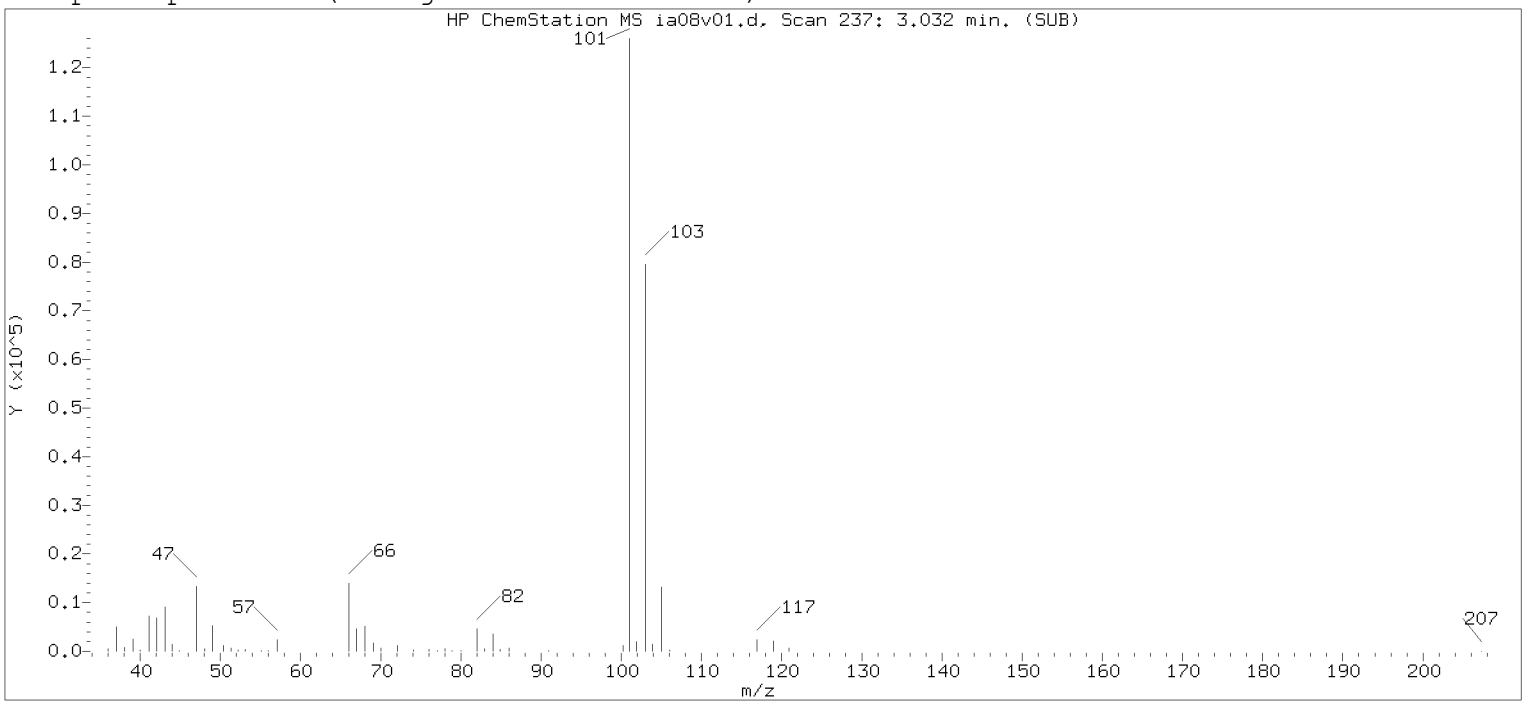
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 237
Retention Time (minutes): 3.032
Quant Ion : 101.00
Area (flag) : 611977M
On-Column Amount (ng) : 4.5568
Integration start scan : 206 Integration stop scan: 310
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

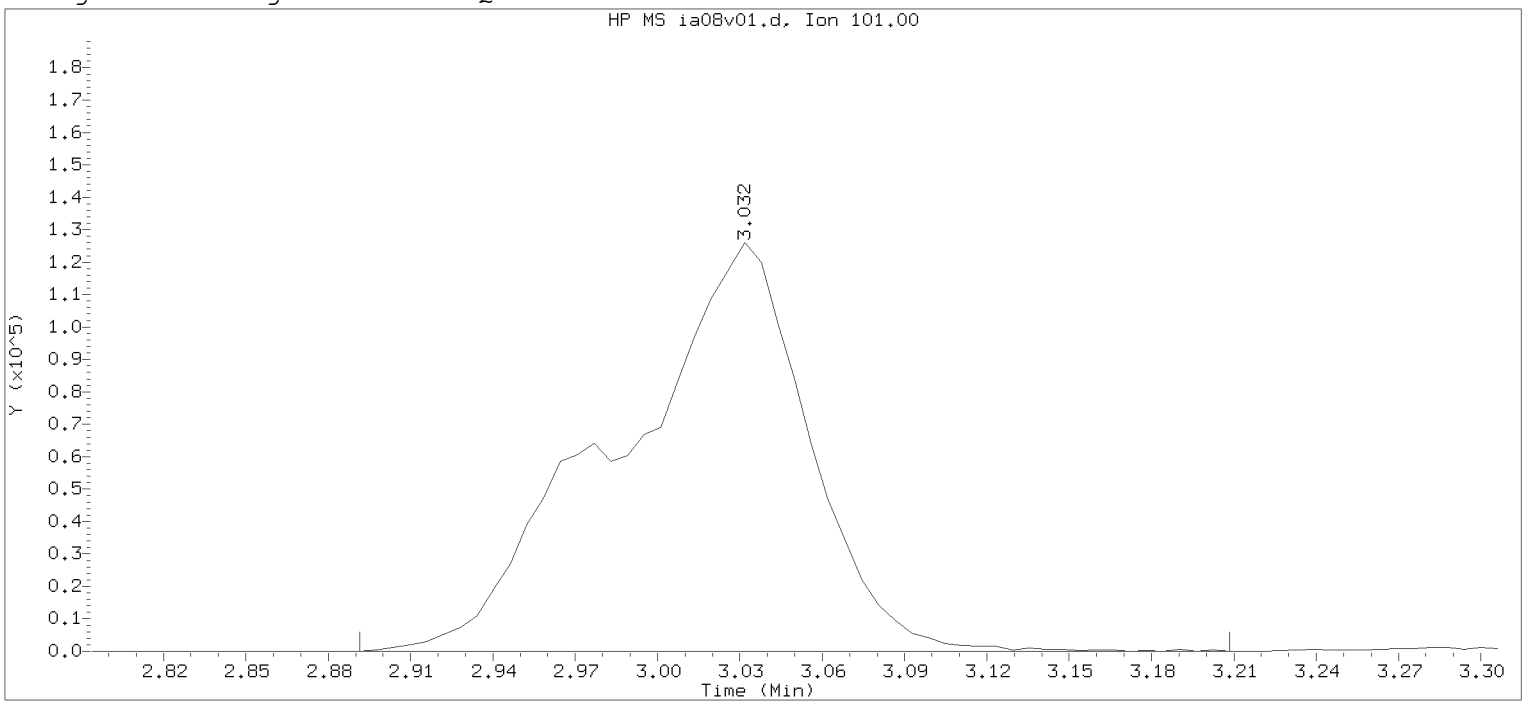
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 237
Retention Time (minutes): 3.032
Quant Ion : 101.00
Area : 603316
On-column Amount (ng) : 4.4923
Integration start scan : 213 Integration stop scan: 265
Y at integration start : 0 Y at integration end: 0

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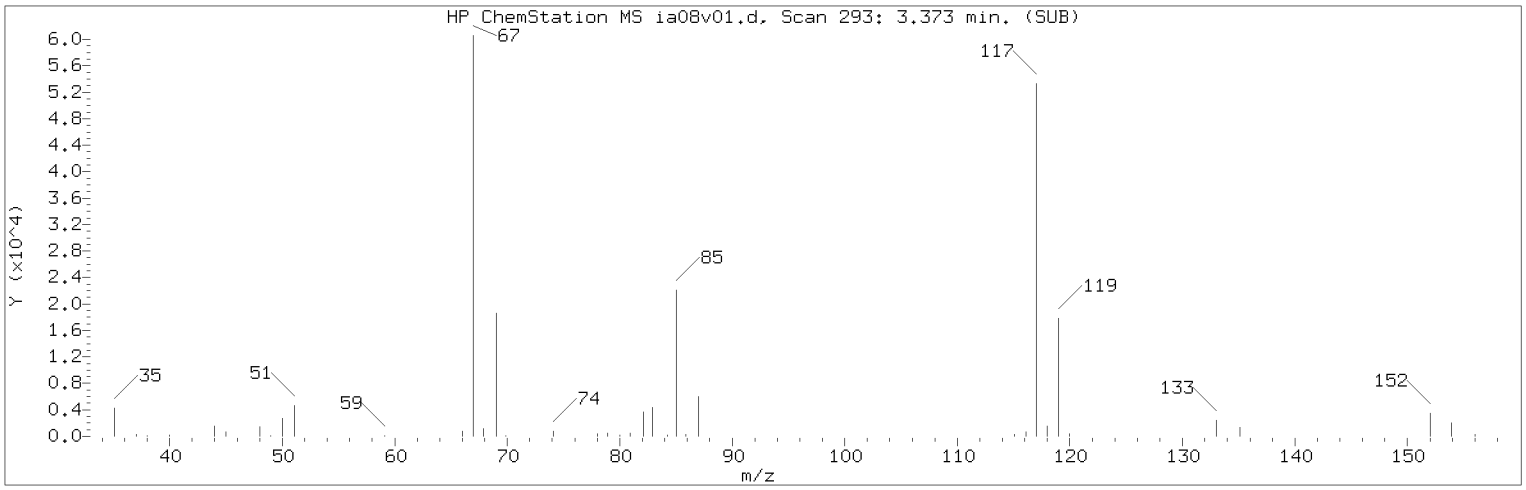
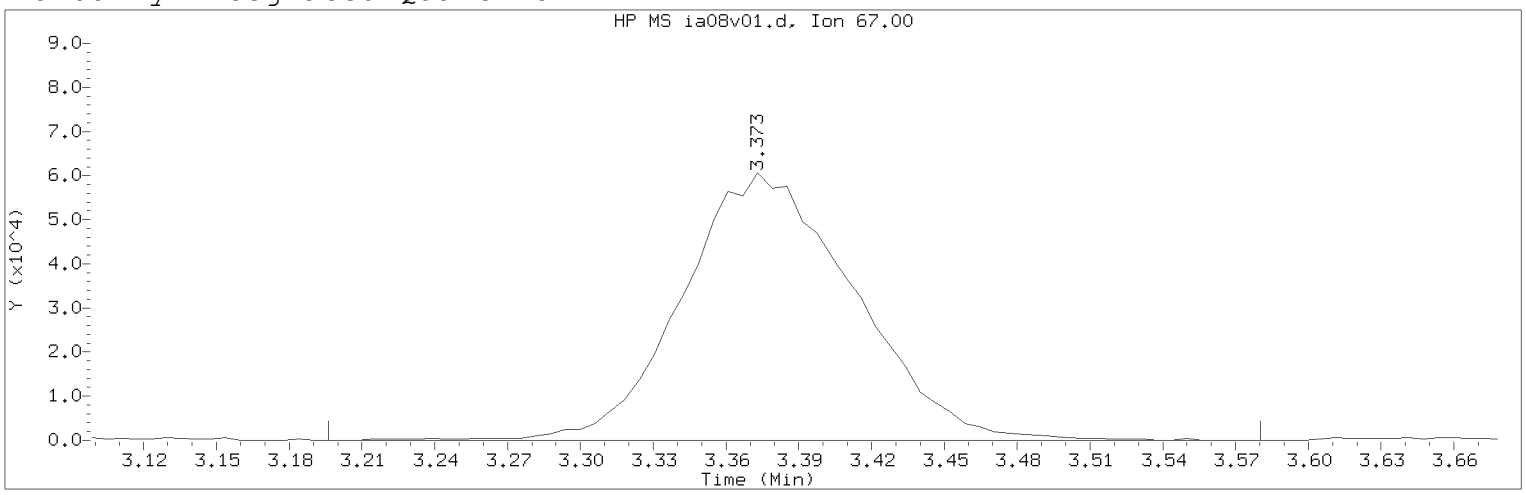
Target 3.5 esignature used. Page 1295

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

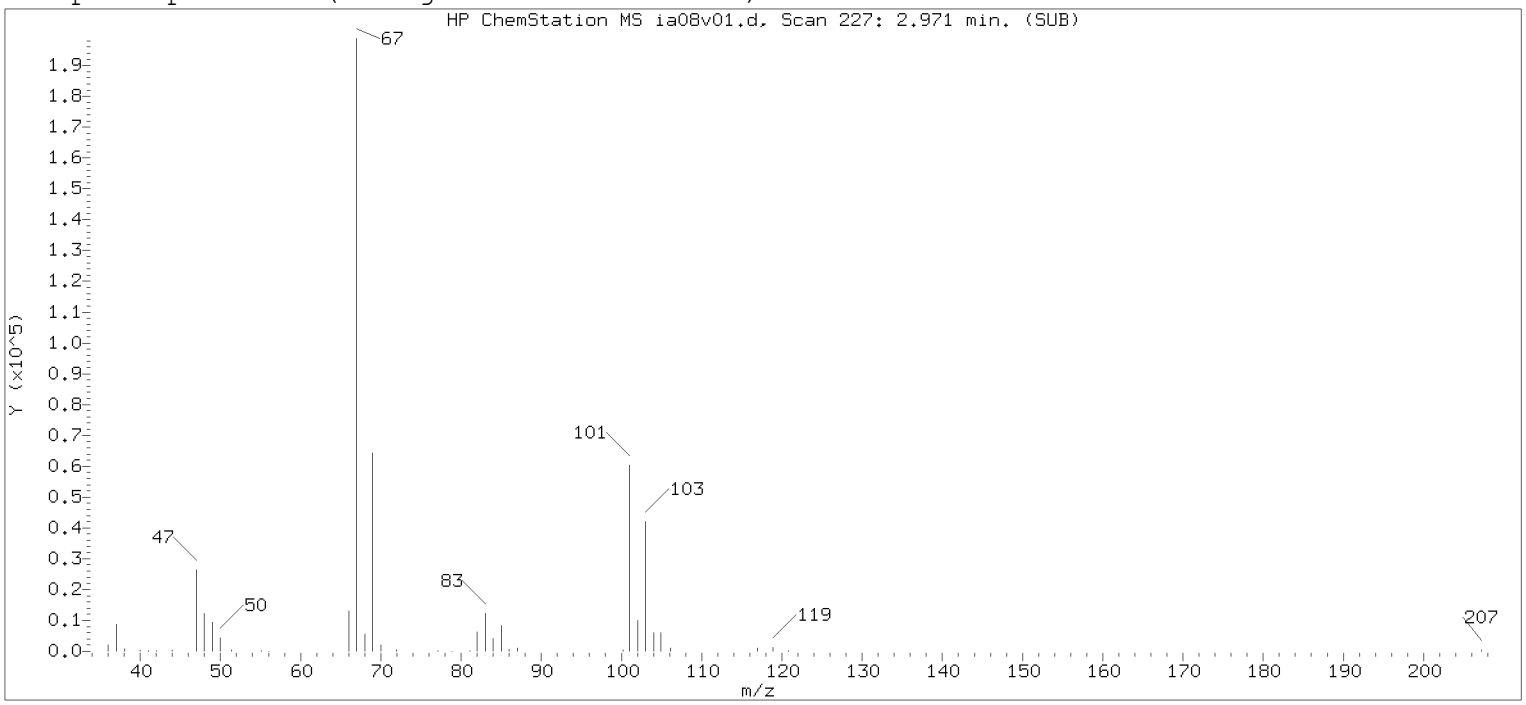
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area (flag) : 297982MA
On-Column Amount (ng) : 4.9345
Integration start scan : 263 Integration stop scan: 326
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

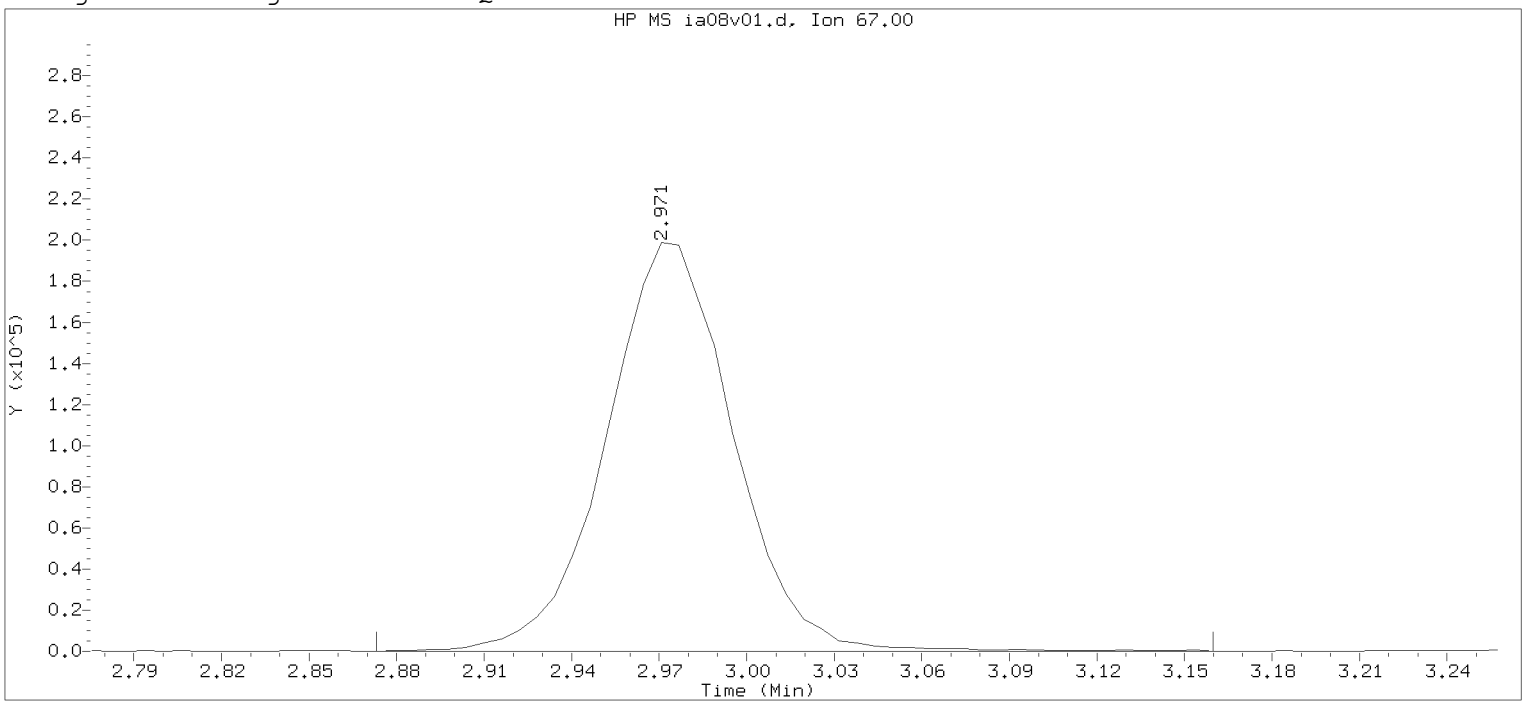
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Compound Number : 12
Compound Name : Freon 123a
Scan Number : 227
Retention Time (minutes): 2.971
Quant Ion : 67.00
Area : 600303
On-column Amount (ng) : 4.9780
Integration start scan : 210 Integration stop scan: 257
Y at integration start : 0 Y at integration end: 0

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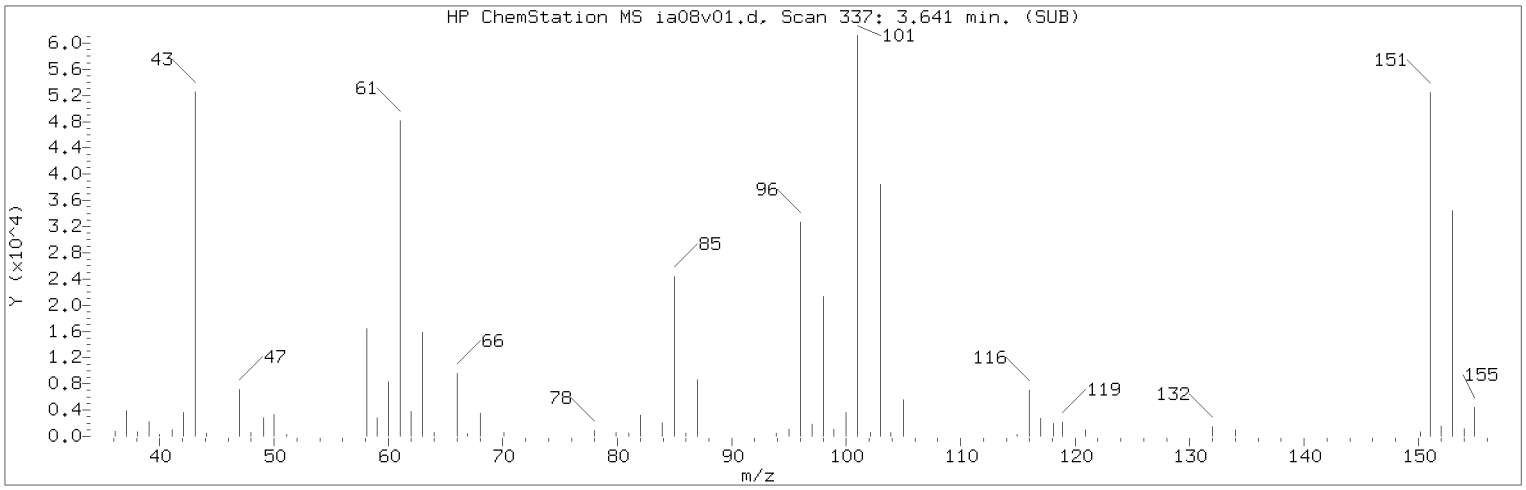
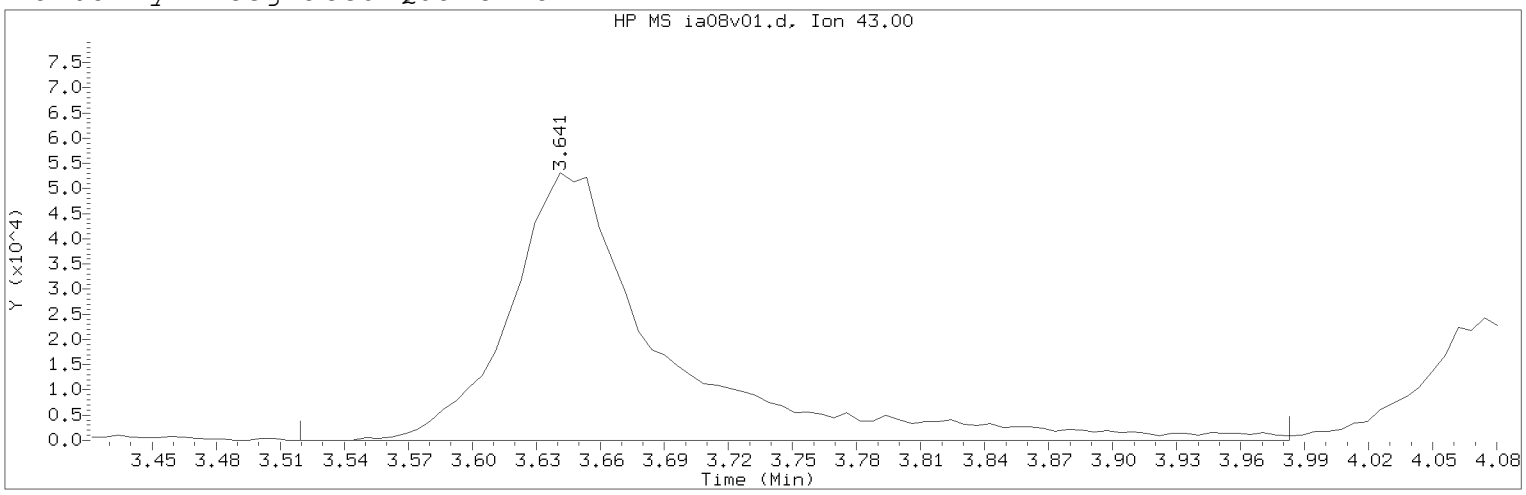
Target 3.5 esignature user: Page 1297

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

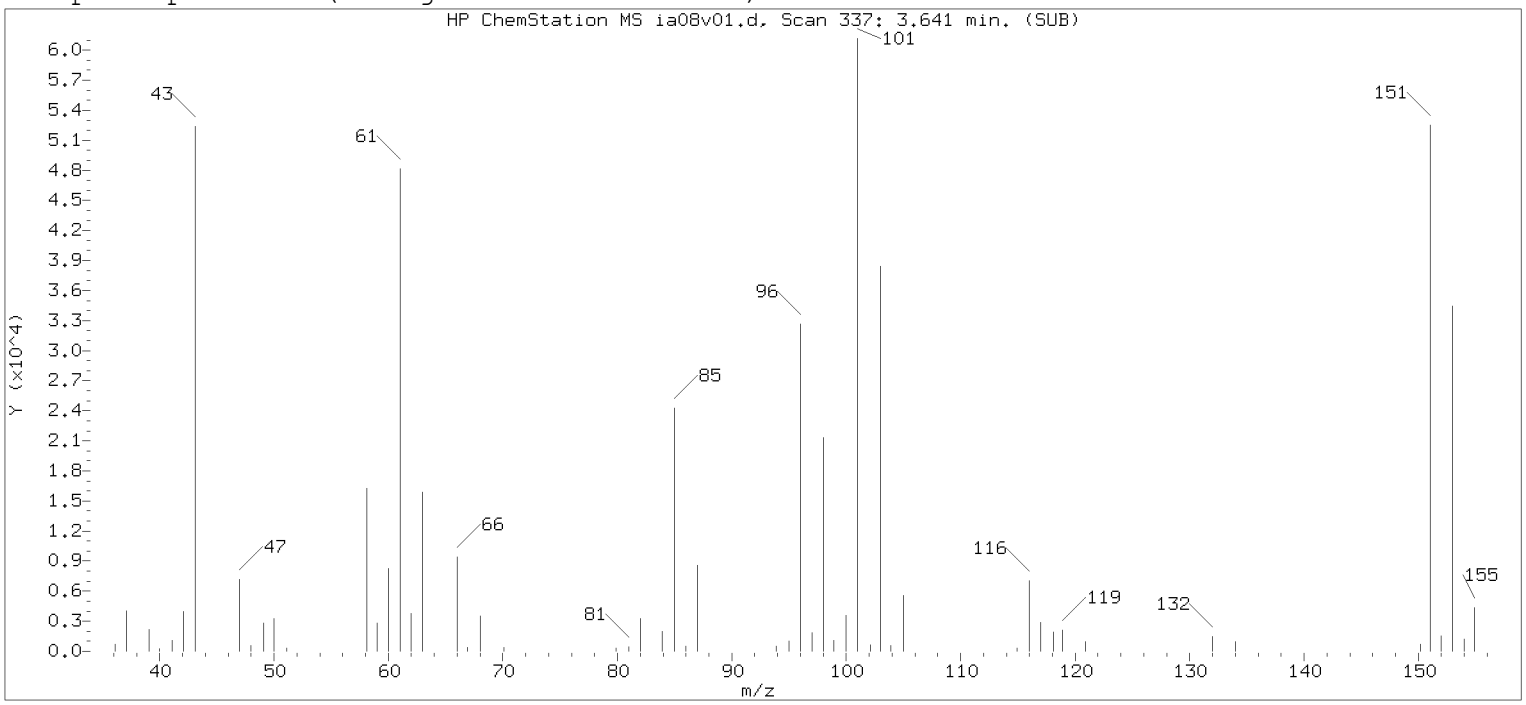
Compound Number : 14
Compound Name : Acetone
Scan Number : 337
Retention Time (minutes): 3.641
Quant Ion : 43.00
Area (flag) : 267216M
On-Column Amount (ng) : 30.9862
Integration start scan : 316 Integration stop scan: 392
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

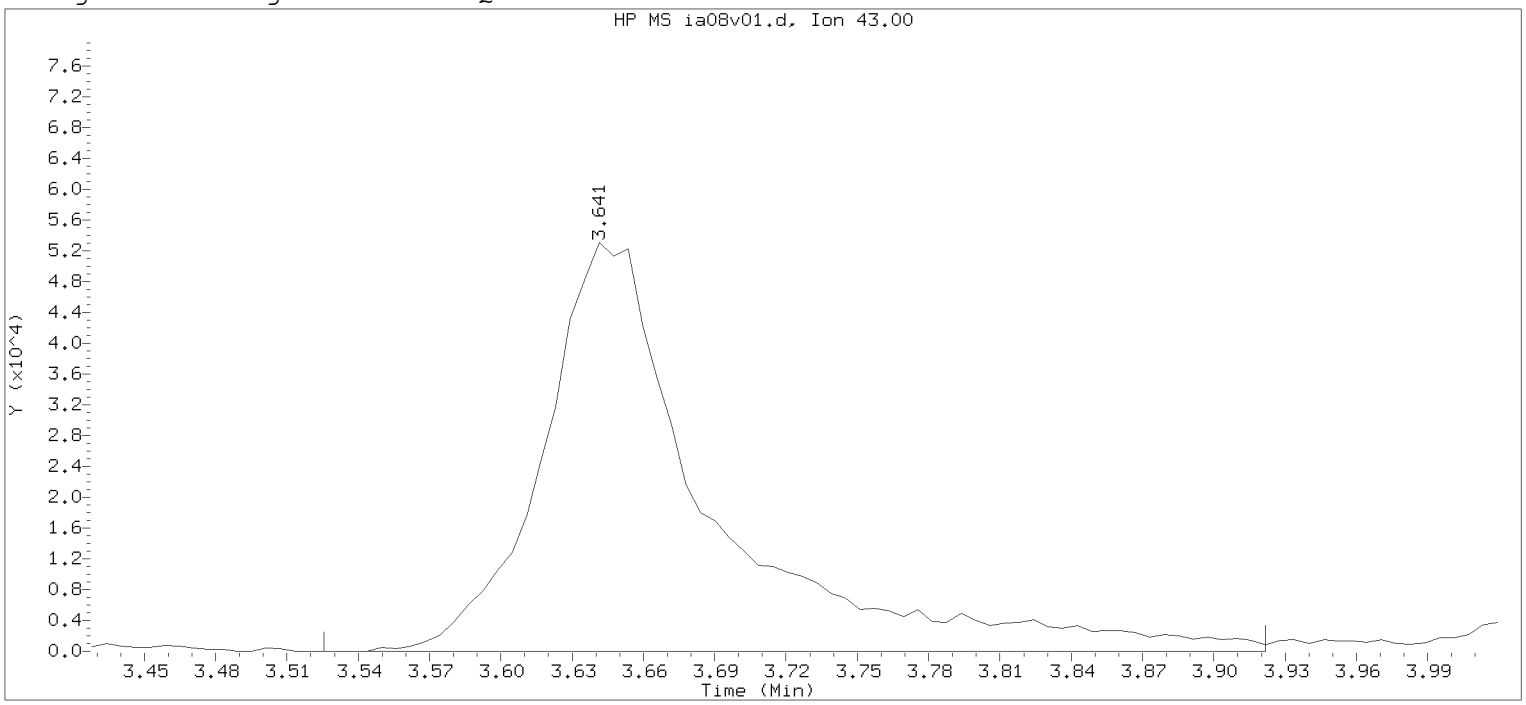
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

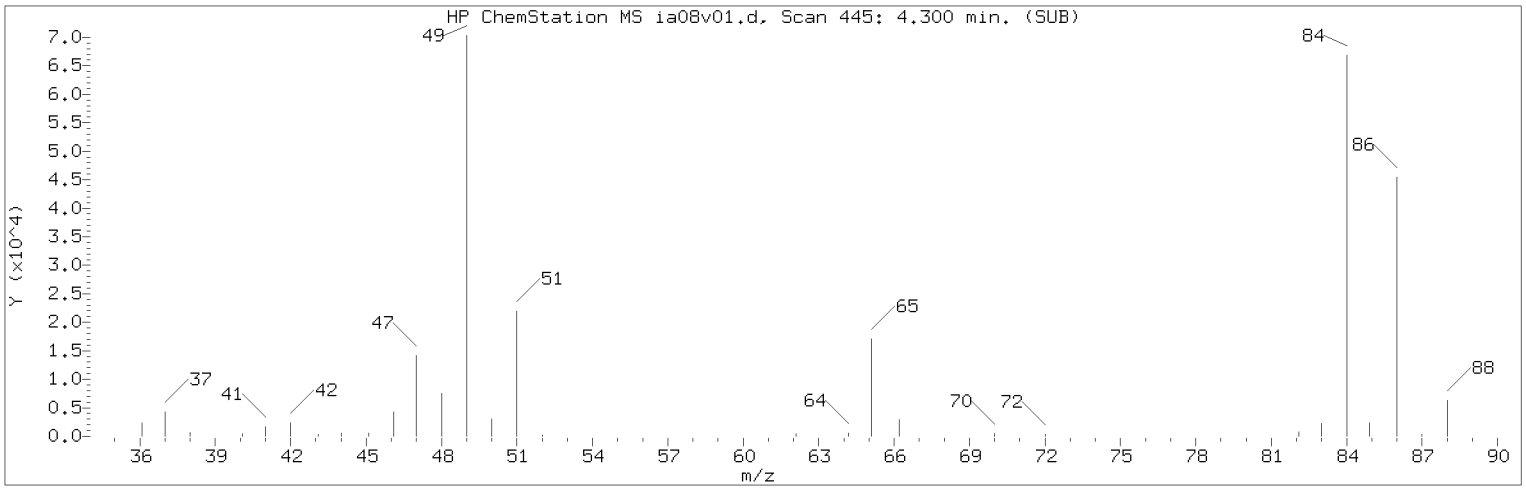
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

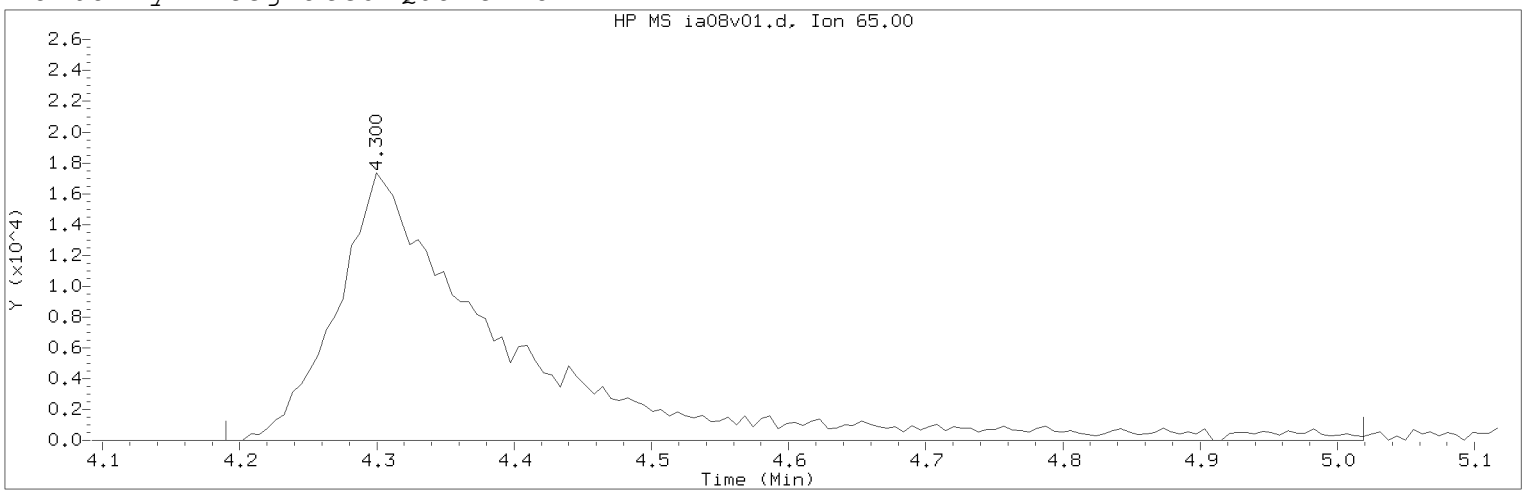
Compound Number : 14
Compound Name : Acetone
Scan Number : 337
Retention Time (minutes): 3.641
Quant Ion : 43.00
Area : 262417
On-column Amount (ng) : 29.6455
Integration start scan : 317 Integration stop scan: 382
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

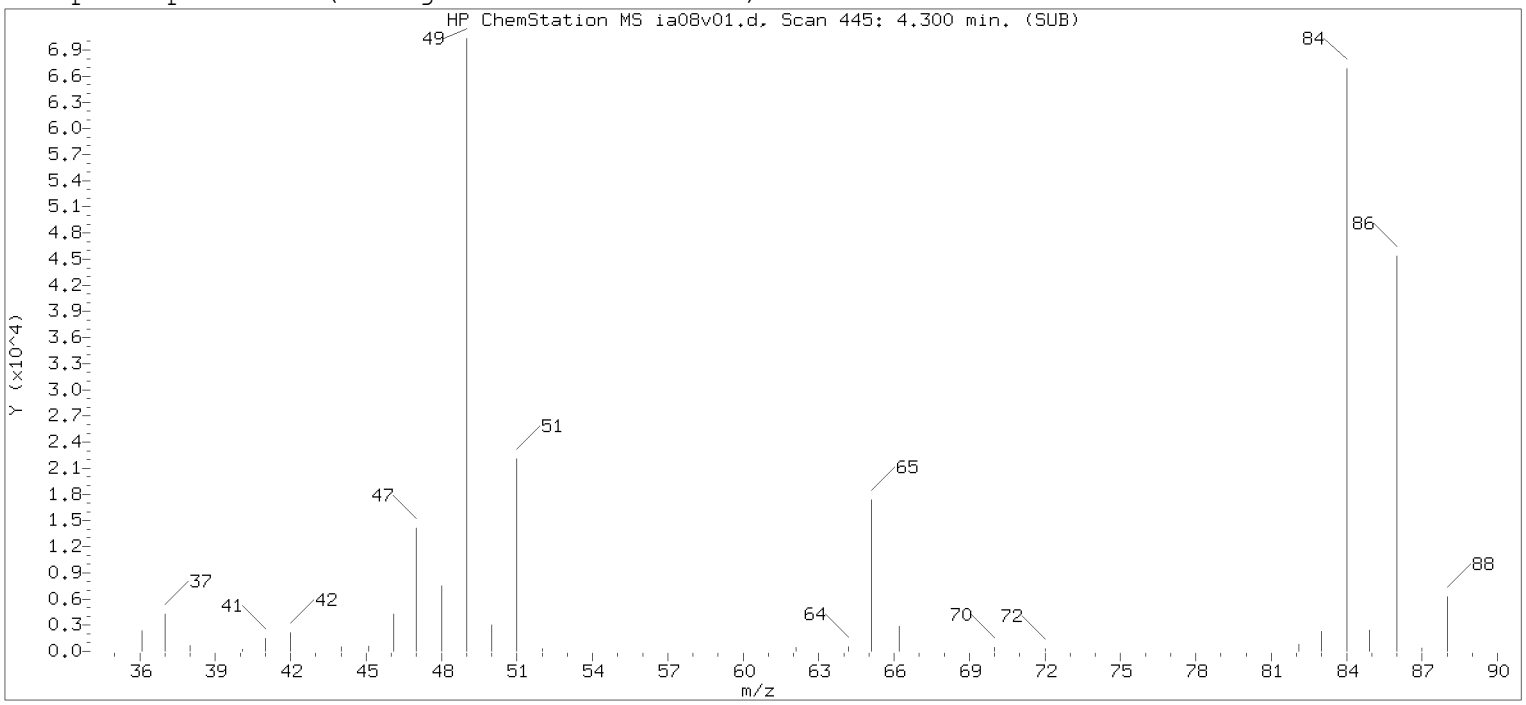
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 445
Retention Time (minutes): 4.300
Quant Ion : 65.00
Area (flag) : 147191M
On-Column Amount (ng) : 50.0000
Integration start scan : 426 Integration stop scan: 562
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

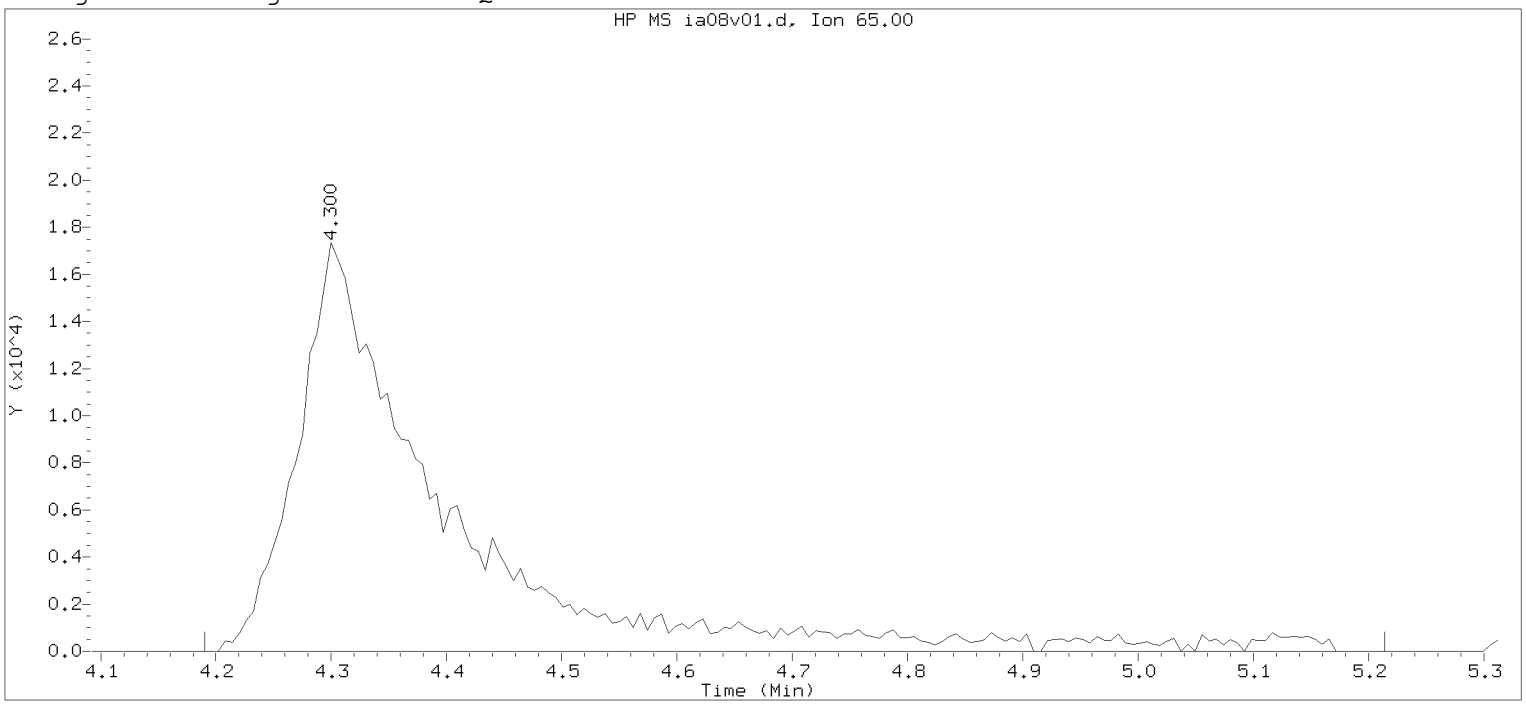
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

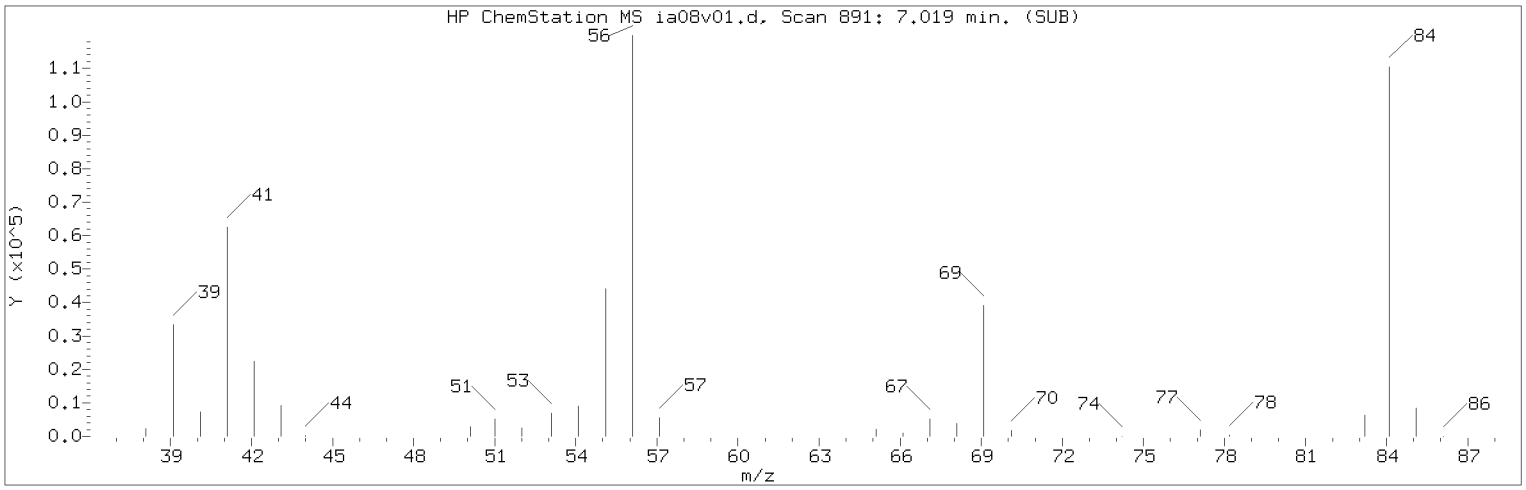
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

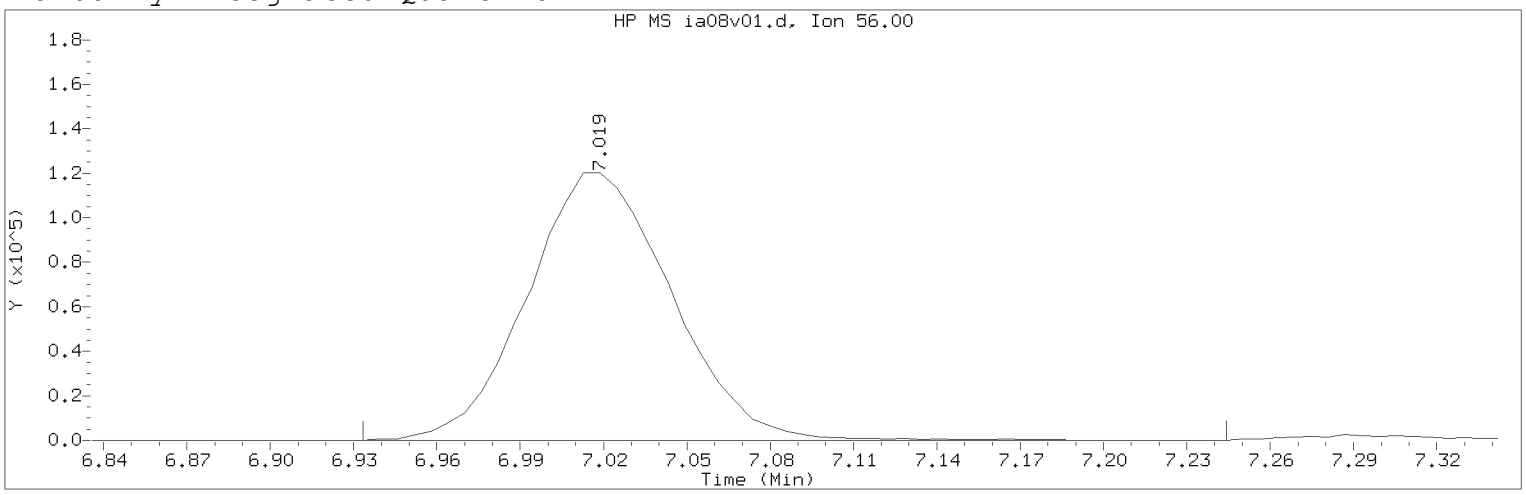
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 445
Retention Time (minutes): 4.300
Quant Ion : 65.00
Area : 151084
On-column Amount (ng) : 50.0000
Integration start scan : 426 Integration stop scan: 594
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

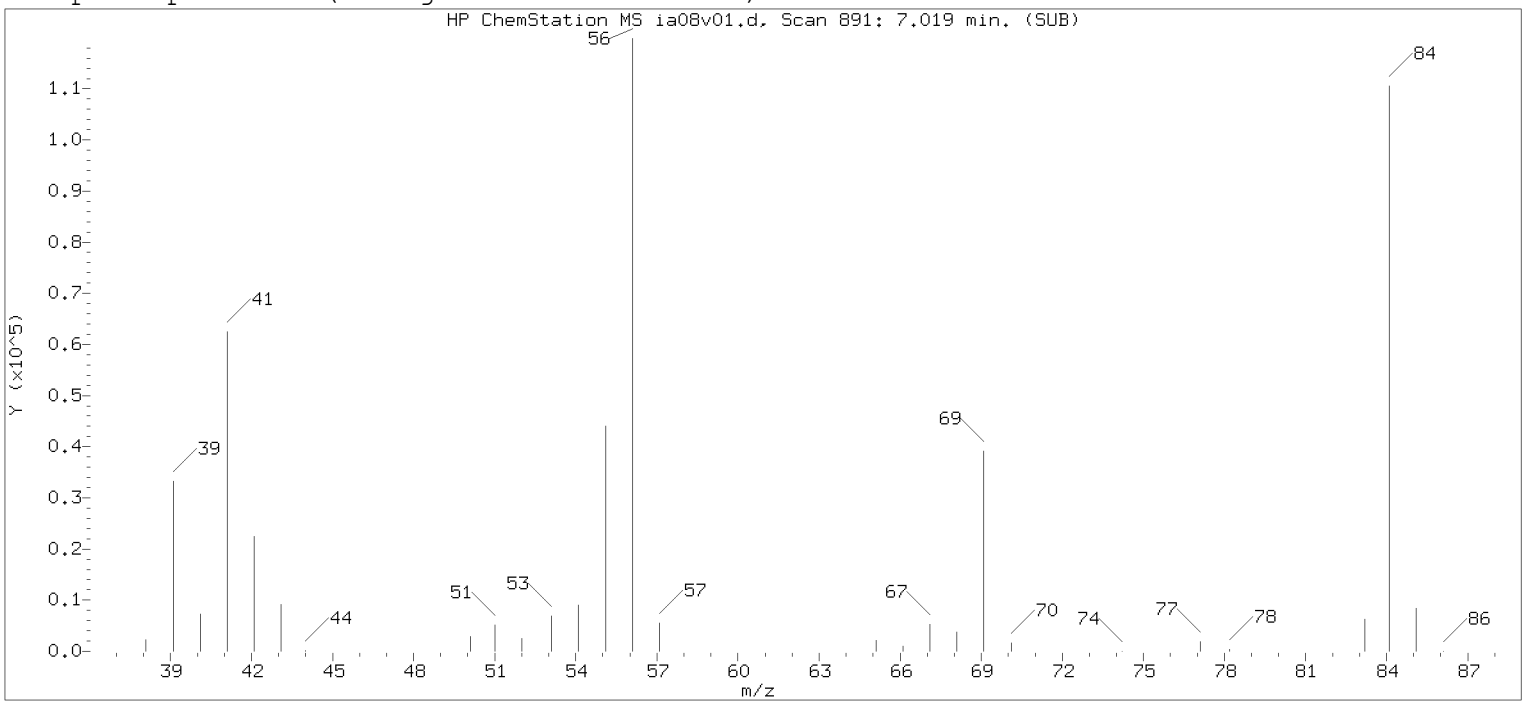
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 56.00
Area (flag) : 433882M
On-Column Amount (ng) : 4.9403
Integration start scan : 876 Integration stop scan: 927
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

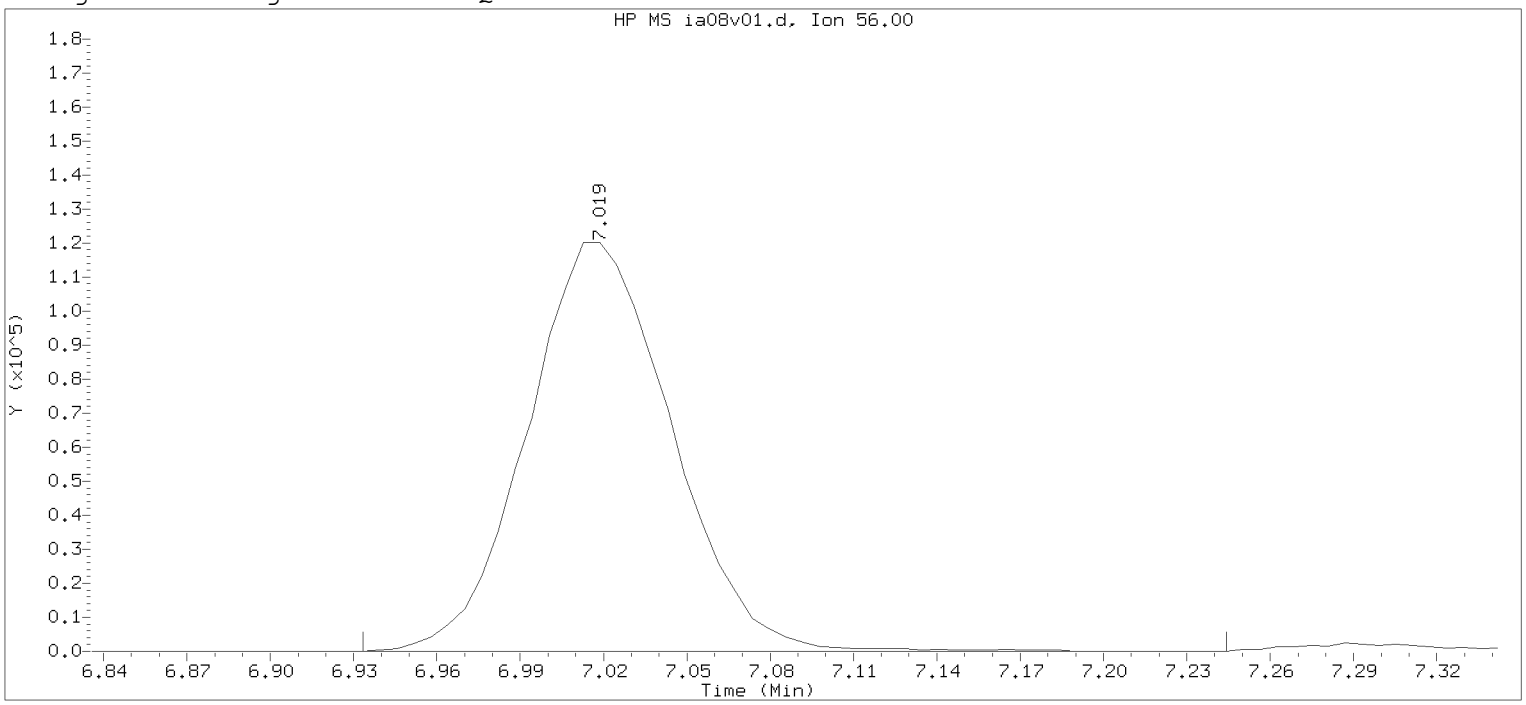
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

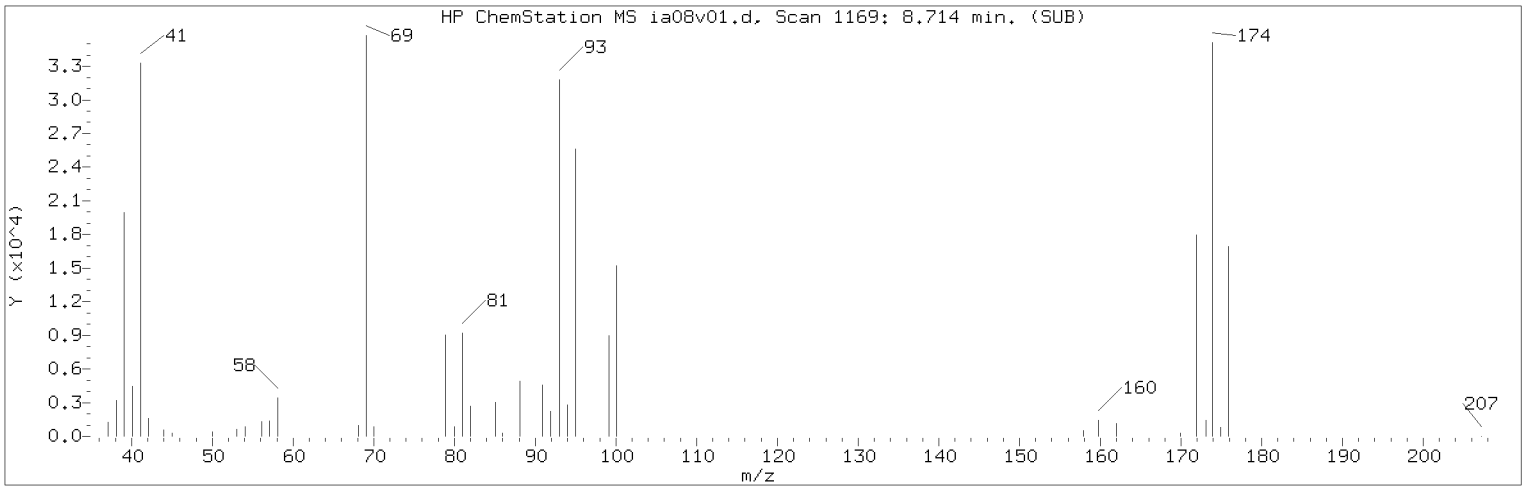
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

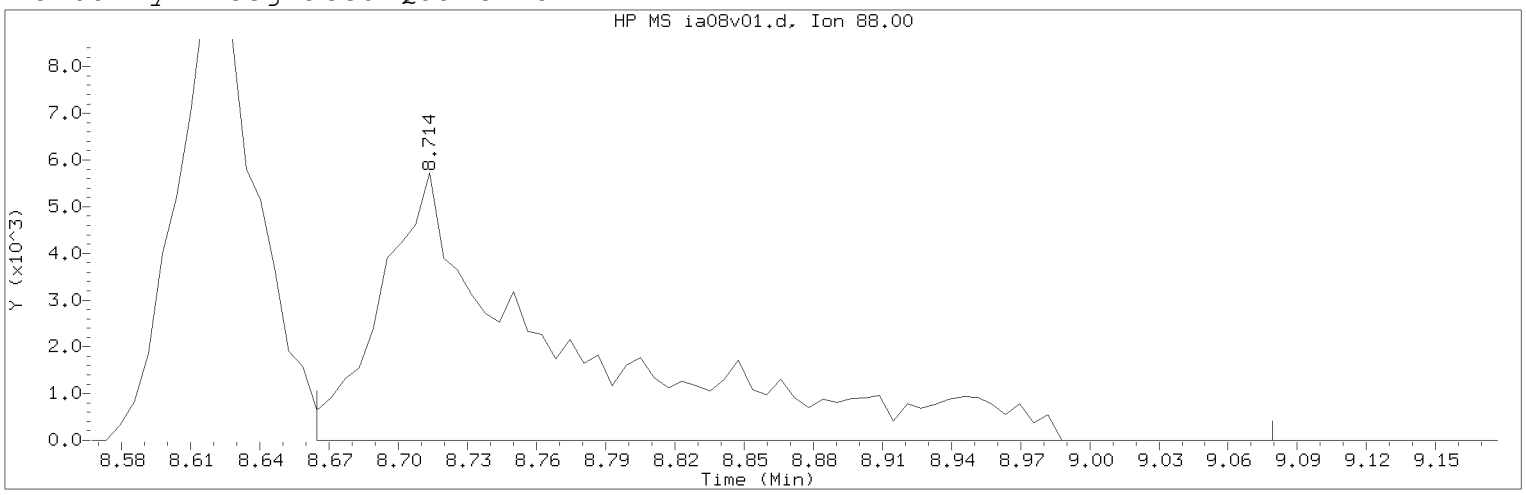
Compound Number : 52
Compound Name : Cyclohexane
Scan Number : 891
Retention Time (minutes): 7.019
Quant Ion : 56.00
Area : 433882
On-column Amount (ng) : 4.9403
Integration start scan : 876 Integration stop scan: 927
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature user: Page 1303

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

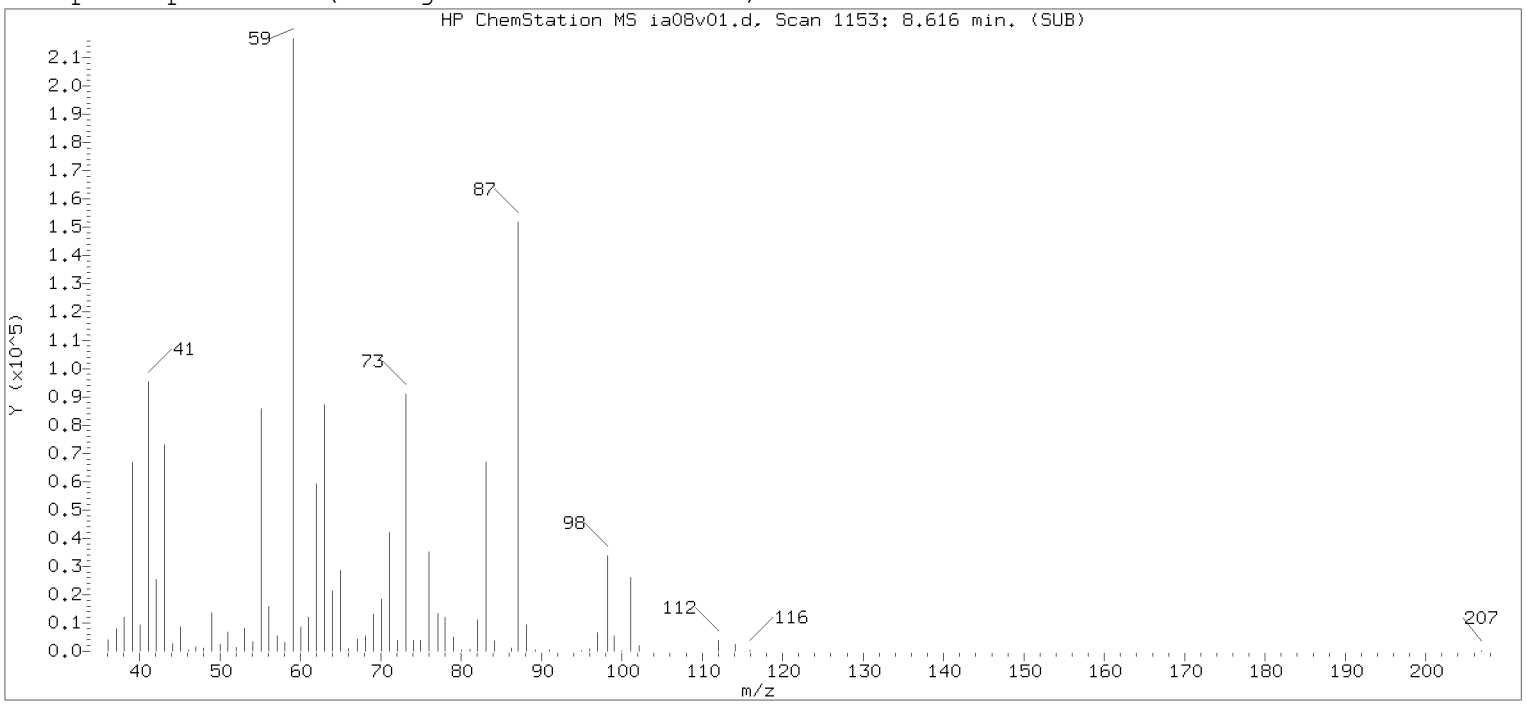
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.714
Quant Ion : 88.00
Area (flag) : 32080M
On-Column Amount (ng) : 141.6385
Integration start scan : 1160 Integration stop scan: 1228
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

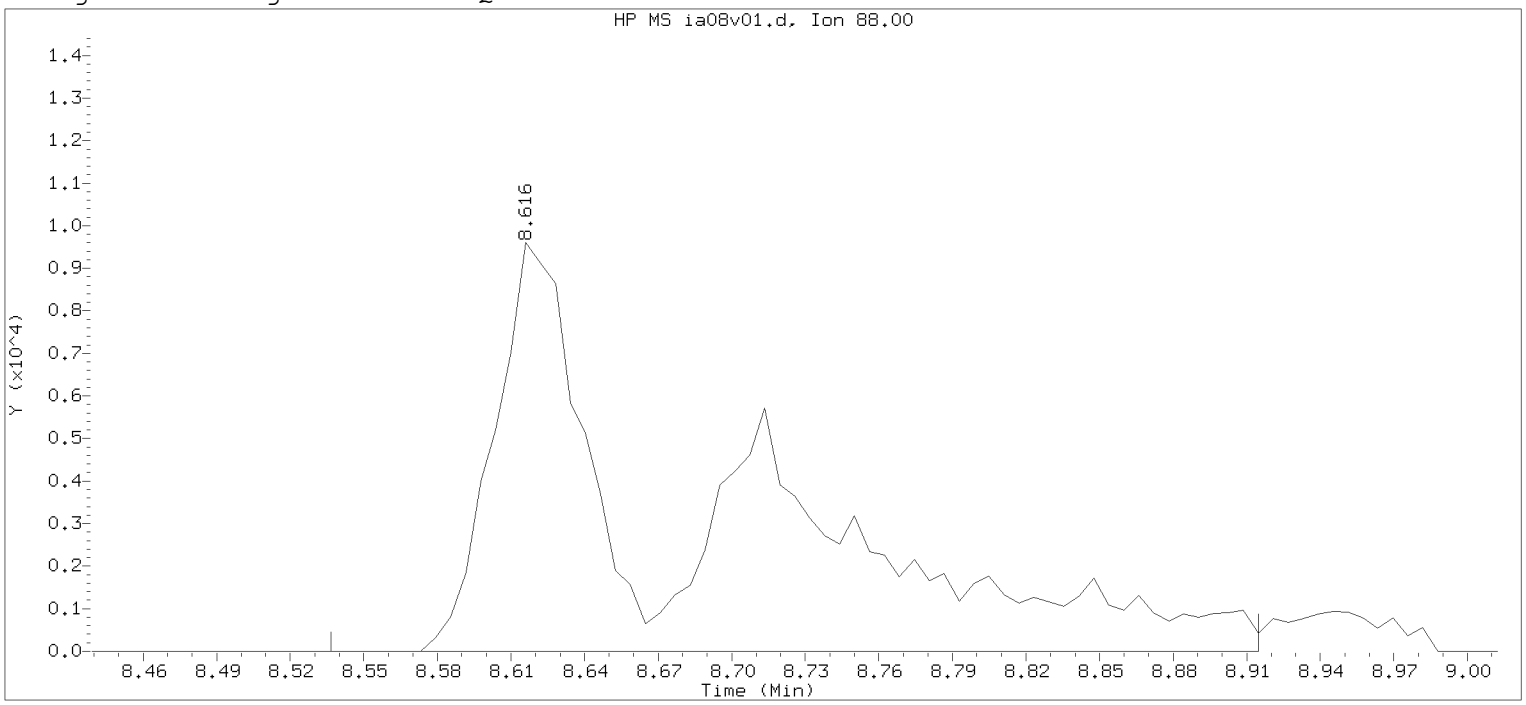
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

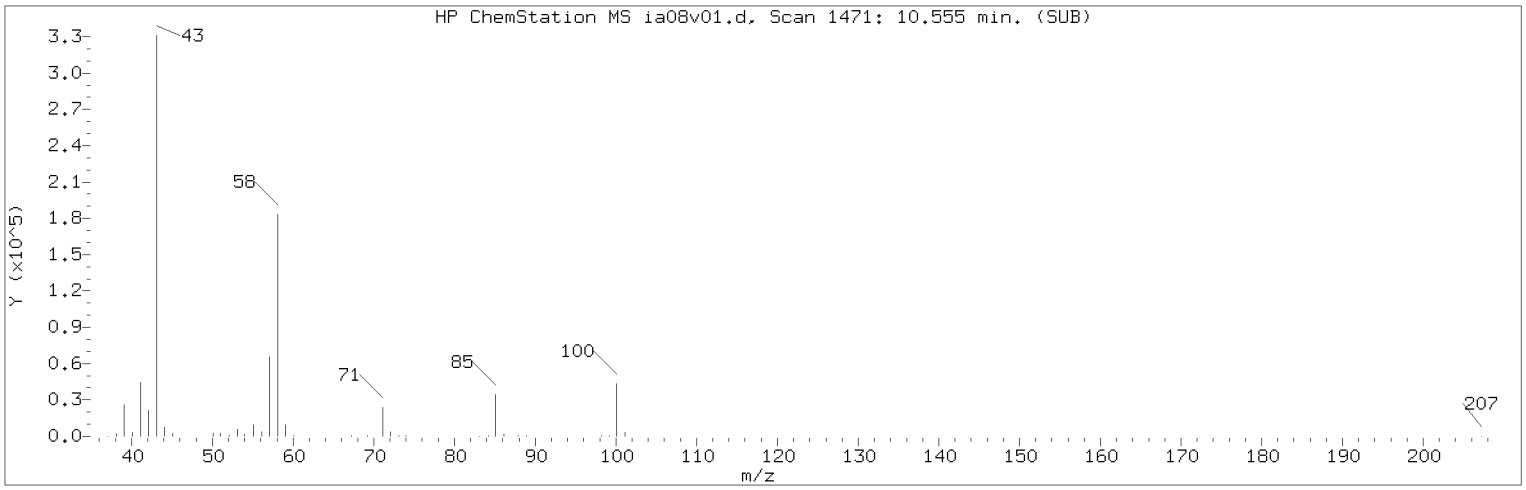
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

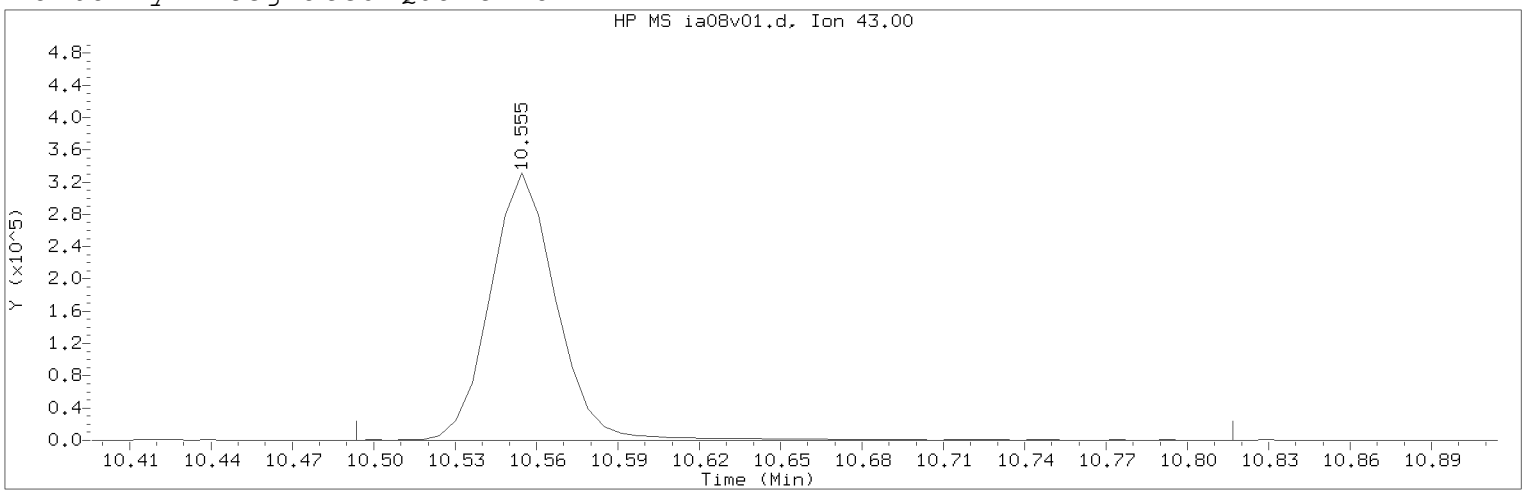
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1153
Retention Time (minutes): 8.616
Quant Ion : 88.00
Area : 52748
On-column Amount (ng) : 226.8900
Integration start scan : 1139 Integration stop scan: 1201
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1305

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

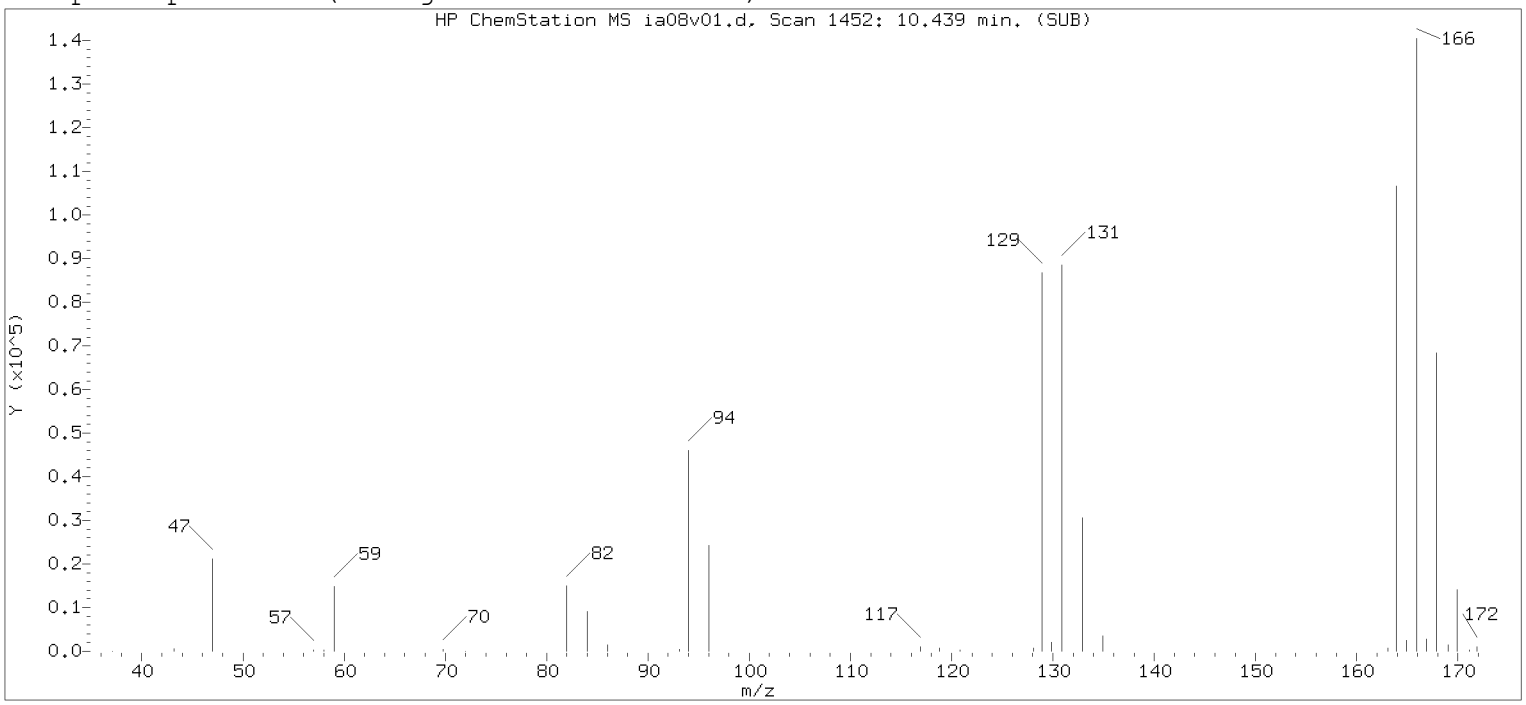
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1471
Retention Time (minutes): 10.555
Quant Ion : 43.00
Area (flag) : 563781MA
On-Column Amount (ng) : 22.4210
Integration start scan : 1460 Integration stop scan: 1513
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

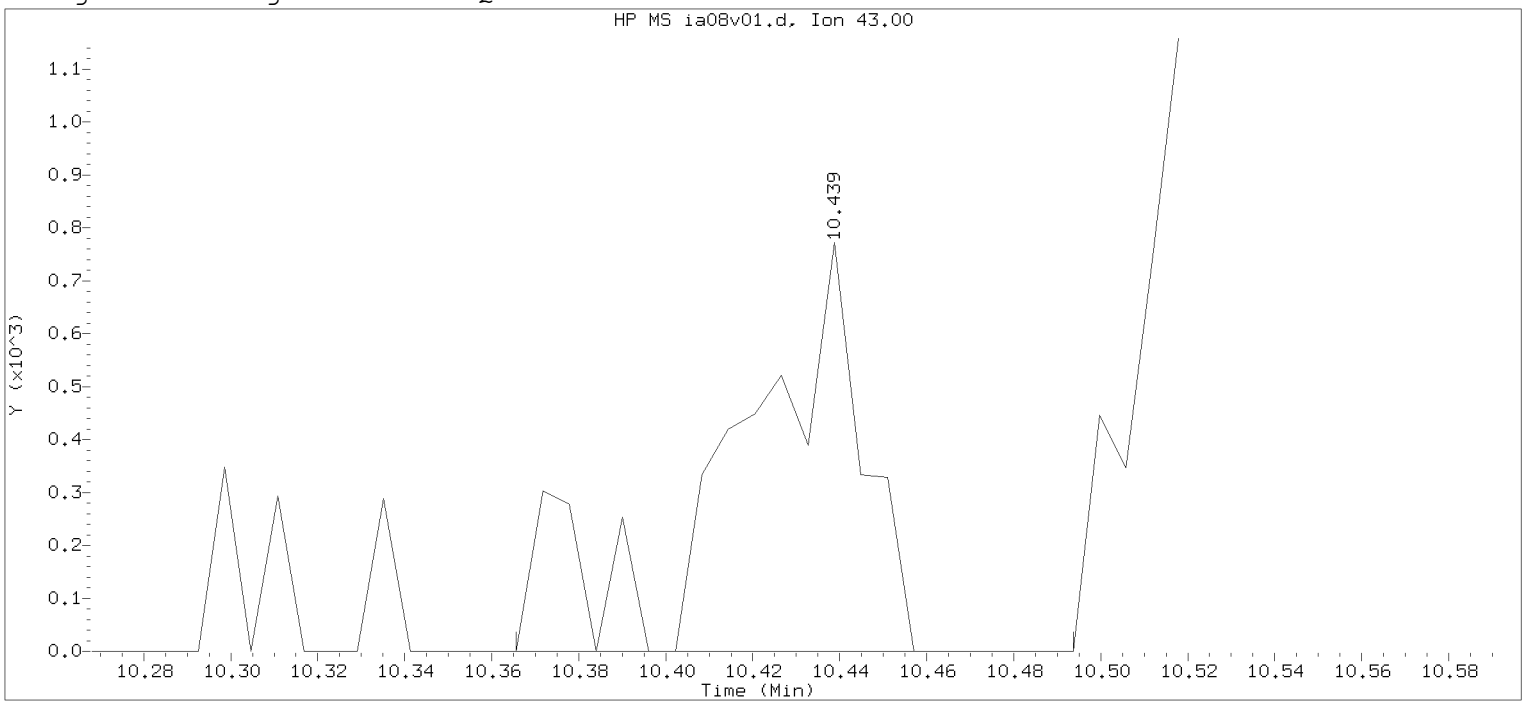
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

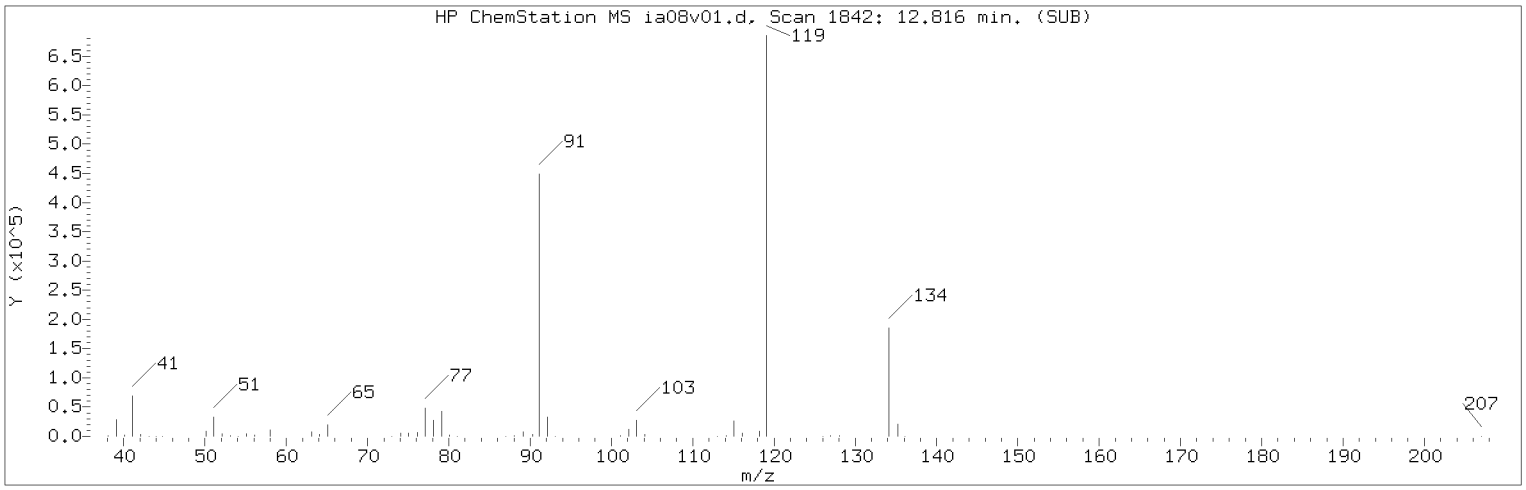
Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

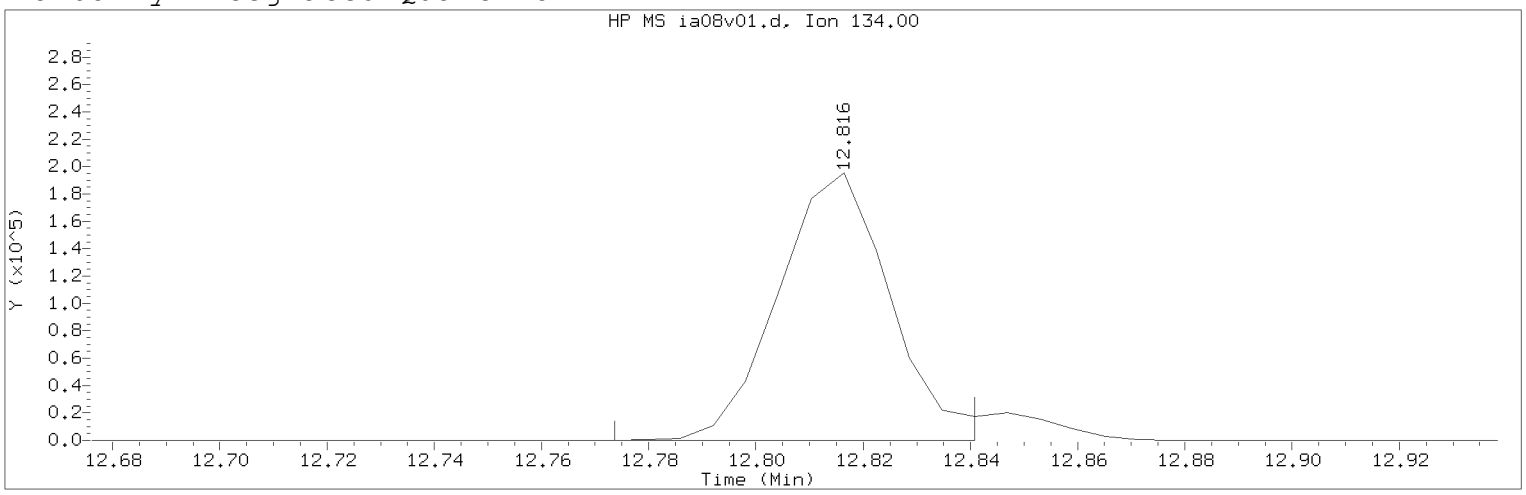
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1452
Retention Time (minutes): 10.439
Quant Ion : 43.00
Area : 1602
On-column Amount (ng) : 0.0621
Integration start scan : 1439 Integration stop scan: 1460
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1307

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 11-APR-2019 06:05
Date, time and analyst ID of latest file update: 11-Apr-2019 06:06 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

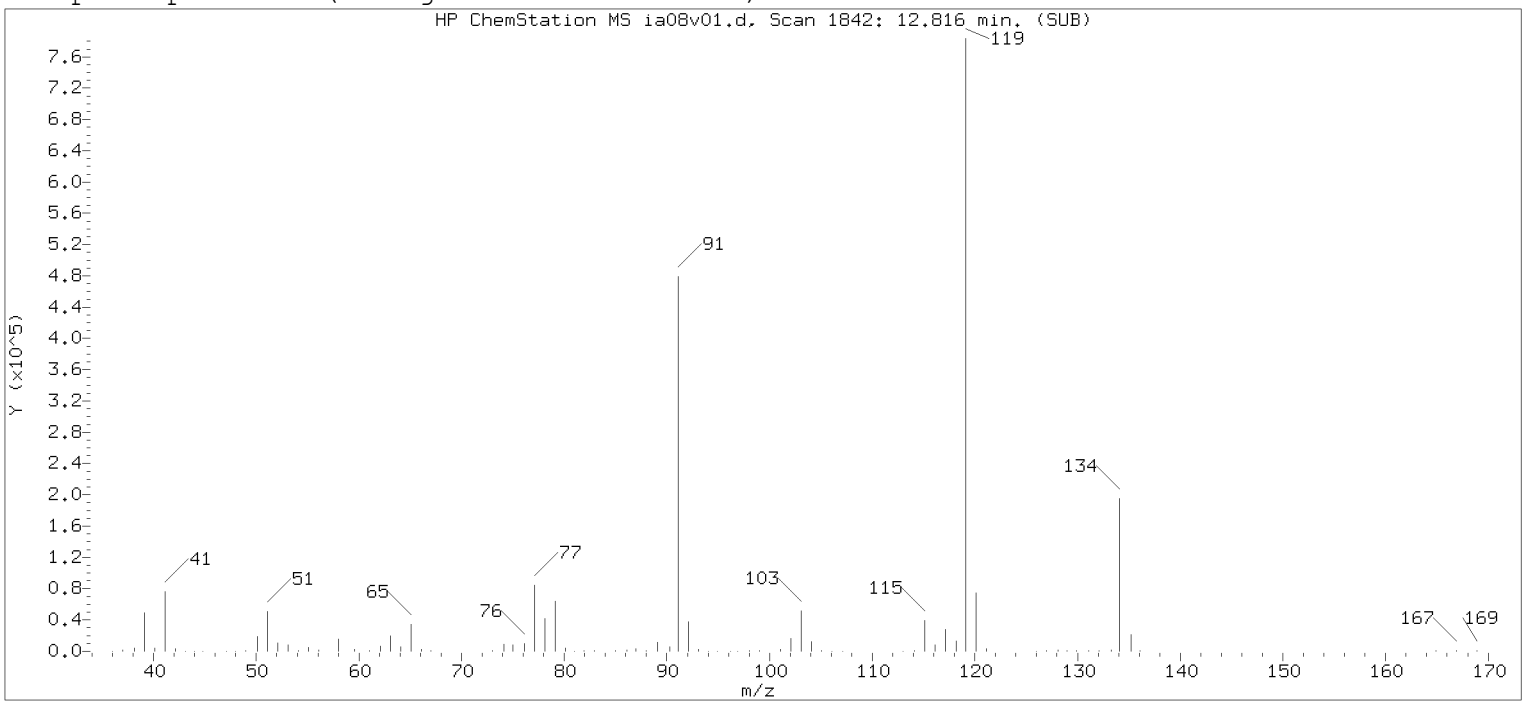
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 283372M
On-Column Amount (ng) : 5.2965
Integration start scan : 1834 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

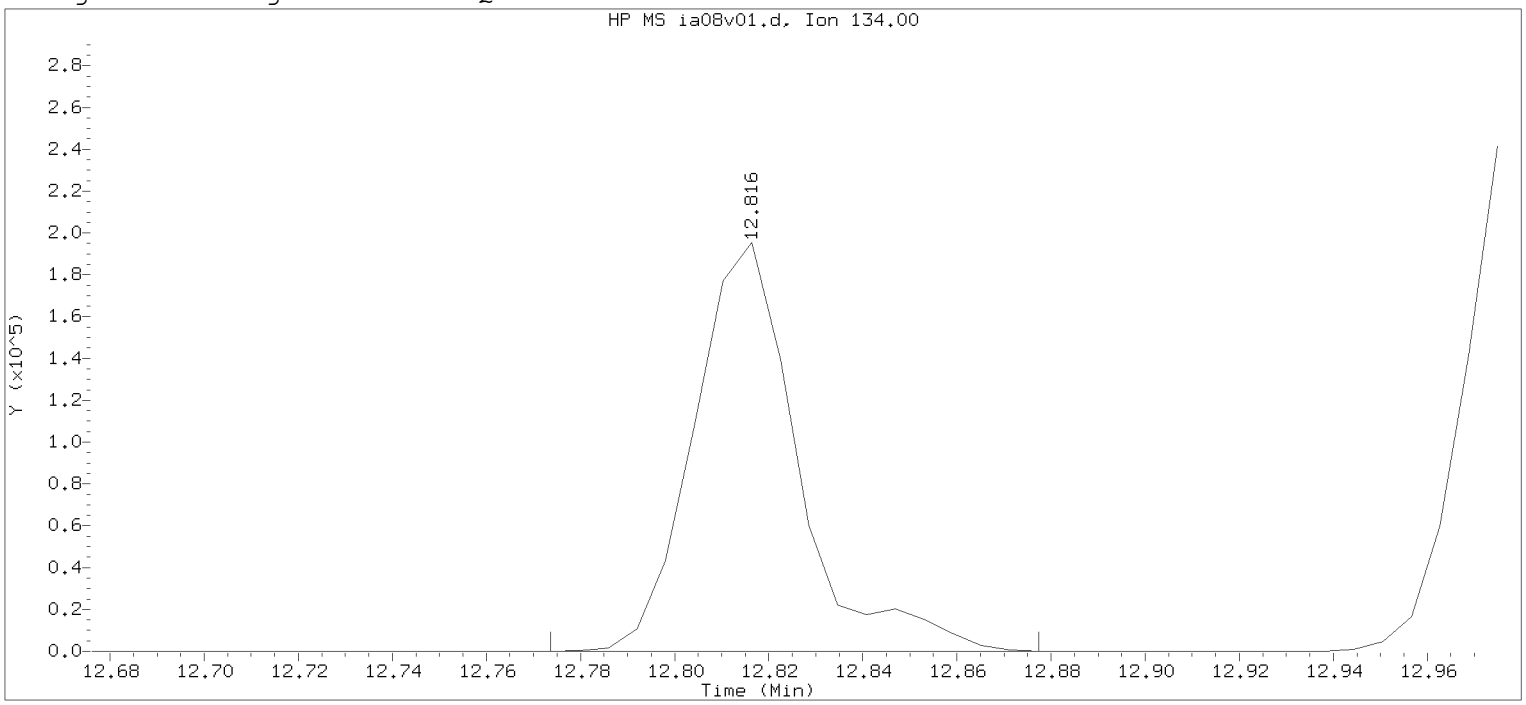
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/11/2019 at 06:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/11/2019 at 11:04.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr08a.b/ia08v01.d Instrument ID: HP19930.i
Injection date and time: 08-APR-2019 18:41 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr08a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 09-APR-2019 10:35
Date, time and analyst ID of latest file update: 09-Apr-2019 10:36 jkh09052

Sample Name: LCSILG Lab Sample ID: LCSILG

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 300713
On-column Amount (ng) : 5.6207
Integration start scan : 1834 Integration stop scan: 1851
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/11/2019 at 06:06.
Target 3.5 esignature used. Page 1309

Data File: /chem2/HP19930.i/19apr24a.b/ia24t03.d

Date : 24-APR-2019 08:42

Client ID: BFB FEB05-19

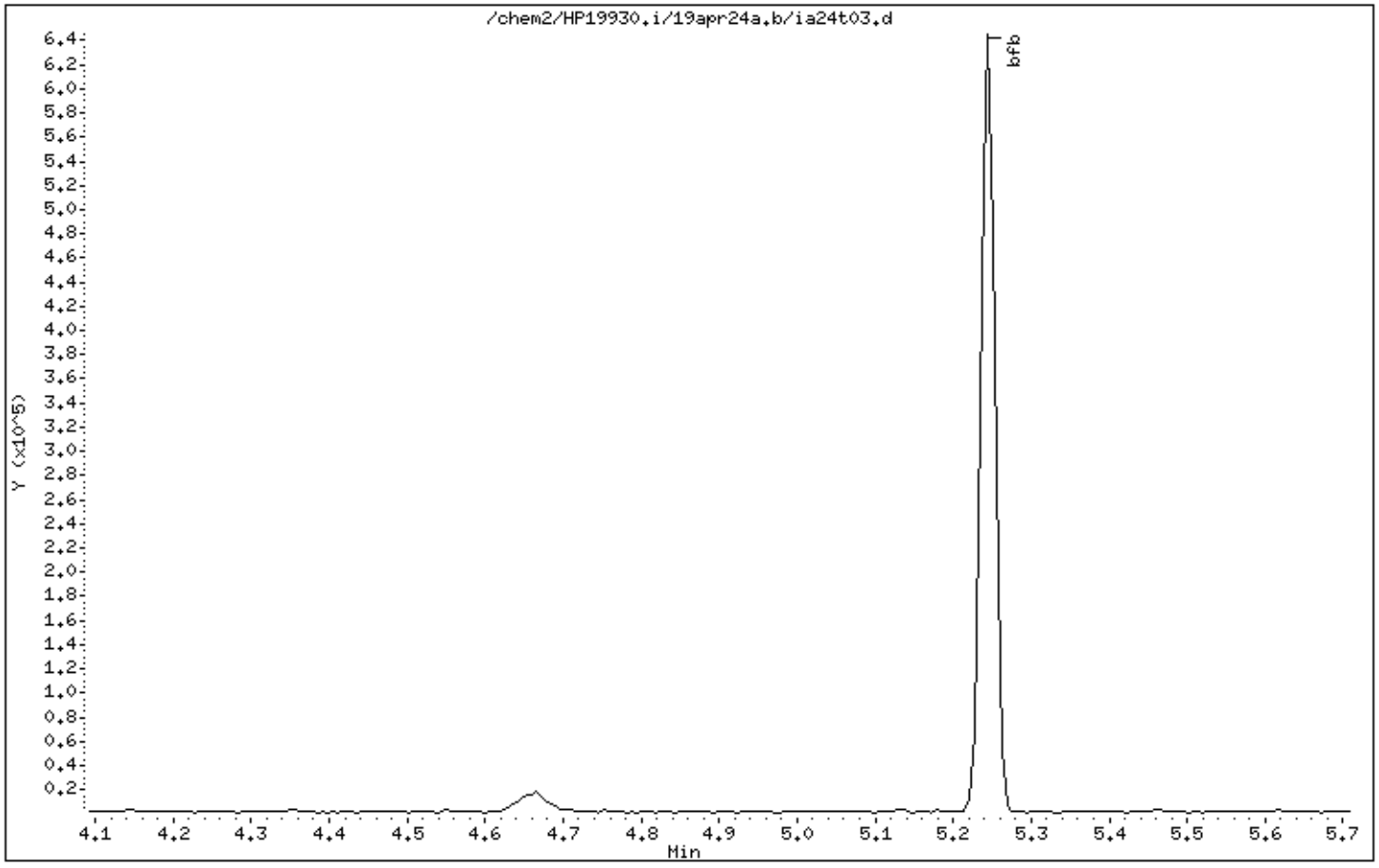
Instrument: HP19930.i

Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: JKH09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Jennifer K. Howe on 04/24/2019 at 08:47.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19930.i/19apr24a.b/ia24t03.d

Date : 24-APR-2019 08:42

Client ID: BFB FEB05-19

Instrument: HP19930.i

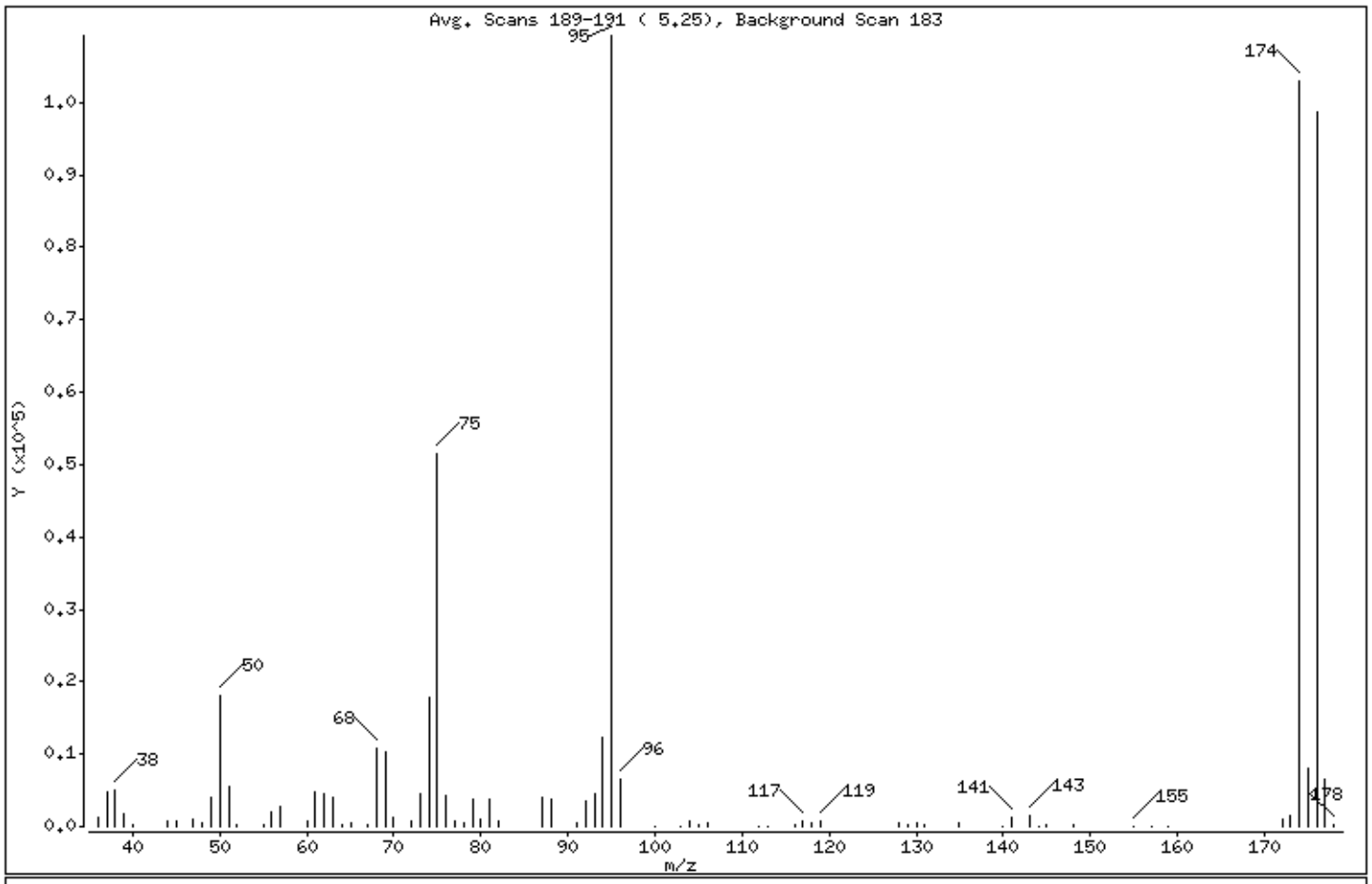
Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: JKH09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.66
75	30.00 - 60.00% of mass 95	47.22
96	5.00 - 9.00% of mass 95	5.87
173	Less than 2.00% of mass 174	1.38 (1.47)
174	50.00 - 100.00% of mass 95	94.27
175	5.00 - 9.00% of mass 174	7.25 (7.69)
176	95.00 - 101.00% of mass 174	90.25 (95.74)
177	5.00 - 9.00% of mass 176	6.01 (6.66)

Digitally signed by Jennifer K. Howe on 04/24/2019 at 08:47.
Target 3.5 esignature user ID: jkh09052

Date : 24-APR-2019 08:42

Client ID: BFB FEB05-19 Instrument: HP19930.i

Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

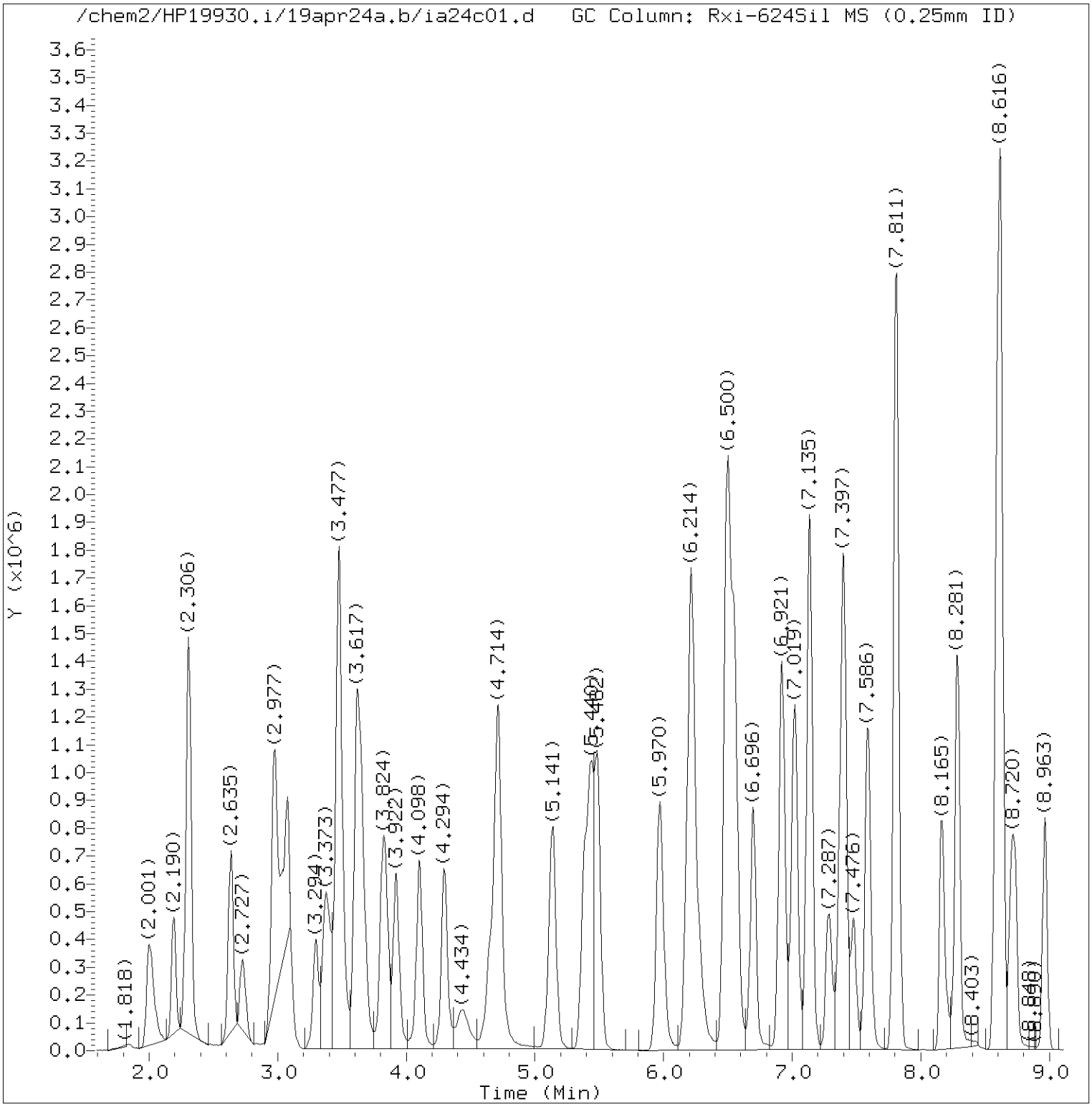
Operator: JKH09052

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ia24t03.d
Spectrum: Avg. Scans 189-191 (5.25), Background Scan 183
Location of Maximum: 95.00
Number of points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1133	64.00	227	92.00	3567	135.00	477
37.00	4650	65.00	377	93.00	4568	140.00	83
38.00	4938	67.00	317	94.00	12278	141.00	1366
39.00	1740	68.00	10924	95.00	109256	143.00	1436
40.00	257	69.00	10320	96.00	6415	144.00	100
44.00	809	70.00	1234	100.00	86	145.00	190
45.00	745	72.00	697	103.00	112	148.00	268
47.00	1112	73.00	4478	104.00	718	155.00	93
48.00	493	74.00	17880	105.00	237	157.00	85
49.00	4046	75.00	51592	106.00	524	159.00	87
50.00	18192	76.00	4316	112.00	89	172.00	1001
51.00	5598	77.00	804	113.00	94	173.00	1513
52.00	230	78.00	522	116.00	193	174.00	103000
55.00	329	79.00	3761	117.00	667	175.00	7920
56.00	1989	80.00	1100	118.00	487	176.00	98608
57.00	2815	81.00	3839	119.00	676	177.00	6570
60.00	811	82.00	793	128.00	395	178.00	127
61.00	4749	87.00	4010	129.00	264		
62.00	4464	88.00	3882	130.00	595		
63.00	3954	91.00	397	131.00	276		

Digitally signed by Jennifer K. Howe on 04/24/2019 at 08:47.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

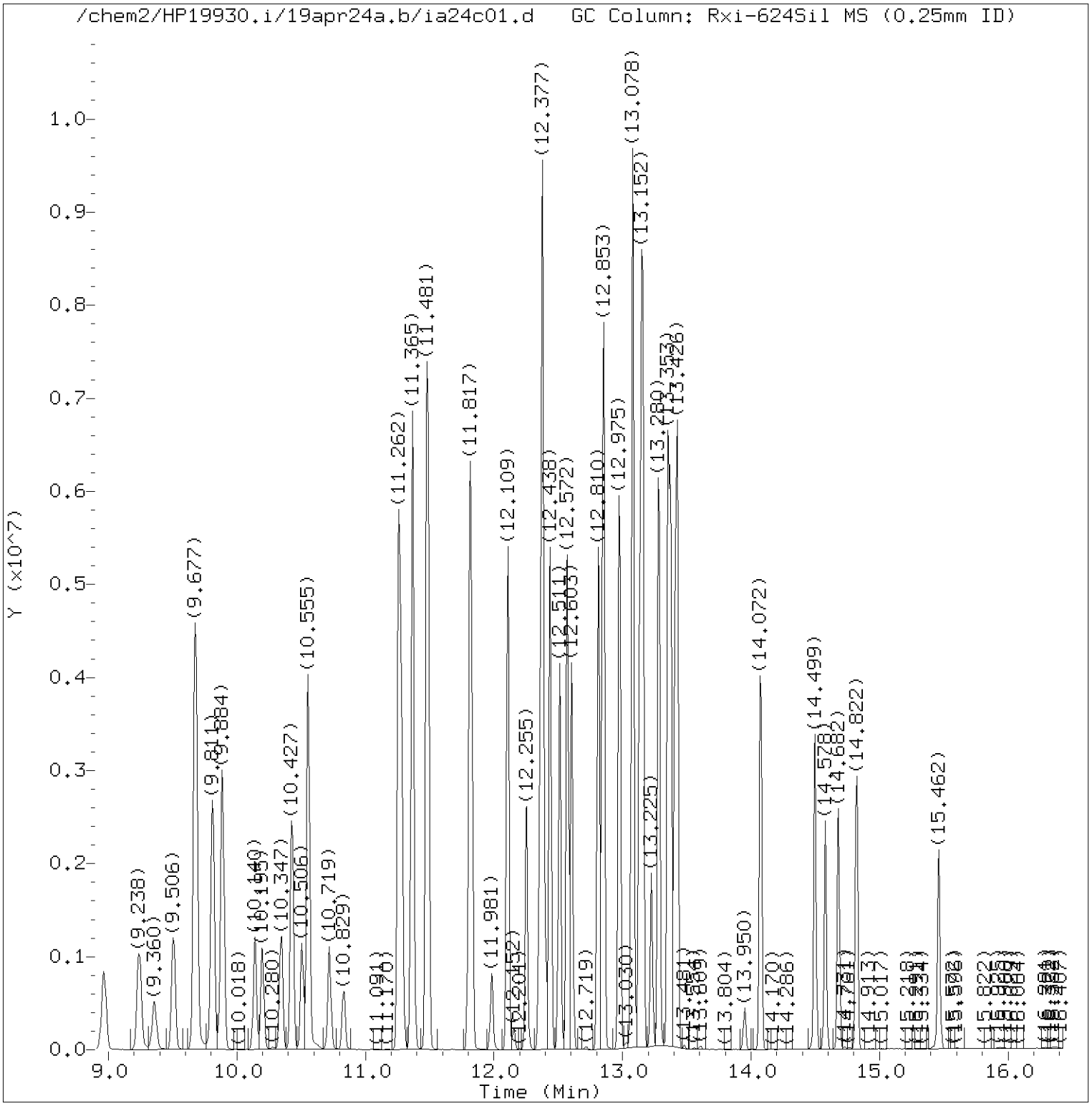
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.001	85	993318	8.012
2) Chloromethane	(2)	2.190	50	780345	8.498
5) Vinyl Chloride	(2)	2.306	62	808715	8.662
6) 1,3-Butadiene	(2)	2.306	39	785333	10.171
7) Bromomethane	(2)	2.635	94	762062	9.181
8) Chloroethane	(2)	2.727	64	508735	9.380
9) Dichlorofluoromethane	(2)	2.971	67	1306392	9.322
10) Trichlorofluoromethane	(2)	3.032	101	1394549	8.941
11) Ethyl ether	(2)	3.300	59	365116	8.889
12) Freon 123a	(2)	3.373	67	691815M	9.864
13) Acrolein	(1)	3.477	56	3133923	532.259
15) 1,1-Dichloroethene	(2)	3.611	96	521448	9.640
16) Freon 113	(2)	3.641	101	634832	9.712
14) Acetone	(1)	3.647	43	771450M	94.922
17) Methyl Iodide	(2)	3.818	142	1113749	9.599
18) Carbon Disulfide	(2)	3.922	76	1465809	9.253
21) Methyl Acetate	(1)	4.080	43	192038	8.942
22) Allyl Chloride	(2)	4.105	41	654496M	7.865
23) Methylene Chloride	(2)	4.294	84	537855	9.720
26)*t-Butyl Alcohol-d10	(1)	4.312	65	138717M	50.000
28) t-Butyl Alcohol	(1)	4.434	59	586198	174.016
29) Acrylonitrile	(1)	4.647	53	517485	53.231
30) Methyl Tertiary Butyl Ether	(2)	4.702	73	1293413	9.141
31) trans-1,2-Dichloroethene	(2)	4.714	96	571710	9.443
32) n-Hexane	(2)	5.141	57	809854	9.505
33) 1,1-Dichloroethane	(2)	5.385	63	963071	9.780
34) di-Isopropyl Ether	(2)	5.434	45	1580967	9.568
35) 2-Chloro-1,3-Butadiene	(2)	5.488	53	864607	9.778
37) Ethyl t-butyl ether	(2)	5.970	59	1495589	9.117
40) 1,2-Dichloroethene (Total)	(2)		96	1223884	19.113
38) 2-Butanone	(1)	6.183	43	1398241	105.919
39) cis-1,2-Dichloroethene	(2)	6.214	96	652174	9.670
41) 2,2-Dichloropropane	(2)	6.232	77	854897	9.327
42) Propionitrile	(1)	6.275	54	707527	199.617
45) Methacrylonitrile	(1)	6.494	67	1483585	113.736
47) Bromochloromethane	(2)	6.549	128	297239	8.955
48) Tetrahydrofuran	(1)	6.561	71	445078	107.821
49) Chloroform	(2)	6.696	83	1033637	9.633

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	6.915	113	554410	10.099
50)$Dibromofluoromethane	(2)	6.915	111	560244	9.984
51) 1,1,1-Trichloroethane	(2)	6.927	97	987719	9.522
52) Cyclohexane	(2)	7.019	56	978534	9.593
52) Cyclohexane	(2)	7.019	84	928240	9.646
52) Cyclohexane	(2)	7.019	69	67950	2.029
54) Carbon Tetrachloride	(2)	7.135	117	935449	9.550
55) 1,1-Dichloropropene	(2)	7.135	75	791464	9.856
56) Isobutyl Alcohol	(1)	7.287	41	492094	472.968
57)$1,2-Dichloroethane-d4	(2)	7.366	102	105614	9.983
57)$1,2-Dichloroethane-d4	(2)	7.372	65	469290	9.897
57)$1,2-Dichloroethane-d4	(2)	7.378	104	65925	9.870
58) Benzene	(2)	7.403	78	2297958	9.733
59) 1,2-Dichloroethane	(2)	7.476	62	584778M	9.233
59) 1,2-Dichloroethane	(2)	7.470	98	57663	9.760
60) t-Amyl methyl ether	(2)	7.592	73	1489991	9.417
63)*Fluorobenzene	(2)	7.805	96	2127093	10.000
62) n-Heptane	(2)	7.811	43	827818	9.462
65) n-Butanol	(1)	8.159	56	951713M	1096.203
67) Trichloroethene	(2)	8.281	95	638203	9.661
69) Methylcyclohexane	(2)	8.592	83	1044257	8.852
70) 1,2-Dichloropropane	(2)	8.622	63	544348	9.957
72) 1,4-Dioxane	(1)	8.701	88	123947M	580.677
72) 1,4-Dioxane	(1)	8.701	58	75384M	592.649
71) Methyl Methacrylate	(1)	8.701	69	291403	11.672
73) Dibromomethane	(2)	8.732	93	299559	9.747
74) Bromodichloromethane	(2)	8.963	83	752094	9.912
76) 2-Nitropropane	(1)	9.238	41	953859	114.828
80) cis-1,3-Dichloropropene	(2)	9.506	75	840424	9.764
81) 4-Methyl-2-Pentanone	(1)	9.677	43	3824317	114.434
82)$Toluene-d8	(3)	9.811	98	2134167	10.065
82)$Toluene-d8	(3)	9.811	100	1368328	10.062
83) Toluene	(3)	9.884	92	1532966	9.616
84) trans-1,3-Dichloropropene	(3)	10.140	75	717904	9.554
85) 1,3-Dichloropropene (total)	(3)		75	1558328	19.318
86) Ethyl Methacrylate	(3)	10.195	69	623511	9.825
88) 1,1,2-Trichloroethane	(3)	10.341	97	439259	9.971
89) Tetrachloroethene	(3)	10.427	166	804075	9.531

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* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
90) 1,3-Dichloropropane	(3)	10.506	76	697129	9.832
91) 2-Hexanone	(1)	10.555	43	2712830	114.477
93) Dibromochloromethane	(3)	10.719	129	600092	10.023
95) 1,2-Dibromoethane	(3)	10.829	107	438327	9.771
97)*Chlorobenzene-d5	(3)	11.256	117	1728695	10.000
96) 1-Chlorohexane	(3)	11.262	91	889798	9.270
98) Chlorobenzene	(3)	11.280	112	1805383	9.865
100) Ethylbenzene	(3)	11.365	91	3147459	9.831
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	688415	9.973
101) m+p-Xylene	(3)	11.481	106	2512458	19.706
105) Xylene (Total)	(3)		106	3721367	29.529
104) o-Xylene	(3)	11.810	106	1208909	9.823
106) Styrene	(3)	11.823	104	1972877	10.112
107) Bromoform	(3)	11.981	173	377838	10.260
108) Isopropylbenzene	(3)	12.109	105	3262606	9.815
111)$4-Bromofluorobenzene	(3)	12.249	95	754925	9.501
111)$4-Bromofluorobenzene	(3)	12.255	174	761678	10.014
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	554349	9.734
114) Bromobenzene	(4)	12.371	156	822780	9.493
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	1241049	105.889
116) 1,2,3-Trichloropropane	(4)	12.402	110	160767M	9.513
117) n-Propylbenzene	(4)	12.438	91	3731642	9.626
119) 2-Chlorotoluene	(4)	12.511	126	770480	9.243
121) 1,3,5-Trimethylbenzene	(4)	12.572	105	2719271	9.497
122) 4-Chlorotoluene	(4)	12.603	126	791835	9.454
125) tert-Butylbenzene	(4)	12.816	134	624751M	9.575
126) Pentachloroethane	(4)	12.847	167	543890	9.465
127) 1,2,4-Trimethylbenzene	(4)	12.853	105	2810143	9.631
128) sec-Butylbenzene	(4)	12.975	105	3639918	9.820
131) 1,3-Dichlorobenzene	(4)	13.078	146	1610318	9.707
132) p-Isopropyltoluene	(4)	13.085	119	3225582	9.917
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	997807	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	1595767	9.625
135) 1,2,3-Trimethylbenzene	(4)	13.158	120	1255263	9.206
136) Benzyl Chloride	(4)	13.225	126	260272	9.699
138) n-Butylbenzene	(4)	13.371	92	1474699	9.968
139) 1,2-Dichlorobenzene	(4)	13.408	146	1488073	9.827
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	90016	11.847

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3,5-Trichlorobenzene	(4)	14.072	180	1163352	9.618
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	974935	9.194
146) Hexachlorobutadiene	(4)	14.578	225	404834	9.344
147) Naphthalene	(4)	14.682	128	1865611	8.786
148) 1,2,3-Trichlorobenzene	(4)	14.822	180	858062	8.987

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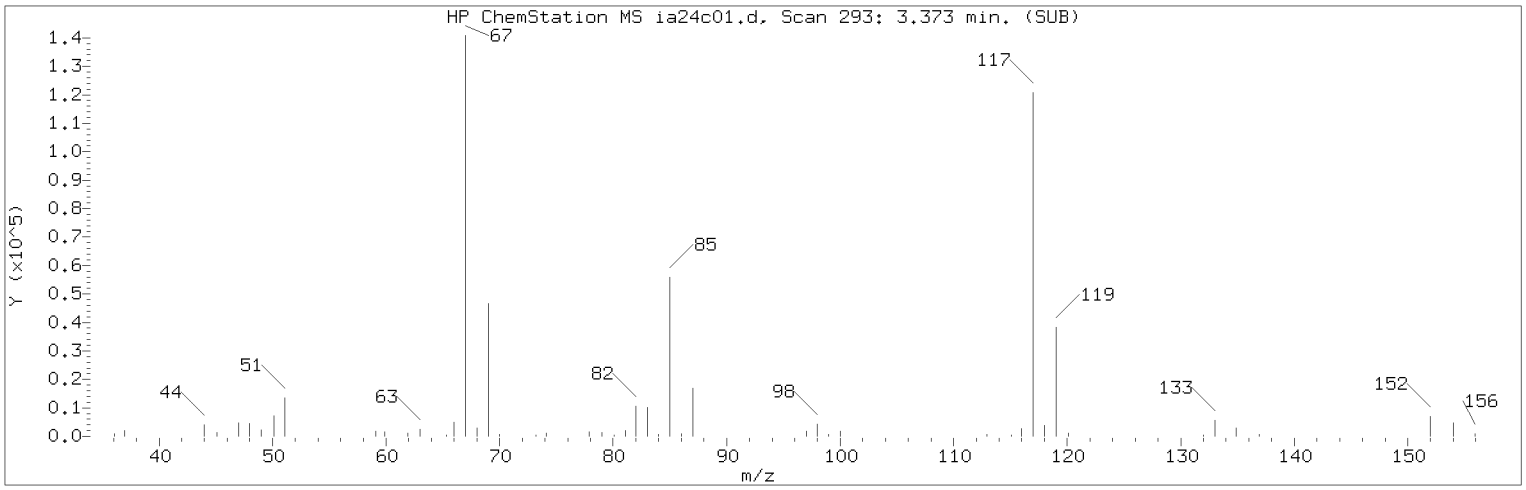
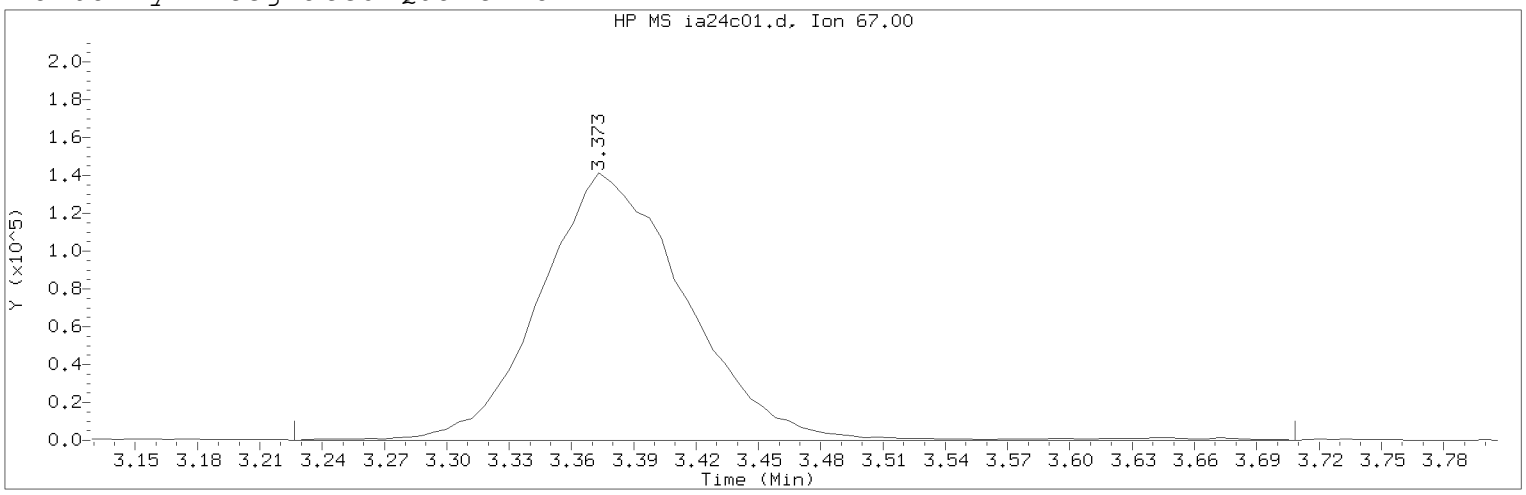
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

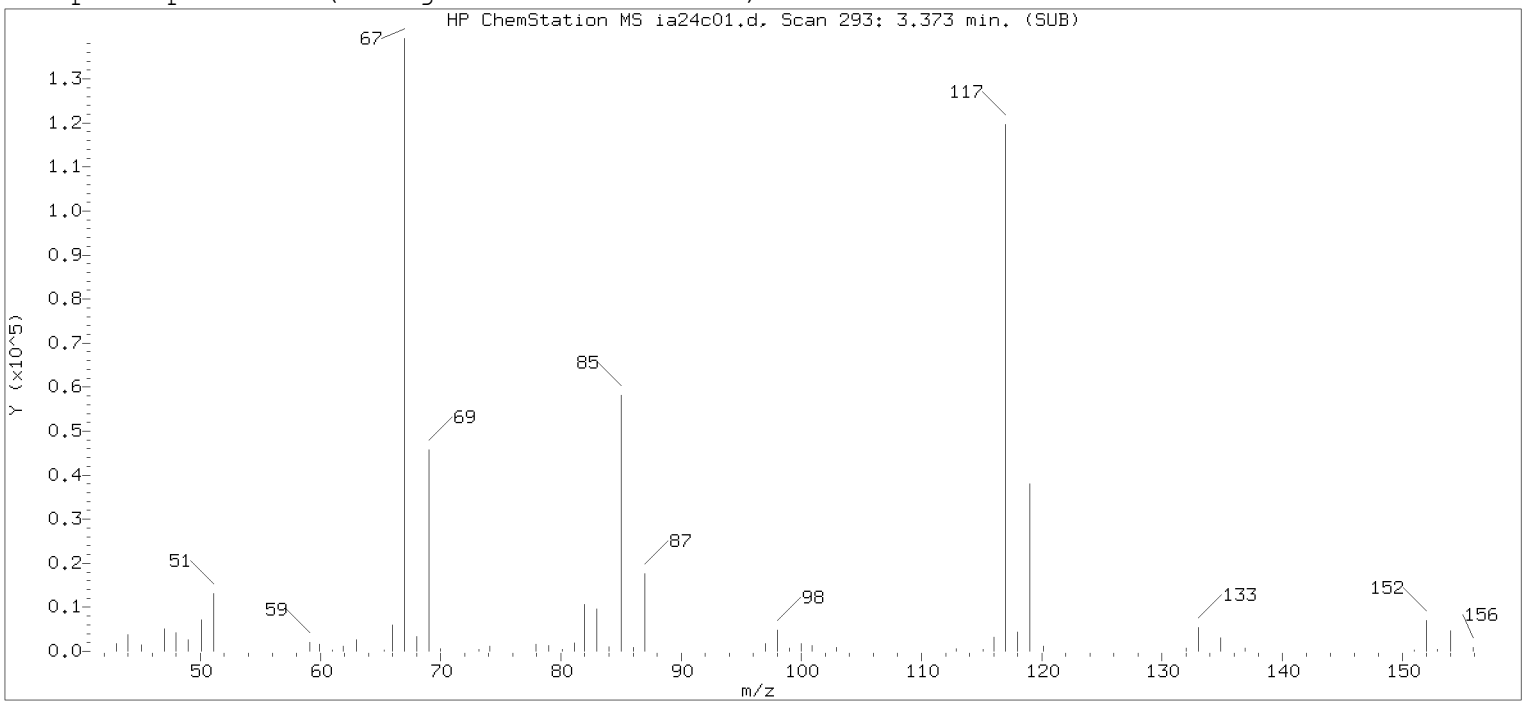
Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area (flag) : 691815M
On-Column Amount (ng) : 9.8640
Integration start scan : 268 Integration stop scan: 347
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

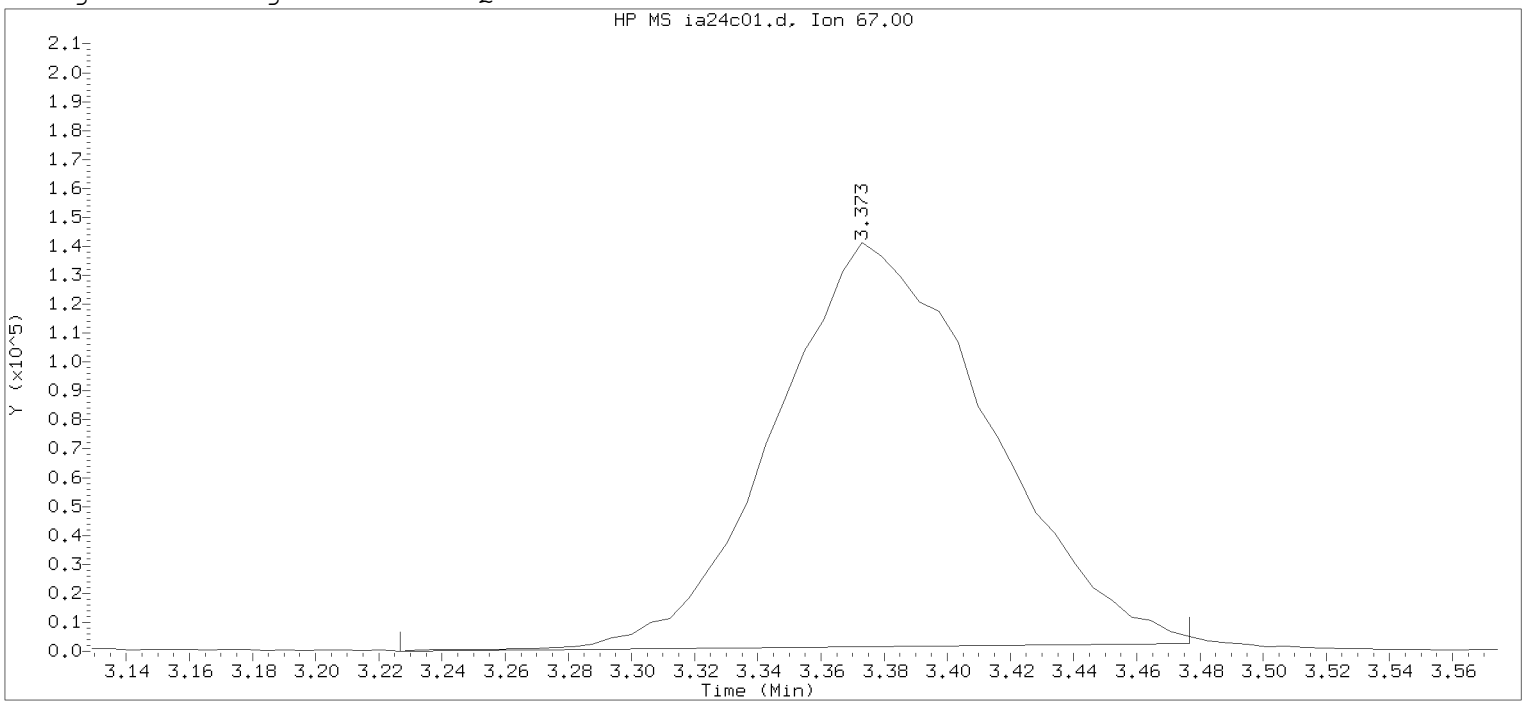
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 12
Compound Name : Freon 123a
Scan Number : 293
Retention Time (minutes): 3.373
Quant Ion : 67.00
Area : 657335
On-column Amount (ng) : 9.3723
Integration start scan : 268 Integration stop scan: 309
Y at integration start : 0 Y at integration end: 2596

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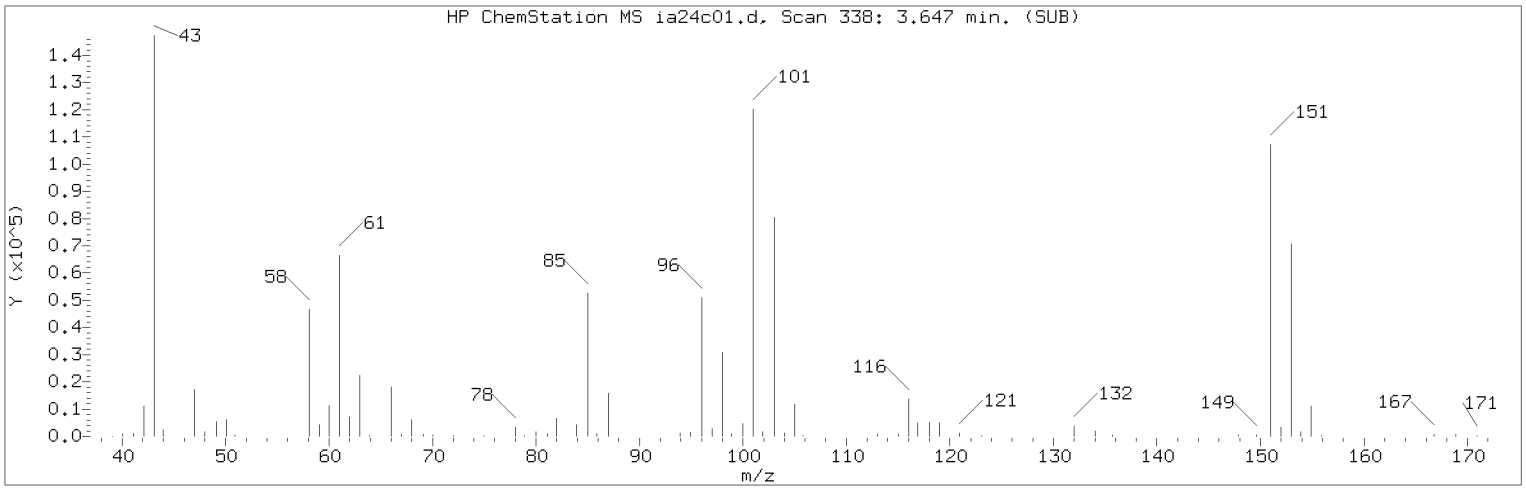
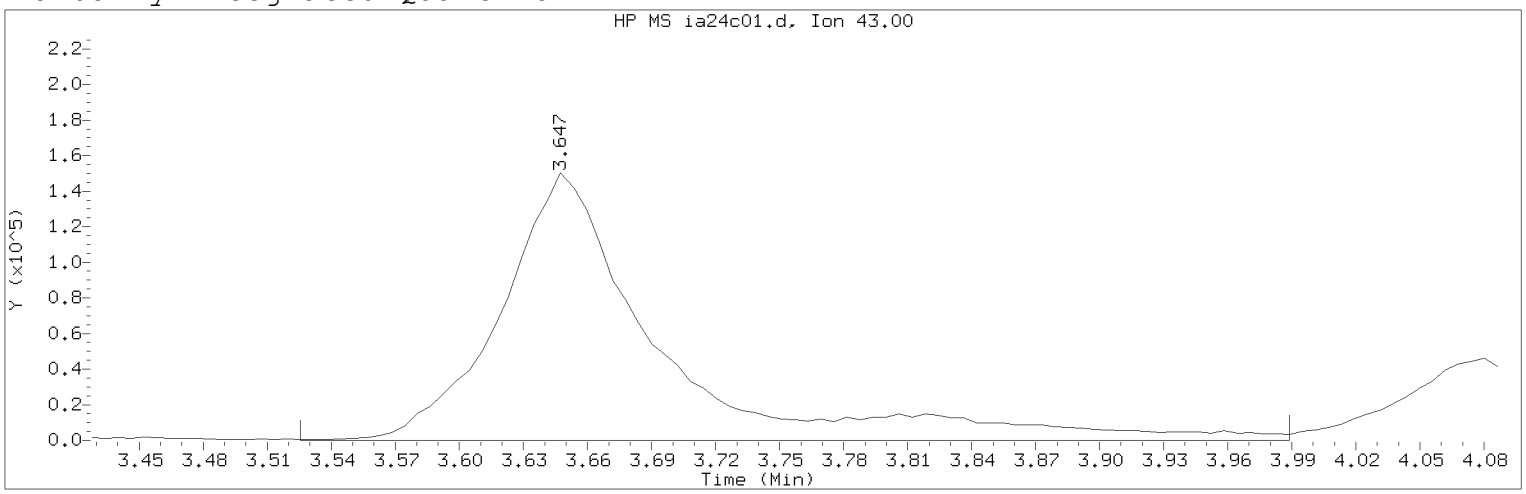
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

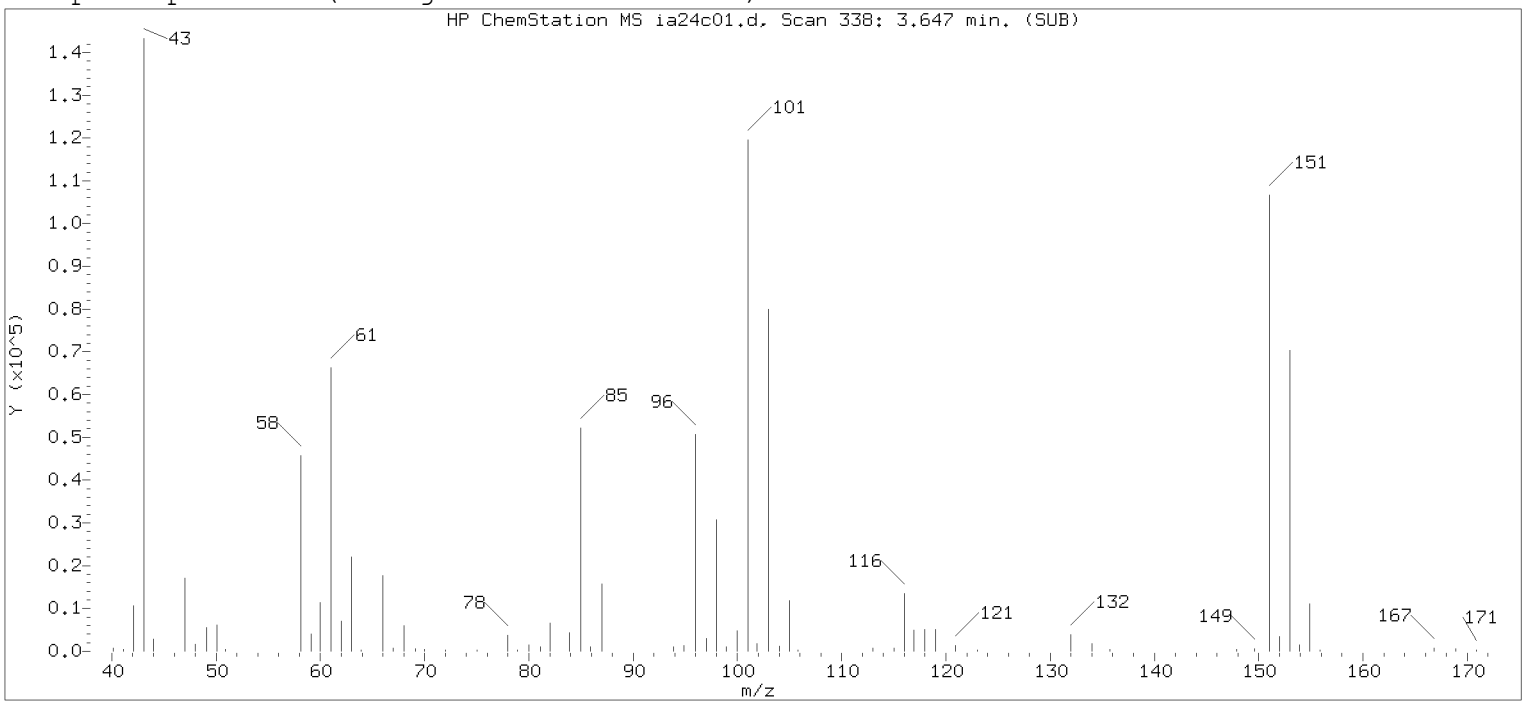
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area (flag) : 771450M
On-Column Amount (ng) : 94.9217
Integration start scan : 317 Integration stop scan: 393
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

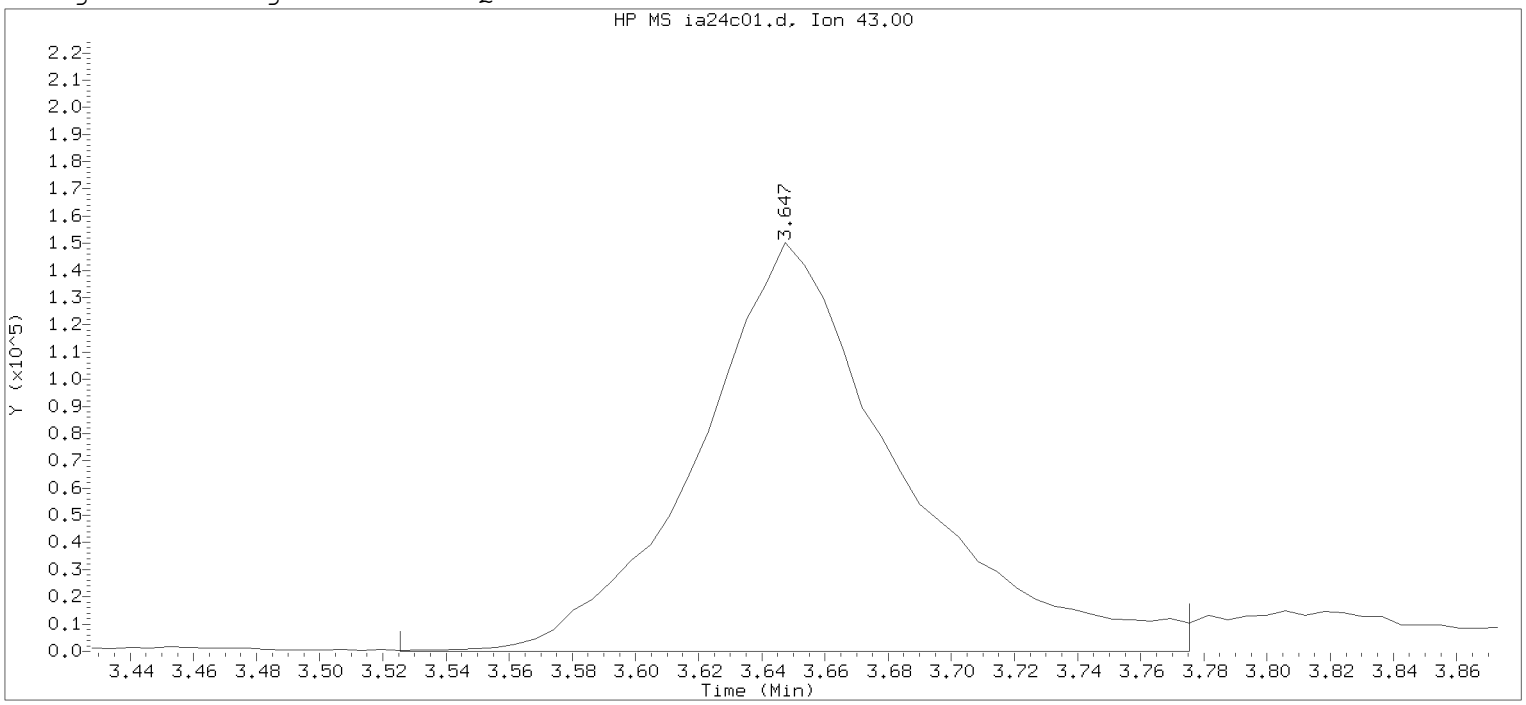
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

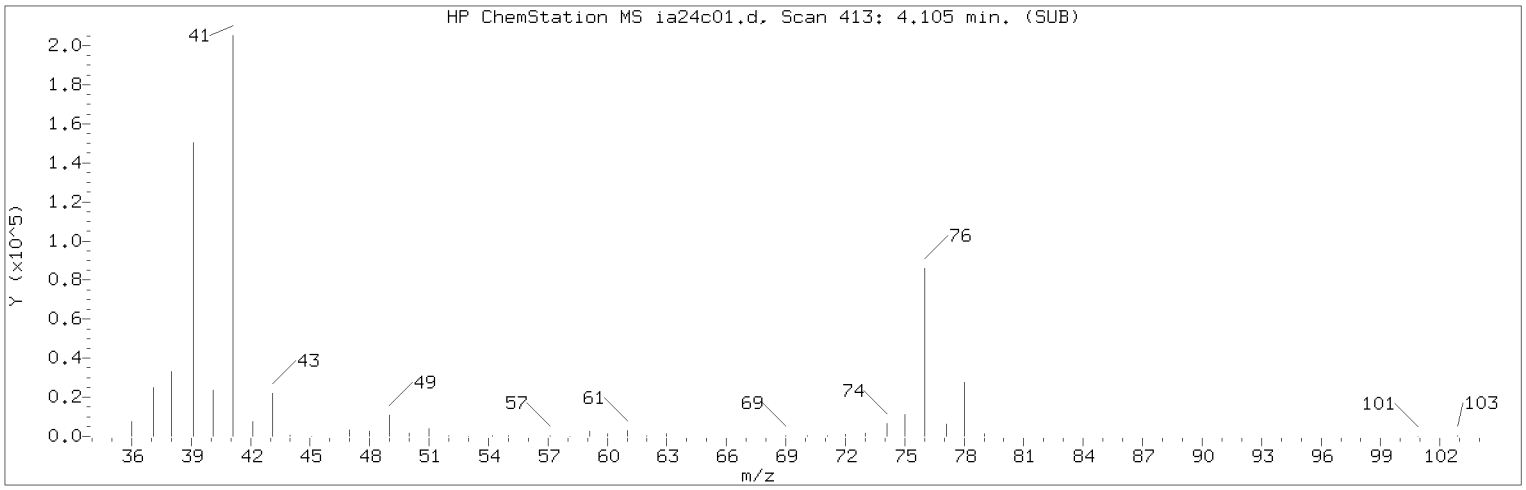
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

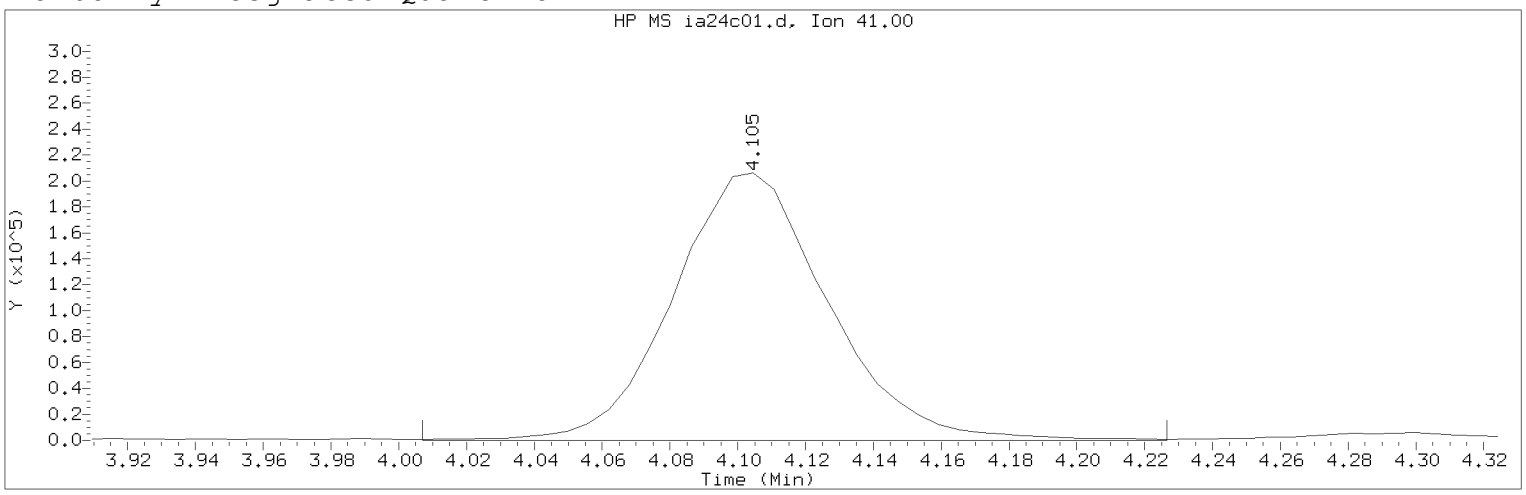
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area : 665956
On-column Amount (ng) : 90.8666
Integration start scan : 317 Integration stop scan: 358
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature used by Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

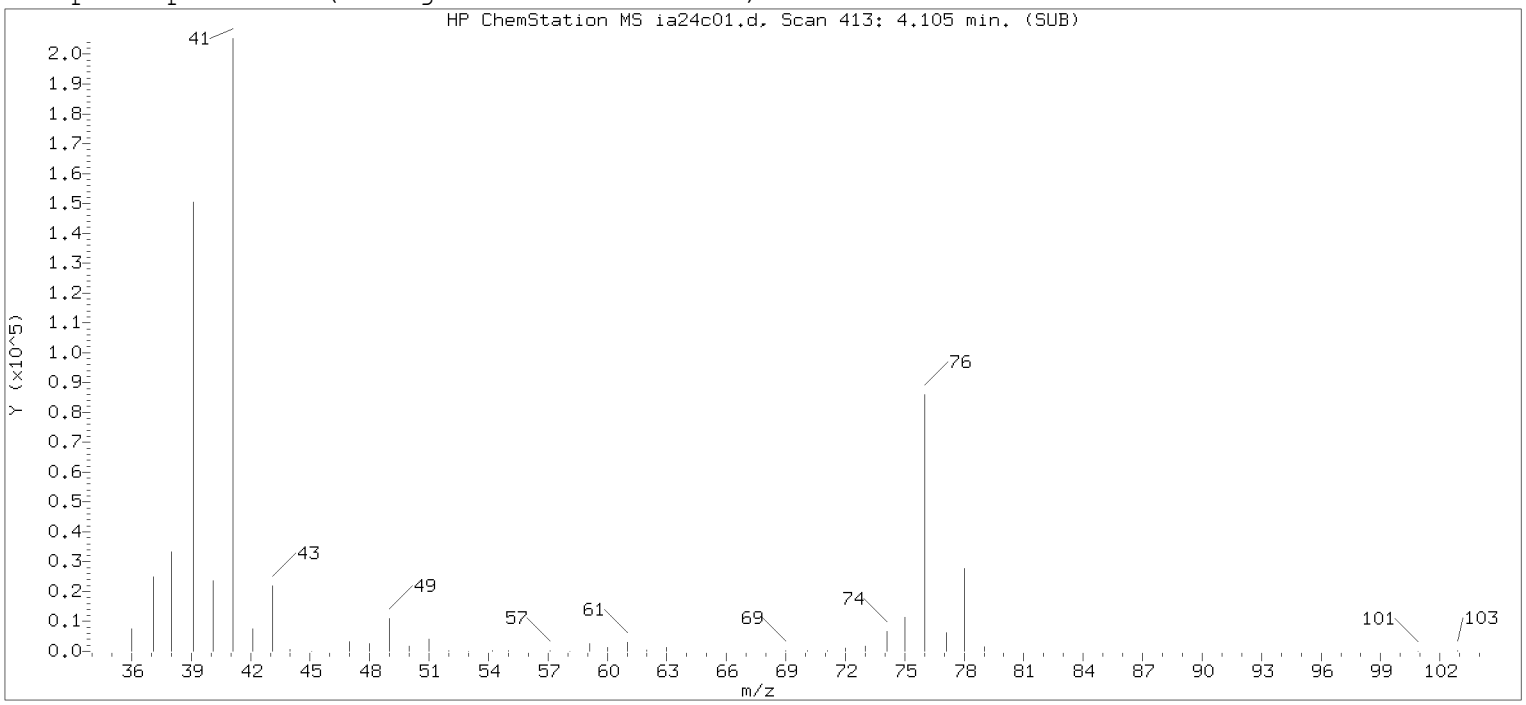
Compound Number : 22
Compound Name : Allyl Chloride
Scan Number : 413
Retention Time (minutes): 4.105
Quant Ion : 41.00
Area (flag) : 654496M
On-Column Amount (ng) : 7.8654
Integration start scan : 396 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

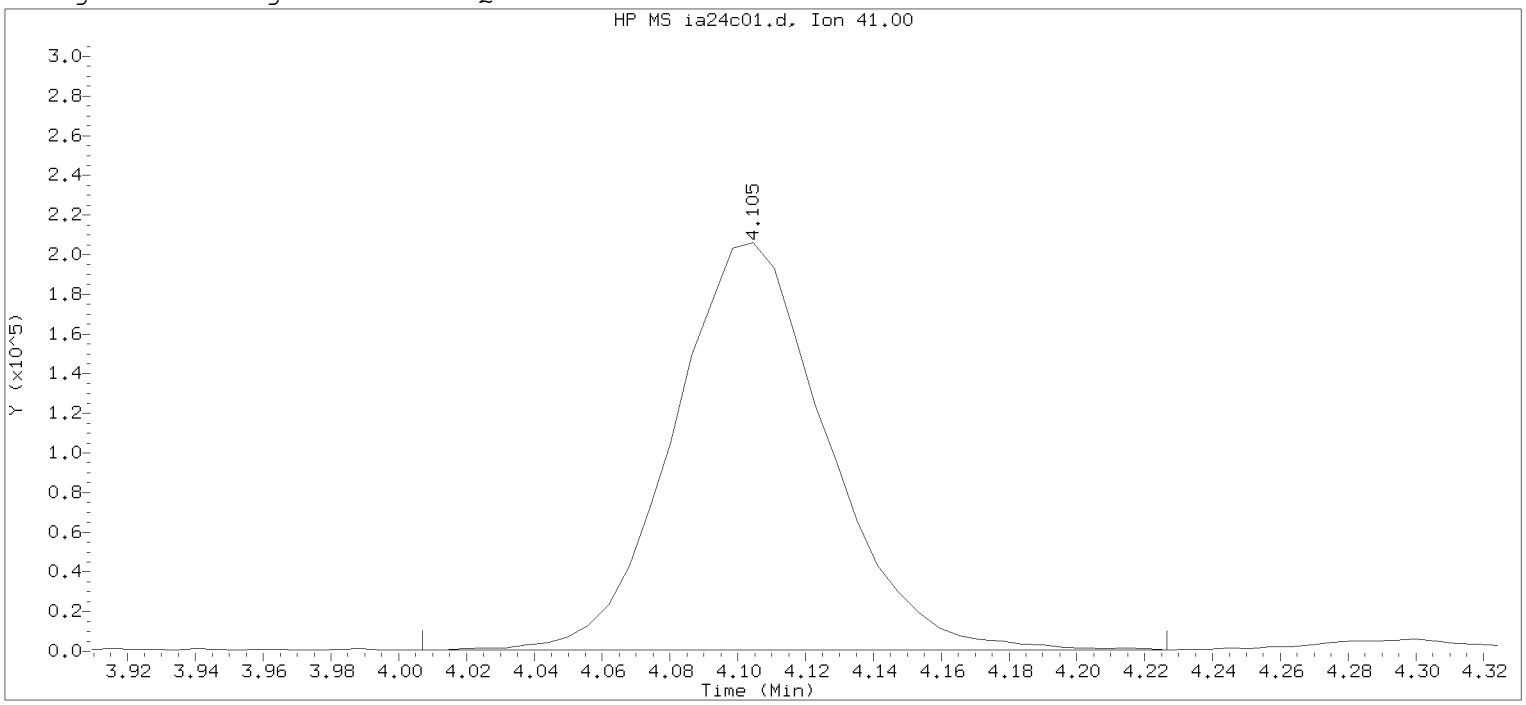
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 22
Compound Name : Allyl Chloride
Scan Number : 413
Retention Time (minutes): 4.105
Quant Ion : 41.00
Area : 646730
On-column Amount (ng) : 7.7721
Integration start scan : 396 Integration stop scan: 432
Y at integration start : 573 Y at integration end: 573

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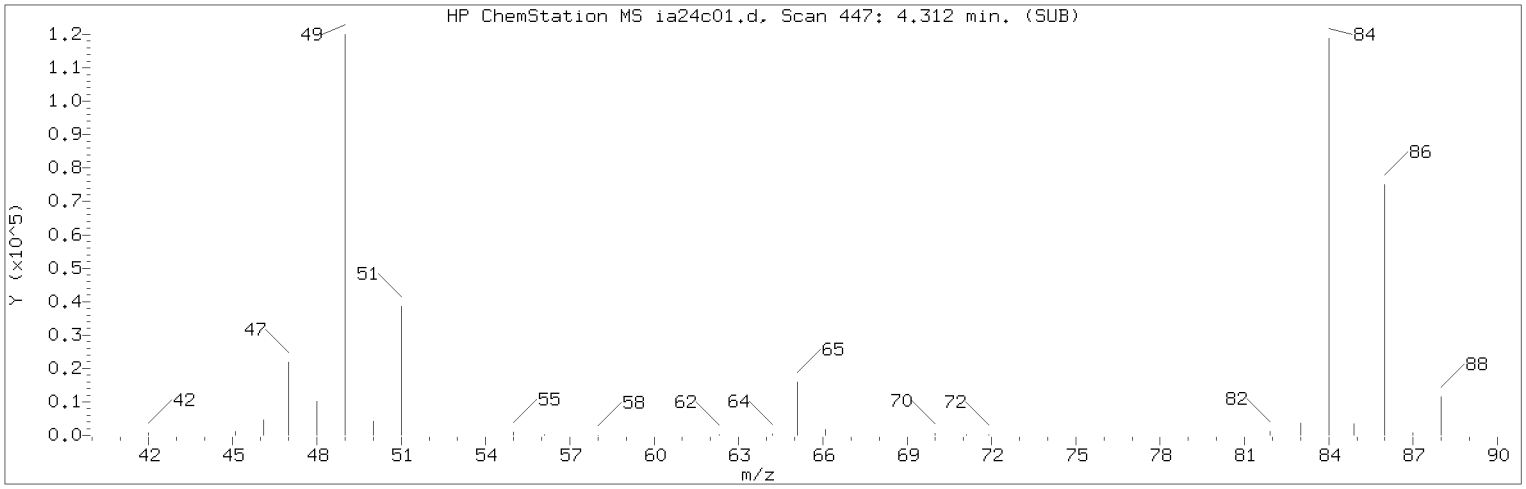
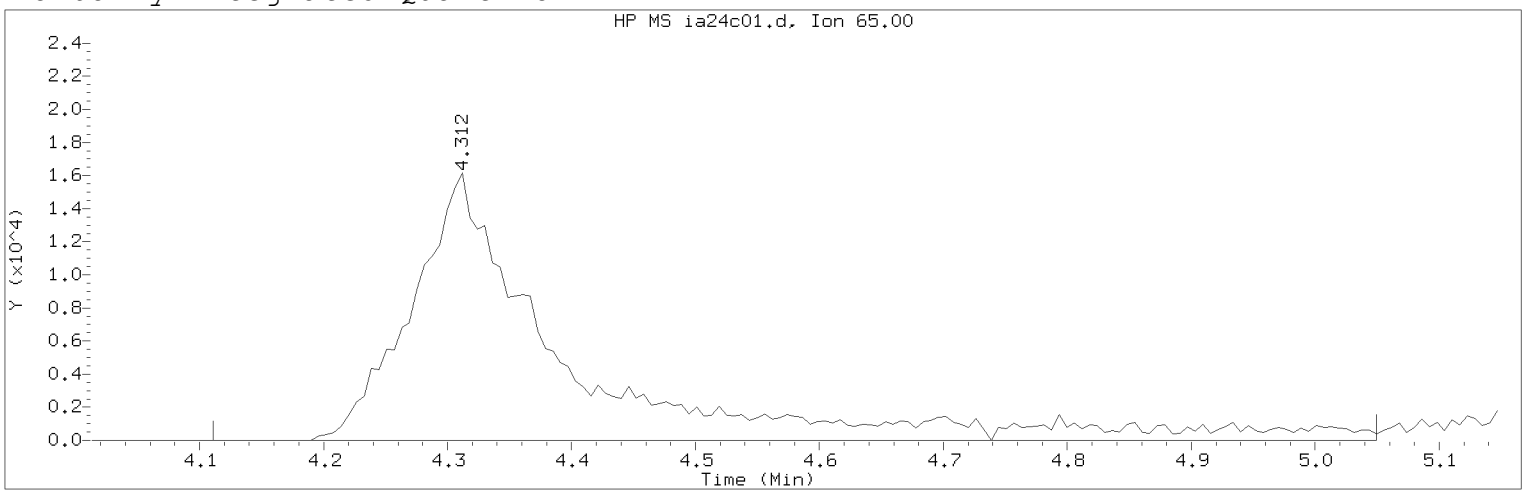
Target 3.5 esignature user: Page 1324

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

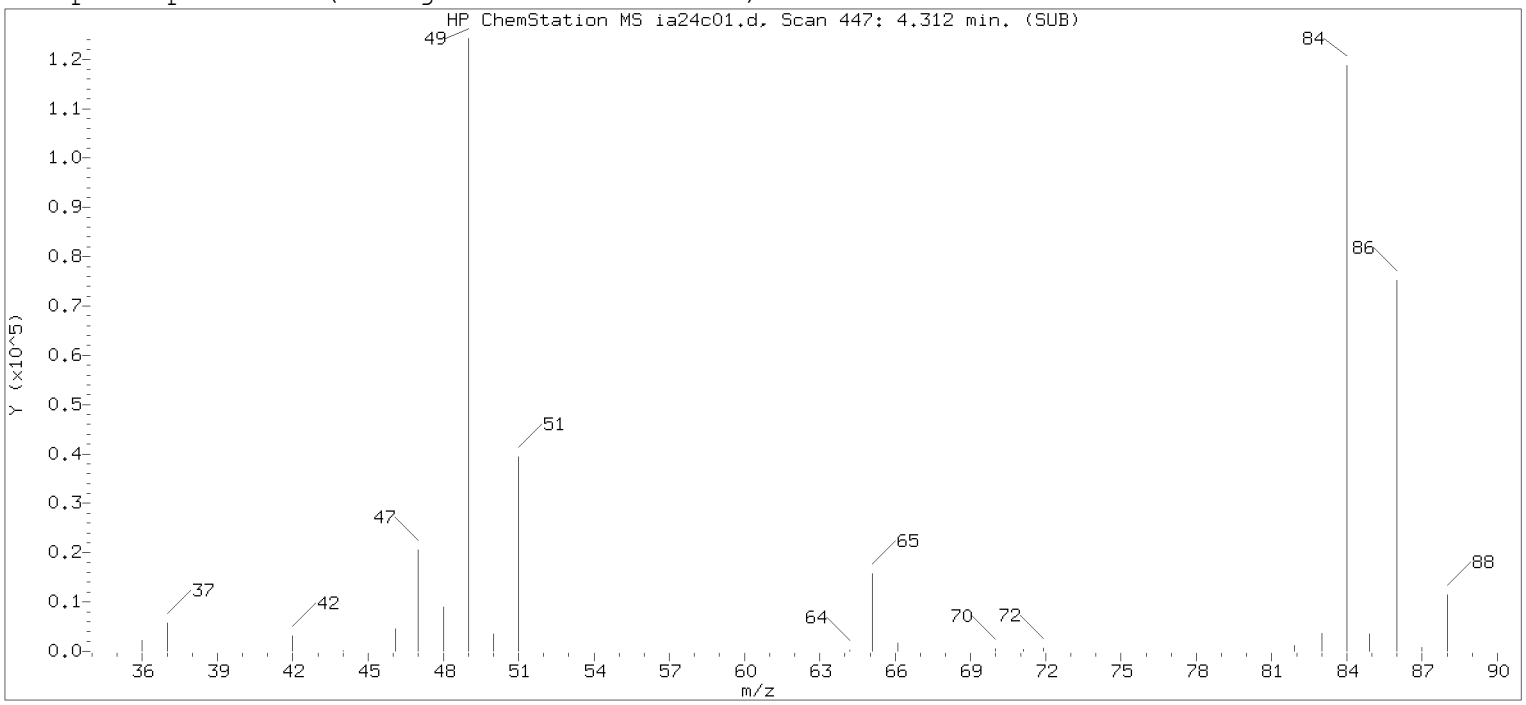
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area (flag) : 138717M
On-Column Amount (ng) : 50.0000
Integration start scan : 413 Integration stop scan: 567
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

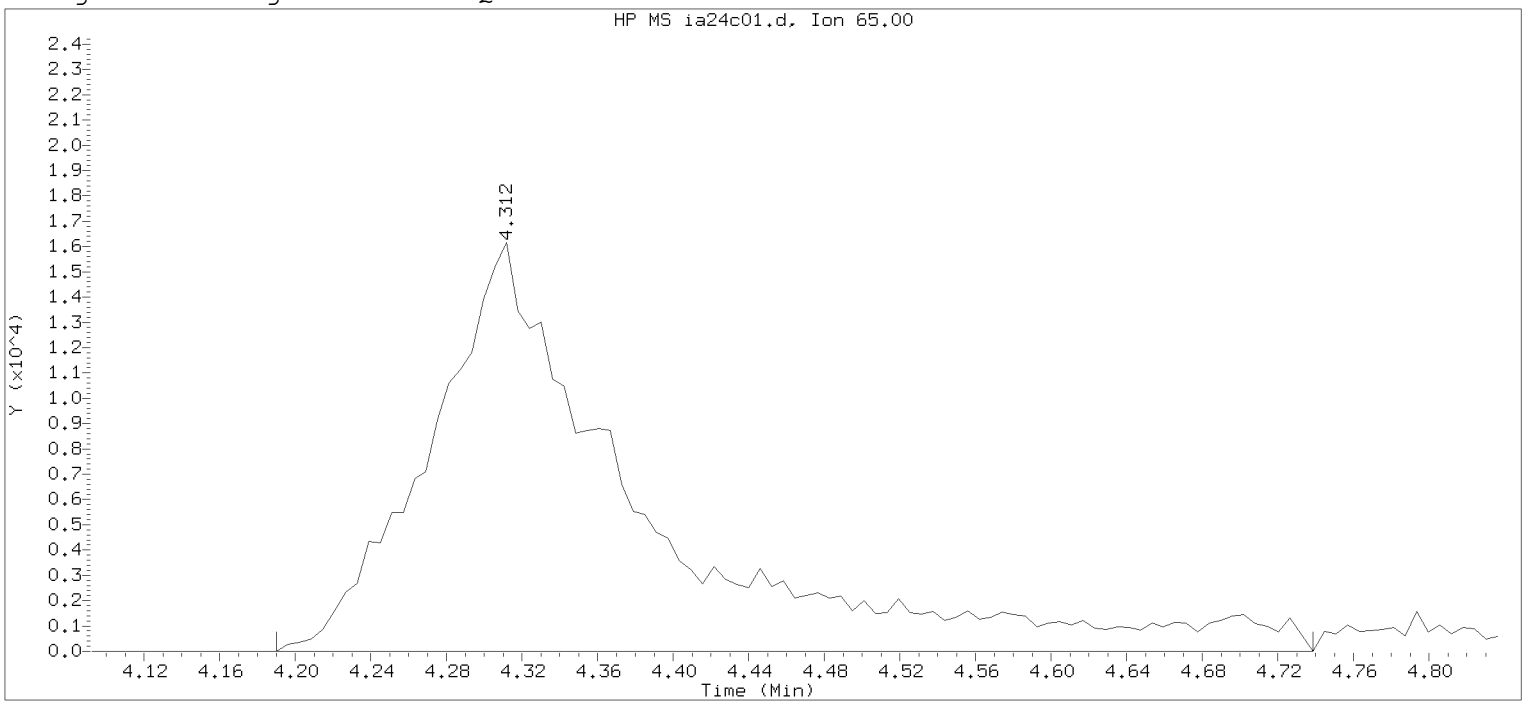
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

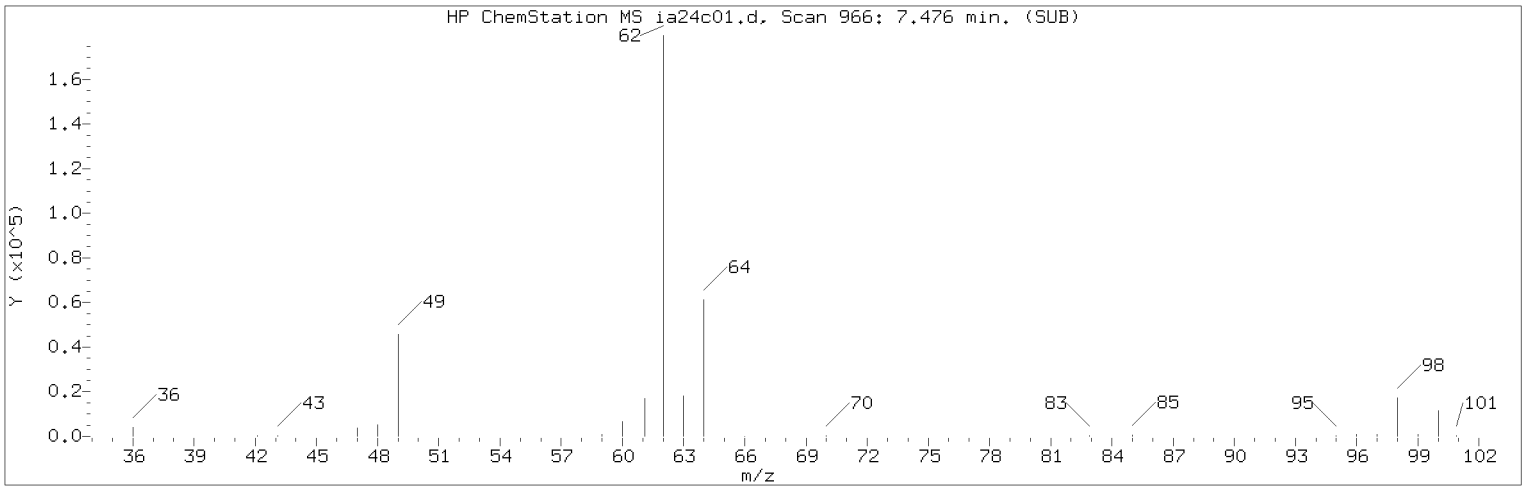
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

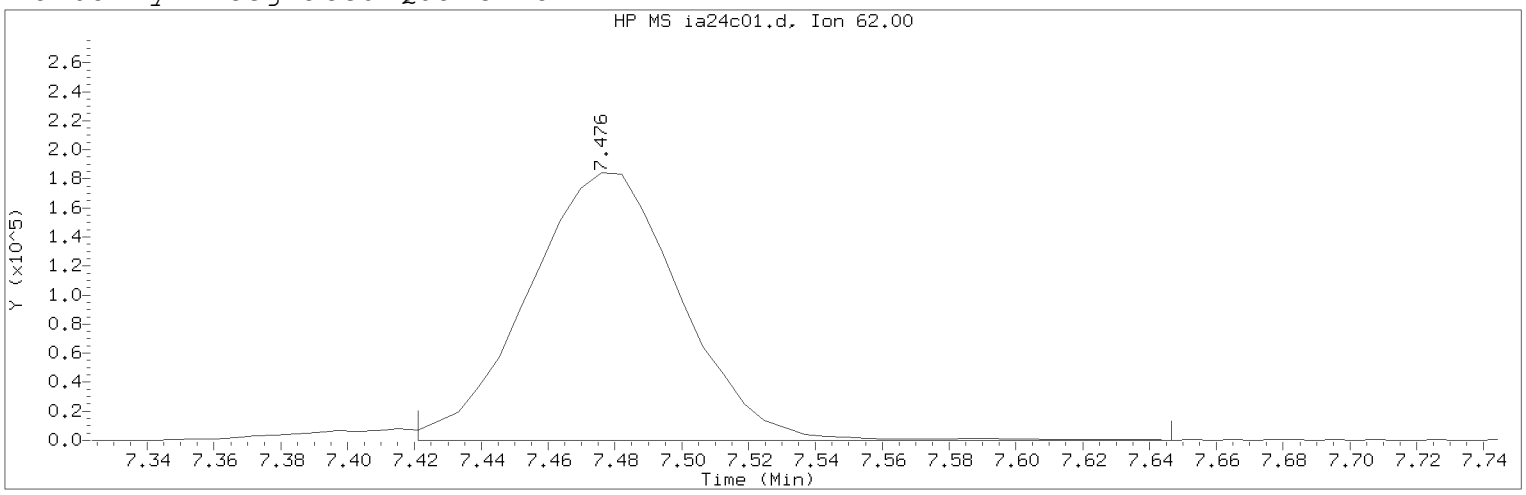
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area : 125091
On-column Amount (ng) : 50.0000
Integration start scan : 426 Integration stop scan: 516
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

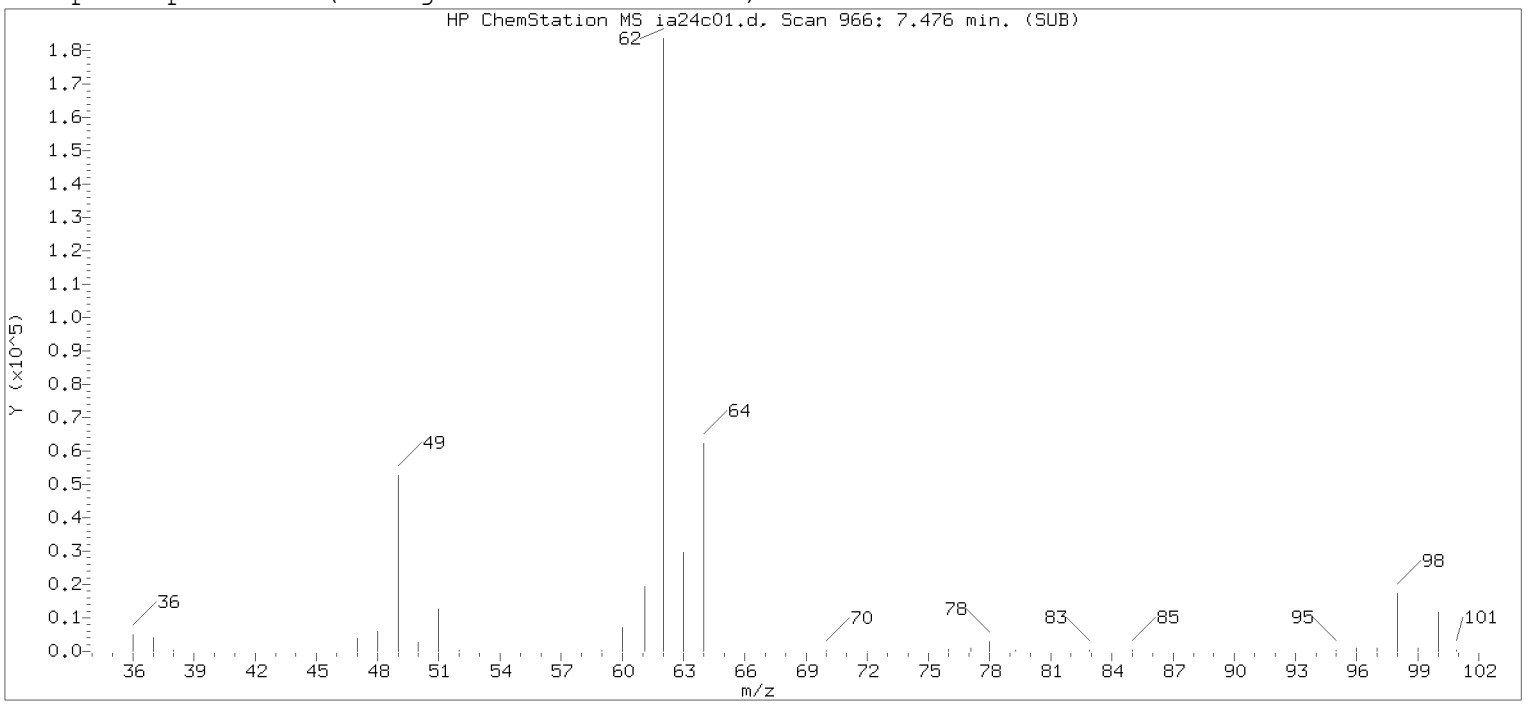
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area (flag) : 584778M
On-Column Amount (ng) : 9.2329
Integration start scan : 956 Integration stop scan: 993
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

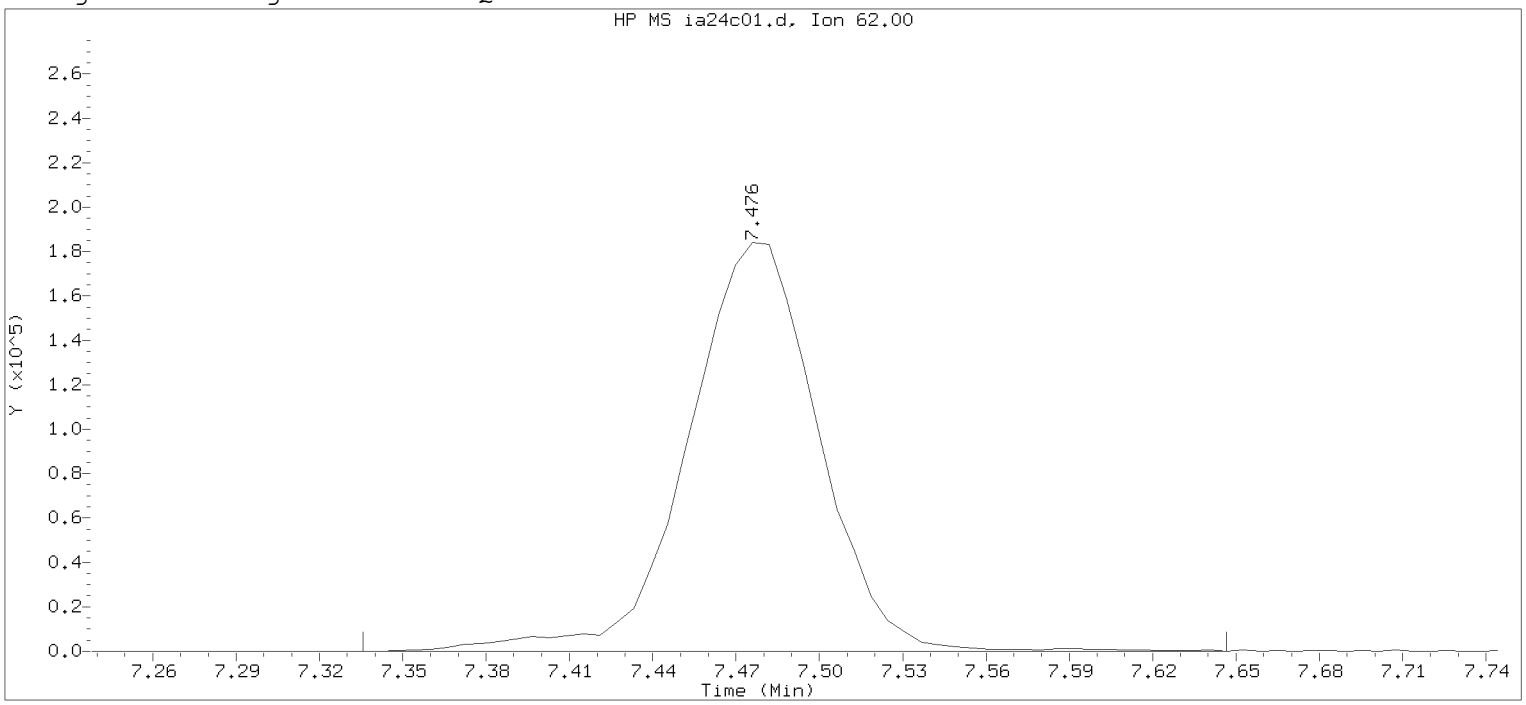
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

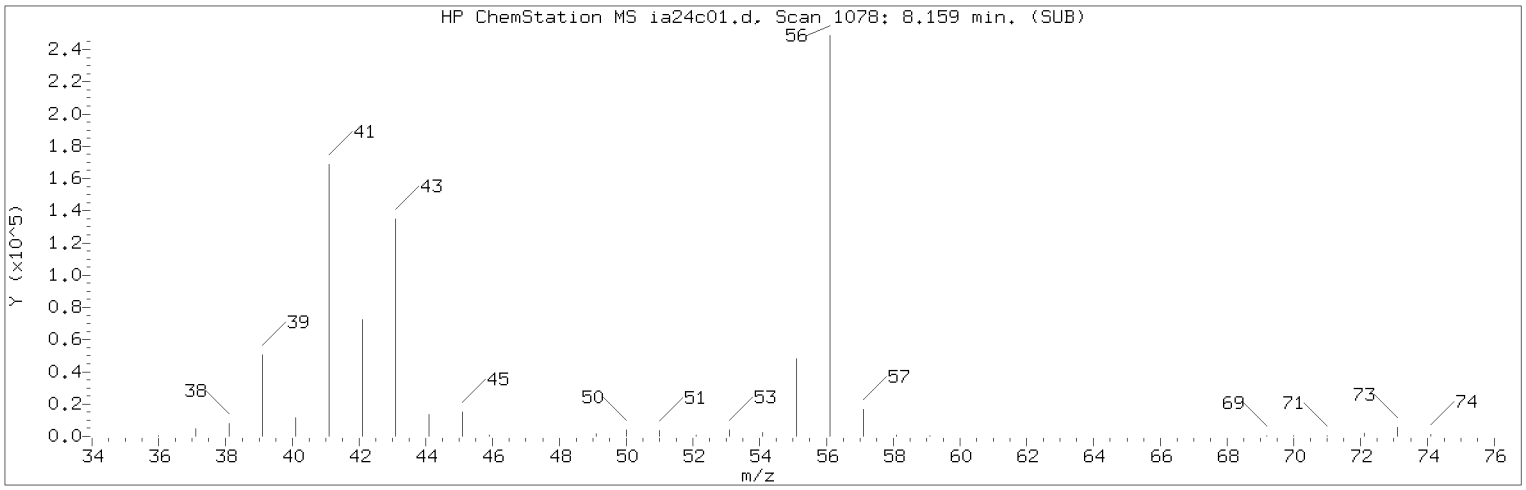
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

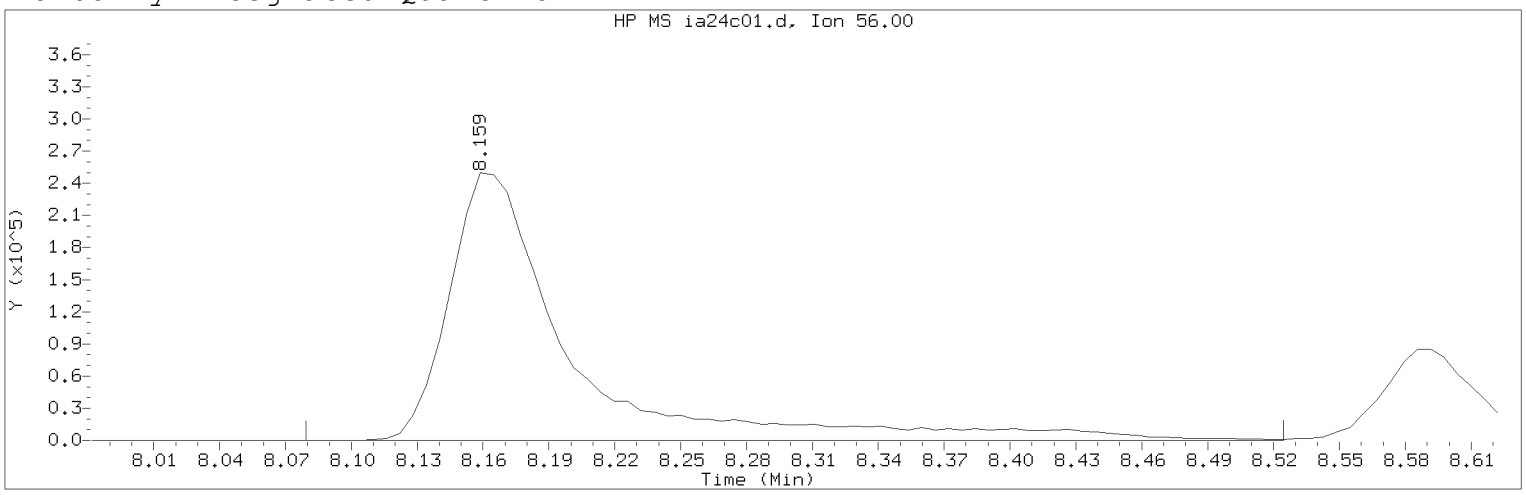
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area : 602079
On-column Amount (ng) : 9.5061
Integration start scan : 942 Integration stop scan: 993
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature used. Page 1328

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

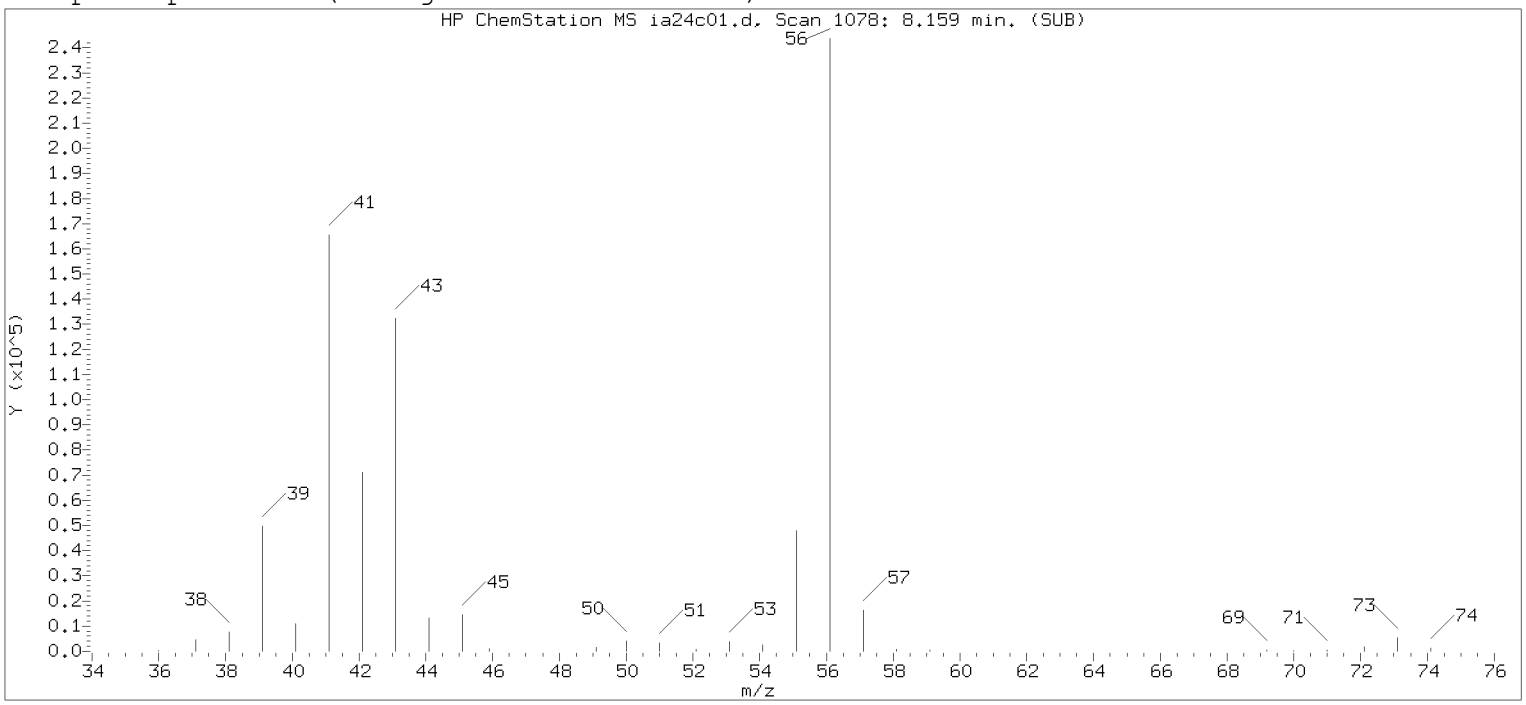
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1078
Retention Time (minutes): 8.159
Quant Ion : 56.00
Area (flag) : 951713M
On-Column Amount (ng) : 1096.2033
Integration start scan : 1064 Integration stop scan: 1137
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

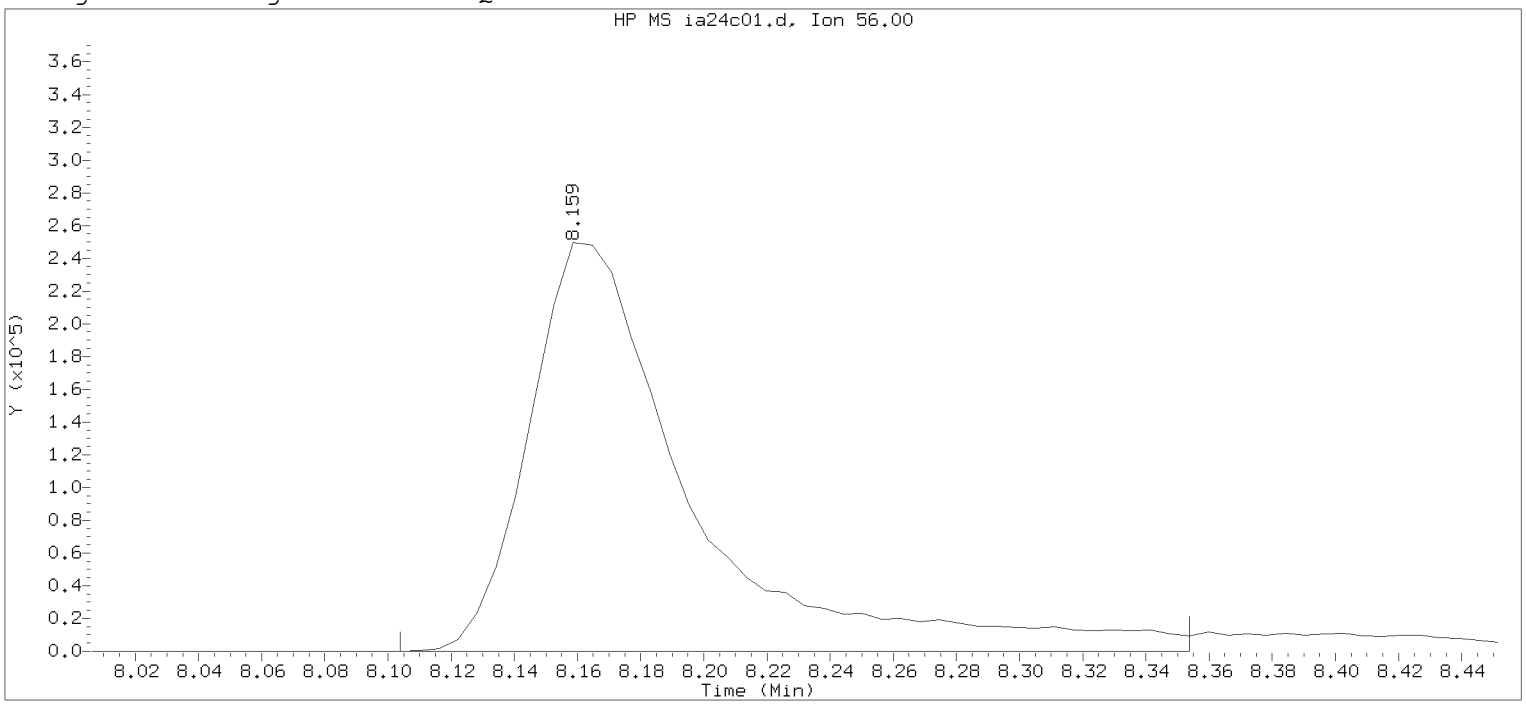
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

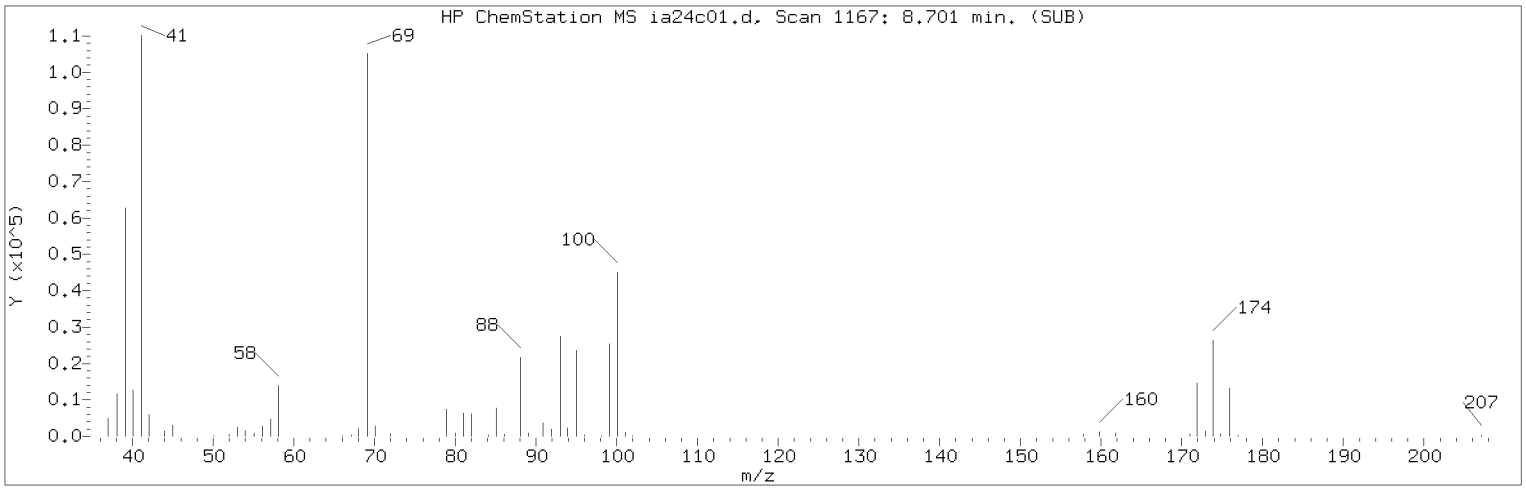
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

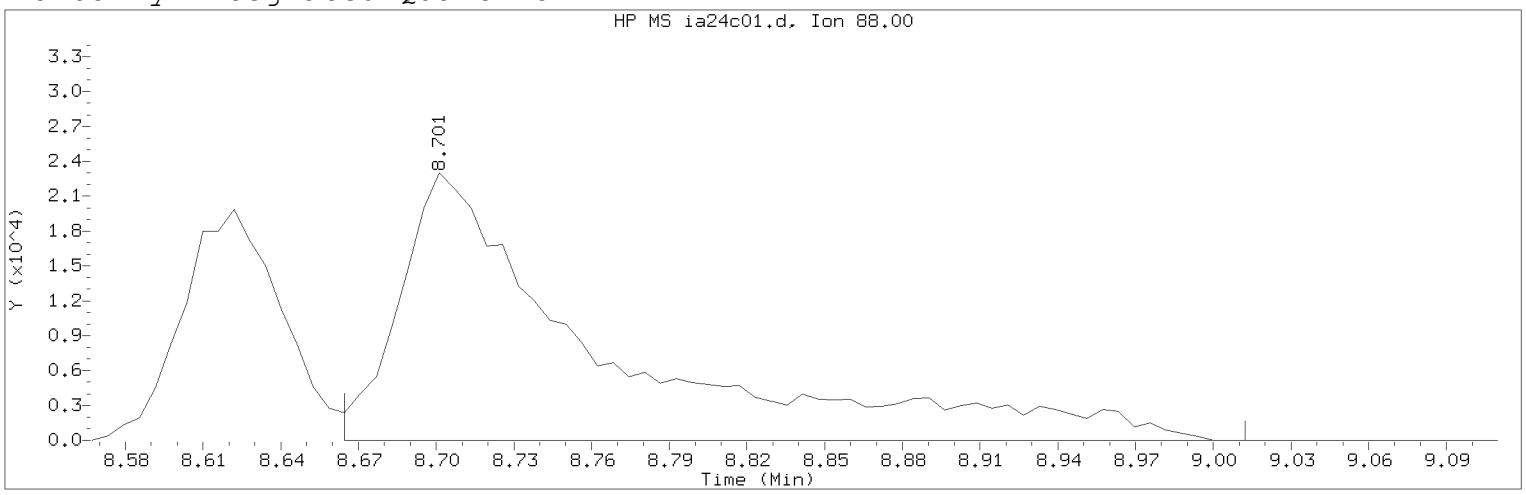
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1078
Retention Time (minutes): 8.159
Quant Ion : 56.00
Area : 886500
On-column Amount (ng) : 1132.3093
Integration start scan : 1068 Integration stop scan: 1109
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature user: Date: 04/24/2019

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

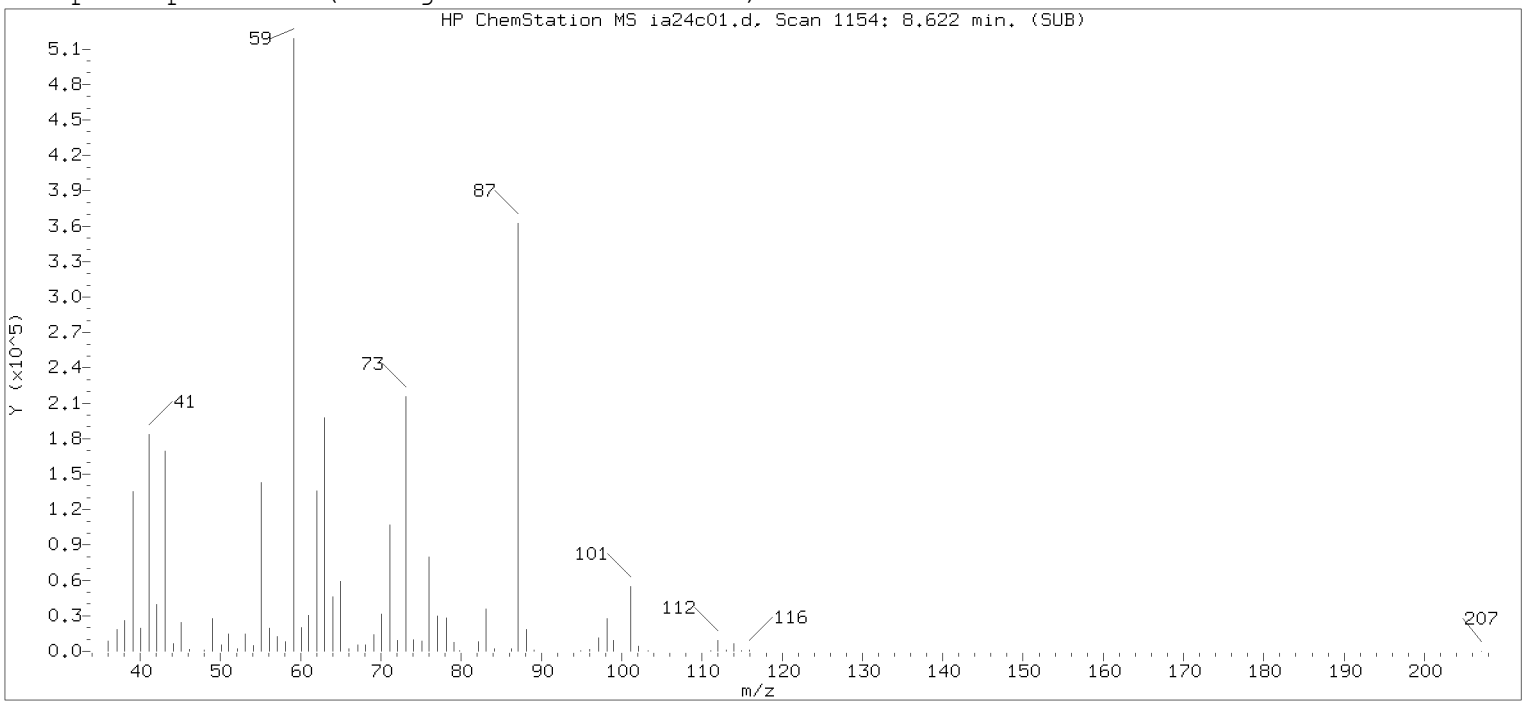
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1167
Retention Time (minutes): 8.701
Quant Ion : 88.00
Area (flag) : 123947M
On-Column Amount (ng) : 580.6767
Integration start scan : 1160 Integration stop scan: 1217
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

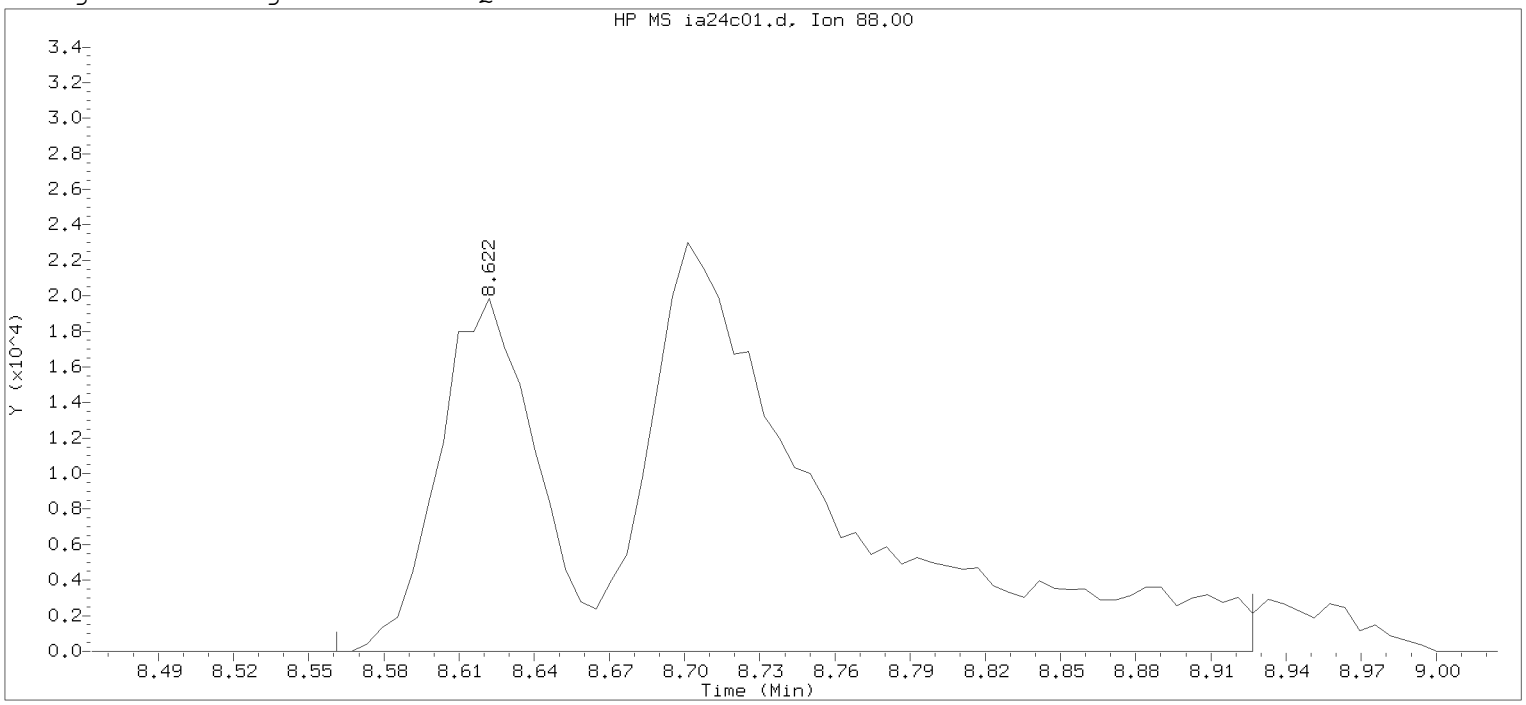
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

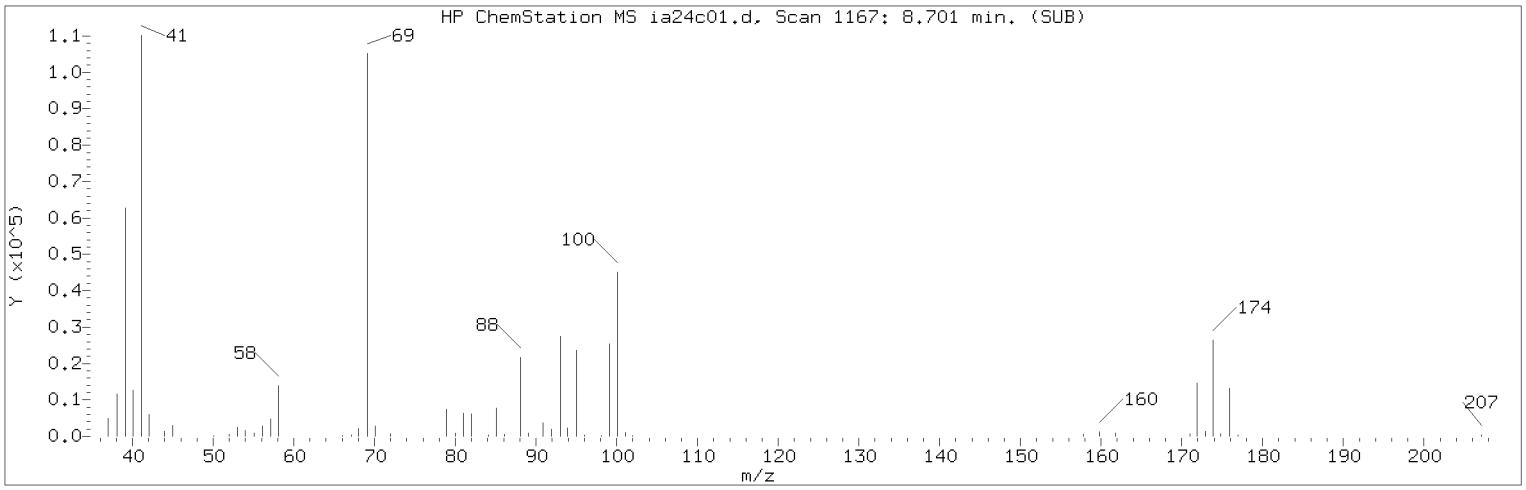
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

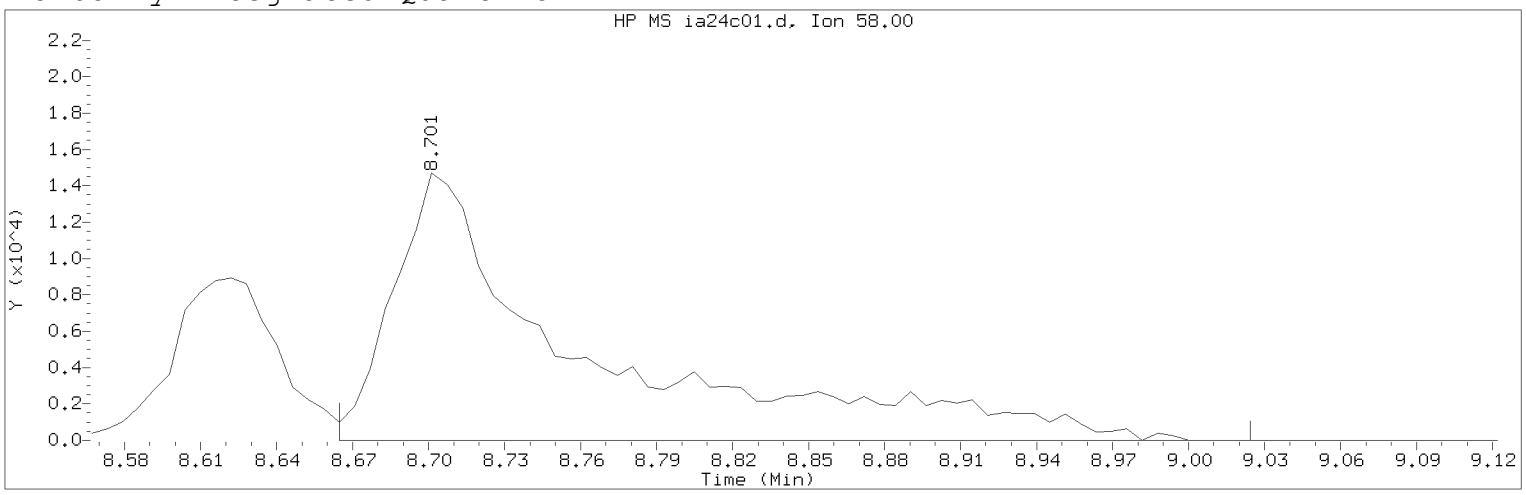
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1154		
Retention Time (minutes)	: 8.622		
Quant Ion	: 88.00		
Area	: 168822		
On-column Amount (ng)	: 877.0613		
Integration start scan	: 1143	Integration stop scan:	1203
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature used. Page 1332

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

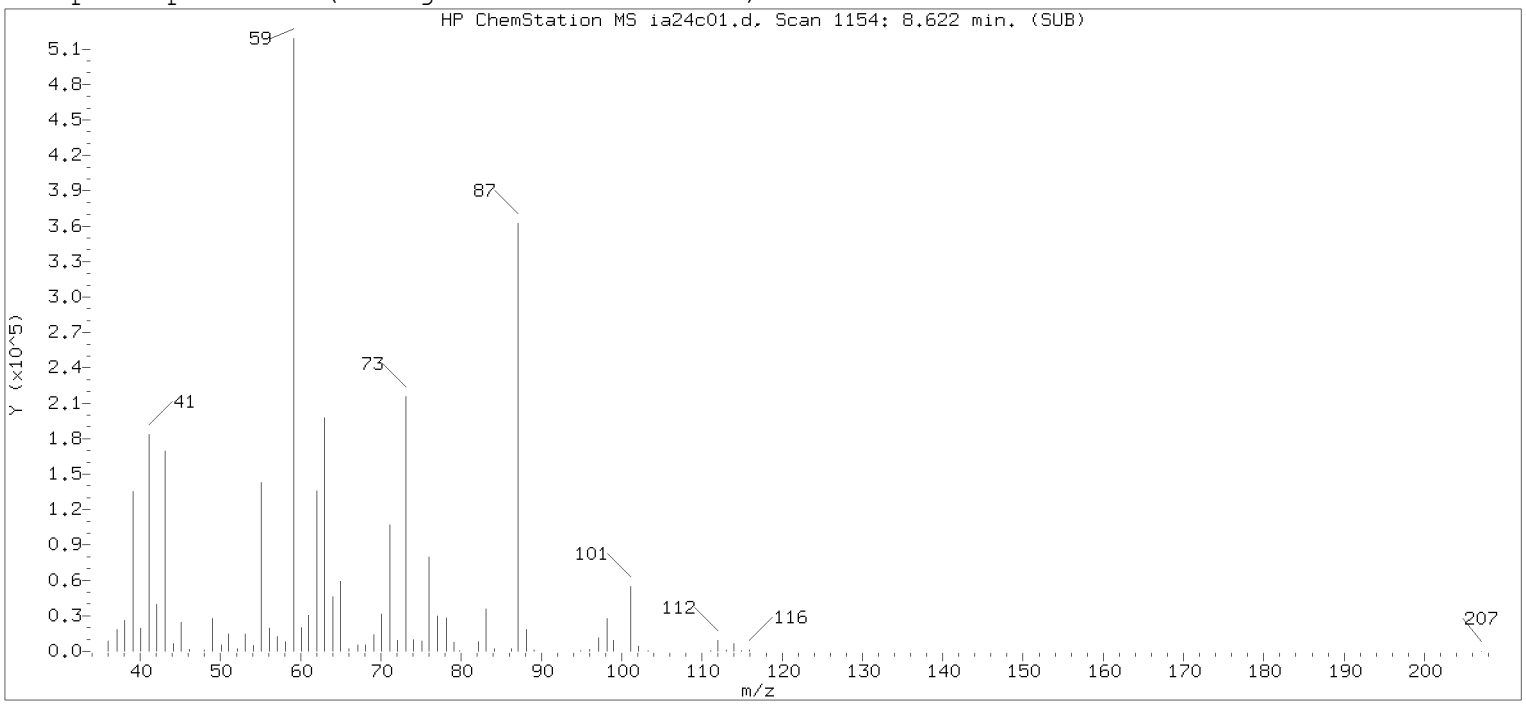
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1167
Retention Time (minutes): 8.701
Quant Ion : 58.00
Area (flag) : 75384M
On-Column Amount (ng) : 592.6491
Integration start scan : 1160 Integration stop scan: 1219
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

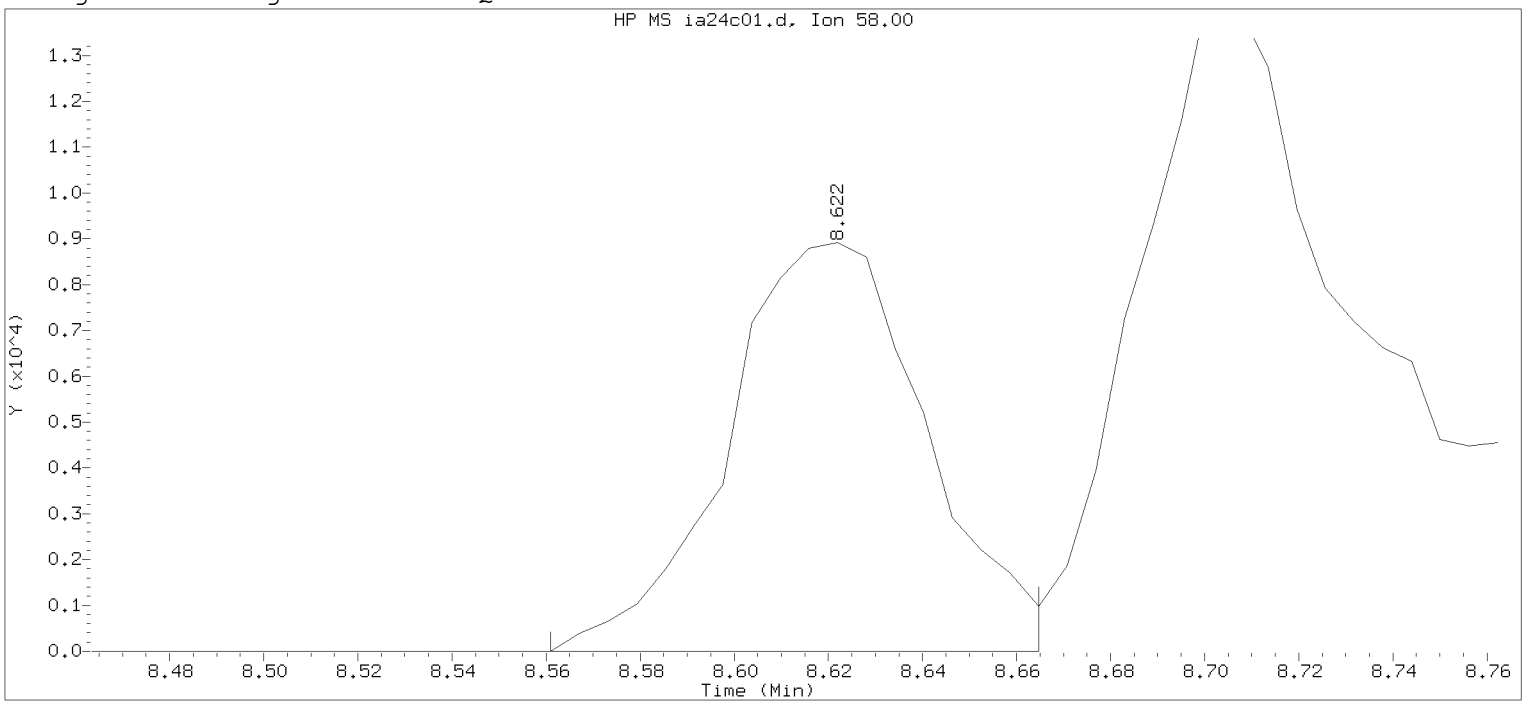
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

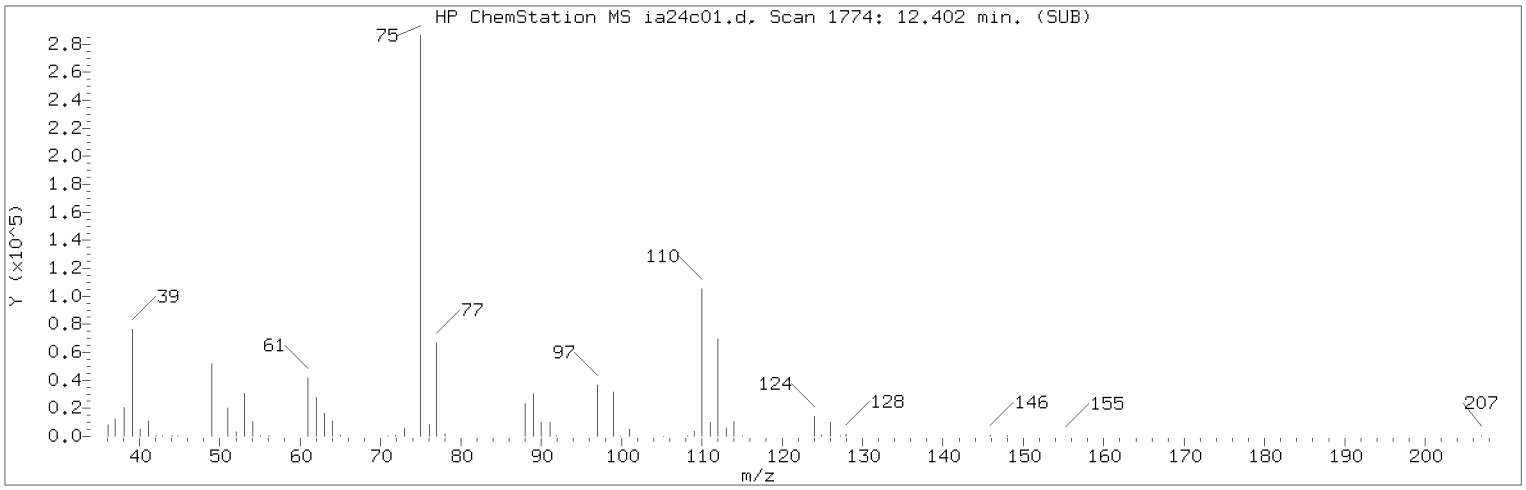
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

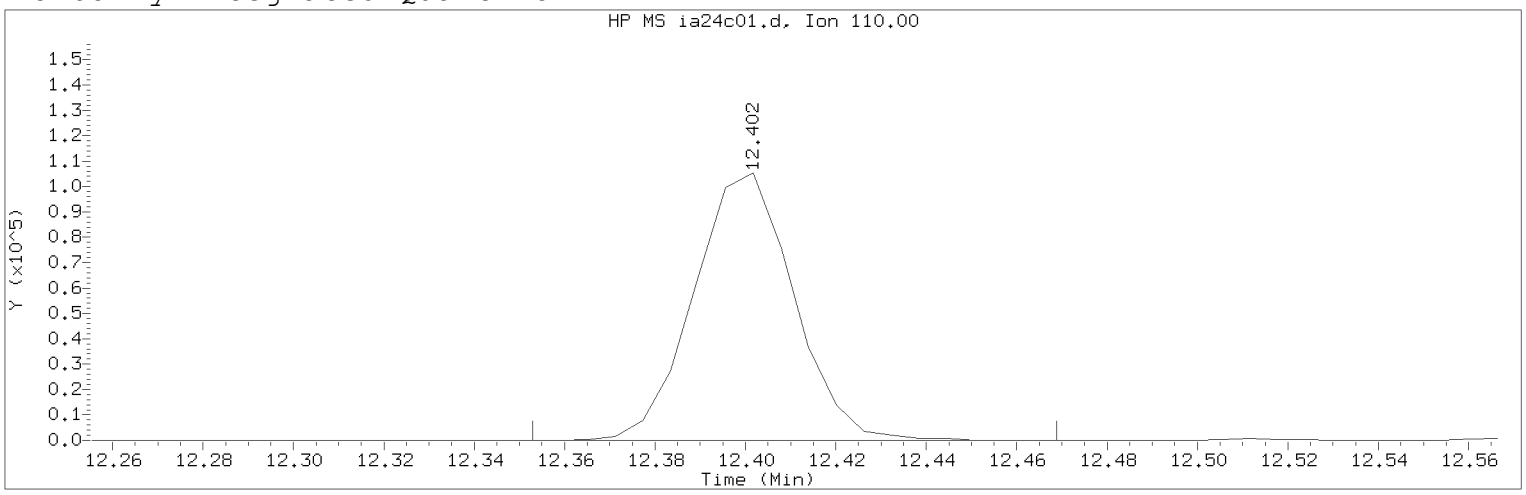
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1154
Retention Time (minutes): 8.622
Quant Ion : 58.00
Area : 25982
On-column Amount (ng) : 226.5157
Integration start scan : 1143 Integration stop scan: 1160
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature user: Page 1334 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

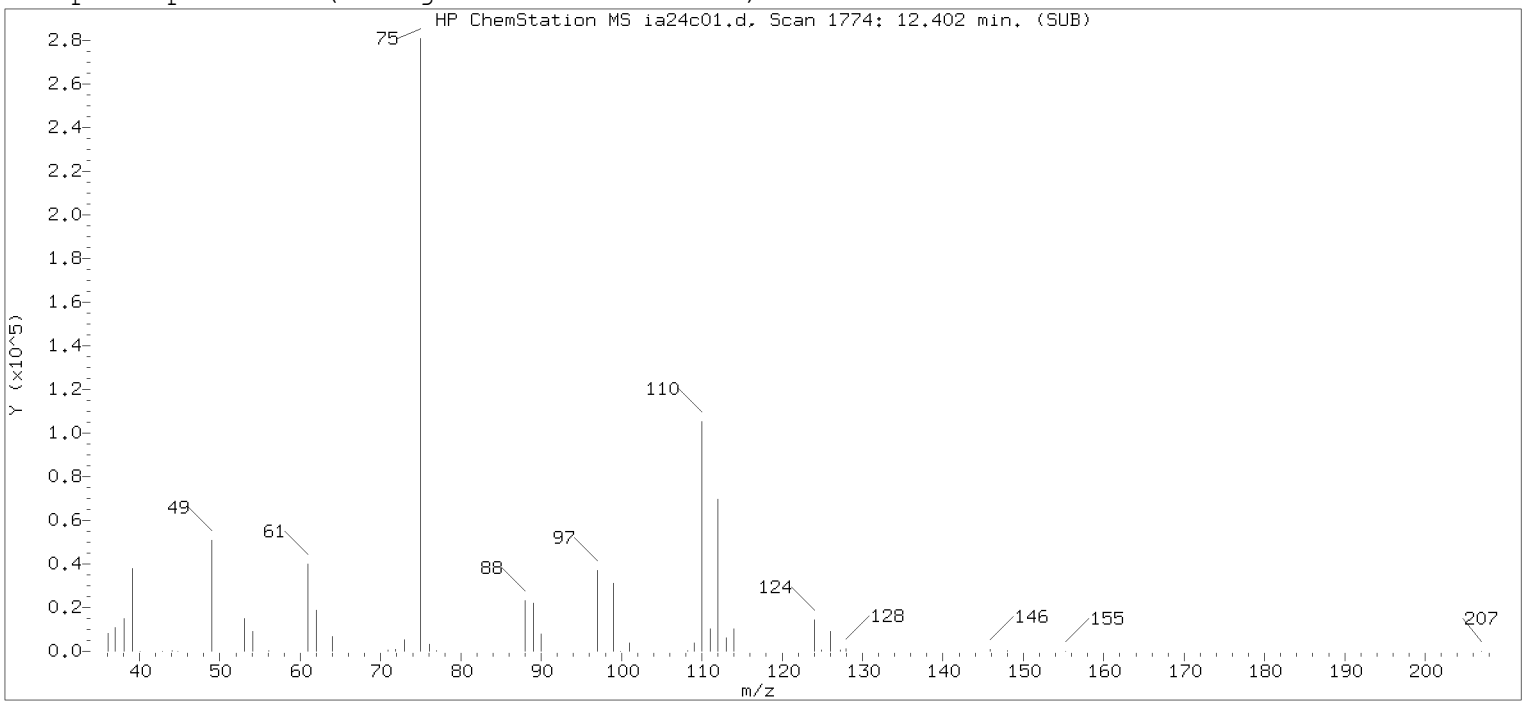
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area (flag) : 160767M
On-Column Amount (ng) : 9.5128
Integration start scan : 1765 Integration stop scan: 1784
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

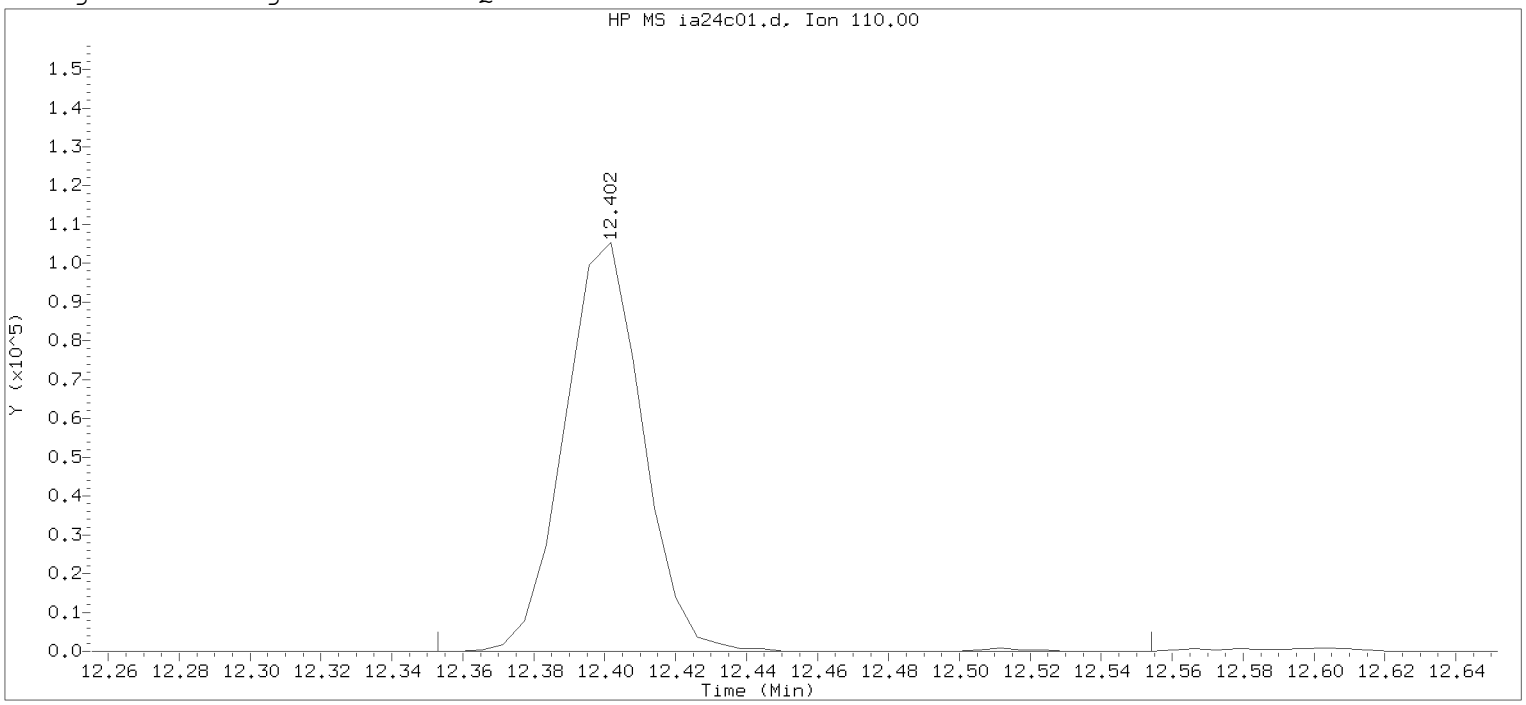
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

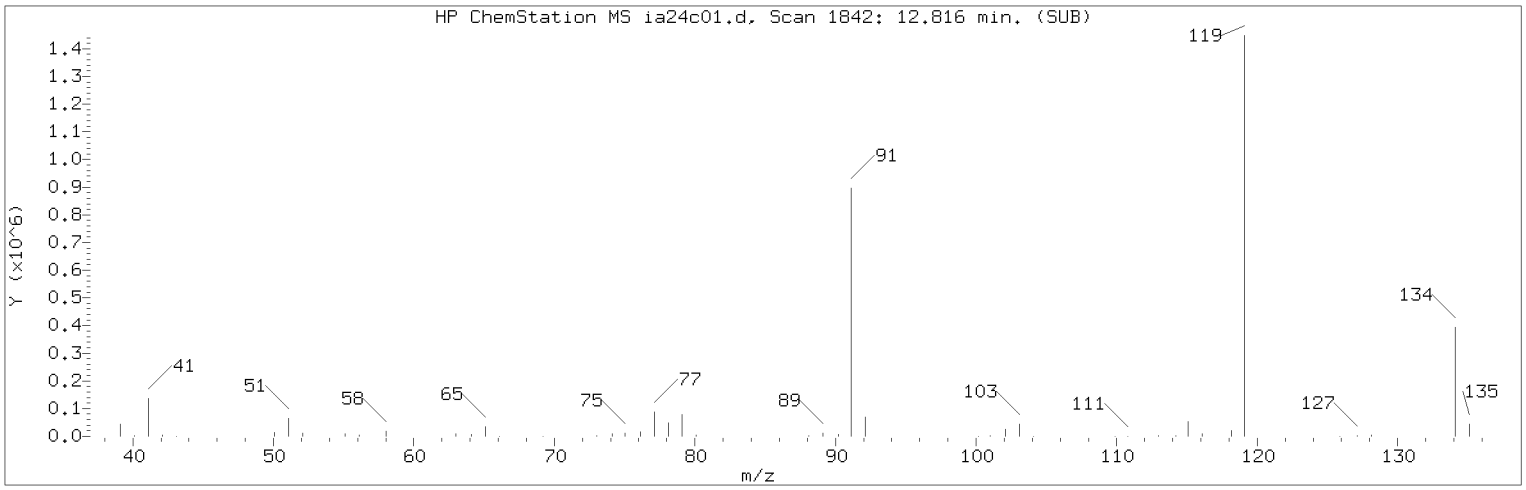
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

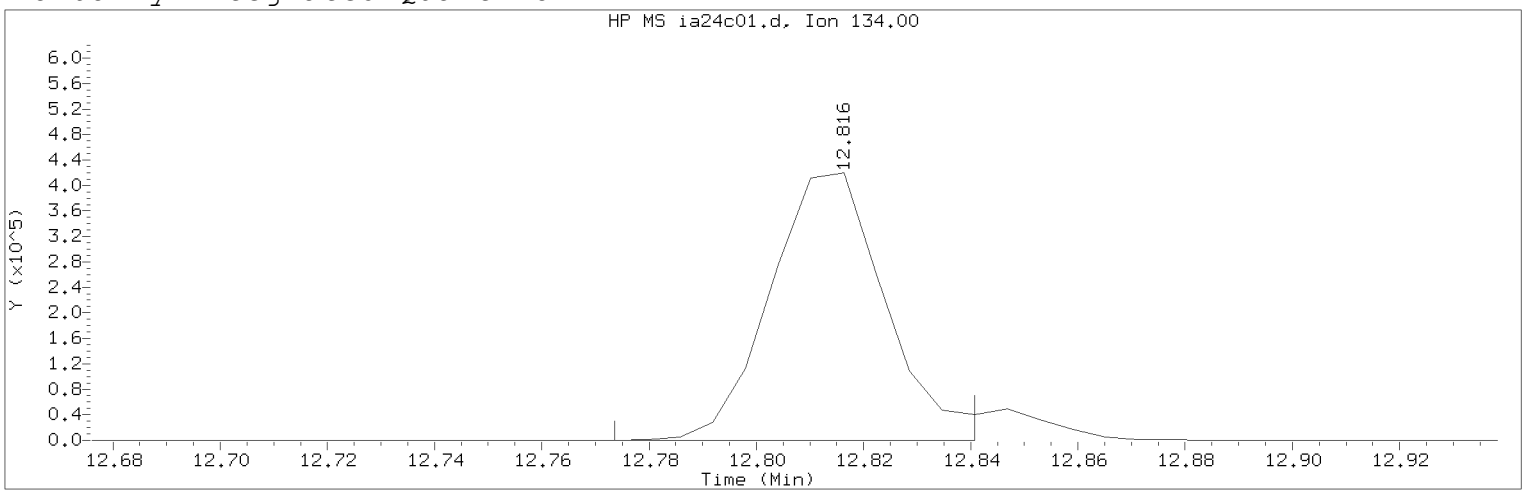
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area : 161437
On-column Amount (ng) : 9.5525
Integration start scan : 1765 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature user: Page 1336

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 10:25
Date, time and analyst ID of latest file update: 24-Apr-2019 10:28 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

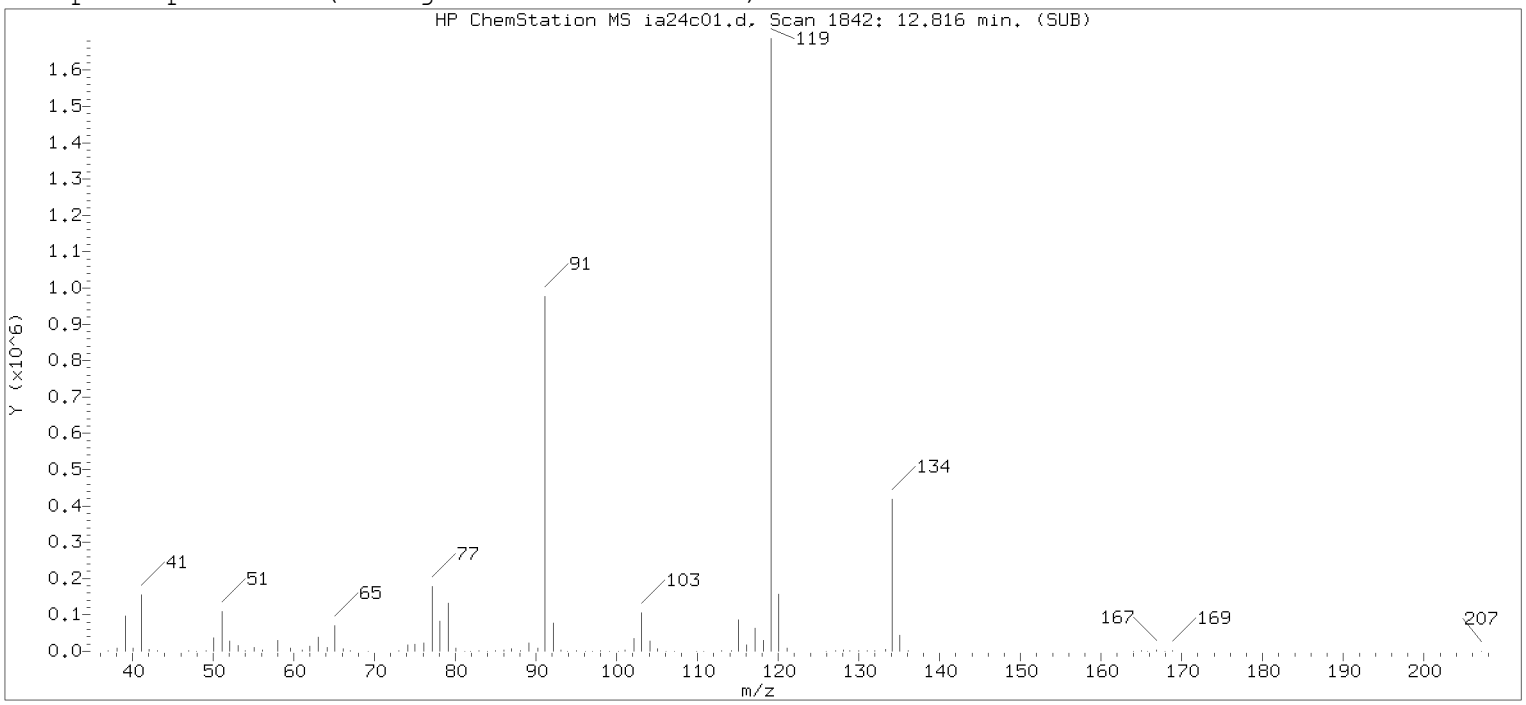
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area (flag) : 624751M
On-Column Amount (ng) : 9.5747
Integration start scan : 1834 Integration stop scan: 1845
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

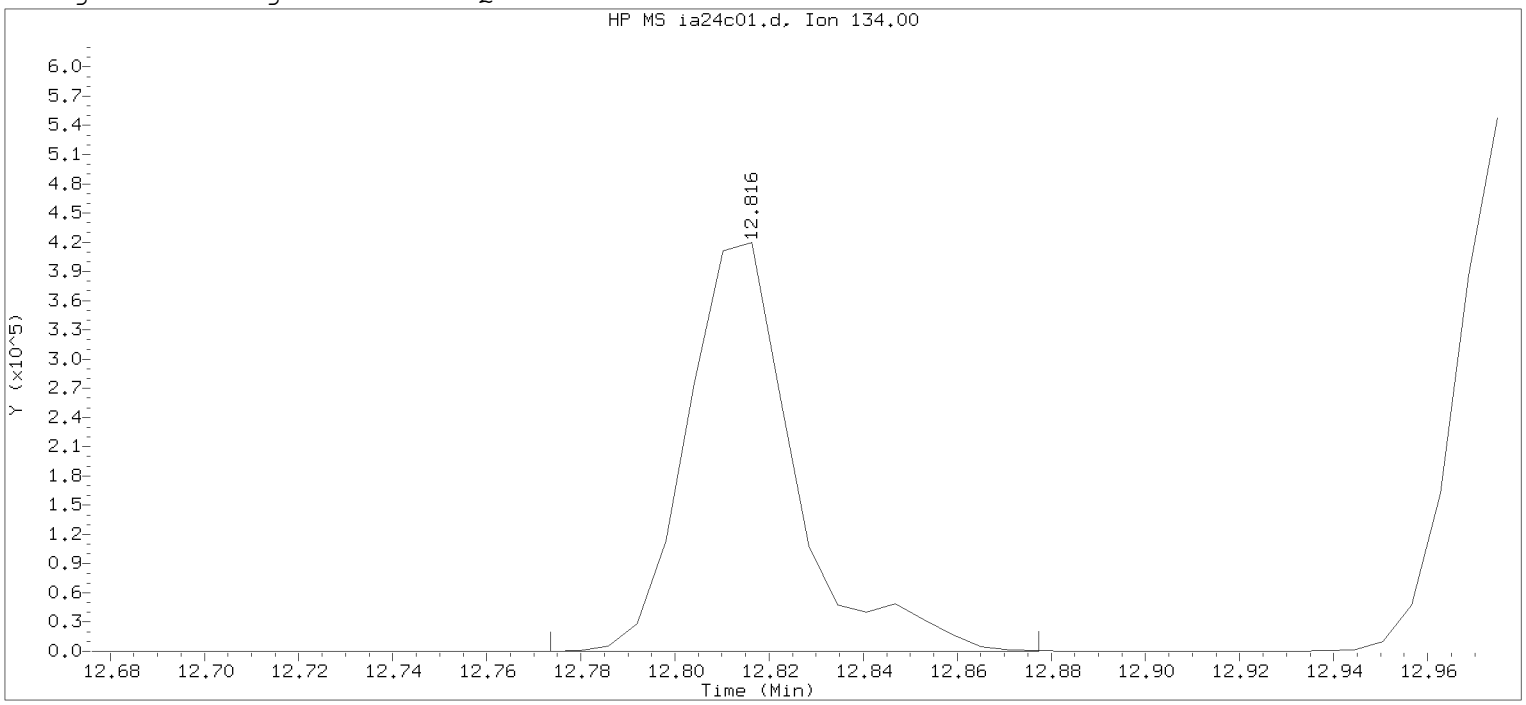
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:28.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:28 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-APR-2019 09:46
Date, time and analyst ID of latest file update: 24-Apr-2019 09:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1842
Retention Time (minutes): 12.816
Quant Ion : 134.00
Area : 663168
On-column Amount (ng) : 10.1635
Integration start scan : 1834 Integration stop scan: 1851
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:28.
Target 3.5 esignature user F35 Page 1338

Data File: /chem2/HP19930.i/19apr23i.b/ia23t02.d

Date : 23-APR-2019 21:14

Client ID: BFB FEB05-19

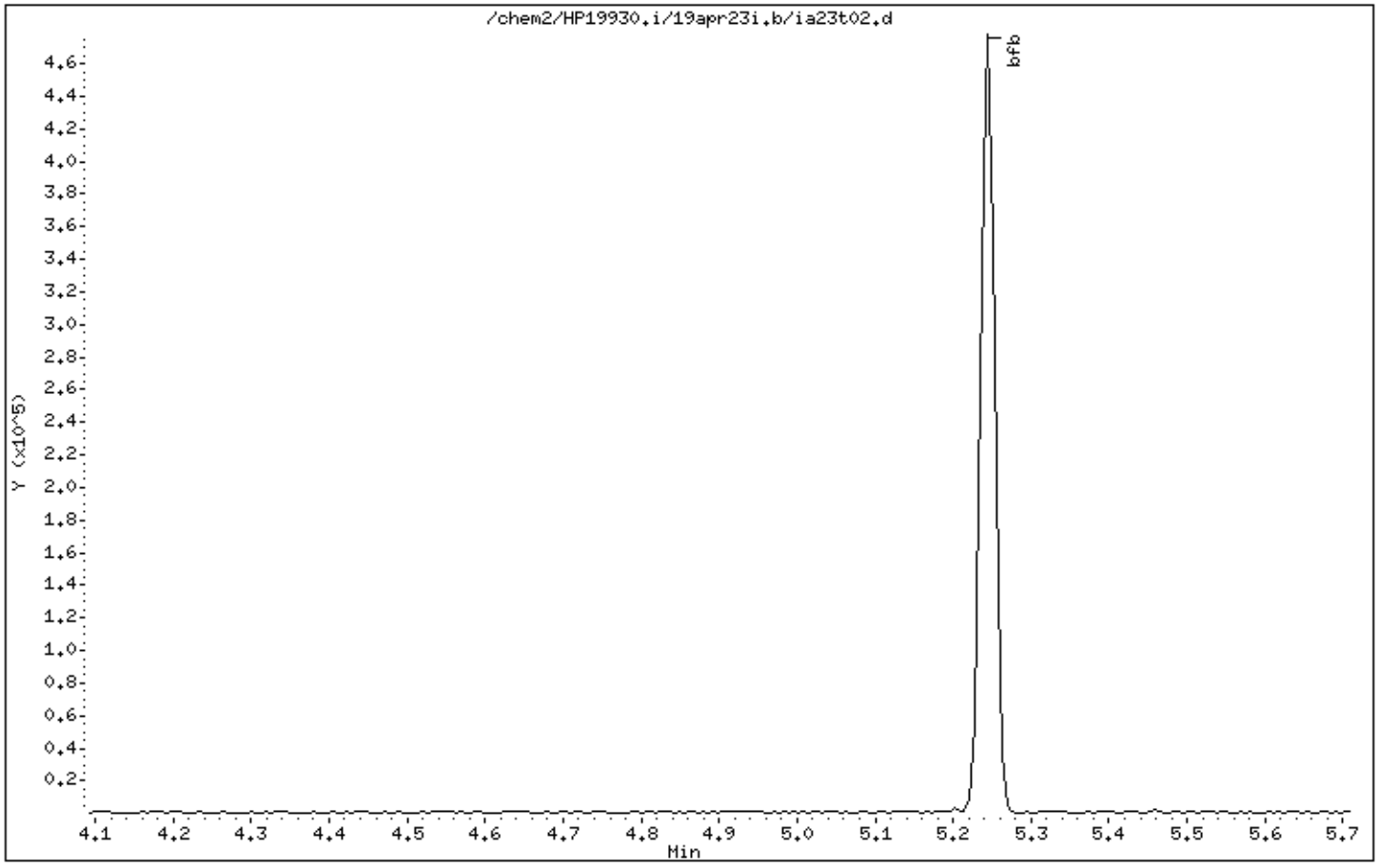
Instrument: HP19930.i

Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: MEC29284

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Jennifer K. Howe on 04/24/2019 at 06:24.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19930.i/19apr23i.b/ia23t02.d

Date : 23-APR-2019 21:14

Client ID: BFB FEB05-19

Instrument: HP19930.i

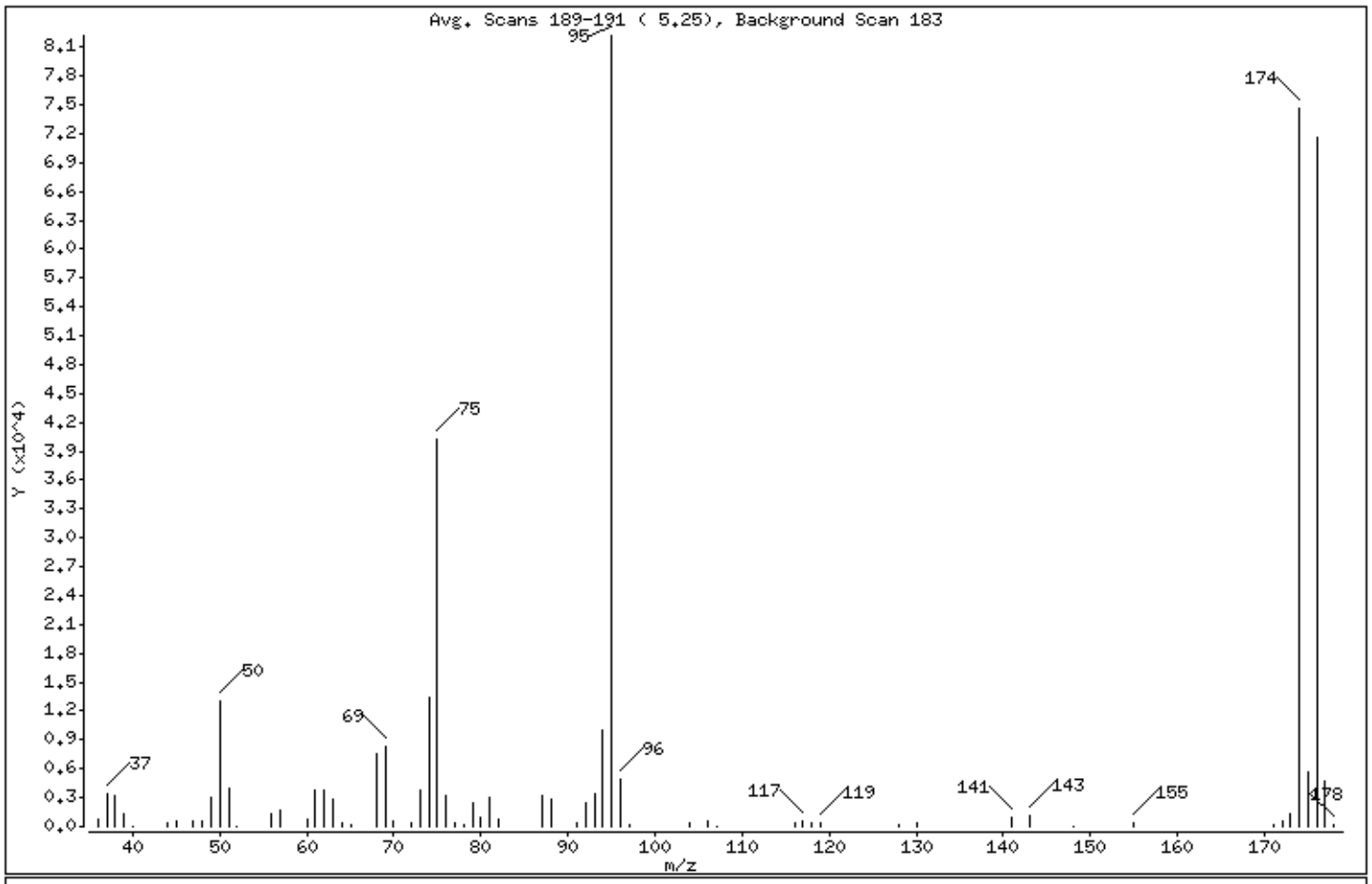
Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

Operator: MEC29284

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.83
75	30.00 - 60.00% of mass 95	49.05
96	5.00 - 9.00% of mass 95	5.99
173	Less than 2.00% of mass 174	1.63 (1.80)
174	50.00 - 100.00% of mass 95	90.75
175	5.00 - 9.00% of mass 174	6.97 (7.68)
176	95.00 - 101.00% of mass 174	87.20 (96.09)
177	5.00 - 9.00% of mass 176	5.79 (6.64)

Digitally signed by Jennifer K. Howe on 04/24/2019 at 06:24.
Target 3.5 esignature user ID: jkh09052

Date : 23-APR-2019 21:14

Client ID: BFB FEB05-19 Instrument: HP19930.i

Sample Info: BFB FEB05-19;50NGBFB;1;3;;;;;;

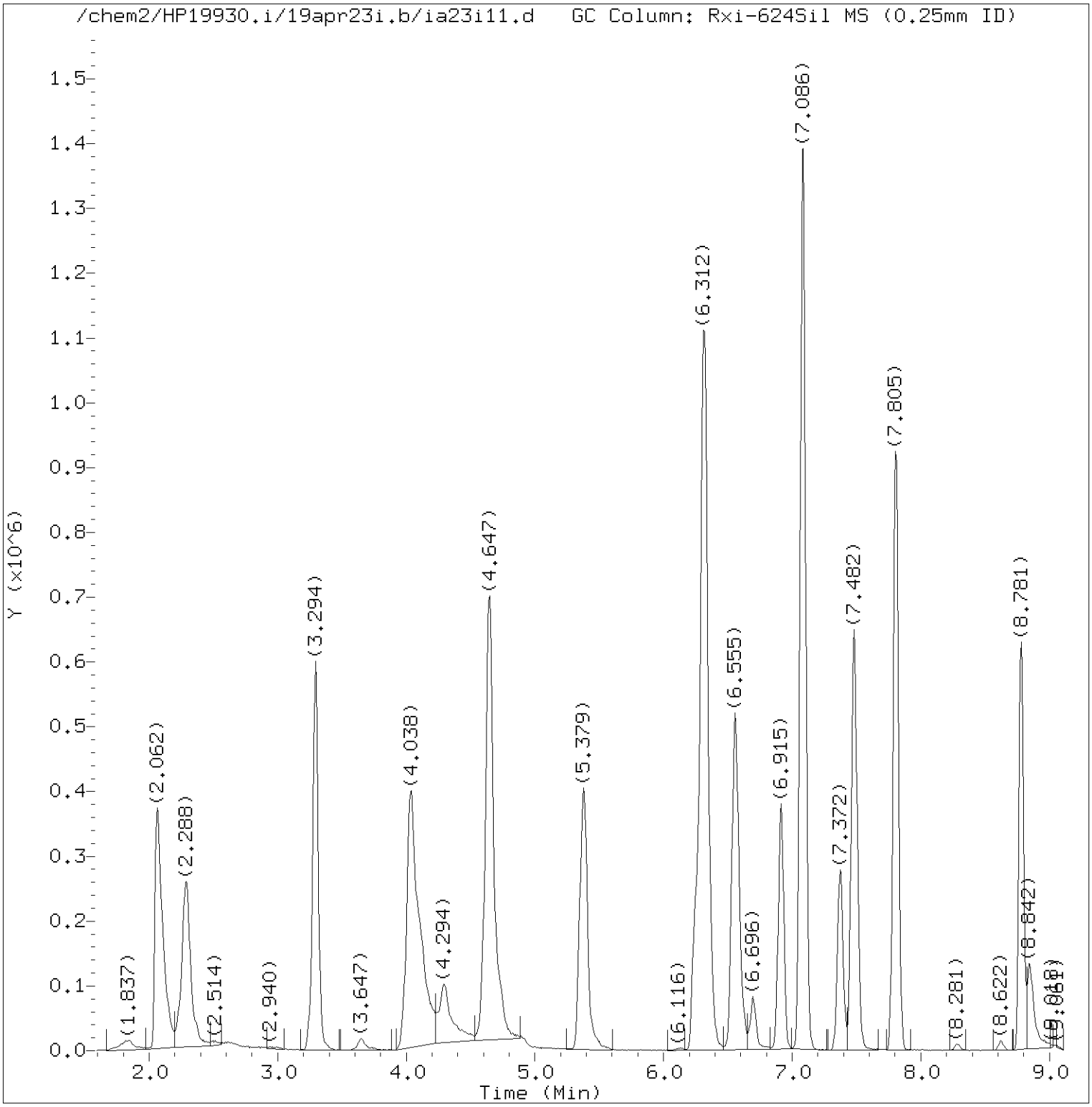
Operator: MEC29284

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ia23t02.d
Spectrum: Avg. Scans 189-191 (5.25), Background Scan 183
Location of Maximum: 95.00
Number of points: 65

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	743	62.00	3721	82.00	686	128.00	281
37.00	3493	63.00	2898	87.00	3127	130.00	335
38.00	3177	64.00	297	88.00	2921	141.00	917
39.00	1318	65.00	200	91.00	408	143.00	1065
40.00	51	68.00	7639	92.00	2363	148.00	89
44.00	290	69.00	8285	93.00	3450	155.00	328
45.00	641	70.00	634	94.00	9934	171.00	174
47.00	633	72.00	463	95.00	82200	172.00	526
48.00	551	73.00	3714	96.00	4923	173.00	1343
49.00	3075	74.00	13478	97.00	194	174.00	74592
50.00	13010	75.00	40320	104.00	405	175.00	5731
51.00	4028	76.00	3300	106.00	514	176.00	71680
52.00	87	77.00	412	107.00	88	177.00	4762
56.00	1352	78.00	256	116.00	390	178.00	198
57.00	1749	79.00	2470	117.00	649		
60.00	724	80.00	925	118.00	396		
61.00	3752	81.00	2954	119.00	449		

Digitally signed by Jennifer K. Howe on 04/24/2019 at 06:24.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

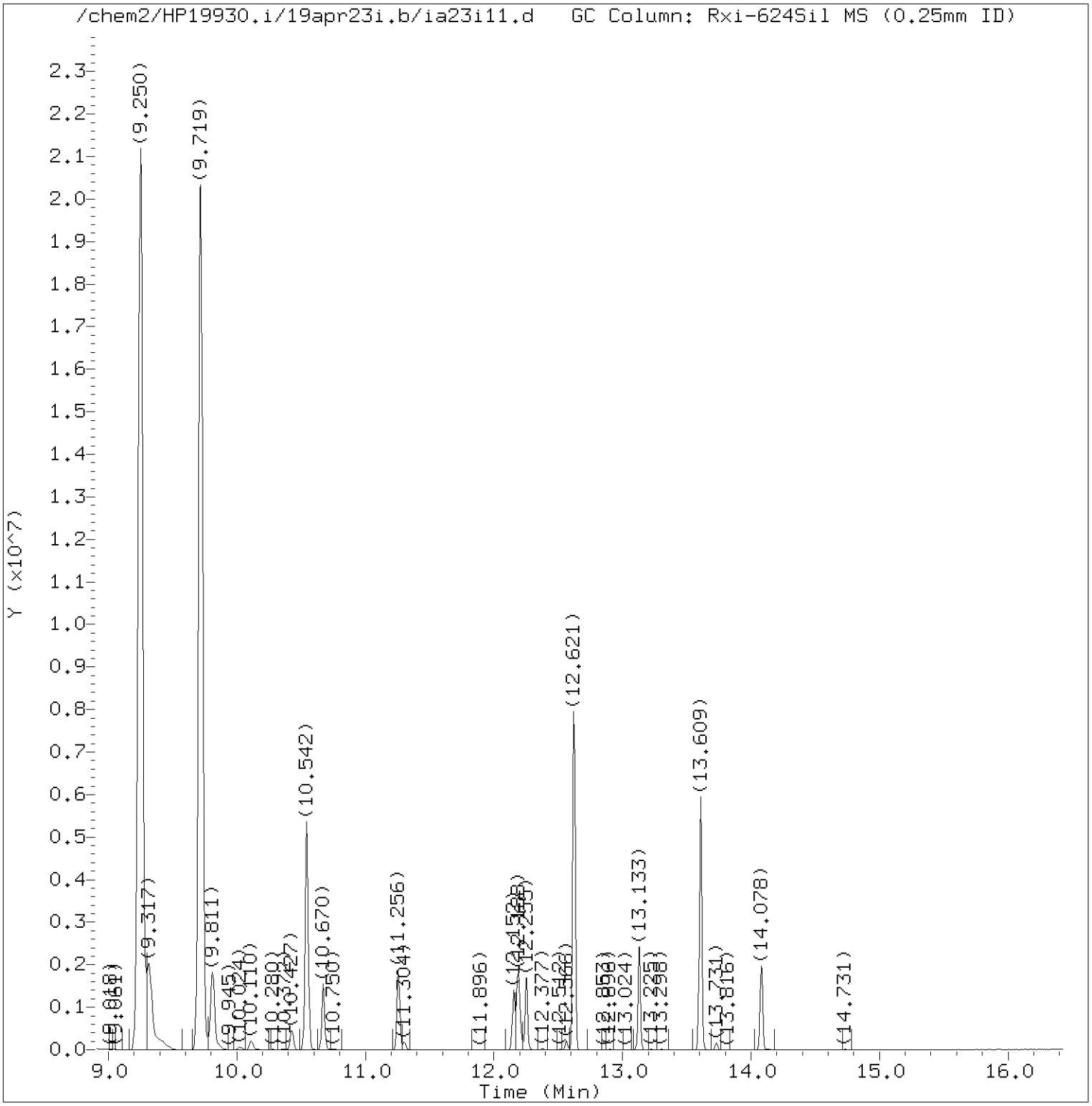
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

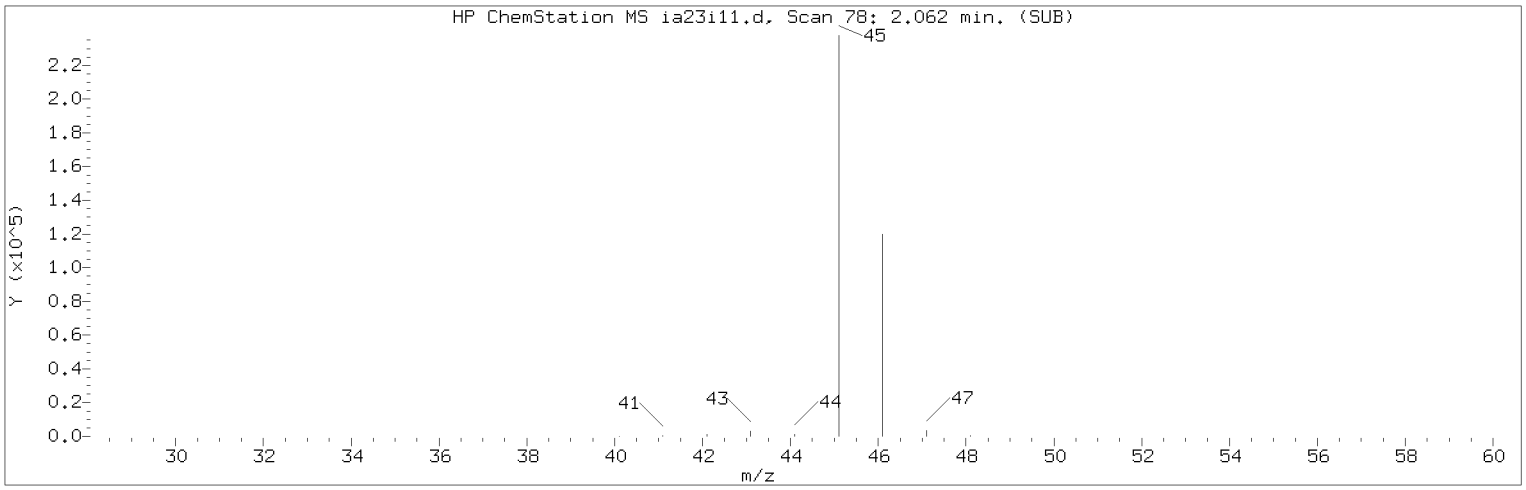
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	1111999M	23.056
25) Acetonitrile	(1)	4.032	41	2071459M	1007.161
26)*t-Butyl Alcohol-d10	(1)	4.306	65	100568	50.000
36) Vinyl Acetate	(2)	5.379	43	1276924	27.941
46) Ethyl Acetate	(2)	6.251	43	629957M	26.059
43) Methyl Acrylate	(2)	6.312	55	2579876	136.972
53) 1-Chlorobutane	(2)	7.086	56	1701267	26.341
63)*Fluorobenzene	(2)	7.805	96	1326775	10.000
77) Chloroacetonitrile	(2)	9.305	75	1515259	1427.138
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	411050	27.744
97)*Chlorobenzene-d5	(3)	11.256	117	1095012	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.152	88	321784	49.975
112) Cyclohexanone	(1)	12.188	55	837147M	1351.207
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	625348	10.000
142) Hexachloroethane	(4)	13.609	117	1020546	29.161

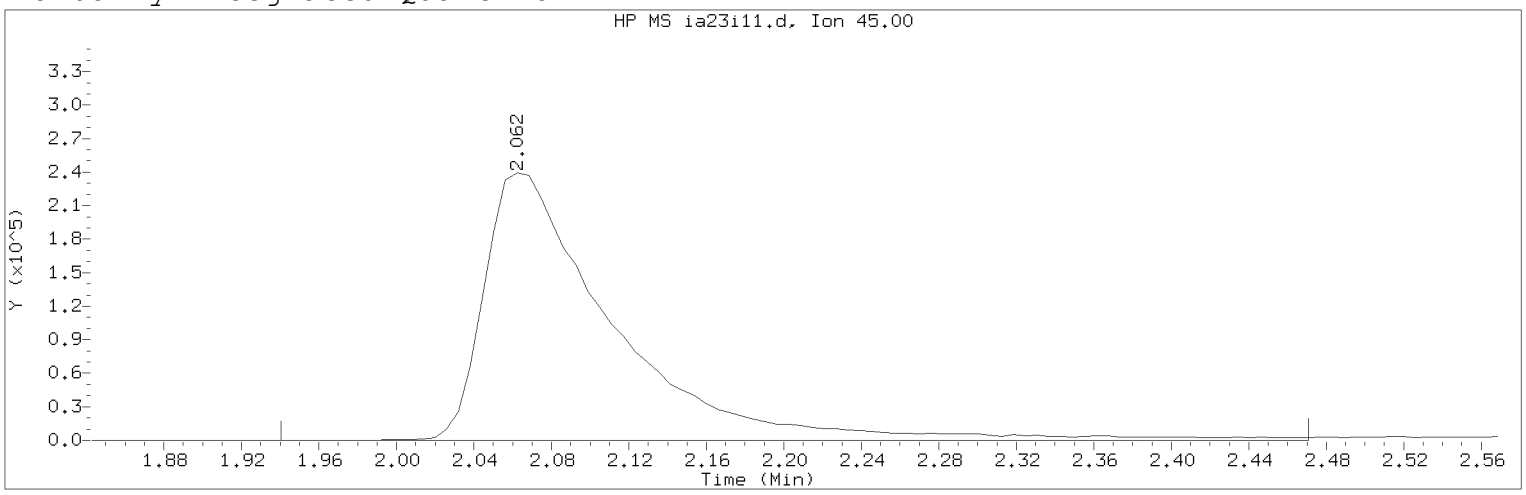
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

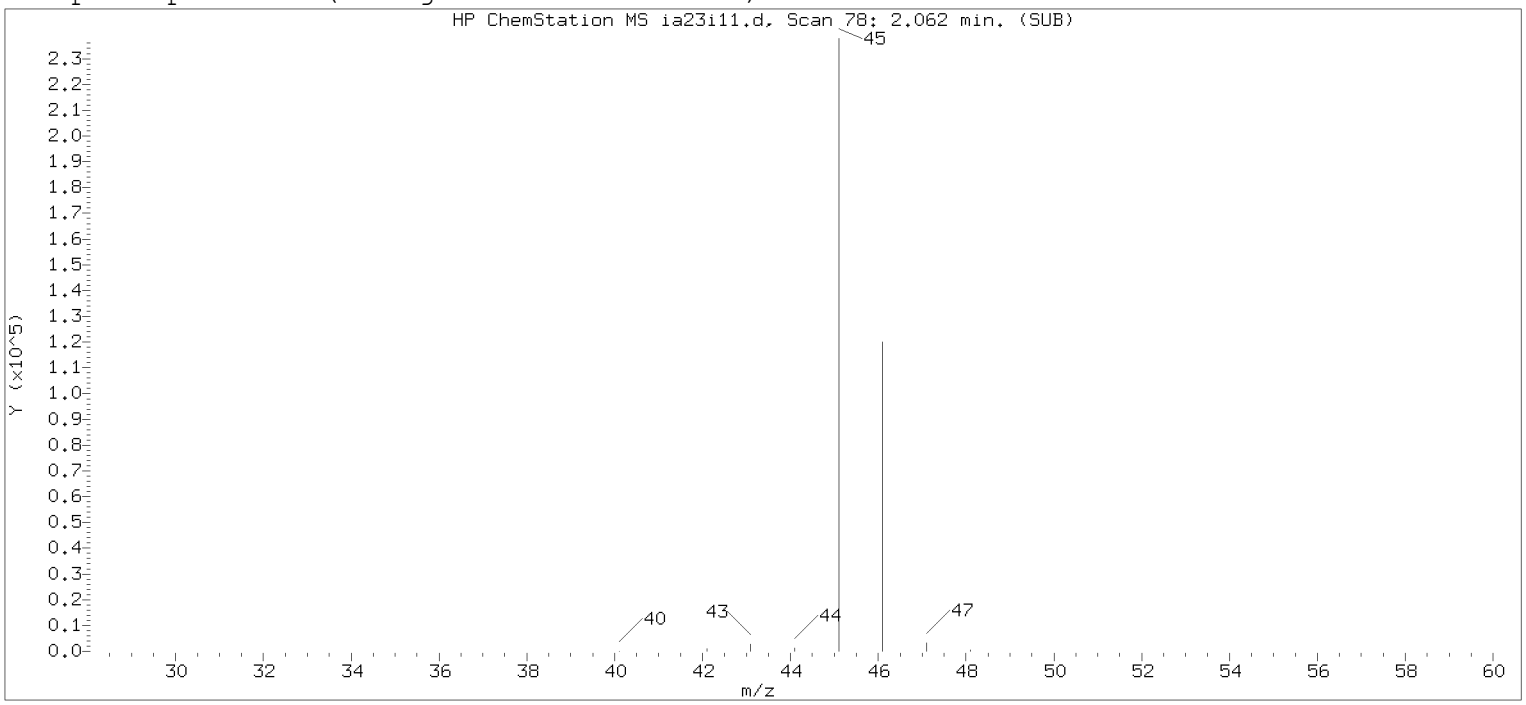
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 1111999M
On-Column Amount (ng) : 23.0563
Integration start scan : 57 Integration stop scan: 144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

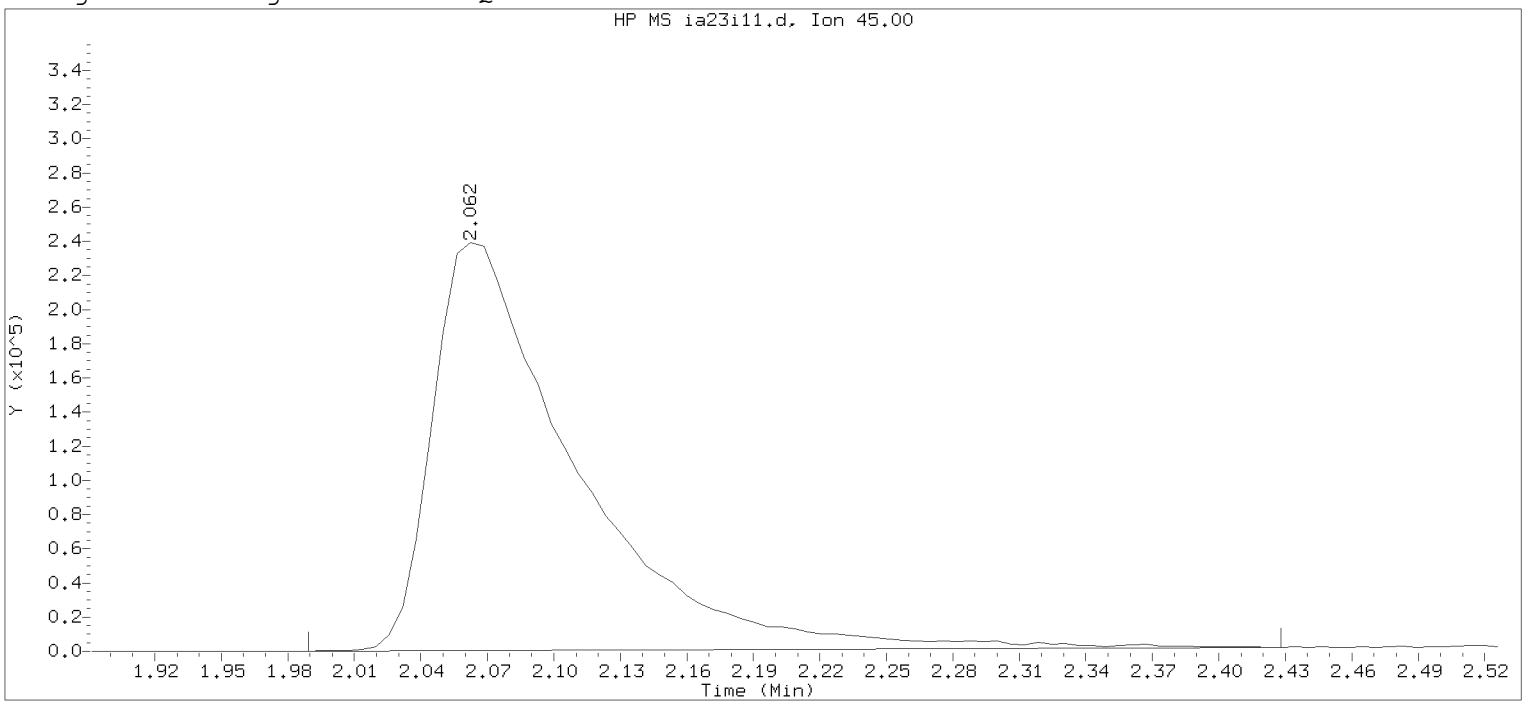
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

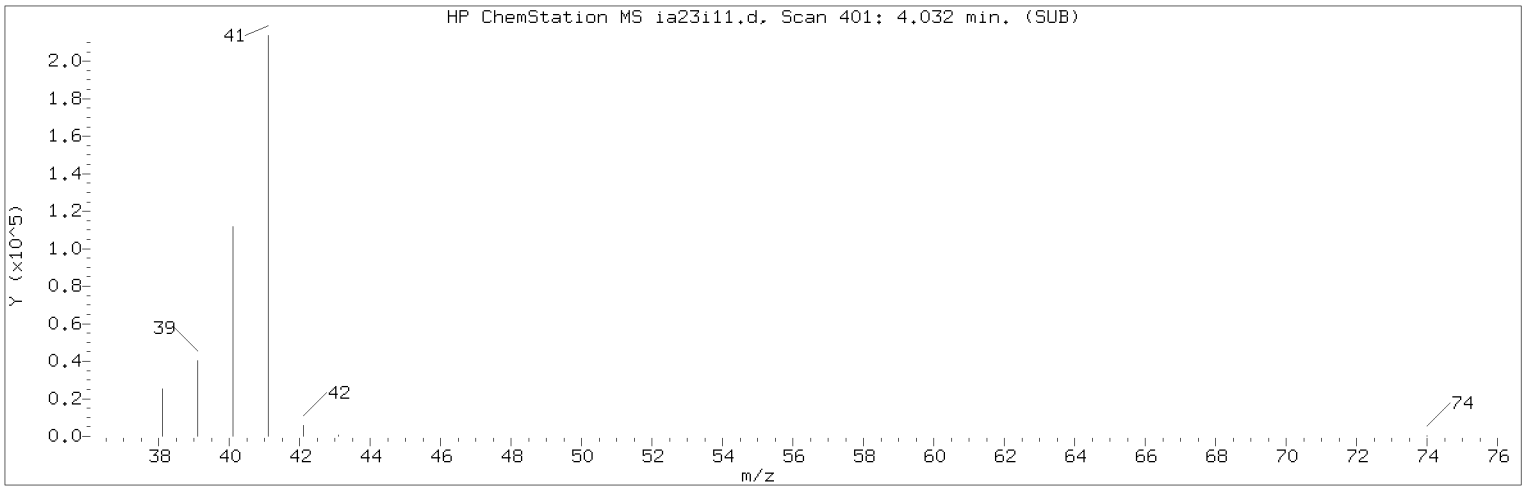
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

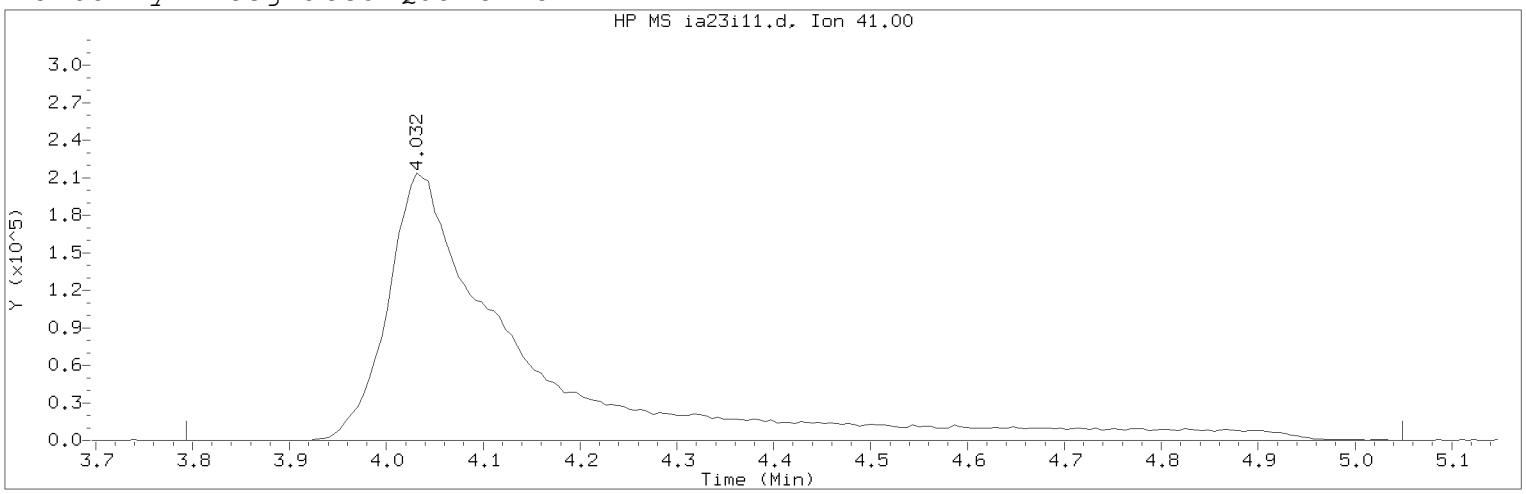
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area : 1074162
On-column Amount (ng) : 22.6034
Integration start scan : 65 Integration stop scan: 137
Y at integration start : 0 Y at integration end: 2369

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

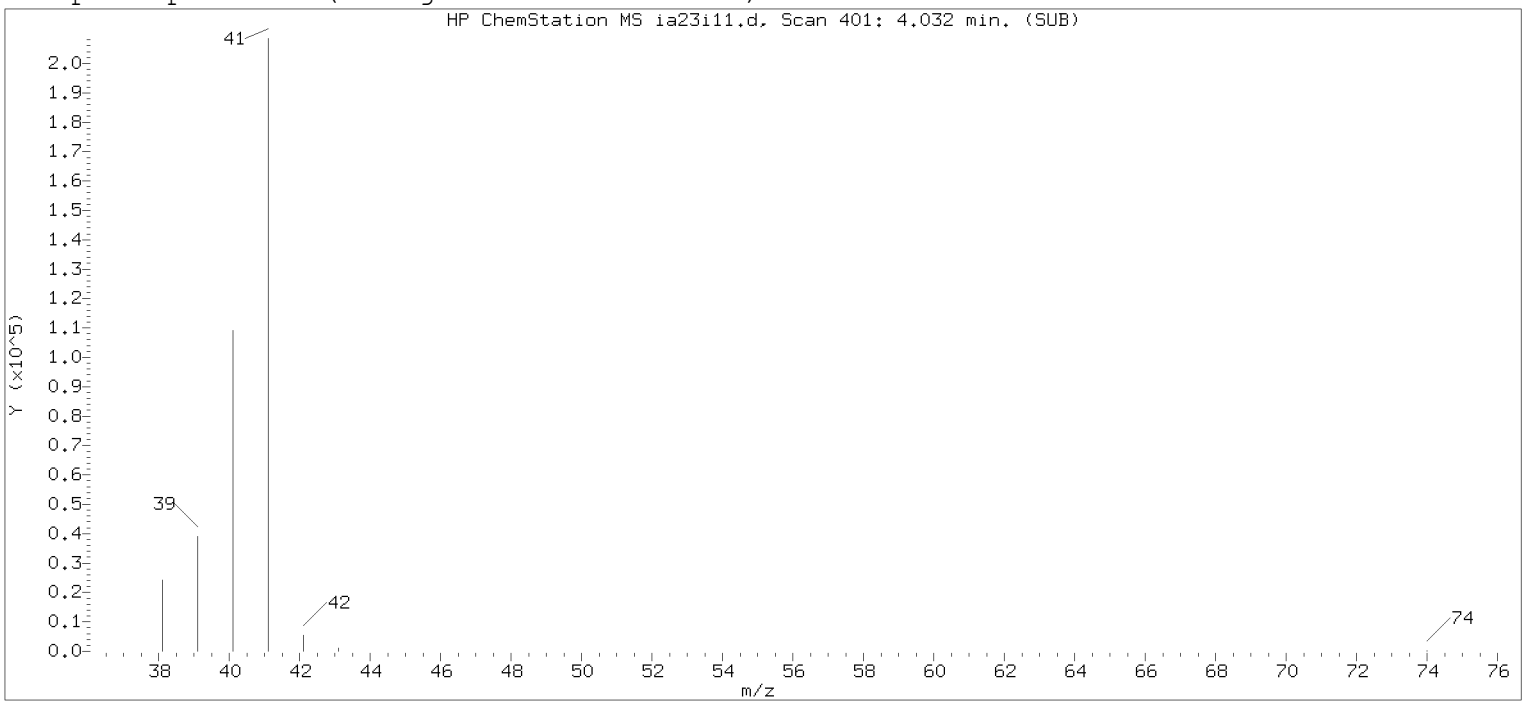
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 401
Retention Time (minutes): 4.032
Quant Ion : 41.00
Area (flag) : 2071459M
On-Column Amount (ng) : 1007.1606
Integration start scan : 361 Integration stop scan: 567
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

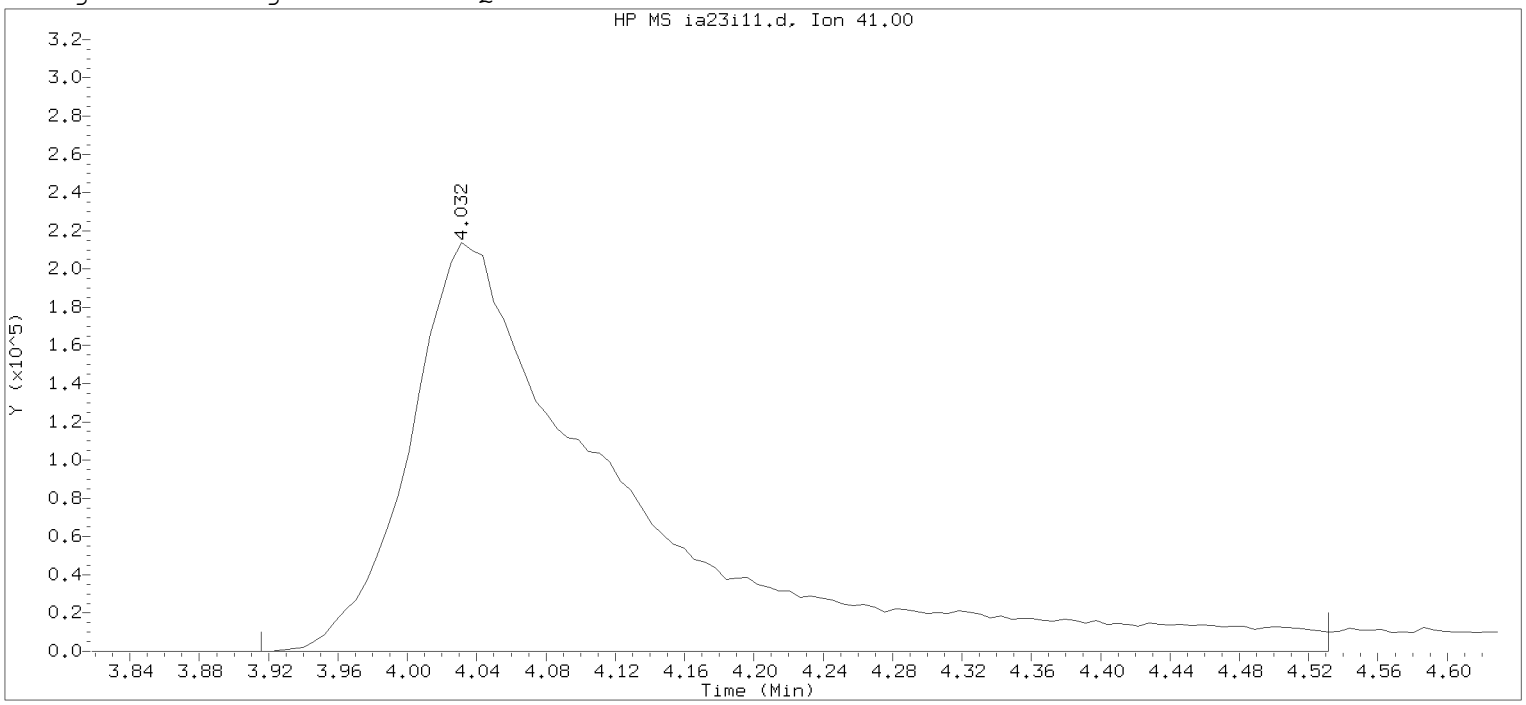
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

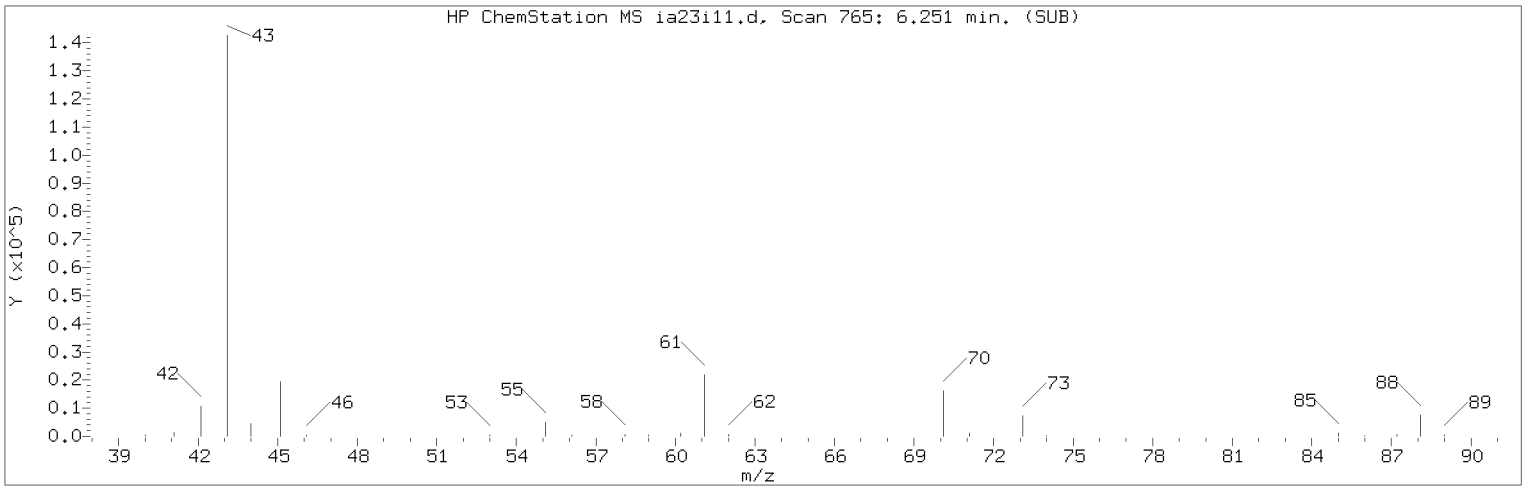
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

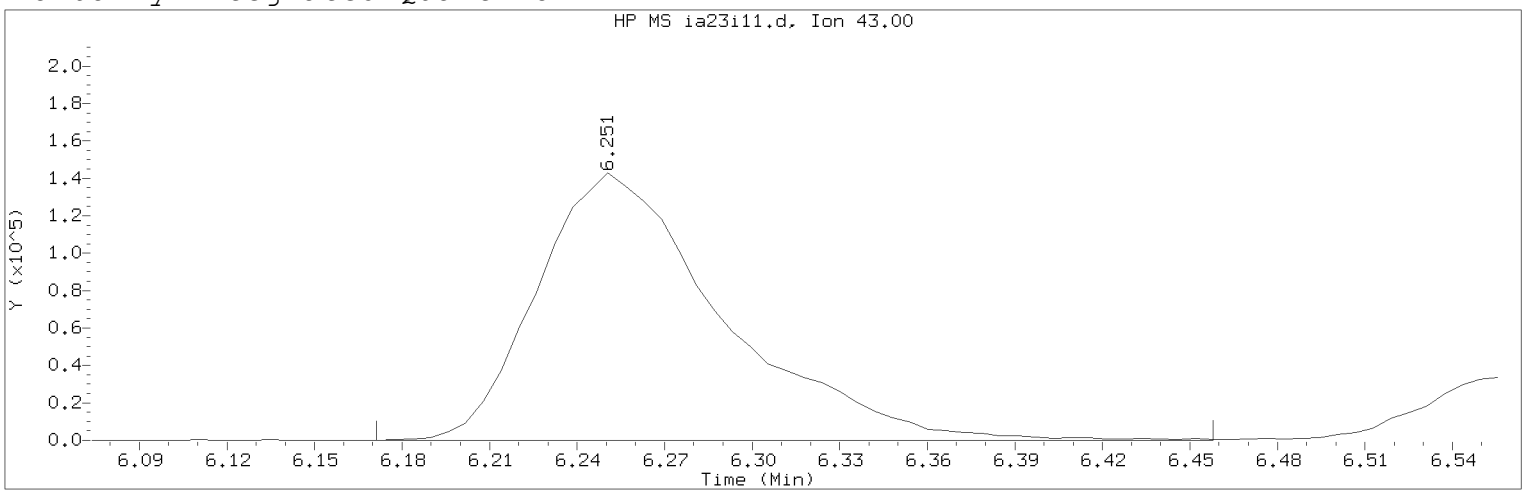
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 401
Retention Time (minutes): 4.032
Quant Ion : 41.00
Area : 1847180
On-column Amount (ng) : 964.2502
Integration start scan : 381 Integration stop scan: 482
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

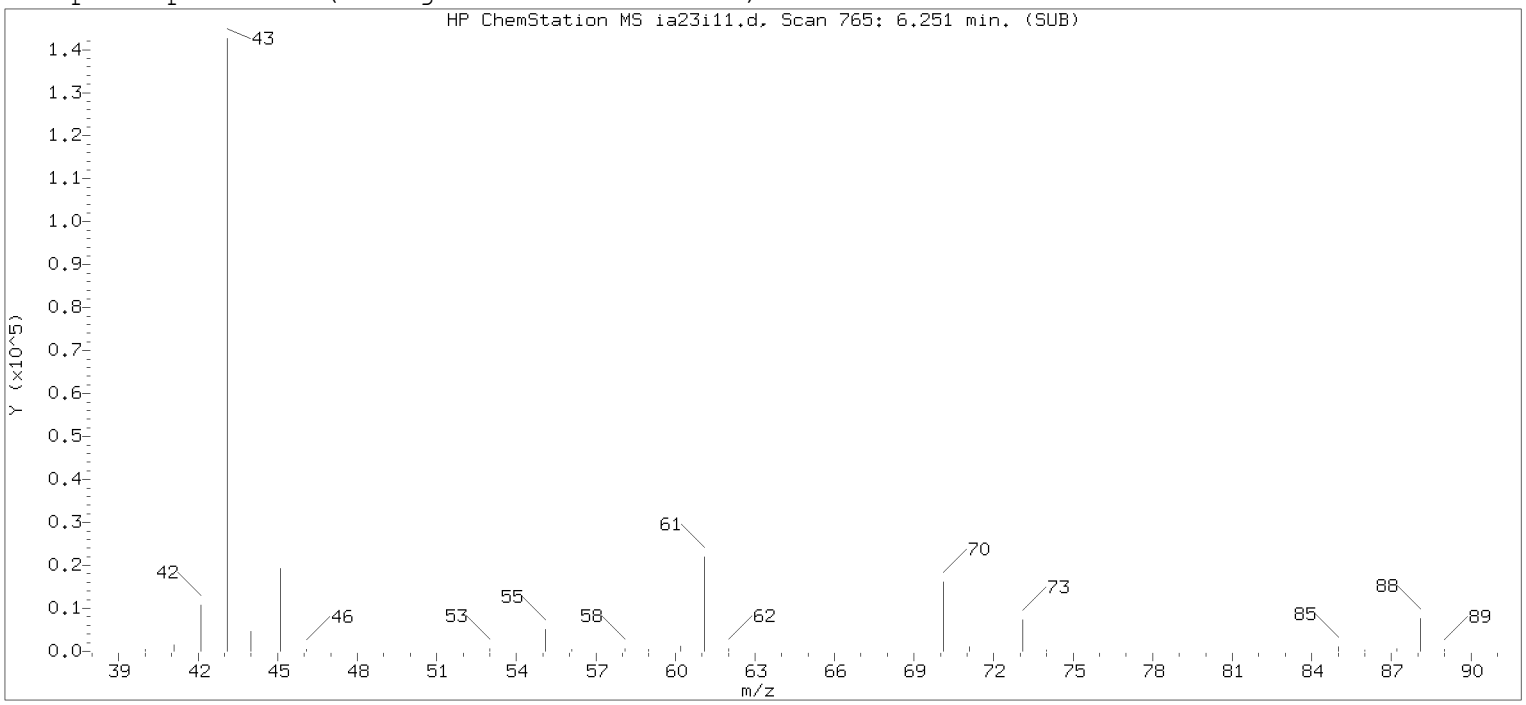
Compound Number : 46
Compound Name : Ethyl Acetate
Scan Number : 765
Retention Time (minutes): 6.251
Quant Ion : 43.00
Area (flag) : 629957M
On-Column Amount (ng) : 26.0588
Integration start scan : 751 Integration stop scan: 798
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

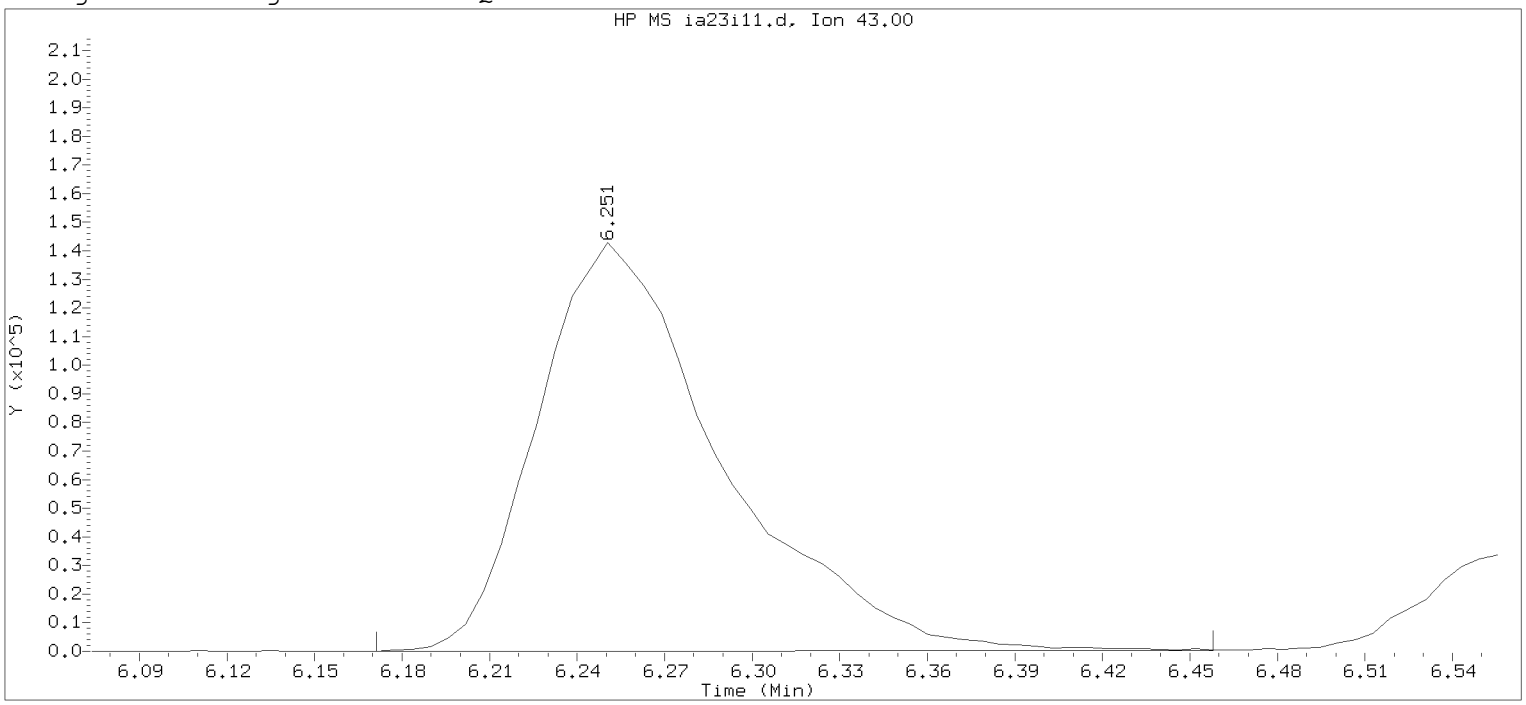
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 46
Compound Name : Ethyl Acetate
Scan Number : 765
Retention Time (minutes): 6.251
Quant Ion : 43.00
Area : 628138
On-column Amount (ng) : 24.8478
Integration start scan : 751 Integration stop scan: 798
Y at integration start : 0 Y at integration end: 203

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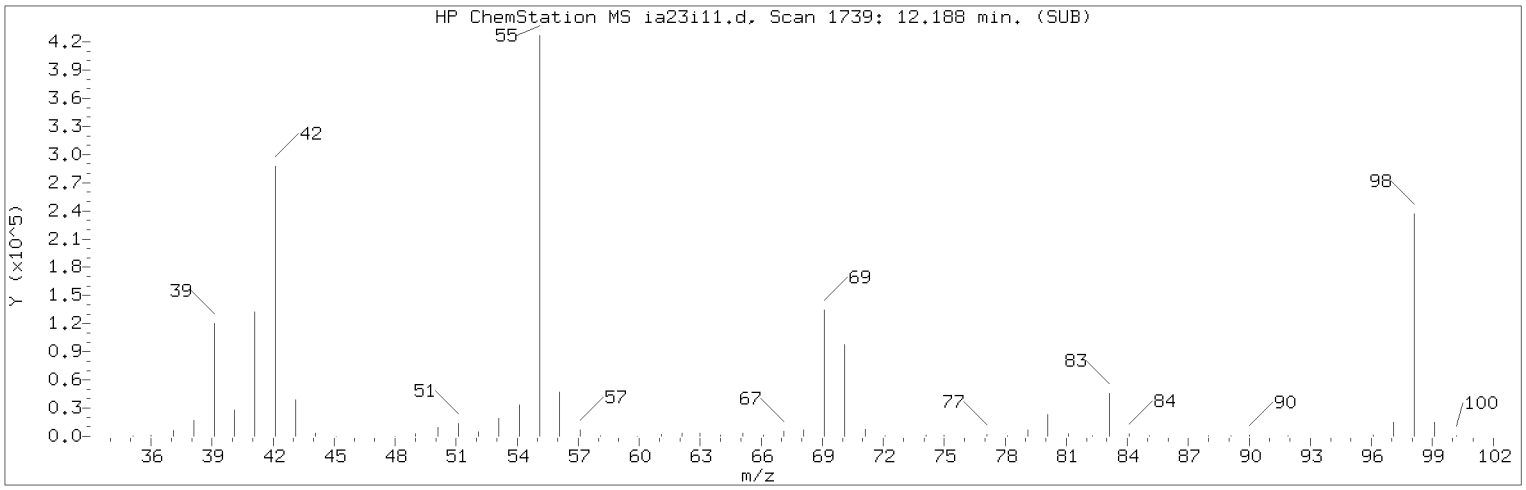
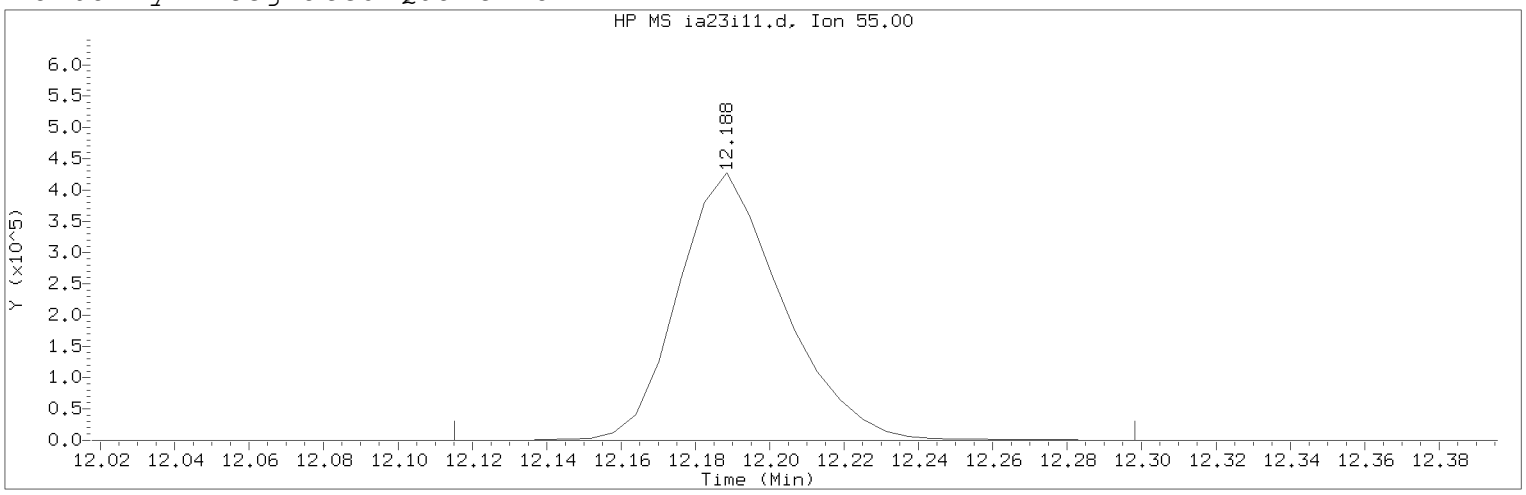
Target 3.5 esignature user: Page 1350

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

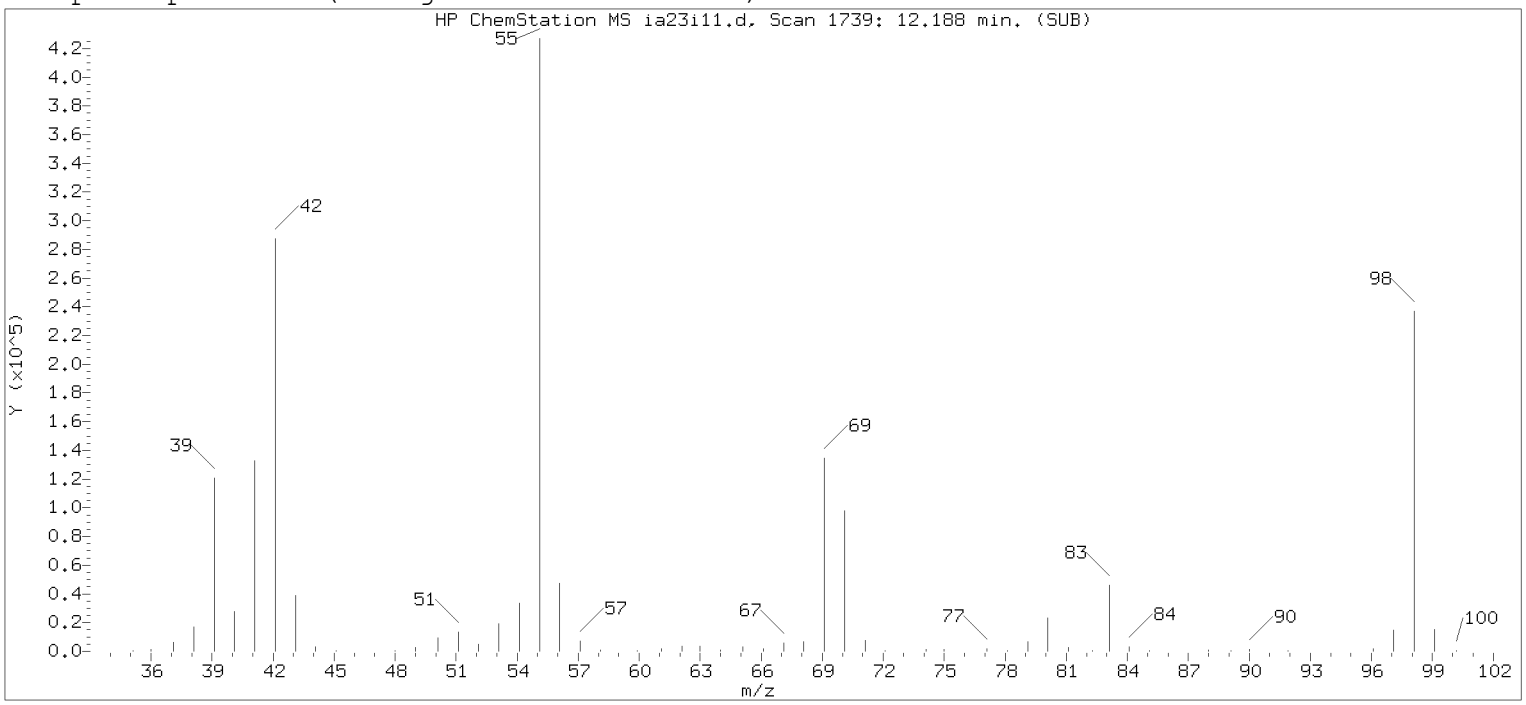
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area (flag) : 837147M
On-Column Amount (ng) : 1351.2072
Integration start scan : 1726 Integration stop scan: 1756
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

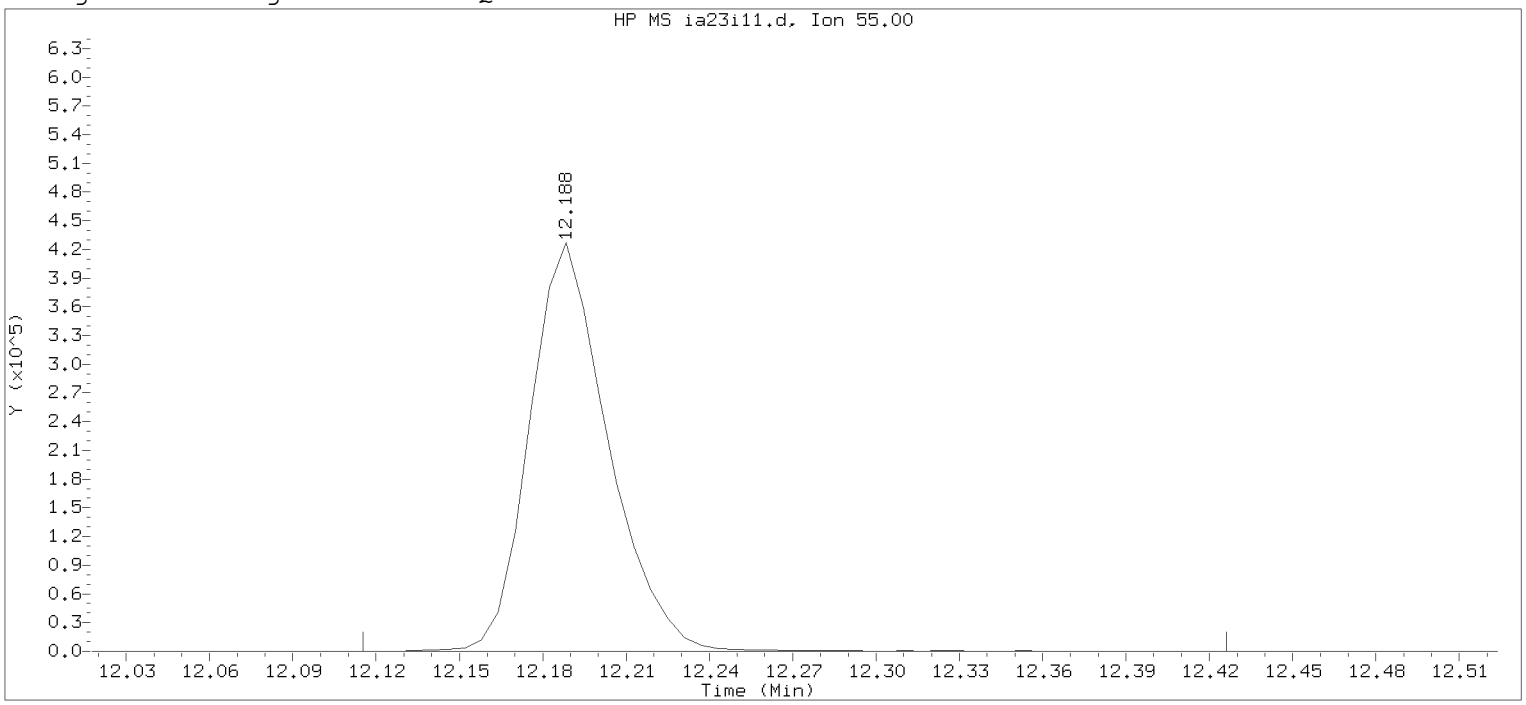
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



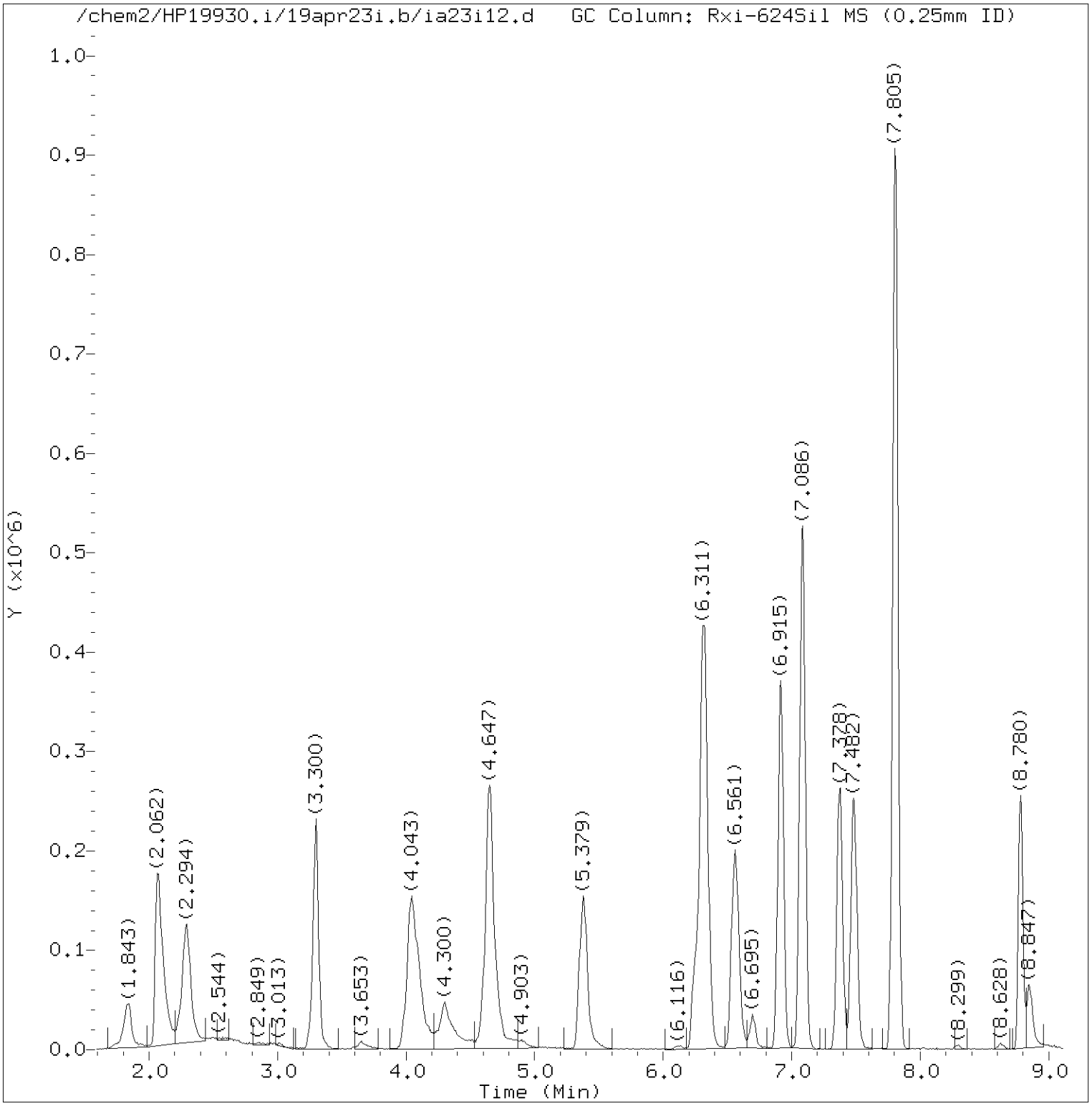
Data File: /chem2/HP19930.i/19apr23i.b/ia23i11.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 21:47 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area : 838536
On-column Amount (ng) : 1264.6010
Integration start scan : 1726 Integration stop scan: 1777
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

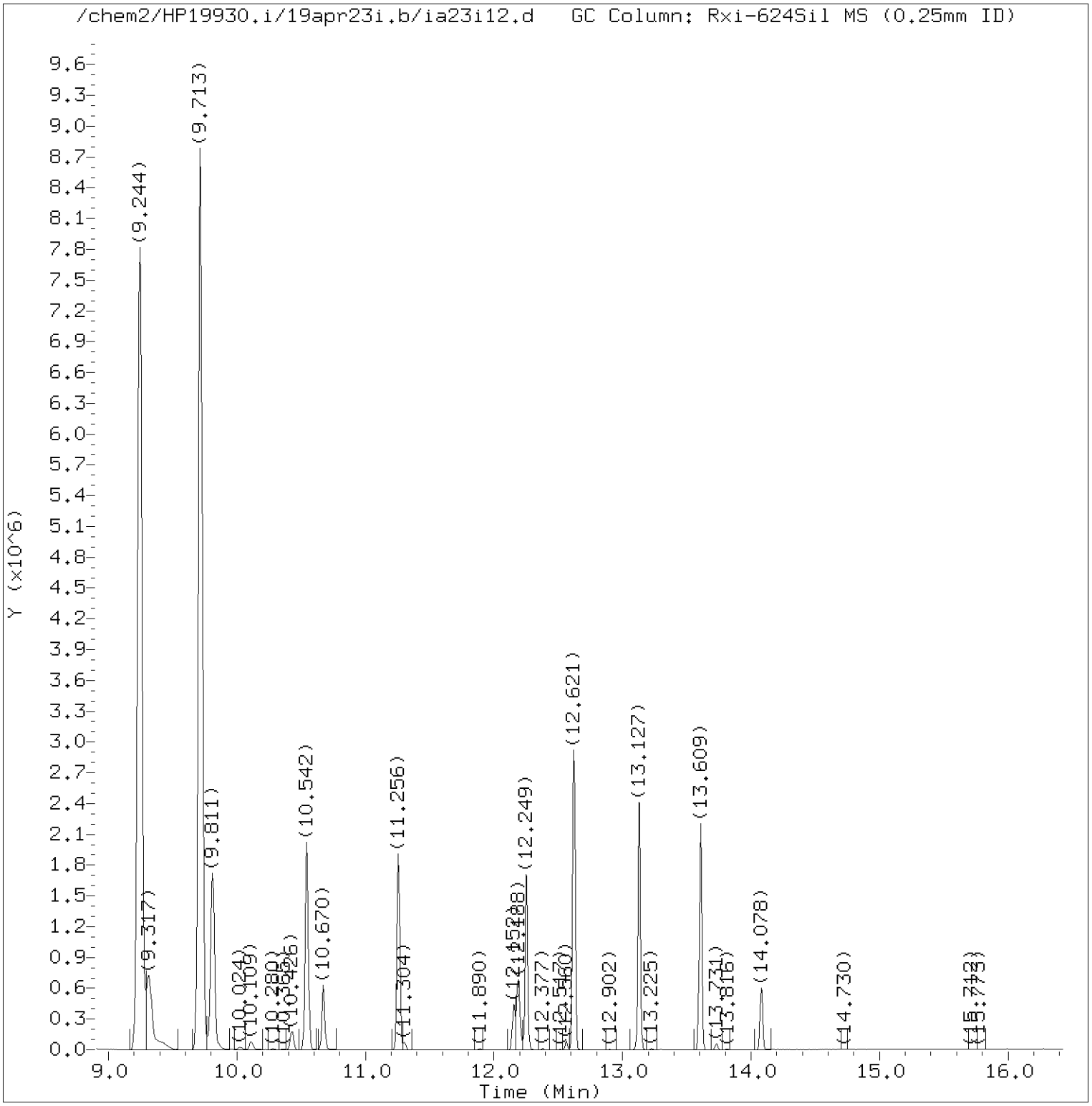
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

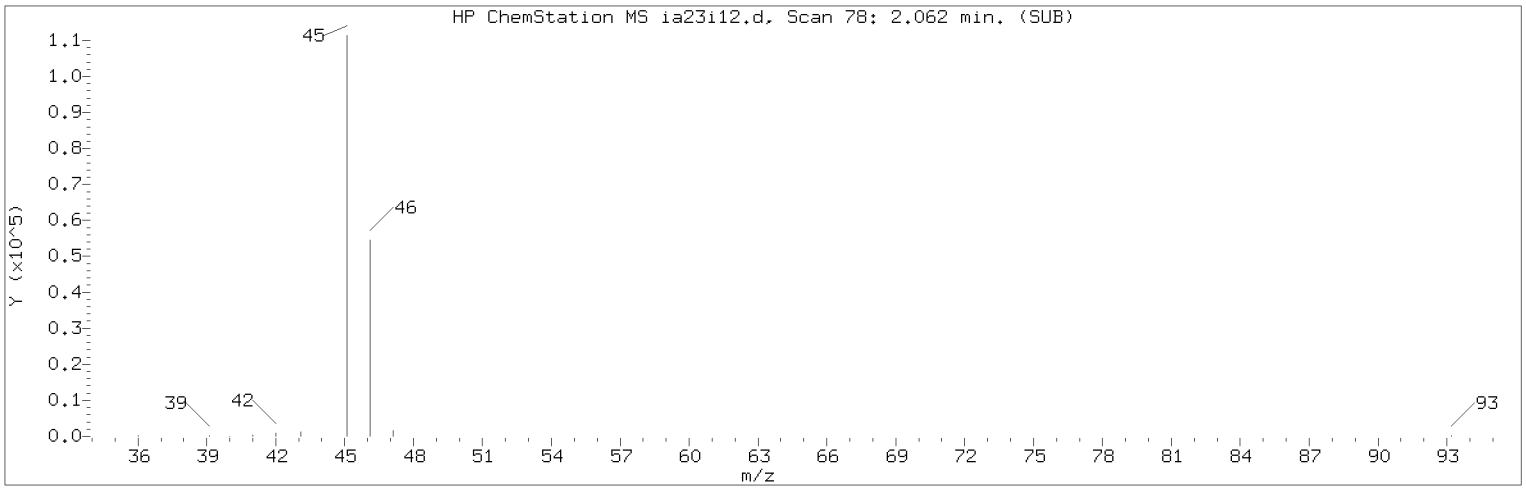
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	520752M	10.798
25) Acetonitrile	(1)	4.043	41	739050M	385.881
26)*t-Butyl Alcohol-d10	(1)	4.312	65	93649M	50.000
36) Vinyl Acetate	(2)	5.379	43	503676	11.022
46) Ethyl Acetate	(2)	6.250	43	254321	10.521
43) Methyl Acrylate	(2)	6.317	55	1013707	53.823
53) 1-Chlorobutane	(2)	7.086	56	660467	10.227
63)*Fluorobenzene	(2)	7.805	96	1326708	10.000
77) Chloroacetonitrile	(2)	9.305	75	529697	498.917
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	157468	10.629
97)*Chlorobenzene-d5	(3)	11.256	117	1099910	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.158	88	103440	20.290
112) Cyclohexanone	(1)	12.188	55	305123	528.874
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	627816	10.000
142) Hexachloroethane	(4)	13.609	117	381495	10.858

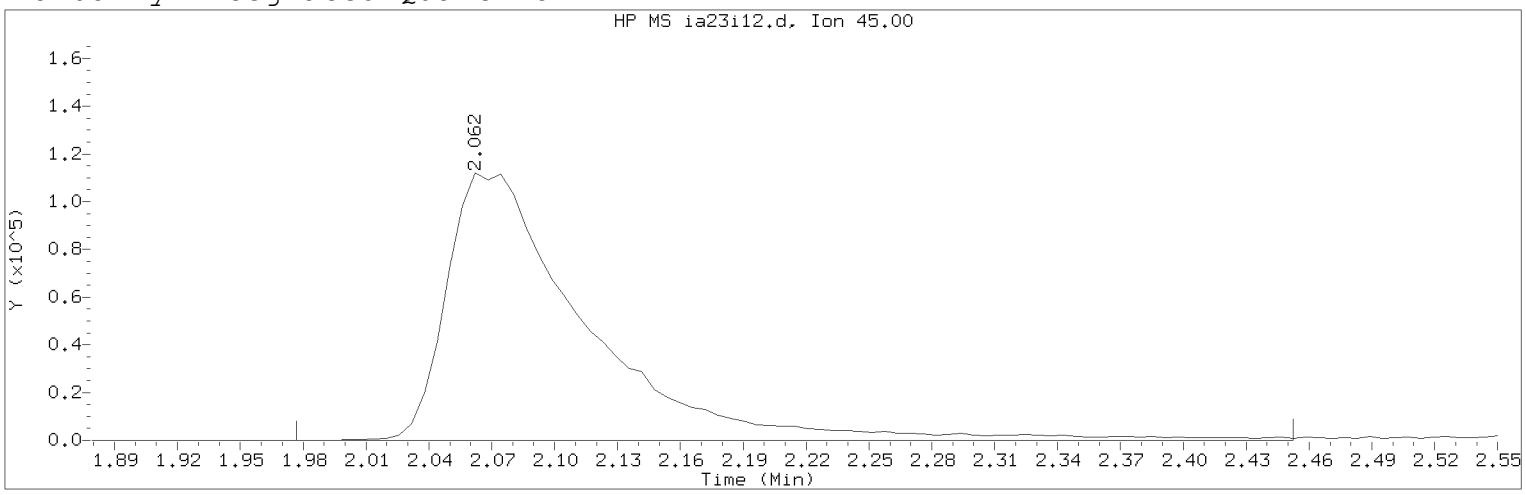
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

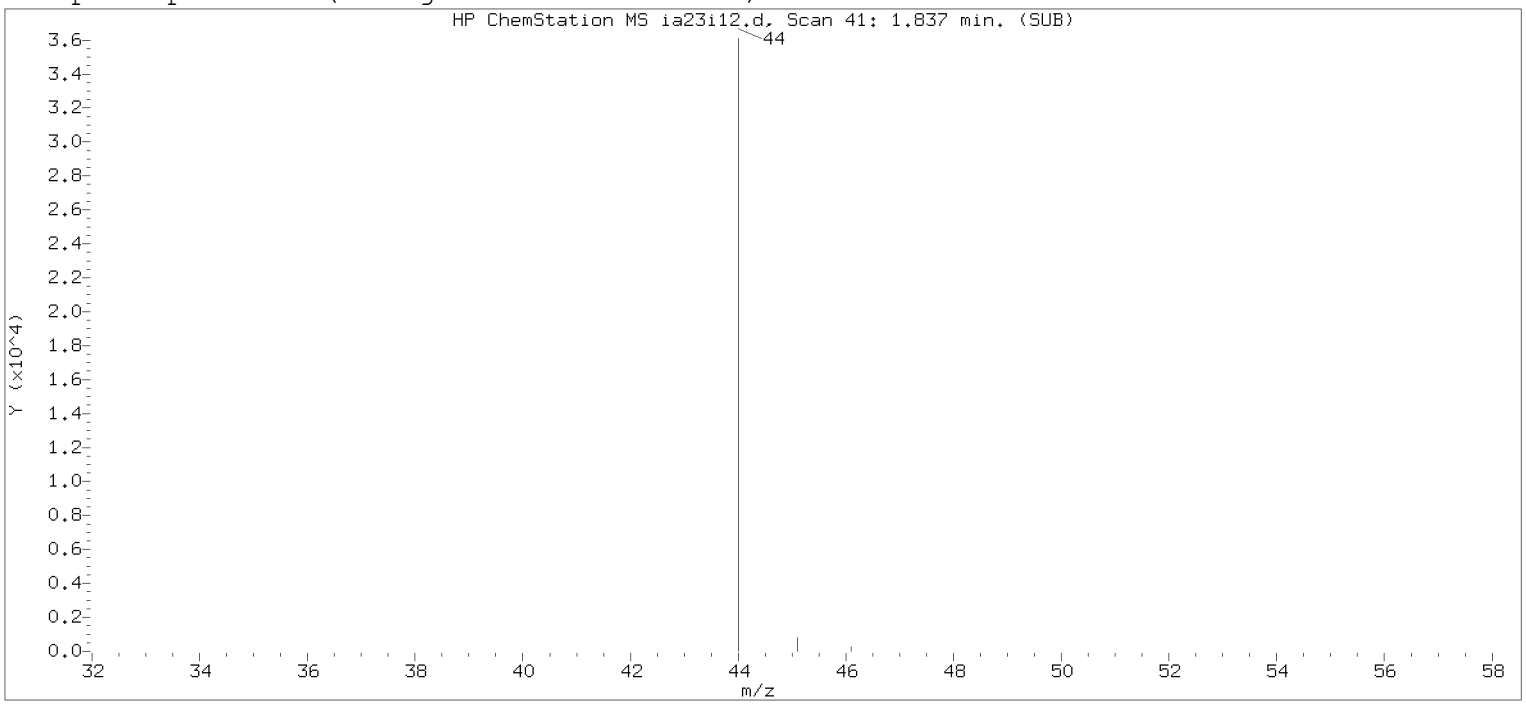
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 520752M
On-Column Amount (ng) : 10.7979
Integration start scan : 63 Integration stop scan: 141
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

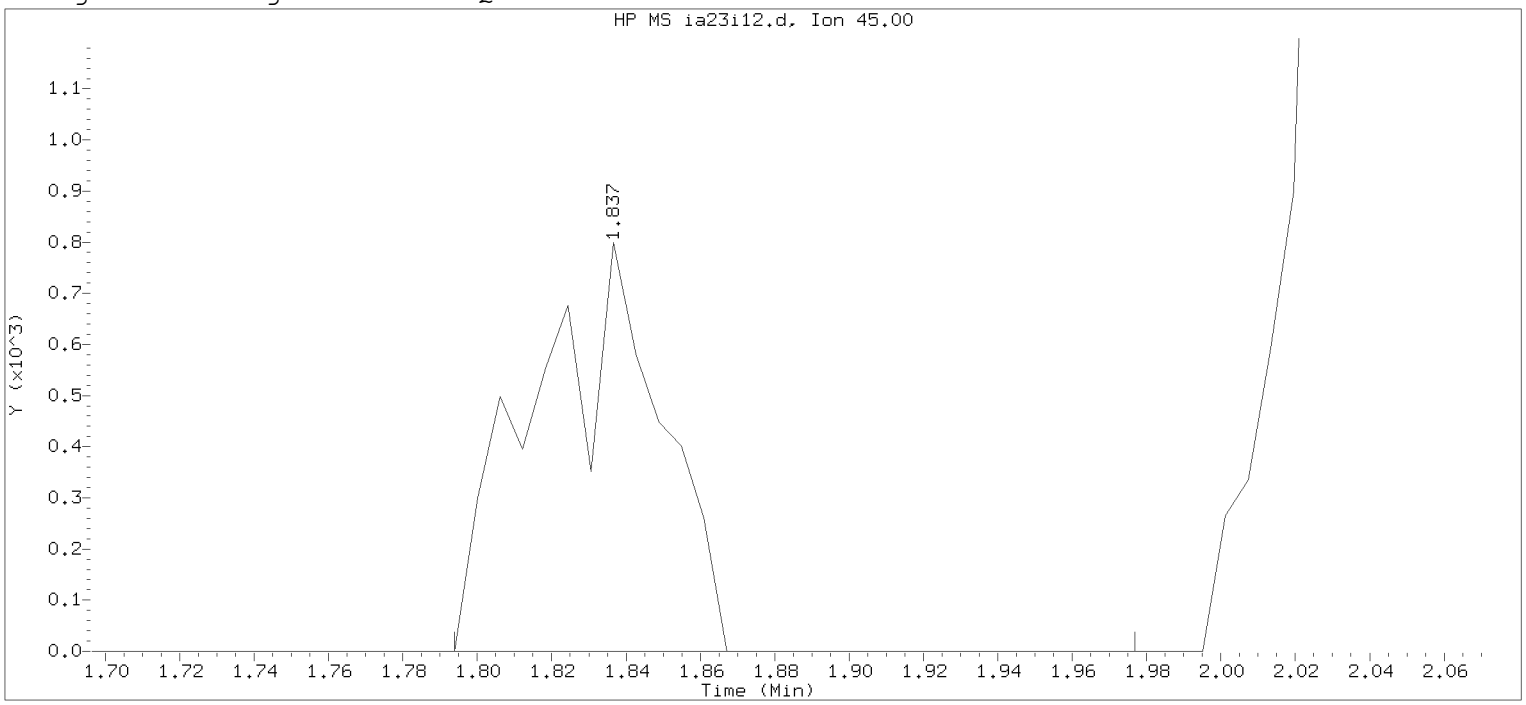
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

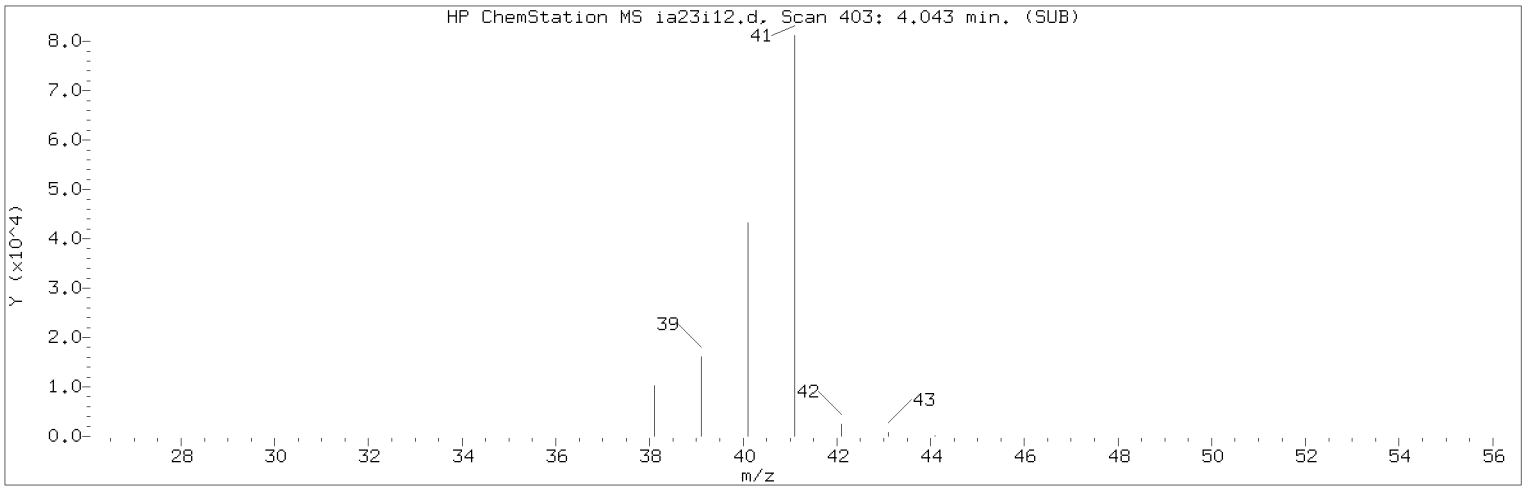
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:03
Date, time and analyst ID of latest file update: 24-Apr-2019 06:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

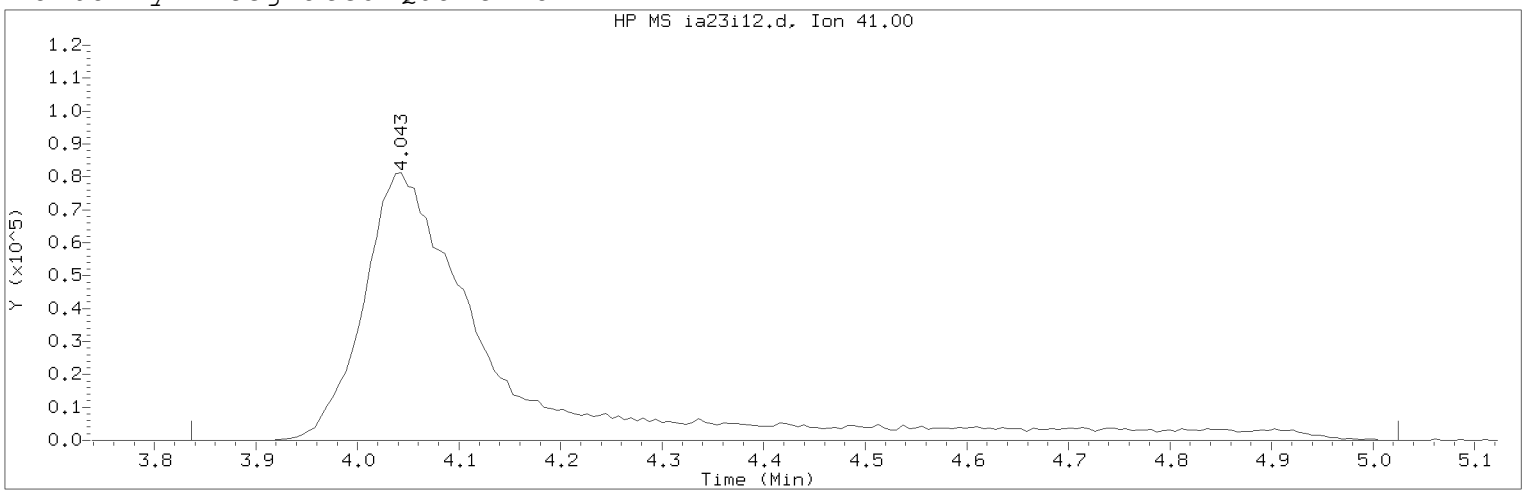
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 41
Retention Time (minutes): 1.837
Quant Ion : 45.00
Area : 1926
On-column Amount (ng) : 10.0000
Integration start scan : 33 Integration stop scan: 63
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

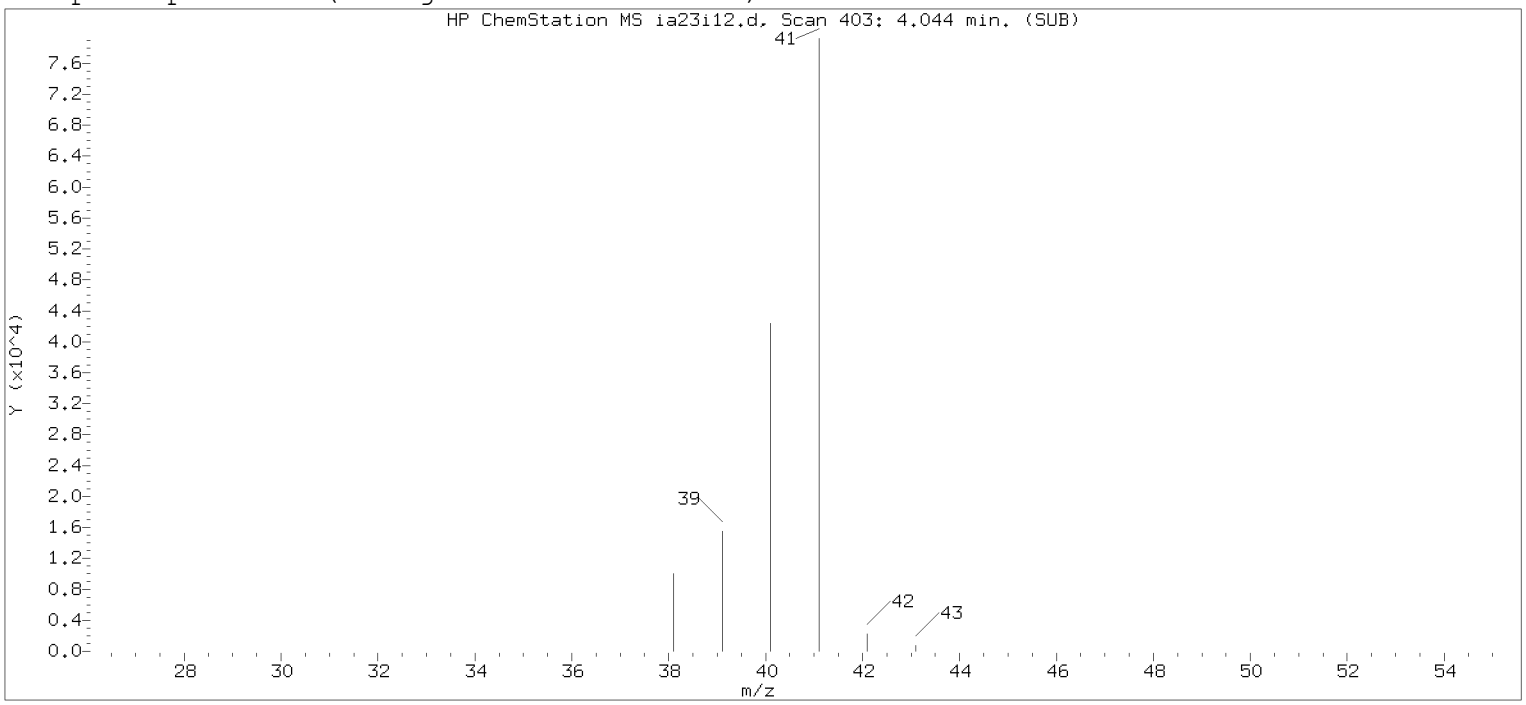
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 403
Retention Time (minutes): 4.043
Quant Ion : 41.00
Area (flag) : 739050M
On-Column Amount (ng) : 385.8806
Integration start scan : 368 Integration stop scan: 563
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

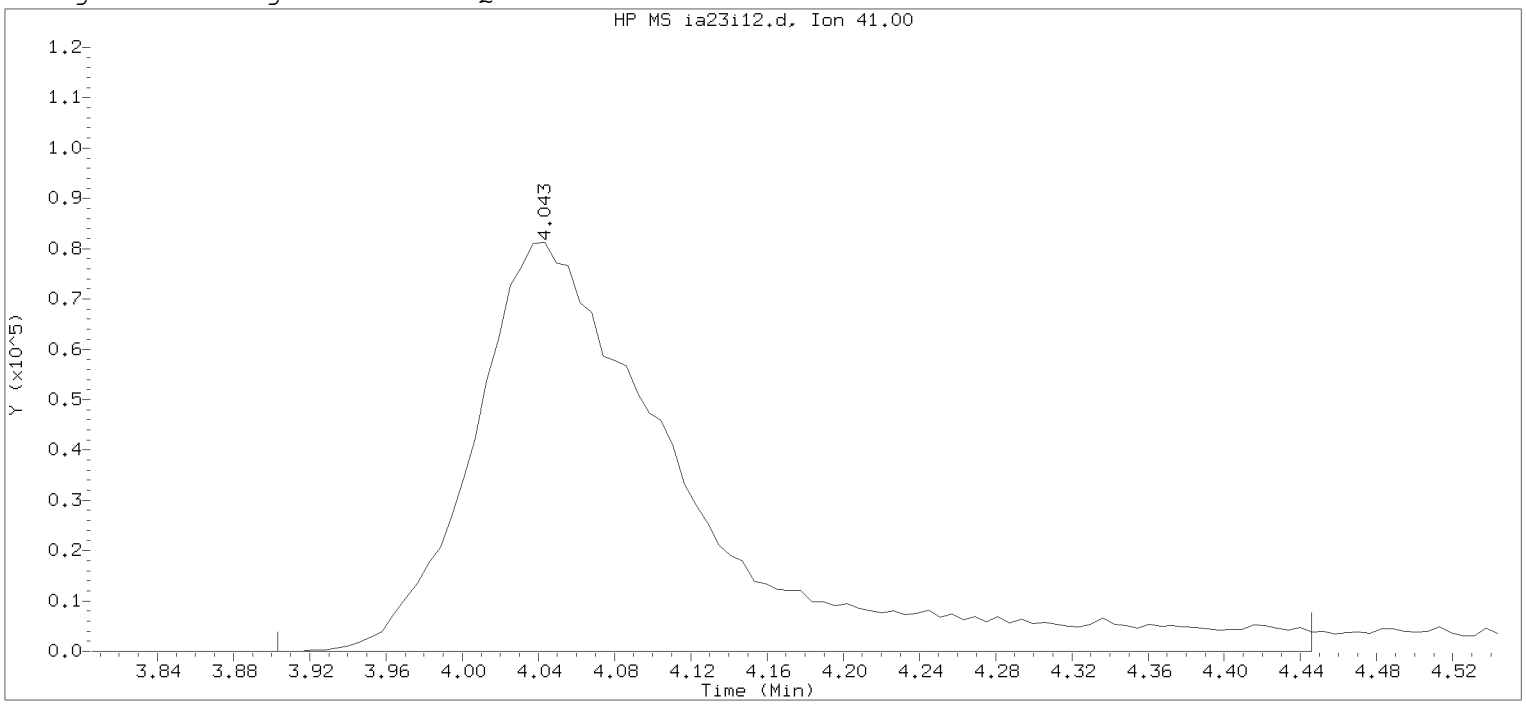
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

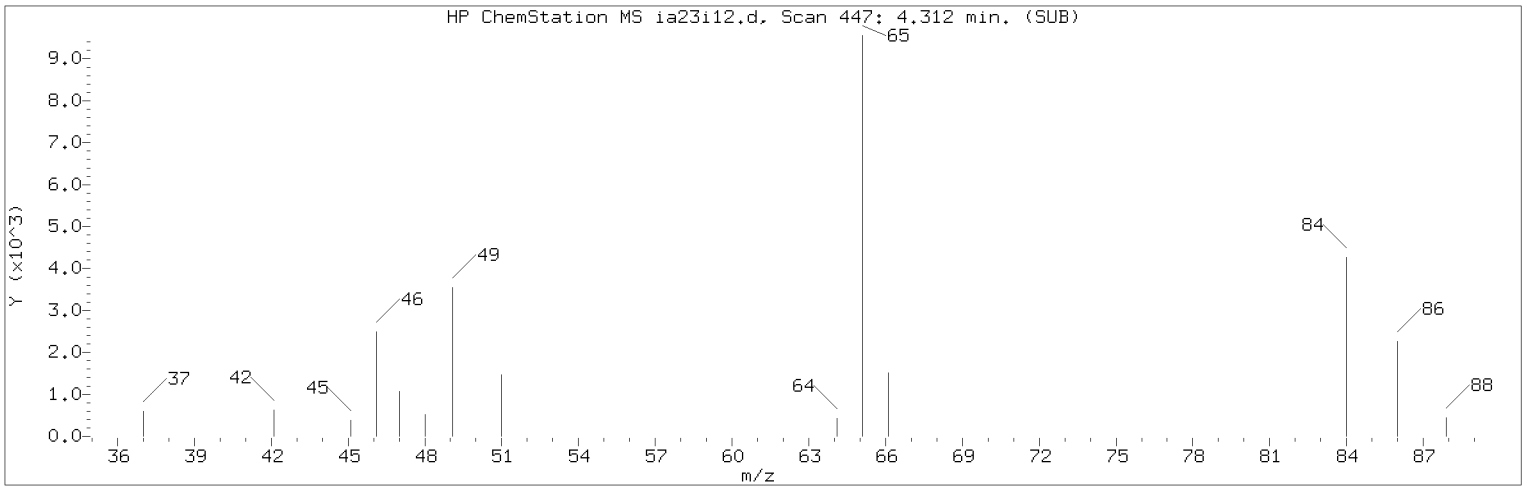
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:03
Date, time and analyst ID of latest file update: 24-Apr-2019 06:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

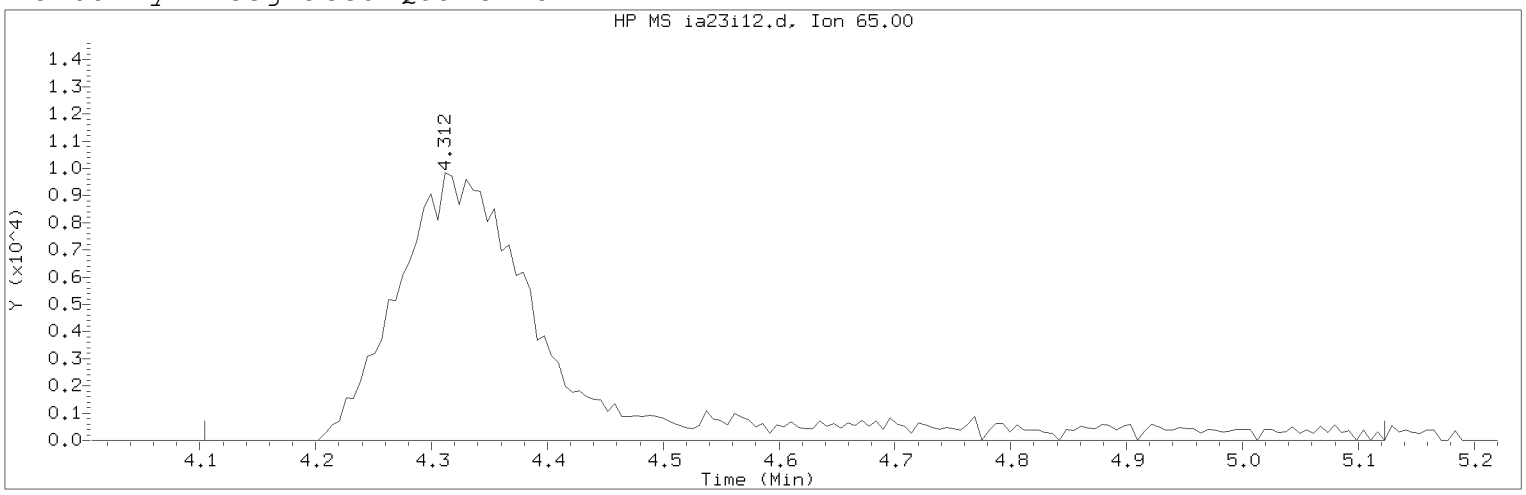
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 403
Retention Time (minutes): 4.043
Quant Ion : 41.00
Area : 635337
On-column Amount (ng) : 400.0000
Integration start scan : 379 Integration stop scan: 468
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

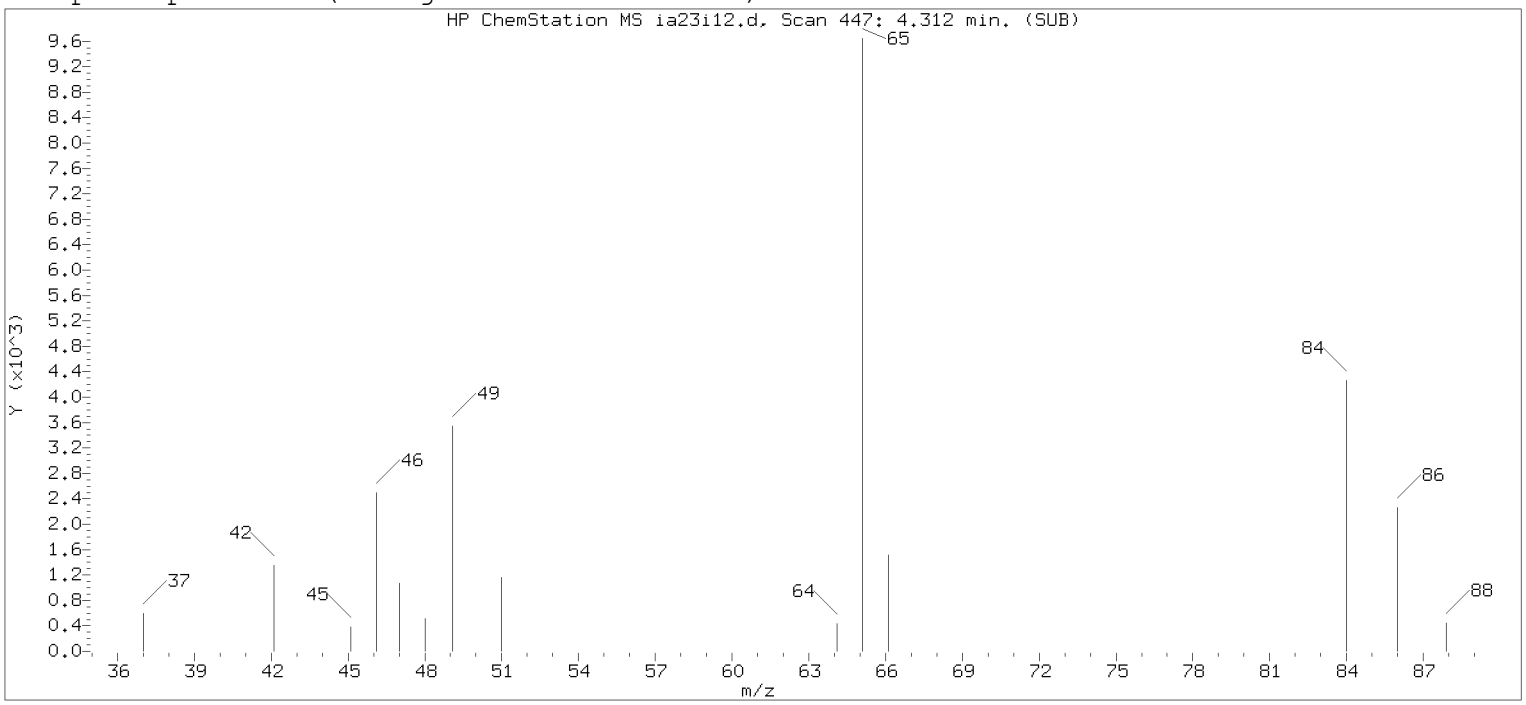
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area (flag) : 93649M
On-Column Amount (ng) : 50.0000
Integration start scan : 412 Integration stop scan: 579
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

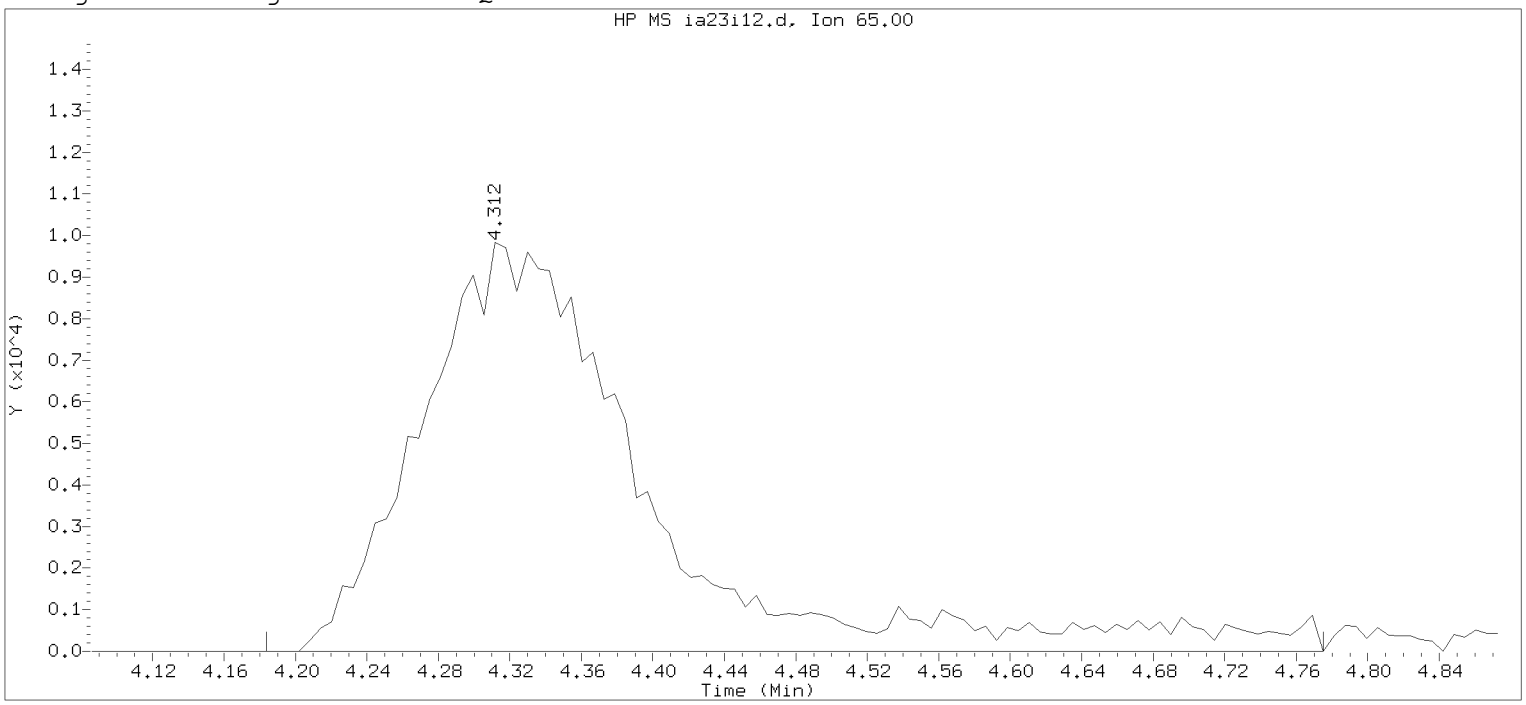
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



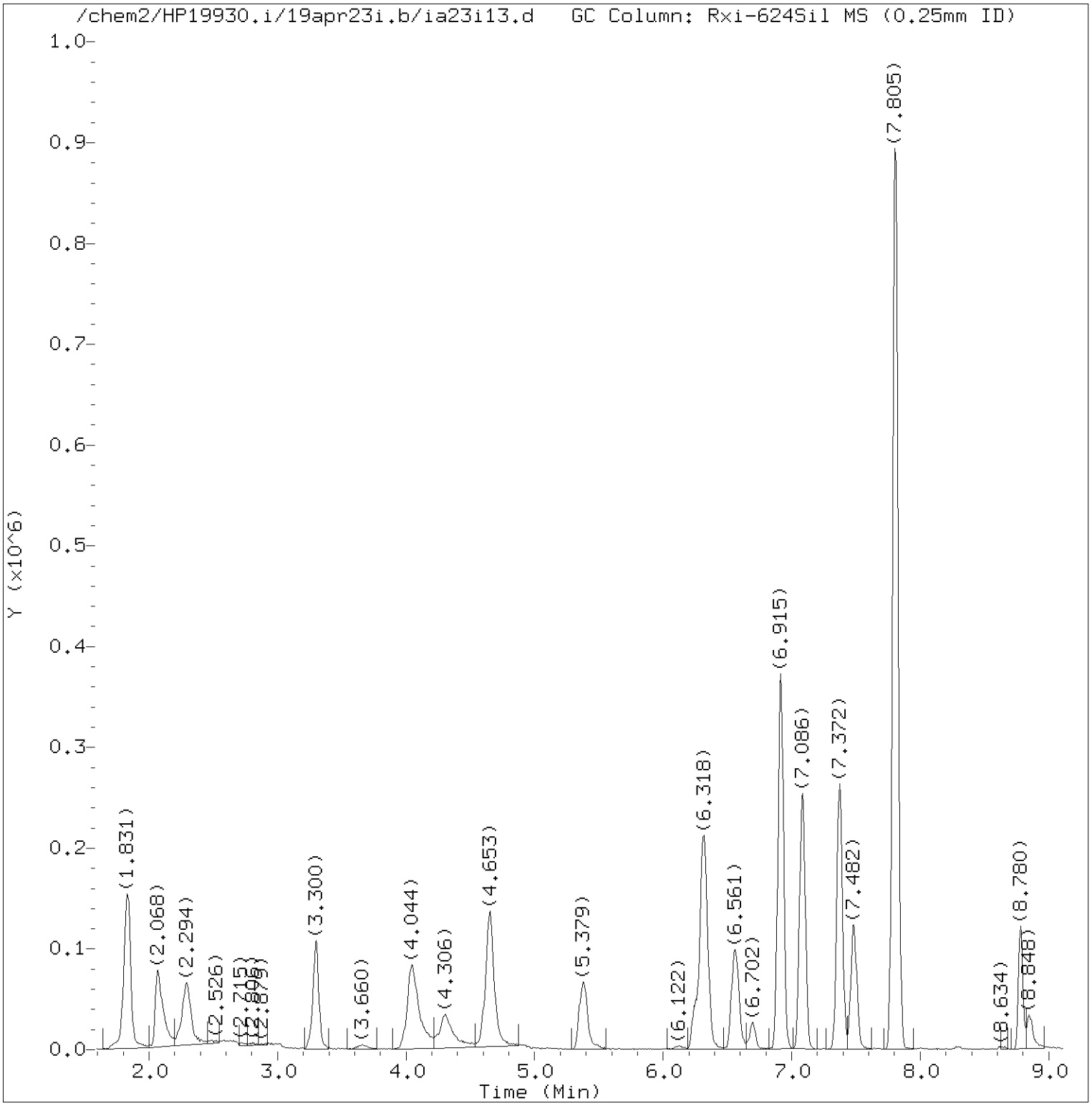
Data File: /chem2/HP19930.i/19apr23i.b/ia23i12.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:08 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:03
Date, time and analyst ID of latest file update: 24-Apr-2019 06:03 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 447
Retention Time (minutes): 4.312
Quant Ion : 65.00
Area : 86095
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 522
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

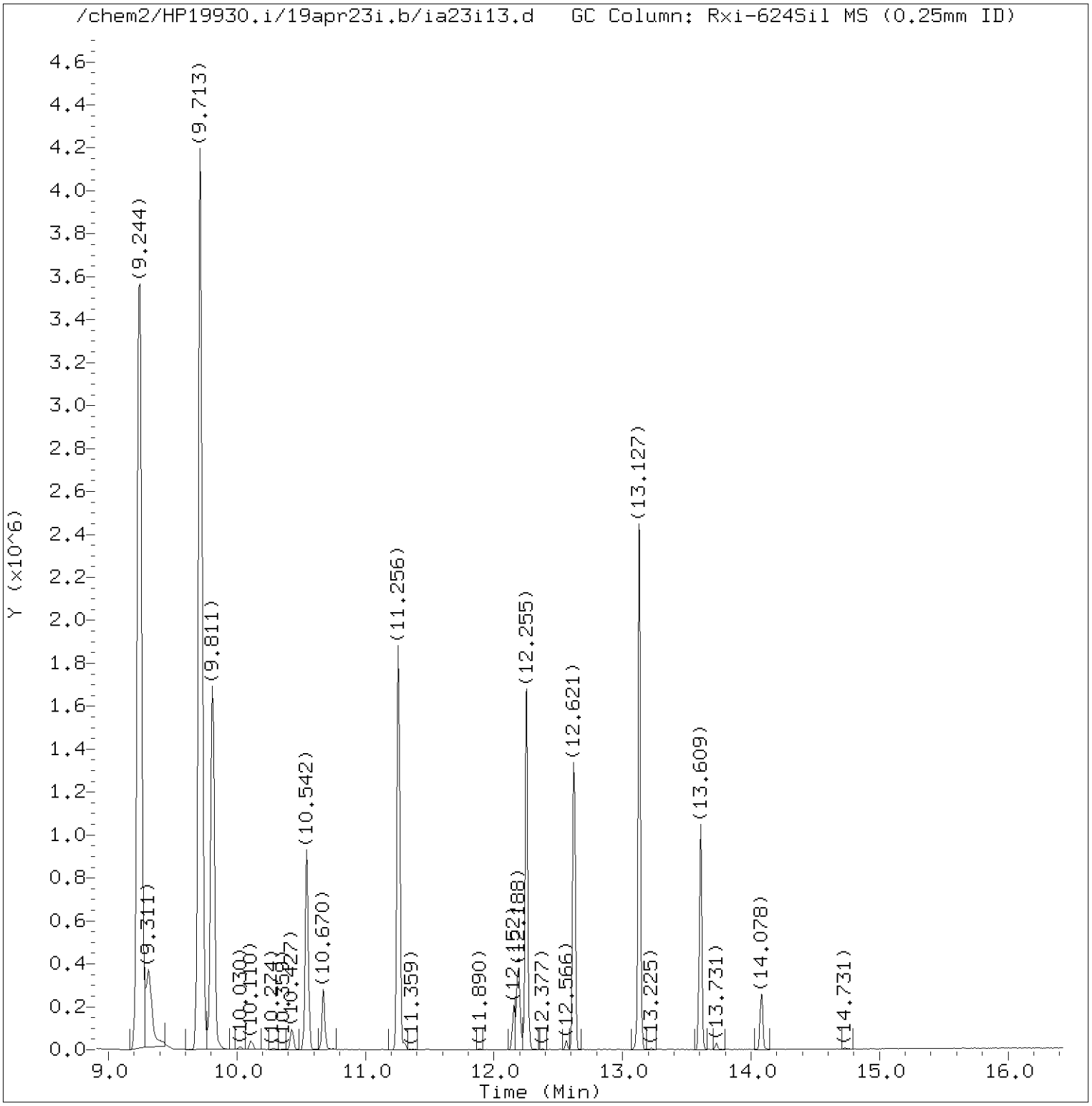
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

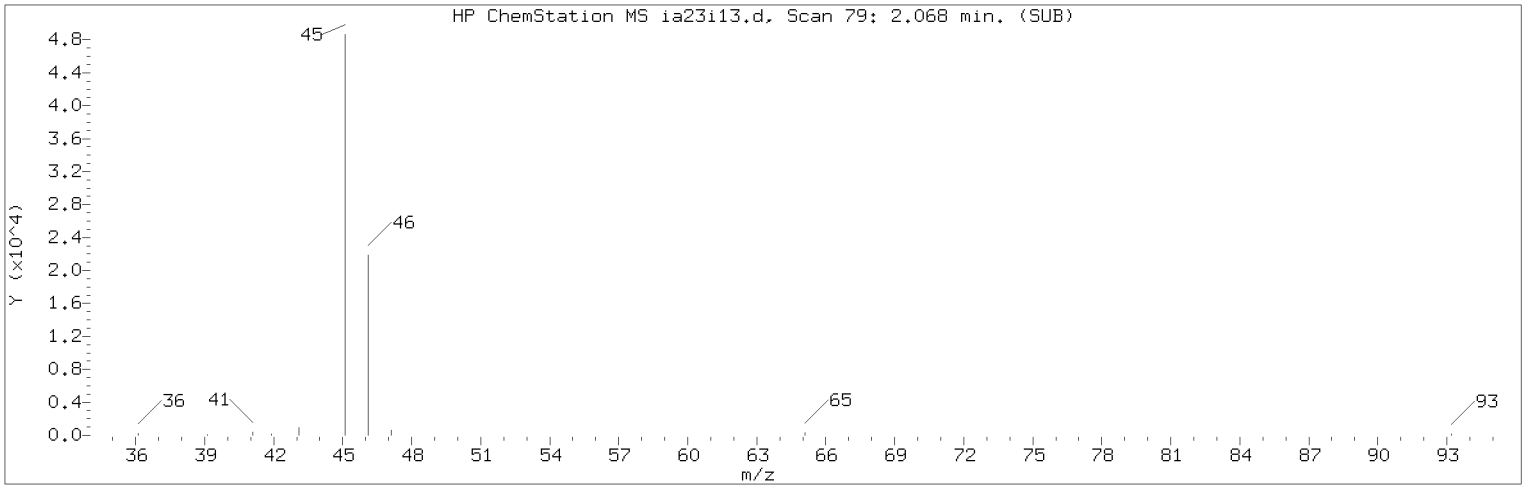
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.068	45	214032M	4.484
25) Acetonitrile	(1)	4.044	41	395022M	201.139
26)*t-Butyl Alcohol-d10	(1)	4.324	65	96030	50.000
36) Vinyl Acetate	(2)	5.379	43	221579	4.899
46) Ethyl Acetate	(2)	6.250	43	120865	5.052
43) Methyl Acrylate	(2)	6.318	55	485481	26.044
53) 1-Chlorobutane	(2)	7.086	56	326385	5.106
63)*Fluorobenzene	(2)	7.811	96	1313109	10.000
77) Chloroacetonitrile	(2)	9.305	75	275207	261.900
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	73281	4.998
97)*Chlorobenzene-d5	(3)	11.256	117	1089604	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.152	88	47041	9.633
112) Cyclohexanone	(1)	12.188	55	168887M	285.476
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	622330	10.000
142) Hexachloroethane	(4)	13.609	117	177512	5.097

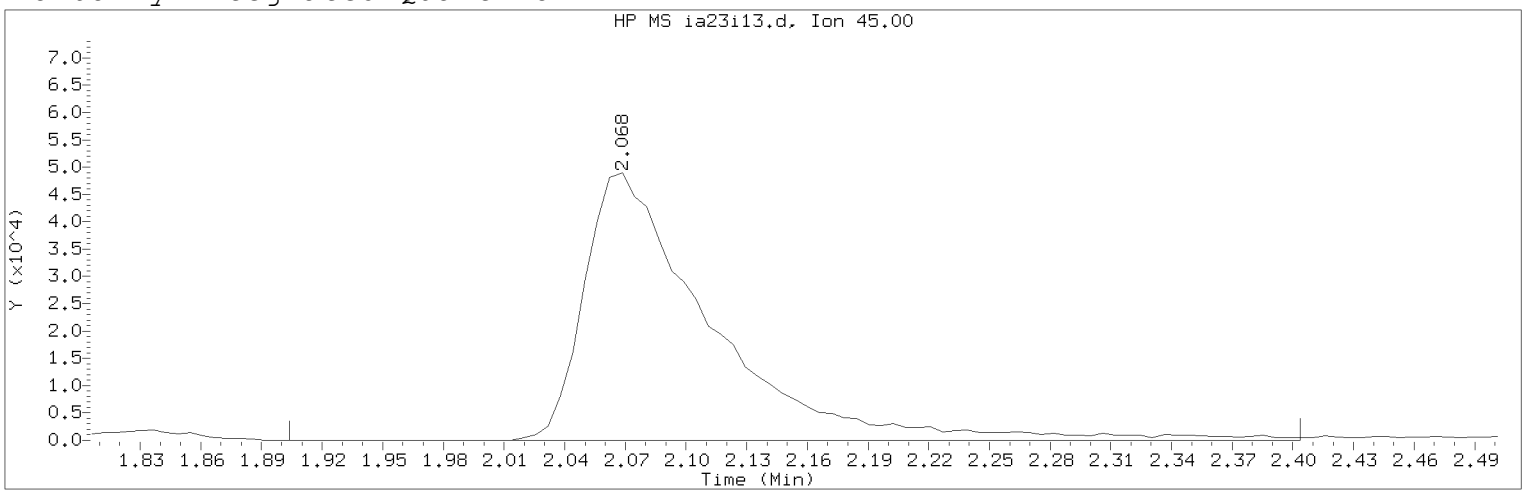
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

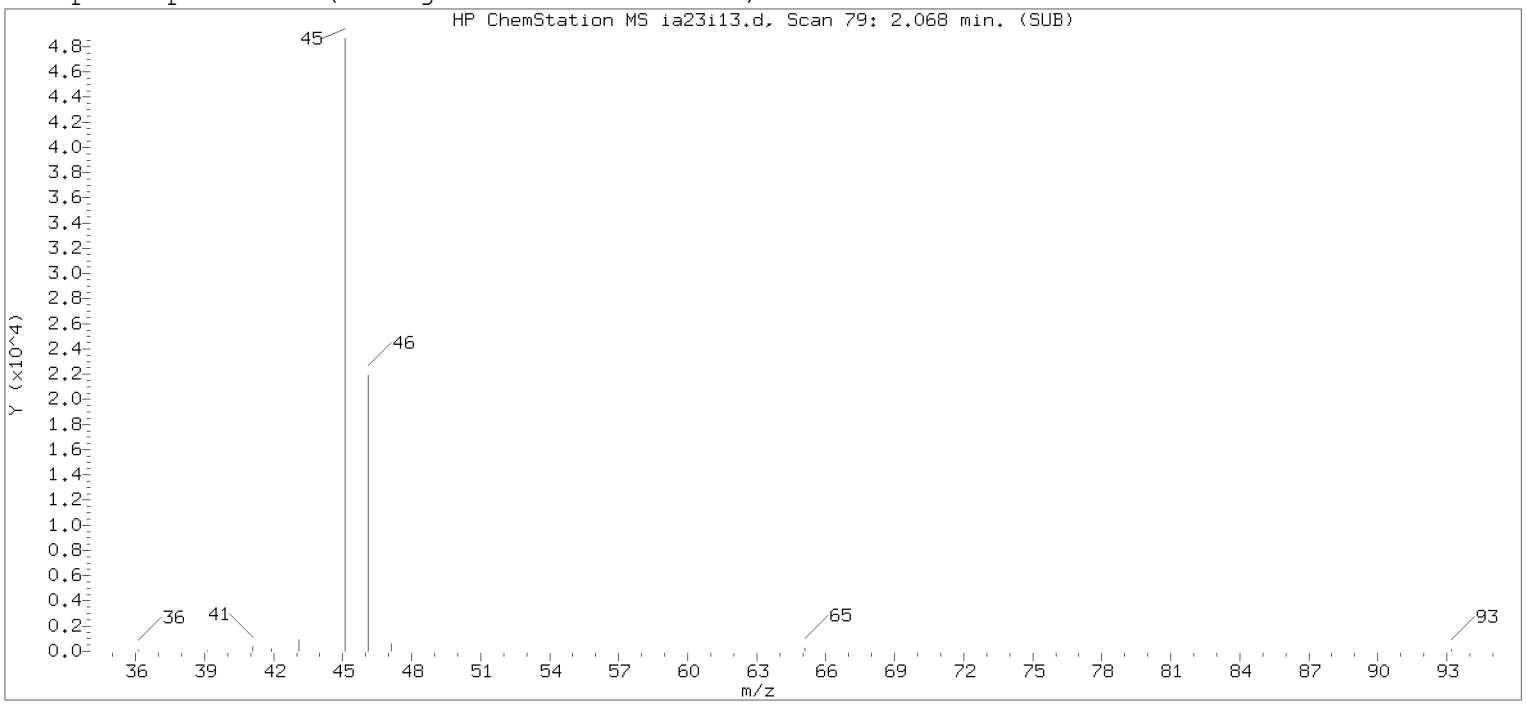
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area (flag) : 214032M
On-Column Amount (ng) : 4.4840
Integration start scan : 51 Integration stop scan: 133
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

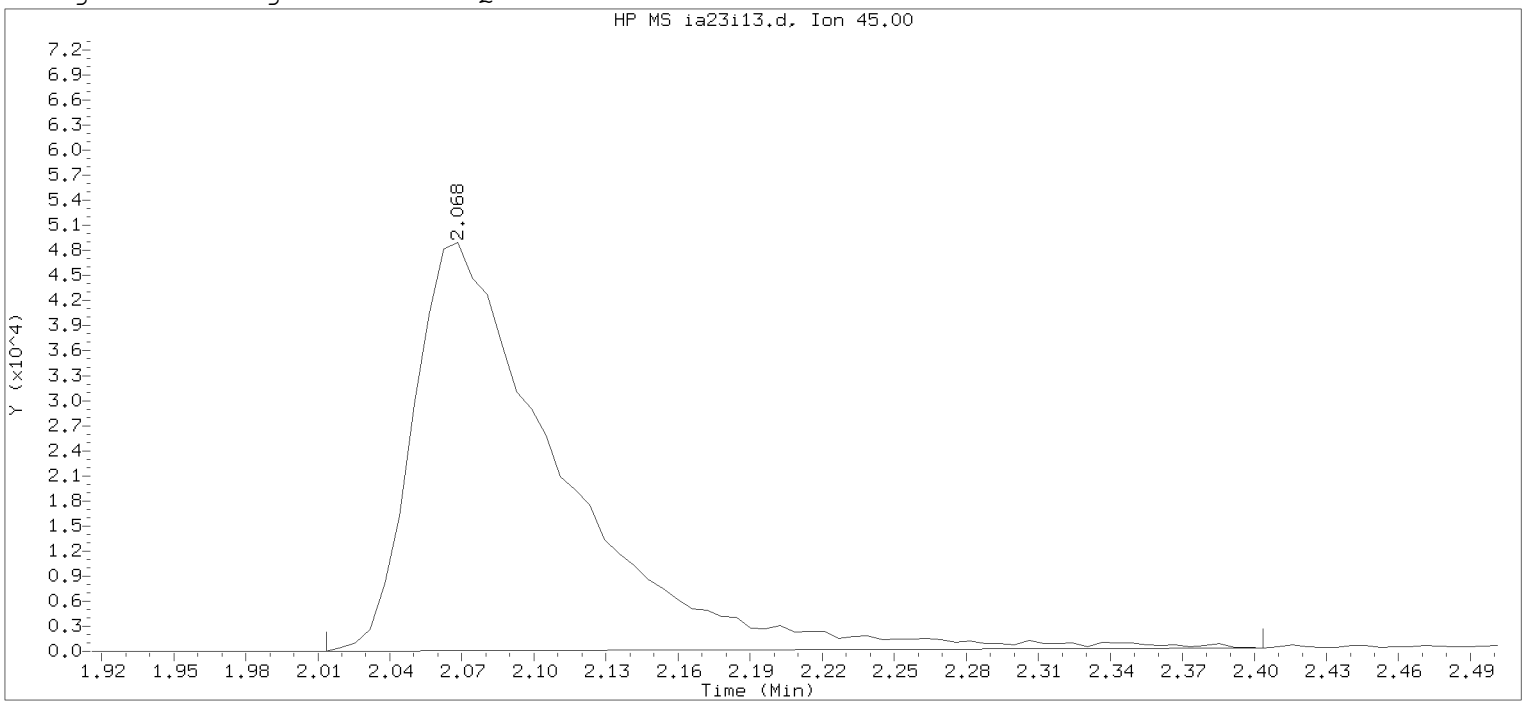
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.068
Quant Ion : 45.00
Area : 209037
On-column Amount (ng) : 4.6154
Integration start scan : 69 Integration stop scan: 133
Y at integration start : 0 Y at integration end: 420

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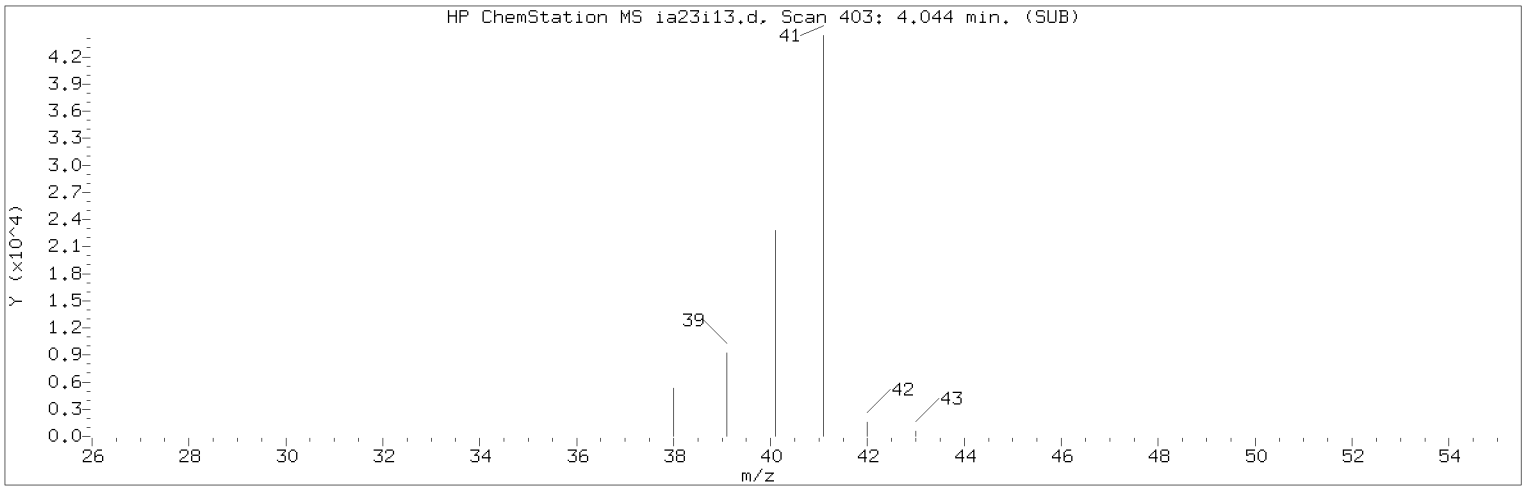
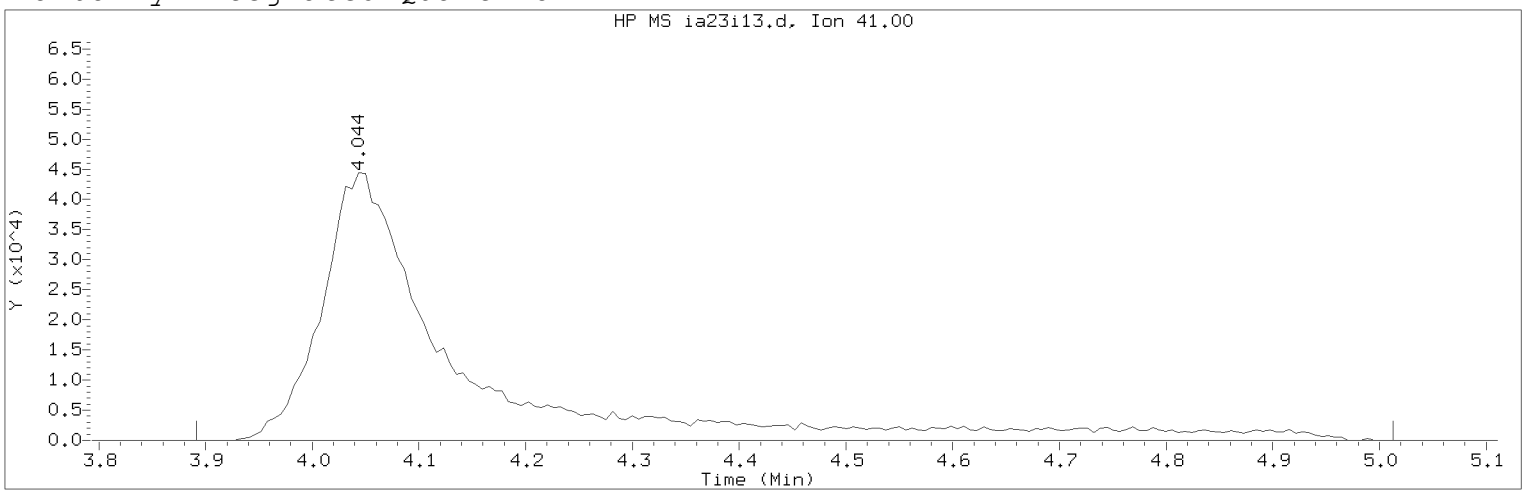
Target 3.5 esignature user: Page 1366

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

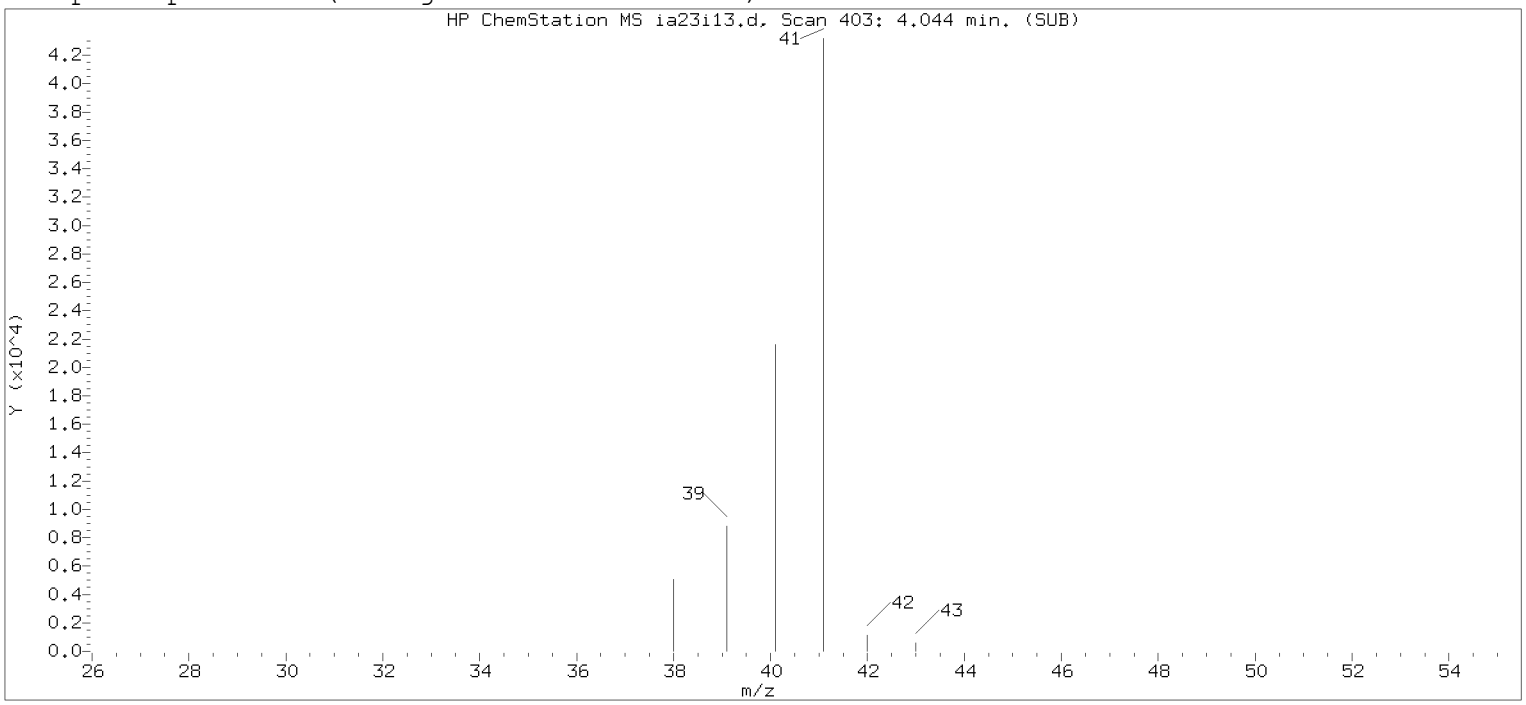
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 403
Retention Time (minutes): 4.044
Quant Ion : 41.00
Area (flag) : 395022M
On-Column Amount (ng) : 201.1391
Integration start scan : 377 Integration stop scan: 561
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

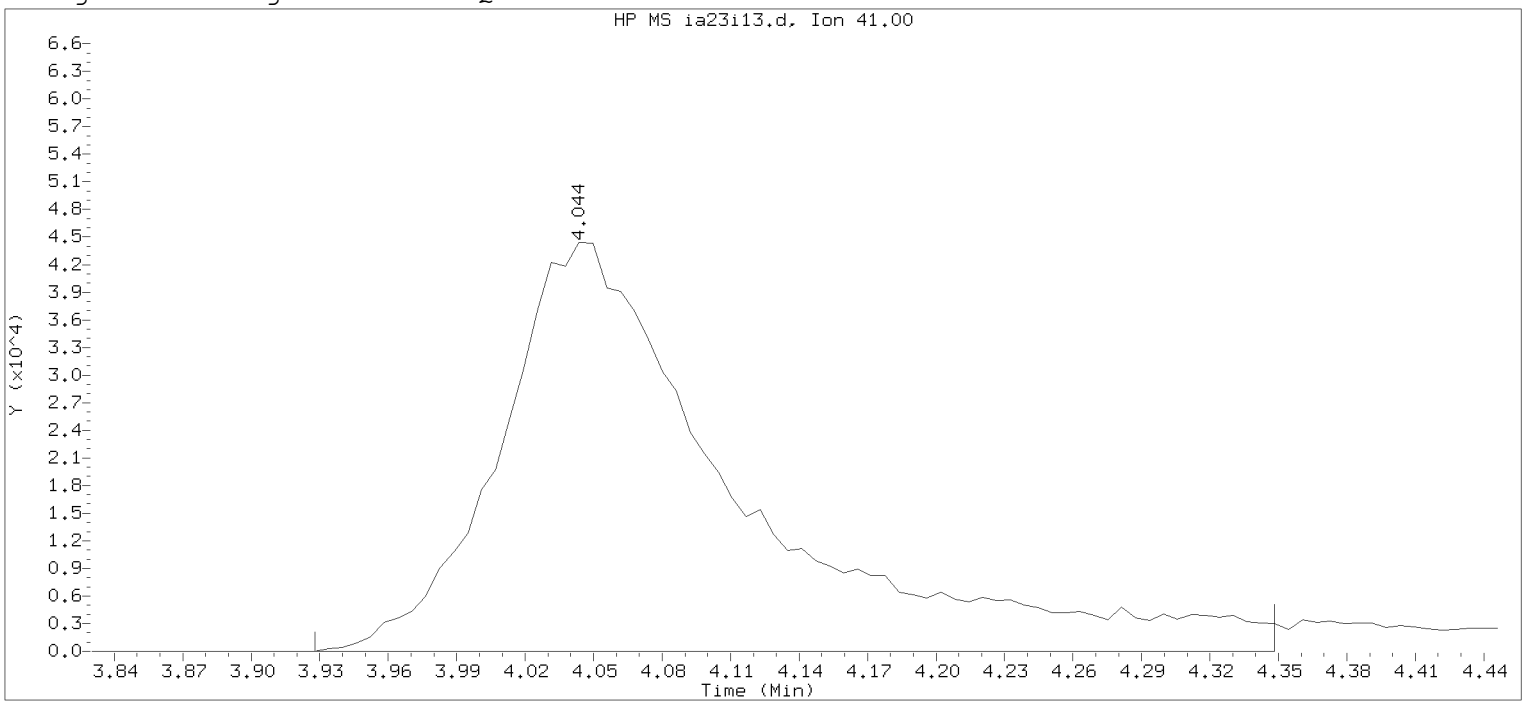
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

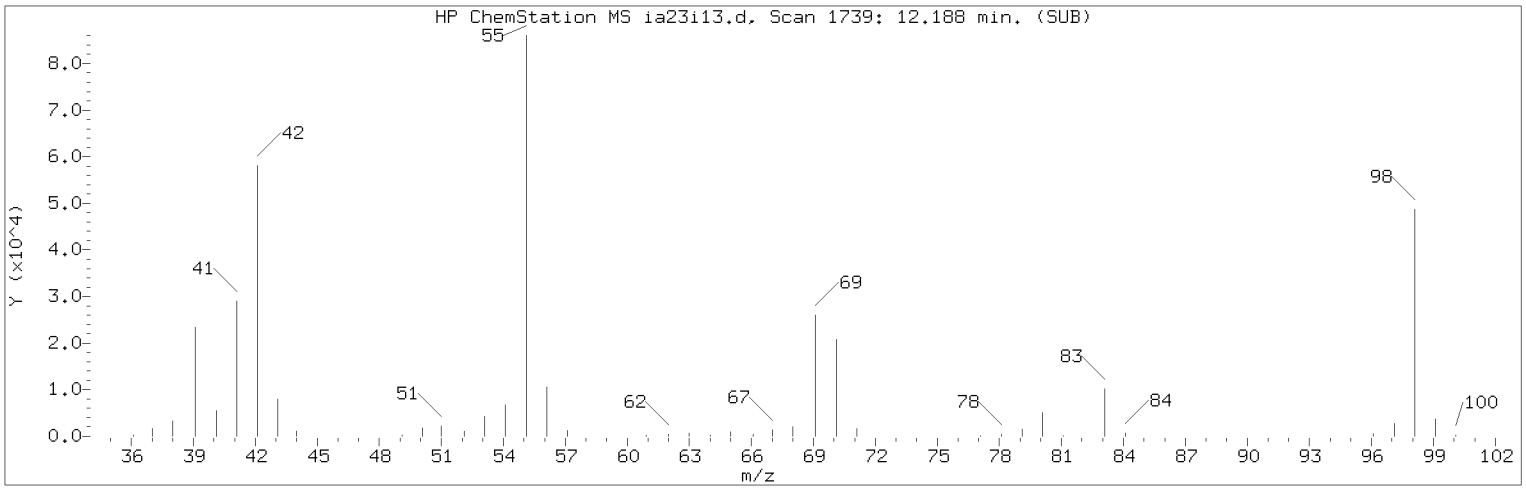
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

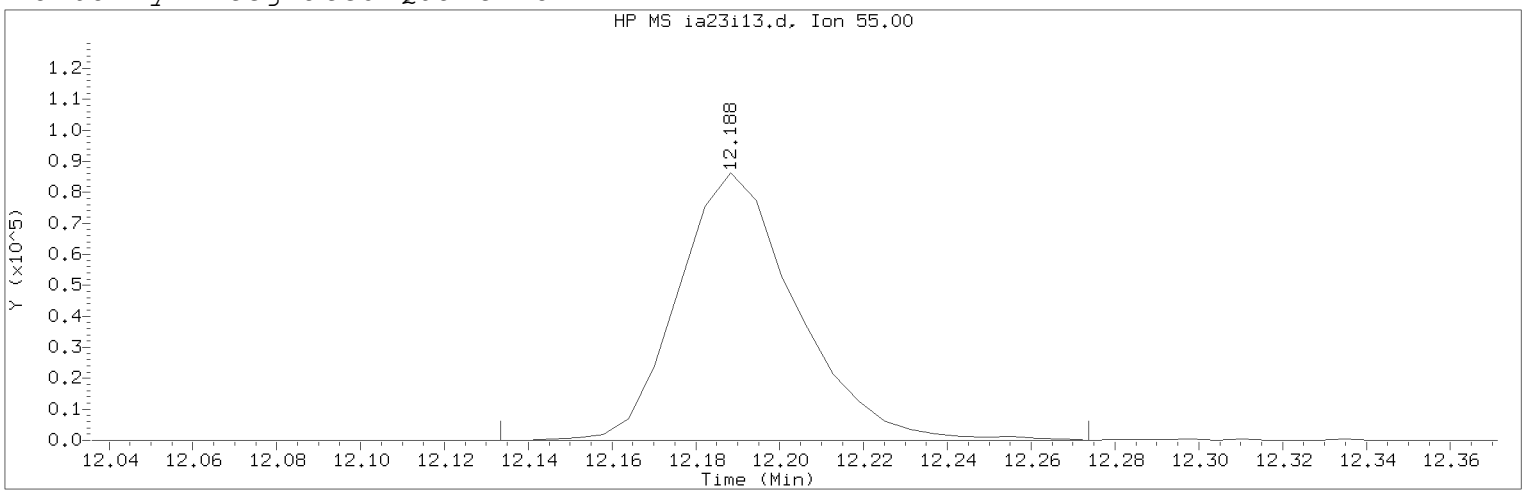
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 403
Retention Time (minutes): 4.044
Quant Ion : 41.00
Area : 324791
On-column Amount (ng) : 184.4569
Integration start scan : 383 Integration stop scan: 452
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i13.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:29 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

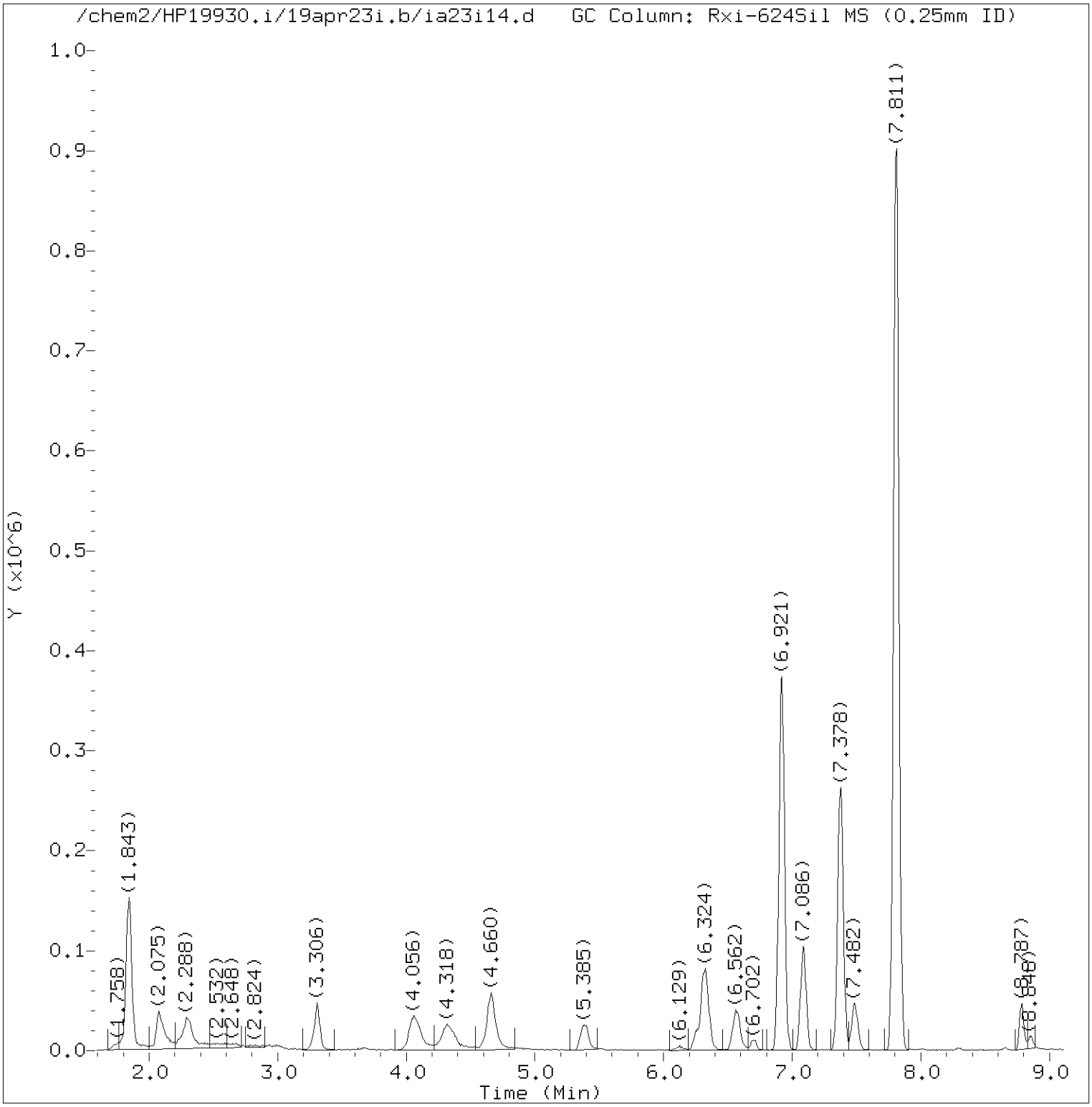
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area (flag) : 168887M
On-Column Amount (ng) : 285.4758
Integration start scan : 1729 Integration stop scan: 1752
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: compound not in processing sublist

Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

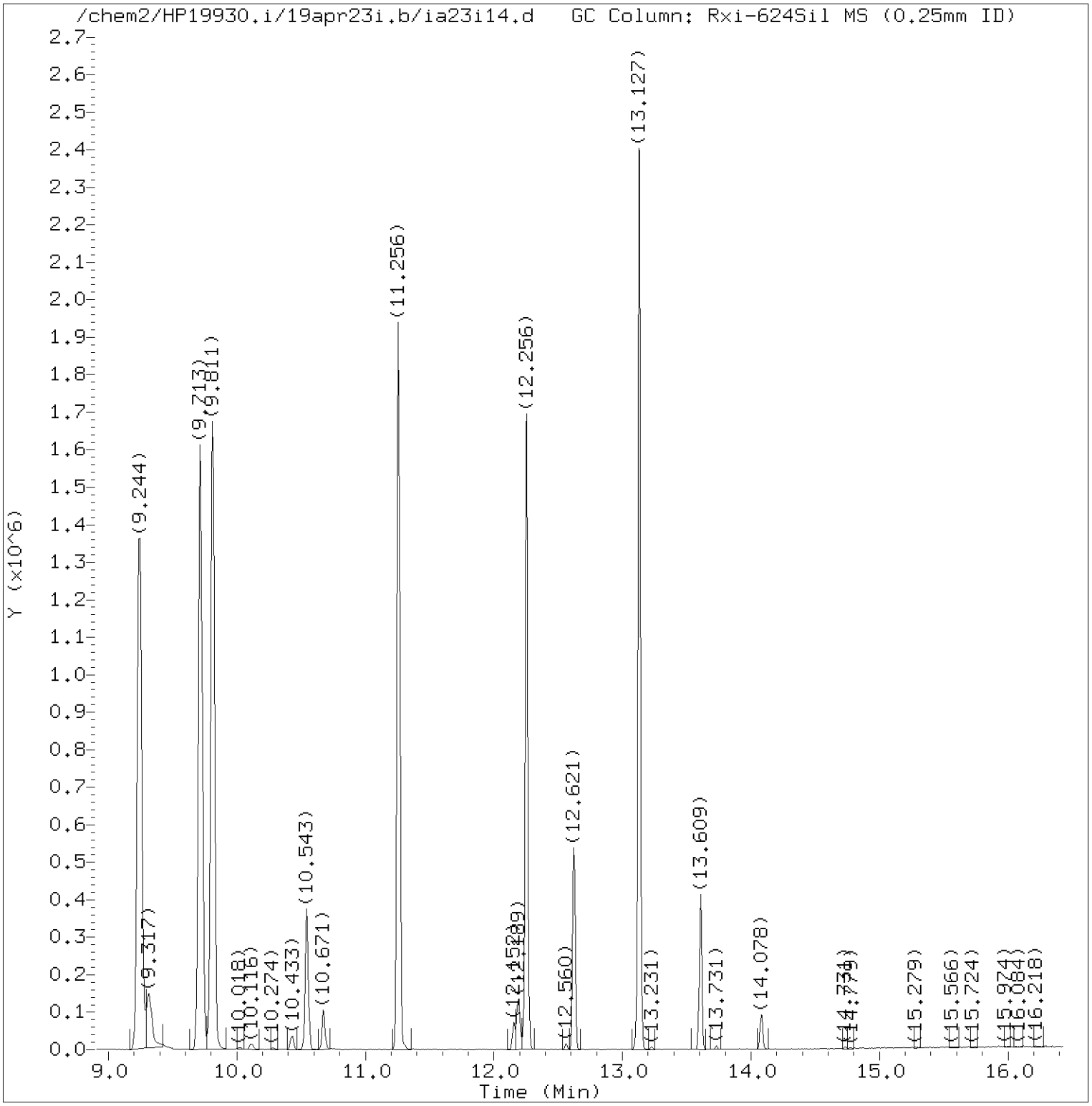
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

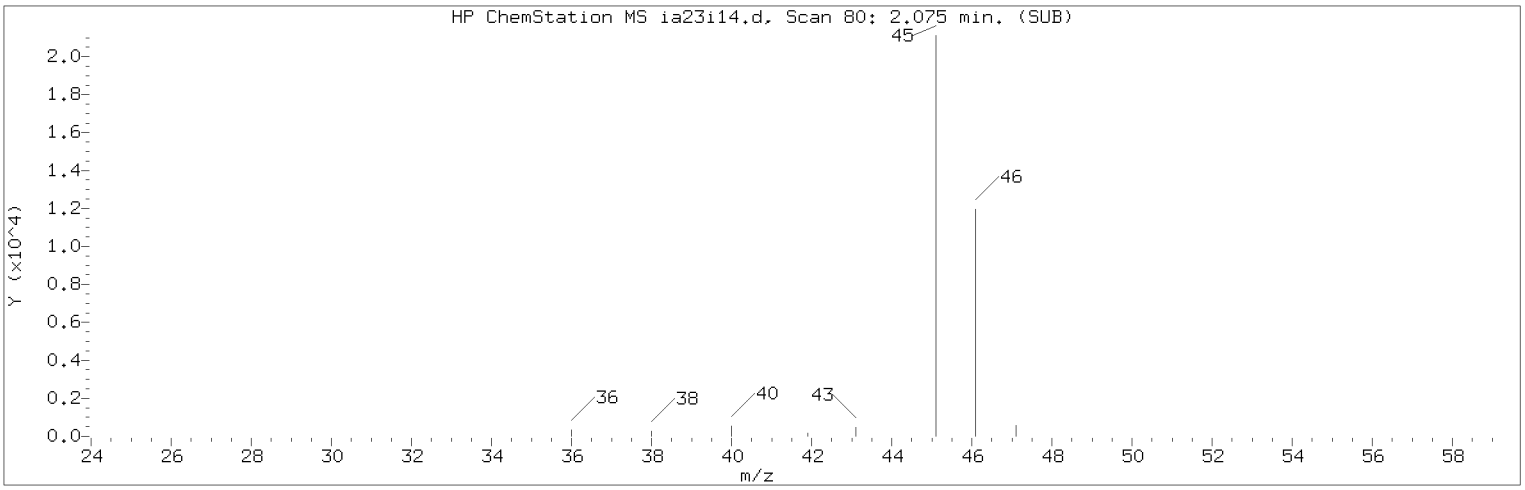
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.075	45	96161M	2.003
25) Acetonitrile	(1)	4.068	41	164625M	77.456
26)*t-Butyl Alcohol-d10	(1)	4.324	65	103926	50.000
36) Vinyl Acetate	(2)	5.385	43	87751	1.929
46) Ethyl Acetate	(2)	6.263	43	48108	1.999
43) Methyl Acrylate	(2)	6.324	55	187360	9.993
53) 1-Chlorobutane	(2)	7.086	56	131269	2.042
63)*Fluorobenzene	(2)	7.811	96	1320704	10.000
77) Chloroacetonitrile	(2)	9.311	75	113961	107.827
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	29509	2.001
97)*Chlorobenzene-d5	(3)	11.256	117	1104810	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.158	88	16825	3.587
112) Cyclohexanone	(1)	12.189	55	61508M	96.070
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	617189	10.000
142) Hexachloroethane	(4)	13.609	117	67662	1.959

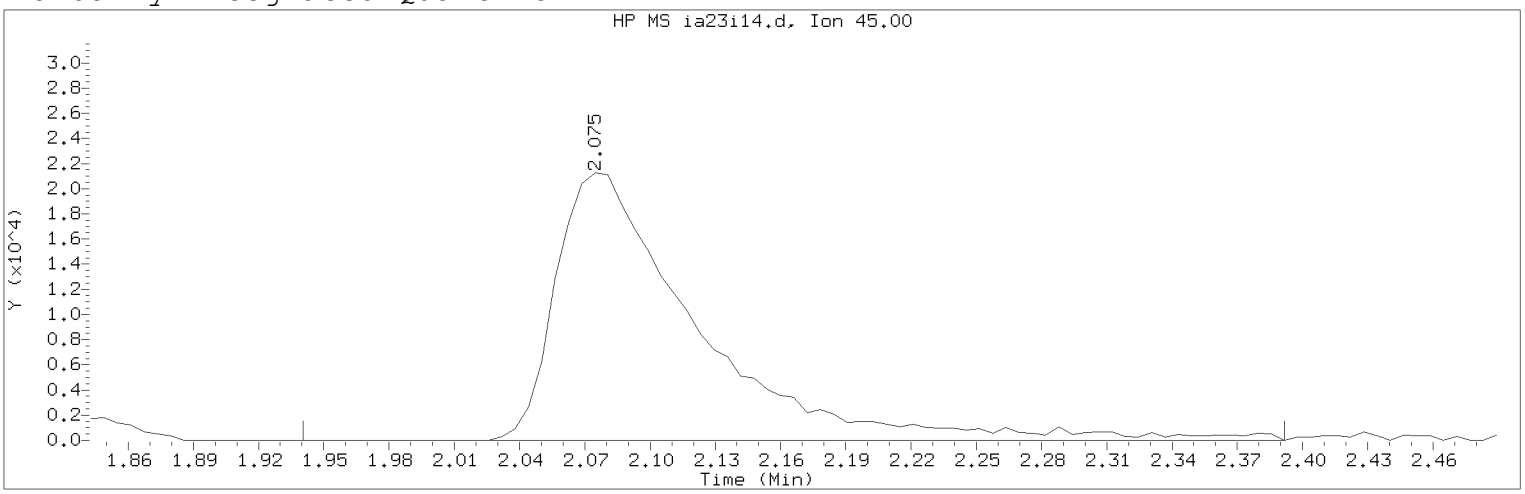
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

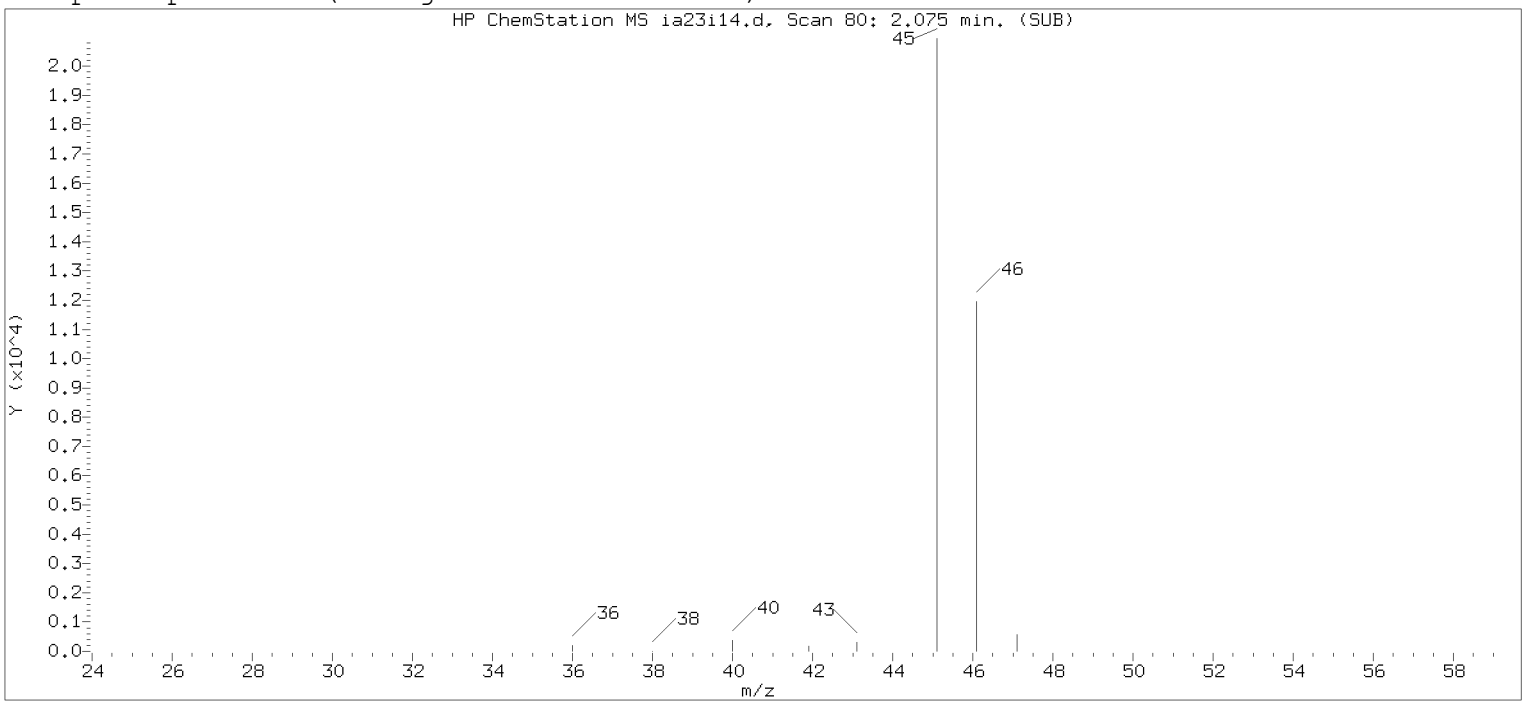
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 80
Retention Time (minutes): 2.075
Quant Ion : 45.00
Area (flag) : 96161M
On-Column Amount (ng) : 2.0030
Integration start scan : 57 Integration stop scan: 131
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

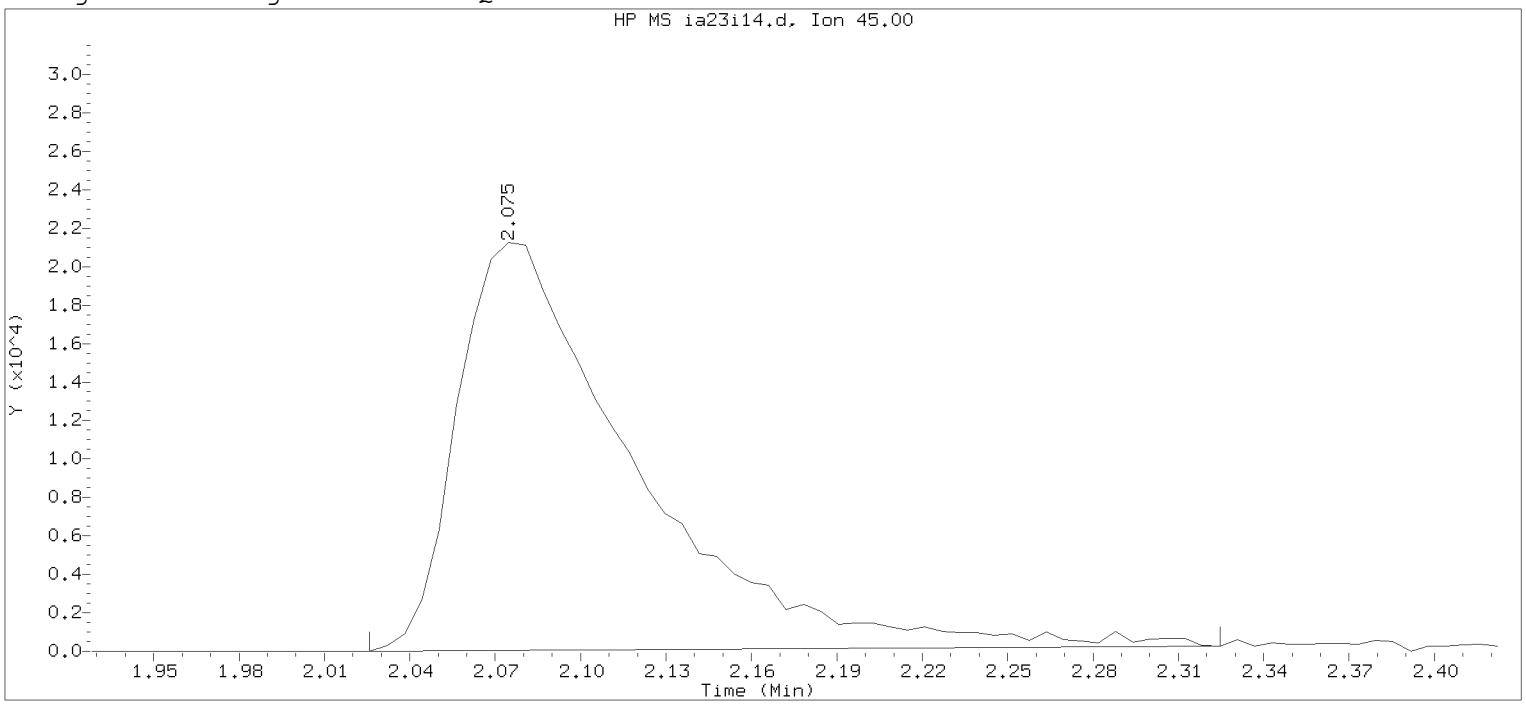
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 80		
Retention Time (minutes)	: 2.075		
Quant Ion	: 45.00		
Area	: 92131		
On-column Amount (ng)	: 2.0168		
Integration start scan	: 71	Integration stop scan:	120
Y at integration start	: 0	Y at integration end:	270

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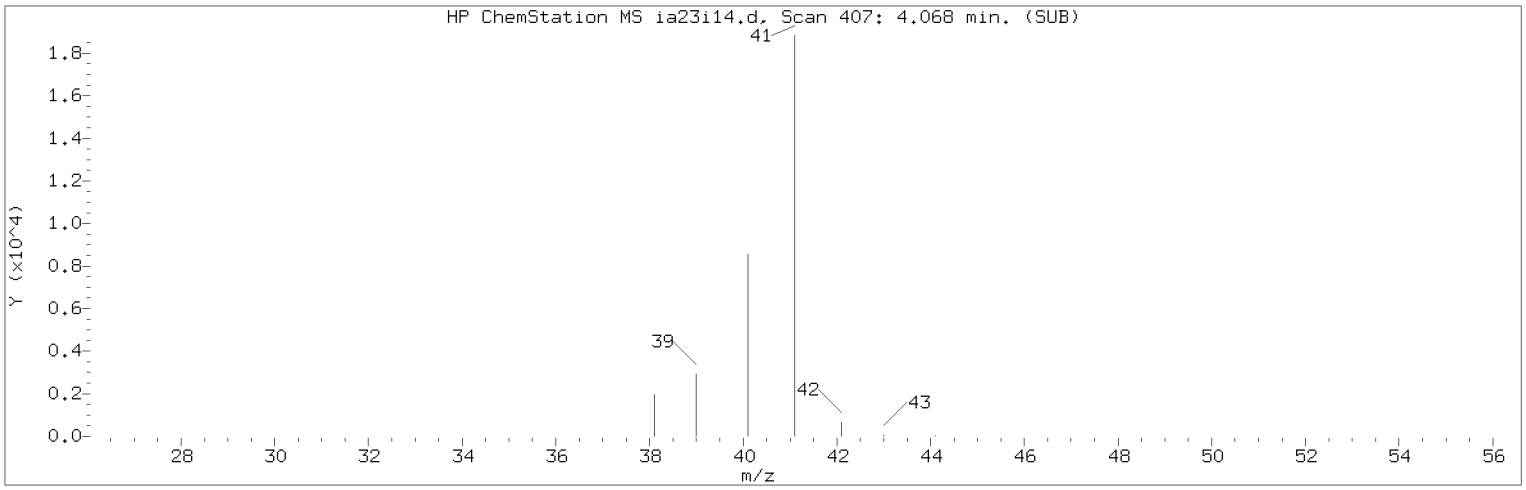
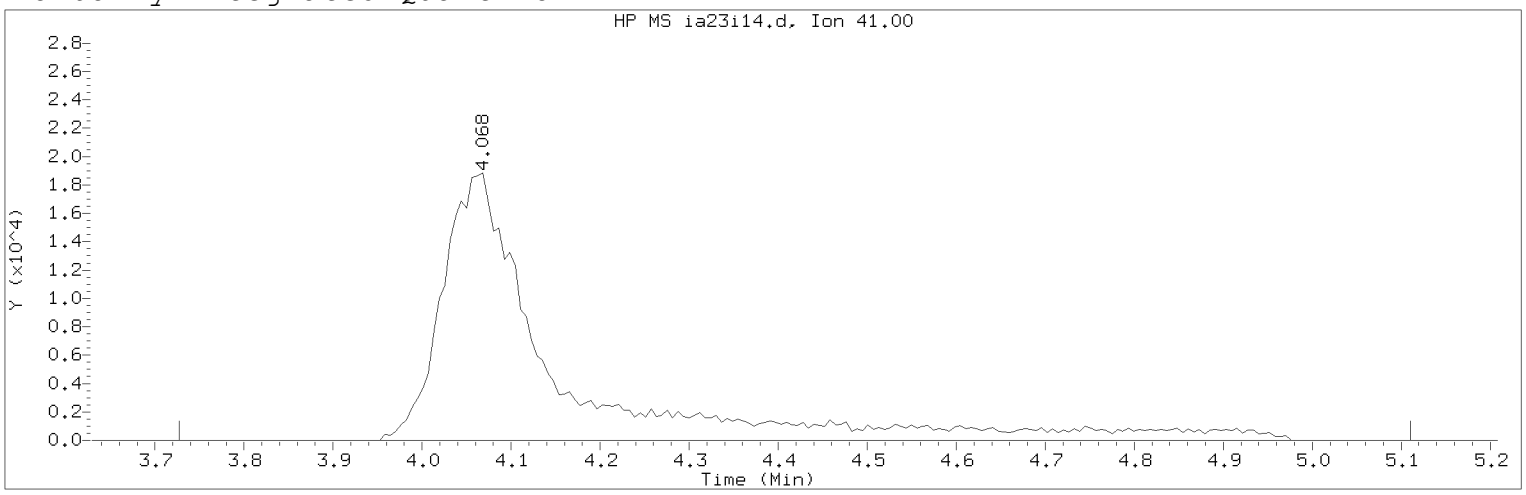
Target 3.5 esignature user: Page 1374

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

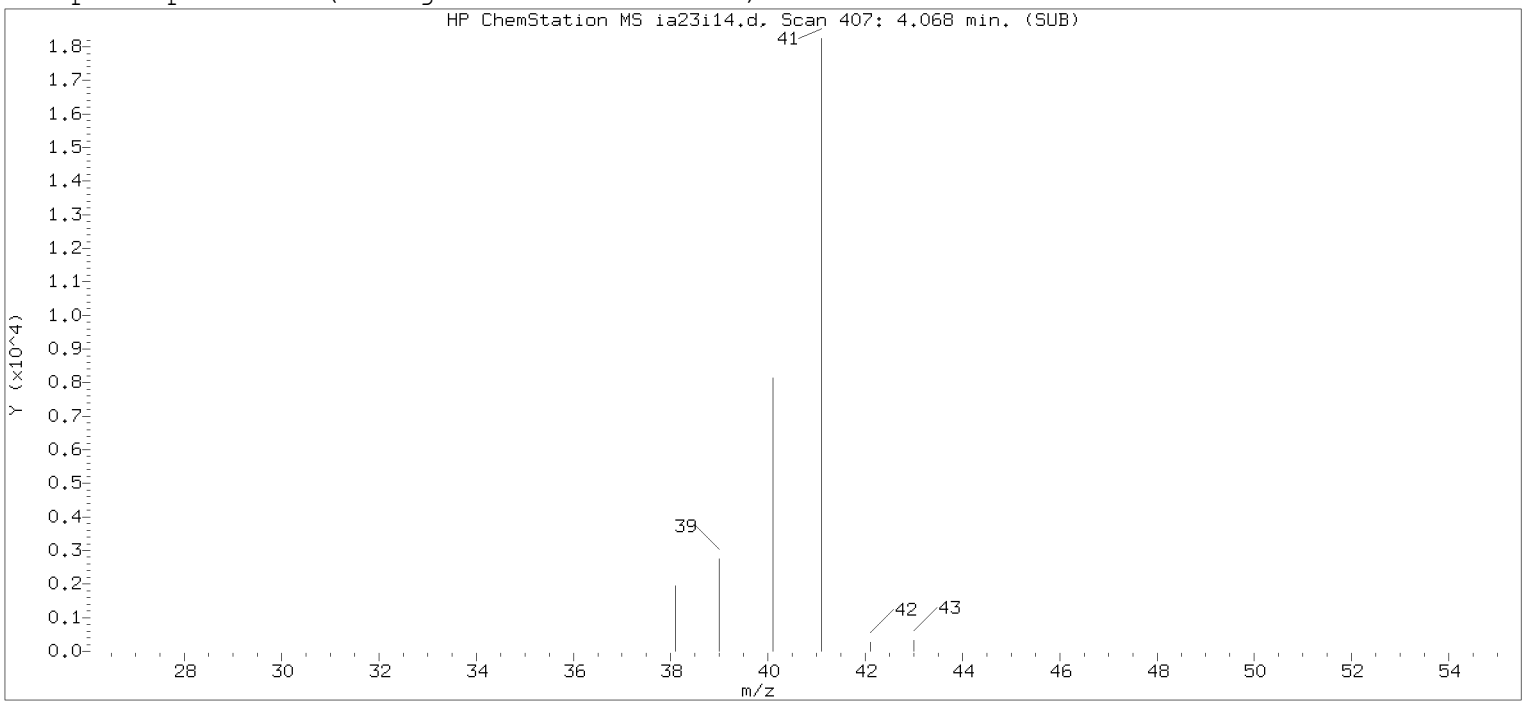
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 41.00
Area (flag) : 164625M
On-Column Amount (ng) : 77.4558
Integration start scan : 350 Integration stop scan: 577
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

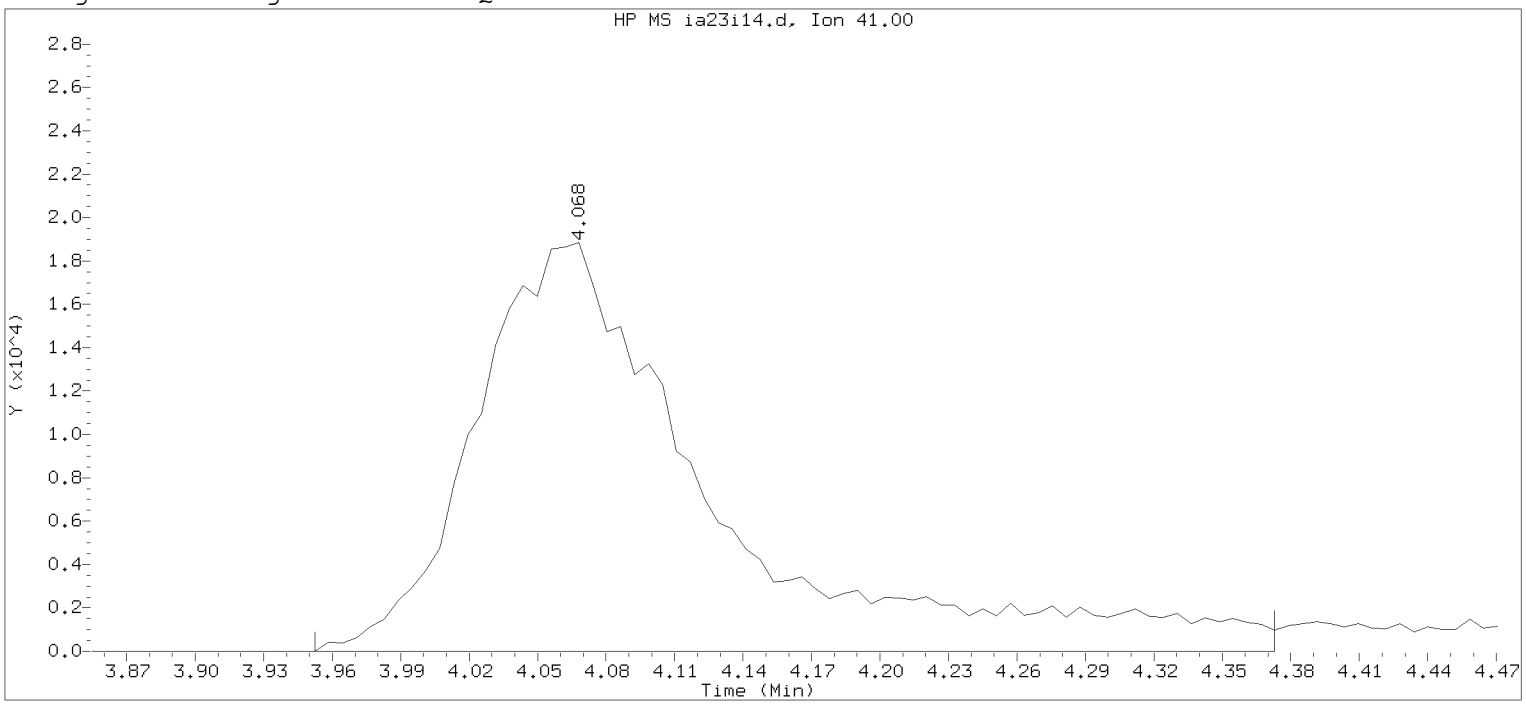
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

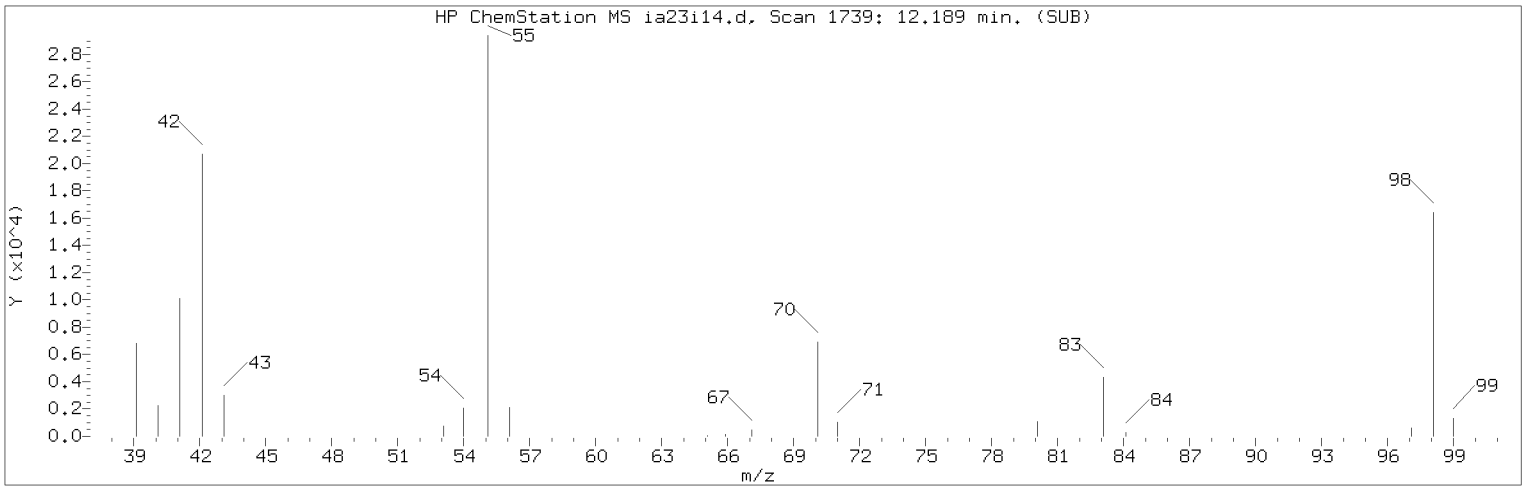
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

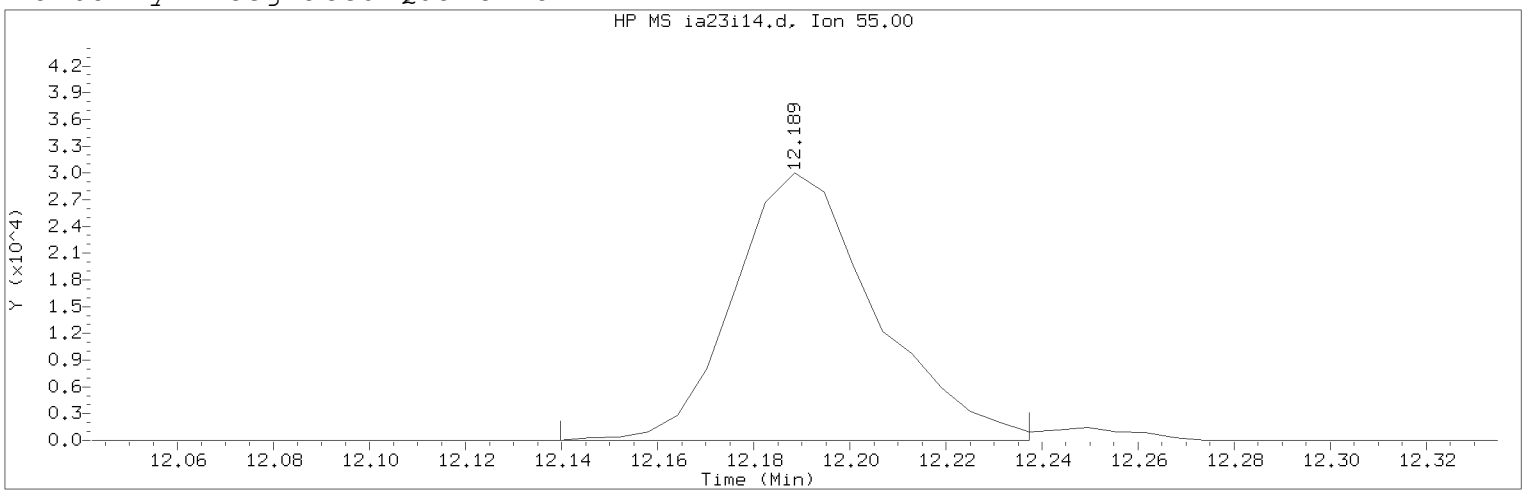
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 41.00
Area : 135428
On-column Amount (ng) : 73.1093
Integration start scan : 387 Integration stop scan: 456
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

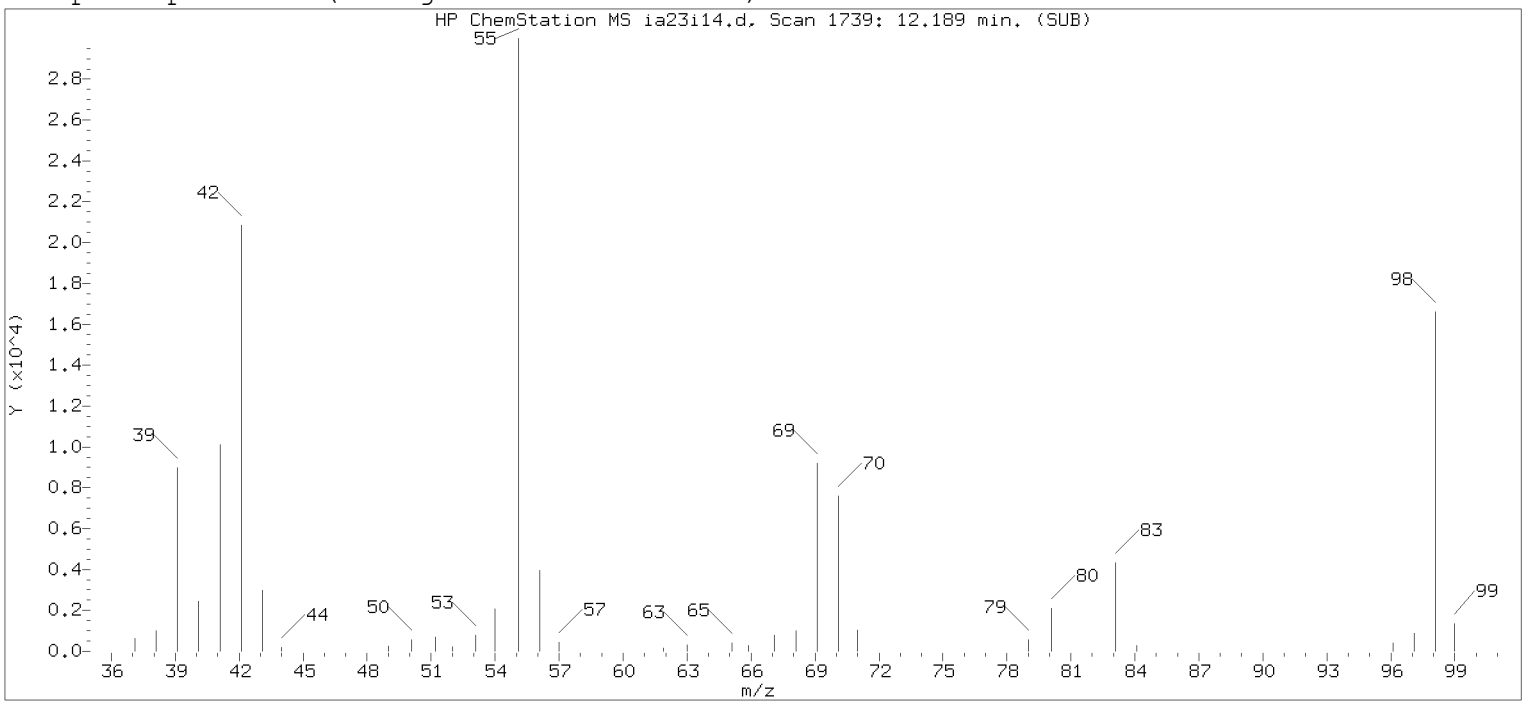
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.189
Quant Ion : 55.00
Area (flag) : 61508M
On-Column Amount (ng) : 96.0699
Integration start scan : 1730 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

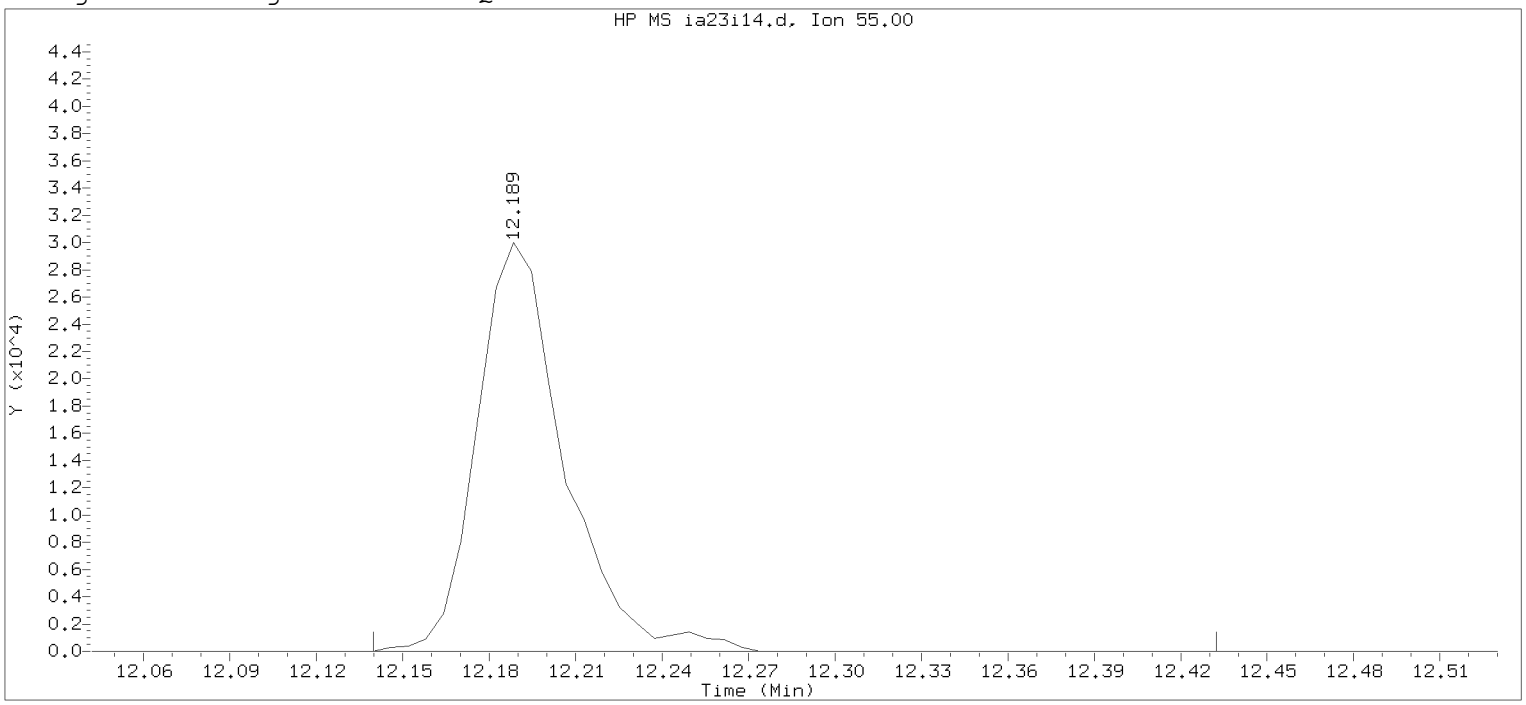
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



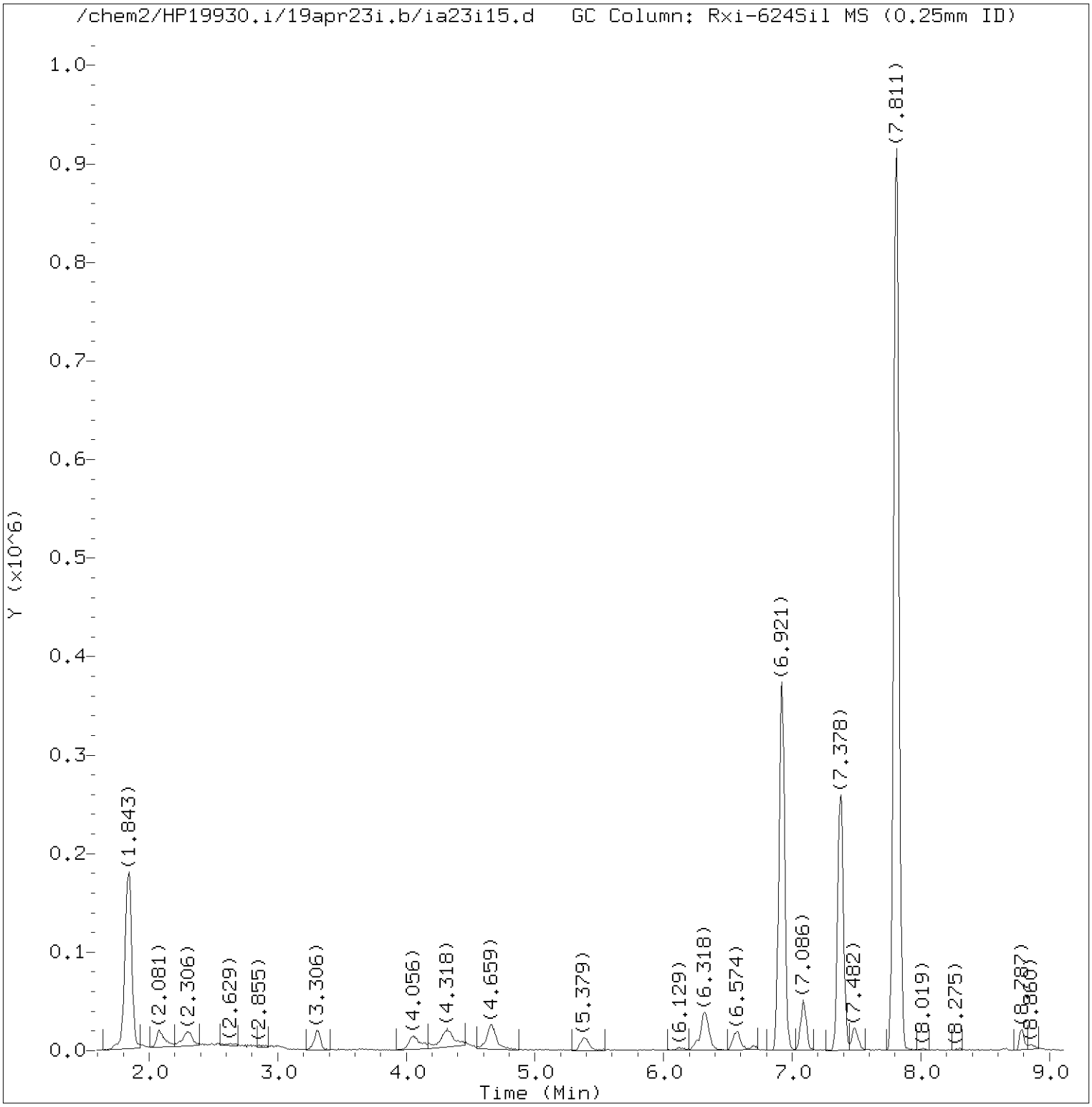
Data File: /chem2/HP19930.i/19apr23i.b/ia23i14.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 22:51 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.189
Quant Ion : 55.00
Area : 63218
On-column Amount (ng) : 92.3936
Integration start scan : 1730 Integration stop scan: 1778
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used by Jennifer K. Howe on 04/25/2019.



Total Ion Chromatogram (TIC)

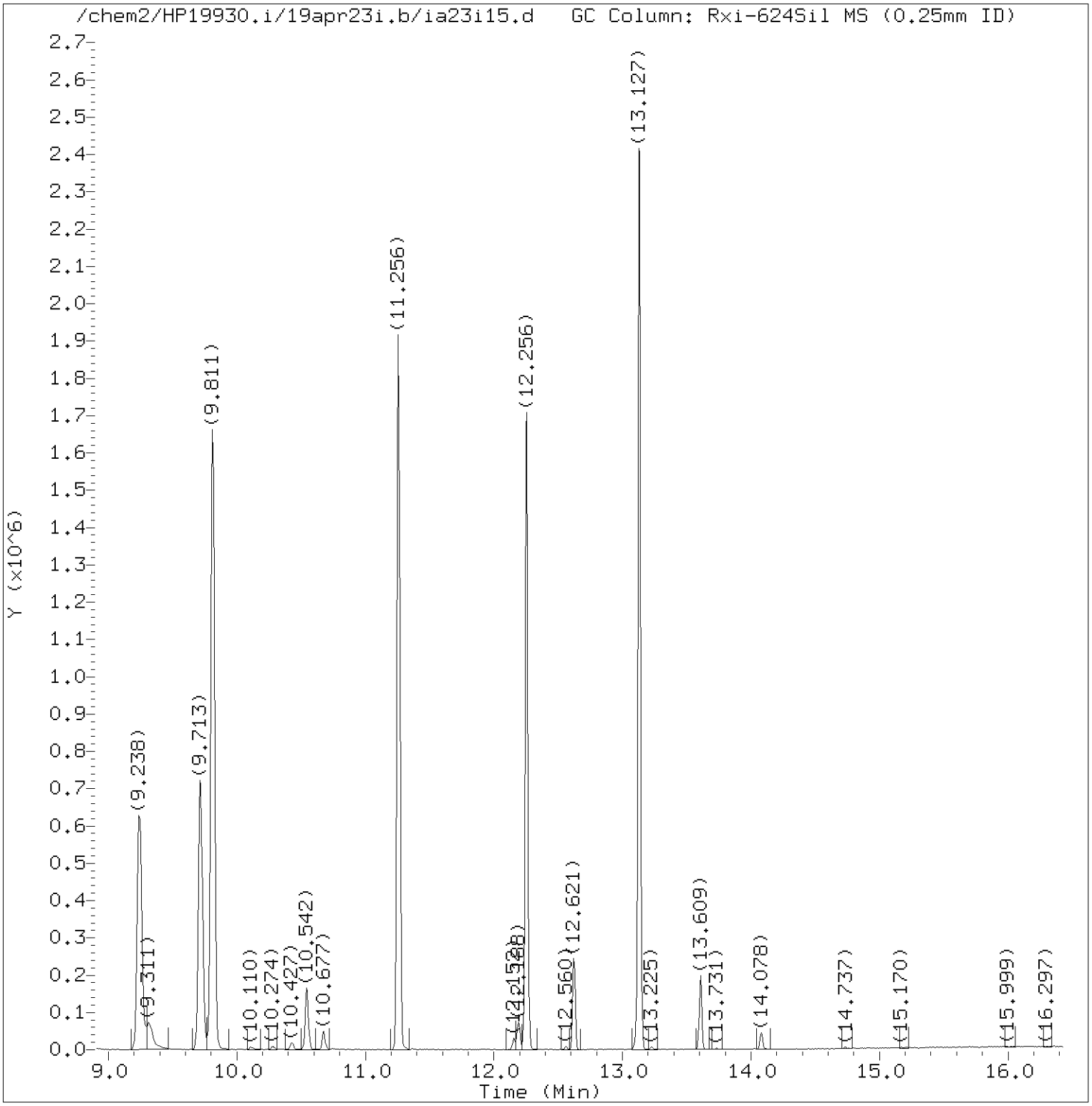
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

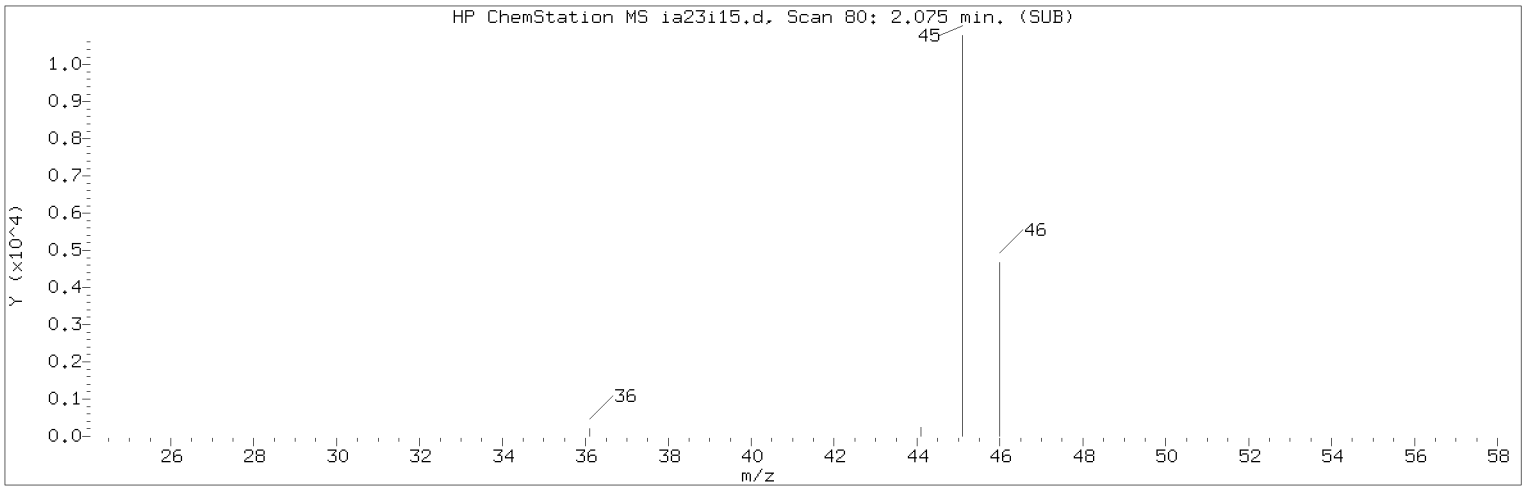
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.075	45	48196M	0.995
25) Acetonitrile	(1)	4.068	41	85583M	40.117
26)*t-Butyl Alcohol-d10	(1)	4.318	65	104314M	50.000
36) Vinyl Acetate	(2)	5.379	43	44259	0.965
46) Ethyl Acetate	(2)	6.263	43	22867M	0.942
43) Methyl Acrylate	(2)	6.324	55	92039	4.867
53) 1-Chlorobutane	(2)	7.086	56	63194	0.975
63)*Fluorobenzene	(2)	7.811	96	1331997	10.000
77) Chloroacetonitrile	(2)	9.305	75	57337	53.791
78) 2-Chloroethyl vinyl ether	(2)	9.329	63	13245	0.890
97)*Chlorobenzene-d5	(3)	11.256	117	1105123	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.152	88	6751	1.747
112) Cyclohexanone	(1)	12.188	55	30815M	47.951
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	628903	10.000
142) Hexachloroethane	(4)	13.609	117	32379	0.920

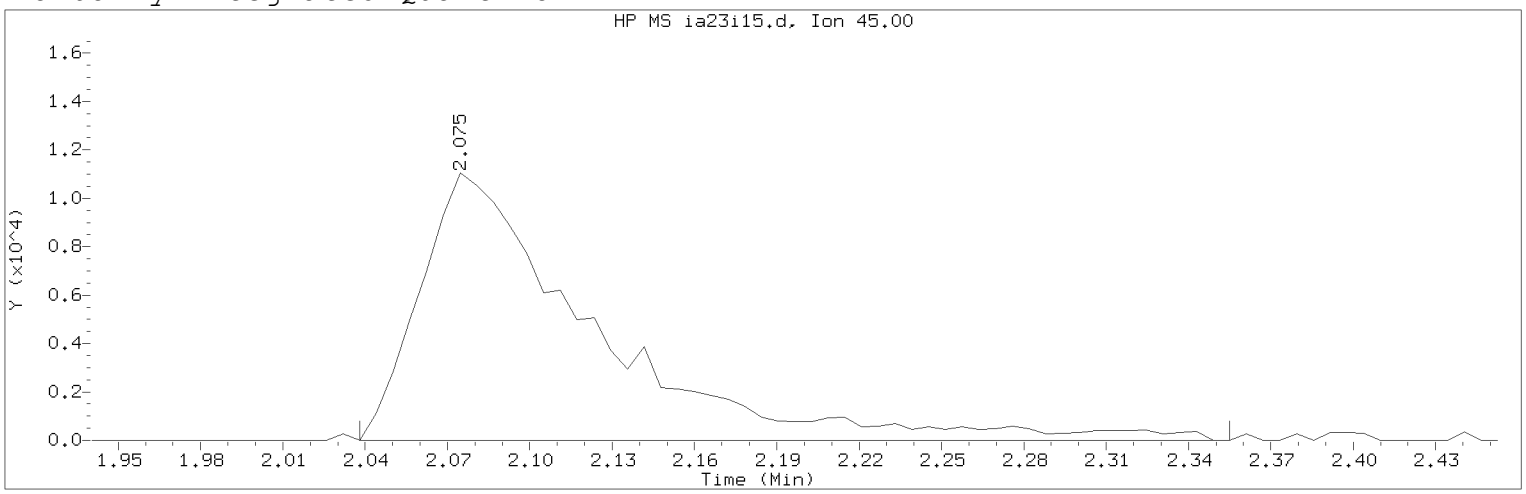
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

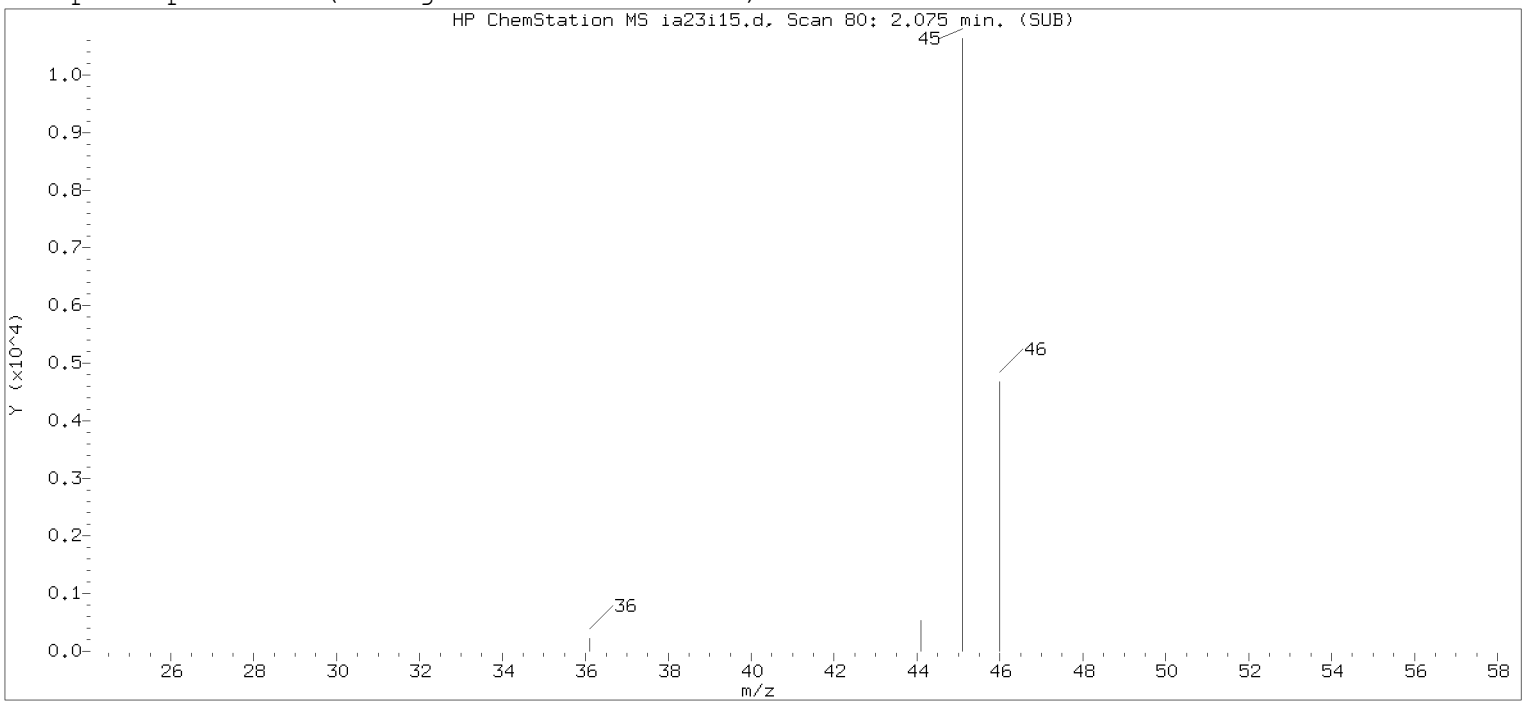
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 80
Retention Time (minutes): 2.075
Quant Ion : 45.00
Area (flag) : 48196M
On-Column Amount (ng) : 0.9954
Integration start scan : 73 Integration stop scan: 125
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

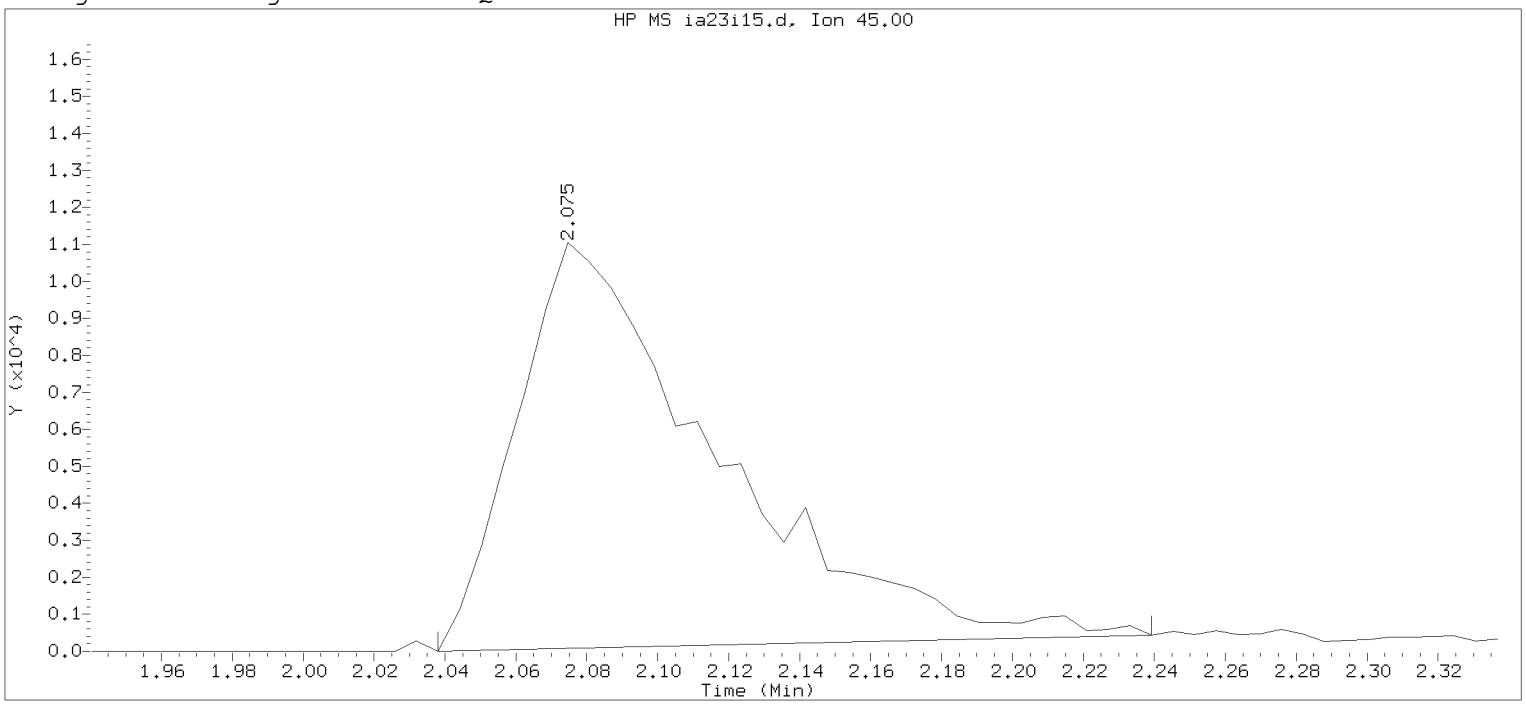
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

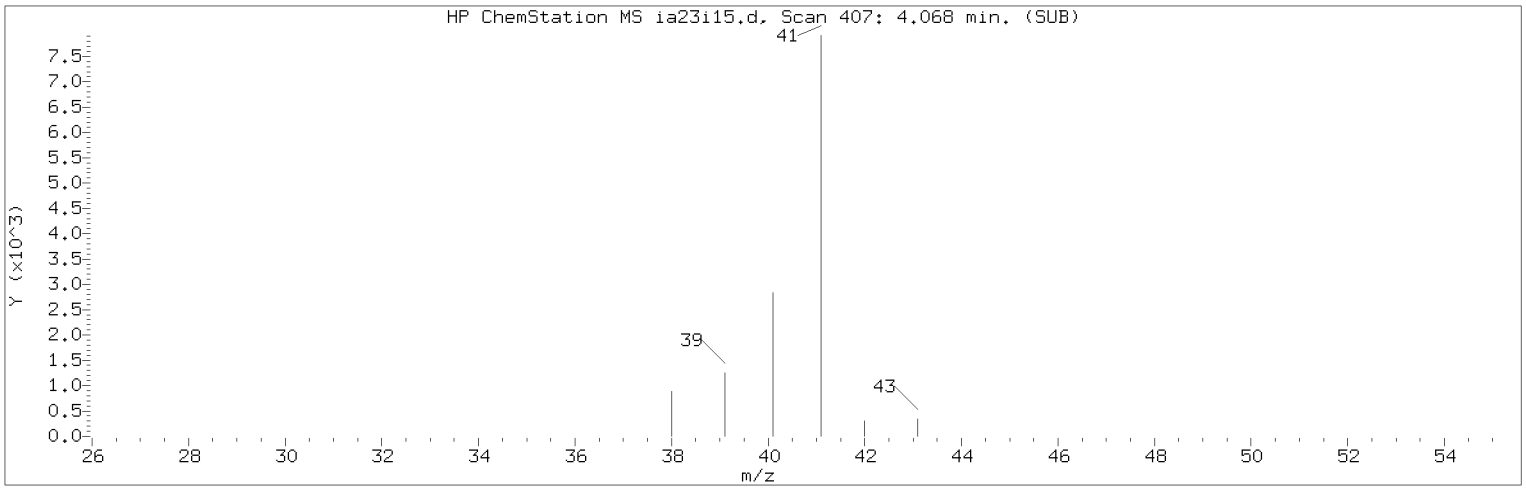
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

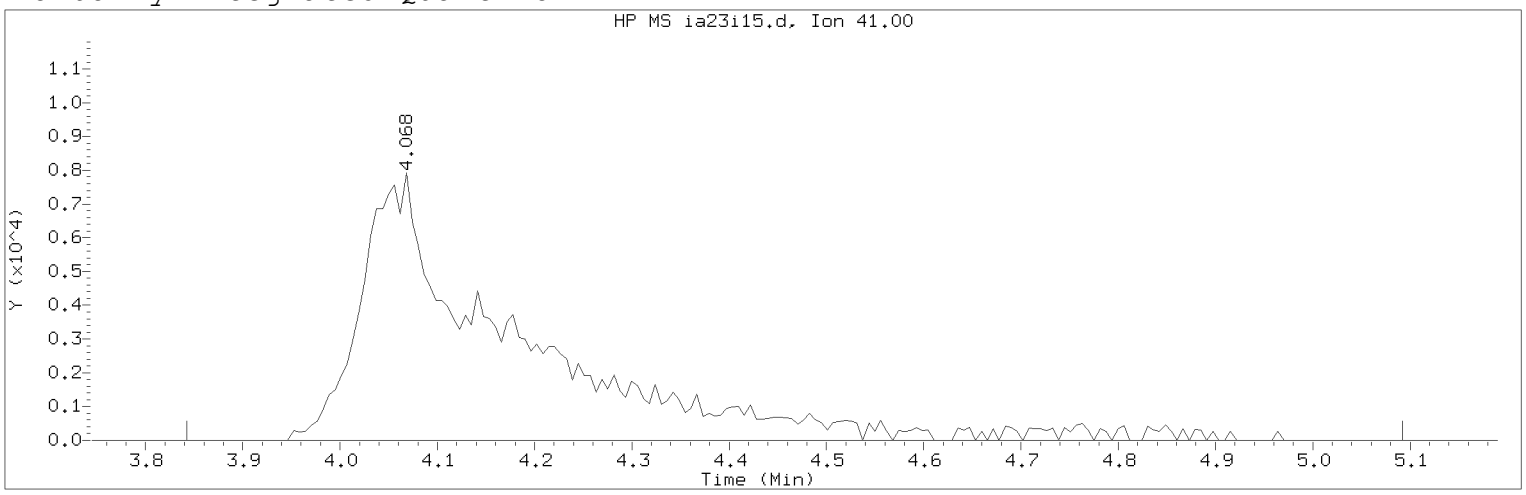
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 80		
Retention Time (minutes)	: 2.075		
Quant Ion	: 45.00		
Area	: 42901		
On-column Amount (ng)	: 0.9442		
Integration start scan	: 73	Integration stop scan:	106
Y at integration start	: 0	Y at integration end:	442

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

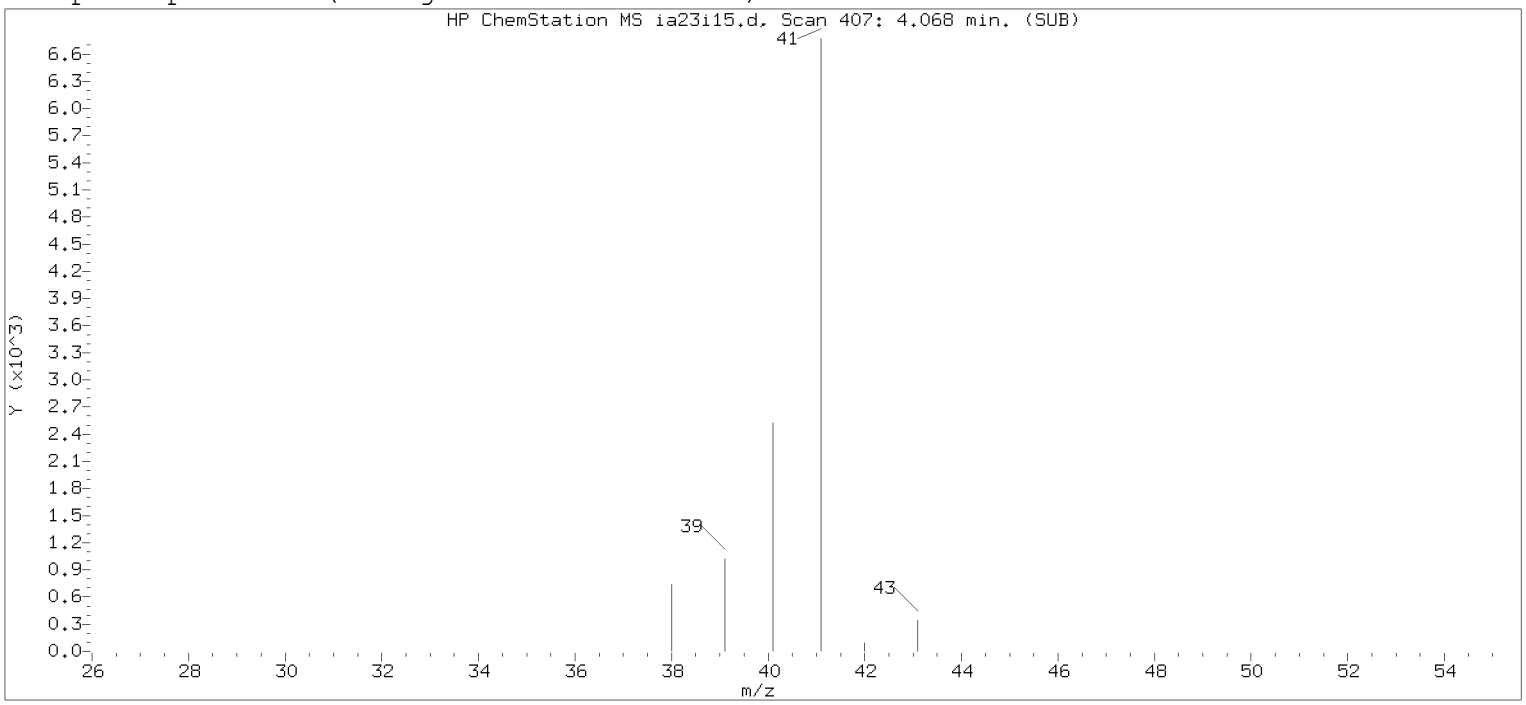
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 41.00
Area (flag) : 85583M
On-Column Amount (ng) : 40.1169
Integration start scan : 369 Integration stop scan: 574
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

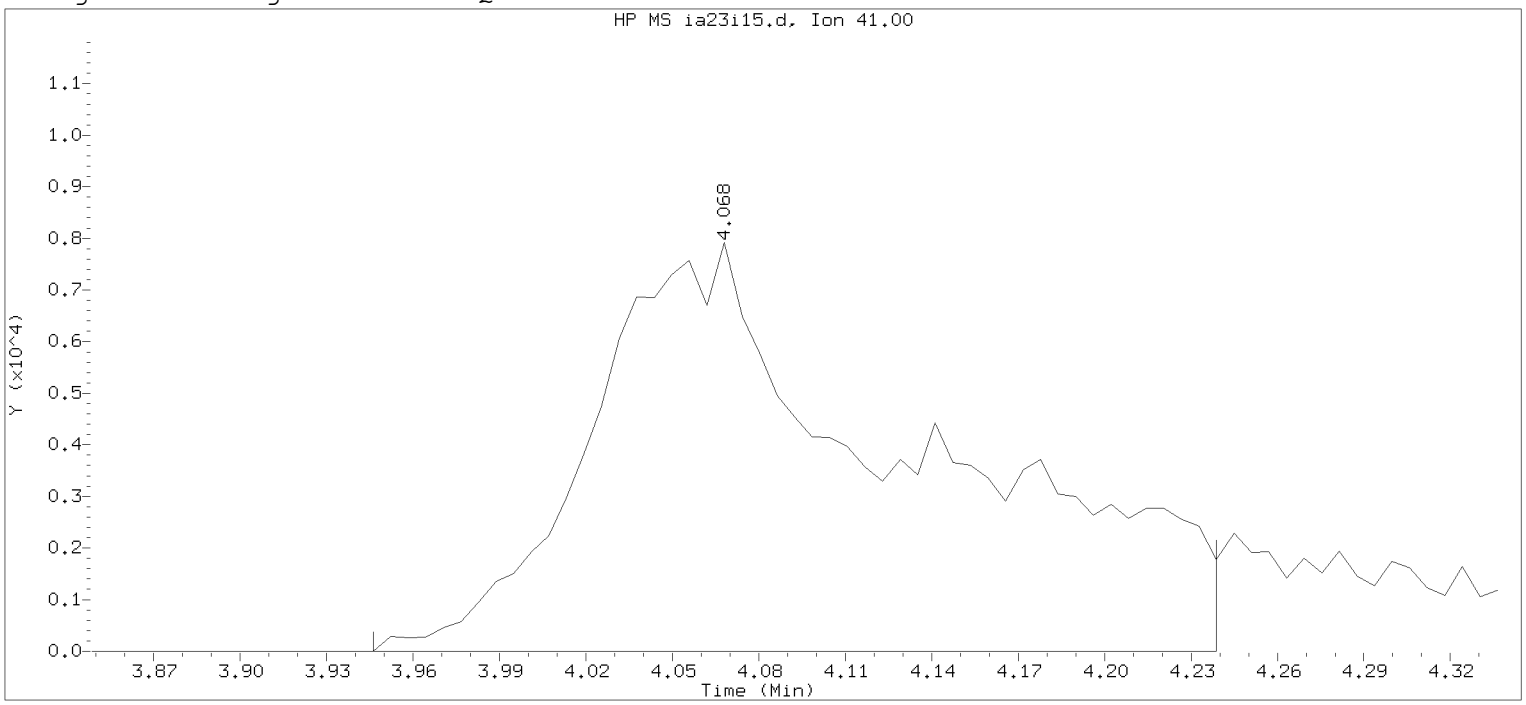
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

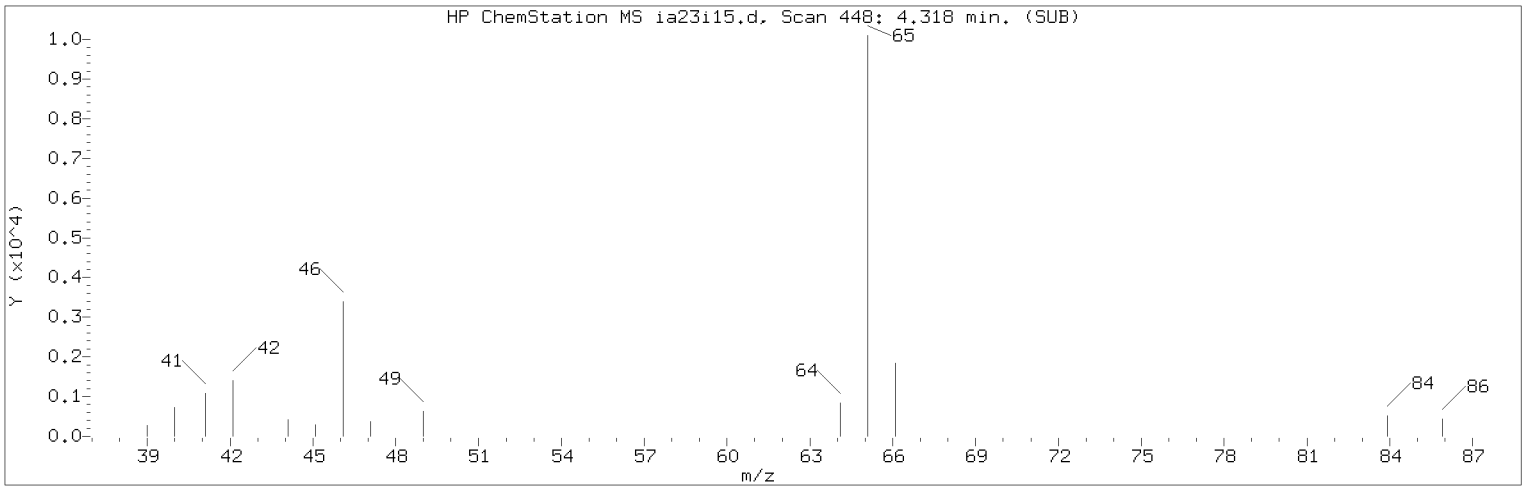
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

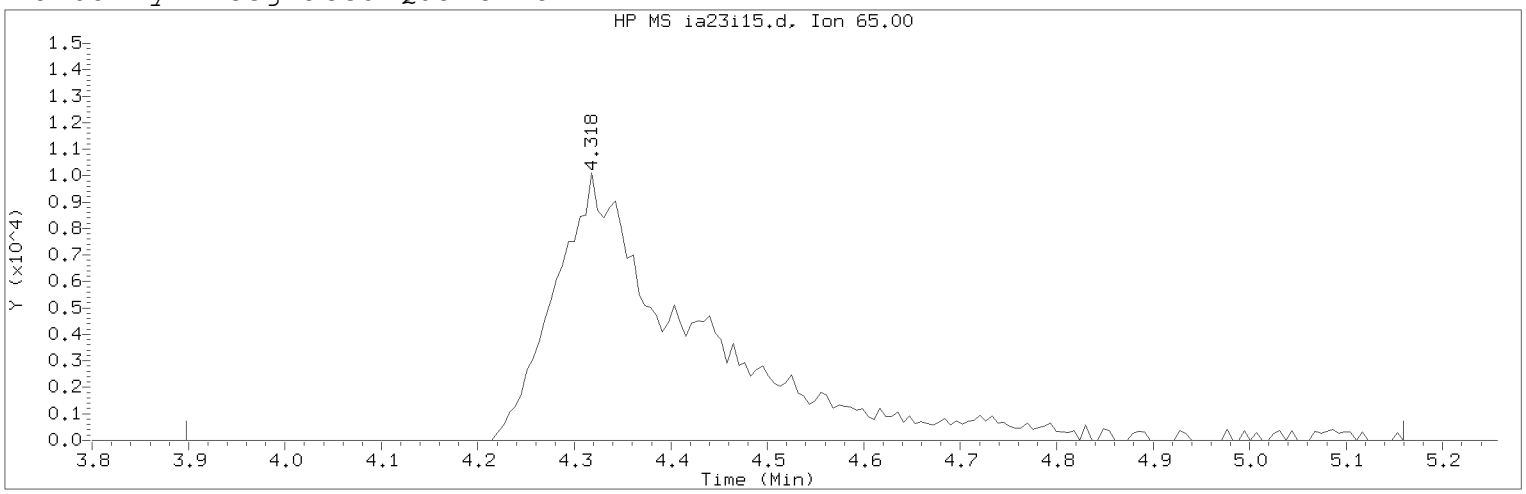
Compound Number	: 25		
Compound Name	: Acetonitrile		
Scan Number	: 407		
Retention Time (minutes)	: 4.068		
Quant Ion	: 41.00		
Area	: 61925		
On-column Amount (ng)	: 34.8512		
Integration start scan	: 386	Integration stop scan:	434
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

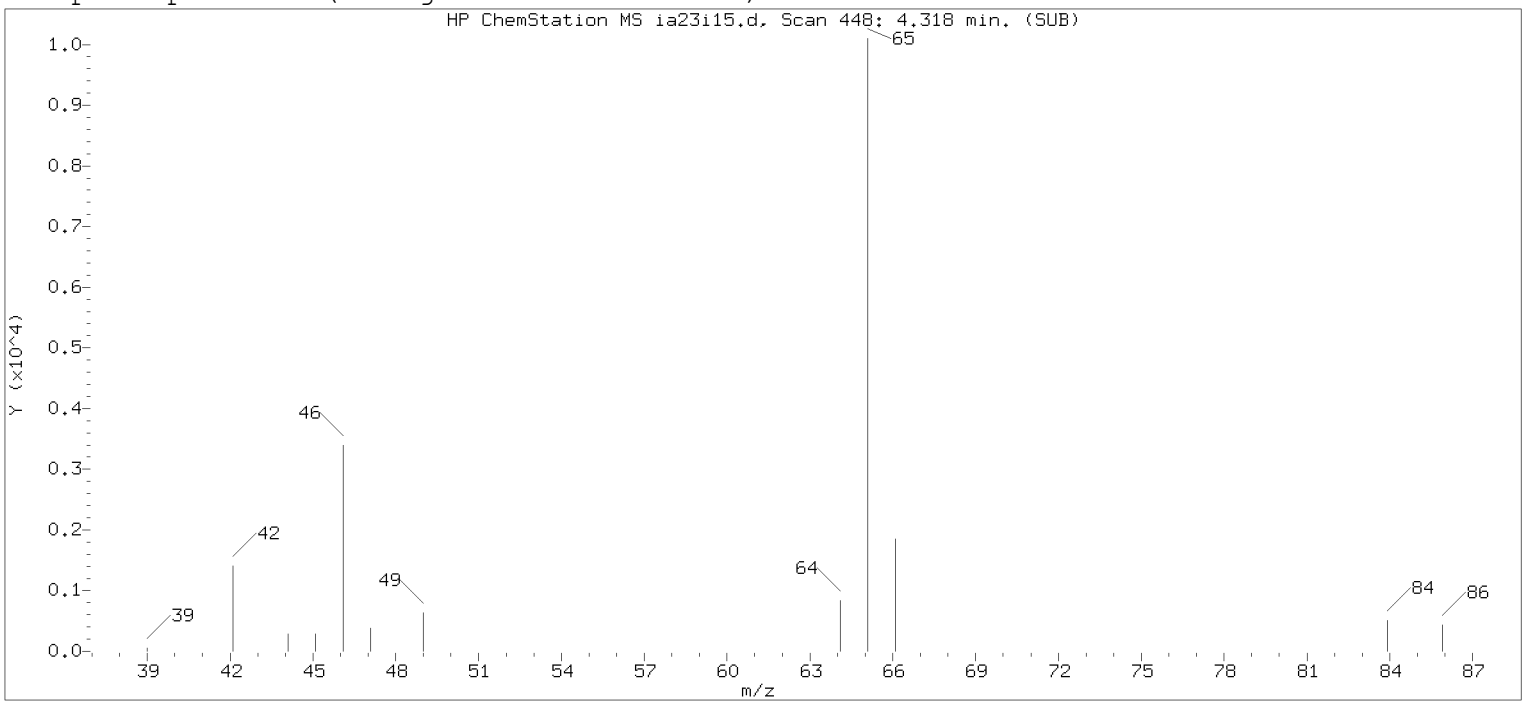
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 448
Retention Time (minutes): 4.318
Quant Ion : 65.00
Area (flag) : 104314M
On-Column Amount (ng) : 50.0000
Integration start scan : 378 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

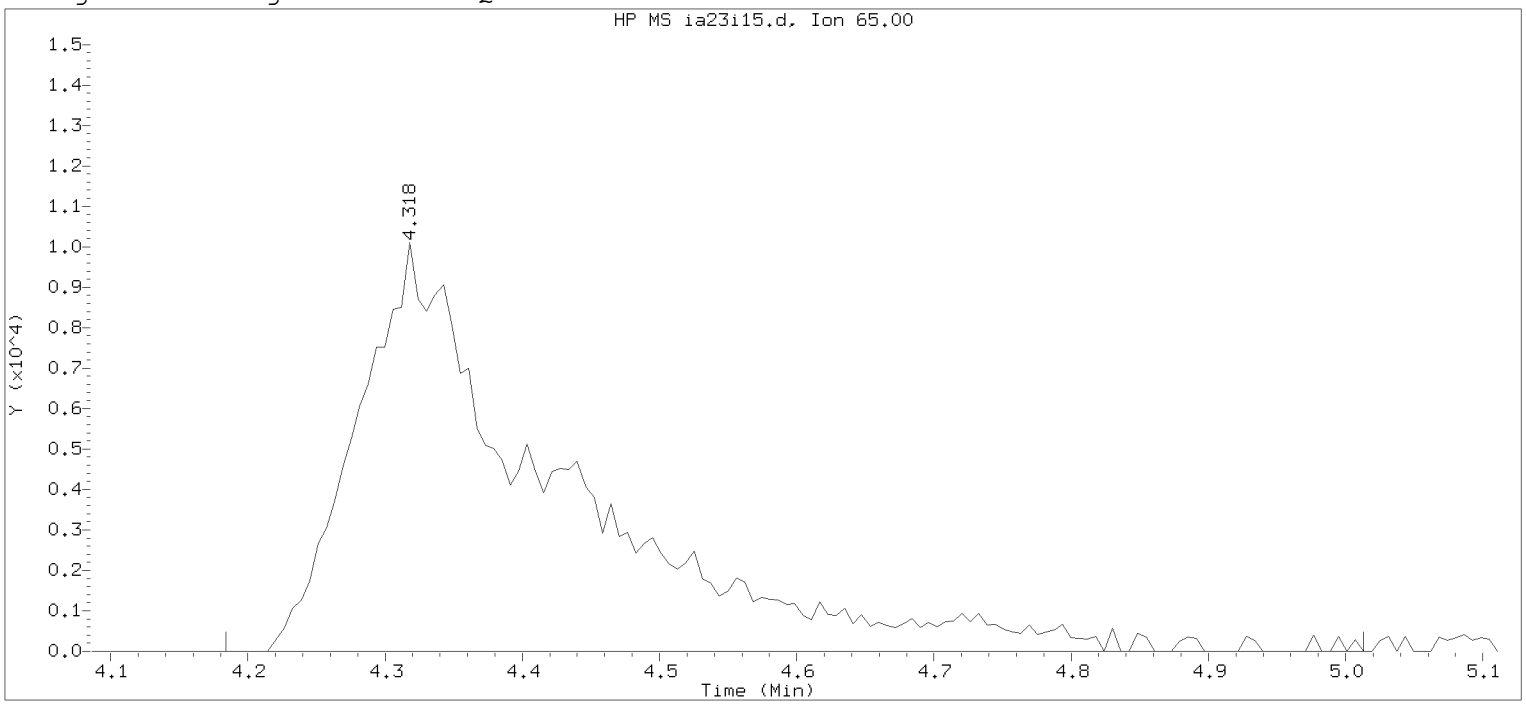
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

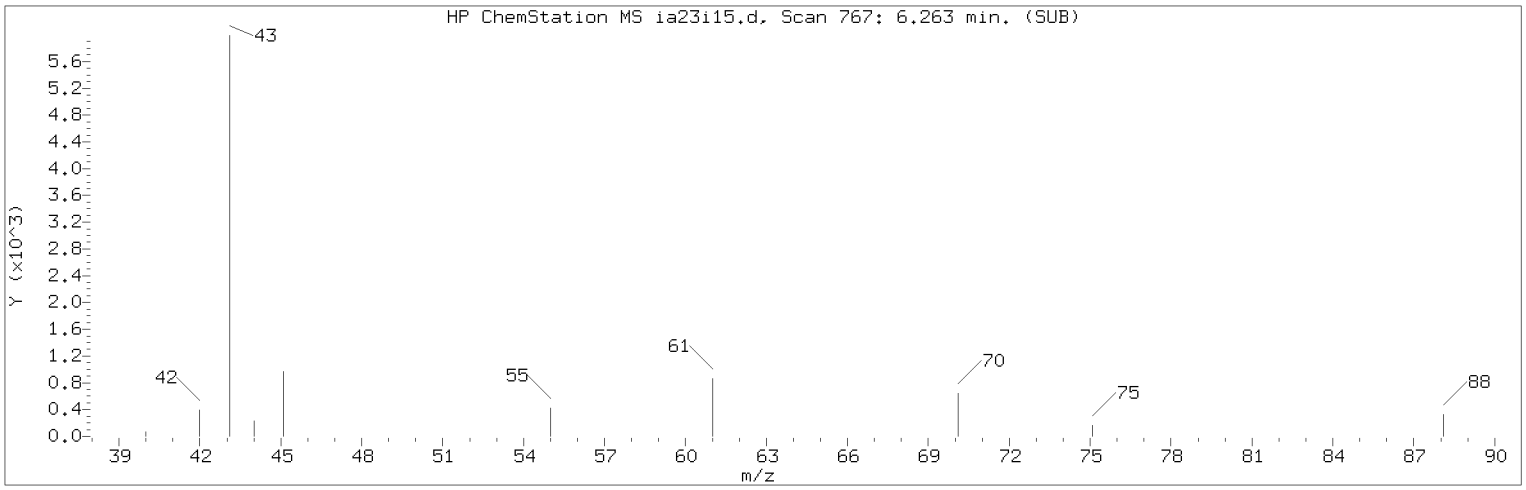
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

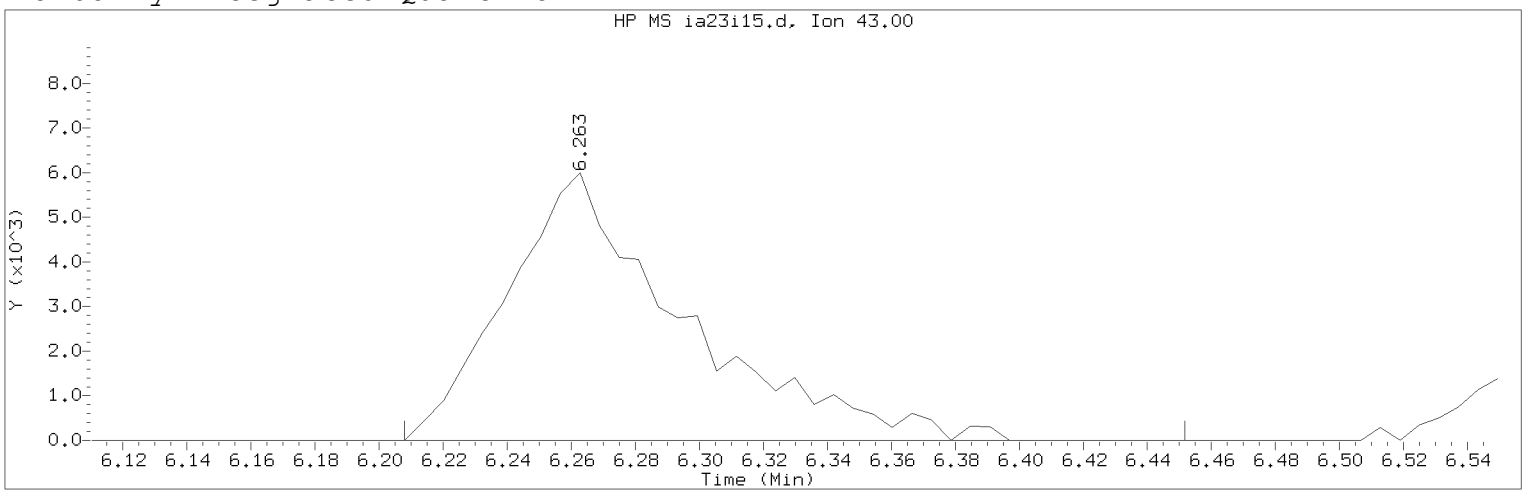
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 448
Retention Time (minutes): 4.318
Quant Ion : 65.00
Area : 102895
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 561
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

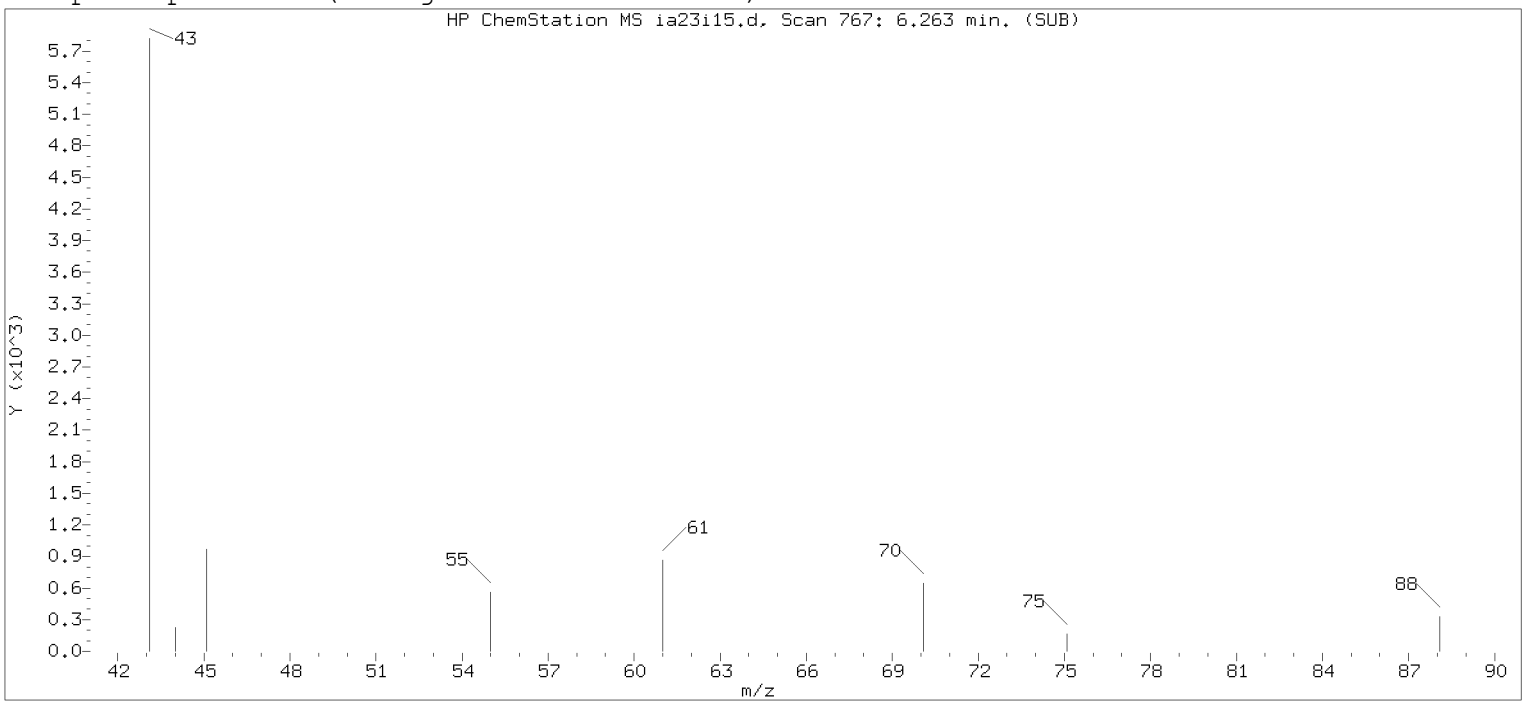
Compound Number : 46
Compound Name : Ethyl Acetate
Scan Number : 767
Retention Time (minutes): 6.263
Quant Ion : 43.00
Area (flag) : 22867M
On-Column Amount (ng) : 0.9422
Integration start scan : 757 Integration stop scan: 797
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

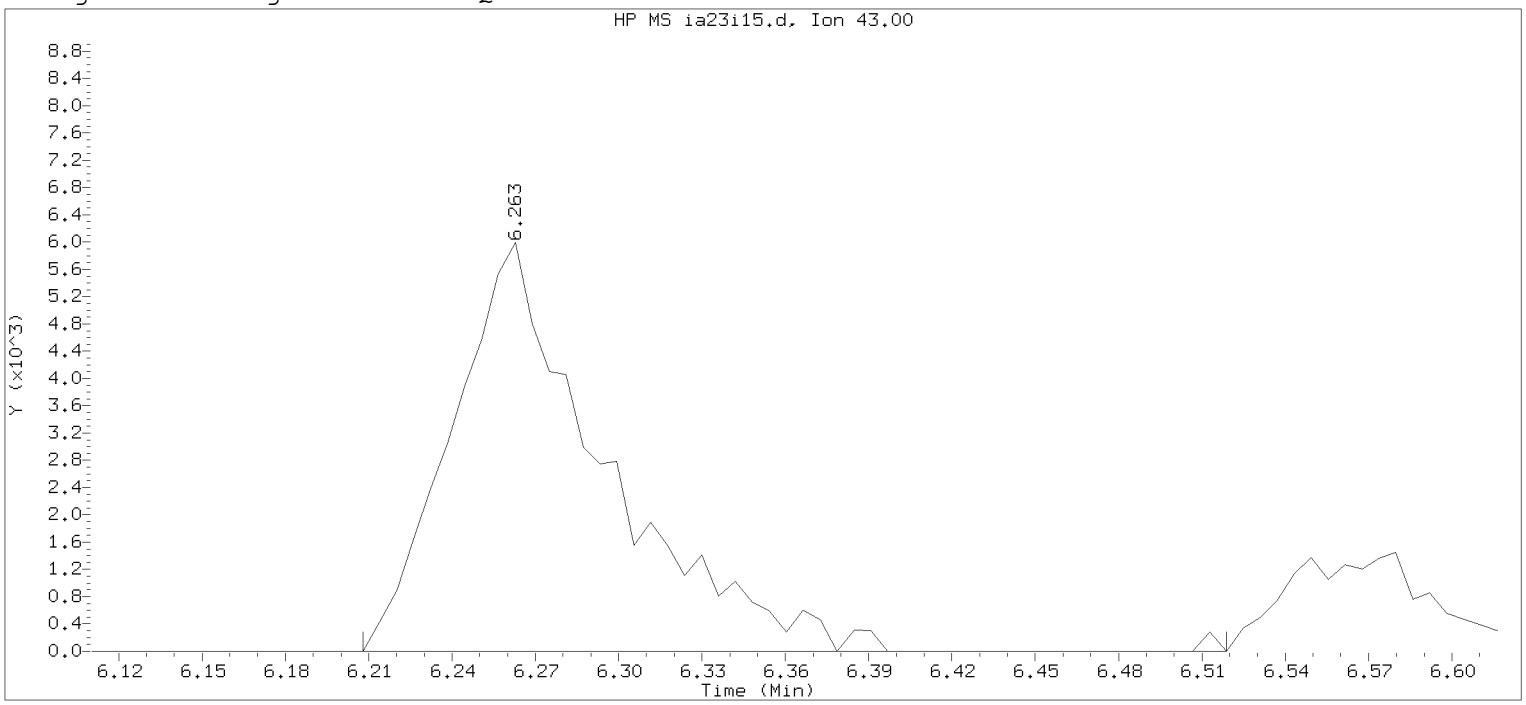
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

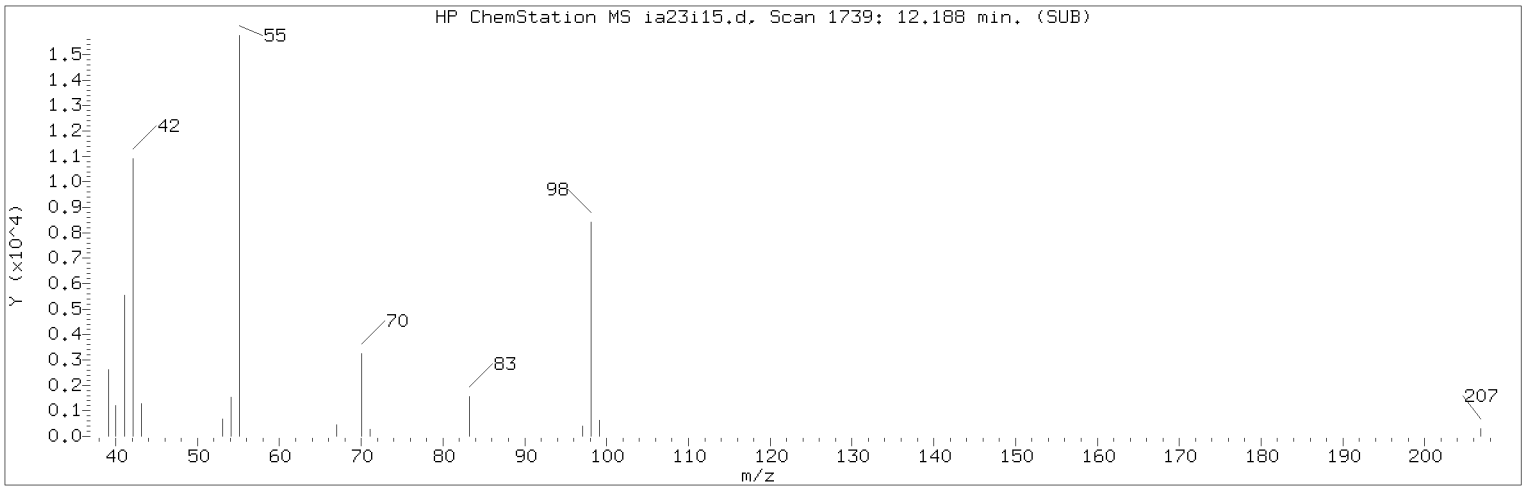
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

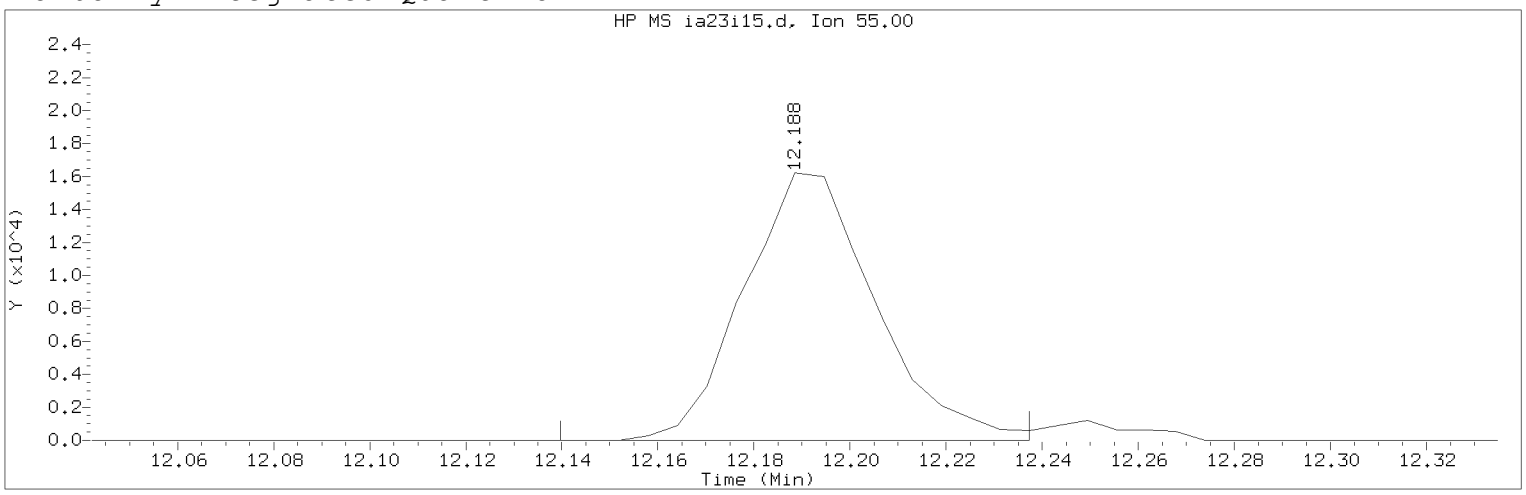
Compound Number : 46
Compound Name : Ethyl Acetate
Scan Number : 767
Retention Time (minutes): 6.263
Quant Ion : 43.00
Area : 22972
On-column Amount (ng) : 0.9376
Integration start scan : 757 Integration stop scan: 808
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used. Page 1389

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

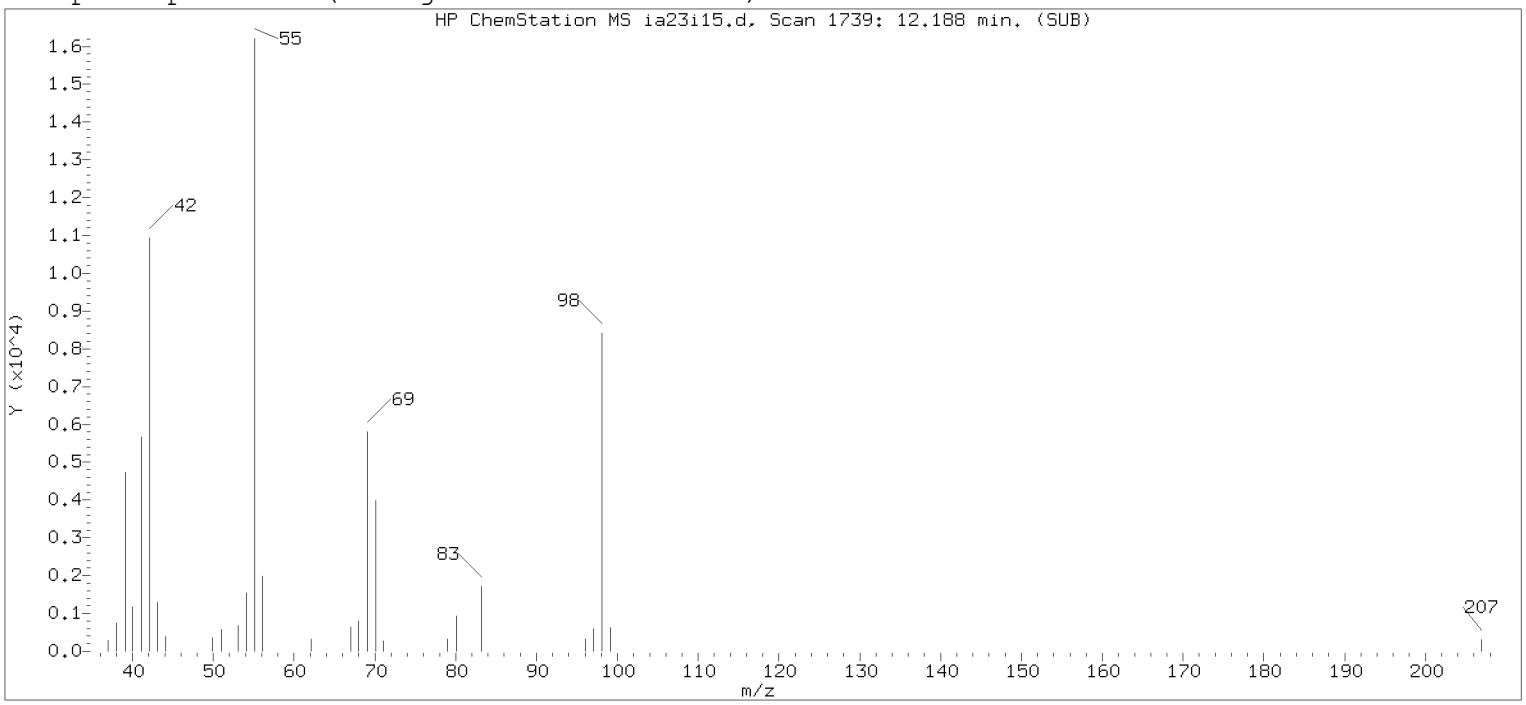
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area (flag) : 30815M
On-Column Amount (ng) : 47.9512
Integration start scan : 1730 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

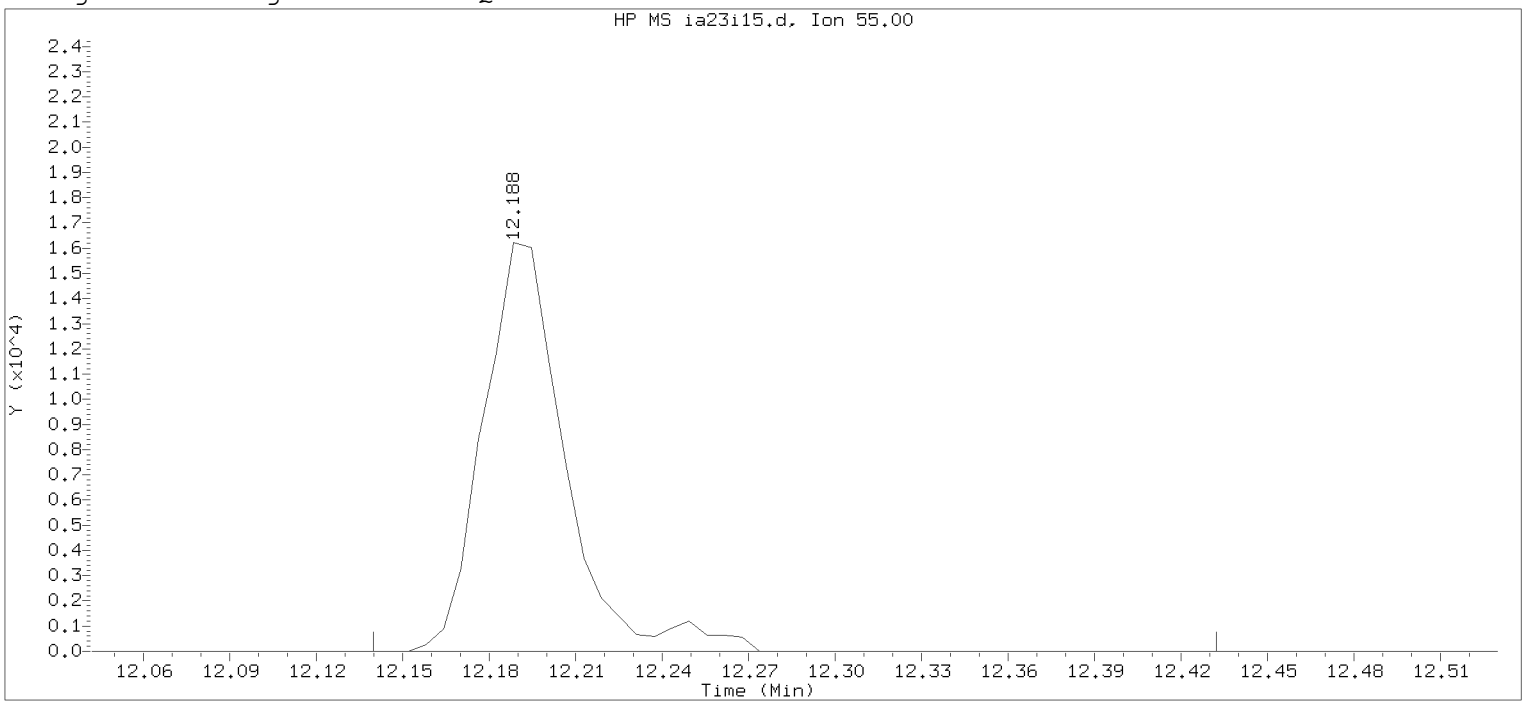
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



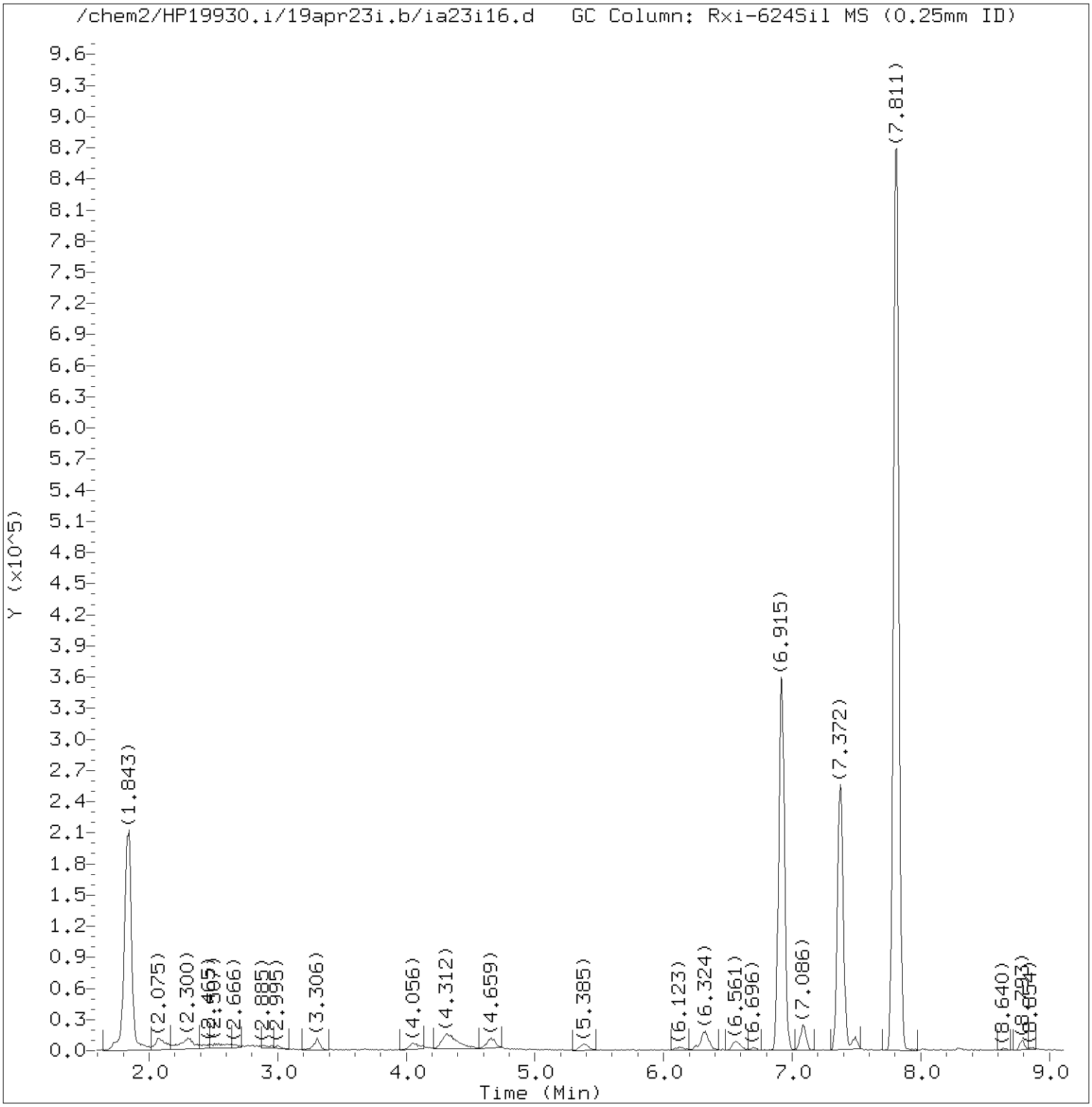
Data File: /chem2/HP19930.i/19apr23i.b/ia23i15.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:12 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area : 32249
On-column Amount (ng) : 48.0656
Integration start scan : 1730 Integration stop scan: 1778
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Jennifer K. Howe



Total Ion Chromatogram (TIC)

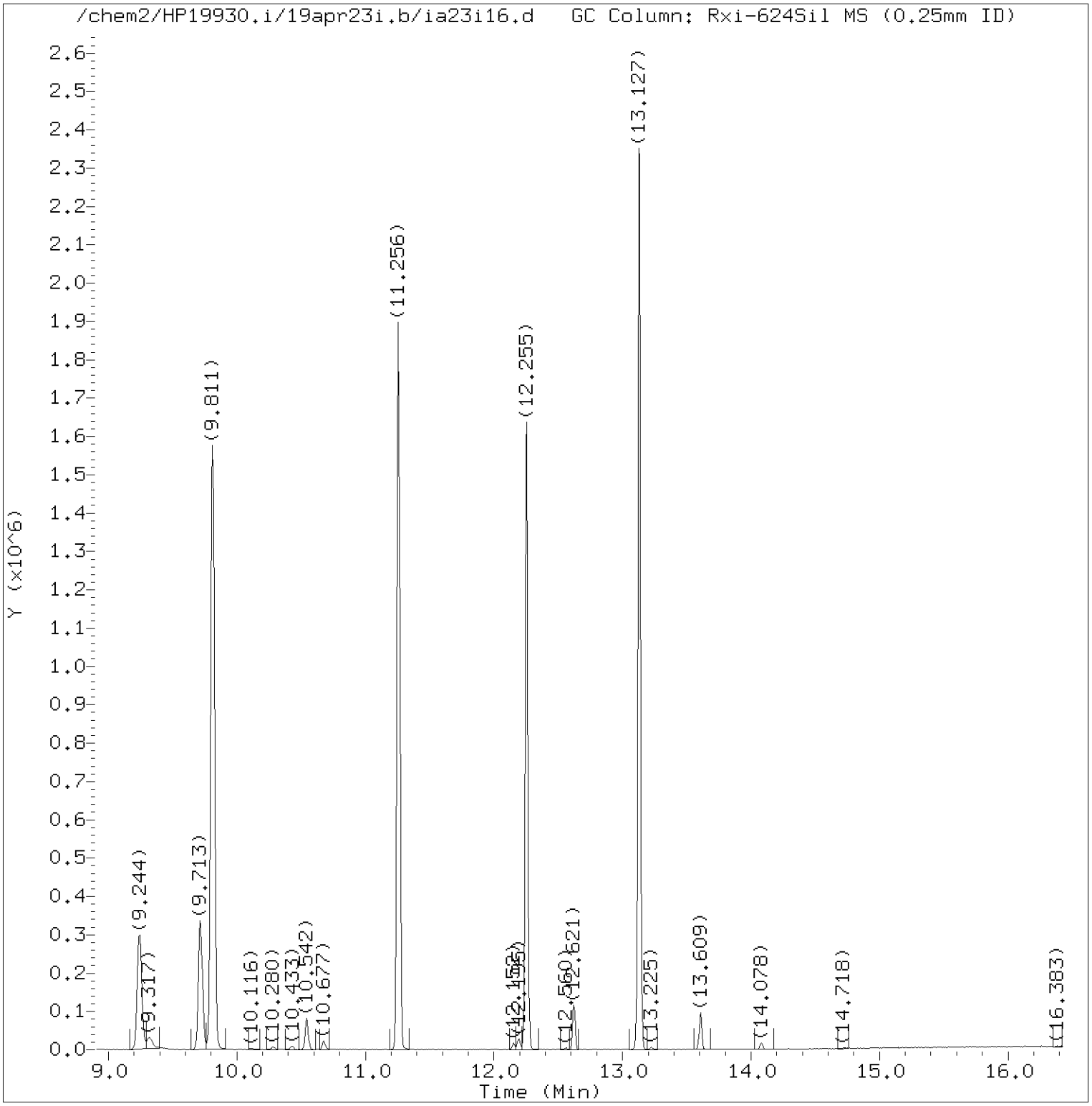
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

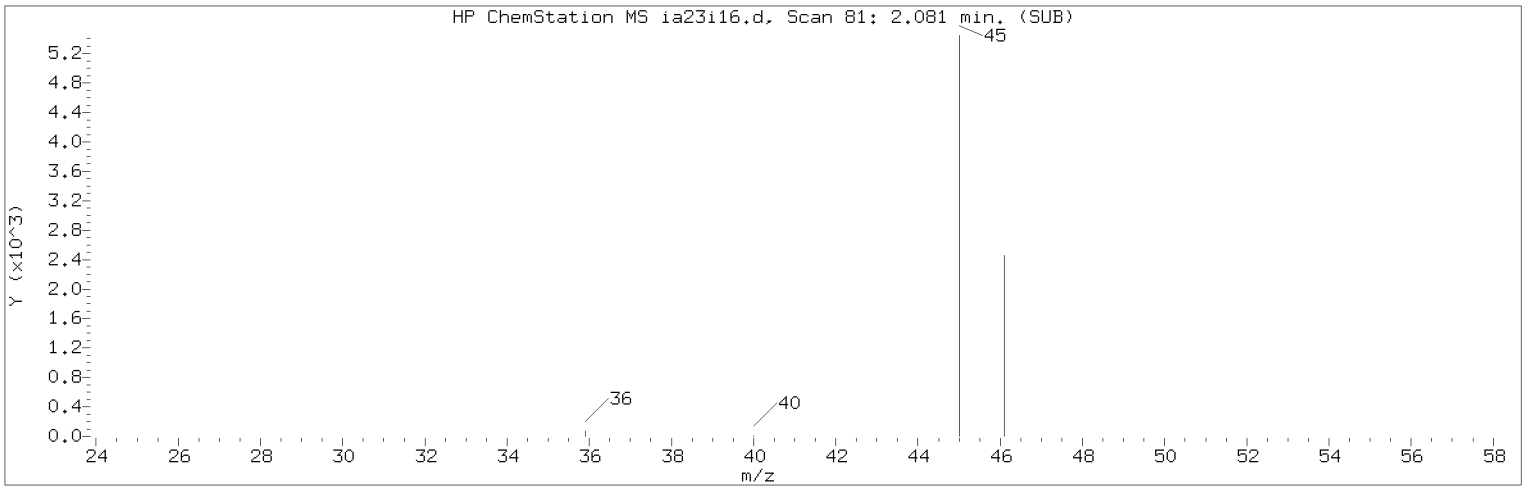
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.081	45	22952M	0.487
25) Acetonitrile	(1)	4.038	41	37975M	20.203
26)*t-Butyl Alcohol-d10	(1)	4.306	65	91909M	50.000
36) Vinyl Acetate	(2)	5.385	43	20013	0.449
46) Ethyl Acetate	(2)	6.251	43	12145M	0.515
43) Methyl Acrylate	(2)	6.324	55	43902	2.388
53) 1-Chlorobutane	(2)	7.098	56	29998	0.476
63)*Fluorobenzene	(2)	7.805	96	1295249	10.000
77) Chloroacetonitrile	(2)	9.317	75	23632	22.799
78) 2-Chloroethyl vinyl ether	(2)	9.317	63	7355	0.509
97)*Chlorobenzene-d5	(3)	11.256	117	1078684	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.152	88	4109	1.365
112) Cyclohexanone	(1)	12.188	55	12447M	21.983
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	601523	10.000
142) Hexachloroethane	(4)	13.609	117	15871	0.471

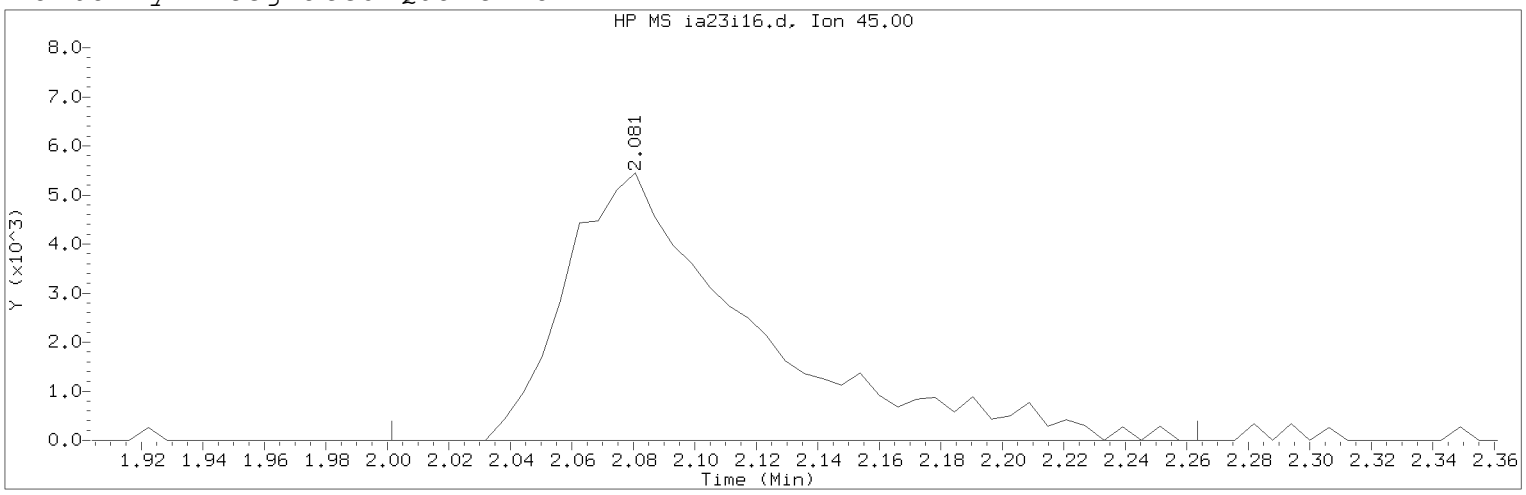
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

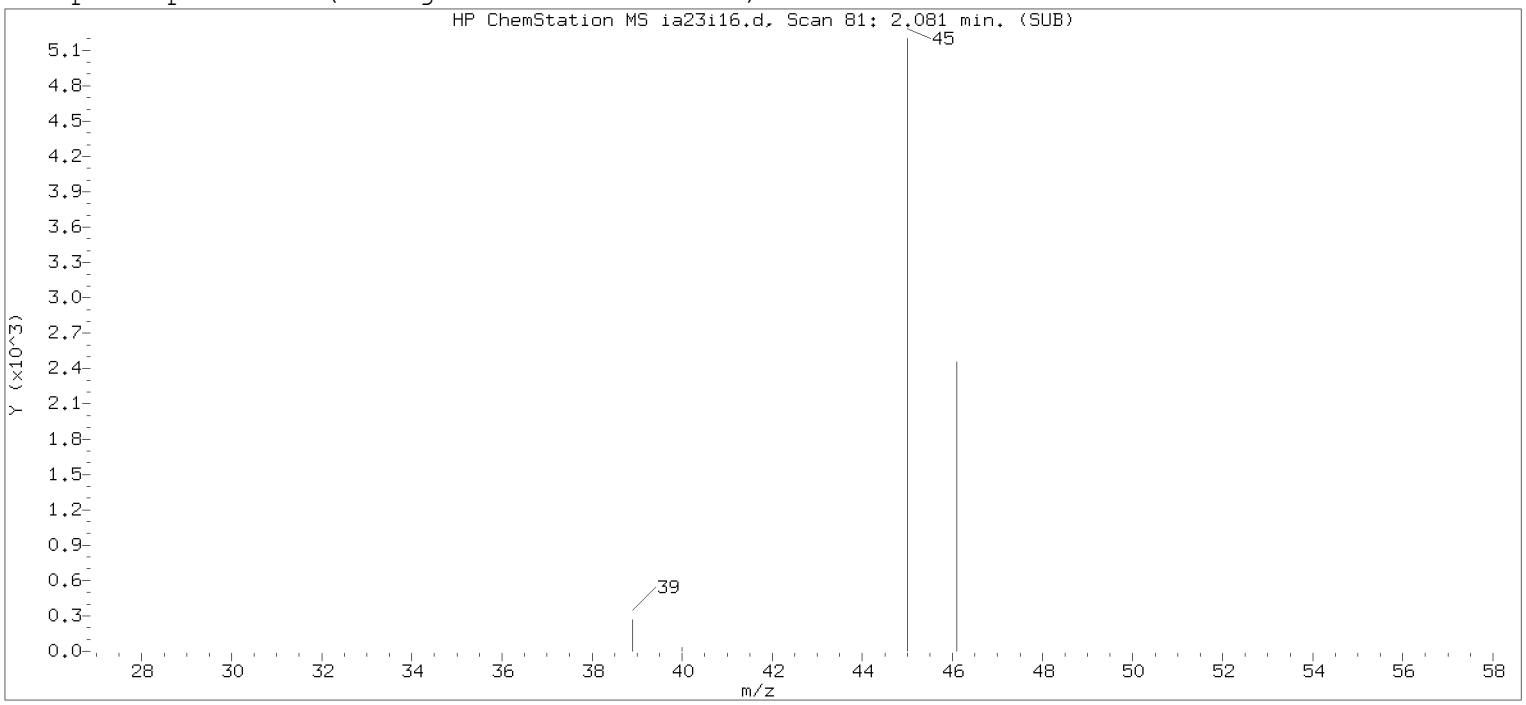
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 81
Retention Time (minutes): 2.081
Quant Ion : 45.00
Area (flag) : 22952M
On-Column Amount (ng) : 0.4875
Integration start scan : 67 Integration stop scan: 110
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

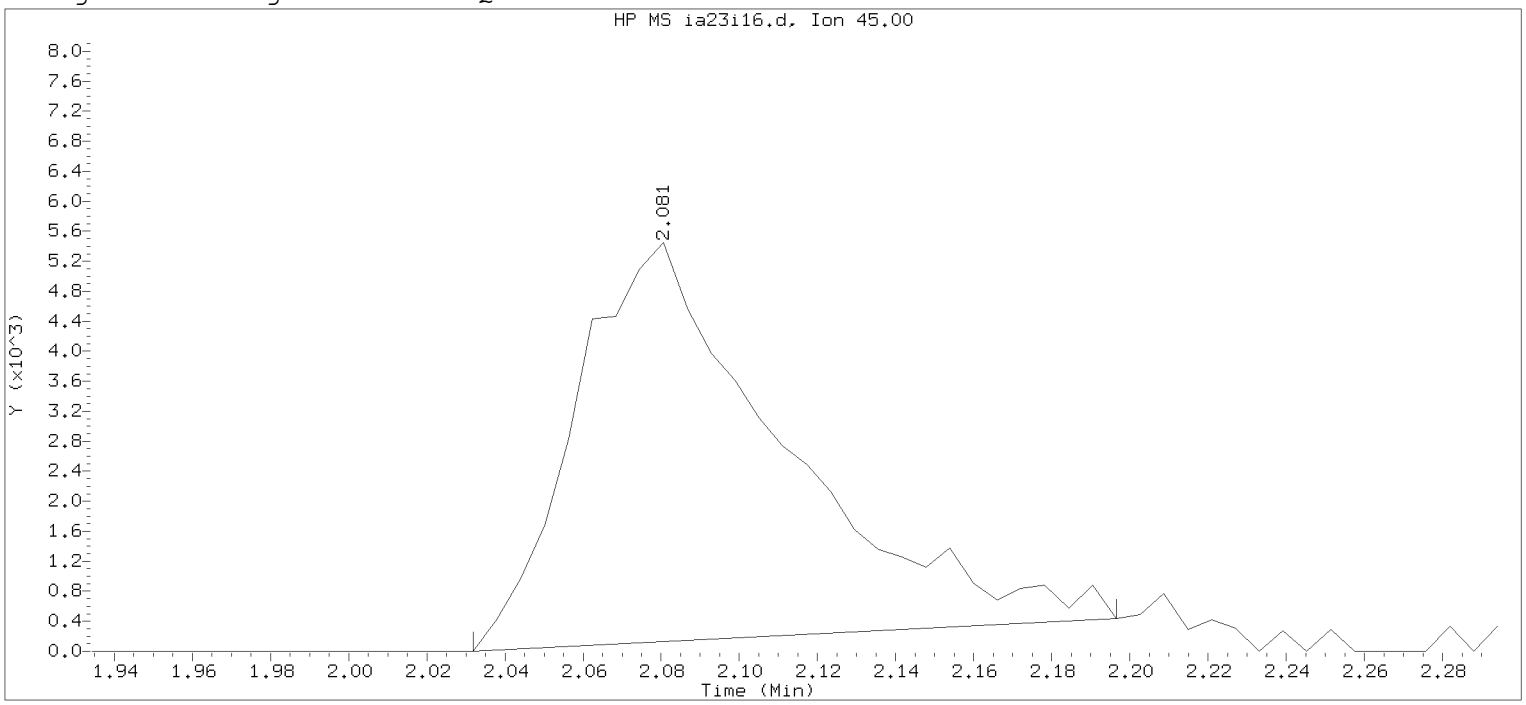
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 81
Retention Time (minutes): 2.081
Quant Ion : 45.00
Area : 19678
On-column Amount (ng) : 0.4536
Integration start scan : 72 Integration stop scan: 99
Y at integration start : 0 Y at integration end: 436

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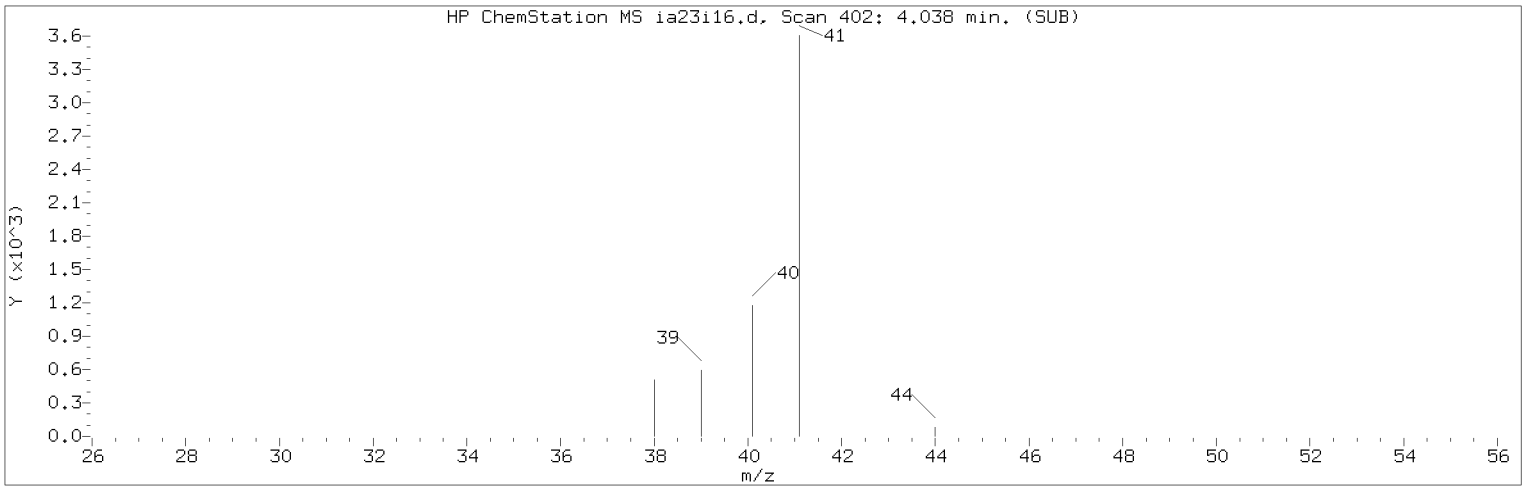
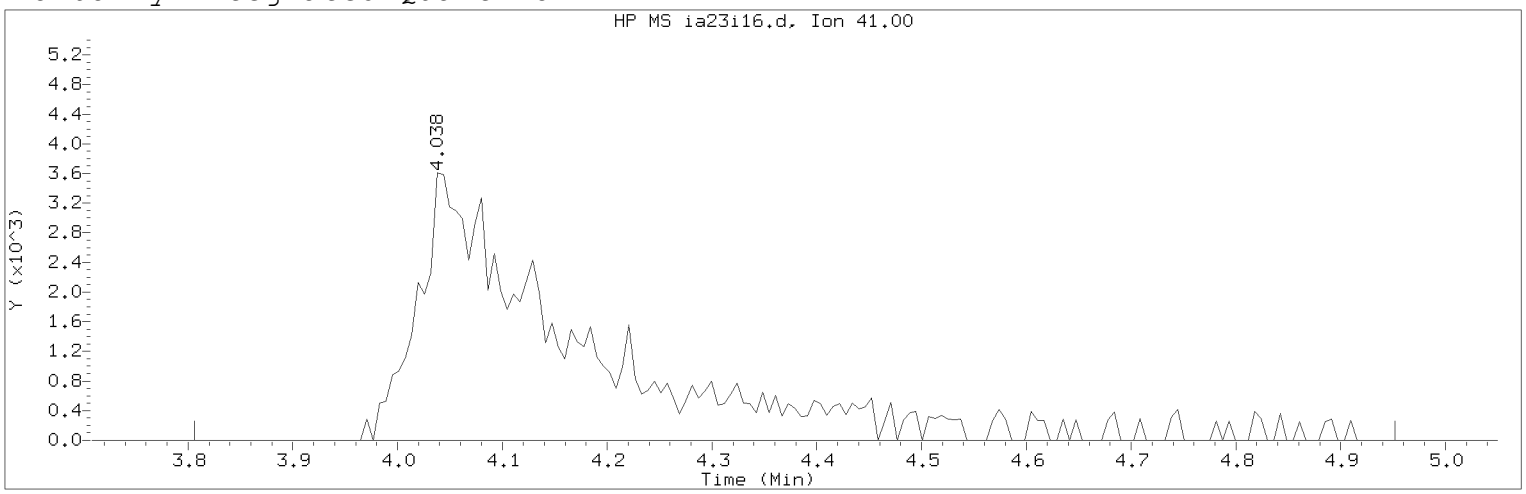
Target 3.5 esignature user: Page 1396

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

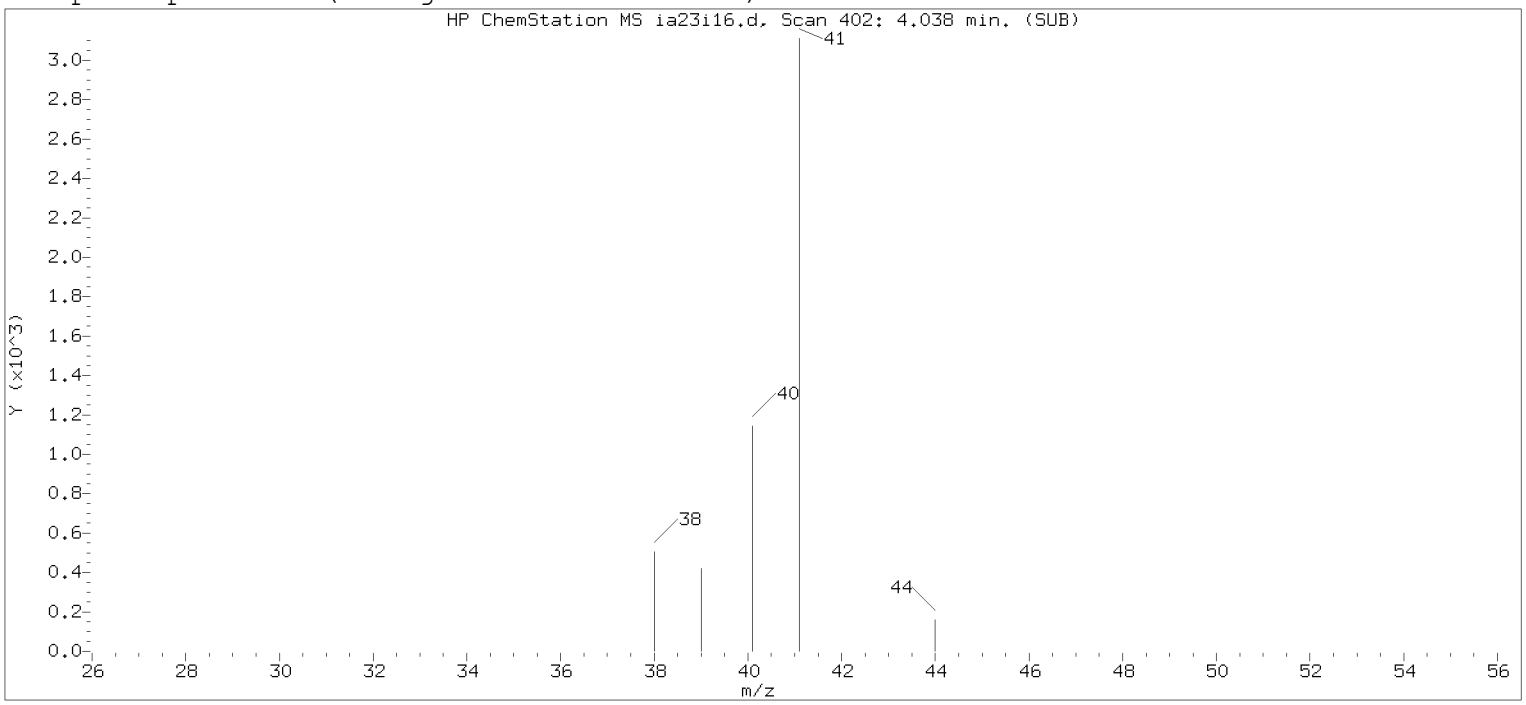
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 402
Retention Time (minutes): 4.038
Quant Ion : 41.00
Area (flag) : 37975M
On-Column Amount (ng) : 20.2033
Integration start scan : 363 Integration stop scan: 551
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

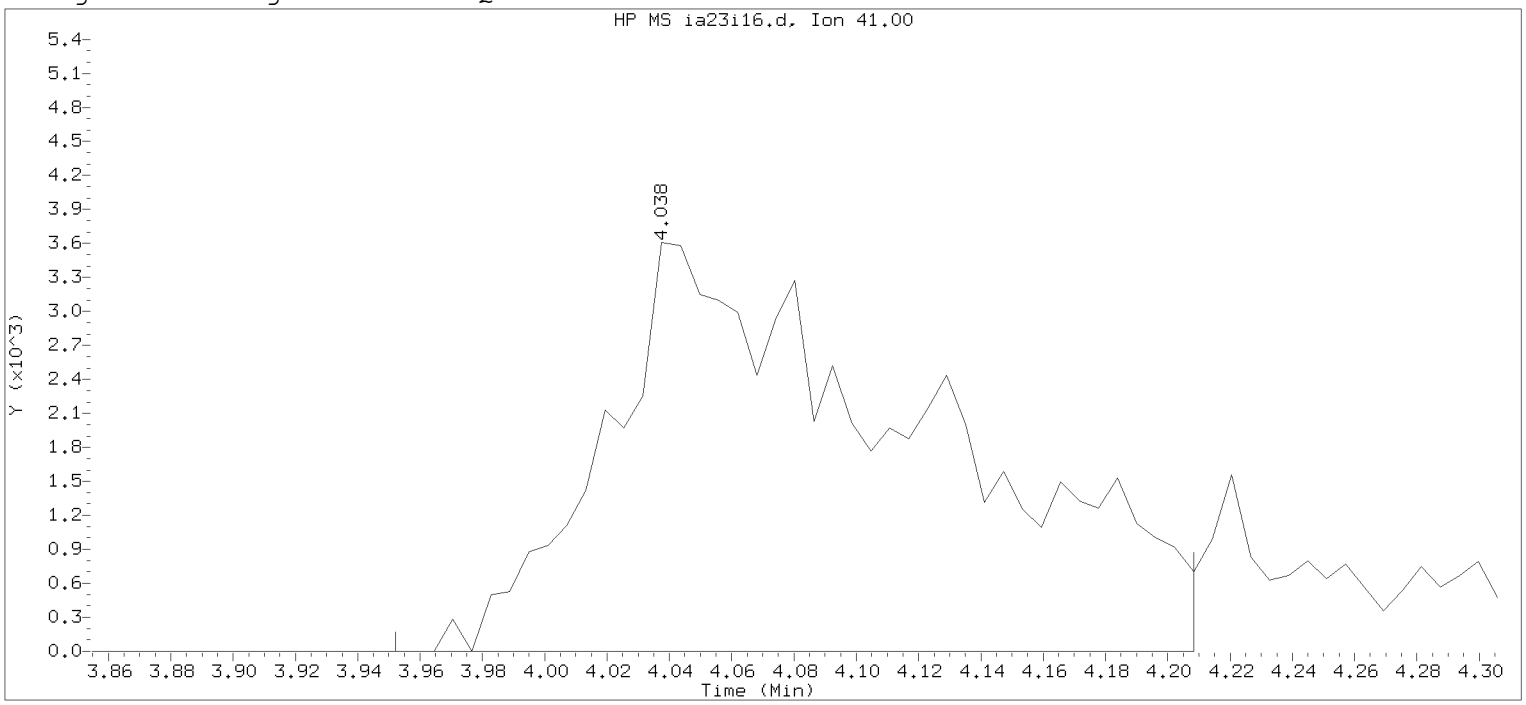
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

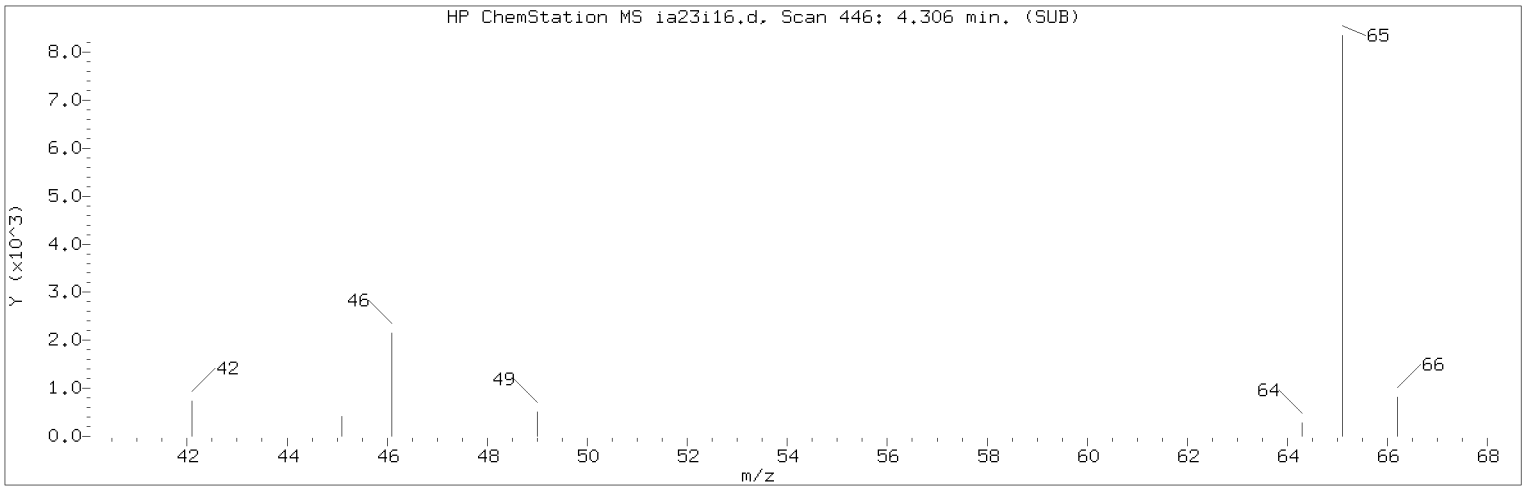
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

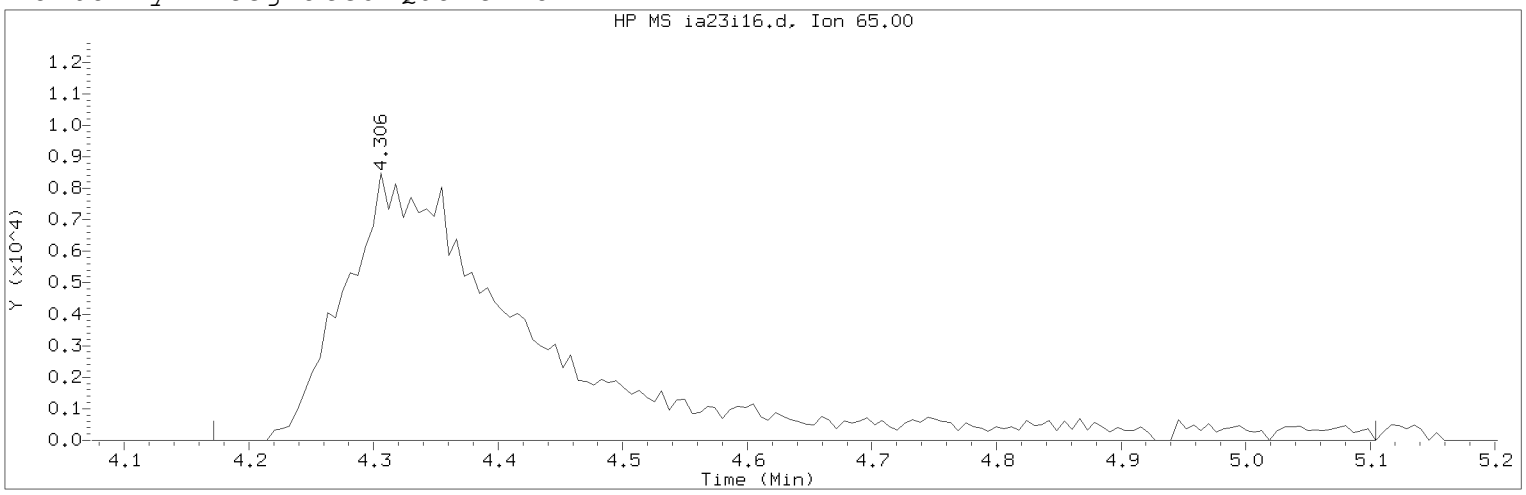
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 402
Retention Time (minutes): 4.038
Quant Ion : 41.00
Area : 25637
On-column Amount (ng) : 17.9308
Integration start scan : 387 Integration stop scan: 429
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Page 1398

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

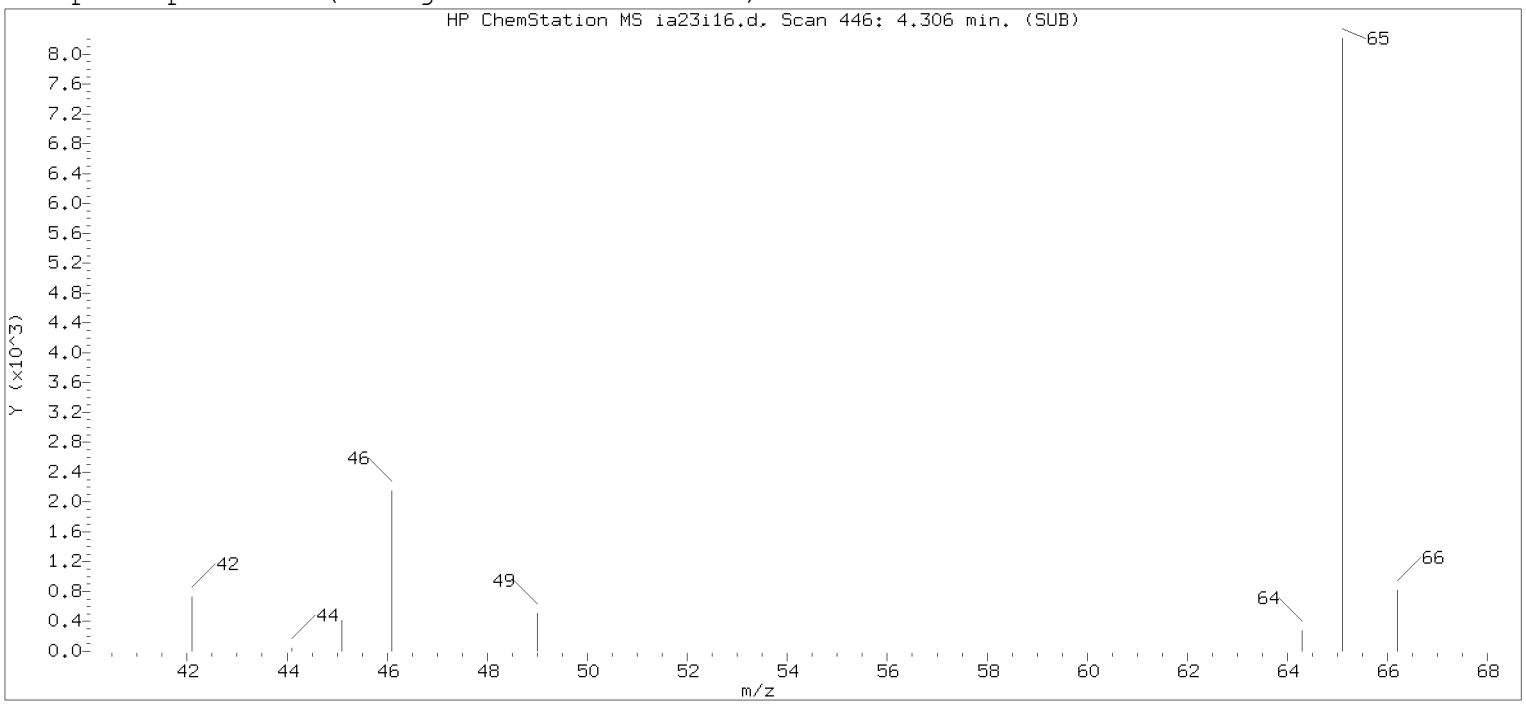
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area (flag) : 91909M
On-Column Amount (ng) : 50.0000
Integration start scan : 423 Integration stop scan: 576
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

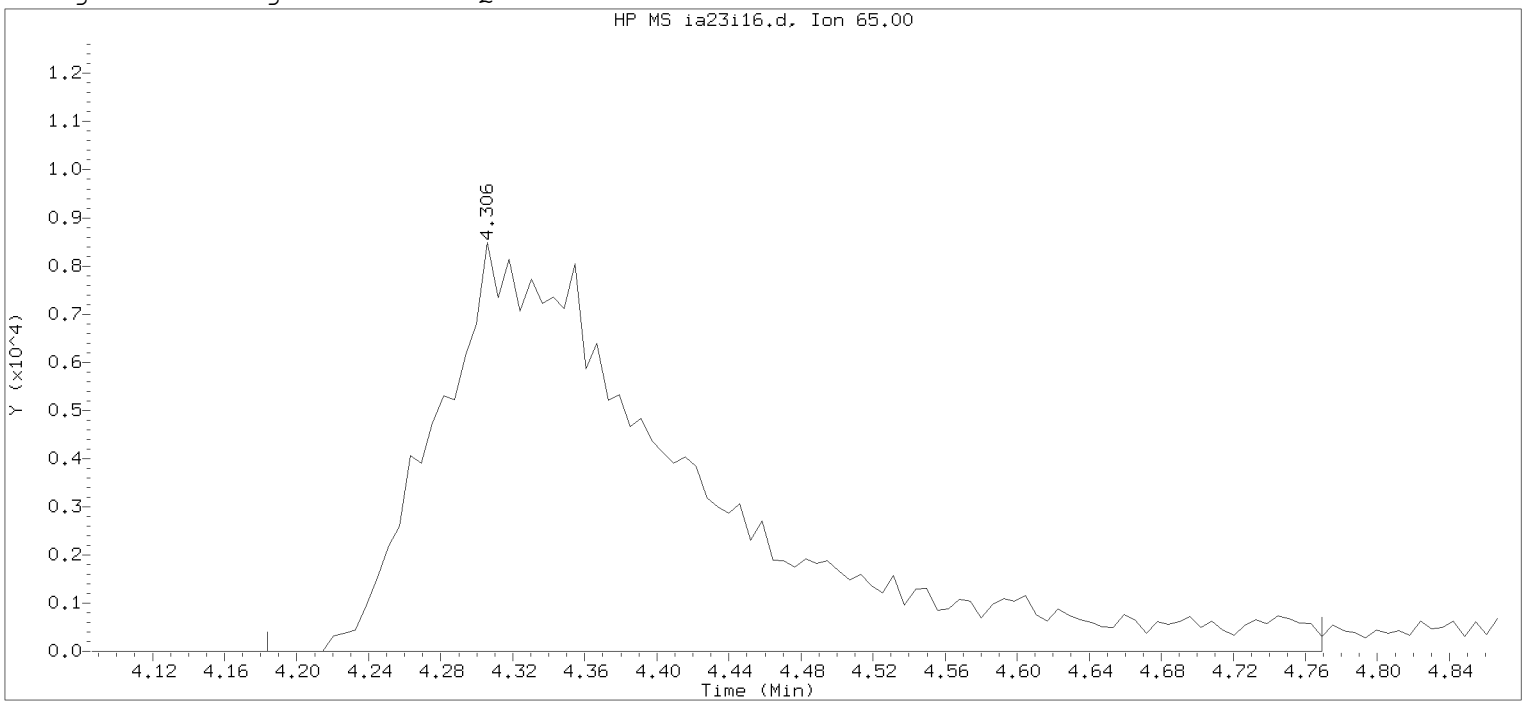
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

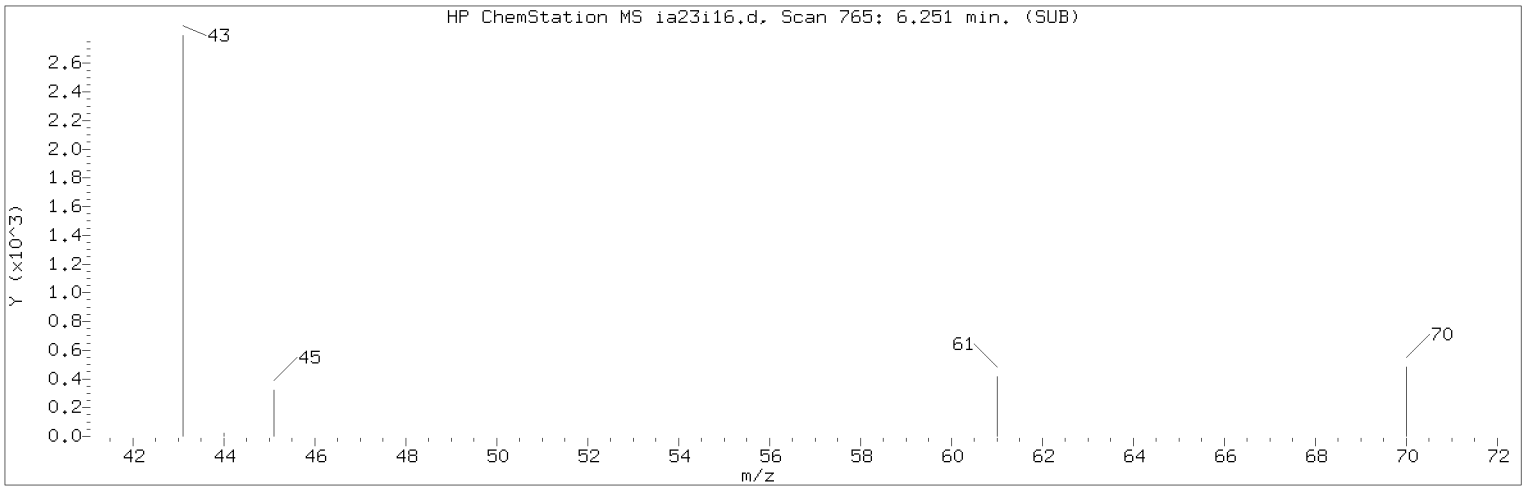
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

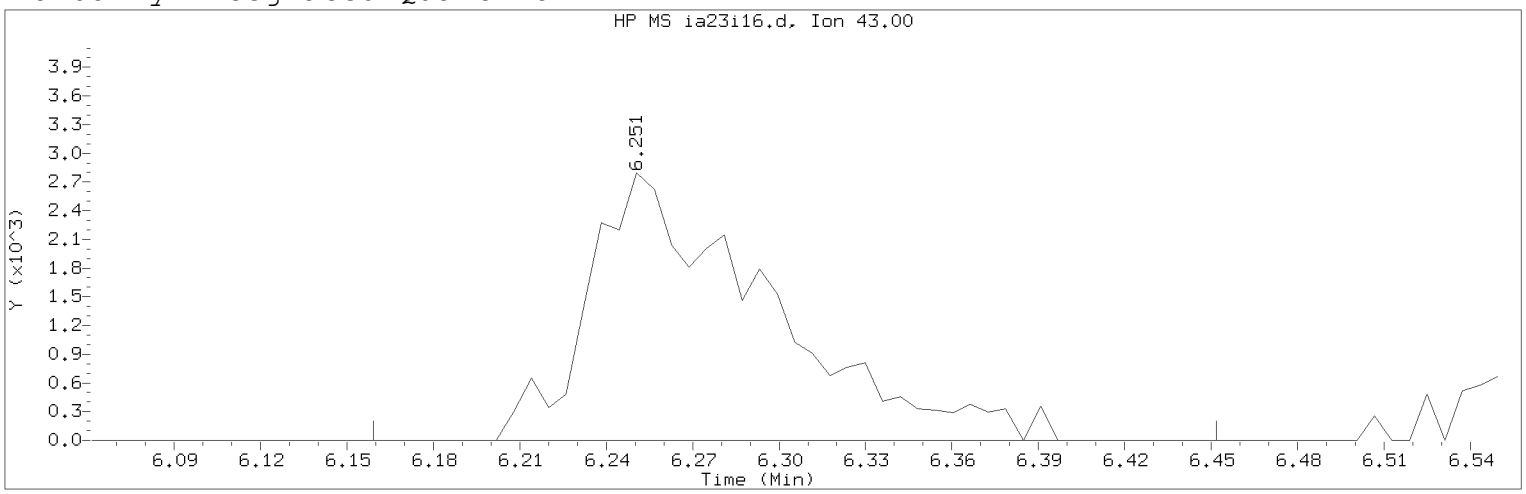
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area : 84512
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 521
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

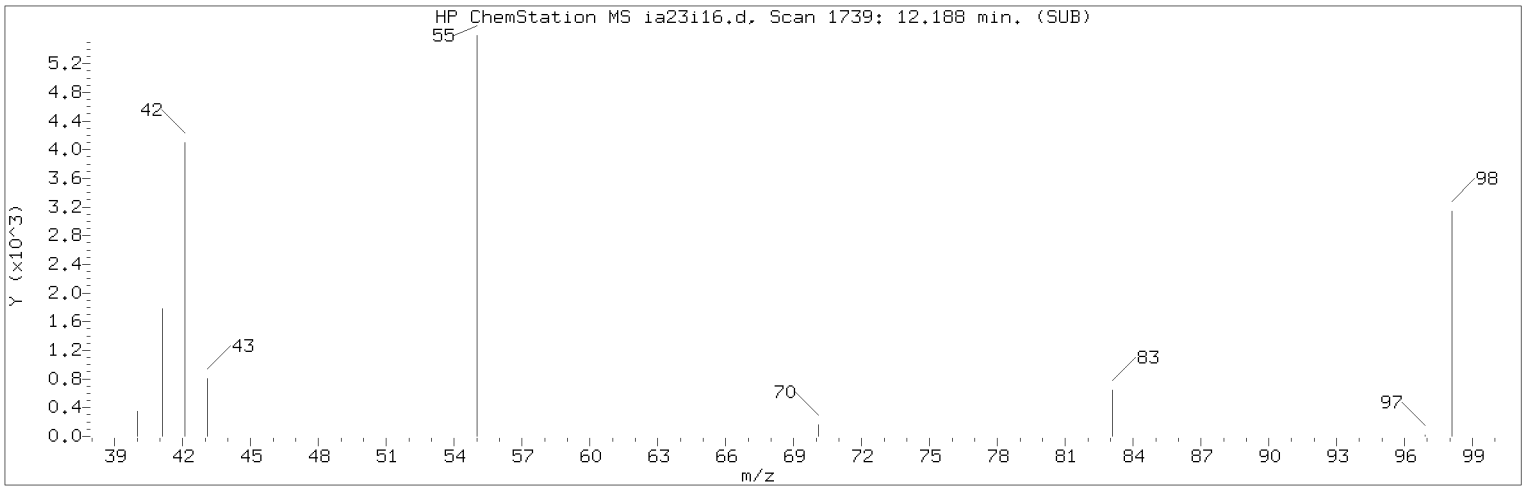
Compound Number : 46
Compound Name : Ethyl Acetate
Scan Number : 765
Retention Time (minutes): 6.251
Quant Ion : 43.00
Area (flag) : 12145M
On-Column Amount (ng) : 0.5146
Integration start scan : 749 Integration stop scan: 797
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: compound not in processing sublist

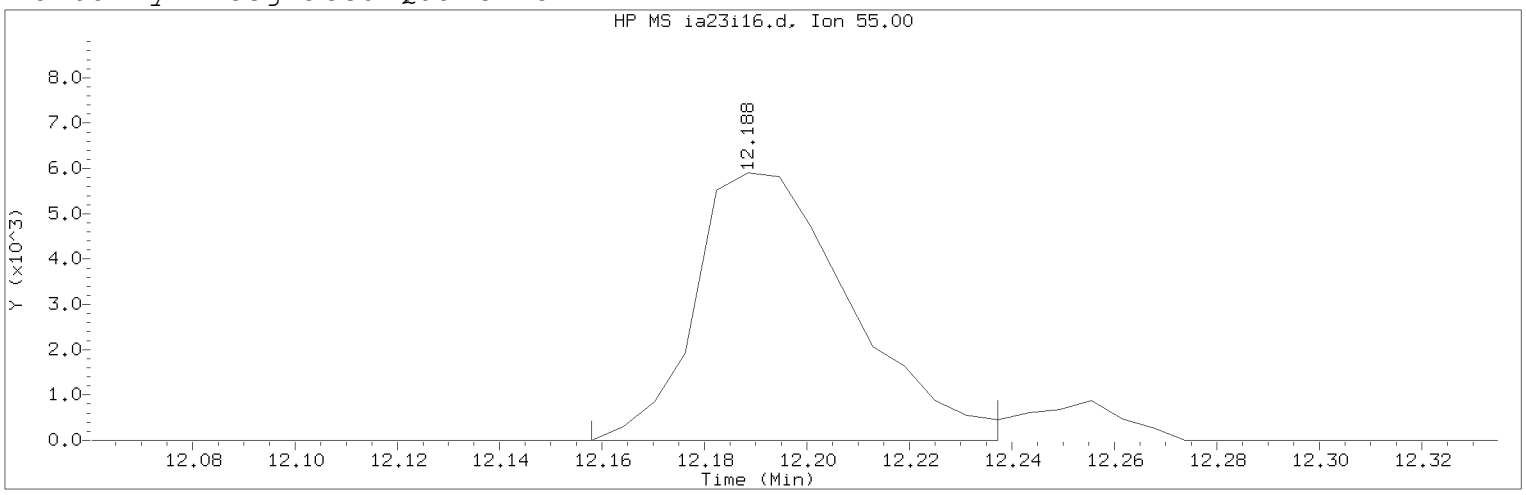
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i16.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:33 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:03 jkh09052

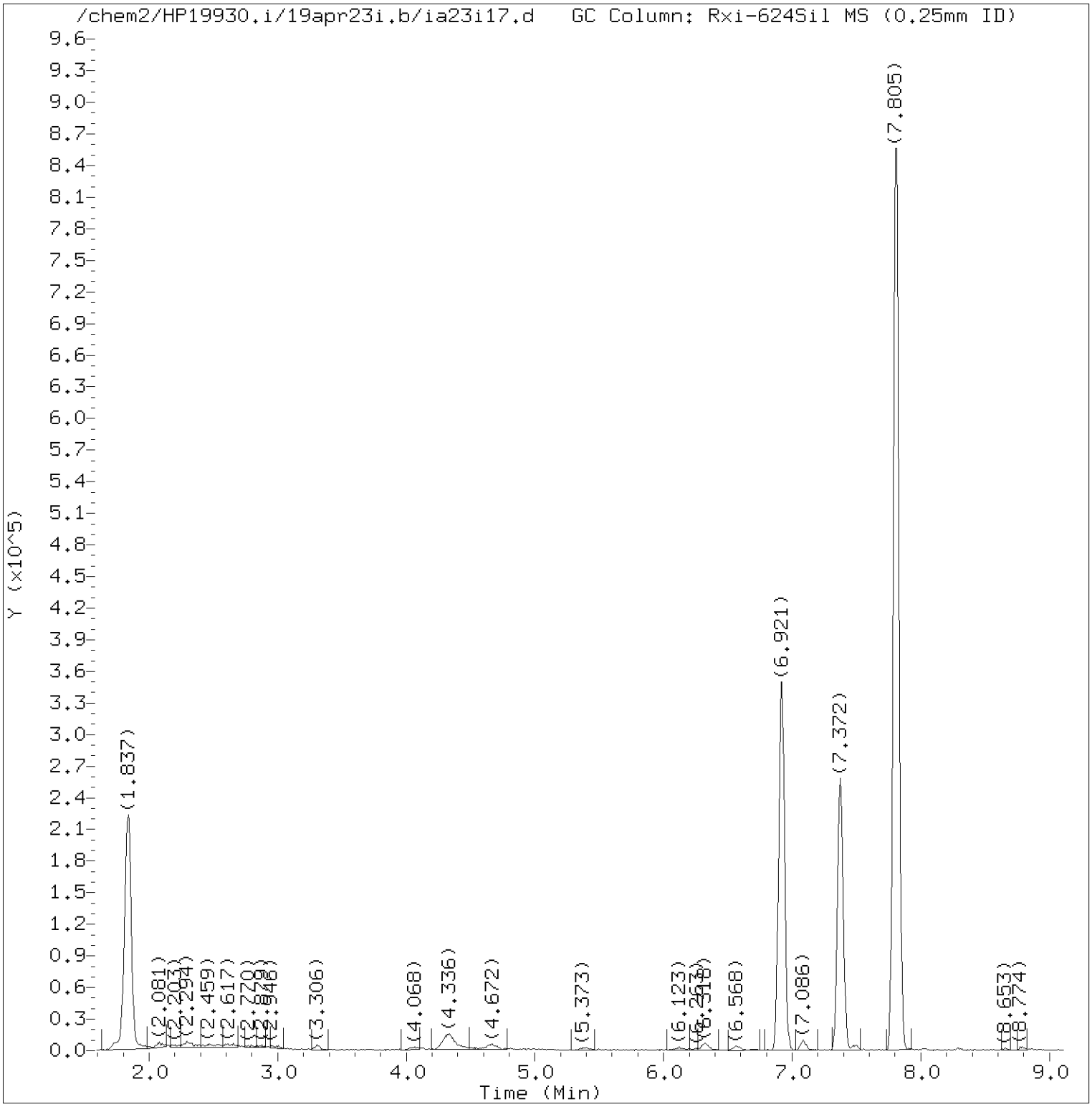
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area (flag) : 12447M
On-Column Amount (ng) : 21.9830
Integration start scan : 1733 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: compound not in processing sublist

Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

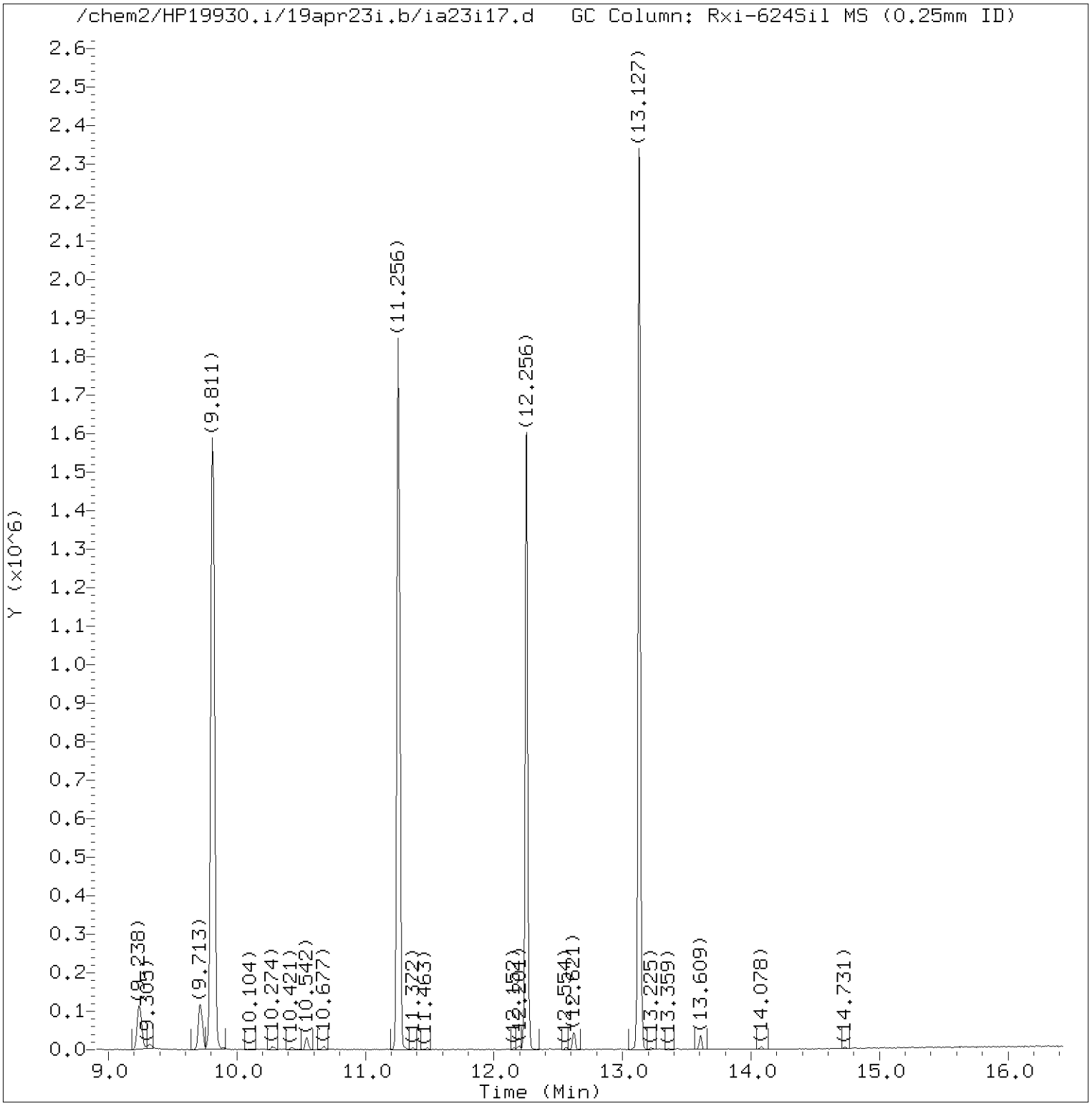
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

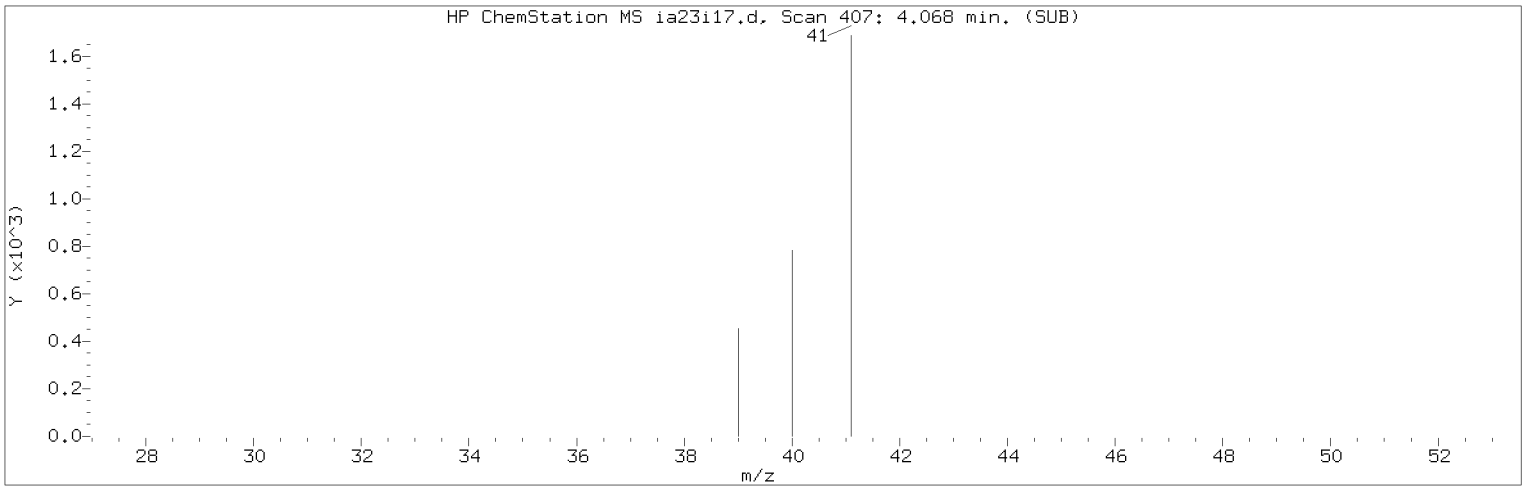
Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.081	45	10627	0.226
25) Acetonitrile	(1)	4.068	41	15058M	8.329
26)*t-Butyl Alcohol-d10	(1)	4.336	65	88398M	50.000
36) Vinyl Acetate	(2)	5.397	43	8685	0.195
46) Ethyl Acetate	(2)	6.263	43	4359	0.185
43) Methyl Acrylate	(2)	6.318	55	15768	0.858
53) 1-Chlorobutane	(2)	7.086	56	12039	0.191
63)*Fluorobenzene	(2)	7.811	96	1294299	10.000
77) Chloroacetonitrile	(2)	9.317	75	7735M	7.468
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	2659	0.184
97)*Chlorobenzene-d5	(3)	11.256	117	1073061	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.158	88	1355MA	0.803
112) Cyclohexanone	(1)	12.195	55	5012M	9.203
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	594963	10.000
142) Hexachloroethane	(4)	13.609	117	5900	0.177

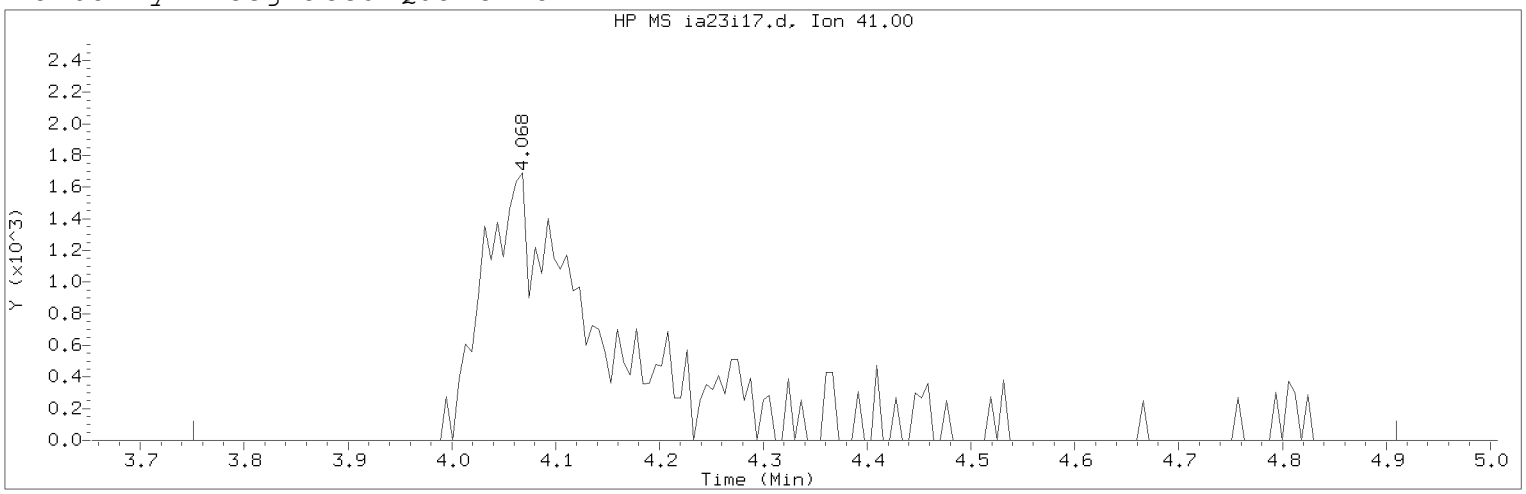
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

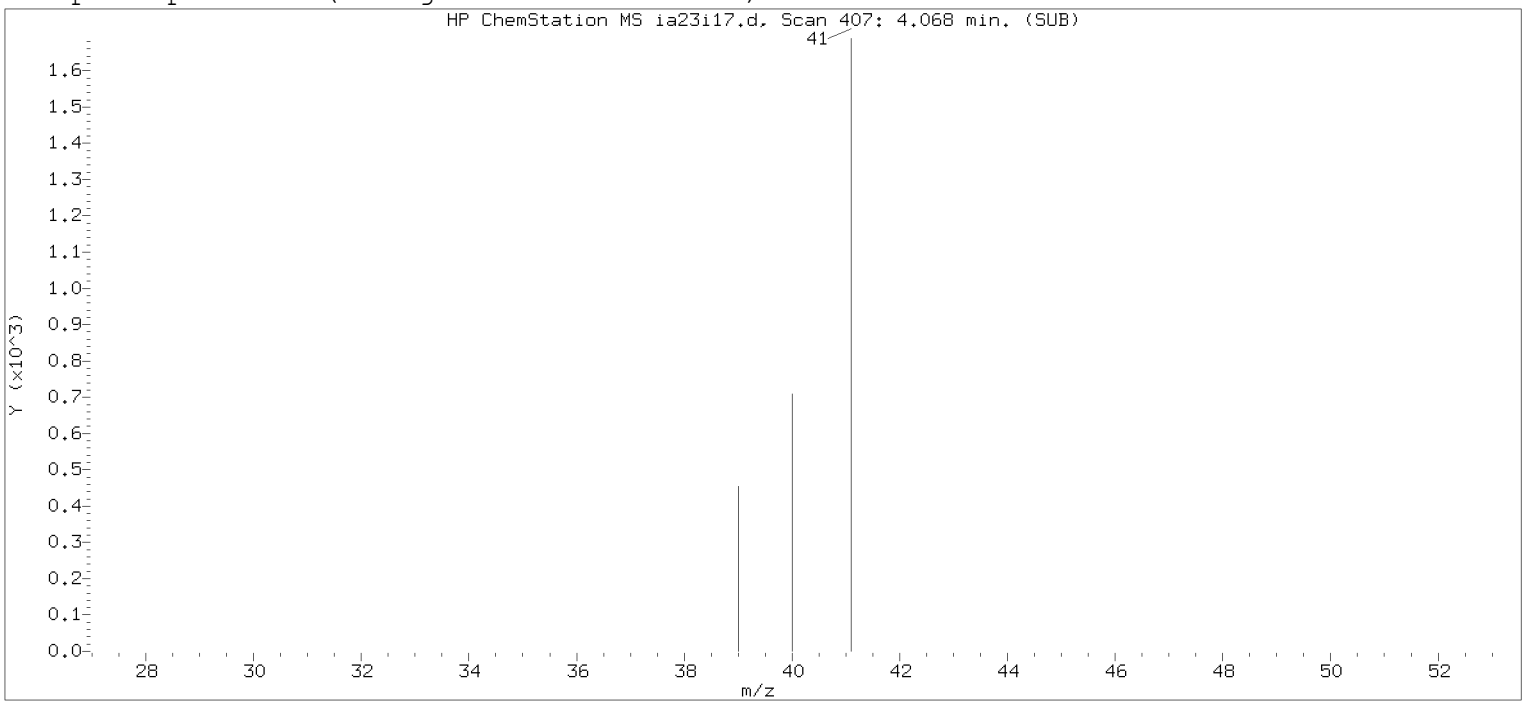
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 41.00
Area (flag) : 15058M
On-Column Amount (ng) : 8.3293
Integration start scan : 354 Integration stop scan: 544
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

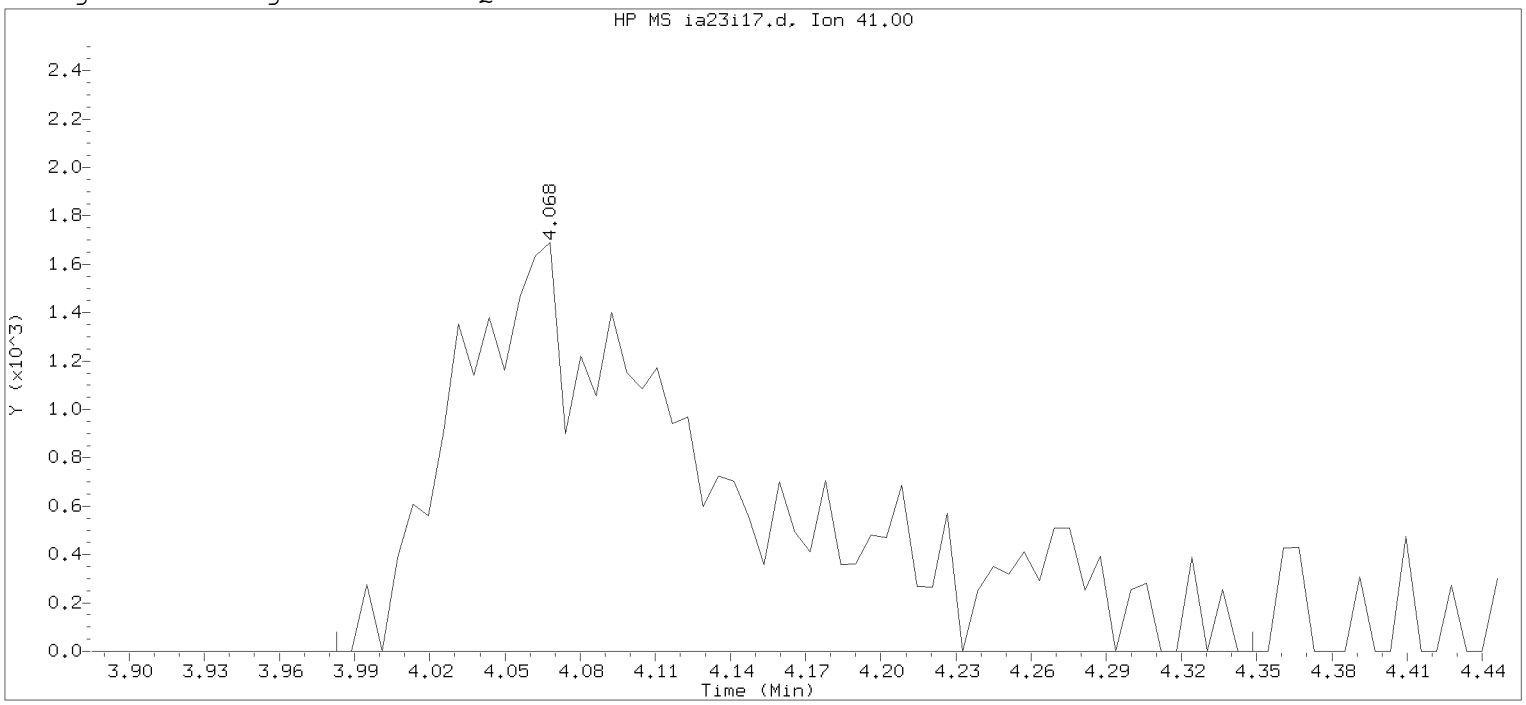
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

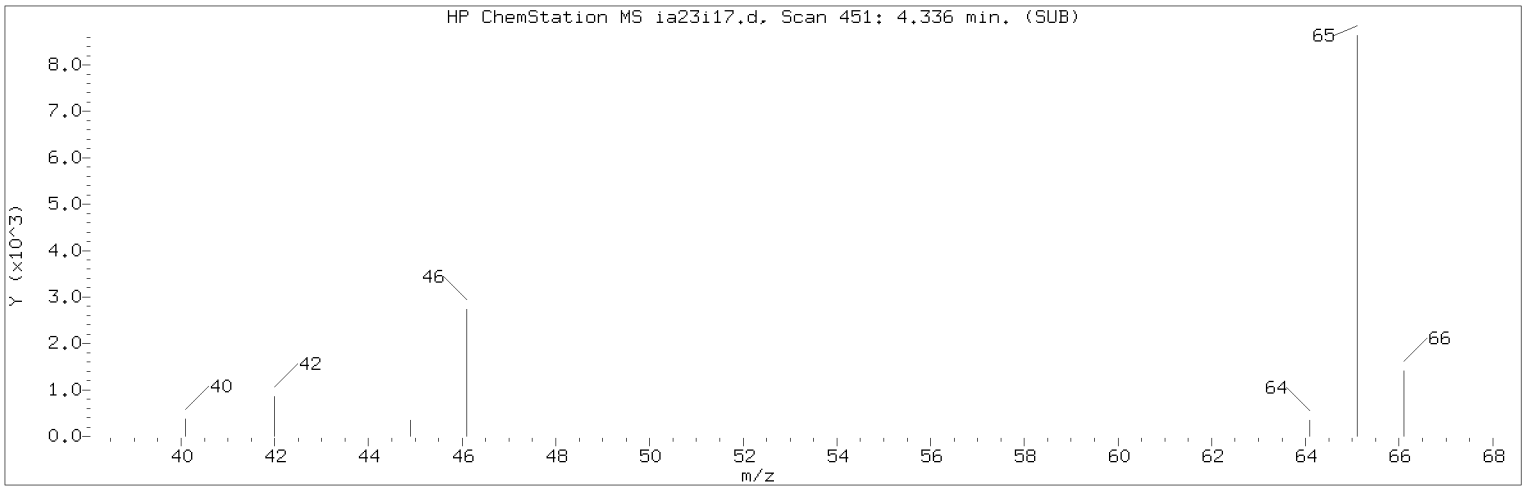
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

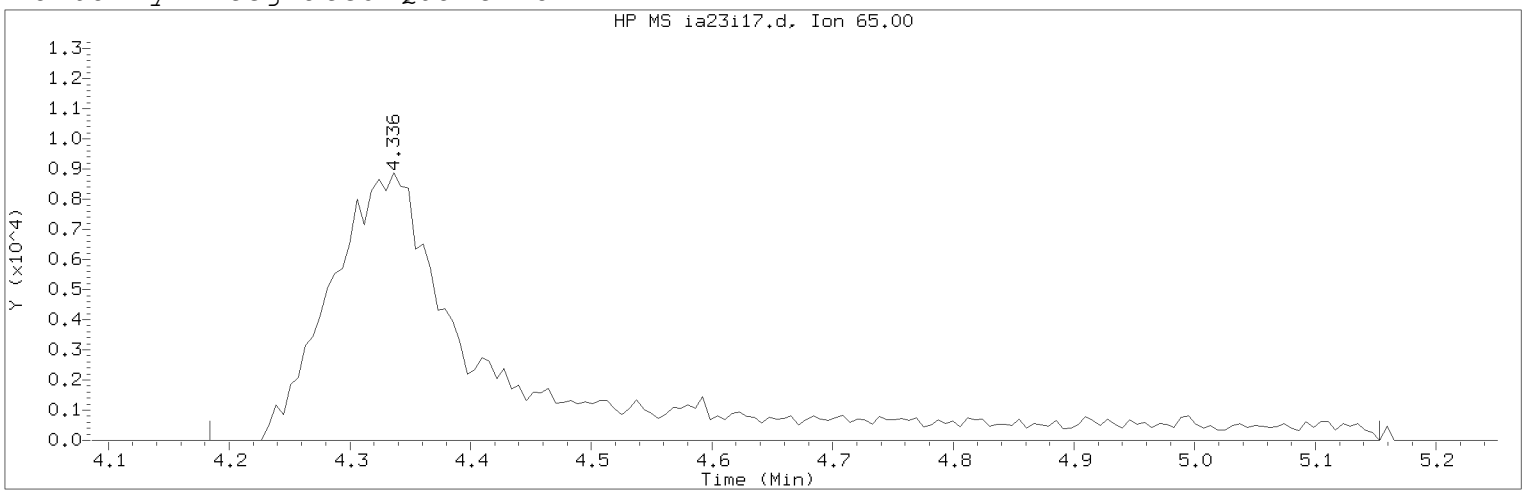
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 41.00
Area : 13034
On-column Amount (ng) : 8.5914
Integration start scan : 392 Integration stop scan: 452
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

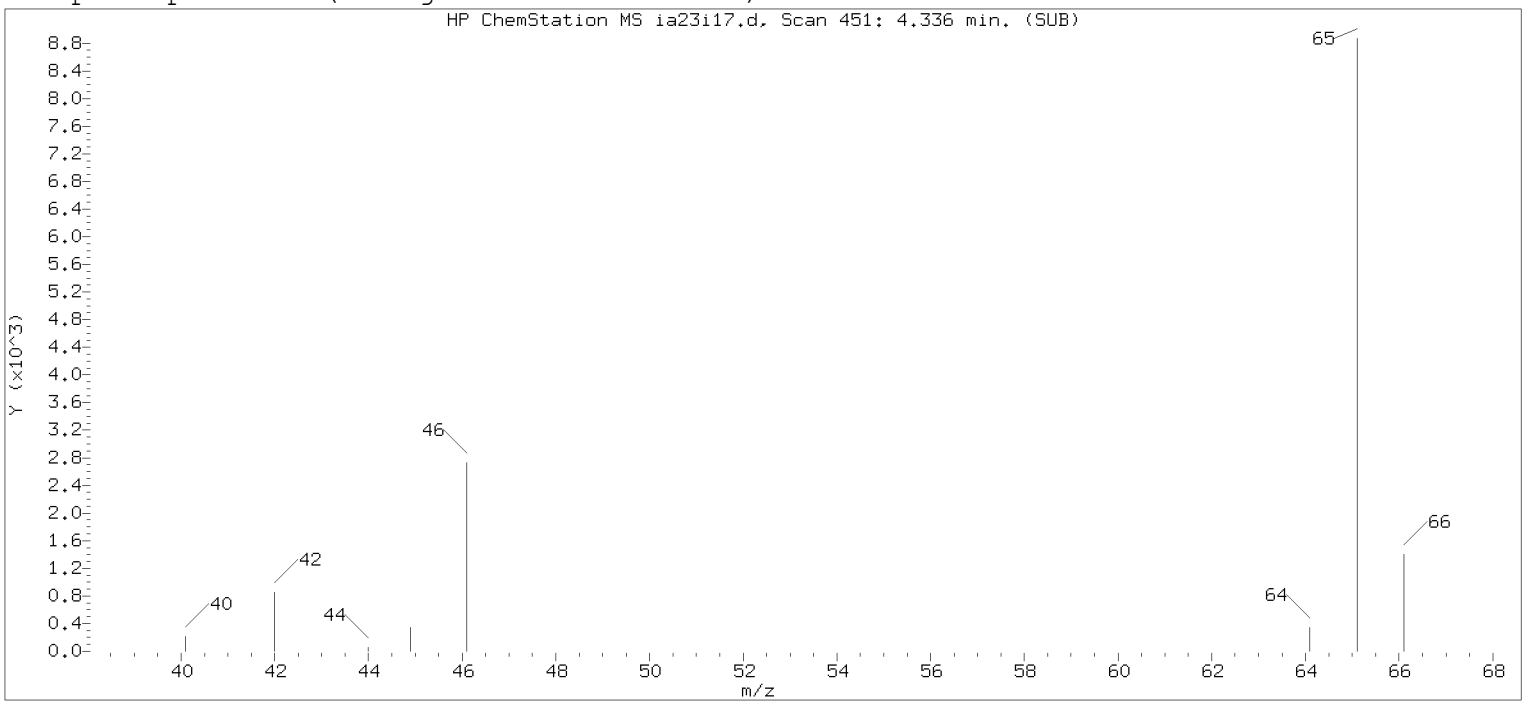
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 451
Retention Time (minutes): 4.336
Quant Ion : 65.00
Area (flag) : 88398M
On-Column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 584
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

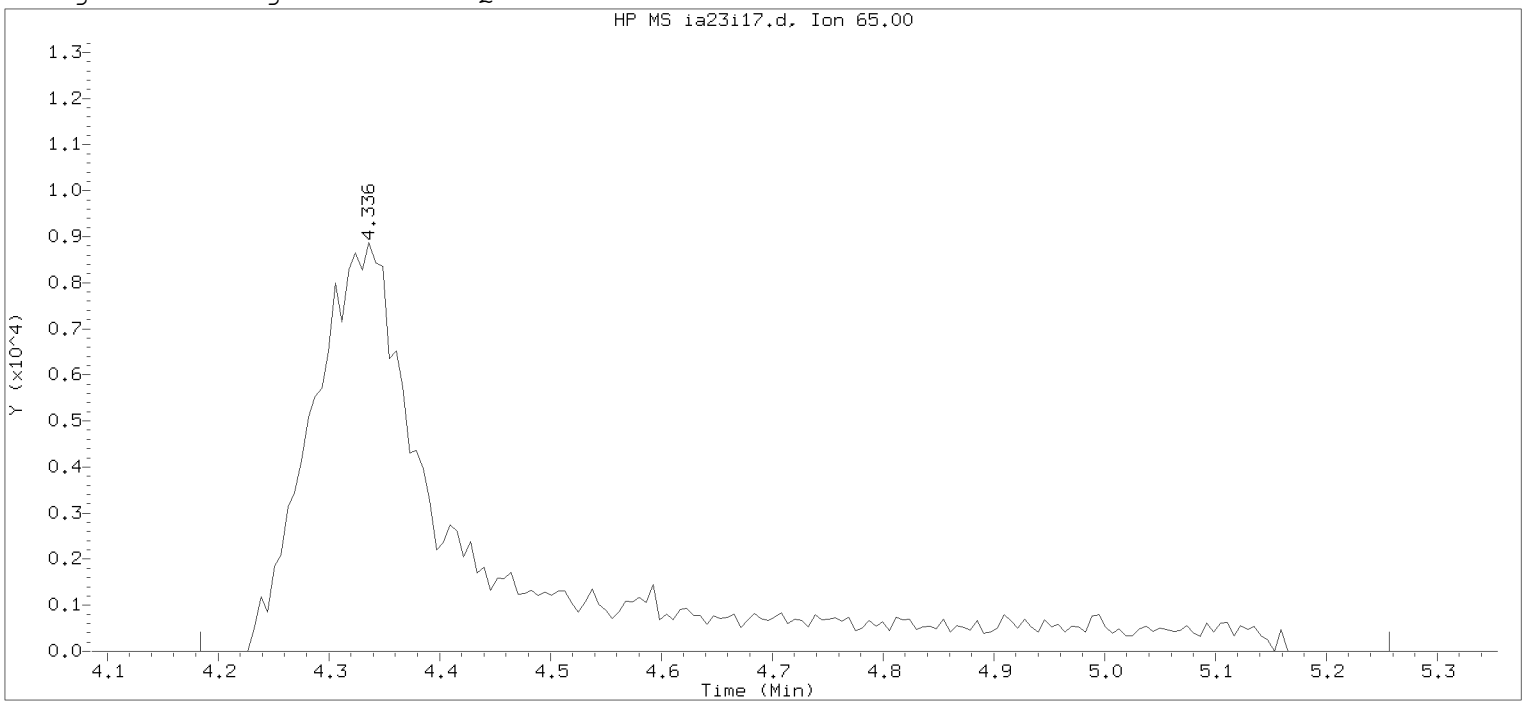
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 451
Retention Time (minutes): 4.336
Quant Ion : 65.00
Area : 88570
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 601
Y at integration start : 0 Y at integration end: 0

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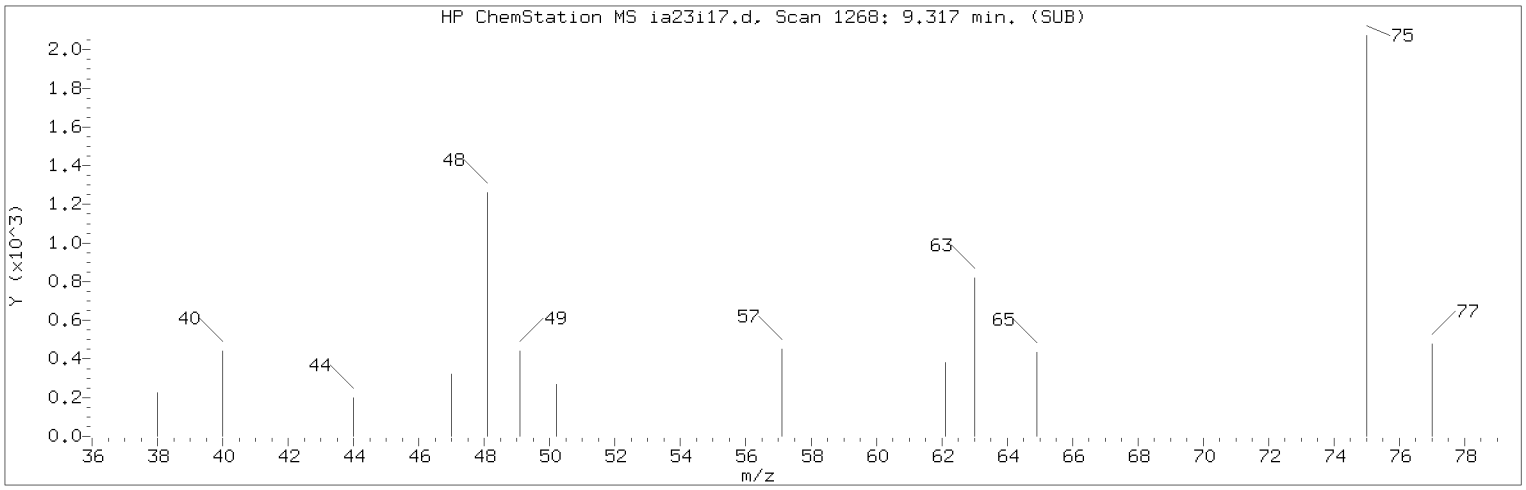
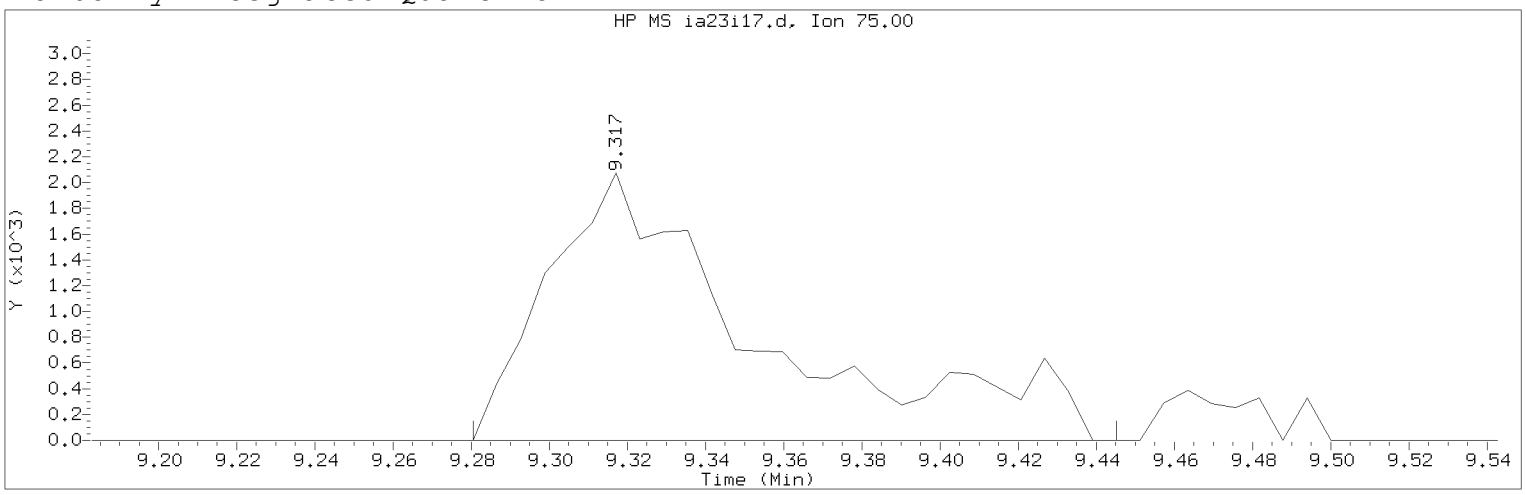
Target 3.5 esignature user: Page 1409

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

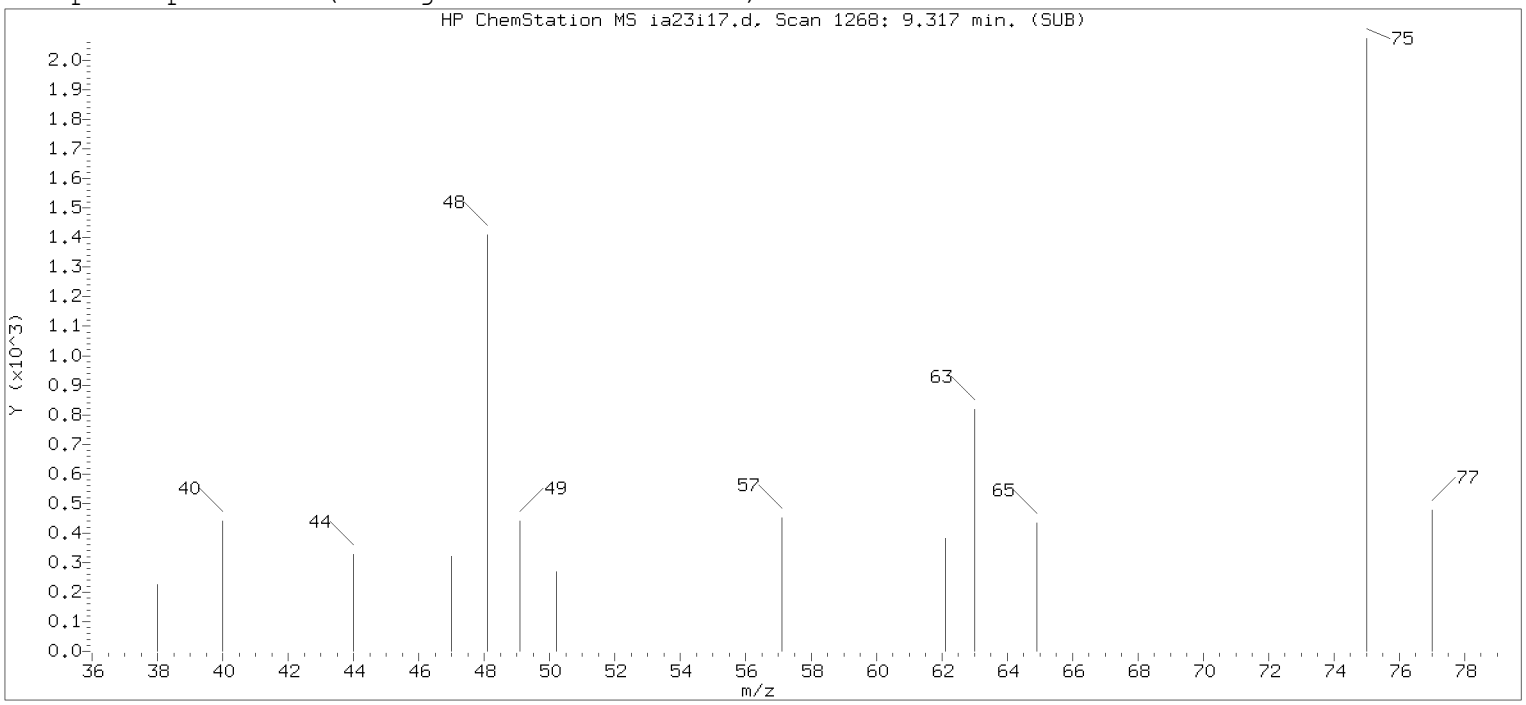
Compound Number : 77
Compound Name : Chloroacetonitrile
Scan Number : 1268
Retention Time (minutes): 9.317
Quant Ion : 75.00
Area (flag) : 7735M
On-Column Amount (ng) : 7.4680
Integration start scan : 1261 Integration stop scan: 1288
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

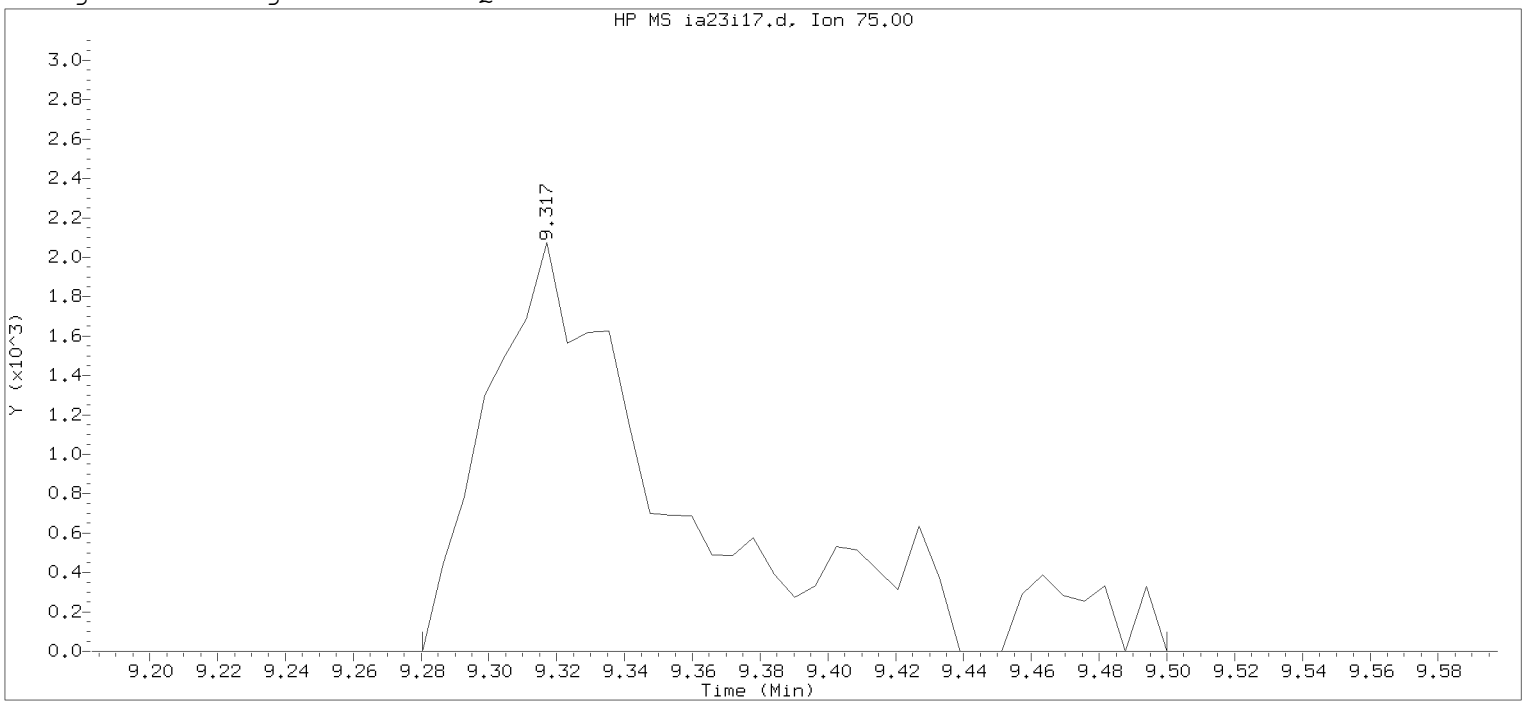
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 77
Compound Name : Chloroacetonitrile
Scan Number : 1268
Retention Time (minutes): 9.317
Quant Ion : 75.00
Area : 8419
On-column Amount (ng) : 8.0531
Integration start scan : 1261 Integration stop scan: 1297
Y at integration start : 0 Y at integration end: 0

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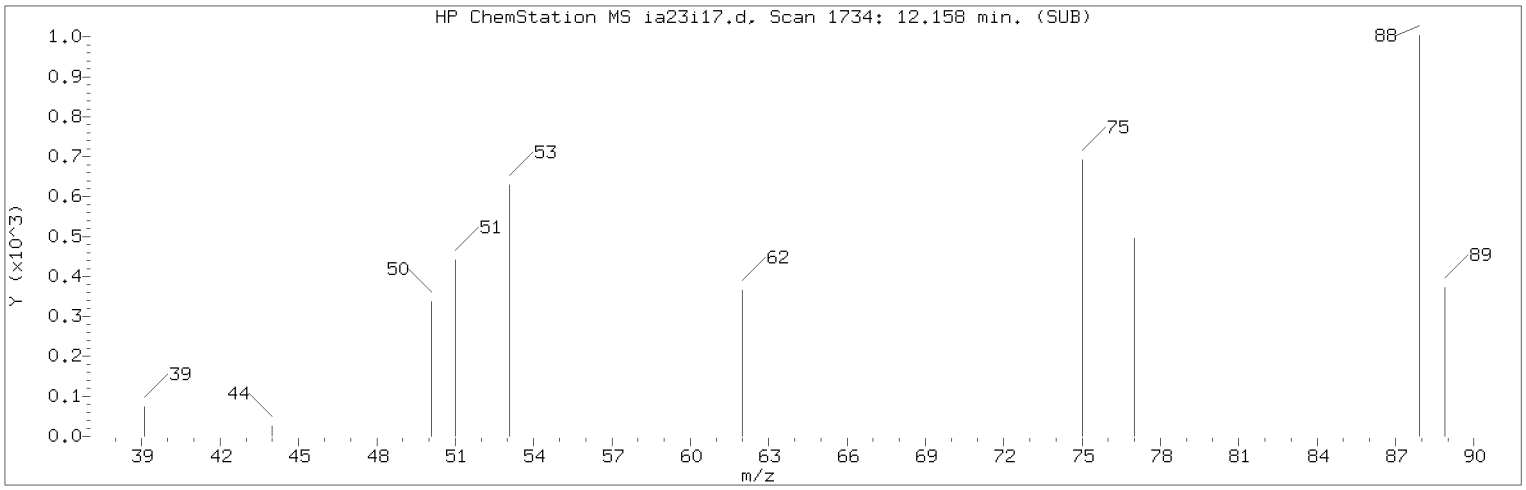
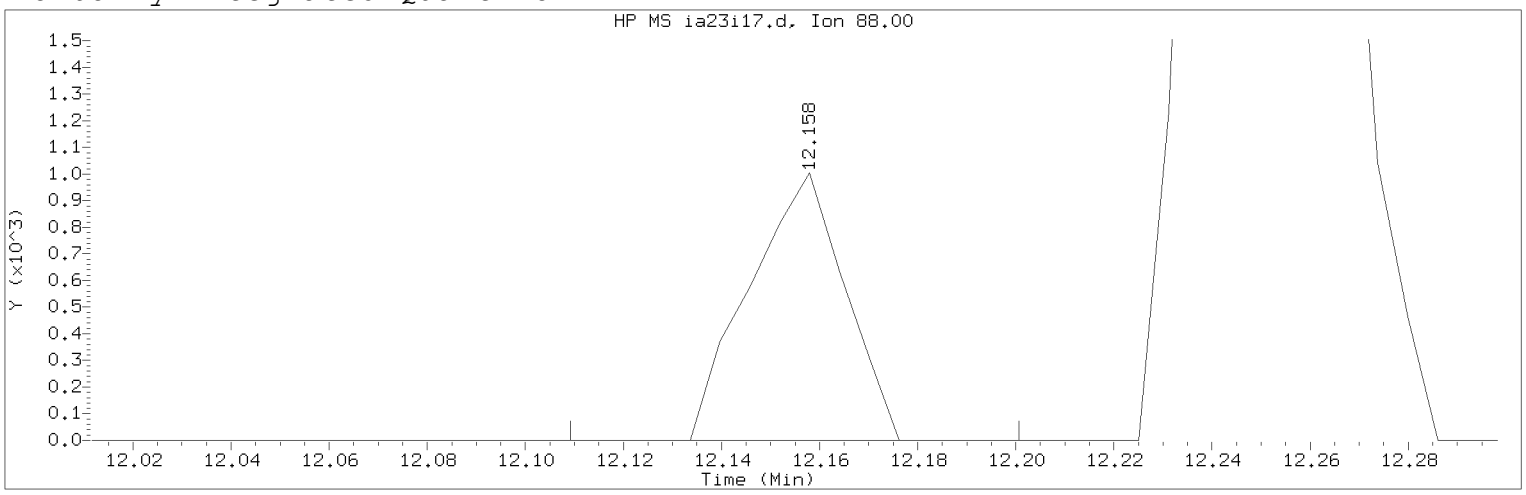
Target 3.5 esignature user: Page 1411

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

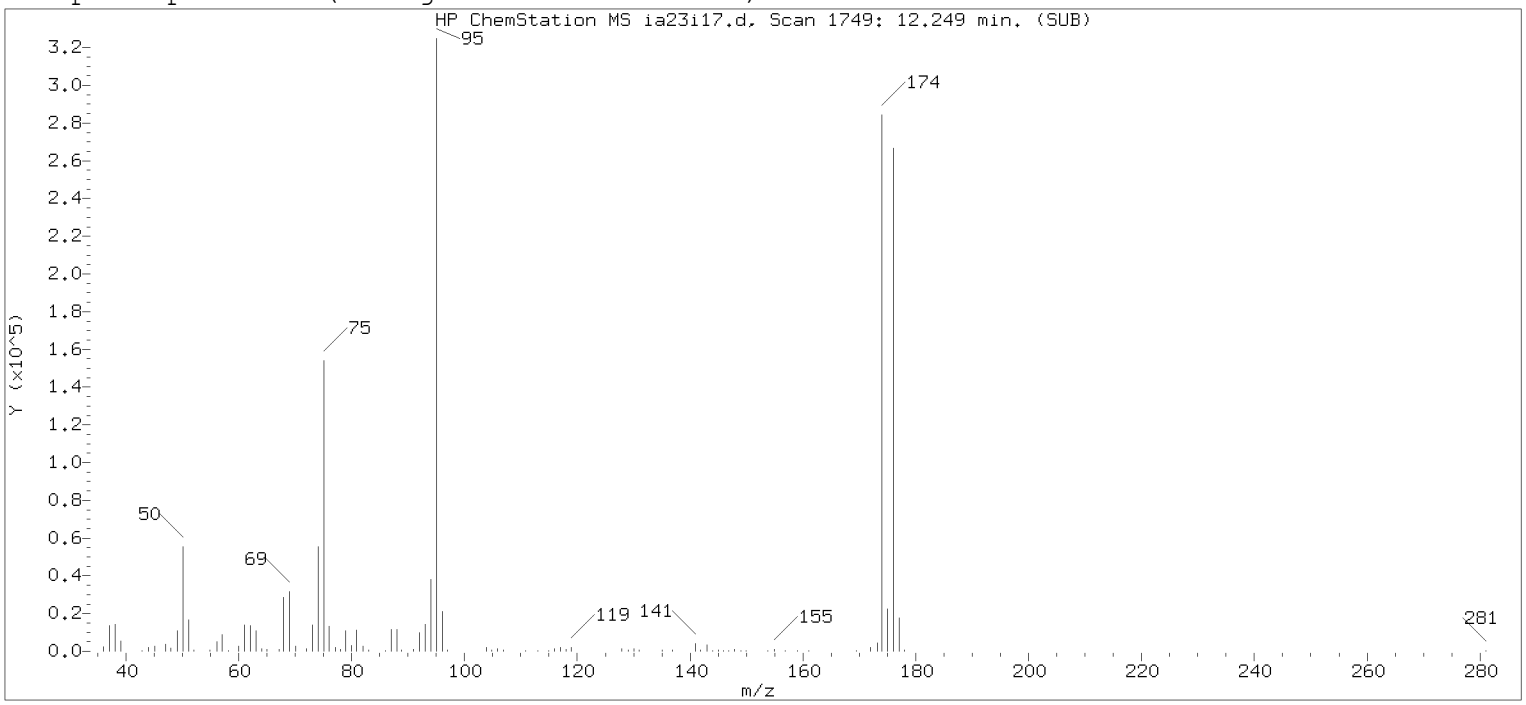
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1734
Retention Time (minutes): 12.158
Quant Ion : 88.00
Area (flag) : 1355MA
On-Column Amount (ng) : 0.8032
Integration start scan : 1725 Integration stop scan: 1740
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

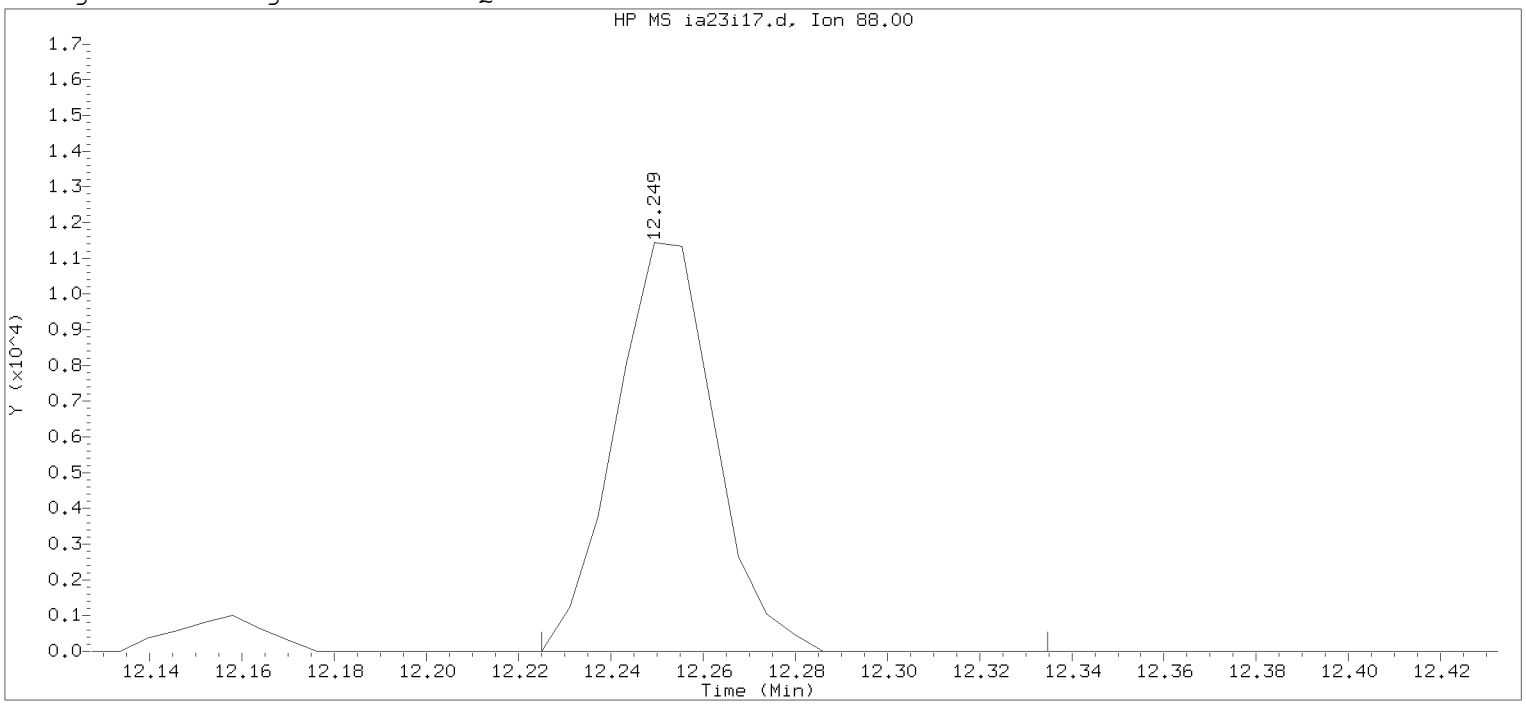
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

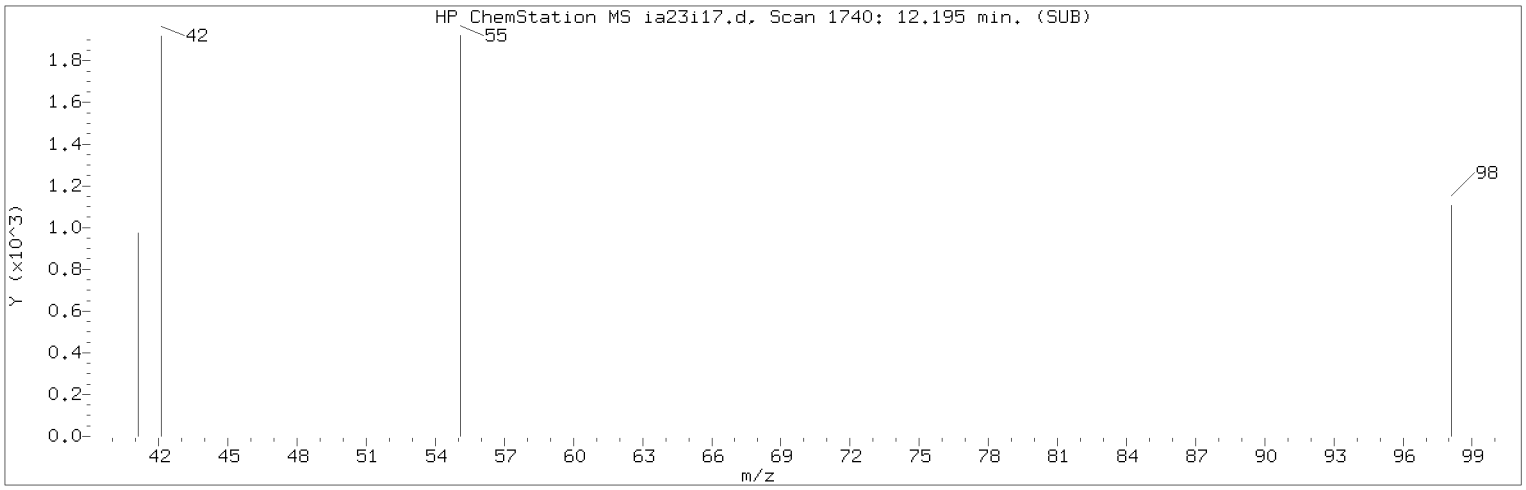
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

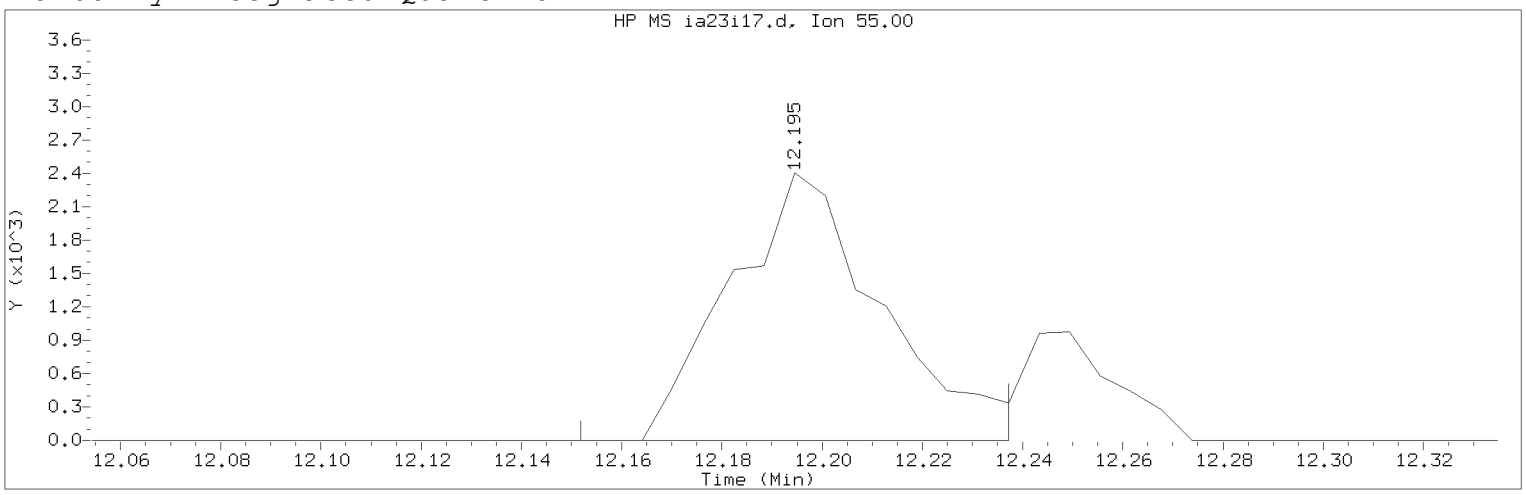
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1749
Retention Time (minutes): 12.249
Quant Ion : 88.00
Area : 17184
On-column Amount (ng) : 1.7521
Integration start scan : 1744 Integration stop scan: 1762
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature user: Page 1413

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 25-APR-2019 10:03
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

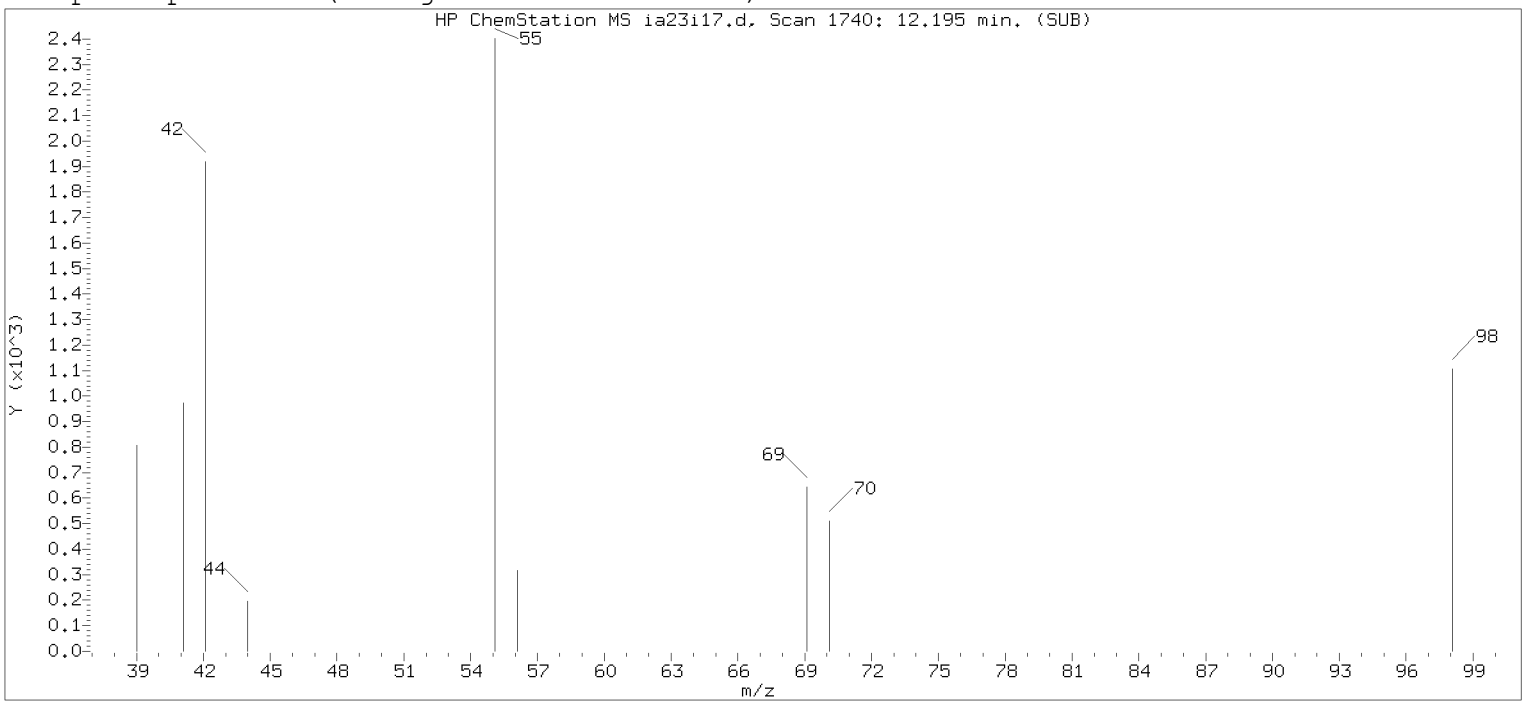
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1740
Retention Time (minutes): 12.195
Quant Ion : 55.00
Area (flag) : 5012M
On-Column Amount (ng) : 9.2034
Integration start scan : 1732 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

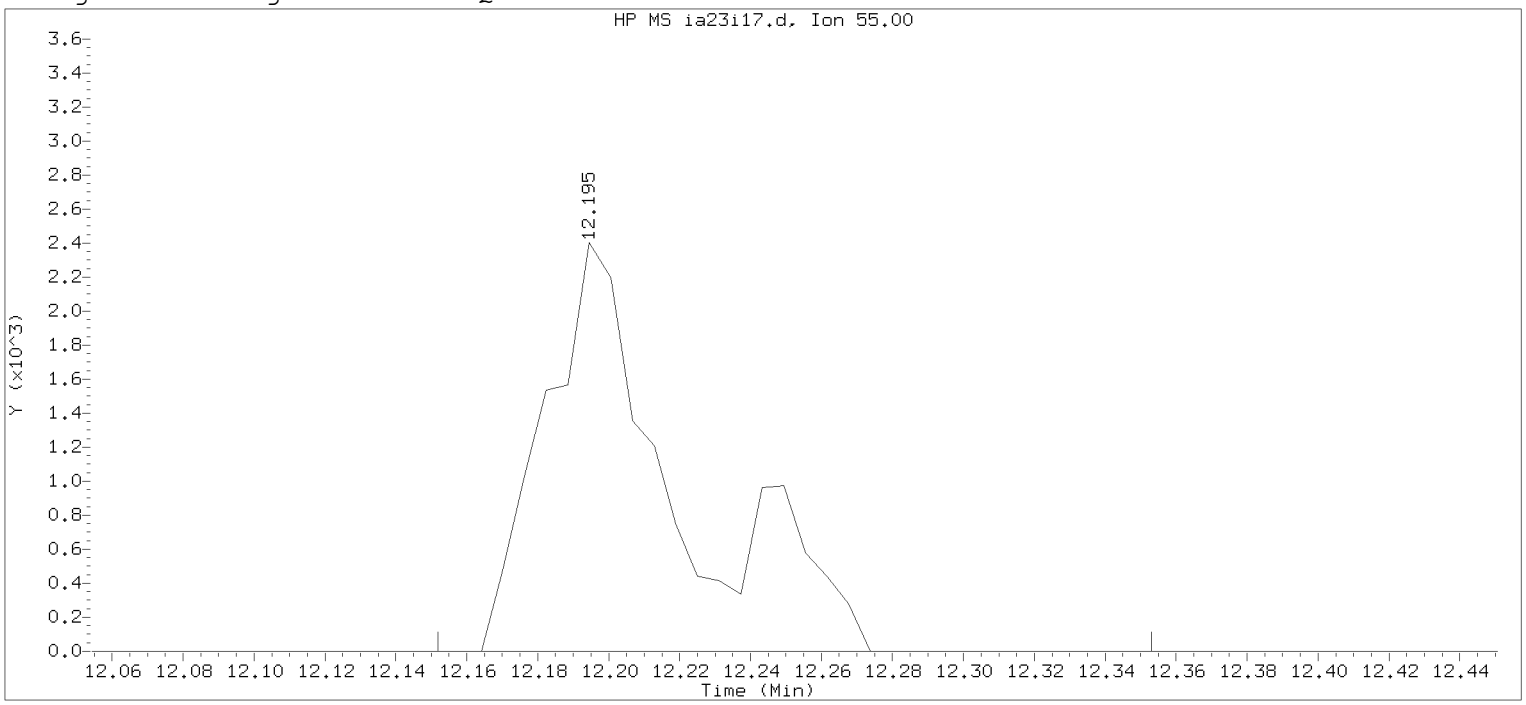
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:04.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:19.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



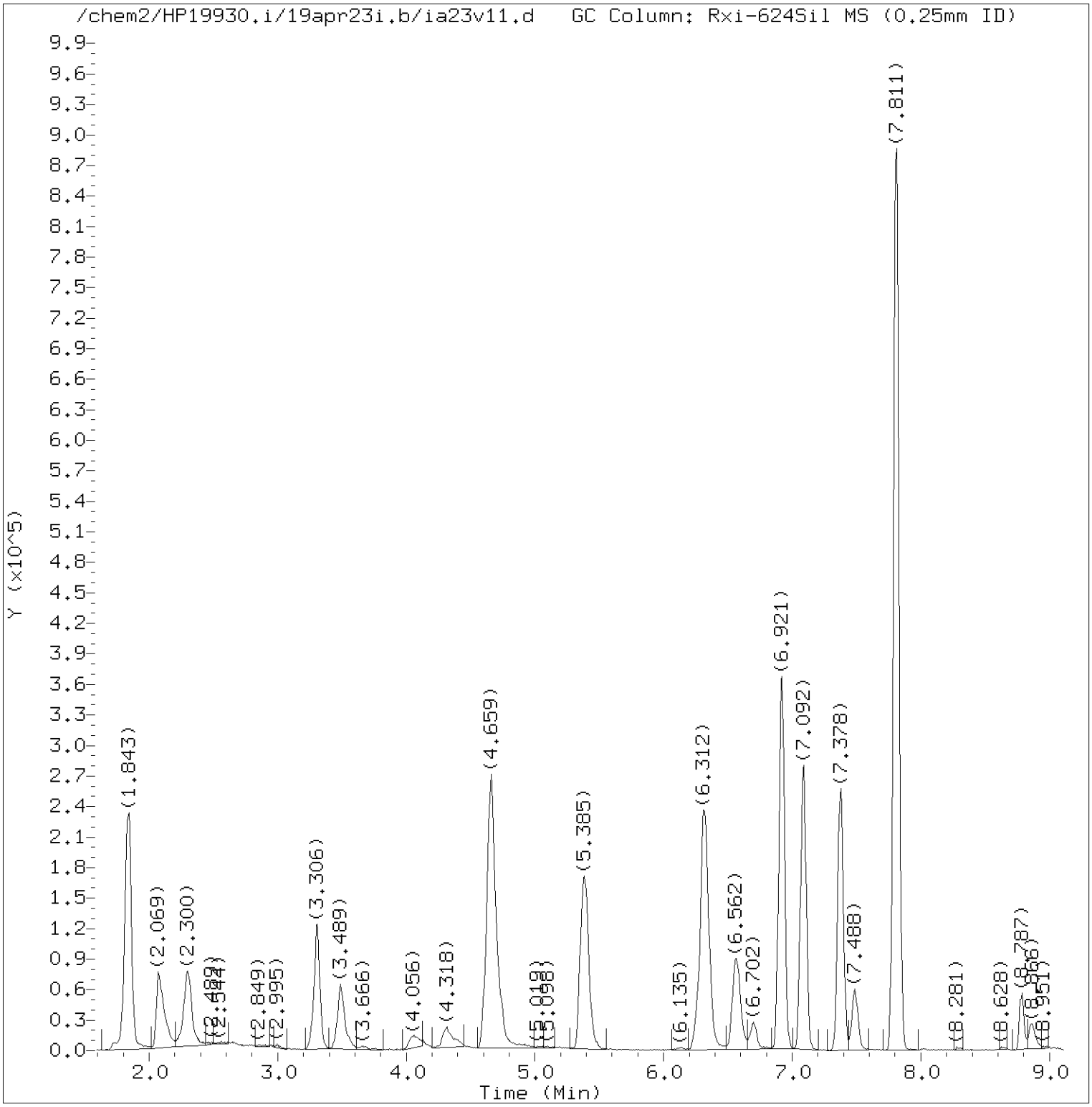
Data File: /chem2/HP19930.i/19apr23i.b/ia23i17.d Instrument ID: HP19930.i
Injection date and time: 23-APR-2019 23:54 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 06:07
Date, time and analyst ID of latest file update: 24-Apr-2019 06:07 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1740
Retention Time (minutes): 12.195
Quant Ion : 55.00
Area : 6193
On-column Amount (ng) : 10.6434
Integration start scan : 1732 Integration stop scan: 1765
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:04.
Target 3.5 esignature used. Page 1415



Total Ion Chromatogram (TIC)

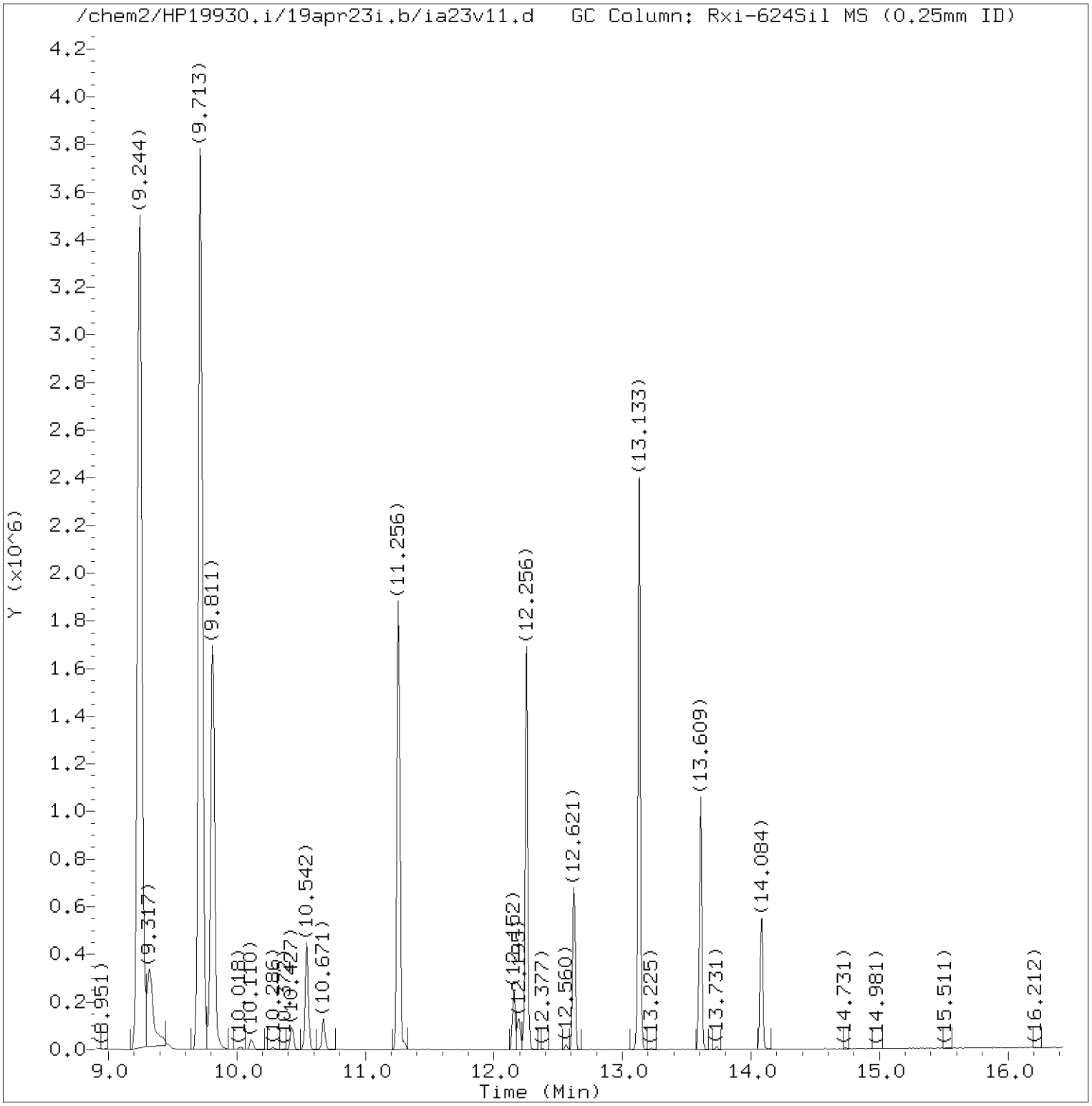
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.069	45	215979M	4.516
25) Acetonitrile	(1)	4.062	41	80624M	46.894
26)*t-Butyl Alcohol-d10	(1)	4.318	65	84067M	50.000
36) Vinyl Acetate	(2)	5.385	43	597562	13.185
46) Ethyl Acetate	(2)	6.257	43	68266M	2.848
43) Methyl Acrylate	(2)	6.312	55	508691	27.234
50)$Dibromofluoromethane	(2)	6.921	113	346954	10.218
53) 1-Chlorobutane	(2)	7.092	56	353727	5.523
57)$1,2-Dichloroethane-d4	(2)	7.378	102	66258	10.125
63)*Fluorobenzene	(2)	7.811	96	1315753	10.000
77) Chloroacetonitrile	(2)	9.317	75	219869	208.817
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	73558	5.006
82)$Toluene-d8	(3)	9.811	98	1375115	10.210
97)*Chlorobenzene-d5	(3)	11.256	117	1098029	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.152	88	58037M	13.206
112) Cyclohexanone	(1)	12.195	55	61381M	118.519
111)$4-Bromofluorobenzene	(3)	12.249	95	496884	9.845
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	615148	10.000
142) Hexachloroethane	(4)	13.609	117	175477	5.097

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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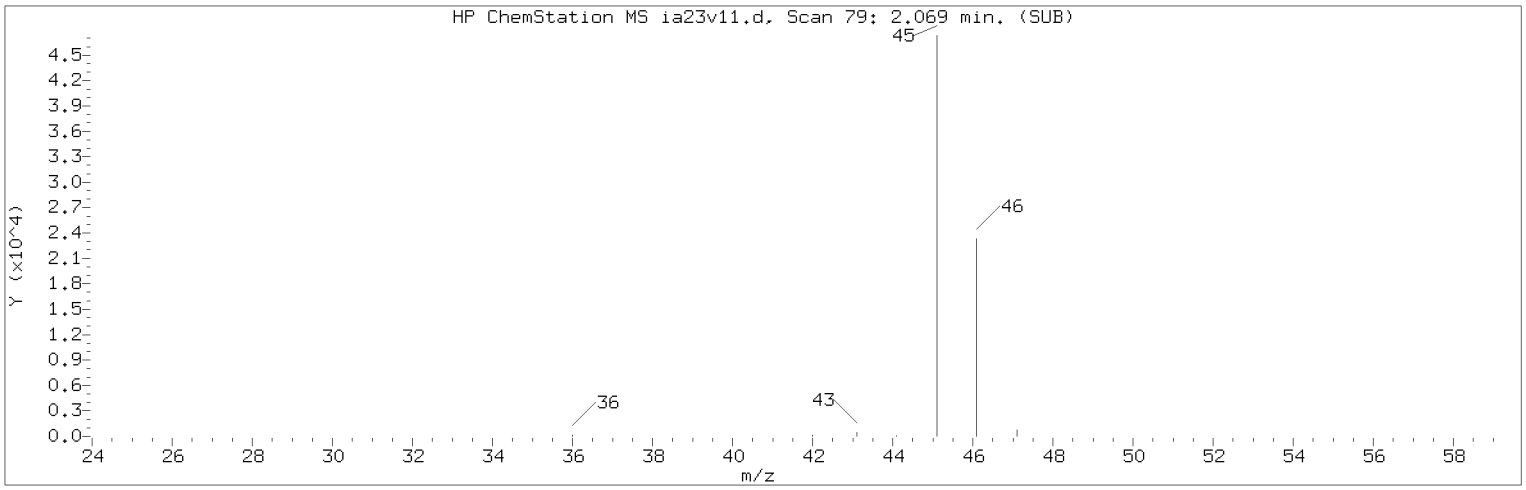
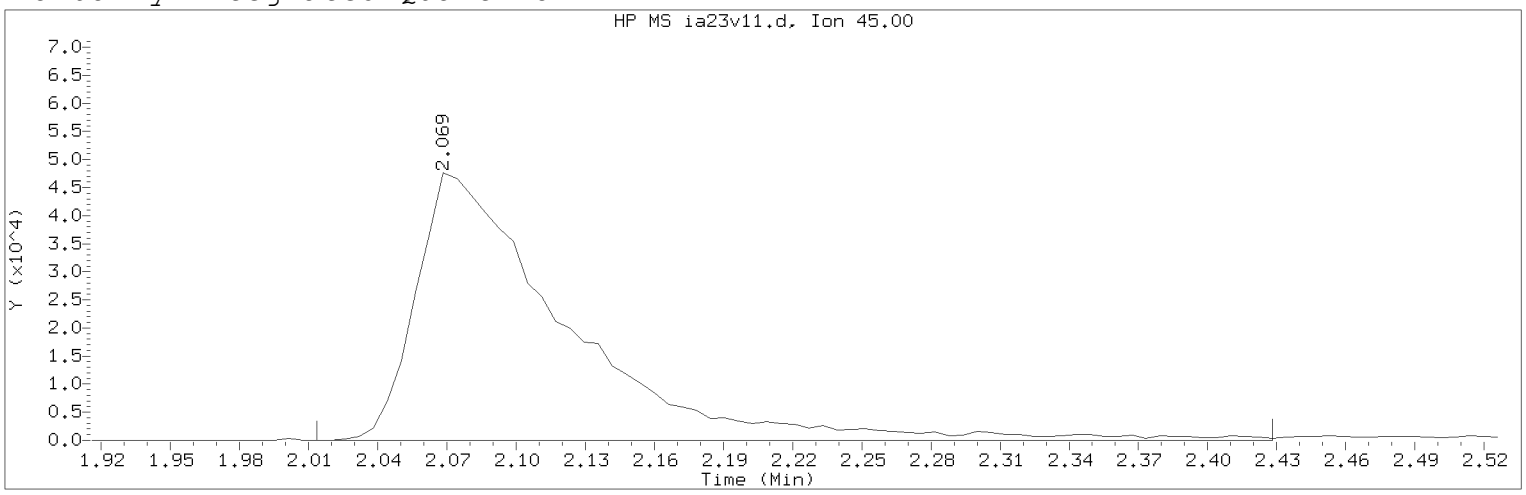
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

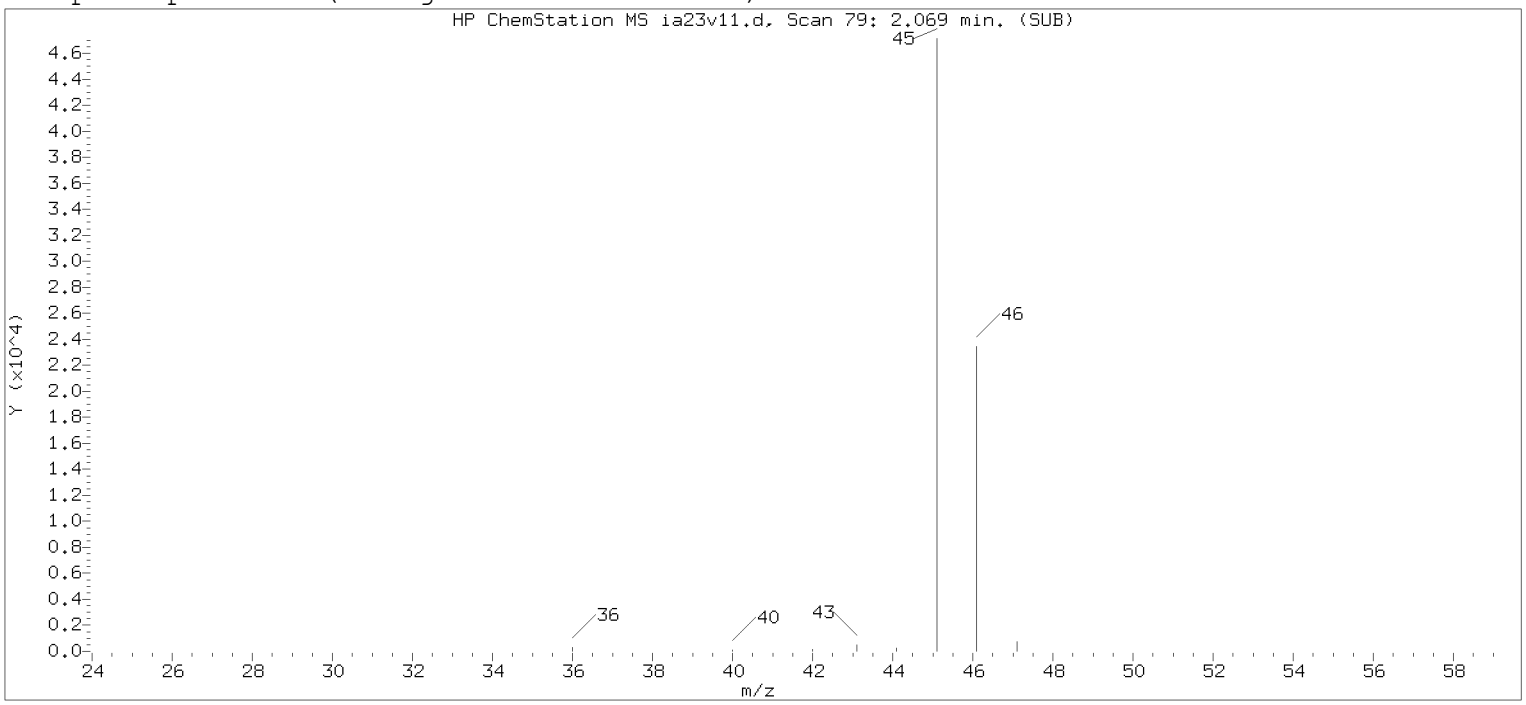
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.069
Quant Ion : 45.00
Area (flag) : 215979M
On-Column Amount (ng) : 4.5156
Integration start scan : 69 Integration stop scan: 137
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

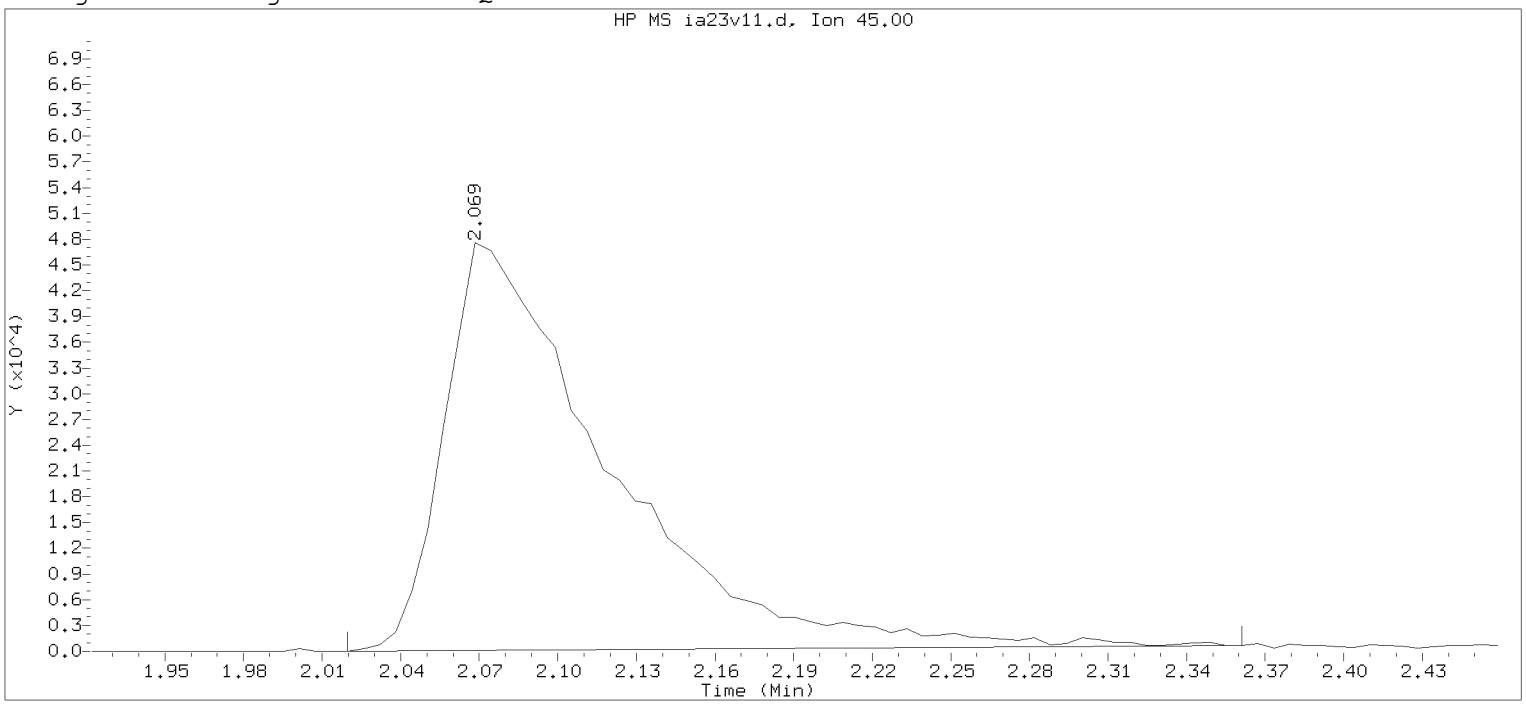
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:24.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

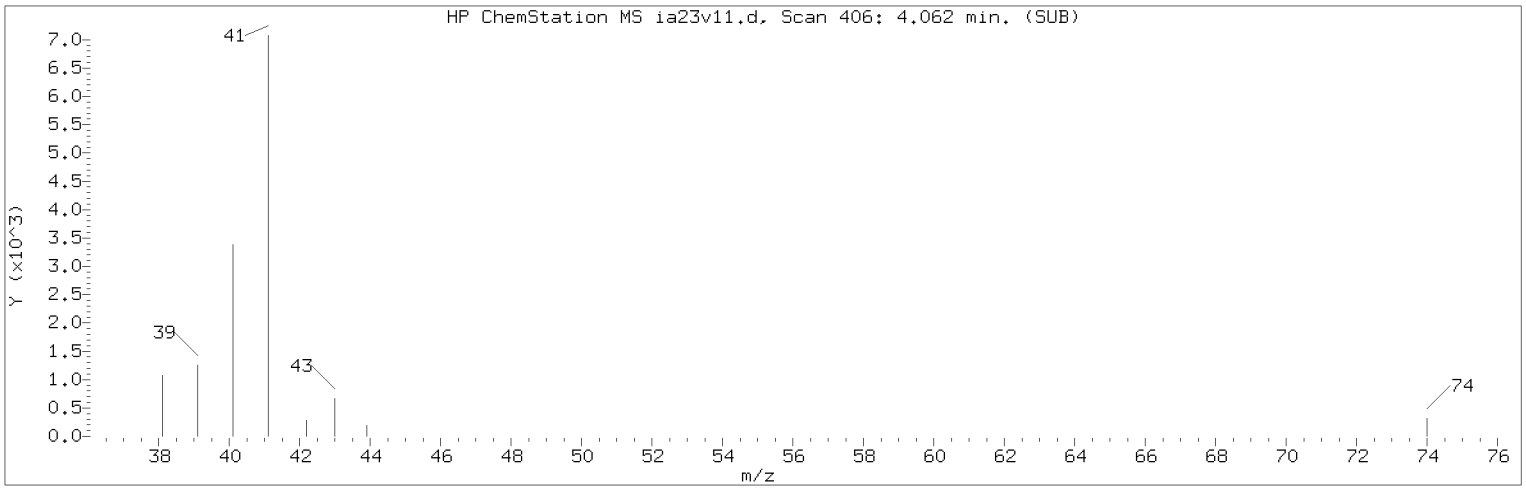
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 24-APR-2019 06:21
Date, time and analyst ID of latest file update: 24-Apr-2019 06:21 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

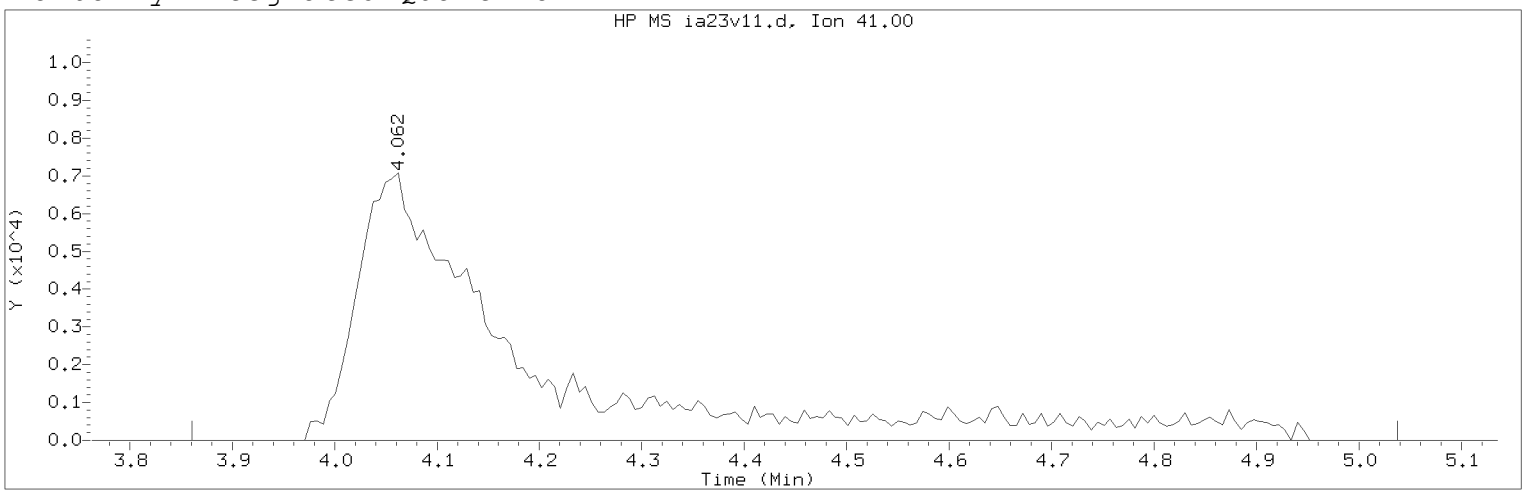
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 79
Retention Time (minutes): 2.069
Quant Ion : 45.00
Area : 206452
On-column Amount (ng) : 4.3165
Integration start scan : 70 Integration stop scan: 126
Y at integration start : 0 Y at integration end: 675

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:05.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

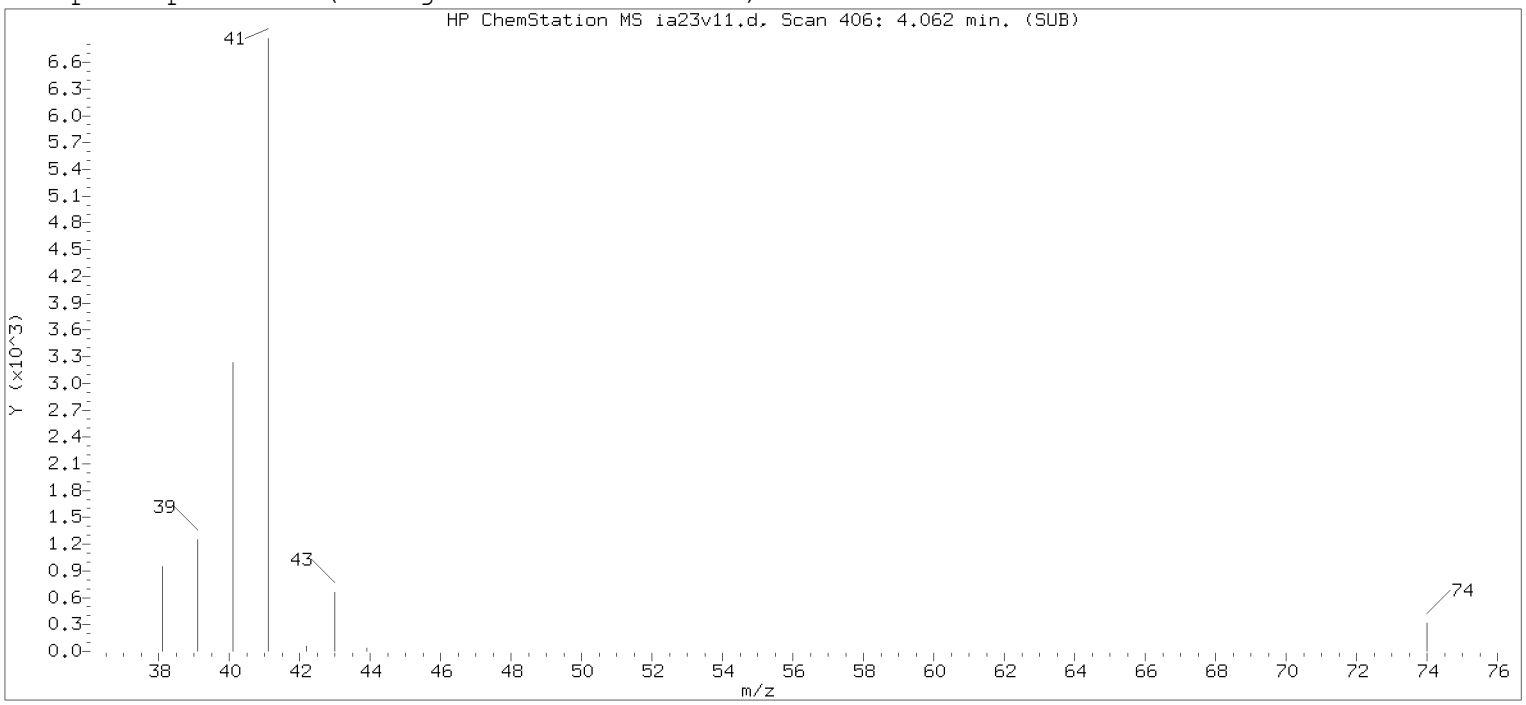
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 406
Retention Time (minutes): 4.062
Quant Ion : 41.00
Area (flag) : 80624M
On-Column Amount (ng) : 46.8944
Integration start scan : 372 Integration stop scan: 565
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

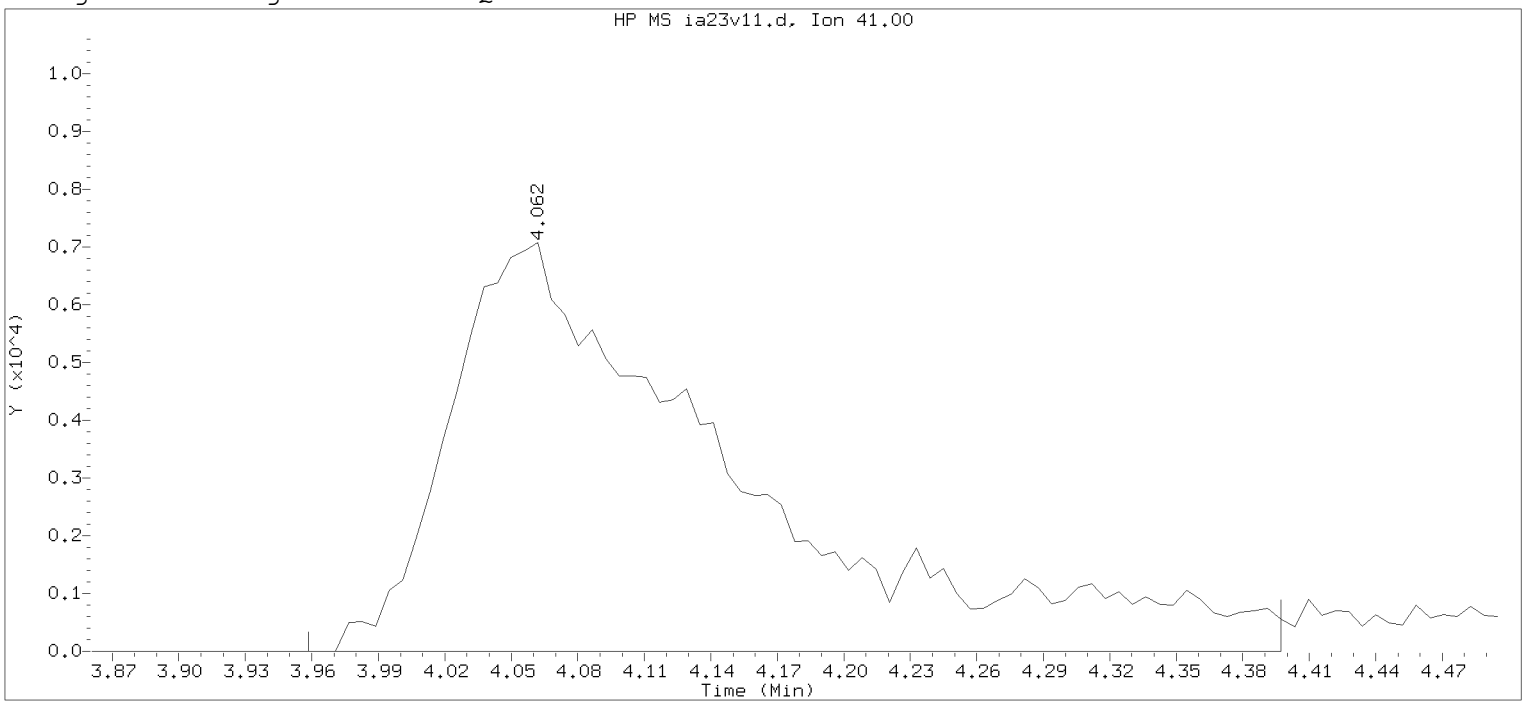
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:24.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

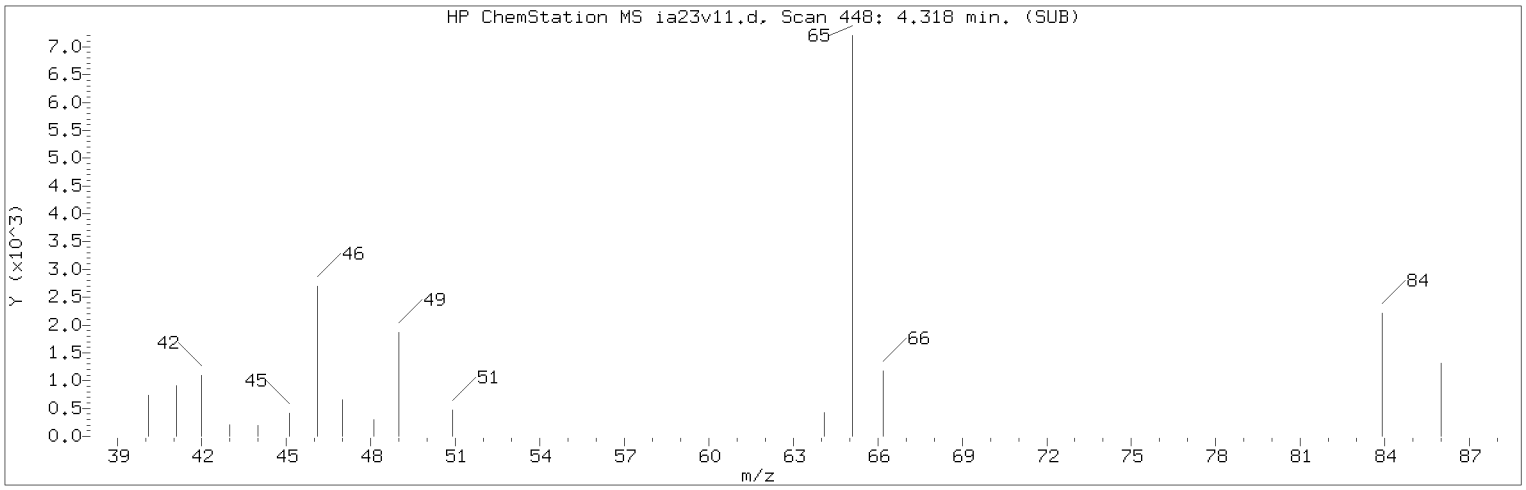
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 24-APR-2019 06:21
Date, time and analyst ID of latest file update: 24-Apr-2019 06:21 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

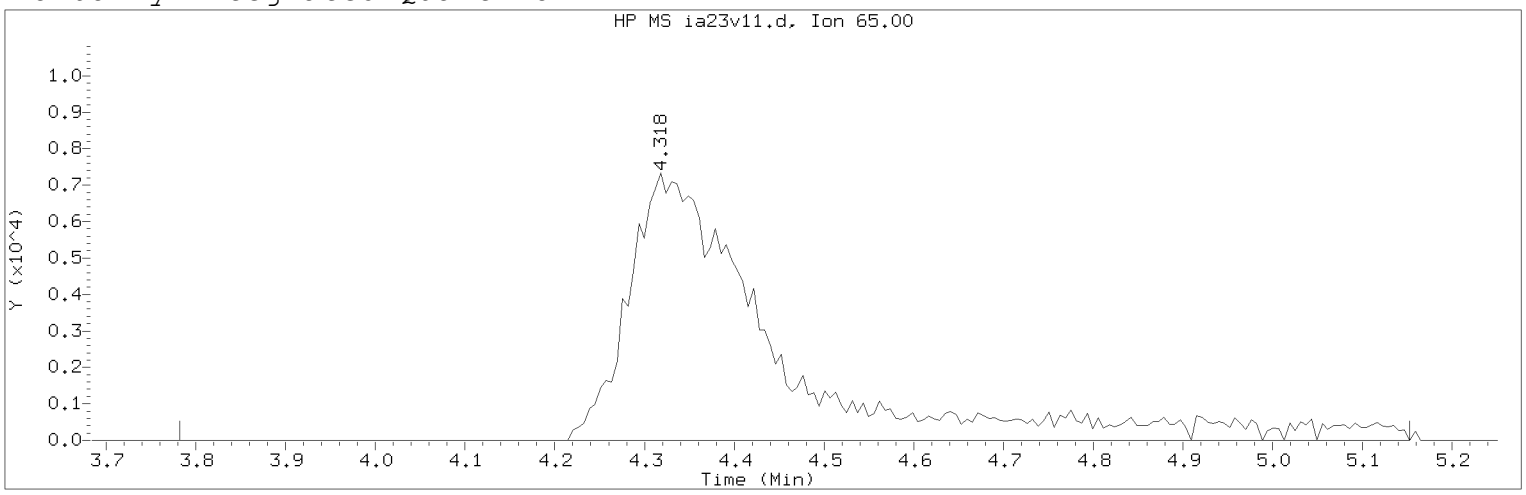
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 406
Retention Time (minutes): 4.062
Quant Ion : 41.00
Area : 63139
On-column Amount (ng) : 39.3390
Integration start scan : 388 Integration stop scan: 460
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:05.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

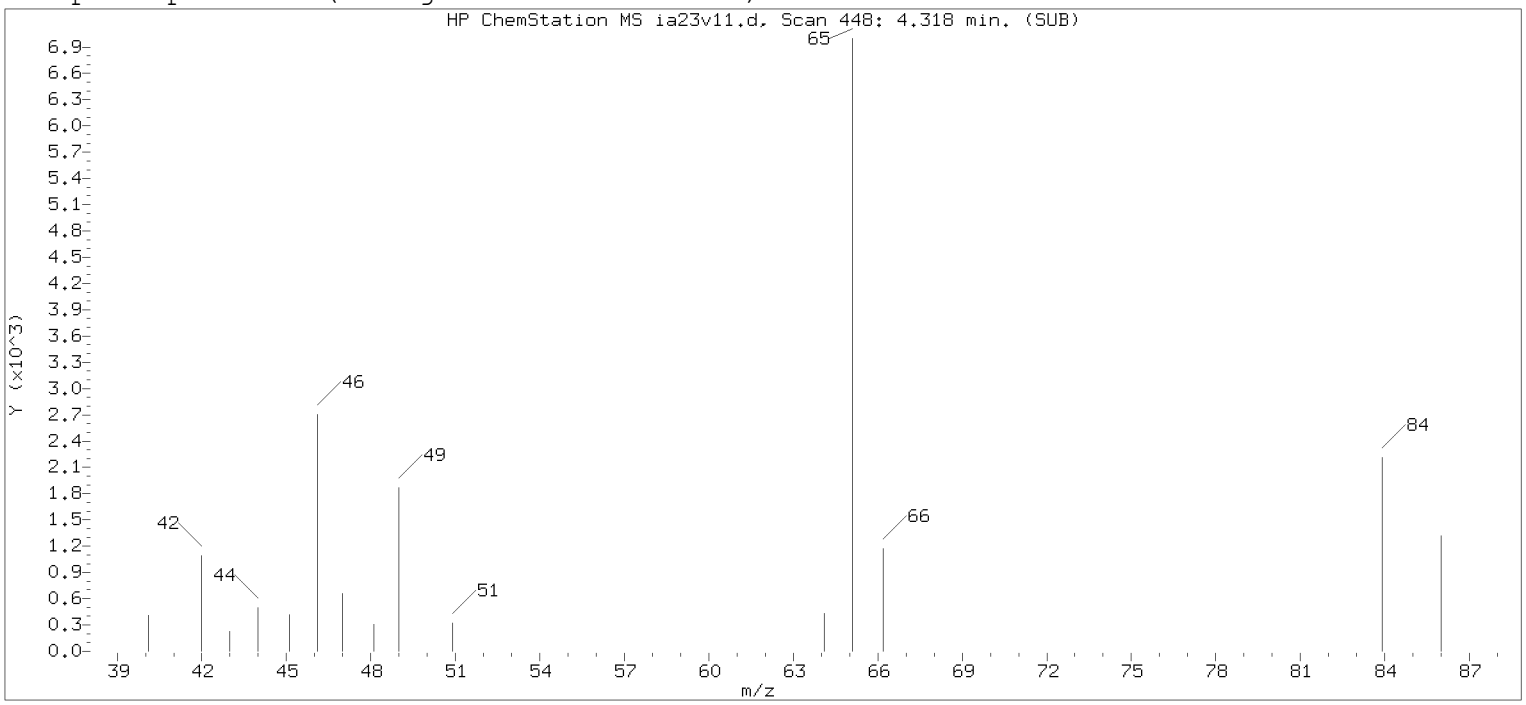
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 448
Retention Time (minutes): 4.318
Quant Ion : 65.00
Area (flag) : 84067M
On-Column Amount (ng) : 50.0000
Integration start scan : 359 Integration stop scan: 584
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

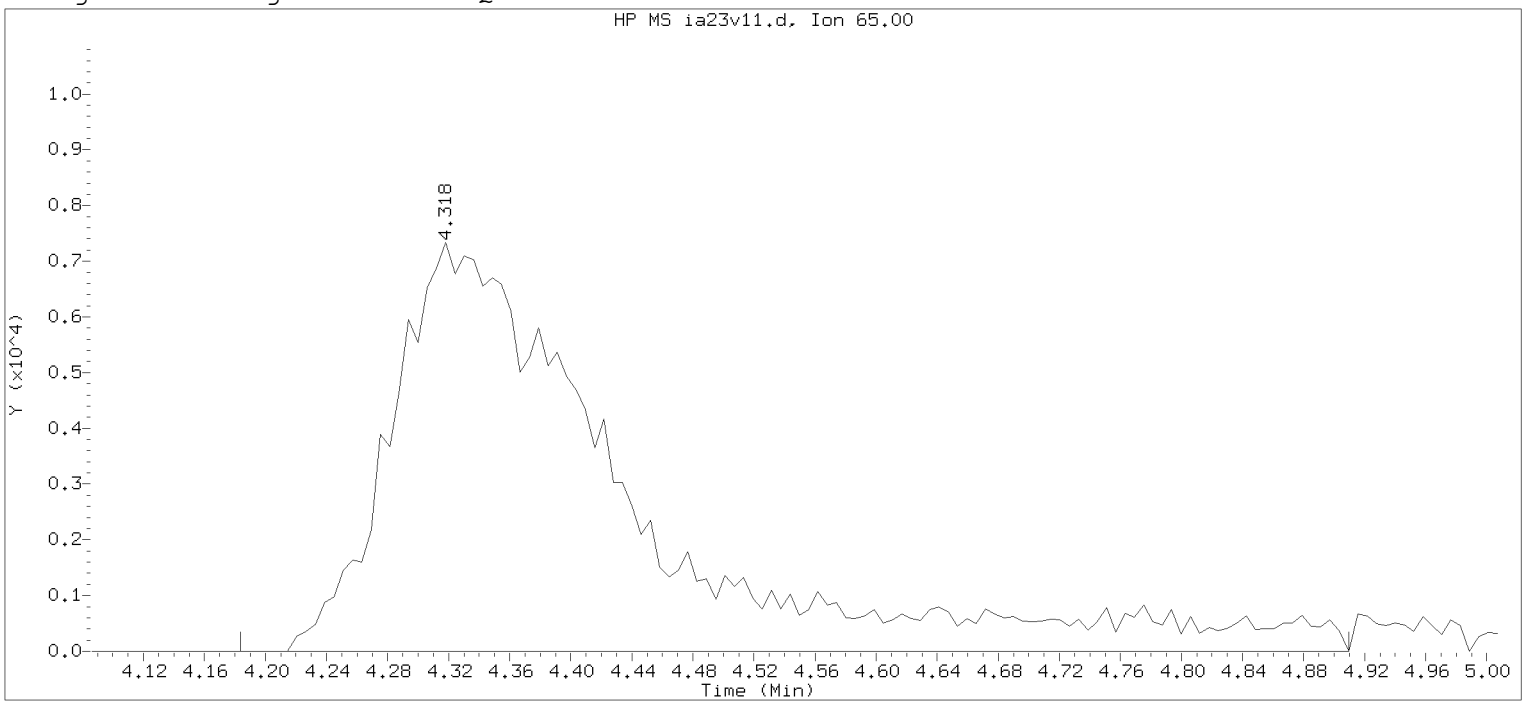
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:24.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

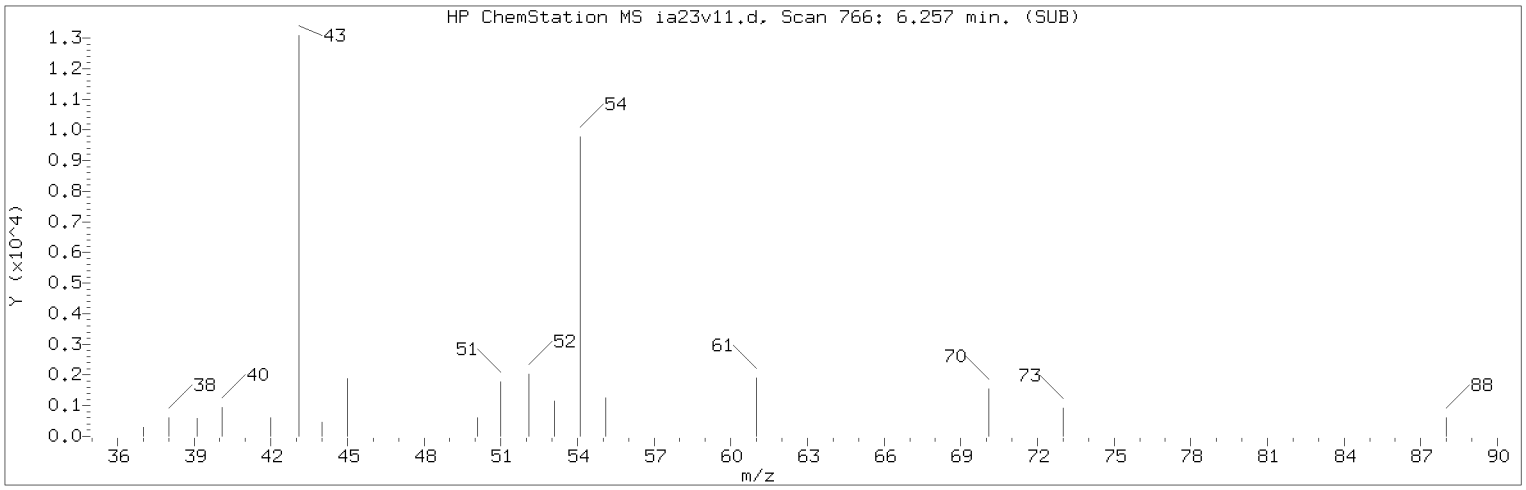
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 24-APR-2019 06:21
Date, time and analyst ID of latest file update: 24-Apr-2019 06:21 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

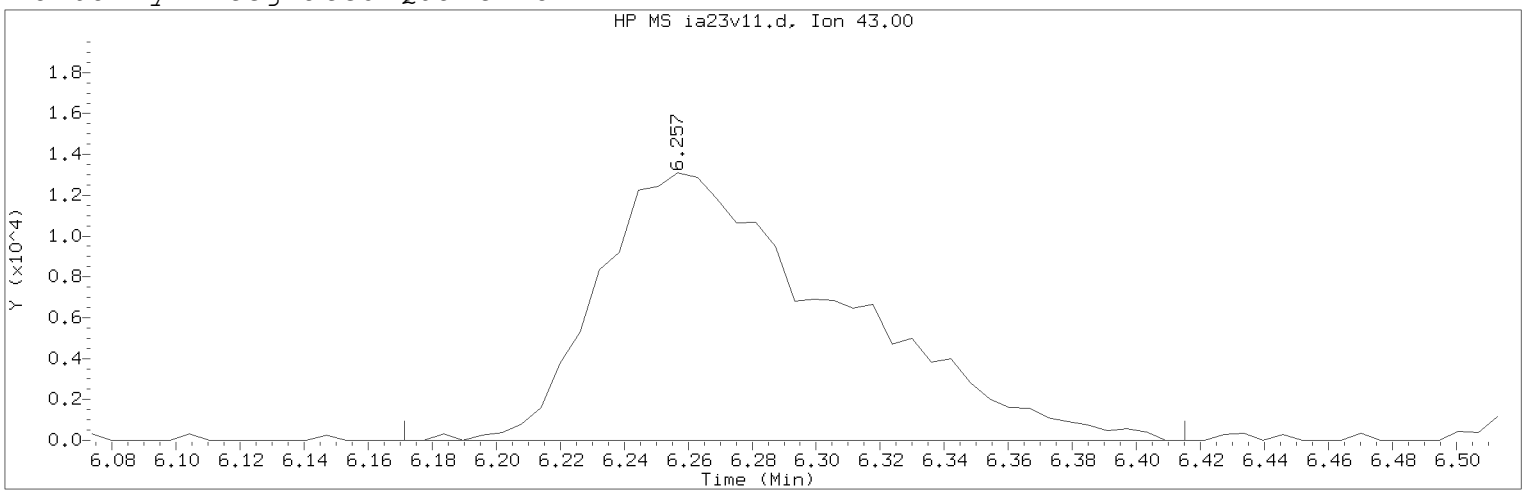
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 448
Retention Time (minutes): 4.318
Quant Ion : 65.00
Area : 78479
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 544
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:05.
Target 3.5 esignature used for this page

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

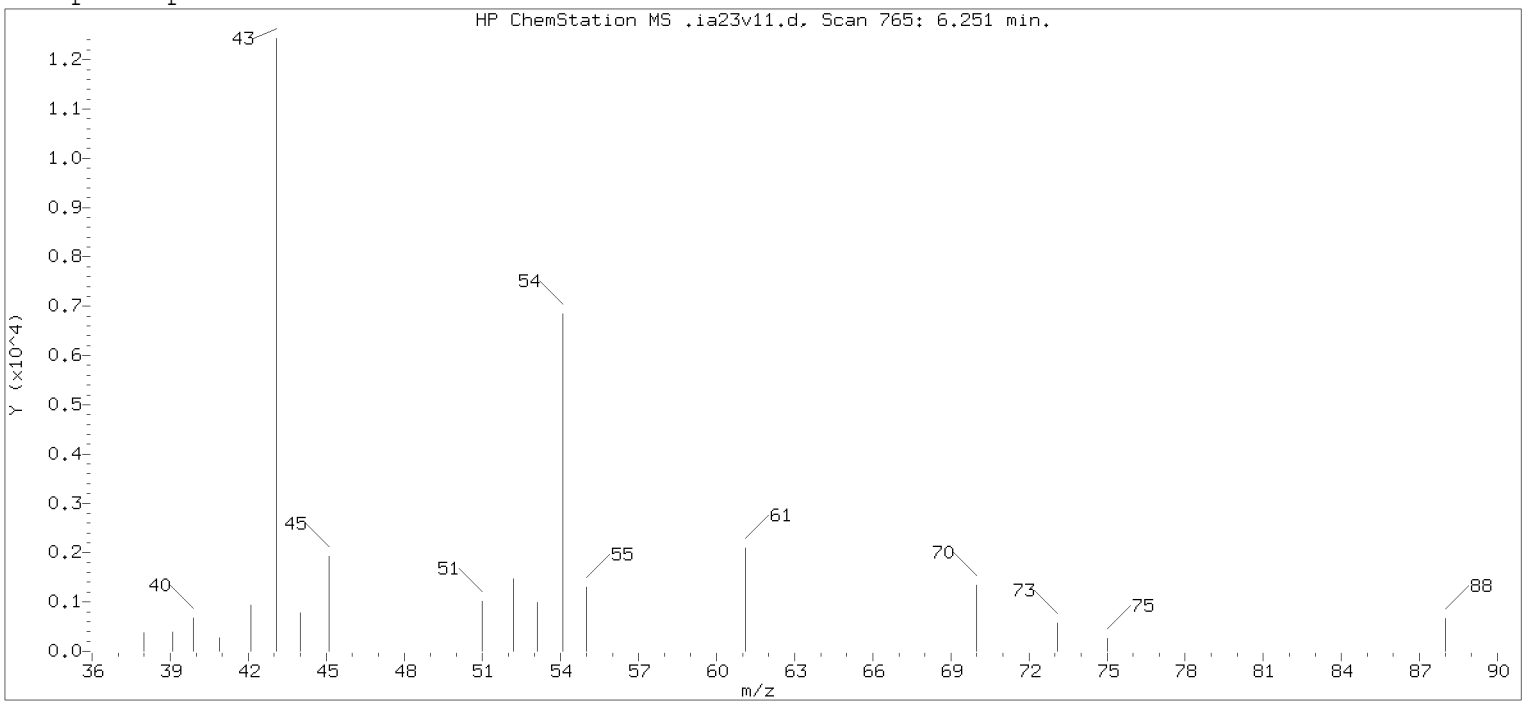
Compound Number : 46
Compound Name : Ethyl Acetate
Scan Number : 766
Retention Time (minutes): 6.257
Quant Ion : 43.00
Area (flag) : 68266M
On-Column Amount (ng) : 2.8475
Integration start scan : 751 Integration stop scan: 791
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

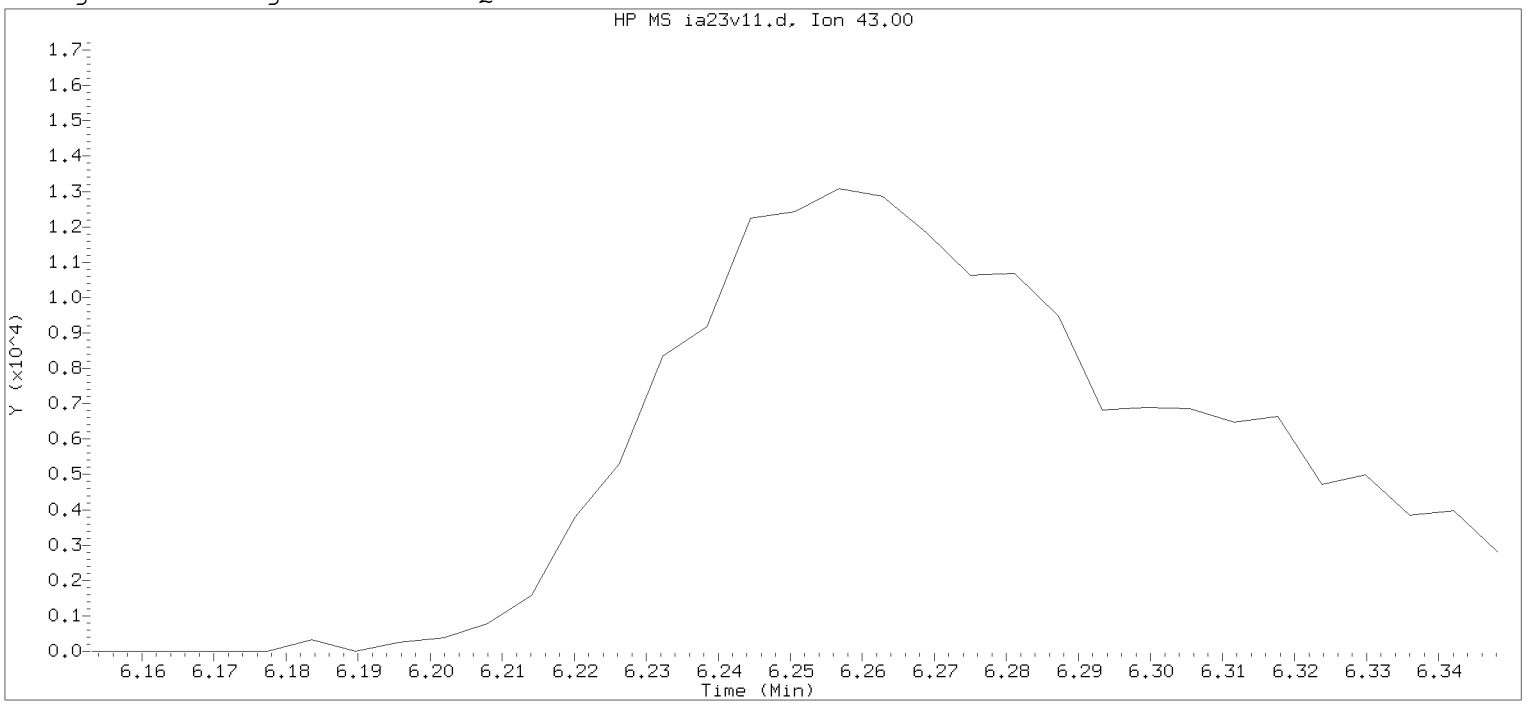
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:24.
PARALLAX ID: kek01027

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

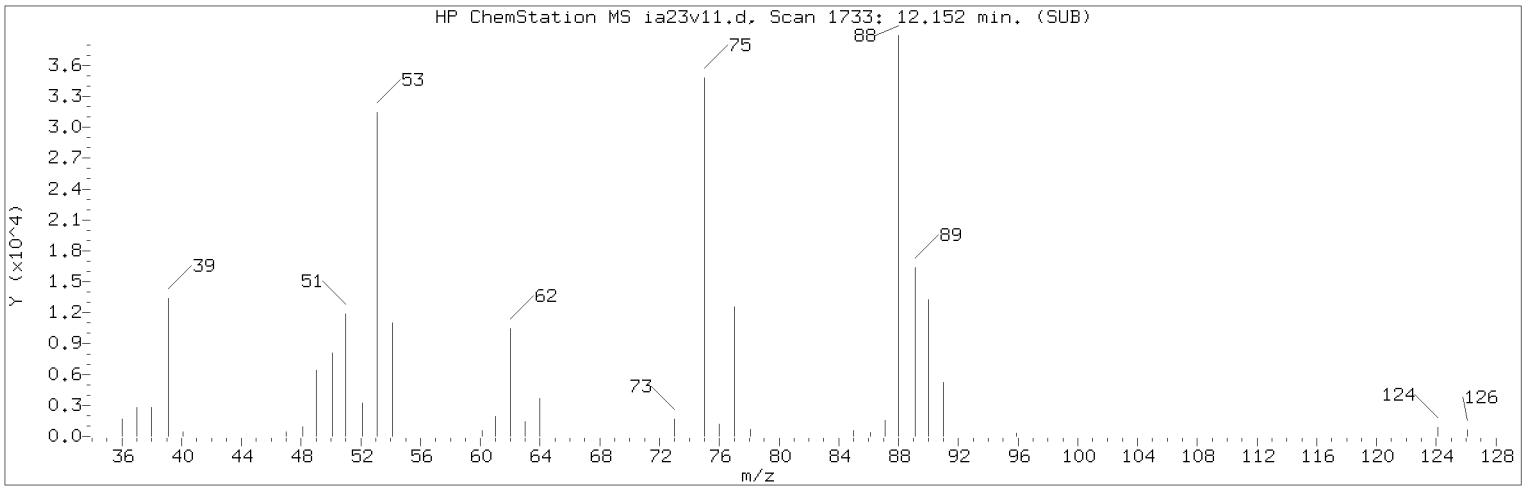
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 24-APR-2019 06:21
Date, time and analyst ID of latest file update: 24-Apr-2019 06:21 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

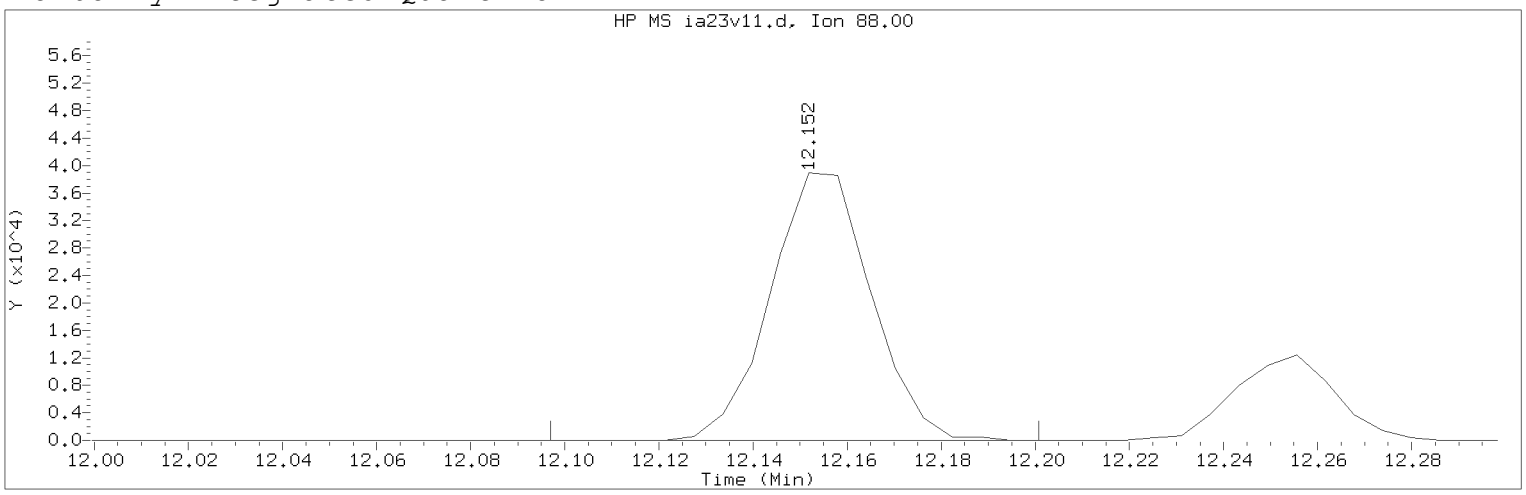
Compound Number : 46
Compound Name : Ethyl Acetate
Expected RT (minutes) : 6.250
Quant Ion : 43.00

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

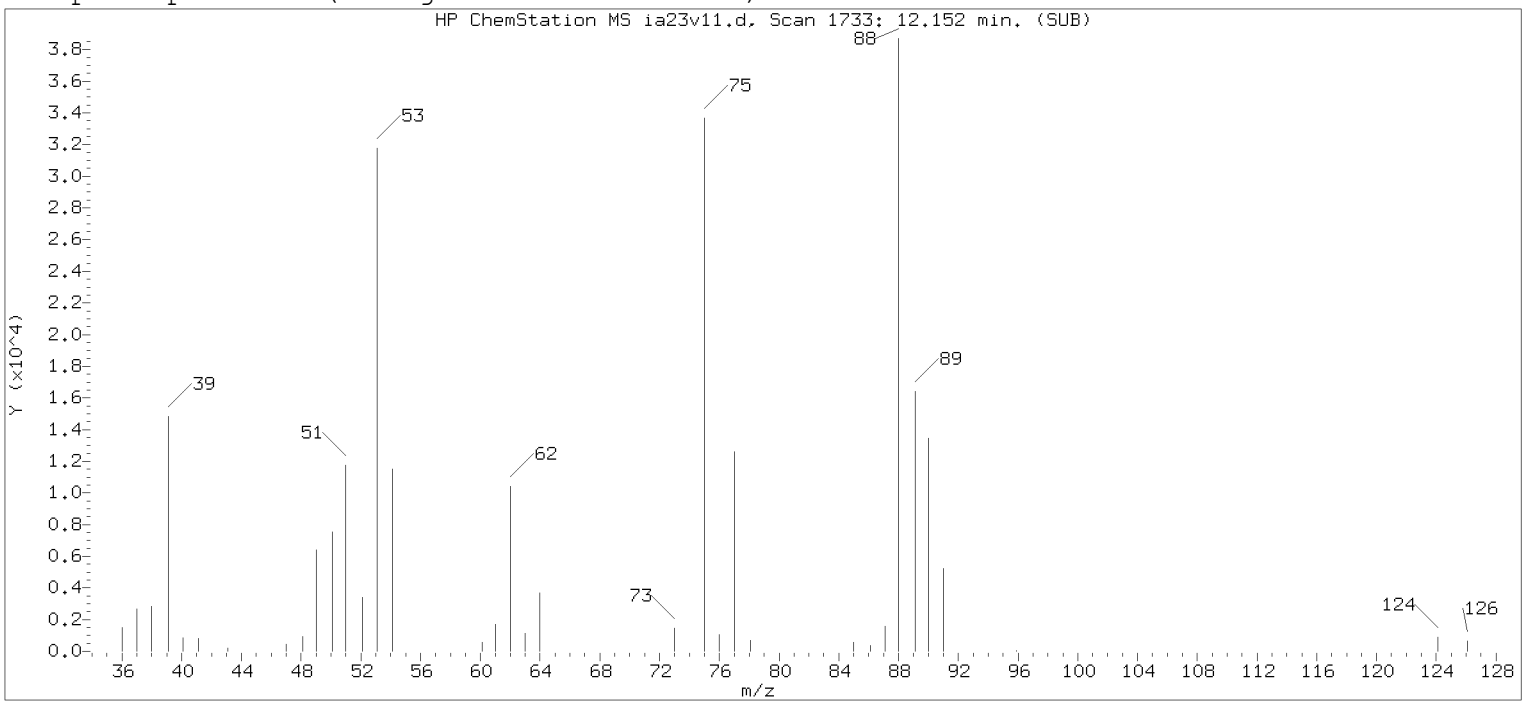
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1733
Retention Time (minutes): 12.152
Quant Ion : 88.00
Area (flag) : 58037M
On-Column Amount (ng) : 13.2064
Integration start scan : 1723 Integration stop scan: 1740
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

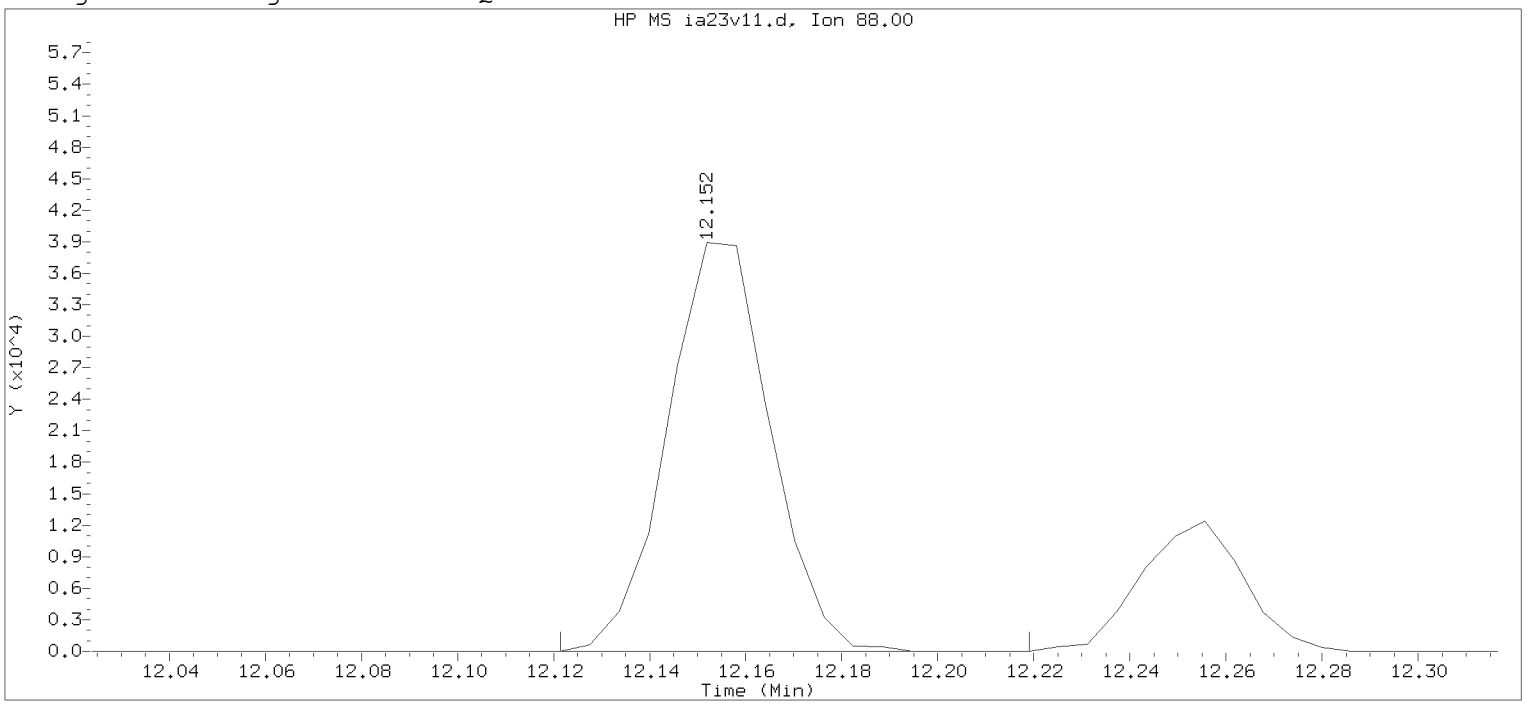
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:24.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

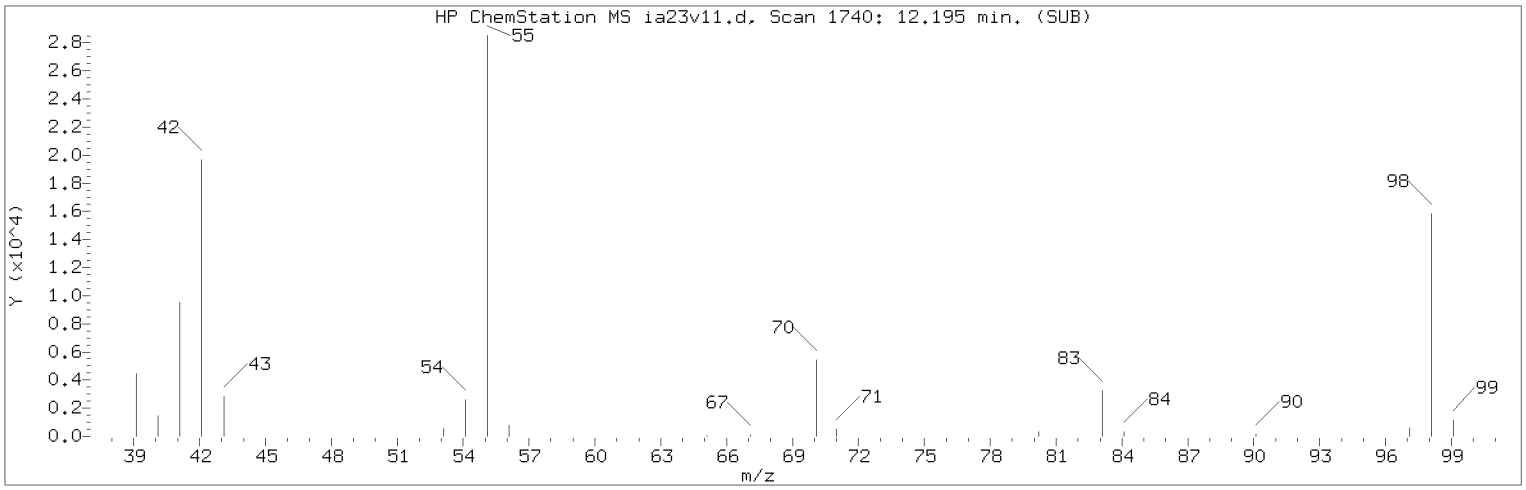
Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 24-APR-2019 06:21
Date, time and analyst ID of latest file update: 24-Apr-2019 06:21 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

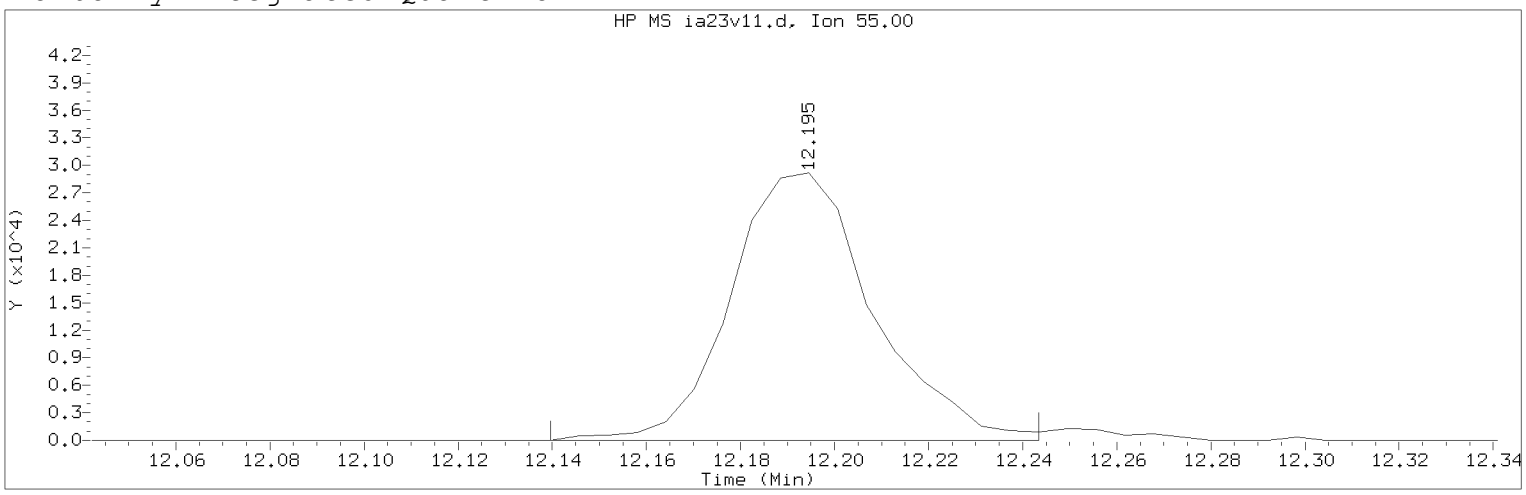
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1733
Retention Time (minutes): 12.152
Quant Ion : 88.00
Area : 58037
On-column Amount (ng) : 14.0680
Integration start scan : 1727 Integration stop scan: 1743
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:05.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 25-APR-2019 10:04
Date, time and analyst ID of latest file update: 25-Apr-2019 10:04 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

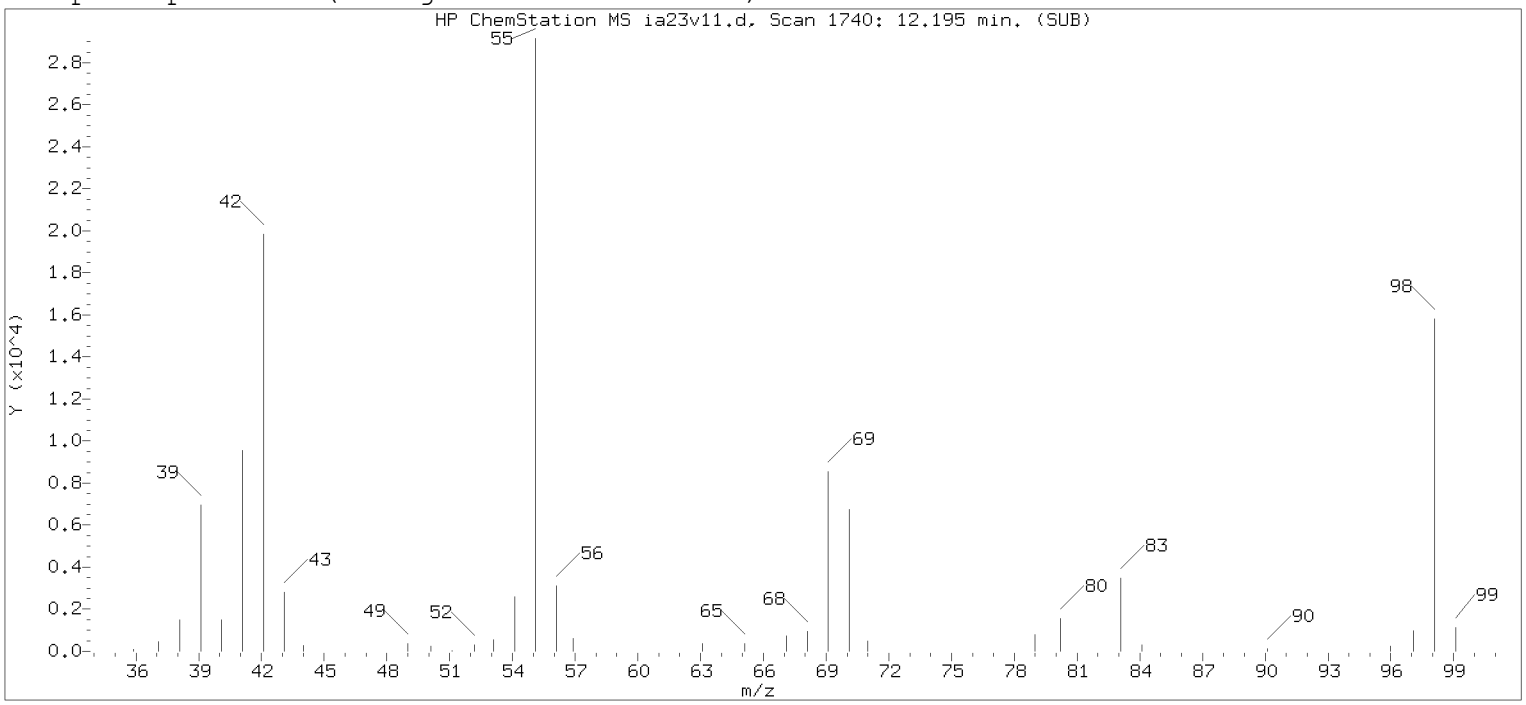
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1740
Retention Time (minutes): 12.195
Quant Ion : 55.00
Area (flag) : 61381M
On-Column Amount (ng) : 118.5191
Integration start scan : 1730 Integration stop scan: 1747
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

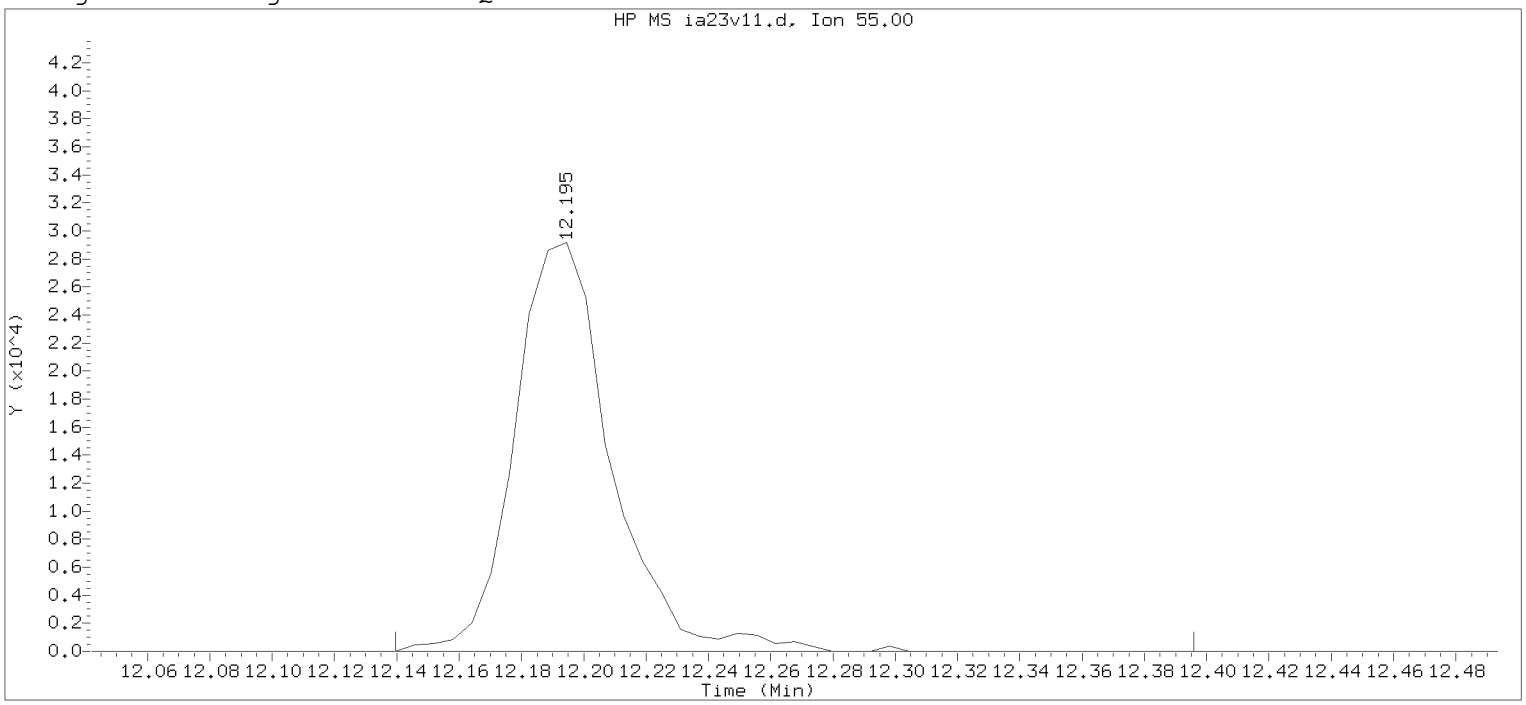
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/25/2019 at 10:05.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 04/25/2019 at 11:24.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr23i.b/ia23v11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 00:16 Analyst ID: MEC29284

Method used: /chem2/HP19930.i/19apr23i.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 24-APR-2019 06:21
Date, time and analyst ID of latest file update: 24-Apr-2019 06:21 jkh09052

Sample Name: LCSISM Lab Sample ID: LCSISM

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1740
Retention Time (minutes): 12.195
Quant Ion : 55.00
Area : 62977
On-column Amount (ng) : 130.2585
Integration start scan : 1730 Integration stop scan: 1772
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/25/2019 at 10:05.
Target 3.5 esignature used for this report.

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i11.d

Injection date and time: 23-APR-2019 21:47

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 7

Client ID: VSTD025 Lab ID: VSTD025

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	50.000	49.97517	0.0	30

**B/C/D

Report generated on 04/25/2019 at 07:41

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i12.d

Injection date and time: 23-APR-2019 22:08

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 6

Client ID: VSTD010 Lab ID: VSTD010

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	20.000	20.28953	-1.4	30

**B/C/D

Report generated on 04/25/2019 at 07:41

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i13.d

Injection date and time: 23-APR-2019 22:29

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 5

Client ID: VSTD005 Lab ID: VSTD005

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	10.000	9.63345	3.7	30

**B/C/D

Report generated on 04/25/2019 at 07:41

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i14.d

Injection date and time: 23-APR-2019 22:51

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 4

Client ID: VSTD002 Lab ID: VSTD002

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	4.000	3.58672	10.3	30

**B/C/D

Report generated on 04/25/2019 at 07:41

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i15.d

Injection date and time: 23-APR-2019 23:12

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 3

Client ID: VSTD001 Lab ID: VSTD001

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	2.000	1.74679	12.7	30

**B/C/D

Report generated on 04/25/2019 at 07:41

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i16.d

Injection date and time: 23-APR-2019 23:33

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 2

Client ID: VSTD0.5 Lab ID: VSTD0.5

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	1.000	1.36516	-36.5*	30

An "*" indicates the recalculated concentration fails the ± % drift criteria specified in section 11.5.4.1 of SW-846 Method 8000D.

**B/C/D

Report generated on 04/25/2019 at 07:41

SW-846 Method 8260X** Calibration Verification Report

Instrument ID: HP19930.i

File ID: /chem2/HP19930.i/19apr23i.b/ia23i17.d

Injection date and time: 23-APR-2019 23:54

Last file update (date, time, and analyst ID): 24-Apr-2019 06:15 jkh09052

Calibration Level: 1

Client ID: VSTD0.2 Lab ID: VSTD0.2

Target processing method: /chem2/HP19930.i/19apr23i.b/m8260c25.m

Last method update (date, time, and analyst ID): 24-Apr-2019 06:27 jkh09052

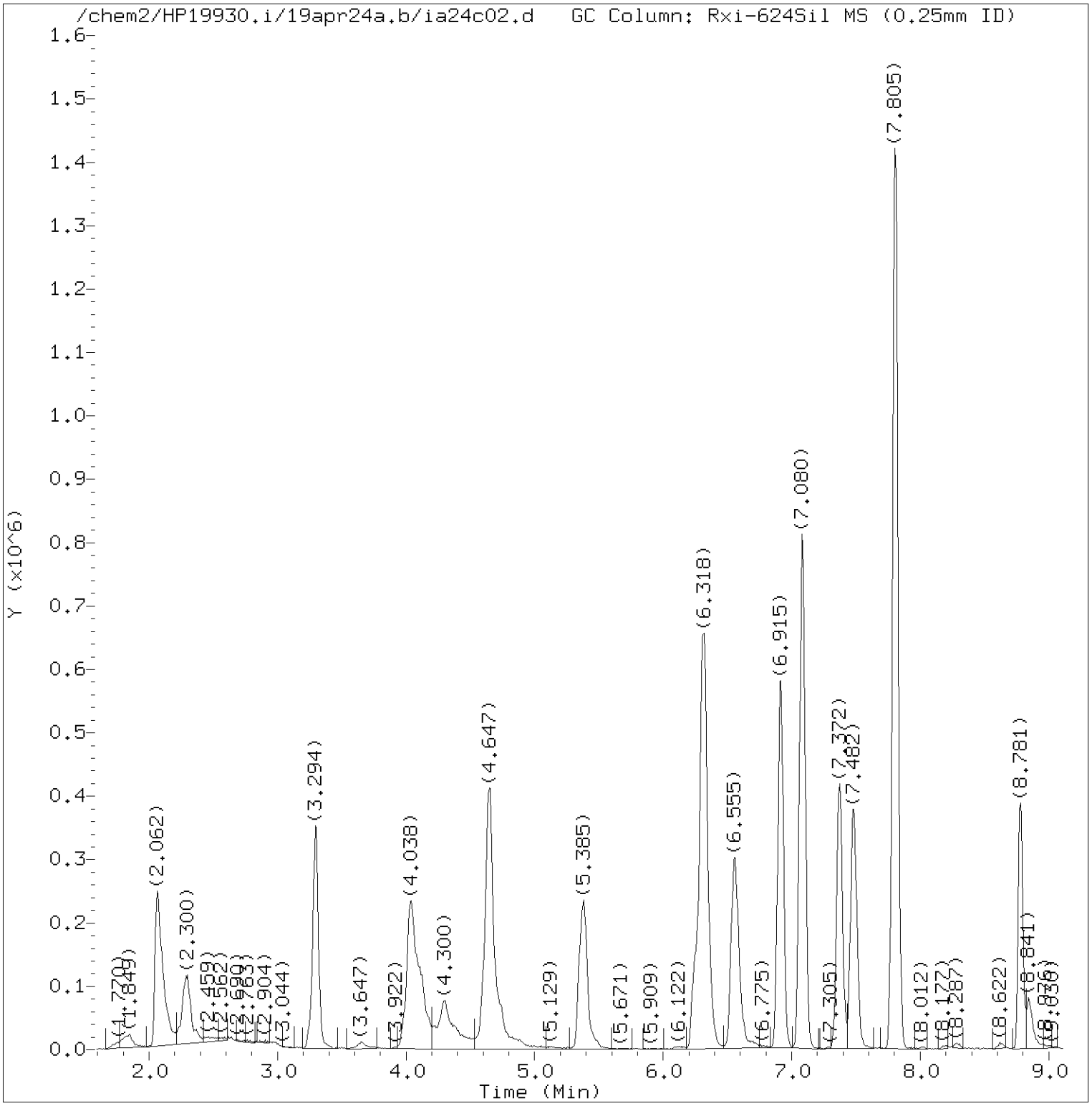
Curve Type Legend: 1 = Linear Equation 2 = Weighted Linear Equation
3 = Quadratic Equation 4 = Power Equation

Compound Name(Curve Type)	Theoretical Concentration	Calculated Concentration	Percent Drift	Drift Limit
cis-1,4-Dichloro-2-butene(3)(0)	0.400	0.80319	-100.8*	50

An "*" indicates the recalculated concentration fails the ± % drift criteria specified in section 11.5.4.1 of SW-846 Method 8000D.

**B/C/D

Report generated on 04/25/2019 at 07:41



Total Ion Chromatogram (TIC)

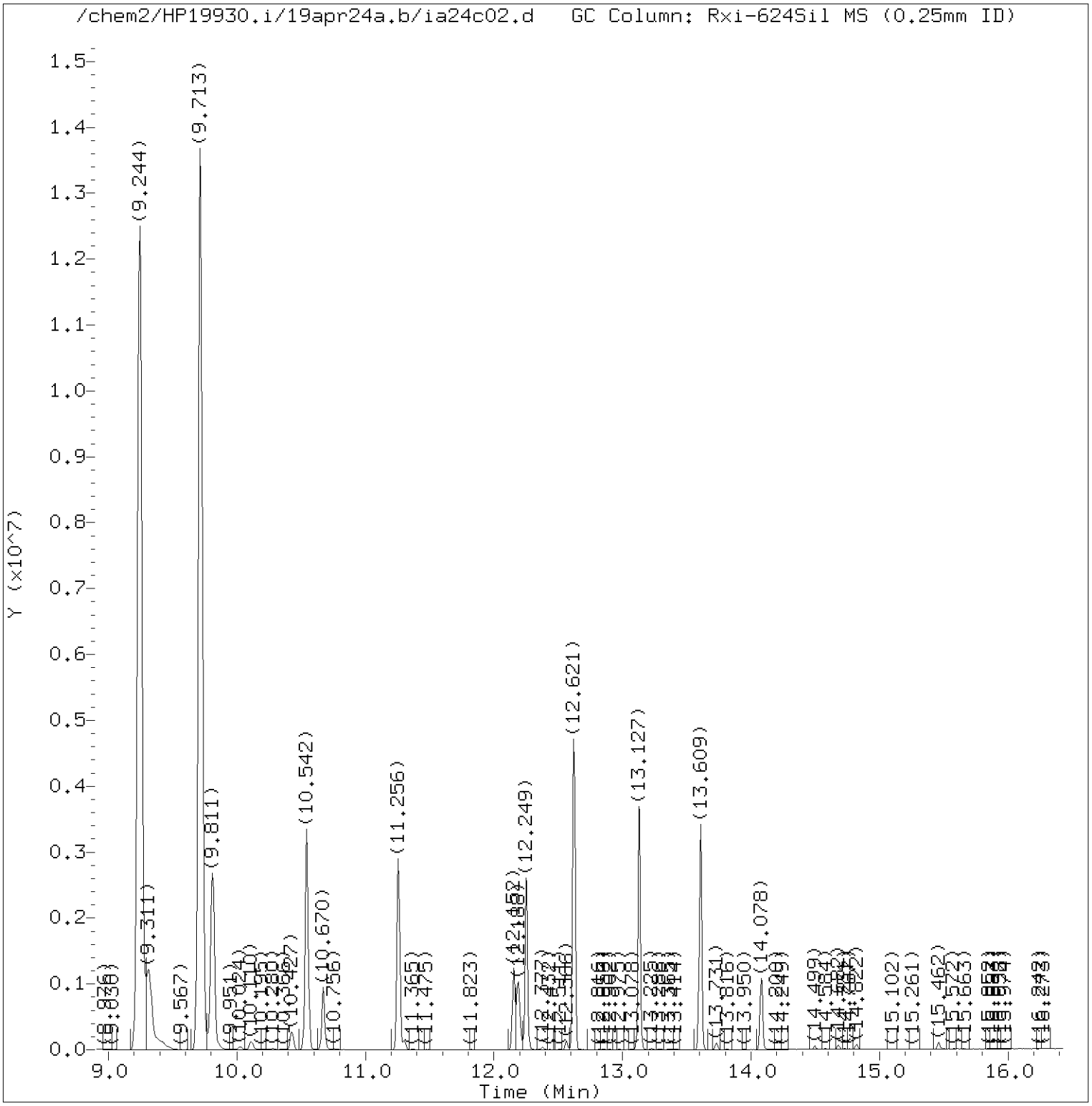
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

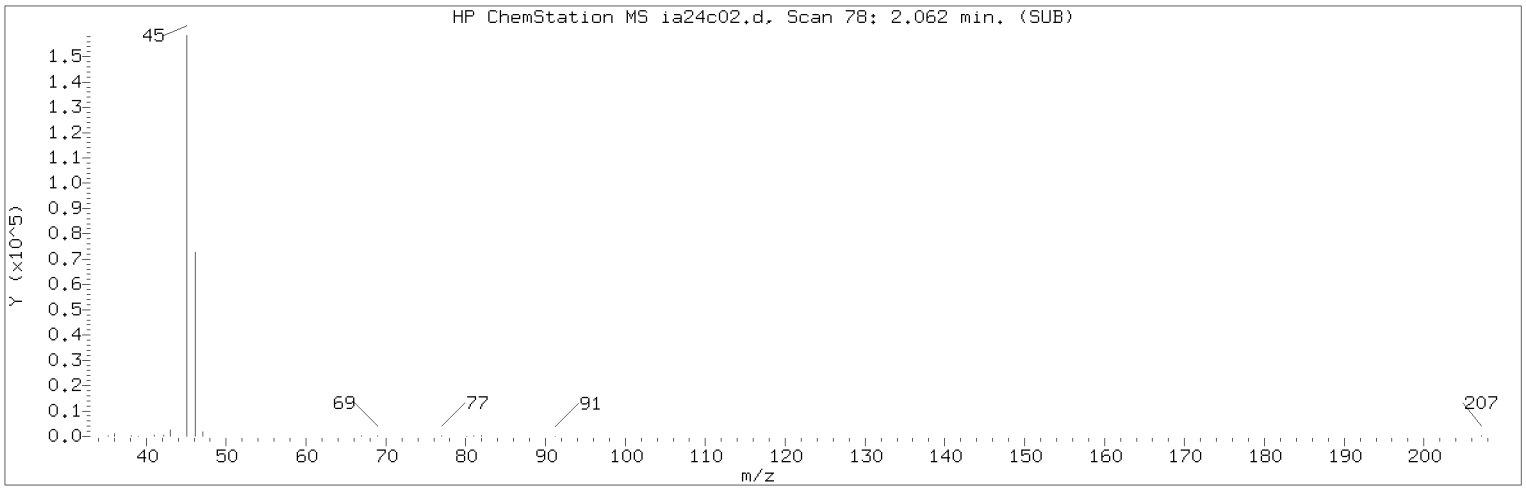
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	721333M	9.467
25) Acetonitrile	(1)	4.038	41	1224958M	394.343
26)*t-Butyl Alcohol-d10	(1)	4.306	65	151889M	50.000
36) Vinyl Acetate	(2)	5.385	43	792310	10.974
46) Ethyl Acetate	(2)	6.244	43	390043	10.212
43) Methyl Acrylate	(2)	6.311	55	1579161	53.068
53) 1-Chlorobutane	(2)	7.080	56	1021944	10.015
61) Isopropyl Acetate	(2)	7.482	43	707214	10.457
63)*Fluorobenzene	(2)	7.805	96	2096160	10.000
77) Chloroacetonitrile	(2)	9.305	75	943351	562.374
78) 2-Chloroethyl vinyl ether	(2)	9.323	63	252473	10.786
75) n-Propyl Acetate	(2)	9.713	61	227266	11.410
94) Butyl Acetate	(3)	10.670	43	652377	11.428
97)*Chlorobenzene-d5	(3)	11.256	117	1681518	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.152	88	286687M	32.583
112) Cyclohexanone	(1)	12.188	55	468274M	500.439
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	944694	10.000
142) Hexachloroethane	(4)	13.609	117	583780	11.042

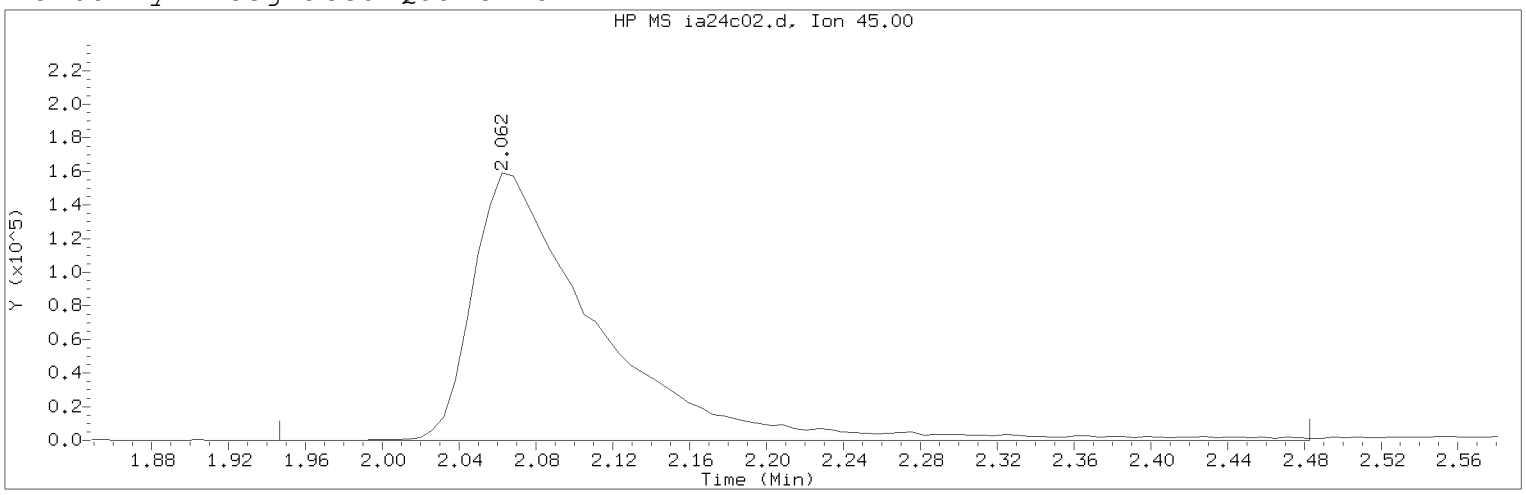
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

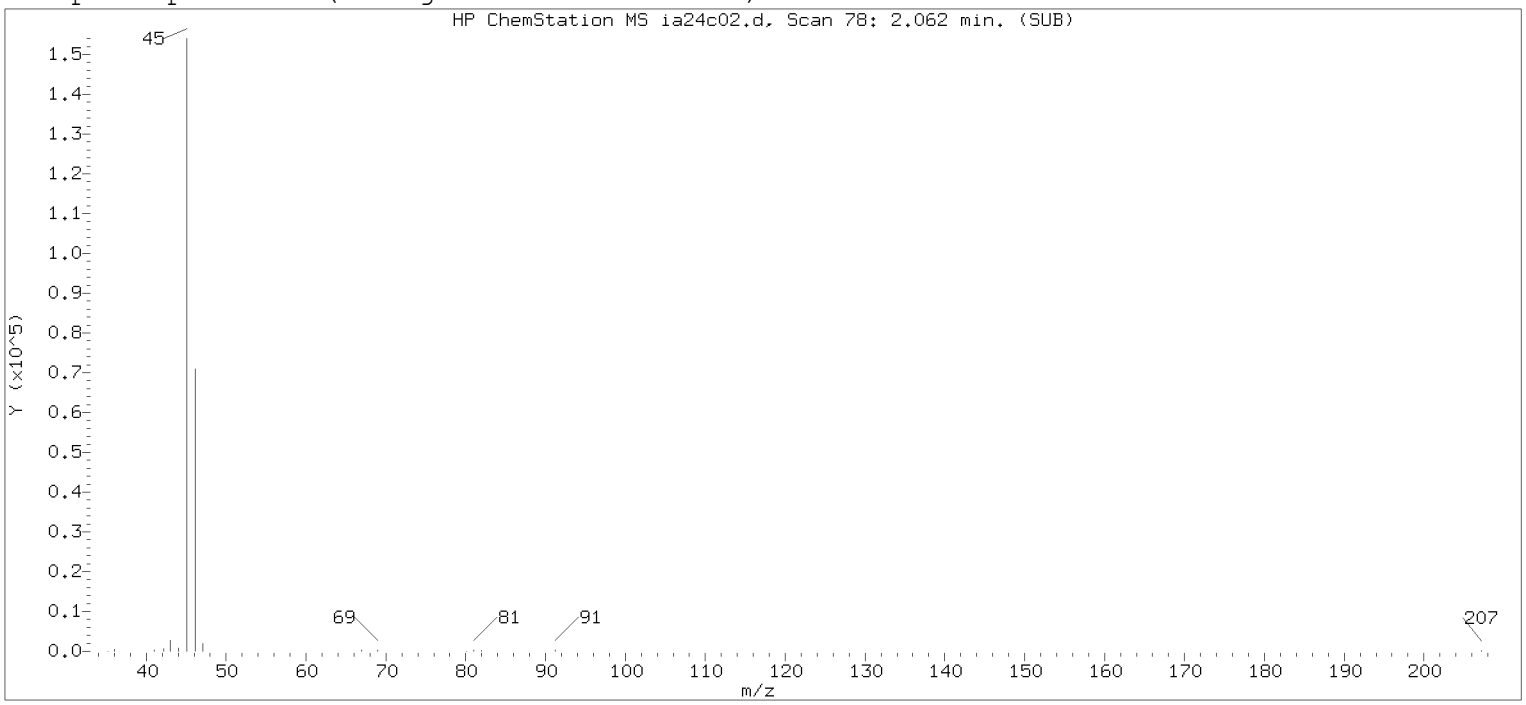
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 721333M
On-Column Amount (ng) : 9.4666
Integration start scan : 58 Integration stop scan: 146
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

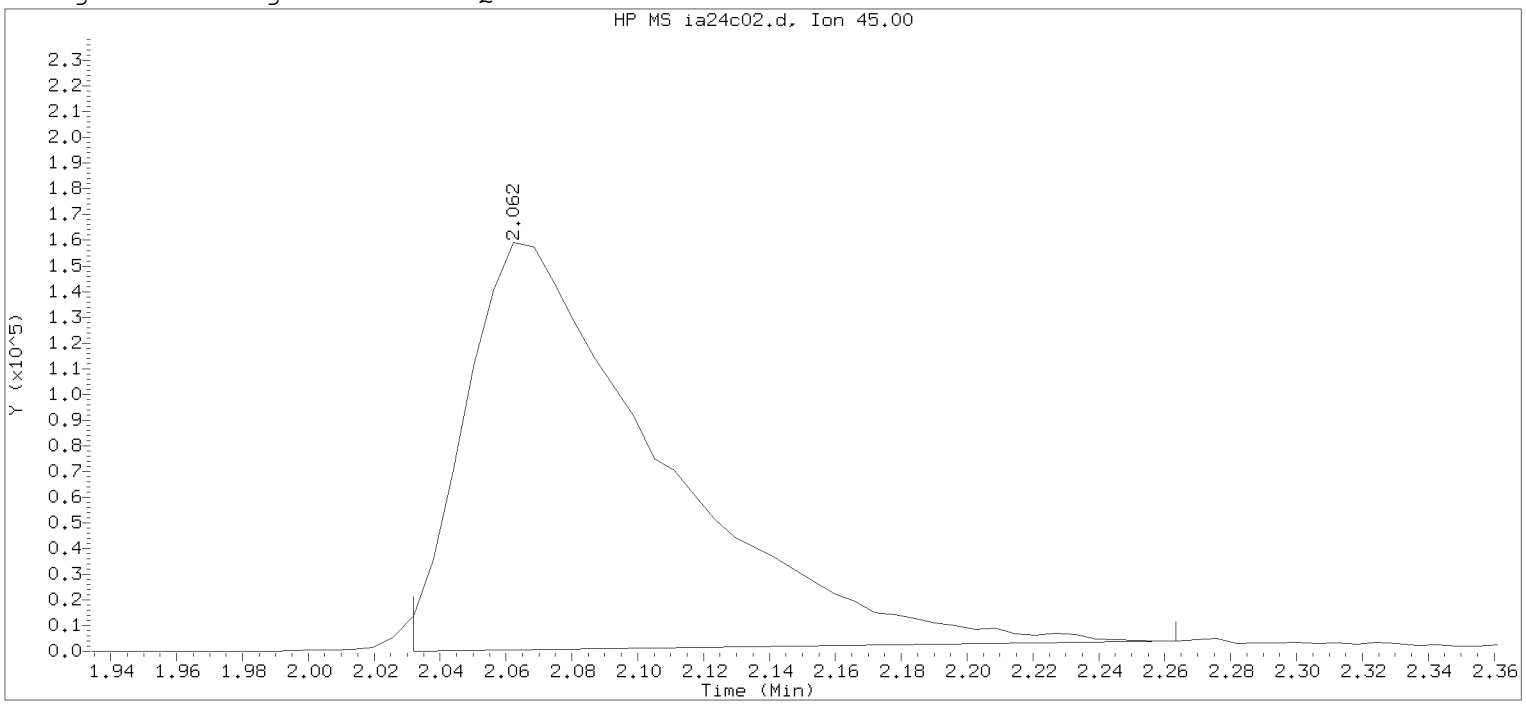
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

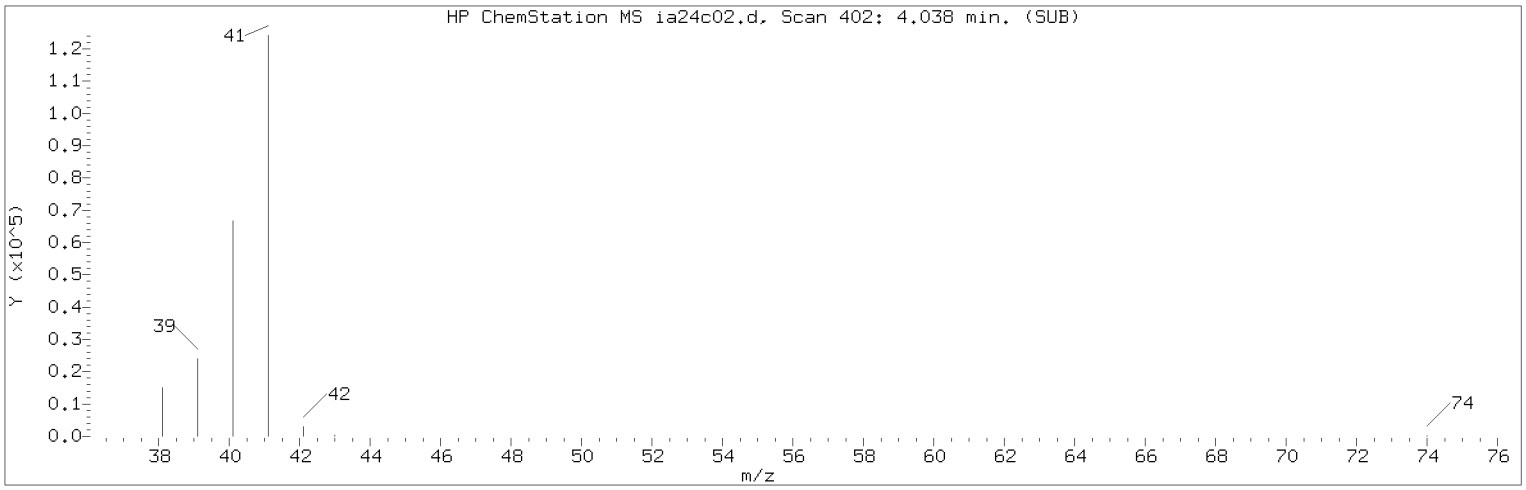
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:07 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

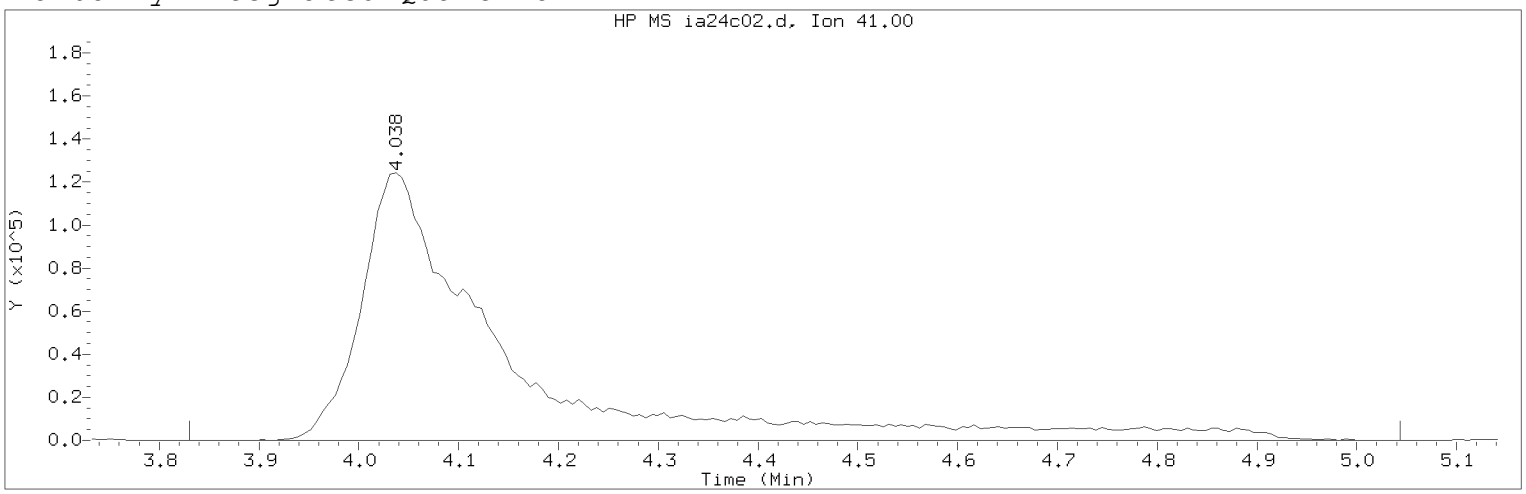
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area : 655535
On-column Amount (ng) : 8.6031
Integration start scan : 72 Integration stop scan: 110
Y at integration start : 0 Y at integration end: 4029

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:25.
Target 3.5 esignature used. Page 1442

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

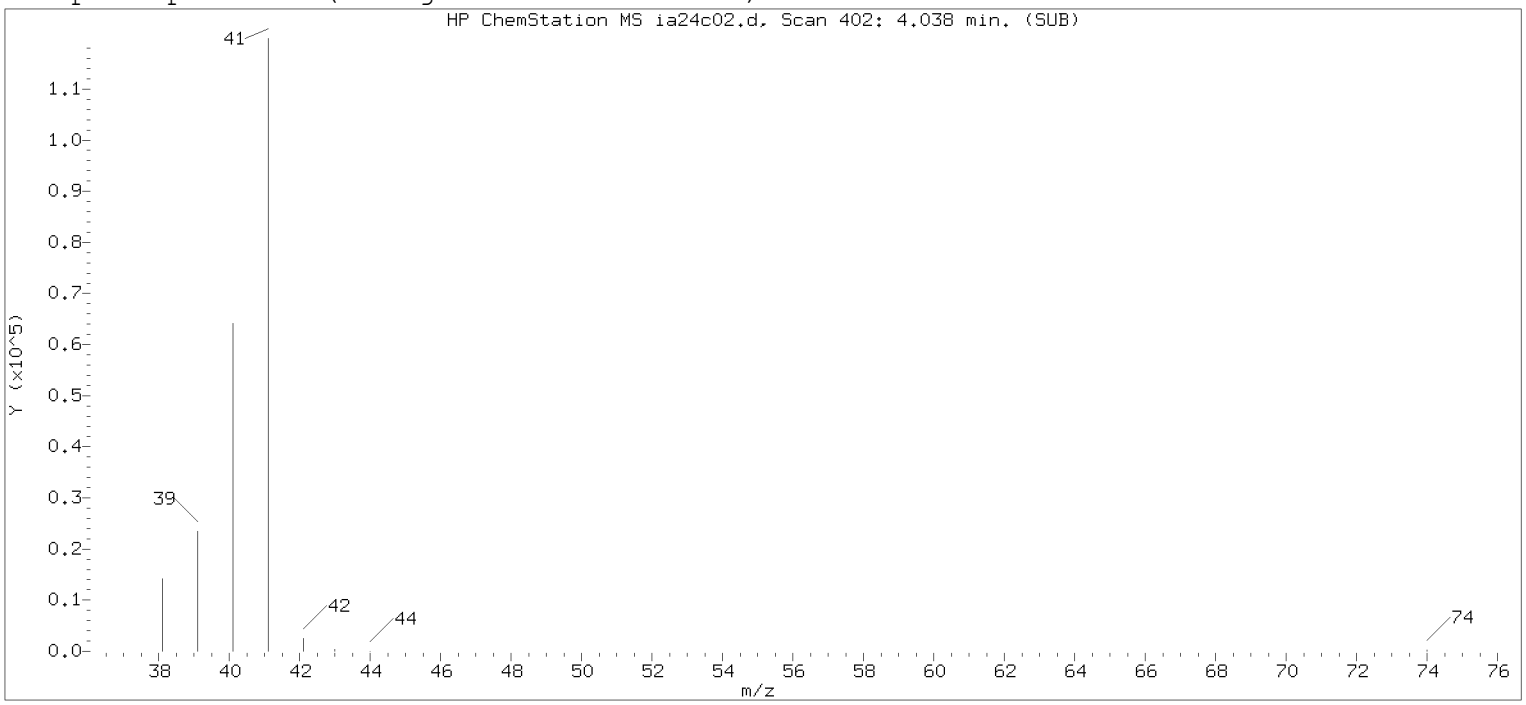
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 402
Retention Time (minutes): 4.038
Quant Ion : 41.00
Area (flag) : 1224958M
On-Column Amount (ng) : 394.3433
Integration start scan : 367 Integration stop scan: 566
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

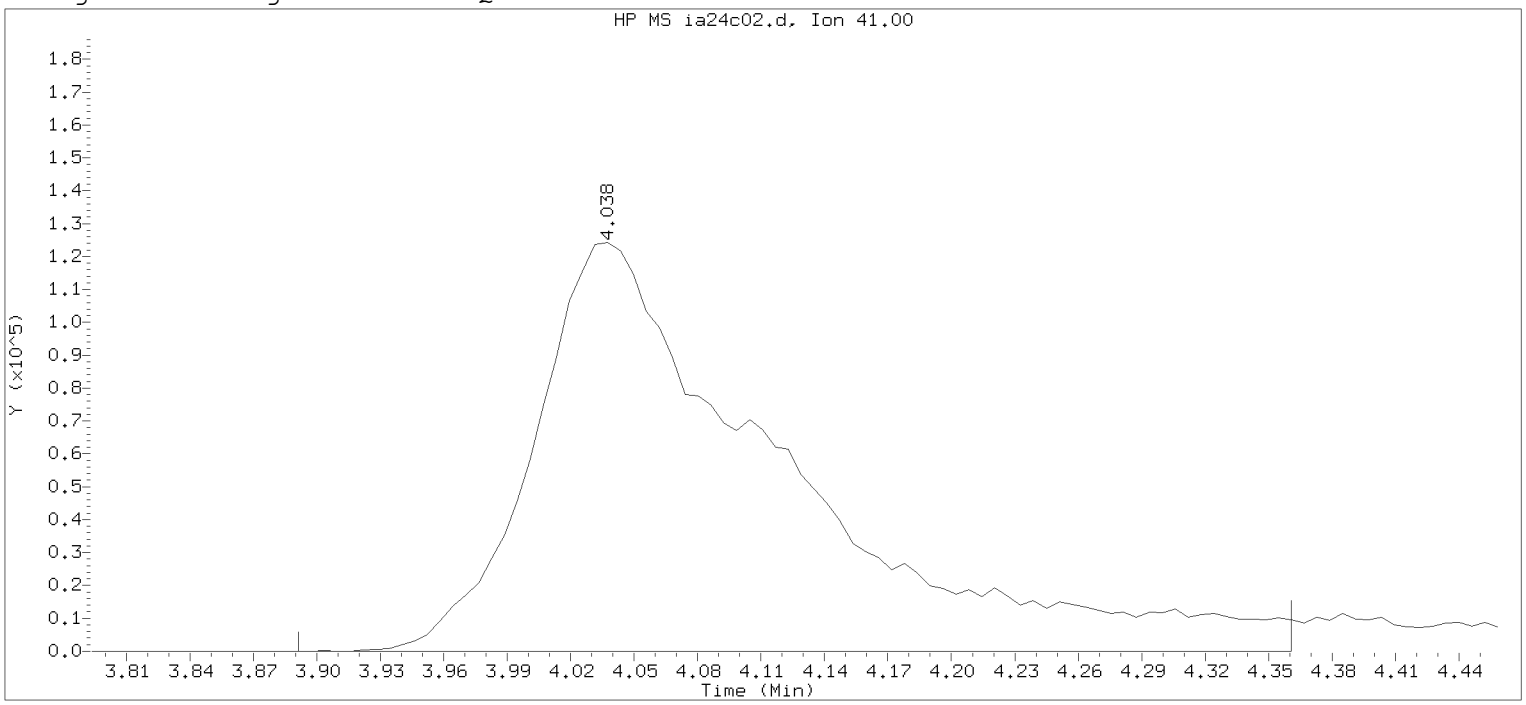
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

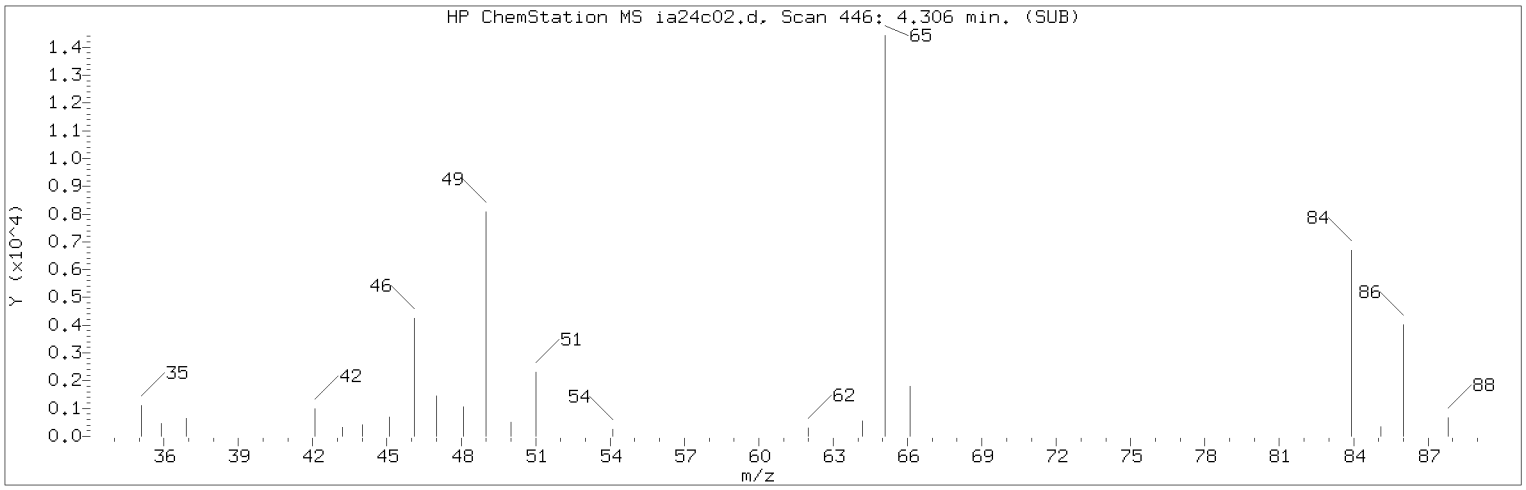
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:07 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

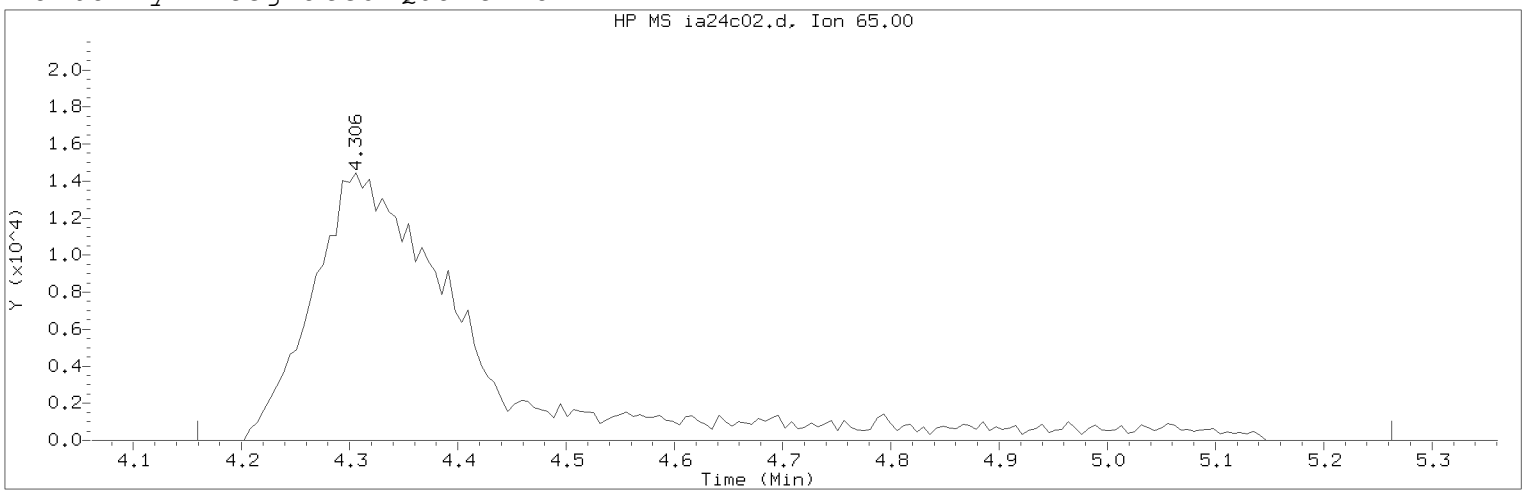
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 402
Retention Time (minutes): 4.038
Quant Ion : 41.00
Area : 1012269
On-column Amount (ng) : 379.9482
Integration start scan : 377 Integration stop scan: 454
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:25.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

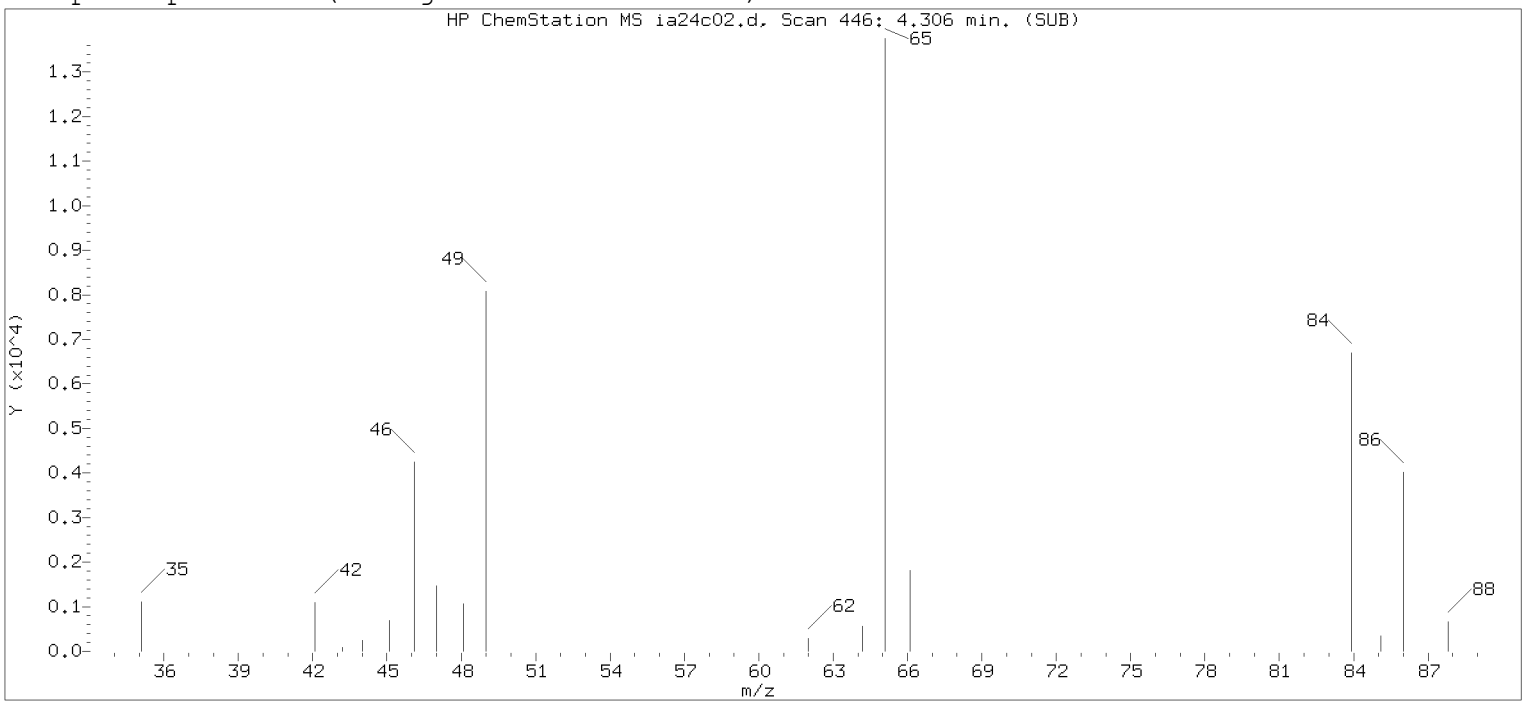
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area (flag) : 151889M
On-Column Amount (ng) : 50.0000
Integration start scan : 421 Integration stop scan: 602
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

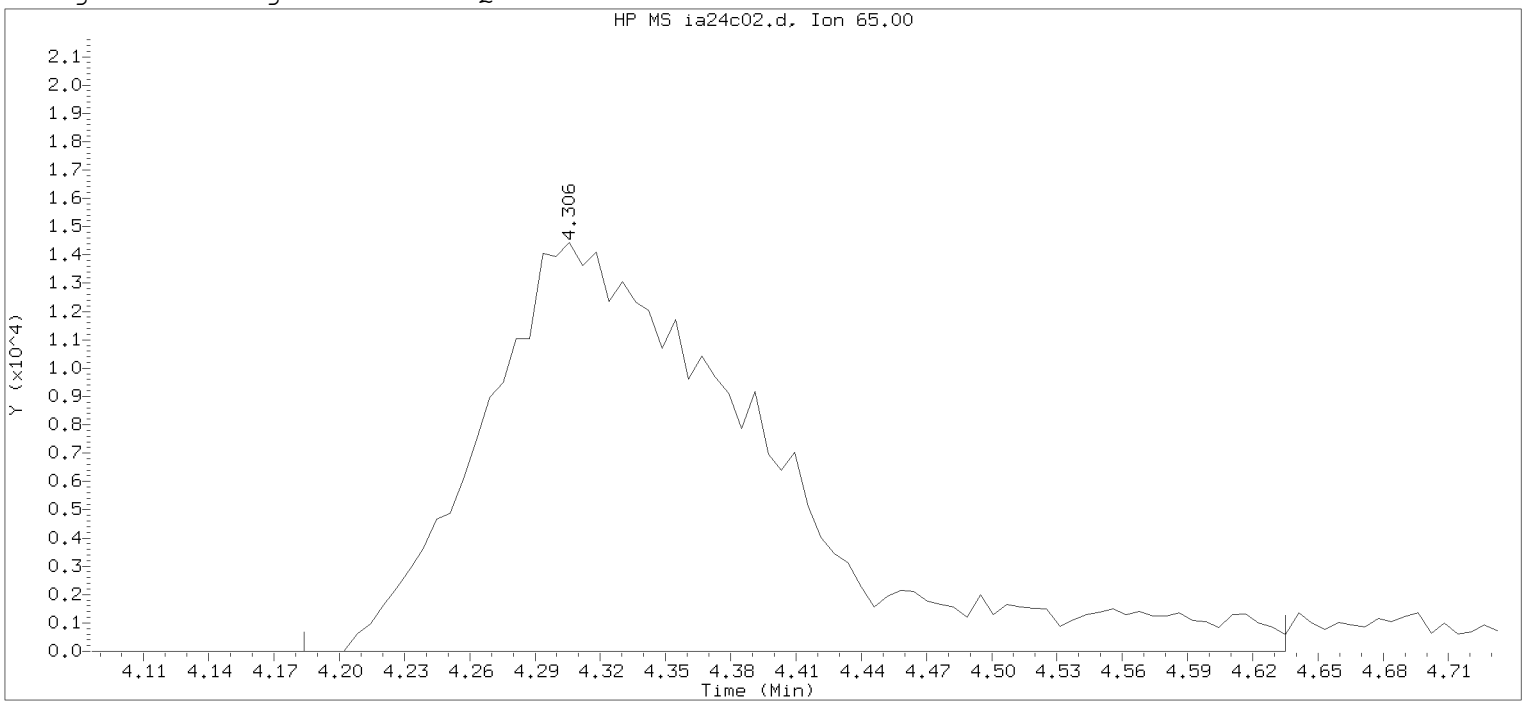
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

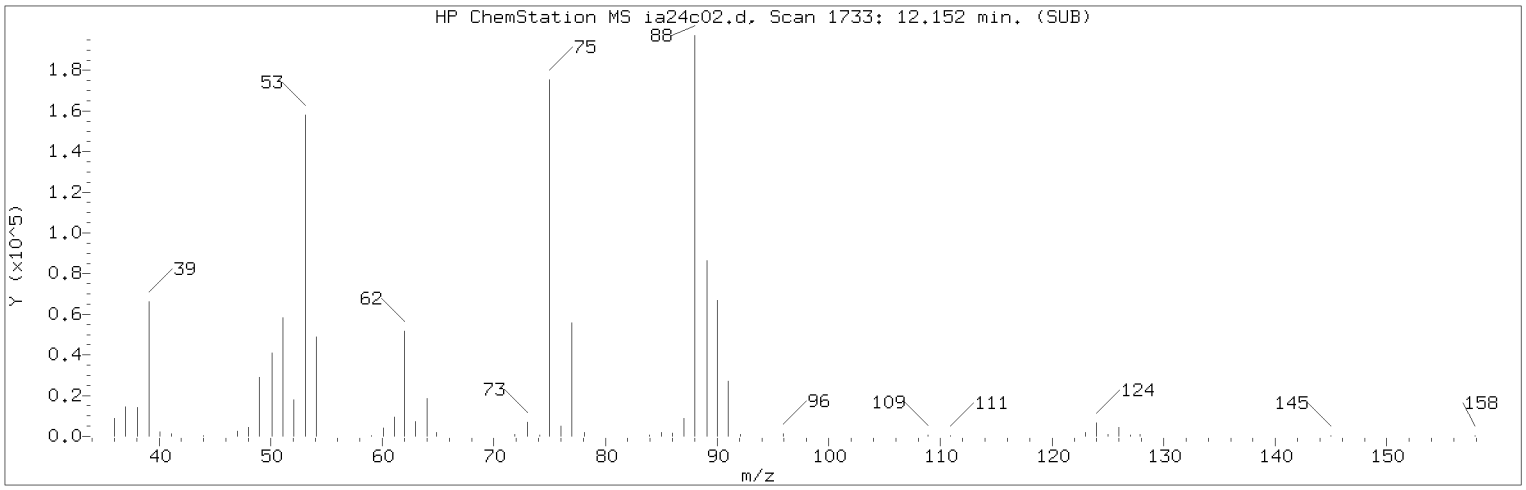
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:07 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

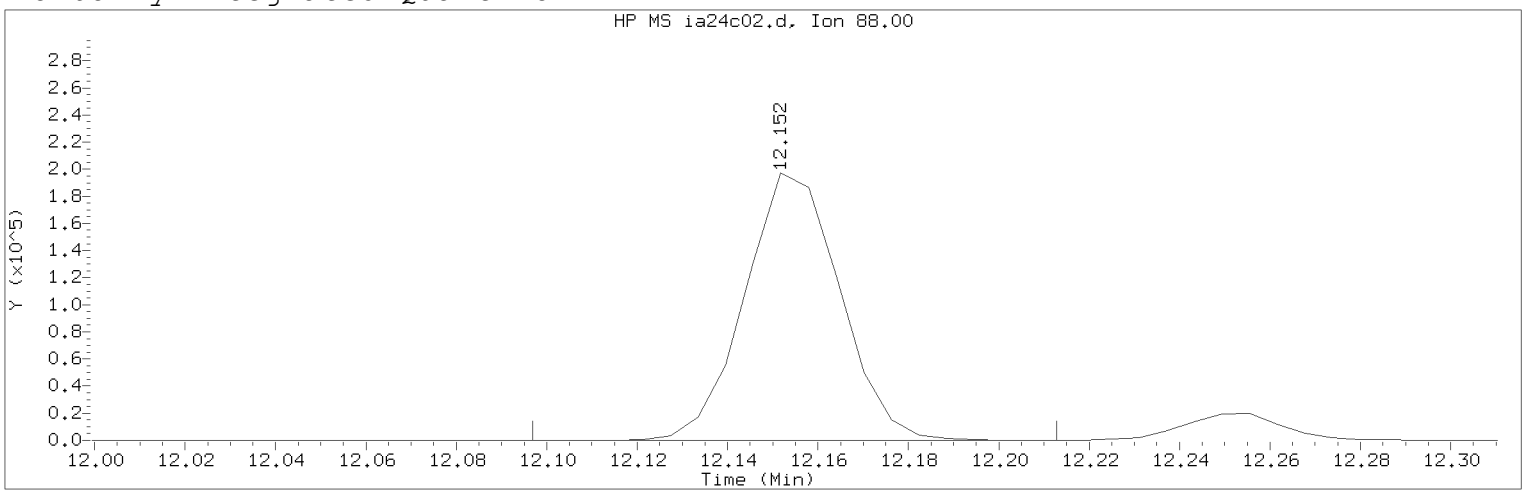
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area : 130272
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 499
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:25.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

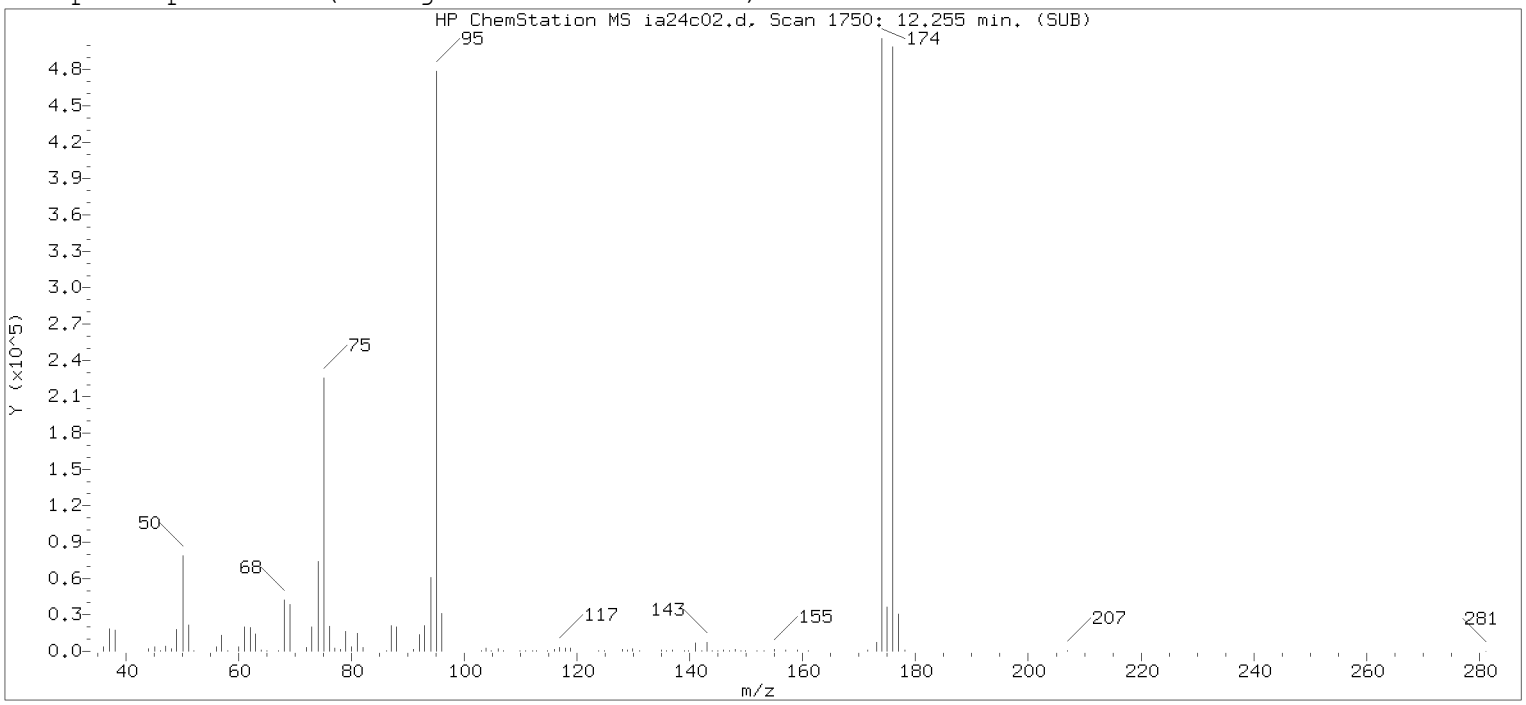
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1733
Retention Time (minutes): 12.152
Quant Ion : 88.00
Area (flag) : 286687M
On-Column Amount (ng) : 32.5832
Integration start scan : 1723 Integration stop scan: 1742
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

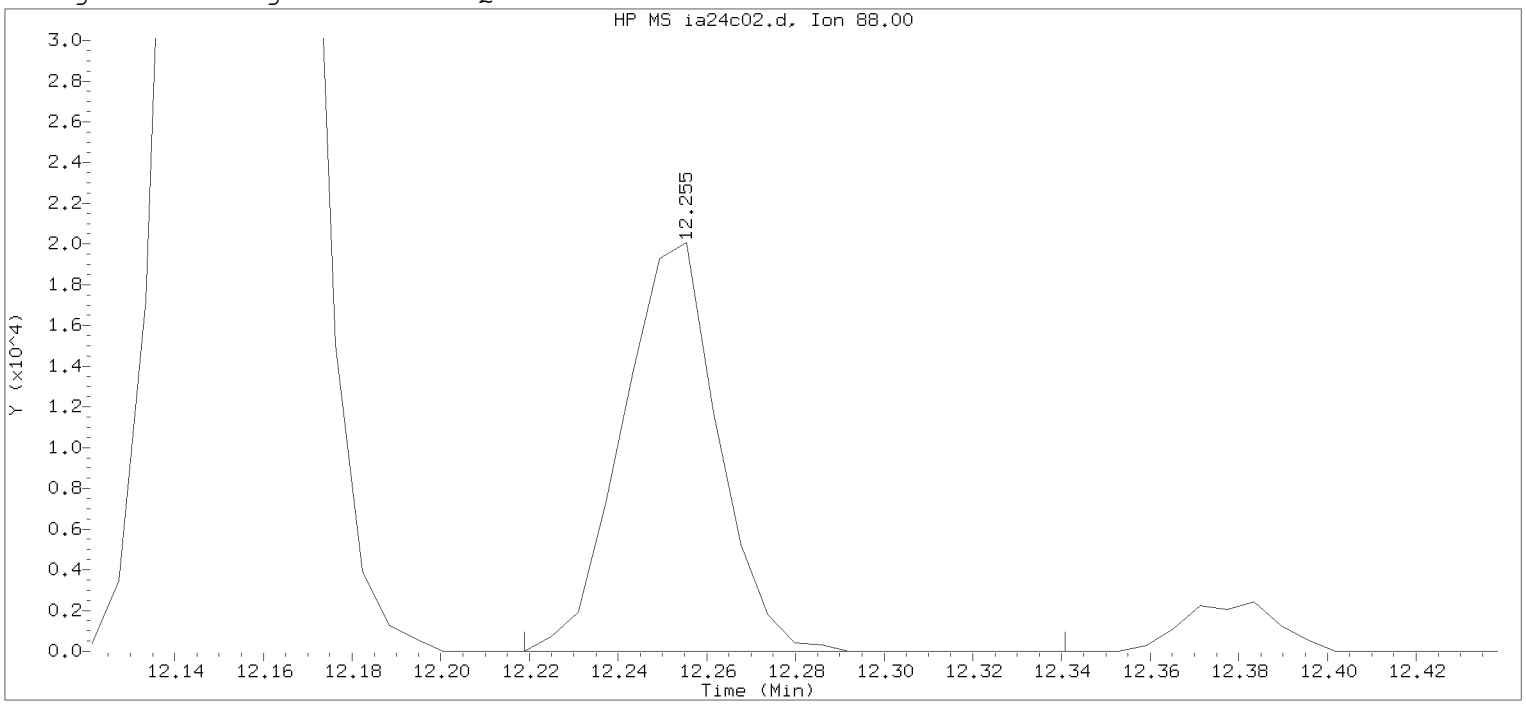
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

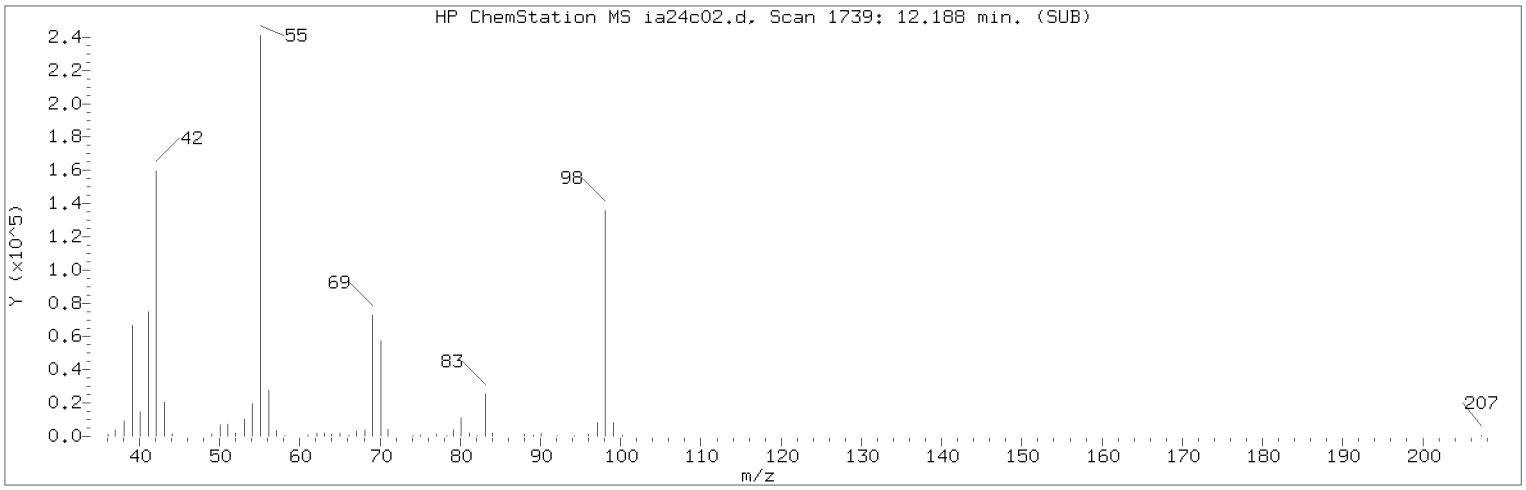
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:07 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

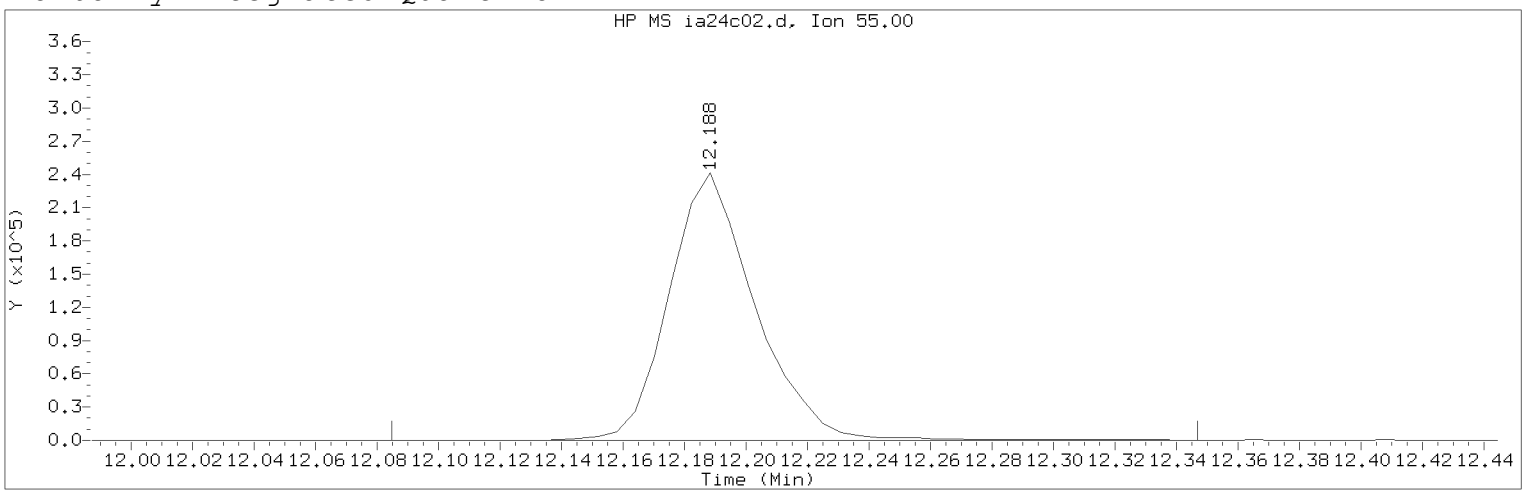
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1750
Retention Time (minutes): 12.255
Quant Ion : 88.00
Area : 30141
On-column Amount (ng) : 4.8886
Integration start scan : 1743 Integration stop scan: 1763
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:25.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:25 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

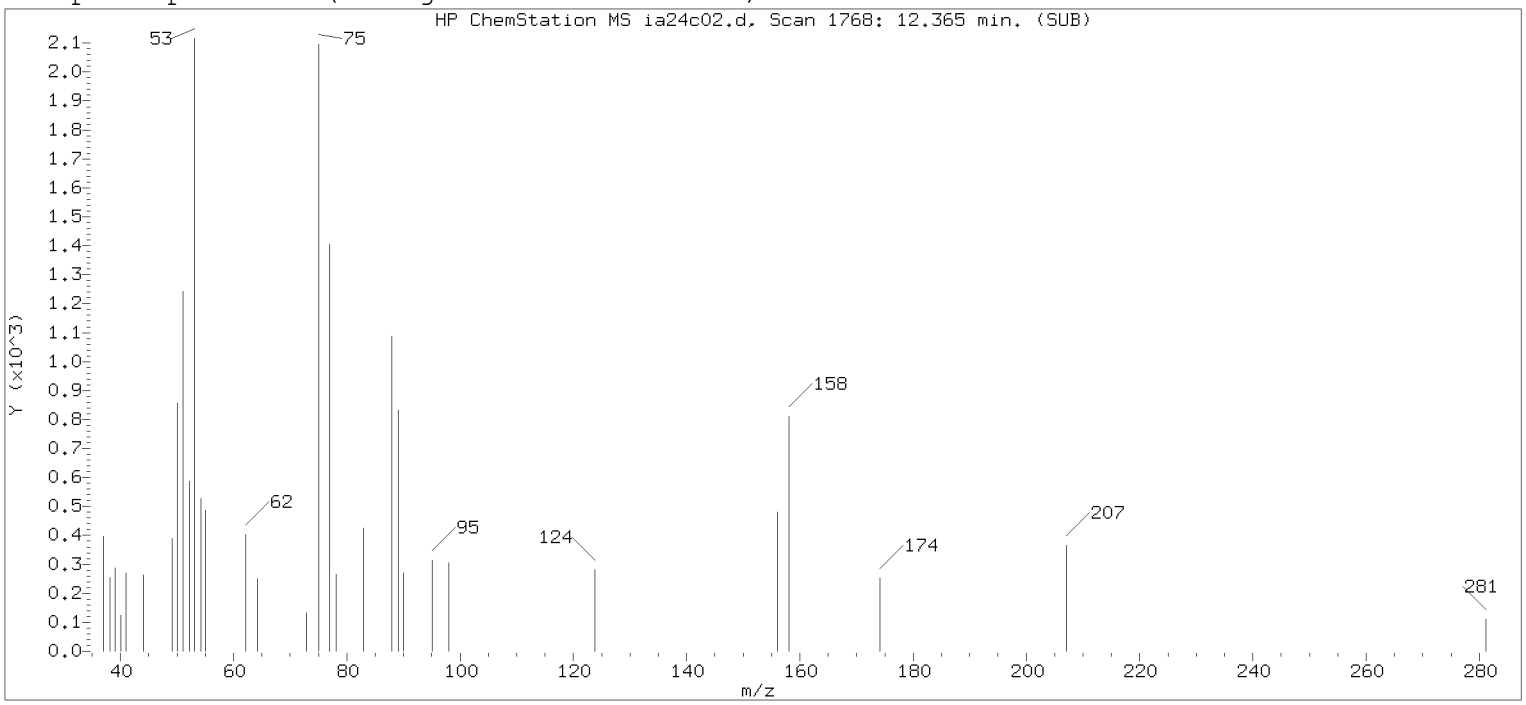
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1739
Retention Time (minutes): 12.188
Quant Ion : 55.00
Area (flag) : 468274M
On-Column Amount (ng) : 500.4391
Integration start scan : 1721 Integration stop scan: 1764
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

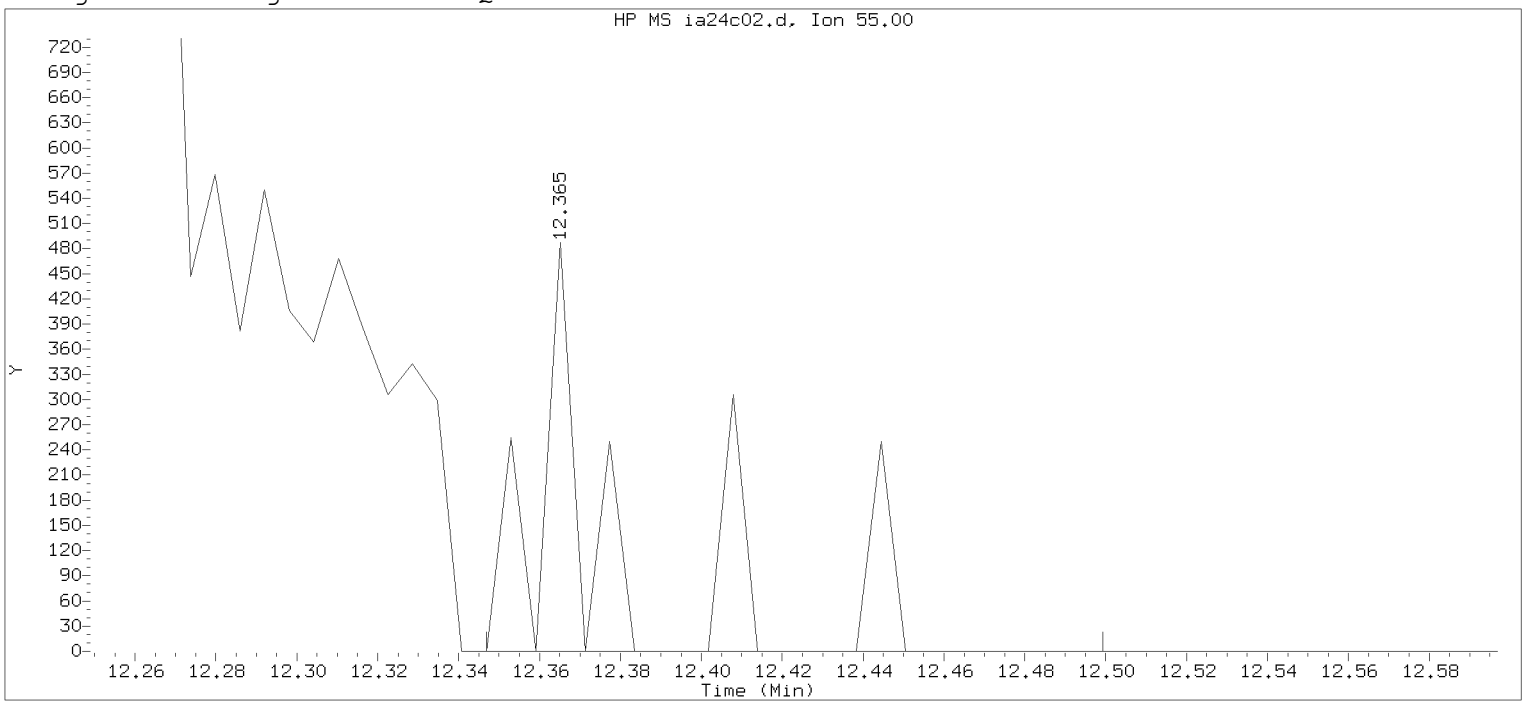
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 10:25.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 17:26.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24c02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 09:49 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 24-APR-2019 10:07
Date, time and analyst ID of latest file update: 24-Apr-2019 10:07 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1768
Retention Time (minutes): 12.365
Quant Ion : 55.00
Area : 566
On-column Amount (ng) : 0.7055
Integration start scan : 1764 Integration stop scan: 1789
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 10:25.
Target 3.5 esignature used for this report

Raw QC Data

Volatiles by GC/MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKY63

Data file: /chem2/HP09355.i/19apr24a.b/ya24b01.d
Injection date and time: **24-APR-2019 10:44**
Data file Sample Info. Line: VBLKY63;VBLKY63;1;3;;;;;;
Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.246	(0.012)	438	65	347056	(-9)	250.00	
66) Fluorobenzene	7.793	(0.012)	1021	96	1106030	(-9)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	825222	(-10)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	451334	(-13)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.000)	113	265487	49.769	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.355	(0.000)	102	70945	53.023	106%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	1059225	48.906	98%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	387620	46.873	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					0.2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.2	2

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:38. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24b01.d Injection date and time: **24-APR-2019 10:44**
Data file Sample Info. Line: VBLKY63;VBLKY63;1;3;;;;;; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					0.2	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					0.2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.2	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.2	5
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
101) 1-Chlorohexane	(3)				Not Detected					0.3	5
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	5
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					0.2	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:38. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24b01.d Injection date and time: **24-APR-2019 10:44**
Data file Sample Info. Line: VBLKY63;VBLKY63;1;3;;;;;; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

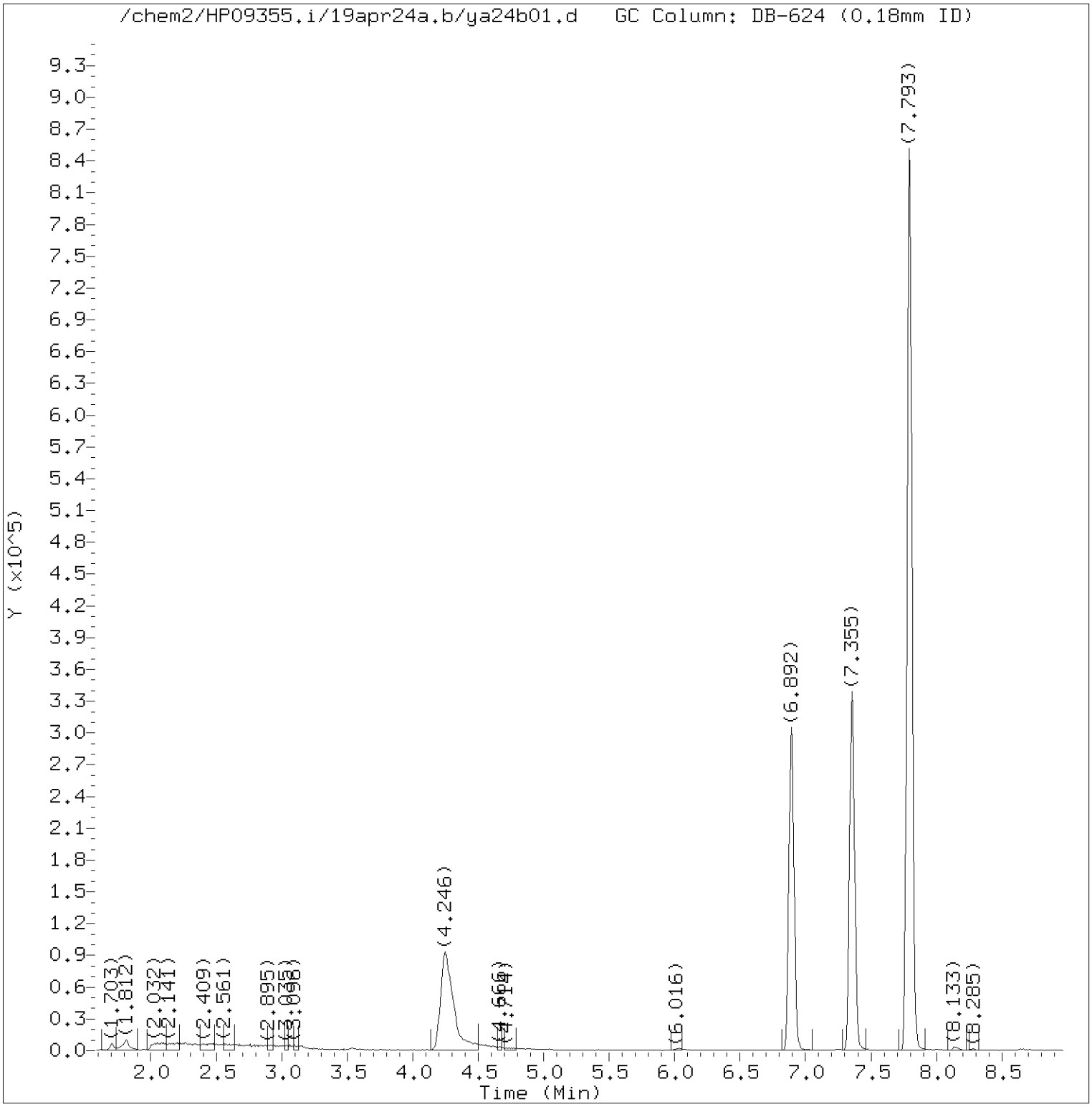
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					0.3	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.2	5
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					0.7	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)				Not Detected					0.7	5

Total number of targets = 110

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:38. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

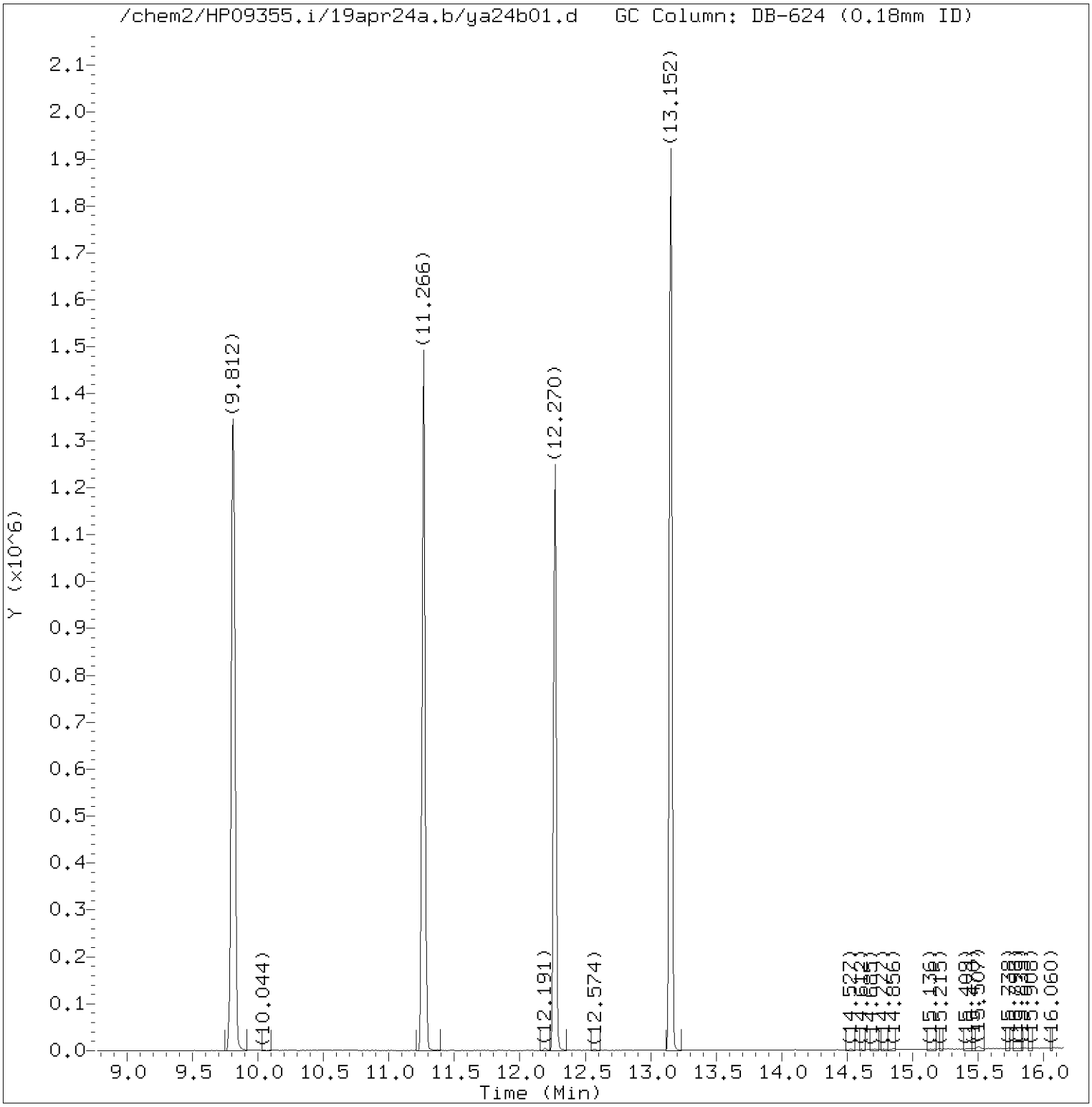
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24b01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:44 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: VBLKY63 Lab Sample ID: VBLKY63

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:38.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24b01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:44 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: VBLKY63 Lab Sample ID: VBLKY63

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:38.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24b01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:44 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: VBLKY63 Lab Sample ID: VBLKY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.246	65	347056	250.000
52)$Dibromofluoromethane	(2)	6.892	113	265487	49.769
57)$1,2-Dichloroethane-d4	(2)	7.355	102	70945	53.023
66)*Fluorobenzene	(2)	7.793	96	1106030	50.000
83)$Toluene-d8	(3)	9.812	98	1059225	48.906
100)*Chlorobenzene-d5	(3)	11.266	117	825222	50.000
114)$4-Bromofluorobenzene	(3)	12.270	95	387620	46.873
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	451334	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:38.
Target 3.5 esignature user ID: clm27445

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKH31

Data file: /chem2/HP19094.i/19apr22b.b/ha22b70.d Injection date and time: **22-APR-2019 23:24**
Data file Sample Info. Line: VBLKH31;VBLKH31;1;3;;;DRAPERLOQ;;; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.470	(0.006)	473	65	149086	(-2)	50.00	
63) Fluorobenzene	7.958	(0.006)	1045	96	2975825	(3)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2242238	(3)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1171398	(2)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(-0.001)	113	756927	10.174	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.531	(-0.002)	102	138928	10.654	107%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2982116	10.298	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1019210	9.402	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	1
8) Chloroethane	(2)				Not Detected					0.07	1
10) Trichlorofluoromethane	(2)				Not Detected					0.05	1
11) Ethyl ether	(2)				Not Detected					0.05	13
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	1
16) Freon 113	(2)				Not Detected					0.06	1
23) Methylene Chloride	(2)				Not Detected					0.07	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	1
38) 2-Butanone	(1)				Not Detected					0.6	10
48) Tetrahydrofuran	(1)				Not Detected					0.8	25
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	1
54) Carbon Tetrachloride	(2)				Not Detected					0.07	1
58) Benzene	(2)				Not Detected					0.05	1
67) Trichloroethene	(2)				Not Detected					0.06	1
83) Toluene	(3)				Not Detected					0.07	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
100) Ethylbenzene	(3)				Not Detected					0.06	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	3

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:09. Target 3.5 esignature user ID: jkh09052

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKH31

Data file: /chem2/HP19094.i/19apr22b.b/ha22b70.d Injection date and time: **22-APR-2019 23:24**
Data file Sample Info. Line: VBLKH31;VBLKH31;1;3;;;DRAPERLOQ;;; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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WAS LEFT

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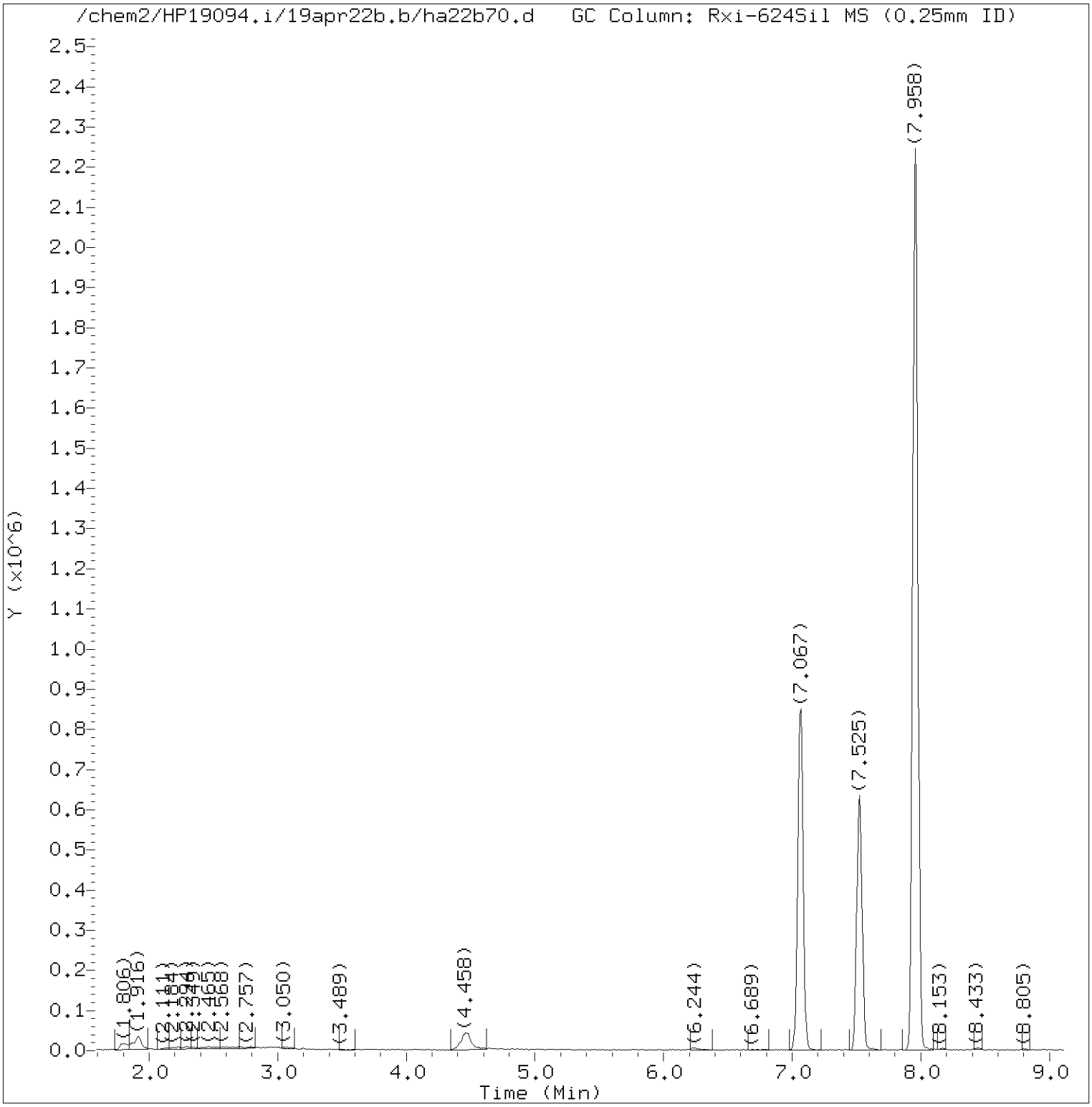
Total number of targets = 22

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:09. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

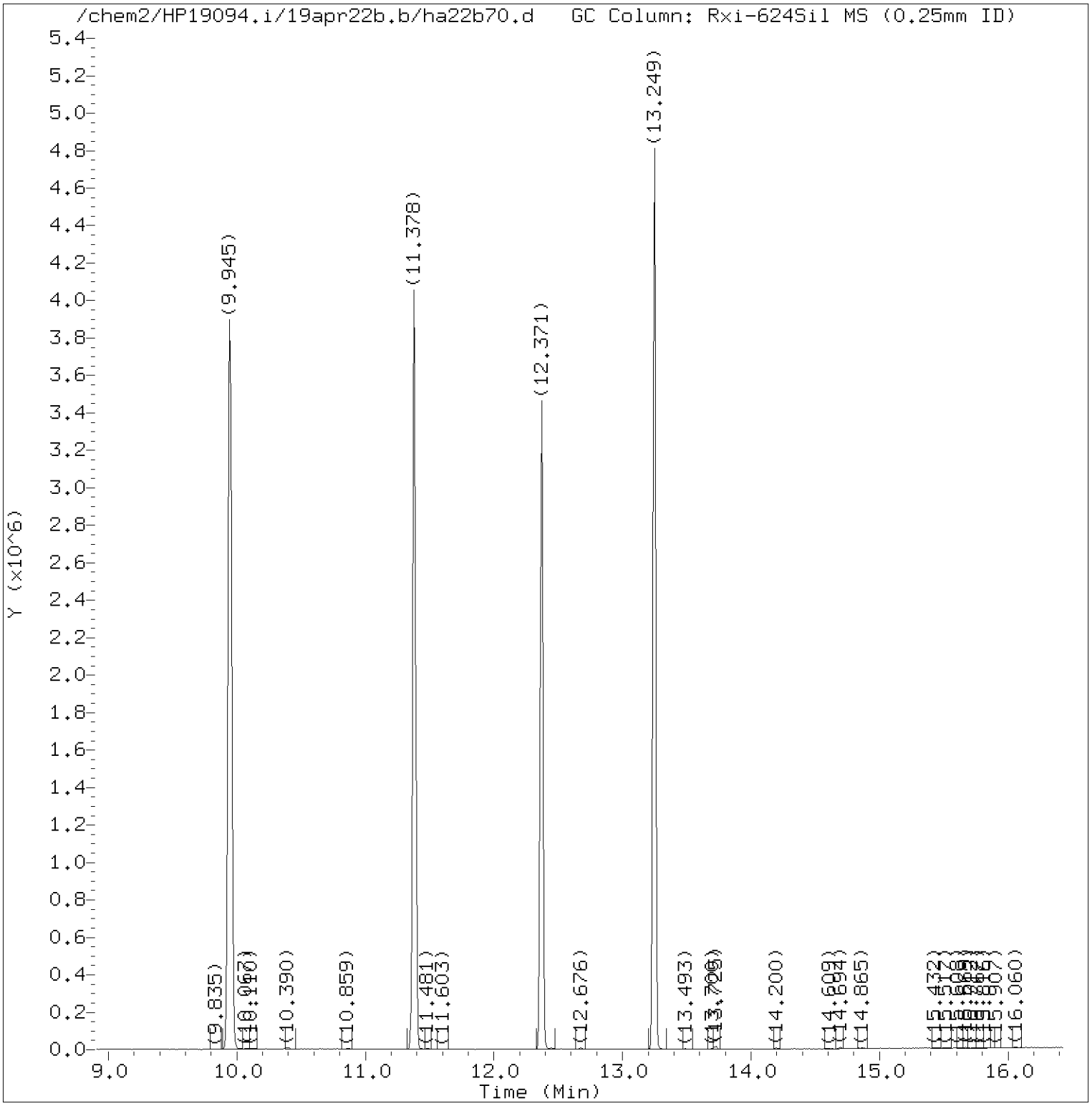
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22b70.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:24 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: VBLKH31 Lab Sample ID: VBLKH31

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22b70.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:24 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: VBLKH31 Lab Sample ID: VBLKH31

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22b70.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:24 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: VBLKH31 Lab Sample ID: VBLKH31

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.470	65	149086	50.000
50)$Dibromofluoromethane	(2)	7.067	113	756927	10.174
57)$1,2-Dichloroethane-d4	(2)	7.531	102	138928	10.654
63)*Fluorobenzene	(2)	7.958	96	2975825	10.000
82)$Toluene-d8	(3)	9.945	98	2982116	10.298
97)*Chlorobenzene-d5	(3)	11.378	117	2242238	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	1019210	9.402
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1171398	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24b01.d Injection date and time: **24-APR-2019 11:56**
Data file Sample Info. Line: VBLKI33;VBLKI33;1;3;;;DAA3568;;; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:15 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.312	(0.000)	447	65	154400	(11)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2097539	(-1)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1680003	(-3)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	922523	(-8)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.000)	113	542082	10.014	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.366	(0.000)	102	99022	9.492	95%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2131530	10.344	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.256	(-0.001)	95	740919	9.595	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)				Not Detected					0.1	1
4) Dimethyl ether	(2)				Not Detected					0.04	13
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.2	1
7) Bromomethane	(2)				Not Detected					0.5	1
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.2	1
11) Ethyl ether	(2)				Not Detected					1	13
13) Acrolein	(1)				Not Detected					3	25
15) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
16) Freon 113	(2)				Not Detected					0.1	1
14) Acetone	(1)				Not Detected					0.9	10
17) Methyl Iodide	(2)				Not Detected					0.6	10
18) Carbon Disulfide	(2)				Not Detected					0.4	10
25) Acetonitrile	(1)				Not Detected					32	100
22) Allyl Chloride	(2)				Not Detected					0.8	10
23) Methylene Chloride	(2)				Not Detected					0.2	1
29) Acrylonitrile	(1)				Not Detected					0.5	10
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) 1,1-Dichloroethane	(2)				Not Detected					0.1	1
36) Vinyl Acetate	(2)				Not Detected					3	10
35) 2-Chloro-1,3-Butadiene	(2)				Not Detected					0.5	10
38) 2-Butanone	(1)				Not Detected					0.6	10
42) Propionitrile	(1)				Not Detected					10	100
45) Methacrylonitrile	(1)				Not Detected					10	100
48) Tetrahydrofuran	(1)				Not Detected					2	25
49) Chloroform	(2)				Not Detected					0.09	1
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.1	1
54) Carbon Tetrachloride	(2)				Not Detected					0.2	1
56) Isobutyl Alcohol	(1)				Not Detected					4	200
58) Benzene	(2)				Not Detected					0.07	1

Digitally signed by Jennifer K. Howe on 04/24/2019 at 12:43. Target 3.5 esignature user ID: jkh09052

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKI33

Data file: /chem2/HP19930.i/19apr24a.b/ia24b01.d Injection date and time: **24-APR-2019 11:56**
Data file Sample Info. Line: VBLKI33;VBLKI33;1;3;;;DAA3568;;; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:15 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

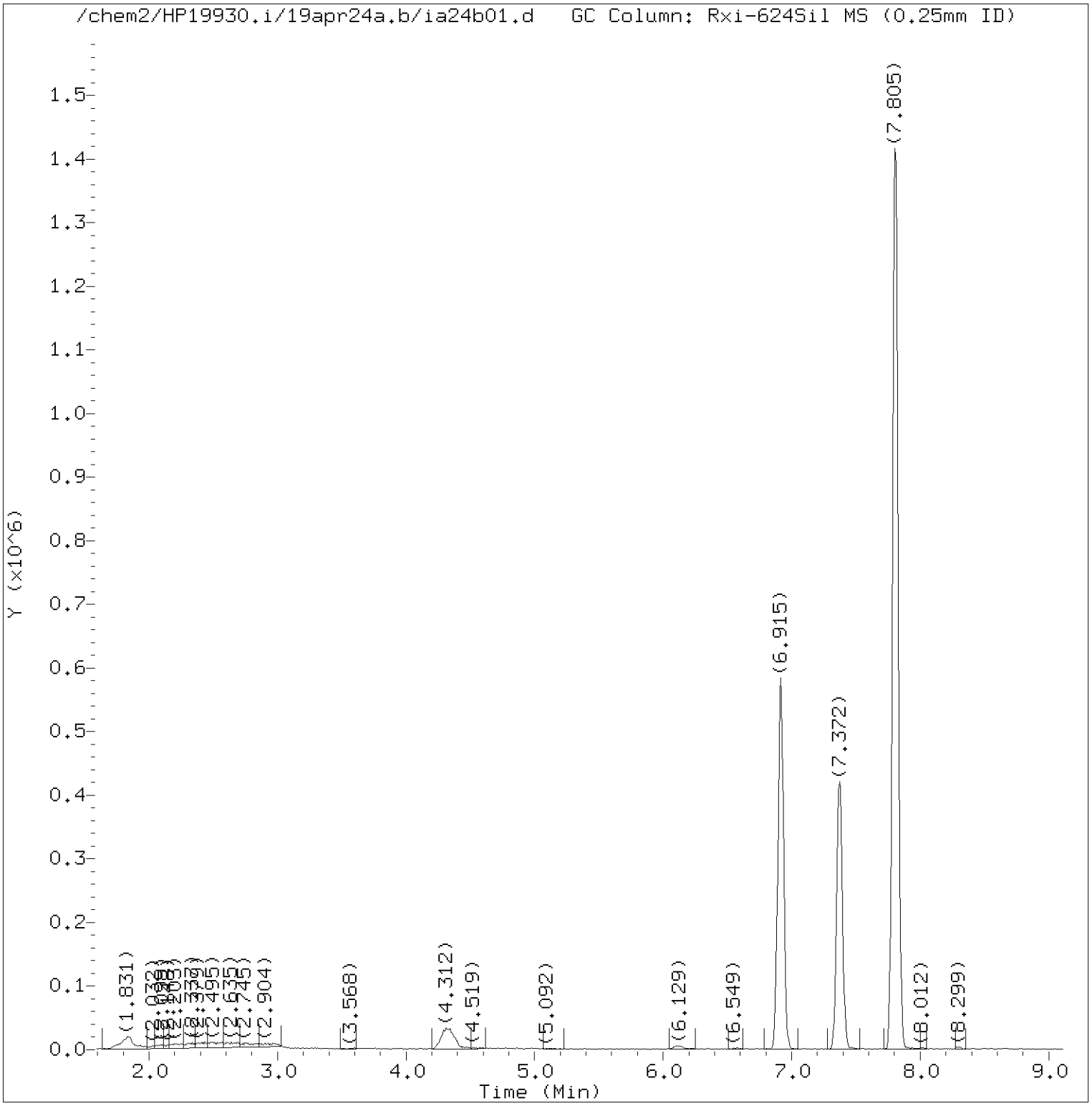
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
59) 1,2-Dichloroethane	(2)				Not Detected					0.1	1
67) Trichloroethene	(2)				Not Detected					0.2	1
70) 1,2-Dichloropropane	(2)				Not Detected					0.1	1
71) Methyl Methacrylate	(1)				Not Detected					4	10
73) Dibromomethane	(2)				Not Detected					0.07	1
72) 1,4-Dioxane	(1)				Not Detected					45	200
74) Bromodichloromethane	(2)				Not Detected					0.09	1
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.9	10
83) Toluene	(3)				Not Detected					0.09	1
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.1	1
86) Ethyl Methacrylate	(3)				Not Detected					0.8	10
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.08	1
89) Tetrachloroethene	(3)				Not Detected					0.06	1
90) 1,3-Dichloropropane	(3)				Not Detected					0.09	1
91) 2-Hexanone	(1)				Not Detected					0.6	10
93) Dibromochloromethane	(3)				Not Detected					0.07	1
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.08	1
100) Ethylbenzene	(3)				Not Detected					0.08	1
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.2	3
106) Styrene	(3)				Not Detected					0.05	1
107) Bromoform	(3)				Not Detected					0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
115) trans-1,4-Dichloro-2-butene	(1)				Not Detected					1	10
116) 1,2,3-Trichloropropane	(4)				Not Detected					0.1	1
126) Pentachloroethane	(4)				Not Detected					0.8	10
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	1
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	1
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.08	1
142) Hexachloroethane	(4)				Not Detected					0.1	10
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.2	1
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.1	1
146) Hexachlorobutadiene	(4)				Not Detected					0.07	1
147) Naphthalene	(4)				Not Detected					0.1	1

Total number of targets = 67

Digitally signed by Jennifer K. Howe on 04/24/2019 at 12:43. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

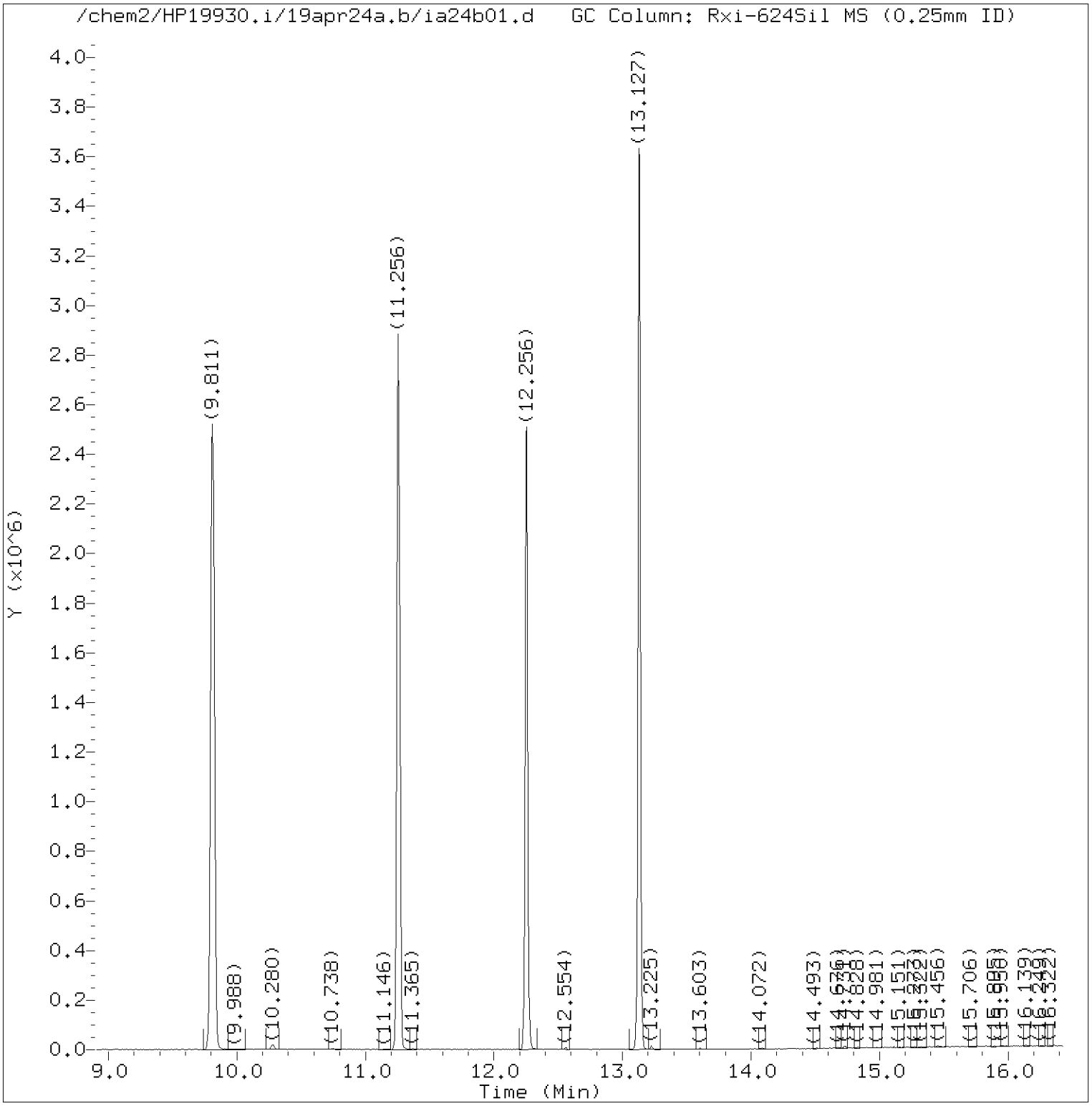
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24b01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:56 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:15 jkh09052

Sample Name: VBLKI33 Lab Sample ID: VBLKI33

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 12:43.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24b01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:56 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:15 jkh09052

Sample Name: VBLKI33 Lab Sample ID: VBLKI33

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 12:43.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24b01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:56 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:15 jkh09052

Sample Name: VBLKI33 Lab Sample ID: VBLKI33

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.312	65	154400	50.000
50)$Dibromofluoromethane	(2)	6.915	113	542082	10.014
57)$1,2-Dichloroethane-d4	(2)	7.366	102	99022	9.492
63)*Fluorobenzene	(2)	7.805	96	2097539	10.000
82)$Toluene-d8	(3)	9.811	98	2131530	10.344
97)*Chlorobenzene-d5	(3)	11.256	117	1680003	10.000
111)$4-Bromofluorobenzene	(3)	12.256	95	740919	9.595
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	922523	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 12:43.
Target 3.5 esignature user ID: jkh09052

F3504MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1034105MS

Data file: /chem2/HP09355.i/19apr24a.b/ya24s06.d Injection date and time: **24-APR-2019 13:46**
Data file Sample Info. Line: F3504MS;1034105MS;1;3;MS;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.252	(0.006)	439	65	329926	(-13)	250.00	
66) Fluorobenzene	7.792	(0.012)	1021	96	1112495	(-8)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	832785	(-9)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	472620	(-9)	50.00	

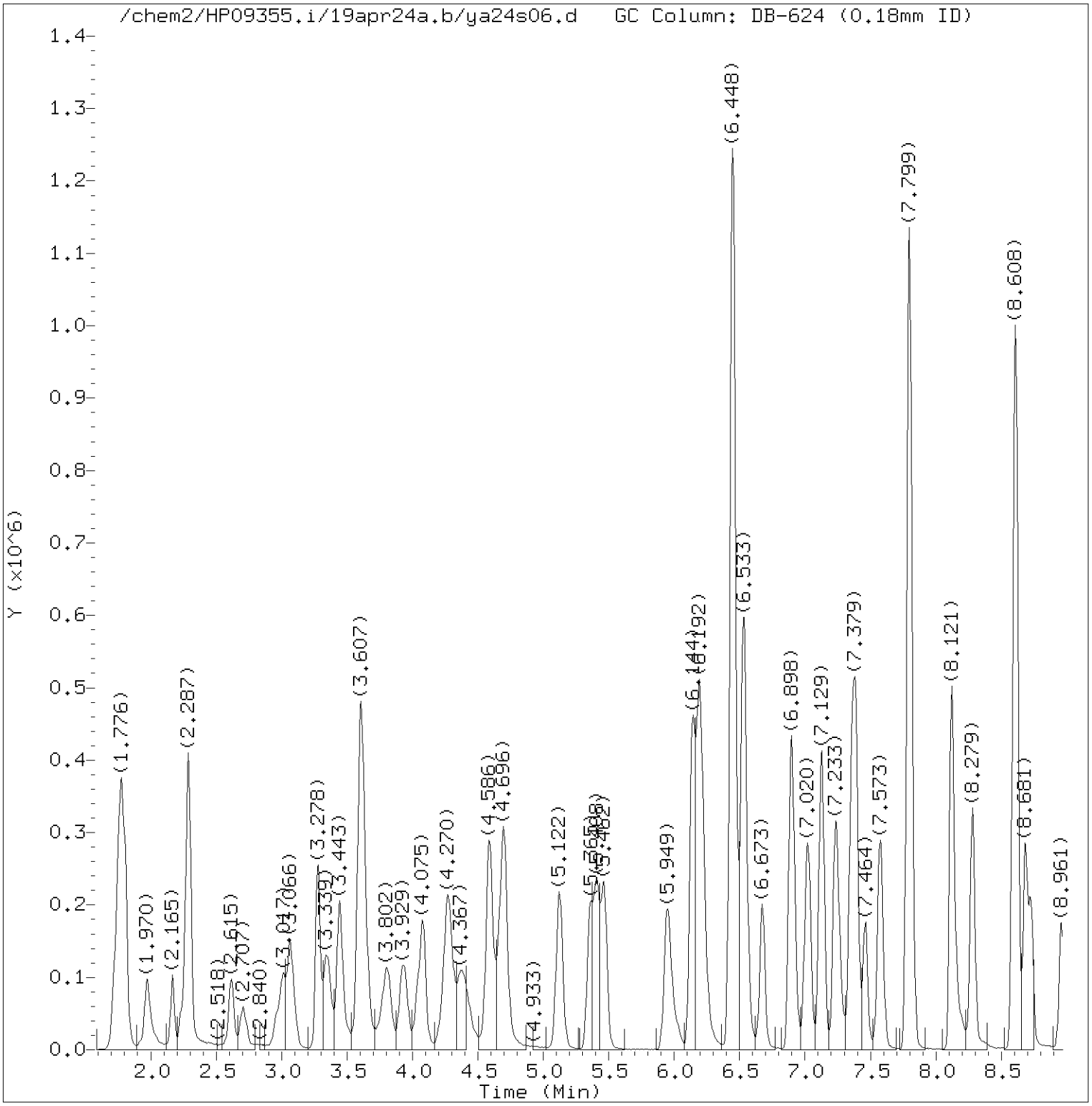
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.000)	113	260769	48.600	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.354	(0.000)	102	68830	51.144	102%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	1100512	50.350	101%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	422382	50.613	101%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
21) 2-Propanol	(1)	3.765	(0.001)	45	147330	176.394	176.39			18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:45. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

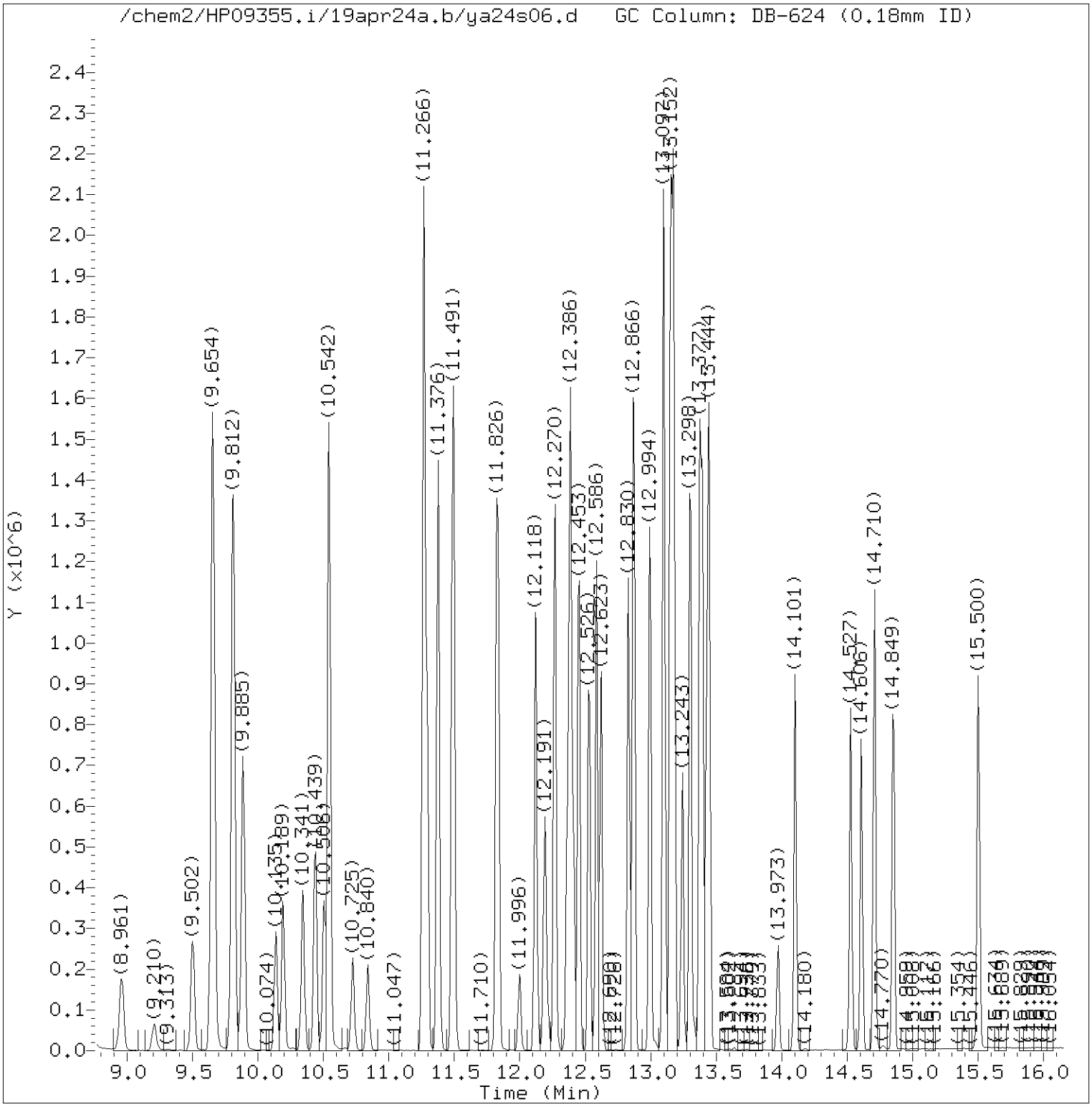
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s06.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:46 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504MS Lab Sample ID: 1034105MS

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s06.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:46 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504MS Lab Sample ID: 1034105MS

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s06.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 13:46 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504MS Lab Sample ID: 1034105MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.765	45	147330	176.394
29)*t-Butyl alcohol-d10	(1)	4.252	65	329926	250.000
52)$Dibromofluoromethane	(2)	6.892	113	260769	48.600
57)$1,2-Dichloroethane-d4	(2)	7.354	102	68830	51.144
66)*Fluorobenzene	(2)	7.792	96	1112495	50.000
83)$Toluene-d8	(3)	9.812	98	1100512	50.350
100)*Chlorobenzene-d5	(3)	11.266	117	832785	50.000
114)$4-Bromofluorobenzene	(3)	12.270	95	422382	50.613
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	472620	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s07.d Injection date and time: **24-APR-2019 14:08**
Data file Sample Info. Line: F3504MSD;1034106MSD;1;3;MSD;RAF35;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **16342**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.252	(0.006)	439	65	349672	(-8)	250.00	
66) Fluorobenzene	7.786	(0.018)	1020	96	1139252	(-6)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	860160	(-6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	484812	(-6)	50.00	

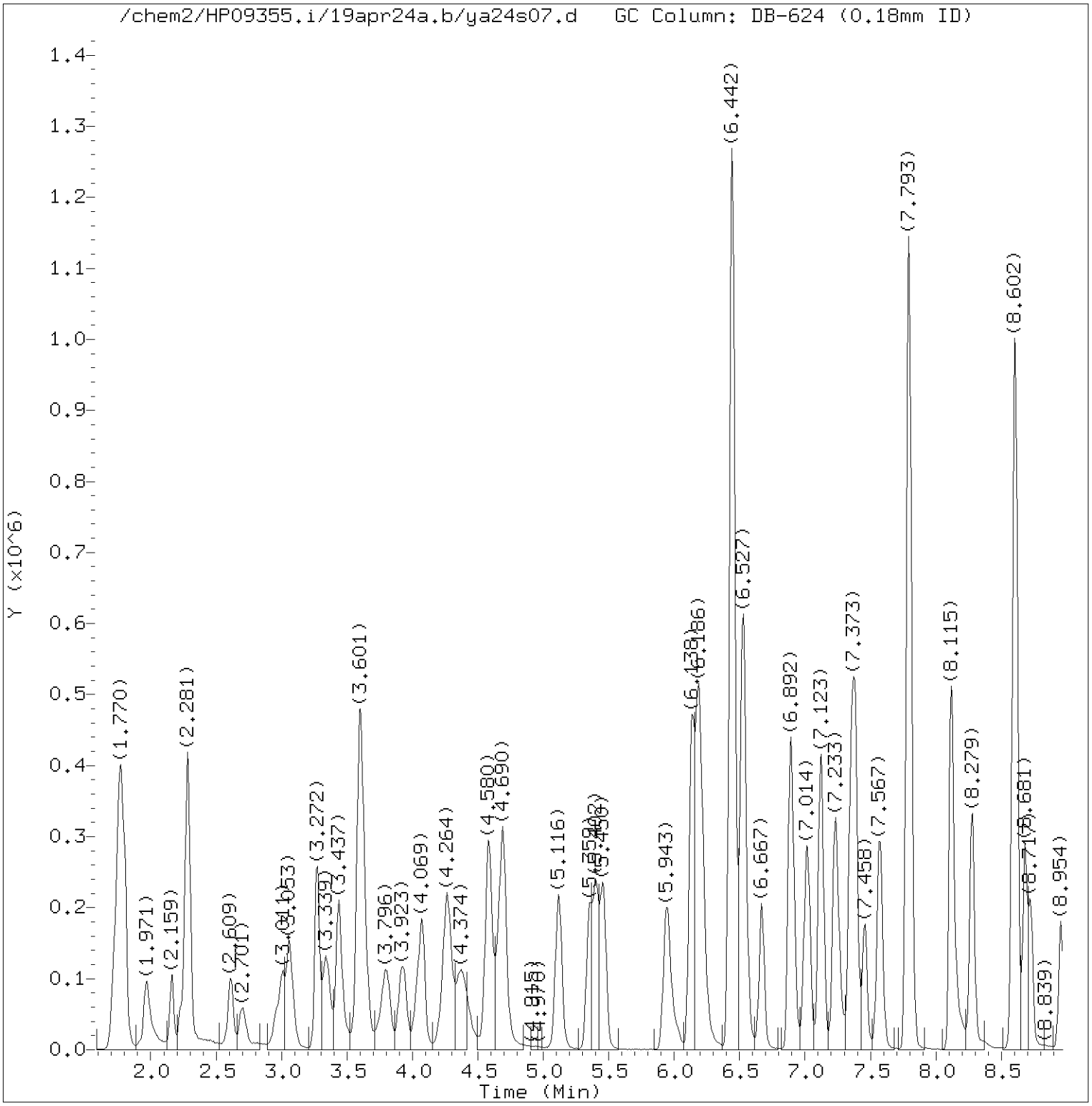
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.886	(0.000)	113	264627	48.161	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.355	(-0.001)	102	70897	51.442	103%		80 - 120
83) Toluene-d8	(3)	9.806	(0.001)	98	1138489	50.430	101%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.264	(0.000)	95	434242	50.378	101%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
21) 2-Propanol	(1)	3.765	(0.001)	45	137416	155.234	155.23			18	100

Total number of targets = 1

Digitally signed by Sara E. Johnson on 04/24/2019 at 18:45. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

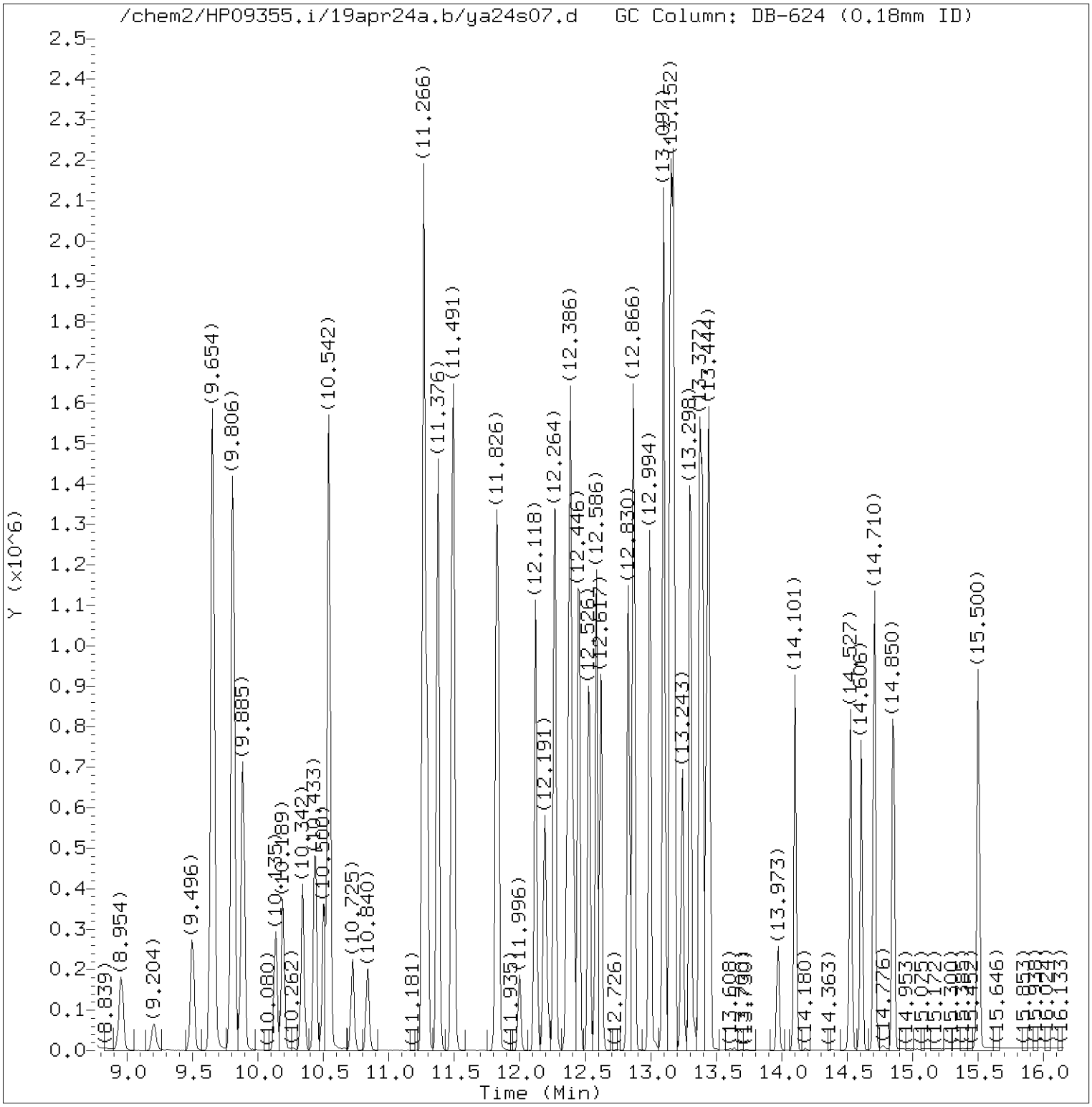
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s07.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:08 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s07.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:08 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s07.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 14:08 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 16342
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 18:45 sej02002

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
21) 2-Propanol	(1)	3.765	45	137416	155.234
29)*t-Butyl alcohol-d10	(1)	4.252	65	349672	250.000
52)$Dibromofluoromethane	(2)	6.886	113	264627	48.161
57)$1,2-Dichloroethane-d4	(2)	7.355	102	70897	51.442
66)*Fluorobenzene	(2)	7.786	96	1139252	50.000
83)$Toluene-d8	(3)	9.806	98	1138489	50.430
100)*Chlorobenzene-d5	(3)	11.266	117	860160	50.000
114)$4-Bromofluorobenzene	(3)	12.264	95	434242	50.378
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	484812	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 04/24/2019 at 18:45.
Target 3.5 esignature user ID: sej02002

F3504MS1 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034105MS

Data file: /chem2/HP19930.i/19apr24a.b/ia24s10.d Injection date and time: **24-APR-2019 15:08**
Data file Sample Info. Line: F3504MS1;1034105MS;1;3;MS;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141A**
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274; 193

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.294	(0.018)	444	65	151418M	(9)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2148811	(1)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1714094	(-1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.127	(0.006)	1893	152	934161	(-6)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.909	(0.001)	113	552414	9.961	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372	(-0.001)	102	108160	10.120	101%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2165059	10.298	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	748634	9.502	95%		80 - 120

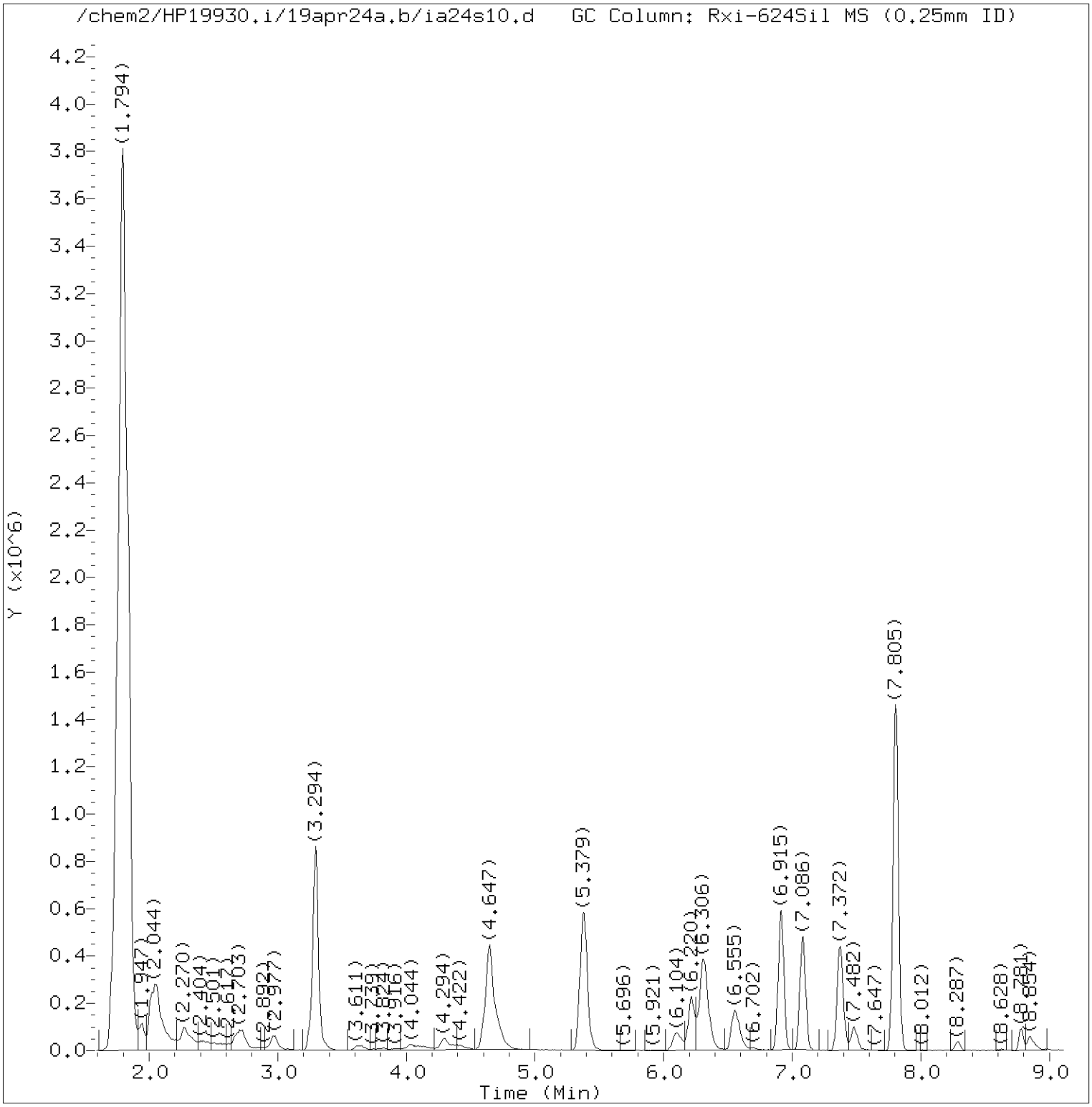
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
4) Dimethyl ether	(2)	2.062	(-0.000)	45	516388M	6.611	6.61		J	0.04	13
25) Acetonitrile	(1)	4.025	(-0.001)	41	156248M	50.457	50.46		J	32	100
36) Vinyl Acetate	(2)	5.379	(0.000)	43	1021551	13.802	13.80			3	10
142) Hexachloroethane	(4)	13.609	(-0.000)	117	290740	5.561	5.56		J	0.1	10

M = Compound was manually integrated.

Total number of targets = 4

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

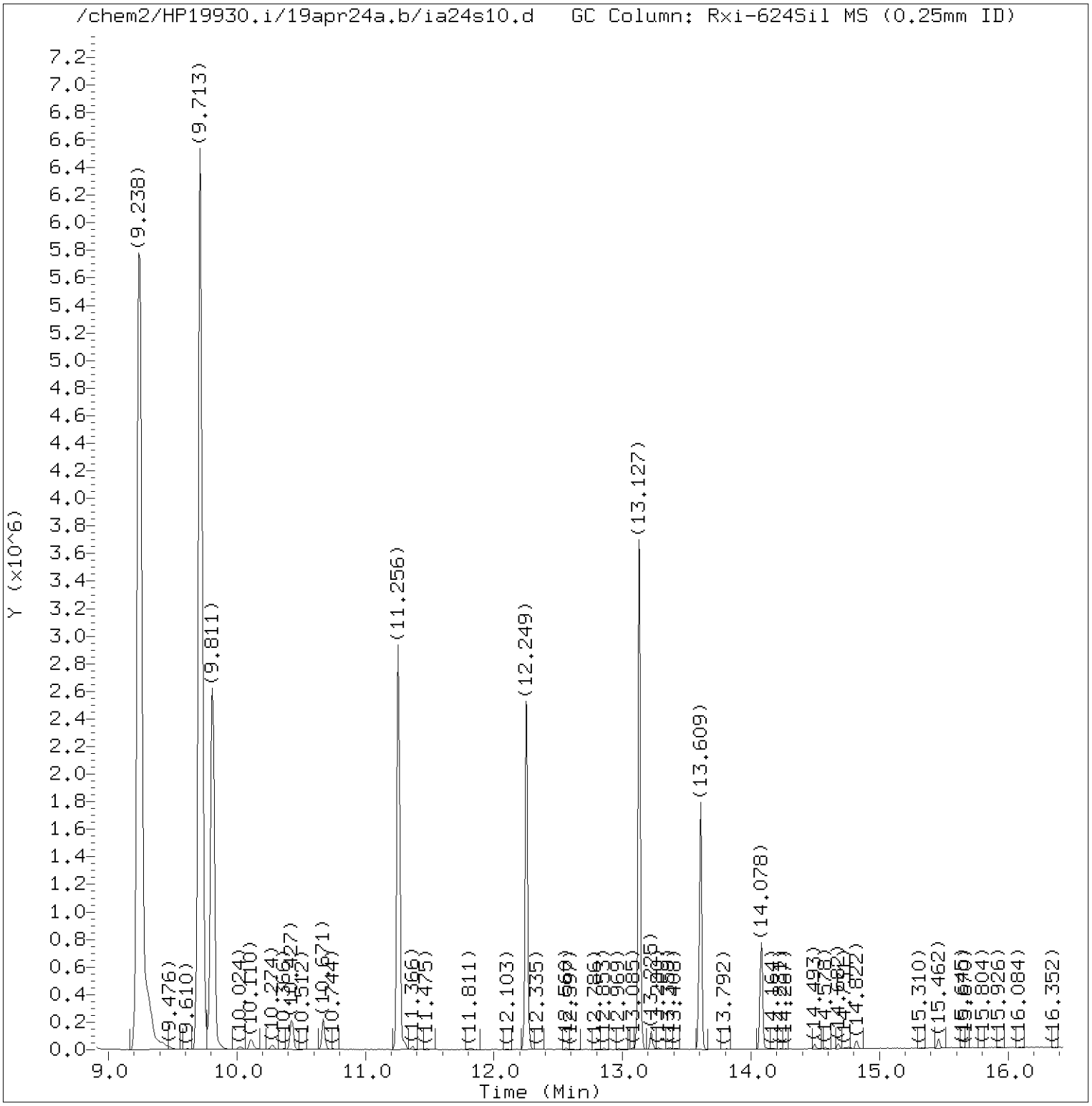
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

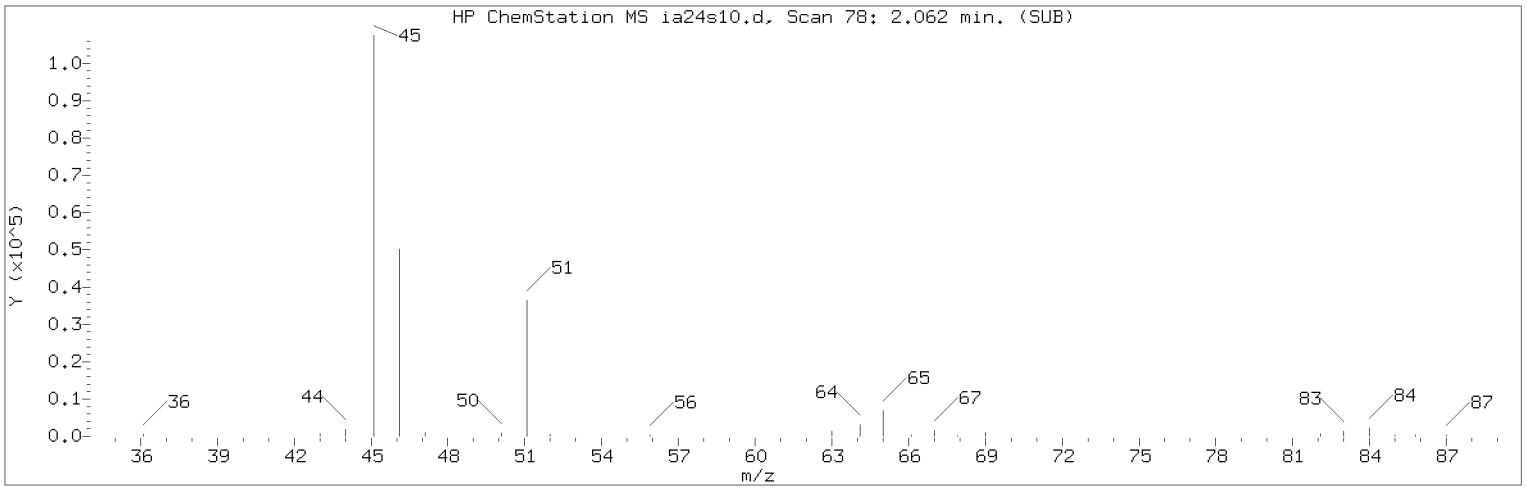
Sample Name: F3504MS1 Lab Sample ID: 1034105MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	516388M	6.611
25) Acetonitrile	(1)	4.025	41	156248M	50.457
26)*t-Butyl Alcohol-d10	(1)	4.294	65	151418M	50.000
36) Vinyl Acetate	(2)	5.379	43	1021551	13.802
50)$Dibromofluoromethane	(2)	6.909	113	552414	9.961
57)$1,2-Dichloroethane-d4	(2)	7.372	102	108160	10.120
63)*Fluorobenzene	(2)	7.805	96	2148811	10.000
82)$Toluene-d8	(3)	9.811	98	2165059	10.298
97)*Chlorobenzene-d5	(3)	11.256	117	1714094	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	748634	9.502
133)*1,4-Dichlorobenzene-d4	(4)	13.127	152	934161	10.000
142) Hexachloroethane	(4)	13.609	117	290740	5.561

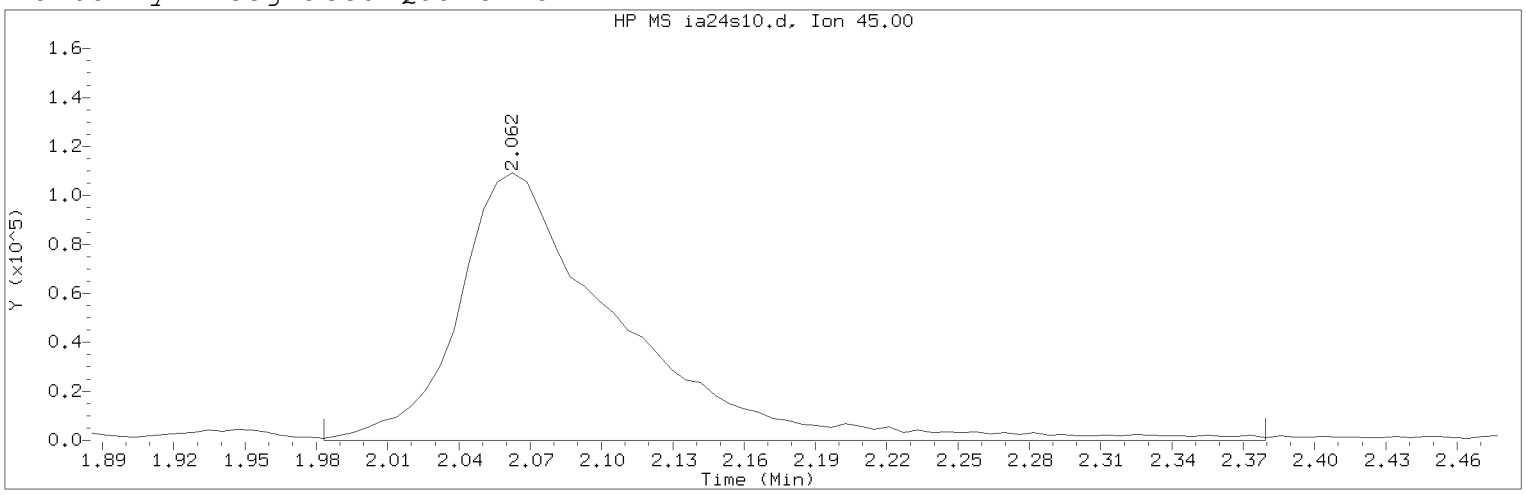
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

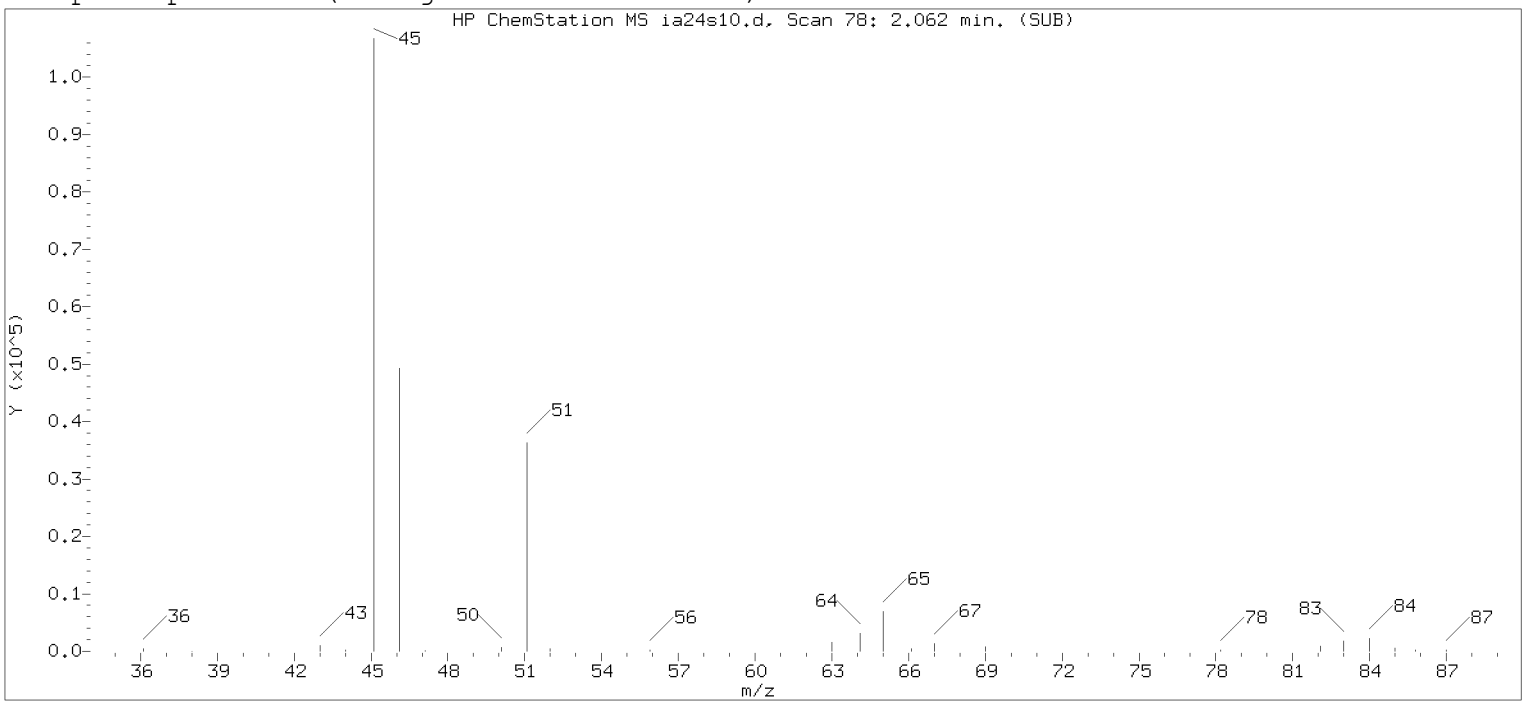
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 516388M
On-Column Amount (ng) : 6.6109
Integration start scan : 64 Integration stop scan: 129
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

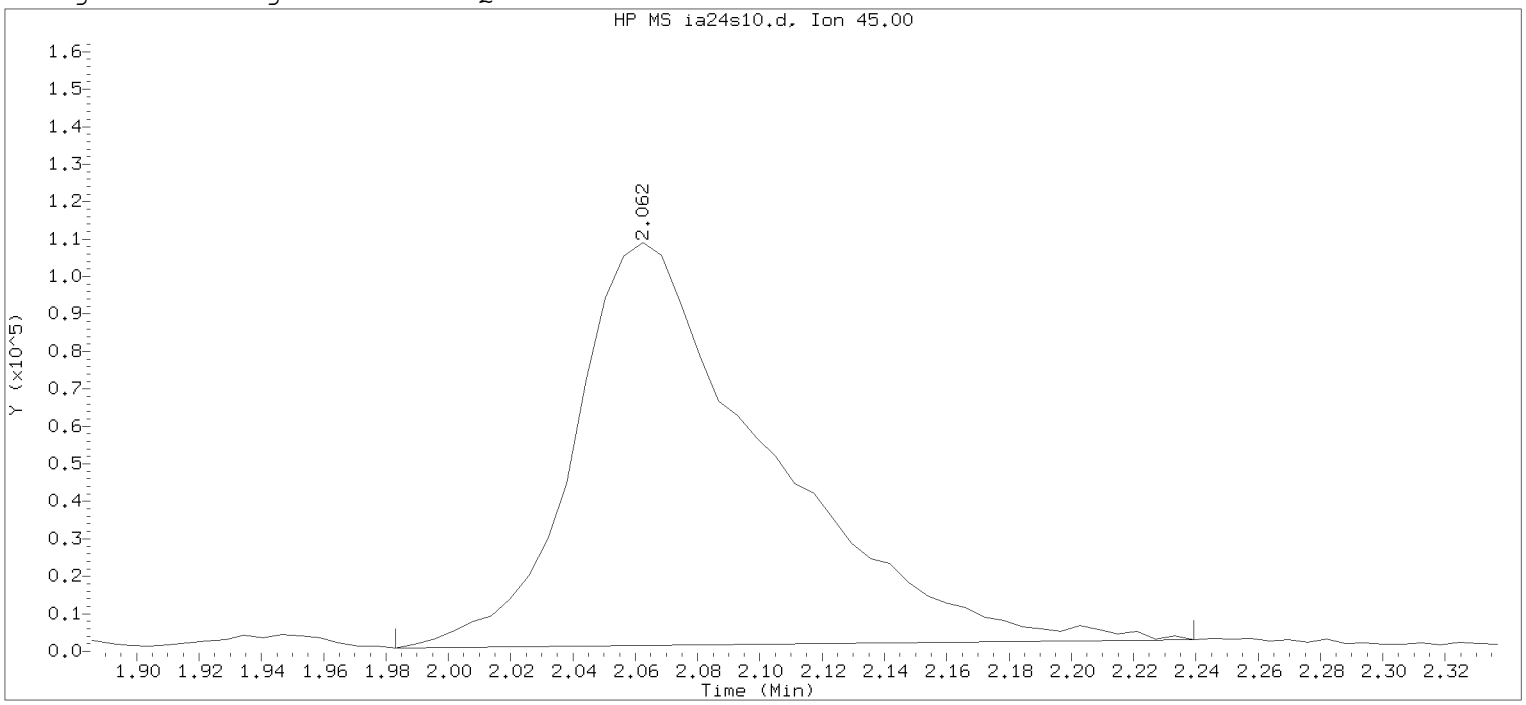
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

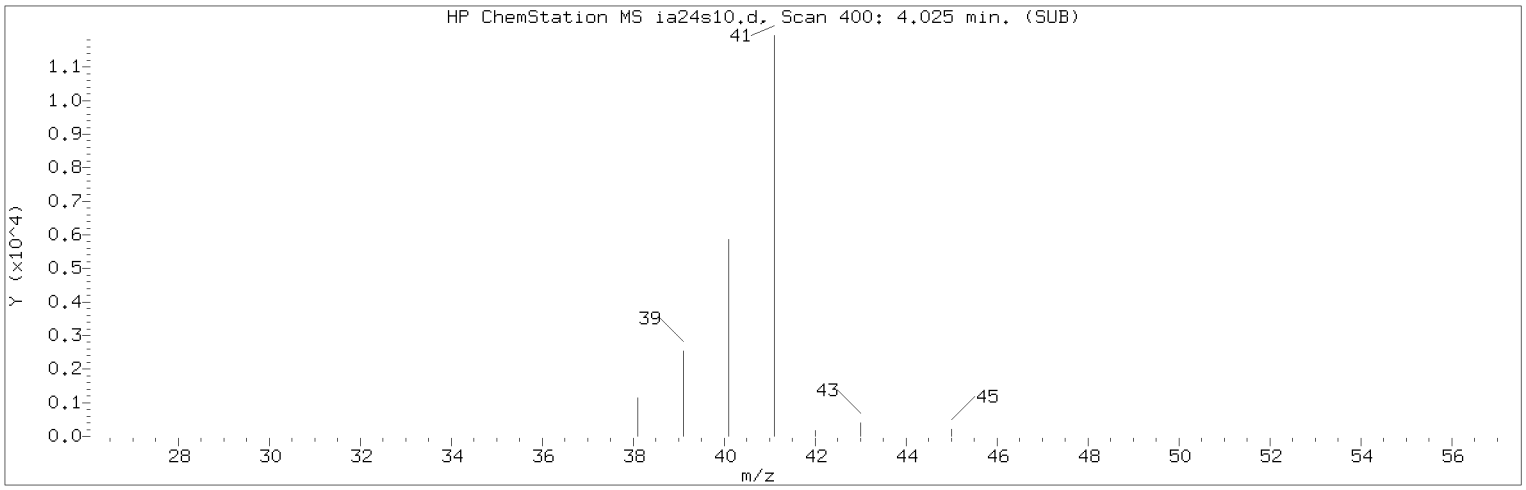
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:26 Automation

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

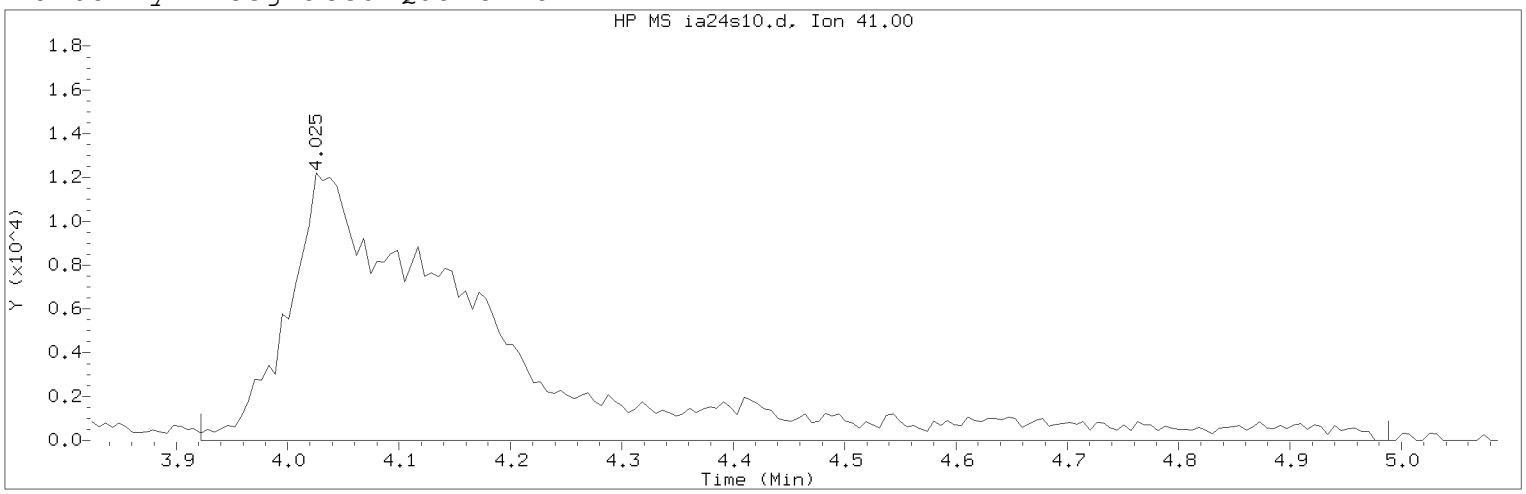
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area : 466850
On-column Amount (ng) : 5.9767
Integration start scan : 64 Integration stop scan: 106
Y at integration start : 798 Y at integration end: 3086

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature used. Page 1481

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

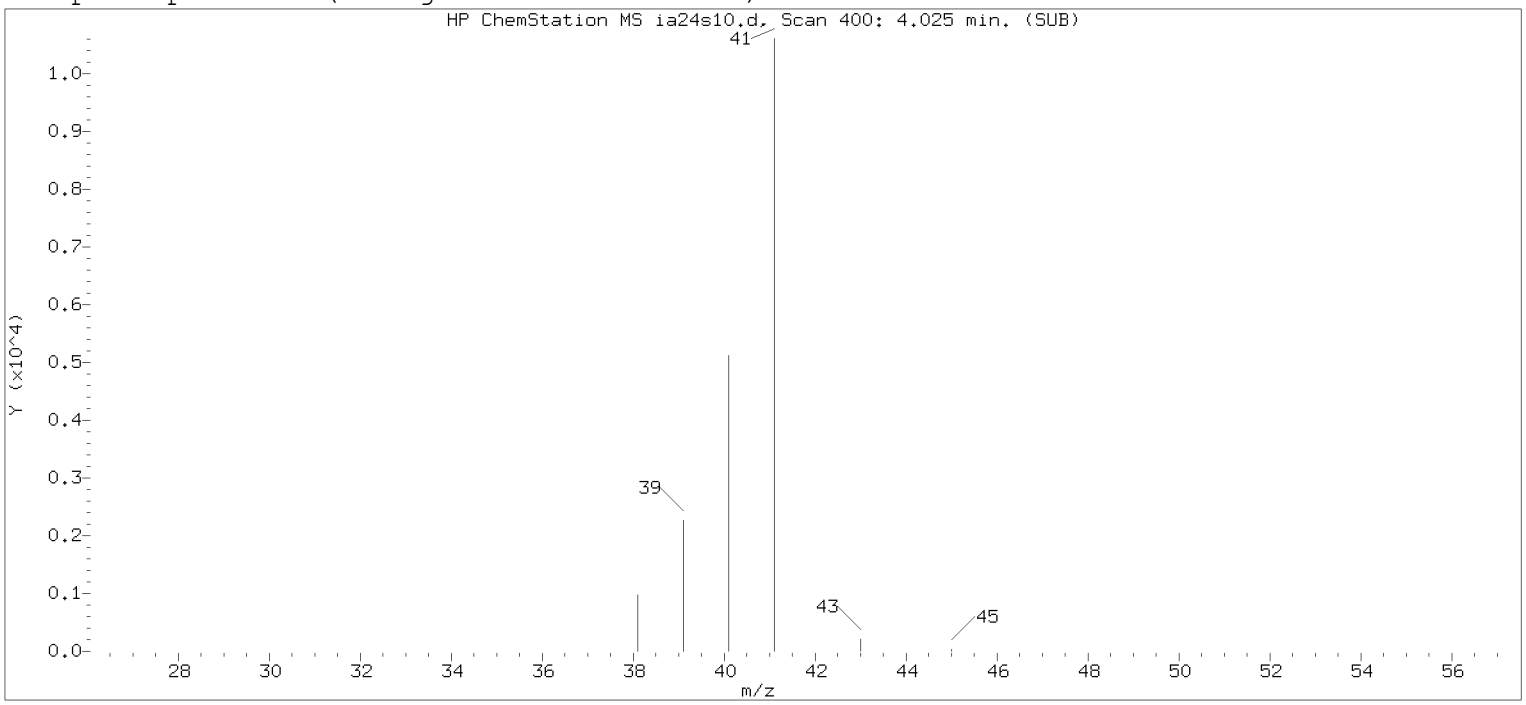
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 400
Retention Time (minutes): 4.025
Quant Ion : 41.00
Area (flag) : 156248M
On-Column Amount (ng) : 50.4568
Integration start scan : 382 Integration stop scan: 557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

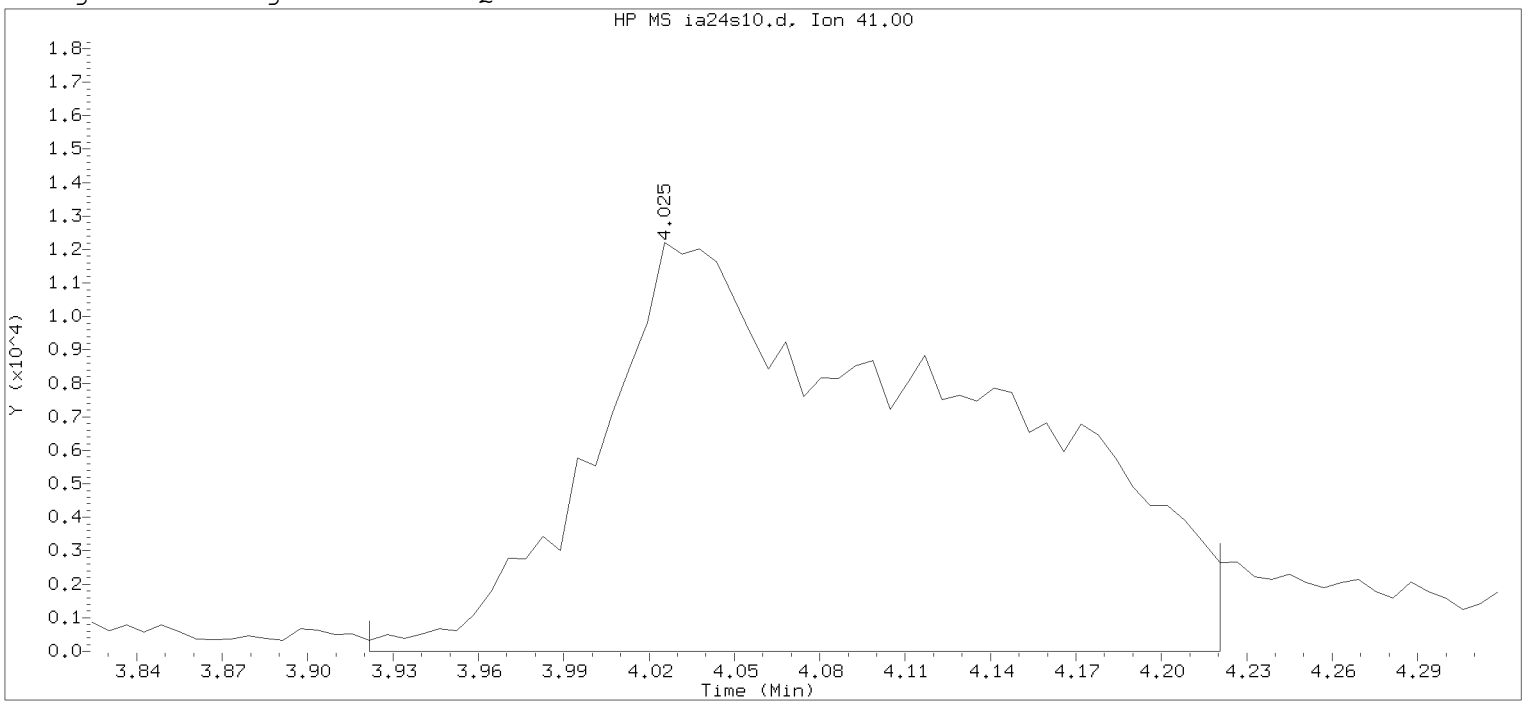
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

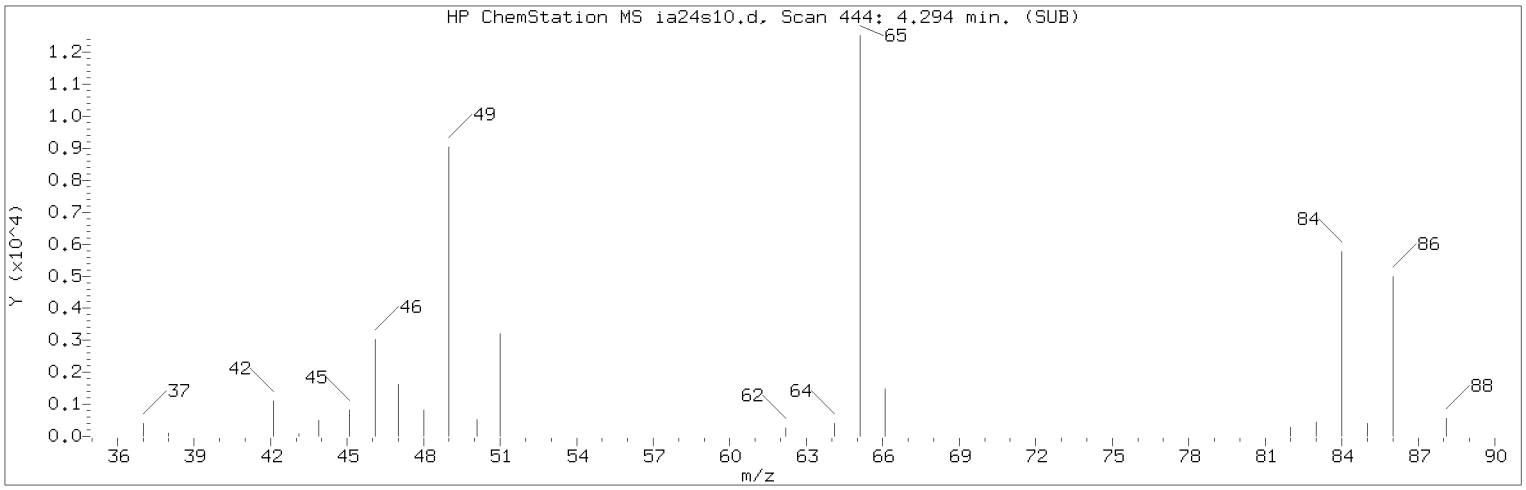
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:26 Automation

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

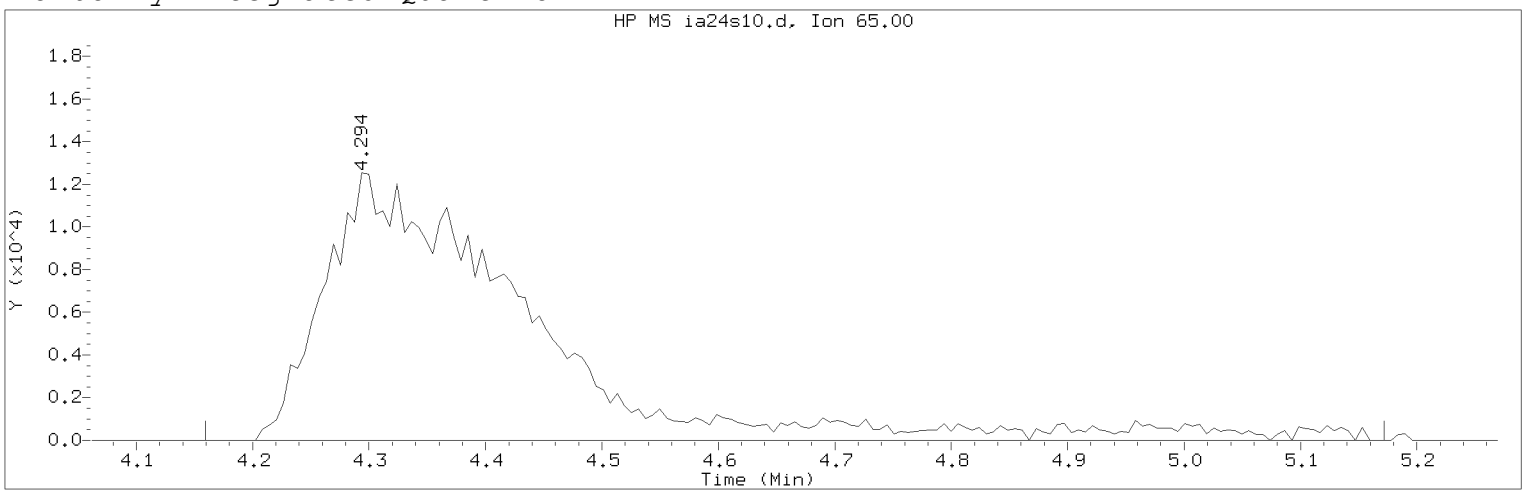
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 400
Retention Time (minutes): 4.025
Quant Ion : 41.00
Area : 111106
On-column Amount (ng) : 40.1725
Integration start scan : 382 Integration stop scan: 431
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature used. Method: 9183

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:01 mec29284

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

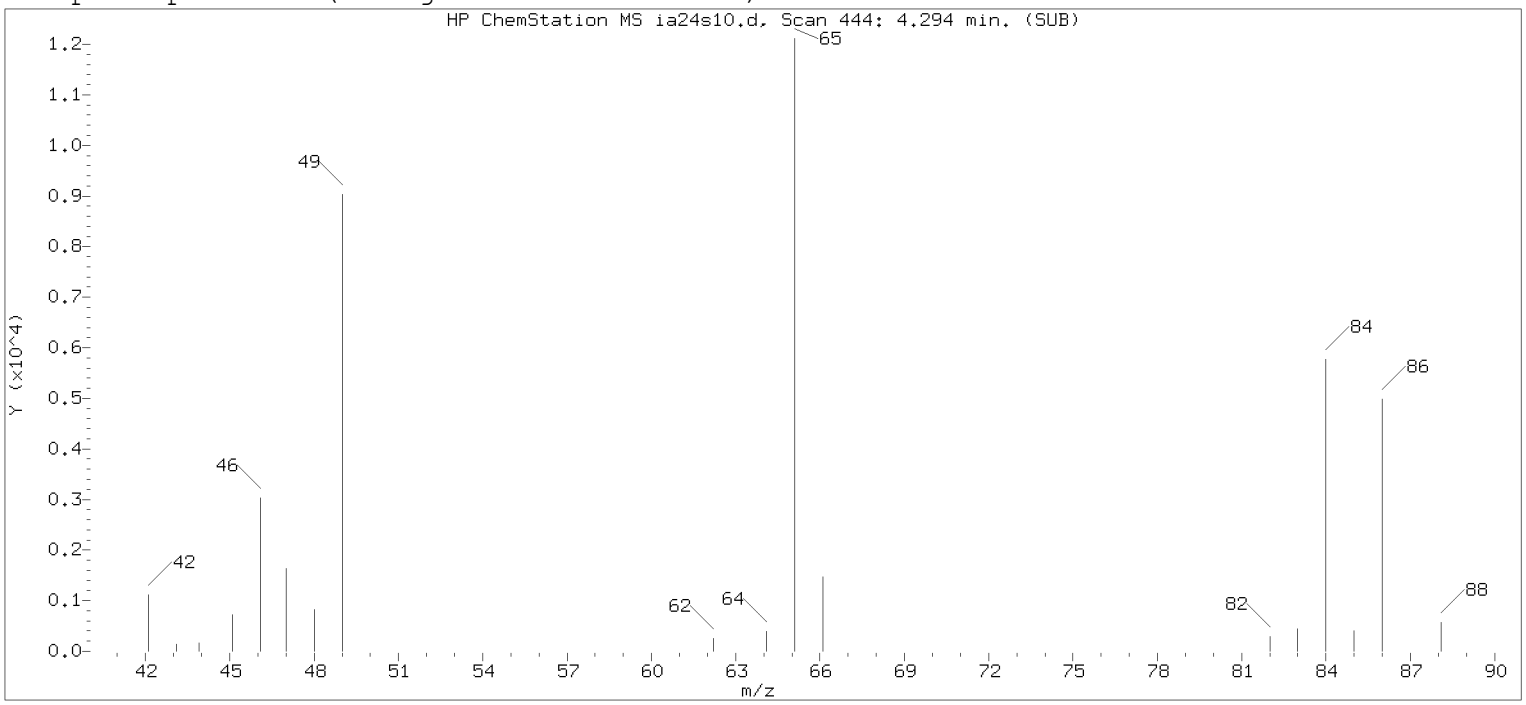
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 444
Retention Time (minutes): 4.294
Quant Ion : 65.00
Area (flag) : 151418M
On-Column Amount (ng) : 50.0000
Integration start scan : 421 Integration stop scan: 587
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

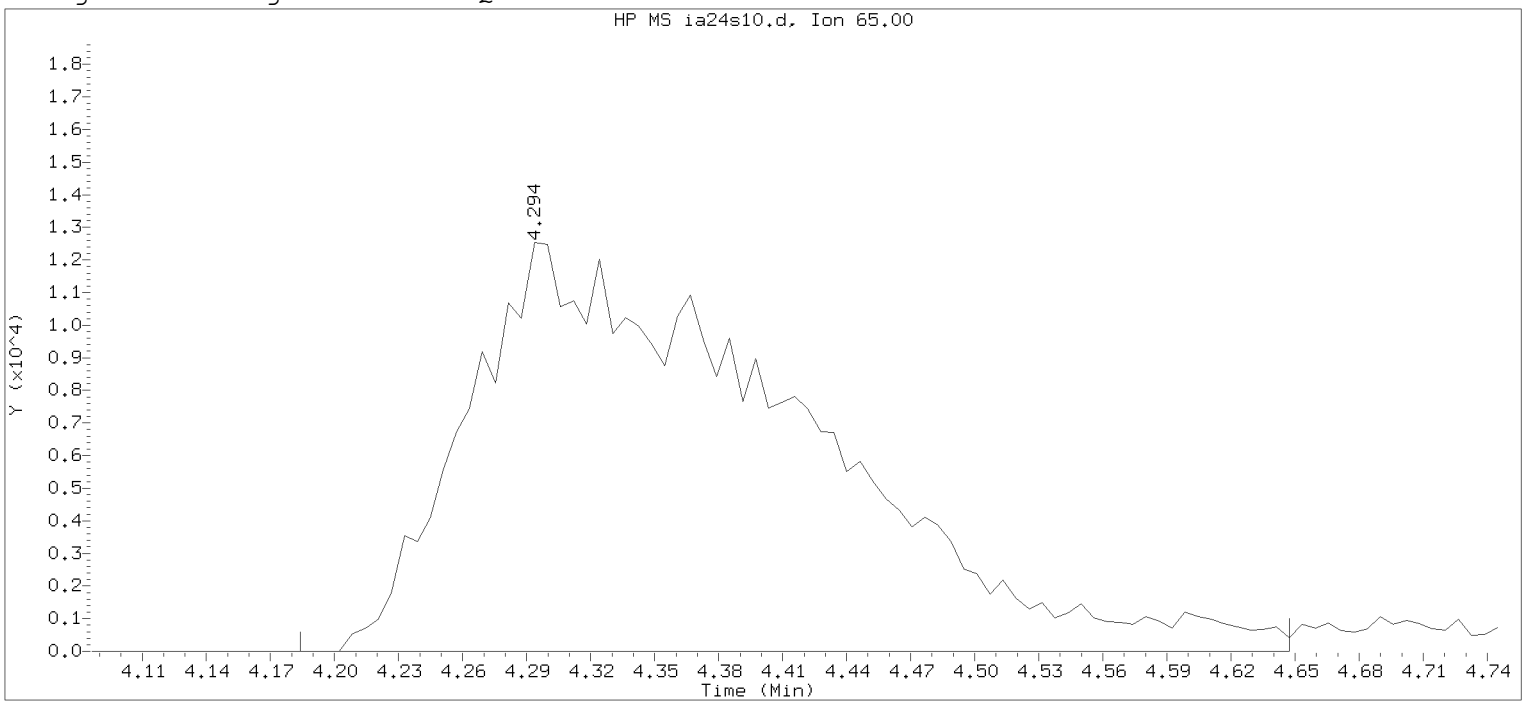
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s10.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:08 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:26 Automation

Sample Name: F3504MS1 Lab Sample ID: 1034105MS

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 444
Retention Time (minutes): 4.294
Quant Ion : 65.00
Area : 135236
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 501
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature used for this report.

F3504MSD1 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1034106MSD

Data file: /chem2/HP19930.i/19apr24a.b/ia24s11.d Injection date and time: **24-APR-2019 15:29**
Data file Sample Info. Line: F3504MSD1;1034106MSD;1;3;MSD;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I1911**
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274; 193

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.306	(0.006)	446	65	142568M	(3)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2136874	(0)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1694147	(-2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	926207	(-7)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.001)	113	554378	10.053	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.001)	102	106367	10.008	100%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2147842	10.336	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	746319	9.584	96%		80 - 120

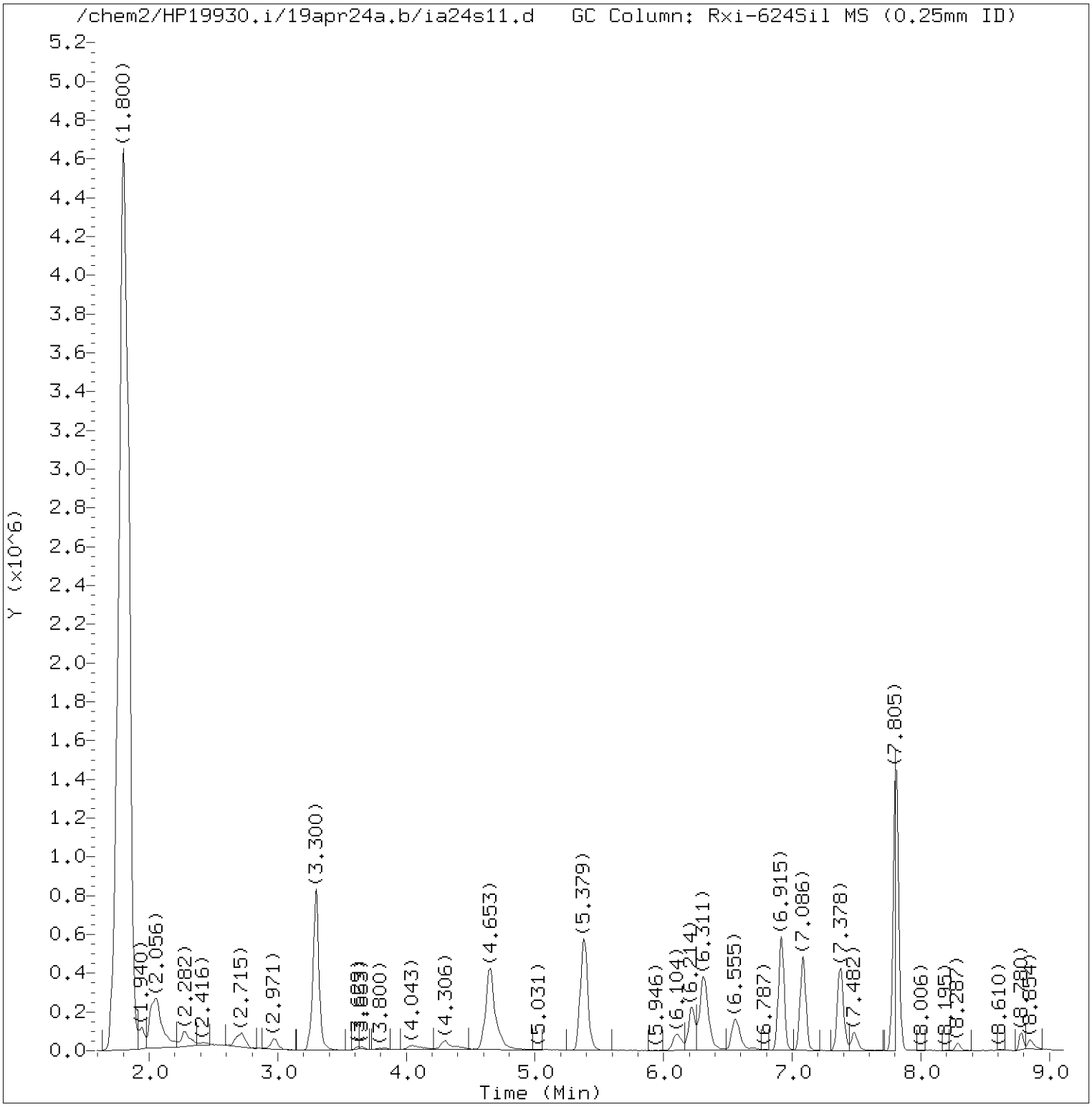
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
4) Dimethyl ether	(2)	2.062	(0.000)	45	487585M	6.277	6.28		J	0.04	13
25) Acetonitrile	(1)	4.044	(-0.002)	41	156487M	53.671	53.67		J	32	100
36) Vinyl Acetate	(2)	5.372	(0.002)	43	998329	13.564	13.56			3	10
142) Hexachloroethane	(4)	13.609	(-0.000)	117	298042	5.750	5.75		J	0.1	10

M = Compound was manually integrated.

Total number of targets = 4

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

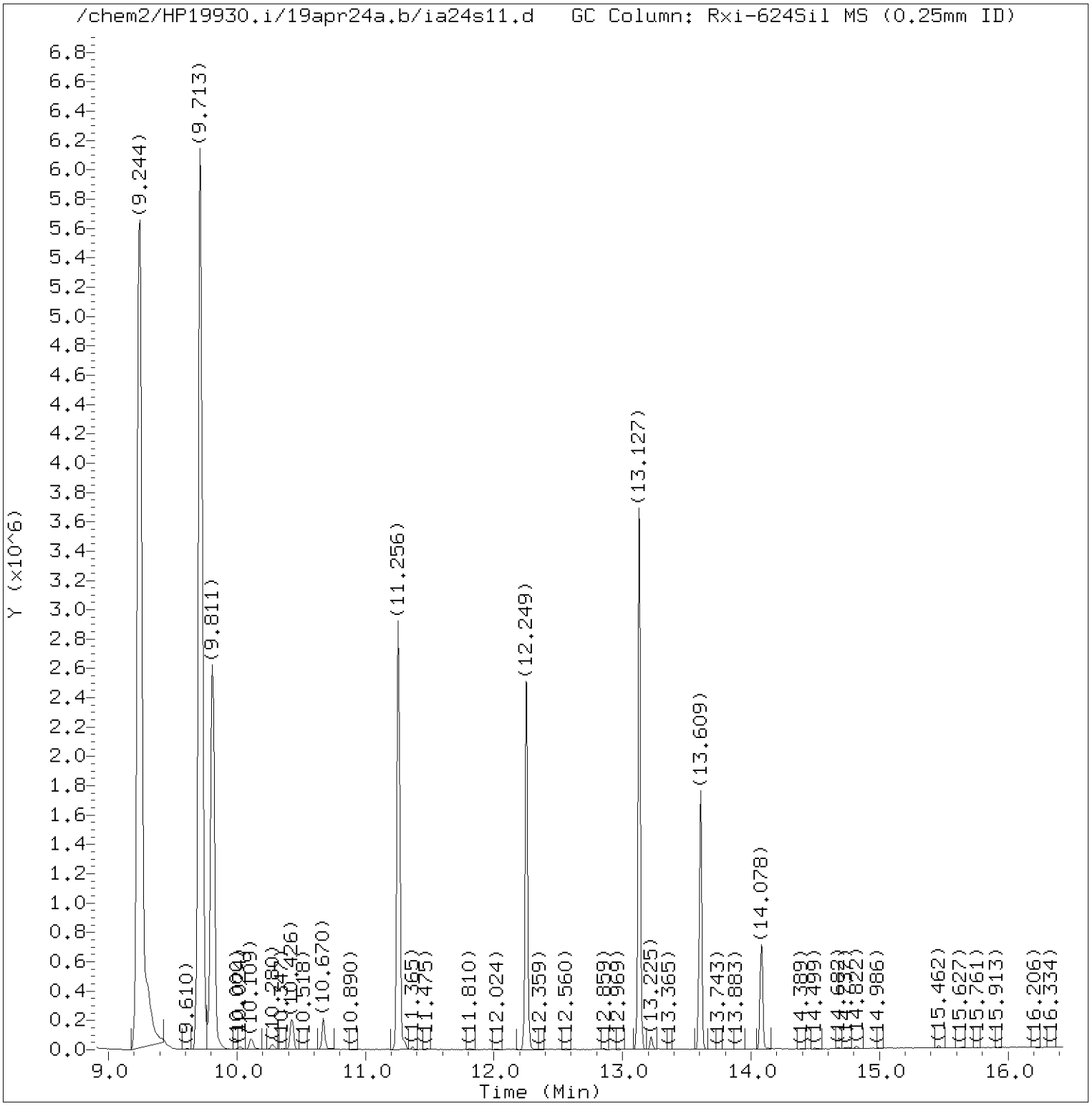
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

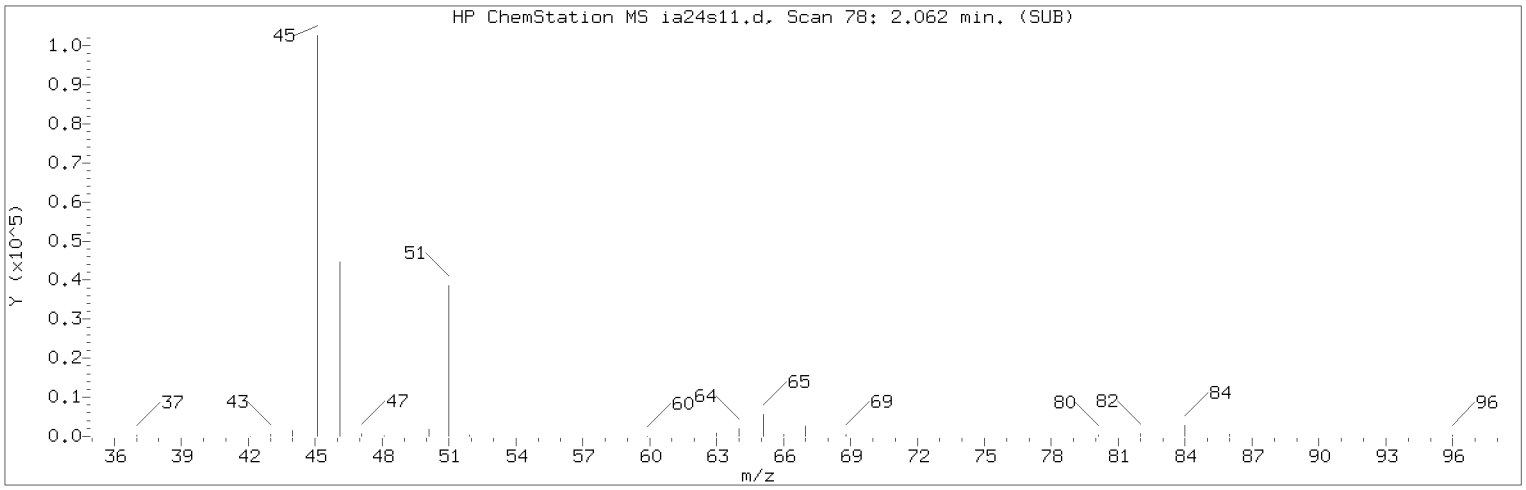
Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.062	45	487585M	6.277
25) Acetonitrile	(1)	4.043	41	156487M	53.671
26)*t-Butyl Alcohol-d10	(1)	4.306	65	142568M	50.000
36) Vinyl Acetate	(2)	5.373	43	998329	13.564
50)$Dibromofluoromethane	(2)	6.915	113	554378	10.053
57)$1,2-Dichloroethane-d4	(2)	7.378	102	106367	10.008
63)*Fluorobenzene	(2)	7.811	96	2136874	10.000
82)$Toluene-d8	(3)	9.811	98	2147842	10.336
97)*Chlorobenzene-d5	(3)	11.256	117	1694147	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	746319	9.584
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	926207	10.000
142) Hexachloroethane	(4)	13.609	117	298042	5.750

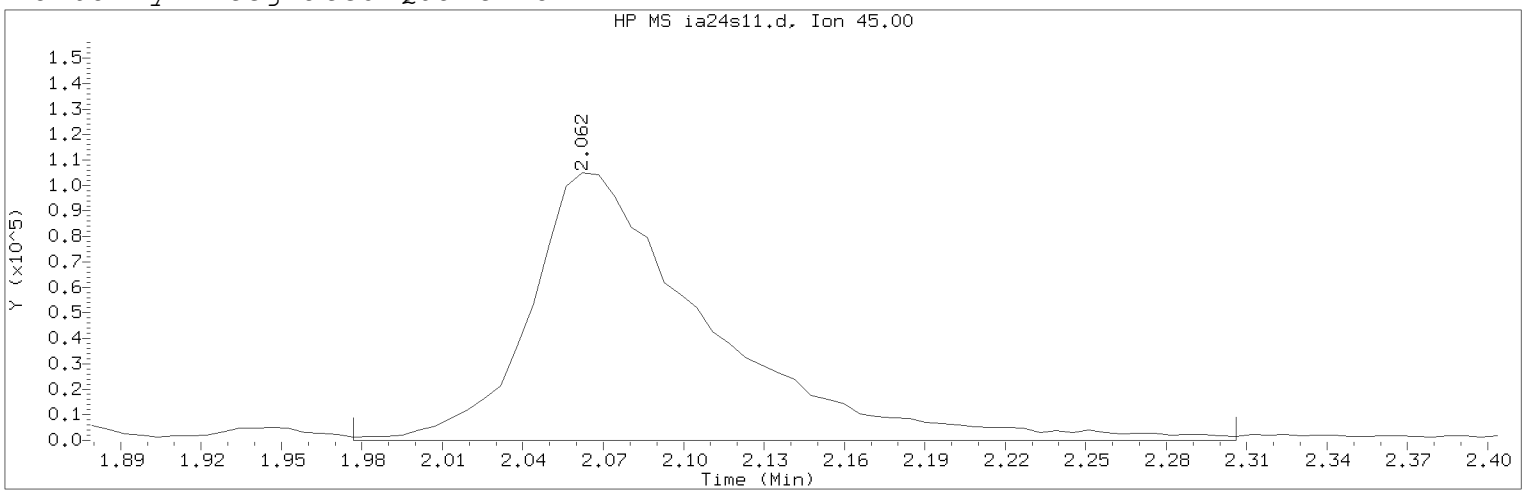
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

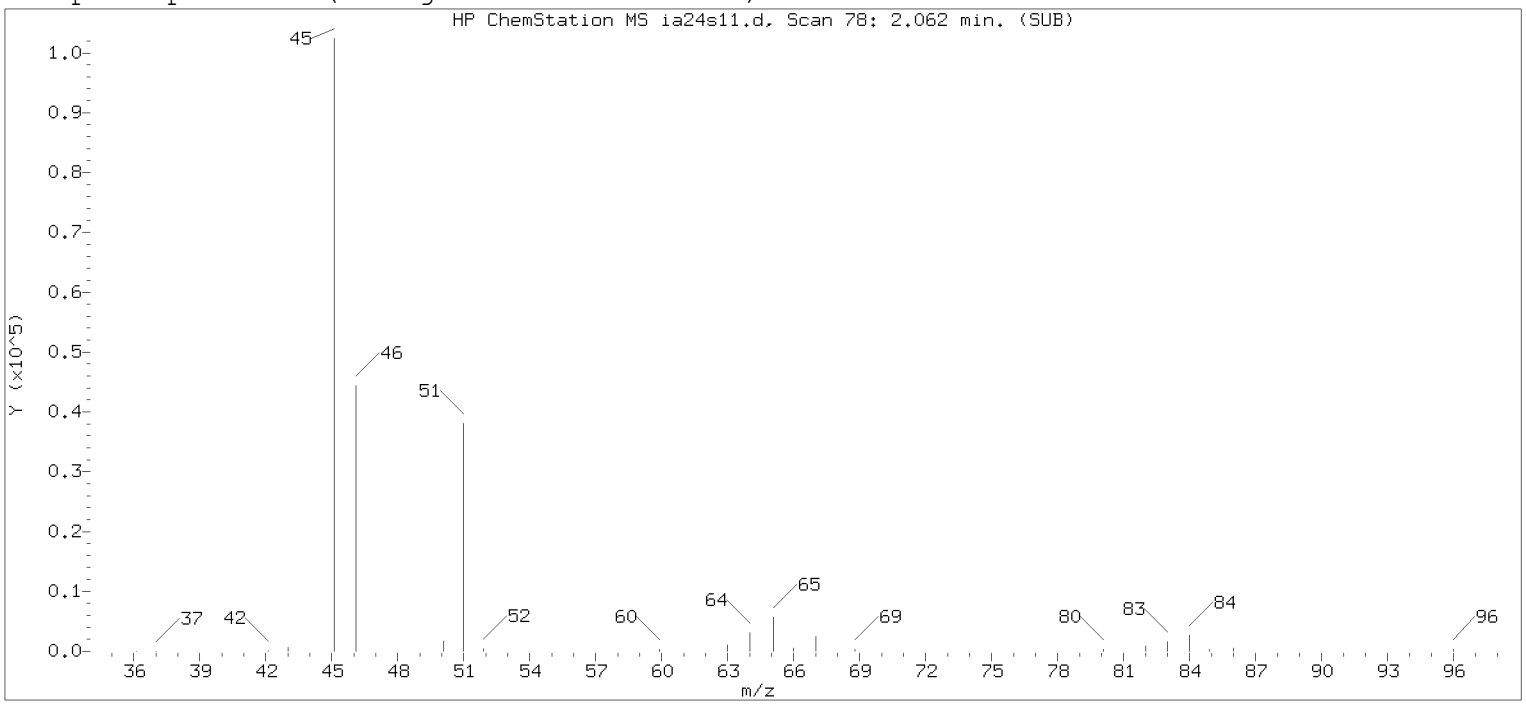
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area (flag) : 487585M
On-Column Amount (ng) : 6.2770
Integration start scan : 63 Integration stop scan: 117
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

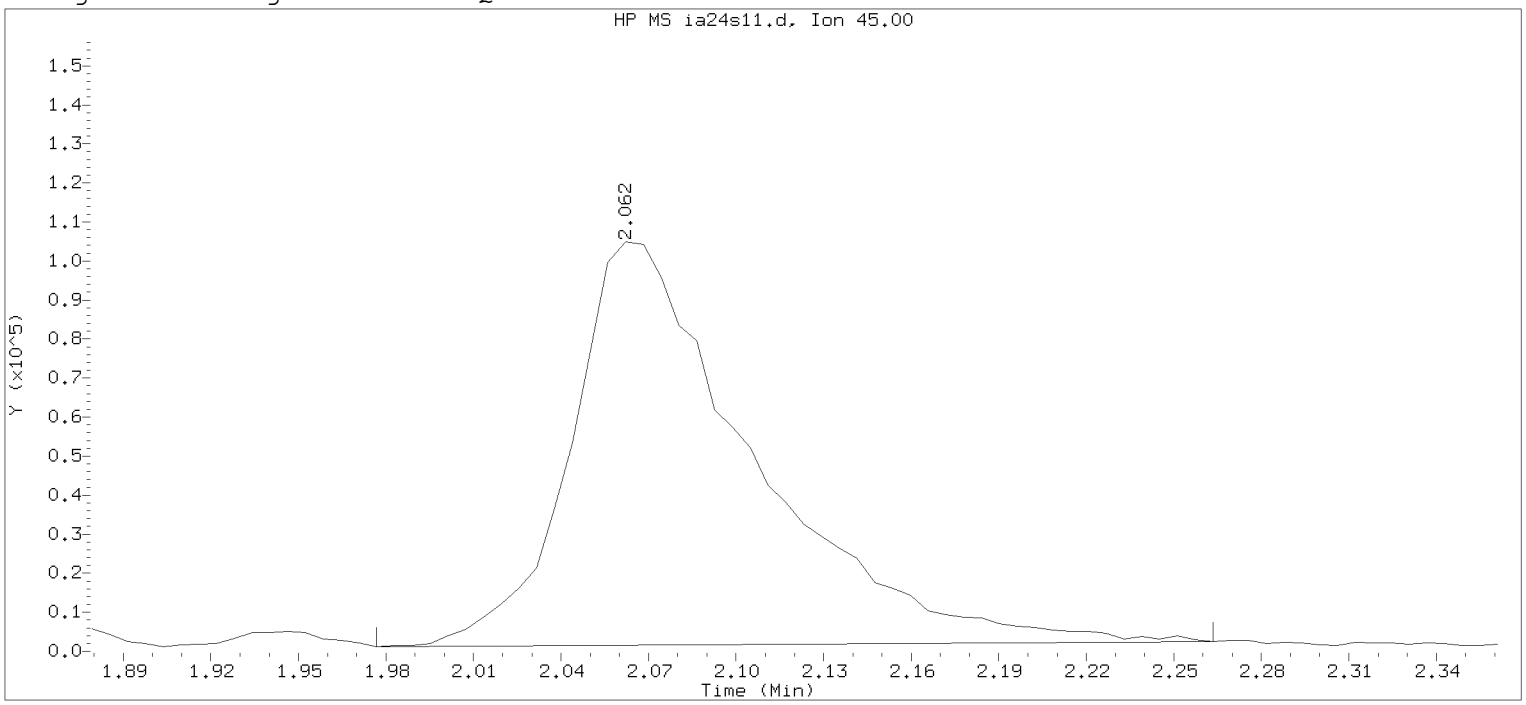
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

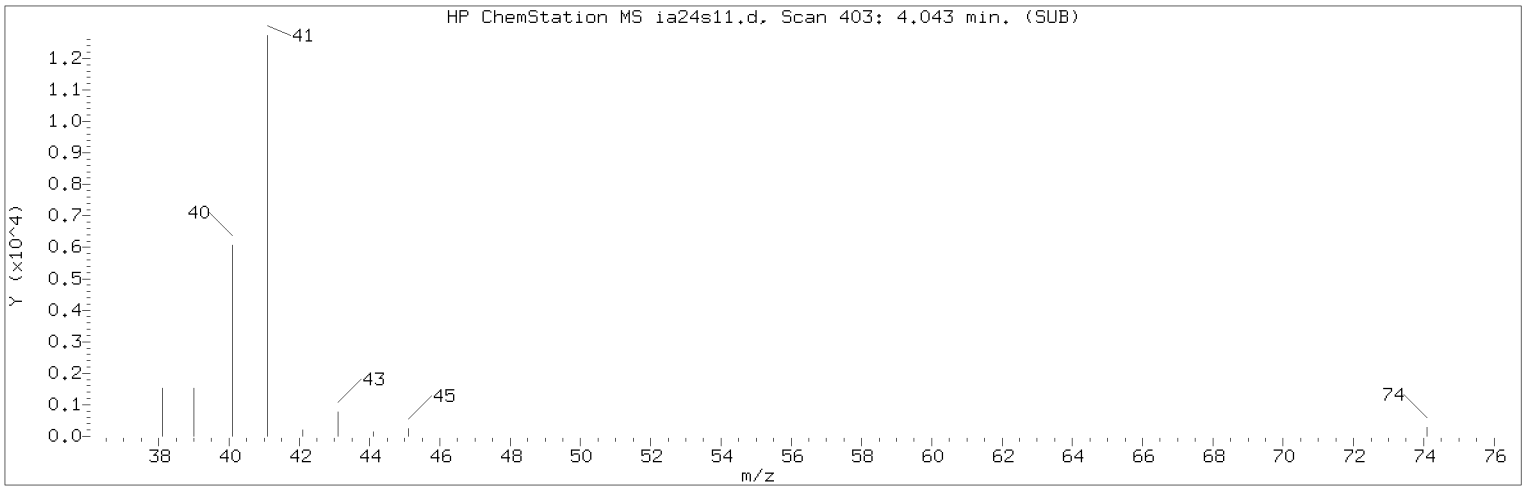
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:47 Automation

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

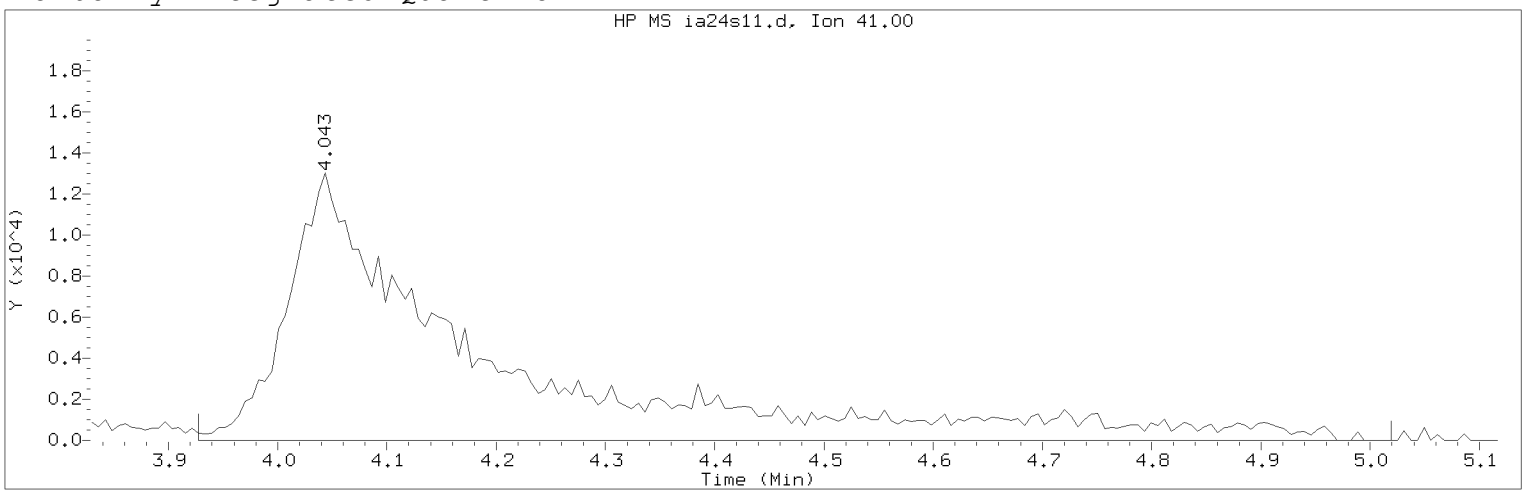
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 78
Retention Time (minutes): 2.062
Quant Ion : 45.00
Area : 449013
On-column Amount (ng) : 5.7805
Integration start scan : 63 Integration stop scan: 110
Y at integration start : 1206 Y at integration end: 2545

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

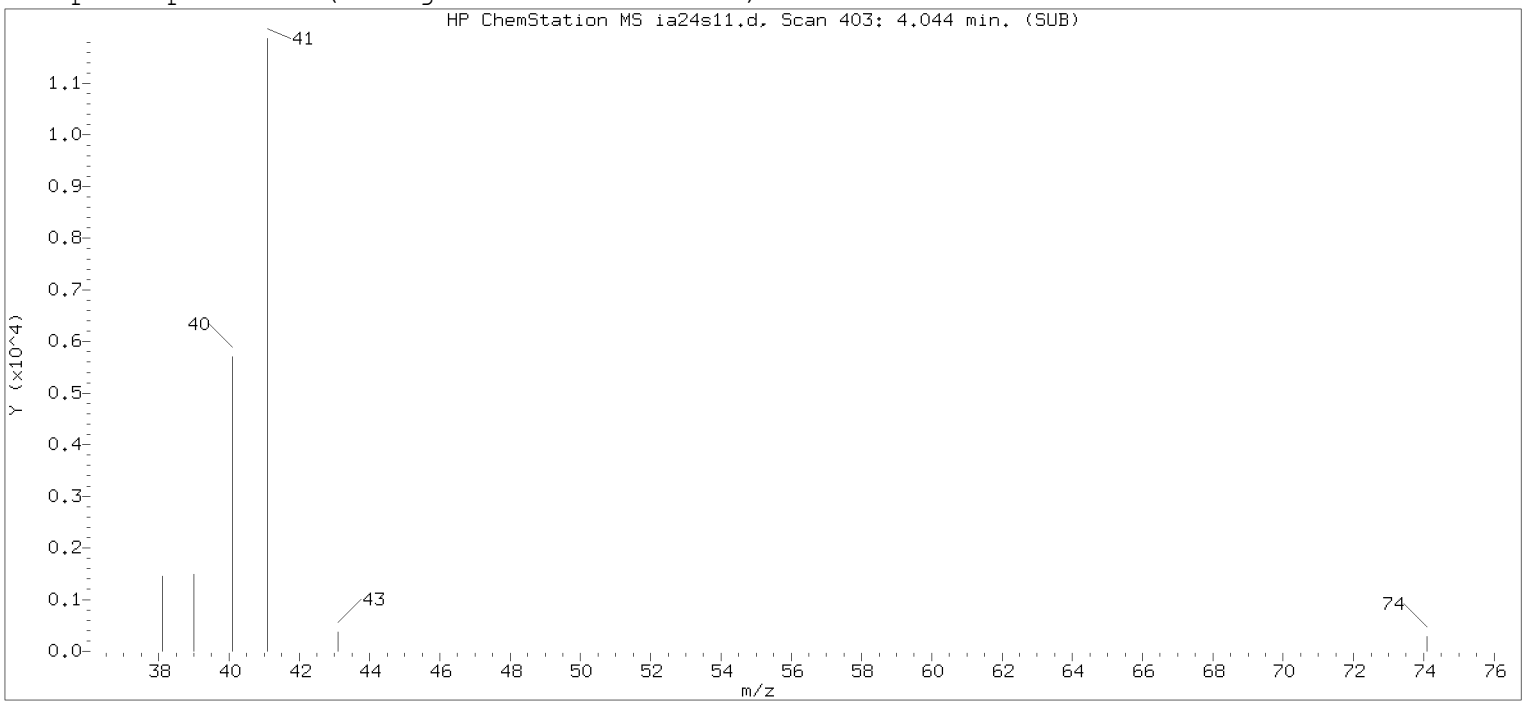
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 403
Retention Time (minutes): 4.043
Quant Ion : 41.00
Area (flag) : 156487M
On-Column Amount (ng) : 53.6709
Integration start scan : 383 Integration stop scan: 562
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

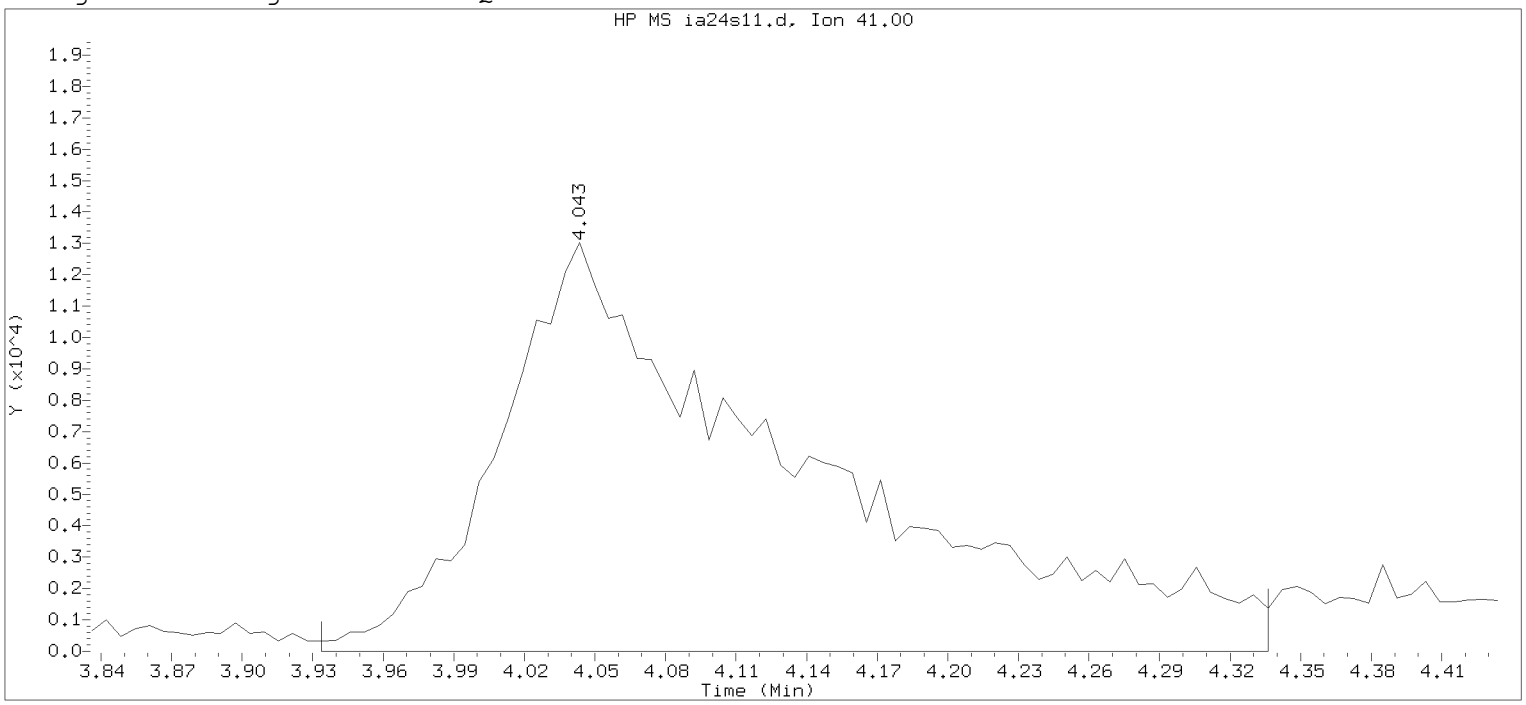
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

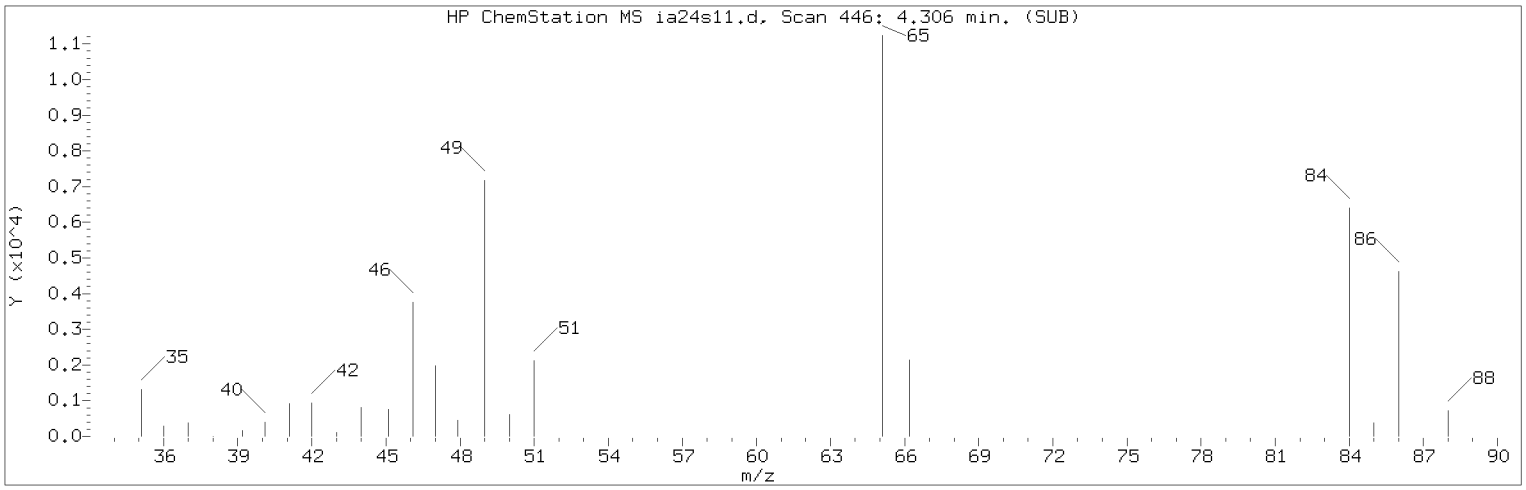
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:47 Automation

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

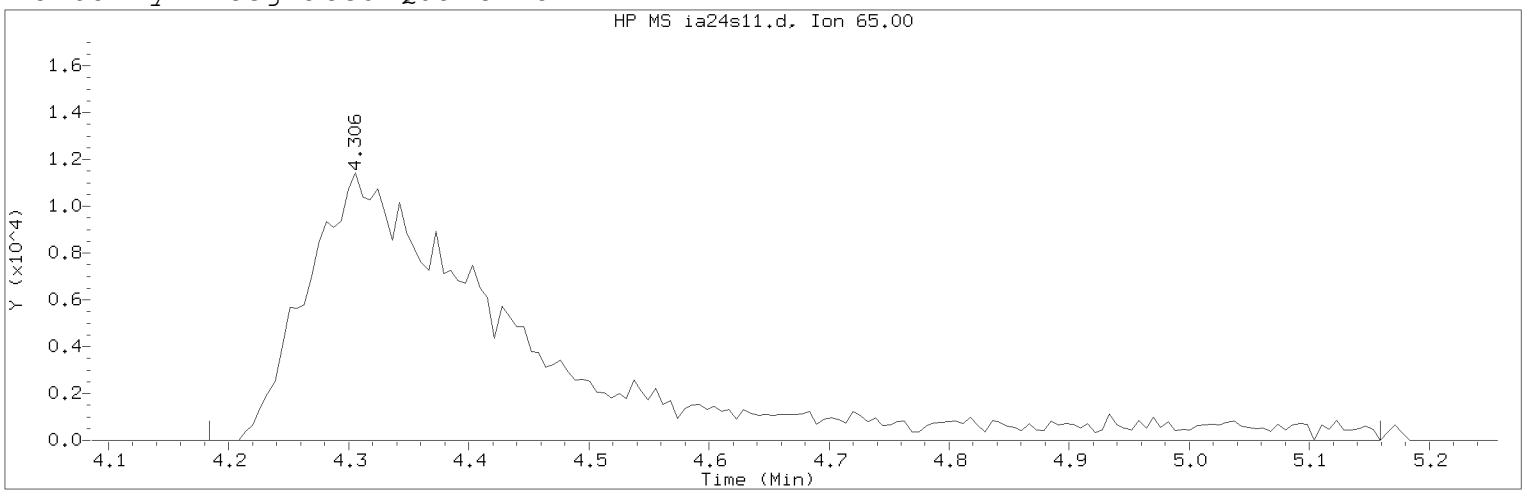
Compound Number	: 25		
Compound Name	: Acetonitrile		
Scan Number	: 403		
Retention Time (minutes)	: 4.043		
Quant Ion	: 41.00		
Area	: 116862		
On-column Amount (ng)	: 40.0808		
Integration start scan	: 384	Integration stop scan:	450
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature used. Page 1493

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 16:03 mec29284

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

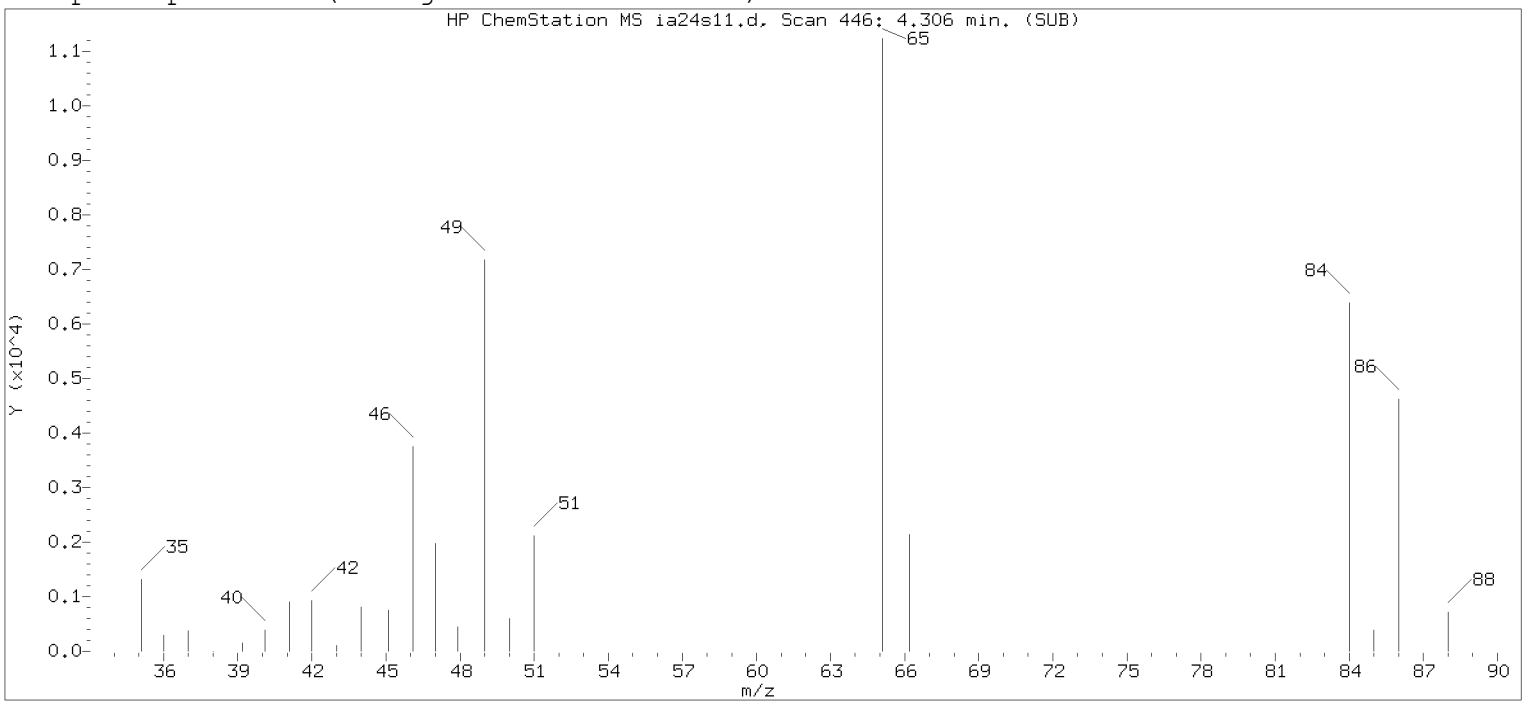
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area (flag) : 142568M
On-Column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

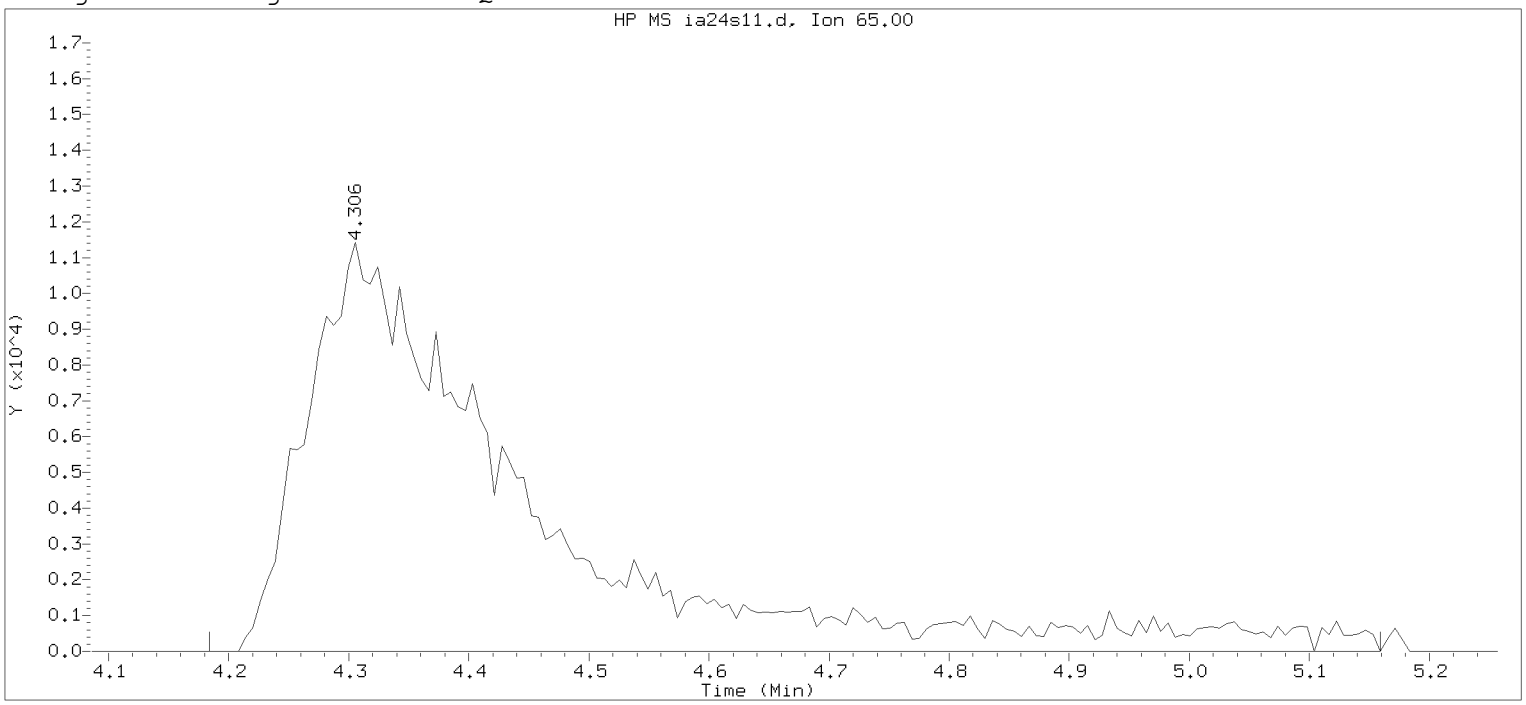
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s11.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 15:29 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:47 Automation

Sample Name: F3504MSD1 Lab Sample ID: 1034106MSD

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area : 142568
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:07.
Target 3.5 esignature used. Page 1495

F3504MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1034105MS

Data file: /chem2/HP19930.i/19apr24a.b/ia24s08.d Injection date and time: **24-APR-2019 14:25**
Data file Sample Info. Line: F3504MS;1034105MS;1;3;MS;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274; 193

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.306	(0.006)	446	65	145031	(5)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2098183	(-1)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1679291	(-3)	10.00	
133) 1,4-Dichlorobenzene-d4	13.127	(0.006)	1893	152	958602	(-4)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921	(0.000)	113	539079	9.955	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372	(0.000)	102	102977	9.868	99%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2097267	10.182	102%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	743620	9.634	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)	2.014	(-0.001)	85	412411	3.372	3.37			0.1	1
2) Chloromethane	(2)	2.196	(-0.000)	50	401517	4.433	4.43			0.06	0.5
5) Vinyl Chloride	(2)	2.318	(-0.001)	62	463139	5.029	5.03			0.2	1
7) Bromomethane	(2)	2.642	(-0.000)	94	376156	4.594	4.59			0.5	1
8) Chloroethane	(2)	2.733	(-0.000)	64	364802	6.819	6.82			0.07	0.5
10) Trichlorofluoromethane	(2)	3.038	(-0.000)	101	746293M	4.850	4.85			0.2	1
11) Ethyl ether	(2)	3.306	(-0.000)	59	839593	20.723	20.72			1	13
13) Acrolein	(1)	3.483	(-0.002)	56	196958M	31.995	31.99			3	25
15) 1,1-Dichloroethene	(2)	3.617	(-0.000)	96	335195	6.282	6.28			0.2	1
16) Freon 113	(2)	3.647	(-0.000)	101	373475M	5.792	5.79			0.1	1
14) Acetone	(1)	3.654	(-0.002)	43	313669M	36.915	36.91			0.9	10
17) Methyl Iodide	(2)	3.824	(-0.000)	142	594573	5.195	5.19		J	0.6	10
18) Carbon Disulfide	(2)	3.928	(-0.000)	76	819465	5.244	5.24		J	0.4	10
22) Allyl Chloride	(2)	4.111	(-0.000)	41	385643	4.698	4.70		J	0.8	10
23) Methylene Chloride	(2)	4.300	(-0.000)	84	321715	5.894	5.89			0.2	1
29) Acrylonitrile	(1)	4.647	(-0.001)	53	253863	24.977	24.98			0.5	10
31) trans-1,2-Dichloroethene	(2)	4.726	(-0.001)	96	318405	5.332	5.33			0.2	1
33) 1,1-Dichloroethane	(2)	5.391	(-0.000)	63	1010134M	10.399	10.40			0.1	1
35) 2-Chloro-1,3-Butadiene	(2)	5.495	(-0.000)	53	477051	5.469	5.47		J	0.5	10
38) 2-Butanone	(1)	6.184	(-0.002)	43	529561	38.369	38.37			0.6	10
42) Propionitrile	(1)	6.281	(-0.003)	54	149839	40.434	40.43		J	10	100
45) Methacrylonitrile	(1)	6.500	(-0.003)	67	559988	41.061	41.06		J	10	100
48) Tetrahydrofuran	(1)	6.562	(-0.002)	71	128185	29.701	29.70			2	25
49) Chloroform	(2)	6.702	(-0.000)	83	595427	5.625	5.63			0.09	1
51) 1,1,1-Trichloroethane	(2)	6.927	(0.000)	97	591538	5.781	5.78			0.1	1
54) Carbon Tetrachloride	(2)	7.141	(-0.000)	117	556470	5.759	5.76			0.2	1
56) Isobutyl Alcohol	(1)	7.287	(-0.002)	41	131752	121.118	121.12		J	4	200
58) Benzene	(2)	7.409	(-0.000)	78	1366174	5.866	5.87			0.07	1
59) 1,2-Dichloroethane	(2)	7.476	(0.000)	62	336330M	5.383	5.38			0.1	1
67) Trichloroethene	(2)	8.287	(0.000)	95	388429	5.961	5.96			0.2	1

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06. Target 3.5 esignature user ID: mec29284

Data file: /chem2/HP19930.i/19apr24a.b/ia24s08.d Injection date and time: **24-APR-2019 14:25**
Data file Sample Info. Line: F3504MS;1034105MS;1;3;MS;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

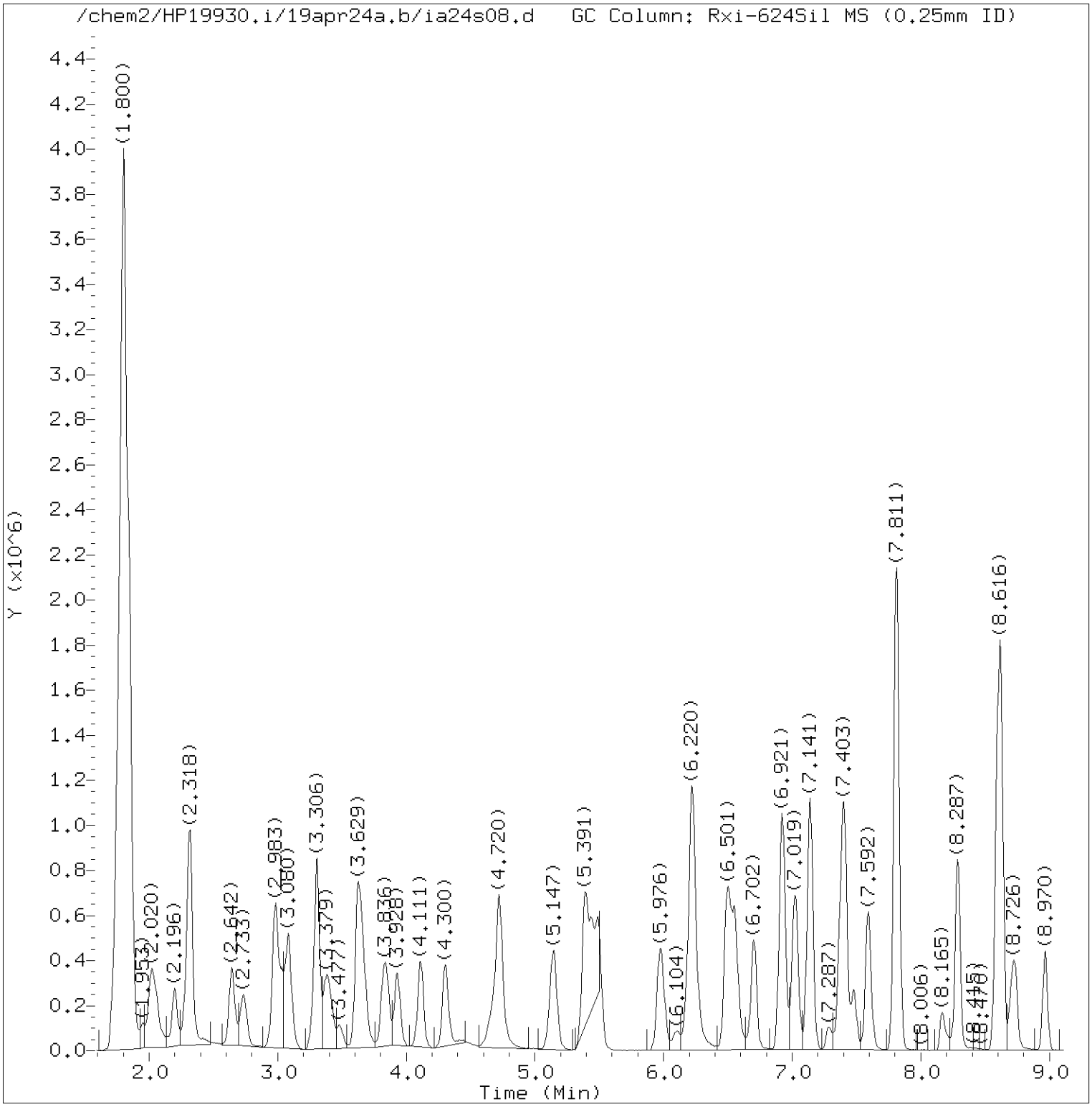
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dichloropropane	(2)	8.622(0.000)	63	308952	5.729	5.73			0.1	1
71) Methyl Methacrylate	(1)	8.701(-0.002)	69	140072	5.366	5.37		J	4	10
73) Dibromomethane	(2)	8.732(0.000)	93	165331	5.454	5.45			0.07	1
72) 1,4-Dioxane	(1)	8.714(-0.005)	88	37758M	169.195	169.19		J	45	200
74) Bromodichloromethane	(2)	8.970(0.000)	83	401235	5.361	5.36			0.09	1
81) 4-Methyl-2-Pentanone	(1)	9.677(-0.003)	43	901893	25.812	25.81			0.9	10
83) Toluene	(3)	9.890(-0.000)	92	879390	5.679	5.68			0.09	1
84) trans-1,3-Dichloropropene	(3)	10.140(-0.000)	75	354823	4.861	4.86			0.1	1
86) Ethyl Methacrylate	(3)	10.201(-0.000)	69	296834	4.815	4.82		J	0.8	10
88) 1,1,2-Trichloroethane	(3)	10.347(-0.000)	97	244617	5.716	5.72			0.08	1
89) Tetrachloroethene	(3)	10.427(-0.000)	166	485309	5.922	5.92			0.06	1
90) 1,3-Dichloropropane	(3)	10.506(-0.000)	76	379061	5.503	5.50			0.09	1
91) 2-Hexanone	(1)	10.555(-0.003)	43	640440	25.849	25.85			0.6	10
93) Dibromochloromethane	(3)	10.719(-0.000)	129	290909	5.002	5.00			0.07	1
95) 1,2-Dibromoethane	(3)	10.835(-0.000)	107	231546	5.313	5.31			0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)	11.365(0.000)	131	369861	5.516	5.52			0.08	1
100) Ethylbenzene	(3)	11.365(0.000)	91	1745055	5.611	5.61			0.08	1
101) m+p-Xylene	(3)	11.481(0.000)	106	1412494	11.405	11.40			0.1	0.5
104) o-Xylene	(3)	11.810(0.000)	106	657995	5.504	5.50			0.05	0.5
105) Xylene (Total)	(3)		106	2070489	16.909	16.91			0.2	3
106) Styrene	(3)	11.823(0.000)	104	1060171	5.594	5.59			0.05	1
107) Bromoform	(3)	11.981(0.000)	173	153444	4.289	4.29			0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)	12.353(-0.000)	83	288427M	5.272	5.27			0.2	1
115) trans-1,4-Dichloro-2-butene	(1)	12.377(-0.004)	53	214403	17.497	17.50			1	10
116) 1,2,3-Trichloropropane	(4)	12.396(0.000)	110	86643M	5.337	5.34			0.1	1
126) Pentachloroethane	(4)	12.847(-0.000)	167	271769	4.923	4.92		J	0.8	10
131) 1,3-Dichlorobenzene	(4)	13.072(0.000)	146	865828	5.433	5.43			0.06	1
134) 1,4-Dichlorobenzene	(4)	13.146(-0.000)	146	880196	5.526	5.53			0.07	1
139) 1,2-Dichlorobenzene	(4)	13.408(-0.000)	146	799633	5.496	5.50			0.08	1
143) 1,2-Dibromo-3-chloropropane	(1)	13.950(-0.004)	155	45565	5.736	5.74			0.2	1
145) 1,2,4-Trichlorobenzene	(4)	14.499(-0.000)	180	522237	5.126	5.13			0.1	1
146) Hexachlorobutadiene	(4)	14.578(-0.000)	225	217192	5.218	5.22			0.07	1
147) Naphthalene	(4)	14.682(-0.000)	128	955573	4.684	4.68			0.1	1

M = Compound was manually integrated.

Total number of targets = 63

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

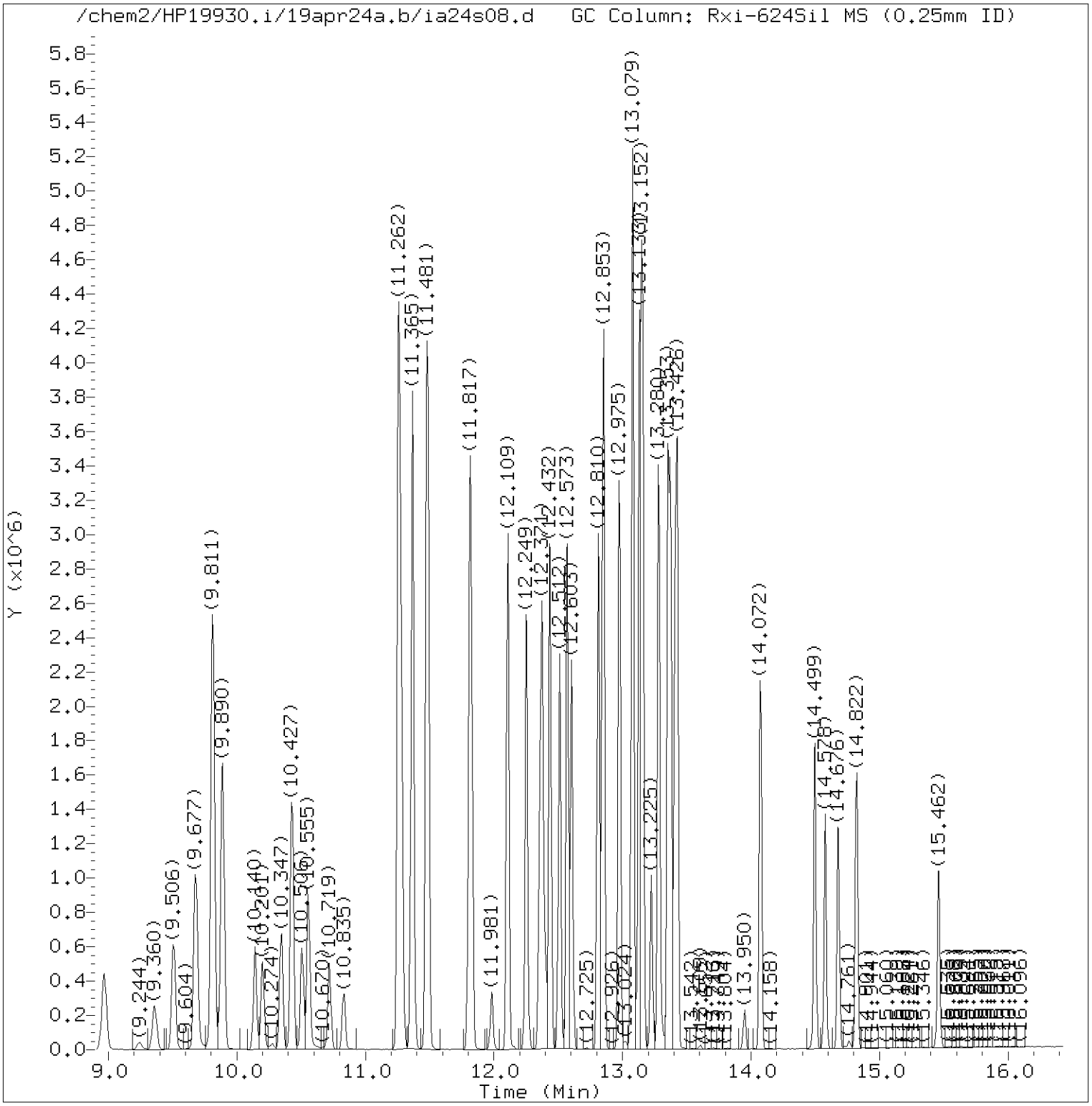
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.014	85	412411	3.372
2) Chloromethane	(2)	2.196	50	401517	4.433
5) Vinyl Chloride	(2)	2.318	62	463139	5.029
7) Bromomethane	(2)	2.642	94	376156	4.594
8) Chloroethane	(2)	2.733	64	364802	6.819
10) Trichlorofluoromethane	(2)	3.038	101	746293M	4.850
11) Ethyl ether	(2)	3.306	59	839593	20.723
13) Acrolein	(1)	3.483	56	196958M	31.995
15) 1,1-Dichloroethene	(2)	3.617	96	335195	6.282
16) Freon 113	(2)	3.647	101	373475M	5.792
14) Acetone	(1)	3.654	43	313669M	36.915
17) Methyl Iodide	(2)	3.824	142	594573	5.195
18) Carbon Disulfide	(2)	3.928	76	819465	5.244
22) Allyl Chloride	(2)	4.111	41	385643	4.698
23) Methylene Chloride	(2)	4.300	84	321715	5.894
26)*t-Butyl Alcohol-d10	(1)	4.306	65	145031	50.000
29) Acrylonitrile	(1)	4.647	53	253863	24.977
31) trans-1,2-Dichloroethene	(2)	4.726	96	318405	5.332
33) 1,1-Dichloroethane	(2)	5.391	63	1010134M	10.399
35) 2-Chloro-1,3-Butadiene	(2)	5.495	53	477051	5.469
38) 2-Butanone	(1)	6.184	43	529561	38.369
42) Propionitrile	(1)	6.281	54	149839	40.434
45) Methacrylonitrile	(1)	6.501	67	559988	41.061
48) Tetrahydrofuran	(1)	6.561	71	128185	29.701
49) Chloroform	(2)	6.702	83	595427	5.625
50)$Dibromofluoromethane	(2)	6.921	113	539079	9.955
51) 1,1,1-Trichloroethane	(2)	6.927	97	591538	5.781
54) Carbon Tetrachloride	(2)	7.141	117	556470	5.759
56) Isobutyl Alcohol	(1)	7.287	41	131752	121.118
57)$1,2-Dichloroethane-d4	(2)	7.372	102	102977	9.868
58) Benzene	(2)	7.409	78	1366174	5.866
59) 1,2-Dichloroethane	(2)	7.476	62	336330M	5.383
63)*Fluorobenzene	(2)	7.811	96	2098183	10.000
67) Trichloroethene	(2)	8.287	95	388429	5.961
70) 1,2-Dichloropropane	(2)	8.622	63	308952	5.729
71) Methyl Methacrylate	(1)	8.701	69	140072	5.366
72) 1,4-Dioxane	(1)	8.714	88	37758M	169.195
73) Dibromomethane	(2)	8.732	93	165331	5.454

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

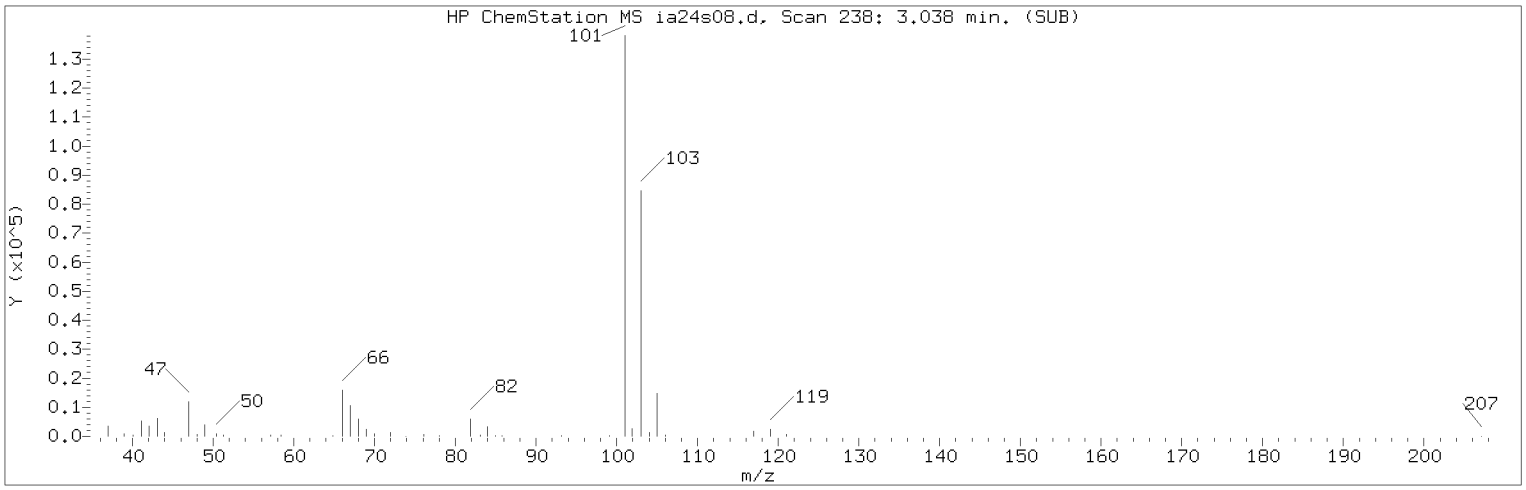
Sample Name: F3504MS Lab Sample ID: 1034105MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
74) Bromodichloromethane	(2)	8.970	83	401235	5.361
81) 4-Methyl-2-Pentanone	(1)	9.677	43	901893	25.812
82)$Toluene-d8	(3)	9.811	98	2097267	10.182
83) Toluene	(3)	9.890	92	879390	5.679
84) trans-1,3-Dichloropropene	(3)	10.140	75	354823	4.861
86) Ethyl Methacrylate	(3)	10.201	69	296834	4.815
88) 1,1,2-Trichloroethane	(3)	10.347	97	244617	5.716
89) Tetrachloroethene	(3)	10.427	166	485309	5.922
90) 1,3-Dichloropropane	(3)	10.506	76	379061	5.503
91) 2-Hexanone	(1)	10.555	43	640440	25.849
93) Dibromochloromethane	(3)	10.719	129	290909	5.002
95) 1,2-Dibromoethane	(3)	10.835	107	231546	5.313
97)*Chlorobenzene-d5	(3)	11.256	117	1679291	10.000
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	369861	5.516
100) Ethylbenzene	(3)	11.365	91	1745055	5.611
101) m+p-Xylene	(3)	11.481	106	1412494	11.405
105) Xylene (Total)	(3)		106	2070489	16.909
104) o-Xylene	(3)	11.810	106	657995	5.504
106) Styrene	(3)	11.823	104	1060171	5.594
107) Bromoform	(3)	11.981	173	153444	4.289
111)$4-Bromofluorobenzene	(3)	12.249	95	743620	9.634
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	288427M	5.272
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	214403	17.497
116) 1,2,3-Trichloropropane	(4)	12.396	110	86643M	5.337
126) Pentachloroethane	(4)	12.847	167	271769	4.923
131) 1,3-Dichlorobenzene	(4)	13.072	146	865828	5.433
133)*1,4-Dichlorobenzene-d4	(4)	13.127	152	958602	10.000
134) 1,4-Dichlorobenzene	(4)	13.146	146	880196	5.526
139) 1,2-Dichlorobenzene	(4)	13.408	146	799633	5.496
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	45565	5.736
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	522237	5.126
146) Hexachlorobutadiene	(4)	14.578	225	217192	5.218
147) Naphthalene	(4)	14.682	128	955573	4.684

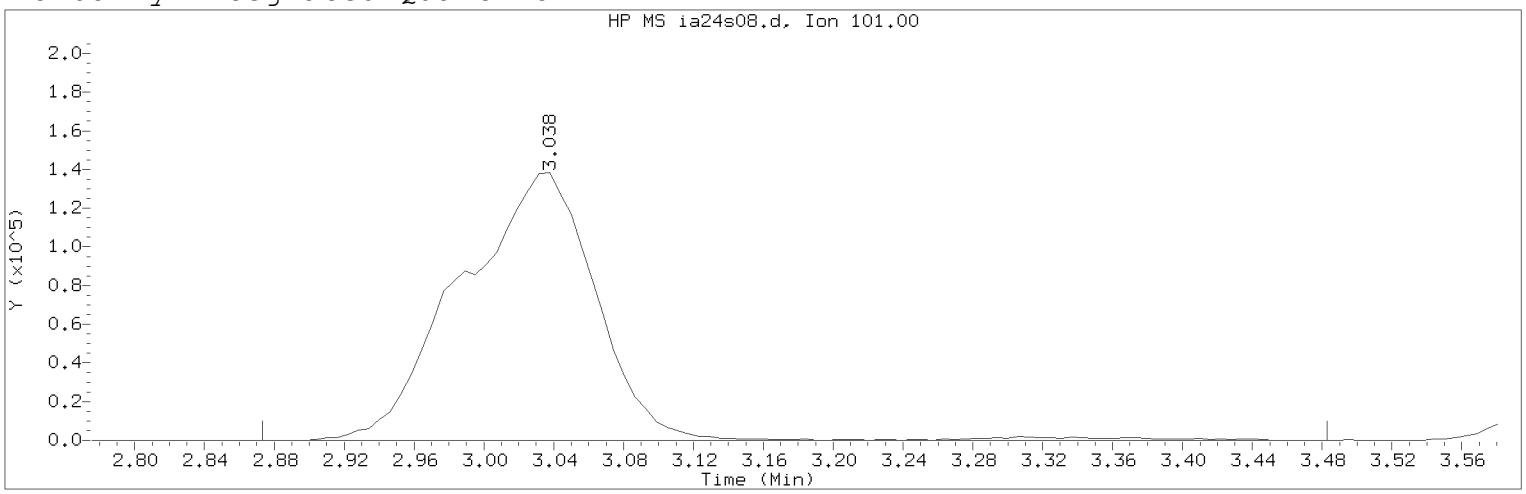
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

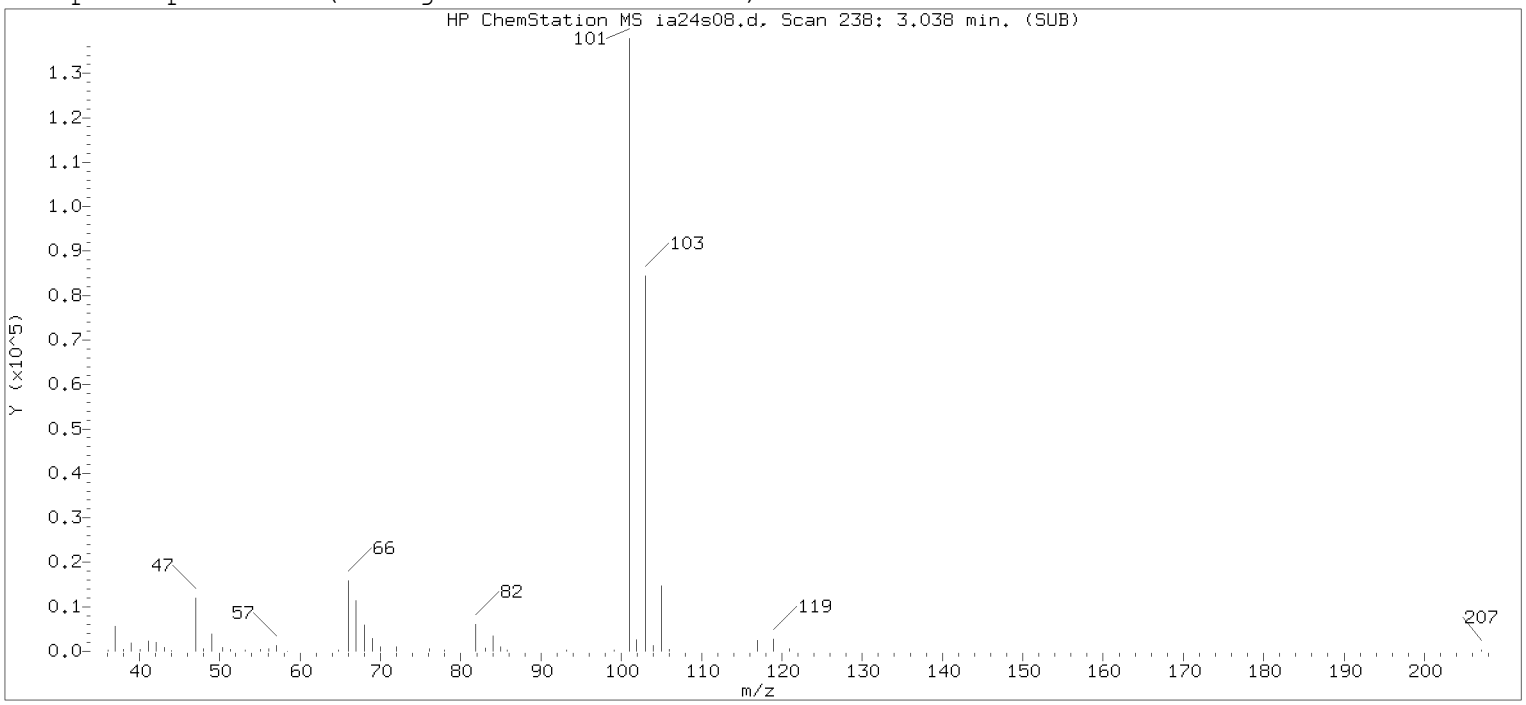
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 238
Retention Time (minutes): 3.038
Quant Ion : 101.00
Area (flag) : 746293M
On-Column Amount (ng) : 4.8505
Integration start scan : 210 Integration stop scan: 310
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

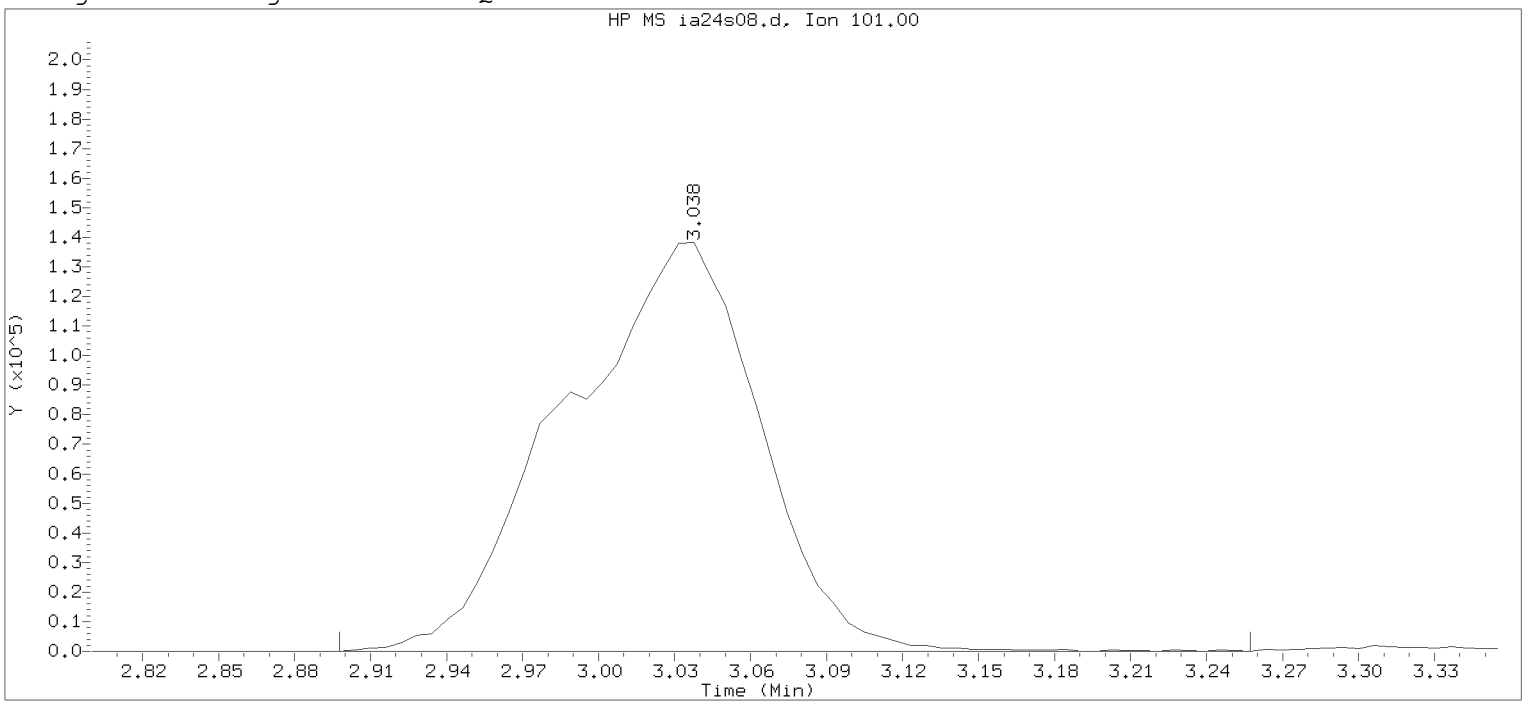
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

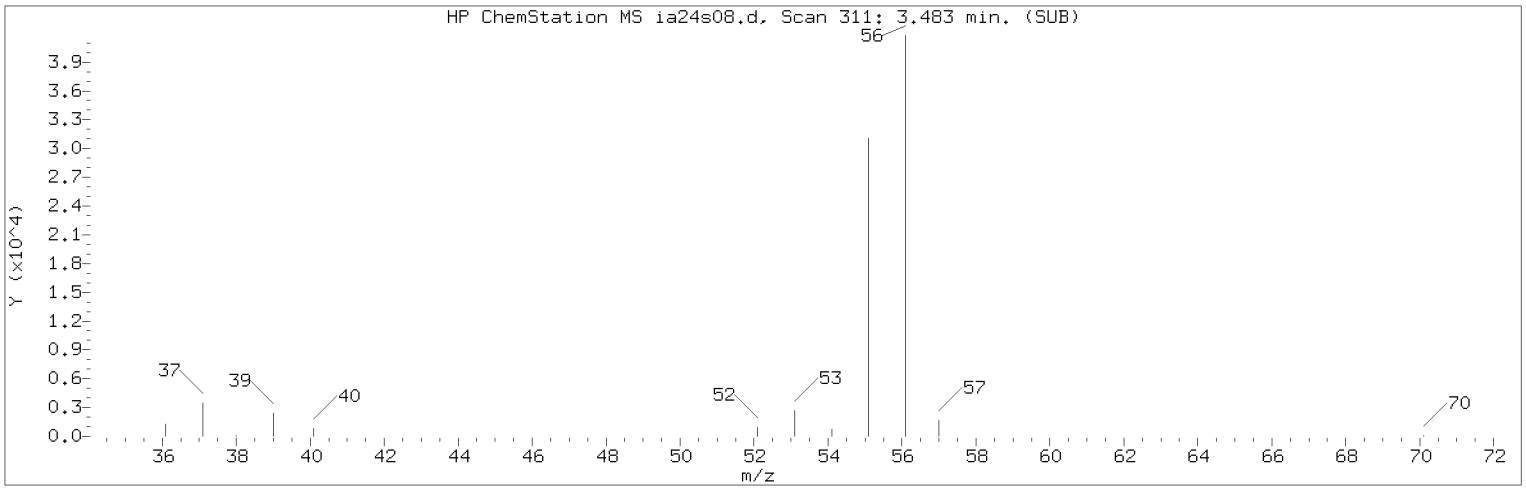
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

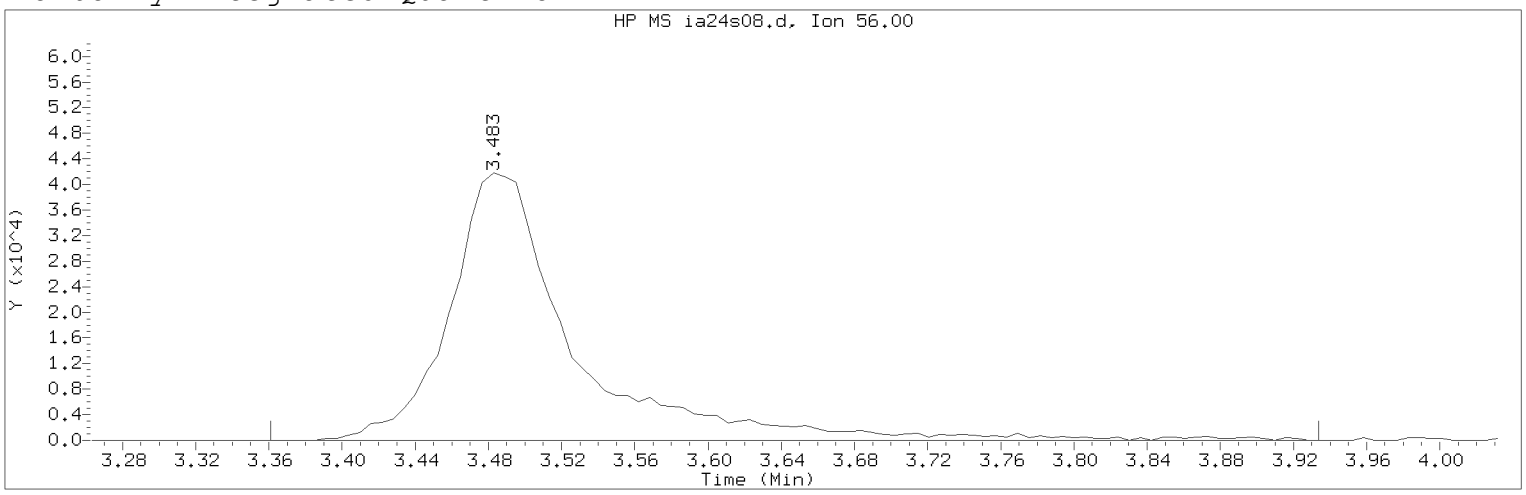
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 238
Retention Time (minutes): 3.038
Quant Ion : 101.00
Area : 735798
On-column Amount (ng) : 4.7823
Integration start scan : 214 Integration stop scan: 273
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used. F35 Page 1503

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

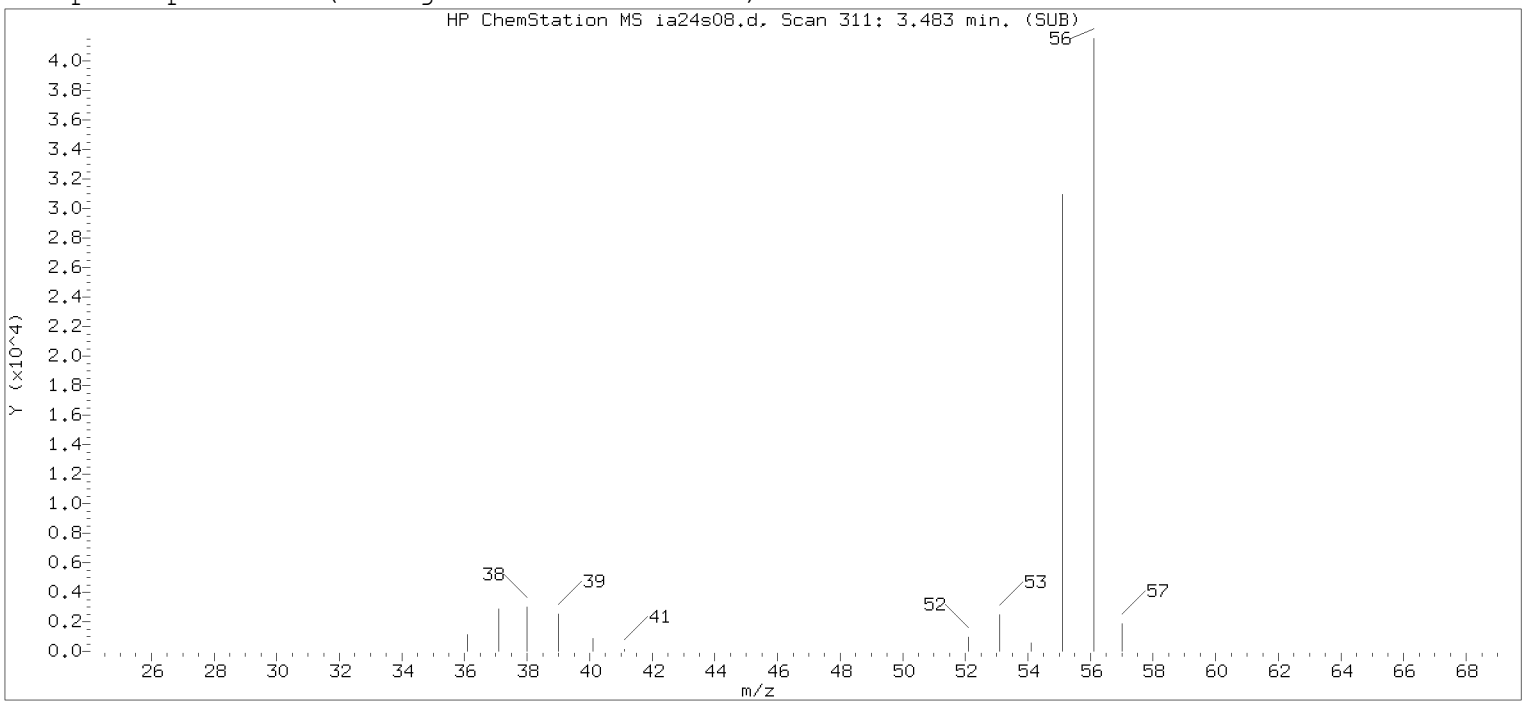
Compound Number : 13
Compound Name : Acrolein
Scan Number : 311
Retention Time (minutes): 3.483
Quant Ion : 56.00
Area (flag) : 196958M
On-Column Amount (ng) : 31.9946
Integration start scan : 290 Integration stop scan: 384
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

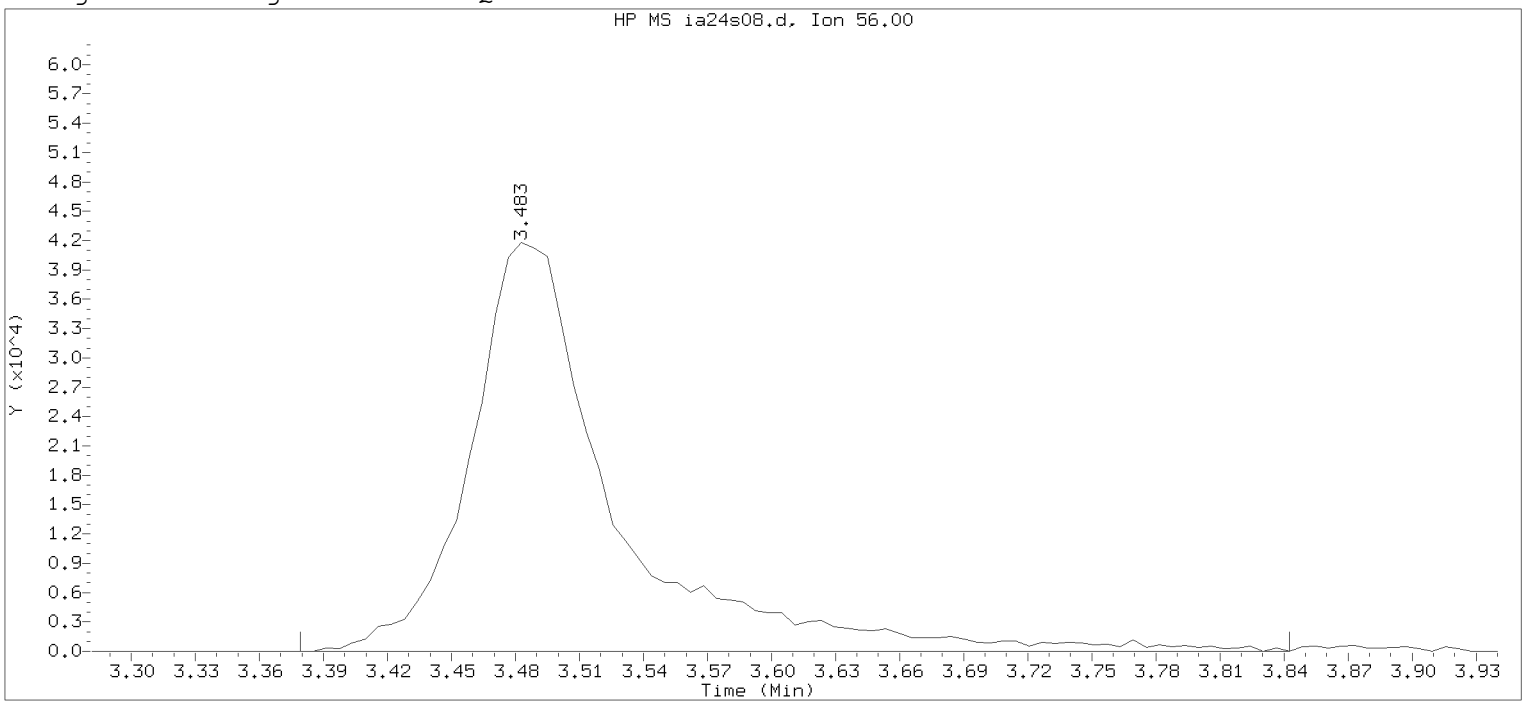
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

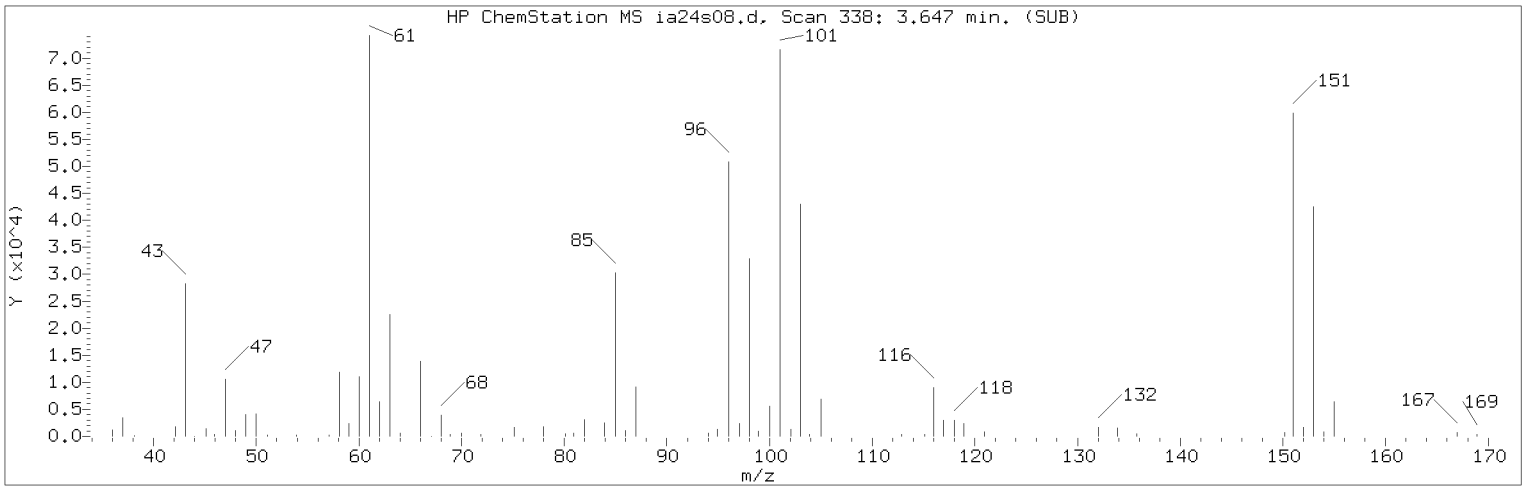
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

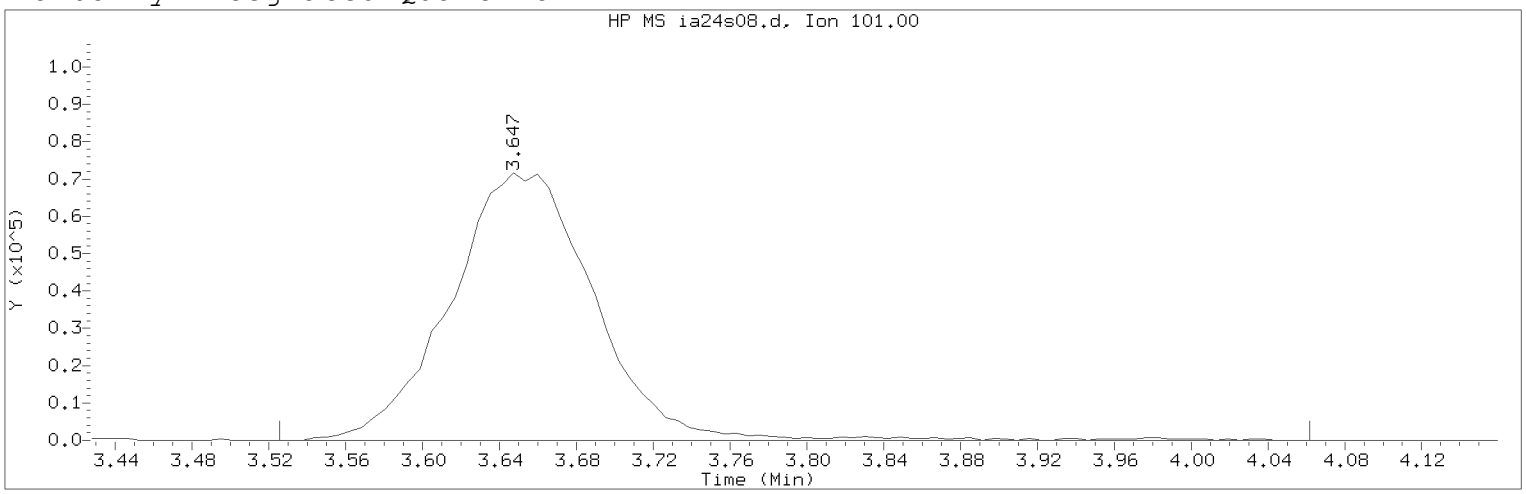
Compound Number : 13
Compound Name : Acrolein
Scan Number : 311
Retention Time (minutes): 3.483
Quant Ion : 56.00
Area : 195154
On-column Amount (ng) : 31.7015
Integration start scan : 293 Integration stop scan: 369
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mecampbell

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

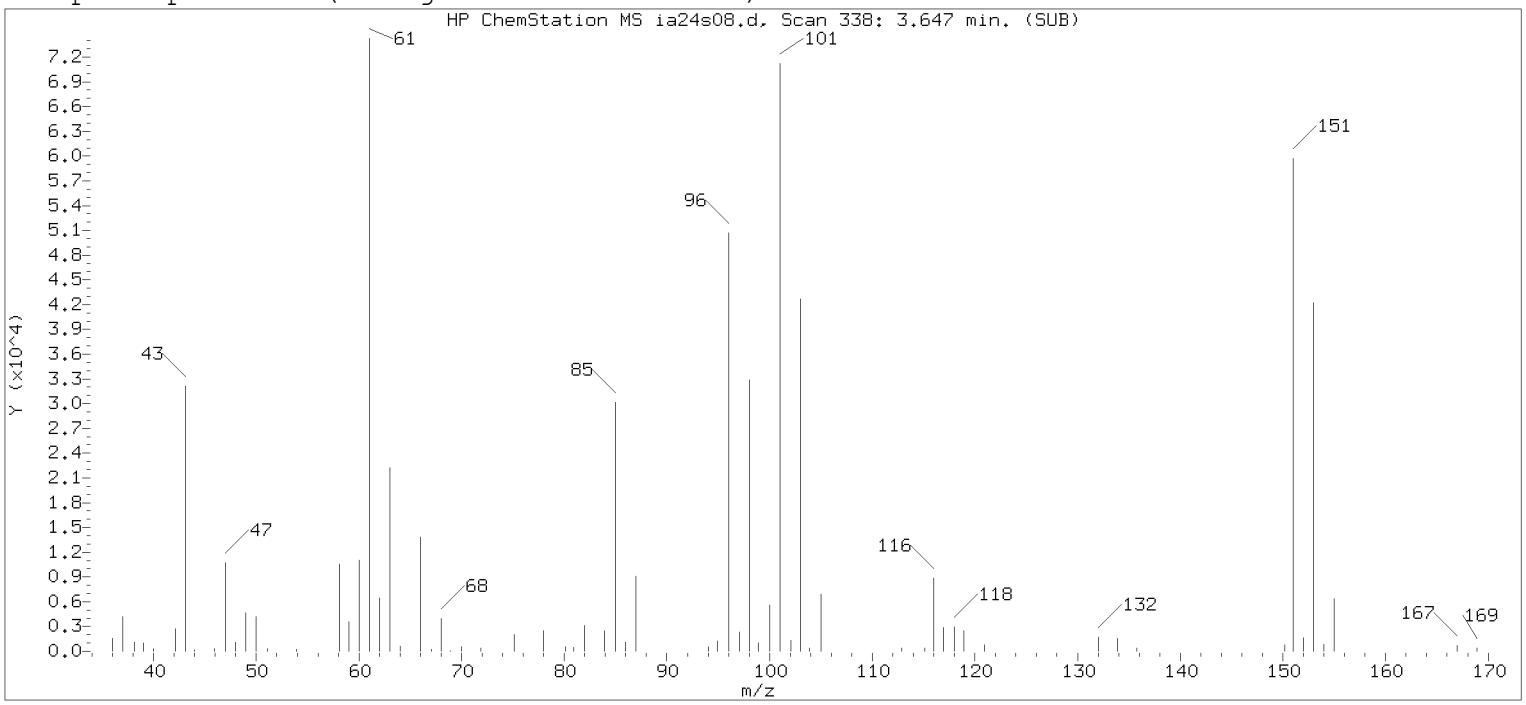
Compound Number : 16
Compound Name : Freon 113
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 101.00
Area (flag) : 373475M
On-Column Amount (ng) : 5.7924
Integration start scan : 317 Integration stop scan: 405
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

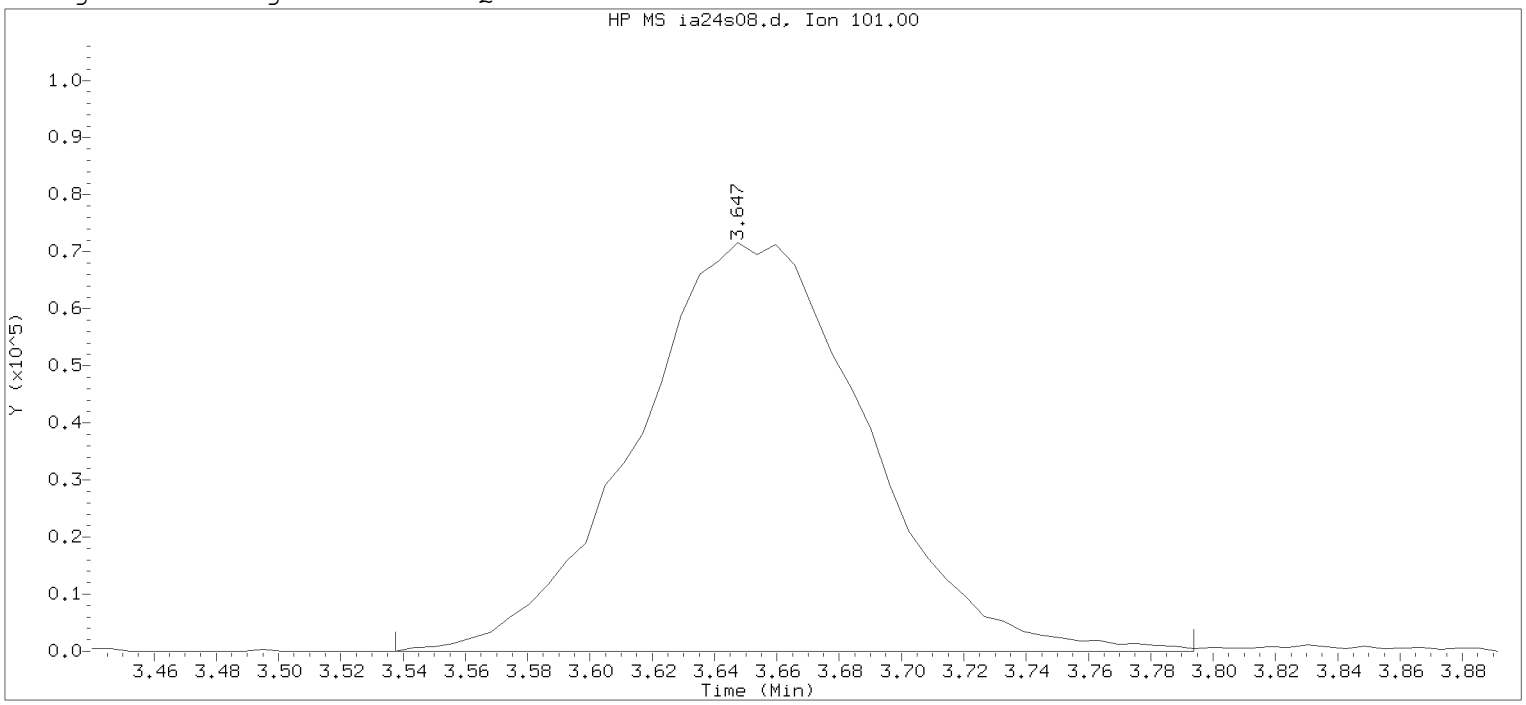
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

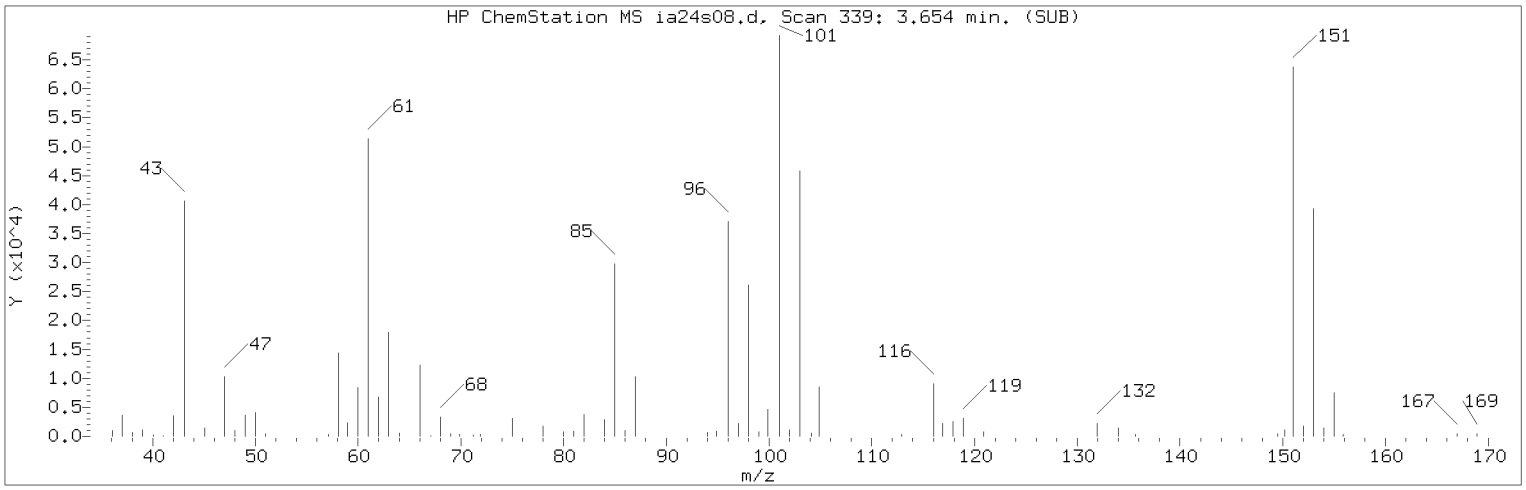
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

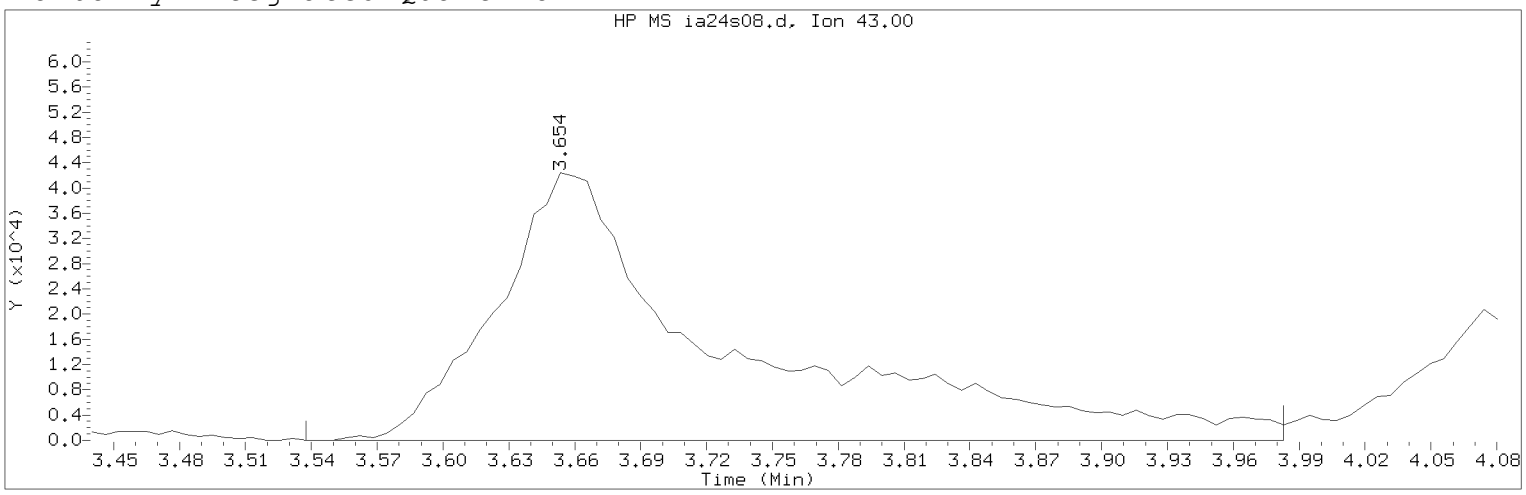
Compound Number : 16
Compound Name : Freon 113
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 101.00
Area : 367013
On-column Amount (ng) : 5.6921
Integration start scan : 319 Integration stop scan: 361
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used. F35 Page 1507

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

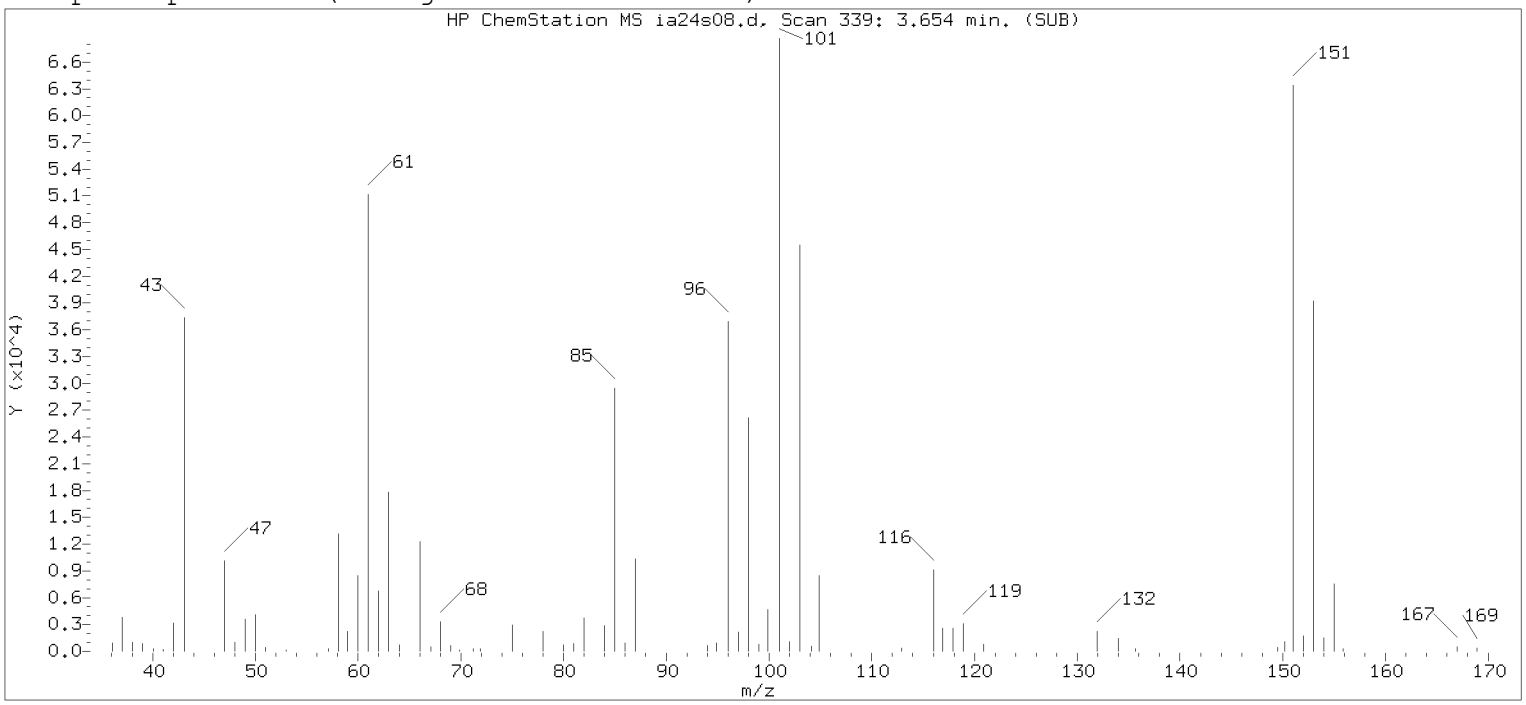
Compound Number : 14
Compound Name : Acetone
Scan Number : 339
Retention Time (minutes): 3.654
Quant Ion : 43.00
Area (flag) : 313669M
On-Column Amount (ng) : 36.9146
Integration start scan : 319 Integration stop scan: 392
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

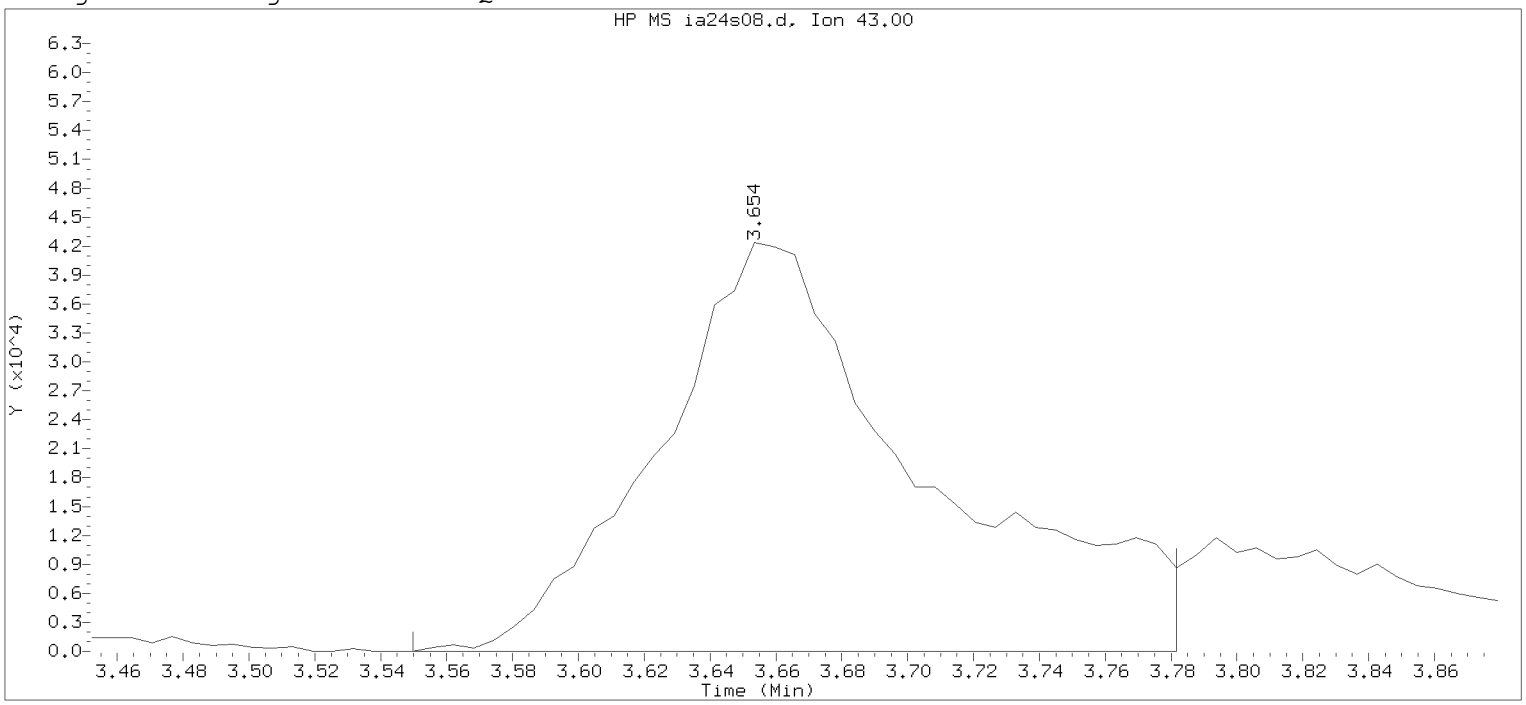
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

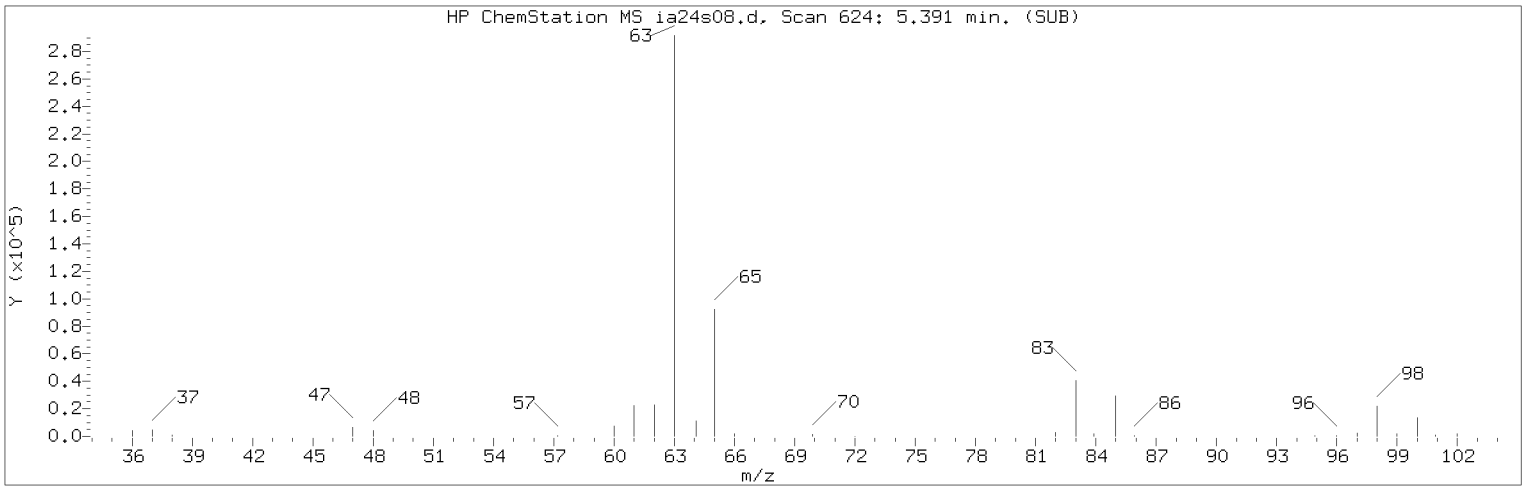
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

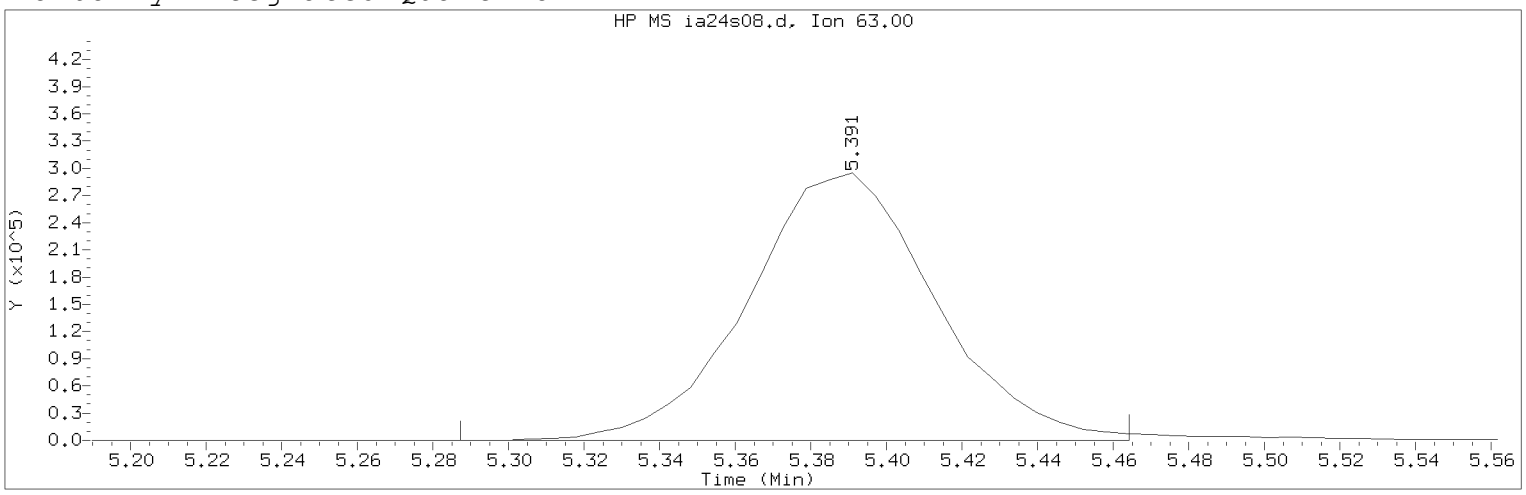
Compound Number : 14
Compound Name : Acetone
Scan Number : 339
Retention Time (minutes): 3.654
Quant Ion : 43.00
Area : 238384
On-column Amount (ng) : 28.0546
Integration start scan : 321 Integration stop scan: 359
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mecampbell

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

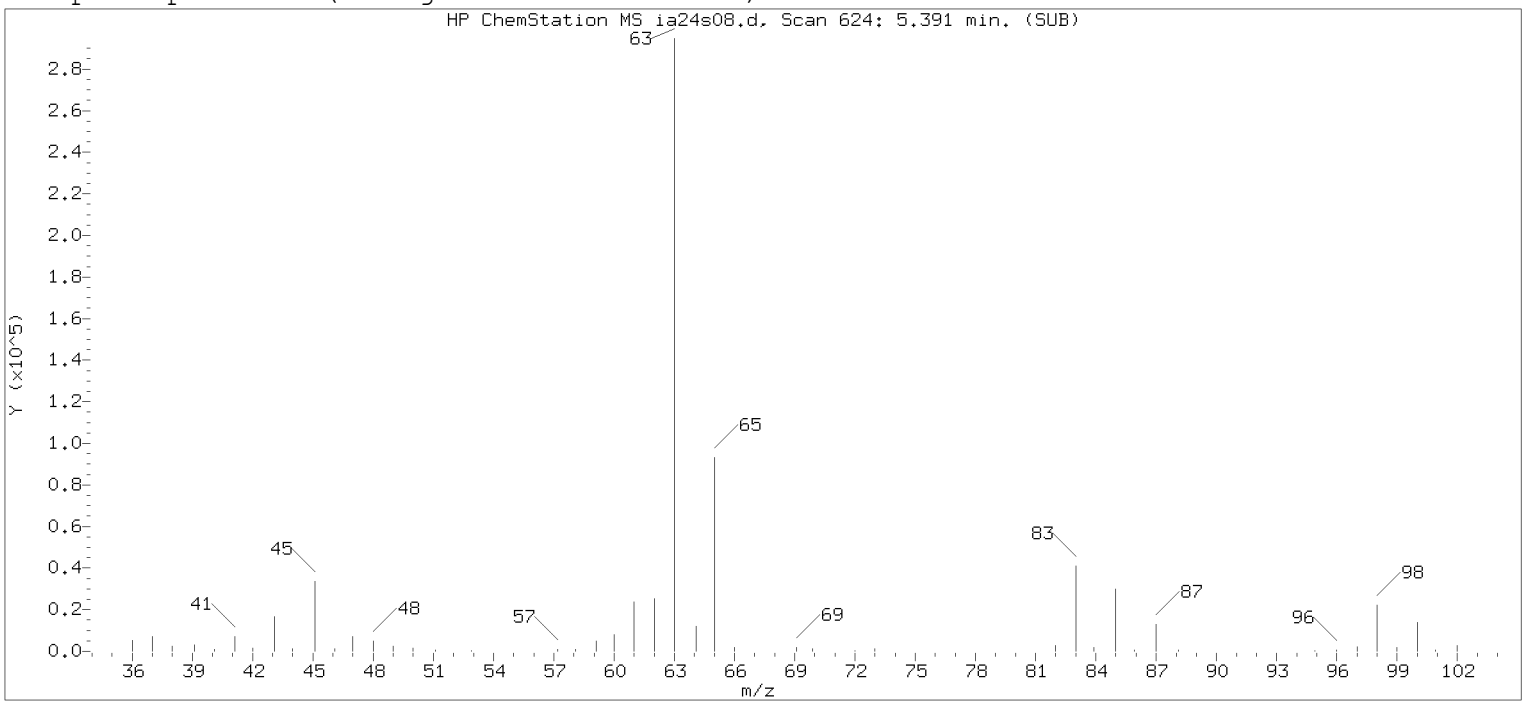
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 624
Retention Time (minutes): 5.391
Quant Ion : 63.00
Area (flag) : 1010134M
On-Column Amount (ng) : 10.3993
Integration start scan : 606 Integration stop scan: 635
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

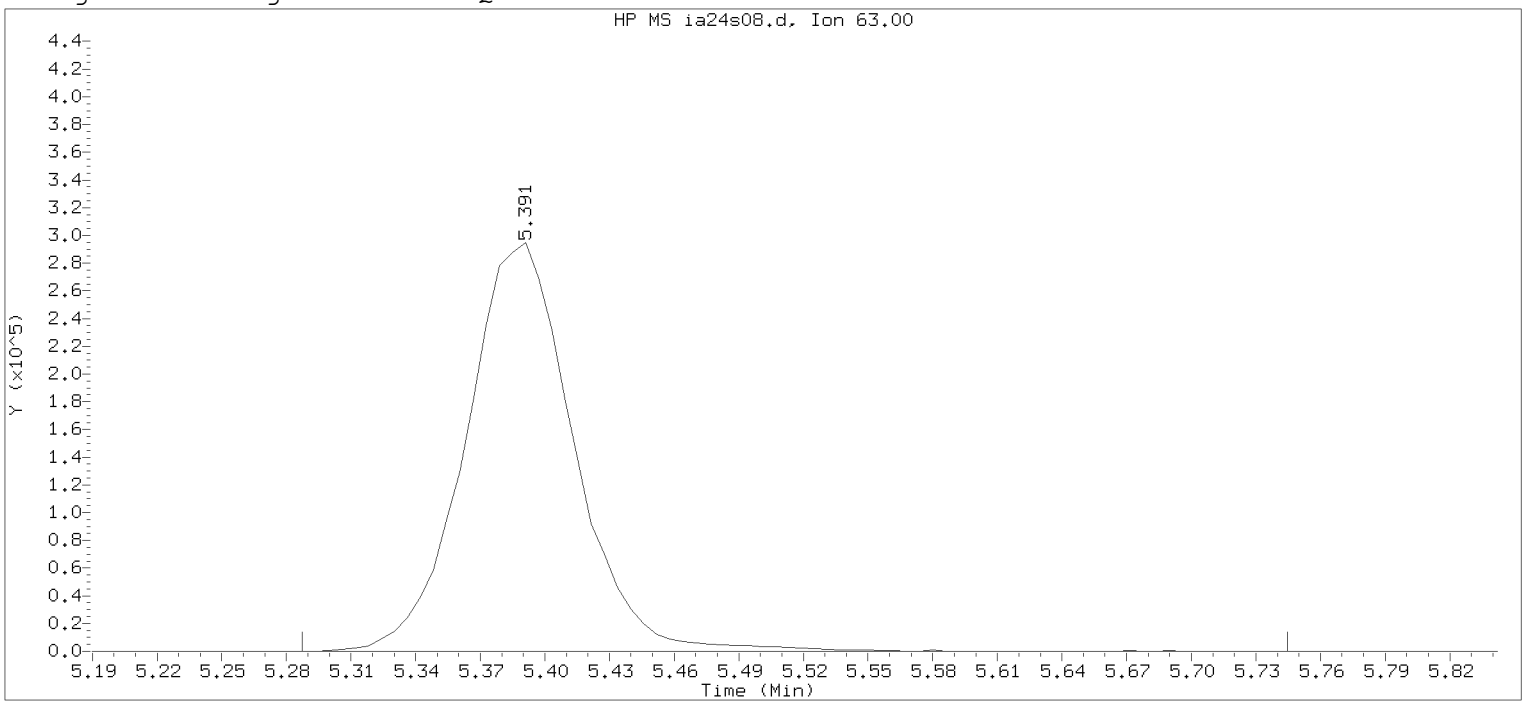
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

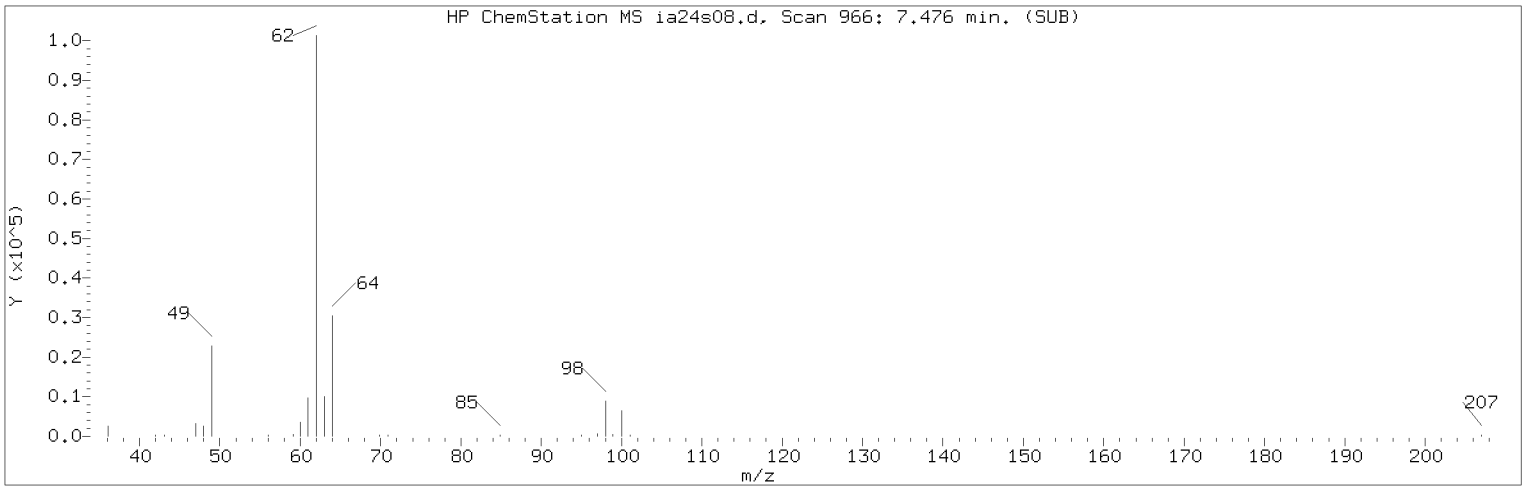
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

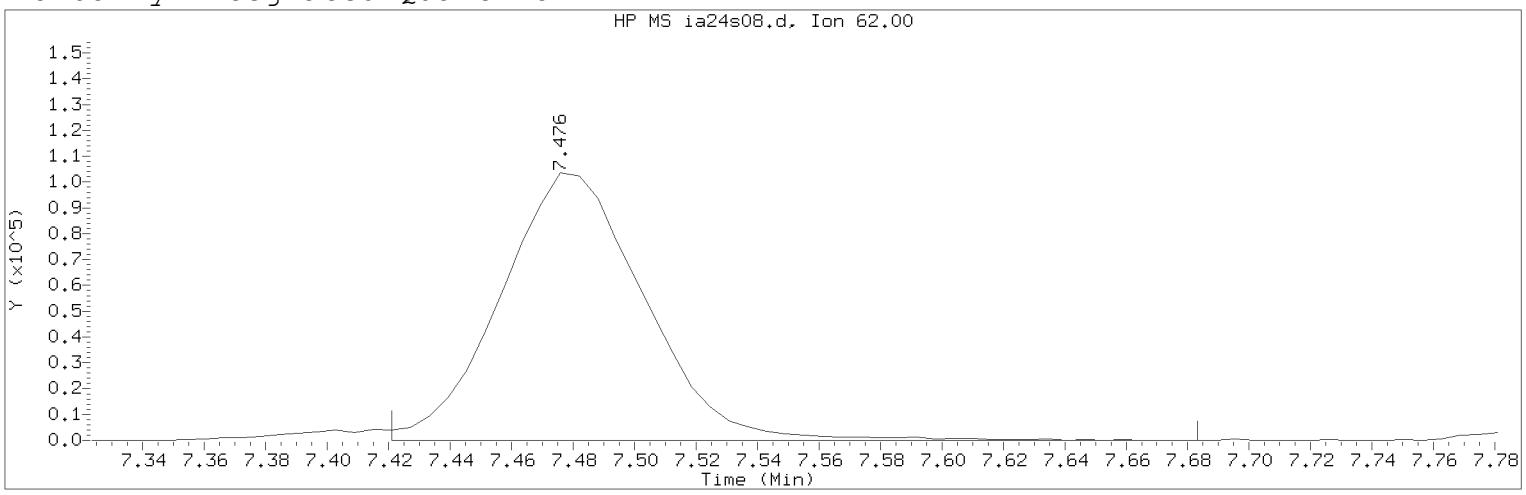
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 624
Retention Time (minutes): 5.391
Quant Ion : 63.00
Area : 1026268
On-column Amount (ng) : 10.5654
Integration start scan : 606 Integration stop scan: 681
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used for this review

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

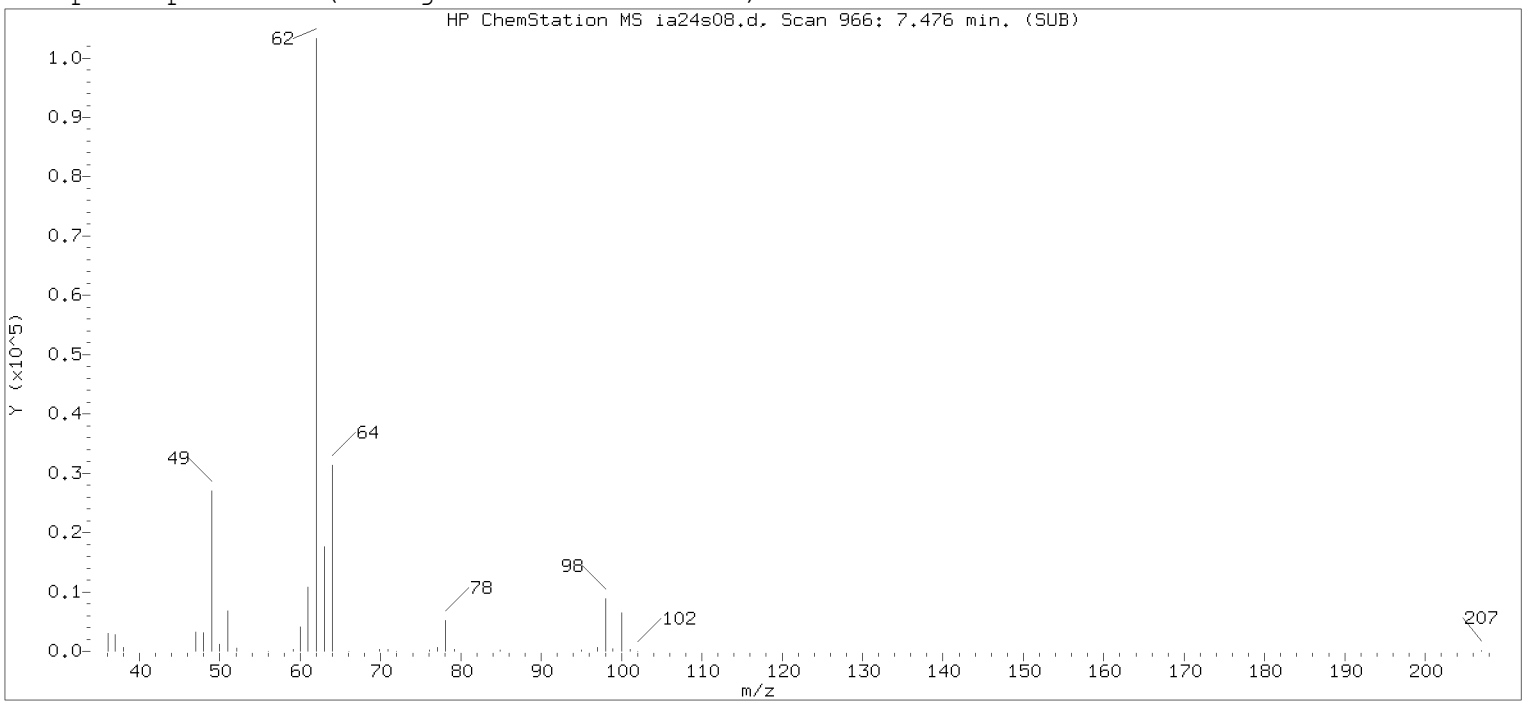
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area (flag) : 336330M
On-Column Amount (ng) : 5.3834
Integration start scan : 956 Integration stop scan: 999
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

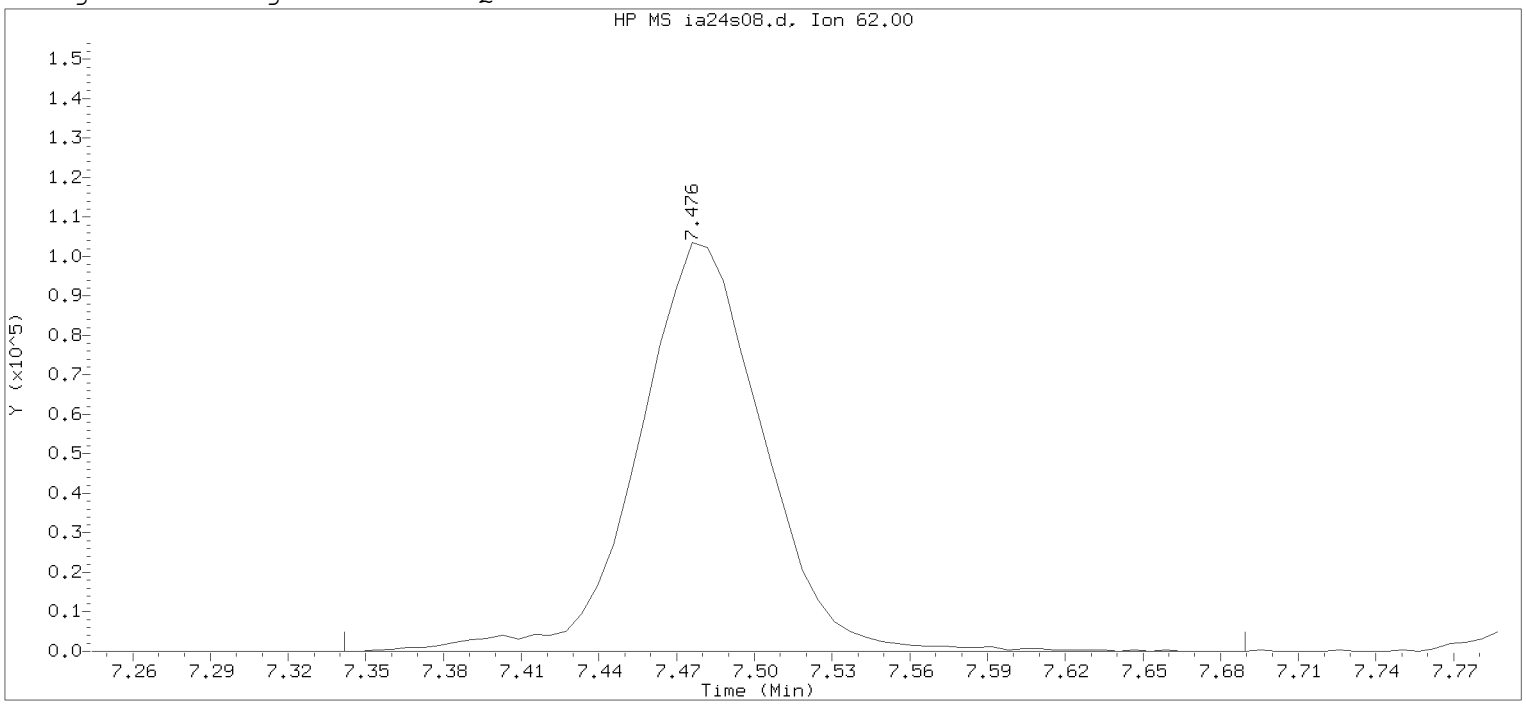
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

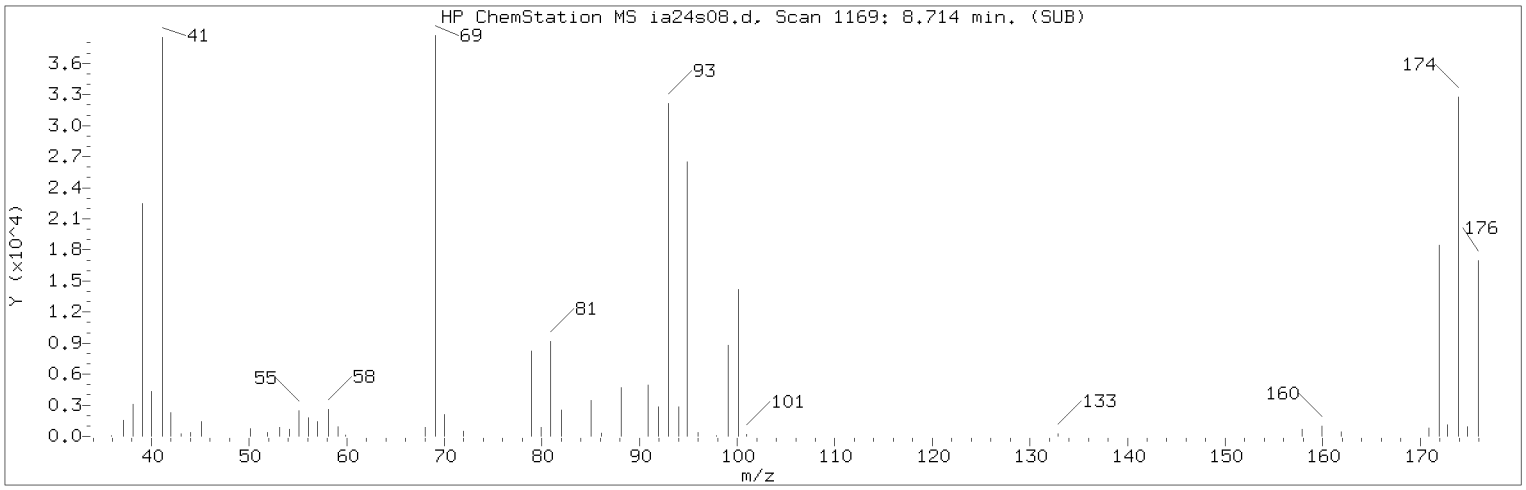
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

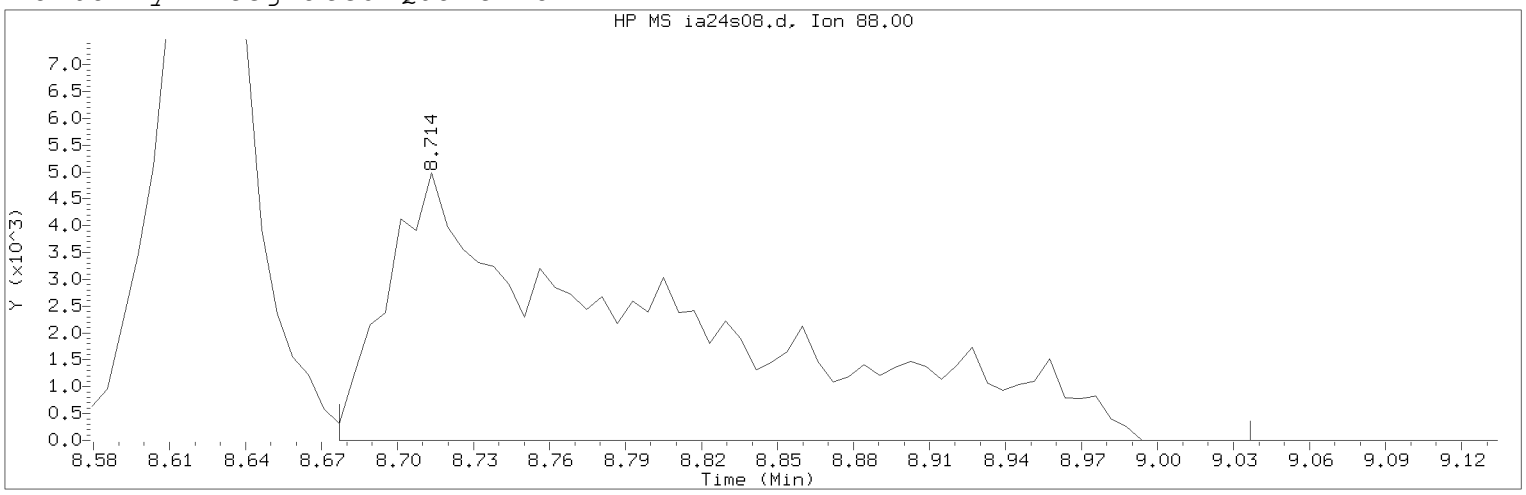
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area : 345157
On-column Amount (ng) : 5.5247
Integration start scan : 943 Integration stop scan: 1000
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used. Reason: I am the author of this document

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

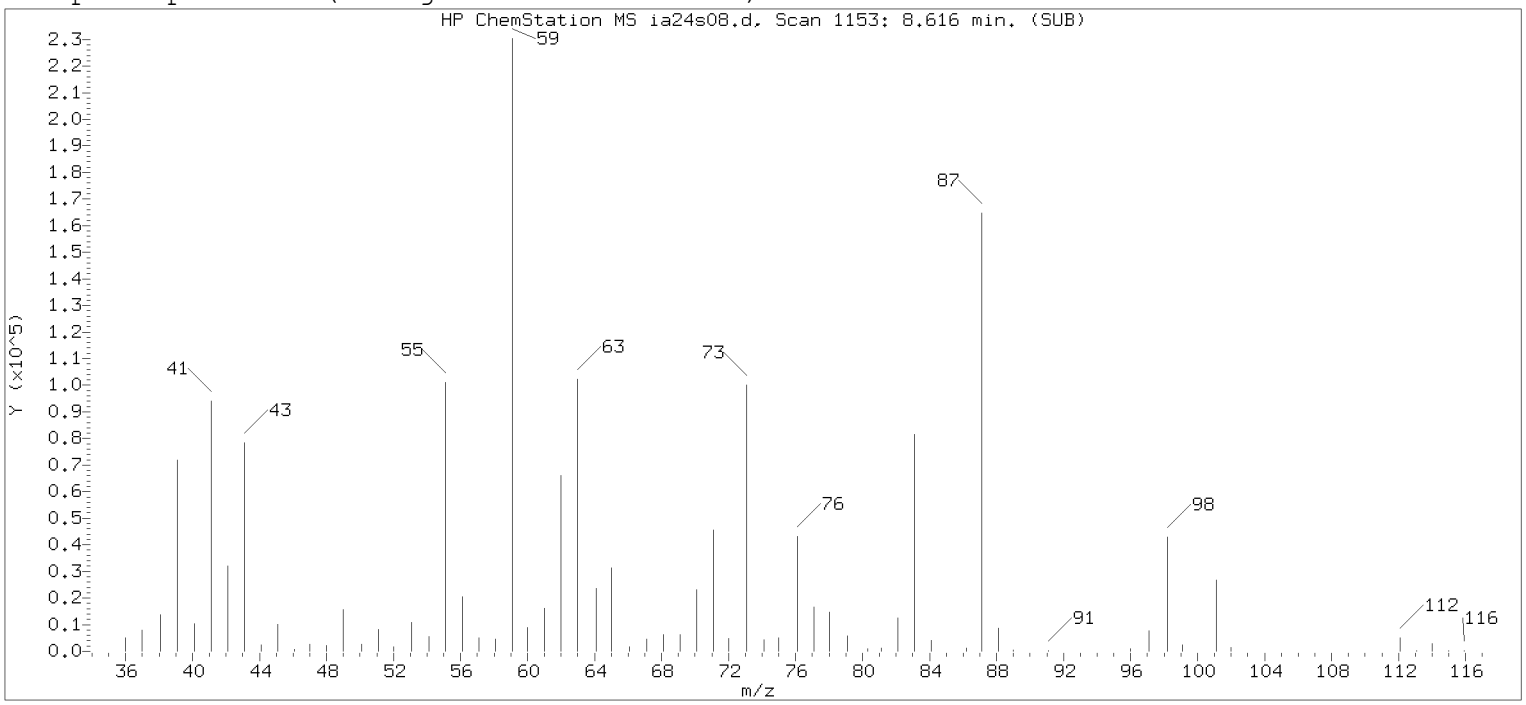
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.714
Quant Ion : 88.00
Area (flag) : 37758M
On-Column Amount (ng) : 169.1947
Integration start scan : 1162 Integration stop scan: 1221
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

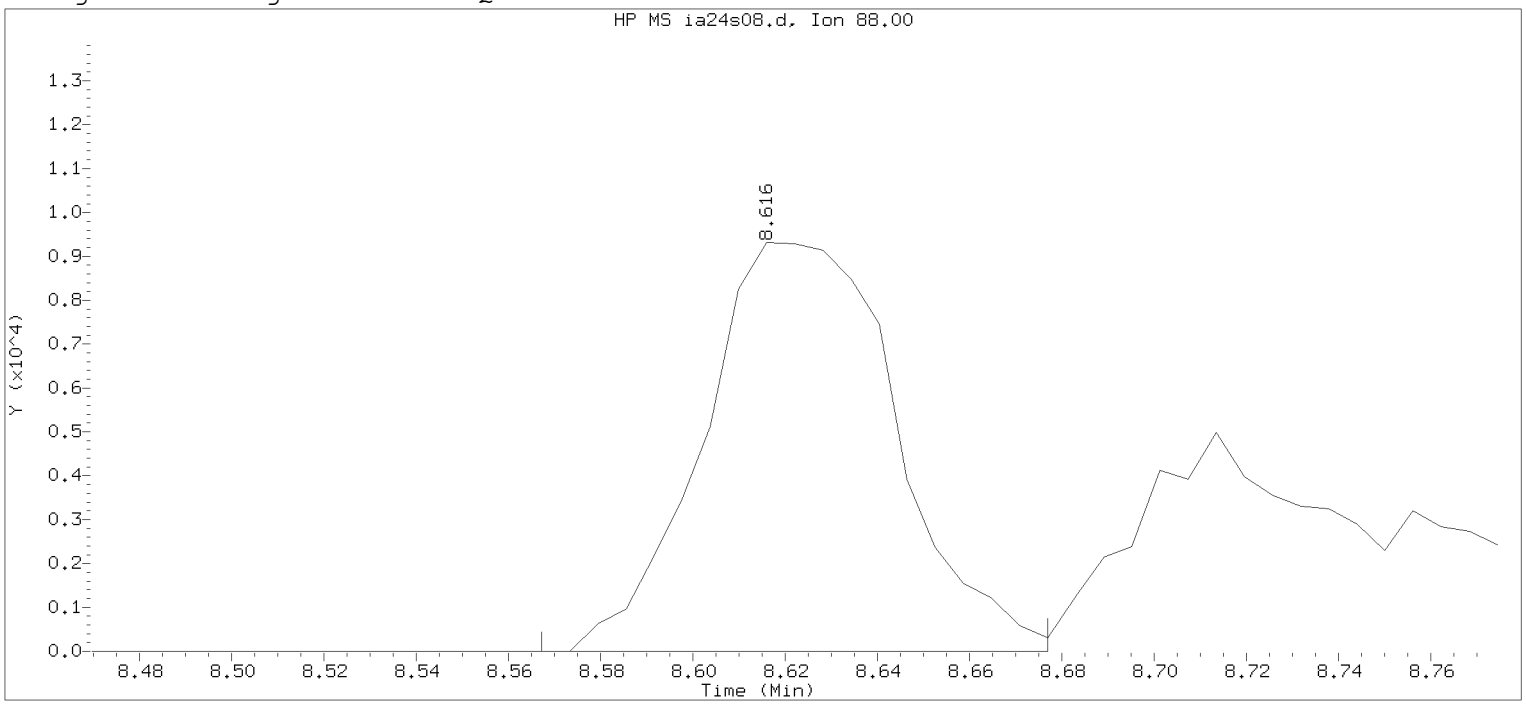
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

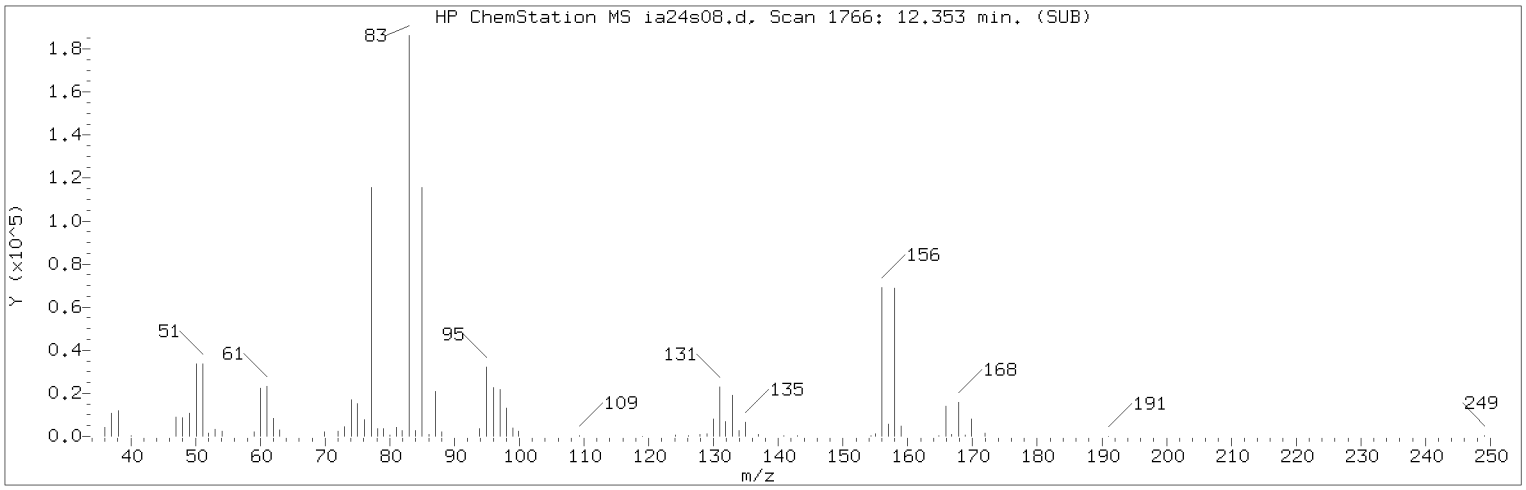
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

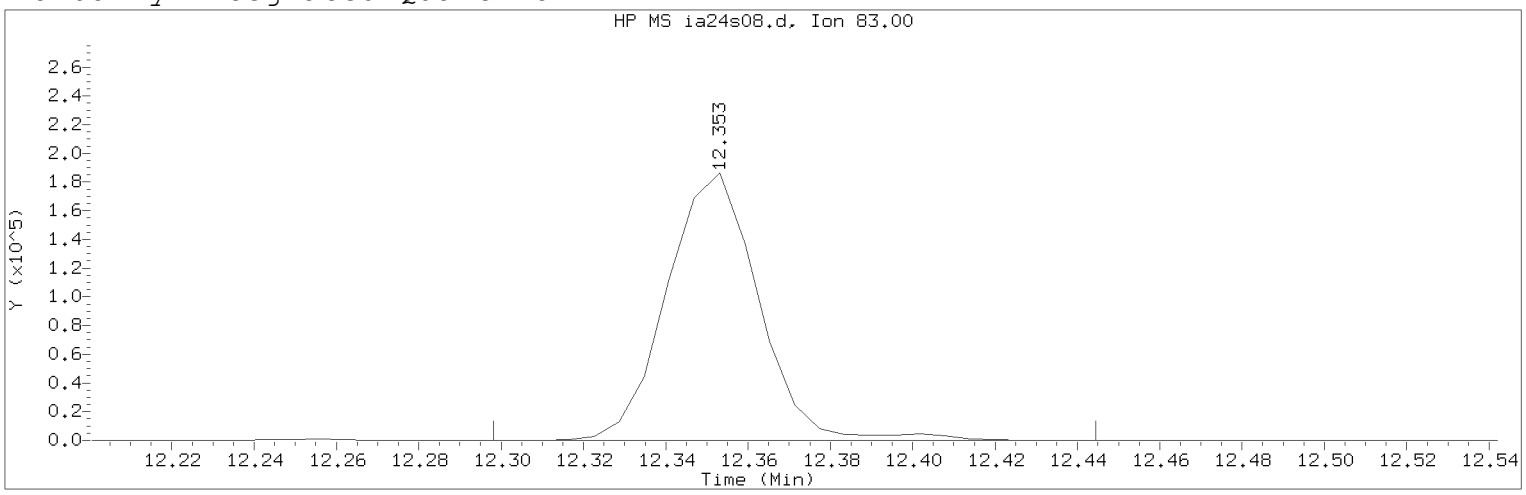
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1153
Retention Time (minutes): 8.616
Quant Ion : 88.00
Area : 27107
On-column Amount (ng) : 121.4645
Integration start scan : 1144 Integration stop scan: 1162
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used for this review

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

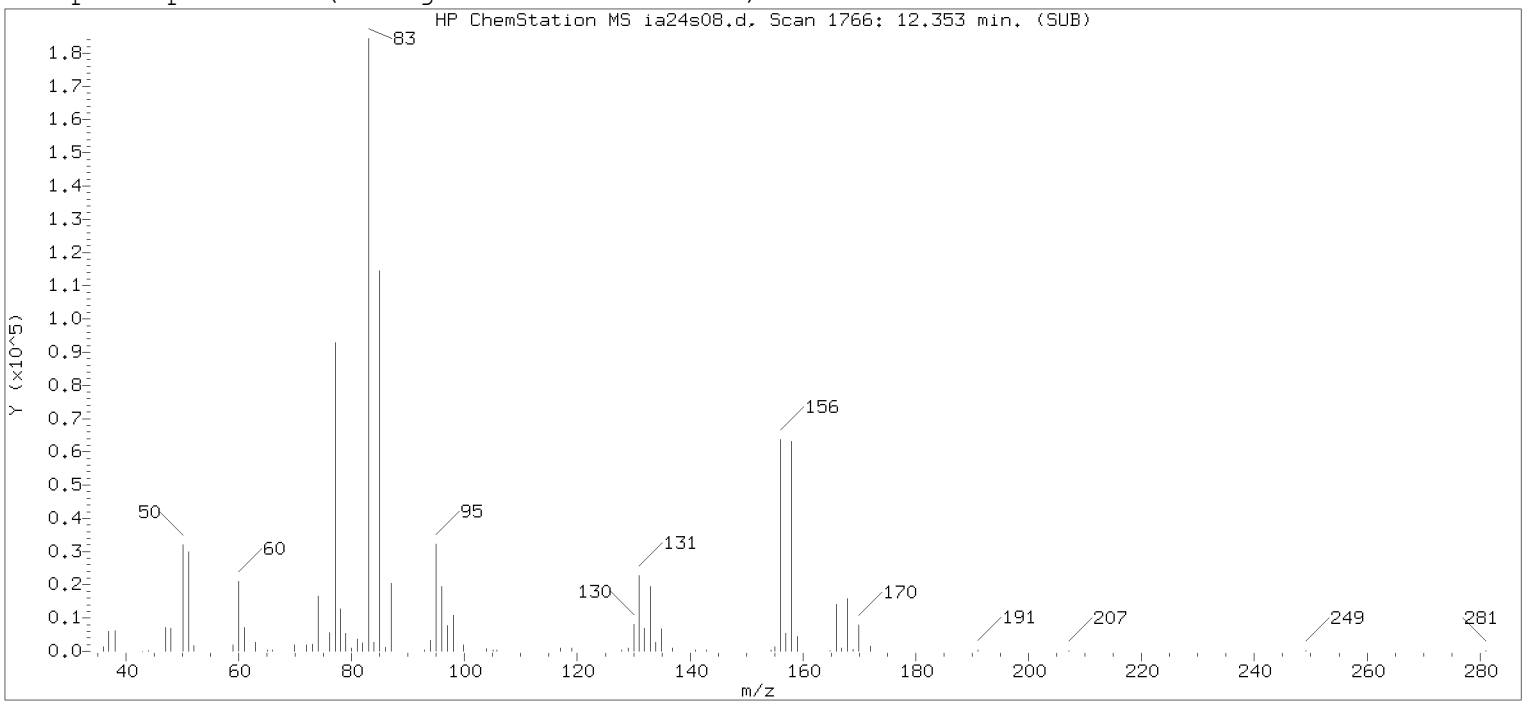
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1766
Retention Time (minutes): 12.353
Quant Ion : 83.00
Area (flag) : 288427M
On-Column Amount (ng) : 5.2716
Integration start scan : 1756 Integration stop scan: 1780
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

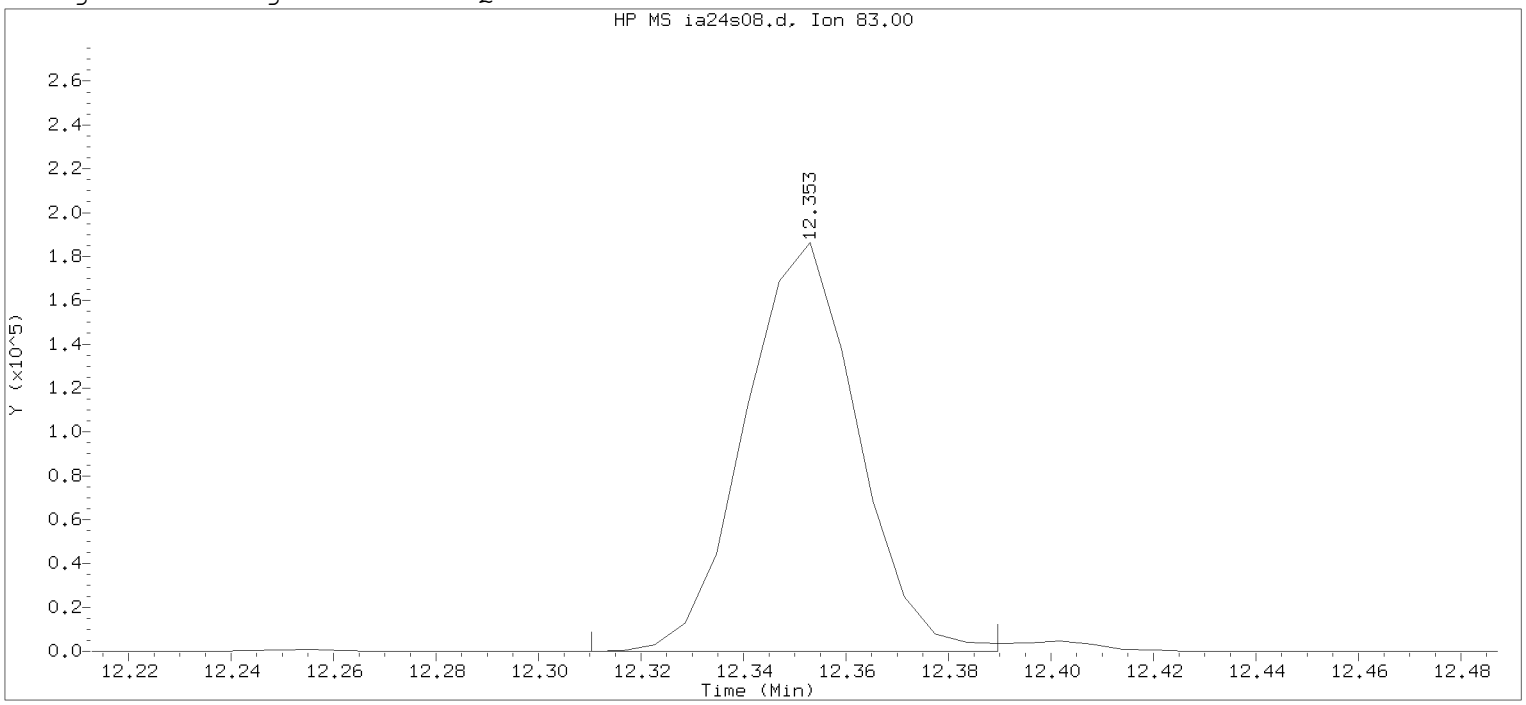
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1766
Retention Time (minutes): 12.353
Quant Ion : 83.00
Area : 282967
On-column Amount (ng) : 5.1718
Integration start scan : 1758 Integration stop scan: 1771
Y at integration start : 0 Y at integration end: 0

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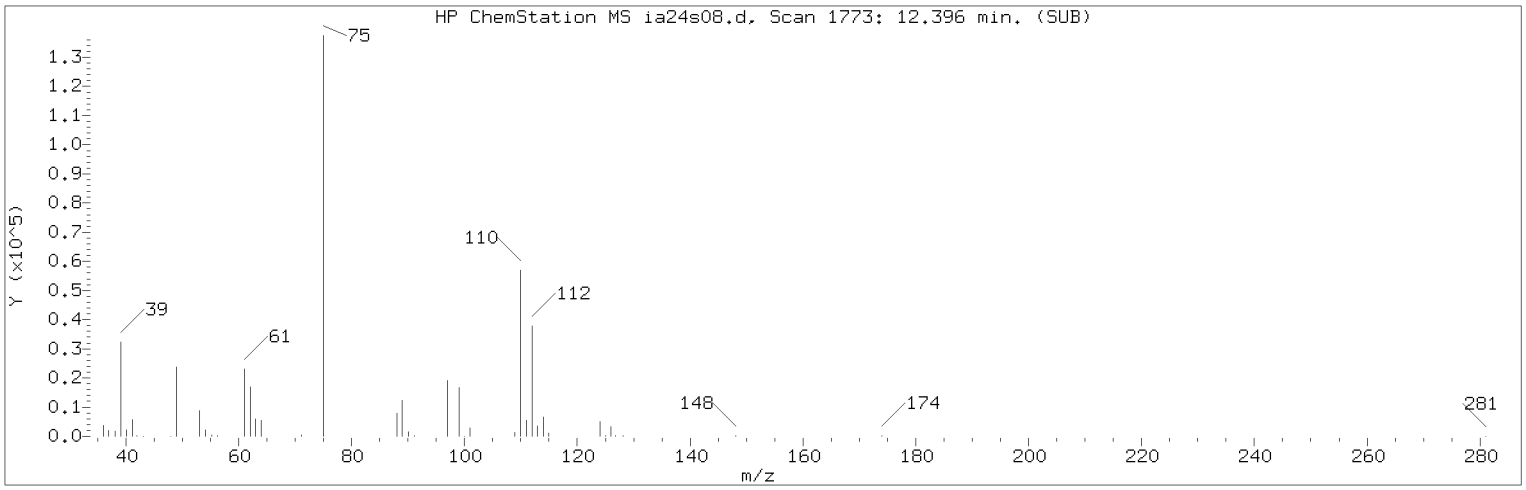
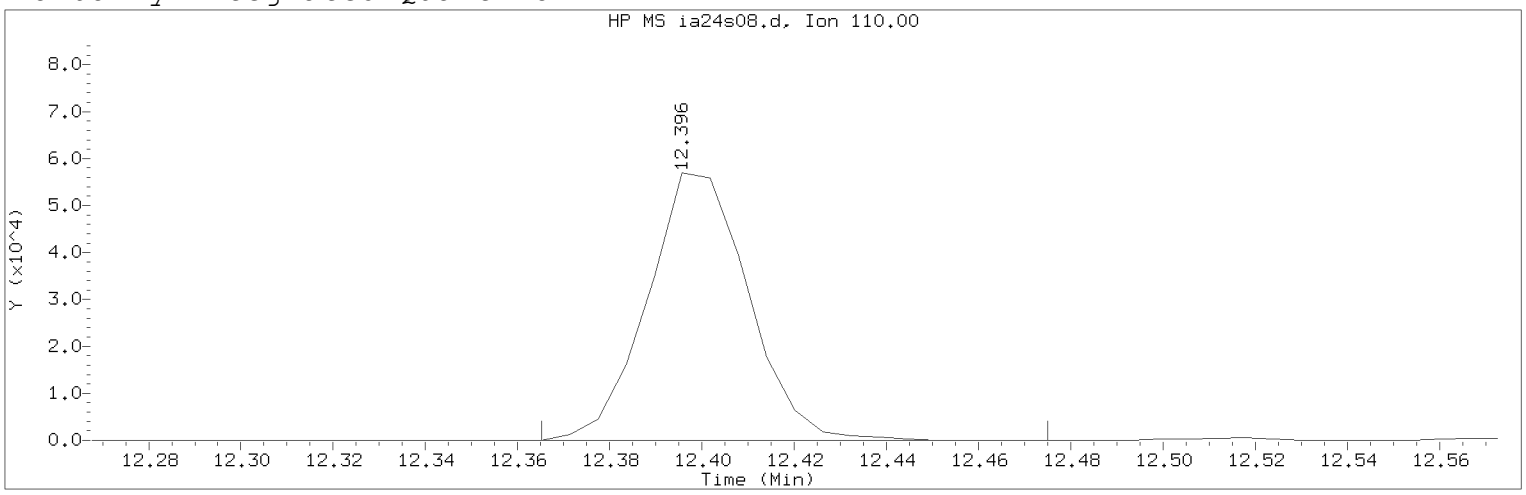
Target 3.5 esignature used. Page 1517

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:15 mec29284

Sample Name: F3504MS Lab Sample ID: 1034105MS

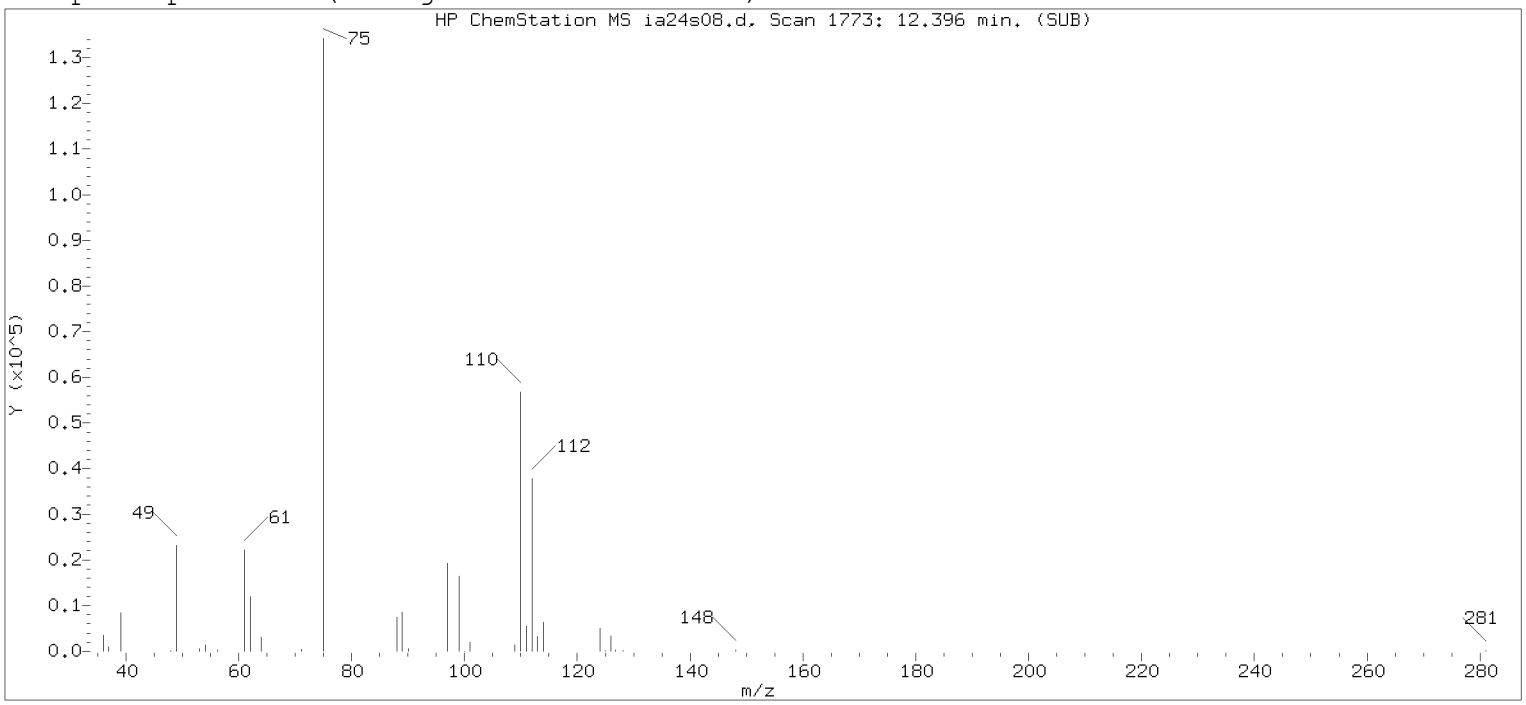
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1773
Retention Time (minutes): 12.396
Quant Ion : 110.00
Area (flag) : 86643M
On-Column Amount (ng) : 5.3365
Integration start scan : 1767 Integration stop scan: 1785
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

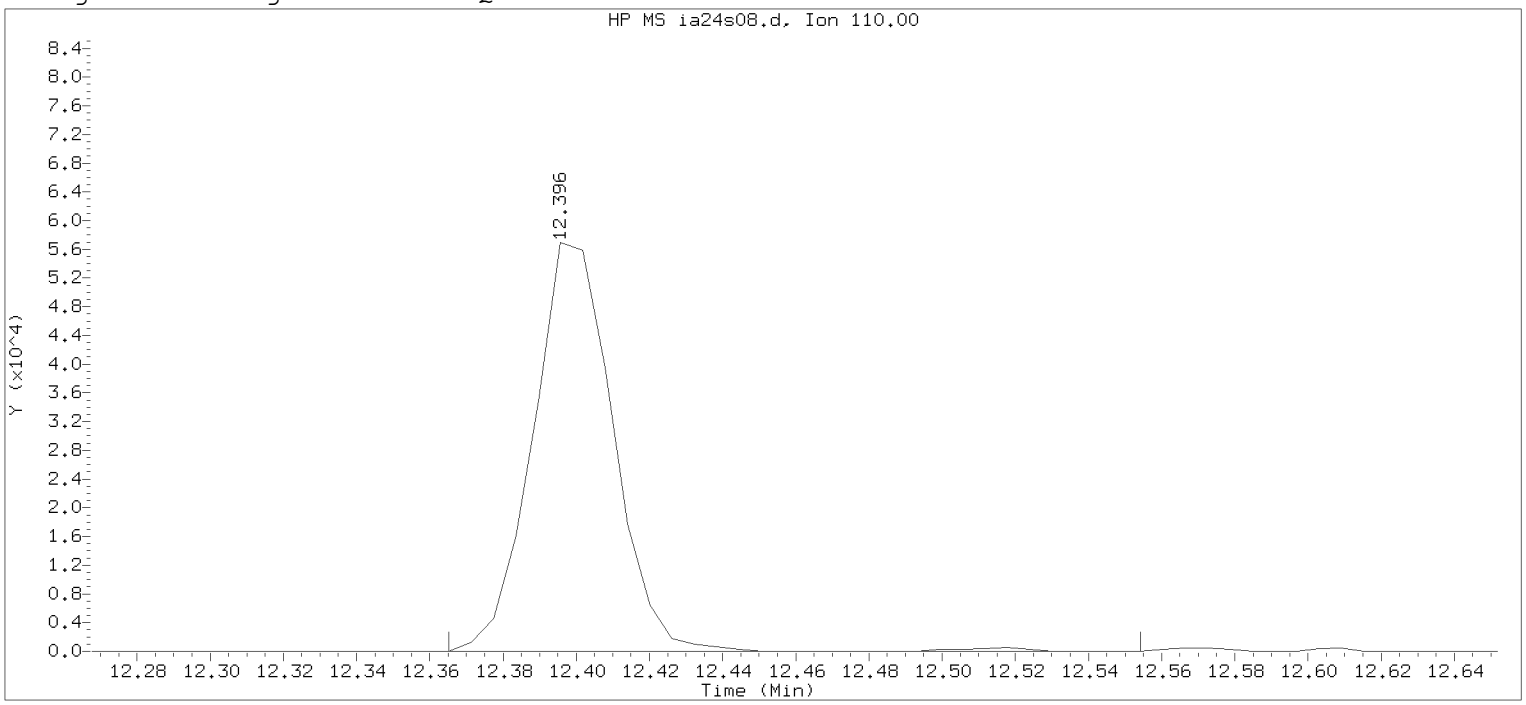
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s08.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:25 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 14:43 Automation

Sample Name: F3504MS Lab Sample ID: 1034105MS

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1773
Retention Time (minutes): 12.396
Quant Ion : 110.00
Area : 87266
On-column Amount (ng) : 5.3748
Integration start scan : 1767 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used for this review

Data file: /chem2/HP19930.i/19apr24a.b/ia24s09.d Injection date and time: **24-APR-2019 14:47**
Data file Sample Info. Line: F3504MSD;1034106MSD;1;3;MSD;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I19114**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9274; 193

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.306	(0.006)	446	65	135230	(-3)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2196520	(3)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1754276	(1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.127	(0.006)	1893	152	995228	(0)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.000)	113	564030	9.950	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.366	(0.000)	102	109285	10.004	100%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2193240	10.193	102%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	766090	9.501	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)	2.001	(0.000)	85	416836	3.256	3.26			0.1	1
2) Chloromethane	(2)	2.190	(0.000)	50	416130	4.388	4.39			0.06	0.5
5) Vinyl Chloride	(2)	2.306	(0.000)	62	473868	4.915	4.92			0.2	1
7) Bromomethane	(2)	2.629	(0.000)	94	378543	4.416	4.42			0.5	1
8) Chloroethane	(2)	2.727	(0.000)	64	362162	6.467	6.47			0.07	0.5
10) Trichlorofluoromethane	(2)	3.019	(0.001)	101	757846M	4.705	4.71			0.2	1
11) Ethyl ether	(2)	3.294	(0.000)	59	844894	19.920	19.92			1	13
13) Acrolein	(1)	3.483	(-0.002)	56	199715	34.794	34.79			3	25
15) 1,1-Dichloroethene	(2)	3.611	(0.000)	96	334988	5.997	6.00			0.2	1
16) Freon 113	(2)	3.641	(0.000)	101	376597	5.579	5.58			0.1	1
14) Acetone	(1)	3.647	(-0.001)	43	302293M	38.154	38.15			0.9	10
17) Methyl Iodide	(2)	3.812	(0.000)	142	609482	5.087	5.09		J	0.6	10
18) Carbon Disulfide	(2)	3.922	(0.000)	76	820167	5.014	5.01		J	0.4	10
22) Allyl Chloride	(2)	4.104	(0.000)	41	388282	4.519	4.52		J	0.8	10
23) Methylene Chloride	(2)	4.287	(0.000)	84	322797	5.649	5.65			0.2	1
29) Acrylonitrile	(1)	4.653	(-0.002)	53	252124	26.603	26.60			0.5	10
31) trans-1,2-Dichloroethene	(2)	4.708	(0.000)	96	323594	5.176	5.18			0.2	1
33) 1,1-Dichloroethane	(2)	5.379	(0.000)	63	1013766M	9.969	9.97			0.1	1
35) 2-Chloro-1,3-Butadiene	(2)	5.488	(0.000)	53	474615	5.198	5.20		J	0.5	10
38) 2-Butanone	(1)	6.177	(-0.000)	43	528724	41.084	41.08			0.6	10
42) Propionitrile	(1)	6.281	(-0.003)	54	144279M	41.756	41.76		J	10	100
45) Methacrylonitrile	(1)	6.494	(-0.002)	67	558469	43.918	43.92		J	10	100
48) Tetrahydrofuran	(1)	6.561	(-0.002)	71	120802	30.019	30.02			2	25
49) Chloroform	(2)	6.696	(0.000)	83	596736	5.385	5.39			0.09	1
51) 1,1,1-Trichloroethane	(2)	6.921	(0.000)	97	589412	5.502	5.50			0.1	1
54) Carbon Tetrachloride	(2)	7.128	(0.000)	117	553379	5.471	5.47			0.2	1
56) Isobutyl Alcohol	(1)	7.281	(-0.000)	41	123749	122.006	122.01		J	4	200
58) Benzene	(2)	7.403	(0.000)	78	1376546	5.646	5.65			0.07	1
59) 1,2-Dichloroethane	(2)	7.476	(0.000)	62	342526	5.237	5.24			0.1	1
67) Trichloroethene	(2)	8.280	(-0.000)	95	384525	5.637	5.64			0.2	1

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06. Target 3.5 esignature user ID: mec29284

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24s09.d Injection date and time: **24-APR-2019 14:47**
Data file Sample Info. Line: F3504MSD;1034106MSD;1;3;MSD;RAF35;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I19114**
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

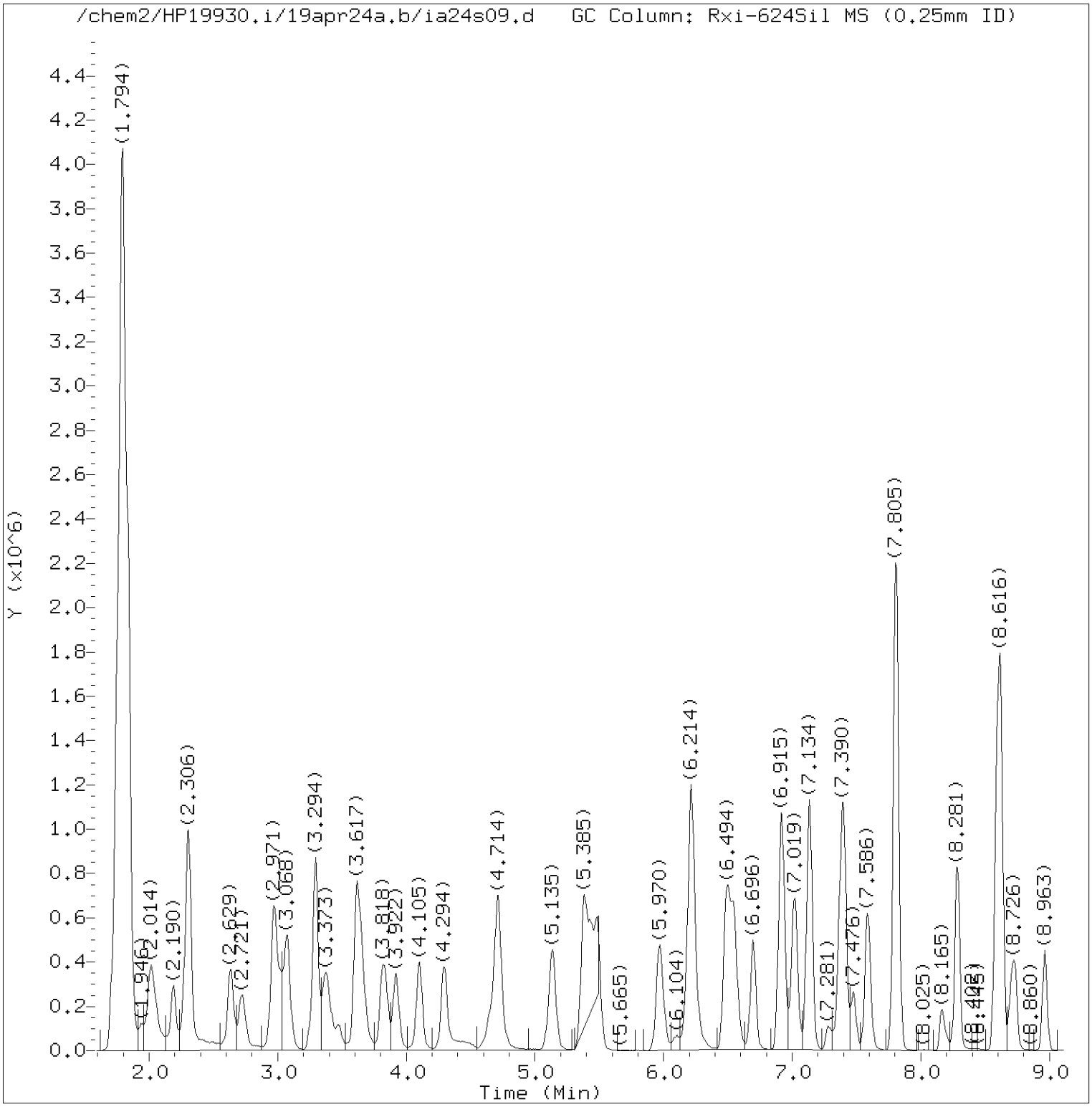
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dichloropropane	(2)	8.616(0.000)	63	307014	5.438	5.44			0.1	1
71) Methyl Methacrylate	(1)	8.701(-0.002)	69	139681	5.739	5.74		J	4	10
73) Dibromomethane	(2)	8.732(-0.000)	93	166932	5.260	5.26			0.07	1
72) 1,4-Dioxane	(1)	8.701(-0.002)	88	31243M	150.146	150.15		J	45	200
74) Bromodichloromethane	(2)	8.963(0.000)	83	401469	5.124	5.12			0.09	1
81) 4-Methyl-2-Pentanone	(1)	9.677(-0.003)	43	920070M	28.241	28.24			0.9	10
83) Toluene	(3)	9.884(0.000)	92	886238	5.478	5.48			0.09	1
84) trans-1,3-Dichloropropene	(3)	10.140(0.000)	75	359716	4.717	4.72			0.1	1
86) Ethyl Methacrylate	(3)	10.195(0.000)	69	294843	4.578	4.58		J	0.8	10
88) 1,1,2-Trichloroethane	(3)	10.347(-0.000)	97	243995	5.458	5.46			0.08	1
89) Tetrachloroethene	(3)	10.426(-0.000)	166	485512	5.671	5.67			0.06	1
90) 1,3-Dichloropropane	(3)	10.506(0.000)	76	375555	5.219	5.22			0.09	1
91) 2-Hexanone	(1)	10.554(-0.003)	43	638459	27.637	27.64			0.6	10
93) Dibromochloromethane	(3)	10.719(-0.000)	129	283496	4.666	4.67			0.07	1
95) 1,2-Dibromoethane	(3)	10.829(-0.000)	107	235054	5.163	5.16			0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)	11.365(-0.000)	131	365692	5.221	5.22			0.08	1
100) Ethylbenzene	(3)	11.365(-0.000)	91	1735472	5.342	5.34			0.08	1
101) m+p-Xylene	(3)	11.481(-0.000)	106	1411459	10.909	10.91			0.1	0.5
104) o-Xylene	(3)	11.810(-0.000)	106	667640	5.346	5.35			0.05	0.5
105) Xylene (Total)	(3)		106	2079099	16.255	16.26			0.2	3
106) Styrene	(3)	11.822(-0.000)	104	1078049	5.445	5.45			0.05	1
107) Bromoform	(3)	11.981(-0.000)	173	155525	4.162	4.16			0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)	12.353(-0.000)	83	289294M	5.093	5.09			0.2	1
115) trans-1,4-Dichloro-2-butene	(1)	12.377(-0.004)	53	219814	19.239	19.24			1	10
116) 1,2,3-Trichloropropane	(4)	12.402(-0.000)	110	85307M	5.061	5.06			0.1	1
126) Pentachloroethane	(4)	12.847(-0.000)	167	282066	4.921	4.92		J	0.8	10
131) 1,3-Dichlorobenzene	(4)	13.072(0.000)	146	866688	5.238	5.24			0.06	1
134) 1,4-Dichlorobenzene	(4)	13.145(-0.000)	146	884522	5.349	5.35			0.07	1
139) 1,2-Dichlorobenzene	(4)	13.408(-0.000)	146	804157	5.324	5.32			0.08	1
143) 1,2-Dibromo-3-chloropropane	(1)	13.950(-0.004)	155	46869	6.328	6.33			0.2	1
145) 1,2,4-Trichlorobenzene	(4)	14.499(-0.000)	180	533369	5.043	5.04			0.1	1
146) Hexachlorobutadiene	(4)	14.578(-0.000)	225	222782	5.155	5.16			0.07	1
147) Naphthalene	(4)	14.682(-0.000)	128	976201	4.609	4.61			0.1	1

M = Compound was manually integrated.

Total number of targets = 63

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

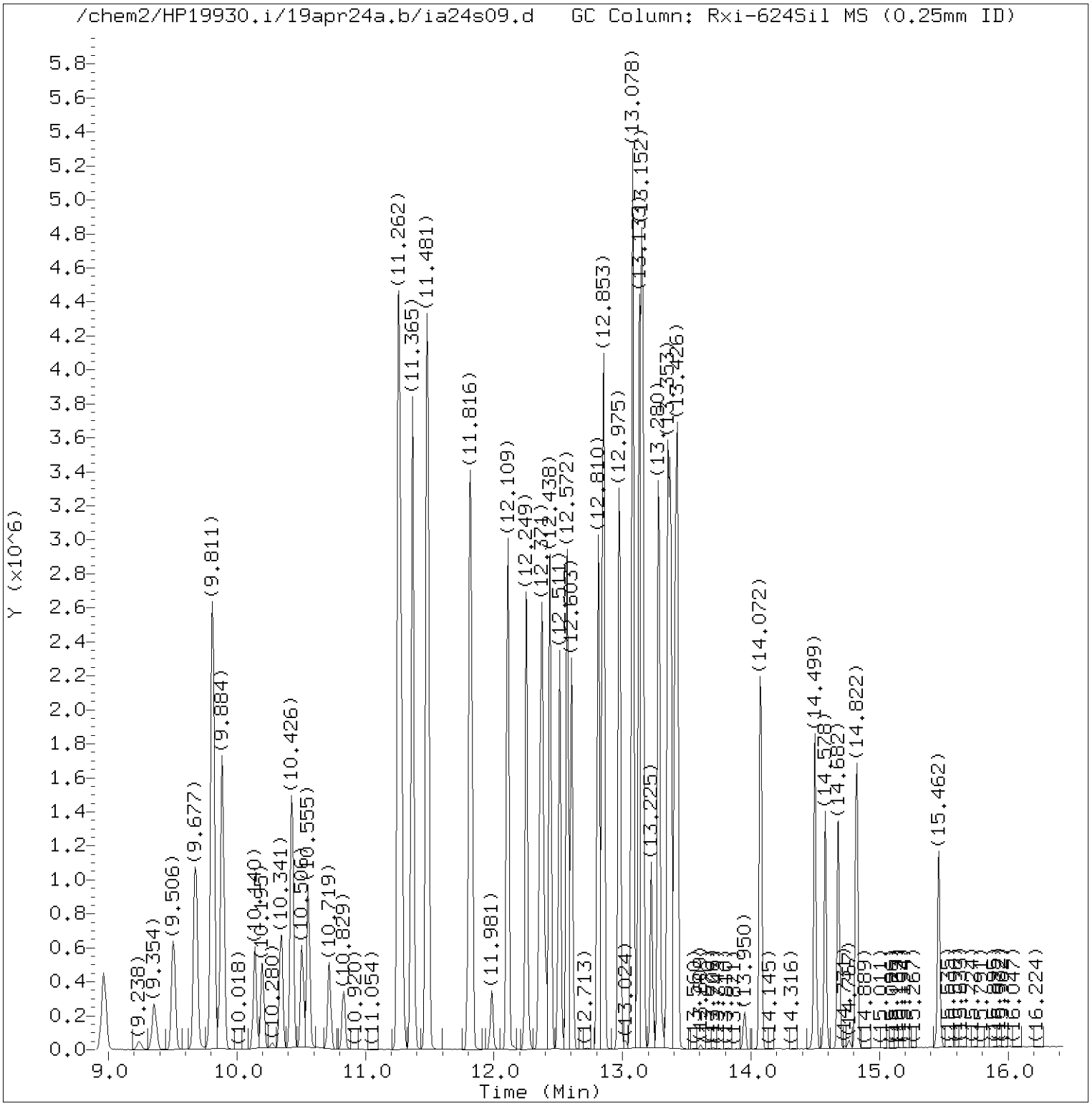
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.001	85	416836	3.256
2) Chloromethane	(2)	2.190	50	416130	4.388
5) Vinyl Chloride	(2)	2.306	62	473868	4.915
7) Bromomethane	(2)	2.629	94	378543	4.416
8) Chloroethane	(2)	2.727	64	362162	6.467
10) Trichlorofluoromethane	(2)	3.019	101	757846M	4.705
11) Ethyl ether	(2)	3.294	59	844894	19.920
13) Acrolein	(1)	3.483	56	199715	34.794
15) 1,1-Dichloroethene	(2)	3.611	96	334988	5.997
16) Freon 113	(2)	3.641	101	376597	5.579
14) Acetone	(1)	3.647	43	302293M	38.154
17) Methyl Iodide	(2)	3.812	142	609482	5.087
18) Carbon Disulfide	(2)	3.922	76	820167	5.014
22) Allyl Chloride	(2)	4.105	41	388282	4.519
23) Methylene Chloride	(2)	4.287	84	322797	5.649
26)*t-Butyl Alcohol-d10	(1)	4.306	65	135230	50.000
29) Acrylonitrile	(1)	4.653	53	252124	26.603
31) trans-1,2-Dichloroethene	(2)	4.708	96	323594	5.176
33) 1,1-Dichloroethane	(2)	5.379	63	1013766M	9.969
35) 2-Chloro-1,3-Butadiene	(2)	5.488	53	474615	5.198
38) 2-Butanone	(1)	6.177	43	528724	41.084
42) Propionitrile	(1)	6.281	54	144279M	41.756
45) Methacrylonitrile	(1)	6.494	67	558469	43.918
48) Tetrahydrofuran	(1)	6.561	71	120802	30.019
49) Chloroform	(2)	6.696	83	596736	5.385
50)$Dibromofluoromethane	(2)	6.915	113	564030	9.950
51) 1,1,1-Trichloroethane	(2)	6.921	97	589412	5.502
54) Carbon Tetrachloride	(2)	7.128	117	553379	5.471
56) Isobutyl Alcohol	(1)	7.281	41	123749	122.006
57)$1,2-Dichloroethane-d4	(2)	7.366	102	109285	10.004
58) Benzene	(2)	7.403	78	1376546	5.646
59) 1,2-Dichloroethane	(2)	7.476	62	342526	5.237
63)*Fluorobenzene	(2)	7.805	96	2196520	10.000
67) Trichloroethene	(2)	8.281	95	384525	5.637
70) 1,2-Dichloropropane	(2)	8.616	63	307014	5.438
72) 1,4-Dioxane	(1)	8.701	88	31243M	150.146
71) Methyl Methacrylate	(1)	8.701	69	139681	5.739
73) Dibromomethane	(2)	8.732	93	166932	5.260

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

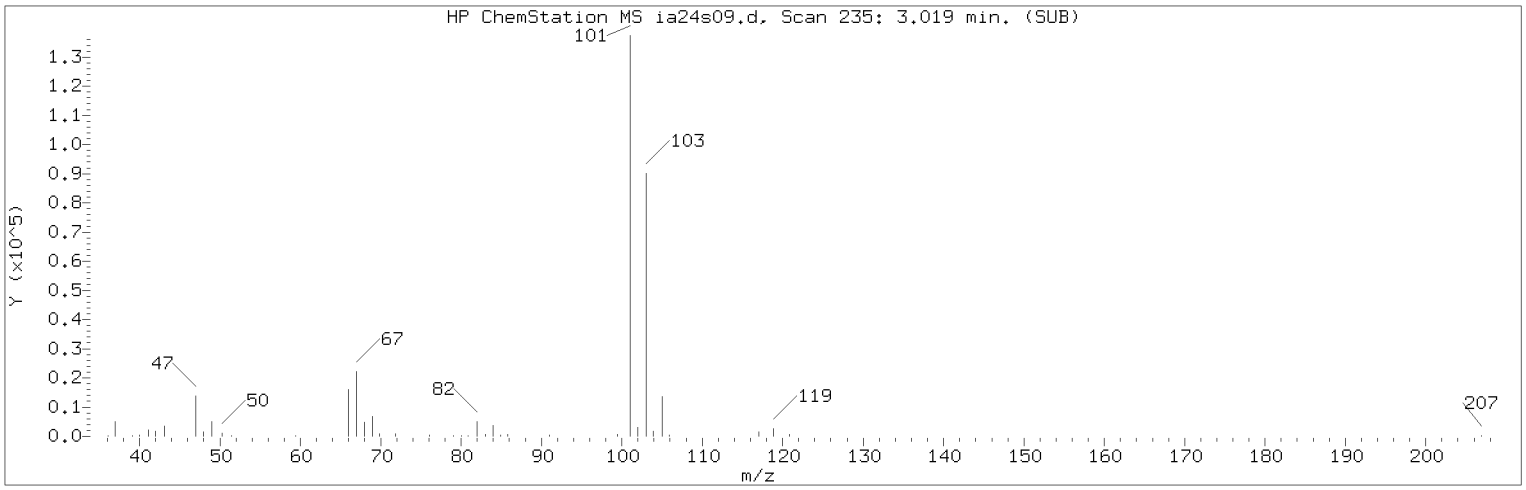
Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
74) Bromodichloromethane	(2)	8.963	83	401469	5.124
81) 4-Methyl-2-Pentanone	(1)	9.677	43	920070M	28.241
82)$Toluene-d8	(3)	9.811	98	2193240	10.193
83) Toluene	(3)	9.884	92	886238	5.478
84) trans-1,3-Dichloropropene	(3)	10.140	75	359716	4.717
86) Ethyl Methacrylate	(3)	10.195	69	294843	4.578
88) 1,1,2-Trichloroethane	(3)	10.347	97	243995	5.458
89) Tetrachloroethene	(3)	10.426	166	485512	5.671
90) 1,3-Dichloropropane	(3)	10.506	76	375555	5.219
91) 2-Hexanone	(1)	10.555	43	638459	27.637
93) Dibromochloromethane	(3)	10.719	129	283496	4.666
95) 1,2-Dibromoethane	(3)	10.829	107	235054	5.163
97)*Chlorobenzene-d5	(3)	11.256	117	1754276	10.000
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	365692	5.221
100) Ethylbenzene	(3)	11.365	91	1735472	5.342
101) m+p-Xylene	(3)	11.481	106	1411459	10.909
105) Xylene (Total)	(3)		106	2079099	16.255
104) o-Xylene	(3)	11.810	106	667640	5.346
106) Styrene	(3)	11.823	104	1078049	5.445
107) Bromoform	(3)	11.981	173	155525	4.162
111)$4-Bromofluorobenzene	(3)	12.249	95	766090	9.501
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	289294M	5.093
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	219814	19.239
116) 1,2,3-Trichloropropane	(4)	12.402	110	85307M	5.061
126) Pentachloroethane	(4)	12.847	167	282066	4.921
131) 1,3-Dichlorobenzene	(4)	13.072	146	866688	5.238
133)*1,4-Dichlorobenzene-d4	(4)	13.127	152	995228	10.000
134) 1,4-Dichlorobenzene	(4)	13.145	146	884522	5.349
139) 1,2-Dichlorobenzene	(4)	13.408	146	804157	5.324
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	46869	6.328
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	533369	5.043
146) Hexachlorobutadiene	(4)	14.578	225	222782	5.155
147) Naphthalene	(4)	14.682	128	976201	4.609

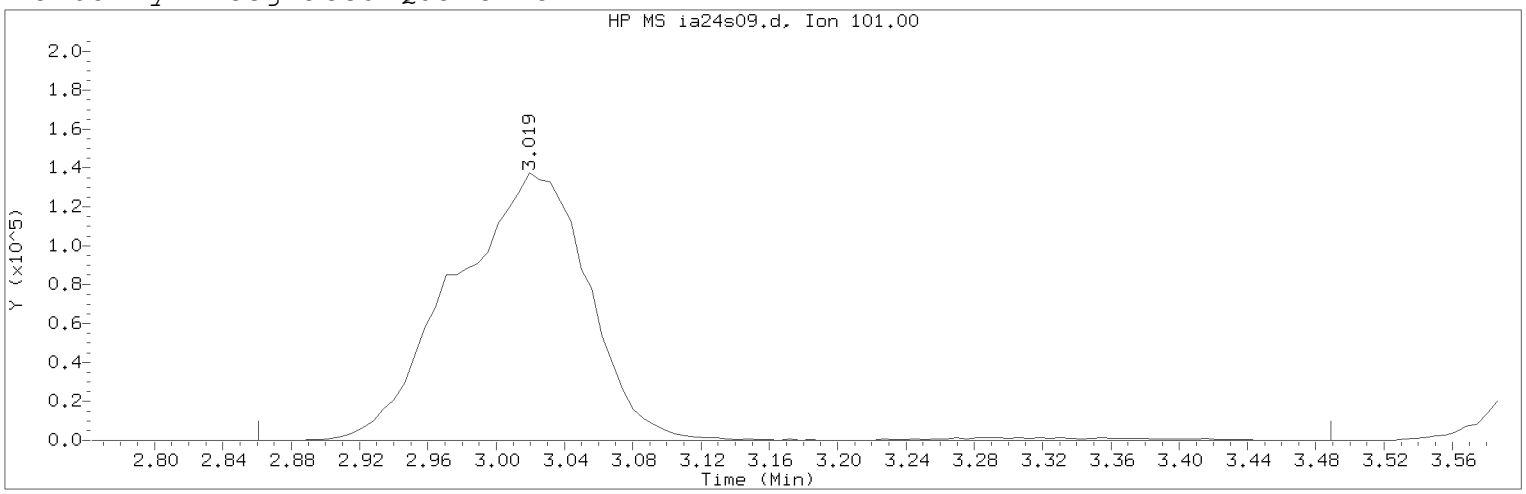
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

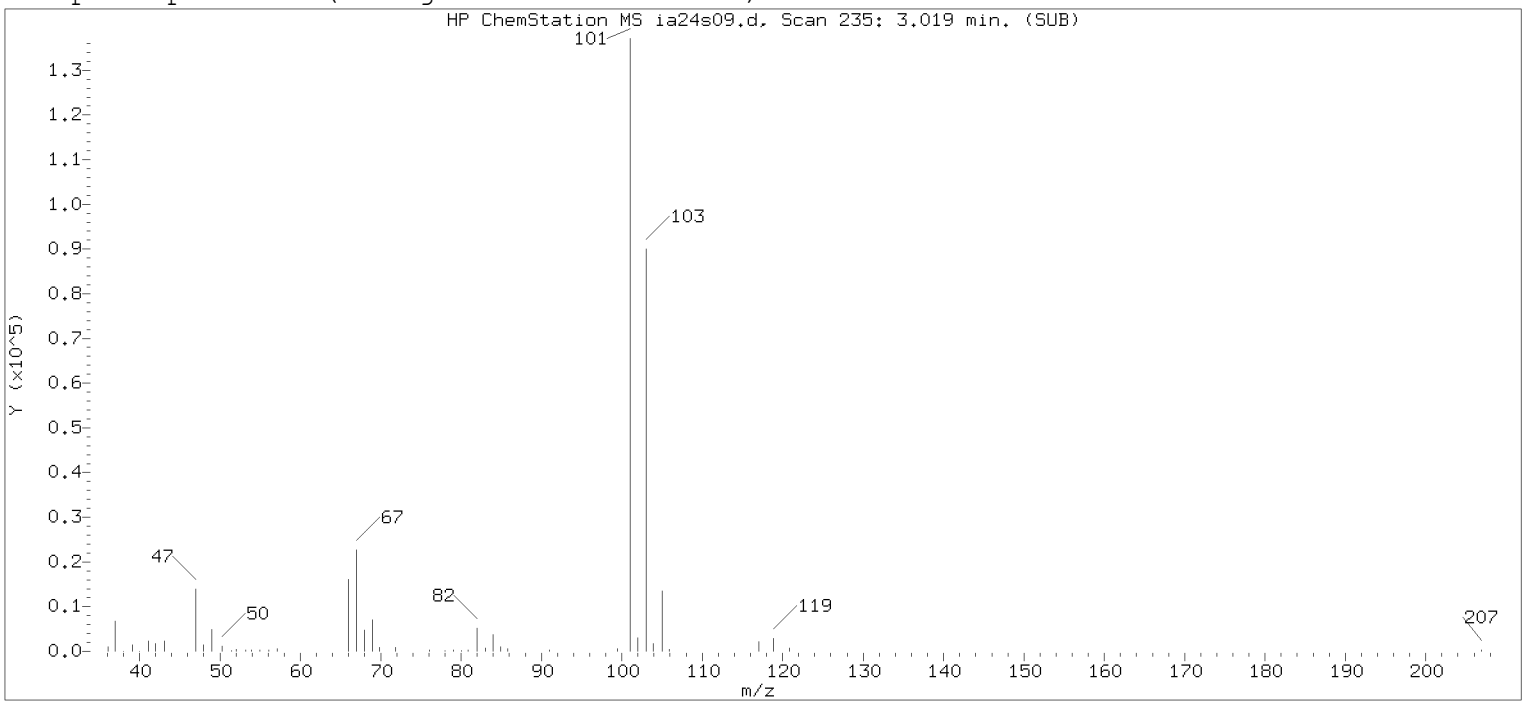
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 235
Retention Time (minutes): 3.019
Quant Ion : 101.00
Area (flag) : 757846M
On-Column Amount (ng) : 4.7050
Integration start scan : 208 Integration stop scan: 311
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

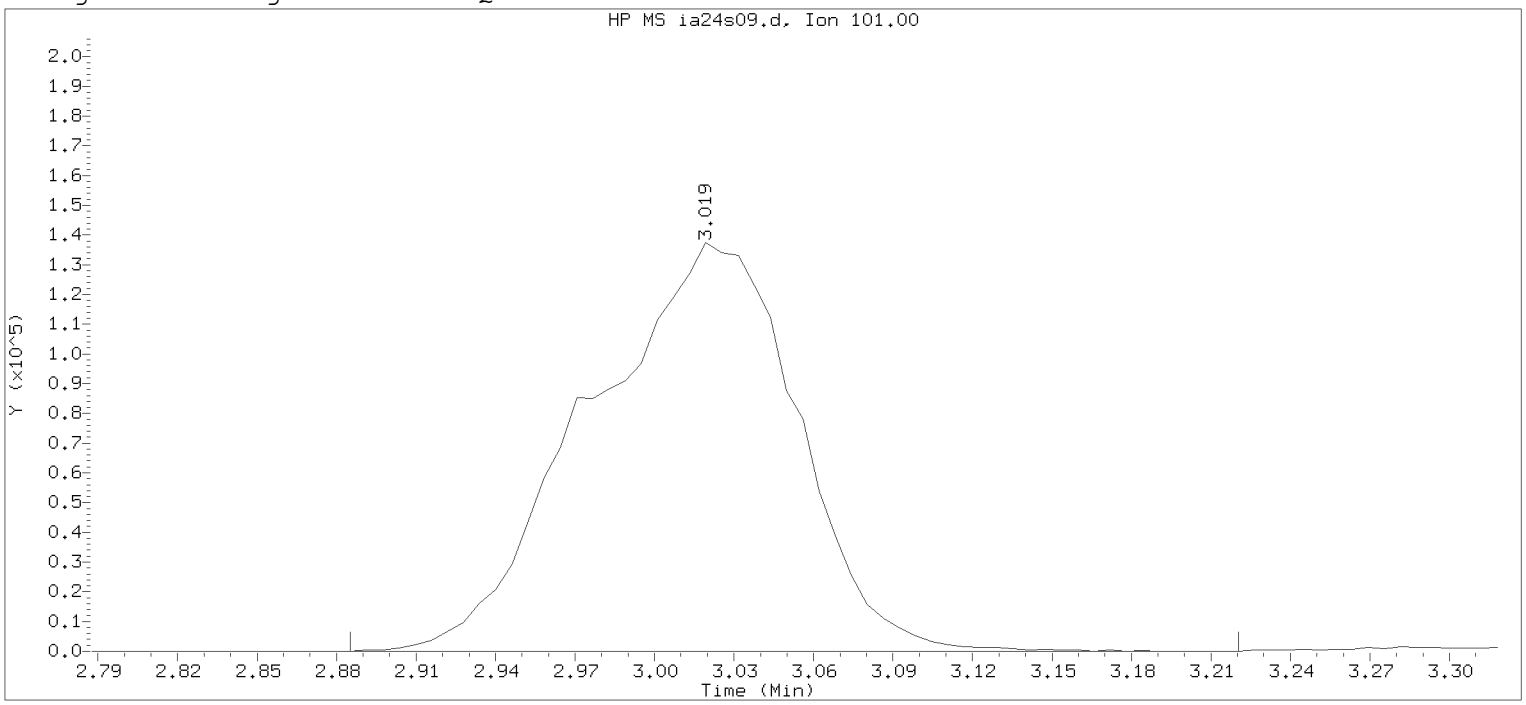
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 235
Retention Time (minutes): 3.019
Quant Ion : 101.00
Area : 746661
On-column Amount (ng) : 4.6356
Integration start scan : 212 Integration stop scan: 267
Y at integration start : 0 Y at integration end: 0

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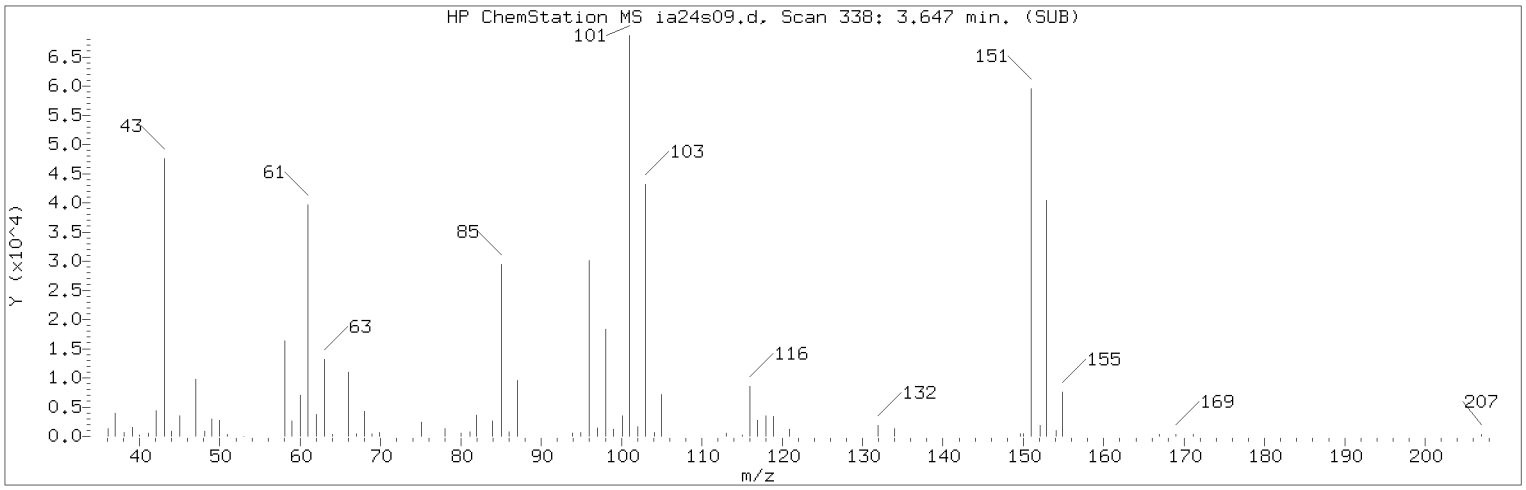
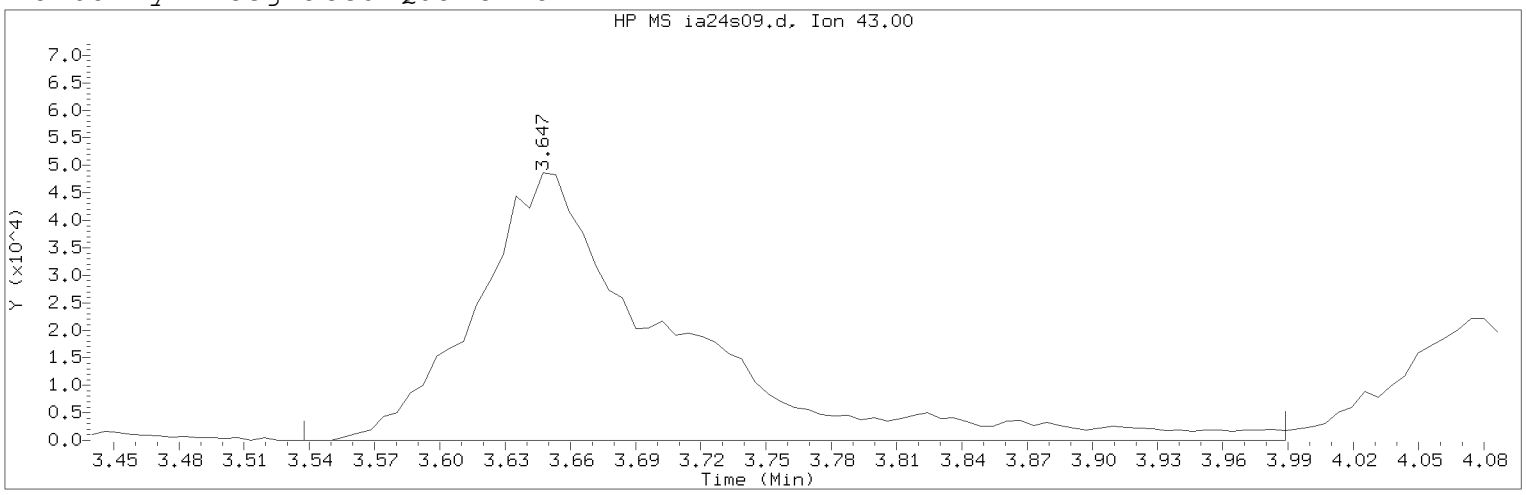
Target 3.5 esignature used. F35 Page 1527

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

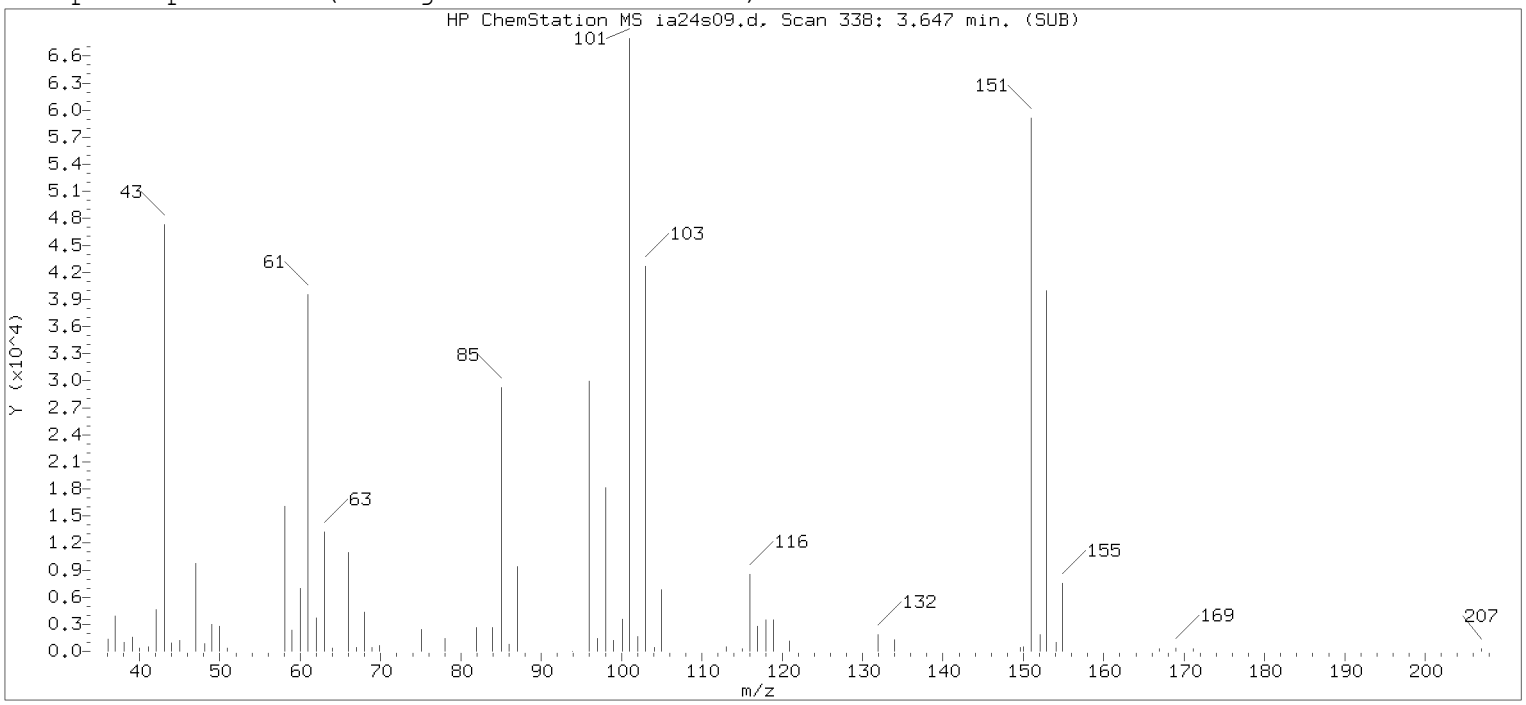
Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area (flag) : 302293M
On-Column Amount (ng) : 38.1542
Integration start scan : 319 Integration stop scan: 393
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

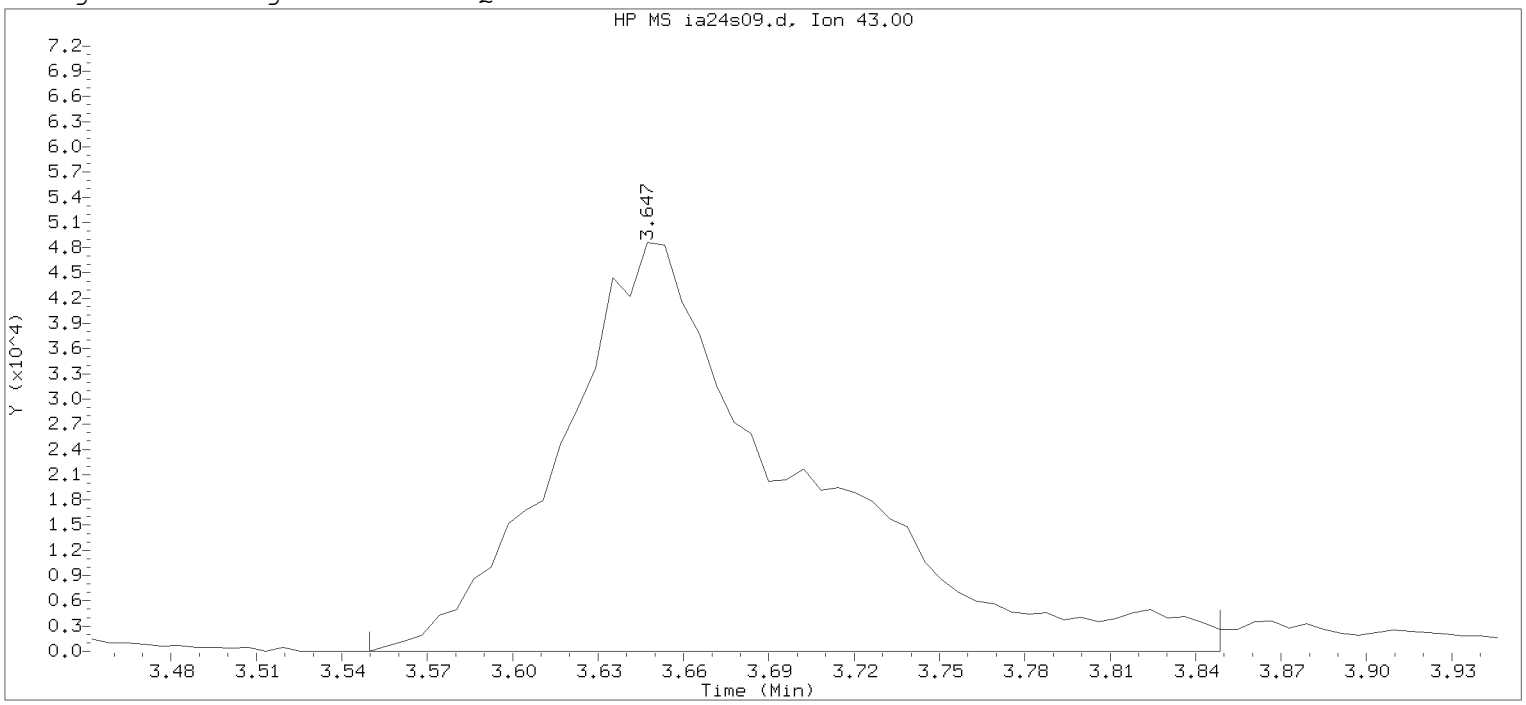
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compound Number : 14
Compound Name : Acetone
Scan Number : 338
Retention Time (minutes): 3.647
Quant Ion : 43.00
Area : 282840
On-column Amount (ng) : 35.6987
Integration start scan : 321 Integration stop scan: 370
Y at integration start : 0 Y at integration end: 0

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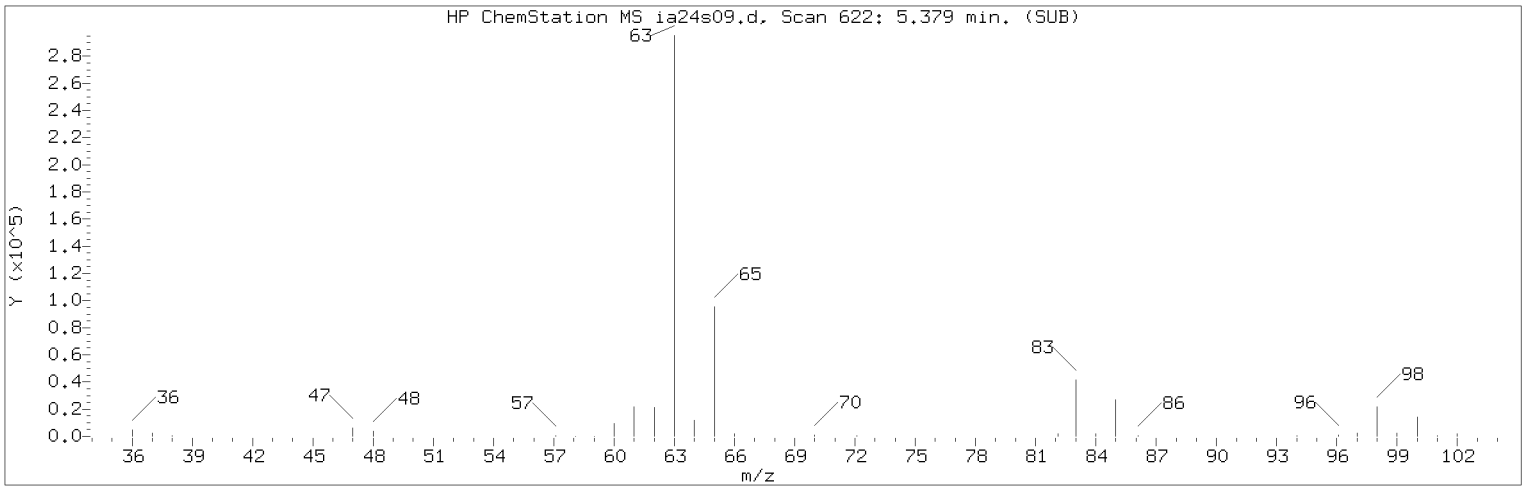
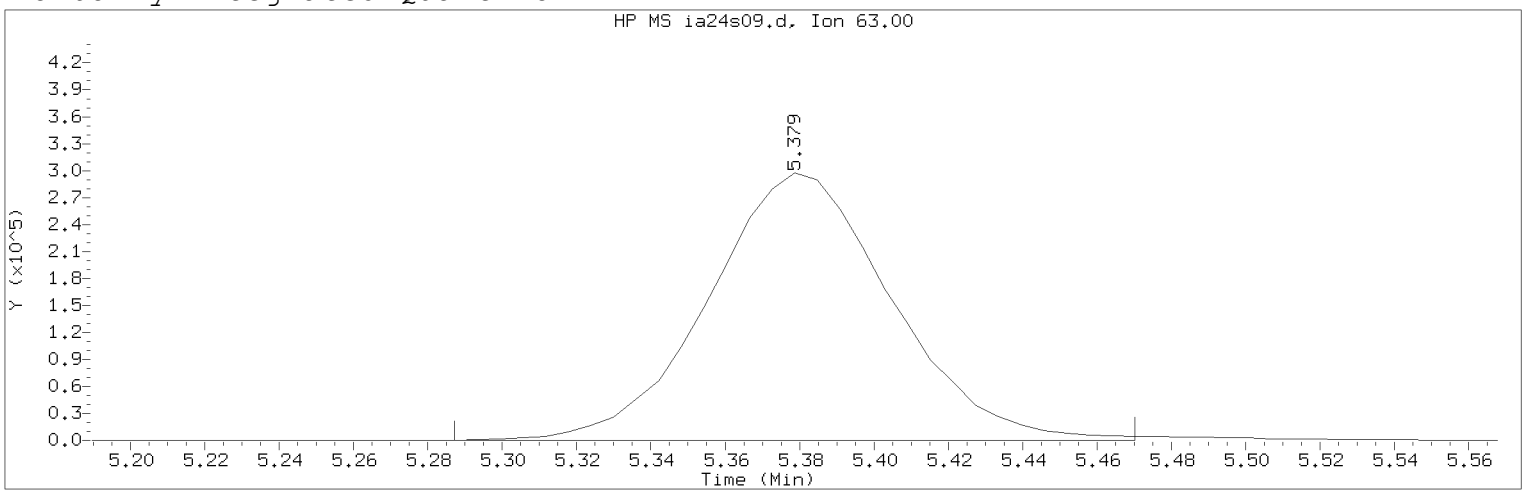
Target 3.5 esignature used. F35 Page 1529

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

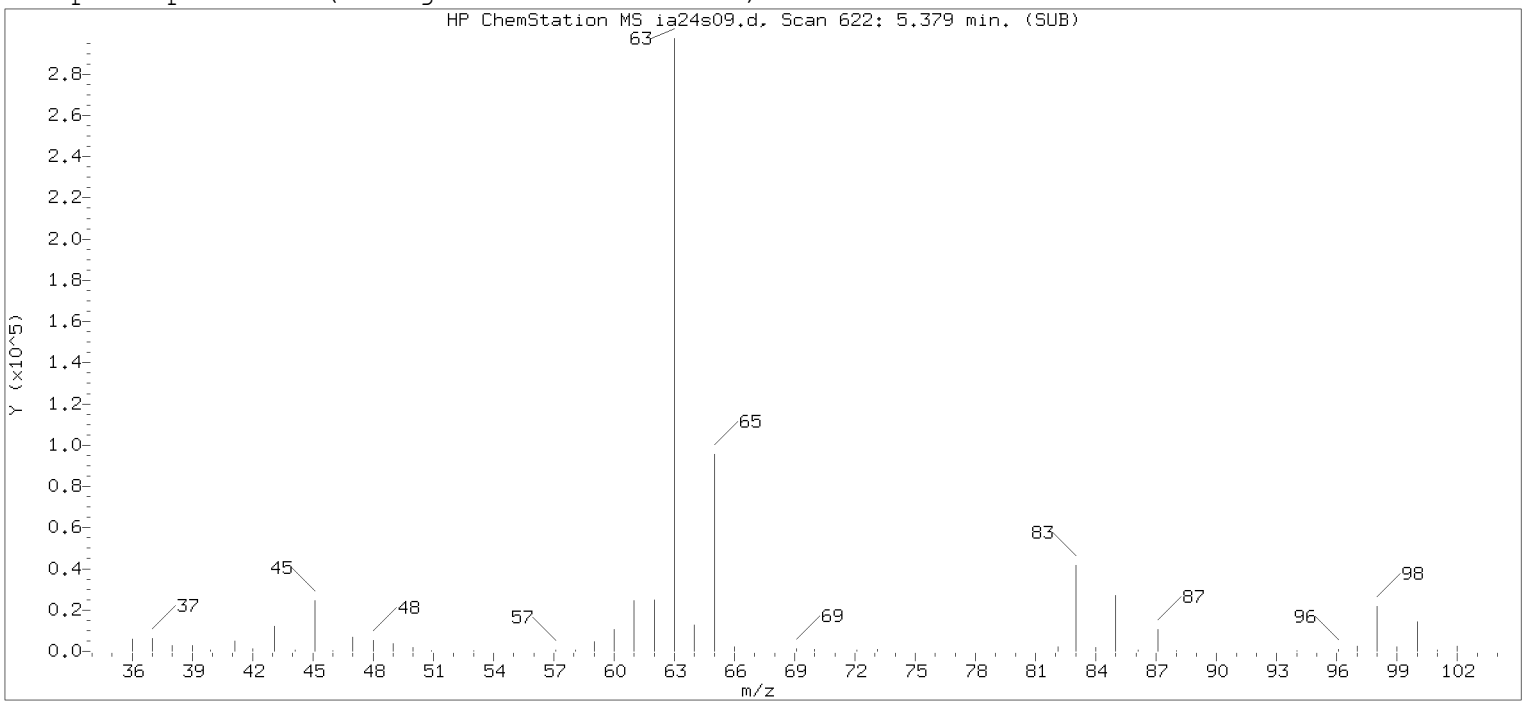
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 622
Retention Time (minutes): 5.379
Quant Ion : 63.00
Area (flag) : 1013766M
On-Column Amount (ng) : 9.9694
Integration start scan : 606 Integration stop scan: 636
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

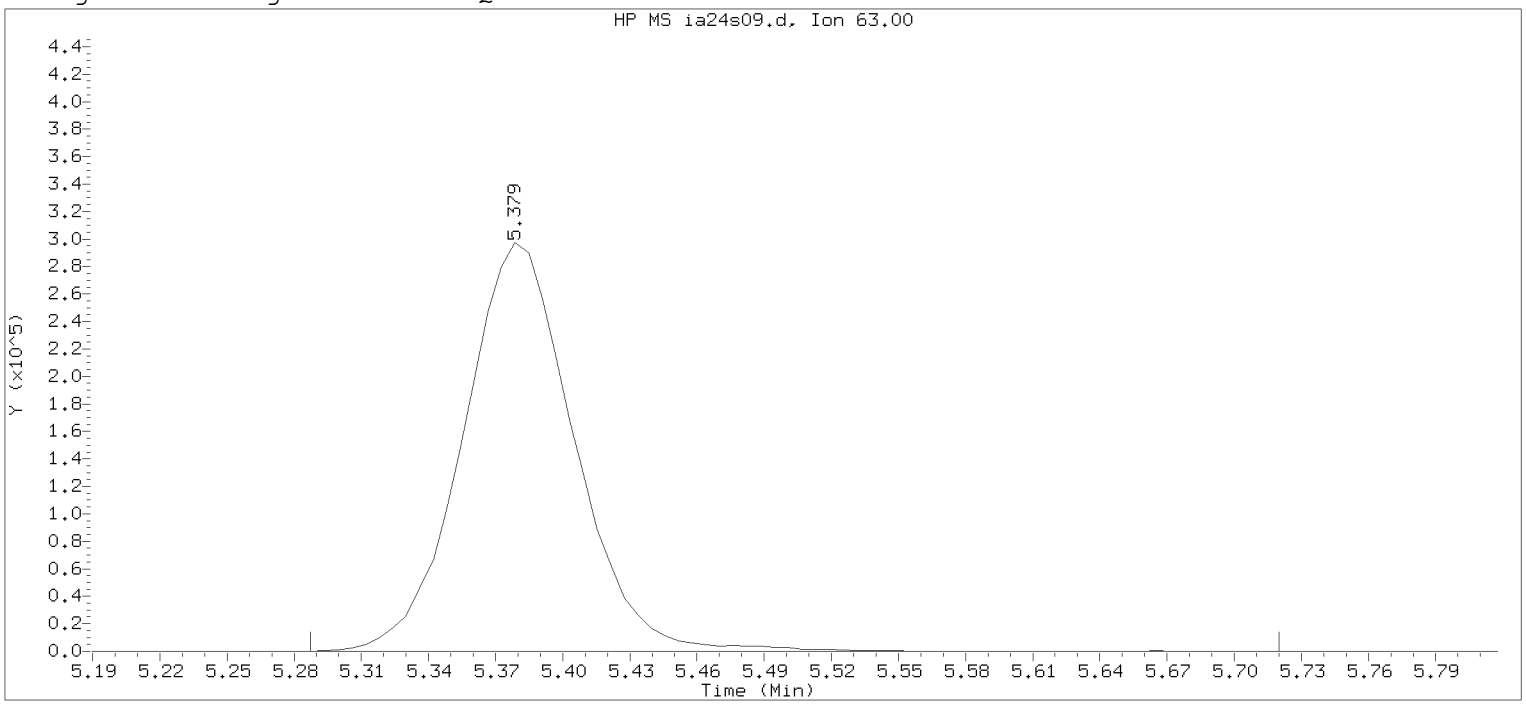
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 622
Retention Time (minutes): 5.379
Quant Ion : 63.00
Area : 1022759
On-column Amount (ng) : 10.0579
Integration start scan : 606 Integration stop scan: 677
Y at integration start : 0 Y at integration end: 0

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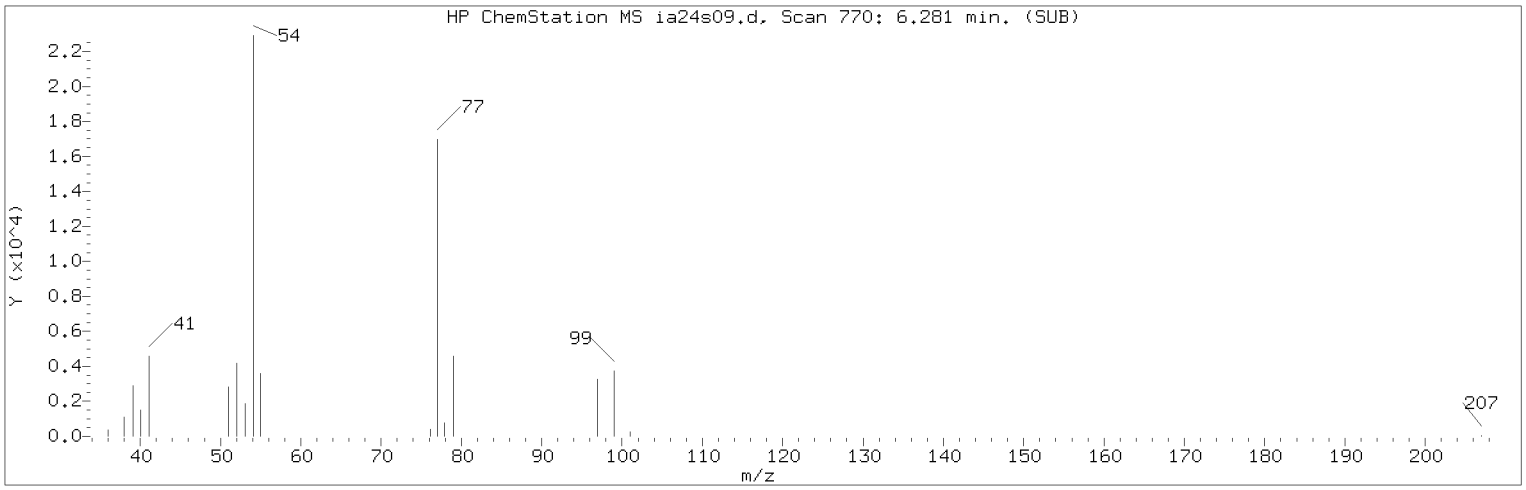
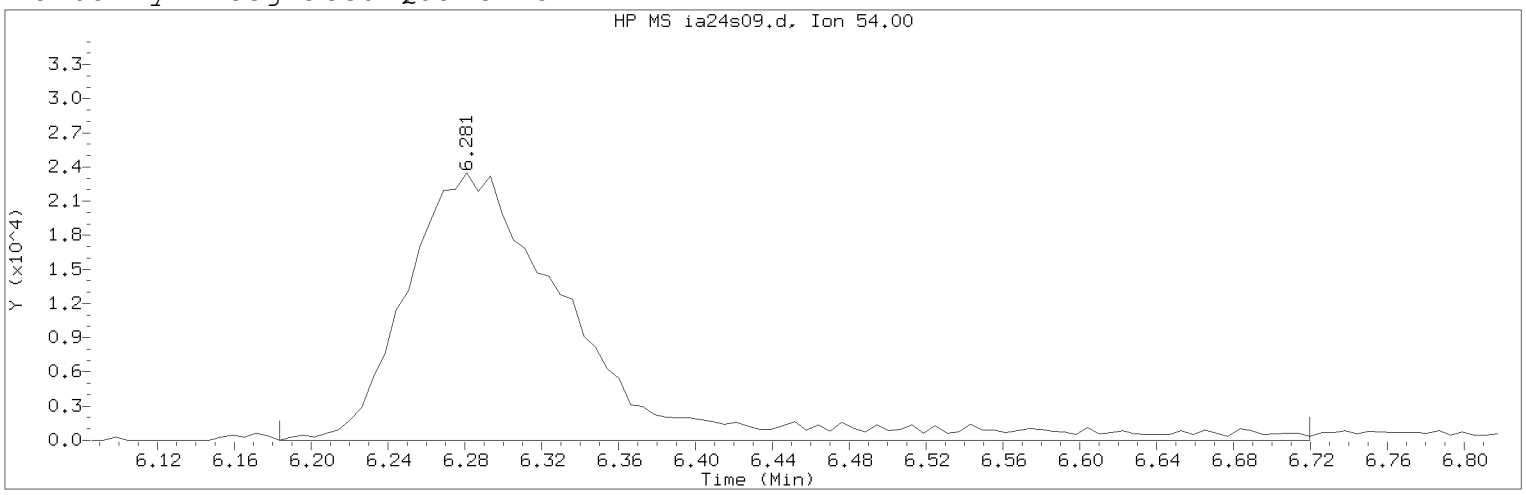
Target 3.5 esignature user F35 meaning

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

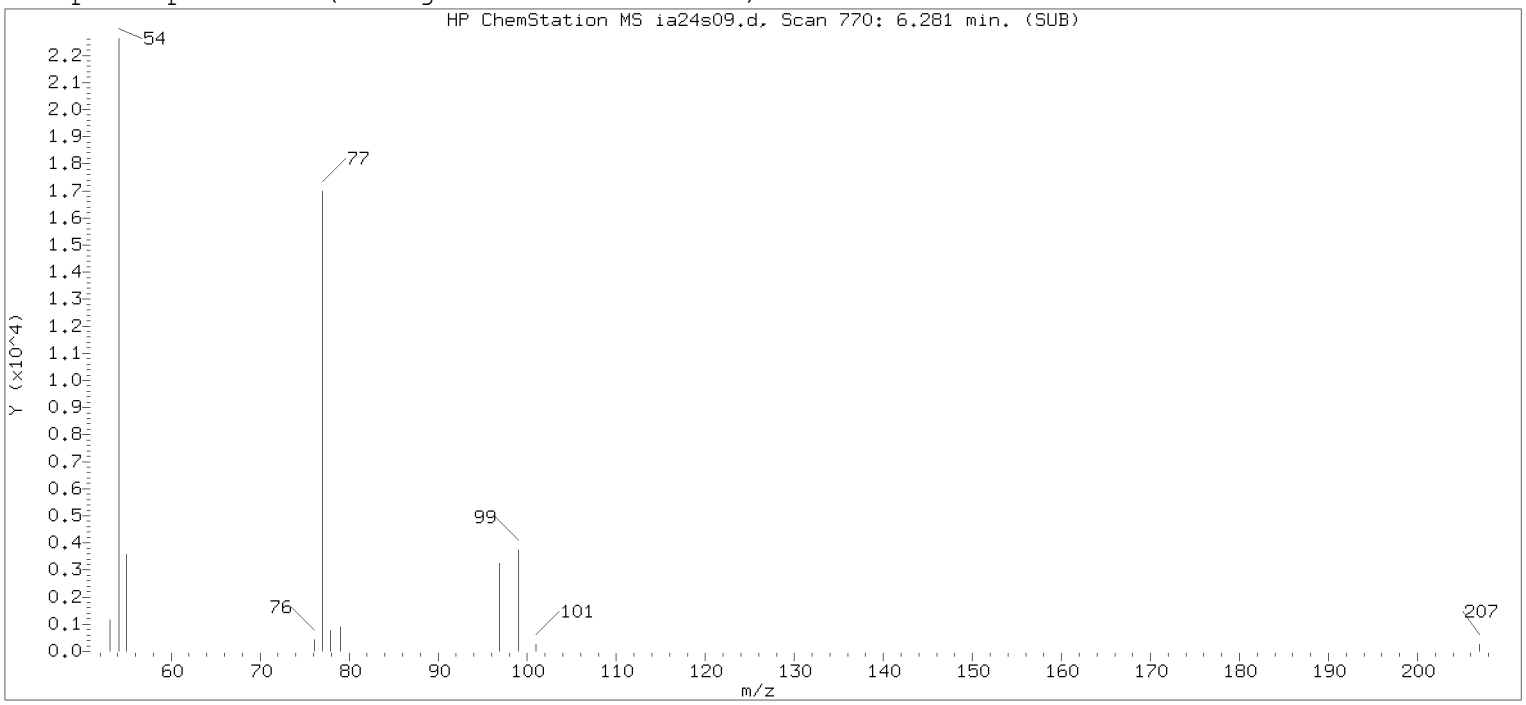
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 770
Retention Time (minutes): 6.281
Quant Ion : 54.00
Area (flag) : 144279M
On-Column Amount (ng) : 41.7558
Integration start scan : 753 Integration stop scan: 841
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

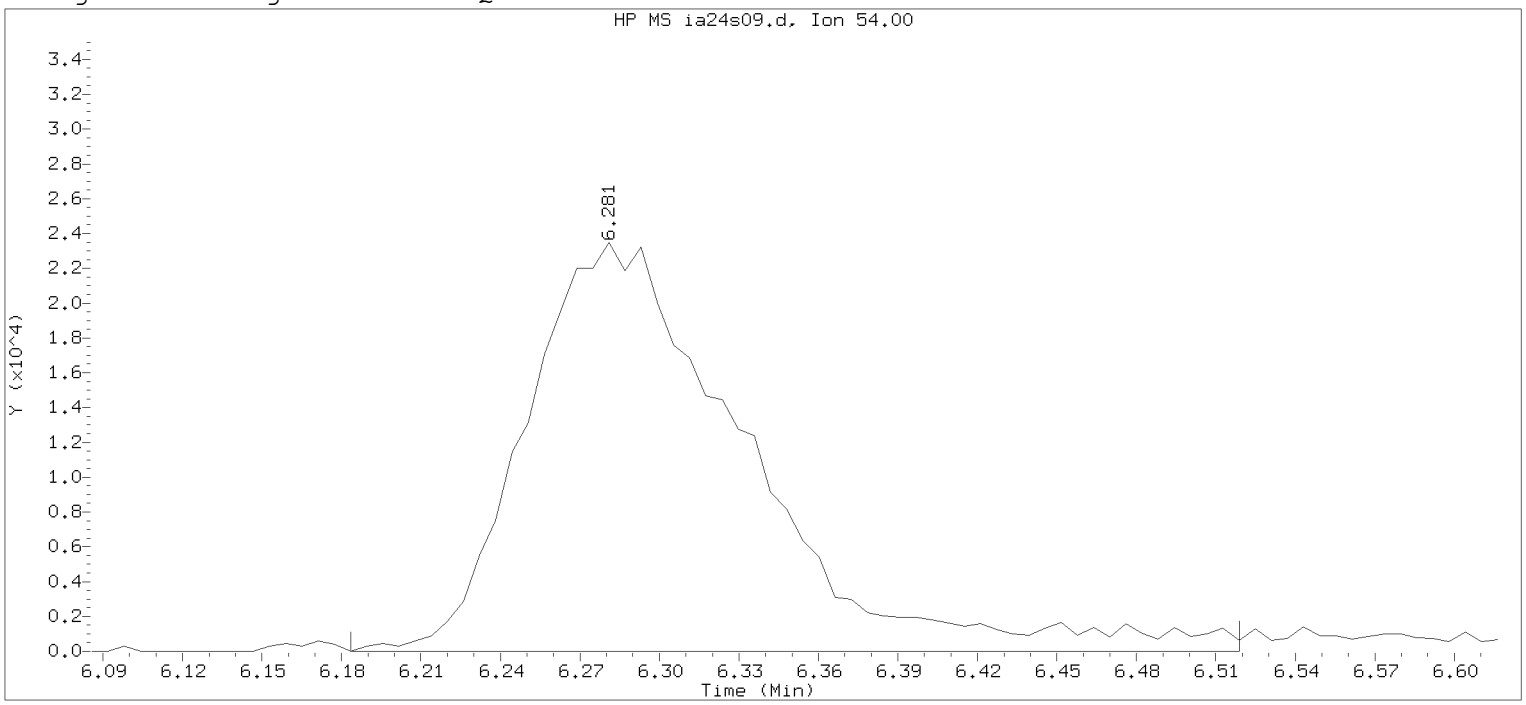
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

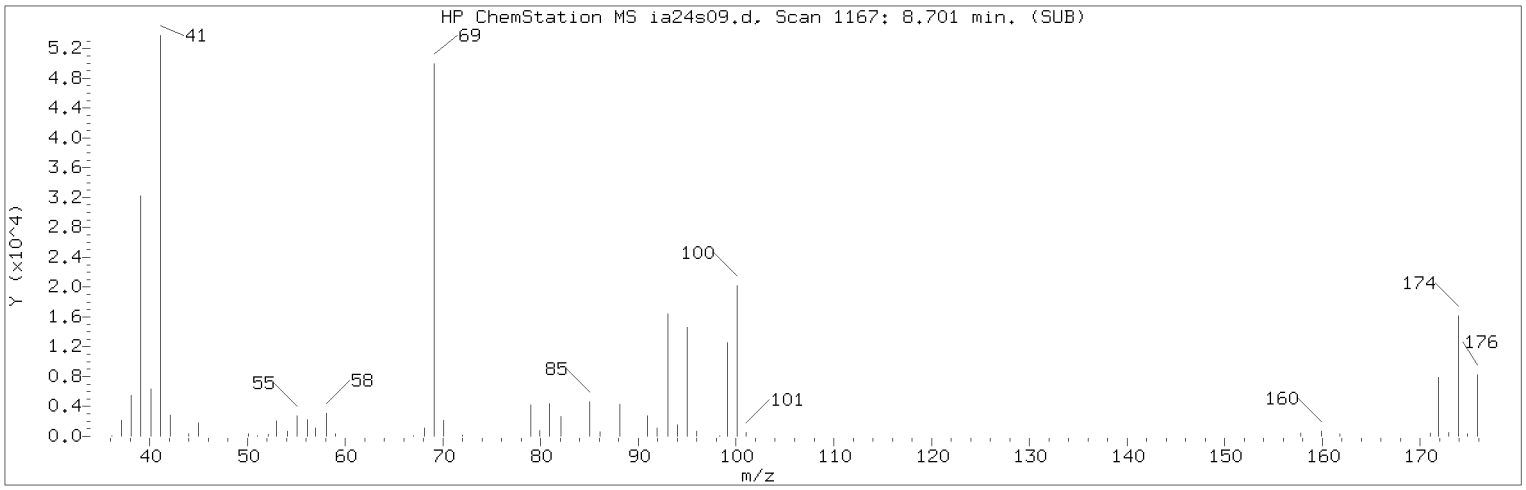
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

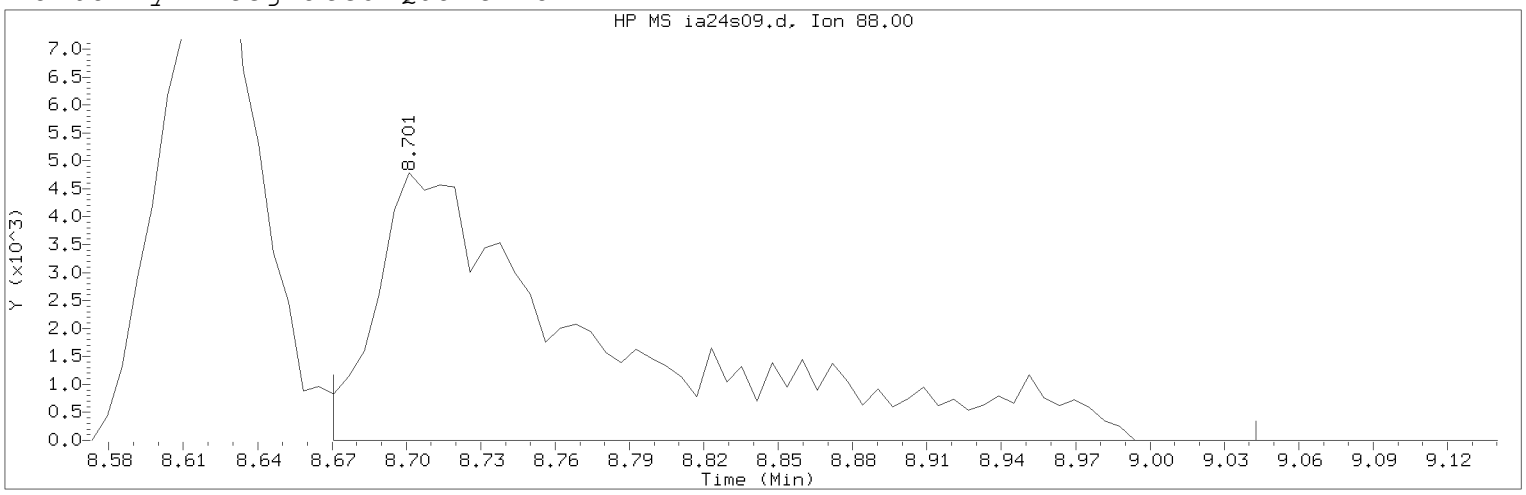
Compound Number : 42
Compound Name : Propionitrile
Scan Number : 770
Retention Time (minutes): 6.281
Quant Ion : 54.00
Area : 135240
On-column Amount (ng) : 39.1396
Integration start scan : 753 Integration stop scan: 808
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used for this run

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

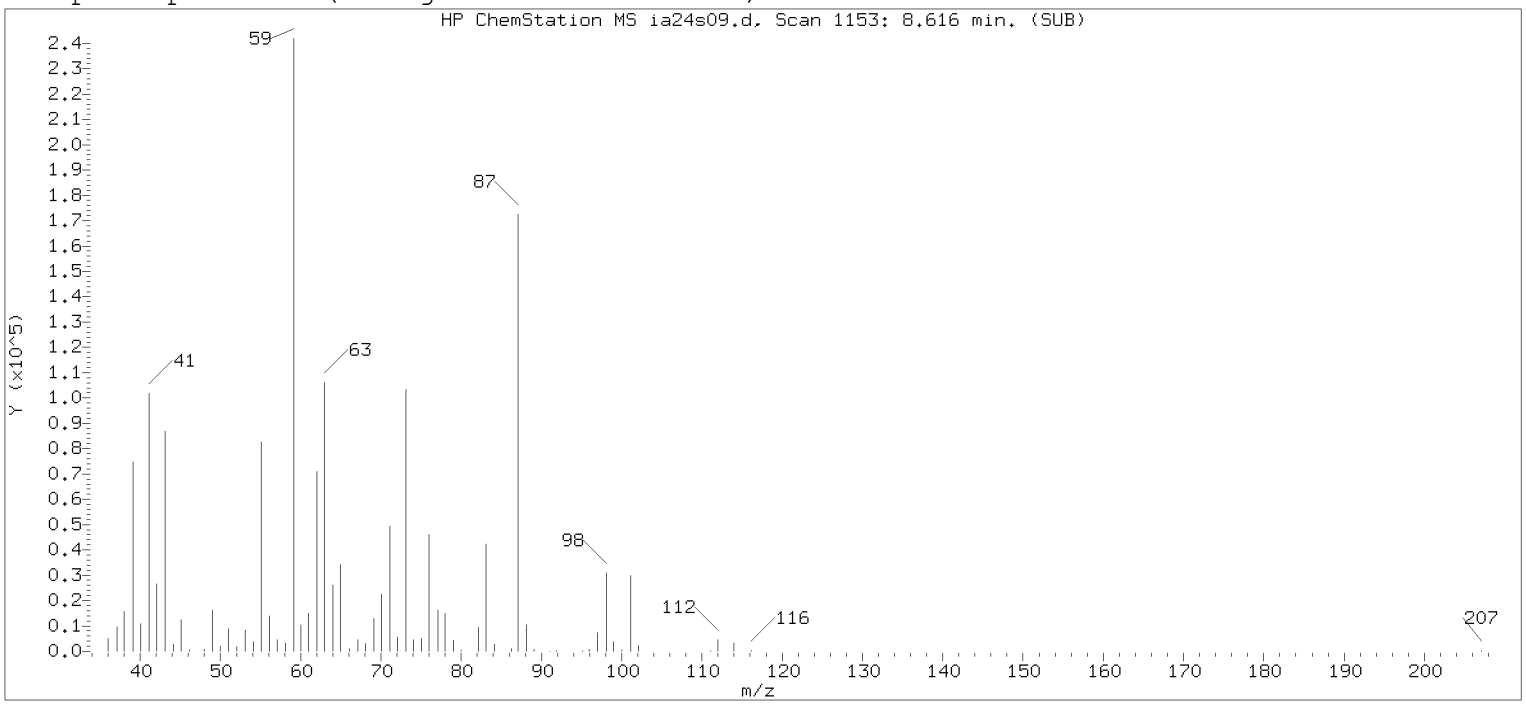
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1167
Retention Time (minutes): 8.701
Quant Ion : 88.00
Area (flag) : 31243M
On-Column Amount (ng) : 150.1458
Integration start scan : 1161 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

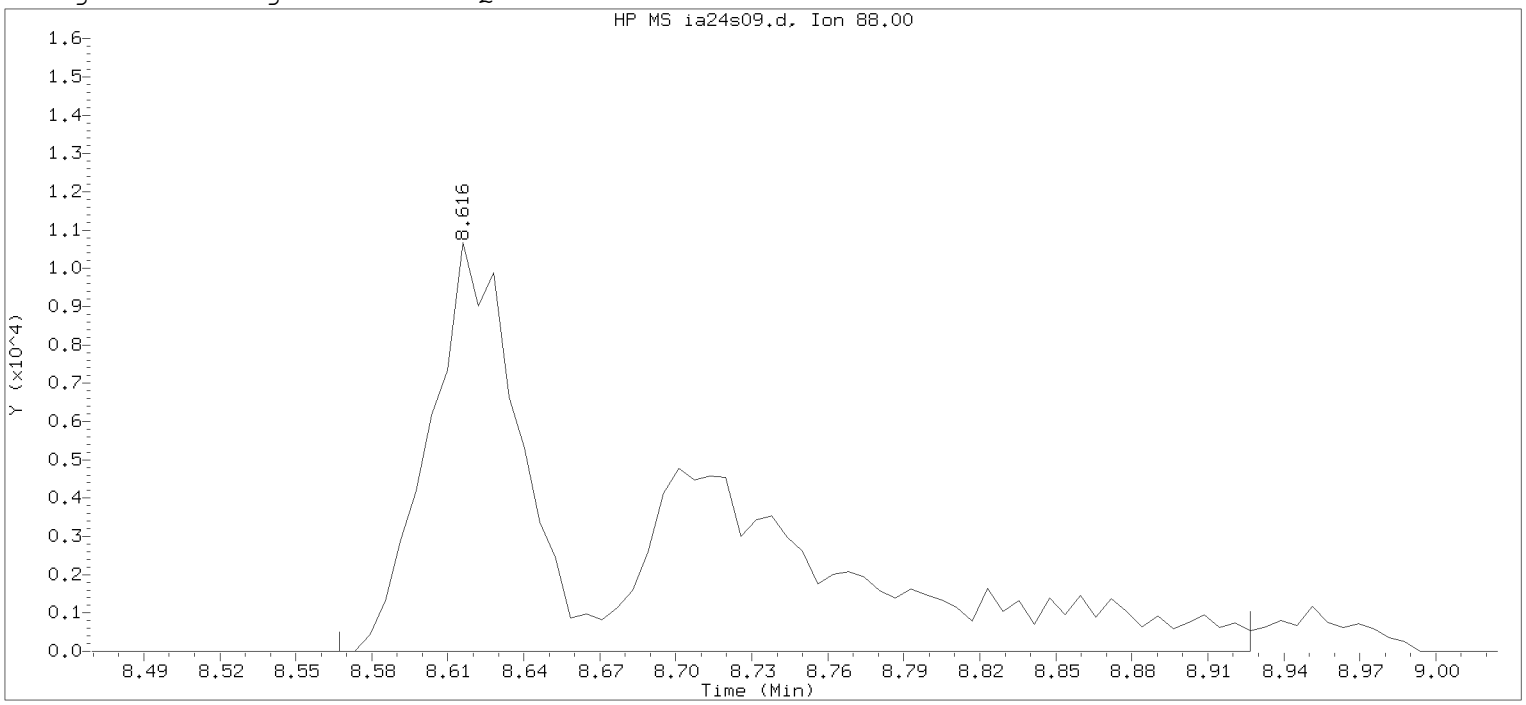
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

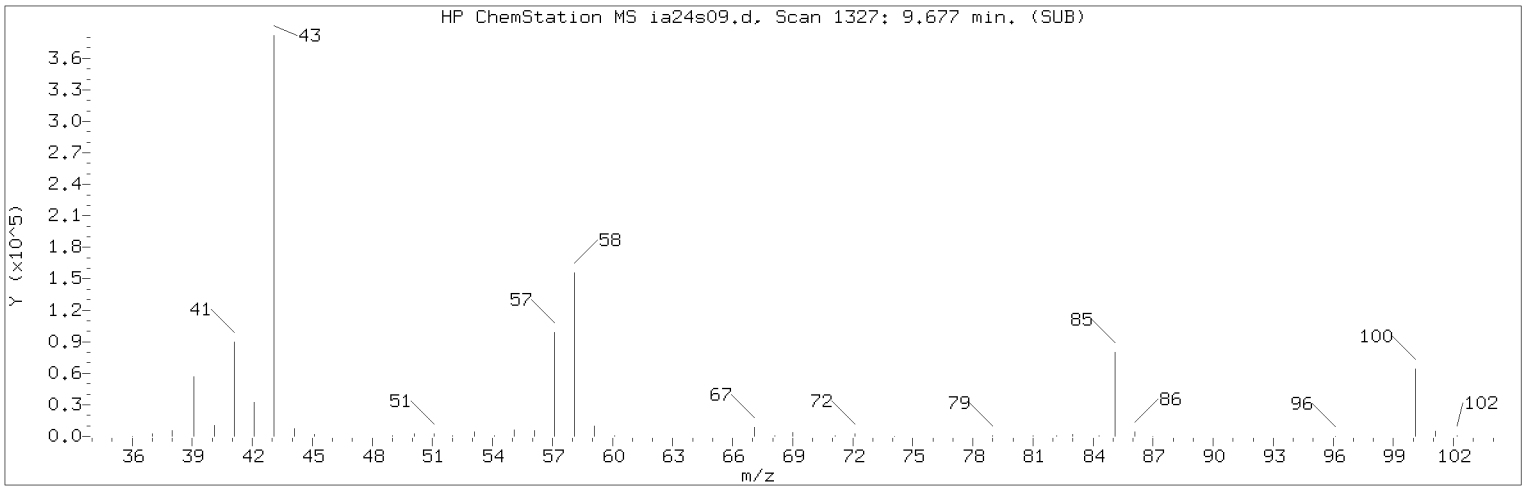
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

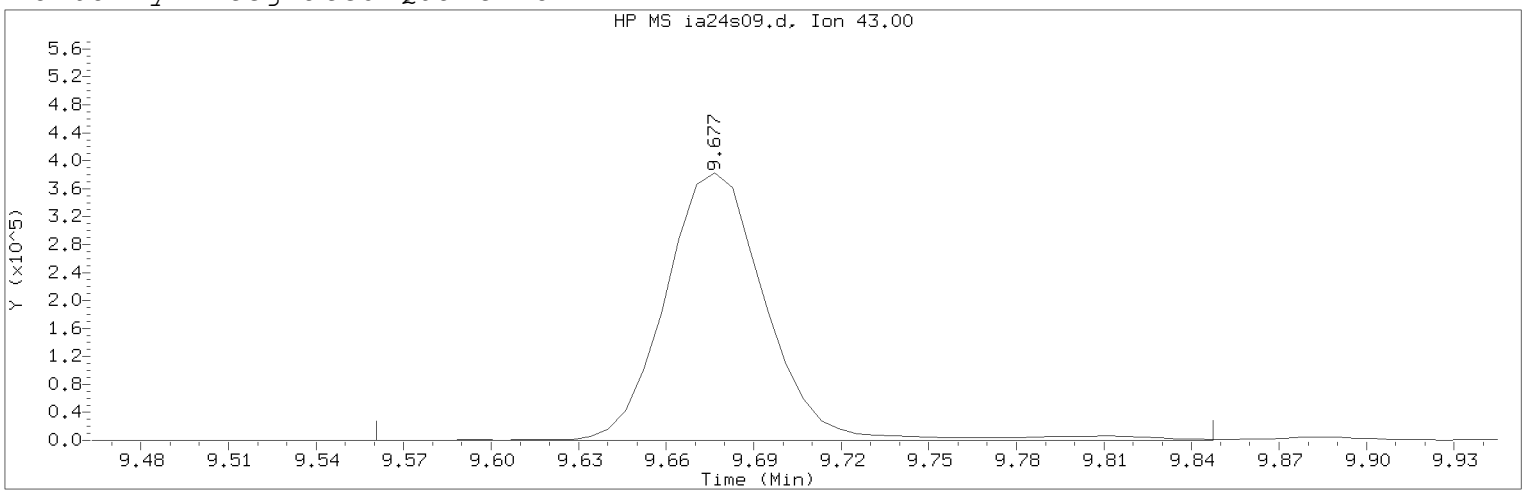
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1153		
Retention Time (minutes)	: 8.616		
Quant Ion	: 88.00		
Area	: 54930		
On-column Amount (ng)	: 263.9760		
Integration start scan	: 1144	Integration stop scan:	1203
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used. F35 Page 1535

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

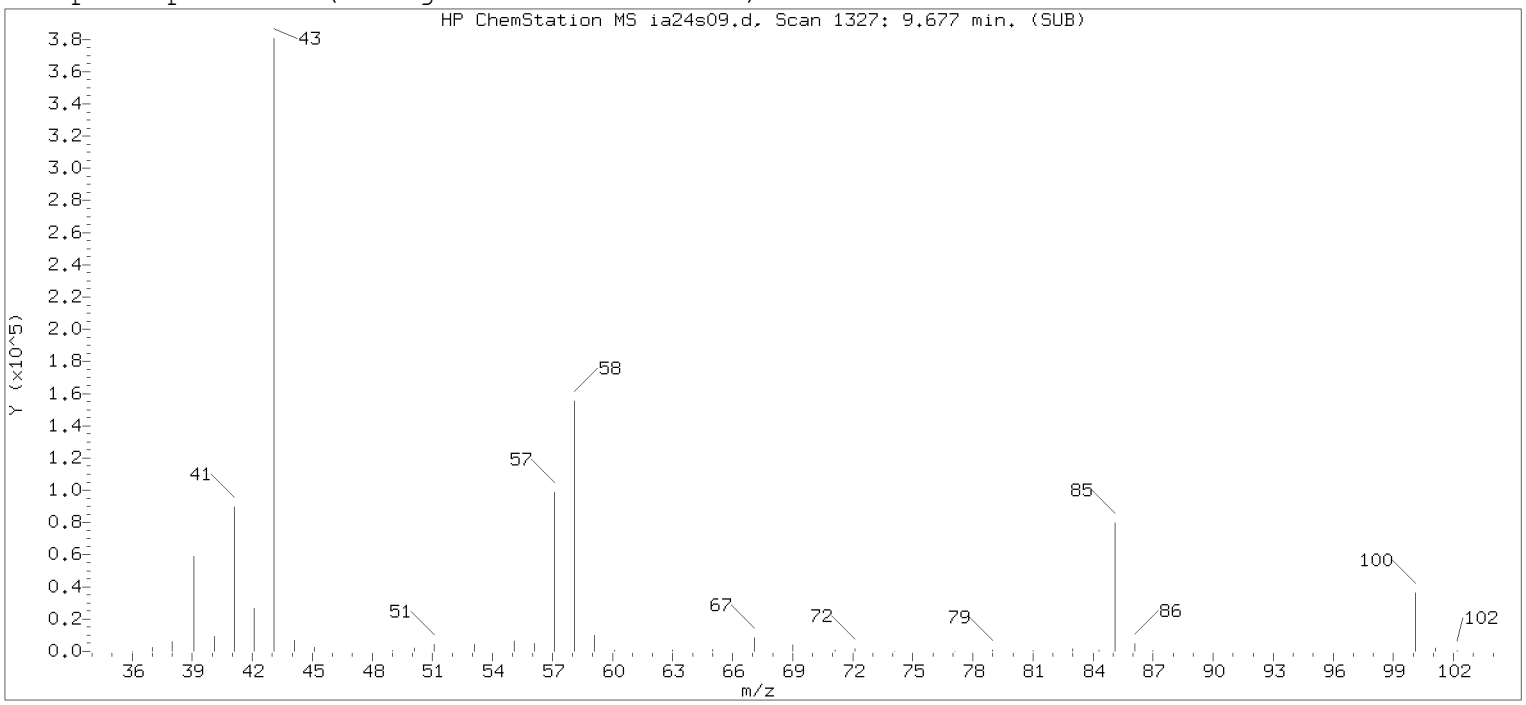
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 43.00
Area (flag) : 920070M
On-Column Amount (ng) : 28.2409
Integration start scan : 1307 Integration stop scan: 1354
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

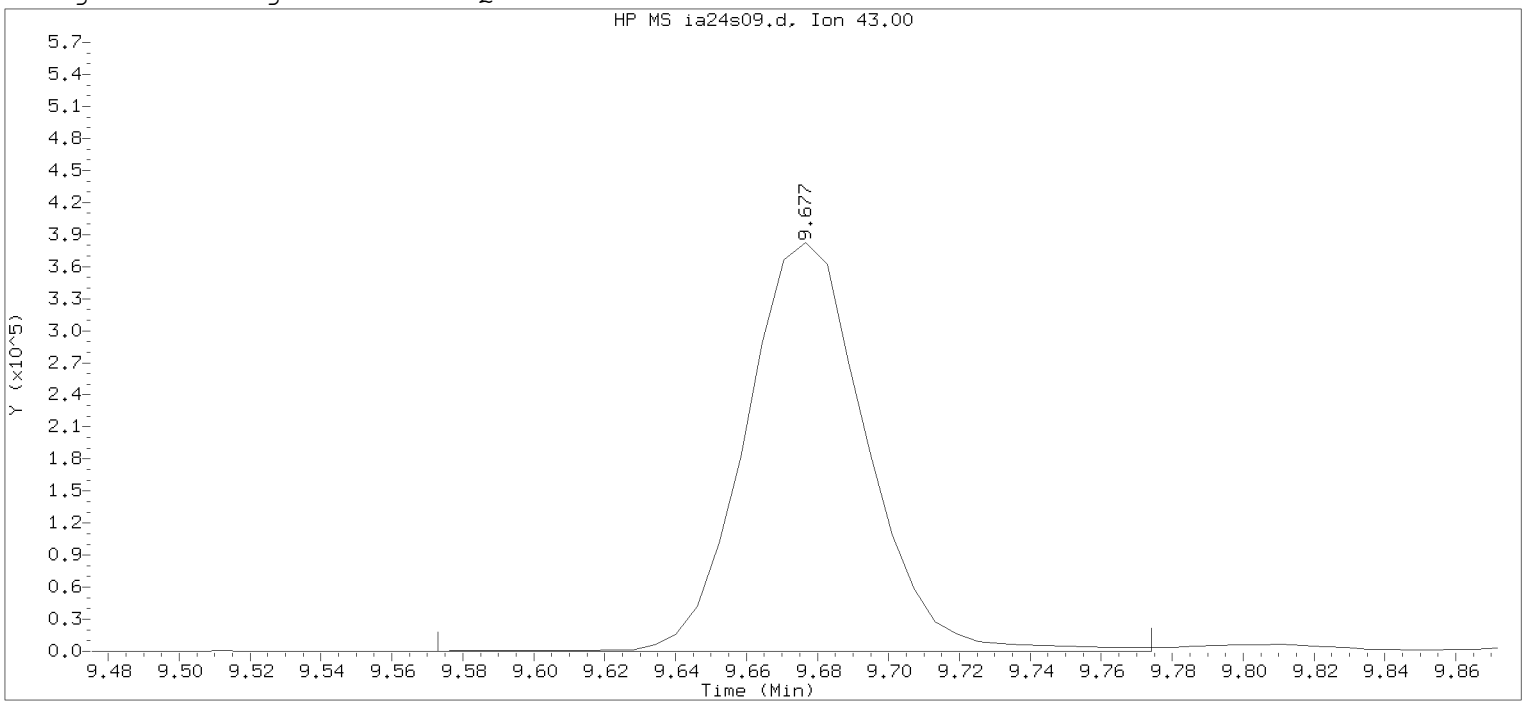
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

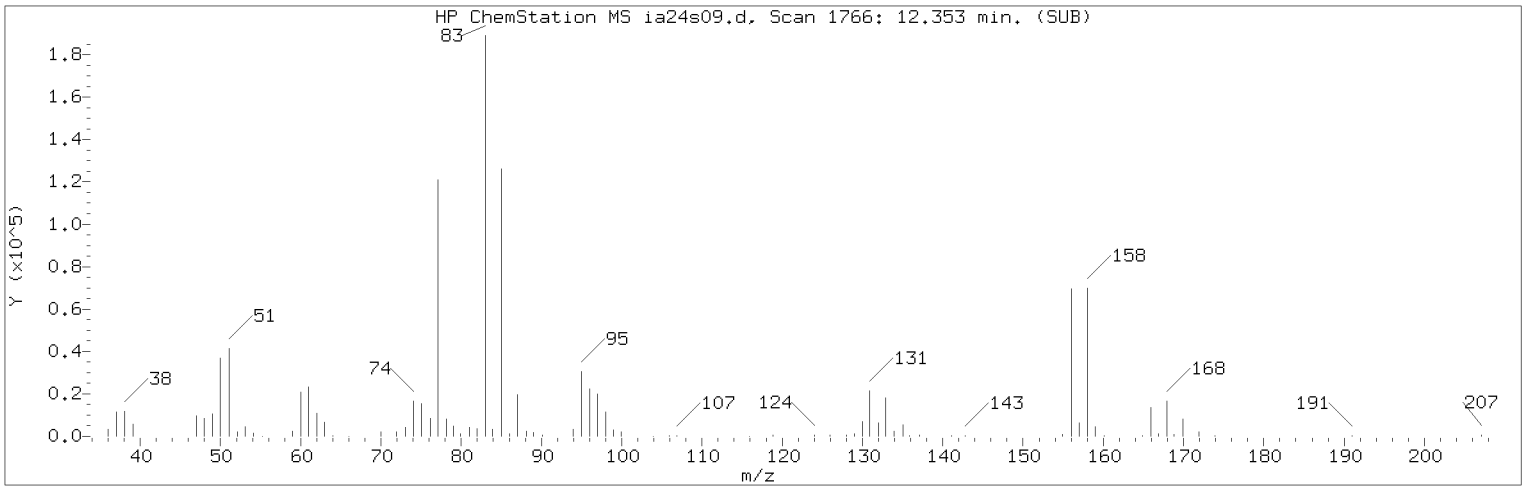
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

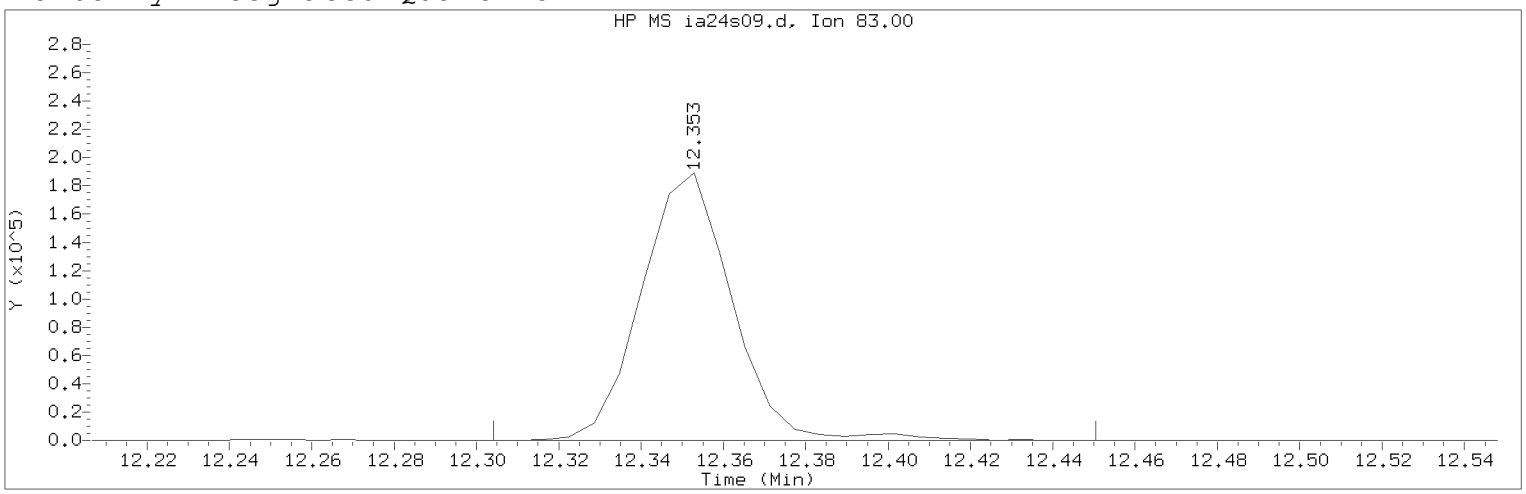
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1327
Retention Time (minutes): 9.677
Quant Ion : 43.00
Area : 901316
On-column Amount (ng) : 27.6651
Integration start scan : 1309 Integration stop scan: 1342
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used. Reason: I am the author of this document

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

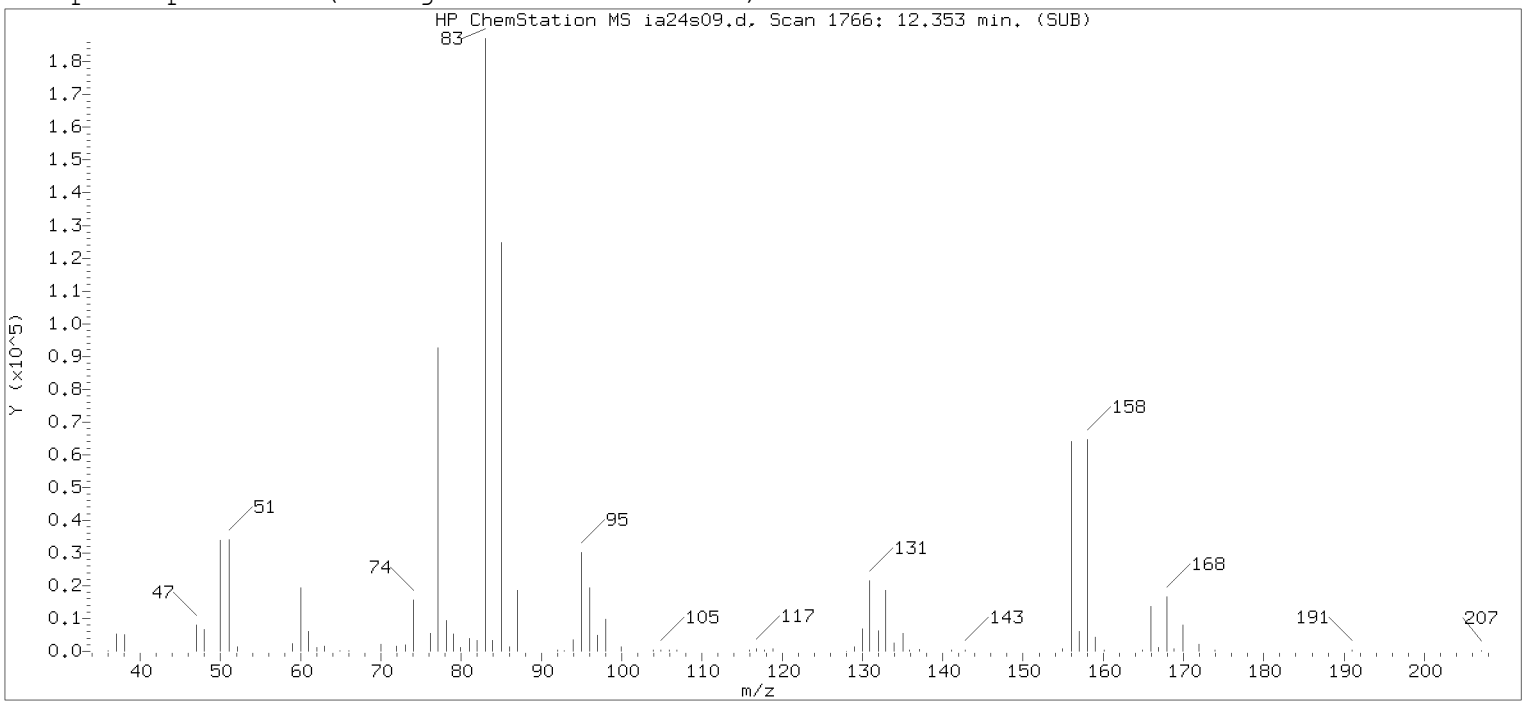
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1766
Retention Time (minutes): 12.353
Quant Ion : 83.00
Area (flag) : 289294M
On-Column Amount (ng) : 5.0929
Integration start scan : 1757 Integration stop scan: 1781
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

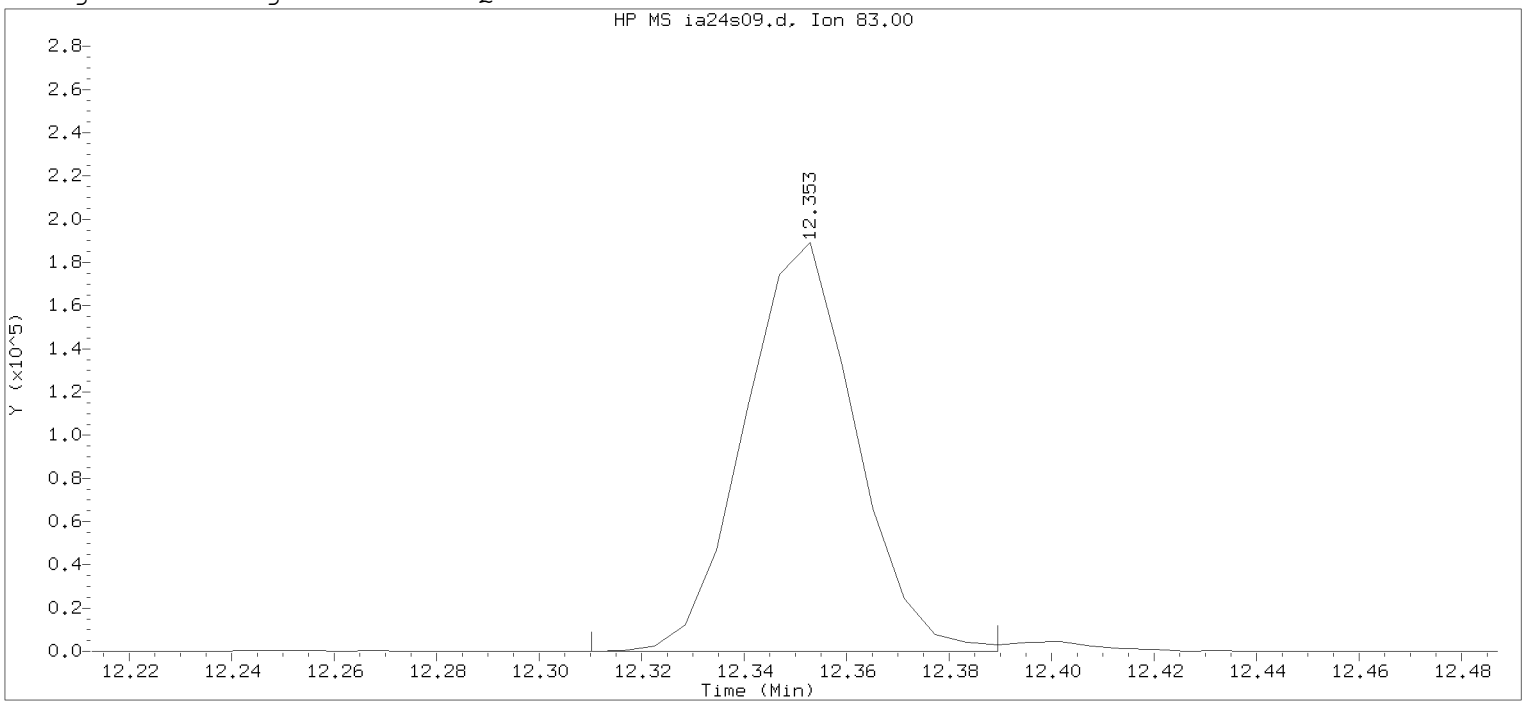
Analyst responsible for change: Digitally signed by Miranda E. Campbell
on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

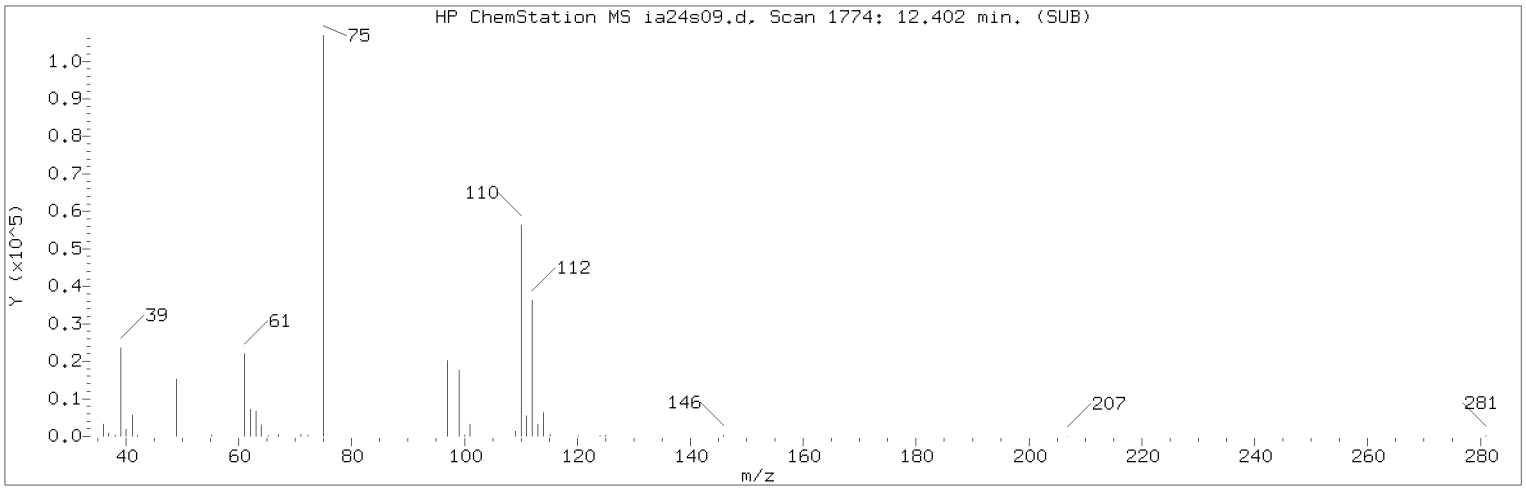
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

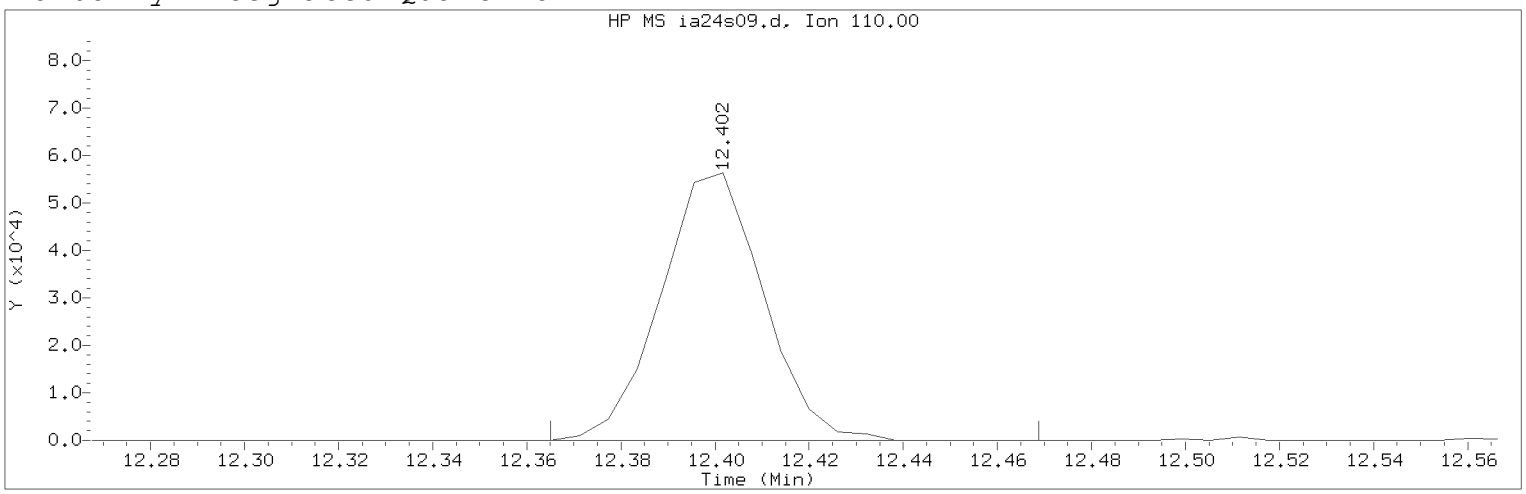
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1766
Retention Time (minutes): 12.353
Quant Ion : 83.00
Area : 283919
On-column Amount (ng) : 4.9983
Integration start scan : 1758 Integration stop scan: 1771
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used for this review

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:17 mec29284

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

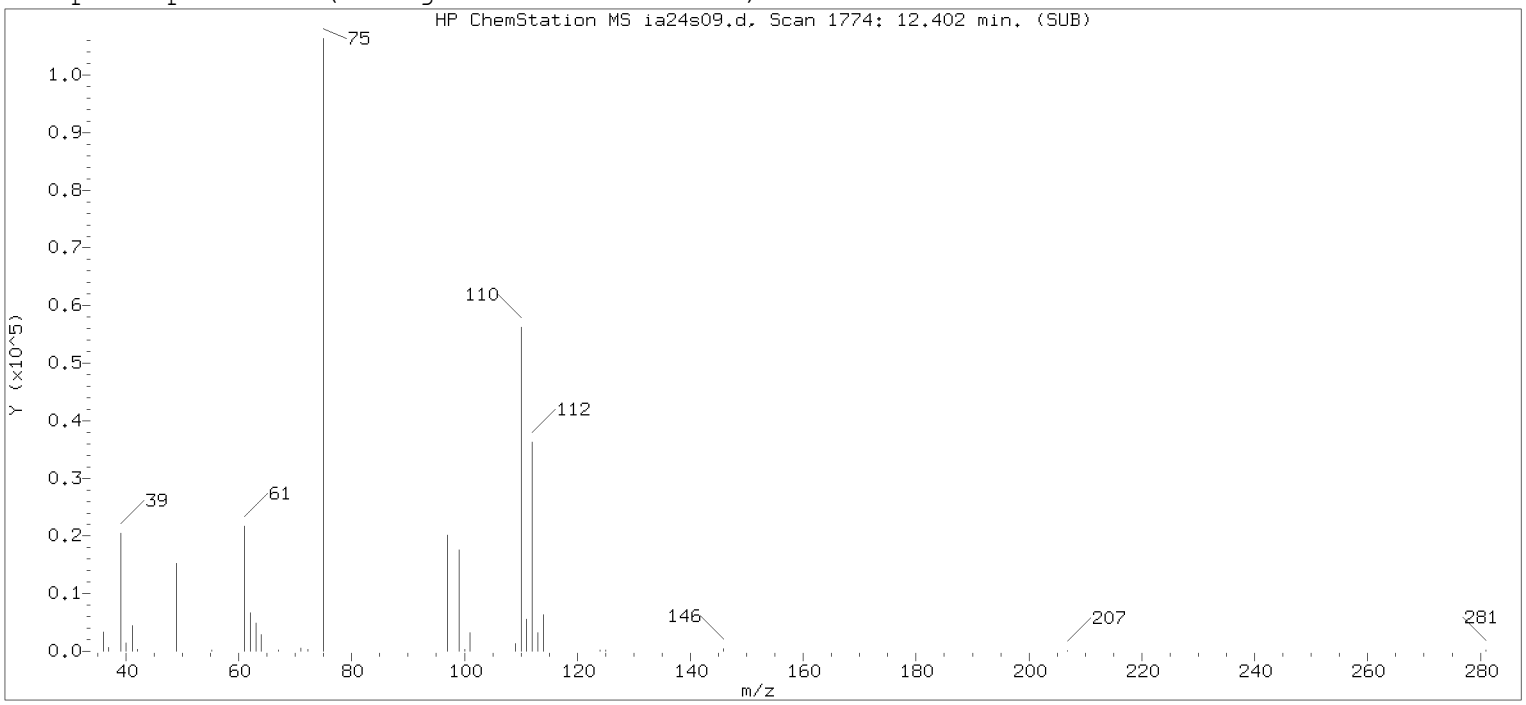
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area (flag) : 85307M
On-Column Amount (ng) : 5.0608
Integration start scan : 1767 Integration stop scan: 1784
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

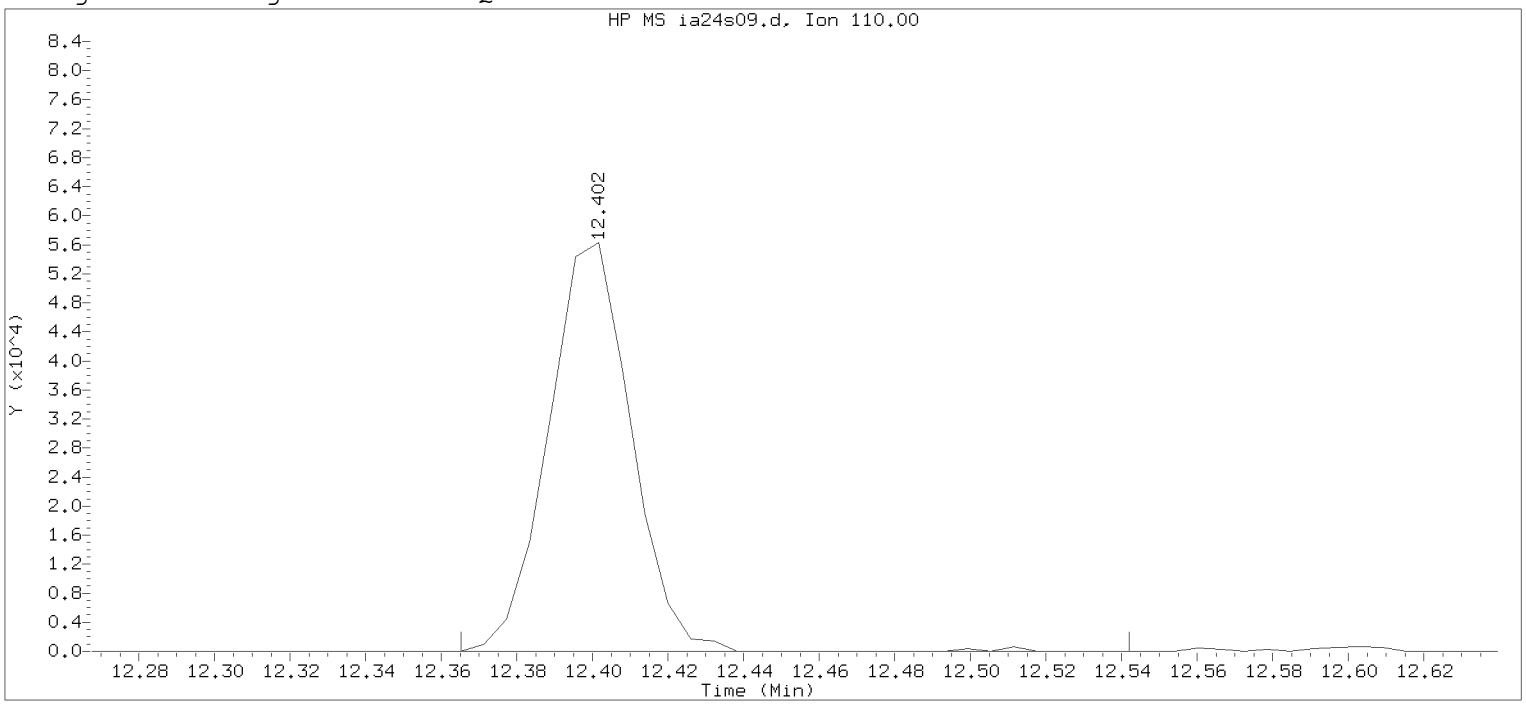
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:16.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24s09.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 14:47 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 15:05 Automation

Sample Name: F3504MSD Lab Sample ID: 1034106MSD

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area : 85645
On-column Amount (ng) : 5.0809
Integration start scan : 1767 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Digitally signed by Miranda E. Campbell on 04/24/2019 at 16:06.
Target 3.5 esignature used for this review.

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s01.d Injection date and time: **24-APR-2019 09:37**
Data file Sample Info. Line: LCSY63;LCSY63;1;3;LCS;;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.258	(0.000)	440	65	360238	(-5)	250.00	
66) Fluorobenzene	7.799	(0.006)	1022	96	1184807	(-2)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	888251	(-3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	498111	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.892	(0.001)	113	276554	48.396	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.361	(0.000)	102	72875	50.844	102%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	1179857	50.610	101%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	446788	50.194	100%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.971	(0.000)	85	143054	14.233	14.23			0.2	1
4) Chloromethane	(2)	2.165	(0.001)	50	125786	15.370	15.37			0.2	1
5) 1,3-Butadiene	(2)	2.287	(0.001)	39	288565	49.907	49.91			1	3
6) Vinyl Chloride	(2)	2.287	(0.001)	62	129974	15.886	15.89			0.2	1
8) Bromomethane	(2)	2.616	(0.001)	94	93361	14.285	14.28			0.3	1
9) Chloroethane	(2)	2.713	(0.000)	64	73370	14.806	14.81			0.2	1
11) n-Pentane	(2)	3.066	(0.001)	43	138014	14.679	14.68			0.4	10
12) Trichlorofluoromethane	(2)	3.011	(0.001)	101	181227	15.700	15.70			0.2	1
14) Ethyl ether	(2)	3.279	(0.001)	59	105324	18.357	18.36			0.2	5
15) Freon 123a	(2)	3.352	(0.000)	67	128594	19.415	19.41			0.4	5
16) Acrolein	(1)	3.443	(0.002)	56	353718	137.317	137.32			2	100
17) 1,1-Dichloroethene	(2)	3.607	(0.000)	96	102828	20.984	20.98			0.2	1
18) Acetone	(1)	3.613	(0.000)	58	207199	158.450	158.45			0.7	20
19) Freon 113	(2)	3.619	(0.001)	101	105204	19.555	19.55			0.2	10
21) 2-Propanol	(1)	3.771	(0.001)	45	129794	142.323	142.32			18	100
22) Methyl Iodide	(2)	3.808	(0.001)	142	183111	18.536	18.54			0.2	1
23) Carbon Disulfide	(2)	3.930	(0.000)	76	324215	20.389	20.39			0.2	5
25) Allyl Chloride	(2)	4.082	(0.001)	41	166974	18.498	18.50			0.3	5
27) Methyl Acetate	(2)	4.045	(0.000)	43	185086	20.649	20.65			0.2	5
28) Methylene Chloride	(2)	4.276	(0.001)	84	124889	20.638	20.64			0.3	1
30) t-Butyl alcohol	(1)	4.386	(0.000)	59	352222	191.359	191.36			12	50
31) Acrylonitrile	(2)	4.593	(0.001)	53	479274	98.711	98.71			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.714	(-0.000)	96	109180	18.589	18.59			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.684	(0.001)	73	335997	20.227	20.23			0.2	1
34) n-Hexane	(2)	5.128	(0.001)	57	158454	17.436	17.44			0.2	5
36) 1,1-Dichloroethane	(2)	5.359	(0.000)	63	209862	20.496	20.50			0.2	1
38) di-Isopropyl ether	(2)	5.414	(0.000)	45	356269	18.911	18.91			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.469	(0.001)	53	169460	18.621	18.62			0.2	5
40) Ethyl t-butyl ether	(2)	5.955	(0.000)	59	307595	18.723	18.72			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.193	(0.000)	96	149062	22.227	22.23			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	258242	40.815	40.82			0.2	2

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:39. Target 3.5 esignature user ID: clm27445

Data file: /chem2/HP09355.i/19apr24a.b/ya24s01.d Injection date and time: **24-APR-2019 09:37**
Data file Sample Info. Line: LCSY63;LCSY63;1;3;LCS;;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.144(0.000)	43	1031039	141.401	141.40			0.3	10
45) 2,2-Dichloropropane	(2)	6.211(0.000)	77	156746	18.973	18.97			0.3	1
47) Propionitrile	(1)	6.223(0.002)	54	327146	175.654	175.65			14	100
48) Methacrylonitrile	(2)	6.454(0.000)	67	736804	152.090	152.09			6	50
49) Bromochloromethane	(2)	6.533(0.000)	128	71395	19.273	19.27			0.2	5
50) Tetrahydrofuran	(1)	6.539(0.001)	71	195710	101.147	101.15			0.7	10
51) Chloroform	(2)	6.679(0.000)	83	211022	20.214	20.21			0.2	1
53) 1,1,1-Trichloroethane	(2)	6.916(0.000)	97	171732	18.773	18.77			0.3	1
54) Cyclohexane	(2)	7.026(0.000)	56	186875	17.667	17.67			0.2	5
55) 1,1-Dichloropropene	(2)	7.130(-0.000)	75	162421	19.539	19.54			0.2	5
56) Carbon Tetrachloride	(2)	7.136(0.000)	117	146893	18.660	18.66			0.2	1
58) Isobutyl Alcohol	(1)	7.239(0.000)	41	305806	511.585	511.59			36	250
60) Benzene	(2)	7.391(0.000)	78	498309	20.245	20.24			0.2	1
61) 1,2-Dichloroethane	(2)	7.464(0.000)	62	180139	20.379	20.38			0.3	1
65) t-Amyl methyl ether	(2)	7.580(0.000)	73	325764	18.889	18.89			0.8	5
67) n-Heptane	(2)	7.811(-0.000)	43	176795	17.875	17.87			0.2	5
69) n-Butanol	(1)	8.127(0.000)	56	503737	995.206	995.21			61	250
71) Trichloroethene	(2)	8.285(-0.000)	95	129138	19.937	19.94			0.2	1
72) Methylcyclohexane	(2)	8.602(-0.000)	83	223171	18.274	18.27			0.2	5
73) 1,2-Dichloropropane	(2)	8.614(-0.000)	63	130333	21.396	21.40			0.2	1
74) Dibromomethane	(2)	8.730(-0.000)	93	86024	19.872	19.87			0.2	1
75) 1,4-Dioxane	(1)	8.699(-0.002)	88	67930M	476.014	476.01			29	250
76) Methyl Methacrylate	(2)	8.687(-0.000)	69	135026	18.869	18.87			0.2	5
78) Bromodichloromethane	(2)	8.961(-0.000)	83	145615	19.672	19.67			0.2	1
79) 2-Nitropropane	(2)	9.216(-0.000)	41	53337	15.818	15.82			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.314(-0.000)	63	91704	18.588	18.59			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.502(-0.000)	75	181280	18.802	18.80			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.660(-0.000)	43	1236932	96.012	96.01			0.5	10
88) Toluene	(3)	9.891(-0.000)	92	317871	19.955	19.95			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.141(0.000)	75	161357	18.225	18.23			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	342637	37.027	37.03			0.2	5
91) Ethyl Methacrylate	(3)	10.196(-0.000)	69	200692	18.305	18.30			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.348(-0.000)	97	130955	21.299	21.30			0.2	1
93) Tetrachloroethene	(3)	10.439(0.000)	166	141524	20.513	20.51			0.2	1
94) 1,3-Dichloropropane	(3)	10.506(0.000)	76	215176	20.803	20.80			0.2	1
96) 2-Hexanone	(3)	10.542(0.000)	43	1017653	100.066	100.07			0.3	10
97) Dibromochloromethane	(3)	10.725(0.000)	129	118521	19.438	19.44			0.2	1
99) 1,2-Dibromoethane	(3)	10.840(0.000)	107	137540	20.140	20.14			0.2	1
101) 1-Chlorohexane	(3)	11.272(-0.000)	91	153083	17.556	17.56			0.3	5
102) Chlorobenzene	(3)	11.297(-0.000)	112	367109	20.178	20.18			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.376(-0.000)	131	115834	19.477	19.48			0.2	1
104) Ethylbenzene	(3)	11.376(-0.000)	91	606197	19.618	19.62			0.4	1
106) m+p-Xylene	(3)	11.491(-0.000)	106	485140	39.700	39.70			1	5
107) o-Xylene	(3)	11.820(-0.000)	106	225127	18.790	18.79			0.4	1
108) Xylene (Total)	(3)		106	710267	58.490	58.49			1	5
109) Styrene	(3)	11.838(-0.000)	104	385949	19.690	19.69			0.2	5
110) Bromoform	(3)	12.002(-0.000)	173	80584	16.697	16.70			0.2	4
111) Isopropylbenzene	(3)	12.124(-0.000)	105	581143	18.710	18.71			0.2	5
112) Cyclohexanone	(1)	12.191(0.001)	55	262180	411.294	411.29			25	100
115) Bromobenzene	(4)	12.386(0.000)	156	166197	19.897	19.90			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.361(-0.000)	83	225404	20.729	20.73			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.410(0.000)	110	75031	19.976	19.98			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.386(0.000)	53	113704	31.140	31.14		J	6	50
119) n-Propylbenzene	(4)	12.453(-0.000)	91	733128	19.886	19.89			0.2	5

M = Compound was manually integrated.

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:39. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s01.d Injection date and time: **24-APR-2019 09:37**
Data file Sample Info. Line: LCSY63;LCSY63;1;3;LCS;;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

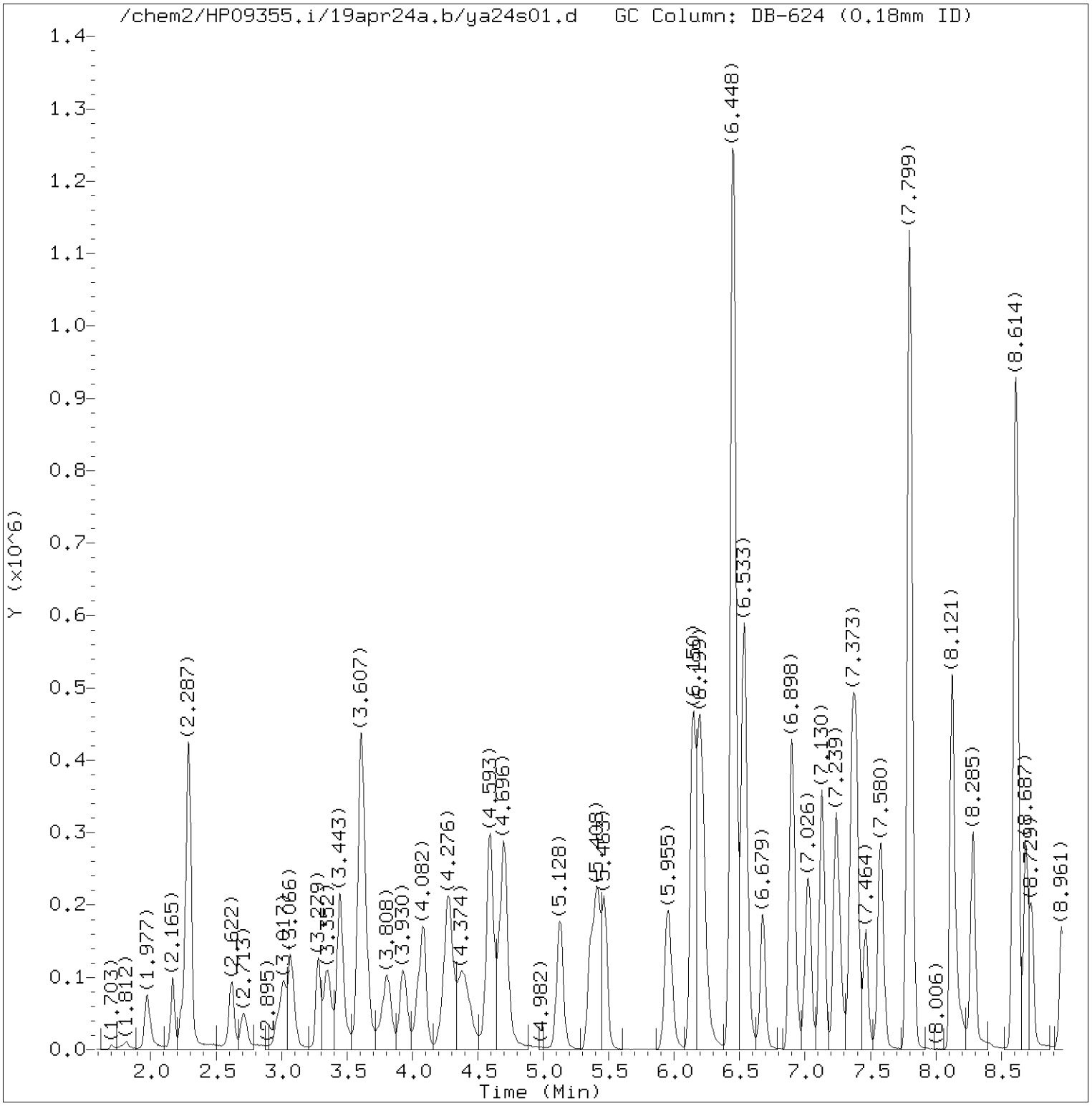
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)	12.532(-0.000)	126	148906	19.008	19.01			0.2	5
121) 4-Chlorotoluene	(4)	12.623(-0.000)	126	159383	19.460	19.46			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.586(0.000)	105	533673	19.409	19.41			0.3	5
124) tert-Butylbenzene	(4)	12.830(0.000)	134	104302M	18.003	18.00			0.3	5
125) Pentachloroethane	(4)	12.866(0.000)	167	91516	19.807	19.81			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.872(0.000)	105	554925	19.447	19.45			1	5
127) sec-Butylbenzene	(4)	12.994(0.000)	105	666379	19.006	19.01			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.098(0.000)	146	315326	19.595	19.60			0.2	5
130) p-Isopropyltoluene	(4)	13.104(-0.000)	119	586220	19.110	19.11			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.170(-0.000)	146	328464	19.858	19.86			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.176(-0.000)	105	619530	20.197	20.20			0.3	5
135) Benzyl Chloride	(4)	13.244(-0.000)	91	391601	17.429	17.43			0.3	5
136) 1,3-Diethylbenzene	(4)	13.304(-0.000)	119	381176	19.992	19.99			0.2	5
137) 1,4-Diethylbenzene	(4)	13.377(-0.000)	119	398413	19.600	19.60			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.432(-0.000)	146	311236	19.707	19.71			0.2	5
139) n-Butylbenzene	(4)	13.396(-0.000)	92	305488	19.382	19.38			0.2	5
140) 1,2-Diethylbenzene	(4)	13.450(-0.000)	119	326299	20.294	20.29			0.2	5
141) Diethylbenzene (total)	(4)		100	1105888	59.886	59.89			0.2	5
142) 1,2-Dibromo-3-chloropropane	(4)	13.974(-0.000)	75	56507	18.952	18.95			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.107(-0.000)	180	234537	19.102	19.10			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.527(-0.000)	180	216433	18.575	18.58			0.3	5
147) Hexachlorobutadiene	(4)	14.612(-0.000)	225	110085	20.758	20.76			0.7	5
148) Naphthalene	(4)	14.710(-0.000)	128	750458	18.635	18.63			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.856(-0.000)	180	218023	19.238	19.24			0.4	5
150) 2-Methylnaphthalene	(4)	15.500(-0.000)	142	418661	17.486	17.49			0.7	5

M = Compound was manually integrated.

Total number of targets = 110

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:39. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

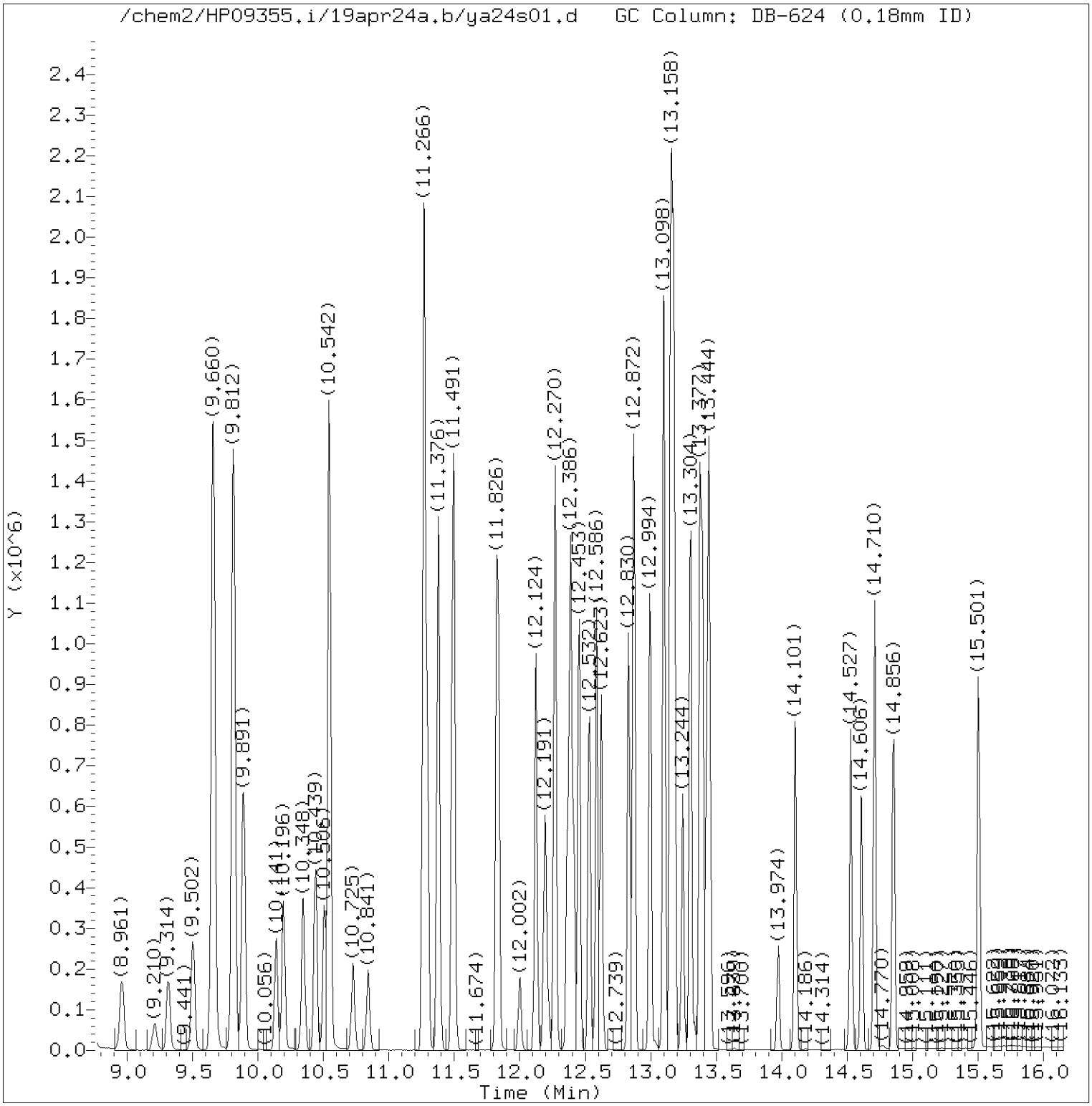
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.971	85	143054	14.233
4) Chloromethane	(2)	2.165	50	125786	15.370
5) 1,3-Butadiene	(2)	2.287	39	288565	49.907
6) Vinyl Chloride	(2)	2.287	62	129974	15.886
8) Bromomethane	(2)	2.615	94	93361	14.285
9) Chloroethane	(2)	2.713	64	73370	14.806
12) Trichlorofluoromethane	(2)	3.011	101	181227	15.700
11) n-Pentane	(2)	3.066	43	138014	14.679
14) Ethyl ether	(2)	3.279	59	105324	18.357
15) Freon 123a	(2)	3.352	67	128594	19.415
16) Acrolein	(1)	3.443	56	353718	137.317
17) 1,1-Dichloroethene	(2)	3.607	96	102828	20.984
18) Acetone	(1)	3.613	58	207199	158.450
19) Freon 113	(2)	3.619	101	105204	19.555
21) 2-Propanol	(1)	3.771	45	129794	142.323
22) Methyl Iodide	(2)	3.808	142	183111	18.536
23) Carbon Disulfide	(2)	3.930	76	324215	20.389
27) Methyl Acetate	(2)	4.045	43	185086	20.649
25) Allyl Chloride	(2)	4.082	41	166974	18.498
29)*t-Butyl alcohol-d10	(1)	4.258	65	360238	250.000
28) Methylene Chloride	(2)	4.276	84	124889	20.638
30) t-Butyl alcohol	(1)	4.386	59	352222	191.359
31) Acrylonitrile	(2)	4.593	53	479274	98.711
33) Methyl Tertiary Butyl Ether	(2)	4.684	73	335997	20.227
32) trans-1,2-Dichloroethene	(2)	4.714	96	109180	18.589
34) n-Hexane	(2)	5.128	57	158454	17.436
36) 1,1-Dichloroethane	(2)	5.359	63	209862	20.496
38) di-Isopropyl ether	(2)	5.414	45	356269	18.911
39) 2-Chloro-1,3-butadiene	(2)	5.469	53	169460	18.621
40) Ethyl t-butyl ether	(2)	5.955	59	307595	18.723
44) 2-Butanone	(2)	6.144	43	1031039	141.401
43) 1,2-Dichloroethene (Total)	(2)		96	258242	40.815
42) cis-1,2-Dichloroethene	(2)	6.193	96	149062	22.227
45) 2,2-Dichloropropane	(2)	6.211	77	156746	18.973
47) Propionitrile	(1)	6.223	54	327146	175.654
48) Methacrylonitrile	(2)	6.454	67	736804	152.090
49) Bromochloromethane	(2)	6.533	128	71395	19.273
50) Tetrahydrofuran	(1)	6.539	71	195710	101.147

* = Compound is an internal standard.

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on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.679	83	211022	20.214
52)$Dibromofluoromethane	(2)	6.892	113	276554	48.396
53) 1,1,1-Trichloroethane	(2)	6.917	97	171732	18.773
54) Cyclohexane	(2)	7.026	56	186875	17.667
55) 1,1-Dichloropropene	(2)	7.130	75	162421	19.539
56) Carbon Tetrachloride	(2)	7.136	117	146893	18.660
58) Isobutyl Alcohol	(1)	7.239	41	305806	511.585
57)$1,2-Dichloroethane-d4	(2)	7.361	102	72875	50.844
60) Benzene	(2)	7.391	78	498309	20.245
61) 1,2-Dichloroethane	(2)	7.464	62	180139	20.379
65) t-Amyl methyl ether	(2)	7.580	73	325764	18.889
66)*Fluorobenzene	(2)	7.799	96	1184807	50.000
67) n-Heptane	(2)	7.811	43	176795	17.875
69) n-Butanol	(1)	8.127	56	503737	995.206
71) Trichloroethene	(2)	8.285	95	129138	19.937
72) Methylcyclohexane	(2)	8.602	83	223171	18.274
73) 1,2-Dichloropropane	(2)	8.614	63	130333	21.396
76) Methyl Methacrylate	(2)	8.687	69	135026	18.869
75) 1,4-Dioxane	(1)	8.699	88	67930M	476.014
74) Dibromomethane	(2)	8.729	93	86024	19.872
78) Bromodichloromethane	(2)	8.961	83	145615	19.672
79) 2-Nitropropane	(2)	9.216	41	53337	15.818
80) 2-Chloroethyl Vinyl Ether	(2)	9.314	63	91704	18.588
81) cis-1,3-Dichloropropene	(2)	9.502	75	181280	18.802
82) 4-Methyl-2-pentanone	(2)	9.660	43	1236932	96.012
83)$Toluene-d8	(3)	9.812	98	1179857	50.610
88) Toluene	(3)	9.891	92	317871	19.955
90) 1,3-Dichloropropene (total)	(3)		100	342637	37.027
89) trans-1,3-Dichloropropene	(3)	10.141	75	161357	18.225
91) Ethyl Methacrylate	(3)	10.196	69	200692	18.305
92) 1,1,2-Trichloroethane	(3)	10.348	97	130955	21.299
93) Tetrachloroethene	(3)	10.439	166	141524	20.513
94) 1,3-Dichloropropane	(3)	10.506	76	215176	20.803
96) 2-Hexanone	(3)	10.542	43	1017653	100.066
97) Dibromochloromethane	(3)	10.725	129	118521	19.438
99) 1,2-Dibromoethane	(3)	10.841	107	137540	20.140
100)*Chlorobenzene-d5	(3)	11.266	117	888251	50.000
101) 1-Chlorohexane	(3)	11.272	91	153083	17.556

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.297	112	367109	20.178
103) 1,1,1,2-Tetrachloroethane	(3)	11.376	131	115834	19.477
104) Ethylbenzene	(3)	11.376	91	606197	19.618
106) m+p-Xylene	(3)	11.491	106	485140	39.700
108) Xylene (Total)	(3)		106	710267	58.490
107) o-Xylene	(3)	11.820	106	225127	18.790
109) Styrene	(3)	11.838	104	385949	19.690
110) Bromoform	(3)	12.002	173	80584	16.697
111) Isopropylbenzene	(3)	12.124	105	581143	18.710
112) Cyclohexanone	(1)	12.191	55	262180	411.294
114)$4-Bromofluorobenzene	(3)	12.270	95	446788	50.194
116) 1,1,2,2-Tetrachloroethane	(4)	12.361	83	225404	20.729
118) trans-1,4-Dichloro-2-butene	(4)	12.386	53	113704	31.140
115) Bromobenzene	(4)	12.386	156	166197	19.897
117) 1,2,3-Trichloropropane	(4)	12.410	110	75031	19.976
119) n-Propylbenzene	(4)	12.453	91	733128	19.886
120) 2-Chlorotoluene	(4)	12.532	126	148906	19.008
122) 1,3,5-Trimethylbenzene	(4)	12.586	105	533673	19.409
121) 4-Chlorotoluene	(4)	12.623	126	159383	19.460
124) tert-Butylbenzene	(4)	12.830	134	104302M	18.003
125) Pentachloroethane	(4)	12.866	167	91516	19.807
126) 1,2,4-Trimethylbenzene	(4)	12.872	105	554925	19.447
127) sec-Butylbenzene	(4)	12.994	105	666379	19.006
129) 1,3-Dichlorobenzene	(4)	13.098	146	315326	19.595
130) p-Isopropyltoluene	(4)	13.104	119	586220	19.110
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	498111	50.000
133) 1,4-Dichlorobenzene	(4)	13.171	146	328464	19.858
134) 1,2,3-Trimethylbenzene	(4)	13.177	105	619530	20.197
135) Benzyl Chloride	(4)	13.244	91	391601	17.429
136) 1,3-Diethylbenzene	(4)	13.304	119	381176	19.992
137) 1,4-Diethylbenzene	(4)	13.377	119	398413	19.600
141) Diethylbenzene (total)	(4)		100	1105888	59.886
139) n-Butylbenzene	(4)	13.396	92	305488	19.382
138) 1,2-Dichlorobenzene	(4)	13.432	146	311236	19.707
140) 1,2-Diethylbenzene	(4)	13.450	119	326299	20.294
142) 1,2-Dibromo-3-chloropropane	(4)	13.974	75	56507	18.952
144) 1,3,5-Trichlorobenzene	(4)	14.107	180	234537	19.102
146) 1,2,4-Trichlorobenzene	(4)	14.527	180	216433	18.575

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

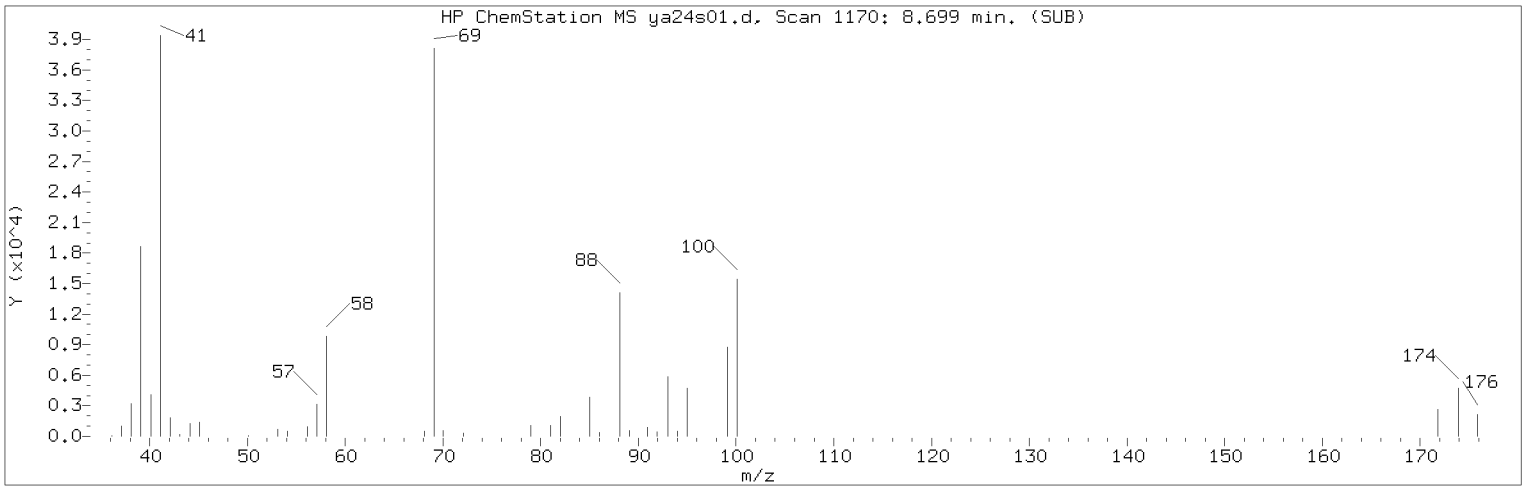
Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

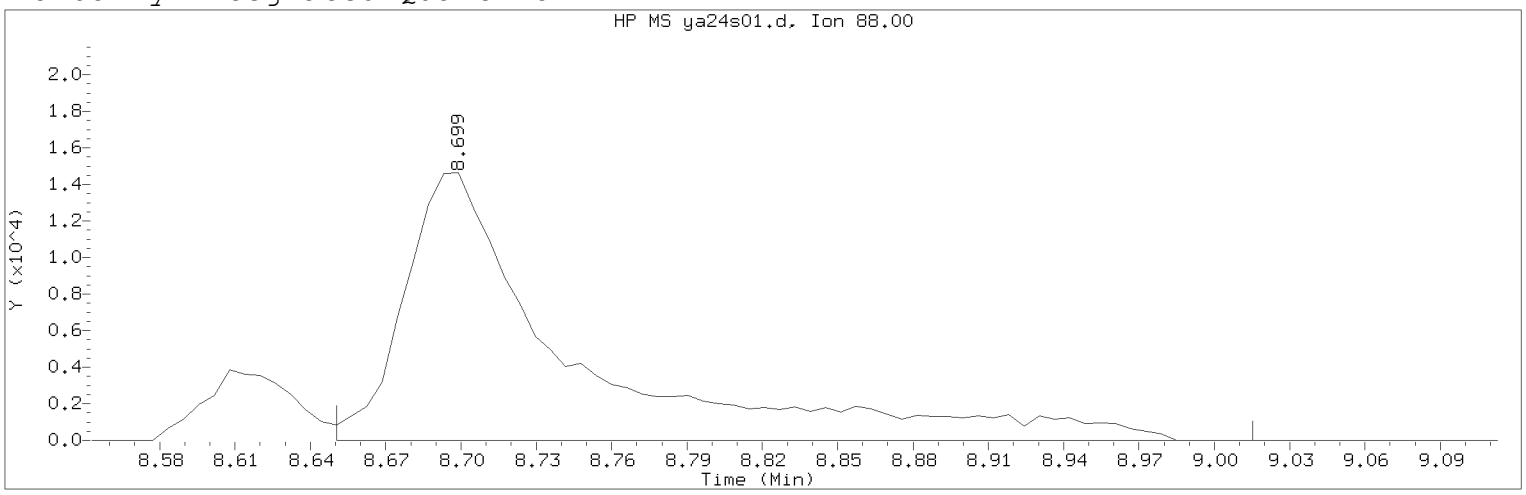
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.612	225	110085	20.758
148) Naphthalene	(4)	14.710	128	750458	18.635
149) 1,2,3-Trichlorobenzene	(4)	14.856	180	218023	19.238
150) 2-Methylnaphthalene	(4)	15.501	142	418661	17.486

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

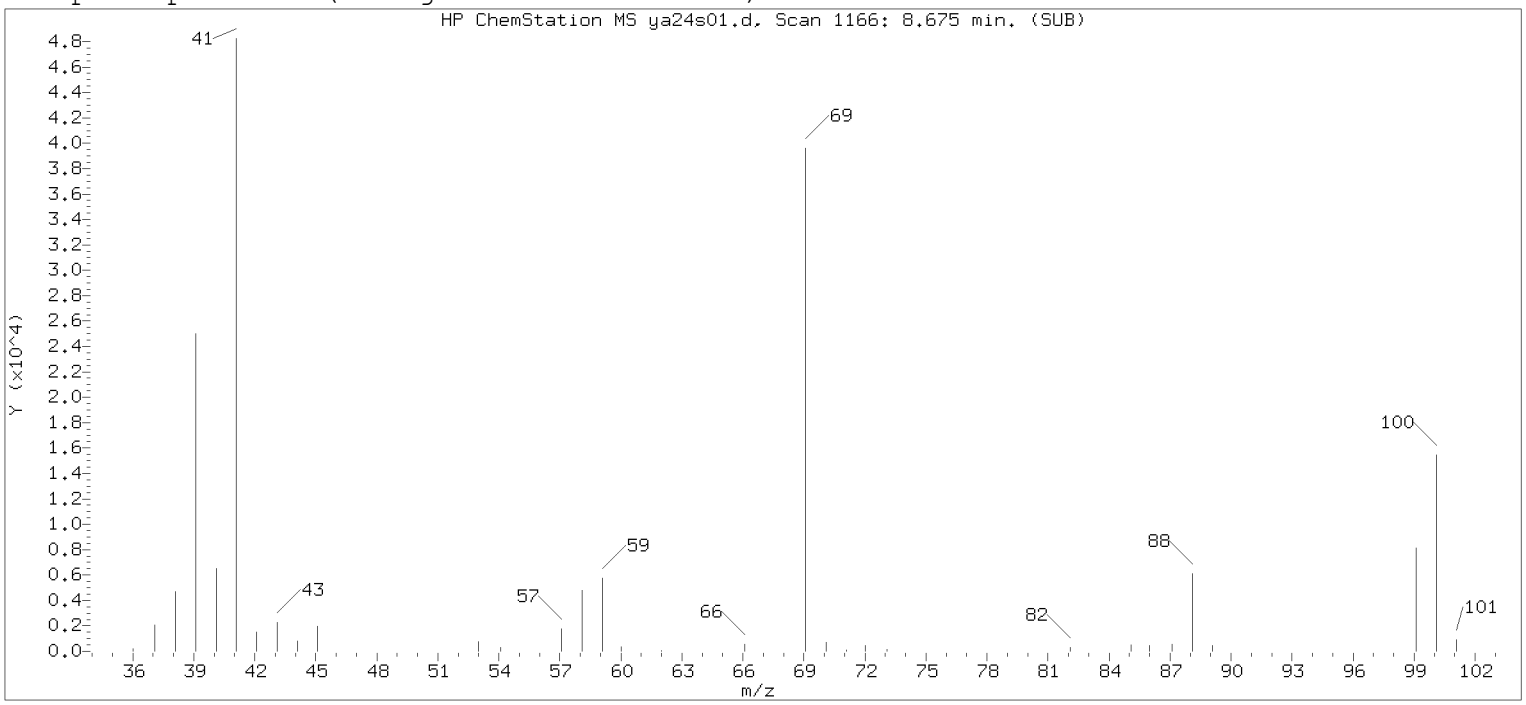
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1170
Retention Time (minutes): 8.699
Quant Ion : 88.00
Area (flag) : 67930M
On-Column Amount (ng) : 476.0144
Integration start scan : 1161 Integration stop scan: 1221
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

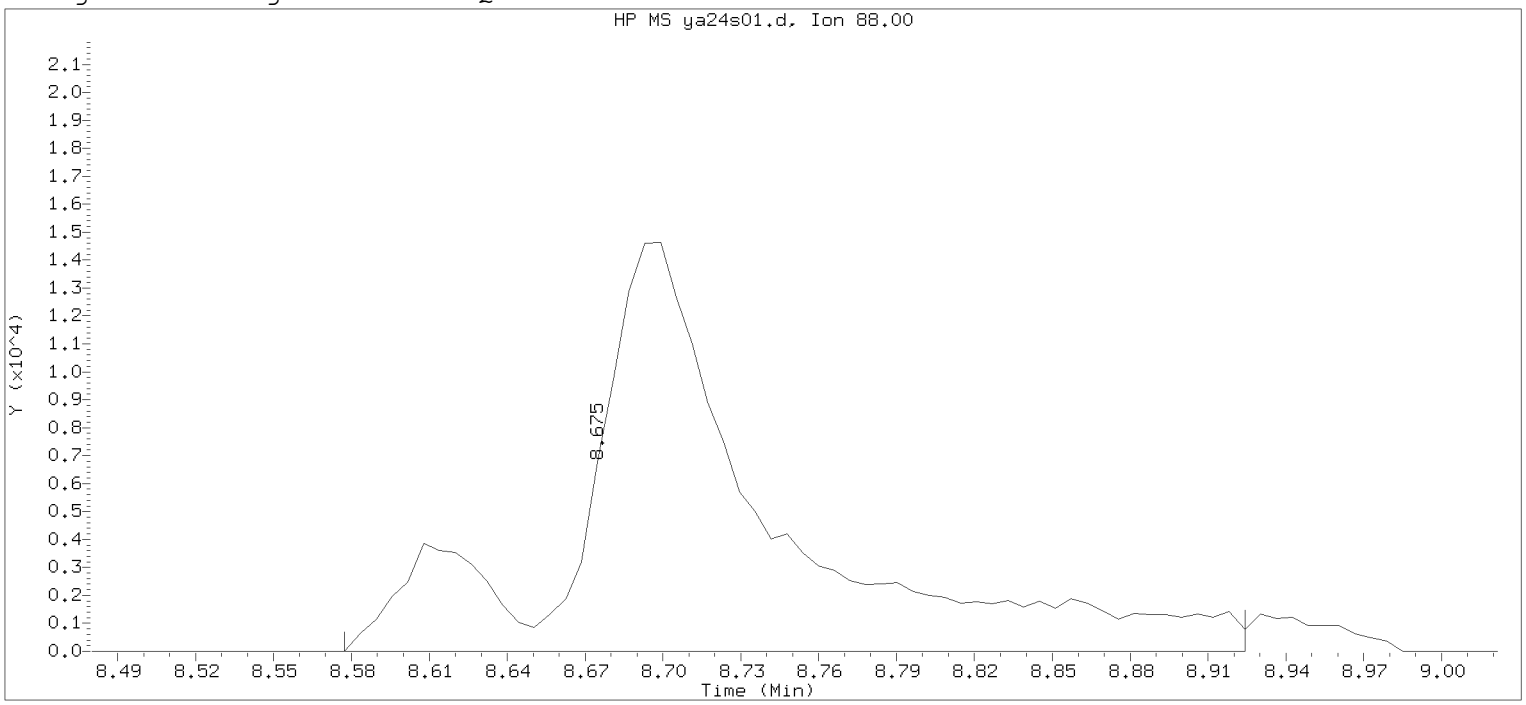
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

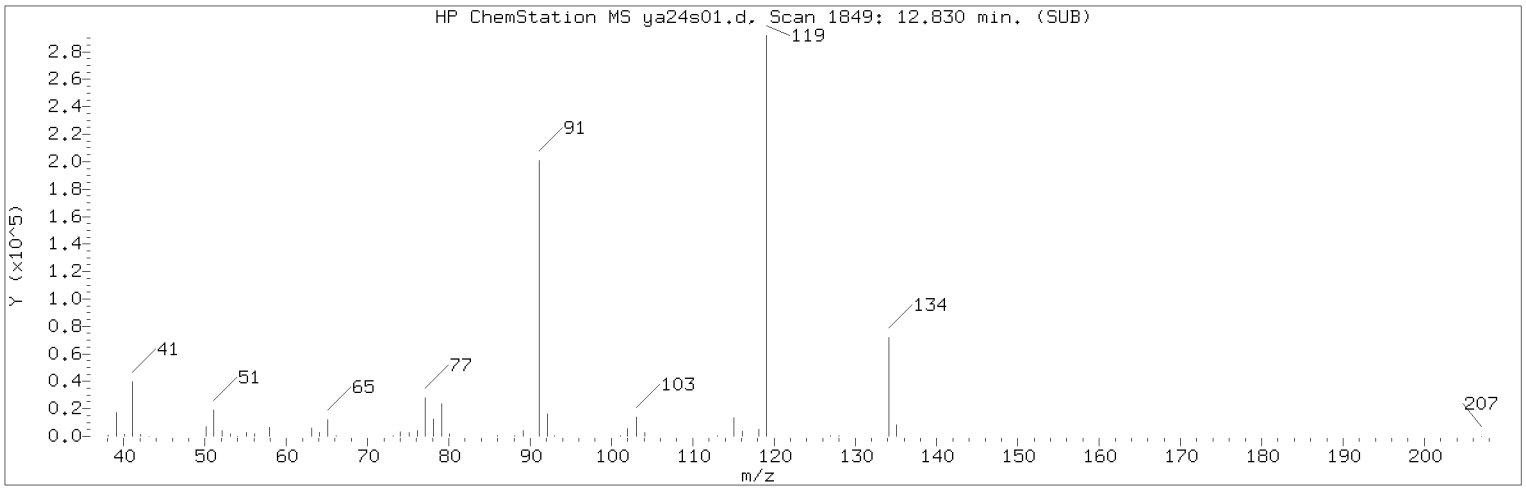
Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 09:59 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

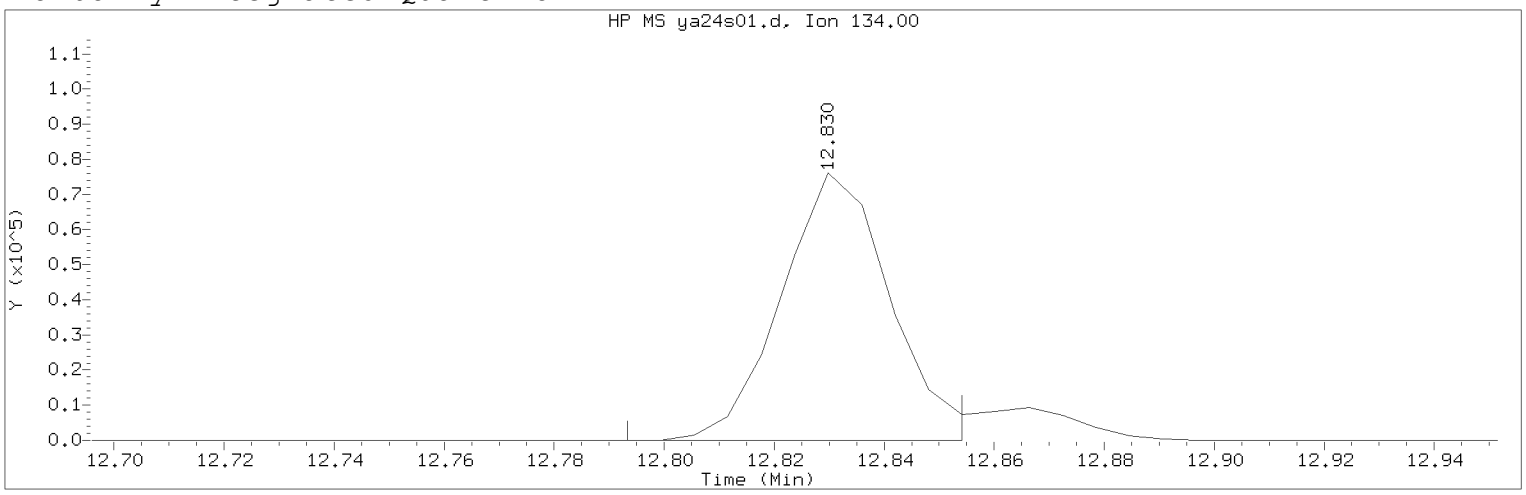
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1166
Retention Time (minutes): 8.675
Quant Ion : 88.00
Area : 74230
On-column Amount (ng) : 520.1661
Integration start scan : 1149 Integration stop scan: 1206
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

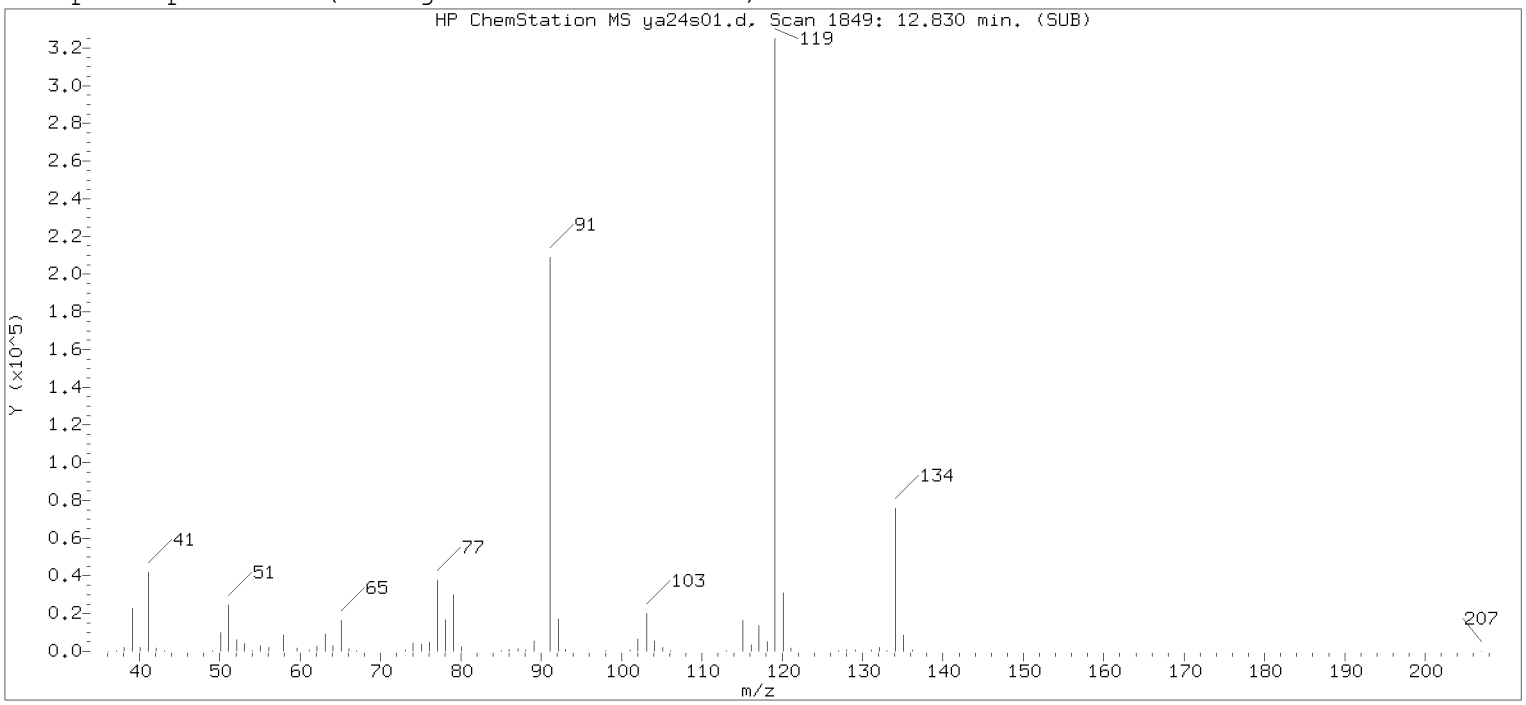
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1849
Retention Time (minutes): 12.830
Quant Ion : 134.00
Area (flag) : 104302M
On-Column Amount (ng) : 18.0026
Integration start scan : 1842 Integration stop scan: 1852
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

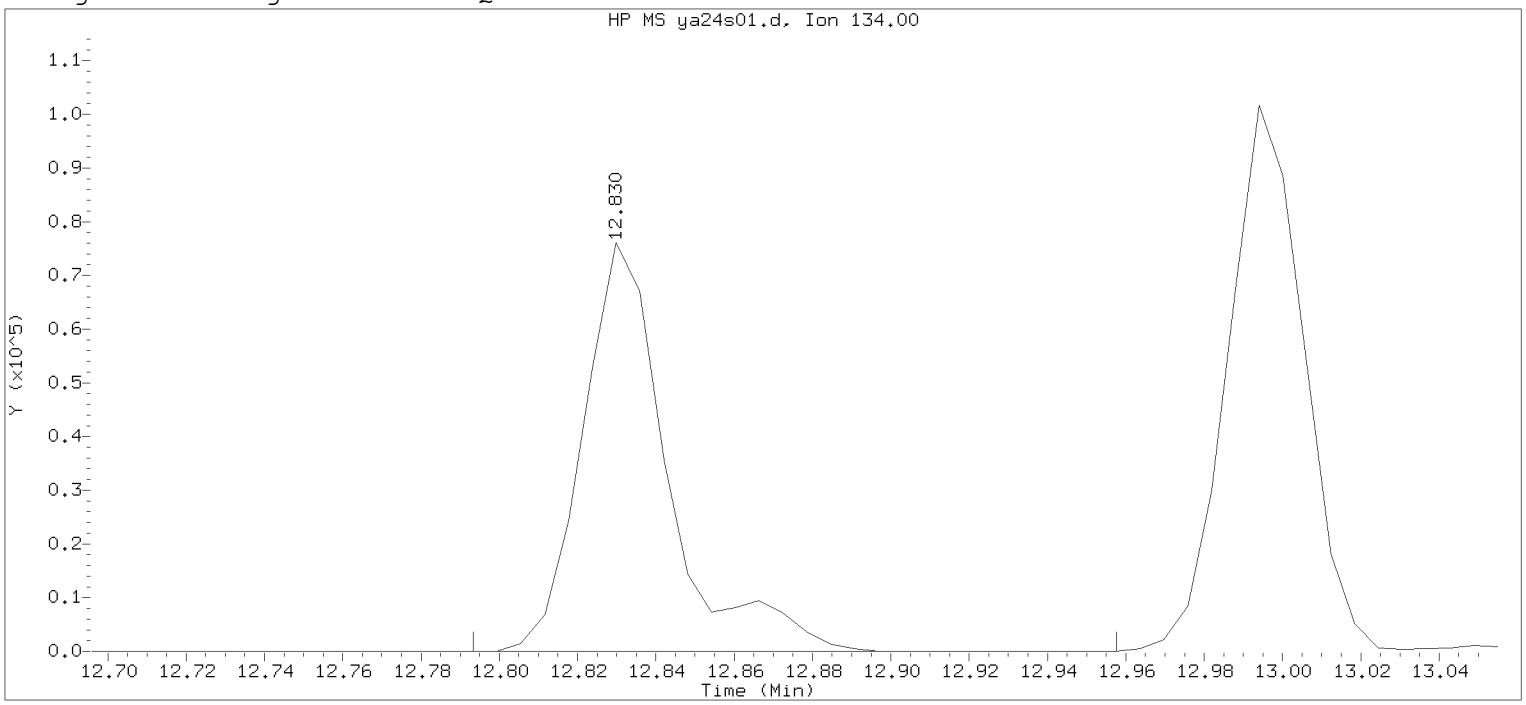
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:39.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s01.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 09:37 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 09:59 clm27445

Sample Name: LCSY63 Lab Sample ID: LCSY63

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1849
Retention Time (minutes): 12.830
Quant Ion : 134.00
Area : 115242
On-column Amount (ng) : 19.8910
Integration start scan : 1842 Integration stop scan: 1869
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:39.
Target 3.5 esignature used. F35 Page 1554

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s02.d Injection date and time: **24-APR-2019 10:22**
Data file Sample Info. Line: LCDY63;LCDY63;1;3;LCSD;;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.258	(0.000)	440	65	368512	(-3)	250.00	
66) Fluorobenzene	7.799	(0.006)	1022	96	1176070	(-3)	50.00	
100) Chlorobenzene-d5	11.266	(0.006)	1592	117	886807	(-4)	50.00	
131) 1,4-Dichlorobenzene-d4	13.152	(0.006)	1902	152	499754	(-3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.898	(0.000)	113	274370	48.371	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.361	(0.000)	102	71951	50.573	101%		80 - 120
83) Toluene-d8	(3)	9.812	(0.000)	98	1173602	50.423	101%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.270	(-0.001)	95	449938	50.631	101%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.977	(-0.000)	85	137648	13.797	13.80			0.2	1
4) Chloromethane	(2)	2.171	(0.000)	50	119546	14.716	14.72			0.2	1
5) 1,3-Butadiene	(2)	2.293	(0.000)	39	274085	47.755	47.76			1	3
6) Vinyl Chloride	(2)	2.293	(0.000)	62	125462	15.448	15.45			0.2	1
8) Bromomethane	(2)	2.622	(0.000)	94	89029	13.723	13.72			0.3	1
9) Chloroethane	(2)	2.707	(0.001)	64	70827	14.399	14.40			0.2	1
11) n-Pentane	(2)	3.072	(0.000)	43	129738	13.901	13.90			0.4	10
12) Trichlorofluoromethane	(2)	3.017	(0.000)	101	175771	15.340	15.34			0.2	1
14) Ethyl ether	(2)	3.285	(0.000)	59	123376	21.663	21.66			0.2	5
15) Freon 123a	(2)	3.352	(0.000)	67	128481	19.542	19.54			0.4	5
16) Acrolein	(1)	3.449	(0.001)	56	350470	133.002	133.00			2	100
17) 1,1-Dichloroethene	(2)	3.607	(0.000)	96	98913	20.335	20.33			0.2	1
18) Acetone	(1)	3.607	(0.001)	58	196997	147.265	147.27			0.7	20
19) Freon 113	(2)	3.625	(0.001)	101	99701	18.670	18.67			0.2	10
21) 2-Propanol	(1)	3.771	(0.001)	45	129991	139.339	139.34			18	100
22) Methyl Iodide	(2)	3.814	(0.000)	142	178091	18.162	18.16			0.2	1
23) Carbon Disulfide	(2)	3.936	(-0.000)	76	310585	19.677	19.68			0.2	5
25) Allyl Chloride	(2)	4.082	(0.001)	41	161227	17.994	17.99			0.3	5
27) Methyl Acetate	(2)	4.045	(0.000)	43	181334	20.380	20.38			0.2	5
28) Methylene Chloride	(2)	4.276	(0.001)	84	121886	20.291	20.29			0.3	1
30) t-Butyl alcohol	(1)	4.392	(-0.001)	59	351394	186.623	186.62			12	50
31) Acrylonitrile	(2)	4.592	(0.001)	53	471850	97.904	97.90			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.708	(0.000)	96	107798	18.490	18.49			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.690	(0.000)	73	327866	19.884	19.88			0.2	1
34) n-Hexane	(2)	5.134	(0.000)	57	149988	16.627	16.63			0.2	5
36) 1,1-Dichloroethane	(2)	5.359	(0.000)	63	202681	19.942	19.94			0.2	1
38) di-Isopropyl ether	(2)	5.414	(0.000)	45	345056	18.452	18.45			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.469	(0.001)	53	164544	18.215	18.22			0.2	5
40) Ethyl t-butyl ether	(2)	5.955	(0.000)	59	295607	18.127	18.13			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.192	(0.000)	96	145295	21.826	21.83			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	253093	40.316	40.32			0.2	2

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:40. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s02.d Injection date and time: **24-APR-2019 10:22**
Data file Sample Info. Line: LCDY63;LCDY63;1;3;LCSD;;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.144(0.000)	43	1025140	141.636	141.64			0.3	10
45) 2,2-Dichloropropane	(2)	6.211(0.000)	77	150325	18.331	18.33			0.3	1
47) Propionitrile	(1)	6.223(0.002)	54	319911	167.913	167.91			14	100
48) Methacrylonitrile	(2)	6.454(0.000)	67	727377	151.259	151.26			6	50
49) Bromochloromethane	(2)	6.527(0.000)	128	67525	18.364	18.36			0.2	5
50) Tetrahydrofuran	(1)	6.539(0.001)	71	192961	97.487	97.49			0.7	10
51) Chloroform	(2)	6.679(0.000)	83	204278	19.713	19.71			0.2	1
53) 1,1,1-Trichloroethane	(2)	6.910(0.000)	97	166031	18.284	18.28			0.3	1
54) Cyclohexane	(2)	7.026(0.000)	56	181275	17.265	17.26			0.2	5
55) 1,1-Dichloropropene	(2)	7.129(-0.000)	75	157374	19.073	19.07			0.2	5
56) Carbon Tetrachloride	(2)	7.136(0.000)	117	142193	18.197	18.20			0.2	1
58) Isobutyl Alcohol	(1)	7.239(-0.000)	41	305101	498.946	498.95			36	250
60) Benzene	(2)	7.391(0.000)	78	483611	19.794	19.79			0.2	1
61) 1,2-Dichloroethane	(2)	7.464(0.000)	62	175004	19.946	19.95			0.3	1
65) t-Amyl methyl ether	(2)	7.580(0.000)	73	318692	18.617	18.62			0.8	5
67) n-Heptane	(2)	7.811(-0.000)	43	169906	17.306	17.31			0.2	5
69) n-Butanol	(1)	8.121(0.001)	56	498513	962.772	962.77			61	250
71) Trichloroethene	(2)	8.285(-0.000)	95	124512	19.365	19.37			0.2	1
72) Methylcyclohexane	(2)	8.602(-0.000)	83	212978	17.569	17.57			0.2	5
73) 1,2-Dichloropropane	(2)	8.614(-0.000)	63	127376	21.066	21.07			0.2	1
74) Dibromomethane	(2)	8.729(-0.000)	93	84419	19.646	19.65			0.2	1
75) 1,4-Dioxane	(1)	8.699(-0.002)	88	67588M	462.984	462.98			29	250
76) Methyl Methacrylate	(2)	8.687(-0.000)	69	132868	18.706	18.71			0.2	5
78) Bromodichloromethane	(2)	8.960(-0.000)	83	140446	19.114	19.11			0.2	1
79) 2-Nitropropane	(2)	9.210(-0.000)	41	53049	15.849	15.85			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.313(-0.000)	63	90022	18.383	18.38			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.502(-0.000)	75	179376	18.743	18.74			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.654(-0.000)	43	1209280	94.563	94.56			0.5	10
88) Toluene	(3)	9.885(0.000)	92	310132	19.501	19.50			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.141(0.000)	75	159243	18.016	18.02			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	338619	36.758	36.76			0.2	5
91) Ethyl Methacrylate	(3)	10.196(-0.000)	69	199522	18.227	18.23			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.348(-0.000)	97	130285	21.225	21.22			0.2	1
93) Tetrachloroethene	(3)	10.439(0.000)	166	134434	19.517	19.52			0.2	1
94) 1,3-Dichloropropane	(3)	10.506(0.000)	76	208446	20.185	20.18			0.2	1
96) 2-Hexanone	(3)	10.542(0.000)	43	997495	98.244	98.24			0.3	10
97) Dibromochloromethane	(3)	10.725(0.000)	129	116392	19.120	19.12			0.2	1
99) 1,2-Dibromoethane	(3)	10.840(0.000)	107	135891	19.931	19.93			0.2	1
101) 1-Chlorohexane	(3)	11.272(-0.000)	91	148704	17.082	17.08			0.3	5
102) Chlorobenzene	(3)	11.297(-0.000)	112	360093	19.824	19.82			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.376(-0.000)	131	114902	19.352	19.35			0.2	1
104) Ethylbenzene	(3)	11.376(-0.000)	91	589704	19.115	19.12			0.4	1
106) m+p-Xylene	(3)	11.491(-0.000)	106	472430	38.723	38.72			1	5
107) o-Xylene	(3)	11.820(-0.000)	106	220472	18.431	18.43			0.4	1
108) Xylene (Total)	(3)		106	692902	57.154	57.15			1	5
109) Styrene	(3)	11.838(-0.000)	104	378225	19.328	19.33			0.2	5
110) Bromoform	(3)	12.002(-0.000)	173	78503	16.292	16.29			0.2	4
111) Isopropylbenzene	(3)	12.124(-0.000)	105	568936	18.347	18.35			0.2	5
112) Cyclohexanone	(1)	12.191(0.001)	55	254322	390.009	390.01			25	100
115) Bromobenzene	(4)	12.386(0.000)	156	160714	19.178	19.18			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.361(-0.000)	83	222016	20.350	20.35			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.410(0.000)	110	74747	19.835	19.84			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.386(0.000)	53	117536	32.084	32.08		J	6	50
119) n-Propylbenzene	(4)	12.452(-0.000)	91	713114	19.280	19.28			0.2	5

M = Compound was manually integrated.

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:40. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/19apr24a.b/ya24s02.d Injection date and time: **24-APR-2019 10:22**
Data file Sample Info. Line: LCDY63;LCDY63;1;3;LCSD;;;;ya24b01; Instrument ID: **HP09355.i** Batch: **Y191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Blank Data file reference: **/chem2/HP09355.i/19apr24a.b/ya24b01.d**

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 24-APR-2019 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/19apr24a.b/ya24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

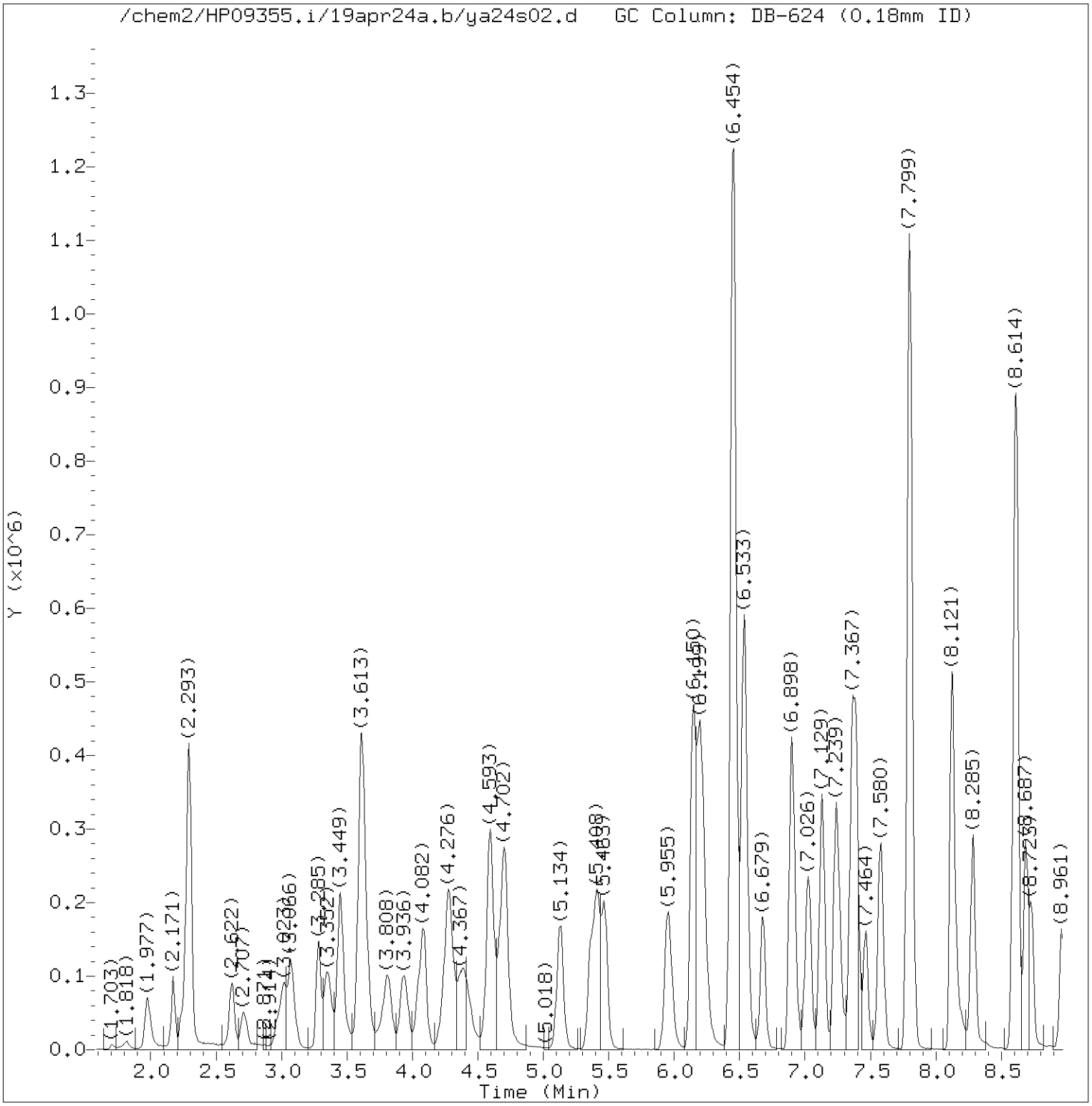
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)	12.532(-0.000)	126	146356	18.621	18.62			0.2	5
121) 4-Chlorotoluene	(4)	12.623(-0.000)	126	153257	18.651	18.65			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.586(0.000)	105	516133	18.709	18.71			0.3	5
124) tert-Butylbenzene	(4)	12.830(0.000)	134	101140M	17.399	17.40			0.3	5
125) Pentachloroethane	(4)	12.866(0.000)	167	92830	20.025	20.02			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.872(0.000)	105	535770	18.714	18.71			1	5
127) sec-Butylbenzene	(4)	12.994(0.000)	105	650718	18.498	18.50			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.097(0.000)	146	308241	19.092	19.09			0.2	5
130) p-Isopropyltoluene	(4)	13.104(-0.000)	119	569615	18.508	18.51			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.170(-0.000)	146	321814	19.392	19.39	N.I.B.		0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.176(-0.000)	105	611618	19.874	19.87	N.I.B.		0.3	5
135) Benzyl Chloride	(4)	13.243(-0.000)	91	378653	16.797	16.80	N.I.B.		0.3	5
136) 1,3-Diethylbenzene	(4)	13.304(-0.000)	119	369397	19.311	19.31	N.I.B.		0.2	5
137) 1,4-Diethylbenzene	(4)	13.377(-0.000)	119	387036	18.977	18.98			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.432(-0.000)	146	306521	19.344	19.34			0.2	5
139) n-Butylbenzene	(4)	13.396(-0.000)	92	294929	18.651	18.65			0.2	5
140) 1,2-Diethylbenzene	(4)	13.450(-0.000)	119	318643	19.753	19.75			0.2	5
141) Diethylbenzene (total)	(4)		100	1075076	58.041	58.04			0.2	5
142) 1,2-Dibromo-3-chloropropane	(4)	13.973(-0.000)	75	56402	18.855	18.85			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.101(-0.000)	180	231182	18.767	18.77			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.527(-0.000)	180	211057	18.054	18.05			0.3	5
147) Hexachlorobutadiene	(4)	14.612(-0.000)	225	106231	19.965	19.97			0.7	5
148) Naphthalene	(4)	14.710(-0.000)	128	742862	18.386	18.39			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.856(-0.000)	180	216613	19.050	19.05			0.4	5
150) 2-Methylnaphthalene	(4)	15.500(-0.000)	142	413911	17.231	17.23			0.7	5

M = Compound was manually integrated. NIB = Compound not in referenced method blank sublist.

Total number of targets = 110

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:40. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43. PARALLAX ID: jeb12641



Total Ion Chromatogram (TIC)

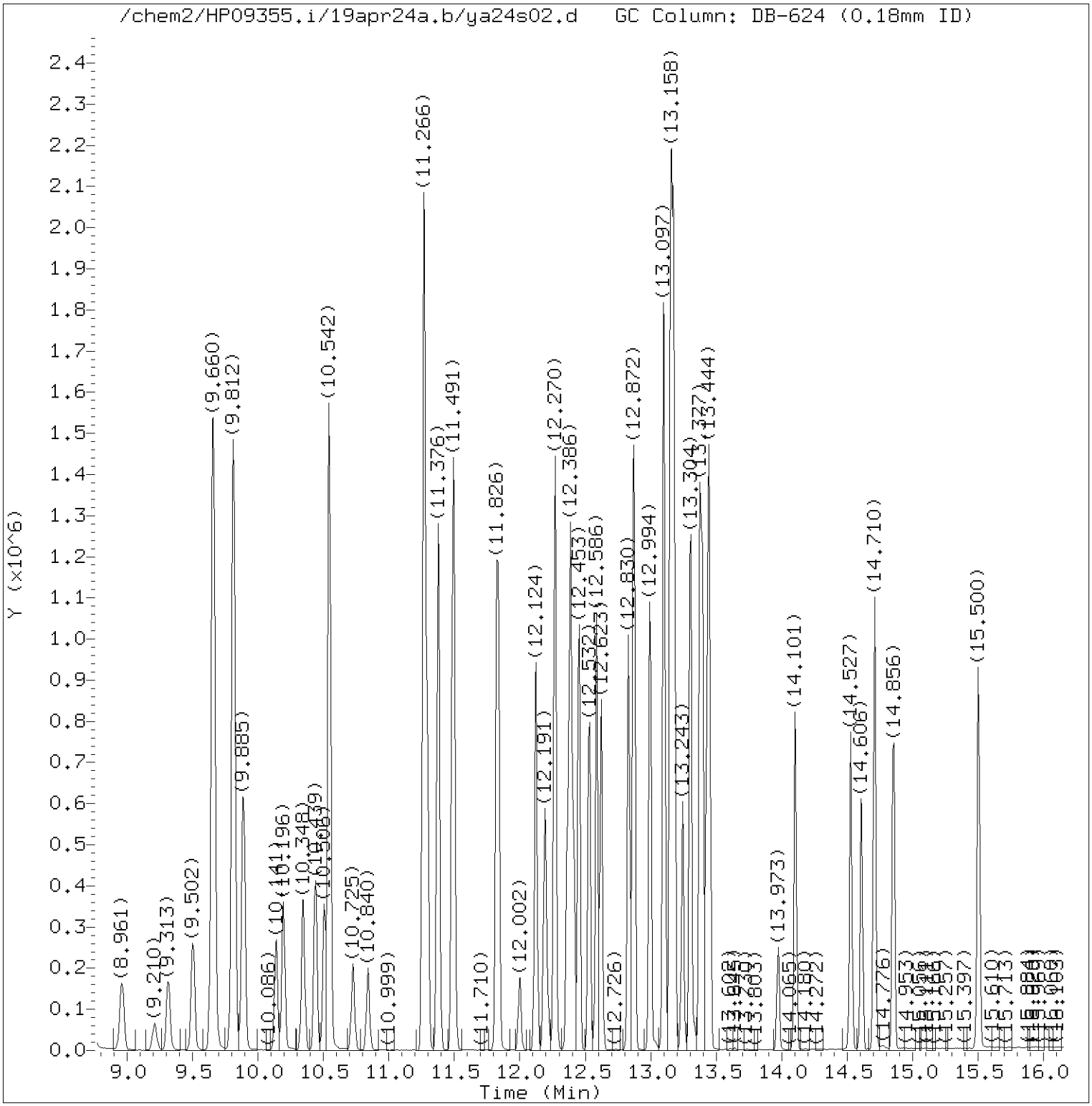
Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.977	85	137648	13.797
4) Chloromethane	(2)	2.171	50	119546	14.716
5) 1,3-Butadiene	(2)	2.293	39	274085	47.755
6) Vinyl Chloride	(2)	2.293	62	125462	15.448
8) Bromomethane	(2)	2.622	94	89029	13.723
9) Chloroethane	(2)	2.707	64	70827	14.399
12) Trichlorofluoromethane	(2)	3.017	101	175771	15.340
11) n-Pentane	(2)	3.072	43	129738	13.901
14) Ethyl ether	(2)	3.285	59	123376	21.663
15) Freon 123a	(2)	3.352	67	128481	19.542
16) Acrolein	(1)	3.449	56	350470	133.002
17) 1,1-Dichloroethene	(2)	3.607	96	98913	20.335
18) Acetone	(1)	3.607	58	196997	147.265
19) Freon 113	(2)	3.625	101	99701	18.670
21) 2-Propanol	(1)	3.771	45	129991	139.339
22) Methyl Iodide	(2)	3.814	142	178091	18.162
23) Carbon Disulfide	(2)	3.936	76	310585	19.677
27) Methyl Acetate	(2)	4.045	43	181334	20.380
25) Allyl Chloride	(2)	4.082	41	161227	17.994
29)*t-Butyl alcohol-d10	(1)	4.258	65	368512	250.000
28) Methylene Chloride	(2)	4.276	84	121886	20.291
30) t-Butyl alcohol	(1)	4.392	59	351394	186.623
31) Acrylonitrile	(2)	4.593	53	471850	97.904
33) Methyl Tertiary Butyl Ether	(2)	4.690	73	327866	19.884
32) trans-1,2-Dichloroethene	(2)	4.708	96	107798	18.490
34) n-Hexane	(2)	5.134	57	149988	16.627
36) 1,1-Dichloroethane	(2)	5.359	63	202681	19.942
38) di-Isopropyl ether	(2)	5.414	45	345056	18.452
39) 2-Chloro-1,3-butadiene	(2)	5.469	53	164544	18.215
40) Ethyl t-butyl ether	(2)	5.955	59	295607	18.127
44) 2-Butanone	(2)	6.144	43	1025140	141.636
43) 1,2-Dichloroethene (Total)	(2)		96	253093	40.316
42) cis-1,2-Dichloroethene	(2)	6.193	96	145295	21.826
45) 2,2-Dichloropropane	(2)	6.211	77	150325	18.331
47) Propionitrile	(1)	6.223	54	319911	167.913
48) Methacrylonitrile	(2)	6.454	67	727377	151.259
49) Bromochloromethane	(2)	6.527	128	67525	18.364
50) Tetrahydrofuran	(1)	6.539	71	192961	97.487

* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.679	83	204278	19.713
52)$Dibromofluoromethane	(2)	6.898	113	274370	48.371
53) 1,1,1-Trichloroethane	(2)	6.910	97	166031	18.284
54) Cyclohexane	(2)	7.026	56	181275	17.265
55) 1,1-Dichloropropene	(2)	7.129	75	157374	19.073
56) Carbon Tetrachloride	(2)	7.136	117	142193	18.197
58) Isobutyl Alcohol	(1)	7.239	41	305101	498.946
57)$1,2-Dichloroethane-d4	(2)	7.361	102	71951	50.573
60) Benzene	(2)	7.391	78	483611	19.794
61) 1,2-Dichloroethane	(2)	7.464	62	175004	19.946
65) t-Amyl methyl ether	(2)	7.580	73	318692	18.617
66)*Fluorobenzene	(2)	7.799	96	1176070	50.000
67) n-Heptane	(2)	7.811	43	169906	17.306
69) n-Butanol	(1)	8.121	56	498513	962.772
71) Trichloroethene	(2)	8.285	95	124512	19.365
72) Methylcyclohexane	(2)	8.602	83	212978	17.569
73) 1,2-Dichloropropane	(2)	8.614	63	127376	21.066
76) Methyl Methacrylate	(2)	8.687	69	132868	18.706
75) 1,4-Dioxane	(1)	8.699	88	67588M	462.984
74) Dibromomethane	(2)	8.729	93	84419	19.646
78) Bromodichloromethane	(2)	8.961	83	140446	19.114
79) 2-Nitropropane	(2)	9.210	41	53049	15.849
80) 2-Chloroethyl Vinyl Ether	(2)	9.313	63	90022	18.383
81) cis-1,3-Dichloropropene	(2)	9.502	75	179376	18.743
82) 4-Methyl-2-pentanone	(2)	9.654	43	1209280	94.563
83)$Toluene-d8	(3)	9.812	98	1173602	50.423
88) Toluene	(3)	9.885	92	310132	19.501
90) 1,3-Dichloropropene (total)	(3)		100	338619	36.758
89) trans-1,3-Dichloropropene	(3)	10.141	75	159243	18.016
91) Ethyl Methacrylate	(3)	10.196	69	199522	18.227
92) 1,1,2-Trichloroethane	(3)	10.348	97	130285	21.225
93) Tetrachloroethene	(3)	10.439	166	134434	19.517
94) 1,3-Dichloropropane	(3)	10.506	76	208446	20.185
96) 2-Hexanone	(3)	10.542	43	997495	98.244
97) Dibromochloromethane	(3)	10.725	129	116392	19.120
99) 1,2-Dibromoethane	(3)	10.840	107	135891	19.931
100)*Chlorobenzene-d5	(3)	11.266	117	886807	50.000
101) 1-Chlorohexane	(3)	11.272	91	148704	17.082

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.297	112	360093	19.824
103) 1,1,1,2-Tetrachloroethane	(3)	11.376	131	114902	19.352
104) Ethylbenzene	(3)	11.376	91	589704	19.115
106) m+p-Xylene	(3)	11.491	106	472430	38.723
108) Xylene (Total)	(3)		106	692902	57.154
107) o-Xylene	(3)	11.820	106	220472	18.431
109) Styrene	(3)	11.838	104	378225	19.328
110) Bromoform	(3)	12.002	173	78503	16.292
111) Isopropylbenzene	(3)	12.124	105	568936	18.347
112) Cyclohexanone	(1)	12.191	55	254322	390.009
114)$4-Bromofluorobenzene	(3)	12.270	95	449938	50.631
116) 1,1,2,2-Tetrachloroethane	(4)	12.361	83	222016	20.350
118) trans-1,4-Dichloro-2-butene	(4)	12.386	53	117536	32.084
115) Bromobenzene	(4)	12.386	156	160714	19.178
117) 1,2,3-Trichloropropane	(4)	12.410	110	74747	19.835
119) n-Propylbenzene	(4)	12.453	91	713114	19.280
120) 2-Chlorotoluene	(4)	12.532	126	146356	18.621
122) 1,3,5-Trimethylbenzene	(4)	12.586	105	516133	18.709
121) 4-Chlorotoluene	(4)	12.623	126	153257	18.651
124) tert-Butylbenzene	(4)	12.830	134	101140M	17.399
125) Pentachloroethane	(4)	12.866	167	92830	20.025
126) 1,2,4-Trimethylbenzene	(4)	12.872	105	535770	18.714
127) sec-Butylbenzene	(4)	12.994	105	650718	18.498
129) 1,3-Dichlorobenzene	(4)	13.097	146	308241	19.092
130) p-Isopropyltoluene	(4)	13.104	119	569615	18.508
131)*1,4-Dichlorobenzene-d4	(4)	13.152	152	499754	50.000
133) 1,4-Dichlorobenzene	(4)	13.170	146	321814	19.392
134) 1,2,3-Trimethylbenzene	(4)	13.177	105	611618	19.874
135) Benzyl Chloride	(4)	13.243	91	378653	16.797
136) 1,3-Diethylbenzene	(4)	13.304	119	369397	19.311
137) 1,4-Diethylbenzene	(4)	13.377	119	387036	18.977
141) Diethylbenzene (total)	(4)		100	1075076	58.041
139) n-Butylbenzene	(4)	13.396	92	294929	18.651
138) 1,2-Dichlorobenzene	(4)	13.432	146	306521	19.344
140) 1,2-Diethylbenzene	(4)	13.450	119	318643	19.753
142) 1,2-Dibromo-3-chloropropane	(4)	13.973	75	56402	18.855
144) 1,3,5-Trichlorobenzene	(4)	14.101	180	231182	18.767
146) 1,2,4-Trichlorobenzene	(4)	14.527	180	211057	18.054

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

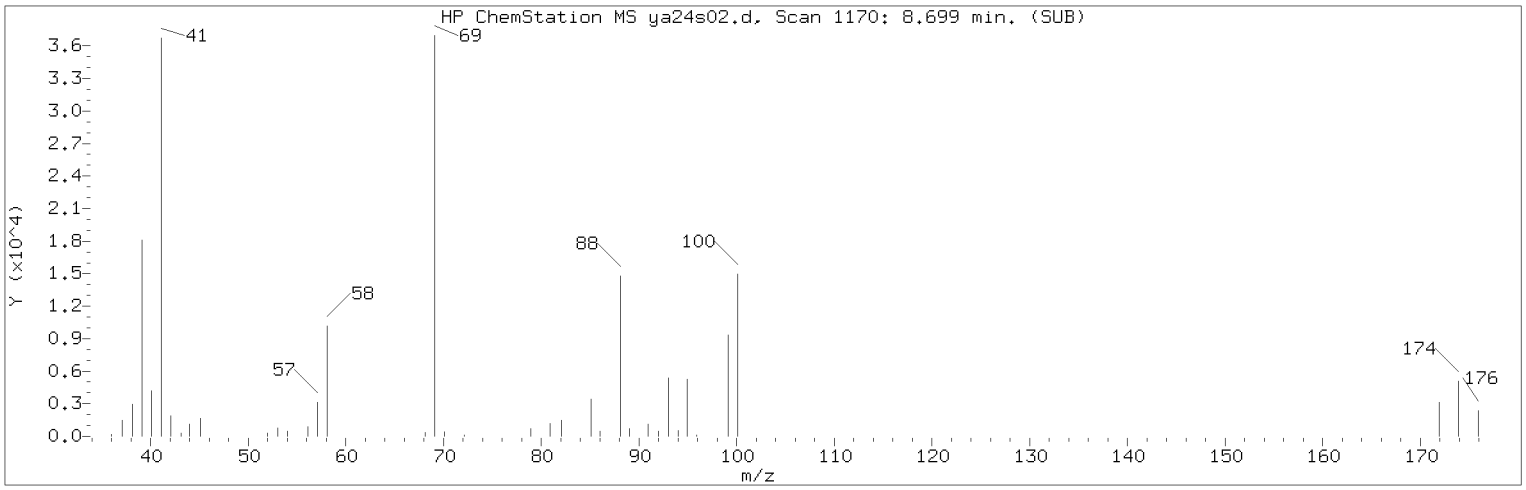
Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

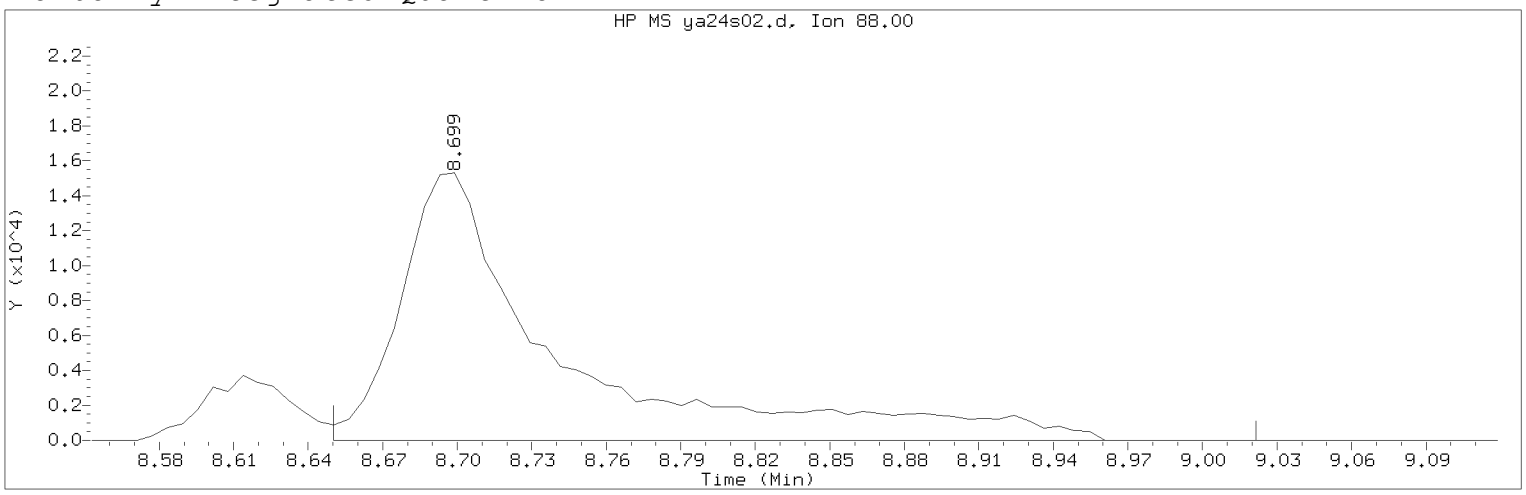
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.612	225	106231	19.965
148) Naphthalene	(4)	14.710	128	742862	18.386
149) 1,2,3-Trichlorobenzene	(4)	14.856	180	216613	19.050
150) 2-Methylnaphthalene	(4)	15.500	142	413911	17.231

Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

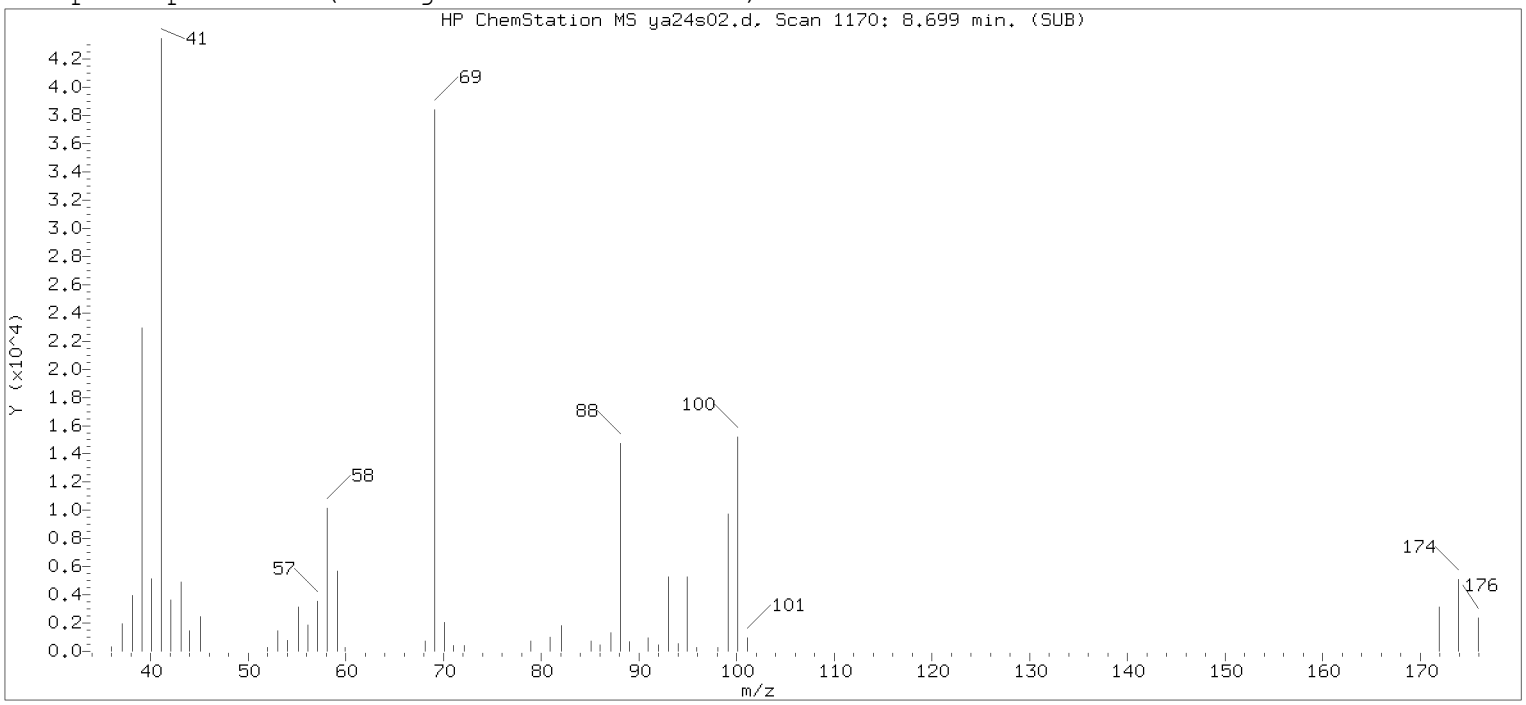
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1170
Retention Time (minutes): 8.699
Quant Ion : 88.00
Area (flag) : 67588M
On-Column Amount (ng) : 462.9840
Integration start scan : 1161 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

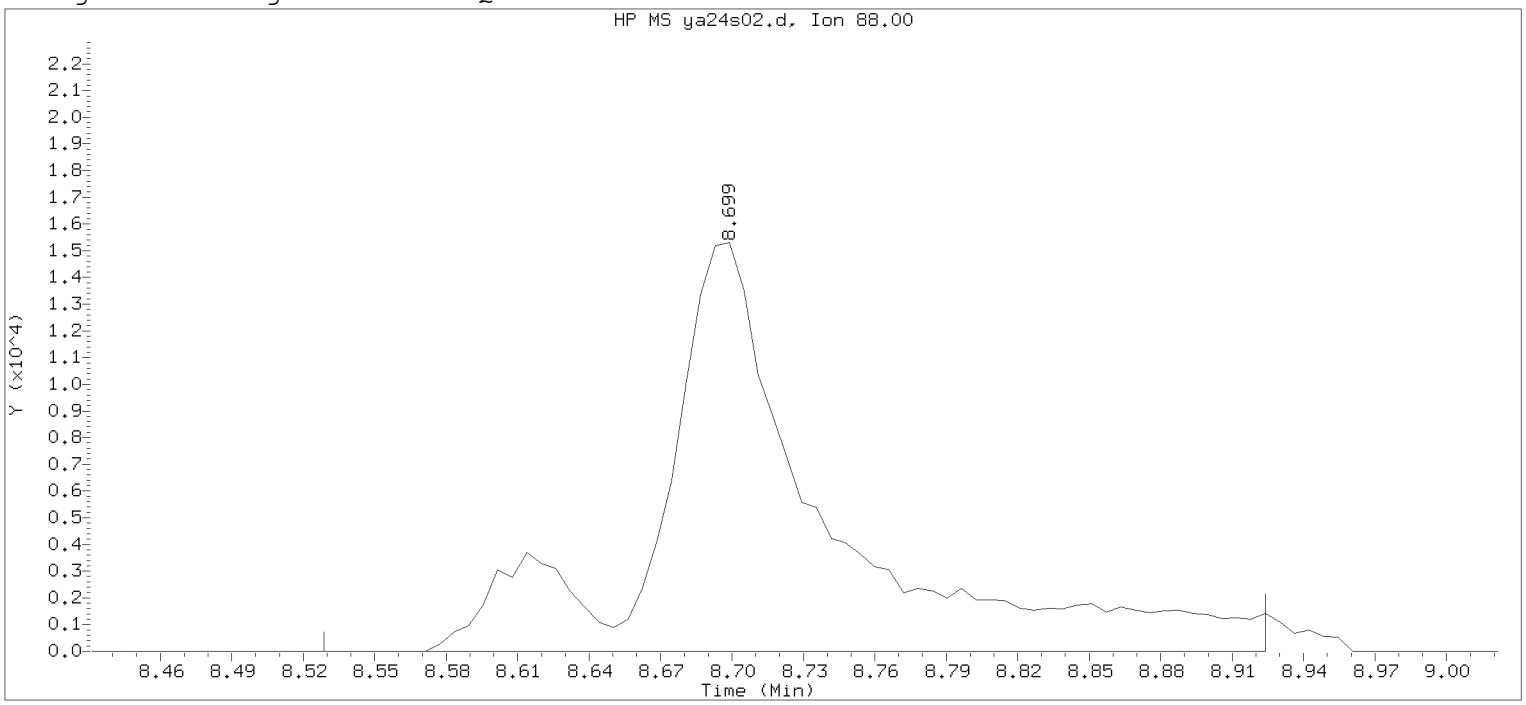
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

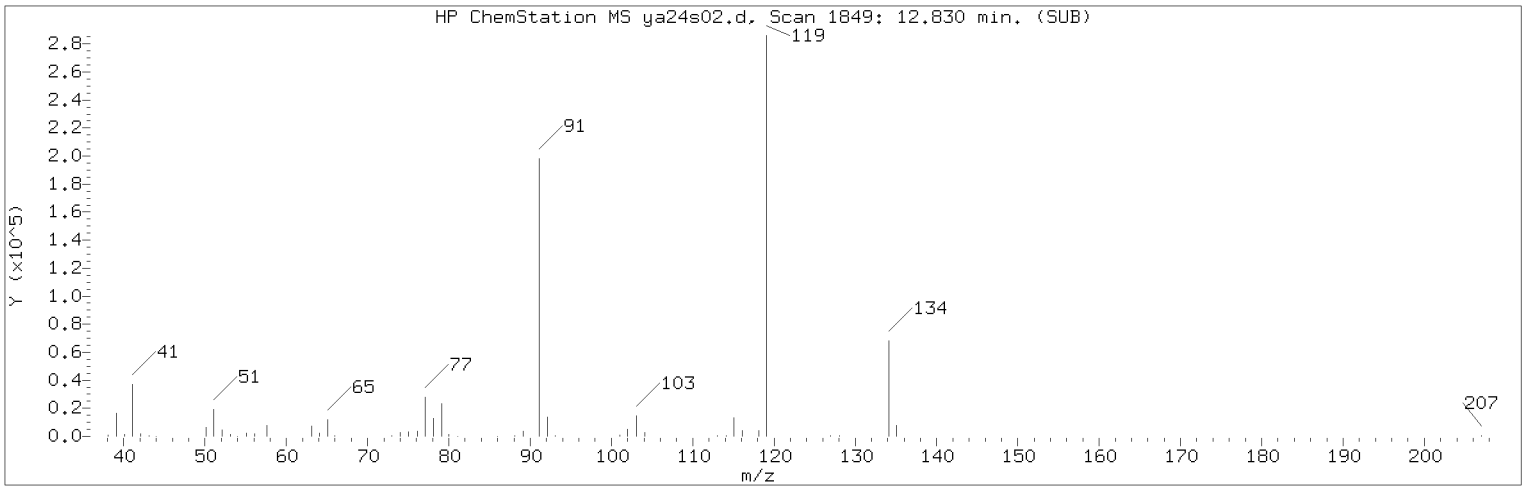
Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 10:58 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

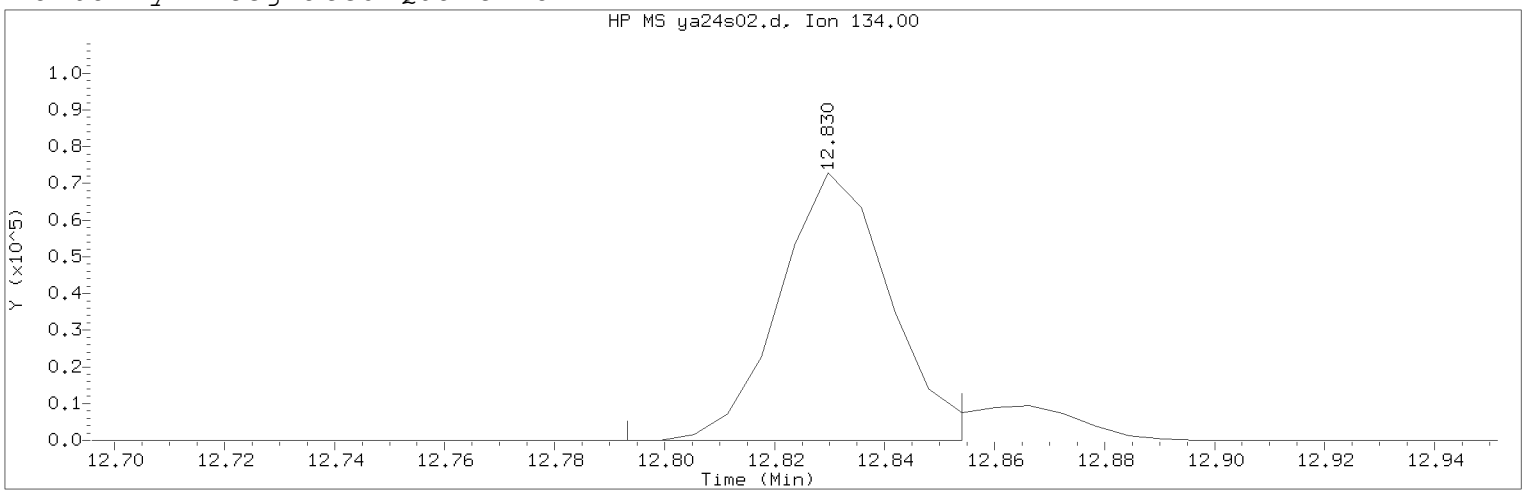
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1170
Retention Time (minutes): 8.699
Quant Ion : 88.00
Area : 74990
On-column Amount (ng) : 513.6890
Integration start scan : 1141 Integration stop scan: 1206
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 11:38 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

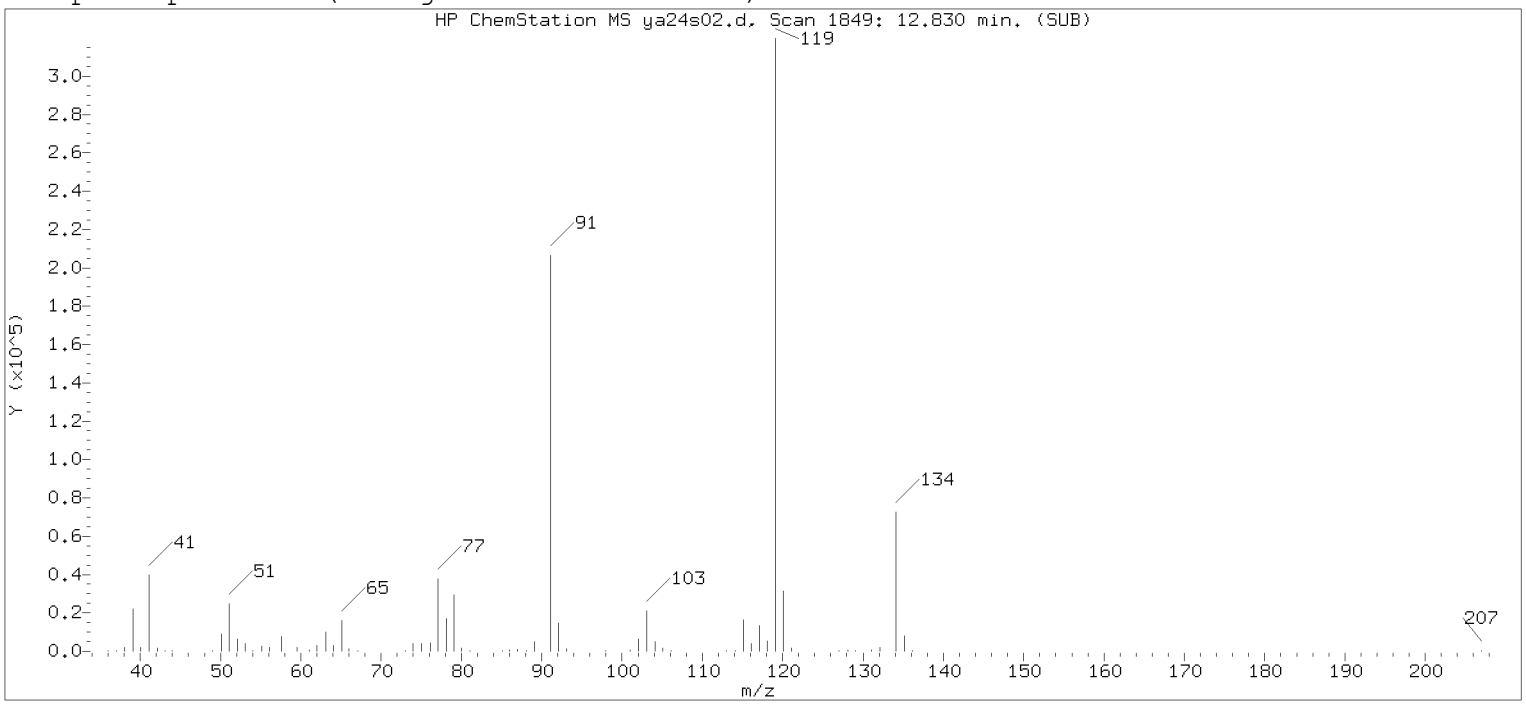
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1849
Retention Time (minutes): 12.830
Quant Ion : 134.00
Area (flag) : 101140M
On-Column Amount (ng) : 17.3995
Integration start scan : 1842 Integration stop scan: 1852
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

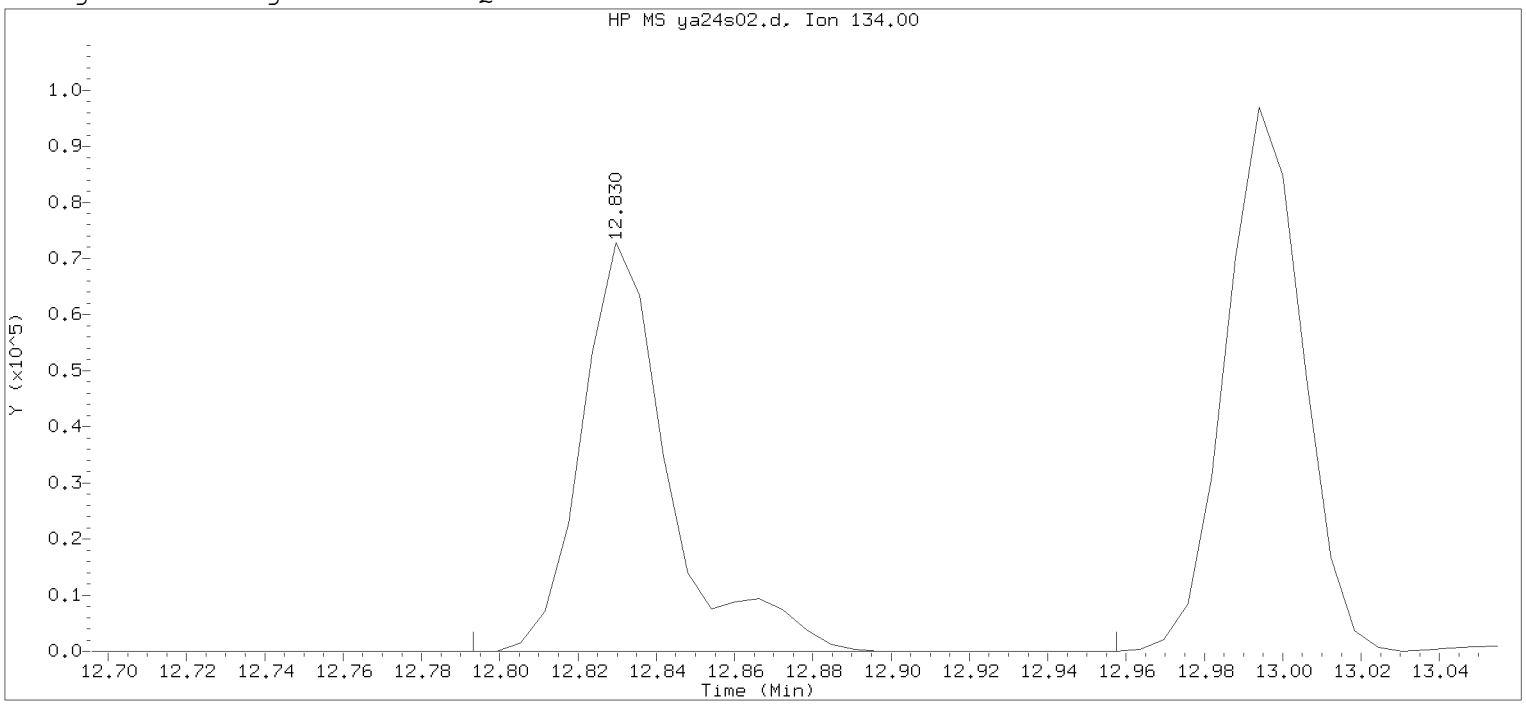
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/24/2019 at 11:40.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Joshua E. Berrios on 04/24/2019 at 19:43.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/19apr24a.b/ya24s02.d Instrument ID: HP09355.i
Injection date and time: 24-APR-2019 10:22 Analyst ID: CLM27445

Method used: /chem2/HP09355.i/19apr24a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 24-APR-2019 09:33
Date, time and analyst ID of latest file update: 24-Apr-2019 10:58 clm27445

Sample Name: LCDY63 Lab Sample ID: LCDY63

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1849
Retention Time (minutes): 12.830
Quant Ion : 134.00
Area : 112469
On-column Amount (ng) : 19.3485
Integration start scan : 1842 Integration stop scan: 1869
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/24/2019 at 11:40.
Target 3.5 esignature used.

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/19apr22b.b/ha22173.d Injection date and time: **22-APR-2019 22:41**
Data file Sample Info. Line: LCSH32;LCSH32;1;3;LCS;;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469SM**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.489	(-0.012)	476	65	164320	(8)	50.00	
63) Fluorobenzene	7.964	(0.000)	1046	96	3004616	(4)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2228150	(2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1177765	(3)	10.00	

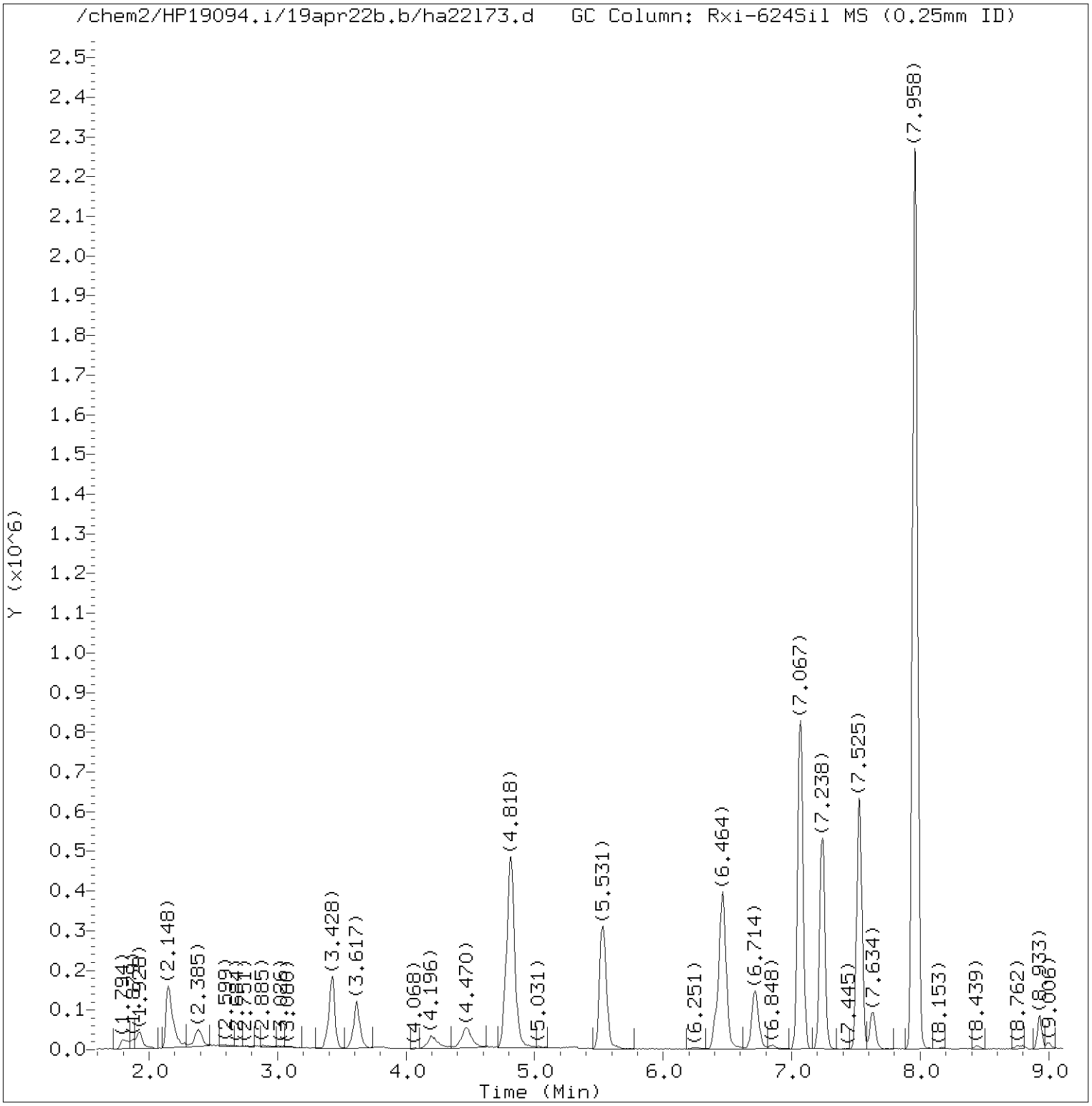
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(0.000)	113	742171	9.880	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(0.000)	102	137045	10.409	104%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2998646	10.421	104%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1041543	9.669	97%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
4) Dimethyl ether	(2)	2.148	(-0.000)	45	387978	5.047	5.05		J	0.04	13

Total number of targets = 1

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:09. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

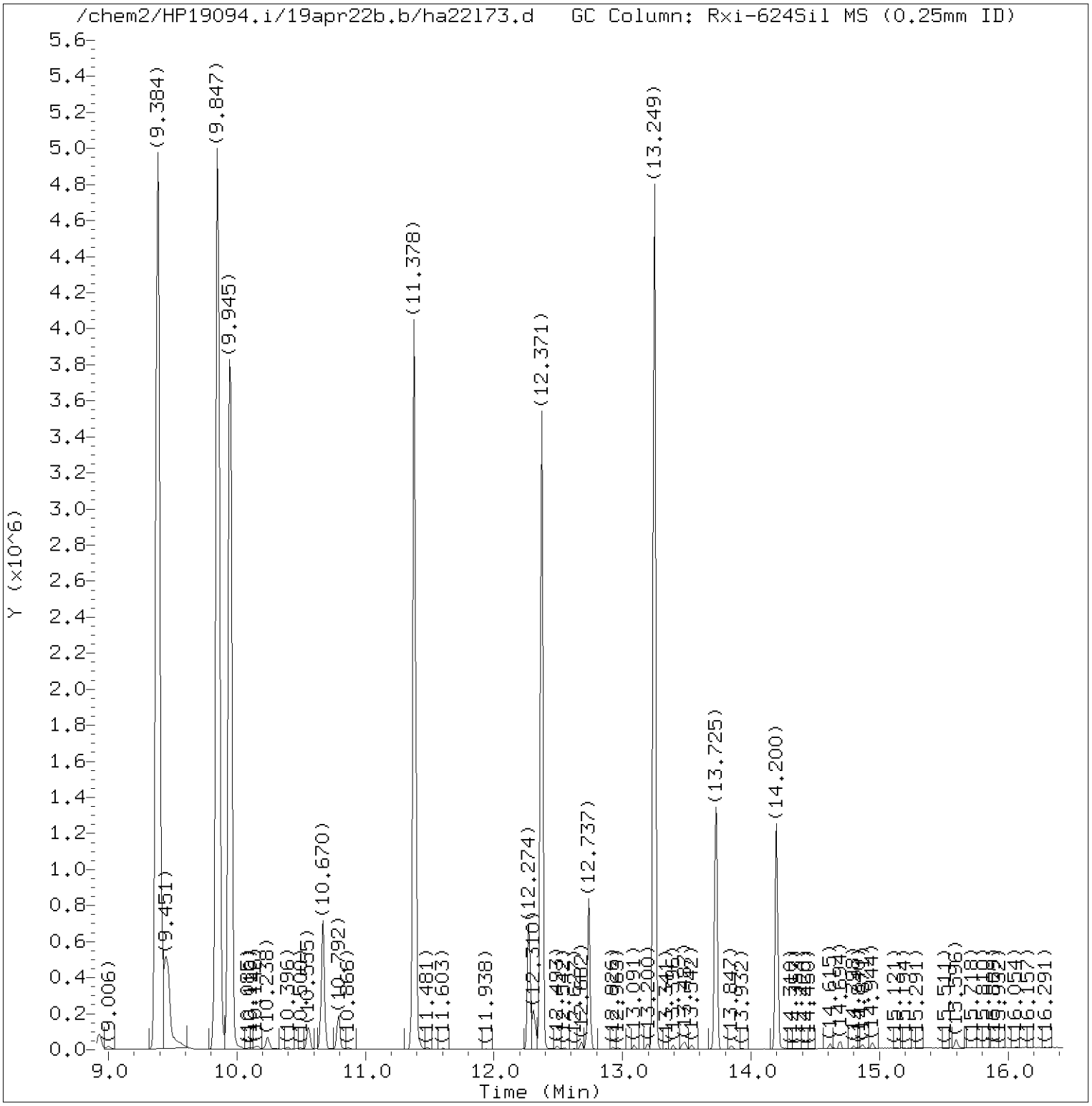
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l73.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:41 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH32 Lab Sample ID: LCSH32

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l73.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:41 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH32 Lab Sample ID: LCSH32

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l73.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:41 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH32 Lab Sample ID: LCSH32

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.148	45	387978	5.047
26)*t-Butyl Alcohol-d10	(1)	4.489	65	164320	50.000
50)$Dibromofluoromethane	(2)	7.067	113	742171	9.880
57)$1,2-Dichloroethane-d4	(2)	7.525	102	137045	10.409
63)*Fluorobenzene	(2)	7.964	96	3004616	10.000
82)$Toluene-d8	(3)	9.945	98	2998646	10.421
97)*Chlorobenzene-d5	(3)	11.378	117	2228150	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	1041543	9.669
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1177765	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/19apr22b.b/ha22174.d Injection date and time: **22-APR-2019 23:03**
Data file Sample Info. Line: LCDH32;LCDH32;1;3;LCSD;;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:47 mec29284

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469SM**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.464	(0.012)	472	65	153166	(1)	50.00	
63) Fluorobenzene	7.957	(0.006)	1045	96	2996349	(4)	10.00	
97) Chlorobenzene-d5	11.377	(0.000)	1606	117	2215256	(2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1154504	(1)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.061	(0.000)	113	741888	9.904	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(-0.001)	102	134171	10.219	102%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2988466	10.446	104%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1046089	9.768	98%		80 - 120

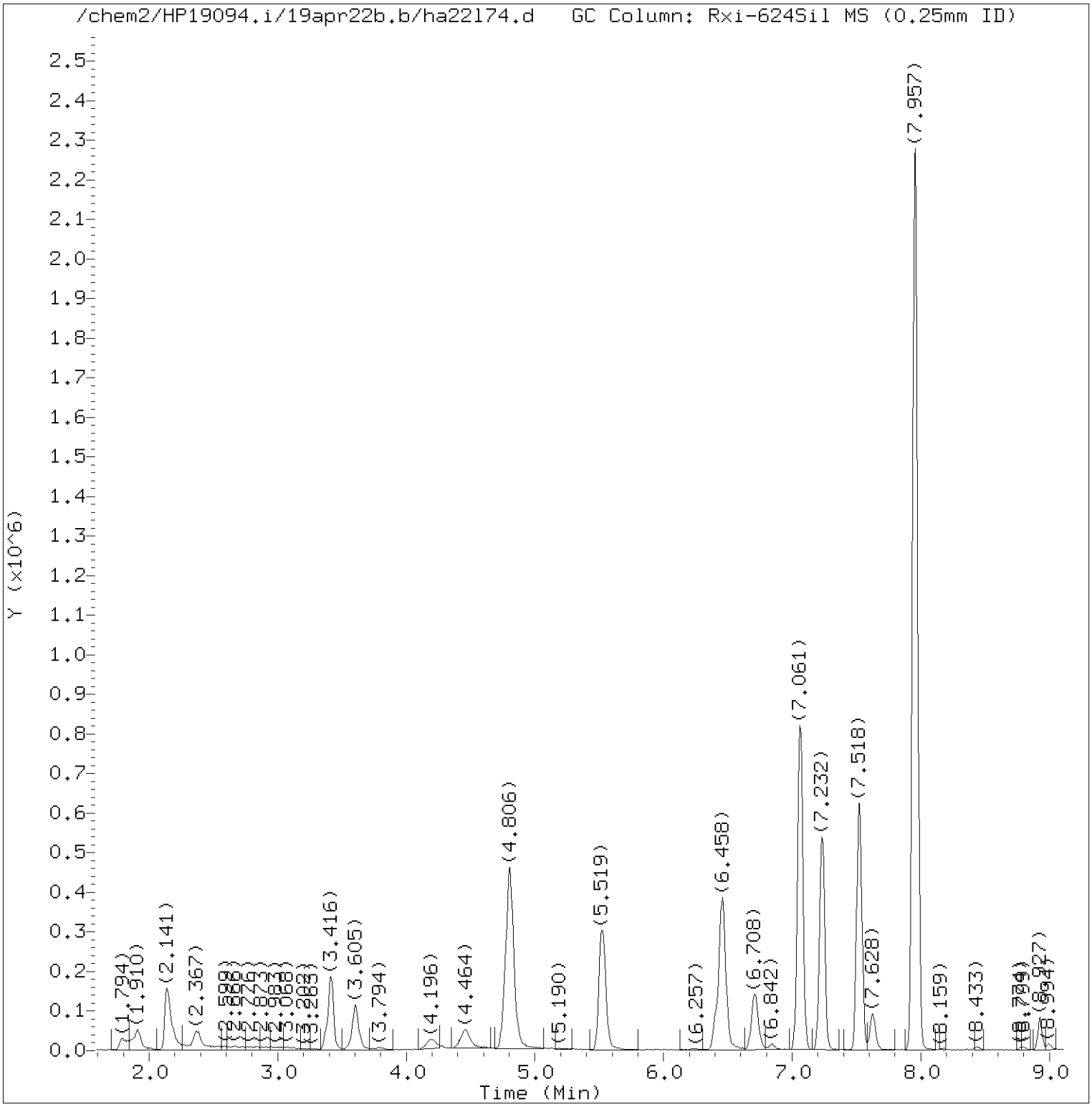
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
4) Dimethyl ether	(2)	2.141	(0.000)	45	380129M	4.958	4.96		J	0.04	13

M = Compound was manually integrated.

Total number of targets = 1

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:09. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

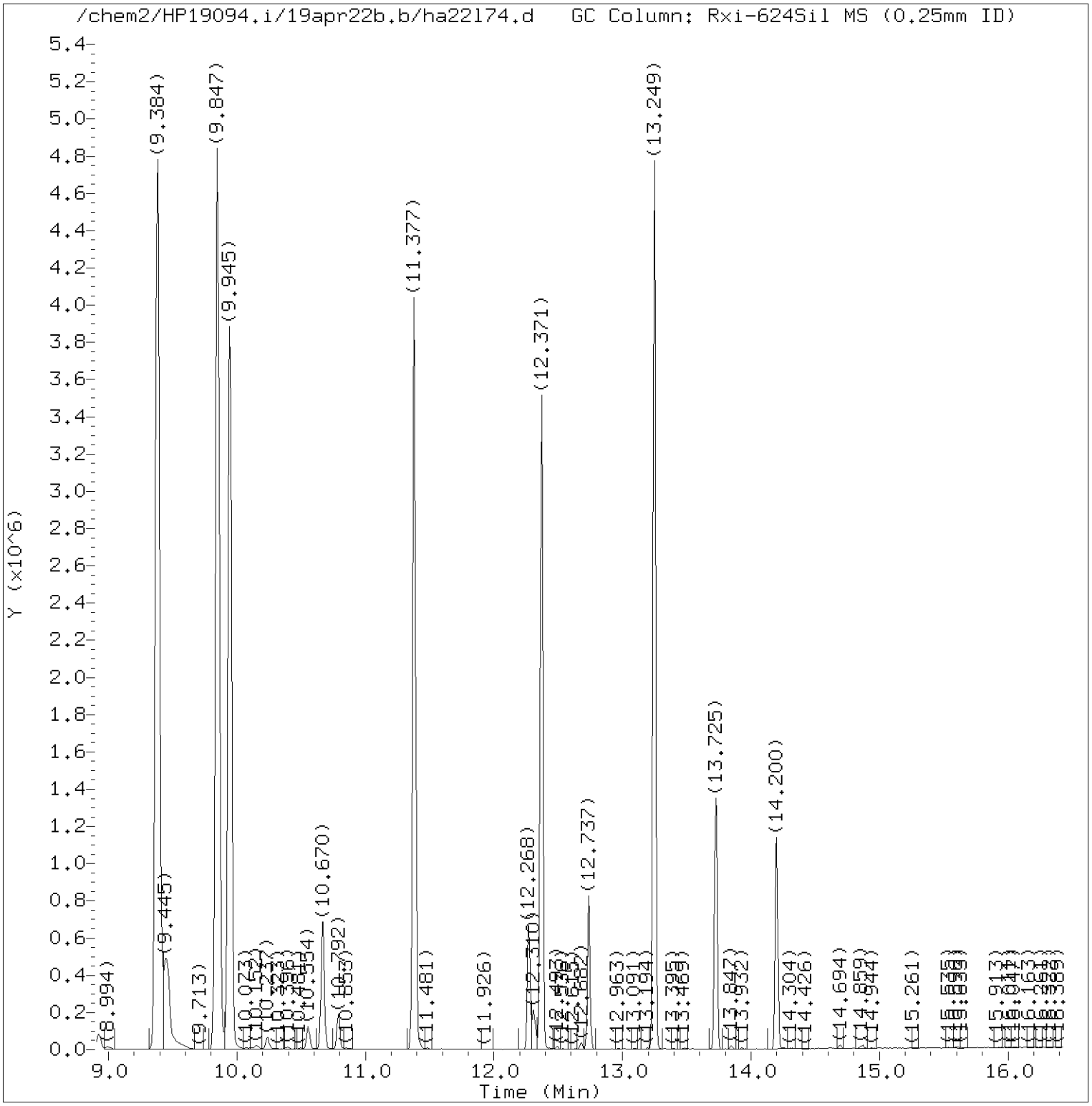
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l74.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:03 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:47 mec29284

Sample Name: LCDH32 Lab Sample ID: LCDH32

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l74.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:03 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:47 mec29284

Sample Name: LCDH32 Lab Sample ID: LCDH32

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l74.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:03 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:47 mec29284

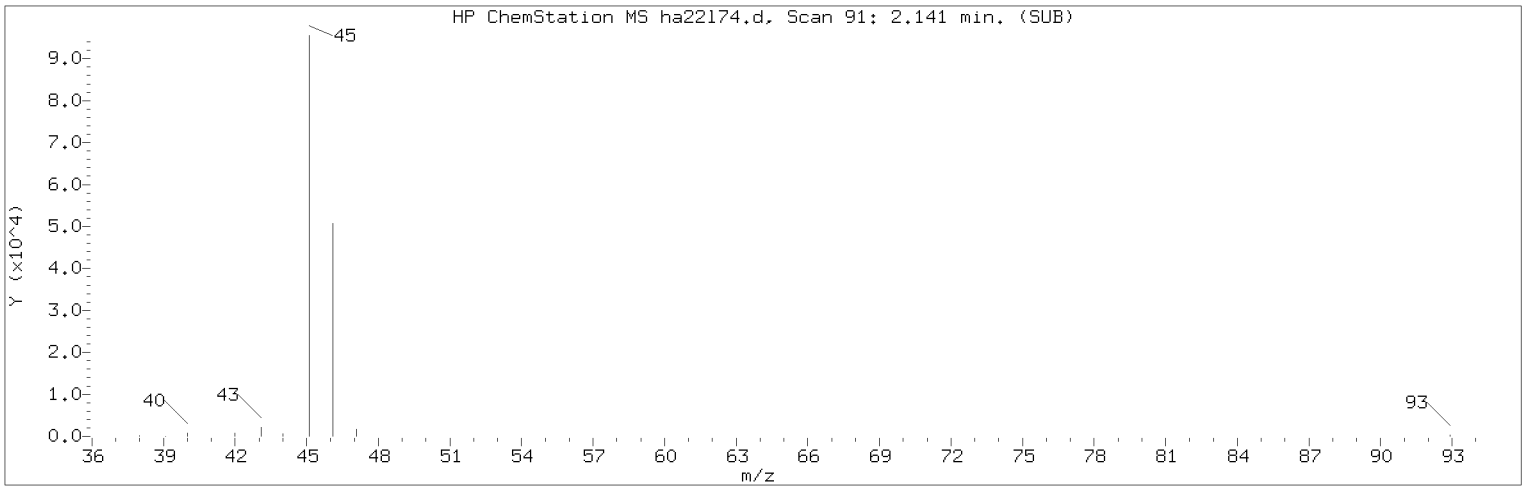
Sample Name: LCDH32 Lab Sample ID: LCDH32

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.141	45	380129M	4.958
26)*t-Butyl Alcohol-d10	(1)	4.464	65	153166	50.000
50)$Dibromofluoromethane	(2)	7.061	113	741888	9.904
57)$1,2-Dichloroethane-d4	(2)	7.525	102	134171	10.219
63)*Fluorobenzene	(2)	7.957	96	2996349	10.000
82)$Toluene-d8	(3)	9.945	98	2988466	10.446
97)*Chlorobenzene-d5	(3)	11.377	117	2215256	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	1046089	9.768
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1154504	10.000

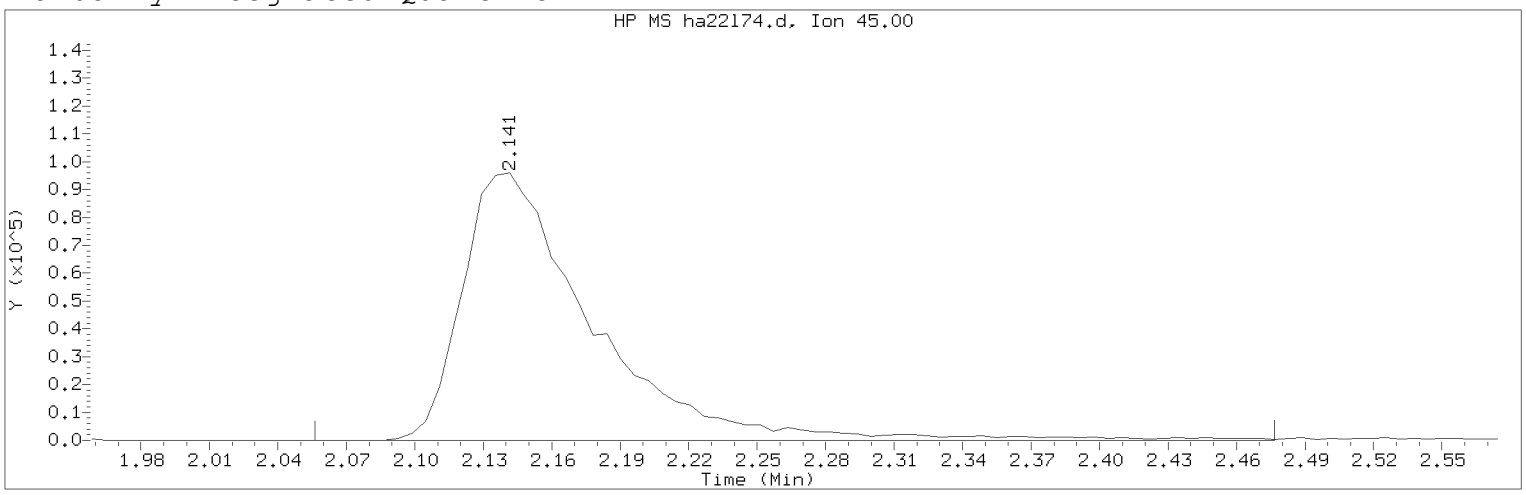
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22174.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:03 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:47 mec29284

Sample Name: LCDH32 Lab Sample ID: LCDH32

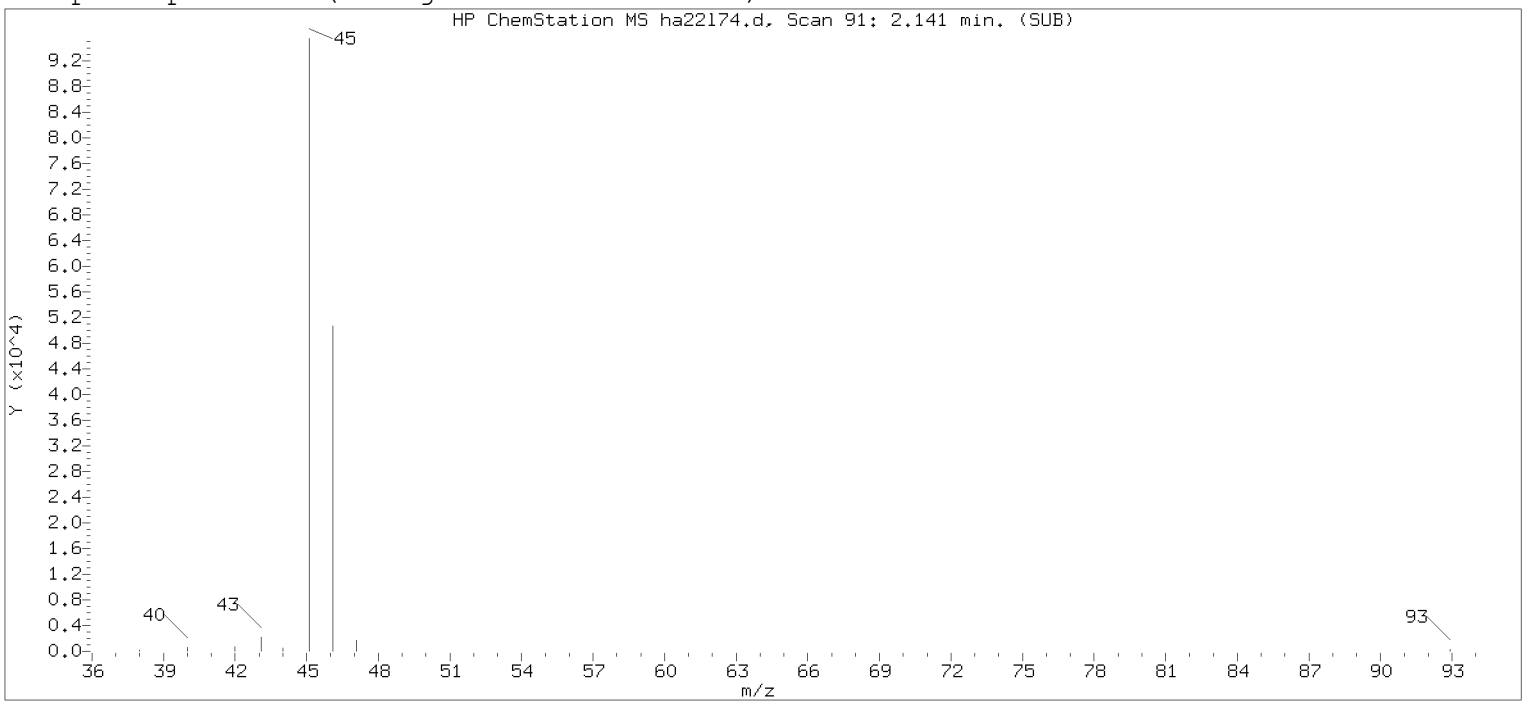
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 91
Retention Time (minutes): 2.141
Quant Ion : 45.00
Area (flag) : 380129M
On-Column Amount (ng) : 4.9584
Integration start scan : 76 Integration stop scan: 145
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

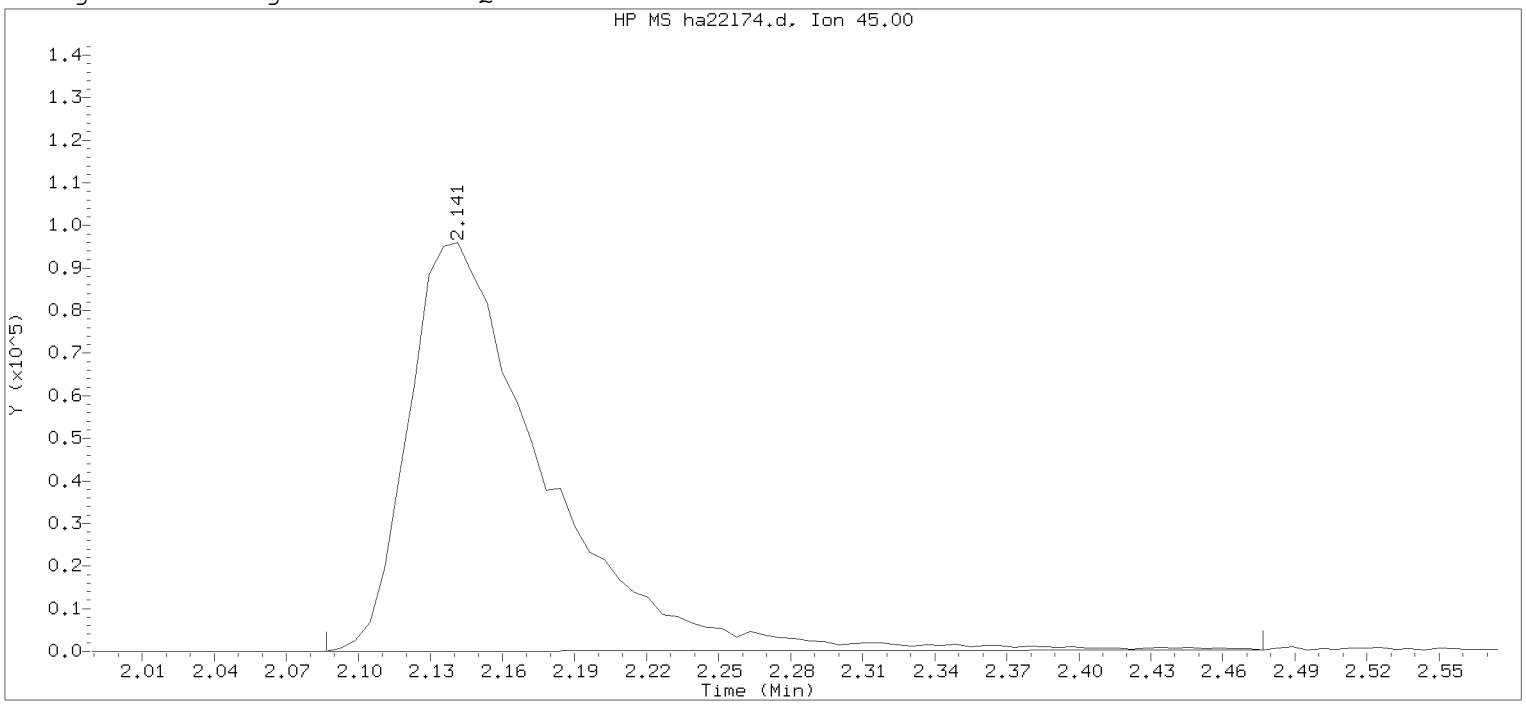
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 07:09.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22174.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 23:03 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:23 mec29284

Sample Name: LCDH32 Lab Sample ID: LCDH32

Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 91
Retention Time (minutes): 2.141
Quant Ion : 45.00
Area : 377051
On-column Amount (ng) : 4.9183
Integration start scan : 81 Integration stop scan: 145
Y at integration start : 0 Y at integration end: 259

Digitally signed by Jennifer K. Howe on 04/23/2019 at 07:09.
Target 3.5 esignature used. Page 1577

Data file: /chem2/HP19094.i/19apr22b.b/ha22171.d Injection date and time: **22-APR-2019 21:58**
Data file Sample Info. Line: LCSH31;LCSH31;1;3;LCS;;DRAPERLOQ;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

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Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469-SM**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.476	(0.000)	474	65	155107	(2)	50.00	
63) Fluorobenzene	7.964	(0.000)	1046	96	2941762	(2)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2203886	(1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1172063	(2)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(0.000)	113	727840	9.896	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(0.000)	102	130756	10.144	101%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2970903	10.438	104%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1033187	9.697	97%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)	2.081	(-0.000)	85	376378	3.818	3.82			0.05	1
2) Chloromethane	(2)	2.276	(-0.000)	50	444512	4.660	4.66			0.06	1
8) Chloroethane	(2)	2.836	(-0.000)	64	241781	4.685	4.68			0.07	1
10) Trichlorofluoromethane	(2)	3.154	(-0.001)	101	524023M	4.498	4.50			0.05	1
11) Ethyl ether	(2)	3.428	(-0.000)	59	193132	4.866	4.87		J	0.05	13
15) 1,1-Dichloroethene	(2)	3.751	(-0.000)	96	271072	4.998	5.00			0.06	1
16) Freon 113	(2)	3.788	(-0.000)	101	296513	4.754	4.75			0.06	1
23) Methylene Chloride	(2)	4.464	(-0.000)	84	294131	5.052	5.05			0.07	1
33) 1,1-Dichloroethane	(2)	5.549	(-0.000)	63	564508M	4.755	4.75			0.07	1
38) 2-Butanone	(1)	6.336	(0.000)	43	475909	30.269	30.27			0.6	10
48) Tetrahydrofuran	(1)	6.720	(-0.001)	71	81757	21.752	21.75		J	0.8	25
51) 1,1,1-Trichloroethane	(2)	7.086	(-0.000)	97	487879M	4.961	4.96			0.06	1
54) Carbon Tetrachloride	(2)	7.299	(-0.000)	117	442329	5.001	5.00			0.07	1
58) Benzene	(2)	7.561	(-0.000)	78	1233658	4.788	4.79			0.05	1
67) Trichloroethene	(2)	8.439	(0.000)	95	324034	4.874	4.87			0.06	1
83) Toluene	(3)	10.018	(-0.000)	92	776480	5.139	5.14			0.07	1
89) Tetrachloroethene	(3)	10.561	(-0.000)	166	366709	5.212	5.21			0.06	1
100) Ethylbenzene	(3)	11.487	(0.000)	91	1510205	5.033	5.03			0.06	1
101) m+p-Xylene	(3)	11.603	(0.000)	106	1156969	10.221	10.22			0.1	0.5
104) o-Xylene	(3)	11.926	(-0.000)	106	542289	4.917	4.92			0.05	0.5
105) Xylene (Total)	(3)			106	1699258	15.138	15.14			0.1	3

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08. Target 3.5 esignature user ID: jkh09052

Data file: /chem2/HP19094.i/19apr22b.b/ha22171.d Injection date and time: **22-APR-2019 21:58**
Data file Sample Info. Line: LCSH31;LCSH31;1;3;LCS;;DRAPERLOQ;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Blank Data file reference: **Does not exist or can't be found**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469-SM**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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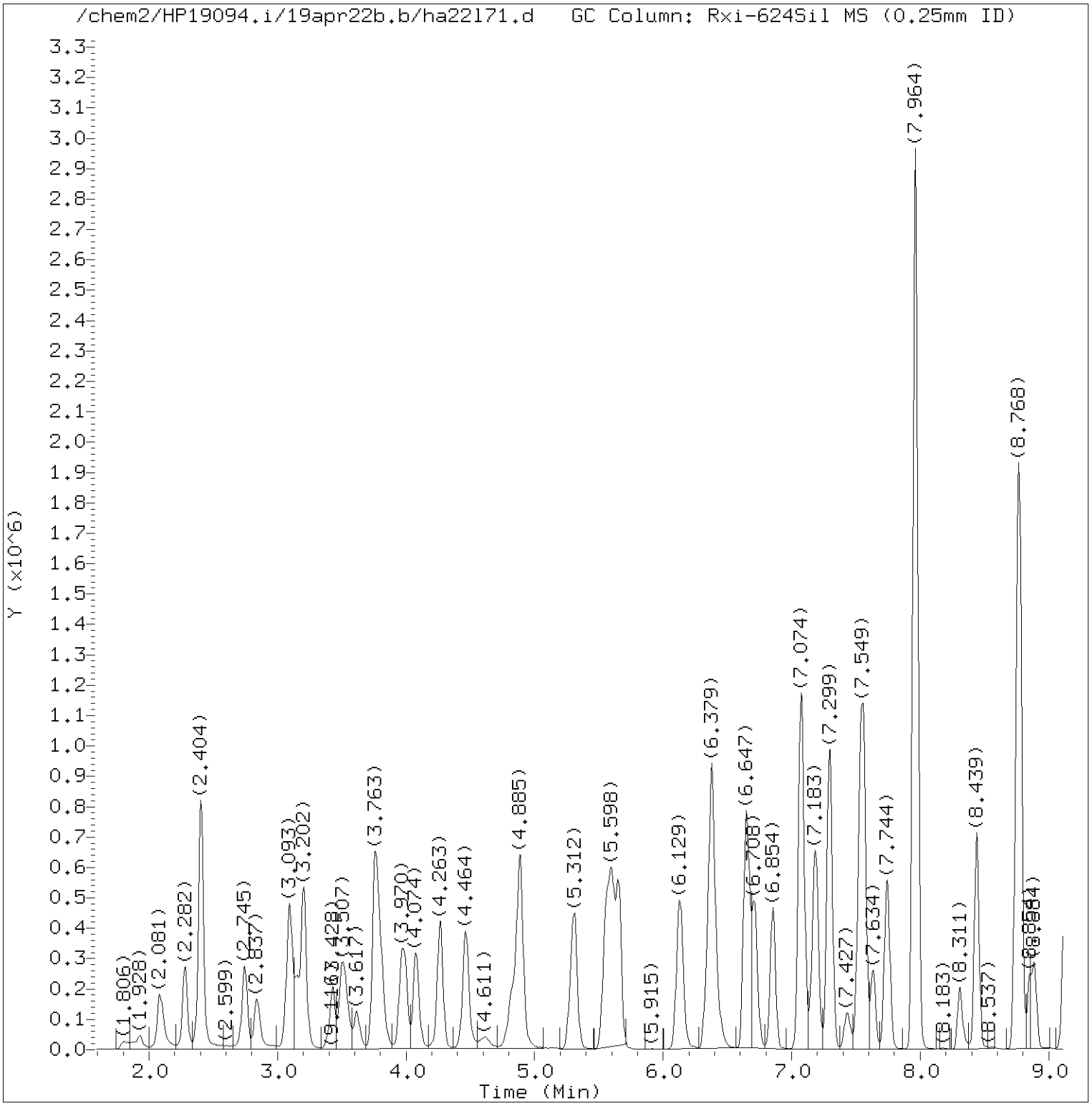
Total number of targets = 21

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

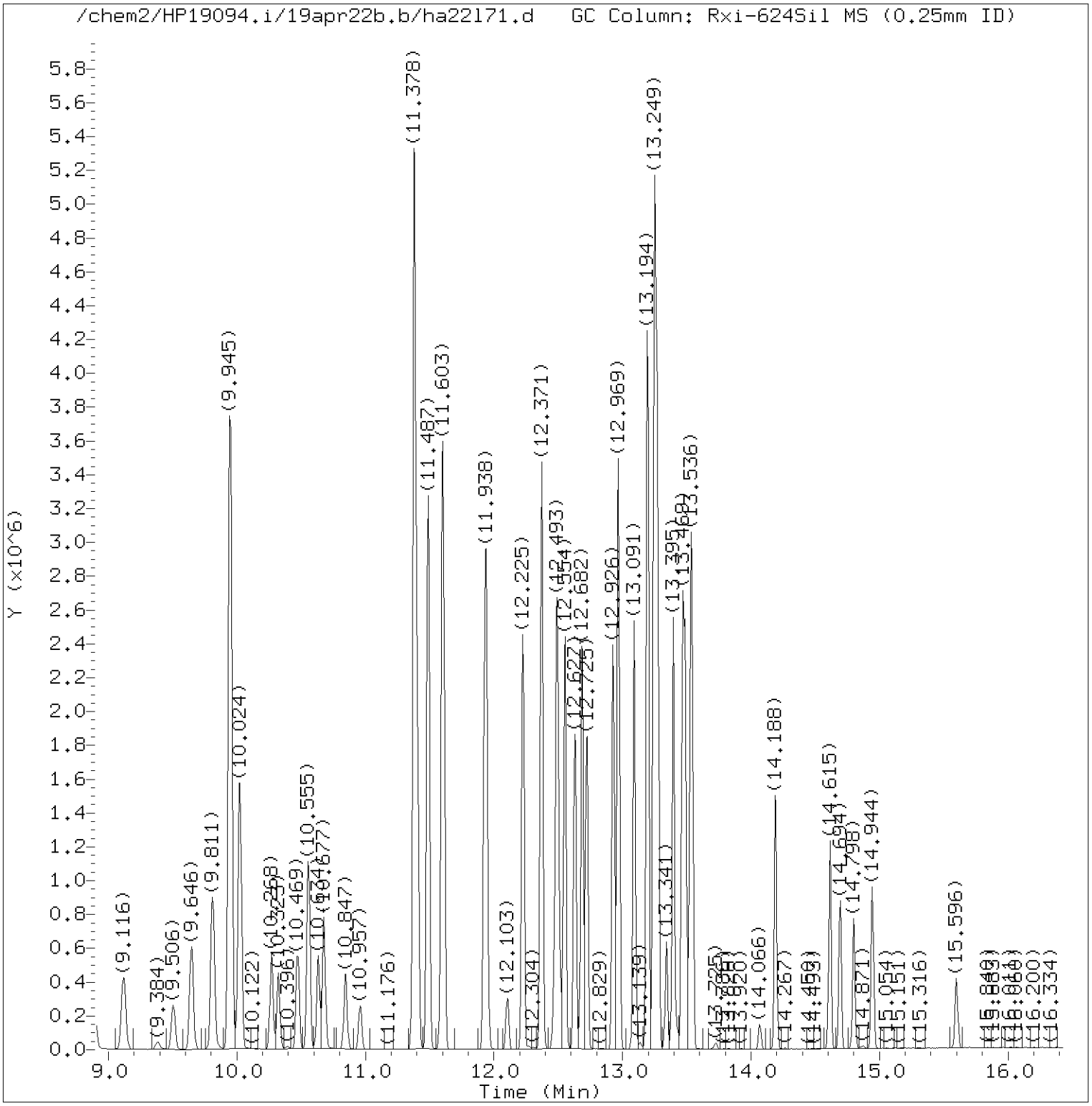
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l71.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l71.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l71.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

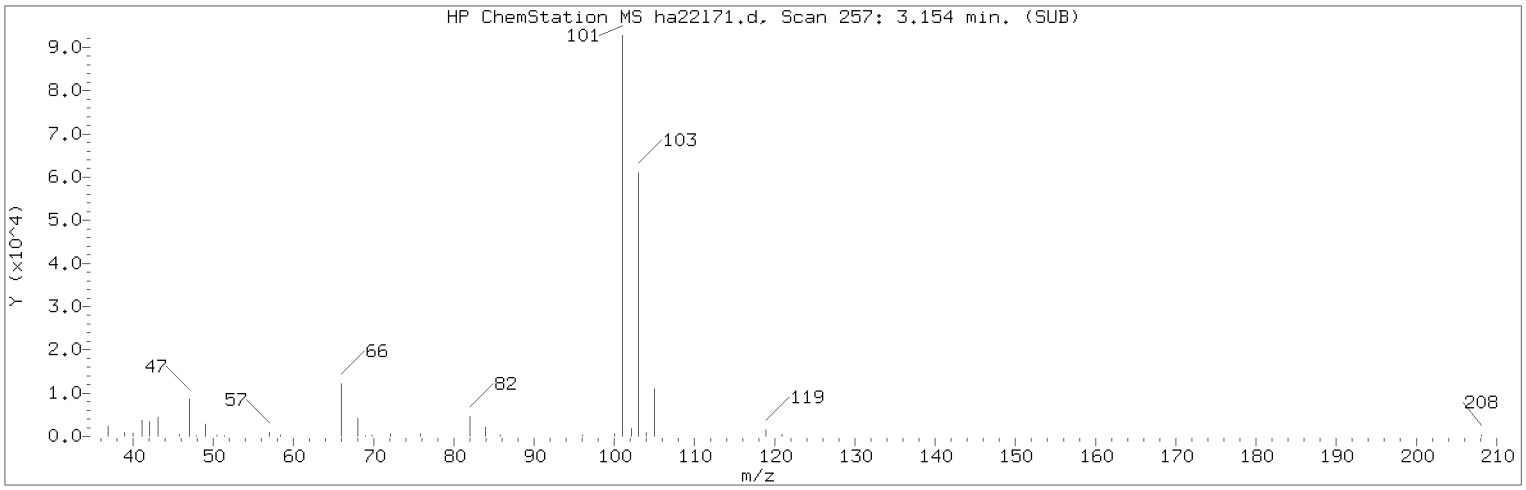
Sample Name: LCSH31 Lab Sample ID: LCSH31

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.081	85	376378	3.818
2) Chloromethane	(2)	2.276	50	444512	4.660
8) Chloroethane	(2)	2.837	64	241781	4.685
10) Trichlorofluoromethane	(2)	3.154	101	524023M	4.498
11) Ethyl ether	(2)	3.428	59	193132	4.866
15) 1,1-Dichloroethene	(2)	3.751	96	271072	4.998
16) Freon 113	(2)	3.788	101	296513	4.754
23) Methylene Chloride	(2)	4.464	84	294131	5.052
26)*t-Butyl Alcohol-d10	(1)	4.476	65	155107	50.000
33) 1,1-Dichloroethane	(2)	5.549	63	564508M	4.755
38) 2-Butanone	(1)	6.336	43	475909	30.269
48) Tetrahydrofuran	(1)	6.720	71	81757	21.752
50)$Dibromofluoromethane	(2)	7.067	113	727840	9.896
51) 1,1,1-Trichloroethane	(2)	7.086	97	487879M	4.961
54) Carbon Tetrachloride	(2)	7.299	117	442329	5.001
57)$1,2-Dichloroethane-d4	(2)	7.525	102	130756	10.144
58) Benzene	(2)	7.561	78	1233658	4.788
63)*Fluorobenzene	(2)	7.964	96	2941762	10.000
67) Trichloroethene	(2)	8.439	95	324034	4.874
82)$Toluene-d8	(3)	9.945	98	2970903	10.438
83) Toluene	(3)	10.018	92	776480	5.139
89) Tetrachloroethene	(3)	10.561	166	366709	5.212
97)*Chlorobenzene-d5	(3)	11.378	117	2203886	10.000
100) Ethylbenzene	(3)	11.487	91	1510205	5.033
101) m+p-Xylene	(3)	11.603	106	1156969	10.221
105) Xylene (Total)	(3)		106	1699258	15.138
104) o-Xylene	(3)	11.926	106	542289	4.917
111)$4-Bromofluorobenzene	(3)	12.371	95	1033187	9.697
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1172063	10.000

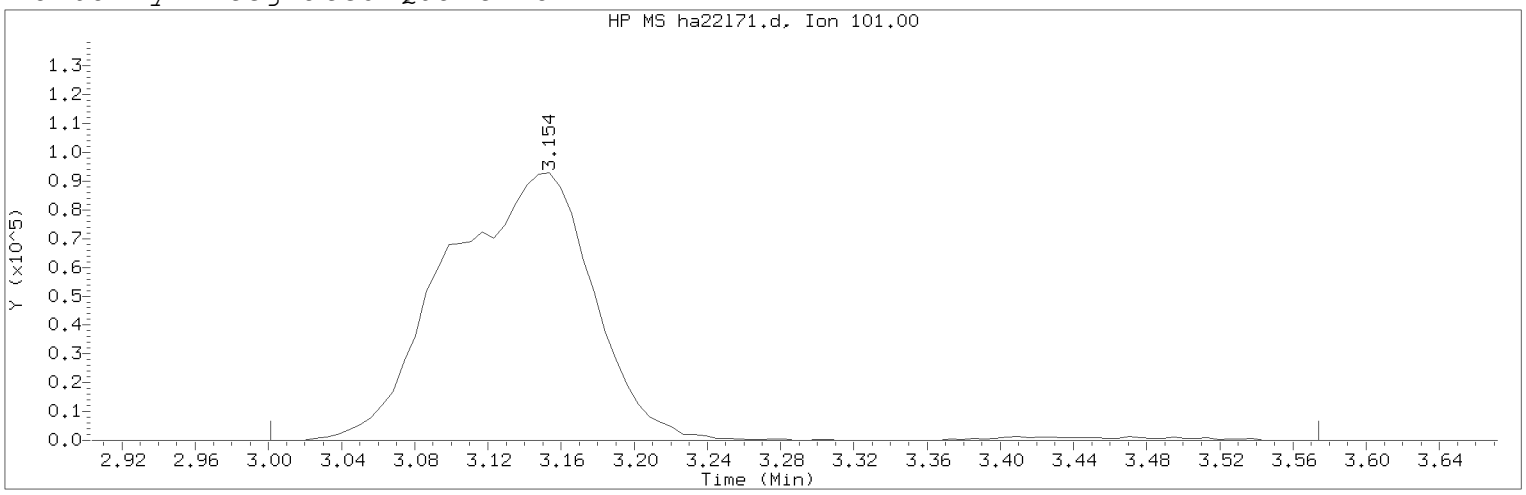
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22171.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

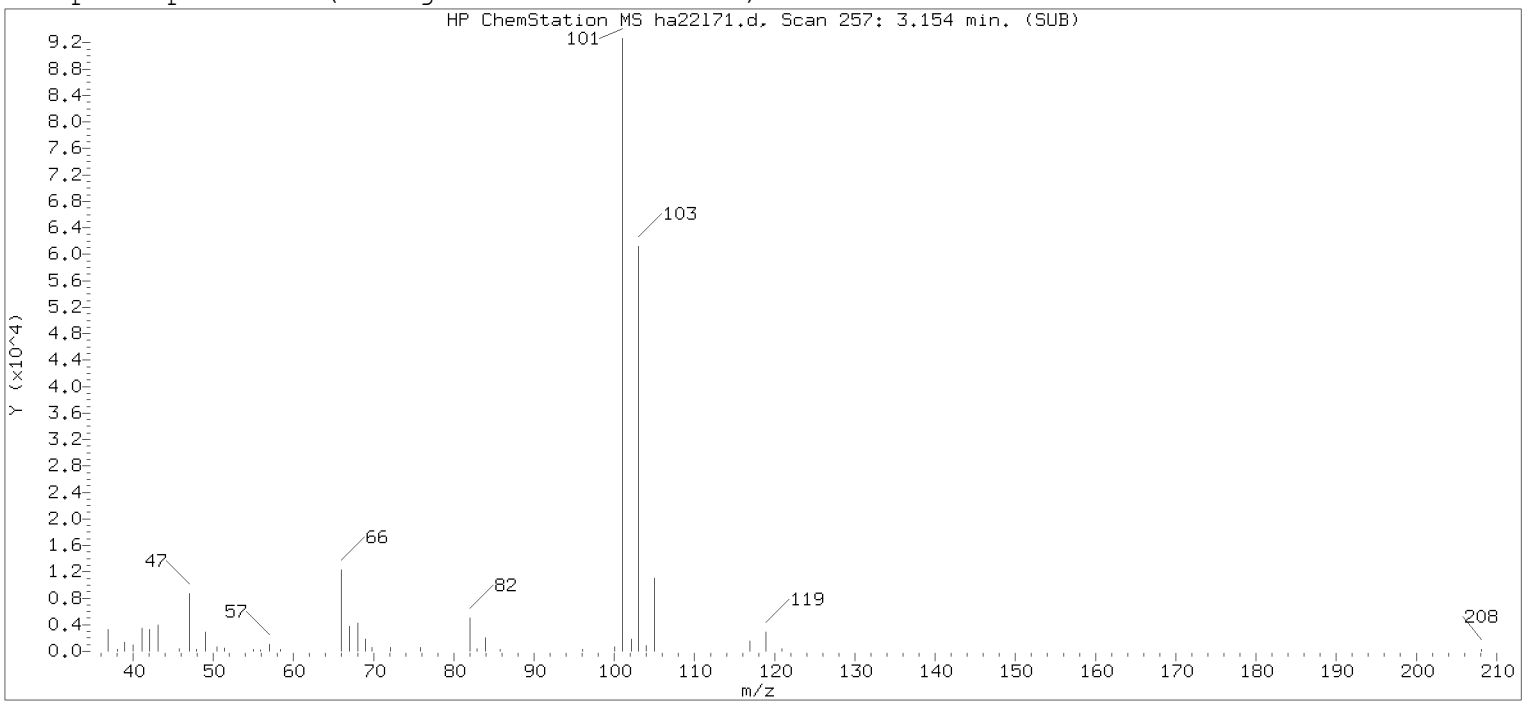
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 257
Retention Time (minutes): 3.154
Quant Ion : 101.00
Area (flag) : 524023M
On-Column Amount (ng) : 4.4980
Integration start scan : 231 Integration stop scan: 325
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

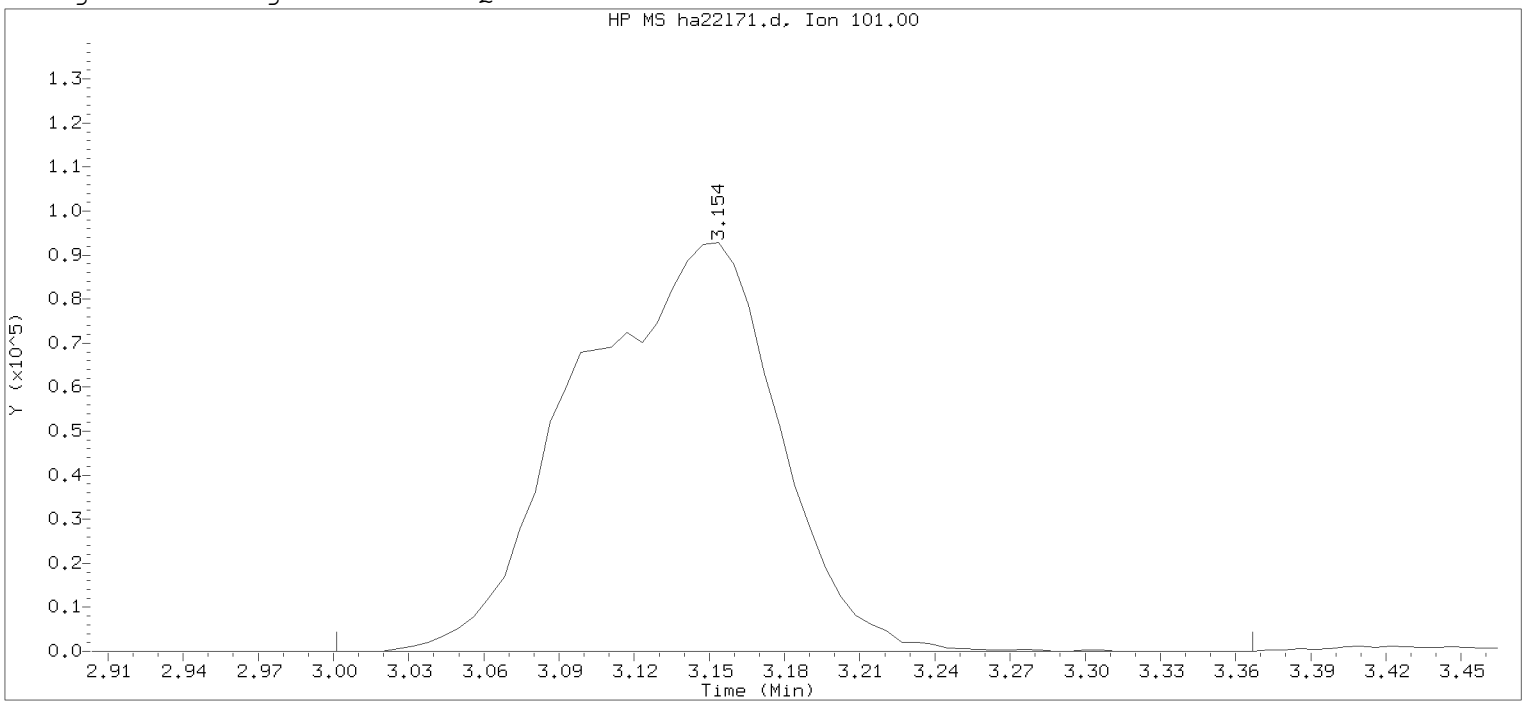
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22171.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 22:21 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 257
Retention Time (minutes): 3.154
Quant Ion : 101.00
Area : 516112
On-column Amount (ng) : 4.4301
Integration start scan : 231 Integration stop scan: 291
Y at integration start : 0 Y at integration end: 0

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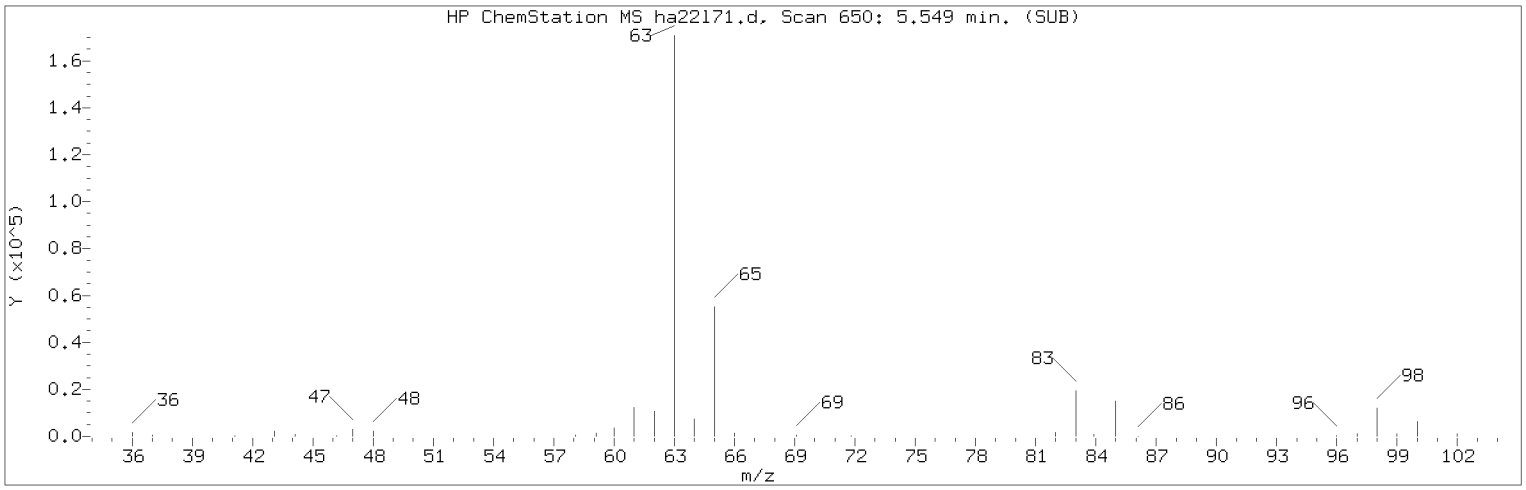
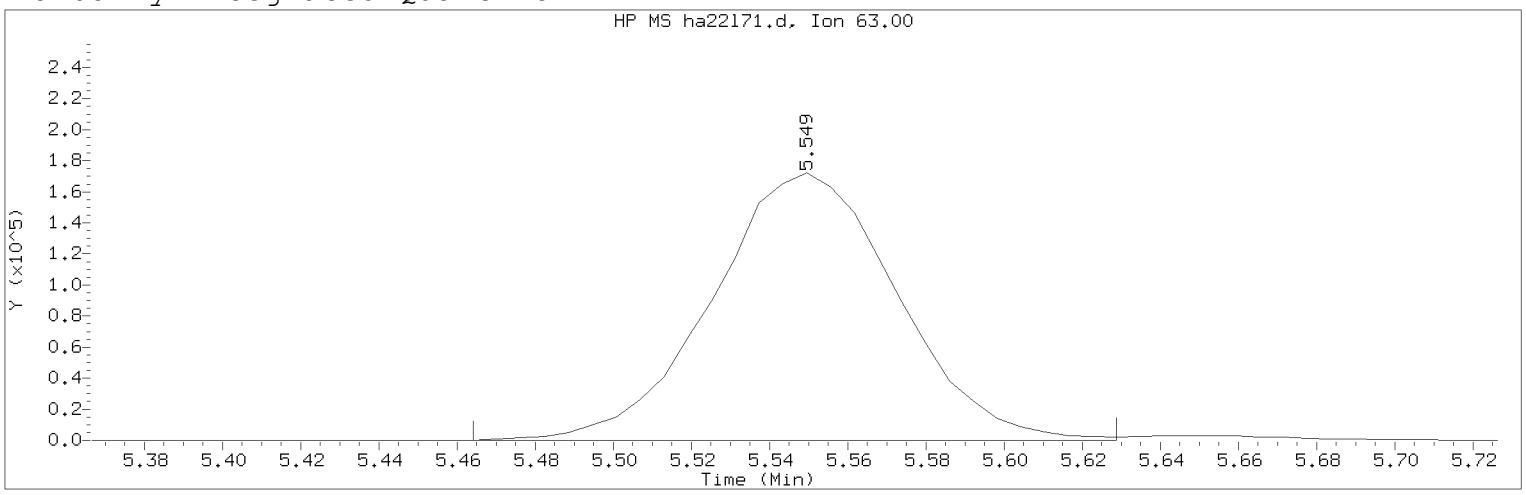
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22171.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

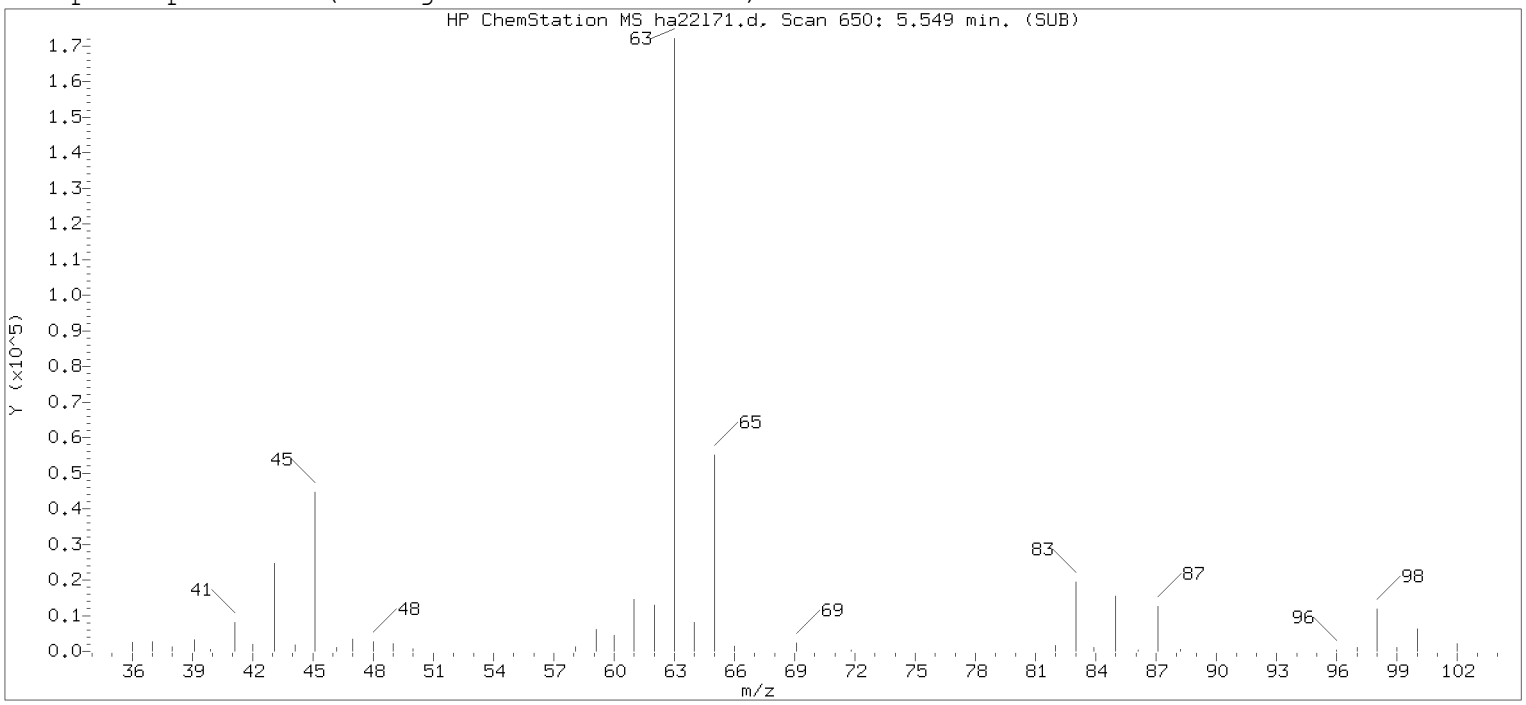
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 650
Retention Time (minutes): 5.549
Quant Ion : 63.00
Area (flag) : 564508M
On-Column Amount (ng) : 4.7549
Integration start scan : 635 Integration stop scan: 662
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

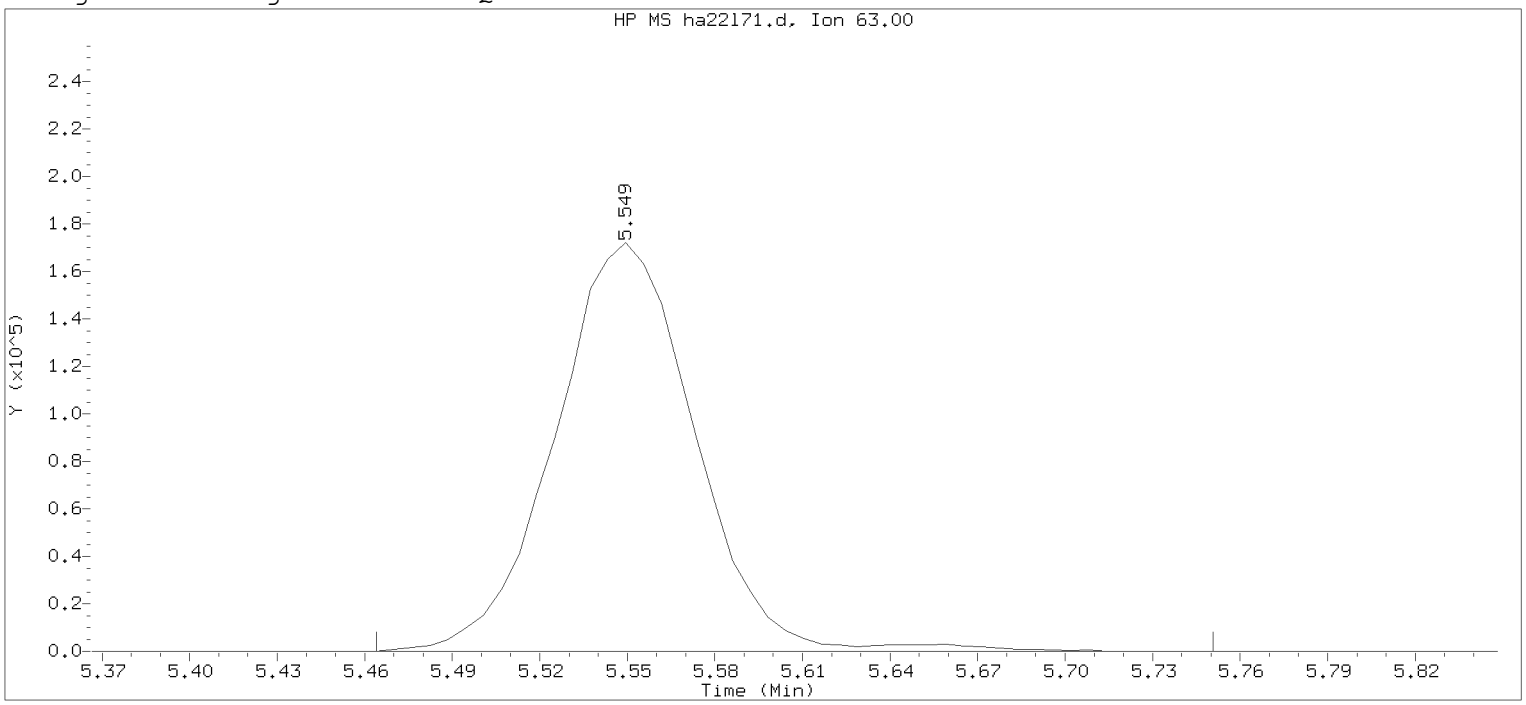
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22171.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 22:21 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 650
Retention Time (minutes): 5.549
Quant Ion : 63.00
Area : 572574
On-column Amount (ng) : 4.8229
Integration start scan : 635 Integration stop scan: 682
Y at integration start : 0 Y at integration end: 0

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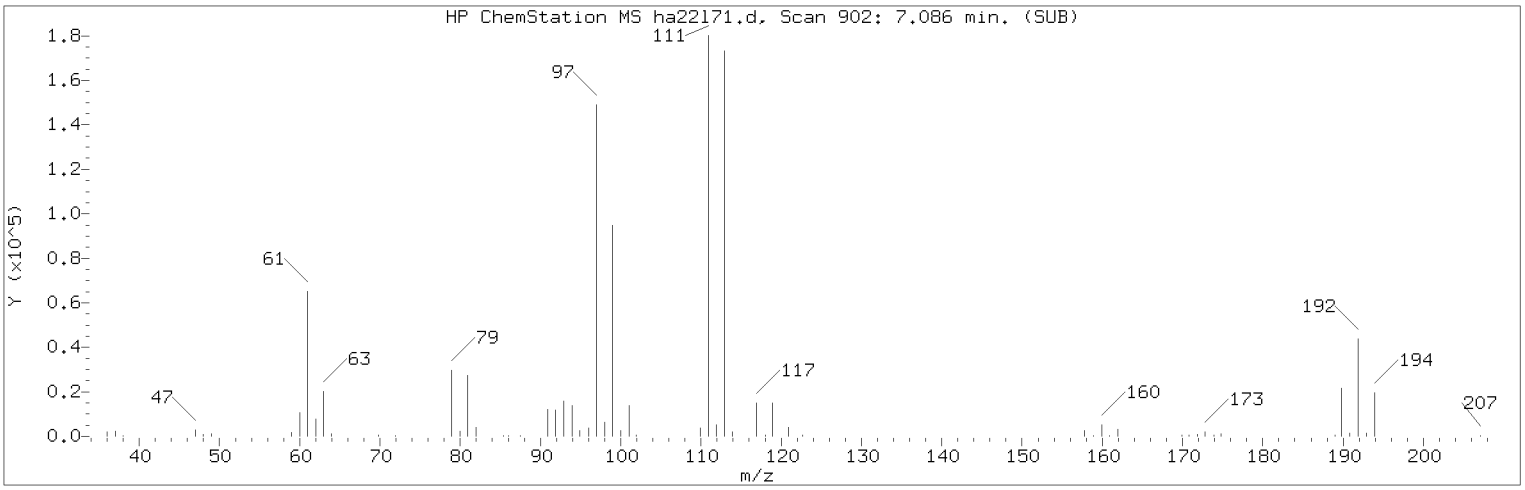
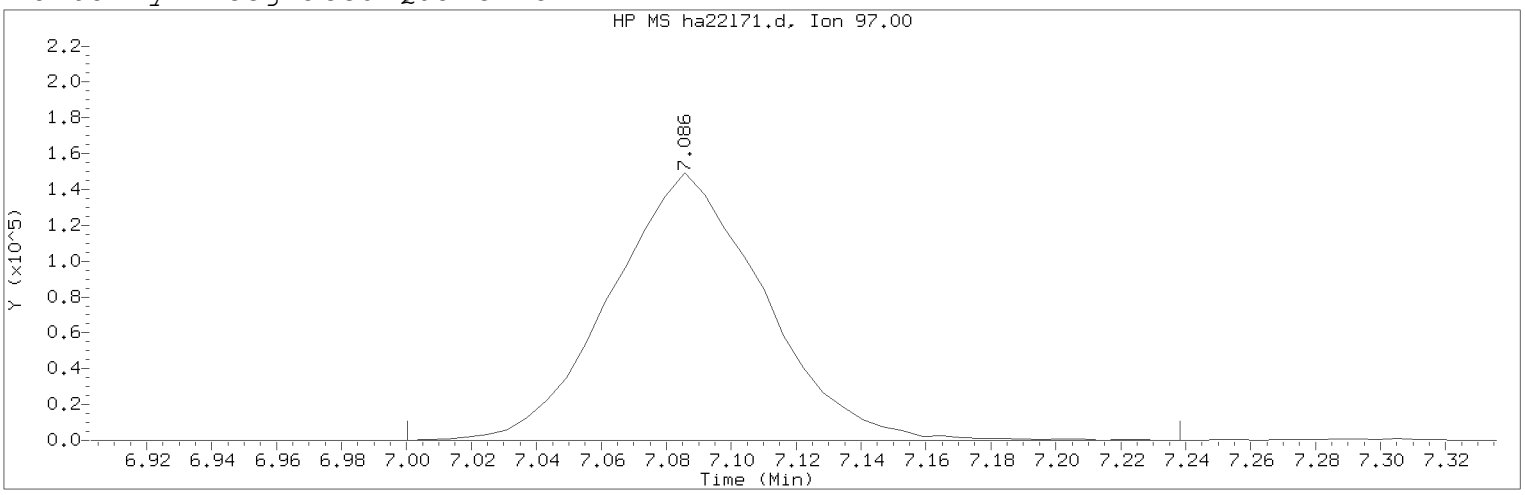
Target 3.5 esignature used. Page 1586

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22171.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

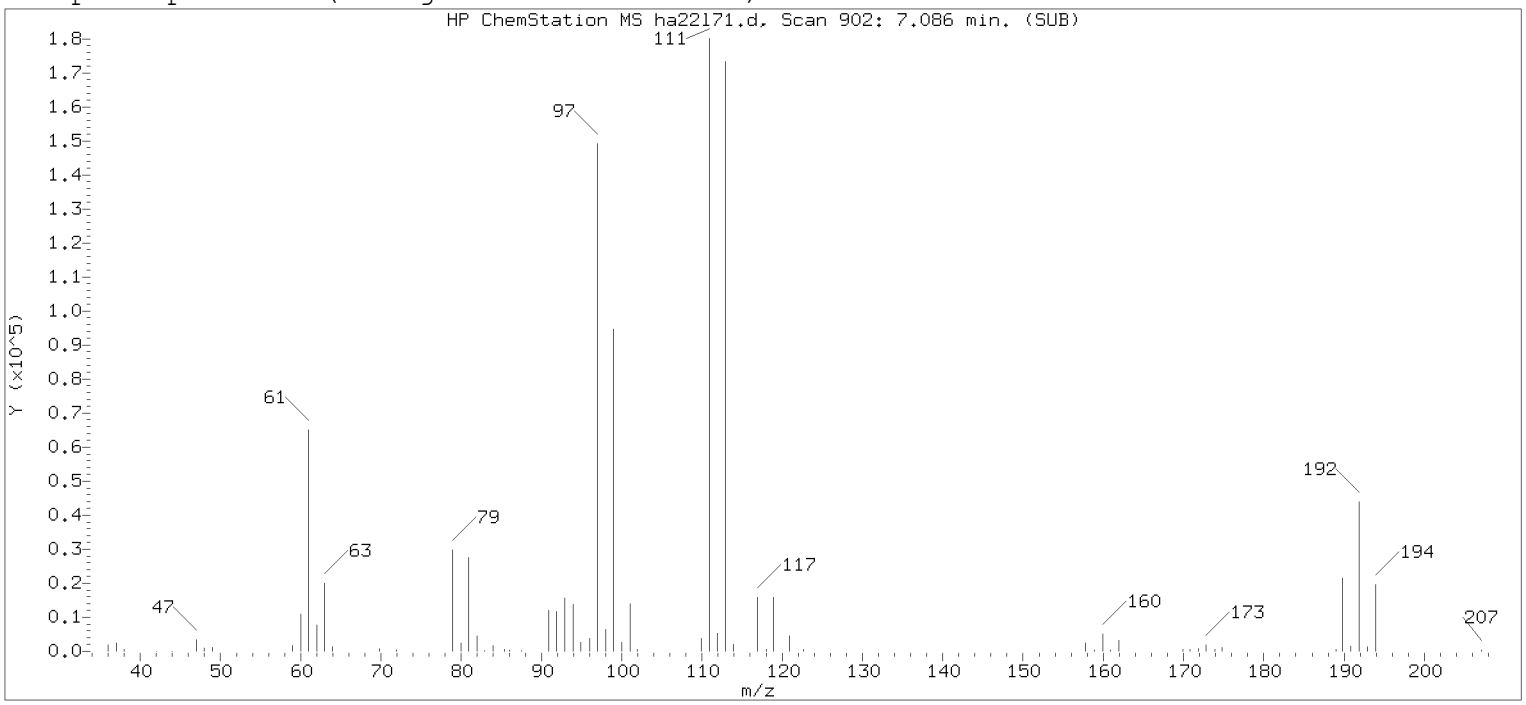
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 902
Retention Time (minutes): 7.086
Quant Ion : 97.00
Area (flag) : 487879M
On-Column Amount (ng) : 4.9614
Integration start scan : 887 Integration stop scan: 926
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

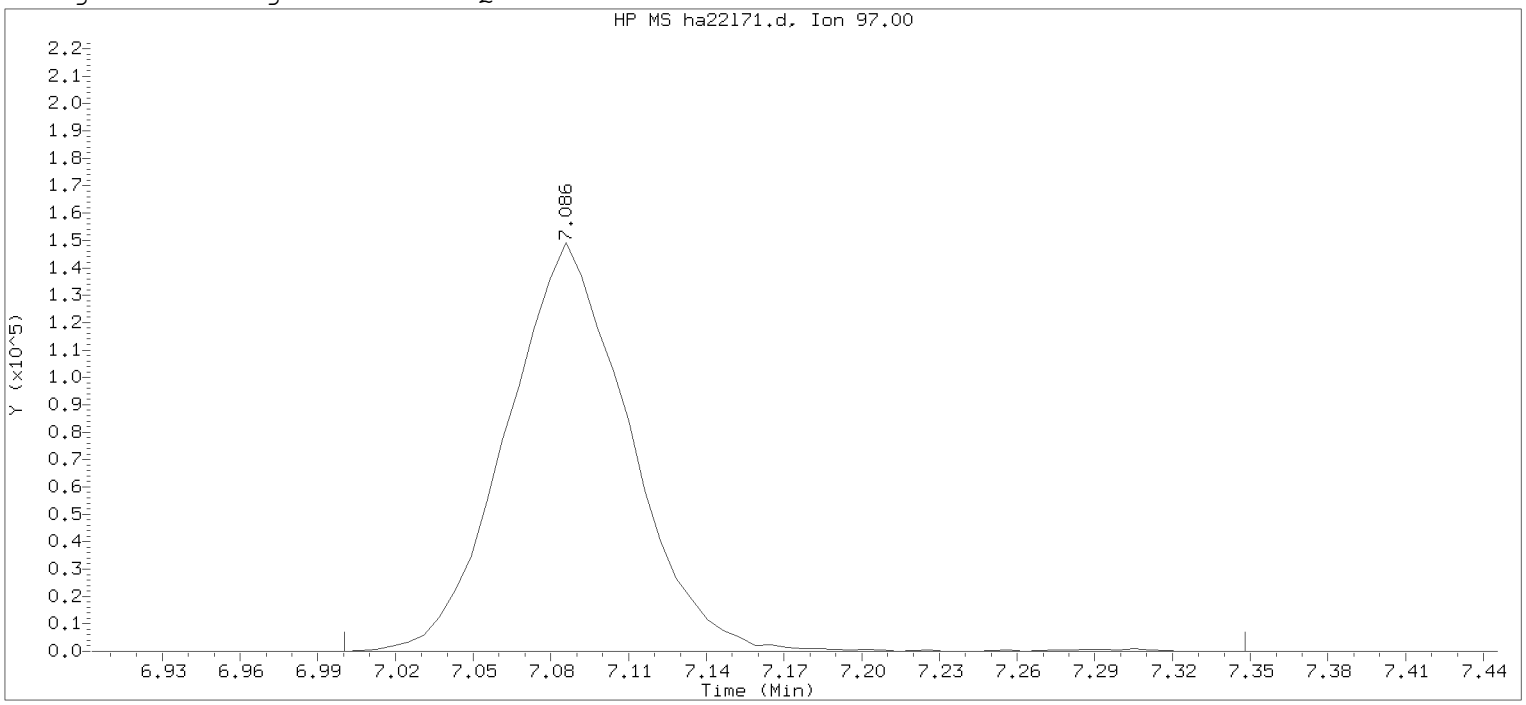
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22171.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 21:58 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 22:21 mec29284

Sample Name: LCSH31 Lab Sample ID: LCSH31

Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 902
Retention Time (minutes): 7.086
Quant Ion : 97.00
Area : 489781
On-column Amount (ng) : 4.9807
Integration start scan : 887 Integration stop scan: 944
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08.
Target 3.5 esignature user: Jennifer K. Howe

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/19apr22b.b/ha22172.d Injection date and time: **22-APR-2019 22:20**
Data file Sample Info. Line: LCDH31;LCDH31;1;3;LCSD;;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469-SM**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.495	(-0.018)	477	65	153161	(1)	50.00	
63) Fluorobenzene	7.964	(0.000)	1046	96	2976277	(3)	10.00	
97) Chlorobenzene-d5	11.378	(0.000)	1606	117	2222368	(2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	1181251	(3)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(0.000)	113	734518	9.871	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.525	(0.000)	102	134305	10.298	103%		80 - 120
82) Toluene-d8	(3)	9.945	(0.000)	98	2995129	10.436	104%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.371	(0.000)	95	1044769	9.724	97%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)	2.074	(-0.000)	85	383391	3.844	3.84			0.05	1
2) Chloromethane	(2)	2.276	(-0.000)	50	444265	4.604	4.60			0.06	1
8) Chloroethane	(2)	2.836	(-0.000)	64	243548	4.664	4.66			0.07	1
10) Trichlorofluoromethane	(2)	3.154	(-0.001)	101	517754M	4.393	4.39			0.05	1
11) Ethyl ether	(2)	3.422	(-0.000)	59	184189	4.587	4.59		J	0.05	13
15) 1,1-Dichloroethene	(2)	3.751	(-0.000)	96	269227M	4.906	4.91			0.06	1
16) Freon 113	(2)	3.788	(-0.000)	101	297705	4.718	4.72			0.06	1
23) Methylene Chloride	(2)	4.458	(-0.000)	84	296910	5.041	5.04			0.07	1
33) 1,1-Dichloroethane	(2)	5.549	(-0.000)	63	565555	4.709	4.71			0.07	1
38) 2-Butanone	(1)	6.336	(0.005)	43	483718	31.157	31.16			0.6	10
48) Tetrahydrofuran	(1)	6.714	(0.006)	71	82722	22.288	22.29		J	0.8	25
51) 1,1,1-Trichloroethane	(2)	7.086	(-0.000)	97	486574M	4.891	4.89			0.06	1
54) Carbon Tetrachloride	(2)	7.293	(-0.000)	117	431962	4.827	4.83			0.07	1
58) Benzene	(2)	7.561	(-0.000)	78	1241664	4.763	4.76			0.05	1
67) Trichloroethene	(2)	8.439	(0.000)	95	324035	4.817	4.82			0.06	1
83) Toluene	(3)	10.018	(-0.000)	92	783217	5.140	5.14			0.07	1
89) Tetrachloroethene	(3)	10.554	(-0.000)	166	362781	5.113	5.11			0.06	1
100) Ethylbenzene	(3)	11.487	(0.000)	91	1508669	4.986	4.99			0.06	1
101) m+p-Xylene	(3)	11.603	(0.000)	106	1169911	10.249	10.25			0.1	0.5
104) o-Xylene	(3)	11.926	(0.000)	106	553308	4.975	4.98			0.05	0.5
105) Xylene (Total)	(3)			106	1723219	15.224	15.22			0.1	3

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/19apr22b.b/ha22172.d Injection date and time: **22-APR-2019 22:20**
Data file Sample Info. Line: LCDH31;LCDH31;1;3;LCSD;;DRAPERLOQ;;ha22b70; Instrument ID: **HP19094.i** Batch: **H191123AA**
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Blank Data file reference: **/chem2/HP19094.i/19apr22b.b/ha22b70.d**

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: **22469-SM**
Calibration date and time (Last Method Edit): 22-APR-2019 22:45
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/19apr22b.b/ha22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

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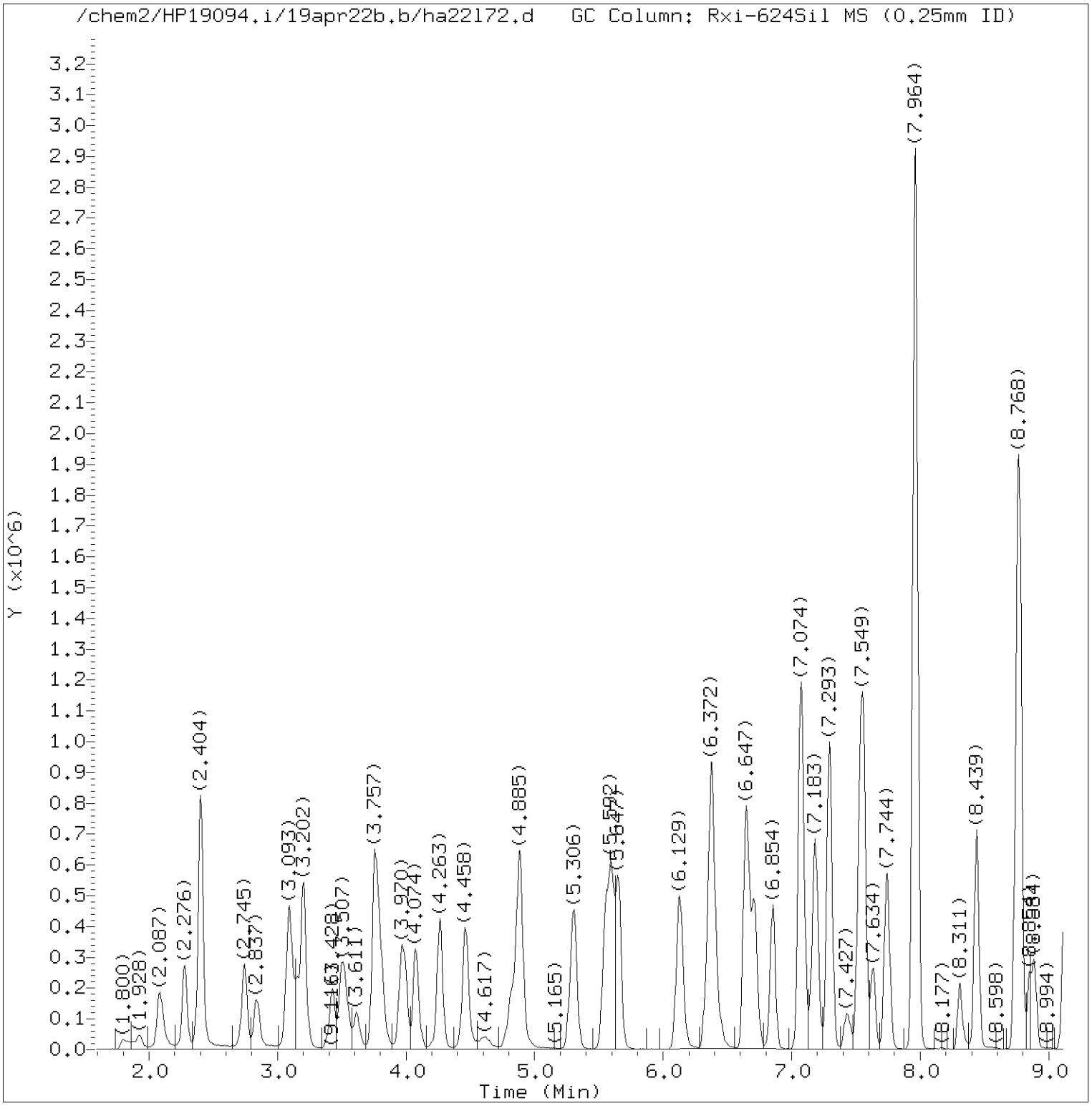
BLANK INTENTIONALLY

Total number of targets = 21

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

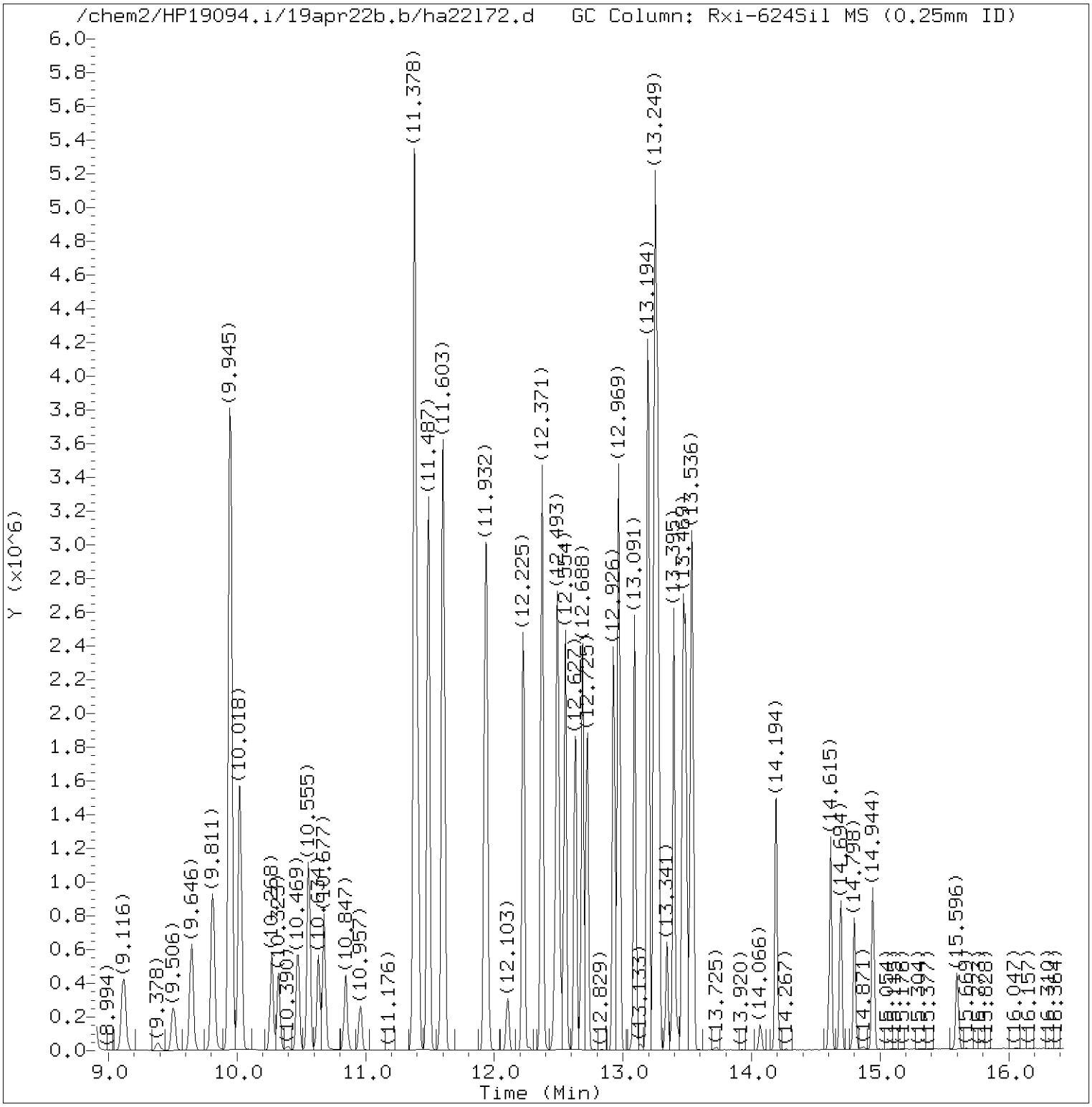
Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l72.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l72.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/19apr22b.b/ha22l72.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

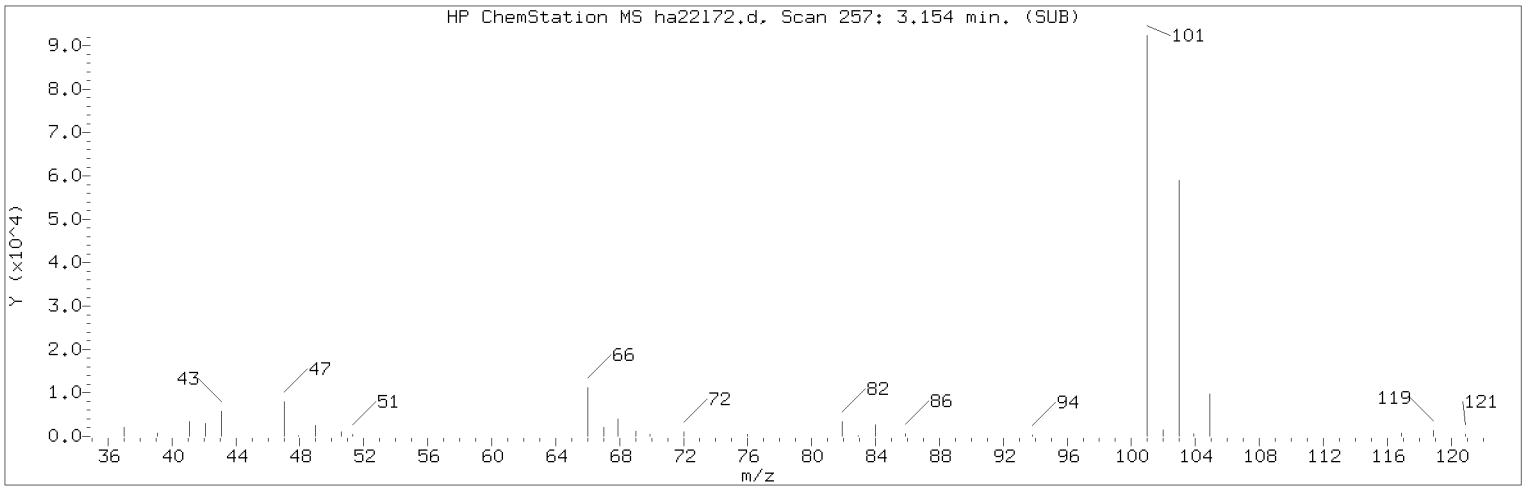
Sample Name: LCDH31 Lab Sample ID: LCDH31

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	383391	3.844
2) Chloromethane	(2)	2.276	50	444265	4.604
8) Chloroethane	(2)	2.837	64	243548	4.664
10) Trichlorofluoromethane	(2)	3.154	101	517754M	4.393
11) Ethyl ether	(2)	3.422	59	184189	4.587
15) 1,1-Dichloroethene	(2)	3.751	96	269227M	4.906
16) Freon 113	(2)	3.788	101	297705	4.718
23) Methylene Chloride	(2)	4.458	84	296910	5.041
26)*t-Butyl Alcohol-d10	(1)	4.495	65	153161	50.000
33) 1,1-Dichloroethane	(2)	5.549	63	565555	4.709
38) 2-Butanone	(1)	6.336	43	483718	31.157
48) Tetrahydrofuran	(1)	6.714	71	82722	22.288
50)$Dibromofluoromethane	(2)	7.067	113	734518	9.871
51) 1,1,1-Trichloroethane	(2)	7.086	97	486574M	4.891
54) Carbon Tetrachloride	(2)	7.293	117	431962	4.827
57)$1,2-Dichloroethane-d4	(2)	7.525	102	134305	10.298
58) Benzene	(2)	7.561	78	1241664	4.763
63)*Fluorobenzene	(2)	7.964	96	2976277	10.000
67) Trichloroethene	(2)	8.439	95	324035	4.817
82)$Toluene-d8	(3)	9.945	98	2995129	10.436
83) Toluene	(3)	10.018	92	783217	5.140
89) Tetrachloroethene	(3)	10.555	166	362781	5.113
97)*Chlorobenzene-d5	(3)	11.378	117	2222368	10.000
100) Ethylbenzene	(3)	11.487	91	1508669	4.986
101) m+p-Xylene	(3)	11.603	106	1169911	10.249
105) Xylene (Total)	(3)		106	1723219	15.224
104) o-Xylene	(3)	11.926	106	553308	4.975
111)$4-Bromofluorobenzene	(3)	12.371	95	1044769	9.724
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1181251	10.000

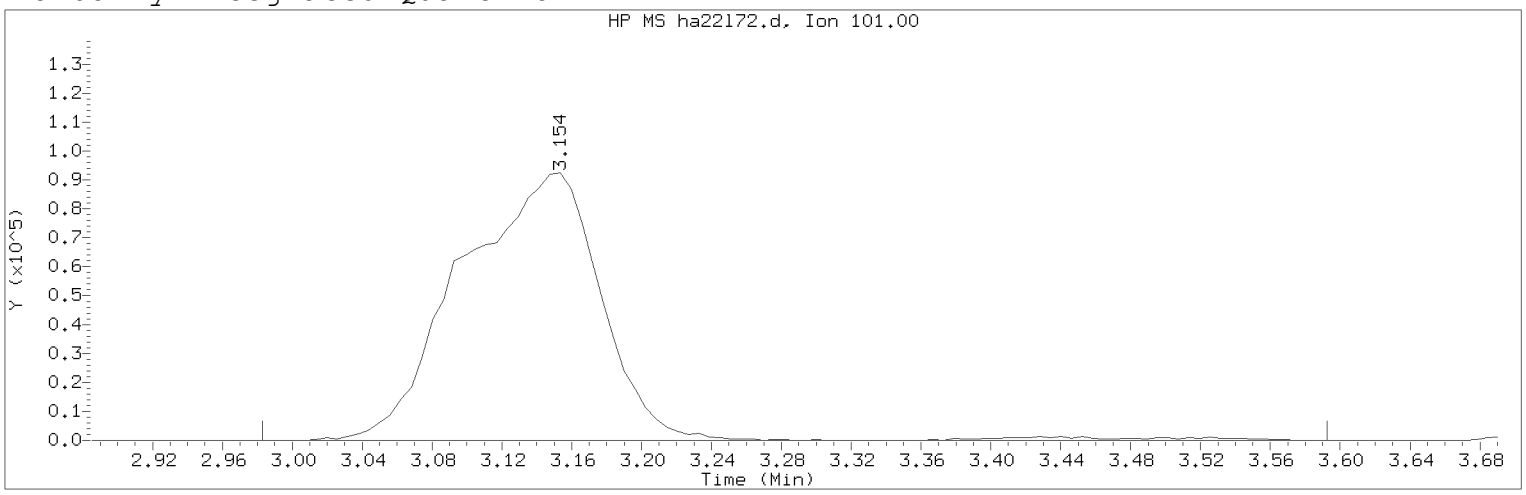
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22172.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

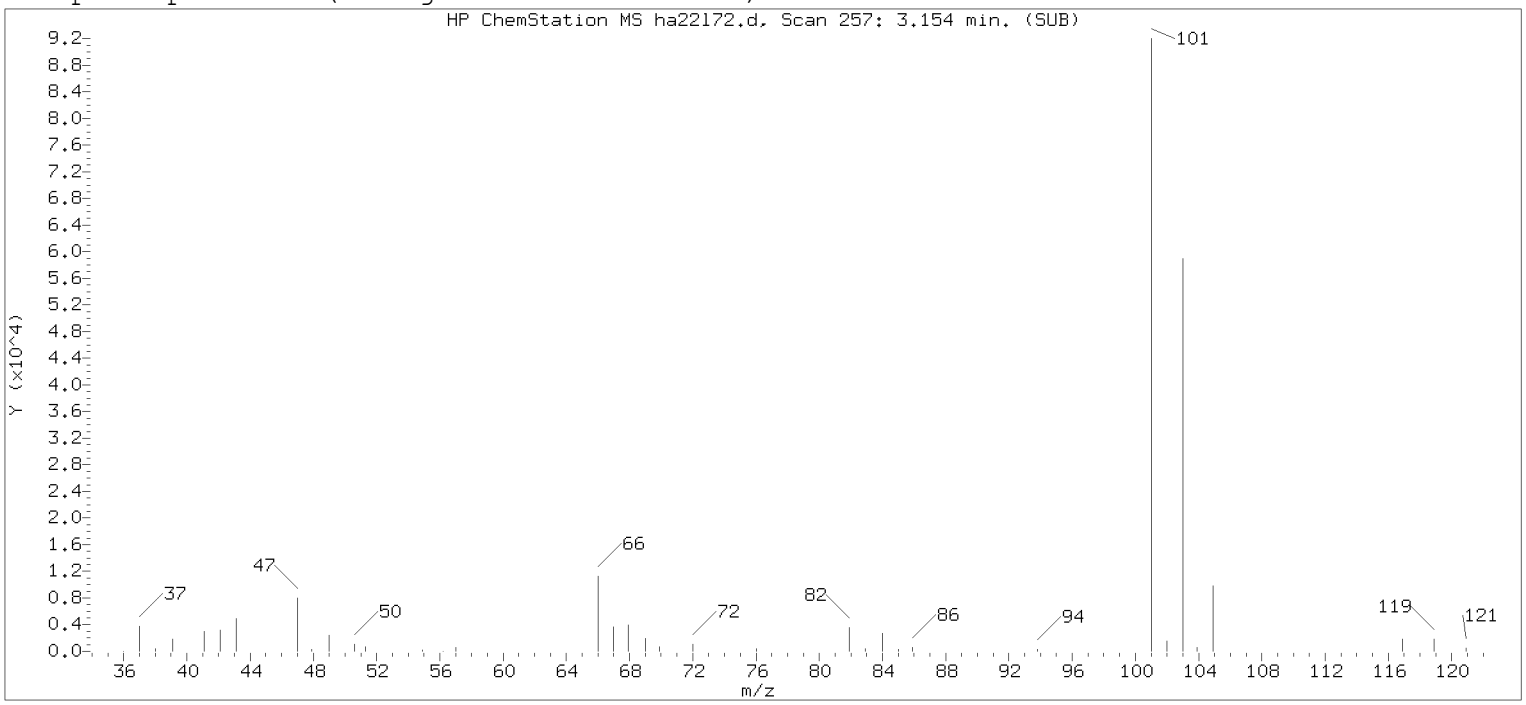
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 257
Retention Time (minutes): 3.154
Quant Ion : 101.00
Area (flag) : 517754M
On-Column Amount (ng) : 4.3926
Integration start scan : 228 Integration stop scan: 328
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

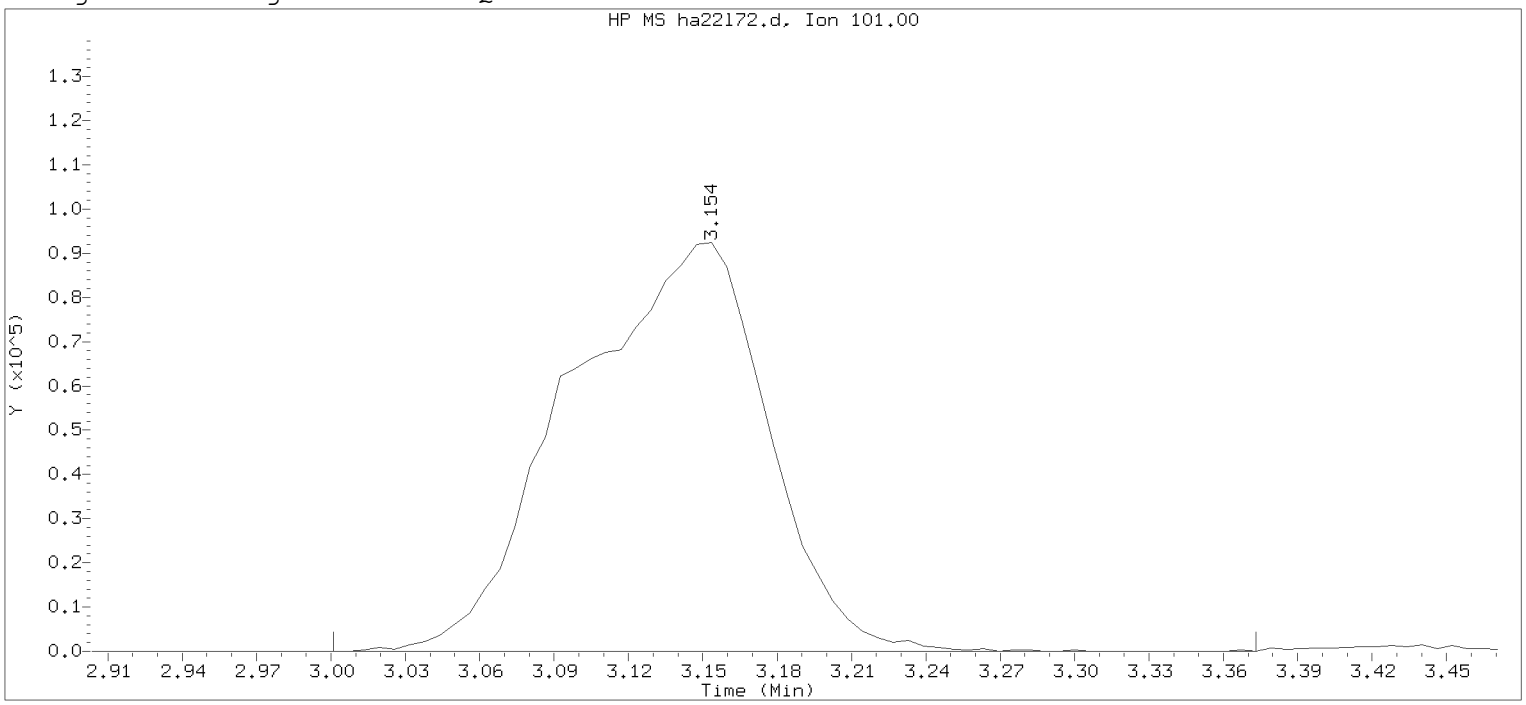
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22172.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

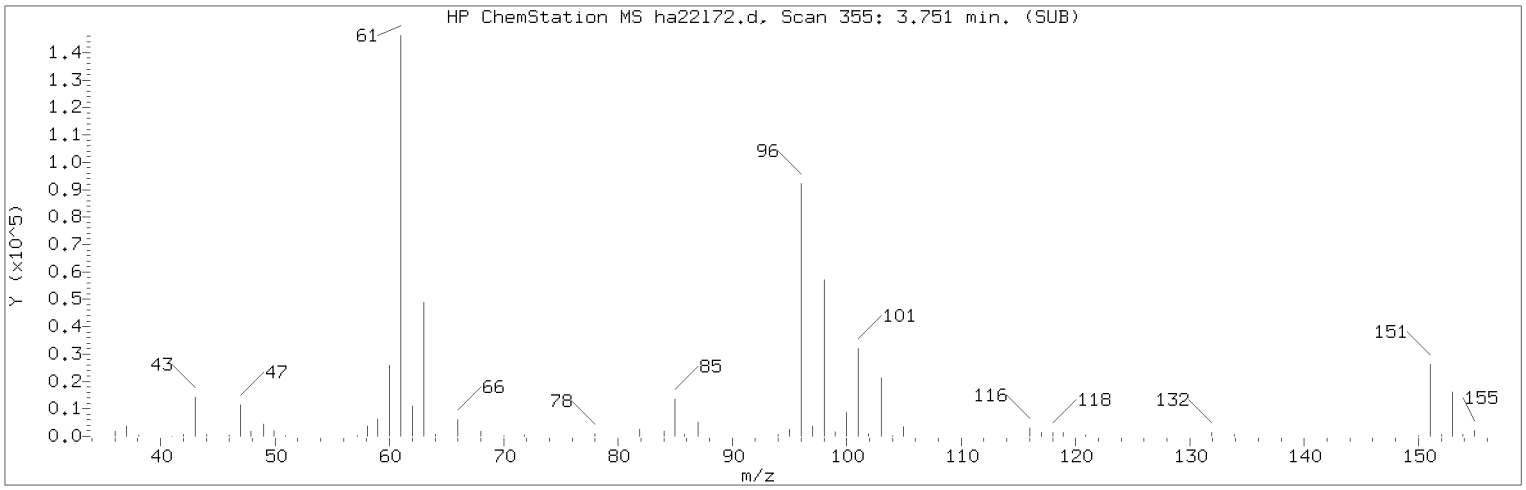
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 22:41 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

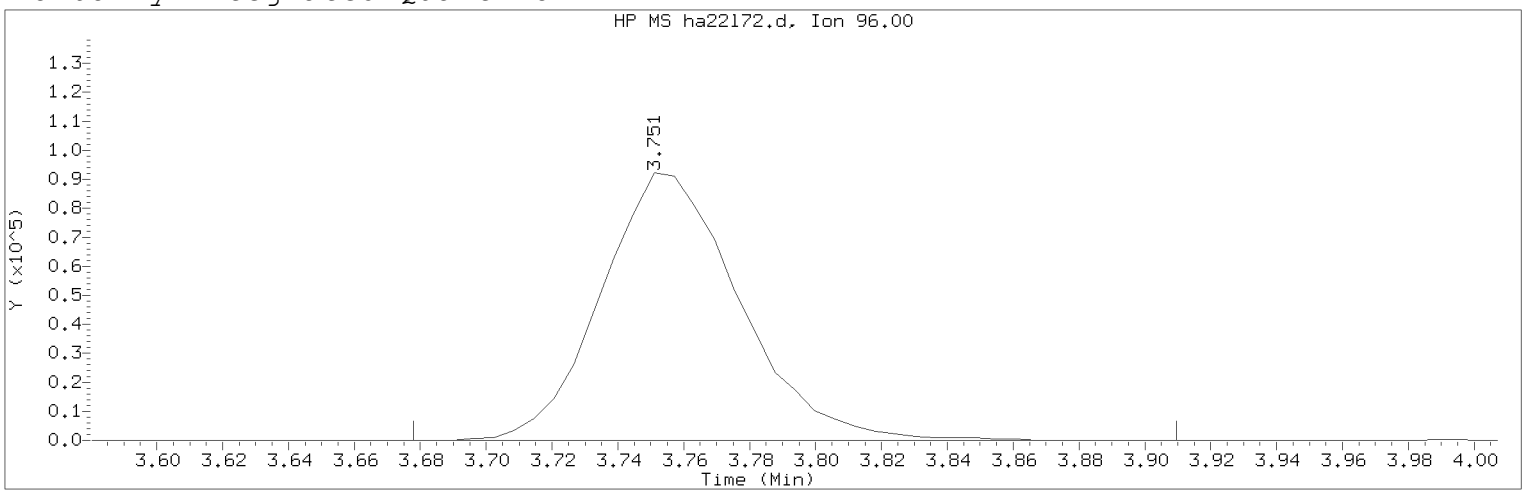
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 257
Retention Time (minutes): 3.154
Quant Ion : 101.00
Area : 509432
On-column Amount (ng) : 4.3220
Integration start scan : 231 Integration stop scan: 292
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08.
Target 3.5 esignature user: F35 Page 1595

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22172.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

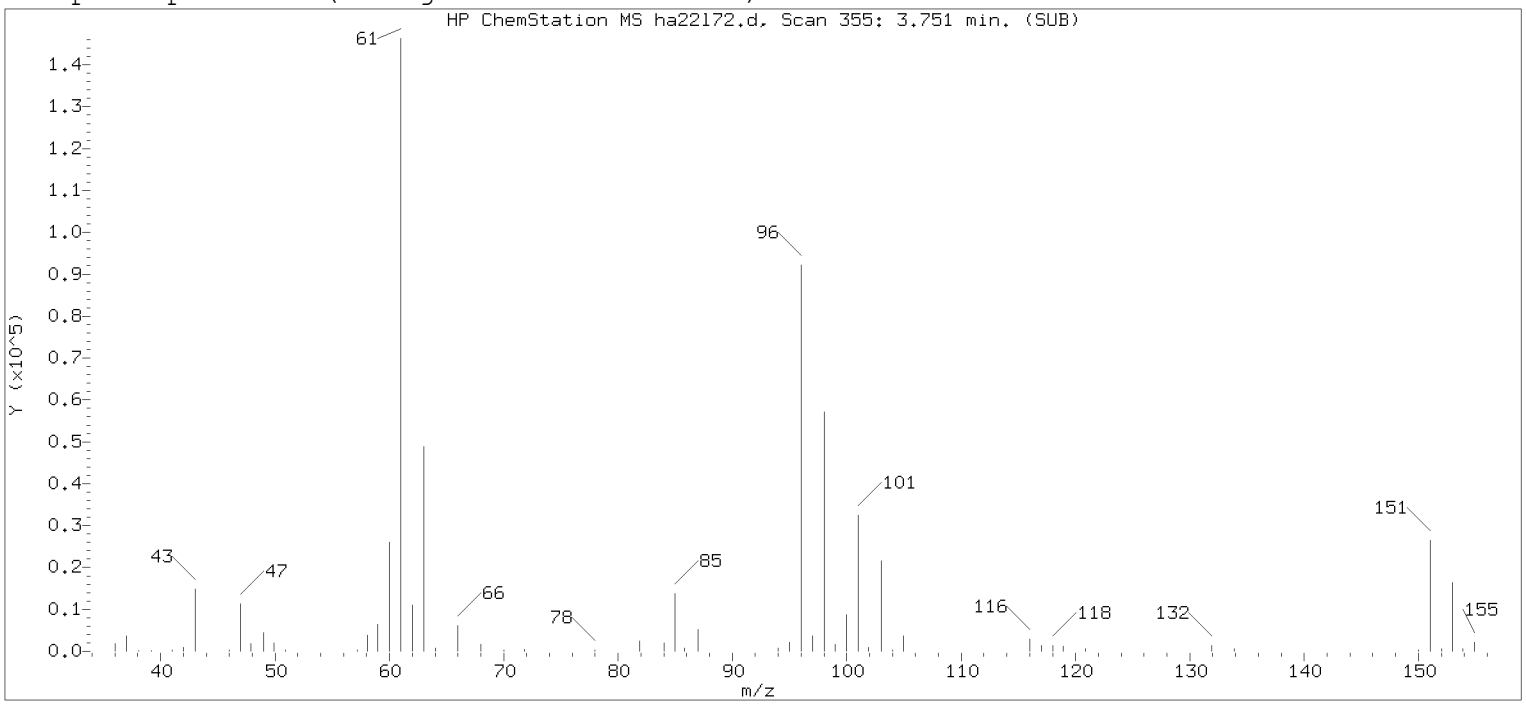
Compound Number : 15
Compound Name : 1,1-Dichloroethene
Scan Number : 355
Retention Time (minutes): 3.751
Quant Ion : 96.00
Area (flag) : 269227M
On-Column Amount (ng) : 4.9063
Integration start scan : 342 Integration stop scan: 380
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

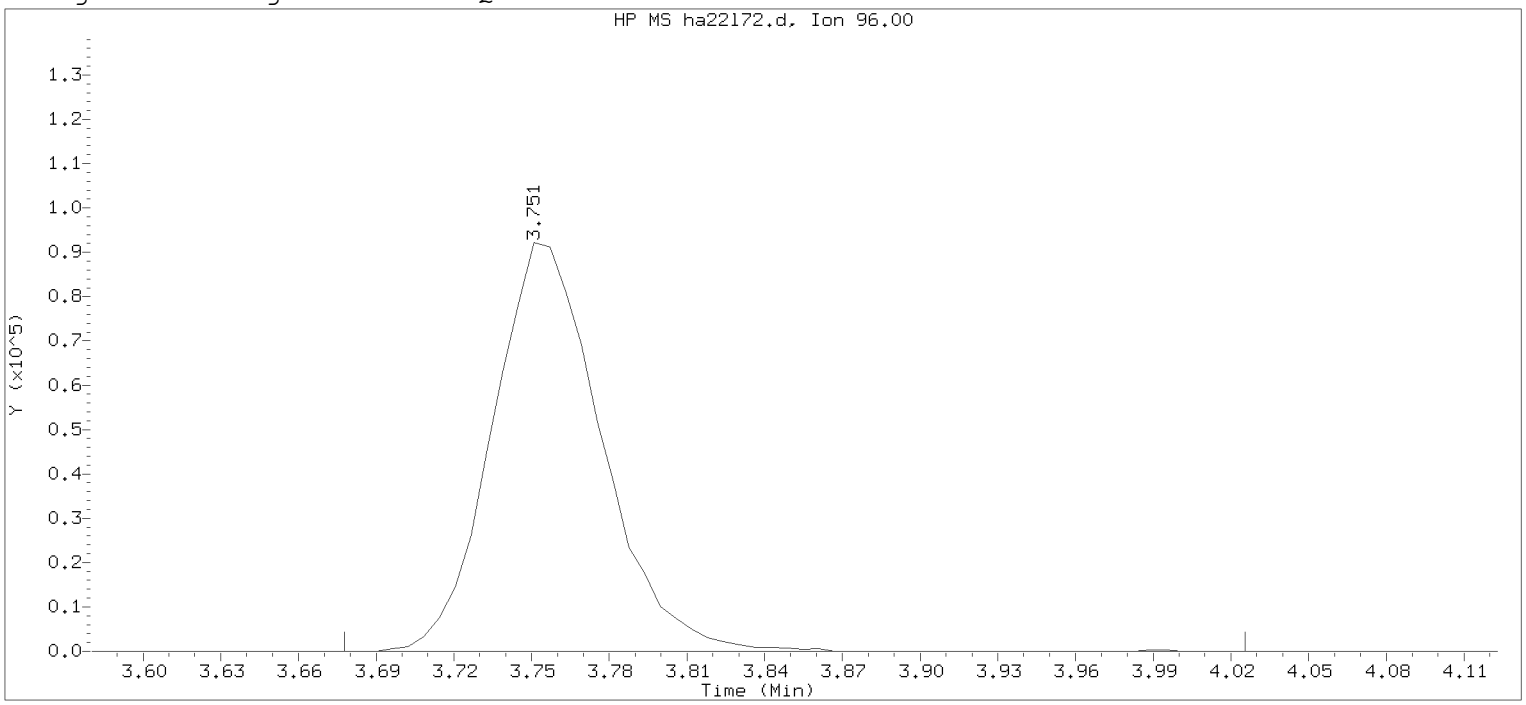
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22172.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

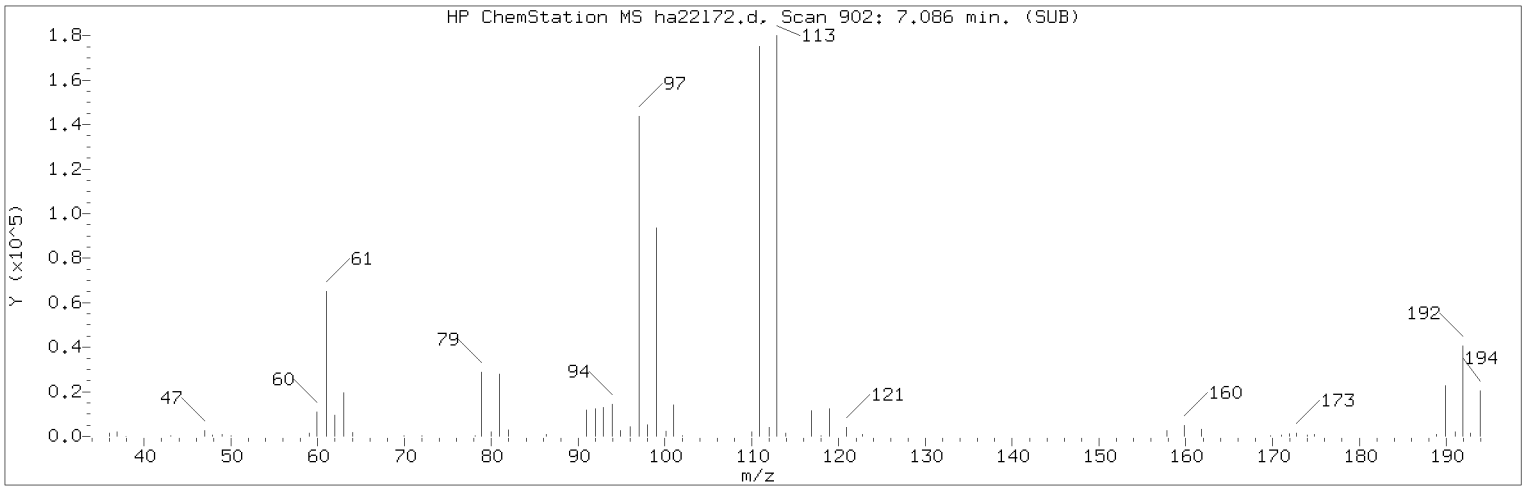
Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 22:41 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

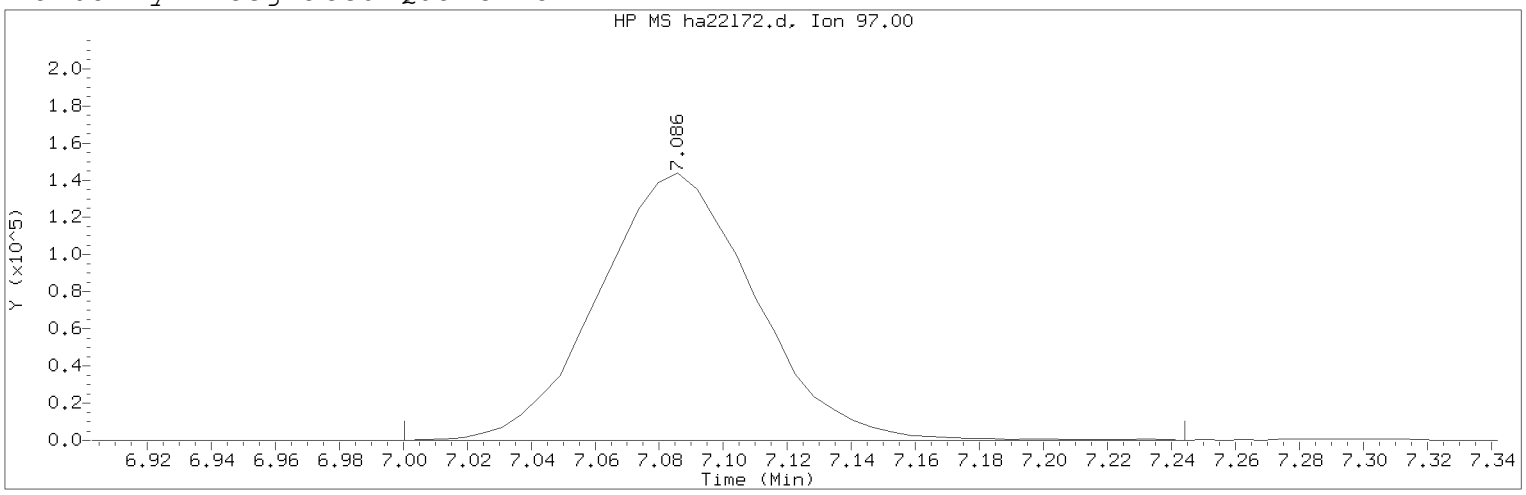
Compound Number : 15
Compound Name : 1,1-Dichloroethene
Scan Number : 355
Retention Time (minutes): 3.751
Quant Ion : 96.00
Area : 269429
On-column Amount (ng) : 4.9100
Integration start scan : 342 Integration stop scan: 399
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08.
Target 3.5 esignature used. Page 1597

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22172.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 22:45
Date, time and analyst ID of latest file update: 22-Apr-2019 23:46 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

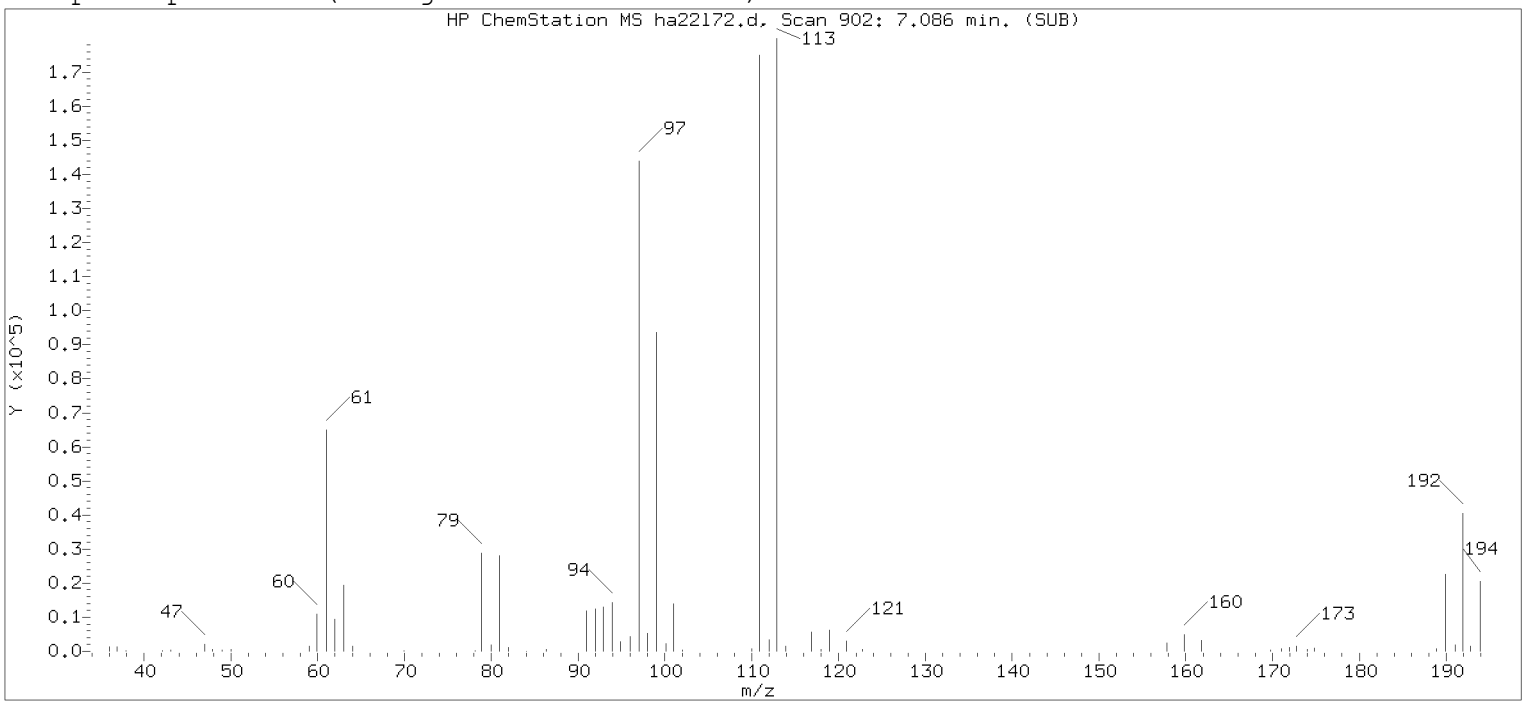
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 902
Retention Time (minutes): 7.086
Quant Ion : 97.00
Area (flag) : 486574M
On-Column Amount (ng) : 4.8907
Integration start scan : 887 Integration stop scan: 927
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

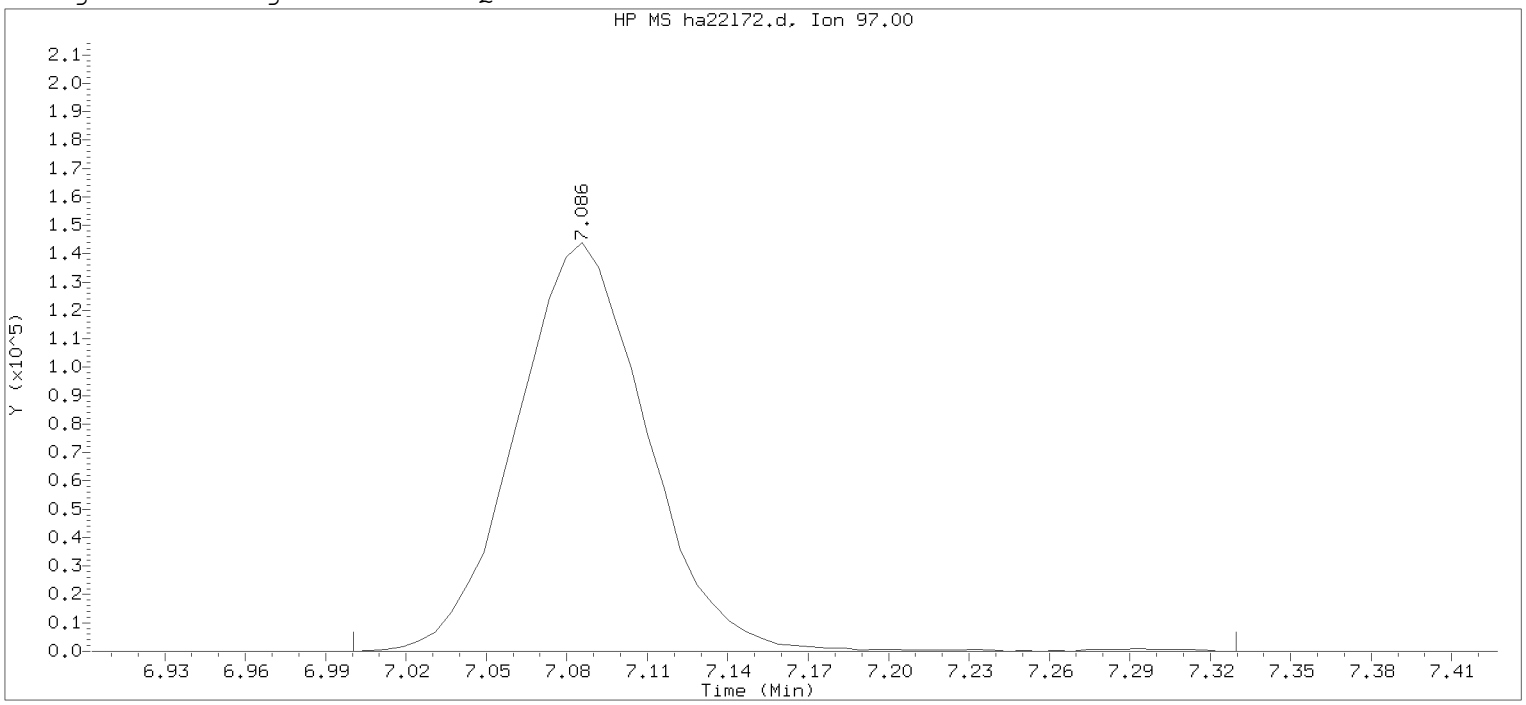
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/23/2019 at 10:08.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 04/23/2019 at 10:59.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/19apr22b.b/ha22172.d Instrument ID: HP19094.i
Injection date and time: 22-APR-2019 22:20 Analyst ID: MEC29284

Method used: /chem2/HP19094.i/19apr22b.b/m8260c25.m Sublist used: 22469-SM
Calibration date and time: 22-APR-2019 21:55
Date, time and analyst ID of latest file update: 22-Apr-2019 22:41 mec29284

Sample Name: LCDH31 Lab Sample ID: LCDH31

Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 902
Retention Time (minutes): 7.086
Quant Ion : 97.00
Area : 488672
On-column Amount (ng) : 4.9118
Integration start scan : 887 Integration stop scan: 941
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/23/2019 at 10:08.
Target 3.5 esignature used. Page 1599

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24l03.d Injection date and time: **24-APR-2019 10:53**
Data file Sample Info. Line: LCSI34;LCSI34;1;3;LCS;;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.306	(0.006)	446	65	149098M	(7)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2130846	(0)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1702647	(-2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	946941	(-5)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.000)	113	553946	10.073	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.002)	102	104195	9.832	98%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2140759	10.251	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	758629	9.694	97%		80 - 120

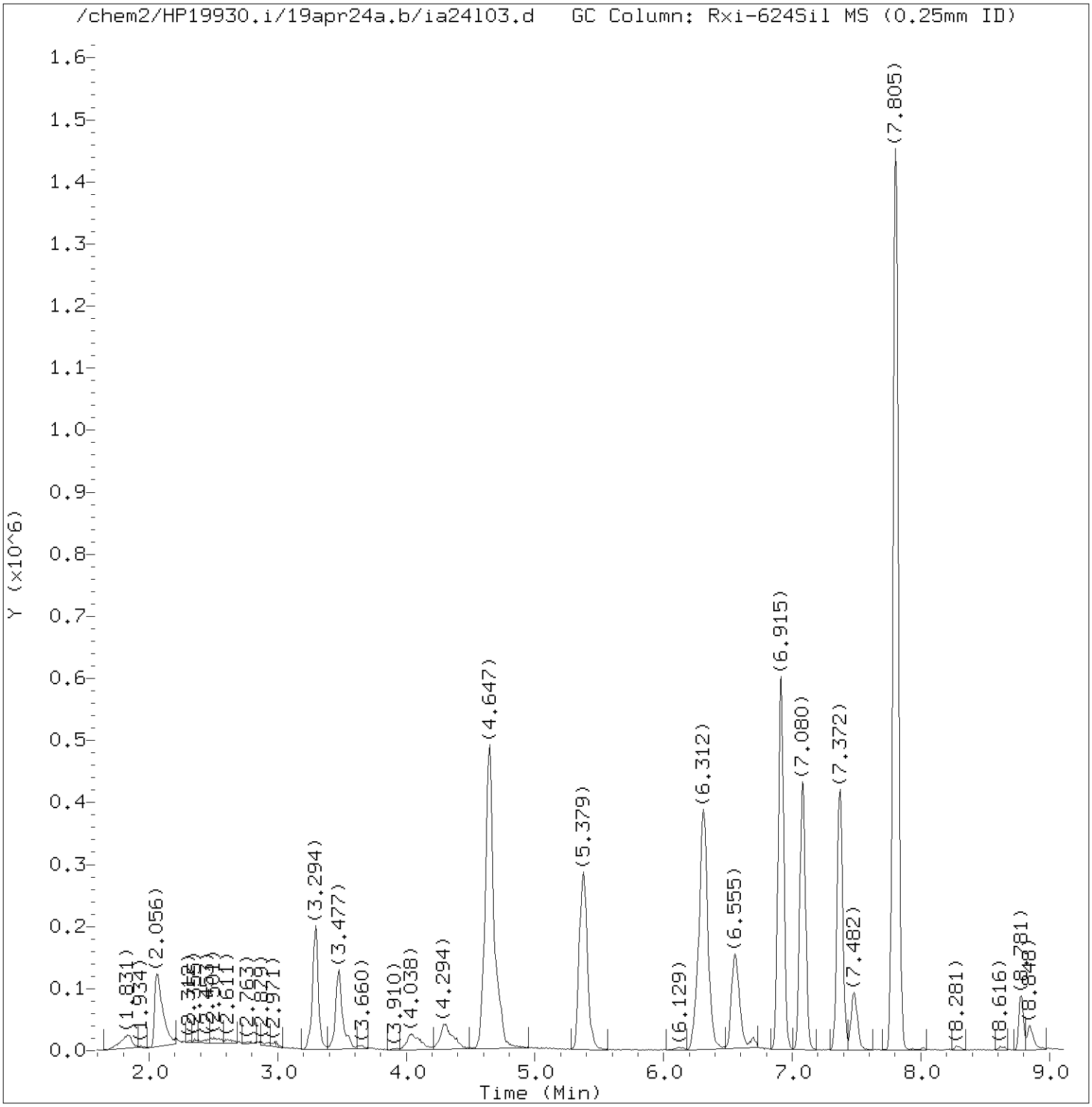
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
4) Dimethyl ether	(2)	2.068	(-0.000)	45	325084	4.197	4.20		J	0.04	13
25) Acetonitrile	(1)	4.031	(0.000)	41	134201M	44.011	44.01		J	32	100
36) Vinyl Acetate	(2)	5.379	(0.000)	43	959910	13.078	13.08			3	10
142) Hexachloroethane	(4)	13.609	(0.000)	117	273545	5.162	5.16		J	0.1	10

M = Compound was manually integrated.

Total number of targets = 4

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:39. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

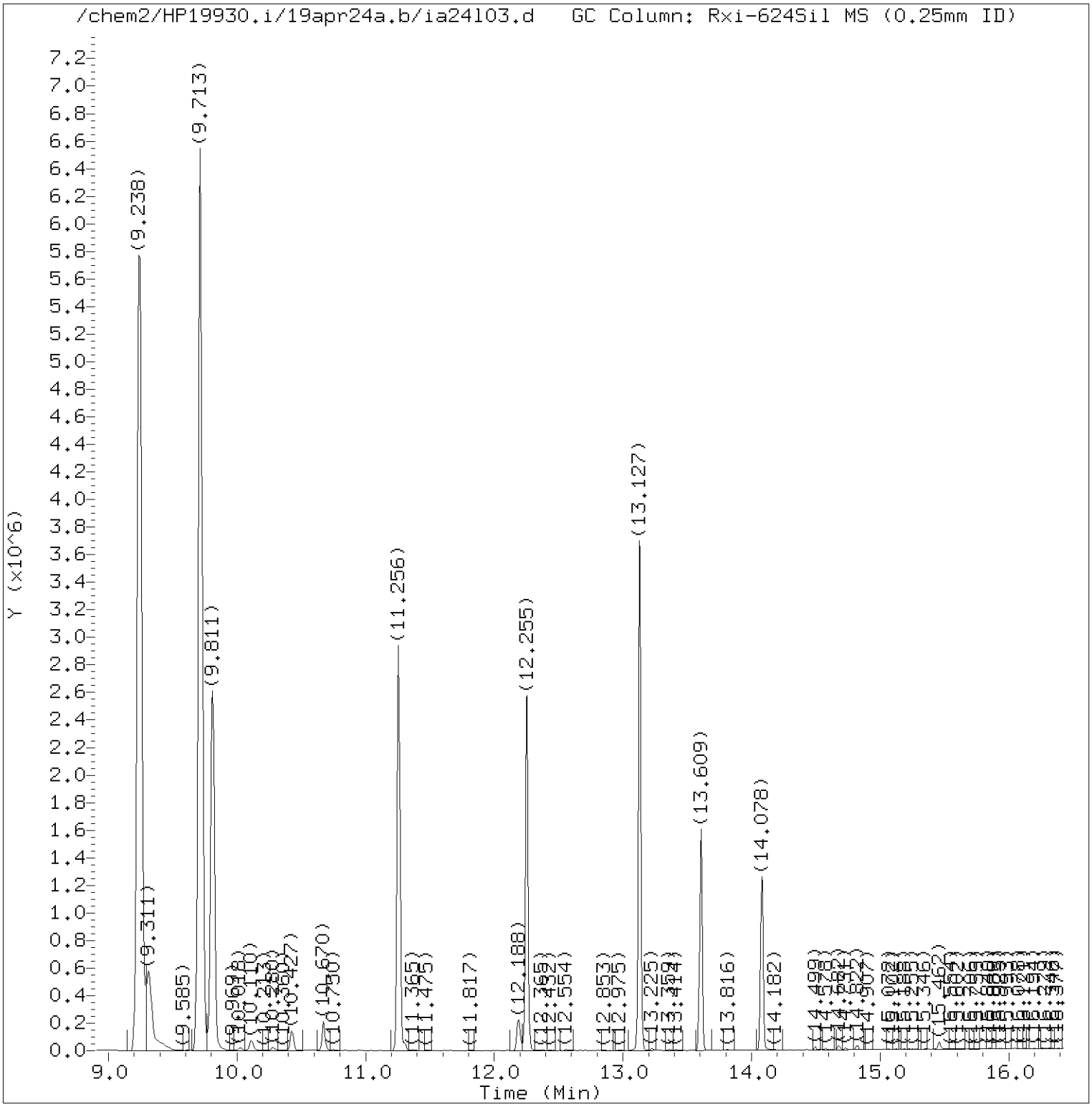
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCSI34 Lab Sample ID: LCSI34

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCSI34 Lab Sample ID: LCSI34

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

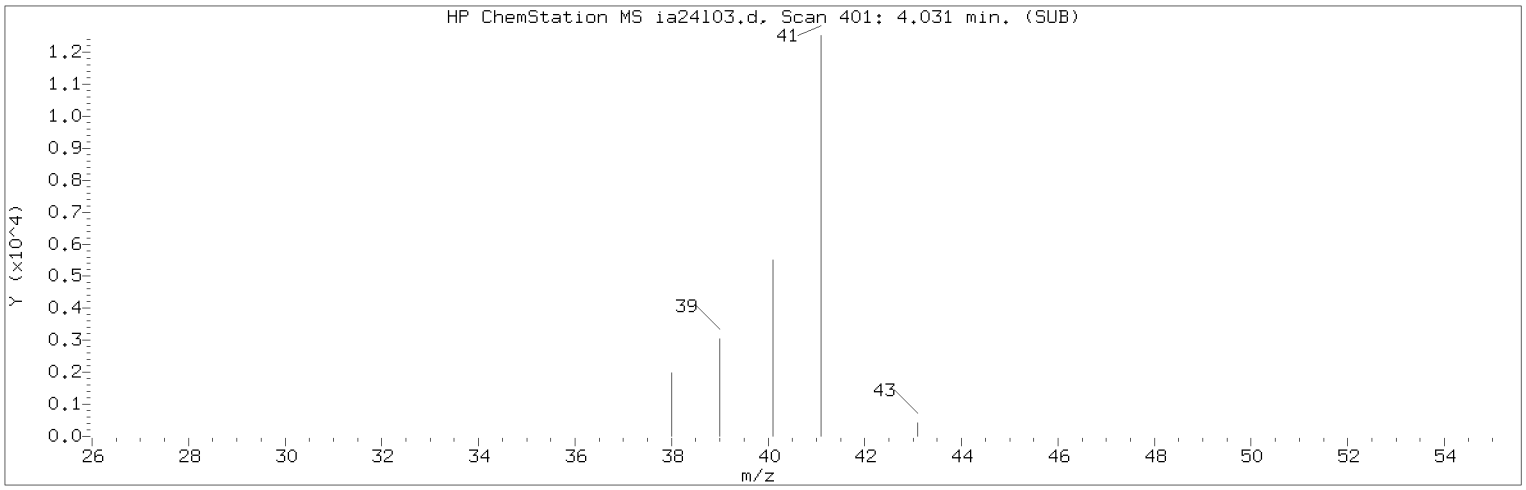
Sample Name: LCSI34 Lab Sample ID: LCSI34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.068	45	325084	4.197
25) Acetonitrile	(1)	4.031	41	134201M	44.011
26)*t-Butyl Alcohol-d10	(1)	4.306	65	149098M	50.000
36) Vinyl Acetate	(2)	5.379	43	959910	13.078
50)$Dibromofluoromethane	(2)	6.915	113	553946	10.073
57)$1,2-Dichloroethane-d4	(2)	7.378	102	104195	9.832
63)*Fluorobenzene	(2)	7.805	96	2130846	10.000
82)$Toluene-d8	(3)	9.811	98	2140759	10.251
97)*Chlorobenzene-d5	(3)	11.256	117	1702647	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	758629	9.694
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	946941	10.000
142) Hexachloroethane	(4)	13.609	117	273545	5.162

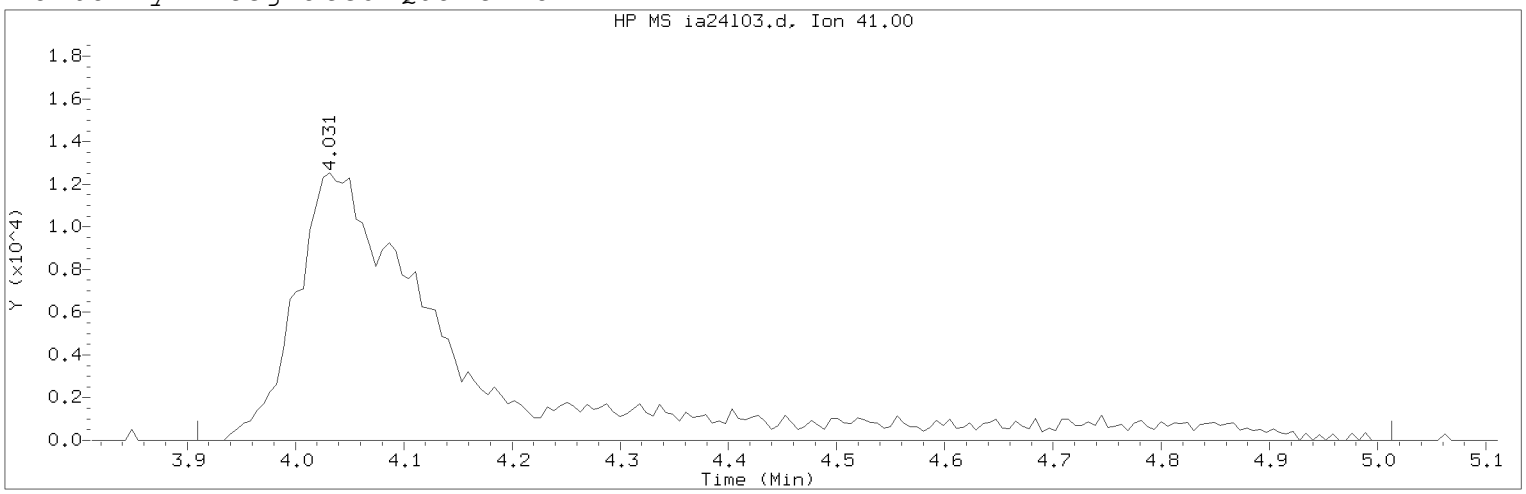
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l03.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCSI34 Lab Sample ID: LCSI34

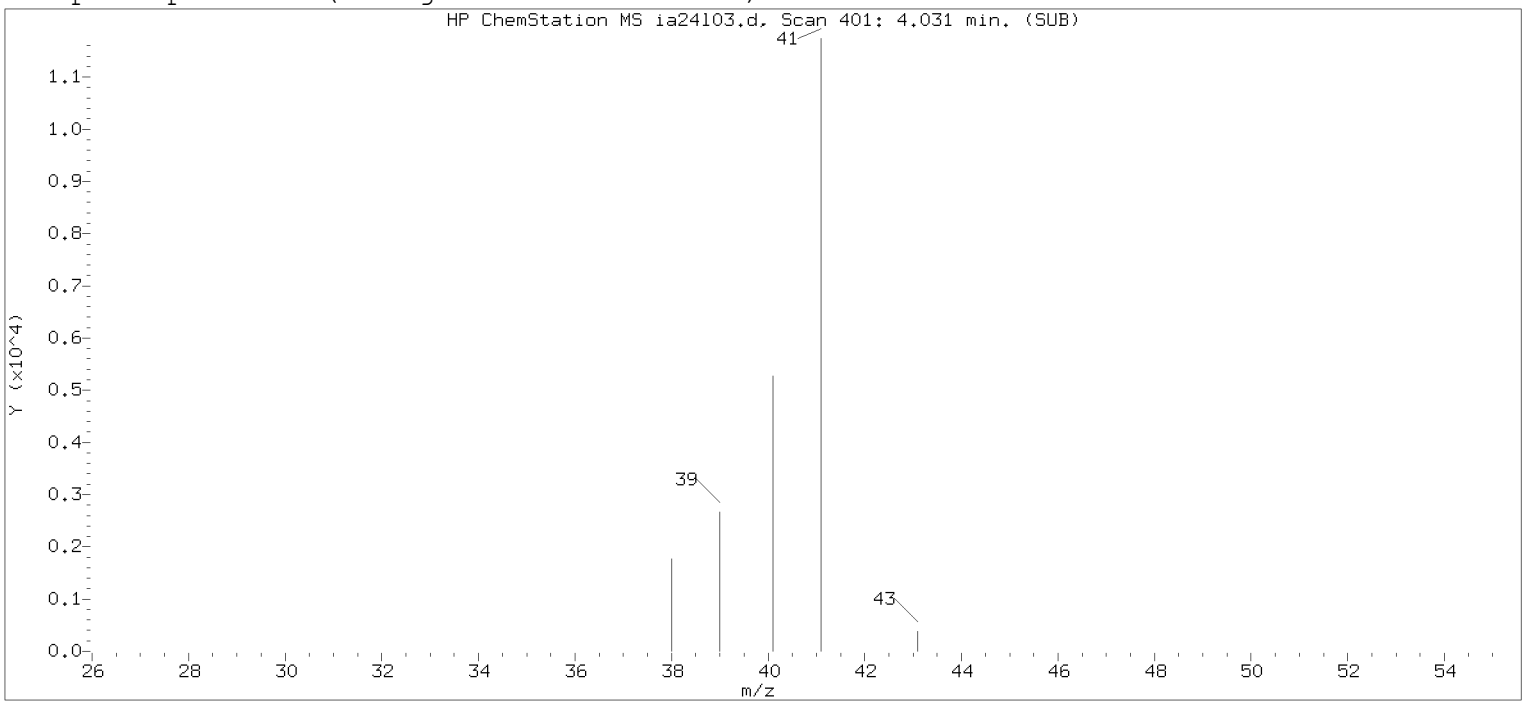
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 401
Retention Time (minutes): 4.031
Quant Ion : 41.00
Area (flag) : 134201M
On-Column Amount (ng) : 44.0115
Integration start scan : 380 Integration stop scan: 561
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

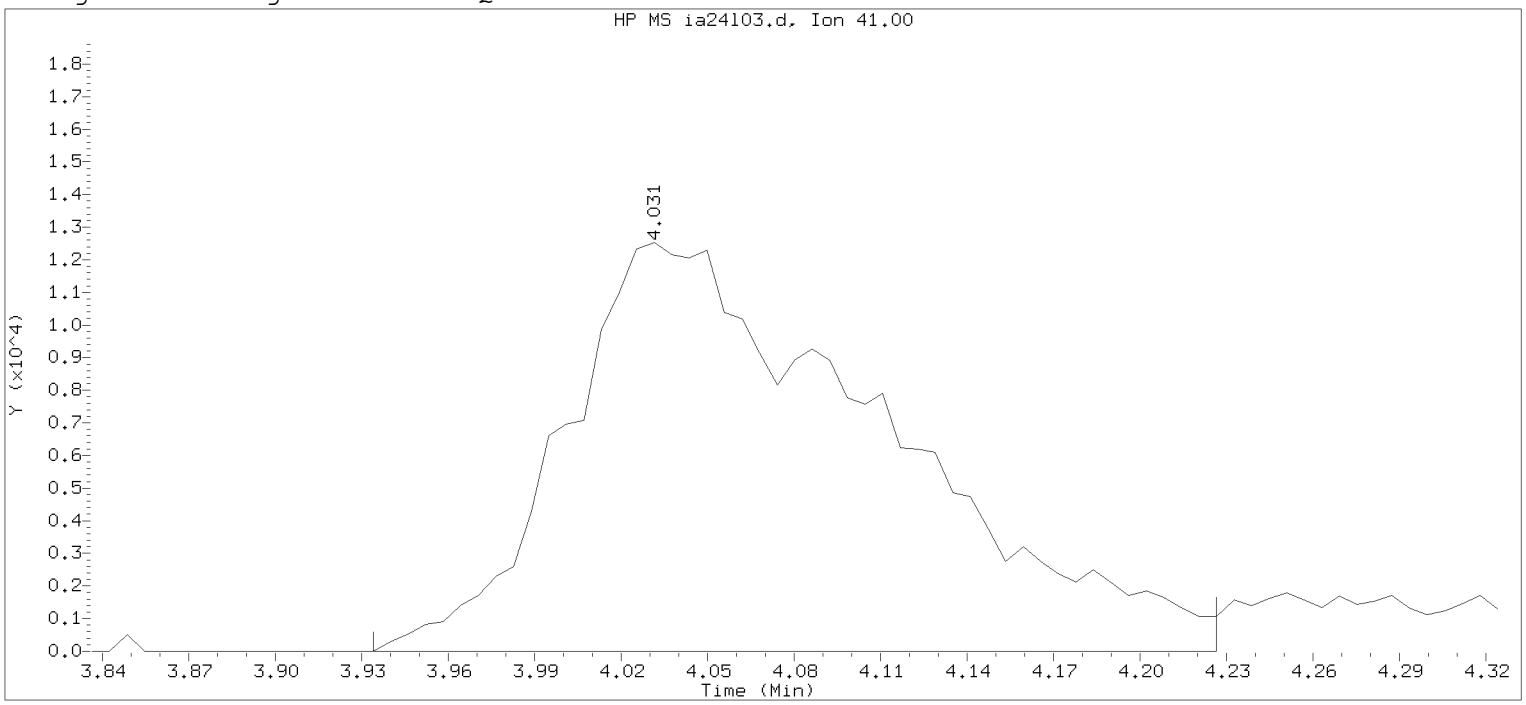
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24103.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

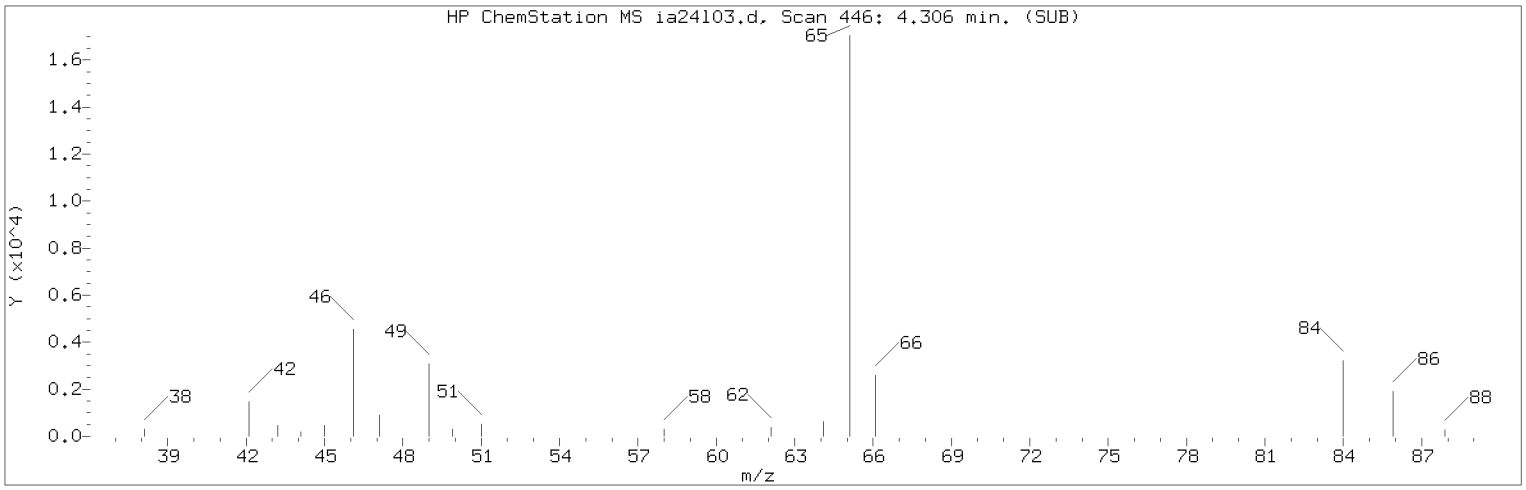
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCSI34 Lab Sample ID: LCSI34

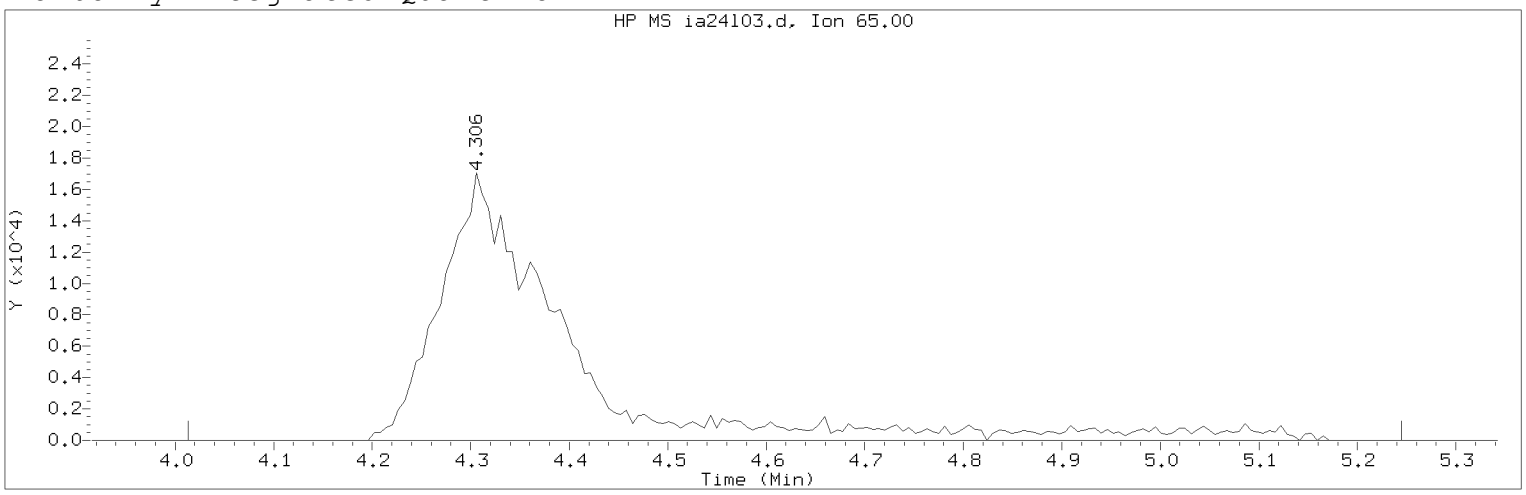
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 401
Retention Time (minutes): 4.031
Quant Ion : 41.00
Area : 96515
On-column Amount (ng) : 34.5570
Integration start scan : 384 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:39.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24103.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCSI34 Lab Sample ID: LCSI34

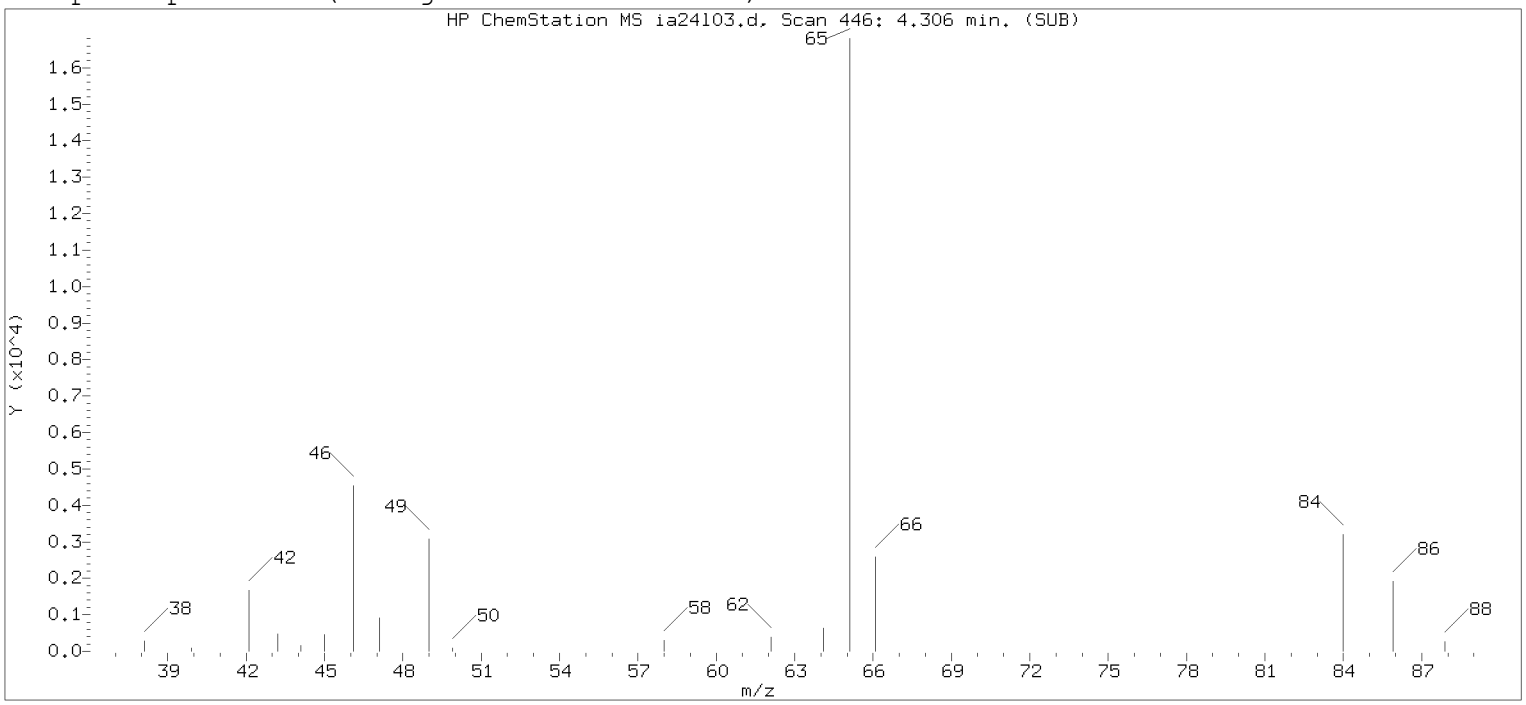
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area (flag) : 149098M
On-Column Amount (ng) : 50.0000
Integration start scan : 397 Integration stop scan: 599
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

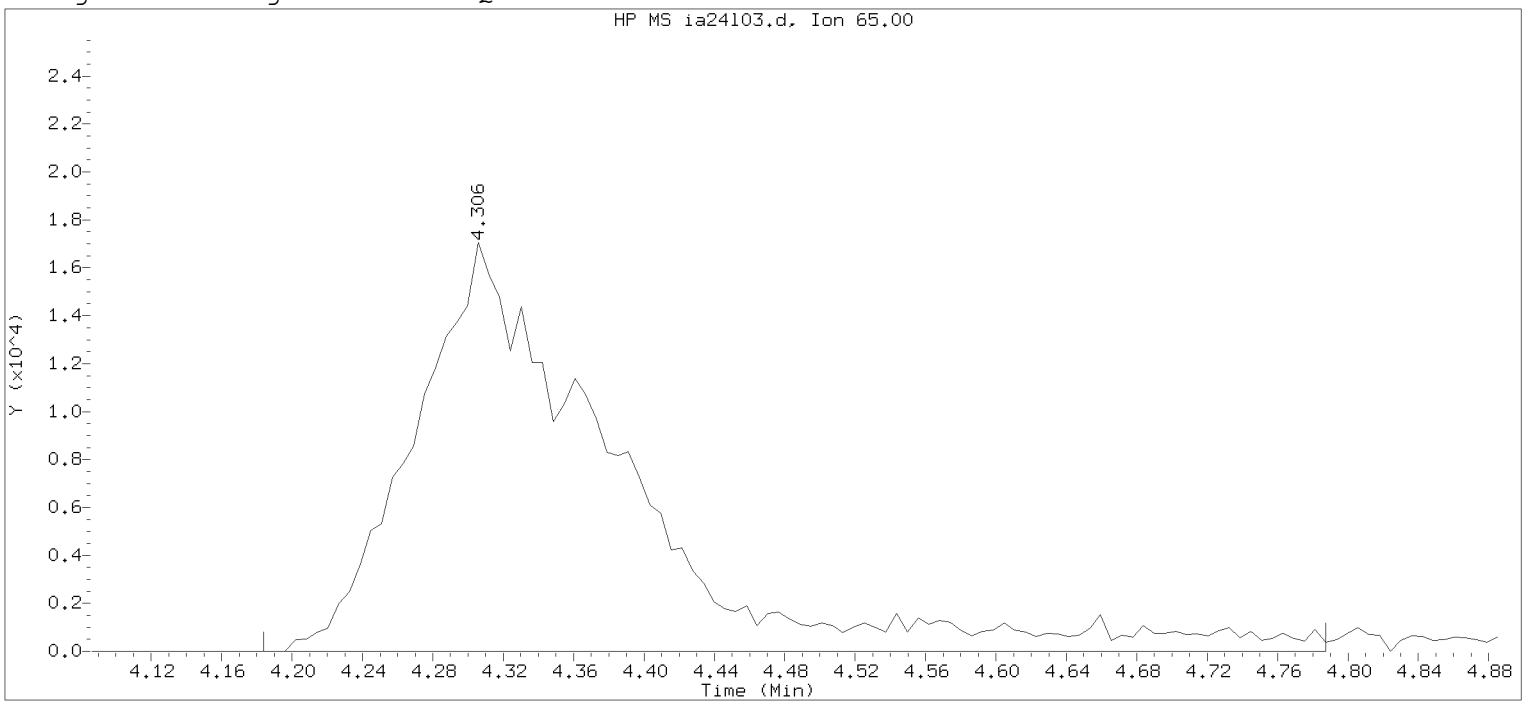
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24103.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:53 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCSI34 Lab Sample ID: LCSI34

Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area : 136565
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 524
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:39.
Target 3.5 esignature used. Page 1607

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24l04.d Injection date and time: **24-APR-2019 11:14**
Data file Sample Info. Line: LCDI34;LCDI34;1;3;LCSD;;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.318	(-0.006)	448	65	150086M	(8)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2117059	(0)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1700868	(-2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	944949	(-5)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.001)	113	552797	10.118	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.001)	102	107173	10.178	102%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2149768	10.304	103%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	758723	9.705	97%		80 - 120

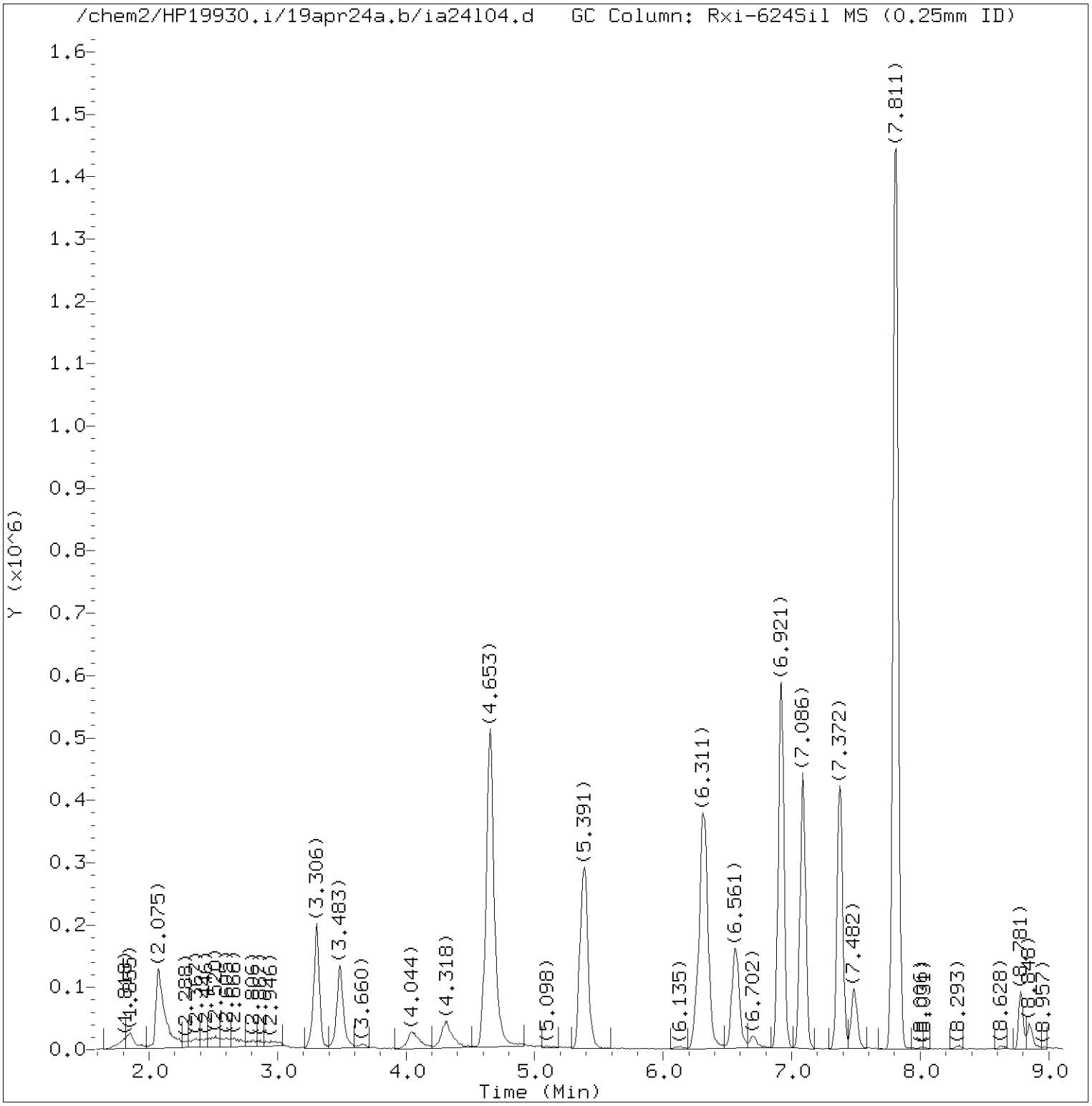
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
4) Dimethyl ether	(2)	2.074	(-0.001)	45	321895	4.183	4.18		J	0.04	13
25) Acetonitrile	(1)	4.038	(0.001)	41	133068M	43.353	43.35		J	32	100
36) Vinyl Acetate	(2)	5.391	(-0.000)	43	961998	13.192	13.19			3	10
142) Hexachloroethane	(4)	13.609	(-0.000)	117	265745	5.025	5.03		J	0.1	10

M = Compound was manually integrated.

Total number of targets = 4

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:39. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

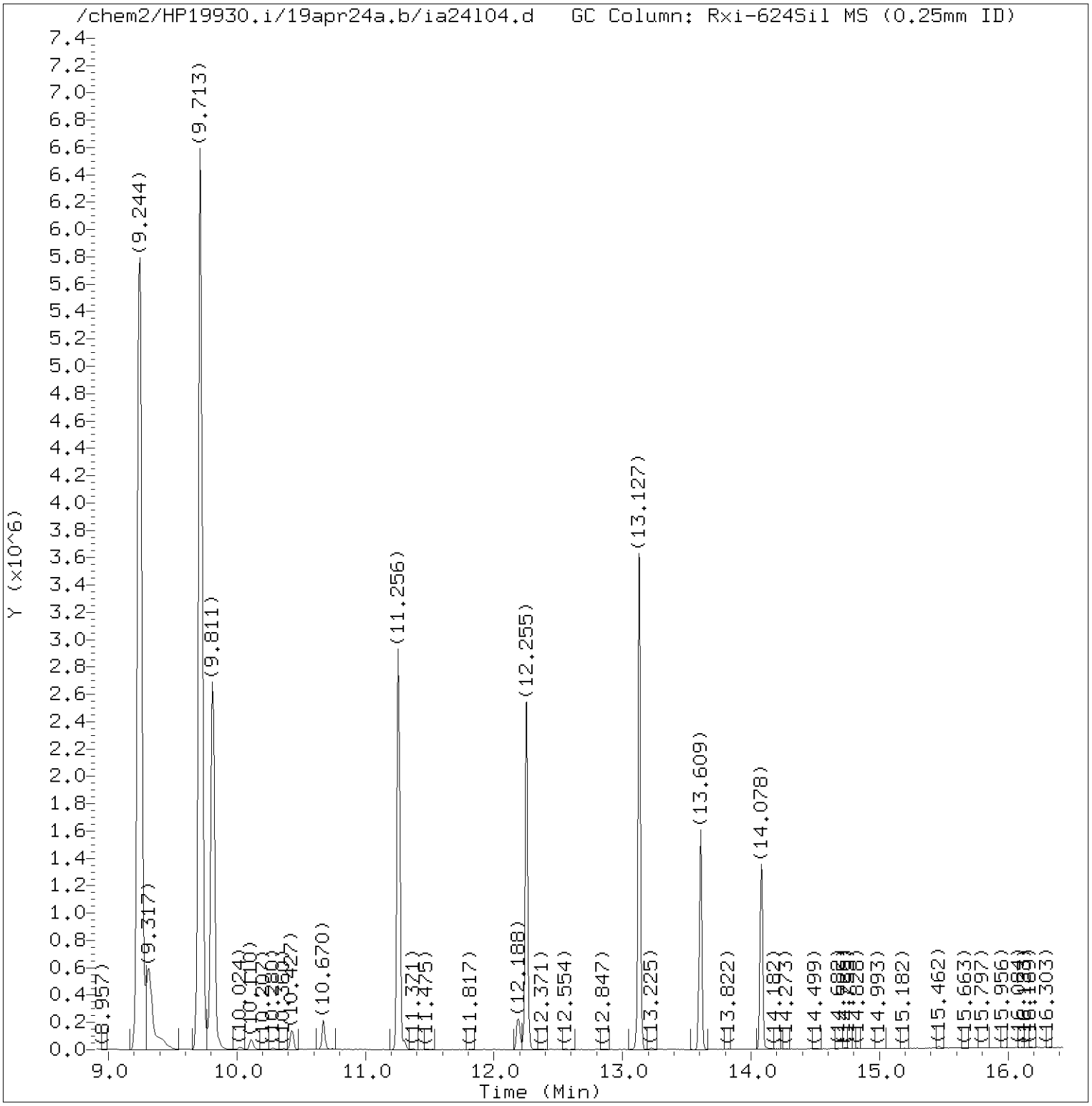
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI34 Lab Sample ID: LCDI34

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI34 Lab Sample ID: LCDI34

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

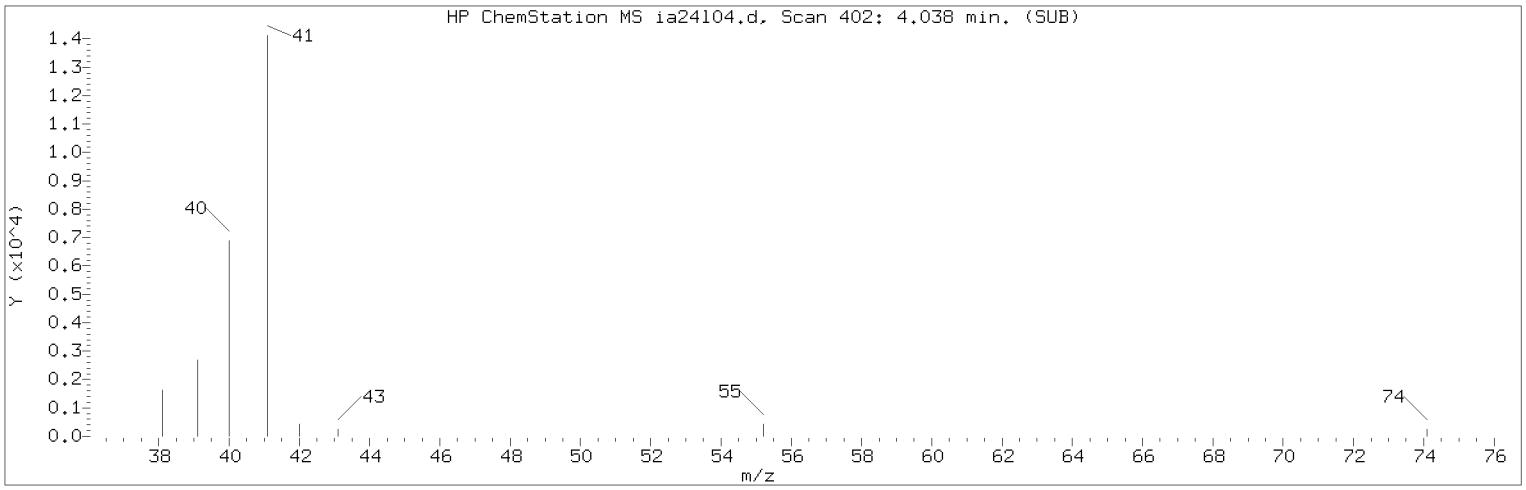
Sample Name: LCDI34 Lab Sample ID: LCDI34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.075	45	321895	4.183
25) Acetonitrile	(1)	4.038	41	133068M	43.353
26)*t-Butyl Alcohol-d10	(1)	4.318	65	150086M	50.000
36) Vinyl Acetate	(2)	5.391	43	961998	13.192
50)$Dibromofluoromethane	(2)	6.915	113	552797	10.118
57)$1,2-Dichloroethane-d4	(2)	7.378	102	107173	10.178
63)*Fluorobenzene	(2)	7.811	96	2117059	10.000
82)$Toluene-d8	(3)	9.811	98	2149768	10.304
97)*Chlorobenzene-d5	(3)	11.256	117	1700868	10.000
111)$4-Bromofluorobenzene	(3)	12.249	95	758723	9.705
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	944949	10.000
142) Hexachloroethane	(4)	13.609	117	265745	5.025

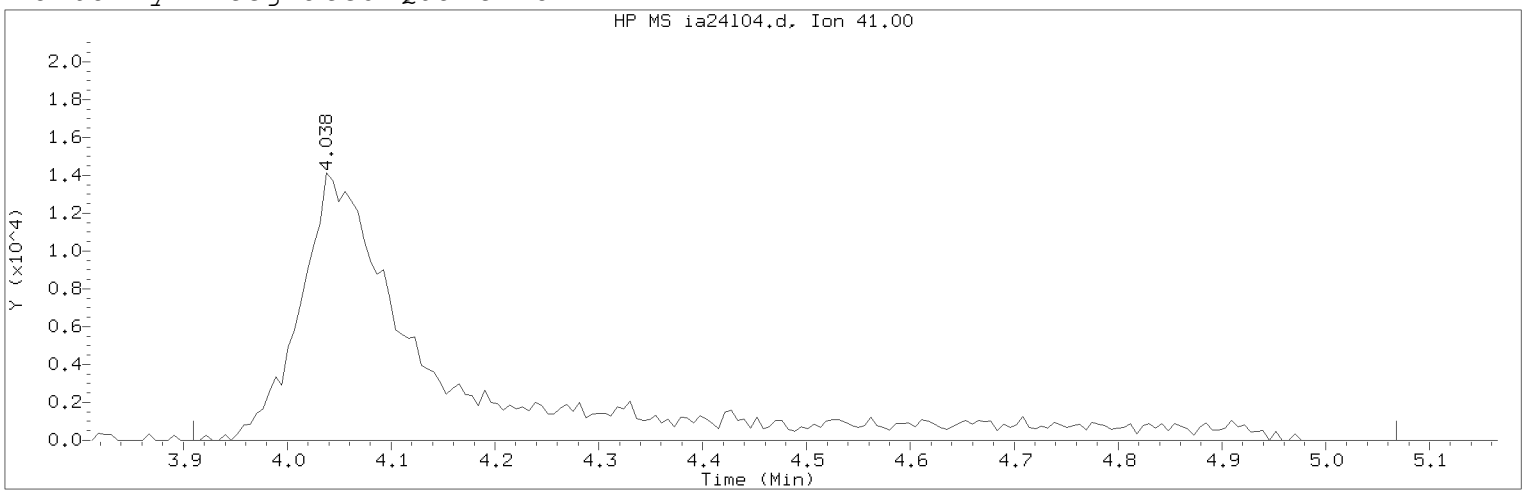
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI34 Lab Sample ID: LCDI34

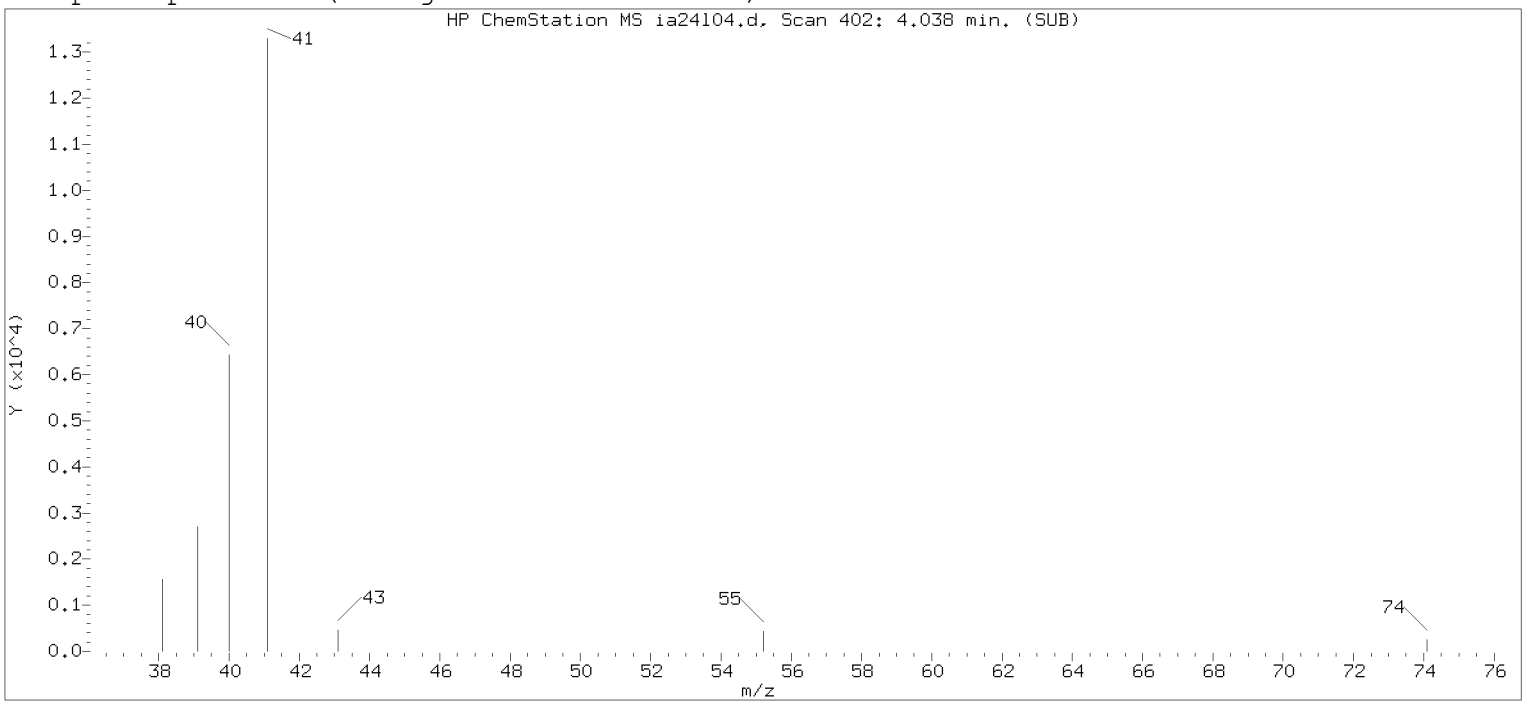
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 402
Retention Time (minutes): 4.038
Quant Ion : 41.00
Area (flag) : 133068M
On-Column Amount (ng) : 43.3527
Integration start scan : 380 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

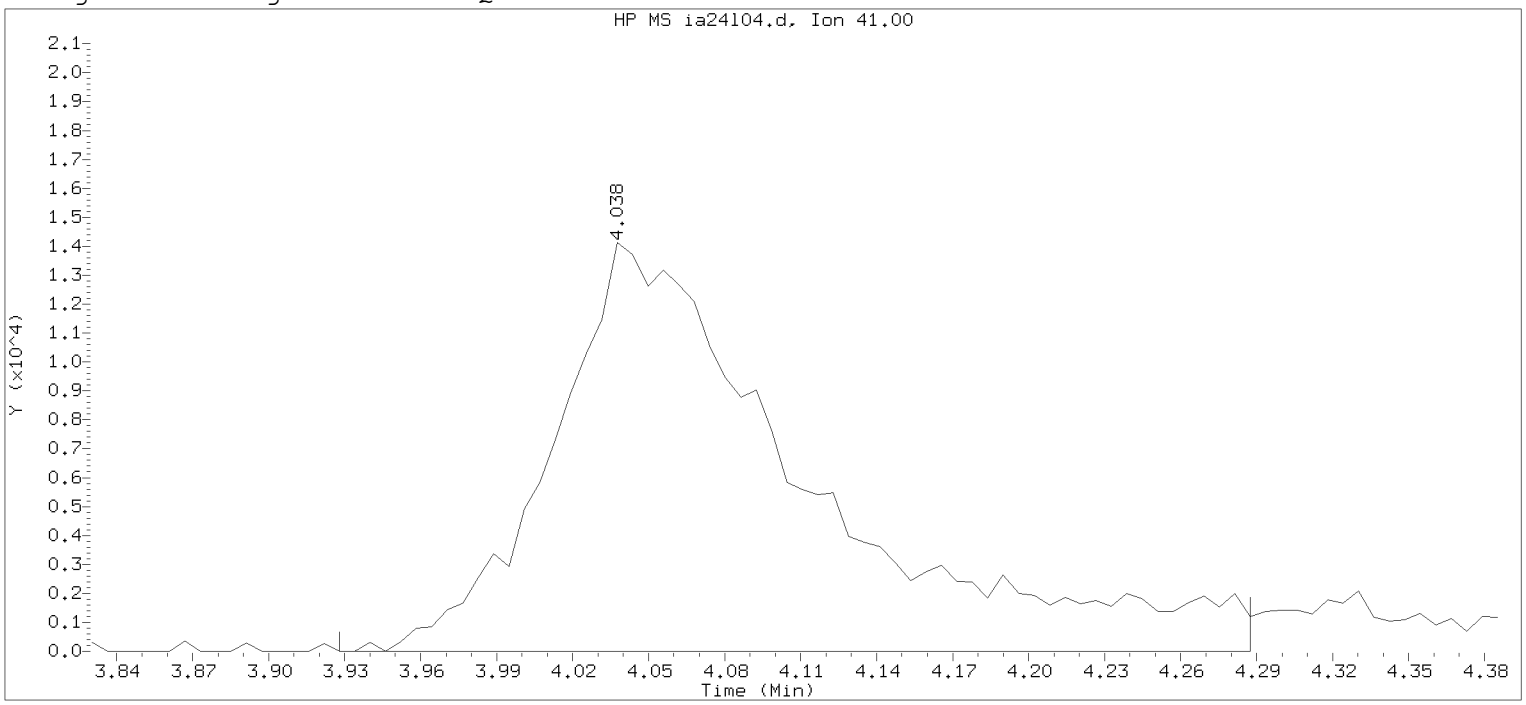
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

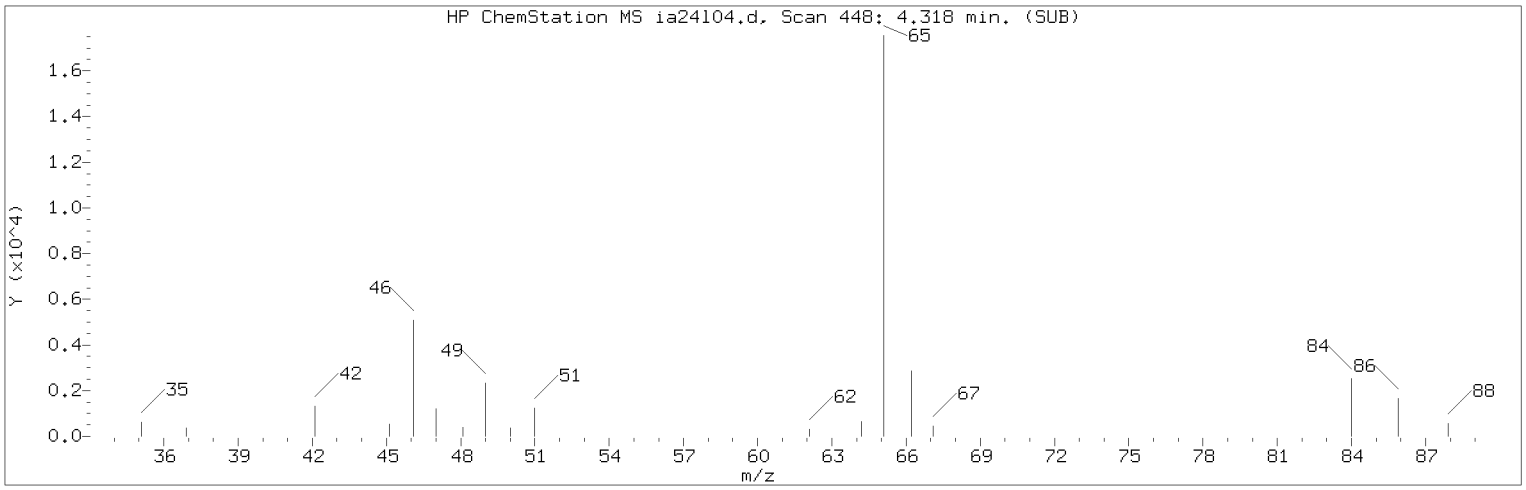
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:32 Automation

Sample Name: LCDI34 Lab Sample ID: LCDI34

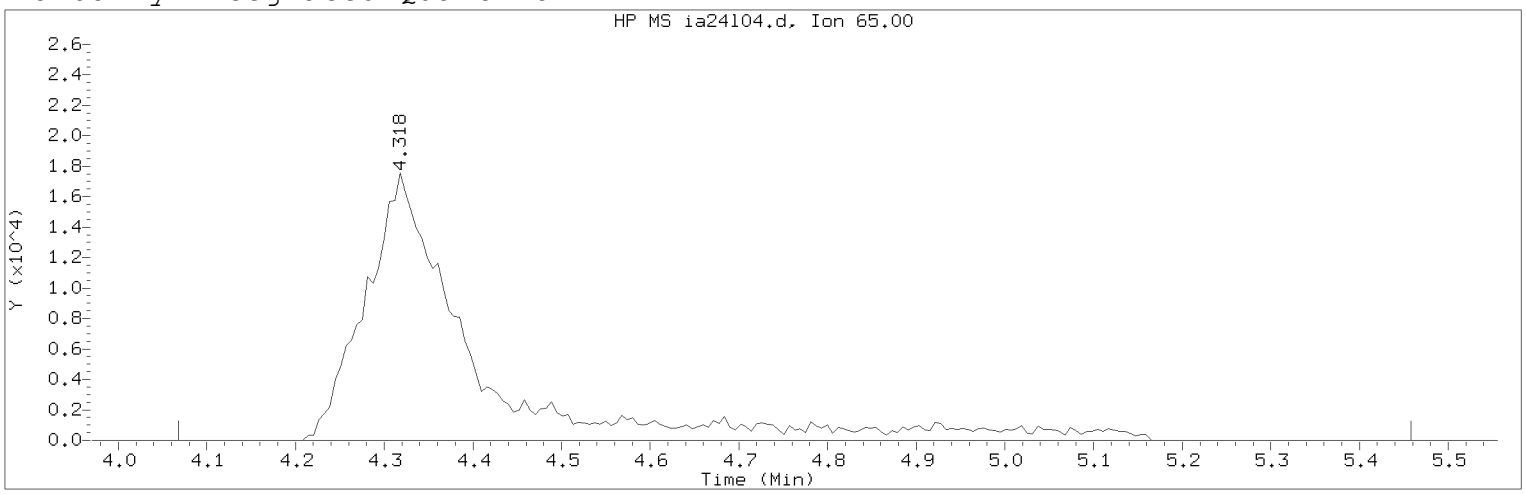
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 402
Retention Time (minutes): 4.038
Quant Ion : 41.00
Area : 97883
On-column Amount (ng) : 36.5133
Integration start scan : 383 Integration stop scan: 442
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:39.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI34 Lab Sample ID: LCDI34

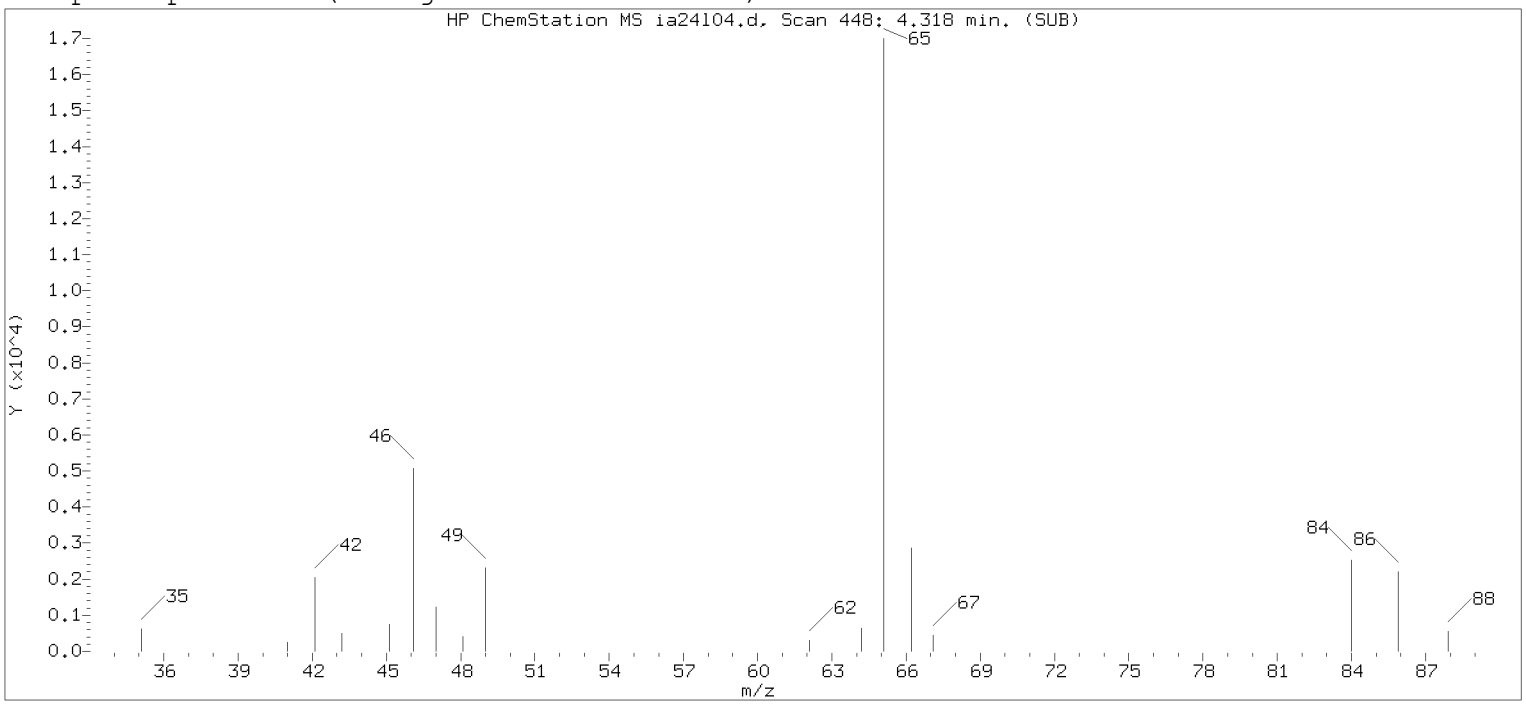
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 448
Retention Time (minutes): 4.318
Quant Ion : 65.00
Area (flag) : 150086M
On-Column Amount (ng) : 50.0000
Integration start scan : 406 Integration stop scan: 634
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

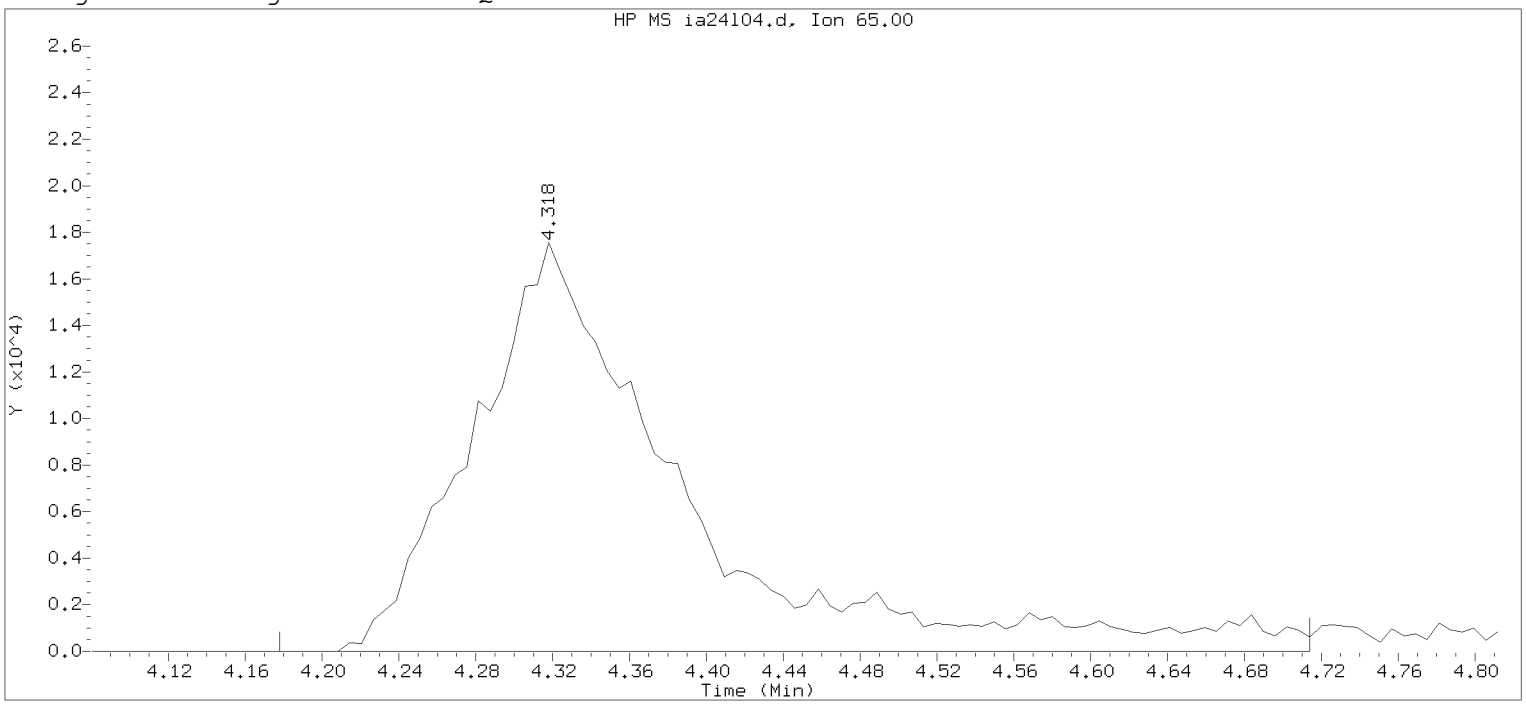
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:39.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l04.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 11:14 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:32 Automation

Sample Name: LCDI34 Lab Sample ID: LCDI34

Compound Number	: 26		
Compound Name	: t-Butyl Alcohol-d10		
Scan Number	: 448		
Retention Time (minutes)	: 4.318		
Quant Ion	: 65.00		
Area	: 131081		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 424	Integration stop scan:	512
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:39.
Target 3.5 esignature user: Page 1615

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSI33

Data file: /chem2/HP19930.i/19apr24a.b/ia24l01.d Injection date and time: **24-APR-2019 10:10**
Data file Sample Info. Line: LCSI33;LCSI33;1;3;LCS;;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.306	(0.006)	446	65	152645M	(10)	50.00	
63) Fluorobenzene	7.811	(-0.006)	1021	96	2117520	(0)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1716406	(-1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.133	(0.000)	1894	152	980480	(-2)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.921	(0.000)	113	552481	10.110	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.372	(0.000)	102	107184	10.177	102%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2141348	10.171	102%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	746005	9.456	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)	2.013	(-0.001)	85	385354	3.122	3.12			0.1	1
2) Chloromethane	(2)	2.202	(-0.001)	50	376657	4.120	4.12			0.06	0.5
5) Vinyl Chloride	(2)	2.318	(-0.001)	62	403916	4.346	4.35			0.2	1
7) Bromomethane	(2)	2.647	(-0.001)	94	352138	4.261	4.26			0.5	1
8) Chloroethane	(2)	2.739	(-0.001)	64	254192	4.708	4.71			0.07	0.5
10) Trichlorofluoromethane	(2)	3.038	(-0.000)	101	640804	4.127	4.13			0.2	1
11) Ethyl ether	(2)	3.306	(-0.000)	59	194681	4.761	4.76		J	1	13
13) Acrolein	(1)	3.489	(-0.003)	56	226899	35.020	35.02			3	25
15) 1,1-Dichloroethene	(2)	3.623	(-0.001)	96	289354	5.373	5.37			0.2	1
16) Freon 113	(2)	3.647	(-0.000)	101	322107	4.950	4.95			0.1	1
14) Acetone	(1)	3.659	(-0.004)	43	301421	33.704	33.70			0.9	10
17) Methyl Iodide	(2)	3.824	(-0.000)	142	574903	4.977	4.98		J	0.6	10
18) Carbon Disulfide	(2)	3.928	(-0.000)	76	762538	4.836	4.84		J	0.4	10
22) Allyl Chloride	(2)	4.111	(-0.000)	41	366191	4.421	4.42		J	0.8	10
23) Methylene Chloride	(2)	4.306	(-0.001)	84	300019	5.446	5.45			0.2	1
29) Acrylonitrile	(1)	4.665	(-0.005)	53	270646	25.300	25.30			0.5	10
31) trans-1,2-Dichloroethene	(2)	4.726	(-0.001)	96	291254	4.833	4.83			0.2	1
33) 1,1-Dichloroethane	(2)	5.385	(0.000)	63	517373	5.278	5.28			0.1	1
35) 2-Chloro-1,3-Butadiene	(2)	5.494	(-0.000)	53	433280	4.922	4.92		J	0.5	10
38) 2-Butanone	(1)	6.183	(-0.002)	43	544271	37.467	37.47			0.6	10
42) Propionitrile	(1)	6.287	(-0.004)	54	150769	38.656	38.66		J	10	100
45) Methacrylonitrile	(1)	6.500	(-0.003)	67	566584	39.473	39.47		J	10	100
48) Tetrahydrofuran	(1)	6.561	(-0.002)	71	114662	25.242	25.24			2	25
49) Chloroform	(2)	6.702	(-0.000)	83	556833	5.213	5.21			0.09	1
51) 1,1,1-Trichloroethane	(2)	6.933	(-0.000)	97	536359	5.194	5.19			0.1	1
54) Carbon Tetrachloride	(2)	7.134	(0.000)	117	498848	5.116	5.12			0.2	1
56) Isobutyl Alcohol	(1)	7.287	(-0.002)	41	125477	109.596	109.60		J	4	200
58) Benzene	(2)	7.403	(0.000)	78	1222367	5.201	5.20			0.07	1
59) 1,2-Dichloroethane	(2)	7.482	(-0.000)	62	322471M	5.114	5.11			0.1	1
67) Trichloroethene	(2)	8.287	(0.000)	95	340219	5.173	5.17			0.2	1

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37. Target 3.5 esignature user ID: jkh09052

Data file: /chem2/HP19930.i/19apr24a.b/ia24101.d Injection date and time: **24-APR-2019 10:10**
Data file Sample Info. Line: LCSI33;LCSI33;1;3;LCS;;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

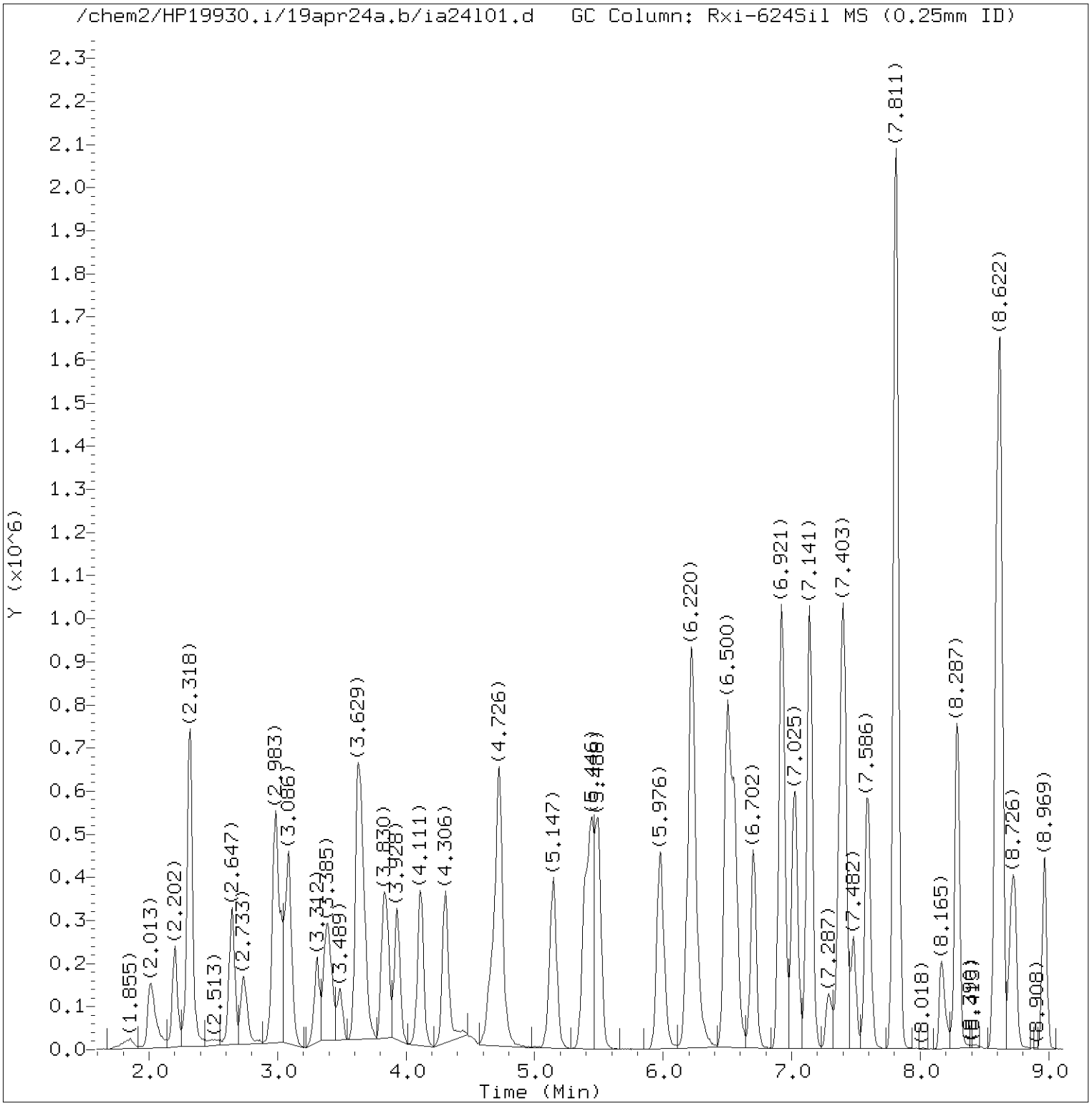
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dichloropropane	(2)	8.628(0.000)	63	291205	5.351	5.35			0.1	1
71) Methyl Methacrylate	(1)	8.701(-0.002)	69	141253	5.142	5.14		J	4	10
73) Dibromomethane	(2)	8.732(0.000)	93	157651	5.153	5.15			0.07	1
72) 1,4-Dioxane	(1)	8.713(-0.005)	88	35089M	149.388	149.39		J	45	200
74) Bromodichloromethane	(2)	8.969(0.000)	83	397933	5.268	5.27			0.09	1
81) 4-Methyl-2-Pentanone	(1)	9.677(-0.003)	43	914373	24.864	24.86			0.9	10
83) Toluene	(3)	9.884(0.000)	92	823261	5.201	5.20			0.09	1
84) trans-1,3-Dichloropropene	(3)	10.140(0.000)	75	355939	4.771	4.77			0.1	1
86) Ethyl Methacrylate	(3)	10.195(0.000)	69	294811	4.679	4.68		J	0.8	10
88) 1,1,2-Trichloroethane	(3)	10.347(-0.000)	97	236943	5.417	5.42			0.08	1
89) Tetrachloroethene	(3)	10.426(0.000)	166	428918	5.121	5.12			0.06	1
90) 1,3-Dichloropropane	(3)	10.506(0.000)	76	360414	5.119	5.12			0.09	1
91) 2-Hexanone	(1)	10.554(-0.003)	43	645612	24.758	24.76			0.6	10
93) Dibromochloromethane	(3)	10.719(0.000)	129	311868	5.246	5.25			0.07	1
95) 1,2-Dibromoethane	(3)	10.829(0.000)	107	232904	5.229	5.23			0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)	11.365(-0.000)	131	352095	5.138	5.14			0.08	1
100) Ethylbenzene	(3)	11.365(-0.000)	91	1611525	5.070	5.07			0.08	1
101) m+p-Xylene	(3)	11.481(-0.000)	106	1319450	10.423	10.42			0.1	0.5
104) o-Xylene	(3)	11.810(-0.000)	106	632214	5.174	5.17			0.05	0.5
105) Xylene (Total)	(3)		106	1951664	15.597	15.60			0.2	3
106) Styrene	(3)	11.822(0.000)	104	1013699	5.233	5.23			0.05	1
107) Bromoform	(3)	11.981(-0.000)	173	188771	5.163	5.16			0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)	12.353(0.000)	83	280536	5.013	5.01			0.2	1
115) trans-1,4-Dichloro-2-butene	(1)	12.377(-0.004)	53	288705	22.385	22.39			1	10
116) 1,2,3-Trichloropropane	(4)	12.402(0.000)	110	86746M	5.224	5.22			0.1	1
126) Pentachloroethane	(4)	12.847(0.000)	167	275790	4.884	4.88		J	0.8	10
131) 1,3-Dichlorobenzene	(4)	13.078(0.000)	146	821123	5.037	5.04			0.06	1
134) 1,4-Dichlorobenzene	(4)	13.152(-0.000)	146	834965	5.125	5.13			0.07	1
139) 1,2-Dichlorobenzene	(4)	13.408(-0.000)	146	778345	5.231	5.23			0.08	1
143) 1,2-Dibromo-3-chloropropane	(1)	13.950(-0.004)	155	47491	5.680	5.68			0.2	1
145) 1,2,4-Trichlorobenzene	(4)	14.499(-0.000)	180	503895	4.836	4.84			0.1	1
146) Hexachlorobutadiene	(4)	14.578(-0.000)	225	206791	4.857	4.86			0.07	1
147) Naphthalene	(4)	14.682(-0.000)	128	975063	4.673	4.67			0.1	1

M = Compound was manually integrated.

Total number of targets = 63

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

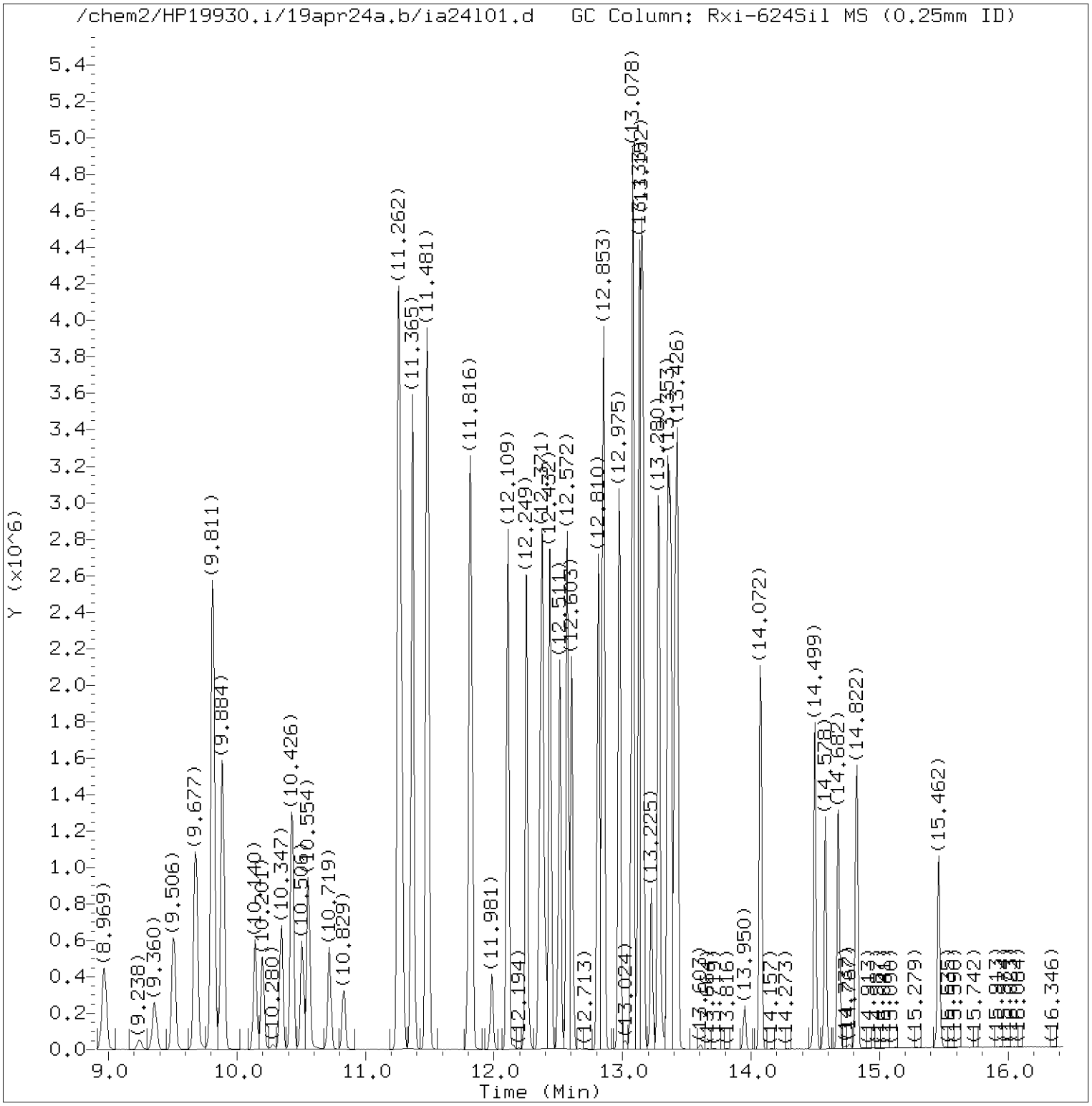
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.013	85	385354	3.122
2) Chloromethane	(2)	2.202	50	376657	4.120
5) Vinyl Chloride	(2)	2.318	62	403916	4.346
7) Bromomethane	(2)	2.647	94	352138	4.261
8) Chloroethane	(2)	2.739	64	254192	4.708
10) Trichlorofluoromethane	(2)	3.038	101	640804	4.127
11) Ethyl ether	(2)	3.306	59	194681	4.761
13) Acrolein	(1)	3.489	56	226899	35.020
15) 1,1-Dichloroethene	(2)	3.623	96	289354	5.373
16) Freon 113	(2)	3.647	101	322107	4.950
14) Acetone	(1)	3.659	43	301421	33.704
17) Methyl Iodide	(2)	3.824	142	574903	4.977
18) Carbon Disulfide	(2)	3.928	76	762538	4.836
22) Allyl Chloride	(2)	4.111	41	366191	4.421
23) Methylene Chloride	(2)	4.306	84	300019	5.446
26)*t-Butyl Alcohol-d10	(1)	4.306	65	152645M	50.000
29) Acrylonitrile	(1)	4.665	53	270646	25.300
31) trans-1,2-Dichloroethene	(2)	4.726	96	291254	4.833
33) 1,1-Dichloroethane	(2)	5.385	63	517373	5.278
35) 2-Chloro-1,3-Butadiene	(2)	5.494	53	433280	4.922
38) 2-Butanone	(1)	6.183	43	544271	37.467
42) Propionitrile	(1)	6.287	54	150769	38.656
45) Methacrylonitrile	(1)	6.500	67	566584	39.473
48) Tetrahydrofuran	(1)	6.561	71	114662	25.242
49) Chloroform	(2)	6.702	83	556833	5.213
50)$Dibromofluoromethane	(2)	6.921	113	552481	10.110
51) 1,1,1-Trichloroethane	(2)	6.933	97	536359	5.194
54) Carbon Tetrachloride	(2)	7.134	117	498848	5.116
56) Isobutyl Alcohol	(1)	7.287	41	125477	109.596
57)$1,2-Dichloroethane-d4	(2)	7.372	102	107184	10.177
58) Benzene	(2)	7.403	78	1222367	5.201
59) 1,2-Dichloroethane	(2)	7.482	62	322471M	5.114
63)*Fluorobenzene	(2)	7.811	96	2117520	10.000
67) Trichloroethene	(2)	8.287	95	340219	5.173
70) 1,2-Dichloropropane	(2)	8.628	63	291205	5.351
71) Methyl Methacrylate	(1)	8.701	69	141253	5.142
72) 1,4-Dioxane	(1)	8.713	88	35089M	149.388
73) Dibromomethane	(2)	8.732	93	157651	5.153

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

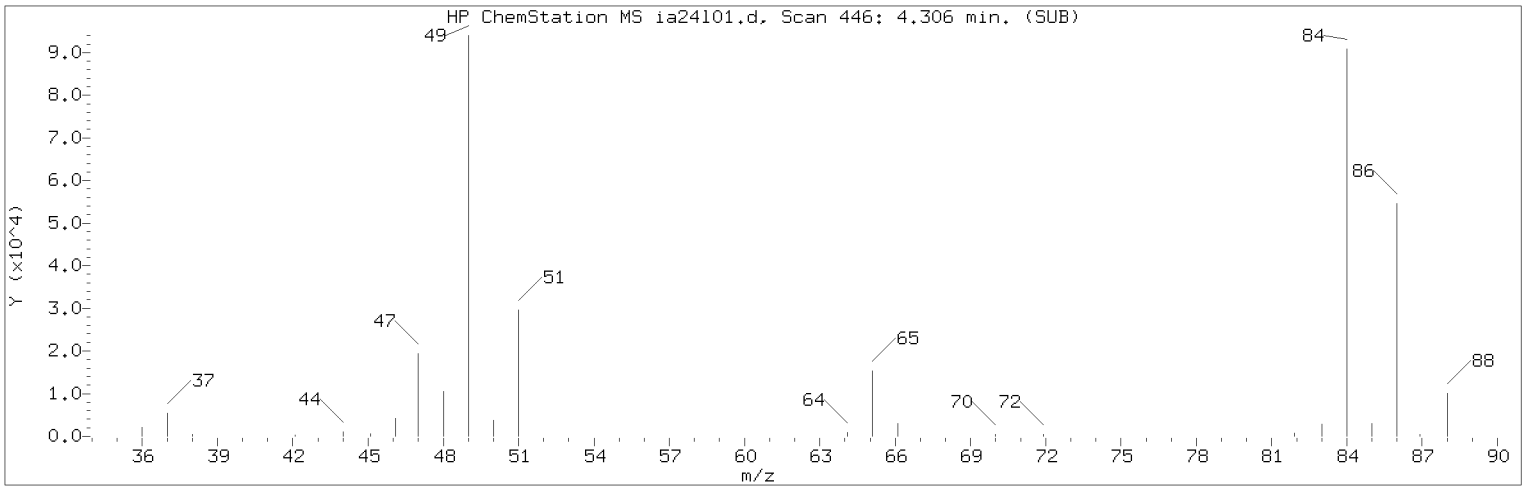
Sample Name: LCSI33 Lab Sample ID: LCSI33

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
74) Bromodichloromethane	(2)	8.969	83	397933	5.268
81) 4-Methyl-2-Pentanone	(1)	9.677	43	914373	24.864
82)$Toluene-d8	(3)	9.811	98	2141348	10.171
83) Toluene	(3)	9.884	92	823261	5.201
84) trans-1,3-Dichloropropene	(3)	10.140	75	355939	4.771
86) Ethyl Methacrylate	(3)	10.195	69	294811	4.679
88) 1,1,2-Trichloroethane	(3)	10.347	97	236943	5.417
89) Tetrachloroethene	(3)	10.426	166	428918	5.121
90) 1,3-Dichloropropane	(3)	10.506	76	360414	5.119
91) 2-Hexanone	(1)	10.554	43	645612	24.758
93) Dibromochloromethane	(3)	10.719	129	311868	5.246
95) 1,2-Dibromoethane	(3)	10.829	107	232904	5.229
97)*Chlorobenzene-d5	(3)	11.256	117	1716406	10.000
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	352095	5.138
100) Ethylbenzene	(3)	11.365	91	1611525	5.070
101) m+p-Xylene	(3)	11.481	106	1319450	10.423
105) Xylene (Total)	(3)		106	1951664	15.597
104) o-Xylene	(3)	11.810	106	632214	5.174
106) Styrene	(3)	11.823	104	1013699	5.233
107) Bromoform	(3)	11.981	173	188771	5.163
111)$4-Bromofluorobenzene	(3)	12.249	95	746005	9.456
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	280536	5.013
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	288705	22.385
116) 1,2,3-Trichloropropane	(4)	12.402	110	86746M	5.224
126) Pentachloroethane	(4)	12.847	167	275790	4.884
131) 1,3-Dichlorobenzene	(4)	13.078	146	821123	5.037
133)*1,4-Dichlorobenzene-d4	(4)	13.133	152	980480	10.000
134) 1,4-Dichlorobenzene	(4)	13.152	146	834965	5.125
139) 1,2-Dichlorobenzene	(4)	13.408	146	778345	5.231
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	47491	5.680
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	503895	4.836
146) Hexachlorobutadiene	(4)	14.578	225	206791	4.857
147) Naphthalene	(4)	14.682	128	975063	4.673

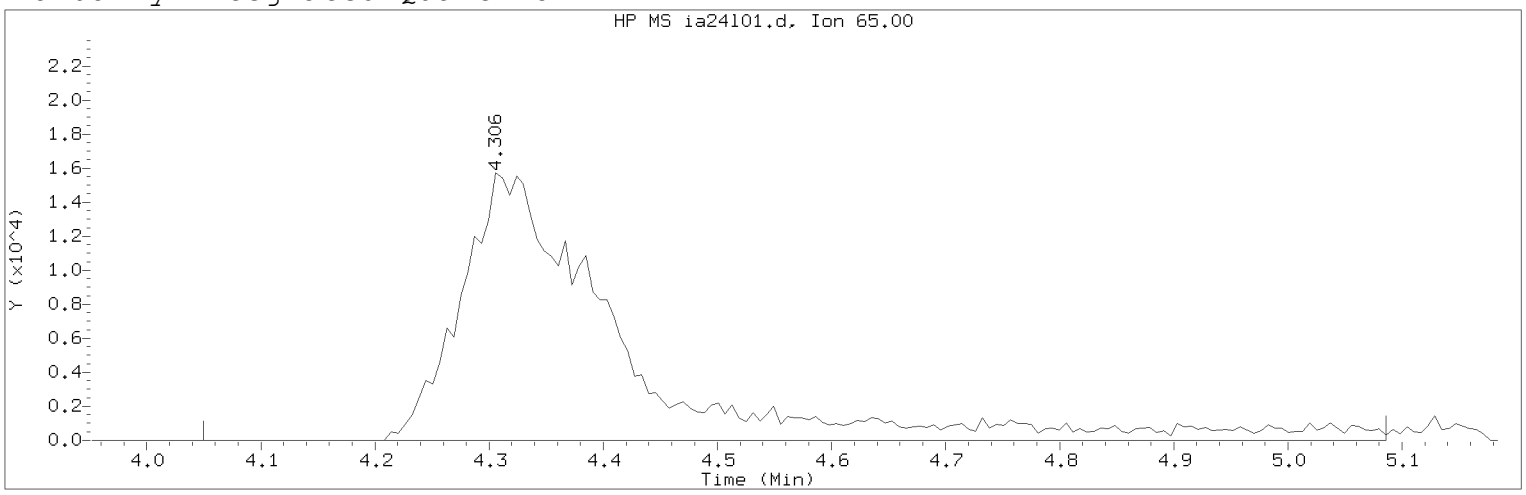
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

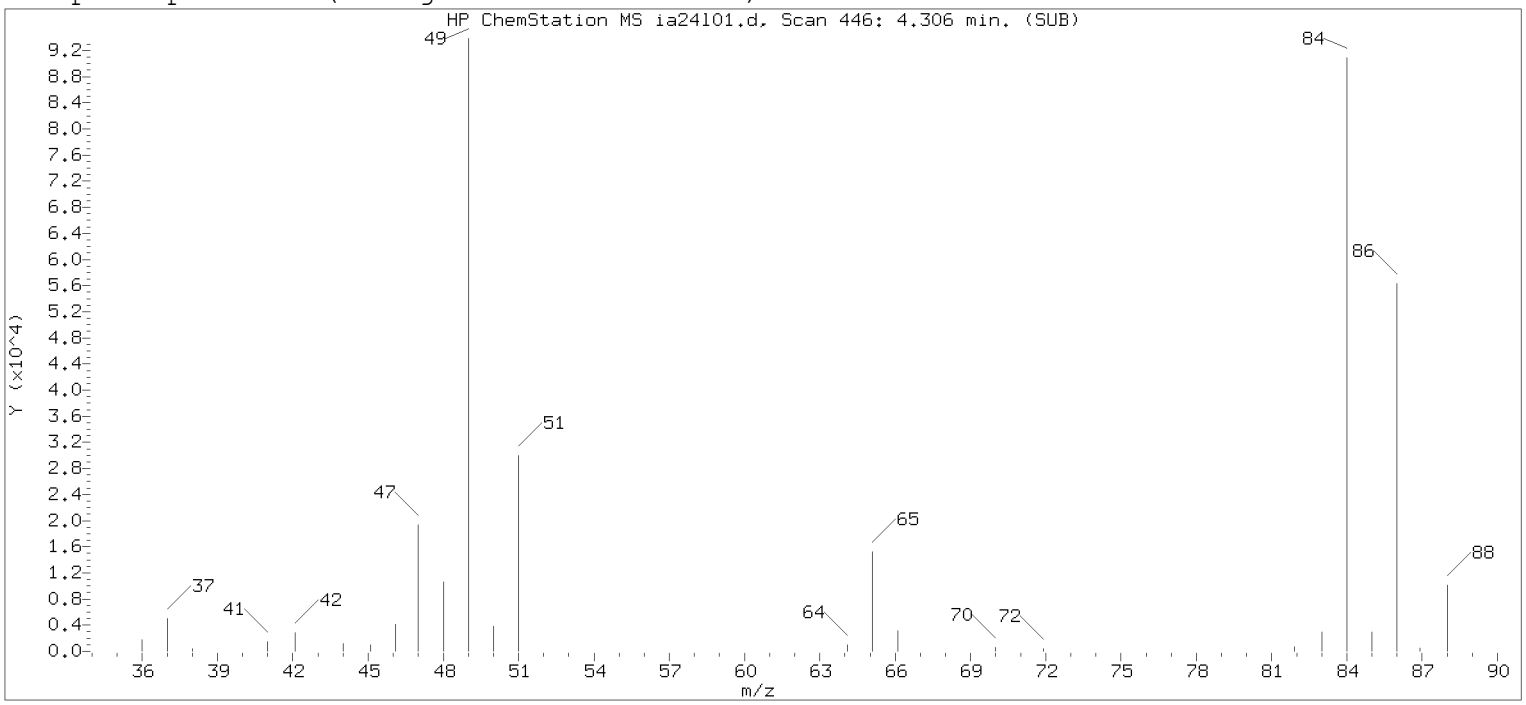
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area (flag) : 152645M
On-Column Amount (ng) : 50.0000
Integration start scan : 403 Integration stop scan: 573
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

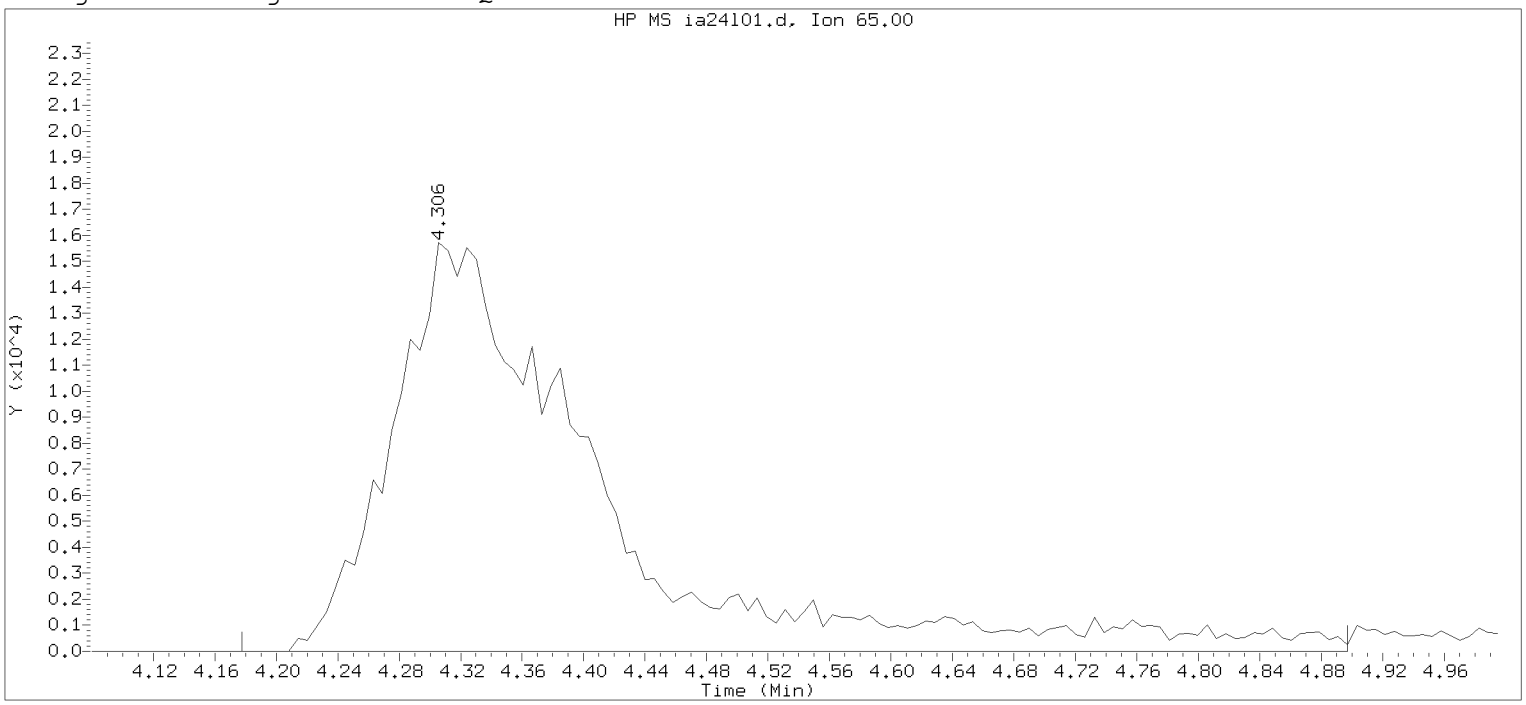
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

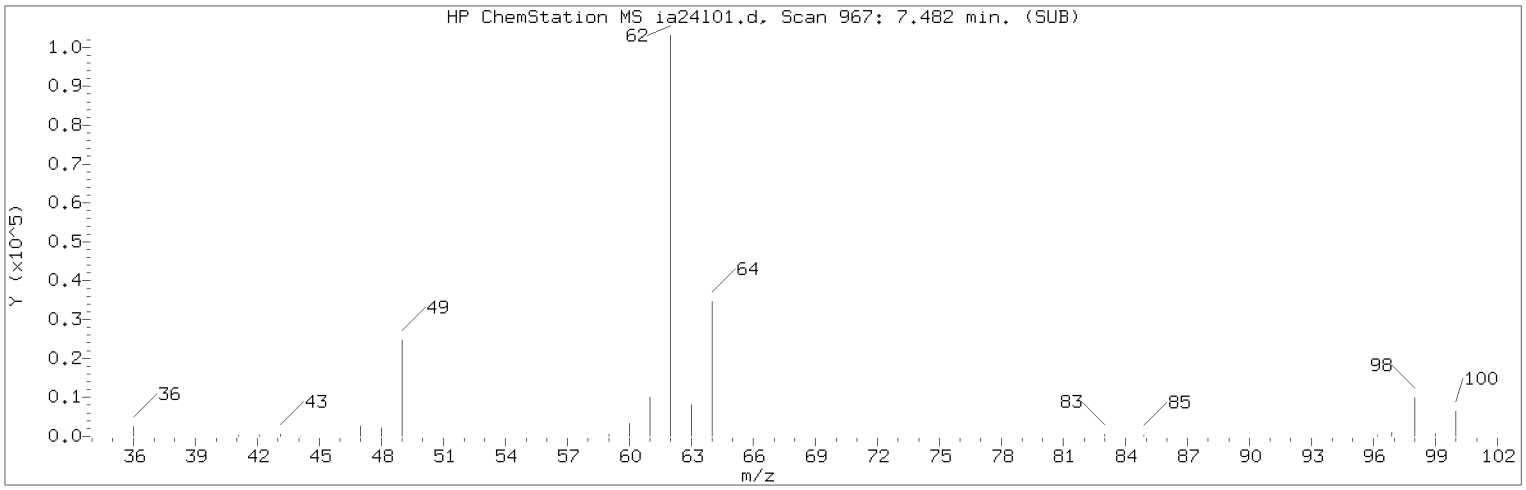
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

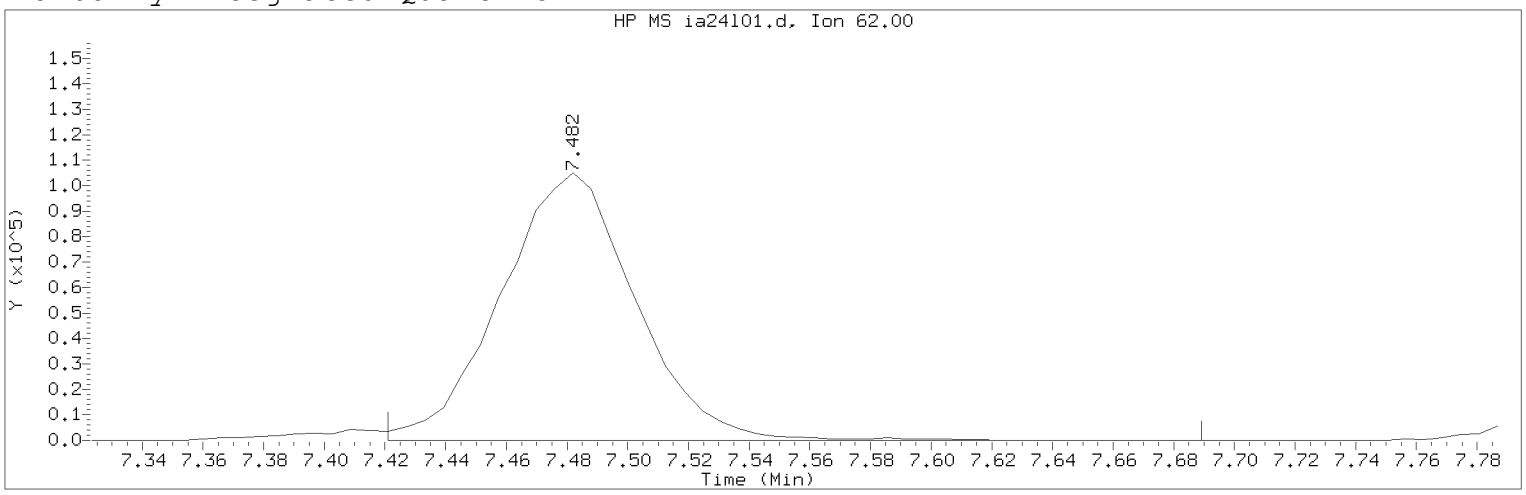
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 446
Retention Time (minutes): 4.306
Quant Ion : 65.00
Area : 144937
On-column Amount (ng) : 50.0000
Integration start scan : 424 Integration stop scan: 542
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

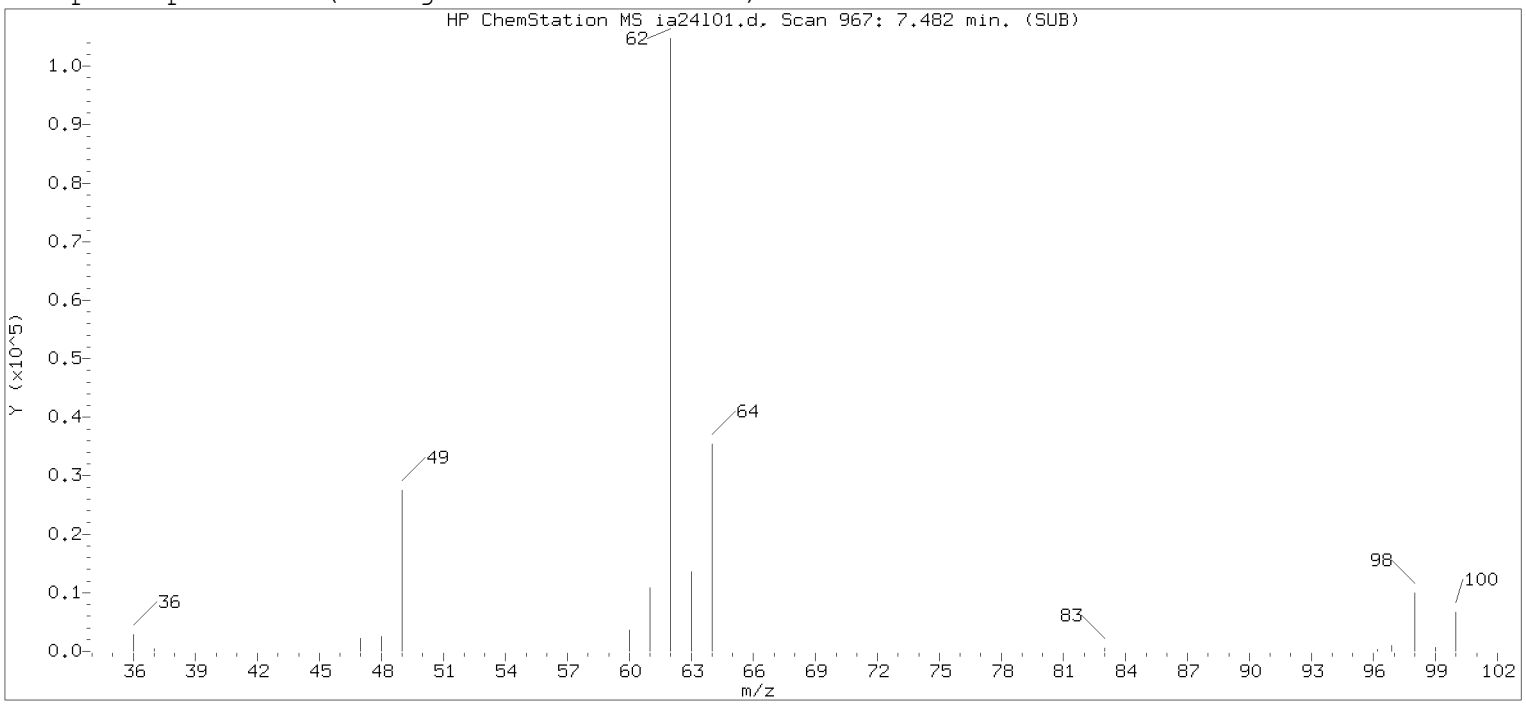
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 967
Retention Time (minutes): 7.482
Quant Ion : 62.00
Area (flag) : 322471M
On-Column Amount (ng) : 5.1144
Integration start scan : 956 Integration stop scan: 1000
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

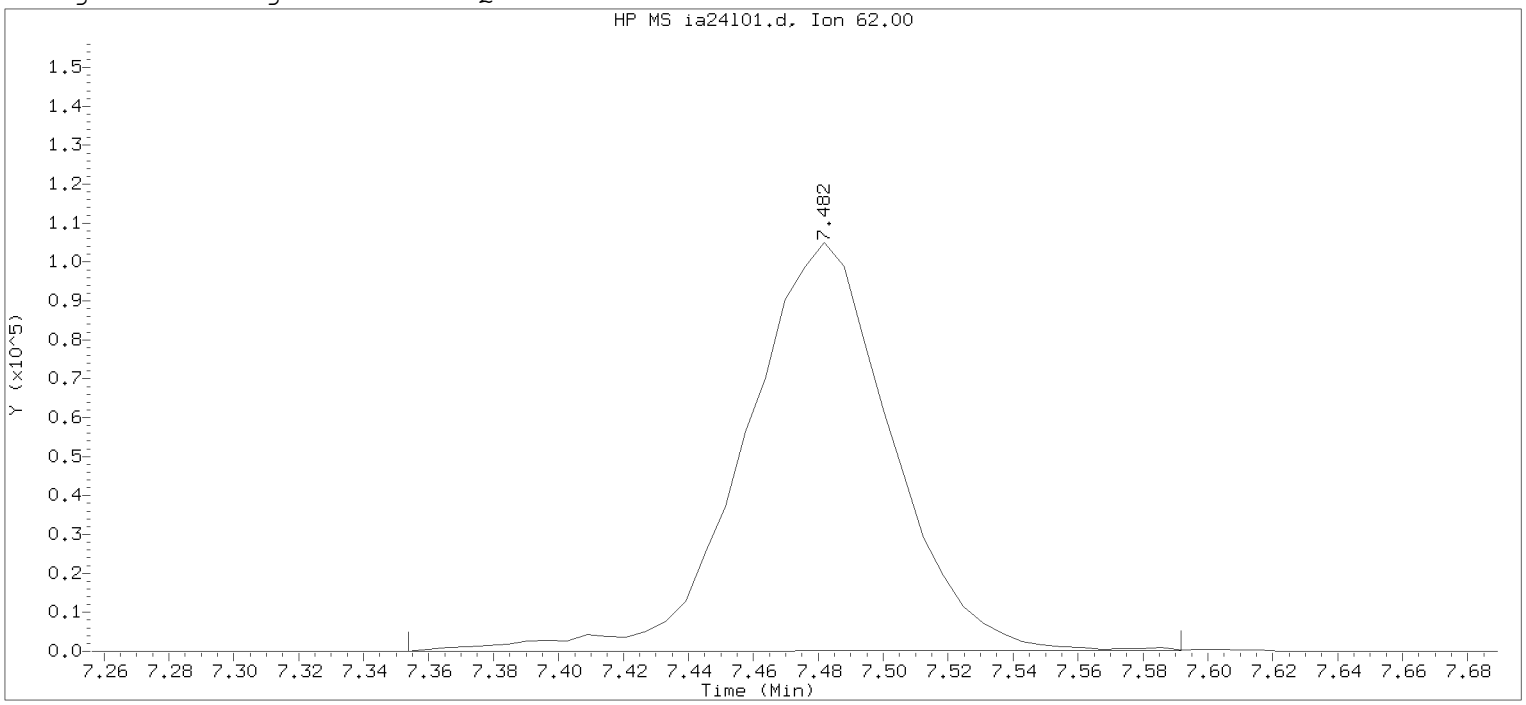
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

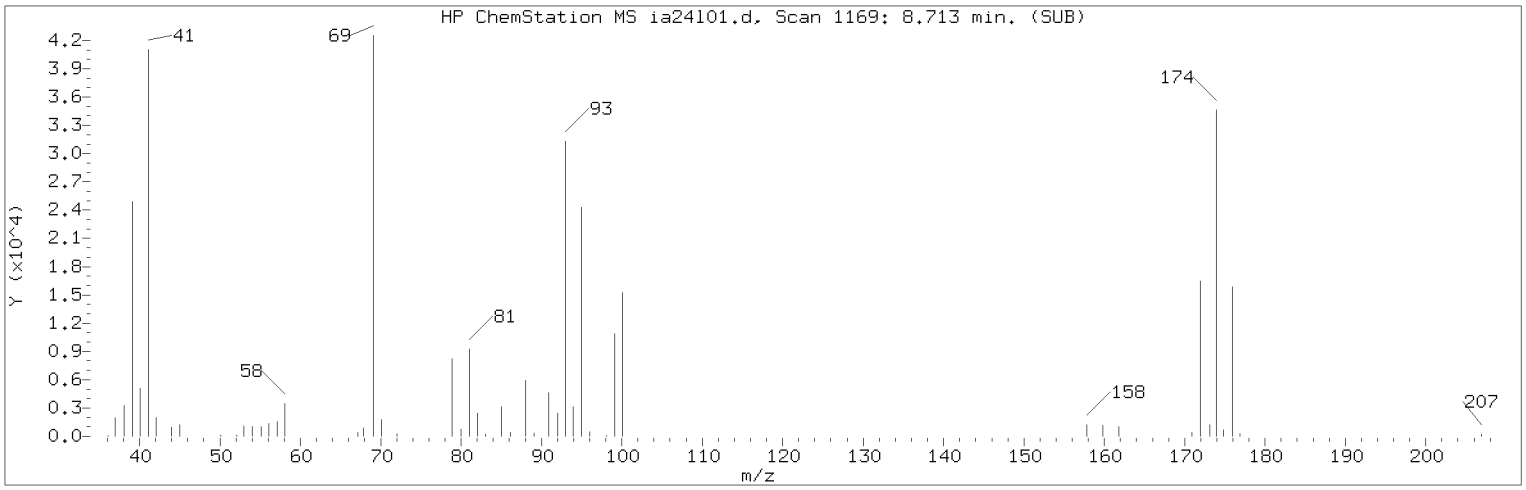
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

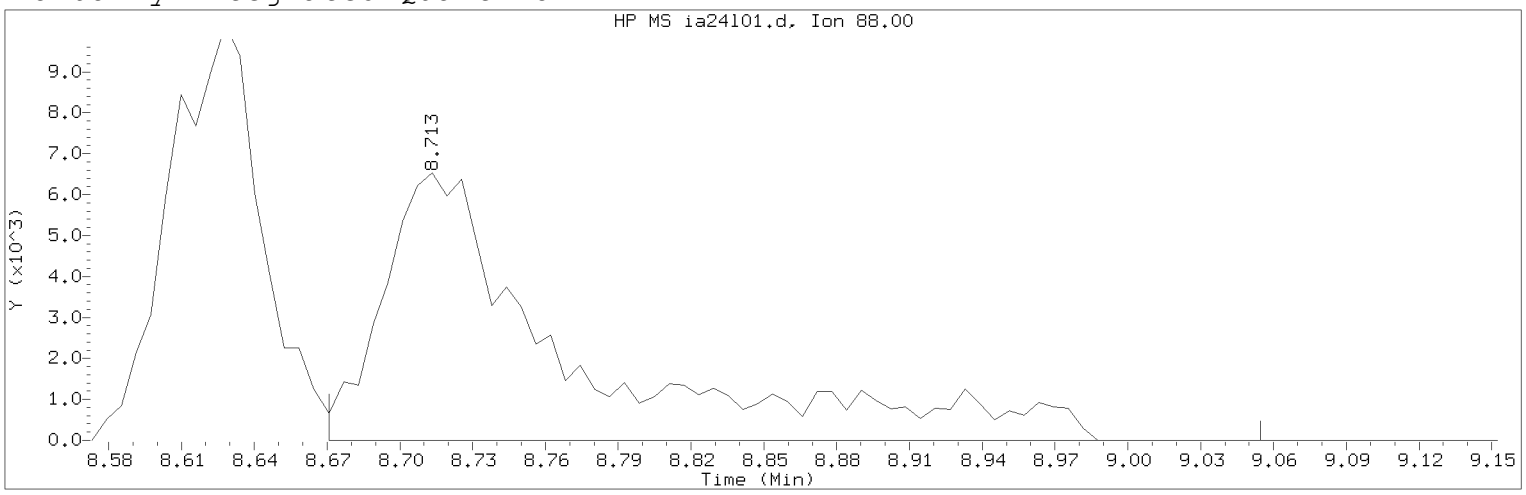
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 967
Retention Time (minutes): 7.482
Quant Ion : 62.00
Area : 328380
On-column Amount (ng) : 5.2081
Integration start scan : 945 Integration stop scan: 984
Y at integration start : 0 Y at integration end: 194

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:37.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

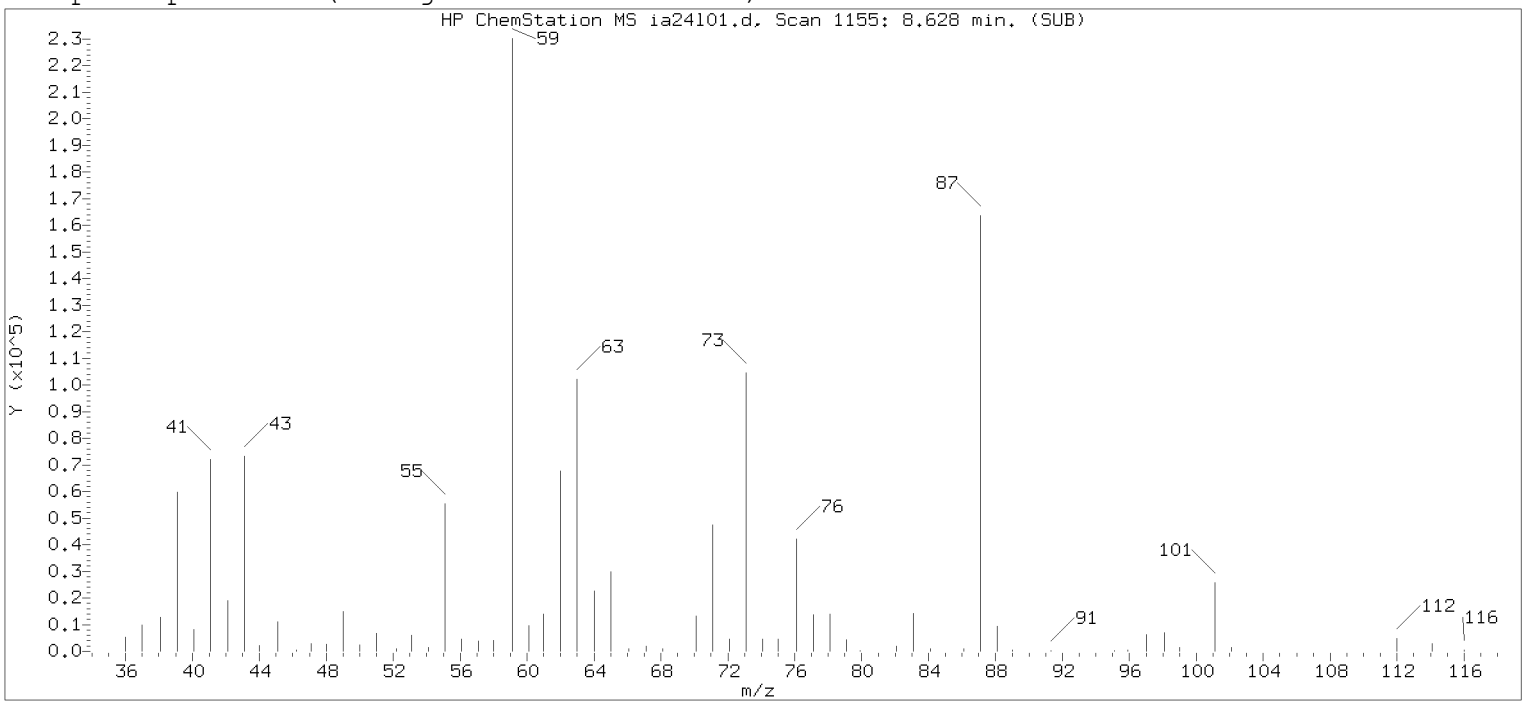
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1169
Retention Time (minutes): 8.713
Quant Ion : 88.00
Area (flag) : 35089M
On-Column Amount (ng) : 149.3883
Integration start scan : 1161 Integration stop scan: 1224
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

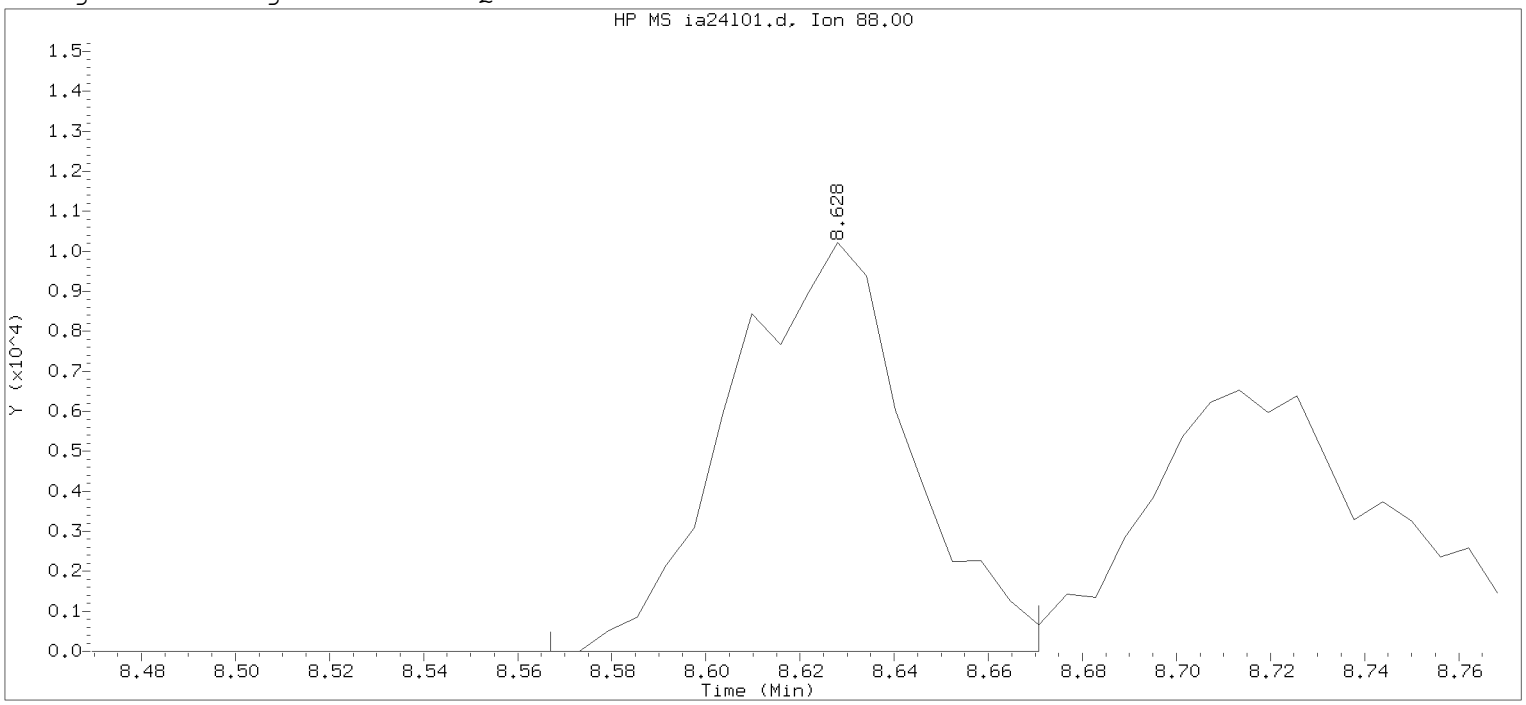
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1155		
Retention Time (minutes)	: 8.628		
Quant Ion	: 88.00		
Area	: 26866		
On-column Amount (ng)	: 120.4663		
Integration start scan	: 1144	Integration stop scan:	1161
Y at integration start	: 0	Y at integration end:	0

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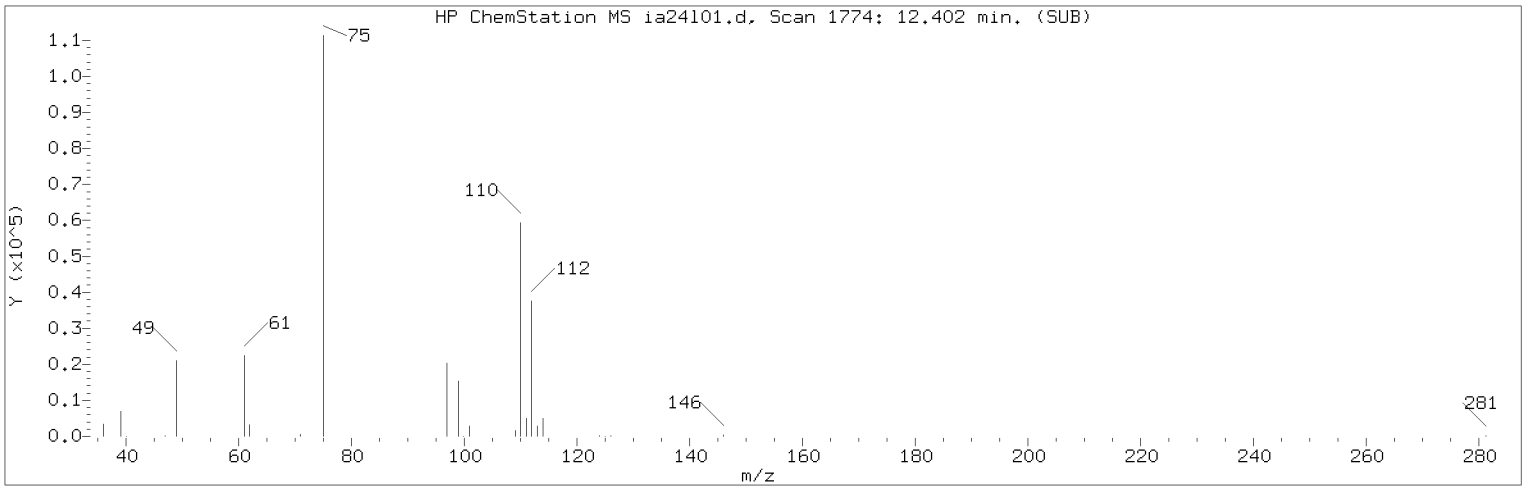
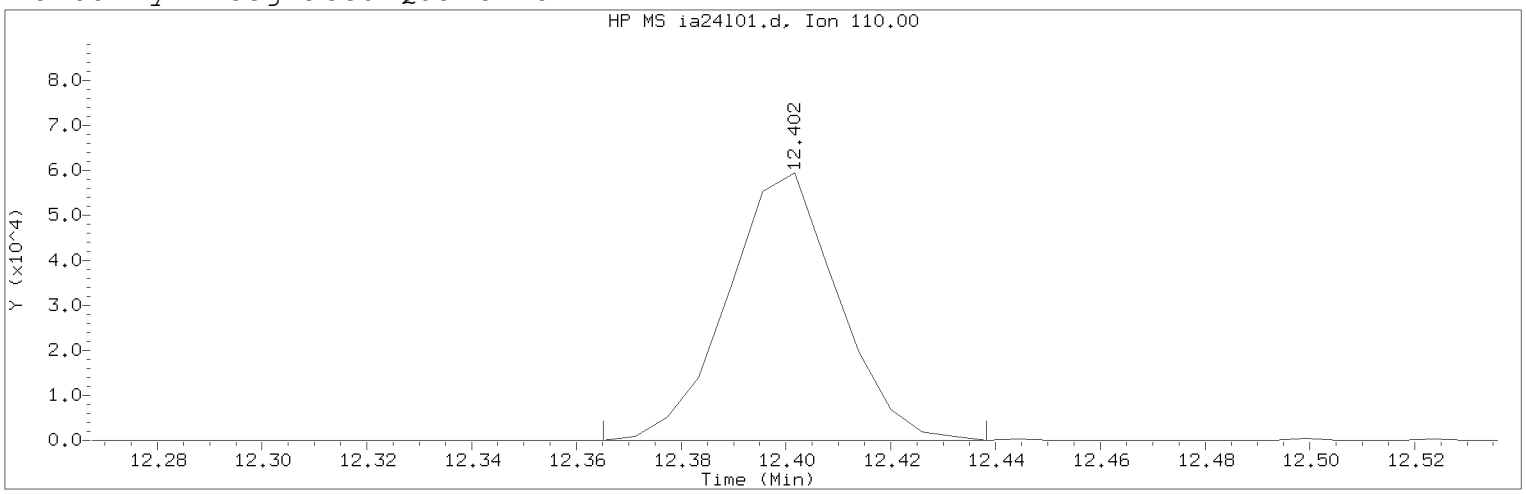
Target 3.5 esignature used. Page 1627

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:43 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

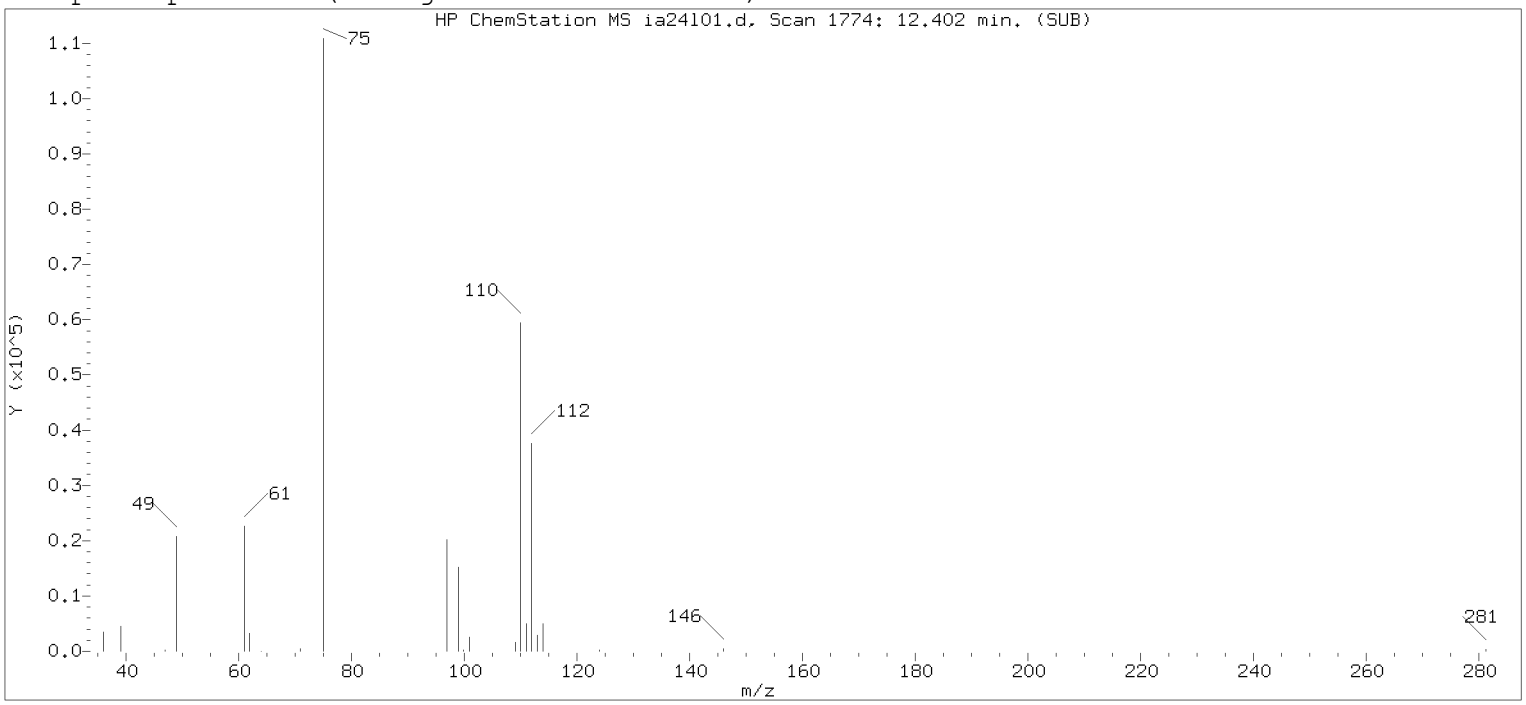
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area (flag) : 86746M
On-Column Amount (ng) : 5.2236
Integration start scan : 1767 Integration stop scan: 1779
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

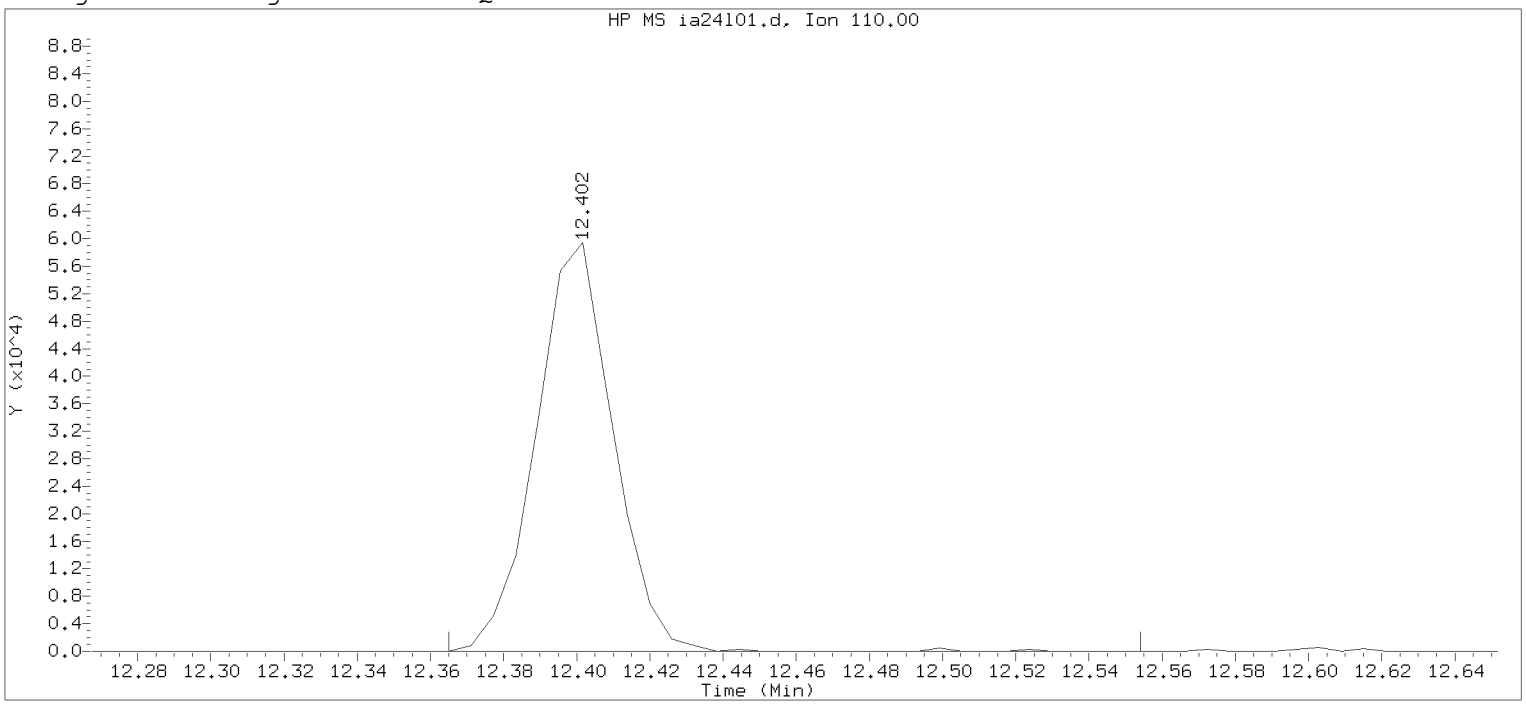
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:37.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l01.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:10 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCSI33 Lab Sample ID: LCSI33

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1774
Retention Time (minutes): 12.402
Quant Ion : 110.00
Area : 87114
On-column Amount (ng) : 5.2458
Integration start scan : 1767 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature used. Page 1629

Data file: /chem2/HP19930.i/19apr24a.b/ia24l02.d Injection date and time: **24-APR-2019 10:31**
Data file Sample Info. Line: LCDI33;LCDI33;1;3;LCSD;;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.300	(0.012)	445	65	158766M	(14)	50.00	
63) Fluorobenzene	7.805	(0.000)	1020	96	2151690	(1)	10.00	
97) Chlorobenzene-d5	11.256	(0.000)	1586	117	1728569	(0)	10.00	
133) 1,4-Dichlorobenzene-d4	13.127	(0.006)	1893	152	970992	(-3)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	6.915	(0.000)	113	556515	10.022	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.378	(-0.002)	102	107607	10.055	101%		80 - 120
82) Toluene-d8	(3)	9.811	(0.000)	98	2145823	10.121	101%		80 - 120
111) 4-Bromofluorobenzene	(3)	12.249	(0.000)	95	762131	9.593	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(2)	2.001	(-0.000)	85	373266	2.976	2.98			0.1	1
2) Chloromethane	(2)	2.190	(-0.000)	50	376366	4.052	4.05			0.06	0.5
5) Vinyl Chloride	(2)	2.306	(-0.000)	62	401420	4.251	4.25			0.2	1
7) Bromomethane	(2)	2.629	(0.000)	94	344808	4.106	4.11			0.5	1
8) Chloroethane	(2)	2.727	(-0.000)	64	253278	4.617	4.62			0.07	0.5
10) Trichlorofluoromethane	(2)	3.032	(-0.000)	101	627823	3.979	3.98			0.2	1
11) Ethyl ether	(2)	3.294	(0.000)	59	196908	4.739	4.74		J	1	13
13) Acrolein	(1)	3.471	(-0.000)	56	232277	34.468	34.47			3	25
15) 1,1-Dichloroethene	(2)	3.611	(-0.000)	96	289113	5.284	5.28			0.2	1
16) Freon 113	(2)	3.647	(-0.000)	101	324713	4.911	4.91			0.1	1
14) Acetone	(1)	3.647	(-0.002)	43	320564	34.462	34.46			0.9	10
17) Methyl Iodide	(2)	3.812	(0.000)	142	577513	4.920	4.92		J	0.6	10
18) Carbon Disulfide	(2)	3.922	(-0.000)	76	743648	4.641	4.64		J	0.4	10
22) Allyl Chloride	(2)	4.105	(-0.000)	41	359473	4.271	4.27		J	0.8	10
23) Methylene Chloride	(2)	4.294	(-0.000)	84	296313	5.294	5.29			0.2	1
29) Acrylonitrile	(1)	4.641	(-0.001)	53	279472	25.117	25.12			0.5	10
31) trans-1,2-Dichloroethene	(2)	4.714	(-0.000)	96	291512	4.760	4.76			0.2	1
33) 1,1-Dichloroethane	(2)	5.379	(0.000)	63	516012	5.180	5.18			0.1	1
35) 2-Chloro-1,3-Butadiene	(2)	5.482	(0.000)	53	422915	4.728	4.73		J	0.5	10
38) 2-Butanone	(1)	6.190	(-0.005)	43	552207	36.548	36.55			0.6	10
42) Propionitrile	(1)	6.293	(-0.008)	54	153645	37.874	37.87		J	10	100
45) Methacrylonitrile	(1)	6.494	(-0.004)	67	564741	37.827	37.83		J	10	100
48) Tetrahydrofuran	(1)	6.555	(-0.002)	71	114481	24.231	24.23		J	2	25
49) Chloroform	(2)	6.696	(0.000)	83	556862	5.130	5.13			0.09	1
51) 1,1,1-Trichloroethane	(2)	6.921	(0.000)	97	537801M	5.125	5.13			0.1	1
54) Carbon Tetrachloride	(2)	7.128	(0.000)	117	499889	5.045	5.05			0.2	1
56) Isobutyl Alcohol	(1)	7.287	(-0.004)	41	143384	120.408	120.41		J	4	200
58) Benzene	(2)	7.403	(-0.000)	78	1215957	5.091	5.09			0.07	1
59) 1,2-Dichloroethane	(2)	7.476	(0.000)	62	324535M	5.065	5.07			0.1	1
67) Trichloroethene	(2)	8.281	(0.000)	95	343472	5.140	5.14			0.2	1

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19930.i/19apr24a.b/ia24102.d Injection date and time: **24-APR-2019 10:31**
Data file Sample Info. Line: LCDI33;LCDI33;1;3;LCSD;;DAA3568;;ia24b01; Instrument ID: **HP19930.i** Batch: **I191141AA**
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Blank Data file reference: **/chem2/HP19930.i/19apr24a.b/ia24b01.d**

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: **27091-SM**
Calibration date and time (Last Method Edit): 24-APR-2019 11:26
Mid Level Daily Calibration Standard Reference: **/chem2/HP19930.i/19apr24a.b/ia24c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

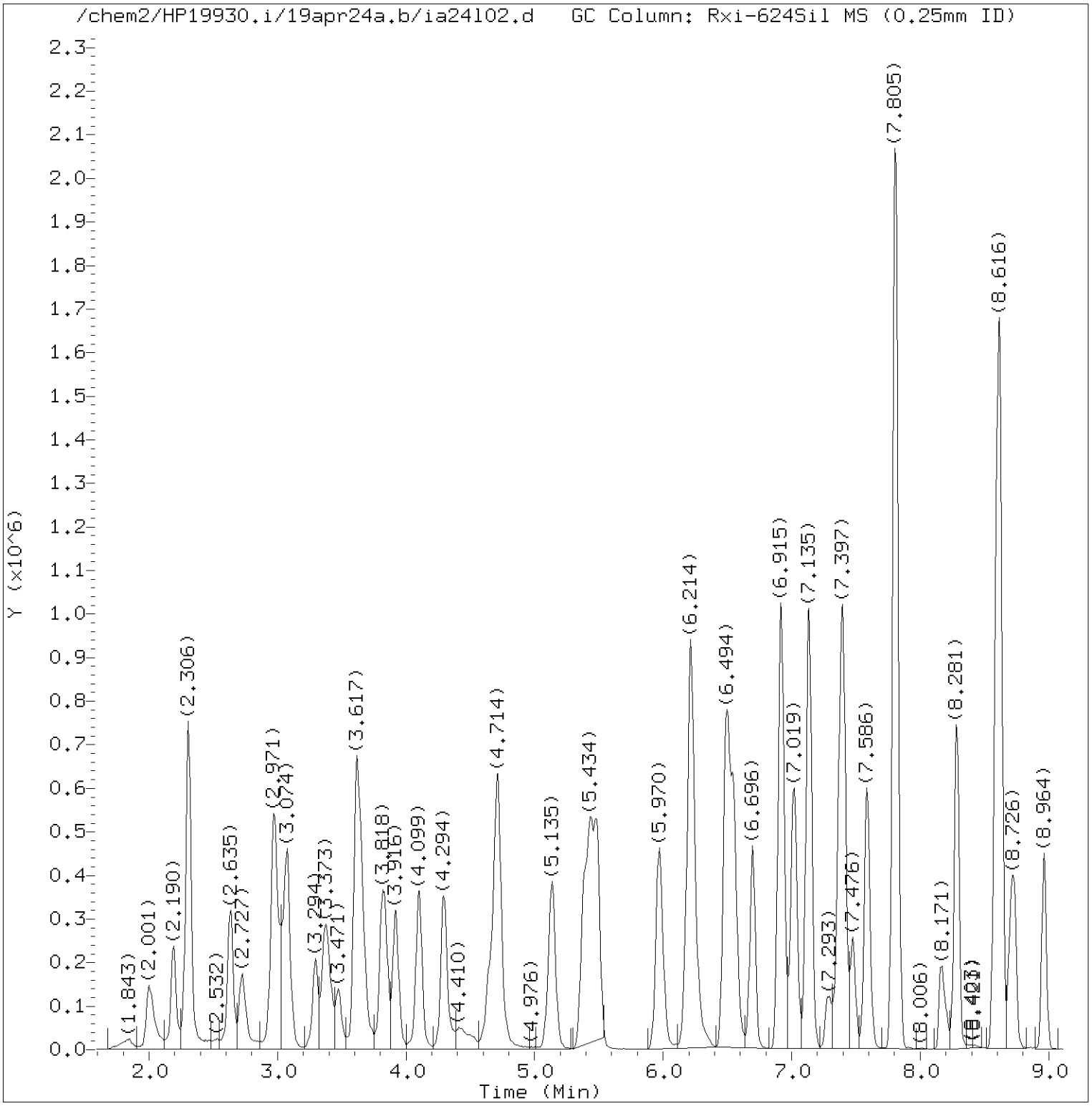
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dichloropropane	(2)	8.622(0.000)	63	292577	5.291	5.29			0.1	1
71) Methyl Methacrylate	(1)	8.701(-0.005)	69	138049	4.831	4.83		J	4	10
73) Dibromomethane	(2)	8.726(0.000)	93	158124	5.086	5.09			0.07	1
72) 1,4-Dioxane	(1)	8.707(-0.007)	88	34872M	142.741	142.74		J	45	200
74) Bromodichloromethane	(2)	8.964(0.000)	83	396577	5.167	5.17			0.09	1
81) 4-Methyl-2-Pentanone	(1)	9.677(-0.006)	43	911125	23.820	23.82			0.9	10
83) Toluene	(3)	9.884(-0.000)	92	822820	5.162	5.16			0.09	1
84) trans-1,3-Dichloropropene	(3)	10.140(-0.000)	75	356868	4.749	4.75			0.1	1
86) Ethyl Methacrylate	(3)	10.195(-0.000)	69	291593	4.595	4.60		J	0.8	10
88) 1,1,2-Trichloroethane	(3)	10.341(-0.000)	97	234679	5.328	5.33			0.08	1
89) Tetrachloroethene	(3)	10.427(-0.000)	166	429267	5.089	5.09			0.06	1
90) 1,3-Dichloropropane	(3)	10.506(-0.000)	76	359701	5.073	5.07			0.09	1
91) 2-Hexanone	(1)	10.555(-0.006)	43	649685	23.954	23.95			0.6	10
93) Dibromochloromethane	(3)	10.719(-0.000)	129	308624	5.155	5.15			0.07	1
95) 1,2-Dibromoethane	(3)	10.829(-0.000)	107	227267	5.066	5.07			0.06	1
99) 1,1,1,2-Tetrachloroethane	(3)	11.365(0.000)	131	348704	5.052	5.05			0.08	1
100) Ethylbenzene	(3)	11.365(0.000)	91	1625330	5.077	5.08			0.08	1
101) m+p-Xylene	(3)	11.481(0.000)	106	1339516	10.507	10.51			0.1	0.5
104) o-Xylene	(3)	11.810(-0.000)	106	631735	5.134	5.13			0.05	0.5
105) Xylene (Total)	(3)		106	1971251	15.641	15.64			0.2	3
106) Styrene	(3)	11.823(0.000)	104	1013384	5.195	5.19			0.05	1
107) Bromoform	(3)	11.981(0.000)	173	185391	5.035	5.03			0.1	1
113) 1,1,2,2-Tetrachloroethane	(4)	12.353(-0.000)	83	282518M	5.098	5.10			0.2	1
115) trans-1,4-Dichloro-2-butene	(1)	12.377(-0.008)	53	274434	20.458	20.46			1	10
116) 1,2,3-Trichloropropane	(4)	12.396(0.000)	110	85852M	5.220	5.22			0.1	1
126) Pentachloroethane	(4)	12.847(-0.000)	167	270981	4.846	4.85		J	0.8	10
131) 1,3-Dichlorobenzene	(4)	13.072(0.000)	146	822289	5.094	5.09			0.06	1
134) 1,4-Dichlorobenzene	(4)	13.146(-0.000)	146	829914	5.144	5.14			0.07	1
139) 1,2-Dichlorobenzene	(4)	13.408(-0.000)	146	769633	5.223	5.22			0.08	1
143) 1,2-Dibromo-3-chloropropane	(1)	13.950(-0.009)	155	49888	5.737	5.74			0.2	1
145) 1,2,4-Trichlorobenzene	(4)	14.499(-0.000)	180	514754	4.988	4.99			0.1	1
146) Hexachlorobutadiene	(4)	14.578(-0.000)	225	204014	4.839	4.84			0.07	1
147) Naphthalene	(4)	14.682(-0.000)	128	998680	4.833	4.83			0.1	1

M = Compound was manually integrated.

Total number of targets = 63

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

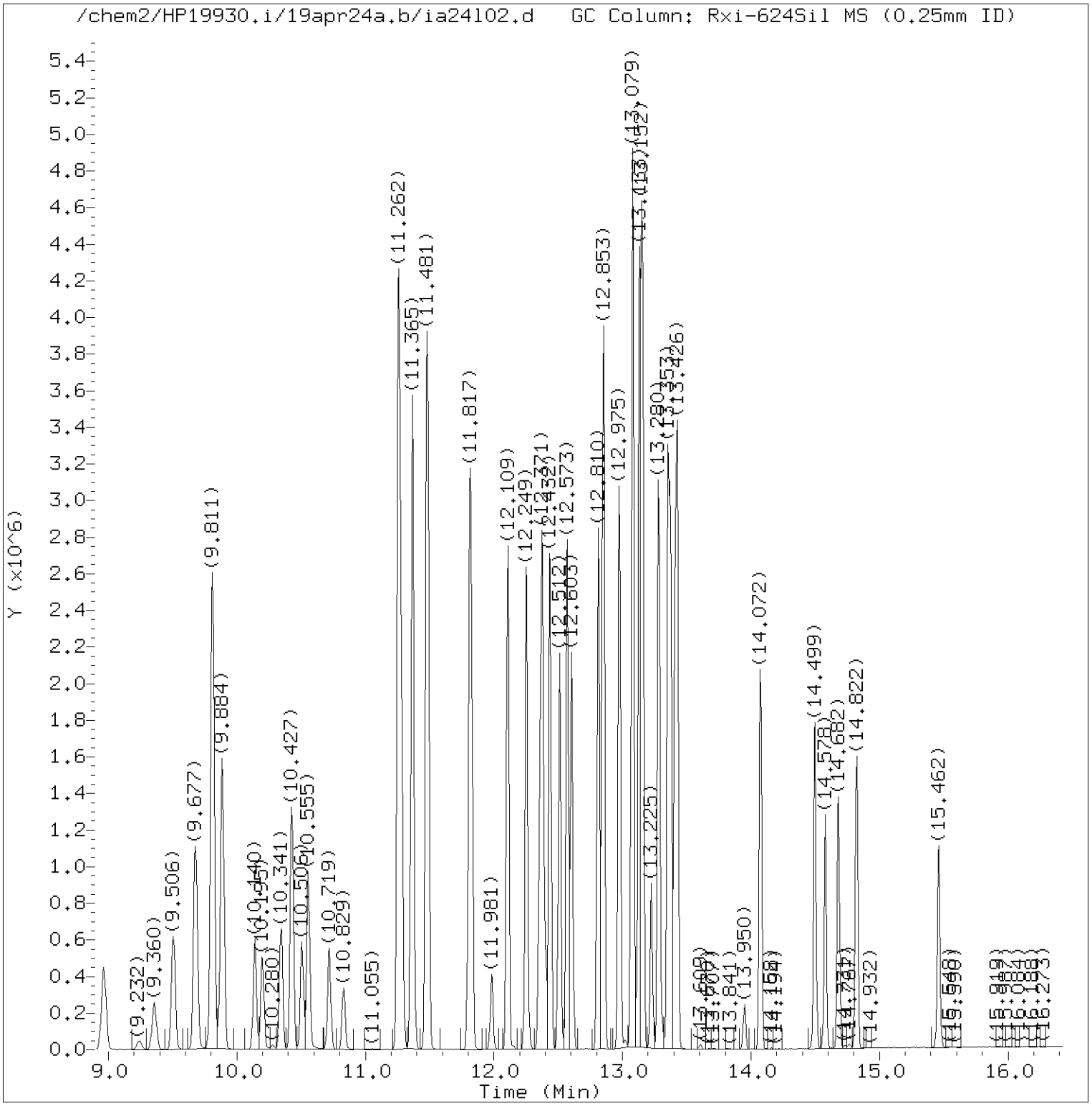
Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.001	85	373266	2.976
2) Chloromethane	(2)	2.190	50	376366	4.052
5) Vinyl Chloride	(2)	2.306	62	401420	4.251
7) Bromomethane	(2)	2.629	94	344808	4.106
8) Chloroethane	(2)	2.727	64	253278	4.617
10) Trichlorofluoromethane	(2)	3.032	101	627823	3.979
11) Ethyl ether	(2)	3.294	59	196908	4.739
13) Acrolein	(1)	3.471	56	232277	34.468
15) 1,1-Dichloroethene	(2)	3.611	96	289113	5.284
16) Freon 113	(2)	3.647	101	324713	4.911
14) Acetone	(1)	3.647	43	320564	34.462
17) Methyl Iodide	(2)	3.812	142	577513	4.920
18) Carbon Disulfide	(2)	3.922	76	743648	4.641
22) Allyl Chloride	(2)	4.105	41	359473	4.271
23) Methylene Chloride	(2)	4.294	84	296313	5.294
26)*t-Butyl Alcohol-d10	(1)	4.300	65	158766M	50.000
29) Acrylonitrile	(1)	4.641	53	279472	25.117
31) trans-1,2-Dichloroethene	(2)	4.714	96	291512	4.760
33) 1,1-Dichloroethane	(2)	5.379	63	516012	5.180
35) 2-Chloro-1,3-Butadiene	(2)	5.482	53	422915	4.728
38) 2-Butanone	(1)	6.190	43	552207	36.548
42) Propionitrile	(1)	6.293	54	153645	37.874
45) Methacrylonitrile	(1)	6.494	67	564741	37.827
48) Tetrahydrofuran	(1)	6.555	71	114481	24.231
49) Chloroform	(2)	6.696	83	556862	5.130
50)$Dibromofluoromethane	(2)	6.915	113	556515	10.022
51) 1,1,1-Trichloroethane	(2)	6.921	97	537801M	5.125
54) Carbon Tetrachloride	(2)	7.129	117	499889	5.045
56) Isobutyl Alcohol	(1)	7.287	41	143384	120.408
57)$1,2-Dichloroethane-d4	(2)	7.378	102	107607	10.055
58) Benzene	(2)	7.403	78	1215957	5.091
59) 1,2-Dichloroethane	(2)	7.476	62	324535M	5.065
63)*Fluorobenzene	(2)	7.805	96	2151690	10.000
67) Trichloroethene	(2)	8.281	95	343472	5.140
70) 1,2-Dichloropropane	(2)	8.622	63	292577	5.291
71) Methyl Methacrylate	(1)	8.701	69	138049	4.831
72) 1,4-Dioxane	(1)	8.707	88	34872M	142.741
73) Dibromomethane	(2)	8.726	93	158124	5.086

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
74) Bromodichloromethane	(2)	8.964	83	396577	5.167
81) 4-Methyl-2-Pentanone	(1)	9.677	43	911125	23.820
82)$Toluene-d8	(3)	9.811	98	2145823	10.121
83) Toluene	(3)	9.884	92	822820	5.162
84) trans-1,3-Dichloropropene	(3)	10.140	75	356868	4.749
86) Ethyl Methacrylate	(3)	10.195	69	291593	4.595
88) 1,1,2-Trichloroethane	(3)	10.341	97	234679	5.328
89) Tetrachloroethene	(3)	10.427	166	429267	5.089
90) 1,3-Dichloropropane	(3)	10.506	76	359701	5.073
91) 2-Hexanone	(1)	10.555	43	649685	23.954
93) Dibromochloromethane	(3)	10.719	129	308624	5.155
95) 1,2-Dibromoethane	(3)	10.829	107	227267	5.066
97)*Chlorobenzene-d5	(3)	11.256	117	1728569	10.000
99) 1,1,1,2-Tetrachloroethane	(3)	11.365	131	348704	5.052
100) Ethylbenzene	(3)	11.365	91	1625330	5.077
101) m+p-Xylene	(3)	11.481	106	1339516	10.507
105) Xylene (Total)	(3)		106	1971251	15.641
104) o-Xylene	(3)	11.811	106	631735	5.134
106) Styrene	(3)	11.823	104	1013384	5.195
107) Bromoform	(3)	11.981	173	185391	5.035
111)$4-Bromofluorobenzene	(3)	12.249	95	762131	9.593
113) 1,1,2,2-Tetrachloroethane	(4)	12.353	83	282518M	5.098
115) trans-1,4-Dichloro-2-butene	(1)	12.377	53	274434	20.458
116) 1,2,3-Trichloropropane	(4)	12.396	110	85852M	5.220
126) Pentachloroethane	(4)	12.847	167	270981	4.846
131) 1,3-Dichlorobenzene	(4)	13.072	146	822289	5.094
133)*1,4-Dichlorobenzene-d4	(4)	13.127	152	970992	10.000
134) 1,4-Dichlorobenzene	(4)	13.146	146	829914	5.144
139) 1,2-Dichlorobenzene	(4)	13.408	146	769633	5.223
143) 1,2-Dibromo-3-chloropropane	(1)	13.950	155	49888	5.737
145) 1,2,4-Trichlorobenzene	(4)	14.499	180	514754	4.988
146) Hexachlorobutadiene	(4)	14.578	225	204014	4.839
147) Naphthalene	(4)	14.682	128	998680	4.833

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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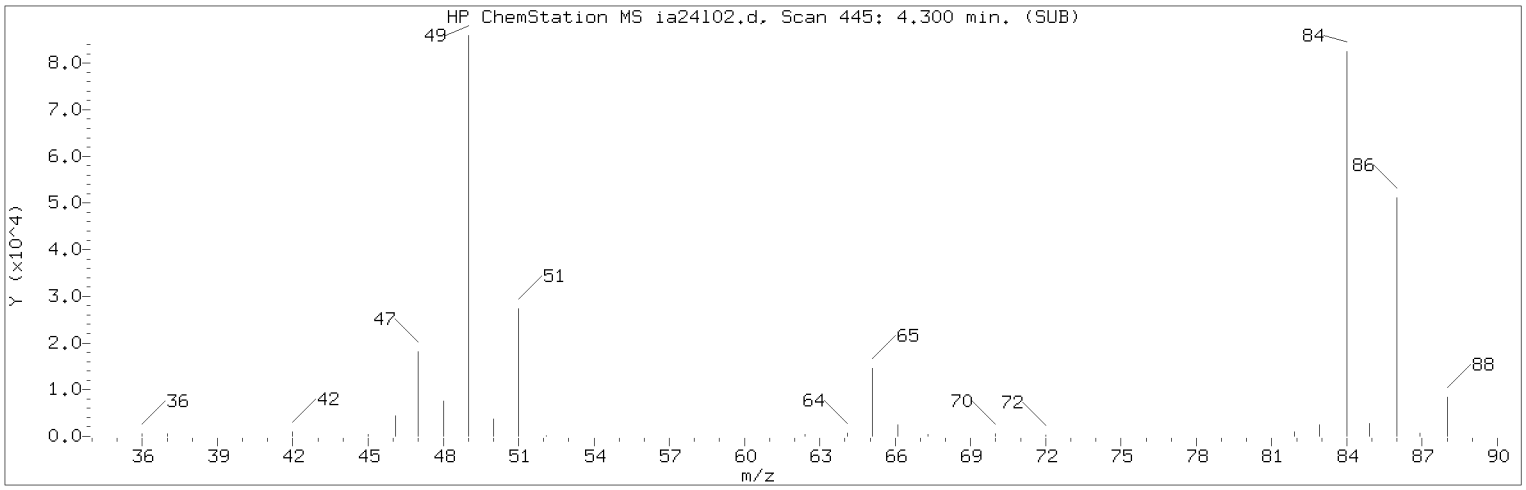
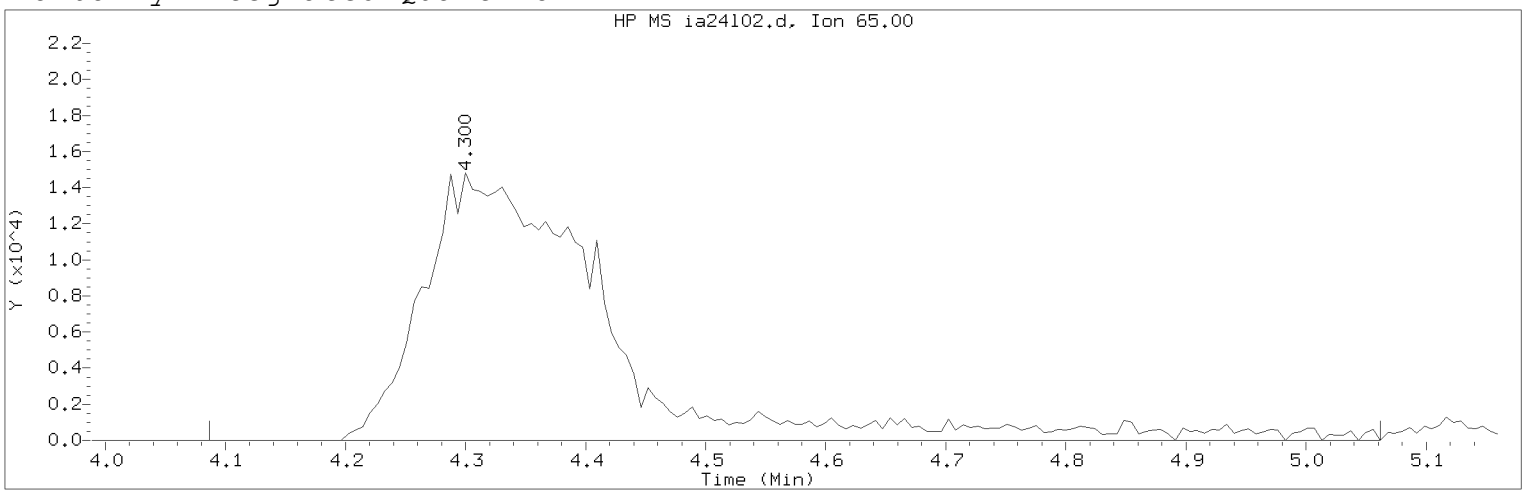
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

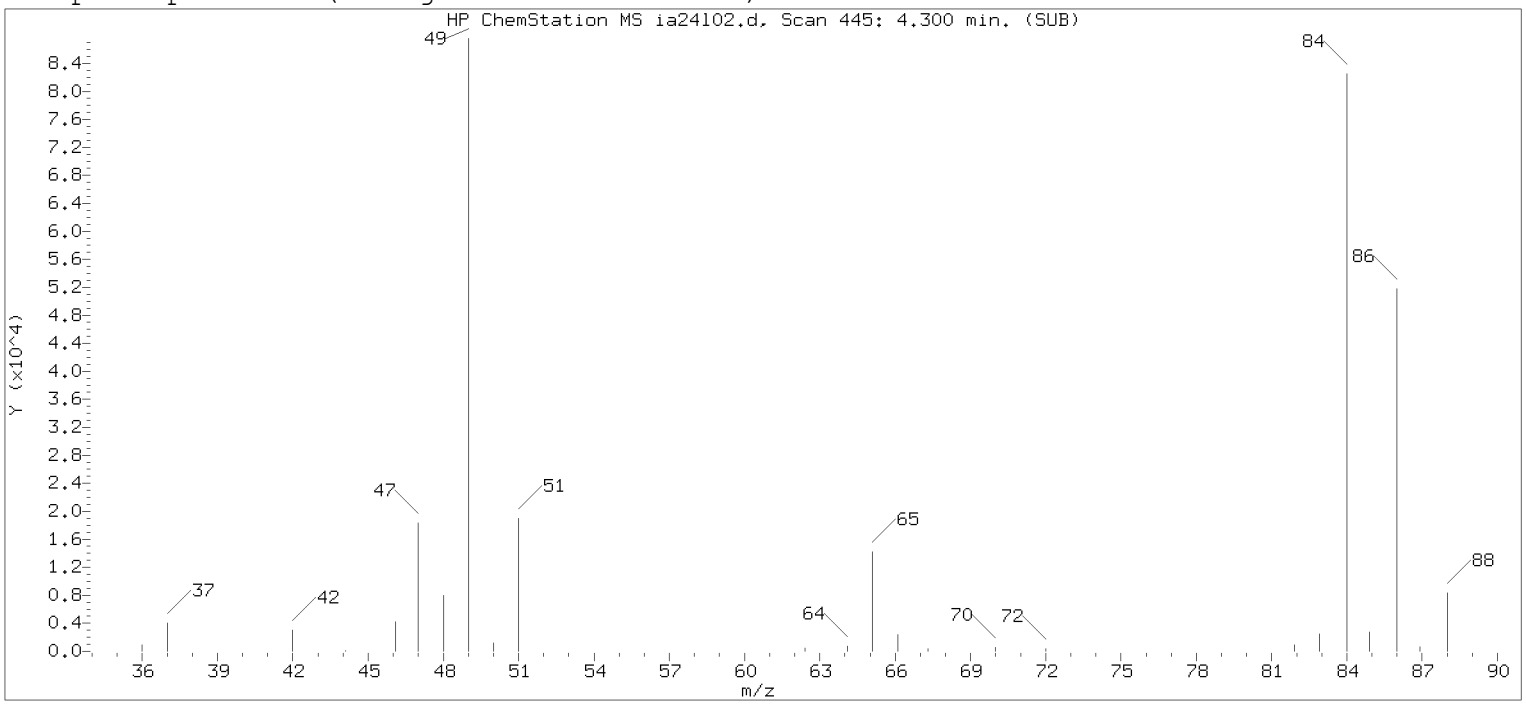
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 445
Retention Time (minutes): 4.300
Quant Ion : 65.00
Area (flag) : 158766M
On-Column Amount (ng) : 50.0000
Integration start scan : 409 Integration stop scan: 569
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

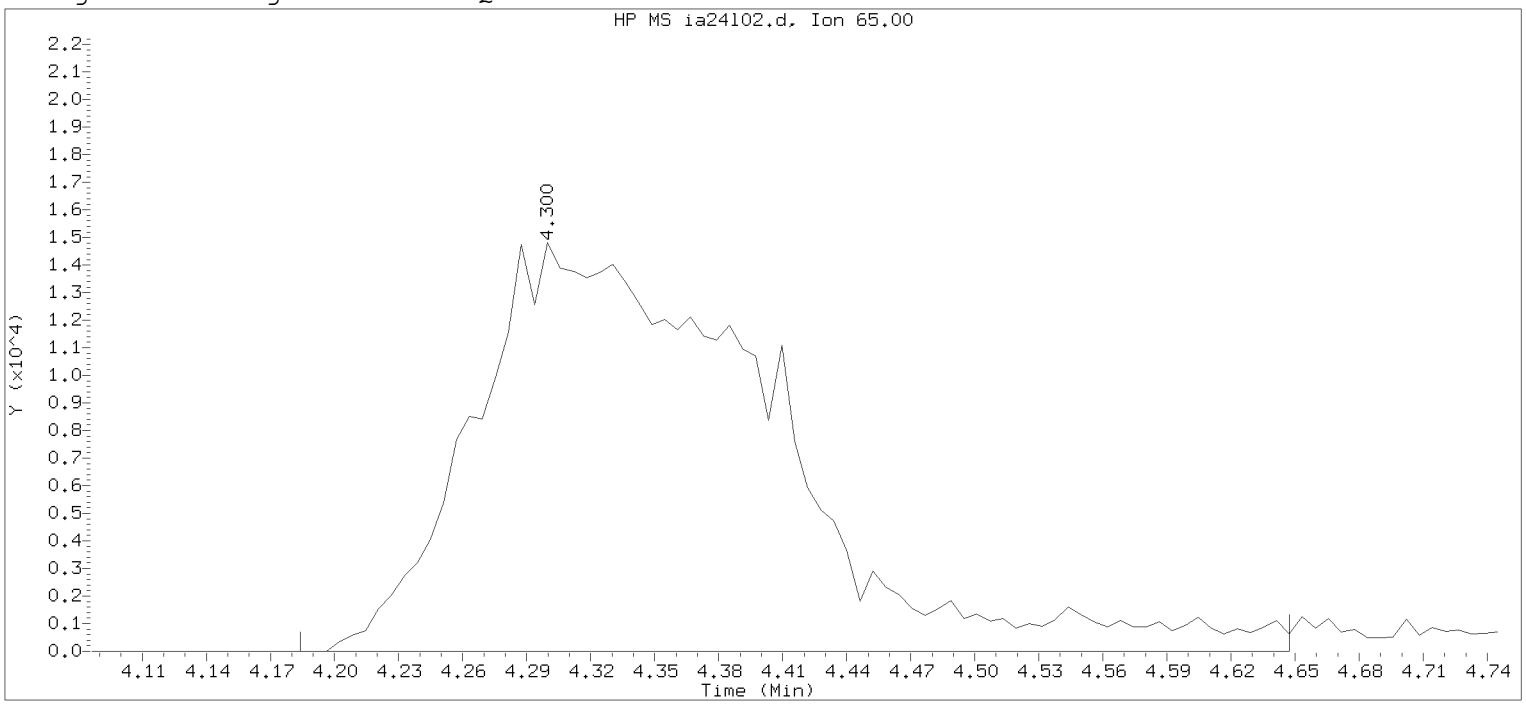
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

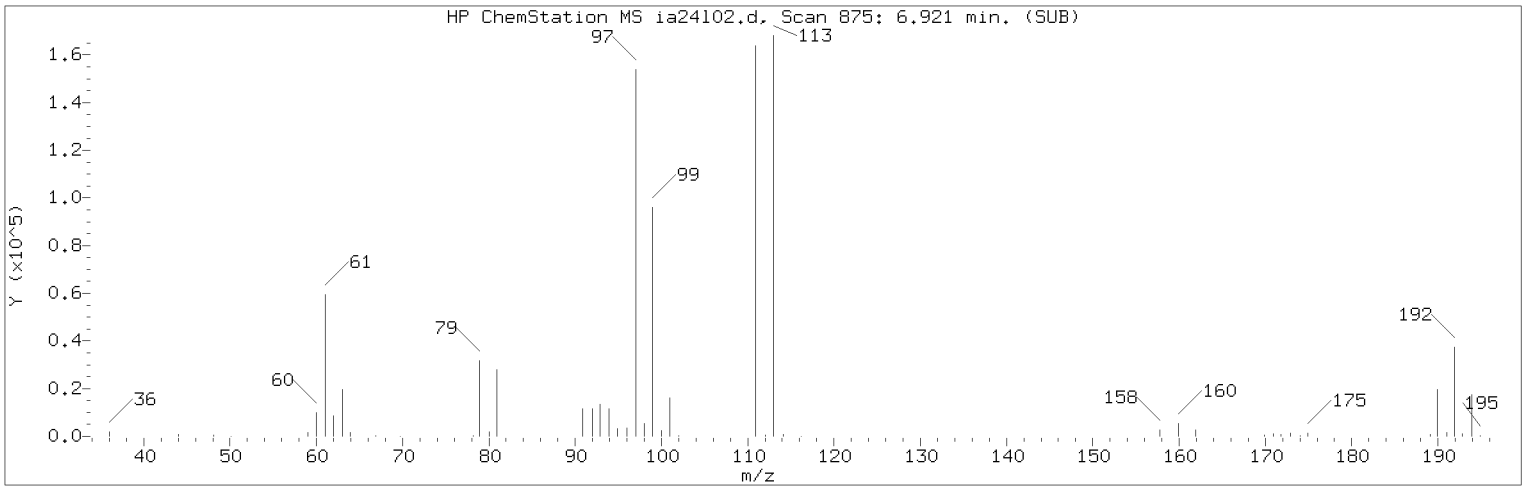
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

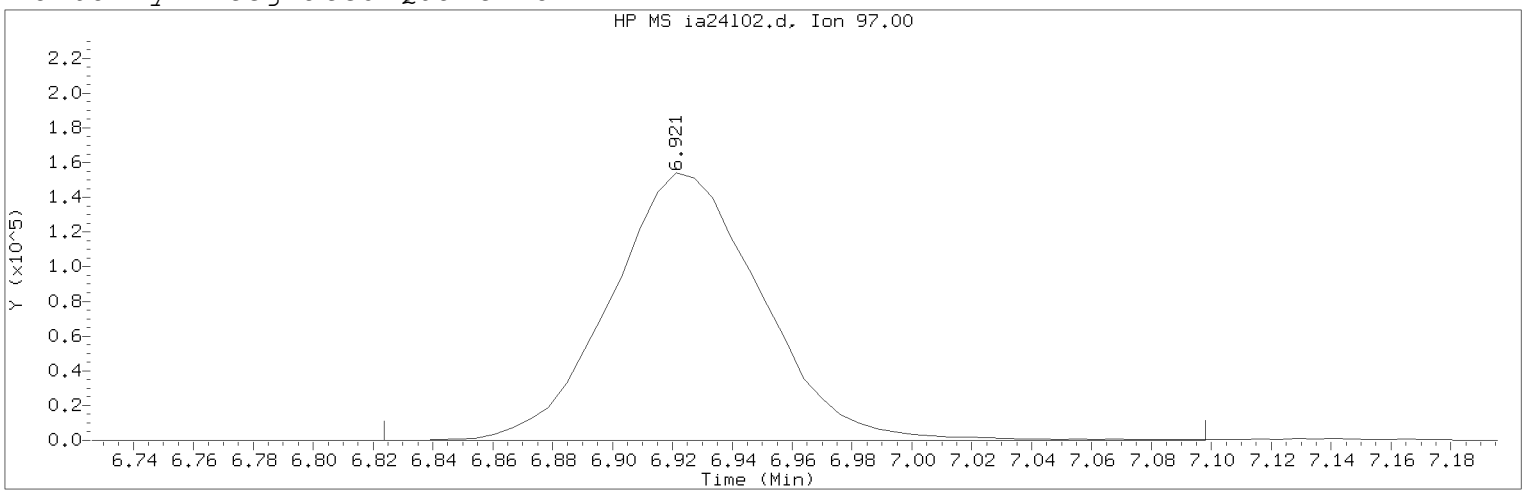
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 445
Retention Time (minutes): 4.300
Quant Ion : 65.00
Area : 144546
On-column Amount (ng) : 50.0000
Integration start scan : 425 Integration stop scan: 501
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

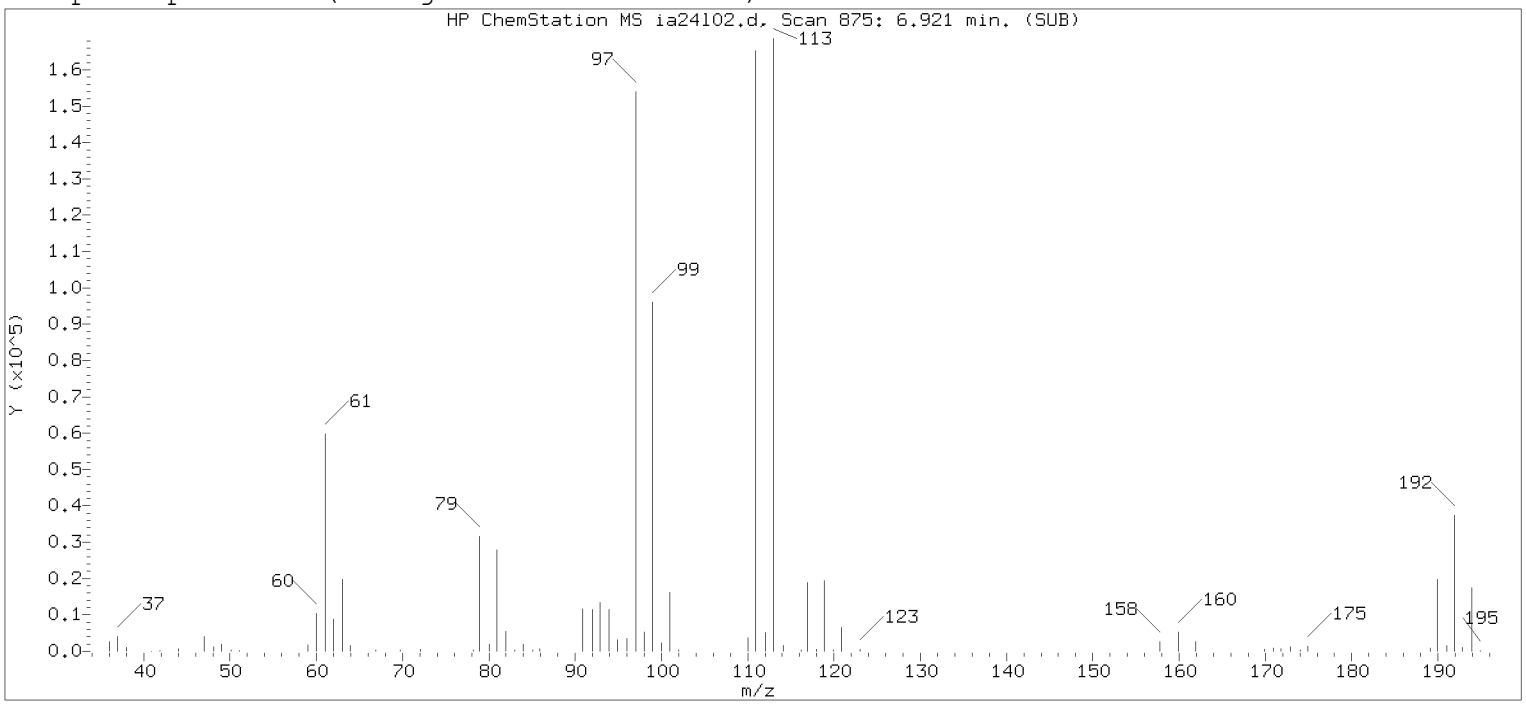
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area (flag) : 537801M
On-Column Amount (ng) : 5.1252
Integration start scan : 858 Integration stop scan: 903
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

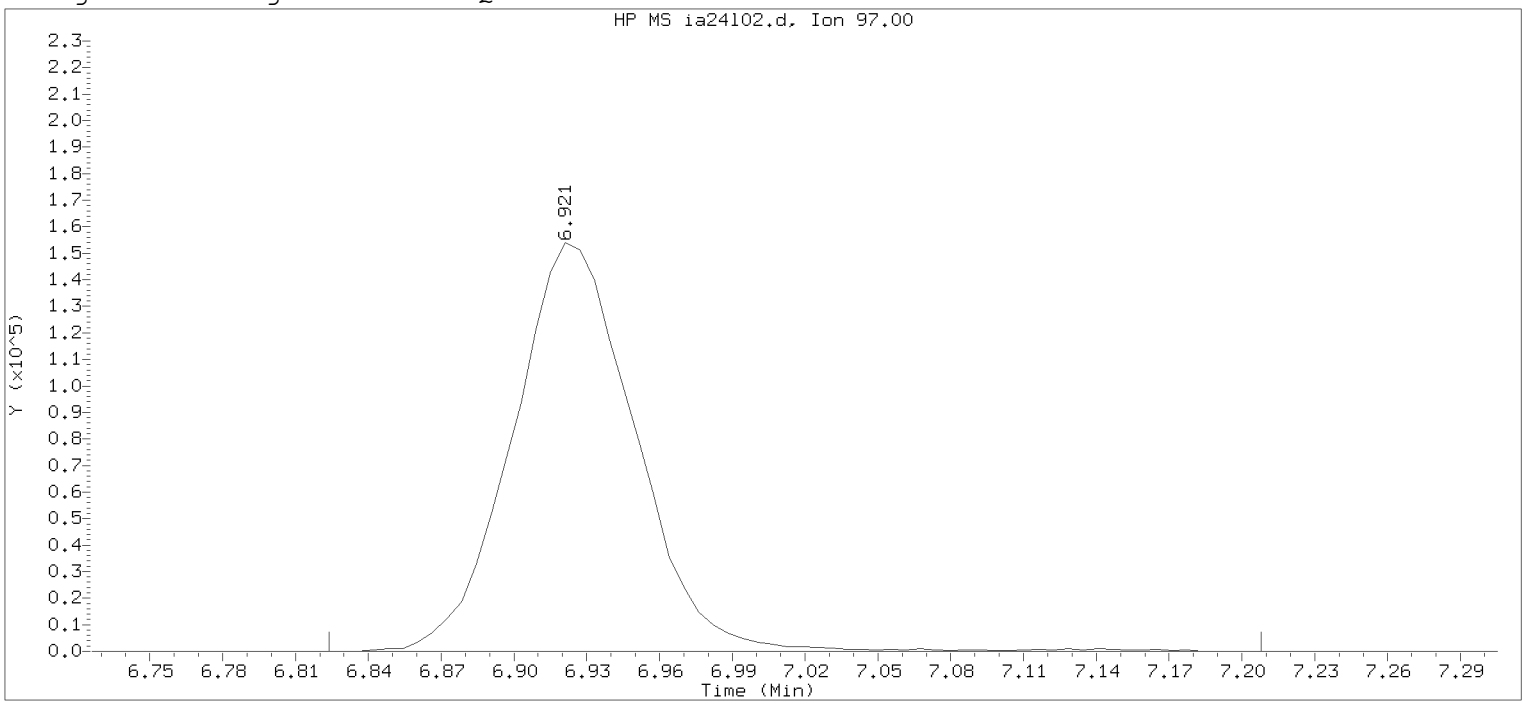
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

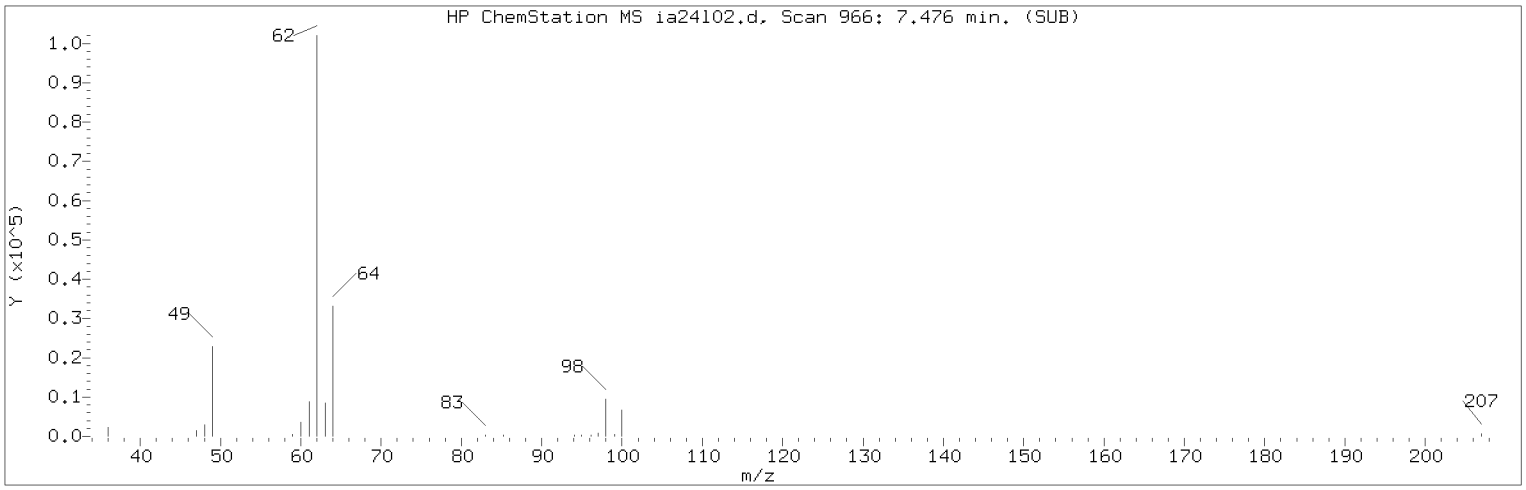
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

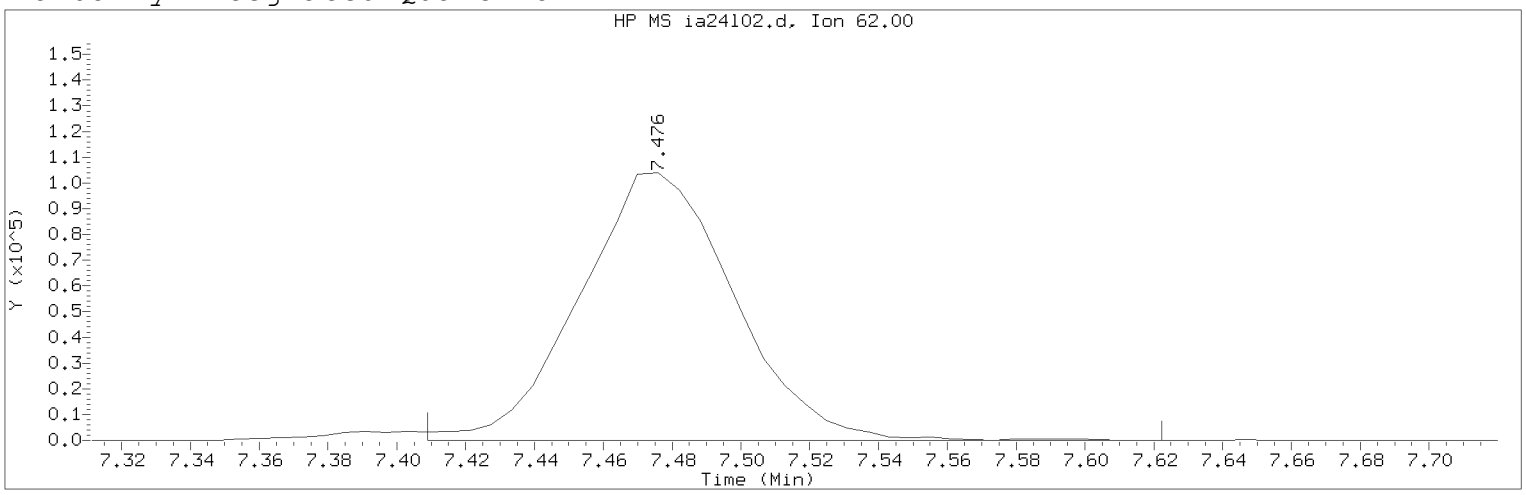
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 875
Retention Time (minutes): 6.921
Quant Ion : 97.00
Area : 540640
On-column Amount (ng) : 5.1522
Integration start scan : 858 Integration stop scan: 921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature user: Jennifer K. Howe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
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Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

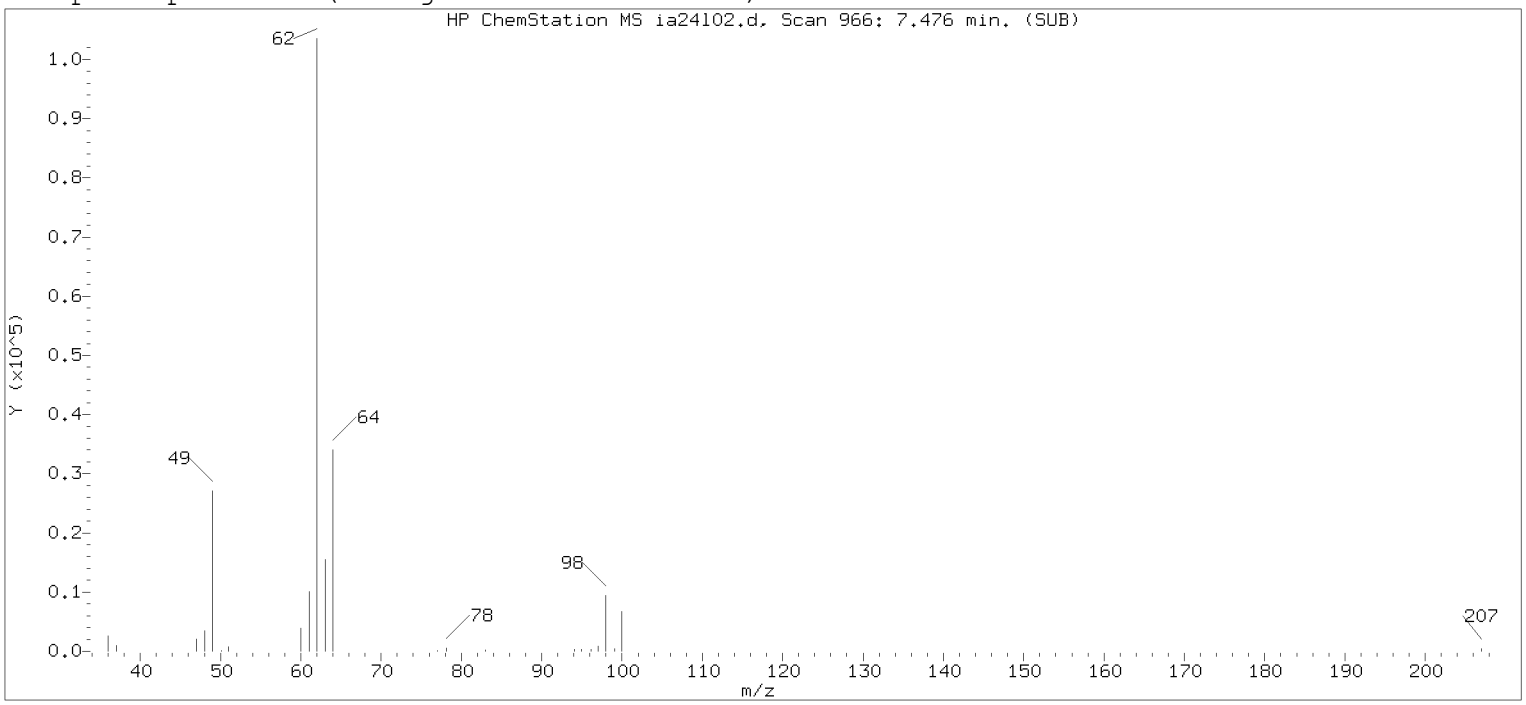
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area (flag) : 324535M
On-Column Amount (ng) : 5.0654
Integration start scan : 954 Integration stop scan: 989
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

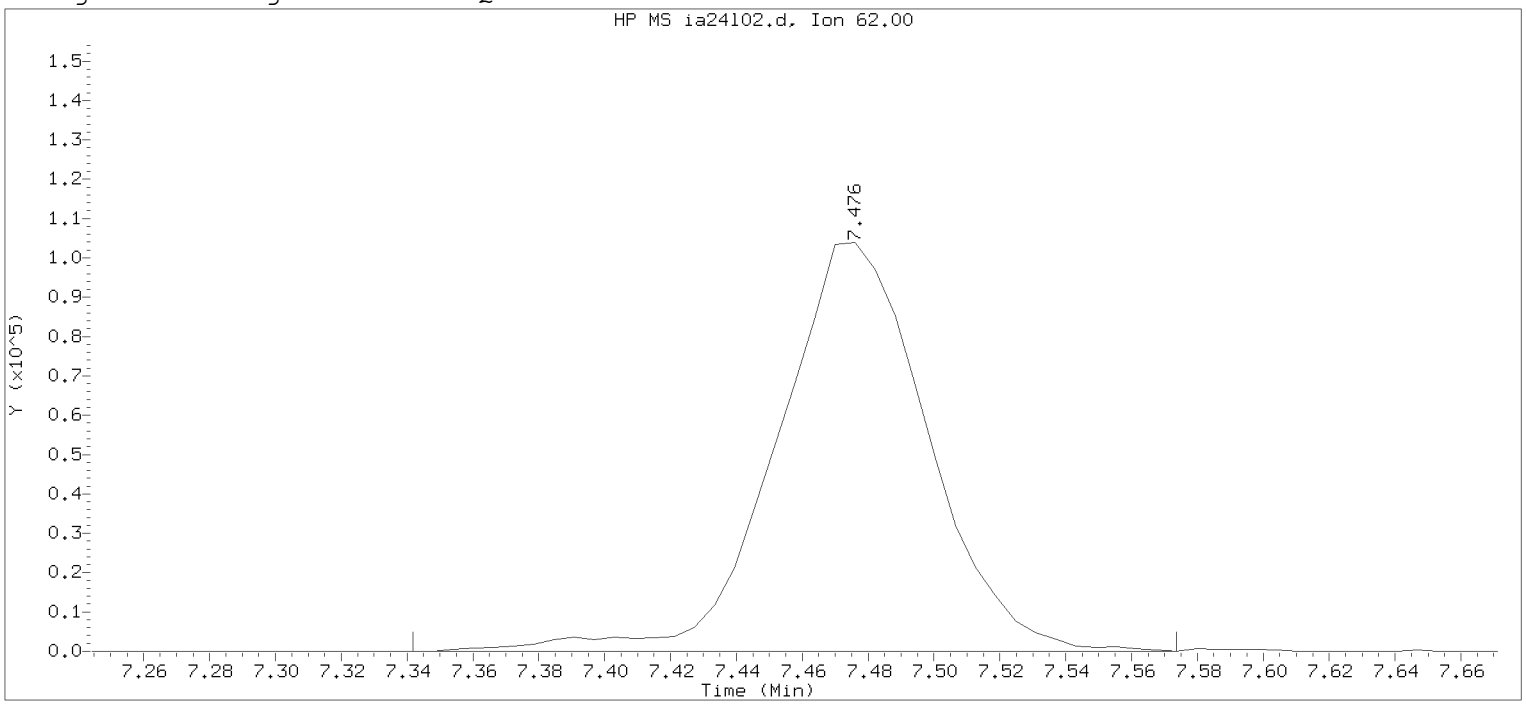
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 966
Retention Time (minutes): 7.476
Quant Ion : 62.00
Area : 330420
On-column Amount (ng) : 5.1573
Integration start scan : 943 Integration stop scan: 981
Y at integration start : 0 Y at integration end: 0

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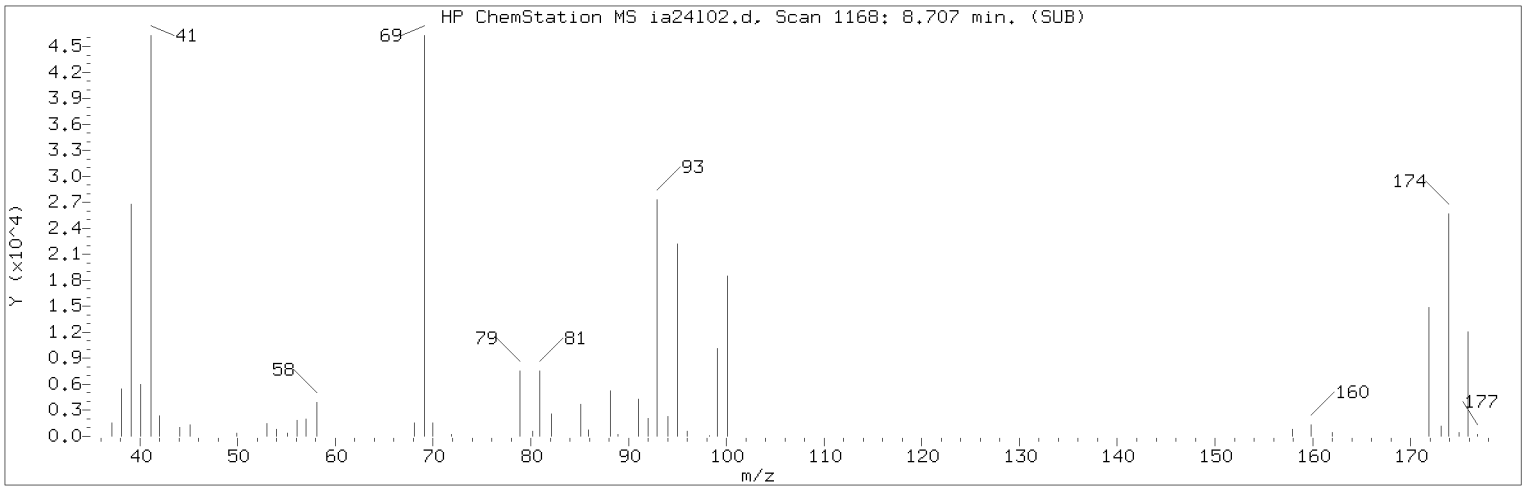
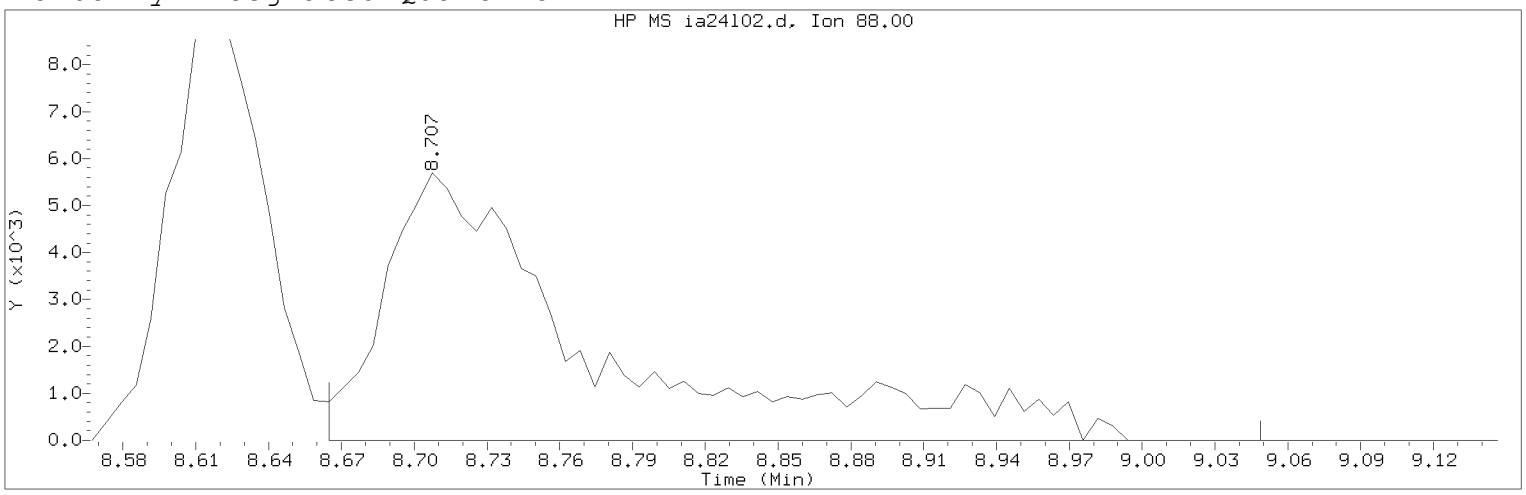
Target 3.5 esignature user: Page 1641

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

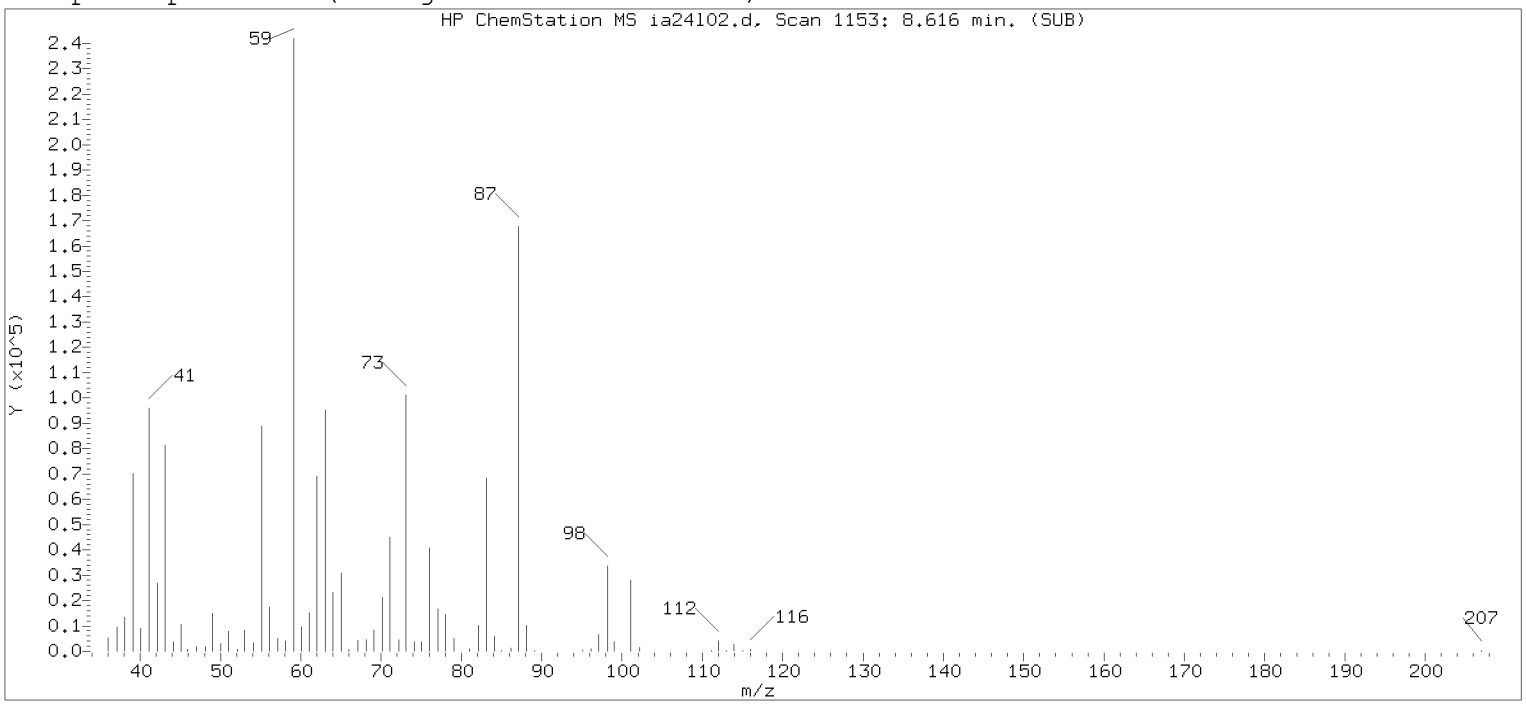
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1168
Retention Time (minutes): 8.707
Quant Ion : 88.00
Area (flag) : 34872M
On-Column Amount (ng) : 142.7406
Integration start scan : 1160 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

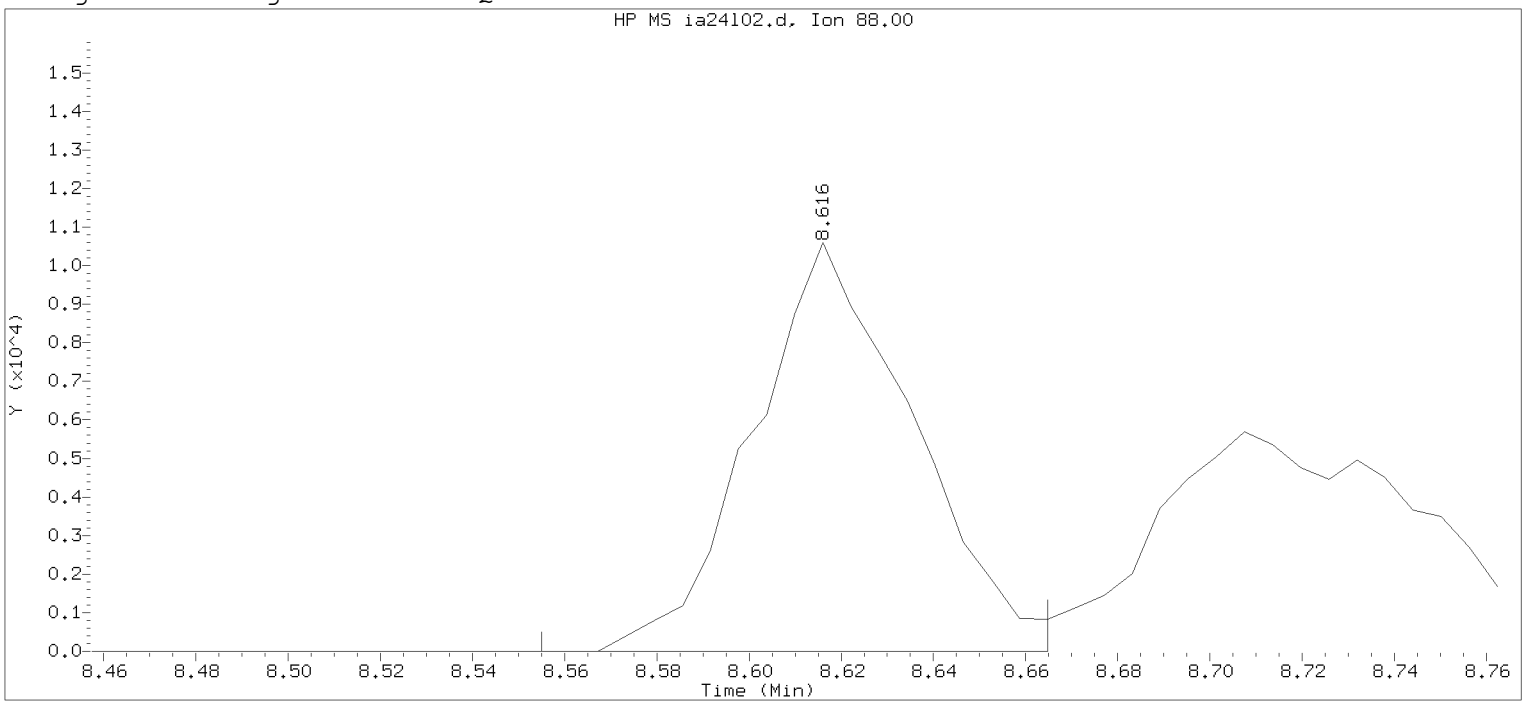
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

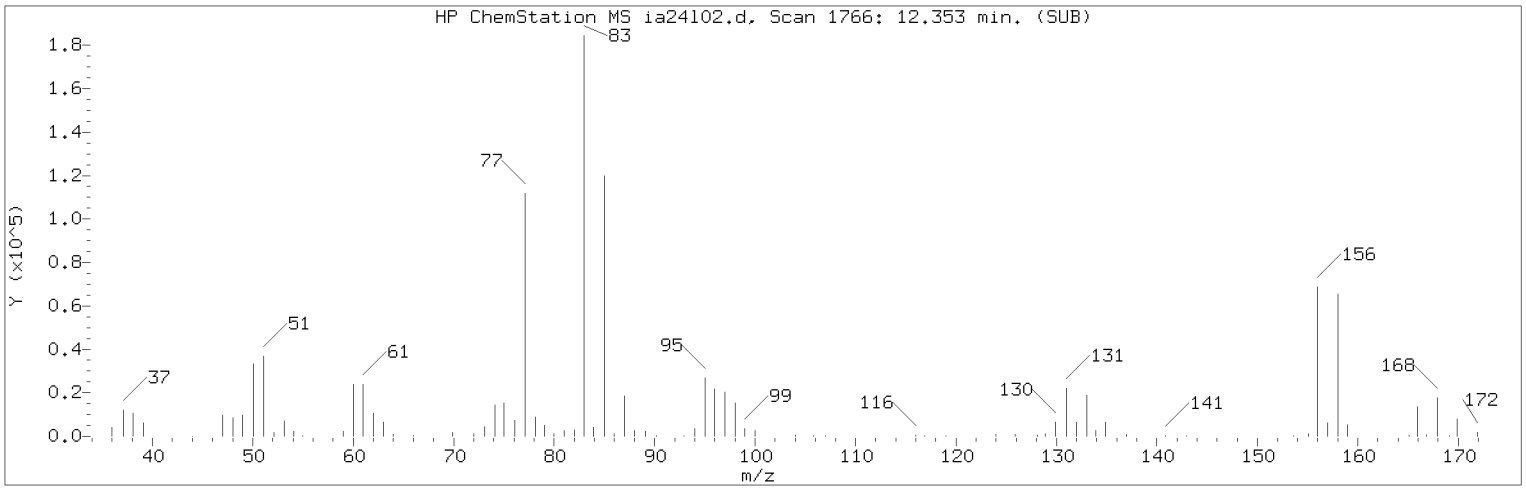
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

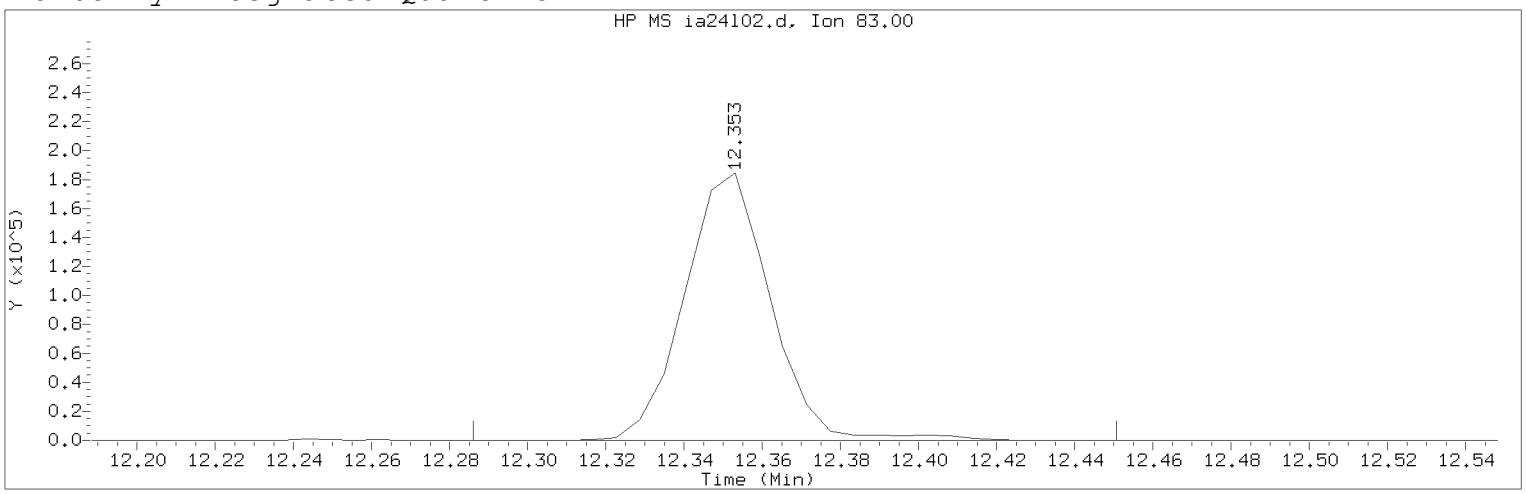
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1153
Retention Time (minutes): 8.616
Quant Ion : 88.00
Area : 25483
On-column Amount (ng) : 114.5735
Integration start scan : 1142 Integration stop scan: 1160
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

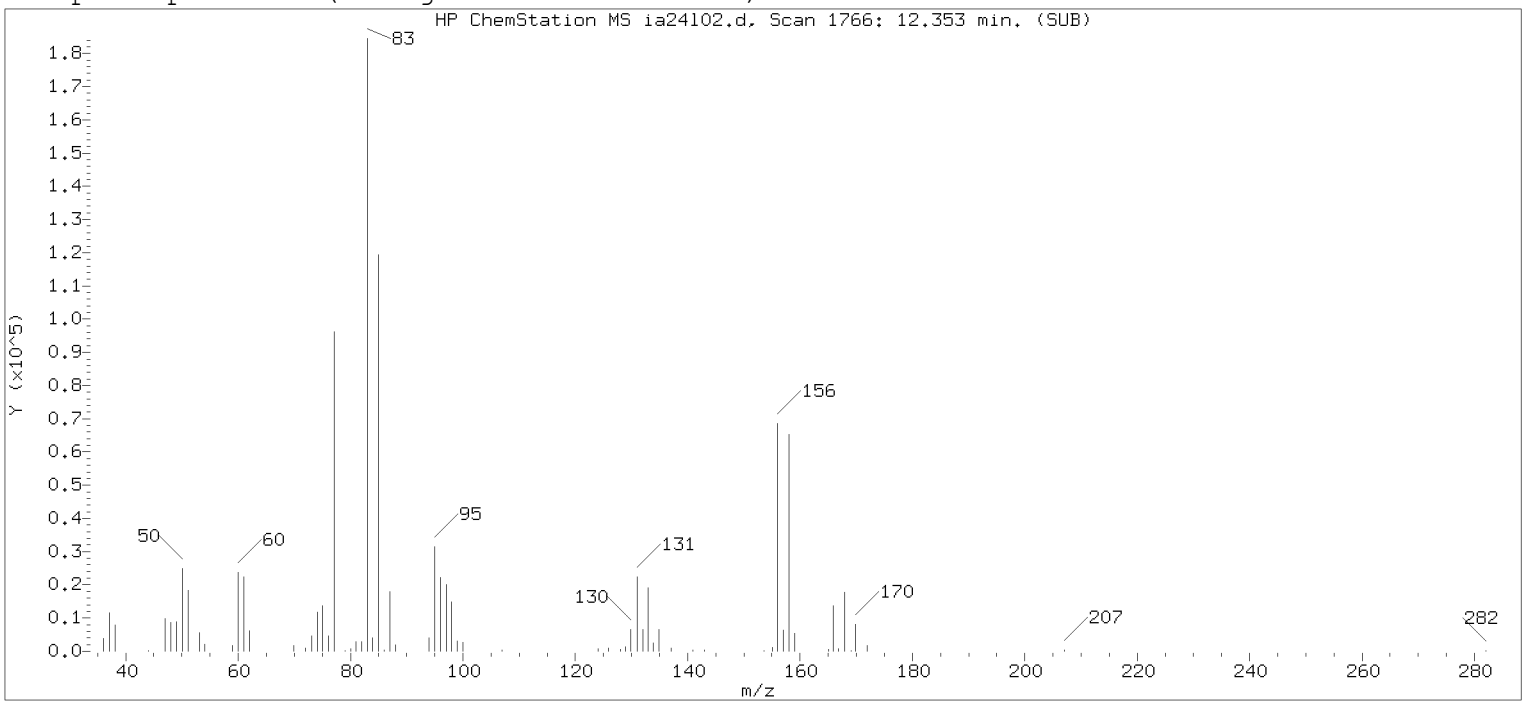
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1766
Retention Time (minutes): 12.353
Quant Ion : 83.00
Area (flag) : 282518M
On-Column Amount (ng) : 5.0977
Integration start scan : 1754 Integration stop scan: 1781
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

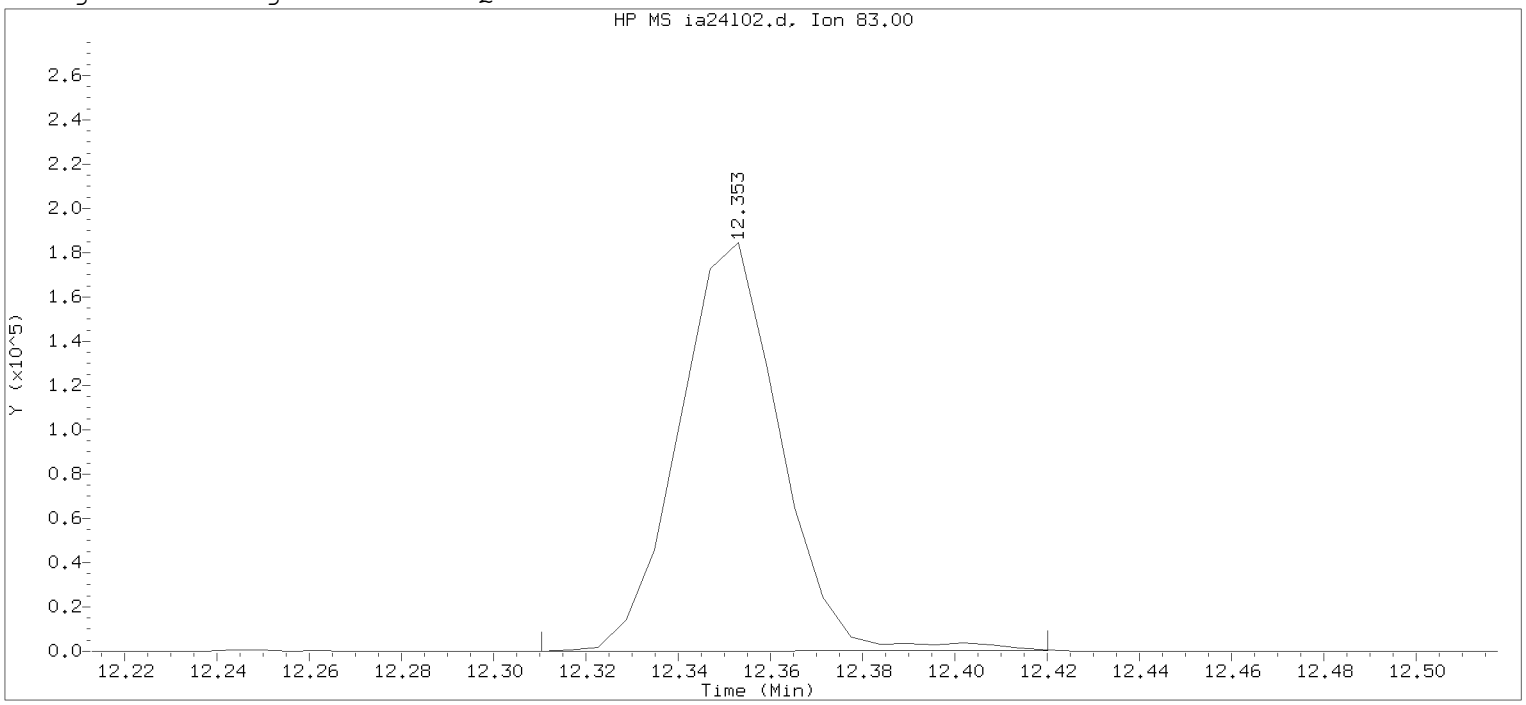
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24l02.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

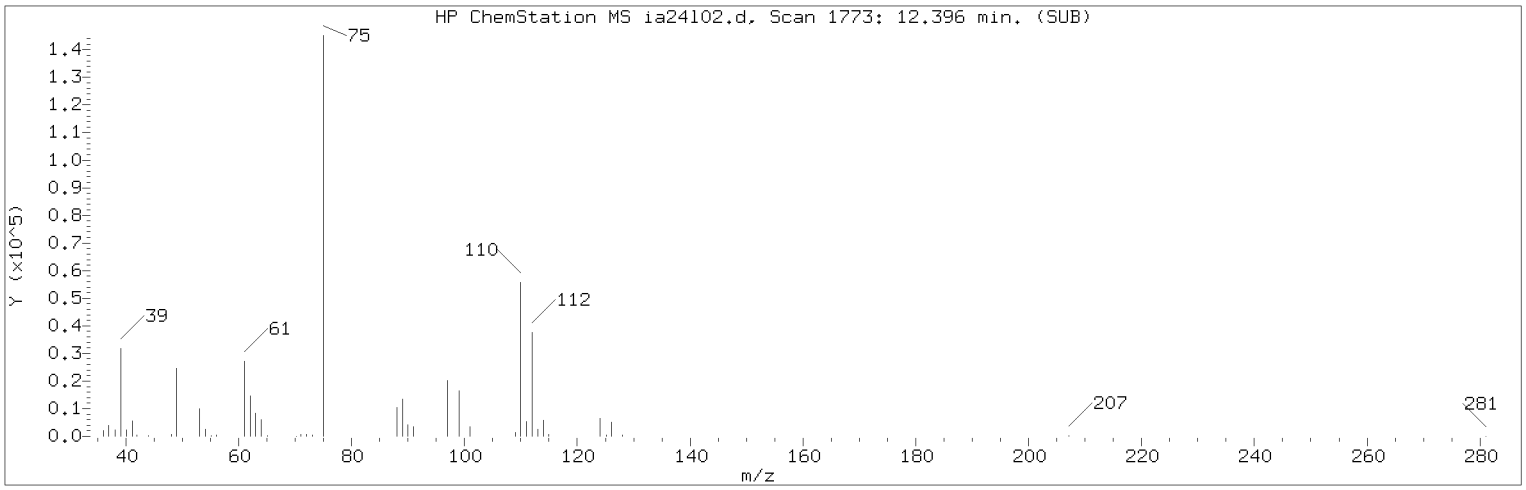
Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

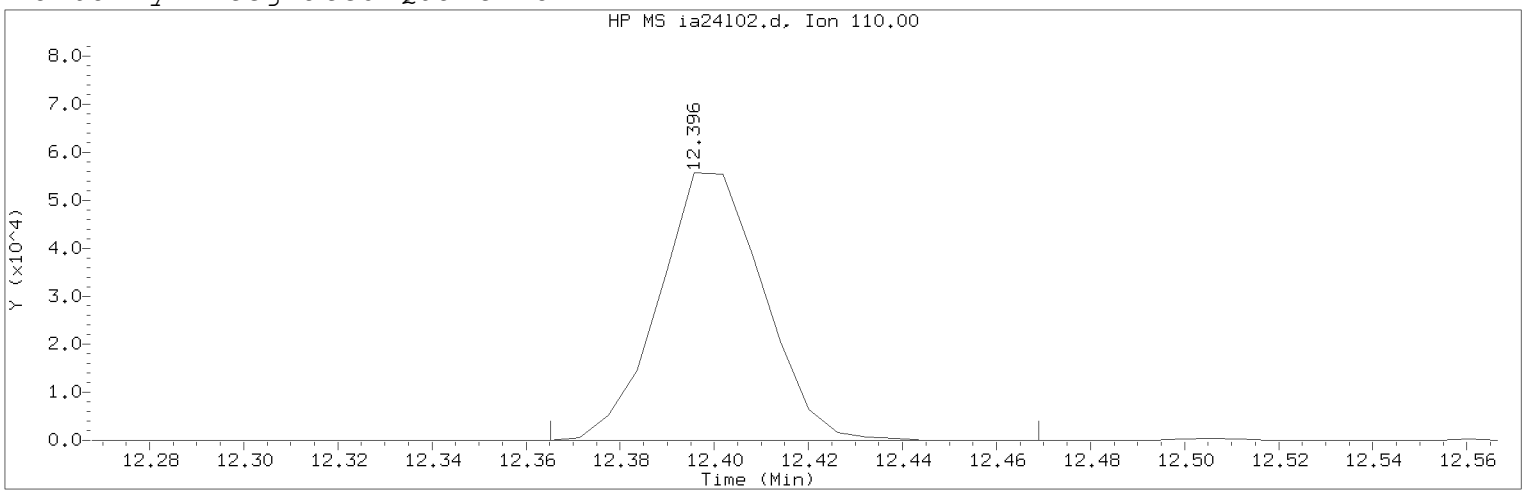
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1766
Retention Time (minutes): 12.353
Quant Ion : 83.00
Area : 281943
On-column Amount (ng) : 5.0874
Integration start scan : 1758 Integration stop scan: 1776
Y at integration start : 0 Y at integration end: 152

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 12:44 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

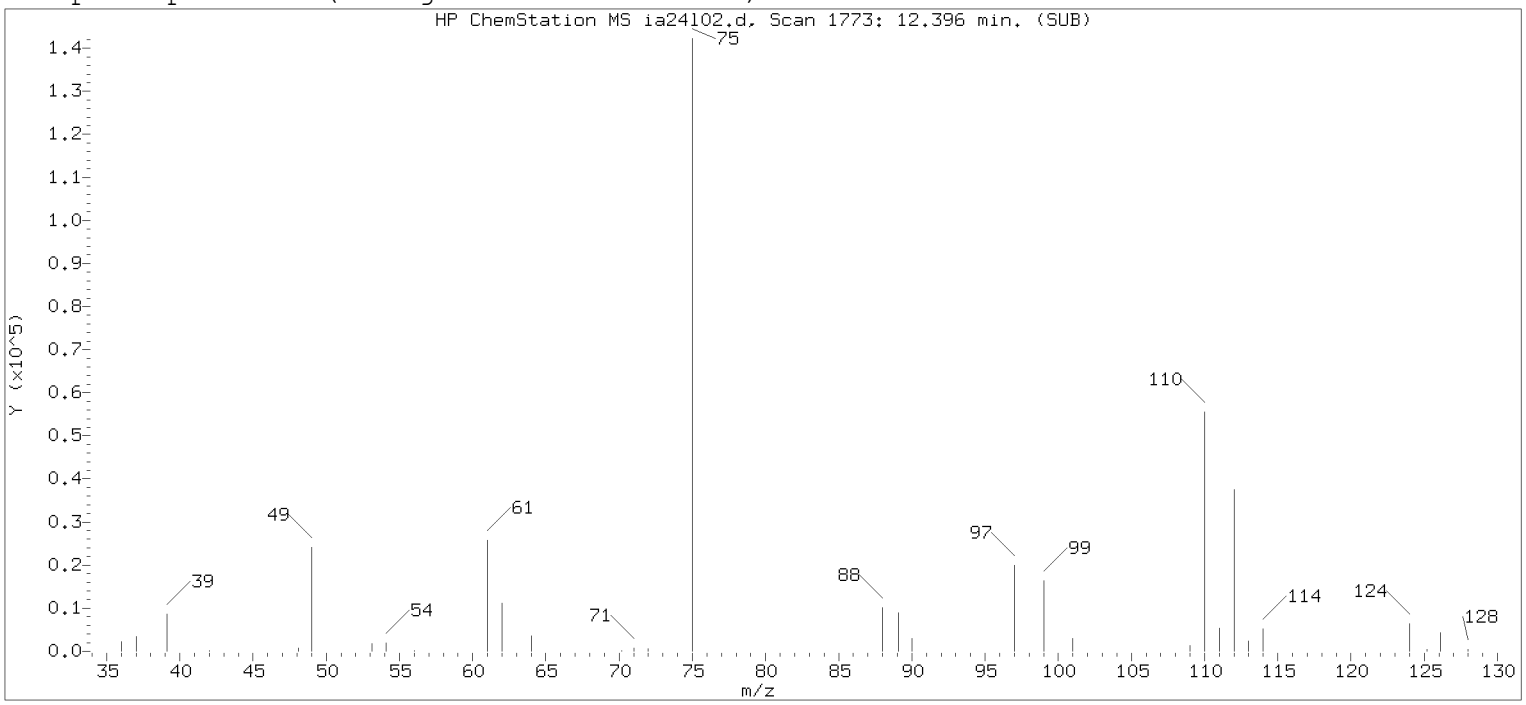
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1773
Retention Time (minutes): 12.396
Quant Ion : 110.00
Area (flag) : 85852M
On-Column Amount (ng) : 5.2203
Integration start scan : 1767 Integration stop scan: 1784
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

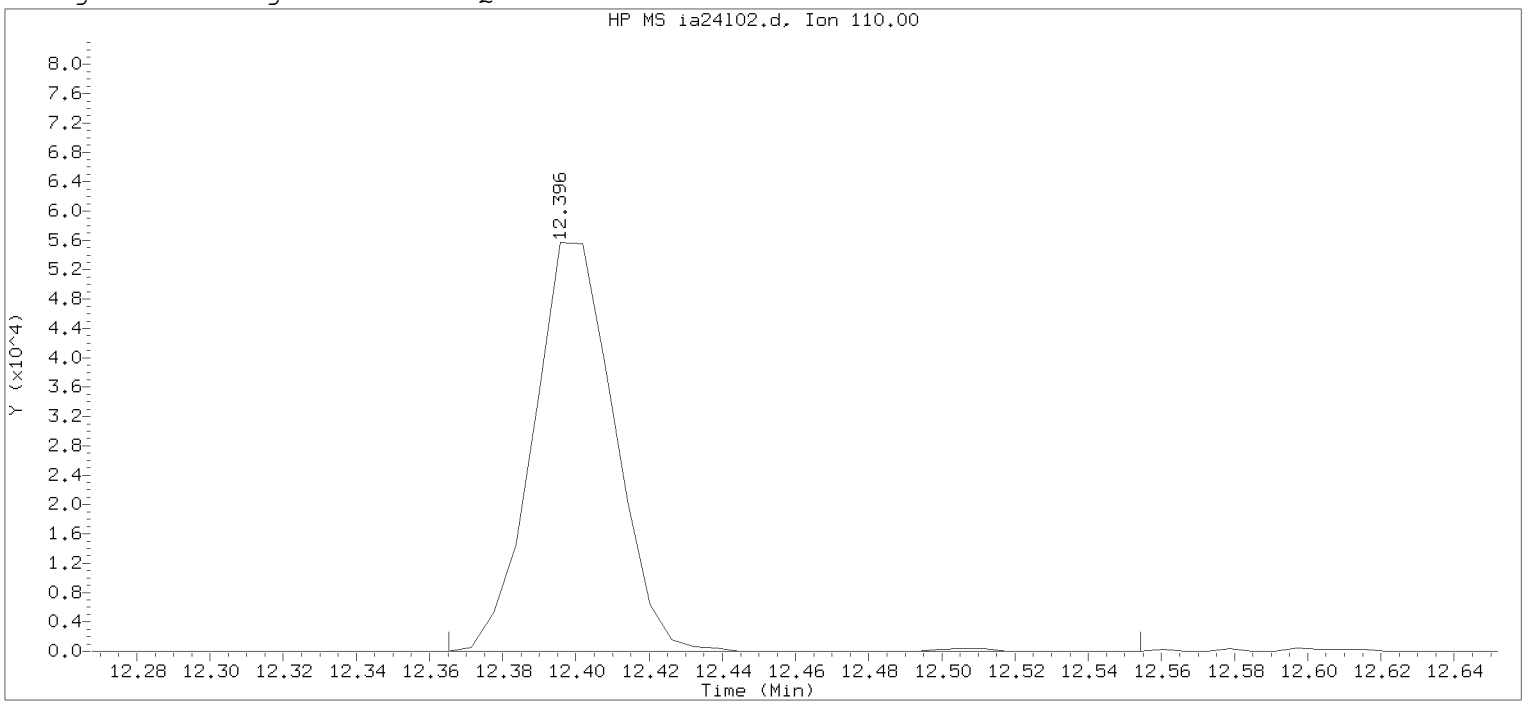
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/24/2019 at 14:38.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kari Becker on 04/25/2019 at 22:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19930.i/19apr24a.b/ia24102.d Instrument ID: HP19930.i
Injection date and time: 24-APR-2019 10:31 Analyst ID: jkh09052

Method used: /chem2/HP19930.i/19apr24a.b/m8260c25.m Sublist used: 27091-SM
Calibration date and time: 24-APR-2019 11:26
Date, time and analyst ID of latest file update: 24-Apr-2019 11:26 jkh09052

Sample Name: LCDI33 Lab Sample ID: LCDI33

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1773
Retention Time (minutes): 12.396
Quant Ion : 110.00
Area : 86203
On-column Amount (ng) : 5.2417
Integration start scan : 1767 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/24/2019 at 14:38.
Target 3.5 esignature used for this page.

Semivolatiles by GC/MS Data

Case Narrative/Conformance Summary

Semivolatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

3 SVOCs 8270D

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
1034101	16C1	X		1	
1034102	16MW8	X		1	
1034103	16MW9	X		1	
1034104	16WC1A	X		1	Unspiked
1034105	16WC1A MS	X		1	Matrix Spike
1034106	16WC1A MSD	X		1	Matrix Spike Duplicate
1034107	16WDUP	X		1	Field Duplicate Sample
1034108	16WC1B	X		1	
1034109	16-2	X		1	
1034110	16-3	X		1	
1034111	16-5	X		1	
1034112	16WC2B	X		1	
1034113	16SPRING	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

LCS/LCSD

Batch#: 19106WAN026 (Sample number(s): 1034102, 1034109-1034113)

Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

The recovery(ies) for the following analyte(s) in the LCS and LCSD exceeded the acceptance window indicating a positive bias. a,a-Dimethylphenethylamine
Refer to the QC Summary forms for more information.
The recovery(ies) for the following analyte(s) in the LCS and LCSD were below the acceptance window: 1,4-Naphthoquinone, Famphur

Batch#: 19107WAJ026 (Sample number(s): 1034101, 1034103-1034108, UNSPK: 1034104)
The recovery(ies) for the following analyte(s) in the LCS and LCSD exceeded the acceptance window indicating a positive bias. a,a-Dimethylphenethylamine
Refer to the QC Summary forms for more information.
The recovery(ies) for the following analyte(s) in the LCS and LCSD were below the acceptance window: 1,4-Naphthoquinone, 1,4-Phenylenediamine, Famphur, Methyl parathion

Refer to the QC Summary forms for more information.

(Sample number(s): 1034101-1034108: Analysis: 14241)
The QC limits for 1,4-Naphthoquinone are advisory due to the erratic performance of the compound.
The stated QC limits for Famphur are advisory only until sufficient data points can be obtained to calculate statistical limits.

(Sample number(s): 1034101, 1034103-1034108: Analysis: 14241)
The QC limits for 1,4-Phenylenediamine are advisory. It is a known poor performer.

(Sample number(s): 1034101-1034108: Analysis: 14241)
The recovery for a,a-Dimethylphenethylamine in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

(Sample number(s): 1034101, 1034103-1014108: Analysis: 14241)
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Methyl parathion

MS/MSD

Batch#: 19107WAJ026 (Sample number(s): 1034101, 1034103-1034108, UNSPK: 1034104)
The relative percent difference(s) for the following analyte(s) in the MS/MSD is outside the acceptance window: 2,3,4,6-Tetrachlorophenol, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 3,3'-Dimethylbenzidine

Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

The recovery(ies) for the following analyte(s) in the MS were below the acceptance window: 2-Chlorophenol

The recovery(ies) for the following analyte(s) in the MSD exceeded the acceptance window indicating a positive bias:2-Naphthylamine, o-Toluidine

The recovery(ies) for the following analyte(s) in the MS and MSD were below the acceptance window: 2,3,4,6-Tetrachlorophenol, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, Pentachlorophenol

Surrogate

Surrogate recoveries that are noncompliant are confirmed unless attributed to a dilution or otherwise noted.

Batch#: 19106WAN026 (Sample number(s): 1034102, 1034109-1034113)
The recovery(ies) for the following surrogate(s) were below the acceptance window: 2,4,6-Tribromophenol (1034102), 2-Fluorophenol (1034102)

Batch#: 19107WAJ026 (Sample number(s): 1034101, 1034103-1034108, UNSPK: 1034104)
The recovery(ies) for the following surrogate(s) were below the acceptance window: 2,4,6-Tribromophenol (1034104 UNSPK, 1034105, 1034106, 1034107, 1034108), 2-Fluorophenol (1034108), Phenol-d6 (1034108)

(Sample number(s): 1034102, 1034107-1034108: Analysis: 14241)
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Results are reported from the first trial as the sample is outside the method required holding time for re-extraction.

(Sample number(s): 1034106: Analysis: 14241)
The GC/MS semivolatile surrogate recoveries were outside of QC limits. The unspiked background and matrix spike samples were analyzed and surrogate recoveries were again outside of QC limits, indicating a matrix effect.

(Sample number(s): 1034104: Analysis: 14241)
The GC/MS semivolatile surrogate recoveries are outside of QC limits. The matrix spike and matrix spike duplicate samples were analyzed and surrogate recoveries are again outside of QC limits, indicating a matrix effect.

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Case Narrative/Conformance Summary

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

(Sample number(s): 1034105: Analysis: 14241)
The GC/MS semivolatile surrogate recoveries are outside of QC limits. The unspiked background and matrix spike duplicate samples were analyzed and surrogate recoveries are again outside of QC limits, indicating a matrix effect.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Quality Control and Calibration Summary Forms

Semivolatiles by GC/MS

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Quality Control Reference List
GC/MS Semivolatiles

CLIENT: Draper Aden Associates, Inc.
SDG: RAF35

Fraction: Semivolatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
3 SVOCs 8270D	19106WAN026	SBLKWN106	04/19/2019 00:31
		106WNLCS	04/19/2019 01:00
		106WNLCSD	04/19/2019 01:29
		1034109	04/19/2019 17:49
		1034110	04/19/2019 18:18
		1034111	04/19/2019 18:47
		1034112	04/19/2019 19:16
		1034113	04/19/2019 19:45
SVOAs 8270D/E MINI	19106WAN026	SBLKWN106	04/19/2019 00:31
		106WNLCS	04/19/2019 01:00
		106WNLCSD	04/19/2019 01:29
		106WNLCS2	04/19/2019 01:58
		106WNLCSD2	04/19/2019 02:27
		1034102	04/19/2019 17:20
SVOAs 8270D/E MINI	19107WAJ026	SBLKWJ107	04/18/2019 22:35
		107WJLCS	04/18/2019 23:04
		107WJLCS2	04/18/2019 23:33
		107WJLCSD2	04/19/2019 00:02
		1034101	04/19/2019 03:54
		1034103	04/19/2019 04:23
		1034104 UNSPK	04/19/2019 04:52
		1034105 MS	04/19/2019 05:20
		1034106 MSD	04/19/2019 05:49
		1034107	04/19/2019 16:22
		1034108	04/19/2019 16:51

Quality Control Summary
Method Blank
GC/MS Semivolatiles
SDG: RAF35
Matrix: LIQUID

Fraction: Semivolatiles by GC/MS

19106WAN026 / SBLKWN106 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
N-Nitrosodimethylamine	04/19/19	N.D.	ug/l	2	10
Pyridine	04/19/19	N.D.	ug/l	2	10
2-Picoline	04/19/19	N.D.	ug/l	2	10
N-Nitrosomethylethylamine	04/19/19	N.D.	ug/l	2	10
Methyl methanesulfonate	04/19/19	N.D.	ug/l	1	10
N-Nitrosodiethylamine	04/19/19	N.D.	ug/l	0.5	10
Ethyl methanesulfonate	04/19/19	N.D.	ug/l	0.5	10
Phenol	04/19/19	N.D.	ug/l	0.8	10
Aniline	04/19/19	N.D.	ug/l	3	10
bis(2-Chloroethyl)ether	04/19/19	N.D.	ug/l	0.5	2
2-Chlorophenol	04/19/19	N.D.	ug/l	1	10
o-Toluidine	04/19/19	N.D.	ug/l	4	10
Benzyl alcohol	04/19/19	N.D.	ug/l	10	30
2-Methylphenol	04/19/19	N.D.	ug/l	1	10
bis(2-Chloroisopropyl)ether	04/19/19	N.D.	ug/l	0.5	10
2,2'-oxybis(1-Chloropropane)	04/19/19	N.D.	ug/l	0.5	2
2,4-Dichlorophenol	04/19/19	N.D.	ug/l	2	10
N-Nitrosopyrrolidine	04/19/19	N.D.	ug/l	0.5	10
Acetophenone	04/19/19	N.D.	ug/l	4	10
4-Methylphenol	04/19/19	N.D.	ug/l	2	20
N-Nitroso-di-n-propylamine	04/19/19	N.D.	ug/l	0.7	10
N-Nitrosomorpholine	04/19/19	N.D.	ug/l	2	10
Nitrobenzene	04/19/19	N.D.	ug/l	0.5	10
N-Nitrosopiperidine	04/19/19	N.D.	ug/l	0.5	10
Isophorone	04/19/19	N.D.	ug/l	0.5	10
2-Nitrophenol	04/19/19	N.D.	ug/l	3	10
2,4-Dimethylphenol	04/19/19	N.D.	ug/l	3	10
O,O,O-Triethylphosphorothioate	04/19/19	N.D.	ug/l	2	10
bis(2-Chloroethoxy)methane	04/19/19	N.D.	ug/l	0.5	2
a,a-Dimethylphenethylamine	04/19/19	N.D.	ug/l	5	50
4-Chloroaniline	04/19/19	N.D.	ug/l	4	10
2,6-Dichlorophenol	04/19/19	N.D.	ug/l	0.5	10
Hexachloropropene	04/19/19	N.D.	ug/l	2	10
N-Nitrosodi-n-butylamine	04/19/19	N.D.	ug/l	12	25
1,4-Phenylenediamine	04/19/19	N.D.	ug/l	75	300
4-Chloro-3-methylphenol	04/19/19	N.D.	ug/l	1	10
Safrole	04/19/19	N.D.	ug/l	2	10
2-Methylnaphthalene	04/19/19	N.D.	ug/l	0.3	10
Hexachlorocyclopentadiene	04/19/19	N.D.	ug/l	5	11
1,2,4,5-Tetrachlorobenzene	04/19/19	N.D.	ug/l	2	10
2,4,6-Trichlorophenol	04/19/19	N.D.	ug/l	0.6	10
2,4,5-Trichlorophenol	04/19/19	N.D.	ug/l	0.8	10
Isosafrole	04/19/19	N.D.	ug/l	4	10
2-Chloronaphthalene	04/19/19	N.D.	ug/l	0.5	10
2-Nitroaniline	04/19/19	N.D.	ug/l	2	10

Fraction: Semivolatiles by GC/MS

19106WAN026 / SBLKWN106 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,4-Naphthoquinone	04/19/19	N.D.	ug/l	25	60
Dimethylphthalate	04/19/19	N.D.	ug/l	2	10
1,3-Dinitrobenzene	04/19/19	N.D.	ug/l	2	10
2,6-Dinitrotoluene	04/19/19	N.D.	ug/l	0.5	10
Acenaphthylene	04/19/19	N.D.	ug/l	0.5	10
3-Nitroaniline	04/19/19	N.D.	ug/l	3	10
Acenaphthene	04/19/19	N.D.	ug/l	0.4	10
2,4-Dinitrophenol	04/19/19	N.D.	ug/l	14	30
4-Nitrophenol	04/19/19	N.D.	ug/l	10	30
Pentachlorobenzene	04/19/19	N.D.	ug/l	0.5	10
2,4-Dinitrotoluene	04/19/19	N.D.	ug/l	1	10
Dibenzofuran	04/19/19	N.D.	ug/l	0.6	10
1-Naphthylamine	04/19/19	N.D.	ug/l	8	21
2,3,4,6-Tetrachlorophenol	04/19/19	N.D.	ug/l	4	10
2-Naphthylamine	04/19/19	N.D.	ug/l	7	21
Diethylphthalate	04/19/19	N.D.	ug/l	2	10
Thionazin	04/19/19	N.D.	ug/l	2	10
Fluorene	04/19/19	N.D.	ug/l	0.4	10
4-Chlorophenyl-phenylether	04/19/19	N.D.	ug/l	0.5	10
5-Nitro-o-toluidine	04/19/19	N.D.	ug/l	4	10
4-Nitroaniline	04/19/19	N.D.	ug/l	0.9	10
4,6-Dinitro-2-methylphenol	04/19/19	N.D.	ug/l	8	21
N-Nitrosodiphenylamine	04/19/19	N.D.	ug/l	0.7	10
NDPA as diphenylamine	04/19/19	N.D.	ug/l	0.7	10
1,3,5-Trinitrobenzene	04/19/19	N.D.	ug/l	97	200
Phorate	04/19/19	N.D.	ug/l	0.5	10
Phenacetin	04/19/19	N.D.	ug/l	0.5	10
4-Bromophenyl-phenylether	04/19/19	N.D.	ug/l	0.6	10
Diallate trans/cis	04/19/19	N.D.	ug/l	1	10
Hexachlorobenzene	04/19/19	N.D.	ug/l	0.9	10
Dimethoate	04/19/19	N.D.	ug/l	3	10
Pentachlorophenol	04/19/19	N.D.	ug/l	3	10
4-Aminobiphenyl	04/19/19	N.D.	ug/l	5	11
Pentachloronitrobenzene	04/19/19	N.D.	ug/l	2	10
Pronamide	04/19/19	N.D.	ug/l	0.5	10
Phenanthrene	04/19/19	N.D.	ug/l	0.5	10
Anthracene	04/19/19	N.D.	ug/l	0.5	10
Disulfoton	04/19/19	N.D.	ug/l	25	50
Methyl parathion	04/19/19	N.D.	ug/l	1	10
Di-n-butylphthalate	04/19/19	N.D.	ug/l	2	10
Parathion	04/19/19	N.D.	ug/l	4	10
4-Nitroquinoline-1-oxide	04/19/19	N.D.	ug/l	20	60
Methapyrilene	04/19/19	N.D.	ug/l	15	50
Isodrin	04/19/19	N.D.	ug/l	0.5	10
Fluoranthene	04/19/19	N.D.	ug/l	0.4	10

Fraction: Semivolatiles by GC/MS

19106WAN026 / SBLKWN106 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Pyrene	04/19/19	N.D.	ug/l	0.4	10
Aramite	04/19/19	N.D.	ug/l	5	15
p-Dimethylaminoazobenzene	04/19/19	N.D.	ug/l	5	10
Chlorobenzilate	04/19/19	N.D.	ug/l	3	10
3,3'-Dimethylbenzidine	04/19/19	N.D.	ug/l	25	75
Butylbenzylphthalate	04/19/19	N.D.	ug/l	2	10
Famphur	04/19/19	N.D.	ug/l	25	50
Kepone	04/19/19	N.D.	ug/l	25	50
2-Acetylaminofluorene	04/19/19	N.D.	ug/l	10	21
3,3'-Dichlorobenzidine	04/19/19	N.D.	ug/l	3	10
Benzo(a)anthracene	04/19/19	N.D.	ug/l	0.5	10
Chrysene	04/19/19	N.D.	ug/l	0.3	10
bis(2-Ethylhexyl)phthalate	04/19/19	N.D.	ug/l	5	11
Di-n-octylphthalate	04/19/19	N.D.	ug/l	5	11
Benzo(b)fluoranthene	04/19/19	N.D.	ug/l	1	10
7,12-Dimethylbenz[a]anthracene	04/19/19	N.D.	ug/l	5	11
Benzo(k)fluoranthene	04/19/19	N.D.	ug/l	2	10
Benzo(a)pyrene	04/19/19	N.D.	ug/l	2	10
3-Methylcholanthrene	04/19/19	N.D.	ug/l	4	10
Indeno(1,2,3-cd)pyrene	04/19/19	N.D.	ug/l	0.2	10
Dibenz(a,h)anthracene	04/19/19	N.D.	ug/l	0.4	10
Benzo(g,h,i)perylene	04/19/19	N.D.	ug/l	0.4	10

19107WAJ026 / SBLKWJ107 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
N-Nitrosodimethylamine	04/18/19	N.D.	ug/l	2	10
Pyridine	04/18/19	N.D.	ug/l	2	10
2-Picoline	04/18/19	N.D.	ug/l	2	10
N-Nitrosomethylethylamine	04/18/19	N.D.	ug/l	2	10
Methyl methanesulfonate	04/18/19	N.D.	ug/l	1	10
N-Nitrosodiethylamine	04/18/19	N.D.	ug/l	0.5	10
Ethyl methanesulfonate	04/18/19	N.D.	ug/l	0.5	10
Phenol	04/18/19	N.D.	ug/l	0.8	10
Aniline	04/18/19	N.D.	ug/l	3	10
bis(2-Chloroethyl)ether	04/18/19	N.D.	ug/l	0.5	2
2-Chlorophenol	04/18/19	N.D.	ug/l	1	10
o-Toluidine	04/18/19	N.D.	ug/l	4	10
Benzyl alcohol	04/18/19	N.D.	ug/l	10	30
2-Methylphenol	04/18/19	N.D.	ug/l	1	10
bis(2-Chloroisopropyl)ether	04/18/19	N.D.	ug/l	0.5	10
2,2'-oxybis(1-Chloropropane)	04/18/19	N.D.	ug/l	0.5	2
2,4-Dichlorophenol	04/18/19	N.D.	ug/l	2	10
N-Nitrosopyrrolidine	04/18/19	N.D.	ug/l	0.5	10
Acetophenone	04/18/19	N.D.	ug/l	4	10
4-Methylphenol	04/18/19	N.D.	ug/l	2	20

Fraction: Semivolatiles by GC/MS

19107WAJ026 / SBLKWJ107 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
N-Nitroso-di-n-propylamine	04/18/19	N.D.	ug/l	0.7	10
N-Nitrosomorpholine	04/18/19	N.D.	ug/l	2	10
Nitrobenzene	04/18/19	N.D.	ug/l	0.5	10
N-Nitrosopiperidine	04/18/19	N.D.	ug/l	0.5	10
Isophorone	04/18/19	N.D.	ug/l	0.5	10
2-Nitrophenol	04/18/19	N.D.	ug/l	3	10
2,4-Dimethylphenol	04/18/19	N.D.	ug/l	3	10
O,O,O-Triethylphosphorothioate	04/18/19	N.D.	ug/l	2	10
bis(2-Chloroethoxy)methane	04/18/19	N.D.	ug/l	0.5	2
a,a-Dimethylphenethylamine	04/18/19	N.D.	ug/l	5	50
4-Chloroaniline	04/18/19	N.D.	ug/l	4	10
2,6-Dichlorophenol	04/18/19	N.D.	ug/l	0.5	10
Hexachloropropene	04/18/19	N.D.	ug/l	2	10
N-Nitrosodi-n-butylamine	04/18/19	N.D.	ug/l	12	25
1,4-Phenylenediamine	04/18/19	N.D.	ug/l	75	300
4-Chloro-3-methylphenol	04/18/19	N.D.	ug/l	1	10
Safrole	04/18/19	N.D.	ug/l	2	10
2-Methylnaphthalene	04/18/19	N.D.	ug/l	0.3	10
Hexachlorocyclopentadiene	04/18/19	N.D.	ug/l	5	11
1,2,4,5-Tetrachlorobenzene	04/18/19	N.D.	ug/l	2	10
2,4,6-Trichlorophenol	04/18/19	N.D.	ug/l	0.6	10
2,4,5-Trichlorophenol	04/18/19	N.D.	ug/l	0.8	10
Isosafrole	04/18/19	N.D.	ug/l	4	10
2-Chloronaphthalene	04/18/19	N.D.	ug/l	0.5	10
2-Nitroaniline	04/18/19	N.D.	ug/l	2	10
1,4-Naphthoquinone	04/18/19	N.D.	ug/l	25	60
Dimethylphthalate	04/18/19	N.D.	ug/l	2	10
1,3-Dinitrobenzene	04/18/19	N.D.	ug/l	2	10
2,6-Dinitrotoluene	04/18/19	N.D.	ug/l	0.5	10
Acenaphthylene	04/18/19	N.D.	ug/l	0.5	10
3-Nitroaniline	04/18/19	N.D.	ug/l	3	10
Acenaphthene	04/18/19	N.D.	ug/l	0.4	10
2,4-Dinitrophenol	04/18/19	N.D.	ug/l	14	30
4-Nitrophenol	04/18/19	N.D.	ug/l	10	30
Pentachlorobenzene	04/18/19	N.D.	ug/l	0.5	10
2,4-Dinitrotoluene	04/18/19	N.D.	ug/l	1	10
Dibenzofuran	04/18/19	N.D.	ug/l	0.6	10
1-Naphthylamine	04/18/19	N.D.	ug/l	8	21
2,3,4,6-Tetrachlorophenol	04/18/19	N.D.	ug/l	4	10
2-Naphthylamine	04/18/19	N.D.	ug/l	7	21
Diethylphthalate	04/18/19	N.D.	ug/l	2	10
Thionazin	04/18/19	N.D.	ug/l	2	10
Fluorene	04/18/19	N.D.	ug/l	0.4	10
4-Chlorophenyl-phenylether	04/18/19	N.D.	ug/l	0.5	10
5-Nitro-o-toluidine	04/18/19	N.D.	ug/l	4	10

Fraction: Semivolatiles by GC/MS

19107WAJ026 / SBLKWJ107 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
4-Nitroaniline	04/18/19	N.D.	ug/l	0.9	10
4,6-Dinitro-2-methylphenol	04/18/19	N.D.	ug/l	8	21
N-Nitrosodiphenylamine	04/18/19	N.D.	ug/l	0.7	10
NDPA as diphenylamine	04/18/19	N.D.	ug/l	0.7	10
1,3,5-Trinitrobenzene	04/18/19	N.D.	ug/l	97	200
Phorate	04/18/19	N.D.	ug/l	0.5	10
Phenacetin	04/18/19	N.D.	ug/l	0.5	10
4-Bromophenyl-phenylether	04/18/19	N.D.	ug/l	0.6	10
Diallate trans/cis	04/18/19	N.D.	ug/l	1	10
Hexachlorobenzene	04/18/19	N.D.	ug/l	0.9	10
Dimethoate	04/18/19	N.D.	ug/l	3	10
Pentachlorophenol	04/18/19	N.D.	ug/l	3	10
4-Aminobiphenyl	04/18/19	N.D.	ug/l	5	11
Pentachloronitrobenzene	04/18/19	N.D.	ug/l	2	10
Pronamide	04/18/19	N.D.	ug/l	0.5	10
Phenanthrene	04/18/19	N.D.	ug/l	0.5	10
Anthracene	04/18/19	N.D.	ug/l	0.5	10
Disulfoton	04/18/19	N.D.	ug/l	25	50
Methyl parathion	04/18/19	N.D.	ug/l	1	10
Di-n-butylphthalate	04/18/19	N.D.	ug/l	2	10
Parathion	04/18/19	N.D.	ug/l	4	10
4-Nitroquinoline-1-oxide	04/18/19	N.D.	ug/l	20	60
Methapyrilene	04/18/19	N.D.	ug/l	15	50
Isodrin	04/18/19	N.D.	ug/l	0.5	10
Fluoranthene	04/18/19	N.D.	ug/l	0.4	10
Pyrene	04/18/19	N.D.	ug/l	0.4	10
Aramite	04/18/19	N.D.	ug/l	5	15
p-Dimethylaminoazobenzene	04/18/19	N.D.	ug/l	5	10
Chlorobenzilate	04/18/19	N.D.	ug/l	3	10
3,3'-Dimethylbenzidine	04/18/19	N.D.	ug/l	25	75
Butylbenzylphthalate	04/18/19	N.D.	ug/l	2	10
Famphur	04/18/19	N.D.	ug/l	25	50
Kepone	04/18/19	N.D.	ug/l	25	50
2-Acetylaminofluorene	04/18/19	N.D.	ug/l	10	21
3,3'-Dichlorobenzidine	04/18/19	N.D.	ug/l	3	10
Benzo(a)anthracene	04/18/19	N.D.	ug/l	0.5	10
Chrysene	04/18/19	N.D.	ug/l	0.3	10
bis(2-Ethylhexyl)phthalate	04/18/19	N.D.	ug/l	5	11
Di-n-octylphthalate	04/18/19	N.D.	ug/l	5	11
Benzo(b)fluoranthene	04/18/19	N.D.	ug/l	1	10
7,12-Dimethylbenz[a]anthracene	04/18/19	N.D.	ug/l	5	11
Benzo(k)fluoranthene	04/18/19	N.D.	ug/l	2	10
Benzo(a)pyrene	04/18/19	N.D.	ug/l	2	10
3-Methylcholanthrene	04/18/19	N.D.	ug/l	4	10
Indeno(1,2,3-cd)pyrene	04/18/19	N.D.	ug/l	0.2	10

Fraction: Semivolatiles by GC/MS

19107WAJ026 / SBLKWJ107 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dibenz(a,h)anthracene	04/18/19	N.D.	ug/l	0.4	10
Benzo(g,h,i)perylene	04/18/19	N.D.	ug/l	0.4	10

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Quality Control Summary
Surrogates
GC/MS Semivolatiles
SDG: RAF35
Matrix: LIQUID

Fraction: Semivolatiles by GC/MS

19106WAN026	2,4,6-Tribromophenol		2-Fluorobiphenyl		2-Fluorophenol		Nitrobenzene-d5		Phenol-d6		Terphenyl-d14	
	Spike Added	200 ug/l	Spike Added	100 ug/l	Spike Added	200 ug/l	Spike Added	100 ug/l	Spike Added	200 ug/l	Spike Added	100 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKWN106	84	23 - 135	59	44 - 102	47	10 - 84	73	35 - 107	35	10 - 67	93	33 - 126
106WNLCS	93	23 - 135	74	44 - 102	61	10 - 84	85	35 - 107	46	10 - 67	93	33 - 126
106WNLCSD	89	23 - 135	73	44 - 102	60	10 - 84	85	35 - 107	45	10 - 67	92	33 - 126
1034102	11 *	23 - 135	68	44 - 102	9 *	10 - 84	80	35 - 107	12	10 - 67	70	33 - 126
1034109			72	44 - 102			81	35 - 107			91	33 - 126
1034110			73	44 - 102			84	35 - 107			94	33 - 126
1034111			71	44 - 102			78	35 - 107			94	33 - 126
1034112			52	44 - 102			61	35 - 107			85	33 - 126
1034113			62	44 - 102			75	35 - 107			94	33 - 126

19107WAJ026	2,4,6-Tribromophenol		2-Fluorobiphenyl		2-Fluorophenol		Nitrobenzene-d5		Phenol-d6		Terphenyl-d14	
	Spike Added	200 ug/l	Spike Added	100 ug/l	Spike Added	200 ug/l	Spike Added	100 ug/l	Spike Added	200 ug/l	Spike Added	100 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKWJ107	80	23 - 135	64	44 - 102	45	10 - 84	76	35 - 107	35	10 - 67	91	33 - 126
107WJLCS	88	23 - 135	70	44 - 102	59	10 - 84	81	35 - 107	55	10 - 67	88	33 - 126
107WJLCSD2	89	23 - 135	70	44 - 102	59	10 - 84	87	35 - 107	50	10 - 67	96	33 - 126
1034101	81	23 - 135	77	44 - 102	47	10 - 84	80	35 - 107	45	10 - 67	90	33 - 126
1034103	78	23 - 135	79	44 - 102	50	10 - 84	81	35 - 107	48	10 - 67	92	33 - 126
1034104 UNSPK	16 *	23 - 135	80	44 - 102	16	10 - 84	83	35 - 107	27	10 - 67	47	33 - 126
1034105 MS	6 *	23 - 135	82	44 - 102	19	10 - 84	92	35 - 107	33	10 - 67	66	33 - 126
1034106 MSD	10 *	23 - 135	81	44 - 102	32	10 - 84	87	35 - 107	43	10 - 67	64	33 - 126
1034107	16 *	23 - 135	78	44 - 102	13	10 - 84	80	35 - 107	27	10 - 67	51	33 - 126
1034108	3 *	23 - 135	77	44 - 102	3 *	10 - 84	84	35 - 107	9 *	10 - 67	39	33 - 126

Surrogate recoveries that are noncompliant are confirmed unless attributed to a dilution or otherwise noted.

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

UNSPK: 1034104 MS: 1034105 MSD: 1034106 **Analyte**	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)								
	Spike Added ug/l MS/MSD	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
N-Nitrosodimethylamine	49.8 / 50	N.D.	32.7	30.98	66	62	25-89	5	30
Pyridine	49.8 / 50	N.D.	25.31	25.38	51	51	13-83	0	30
2-Picoline	49.8 / 50	N.D.	39.48	37.36	79	75	43-81	6	30
Phenol	49.8 / 50	N.D.	19.16	25.	38	50	23-72	26	30
Aniline	49.8 / 50	N.D.	32.78	34.71	66	69	27-76	6	30
bis(2-Chloroethyl)ether	49.8 / 50	N.D.	44.35	43.05	89	86	58-100	3	30
2-Chlorophenol	49.8 / 50	N.D.	22.24	30.17	45 *	60	60-102	30	30
o-Toluidine	49.8 / 50	N.D.	37.87	41.76	76	84 *	29-82	10	30
Benzyl alcohol	49.8 / 50	N.D.	46.54	45.56	93	91	62-109	2	30
2-Methylphenol	49.8 / 50	N.D.	37.31	39.28	75	79	59-109	5	30
bis(2-Chloroisopropyl)ether	49.8 / 50	N.D.	45.33	42.56	91	85	47-108	6	30
2,2'-oxybis(1-Chloropropane)	49.8 / 50	N.D.	45.33	42.56	91	85	47-106	6	30
2,4-Dichlorophenol	49.8 / 50	N.D.	17.76	26.74	36 *	53 *	65-117	40 *	30
Acetophenone	49.8 / 50	N.D.	47.86	45.98	96	92	62-108	4	30
4-Methylphenol	49.8 / 50	N.D.	34.8	38.06	70	76	56-108	9	30
N-Nitroso-di-n-propylamine	49.8 / 50	N.D.	48.92	46.74	98	93	58-110	5	30
Nitrobenzene	49.8 / 50	N.D.	47.14	45.7	95	91	59-117	3	30
Isophorone	49.8 / 50	N.D.	50.38	47.75	101	96	64-111	5	30
2-Nitrophenol	49.8 / 50	N.D.	45.49	44.84	91	90	63-121	1	30
2,4-Dimethylphenol	49.8 / 50	N.D.	37.12	36.73	75	73	48-91	1	30
bis(2-Chloroethoxy)methane	49.8 / 50	N.D.	49.53	47.47	99	95	62-109	4	30
4-Chloroaniline	49.8 / 50	N.D.	40.04	41.82	80	84	30-101	4	30
4-Chloro-3-methylphenol	49.8 / 50	N.D.	40.87	44.06	82	88	60-118	8	30
2-Methylnaphthalene	49.8 / 50	N.D.	43.26	42.08	87	84	52-105	3	30
Hexachlorocyclopentadiene	99.6 / 100	N.D.	43.19	43.64	43	44	10-96	1	30
1,2,4,5-Tetrachlorobenzene	49.8 / 50	N.D.	38.28	37.93	77	76	41-104	1	30
2,4,6-Trichlorophenol	49.8 / 50	N.D.	5.12 J	11.05	10 *	22 *	69-122	73 *	30
2,4,5-Trichlorophenol	49.8 / 50	N.D.	20.81	29.04	42 *	58 *	73-124	33 *	30
2-Chloronaphthalene	49.8 / 50	N.D.	43.71	41.87	88	84	50-109	4	30
2-Nitroaniline	49.8 / 50	N.D.	51.47	49.34	103	99	66-126	4	30
Dimethylphthalate	49.8 / 50	N.D.	48.17	46.57	97	93	27-116	3	30
1,3-Dinitrobenzene	49.8 / 50	N.D.	48.66	47.69	98	95	65-112	2	30
2,6-Dinitrotoluene	49.8 / 50	N.D.	50.71	48.02	102	96	71-113	5	30
Acenaphthylene	49.8 / 50	N.D.	49.47	47.46	99	95	65-115	4	30
3-Nitroaniline	49.8 / 50	N.D.	44.93	45.21	90	90	47-111	1	30
Acenaphthene	49.8 / 50	N.D.	46.39	44.48	93	89	60-110	4	30
2,4-Dinitrophenol	99.6 / 100	N.D.	90.3	83.36	91	83	44-134	8	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

UNSPK: 1034104 MS: 1034105 MSD: 1034106 **Analyte**	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)								
	Spike Added ug/l MS/MSD	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
4-Nitrophenol	49.8 / 50	N.D.	28.53 J	28.02 J	57	56	28-82	2	30
2,4-Dinitrotoluene	49.8 / 50	N.D.	48.94	48.69	98	97	69-117	1	30
Dibenzofuran	49.8 / 50	N.D.	46.68	45.13	94	90	61-109	3	30
1-Naphthylamine	99.6 / 100	N.D.	58.54	72.97	59	73	10-74	22	30
2,3,4,6-Tetrachlorophenol	49.8 / 50	N.D.	4.73 J	9.30 J	10 *	19 *	62-122	65 *	30
2-Naphthylamine	99.6 / 100	N.D.	58.51	64.87	59	65 *	10-63	10	30
Diethylphthalate	49.8 / 50	N.D.	47.12	45.99	95	92	51-108	2	30
Fluorene	49.8 / 50	N.D.	46.09	44.44	93	89	62-110	4	30
4-Chlorophenyl-phenylether	49.8 / 50	N.D.	44.01	44.03	88	88	55-110	0	30
4-Nitroaniline	49.8 / 50	N.D.	44.59	44.97	90	90	47-102	1	30
4,6-Dinitro-2-methylphenol	49.8 / 50	N.D.	48.	44.72	96	89	63-129	7	30
N-Nitrosodiphenylamine	49.8 / 50	N.D.	51.36	48.17	103	96	68-122	6	30
NDPA as diphenylamine	49.8 / 50	N.D.	51.15	47.52	103	95	70-130	7	30
4-Bromophenyl-phenylether	49.8 / 50	N.D.	45.41	43.48	91	87	62-113	4	30
Hexachlorobenzene	49.8 / 50	N.D.	45.36	44.02	91	88	65-121	3	30
Pentachlorophenol	49.8 / 50	N.D.	11.39	12.3	23 *	25 *	64-130	8	30
Phenanthrene	49.8 / 50	N.D.	47.77	45.54	96	91	65-113	5	30
Anthracene	49.8 / 50	N.D.	48.09	45.87	97	92	67-112	5	30
Di-n-butylphthalate	49.8 / 50	N.D.	52.41	49.41	105	99	66-112	6	30
Fluoranthene	49.8 / 50	N.D.	51.01	47.86	102	96	68-118	6	30
Pyrene	49.8 / 50	N.D.	47.35	45.15	95	90	68-110	5	30
3,3'-Dimethylbenzidine	99.6 / 100	N.D.	31.15 J	52.29 J	31	52	10-65	51 *	30
Butylbenzylphthalate	49.8 / 50	N.D.	50.08	47.11	101	94	57-119	6	30
3,3'-Dichlorobenzidine	49.8 / 50	N.D.	41.06	43.36	82	87	42-107	5	30
Benzo(a)anthracene	49.8 / 50	N.D.	47.84	46.24	96	92	70-118	3	30
Chrysene	49.8 / 50	N.D.	47.59	45.83	96	92	69-116	4	30
bis(2-Ethylhexyl)phthalate	49.8 / 50	N.D.	49.3	47.77	99	96	68-120	3	30
Di-n-octylphthalate	49.8 / 50	N.D.	49.31	48.27	99	97	67-120	2	30
Benzo(b)fluoranthene	49.8 / 50	N.D.	47.47	46.36	95	93	71-115	2	30
7,12-Dimethylbenz[a]anthracene	49.8 / 50	N.D.	47.65	46.84	96	94	68-116	2	30
Benzo(k)fluoranthene	49.8 / 50	N.D.	47.79	46.68	96	93	71-116	2	30
Benzo(a)pyrene	49.8 / 50	N.D.	45.22	45.79	91	92	71-117	1	30
Indeno(1,2,3-cd)pyrene	49.8 / 50	N.D.	44.21	43.52	89	87	63-114	2	30
Dibenz(a,h)anthracene	49.8 / 50	N.D.	46.87	45.51	94	91	67-116	3	30
Benzo(g,h,i)perylene	49.8 / 50	N.D.	42.73	42.03	86	84	62-113	2	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: RAF35
Matrix: LIQUID

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 106WNLCS LCSD: 106WNLCSD	Batch: **19106WAN026** (Sample number(s): 1034102, 1034109-1034113)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
N-Nitrosodimethylamine	50	32.23	32.1	64	64	25-89	0	30
Pyridine	50	26.1	25.71	52	51	13-83	1	30
2-Picoline	50	37.35	37.63	75	75	43-81	1	30
Phenol	50	26.73	25.53	53	51	23-72	5	30
Aniline	50	31.16	30.97	62	62	27-76	1	30
bis(2-Chloroethyl)ether	50	42.59	43.38	85	87	58-100	2	30
2-Chlorophenol	50	41.12	41.8	82	84	60-102	2	30
o-Toluidine	50	30.4	30.02	61	60	29-82	1	30
Benzyl alcohol	50	45.28	46.24	91	92	62-109	2	30
2-Methylphenol	50	41.66	42.11	83	84	59-109	1	30
bis(2-Chloroisopropyl)ether	50	41.77	42.85	84	86	47-108	3	30
2,2'-oxybis(1-Chloropropane)	50	41.77	42.85	84	86	47-106	3	30
2,4-Dichlorophenol	50	43.43	42.69	87	85	65-117	2	30
Acetophenone	50	44.79	46.01	90	92	62-108	3	30
4-Methylphenol	50	40.37	39.11	81	78	56-108	3	30
N-Nitroso-di-n-propylamine	50	46.05	46.07	92	92	58-110	0	30
Nitrobenzene	50	44.26	45.14	89	90	59-117	2	30
Isophorone	50	47.02	46.33	94	93	64-111	1	30
2-Nitrophenol	50	43.96	44.2	88	88	63-121	1	30
2,4-Dimethylphenol	50	36.87	37.32	74	75	48-91	1	30
bis(2-Chloroethoxy)methane	50	46	46.18	92	92	62-109	0	30
4-Chloroaniline	50	34.73	33.88	69	68	30-101	2	30
4-Chloro-3-methylphenol	50	45.18	44.26	90	89	60-118	2	30
2-Methylnaphthalene	50	35.76	35.78	72	72	52-105	0	30
Hexachlorocyclopentadiene	100	22.62	22.54	23	23	10-96	0	30
1,2,4,5-Tetrachlorobenzene	50	31.48	30.6	63	61	41-104	3	30
2,4,6-Trichlorophenol	50	47.08	45.58	94	91	69-122	3	30
2,4,5-Trichlorophenol	50	45.21	44.65	90	89	73-124	1	30
2-Chloronaphthalene	50	39.86	37.55	80	75	50-109	6	30
2-Nitroaniline	50	50.15	49.72	100	99	66-126	1	30
Dimethylphthalate	50	37.91	37.24	76	74	27-116	2	30
1,3-Dinitrobenzene	50	48.52	46.87	97	94	65-112	3	30
2,6-Dinitrotoluene	50	49.58	49.05	99	98	71-113	1	30
Acenaphthylene	50	46.51	44.36	93	89	65-115	5	30
3-Nitroaniline	50	45.05	39.92	90	80	47-111	12	30
Acenaphthene	50	43.46	41.92	87	84	60-110	4	30
2,4-Dinitrophenol	100	83.81	76.91	84	77	44-134	9	30
4-Nitrophenol	50	29.86 J	26.89 J	60	54	28-82	10	30
2,4-Dinitrotoluene	50	50.1	47.83	100	96	69-117	5	30
Dibenzofuran	50	44.73	43.1	89	86	61-109	4	30
1-Naphthylamine	100	54.64	50	55	50	10-74	9	30
2,3,4,6-Tetrachlorophenol	50	48.99	46.17	98	92	62-122	6	30

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 106WNLCS LCSD: 106WNLCSD	Batch: **19106WAN026** (Sample number(s): 1034102, 1034109-1034113)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
2-Naphthylamine	100	50.97	47.51	51	48	10-63	7	30
Diethylphthalate	50	42.35	40.75	85	81	51-108	4	30
Fluorene	50	44.98	43.11	90	86	62-110	4	30
4-Chlorophenyl-phenylether	50	43.1	41.09	86	82	55-110	5	30
4-Nitroaniline	50	39.15	39.75	78	80	47-102	2	30
4,6-Dinitro-2-methylphenol	50	41.78	44.25	84	88	63-129	6	30
N-Nitrosodiphenylamine	50	47.15	49.63	94	99	68-122	5	30
NDPA as diphenylamine	50	46.88	49.12	94	98	70-130	5	30
4-Bromophenyl-phenylether	50	43.55	45.11	87	90	62-113	4	30
Hexachlorobenzene	50	43.64	44.8	87	90	65-121	3	30
Pentachlorophenol	50	44.81	43.89	90	88	64-130	2	30
Phenanthrene	50	46.77	47.89	94	96	65-113	2	30
Anthracene	50	45.9	47.81	92	96	67-112	4	30
Di-n-butylphthalate	50	47.08	49.2	94	98	66-112	4	30
Fluoranthene	50	48.06	49.69	96	99	68-118	3	30
Pyrene	50	46.81	46.01	94	92	68-110	2	30
3,3'-Dimethylbenzidine	100	17.91 J	17.03 J	18	17	10-65	5	30
Butylbenzylphthalate	50	48.46	47.44	97	95	57-119	2	30
3,3'-Dichlorobenzidine	50	33.9	33.18	68	66	42-107	2	30
Benzo(a)anthracene	50	47.8	46.85	96	94	70-118	2	30
Chrysene	50	47.29	46.09	95	92	69-116	3	30
bis(2-Ethylhexyl)phthalate	50	50.46	50.36	101	101	68-120	0	30
Di-n-octylphthalate	50	52.25	52.3	104	105	67-120	0	30
Benzo(b)fluoranthene	50	48.82	47.75	98	96	71-115	2	30
7,12-Dimethylbenz[a]anthracene	50	52.08	50.61	104	101	68-116	3	30
Benzo(k)fluoranthene	50	49.6	48.58	99	97	71-116	2	30
Benzo(a)pyrene	50	48.76	48.75	98	98	71-117	0	30
Indeno(1,2,3-cd)pyrene	50	47.3	46.34	95	93	63-114	2	30
Dibenz(a,h)anthracene	50	48.57	48.22	97	96	67-116	1	30
Benzo(g,h,i)perylene	50	45.95	45.43	92	91	62-113	1	30

LCS: 106WNLCS2 LCSD: 106WNLCSD2	Batch: **19106WAN026** (Sample number(s): 1034102, 1034109-1034113)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
N-Nitrosomethylethylamine	50	42.63	43.87	85	88	52-100	3	30
Methyl methanesulfonate	50	38.01	38.14	76	76	47-93	0	30
N-Nitrosodiethylamine	50	44.01	44.21	88	88	63-106	0	30
Ethyl methanesulfonate	50	43.01	43.22	86	86	72-96	0	30
N-Nitrosopyrrolidine	50	45.03	45.8	90	92	67-101	2	30
N-Nitrosomorpholine	50	41.46	41.94	83	84	49-96	1	30
N-Nitrosopiperidine	50	44.48	45.43	89	91	67-102	2	30

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 106WNLCS2 LCSD: 106WNLCSD2	Batch: **19106WAN026** (Sample number(s): 1034102, 1034109-1034113)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
O,O,O-Triethylphosphorothioate	50	41.88	44.14	84	88	62-114	5	30
a,a-Dimethylphenethylamine	50	141.5	140.47	283 *	281 *	70-130	1	30
2,6-Dichlorophenol	50	40.75	42.9	82	86	67-107	5	30
Hexachloropropene	50	15.01	13.29	30	27	10-116	12	30
N-Nitrosodi-n-butylamine	50	43.06	45.03	86	90	49-101	4	30
1,4-Phenylenediamine	1000	151.56 J	150.01 J	15	15	10-30	1	30
Safrole	50	38.02	39.44	76	79	57-105	4	30
Isosafrole	50	42.01	42.7	84	85	60-117	2	30
1,4-Naphthoquinone	100	N.D	N.D	0 *	0 *	70-130	0	30
Pentachlorobenzene	50	32.43	33.73	65	67	30-120	4	30
Thionazin	50	49.34	52.37	99	105	53-114	6	30
5-Nitro-o-toluidine	50	34.36	34.72	69	69	44-103	1	30
1,3,5-Trinitrobenzene	50	14.95 J	17.39 J	30	35	10-106	15	30
Phorate	50	50.25	51.55	101	103	52-123	3	30
Phenacetin	50	50.34	48.55	101	97	74-108	4	30
Diallate trans/cis	50	48.21	49.55	96	99	55-113	3	30
Dimethoate	50	16.61	17.99	33	36	10-98	8	30
4-Aminobiphenyl	50	24.9	23.94	50	48	11-128	4	30
Pentachloronitrobenzene	50	45.17	44.19	90	88	60-112	2	30
Pronamide	50	52.33	50.48	105	101	73-117	4	30
Disulfoton	100	113.31	110.42	113	110	63-125	3	30
Methyl parathion	50	29.96	29.88	60	60	58-108	0	30
Parathion	50	54.92	53.78	110	108	75-120	2	30
4-Nitroquinoline-1-oxide	500	437.2	431.62	87	86	51-114	1	30
Methapyrilene	400	464.94	442.41	116	111	18-159	5	30
Isodrin	50	48.09	47.56	96	95	49-124	1	30
Aramite	50	21.37	22.76	43	46	10-122	6	30
p-Dimethylaminoazobenzene	50	52.88	52.17	106	104	72-127	1	30
Chlorobenzilate	50	42.03	43.22	84	86	13-126	3	30
Famphur	100	26.61 J	24.68 J	27 *	25 *	70-130	8	20
Kepone	100	37.65 J	38.78 J	38	39	10-92	3	30
2-Acetylaminofluorene	50	50.62	49.57	101	99	65-134	2	30
3-Methylcholanthrene	50	51.13	50.84	102	102	84-130	1	30

LCS: 107WJLCS	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
N-Nitrosodimethylamine	50	30.7	NA	61	NA	25-89	NA	NA
Pyridine	50	23.06	NA	46	NA	13-83	NA	NA
2-Picoline	50	35.11	NA	70	NA	43-81	NA	NA
Phenol	50	31.41	NA	63	NA	23-72	NA	NA

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 107WJLCS	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Aniline	50	33.76	NA	68	NA	27-76	NA	NA
bis(2-Chloroethyl)ether	50	40.31	NA	81	NA	58-100	NA	NA
2-Chlorophenol	50	40.23	NA	80	NA	60-102	NA	NA
o-Toluidine	50	40.33	NA	81	NA	29-82	NA	NA
Benzyl alcohol	50	42.27	NA	85	NA	62-109	NA	NA
2-Methylphenol	50	41.17	NA	82	NA	59-109	NA	NA
bis(2-Chloroisopropyl)ether	50	40.76	NA	82	NA	47-108	NA	NA
2,2'-oxybis(1-Chloropropane)	50	40.76	NA	82	NA	47-106	NA	NA
2,4-Dichlorophenol	50	41.08	NA	82	NA	65-117	NA	NA
Acetophenone	50	43.9	NA	88	NA	62-108	NA	NA
4-Methylphenol	50	42	NA	84	NA	56-108	NA	NA
N-Nitroso-di-n-propylamine	50	45.23	NA	90	NA	58-110	NA	NA
Nitrobenzene	50	43.43	NA	87	NA	59-117	NA	NA
Isophorone	50	45.52	NA	91	NA	64-111	NA	NA
2-Nitrophenol	50	39.93	NA	80	NA	63-121	NA	NA
2,4-Dimethylphenol	50	35.82	NA	72	NA	48-91	NA	NA
bis(2-Chloroethoxy)methane	50	45.17	NA	90	NA	62-109	NA	NA
4-Chloroaniline	50	39.36	NA	79	NA	30-101	NA	NA
4-Chloro-3-methylphenol	50	44.54	NA	89	NA	60-118	NA	NA
2-Methylnaphthalene	50	33.88	NA	68	NA	52-105	NA	NA
Hexachlorocyclopentadiene	100	12.39	NA	12	NA	10-96	NA	NA
1,2,4,5-Tetrachlorobenzene	50	29.11	NA	58	NA	41-104	NA	NA
2,4,6-Trichlorophenol	50	42.94	NA	86	NA	69-122	NA	NA
2,4,5-Trichlorophenol	50	43.42	NA	87	NA	73-124	NA	NA
2-Chloronaphthalene	50	35.67	NA	71	NA	50-109	NA	NA
2-Nitroaniline	50	46.96	NA	94	NA	66-126	NA	NA
Dimethylphthalate	50	45.08	NA	90	NA	27-116	NA	NA
1,3-Dinitrobenzene	50	46.65	NA	93	NA	65-112	NA	NA
2,6-Dinitrotoluene	50	47.71	NA	95	NA	71-113	NA	NA
Acenaphthylene	50	42.79	NA	86	NA	65-115	NA	NA
3-Nitroaniline	50	45.32	NA	91	NA	47-111	NA	NA
Acenaphthene	50	39.61	NA	79	NA	60-110	NA	NA
2,4-Dinitrophenol	100	85.02	NA	85	NA	44-134	NA	NA
4-Nitrophenol	50	30.31	NA	61	NA	28-82	NA	NA
2,4-Dinitrotoluene	50	46.5	NA	93	NA	69-117	NA	NA
Dibenzofuran	50	40.37	NA	81	NA	61-109	NA	NA
1-Naphthylamine	100	73.96	NA	74	NA	10-74	NA	NA
2,3,4,6-Tetrachlorophenol	50	45.07	NA	90	NA	62-122	NA	NA
2-Naphthylamine	100	62.64	NA	63	NA	10-63	NA	NA
Diethylphthalate	50	47.23	NA	94	NA	51-108	NA	NA
Fluorene	50	40.18	NA	80	NA	62-110	NA	NA
4-Chlorophenyl-phenylether	50	36.64	NA	73	NA	55-110	NA	NA

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 107WJLCS	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
4-Nitroaniline	50	42.24	NA	84	NA	47-102	NA	NA
4,6-Dinitro-2-methylphenol	50	45.04	NA	90	NA	63-129	NA	NA
N-Nitrosodiphenylamine	50	47.03	NA	94	NA	68-122	NA	NA
NDPA as diphenylamine	50	47.03	NA	94	NA	70-130	NA	NA
4-Bromophenyl-phenylether	50	38.35	NA	77	NA	62-113	NA	NA
Hexachlorobenzene	50	37.63	NA	75	NA	65-121	NA	NA
Pentachlorophenol	50	45.52	NA	91	NA	64-130	NA	NA
Phenanthrene	50	43.04	NA	86	NA	65-113	NA	NA
Anthracene	50	42.64	NA	85	NA	67-112	NA	NA
Di-n-butylphthalate	50	49.39	NA	99	NA	66-112	NA	NA
Fluoranthene	50	47.8	NA	96	NA	68-118	NA	NA
Pyrene	50	44.11	NA	88	NA	68-110	NA	NA
3,3'-Dimethylbenzidine	100	46.13 J	NA	46	NA	10-65	NA	NA
Butylbenzylphthalate	50	45.61	NA	91	NA	57-119	NA	NA
3,3'-Dichlorobenzidine	50	39.59	NA	79	NA	42-107	NA	NA
Benzo(a)anthracene	50	44.44	NA	89	NA	70-118	NA	NA
Chrysene	50	44.38	NA	89	NA	69-116	NA	NA
bis(2-Ethylhexyl)phthalate	50	45.71	NA	91	NA	68-120	NA	NA
Di-n-octylphthalate	50	46.63	NA	93	NA	67-120	NA	NA
Benzo(b)fluoranthene	50	44.35	NA	89	NA	71-115	NA	NA
7,12-Dimethylbenz[a]anthracene	50	44.63	NA	89	NA	68-116	NA	NA
Benzo(k)fluoranthene	50	46.75	NA	93	NA	71-116	NA	NA
Benzo(a)pyrene	50	43.89	NA	88	NA	71-117	NA	NA
Indeno(1,2,3-cd)pyrene	50	43.45	NA	87	NA	63-114	NA	NA
Dibenz(a,h)anthracene	50	45.28	NA	91	NA	67-116	NA	NA
Benzo(g,h,i)perylene	50	42.67	NA	85	NA	62-113	NA	NA

LCS: 107WJLCS2 LCSD: 107WJLCSD2	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
N-Nitrosomethylethylamine	50	45.07	44.22	90	88	52-100	2	30
Methyl methanesulfonate	50	38.24	38.34	76	77	47-93	0	30
N-Nitrosodiethylamine	50	46.74	44.91	93	90	63-106	4	30
Ethyl methanesulfonate	50	44.73	42.97	89	86	72-96	4	30
N-Nitrosopyrrolidine	50	47.38	47.31	95	95	67-101	0	30
N-Nitrosomorpholine	50	43.77	42.83	88	86	49-96	2	30
N-Nitrosopiperidine	50	45.53	45.64	91	91	67-102	0	30
O,O,O-Triethylphosphorothioate	50	41.72	42.9	83	86	62-114	3	30
a,a-Dimethylphenethylamine	50	137.13	144.98	274 *	290 *	70-130	6	30
2,6-Dichlorophenol	50	40.6	40.66	81	81	67-107	0	30
Hexachloropropene	50	9.95 J	10.92	20	22	10-116	9	30

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 107WJLCS2 LCSD: 107WJLCSD2 **Analyte**	Batch: **19107WAJ026** (Sample number(s): 1034101, 1034103-1034108)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
N-Nitrosodi-n-butylamine	50	44.62	45.15	89	90	49-101	1	30
1,4-Phenylenediamine	1000	36.54 J	44.72 J	4 *	4 *	10-30	20	30
Safrole	50	39.46	40.02	79	80	57-105	1	30
Isosafrole	50	42.53	42.59	85	85	60-117	0	30
1,4-Naphthoquinone	100	10.72 J	11.18 J	11 *	11 *	70-130	4	30
Pentachlorobenzene	50	31.04	34.03	62	68	30-120	9	30
Thionazin	50	51.36	52.27	103	105	53-114	2	30
5-Nitro-o-toluidine	50	48.56	46.31	97	93	44-103	5	30
1,3,5-Trinitrobenzene	50	36.96 J	35.21 J	74	70	10-106	5	30
Phorate	50	51.5	51.54	103	103	52-123	0	30
Phenacetin	50	51.15	51.07	102	102	74-108	0	30
Diallate trans/cis	50	48.65	50.42	97	101	55-113	4	30
Dimethoate	50	22.61	22.41	45	45	10-98	1	30
4-Aminobiphenyl	50	42.93	41.56	86	83	11-128	3	30
Pentachloronitrobenzene	50	41.99	43	84	86	60-112	2	30
Pronamide	50	53.76	53.36	108	107	73-117	1	30
Disulfoton	100	113.63	115.05	114	115	63-125	1	30
Methyl parathion	50	28.12	26.76	56 *	54 *	58-108	5	30
Parathion	50	54.43	54.39	109	109	75-120	0	30
4-Nitroquinoline-1-oxide	500	458.19	464.48	92	93	51-114	1	30
Methapyrilene	400	462.36	464.7	116	116	18-159	1	30
Isodrin	50	38.86	42.07	78	84	49-124	8	30
Aramite	50	15.77	16.95	32	34	10-122	7	30
p-Dimethylaminoazobenzene	50	50.83	53.64	102	107	72-127	5	30
Chlorobenzilate	50	44.33	46.83	89	94	13-126	5	30
Famphur	100	19.56 J	16.7	20 *	17 *	70-130	16	20
Kepone	100	36.59 J	38.74 J	37	39	10-92	6	30
2-Acetylaminofluorene	50	48.19	50.37	96	101	65-134	4	30
3-Methylcholanthrene	50	49.96	50.79	100	102	84-130	2	30

Fraction: Semivolatiles by GC/MS

14241: SVOAs 8270D/E MINI Analyte Name	Default MDL	Default LOQ	Units
N-Nitrosodimethylamine	2	10	ug/l
Pyridine	2	10	ug/l
2-Picoline	2	10	ug/l
N-Nitrosomethylethylamine	2	10	ug/l
Methyl methanesulfonate	1	10	ug/l
N-Nitrosodiethylamine	0.5	10	ug/l
Ethyl methanesulfonate	0.5	10	ug/l
Phenol	0.8	10	ug/l
Aniline	3	10	ug/l
bis(2-Chloroethyl)ether	0.5	2	ug/l
2-Chlorophenol	1	10	ug/l
o-Toluidine	4	10	ug/l
Benzyl alcohol	10	30	ug/l
2-Methylphenol	1	10	ug/l
bis(2-Chloroisopropyl)ether	0.5	10	ug/l
2,2'-oxybis(1-Chloropropane)	0.5	2	ug/l
2,4-Dichlorophenol	2	10	ug/l
N-Nitrosopyrrolidine	0.5	10	ug/l
Acetophenone	4	10	ug/l
4-Methylphenol	2	20	ug/l
N-Nitroso-di-n-propylamine	0.7	10	ug/l
N-Nitrosomorpholine	2	10	ug/l
Nitrobenzene	0.5	10	ug/l
N-Nitrosopiperidine	0.5	10	ug/l
Isophorone	0.5	10	ug/l
2-Nitrophenol	3	10	ug/l
2,4-Dimethylphenol	3	10	ug/l
O,O,O-Triethylphosphorothioate	2	10	ug/l
bis(2-Chloroethoxy)methane	0.5	2	ug/l
a,a-Dimethylphenethylamine	5	50	ug/l
4-Chloroaniline	4	10	ug/l
2,6-Dichlorophenol	0.5	10	ug/l
Hexachloropropene	2	10	ug/l
N-Nitrosodi-n-butylamine	12	25	ug/l
1,4-Phenylenediamine	75	300	ug/l
4-Chloro-3-methylphenol	1	10	ug/l
Safrole	2	10	ug/l
2-Methylnaphthalene	0.3	10	ug/l
Hexachlorocyclopentadiene	5	11	ug/l
1,2,4,5-Tetrachlorobenzene	2	10	ug/l
2,4,6-Trichlorophenol	0.6	10	ug/l
2,4,5-Trichlorophenol	0.8	10	ug/l
Isosafrole	4	10	ug/l
2-Chloronaphthalene	0.5	10	ug/l
2-Nitroaniline	2	10	ug/l
1,4-Naphthoquinone	25	60	ug/l
Dimethylphthalate	2	10	ug/l

Fraction: Semivolatiles by GC/MS

14241: SVOAs 8270D/E MINI Analyte Name	Default MDL	Default LOQ	Units
1,3-Dinitrobenzene	2	10	ug/l
2,6-Dinitrotoluene	0.5	10	ug/l
Acenaphthylene	0.5	10	ug/l
3-Nitroaniline	3	10	ug/l
Acenaphthene	0.4	10	ug/l
2,4-Dinitrophenol	14	30	ug/l
4-Nitrophenol	10	30	ug/l
Pentachlorobenzene	0.5	10	ug/l
2,4-Dinitrotoluene	1	10	ug/l
Dibenzofuran	0.6	10	ug/l
1-Naphthylamine	8	21	ug/l
2,3,4,6-Tetrachlorophenol	4	10	ug/l
2-Naphthylamine	7	21	ug/l
Diethylphthalate	2	10	ug/l
Thionazin	2	10	ug/l
Fluorene	0.4	10	ug/l
4-Chlorophenyl-phenylether	0.5	10	ug/l
5-Nitro-o-toluidine	4	10	ug/l
4-Nitroaniline	0.9	10	ug/l
4,6-Dinitro-2-methylphenol	8	21	ug/l
N-Nitrosodiphenylamine	0.7	10	ug/l
NDPA as diphenylamine	0.7	10	ug/l
1,3,5-Trinitrobenzene	97	200	ug/l
Phorate	0.5	10	ug/l
Phenacetin	0.5	10	ug/l
4-Bromophenyl-phenylether	0.6	10	ug/l
Diallate trans/cis	1	10	ug/l
Hexachlorobenzene	0.9	10	ug/l
Dimethoate	3	10	ug/l
Pentachlorophenol	3	10	ug/l
4-Aminobiphenyl	5	11	ug/l
Pentachloronitrobenzene	2	10	ug/l
Pronamide	0.5	10	ug/l
Phenanthrene	0.5	10	ug/l
Anthracene	0.5	10	ug/l
Disulfoton	25	50	ug/l
Methyl parathion	1	10	ug/l
Di-n-butylphthalate	2	10	ug/l
Parathion	4	10	ug/l
4-Nitroquinoline-1-oxide	20	60	ug/l
Methapyrilene	15	50	ug/l
Isodrin	0.5	10	ug/l
Fluoranthene	0.4	10	ug/l
Pyrene	0.4	10	ug/l
Aramite	5	15	ug/l
p-Dimethylaminoazobenzene	5	10	ug/l
Chlorobenzilate	3	10	ug/l

Fraction: Semivolatiles by GC/MS

14241: SVOAs 8270D/E MINI Analyte Name	Default MDL	Default LOQ	Units
3,3'-Dimethylbenzidine	25	75	ug/l
Butylbenzylphthalate	2	10	ug/l
Famphur	25	50	ug/l
Kepone	25	50	ug/l
2-Acetylaminofluorene	10	21	ug/l
3,3'-Dichlorobenzidine	3	10	ug/l
Benzo(a)anthracene	0.5	10	ug/l
Chrysene	0.3	10	ug/l
bis(2-Ethylhexyl)phthalate	5	11	ug/l
Di-n-octylphthalate	5	11	ug/l
Benzo(b)fluoranthene	1	10	ug/l
7,12-Dimethylbenz[a]anthracene	5	11	ug/l
Benzo(k)fluoranthene	2	10	ug/l
Benzo(a)pyrene	2	10	ug/l
3-Methylcholanthrene	4	10	ug/l
Indeno(1,2,3-cd)pyrene	0.2	10	ug/l
Dibenz(a,h)anthracene	0.4	10	ug/l
Benzo(g,h,i)perylene	0.4	10	ug/l

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ld1000.d DFTPP Injection Date: 04/16/19

Instrument ID: HP20296 DFTPP Injection Time: 15:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	49.1
68	Less than 2.0% of mass 69	1.02 (1.78)1
69	Mass 69 relative abundance	57.0
70	Less than 2.0% of mass 69	0.18 (0.32)1
127	10.0 - 80.00% of mass 198	52.8
197	Less than 2.0% of mass 198	0.39
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.96
275	10.0 - 60.0% of mass 198	21.6
365	Greater than 1.00% of mass 198	2.58
441	Present, and less than mass 443	12.0
442	Greater than 50.00% of mass 198	77.8
443	15.00 - 24.00% of mass 442	15.5 (19.9)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	rvSTD0929 - SSTD7.5	ld1001.d	04/16/19	15:41
02	rvSTD0929 - SSTD.125	ld1002.d	04/16/19	16:45
03	rvSTD0929 - SSTD30	ld1003.d	04/16/19	17:14
04	rvSTD0929 - SSTD20	ld1004.d	04/16/19	17:43
05	rvSTD0929 - SSTD12.5	ld1005.d	04/16/19	18:12
06	rvSTD0929 - SSTD3.75	ld1006.d	04/16/19	18:41
07	rvSTD0929 - SSTD1.25	ld1007.d	04/16/19	19:09
08	rvSTD0929 - SSTD.25	ld1008.d	04/16/19	19:38
09	rvSTD0929 - SSTD0.125	ld1009.d	04/16/19	20:07
10	rvSTD0929 - SSTD0.025	ld1010.d	04/16/19	20:36
11	rvICV0929 - SSTD12.5	ld1011.d	04/16/19	21:05
12	BASICV0929 - SSTD12.5	ld1012.d	04/16/19	21:34

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ld1020a.d DFTPP Injection Date: 04/17/19

Instrument ID: HP20296 DFTPP Injection Time: 23:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	50.5
68	Less than 2.0% of mass 69	0.86 (1.48)1
69	Mass 69 relative abundance	58.3
70	Less than 2.0% of mass 69	0.25 (0.44)1
127	10.0 - 80.00% of mass 198	54.0
197	Less than 2.0% of mass 198	0.42
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.47
275	10.0 - 60.0% of mass 198	21.5
365	Greater than 1.00% of mass 198	2.9
441	Present, and less than mass 443	13.2
442	Greater than 50.00% of mass 198	82.3
443	15.00 - 24.00% of mass 442	15.3 (18.6)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	rvSTD0929 - SSTD7.5	ld1021.d	04/17/19	23:24
02	rvPDA0529 - SSTD12.5	ld1022.d	04/18/19	00:01
03	rvPDA0529 - SSTD30	ld1023.d	04/18/19	00:30
04	rvPDA0529 - SSTD20	ld1024.d	04/18/19	00:59
05	rvPDA0529 - SSTD7.5	ld1025.d	04/18/19	01:27
06	rvPDA0529 - SSTD3.75	ld1026.d	04/18/19	01:56
07	rvPDA0529 - SSTD1.25	ld1027.d	04/18/19	02:25
08	rvABC1009 - SSTD12.5	ld1028.d	04/18/19	02:55
09	rvABC1009 - SSTD30	ld1029.d	04/18/19	03:24
10	rvABC1009 - SSTD20	ld1030.d	04/18/19	03:52
11	rvABC1009 - SSTD7.5	ld1031.d	04/18/19	04:21
12	rvABC1009 - SSTD3.75	ld1032.d	04/18/19	04:49
13	rvABC1009 - SSTD1.25	ld1033.d	04/18/19	05:18

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ld1100.d DFTPP Injection Date: 04/18/19

Instrument ID: HP20296 DFTPP Injection Time: 18:04

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	53.6
68	Less than 2.0% of mass 69	0.88 (1.43)1
69	Mass 69 relative abundance	61.3
70	Less than 2.0% of mass 69	0.29 (0.47)1
127	10.0 - 80.00% of mass 198	53.5
197	Less than 2.0% of mass 198	0.72
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.91
275	10.0 - 60.0% of mass 198	21.2
365	Greater than 1.00% of mass 198	2.33
441	Present, and less than mass 443	12.0
442	Greater than 50.00% of mass 198	74.2
443	15.00 - 24.00% of mass 442	14.4 (19.4)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	rvSTD0929 - SSTD7.5	ld1101.d	04/18/19	18:20
02	rvPDA0529 - SSTD125	ld1102.d	04/18/19	18:51
03	rvABC1009 - SSTD125	ld1103.d	04/18/19	19:20
04	rvAAP1089 - SSTD12.5	ld1104.d	04/18/19	19:49
05	SBLKWJ107	ld1105.d	04/18/19	22:35
06	SBLKWZ107	ld1105a.d	04/18/19	22:35
07	107WJLCS	ld1106.d	04/18/19	23:04
08	107WZLCS	ld1106a.d	04/18/19	23:04
09	107WJLCS2	ld1107.d	04/18/19	23:33
10	107WJLCSD2	ld1108.d	04/19/19	00:02
11	SBLKWN106	ld1109.d	04/19/19	00:31
12	106WNLCS	ld1110.d	04/19/19	01:00
13	106WNLCSD	ld1111.d	04/19/19	01:29
14	106WNLCS2	ld1112.d	04/19/19	01:58
15	106WNLCSD2	ld1113.d	04/19/19	02:27
16	1031253RE	ld1114.d	04/19/19	02:56
17	1034101	ld1116.d	04/19/19	03:54
18	1034103	ld1117.d	04/19/19	04:23

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ld1100.d DFTPP Injection Date: 04/18/19

Instrument ID: HP20296 DFTPP Injection Time: 18:04

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	53.6
68	Less than 2.0% of mass 69	0.88 (1.43)1
69	Mass 69 relative abundance	61.3
70	Less than 2.0% of mass 69	0.29 (0.47)1
127	10.0 - 80.00% of mass 198	53.5
197	Less than 2.0% of mass 198	0.72
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.91
275	10.0 - 60.0% of mass 198	21.2
365	Greater than 1.00% of mass 198	2.33
441	Present, and less than mass 443	12.0
442	Greater than 50.00% of mass 198	74.2
443	15.00 - 24.00% of mass 442	14.4 (19.4)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	1034104	ld1118.d	04/19/19	04:52
20	107WZUS	ld1118a.d	04/19/19	04:52
21	1034105MS	ld1119.d	04/19/19	05:20
22	107WZMSMS	ld1119a.d	04/19/19	05:20
23	1034106MSD	ld1120.d	04/19/19	05:49
24	107WZMSDMSD	ld1120a.d	04/19/19	05:49

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ld1130.d DFTPP Injection Date: 04/19/19

Instrument ID: HP20296 DFTPP Injection Time: 07:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	53.8
68	Less than 2.0% of mass 69	1.16 (1.87)1
69	Mass 69 relative abundance	62.2
70	Less than 2.0% of mass 69	0.38 (0.61)1
127	10.0 - 80.00% of mass 198	56.2
197	Less than 2.0% of mass 198	0.5
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.99
275	10.0 - 60.0% of mass 198	20.9
365	Greater than 1.00% of mass 198	2.55
441	Present, and less than mass 443	12.2
442	Greater than 50.00% of mass 198	72.0
443	15.00 - 24.00% of mass 442	13.2 (18.3)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	rvSTD0929 - SSTD7.5	ld1131.d	04/19/19	08:02
02	rvPDA0529 - SSTD125	ld1132.d	04/19/19	08:37
03	rvABC1009 - SSTD125	ld1133.d	04/19/19	09:06
04	rvAAP1089 - SSTD12.5	ld1134.d	04/19/19	09:35
05	SBLKWF108	ld1135.d	04/19/19	10:04
06	108WFLCS	ld1136.d	04/19/19	10:33
07	1036726	ld1137.d	04/19/19	11:02
08	1036727	ld1138.d	04/19/19	11:31
09	1036728	ld1139.d	04/19/19	12:01
10	1036729	ld1140.d	04/19/19	12:30
11	1036730	ld1141.d	04/19/19	12:59
12	1036731MS	ld1142.d	04/19/19	13:28
13	1036732MSD	ld1143.d	04/19/19	13:57
14	1036733	ld1144.d	04/19/19	14:26
15	1036734	ld1145.d	04/19/19	14:55
16	1036967	ld1146.d	04/19/19	15:24
17	rvSTD0929	ld1155.d	04/19/19	15:53
18	1034107	ld1147.d	04/19/19	16:22

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ld1130.d DFTPP Injection Date: 04/19/19

Instrument ID: HP20296 DFTPP Injection Time: 07:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	53.8
68	Less than 2.0% of mass 69	1.16 (1.87)1
69	Mass 69 relative abundance	62.2
70	Less than 2.0% of mass 69	0.38 (0.61)1
127	10.0 - 80.00% of mass 198	56.2
197	Less than 2.0% of mass 198	0.5
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.99
275	10.0 - 60.0% of mass 198	20.9
365	Greater than 1.00% of mass 198	2.55
441	Present, and less than mass 443	12.2
442	Greater than 50.00% of mass 198	72.0
443	15.00 - 24.00% of mass 442	13.2 (18.3)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	1034108	ld1148.d	04/19/19	16:51
20	1034102	ld1149.d	04/19/19	17:20
21	1034109	ld1150.d	04/19/19	17:49
22	1034110	ld1151.d	04/19/19	18:18
23	1034111	ld1152.d	04/19/19	18:47
24	1034112	ld1153.d	04/19/19	19:16
25	1034113	ld1154.d	04/19/19	19:45

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/16/19 04/16/19

Calibration Times: 15:41 19:38

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID:RRF0.125 = ld1002.d RRF0.25 = ld1008.d RRF1.25 = ld1007.d RRF3.75 = ld1006.d
RRF7.5 = ld1001.d RRF12.5 = ld1005.d RRF20 = ld1004.d RRF30 = ld1003.d

COMPOUND	RRF0.125	RRF0.25	RRF1.25	RRF3.75	RRF7.5	RRF12.5	RRF20	RRF30	$\overline{RRF}$	% RSD	CAL. METHOD
1,4-Dioxane			0.715	0.709	0.748	0.744	0.720	0.749	0.731	2	AVG
N-Nitrosodimethylamine			0.956	1.134	1.203	1.173	1.150	1.214	1.138	8	AVG
Pyridine			2.073	1.952	2.093	1.966	1.952	2.028	2.011	3	AVG
2-Picoline			1.918	1.973	2.088	2.064	1.957	2.028	2.005	3	AVG
N-Nitrosomethylethylamine			0.763	0.831	0.857	0.832	0.800	0.822	0.817	4	AVG
Methyl methanesulfonate			1.003	0.986	1.028	1.011	1.005	1.010	1.007	1	AVG
N-Nitrosodiethylamine		0.768	0.792	0.786	0.794	0.793	0.783	0.797	0.787	1	AVG
Ethyl methanesulfonate		0.808	0.818	0.851	0.870	0.835	0.835	0.837	0.836	2	AVG
Benzaldehyde			1.488	1.606	1.647	1.624	1.411	1.119	1.482	13	AVG
Phenol		2.567	2.504	2.490	2.586	2.537	2.447	2.420	2.507	2	AVG
Aniline		2.972	2.900	2.956	2.994	2.927	2.824	2.791	2.909	3	AVG
a-methylstyrene			0.325	0.272	0.276	0.291	0.262	0.266	0.282	8	AVG
bis(2-Chloroethyl)ether		1.888	1.874	1.825	1.922	1.889	1.842	1.830	1.867	2	AVG
2-Chlorophenol		1.446	1.509	1.576	1.543	1.564	1.508	1.495	1.520	3	AVG
1,3-Dichlorobenzene		1.713	1.628	1.654	1.635	1.675	1.607	1.597	1.644	2	AVG
1,4-Dichlorobenzene		1.711	1.727	1.739	1.652	1.667	1.593	1.587	1.668	4	AVG
Benzyl alcohol			1.045	1.017	1.042	1.069	1.000	1.006	1.030	3	AVG
1,2-Dichlorobenzene		1.625	1.543	1.562	1.593	1.591	1.526	1.509	1.564	3	AVG
Indene			2.006	2.059	2.002	2.081	1.976	1.966	2.015	2	AVG
2-Methylphenol		1.444	1.534	1.587	1.625	1.600	1.546	1.512	1.550	4	AVG
2,2'-oxybis(1-Chloropropane)		2.562	2.335	2.341	2.455	2.367	2.237	2.222	2.360	5	AVG
bis(2-Chloroisopropyl)ether		2.562	2.335	2.341	2.455	2.367	2.237	2.222	2.360	5	AVG
N-Nitrosopyrrolidine		0.827	0.735	0.833	0.865	0.877	0.831	0.833	0.829	5	AVG
Acetophenone		2.749	2.310	2.514	2.465	2.553	2.272	1.928	2.399	11	AVG
4-Methylphenol		1.740	1.721	1.796	1.773	1.791	1.714	1.666	1.743	3	AVG
Total Cresols		1.592	1.627	1.691	1.699	1.696	1.630	1.589	1.646	3	AVG
N-Nitroso-di-n-propylamine		1.344	1.389	1.372	1.391	1.405	1.321	1.278	1.357	3	AVG
N-Nitrosomorpholine			1.056	1.011	1.032	0.992	0.945	0.925	0.994	5	AVG
o-Toluidine		2.756	2.723	2.762	2.779	2.761	2.617	2.562	2.709	3	AVG
Hexachloroethane			0.766	0.757	0.743	0.760	0.735	0.714	0.746	3	AVG
Nitrobenzene		0.519	0.512	0.520	0.535	0.536	0.517	0.519	0.522	2	AVG
N-Nitrosopiperidine		0.192	0.190	0.196	0.197	0.204	0.198	0.197	0.196	2	AVG
Isophorone		0.874	0.890	0.904	0.944	0.942	0.901	0.918	0.910	3	AVG
2-Nitrophenol			0.163	0.182	0.186	0.196	0.195	0.192	0.185	7	AVG
2,4-Dimethylphenol		0.403	0.426	0.437	0.446	0.450	0.434	0.433	0.433	4	AVG
O,O,O-Triethylphosphorothioat			0.161	0.168	0.174	0.179	0.170	0.170	0.170	3	AVG
bis(2-Chloroethoxy)methane		0.558	0.567	0.576	0.608	0.621	0.562	0.536	0.575	5	AVG
Benzoic acid			0.264	0.286	0.302	0.323	0.320	0.321	0.303	8	AVG
2,4-Dichlorophenol		0.306	0.285	0.306	0.318	0.319	0.306	0.305	0.307	4	AVG
1,2,4-Trichlorobenzene		0.347	0.333	0.337	0.342	0.347	0.335	0.335	0.339	2	AVG
Naphthalene	1.201	1.143	1.109	1.119	1.138	1.149	1.097	1.108	1.133	3	AVG
4-Chloroaniline		0.492	0.453	0.465	0.474	0.476	0.458	0.461	0.468	3	AVG
2,6-Dichlorophenol		0.310	0.303	0.291	0.298	0.309	0.295	0.295	0.300	2	AVG
Hexachloropropene			0.186	0.207	0.209	0.215	0.209	0.213	0.206	5	AVG
Hexachlorobutadiene		0.198	0.193	0.185	0.185	0.193	0.182	0.186	0.189	3	AVG
Quinoline			0.665	0.659	0.661	0.684	0.653	0.655	0.663	2	AVG
Caprolactam			0.092	0.109	0.106	0.107	0.094	0.080	0.098	12	AVG
N-Nitrosodi-n-butylamine			0.299	0.314	0.326	0.334	0.396	0.383	0.342	11	AVG
4-Chloro-3-methylphenol		0.372	0.373	0.376	0.375	0.388	0.375	0.379	0.377	1	AVG
Safrole			0.255	0.265	0.272	0.280	0.266	0.264	0.267	3	AVG
2-Methylnaphthalene	0.697	0.661	0.693	0.717	0.716	0.736	0.712	0.707	0.705	3	AVG
1-Methylnaphthalene	0.710	0.703	0.681	0.670	0.674	0.693	0.664	0.669	0.683	2	AVG

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/16/19 04/16/19

Calibration Times: 15:41 19:38

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID:RRF0.125 = ld1002.d RRF0.25 = ld1008.d RRF1.25 = ld1007.d RRF3.75 = ld1006.d
RRF7.5 = ld1001.d RRF12.5 = ld1005.d RRF20 = ld1004.d RRF30 = ld1003.d

COMPOUND	RRF0.125	RRF0.25	RRF1.25	RRF3.75	RRF7.5	RRF12.5	RRF20	RRF30	$\overline{RRF}$	% RSD	CAL. METHOD
Hexachlorocyclopentadiene			0.355	0.390	0.407	0.424	0.413	0.419	0.402	6	AVG
1,2,4,5-Tetrachlorobenzene		0.733	0.710	0.675	0.671	0.707	0.682	0.690	0.695	3	AVG
cis-Isosafrole			0.635	0.615	0.599	0.609	0.627	0.635	0.620	2	AVG
2,4,6-Trichlorophenol		0.413	0.453	0.442	0.449	0.473	0.470	0.475	0.454	5	AVG
2,4,5-Trichlorophenol		0.463	0.470	0.469	0.473	0.510	0.474	0.477	0.476	3	AVG
trans-Isosafrole			0.658	0.677	0.704	0.725	0.715	0.707	0.698	4	AVG
Isosafrole			0.654	0.666	0.686	0.705	0.700	0.695	0.684	3	AVG
1,1'-Biphenyl		2.186	1.662	1.825	1.729	1.863	1.682	1.435	1.769	13	AVG
2-Chloronaphthalene		1.416	1.526	1.499	1.402	1.450	1.476	1.542	1.473	4	AVG
1-Chloronaphthalene		1.475	1.335	1.274	1.318	1.390	1.261	1.181	1.319	7	AVG
Diphenyl ether		0.979	0.959	0.911	0.904	0.943	0.904	0.912	0.930	3	AVG
2-Nitroaniline			0.380	0.423	0.436	0.455	0.446	0.452	0.432	7	AVG
1,4-Naphthoquinone			0.516	0.537	0.557	0.599	0.578	0.566	0.559	5	AVG
1,4-Dinitrobenzene			0.181	0.205	0.213	0.220	0.219	0.224	0.210	8	AVG
Dimethylphthalate			1.533	1.567	1.518	1.519	1.448	1.486	1.512	3	AVG
1,3-Dinitrobenzene			0.187	0.234	0.234	0.255	0.238	0.224	0.228	10	AVG
2,6-Dinitrotoluene		0.302	0.313	0.338	0.335	0.348	0.335	0.336	0.329	5	AVG
Acenaphthylene	1.955	1.919	1.954	1.967	1.961	2.080	1.986	1.994	1.977	2	AVG
3-Nitroaniline			0.325	0.383	0.376	0.401	0.386	0.391	0.377	7	AVG
Acenaphthene	1.590	1.581	1.469	1.437	1.435	1.494	1.453	1.431	1.486	4	AVG
2,4-Dinitrophenol				0.166	0.175	0.203	0.200	0.212	0.191	10	AVG
4-Nitrophenol				0.267	0.248	0.310	0.293	0.289	0.281	9	AVG
Pentachlorobenzene		0.613	0.588	0.578	0.564	0.583	0.567	0.558	0.579	3	AVG
2,4-Dinitrotoluene			0.429	0.447	0.445	0.459	0.451	0.454	0.447	2	AVG
2,4_2,6-Dinitrotoluenes		0.337	0.371	0.392	0.390	0.404	0.393	0.395	0.383	6	AVG
Dibenzofuran		2.006	1.969	1.969	1.892	1.962	1.888	1.883	1.938	3	AVG
1-Naphthylamine				1.394	1.374	1.471	1.444	1.420	1.421	3	AVG
2,3,4,6-Tetrachlorophenol		0.321	0.328	0.343	0.348	0.373	0.362	0.374	0.350	6	AVG
2-Naphthylamine				1.357	1.349	1.432	1.374	1.385	1.380	2	AVG
Diethylphthalate			1.539	1.550	1.489	1.555	1.474	1.476	1.514	3	AVG
Thionazin			0.308	0.317	0.315	0.323	0.302	0.298	0.311	3	AVG
Fluorene	1.709	1.636	1.504	1.537	1.507	1.540	1.501	1.494	1.554	5	AVG
4-Chlorophenyl-phenylether		0.803	0.760	0.714	0.698	0.737	0.705	0.698	0.731	5	AVG
5-Nitro-o-toluidine		0.396	0.396	0.414	0.421	0.434	0.424	0.412	0.414	3	AVG
4-Nitroaniline		0.432	0.404	0.410	0.403	0.401	0.375	0.376	0.400	5	AVG
4,6-Dinitro-2-methylphenol				0.124	0.126	0.139	0.138	0.142	0.134	6	AVG
N-Nitrosodiphenylamine (1)		0.649	0.673	0.674	0.672	0.693	0.659	0.661	0.669	2	AVG
NDPA as diphenylamine		0.649	0.673	0.674	0.672	0.693	0.659	0.661	0.669	2	AVG
1,2-Diphenylhydrazine		1.105	1.131	1.155	1.163	1.166	1.126	1.092	1.134	3	AVG
Tetraethyldithiopyrophosphate			0.172	0.181	0.178	0.176	0.168	0.168	0.174	3	AVG
1,3,5-Trinitrobenzene				0.071	0.077	0.080	0.084	0.089	0.080	9	AVG
Diallate (peak 1)			0.455	0.476	0.490	0.484	0.455	0.462	0.470	3	AVG
Phorate	0.608	0.635	0.667	0.705	0.718	0.701	0.681	0.667	0.673	5	AVG
Phenacetin		0.408	0.458	0.499	0.516	0.515	0.504	0.515	0.488	8	AVG
4-Bromophenyl-phenylether		0.221	0.219	0.219	0.215	0.220	0.213	0.210	0.217	2	AVG
Diallate (peak 2)			0.356	0.389	0.377	0.424	0.393	0.394	0.389	6	AVG
Diallate trans/cis			0.439	0.462	0.471	0.474	0.444	0.450	0.456	3	AVG
Hexachlorobenzene	0.240	0.283	0.227	0.231	0.231	0.242	0.238	0.243	0.242	7	AVG
Dimethoate			0.395	0.448	0.449	0.448	0.441	0.439	0.437	5	AVG
Atrazine			0.215	0.219	0.211	0.208	0.189	0.155	0.200	12	AVG
Pentachlorophenol			0.136	0.147	0.149	0.163	0.160	0.165	0.154	7	AVG
4-Aminobiphenyl		0.712	0.770	0.785	0.782	0.804	0.776	0.786	0.774	4	AVG

(1) Cannot be separated from Diphenylamine
4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/16/19 04/16/19

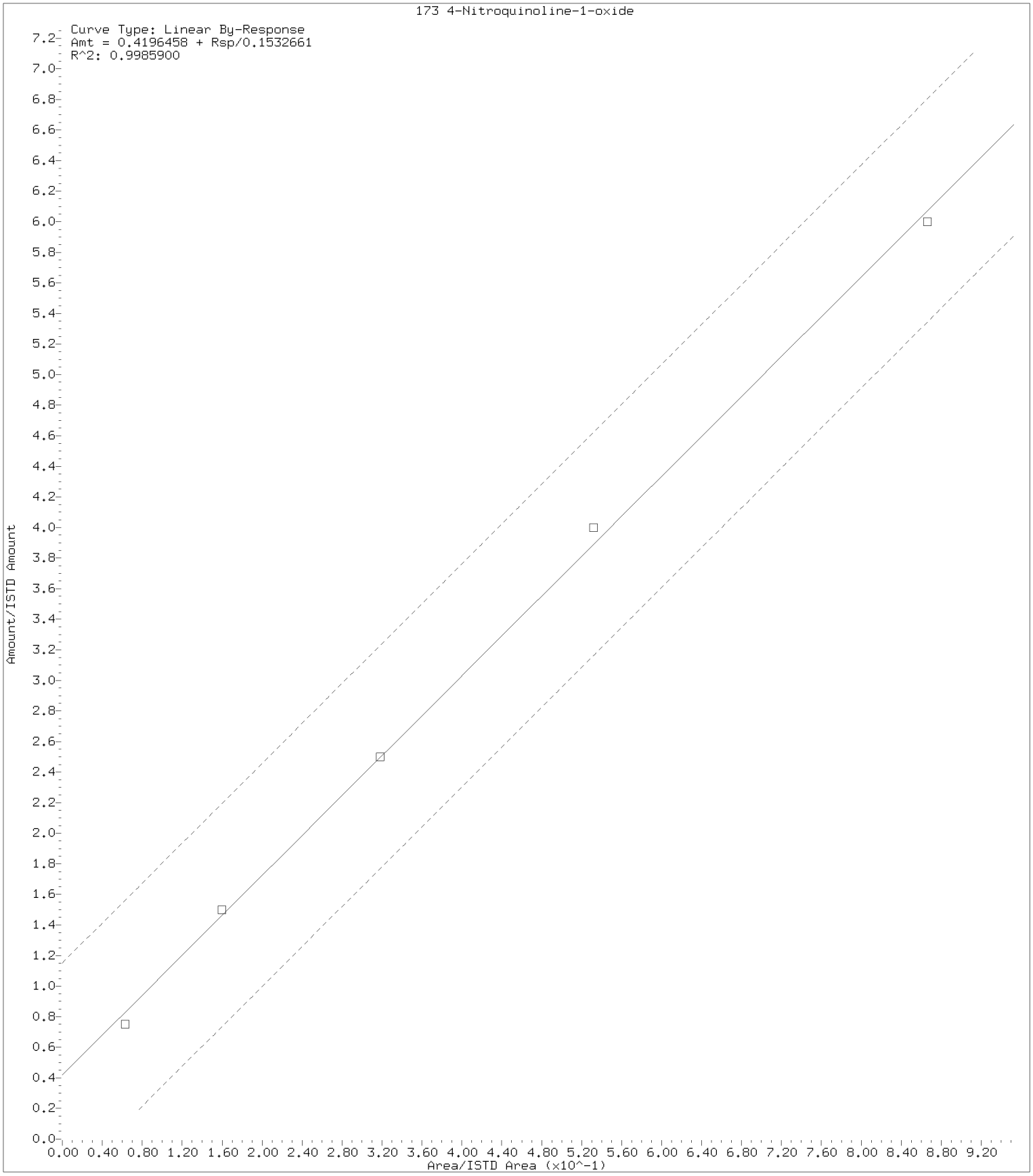
Calibration Times: 15:41 19:38

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF0.125 = ld1002.d RRF0.25 = ld1008.d RRF1.25 = ld1007.d RRF3.75 = ld1006.d
RRF7.5 = ld1001.d RRF12.5 = ld1005.d RRF20 = ld1004.d RRF30 = ld1003.d

COMPOUND	RRF0.125	RRF0.25	RRF1.25	RRF3.75	RRF7.5	RRF12.5	RRF20	RRF30	$\overline{RRF}$	% RSD	CAL. METHOD
Pentachloronitrobenzene			0.094	0.099	0.100	0.106	0.104	0.103	0.101	4	AVG
Pronamide		0.253	0.338	0.379	0.374	0.386	0.376	0.381	0.355	13	AVG
Dinoseb				0.169	0.187	0.203	0.208	0.218	0.197	10	AVG
Phenanthrene	1.226	1.250	1.174	1.157	1.172	1.246	1.219	1.227	1.209	3	AVG
Anthracene	1.259	1.157	1.219	1.189	1.190	1.233	1.201	1.199	1.206	3	AVG
Carbazole		0.980	1.057	1.078	1.091	1.122	1.083	1.111	1.074	4	AVG
Methyl parathion			0.247	0.306	0.321	0.340	0.339	0.340	0.315	12	AVG
Di-n-butylphthalate			1.352	1.411	1.468	1.521	1.475	1.521	1.458	5	AVG
Parathion			0.158	0.198	0.207	0.217	0.218	0.224	0.204	12	AVG
4-Nitroquinoline-1-oxide				0.084	0.107	0.127	0.133	0.144	0.119	20	1STDEG
Octachlorostyrene			0.091	0.086	0.088	0.093	0.086	0.089	0.089	3	AVG
Isodrin		0.147	0.140	0.137	0.136	0.145	0.141	0.140	0.141	3	AVG
Fluoranthene	1.148	1.092	1.225	1.273	1.300	1.351	1.325	1.347	1.258	8	AVG
Benzidine			0.757	0.848	0.880	0.942	0.863	0.878	0.861	7	AVG
Pyrene	1.473	1.407	1.352	1.297	1.317	1.356	1.307	1.326	1.354	4	AVG
p-Dimethylaminoazobenzene			0.176	0.209	0.218	0.237	0.227	0.240	0.218	11	AVG
Chlorobenzilate			0.381	0.421	0.451	0.470	0.450	0.465	0.440	8	AVG
3,3'-Dimethylbenzidine			0.718	0.819	0.897	0.954	0.945	0.969	0.884	11	AVG
Butylbenzylphthalate			0.570	0.643	0.673	0.713	0.699	0.716	0.669	8	AVG
2-Acetylaminofluorene				0.478	0.526	0.590	0.565	0.603	0.552	9	AVG
3,3'-Dichlorobenzidine			0.373	0.432	0.463	0.506	0.479	0.507	0.460	11	AVG
4,4'-Methylenebis(2-chloroani			0.202	0.248	0.254	0.278	0.269	0.276	0.255	11	AVG
Benzo(a)anthracene	1.113	1.033	1.177	1.233	1.254	1.318	1.282	1.345	1.219	9	AVG
Chrysene	1.101	1.136	1.171	1.151	1.183	1.256	1.211	1.262	1.184	5	AVG
bis(2-Ethylhexyl)phthalate			0.807	0.921	0.980	1.055	1.022	1.054	0.973	10	AVG
6-Methylchrysene			0.728	0.774	0.814	0.881	0.859	0.904	0.827	8	AVG
Di-n-octylphthalate			1.387	1.654	1.791	1.907	1.834	1.837	1.735	11	AVG
Benzo(b)fluoranthene	1.284	1.135	1.196	1.266	1.301	1.360	1.300	1.315	1.270	6	AVG
7,12-Dimethylbenz[a]anthracen		0.458	0.446	0.525	0.545	0.584	0.568	0.571	0.528	10	AVG
Benzo(k)fluoranthene	1.214	1.159	1.170	1.241	1.216	1.289	1.226	1.232	1.218	3	AVG
Benzo(a)pyrene	1.012	1.073	1.073	1.156	1.202	1.260	1.213	1.245	1.154	8	AVG
3-Methylcholanthrene		0.458	0.536	0.586	0.607	0.654	0.646	0.653	0.591	12	AVG
Dibenz(a,h)acridine			0.869	0.964	0.998	1.086	1.052	1.063	1.005	8	AVG
Dibenz(a,j)acridine			0.866	0.986	0.989	1.075	1.044	1.022	0.997	7	AVG
Indeno(1,2,3-cd)pyrene	0.984	0.978	1.014	1.138	1.166	1.264	1.258	1.231	1.129	11	AVG
Dibenz(a,h)anthracene	0.989	0.986	1.101	1.188	1.221	1.307	1.264	1.237	1.161	11	AVG
Benzo(g,h,i)perylene	1.126	1.087	1.134	1.206	1.214	1.312	1.251	1.216	1.193	6	AVG
Total PAHs	1.193	1.144	1.133	1.157	1.156	1.187	1.124	1.103	1.149	3	AVG
2-Fluorophenol		1.641	1.556	1.593	1.635	1.636	1.586	1.592	1.606	2	AVG
Phenol-d6		2.129	2.114	2.135	2.188	2.169	2.095	2.084	2.130	2	AVG
Nitrobenzene-d5		0.486	0.482	0.493	0.511	0.514	0.494	0.491	0.496	2	AVG
2-Fluorobiphenyl		1.695	1.570	1.579	1.572	1.635	1.586	1.597	1.605	3	AVG
2,4,6-Tribromophenol		0.188	0.186	0.198	0.199	0.216	0.212	0.216	0.202	6	AVG
Terphenyl-d14		0.773	0.801	0.812	0.822	0.848	0.817	0.844	0.817	3	AVG
								Average %RSD	5		

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.



Digitally signed by Matthew E. Barton on 04/22/2019 at 07:47.
Target 3.5 esignature user ID: reb00745

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP20296.i/19apr16a.b/ld1001.d SSTD7.5
/chem/HP20296.i/19apr16a.b/ld1002.d SSTD0.125
/chem/HP20296.i/19apr16a.b/ld1003.d SSTD30
/chem/HP20296.i/19apr16a.b/ld1004.d SSTD20
/chem/HP20296.i/19apr16a.b/ld1005.d SSTD12.5
/chem/HP20296.i/19apr16a.b/ld1006.d SSTD3.75
/chem/HP20296.i/19apr16a.b/ld1007.d SSTD1.25
/chem/HP20296.i/19apr16a.b/ld1008.d SSTD0.25

Area Summary

File ID:

Internal Standard Name	ld1001.d	ld1002.d	ld1003.d	ld1004.d	ld1005.d	ld1006.d	ld1007.d	ld1008.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	165996	181691	187487	168171	177238	175370	179596	173423	176122	4	Yes
Naphthalene-d8	649801	701808	715392	650536	683662	697661	707471	667884	684277	4	Yes
Acenaphthene-d10	311195	325228	333092	304377	322911	327824	324172	306129	319366	3	Yes
Phenanthrene-d10	566227	604945	605231	550320	592201	604348	596739	587831	588480	3	Yes
Pyrene-d10	568991	588579	619124	567982	596563	606996	597186	553448	587359	4	Yes
Perylene-d12	547421	532069	657564	576667	591636	571833	563803	514117	569389	8	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ld1001.d	ld1002.d	ld1003.d	ld1004.d	ld1005.d	ld1006.d	ld1007.d	ld1008.d	Avg. RT
1,4-Dichlorobenzene-d4	6.943	6.938	6.943	6.943	6.938	6.938	6.938	6.938	6.940
Naphthalene-d8	8.922	8.923	8.928	8.922	8.923	8.922	8.922	8.923	8.923
Acenaphthene-d10	11.752	11.752	11.757	11.752	11.752	11.752	11.752	11.752	11.753
Phenanthrene-d10	13.677	13.678	13.683	13.683	13.677	13.677	13.677	13.677	13.679
Pyrene-d10	15.715	15.715	15.726	15.721	15.721	15.715	15.715	15.715	15.718
Perylene-d12	20.288	20.294	20.299	20.294	20.294	20.288	20.288	20.288	20.292

Comments:_____

_____

Report generated on 04/16/2019 at 20:46

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS | LAB CODE: LANCAS | INSTRUMENT: HP20296

Method: SW-846 8270D MINI | File ID: ld1011.d

ICV SAMPLE ID: rvICV0929 | BATCH: 19APR16A026 | Sample Name: SSTD12.5

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	12.50	12.28	-2	30	YES
N-Nitrosodimethylamine	12.50	13.32	7	30	YES
Pyridine	12.50	11.52	-8	30	YES
2-Picoline	12.50	12.67	1	30	YES
N-Nitrosomethylethylamine	12.50	12.32	-1	30	YES
Methyl methanesulfonate	12.50	12.92	3	30	YES
N-Nitrosodiethylamine	12.50	12.16	-3	30	YES
Ethyl methanesulfonate	12.50	12.13	-3	30	YES
Phenol	12.50	12.54	0	30	YES
Aniline	12.50	10.96	-12	30	YES
bis(2-Chloroethyl)ether	12.50	12.58	1	30	YES
2-Chlorophenol	12.50	12.66	1	30	YES
1,3-Dichlorobenzene	12.50	12.65	1	30	YES
1,4-Dichlorobenzene	12.50	12.64	1	30	YES
Benzyl alcohol	12.50	13.91	11	30	YES
1,2-Dichlorobenzene	12.50	12.77	2	30	YES
Indene	12.50	18.50	48	30	NO*
2-Methylphenol	12.50	12.55	0	30	YES
2,2'-oxybis(1-Chloropropane	12.50	12.20	-2	30	YES
bis(2-Chloroisopropyl)ether	12.50	12.20	-2	30	YES
N-Nitrosopyrrolidine	12.50	12.61	1	30	YES
Acetophenone	12.50	13.24	6	30	YES
4-Methylphenol	12.50	12.67	1	30	YES
N-Nitroso-di-n-propylamine	12.50	12.98	4	30	YES
N-Nitrosomorpholine	12.50	12.39	-1	30	YES
o-Toluidine	12.50	12.04	-4	30	YES
Total Cresols	25.00	25.22	1	30	YES
Hexachloroethane	12.50	12.63	1	30	YES
Nitrobenzene	12.50	12.84	3	30	YES
N-Nitrosopiperidine	12.50	12.15	-3	30	YES
Isophorone	12.50	12.48	0	30	YES
2-Nitrophenol	12.50	12.84	3	30	YES
2,4-Dimethylphenol	12.50	10.06	-19	30	YES
bis(2-Chloroethoxy)methane	12.50	13.42	7	30	YES
Benzoic acid	25.00	25.90	4	30	YES
O,O,O-Triethylphosphorothio	12.50	13.33	7	30	YES
2,4-Dichlorophenol	12.50	12.53	0	30	YES

NC = Could not calculate

Comments: *Compound fails, Run any hits under valid ICV

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP20296

Method: SW-846 8270D MINI File ID: ld1011.d

ICV SAMPLE ID: rvICV0929 BATCH: 19APR16A026 Sample Name: SSTD12.5

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,2,4-Trichlorobenzene	12.50	12.89	3	30	YES
Naphthalene	12.50	12.61	1	30	YES
4-Chloroaniline	12.50	12.17	-3	30	YES
2,6-Dichlorophenol	12.50	12.31	-2	30	YES
Hexachloropropene	12.50	12.93	3	30	YES
Hexachlorobutadiene	12.50	12.95	4	30	YES
Quinoline	12.50	13.12	5	30	YES
N-Nitrosodi-n-butylamine	12.50	11.82	-5	30	YES
4-Chloro-3-methylphenol	12.50	12.70	2	30	YES
Safrole	12.50	12.16	-3	30	YES
2-Methylnaphthalene	12.50	12.88	3	30	YES
1-Methylnaphthalene	12.50	12.79	2	30	YES
Hexachlorocyclopentadiene	25.00	18.19	-27	30	YES
1,2,4,5-Tetrachlorobenzene	12.50	12.65	1	30	YES
cis-Isosafrole	1.50	1.54	3	30	YES
2,4,6-Trichlorophenol	12.50	13.18	5	30	YES
2,4,5-Trichlorophenol	12.50	13.21	6	30	YES
trans-Isosafrole	11.00	10.76	-2	30	YES
1,1'-Biphenyl	12.50	13.16	5	30	YES
2-Chloronaphthalene	12.50	12.53	0	30	YES
Isosafrole	12.50	12.30	-2	30	YES
1-Chloronaphthalene	12.50	12.92	3	30	YES
Diphenyl ether	12.50	12.53	0	30	YES
2-Nitroaniline	12.50	13.35	7	30	YES
1,4-Naphthoquinone	15.63	16.14	3	30	YES
1,4-Dinitrobenzene	12.50	13.27	6	30	YES
Dimethylphthalate	12.50	12.81	2	30	YES
1,3-Dinitrobenzene	12.50	13.50	8	30	YES
2,6-Dinitrotoluene	12.50	13.32	7	30	YES
Acenaphthylene	12.50	13.20	6	30	YES
3-Nitroaniline	12.50	13.20	6	30	YES
Acenaphthene	12.50	12.82	3	30	YES
2,4-Dinitrophenol	25.00	26.70	7	30	YES
4-Nitrophenol	12.50	13.57	9	30	YES
Pentachlorobenzene	12.50	12.20	-2	30	YES
2,4-Dinitrotoluene	12.50	13.09	5	30	YES
Dibenzofuran	12.50	13.02	4	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP20296

Method: SW-846 8270D MINI File ID: ld1011.d

ICV SAMPLE ID: rvICV0929 BATCH: 19APR16A026 Sample Name: SSTD12.5

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
2,4_2,6-Dinitrotoluenes	25.00	26.41	6	30	YES
1-Naphthylamine	25.00	22.00	-12	30	YES
2,3,4,6-Tetrachlorophenol	12.50	13.28	6	30	YES
2-Naphthylamine	25.00	20.80	-17	30	YES
Diethylphthalate	12.50	12.81	2	30	YES
Thionazin	12.50	13.72	10	30	YES
Fluorene	12.50	12.69	2	30	YES
4-Chlorophenyl-phenylether	12.50	12.24	-2	30	YES
5-Nitro-o-toluidine	12.50	12.96	4	30	YES
4-Nitroaniline	12.50	12.11	-3	30	YES
4,6-Dinitro-2-methylphenol	12.50	12.91	3	30	YES
N-Nitrosodiphenylamine	12.50	13.01	4	30	YES
NDPA as diphenylamine	12.50	13.01	4	30	YES
1,2-Diphenylhydrazine	12.50	13.54	8	30	YES
Tetraethyldithiopyrophospha	12.50	13.32	7	30	YES
1,3,5-Trinitrobenzene	12.50	12.31	-2	30	YES
Diallate (peak 1)	9.38	8.99	-4	30	YES
Phorate	12.50	13.69	10	30	YES
Phenacetin	12.50	12.83	3	30	YES
4-Bromophenyl-phenylether	12.50	12.26	-2	30	YES
Diallate (peak 2)	3.13	3.63	16	30	YES
Hexachlorobenzene	12.50	12.21	-2	30	YES
Diallate trans/cis	12.50	12.61	1	30	YES
Dimethoate	12.50	13.44	8	30	YES
Pentachlorophenol	12.50	13.38	7	30	YES
4-Aminobiphenyl	12.50	13.88	11	30	YES
Pentachloronitrobenzene	12.50	13.00	4	30	YES
Pronamide	12.50	13.56	8	30	YES
Dinoseb	12.50	12.32	-1	30	YES
Phenanthrene	12.50	12.62	1	30	YES
Anthracene	12.50	12.48	0	30	YES
Carbazole	12.50	13.23	6	30	YES
Methyl parathion	12.50	14.30	14	30	YES
Di-n-butylphthalate	12.50	12.92	3	30	YES
Parathion	12.50	14.98	20	30	YES
4-Nitroquinoline-1-oxide	150.00	152.26	2	30	YES
Isodrin	12.50	12.78	2	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP20296

Method: SW-846 8270D MINI File ID: ld1011.d

ICV SAMPLE ID: rvICV0929 BATCH: 19APR16A026 Sample Name: SSTD12.5

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Fluoranthene	12.50	12.92	3	30	YES
Benzidine	62.50	56.27	-10	30	YES
Pyrene	12.50	12.39	-1	30	YES
p-Dimethylaminoazobenzene	12.50	13.87	11	30	YES
Chlorobenzilate	12.50	13.60	9	30	YES
3,3'-Dimethylbenzidine	25.00	24.26	-3	30	YES
Butylbenzylphthalate	12.50	13.52	8	30	YES
2-Acetylaminofluorene	12.50	12.01	-4	30	YES
3,3'-Dichlorobenzidine	12.50	12.99	4	30	YES
Benzo(a)anthracene	12.50	13.18	5	30	YES
Chrysene	12.50	12.82	3	30	YES
4,4'-Methylenebis(2-chloroa	12.50	12.89	3	30	YES
bis(2-Ethylhexyl)phthalate	12.50	13.41	7	30	YES
6-Methylchrysene	12.50	12.76	2	30	YES
Di-n-octylphthalate	12.50	13.67	9	30	YES
Benzo(b)fluoranthene	12.50	12.90	3	30	YES
7,12-Dimethylbenz[a]anthrac	12.50	14.23	14	30	YES
Benzo(k)fluoranthene	12.50	13.30	6	30	YES
Benzo(a)pyrene	12.50	13.44	8	30	YES
3-Methylcholanthrene	12.50	13.56	8	30	YES
Dibenz(a,h)acridine	12.50	13.03	4	30	YES
Dibenz(a,j)acridine	12.50	14.21	14	30	YES
Indeno(1,2,3-cd)pyrene	12.50	13.41	7	30	YES
Dibenz(a,h)anthracene	12.50	14.01	12	30	YES
Benzo(g,h,i)perylene	12.50	13.09	5	30	YES
Total PAHs	225.00	233.55	4	30	YES

NC = Could not calculate

Comments: _____

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Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP20296

Method: SW-846 8270D MINI File ID: ld1012.d

ICV SAMPLE ID: BASICV0929 BATCH: 19APR16A026 Sample Name: SSTD12.5

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Benzaldehyde	12.50	13.63	9	30	YES
Caprolactam	12.50	13.00	4	30	YES
Atrazine	12.50	12.89	3	30	YES

NC = Could not calculate

Comments: _____

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6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/18/19 04/18/19

Calibration Times: 00:01 01:56

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF7.5 = ld1025.d RRF12.5 = ld1022.d RRF20 = ld1024.d RRF3.75 = ld1026.d RRF30 = ld1023.d											
COMPOUND	RRF	RRF	RRF	RRF3.75	RRF7.5	RRF12.5	RRF20	RRF30	$\overline{RRF}$	% RSD	CAL. METHOD
1,4-Phenylenediamine				0.398	0.417	0.344	0.424	0.414	0.400	8	AVG
								Average %RSD		4	

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP20296.i/19apr17.b/ld1022.d SSTD12.5
/chem/HP20296.i/19apr17.b/ld1023.d SSTD30
/chem/HP20296.i/19apr17.b/ld1024.d SSTD20
/chem/HP20296.i/19apr17.b/ld1025.d SSTD7.5
/chem/HP20296.i/19apr17.b/ld1026.d SSTD3.75

Area Summary

Internal Standard Name	File ID: ld1022.d	ld1023.d	ld1024.d	ld1025.d	ld1026.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	220508	192676	198821	207639	199563	203841	5	Yes
Naphthalene-d8	847407	733892	771406	786449	754405	778712	6	Yes
Acenaphthene-d10	361997	331119	350694	355932	343253	348599	3	Yes
Phenanthrene-d10	653691	630472	642546	655921	627291	641984	2	Yes
Pyrene-d10	636562	613419	635694	645930	615939	629509	2	Yes
Perylene-d12	520768	485231	561617	535601	520950	524833	5	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

Internal Standard Name	File ID: ld1022.d	ld1023.d	ld1024.d	ld1025.d	ld1026.d	Avg. RT
1,4-Dichlorobenzene-d4	6.911	6.906	6.906	6.911	6.911	6.909
Naphthalene-d8	8.890	8.890	8.890	8.890	8.890	8.890
Acenaphthene-d10	11.725	11.725	11.725	11.725	11.725	11.725
Phenanthrene-d10	13.651	13.651	13.651	13.651	13.651	13.651
Pyrene-d10	15.688	15.689	15.689	15.688	15.688	15.688
Perylene-d12	20.256	20.251	20.256	20.256	20.256	20.255

Comments:_____

_____

Report generated on 04/18/2019 at 09:27

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/18/19 04/18/19

Calibration Times: 02:55 05:18

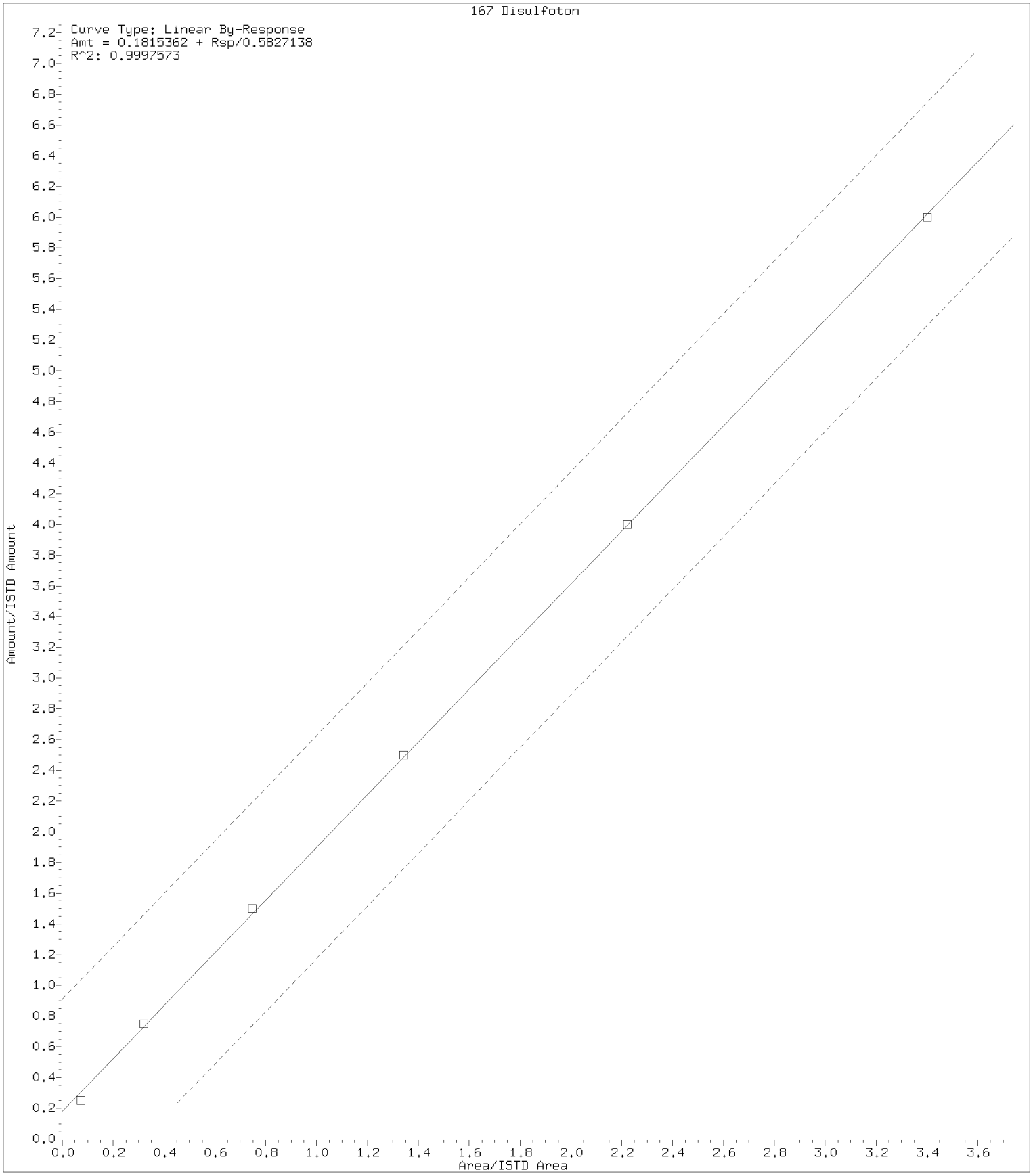
Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF1.25 = ld1033.d RRF3.75 = ld1032.d
RRF7.5 = ld1031.d RRF12.5 = ld1028.d RRF20 = ld1030.d RRF30 = ld1029.d

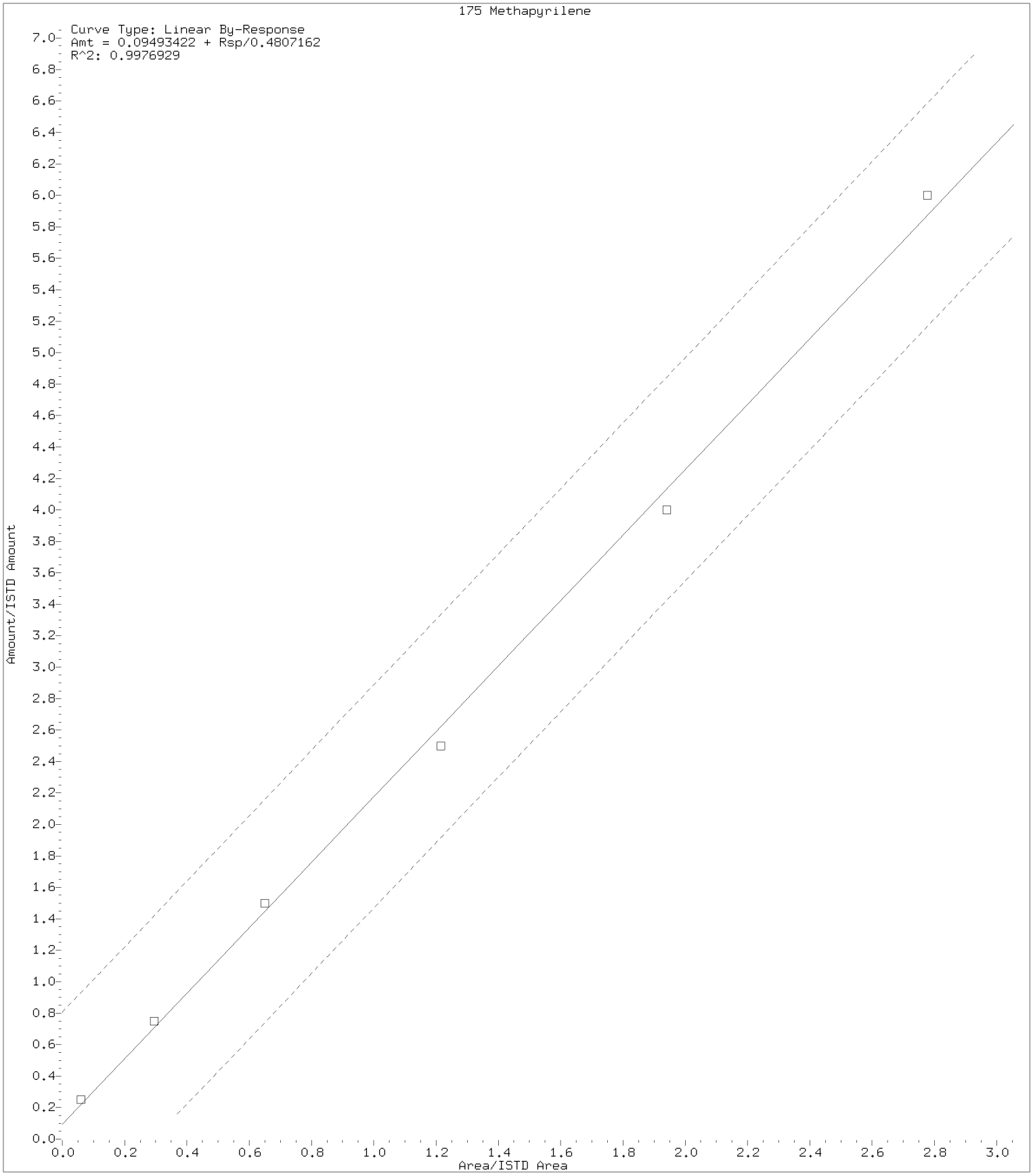
COMPOUND	RRF	RRF	RRF1.25	RRF3.75	RRF7.5	RRF12.5	RRF20	RRF30	$\overline{RRF}$	% RSD	CAL. METHOD
Disulfoton			0.295	0.427	0.498	0.537	0.555	0.567	0.480	22	1STDEG
Methapyrilene			0.238	0.393	0.433	0.486	0.485	0.463	0.416	23	1STDEG
Famphur			0.251	0.383	0.392	0.396	0.352	0.300	0.345	17	AVG
Kepone			0.104	0.116	0.116	0.116	0.117	0.115	0.114	4	AVG

Average %RSD 13

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.



Digitally signed by Matthew E. Barton on 04/22/2019 at 08:29.
Target 3.5 esignature user ID: reb00745



Digitally signed by Matthew E. Barton on 04/22/2019 at 08:29.
Target 3.5 esignature user ID: reb00745

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP20296.i/19apr17.b/ld1028.d SSTD12.5
/chem/HP20296.i/19apr17.b/ld1029.d SSTD30
/chem/HP20296.i/19apr17.b/ld1030.d SSTD20
/chem/HP20296.i/19apr17.b/ld1031.d SSTD7.5
/chem/HP20296.i/19apr17.b/ld1032.d SSTD3.75
/chem/HP20296.i/19apr17.b/ld1033.d SSTD1.25

Area Summary

	File ID:								
Internal Standard Name	ld1028.d	ld1029.d	ld1030.d	ld1031.d	ld1032.d	ld1033.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	176306	175710	178480	178105	175336	166535	175079	2	Yes
Naphthalene-d8	699777	691625	687063	683129	685372	653351	683386	2	Yes
Acenaphthene-d10	318803	310768	308628	304075	300975	291105	305726	3	Yes
Phenanthrene-d10	567839	574288	563898	556851	569279	540298	562076	2	Yes
Pyrene-d10	568963	553854	559979	552507	550808	520164	551046	3	Yes
Perylene-d12	476667	471298	458975	445698	463424	429461	457587	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:						
Internal Standard Name	ld1028.d	ld1029.d	ld1030.d	ld1031.d	ld1032.d	ld1033.d	Avg. RT
1,4-Dichlorobenzene-d4	6.911	6.911	6.911	6.911	6.911	6.911	6.911
Naphthalene-d8	8.890	8.890	8.890	8.890	8.890	8.890	8.890
Acenaphthene-d10	11.725	11.725	11.725	11.725	11.725	11.725	11.725
Phenanthrene-d10	13.650	13.651	13.650	13.650	13.651	13.651	13.651
Pyrene-d10	15.688	15.688	15.688	15.688	15.688	15.688	15.688
Perylene-d12	20.256	20.256	20.256	20.256	20.262	20.256	20.257

Comments:_____

_____

Report generated on 04/18/2019 at 09:27

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/18/19 04/18/19

Calibration Times: 19:49 19:49

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID:

RRF12.5 = 1d1104.d

COMPOUND	RRF	RRF	RRF	RRF	RRF	RRF12.5	RRF	$\overline{RRF}$	% RSD	CAL. METHOD
a,a-Dimethylphenethylamine						0.334		0.334	0	AVG
Aramite (1)						0.051		0.051	0	AVG
Aramite (2)						0.063		0.063	0	AVG
Aramite (3)						0.340		0.340	0	AVG
Aramite (4)						0.454		0.454	0	AVG
Aramite						0.329		0.329	0	AVG
							Average %RSD		0	

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date(s): 04/19/19 04/19/19

Calibration Times: 09:35 09:35

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID:

RRF12.5 = ld1134.d

COMPOUND	RRF	RRF	RRF	RRF	RRF	RRF12.5	RRF	$\overline{RRF}$	% RSD	CAL. METHOD
a,a-Dimethylphenethylamine						0.340		0.340	0	AVG
Aramite (1)						0.047		0.047	0	AVG
Aramite (2)						0.057		0.057	0	AVG
Aramite (3)						0.338		0.338	0	AVG
Aramite (4)						0.443		0.443	0	AVG
Aramite						0.323		0.323	0	AVG
							Average %RSD		0	

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 18:20

Lab File ID: ld1101.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.731	0.765	7.850	7.5	5
N-Nitrosodimethylamine	1.138	1.242	8.180	7.5	9
Pyridine	2.011	2.088	7.790	7.5	4
2-Picoline	2.005	2.081	7.790	7.5	4
N-Nitrosomethylethylamine	0.817	0.817	7.490	7.5	0
Methyl methanesulfonate	1.007	1.045	7.780	7.5	4
N-Nitrosodiethylamine	0.787	0.799	7.610	7.5	1
Ethyl methanesulfonate	0.836	0.827	7.420	7.5	-1
Benzaldehyde	1.482	1.612	8.160	7.5	9
Phenol	2.507	2.567	7.680	7.5	2
Aniline	2.909	2.977	7.670	7.5	2
a-methylstyrene	0.282	0.266	7.080	7.5	-6
bis(2-Chloroethyl)ether	1.867	1.917	7.700	7.5	3
2-Chlorophenol	1.520	1.520	7.500	7.5	0
1,3-Dichlorobenzene	1.644	1.583	7.220	7.5	-4
1,4-Dichlorobenzene	1.668	1.619	7.280	7.5	-3
Benzyl alcohol	1.030	1.025	7.470	7.5	0
1,2-Dichlorobenzene	1.564	1.542	7.390	7.5	-1
Indene	2.015	1.979	7.370	7.5	-2
2-Methylphenol	1.550	1.620	7.840	7.5	5
2,2'-oxybis(1-Chloropropane)	2.360	2.547	8.090	7.5	8
bis(2-Chloroisopropyl)ether	2.360	2.547	8.090	7.5	8
N-Nitrosopyrrolidine	0.829	0.878	7.950	7.5	6
Acetophenone	2.399	2.519	7.880	7.5	5
4-Methylphenol	1.743	1.827	7.860	7.5	5
Total Cresols	1.646	1.723	15.700	15.0	5
N-Nitroso-di-n-propylamine	1.357	1.476	8.160	7.5	9
N-Nitrosomorpholine	0.994	1.098	8.290	7.5	11
o-Toluidine	2.709	2.778	7.690	7.5	3
Hexachloroethane	0.746	0.749	7.530	7.5	0
Nitrobenzene	0.522	0.554	7.960	7.5	6
N-Nitrosopiperidine	0.196	0.201	7.690	7.5	3
Isophorone	0.910	0.959	7.900	7.5	5
2-Nitrophenol	0.185	0.186	7.530	7.5	0
2,4-Dimethylphenol	0.433	0.454	7.870	7.5	5
O,O,O-Triethylphosphorothioate	0.170	0.170	7.500	7.5	0

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 18:20

Lab File ID: ld1101.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
bis(2-Chloroethoxy)methane	0.575	0.611	7.970	7.5	6
Benzoic acid	0.303	0.265	8.740	10.0	-13
2,4-Dichlorophenol	0.307	0.311	7.600	7.5	1
1,2,4-Trichlorobenzene	0.339	0.334	7.370	7.5	-2
Naphthalene	1.133	1.134	7.500	7.5	0
4-Chloroaniline	0.468	0.466	7.460	7.5	-1
2,6-Dichlorophenol	0.300	0.303	7.560	7.5	1
Hexachloropropene	0.206	0.202	7.330	7.5	-2
Hexachlorobutadiene	0.189	0.181	7.210	7.5	-4
Quinoline	0.663	0.671	7.590	7.5	1
Caprolactam	0.098	0.106	8.090	7.5	8
N-Nitrosodi-n-butylamine	0.342	0.344	7.530	7.5	0
4-Chloro-3-methylphenol	0.377	0.387	7.700	7.5	3
Safrole	0.267	0.269	7.560	7.5	1
2-Methylnaphthalene	0.705	0.723	7.690	7.5	3
1-Methylnaphthalene	0.683	0.682	7.490	7.5	0
Hexachlorocyclopentadiene	0.402	0.381	7.110	7.5	-5
1,2,4,5-Tetrachlorobenzene	0.695	0.667	7.200	7.5	-4
cis-Isosafrole	0.620	0.615	1.260	1.3	-1
2,4,6-Trichlorophenol	0.454	0.431	7.130	7.5	-5
2,4,5-Trichlorophenol	0.476	0.461	7.250	7.5	-3
trans-Isosafrole	0.698	0.700	6.250	6.2	0
Isosafrole	0.684	0.686	7.510	7.5	0
1,1'-Biphenyl	1.769	1.749	7.420	7.5	-1
2-Chloronaphthalene	1.473	1.472	7.490	7.5	0
1-Chloronaphthalene	1.319	1.289	7.330	7.5	-2
Diphenyl ether	0.930	0.915	7.380	7.5	-2
2-Nitroaniline	0.432	0.449	7.790	7.5	4
1,4-Naphthoquinone	0.559	0.567	7.610	7.5	1
1,4-Dinitrobenzene	0.210	0.211	7.520	7.5	0
Dimethylphthalate	1.512	1.560	7.740	7.5	3
1,3-Dinitrobenzene	0.228	0.234	7.680	7.5	2
2,6-Dinitrotoluene	0.329	0.346	7.870	7.5	5
Acenaphthylene	1.977	2.017	7.650	7.5	2
3-Nitroaniline	0.377	0.379	7.550	7.5	1
Acenaphthene	1.486	1.466	7.400	7.5	-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 18:20

Lab File ID: ld1101.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
2,4-Dinitrophenol	0.191	0.168	8.780	10.0	-12
4-Nitrophenol	0.281	0.305	8.130	7.5	8
Pentachlorobenzene	0.579	0.559	7.240	7.5	-3
2,4-Dinitrotoluene	0.447	0.468	7.850	7.5	5
2,4_2,6-Dinitrotoluenes	0.383	0.407	15.720	15.0	5
Dibenzofuran	1.938	1.948	7.540	7.5	1
1-Naphthylamine	1.421	1.395	7.360	7.5	-2
2,3,4,6-Tetrachlorophenol	0.350	0.336	7.190	7.5	-4
2-Naphthylamine	1.380	1.367	7.430	7.5	-1
Diethylphthalate	1.514	1.507	7.460	7.5	0
Thionazin	0.311	0.344	8.310	7.5	11
Fluorene	1.554	1.523	7.350	7.5	-2
4-Chlorophenyl-phenylether	0.731	0.723	7.420	7.5	-1
5-Nitro-o-toluidine	0.414	0.443	8.030	7.5	7
4-Nitroaniline	0.400	0.433	8.120	7.5	8
4,6-Dinitro-2-methylphenol	0.134	0.122	6.850	7.5	-9
N-Nitrosodiphenylamine (1)	0.669	0.680	7.620	7.5	2
NDPA as diphenylamine	0.669	0.680	7.620	7.5	2
1,2-Diphenylhydrazine	1.134	1.220	8.070	7.5	8
Tetraethyldithiopyrophosphate	0.174	0.188	8.100	7.5	8
1,3,5-Trinitrobenzene	0.080	0.075	6.980	7.5	-7
Diallate (peak 1)	0.470	0.519	6.870	6.2	10
Phorate	0.673	0.765	8.530	7.5	14
Phenacetin	0.488	0.522	8.030	7.5	7
4-Bromophenyl-phenylether	0.217	0.216	7.480	7.5	0
Diallate (peak 2)	0.389	0.393	1.290	1.3	1
Diallate trans/cis	0.456	0.498	8.160	7.5	9
Hexachlorobenzene	0.242	0.222	6.890	7.5	-8
Dimethoate	0.437	0.460	7.900	7.5	5
Atrazine	0.200	0.207	7.770	7.5	4
Pentachlorophenol	0.154	0.146	7.120	7.5	-5
4-Aminobiphenyl	0.774	0.765	7.410	7.5	-1
Pentachloronitrobenzene	0.101	0.104	7.750	7.5	3
Pronamide	0.355	0.384	8.120	7.5	8
Dinoseb	0.197	0.185	7.060	7.5	-6
Phenanthrene	1.209	1.200	7.450	7.5	-1

(1) Cannot be Separated from Diphenylamine

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 18:20

Lab File ID: ld1101.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
Anthracene	1.206	1.181	7.350	7.5	-2
Carbazole	1.074	1.067	7.450	7.5	-1
Methyl parathion	0.315	0.340	8.080	7.5	8
Di-n-butylphthalate	1.458	1.471	7.570	7.5	1
Parathion	0.204	0.218	8.030	7.5	7
4-Nitroquinoline-1-oxide	0.119	0.092	6.610	7.5	-12
Octachlorostyrene	0.089	0.083	6.970	7.5	-7
Isodrin	0.141	0.136	7.230	7.5	-4
Fluoranthene	1.258	1.291	7.700	7.5	3
Benzidine	0.861	0.862	22.530	22.5	0
Pyrene	1.355	1.318	7.300	7.5	-3
p-Dimethylaminoazobenzene	0.218	0.219	7.550	7.5	1
Chlorobenzilate	0.440	0.462	7.870	7.5	5
3,3'-Dimethylbenzidine	0.884	0.868	7.370	7.5	-2
Butylbenzylphthalate	0.669	0.695	7.800	7.5	4
2-Acetylaminofluorene	0.552	0.526	7.140	7.5	-5
3,3'-Dichlorobenzidine	0.460	0.452	7.370	7.5	-2
4,4'-Methylenebis(2-chloroanil	0.255	0.257	7.580	7.5	1
Benzo(a)anthracene	1.219	1.260	7.750	7.5	3
Chrysene	1.184	1.191	7.540	7.5	1
bis(2-Ethylhexyl)phthalate	0.973	1.015	7.820	7.5	4
6-Methylchrysene	0.827	0.805	7.300	7.5	-3
Di-n-octylphthalate	1.735	1.824	7.890	7.5	5
Benzo(b)fluoranthene	1.270	1.301	7.690	7.5	2
7,12-Dimethylbenz[a]anthracene	0.528	0.563	8.000	7.5	7
Benzo(k)fluoranthene	1.218	1.282	7.890	7.5	5
Benzo(a)pyrene	1.154	1.197	7.780	7.5	4
3-Methylcholanthrene	0.591	0.599	7.600	7.5	1
Dibenz(a,h)acridine	1.005	0.966	7.200	7.5	-4
Dibenz(a,j)acridine	0.997	0.999	7.510	7.5	0
Indeno(1,2,3-cd)pyrene	1.129	1.157	7.680	7.5	2
Dibenz(a,h)anthracene	1.161	1.218	7.870	7.5	5
Benzo(g,h,i)perylene	1.193	1.206	7.580	7.5	1
Total PAHs	1.149	1.175	136.650	135.0	1
2-Fluorophenol	1.606	1.619	15.120	15.0	1

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 18:20

Lab File ID: ld1101.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
Phenol-d6	2.130	2.170	15.280	15.0	2
Nitrobenzene-d5	0.496	0.526	15.910	15.0	6
2-Fluorobiphenyl	1.605	1.614	15.080	15.0	1
2,4,6-Tribromophenol	0.202	0.193	14.280	15.0	-5
Terphenyl-d14	0.817	0.803	14.760	15.0	-2
			Average %Drift:		4

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP20296.i/19apr16a.b/ld1001.d **
/chem/HP20296.i/19apr16a.b/ld1002.d
/chem/HP20296.i/19apr16a.b/ld1003.d
/chem/HP20296.i/19apr16a.b/ld1004.d
/chem/HP20296.i/19apr16a.b/ld1005.d
/chem/HP20296.i/19apr16a.b/ld1006.d
/chem/HP20296.i/19apr16a.b/ld1007.d
/chem/HP20296.i/19apr16a.b/ld1008.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP20296.i/19apr18a.b/ld1101.d

Area Summary

File ID:

Internal Standard Name	ld1101.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	197141	165996	82998	331992	Yes
Naphthalene-d8	766378	649801	324900	1299602	Yes
Acenaphthene-d10	365549	311195	155598	622390	Yes
Phenanthrene-d10	677522	566227	283114	1132454	Yes
Pyrene-d10	679027	568991	284496	1137982	Yes
Perylene-d12	639432	547421	273710	1094842	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	ld1101.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	6.922	6.943	Yes
Naphthalene-d8	8.906	8.922	Yes
Acenaphthene-d10	11.736	11.752	Yes
Phenanthrene-d10	13.661	13.677	Yes
Pyrene-d10	15.699	15.715	Yes
Perylene-d12	20.272	20.288	Yes

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: _____

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 18:51

Lab File ID: ld1102.d Init. Calib. Date(s): 04/18/19 04/18/19

Init. Calib. Times(s): 00:01 01:56

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF12	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Phenylenediamine	0.400	0.336	10.510	12.5	-16
			Average %Drift:		16

FORM VII SV-1

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/18/19 Time: 19:20

Lab File ID: ld1103.d Init. Calib. Date(s): 04/18/19 04/18/19

Init. Calib. Times(s): 02:55 05:18

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF12	ACTUAL CONC.	TRUE CONC.	% DRIFT
Disulfoton	0.480	0.553	12.770	12.5	2
Methapyrilene	0.416	0.505	13.600	12.5	9
Famphur	0.345	0.375	13.570	12.5	9
Kepone	0.114	0.116	61.250	60.0	2
			Average	%Drift:	6

FORM VII SV-1

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 08:02

Lab File ID: ld1131.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.731	0.737	7.570	7.5	1
N-Nitrosodimethylamine	1.138	1.247	8.220	7.5	10
Pyridine	2.011	2.054	7.660	7.5	2
2-Picoline	2.005	2.051	7.670	7.5	2
N-Nitrosomethylethylamine	0.817	0.827	7.590	7.5	1
Methyl methanesulfonate	1.007	1.061	7.900	7.5	5
N-Nitrosodiethylamine	0.787	0.818	7.800	7.5	4
Ethyl methanesulfonate	0.836	0.859	7.700	7.5	3
Benzaldehyde	1.482	1.634	8.270	7.5	10
Phenol	2.507	2.572	7.690	7.5	3
Aniline	2.909	2.972	7.660	7.5	2
a-methylstyrene	0.282	0.267	7.090	7.5	-5
bis(2-Chloroethyl)ether	1.867	1.889	7.590	7.5	1
2-Chlorophenol	1.520	1.495	7.380	7.5	-2
1,3-Dichlorobenzene	1.644	1.618	7.380	7.5	-2
1,4-Dichlorobenzene	1.668	1.615	7.260	7.5	-3
Benzyl alcohol	1.030	1.002	7.300	7.5	-3
1,2-Dichlorobenzene	1.564	1.529	7.330	7.5	-2
Indene	2.015	2.005	7.460	7.5	-1
2-Methylphenol	1.550	1.597	7.730	7.5	3
2,2'-oxybis(1-Chloropropane)	2.360	2.560	8.140	7.5	8
bis(2-Chloroisopropyl)ether	2.360	2.560	8.140	7.5	8
N-Nitrosopyrrolidine	0.829	0.895	8.100	7.5	8
Acetophenone	2.399	2.481	7.760	7.5	3
4-Methylphenol	1.743	1.825	7.850	7.5	5
Total Cresols	1.646	1.711	15.580	15.0	4
N-Nitroso-di-n-propylamine	1.357	1.448	8.000	7.5	7
N-Nitrosomorpholine	0.994	1.096	8.270	7.5	10
o-Toluidine	2.709	2.750	7.620	7.5	2
Hexachloroethane	0.746	0.736	7.400	7.5	-1
Nitrobenzene	0.522	0.560	8.040	7.5	7
N-Nitrosopiperidine	0.196	0.207	7.920	7.5	6
Isophorone	0.910	0.951	7.830	7.5	4
2-Nitrophenol	0.185	0.193	7.810	7.5	4
2,4-Dimethylphenol	0.433	0.455	7.880	7.5	5
O,O,O-Triethylphosphorothioate	0.170	0.168	7.420	7.5	-1

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 08:02

Lab File ID: ld1131.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
bis(2-Chloroethoxy)methane	0.575	0.623	8.120	7.5	8
Benzoic acid	0.303	0.272	8.990	10.0	-10
2,4-Dichlorophenol	0.307	0.304	7.440	7.5	-1
1,2,4-Trichlorobenzene	0.339	0.327	7.220	7.5	-4
Naphthalene	1.133	1.120	7.410	7.5	-1
4-Chloroaniline	0.468	0.466	7.460	7.5	0
2,6-Dichlorophenol	0.300	0.293	7.330	7.5	-2
Hexachloropropene	0.206	0.210	7.640	7.5	2
Hexachlorobutadiene	0.189	0.183	7.260	7.5	-3
Quinoline	0.663	0.674	7.630	7.5	2
Caprolactam	0.098	0.106	8.070	7.5	8
N-Nitrosodi-n-butylamine	0.342	0.339	7.440	7.5	-1
4-Chloro-3-methylphenol	0.377	0.379	7.540	7.5	1
Safrole	0.267	0.263	7.390	7.5	-1
2-Methylnaphthalene	0.705	0.714	7.600	7.5	1
1-Methylnaphthalene	0.683	0.672	7.370	7.5	-2
Hexachlorocyclopentadiene	0.402	0.412	7.700	7.5	3
1,2,4,5-Tetrachlorobenzene	0.695	0.673	7.260	7.5	-3
cis-Isosafrole	0.620	0.607	1.250	1.3	-2
2,4,6-Trichlorophenol	0.454	0.450	7.450	7.5	-1
2,4,5-Trichlorophenol	0.476	0.462	7.270	7.5	-3
trans-Isosafrole	0.698	0.715	6.380	6.2	3
Isosafrole	0.684	0.697	7.630	7.5	2
1,1'-Biphenyl	1.769	1.789	7.590	7.5	1
2-Chloronaphthalene	1.473	1.496	7.620	7.5	2
1-Chloronaphthalene	1.319	1.317	7.490	7.5	0
Diphenyl ether	0.930	0.941	7.590	7.5	1
2-Nitroaniline	0.432	0.449	7.800	7.5	4
1,4-Naphthoquinone	0.559	0.568	7.630	7.5	2
1,4-Dinitrobenzene	0.210	0.212	7.550	7.5	1
Dimethylphthalate	1.512	1.539	7.640	7.5	2
1,3-Dinitrobenzene	0.228	0.235	7.720	7.5	3
2,6-Dinitrotoluene	0.329	0.350	7.970	7.5	6
Acenaphthylene	1.977	2.023	7.670	7.5	2
3-Nitroaniline	0.377	0.397	7.890	7.5	5
Acenaphthene	1.486	1.464	7.390	7.5	-1

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 08:02

Lab File ID: ld1131.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
2,4-Dinitrophenol	0.191	0.186	9.720	10.0	-3
4-Nitrophenol	0.281	0.319	8.500	7.5	13
Pentachlorobenzene	0.579	0.551	7.140	7.5	-5
2,4-Dinitrotoluene	0.447	0.459	7.700	7.5	3
2,4_2,6-Dinitrotoluenes	0.383	0.405	15.670	15.0	4
Dibenzofuran	1.938	1.961	7.590	7.5	1
1-Naphthylamine	1.421	1.405	7.420	7.5	-1
2,3,4,6-Tetrachlorophenol	0.350	0.354	7.590	7.5	1
2-Naphthylamine	1.380	1.372	7.460	7.5	-1
Diethylphthalate	1.514	1.509	7.480	7.5	0
Thionazin	0.311	0.329	7.940	7.5	6
Fluorene	1.554	1.517	7.330	7.5	-2
4-Chlorophenyl-phenylether	0.731	0.714	7.320	7.5	-2
5-Nitro-o-toluidine	0.414	0.443	8.030	7.5	7
4-Nitroaniline	0.400	0.440	8.240	7.5	10
4,6-Dinitro-2-methylphenol	0.134	0.134	7.500	7.5	0
N-Nitrosodiphenylamine (1)	0.669	0.690	7.730	7.5	3
NDPA as diphenylamine	0.669	0.690	7.730	7.5	3
1,2-Diphenylhydrazine	1.134	1.257	8.310	7.5	11
Tetraethyldithiopyrophosphate	0.174	0.192	8.290	7.5	11
1,3,5-Trinitrobenzene	0.080	0.079	7.360	7.5	-2
Diallate (peak 1)	0.470	0.509	6.740	6.2	8
Phorate	0.673	0.765	8.530	7.5	14
Phenacetin	0.488	0.539	8.290	7.5	11
4-Bromophenyl-phenylether	0.217	0.208	7.190	7.5	-4
Diallate (peak 2)	0.389	0.415	1.360	1.3	7
Diallate trans/cis	0.456	0.493	8.100	7.5	8
Hexachlorobenzene	0.242	0.233	7.230	7.5	-4
Dimethoate	0.437	0.476	8.180	7.5	9
Atrazine	0.200	0.211	7.910	7.5	6
Pentachlorophenol	0.154	0.152	7.400	7.5	-1
4-Aminobiphenyl	0.774	0.789	7.650	7.5	2
Pentachloronitrobenzene	0.101	0.103	7.680	7.5	2
Pronamide	0.355	0.386	8.140	7.5	9
Dinoseb	0.197	0.201	7.640	7.5	2
Phenanthrene	1.209	1.210	7.510	7.5	0

(1) Cannot be Separated from Diphenylamine

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 08:02

Lab File ID: ld1131.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
Anthracene	1.206	1.256	7.810	7.5	4
Carbazole	1.074	1.112	7.760	7.5	4
Methyl parathion	0.315	0.342	8.150	7.5	9
Di-n-butylphthalate	1.458	1.487	7.650	7.5	2
Parathion	0.204	0.220	8.090	7.5	8
4-Nitroquinoline-1-oxide	0.119	0.107	7.340	7.5	-2
Octachlorostyrene	0.089	0.083	7.020	7.5	-6
Isodrin	0.141	0.136	7.250	7.5	-3
Fluoranthene	1.258	1.292	7.700	7.5	3
Benzidine	0.861	0.888	23.180	22.5	3
Pyrene	1.355	1.336	7.400	7.5	-1
p-Dimethylaminoazobenzene	0.218	0.216	7.430	7.5	-1
Chlorobenzilate	0.440	0.462	7.880	7.5	5
3,3'-Dimethylbenzidine	0.884	0.878	7.450	7.5	-1
Butylbenzylphthalate	0.669	0.705	7.900	7.5	5
2-Acetylaminofluorene	0.552	0.537	7.290	7.5	-3
3,3'-Dichlorobenzidine	0.460	0.446	7.270	7.5	-3
4,4'-Methylenebis(2-chloroanil	0.255	0.258	7.590	7.5	1
Benzo(a)anthracene	1.219	1.238	7.620	7.5	2
Chrysene	1.184	1.194	7.570	7.5	1
bis(2-Ethylhexyl)phthalate	0.973	1.009	7.770	7.5	4
6-Methylchrysene	0.827	0.811	7.350	7.5	-2
Di-n-octylphthalate	1.735	1.797	7.770	7.5	4
Benzo(b)fluoranthene	1.270	1.310	7.740	7.5	3
7,12-Dimethylbenz[a]anthracene	0.528	0.538	7.640	7.5	2
Benzo(k)fluoranthene	1.218	1.256	7.730	7.5	3
Benzo(a)pyrene	1.154	1.181	7.670	7.5	2
3-Methylcholanthrene	0.591	0.593	7.520	7.5	0
Dibenz(a,h)acridine	1.005	0.977	7.290	7.5	-3
Dibenz(a,j)acridine	0.997	0.990	7.450	7.5	-1
Indeno(1,2,3-cd)pyrene	1.129	1.158	7.700	7.5	3
Dibenz(a,h)anthracene	1.161	1.229	7.940	7.5	6
Benzo(g,h,i)perylene	1.193	1.212	7.620	7.5	2
Total PAHs	1.149	1.145	136.770	135.0	1
2-Fluorophenol	1.606	1.610	15.040	15.0	0

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 08:02

Lab File ID: ld1131.d Init. Calib. Date(s): 04/16/19 04/16/19

Init. Calib. Times(s): 15:41 19:38

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF7.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
Phenol-d6	2.130	2.185	15.390	15.0	3
Nitrobenzene-d5	0.496	0.526	15.920	15.0	6
2-Fluorobiphenyl	1.605	1.620	15.150	15.0	1
2,4,6-Tribromophenol	0.202	0.198	14.670	15.0	-2
Terphenyl-d14	0.817	0.811	14.890	15.0	-1
			Average %Drift:		4

FORM VII SV-1

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP20296.i/19apr16a.b/ld1001.d **
/chem/HP20296.i/19apr16a.b/ld1002.d
/chem/HP20296.i/19apr16a.b/ld1003.d
/chem/HP20296.i/19apr16a.b/ld1004.d
/chem/HP20296.i/19apr16a.b/ld1005.d
/chem/HP20296.i/19apr16a.b/ld1006.d
/chem/HP20296.i/19apr16a.b/ld1007.d
/chem/HP20296.i/19apr16a.b/ld1008.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP20296.i/19apr19.b/ld1131.d

Area Summary

File ID:

Internal Standard Name	ld1131.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	199574	165996	82998	331992	Yes
Naphthalene-d8	768967	649801	324900	1299602	Yes
Acenaphthene-d10	357485	311195	155598	622390	Yes
Phenanthrene-d10	646063	566227	283114	1132454	Yes
Pyrene-d10	654428	568991	284496	1137982	Yes
Perylene-d12	649466	547421	273710	1094842	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	ld1131.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	6.911	6.943	Yes
Naphthalene-d8	8.896	8.922	Yes
Acenaphthene-d10	11.725	11.752	Yes
Phenanthrene-d10	13.650	13.677	Yes
Pyrene-d10	15.688	15.715	Yes
Perylene-d12	20.256	20.288	Yes

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: _____

Report generated on 04/19/2019 at 08:41

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 08:37

Lab File ID: ld1132.d Init. Calib. Date(s): 04/18/19 04/18/19

Init. Calib. Times(s): 00:01 01:56

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF12	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Phenylenediamine	0.400	0.371	11.590	12.5	-7
			Average %Drift:		7

FORM VII SV-1

page 1 of 1

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP20296 Calibration Date: 04/19/19 Time: 09:06

Lab File ID: ld1133.d Init. Calib. Date(s): 04/18/19 04/18/19

Init. Calib. Times(s): 02:55 05:18

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF12	ACTUAL CONC.	TRUE CONC.	% DRIFT
Disulfoton	0.480	0.548	12.660	12.5	1
Methapyrilene	0.416	0.481	12.980	12.5	4
Famphur	0.345	0.380	13.740	12.5	10
Kepone	0.114	0.112	58.920	60.0	-2
				Average %Drift:	4

FORM VII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1101.d Date Analyzed: 04/18/19

Instrument ID: HP20296 Time Analyzed: 18:20

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	197141	6.922	766378	8.906	365549	11.736
UPPER LIMIT	394282	7.422	1532756	9.406	731098	12.236
LOWER LIMIT	98571	6.422	383189	8.406	182775	11.236
LLI SAMPLE NO.						
01 SBLKWJ107	165642	6.922	637341	8.906	291005	11.736
02 SBLKWZ107	165642	6.922	637341	8.906	291005	11.736
03 107WJLCS	159173	6.927	614535	8.901	280895	11.736
04 107WZLCS	159173	6.927	614535	8.901	280895	11.736
05 107WJLCS2	168482	6.922	681975	8.901	307812	11.736
06 107WJLCSD2	176304	6.922	684980	8.901	320252	11.736
07 SBLKWN106	181746	6.922	702716	8.901	321459	11.736
08 106WNLCS	187984	6.927	722810	8.901	324557	11.736
09 106WNLCSD	187985	6.927	738296	8.901	343522	11.736
10 106WNLCS2	189812	6.927	738683	8.906	335392	11.736
11 106WNLCSD2	185768	6.927	707058	8.901	330046	11.736
12 1031253RE	178831	6.922	707777	8.901	334978	11.736
13 1034101	187789	6.922	725537	8.901	325831	11.736
14 1034103	186123	6.922	719861	8.901	327174	11.736
15 1034104	182779	6.922	695012	8.901	317073	11.736
16 107WZUS	182779	6.922	695012	8.901	317073	11.736
17 1034105MS	178286	6.928	683774	8.901	317972	11.736

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1101.d Date Analyzed: 04/18/19

Instrument ID: HP20296 Time Analyzed: 18:20

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	677522	13.661	679027	15.699	639432	20.272
UPPER LIMIT	1355044	14.161	1358054	16.199	1278864	20.772
LOWER LIMIT	338761	13.161	339514	15.199	319716	19.772
LLI SAMPLE NO.						
01 SBLKWJ107	527768	13.667	511723	15.705	476097	20.272
02 SBLKWZ107	527768	13.667	511723	15.705	476097	20.272
03 107WJLCS	506117	13.661	528199	15.699	503703	20.272
04 107WZLCS	506117	13.661	528199	15.699	503703	20.272
05 107WJLCS2	570382	13.662	562988	15.699	519615	20.267
06 107WJLCSD2	594150	13.661	556722	15.699	523853	20.267
07 SBLKWN106	586341	13.661	575861	15.699	536302	20.267
08 106WNLCS	611208	13.661	608644	15.699	588961	20.272
09 106WNLCSD	595279	13.661	624943	15.699	593492	20.272
10 106WNLCS2	614484	13.661	590503	15.704	569086	20.272
11 106WNLCSD2	617252	13.661	581783	15.699	558335	20.272
12 1031253RE	621870	13.661	593030	15.699	609137	20.272
13 1034101	602130	13.662	584875	15.699	541638	20.267
14 1034103	598713	13.661	582923	15.699	534894	20.272
15 1034104	574297	13.661	568613	15.699	519489	20.272
16 107WZUS	574297	13.661	568613	15.699	521385	20.272
17 1034105MS	566121	13.661	580266	15.699	574246	20.272

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1101.d Date Analyzed: 04/18/19

Instrument ID: HP20296 Time Analyzed: 18:20

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	197141	6.922	766378	8.906	365549	11.736
UPPER LIMIT	394282	7.422	1532756	9.406	731098	12.236
LOWER LIMIT	98571	6.422	383189	8.406	182775	11.236
LLI SAMPLE NO.						
18 107WZMS	178286	6.928	683786	8.901	317972	11.736
19 1034106MSD	175373	6.927	669445	8.906	318855	11.736
20 107WZMSD	175373	6.927	669445	8.906	318855	11.736

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1101.d Date Analyzed: 04/18/19

Instrument ID: HP20296 Time Analyzed: 18:20

		IS4(PHN)		IS5(PYR)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	677522	13.661	679027	15.699	639432	20.272
	UPPER LIMIT	1355044	14.161	1358054	16.199	1278864	20.772
	LOWER LIMIT	338761	13.161	339514	15.199	319716	19.772
	LLI SAMPLE NO.						
18	107WZMS	566121	13.661	580266	15.699	578356	20.272
19	1034106MSD	575292	13.661	587058	15.704	563839	20.272
20	107WZMSD	575292	13.661	587058	15.704	565141	20.272

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1131.d Date Analyzed: 04/19/19

Instrument ID: HP20296 Time Analyzed: 08:02

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	199574	6.911	768967	8.896	357485	11.725
UPPER LIMIT	399148	7.411	1537934	9.396	714970	12.225
LOWER LIMIT	99787	6.411	384484	8.396	178743	11.225
LLI SAMPLE NO.						
01 SBLKWF108	170613	6.911	652066	8.890	291452	11.725
02 108WFLCS	170067	6.917	648276	8.896	294394	11.725
03 1036726	167905	6.911	650072	8.890	289736	11.725
04 1036727	170572	6.917	659239	8.890	296065	11.725
05 1036728	176064	6.917	676854	8.896	303961	11.725
06 1036729	175455	6.911	656249	8.890	294270	11.725
07 1036730	168500	6.911	648004	8.890	292621	11.725
08 1036731MS	169555	6.917	659724	8.896	294944	11.725
09 1036732MSD	172170	6.917	658801	8.896	303037	11.725
10 1036733	178768	6.917	676228	8.896	315249	11.725
11 1036734	176922	6.917	688769	8.896	310683	11.725
12 1036967	177130	6.917	682735	8.896	308363	11.725
13 rvSTD0929	199894	6.917	762441	8.901	355986	11.730
14 1034107	176477	6.917	696406	8.896	314627	11.730
15 1034108	175520	6.917	678576	8.896	308695	11.730
16 1034102	186034	6.917	711886	8.896	327131	11.730
17 1034109	178478	6.917	698640	8.896	315547	11.731

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1131.d Date Analyzed: 04/19/19

Instrument ID: HP20296 Time Analyzed: 08:02

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	646063	13.650	654428	15.688	649466	20.256
UPPER LIMIT	1292126	14.150	1308856	16.188	1298932	20.756
LOWER LIMIT	323032	13.150	327214	15.188	324733	19.756
LLI SAMPLE NO.						
01 SBLKWF108	539807	13.651	506985	15.683	464713	20.251
02 108WFLCS	516245	13.651	525106	15.688	534573	20.256
03 1036726	539945	13.651	517529	15.683	481644	20.256
04 1036727	552422	13.651	544334	15.683	502872	20.256
05 1036728	539144	13.650	518406	15.688	481798	20.251
06 1036729	556362	13.651	528362	15.689	481142	20.251
07 1036730	535376	13.651	507031	15.683	492303	20.256
08 1036731MS	483249	13.650	513052	15.688	566883	20.256
09 1036732MSD	490708	13.651	518235	15.689	586417	20.256
10 1036733	560512	13.651	531773	15.689	539868	20.251
11 1036734	568716	13.651	536056	15.688	536534	20.256
12 1036967	566223	13.651	544471	15.688	526532	20.256
13 rvSTD0929	669473	13.656	651105	15.694	646244	20.262
14 1034107	578561	13.656	566443	15.688	551619	20.261
15 1034108	568307	13.651	545841	15.688	530228	20.262
16 1034102	603705	13.656	590551	15.688	559371	20.261
17 1034109	580671	13.656	565052	15.689	576412	20.262

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1131.d Date Analyzed: 04/19/19

Instrument ID: HP20296 Time Analyzed: 08:02

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	199574	6.911	768967	8.896	357485	11.725
UPPER LIMIT	399148	7.411	1537934	9.396	714970	12.225
LOWER LIMIT	99787	6.411	384484	8.396	178743	11.225
LLI SAMPLE NO.						
18 1034110	184748	6.917	721000	8.896	321244	11.730
19 1034111	180774	6.917	720284	8.896	324339	11.730
20 1034112	204952	6.917	783138	8.896	352188	11.730
21 1034113	173776	6.917	685503	8.896	305714	11.730

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ld1131.d Date Analyzed: 04/19/19

Instrument ID: HP20296 Time Analyzed: 08:02

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	646063	13.650	654428	15.688	649466	20.256
UPPER LIMIT	1292126	14.150	1308856	16.188	1298932	20.756
LOWER LIMIT	323032	13.150	327214	15.188	324733	19.756
LLI SAMPLE NO.						
18 1034110	601010	13.656	581293	15.694	582844	20.261
19 1034111	592184	13.651	581661	15.688	586835	20.262
20 1034112	639134	13.651	628838	15.688	613912	20.261
21 1034113	567854	13.656	546365	15.694	526669	20.262

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

Sample Data

Semivolatiles by GC/MS

F3501 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034101

Data file: /chem/HP20296.i/19apr18a.b/ld1116.d Injection date and time: **19-APR-2019 03:54**
Data file Sample Info. Line: F3501;1034101;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922	(0.000)	904	152	187789	(-5)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	725537	(-5)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	325831	(-11)	5.00	
158) Phenanthrene-d10	13.662	(0.000)	2164	188	602130	(-11)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	584875	(-14)	5.00	
218) Perylene-d12	20.267	(0.005)	3399	264	541638	(-15)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	4.997	(0.000)	112	1423812	23.612	47%		10 - 84
18) Phenol-d6	(1)	6.393	(0.000)	99	1795183	22.436	45%		10 - 67
45) Nitrobenzene-d5	(2)	7.767	(0.000)	82	1442910	20.049	80%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.688	(0.000)	172	2001968	19.143	77%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.774	(0.000)	330	534347	40.547	81%		23 - 135
184) Terphenyl-d14	(5)	16.020	(0.000)	244	2150322	22.506	90%		33 - 126

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)				Not Detected					0.5
6) Pyridine	(1)				Not Detected					0.5
8) 2-Picoline	(1)				Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)				Not Detected					0.5
10) Methyl methanesulfonate	(1)				Not Detected					0.3
14) N-Nitrosodiethylamine	(1)				Not Detected					0.1
16) Ethyl methanesulfonate	(1)				Not Detected					0.1
19) Phenol	(1)				Not Detected					0.2
20) Aniline	(1)				Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)				Not Detected					0.1
24) 2-Chlorophenol	(1)				Not Detected					0.2
28) Benzyl alcohol	(1)				Not Detected					3
32) 2-Methylphenol	(1)				Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)				Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)				Not Detected					0.1
37) Acetophenone	(1)				Not Detected					1
38) 4-Methylphenol	(1)				Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.2
40) N-Nitrosomorpholine	(1)				Not Detected					0.5
41) o-Toluidine	(1)				Not Detected					1
46) Nitrobenzene	(2)				Not Detected					0.1
50) N-Nitrosopiperidine	(2)				Not Detected					0.1
52) Isophorone	(2)				Not Detected					0.1
53) 2-Nitrophenol	(2)				Not Detected					0.8
55) 2,4-Dimethylphenol	(2)				Not Detected					0.8
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1116.d Injection date and time: **19-APR-2019 03:54**
Data file Sample Info. Line: F3501;1034101;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
57) bis(2-Chloroethoxy)methane	(2)			Not Detected					0.1
62) 2,4-Dichlorophenol	(2)			Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)			Not Detected					1
70) 4-Chloroaniline	(2)			Not Detected					1
71) 2,6-Dichlorophenol	(2)			Not Detected					0.1
72) Hexachloropropene	(2)			Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)			Not Detected					3
84) 1,4-Phenylenediamine	(2)			Not Detected					19
83) 4-Chloro-3-methylphenol	(2)			Not Detected					0.3
85) Safrole	(2)			Not Detected					0.5
86) 2-Methylnaphthalene	(2)			Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)			Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)			Not Detected					0.5
91) cis-Isosafrole	(3)			Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)			Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)			Not Detected					0.2
97) trans-Isosafrole	(3)			Not Detected					0.3
100) Isosafrole	(3)			Not Detected					1
99) 2-Chloronaphthalene	(3)			Not Detected					0.1
104) 2-Nitroaniline	(3)			Not Detected					0.5
108) 1,4-Naphthoquinone	(3)			Not Detected					6
110) Dimethylphthalate	(3)			Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)			Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)			Not Detected					0.1
114) Acenaphthylene	(3)			Not Detected					0.1
117) 3-Nitroaniline	(3)			Not Detected					0.8
119) Acenaphthene	(3)			Not Detected					0.09
120) 2,4-Dinitrophenol	(3)			Not Detected					4
121) 4-Nitrophenol	(3)			Not Detected					3
122) Pentachlorobenzene	(3)			Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)			Not Detected					0.3
124) Dibenzofuran	(3)			Not Detected					0.1
126) 1-Naphthylamine	(3)			Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)			Not Detected					1
128) 2-Naphthylamine	(3)			Not Detected					2
129) Diethylphthalate	(3)			Not Detected					0.5
130) Thionazin	(3)			Not Detected					0.5
131) Fluorene	(3)			Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)			Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)			Not Detected					1
134) 4-Nitroaniline	(3)			Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)			Not Detected					2
136) N-Nitrosodiphenylamine	(4)			Not Detected					0.2
137) NDPA as diphenylamine	(4)			Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)			Not Detected					24
145) Diallate (peak 1)	(4)			Not Detected					0.06
146) Phorate	(4)			Not Detected					0.1
147) Phenacetin	(4)			Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)			Not Detected					0.1
149) Diallate (peak 2)	(4)			Not Detected					0.06
151) Diallate trans/cis	(4)			Not Detected					0.3
150) Hexachlorobenzene	(4)			Not Detected					0.2
152) Dimethoate	(4)			Not Detected					0.8
154) Pentachlorophenol	(4)			Not Detected					0.7

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Data file: /chem/HP20296.i/19apr18a.b/ld1116.d Injection date and time: **19-APR-2019 03:54**
Data file Sample Info. Line: F3501;1034101;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

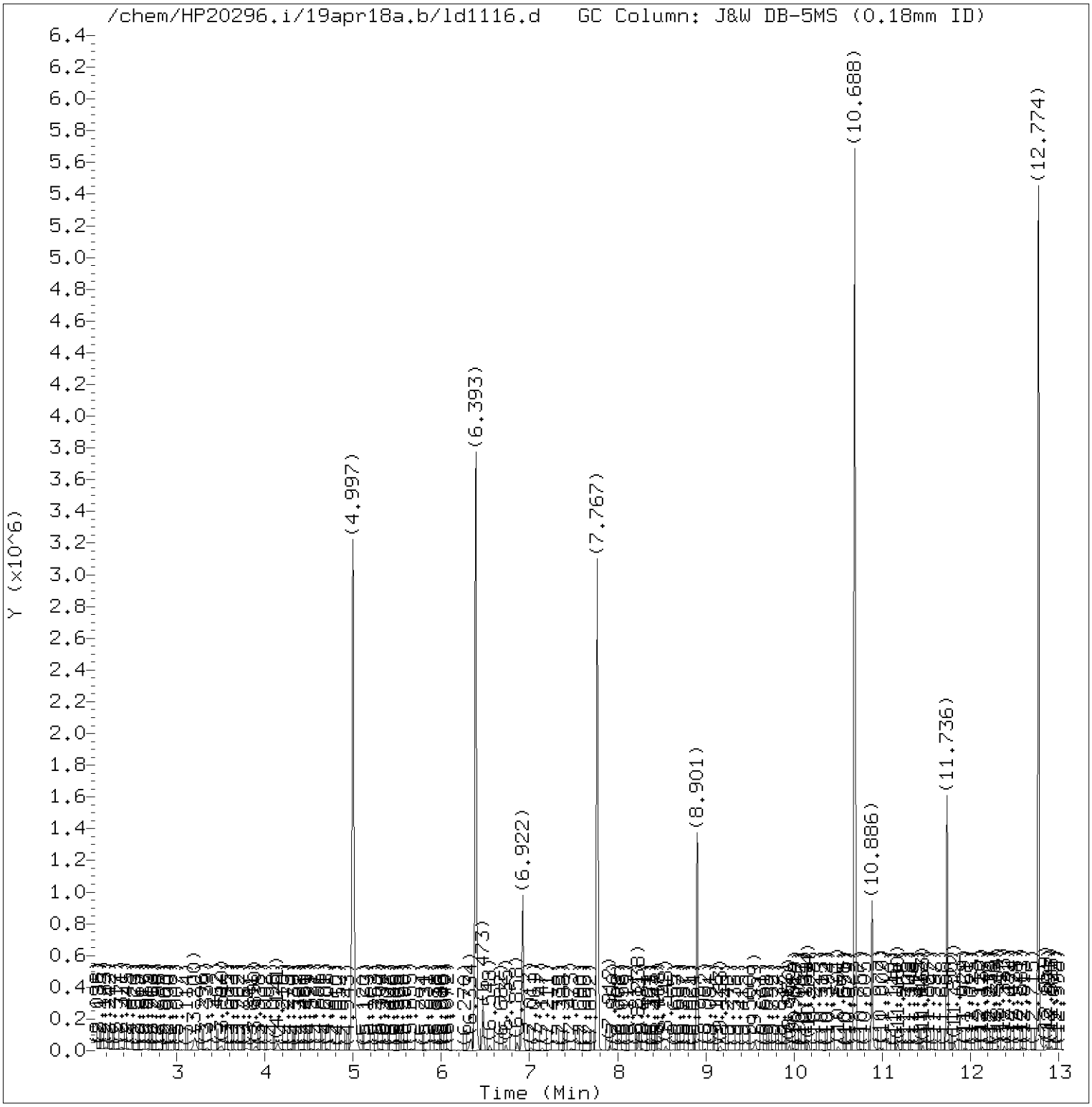
Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

Total number of targets = 120

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

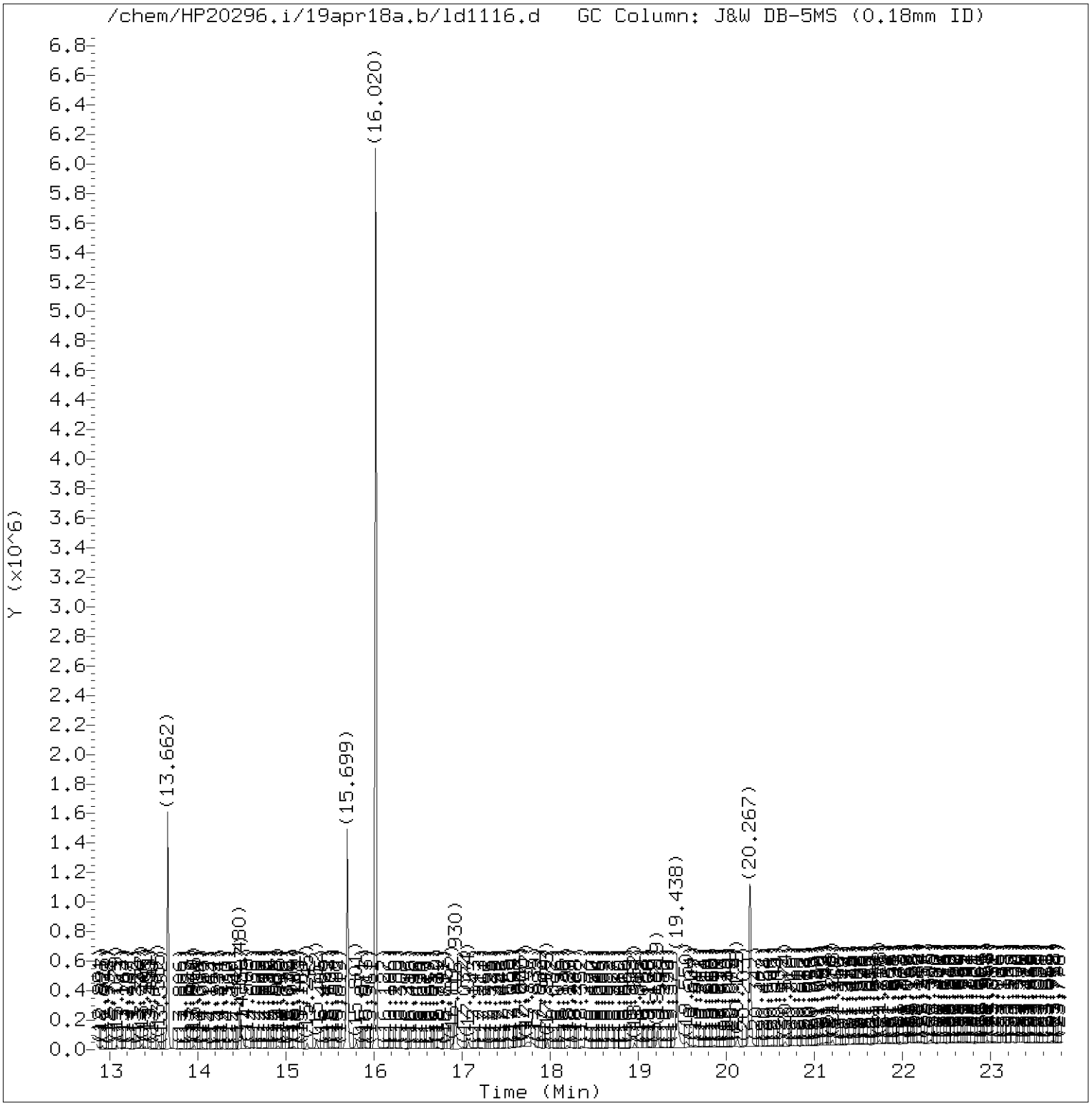
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1116.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 03:54 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3501 Lab Sample ID: 1034101

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1116.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 03:54 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3501 Lab Sample ID: 1034101

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1116.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 03:54 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3501 Lab Sample ID: 1034101

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.997	112	1423812	23.612
18)$Phenol-d6	(1)	6.393	99	1795183	22.436
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	187789	5.000
45)$Nitrobenzene-d5	(2)	7.767	82	1442910	20.049
68)*Naphthalene-d8	(2)	8.901	136	725537	5.000
96)$2-Fluorobiphenyl	(3)	10.688	172	2001968	19.143
118)*Acenaphthene-d10	(3)	11.736	164	325831	5.000
140)$2,4,6-Tribromophenol	(3)	12.774	330	534347	40.547
158)*Phenanthrene-d10	(4)	13.662	188	602130	5.000
180)*Pyrene-d10	(5)	15.699	212	584875	5.000
184)$Terphenyl-d14	(5)	16.020	244	2150322	22.506
218)*Perylene-d12	(6)	20.267	264	541638	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

F3502 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034102

Data file: /chem/HP20296.i/19apr19.b/ld1149.d Injection date and time: **19-APR-2019 17:20**
Data file Sample Info. Line: F3502;1034102;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917(-0.005)	903	152	186034 (-7)	5.00	
68) Naphthalene-d8	8.896(0.000)	1273	136	711886 (-7)	5.00	
118) Acenaphthene-d10	11.730(-0.005)	1803	164	327131 (-8)	5.00	
158) Phenanthrene-d10	13.656(-0.005)	2163	188	603705 (-7)	5.00	
180) Pyrene-d10	15.688(0.000)	2543	212	590551 (-10)	5.00	
218) Perylene-d12	20.261(-0.005)	3398	264	559371 (-14)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	4.991(0.000)	112	258997	4.336	9%	*	10 - 84
18) Phenol-d6	(1)	6.382(0.001)	99	481440	6.074	12%		10 - 67
45) Nitrobenzene-d5	(2)	7.767(-0.001)	82	1406225	19.914	80%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682(0.000)	172	1790950	17.057	68%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.763(0.000)	330	74959	5.665	11%	*	23 - 135
184) Terphenyl-d14	(5)	16.009(0.000)	244	1680289	17.417	70%		33 - 126

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)			Not Detected					0.5
6) Pyridine	(1)			Not Detected					0.5
8) 2-Picoline	(1)			Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
19) Phenol	(1)			Not Detected					0.2
20) Aniline	(1)			Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)			Not Detected					0.1
24) 2-Chlorophenol	(1)			Not Detected					0.2
28) Benzyl alcohol	(1)			Not Detected					3
32) 2-Methylphenol	(1)			Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)			Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)			Not Detected					1
38) 4-Methylphenol	(1)			Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.2
40) N-Nitrosomorpholine	(1)			Not Detected					0.5
41) o-Toluidine	(1)			Not Detected					1
46) Nitrobenzene	(2)			Not Detected					0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)			Not Detected					0.1
53) 2-Nitrophenol	(2)			Not Detected					0.8
55) 2,4-Dimethylphenol	(2)			Not Detected					0.8

Digitally signed by William H Saadeh on 04/24/2019 at 08:30. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr19.b/ld1149.d Injection date and time: **19-APR-2019 17:20**
Data file Sample Info. Line: F3502;1034102;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.3
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.5
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.2
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.1
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.09
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.2
152) Dimethoate	(4)				Not Detected					0.8

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Data file: /chem/HP20296.i/19apr19.b/ld1149.d Injection date and time: **19-APR-2019 17:20**
Data file Sample Info. Line: F3502;1034102;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
154) Pentachlorophenol	(4)				Not Detected					0.7
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

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Data file: /chem/HP20296.i/19apr19.b/ld1149.d Injection date and time: **19-APR-2019 17:20**
Data file Sample Info. Line: F3502;1034102;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 120

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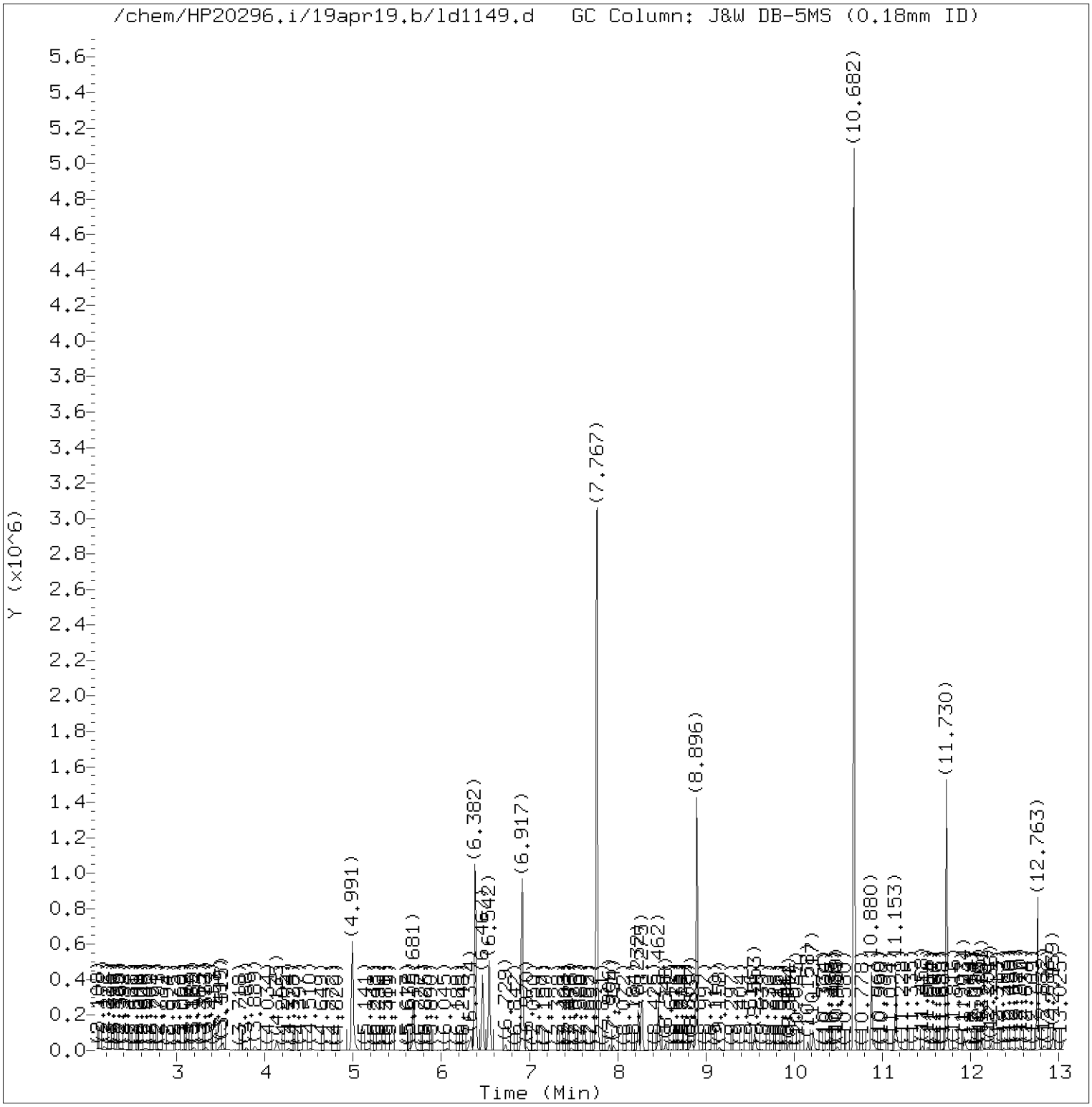
Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

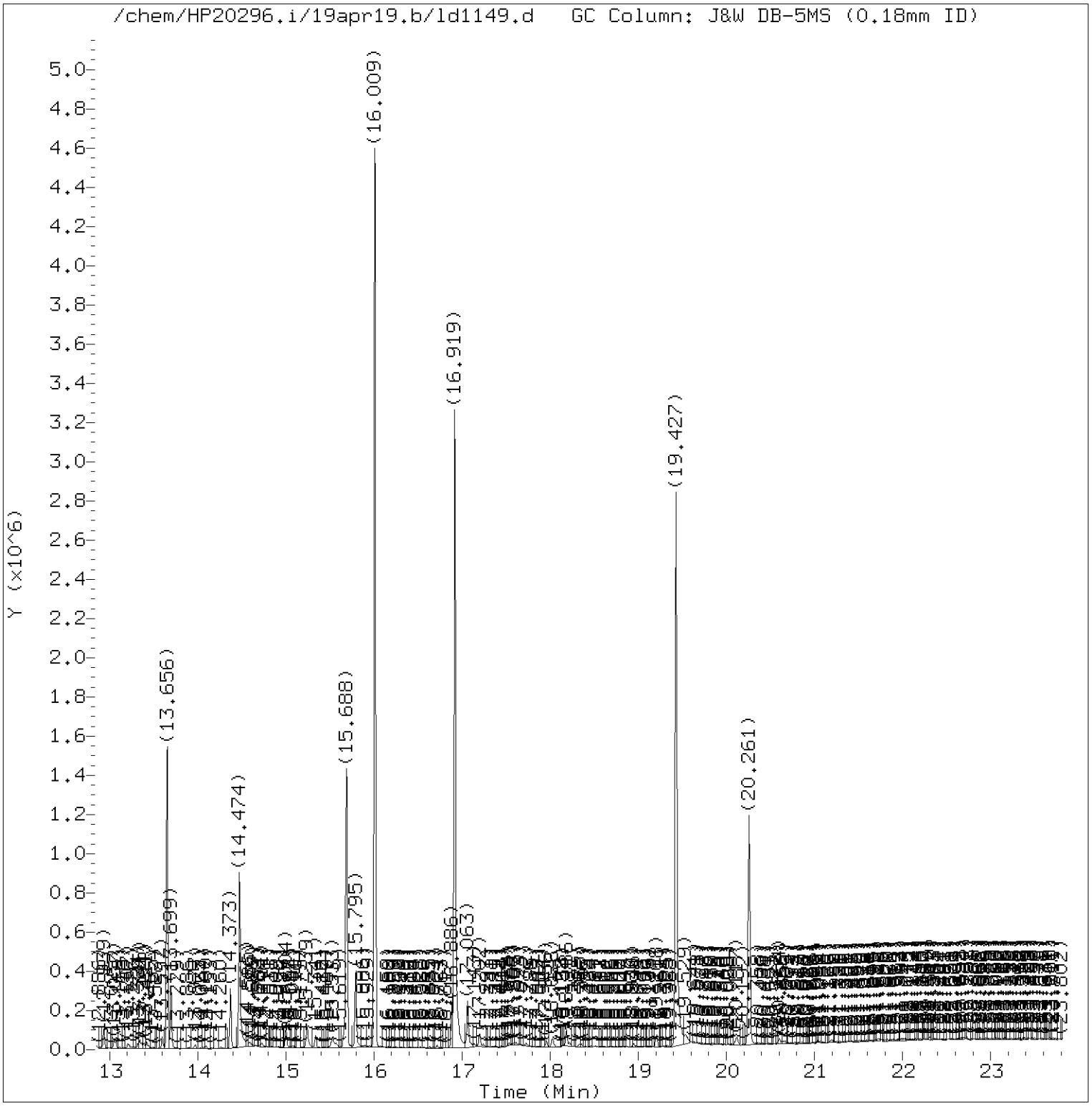
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1149.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 17:20 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Sample Name: F3502 Lab Sample ID: 1034102

Digitally signed by William H Saadeh
on 04/24/2019 at 08:30.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1149.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 17:20 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Sample Name: F3502 Lab Sample ID: 1034102

Digitally signed by William H Saadeh
on 04/24/2019 at 08:30.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1149.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 17:20 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 24-Apr-2019 08:28 whs02991

Sample Name: F3502 Lab Sample ID: 1034102

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.991	112	258997	4.336
18)$Phenol-d6	(1)	6.382	99	481440	6.074
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	186034	5.000
45)$Nitrobenzene-d5	(2)	7.767	82	1406225	19.914
68)*Naphthalene-d8	(2)	8.896	136	711886	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1790950	17.057
118)*Acenaphthene-d10	(3)	11.730	164	327131	5.000
140)$2,4,6-Tribromophenol	(3)	12.763	330	74959	5.665
158)*Phenanthrene-d10	(4)	13.656	188	603705	5.000
180)*Pyrene-d10	(5)	15.688	212	590551	5.000
184)$Terphenyl-d14	(5)	16.009	244	1680289	17.417
218)*Perylene-d12	(6)	20.261	264	559371	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/24/2019 at 08:30.
Target 3.5 esignature user ID: whs02991

F3503 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034103

Data file: /chem/HP20296.i/19apr18a.b/ld1117.d Injection date and time: **19-APR-2019 04:23**
Data file Sample Info. Line: F3503;1034103;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922	(0.000)	904	152	186123	(-6)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	719861	(-6)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	327174	(-10)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	598713	(-12)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	582923	(-14)	5.00	
218) Perylene-d12	20.272	(0.000)	3400	264	534894	(-16)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	4.996	(0.000)	112	1500882	25.112	50%		10 - 84
18) Phenol-d6	(1)	6.392	(0.000)	99	1913195	24.125	48%		10 - 67
45) Nitrobenzene-d5	(2)	7.772	(-0.001)	82	1453228	20.352	81%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.687	(0.000)	172	2078336	19.791	79%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.773	(0.000)	330	517745	39.126	78%		23 - 135
184) Terphenyl-d14	(5)	16.025	(0.000)	244	2193673	23.036	92%		33 - 126

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)				Not Detected					0.5
6) Pyridine	(1)				Not Detected					0.5
8) 2-Picoline	(1)				Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)				Not Detected					0.5
10) Methyl methanesulfonate	(1)				Not Detected					0.3
14) N-Nitrosodiethylamine	(1)				Not Detected					0.1
16) Ethyl methanesulfonate	(1)				Not Detected					0.1
19) Phenol	(1)				Not Detected					0.2
20) Aniline	(1)				Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)				Not Detected					0.1
24) 2-Chlorophenol	(1)				Not Detected					0.2
28) Benzyl alcohol	(1)				Not Detected					3
32) 2-Methylphenol	(1)				Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)				Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)				Not Detected					0.1
37) Acetophenone	(1)				Not Detected					1
38) 4-Methylphenol	(1)				Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.2
40) N-Nitrosomorpholine	(1)				Not Detected					0.5
41) o-Toluidine	(1)				Not Detected					1
46) Nitrobenzene	(2)				Not Detected					0.1
50) N-Nitrosopiperidine	(2)				Not Detected					0.1
52) Isophorone	(2)				Not Detected					0.1
53) 2-Nitrophenol	(2)				Not Detected					0.8
55) 2,4-Dimethylphenol	(2)				Not Detected					0.8
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5

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Data file: /chem/HP20296.i/19apr18a.b/ld1117.d Injection date and time: **19-APR-2019 04:23**
Data file Sample Info. Line: F3503;1034103;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.3
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.5
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.2
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.1
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.09
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.2
152) Dimethoate	(4)				Not Detected					0.8
154) Pentachlorophenol	(4)				Not Detected					0.7

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Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr18a.b/ld1117.d Injection date and time: **19-APR-2019 04:23**
Data file Sample Info. Line: F3503;1034103;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

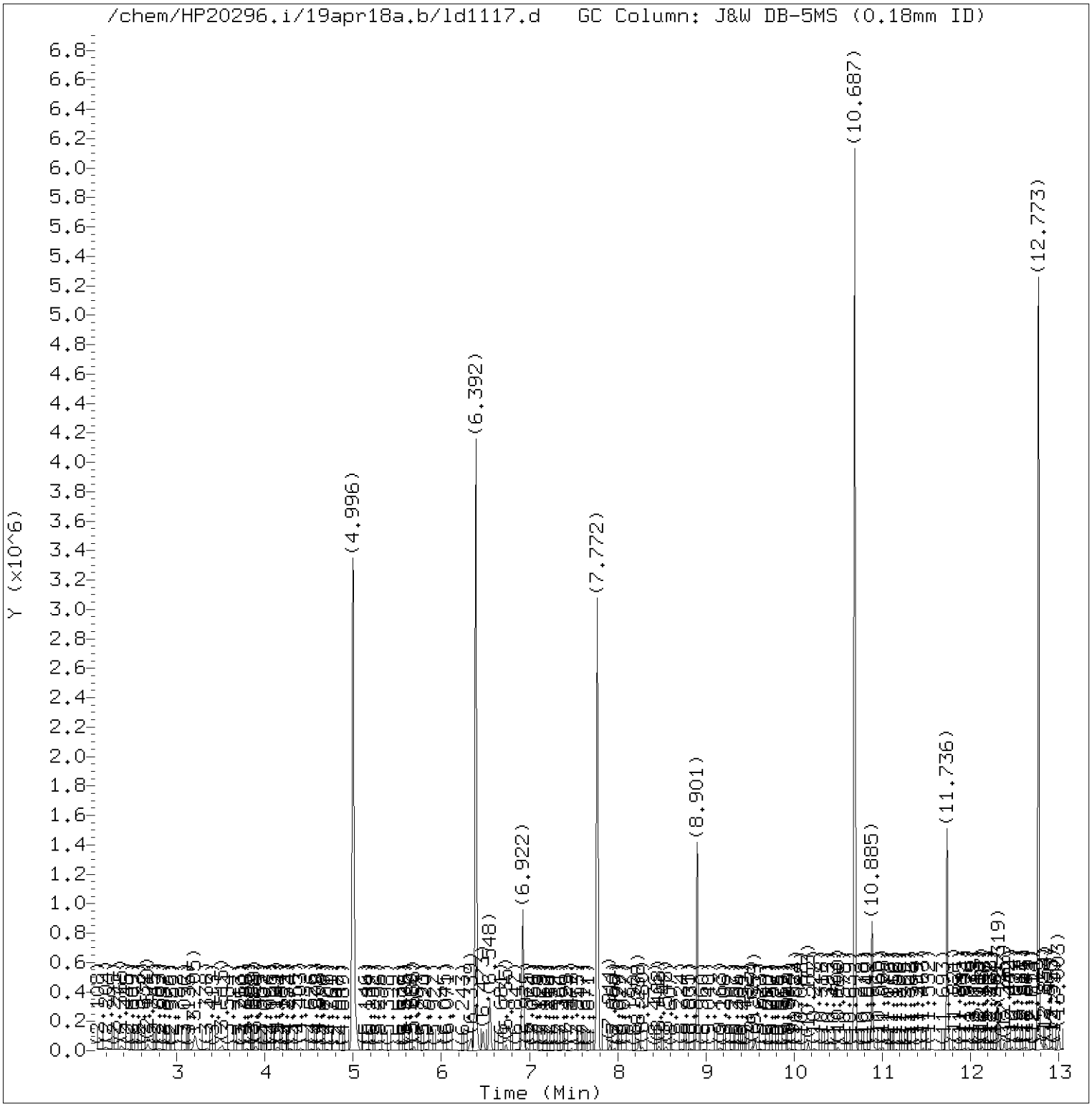
Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

Total number of targets = 120

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

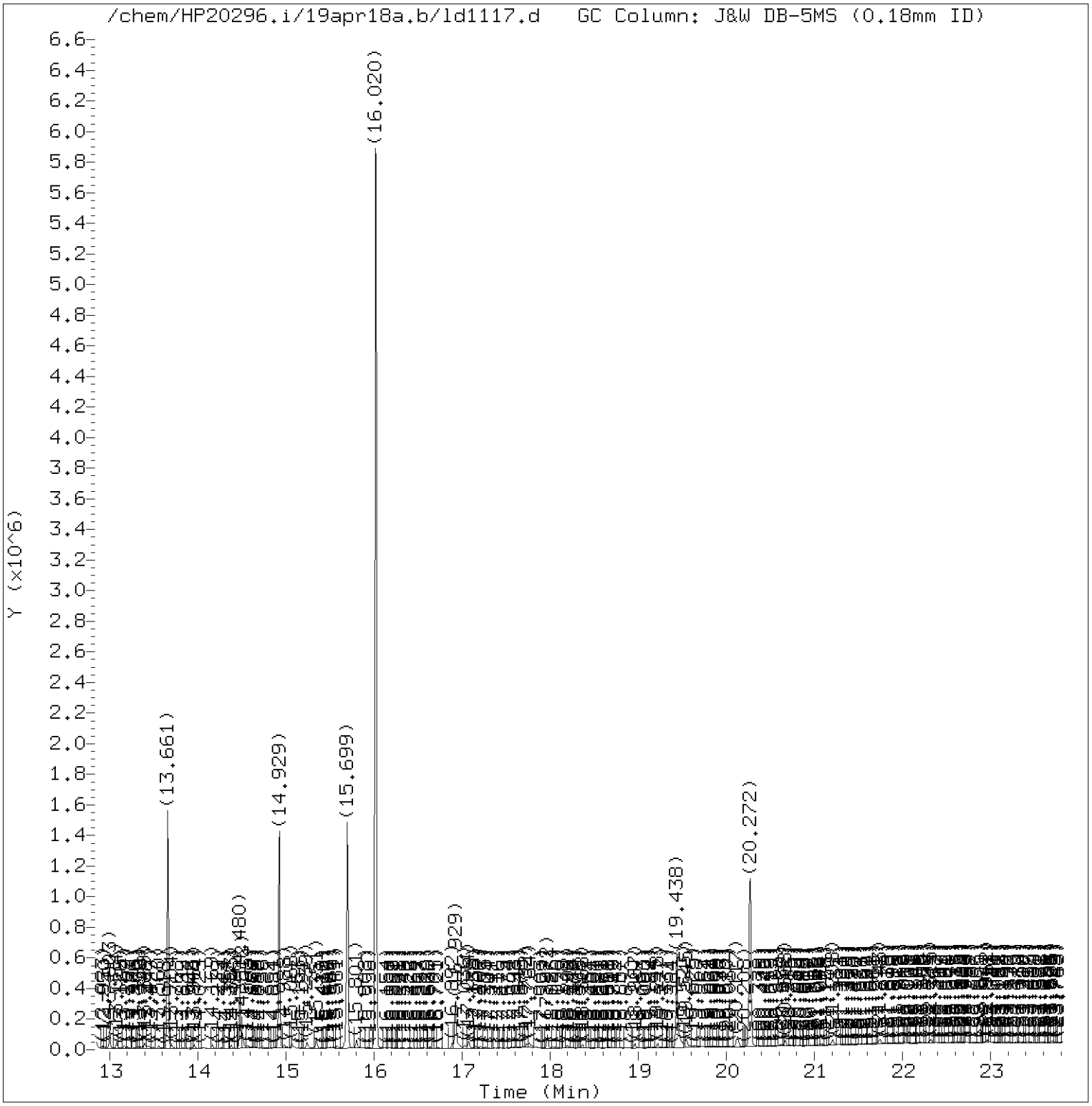
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1117.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 04:23 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3503 Lab Sample ID: 1034103

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1117.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 04:23 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3503 Lab Sample ID: 1034103

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1117.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 04:23 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3503 Lab Sample ID: 1034103

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.996	112	1500882	25.112
18)$Phenol-d6	(1)	6.392	99	1913195	24.125
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	186123	5.000
45)$Nitrobenzene-d5	(2)	7.772	82	1453228	20.352
68)*Naphthalene-d8	(2)	8.901	136	719861	5.000
96)$2-Fluorobiphenyl	(3)	10.687	172	2078336	19.791
118)*Acenaphthene-d10	(3)	11.736	164	327174	5.000
140)$2,4,6-Tribromophenol	(3)	12.773	330	517745	39.126
158)*Phenanthrene-d10	(4)	13.661	188	598713	5.000
180)*Pyrene-d10	(5)	15.699	212	582923	5.000
184)$Terphenyl-d14	(5)	16.025	244	2193673	23.036
218)*Perylene-d12	(6)	20.272	264	534894	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

F3504 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034104

Data file: /chem/HP20296.i/19apr18a.b/ld1118.d Injection date and time: **19-APR-2019 04:52**
Data file Sample Info. Line: F3504;1034104;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922(0.000)	904	152	182779 (-7)	5.00	
68) Naphthalene-d8	8.901(0.006)	1274	136	695012 (-9)	5.00	
118) Acenaphthene-d10	11.736(0.000)	1804	164	317073 (-13)	5.00	
158) Phenanthrene-d10	13.661(0.000)	2164	188	574297 (-15)	5.00	
180) Pyrene-d10	15.699(0.000)	2545	212	568613 (-16)	5.00	
218) Perylene-d12	20.272(0.000)	3400	264	519489 (-19)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	4.996(0.000)	112	458944	7.819	16%		10 - 84
18) Phenol-d6	(1)	6.392(0.000)	99	1067178	13.703	27%		10 - 67
45) Nitrobenzene-d5	(2)	7.772(-0.001)	82	1427453	20.705	83%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.687(0.000)	172	2027142	19.919	80%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.768(0.000)	330	104080	8.116	16%	*	23 - 135
184) Terphenyl-d14	(5)	16.020(0.000)	244	1081689	11.645	47%		33 - 126

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)			Not Detected					0.5
6) Pyridine	(1)			Not Detected					0.5
8) 2-Picoline	(1)			Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
19) Phenol	(1)			Not Detected					0.2
20) Aniline	(1)			Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)			Not Detected					0.1
24) 2-Chlorophenol	(1)			Not Detected					0.2
28) Benzyl alcohol	(1)			Not Detected					3
32) 2-Methylphenol	(1)			Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)			Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)			Not Detected					1
38) 4-Methylphenol	(1)			Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.2
40) N-Nitrosomorpholine	(1)			Not Detected					0.5
41) o-Toluidine	(1)			Not Detected					1
46) Nitrobenzene	(2)			Not Detected					0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)			Not Detected					0.1
53) 2-Nitrophenol	(2)			Not Detected					0.8
55) 2,4-Dimethylphenol	(2)			Not Detected					0.8

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Data file: /chem/HP20296.i/19apr18a.b/ld1118.d Injection date and time: **19-APR-2019 04:52**
Data file Sample Info. Line: F3504;1034104;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.3
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.5
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.2
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.1
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.09
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.2
152) Dimethoate	(4)				Not Detected					0.8

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Data file: /chem/HP20296.i/19apr18a.b/ld1118.d Injection date and time: **19-APR-2019 04:52**
Data file Sample Info. Line: F3504;1034104;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
154) Pentachlorophenol	(4)				Not Detected					0.7
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1118.d Injection date and time: **19-APR-2019 04:52**
Data file Sample Info. Line: F3504;1034104;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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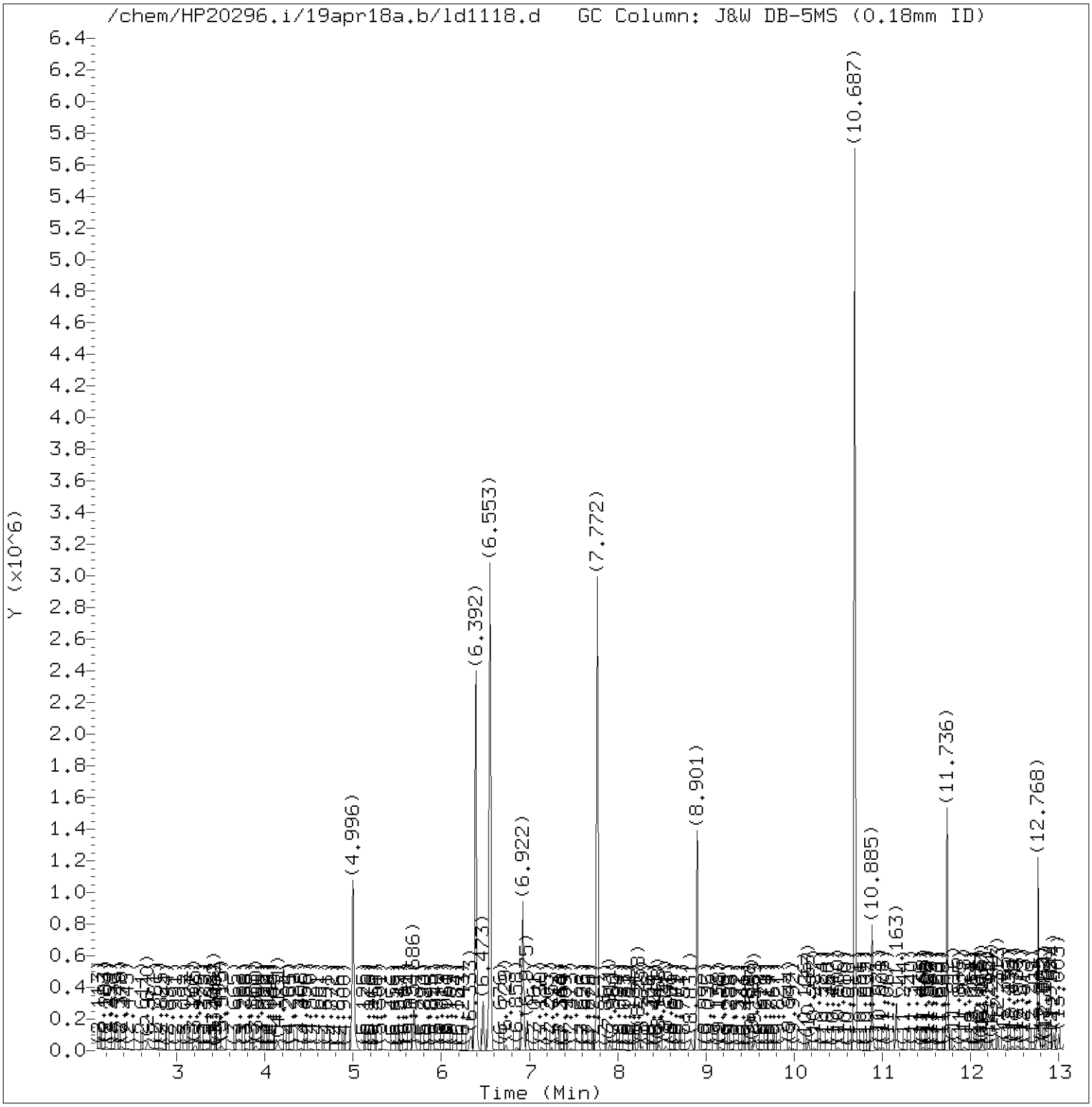
Total number of targets = 120

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

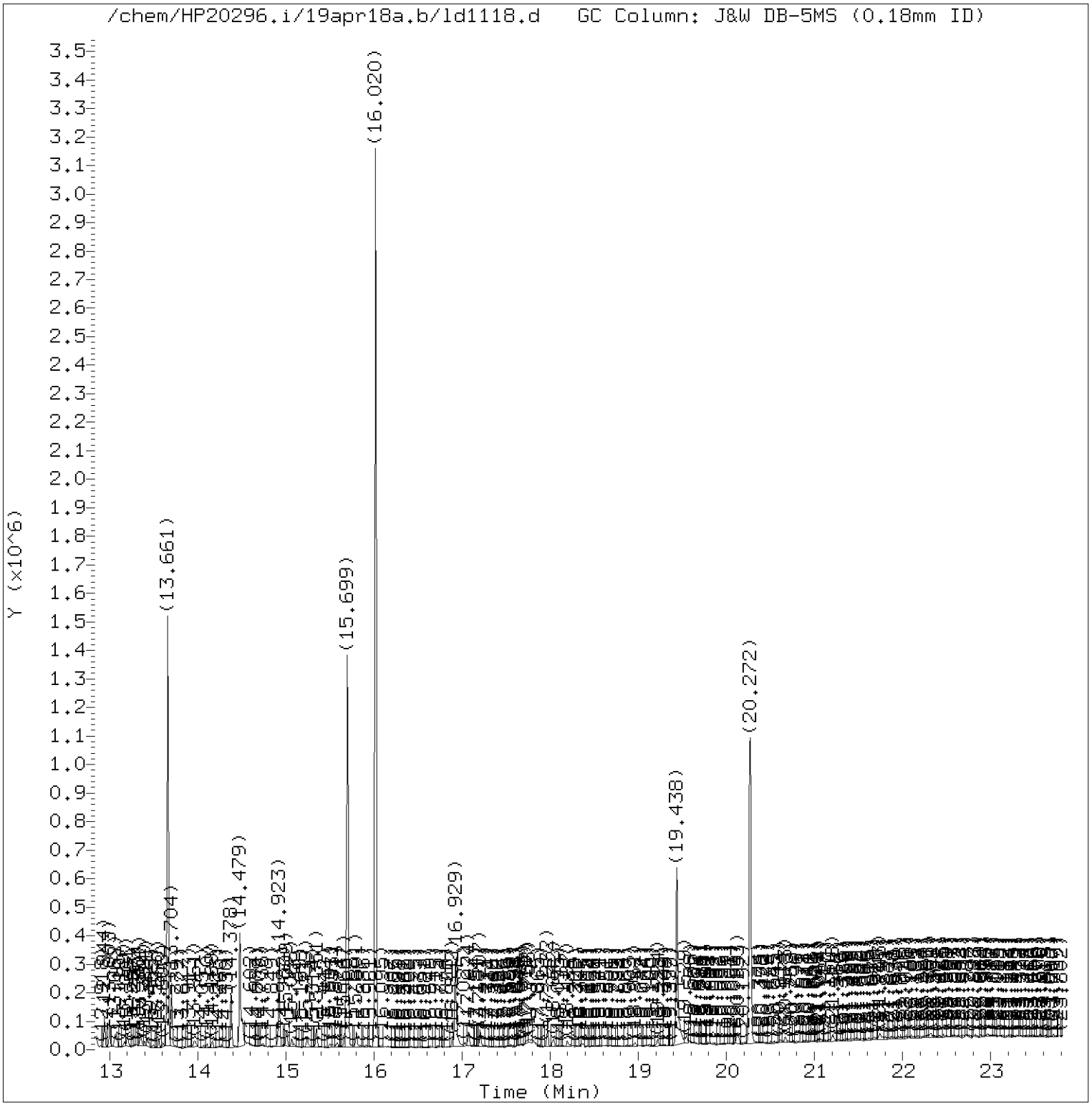
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1118.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 04:52 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3504 Lab Sample ID: 1034104

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1118.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 04:52 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3504 Lab Sample ID: 1034104

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1118.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 04:52 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:02 whs02991

Sample Name: F3504 Lab Sample ID: 1034104

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.996	112	458944	7.819
18)$Phenol-d6	(1)	6.392	99	1067178	13.703
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	182779	5.000
45)$Nitrobenzene-d5	(2)	7.772	82	1427453	20.705
68)*Naphthalene-d8	(2)	8.901	136	695012	5.000
96)$2-Fluorobiphenyl	(3)	10.687	172	2027142	19.919
118)*Acenaphthene-d10	(3)	11.736	164	317073	5.000
140)$2,4,6-Tribromophenol	(3)	12.768	330	104080	8.116
158)*Phenanthrene-d10	(4)	13.661	188	574297	5.000
180)*Pyrene-d10	(5)	15.699	212	568613	5.000
184)$Terphenyl-d14	(5)	16.020	244	1081689	11.645
218)*Perylene-d12	(6)	20.272	264	519489	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

F3505 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034107

Data file: /chem/HP20296.i/19apr19.b/ld1147.d Injection date and time: **19-APR-2019 16:22**
Data file Sample Info. Line: F3505;1034107;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917(-0.005)	903	152	176477 (-12)	5.00	
68) Naphthalene-d8	8.896(0.000)	1273	136	696406 (-9)	5.00	
118) Acenaphthene-d10	11.730(-0.005)	1803	164	314627 (-12)	5.00	
158) Phenanthrene-d10	13.656(-0.005)	2163	188	578561 (-10)	5.00	
180) Pyrene-d10	15.688(0.000)	2543	212	566443 (-13)	5.00	
218) Perylene-d12	20.261(-0.005)	3398	264	551619 (-15)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	4.991(0.000)	112	360402	6.360	13%		10 - 84
18) Phenol-d6	(1)	6.387(0.000)	99	1006911	13.391	27%		10 - 67
45) Nitrobenzene-d5	(2)	7.762(0.000)	82	1387743	20.089	80%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682(0.000)	172	1971629	19.524	78%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.763(0.000)	330	104572	8.218	16%	*	23 - 135
184) Terphenyl-d14	(5)	16.009(0.000)	244	1168350	12.626	51%		33 - 126

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)			Not Detected					0.5
6) Pyridine	(1)			Not Detected					0.5
8) 2-Picoline	(1)			Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
19) Phenol	(1)			Not Detected					0.2
20) Aniline	(1)			Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)			Not Detected					0.1
24) 2-Chlorophenol	(1)			Not Detected					0.2
28) Benzyl alcohol	(1)			Not Detected					3
32) 2-Methylphenol	(1)			Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)			Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)			Not Detected					1
38) 4-Methylphenol	(1)			Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.2
40) N-Nitrosomorpholine	(1)			Not Detected					0.5
41) o-Toluidine	(1)			Not Detected					1
46) Nitrobenzene	(2)			Not Detected					0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)			Not Detected					0.1
53) 2-Nitrophenol	(2)			Not Detected					0.8
55) 2,4-Dimethylphenol	(2)			Not Detected					0.8

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Data file: /chem/HP20296.i/19apr19.b/ld1147.d Injection date and time: **19-APR-2019 16:22**
Data file Sample Info. Line: F3505;1034107;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.3
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.5
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.2
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.1
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.09
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.2
152) Dimethoate	(4)				Not Detected					0.8

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Data file: /chem/HP20296.i/19apr19.b/ld1147.d Injection date and time: **19-APR-2019 16:22**
Data file Sample Info. Line: F3505;1034107;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
154) Pentachlorophenol	(4)				Not Detected					0.7
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

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Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr19.b/ld1147.d Injection date and time: **19-APR-2019 16:22**
Data file Sample Info. Line: F3505;1034107;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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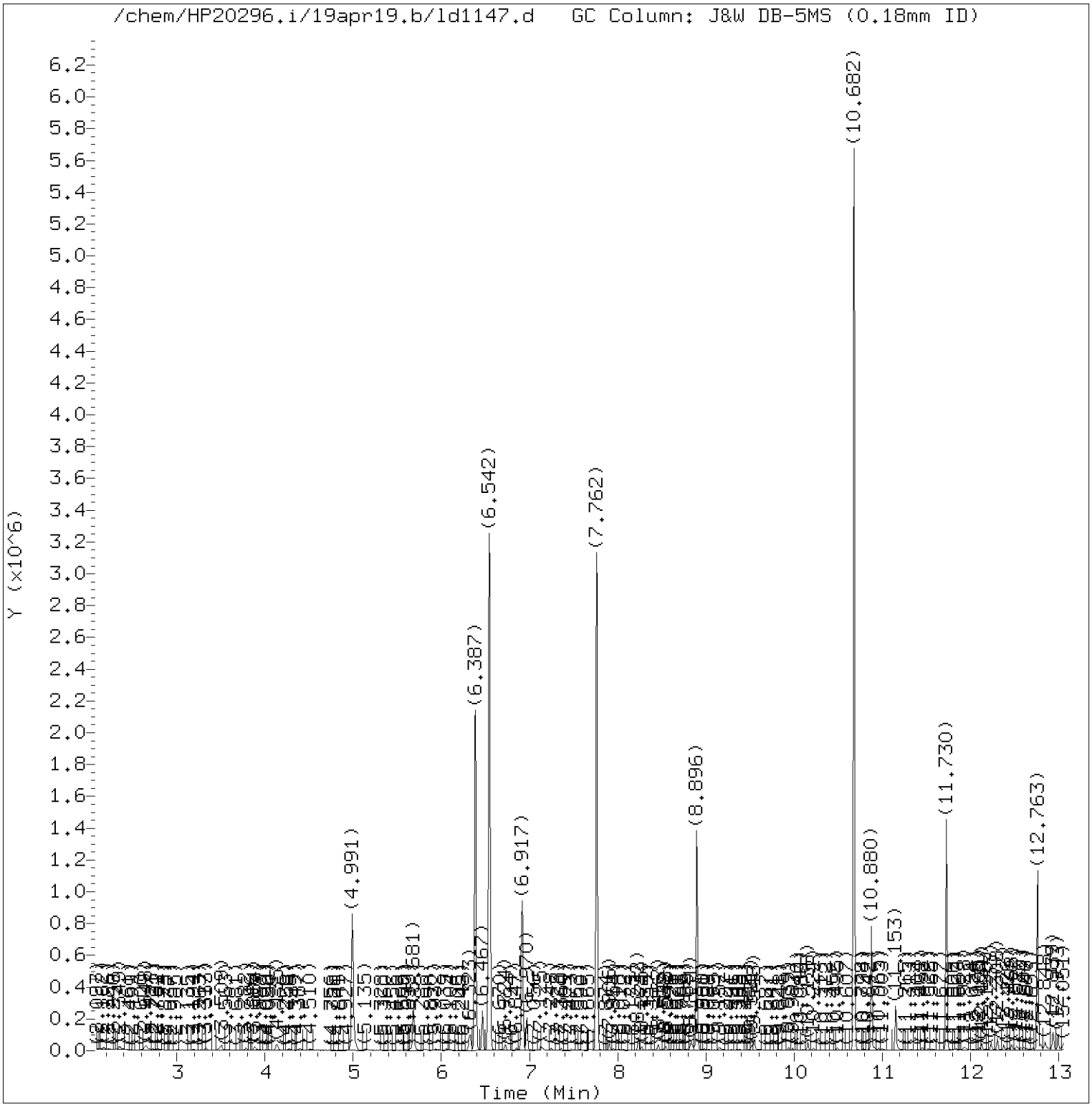
Total number of targets = 120

Digitally signed by William H Saadeh on 04/23/2019 at 17:33. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

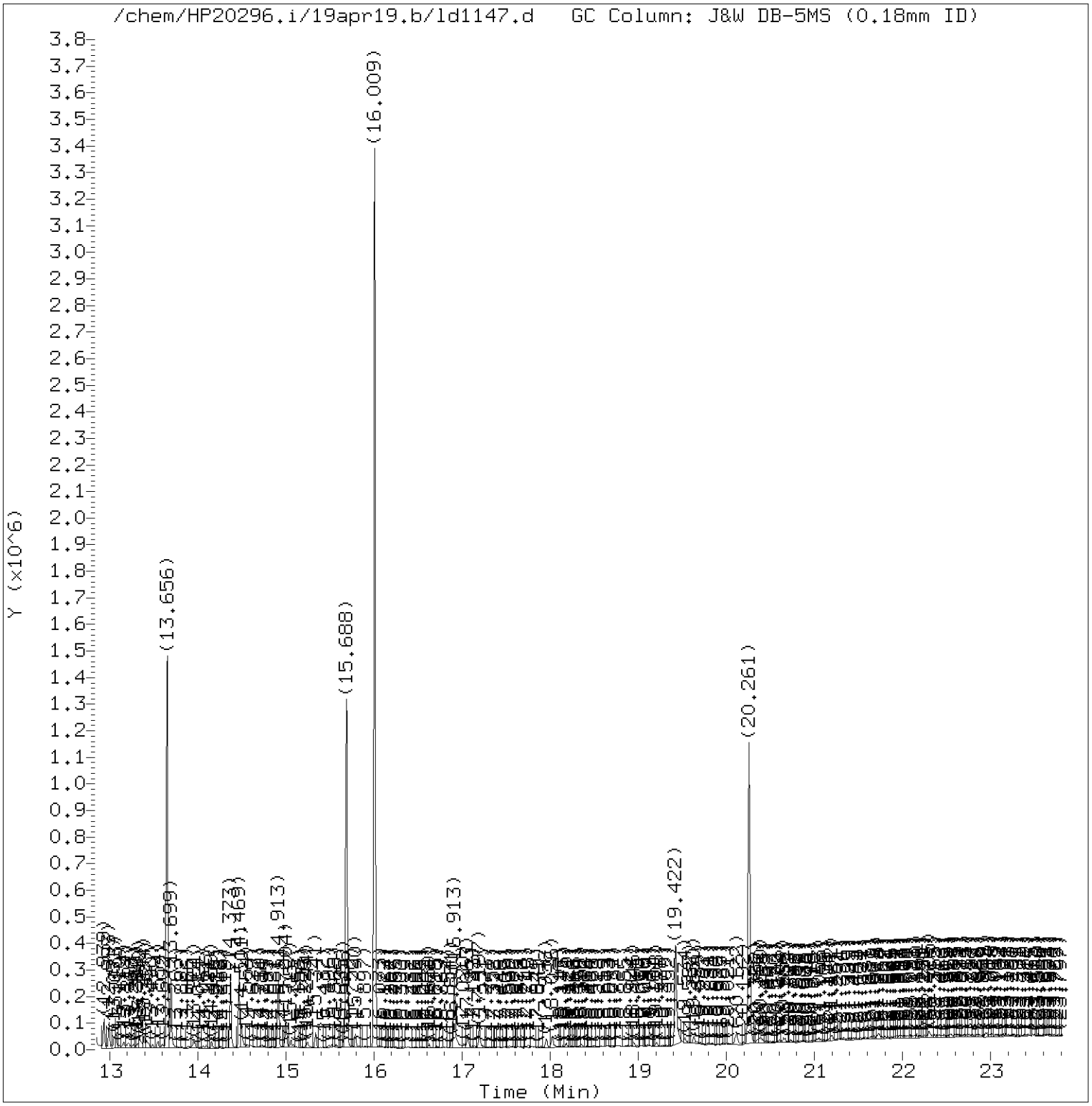
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1147.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 16:22 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Sample Name: F3505 Lab Sample ID: 1034107

Digitally signed by William H Saadeh
on 04/23/2019 at 17:33.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1147.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 16:22 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Sample Name: F3505 Lab Sample ID: 1034107

Digitally signed by William H Saadeh
on 04/23/2019 at 17:33.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1147.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 16:22 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Sample Name: F3505 Lab Sample ID: 1034107

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.991	112	360402	6.360
18)$Phenol-d6	(1)	6.387	99	1006911	13.391
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	176477	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1387743	20.089
68)*Naphthalene-d8	(2)	8.896	136	696406	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1971629	19.524
118)*Acenaphthene-d10	(3)	11.730	164	314627	5.000
140)$2,4,6-Tribromophenol	(3)	12.763	330	104572	8.218
158)*Phenanthrene-d10	(4)	13.656	188	578561	5.000
180)*Pyrene-d10	(5)	15.688	212	566443	5.000
184)$Terphenyl-d14	(5)	16.009	244	1168350	12.626
218)*Perylene-d12	(6)	20.261	264	551619	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:33.
Target 3.5 esignature user ID: whs02991

F3506 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034108

Data file: /chem/HP20296.i/19apr19.b/ld1148.d Injection date and time: **19-APR-2019 16:51**
Data file Sample Info. Line: F3506;1034108;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917(-0.006)	903	152	175520 (-12)	5.00	
68) Naphthalene-d8	8.896(0.000)	1273	136	678576 (-12)	5.00	
118) Acenaphthene-d10	11.730(-0.006)	1803	164	308695 (-14)	5.00	
158) Phenanthrene-d10	13.651(0.000)	2162	188	568307 (-12)	5.00	
180) Pyrene-d10	15.688(0.000)	2543	212	545841 (-17)	5.00	
218) Perylene-d12	20.262(-0.006)	3398	264	530228 (-18)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	4.991(0.000)	112	85044	1.509	3%	*	10 - 84
18) Phenol-d6	(1)	6.382(0.001)	99	328806	4.397	9%	*	10 - 67
45) Nitrobenzene-d5	(2)	7.762(0.000)	82	1414198	21.010	84%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682(0.000)	172	1904717	19.224	77%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.763(0.000)	330	15932	1.276	3%	*	23 - 135
184) Terphenyl-d14	(5)	16.009(0.000)	244	875385	9.817	39%		33 - 126

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)			Not Detected					0.5
6) Pyridine	(1)			Not Detected					0.5
8) 2-Picoline	(1)			Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
19) Phenol	(1)			Not Detected					0.2
20) Aniline	(1)			Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)			Not Detected					0.1
24) 2-Chlorophenol	(1)			Not Detected					0.2
28) Benzyl alcohol	(1)			Not Detected					3
32) 2-Methylphenol	(1)			Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)			Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)			Not Detected					1
38) 4-Methylphenol	(1)			Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.2
40) N-Nitrosomorpholine	(1)			Not Detected					0.5
41) o-Toluidine	(1)			Not Detected					1
46) Nitrobenzene	(2)			Not Detected					0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)			Not Detected					0.1
53) 2-Nitrophenol	(2)			Not Detected					0.8
55) 2,4-Dimethylphenol	(2)			Not Detected					0.8

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Data file: /chem/HP20296.i/19apr19.b/ld1148.d Injection date and time: **19-APR-2019 16:51**
Data file Sample Info. Line: F3506;1034108;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.3
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.5
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.2
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.1
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.09
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.2
152) Dimethoate	(4)				Not Detected					0.8

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Data file: /chem/HP20296.i/19apr19.b/ld1148.d Injection date and time: **19-APR-2019 16:51**
Data file Sample Info. Line: F3506;1034108;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
154) Pentachlorophenol	(4)				Not Detected					0.7
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

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Data file: /chem/HP20296.i/19apr19.b/ld1148.d Injection date and time: **19-APR-2019 16:51**
Data file Sample Info. Line: F3506;1034108;1;0;SAMPLE;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 17:26
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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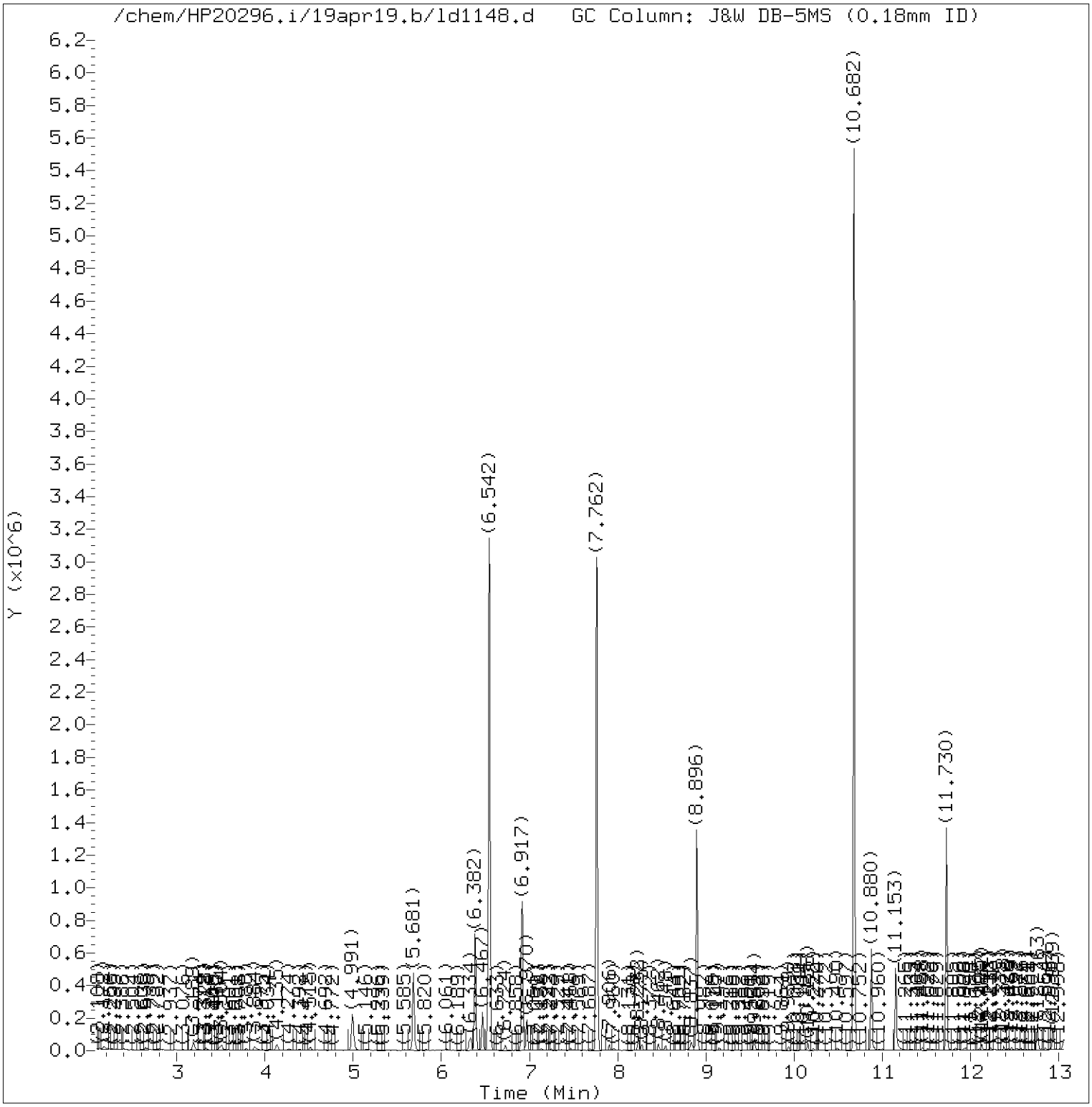
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 120

Digitally signed by William H Saadeh on 04/23/2019 at 17:33. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

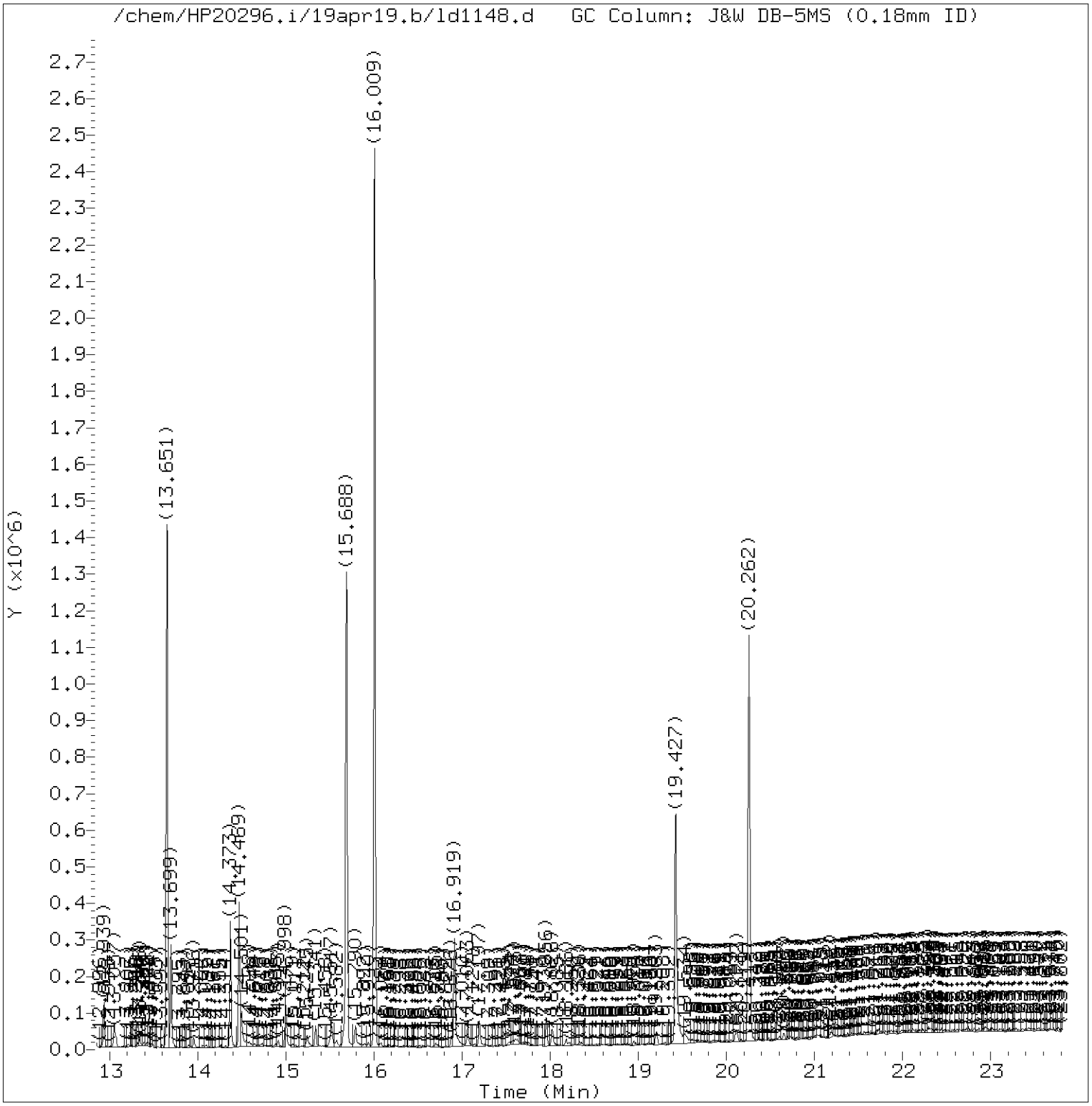
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1148.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 16:51 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Sample Name: F3506 Lab Sample ID: 1034108

Digitally signed by William H Saadeh
on 04/23/2019 at 17:33.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1148.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 16:51 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Sample Name: F3506 Lab Sample ID: 1034108

Digitally signed by William H Saadeh
on 04/23/2019 at 17:33.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1148.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 16:51 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 17:26
Date, time and analyst ID of latest file update: 23-Apr-2019 17:31 whs02991

Sample Name: F3506 Lab Sample ID: 1034108

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.991	112	85044	1.509
18)$Phenol-d6	(1)	6.382	99	328806	4.397
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	175520	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1414198	21.010
68)*Naphthalene-d8	(2)	8.896	136	678576	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1904717	19.224
118)*Acenaphthene-d10	(3)	11.730	164	308695	5.000
140)$2,4,6-Tribromophenol	(3)	12.763	330	15932	1.276
158)*Phenanthrene-d10	(4)	13.651	188	568307	5.000
180)*Pyrene-d10	(5)	15.688	212	545841	5.000
184)$Terphenyl-d14	(5)	16.009	244	875385	9.817
218)*Perylene-d12	(6)	20.262	264	530228	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:33.
Target 3.5 esignature user ID: whs02991

F3507 Lancaster Laboratories, Inc. 1034109
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr19.b/ld1150.d Injection date and time: **19-APR-2019 17:49**
Data file Sample Info. Line: F3507;1034109;1;0;SAMPLE;;RAAPVA; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **22230M**
Calibration date and time (Last Method Edit): 24-APR-2019 08:47
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 249 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917	(-0.006)	903	152	178478	(-11)	5.00	
68) Naphthalene-d8	8.896	(0.000)	1273	136	698640	(-9)	5.00	
118) Acenaphthene-d10	11.731	(-0.006)	1803	164	315547	(-12)	5.00	
158) Phenanthrene-d10	13.656	(-0.006)	2163	188	580671	(-10)	5.00	
180) Pyrene-d10	15.689	(0.000)	2543	212	565052	(-14)	5.00	
218) Perylene-d12	20.262	(-0.006)	3398	264	576412	(-11)	5.00	

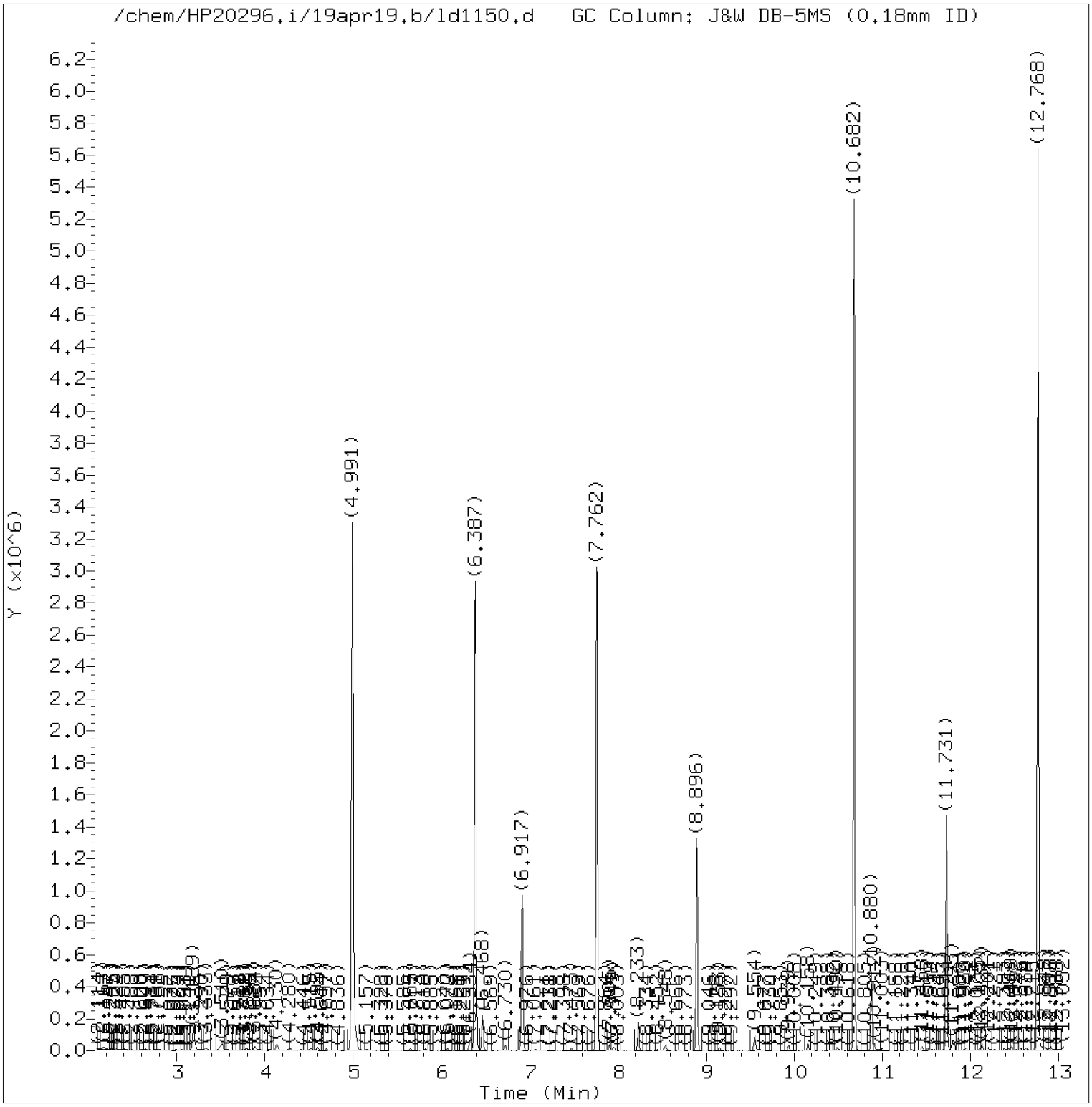
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
45) Nitrobenzene-d5	(2)	7.762	(0.000)	82	1407094	20.304	81%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682	(0.000)	172	1827139	18.040	72%		44 - 102
184) Terphenyl-d14	(5)	16.009	(0.000)	244	2105412	22.809	91%		33 - 126

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
129) Diethylphthalate	(3)				Not Detected					0.5

Total number of targets = 3

Digitally signed by William H Saadeh on 04/24/2019 at 08:49. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

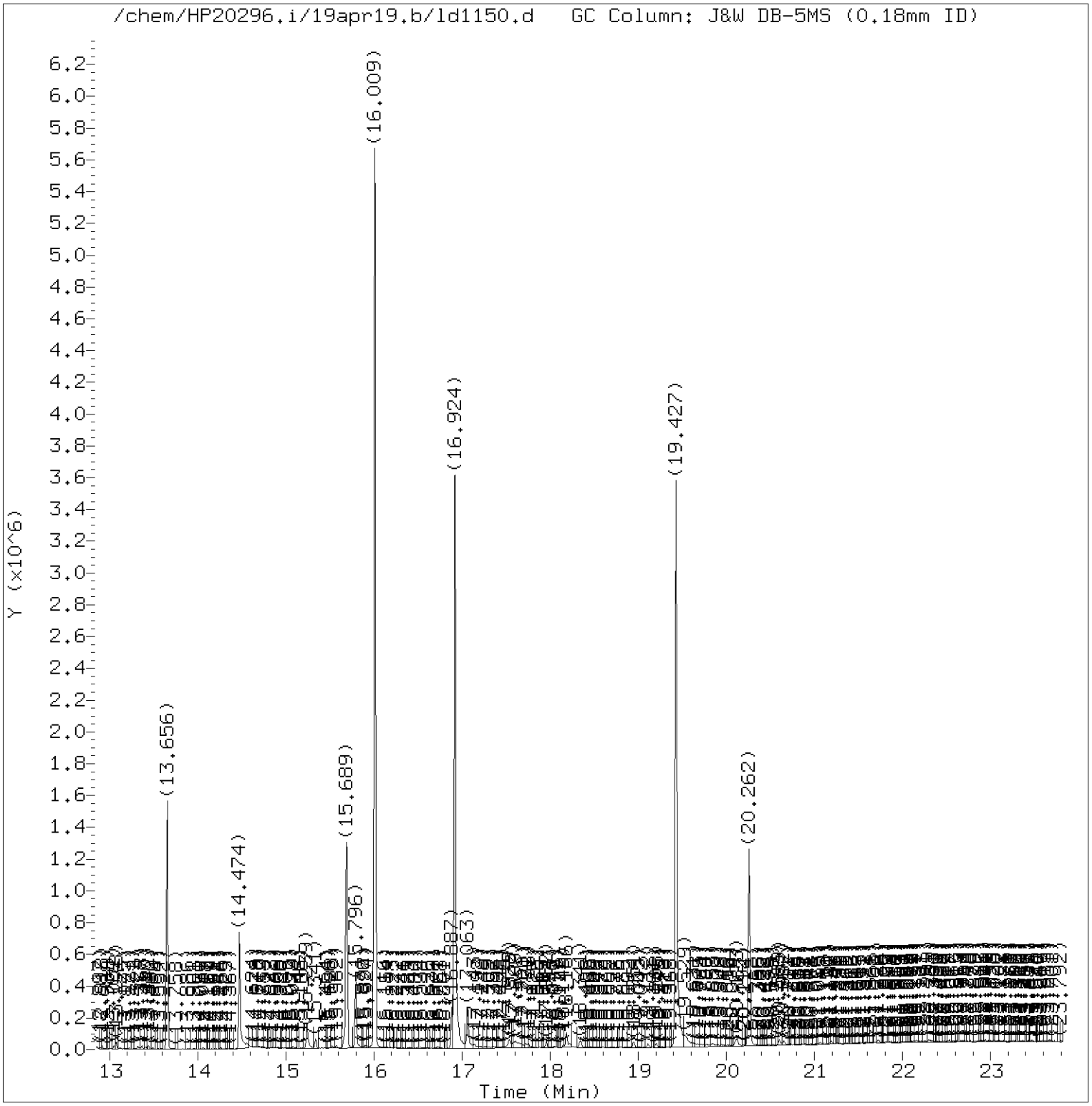
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1150.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 17:49 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3507 Lab Sample ID: 1034109

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1150.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 17:49 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3507 Lab Sample ID: 1034109

Digitally signed by William H Saadeh
on 04/24/2019 at 08:49.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1150.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 17:49 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3507 Lab Sample ID: 1034109

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	178478	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1407094	20.304
68)*Naphthalene-d8	(2)	8.896	136	698640	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1827139	18.040
118)*Acenaphthene-d10	(3)	11.731	164	315547	5.000
158)*Phenanthrene-d10	(4)	13.656	188	580671	5.000
180)*Pyrene-d10	(5)	15.689	212	565052	5.000
184)$Terphenyl-d14	(5)	16.009	244	2105412	22.809
218)*Perylene-d12	(6)	20.262	264	576412	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 08:49.
Target 3.5 esignature user ID: whs02991

F3508 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034110

Data file: /chem/HP20296.i/19apr19.b/ld1151.d Injection date and time: **19-APR-2019 18:18**
Data file Sample Info. Line: F3508;1034110;1;0;SAMPLE;;RAAPVA; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **22230M**
Calibration date and time (Last Method Edit): 24-APR-2019 08:47
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917	(-0.005)	903	152	184748	(-7)	5.00	
68) Naphthalene-d8	8.896	(0.000)	1273	136	721000	(-6)	5.00	
118) Acenaphthene-d10	11.730	(-0.005)	1803	164	321244	(-10)	5.00	
158) Phenanthrene-d10	13.656	(-0.005)	2163	188	601010	(-7)	5.00	
180) Pyrene-d10	15.694	(-0.005)	2544	212	581293	(-11)	5.00	
218) Perylene-d12	20.261	(-0.005)	3398	264	582844	(-10)	5.00	

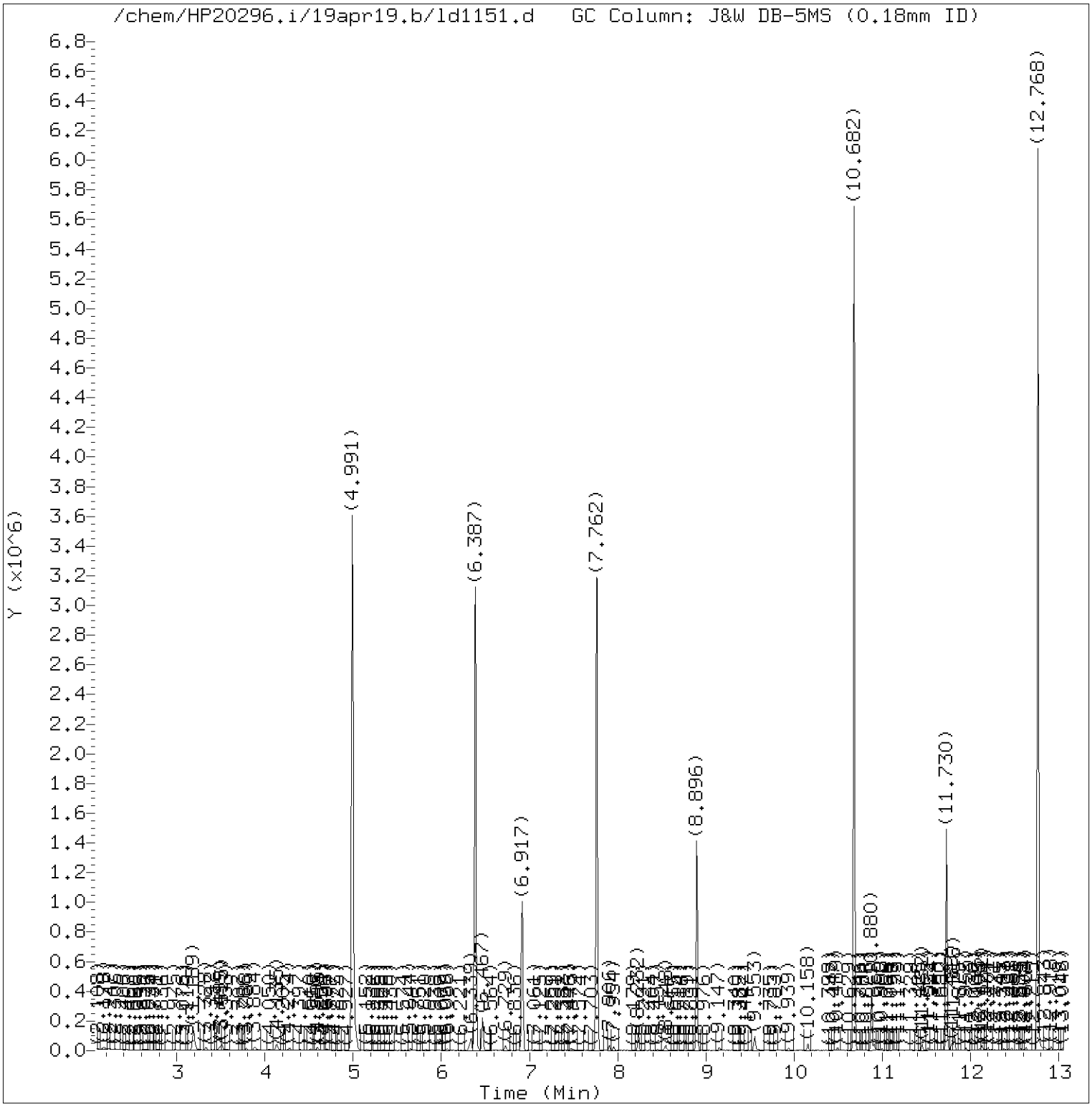
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
45) Nitrobenzene-d5	(2)	7.762	(0.000)	82	1497870	20.944	84%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682	(0.000)	172	1887034	18.301	73%		44 - 102
184) Terphenyl-d14	(5)	16.015	(0.000)	244	2230476	23.488	94%		33 - 126

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
129) Diethylphthalate	(3)				Not Detected					0.5

Total number of targets = 3

Digitally signed by William H Saadeh on 04/24/2019 at 08:48. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

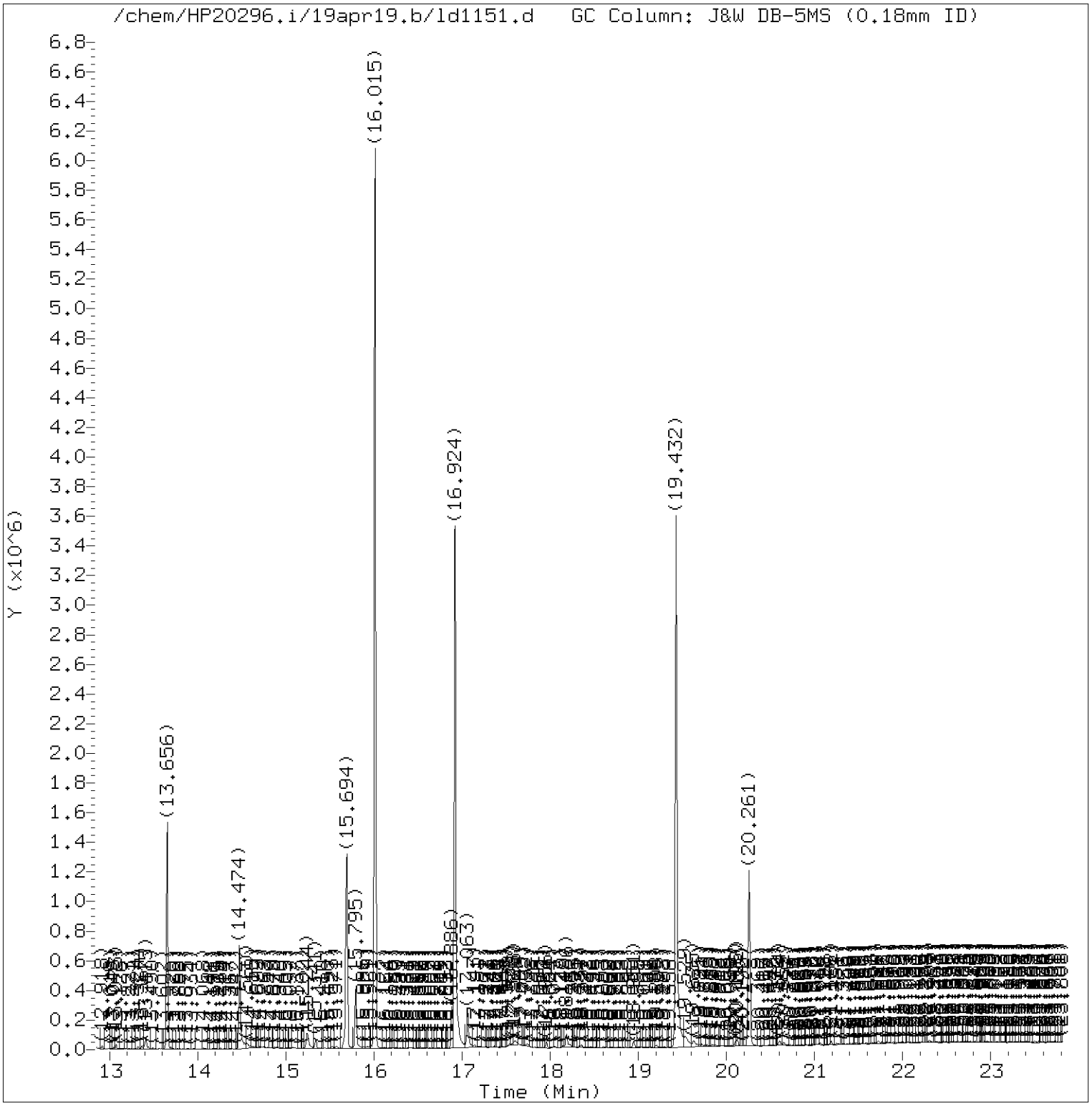
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1151.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 18:18 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3508 Lab Sample ID: 1034110

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1151.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 18:18 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3508 Lab Sample ID: 1034110

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1151.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 18:18 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3508 Lab Sample ID: 1034110

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	184748	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1497870	20.944
68)*Naphthalene-d8	(2)	8.896	136	721000	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1887034	18.301
118)*Acenaphthene-d10	(3)	11.730	164	321244	5.000
158)*Phenanthrene-d10	(4)	13.656	188	601010	5.000
180)*Pyrene-d10	(5)	15.694	212	581293	5.000
184)$Terphenyl-d14	(5)	16.015	244	2230476	23.488
218)*Perylene-d12	(6)	20.261	264	582844	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

F3509 Lancaster Laboratories, Inc. 1034111
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr19.b/ld1152.d Injection date and time: **19-APR-2019 18:47**
Data file Sample Info. Line: F3509;1034111;1;0;SAMPLE;;RAAPVA; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **22230M**
Calibration date and time (Last Method Edit): 24-APR-2019 08:47
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 249 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917	(-0.006)	903	152	180774	(-9)	5.00	
68) Naphthalene-d8	8.896	(0.000)	1273	136	720284	(-6)	5.00	
118) Acenaphthene-d10	11.730	(-0.005)	1803	164	324339	(-9)	5.00	
158) Phenanthrene-d10	13.651	(0.000)	2162	188	592184	(-8)	5.00	
180) Pyrene-d10	15.688	(0.000)	2543	212	581661	(-11)	5.00	
218) Perylene-d12	20.262	(-0.006)	3398	264	586835	(-10)	5.00	

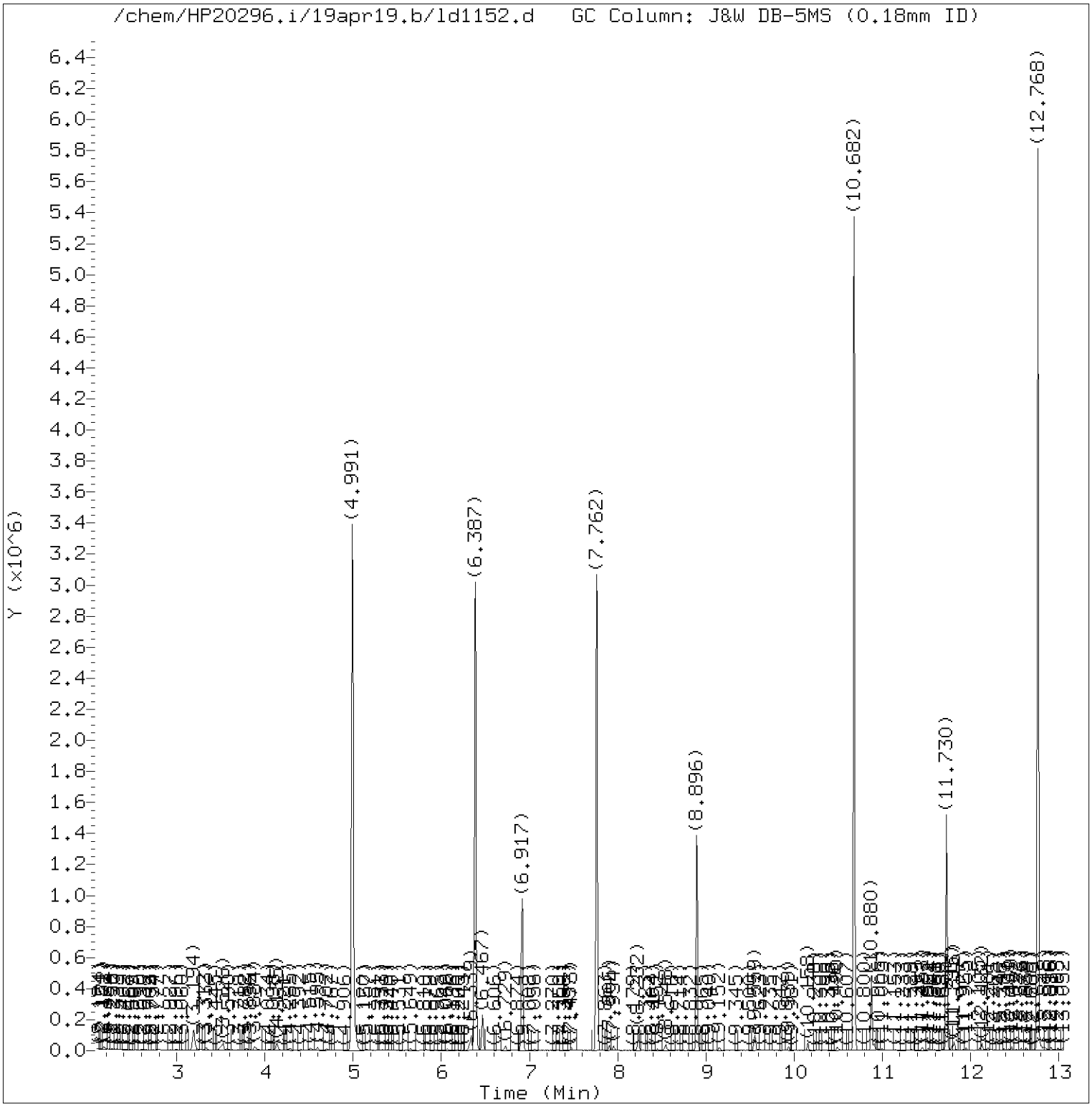
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
45) Nitrobenzene-d5	(2)	7.762	(0.000)	82	1394132	19.512	78%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682	(0.000)	172	1854923	17.818	71%		44 - 102
184) Terphenyl-d14	(5)	16.015	(0.000)	244	2226636	23.433	94%		33 - 126

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
129) Diethylphthalate	(3)				Not Detected					0.5

Total number of targets = 3

Digitally signed by William H Saadeh on 04/24/2019 at 08:48. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1152.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 18:47 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3509 Lab Sample ID: 1034111

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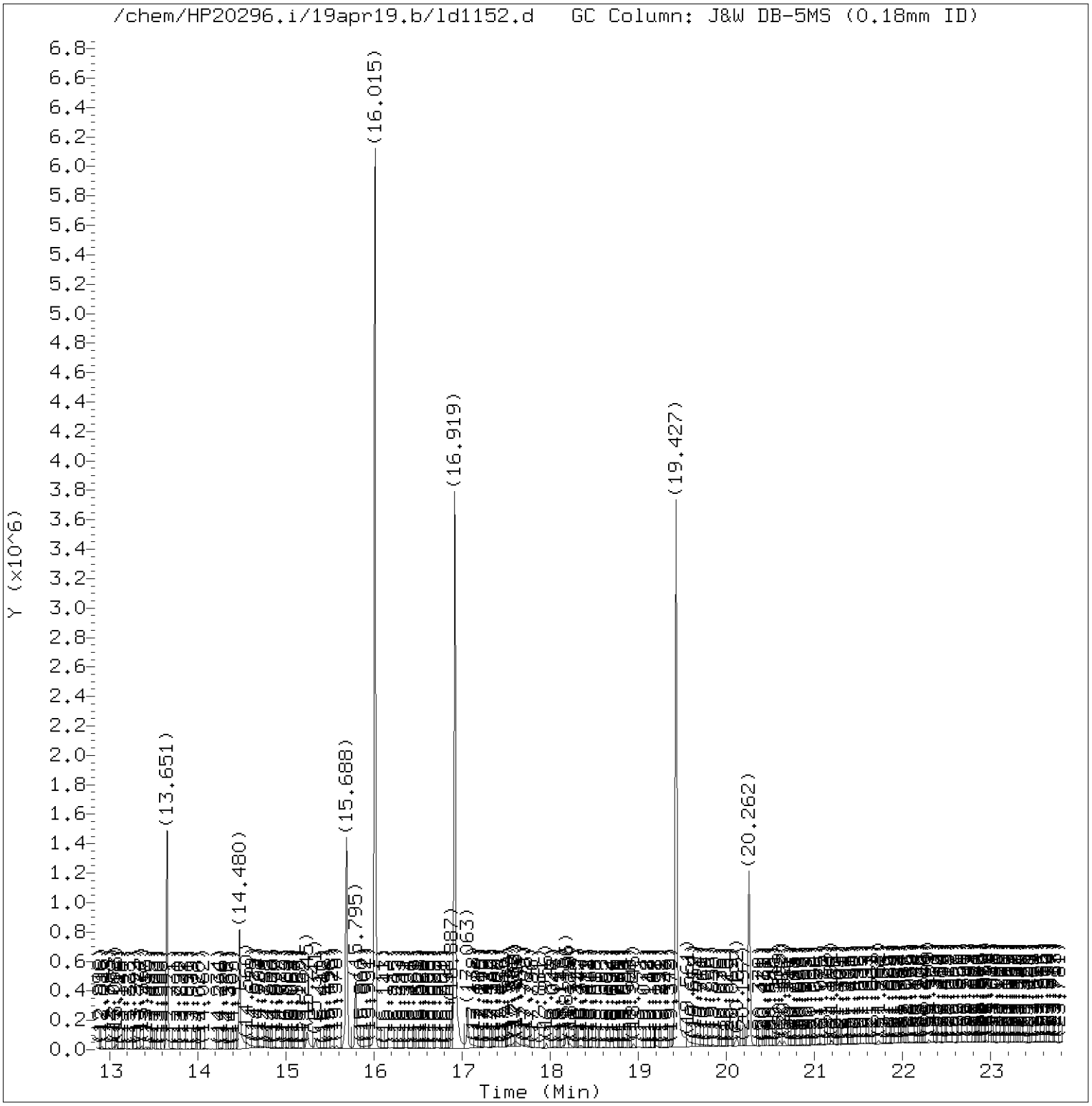
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1152.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 18:47 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3509 Lab Sample ID: 1034111

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1152.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 18:47 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3509 Lab Sample ID: 1034111

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	180774	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1394132	19.512
68)*Naphthalene-d8	(2)	8.896	136	720284	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1854923	17.818
118)*Acenaphthene-d10	(3)	11.730	164	324339	5.000
158)*Phenanthrene-d10	(4)	13.651	188	592184	5.000
180)*Pyrene-d10	(5)	15.688	212	581661	5.000
184)$Terphenyl-d14	(5)	16.015	244	2226636	23.433
218)*Perylene-d12	(6)	20.262	264	586835	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

F3510 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034112

Data file: /chem/HP20296.i/19apr19.b/ld1153.d Injection date and time: **19-APR-2019 19:16**
Data file Sample Info. Line: F3510;1034112;1;0;SAMPLE;;RAAPVA; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **22230M**
Calibration date and time (Last Method Edit): 24-APR-2019 08:47
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 249 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917	(-0.005)	903	152	204952	(3)	5.00	
68) Naphthalene-d8	8.896	(0.000)	1273	136	783138	(2)	5.00	
118) Acenaphthene-d10	11.730	(-0.005)	1803	164	352188	(-1)	5.00	
158) Phenanthrene-d10	13.651	(0.000)	2162	188	639134	(-1)	5.00	
180) Pyrene-d10	15.688	(0.000)	2543	212	628838	(-4)	5.00	
218) Perylene-d12	20.261	(-0.005)	3398	264	613912	(-5)	5.00	

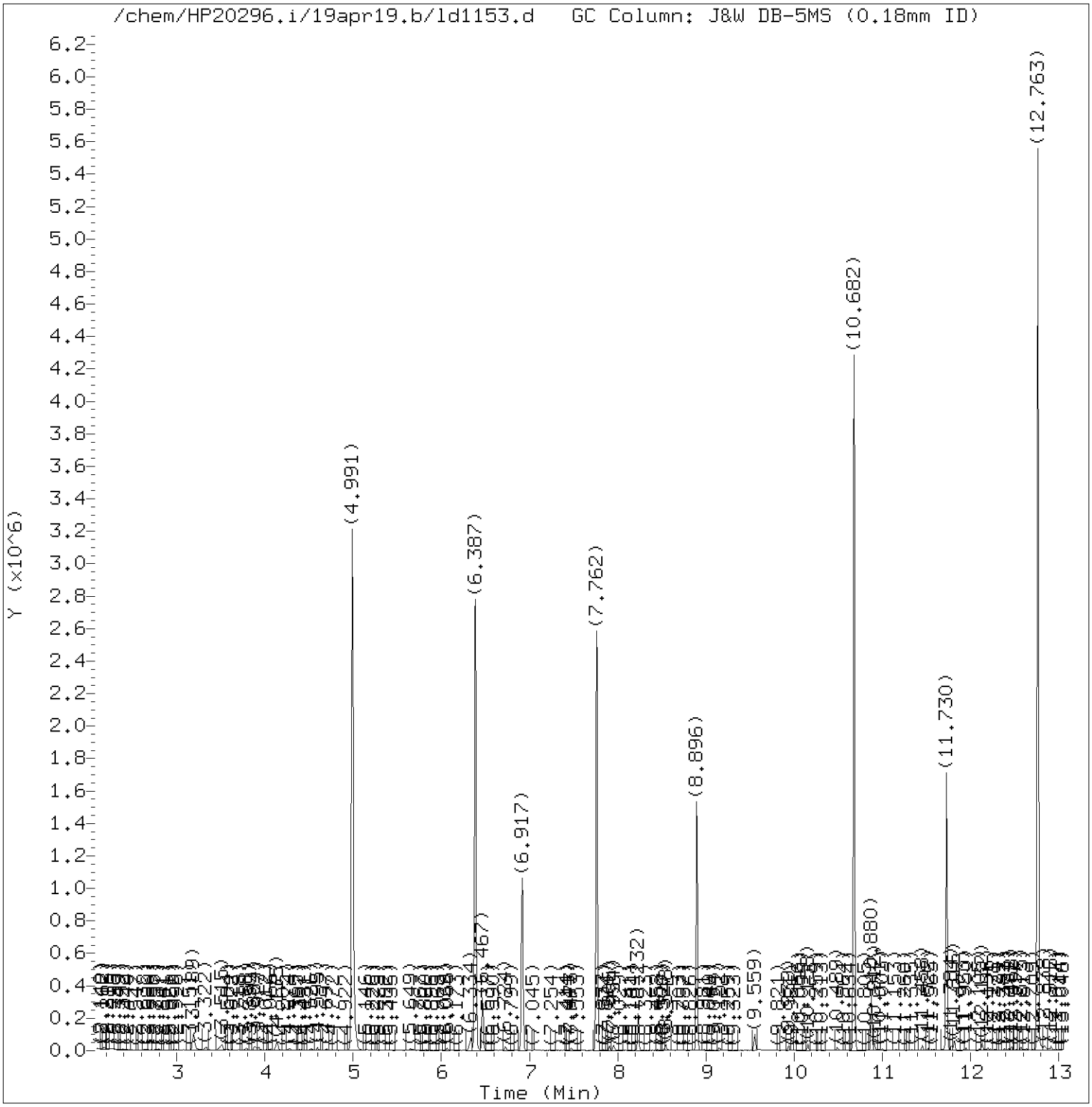
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
45) Nitrobenzene-d5	(2)	7.762	(0.000)	82	1181487	15.209	61%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682	(0.000)	172	1477194	13.068	52%		44 - 102
184) Terphenyl-d14	(5)	16.015	(0.000)	244	2178534	21.207	85%		33 - 126

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
129) Diethylphthalate	(3)				Not Detected					0.5

Total number of targets = 3

Digitally signed by William H Saadeh on 04/24/2019 at 08:48. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

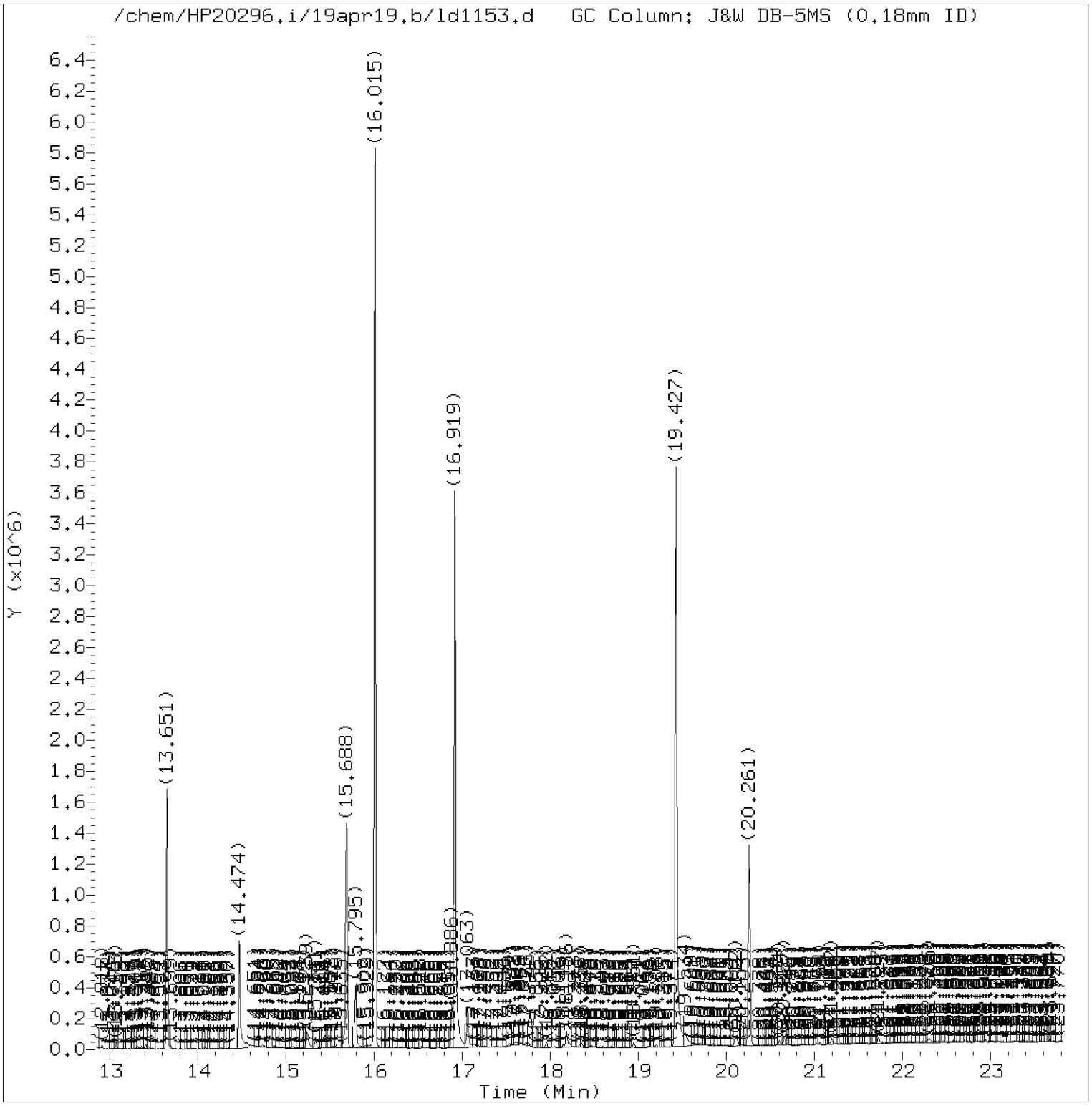
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1153.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 19:16 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3510 Lab Sample ID: 1034112

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1153.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 19:16 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3510 Lab Sample ID: 1034112

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1153.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 19:16 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:47 whs02991

Sample Name: F3510 Lab Sample ID: 1034112

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	204952	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1181487	15.209
68)*Naphthalene-d8	(2)	8.896	136	783138	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1477194	13.068
118)*Acenaphthene-d10	(3)	11.730	164	352188	5.000
158)*Phenanthrene-d10	(4)	13.651	188	639134	5.000
180)*Pyrene-d10	(5)	15.688	212	628838	5.000
184)$Terphenyl-d14	(5)	16.015	244	2178534	21.207
218)*Perylene-d12	(6)	20.261	264	613912	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

F3511 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 1034113

Data file: /chem/HP20296.i/19apr19.b/ld1154.d Injection date and time: **19-APR-2019 19:45**
Data file Sample Info. Line: F3511;1034113;1;0;SAMPLE;;RAAPVA; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:48 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: **22230M**
Calibration date and time (Last Method Edit): 24-APR-2019 08:47
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr19.b/ld1131.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.917 (-0.006)	903	152	173776 (-13)	5.00	
68) Naphthalene-d8	8.896 (0.000)	1273	136	685503 (-11)	5.00	
118) Acenaphthene-d10	11.730 (-0.006)	1803	164	305714 (-14)	5.00	
158) Phenanthrene-d10	13.656 (-0.006)	2163	188	567854 (-12)	5.00	
180) Pyrene-d10	15.694 (-0.006)	2544	212	546365 (-17)	5.00	
218) Perylene-d12	20.262 (-0.006)	3398	264	526669 (-19)	5.00	

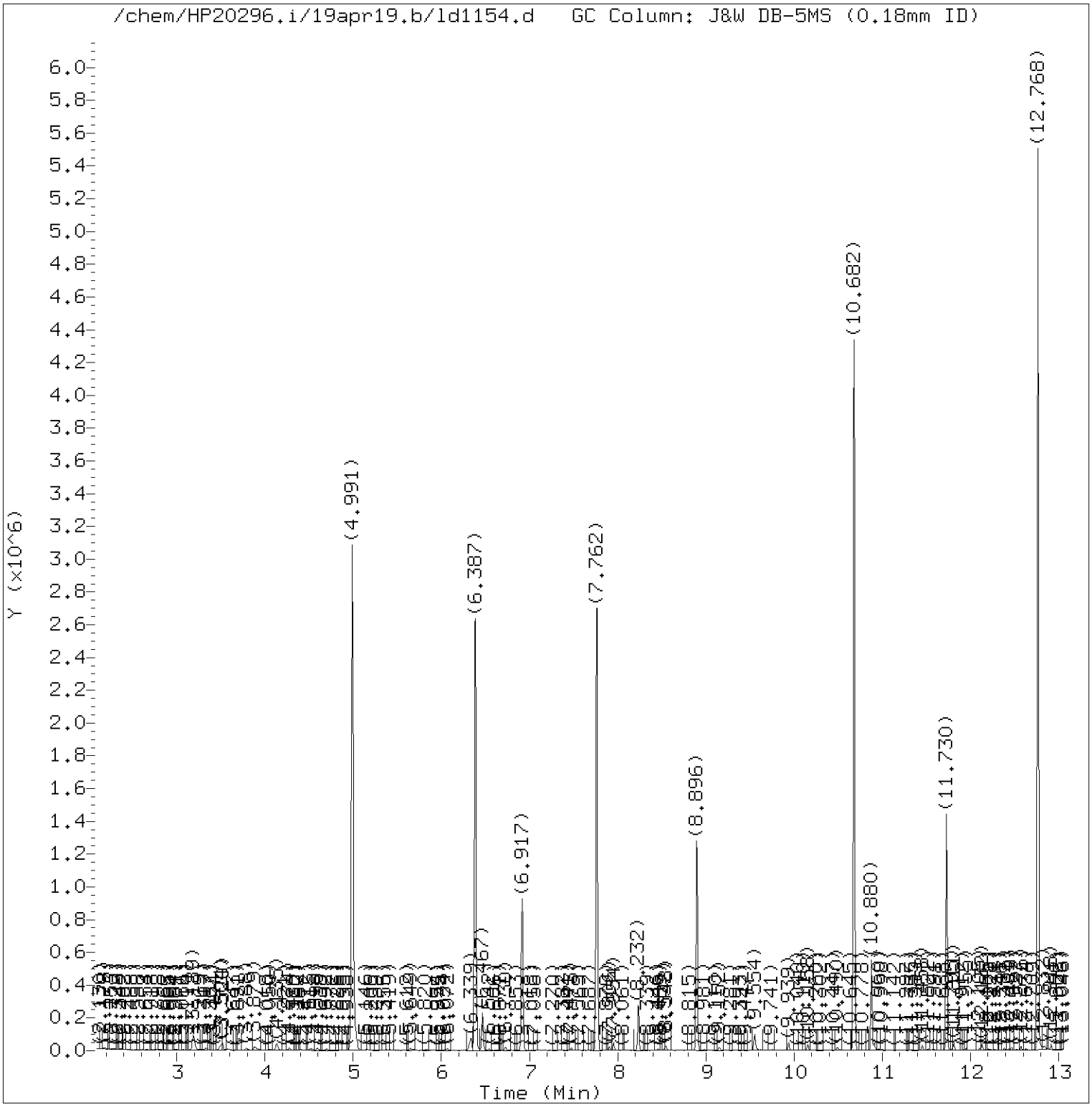
Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
45) Nitrobenzene-d5	(2)	7.762 (0.000)	82	1271565	18.700	75%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.682 (0.000)	172	1531445	15.607	62%		44 - 102
184) Terphenyl-d14	(5)	16.009 (0.000)	244	2099523	23.523	94%		33 - 126

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
113) 2,6-Dinitrotoluene	(3)			Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)			Not Detected					0.3
129) Diethylphthalate	(3)			Not Detected					0.5

Total number of targets = 3

Digitally signed by William H Saadeh on 04/24/2019 at 08:48. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

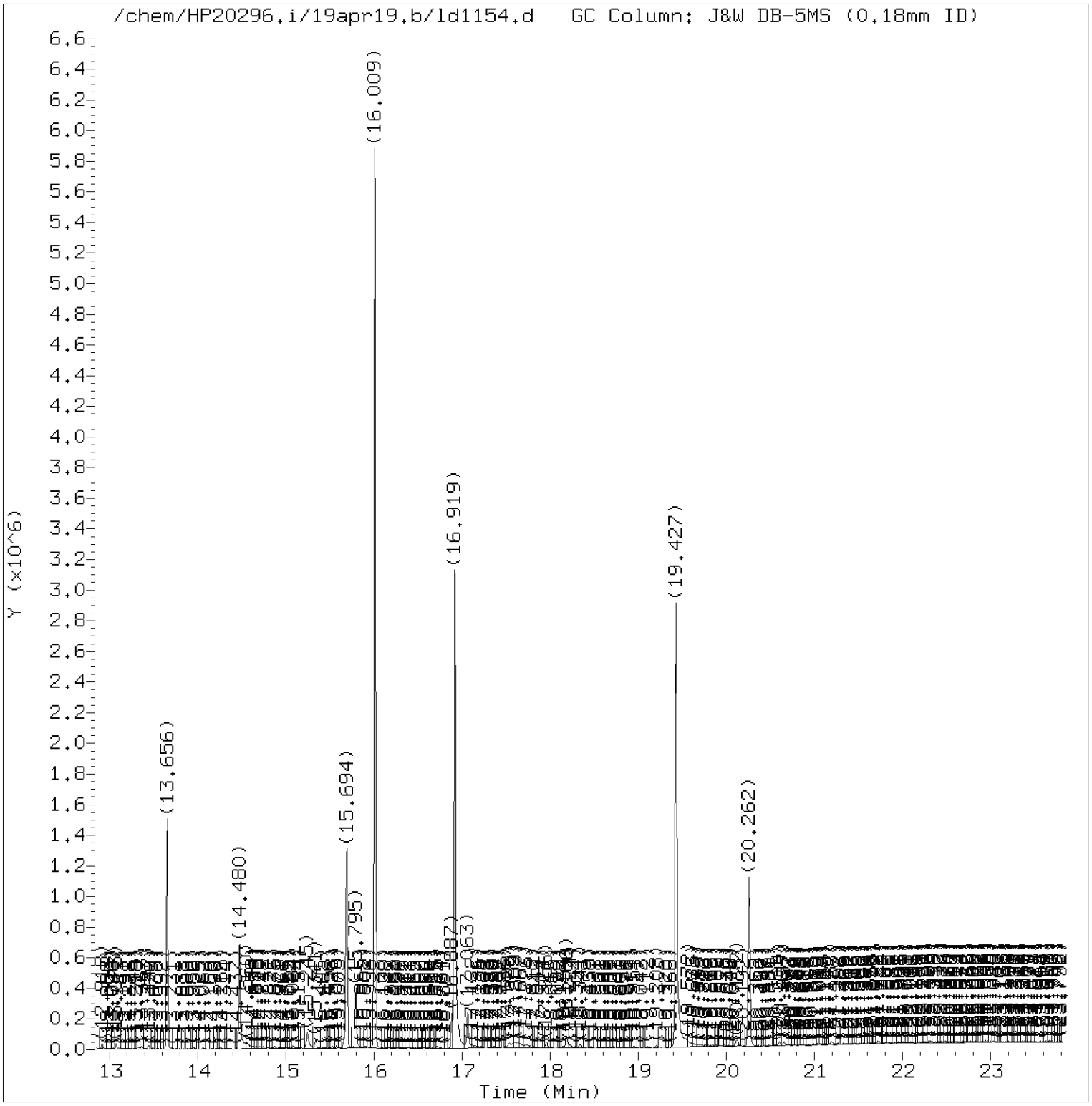
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1154.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 19:45 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:48 whs02991

Sample Name: F3511 Lab Sample ID: 1034113

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1154.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 19:45 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:48 whs02991

Sample Name: F3511 Lab Sample ID: 1034113

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1154.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 19:45 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: 22230M
Calibration date and time: 24-APR-2019 08:47
Date, time and analyst ID of latest file update: 24-Apr-2019 08:48 whs02991

Sample Name: F3511 Lab Sample ID: 1034113

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.917	152	173776	5.000
45)$Nitrobenzene-d5	(2)	7.762	82	1271565	18.700
68)*Naphthalene-d8	(2)	8.896	136	685503	5.000
96)$2-Fluorobiphenyl	(3)	10.682	172	1531445	15.607
118)*Acenaphthene-d10	(3)	11.730	164	305714	5.000
158)*Phenanthrene-d10	(4)	13.656	188	567854	5.000
180)*Pyrene-d10	(5)	15.694	212	546365	5.000
184)$Terphenyl-d14	(5)	16.009	244	2099523	23.523
218)*Perylene-d12	(6)	20.262	264	526669	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 08:48.
Target 3.5 esignature user ID: whs02991

Standards Data

Semivolatiles by GC/MS

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP20296 **HP #12**

Data Directory Path is - D:\data\19apr16a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
art12405	LD1000.D	rvDFTPP0999	04/16/2019	15:25		
art12405	LD1001.D	rvSTD0929	04/16/2019	15:41		
art12405	LD1002.D	rvSTD0929	04/16/2019	16:45		
art12405	LD1003.D	rvSTD0929	04/16/2019	17:14		
art12405	LD1004.D	rvSTD0929	04/16/2019	17:43		
art12405	LD1005.D	rvSTD0929	04/16/2019	18:12		
art12405	LD1006.D	rvSTD0929	04/16/2019	18:41		
art12405	LD1007.D	rvSTD0929	04/16/2019	19:09		
art12405	LD1008.D	rvSTD0929	04/16/2019	19:38		
art12405	LD1009.D	rvSTD0929	04/16/2019	20:07		
art12405	LD1010.D	rvSTD0929	04/16/2019	20:36		
art12405	LD1011.D	rvICV0929	04/16/2019	21:05		
art12405	LD1012.D	BASICV0929	04/16/2019	21:34		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP20296 **HP #12**

Data Directory Path is - D:\data\19apr17\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
lmh00956	LD0851.D	rvSTD0929	04/15/2019	08:37		
bkc25363	LD1020.D	rvDFTPP0999	04/17/2019	22:53		
bkc25363	LD1020a.D	rvDFTPP0999	04/17/2019	23:09		
bkc25363	LD1021.D	rvSTD0929	04/17/2019	23:24		
bkc25363	LD1022.D	rvPDA0529	04/18/2019	00:01		
bkc25363	LD1023.D	rvPDA0529	04/18/2019	00:30		
bkc25363	LD1024.D	rvPDA0529	04/18/2019	00:59		
bkc25363	LD1025.D	rvPDA0529	04/18/2019	01:27		
bkc25363	LD1026.D	rvPDA0529	04/18/2019	01:56		
bkc25363	LD1027.D	rvPDA0529	04/18/2019	02:25		
bkc25363	LD1028.D	rvABC1009	04/18/2019	02:55		
bkc25363	LD1029.D	rvABC1009	04/18/2019	03:24		
bkc25363	LD1030.D	rvABC1009	04/18/2019	03:52		
bkc25363	LD1031.D	rvABC1009	04/18/2019	04:21		
bkc25363	LD1032.D	rvABC1009	04/18/2019	04:49		
bkc25363	LD1033.D	rvABC1009	04/18/2019	05:18		
bkc25363	LD1034.D	rvABC1009	04/18/2019	05:47		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP20296 **HP #12**

Data Directory Path is - D:\data\19apr18a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
art12405	LD1100.D	rvDFTPP0999	04/18/2019	18:04		
art12405	LD1101.D	rvSTD0929	04/18/2019	18:20		
art12405	LD1102.D	rvPDA0529	04/18/2019	18:51		
art12405	LD1103.D	rvABC1009	04/18/2019	19:20		
art12405	LD1104.D	rvAAP1089	04/18/2019	19:49		
art12405	LD1105.D	SBLKWJ107	04/18/2019	22:35	19107WAJ	
art12405	LD1106.D	107WJLCS	04/18/2019	23:04	19107WAJ	
art12405	LD1107.D	107WJLCS2	04/18/2019	23:33	19107WAJ	
art12405	LD1108.D	107WJLCSD2	04/19/2019	00:02	19107WAJ	
art12405	LD1109.D	SBLKWN106	04/19/2019	00:31	19106WAN	
art12405	LD1110.D	106WNLCS	04/19/2019	01:00	19106WAN	
art12405	LD1111.D	106WNLCSD	04/19/2019	01:29	19106WAN	
art12405	LD1112.D	106WNLCS2	04/19/2019	01:58	19106WAN	
art12405	LD1113.D	106WNLCSD2	04/19/2019	02:27	19106WAN	
art12405	LD1114.D	1031253RE	04/19/2019	02:56	19107WAJ	
art12405	LD1115.D	1034102	04/19/2019	03:25	19106WAN	
art12405	LD1116.D	1034101	04/19/2019	03:54	19107WAJ	
art12405	LD1117.D	1034103	04/19/2019	04:23	19107WAJ	
art12405	LD1118.D	1034104	04/19/2019	04:52	19107WAJ	
art12405	LD1119.D	1034105	04/19/2019	05:20	19107WAJ	
art12405	LD1120.D	1034106	04/19/2019	05:49	19107WAJ	

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP20296 **HP #12**

Data Directory Path is - D:\data\19apr19\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
knb25316	LD1130.D	rvDFTPP0999	04/19/2019	07:48		
knb25316	LD1131.D	rvSTD0929	04/19/2019	08:02		
knb25316	LD1132.D	rvPDA0529	04/19/2019	08:37		
knb25316	LD1133.D	rvABC1009	04/19/2019	09:06		
knb25316	LD1134.D	rvAAP1089	04/19/2019	09:35		
knb25316	LD1135.D	SBLKWF108	04/19/2019	10:04	19108WAF	
knb25316	LD1136.D	108WFLCS	04/19/2019	10:33	19108WAF	
knb25316	LD1137.D	1036726	04/19/2019	11:02	19108WAF	
knb25316	LD1138.D	1036727	04/19/2019	11:31	19108WAF	
knb25316	LD1139.D	1036728	04/19/2019	12:01	19108WAF	
knb25316	LD1140.D	1036729	04/19/2019	12:30	19108WAF	
knb25316	LD1141.D	1036730	04/19/2019	12:59	19108WAF	
knb25316	LD1142.D	1036731	04/19/2019	13:28	19108WAF	
knb25316	LD1143.D	1036732	04/19/2019	13:57	19108WAF	
knb25316	LD1144.D	1036733	04/19/2019	14:26	19108WAF	
knb25316	LD1145.D	1036734	04/19/2019	14:55	19108WAF	
knb25316	LD1146.D	1036967	04/19/2019	15:24	19108WAF	
knb25316	LD1155.D	rvSTD0929	04/19/2019	15:53		
knb25316	LD1147.D	1034107	04/19/2019	16:22	19107WAJ	
knb25316	LD1148.D	1034108	04/19/2019	16:51	19107WAJ	
knb25316	LD1149.D	1034102	04/19/2019	17:20	19106WAN	
knb25316	LD1150.D	1034109	04/19/2019	17:49	19106WAN	
knb25316	LD1151.D	1034110	04/19/2019	18:18	19106WAN	
knb25316	LD1152.D	1034111	04/19/2019	18:47	19106WAN	
knb25316	LD1153.D	1034112	04/19/2019	19:16	19106WAN	
knb25316	LD1154.D	1034113	04/19/2019	19:45	19106WAN	

Data File: /chem/HP20296.i/19apr16a.b/ld1000.d

Date : 16-APR-2019 15:25

Client ID: DFTPP12.5

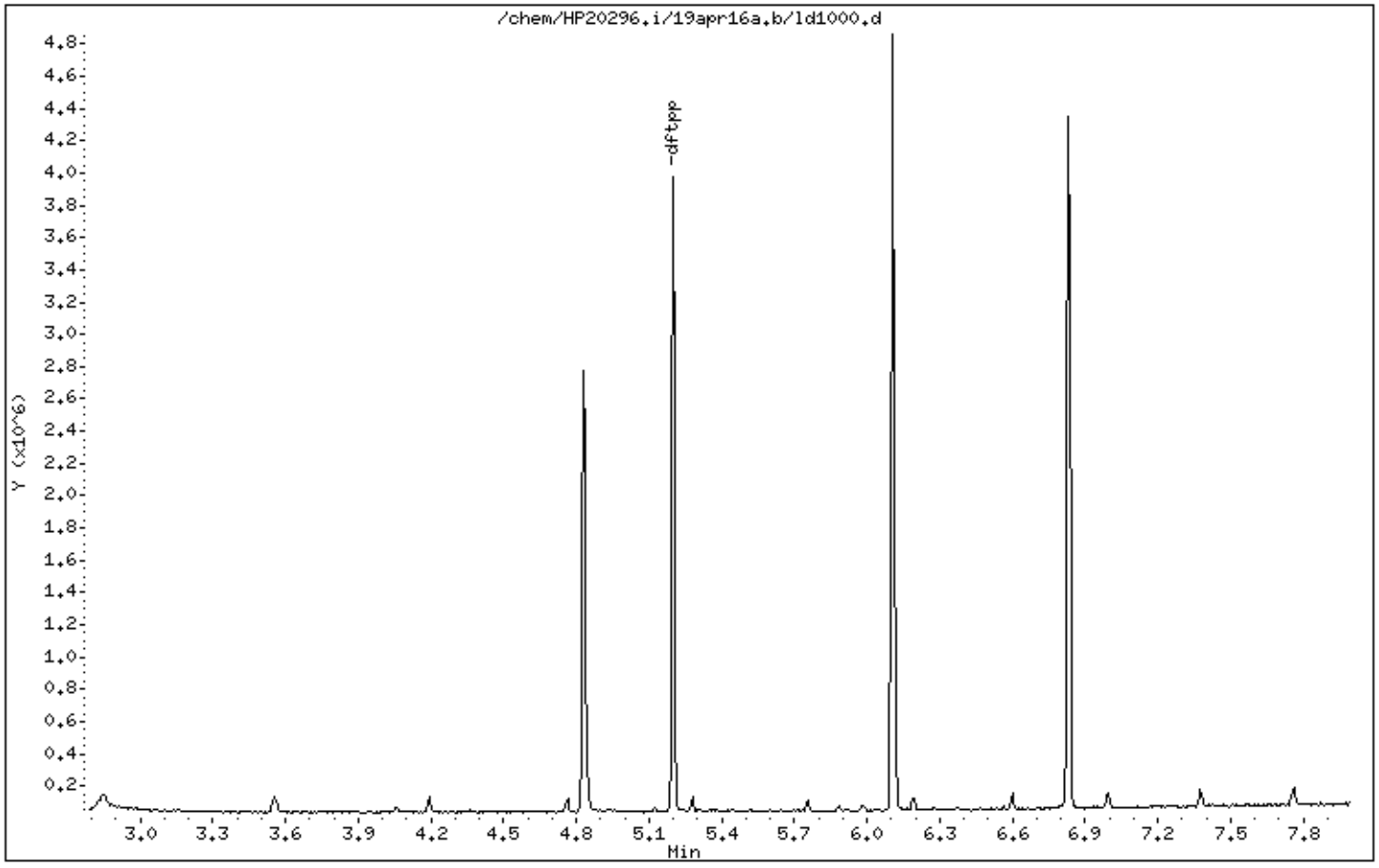
Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Ashley R. Transue on 04/16/2019 at 20:47.
Target 3.5 esignature user ID: art12405

Data File: /chem/HP20296.i/19apr16a.b/ld1000.d

Date : 16-APR-2019 15:25

Client ID: DFTPP12.5

Instrument: HP20296.i

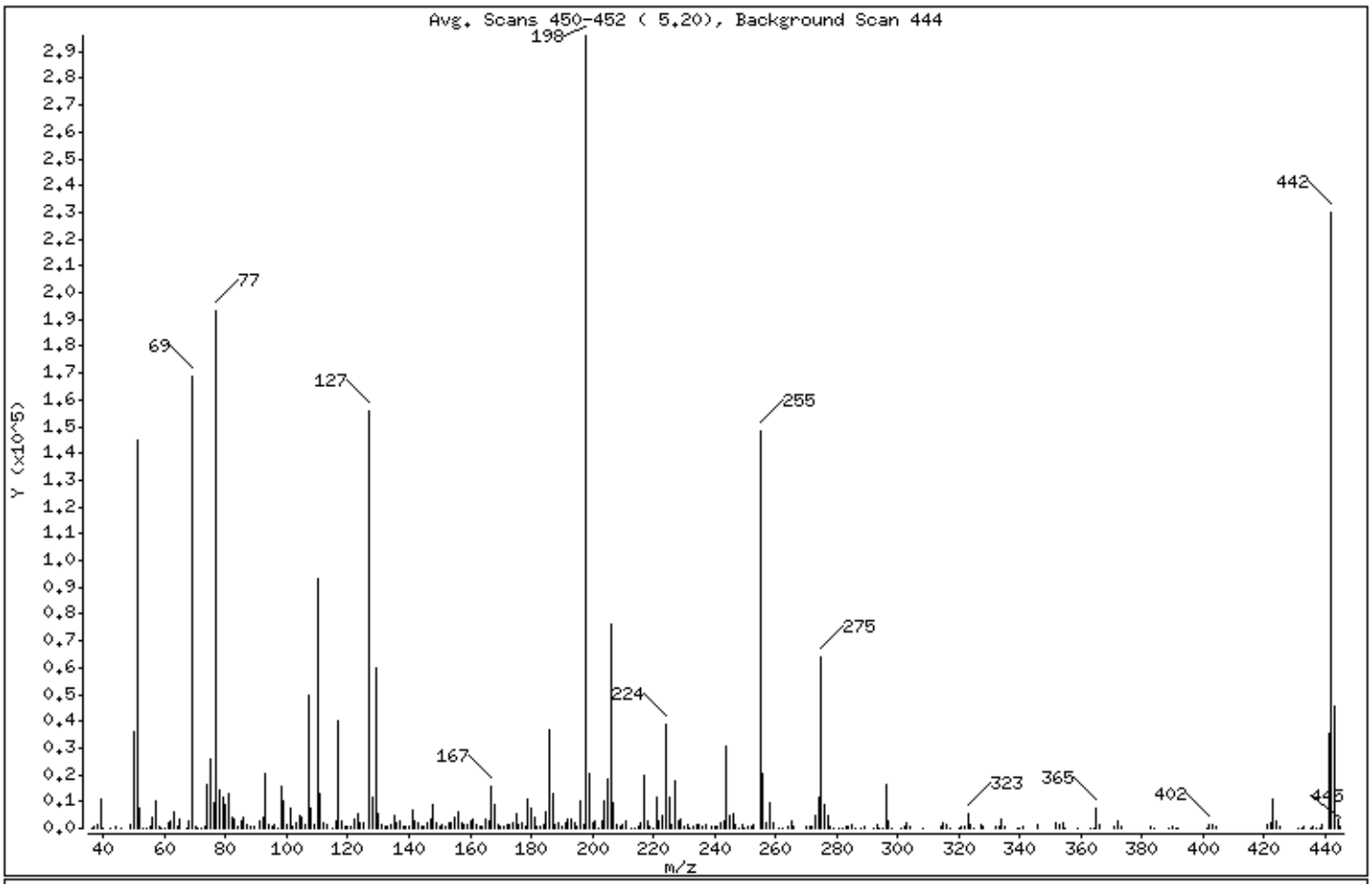
Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	49.07
68	Less than 2.00% of mass 69	1.02 (1.78)
69	Mass 69 relative abundance	57.01
70	Less than 2.00% of mass 69	0.18 (0.32)
127	10.00 - 80.00% of mass 198	52.75
197	Less than 2.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.96
275	10.00 - 60.00% of mass 198	21.65
365	Greater than 1.00% of mass 198	2.58
441	0.01 - 24.00% of mass 442	12.02 (15.45)
442	50.00 - 99.99% of mass 198	77.81
443	15.00 - 24.00% of mass 442	15.49 (19.91)

Digitally signed by Ashley R. Transue on 04/16/2019 at 20:47.
Target 3.5 esignature user ID: art12405

Date : 16-APR-2019 15:25

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1000.d
Spectrum: Avg. Scans 450-452 (5.20), Background Scan 444
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	258	121.00	530	199.00	20600	285.00	1046
37.00	783	122.00	3282	200.00	1780	286.00	87
38.00	1476	123.00	5238	201.00	2671	288.00	84
39.00	10565	124.00	2210	202.00	168	289.00	404
40.00	56	125.00	2371	203.00	2503	292.00	283
42.00	30	127.00	156096	204.00	10033	293.00	1260
44.00	808	128.00	11459	205.00	18536	294.00	143
46.00	133	129.00	59768	206.00	76328	295.00	146
49.00	1395	130.00	5261	207.00	9436	296.00	16027
50.00	35784	131.00	1292	208.00	1519	297.00	2633
51.00	145216	132.00	495	209.00	833	298.00	86
52.00	7527	133.00	582	210.00	1198	301.00	329
53.00	267	134.00	1519	211.00	2889	302.00	561
54.00	163	135.00	4706	213.00	100	303.00	2159
55.00	375	136.00	2139	214.00	127	304.00	743
56.00	3898	137.00	2742	215.00	1008	308.00	315
57.00	10252	138.00	651	216.00	1840	314.00	929
58.00	703	139.00	417	217.00	19448	315.00	1991
59.00	340	140.00	774	218.00	2974	316.00	1418
60.00	147	141.00	7026	219.00	355	317.00	279
61.00	1706	142.00	2999	220.00	198	320.00	95
62.00	2533	143.00	1770	221.00	11307	321.00	391
63.00	6316	144.00	755	222.00	2618	322.00	514
64.00	980	145.00	613	223.00	4818	323.00	5642
65.00	3375	146.00	1885	224.00	38864	324.00	1031
67.00	83	147.00	3638	225.00	11455	325.00	85
68.00	3009	148.00	9181	226.00	1437	327.00	1171
69.00	168704	149.00	1926	227.00	17456	328.00	389
70.00	534	150.00	545	228.00	2733	332.00	520
71.00	17	151.00	1451	229.00	3639	333.00	736
72.00	291	152.00	643	230.00	698	334.00	3326
73.00	931	153.00	2269	231.00	1393	335.00	1011
74.00	16464	154.00	1977	232.00	282	339.00	84
75.00	25704	155.00	3916	233.00	700	340.00	99
76.00	9185	156.00	5969	234.00	1267	341.00	703

Digitally signed by Ashley R. Transue on 04/16/2019 at 20:47.
Target 3.5 esignature user ID: art12405

Date : 16-APR-2019 15:25

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1000.d
Spectrum: Avg. Scans 450-452 (5.20), Background Scan 444
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	192896	157.00	1784	235.00	1456	346.00	1398
78.00	14212	158.00	1524	236.00	519	352.00	1783
79.00	11242	159.00	1189	237.00	1290	353.00	1398
80.00	8950	160.00	2819	239.00	450	354.00	1793
81.00	13019	161.00	3708	240.00	671	355.00	332
82.00	3946	162.00	1036	241.00	817	359.00	135
83.00	3427	163.00	417	242.00	2269	363.00	141
84.00	773	164.00	624	243.00	2856	364.00	252
85.00	2526	165.00	3120	244.00	30360	365.00	7649
86.00	4348	166.00	2492	245.00	4726	366.00	1093
87.00	1409	167.00	15780	246.00	5728	371.00	654
88.00	389	168.00	8659	247.00	1163	372.00	2984
89.00	427	169.00	1087	248.00	238	373.00	803
91.00	2565	170.00	569	249.00	1171	383.00	742
92.00	3891	171.00	473	250.00	144	384.00	180
93.00	20336	172.00	1656	251.00	685	389.00	138
94.00	1639	173.00	1411	252.00	457	390.00	431
95.00	406	174.00	2364	253.00	1621	391.00	106
96.00	1212	175.00	5326	255.00	148032	392.00	202
97.00	116	176.00	1382	256.00	20400	401.00	165
98.00	15370	177.00	2165	257.00	2250	402.00	1623
99.00	10494	178.00	938	258.00	9400	403.00	1250
100.00	1222	179.00	10759	259.00	1806	404.00	392
101.00	7554	180.00	7190	261.00	328	421.00	1482
102.00	471	181.00	4017	262.00	168	422.00	1707
103.00	1861	182.00	754	264.00	379	423.00	10937
104.00	4439	183.00	585	265.00	2925	424.00	2924
105.00	4295	184.00	1139	266.00	597	425.00	362
106.00	1618	185.00	6134	270.00	541	431.00	152
107.00	49880	186.00	37072	271.00	444	432.00	306
108.00	7382	187.00	12870	272.00	639	433.00	401
109.00	1384	188.00	1116	273.00	5061	435.00	118
110.00	93512	189.00	2221	274.00	11497	436.00	471
111.00	12891	190.00	747	275.00	64088	437.00	202
112.00	2090	191.00	1739	276.00	8968	438.00	297

Digitally signed by Ashley R. Transue on 04/16/2019 at 20:47.
Target 3.5 esignature user ID: art12405

Date : 16-APR-2019 15:25

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS Column diameter: 0.18

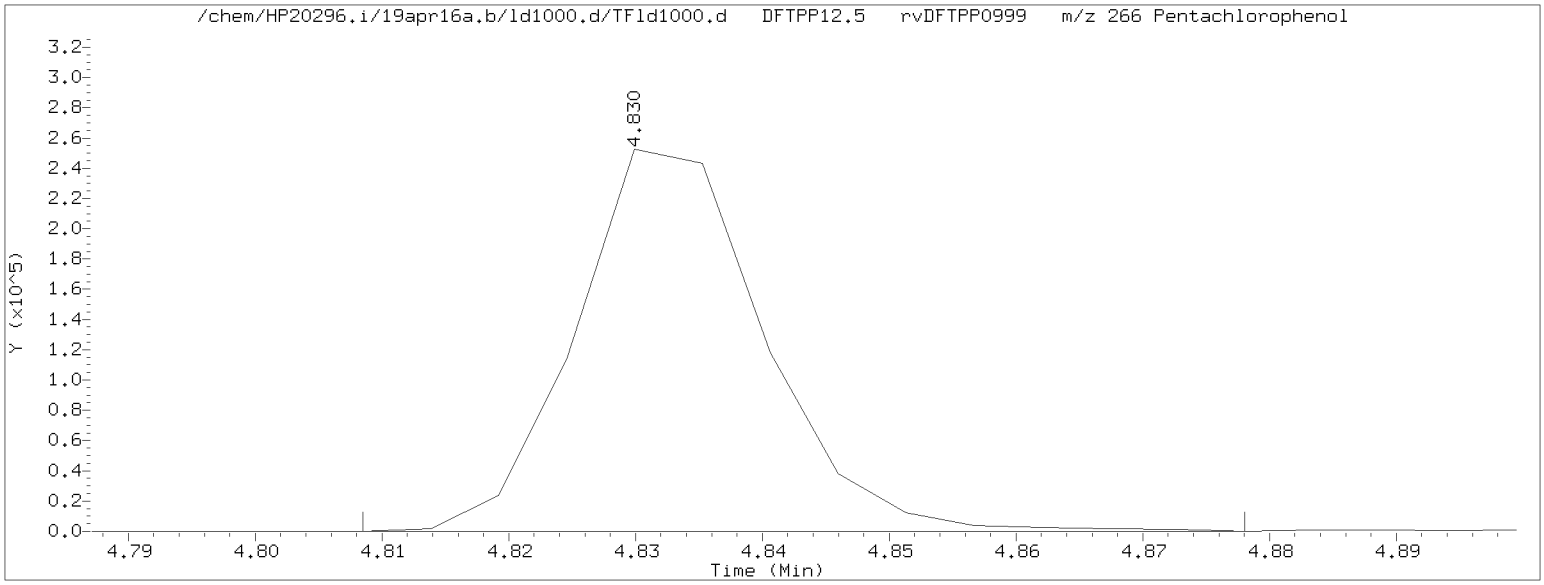
Data File: ld1000.d
Spectrum: Avg. Scans 450-452 (5.20), Background Scan 444
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	1312	192.00	3435	277.00	4594	439.00	1219
115.00	136	193.00	3368	278.00	879	441.00	35584
116.00	2959	194.00	1775	279.00	90	442.00	230272
117.00	39816	195.00	717	281.00	89	443.00	45840
118.00	2694	196.00	9995	282.00	191	444.00	3543
119.00	426	197.00	1169	283.00	354	445.00	376
120.00	777	198.00	295936	284.00	381		

Digitally signed by Ashley R. Transue on 04/16/2019 at 20:47.
Target 3.5 esignature user ID: art12405

Assessment of GC Column Performance and Injection Port Inertness for

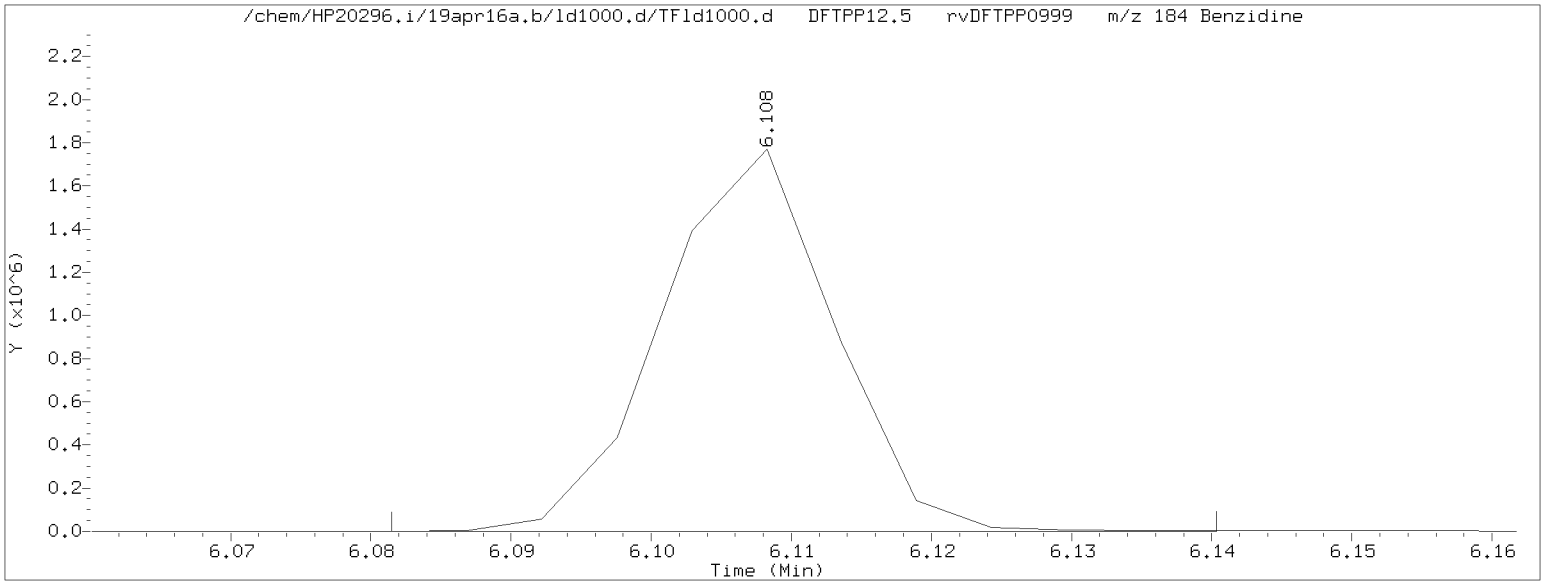
Instrument ID: HP20296.i Injection Date: 16-APR-2019 15:25 Operator: art12405



Pentachlorophenol EICP peak height = 252672 EICP peak height at 10% = 25267 Pentachlorophenol EICP area = 260946

Pentachlorophenol EICP peak apex (min.) = 4.830
RT at 10% of front half of EICP (min.) = 4.819 'Front' peak width (min.) = 0.0106000000
RT at 10% of back half of EICP (min.) = 4.849 'Tailing' peak width (min.) = 0.0187166667

$$\text{PCP tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0187166667}{0.0106000000} = 1.766$$



Benzidine EICP peak height = 1770409 EICP peak height at 10% = 177041 Benzidine EICP area = 1510067

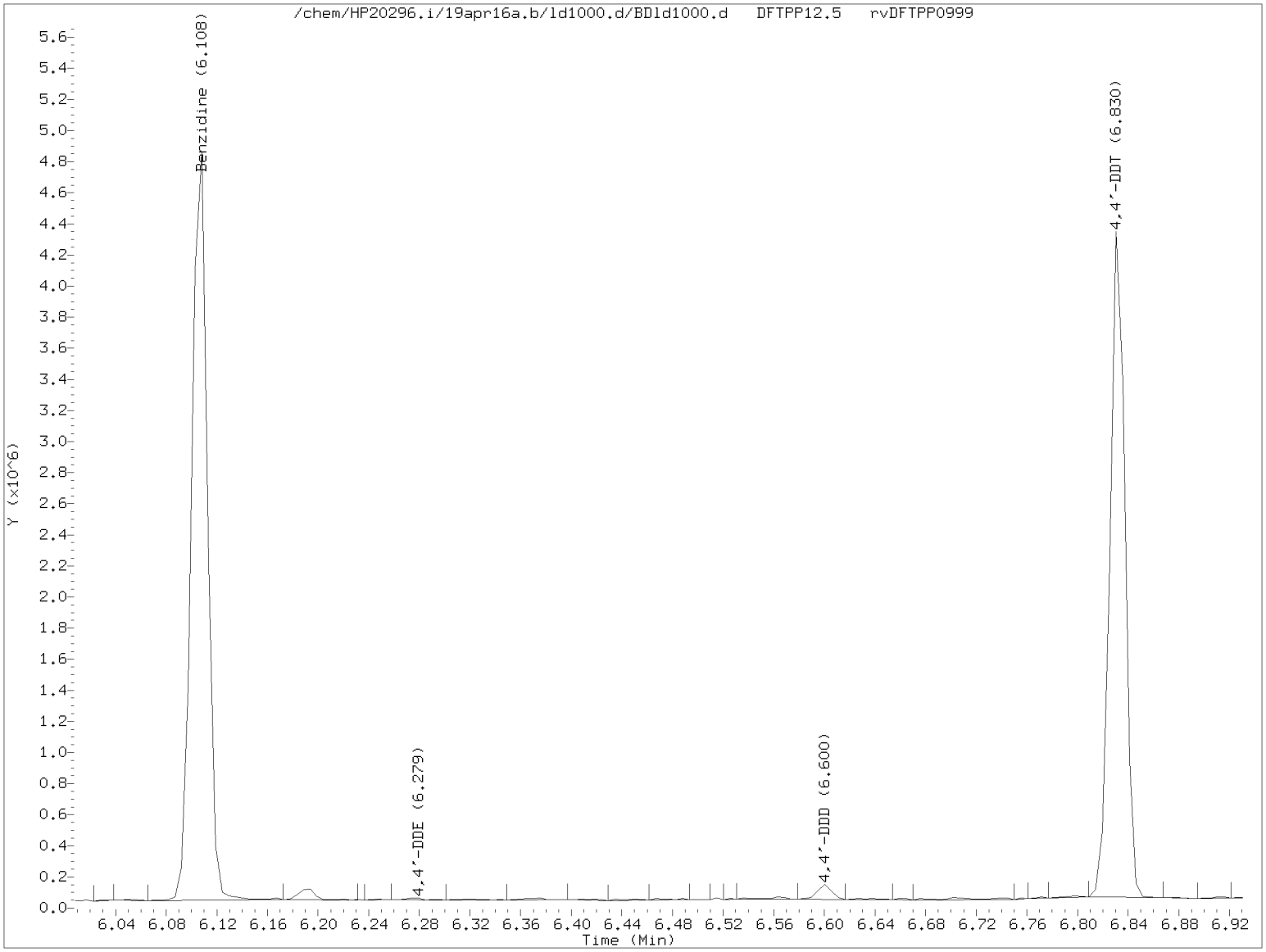
Benzidine EICP peak apex (min.) = 6.108
RT at 10% of front half of EICP (min.) = 6.094 'Front' peak width (min.) = 0.0143166667
RT at 10% of back half of EICP (min.) = 6.119 'Tailing' peak width (min.) = 0.0104166667

$$\text{Benzidine tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0104166667}{0.0143166667} = 0.728$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

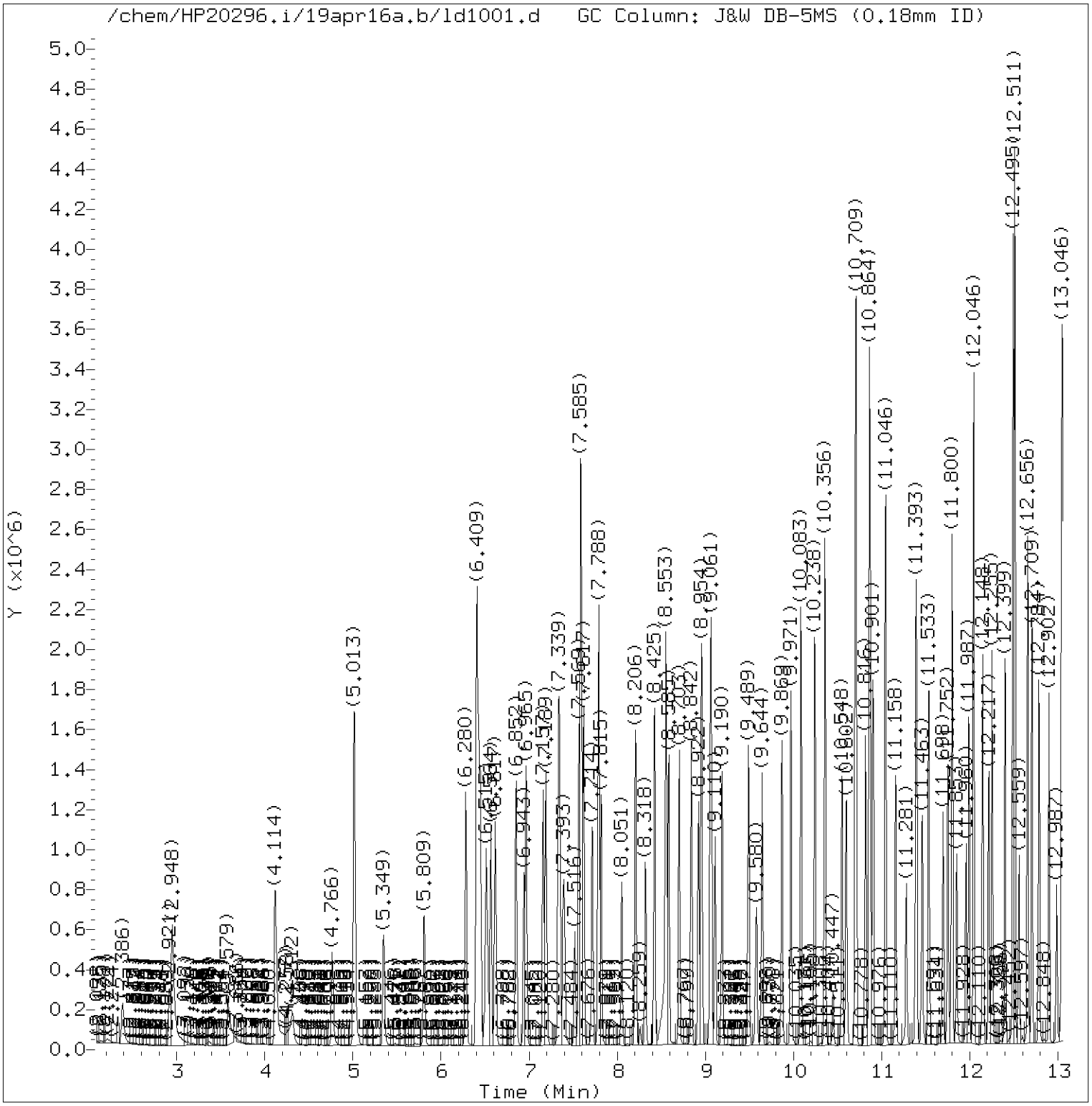
Instrument ID: HP20296.i Injection Date: 16-APR-2019 15:25 Operator: art12405



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{13978 + 72805}{13978 + 72805 + 3550141} \times 100 = 2.4$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

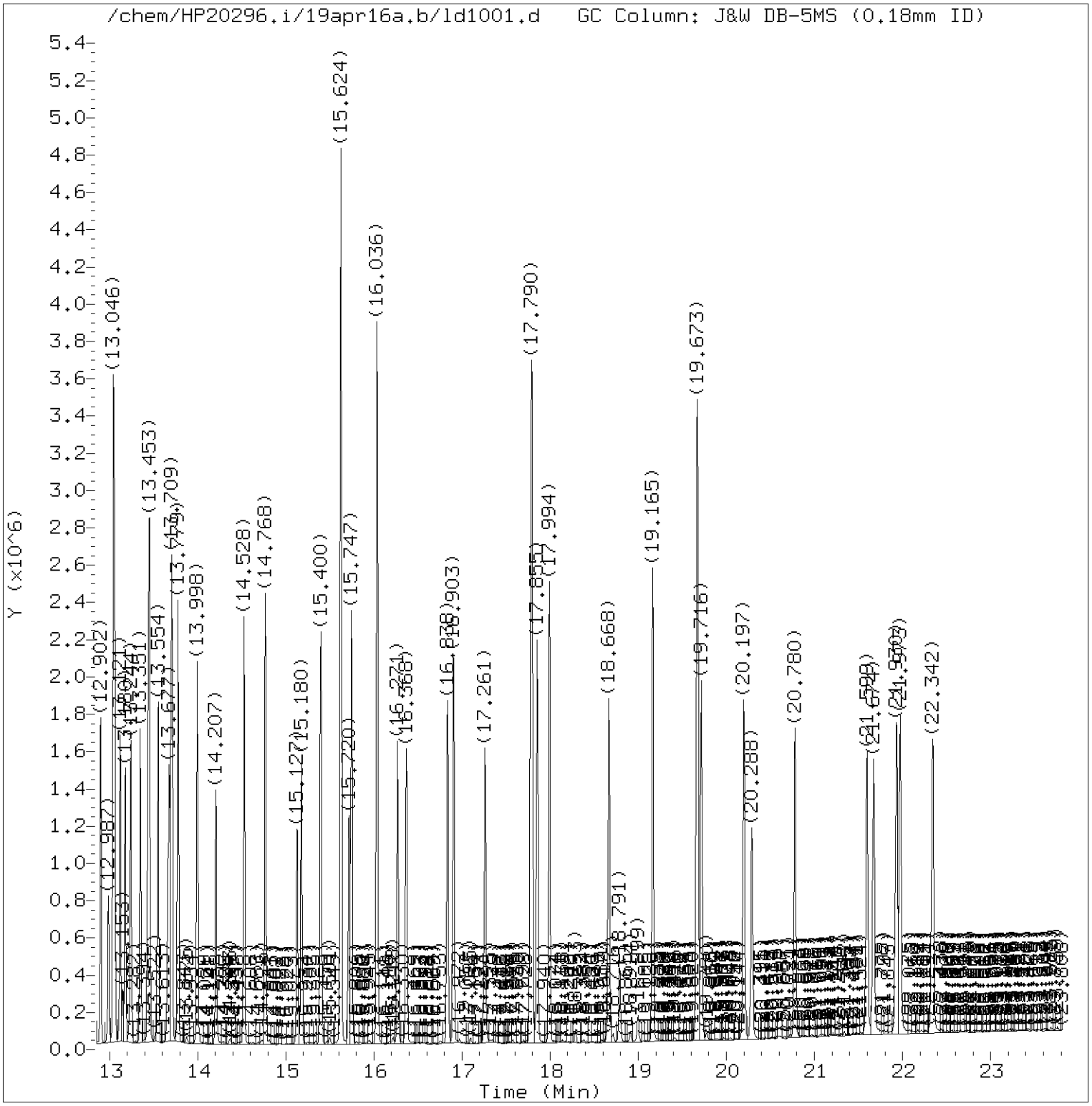
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.386	88	186307	7.500
5) N-Nitrosodimethylamine	(1)	2.921	74	299490	7.500
6) Pyridine	(1)	2.948	79	521110	7.500
8) 2-Picoline	(1)	4.114	93	519924	7.500
9) N-Nitrosomethylethylamine	(1)	4.312	88	213505	7.500
10) Methyl methanesulfonate	(1)	4.766	80	256020	7.500
12)$2-Fluorophenol	(1)	5.018	112	814307	15.000
14) N-Nitrosodiethylamine	(1)	5.349	102	197710	7.500
43) Total Cresols	(1)			846177	15.000
16) Ethyl methanesulfonate	(1)	5.804	109	216645	7.500
17) Benzaldehyde	(1)	6.280	77	410014	7.500
18)$Phenol-d6	(1)	6.409	99	1089666	15.000
19) Phenol	(1)	6.425	94	644001	7.500
20) Aniline	(1)	6.446	93	745606	7.500
21) a-methylstyrene	(1)	6.537	118	68733	7.500
23) bis(2-Chloroethyl)ether	(1)	6.564	93	478503	7.500
24) 2-Chlorophenol	(1)	6.617	128	384084	7.500
25) 1,3-Dichlorobenzene	(1)	6.852	146	407202	7.500
26)*1,4-Dichlorobenzene-d4	(1)	6.943	152	165996	5.000
27) 1,4-Dichlorobenzene	(1)	6.965	146	411214	7.500
28) Benzyl alcohol	(1)	7.157	108	259418	7.500
29) 1,2-Dichlorobenzene	(1)	7.189	146	396763	7.500
31) Indene	(1)	7.328	115	498474	7.500
32) 2-Methylphenol	(1)	7.350	108	404618	7.500
100) Isosafrole	(3)			320394	7.500
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.393	45	611252	7.500
35) bis(2-Chloroisopropyl)ether	(1)	7.393	45	611252	7.500
36) N-Nitrosopyrrolidine	(1)	7.521	100	215314	7.500
37) Acetophenone	(1)	7.564	105	613692	7.500
39) N-Nitroso-di-n-propylamine	(1)	7.585	70	346262	7.500
40) N-Nitrosomorpholine	(1)	7.591	56	256876	7.500
38) 4-Methylphenol	(1)	7.591	108	441559	7.500
41) o-Toluidine	(1)	7.617	106	692051	7.500
44) Hexachloroethane	(1)	7.714	117	185099	7.500
45)$Nitrobenzene-d5	(2)	7.788	82	996968	15.000
46) Nitrobenzene	(2)	7.815	77	521091	7.500
125) 2,4_2,6-Dinitrotoluenes	(3)			364073	15.000
50) N-Nitrosopiperidine	(2)	8.051	114	192000	7.500
52) Isophorone	(2)	8.206	82	919640	7.500
53) 2-Nitrophenol	(2)	8.318	139	180820	7.500

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.425	107	434964	7.500
59) O,O,O-Triethylphosphorothioate	(2)	8.553	198	169374	7.500
58) Benzoic acid	(2)	8.559	105	392254	10.000
57) bis(2-Chloroethoxy)methane	(2)	8.585	93	592717	7.500
62) 2,4-Dichlorophenol	(2)	8.703	162	310102	7.500
151) Diallate trans/cis	(4)			399921	7.500
65) 1,2,4-Trichlorobenzene	(2)	8.842	180	333364	7.500
68)*Naphthalene-d8	(2)	8.922	136	649801	5.000
69) Naphthalene	(2)	8.954	128	1109192	7.500
70) 4-Chloroaniline	(2)	9.056	127	462096	7.500
71) 2,6-Dichlorophenol	(2)	9.067	162	290893	7.500
72) Hexachloropropene	(2)	9.110	213	203615	7.500
74) Hexachlorobutadiene	(2)	9.190	225	180215	7.500
78) Quinoline	(2)	9.489	129	644029	7.500
79) Caprolactam	(2)	9.580	113	103793	7.500
80) N-Nitrosodi-n-butylamine	(2)	9.644	84	317824	7.500
83) 4-Chloro-3-methylphenol	(2)	9.869	107	365879	7.500
85) Safrole	(2)	9.971	162	264714	7.500
86) 2-Methylnaphthalene	(2)	10.083	142	698301	7.500
87) 1-Methylnaphthalene	(2)	10.238	142	657326	7.500
88) Hexachlorocyclopentadiene	(3)	10.356	237	190134	7.500
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	313156	7.500
91) cis-Isosafrole	(3)	10.447	162	47533	1.275
93) 2,4,6-Trichlorophenol	(3)	10.554	196	209503	7.500
95) 2,4,5-Trichlorophenol	(3)	10.602	196	220707	7.500
96)$2-Fluorobiphenyl	(3)	10.709	172	1467485	15.000
97) trans-Isosafrole	(3)	10.816	162	272861	6.225
98) 1,1'-Biphenyl	(3)	10.859	154	807129	7.500
99) 2-Chloronaphthalene	(3)	10.869	162	654327	7.500
101) 1-Chloronaphthalene	(3)	10.901	162	615126	7.500
103) Diphenyl ether	(3)	11.046	170	421783	7.500
104) 2-Nitroaniline	(3)	11.046	138	203716	7.500
108) 1,4-Naphthoquinone	(3)	11.158	158	259816	7.500
109) 1,4-Dinitrobenzene	(3)	11.281	168	99550	7.500
110) Dimethylphthalate	(3)	11.393	163	708639	7.500
111) 1,3-Dinitrobenzene	(3)	11.399	168	109107	7.500
113) 2,6-Dinitrotoluene	(3)	11.463	165	156379	7.500
114) Acenaphthylene	(3)	11.538	152	915510	7.500
117) 3-Nitroaniline	(3)	11.698	138	175744	7.500
118)*Acenaphthene-d10	(3)	11.752	164	311195	5.000

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$ = Compound is a surrogate standard.

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on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.800	153	669959	7.500
120) 2,4-Dinitrophenol	(3)	11.853	184	109095	10.000
121) 4-Nitrophenol	(3)	11.960	109	115785	7.500
122) Pentachlorobenzene	(3)	11.992	250	263172	7.500
123) 2,4-Dinitrotoluene	(3)	12.041	165	207694	7.500
124) Dibenzofuran	(3)	12.046	168	883159	7.500
126) 1-Naphthylamine	(3)	12.148	143	641576	7.500
127) 2,3,4,6-Tetrachlorophenol	(3)	12.217	232	162247	7.500
128) 2-Naphthylamine	(3)	12.255	143	629831	7.500
129) Diethylphthalate	(3)	12.399	149	694890	7.500
131) Fluorene	(3)	12.490	166	703402	7.500
130) Thionazin	(3)	12.495	107	147246	7.500
133) 5-Nitro-o-toluidine	(3)	12.511	152	196753	7.500
134) 4-Nitroaniline	(3)	12.511	138	187887	7.500
132) 4-Chlorophenyl-phenylether	(3)	12.517	204	325795	7.500
135) 4,6-Dinitro-2-methylphenol	(4)	12.559	198	107208	7.500
136) N-Nitrosodiphenylamine	(4)	12.656	169	571136	7.500
137) NDPA as diphenylamine	(4)	12.656	169	571136	7.500
139) 1,2-Diphenylhydrazine	(4)	12.704	77	987724	7.500
140)$2,4,6-Tribromophenol	(3)	12.789	330	186076	15.000
142) Tetraethyldithiopyrophosphate	(4)	12.896	97	150850	7.500
144) 1,3,5-Trinitrobenzene	(4)	12.987	213	65662	7.500
145) Diallate (peak 1)	(4)	13.041	86	345487	6.225
146) Phorate	(4)	13.052	75	609572	7.500
147) Phenacetin	(4)	13.057	108	438505	7.500
148) 4-Bromophenyl-phenylether	(4)	13.126	248	183010	7.500
149) Diallate (peak 2)	(4)	13.148	86	54434M	1.275
150) Hexachlorobenzene	(4)	13.180	284	196433	7.500
152) Dimethoate	(4)	13.244	87	381662	7.500
153) Atrazine	(4)	13.351	200	179060	7.500
154) Pentachlorophenol	(4)	13.437	266	126420	7.500
155) 4-Aminobiphenyl	(4)	13.447	169	664478	7.500
156) Pentachloronitrobenzene	(4)	13.453	237	84691	7.500
157) Pronamide	(4)	13.554	173	317605	7.500
158)*Phenanthrene-d10	(4)	13.677	188	566227	5.000
159) Dinoseb	(4)	13.699	211	158943	7.500
160) Phenanthrene	(4)	13.709	178	995377	7.500
162) Anthracene	(4)	13.779	178	1011076	7.500
168) Carbazole	(4)	13.998	167	926242	7.500
169) Methyl parathion	(4)	14.207	109	272502	7.500

M = Compound was manually integrated.
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on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.528	149	1247042	7.500
172) Parathion	(4)	14.768	109	176136	7.500
173) 4-Nitroquinoline-1-oxide	(4)	14.774	190	90573	7.500
227) Total PAHs	(6)			17079051	135.000
174) Octachlorostyrene	(4)	15.132	308	74840	7.500
176) Isodrin	(4)	15.180	193	115203	7.500
178) Fluoranthene	(4)	15.400	202	1104370	7.500
179) Benzidine	(5)	15.624	184	2253430	22.500
180)*Pyrene-d10	(5)	15.715	212	568991	5.000
182) Pyrene	(5)	15.747	202	1124004	7.500
184)$Terphenyl-d14	(5)	16.036	244	1402752	15.000
187) p-Dimethylaminoazobenzene	(5)	16.271	225	186176	7.500
190) Chlorobenzilate	(5)	16.368	139	384782	7.500
192) 3,3'-Dimethylbenzidine	(5)	16.838	212	765492	7.500
193) Butylbenzylphthalate	(5)	16.908	149	574592	7.500
196) 2-Acetylaminofluorene	(5)	17.261	181	449291	7.500
198) 3,3'-Dichlorobenzidine	(5)	17.780	252	395121	7.500
200) Benzo(a)anthracene	(5)	17.790	228	1070060	7.500
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.796	231	216820	7.500
201) Chrysene	(5)	17.855	228	1010092	7.500
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	836498	7.500
208) 6-Methylchrysene	(5)	18.668	242	694571	7.500
210) Di-n-octylphthalate	(6)	19.165	149	1470810	7.500
211) Benzo(b)fluoranthene	(6)	19.668	252	1068584	7.500
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.673	256	447410	7.500
213) Benzo(k)fluoranthene	(6)	19.716	252	998294	7.500
216) Benzo(a)pyrene	(6)	20.197	252	987257	7.500
218)*Perylene-d12	(6)	20.288	264	547421	5.000
220) 3-Methylcholanthrene	(6)	20.780	268	498602	7.500
222) Dibenz(a,h)acridine	(6)	21.599	279	819772	7.500
223) Dibenz(a,j)acridine	(6)	21.674	279	812125	7.500
224) Indeno(1,2,3-cd)pyrene	(6)	21.936	276	957165M	7.500
225) Dibenz(a,h)anthracene	(6)	21.973	278	1002592	7.500
226) Benzo(g,h,i)perylene	(6)	22.342	276	996490	7.500

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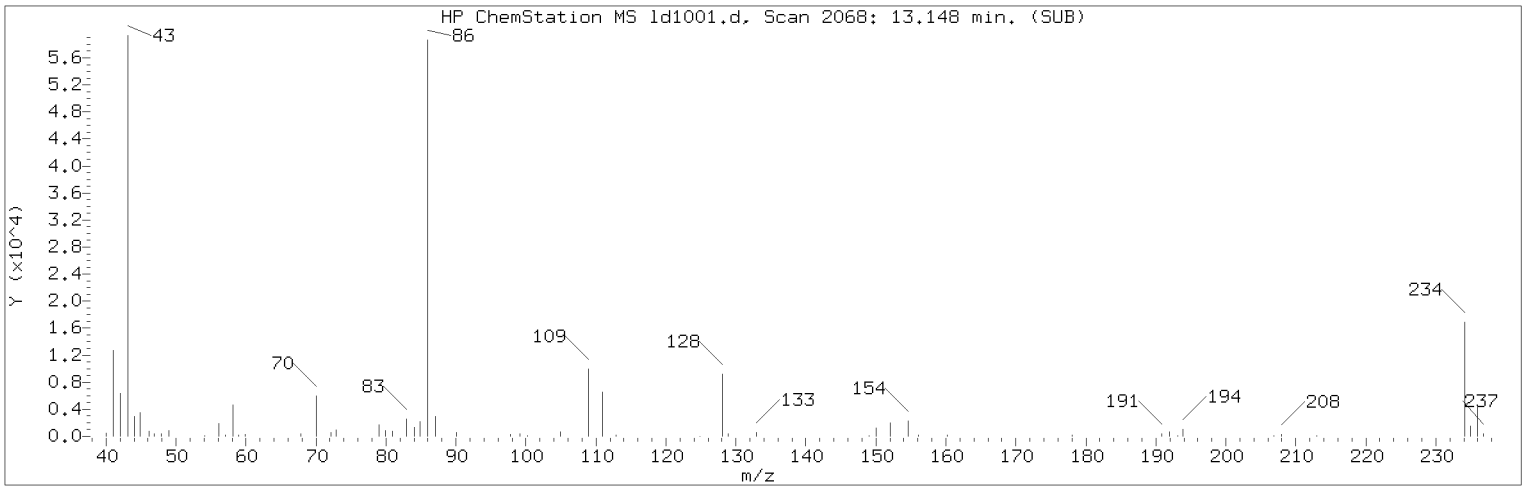
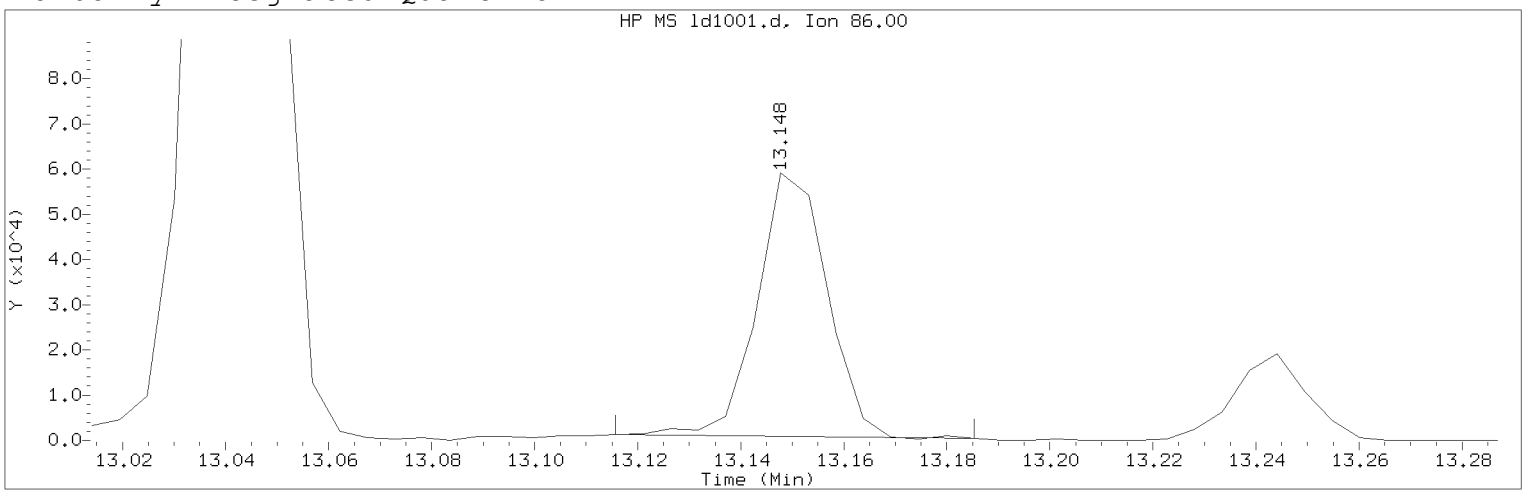
on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

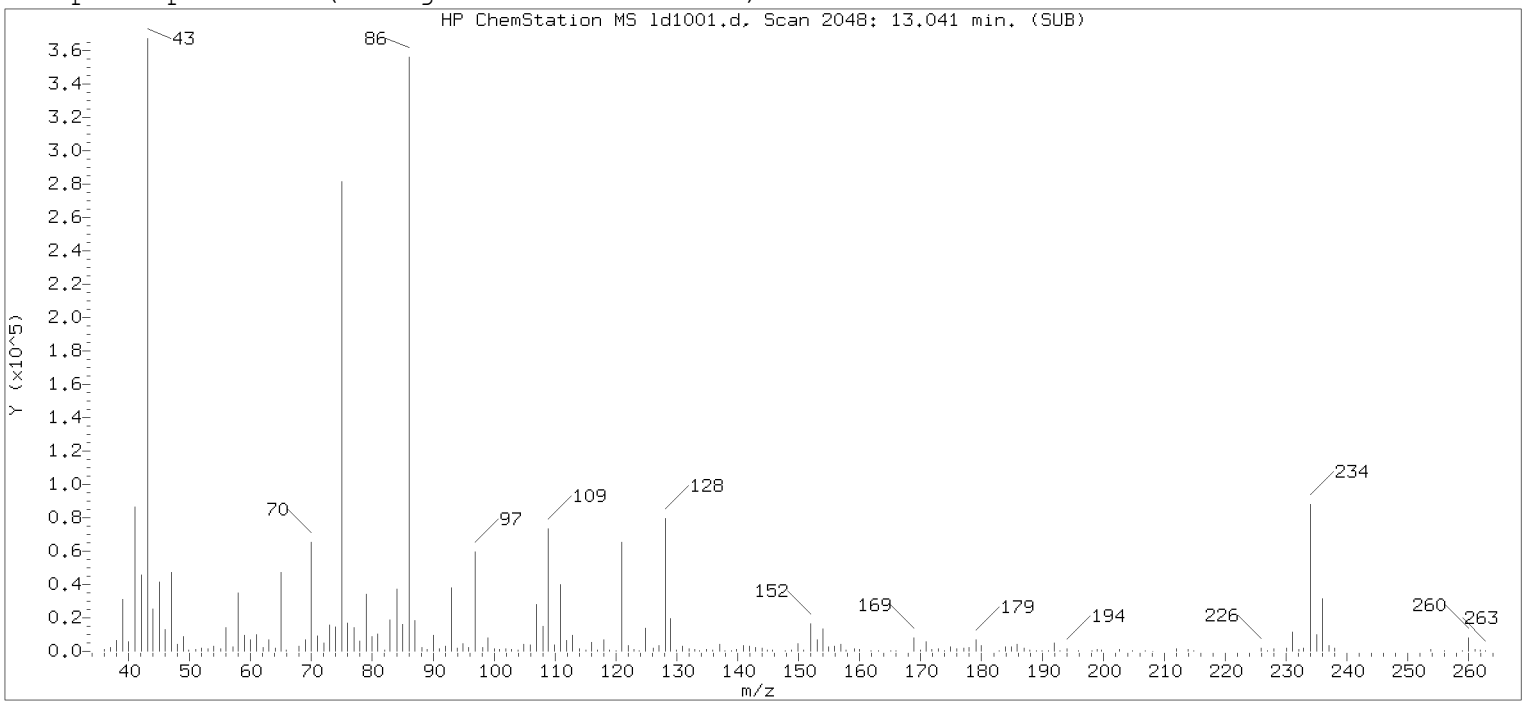
Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2068		
Retention Time (minutes)	: 13.148		
Quant Ion	: 86.00		
Area (flag)	: 54434M		
On-Column Amount (ng/ul)	: 1.2750		
Integration start scan	: 2061	Integration stop scan:	2074
Y at integration start	: 1299	Y at integration end:	473

Reason for manual integration: improper integration

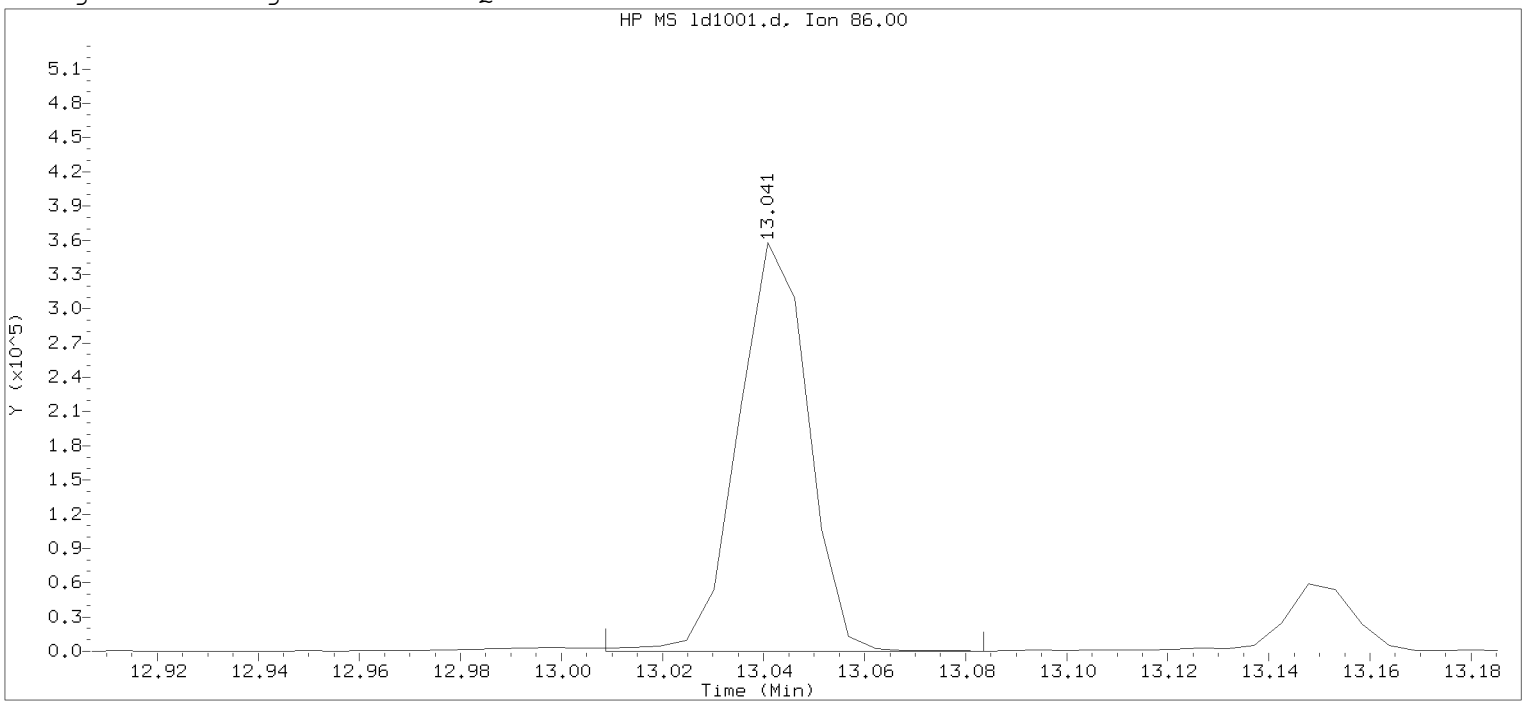
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 16:45
Date, time and analyst ID of latest file update: 16-Apr-2019 16:45 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2048		
Retention Time (minutes)	: 13.041		
Quant Ion	: 86.00		
Area	: 345487		
On-column Amount (ng/ul)	: 8.4613		
Integration start scan	: 2041	Integration stop scan:	2055
Y at integration start	: 0	Y at integration end:	0

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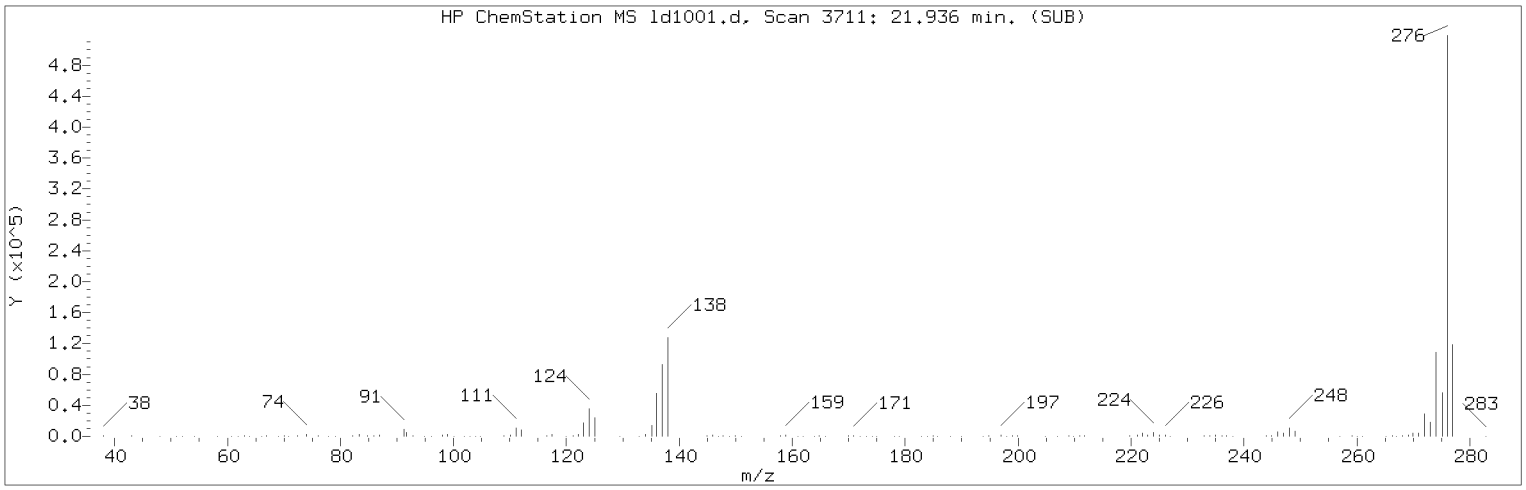
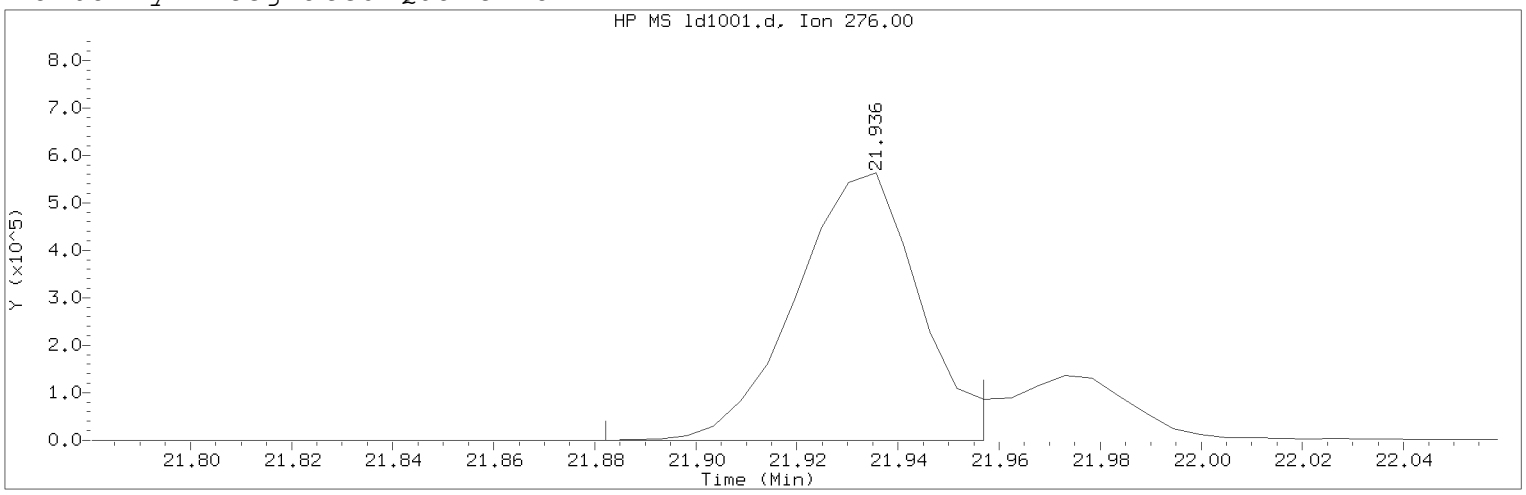
Target 3.5 esignature used. F35 Page 1803

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:42
Date, time and analyst ID of latest file update: 16-Apr-2019 20:42 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

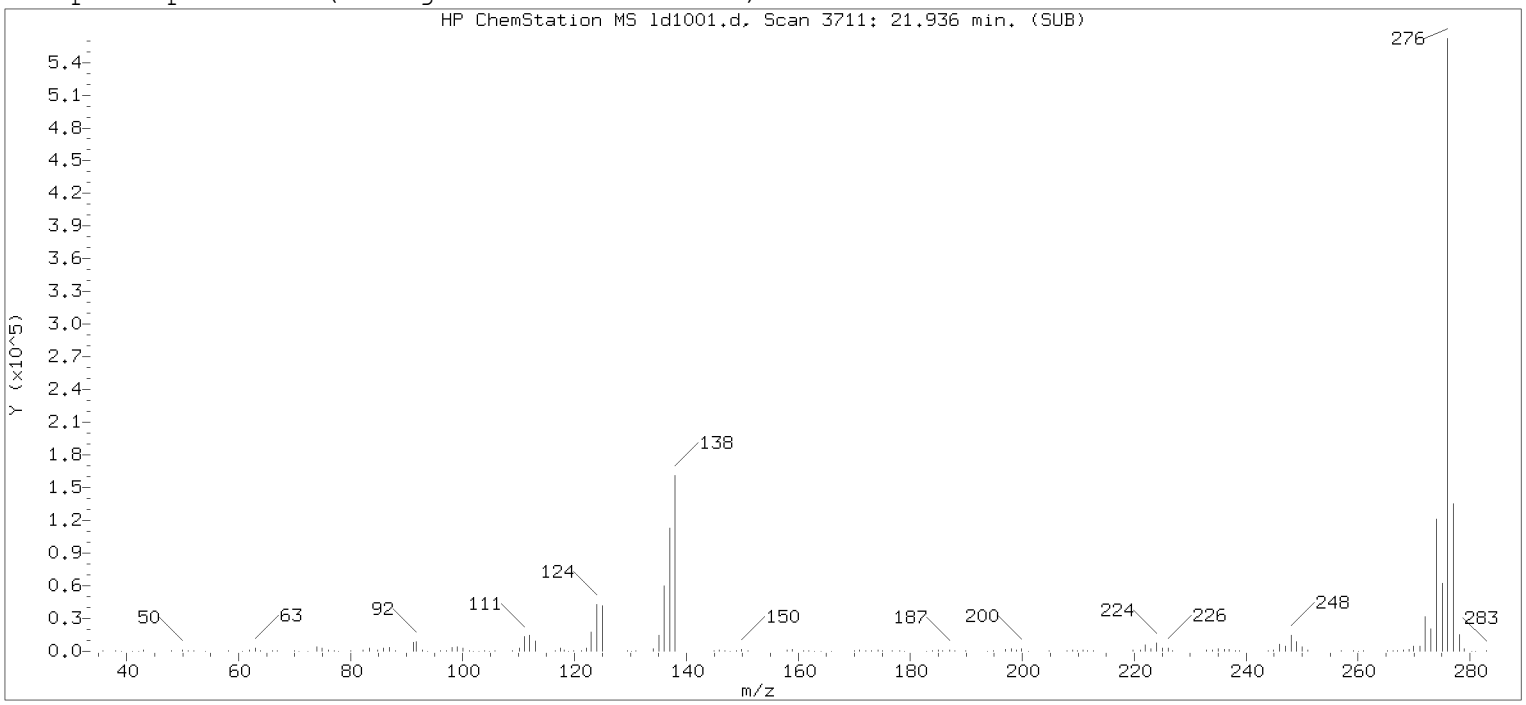
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3711
Retention Time (minutes) : 21.936
Quant Ion : 276.00
Area (flag) : 957165M
On-Column Amount (ng/ul) : 7.5000
Integration start scan : 3700 Integration stop scan: 3714
Y at integration start : -155 Y at integration end: -155

Reason for manual integration: improper integration

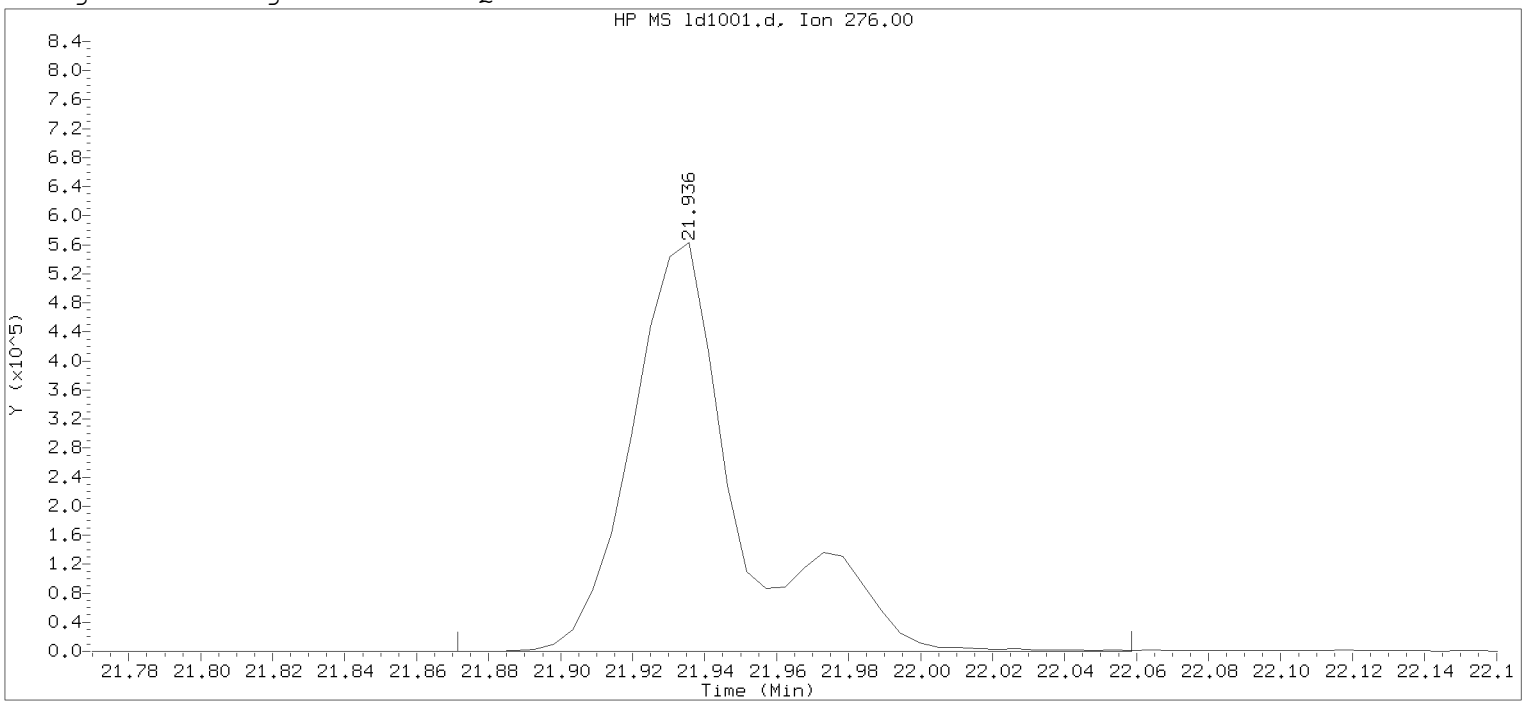
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 20:53.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



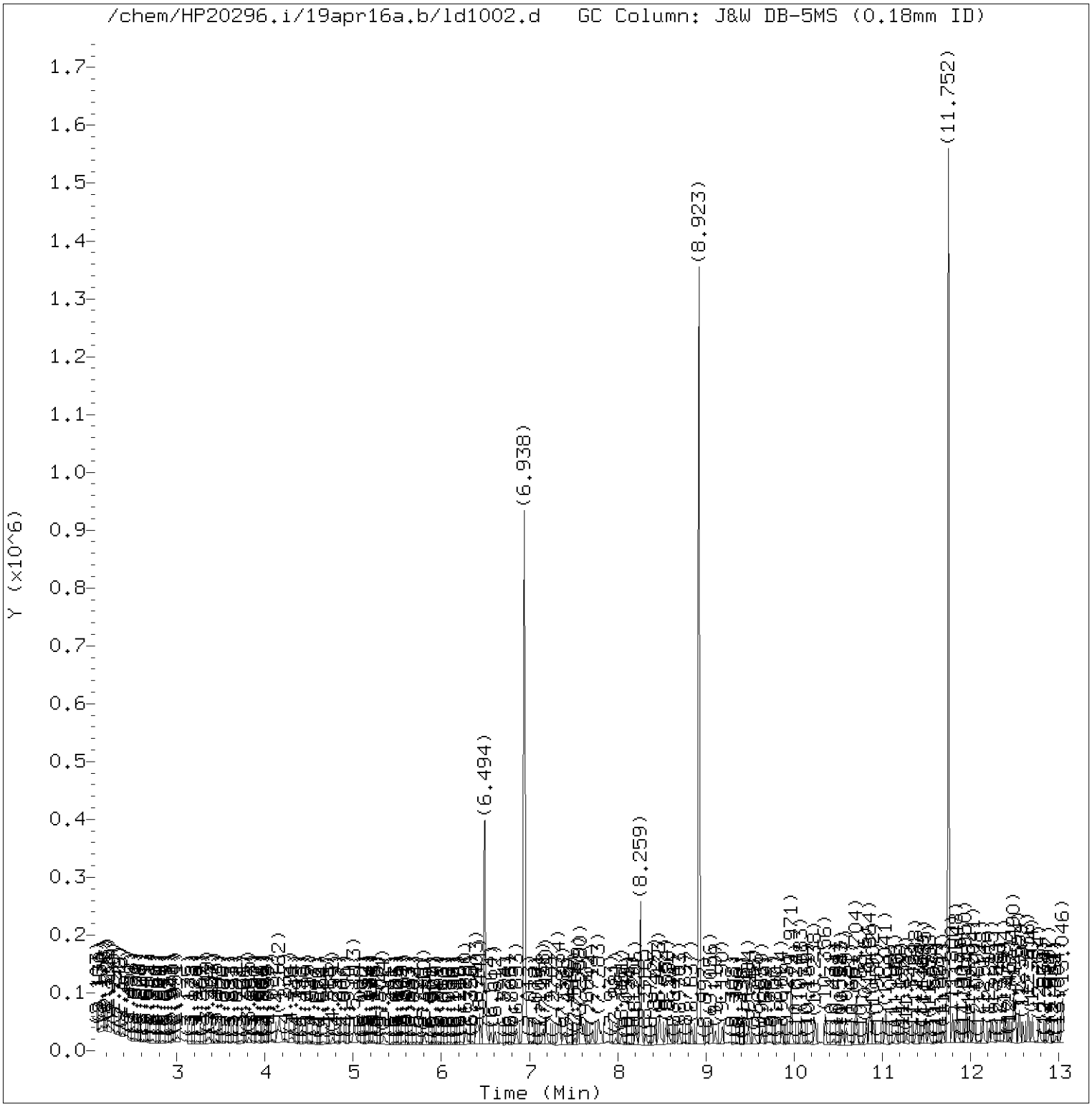
Data File: /chem/HP20296.i/19apr16a.b/ld1001.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 15:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 16:45
Date, time and analyst ID of latest file update: 16-Apr-2019 16:45 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3711		
Retention Time (minutes)	: 21.936		
Quant Ion	: 276.00		
Area	: 1176257		
On-column Amount (ng/ul)	: 8.8629		
Integration start scan	: 3698	Integration stop scan:	3733
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/16/2019 at 20:53.
Target 3.5 esignature used.



Total Ion Chromatogram (TIC)

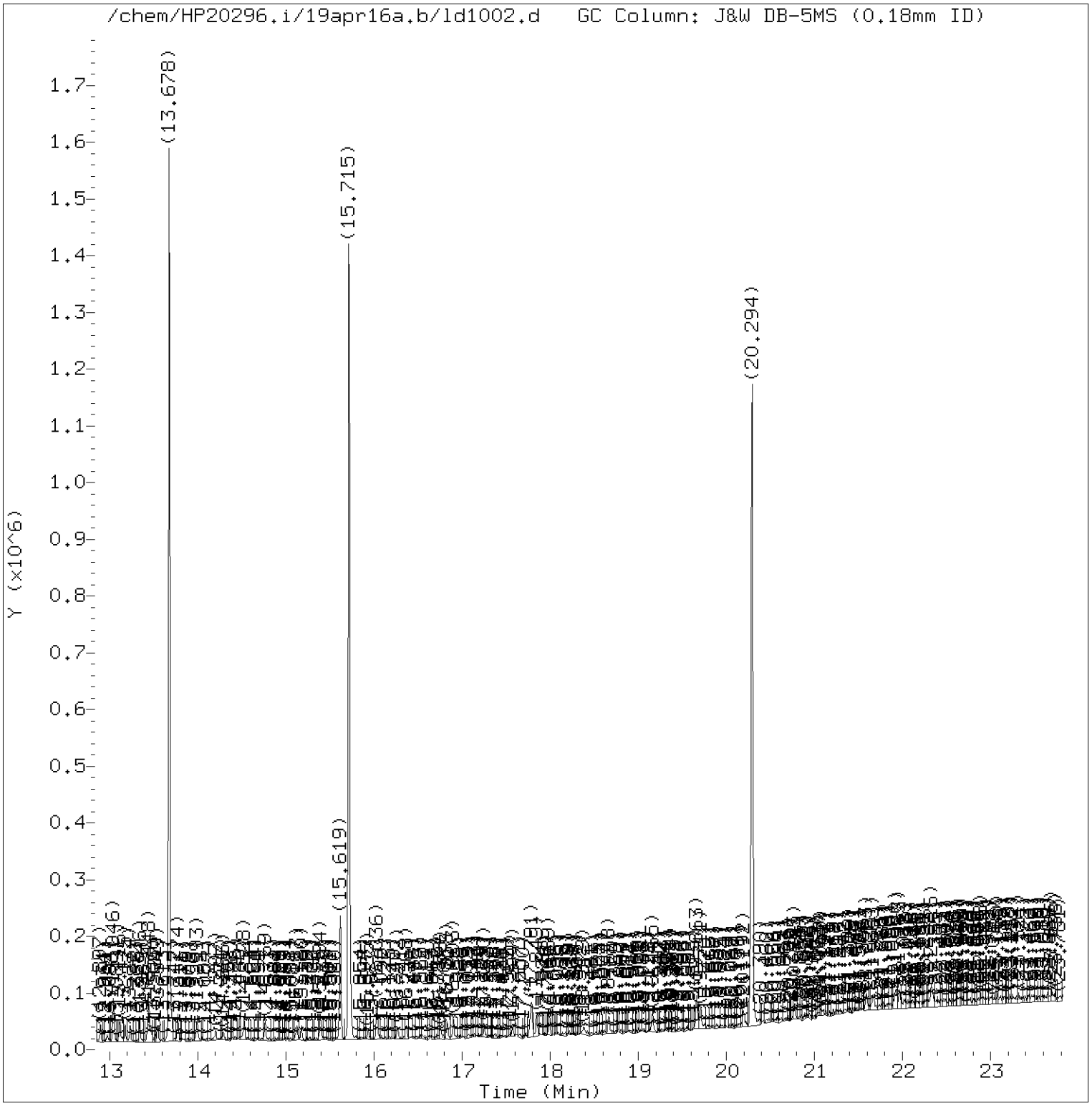
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.397	88	4377M	0.165
5) N-Nitrosodimethylamine	(1)	2.954	74	4714	0.114
6) Pyridine	(1)	3.007	79	10759M	0.147
8) 2-Picoline	(1)	4.136	93	10865M	0.149
9) N-Nitrosomethylethylamine	(1)	4.312	88	3521M	0.119
10) Methyl methanesulfonate	(1)	4.772	80	5587M	0.153
12)$2-Fluorophenol	(1)	5.013	112	14637	0.251
14) N-Nitrosodiethylamine	(1)	5.350	102	4535	0.158
43) Total Cresols	(1)			14748	0.247
16) Ethyl methanesulfonate	(1)	5.799	109	4181	0.138
17) Benzaldehyde	(1)	6.275	77	9140	0.170
18)$Phenol-d6	(1)	6.403	99	18877	0.244
19) Phenol	(1)	6.425	94	12628	0.139
20) Aniline	(1)	6.446	93	14115	0.134
21) a-methylstyrene	(1)	6.537	118	1416M	0.138
23) bis(2-Chloroethyl)ether	(1)	6.569	93	9510	0.140
24) 2-Chlorophenol	(1)	6.612	128	6639	0.120
25) 1,3-Dichlorobenzene	(1)	6.853	146	7856	0.131
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	181691	5.000
27) 1,4-Dichlorobenzene	(1)	6.970	146	7433	0.123
28) Benzyl alcohol	(1)	7.158	108	4586	0.123
29) 1,2-Dichlorobenzene	(1)	7.190	146	8089	0.142
31) Indene	(1)	7.329	115	10517	0.144
32) 2-Methylphenol	(1)	7.339	108	6948	0.123
100) Isosafrole	(3)			5480	0.123
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.398	45	13677	0.159
35) bis(2-Chloroisopropyl)ether	(1)	7.398	45	13677	0.159
36) N-Nitrosopyrrolidine	(1)	7.511	100	3192	0.106
37) Acetophenone	(1)	7.564	105	12983	0.149
39) N-Nitroso-di-n-propylamine	(1)	7.575	70	7439	0.151
38) 4-Methylphenol	(1)	7.585	108	7800M	0.123
40) N-Nitrosomorpholine	(1)	7.591	56	6005	0.166
41) o-Toluidine	(1)	7.612	106	12348	0.125
44) Hexachloroethane	(1)	7.719	117	3628	0.134
45)$Nitrobenzene-d5	(2)	7.783	82	18863	0.271
46) Nitrobenzene	(2)	7.810	77	9043	0.123
50) N-Nitrosopiperidine	(2)	8.045	114	2795	0.101
125) 2,4_2,6-Dinitrotoluenes	(3)			4312	0.168
52) Isophorone	(2)	8.201	82	16165	0.127
53) 2-Nitrophenol	(2)	8.318	139	3219	0.124

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.425	107	8135	0.134
58) Benzoic acid	(2)	8.473	105	19661M	0.463
59) O,O,O-Triethylphosphorothioate	(2)	8.554	198	2961	0.124
57) bis(2-Chloroethoxy)methane	(2)	8.580	93	11055	0.137
62) 2,4-Dichlorophenol	(2)	8.703	162	4636	0.108
151) Diallate trans/cis	(4)			6838	0.124
65) 1,2,4-Trichlorobenzene	(2)	8.837	180	6037	0.127
68)*Naphthalene-d8	(2)	8.923	136	701808	5.000
69) Naphthalene	(2)	8.949	128	21068	0.132
70) 4-Chloroaniline	(2)	9.056	127	9014	0.137
71) 2,6-Dichlorophenol	(2)	9.067	162	5629	0.134
72) Hexachloropropene	(2)	9.104	213	3542	0.122
74) Hexachlorobutadiene	(2)	9.190	225	4166	0.157
78) Quinoline	(2)	9.484	129	13298	0.143
79) Caprolactam	(2)	9.548	113	2145	0.156
80) N-Nitrosodi-n-butylamine	(2)	9.639	84	5452	0.114
83) 4-Chloro-3-methylphenol	(2)	9.864	107	6356	0.120
85) Safrole	(2)	9.971	162	4828	0.129
86) 2-Methylnaphthalene	(2)	10.089	142	12235	0.124
87) 1-Methylnaphthalene	(2)	10.238	142	12458	0.130
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	6067	0.134
88) Hexachlorocyclopentadiene	(3)	10.361	237	2972	0.114
91) cis-Isosafrole	(3)	10.452	162	729	0.018
93) 2,4,6-Trichlorophenol	(3)	10.543	196	3395	0.115
95) 2,4,5-Trichlorophenol	(3)	10.597	196	3756	0.121
96)$2-Fluorobiphenyl	(3)	10.709	172	27025	0.259
97) trans-Isosafrole	(3)	10.816	162	4751	0.105
98) 1,1'-Biphenyl	(3)	10.859	154	16293	0.142
99) 2-Chloronaphthalene	(3)	10.864	162	12816	0.134
101) 1-Chloronaphthalene	(3)	10.896	162	11442	0.133
104) 2-Nitroaniline	(3)	11.035	138	2936	0.104
103) Diphenyl ether	(3)	11.041	170	8684	0.144
108) 1,4-Naphthoquinone	(3)	11.158	158	3243	0.089
109) 1,4-Dinitrobenzene	(3)	11.276	168	1797	0.131
110) Dimethylphthalate	(3)	11.388	163	12863	0.131
111) 1,3-Dinitrobenzene	(3)	11.394	168	1246M	0.083
113) 2,6-Dinitrotoluene	(3)	11.452	165	1640	0.077
114) Acenaphthylene	(3)	11.538	152	15892	0.124
117) 3-Nitroaniline	(3)	11.688	138	2852	0.116
118)*Acenaphthene-d10	(3)	11.752	164	325228	5.000

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on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.800	153	12926	0.134
120) 2,4-Dinitrophenol	(3)	11.848	184	7204	0.579
121) 4-Nitrophenol	(3)	11.955	109	8716	0.476
122) Pentachlorobenzene	(3)	11.993	250	5541	0.147
123) 2,4-Dinitrotoluene	(3)	12.041	165	2672	0.092
124) Dibenzofuran	(3)	12.046	168	17499	0.139
126) 1-Naphthylamine	(3)	12.148	143	12102	0.131
127) 2,3,4,6-Tetrachlorophenol	(3)	12.212	232	2806	0.123
128) 2-Naphthylamine	(3)	12.249	143	11765	0.131
129) Diethylphthalate	(3)	12.394	149	13715	0.139
131) Fluorene	(3)	12.490	166	13894	0.137
130) Thionazin	(3)	12.490	107	2286	0.113
134) 4-Nitroaniline	(3)	12.490	138	2650	0.102
133) 5-Nitro-o-toluidine	(3)	12.501	152	2412	0.090
132) 4-Chlorophenyl-phenylether	(3)	12.512	204	5482	0.115
135) 4,6-Dinitro-2-methylphenol	(4)	12.554	198	4827	0.298
136) N-Nitrosodiphenylamine	(4)	12.656	169	9797	0.121
137) NDPA as diphenylamine	(4)	12.656	169	9797	0.121
139) 1,2-Diphenylhydrazine	(4)	12.704	77	18345	0.134
140)$2,4,6-Tribromophenol	(3)	12.784	330	2996	0.228
142) Tetraethyldithiopyrophosphate	(4)	12.897	97	2682	0.128
144) 1,3,5-Trinitrobenzene	(4)	12.977	213	657M	0.068
145) Diallate (peak 1)	(4)	13.041	86	5734	0.101
146) Phorate	(4)	13.046	75	9195	0.113
147) Phenacetin	(4)	13.052	108	5465M	0.093
148) 4-Bromophenyl-phenylether	(4)	13.121	248	3479	0.133
149) Diallate (peak 2)	(4)	13.148	86	1104M	0.023
150) Hexachlorobenzene	(4)	13.180	284	3637	0.124
152) Dimethoate	(4)	13.239	87	5595	0.106
153) Atrazine	(4)	13.341	200	4041	0.167
154) Pentachlorophenol	(4)	13.426	266	2092	0.113
155) 4-Aminobiphenyl	(4)	13.448	169	12052	0.129
156) Pentachloronitrobenzene	(4)	13.453	237	928M	0.076
157) Pronamide	(4)	13.549	173	4642	0.108
158)*Phenanthrene-d10	(4)	13.678	188	604945	5.000
159) Dinoseb	(4)	13.694	211	1309	0.055
160) Phenanthrene	(4)	13.704	178	18537	0.127
162) Anthracene	(4)	13.779	178	19042	0.130
168) Carbazole	(4)	13.993	167	17761	0.137
169) Methyl parathion	(4)	14.207	109	2896M	0.076

M = Compound was manually integrated.
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on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.528	149	19651	0.111
173) 4-Nitroquinoline-1-oxide	(4)	14.769	190	816	2.142
172) Parathion	(4)	14.769	109	1646M	0.067
227) Total PAHs	(6)			285576	2.212
174) Octachlorostyrene	(4)	15.127	308	1384	0.129
176) Isodrin	(4)	15.180	193	2334	0.137
178) Fluoranthene	(4)	15.394	202	17369	0.114
179) Benzidine	(5)	15.619	184	92638	0.914
180)*Pyrene-d10	(5)	15.715	212	588579	5.000
182) Pyrene	(5)	15.747	202	21674	0.136
184)$Terphenyl-d14	(5)	16.036	244	22169	0.231
187) p-Dimethylaminoazobenzene	(5)	16.266	225	2129	0.083
190) Chlorobenzilate	(5)	16.363	139	5224	0.101
192) 3,3'-Dimethylbenzidine	(5)	16.833	212	10157	0.098
193) Butylbenzylphthalate	(5)	16.903	149	7135	0.091
196) 2-Acetylaminofluorene	(5)	17.256	181	5429	0.083
198) 3,3'-Dichlorobenzidine	(5)	17.775	252	5138	0.095
200) Benzo(a)anthracene	(5)	17.780	228	16371	0.114
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.796	231	3352M	0.112
201) Chrysene	(5)	17.849	228	16195	0.116
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	10620	0.093
208) 6-Methylchrysene	(5)	18.668	242	10914	0.112
210) Di-n-octylphthalate	(6)	19.165	149	15856	0.086
211) Benzo(b)fluoranthene	(6)	19.657	252	17079	0.126
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.668	256	6227	0.111
213) Benzo(k)fluoranthene	(6)	19.711	252	16154M	0.125
216) Benzo(a)pyrene	(6)	20.198	252	13464	0.110
218)*Perylene-d12	(6)	20.294	264	532069	5.000
220) 3-Methylcholanthrene	(6)	20.775	268	6775	0.108
222) Dibenz(a,h)acridine	(6)	21.588	279	10298	0.096
223) Dibenz(a,j)acridine	(6)	21.668	279	9974	0.094
224) Indeno(1,2,3-cd)pyrene	(6)	21.920	276	13083M	0.109
225) Dibenz(a,h)anthracene	(6)	21.968	278	13153	0.106
226) Benzo(g,h,i)perylene	(6)	22.332	276	14982	0.118

M = Compound was manually integrated.
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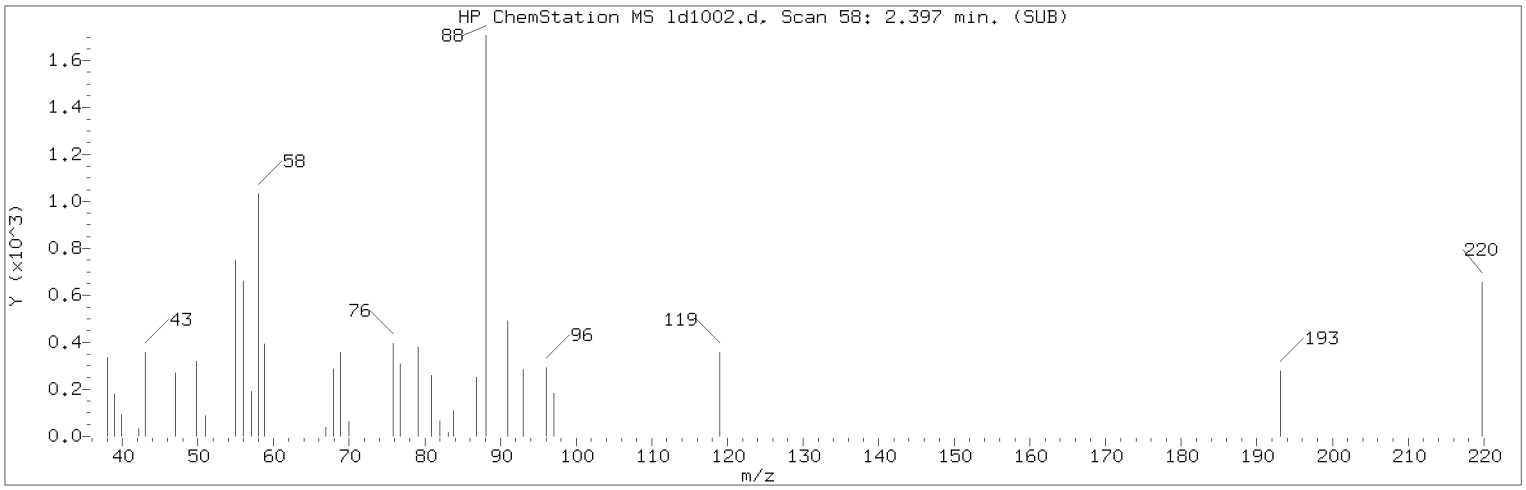
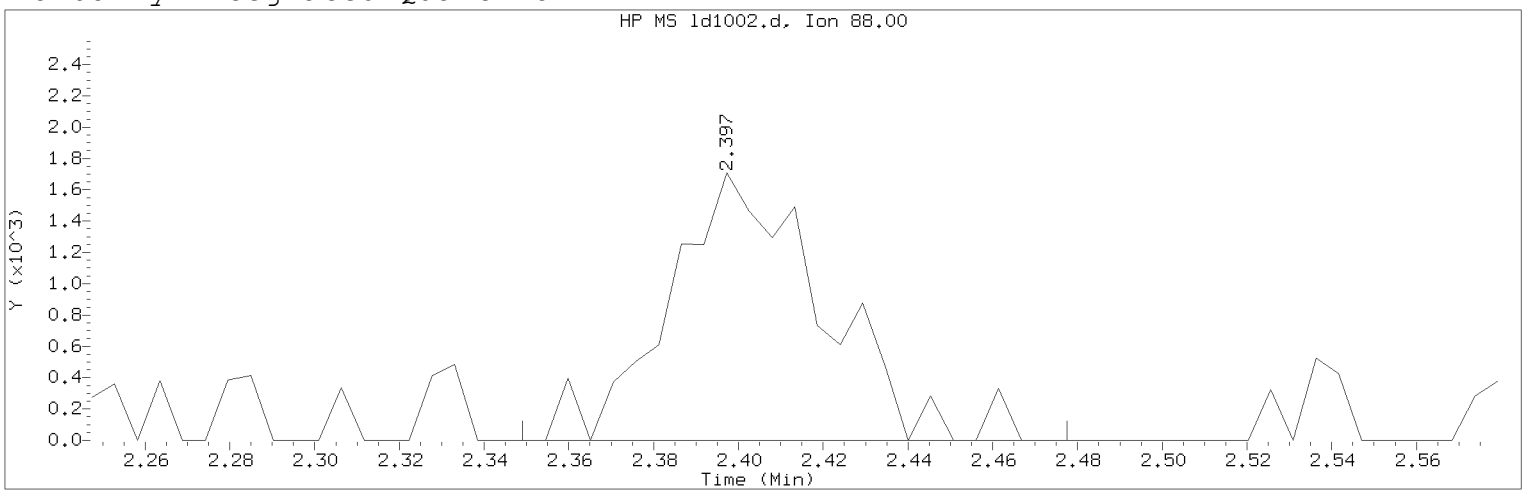
Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

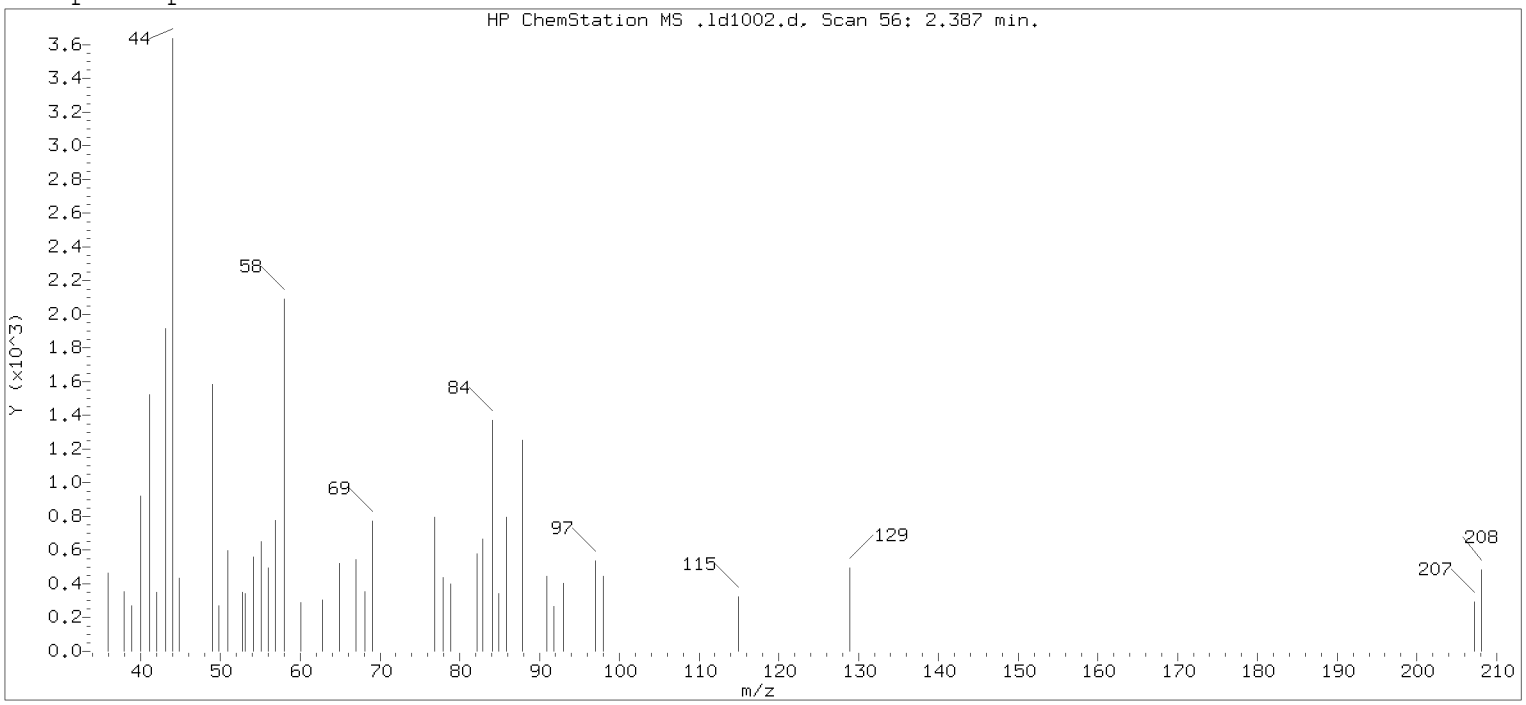
Compound Number : 1
Compound Name : 1,4-Dioxane
Scan Number : 58
Retention Time (minutes) : 2.397
Quant Ion : 88.00
Area (flag) : 4377M
On-Column Amount (ng/ul) : 0.1648
Integration start scan : 48 Integration stop scan: 72
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

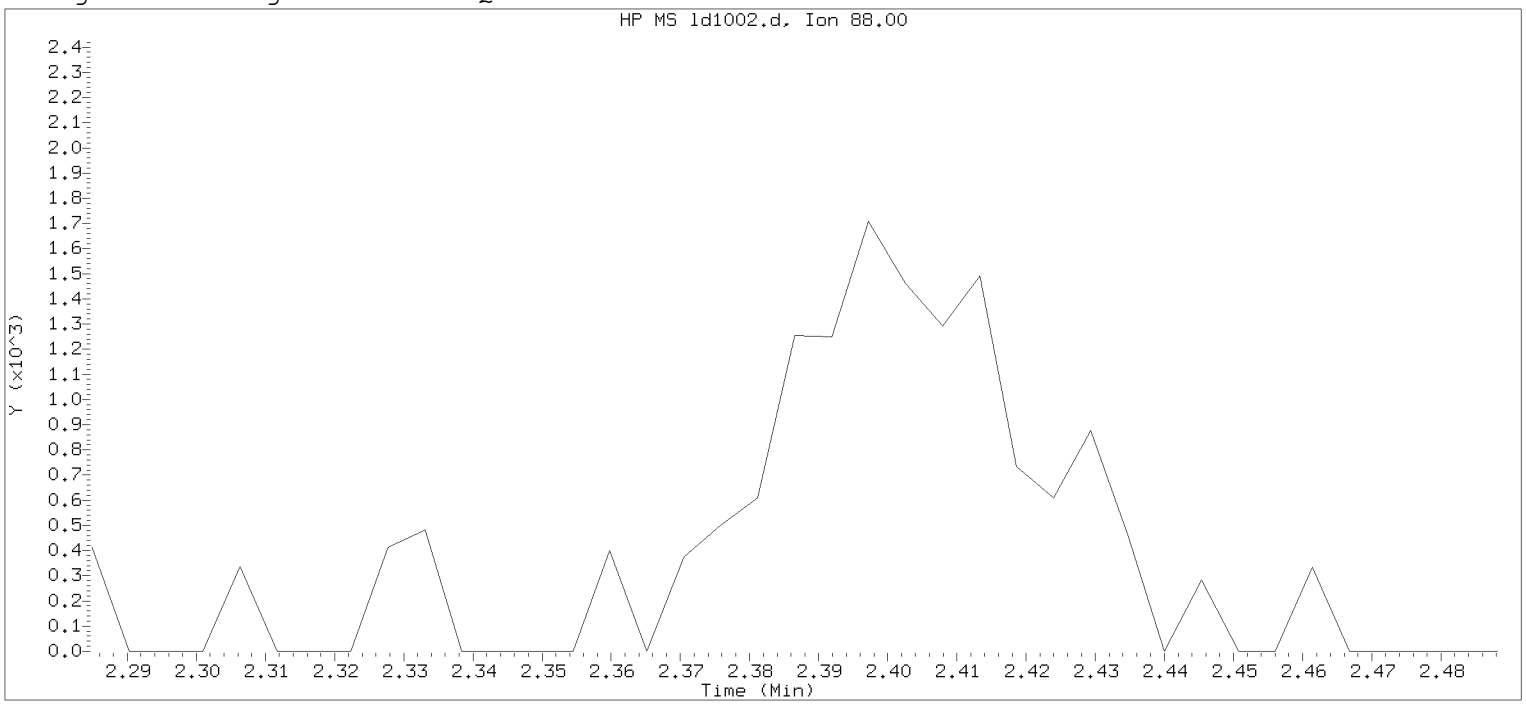
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number : 1
Compound Name : 1,4-Dioxane
Expected RT (minutes) : 2.386
Quant Ion : 88.00

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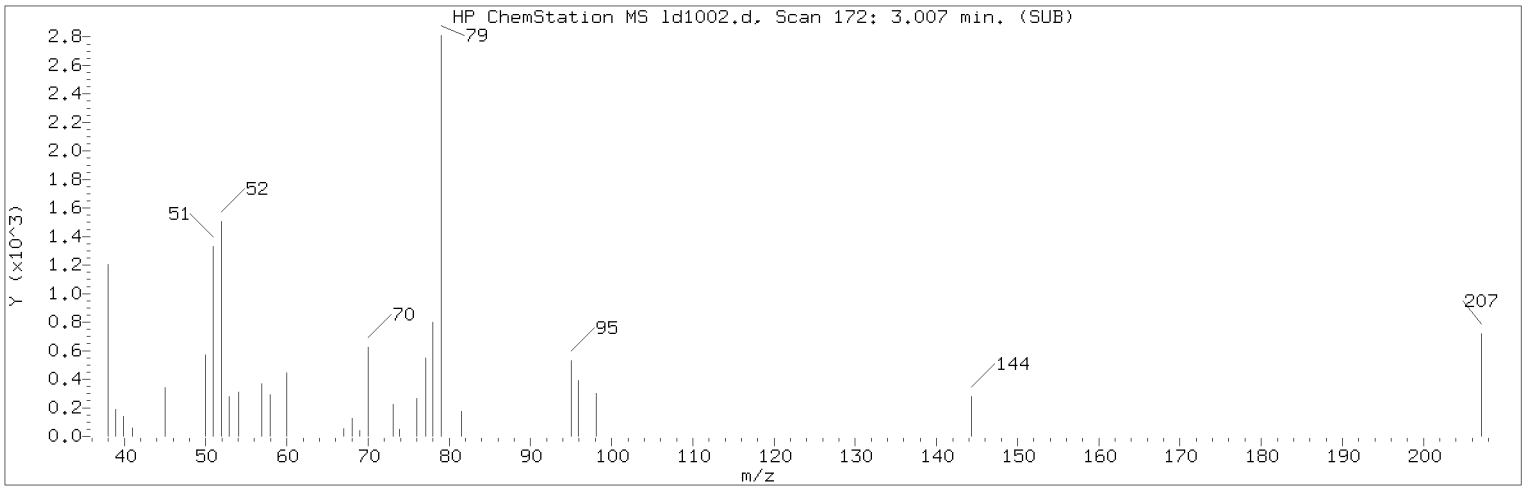
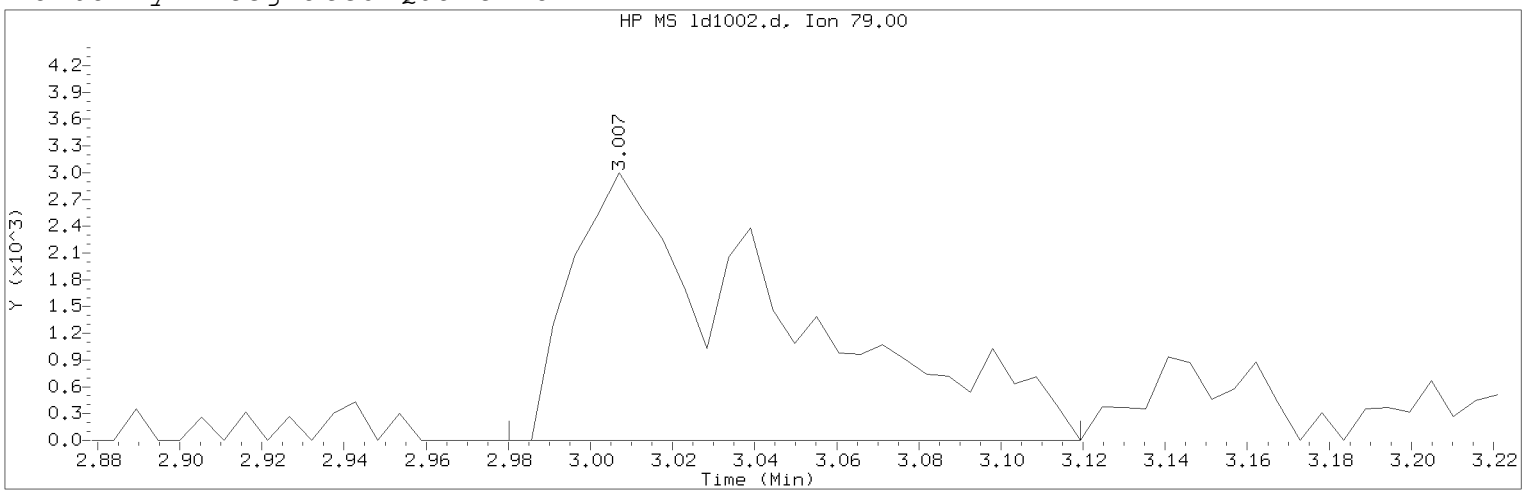
Target 3.5 esignature used. Page 1813

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

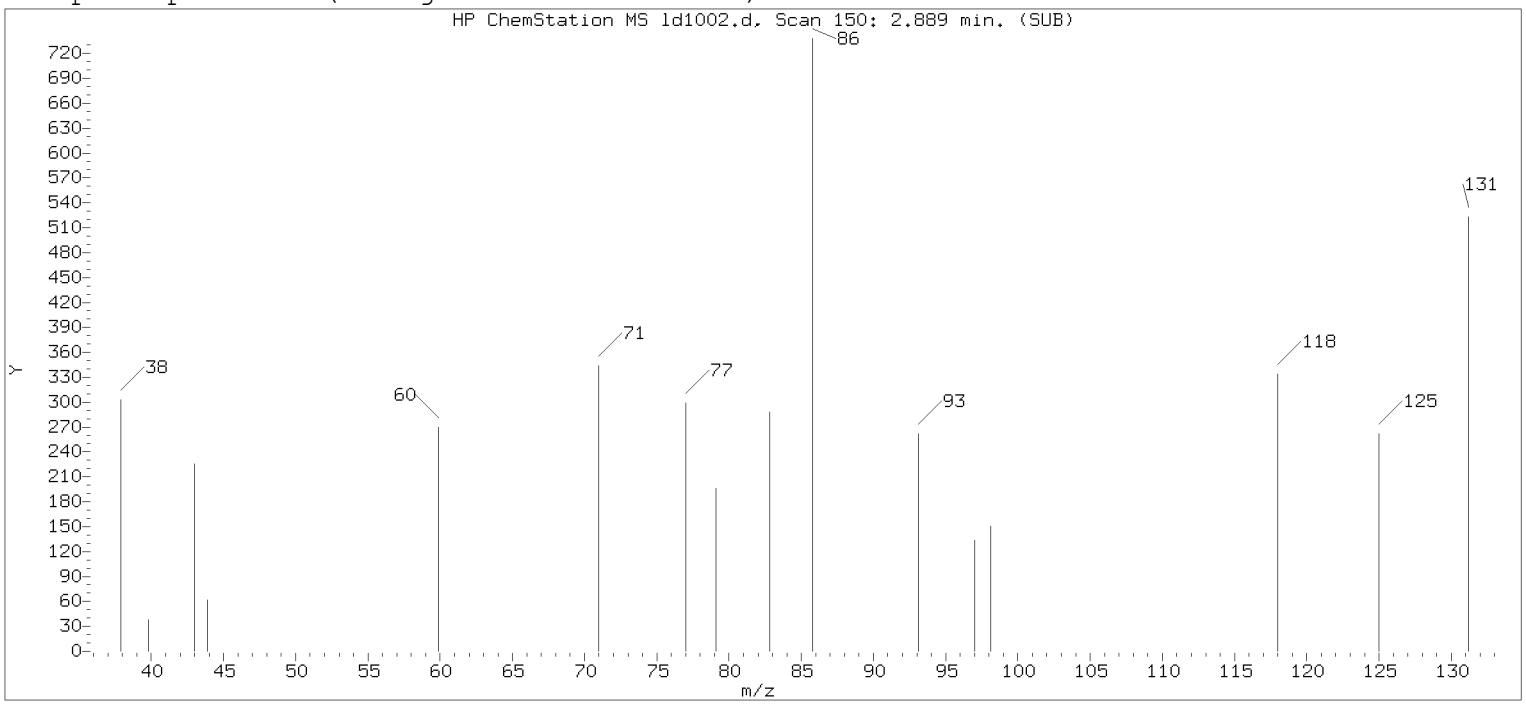
Compound Number	: 6		
Compound Name	: Pyridine		
Scan Number	: 172		
Retention Time (minutes)	: 3.007		
Quant Ion	: 79.00		
Area (flag)	: 10759M		
On-Column Amount (ng/ul)	: 0.1473		
Integration start scan	: 166	Integration stop scan:	192
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

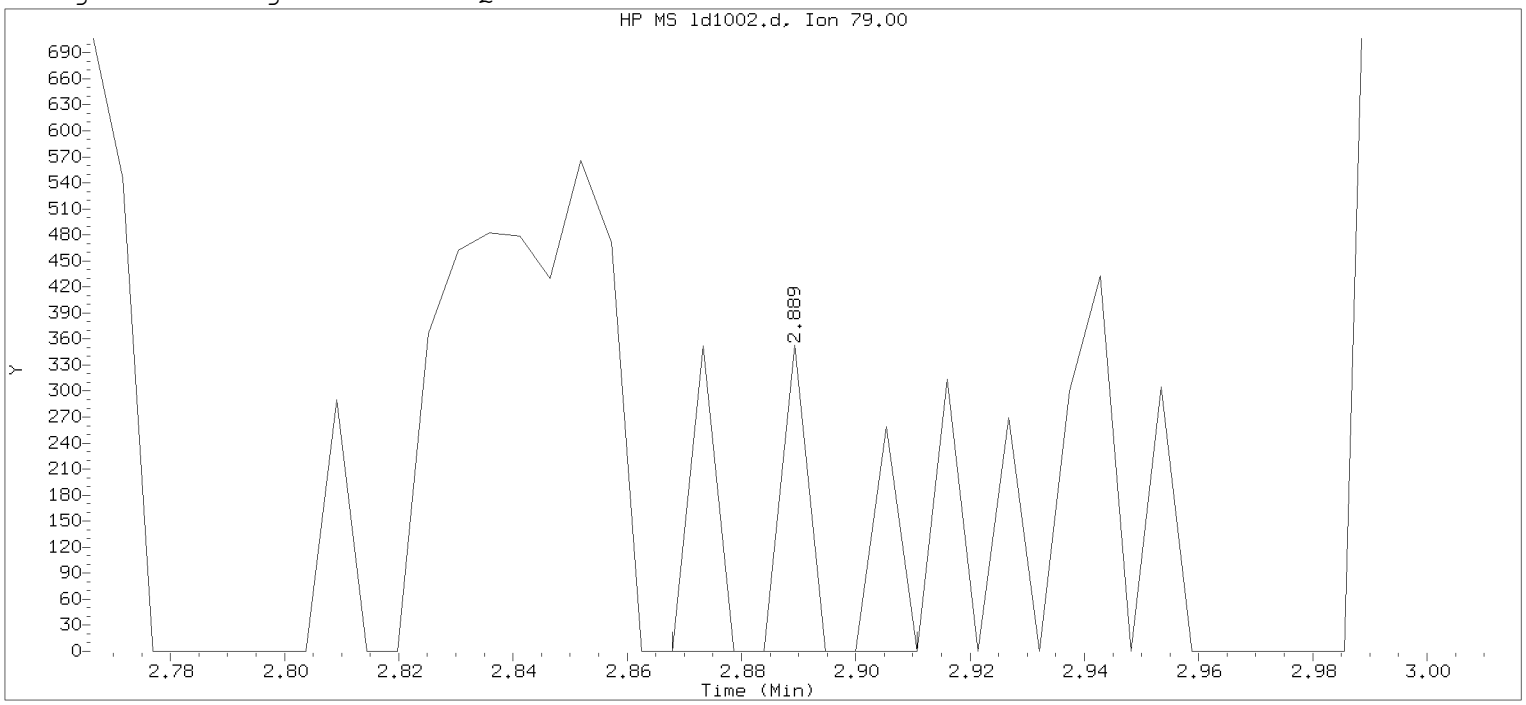
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number	: 6		
Compound Name	: Pyridine		
Scan Number	: 150		
Retention Time (minutes)	: 2.889		
Quant Ion	: 79.00		
Area	: 309		
On-column Amount (ng/ul)	: 0.0045		
Integration start scan	: 145	Integration stop scan:	153
Y at integration start	: 0	Y at integration end:	0

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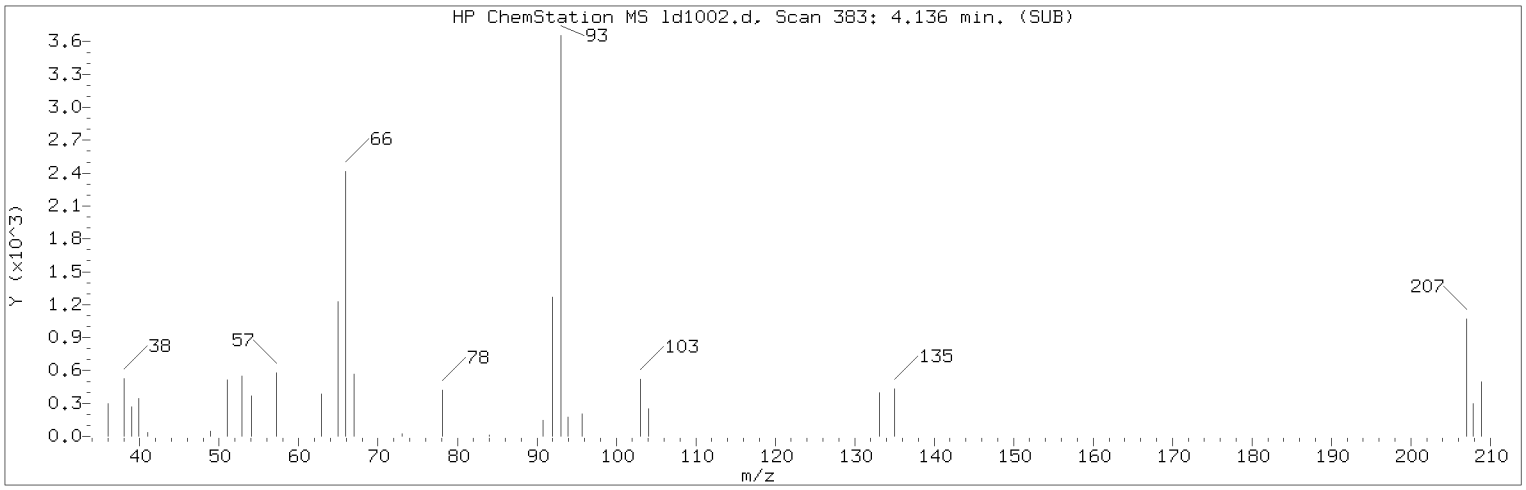
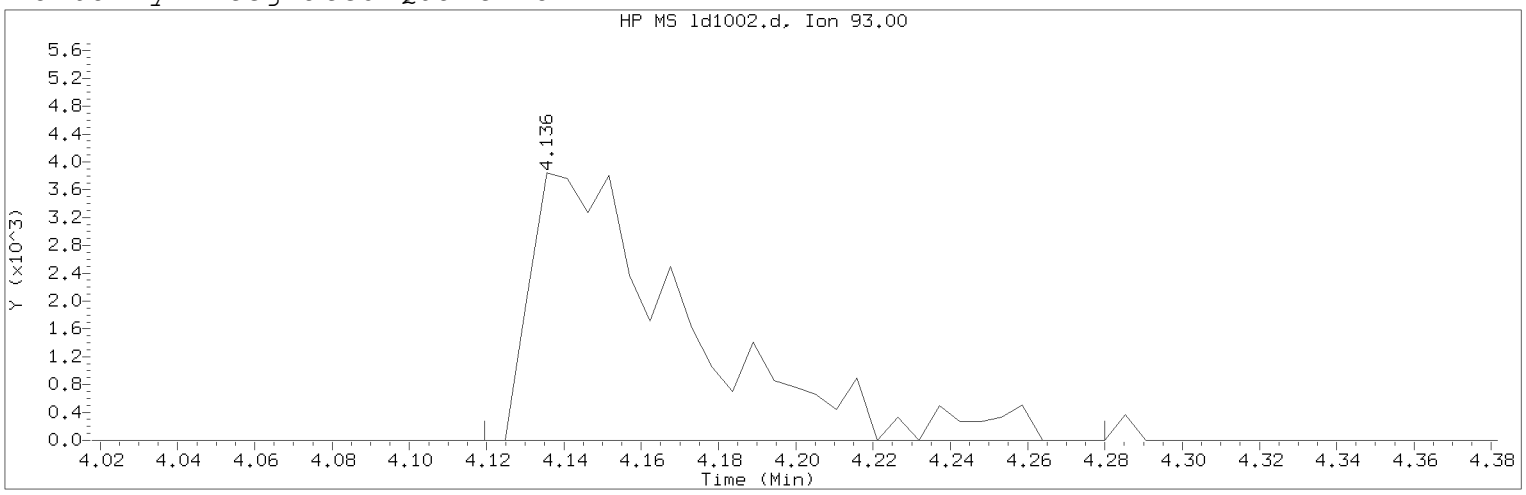
Target 3.5 esignature user: F35 Page 1815

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

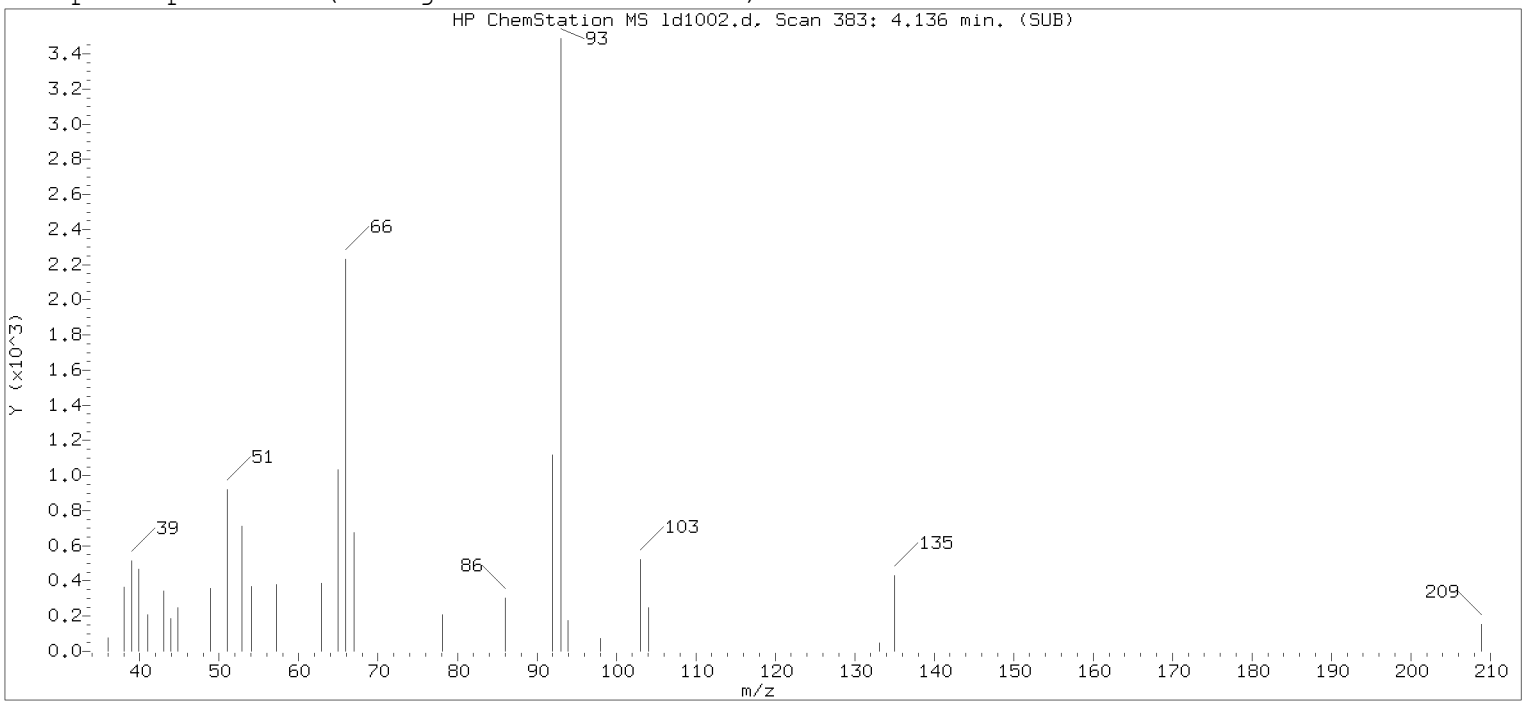
Compound Number : 8
Compound Name : 2-Picoline
Scan Number : 383
Retention Time (minutes) : 4.136
Quant Ion : 93.00
Area (flag) : 10865M
On-Column Amount (ng/ul) : 0.1491
Integration start scan : 379 Integration stop scan: 409
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

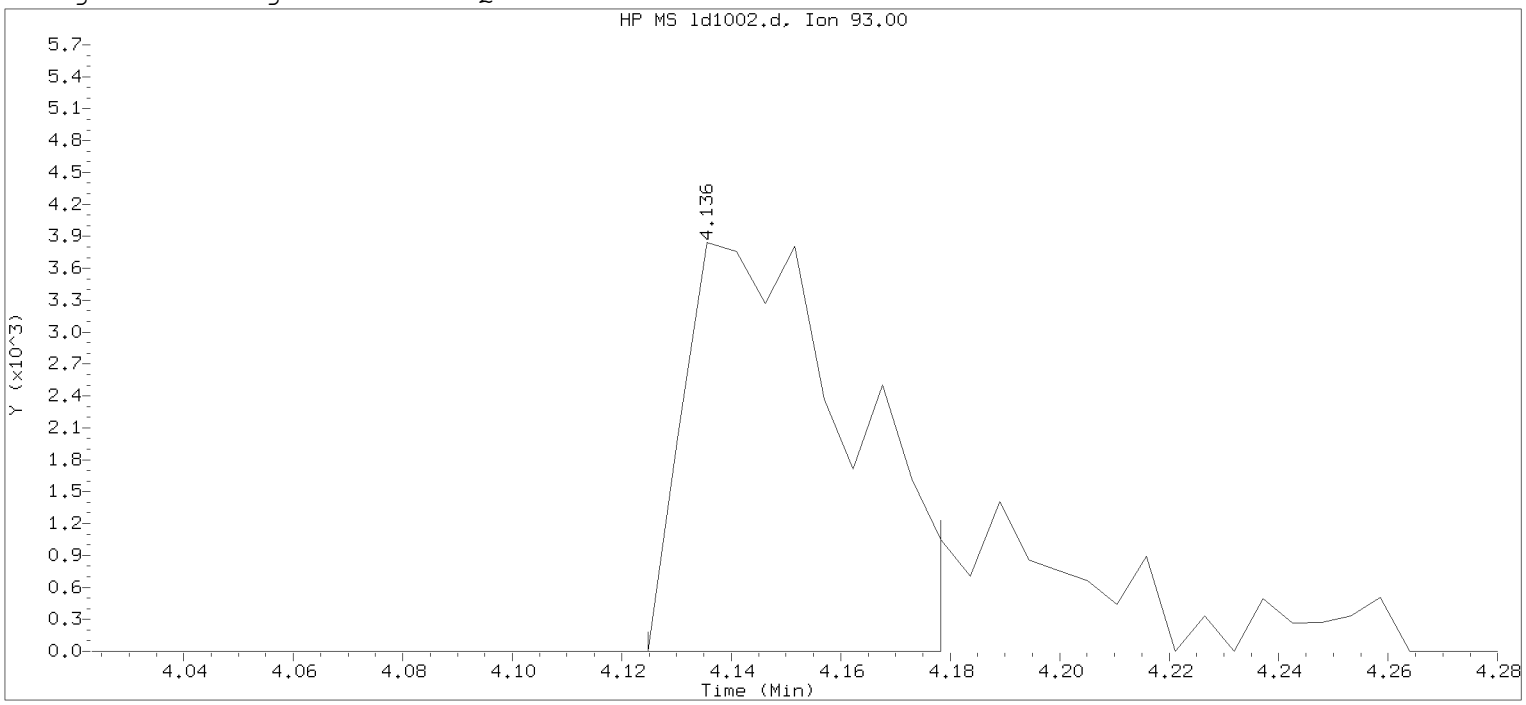
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

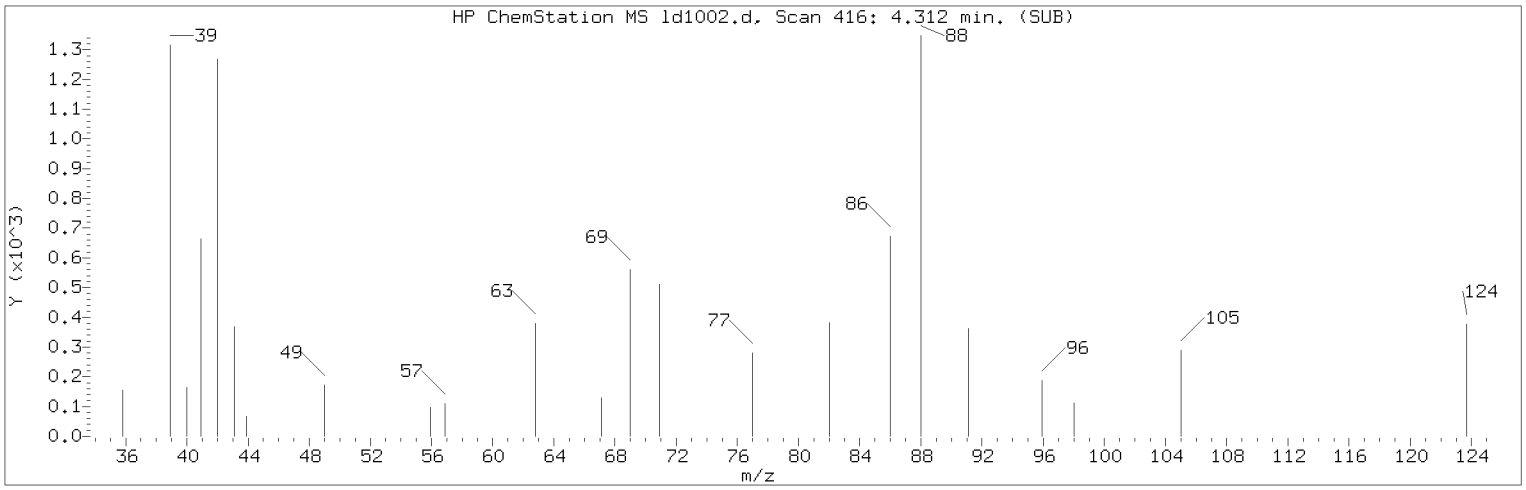
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

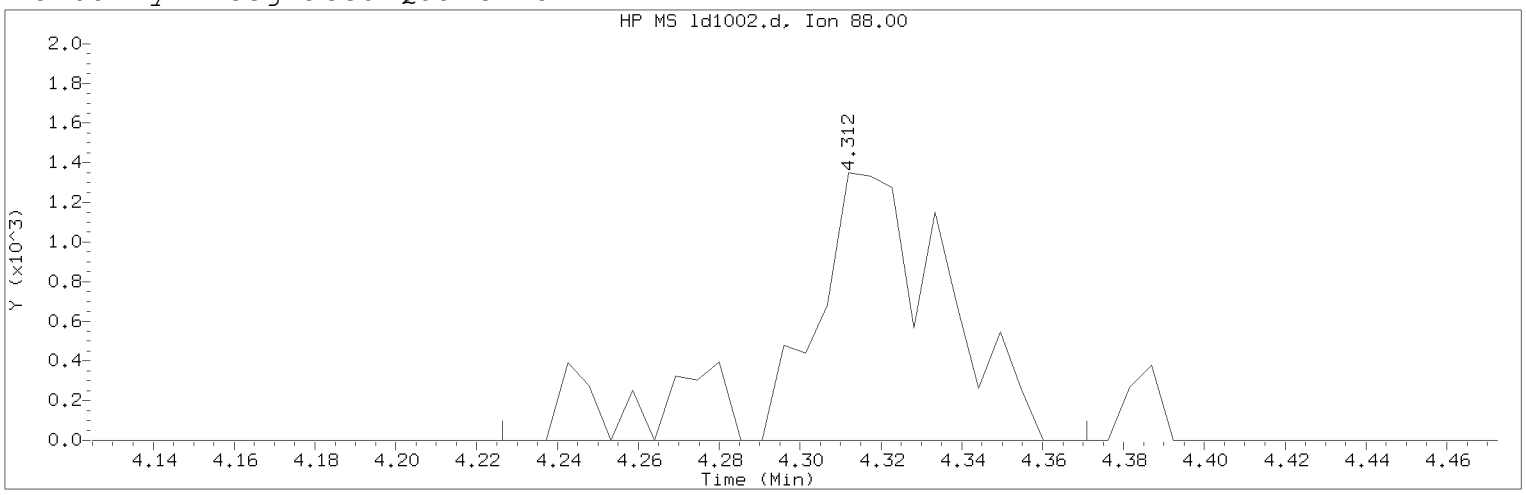
Compound Number	: 8		
Compound Name	: 2-Picoline		
Scan Number	: 383		
Retention Time (minutes)	: 4.136		
Quant Ion	: 93.00		
Area	: 8152		
On-column Amount (ng/ul)	: 0.1128		
Integration start scan	: 380	Integration stop scan:	390
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

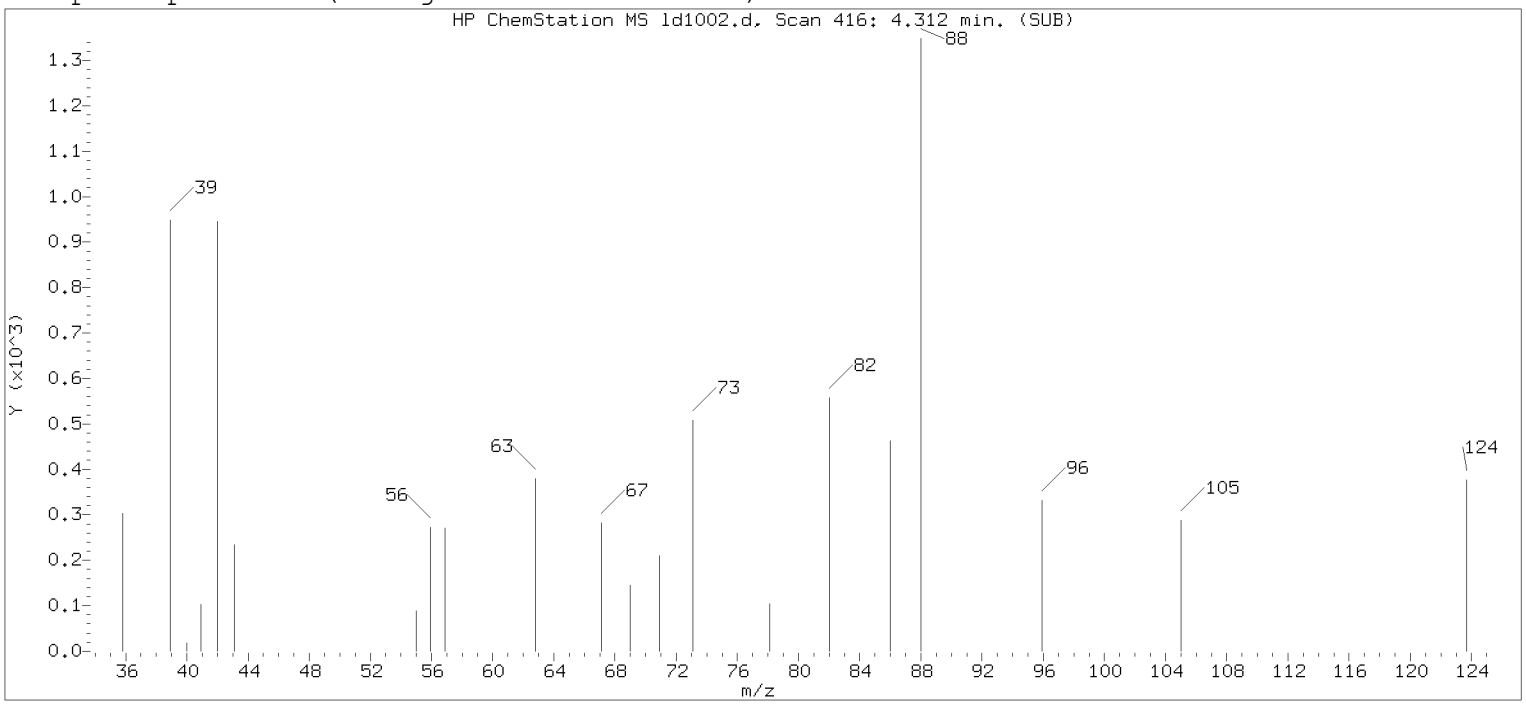
Compound Number : 9
Compound Name : N-Nitrosomethylethylamine
Scan Number : 416
Retention Time (minutes) : 4.312
Quant Ion : 88.00
Area (flag) : 3521M
On-Column Amount (ng/ul) : 0.1185
Integration start scan : 399 Integration stop scan: 426
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

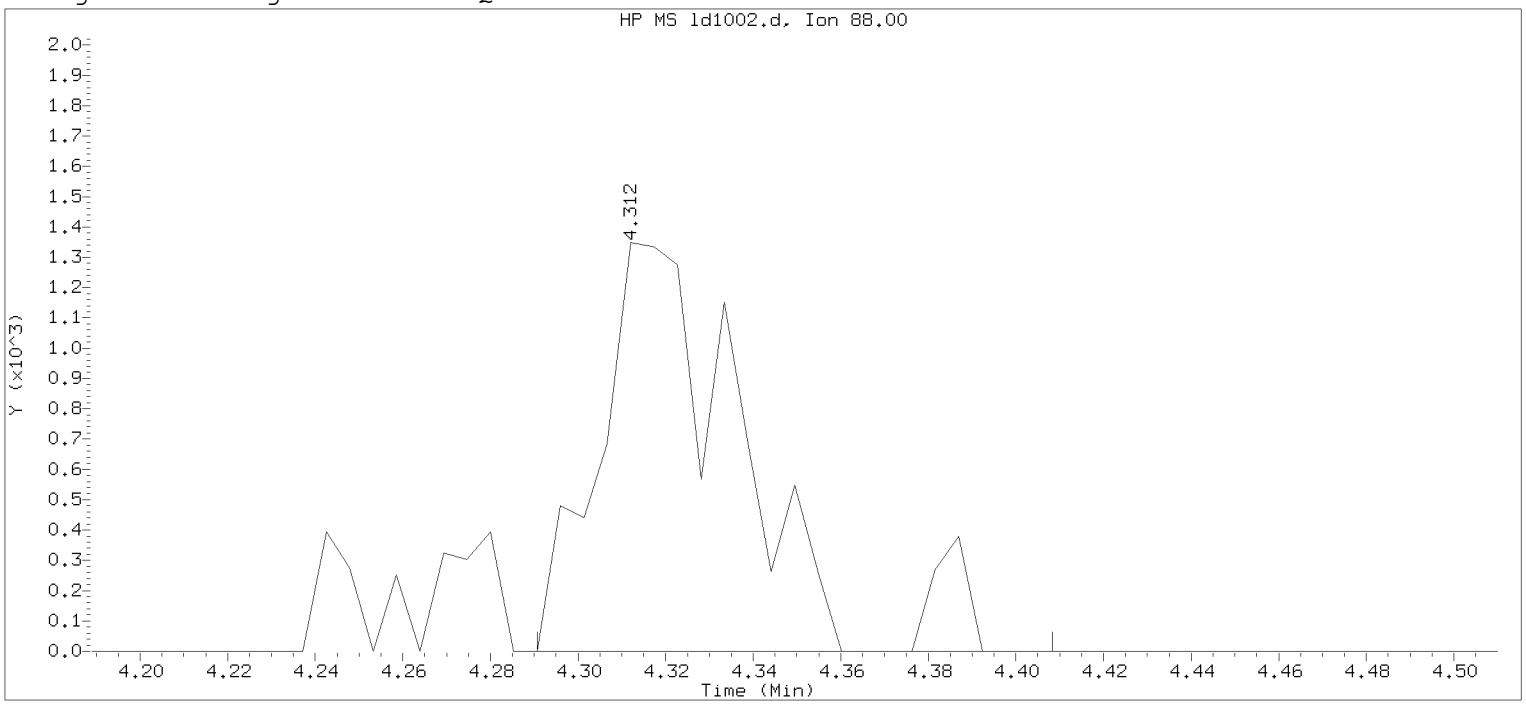
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

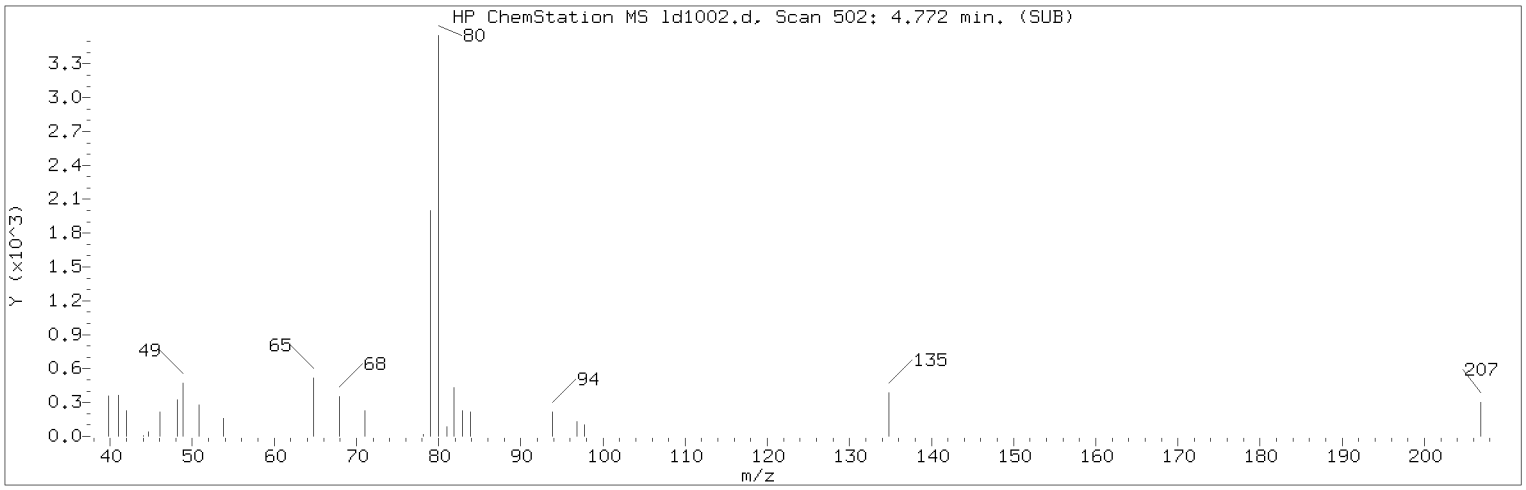
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

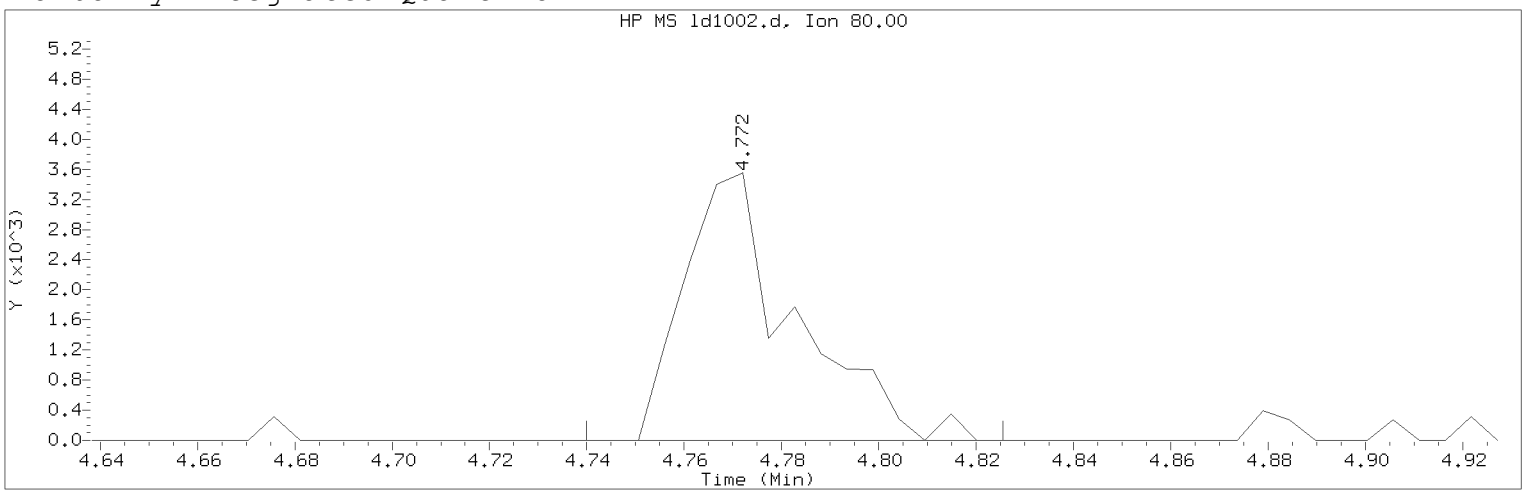
Compound Number	: 9		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 416		
Retention Time (minutes)	: 4.312		
Quant Ion	: 88.00		
Area	: 3105		
On-column Amount (ng/ul)	: 0.1060		
Integration start scan	: 411	Integration stop scan:	433
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: ART2405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

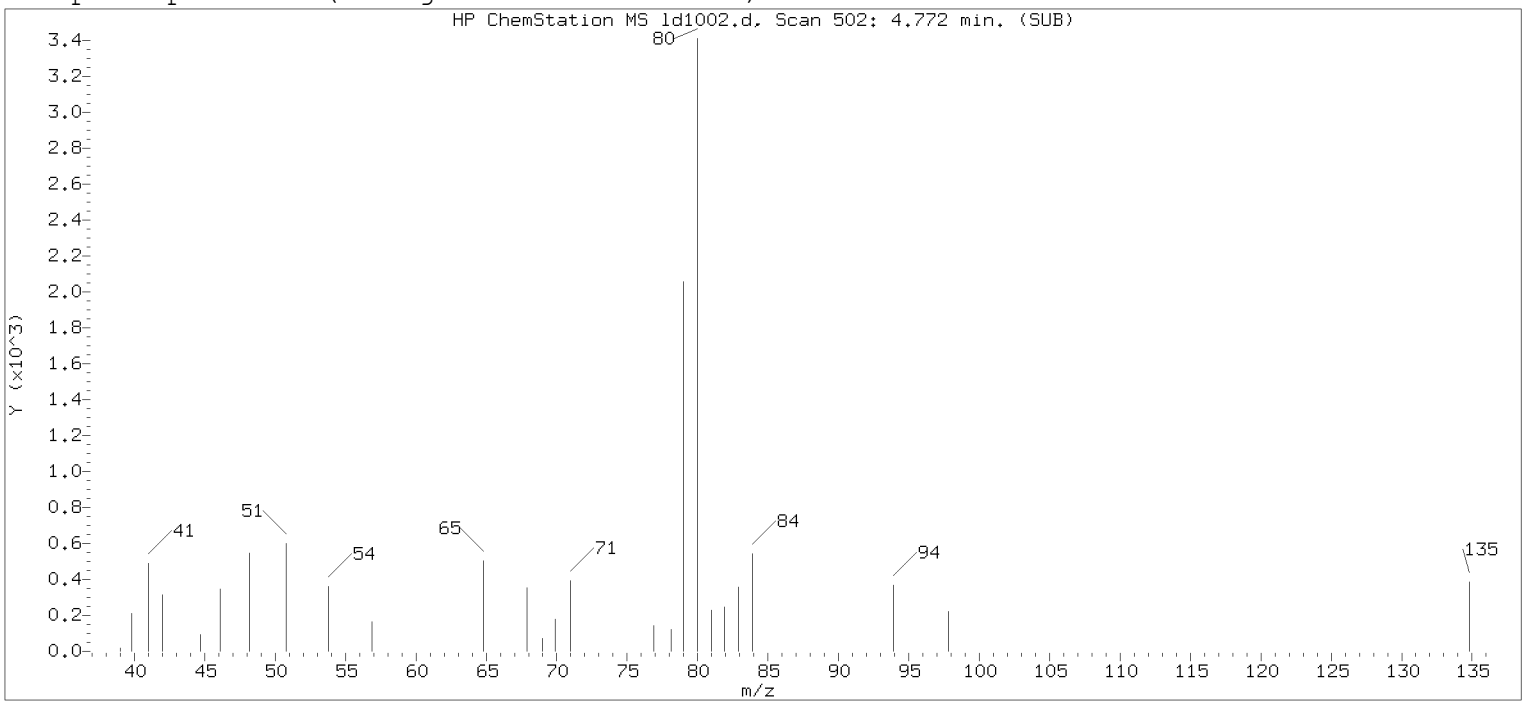
Compound Number : 10
Compound Name : Methyl methanesulfonate
Scan Number : 502
Retention Time (minutes) : 4.772
Quant Ion : 80.00
Area (flag) : 5587M
On-Column Amount (ng/ul) : 0.1526
Integration start scan : 495 Integration stop scan: 511
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

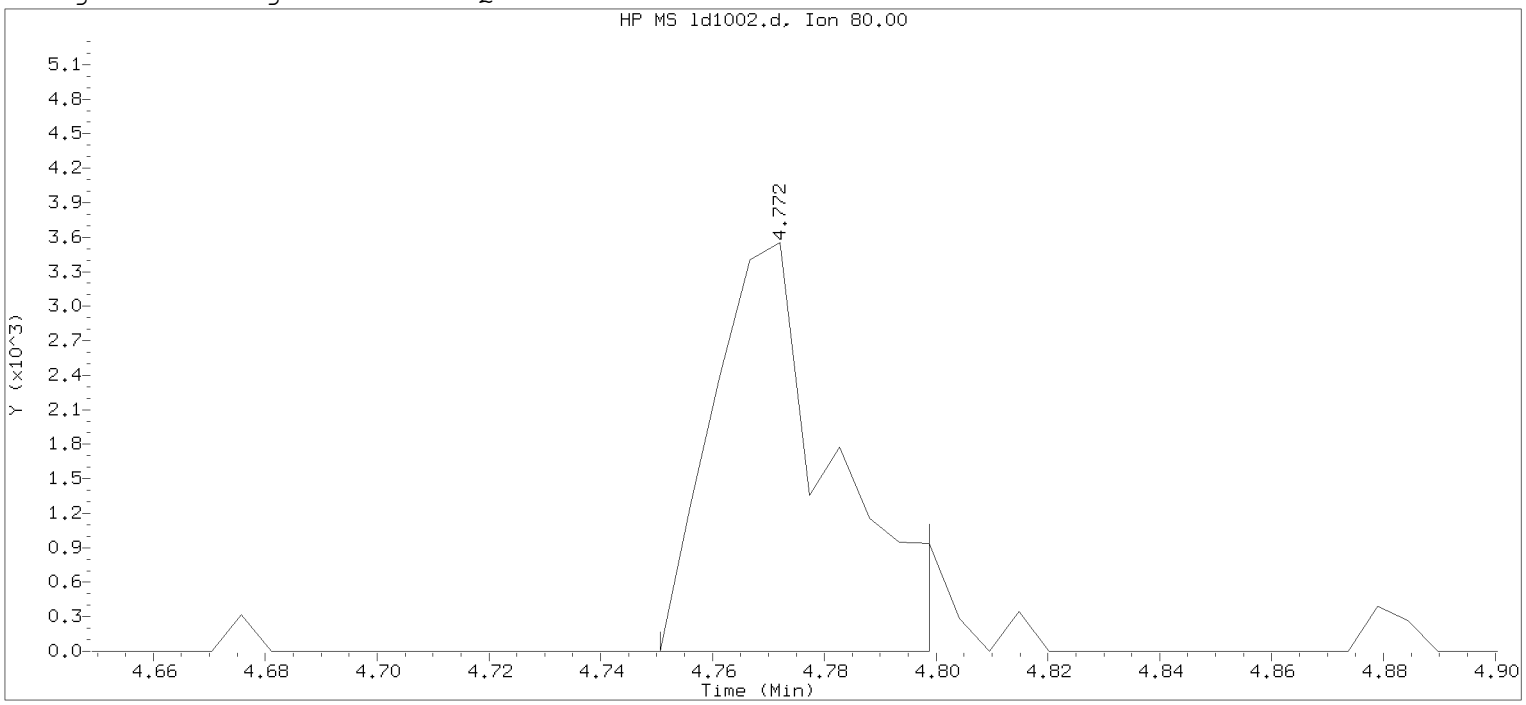
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

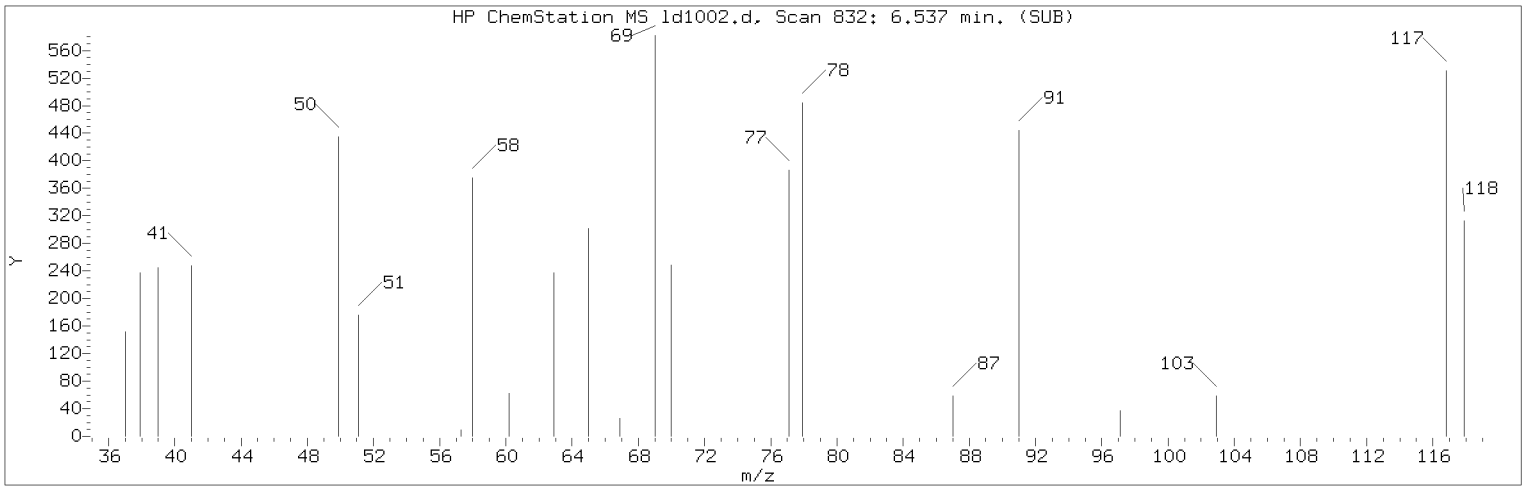
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

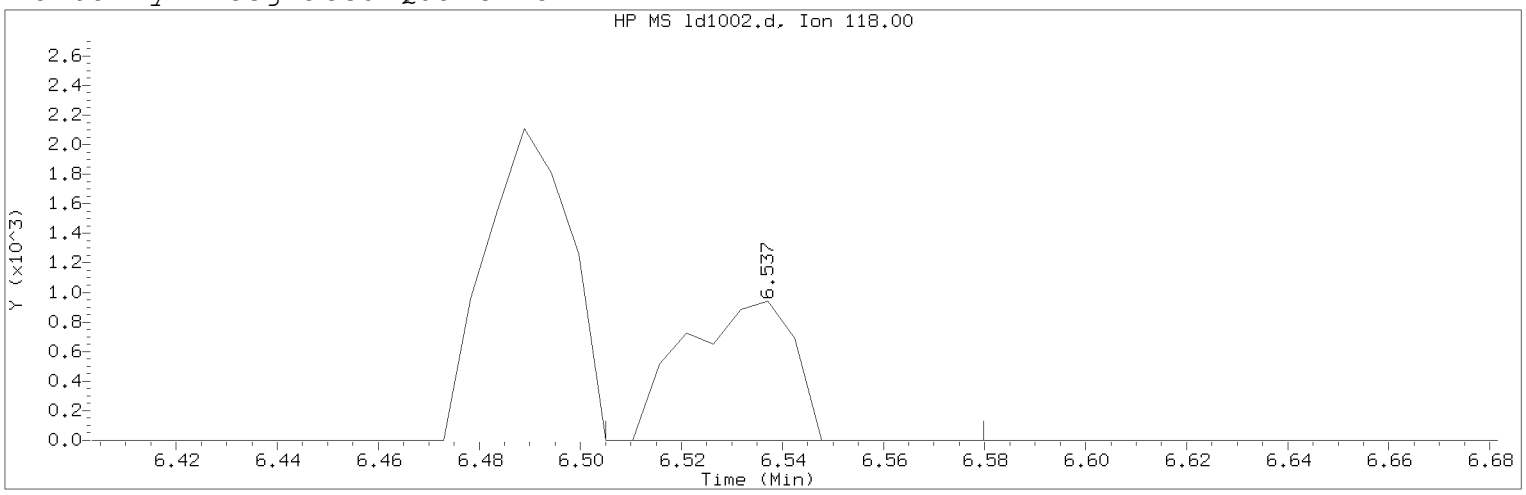
Compound Number	: 10		
Compound Name	: Methyl methanesulfonate		
Scan Number	: 502		
Retention Time (minutes)	: 4.772		
Quant Ion	: 80.00		
Area	: 5235		
On-column Amount (ng/ul)	: 0.1445		
Integration start scan	: 497	Integration stop scan:	506
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user: Ashley Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

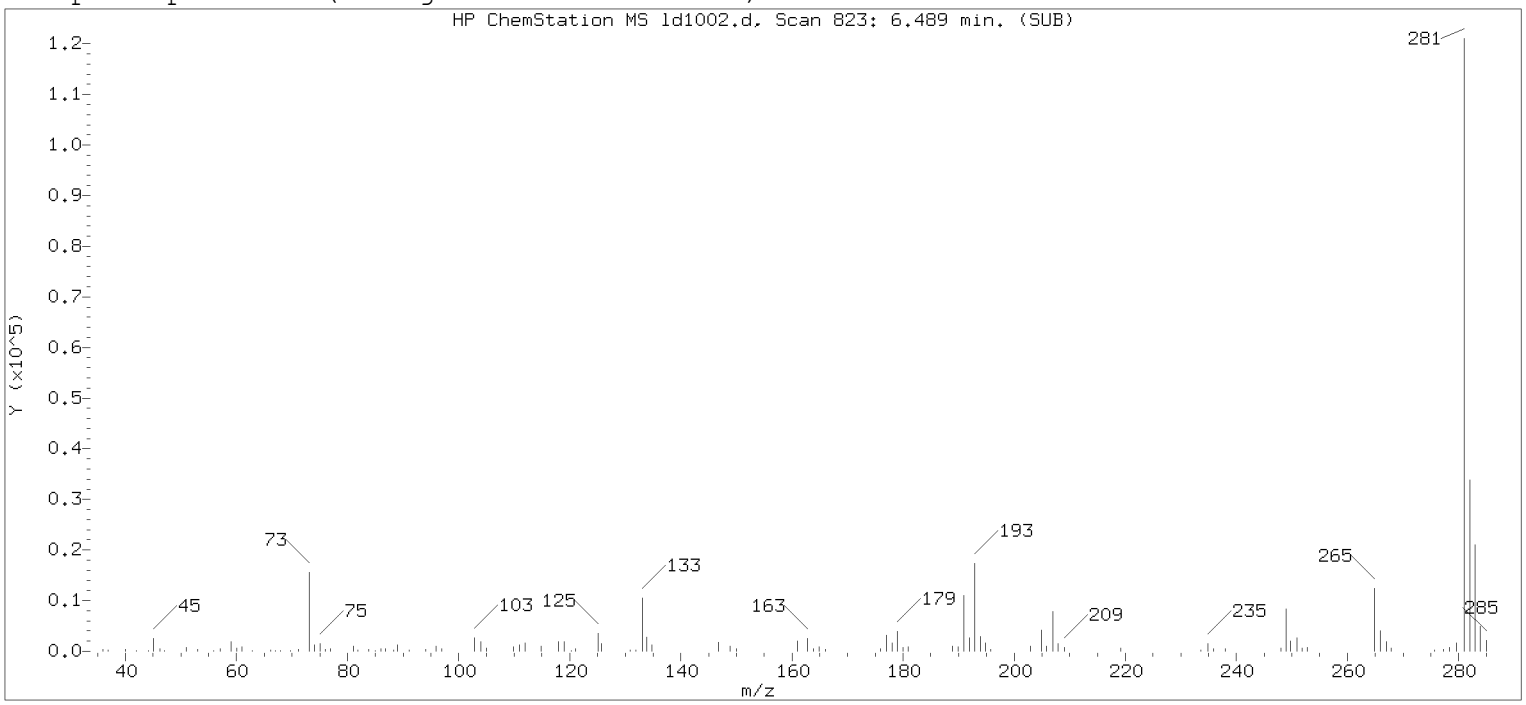
Compound Number : 21
Compound Name : a-methylstyrene
Scan Number : 832
Retention Time (minutes) : 6.537
Quant Ion : 118.00
Area (flag) : 1416M
On-Column Amount (ng/ul) : 0.1381
Integration start scan : 825 Integration stop scan: 839
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

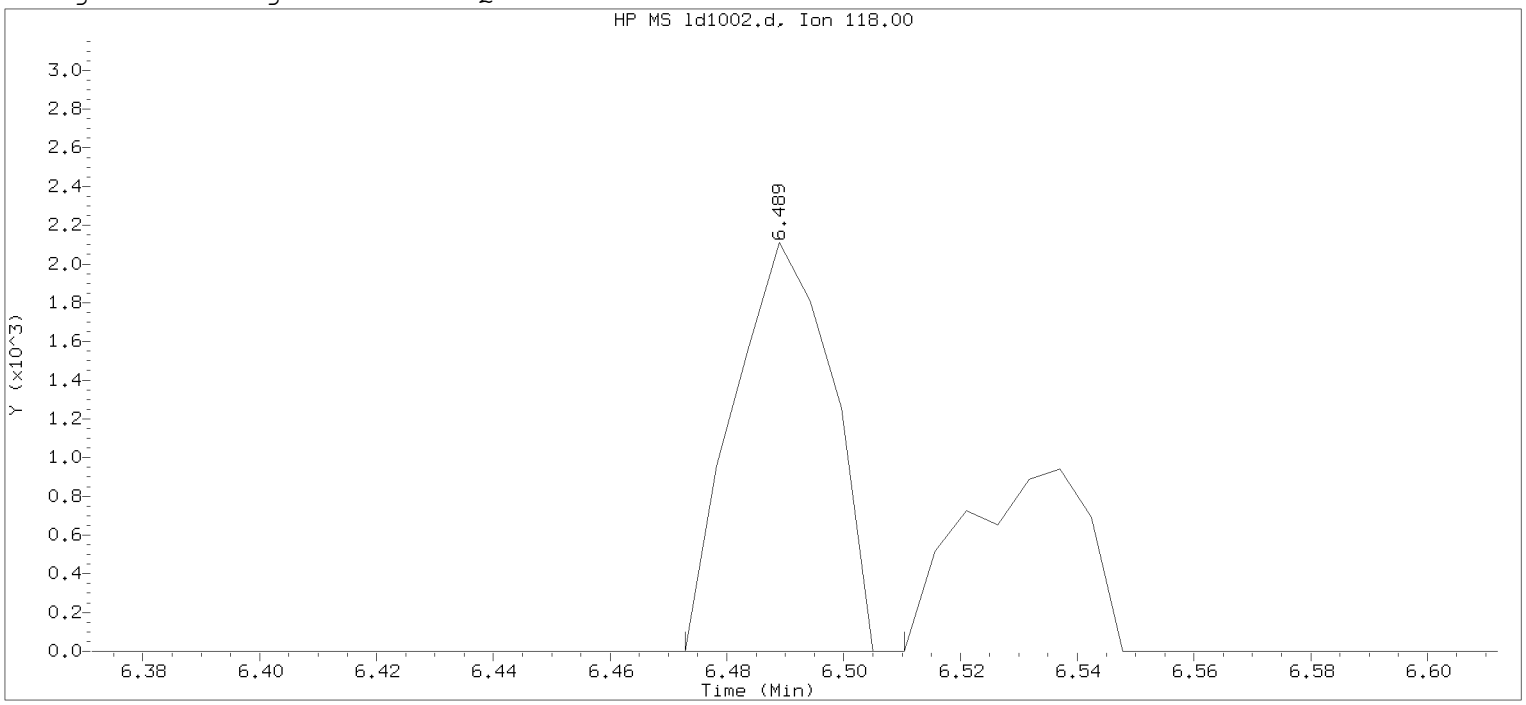
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

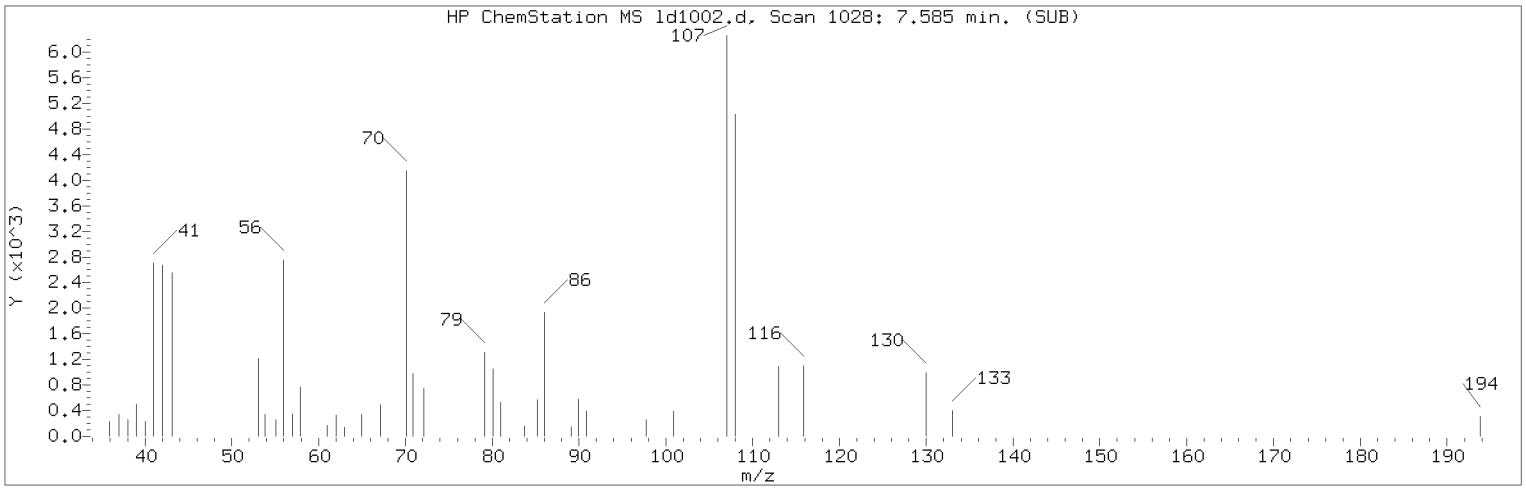
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

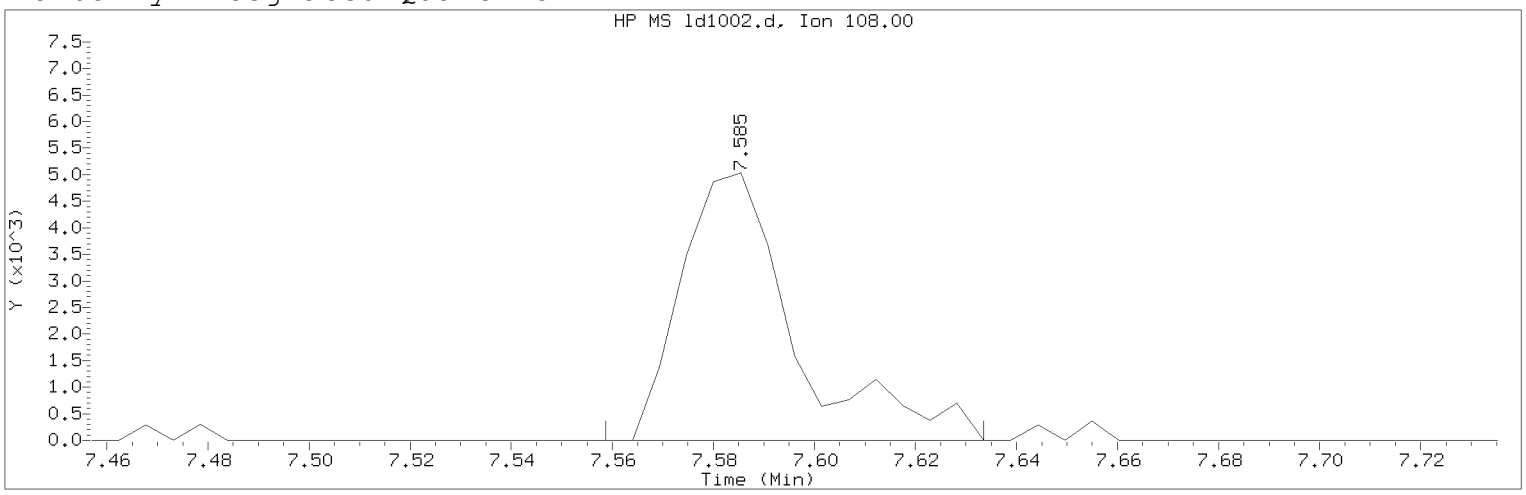
Compound Number	: 21		
Compound Name	: a-methylstyrene		
Scan Number	: 823		
Retention Time (minutes)	: 6.489		
Quant Ion	: 118.00		
Area	: 2468		
On-column Amount (ng/ul)	: 0.2214		
Integration start scan	: 819	Integration stop scan:	826
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: ART2405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

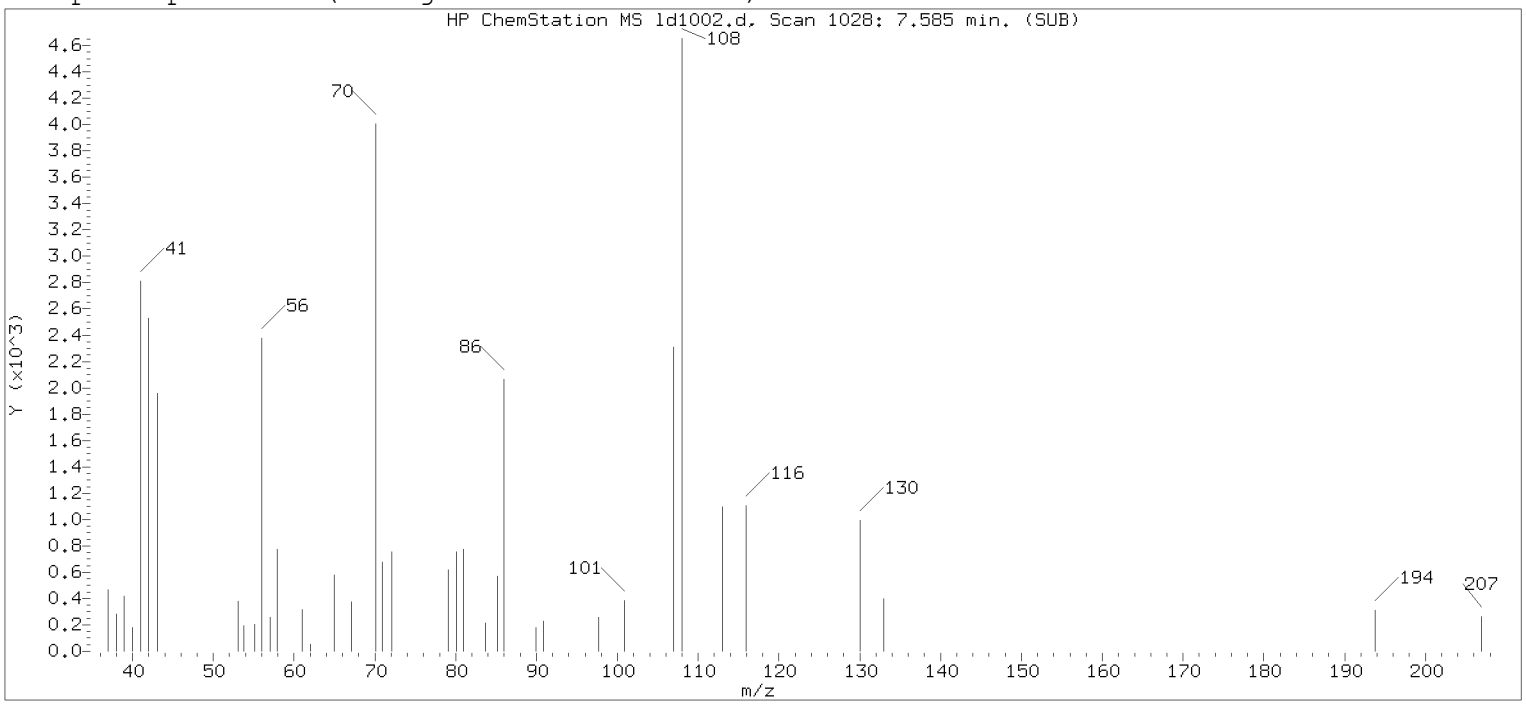
Compound Number : 38
Compound Name : 4-Methylphenol
Scan Number : 1028
Retention Time (minutes) : 7.585
Quant Ion : 108.00
Area (flag) : 7800M
On-Column Amount (ng/ul) : 0.1232
Integration start scan : 1022 Integration stop scan: 1036
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

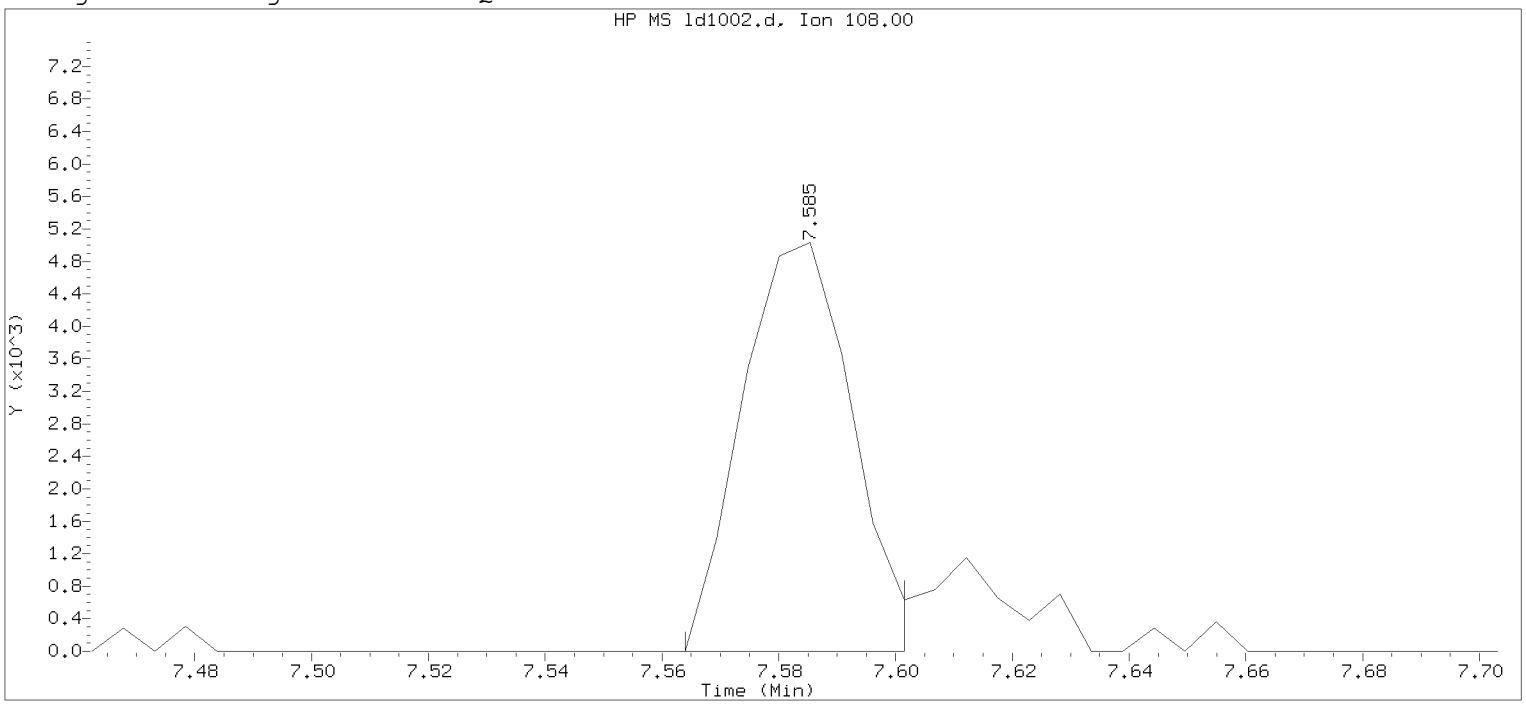
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

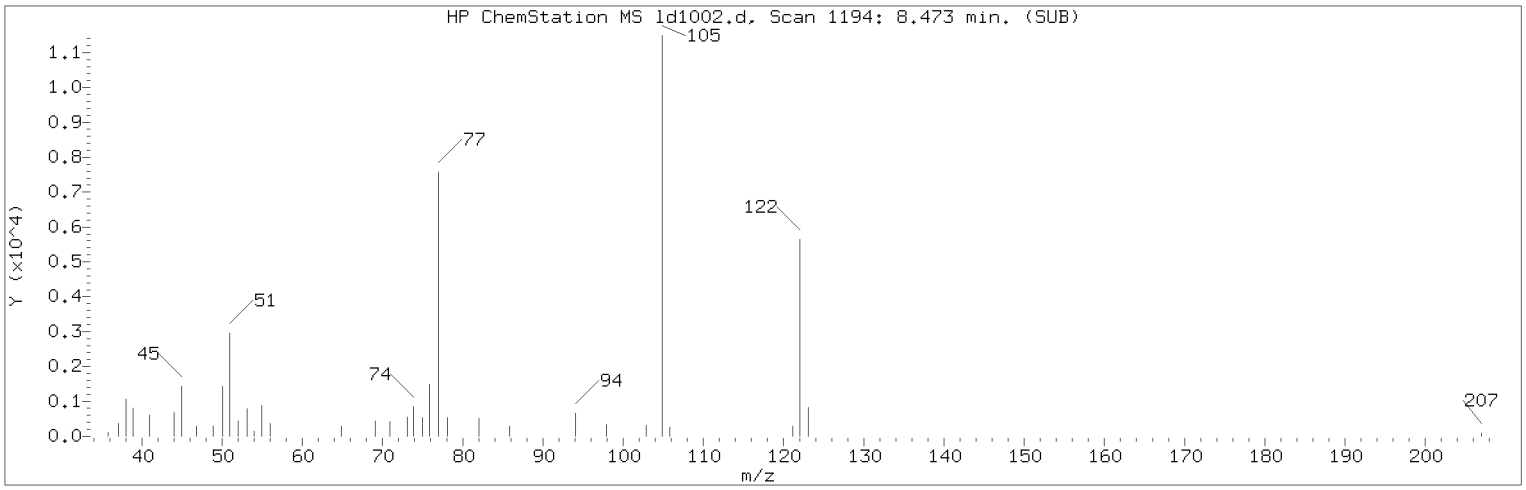
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

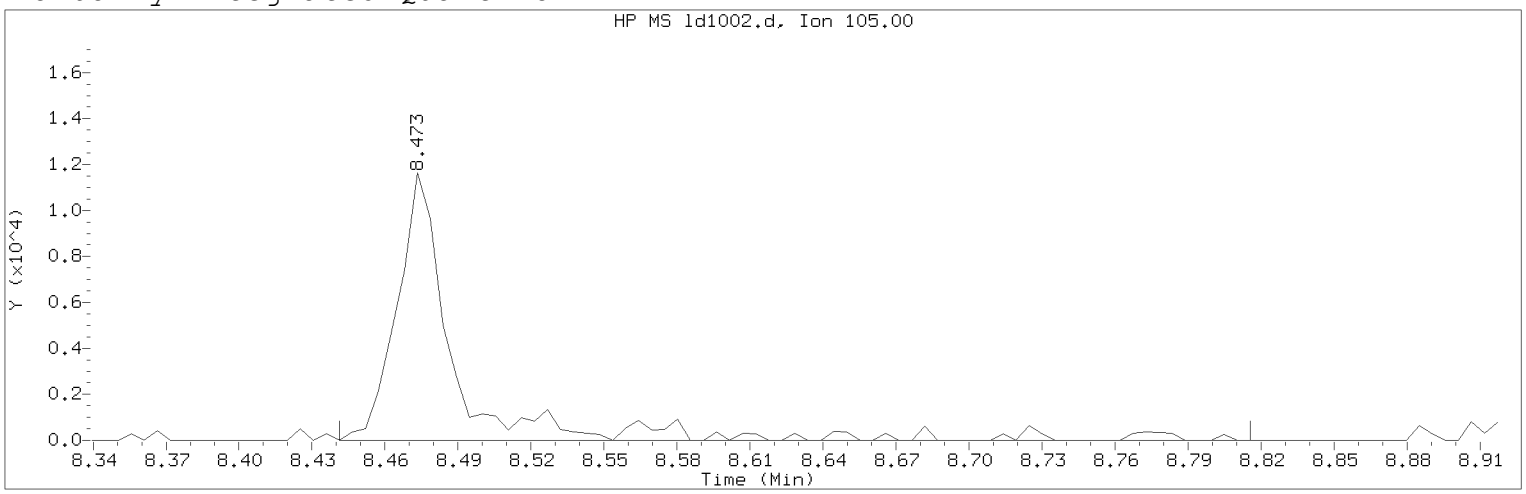
Compound Number	: 38		
Compound Name	: 4-Methylphenol		
Scan Number	: 1028		
Retention Time (minutes)	: 7.585		
Quant Ion	: 108.00		
Area	: 6530		
On-column Amount (ng/ul)	: 0.1045		
Integration start scan	: 1023	Integration stop scan:	1030
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

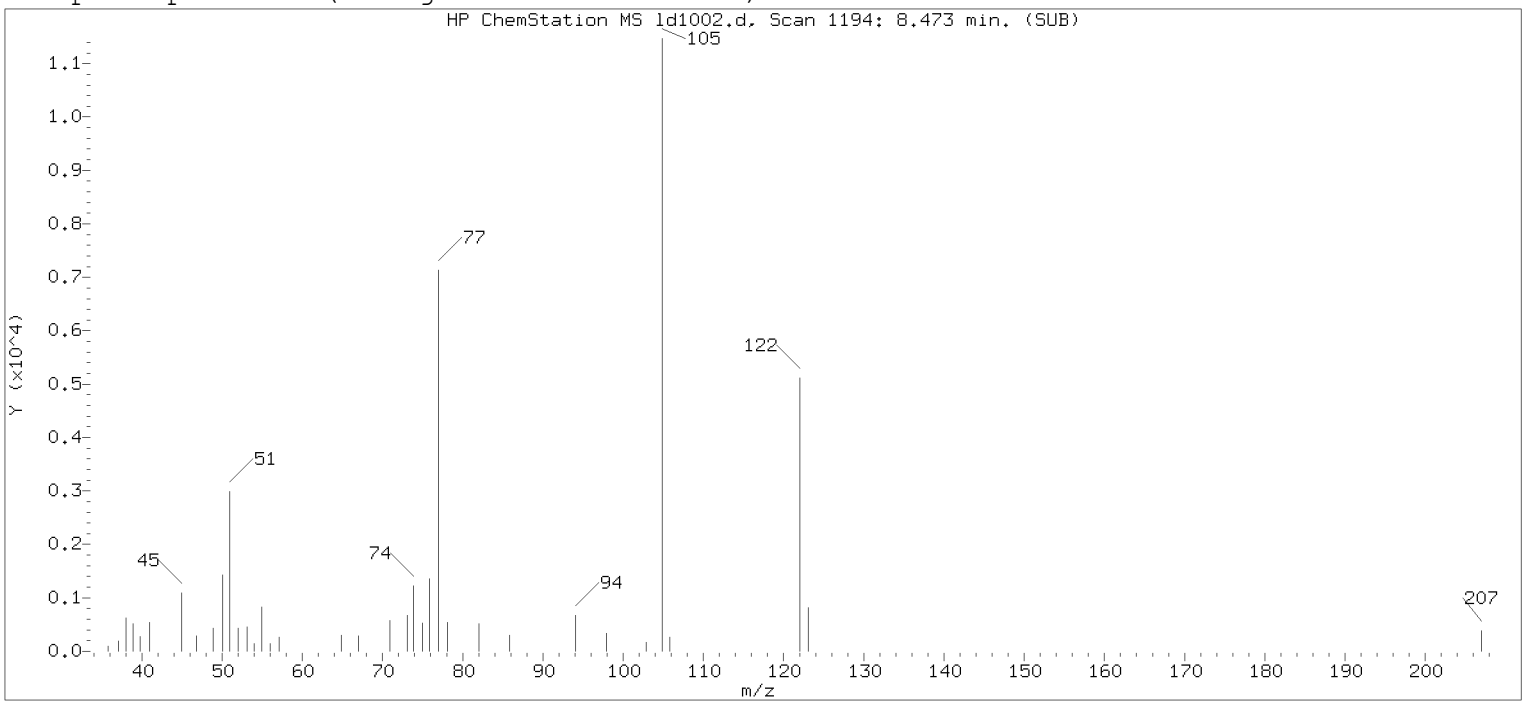
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1194
Retention Time (minutes) : 8.473
Quant Ion : 105.00
Area (flag) : 19661M
On-Column Amount (ng/ul) : 0.4628
Integration start scan : 1187 Integration stop scan: 1257
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

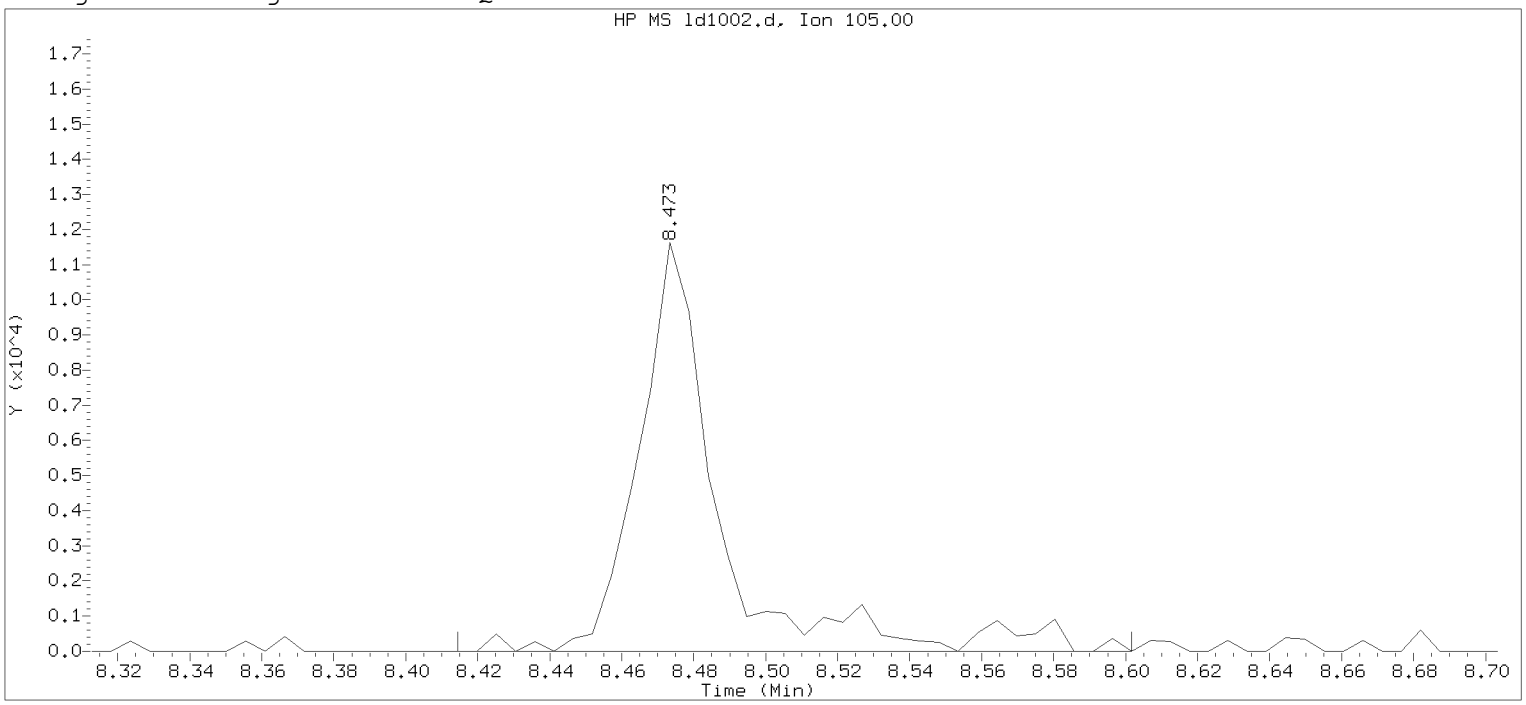
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

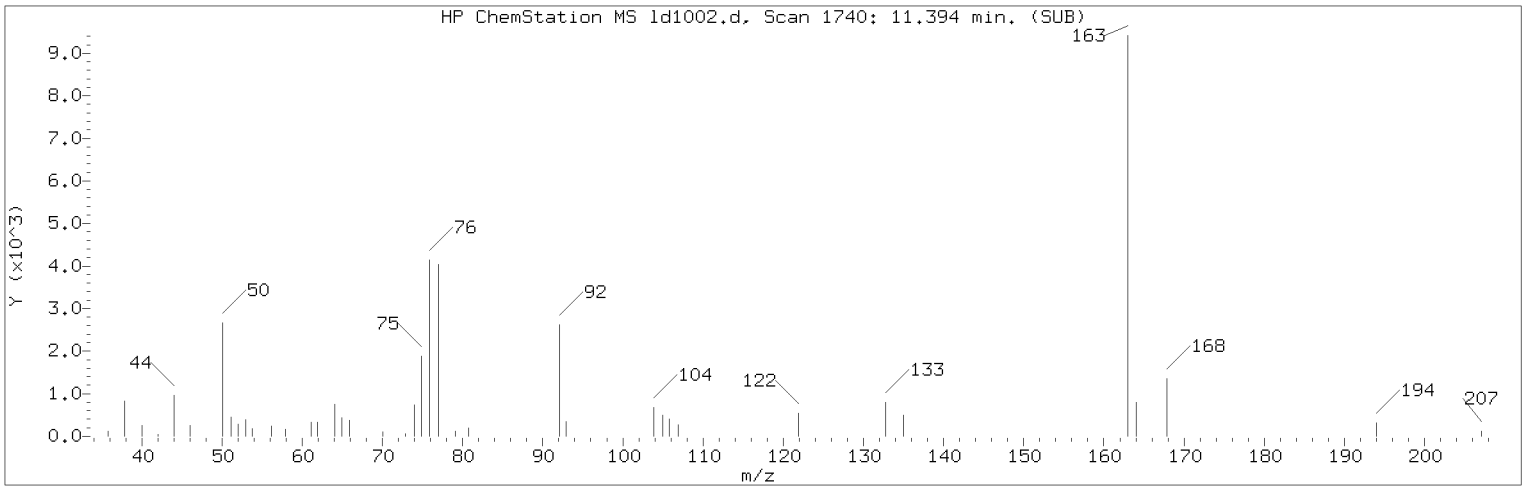
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

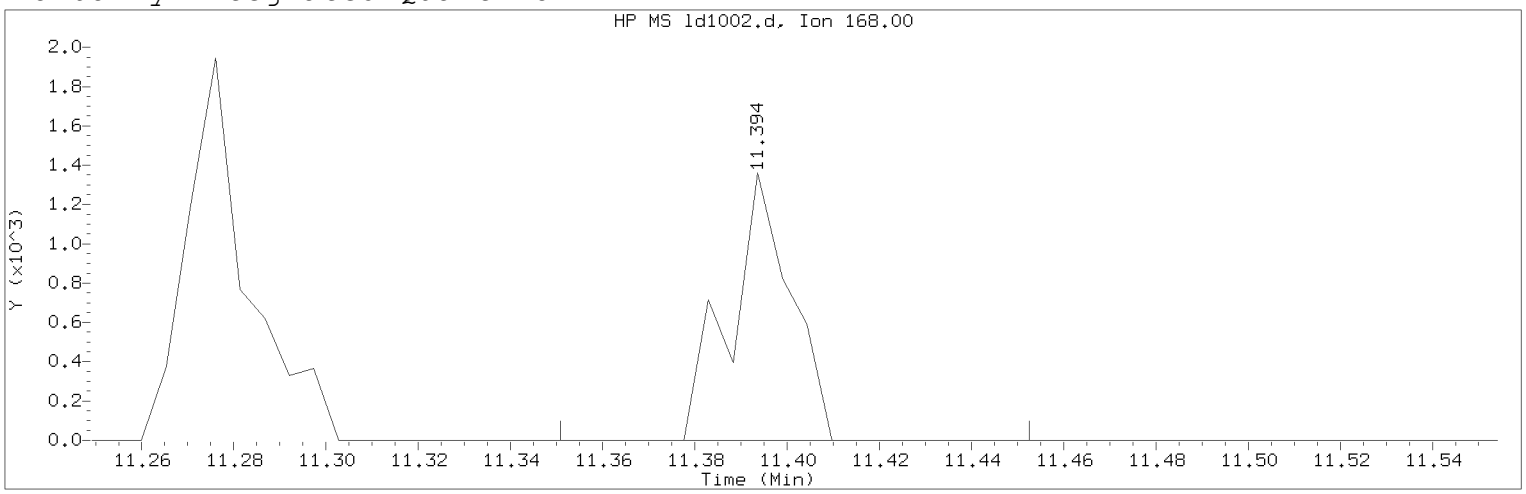
Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1194		
Retention Time (minutes)	: 8.473		
Quant Ion	: 105.00		
Area	: 18197		
On-column Amount (ng/ul)	: 0.4358		
Integration start scan	: 1182	Integration stop scan:	1217
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user: F35 Page 1827

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

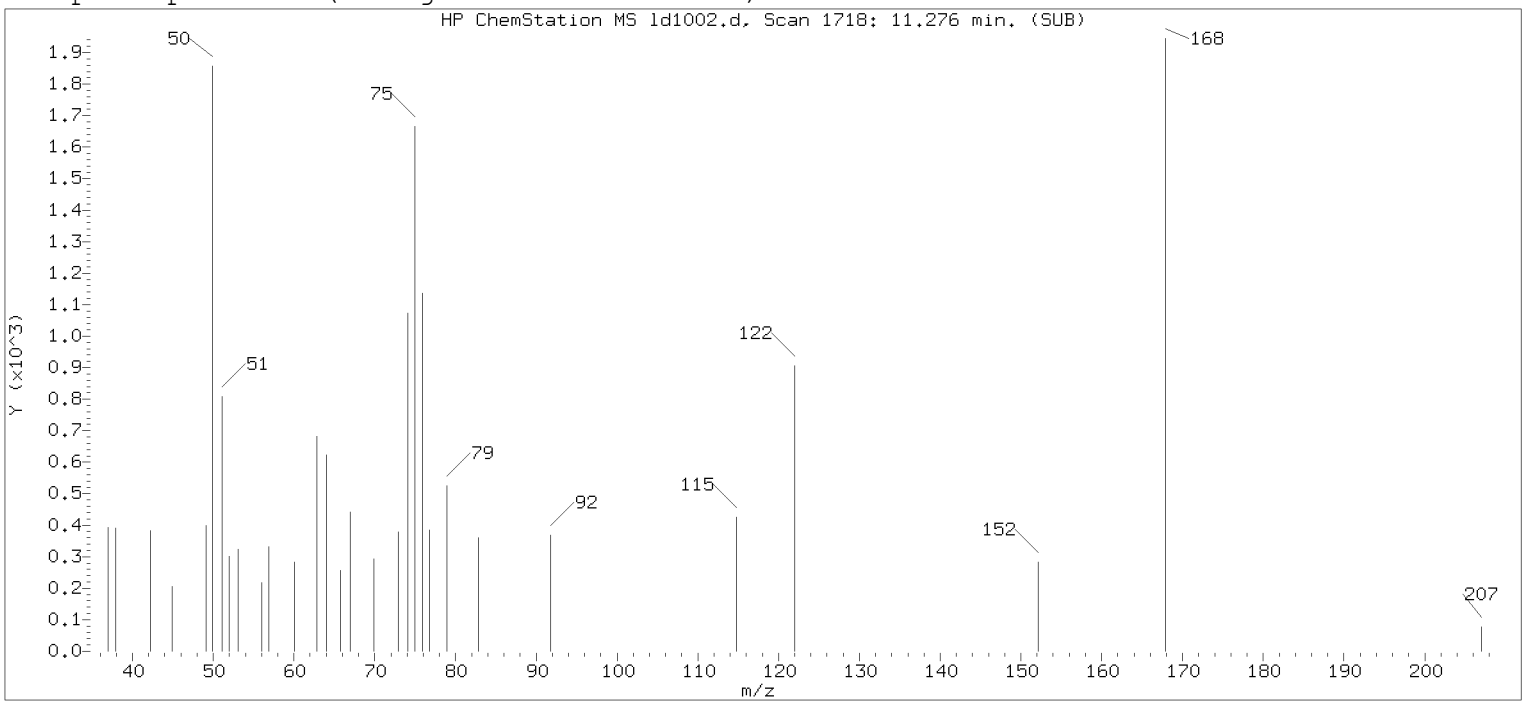
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1740
Retention Time (minutes) : 11.394
Quant Ion : 168.00
Area (flag) : 1246M
On-Column Amount (ng/ul) : 0.0832
Integration start scan : 1731 Integration stop scan: 1750
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

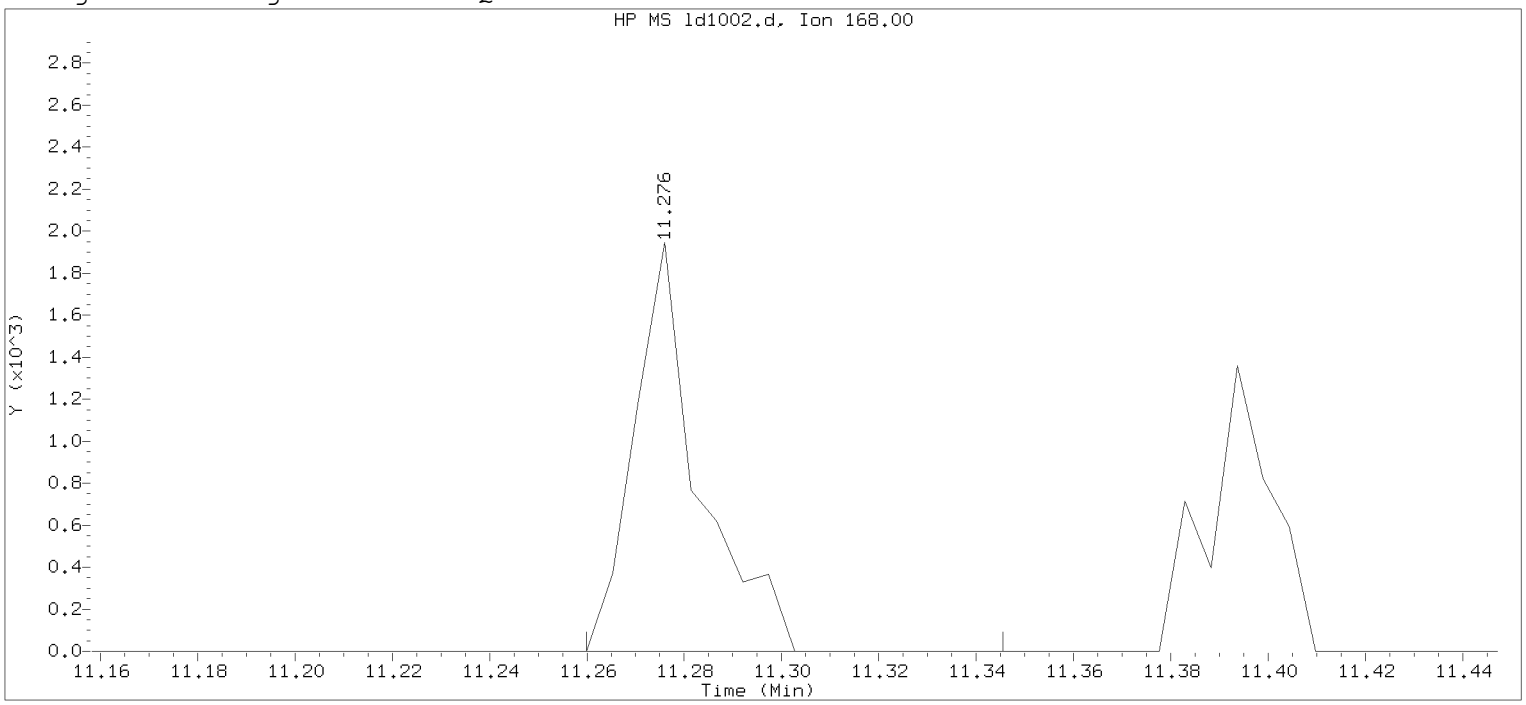
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

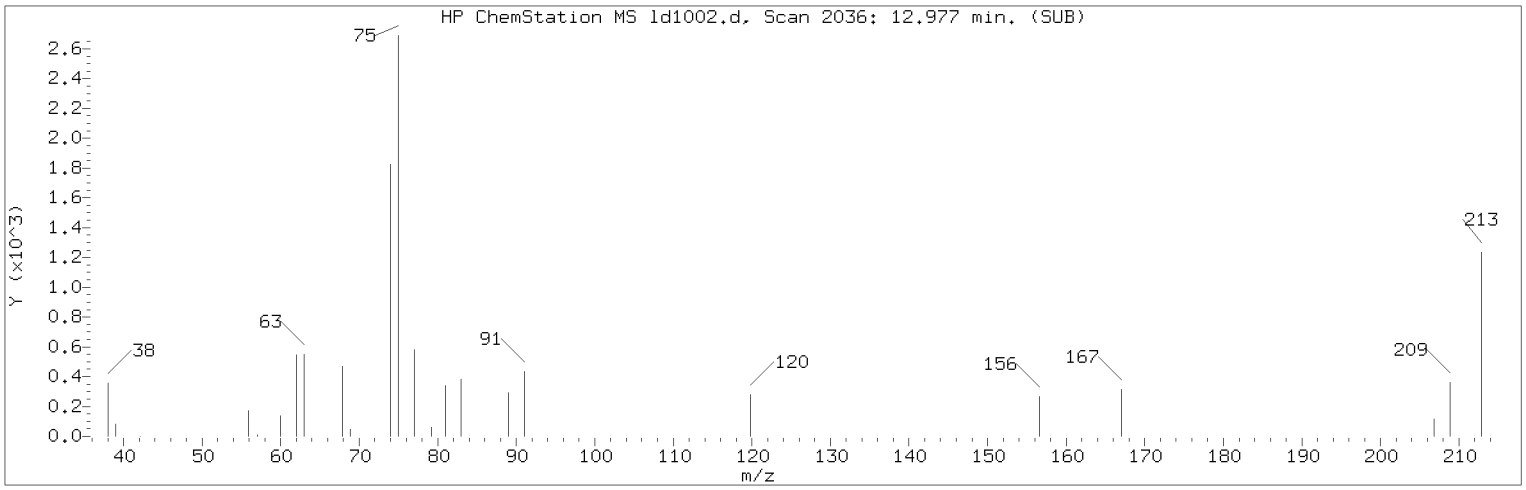
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

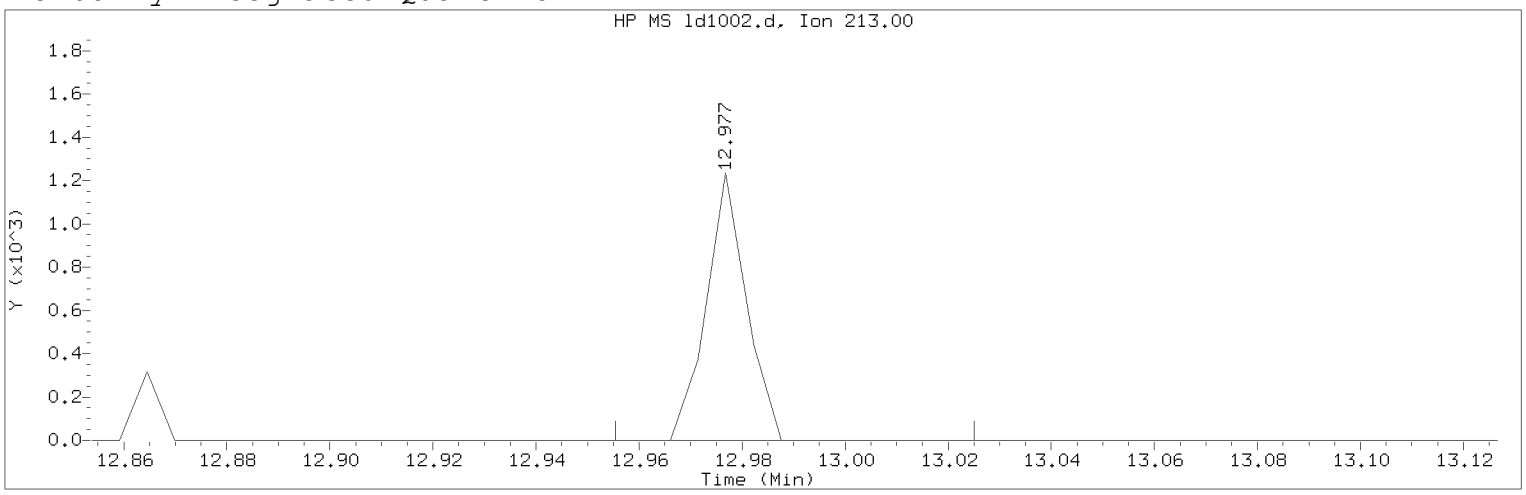
Compound Number	: 111		
Compound Name	: 1,3-Dinitrobenzene		
Scan Number	: 1718		
Retention Time (minutes)	: 11.276		
Quant Ion	: 168.00		
Area	: 1797		
On-column Amount (ng/ul)	: 0.1097		
Integration start scan	: 1714	Integration stop scan:	1730
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature used for this page

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

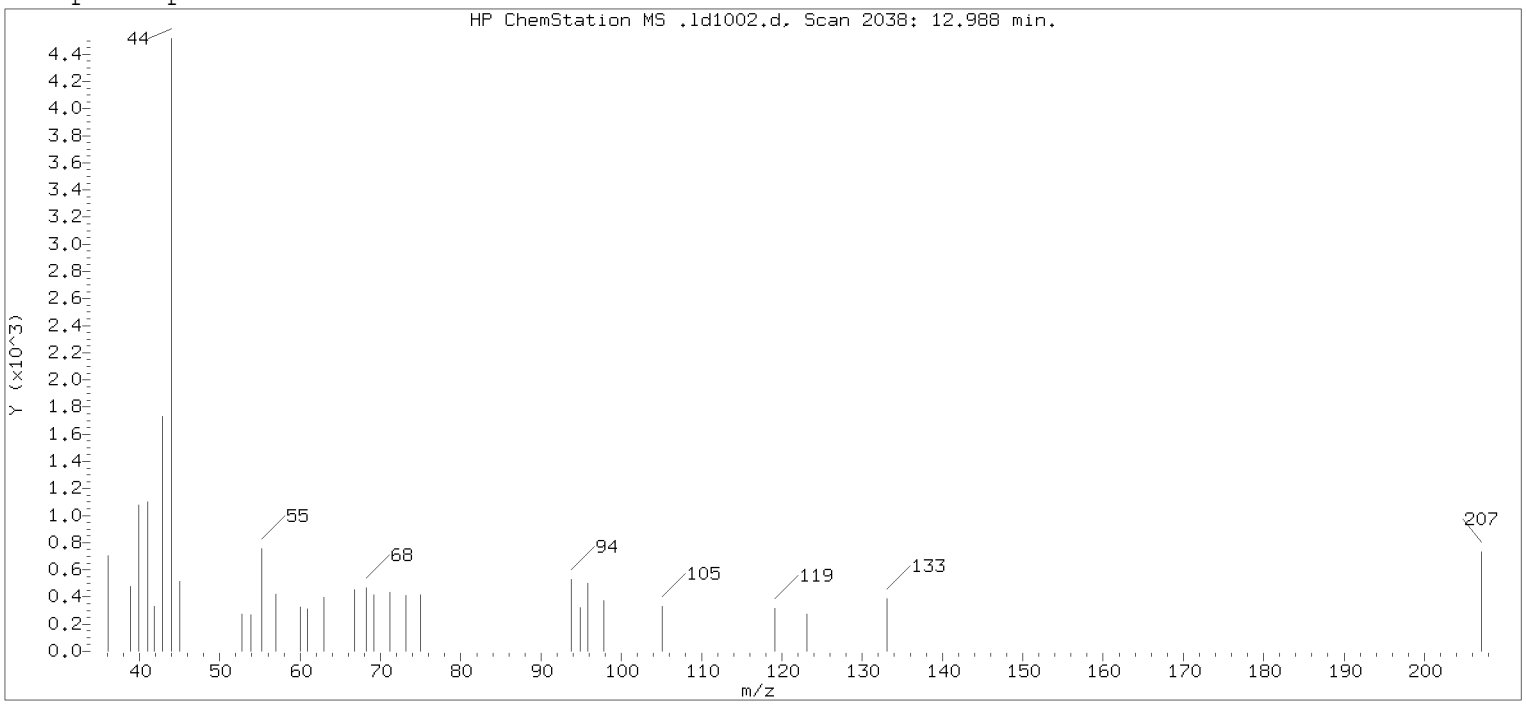
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 2036
Retention Time (minutes) : 12.977
Quant Ion : 213.00
Area (flag) : 657M
On-Column Amount (ng/ul) : 0.0677
Integration start scan : 2031 Integration stop scan: 2044
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

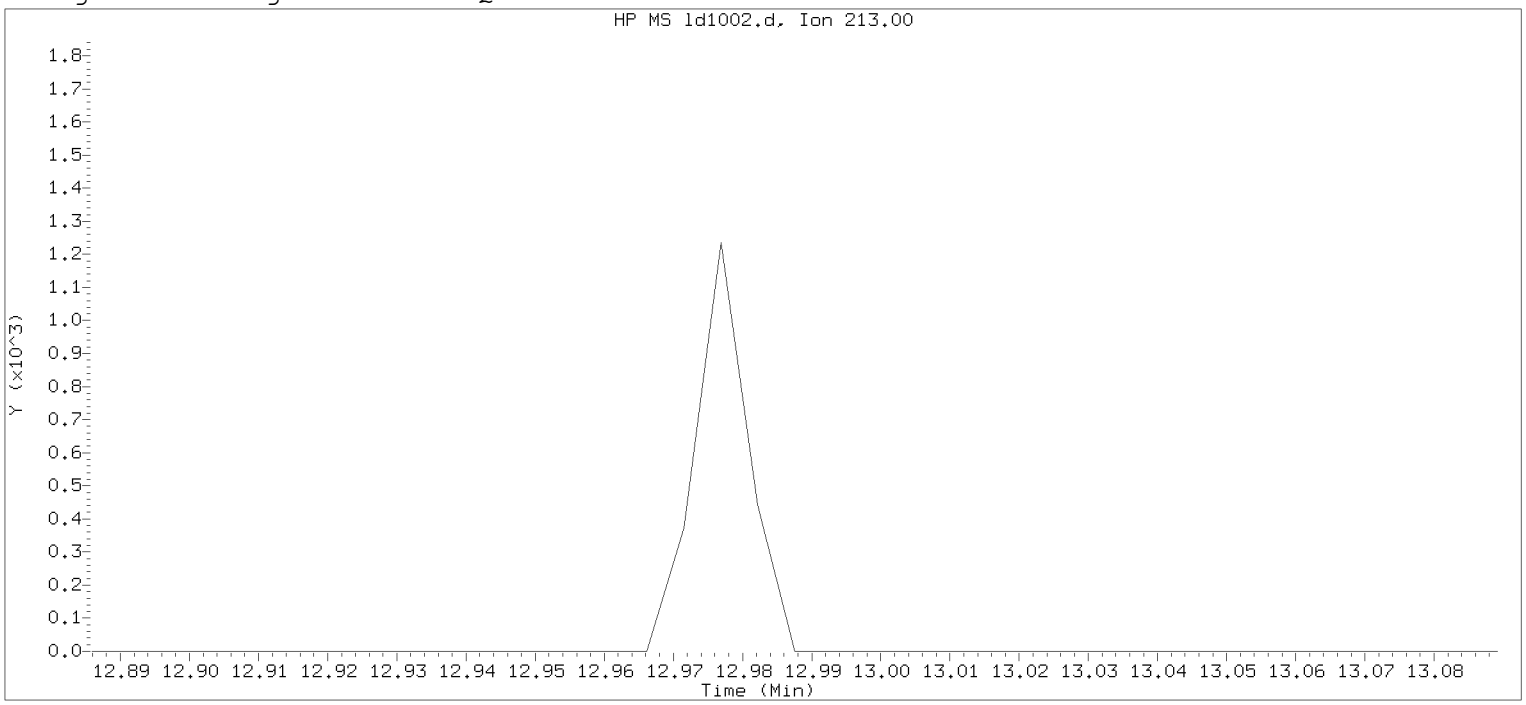
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

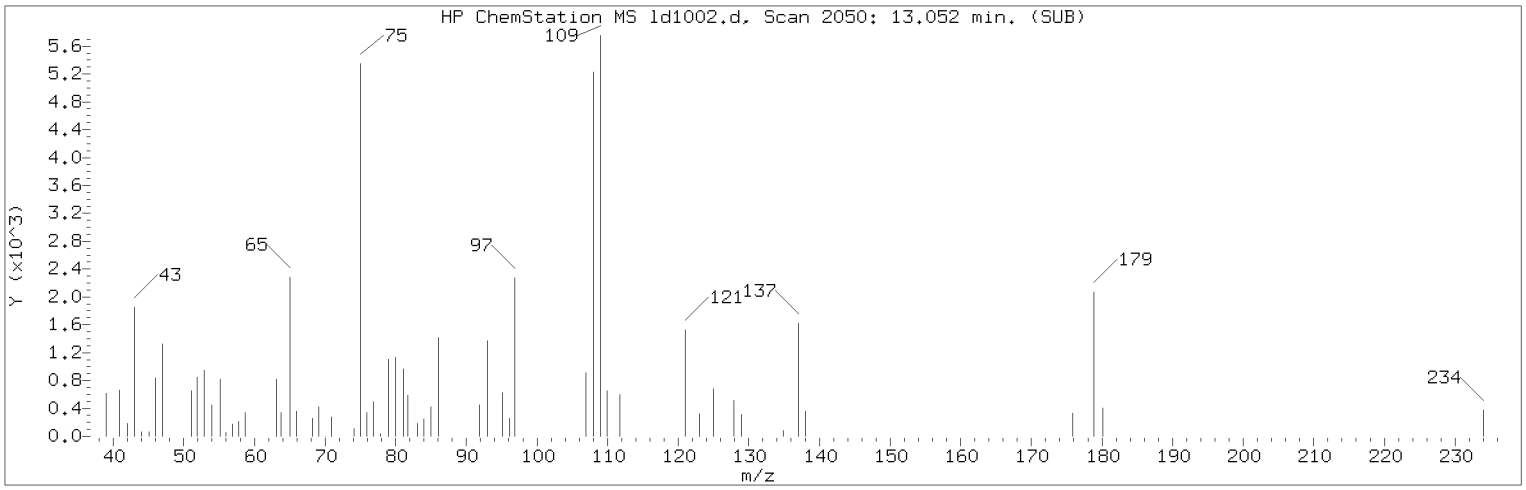
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

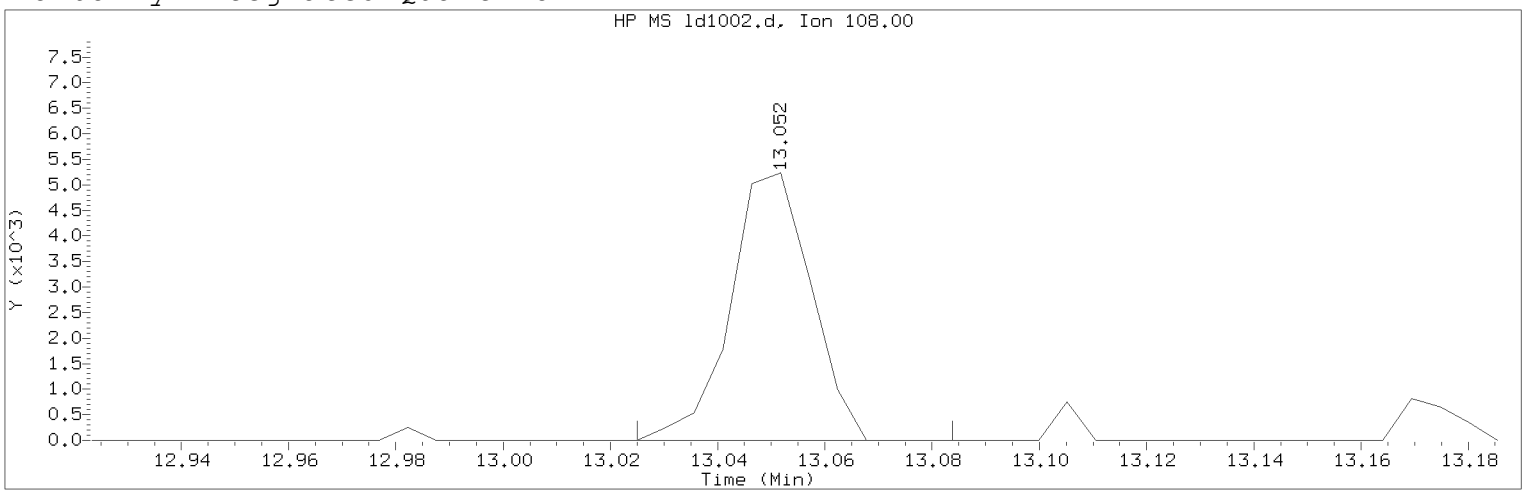
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 12.987
Quant Ion : 213.00

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

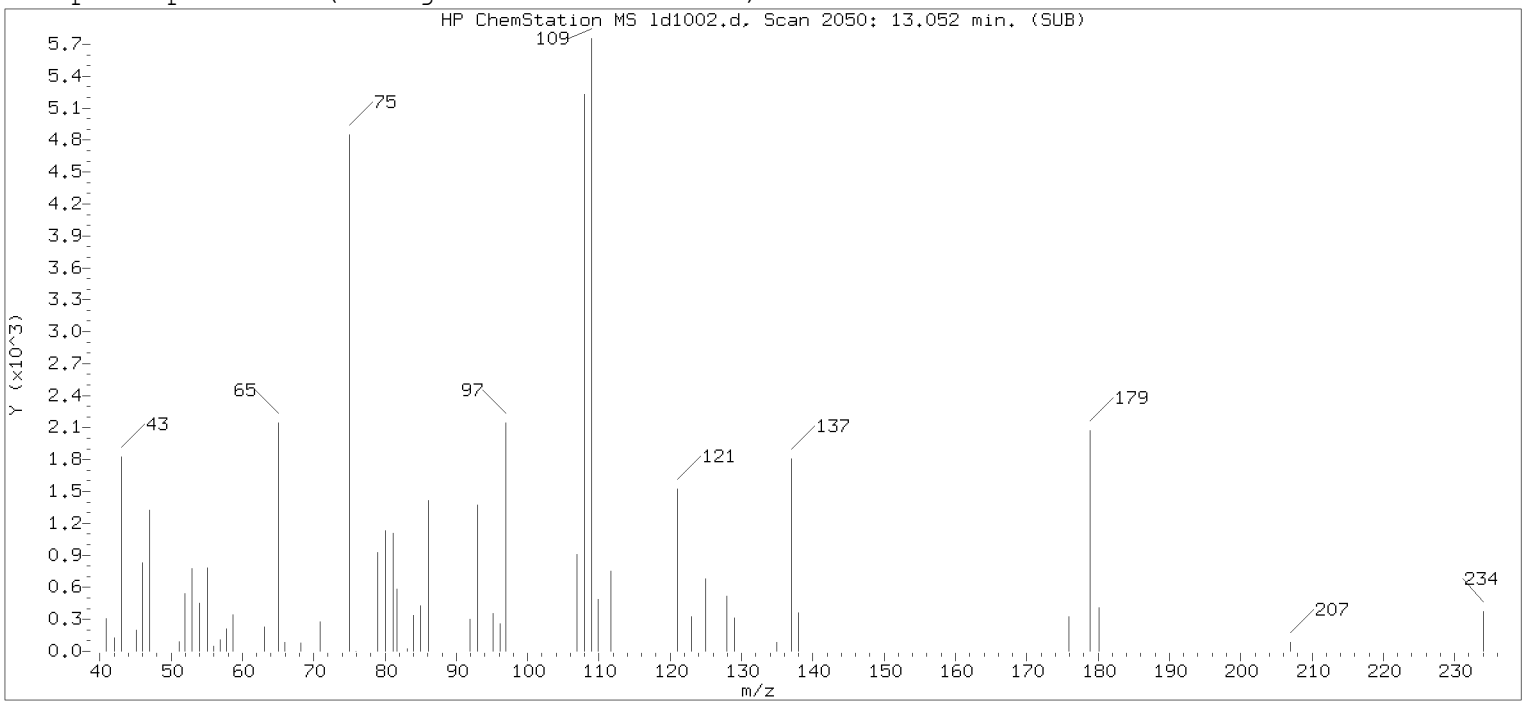
Compound Number	: 147		
Compound Name	: Phenacetin		
Scan Number	: 2050		
Retention Time (minutes)	: 13.052		
Quant Ion	: 108.00		
Area (flag)	: 5465M		
On-Column Amount (ng/ul)	: 0.0926		
Integration start scan	: 2044	Integration stop scan:	2055
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

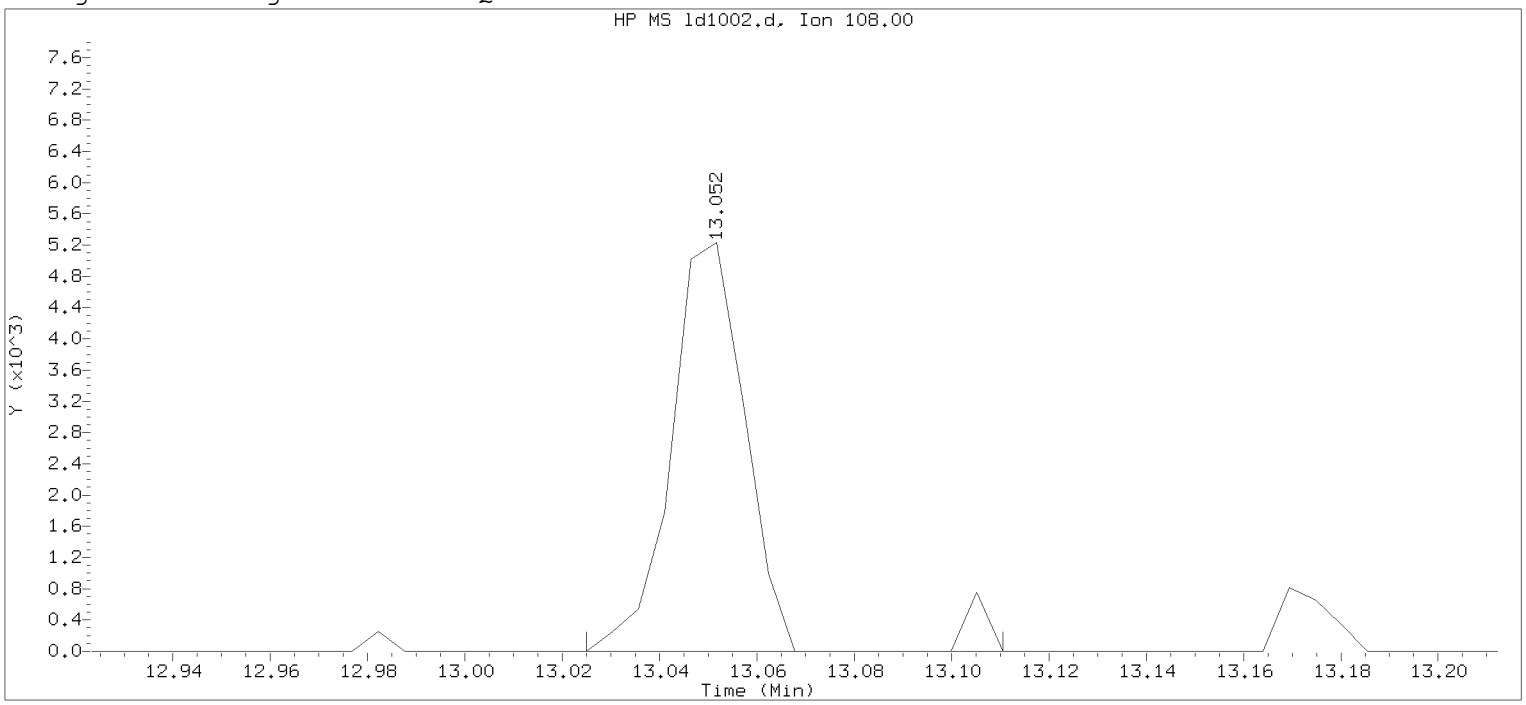
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

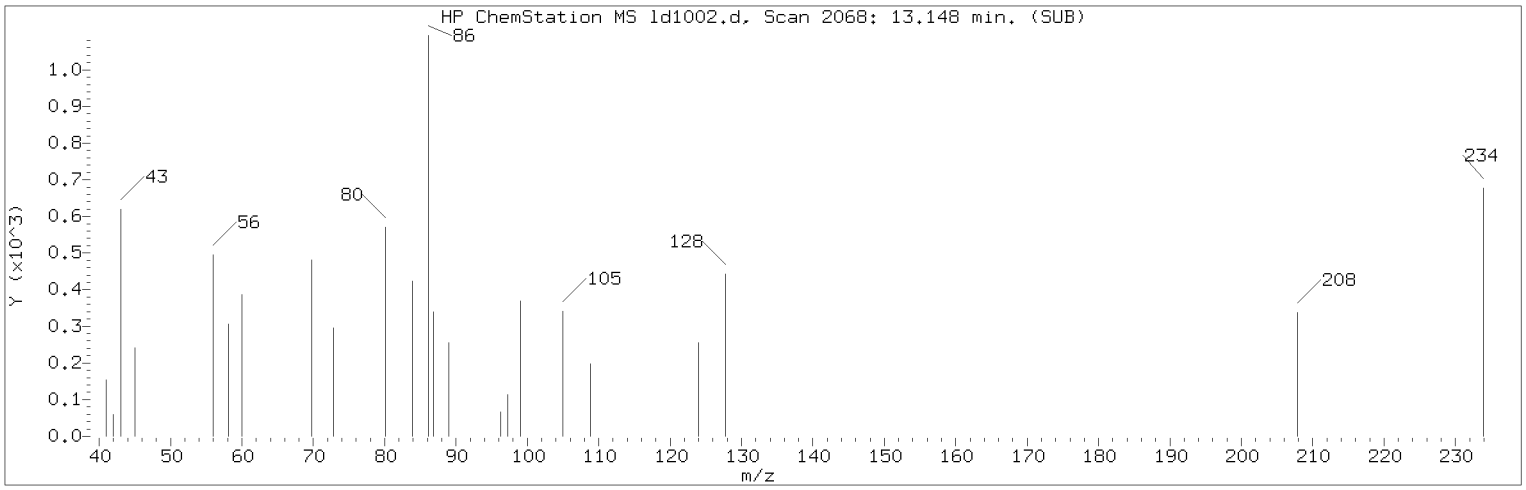
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

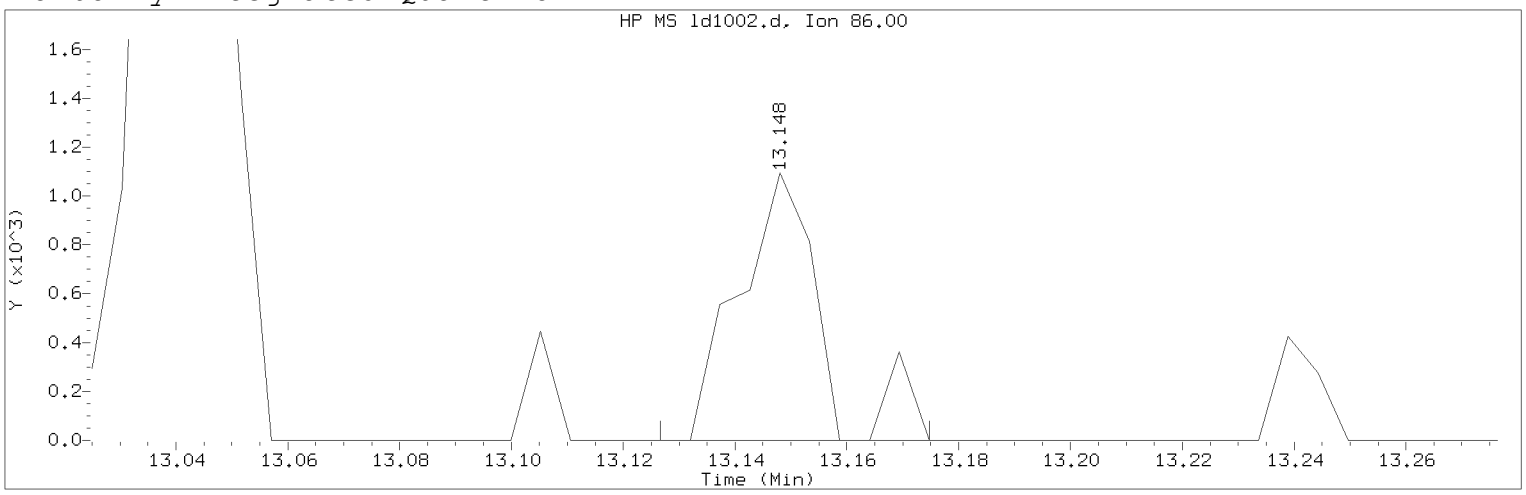
Compound Number	: 147		
Compound Name	: Phenacetin		
Scan Number	: 2050		
Retention Time (minutes)	: 13.052		
Quant Ion	: 108.00		
Area	: 5708		
On-column Amount (ng/ul)	: 0.0967		
Integration start scan	: 2044	Integration stop scan:	2060
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

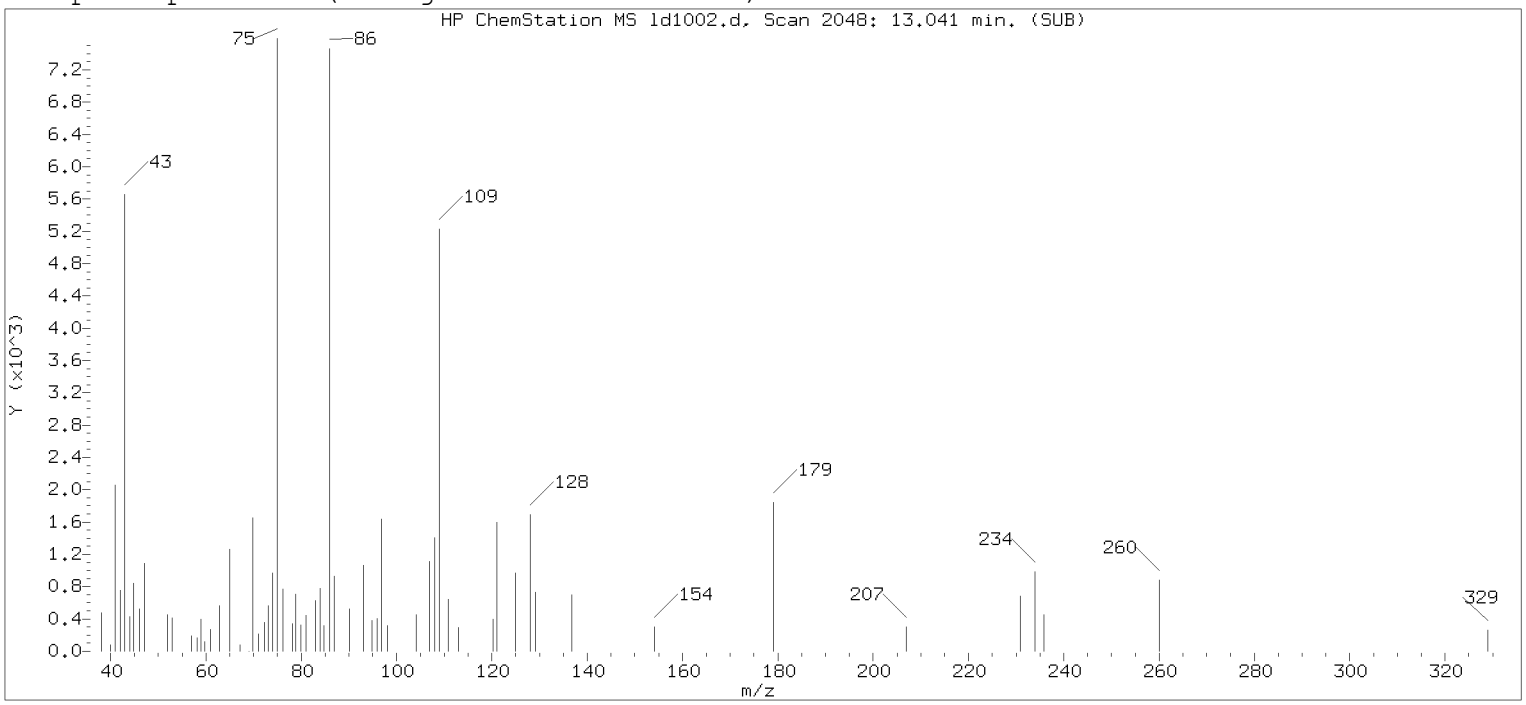
Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2068		
Retention Time (minutes)	: 13.148		
Quant Ion	: 86.00		
Area (flag)	: 1104M		
On-Column Amount (ng/ul)	: 0.0235		
Integration start scan	: 2063	Integration stop scan:	2072
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

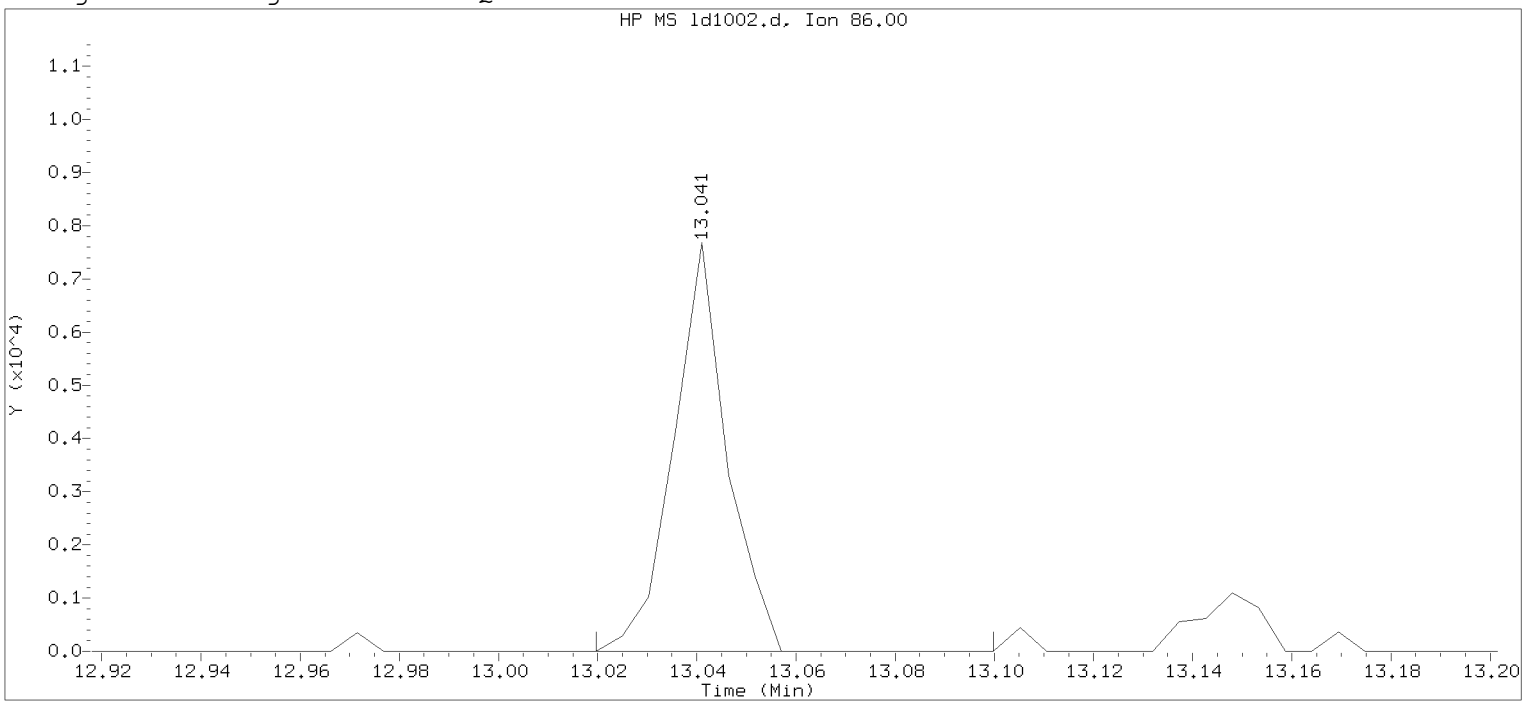
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

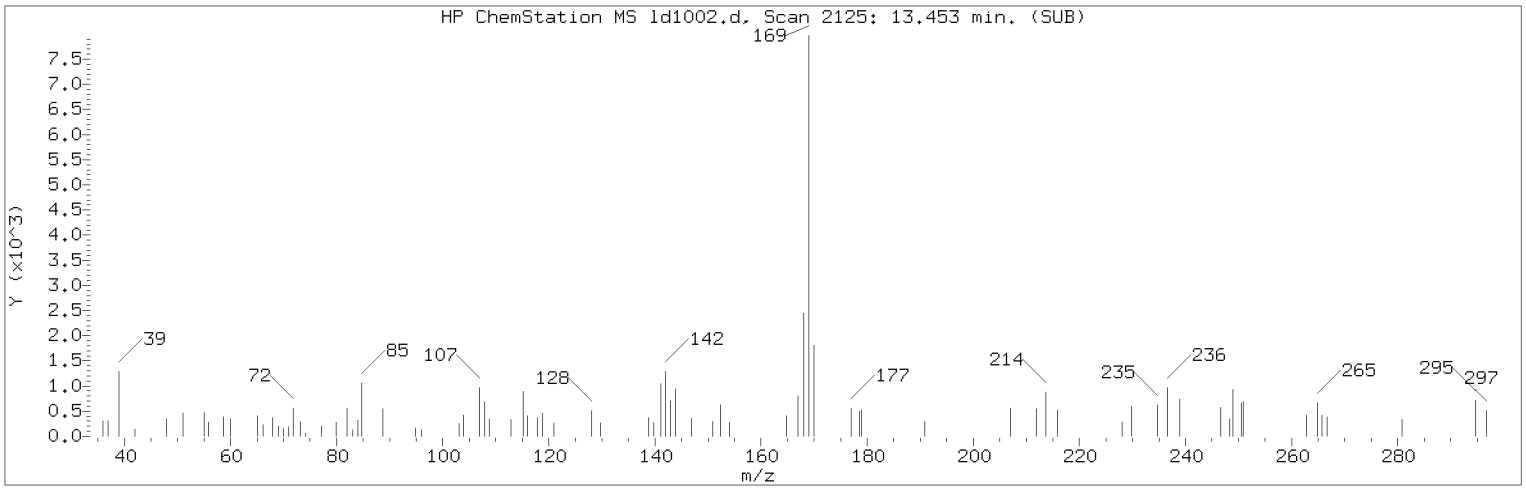
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

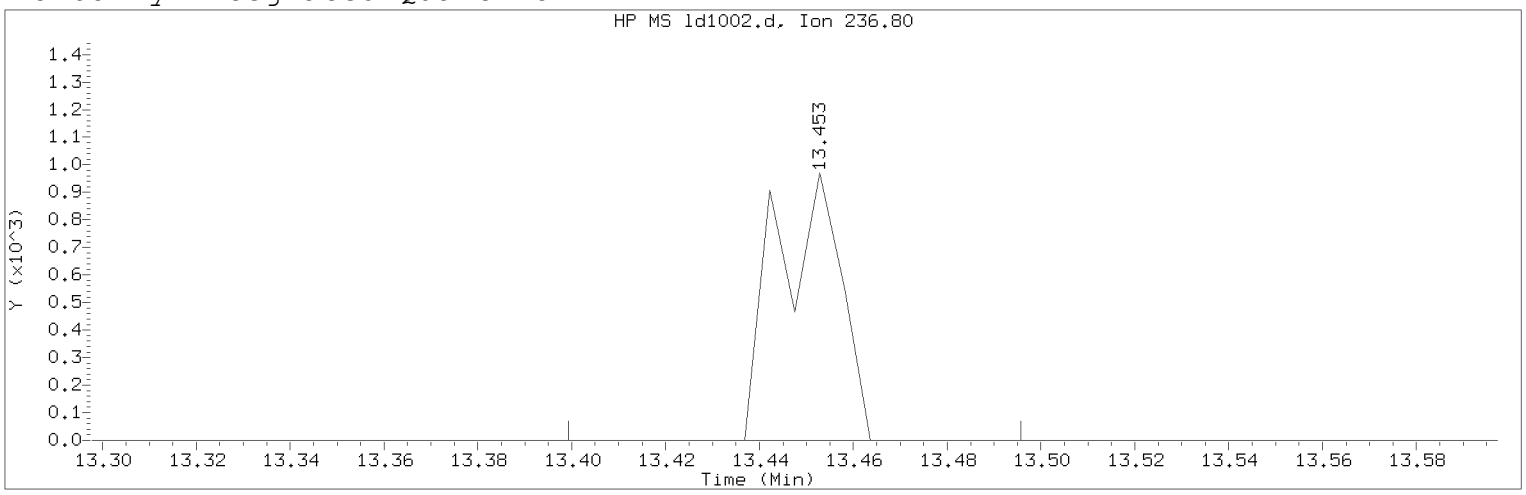
Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2048		
Retention Time (minutes)	: 13.041		
Quant Ion	: 86.00		
Area	: 5734		
On-column Amount (ng/ul)	: 0.1315		
Integration start scan	: 2043	Integration stop scan:	2058
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: ART12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

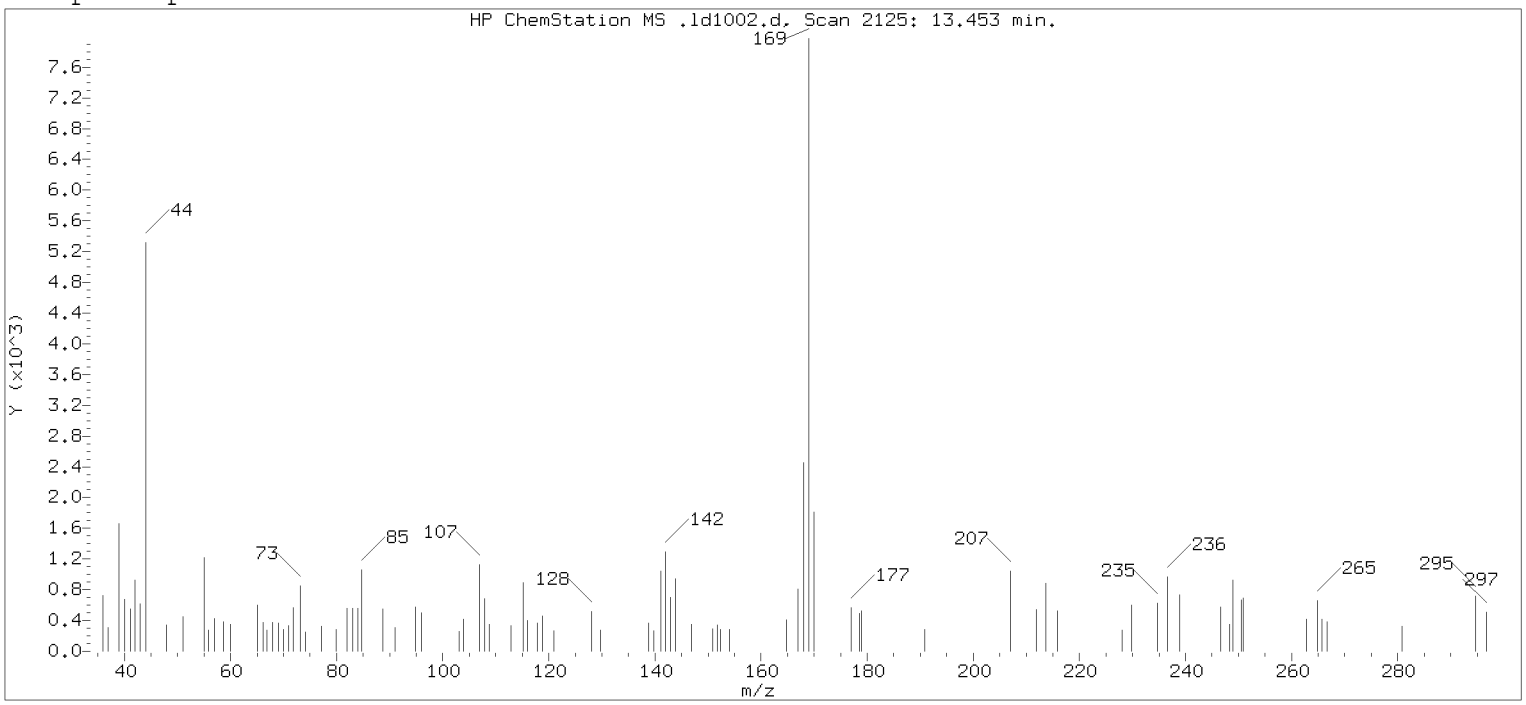
Compound Number : 156
Compound Name : Pentachloronitrobenzene
Scan Number : 2125
Retention Time (minutes) : 13.453
Quant Ion : 237.00
Area (flag) : 928M
On-Column Amount (ng/ul) : 0.0761
Integration start scan : 2114 Integration stop scan: 2132
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

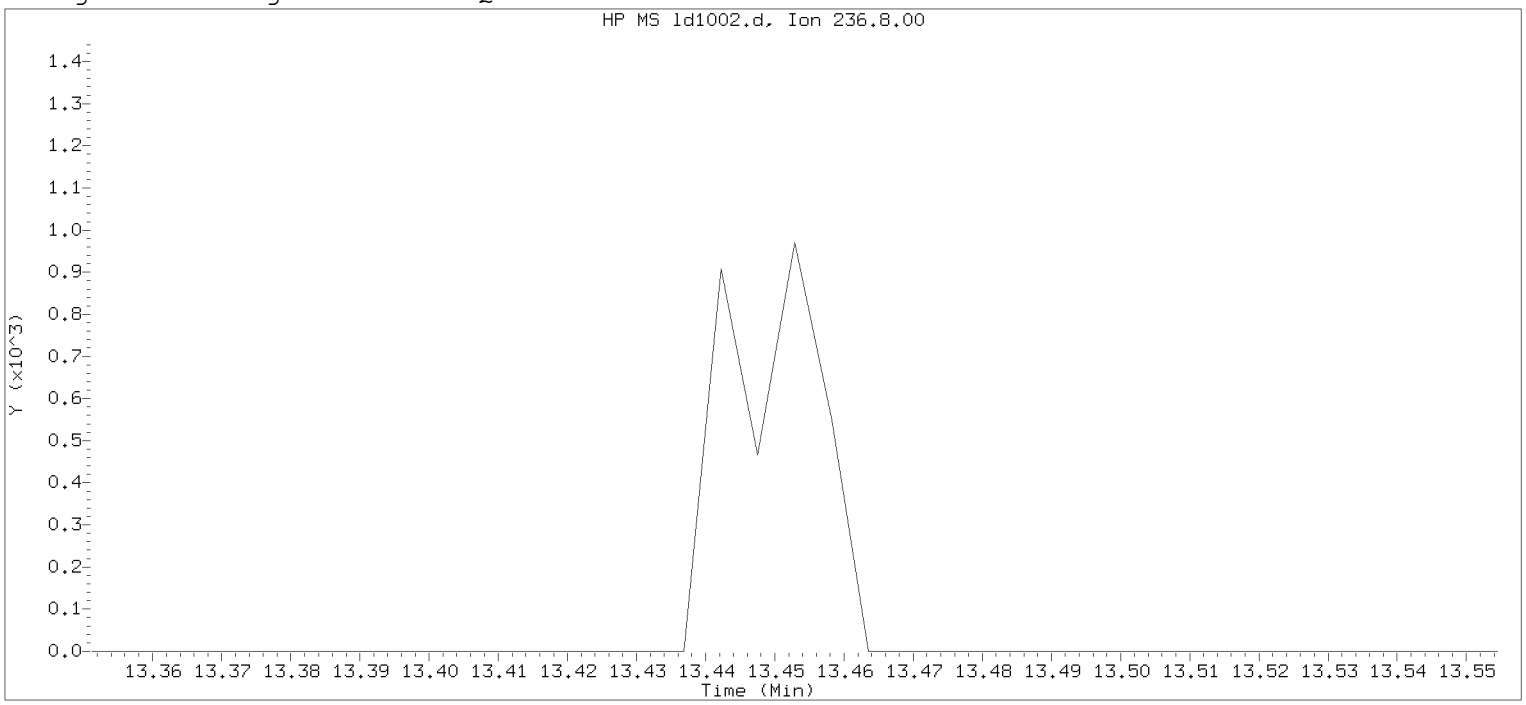
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

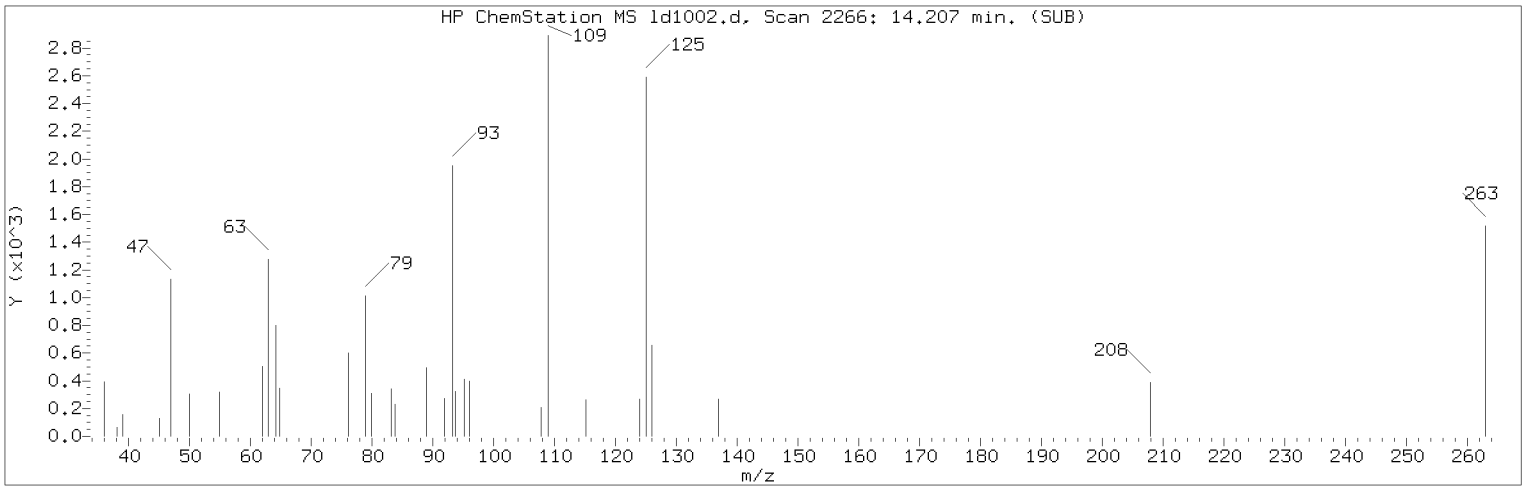
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

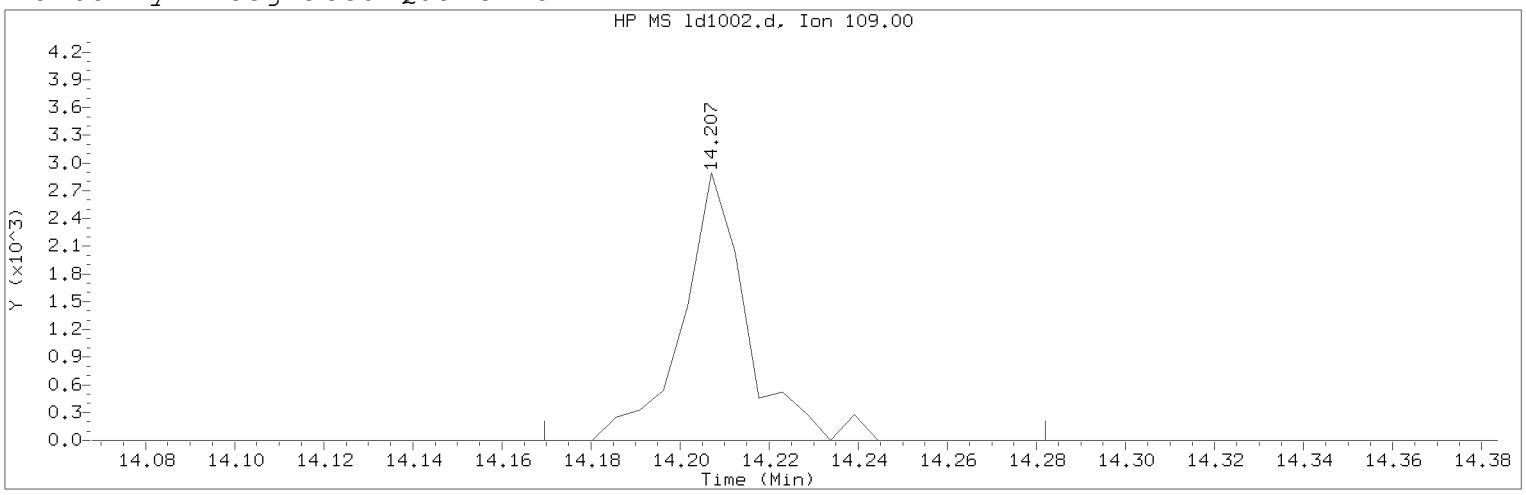
Compound Number : 156
Compound Name : Pentachloronitrobenzene
Expected RT (minutes) : 13.453
Quant Ion : 237.00

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

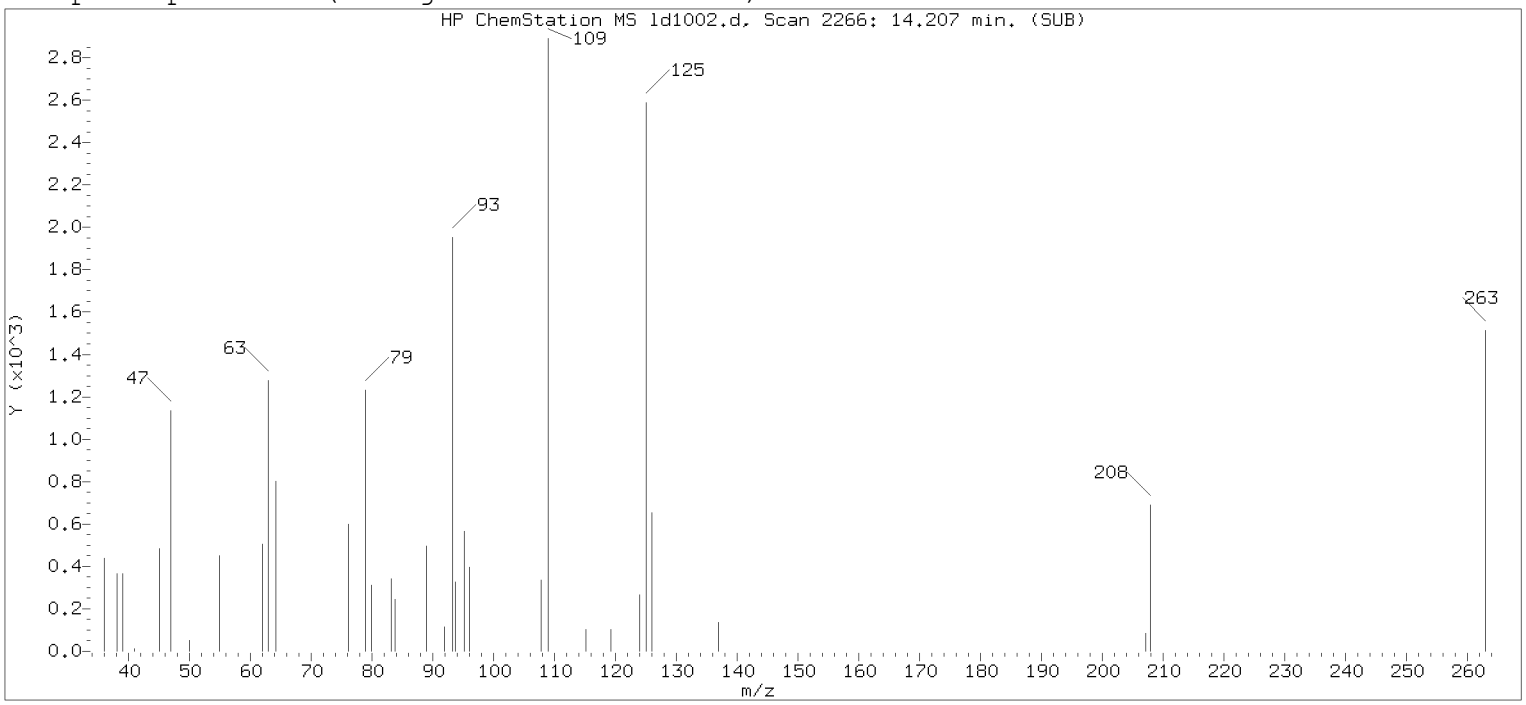
Compound Number : 169
Compound Name : Methyl parathion
Scan Number : 2266
Retention Time (minutes) : 14.207
Quant Ion : 109.00
Area (flag) : 2896M
On-Column Amount (ng/ul) : 0.0759
Integration start scan : 2258 Integration stop scan: 2279
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

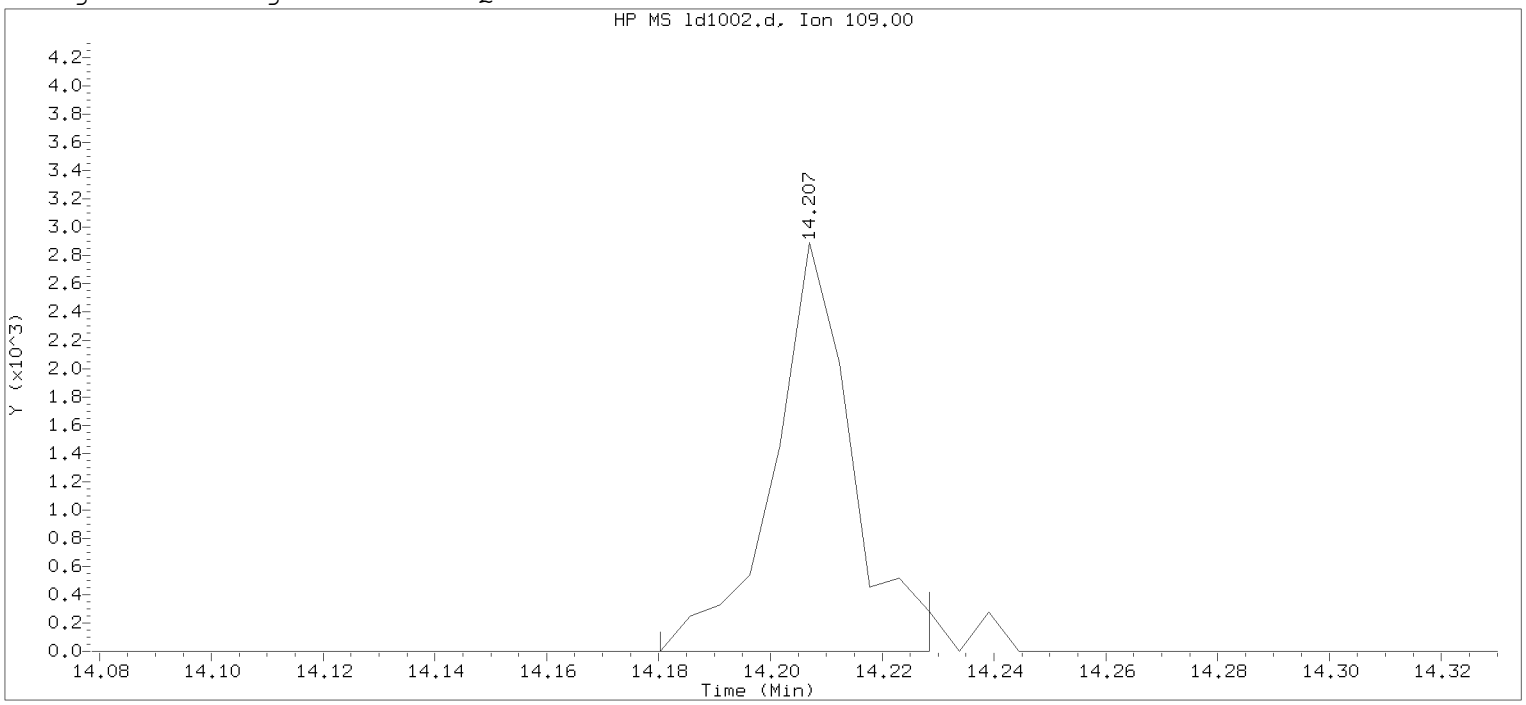
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

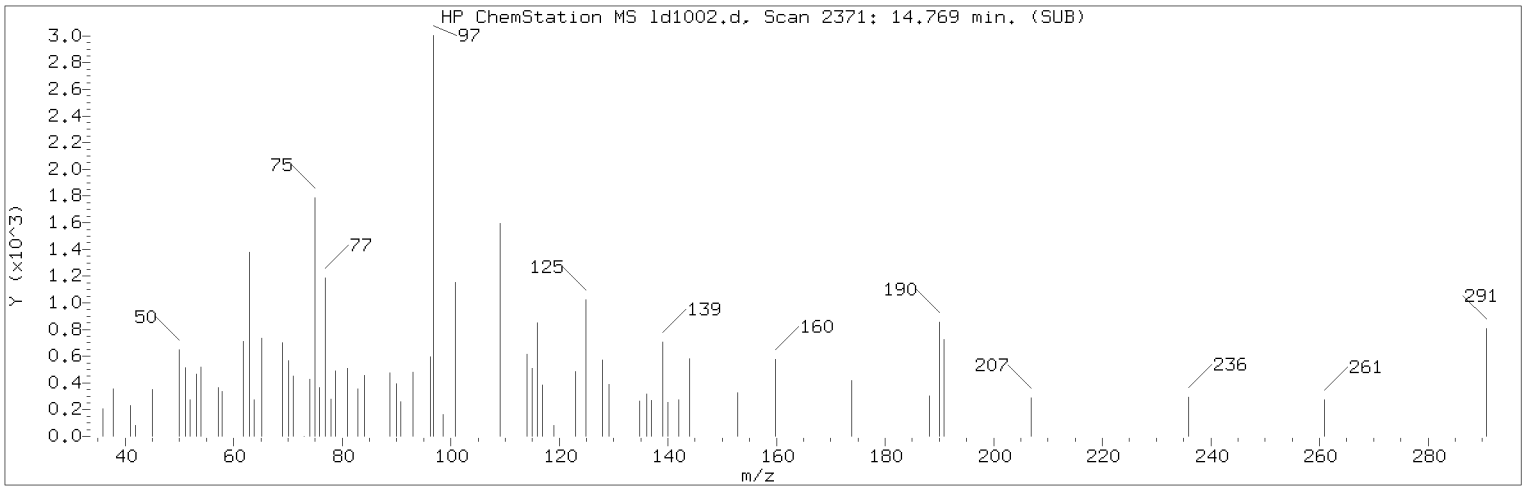
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

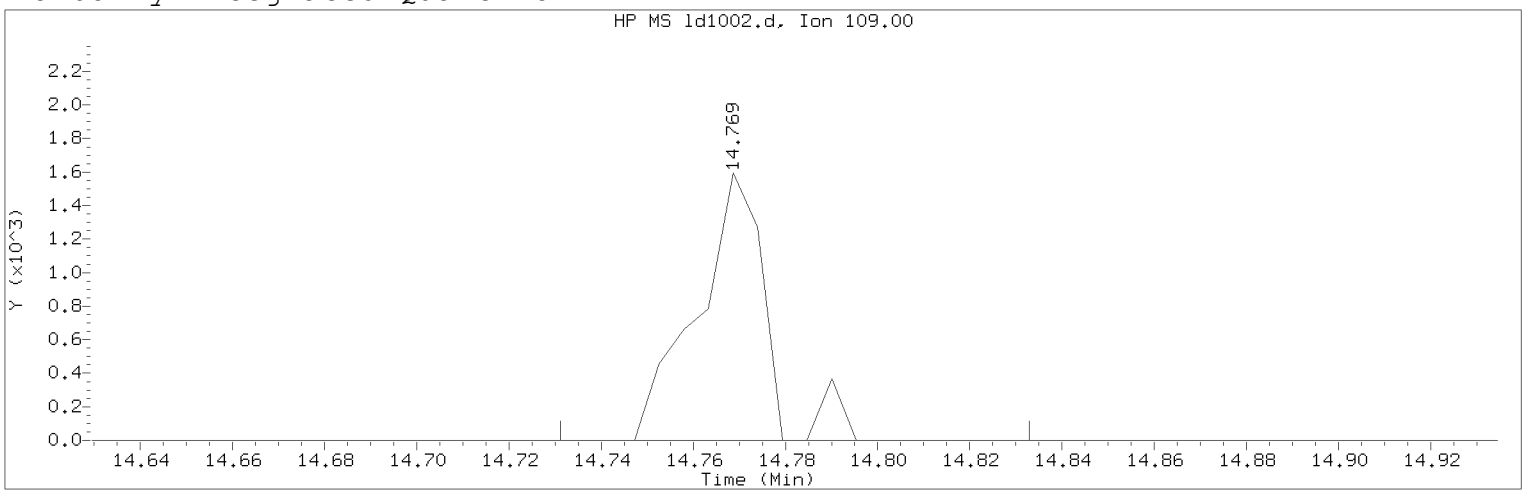
Compound Number	: 169		
Compound Name	: Methyl parathion		
Scan Number	: 2266		
Retention Time (minutes)	: 14.207		
Quant Ion	: 109.00		
Area	: 2763		
On-column Amount (ng/ul)	: 0.0688		
Integration start scan	: 2260	Integration stop scan:	2269
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: 1039

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

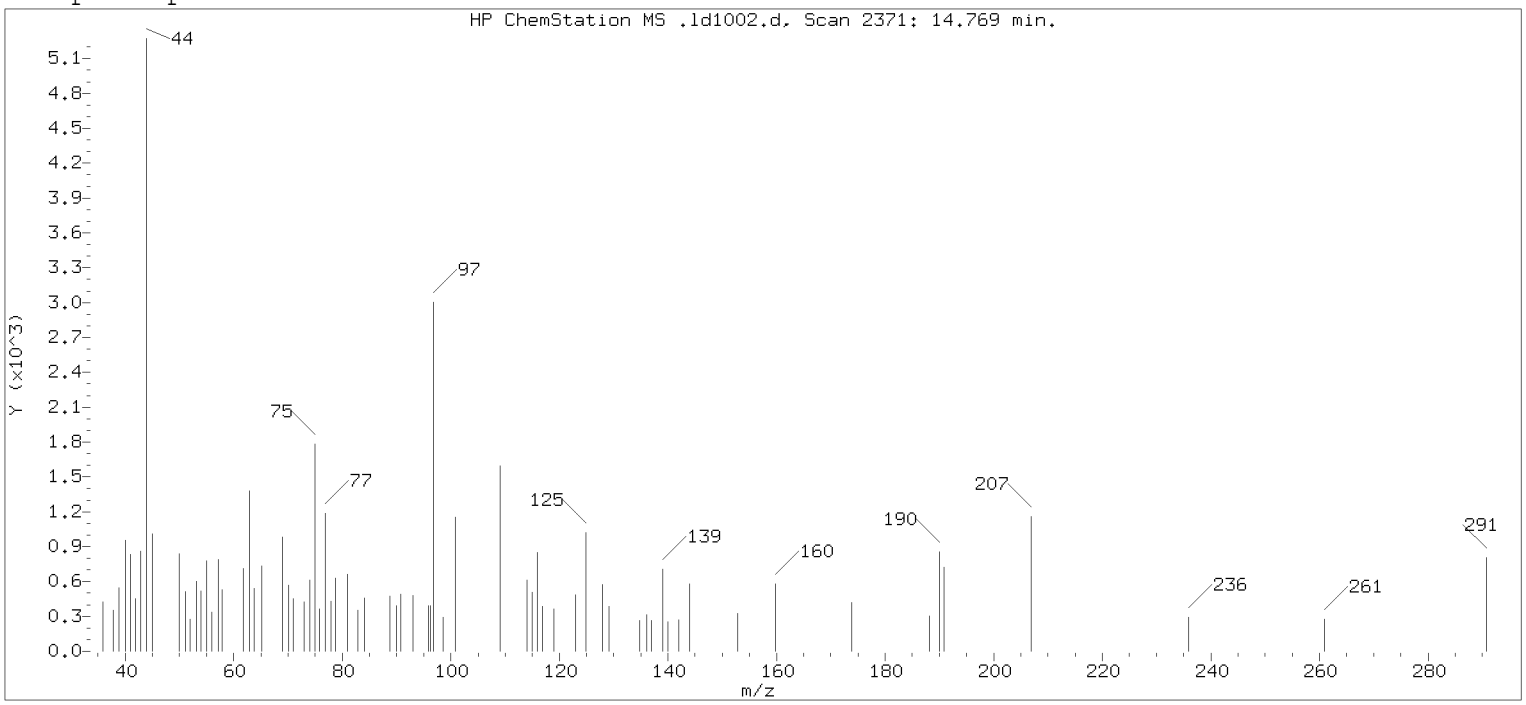
Compound Number : 172
Compound Name : Parathion
Scan Number : 2371
Retention Time (minutes) : 14.769
Quant Ion : 109.00
Area (flag) : 1646M
On-Column Amount (ng/ul) : 0.0668
Integration start scan : 2363 Integration stop scan: 2382
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

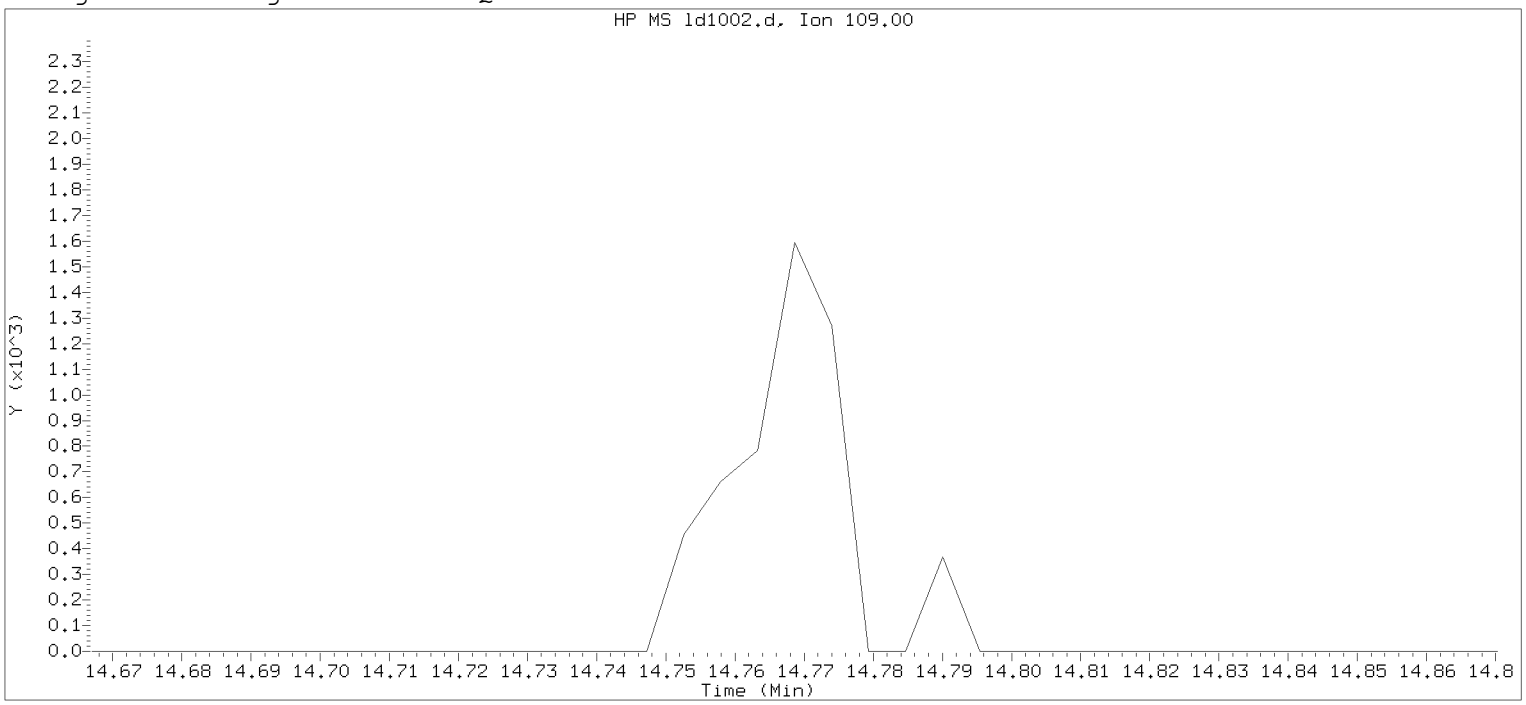
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

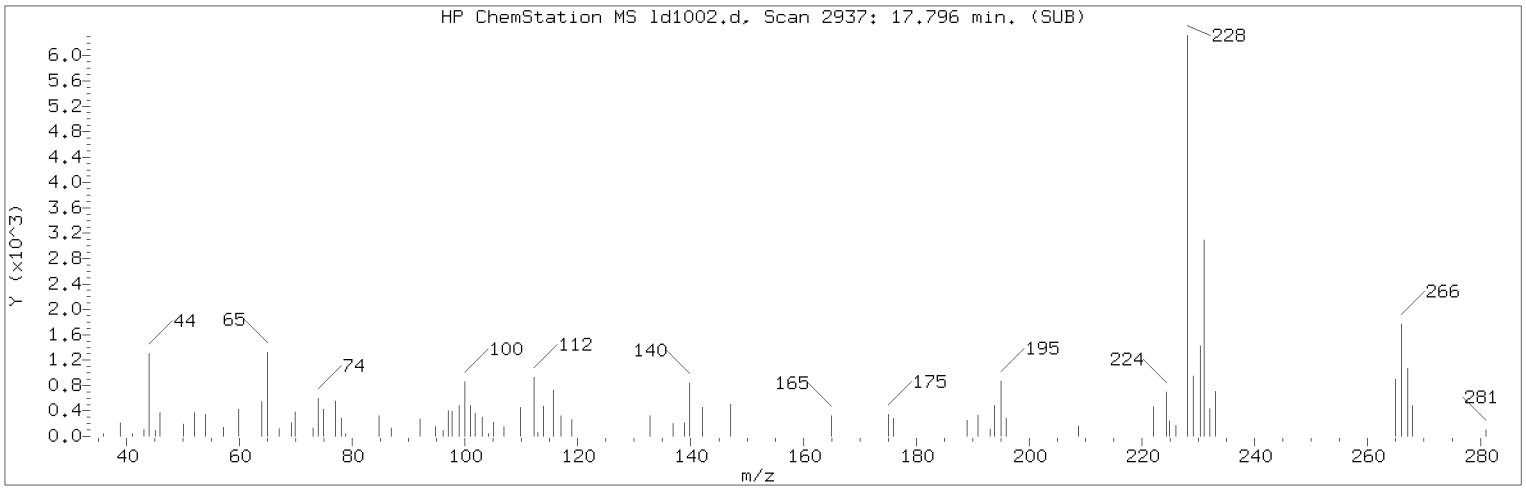
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

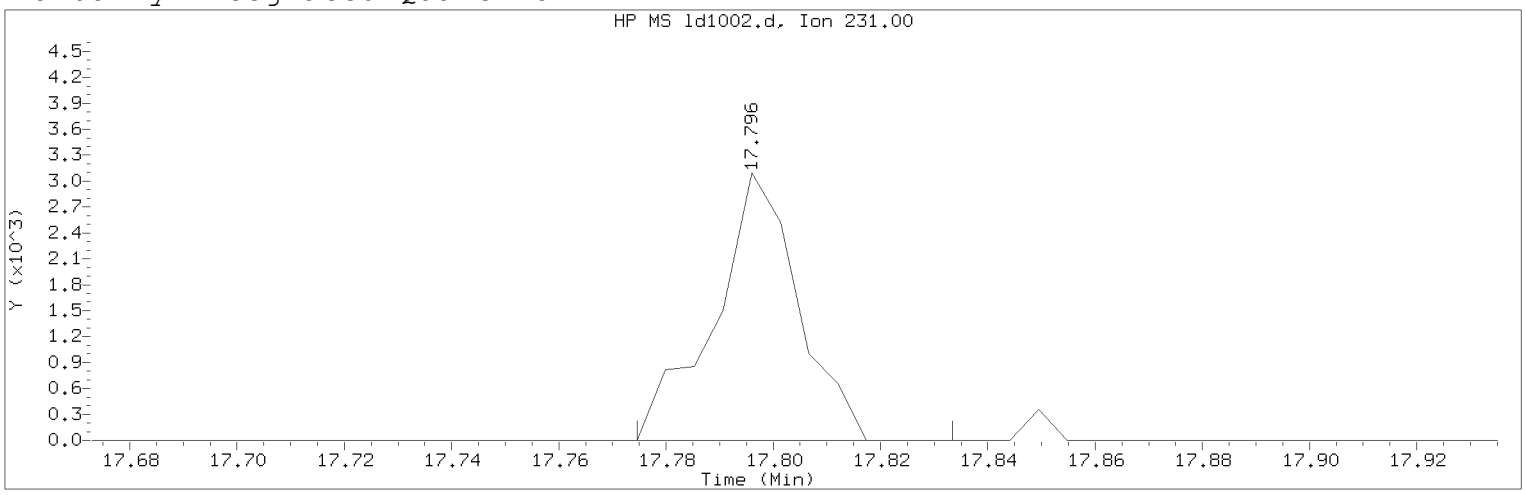
Compound Number : 172
Compound Name : Parathion
Expected RT (minutes) : 14.768
Quant Ion : 109.00

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

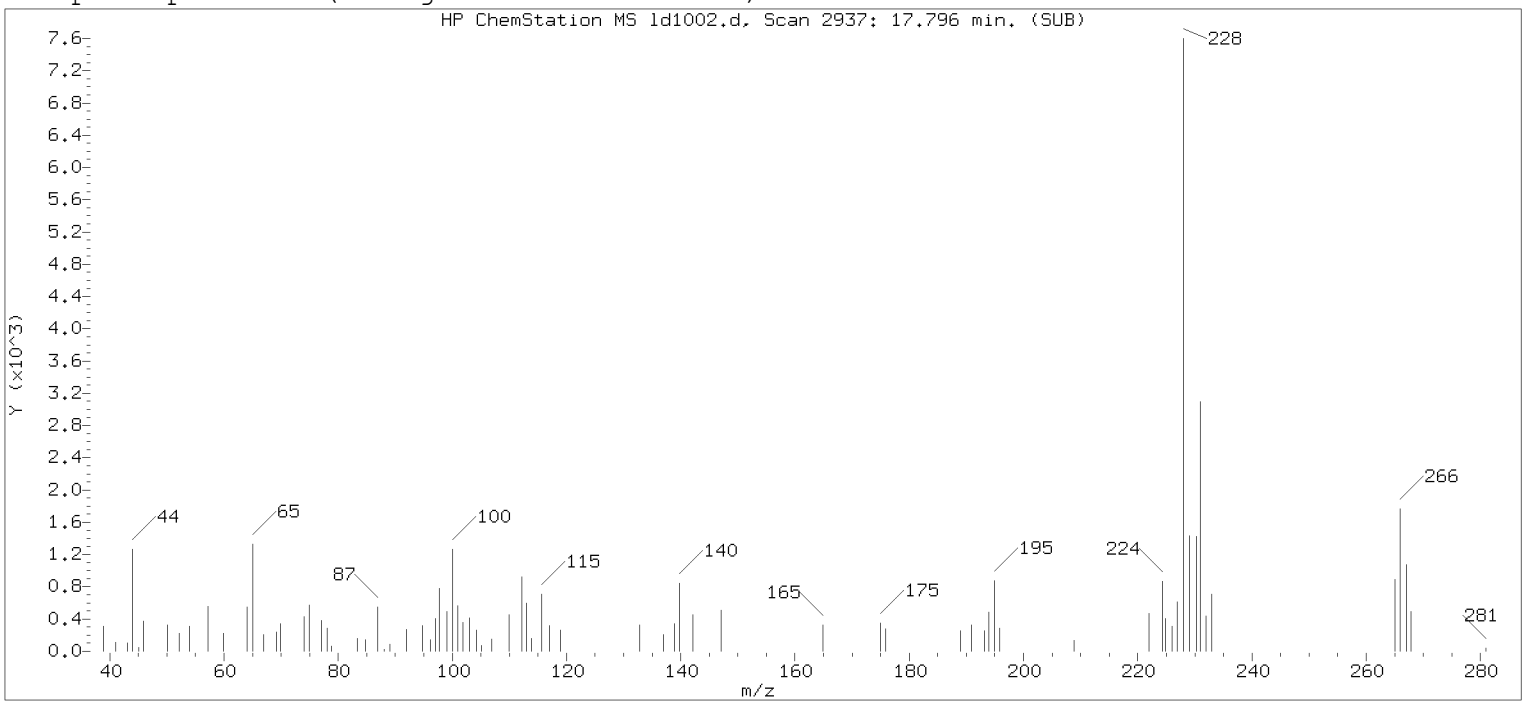
Compound Number : 203
Compound Name : 4,4'-Methylenebis(2-chloroanil
Scan Number : 2937
Retention Time (minutes) : 17.796
Quant Ion : 231.00
Area (flag) : 3352M
On-Column Amount (ng/ul) : 0.1118
Integration start scan : 2932 Integration stop scan: 2943
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

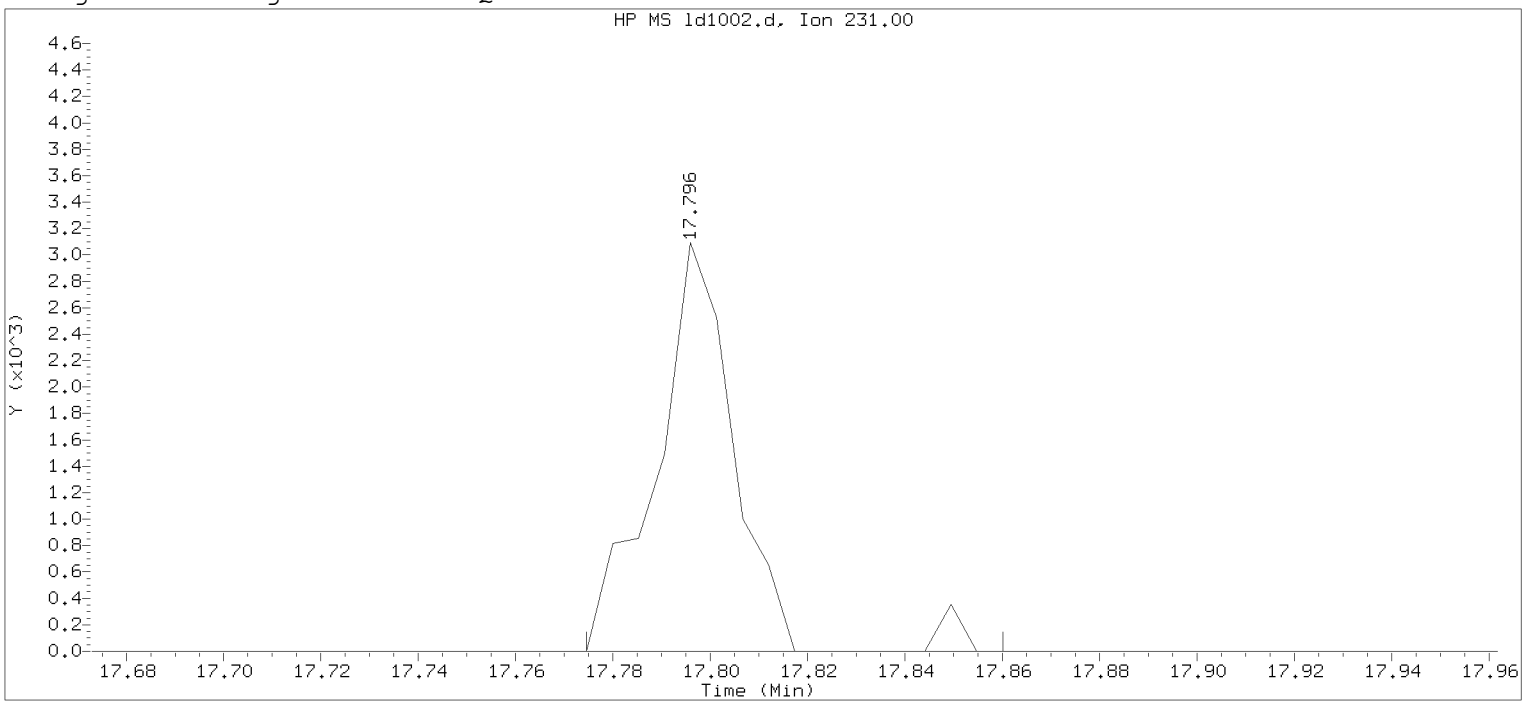
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number : 203
Compound Name : 4,4'-Methylenebis(2-chloroanil
Scan Number : 2937
Retention Time (minutes) : 17.796
Quant Ion : 231.00
Area : 3466
On-column Amount (ng/ul) : 0.1078
Integration start scan : 2932 Integration stop scan: 2948
Y at integration start : 0 Y at integration end: 0

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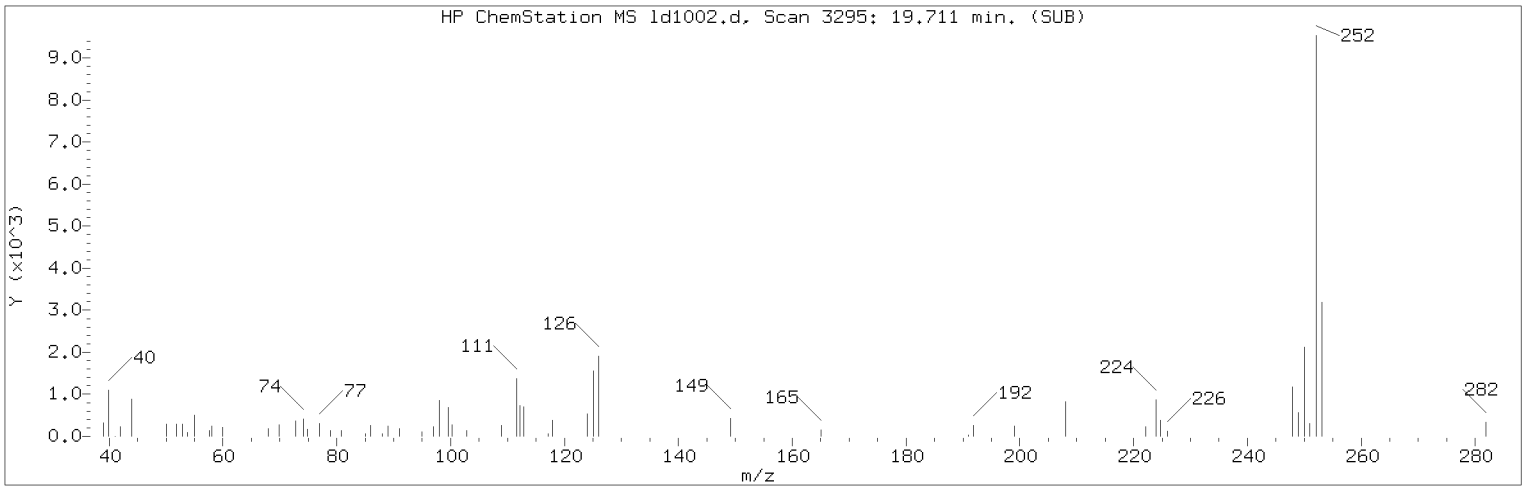
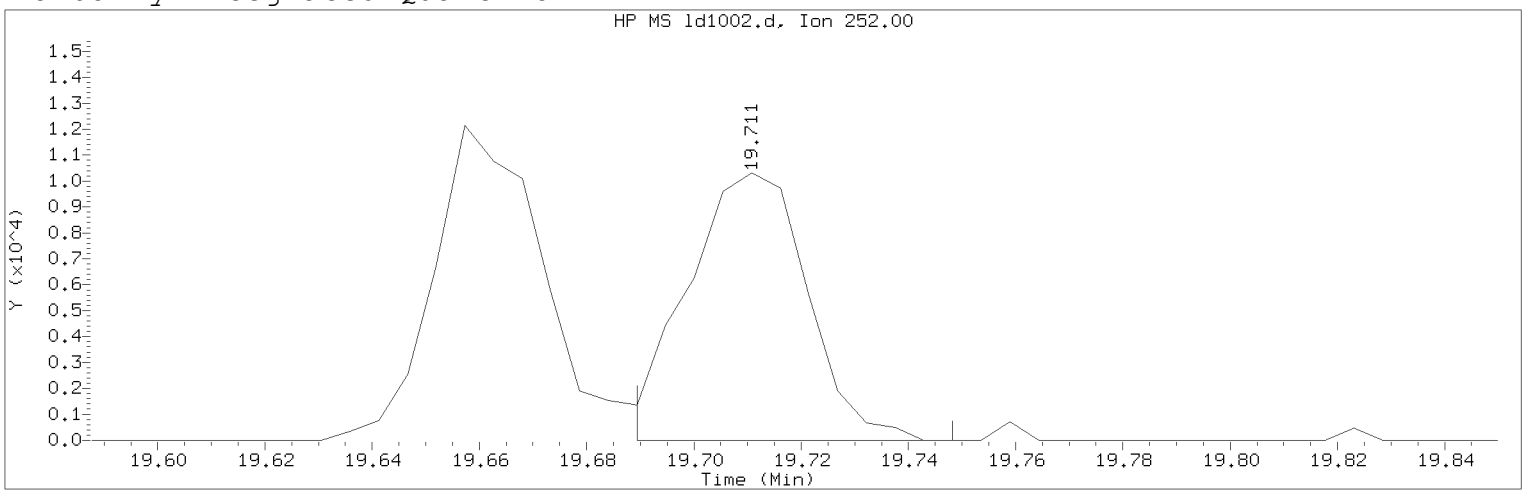
Target 3.5 esignature used. Page 1843

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

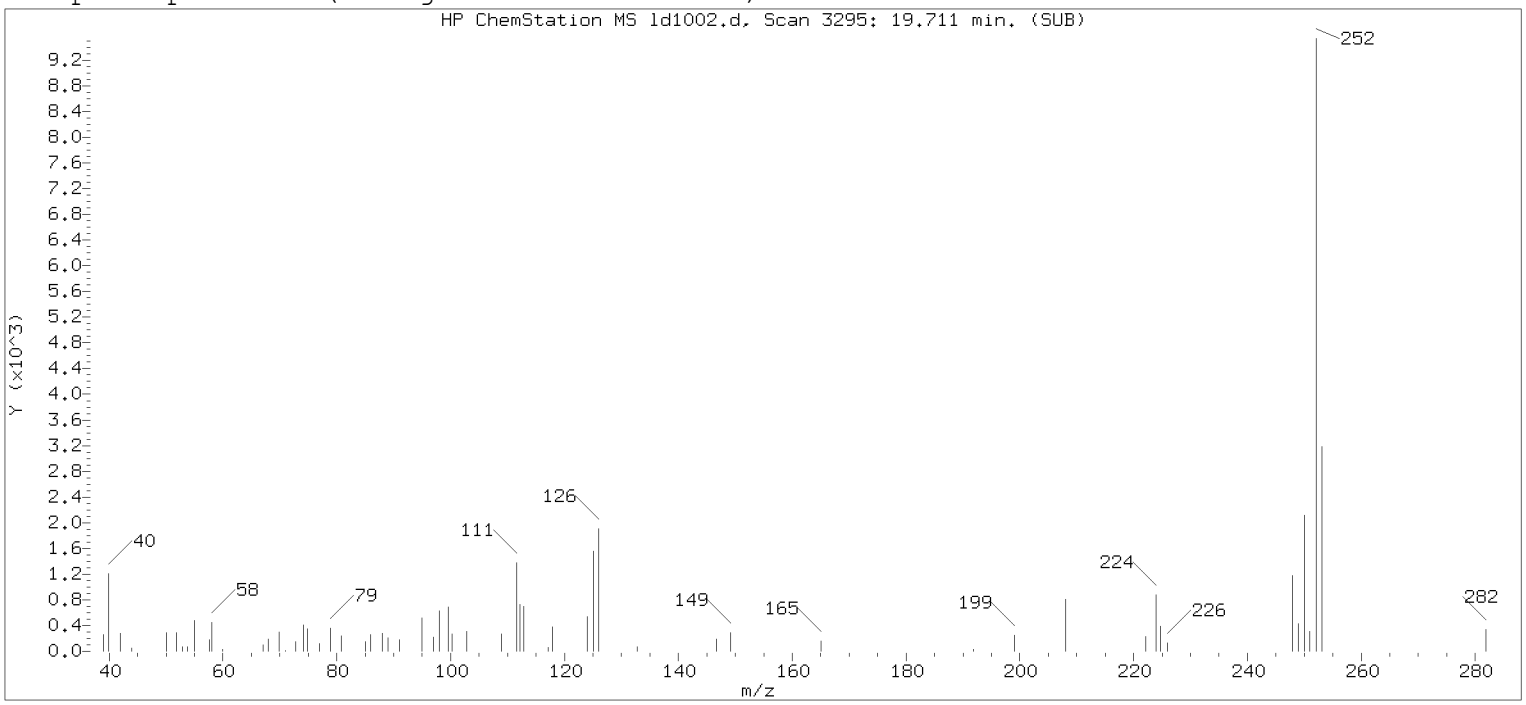
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3295
Retention Time (minutes) : 19.711
Quant Ion : 252.00
Area (flag) : 16154M
On-Column Amount (ng/ul) : 0.1246
Integration start scan : 3290 Integration stop scan: 3301
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

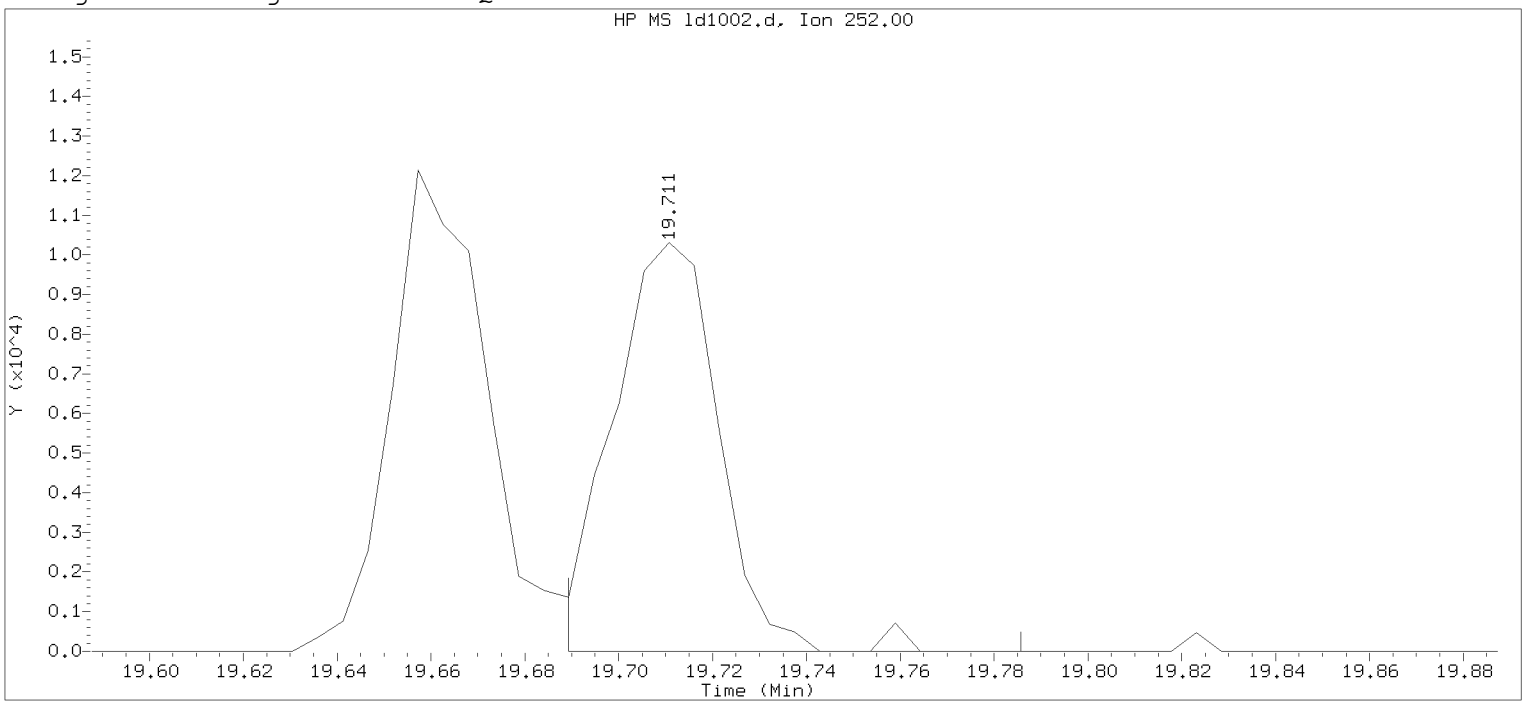
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number	: 213		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 3295		
Retention Time (minutes)	: 19.711		
Quant Ion	: 252.00		
Area	: 16166		
On-column Amount (ng/ul)	: 0.1224		
Integration start scan	: 3290	Integration stop scan:	3308
Y at integration start	: 0	Y at integration end:	0

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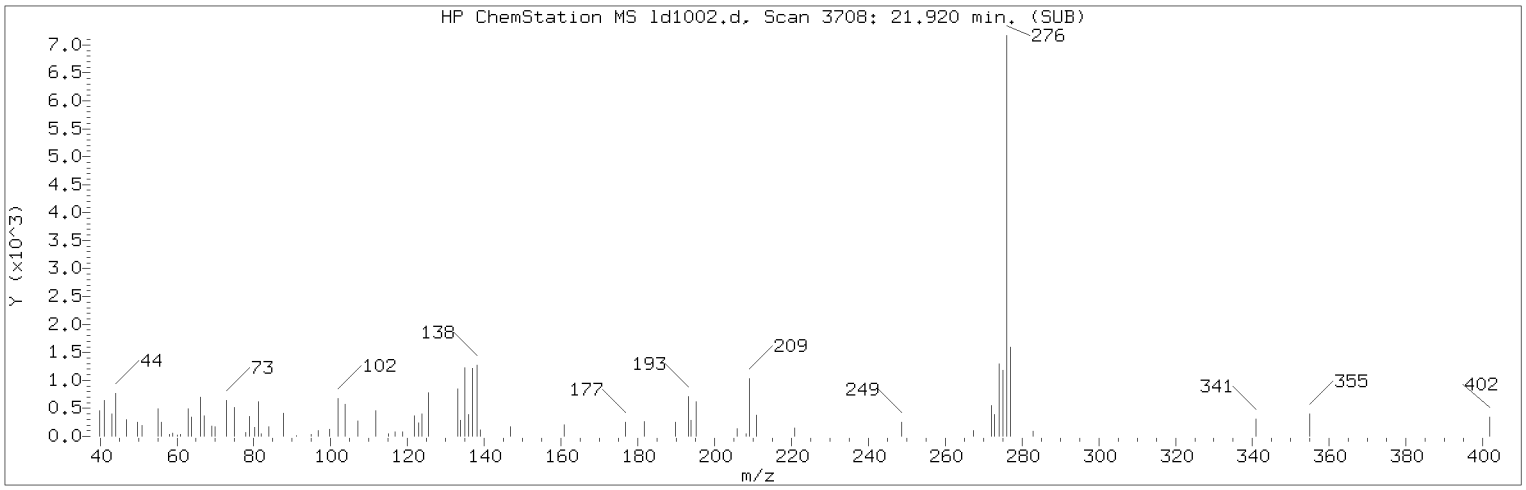
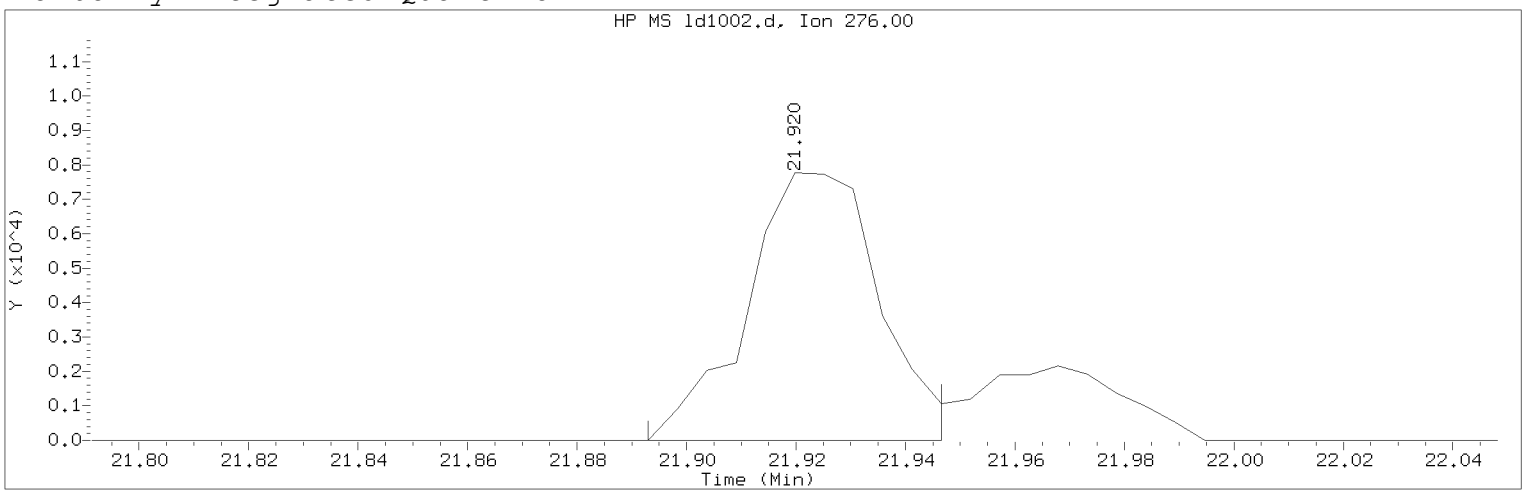
Target 3.5 esignature used. Page 1845

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

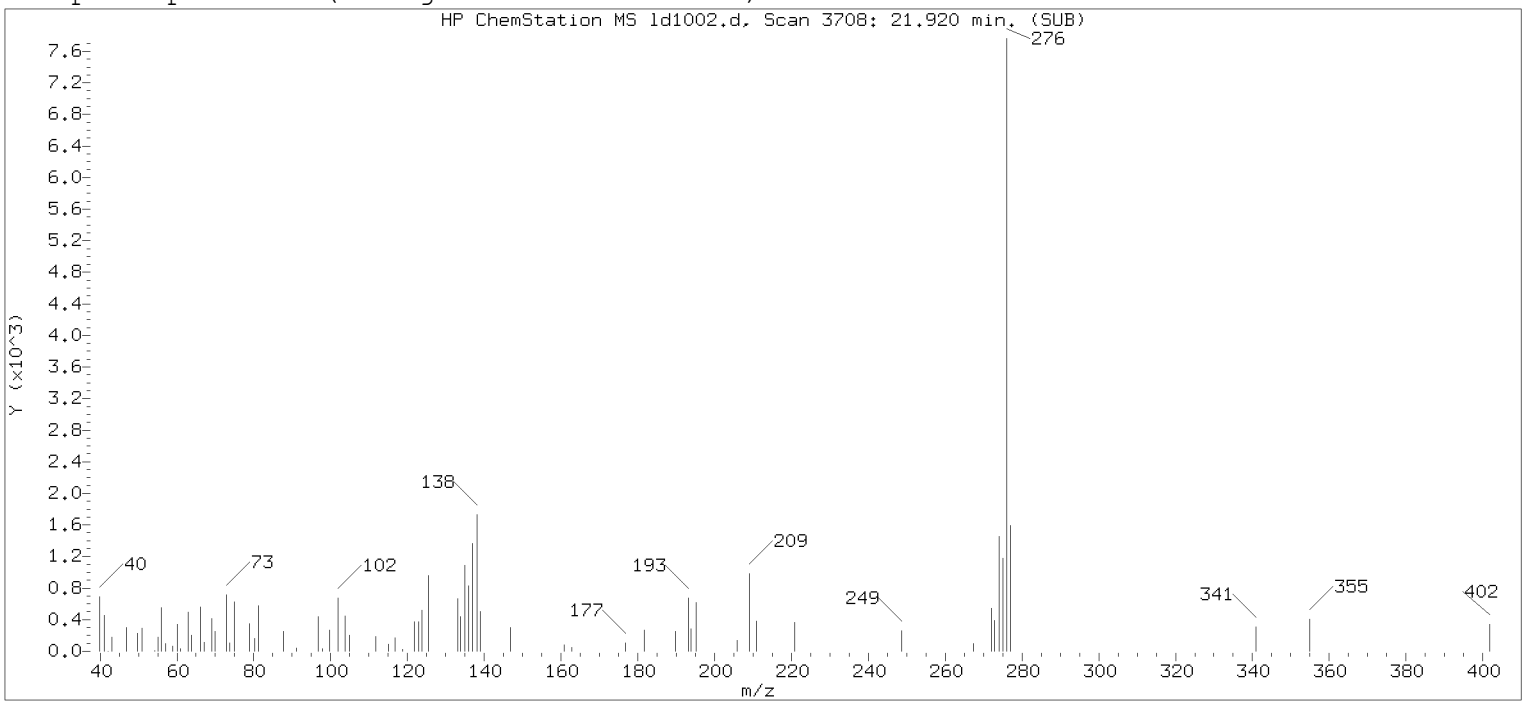
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3708
Retention Time (minutes) : 21.920
Quant Ion : 276.00
Area (flag) : 13083M
On-Column Amount (ng/ul) : 0.1089
Integration start scan : 3702 Integration stop scan: 3712
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

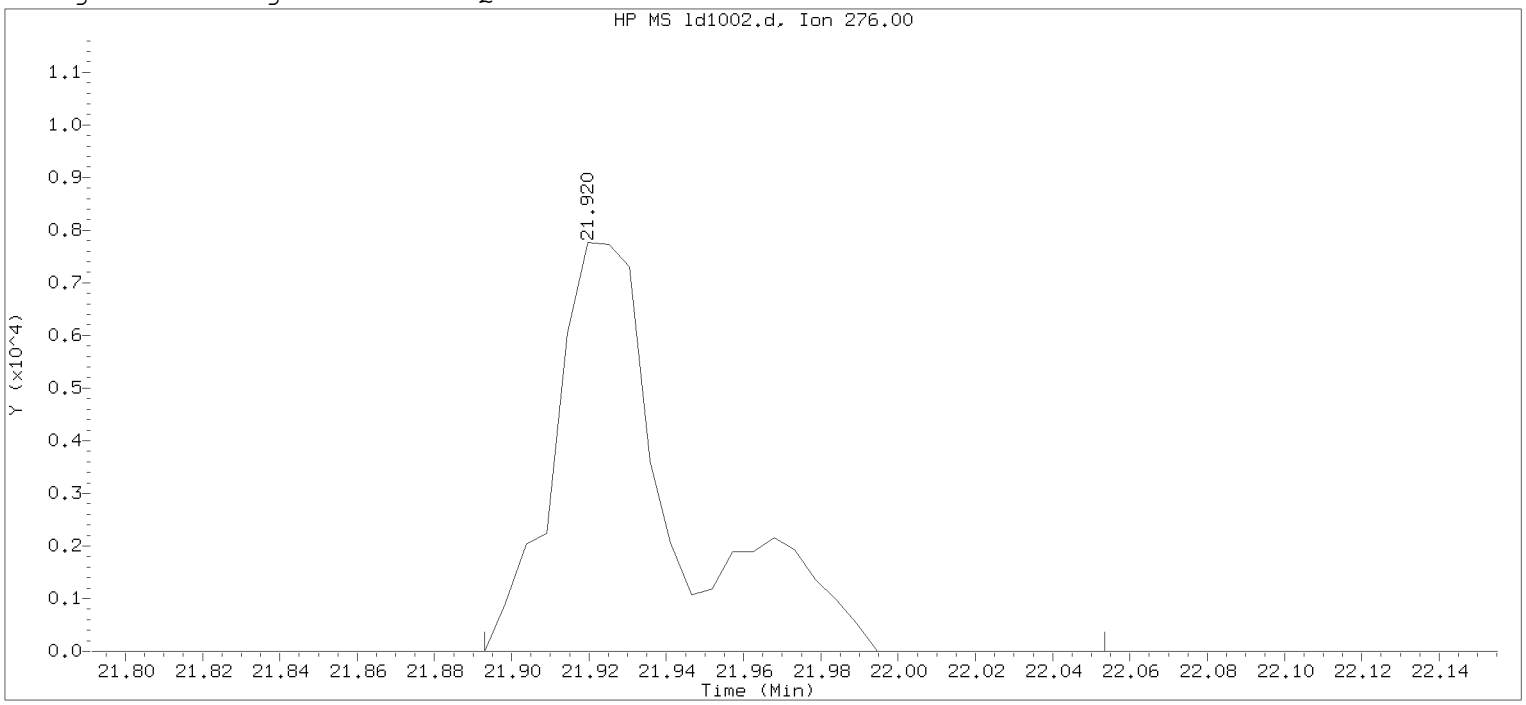
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:46.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



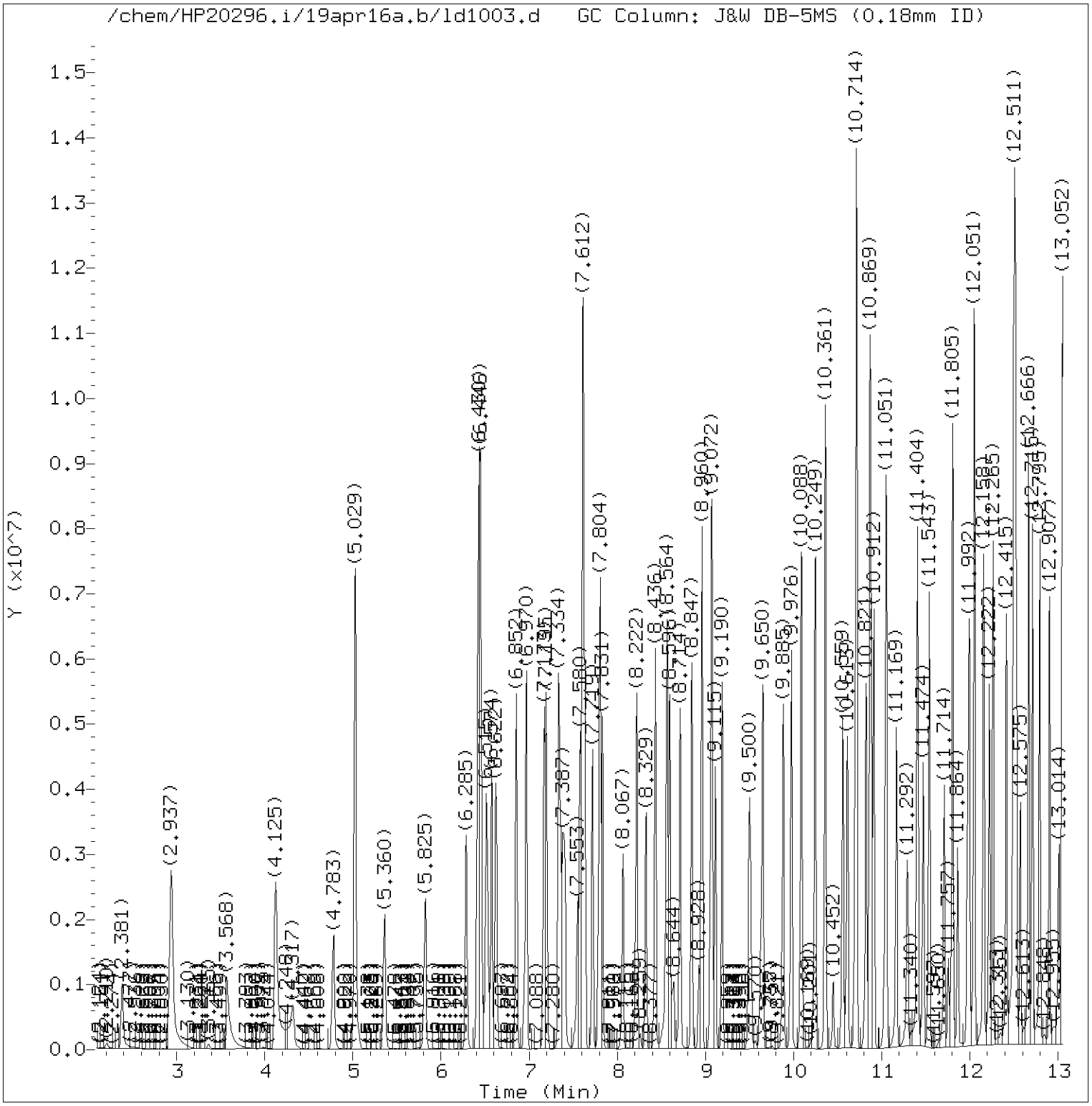
Data File: /chem/HP20296.i/19apr16a.b/ld1002.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 16:45 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:15
Date, time and analyst ID of latest file update: 16-Apr-2019 17:15 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3708		
Retention Time (minutes)	: 21.920		
Quant Ion	: 276.00		
Area	: 16911		
On-column Amount (ng/ul)	: 0.1311		
Integration start scan	: 3702	Integration stop scan:	3732
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:46.
Target 3.5 esignature user: Ashley R. Transue



Total Ion Chromatogram (TIC)

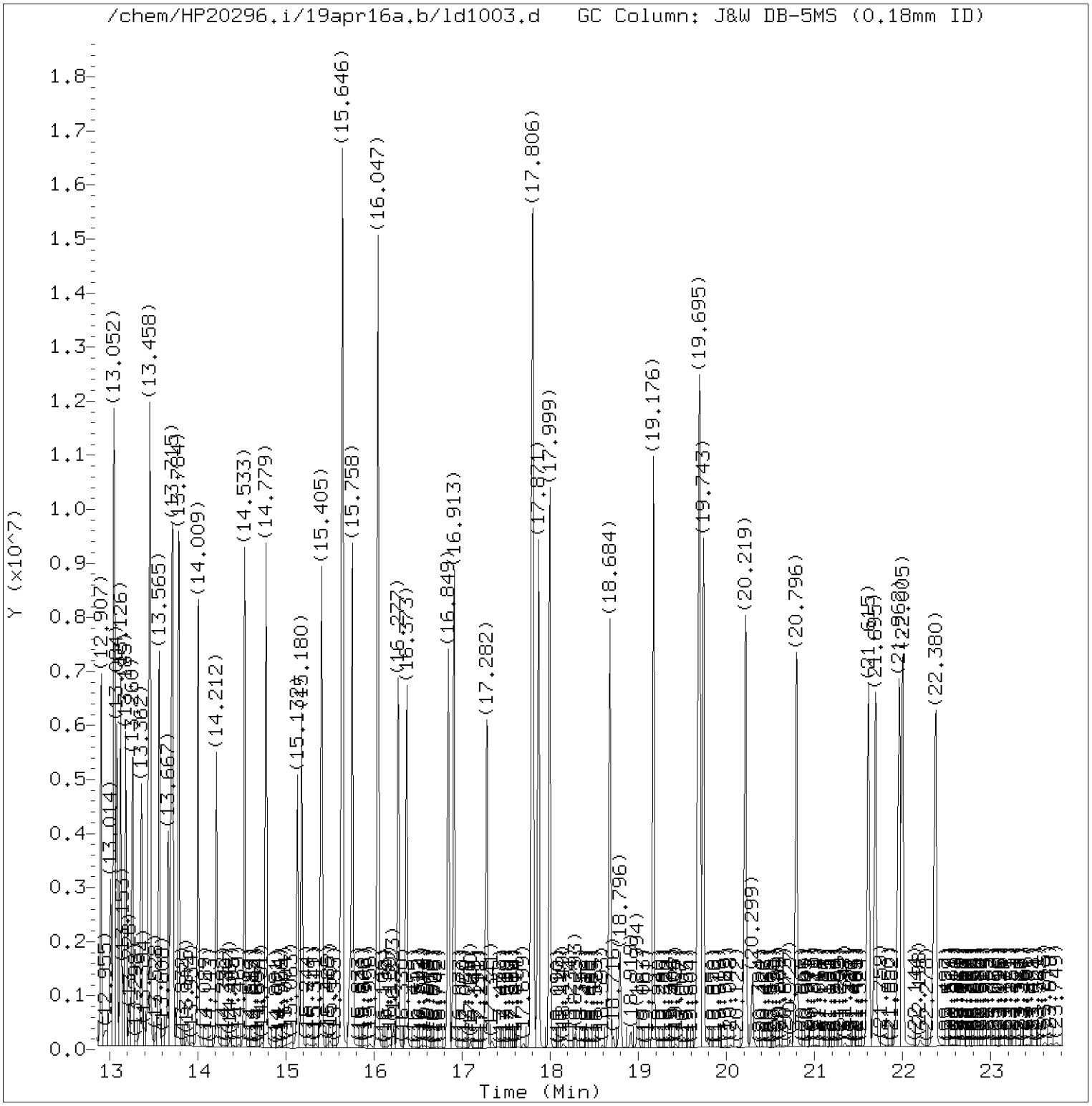
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.381	88	842863	30.753
5) N-Nitrosodimethylamine	(1)	2.921	74	1365931	31.997
6) Pyridine	(1)	2.943	79	2280974A	30.255
8) 2-Picoline	(1)	4.125	93	2281369	30.347
9) N-Nitrosomethylethylamine	(1)	4.317	88	924374	30.154
10) Methyl methanesulfonate	(1)	4.783	80	1136296	30.086
12)$2-Fluorophenol	(1)	5.029	112	3581383	59.487
14) N-Nitrosodiethylamine	(1)	5.360	102	896202	30.354
43) Total Cresols	(1)			3574909	57.944
16) Ethyl methanesulfonate	(1)	5.825	109	941179	30.013
17) Benzaldehyde	(1)	6.285	77	1259192	22.652
18)$Phenol-d6	(1)	6.425	99	4688950	58.696
19) Phenol	(1)	6.446	94	2721789	28.950
20) Aniline	(1)	6.451	93	3139845	28.782
21) a-methylstyrene	(1)	6.537	118	299713A	28.333
23) bis(2-Chloroethyl)ether	(1)	6.574	93	2058585	29.401
24) 2-Chlorophenol	(1)	6.622	128	1682272	29.514
25) 1,3-Dichlorobenzene	(1)	6.852	146	1796688	29.143
26)*1,4-Dichlorobenzene-d4	(1)	6.943	152	187487	5.000
27) 1,4-Dichlorobenzene	(1)	6.970	146	1785676	28.549
28) Benzyl alcohol	(1)	7.173	108	1131902	29.316
29) 1,2-Dichlorobenzene	(1)	7.195	146	1697768	28.949
31) Indene	(1)	7.334	115	2212102	29.277
32) 2-Methylphenol	(1)	7.355	108	1700569	29.265
100) Isosafrole	(3)			1388199	30.454
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.398	45	2500039	28.252
35) bis(2-Chloroisopropyl)ether	(1)	7.398	45	2500039	28.252
36) N-Nitrosopyrrolidine	(1)	7.548	100	936661	30.144
37) Acetophenone	(1)	7.580	105	2169088	24.116
38) 4-Methylphenol	(1)	7.607	108	1874340	28.679
39) N-Nitroso-di-n-propylamine	(1)	7.612	70	1437157	28.244
40) N-Nitrosomorpholine	(1)	7.612	56	1040728	27.934
41) o-Toluidine	(1)	7.633	106	2882318	28.379
44) Hexachloroethane	(1)	7.719	117	803439	28.724
45)$Nitrobenzene-d5	(2)	7.804	82	4216387	59.417
46) Nitrobenzene	(2)	7.831	77	2225947	29.774
125) 2,4_2,6-Dinitrotoluenes	(3)			1580268	61.090
50) N-Nitrosopiperidine	(2)	8.067	114	845783	30.123
52) Isophorone	(2)	8.222	82	3939809	30.247
53) 2-Nitrophenol	(2)	8.329	139	825030	31.090

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.436	107	1857705	30.004
59) O,O,O-Triethylphosphorothioate	(2)	8.564	198	728936	29.945
57) bis(2-Chloroethoxy)methane	(2)	8.596	93	2298867	27.931
58) Benzoic acid	(2)	8.639	105	1379212M	31.847
62) 2,4-Dichlorophenol	(2)	8.714	162	1310684	29.883
151) Diallate trans/cis	(4)			1635305	29.614
65) 1,2,4-Trichlorobenzene	(2)	8.847	180	1439684	29.649
68)*Naphthalene-d8	(2)	8.928	136	715392	5.000
69) Naphthalene	(2)	8.960	128	4757264	29.347
70) 4-Chloroaniline	(2)	9.067	127	1976788	29.494
71) 2,6-Dichlorophenol	(2)	9.077	162	1266930	29.486
72) Hexachloropropene	(2)	9.115	213	913161	30.921
74) Hexachlorobutadiene	(2)	9.190	225	797895	29.537
78) Quinoline	(2)	9.500	129	2809520	29.623
79) Caprolactam	(2)	9.650	113	345491A	24.574
80) N-Nitrosodi-n-butylamine	(2)	9.655	84	1642933	33.570
83) 4-Chloro-3-methylphenol	(2)	9.885	107	1628876	30.201
85) Safrole	(2)	9.976	162	1132440	29.662
86) 2-Methylnaphthalene	(2)	10.088	142	3036349	30.099
87) 1-Methylnaphthalene	(2)	10.249	142	2870187	29.366
88) Hexachlorocyclopentadiene	(3)	10.361	237	838128	31.324
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.366	216	1379414	29.776
91) cis-Isosafrole	(3)	10.452	162	215687	5.224
93) 2,4,6-Trichlorophenol	(3)	10.559	196	949468	31.428
95) 2,4,5-Trichlorophenol	(3)	10.613	196	952571	30.016
96)$2-Fluorobiphenyl	(3)	10.714	172	6381501	59.689
97) trans-Isosafrole	(3)	10.821	162	1172512	25.231
98) 1,1'-Biphenyl	(3)	10.869	154	2868389	24.342
99) 2-Chloronaphthalene	(3)	10.880	162	3081892	31.409
101) 1-Chloronaphthalene	(3)	10.912	162	2360959	26.867
103) Diphenyl ether	(3)	11.051	170	1823125	29.421
104) 2-Nitroaniline	(3)	11.056	138	902993	31.378
108) 1,4-Naphthoquinone	(3)	11.169	158	1131610	30.393
109) 1,4-Dinitrobenzene	(3)	11.292	168	446745	31.882
110) Dimethylphthalate	(3)	11.404	163	2969509	29.486
111) 1,3-Dinitrobenzene	(3)	11.409	168	467185A	30.469
113) 2,6-Dinitrotoluene	(3)	11.474	165	672131	30.622
114) Acenaphthylene	(3)	11.543	152	3985627	30.262
117) 3-Nitroaniline	(3)	11.714	138	782405	31.141
118)*Acenaphthene-d10	(3)	11.757	164	333092	5.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.805	153	2859334	28.879
120) 2,4-Dinitrophenol	(3)	11.864	184	423450	33.250
121) 4-Nitrophenol	(3)	11.982	109	577610	30.811
122) Pentachlorobenzene	(3)	11.998	250	1115648	28.938
124) Dibenzofuran	(3)	12.051	168	3763300	29.144
123) 2,4-Dinitrotoluene	(3)	12.057	165	908137	30.468
126) 1-Naphthylamine	(3)	12.158	143	2837324	29.981
127) 2,3,4,6-Tetrachlorophenol	(3)	12.222	232	747042	32.051
128) 2-Naphthylamine	(3)	12.265	143	2768712	30.127
129) Diethylphthalate	(3)	12.415	149	2950711	29.257
131) Fluorene	(3)	12.495	166	2986653	28.858
130) Thionazin	(3)	12.506	107	595118	28.761
132) 4-Chlorophenyl-phenylether	(3)	12.517	204	1395766	28.666
133) 5-Nitro-o-toluidine	(3)	12.522	152	822652	29.837
134) 4-Nitroaniline	(3)	12.533	138	751730A	28.216
135) 4,6-Dinitro-2-methylphenol	(4)	12.575	198	516428	31.881
136) N-Nitrosodiphenylamine	(4)	12.666	169	2402137	29.671
137) NDPA as diphenylamine	(4)	12.666	169	2402137	29.671
139) 1,2-Diphenylhydrazine	(4)	12.715	77	3967245	28.900
140)$2,4,6-Tribromophenol	(3)	12.795	330	864023	64.134
142) Tetraethyldithiopyrophosphate	(4)	12.902	97	609681	28.975
144) 1,3,5-Trinitrobenzene	(4)	13.014	213	321959	33.164
145) Diallate (peak 1)	(4)	13.046	86	1392324	24.453
146) Phorate	(4)	13.057	75	2420404	29.730
147) Phenacetin	(4)	13.084	108	1869292	31.655
148) 4-Bromophenyl-phenylether	(4)	13.126	248	763462	29.083
149) Diallate (peak 2)	(4)	13.153	86	242981A	5.160
150) Hexachlorobenzene	(4)	13.185	284	882887	30.135
152) Dimethoate	(4)	13.260	87	1592487	30.127
153) Atrazine	(4)	13.362	200	563328	23.320
154) Pentachlorophenol	(4)	13.442	266	600493	32.315
155) 4-Aminobiphenyl	(4)	13.458	169	2853887	30.474
156) Pentachloronitrobenzene	(4)	13.463	237	372707	30.545
157) Pronamide	(4)	13.565	173	1385312	32.209
158)*Phenanthrene-d10	(4)	13.683	188	605231	5.000
159) Dinoseb	(4)	13.704	211	791884	33.203
160) Phenanthrene	(4)	13.720	178	4454460	30.445
162) Anthracene	(4)	13.784	178	4355012	29.831
168) Carbazole	(4)	14.009	167	4033137	31.010
169) Methyl parathion	(4)	14.212	109	1235663	32.370

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

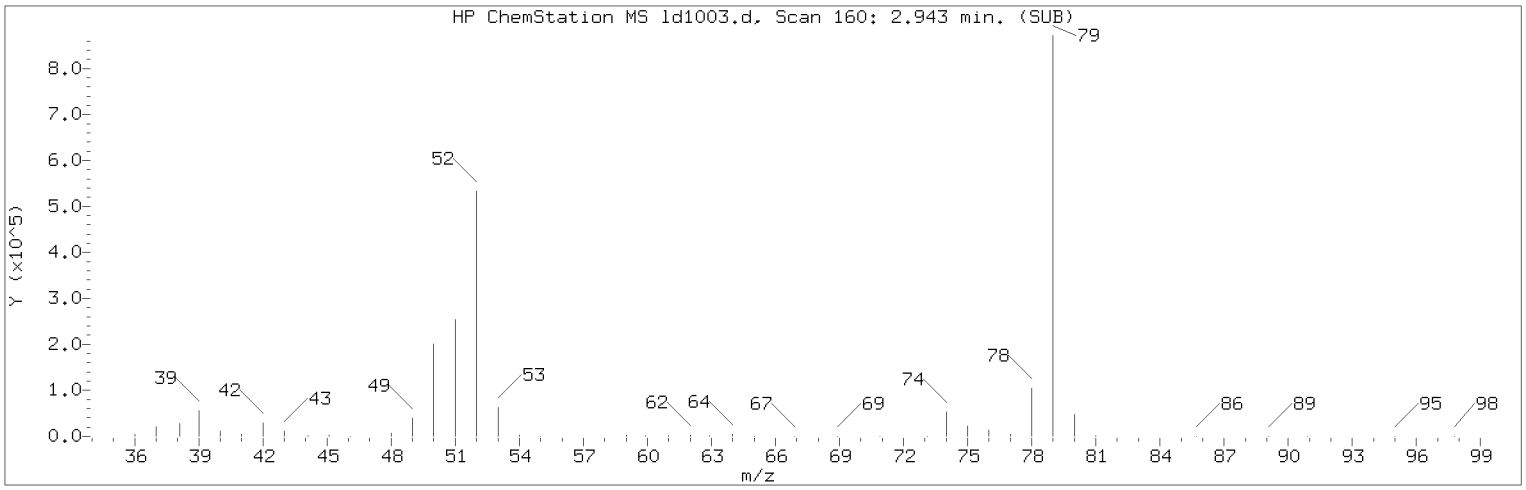
Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.533	149	5521835	31.286
172) Parathion	(4)	14.774	109	811991	32.937
173) 4-Nitroquinoline-1-oxide	(4)	14.784	190	524105	30.348
227) Total PAHs	(6)			78301865	552.657
174) Octachlorostyrene	(4)	15.132	308	323886	30.065
176) Isodrin	(4)	15.180	193	509092	29.864
178) Fluoranthene	(4)	15.405	202	4891916	32.134
179) Benzidine	(5)	15.646	184	9783792	91.727
180)*Pyrene-d10	(5)	15.726	212	619124	5.000
182) Pyrene	(5)	15.758	202	4924701	29.363
184)$Terphenyl-d14	(5)	16.047	244	6273722	62.029
187) p-Dimethylaminoazobenzene	(5)	16.277	225	890534	33.030
190) Chlorobenzilate	(5)	16.373	139	1726499	31.718
192) 3,3'-Dimethylbenzidine	(5)	16.849	212	3598703	32.890
193) Butylbenzylphthalate	(5)	16.913	149	2659022	32.103
196) 2-Acetylaminofluorene	(5)	17.282	181	2240008	32.748
198) 3,3'-Dichlorobenzidine	(5)	17.790	252	1881751	33.037
200) Benzo(a)anthracene	(5)	17.806	228	4997034	33.098
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.812	231	1025576	32.529
201) Chrysene	(5)	17.871	228	4687570	31.976
204) bis(2-Ethylhexyl)phthalate	(5)	17.999	149	3917124	32.499
208) 6-Methylchrysene	(5)	18.684	242	3358577	32.813
210) Di-n-octylphthalate	(6)	19.176	149	7247388	31.761
211) Benzo(b)fluoranthene	(6)	19.695	252	5187083	31.066
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.700	256	2253447	32.440
213) Benzo(k)fluoranthene	(6)	19.743	252	4858812A	30.324
216) Benzo(a)pyrene	(6)	20.219	252	4913271	32.366
218)*Perylene-d12	(6)	20.299	264	657564	5.000
220) 3-Methylcholanthrene	(6)	20.796	268	2575393	33.116
222) Dibenz(a,h)acridine	(6)	21.615	279	4195123	31.731
223) Dibenz(a,j)acridine	(6)	21.695	279	4032032	30.751
224) Indeno(1,2,3-cd)pyrene	(6)	21.962	276	4858425M	32.720
225) Dibenz(a,h)anthracene	(6)	22.005	278	4878687M	31.939
226) Benzo(g,h,i)perylene	(6)	22.380	276	4799480	30.584

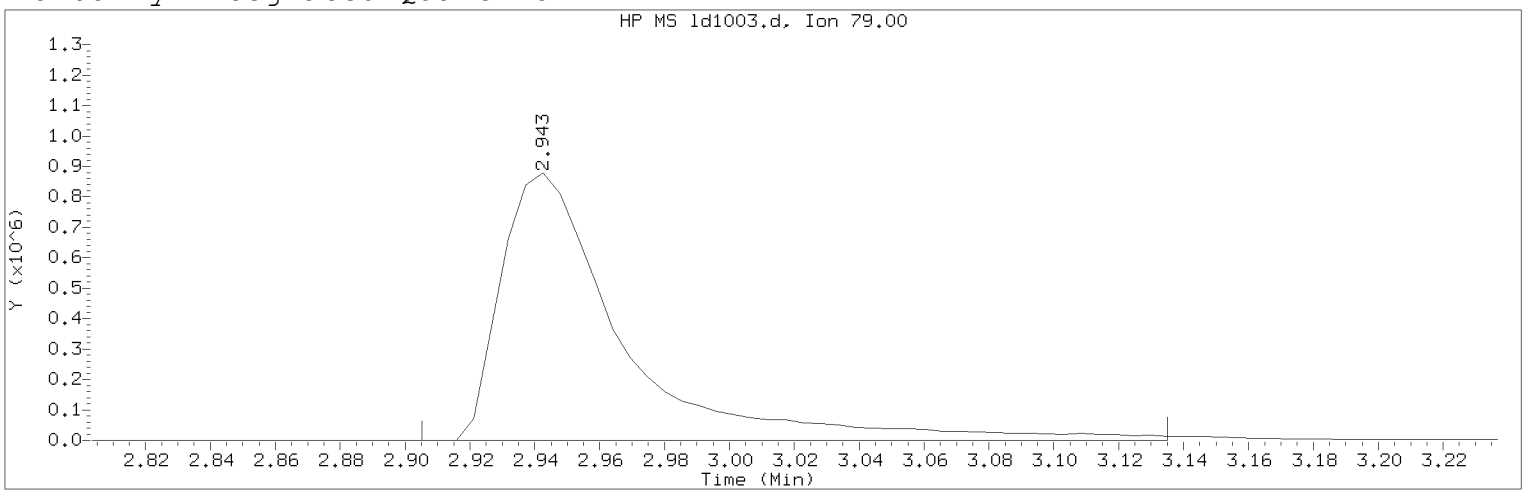
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

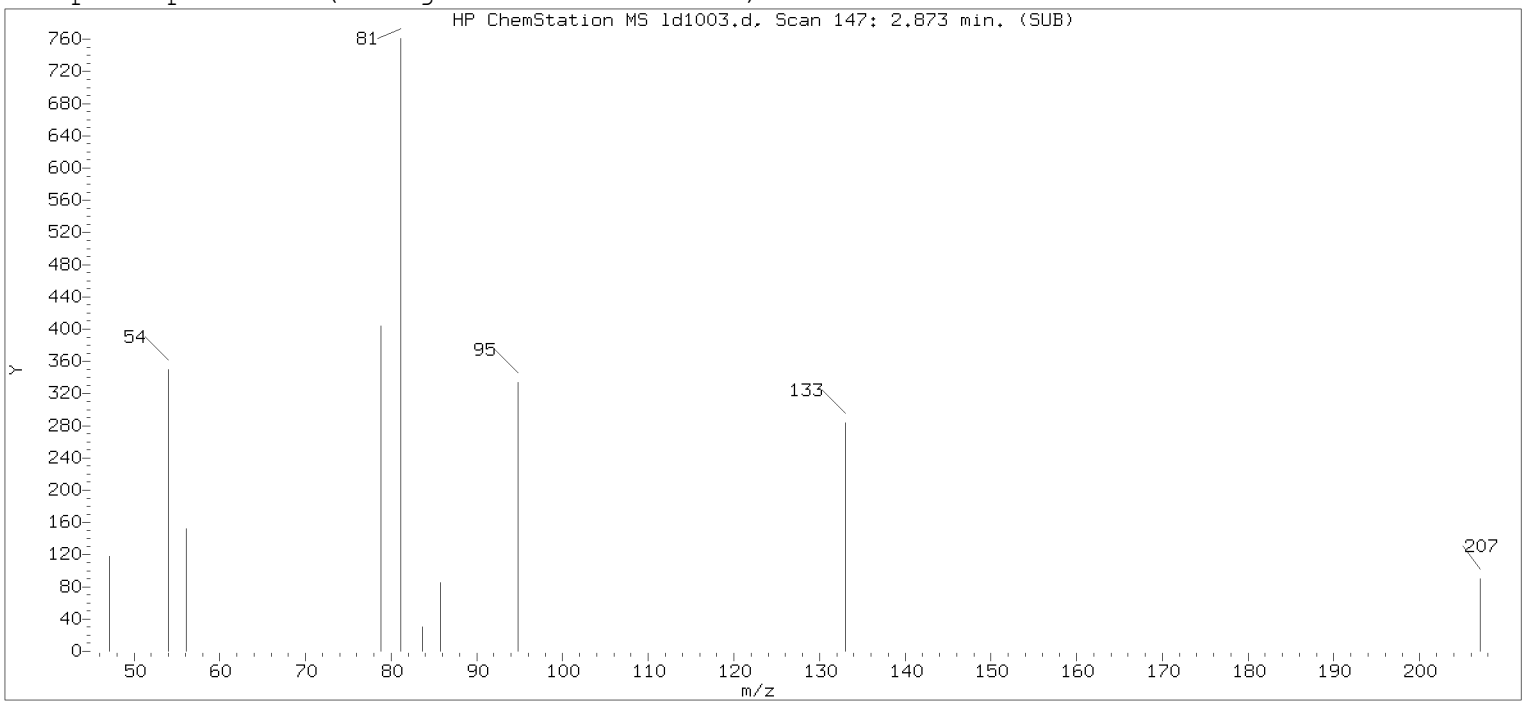
Compound Number : 6
Compound Name : Pyridine
Scan Number : 160
Retention Time (minutes) : 2.943
Quant Ion : 79.00
Area (flag) : 2280974A
On-Column Amount (ng/ul) : 30.2552
Integration start scan : 152 Integration stop scan: 195
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

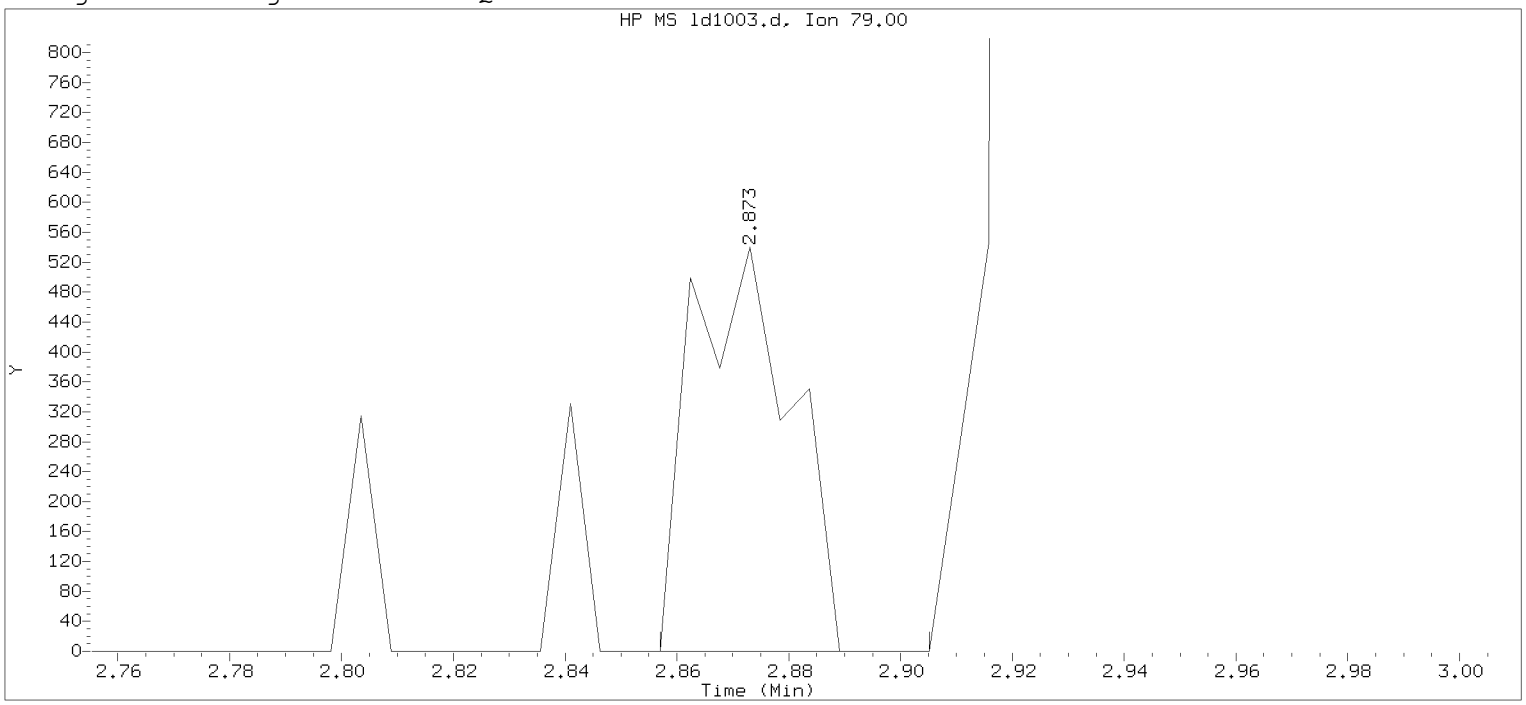
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compound Number	: 6		
Compound Name	: Pyridine		
Scan Number	: 147		
Retention Time (minutes)	: 2.873		
Quant Ion	: 79.00		
Area	: 666		
On-column Amount (ng/ul)	: 0.0094		
Integration start scan	: 143	Integration stop scan:	152
Y at integration start	: 0	Y at integration end:	0

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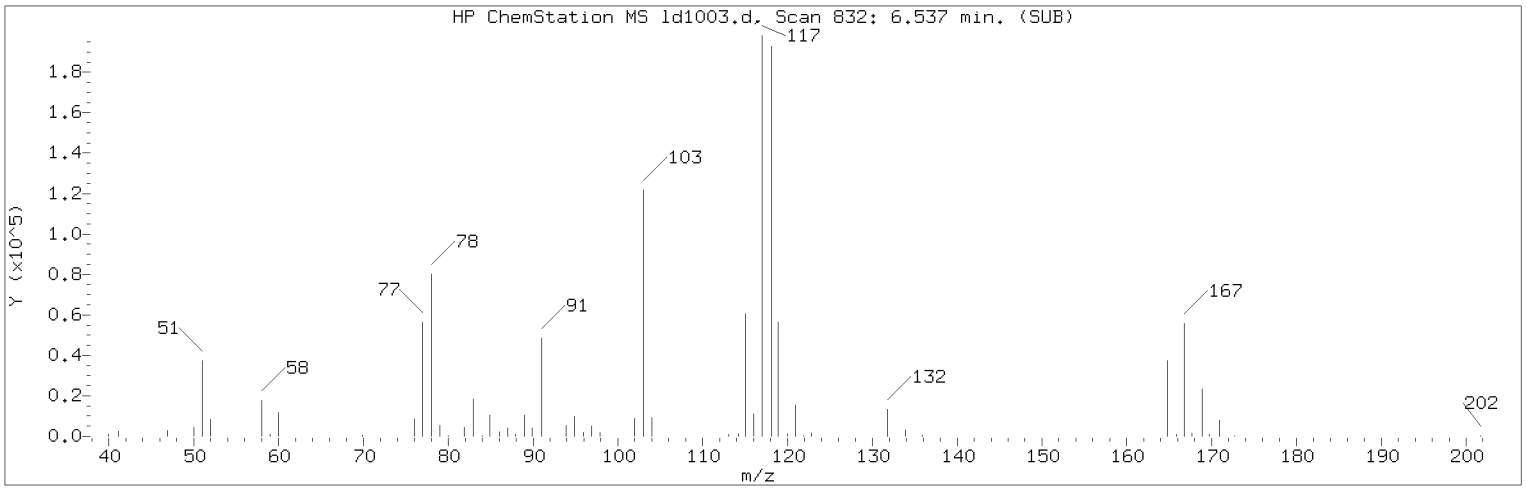
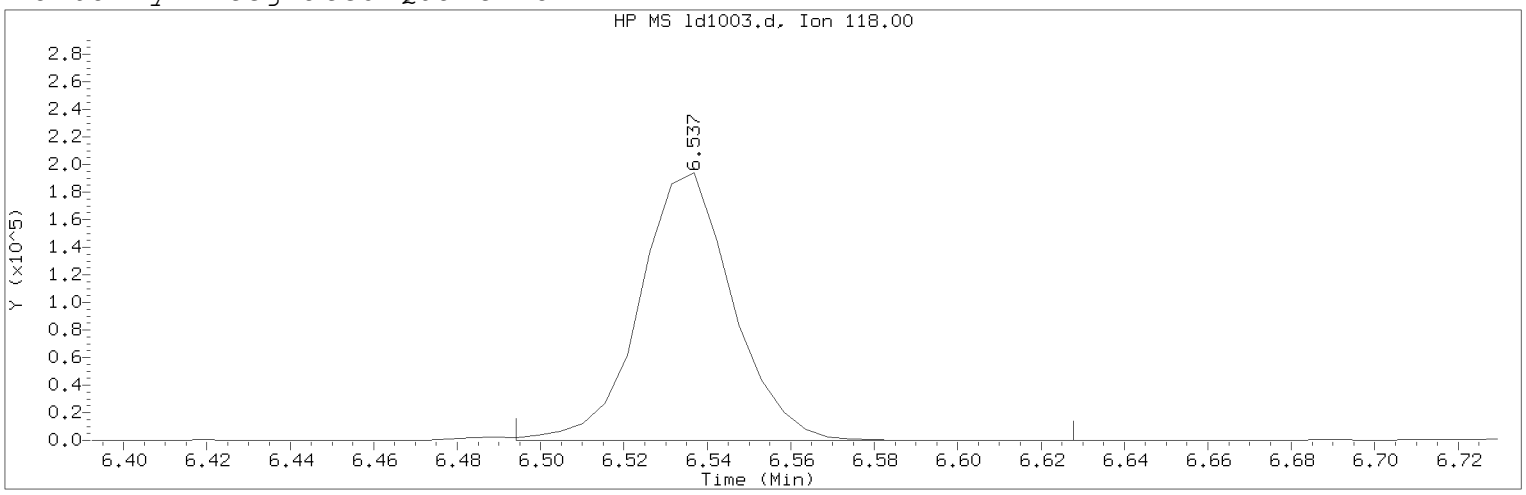
Target 3.5 esignature user: F35 Page 1855

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

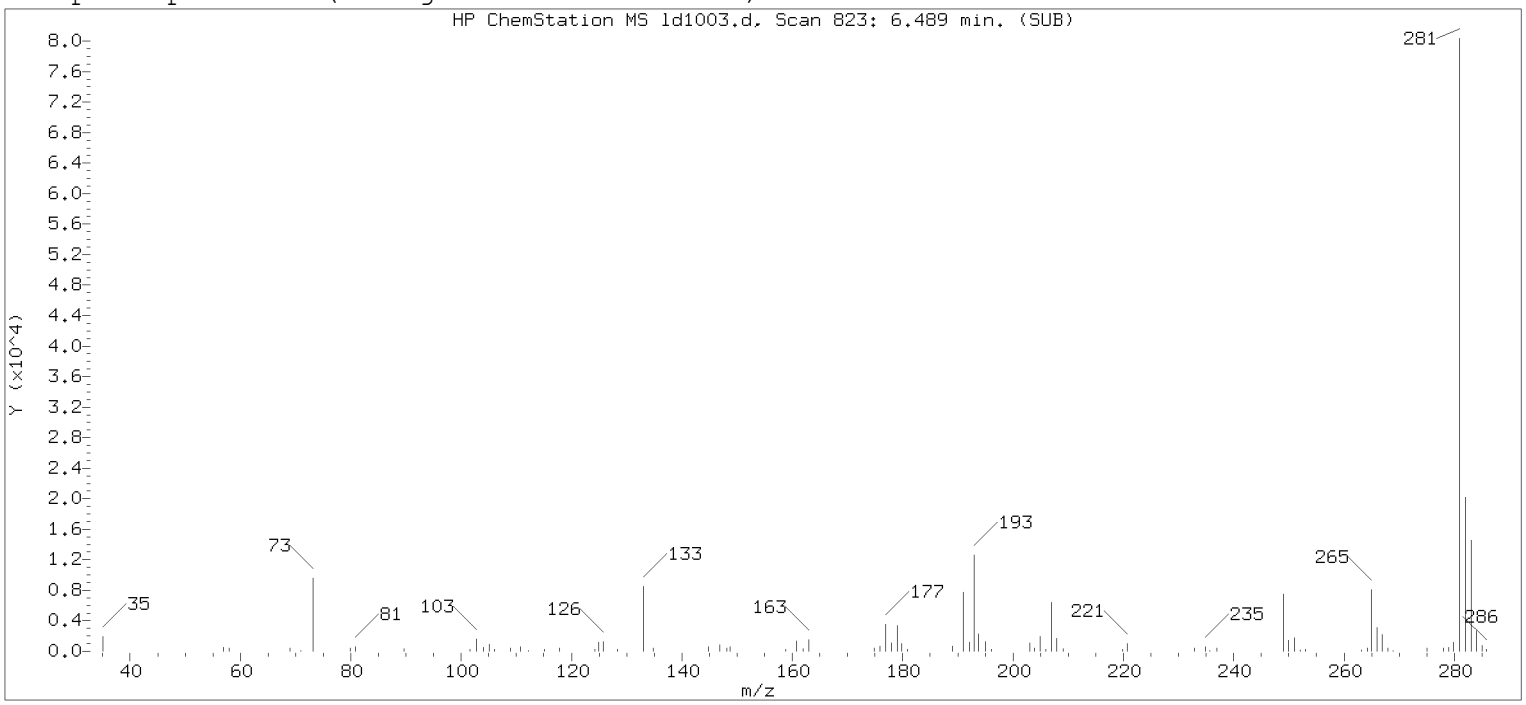
Compound Number : 21
Compound Name : a-methylstyrene
Scan Number : 832
Retention Time (minutes) : 6.537
Quant Ion : 118.00
Area (flag) : 299713A
On-Column Amount (ng/ul) : 28.3330
Integration start scan : 823 Integration stop scan: 848
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

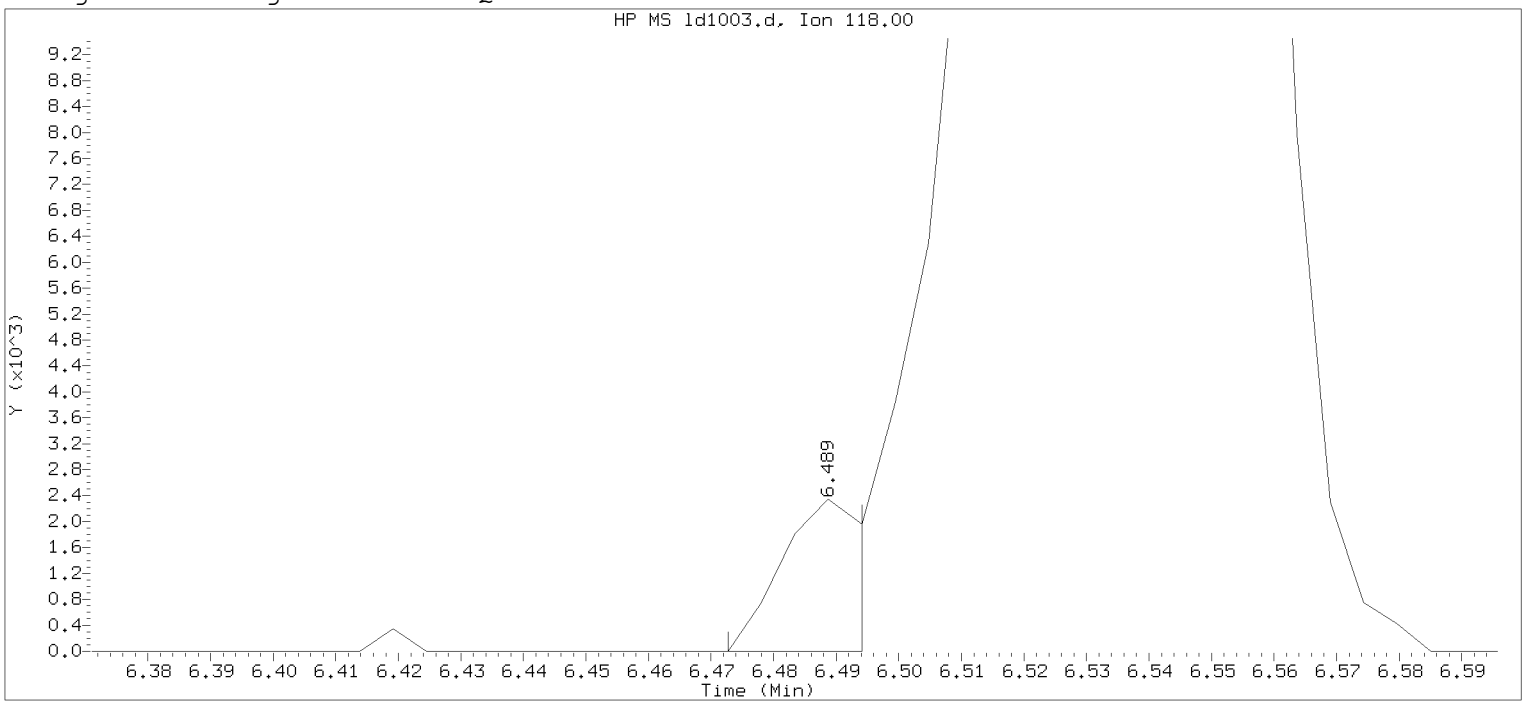
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compound Number : 21
Compound Name : a-methylstyrene
Scan Number : 823
Retention Time (minutes) : 6.489
Quant Ion : 118.00
Area : 1889
On-column Amount (ng/ul) : 0.1642
Integration start scan : 819 Integration stop scan: 823
Y at integration start : 0 Y at integration end: 0

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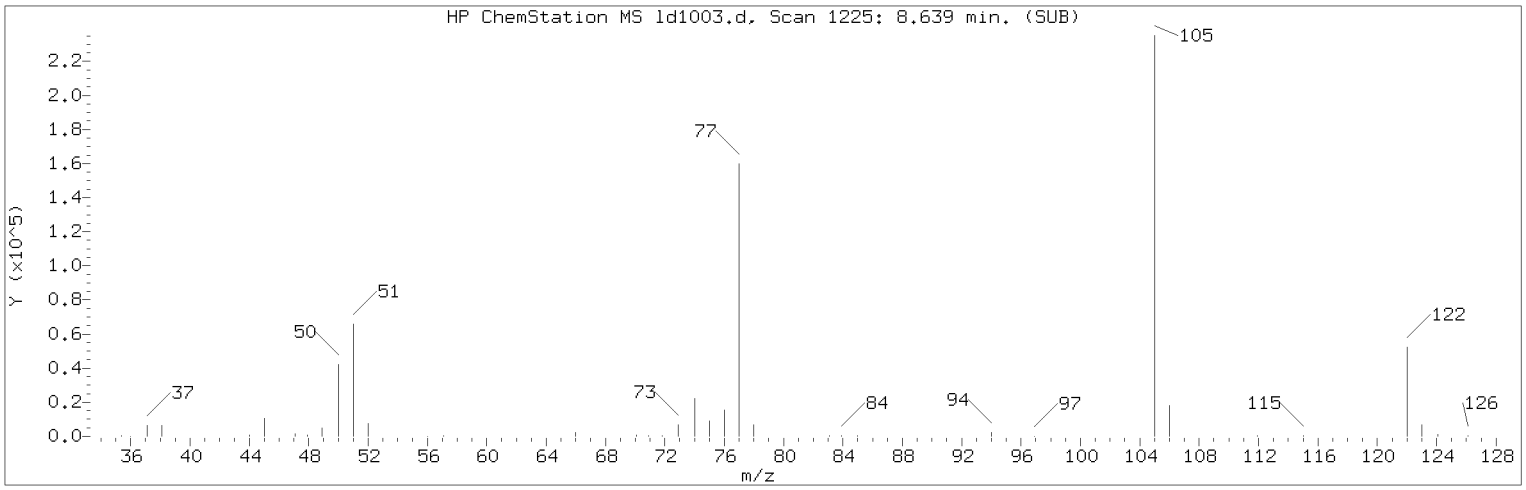
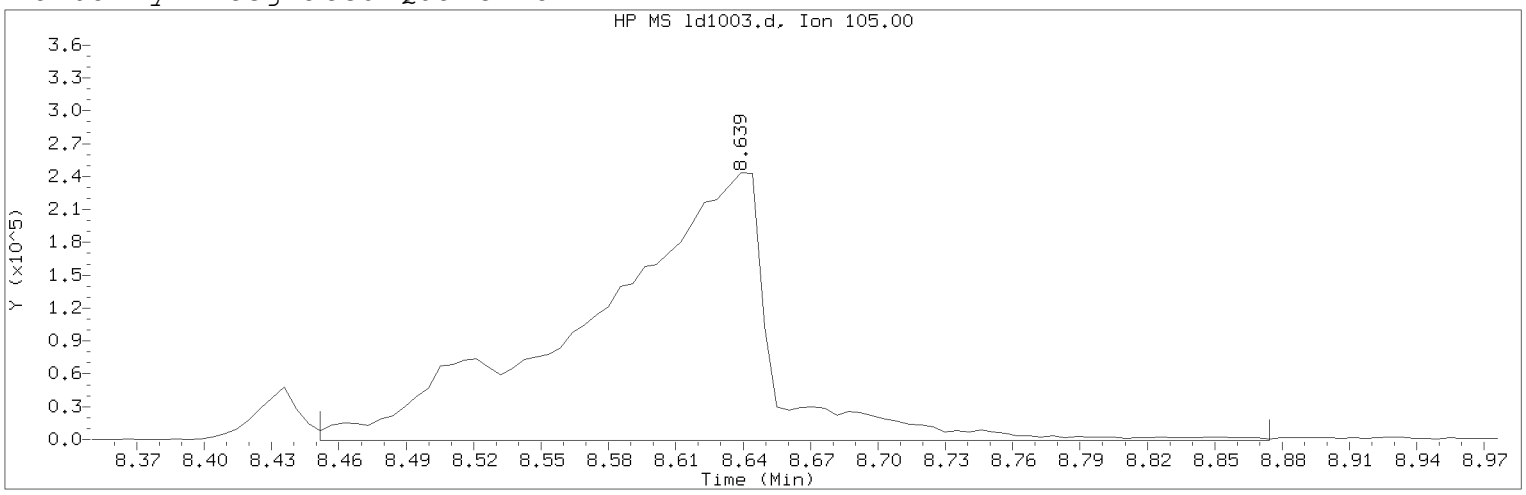
Target 3.5 esignature user: FSS Page 1857

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

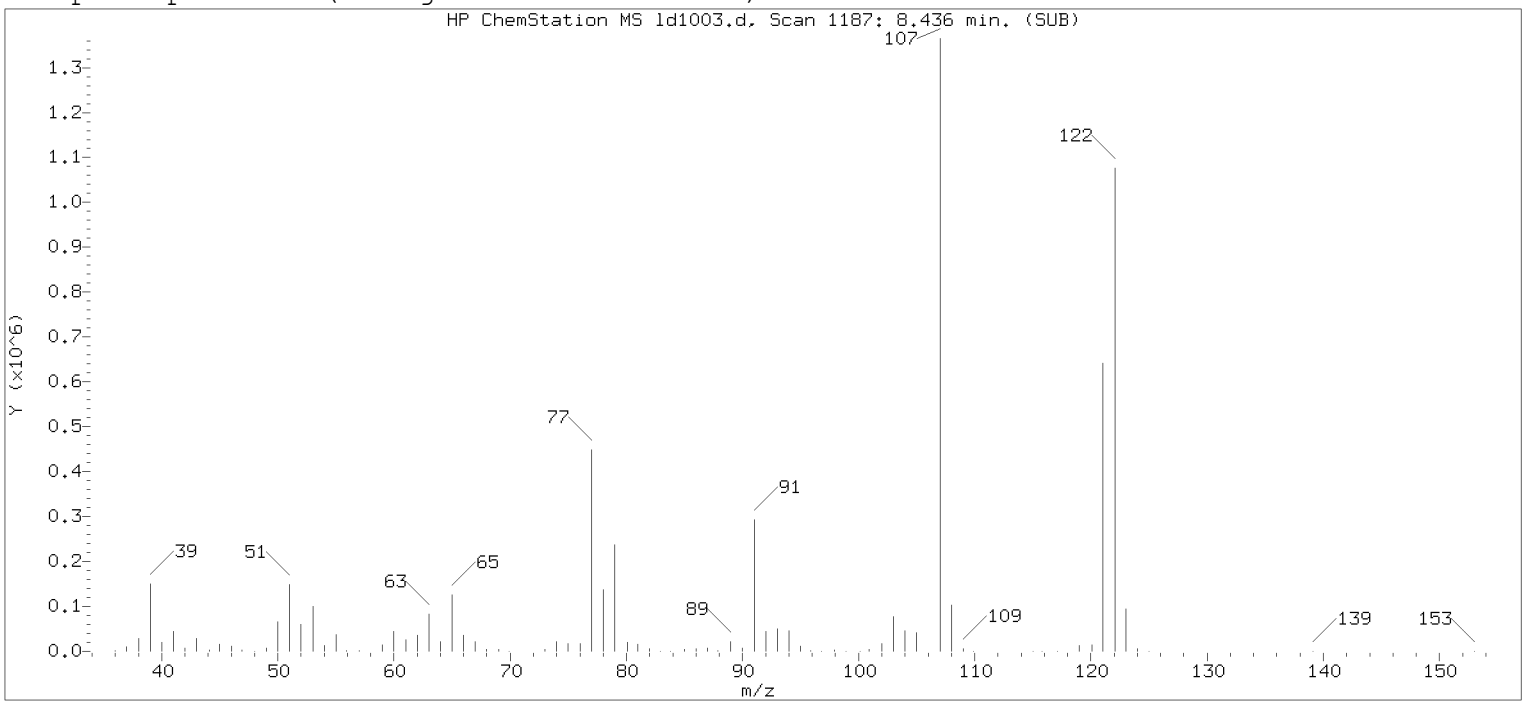
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1225
Retention Time (minutes) : 8.639
Quant Ion : 105.00
Area (flag) : 1379212M
On-Column Amount (ng/ul) : 31.8475
Integration start scan : 1189 Integration stop scan: 1268
Y at integration start : -601 Y at integration end: -601

Reason for manual integration: improper integration

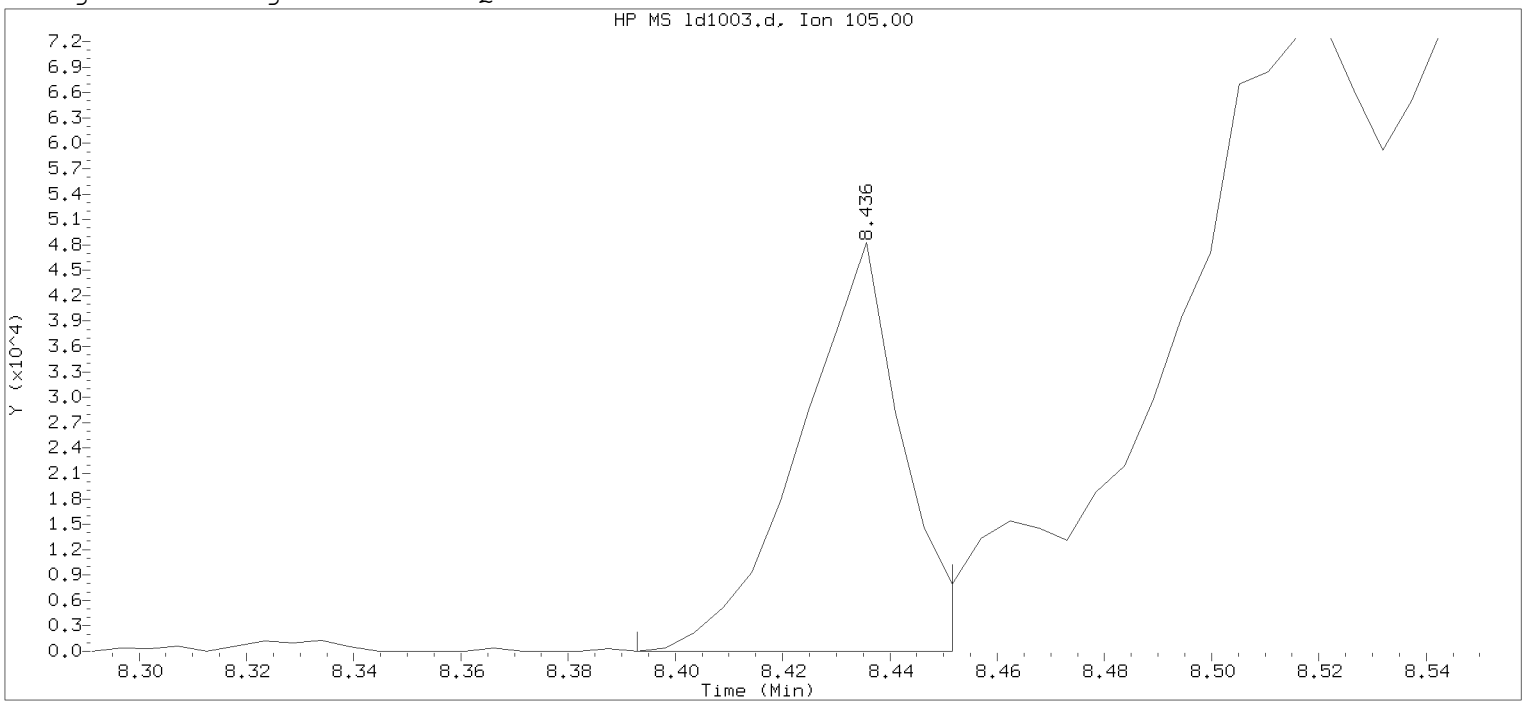
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

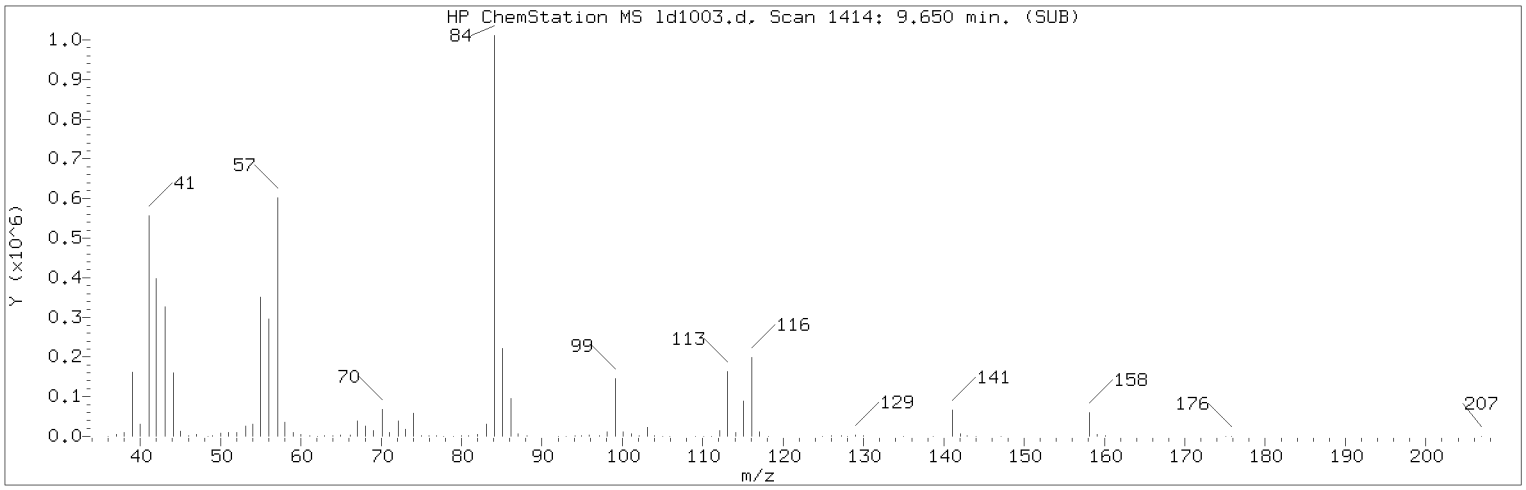
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

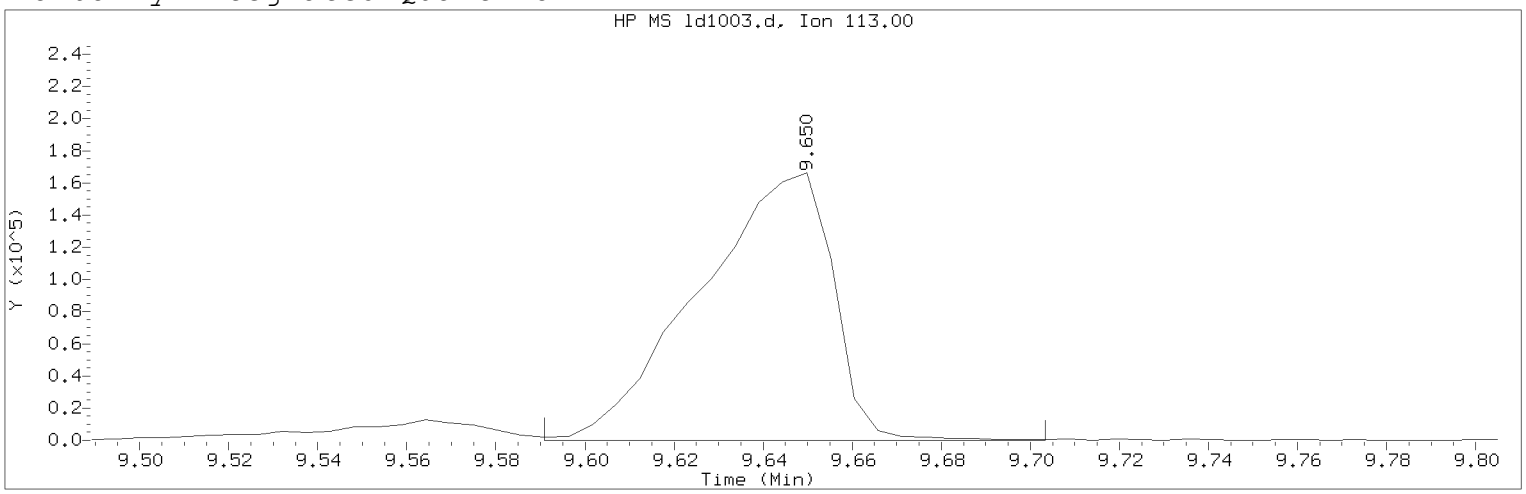
Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1187		
Retention Time (minutes)	: 8.436		
Quant Ion	: 105.00		
Area	: 63174		
On-column Amount (ng/ul)	: 1.4840		
Integration start scan	: 1178	Integration stop scan:	1189
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

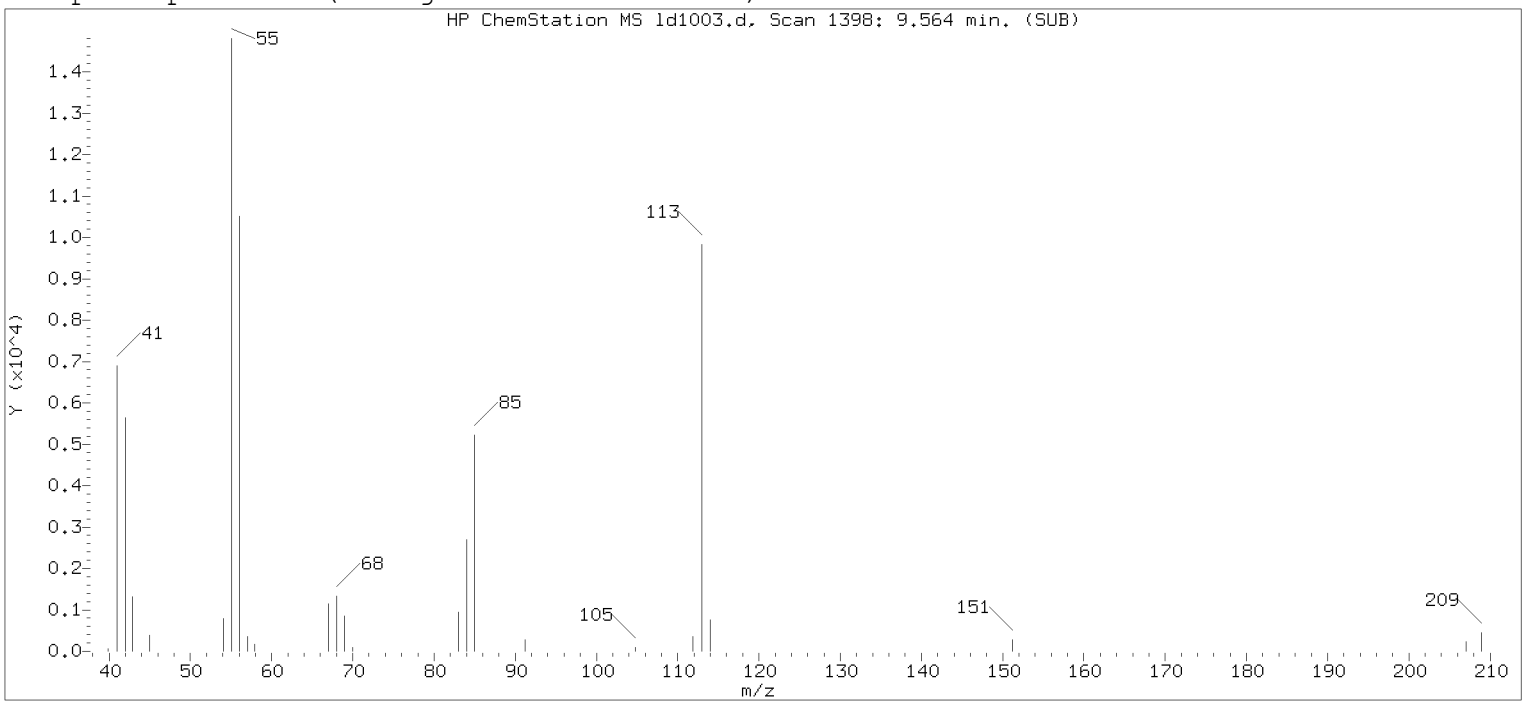
Compound Number : 79
Compound Name : Caprolactam
Scan Number : 1414
Retention Time (minutes) : 9.650
Quant Ion : 113.00
Area (flag) : 345491A
On-Column Amount (ng/ul) : 24.5742
Integration start scan : 1402 Integration stop scan: 1423
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

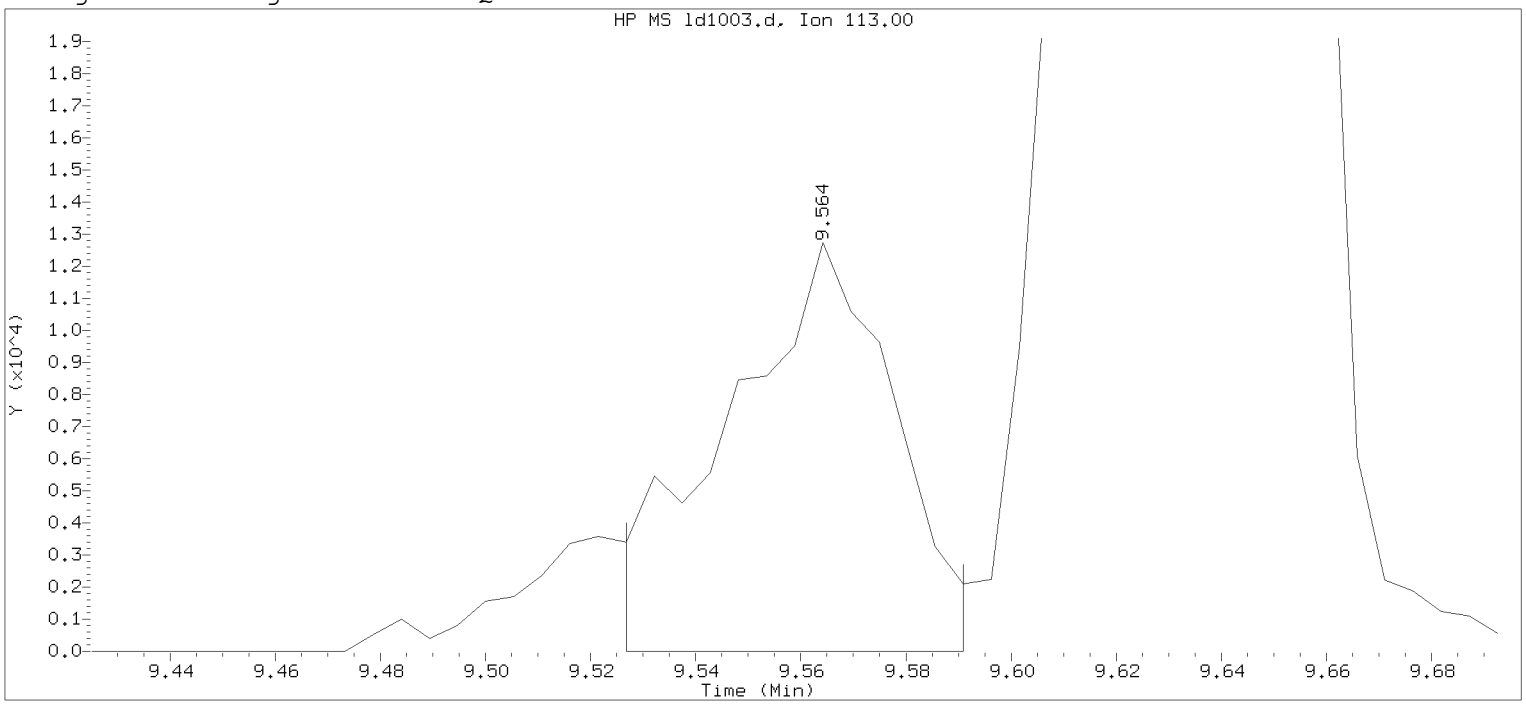
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compound Number	: 79		
Compound Name	: Caprolactam		
Scan Number	: 1398		
Retention Time (minutes)	: 9.564		
Quant Ion	: 113.00		
Area	: 28114		
On-column Amount (ng/ul)	: 1.8945		
Integration start scan	: 1390	Integration stop scan:	1402
Y at integration start	: 0	Y at integration end:	0

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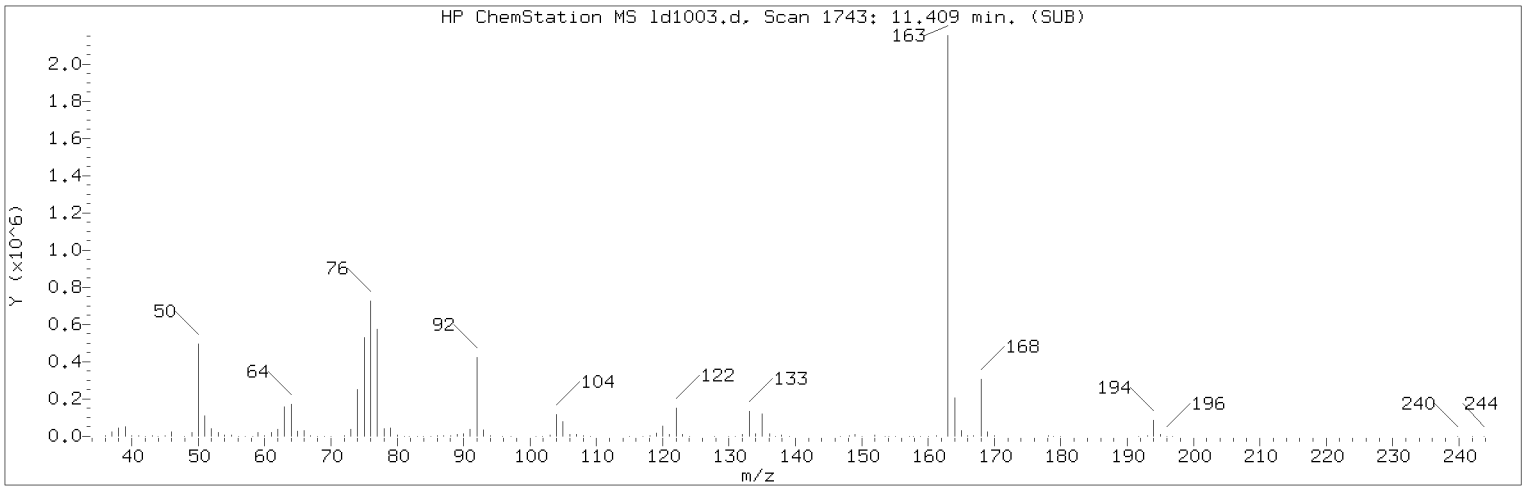
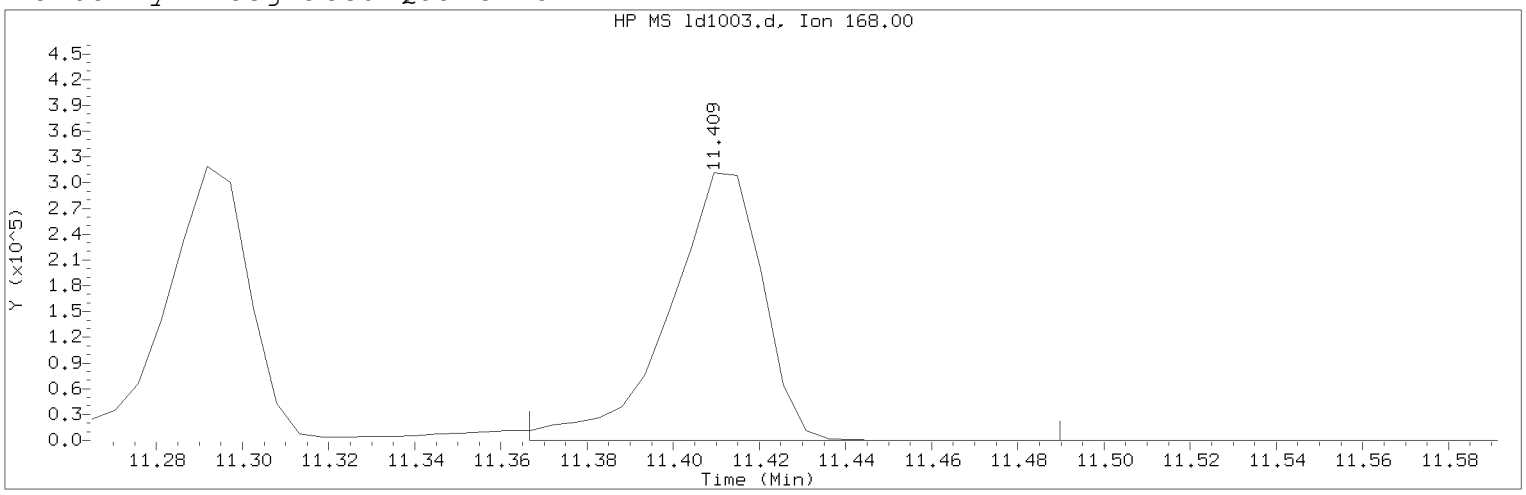
Target 3.5 esignature used. Page 1861

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

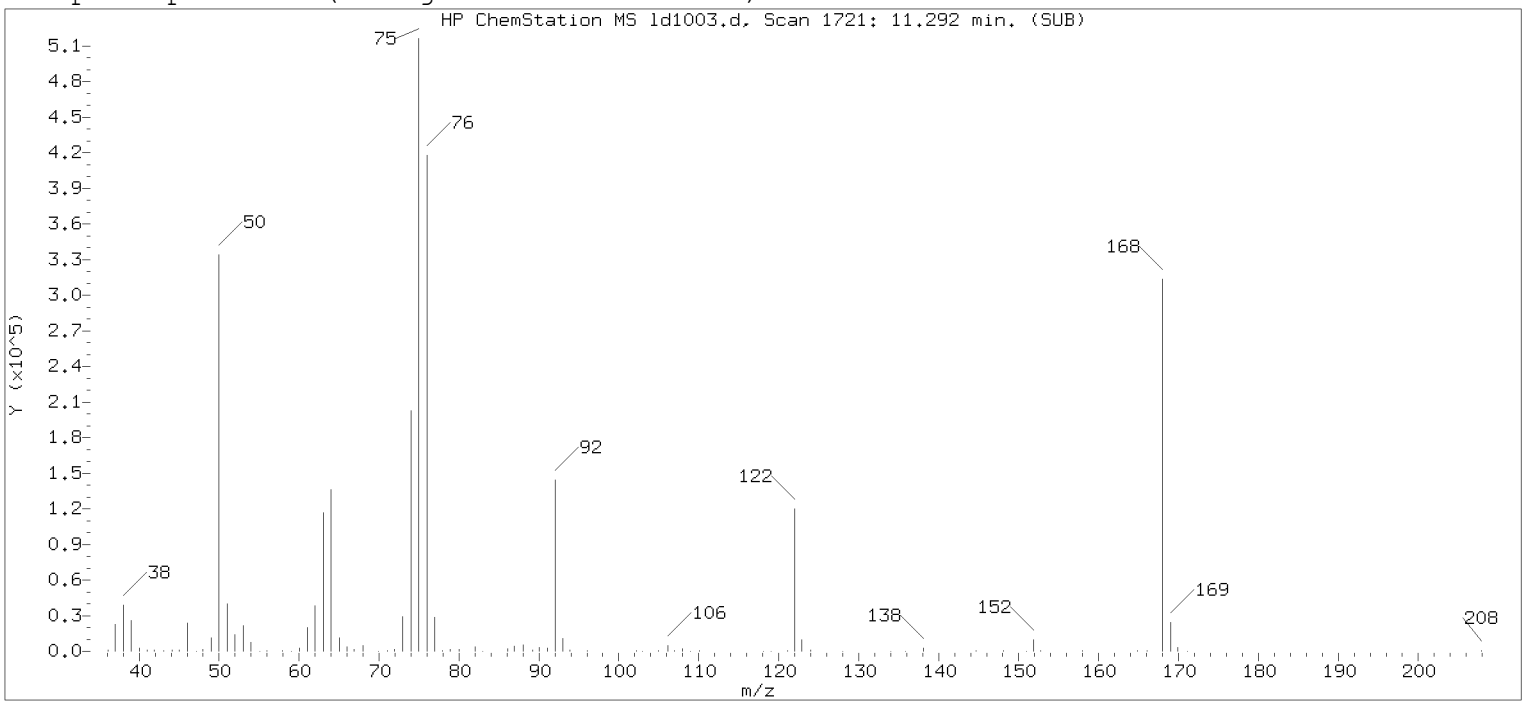
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1743
Retention Time (minutes) : 11.409
Quant Ion : 168.00
Area (flag) : 467185A
On-Column Amount (ng/ul) : 30.4694
Integration start scan : 1734 Integration stop scan: 1757
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

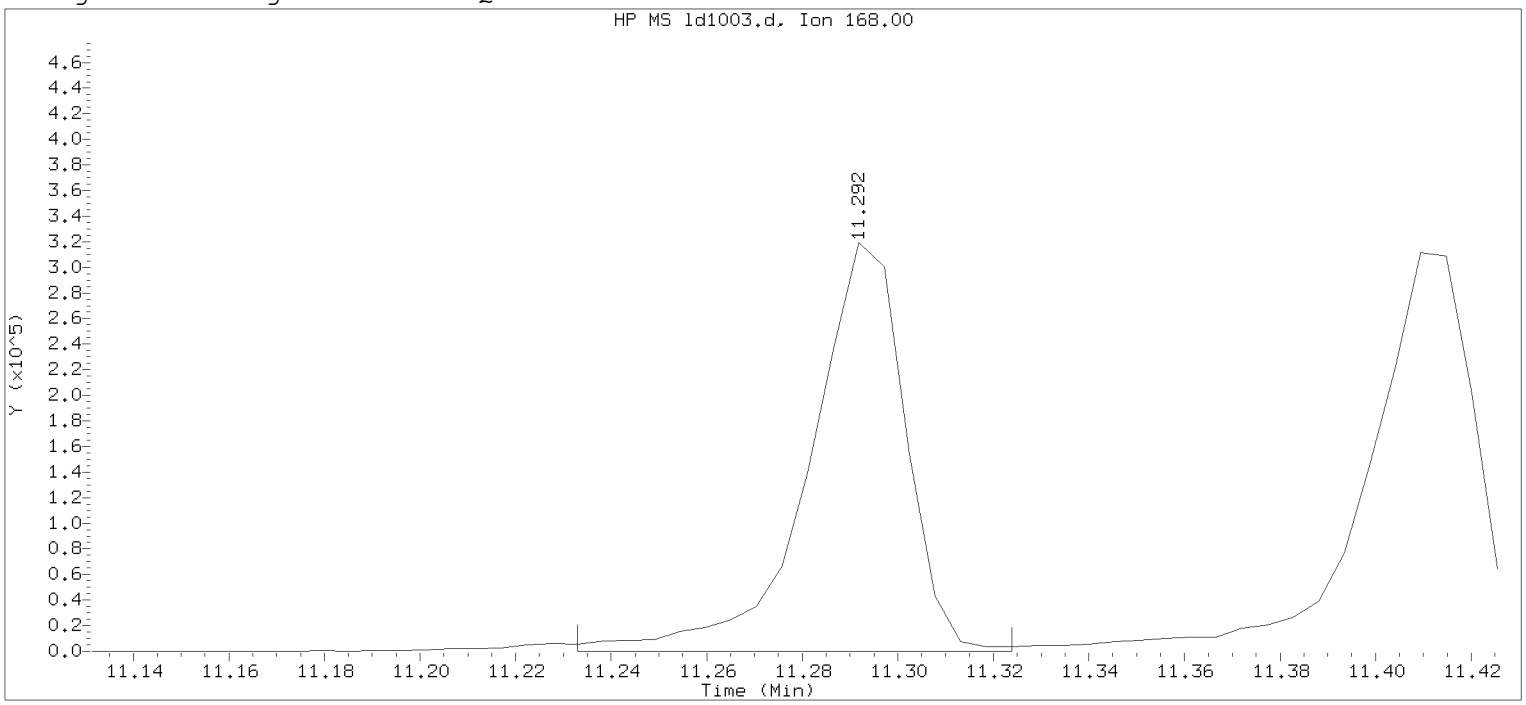
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

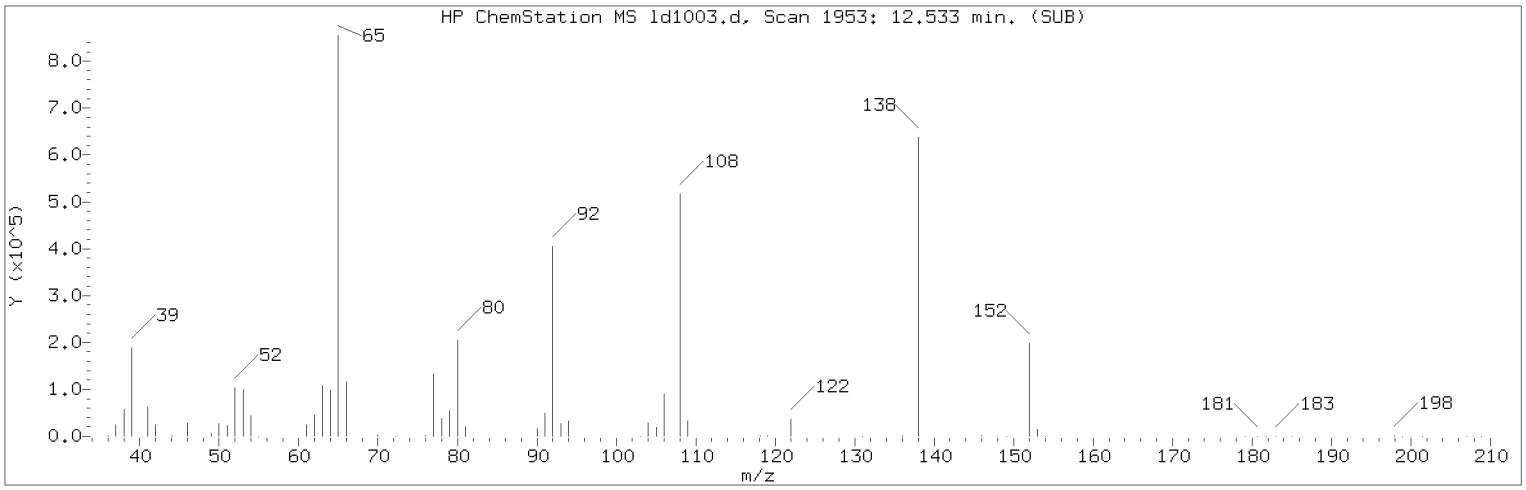
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

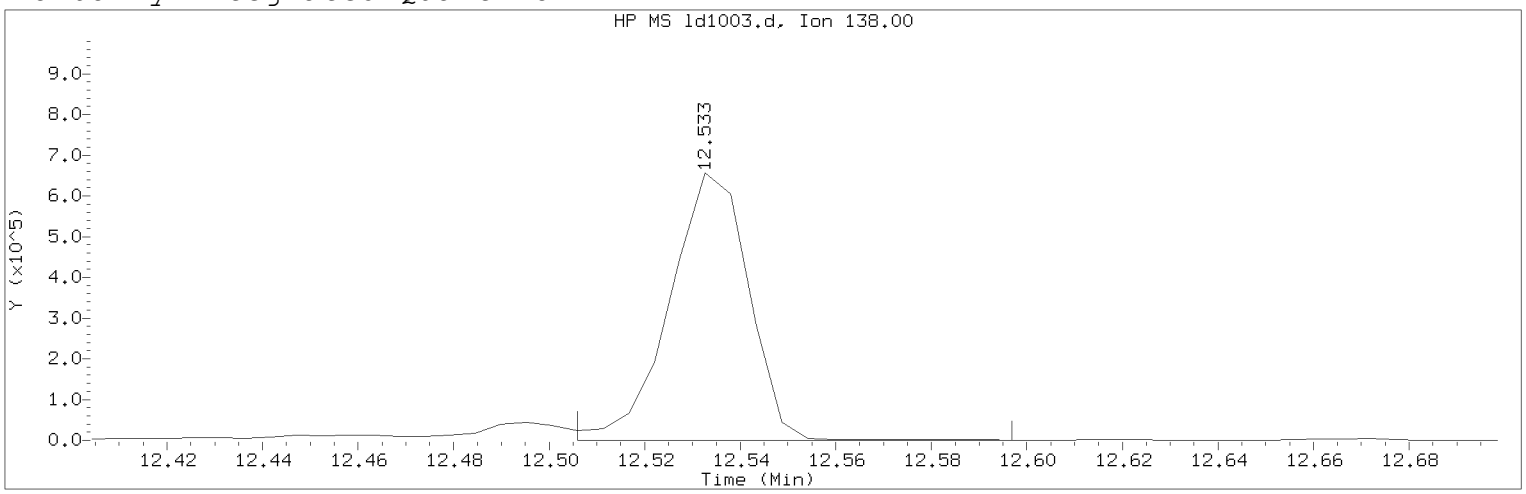
Compound Number	: 111		
Compound Name	: 1,3-Dinitrobenzene		
Scan Number	: 1721		
Retention Time (minutes)	: 11.292		
Quant Ion	: 168.00		
Area	: 446745		
On-column Amount (ng/ul)	: 26.6231		
Integration start scan	: 1709	Integration stop scan:	1726
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

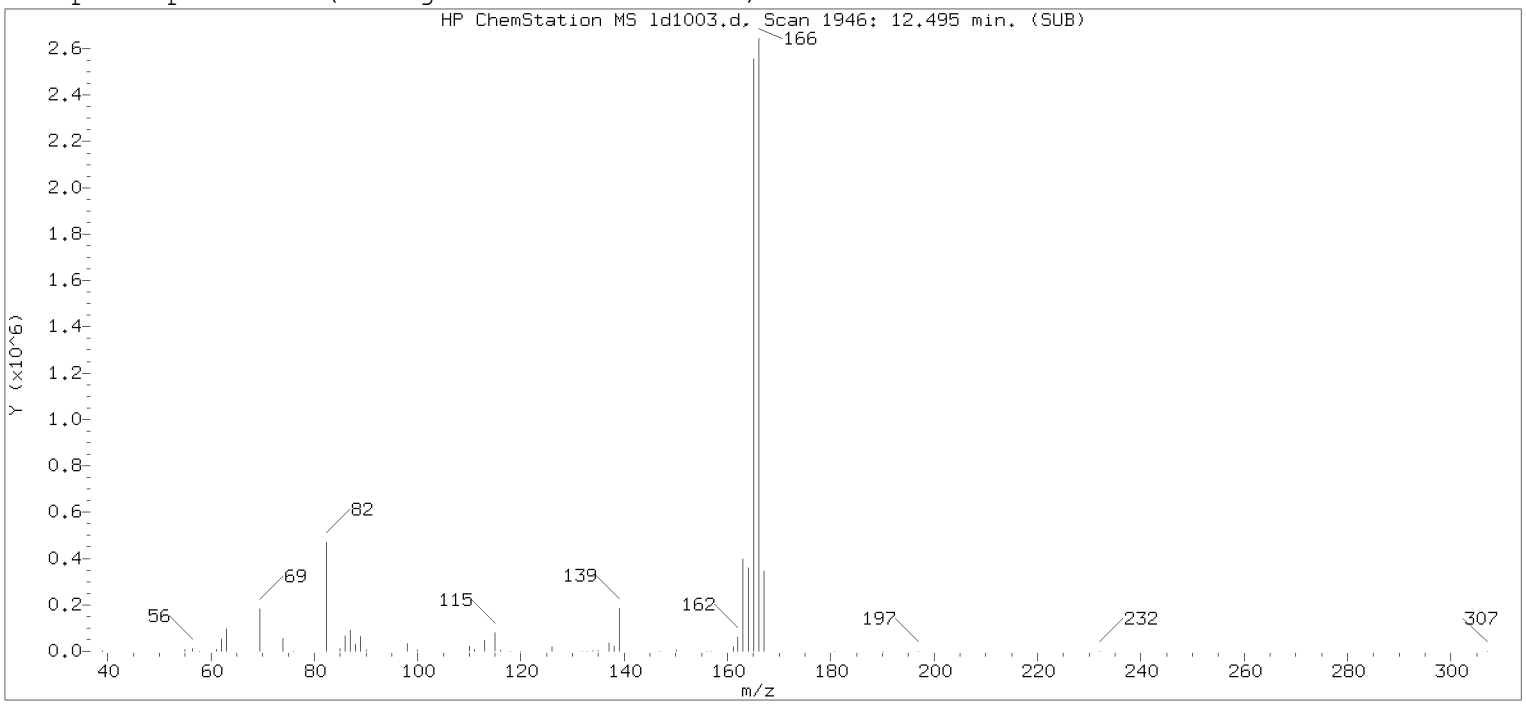
Compound Number : 134
Compound Name : 4-Nitroaniline
Scan Number : 1953
Retention Time (minutes) : 12.533
Quant Ion : 138.00
Area (flag) : 751730A
On-Column Amount (ng/ul) : 28.2162
Integration start scan : 1947 Integration stop scan: 1964
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

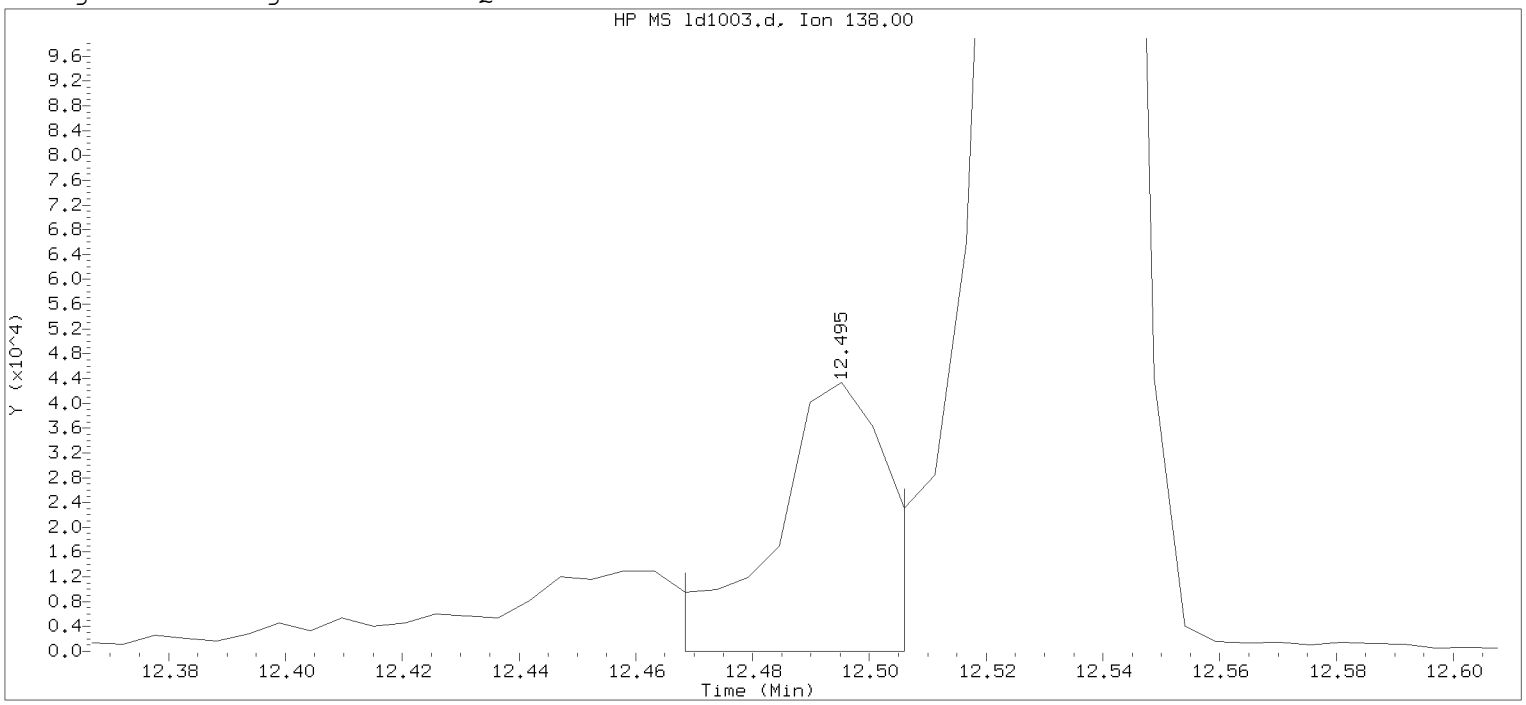
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compound Number	: 134		
Compound Name	: 4-Nitroaniline		
Scan Number	: 1946		
Retention Time (minutes)	: 12.495		
Quant Ion	: 138.00		
Area	: 56116		
On-column Amount (ng/ul)	: 2.0751		
Integration start scan	: 1940	Integration stop scan:	1947
Y at integration start	: 0	Y at integration end:	0

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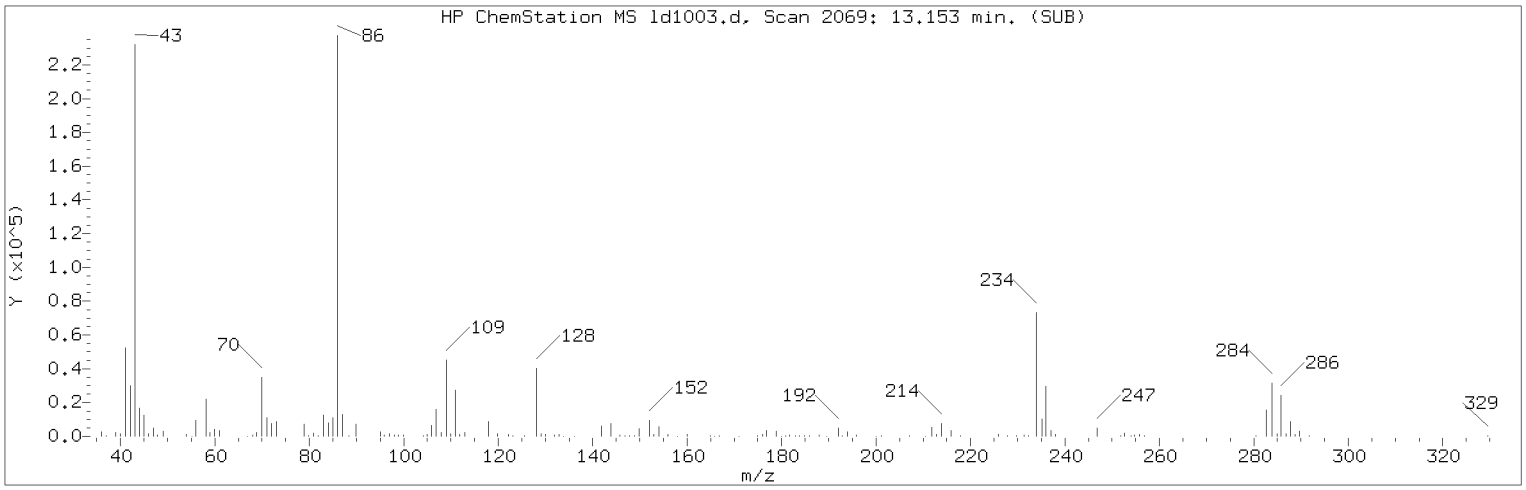
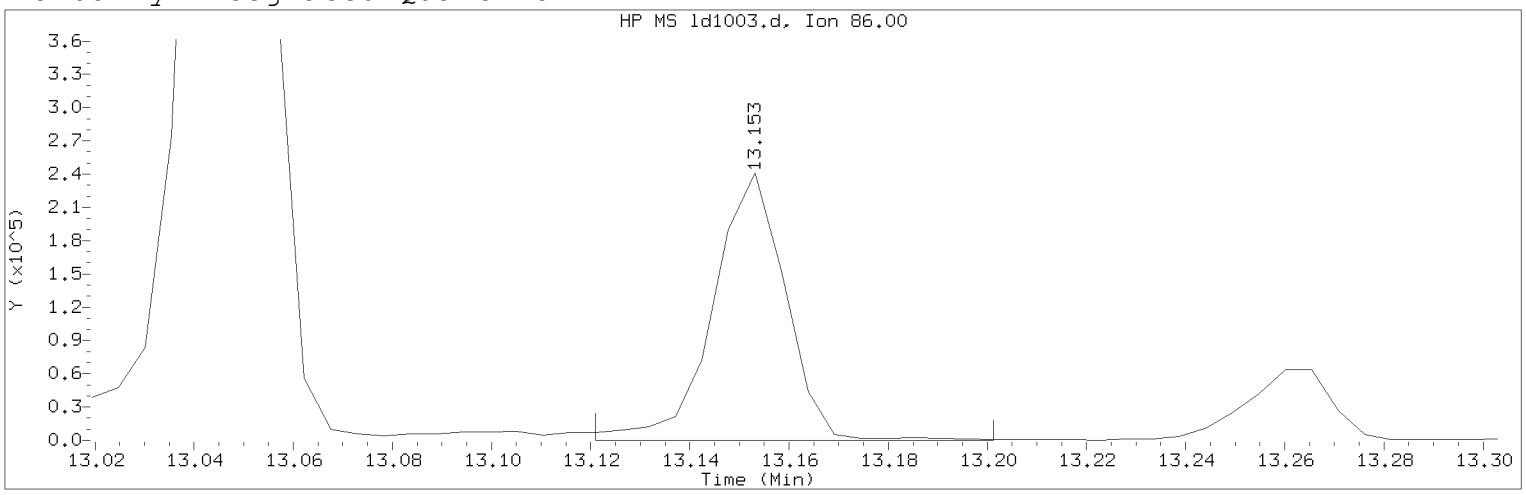
Target 3.5 esignature used. FF35 Page 1865

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

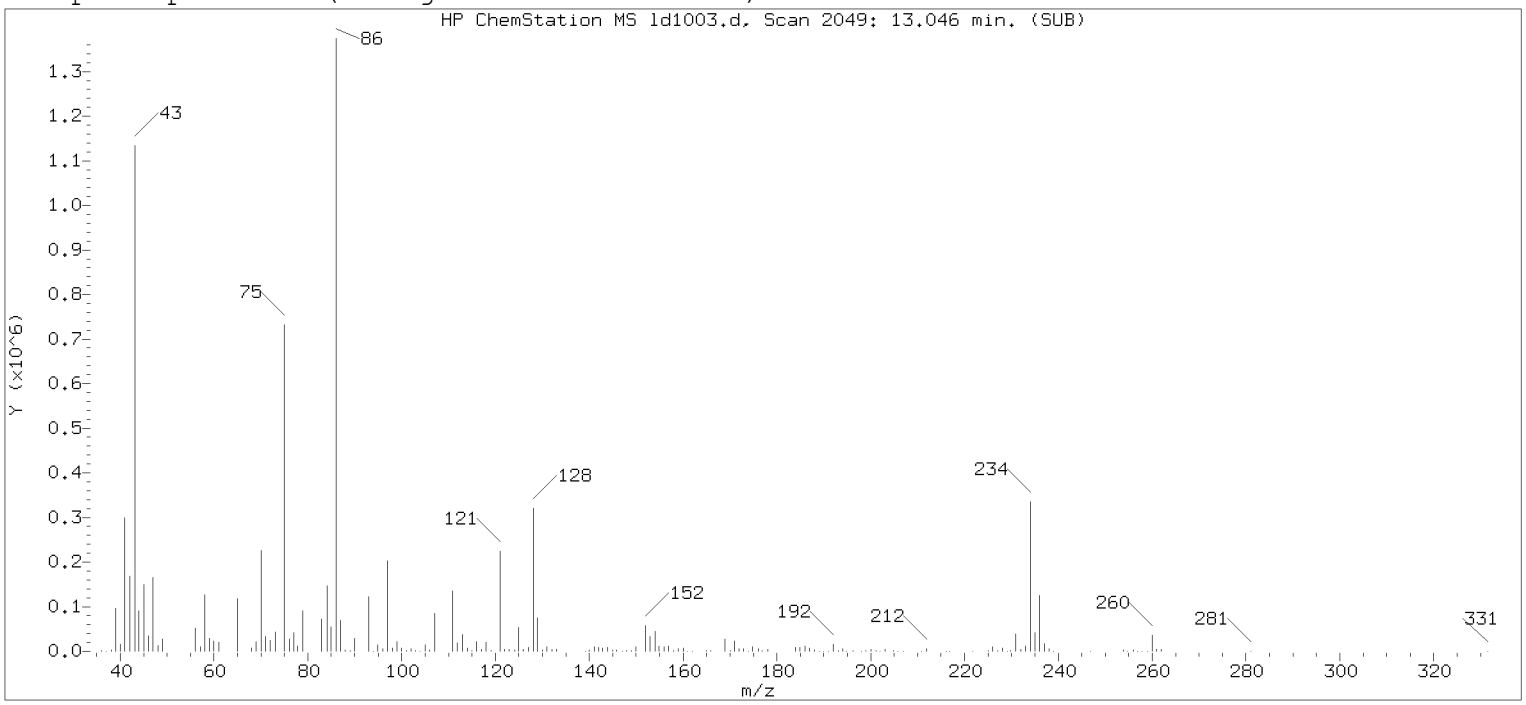
Compound Number : 149
Compound Name : Diallate (peak 2)
Scan Number : 2069
Retention Time (minutes) : 13.153
Quant Ion : 86.00
Area (flag) : 242981A
On-Column Amount (ng/ul) : 5.1604
Integration start scan : 2062 Integration stop scan: 2077
Y at integration start : 275 Y at integration end: 275

Reason for manual integration: improper integration

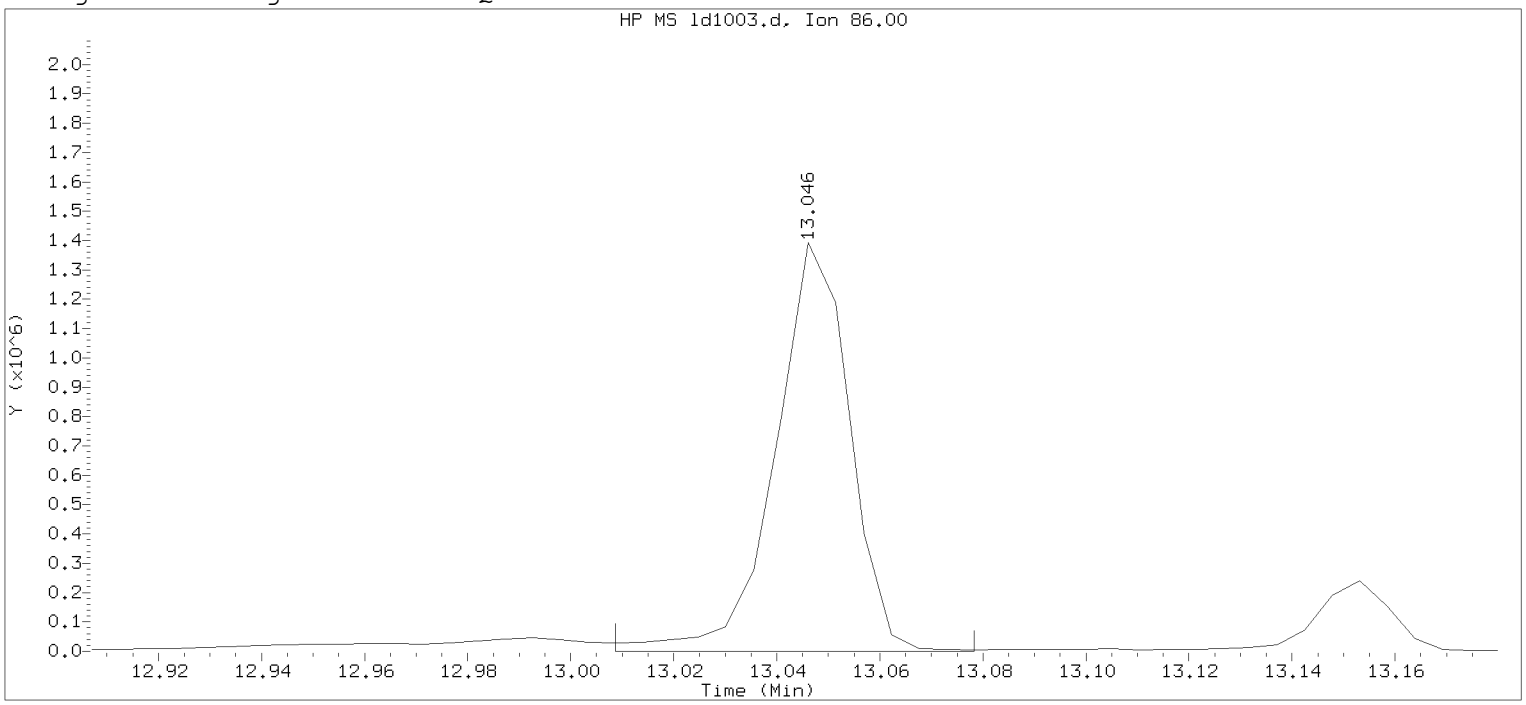
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2049		
Retention Time (minutes)	: 13.046		
Quant Ion	: 86.00		
Area	: 1392324		
On-column Amount (ng/ul)	: 31.9018		
Integration start scan	: 2041	Integration stop scan:	2054
Y at integration start	: 275	Y at integration end:	275

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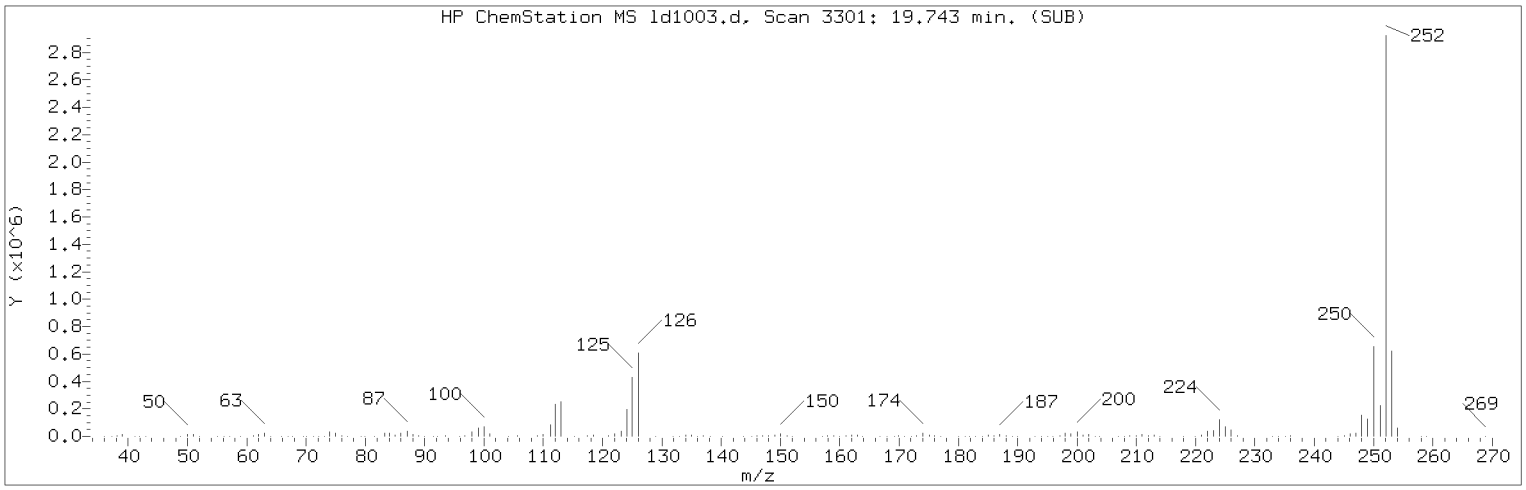
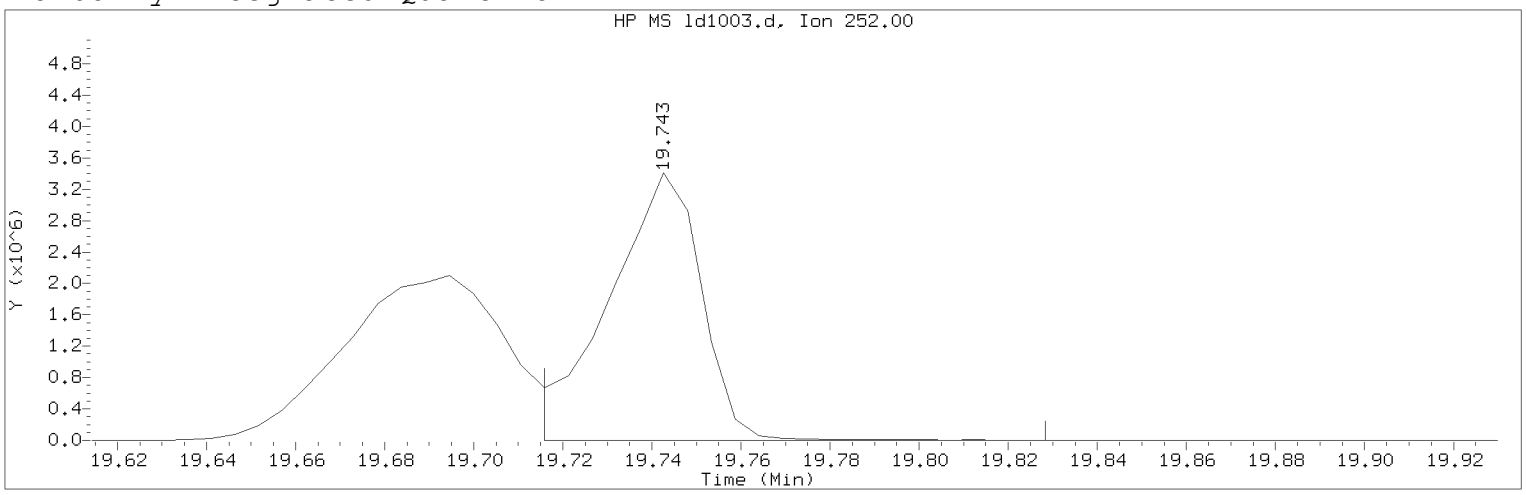
Target 3.5 esignature used. F35 Page 1867

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

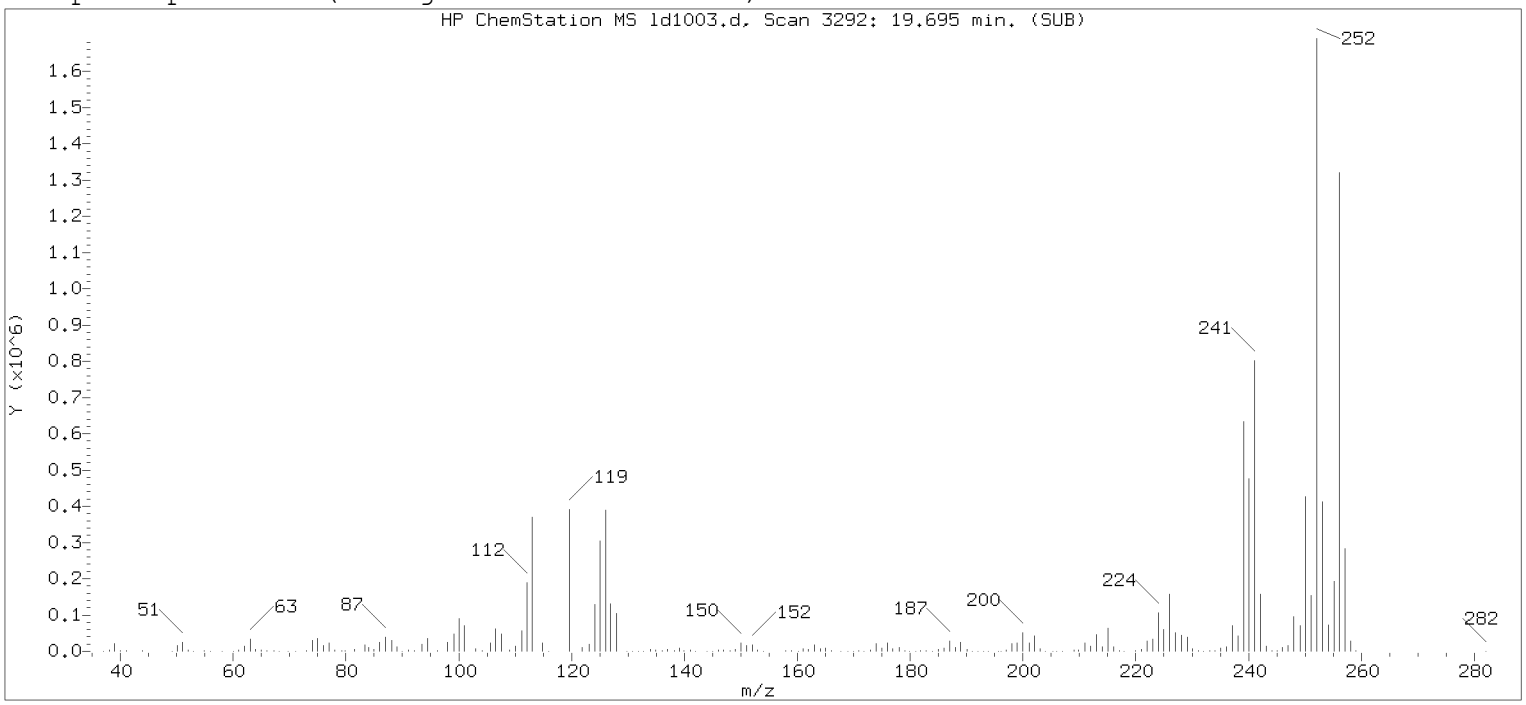
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3301
Retention Time (minutes) : 19.743
Quant Ion : 252.00
Area (flag) : 4858812A
On-Column Amount (ng/ul) : 30.3243
Integration start scan : 3295 Integration stop scan: 3316
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

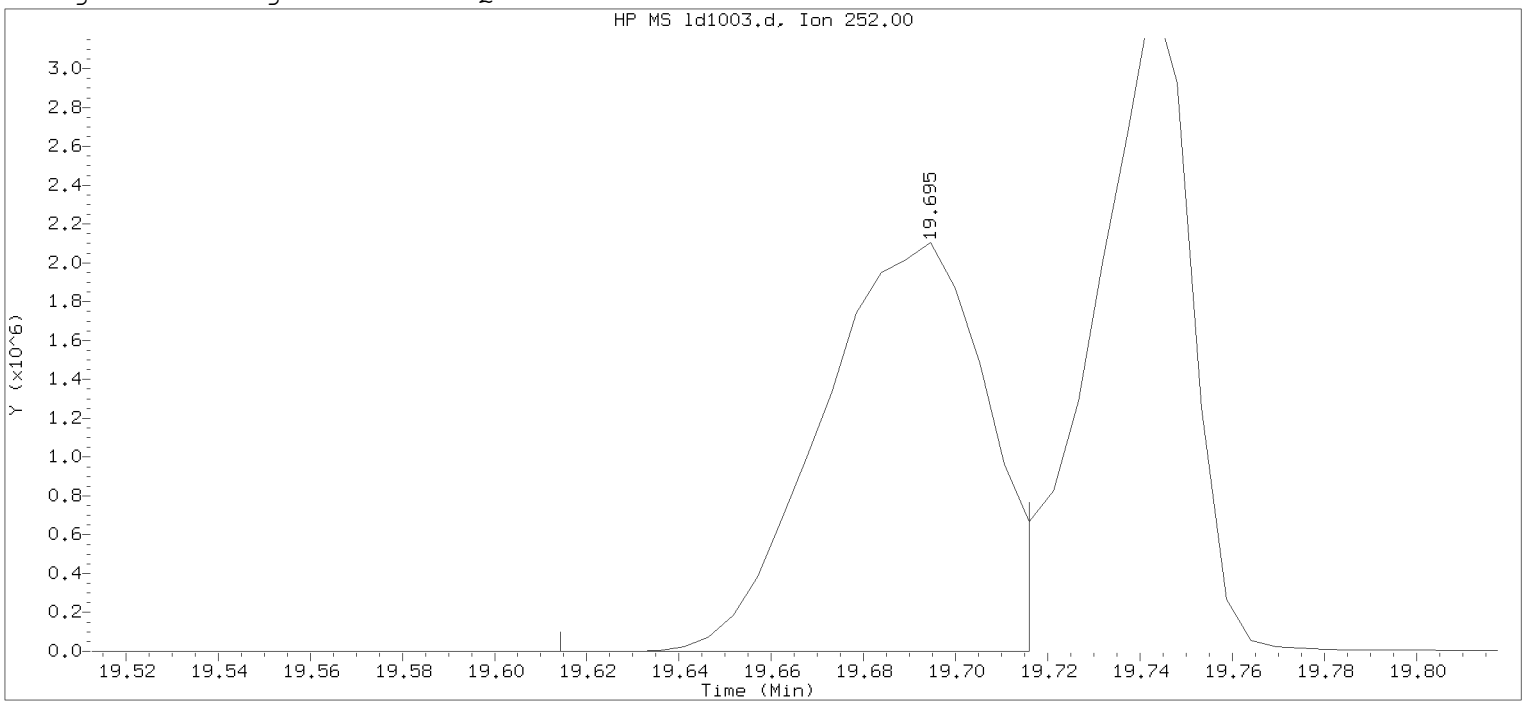
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

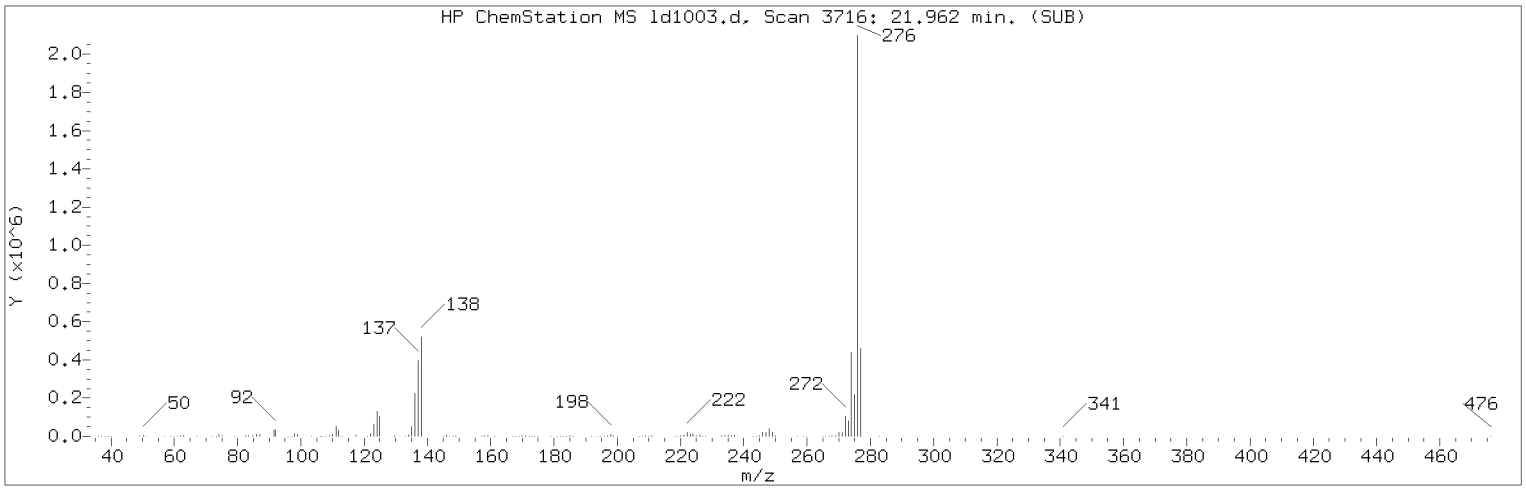
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

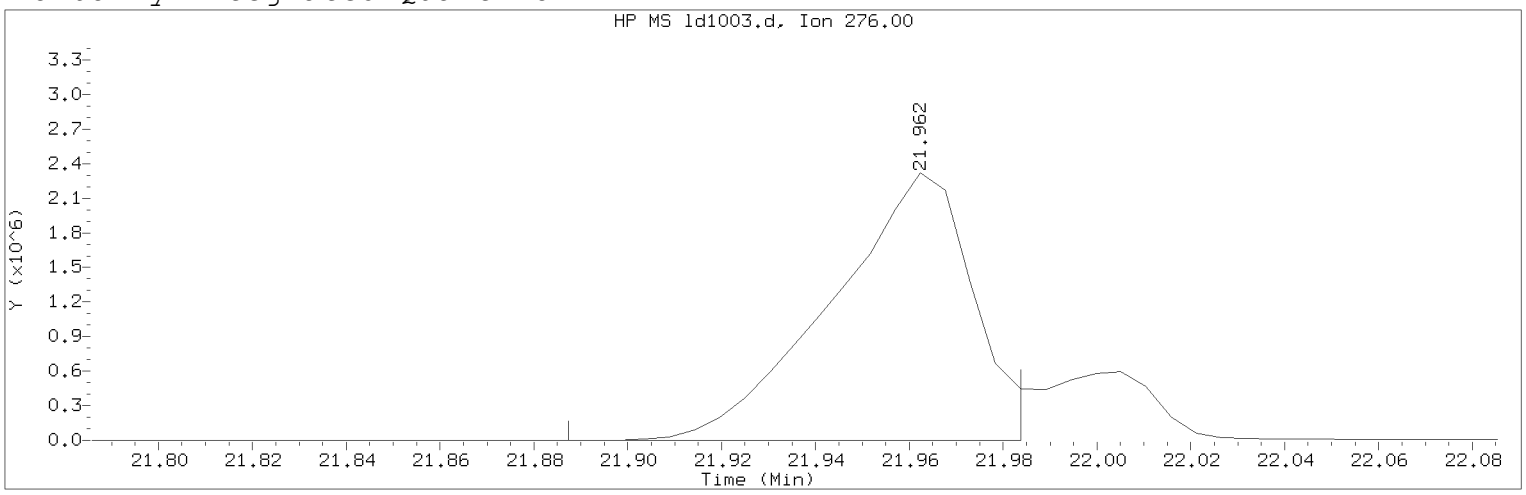
Compound Number	: 213		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 3292		
Retention Time (minutes)	: 19.695		
Quant Ion	: 252.00		
Area	: 5187255		
On-column Amount (ng/ul)	: 31.7785		
Integration start scan	: 3276	Integration stop scan:	3295
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: 1869

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

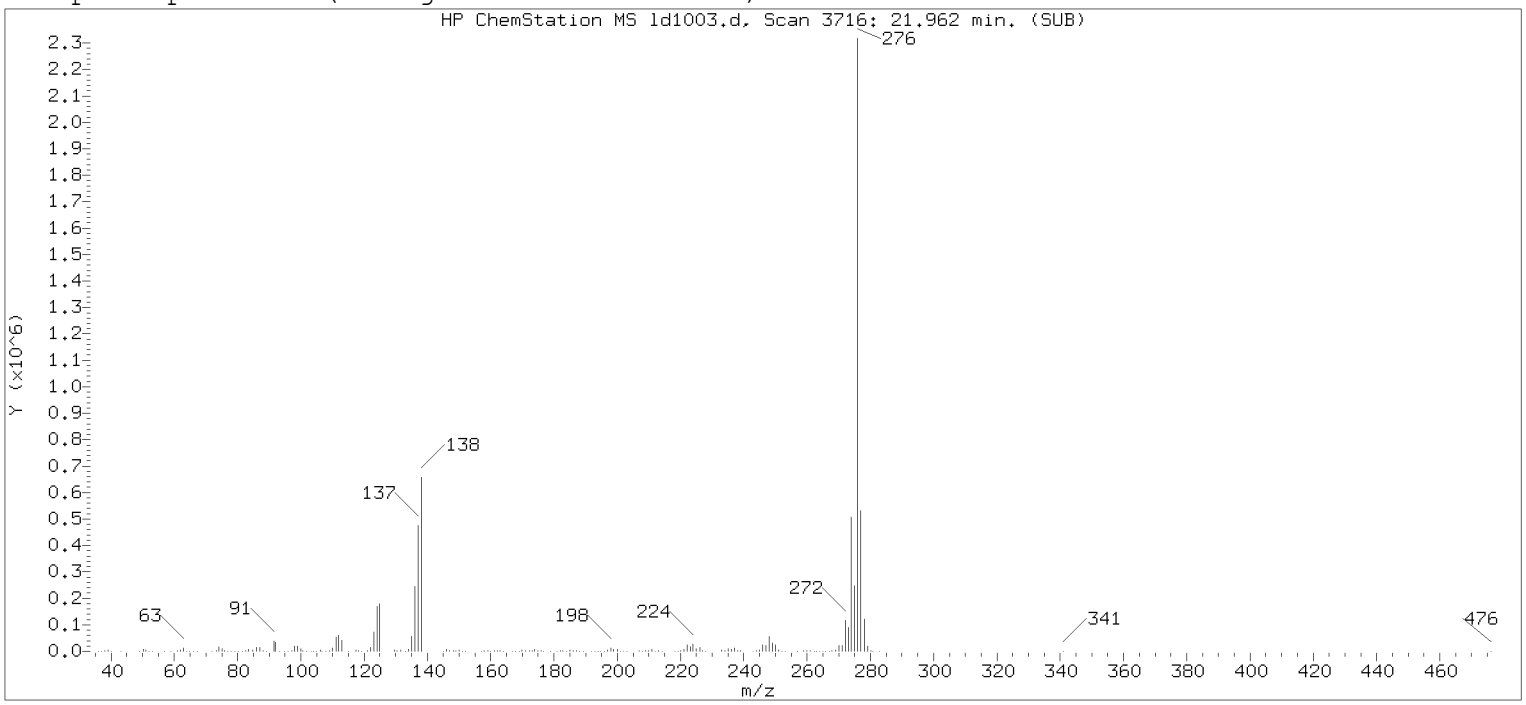
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3716
Retention Time (minutes) : 21.962
Quant Ion : 276.00
Area (flag) : 4858425M
On-Column Amount (ng/ul) : 32.7197
Integration start scan : 3701 Integration stop scan: 3719
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

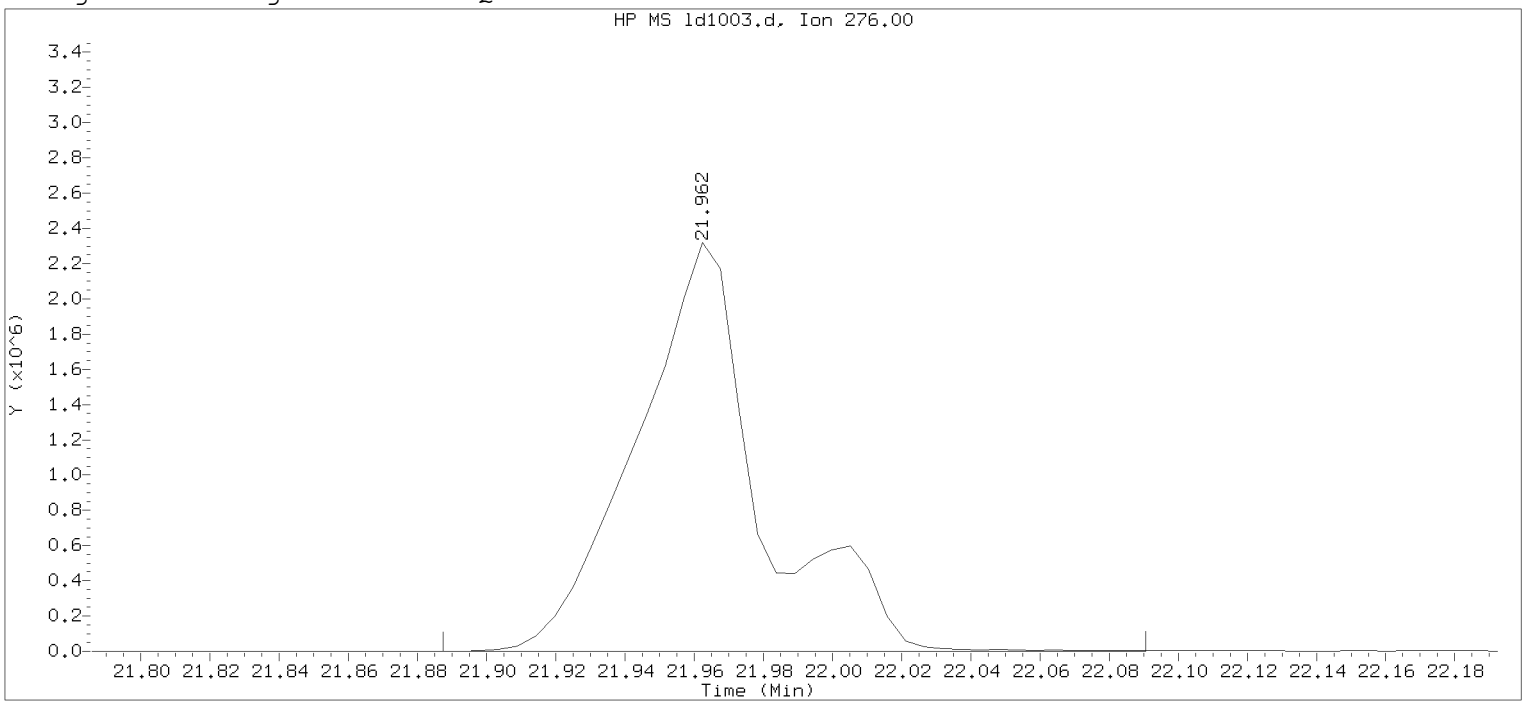
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

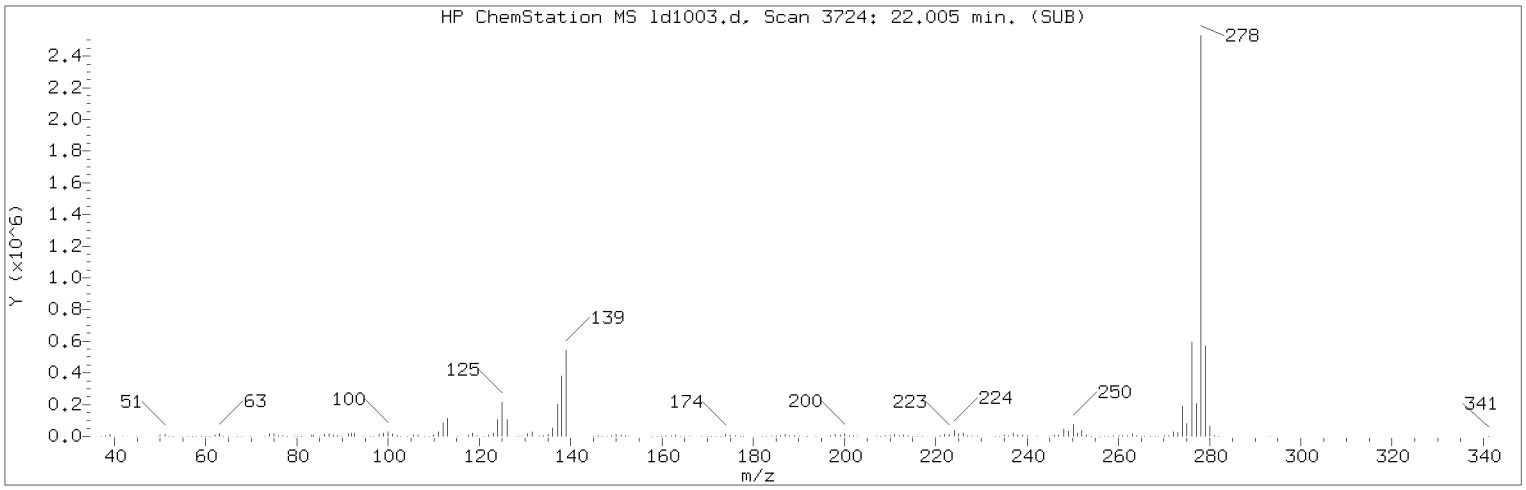
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

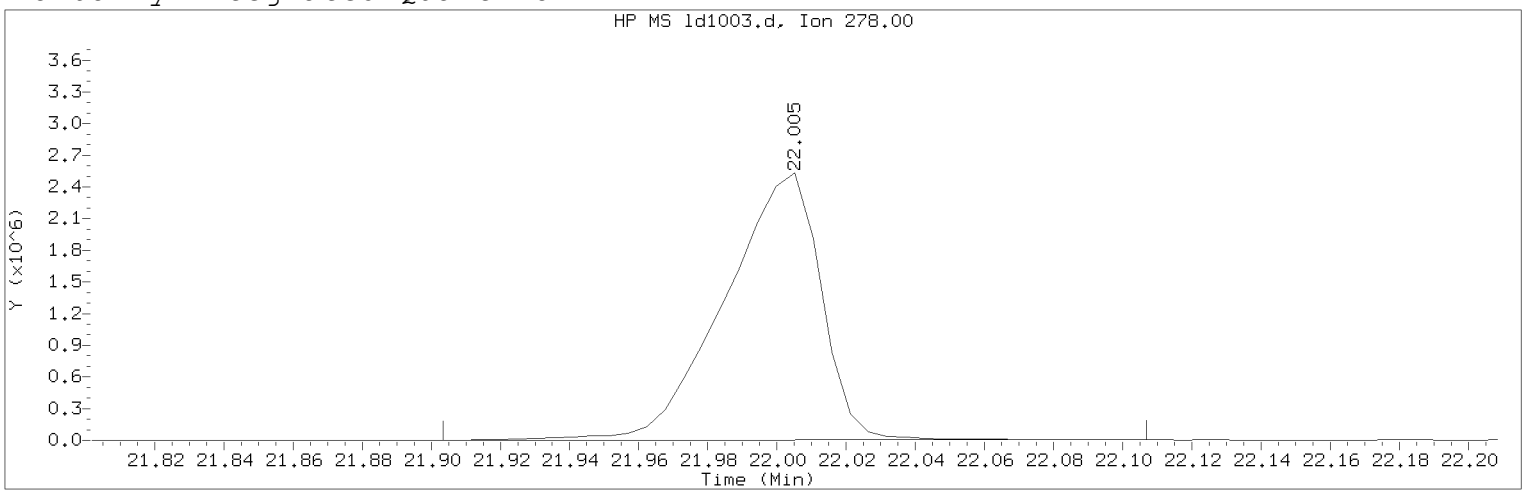
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3716
Retention Time (minutes) : 21.962
Quant Ion : 276.00
Area : 5810701
On-column Amount (ng/ul) : 36.4489
Integration start scan : 3701 Integration stop scan: 3739
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used. F35 Page 1871

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

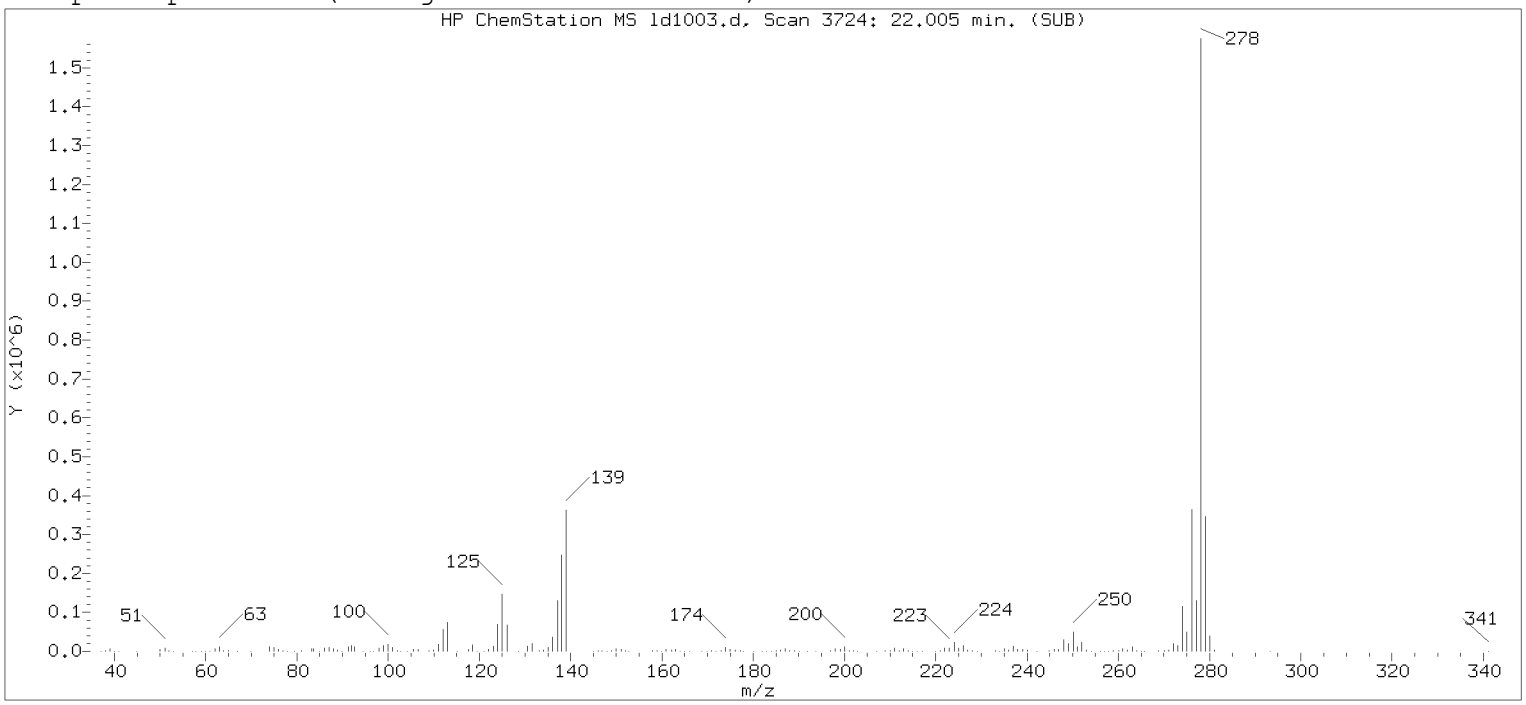
Compound Number : 225
Compound Name : Dibenz(a,h)anthracene
Scan Number : 3724
Retention Time (minutes) : 22.005
Quant Ion : 278.00
Area (flag) : 4878687M
On-Column Amount (ng/ul) : 31.9387
Integration start scan : 3704 Integration stop scan: 3742
Y at integration start : 1432 Y at integration end: 3430

Reason for manual integration: improper integration

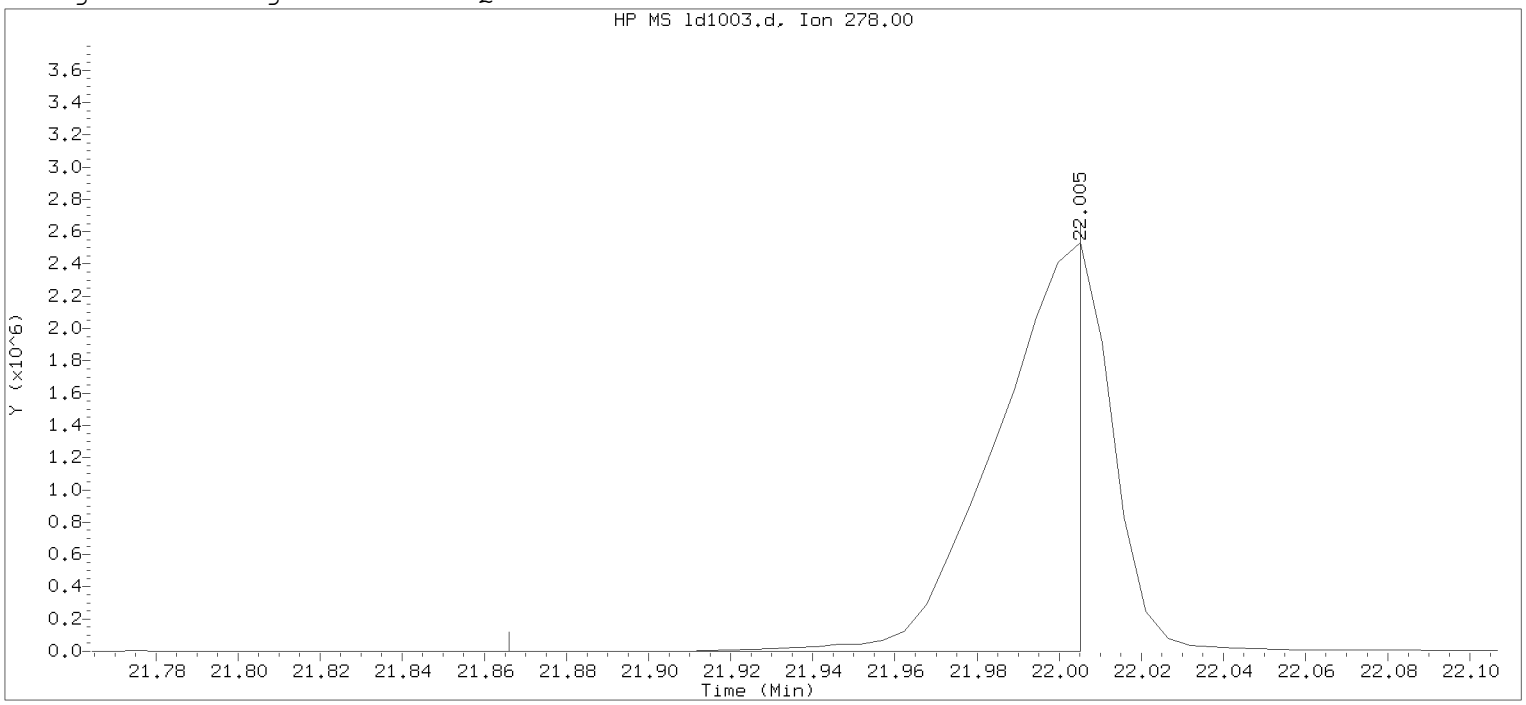
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



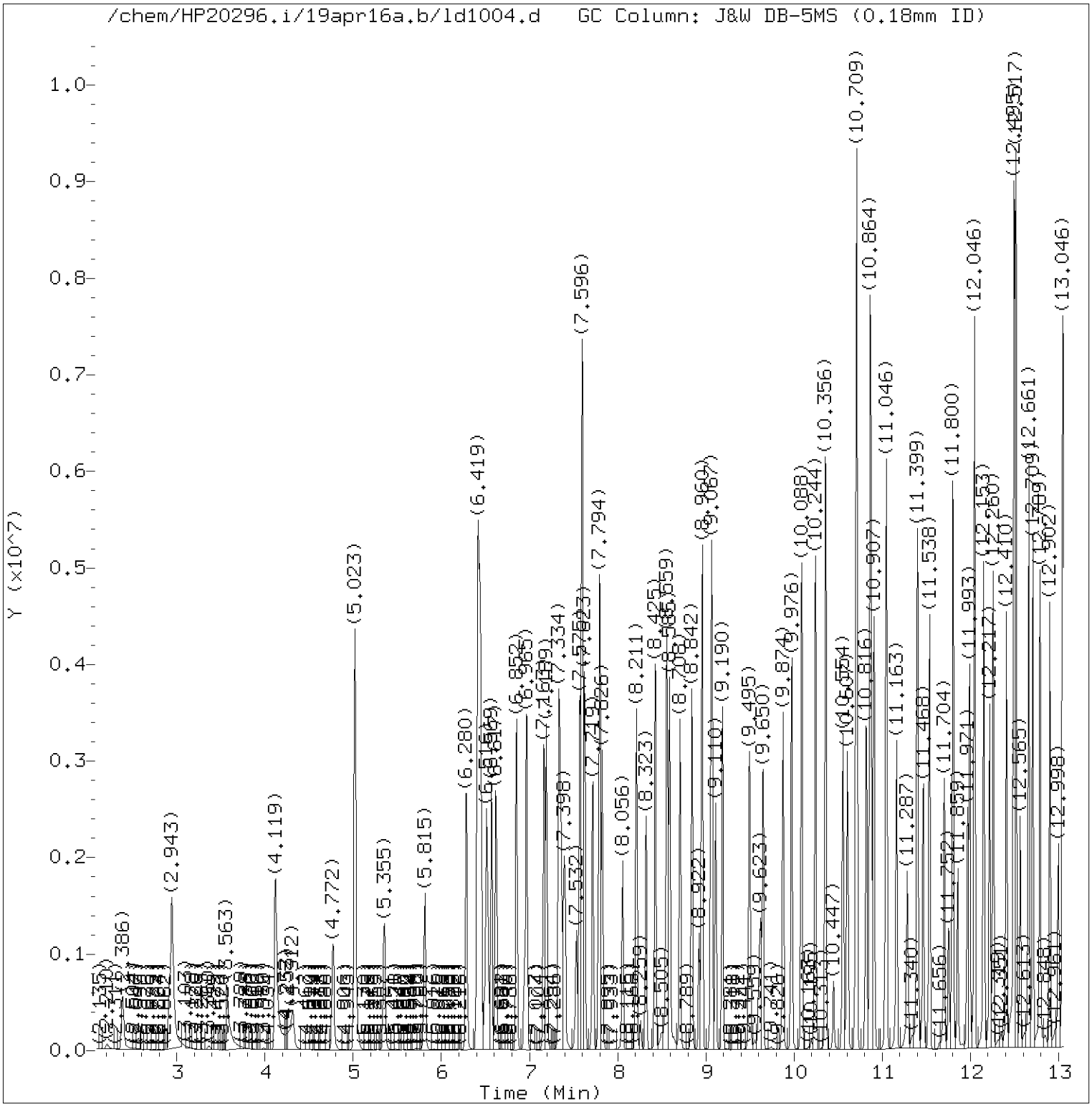
Data File: /chem/HP20296.i/19apr16a.b/ld1003.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:14 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 17:44
Date, time and analyst ID of latest file update: 16-Apr-2019 17:45 chemist

Sample Name: SSTD30 Lab Sample ID: rvSTD0929

Compound Number : 225
Compound Name : Dibenz(a,h)anthracene
Scan Number : 3724
Retention Time (minutes) : 22.005
Quant Ion : 278.00
Area : 3461406
On-column Amount (ng/ul) : 21.3216
Integration start scan : 3697 Integration stop scan: 3723
Y at integration start : 268 Y at integration end: 268

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used. F35 Page 1873



Total Ion Chromatogram (TIC)

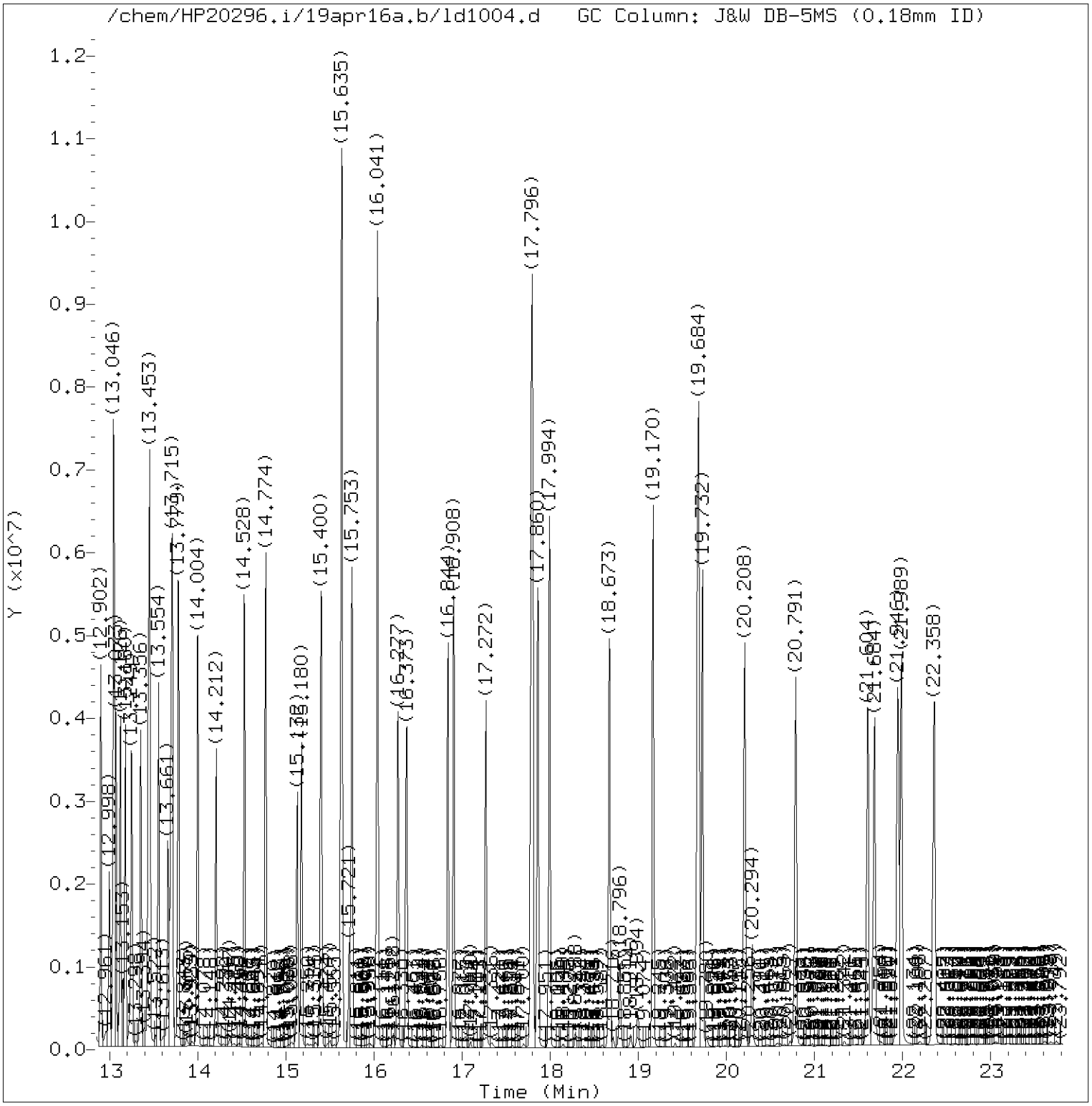
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.386	88	484552	19.710
5) N-Nitrosodimethylamine	(1)	2.921	74	773881	20.210
6) Pyridine	(1)	2.943	79	1313040A	19.417
8) 2-Picoline	(1)	4.119	93	1316566	19.524
9) N-Nitrosomethylethylamine	(1)	4.312	88	538120	19.570
10) Methyl methanesulfonate	(1)	4.772	80	676161	19.959
12)$2-Fluorophenol	(1)	5.023	112	2133912	39.516
14) N-Nitrosodiethylamine	(1)	5.355	102	526586	19.884
43) Total Cresols	(1)			2192703	39.616
16) Ethyl methanesulfonate	(1)	5.815	109	561630	19.967
17) Benzaldehyde	(1)	6.280	77	948846	19.030
18)$Phenol-d6	(1)	6.414	99	2817925	39.327
19) Phenol	(1)	6.435	94	1646307	19.522
20) Aniline	(1)	6.446	93	1899979	19.417
21) a-methylstyrene	(1)	6.532	118	176465A	18.598
23) bis(2-Chloroethyl)ether	(1)	6.569	93	1239288	19.733
24) 2-Chlorophenol	(1)	6.622	128	1014235	19.838
25) 1,3-Dichlorobenzene	(1)	6.852	146	1080843	19.545
26)*1,4-Dichlorobenzene-d4	(1)	6.943	152	168171	5.000
27) 1,4-Dichlorobenzene	(1)	6.970	146	1071850	19.105
28) Benzyl alcohol	(1)	7.163	108	672840	19.428
29) 1,2-Dichlorobenzene	(1)	7.189	146	1026422	19.512
31) Indene	(1)	7.334	115	1329388	19.615
32) 2-Methylphenol	(1)	7.355	108	1040044	19.954
100) Isosafrole	(3)			851993	20.446
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.398	45	1504749	18.958
35) bis(2-Chloroisopropyl)ether	(1)	7.398	45	1504749	18.958
36) N-Nitrosopyrrolidine	(1)	7.532	100	559333	20.068
37) Acetophenone	(1)	7.569	105	1528305	18.943
39) N-Nitroso-di-n-propylamine	(1)	7.596	70	888422	19.465
38) 4-Methylphenol	(1)	7.596	108	1152659	19.662
40) N-Nitrosomorpholine	(1)	7.601	56	635992	19.031
41) o-Toluidine	(1)	7.623	106	1760260	19.322
44) Hexachloroethane	(1)	7.714	117	494526	19.710
45)$Nitrobenzene-d5	(2)	7.794	82	2569331	39.816
46) Nitrobenzene	(2)	7.826	77	1346559	19.807
125) 2,4_2,6-Dinitrotoluenes	(3)			956095	40.456
50) N-Nitrosopiperidine	(2)	8.056	114	514835	20.164
52) Isophorone	(2)	8.211	82	2345010	19.798
53) 2-Nitrophenol	(2)	8.323	139	506520	20.990

A = User selected an alternate hit.
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$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.425	107	1128530	20.044
59) O,O,O-Triethylphosphorothioate	(2)	8.559	198	443005	20.013
57) bis(2-Chloroethoxy)methane	(2)	8.585	93	1461225	19.524
58) Benzoic acid	(2)	8.601	105	833582MA	21.167
62) 2,4-Dichlorophenol	(2)	8.708	162	797210	19.988
151) Diallate trans/cis	(4)			977715	19.480
65) 1,2,4-Trichlorobenzene	(2)	8.842	180	870547	19.715
68)*Naphthalene-d8	(2)	8.922	136	650536	5.000
69) Naphthalene	(2)	8.960	128	2854561	19.365
70) 4-Chloroaniline	(2)	9.061	127	1190619	19.536
71) 2,6-Dichlorophenol	(2)	9.072	162	768211	19.662
72) Hexachloropropene	(2)	9.115	213	543794	20.250
74) Hexachlorobutadiene	(2)	9.190	225	474689	19.325
78) Quinoline	(2)	9.495	129	1698147	19.690
79) Caprolactam	(2)	9.618	113	243323A	19.033
80) N-Nitrosodi-n-butylamine	(2)	9.650	84	1030698	23.160
83) 4-Chloro-3-methylphenol	(2)	9.874	107	974563	19.871
85) Safrole	(2)	9.976	162	691999	19.933
86) 2-Methylnaphthalene	(2)	10.088	142	1851555	20.184
87) 1-Methylnaphthalene	(2)	10.244	142	1728993	19.454
88) Hexachlorocyclopentadiene	(3)	10.356	237	503272	20.584
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.361	216	830604	19.621
91) cis-Isosafrole	(3)	10.447	162	129711	3.438
93) 2,4,6-Trichlorophenol	(3)	10.554	196	572268	20.729
95) 2,4,5-Trichlorophenol	(3)	10.607	196	576555	19.881
96)$2-Fluorobiphenyl	(3)	10.709	172	3861361	39.525
97) trans-Isosafrole	(3)	10.821	162	722282	17.009
98) 1,1'-Biphenyl	(3)	10.864	154	2047445	19.015
99) 2-Chloronaphthalene	(3)	10.875	162	1797141	20.044
101) 1-Chloronaphthalene	(3)	10.907	162	1534782	19.113
103) Diphenyl ether	(3)	11.046	170	1100784	19.440
104) 2-Nitroaniline	(3)	11.051	138	543259	20.659
108) 1,4-Naphthoquinone	(3)	11.163	158	704213	20.698
109) 1,4-Dinitrobenzene	(3)	11.287	168	267125	20.862
110) Dimethylphthalate	(3)	11.399	163	1763194	19.160
111) 1,3-Dinitrobenzene	(3)	11.404	168	290015A	20.699
113) 2,6-Dinitrotoluene	(3)	11.468	165	407303	20.307
114) Acenaphthylene	(3)	11.538	152	2418322	20.094
117) 3-Nitroaniline	(3)	11.704	138	469989	20.471
118)*Acenaphthene-d10	(3)	11.752	164	304377	5.000

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on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.800	153	1768602	19.548
120) 2,4-Dinitrophenol	(3)	11.859	184	243435	20.918
121) 4-Nitrophenol	(3)	11.971	109	356974	20.838
122) Pentachlorobenzene	(3)	11.993	250	690421	19.598
124) Dibenzofuran	(3)	12.046	168	2298594	19.480
123) 2,4-Dinitrotoluene	(3)	12.051	165	548792	20.149
126) 1-Naphthylamine	(3)	12.153	143	1757613	20.324
127) 2,3,4,6-Tetrachlorophenol	(3)	12.217	232	441189	20.714
128) 2-Naphthylamine	(3)	12.260	143	1673287	19.925
129) Diethylphthalate	(3)	12.410	149	1794722	19.474
131) Fluorene	(3)	12.490	166	1827095	19.319
130) Thionazin	(3)	12.501	107	368076	19.466
133) 5-Nitro-o-toluidine	(3)	12.511	152	515854	20.475
132) 4-Chlorophenyl-phenylether	(3)	12.517	204	858926	19.305
134) 4-Nitroaniline	(3)	12.522	138	456403A	18.747
135) 4,6-Dinitro-2-methylphenol	(4)	12.565	198	303817	20.627
136) N-Nitrosodiphenylamine	(4)	12.661	169	1450583	19.705
137) NDPA as diphenylamine	(4)	12.661	169	1450583	19.705
139) 1,2-Diphenylhydrazine	(4)	12.709	77	2478908	19.860
140)$2,4,6-Tribromophenol	(3)	12.789	330	515110	41.842
142) Tetraethyldithiopyrophosphate	(4)	12.902	97	370853	19.384
144) 1,3,5-Trinitrobenzene	(4)	12.998	213	185981	21.069
145) Diallate (peak 1)	(4)	13.046	86	830499	16.041
146) Phorate	(4)	13.052	75	1498096	20.237
147) Phenacetin	(4)	13.073	108	1108437	20.643
148) 4-Bromophenyl-phenylether	(4)	13.126	248	468433	19.625
149) Diallate (peak 2)	(4)	13.148	86	147216A	3.439
150) Hexachlorobenzene	(4)	13.180	284	524171	19.676
152) Dimethoate	(4)	13.249	87	971577	20.214
153) Atrazine	(4)	13.356	200	416345	18.955
154) Pentachlorophenol	(4)	13.442	266	352943	20.889
155) 4-Aminobiphenyl	(4)	13.453	169	1707626	20.054
156) Pentachloronitrobenzene	(4)	13.458	237	228662	20.610
157) Pronamide	(4)	13.560	173	827253	21.153
158)*Phenanthrene-d10	(4)	13.683	188	550320	5.000
159) Dinoseb	(4)	13.699	211	456893	21.069
160) Phenanthrene	(4)	13.715	178	2682750	20.165
162) Anthracene	(4)	13.784	178	2644321	19.921
168) Carbazole	(4)	14.004	167	2384050	20.160
169) Methyl parathion	(4)	14.212	109	745952	21.491

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on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.528	149	3247947	20.239
172) Parathion	(4)	14.774	109	478855	21.362
173) 4-Nitroquinoline-1-oxide	(4)	14.779	190	292701	19.450
227) Total PAHs	(6)			46653647	366.543
174) Octachlorostyrene	(4)	15.132	308	189282	19.324
176) Isodrin	(4)	15.180	193	310324	20.020
178) Fluoranthene	(4)	15.405	202	2915766	21.064
179) Benzidine	(5)	15.635	184	5885040	60.143
180)*Pyrene-d10	(5)	15.721	212	567982	5.000
182) Pyrene	(5)	15.753	202	2970318	19.305
184)$Terphenyl-d14	(5)	16.041	244	3713854	40.026
187) p-Dimethylaminoazobenzene	(5)	16.277	225	515880	20.857
190) Chlorobenzilate	(5)	16.368	139	1021898	20.464
192) 3,3'-Dimethylbenzidine	(5)	16.844	212	2148052	21.400
193) Butylbenzylphthalate	(5)	16.908	149	1588088	20.900
196) 2-Acetylaminofluorene	(5)	17.272	181	1282841	20.444
198) 3,3'-Dichlorobenzidine	(5)	17.785	252	1088859	20.838
200) Benzo(a)anthracene	(5)	17.796	228	2911973	21.024
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.806	231	611201	21.131
201) Chrysene	(5)	17.860	228	2750533	20.452
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	2322063	21.000
208) 6-Methylchrysene	(5)	18.673	242	1951579	20.783
210) Di-n-octylphthalate	(6)	19.170	149	4231065	21.143
211) Benzo(b)fluoranthene	(6)	19.679	252	2997971	20.474
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.689	256	1309932	21.503
213) Benzo(k)fluoranthene	(6)	19.732	252	2828389A	20.129
216) Benzo(a)pyrene	(6)	20.208	252	2798044	21.018
218)*Perylene-d12	(6)	20.294	264	576667	5.000
220) 3-Methylcholanthrene	(6)	20.791	268	1490855	21.860
222) Dibenz(a,h)acridine	(6)	21.609	279	2426235	20.926
223) Dibenz(a,j)acridine	(6)	21.684	279	2408985	20.950
224) Indeno(1,2,3-cd)pyrene	(6)	21.946	276	2902208M	22.287
225) Dibenz(a,h)anthracene	(6)	21.989	278	2915762	21.766
226) Benzo(g,h,i)perylene	(6)	22.364	276	2886484	20.974

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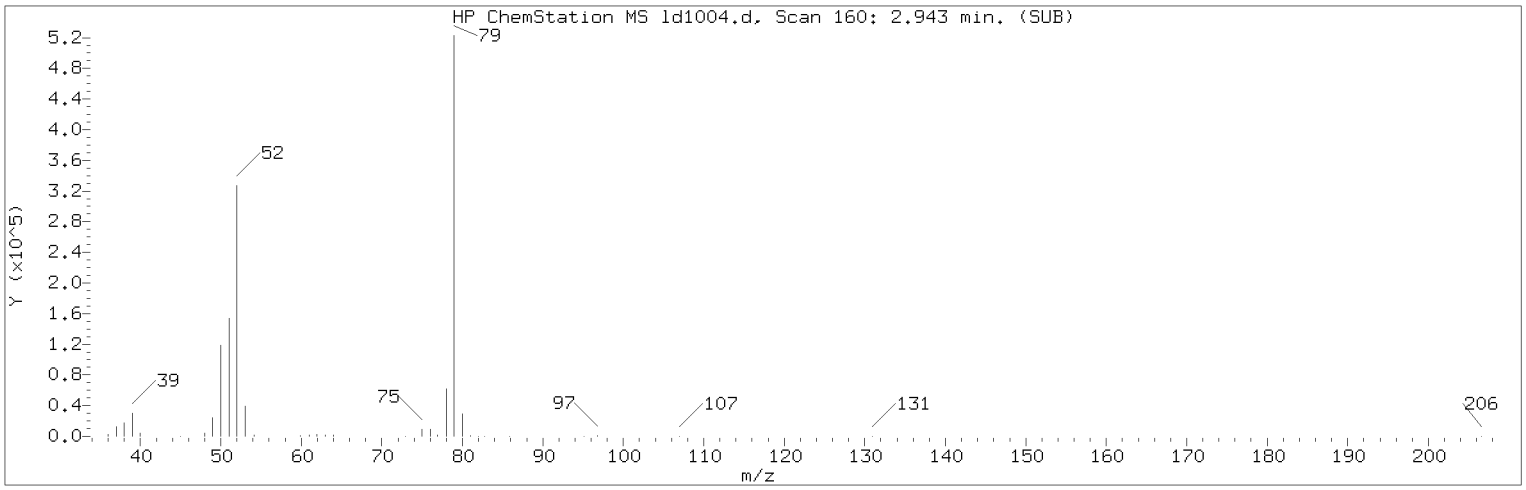
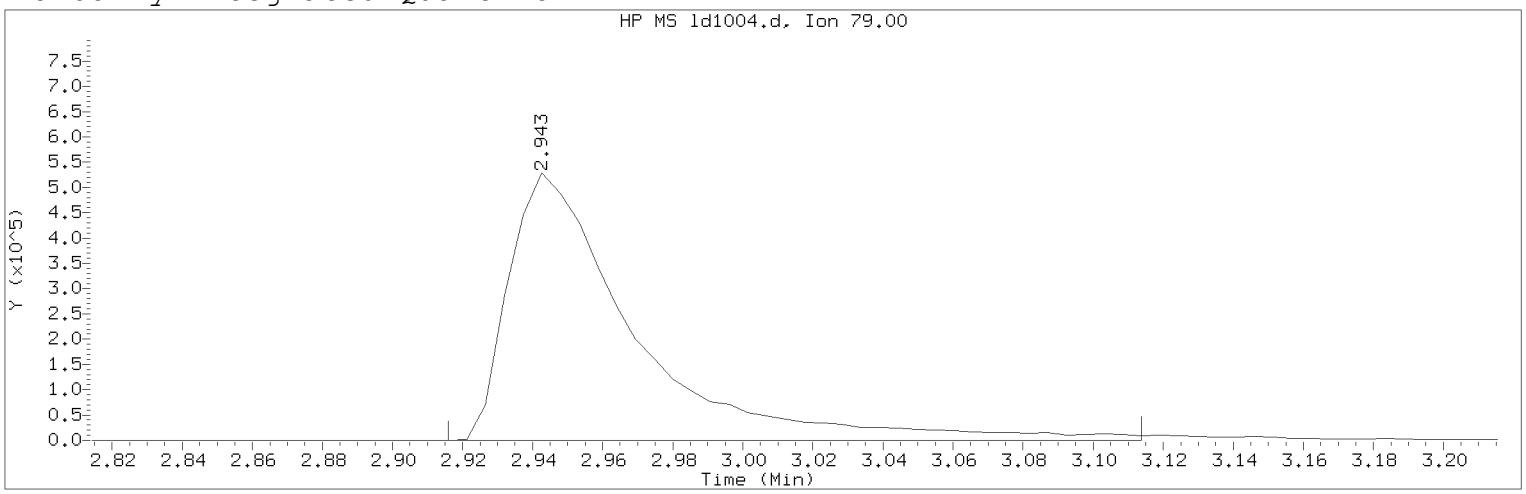
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

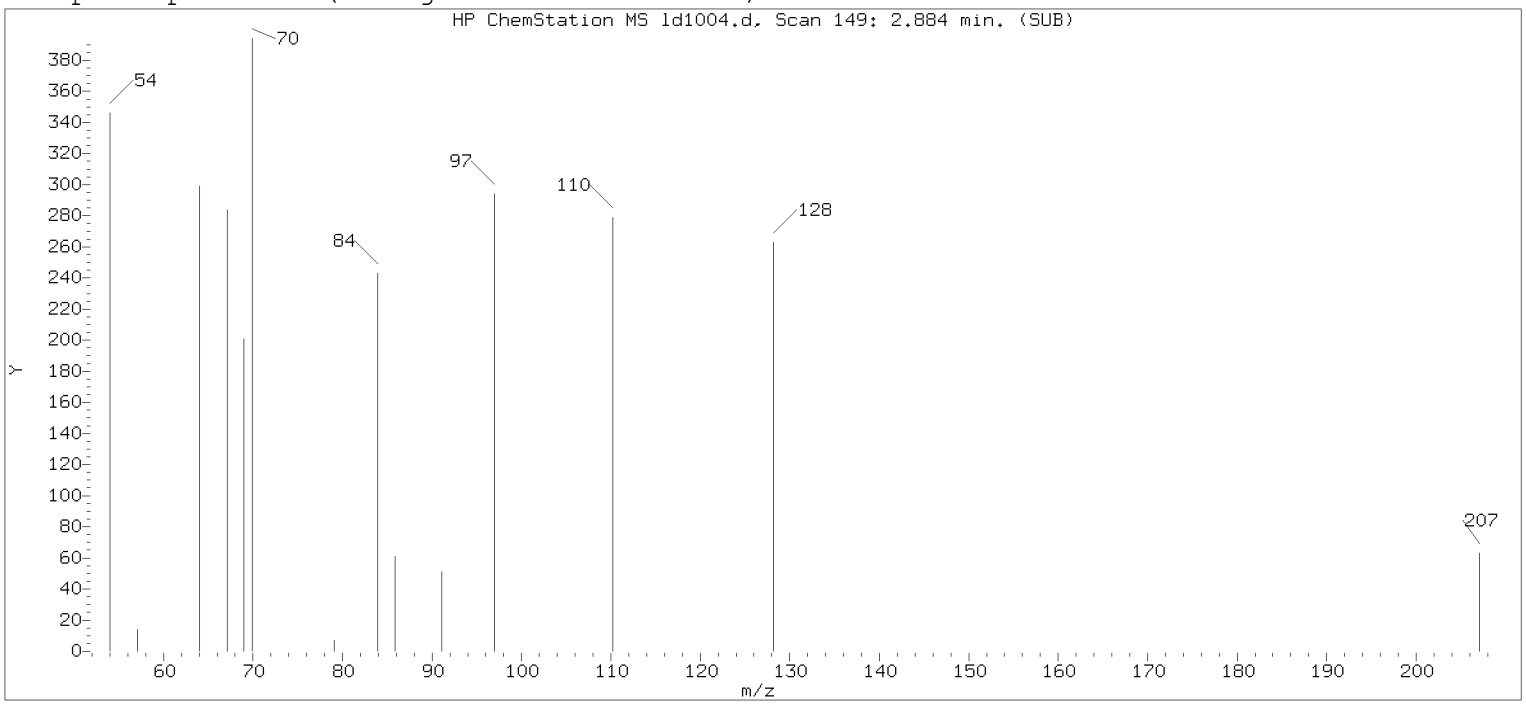
Compound Number : 6
Compound Name : Pyridine
Scan Number : 160
Retention Time (minutes) : 2.943
Quant Ion : 79.00
Area (flag) : 1313040A
On-Column Amount (ng/ul) : 19.4168
Integration start scan : 154 Integration stop scan: 191
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

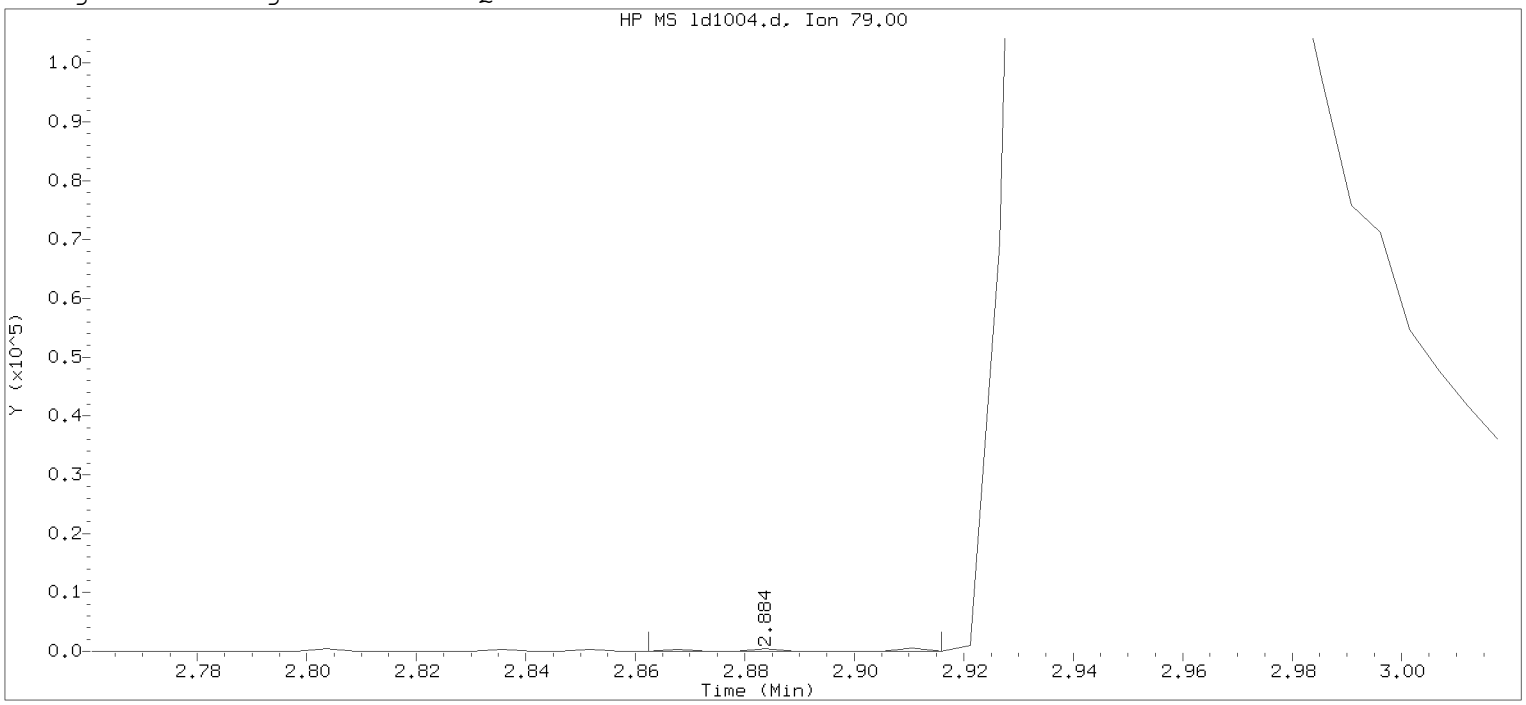
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number	: 6		
Compound Name	: Pyridine		
Scan Number	: 149		
Retention Time (minutes)	: 2.884		
Quant Ion	: 79.00		
Area	: 407		
On-column Amount (ng/ul)	: 0.0064		
Integration start scan	: 144	Integration stop scan:	154
Y at integration start	: 0	Y at integration end:	0

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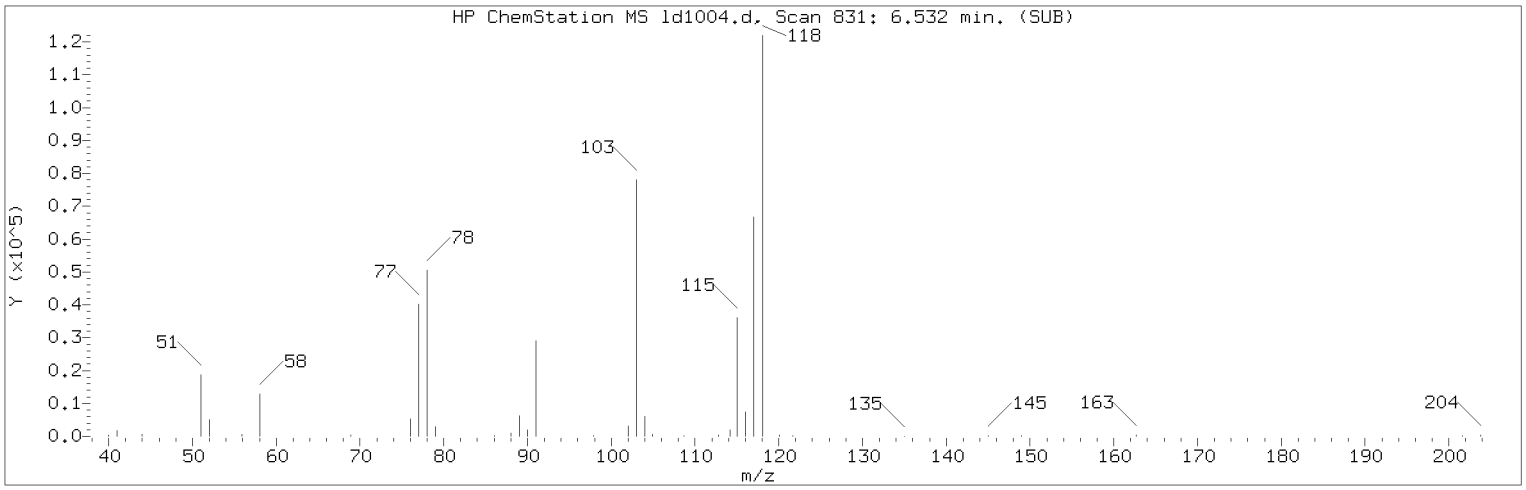
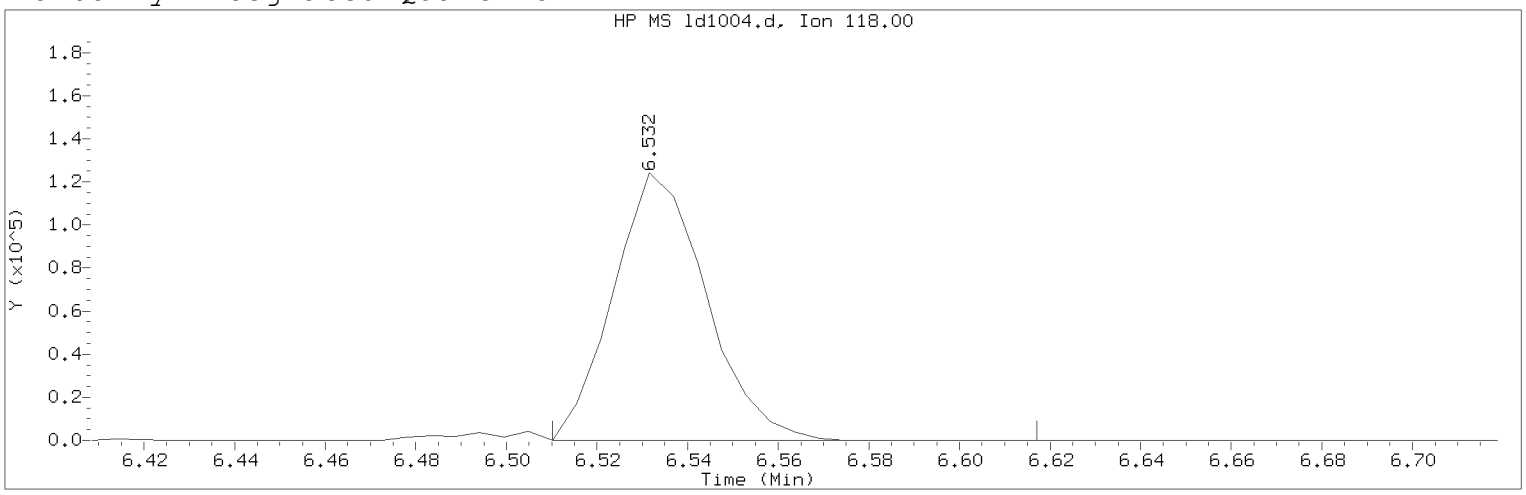
Target 3.5 esignature user: F35 Page 1681

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

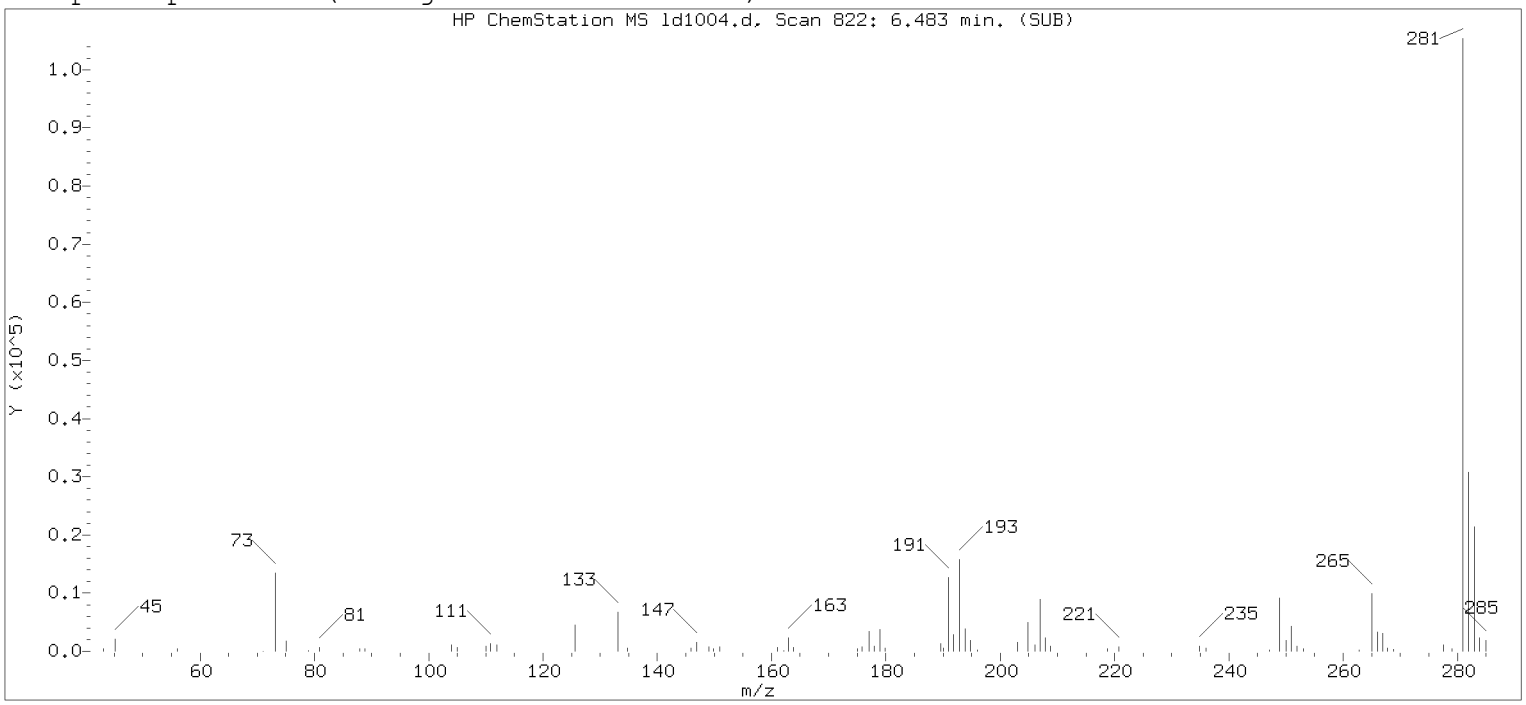
Compound Number : 21
Compound Name : a-methylstyrene
Scan Number : 831
Retention Time (minutes) : 6.532
Quant Ion : 118.00
Area (flag) : 176465A
On-Column Amount (ng/ul) : 18.5980
Integration start scan : 826 Integration stop scan: 846
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

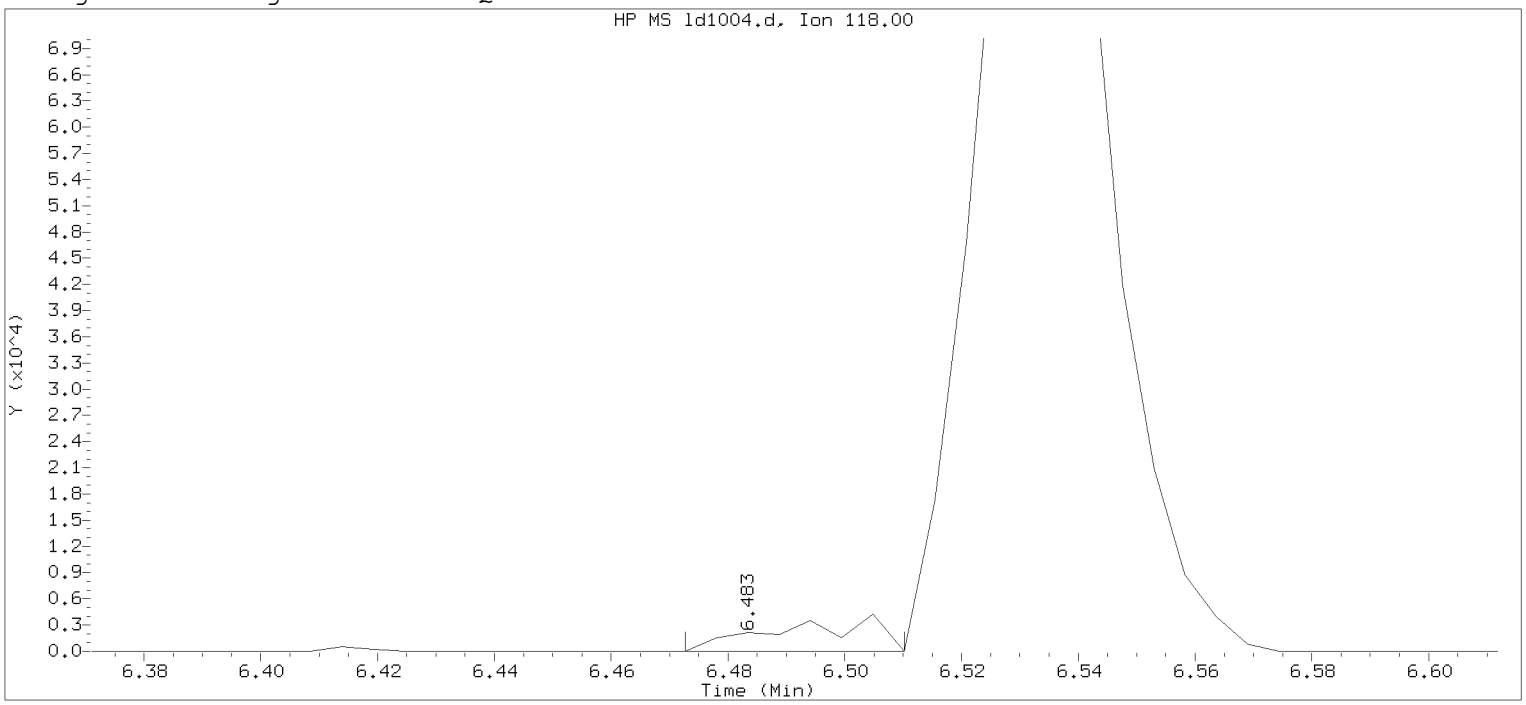
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

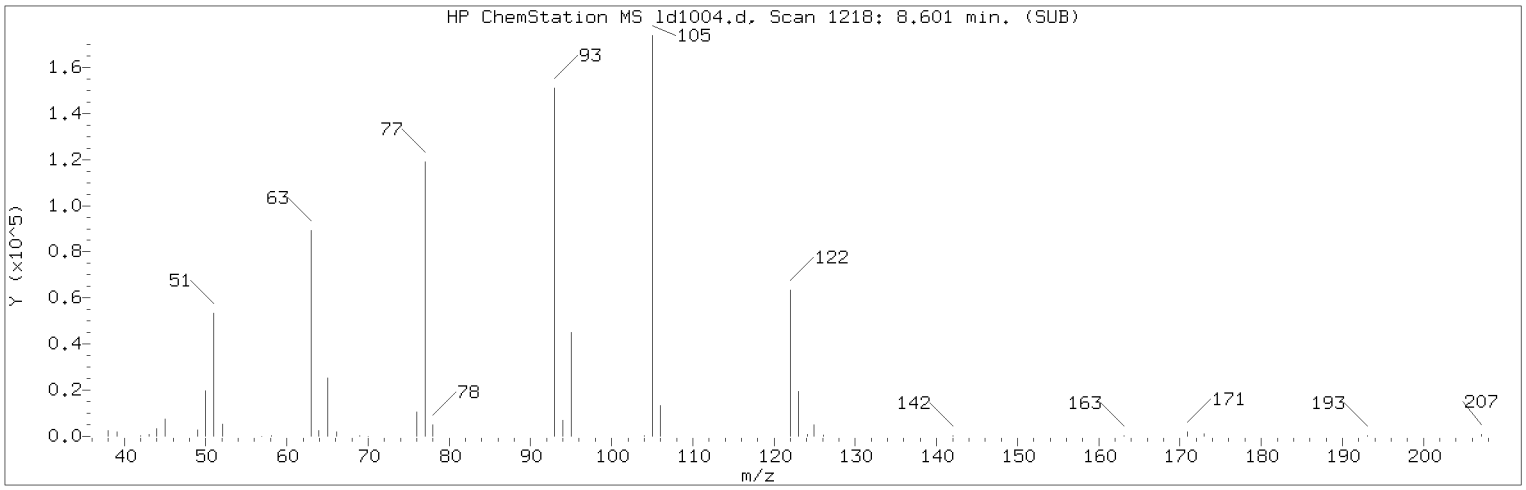
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

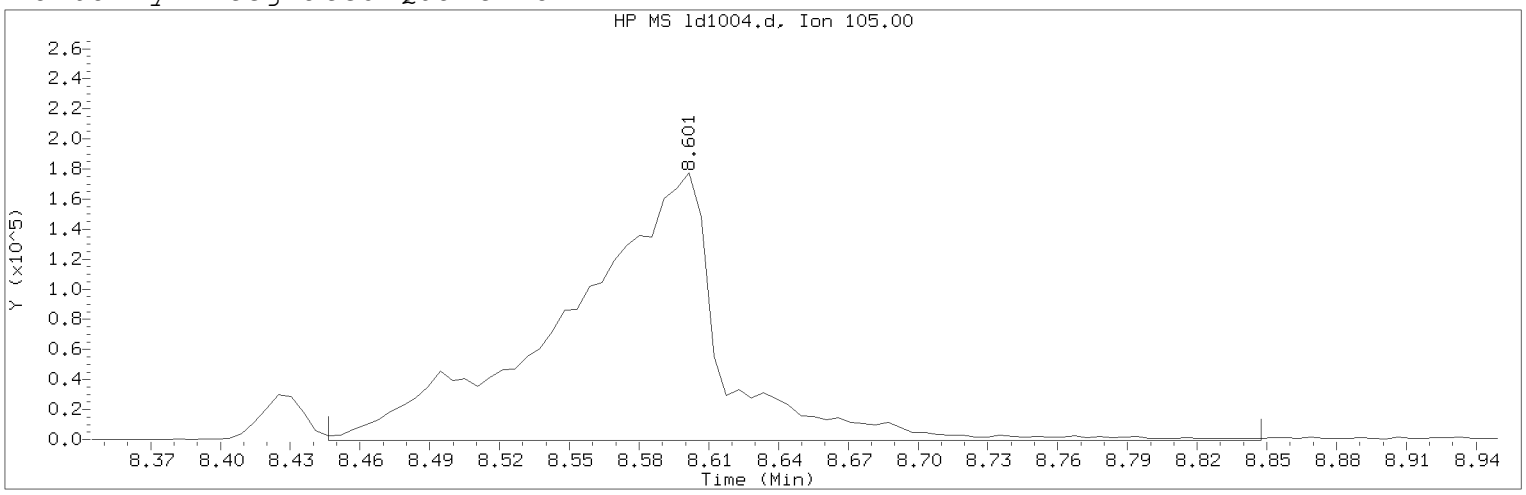
Compound Number	: 21		
Compound Name	: a-methylstyrene		
Scan Number	: 822		
Retention Time (minutes)	: 6.483		
Quant Ion	: 118.00		
Area	: 4795		
On-column Amount (ng/ul)	: 0.4647		
Integration start scan	: 819	Integration stop scan:	826
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

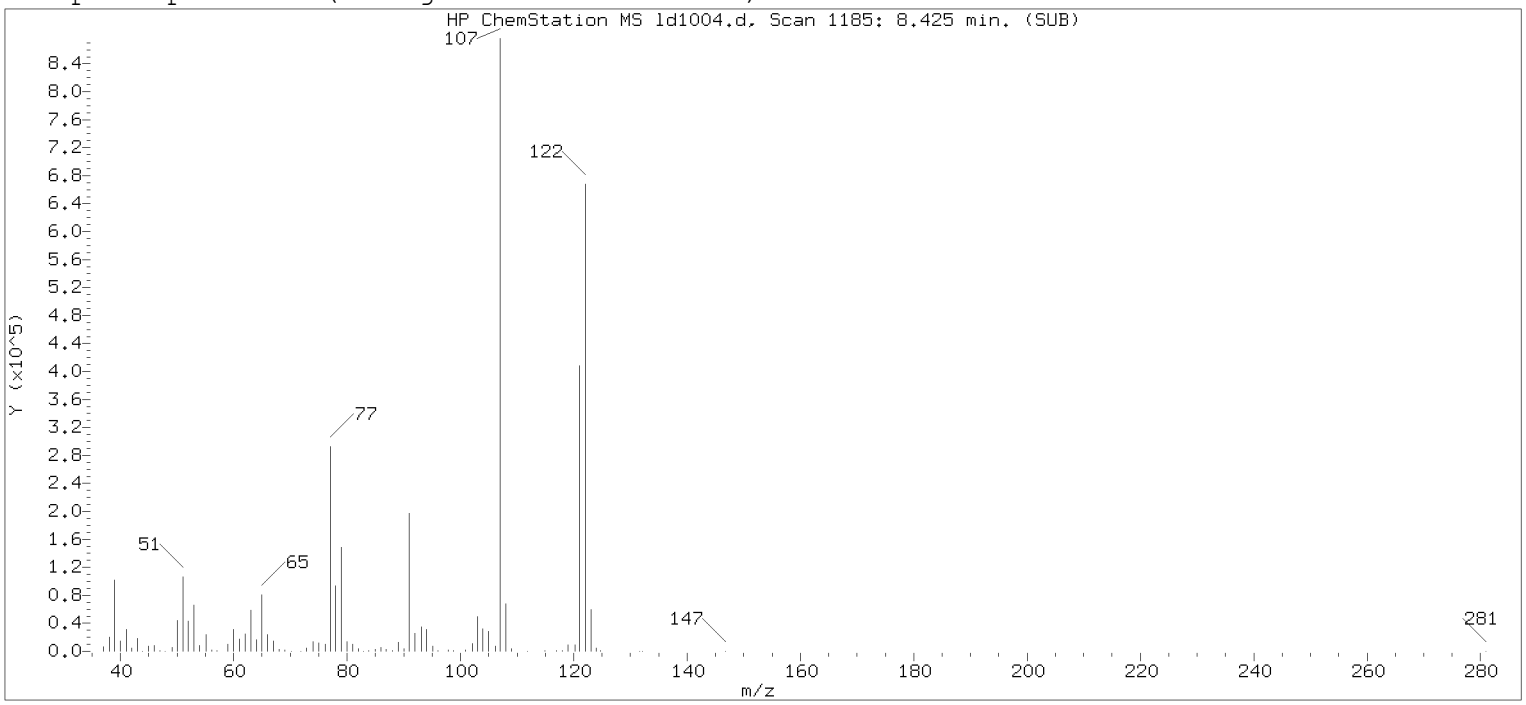
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1218
Retention Time (minutes) : 8.601
Quant Ion : 105.00
Area (flag) : 833582MA
On-Column Amount (ng/ul) : 21.1673
Integration start scan : 1188 Integration stop scan: 1263
Y at integration start : -426 Y at integration end: -426

Reason for manual integration: improper integration

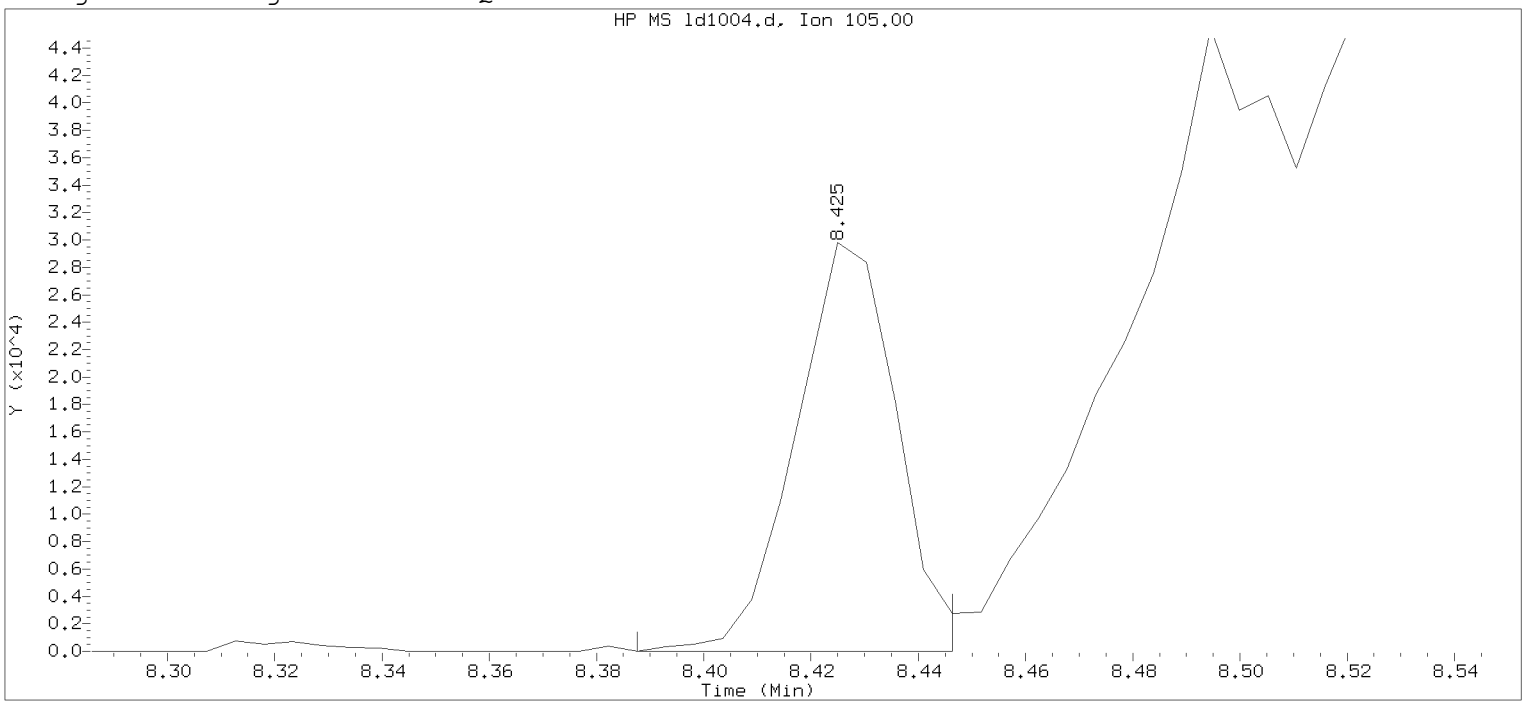
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1185		
Retention Time (minutes)	: 8.425		
Quant Ion	: 105.00		
Area	: 38689		
On-column Amount (ng/ul)	: 0.9995		
Integration start scan	: 1177	Integration stop scan:	1188
Y at integration start	: 0	Y at integration end:	0

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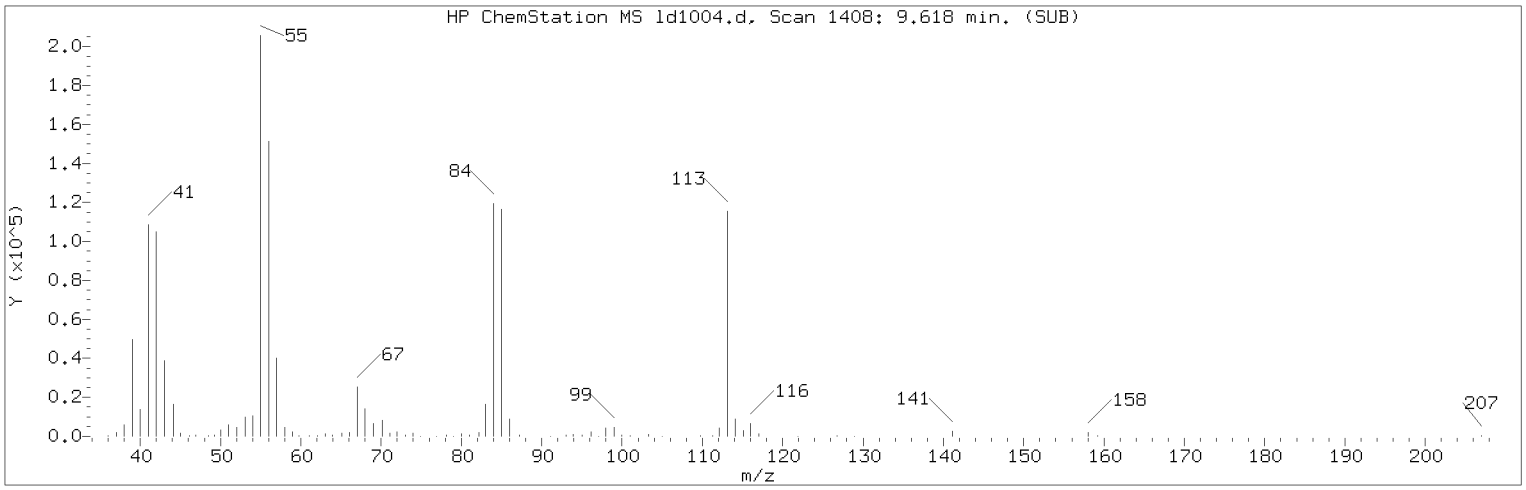
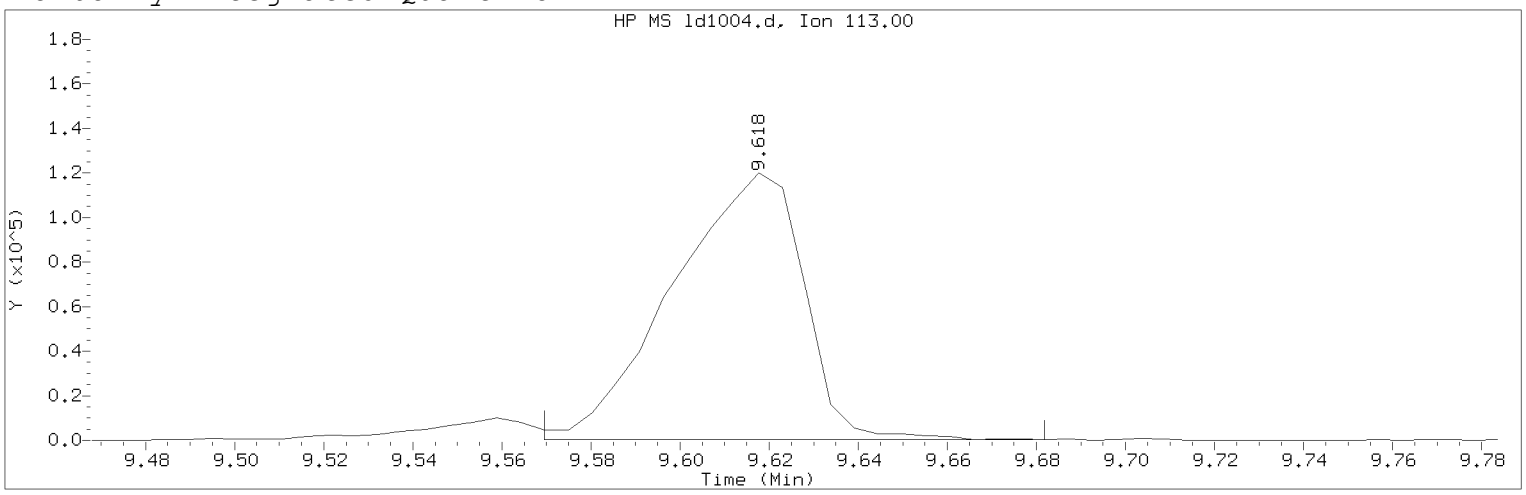
Target 3.5 esignature user: F35 Page 1485 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

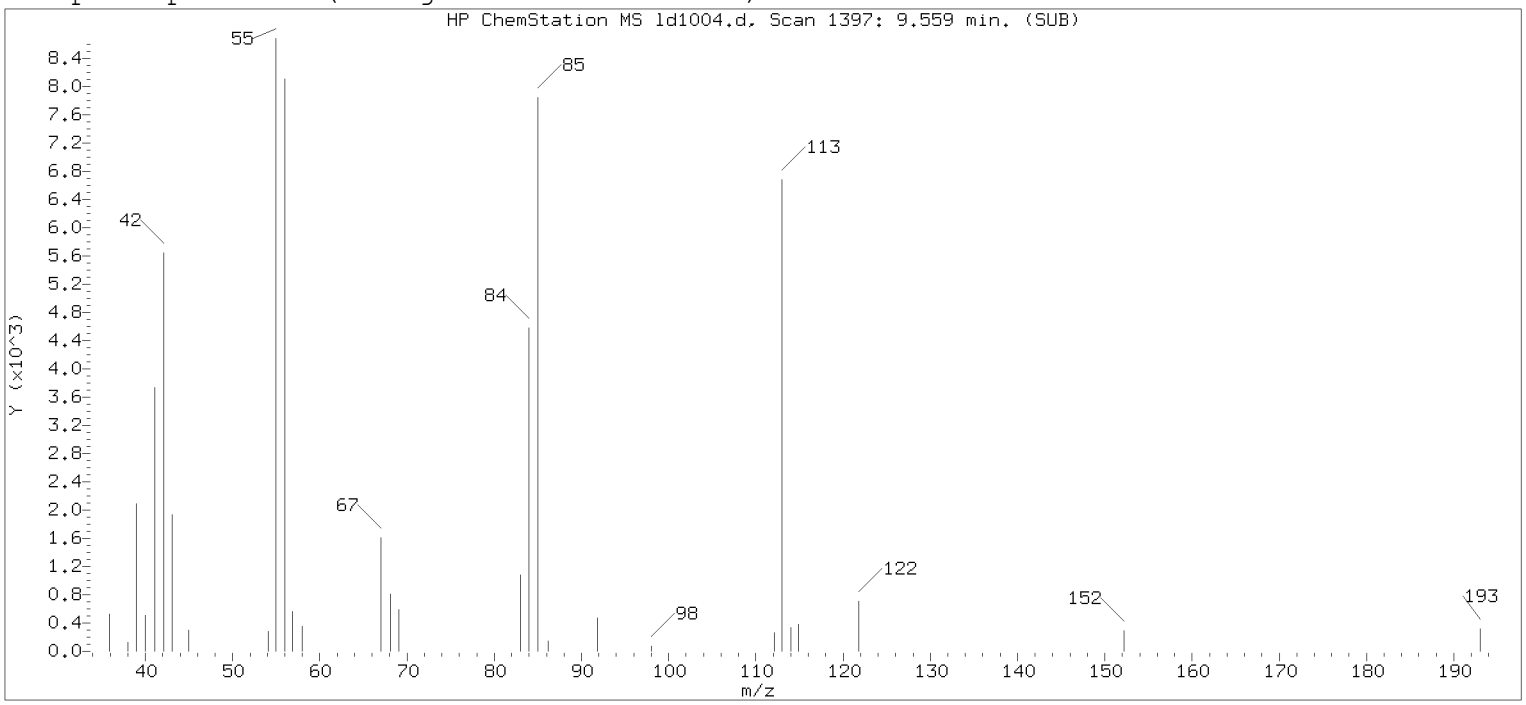
Compound Number : 79
Compound Name : Caprolactam
Scan Number : 1408
Retention Time (minutes) : 9.618
Quant Ion : 113.00
Area (flag) : 243323A
On-Column Amount (ng/ul) : 19.0327
Integration start scan : 1398 Integration stop scan: 1419
Y at integration start : 333 Y at integration end: 333

Reason for manual integration: improper integration

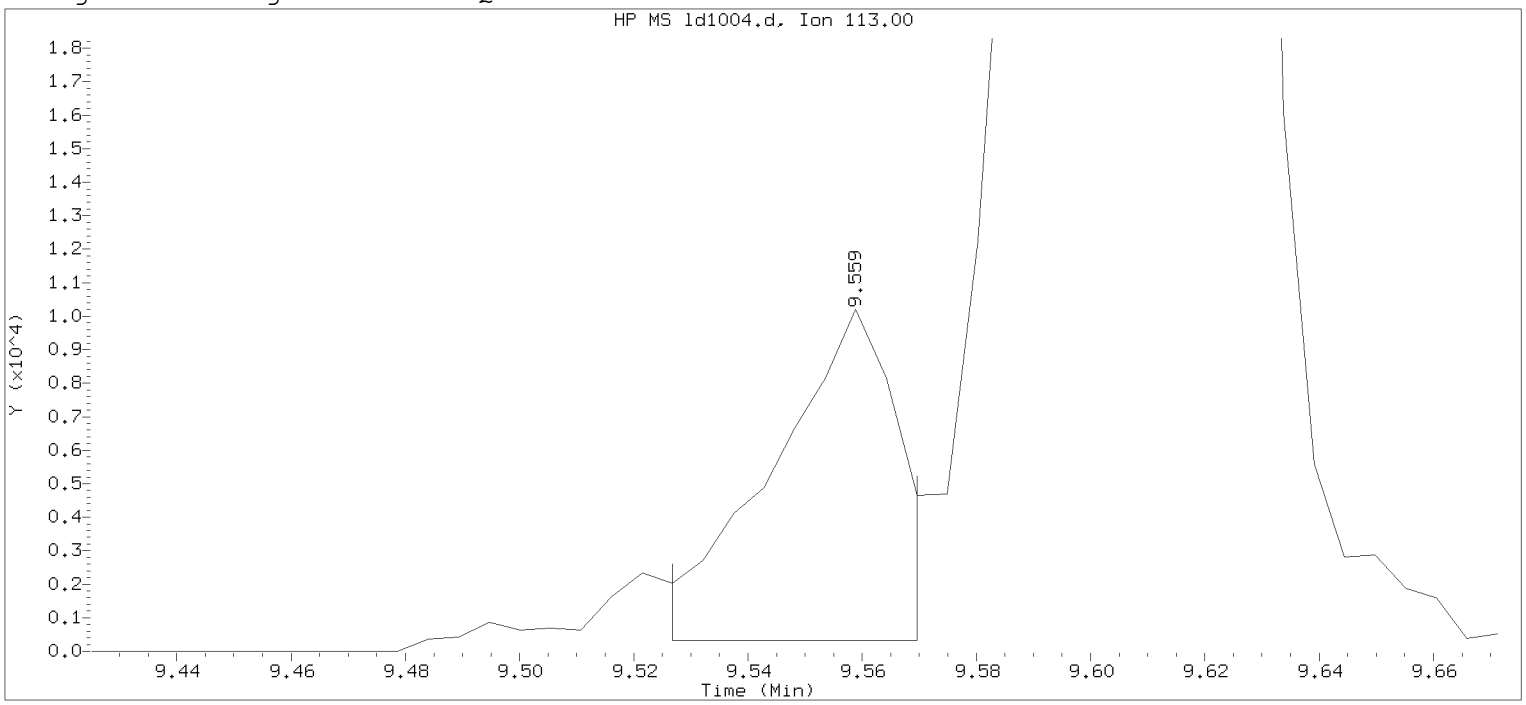
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number	: 79		
Compound Name	: Caprolactam		
Scan Number	: 1397		
Retention Time (minutes)	: 9.559		
Quant Ion	: 113.00		
Area	: 14629		
On-column Amount (ng/ul)	: 1.0841		
Integration start scan	: 1390	Integration stop scan:	1398
Y at integration start	: 333	Y at integration end:	333

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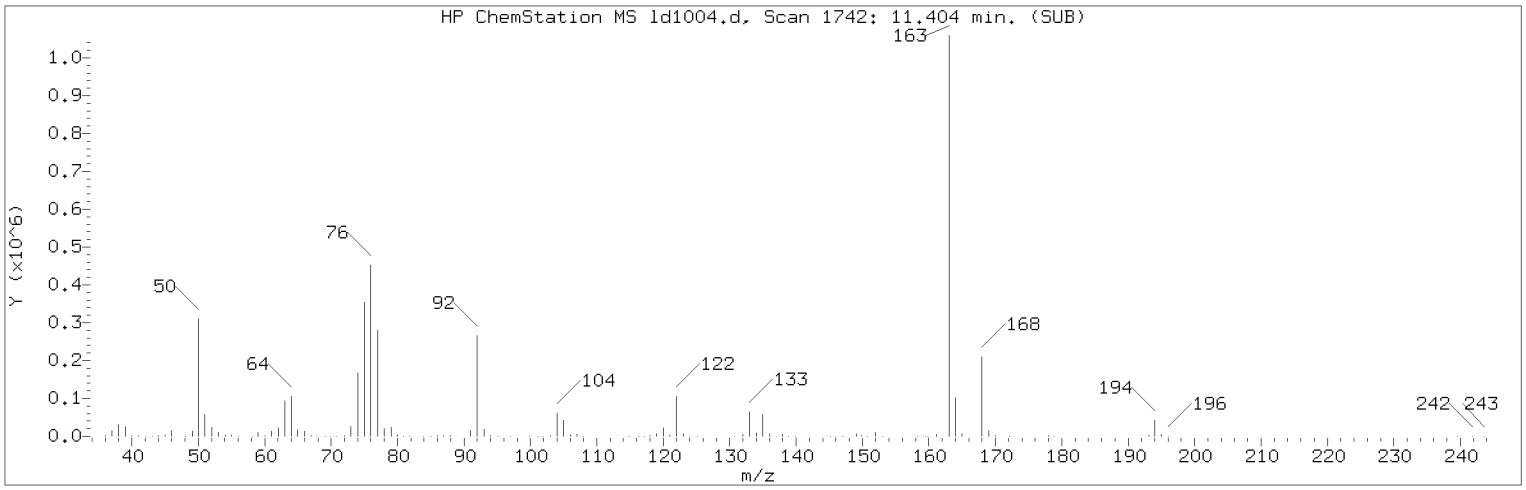
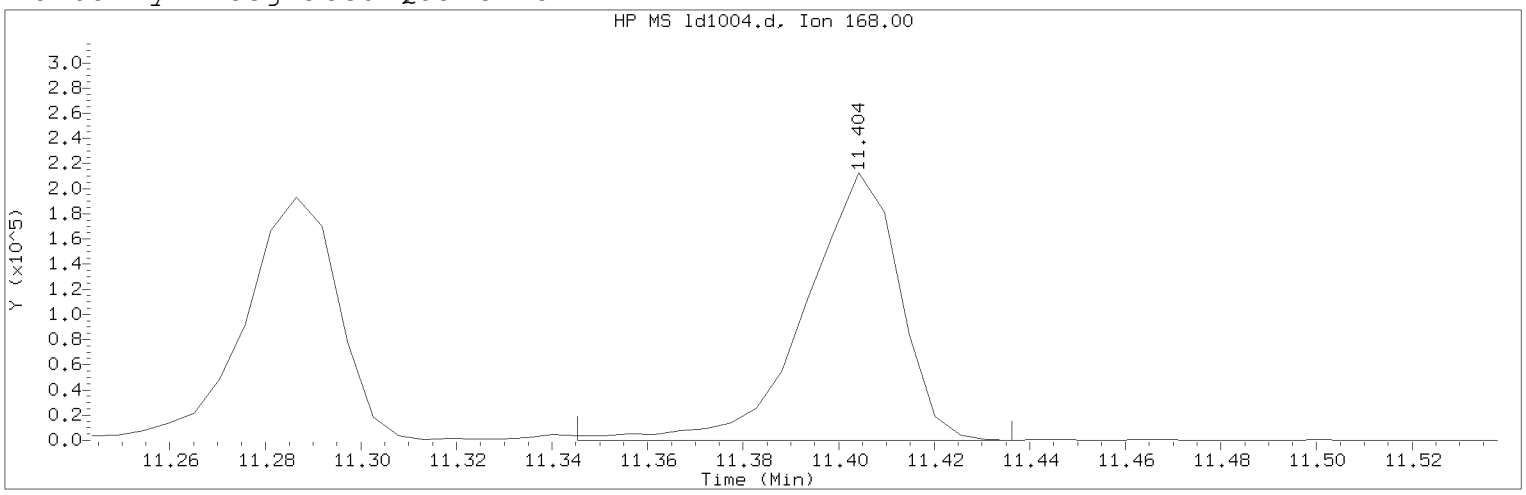
Target 3.5 esignature used. Page 1687

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

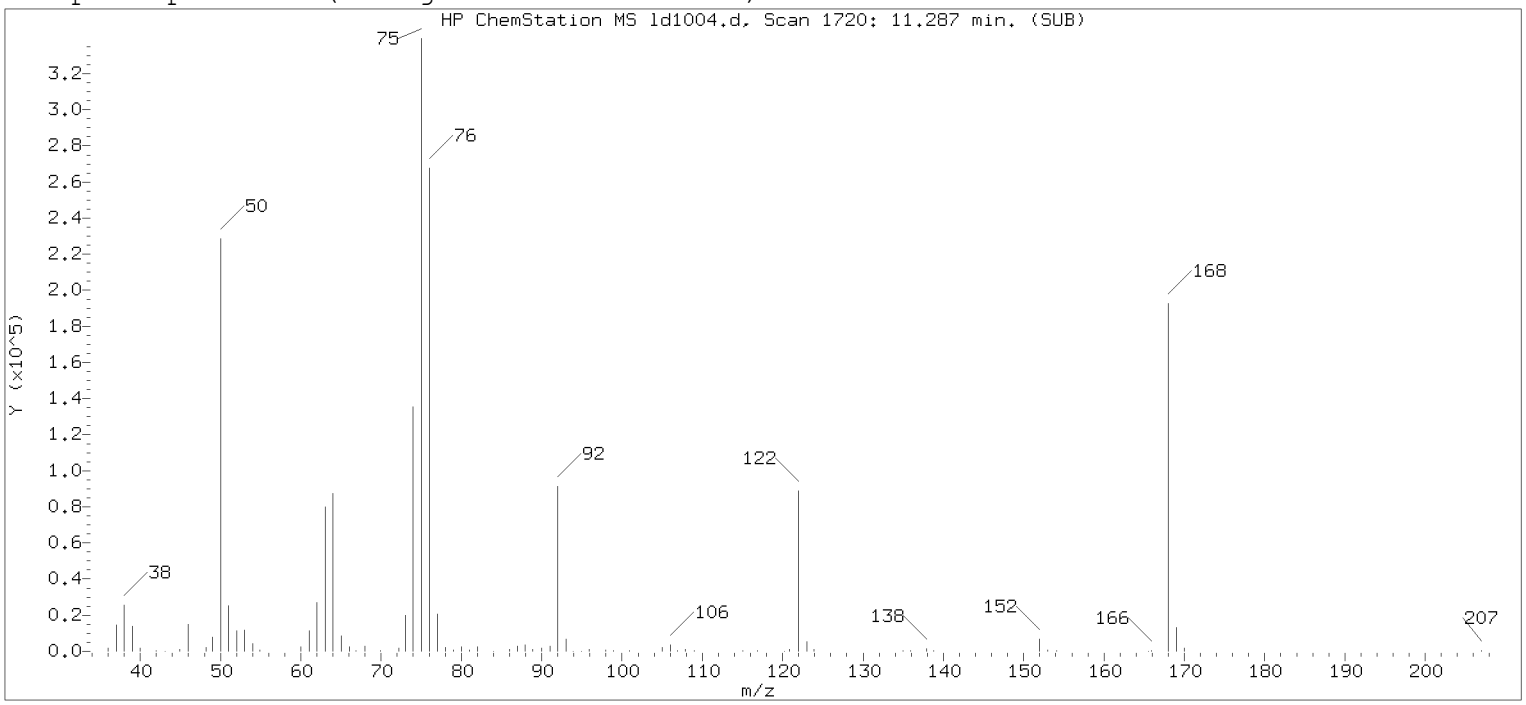
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1742
Retention Time (minutes) : 11.404
Quant Ion : 168.00
Area (flag) : 290015A
On-Column Amount (ng/ul) : 20.6989
Integration start scan : 1730 Integration stop scan: 1747
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

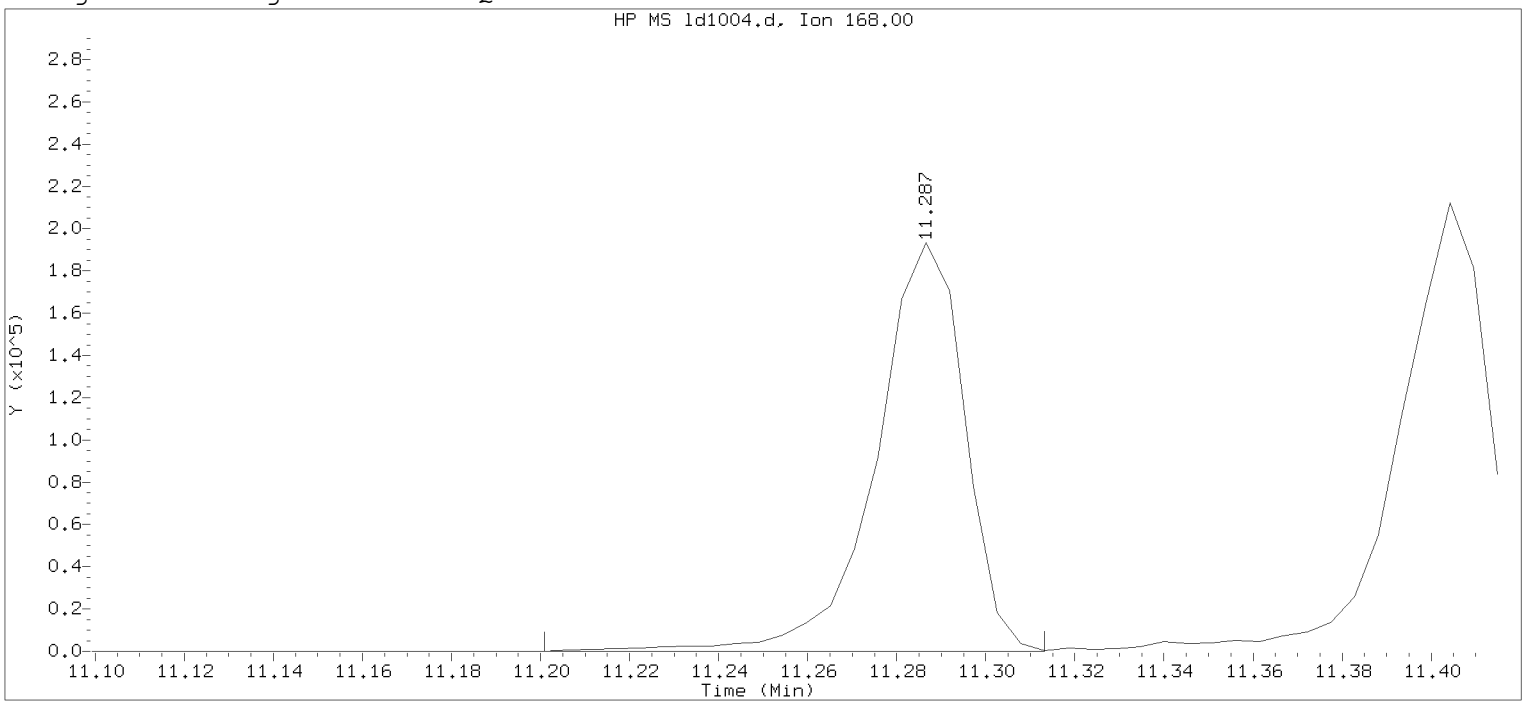
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number	: 111		
Compound Name	: 1,3-Dinitrobenzene		
Scan Number	: 1720		
Retention Time (minutes)	: 11.287		
Quant Ion	: 168.00		
Area	: 267125		
On-column Amount (ng/ul)	: 17.4207		
Integration start scan	: 1703	Integration stop scan:	1724
Y at integration start	: 0	Y at integration end:	0

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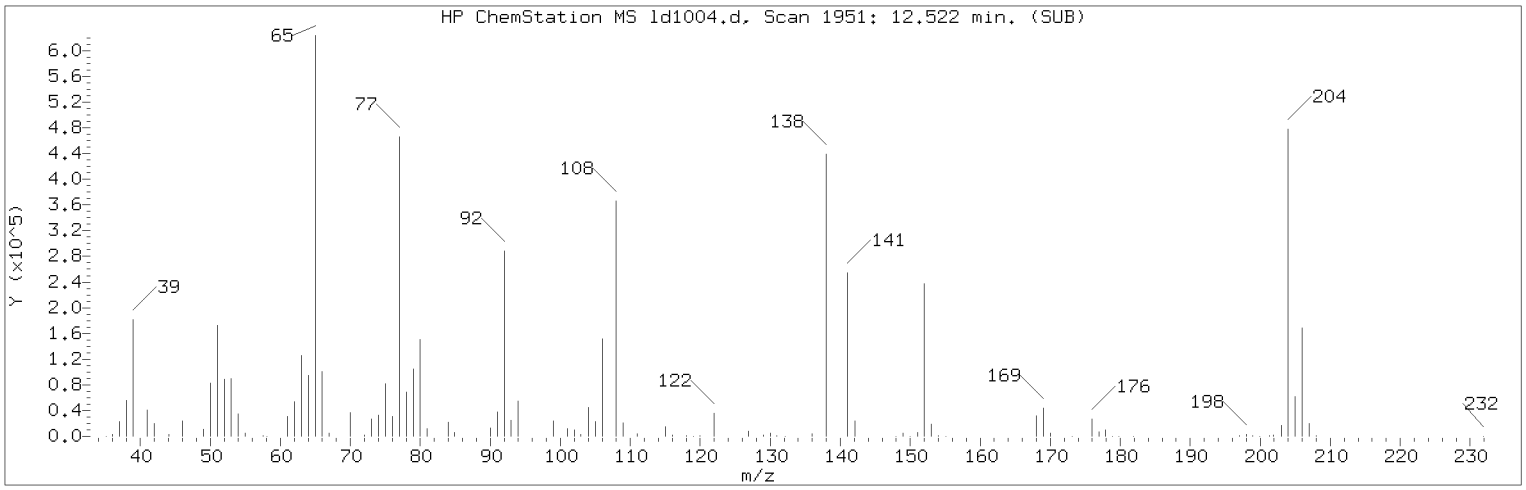
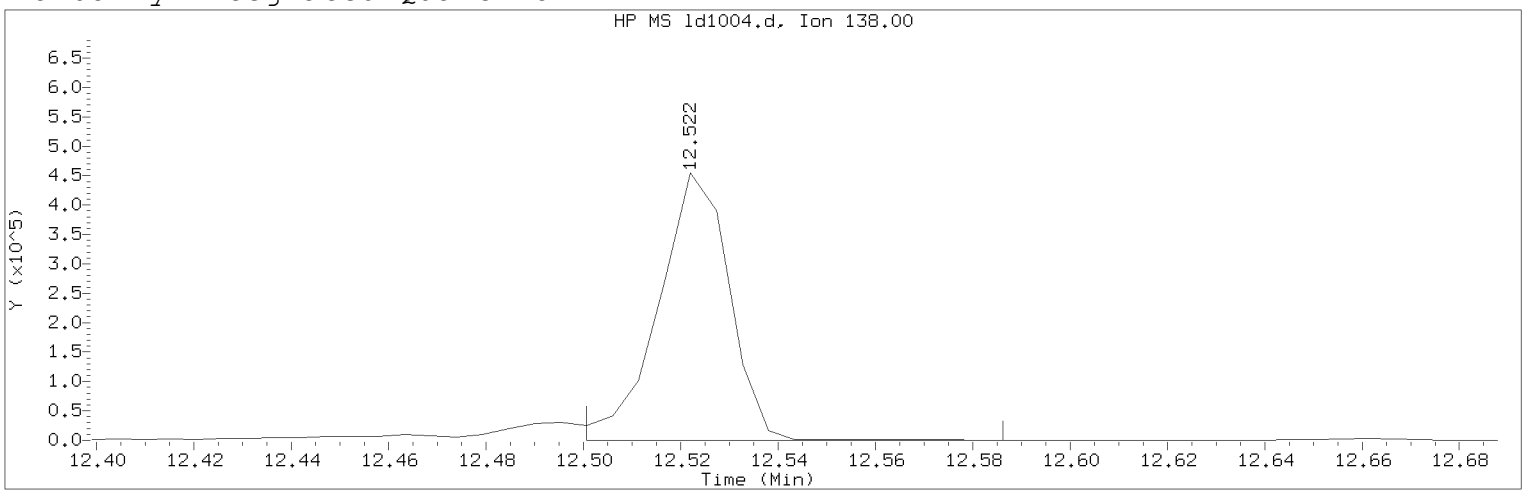
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

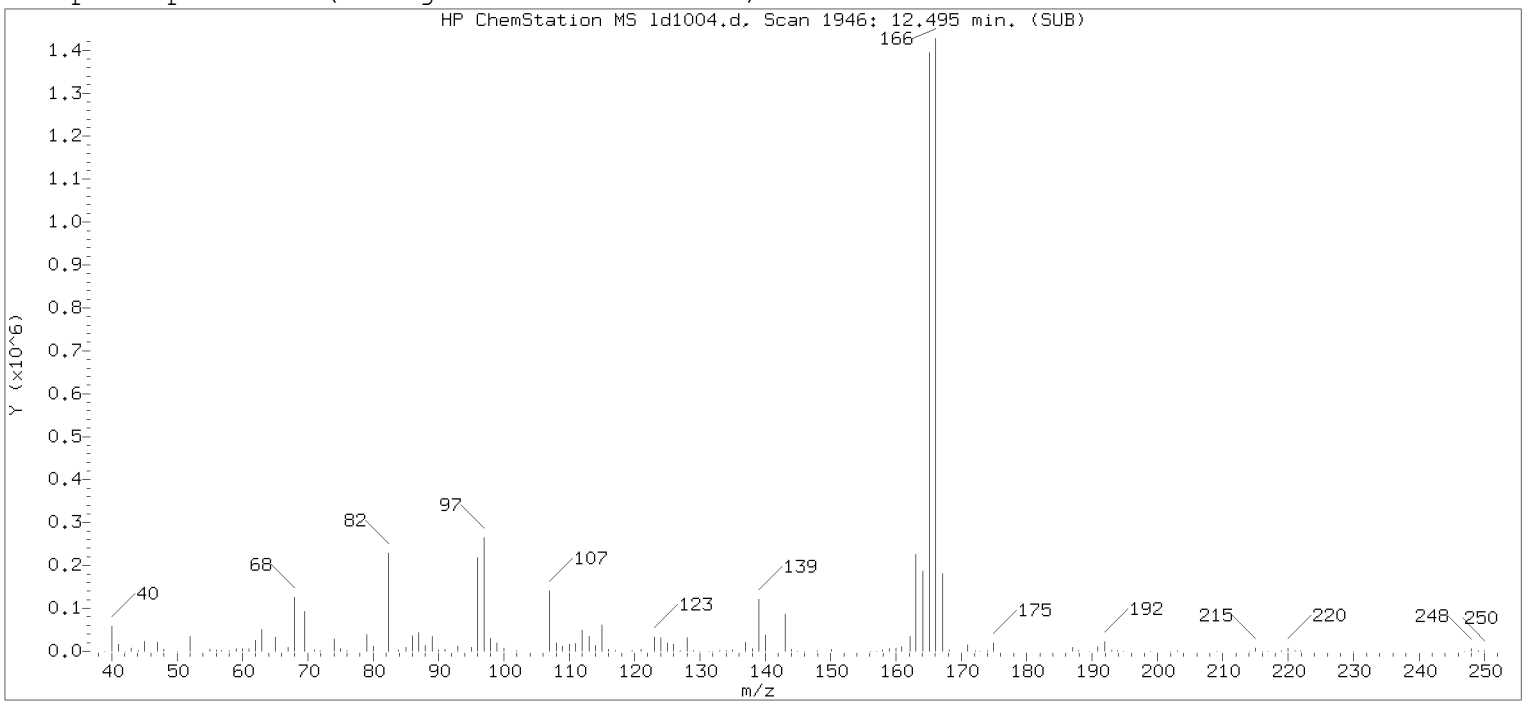
Compound Number : 134
Compound Name : 4-Nitroaniline
Scan Number : 1951
Retention Time (minutes) : 12.522
Quant Ion : 138.00
Area (flag) : 456403A
On-Column Amount (ng/ul) : 18.7472
Integration start scan : 1946 Integration stop scan: 1962
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

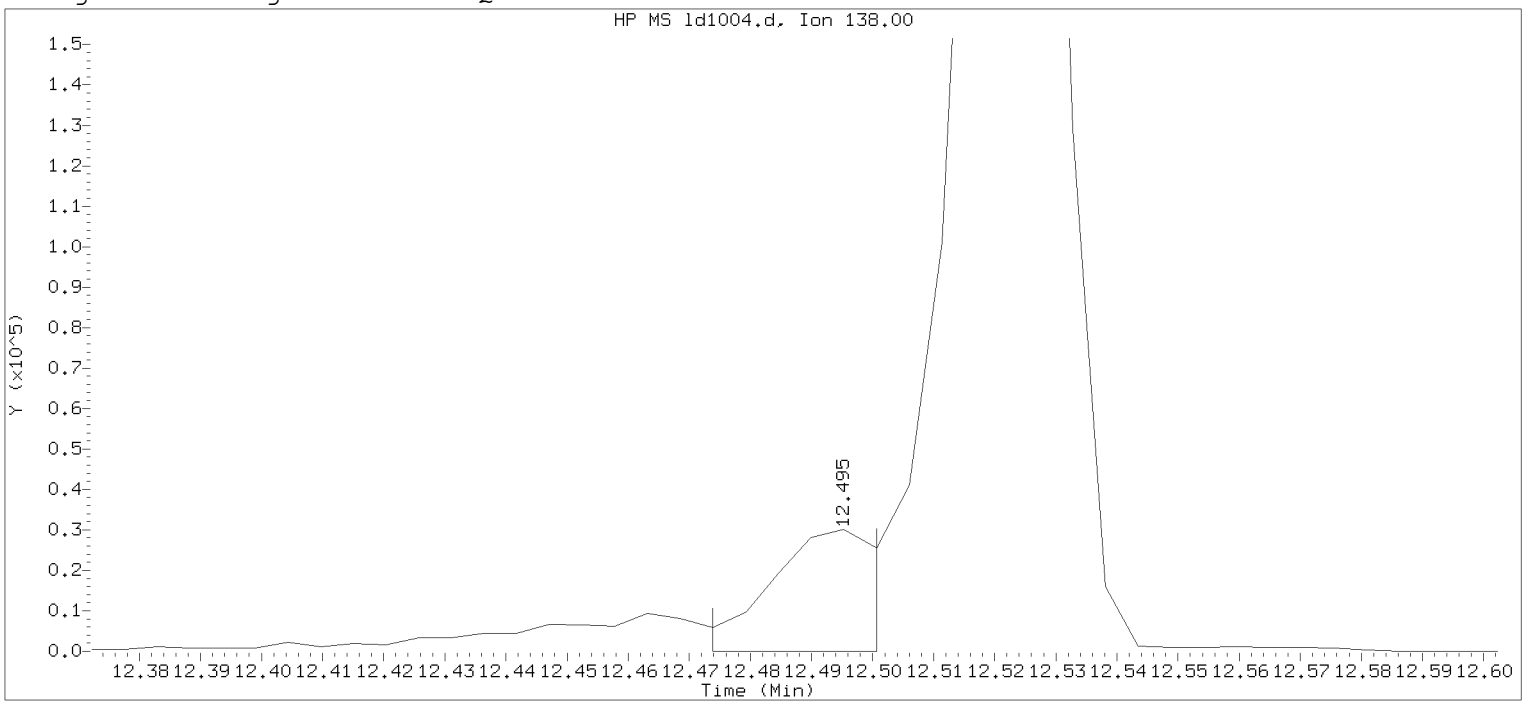
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number	: 134		
Compound Name	: 4-Nitroaniline		
Scan Number	: 1946		
Retention Time (minutes)	: 12.495		
Quant Ion	: 138.00		
Area	: 33028		
On-column Amount (ng/ul)	: 1.3366		
Integration start scan	: 1941	Integration stop scan:	1946
Y at integration start	: 0	Y at integration end:	0

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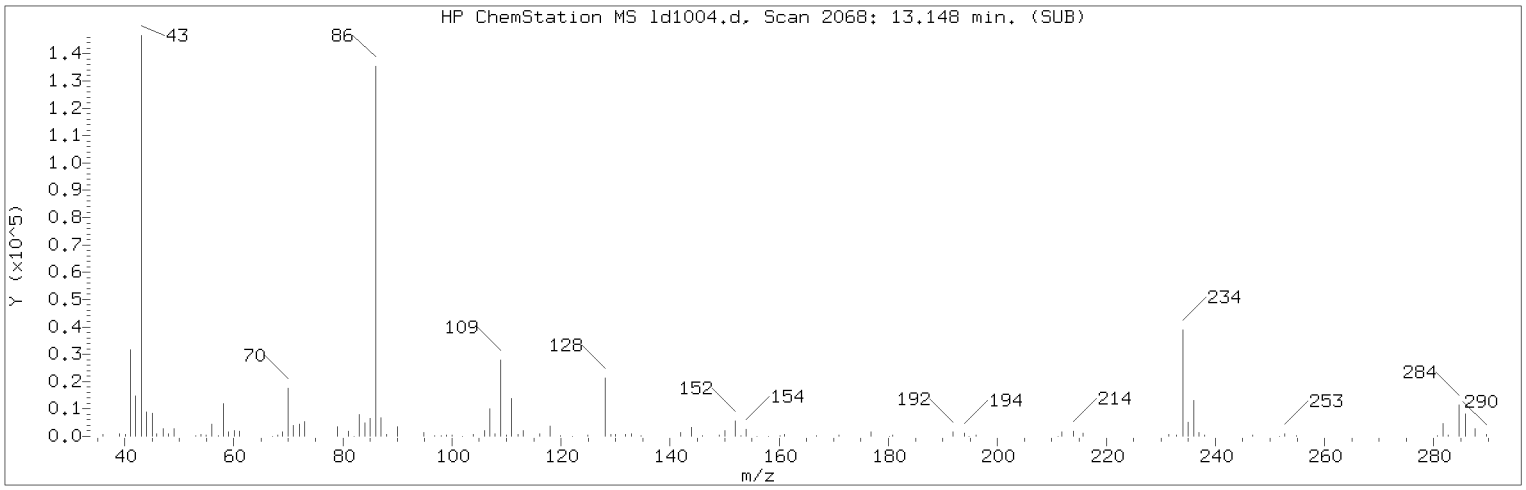
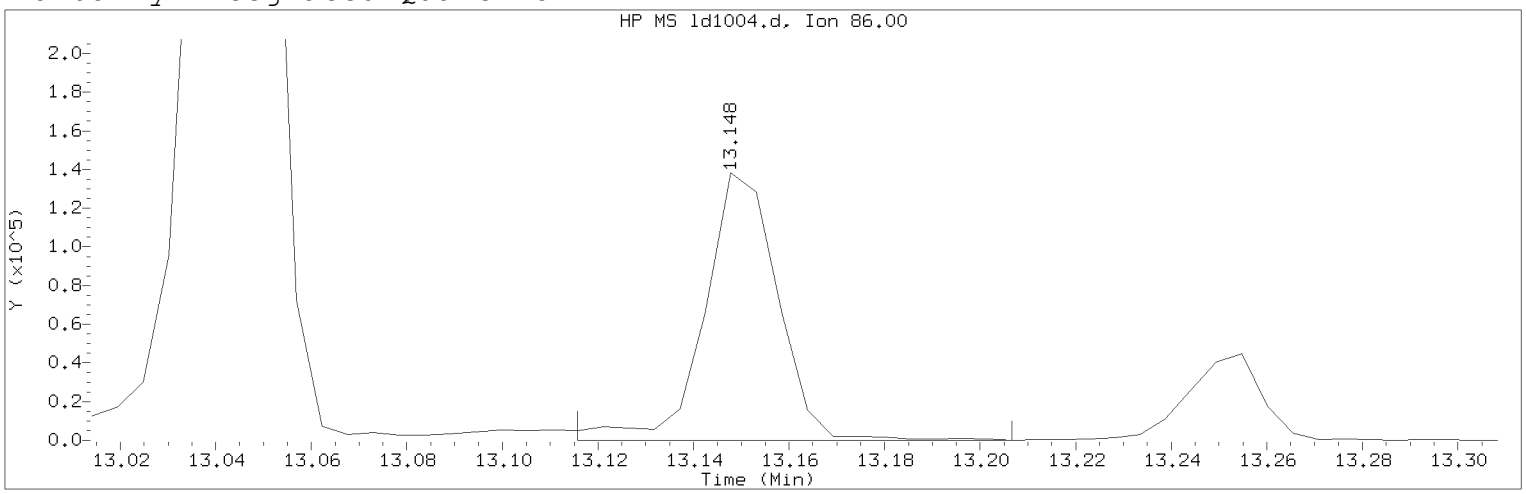
Target 3.5 esignature used. F35 Page 1891

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

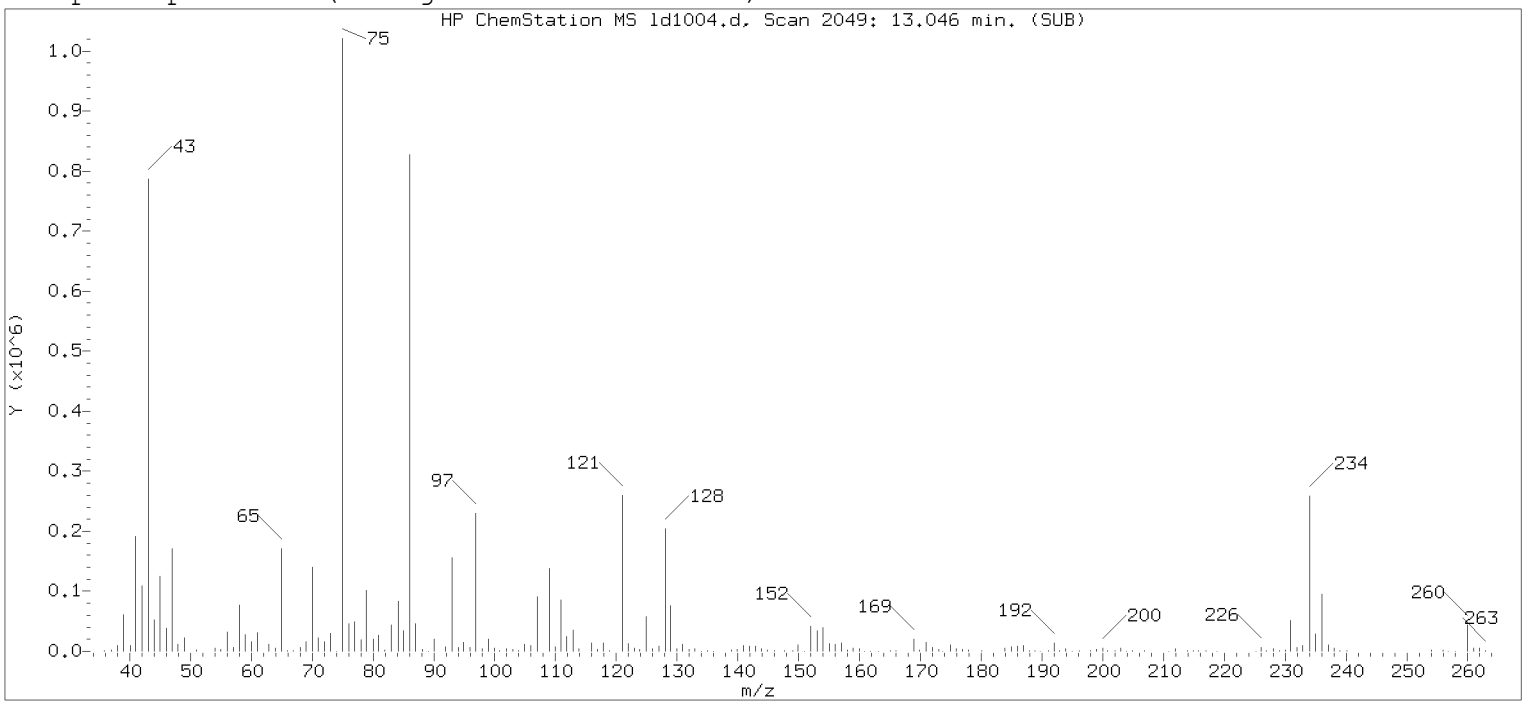
Compound Number : 149
Compound Name : Diallate (peak 2)
Scan Number : 2068
Retention Time (minutes) : 13.148
Quant Ion : 86.00
Area (flag) : 147216A
On-Column Amount (ng/ul) : 3.4385
Integration start scan : 2061 Integration stop scan: 2078
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

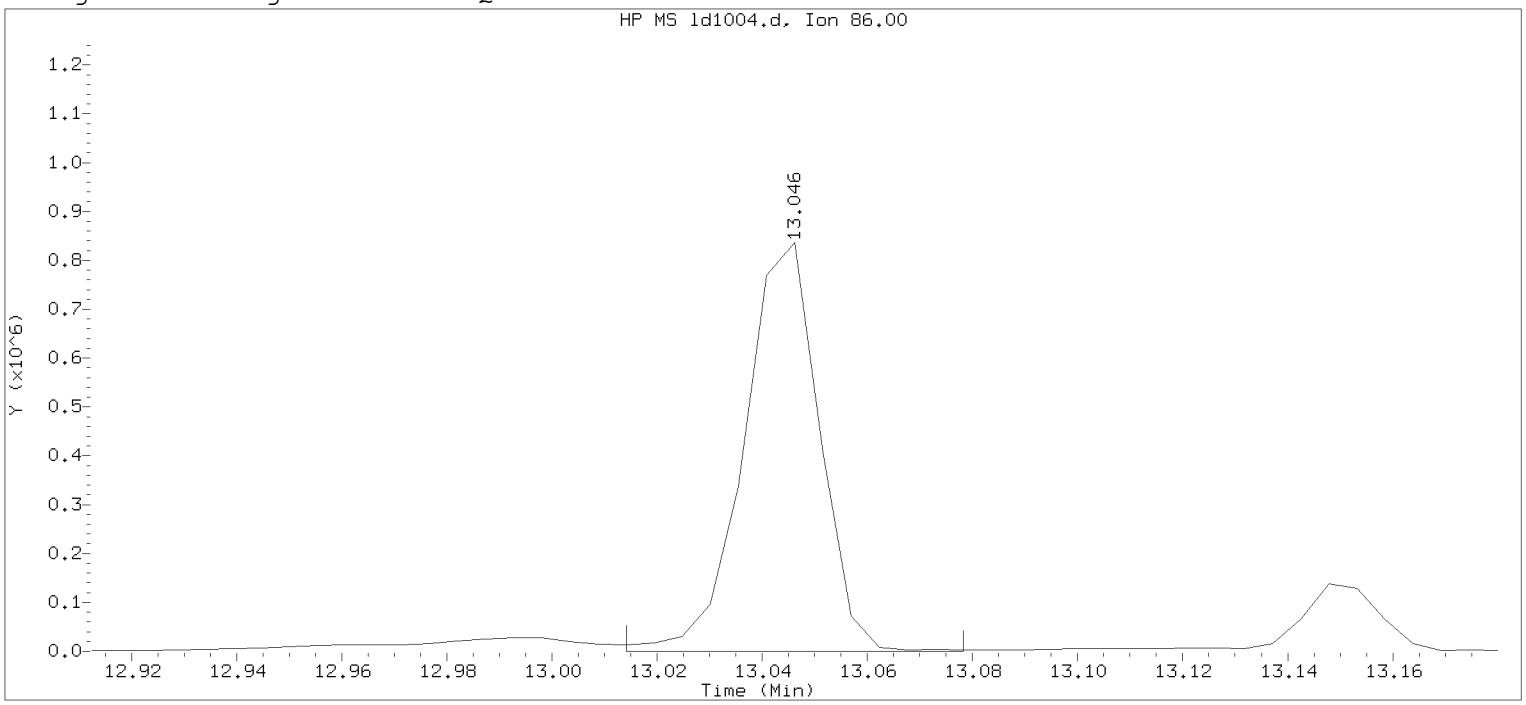
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2049		
Retention Time (minutes)	: 13.046		
Quant Ion	: 86.00		
Area	: 830499		
On-column Amount (ng/ul)	: 20.9276		
Integration start scan	: 2042	Integration stop scan:	2054
Y at integration start	: 0	Y at integration end:	0

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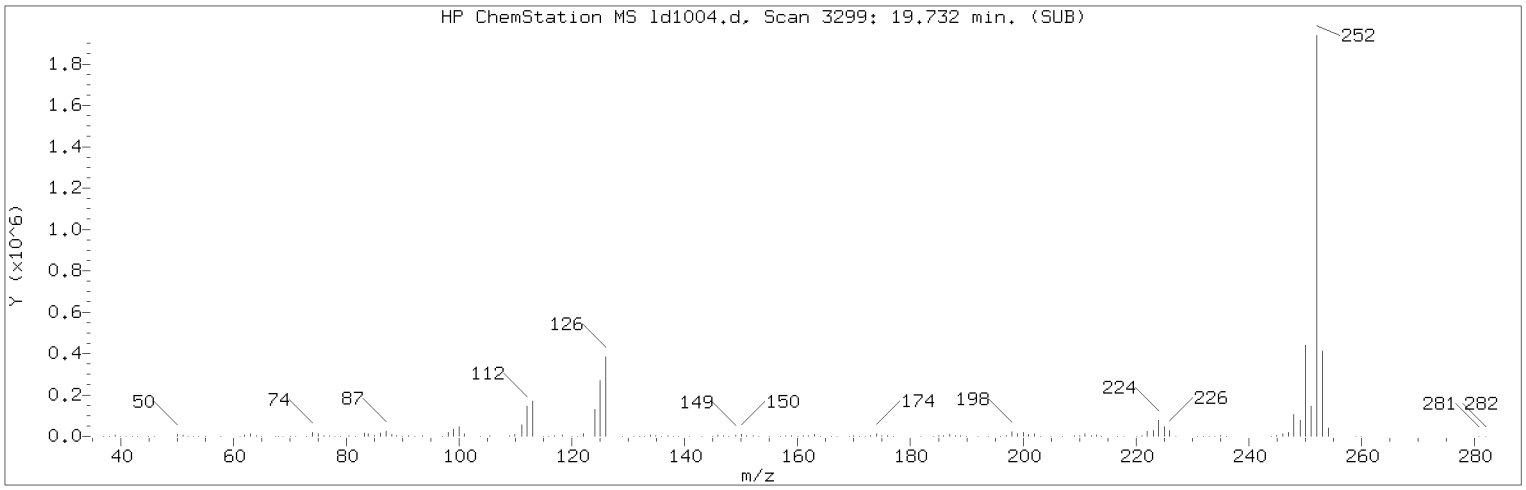
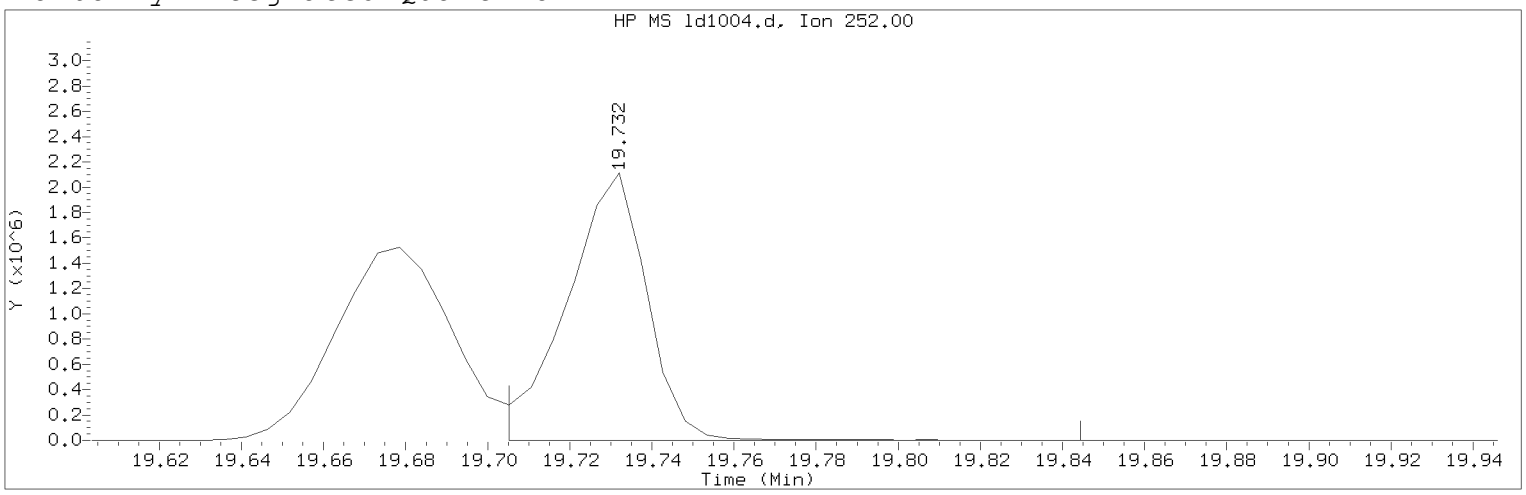
Target 3.5 esignature used. F35 Page 1893

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

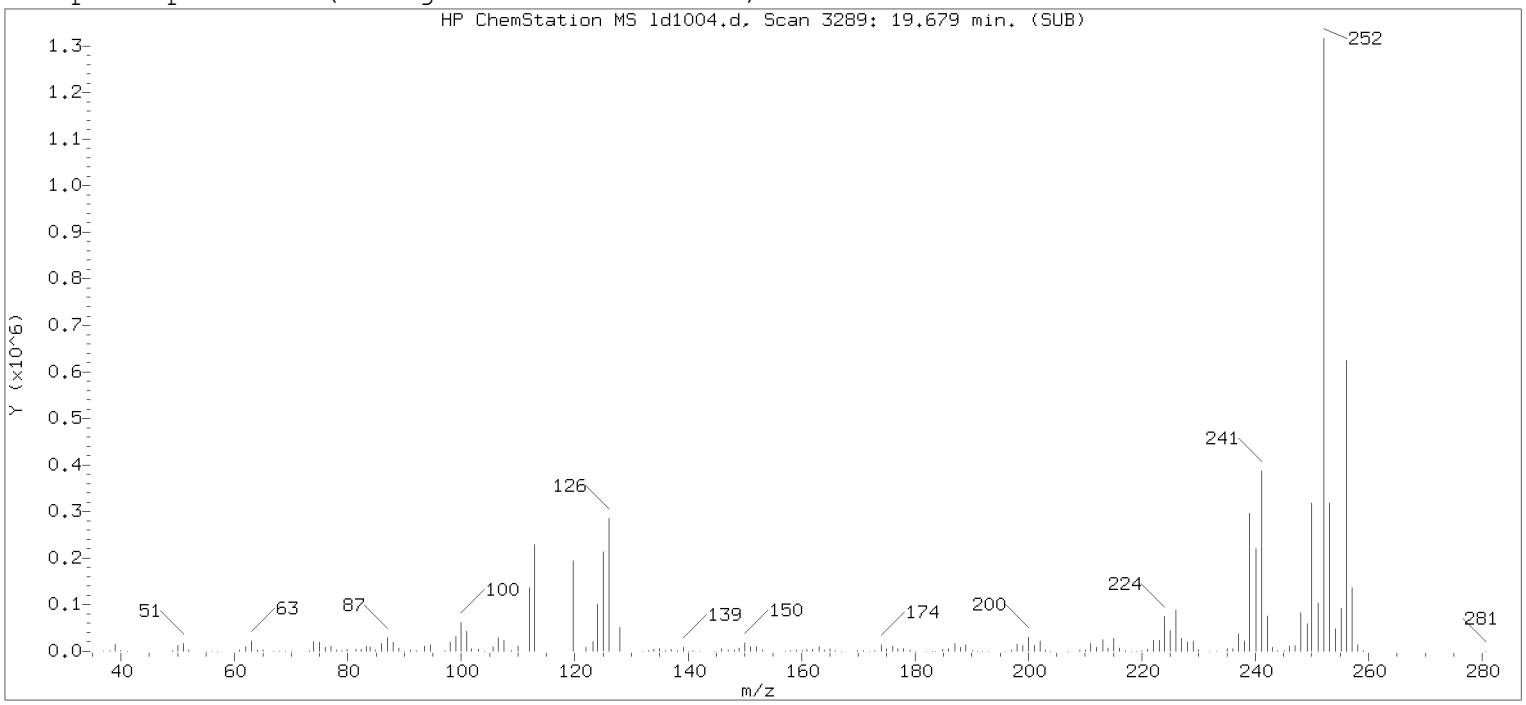
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3299
Retention Time (minutes) : 19.732
Quant Ion : 252.00
Area (flag) : 2828389A
On-Column Amount (ng/ul) : 20.1285
Integration start scan : 3293 Integration stop scan: 3319
Y at integration start : 260 Y at integration end: 260

Reason for manual integration: improper integration

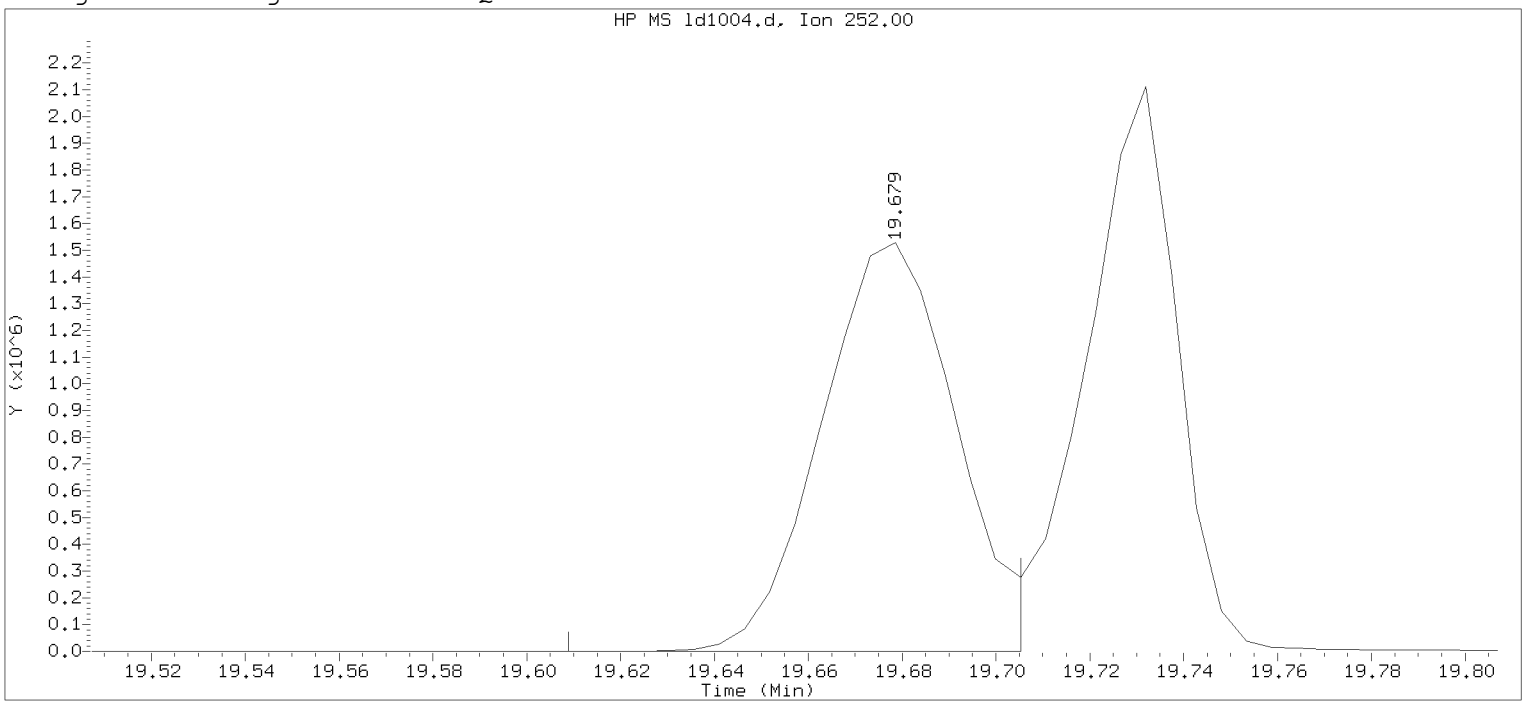
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

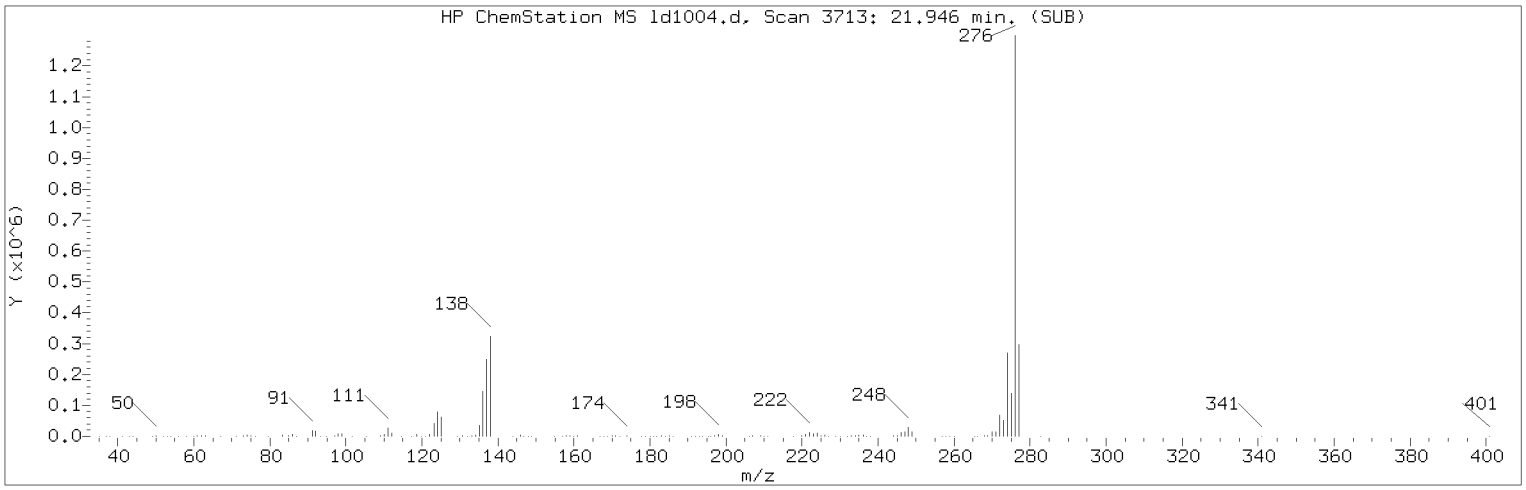
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

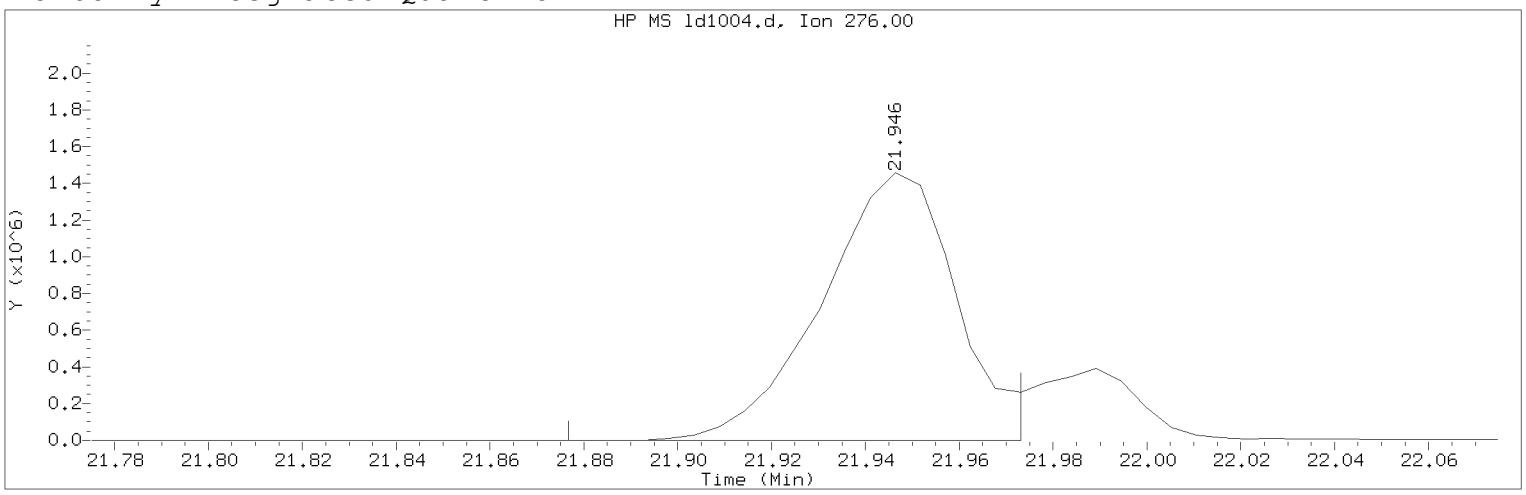
Compound Number	: 213		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 3289		
Retention Time (minutes)	: 19.679		
Quant Ion	: 252.00		
Area	: 2997971		
On-column Amount (ng/ul)	: 20.9429		
Integration start scan	: 3275	Integration stop scan:	3293
Y at integration start	: 260	Y at integration end:	260

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used. F35 Page 1895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

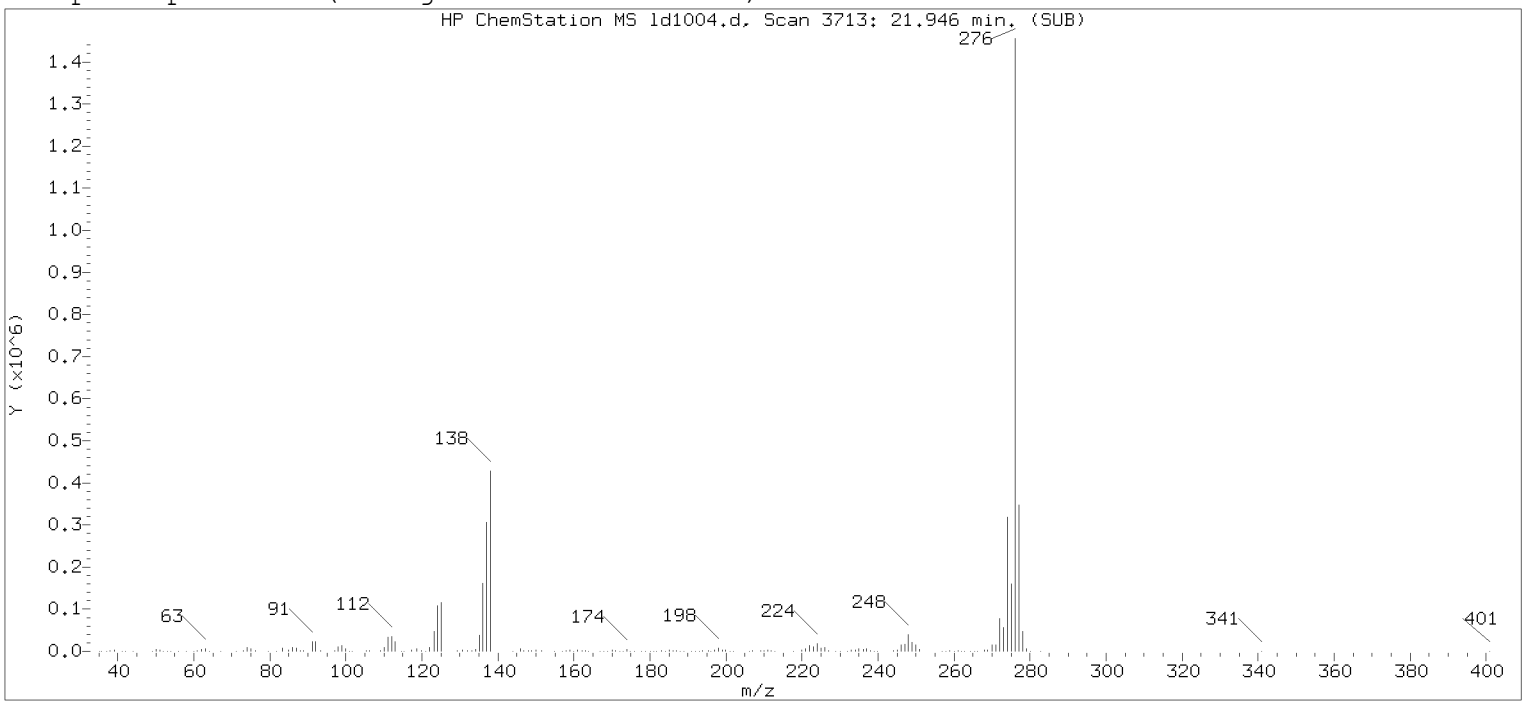
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3713
Retention Time (minutes) : 21.946
Quant Ion : 276.00
Area (flag) : 2902208M
On-Column Amount (ng/ul) : 22.2872
Integration start scan : 3699 Integration stop scan: 3717
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

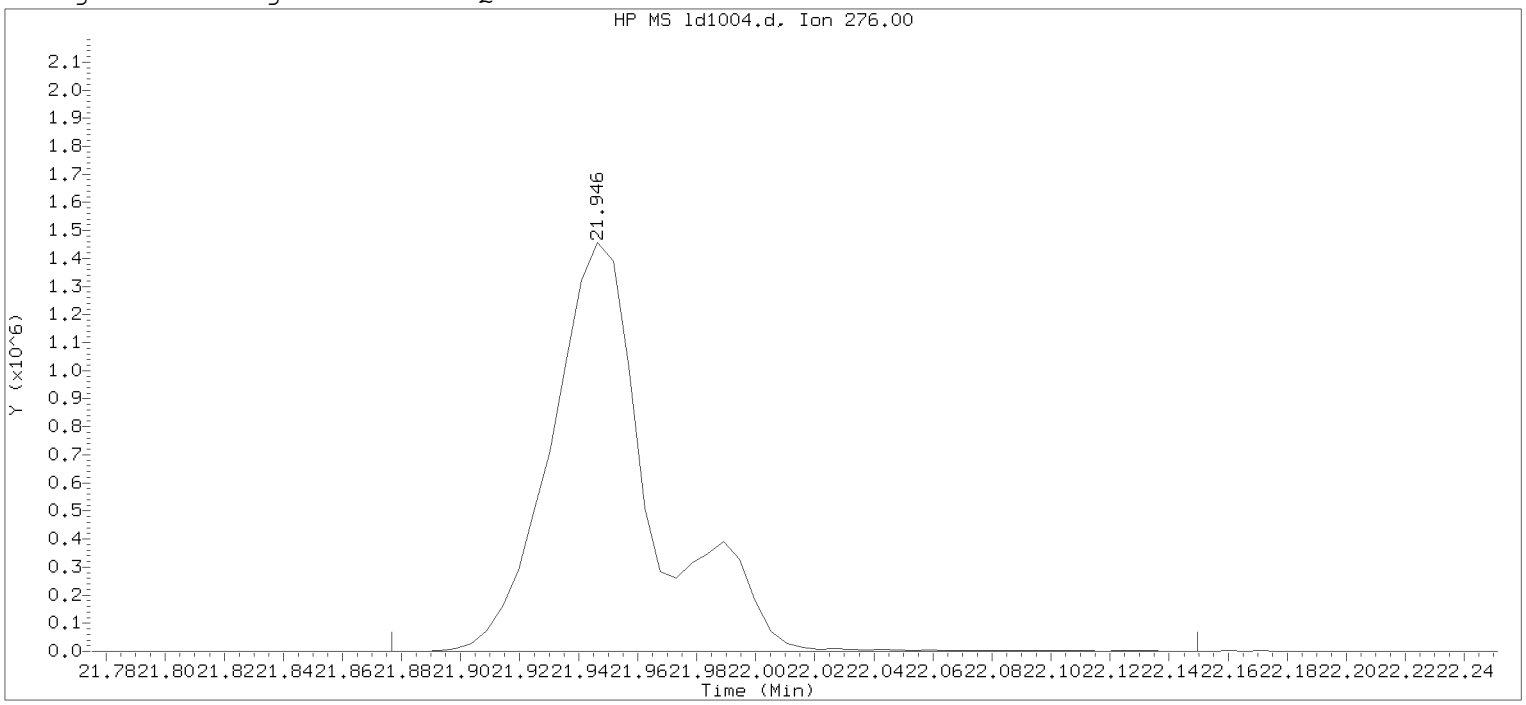
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



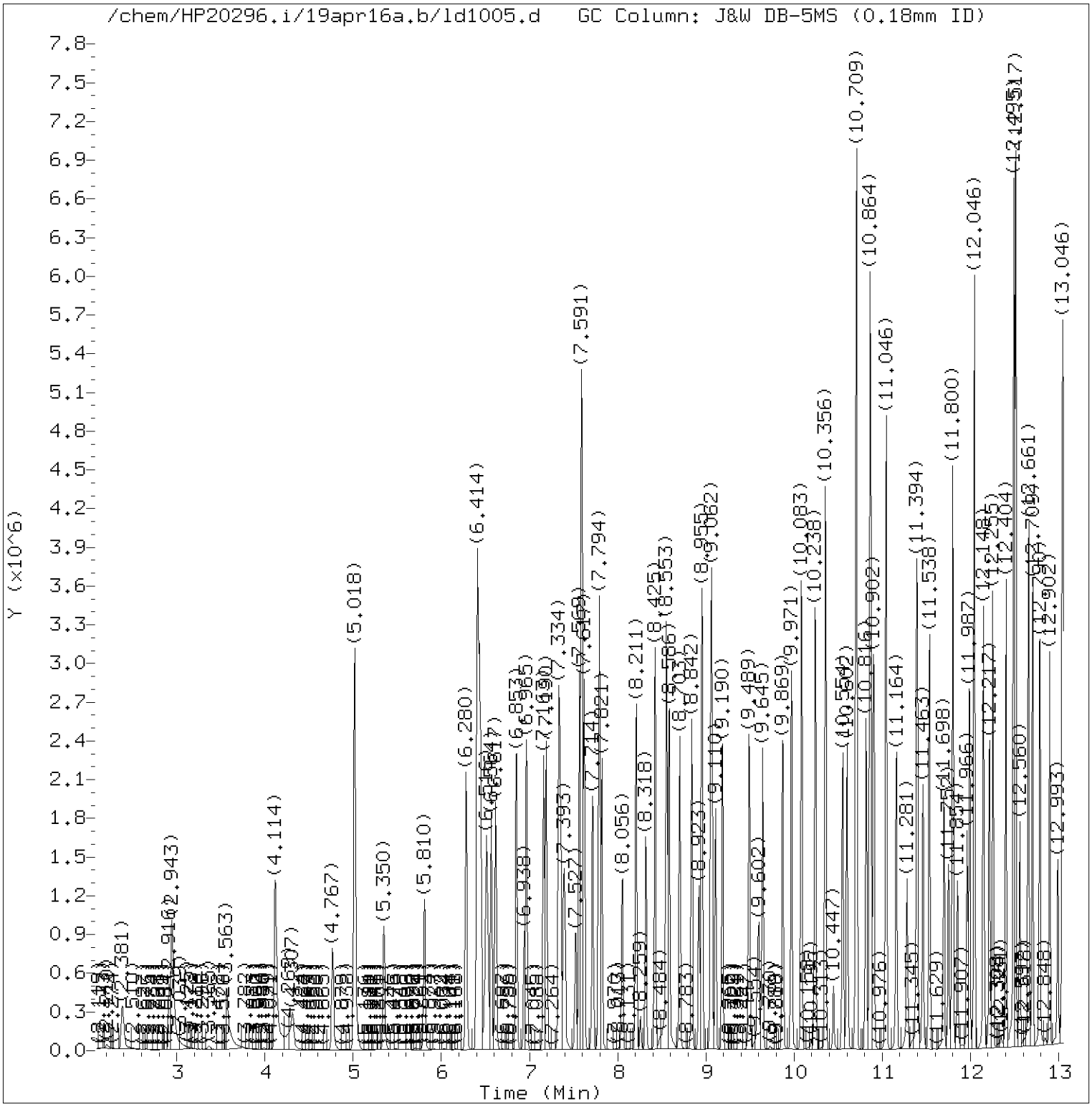
Data File: /chem/HP20296.i/19apr16a.b/ld1004.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 17:43 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:14
Date, time and analyst ID of latest file update: 16-Apr-2019 18:14 chemist

Sample Name: SSTD20 Lab Sample ID: rvSTD0929

Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3713
Retention Time (minutes) : 21.946
Quant Ion : 276.00
Area : 3462558
On-column Amount (ng/ul) : 24.7666
Integration start scan : 3699 Integration stop scan: 3750
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used. F35 Page 1897



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

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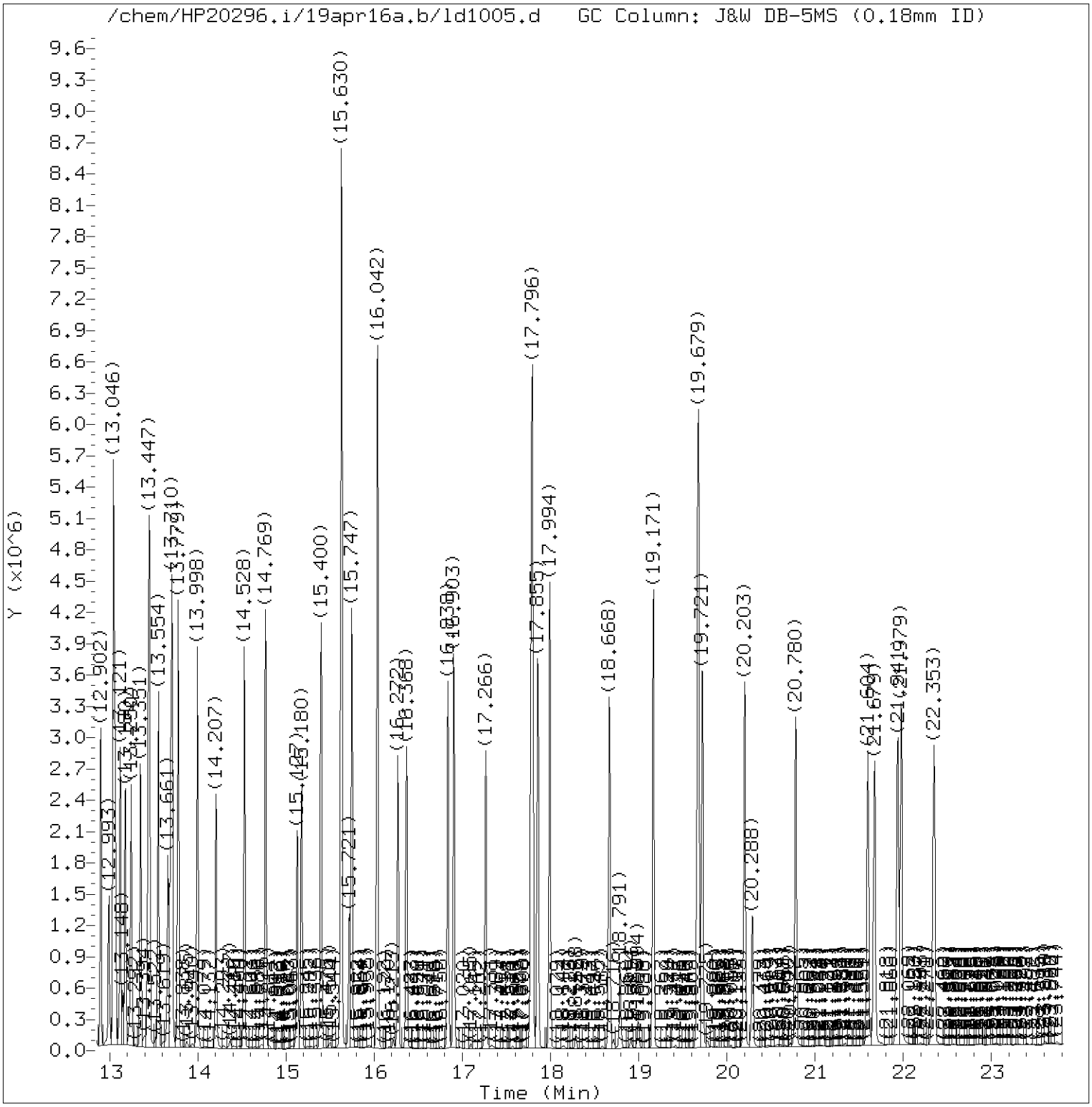
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

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on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.381	88	329493	12.717
5) N-Nitrosodimethylamine	(1)	2.916	74	519559	12.874
6) Pyridine	(1)	2.943	79	871013A	12.221
8) 2-Picoline	(1)	4.114	93	914710	12.871
9) N-Nitrosomethylethylamine	(1)	4.307	88	368819	12.727
10) Methyl methanesulfonate	(1)	4.767	80	448028	12.548
12)$2-Fluorophenol	(1)	5.018	112	1449631	25.471
14) N-Nitrosodiethylamine	(1)	5.350	102	351450	12.592
43) Total Cresols	(1)			1502735	25.754
16) Ethyl methanesulfonate	(1)	5.810	109	369845	12.476
17) Benzaldehyde	(1)	6.280	77	719603	13.694
18)$Phenol-d6	(1)	6.409	99	1922119	25.453
19) Phenol	(1)	6.430	94	1124203	12.649
20) Aniline	(1)	6.446	93	1296848	12.575
21) a-methylstyrene	(1)	6.532	118	128860A	12.886
23) bis(2-Chloroethyl)ether	(1)	6.569	93	836996	12.646
24) 2-Chlorophenol	(1)	6.617	128	692912	12.860
25) 1,3-Dichlorobenzene	(1)	6.853	146	742072	12.733
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	177238	5.000
27) 1,4-Dichlorobenzene	(1)	6.965	146	738686	12.493
28) Benzyl alcohol	(1)	7.163	108	473533	12.973
29) 1,2-Dichlorobenzene	(1)	7.190	146	704765	12.712
31) Indene	(1)	7.329	115	921871	12.907
32) 2-Methylphenol	(1)	7.350	108	708994	12.907
100) Isosafrole	(3)			569031	12.863
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.393	45	1048726	12.537
35) bis(2-Chloroisopropyl)ether	(1)	7.393	45	1048726	12.537
36) N-Nitrosopyrrolidine	(1)	7.527	100	388500	13.226
37) Acetophenone	(1)	7.569	105	1131056	13.302
39) N-Nitroso-di-n-propylamine	(1)	7.591	70	622524	12.942
38) 4-Methylphenol	(1)	7.591	108	793741	12.847
40) N-Nitrosomorpholine	(1)	7.596	56	439537	12.480
41) o-Toluidine	(1)	7.617	106	1223361	12.741
44) Hexachloroethane	(1)	7.714	117	336756	12.735
45)$Nitrobenzene-d5	(2)	7.794	82	1755856	25.892
46) Nitrobenzene	(2)	7.821	77	916961	12.835
125) 2,4_2,6-Dinitrotoluenes	(3)			651487	26.026
50) N-Nitrosopiperidine	(2)	8.056	114	349213	13.014
52) Isophorone	(2)	8.211	82	1609553	12.931
53) 2-Nitrophenol	(2)	8.323	139	334330	13.183

A = User selected an alternate hit.
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on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.425	107	769552	13.006
59) O,O,O-Triethylphosphorothioate	(2)	8.553	198	305184	13.119
58) Benzoic acid	(2)	8.575	105	552320MA	13.346
57) bis(2-Chloroethoxy)methane	(2)	8.586	93	1061176	13.492
62) 2,4-Dichlorophenol	(2)	8.703	162	545694	13.019
151) Diallate trans/cis	(4)			701469	12.992
65) 1,2,4-Trichlorobenzene	(2)	8.842	180	592677	12.772
68)*Naphthalene-d8	(2)	8.923	136	683662	5.000
69) Naphthalene	(2)	8.955	128	1963401	12.674
70) 4-Chloroaniline	(2)	9.056	127	814297	12.714
71) 2,6-Dichlorophenol	(2)	9.067	162	527473	12.846
72) Hexachloropropene	(2)	9.110	213	367558	13.024
74) Hexachlorobutadiene	(2)	9.190	225	329429	12.761
78) Quinoline	(2)	9.489	129	1169718	12.906
79) Caprolactam	(2)	9.602	113	183533A	13.660
80) N-Nitrosodi-n-butylamine	(2)	9.645	84	571459	12.218
83) 4-Chloro-3-methylphenol	(2)	9.869	107	662424	12.852
85) Safrole	(2)	9.971	162	478951	13.128
86) 2-Methylnaphthalene	(2)	10.083	142	1258445	13.054
87) 1-Methylnaphthalene	(2)	10.238	142	1184243	12.679
88) Hexachlorocyclopentadiene	(3)	10.356	237	342464	13.203
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	570605	12.705
91) cis-Isosafrole	(3)	10.447	162	83518	2.086
93) 2,4,6-Trichlorophenol	(3)	10.554	196	382000	13.043
95) 2,4,5-Trichlorophenol	(3)	10.602	196	411699	13.382
96)$2-Fluorobiphenyl	(3)	10.709	172	2640255	25.474
97) trans-Isosafrole	(3)	10.816	162	485513	10.777
98) 1,1'-Biphenyl	(3)	10.859	154	1504170	13.167
99) 2-Chloronaphthalene	(3)	10.869	162	1170221	12.302
101) 1-Chloronaphthalene	(3)	10.902	162	1122328	13.175
103) Diphenyl ether	(3)	11.046	170	760915	12.666
104) 2-Nitroaniline	(3)	11.046	138	367163	13.161
108) 1,4-Naphthoquinone	(3)	11.164	158	483384	13.392
109) 1,4-Dinitrobenzene	(3)	11.281	168	177585	13.073
110) Dimethylphthalate	(3)	11.394	163	1225996	12.558
111) 1,3-Dinitrobenzene	(3)	11.399	168	205874A	13.850
113) 2,6-Dinitrotoluene	(3)	11.463	165	280873	13.200
114) Acenaphthylene	(3)	11.538	152	1678755	13.148
117) 3-Nitroaniline	(3)	11.698	138	323757	13.292
118)*Acenaphthene-d10	(3)	11.752	164	322911	5.000

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on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.800	153	1206142	12.566
120) 2,4-Dinitrophenol	(3)	11.854	184	163624	13.253
121) 4-Nitrophenol	(3)	11.966	109	250342	13.775
122) Pentachlorobenzene	(3)	11.993	250	470830	12.597
123) 2,4-Dinitrotoluene	(3)	12.046	165	370614	12.826
124) Dibenzofuran	(3)	12.046	168	1583508	12.650
126) 1-Naphthylamine	(3)	12.148	143	1187853	12.948
127) 2,3,4,6-Tetrachlorophenol	(3)	12.217	232	301492	13.343
128) 2-Naphthylamine	(3)	12.255	143	1156120	12.977
129) Diethylphthalate	(3)	12.404	149	1255609	12.842
131) Fluorene	(3)	12.490	166	1243521	12.394
130) Thionazin	(3)	12.495	107	260497	12.986
133) 5-Nitro-o-toluidine	(3)	12.511	152	350186	13.101
134) 4-Nitroaniline	(3)	12.517	138	323326A	12.519
132) 4-Chlorophenyl-phenylether	(3)	12.517	204	595175	12.609
135) 4,6-Dinitro-2-methylphenol	(4)	12.560	198	205689	12.977
136) N-Nitrosodiphenylamine	(4)	12.661	169	1025420	12.944
137) NDPA as diphenylamine	(4)	12.661	169	1025420	12.944
139) 1,2-Diphenylhydrazine	(4)	12.709	77	1726404	12.853
140)$2,4,6-Tribromophenol	(3)	12.790	330	348619	26.693
142) Tetraethyldithiopyrophosphate	(4)	12.897	97	260480	12.652
144) 1,3,5-Trinitrobenzene	(4)	12.993	213	118348	12.459
145) Diallate (peak 1)	(4)	13.041	86	594749	10.675
146) Phorate	(4)	13.046	75	1037417	13.023
147) Phenacetin	(4)	13.062	108	762783	13.201
148) 4-Bromophenyl-phenylether	(4)	13.121	248	325846	12.686
149) Diallate (peak 2)	(4)	13.148	86	106720A	2.316
150) Hexachlorobenzene	(4)	13.180	284	358908	12.520
152) Dimethoate	(4)	13.250	87	663971	12.837
153) Atrazine	(4)	13.357	200	308645	13.058
154) Pentachlorophenol	(4)	13.437	266	241538	13.284
155) 4-Aminobiphenyl	(4)	13.447	169	1190902	12.996
156) Pentachloronitrobenzene	(4)	13.453	237	156275	13.089
157) Pronamide	(4)	13.554	173	571279	13.575
158)*Phenanthrene-d10	(4)	13.677	188	592201	5.000
159) Dinoseb	(4)	13.699	211	301260	12.910
160) Phenanthrene	(4)	13.710	178	1844433	12.884
162) Anthracene	(4)	13.779	178	1825749	12.781
168) Carbazole	(4)	13.998	167	1661474	13.056
169) Methyl parathion	(4)	14.207	109	503356	13.476

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Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.528	149	2251203	13.036
172) Parathion	(4)	14.769	109	321111	13.312
173) 4-Nitroquinoline-1-oxide	(4)	14.774	190	188549	12.485
227) Total PAHs	(6)			31590581	236.955
174) Octachlorostyrene	(4)	15.132	308	138168	13.108
176) Isodrin	(4)	15.180	193	214707	12.872
178) Fluoranthene	(4)	15.400	202	1999897	13.426
179) Benzidine	(5)	15.630	184	4215947	41.021
180)*Pyrene-d10	(5)	15.721	212	596563	5.000
182) Pyrene	(5)	15.747	202	2021931	12.511
184)$Terphenyl-d14	(5)	16.042	244	2530283	25.963
187) p-Dimethylaminoazobenzene	(5)	16.272	225	353086	13.591
190) Chlorobenzilate	(5)	16.368	139	700826	13.362
192) 3,3'-Dimethylbenzidine	(5)	16.838	212	1422182	13.490
193) Butylbenzylphthalate	(5)	16.903	149	1063078	13.320
196) 2-Acetylaminofluorene	(5)	17.266	181	879360	13.342
198) 3,3'-Dichlorobenzidine	(5)	17.780	252	754597	13.749
200) Benzo(a)anthracene	(5)	17.796	228	1965898	13.514
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.801	231	415098	13.664
201) Chrysene	(5)	17.860	228	1873570	13.264
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	1573179	13.546
208) 6-Methylchrysene	(5)	18.668	242	1313327	13.316
210) Di-n-octylphthalate	(6)	19.171	149	2821067	13.741
211) Benzo(b)fluoranthene	(6)	19.673	252	2011464	13.389
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.679	256	863180	13.811
213) Benzo(k)fluoranthene	(6)	19.727	252	1907254A	13.230
216) Benzo(a)pyrene	(6)	20.203	252	1863214	13.642
218)*Perylene-d12	(6)	20.294	264	591636	5.000
220) 3-Methylcholanthrene	(6)	20.780	268	966585	13.814
222) Dibenz(a,h)acridine	(6)	21.604	279	1605733	13.499
223) Dibenz(a,j)acridine	(6)	21.679	279	1589442	13.473
224) Indeno(1,2,3-cd)pyrene	(6)	21.941	276	1868886M	13.989
225) Dibenz(a,h)anthracene	(6)	21.984	278	1933141	14.066
226) Benzo(g,h,i)perylene	(6)	22.353	276	1940637	13.745

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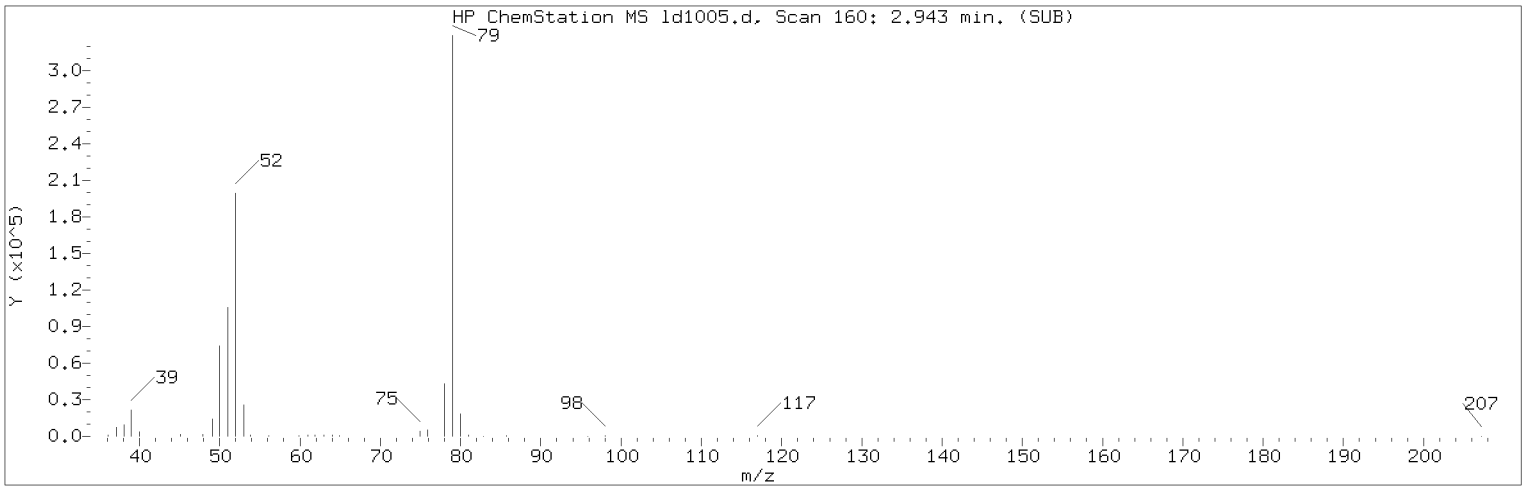
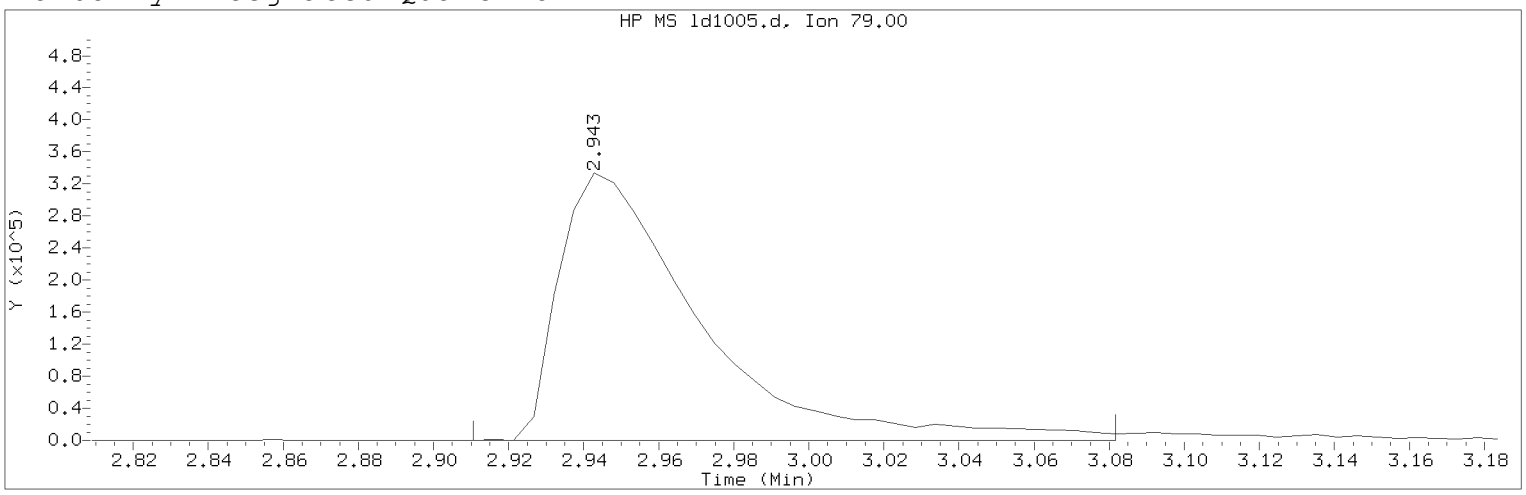
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

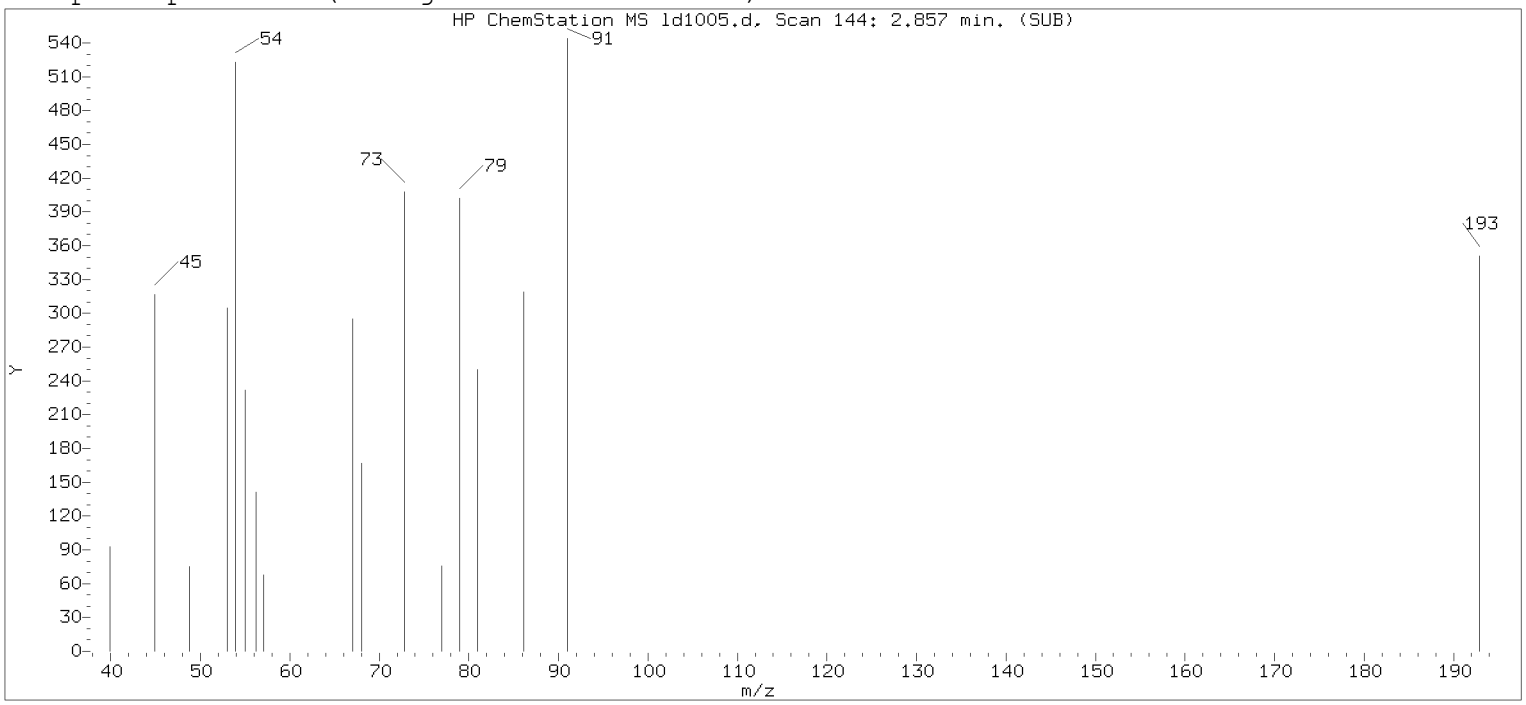
Compound Number : 6
Compound Name : Pyridine
Scan Number : 160
Retention Time (minutes) : 2.943
Quant Ion : 79.00
Area (flag) : 871013A
On-Column Amount (ng/ul) : 12.2213
Integration start scan : 153 Integration stop scan: 185
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

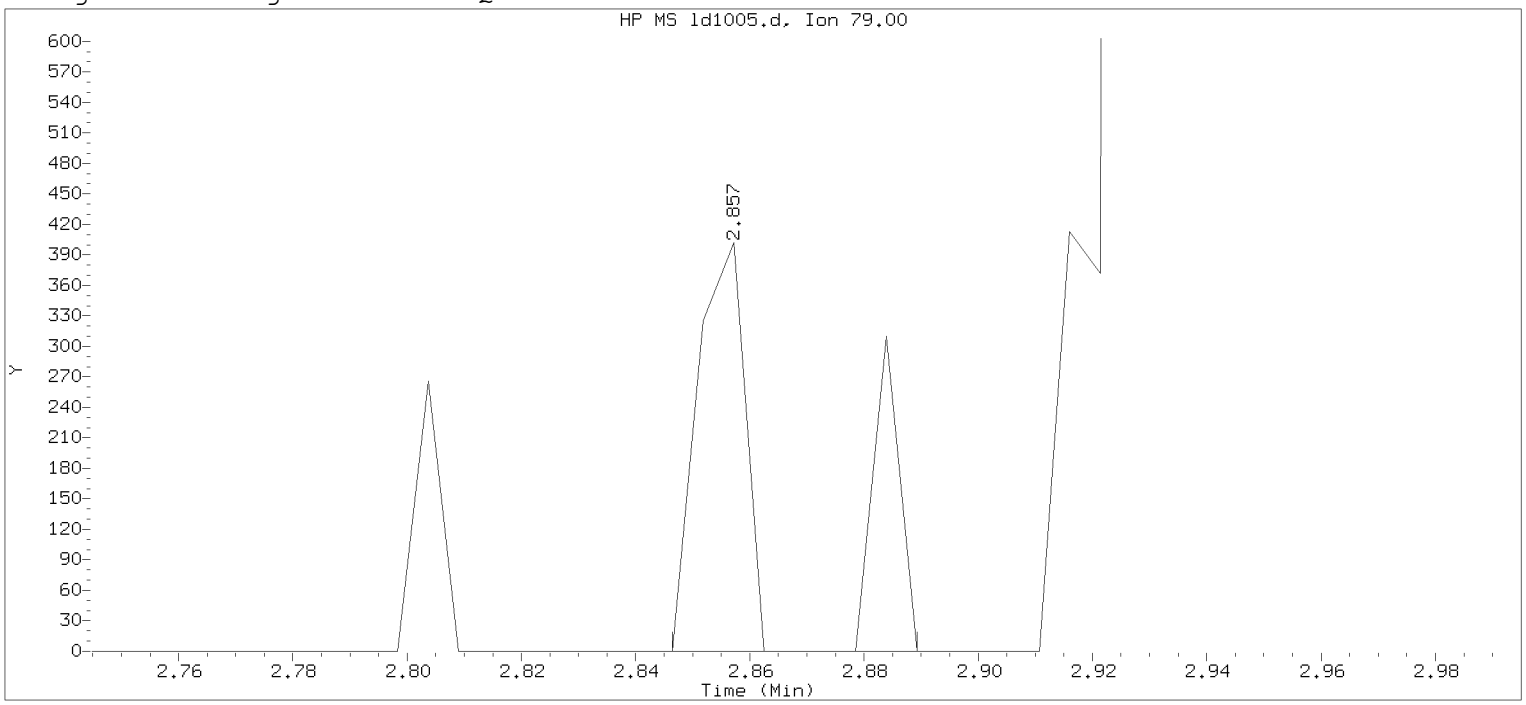
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

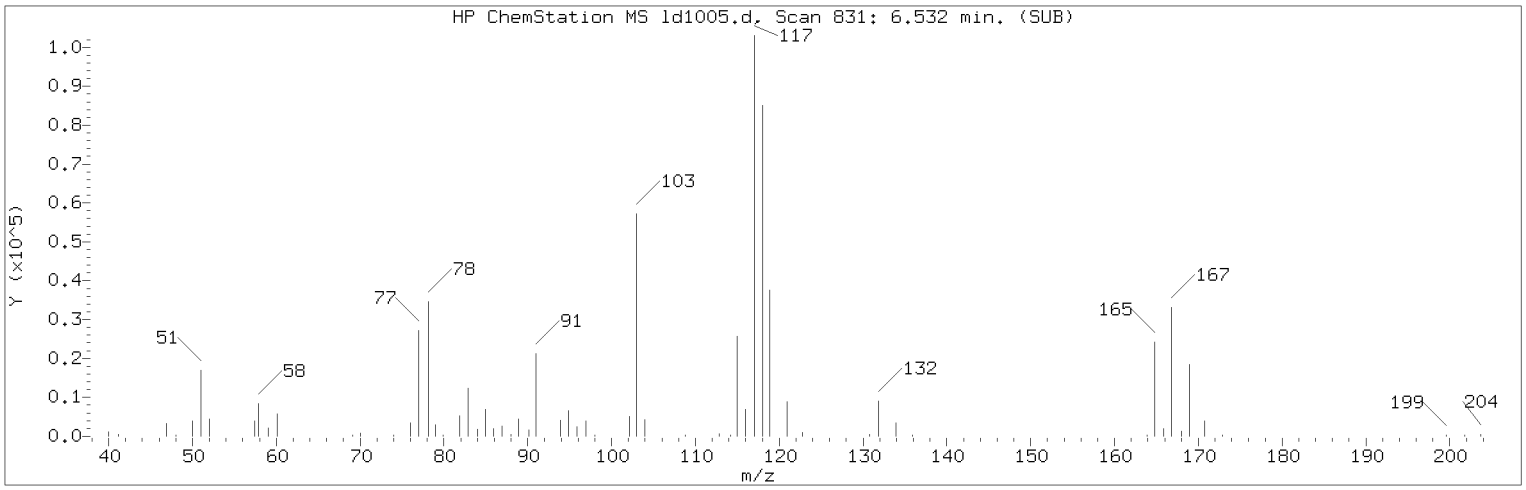
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

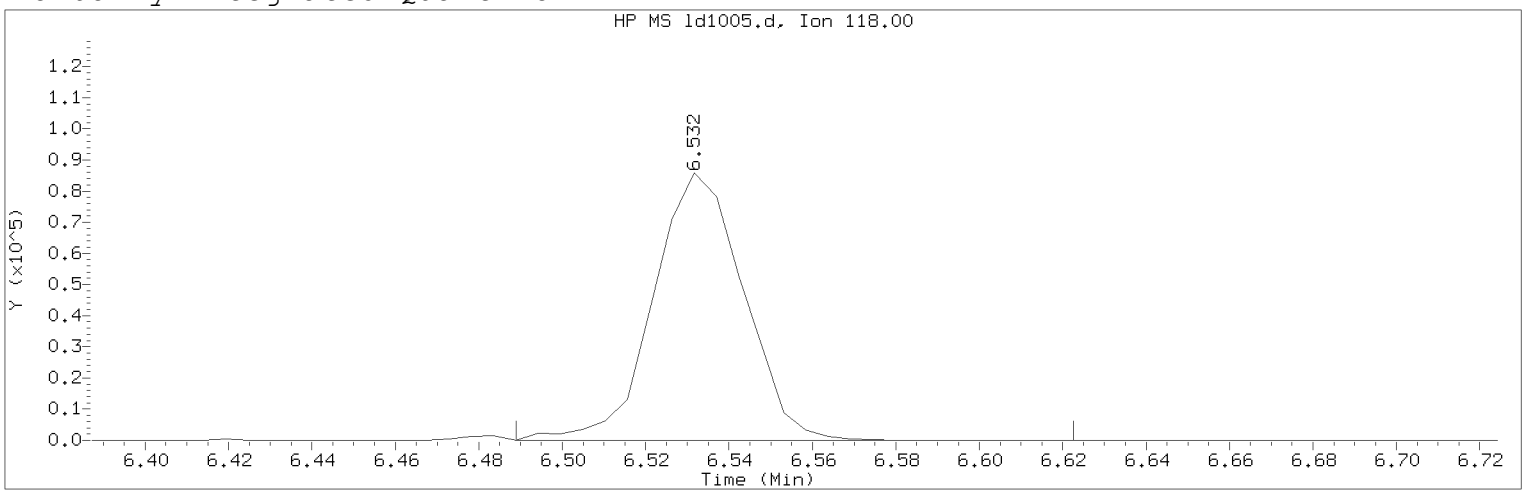
Compound Number	: 6		
Compound Name	: Pyridine		
Scan Number	: 144		
Retention Time (minutes)	: 2.857		
Quant Ion	: 79.00		
Area	: 332		
On-column Amount (ng/ul)	: 0.0049		
Integration start scan	: 141	Integration stop scan:	149
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

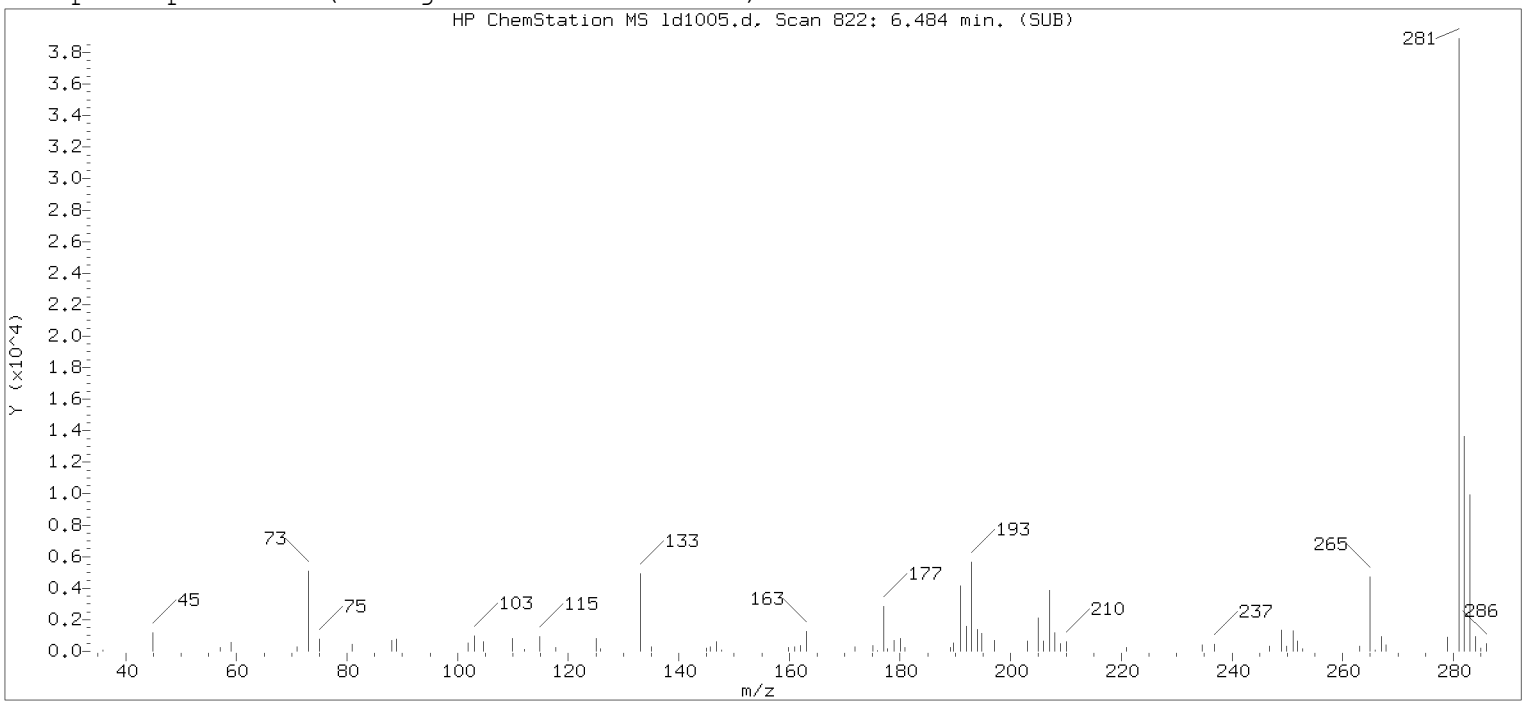
Compound Number	: 21		
Compound Name	: a-methylstyrene		
Scan Number	: 831		
Retention Time (minutes)	: 6.532		
Quant Ion	: 118.00		
Area (flag)	: 128860A		
On-Column Amount (ng/ul)	: 12.8860		
Integration start scan	: 822	Integration stop scan:	847
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

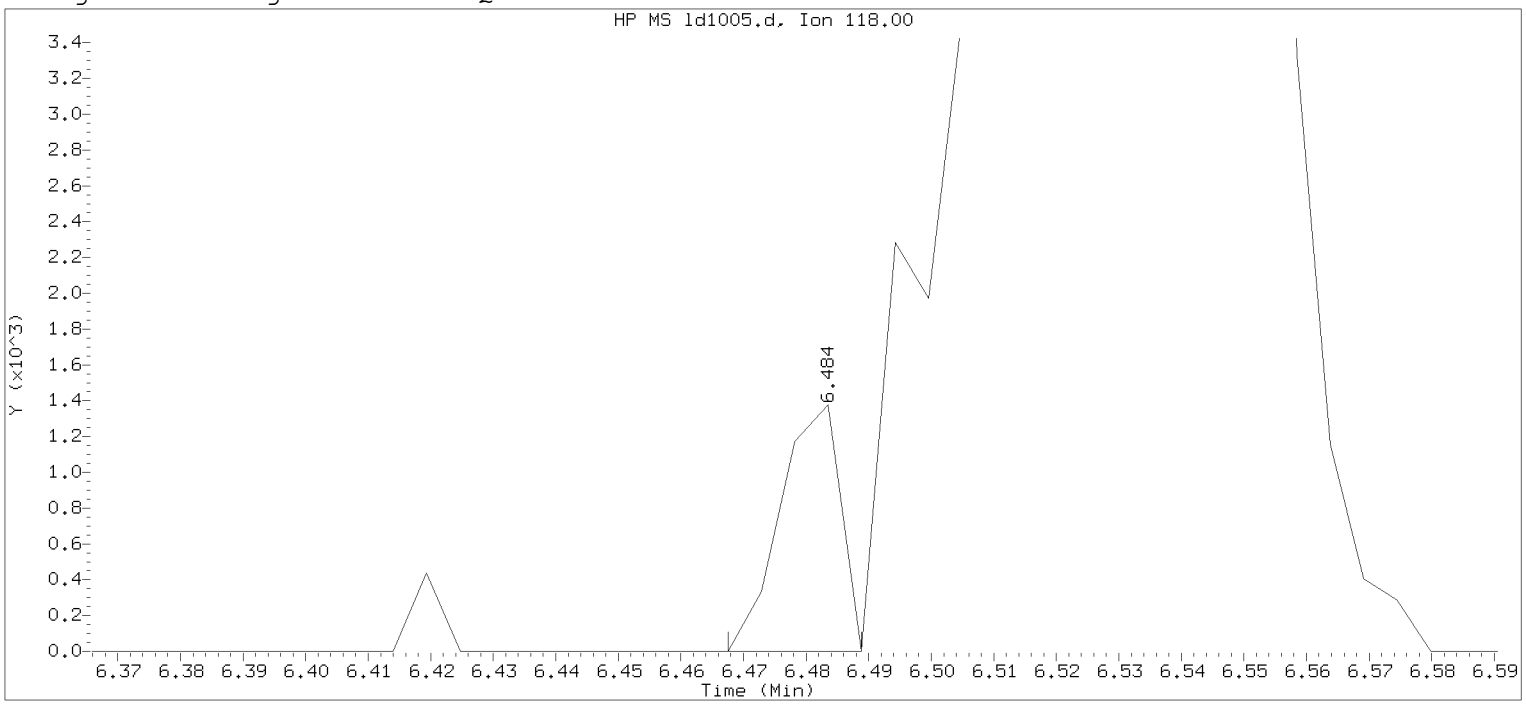
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

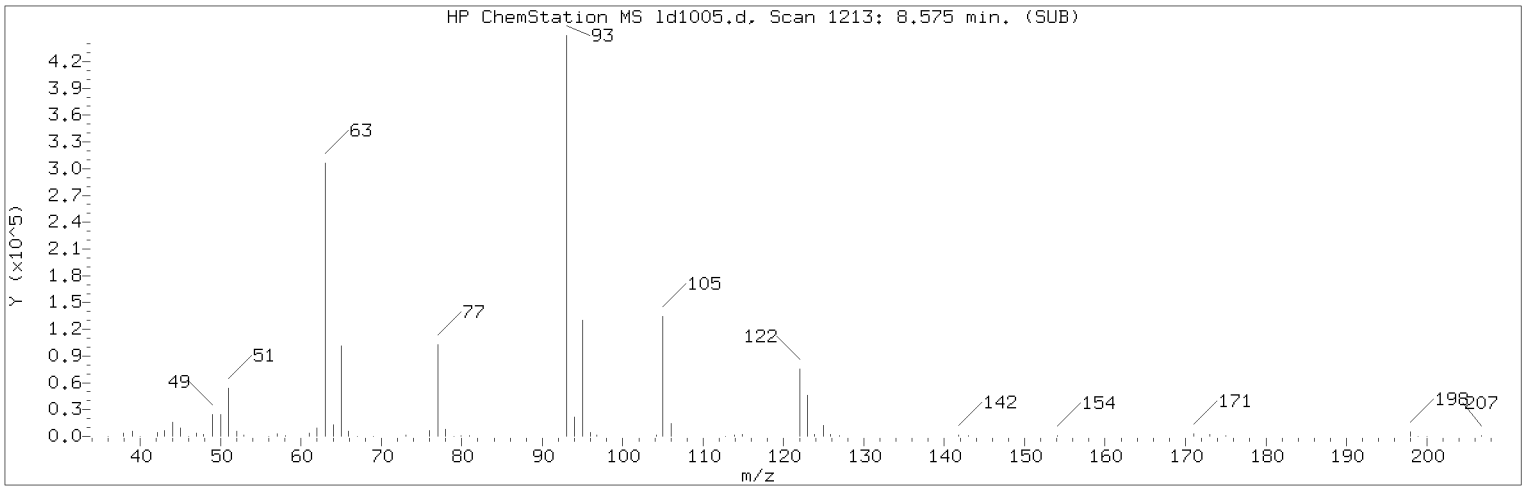
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

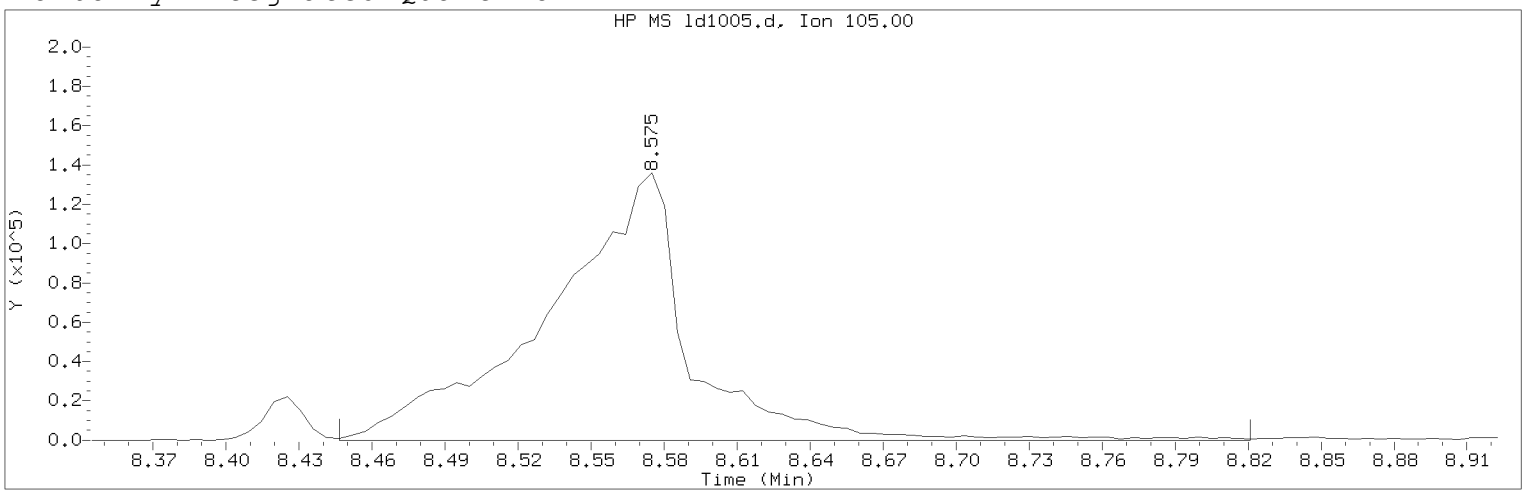
Compound Number	: 21		
Compound Name	: a-methylstyrene		
Scan Number	: 822		
Retention Time (minutes)	: 6.484		
Quant Ion	: 118.00		
Area	: 924		
On-column Amount (ng/ul)	: 0.0850		
Integration start scan	: 818	Integration stop scan:	822
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

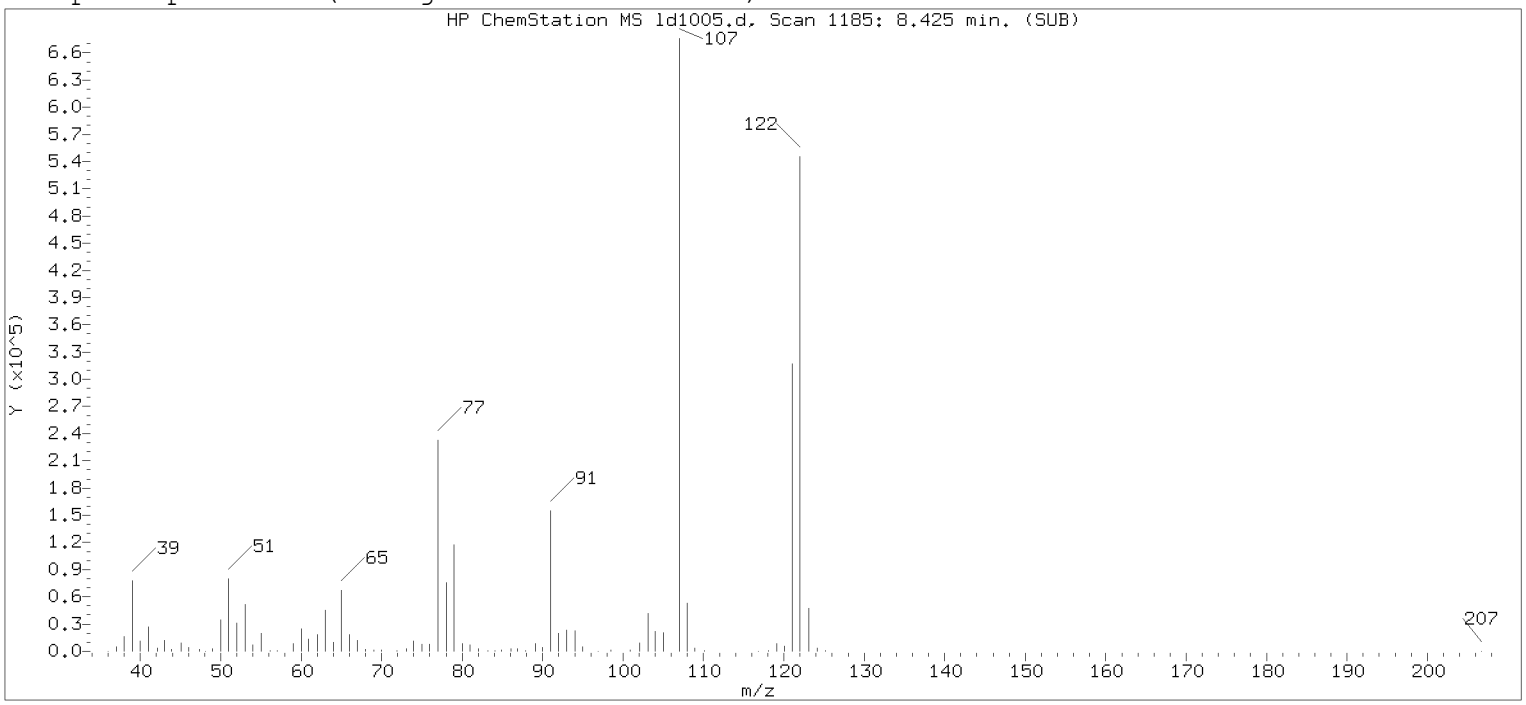
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1213
Retention Time (minutes) : 8.575
Quant Ion : 105.00
Area (flag) : 552320MA
On-Column Amount (ng/ul) : 13.3456
Integration start scan : 1188 Integration stop scan: 1258
Y at integration start : -71 Y at integration end: -71

Reason for manual integration: improper integration

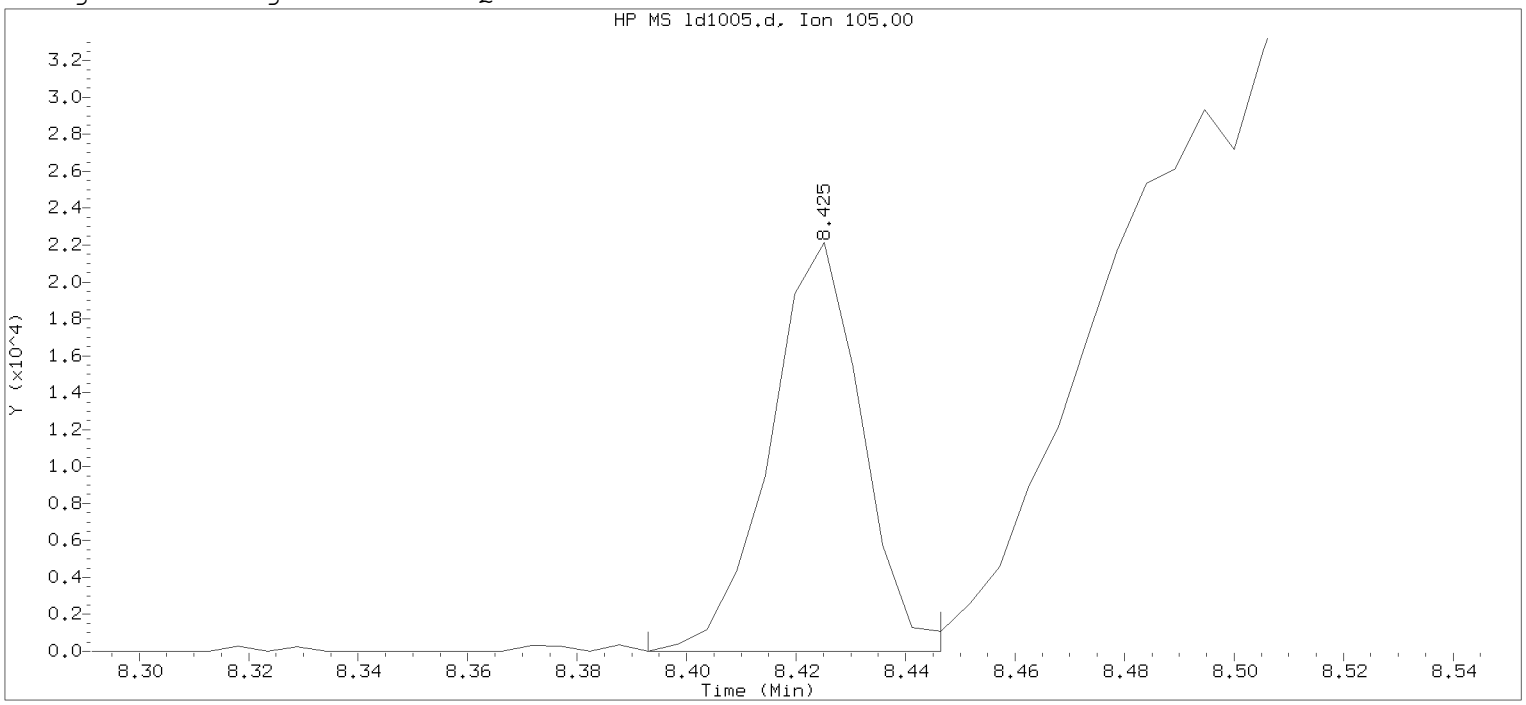
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

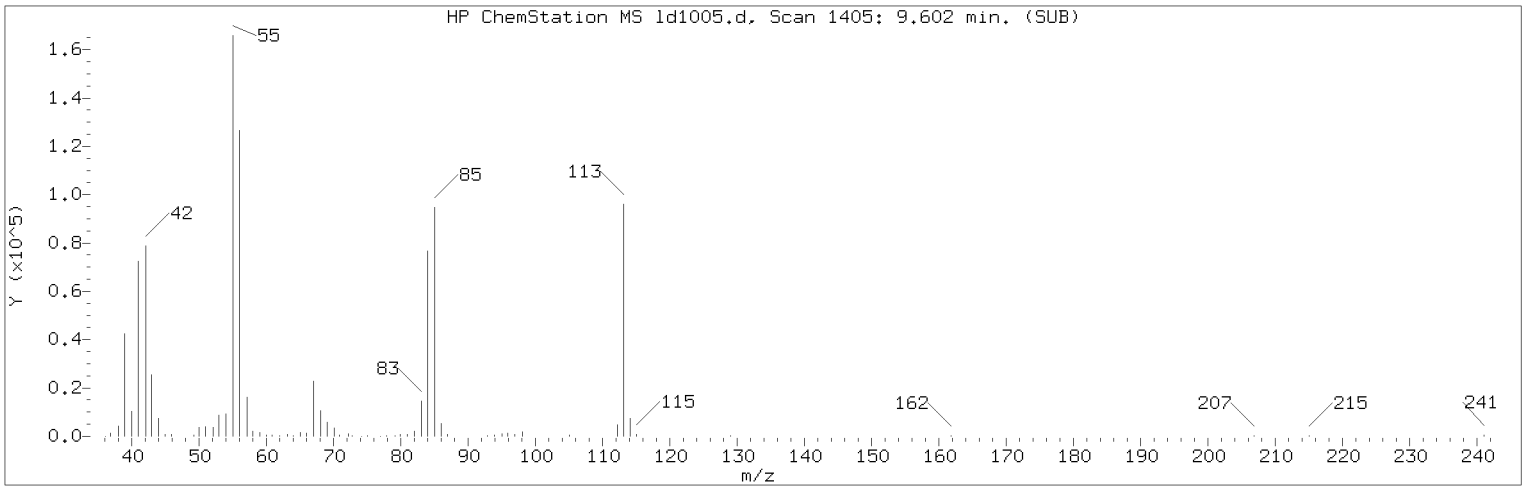
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

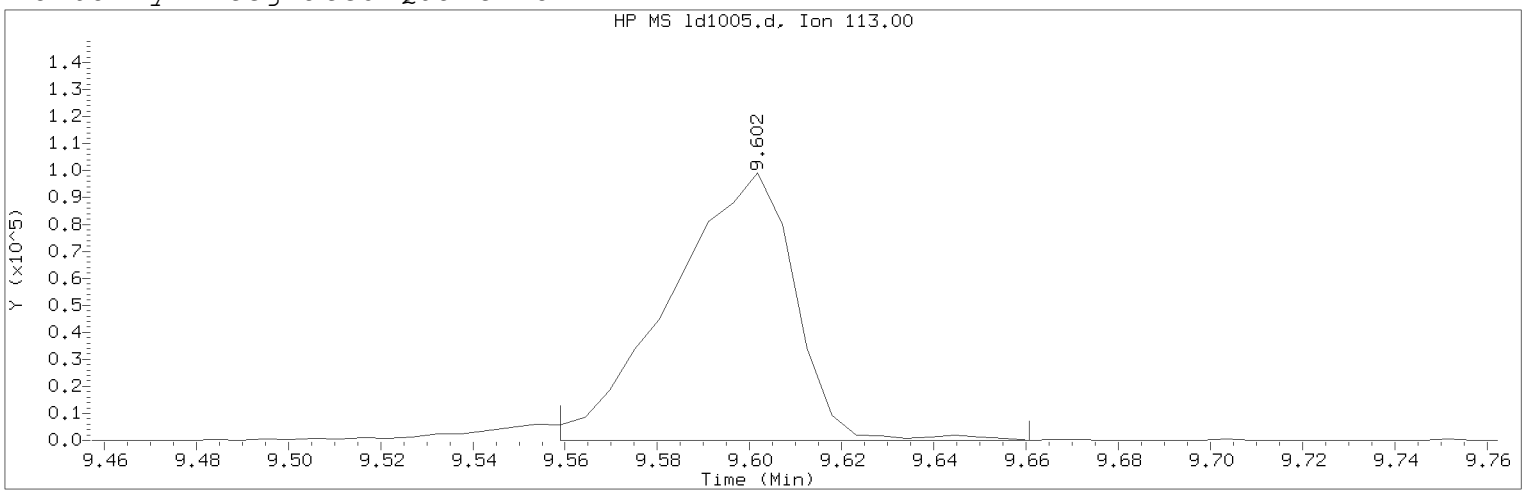
Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1185		
Retention Time (minutes)	: 8.425		
Quant Ion	: 105.00		
Area	: 25619		
On-column Amount (ng/ul)	: 0.6298		
Integration start scan	: 1178	Integration stop scan:	1188
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

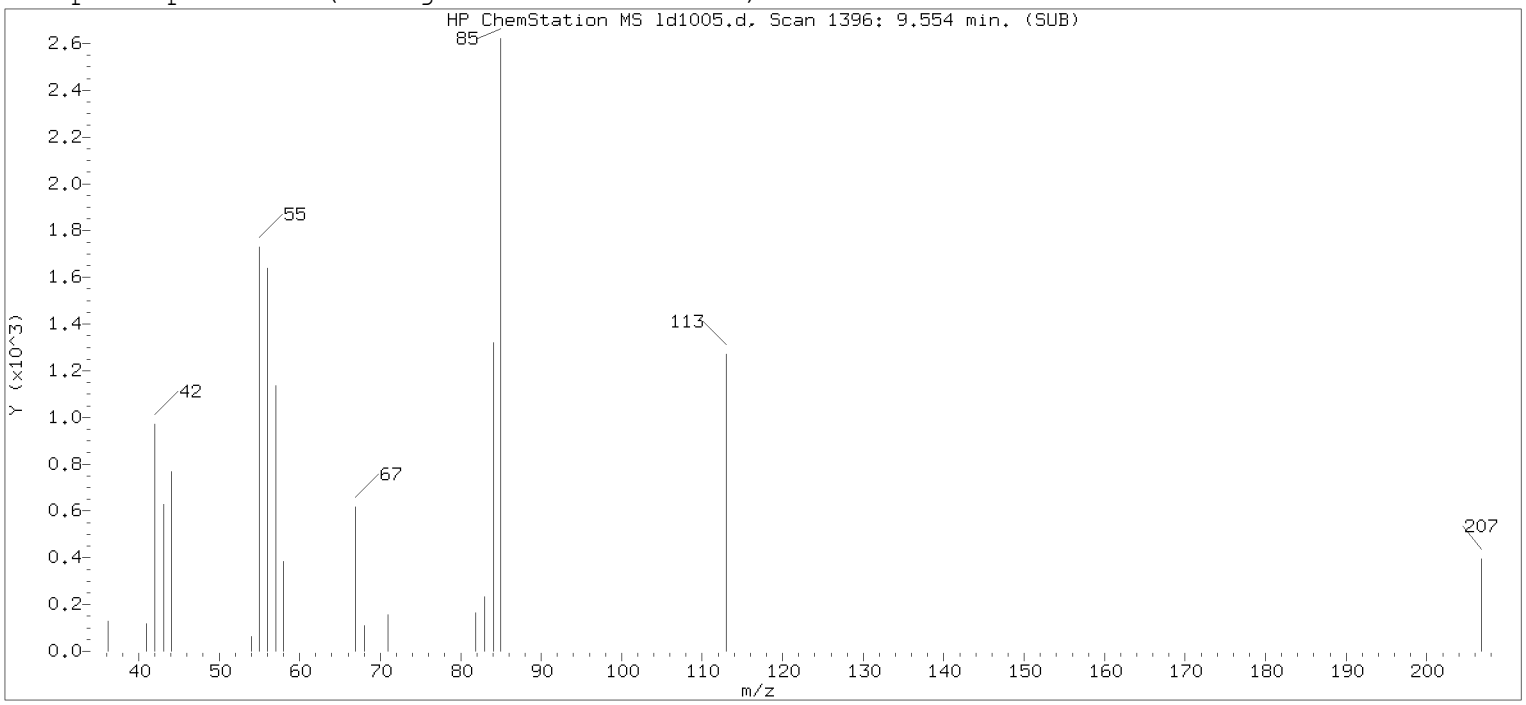
Compound Number : 79
Compound Name : Caprolactam
Scan Number : 1405
Retention Time (minutes) : 9.602
Quant Ion : 113.00
Area (flag) : 183533A
On-Column Amount (ng/ul) : 13.6603
Integration start scan : 1396 Integration stop scan: 1415
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

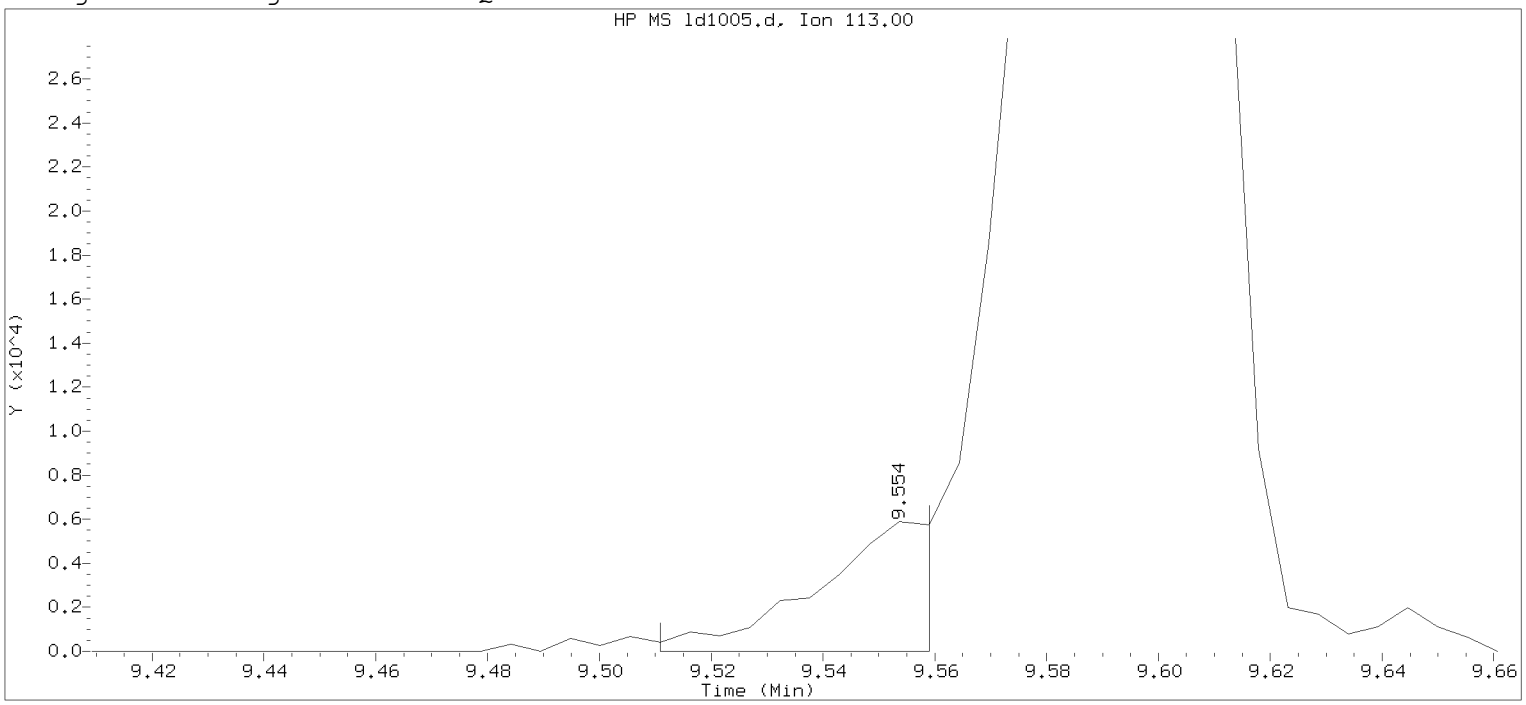
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

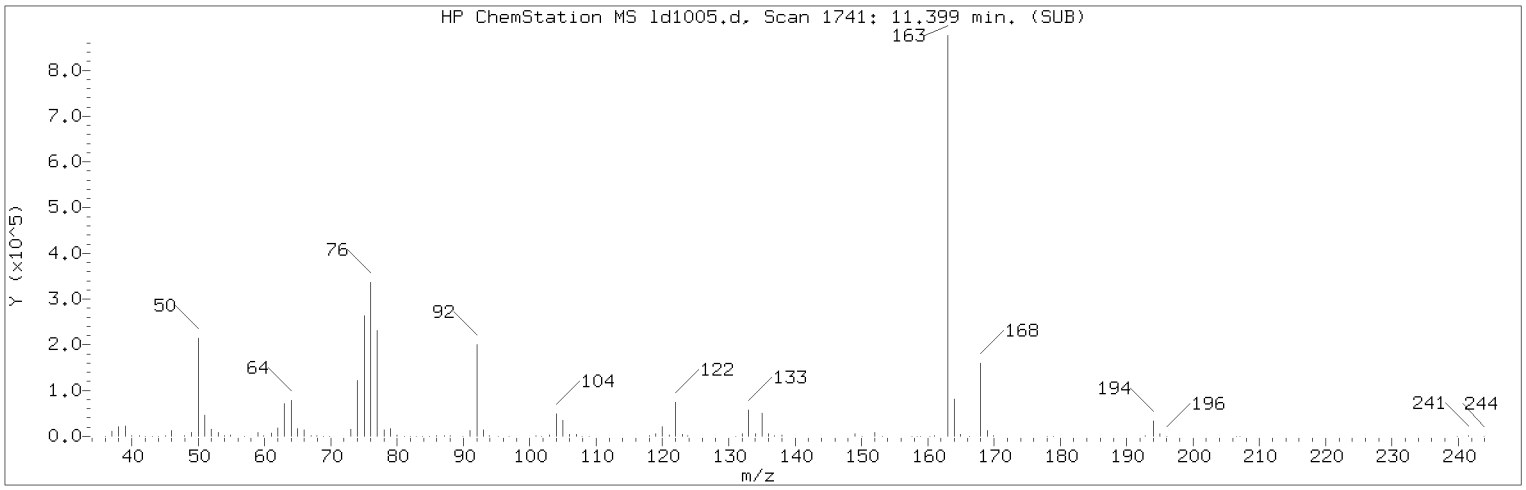
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

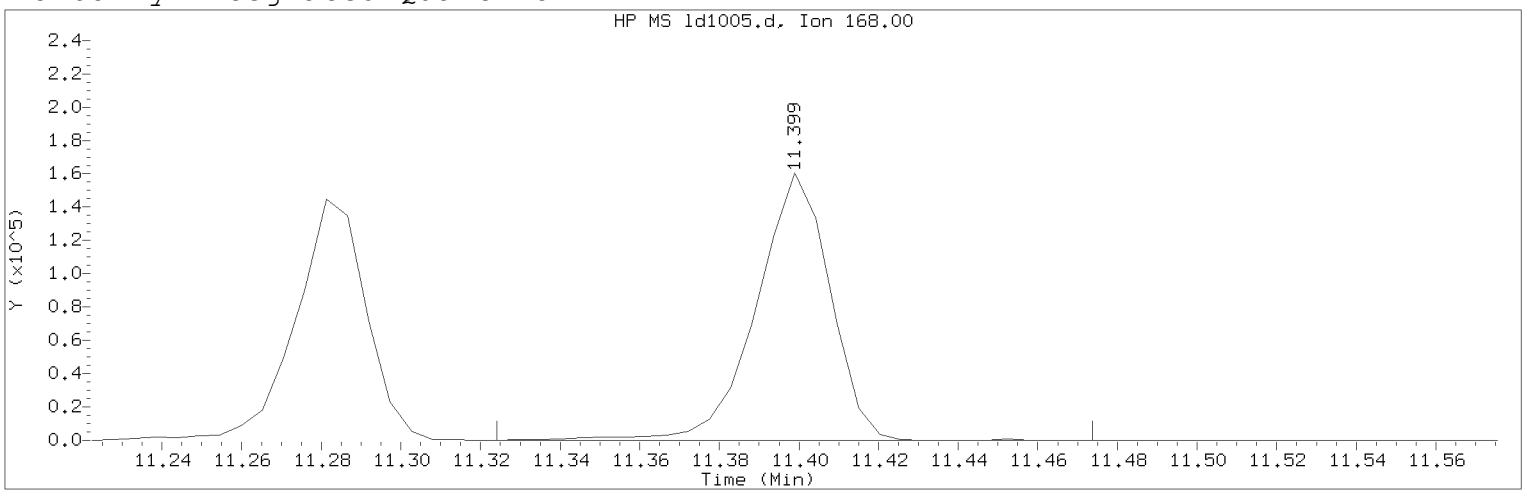
Compound Number	: 79		
Compound Name	: Caprolactam		
Scan Number	: 1396		
Retention Time (minutes)	: 9.554		
Quant Ion	: 113.00		
Area	: 7914		
On-column Amount (ng/ul)	: 0.5581		
Integration start scan	: 1387	Integration stop scan:	1396
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: ART2405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

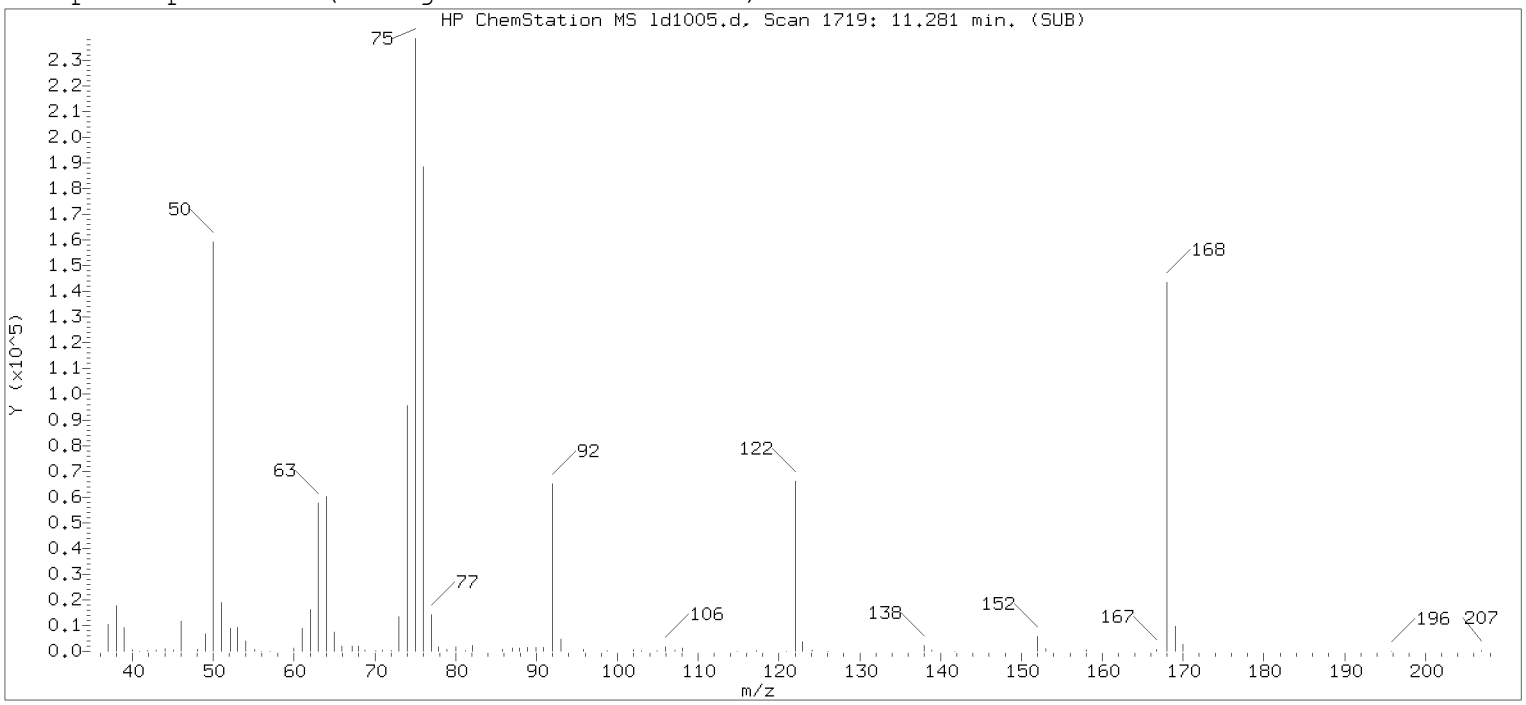
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1741
Retention Time (minutes) : 11.399
Quant Ion : 168.00
Area (flag) : 205874A
On-Column Amount (ng/ul) : 13.8503
Integration start scan : 1726 Integration stop scan: 1754
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

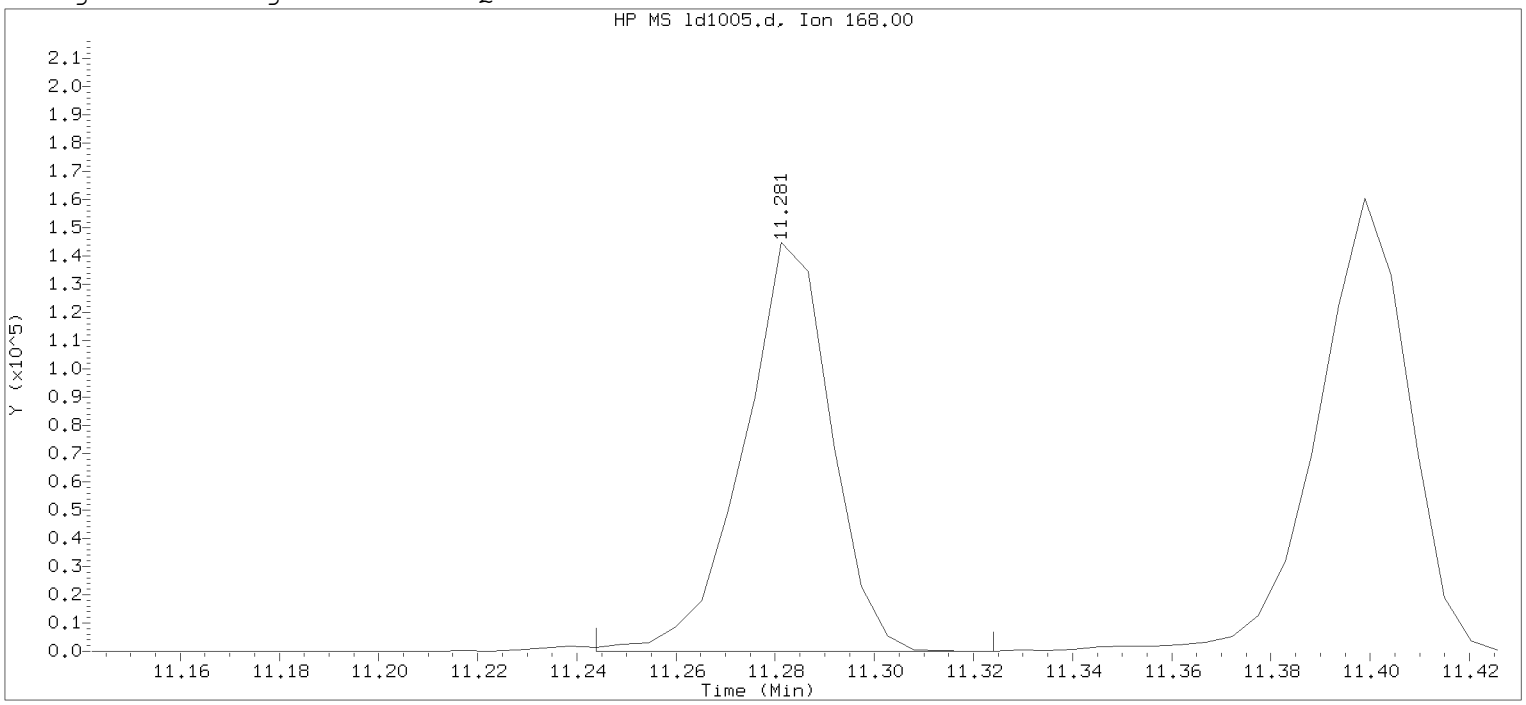
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1719
Retention Time (minutes) : 11.281
Quant Ion : 168.00
Area : 177585
On-column Amount (ng/ul) : 10.9166
Integration start scan : 1711 Integration stop scan: 1726
Y at integration start : 0 Y at integration end: 0

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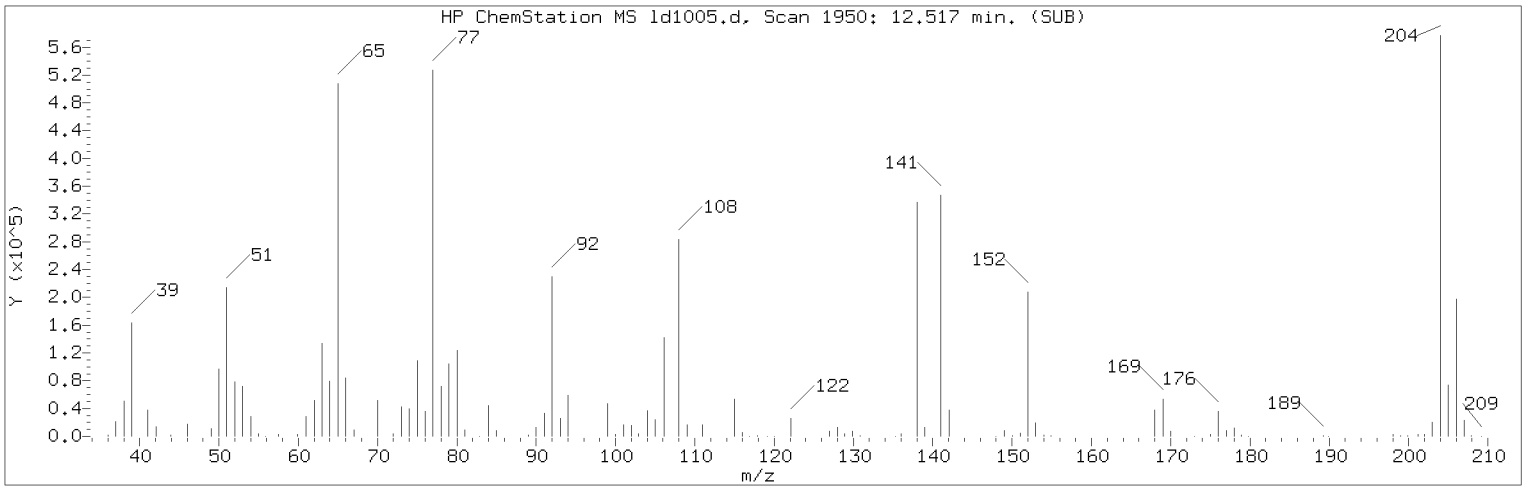
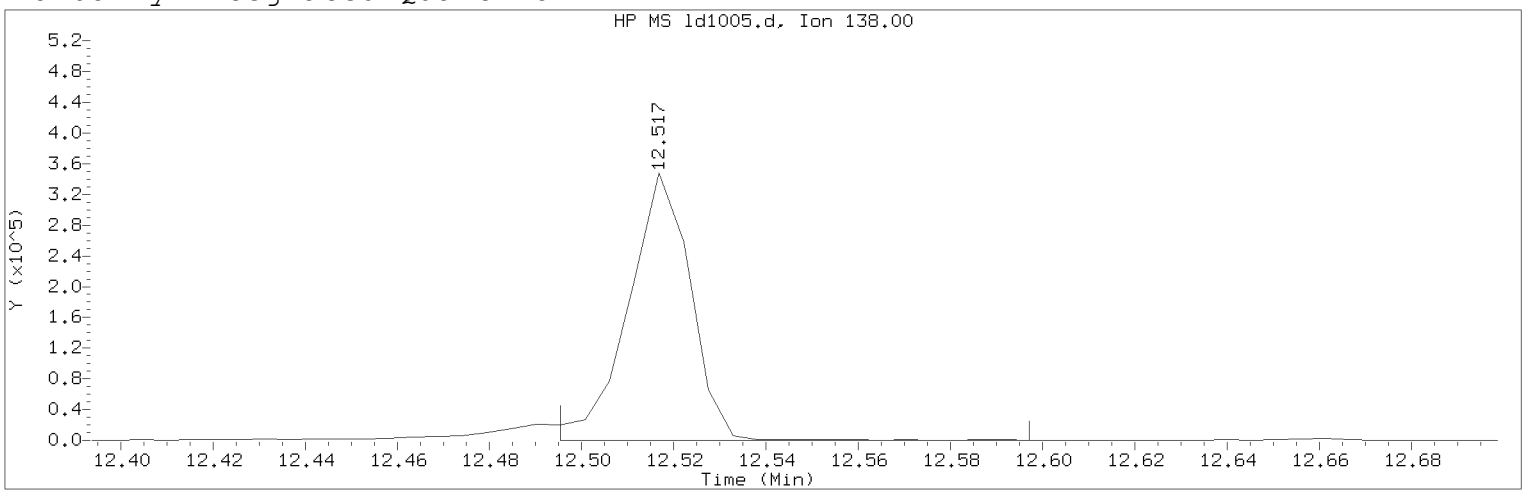
Target 3.5 esignature user: F35 Page 1913

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

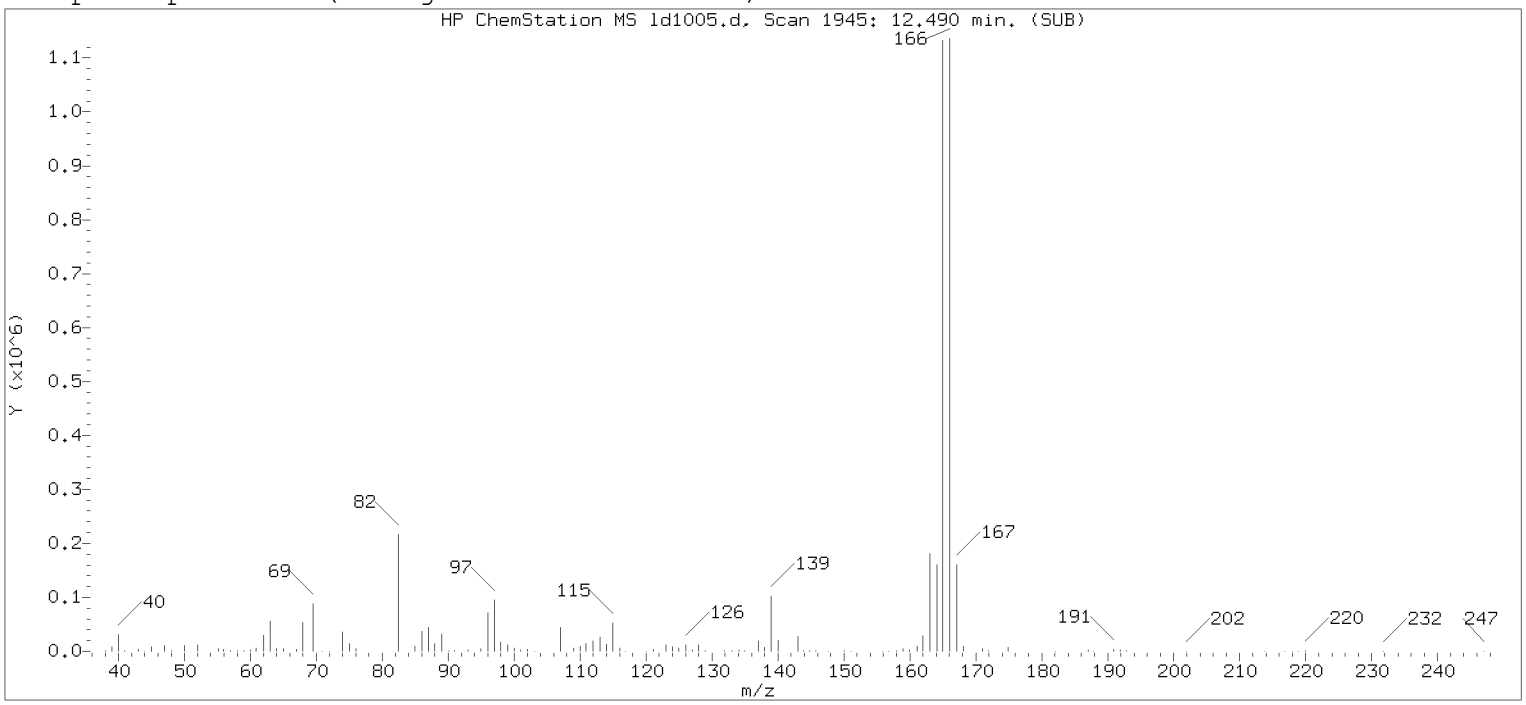
Compound Number : 134
Compound Name : 4-Nitroaniline
Scan Number : 1950
Retention Time (minutes) : 12.517
Quant Ion : 138.00
Area (flag) : 323326A
On-Column Amount (ng/ul) : 12.5187
Integration start scan : 1945 Integration stop scan: 1964
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

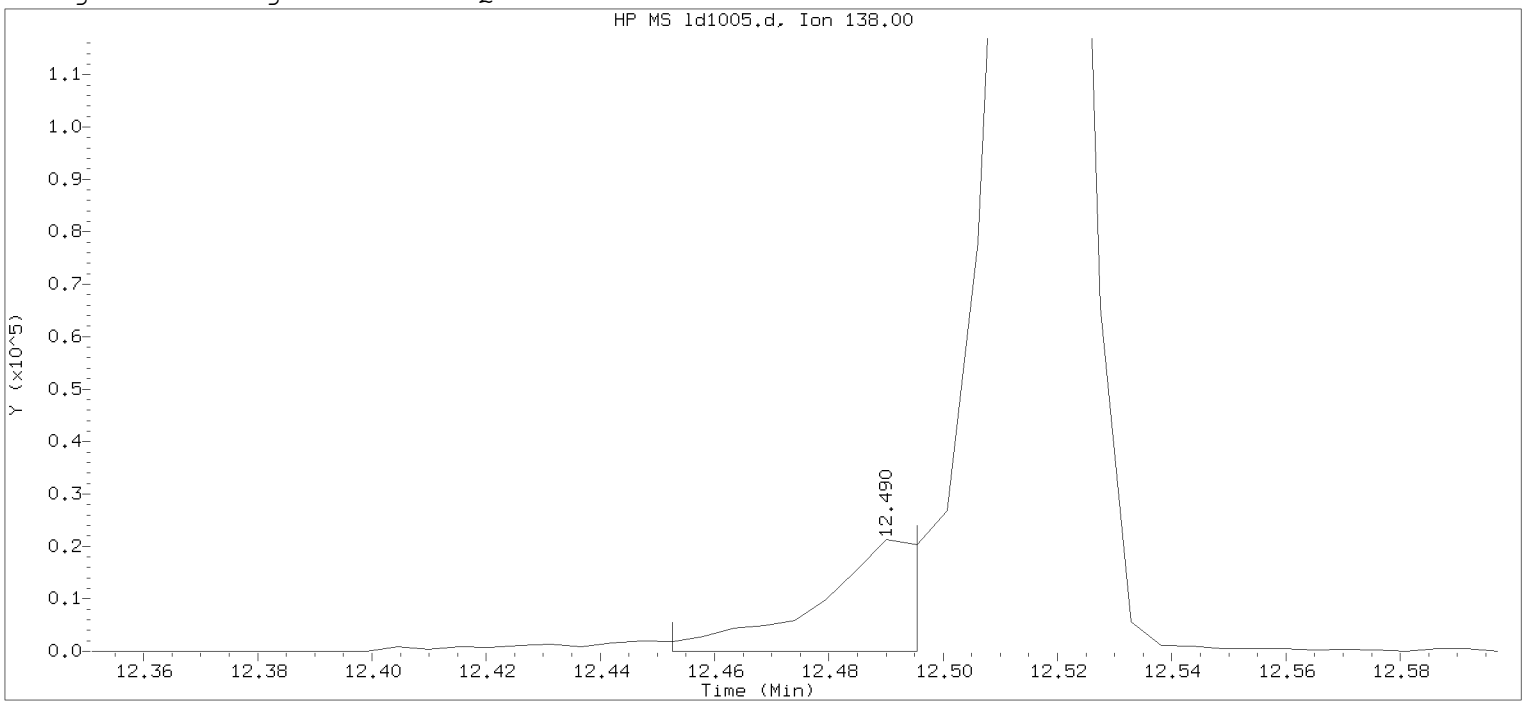
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

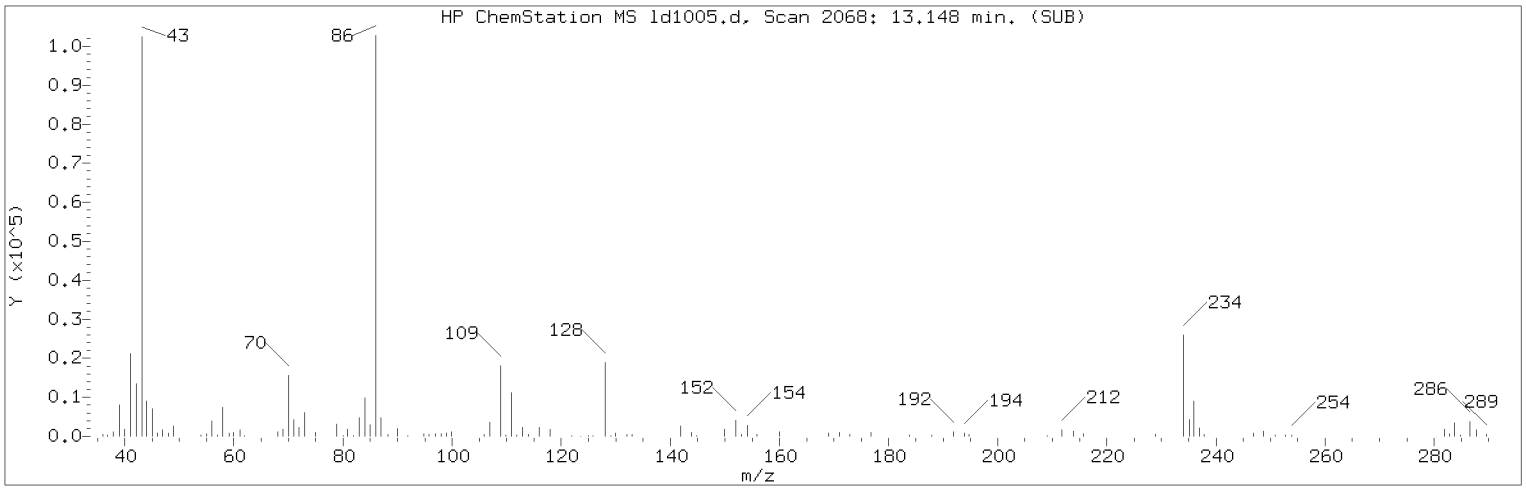
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

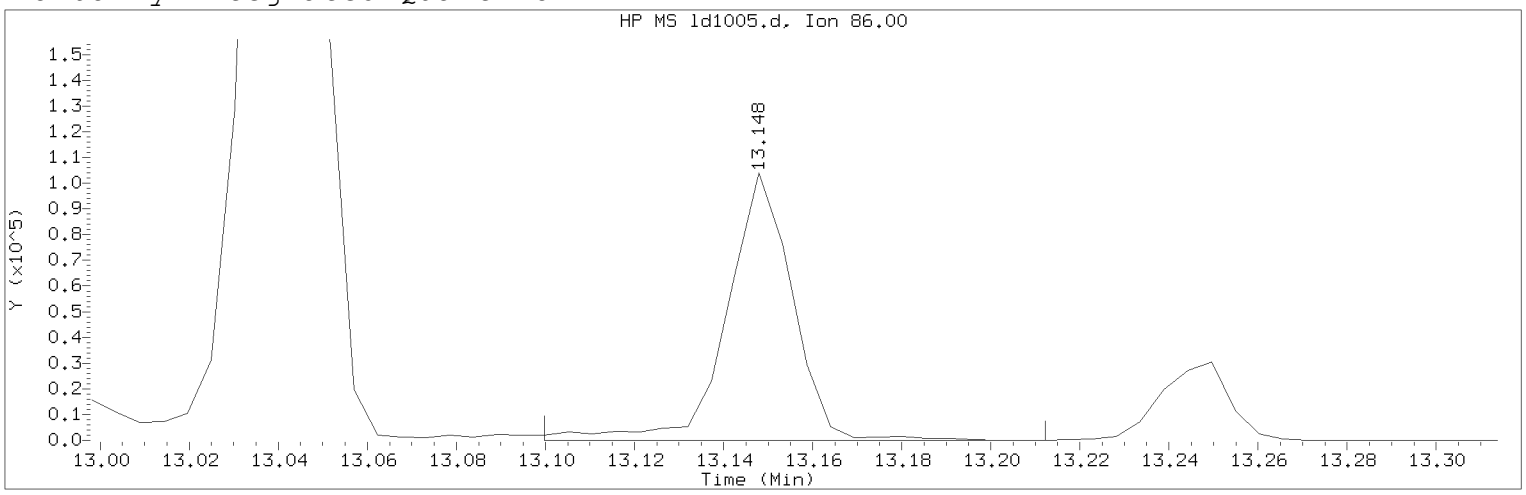
Compound Number	: 134		
Compound Name	: 4-Nitroaniline		
Scan Number	: 1945		
Retention Time (minutes)	: 12.490		
Quant Ion	: 138.00		
Area	: 24198		
On-column Amount (ng/ul)	: 0.9230		
Integration start scan	: 1937	Integration stop scan:	1945
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature user - F35 Page 1915

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

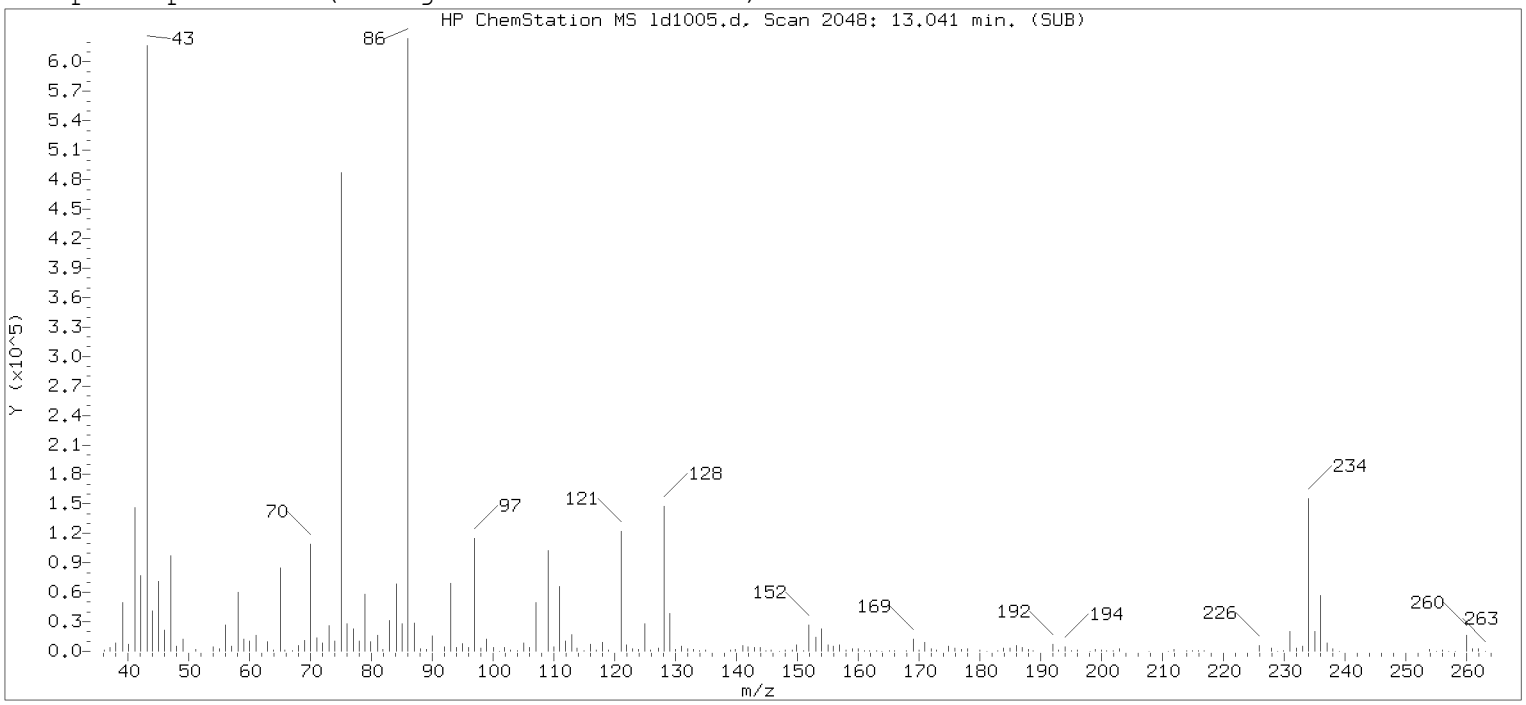
Compound Number : 149
Compound Name : Diallate (peak 2)
Scan Number : 2068
Retention Time (minutes) : 13.148
Quant Ion : 86.00
Area (flag) : 106720A
On-Column Amount (ng/ul) : 2.3164
Integration start scan : 2058 Integration stop scan: 2079
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

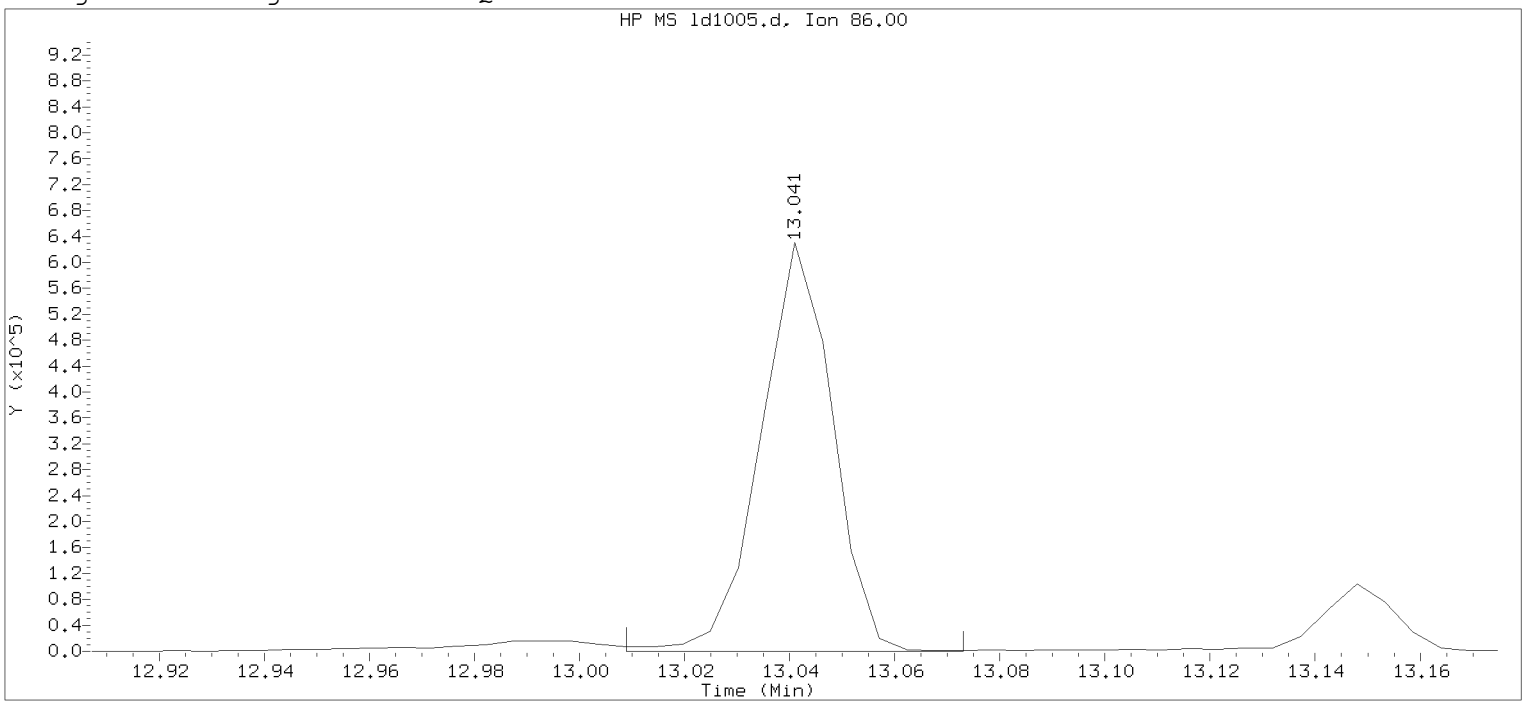
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

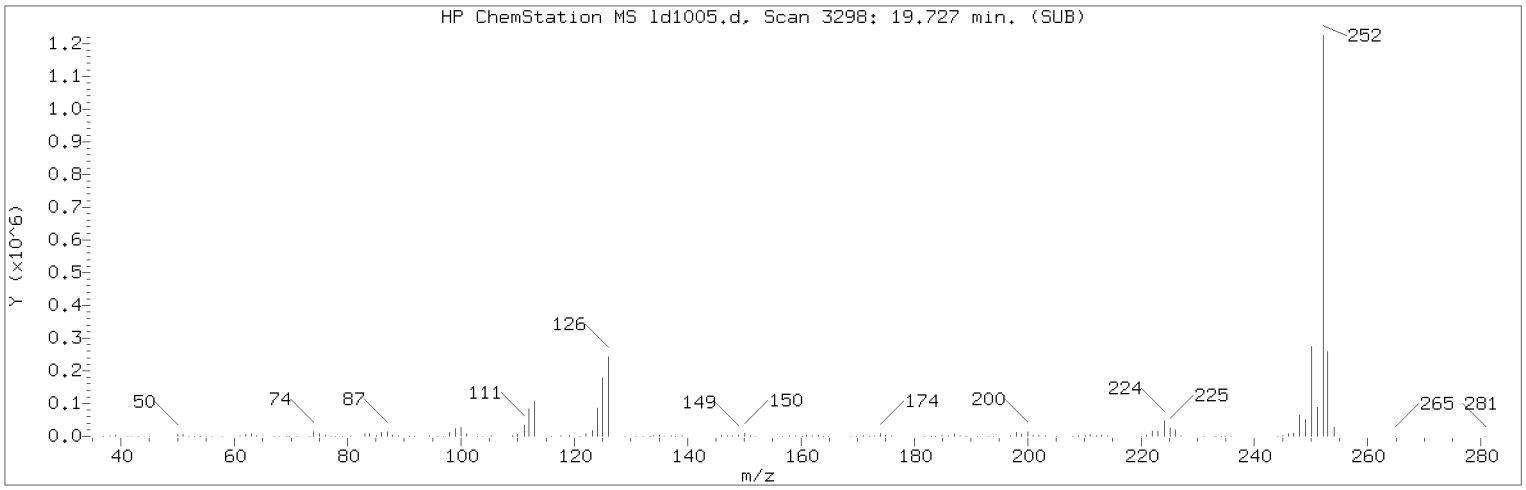
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

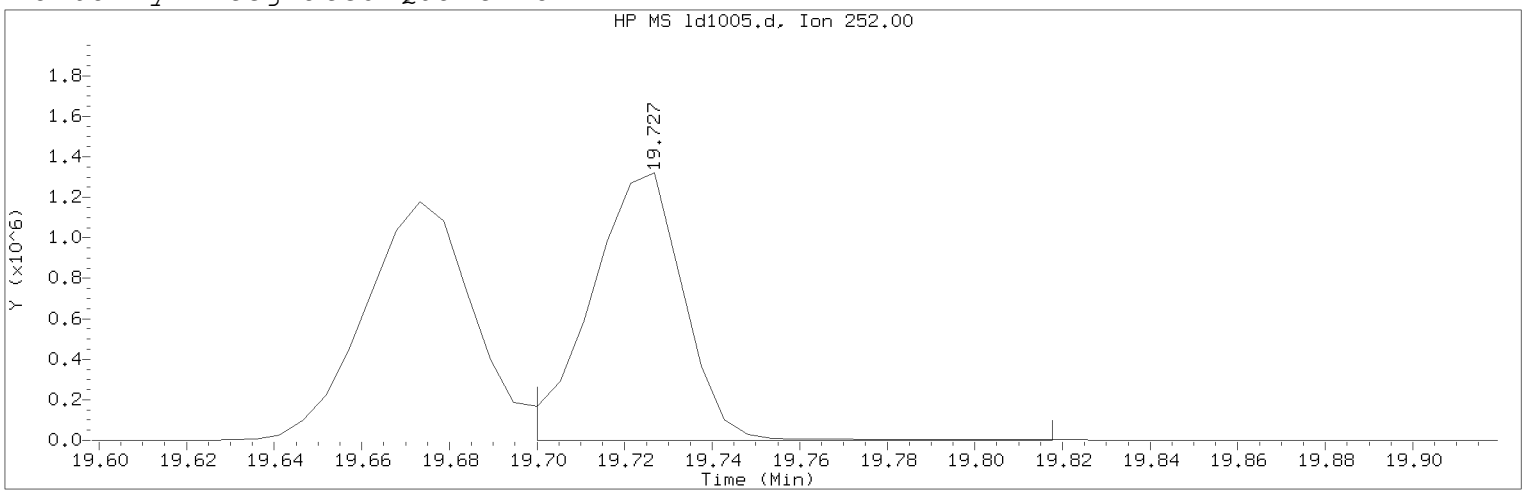
Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2048		
Retention Time (minutes)	: 13.041		
Quant Ion	: 86.00		
Area	: 594749		
On-column Amount (ng/ul)	: 13.9271		
Integration start scan	: 2041	Integration stop scan:	2053
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used. F35 Page 1917

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

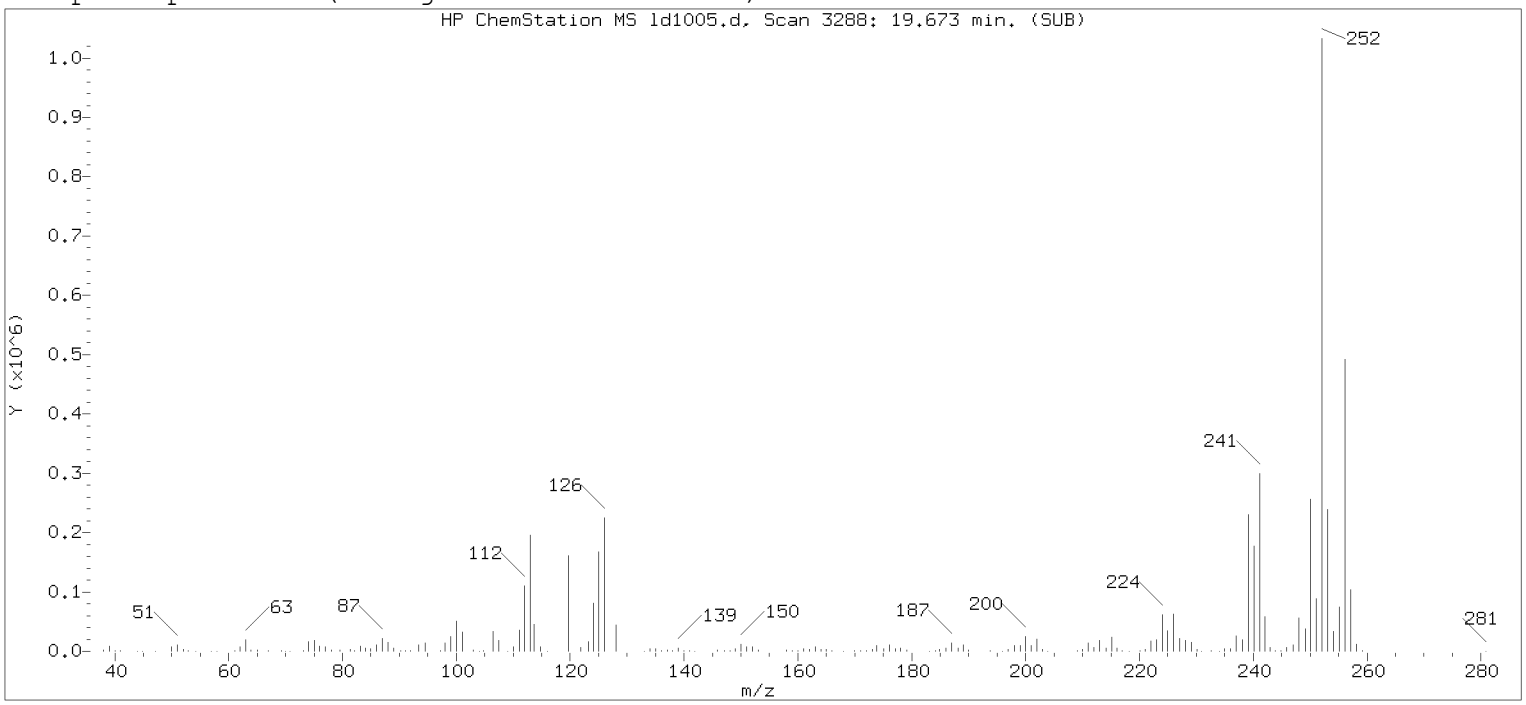
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3298
Retention Time (minutes) : 19.727
Quant Ion : 252.00
Area (flag) : 1907254A
On-Column Amount (ng/ul) : 13.2298
Integration start scan : 3292 Integration stop scan: 3314
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

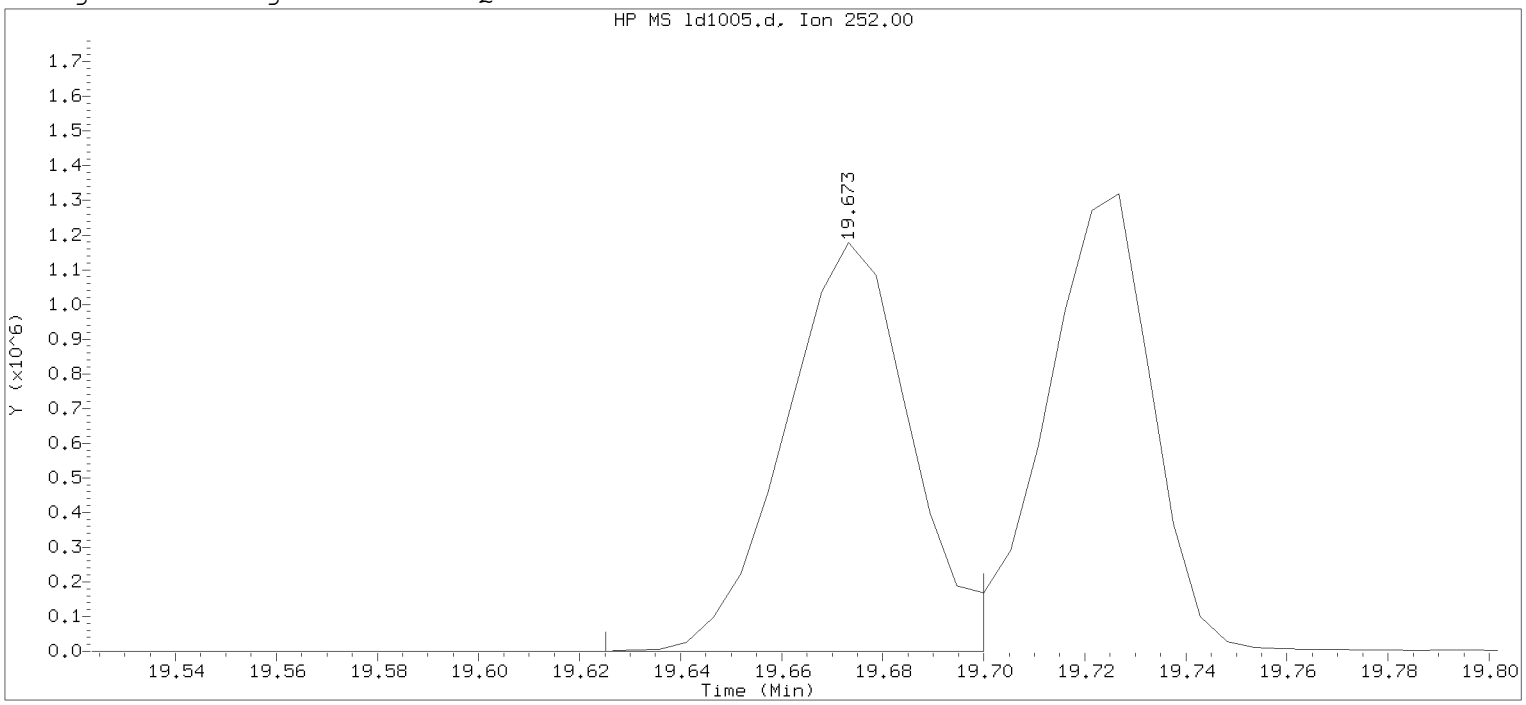
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

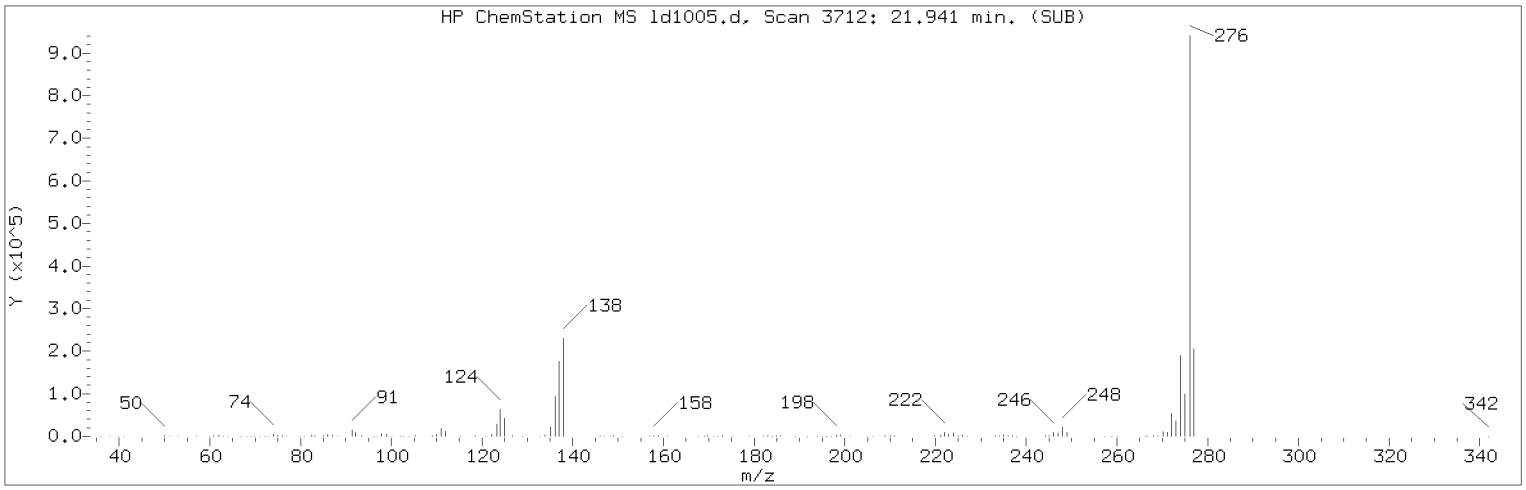
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

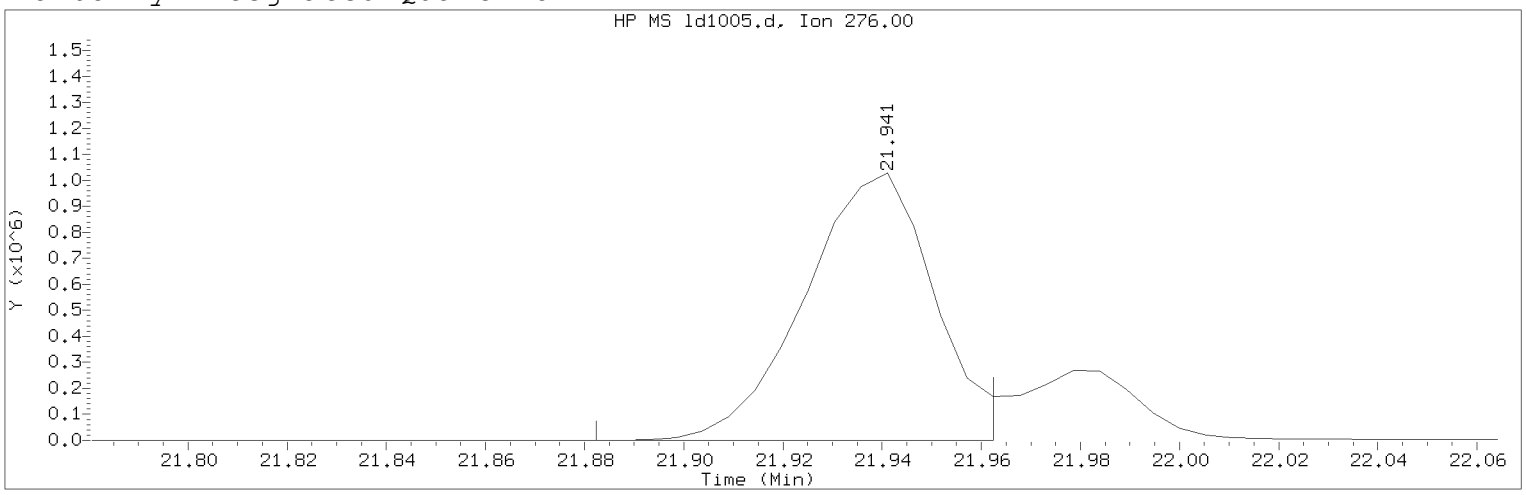
Compound Number	: 213		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 3288		
Retention Time (minutes)	: 19.673		
Quant Ion	: 252.00		
Area	: 2011464		
On-column Amount (ng/ul)	: 13.6960		
Integration start scan	: 3278	Integration stop scan:	3292
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

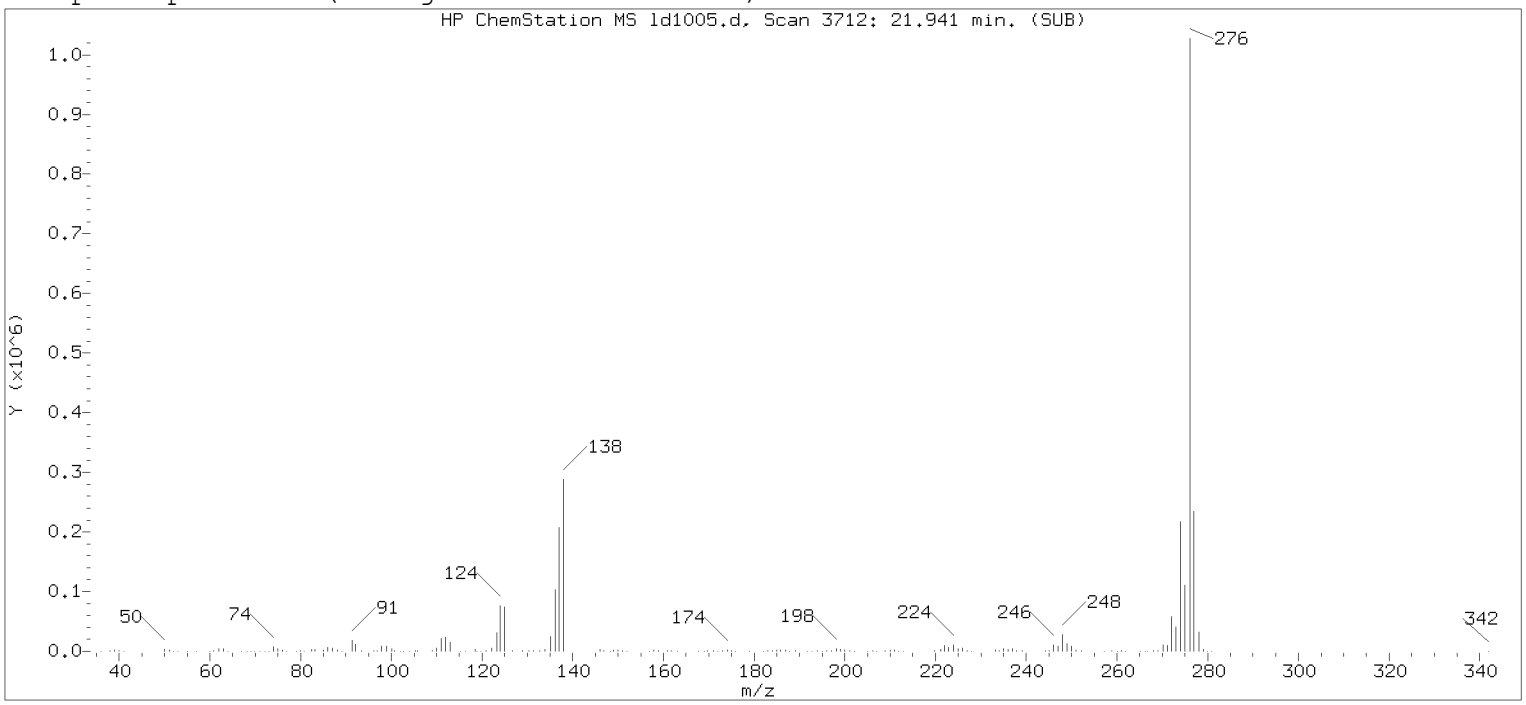
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3712
Retention Time (minutes) : 21.941
Quant Ion : 276.00
Area (flag) : 1868886M
On-Column Amount (ng/ul) : 13.9888
Integration start scan : 3700 Integration stop scan: 3715
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

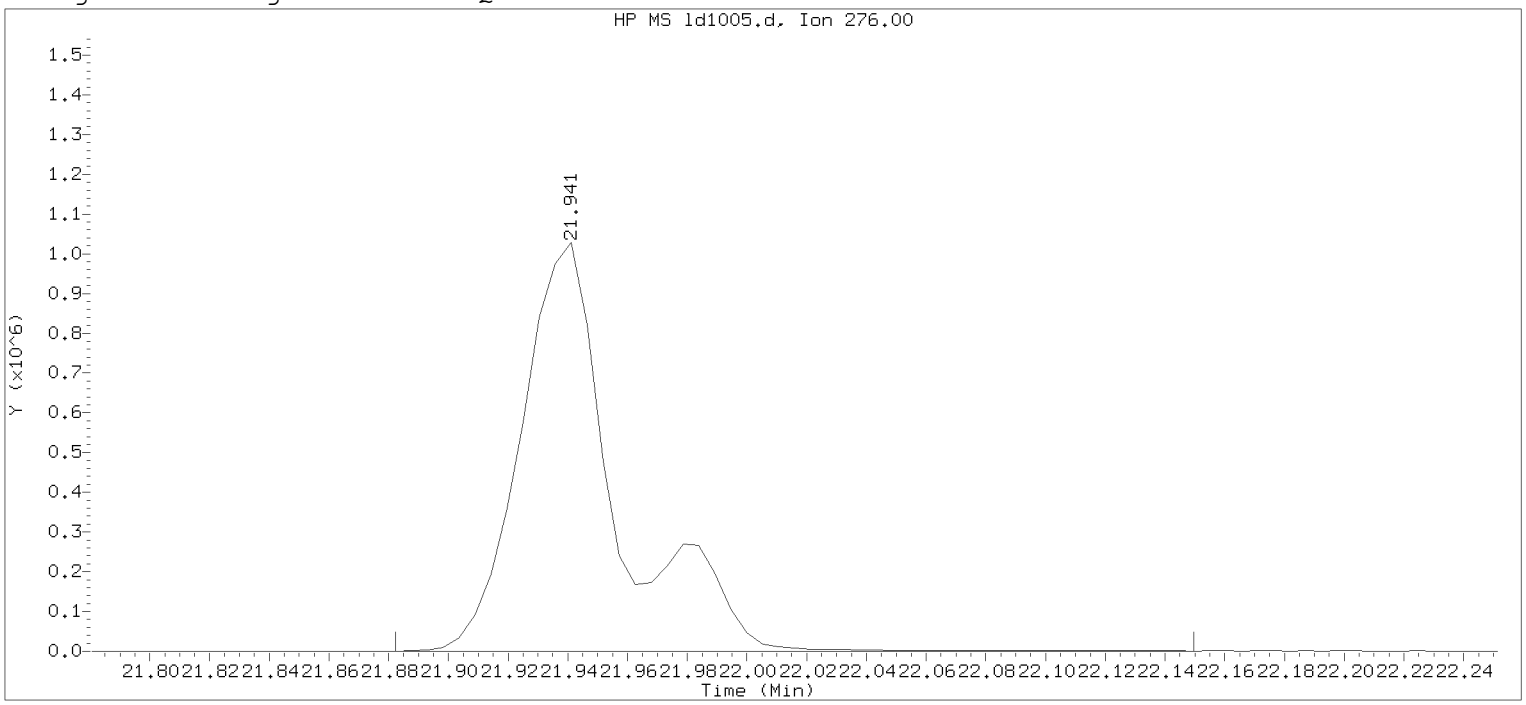
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



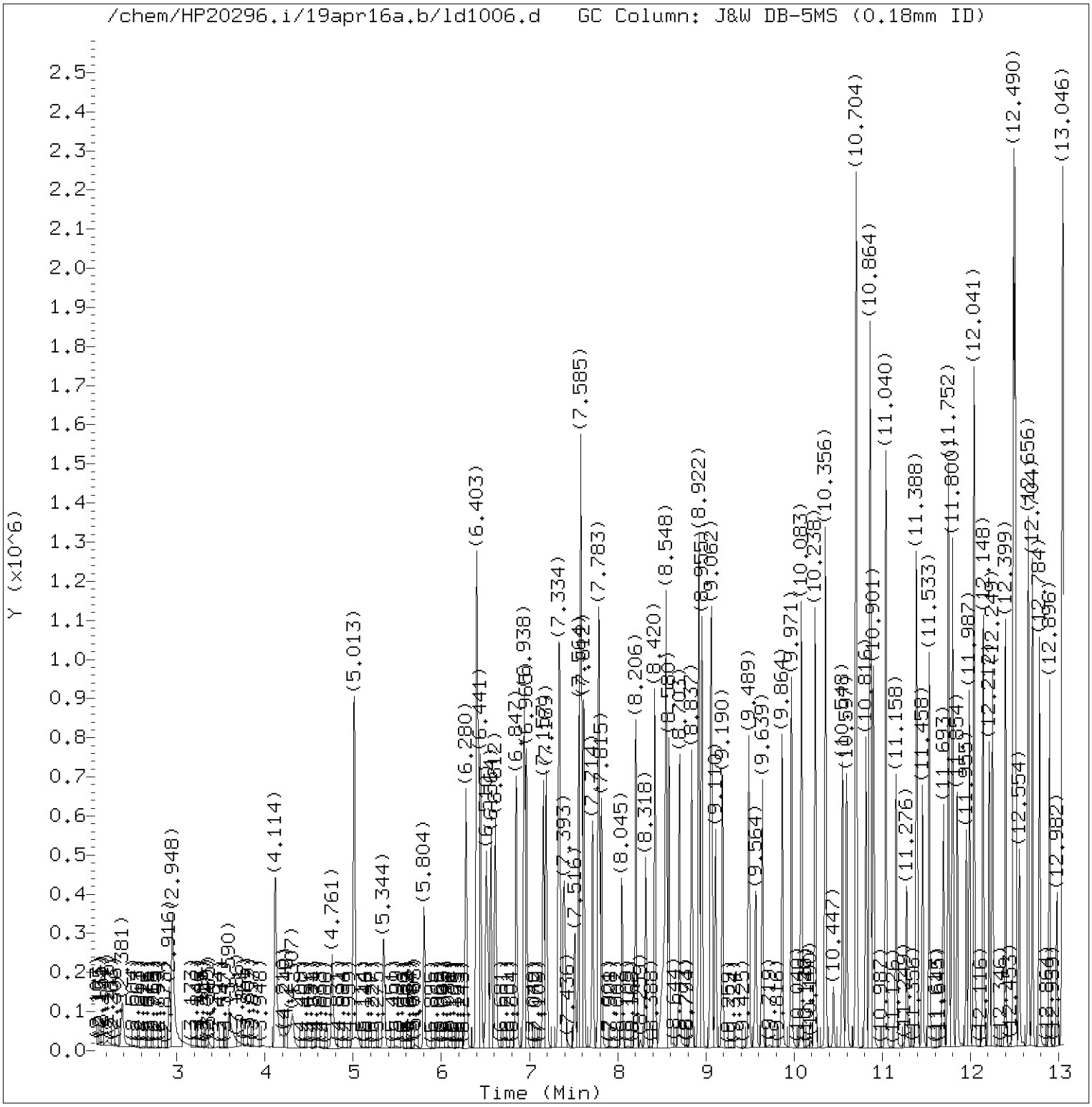
Data File: /chem/HP20296.i/19apr16a.b/ld1005.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:12 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 18:43
Date, time and analyst ID of latest file update: 16-Apr-2019 18:43 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvSTD0929

Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3712
Retention Time (minutes) : 21.941
Quant Ion : 276.00
Area : 2304359
On-column Amount (ng/ul) : 16.0653
Integration start scan : 3700 Integration stop scan: 3750
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:47.
Target 3.5 esignature used for this report.



Total Ion Chromatogram (TIC)

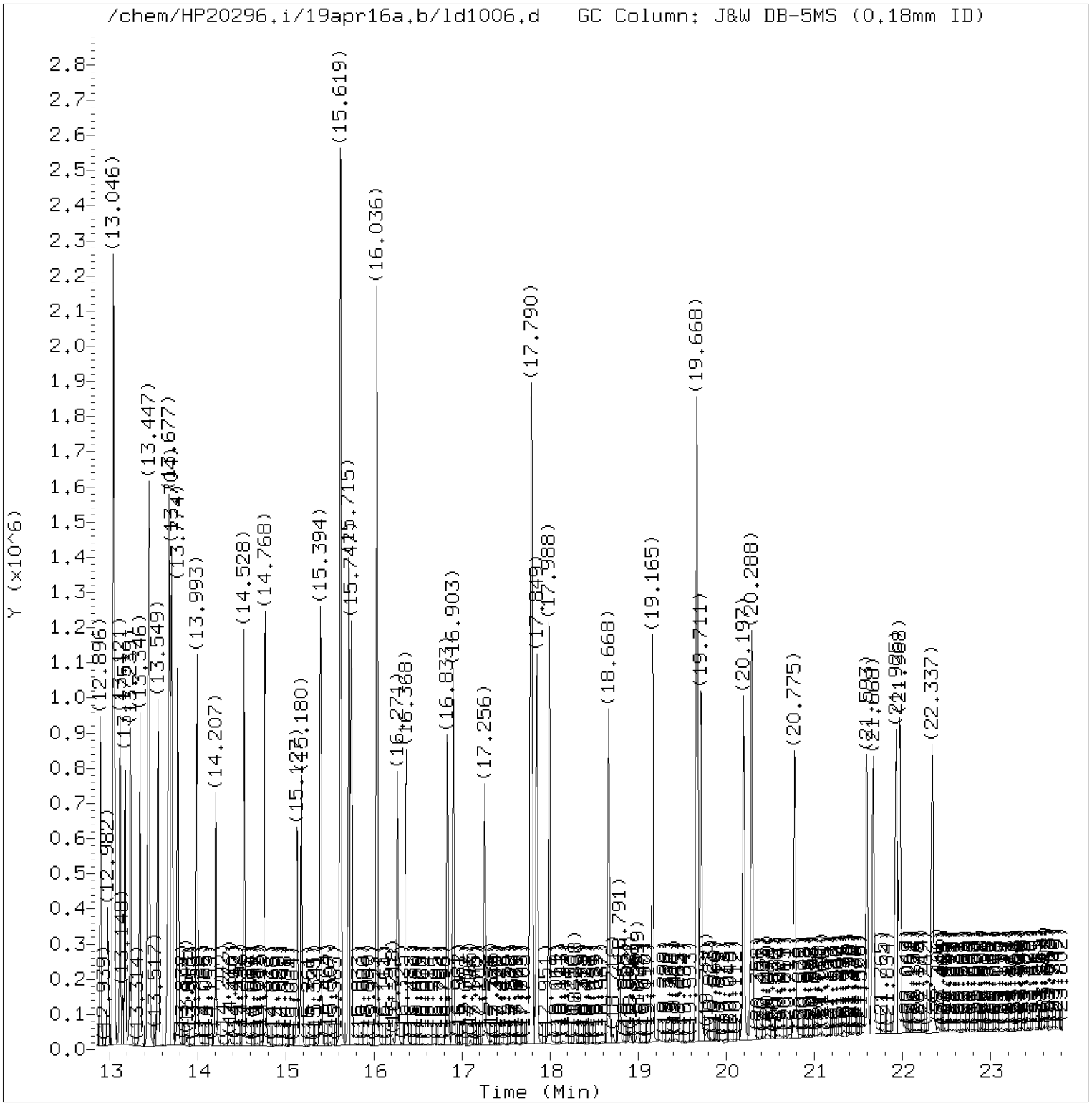
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.381	88	93274	3.638
5) N-Nitrosodimethylamine	(1)	2.916	74	149188	3.736
6) Pyridine	(1)	2.948	79	256783	3.641
8) 2-Picoline	(1)	4.114	93	259519	3.691
9) N-Nitrosomethylethylamine	(1)	4.312	88	109250	3.810
10) Methyl methanesulfonate	(1)	4.767	80	129700	3.671
12)$2-Fluorophenol	(1)	5.013	112	419001	7.440
14) N-Nitrosodiethylamine	(1)	5.350	102	103323	3.741
43) Total Cresols	(1)			444891	7.703
16) Ethyl methanesulfonate	(1)	5.804	109	111963	3.817
17) Benzaldehyde	(1)	6.280	77	211212	4.062
18)$Phenol-d6	(1)	6.403	99	561497	7.514
19) Phenol	(1)	6.419	94	327476	3.724
20) Aniline	(1)	6.441	93	388787	3.810
21) a-methylstyrene	(1)	6.532	118	35816	3.620
23) bis(2-Chloroethyl)ether	(1)	6.564	93	240068	3.666
24) 2-Chlorophenol	(1)	6.617	128	207276	3.888
25) 1,3-Dichlorobenzene	(1)	6.853	146	217504	3.772
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	175370	5.000
27) 1,4-Dichlorobenzene	(1)	6.965	146	228706	3.909
28) Benzyl alcohol	(1)	7.157	108	133708	3.702
29) 1,2-Dichlorobenzene	(1)	7.189	146	205385	3.744
31) Indene	(1)	7.329	115	270827	3.832
32) 2-Methylphenol	(1)	7.345	108	208715	3.840
100) Isosafrole	(3)			163806	3.652
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.393	45	307929	3.720
35) bis(2-Chloroisopropyl)ether	(1)	7.393	45	307929	3.720
36) N-Nitrosopyrrolidine	(1)	7.516	100	109525	3.768
37) Acetophenone	(1)	7.564	105	330724	3.931
39) N-Nitroso-di-n-propylamine	(1)	7.580	70	180439	3.791
38) 4-Methylphenol	(1)	7.585	108	236176	3.863
40) N-Nitrosomorpholine	(1)	7.585	56	132988	3.816
41) o-Toluidine	(1)	7.617	106	363233	3.823
44) Hexachloroethane	(1)	7.714	117	99533	3.804
45)$Nitrobenzene-d5	(2)	7.783	82	516020	7.456
46) Nitrobenzene	(2)	7.815	77	272071	3.732
50) N-Nitrosopiperidine	(2)	8.045	114	102411	3.740
125) 2,4_2,6-Dinitrotoluenes	(3)			192828	7.587
52) Isophorone	(2)	8.206	82	473246	3.726
53) 2-Nitrophenol	(2)	8.318	139	94970	3.670

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.420	107	228816	3.789
58) Benzoic acid	(2)	8.543	105	298853MA	7.076
59) O,O,O-Triethylphosphorothioate	(2)	8.553	198	87662	3.693
57) bis(2-Chloroethoxy)methane	(2)	8.580	93	301452	3.756
62) 2,4-Dichlorophenol	(2)	8.703	162	160054	3.742
151) Diallate trans/cis	(4)			209224	3.790
65) 1,2,4-Trichlorobenzene	(2)	8.837	180	176101	3.719
68)*Naphthalene-d8	(2)	8.922	136	697661	5.000
69) Naphthalene	(2)	8.955	128	585574	3.704
70) 4-Chloroaniline	(2)	9.056	127	243343	3.723
71) 2,6-Dichlorophenol	(2)	9.067	162	152259	3.634
72) Hexachloropropene	(2)	9.110	213	108370	3.763
74) Hexachlorobutadiene	(2)	9.190	225	96783	3.674
78) Quinoline	(2)	9.489	129	345059	3.731
79) Caprolactam	(2)	9.564	113	57151	4.168
80) N-Nitrosodi-n-butylamine	(2)	9.639	84	164486	3.446
83) 4-Chloro-3-methylphenol	(2)	9.864	107	196754	3.741
85) Safrole	(2)	9.971	162	138527	3.721
86) 2-Methylnaphthalene	(2)	10.083	142	375169	3.814
87) 1-Methylnaphthalene	(2)	10.238	142	350694	3.679
88) Hexachlorocyclopentadiene	(3)	10.356	237	95940	3.643
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	165859	3.638
91) cis-Isosafrole	(3)	10.447	162	25701	0.632
93) 2,4,6-Trichlorophenol	(3)	10.548	196	108587	3.652
95) 2,4,5-Trichlorophenol	(3)	10.597	196	115250	3.690
96)$2-Fluorobiphenyl	(3)	10.704	172	776546	7.380
97) trans-Isosafrole	(3)	10.816	162	138105	3.020
98) 1,1'-Biphenyl	(3)	10.859	154	448712	3.869
99) 2-Chloronaphthalene	(3)	10.869	162	368441	3.815
101) 1-Chloronaphthalene	(3)	10.901	162	313224	3.622
103) Diphenyl ether	(3)	11.040	170	224046	3.674
104) 2-Nitroaniline	(3)	11.040	138	103983	3.671
108) 1,4-Naphthoquinone	(3)	11.158	158	132145	3.606
109) 1,4-Dinitrobenzene	(3)	11.281	168	50462	3.659
110) Dimethylphthalate	(3)	11.388	163	385264	3.887
111) 1,3-Dinitrobenzene	(3)	11.394	168	57455A	3.807
113) 2,6-Dinitrotoluene	(3)	11.458	165	83037	3.844
114) Acenaphthylene	(3)	11.533	152	483573	3.731
117) 3-Nitroaniline	(3)	11.693	138	94176	3.809
118)*Acenaphthene-d10	(3)	11.752	164	327824	5.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.800	153	353284	3.626
120) 2,4-Dinitrophenol	(3)	11.854	184	81651	6.514
121) 4-Nitrophenol	(3)	11.955	109	65562	3.553
122) Pentachlorobenzene	(3)	11.987	250	142036	3.743
123) 2,4-Dinitrotoluene	(3)	12.041	165	109791	3.743
124) Dibenzofuran	(3)	12.046	168	484042	3.809
126) 1-Naphthylamine	(3)	12.148	143	342665	3.679
127) 2,3,4,6-Tetrachlorophenol	(3)	12.212	232	84226	3.672
128) 2-Naphthylamine	(3)	12.255	143	333528	3.687
129) Diethylphthalate	(3)	12.399	149	381131	3.840
130) Thionazin	(3)	12.490	107	77967	3.829
131) Fluorene	(3)	12.490	166	377880	3.710
133) 5-Nitro-o-toluidine	(3)	12.506	152	101822	3.752
134) 4-Nitroaniline	(3)	12.506	138	100735	3.842
132) 4-Chlorophenyl-phenylether	(3)	12.511	204	175467	3.662
135) 4,6-Dinitro-2-methylphenol	(4)	12.554	198	56079	3.467
136) N-Nitrosodiphenylamine	(4)	12.656	169	305563	3.780
137) NDPA as diphenylamine	(4)	12.656	169	305563	3.780
139) 1,2-Diphenylhydrazine	(4)	12.704	77	523395	3.818
140)$2,4,6-Tribromophenol	(3)	12.784	330	97429	7.348
142) Tetraethyldithiopyrophosphate	(4)	12.896	97	81855	3.896
144) 1,3,5-Trinitrobenzene	(4)	12.982	213	32005	3.302
145) Diallate (peak 1)	(4)	13.041	86	179217	3.152
146) Phorate	(4)	13.046	75	319343	3.928
147) Phenacetin	(4)	13.052	108	226069	3.834
148) 4-Bromophenyl-phenylether	(4)	13.121	248	99309	3.789
149) Diallate (peak 2)	(4)	13.148	86	30007A	0.638
150) Hexachlorobenzene	(4)	13.175	284	104632	3.577
152) Dimethoate	(4)	13.239	87	203008	3.846
153) Atrazine	(4)	13.351	200	99329	4.118
154) Pentachlorophenol	(4)	13.431	266	66709	3.595
155) 4-Aminobiphenyl	(4)	13.447	169	355655	3.803
156) Pentachloronitrobenzene	(4)	13.453	237	45017	3.695
157) Pronamide	(4)	13.549	173	171804	4.000
158)*Phenanthrene-d10	(4)	13.677	188	604348	5.000
159) Dinoseb	(4)	13.693	211	76552	3.214
160) Phenanthrene	(4)	13.709	178	524501	3.590
162) Anthracene	(4)	13.774	178	538841	3.696
168) Carbazole	(4)	13.993	167	488466	3.761
169) Methyl parathion	(4)	14.207	109	138528	3.634

A = User selected an alternate hit.
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Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.528	149	639629	3.629
173) 4-Nitroquinoline-1-oxide	(4)	14.768	190	38019	4.151
172) Parathion	(4)	14.768	109	89880	3.651
227) Total PAHs	(6)			8928119	67.094
174) Octachlorostyrene	(4)	15.127	308	39052	3.630
176) Isodrin	(4)	15.180	193	61884	3.635
178) Fluoranthene	(4)	15.394	202	576920	3.795
179) Benzidine	(5)	15.624	184	1157662	11.070
180)*Pyrene-d10	(5)	15.715	212	606996	5.000
182) Pyrene	(5)	15.747	202	590659	3.592
184)$Terphenyl-d14	(5)	16.036	244	739146	7.454
187) p-Dimethylaminoazobenzene	(5)	16.271	225	95019	3.595
190) Chlorobenzilate	(5)	16.368	139	191808	3.594
192) 3,3'-Dimethylbenzidine	(5)	16.833	212	372830	3.476
193) Butylbenzylphthalate	(5)	16.903	149	292762	3.605
196) 2-Acetylaminofluorene	(5)	17.256	181	217744	3.247
198) 3,3'-Dichlorobenzidine	(5)	17.774	252	196759	3.523
200) Benzo(a)anthracene	(5)	17.790	228	561264	3.792
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.796	231	112982	3.655
201) Chrysene	(5)	17.849	228	524174	3.647
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	419480	3.550
208) 6-Methylchrysene	(5)	18.668	242	352522	3.513
210) Di-n-octylphthalate	(6)	19.165	149	709477	3.575
211) Benzo(b)fluoranthene	(6)	19.663	252	543153	3.741
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.668	256	225221	3.728
213) Benzo(k)fluoranthene	(6)	19.716	252	532238A	3.820
216) Benzo(a)pyrene	(6)	20.197	252	495804	3.756
218)*Perylene-d12	(6)	20.288	264	571833	5.000
220) 3-Methylcholanthrene	(6)	20.780	268	251231	3.715
222) Dibenz(a,h)acridine	(6)	21.593	279	413371	3.595
223) Dibenz(a,j)acridine	(6)	21.668	279	423022	3.710
224) Indeno(1,2,3-cd)pyrene	(6)	21.930	276	487925M	3.779
225) Dibenz(a,h)anthracene	(6)	21.968	278	509389	3.835
226) Benzo(g,h,i)perylene	(6)	22.342	276	517077	3.789

M = Compound was manually integrated.
A = User selected an alternate hit.
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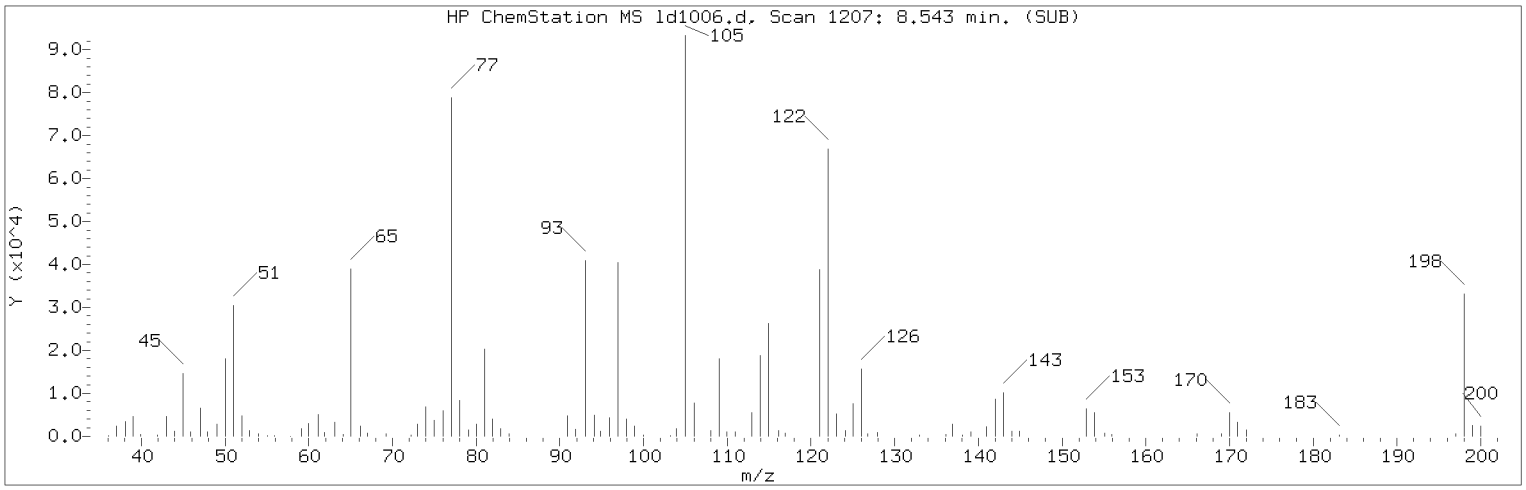
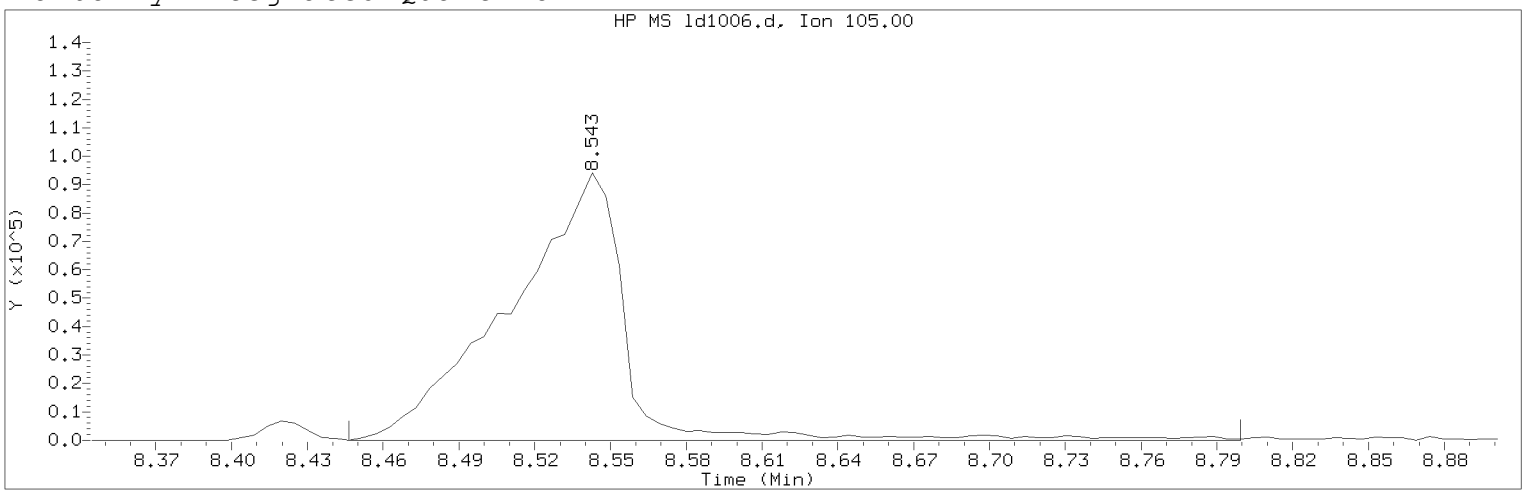
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

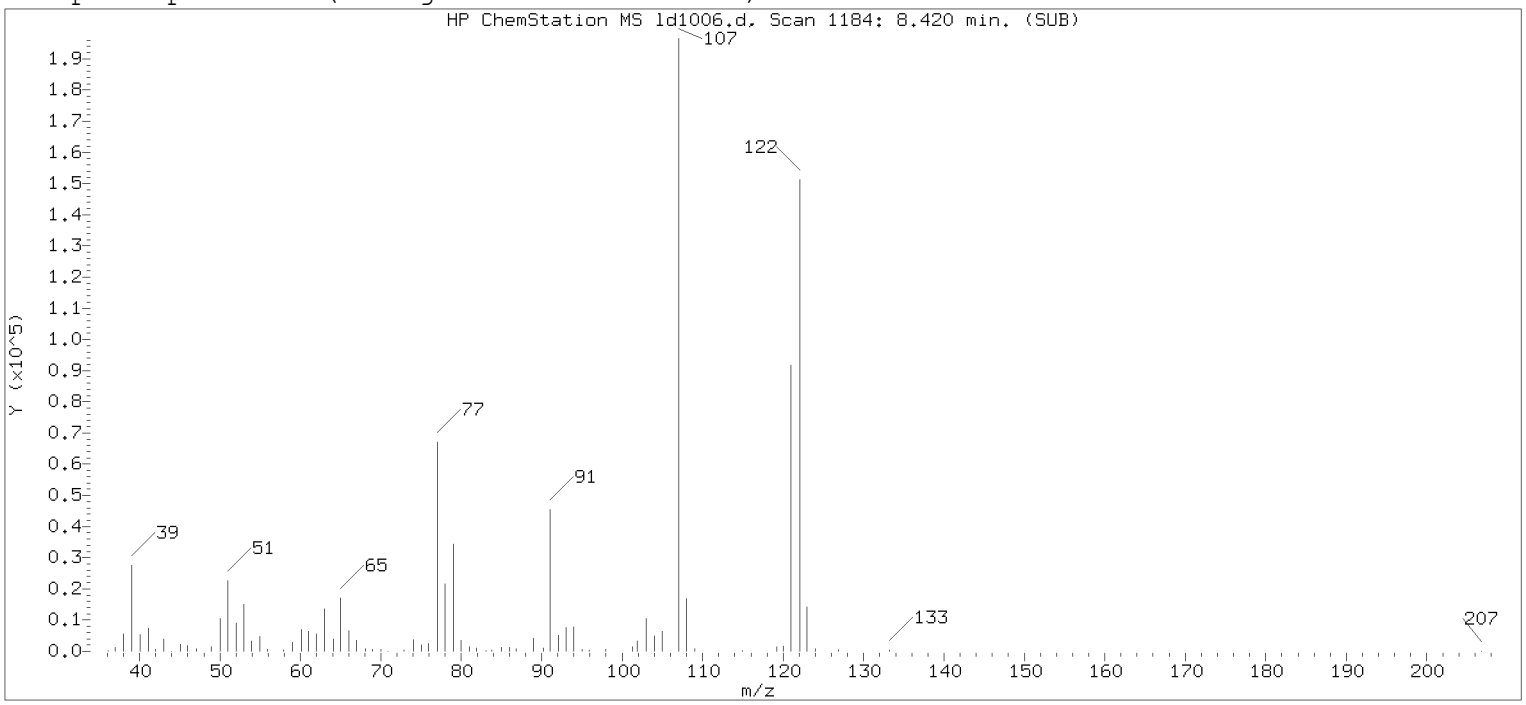
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1207
Retention Time (minutes) : 8.543
Quant Ion : 105.00
Area (flag) : 298853MA
On-Column Amount (ng/ul) : 7.0762
Integration start scan : 1188 Integration stop scan: 1254
Y at integration start : -45 Y at integration end: -45

Reason for manual integration: improper integration

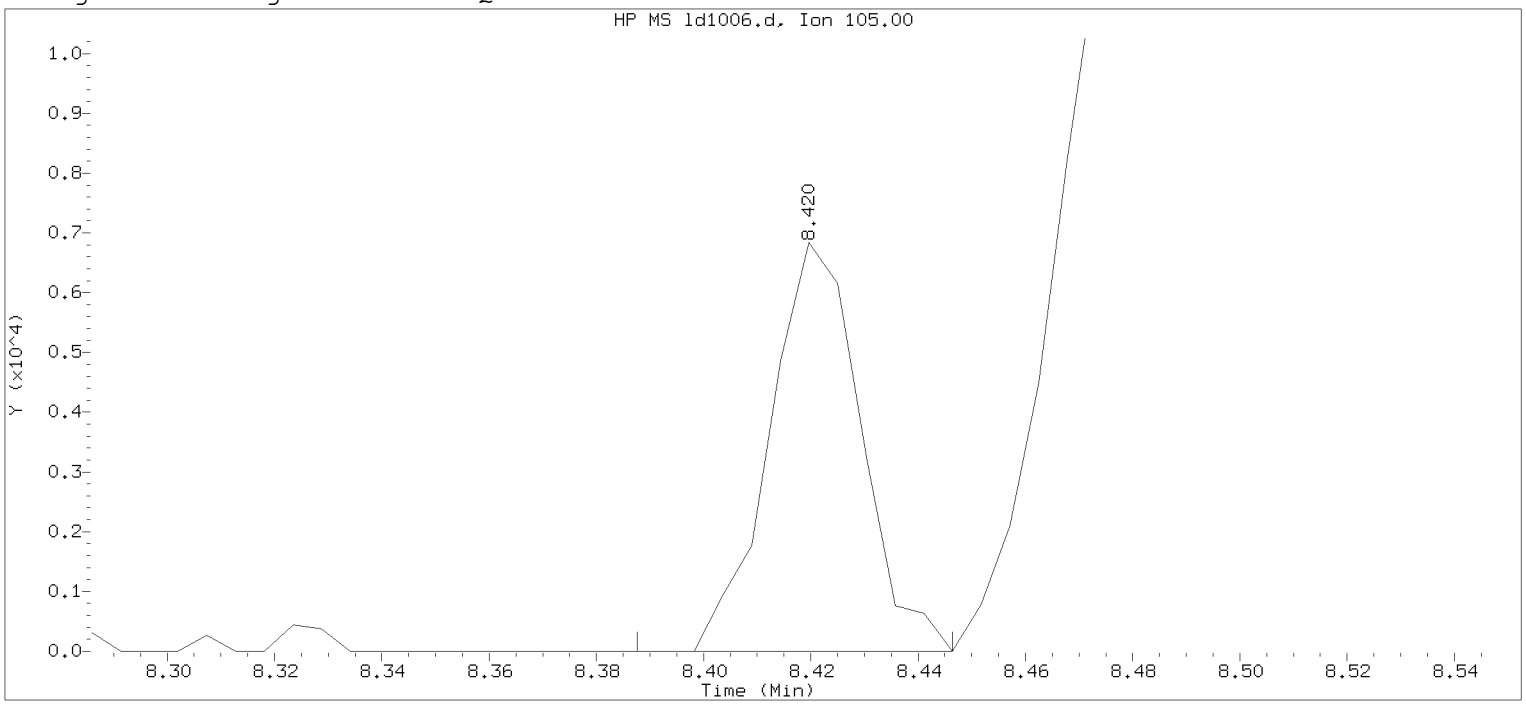
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

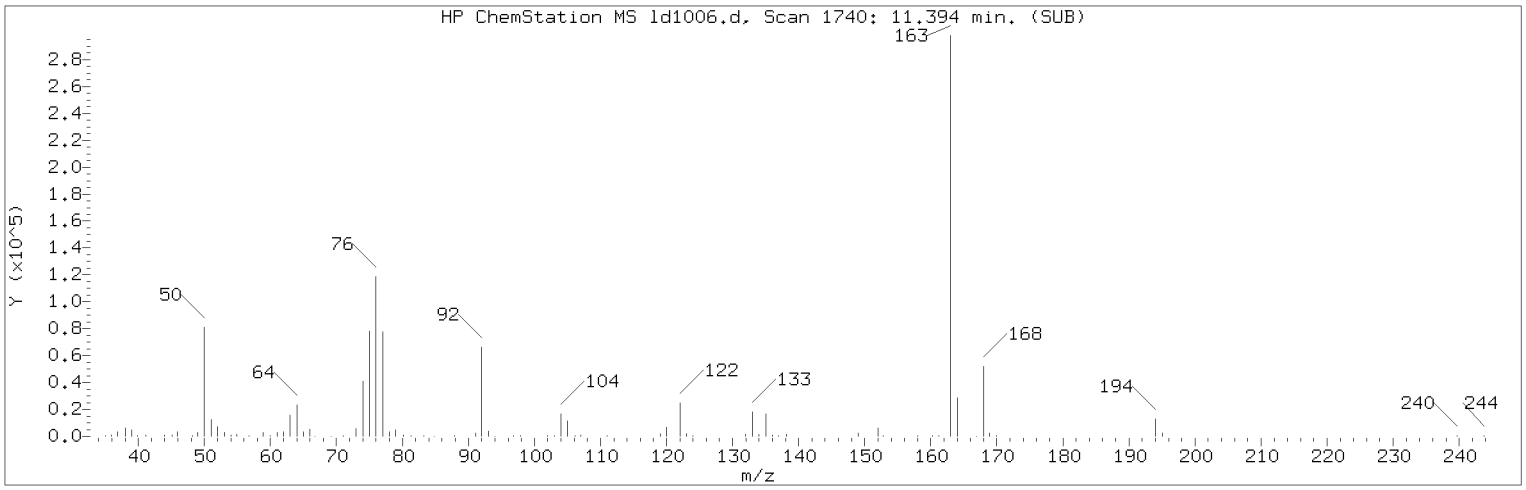
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:12
Date, time and analyst ID of latest file update: 16-Apr-2019 19:12 chemist

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

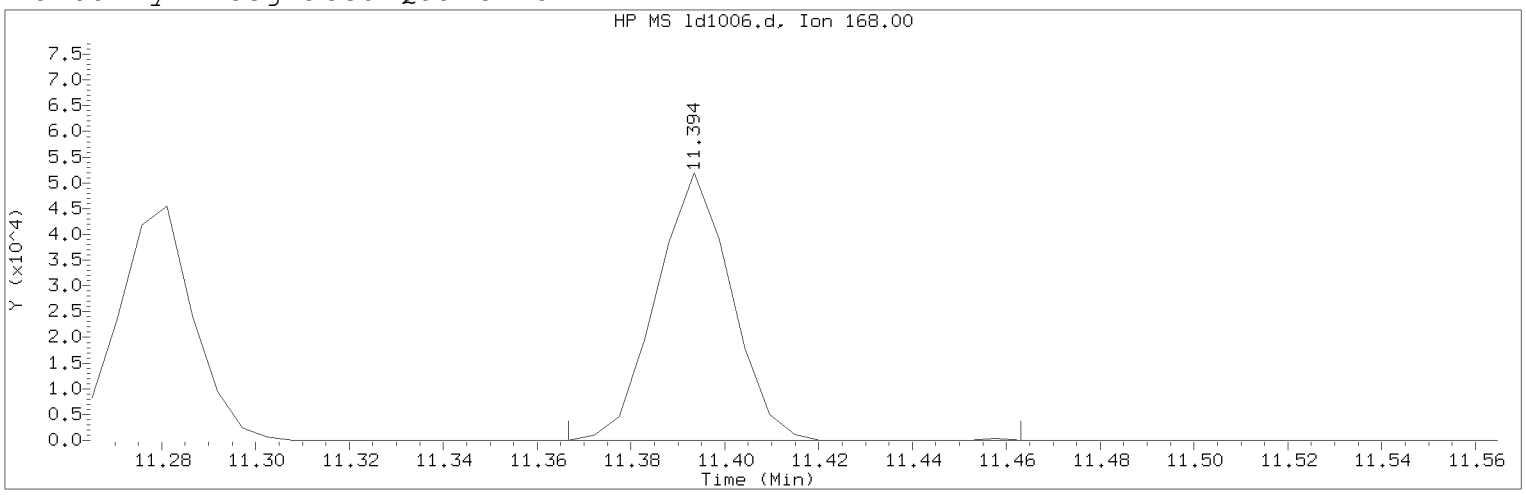
Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1184		
Retention Time (minutes)	: 8.420		
Quant Ion	: 105.00		
Area	: 8088		
On-column Amount (ng/ul)	: 0.1948		
Integration start scan	: 1177	Integration stop scan:	1188
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used for this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

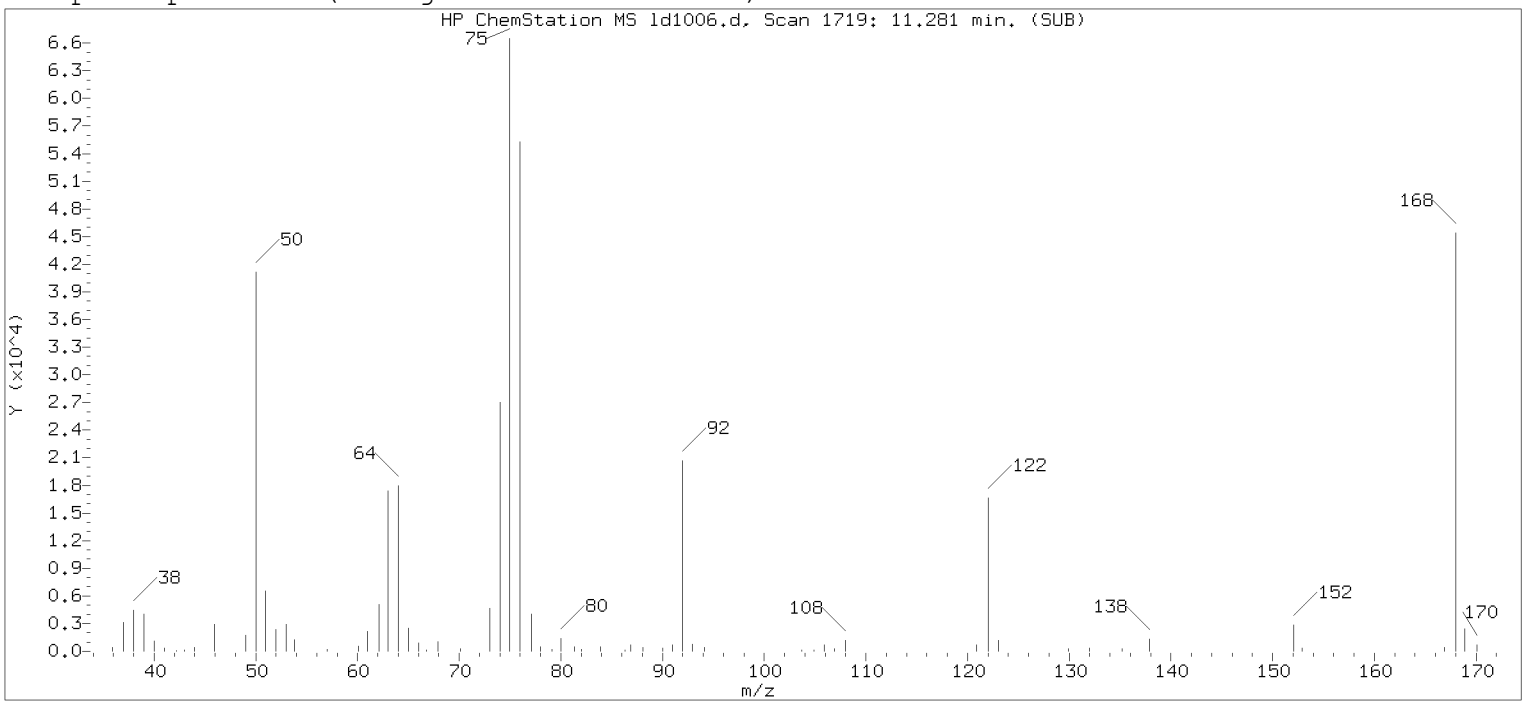
Compound Number	: 111		
Compound Name	: 1,3-Dinitrobenzene		
Scan Number	: 1740		
Retention Time (minutes)	: 11.394		
Quant Ion	: 168.00		
Area (flag)	: 57455A		
On-Column Amount (ng/ul)	: 3.8074		
Integration start scan	: 1734	Integration stop scan:	1752
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

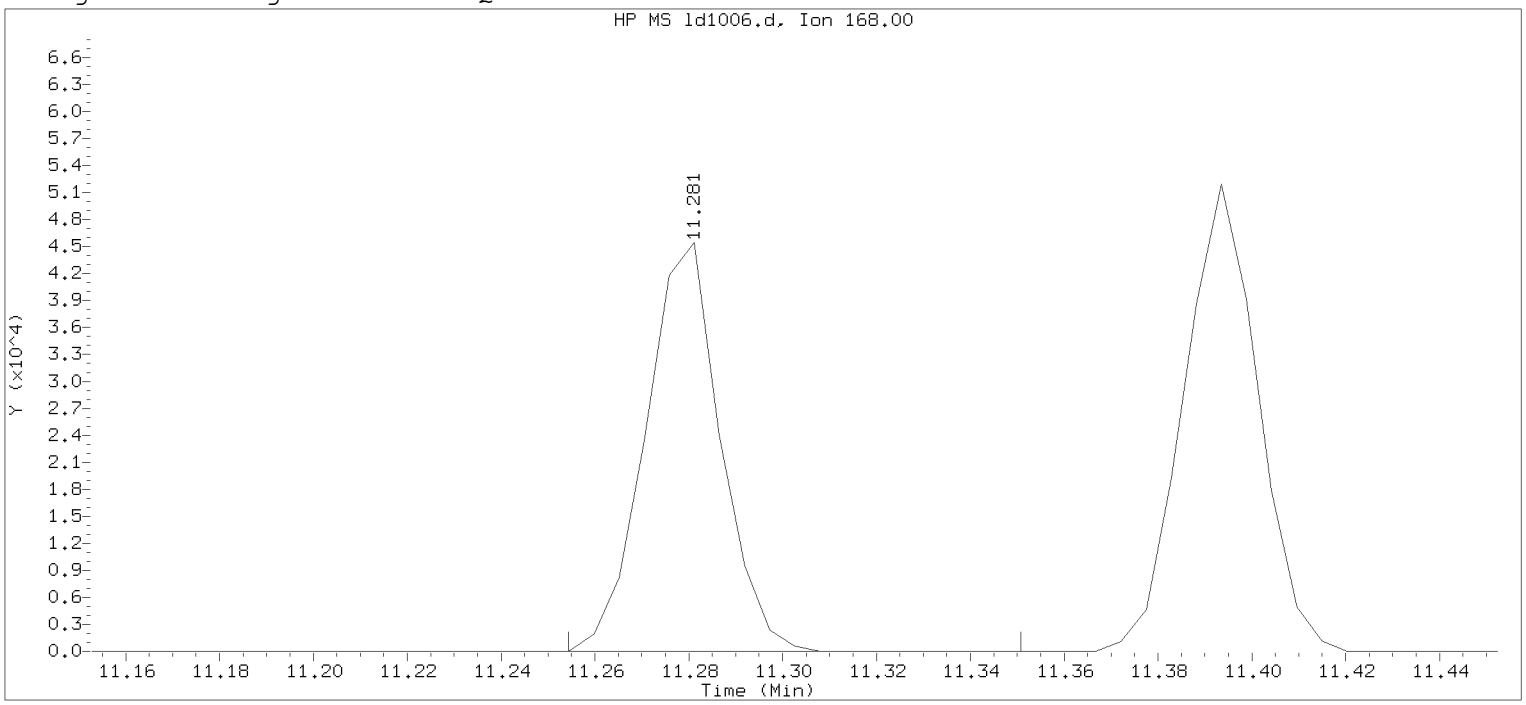
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:12
Date, time and analyst ID of latest file update: 16-Apr-2019 19:12 chemist

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1719
Retention Time (minutes) : 11.281
Quant Ion : 168.00
Area : 50462
On-column Amount (ng/ul) : 3.0556
Integration start scan : 1713 Integration stop scan: 1731
Y at integration start : 0 Y at integration end: 0

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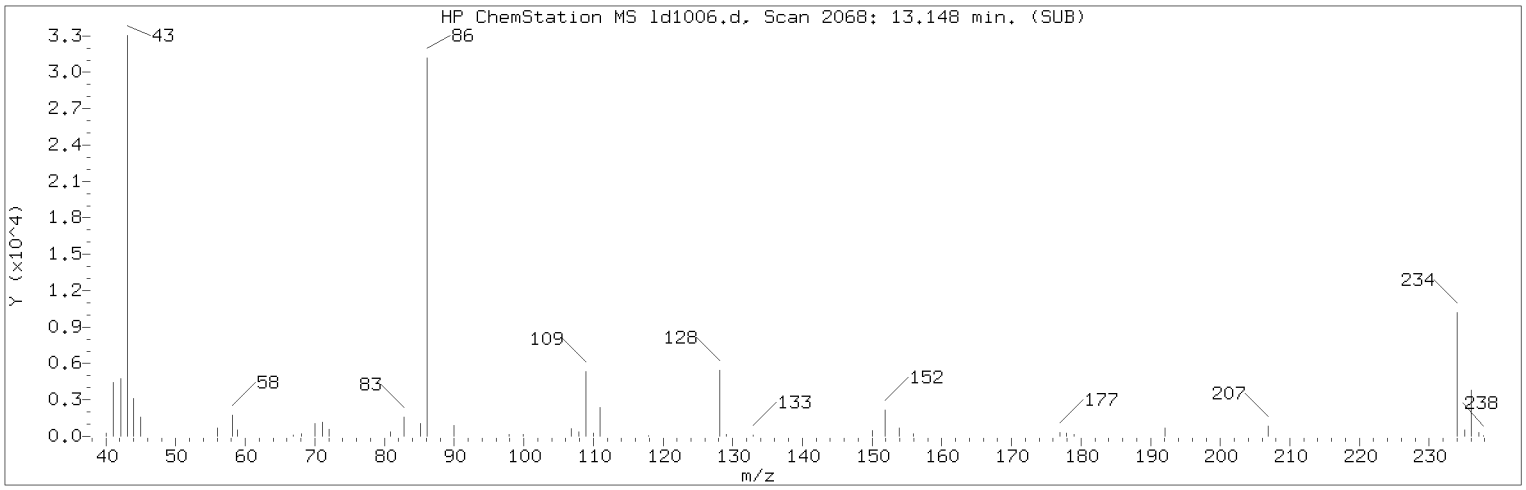
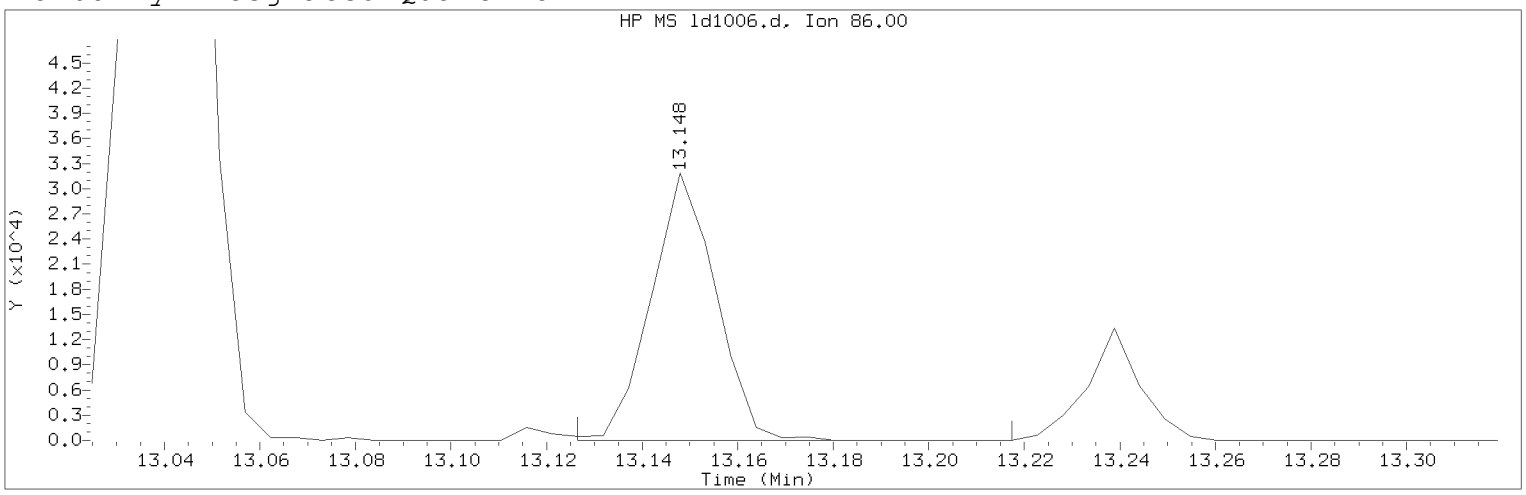
Target 3.5 esignature used. F35 Page 1931

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

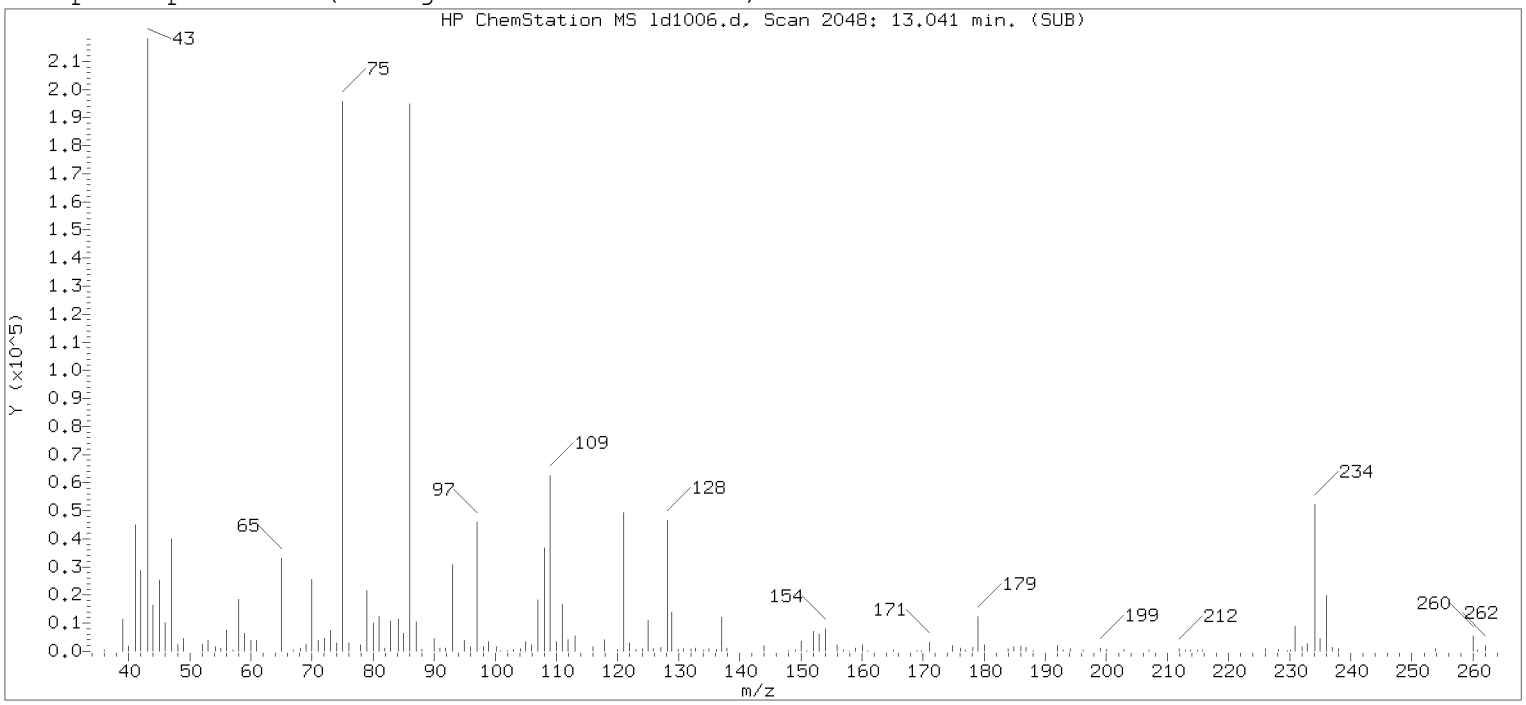
Compound Number : 149
Compound Name : Diallate (peak 2)
Scan Number : 2068
Retention Time (minutes) : 13.148
Quant Ion : 86.00
Area (flag) : 30007A
On-Column Amount (ng/ul) : 0.6382
Integration start scan : 2063 Integration stop scan: 2080
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

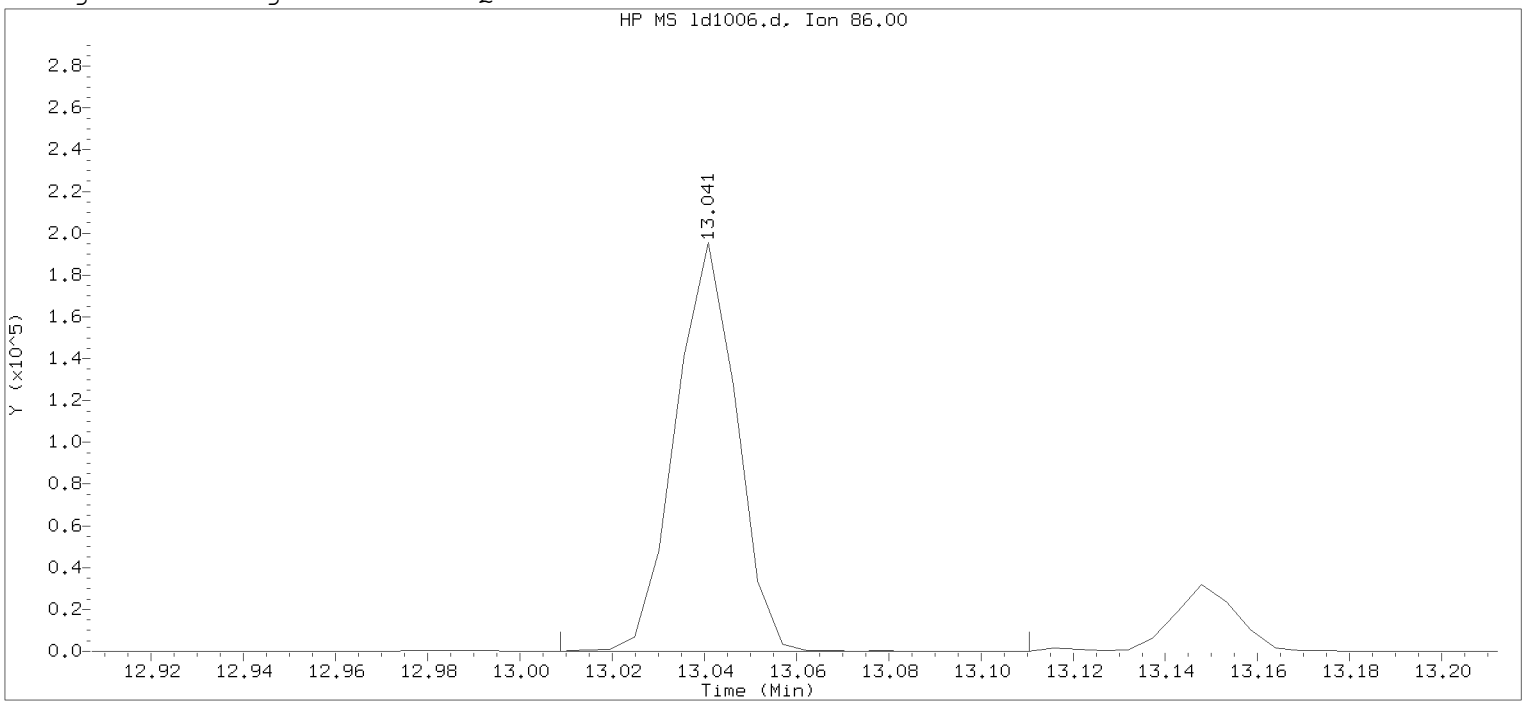
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:12
Date, time and analyst ID of latest file update: 16-Apr-2019 19:12 chemist

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2048		
Retention Time (minutes)	: 13.041		
Quant Ion	: 86.00		
Area	: 179217		
On-column Amount (ng/ul)	: 4.1123		
Integration start scan	: 2041	Integration stop scan:	2060
Y at integration start	: 0	Y at integration end:	0

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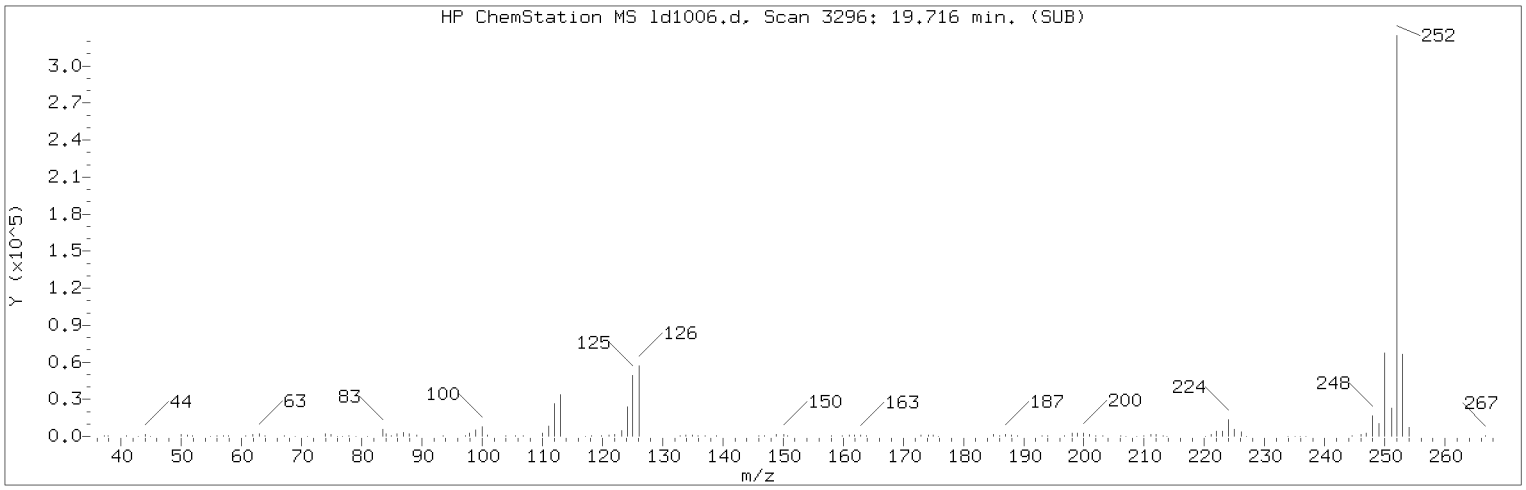
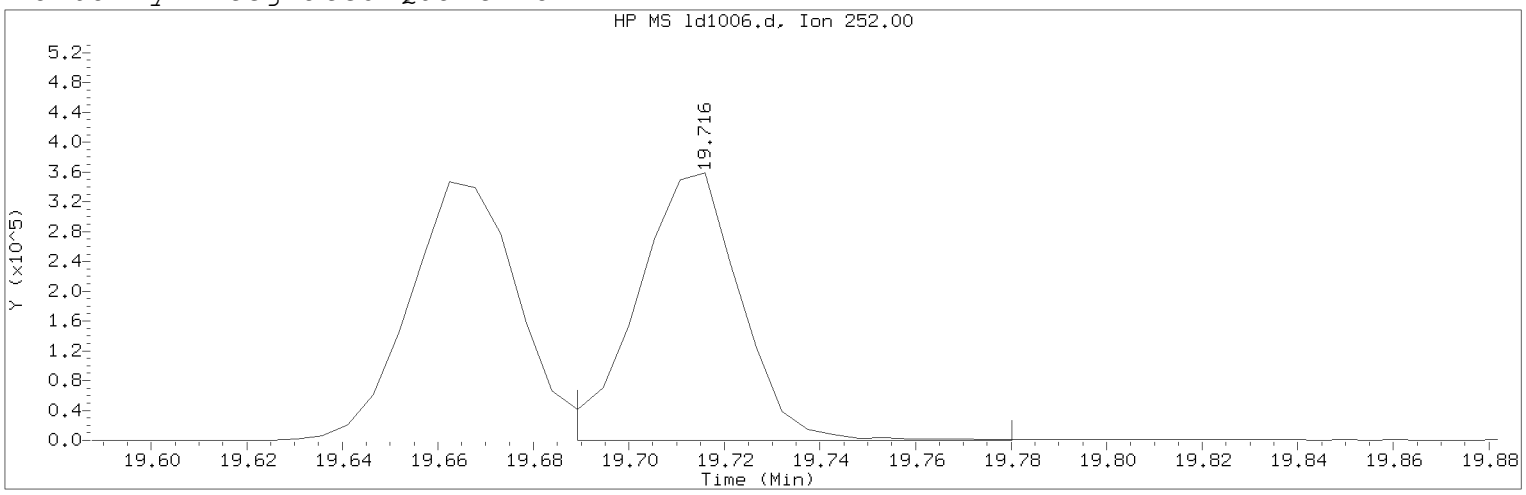
Target 3.5 esignature user: F35 Page 1933

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

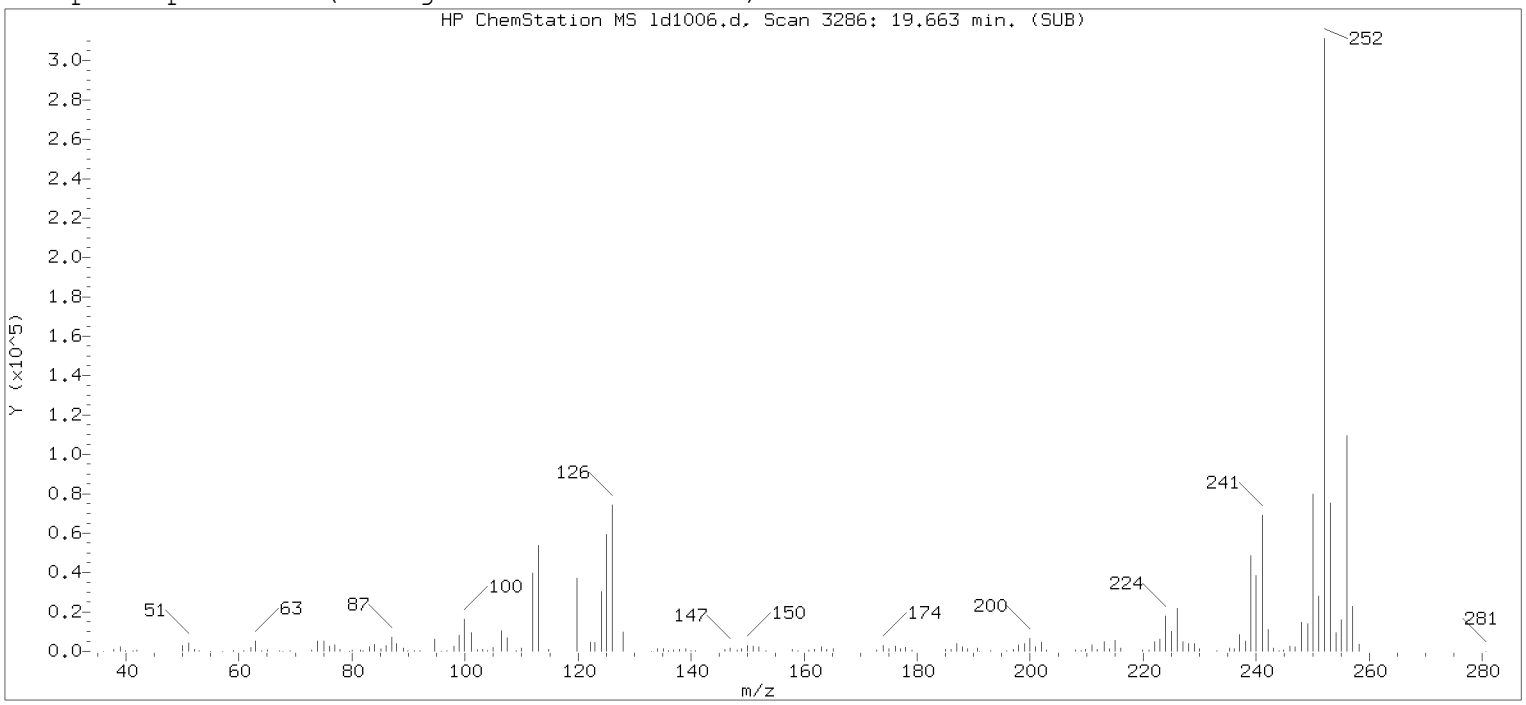
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3296
Retention Time (minutes) : 19.716
Quant Ion : 252.00
Area (flag) : 532238A
On-Column Amount (ng/ul) : 3.8198
Integration start scan : 3290 Integration stop scan: 3307
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

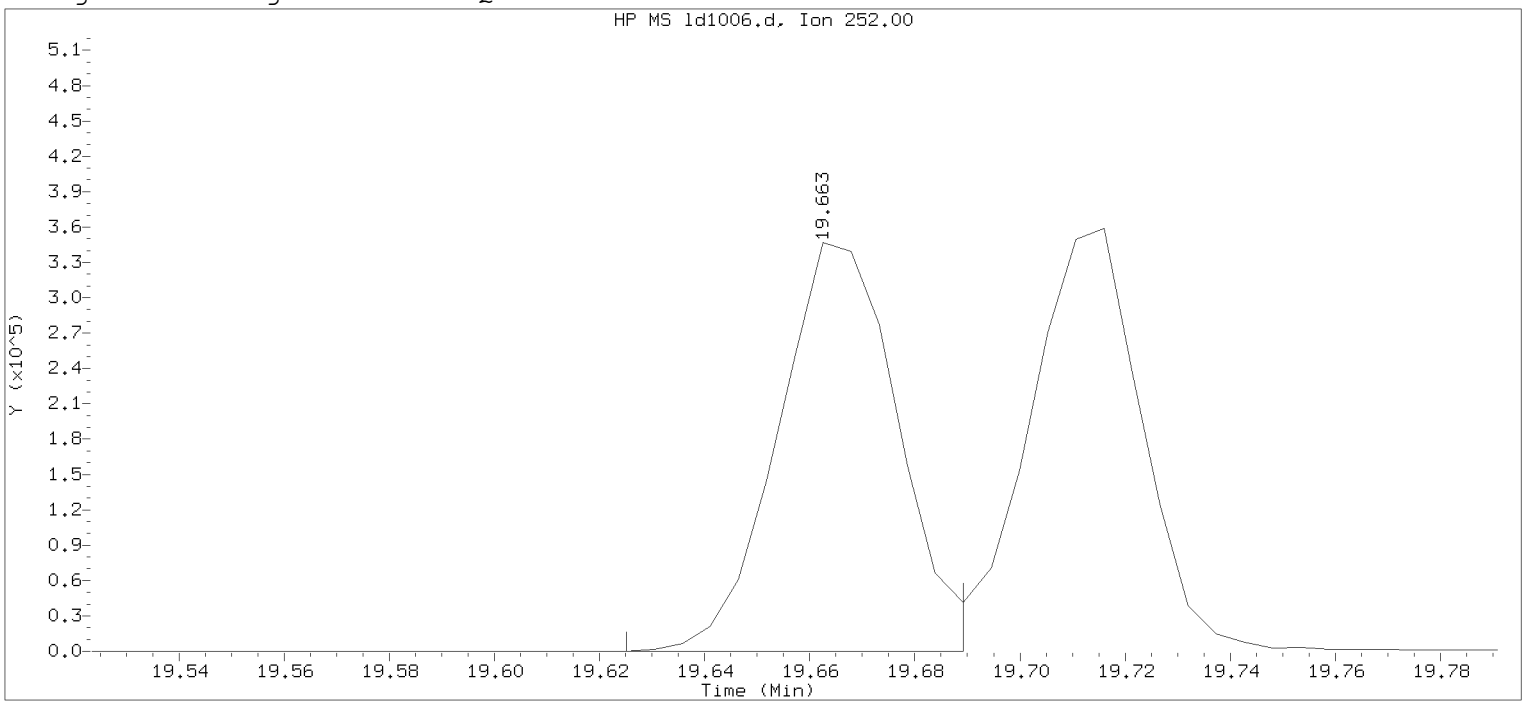
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:12
Date, time and analyst ID of latest file update: 16-Apr-2019 19:12 chemist

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compound Number	: 213		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 3286		
Retention Time (minutes)	: 19.663		
Quant Ion	: 252.00		
Area	: 543153		
On-column Amount (ng/ul)	: 3.8264		
Integration start scan	: 3278	Integration stop scan:	3290
Y at integration start	: 0	Y at integration end:	0

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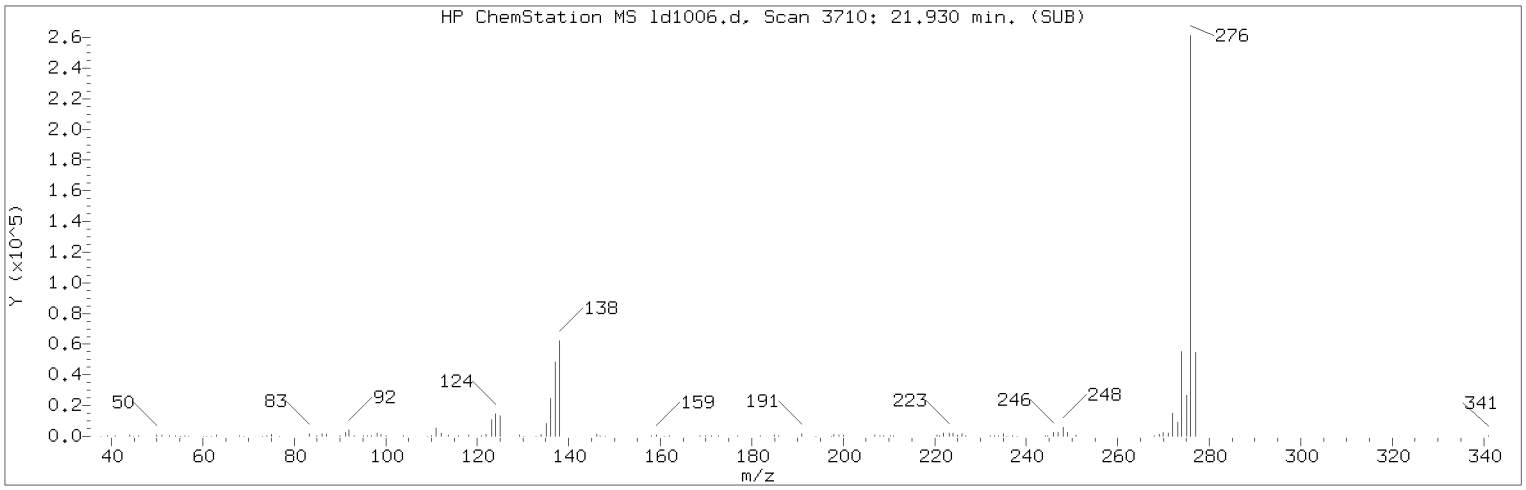
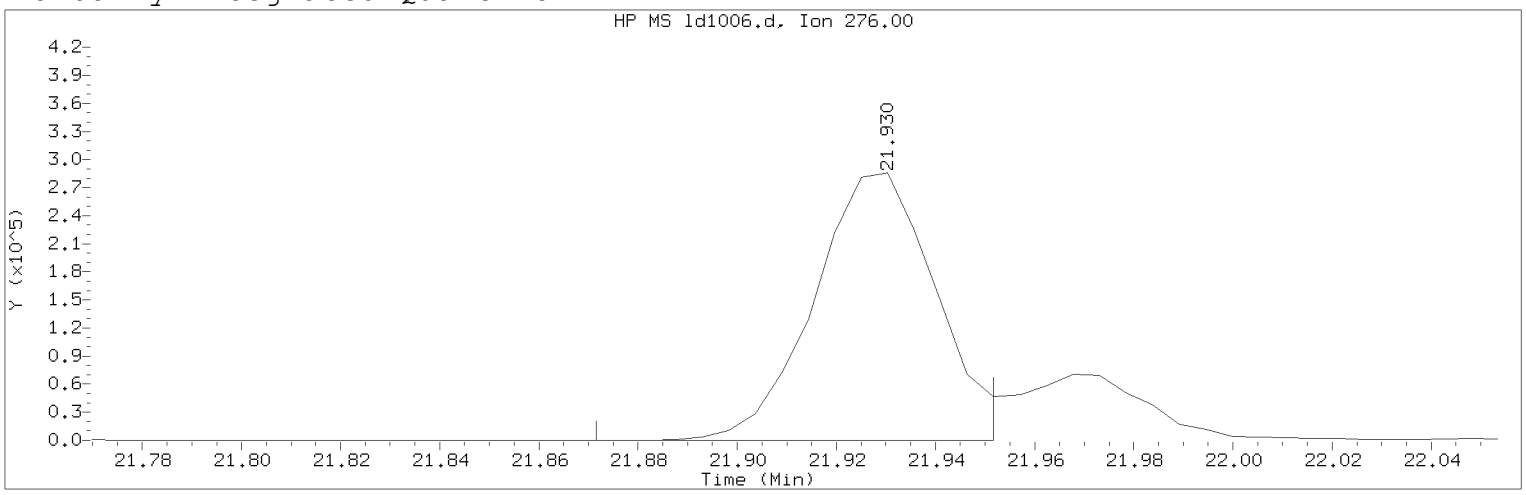
Target 3.5 esignature user: F35 Page 1935

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

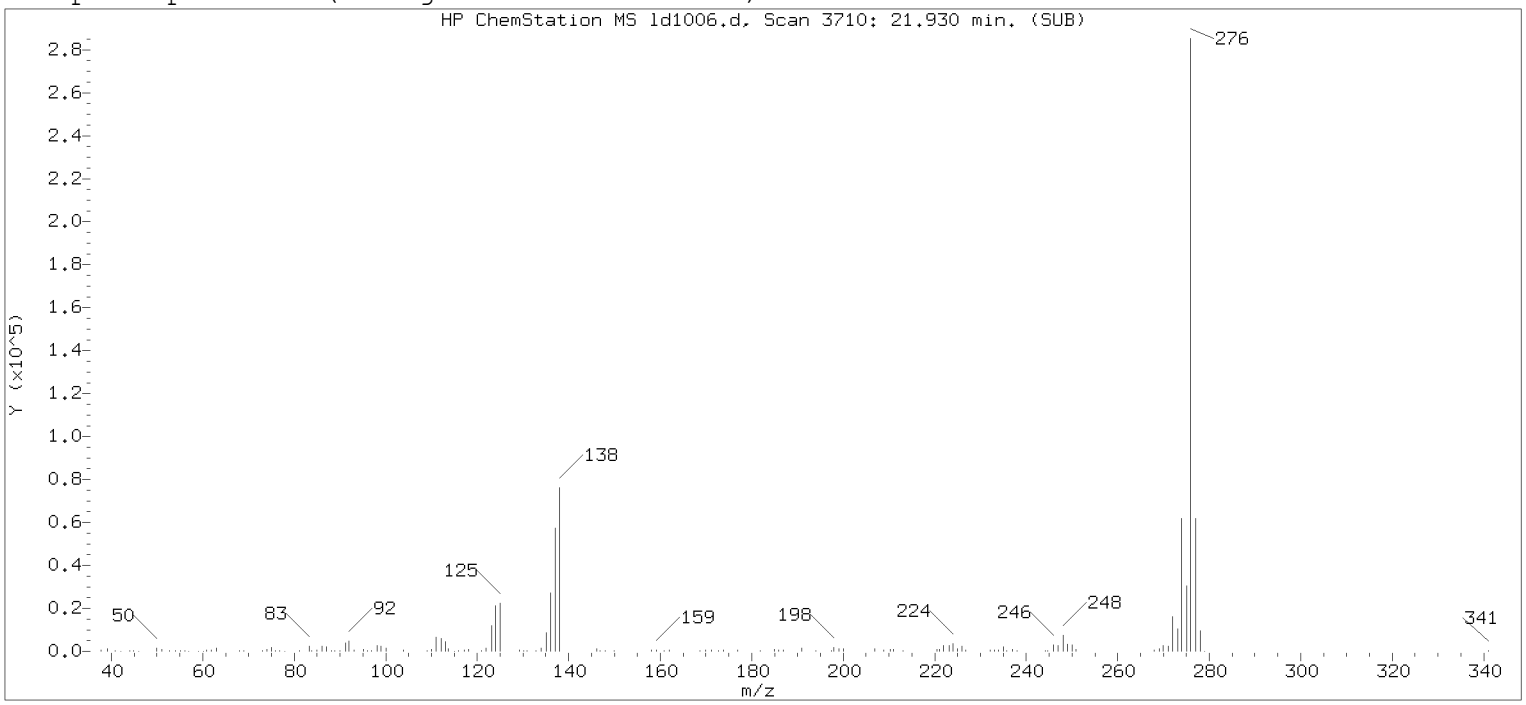
Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3710		
Retention Time (minutes)	: 21.930		
Quant Ion	: 276.00		
Area (flag)	: 487925M		
On-Column Amount (ng/ul)	: 3.7786		
Integration start scan	: 3698	Integration stop scan:	3713
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

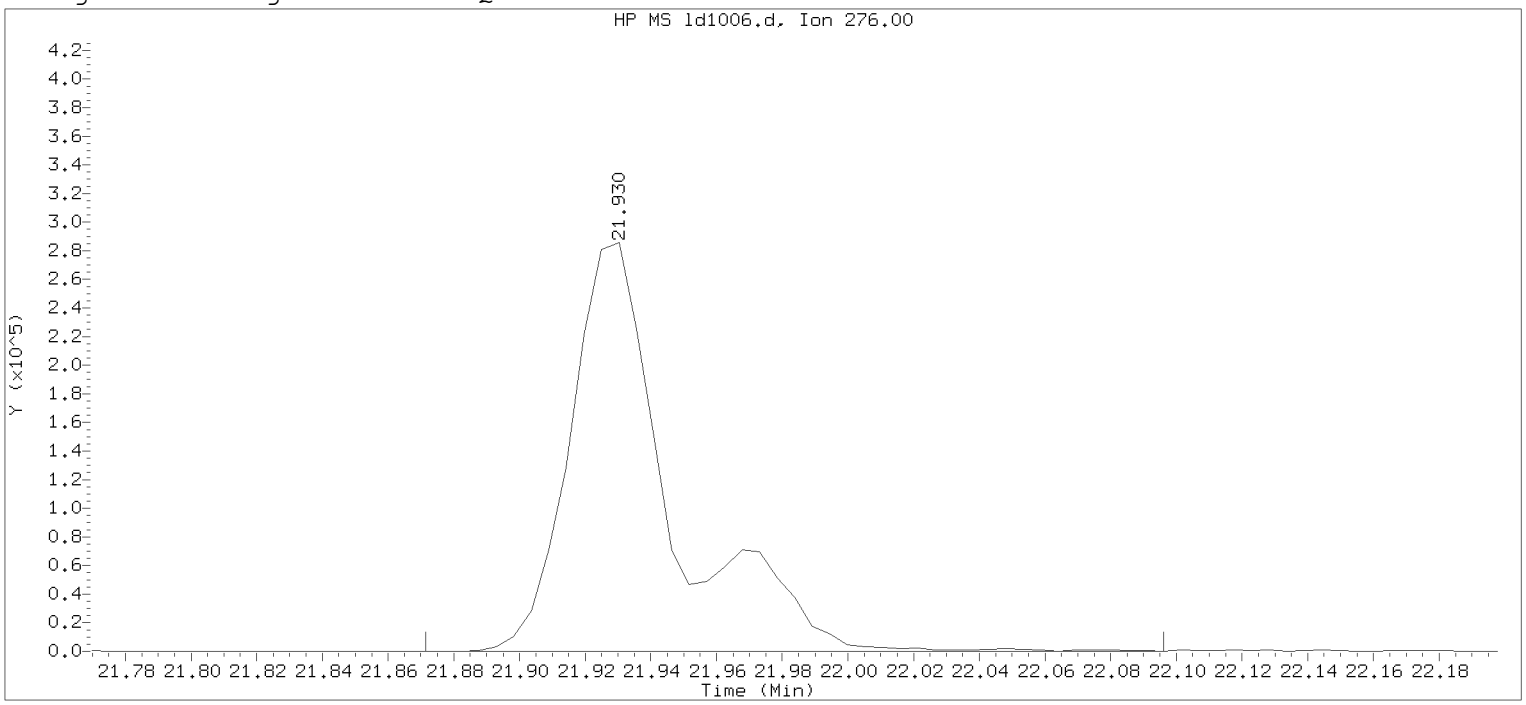
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



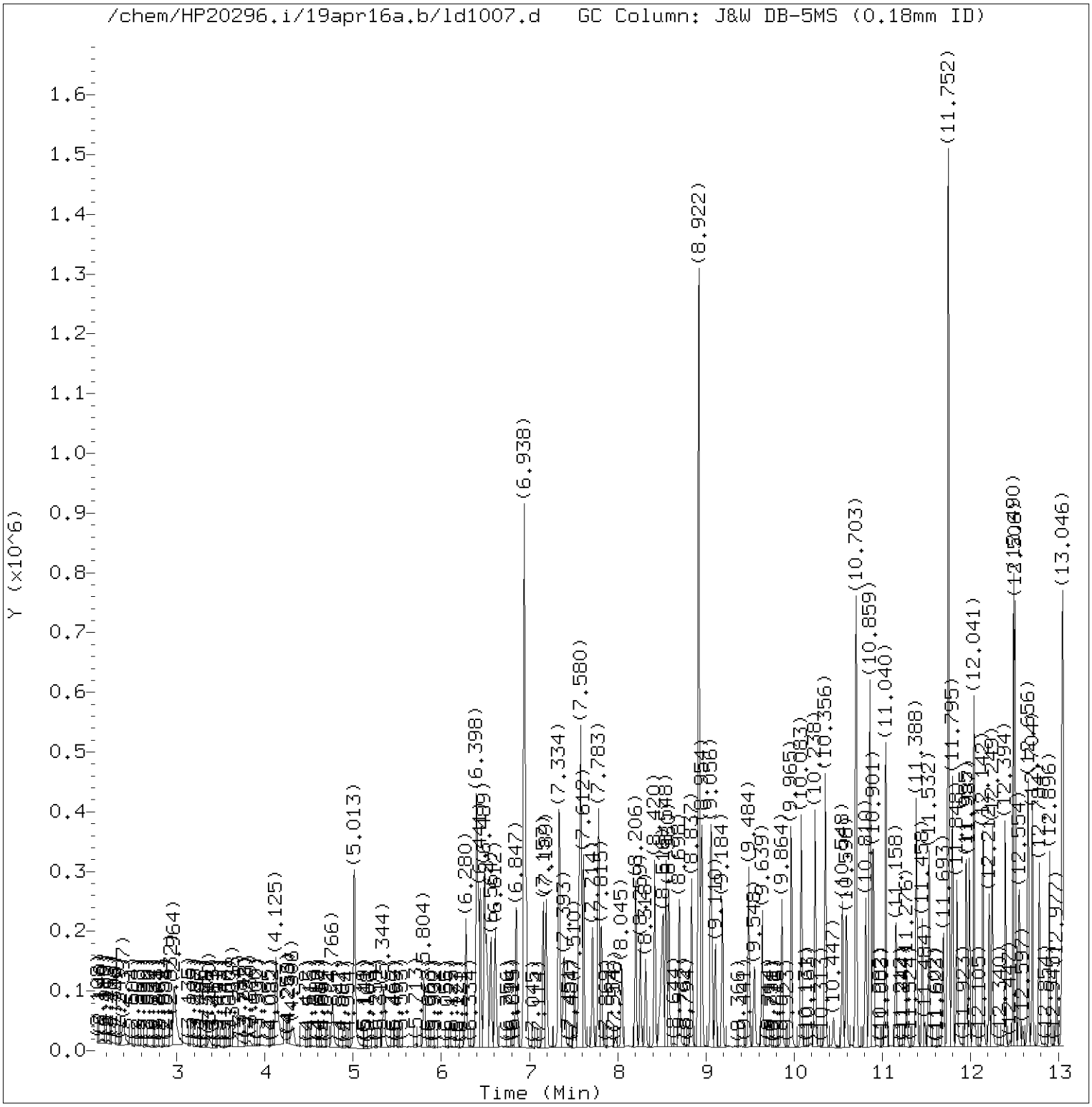
Data File: /chem/HP20296.i/19apr16a.b/ld1006.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 18:41 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:12
Date, time and analyst ID of latest file update: 16-Apr-2019 19:12 chemist

Sample Name: SSTD3.75 Lab Sample ID: rvSTD0929

Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3710
Retention Time (minutes) : 21.930
Quant Ion : 276.00
Area : 613535
On-column Amount (ng/ul) : 4.4255
Integration start scan : 3698 Integration stop scan: 3740
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user: Ashley R. Transue



Total Ion Chromatogram (TIC)

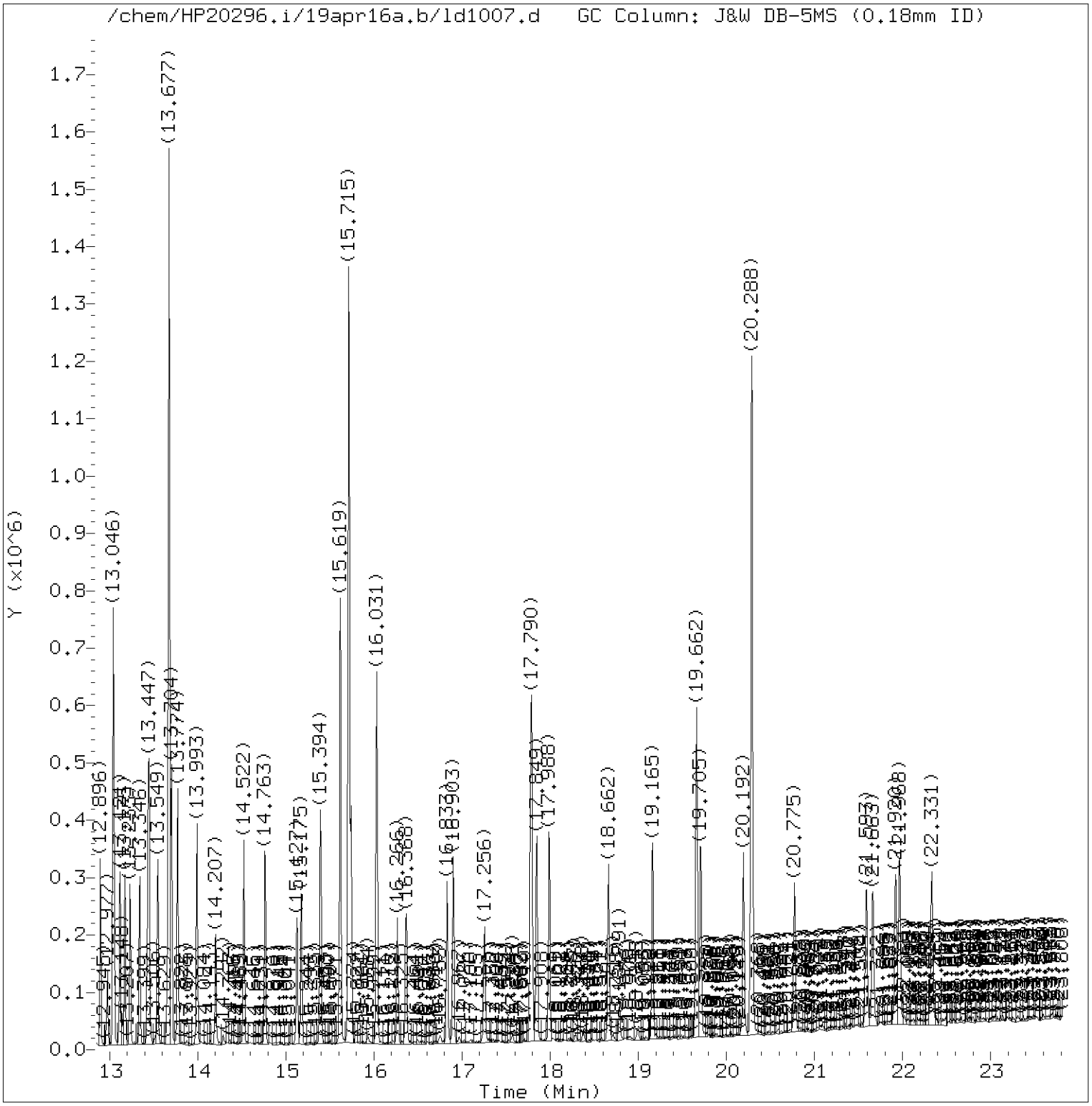
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.392	88	32096	1.223
5) N-Nitrosodimethylamine	(1)	2.932	74	42944	1.050
6) Pyridine	(1)	2.964	79	93070	1.289
8) 2-Picoline	(1)	4.125	93	86130	1.196
9) N-Nitrosomethylethylamine	(1)	4.323	88	34257	1.167
10) Methyl methanesulfonate	(1)	4.766	80	45019	1.244
12)$2-Fluorophenol	(1)	5.013	112	139735	2.432
14) N-Nitrosodiethylamine	(1)	5.349	102	35547	1.252
43) Total Cresols	(1)			146142	2.457
16) Ethyl methanesulfonate	(1)	5.804	109	36745	1.216
17) Benzaldehyde	(1)	6.280	77	66820	1.255
18)$Phenol-d6	(1)	6.398	99	189819	2.480
19) Phenol	(1)	6.419	94	112410	1.253
20) Aniline	(1)	6.441	93	130214	1.251
21) a-methylstyrene	(1)	6.532	118	14579	1.439
23) bis(2-Chloroethyl)ether	(1)	6.564	93	84156	1.257
24) 2-Chlorophenol	(1)	6.612	128	67744	1.231
25) 1,3-Dichlorobenzene	(1)	6.847	146	73083	1.246
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	179596	5.000
27) 1,4-Dichlorobenzene	(1)	6.965	146	77550	1.300
28) Benzyl alcohol	(1)	7.157	108	46901	1.268
29) 1,2-Dichlorobenzene	(1)	7.189	146	69263	1.241
31) Indene	(1)	7.328	115	90055	1.244
32) 2-Methylphenol	(1)	7.339	108	68884	1.224
100) Isosafrole	(3)			53026	1.197
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.393	45	104851	1.255
35) bis(2-Chloroisopropyl)ether	(1)	7.393	45	104851	1.255
36) N-Nitrosopyrrolidine	(1)	7.510	100	33003	1.108
37) Acetophenone	(1)	7.558	105	103719	1.234
38) 4-Methylphenol	(1)	7.580	108	77258	1.234
39) N-Nitroso-di-n-propylamine	(1)	7.580	70	62382	1.278
40) N-Nitrosomorpholine	(1)	7.580	56	47424	1.329
41) o-Toluidine	(1)	7.612	106	122280	1.261
44) Hexachloroethane	(1)	7.714	117	34403	1.284
45)$Nitrobenzene-d5	(2)	7.783	82	170659	2.424
46) Nitrobenzene	(2)	7.810	77	90519	1.223
50) N-Nitrosopiperidine	(2)	8.045	114	33627	1.206
125) 2,4_2,6-Dinitrotoluenes	(3)			60100	2.368
52) Isophorone	(2)	8.206	82	157344	1.213
53) 2-Nitrophenol	(2)	8.318	139	28891	1.101

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.420	107	75260	1.215
58) Benzoic acid	(2)	8.516	105	140001MA	3.269
59) O,O,O-Triethylphosphorothioate	(2)	8.553	198	28454	1.182
57) bis(2-Chloroethoxy)methane	(2)	8.580	93	100225	1.225
62) 2,4-Dichlorophenol	(2)	8.703	162	50418	1.162
151) Diallate trans/cis	(4)			65421	1.199
65) 1,2,4-Trichlorobenzene	(2)	8.837	180	58893	1.231
68)*Naphthalene-d8	(2)	8.922	136	707471	5.000
69) Naphthalene	(2)	8.954	128	196197	1.225
70) 4-Chloroaniline	(2)	9.056	127	80160	1.220
71) 2,6-Dichlorophenol	(2)	9.067	162	53659	1.270
72) Hexachloropropene	(2)	9.110	213	32832	1.124
74) Hexachlorobutadiene	(2)	9.184	225	34089	1.286
78) Quinoline	(2)	9.484	129	117698	1.255
79) Caprolactam	(2)	9.553	113	16356	1.176
80) N-Nitrosodi-n-butylamine	(2)	9.639	84	52832	1.092
83) 4-Chloro-3-methylphenol	(2)	9.864	107	66045	1.236
85) Safrole	(2)	9.971	162	45043	1.193
86) 2-Methylnaphthalene	(2)	10.083	142	122597	1.218
87) 1-Methylnaphthalene	(2)	10.238	142	120459	1.252
88) Hexachlorocyclopentadiene	(3)	10.356	237	28800	1.106
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	57533	1.288
91) cis-Isosafrole	(3)	10.447	162	8748	0.218
93) 2,4,6-Trichlorophenol	(3)	10.548	196	36724	1.231
95) 2,4,5-Trichlorophenol	(3)	10.596	196	38119	1.228
96)$2-Fluorobiphenyl	(3)	10.703	172	254486	2.469
97) trans-Isosafrole	(3)	10.816	162	44278	0.979
98) 1,1'-Biphenyl	(3)	10.859	154	134670	1.222
99) 2-Chloronaphthalene	(3)	10.864	162	123680	1.287
101) 1-Chloronaphthalene	(3)	10.901	162	108182	1.290
103) Diphenyl ether	(3)	11.040	170	77719	1.300
104) 2-Nitroaniline	(3)	11.040	138	30772	1.099
108) 1,4-Naphthoquinone	(3)	11.158	158	41813	1.154
109) 1,4-Dinitrobenzene	(3)	11.276	168	14636	1.073
110) Dimethylphthalate	(3)	11.388	163	124205	1.267
111) 1,3-Dinitrobenzene	(3)	11.393	168	15119A	1.021
113) 2,6-Dinitrotoluene	(3)	11.458	165	25350	1.170
114) Acenaphthylene	(3)	11.532	152	158320	1.230
117) 3-Nitroaniline	(3)	11.693	138	26320	1.076
118)*Acenaphthene-d10	(3)	11.752	164	324172	5.000

M = Compound was manually integrated.
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Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.795	153	119054	1.247
120) 2,4-Dinitrophenol	(3)	11.848	184	33318	2.688
121) 4-Nitrophenol	(3)	11.955	109	37930	2.079
122) Pentachlorobenzene	(3)	11.987	250	47650	1.283
123) 2,4-Dinitrotoluene	(3)	12.041	165	34750	1.198
124) Dibenzofuran	(3)	12.046	168	159598	1.277
126) 1-Naphthylamine	(3)	12.142	143	113387	1.231
127) 2,3,4,6-Tetrachlorophenol	(3)	12.212	232	26622	1.158
128) 2-Naphthylamine	(3)	12.249	143	116792	1.306
129) Diethylphthalate	(3)	12.394	149	124707	1.271
131) Fluorene	(3)	12.485	166	121894	1.219
130) Thionazin	(3)	12.490	107	24986	1.241
133) 5-Nitro-o-toluidine	(3)	12.506	152	32083	1.187
134) 4-Nitroaniline	(3)	12.506	138	32744	1.280
132) 4-Chlorophenyl-phenylether	(3)	12.511	204	61628	1.322
135) 4,6-Dinitro-2-methylphenol	(4)	12.554	198	29309	1.835
136) N-Nitrosodiphenylamine	(4)	12.656	169	100381	1.251
137) NDPA as diphenylamine	(4)	12.656	169	100381	1.251
139) 1,2-Diphenylhydrazine	(4)	12.704	77	168718	1.241
140)$2,4,6-Tribromophenol	(3)	12.784	330	30170	2.275
142) Tetraethyldithiopyrophosphate	(4)	12.896	97	25730	1.240
144) 1,3,5-Trinitrobenzene	(4)	12.977	213	8337	0.871
145) Diallate (peak 1)	(4)	13.041	86	56380	1.004
146) Phorate	(4)	13.046	75	99531	1.230
147) Phenacetin	(4)	13.052	108	68356	1.143
148) 4-Bromophenyl-phenylether	(4)	13.121	248	32674	1.267
149) Diallate (peak 2)	(4)	13.148	86	9041A	0.195
150) Hexachlorobenzene	(4)	13.175	284	33799	1.199
152) Dimethoate	(4)	13.233	87	58854	1.129
153) Atrazine	(4)	13.346	200	32029	1.345
154) Pentachlorophenol	(4)	13.431	266	20322	1.109
155) 4-Aminobiphenyl	(4)	13.442	169	114927	1.228
156) Pentachloronitrobenzene	(4)	13.453	237	13983	1.162
157) Pronamide	(4)	13.549	173	50460	1.135
158)*Phenanthrene-d10	(4)	13.677	188	596739	5.000
159) Dinoseb	(4)	13.693	211	19324	0.822
160) Phenanthrene	(4)	13.704	178	175160	1.220
162) Anthracene	(4)	13.774	178	181927	1.257
168) Carbazole	(4)	13.993	167	157661	1.212
169) Methyl parathion	(4)	14.207	109	36781	0.977

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on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.522	149	201755	1.159
172) Parathion	(4)	14.763	109	23615	0.972
173) 4-Nitroquinoline-1-oxide	(4)	14.768	190	8632	0.608
227) Total PAHs	(6)			2873290	21.664
174) Octachlorostyrene	(4)	15.127	308	13607	1.281
176) Isodrin	(4)	15.180	193	20959	1.256
178) Fluoranthene	(4)	15.394	202	182731	1.195
179) Benzidine	(5)	15.619	184	339041	3.295
180)*Pyrene-d10	(5)	15.715	212	597186	5.000
182) Pyrene	(5)	15.742	202	201867	1.255
184)$Terphenyl-d14	(5)	16.031	244	239263	2.431
187) p-Dimethylaminoazobenzene	(5)	16.271	225	26282	1.011
190) Chlorobenzilate	(5)	16.362	139	56869	1.083
192) 3,3'-Dimethylbenzidine	(5)	16.833	212	107208	1.016
193) Butylbenzylphthalate	(5)	16.903	149	85028	1.064
196) 2-Acetylaminofluorene	(5)	17.256	181	57303	0.869
198) 3,3'-Dichlorobenzidine	(5)	17.774	252	55695	1.014
200) Benzo(a)anthracene	(5)	17.790	228	175675	1.181
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.796	231	30167	0.992
201) Chrysene	(5)	17.849	228	174818	1.229
204) bis(2-Ethylhexyl)phthalate	(5)	17.988	149	120540	1.037
208) 6-Methylchrysene	(5)	18.662	242	108664	1.101
210) Di-n-octylphthalate	(6)	19.165	149	195429	0.999
211) Benzo(b)fluoranthene	(6)	19.662	252	168594	1.160
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.668	256	62925	1.034
213) Benzo(k)fluoranthene	(6)	19.711	252	164886A	1.192
216) Benzo(a)pyrene	(6)	20.192	252	151225	1.150
218)*Perylene-d12	(6)	20.288	264	563803	5.000
220) 3-Methylcholanthrene	(6)	20.775	268	75530	1.092
222) Dibenz(a,h)acridine	(6)	21.593	279	122457	1.080
223) Dibenz(a,j)acridine	(6)	21.663	279	122021	1.085
224) Indeno(1,2,3-cd)pyrene	(6)	21.925	276	142926M	1.102
225) Dibenz(a,h)anthracene	(6)	21.968	278	155153	1.160
226) Benzo(g,h,i)perylene	(6)	22.331	276	159807	1.173

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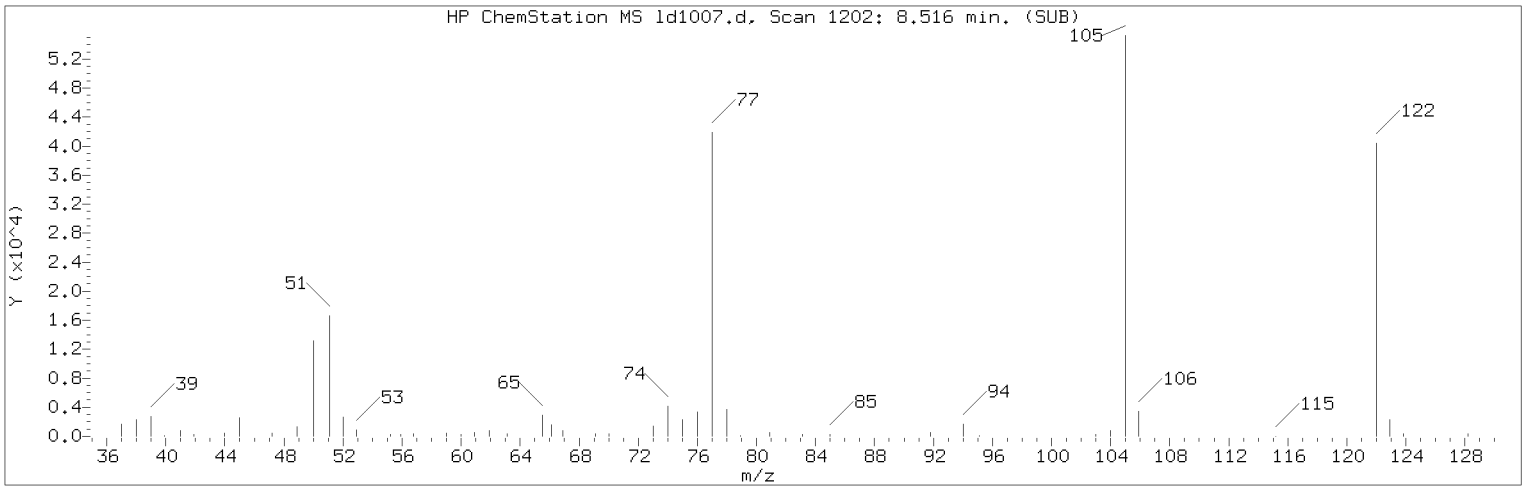
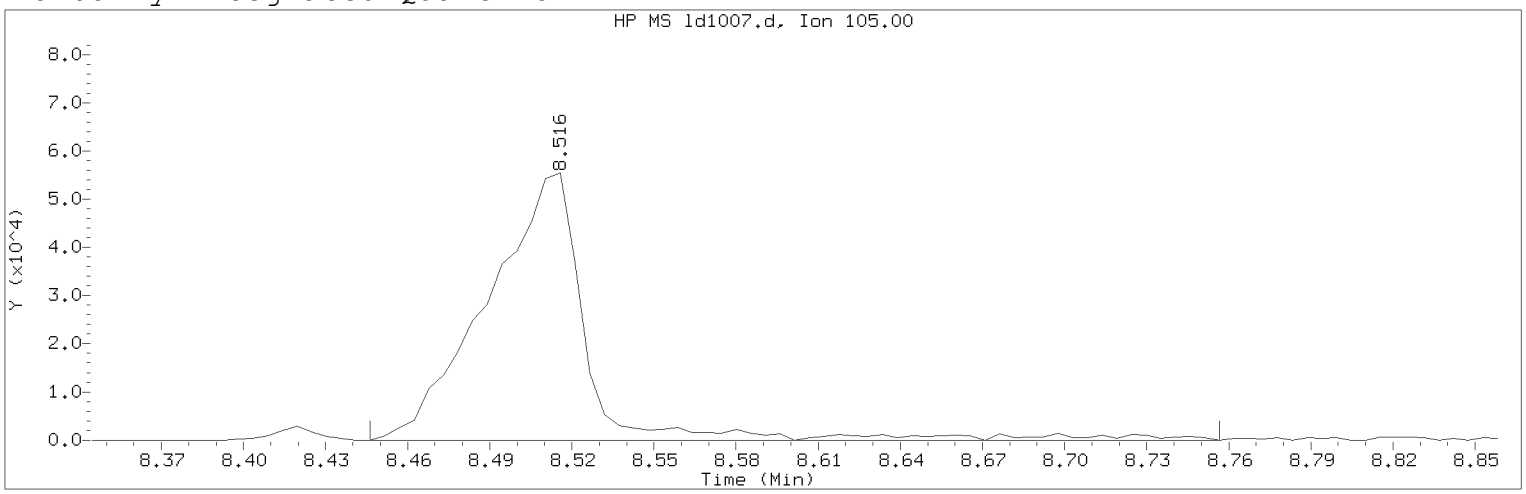
Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

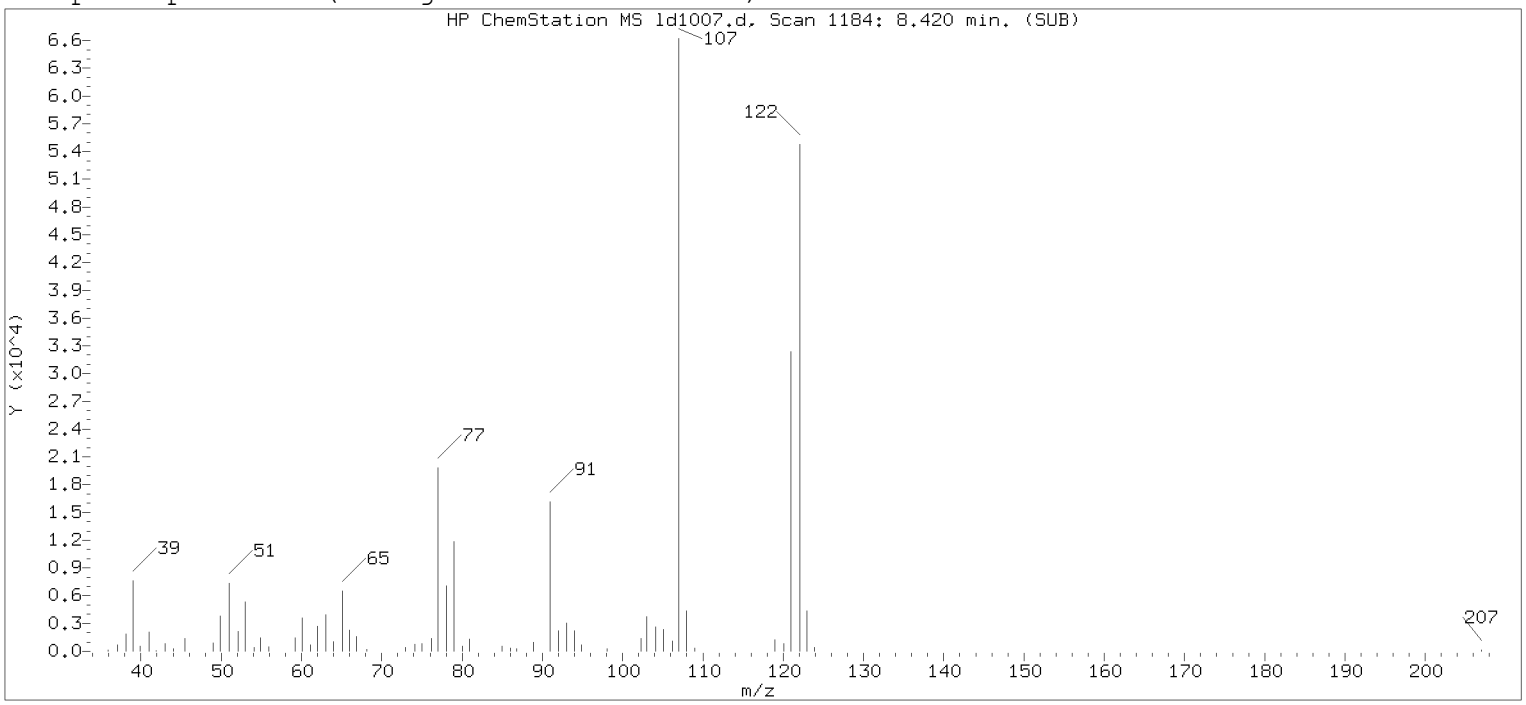
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1202
Retention Time (minutes) : 8.516
Quant Ion : 105.00
Area (flag) : 140001MA
On-Column Amount (ng/ul) : 3.2690
Integration start scan : 1188 Integration stop scan: 1246
Y at integration start : -37 Y at integration end: -37

Reason for manual integration: improper integration

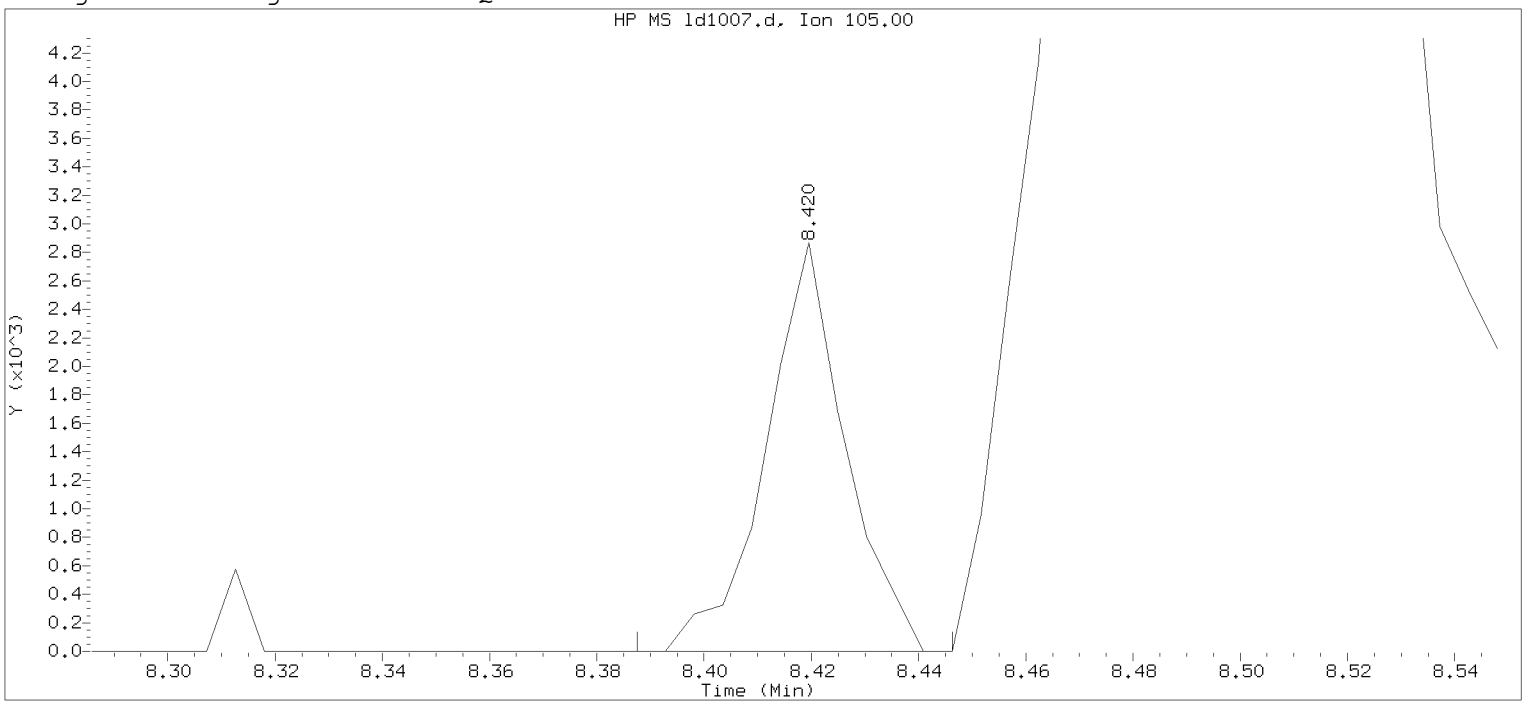
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:41
Date, time and analyst ID of latest file update: 16-Apr-2019 19:41 chemist

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1184		
Retention Time (minutes)	: 8.420		
Quant Ion	: 105.00		
Area	: 2958		
On-column Amount (ng/ul)	: 0.0703		
Integration start scan	: 1177	Integration stop scan:	1188
Y at integration start	: 0	Y at integration end:	0

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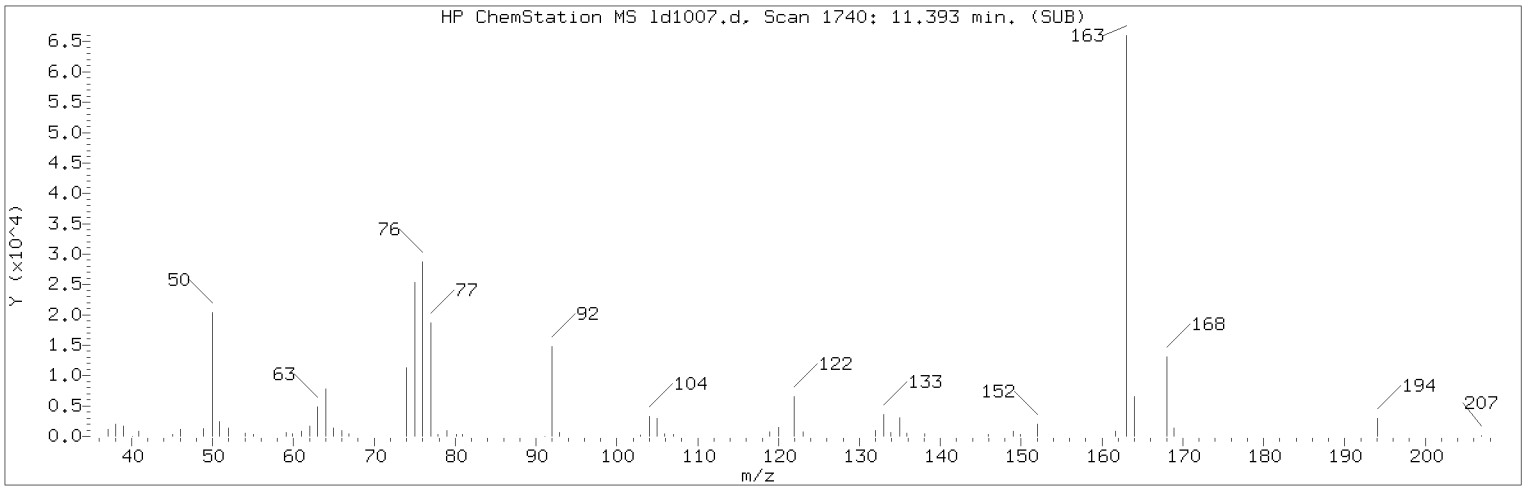
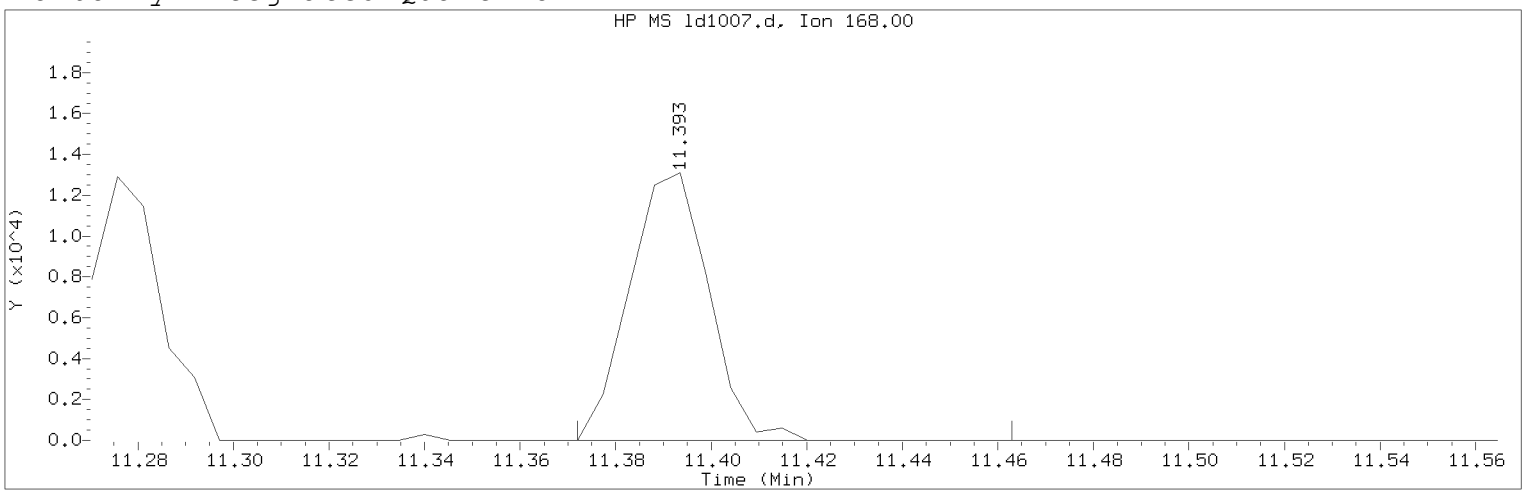
Target 3.5 esignature used. Page 1944

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

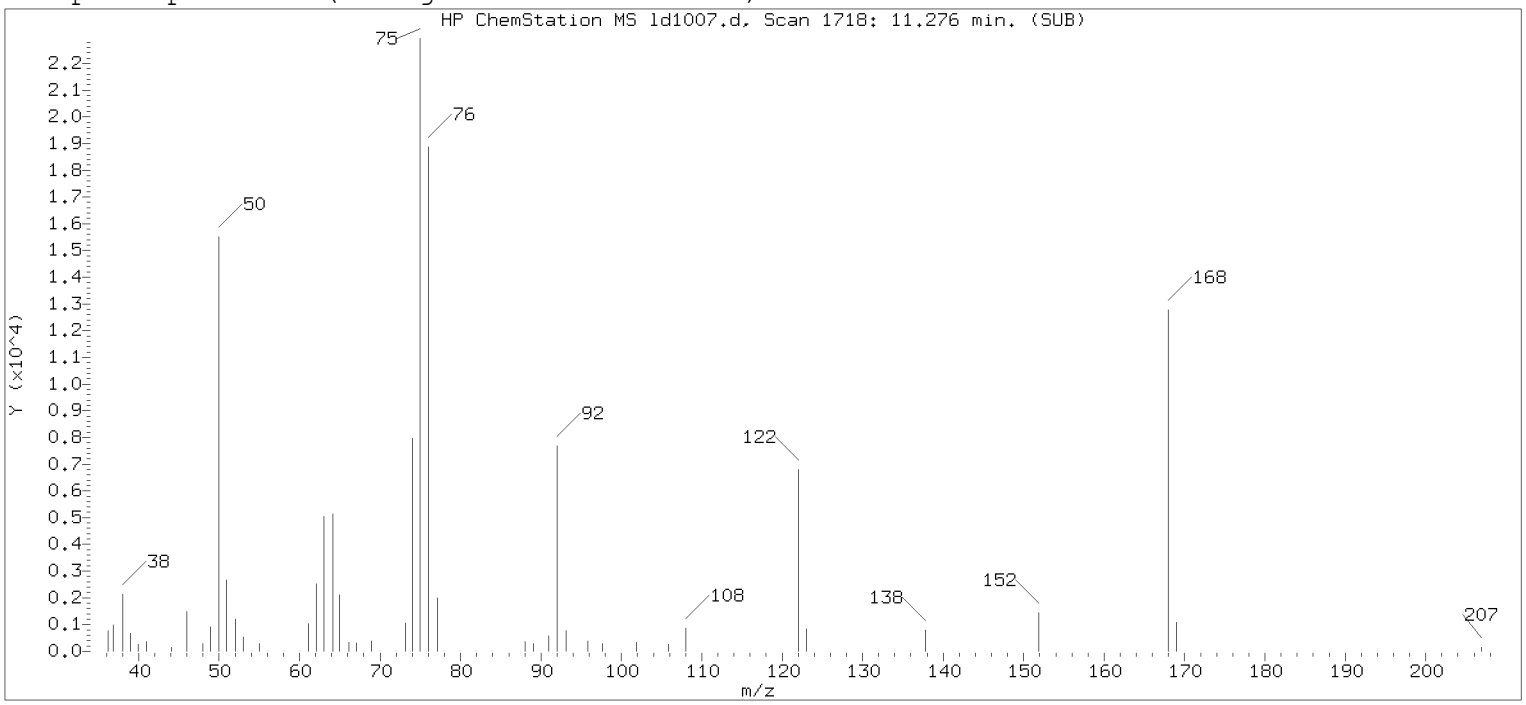
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1740
Retention Time (minutes) : 11.393
Quant Ion : 168.00
Area (flag) : 15119A
On-Column Amount (ng/ul) : 1.0207
Integration start scan : 1735 Integration stop scan: 1752
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

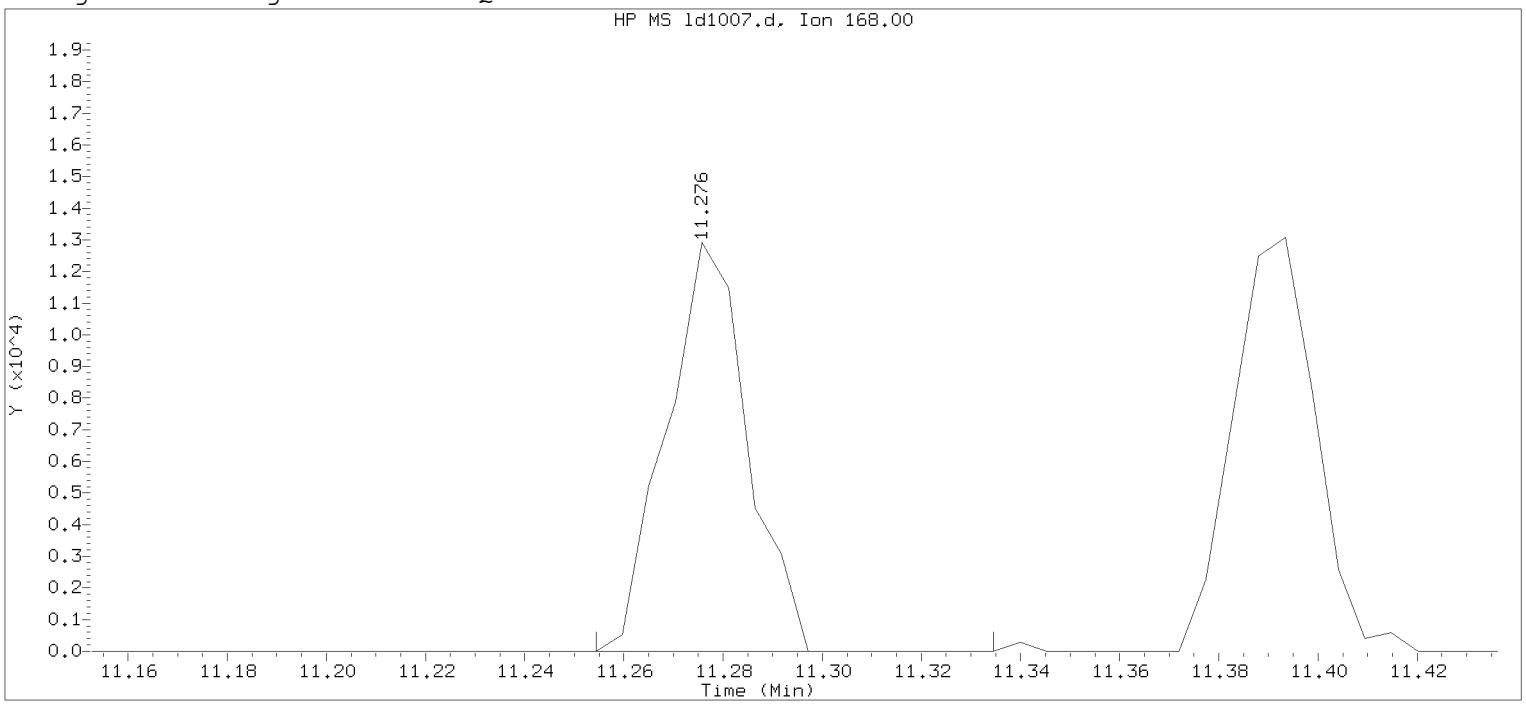
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

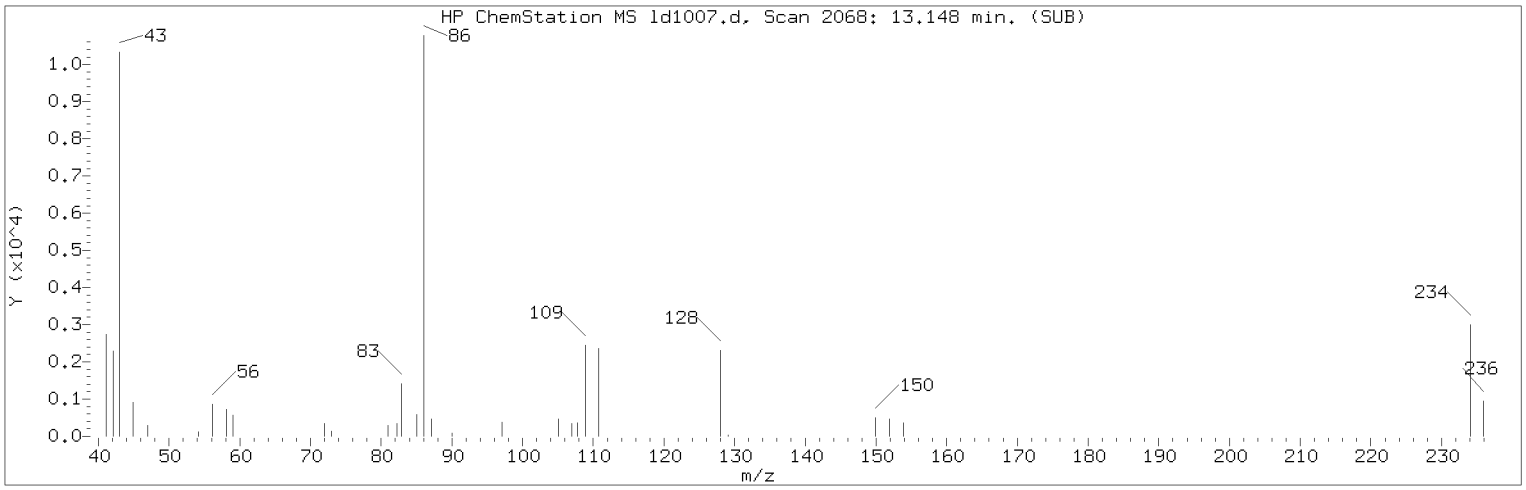
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:41
Date, time and analyst ID of latest file update: 16-Apr-2019 19:41 chemist

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

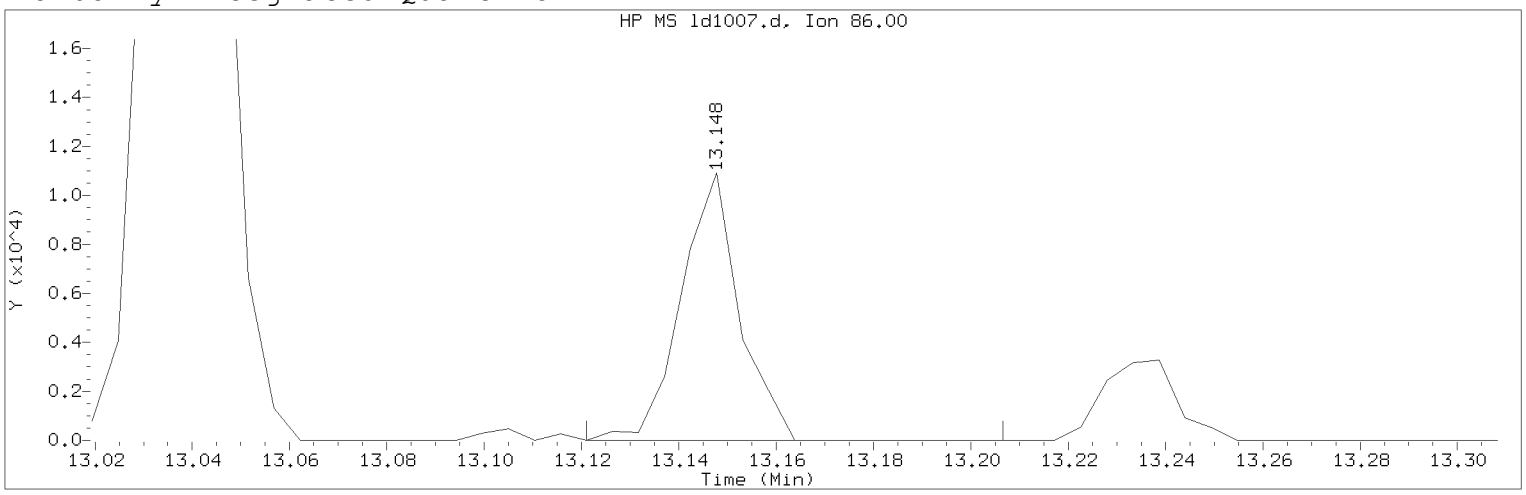
Compound Number	: 111		
Compound Name	: 1,3-Dinitrobenzene		
Scan Number	: 1718		
Retention Time (minutes)	: 11.276		
Quant Ion	: 168.00		
Area	: 14636		
On-column Amount (ng/ul)	: 0.8962		
Integration start scan	: 1713	Integration stop scan:	1728
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

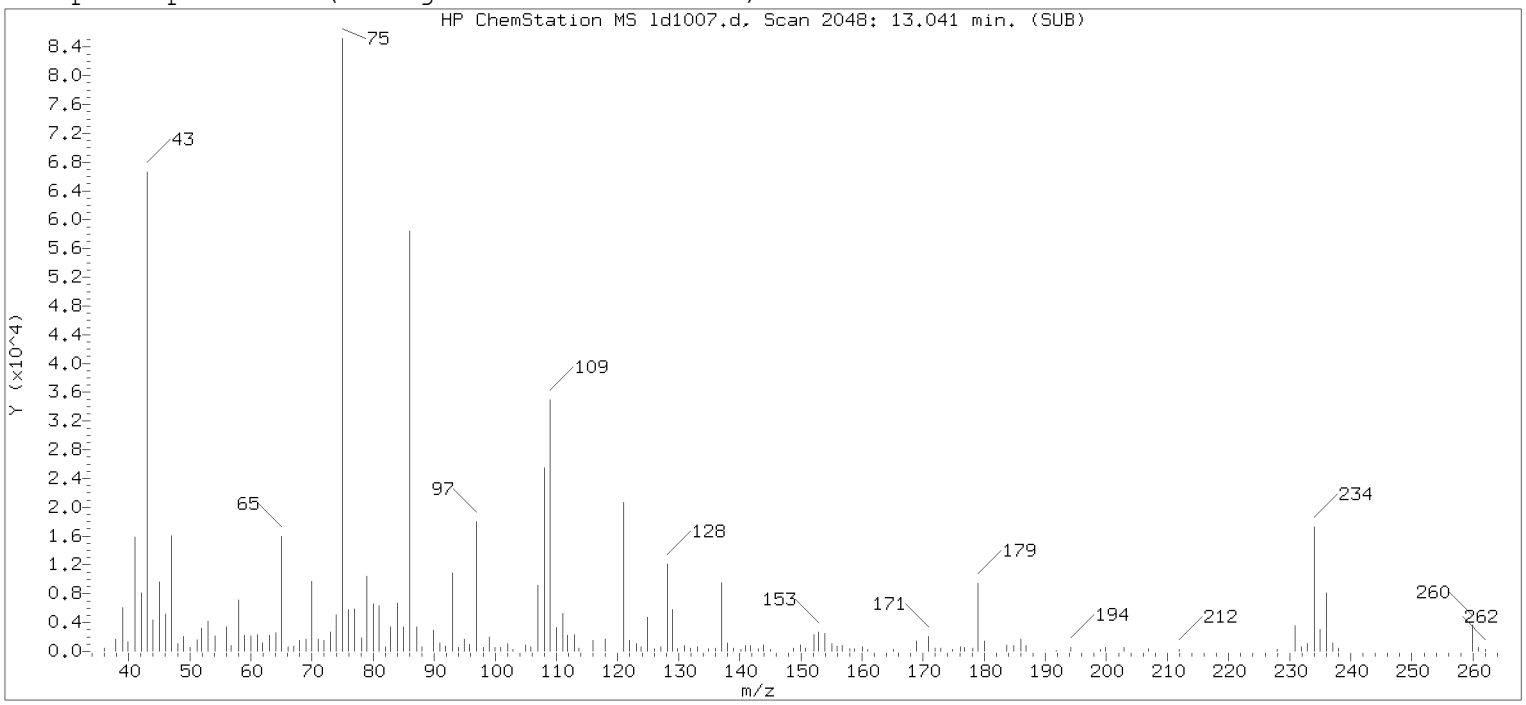
Compound Number : 149
Compound Name : Diallate (peak 2)
Scan Number : 2068
Retention Time (minutes) : 13.148
Quant Ion : 86.00
Area (flag) : 9041A
On-Column Amount (ng/ul) : 0.1947
Integration start scan : 2062 Integration stop scan: 2078
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

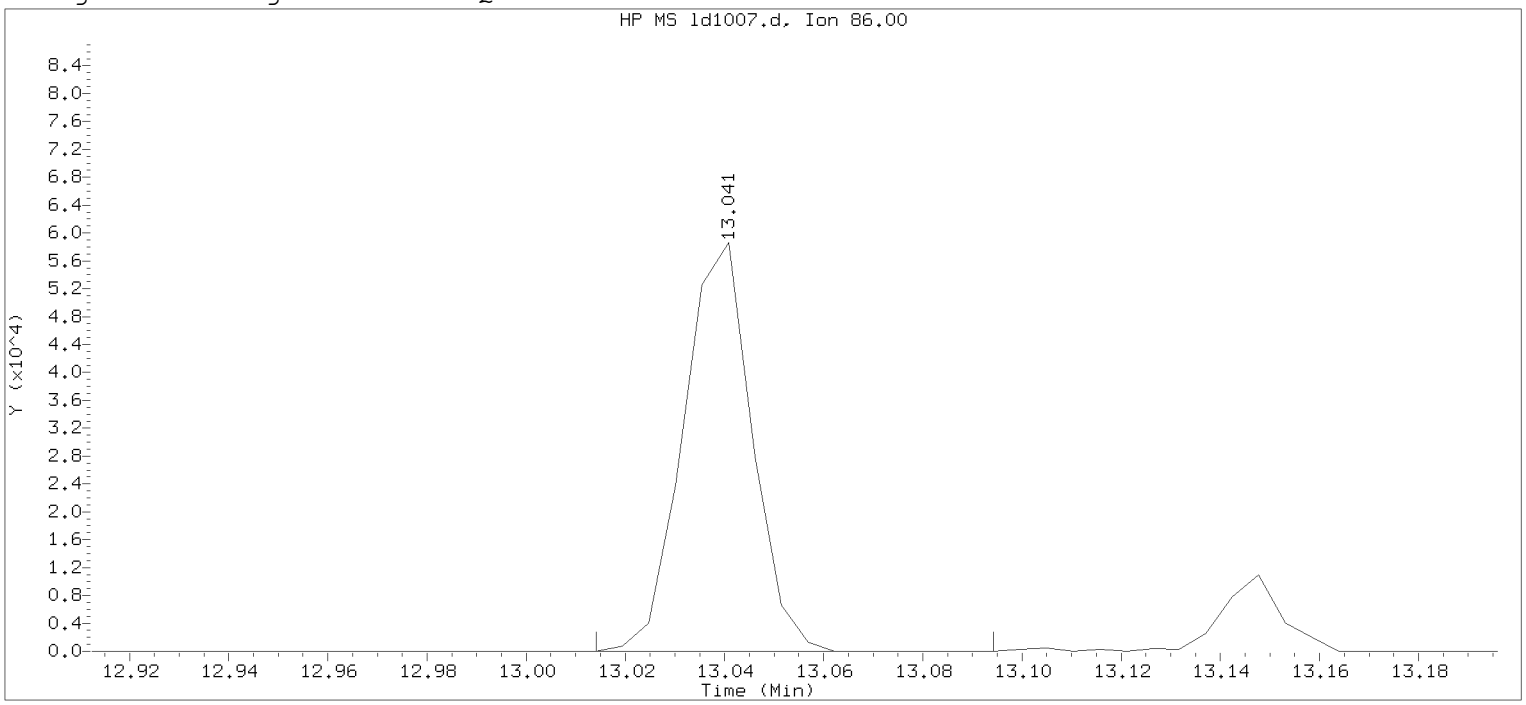
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

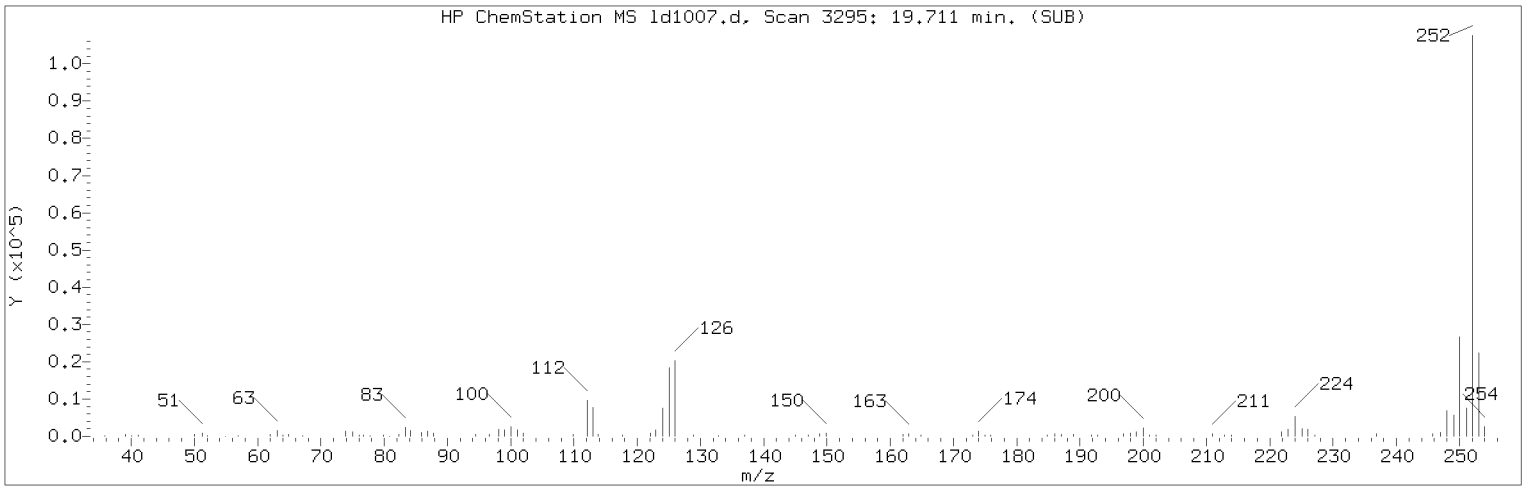
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:41
Date, time and analyst ID of latest file update: 16-Apr-2019 19:41 chemist

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

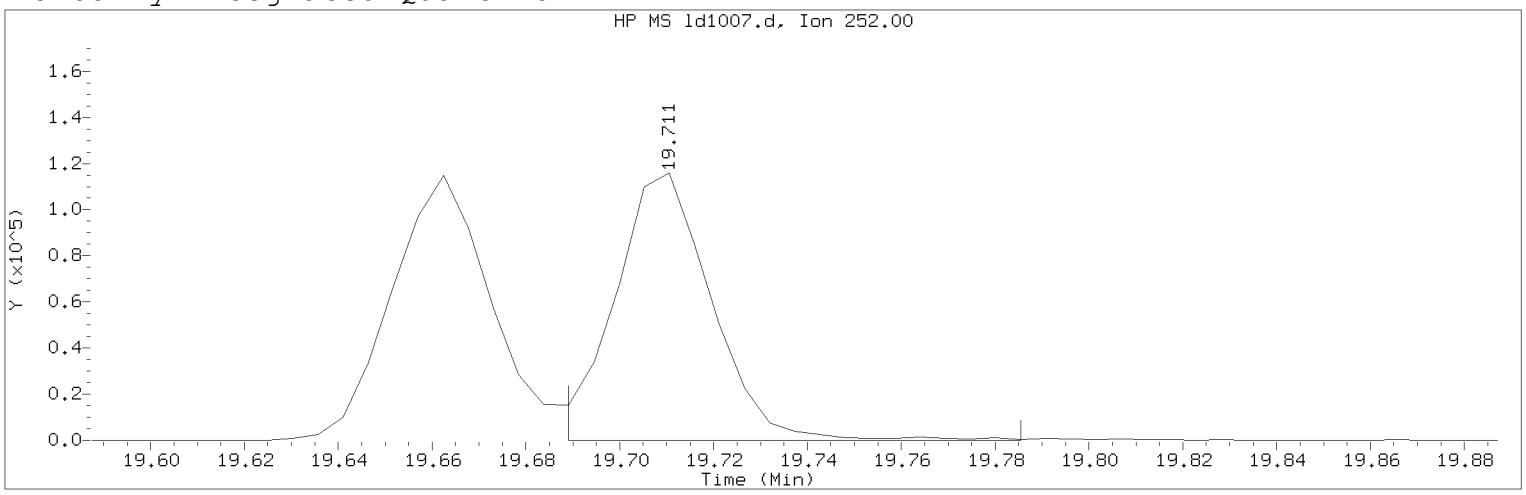
Compound Number	: 149		
Compound Name	: Diallate (peak 2)		
Scan Number	: 2048		
Retention Time (minutes)	: 13.041		
Quant Ion	: 86.00		
Area	: 56380		
On-column Amount (ng/ul)	: 1.3102		
Integration start scan	: 2042	Integration stop scan:	2057
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

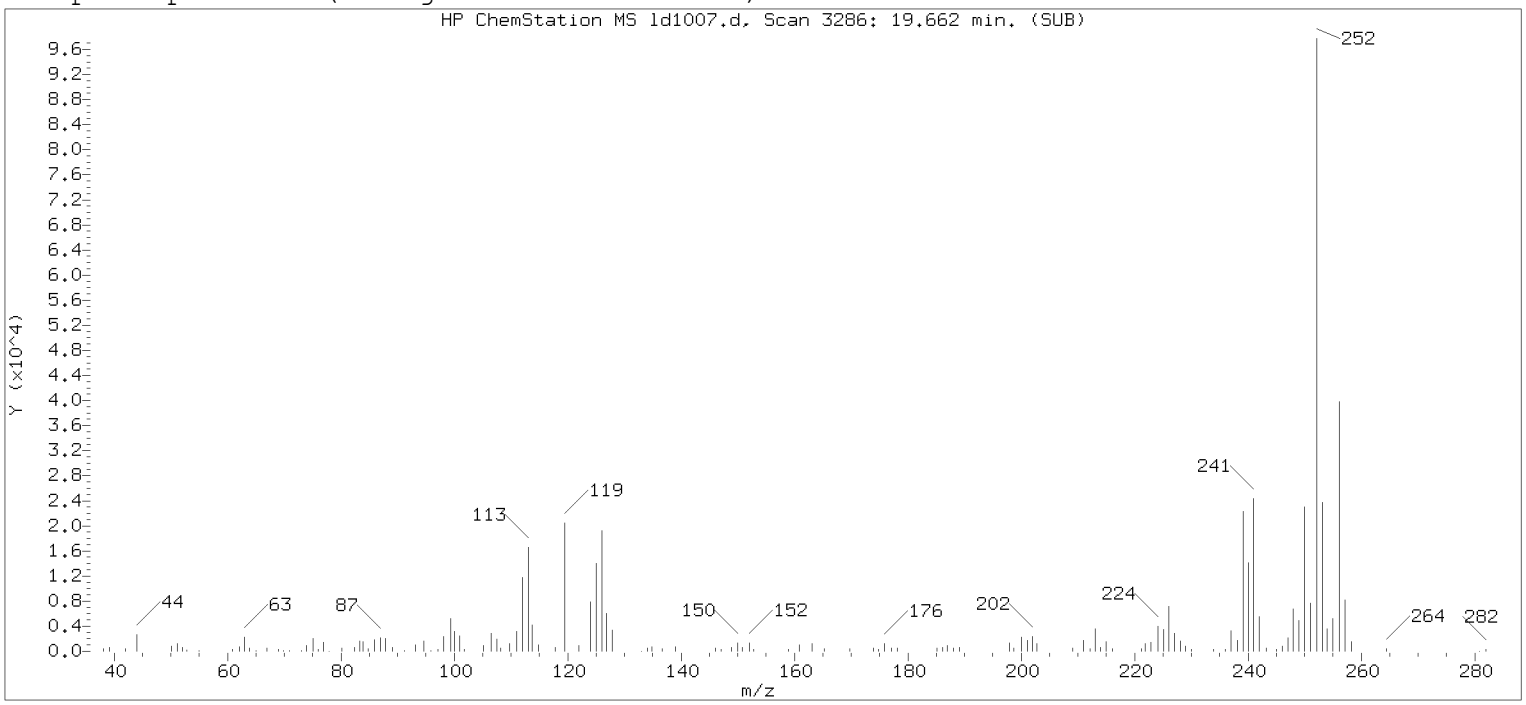
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3295
Retention Time (minutes) : 19.711
Quant Ion : 252.00
Area (flag) : 164886A
On-Column Amount (ng/ul) : 1.1919
Integration start scan : 3290 Integration stop scan: 3308
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

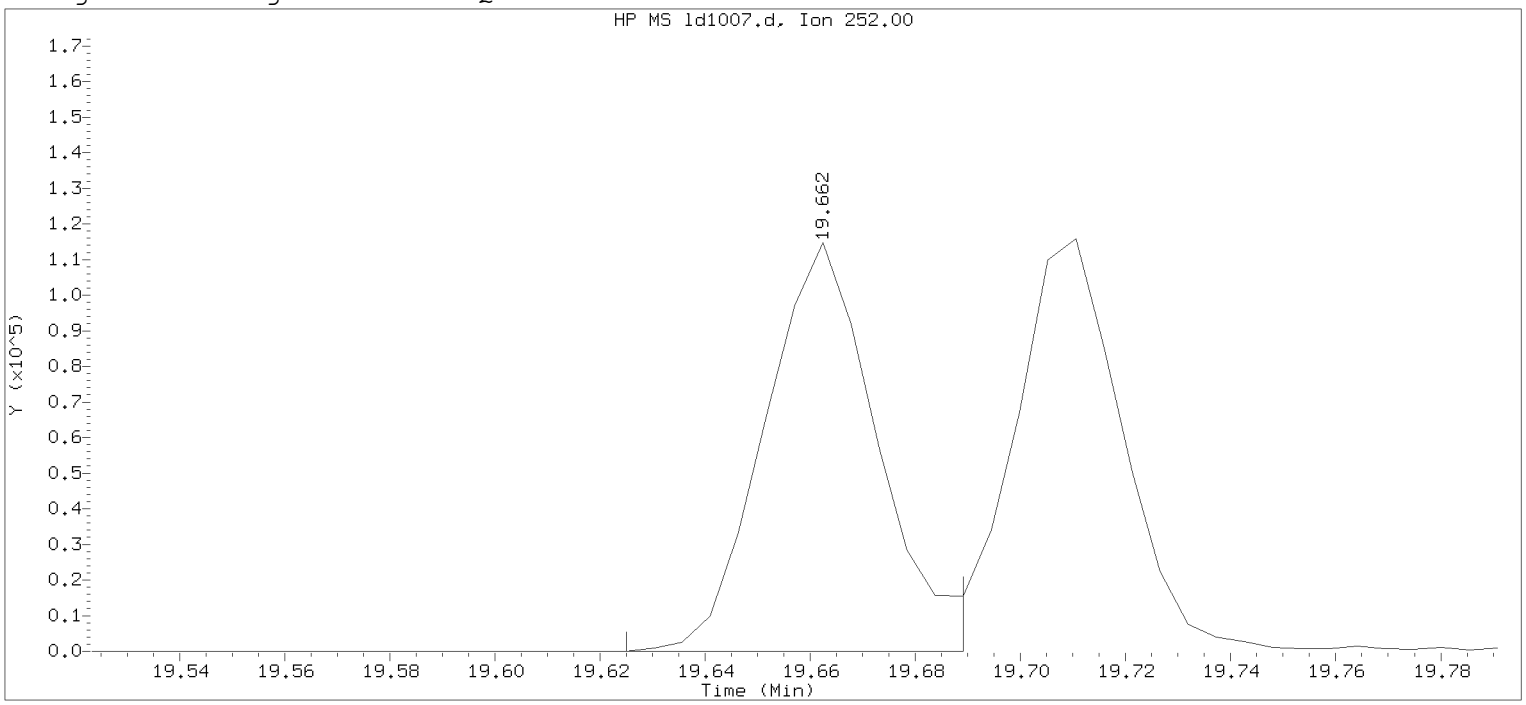
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:41
Date, time and analyst ID of latest file update: 16-Apr-2019 19:41 chemist

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compound Number	: 213		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 3286		
Retention Time (minutes)	: 19.662		
Quant Ion	: 252.00		
Area	: 168594		
On-column Amount (ng/ul)	: 1.2046		
Integration start scan	: 3278	Integration stop scan:	3290
Y at integration start	: 0	Y at integration end:	0

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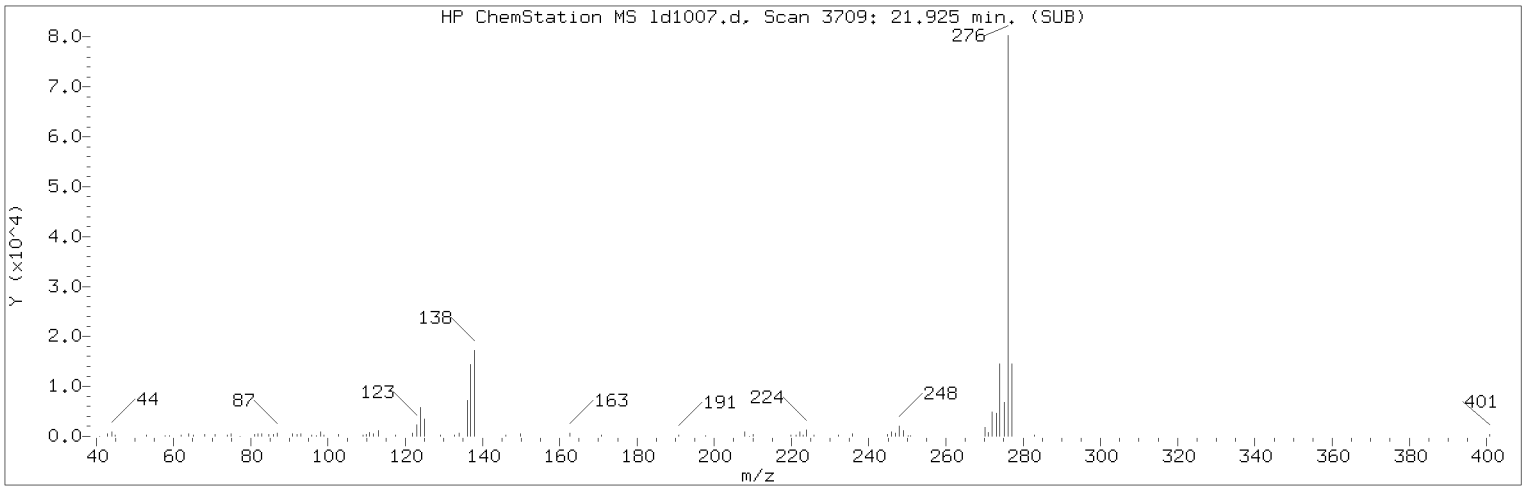
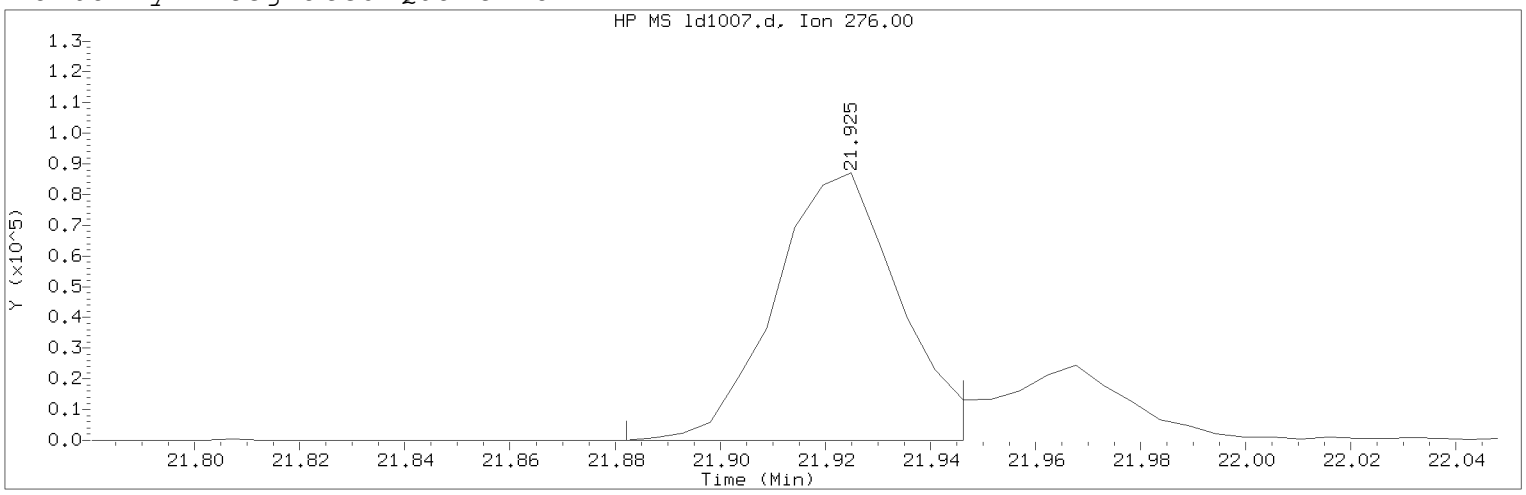
Target 3.5 esignature used. F35 Page 1951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:43
Date, time and analyst ID of latest file update: 16-Apr-2019 20:43 art12405

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

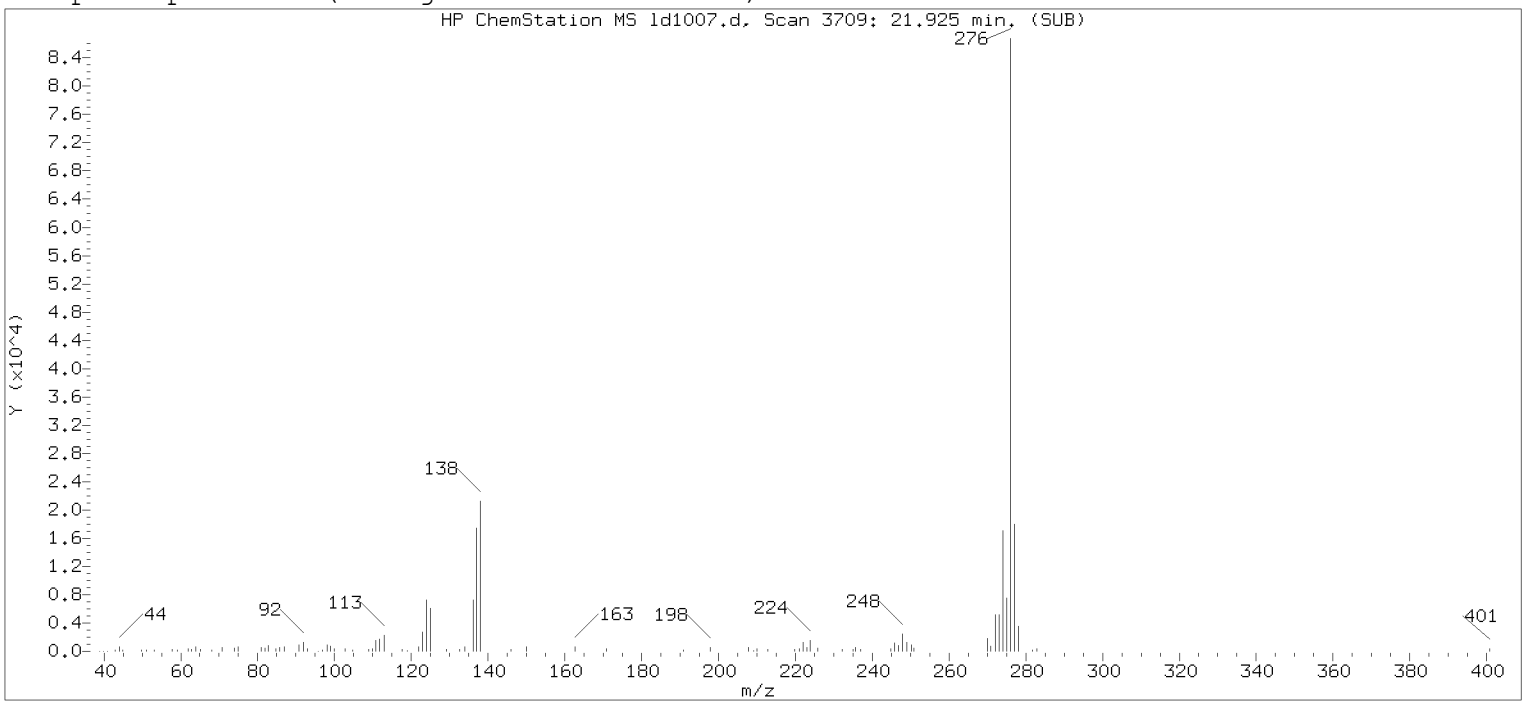
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3709
Retention Time (minutes) : 21.925
Quant Ion : 276.00
Area (flag) : 142926M
On-Column Amount (ng/ul) : 1.1016
Integration start scan : 3700 Integration stop scan: 3712
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

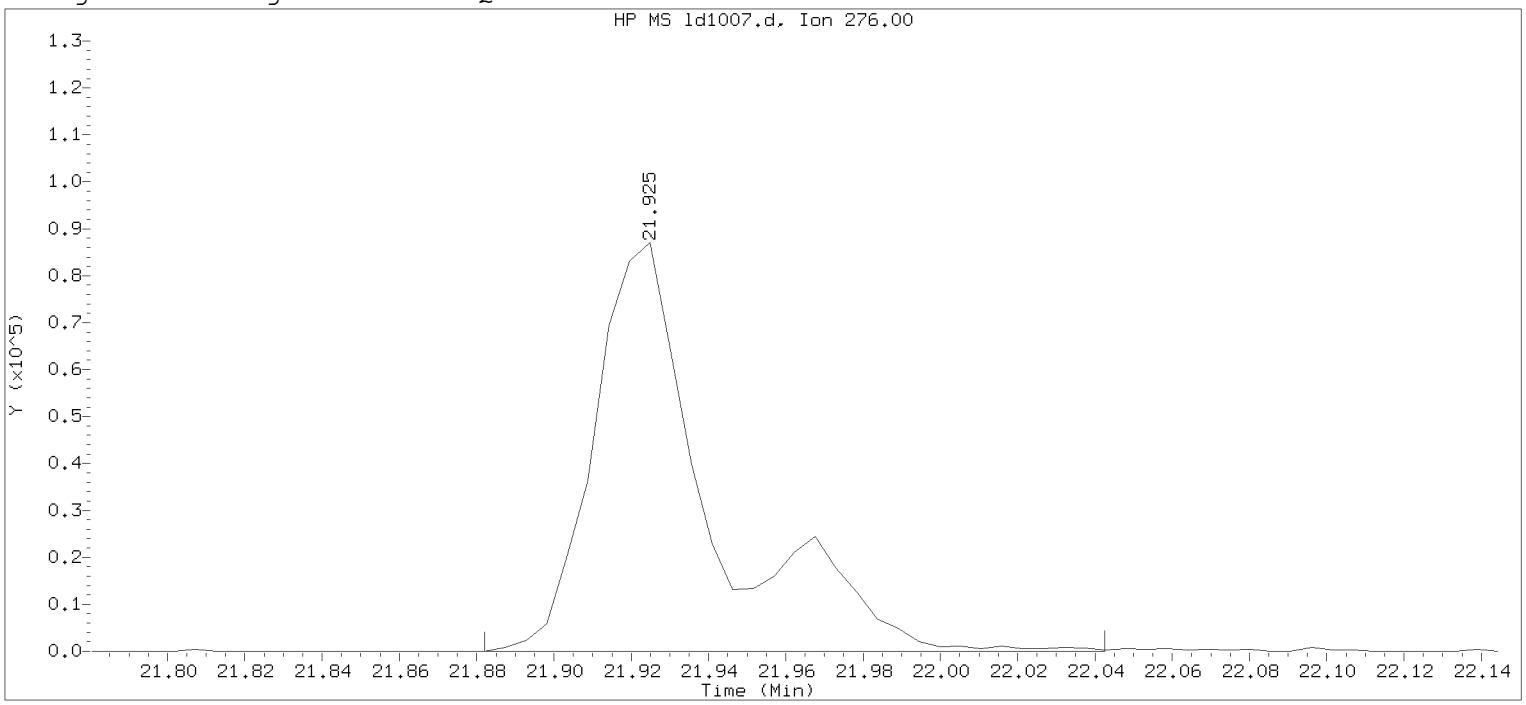
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1007.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:09 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 19:41
Date, time and analyst ID of latest file update: 16-Apr-2019 19:41 chemist

Sample Name: SSTD1.25 Lab Sample ID: rvSTD0929

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3709		
Retention Time (minutes)	: 21.925		
Quant Ion	: 276.00		
Area	: 183261		
On-column Amount (ng/ul)	: 1.3407		
Integration start scan	: 3700	Integration stop scan:	3730
Y at integration start	: 0	Y at integration end:	0

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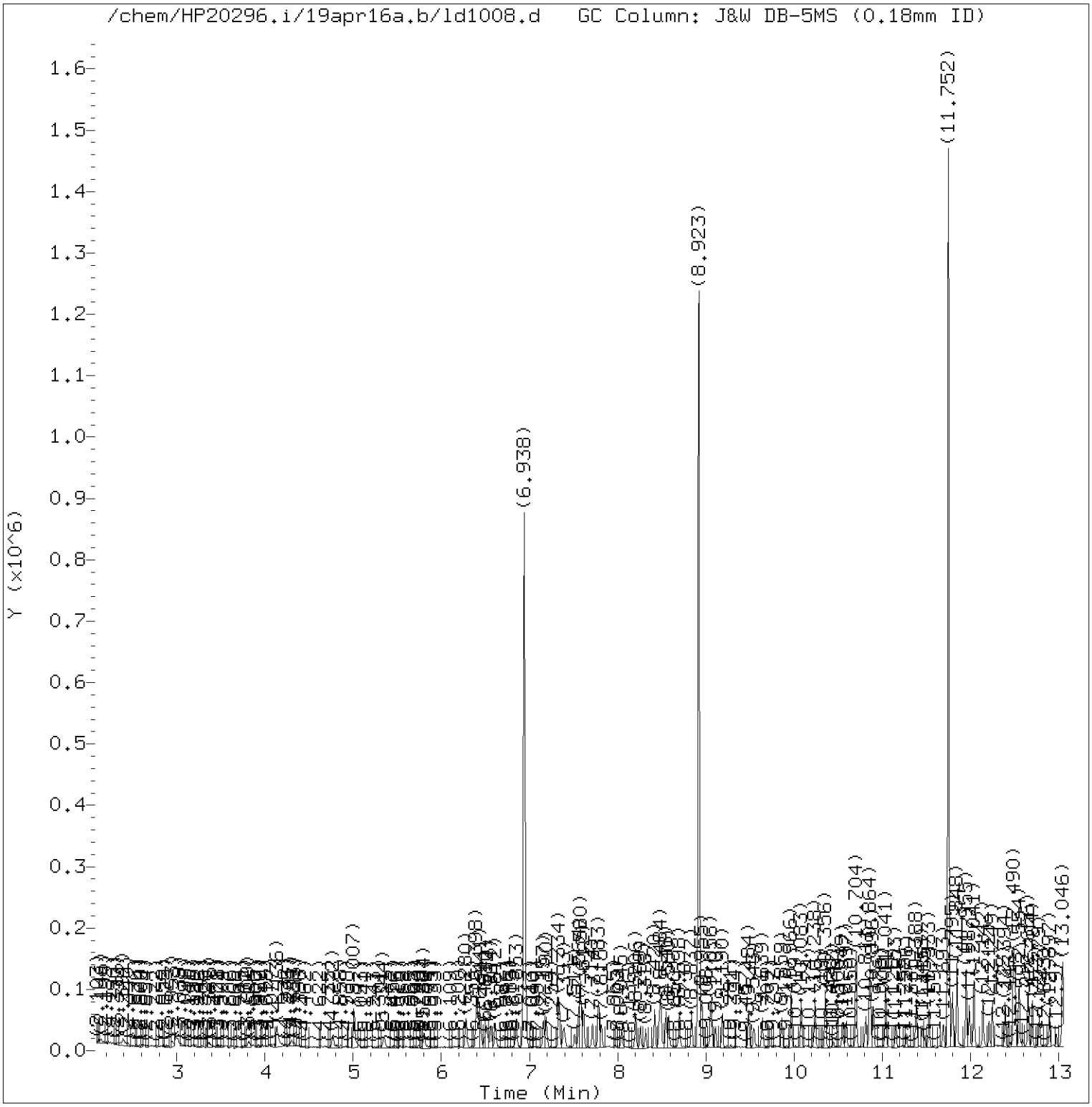
Target 3.5 esignature user: F35 Page 1953



Total Ion Chromatogram (TIC)

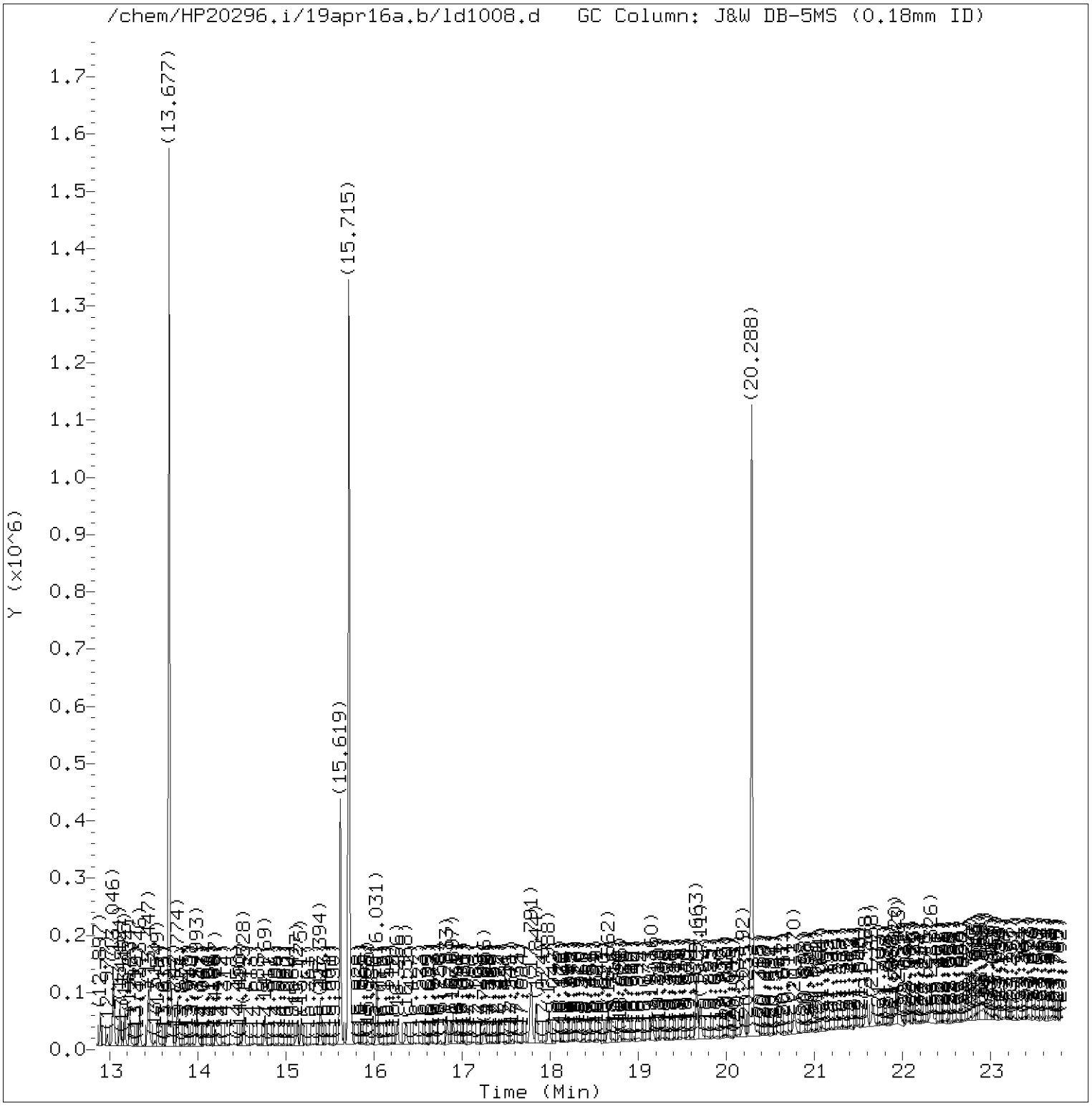
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.392	88	7873M	0.311
5) N-Nitrosodimethylamine	(1)	2.953	74	9632M	0.244
6) Pyridine	(1)	2.986	79	20265	0.291
8) 2-Picoline	(1)	4.136	93	19416M	0.279
9) N-Nitrosomethylethylamine	(1)	4.317	88	7433M	0.262
10) Methyl methanesulfonate	(1)	4.772	80	10138	0.290
12)$2-Fluorophenol	(1)	5.007	112	28460	0.511
14) N-Nitrosodiethylamine	(1)	5.350	102	6657	0.244
43) Total Cresols	(1)			27607	0.482
16) Ethyl methanesulfonate	(1)	5.810	109	7007	0.242
17) Benzaldehyde	(1)	6.280	77	16831	0.327
18)$Phenol-d6	(1)	6.398	99	36917	0.500
19) Phenol	(1)	6.419	94	22258	0.256
20) Aniline	(1)	6.441	93	25773	0.255
21) a-methylstyrene	(1)	6.532	118	2756	0.282
23) bis(2-Chloroethyl)ether	(1)	6.558	93	16372	0.253
24) 2-Chlorophenol	(1)	6.612	128	12540	0.238
25) 1,3-Dichlorobenzene	(1)	6.853	146	14858	0.261
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	173423	5.000
27) 1,4-Dichlorobenzene	(1)	6.970	146	14835	0.256
28) Benzyl alcohol	(1)	7.157	108	8812	0.247
29) 1,2-Dichlorobenzene	(1)	7.190	146	14091	0.260
31) Indene	(1)	7.329	115	18917	0.271
32) 2-Methylphenol	(1)	7.339	108	12520	0.233
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	22215	0.271
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	22215	0.271
100) Isosafrole	(3)			10441	0.250
36) N-Nitrosopyrrolidine	(1)	7.505	100	7174	0.250
37) Acetophenone	(1)	7.559	105	23836	0.286
39) N-Nitroso-di-n-propylamine	(1)	7.580	70	11652	0.248
38) 4-Methylphenol	(1)	7.580	108	15087	0.250
40) N-Nitrosomorpholine	(1)	7.585	56	9987	0.290
41) o-Toluidine	(1)	7.612	106	23897	0.254
44) Hexachloroethane	(1)	7.714	117	5714	0.221
45)$Nitrobenzene-d5	(2)	7.783	82	32482	0.490
46) Nitrobenzene	(2)	7.815	77	17320	0.248
50) N-Nitrosopiperidine	(2)	8.045	114	6400	0.244
125) 2,4_2,6-Dinitrotoluenes	(3)			10317	0.437
52) Isophorone	(2)	8.206	82	29195	0.240
53) 2-Nitrophenol	(2)	8.318	139	5949	0.240

M = Compound was manually integrated.
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Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.420	107	13471	0.233
58) Benzoic acid	(2)	8.484	105	41437M	1.025
59) O,O,O-Triethylphosphorothioate	(2)	8.553	198	5251	0.231
57) bis(2-Chloroethoxy)methane	(2)	8.580	93	18628	0.242
62) 2,4-Dichlorophenol	(2)	8.698	162	10211	0.249
151) Diallate trans/cis	(4)			12069	0.226
65) 1,2,4-Trichlorobenzene	(2)	8.837	180	11601	0.256
68)*Naphthalene-d8	(2)	8.923	136	667884	5.000
69) Naphthalene	(2)	8.955	128	38153	0.252
70) 4-Chloroaniline	(2)	9.056	127	16434	0.263
71) 2,6-Dichlorophenol	(2)	9.067	162	10362	0.258
72) Hexachloropropene	(2)	9.110	213	5726	0.208
74) Hexachlorobutadiene	(2)	9.190	225	6610	0.262
78) Quinoline	(2)	9.484	129	22918	0.259
79) Caprolactam	(2)	9.543	113	4481	0.341
80) N-Nitrosodi-n-butylamine	(2)	9.639	84	11098	0.243
83) 4-Chloro-3-methylphenol	(2)	9.859	107	12434	0.247
85) Safrole	(2)	9.971	162	9875	0.277
86) 2-Methylnaphthalene	(2)	10.083	142	22084	0.234
87) 1-Methylnaphthalene	(2)	10.238	142	23482	0.257
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.351	216	11223	0.264
88) Hexachlorocyclopentadiene	(3)	10.356	237	5963	0.242
91) cis-Isosafrole	(3)	10.442	162	1879	0.050
93) 2,4,6-Trichlorophenol	(3)	10.554	196	6315	0.227
95) 2,4,5-Trichlorophenol	(3)	10.597	196	7080	0.243
96)$2-Fluorobiphenyl	(3)	10.704	172	51893	0.528
97) trans-Isosafrole	(3)	10.816	162	8562	0.200
98) 1,1'-Biphenyl	(3)	10.859	154	33455	0.309
99) 2-Chloronaphthalene	(3)	10.864	162	21674	0.240
101) 1-Chloronaphthalene	(3)	10.902	162	22573	0.280
103) Diphenyl ether	(3)	11.041	170	14978	0.263
104) 2-Nitroaniline	(3)	11.041	138	5369	0.203
108) 1,4-Naphthoquinone	(3)	11.153	158	6496	0.190
109) 1,4-Dinitrobenzene	(3)	11.271	168	2055	0.160
110) Dimethylphthalate	(3)	11.383	163	24410	0.264
111) 1,3-Dinitrobenzene	(3)	11.394	168	2222	0.158
113) 2,6-Dinitrotoluene	(3)	11.458	165	4623	0.229
114) Acenaphthylene	(3)	11.533	152	29380	0.243
117) 3-Nitroaniline	(3)	11.693	138	5401	0.234
118)*Acenaphthene-d10	(3)	11.752	164	306129	5.000

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on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.795	153	24206	0.266
120) 2,4-Dinitrophenol	(3)	11.848	184	13545	1.157
121) 4-Nitrophenol	(3)	11.955	109	15929	0.925
122) Pentachlorobenzene	(3)	11.987	250	9384	0.265
123) 2,4-Dinitrotoluene	(3)	12.035	165	5694	0.208
124) Dibenzofuran	(3)	12.046	168	30701	0.259
126) 1-Naphthylamine	(3)	12.142	143	20665	0.238
127) 2,3,4,6-Tetrachlorophenol	(3)	12.217	232	4911	0.229
128) 2-Naphthylamine	(3)	12.249	143	22769	0.270
129) Diethylphthalate	(3)	12.394	149	24180	0.261
131) Fluorene	(3)	12.485	166	25047	0.263
130) Thionazin	(3)	12.490	107	4931M	0.259
133) 5-Nitro-o-toluidine	(3)	12.501	152	6069M	0.240
134) 4-Nitroaniline	(3)	12.506	138	6607	0.270
132) 4-Chlorophenyl-phenylether	(3)	12.511	204	12291	0.275
135) 4,6-Dinitro-2-methylphenol	(4)	12.554	198	9849	0.626
136) N-Nitrosodiphenylamine	(4)	12.656	169	19085	0.243
137) NDPA as diphenylamine	(4)	12.656	169	19085	0.243
139) 1,2-Diphenylhydrazine	(4)	12.704	77	32486	0.244
140)$2,4,6-Tribromophenol	(3)	12.784	330	5767	0.466
142) Tetraethyldithiopyrophosphate	(4)	12.902	97	4716	0.231
144) 1,3,5-Trinitrobenzene	(4)	12.977	213	1146M	0.122
145) Diallate (peak 1)	(4)	13.041	86	10097	0.183
146) Phorate	(4)	13.046	75	18678	0.236
147) Phenacetin	(4)	13.046	108	11997	0.209
148) 4-Bromophenyl-phenylether	(4)	13.121	248	6506M	0.255
149) Diallate (peak 2)	(4)	13.148	86	1972	0.043
150) Hexachlorobenzene	(4)	13.175	284	8332	0.293
152) Dimethoate	(4)	13.234	87	11093	0.216
153) Atrazine	(4)	13.346	200	6847	0.292
154) Pentachlorophenol	(4)	13.431	266	3537	0.196
155) 4-Aminobiphenyl	(4)	13.447	169	20934	0.230
156) Pentachloronitrobenzene	(4)	13.453	237	2773M	0.234
157) Pronamide	(4)	13.549	173	7431	0.178
158)*Phenanthrene-d10	(4)	13.677	188	587831	5.000
159) Dinoseb	(4)	13.694	211	2840	0.123
160) Phenanthrene	(4)	13.710	178	36729	0.258
162) Anthracene	(4)	13.774	178	34004	0.240
168) Carbazole	(4)	13.993	167	28809M	0.228
169) Methyl parathion	(4)	14.207	109	5935	0.160

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Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.528	149	36297	0.212
173) 4-Nitroquinoline-1-oxide	(4)	14.763	190	1041	2.156
172) Parathion	(4)	14.763	109	3331M	0.139
227) Total PAHs	(6)			529131	4.293
174) Octachlorostyrene	(4)	15.132	308	2486	0.238
176) Isodrin	(4)	15.175	193	4320	0.261
178) Fluoranthene	(4)	15.394	202	32109	0.217
179) Benzidine	(5)	15.619	184	181008	1.898
180)*Pyrene-d10	(5)	15.715	212	553448	5.000
182) Pyrene	(5)	15.747	202	38948	0.260
184)$Terphenyl-d14	(5)	16.031	244	42766	0.473
187) p-Dimethylaminoazobenzene	(5)	16.266	225	4683	0.194
190) Chlorobenzilate	(5)	16.368	139	8997	0.185
192) 3,3'-Dimethylbenzidine	(5)	16.833	212	19595	0.200
193) Butylbenzylphthalate	(5)	16.903	149	13649	0.184
196) 2-Acetylaminofluorene	(5)	17.256	181	9485	0.155
198) 3,3'-Dichlorobenzidine	(5)	17.775	252	8834	0.173
200) Benzo(a)anthracene	(5)	17.785	228	28594	0.212
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.796	231	5130	0.182
201) Chrysene	(5)	17.844	228	31436	0.240
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	17692	0.164
208) 6-Methylchrysene	(5)	18.662	242	18532	0.203
210) Di-n-octylphthalate	(6)	19.165	149	26025	0.146
211) Benzo(b)fluoranthene	(6)	19.657	252	29166	0.223
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.668	256	11781	0.217
213) Benzo(k)fluoranthene	(6)	19.711	252	29783	0.238
216) Benzo(a)pyrene	(6)	20.192	252	27575	0.232
218)*Perylene-d12	(6)	20.288	264	514117	5.000
220) 3-Methylcholanthrene	(6)	20.770	268	11772	0.194
222) Dibenz(a,h)acridine	(6)	21.588	279	19905	0.193
223) Dibenz(a,j)acridine	(6)	21.658	279	21095	0.206
224) Indeno(1,2,3-cd)pyrene	(6)	21.925	276	25152M	0.217
225) Dibenz(a,h)anthracene	(6)	21.963	278	25348M	0.212
226) Benzo(g,h,i)perylene	(6)	22.326	276	27935	0.228

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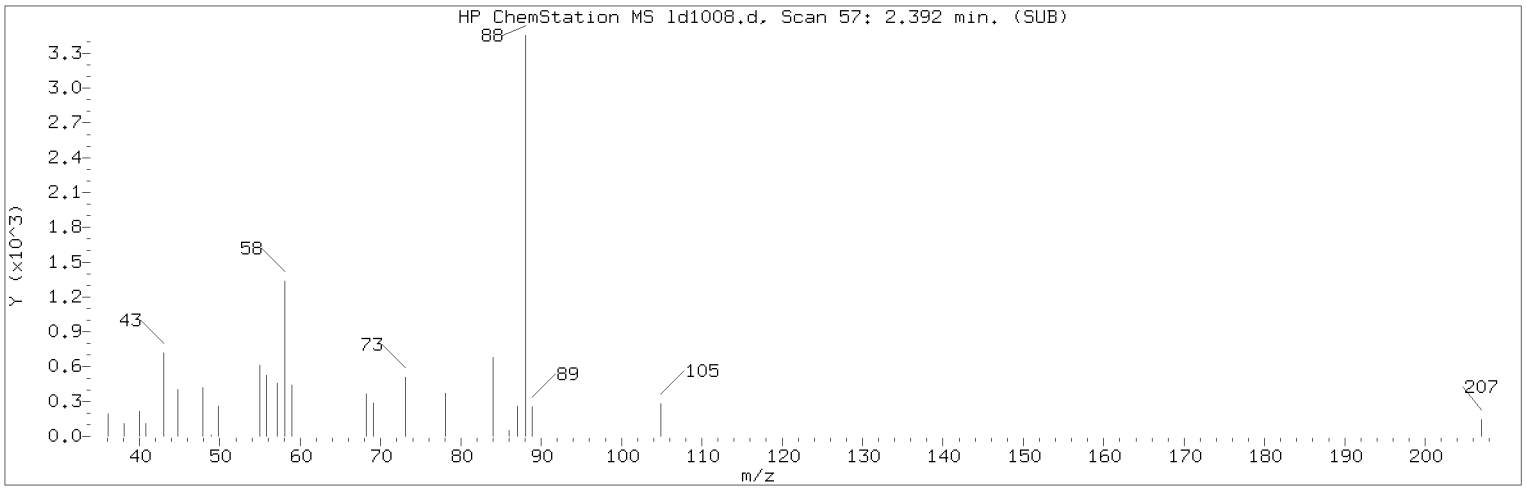
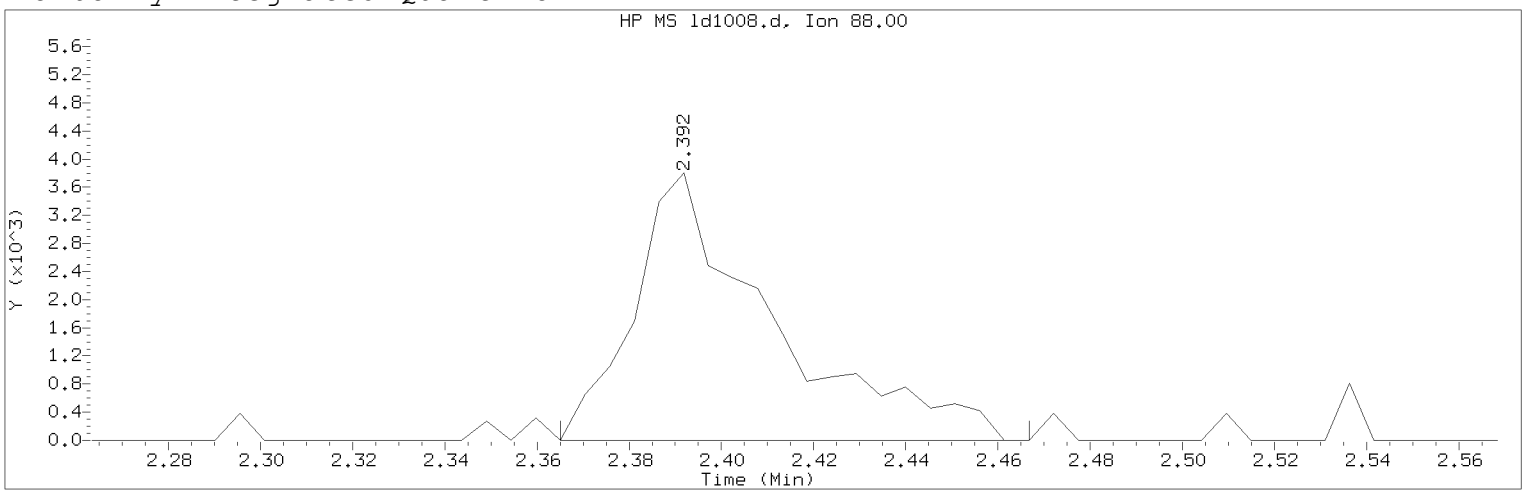
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

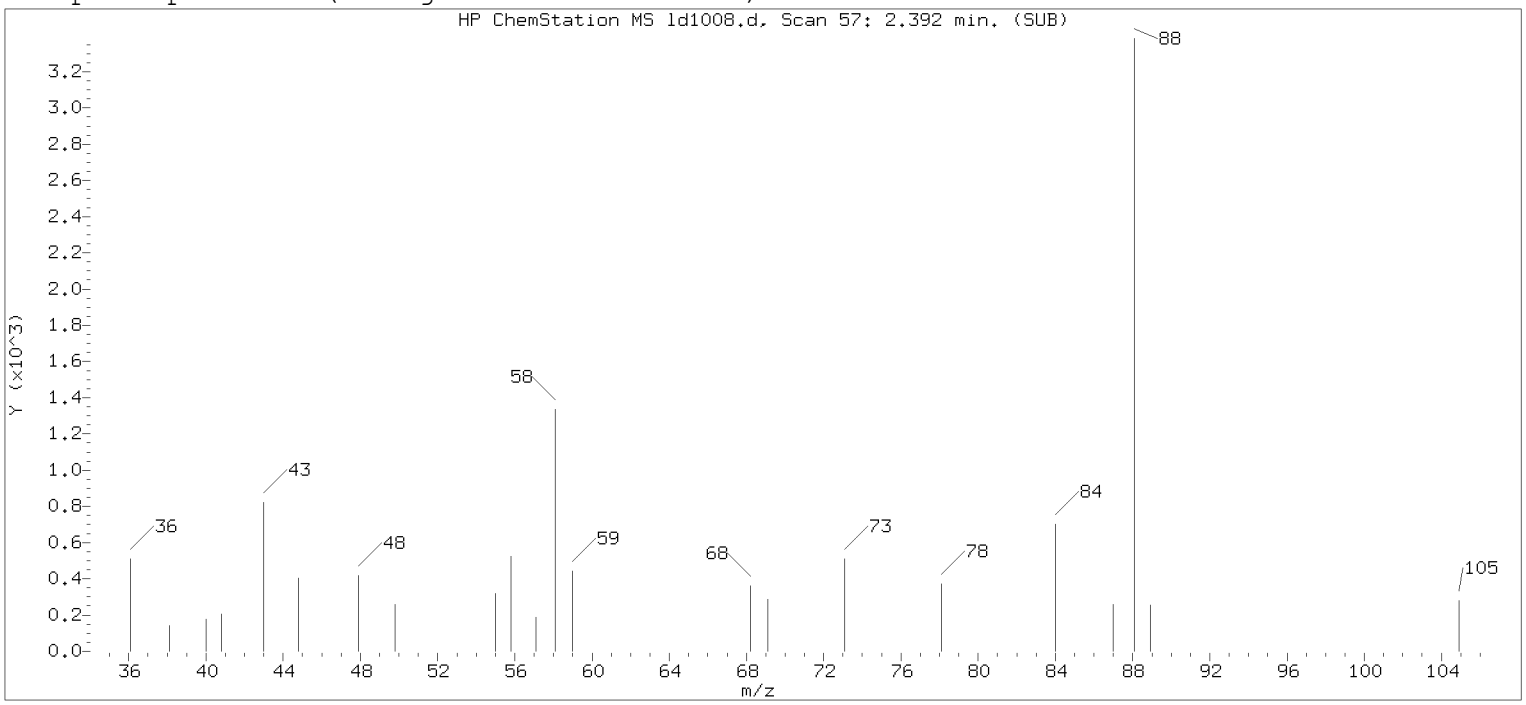
Compound Number : 1
Compound Name : 1,4-Dioxane
Scan Number : 57
Retention Time (minutes) : 2.392
Quant Ion : 88.00
Area (flag) : 7873M
On-Column Amount (ng/ul) : 0.3106
Integration start scan : 51 Integration stop scan: 70
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

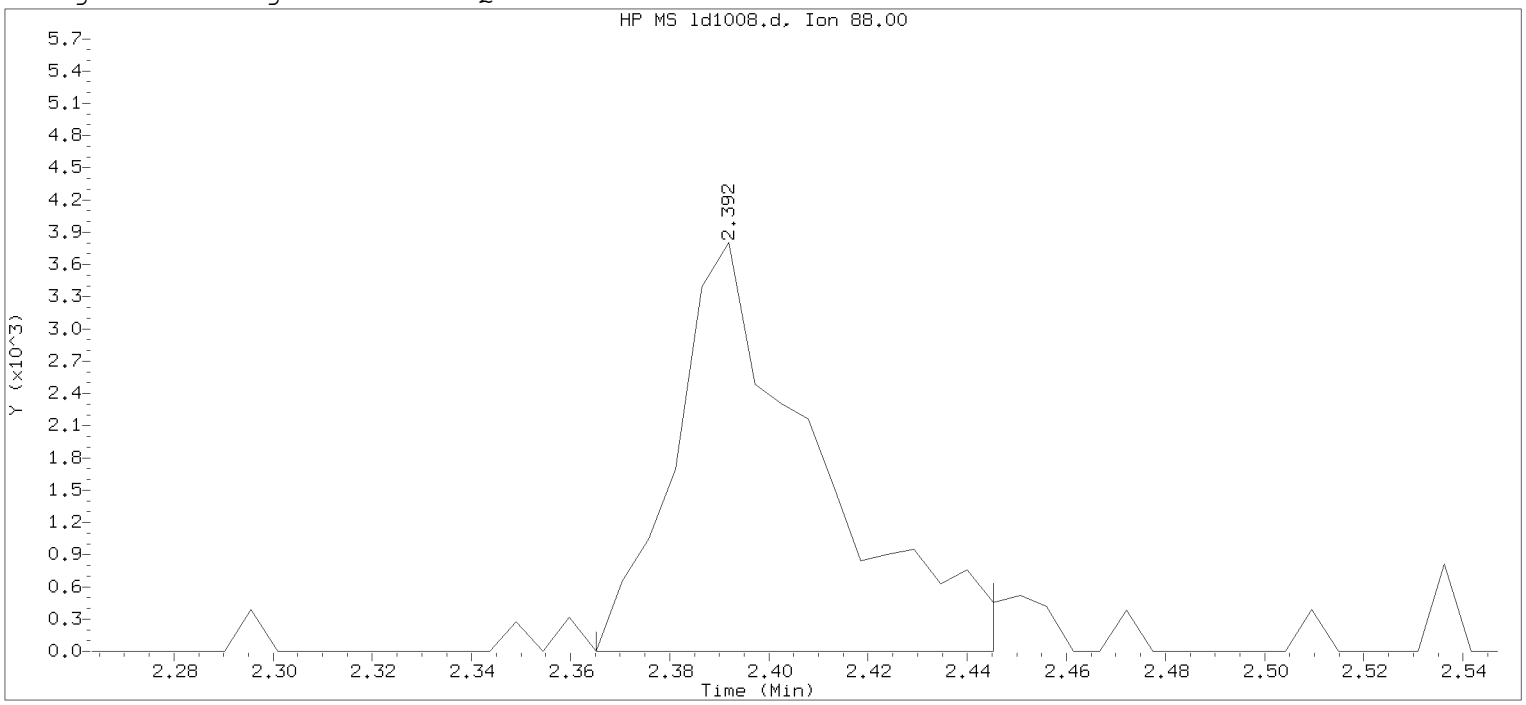
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

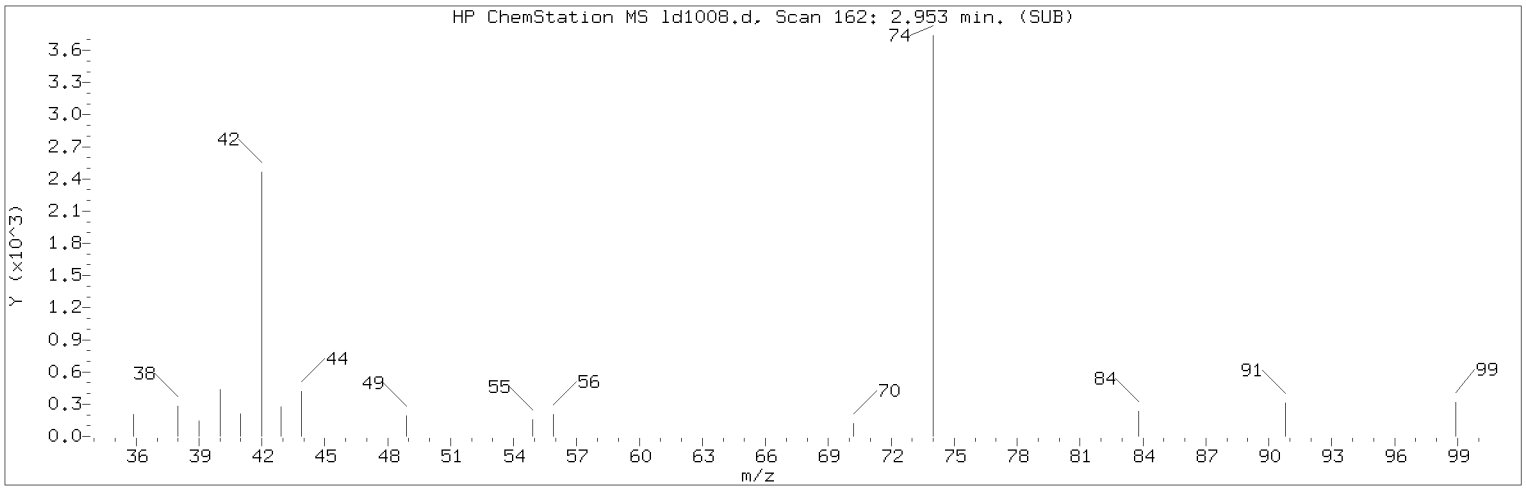
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

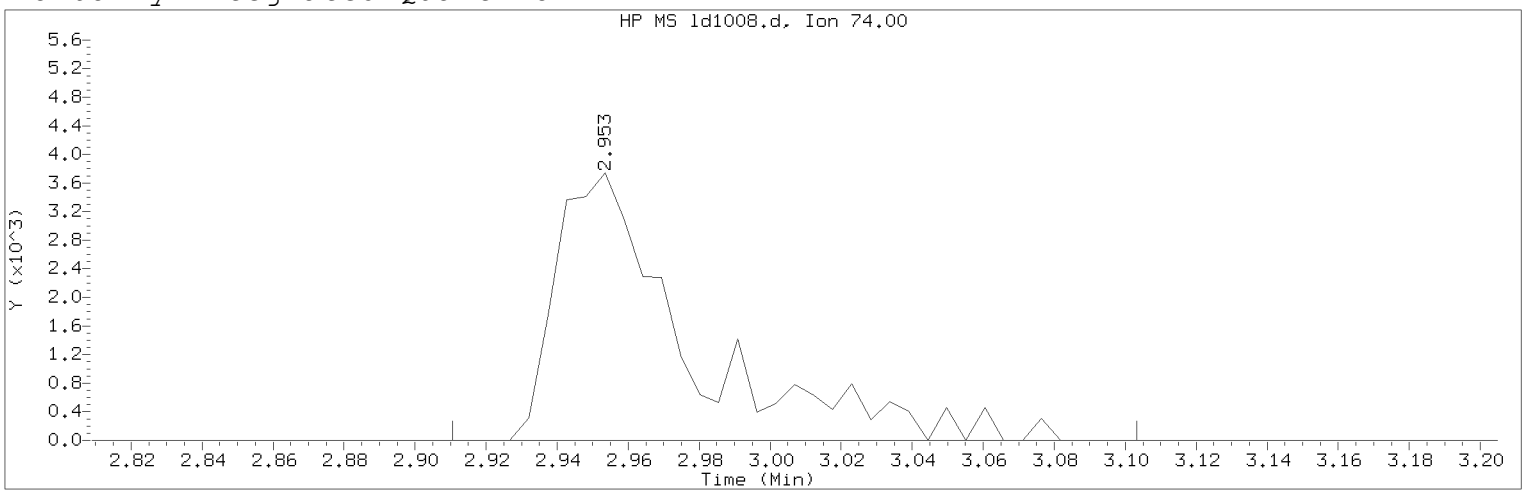
Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 57
Retention Time (minutes)	: 2.392
Quant Ion	: 88.00
Area	: 7498
On-column Amount (ng/ul)	: 0.3051
Integration start scan	: 51 Integration stop scan: 66
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user: F35 Page 1961

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

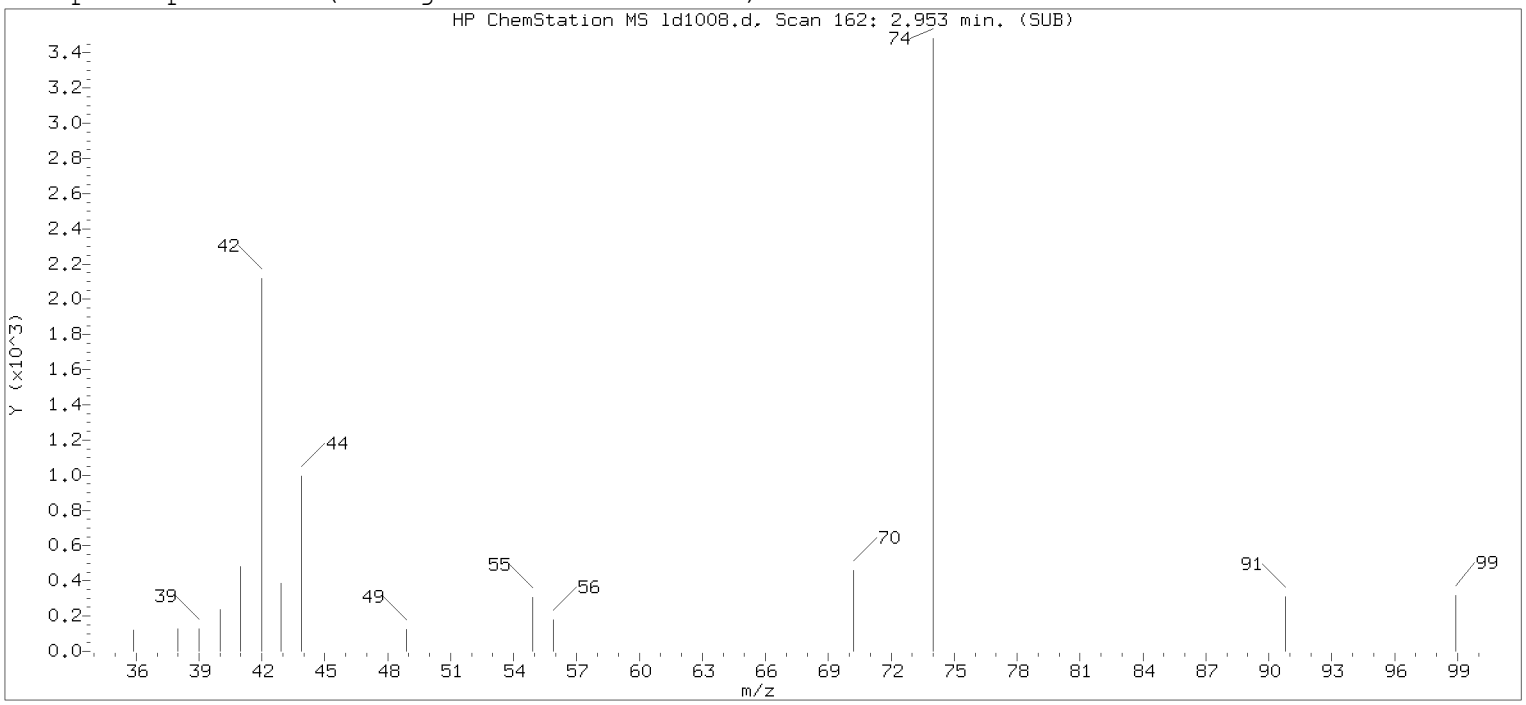
Compound Number : 5
Compound Name : N-Nitrosodimethylamine
Scan Number : 162
Retention Time (minutes) : 2.953
Quant Ion : 74.00
Area (flag) : 9632M
On-Column Amount (ng/ul) : 0.2439
Integration start scan : 153 Integration stop scan: 189
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

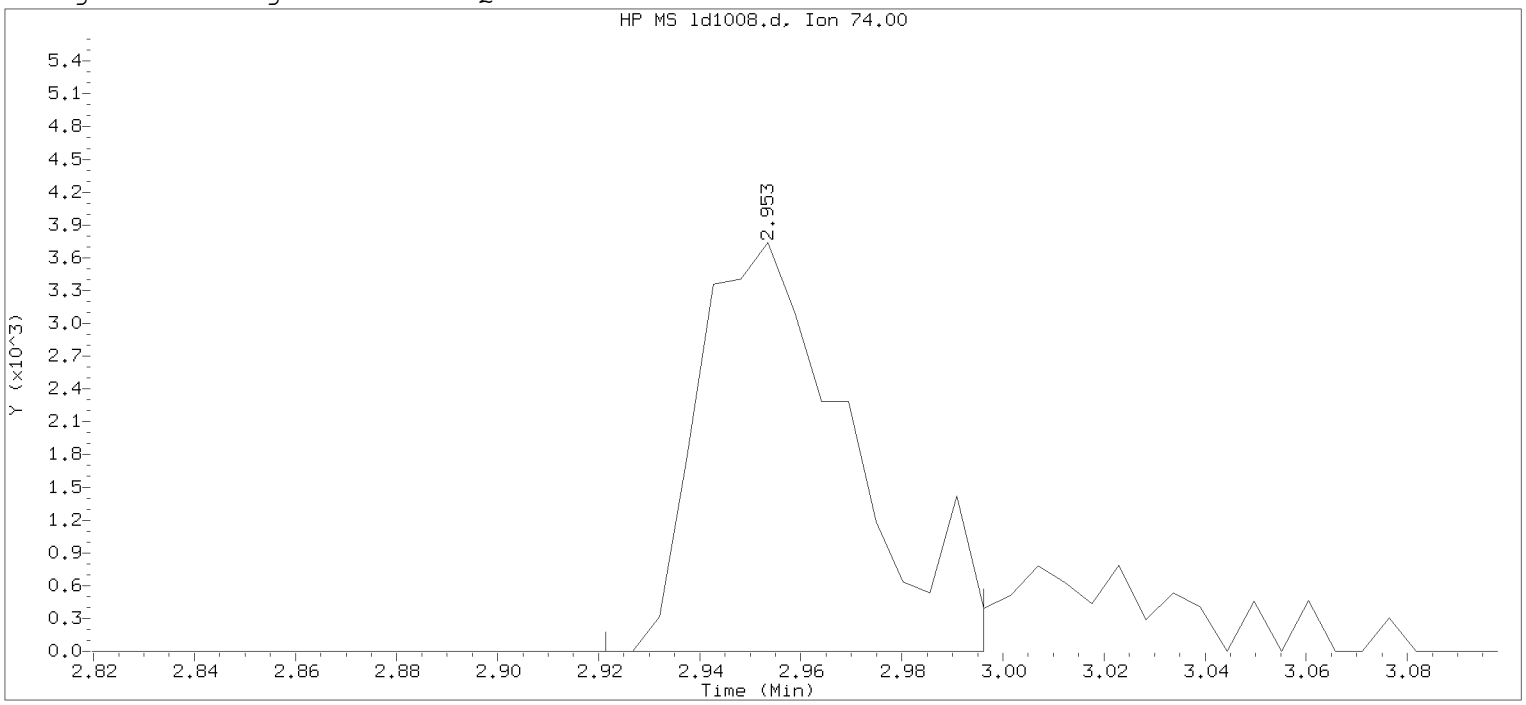
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

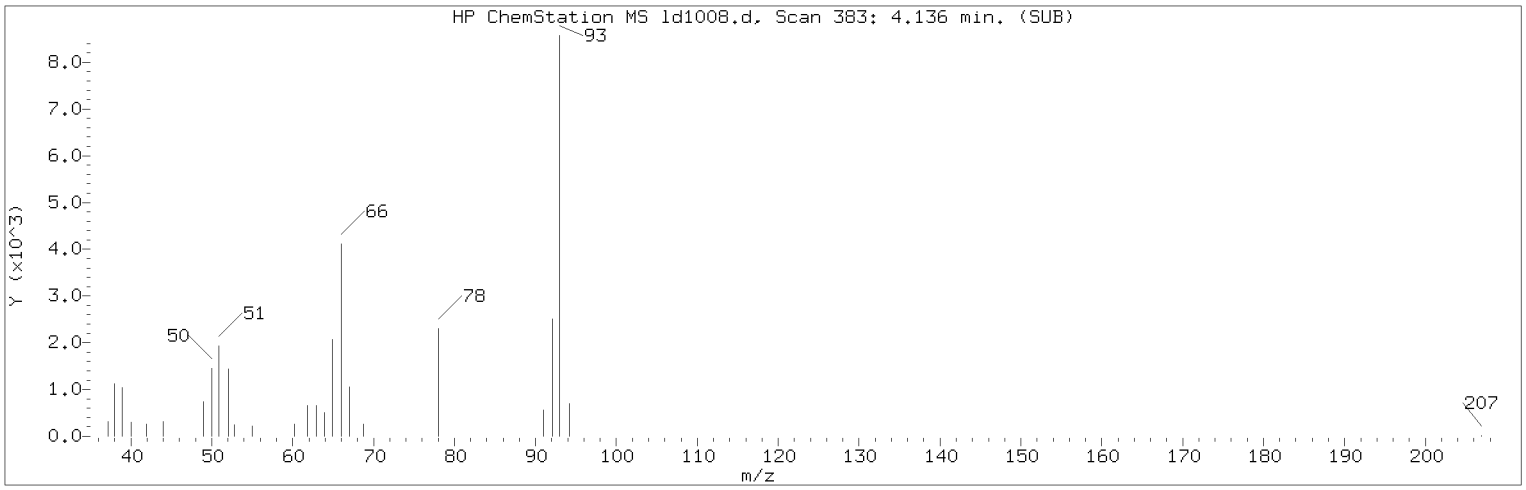
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

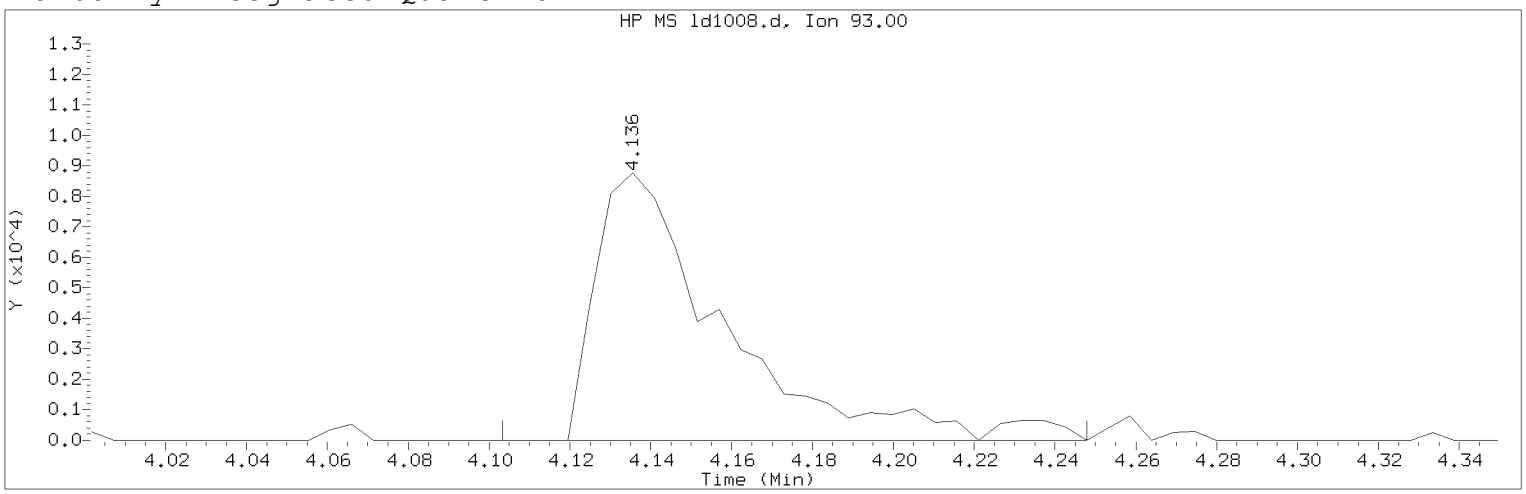
Compound Number	: 5		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 162		
Retention Time (minutes)	: 2.953		
Quant Ion	: 74.00		
Area	: 7769		
On-column Amount (ng/ul)	: 0.2061		
Integration start scan	: 155	Integration stop scan:	169
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

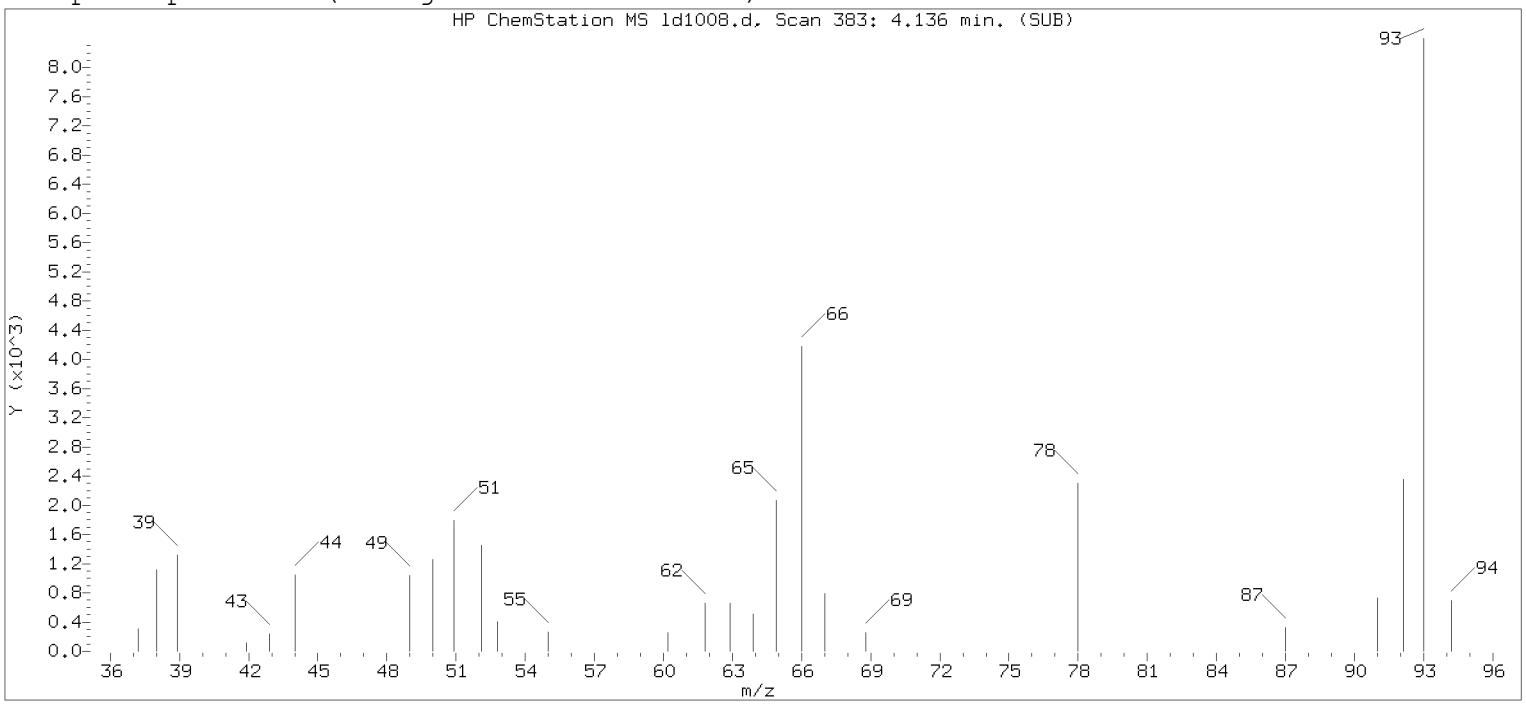
Compound Number : 8
Compound Name : 2-Picoline
Scan Number : 383
Retention Time (minutes) : 4.136
Quant Ion : 93.00
Area (flag) : 19416M
On-Column Amount (ng/ul) : 0.2792
Integration start scan : 376 Integration stop scan: 403
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

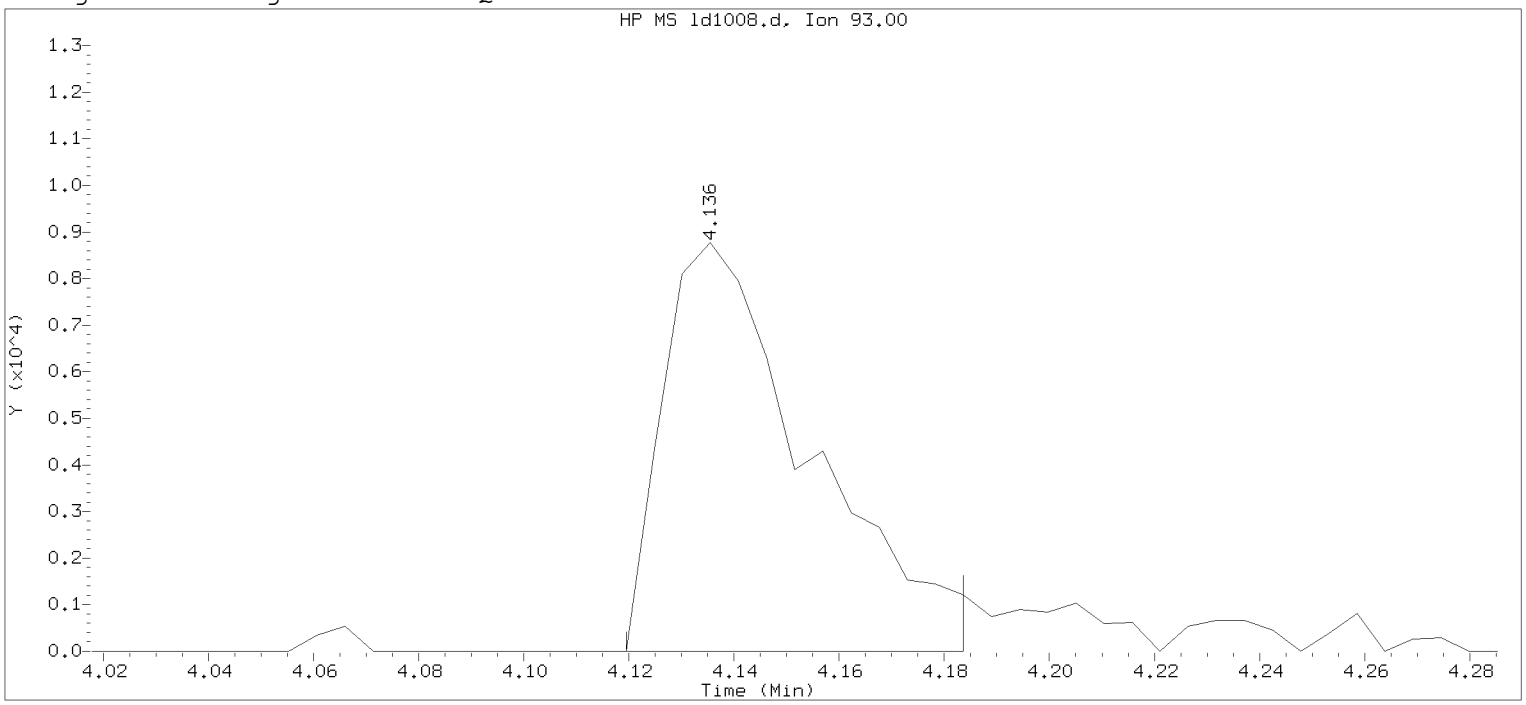
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

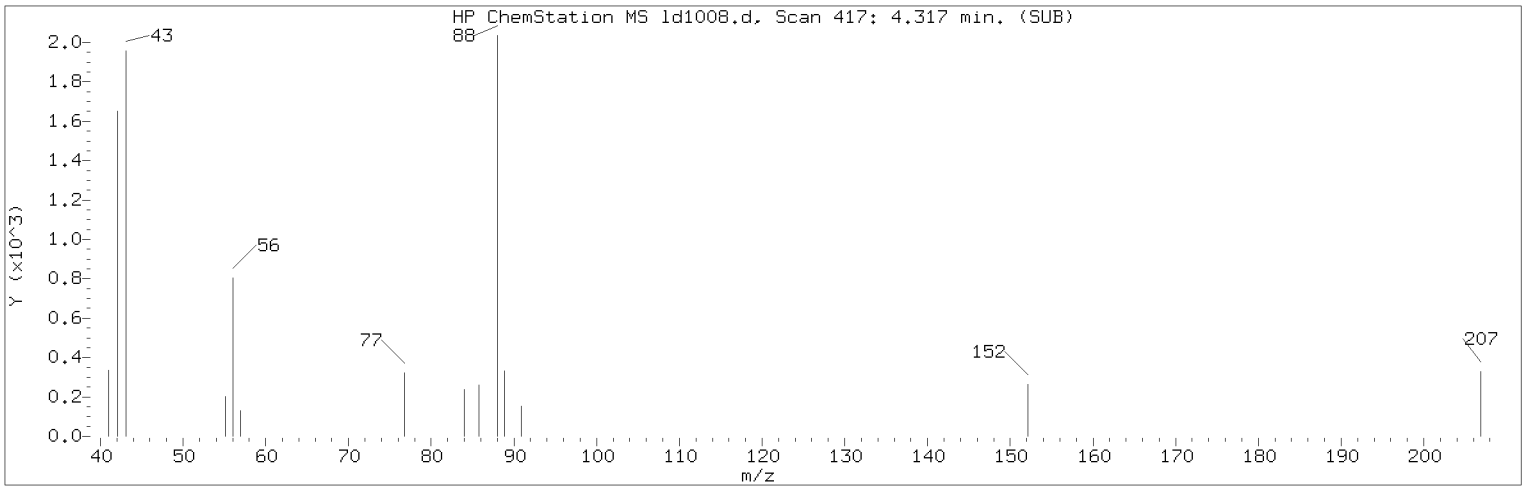
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

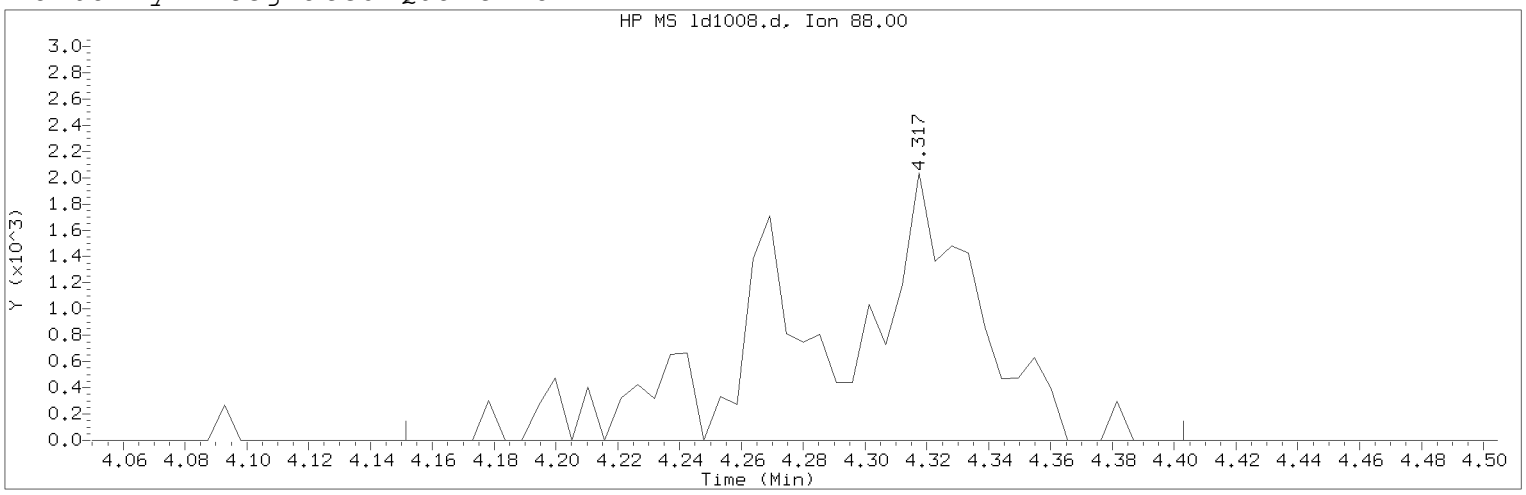
Compound Number	: 8		
Compound Name	: 2-Picoline		
Scan Number	: 383		
Retention Time (minutes)	: 4.136		
Quant Ion	: 93.00		
Area	: 16968		
On-column Amount (ng/ul)	: 0.2460		
Integration start scan	: 379	Integration stop scan:	391
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

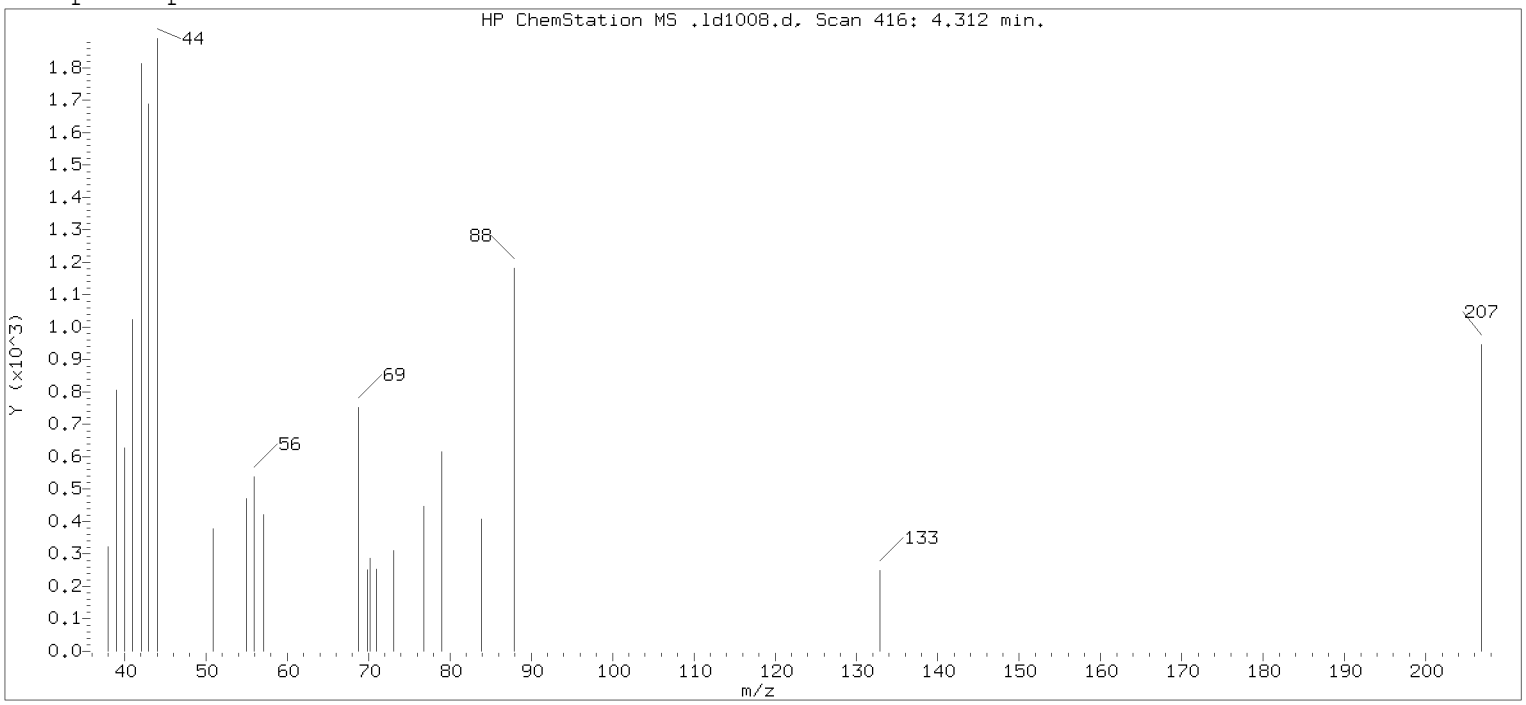
Compound Number : 9
Compound Name : N-Nitrosomethylethylamine
Scan Number : 417
Retention Time (minutes) : 4.317
Quant Ion : 88.00
Area (flag) : 7433M
On-Column Amount (ng/ul) : 0.2621
Integration start scan : 385 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

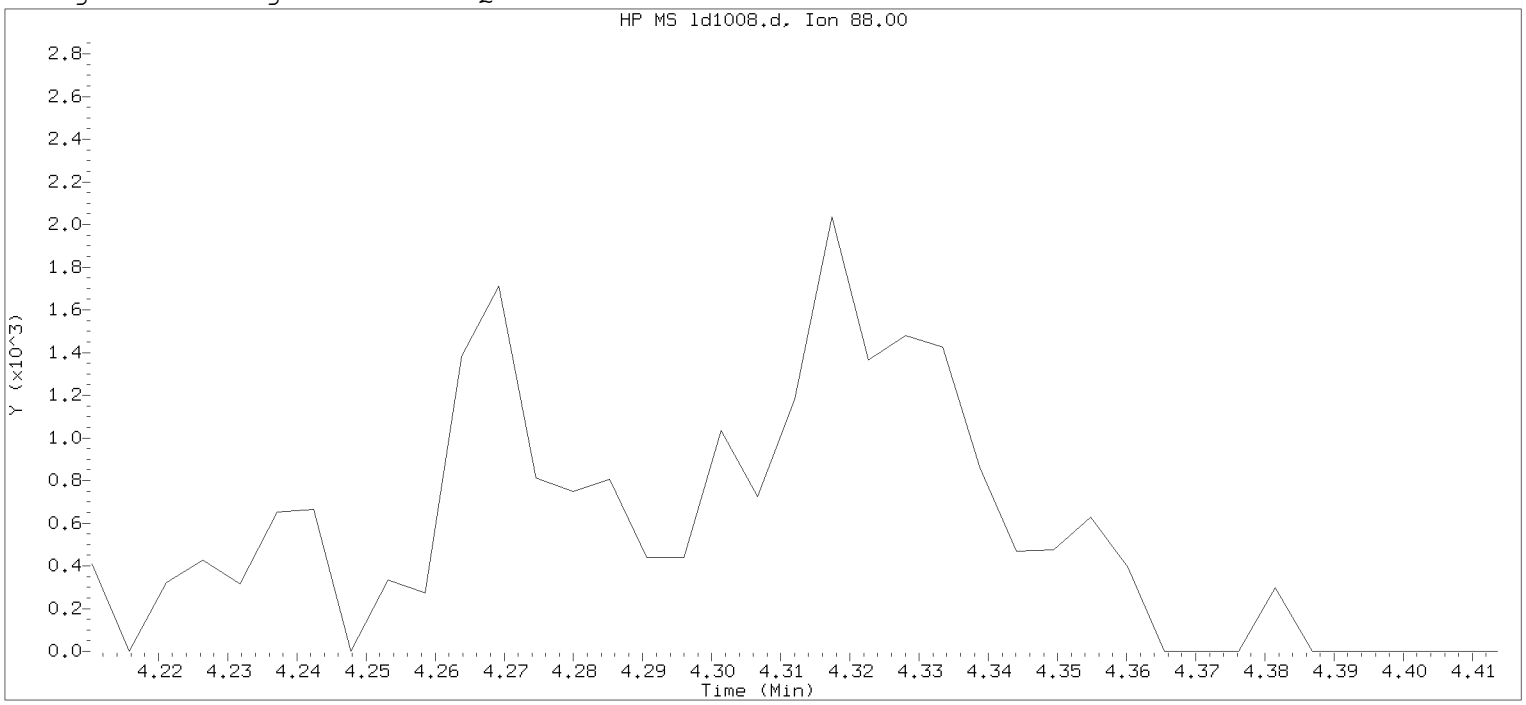
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

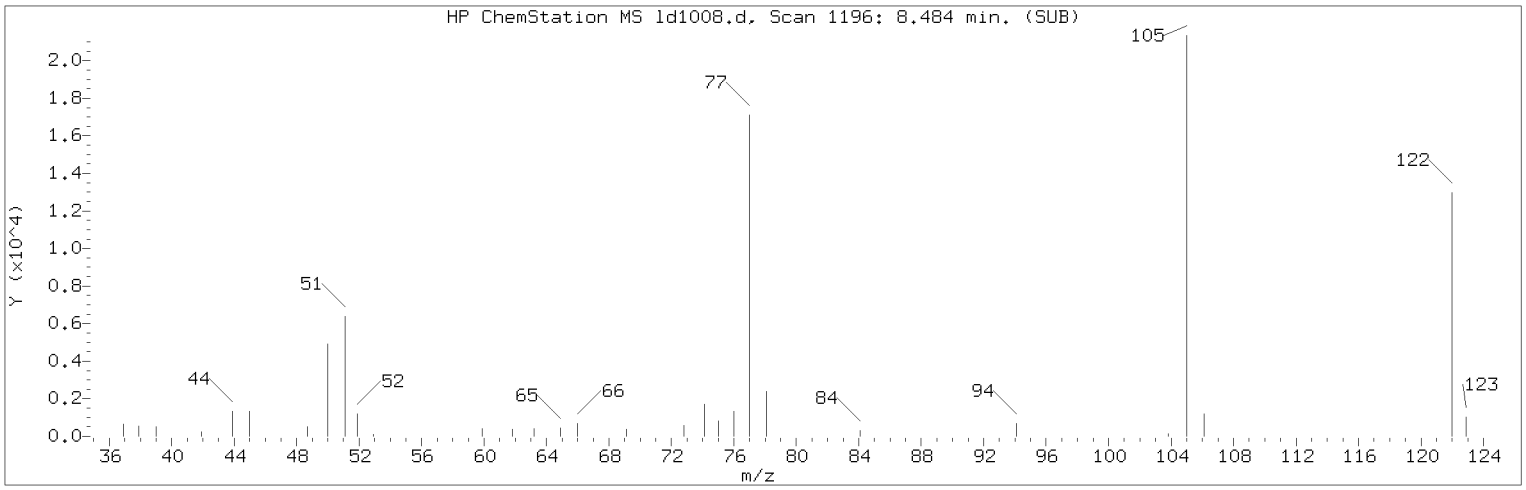
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

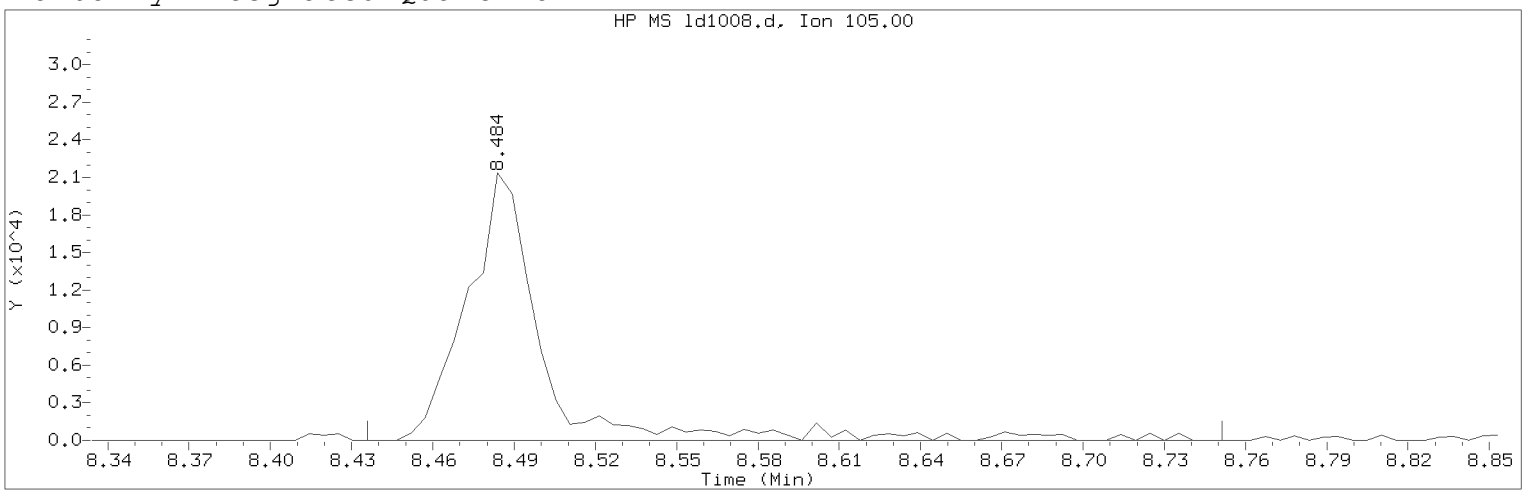
Compound Number : 9
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 4.312
Quant Ion : 88.00

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used. Page 1967

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

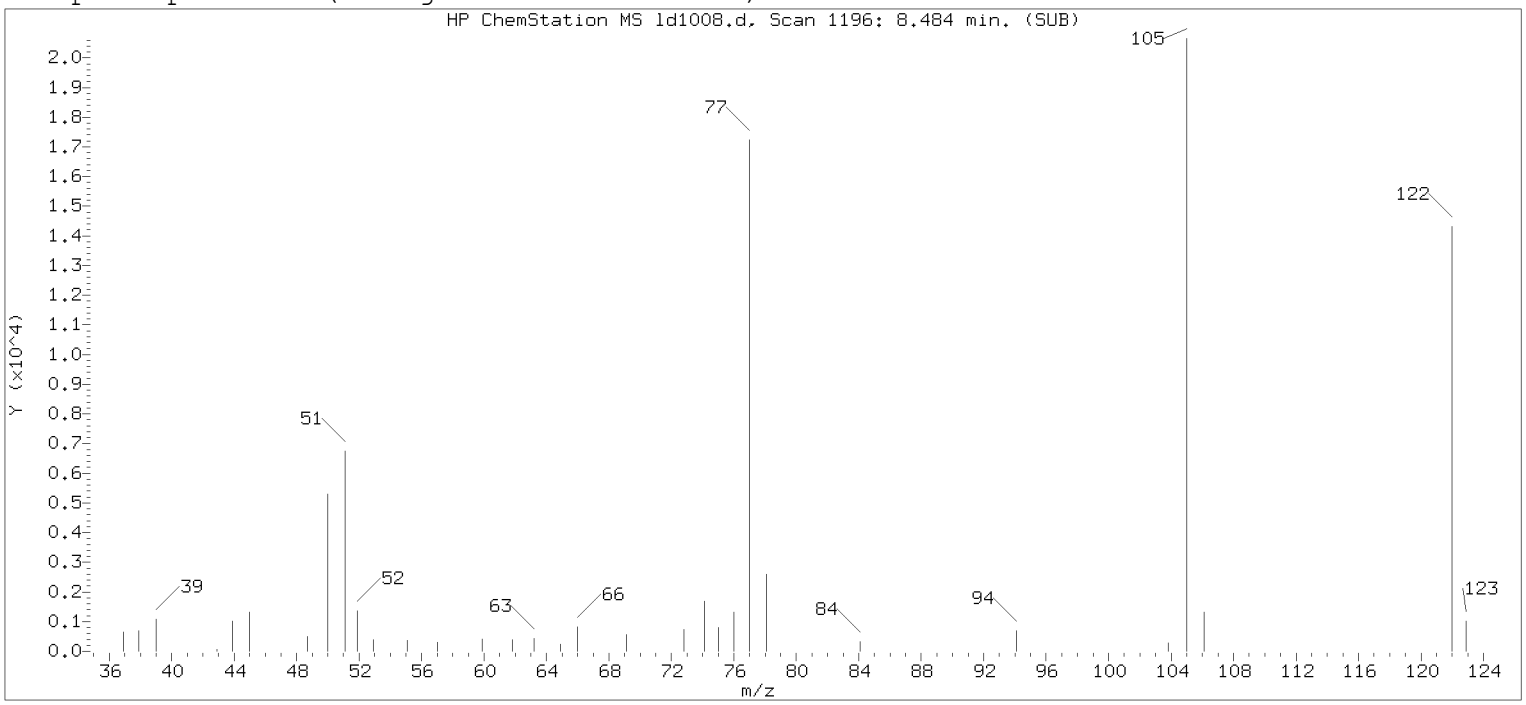
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1196
Retention Time (minutes) : 8.484
Quant Ion : 105.00
Area (flag) : 41437M
On-Column Amount (ng/ul) : 1.0249
Integration start scan : 1186 Integration stop scan: 1245
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

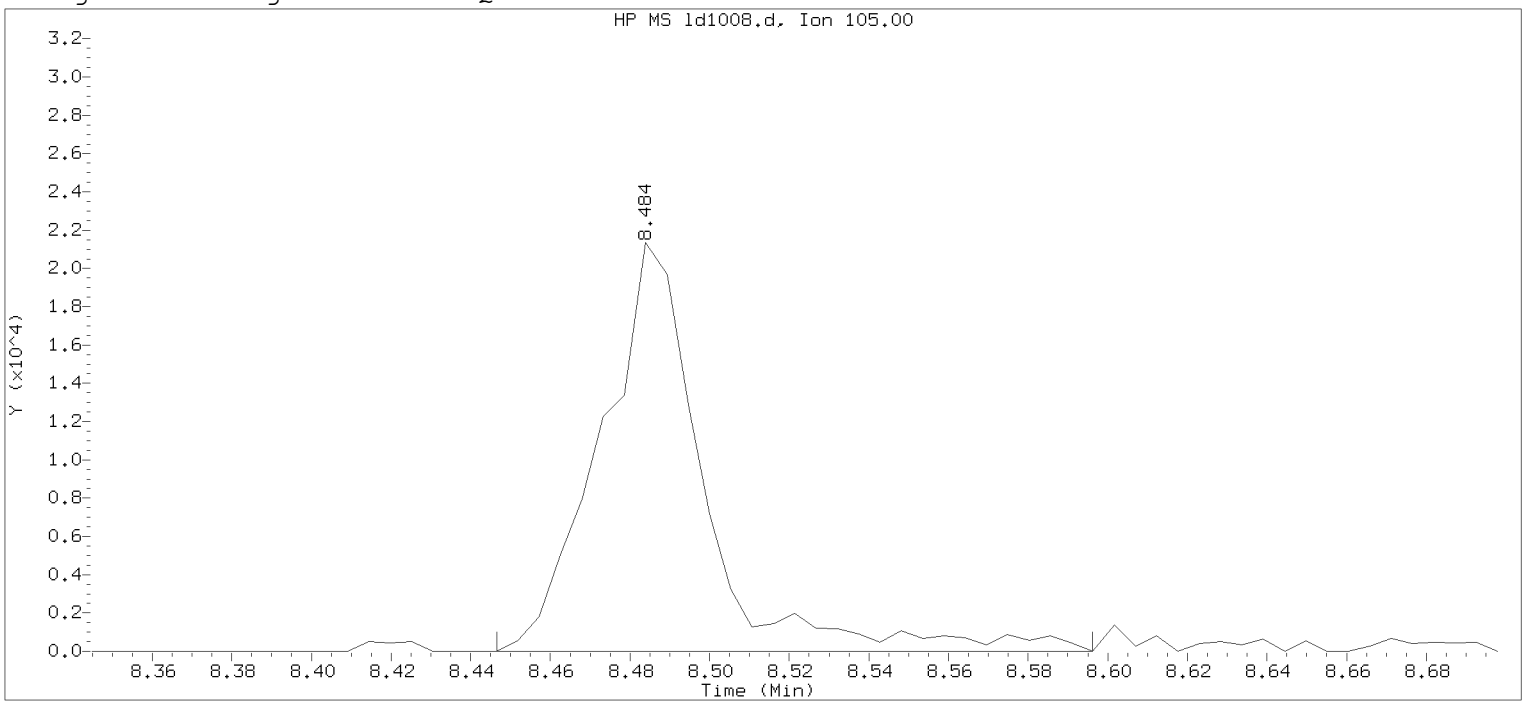
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

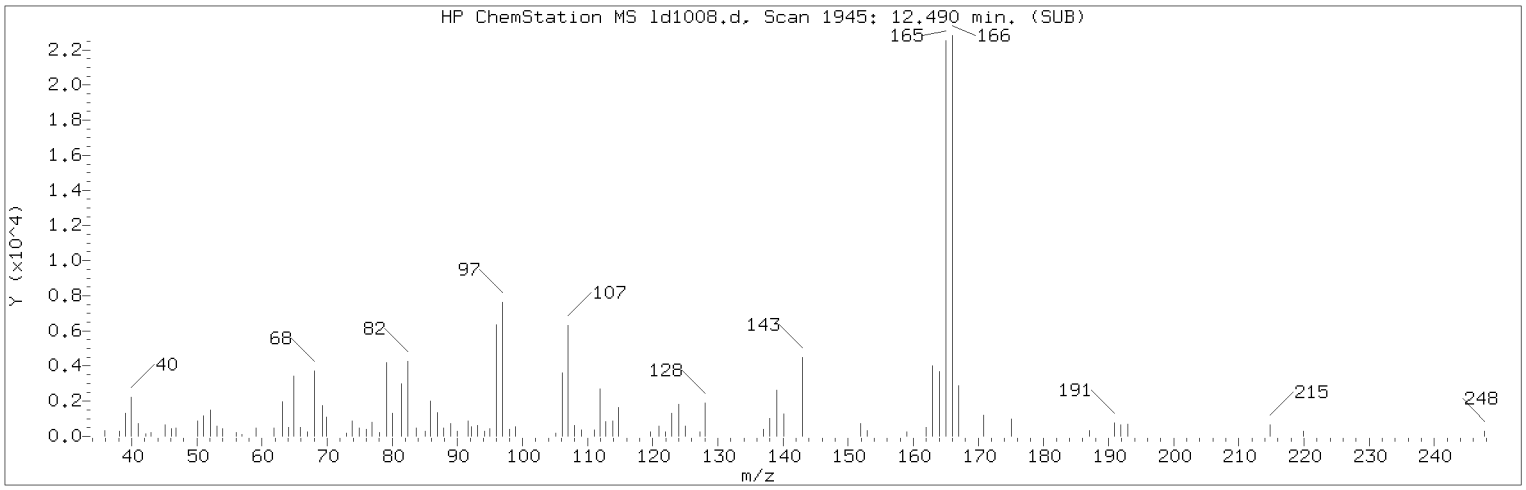
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

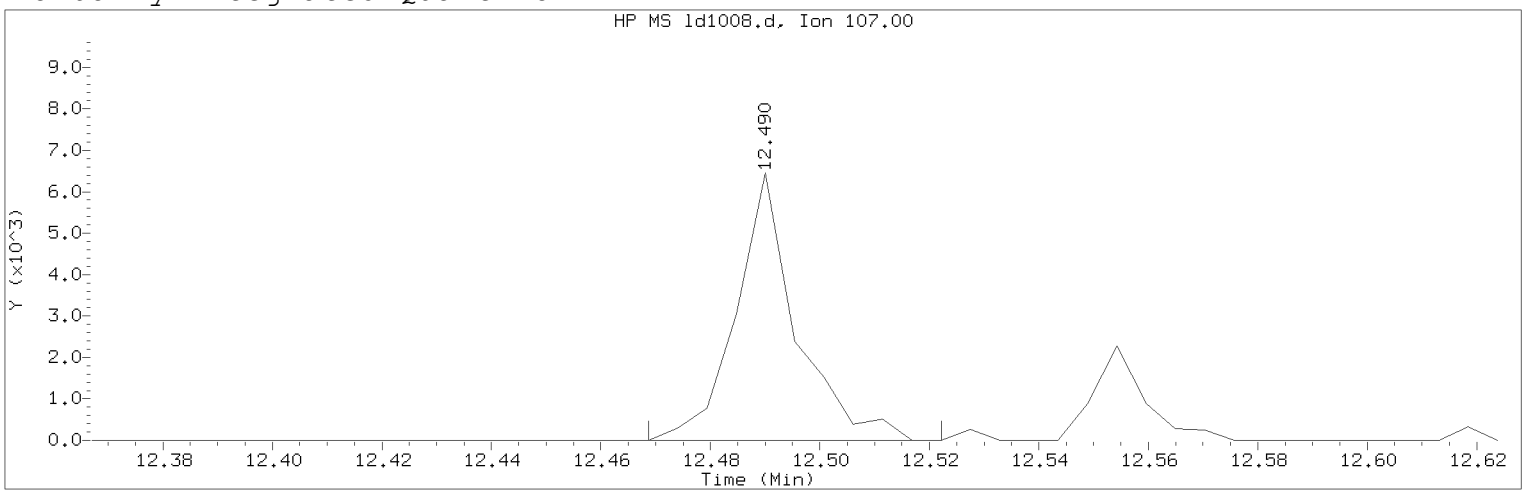
Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1196		
Retention Time (minutes)	: 8.484		
Quant Ion	: 105.00		
Area	: 38512		
On-column Amount (ng/ul)	: 0.9691		
Integration start scan	: 1188	Integration stop scan:	1216
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

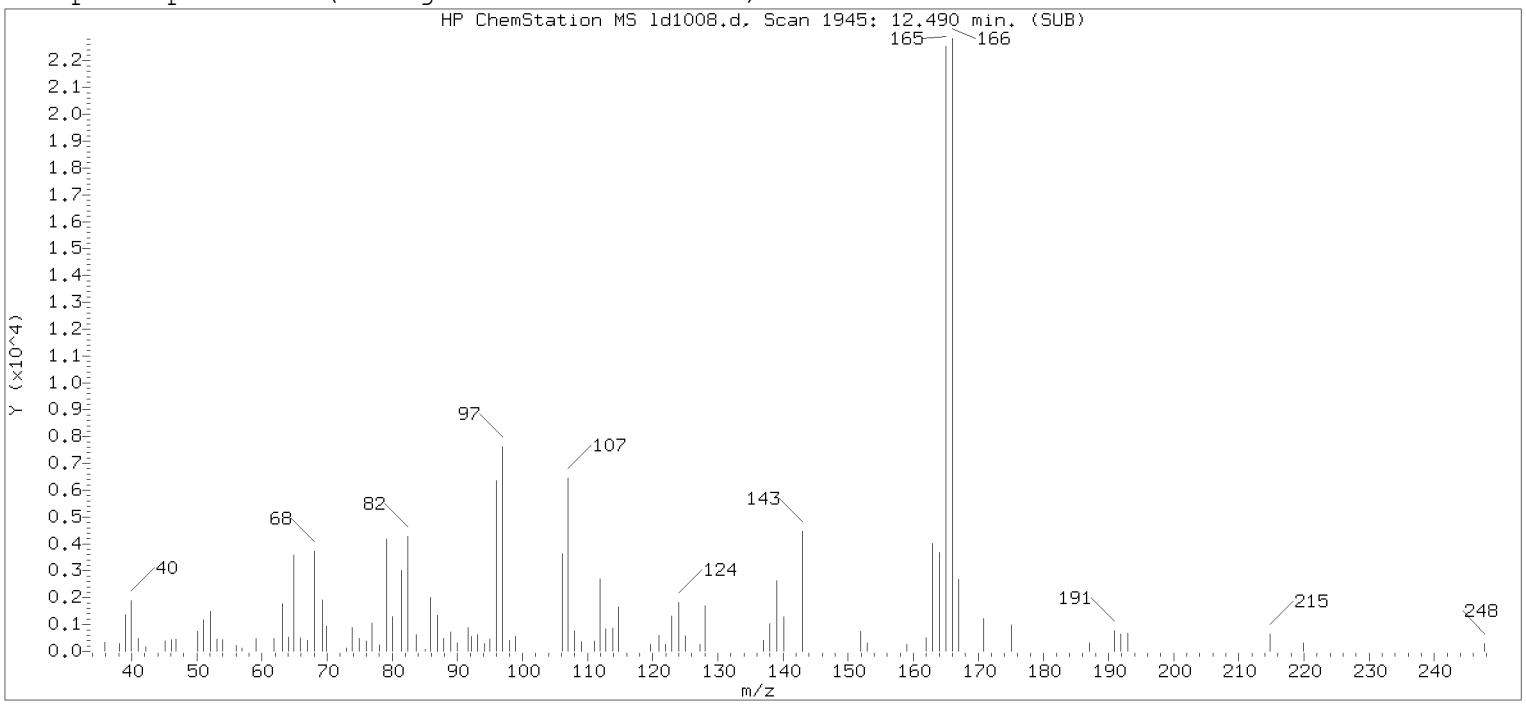
Compound Number : 130
Compound Name : Thionazin
Scan Number : 1945
Retention Time (minutes) : 12.490
Quant Ion : 107.00
Area (flag) : 4931M
On-Column Amount (ng/ul) : 0.2593
Integration start scan : 1940 Integration stop scan: 1950
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

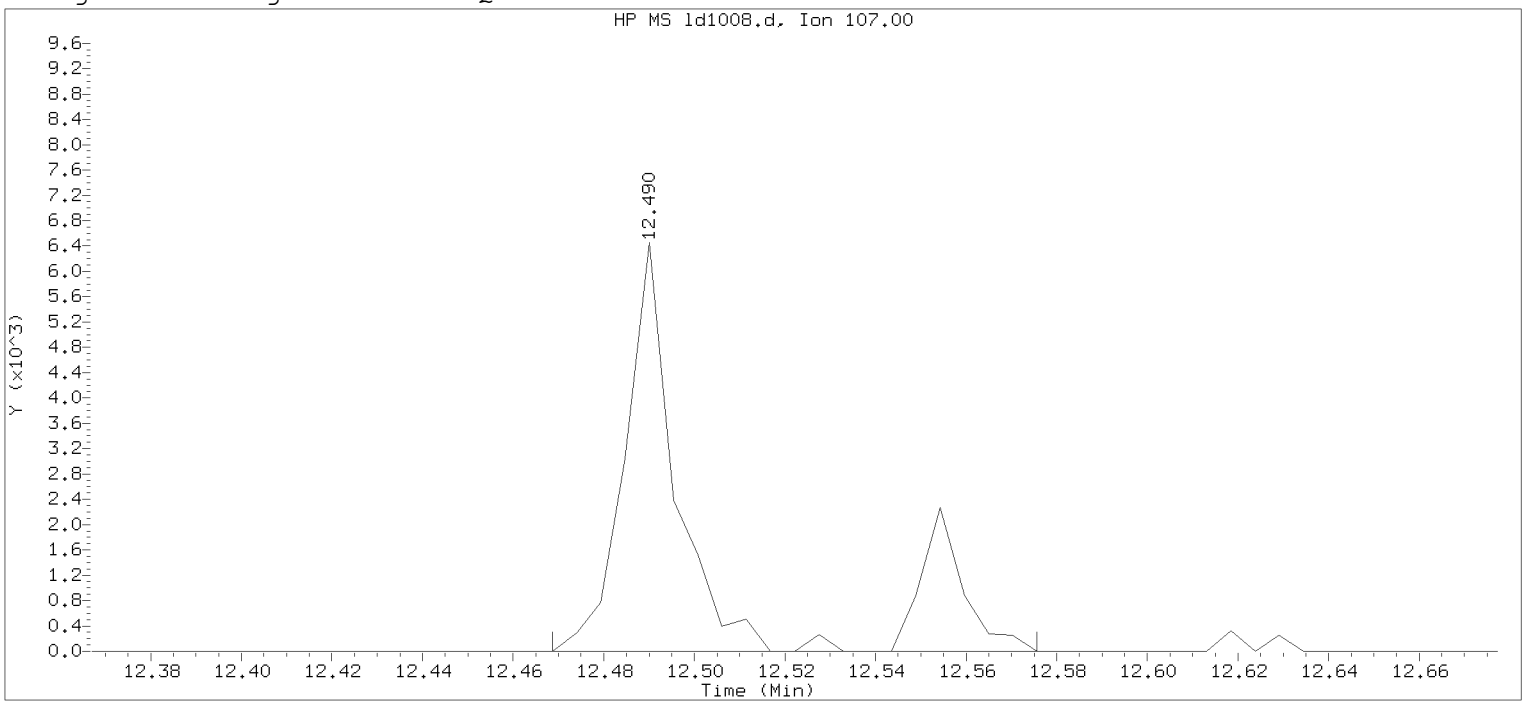
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

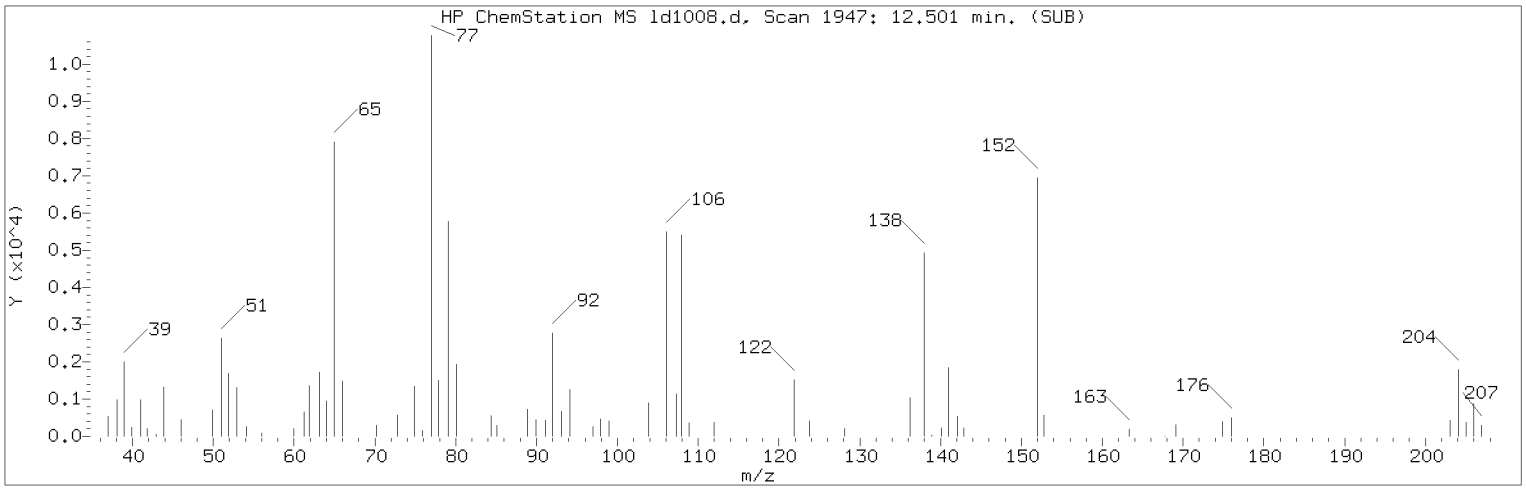
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

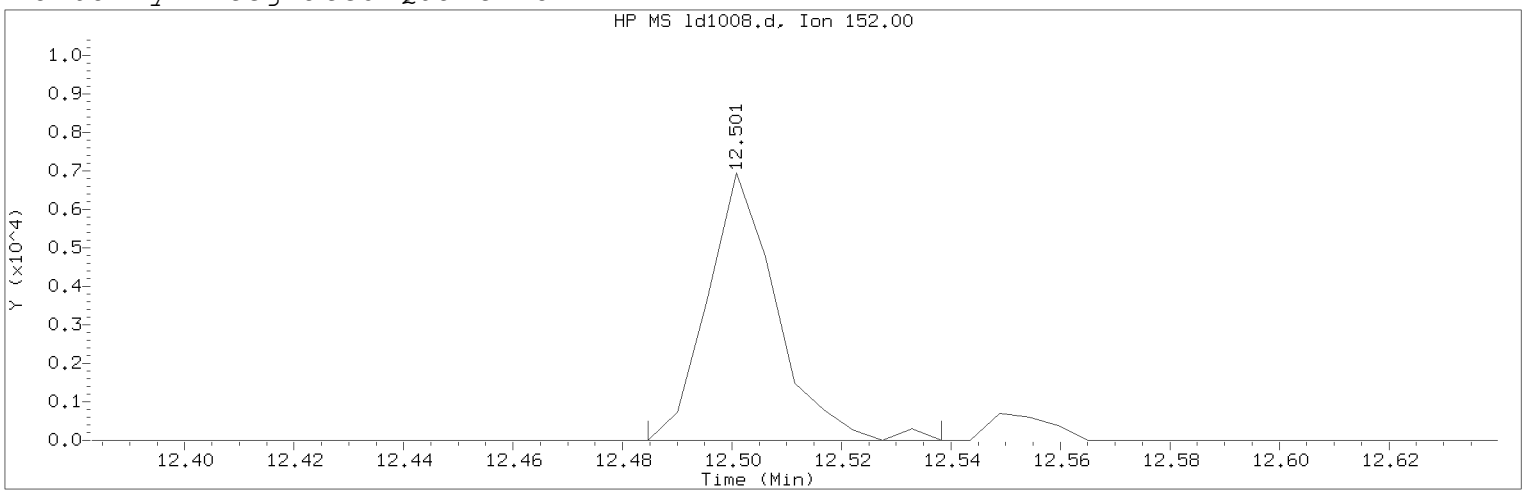
Compound Number	: 130		
Compound Name	: Thionazin		
Scan Number	: 1945		
Retention Time (minutes)	: 12.490		
Quant Ion	: 107.00		
Area	: 6478		
On-column Amount (ng/ul)	: 0.3371		
Integration start scan	: 1940	Integration stop scan:	1960
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used. Page 1971

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

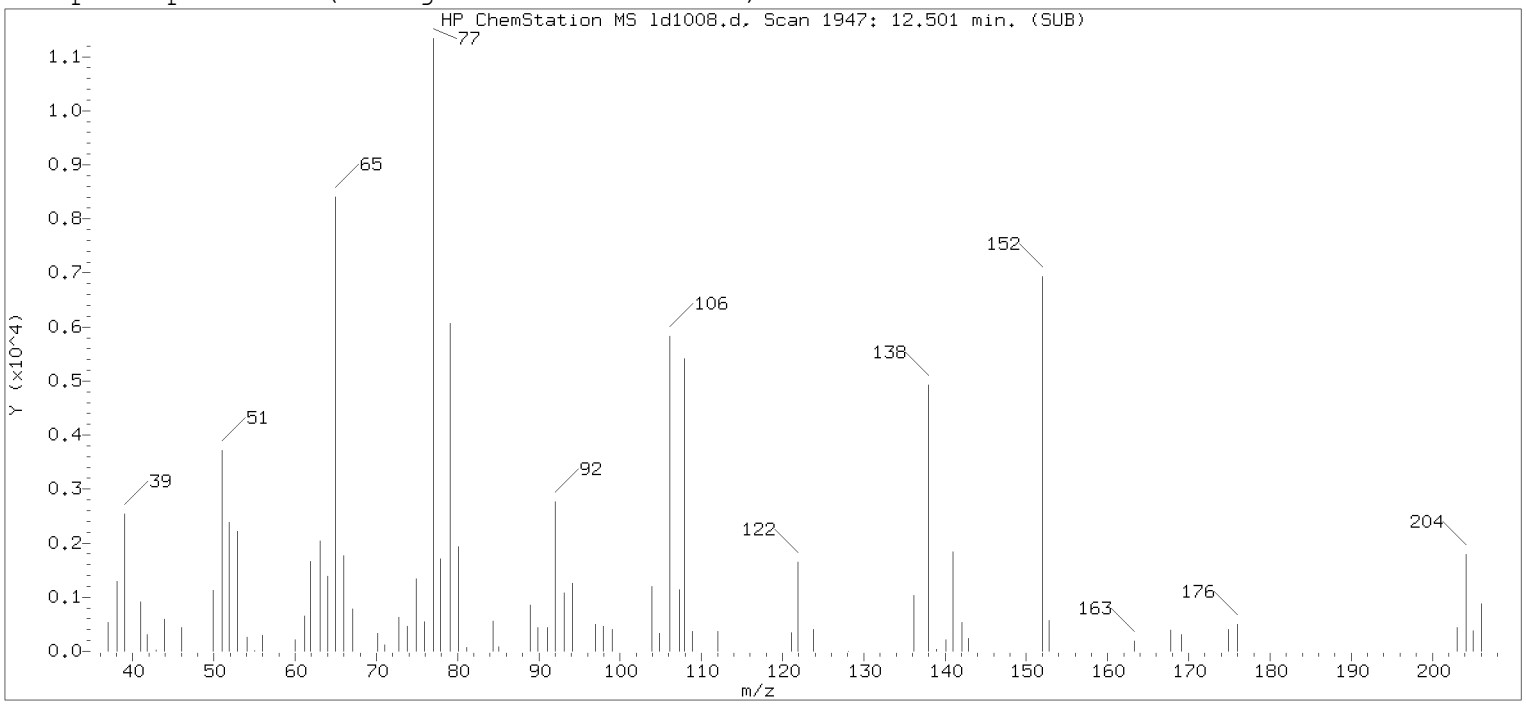
Compound Number : 133
Compound Name : 5-Nitro-o-toluidine
Scan Number : 1947
Retention Time (minutes) : 12.501
Quant Ion : 152.00
Area (flag) : 6069M
On-Column Amount (ng/ul) : 0.2395
Integration start scan : 1943 Integration stop scan: 1953
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

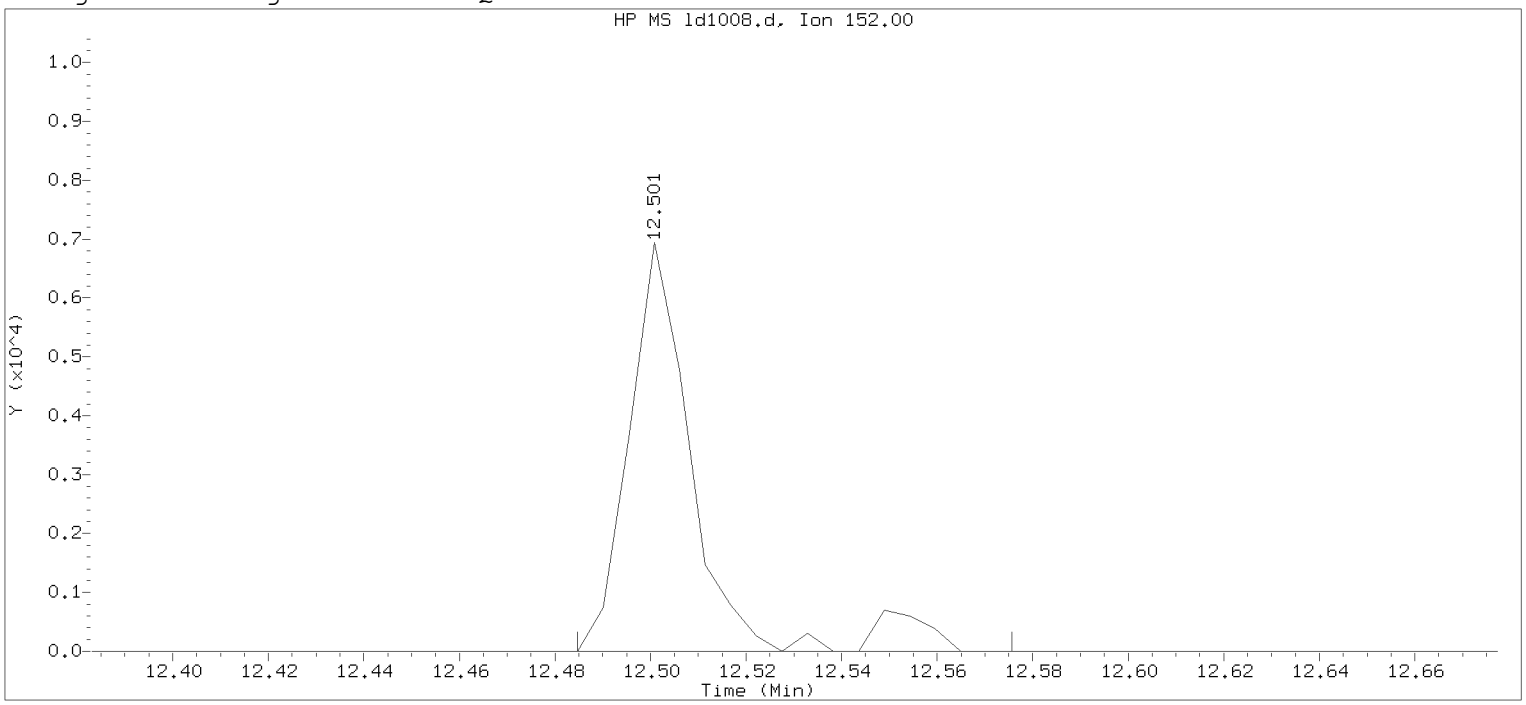
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Compound Number : 133
Compound Name : 5-Nitro-o-toluidine
Scan Number : 1947
Retention Time (minutes) : 12.501
Quant Ion : 152.00
Area : 6608
On-column Amount (ng/ul) : 0.2435
Integration start scan : 1943 Integration stop scan: 1960
Y at integration start : 0 Y at integration end: 0

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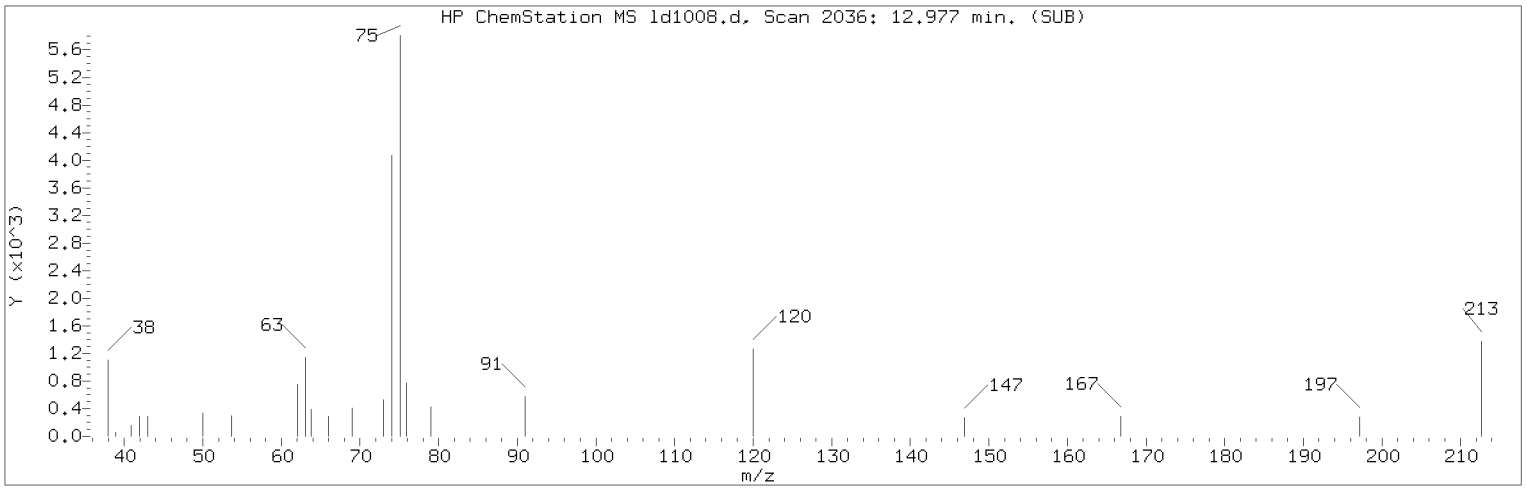
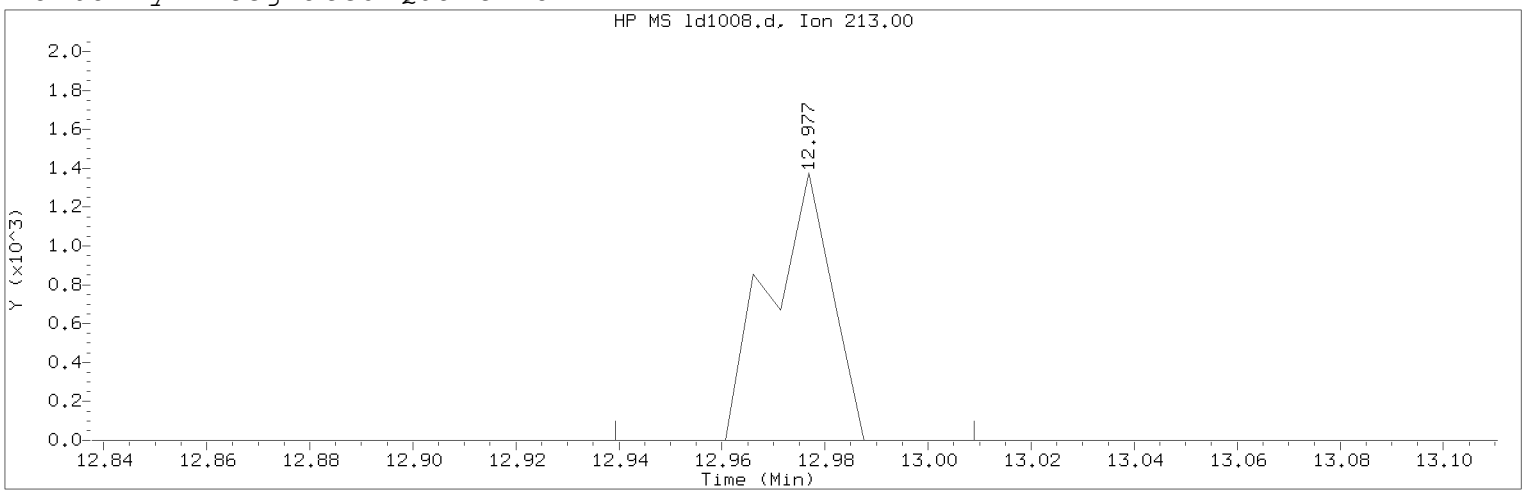
Target 3.5 esignature used. Page 1973

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

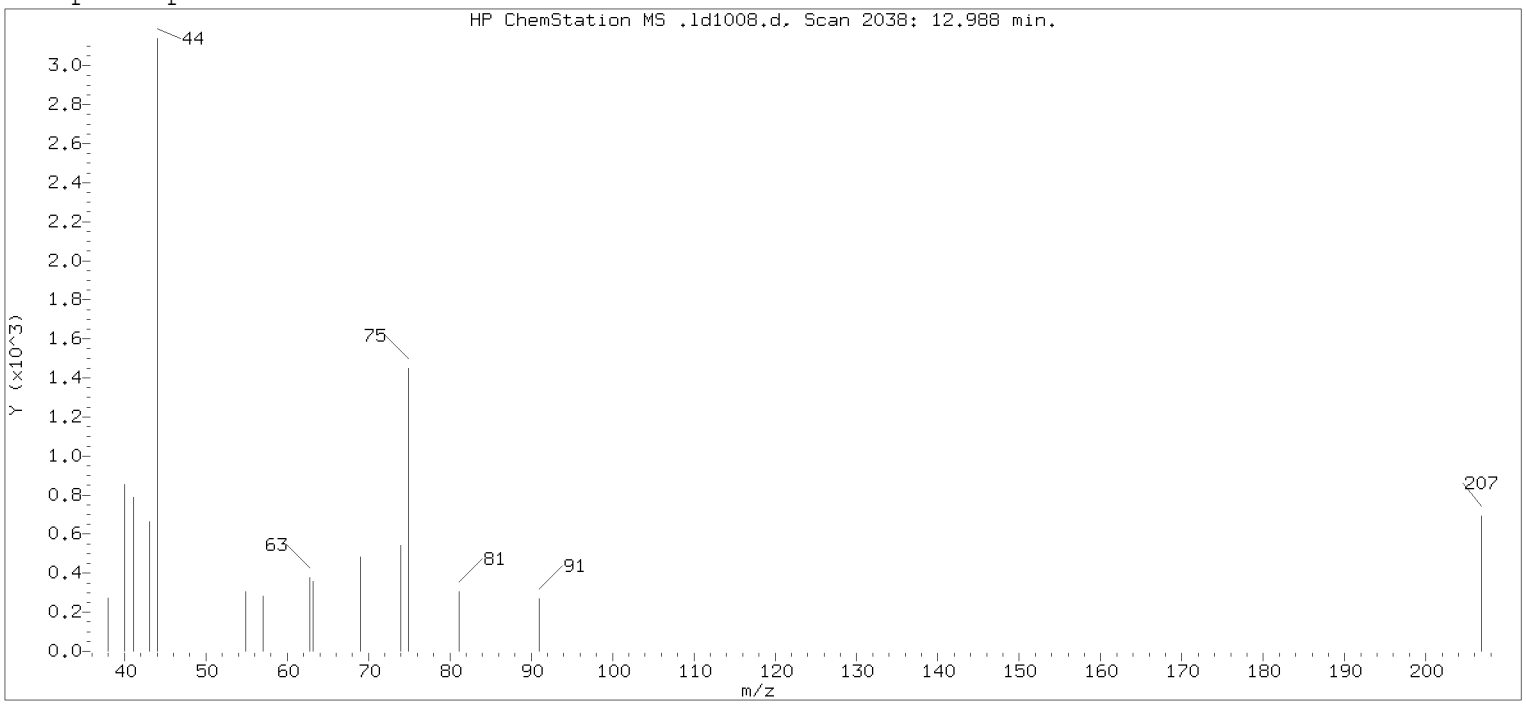
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 2036
Retention Time (minutes) : 12.977
Quant Ion : 213.00
Area (flag) : 1146M
On-Column Amount (ng/ul) : 0.1215
Integration start scan : 2028 Integration stop scan: 2041
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

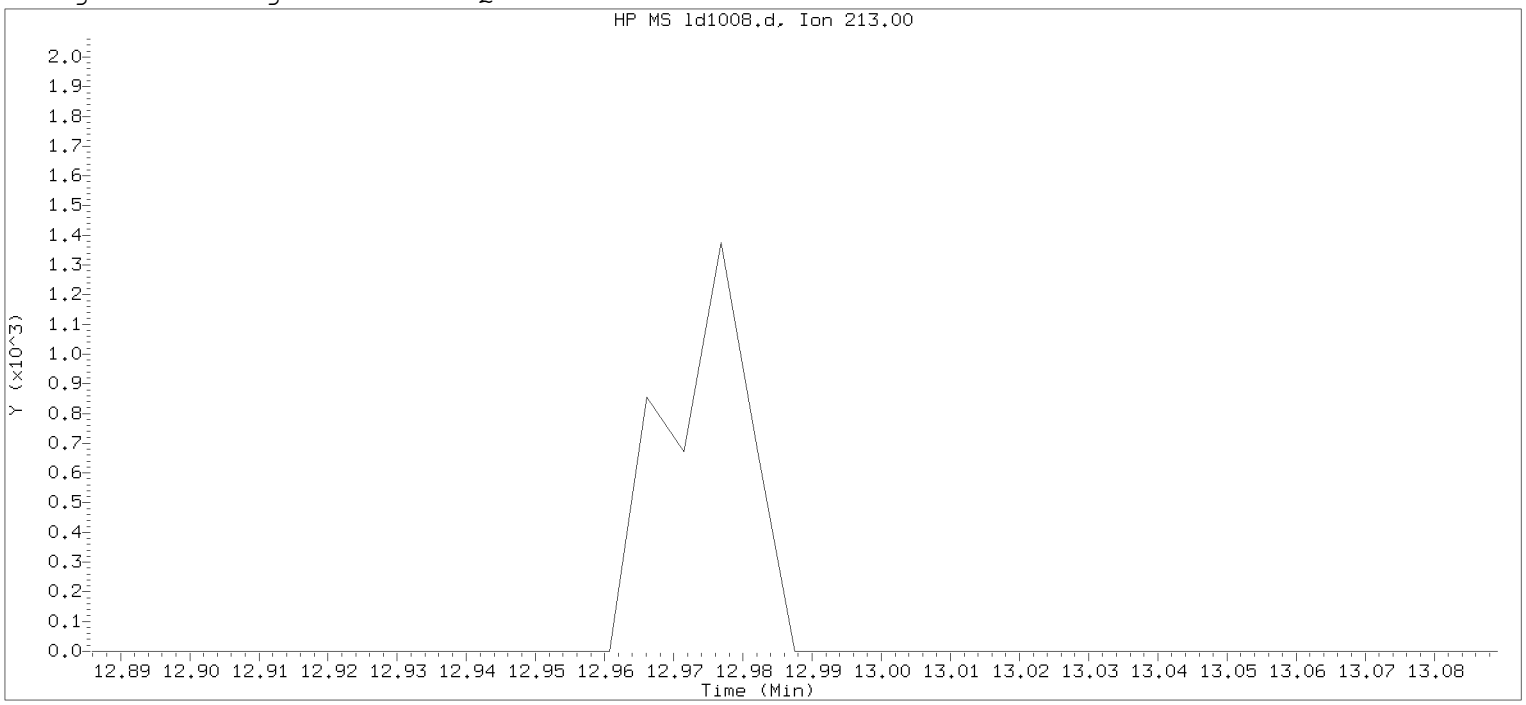
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

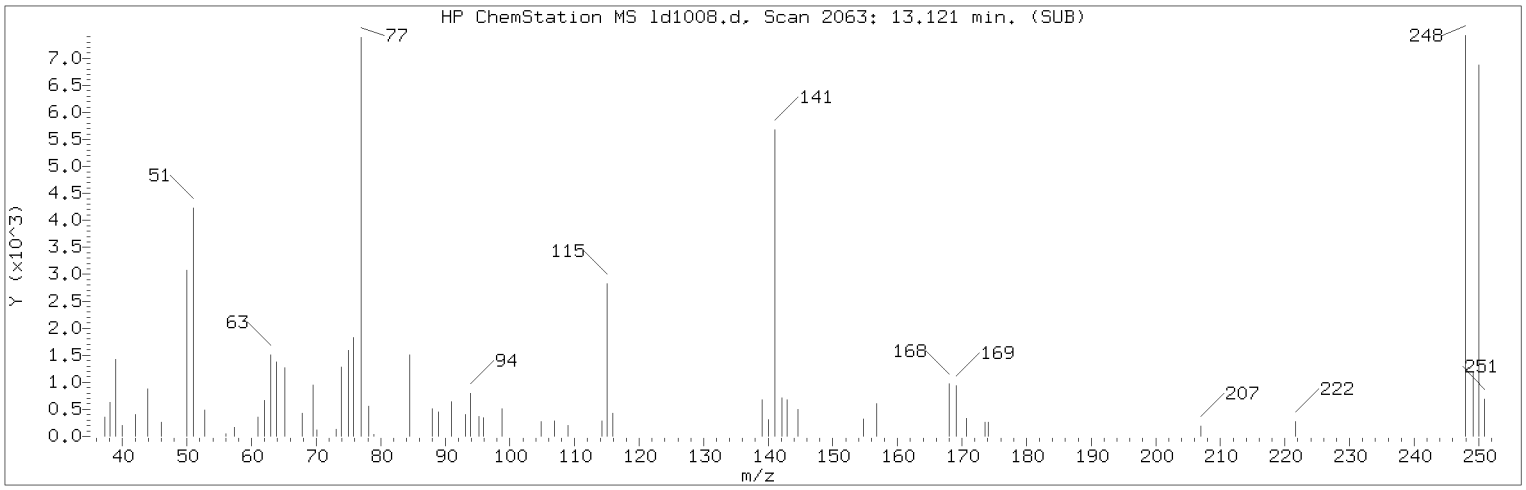
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

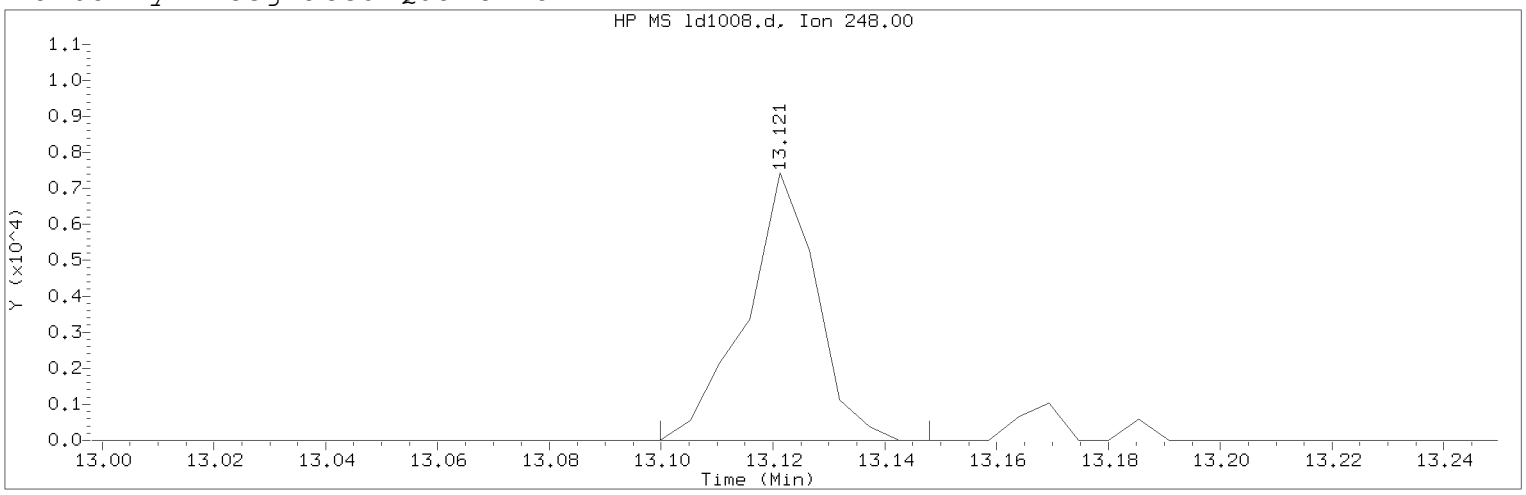
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 12.987
Quant Ion : 213.00

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used. EPA 1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

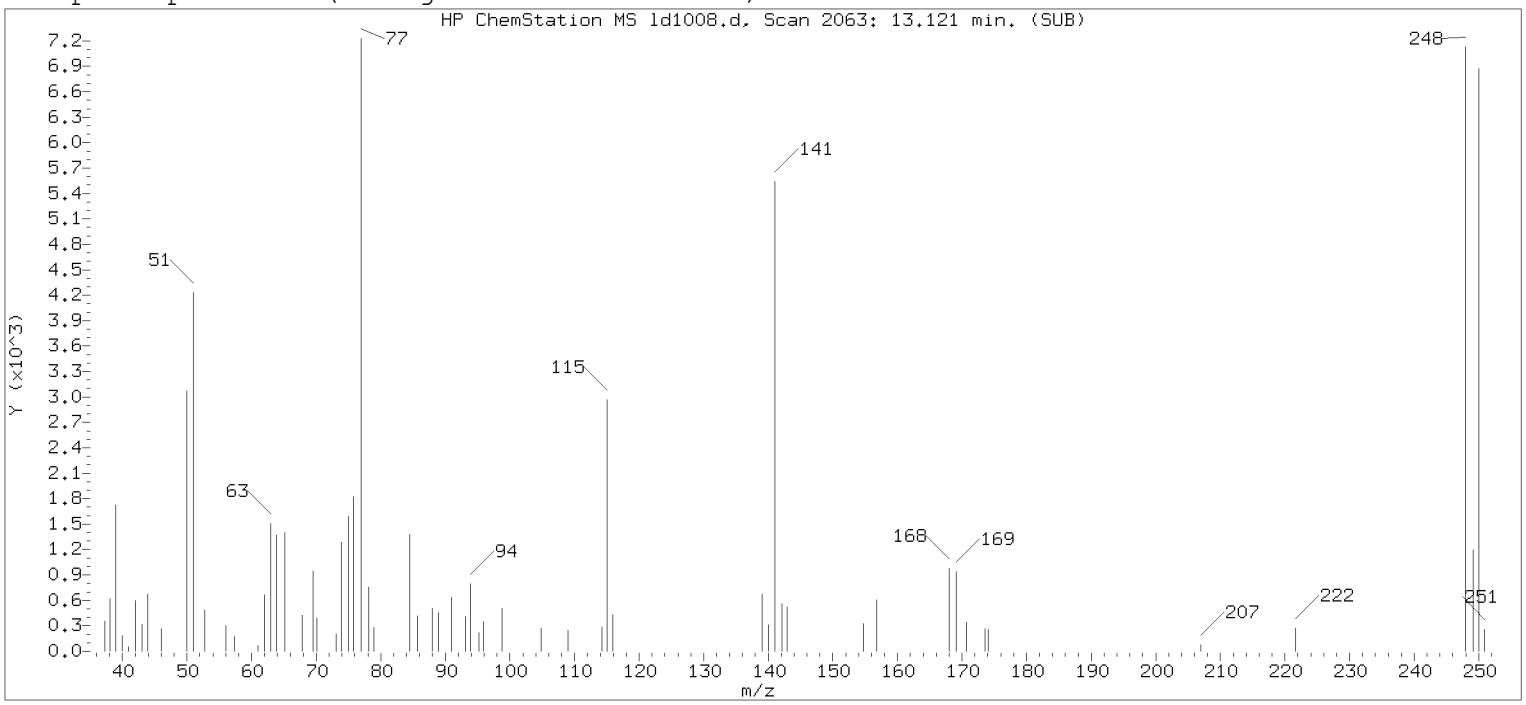
Compound Number : 148
Compound Name : 4-Bromophenyl-phenylether
Scan Number : 2063
Retention Time (minutes) : 13.121
Quant Ion : 248.00
Area (flag) : 6506M
On-Column Amount (ng/ul) : 0.2552
Integration start scan : 2058 Integration stop scan: 2067
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

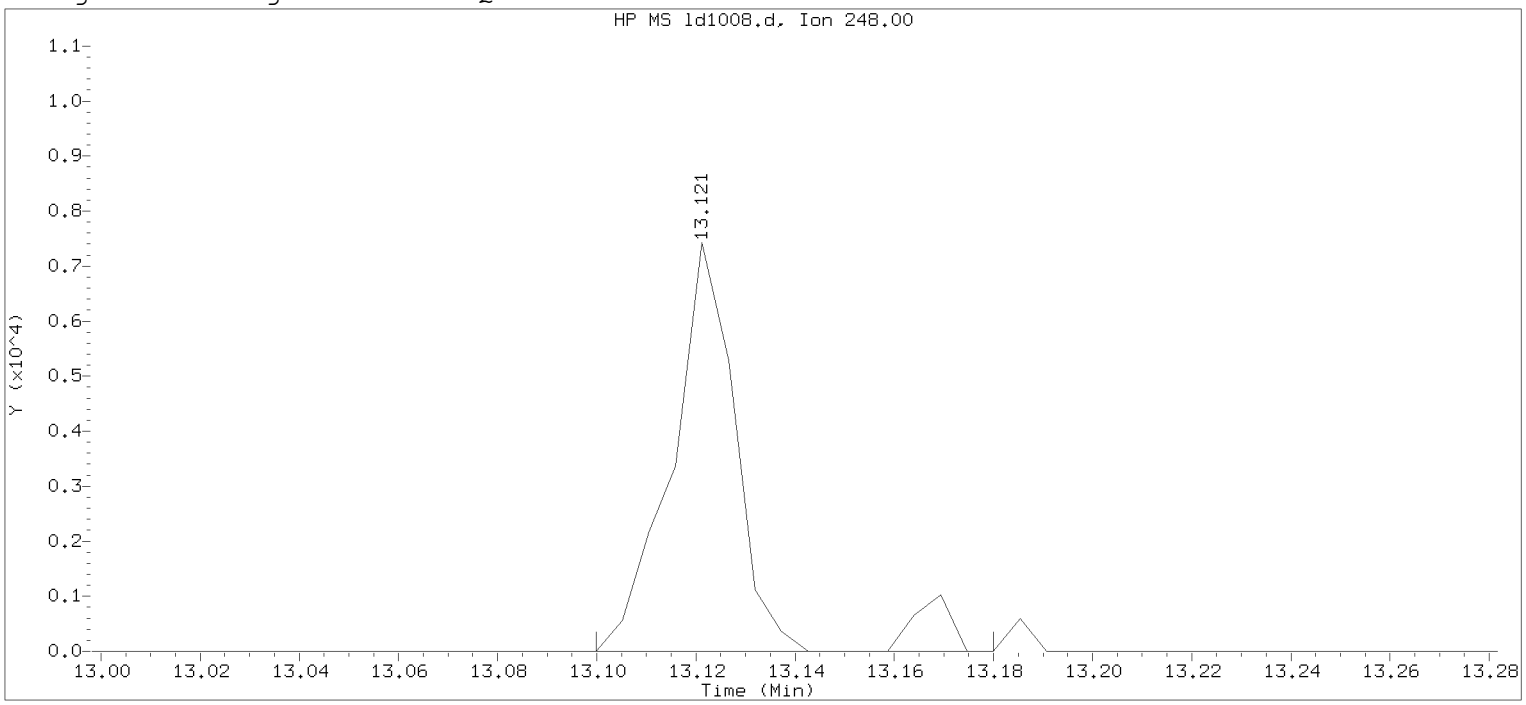
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

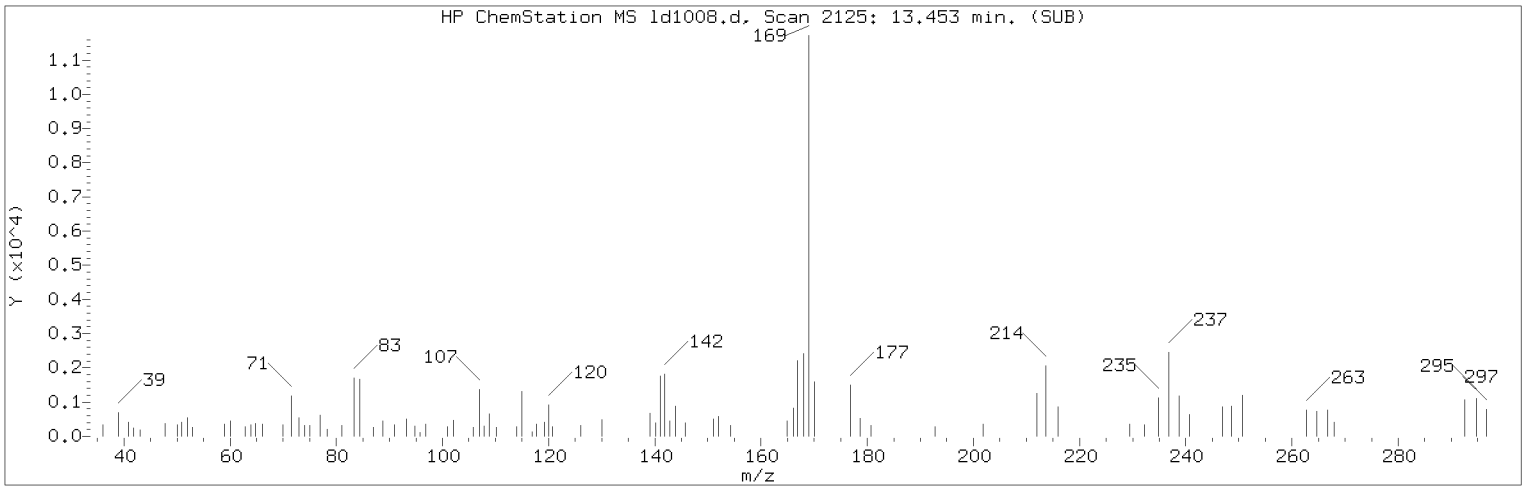
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

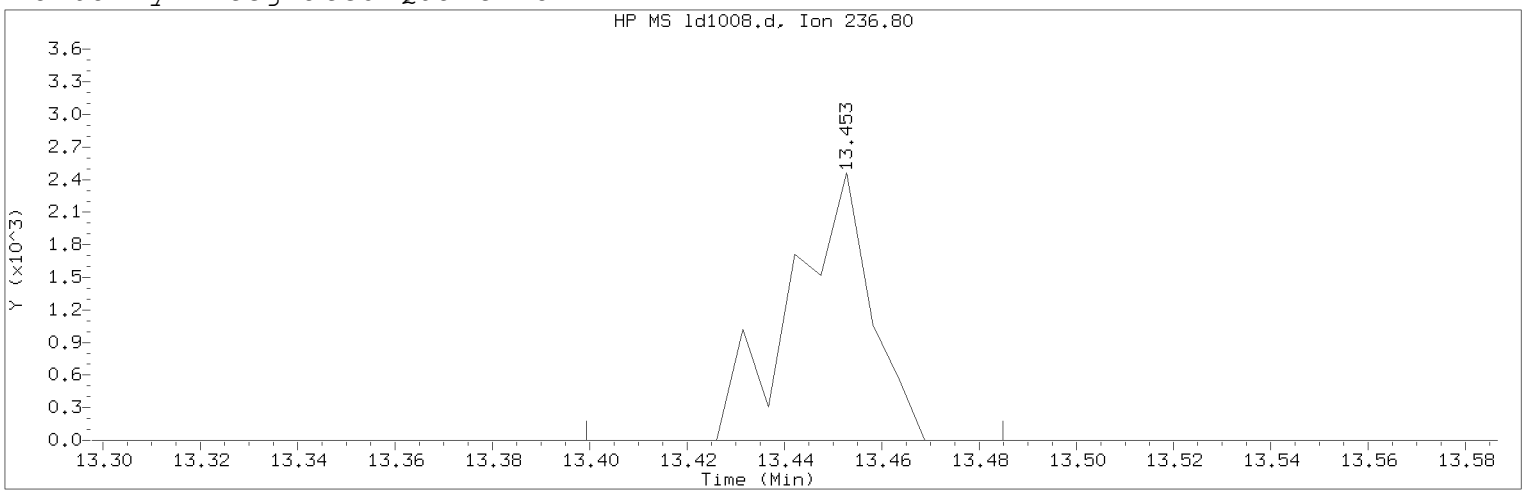
Compound Number : 148
Compound Name : 4-Bromophenyl-phenylether
Scan Number : 2063
Retention Time (minutes) : 13.121
Quant Ion : 248.00
Area : 7046
On-column Amount (ng/ul) : 0.2627
Integration start scan : 2058 Integration stop scan: 2073
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

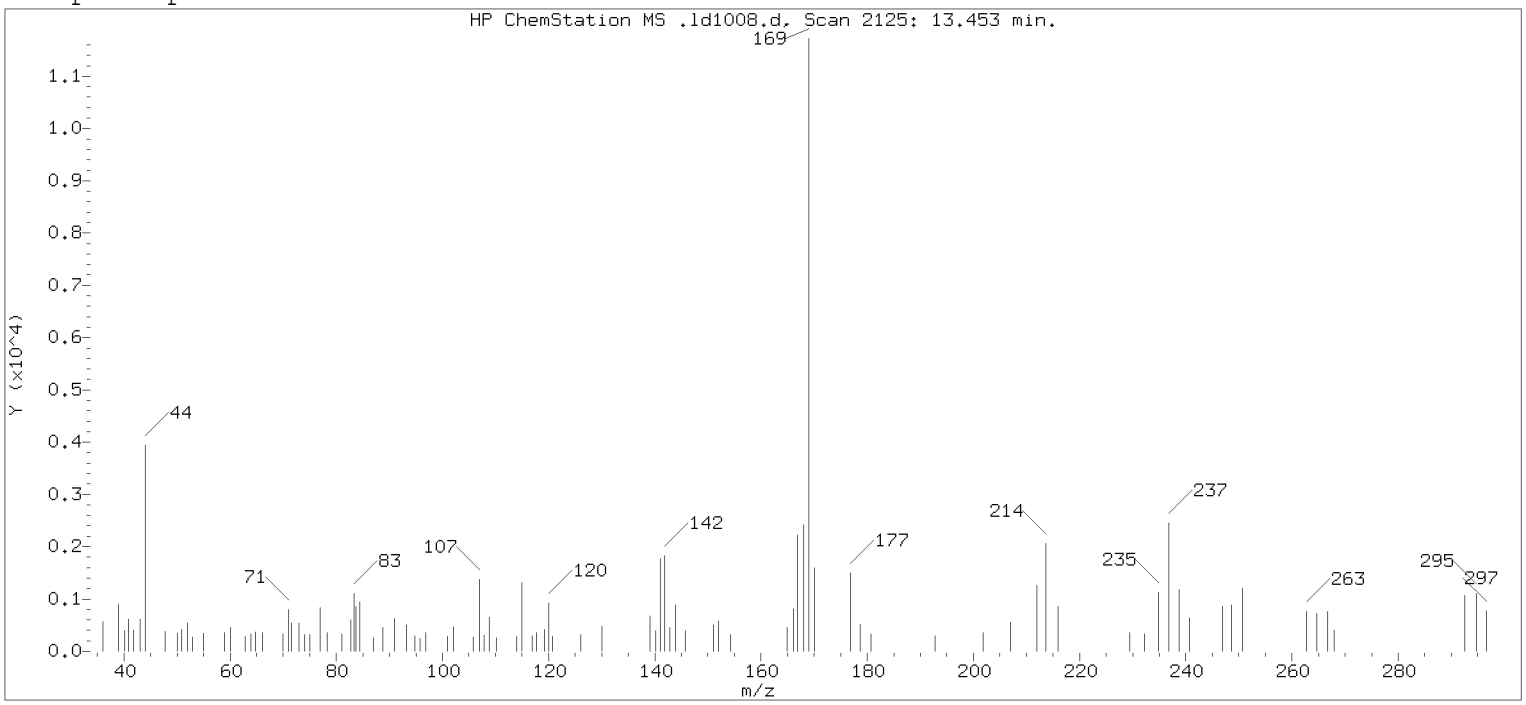
Compound Number : 156
Compound Name : Pentachloronitrobenzene
Scan Number : 2125
Retention Time (minutes) : 13.453
Quant Ion : 237.00
Area (flag) : 2773M
On-Column Amount (ng/ul) : 0.2340
Integration start scan : 2114 Integration stop scan: 2130
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

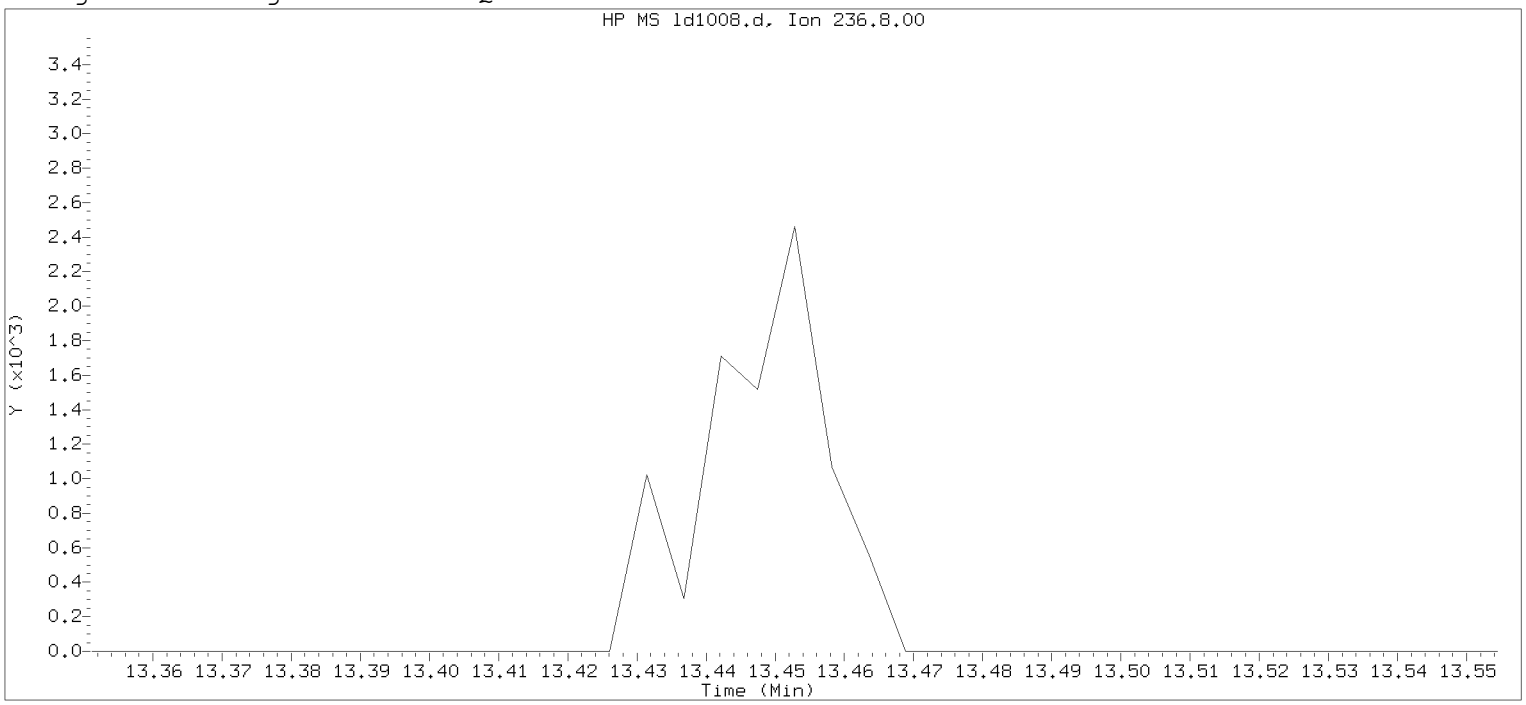
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

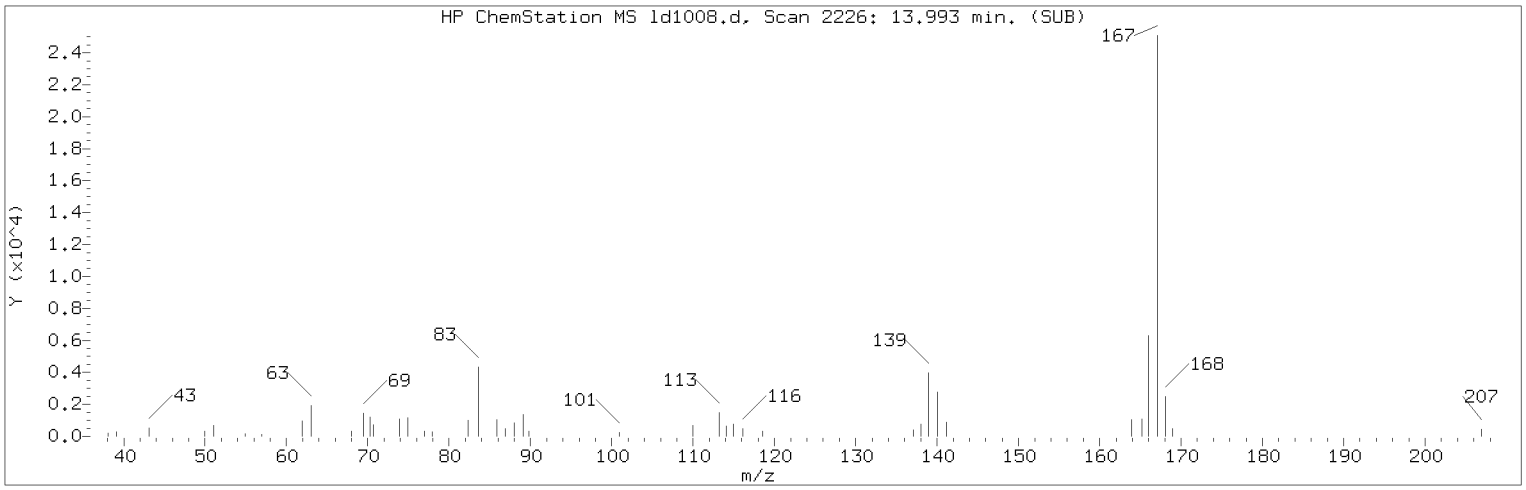
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

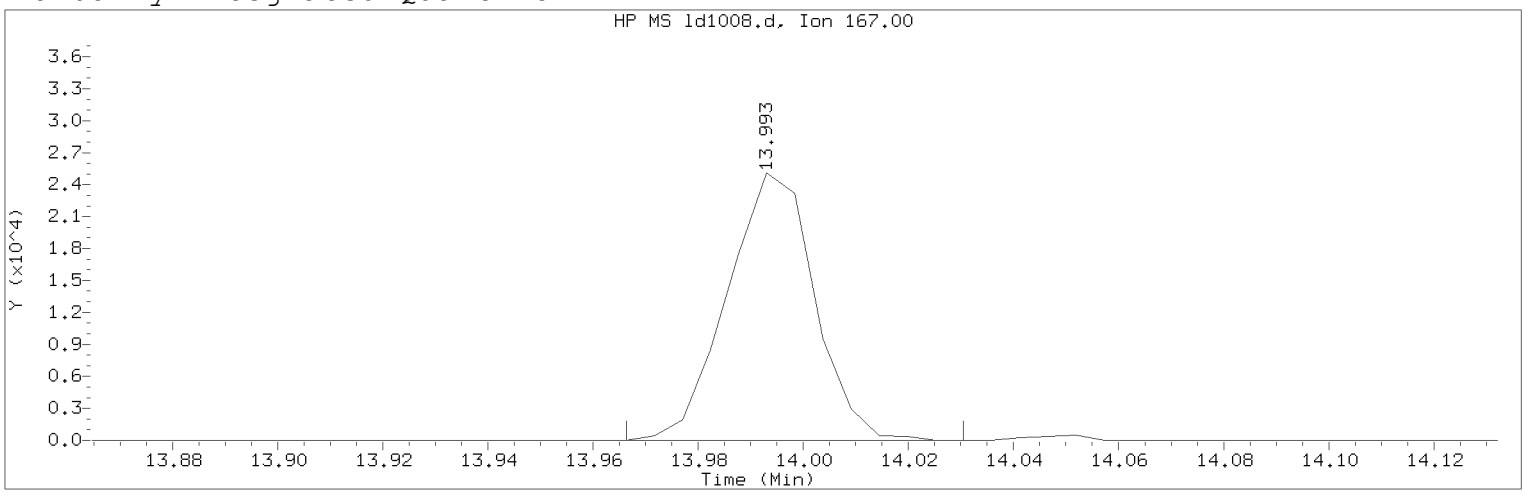
Compound Number : 156
Compound Name : Pentachloronitrobenzene
Expected RT (minutes) : 13.453
Quant Ion : 237.00

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature used. Page 1979 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

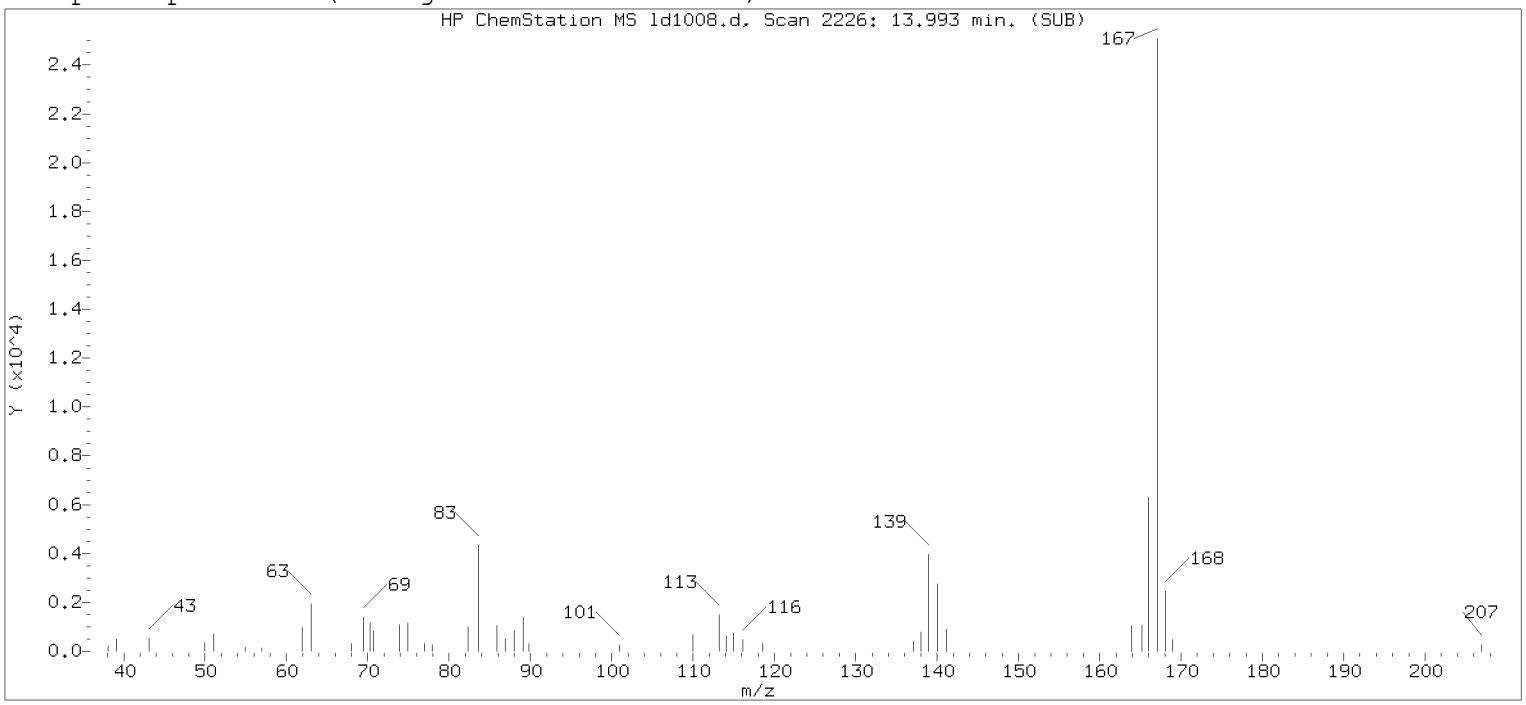
Compound Number : 168
Compound Name : Carbazole
Scan Number : 2226
Retention Time (minutes) : 13.993
Quant Ion : 167.00
Area (flag) : 28809M
On-Column Amount (ng/ul) : 0.2281
Integration start scan : 2220 Integration stop scan: 2232
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

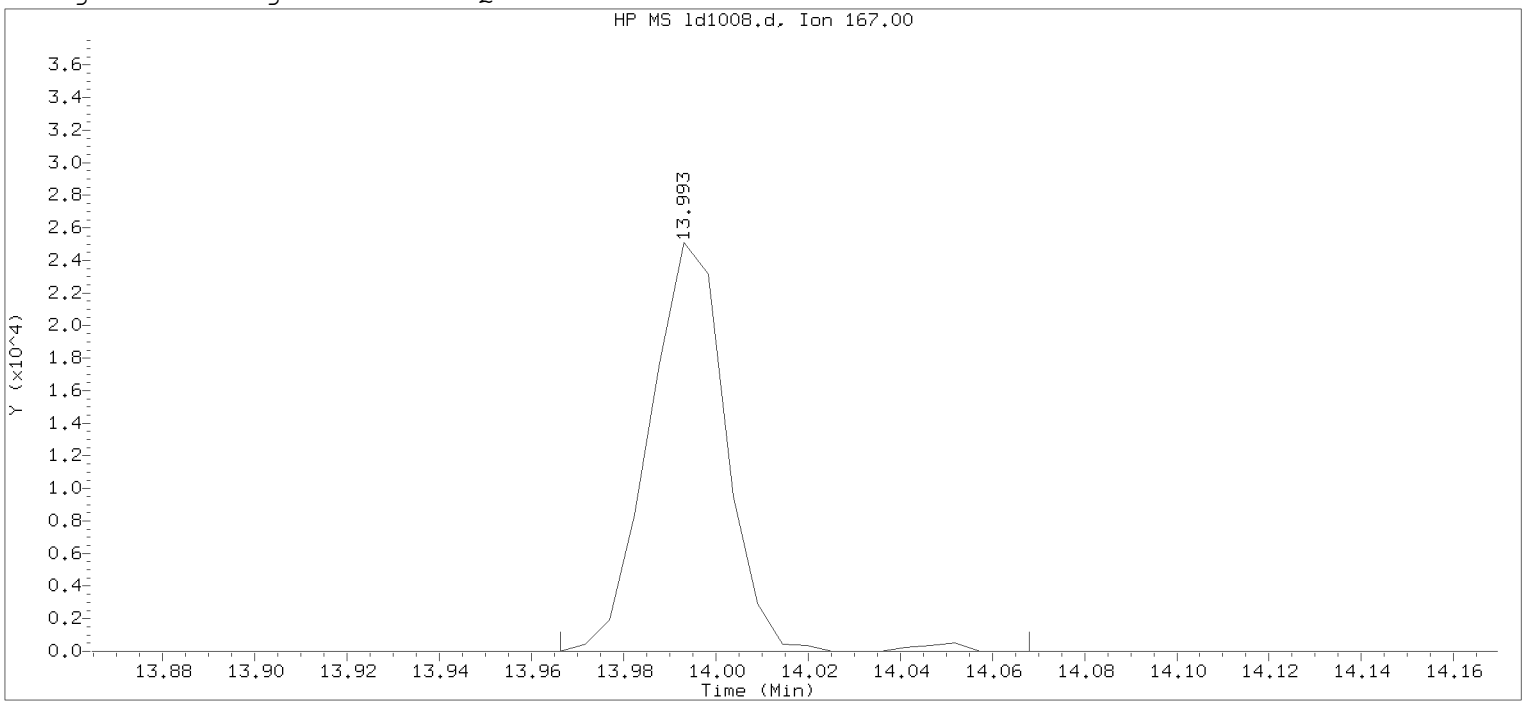
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

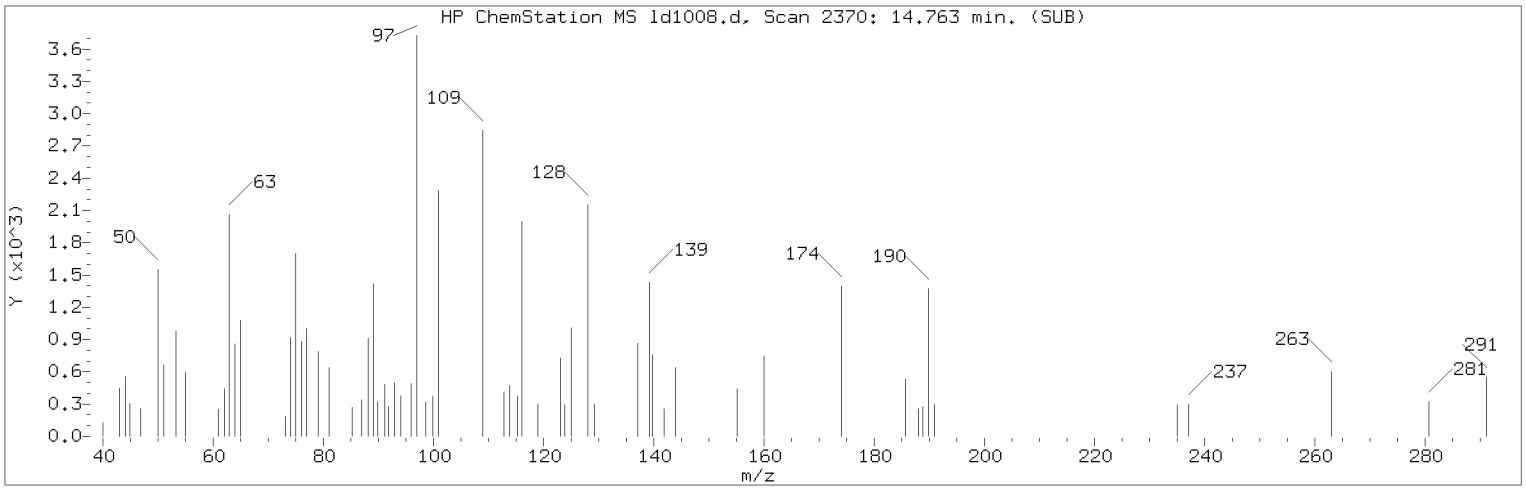
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

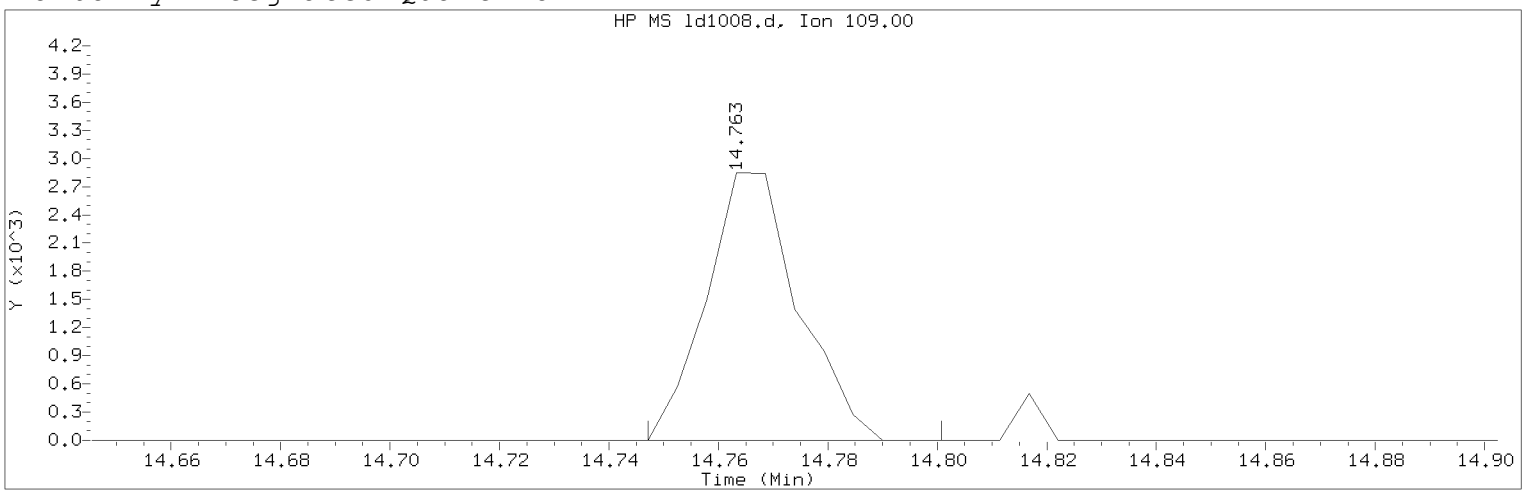
Compound Number	: 168		
Compound Name	: Carbazole		
Scan Number	: 2226		
Retention Time (minutes)	: 13.993		
Quant Ion	: 167.00		
Area	: 29162		
On-column Amount (ng/ul)	: 0.2243		
Integration start scan	: 2220	Integration stop scan:	2239
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

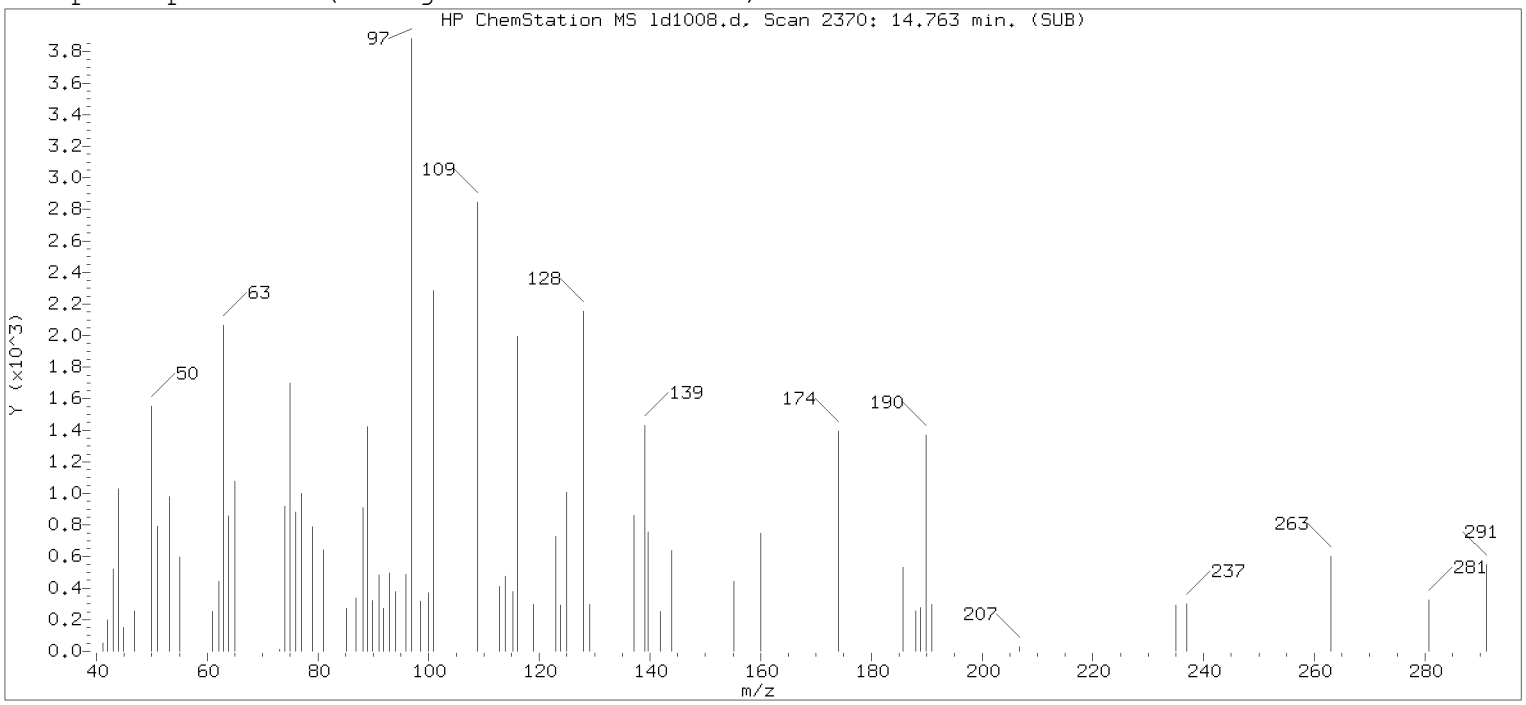
Compound Number : 172
Compound Name : Parathion
Scan Number : 2370
Retention Time (minutes) : 14.763
Quant Ion : 109.00
Area (flag) : 3331M
On-Column Amount (ng/ul) : 0.1391
Integration start scan : 2366 Integration stop scan: 2376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

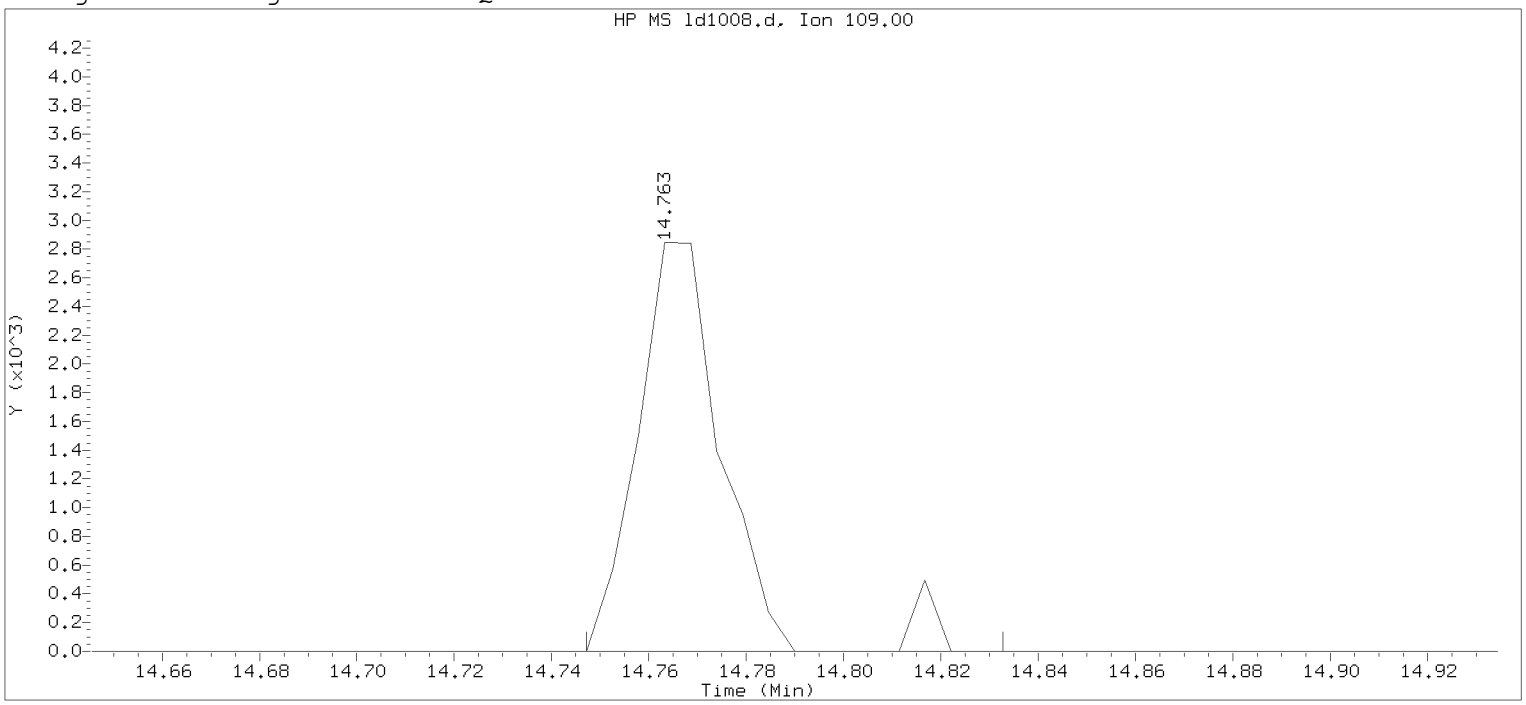
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

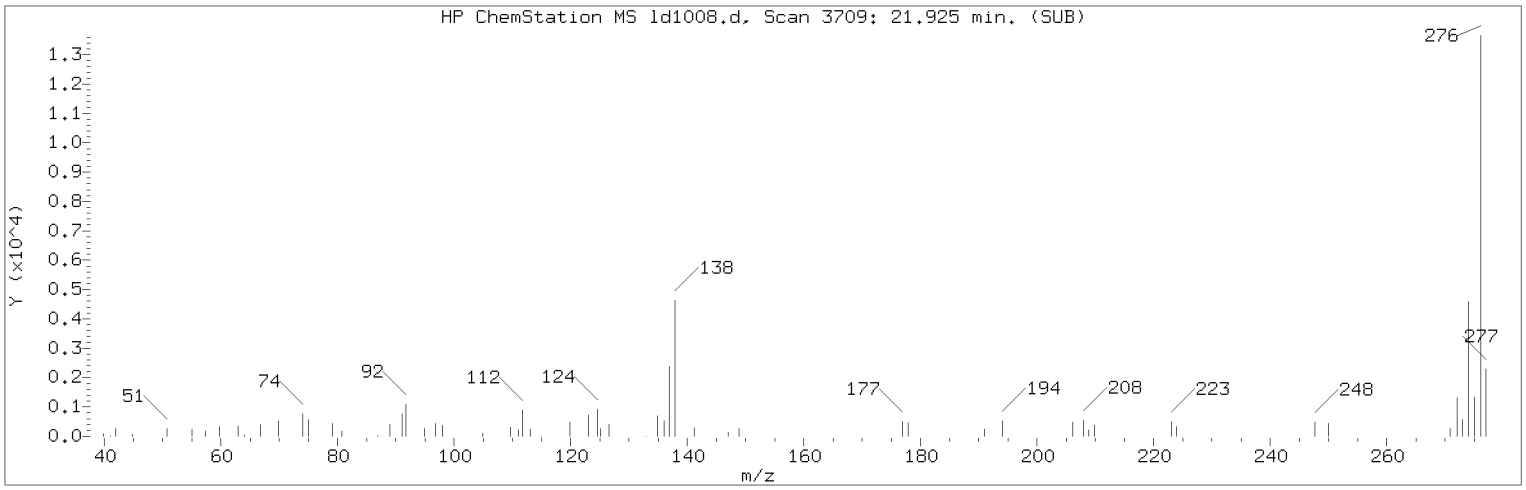
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

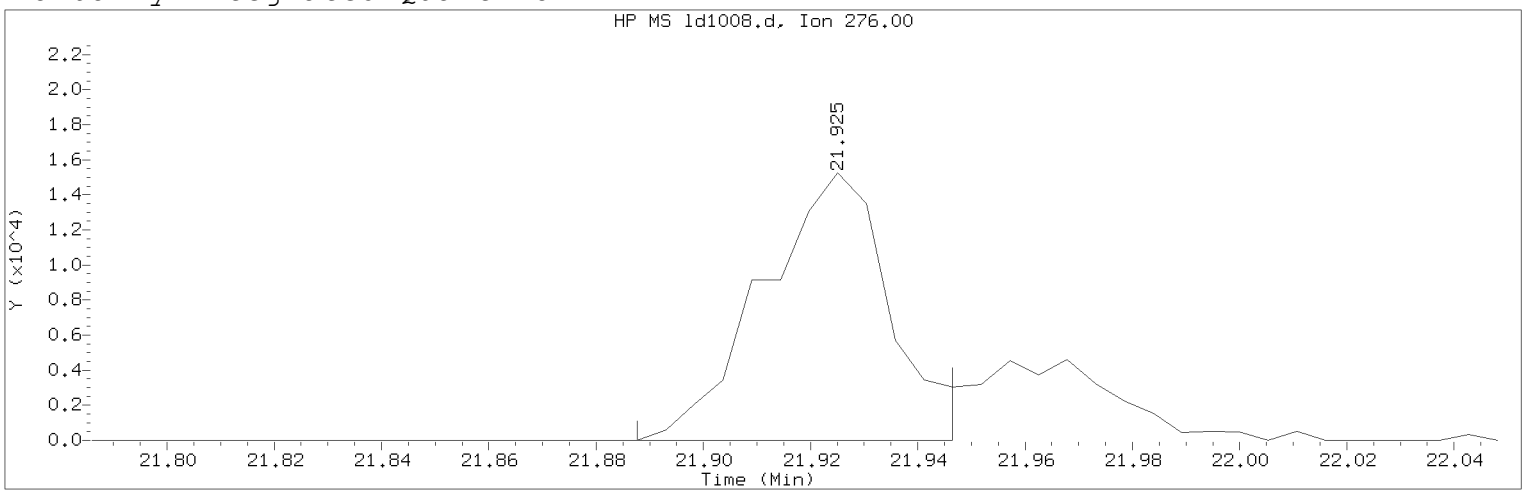
Compound Number	: 172		
Compound Name	: Parathion		
Scan Number	: 2370		
Retention Time (minutes)	: 14.763		
Quant Ion	: 109.00		
Area	: 3491		
On-column Amount (ng/ul)	: 0.1388		
Integration start scan	: 2366	Integration stop scan:	2382
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

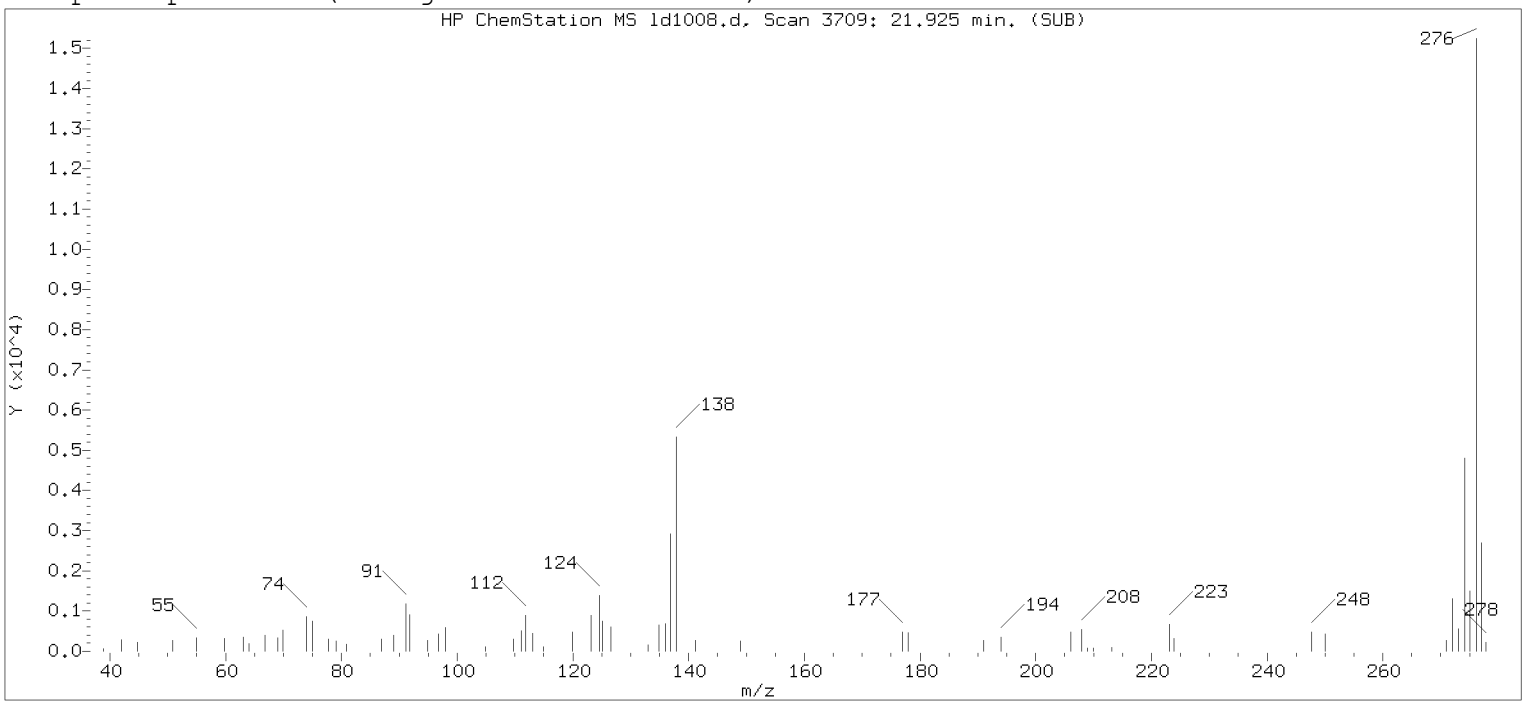
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3709
Retention Time (minutes) : 21.925
Quant Ion : 276.00
Area (flag) : 25152M
On-Column Amount (ng/ul) : 0.2167
Integration start scan : 3701 Integration stop scan: 3712
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

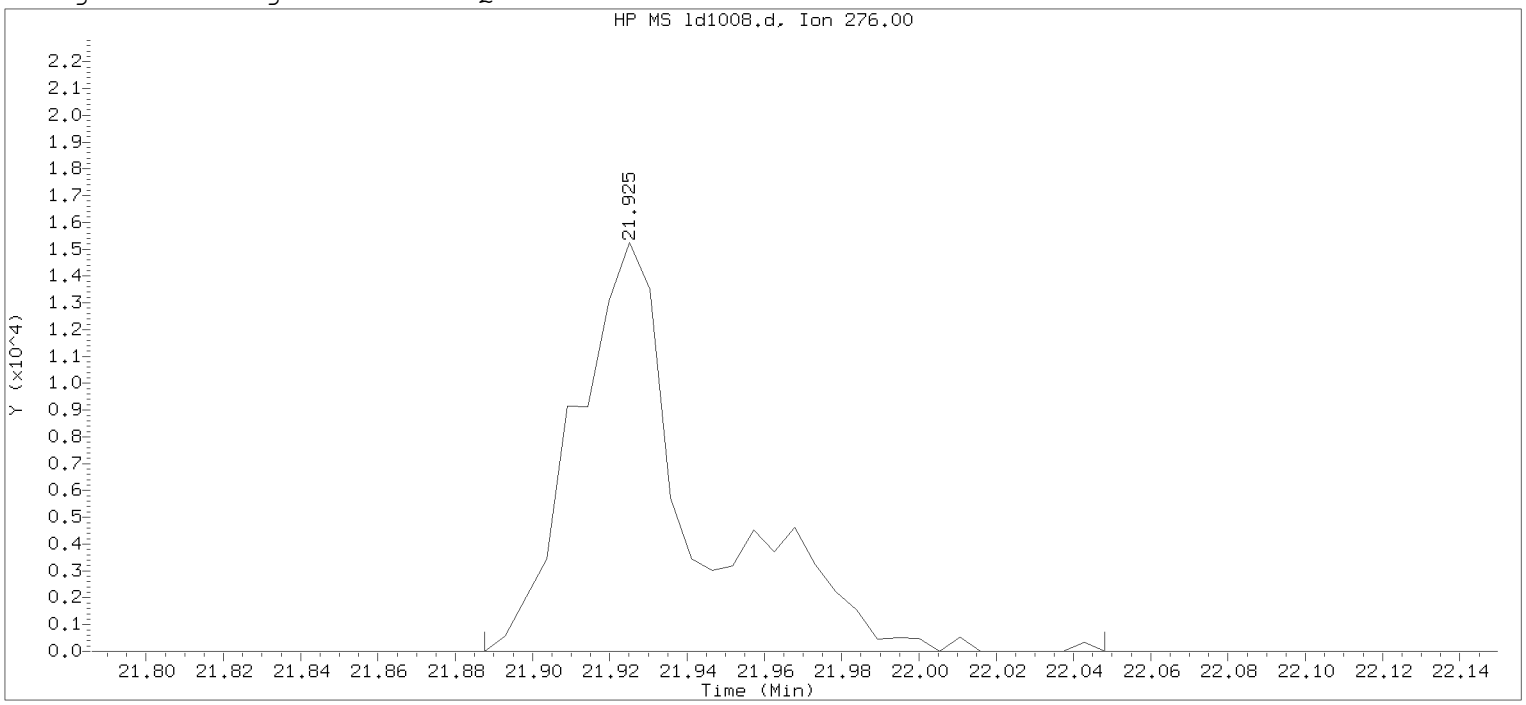
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

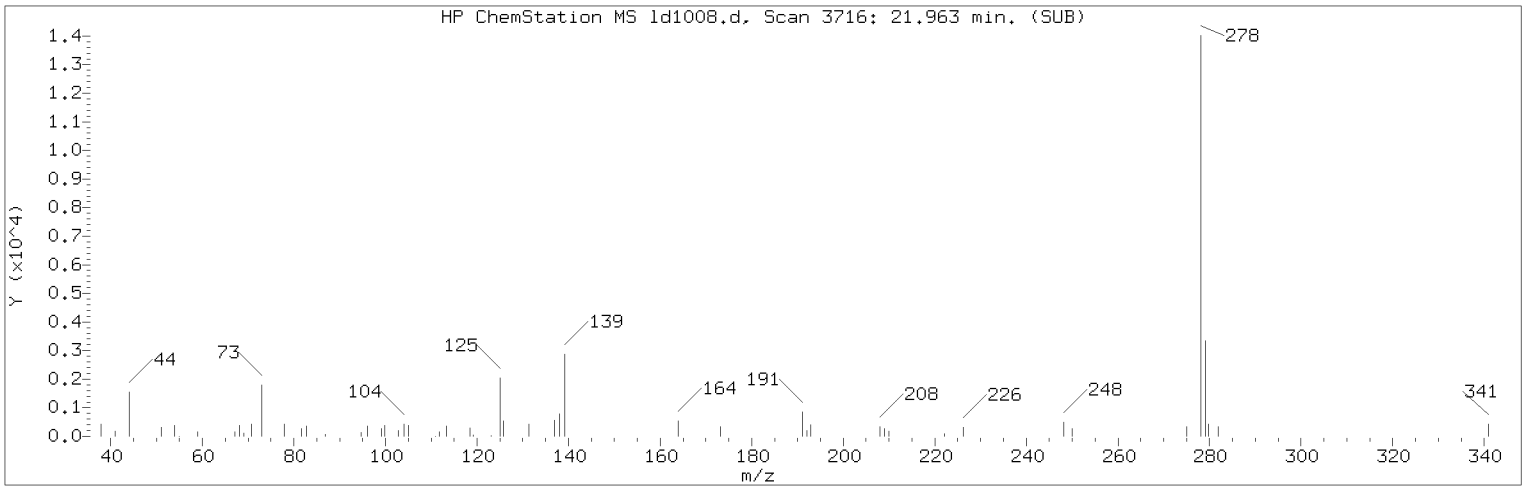
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

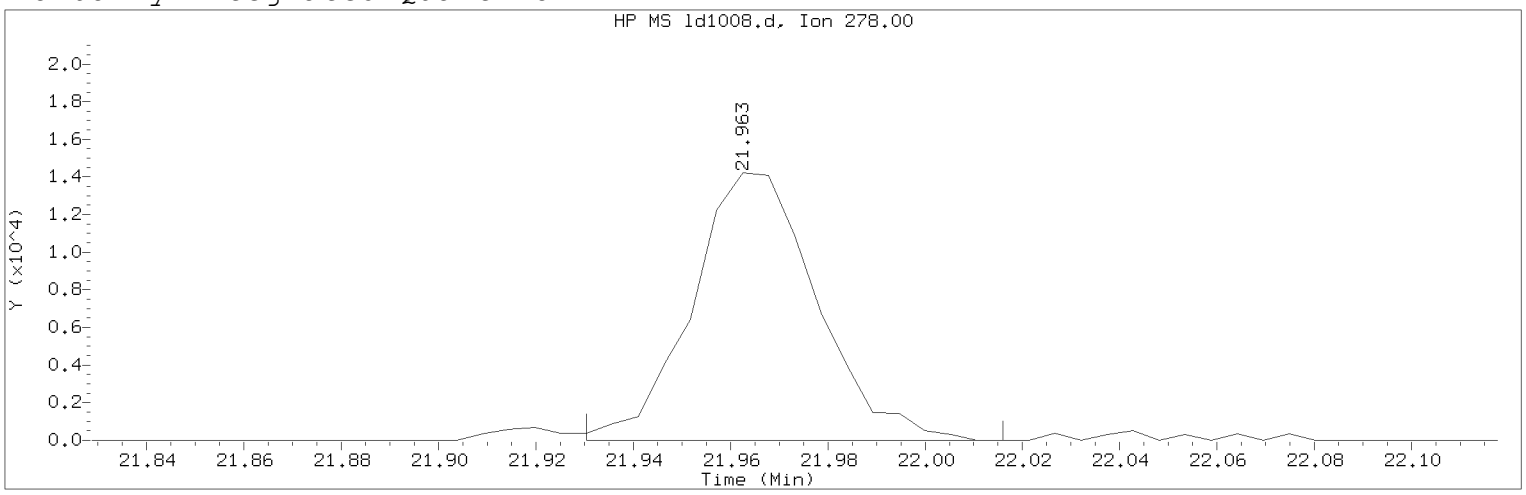
Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3709		
Retention Time (minutes)	: 21.925		
Quant Ion	: 276.00		
Area	: 33278		
On-column Amount (ng/ul)	: 0.2670		
Integration start scan	: 3701	Integration stop scan:	3731
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user: FE35 Page 1985 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:45 art12405

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

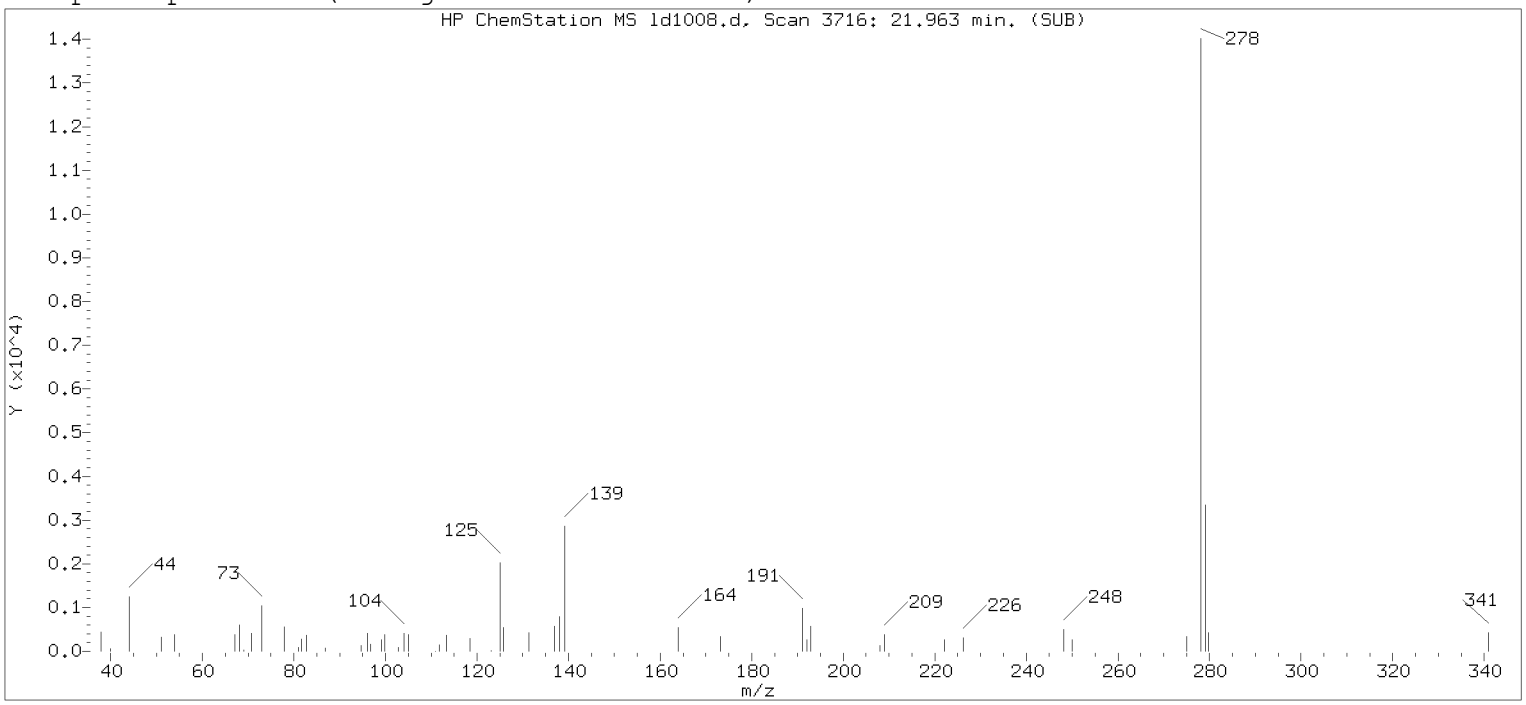
Compound Number : 225
Compound Name : Dibenz(a,h)anthracene
Scan Number : 3716
Retention Time (minutes) : 21.963
Quant Ion : 278.00
Area (flag) : 25348M
On-Column Amount (ng/ul) : 0.2122
Integration start scan : 3709 Integration stop scan: 3725
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

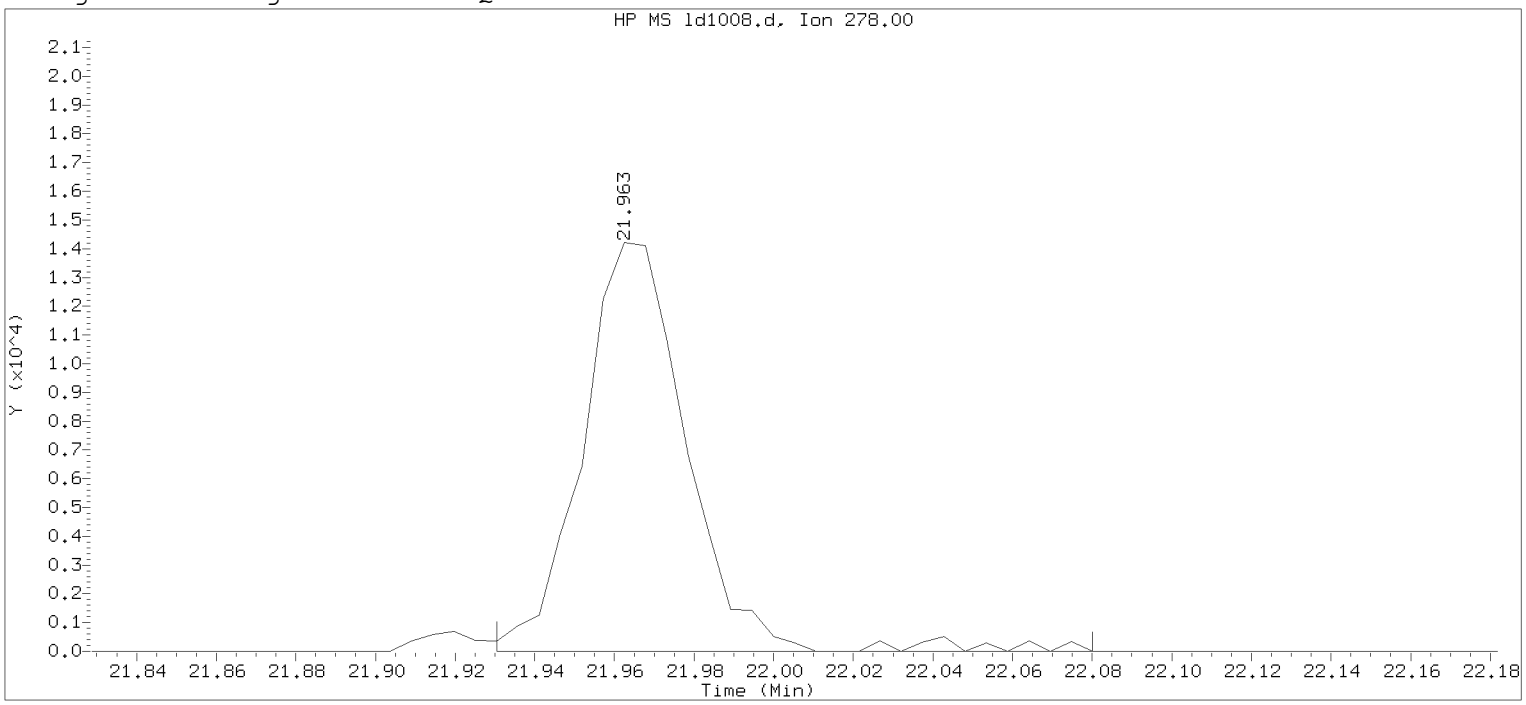
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



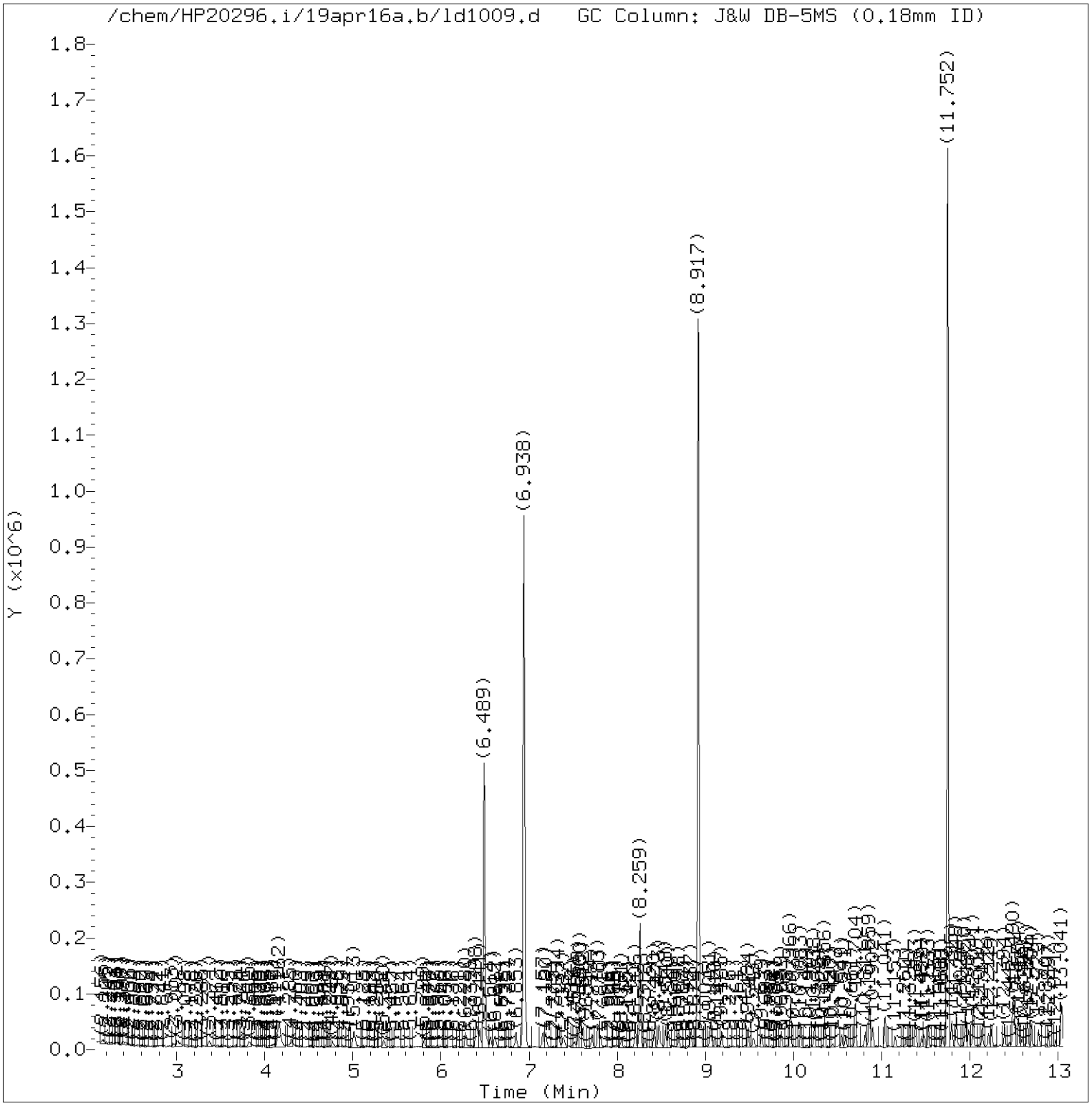
Data File: /chem/HP20296.i/19apr16a.b/ld1008.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 19:38 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: all1
Calibration date and time: 16-APR-2019 20:10
Date, time and analyst ID of latest file update: 16-Apr-2019 20:10 chemist

Sample Name: SSTD0.25 Lab Sample ID: rvSTD0929

Compound Number : 225
Compound Name : Dibenz(a,h)anthracene
Scan Number : 3716
Retention Time (minutes) : 21.963
Quant Ion : 278.00
Area : 25984
On-column Amount (ng/ul) : 0.2047
Integration start scan : 3709 Integration stop scan: 3737
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:48.
Target 3.5 esignature user ID: ART2405



Total Ion Chromatogram (TIC)

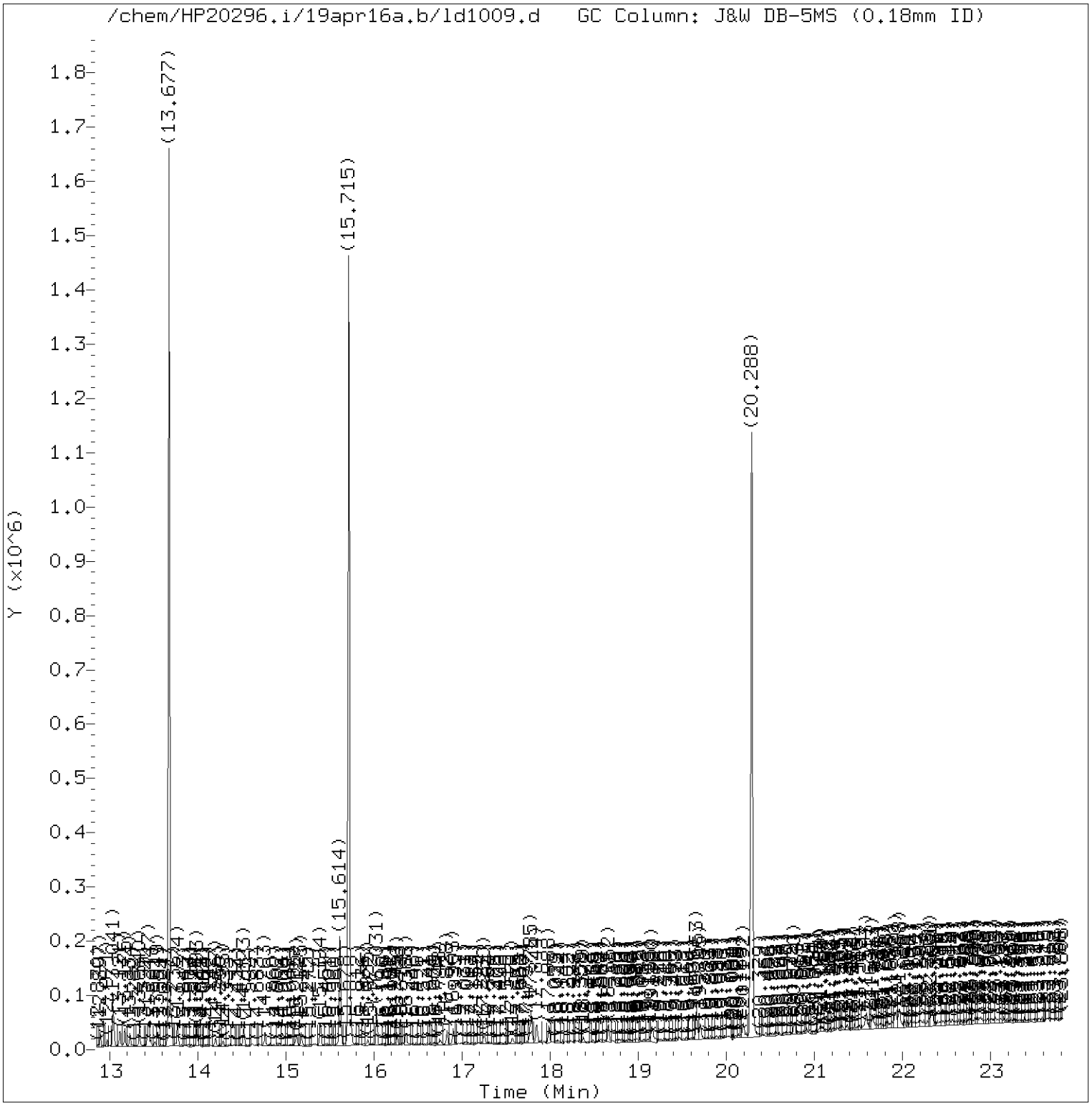
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.408	88	3874	0.140
5) N-Nitrosodimethylamine	(1)	2.975	74	5602M	0.130
6) Pyridine	(1)	3.012	79	10819	0.142
8) 2-Picoline	(1)	4.146	93	9115M	0.120
9) N-Nitrosomethylethylamine	(1)	4.323	88	3546M	0.114
10) Methyl methanesulfonate	(1)	4.772	80	5168	0.135
12)$2-Fluorophenol	(1)	5.007	112	13020	0.214
14) N-Nitrosodiethylamine	(1)	5.350	102	4110	0.138
43) Total Cresols	(1)			15462	0.247
16) Ethyl methanesulfonate	(1)	5.815	109	4024	0.127
17) Benzaldehyde	(1)	6.275	77	8760	0.156
18)$Phenol-d6	(1)	6.398	99	20407	0.252
19) Phenol	(1)	6.419	94	11137	0.117
20) Aniline	(1)	6.441	93	14094	0.128
21) a-methylstyrene	(1)	6.537	118	1553M	0.145
23) bis(2-Chloroethyl)ether	(1)	6.564	93	8880	0.125
24) 2-Chlorophenol	(1)	6.607	128	6675	0.116
25) 1,3-Dichlorobenzene	(1)	6.847	146	6997	0.112
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	189755	5.000
27) 1,4-Dichlorobenzene	(1)	6.970	146	7746	0.122
28) Benzyl alcohol	(1)	7.157	108	4503	0.115
29) 1,2-Dichlorobenzene	(1)	7.179	146	7855	0.132
31) Indene	(1)	7.329	115	8793	0.115
32) 2-Methylphenol	(1)	7.339	108	7007	0.119
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	11570	0.129
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	11570	0.129
100) Isosafrole	(3)			4870	0.105
36) N-Nitrosopyrrolidine	(1)	7.505	100	3114	0.099
37) Acetophenone	(1)	7.559	105	13531	0.149
39) N-Nitroso-di-n-propylamine	(1)	7.580	70	6413	0.125
40) N-Nitrosomorpholine	(1)	7.580	56	5788	0.153
38) 4-Methylphenol	(1)	7.585	108	8455	0.128
41) o-Toluidine	(1)	7.612	106	12896	0.125
44) Hexachloroethane	(1)	7.714	117	3865	0.137
45)$Nitrobenzene-d5	(2)	7.783	82	18009	0.253
46) Nitrobenzene	(2)	7.810	77	9482	0.126
50) N-Nitrosopiperidine	(2)	8.040	114	3319	0.118
125) 2,4_2,6-Dinitrotoluenes	(3)			5089	0.194
52) Isophorone	(2)	8.200	82	15963	0.122
53) 2-Nitrophenol	(2)	8.313	139	2777	0.104

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.420	107	8871	0.143
58) Benzoic acid	(2)	8.473	105	15456M	0.355
59) O,O,O-Triethylphosphorothioate	(2)	8.548	198	3083	0.126
57) bis(2-Chloroethoxy)methane	(2)	8.580	93	10518	0.127
62) 2,4-Dichlorophenol	(2)	8.693	162	4969	0.113
151) Diallate trans/cis	(4)			7302	0.128
65) 1,2,4-Trichlorobenzene	(2)	8.837	180	6943	0.142
68)*Naphthalene-d8	(2)	8.917	136	718895	5.000
70) 4-Chloroaniline	(2)	9.051	127	8352	0.124
71) 2,6-Dichlorophenol	(2)	9.067	162	5357	0.124
72) Hexachloropropene	(2)	9.104	213	3432	0.116
74) Hexachlorobutadiene	(2)	9.179	225	2837	0.105
78) Quinoline	(2)	9.484	129	12081	0.127
79) Caprolactam	(2)	9.554	113	2833	0.201
80) N-Nitrosodi-n-butylamine	(2)	9.634	84	5828	0.119
83) 4-Chloro-3-methylphenol	(2)	9.859	107	6115	0.113
85) Safrole	(2)	9.966	162	4313	0.112
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	5633	0.119
88) Hexachlorocyclopentadiene	(3)	10.356	237	3182	0.117
91) cis-Isosafrole	(3)	10.447	162	722	0.017
93) 2,4,6-Trichlorophenol	(3)	10.549	196	3633	0.118
95) 2,4,5-Trichlorophenol	(3)	10.597	196	4185	0.129
96)$2-Fluorobiphenyl	(3)	10.704	172	27234	0.250
97) trans-Isosafrole	(3)	10.811	162	4148	0.088
98) 1,1'-Biphenyl	(3)	10.859	154	17069	0.142
101) 1-Chloronaphthalene	(3)	10.902	162	10716	0.120
104) 2-Nitroaniline	(3)	11.035	138	2449	0.084
103) Diphenyl ether	(3)	11.041	170	7336	0.116
108) 1,4-Naphthoquinone	(3)	11.158	158	3576	0.094
109) 1,4-Dinitrobenzene	(3)	11.287	168	1200M	0.084
110) Dimethylphthalate	(3)	11.383	163	13625	0.133
111) 1,3-Dinitrobenzene	(3)	11.394	168	1303	0.084
113) 2,6-Dinitrotoluene	(3)	11.458	165	2262	0.101
117) 3-Nitroaniline	(3)	11.693	138	2344	0.092
118)*Acenaphthene-d10	(3)	11.752	164	339276	5.000
120) 2,4-Dinitrophenol	(3)	11.848	184	6086	0.469
121) 4-Nitrophenol	(3)	11.950	109	7686	0.403
122) Pentachlorobenzene	(3)	11.993	250	5471	0.139
123) 2,4-Dinitrotoluene	(3)	12.041	165	2827	0.093
124) Dibenzofuran	(3)	12.041	168	18020	0.137

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
126) 1-Naphthylamine	(3)	12.142	143	11267	0.117
127) 2,3,4,6-Tetrachlorophenol	(3)	12.212	232	1843	0.078
128) 2-Naphthylamine	(3)	12.249	143	10867	0.116
129) Diethylphthalate	(3)	12.394	149	12505	0.122
130) Thionazin	(3)	12.490	107	2205	0.105
134) 4-Nitroaniline	(3)	12.501	138	2550	0.094
133) 5-Nitro-o-toluidine	(3)	12.501	152	2994	0.107
132) 4-Chlorophenyl-phenylether	(3)	12.511	204	6232	0.126
135) 4,6-Dinitro-2-methylphenol	(4)	12.554	198	5041	0.302
136) N-Nitrosodiphenylamine	(4)	12.656	169	9472	0.114
137) NDPA as diphenylamine	(4)	12.656	169	9472	0.114
139) 1,2-Diphenylhydrazine	(4)	12.704	77	16366	0.116
140)$2,4,6-Tribromophenol	(3)	12.779	330	2753	0.201
142) Tetraethyldithiopyrophosphate	(4)	12.891	97	2684	0.124
144) 1,3,5-Trinitrobenzene	(4)	12.977	213	328M	0.033
145) Diallate (peak 1)	(4)	13.036	86	6384	0.109
147) Phenacetin	(4)	13.046	108	6609	0.109
146) Phorate	(4)	13.046	75	8299	0.099
148) 4-Bromophenyl-phenylether	(4)	13.121	248	3381	0.125
149) Diallate (peak 2)	(4)	13.148	86	918	0.019
152) Dimethoate	(4)	13.234	87	5035	0.092
153) Atrazine	(4)	13.346	200	2874	0.115
154) Pentachlorophenol	(4)	13.431	266	1593	0.083
155) 4-Aminobiphenyl	(4)	13.447	169	10538	0.109
156) Pentachloronitrobenzene	(4)	13.447	237	1189M	0.095
157) Pronamide	(4)	13.544	173	4192	0.095
158)*Phenanthrene-d10	(4)	13.677	188	623855	5.000
159) Dinoseb	(4)	13.699	211	1602M	0.065
168) Carbazole	(4)	13.993	167	14156	0.106
169) Methyl parathion	(4)	14.202	109	3046	0.077
170) Di-n-butylphthalate	(4)	14.523	149	17856	0.098
172) Parathion	(4)	14.763	109	1908	0.075
173) 4-Nitroquinoline-1-oxide	(4)	14.763	190	655	2.132
174) Octachlorostyrene	(4)	15.127	308	1540M	0.139
176) Isodrin	(4)	15.180	193	2821	0.161
179) Benzidine	(5)	15.614	184	84378	0.813
180)*Pyrene-d10	(5)	15.715	212	602470	5.000
184)$Terphenyl-d14	(5)	16.031	244	25335	0.257
187) p-Dimethylaminoazobenzene	(5)	16.272	225	1714M	0.065
190) Chlorobenzilate	(5)	16.357	139	4327	0.082

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

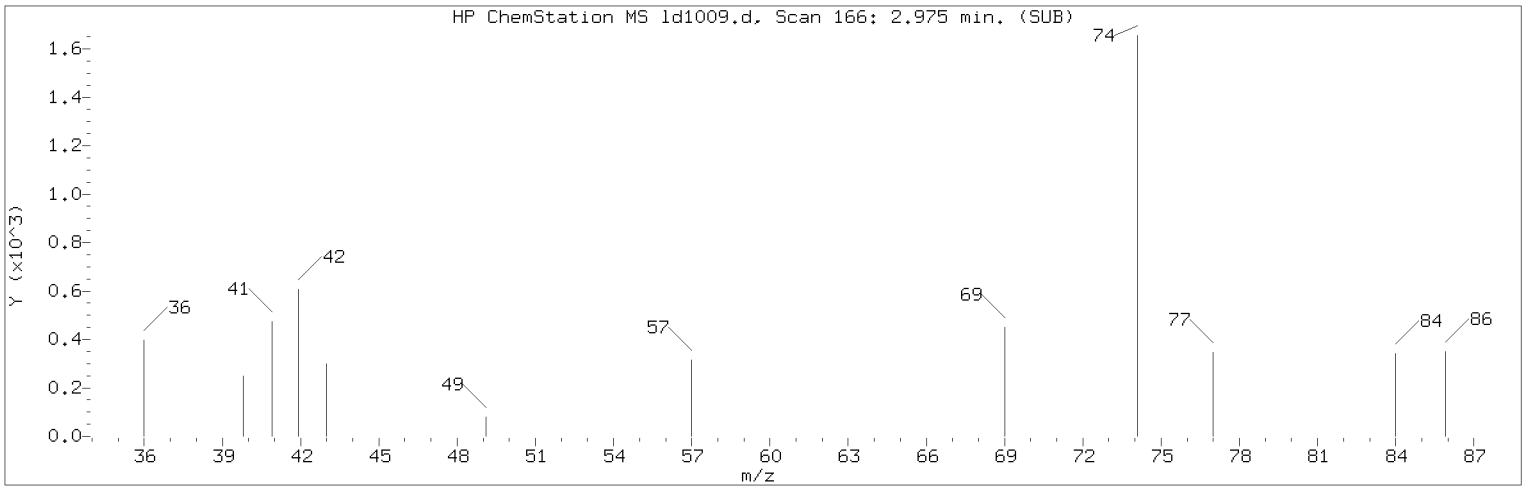
Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
192) 3,3'-Dimethylbenzidine	(5)	16.828	212	8611	0.081
193) Butylbenzylphthalate	(5)	16.903	149	6158	0.076
196) 2-Acetylaminofluorene	(5)	17.250	181	4579	0.069
198) 3,3'-Dichlorobenzidine	(5)	17.780	252	4585	0.083
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.791	231	2311	0.075
204) bis(2-Ethylhexyl)phthalate	(5)	17.988	149	8683	0.074
208) 6-Methylchrysene	(5)	18.662	242	10217	0.103
210) Di-n-octylphthalate	(6)	19.165	149	12398	0.066
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.668	256	5133	0.090
218)*Perylene-d12	(6)	20.288	264	541651	5.000
220) 3-Methylcholanthrene	(6)	20.775	268	5000	0.078
222) Dibenz(a,h)acridine	(6)	21.593	279	10968	0.101
223) Dibenz(a,j)acridine	(6)	21.663	279	10062	0.093

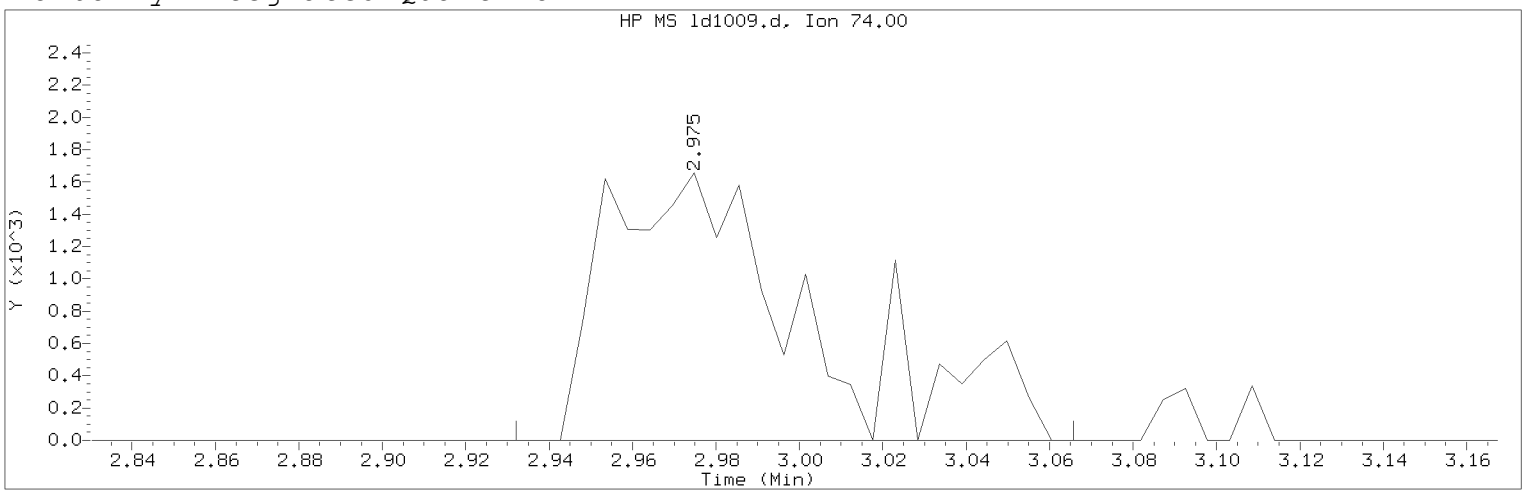
* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

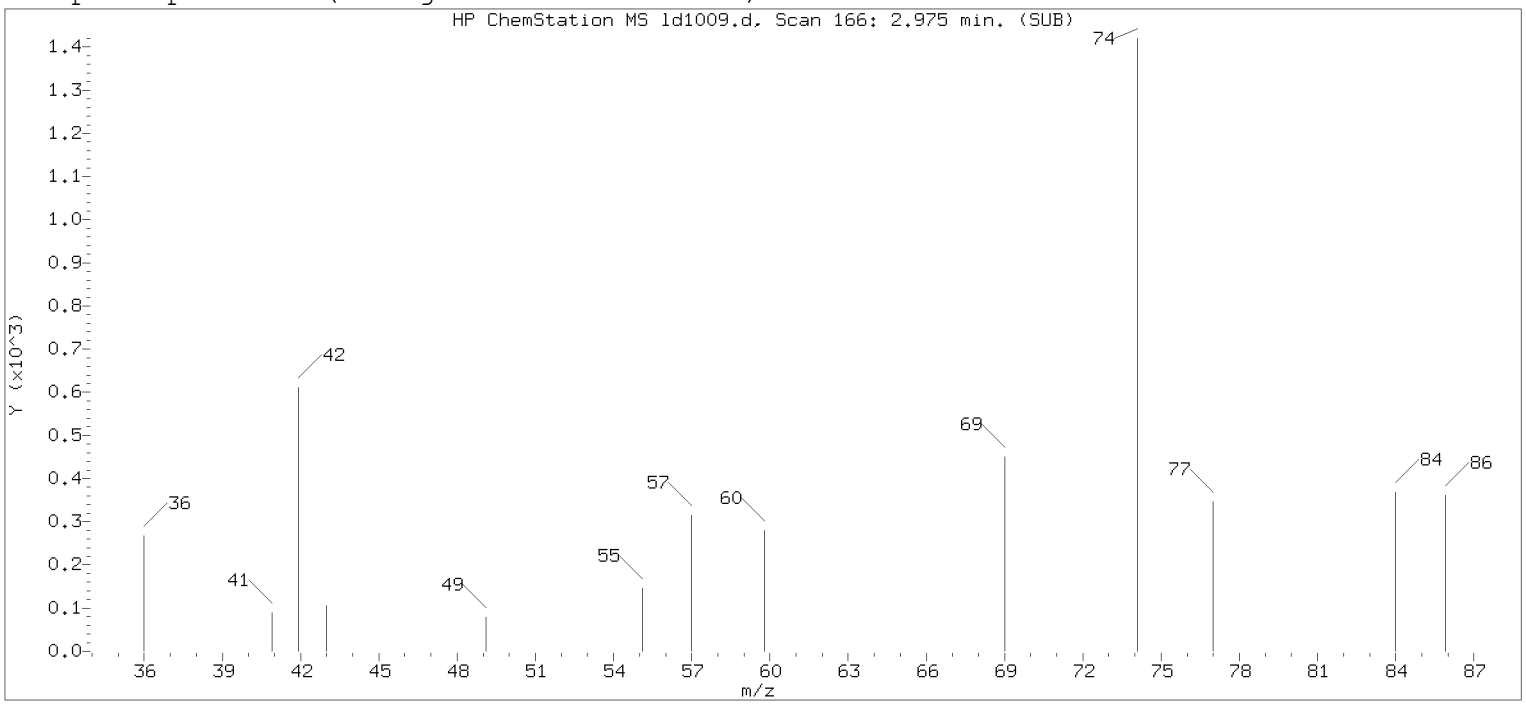
Compound Number : 5
Compound Name : N-Nitrosodimethylamine
Scan Number : 166
Retention Time (minutes) : 2.975
Quant Ion : 74.00
Area (flag) : 5602M
On-Column Amount (ng/ul) : 0.1297
Integration start scan : 157 Integration stop scan: 182
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

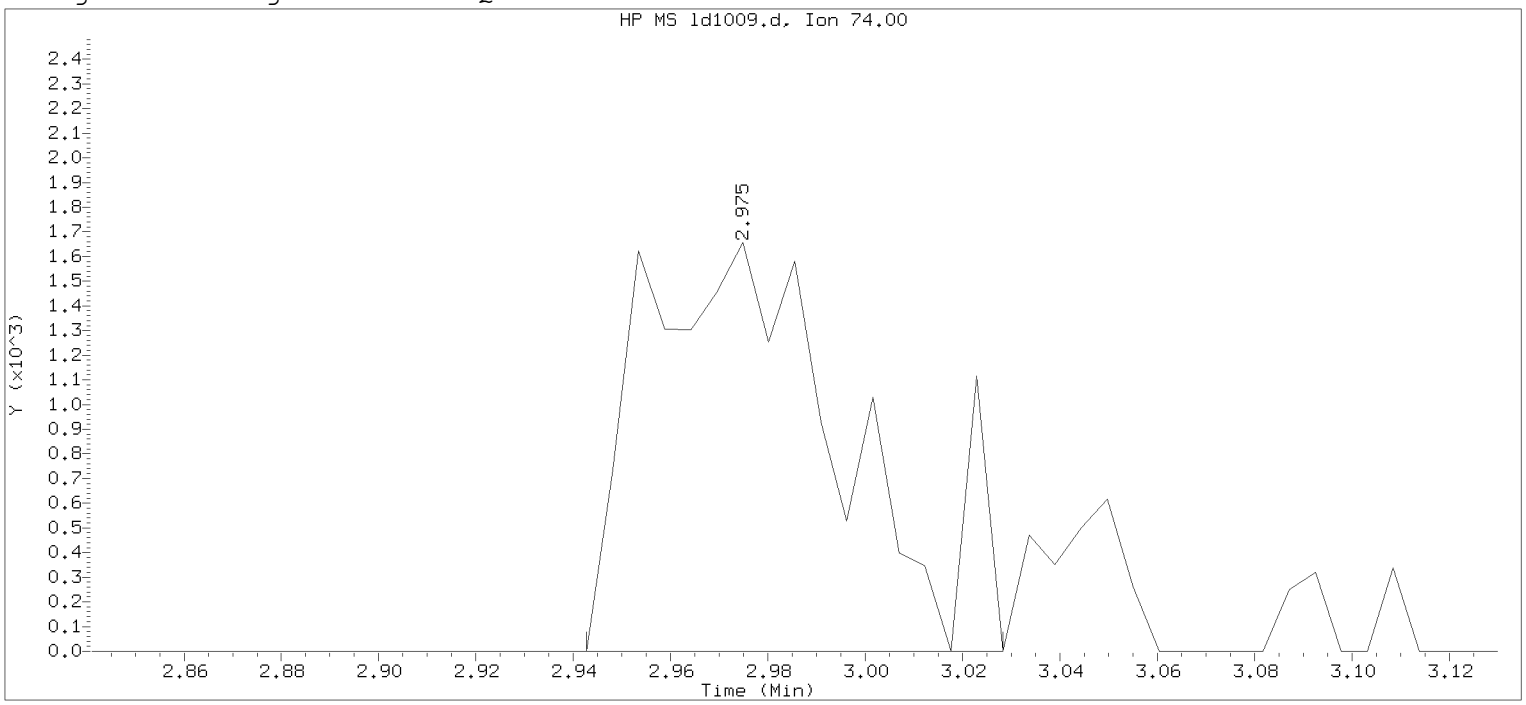
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

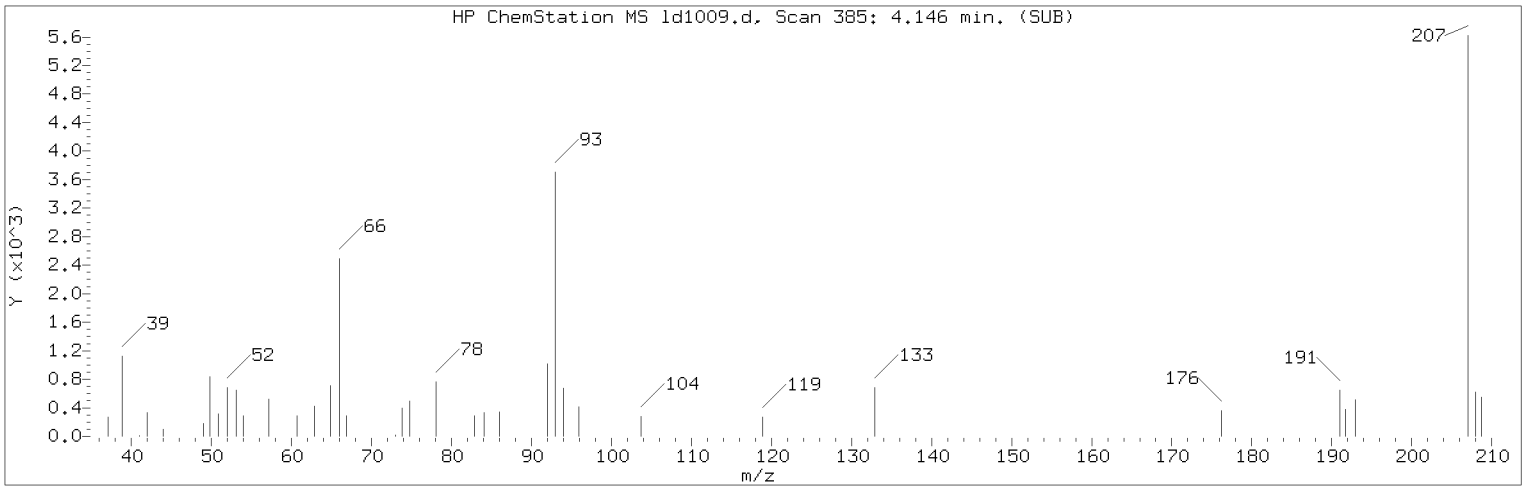
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

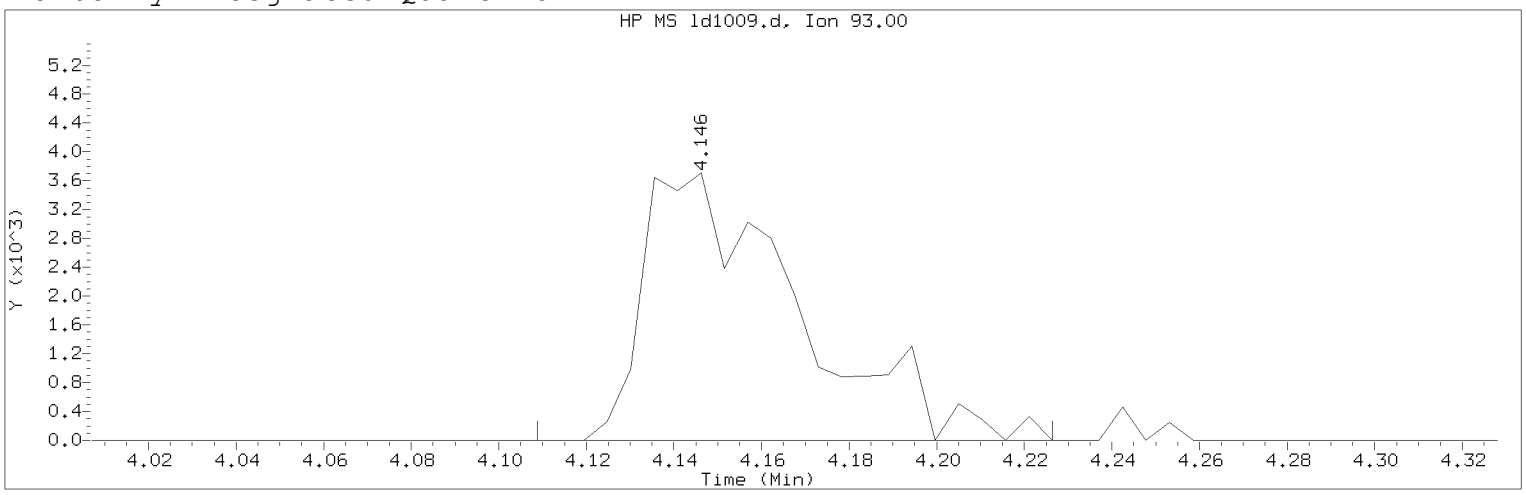
Compound Number : 5
Compound Name : N-Nitrosodimethylamine
Scan Number : 166
Retention Time (minutes) : 2.975
Quant Ion : 74.00
Area : 4897
On-column Amount (ng/ul) : 0.1187
Integration start scan : 159 Integration stop scan: 175
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used. F35 Page 1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

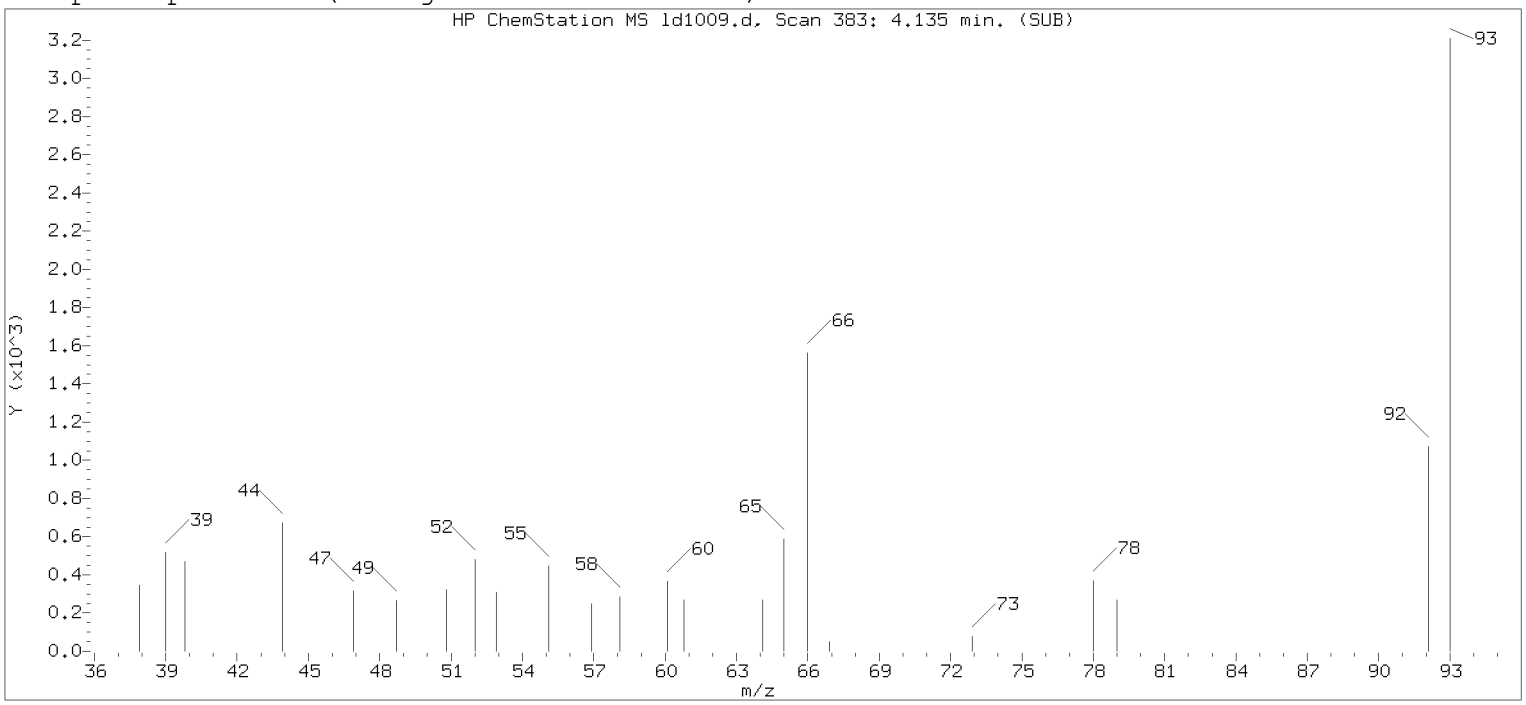
Compound Number : 8
Compound Name : 2-Picoline
Scan Number : 385
Retention Time (minutes) : 4.146
Quant Ion : 93.00
Area (flag) : 9115M
On-Column Amount (ng/ul) : 0.1198
Integration start scan : 377 Integration stop scan: 399
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

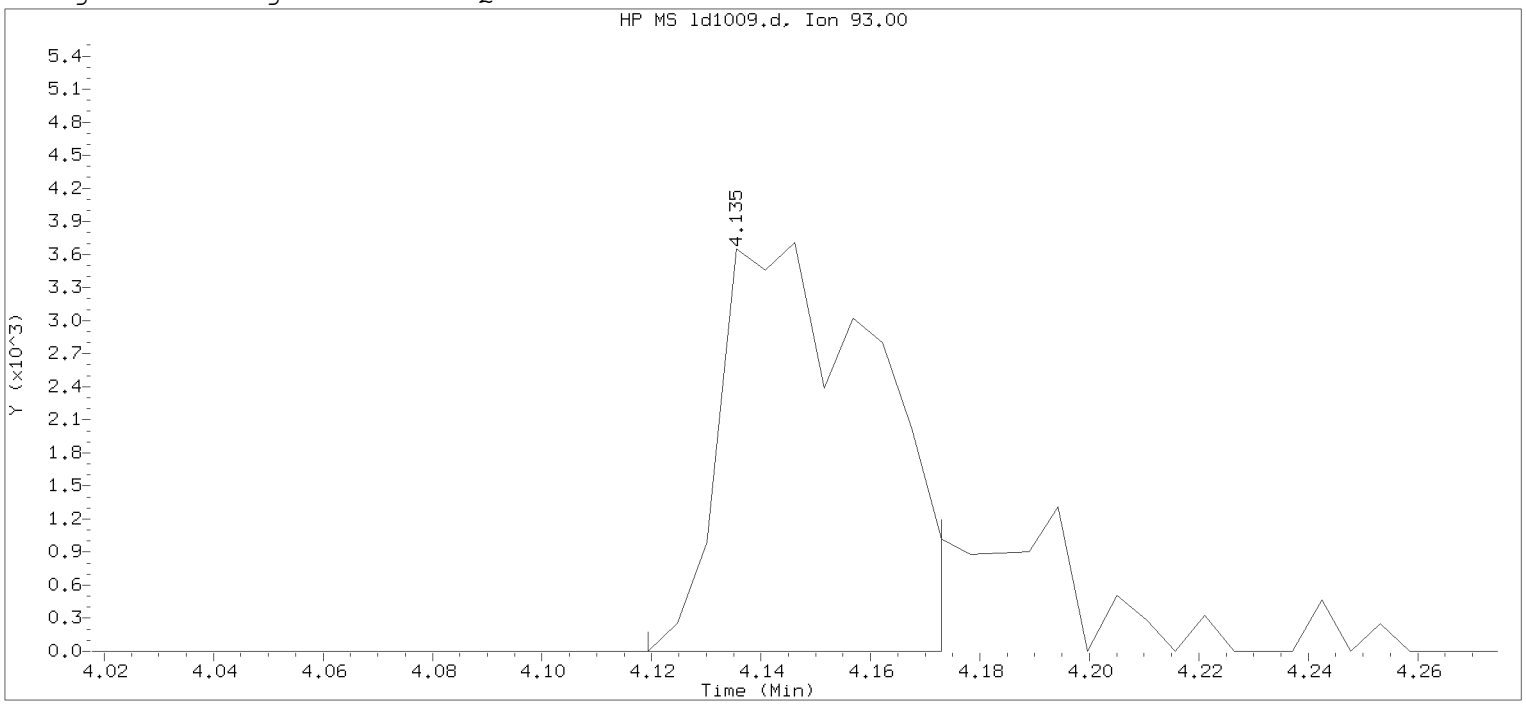
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

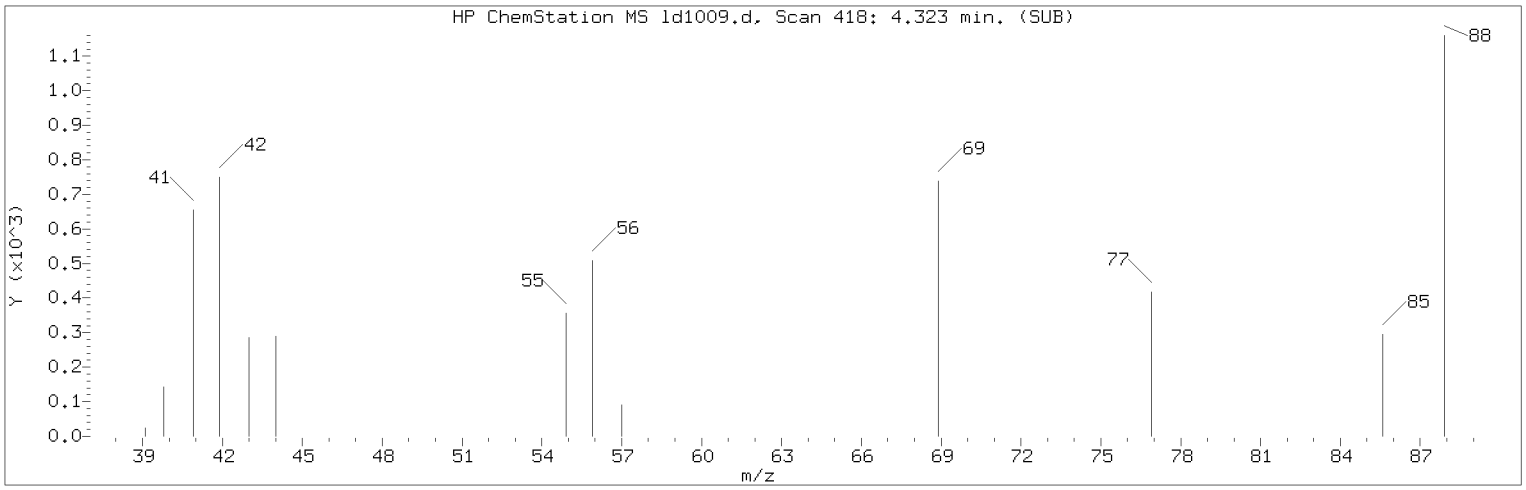
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

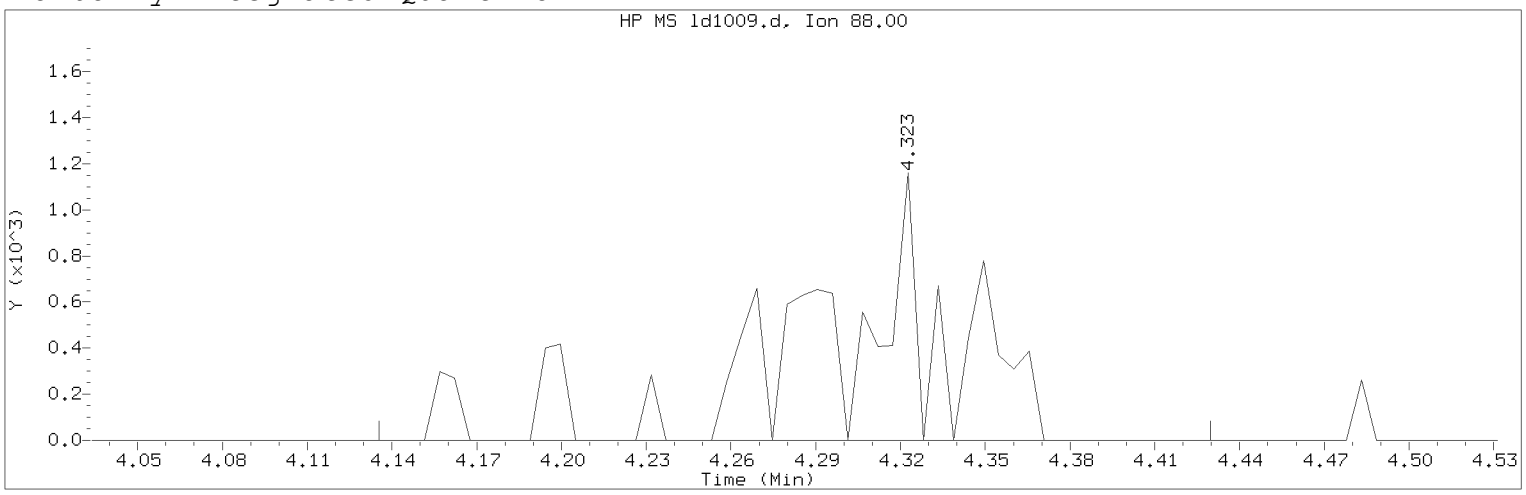
Compound Number	: 8		
Compound Name	: 2-Picoline		
Scan Number	: 383		
Retention Time (minutes)	: 4.135		
Quant Ion	: 93.00		
Area	: 7313		
On-column Amount (ng/ul)	: 0.0969		
Integration start scan	: 379	Integration stop scan:	389
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

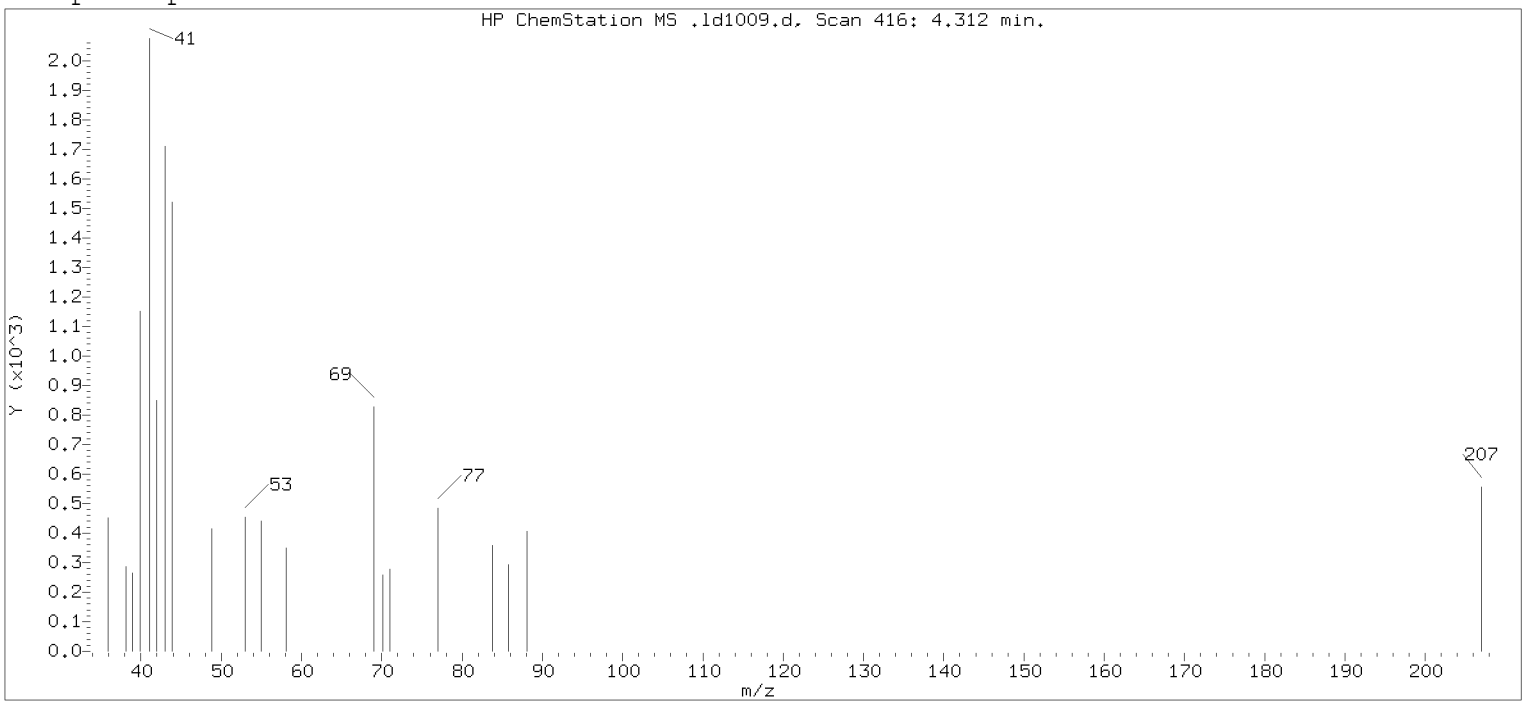
Compound Number : 9
Compound Name : N-Nitrosomethylethylamine
Scan Number : 418
Retention Time (minutes) : 4.323
Quant Ion : 88.00
Area (flag) : 3546M
On-Column Amount (ng/ul) : 0.1143
Integration start scan : 382 Integration stop scan: 437
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

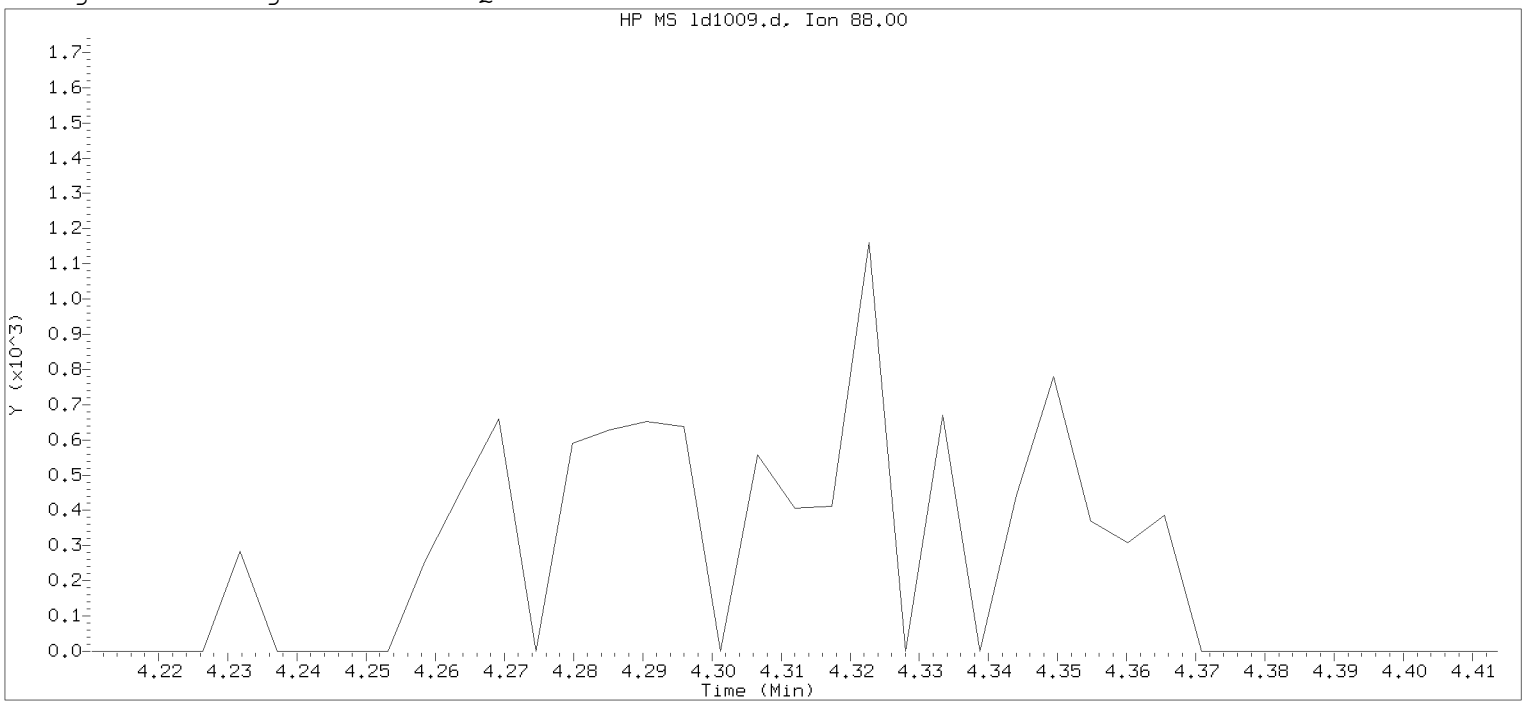
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

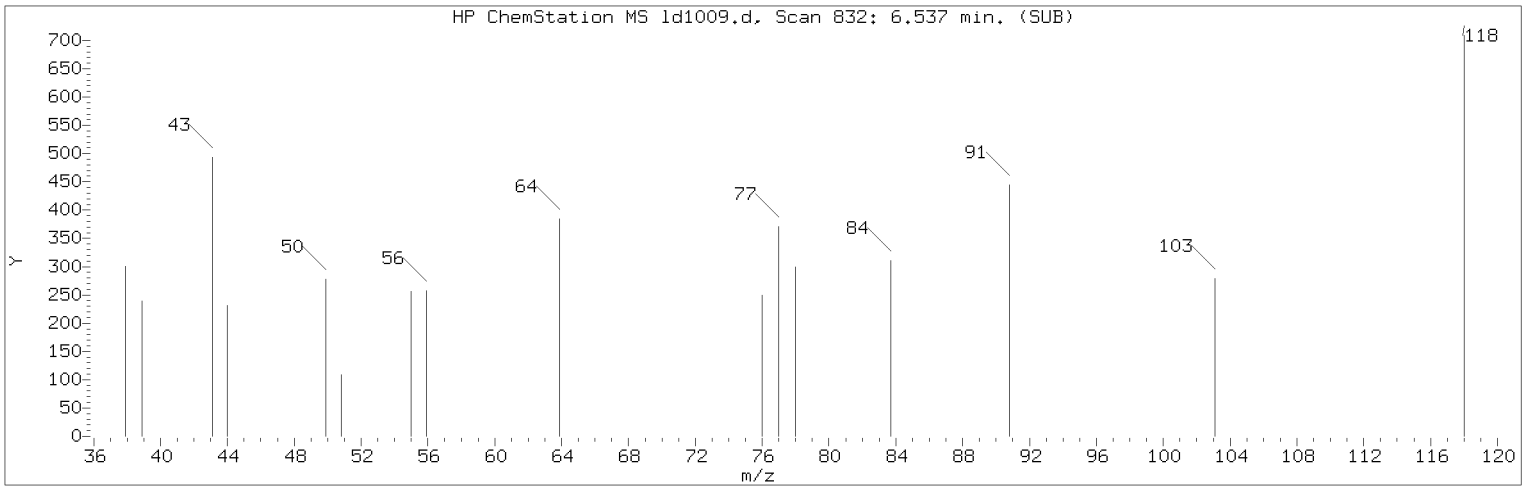
Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number : 9
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 4.312
Quant Ion : 88.00

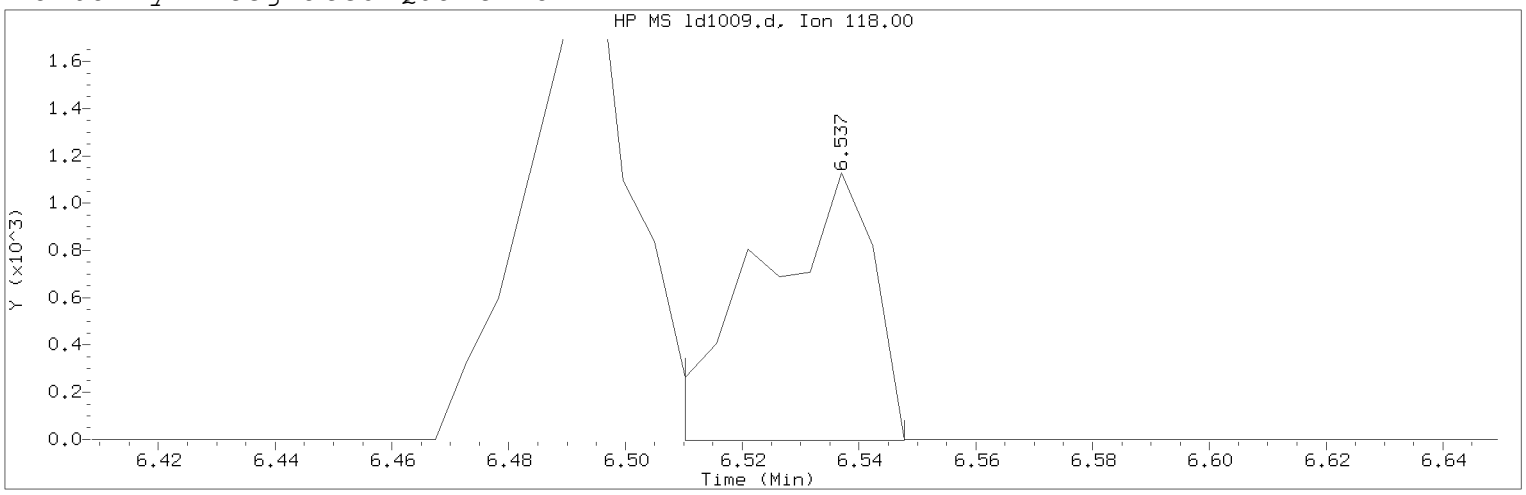
Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used. Page 1999 of 2326

RAF35

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

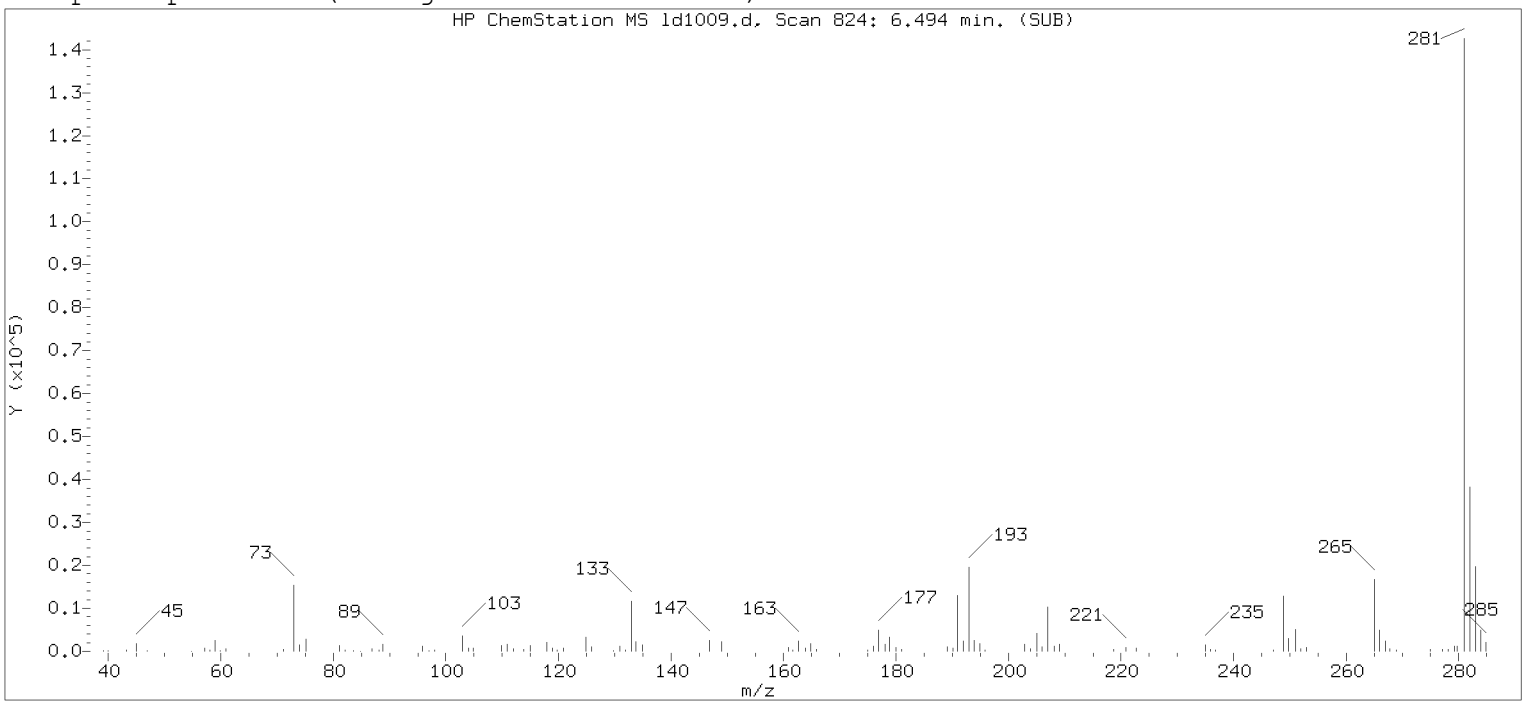
Compound Number : 21
Compound Name : a-methylstyrene
Scan Number : 832
Retention Time (minutes) : 6.537
Quant Ion : 118.00
Area (flag) : 1553M
On-Column Amount (ng/ul) : 0.1451
Integration start scan : 826 Integration stop scan: 833
Y at integration start : -3 Y at integration end: -3

Reason for manual integration: improper integration

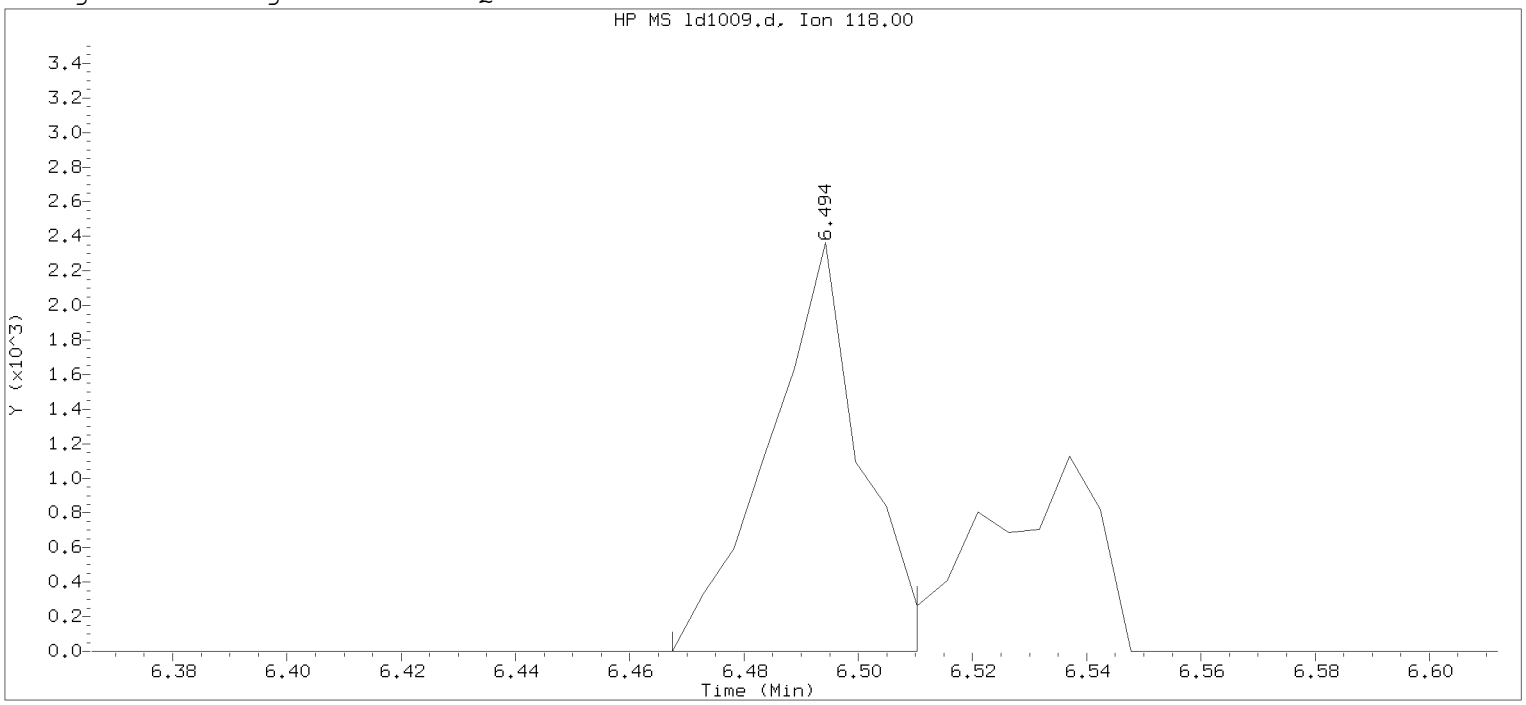
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

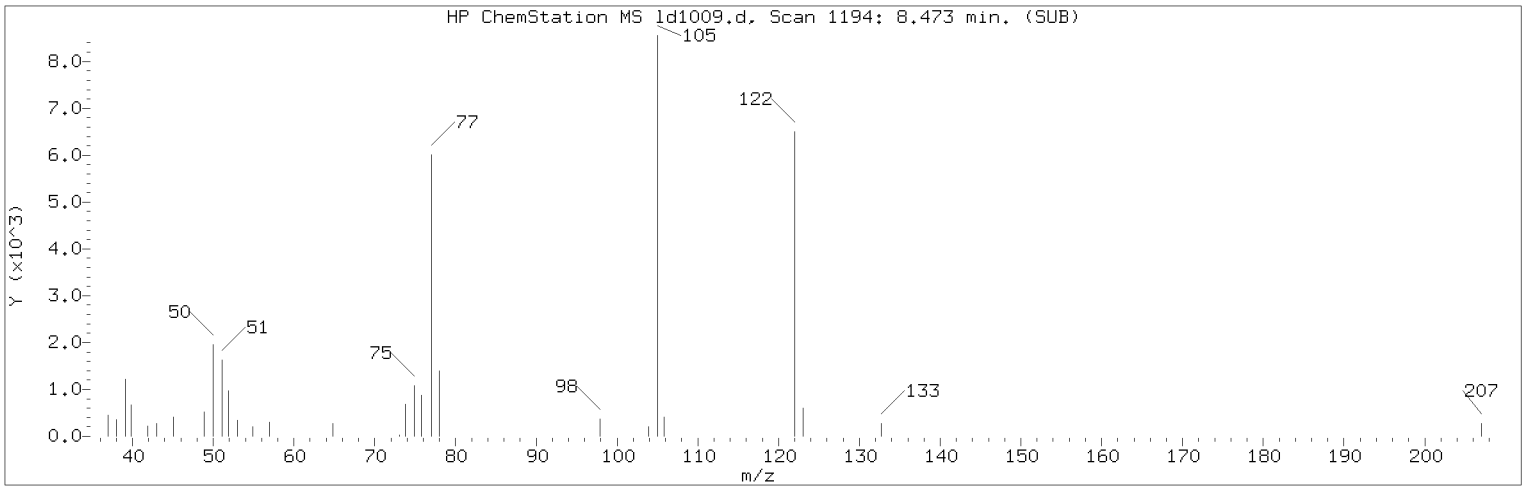
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

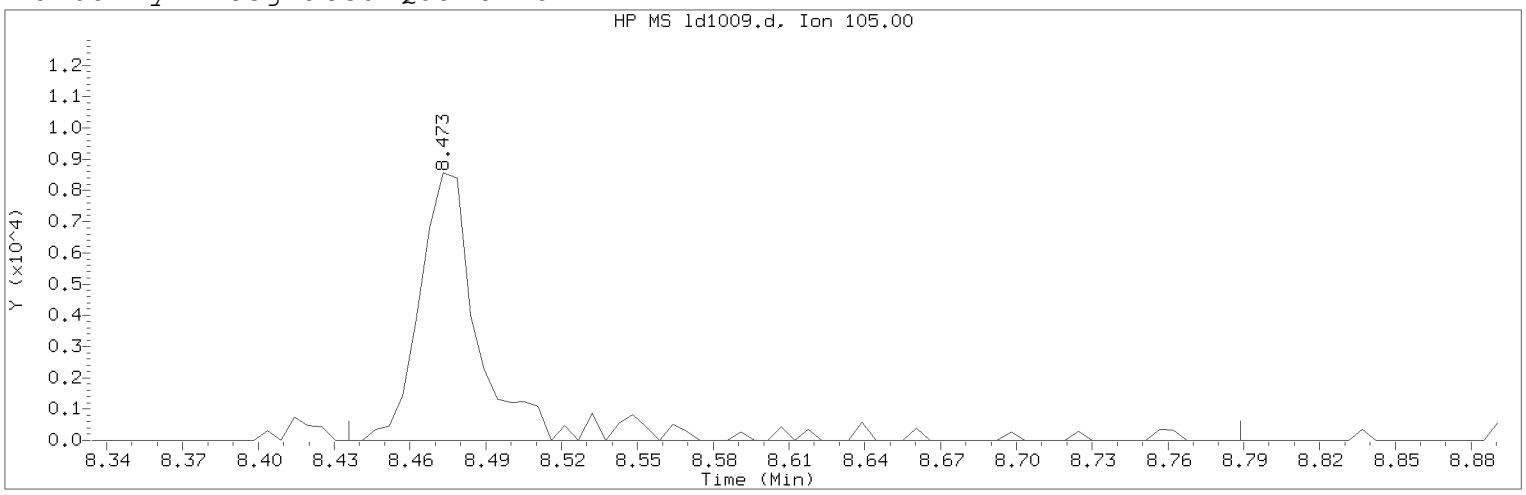
Compound Number	: 21		
Compound Name	: a-methylstyrene		
Scan Number	: 824		
Retention Time (minutes)	: 6.494		
Quant Ion	: 118.00		
Area	: 2604		
On-column Amount (ng/ul)	: 0.2237		
Integration start scan	: 818	Integration stop scan:	826
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature user: Ashley R. Transue

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

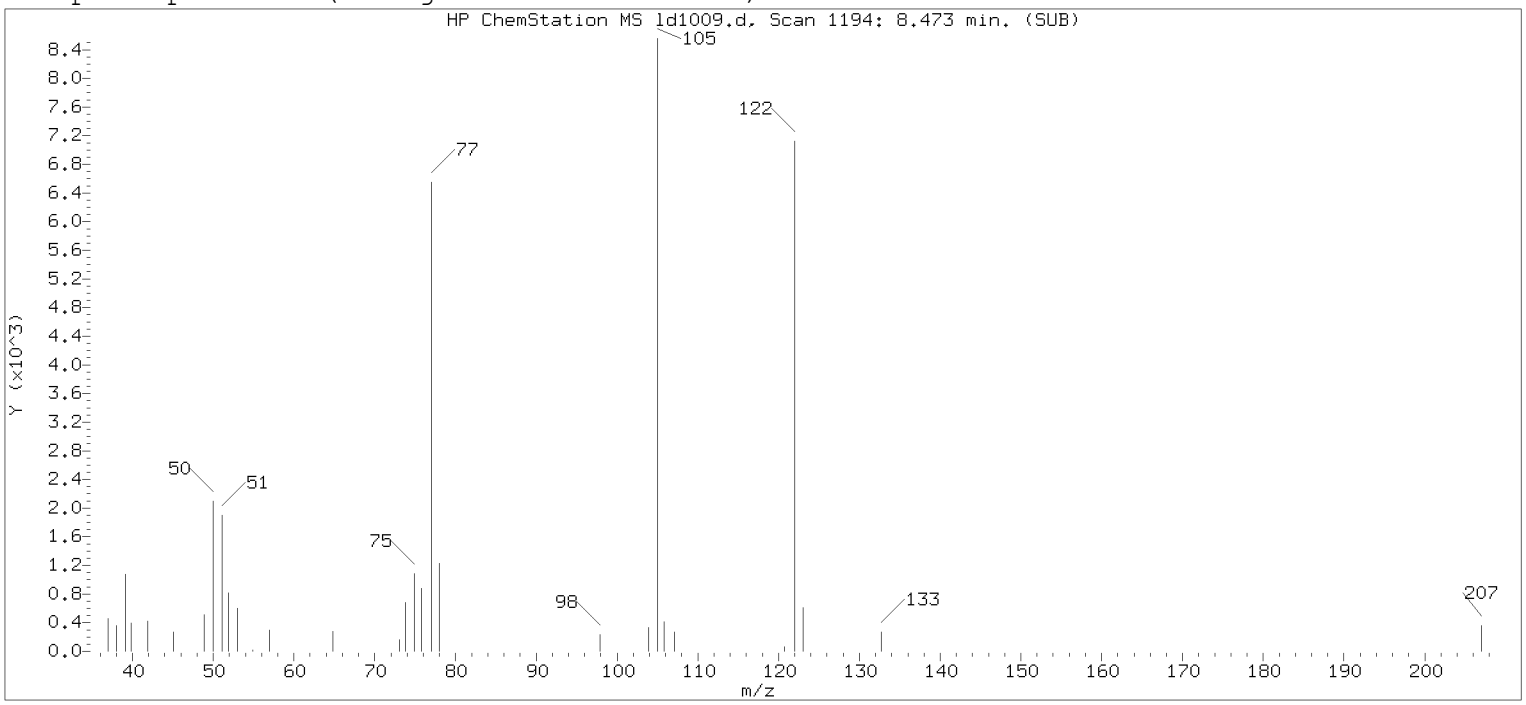
Compound Number : 58
Compound Name : Benzoic acid
Scan Number : 1194
Retention Time (minutes) : 8.473
Quant Ion : 105.00
Area (flag) : 15456M
On-Column Amount (ng/ul) : 0.3552
Integration start scan : 1186 Integration stop scan: 1252
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

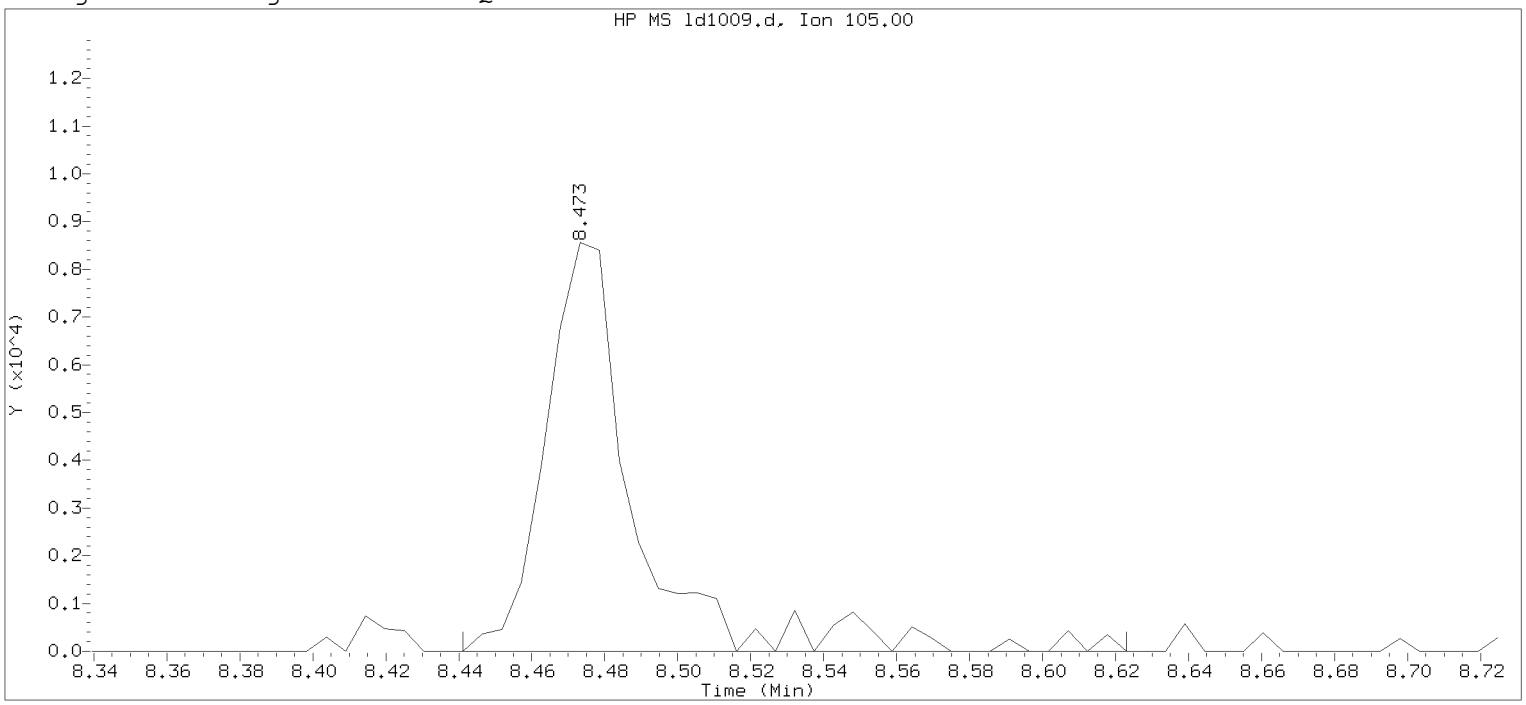
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

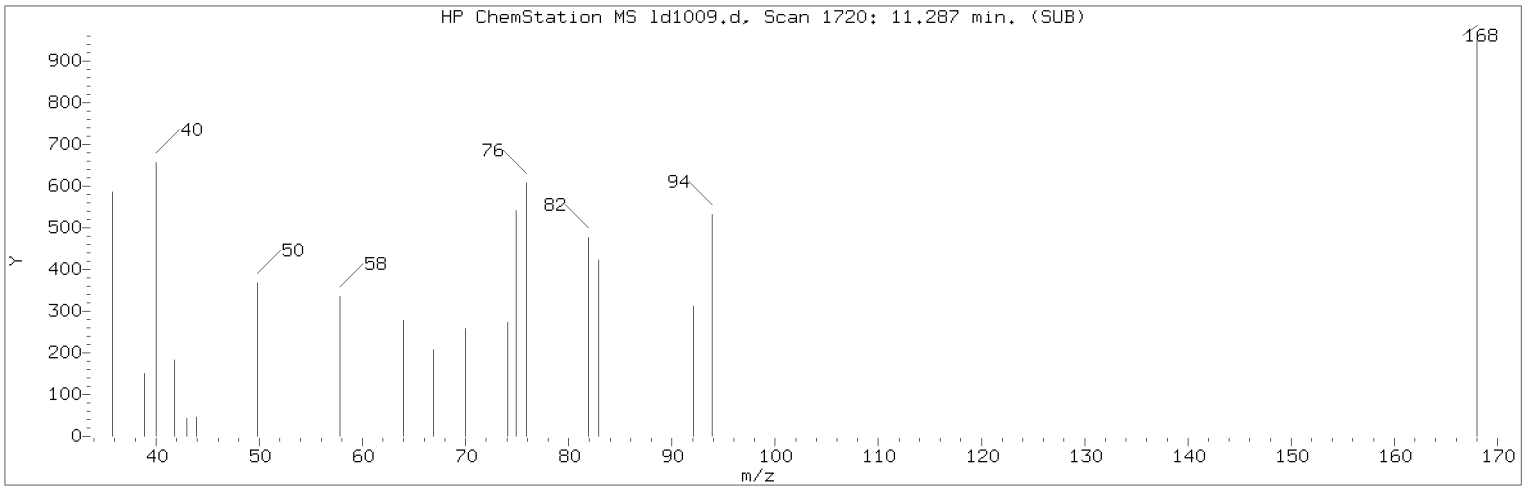
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

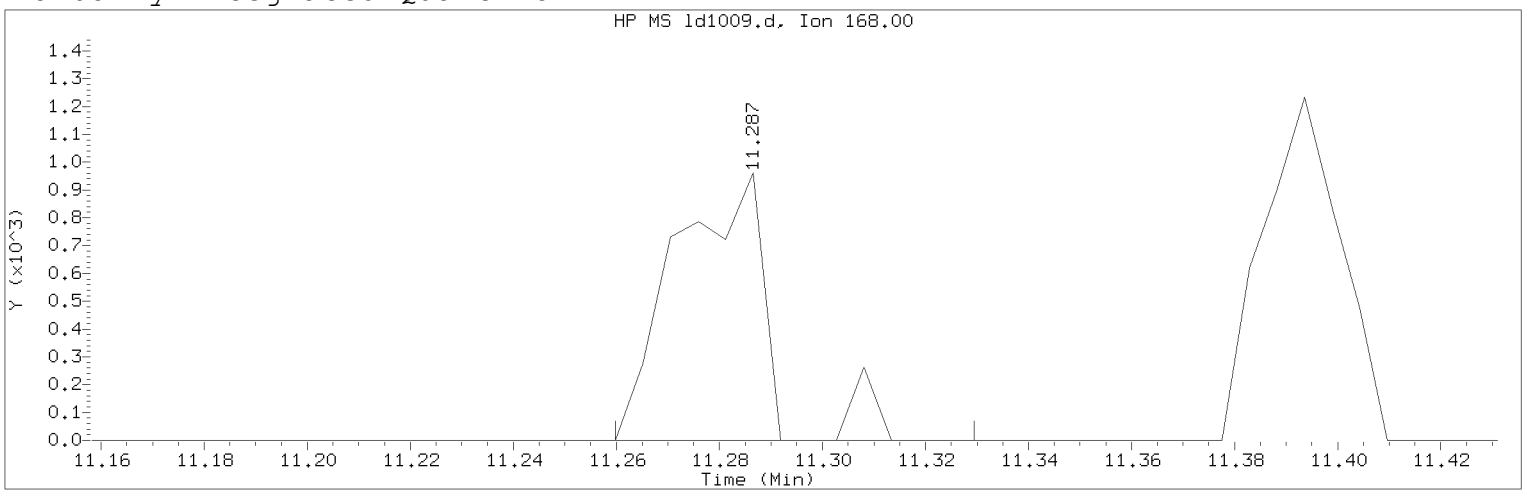
Compound Number	: 58		
Compound Name	: Benzoic acid		
Scan Number	: 1194		
Retention Time (minutes)	: 8.473		
Quant Ion	: 105.00		
Area	: 14748		
On-column Amount (ng/ul)	: 0.3448		
Integration start scan	: 1187	Integration stop scan:	1221
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature user: F35 Page 2003

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

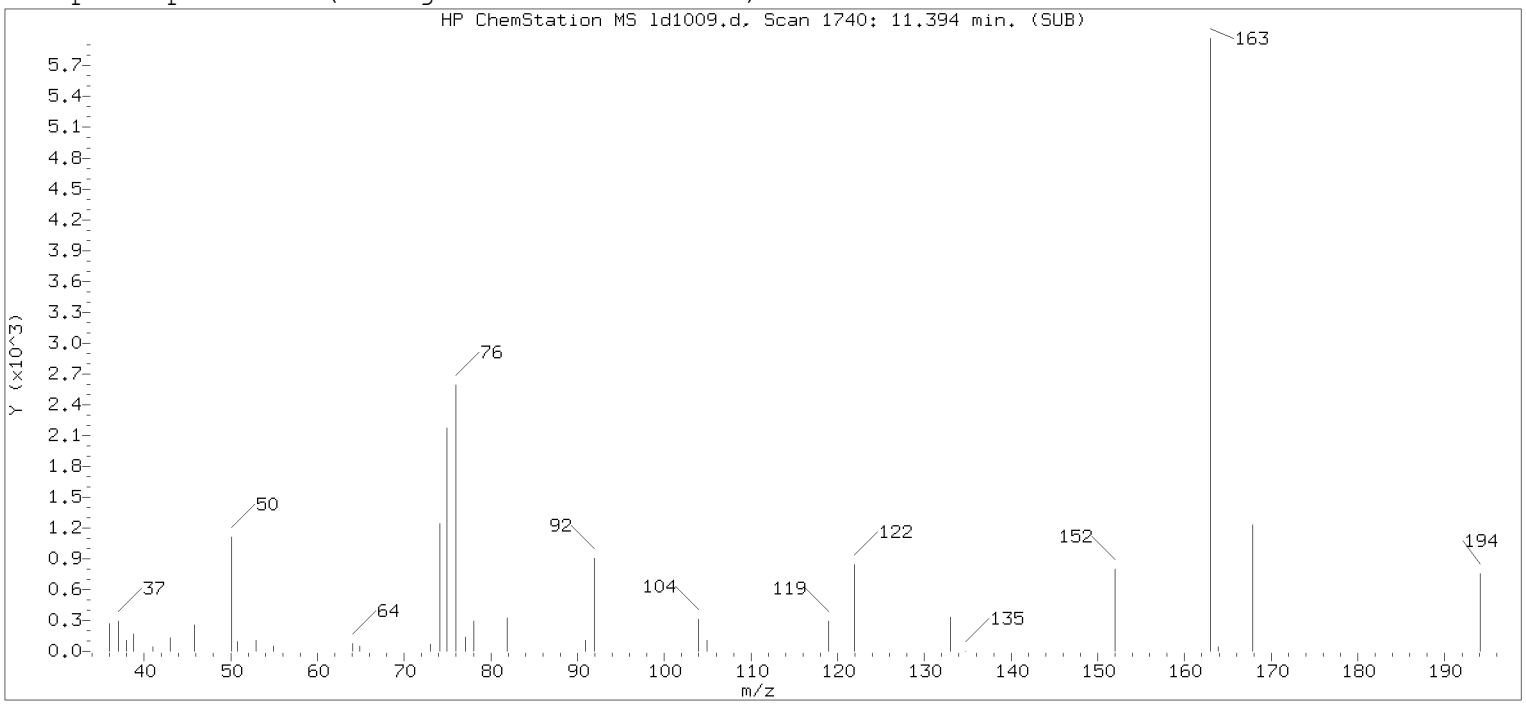
Compound Number : 109
Compound Name : 1,4-Dinitrobenzene
Scan Number : 1720
Retention Time (minutes) : 11.287
Quant Ion : 168.00
Area (flag) : 1200M
On-Column Amount (ng/ul) : 0.0841
Integration start scan : 1714 Integration stop scan: 1727
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

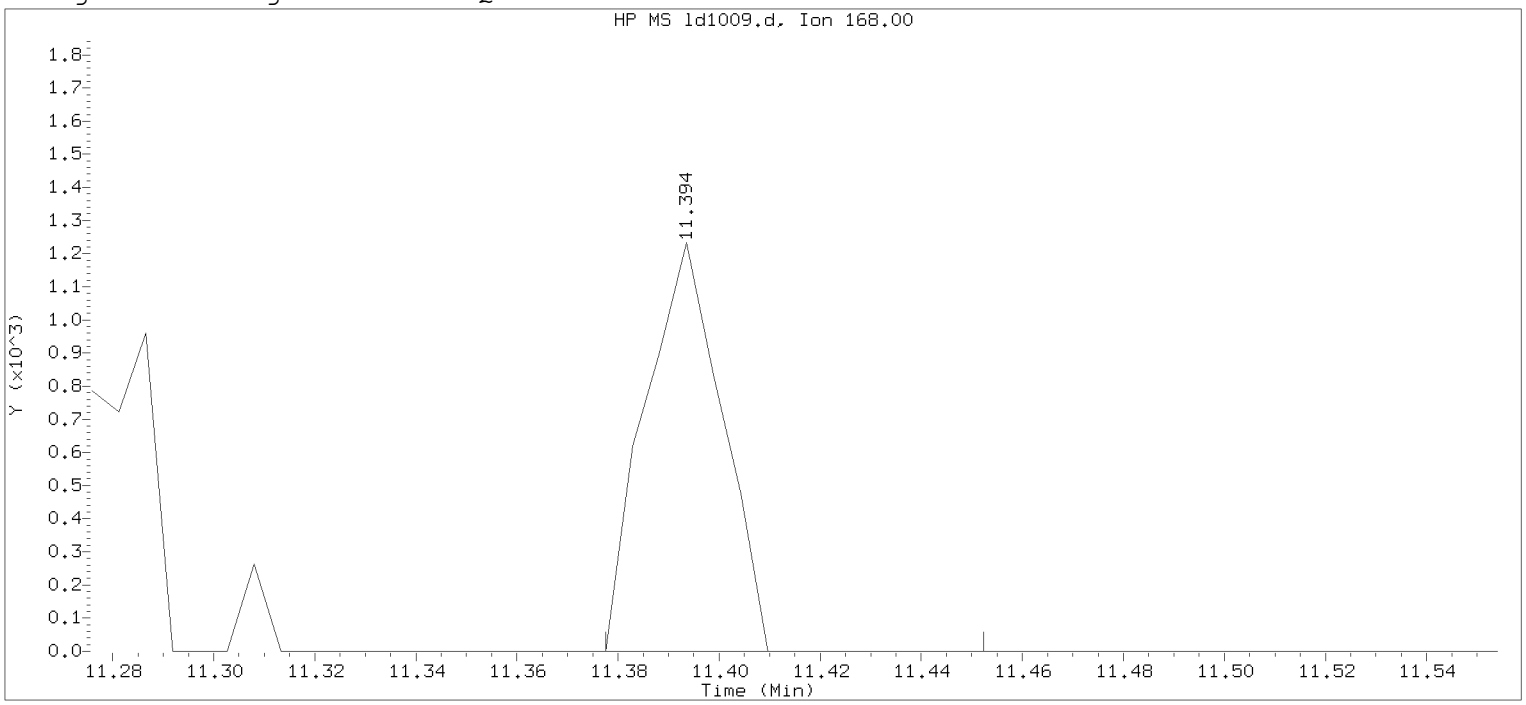
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

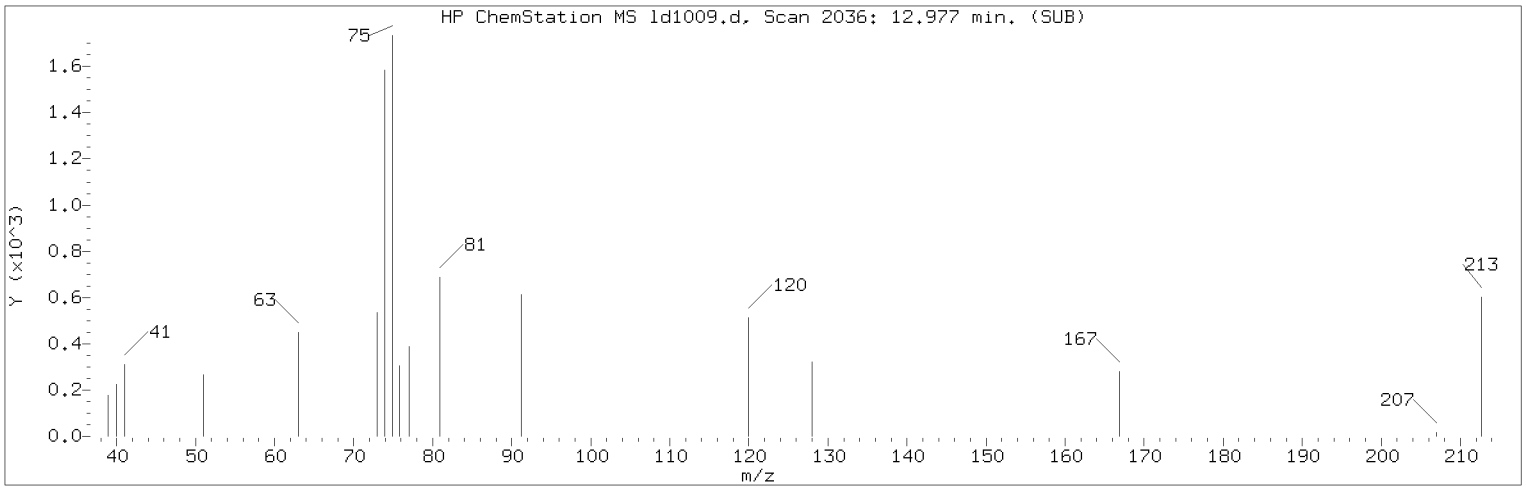
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

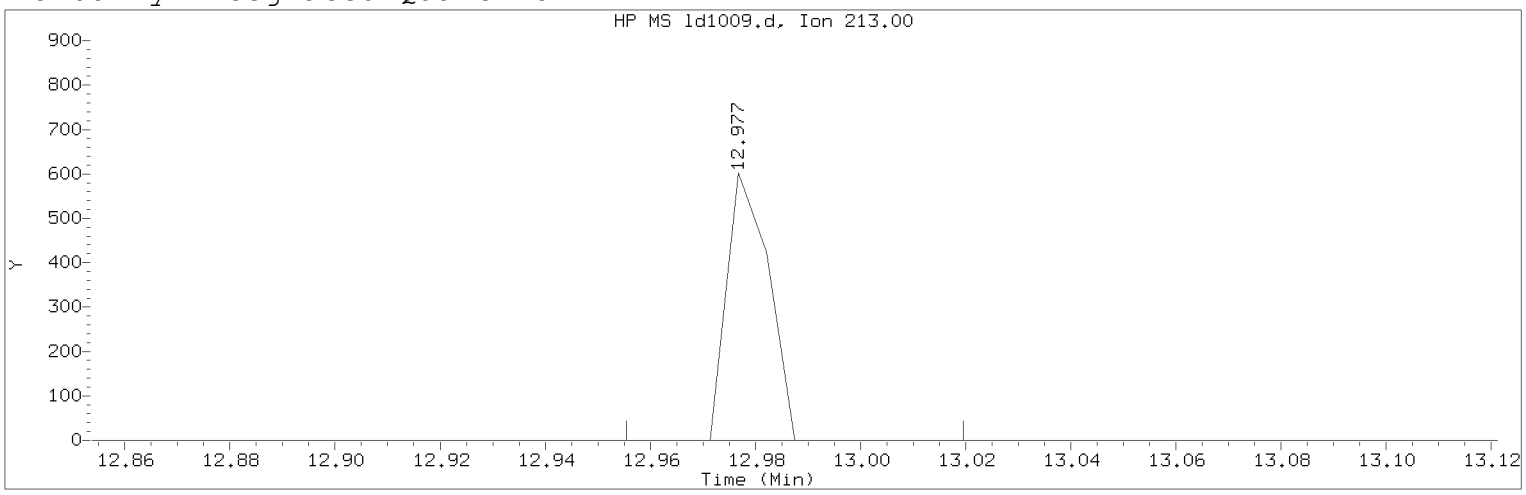
Compound Number	: 109		
Compound Name	: 1,4-Dinitrobenzene		
Scan Number	: 1740		
Retention Time (minutes)	: 11.394		
Quant Ion	: 168.00		
Area	: 1303		
On-column Amount (ng/ul)	: 0.0831		
Integration start scan	: 1736	Integration stop scan:	1750
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

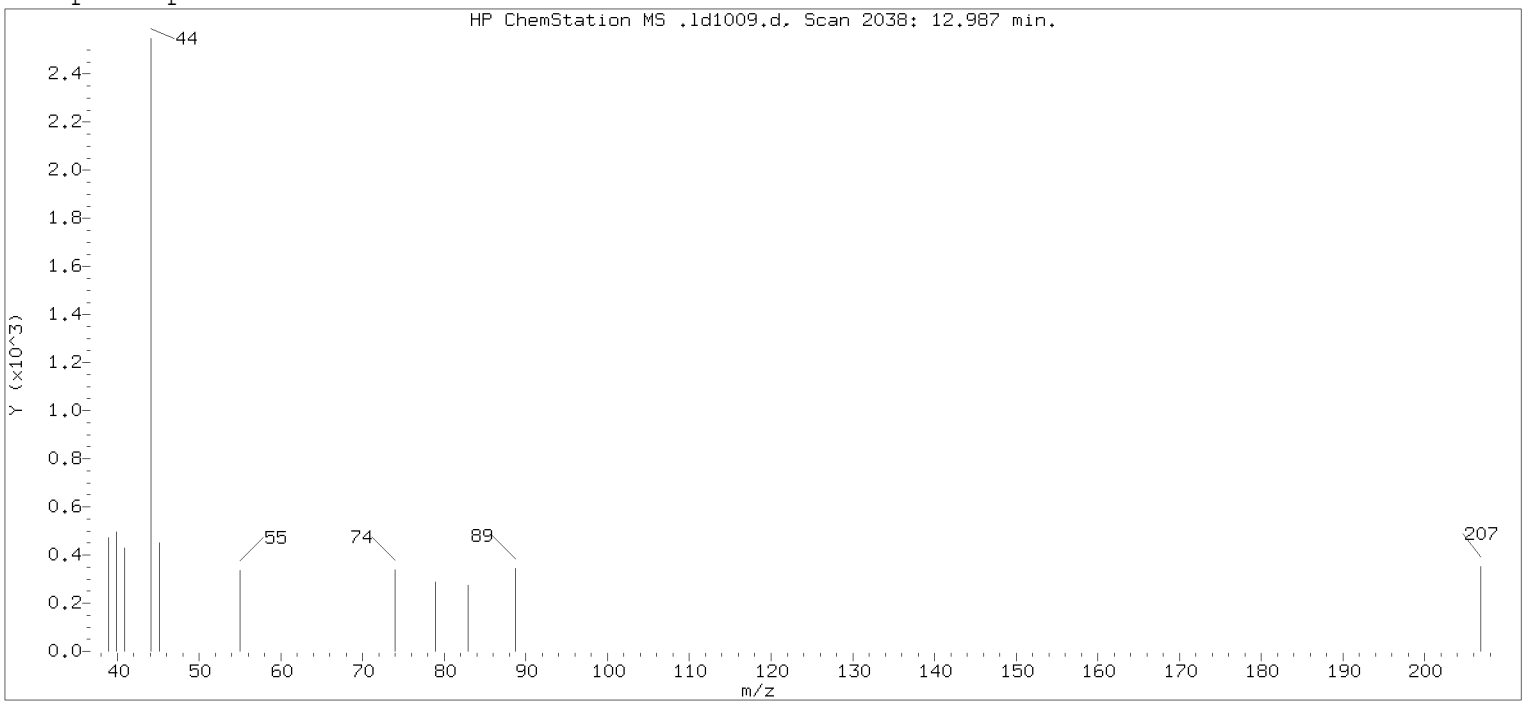
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 2036
Retention Time (minutes) : 12.977
Quant Ion : 213.00
Area (flag) : 328M
On-Column Amount (ng/ul) : 0.0329
Integration start scan : 2031 Integration stop scan: 2043
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

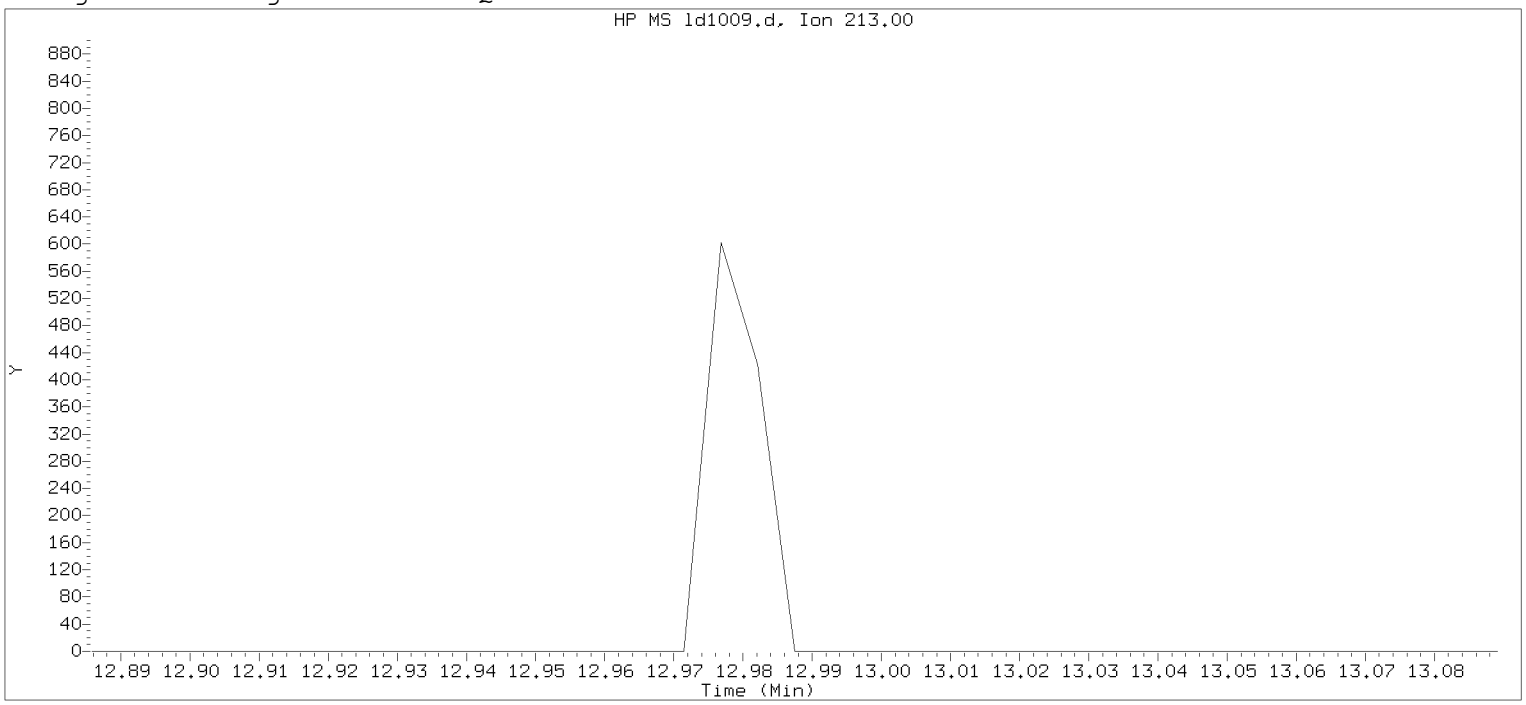
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

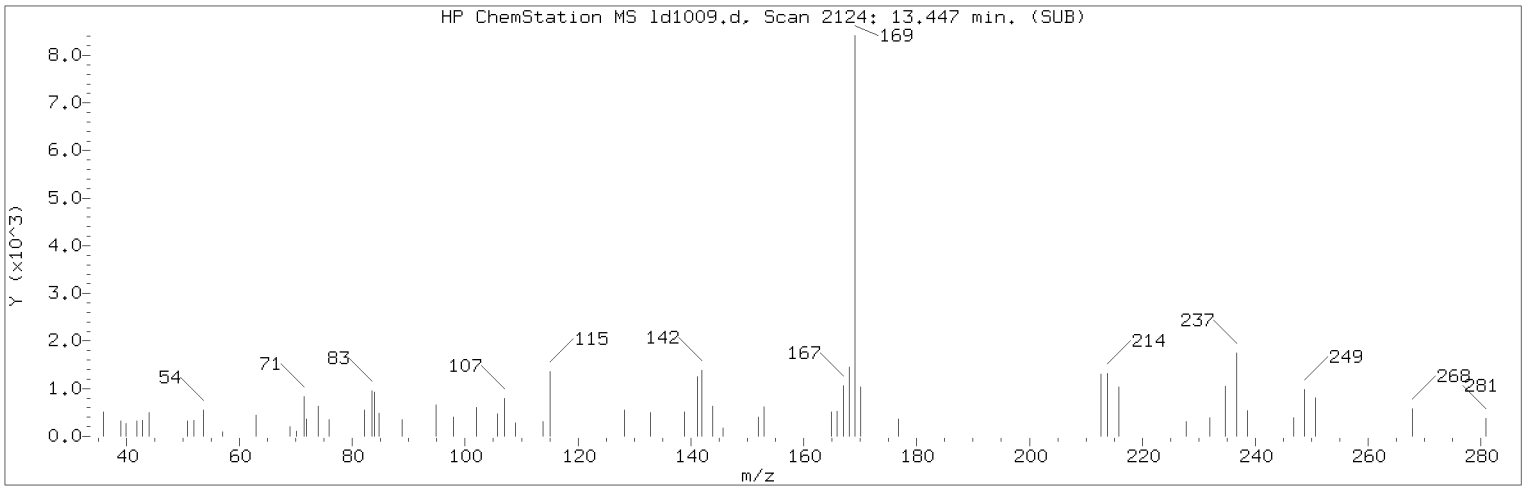
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

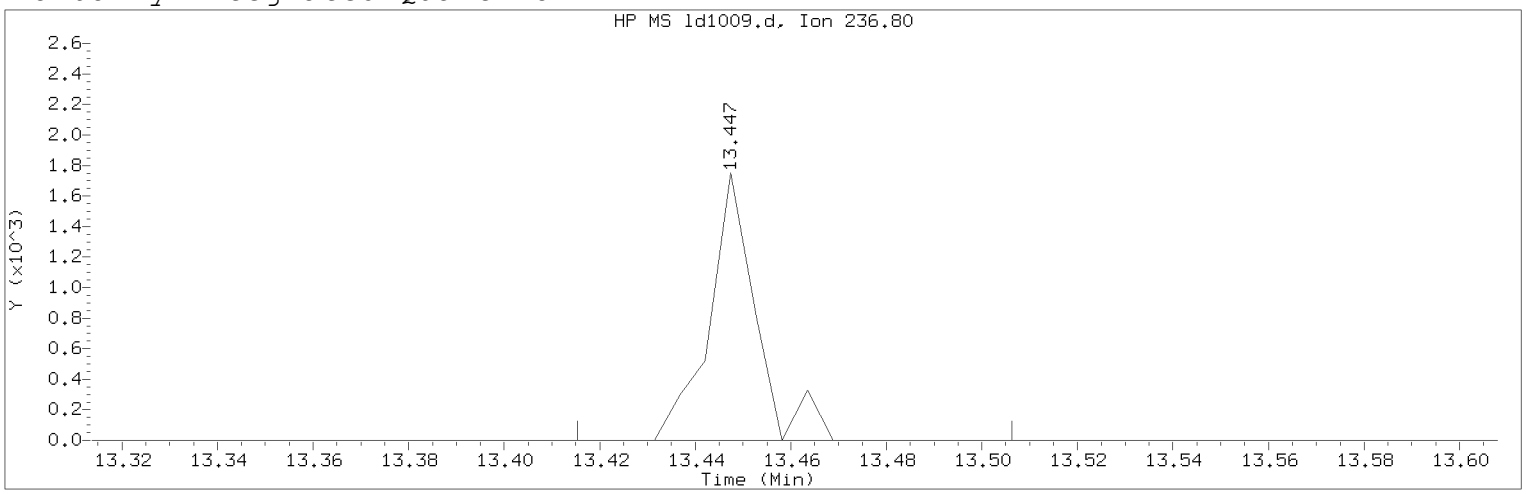
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 12.987
Quant Ion : 213.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

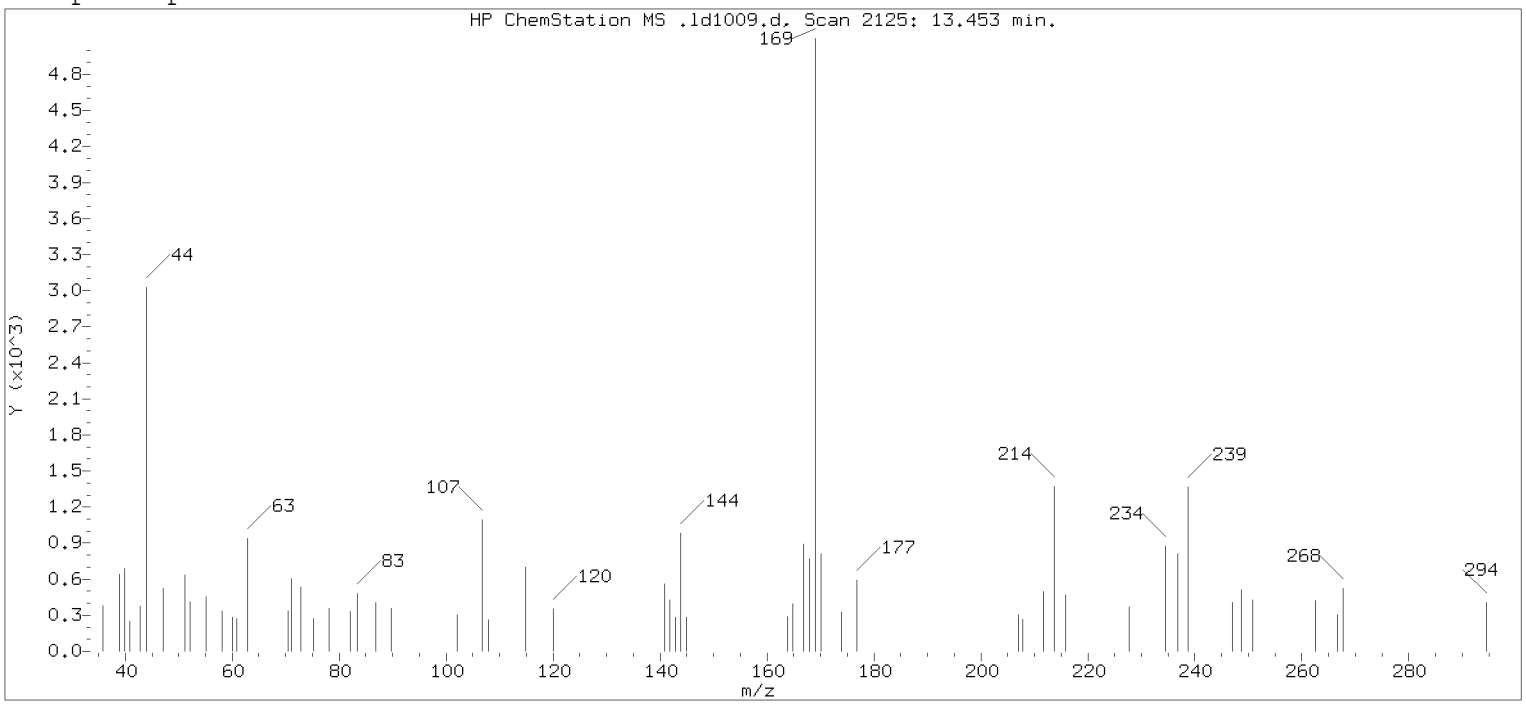
Compound Number : 156
Compound Name : Pentachloronitrobenzene
Scan Number : 2124
Retention Time (minutes) : 13.447
Quant Ion : 237.00
Area (flag) : 1189M
On-Column Amount (ng/ul) : 0.0946
Integration start scan : 2117 Integration stop scan: 2134
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

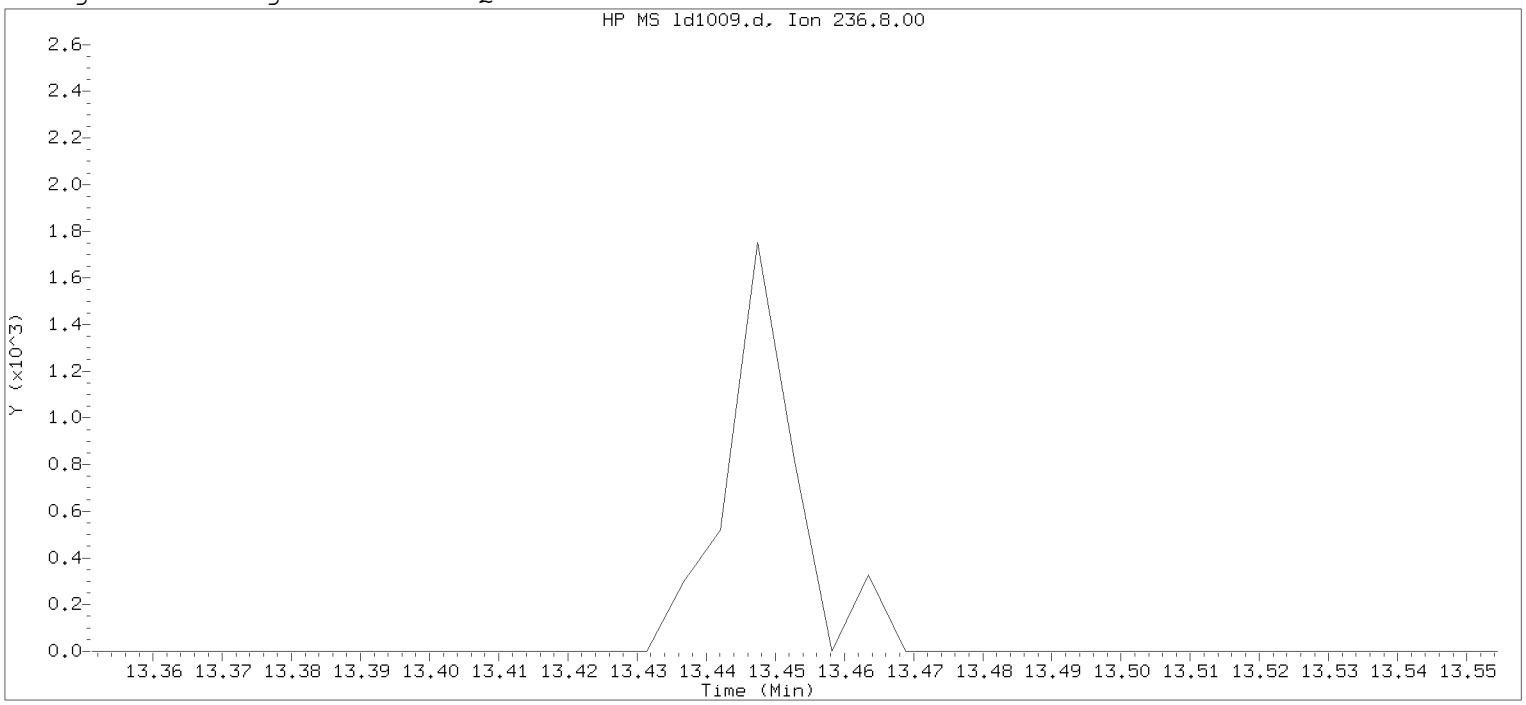
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

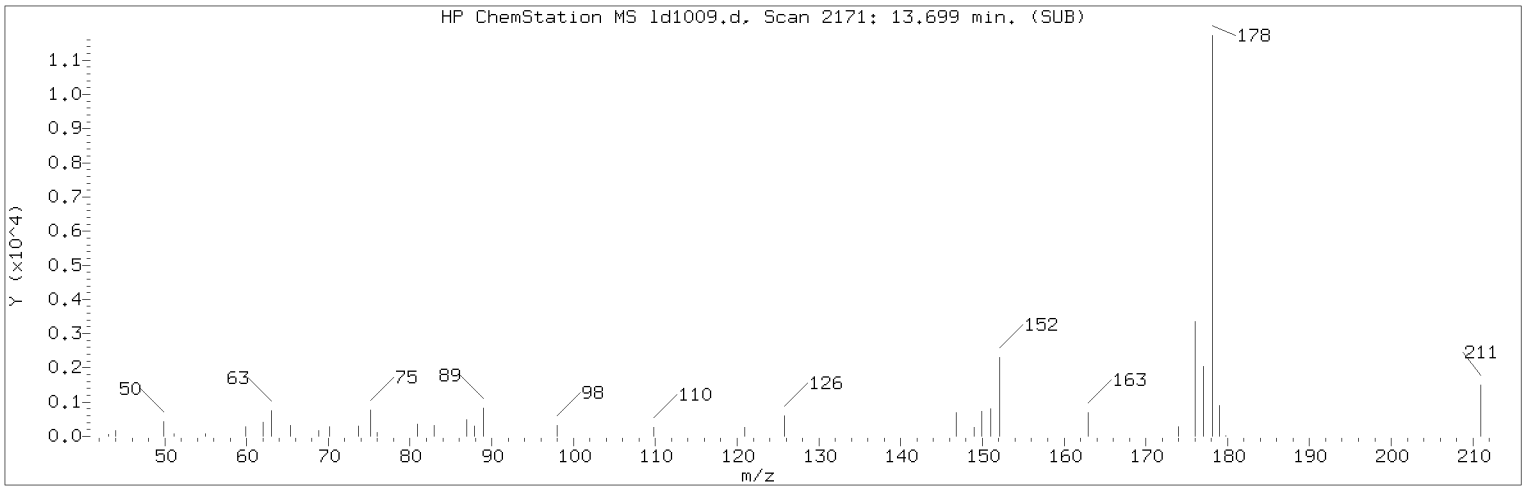
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

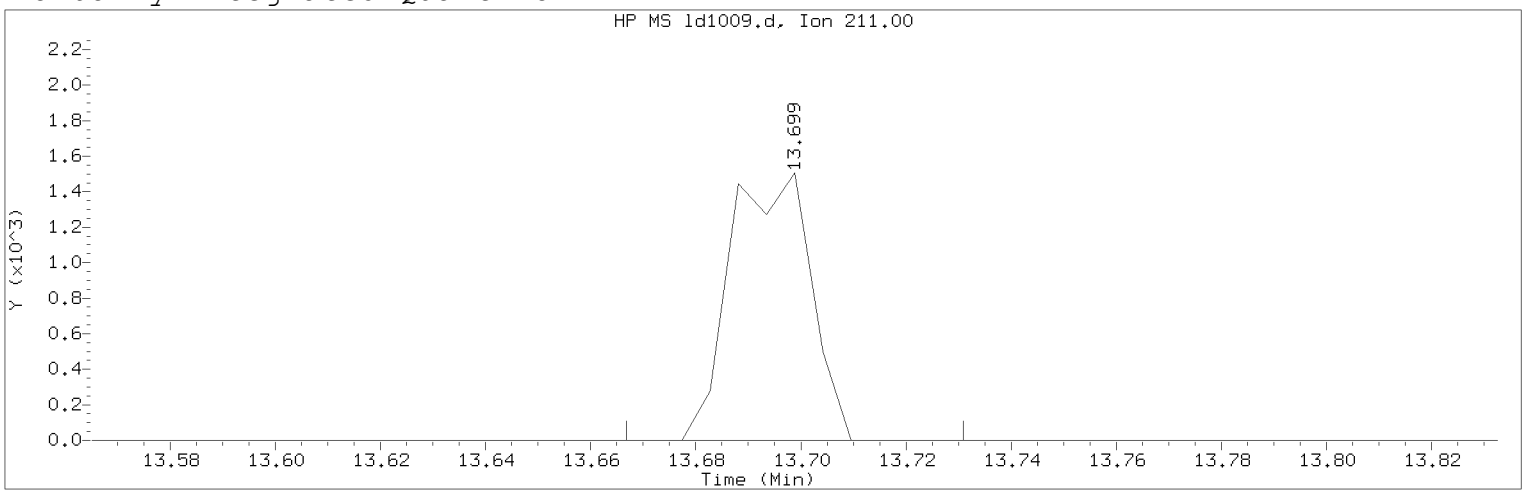
Compound Number : 156
Compound Name : Pentachloronitrobenzene
Expected RT (minutes) : 13.453
Quant Ion : 237.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

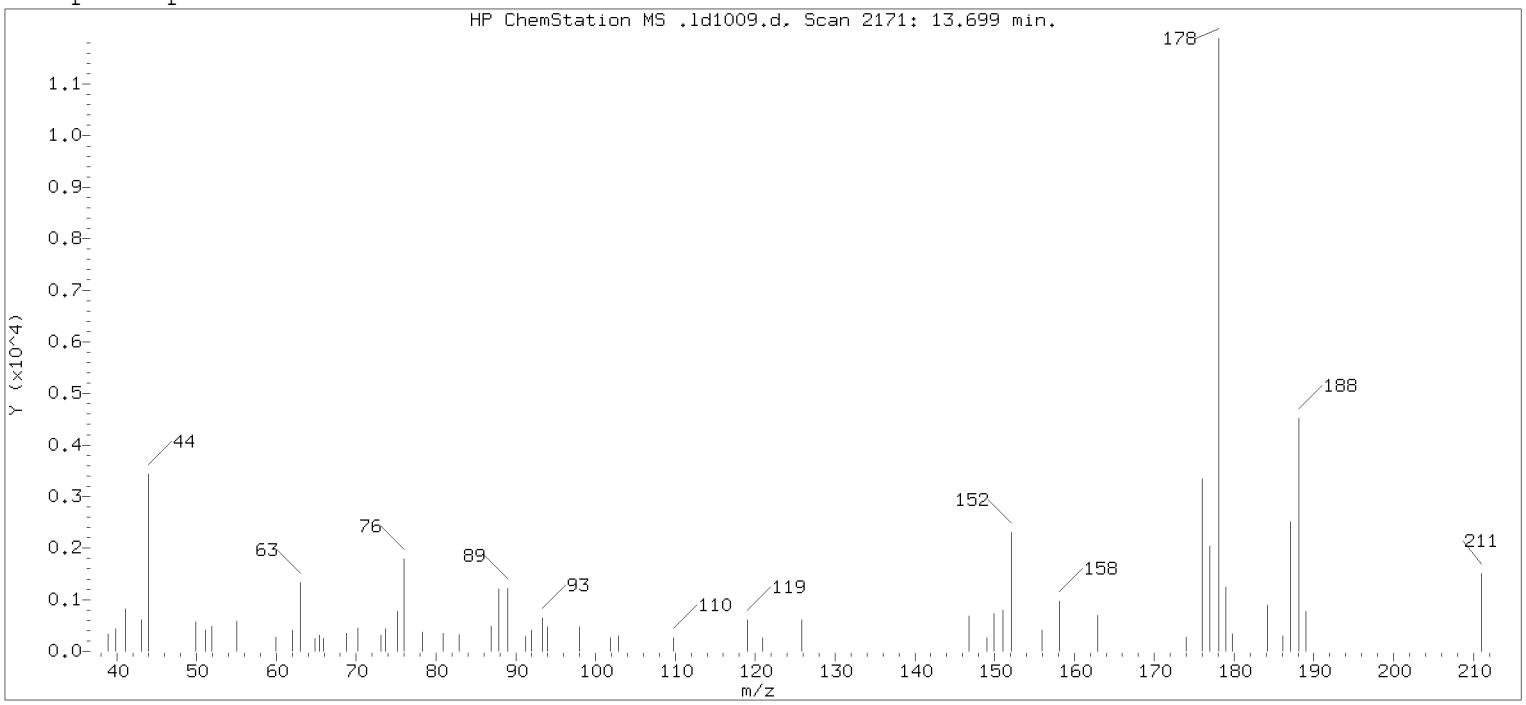
Compound Number : 159
Compound Name : Dinoseb
Scan Number : 2171
Retention Time (minutes) : 13.699
Quant Ion : 211.00
Area (flag) : 1602M
On-Column Amount (ng/ul) : 0.0652
Integration start scan : 2164 Integration stop scan: 2176
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

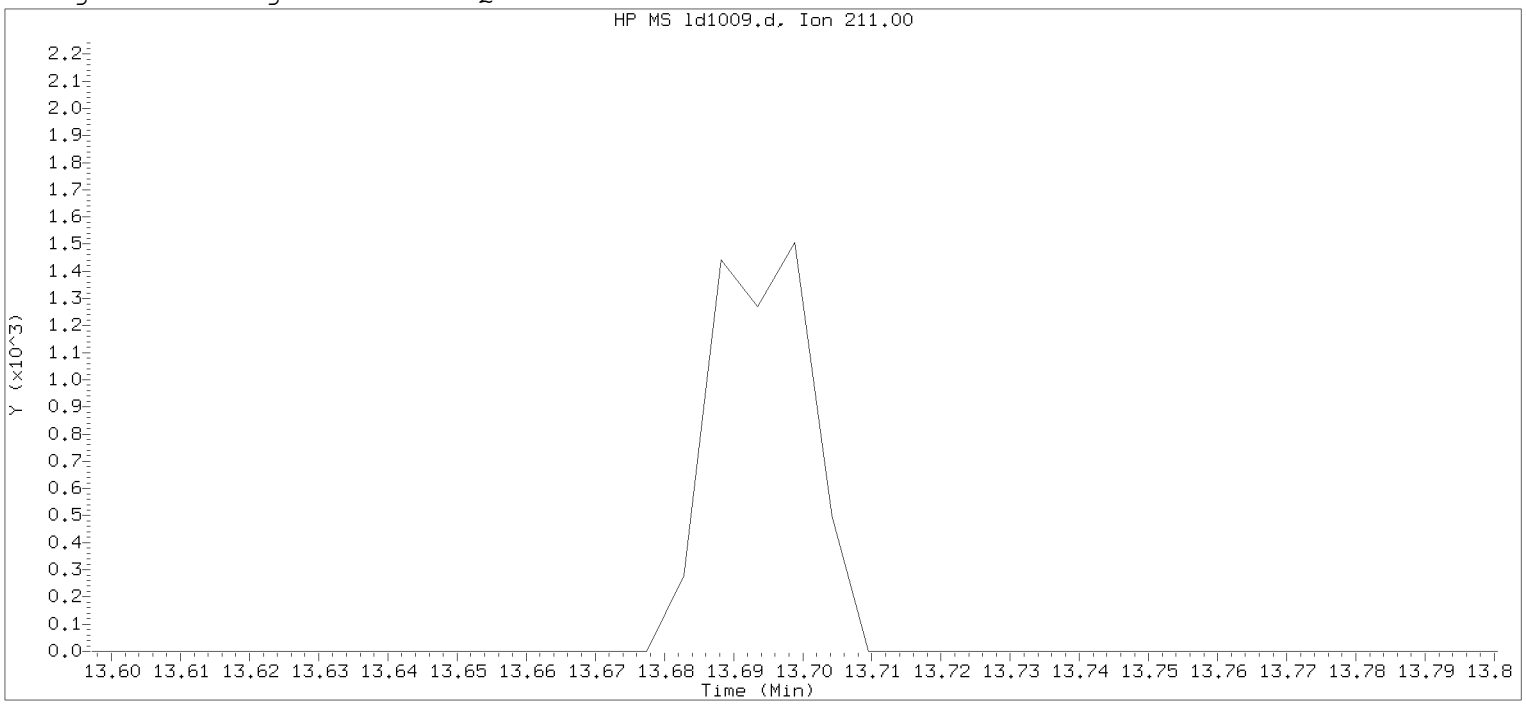
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

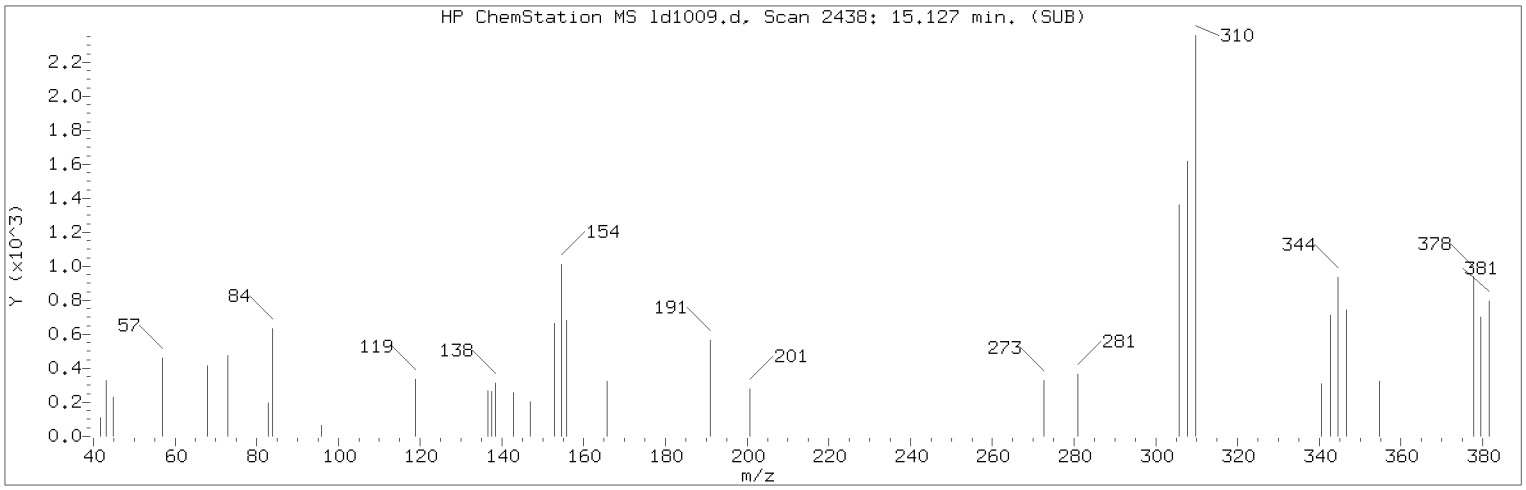
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

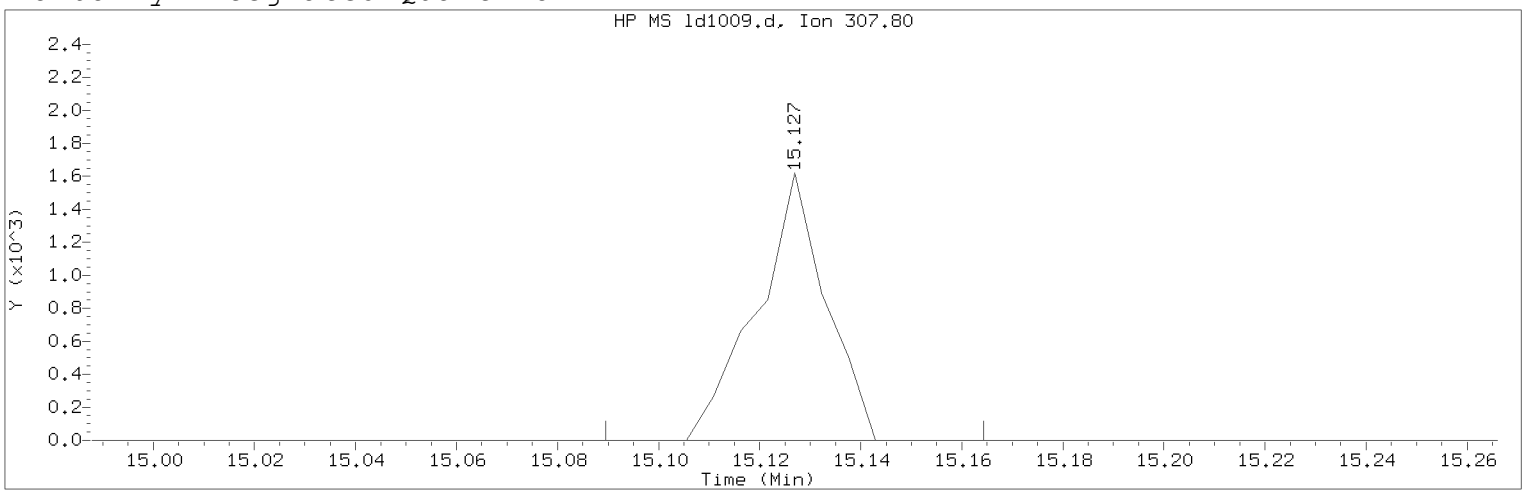
Compound Number : 159
Compound Name : Dinoseb
Expected RT (minutes) : 13.699
Quant Ion : 211.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

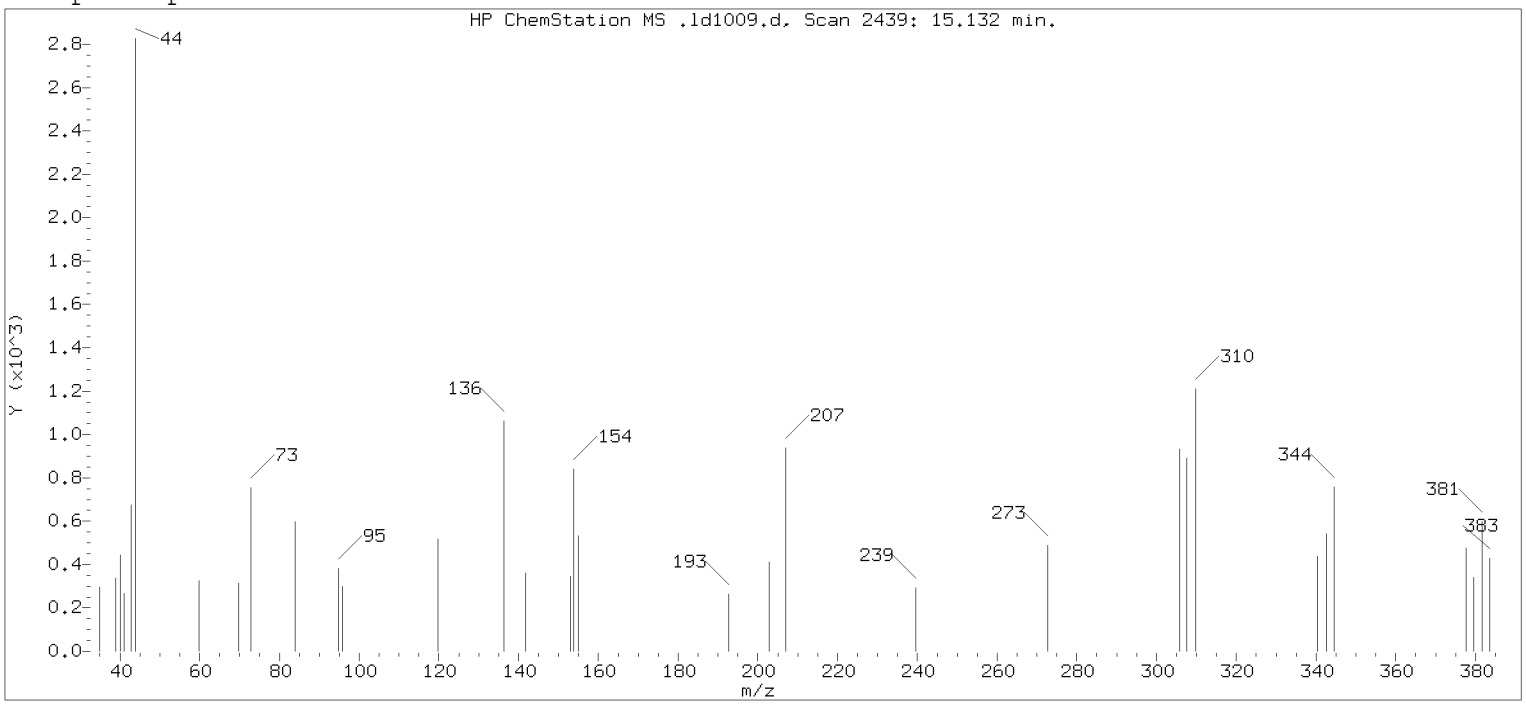
Compound Number : 174
Compound Name : Octachlorostyrene
Scan Number : 2438
Retention Time (minutes) : 15.127
Quant Ion : 308.00
Area (flag) : 1540M
On-Column Amount (ng/ul) : 0.1387
Integration start scan : 2430 Integration stop scan: 2444
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

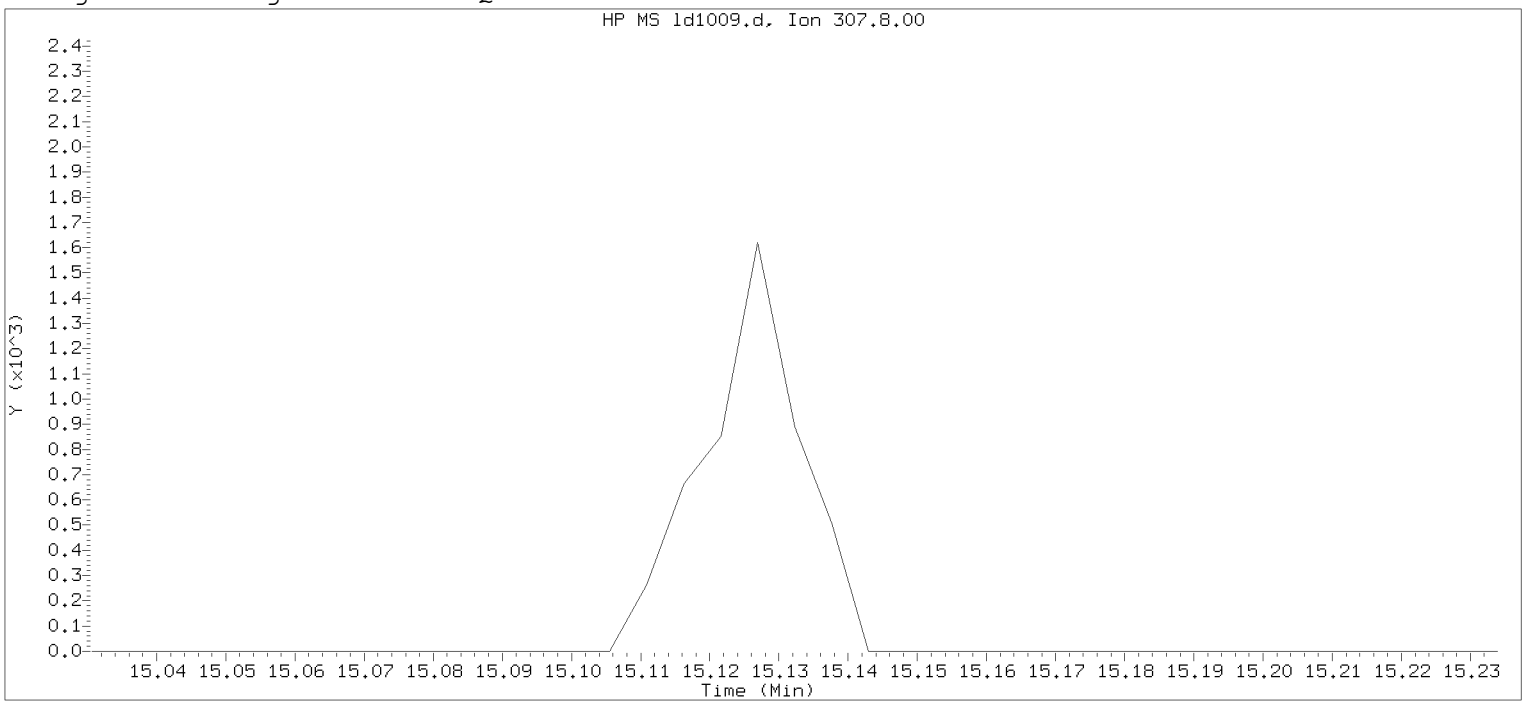
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

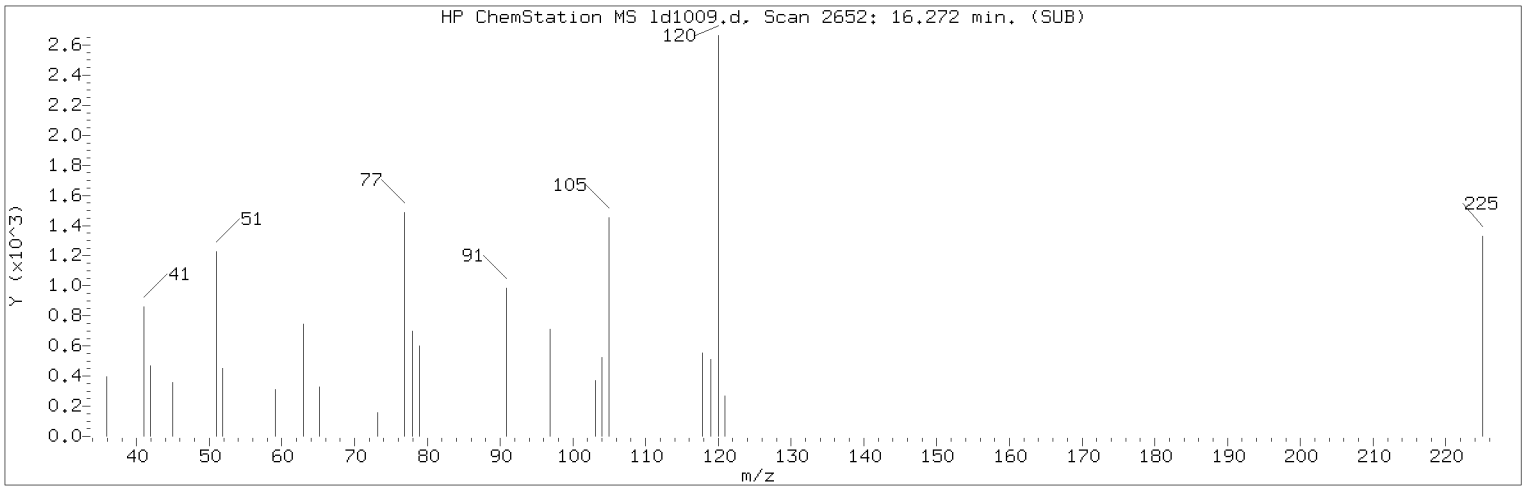
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

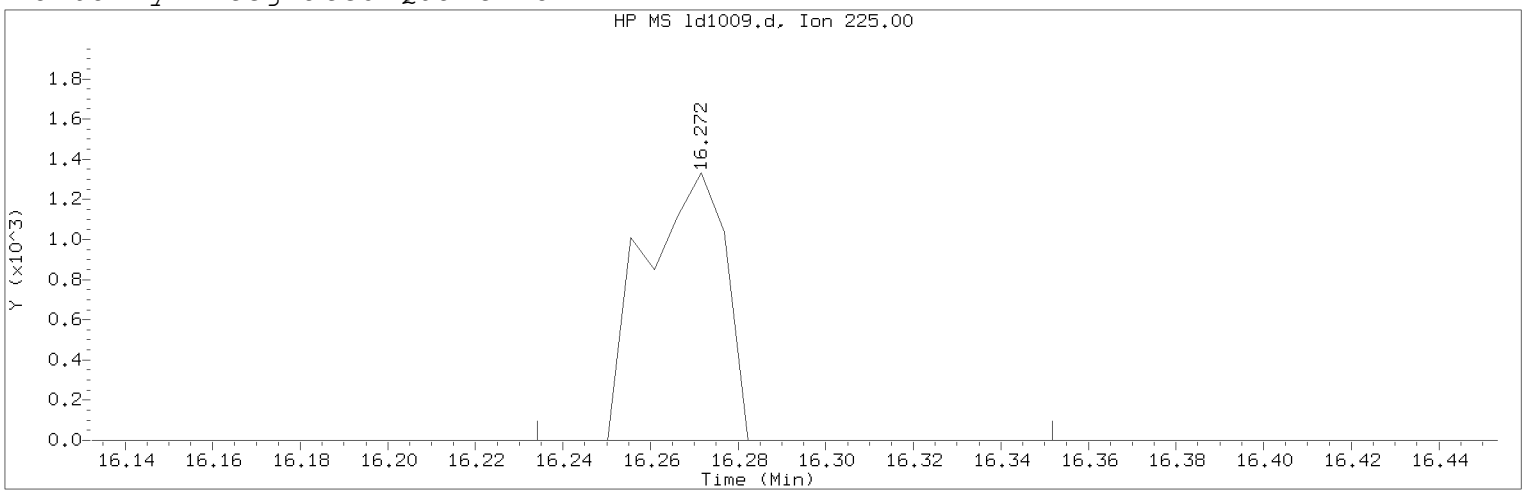
Compound Number : 174
Compound Name : Octachlorostyrene
Expected RT (minutes) : 15.132
Quant Ion : 308.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 21:45 art12405

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

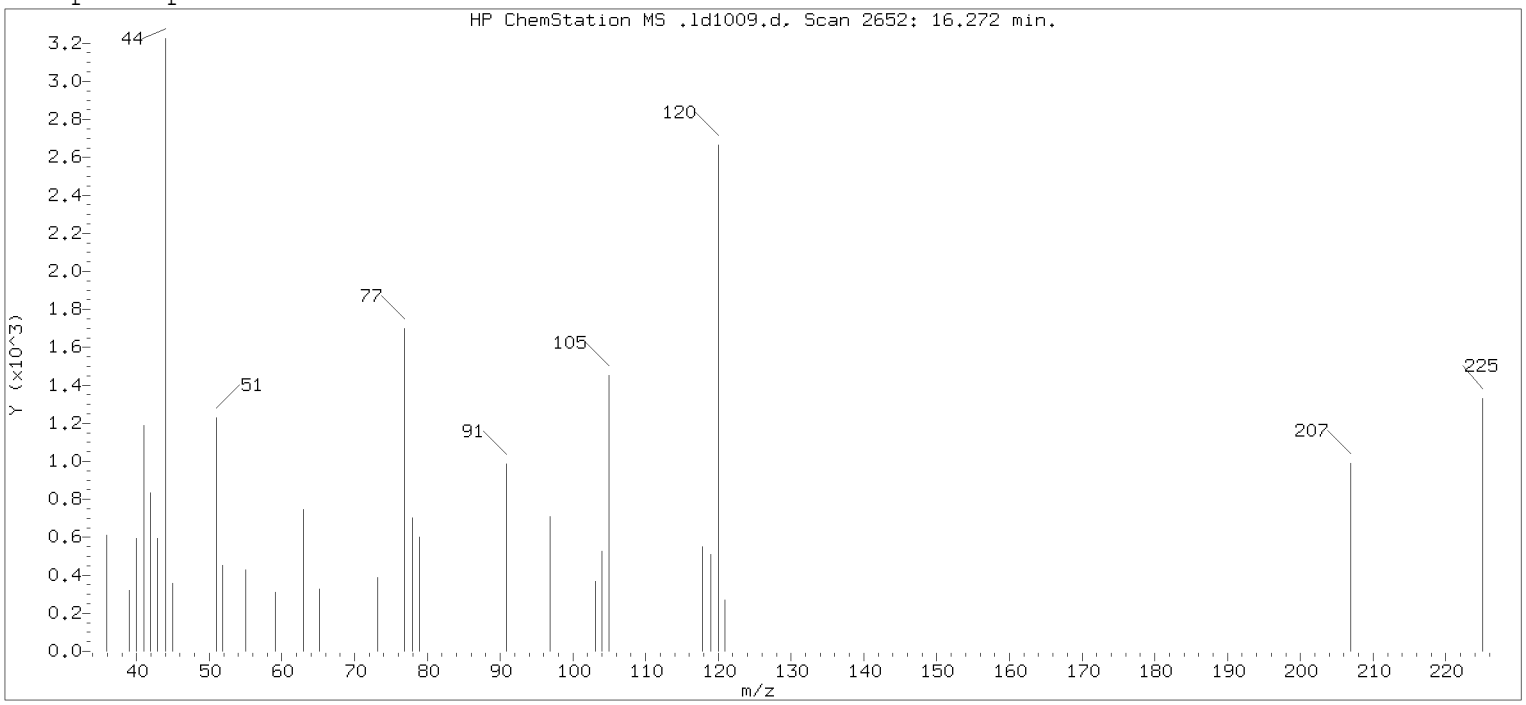
Compound Number : 187
Compound Name : p-Dimethylaminoazobenzene
Scan Number : 2652
Retention Time (minutes) : 16.272
Quant Ion : 225.00
Area (flag) : 1714M
On-Column Amount (ng/ul) : 0.0654
Integration start scan : 2644 Integration stop scan: 2666
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

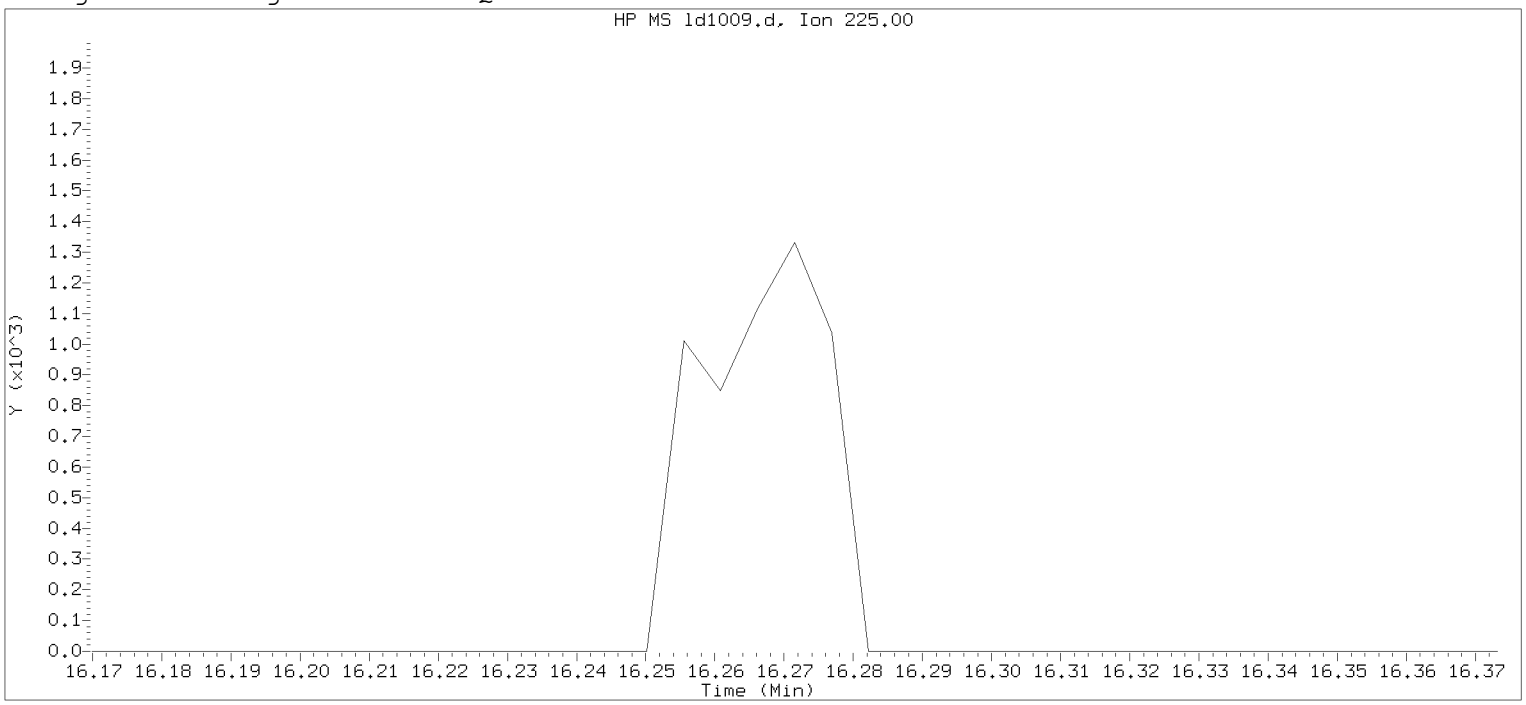
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



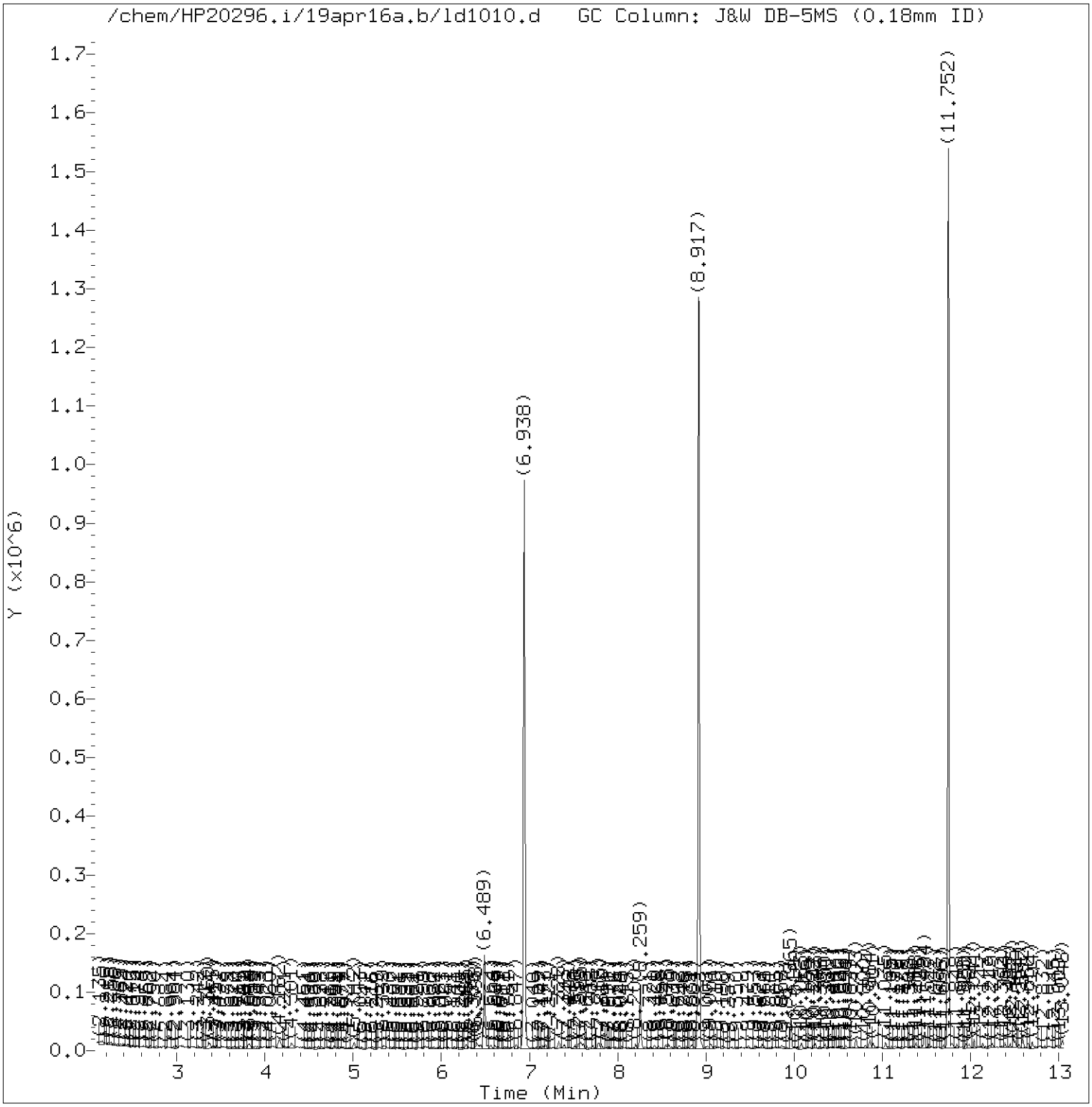
Data File: /chem/HP20296.i/19apr16a.b/ld1009.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:07 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: mdlall1
Calibration date and time: 16-APR-2019 20:08
Date, time and analyst ID of latest file update: 16-Apr-2019 20:38 chemist

Sample Name: SSTD0.125 Lab Sample ID: rvSTD0929

Compound Number : 187
Compound Name : p-Dimethylaminoazobenzene
Expected RT (minutes) : 16.271
Quant Ion : 225.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used. F35 Page 2015



Total Ion Chromatogram (TIC)

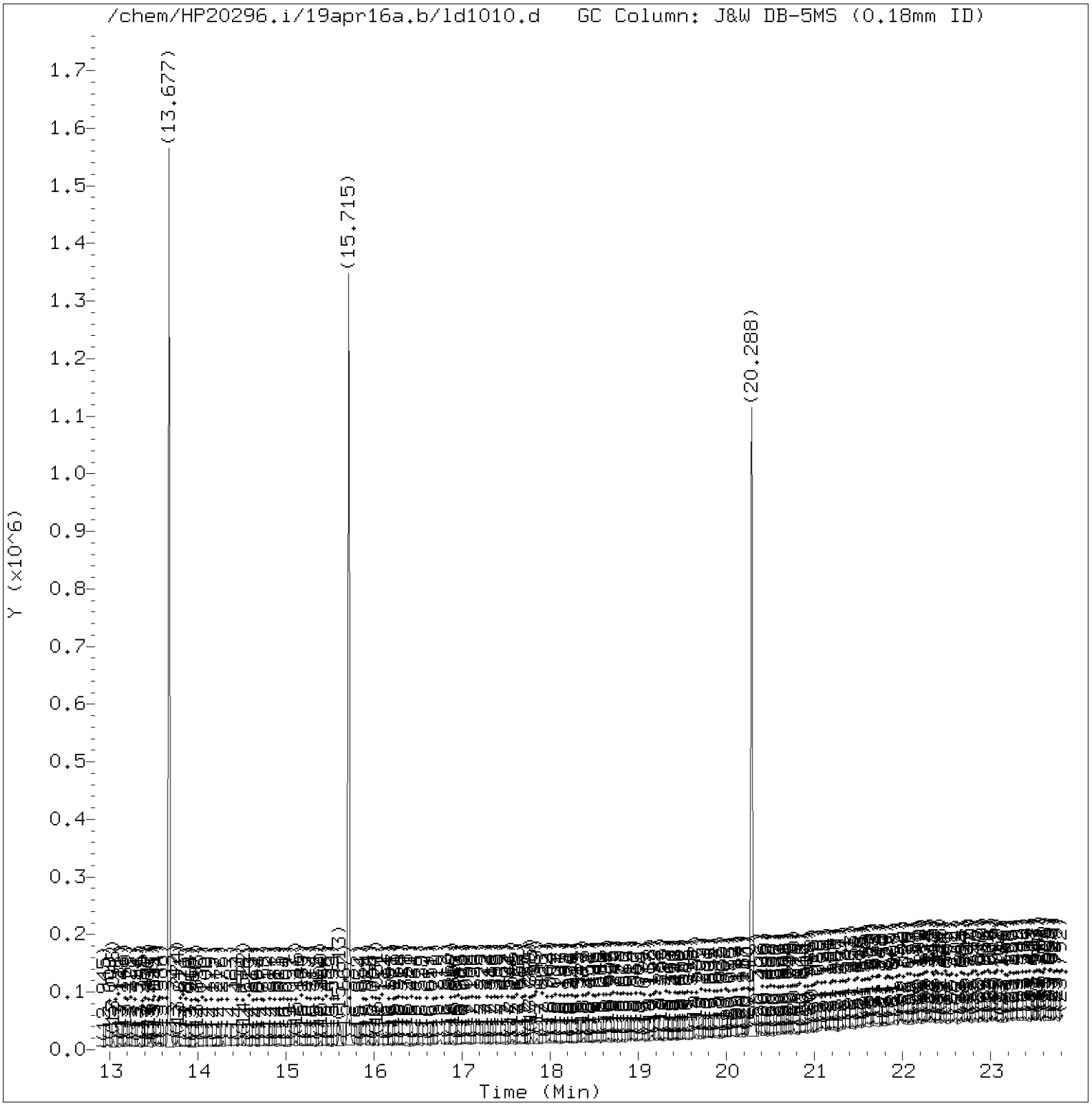
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

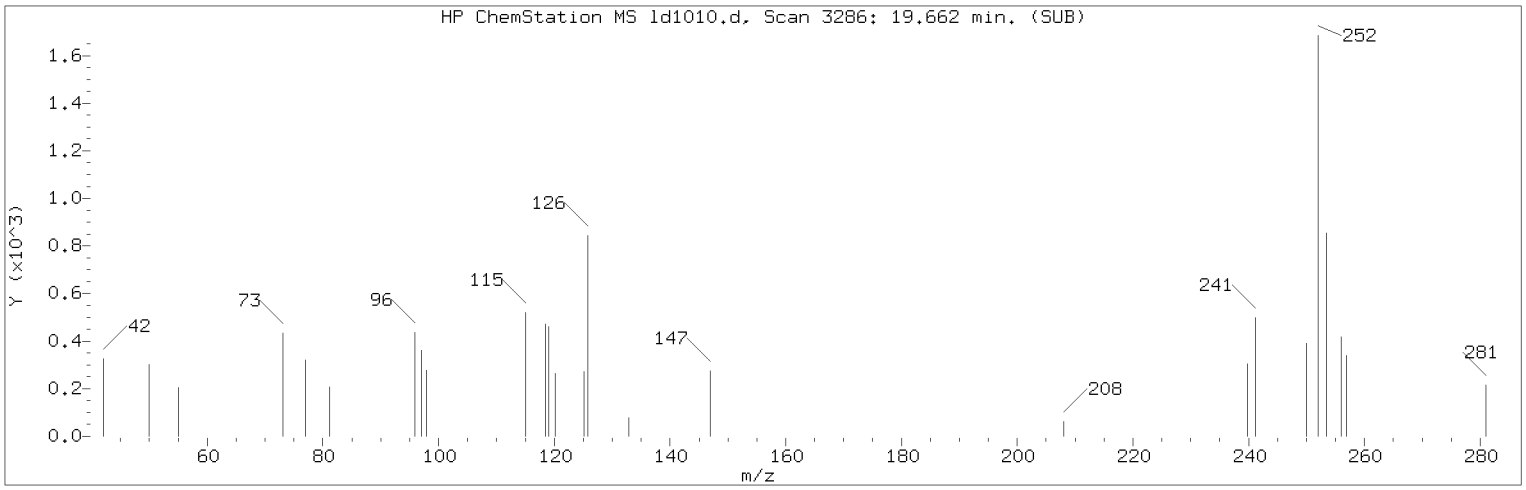
Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	178955	5.000
45)$Nitrobenzene-d5	(2)	7.783	82	3253	0.046
68)*Naphthalene-d8	(2)	8.922	136	710835	5.000
69) Naphthalene	(2)	8.954	128	4446	0.028
86) 2-Methylnaphthalene	(2)	10.083	142	2572	0.026
87) 1-Methylnaphthalene	(2)	10.243	142	2508	0.026
96)$2-Fluorobiphenyl	(3)	10.703	172	5560	0.053
99) 2-Chloronaphthalene	(3)	10.864	162	2625	0.027
114) Acenaphthylene	(3)	11.532	152	3679	0.029
118)*Acenaphthene-d10	(3)	11.752	164	326180	5.000
119) Acenaphthene	(3)	11.795	153	2783	0.029
131) Fluorene	(3)	12.485	166	2537	0.025
150) Hexachlorobenzene	(4)	13.180	284	663	0.023
158)*Phenanthrene-d10	(4)	13.677	188	594882	5.000
160) Phenanthrene	(4)	13.709	178	3927	0.027
162) Anthracene	(4)	13.774	178	3637	0.025
227) Total PAHs	(6)			54562	0.429
178) Fluoranthene	(4)	15.400	202	3475	0.023
180)*Pyrene-d10	(5)	15.715	212	567718	5.000
182) Pyrene	(5)	15.742	202	4254	0.028
184)$Terphenyl-d14	(5)	16.031	244	3901	0.042
200) Benzo(a)anthracene	(5)	17.785	228	2759	0.020
201) Chrysene	(5)	17.844	228	2796	0.021
211) Benzo(b)fluoranthene	(6)	19.662	252	2740M	0.021
213) Benzo(k)fluoranthene	(6)	19.711	252	2175M	0.017
216) Benzo(a)pyrene	(6)	20.203	252	2326M	0.019
218)*Perylene-d12	(6)	20.288	264	521084	5.000
224) Indeno(1,2,3-cd)pyrene	(6)	21.925	276	2694M	0.023
225) Dibenz(a,h)anthracene	(6)	21.962	278	2583	0.021
226) Benzo(g,h,i)perylene	(6)	22.321	276	2671	0.021

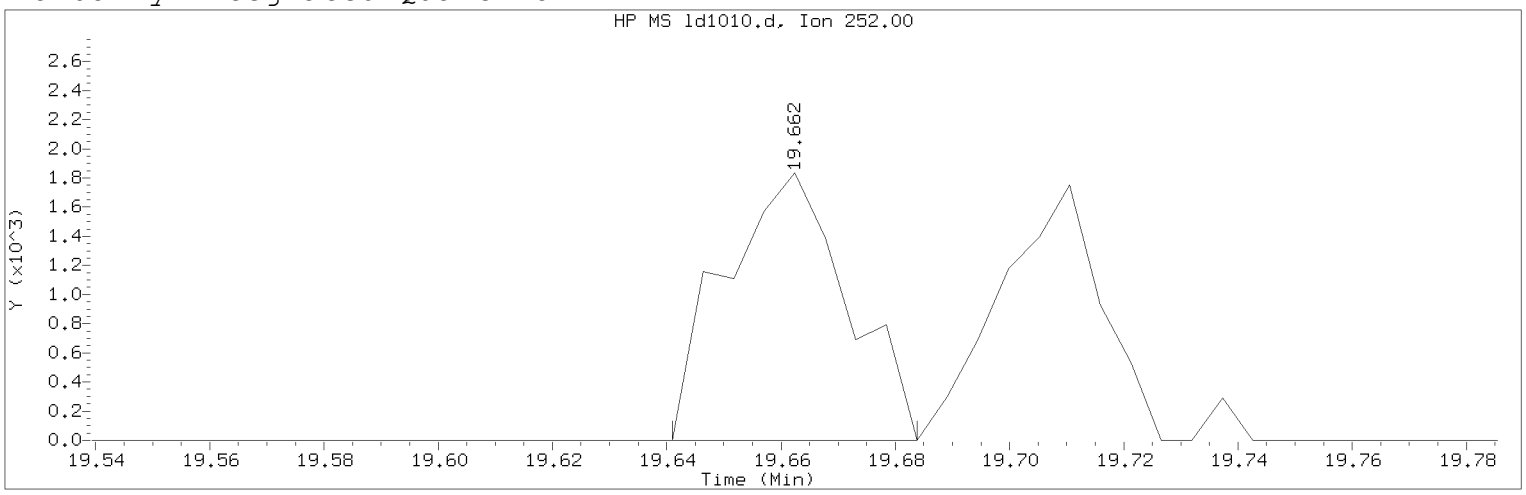
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

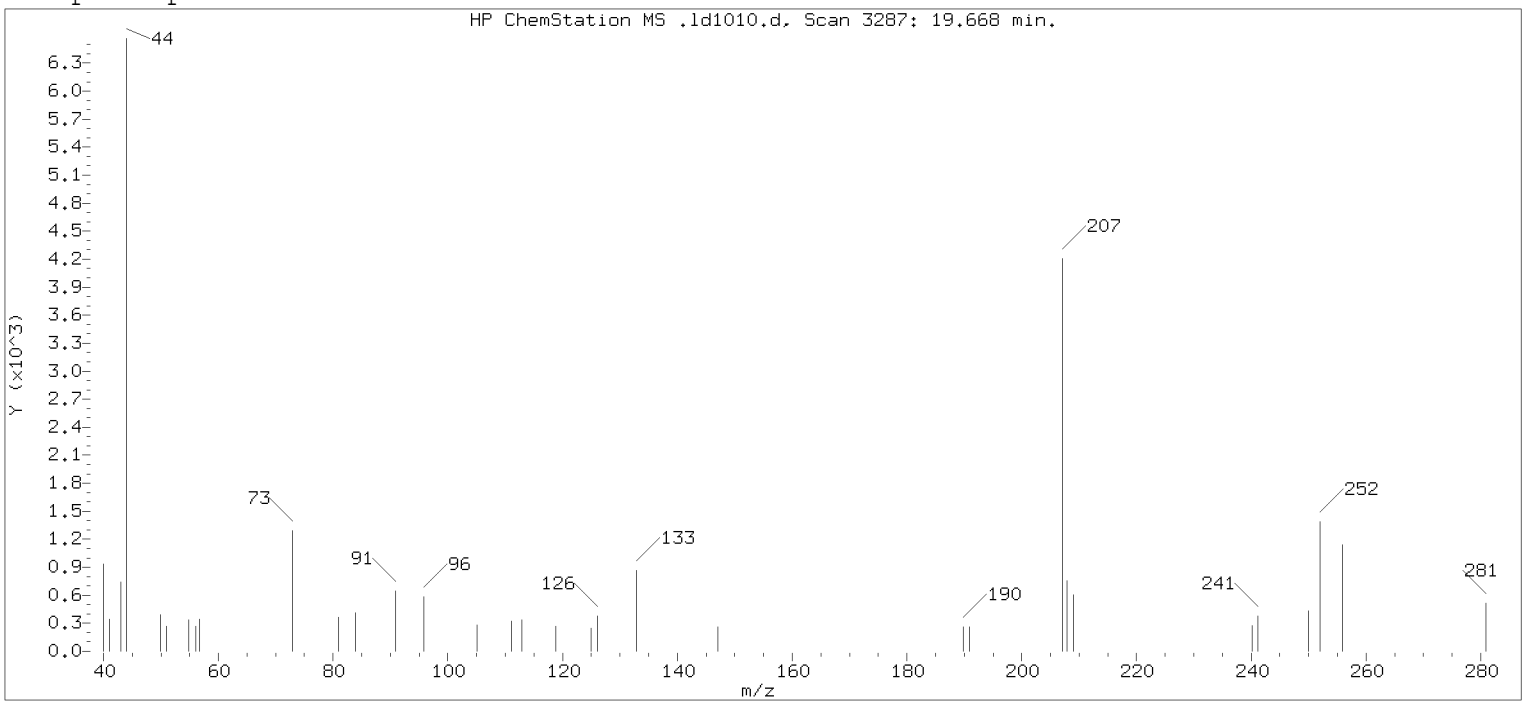
Compound Number : 211
Compound Name : Benzo(b)fluoranthene
Scan Number : 3286
Retention Time (minutes) : 19.662
Quant Ion : 252.00
Area (flag) : 2740M
On-Column Amount (ng/ul) : 0.0207
Integration start scan : 3281 Integration stop scan: 3289
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

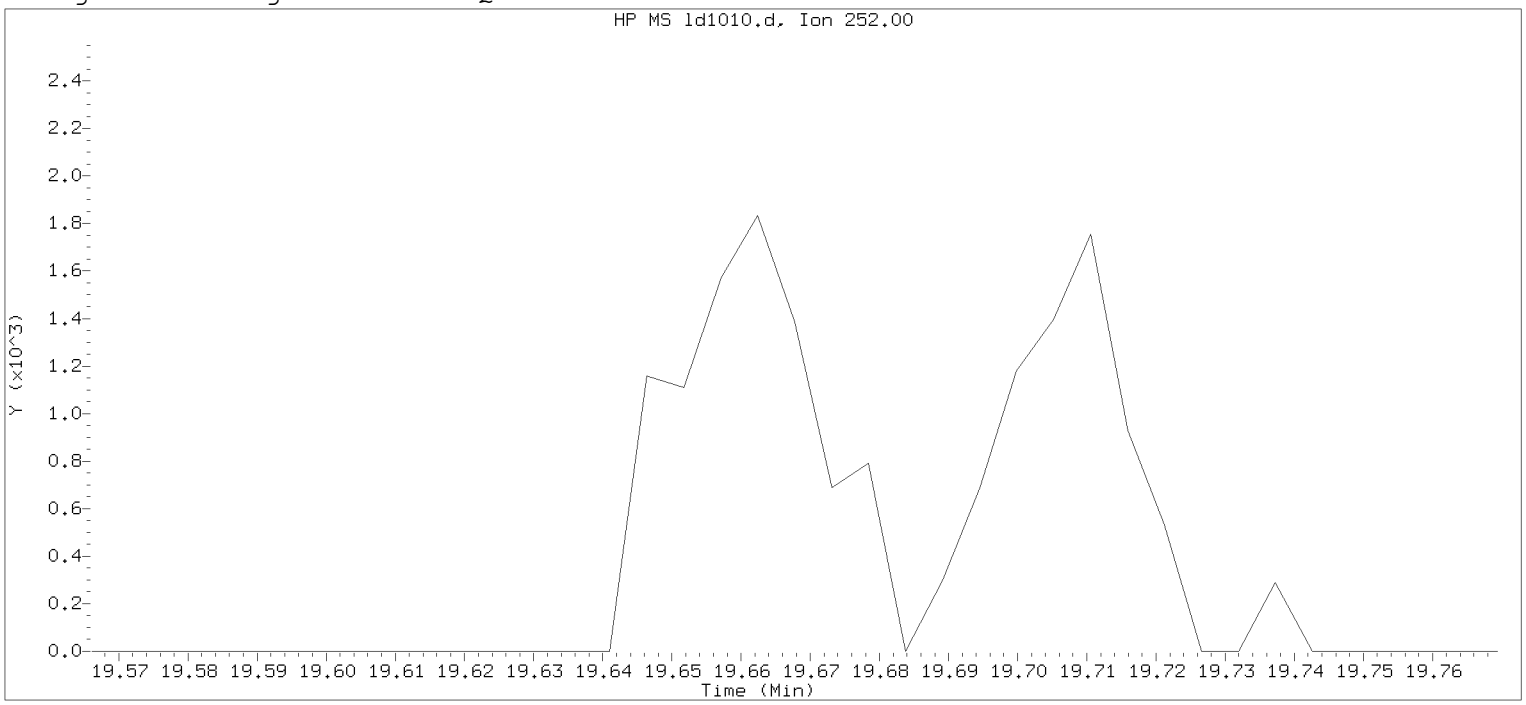
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

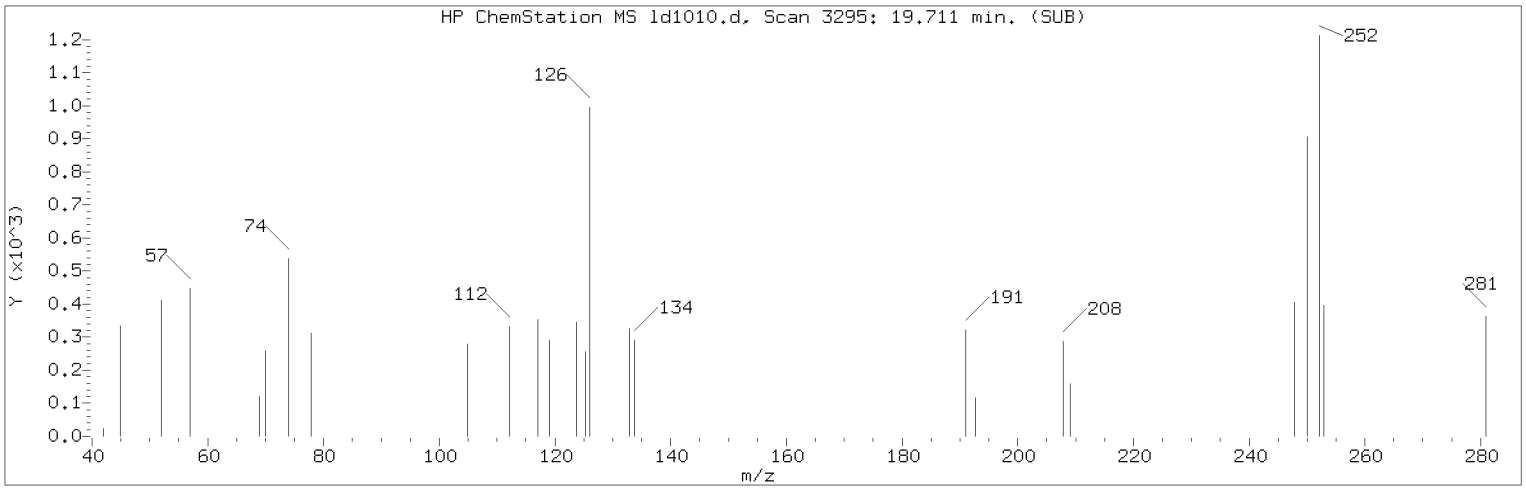
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:07 chemist

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

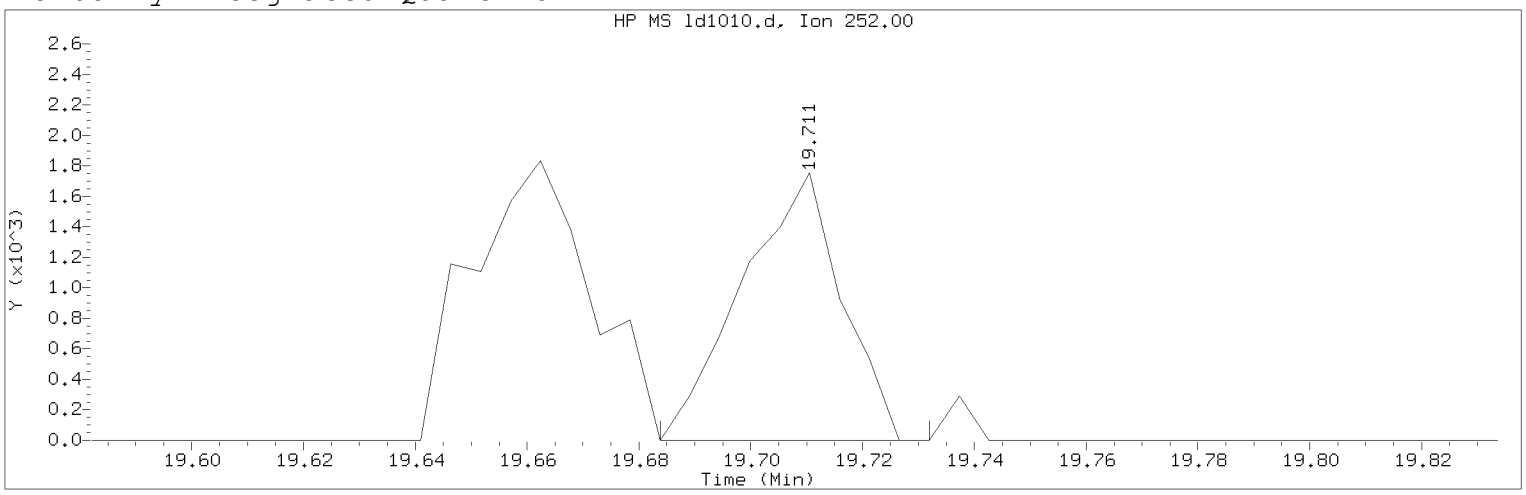
Compound Number : 211
Compound Name : Benzo(b)fluoranthene
Expected RT (minutes) : 19.668
Quant Ion : 252.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

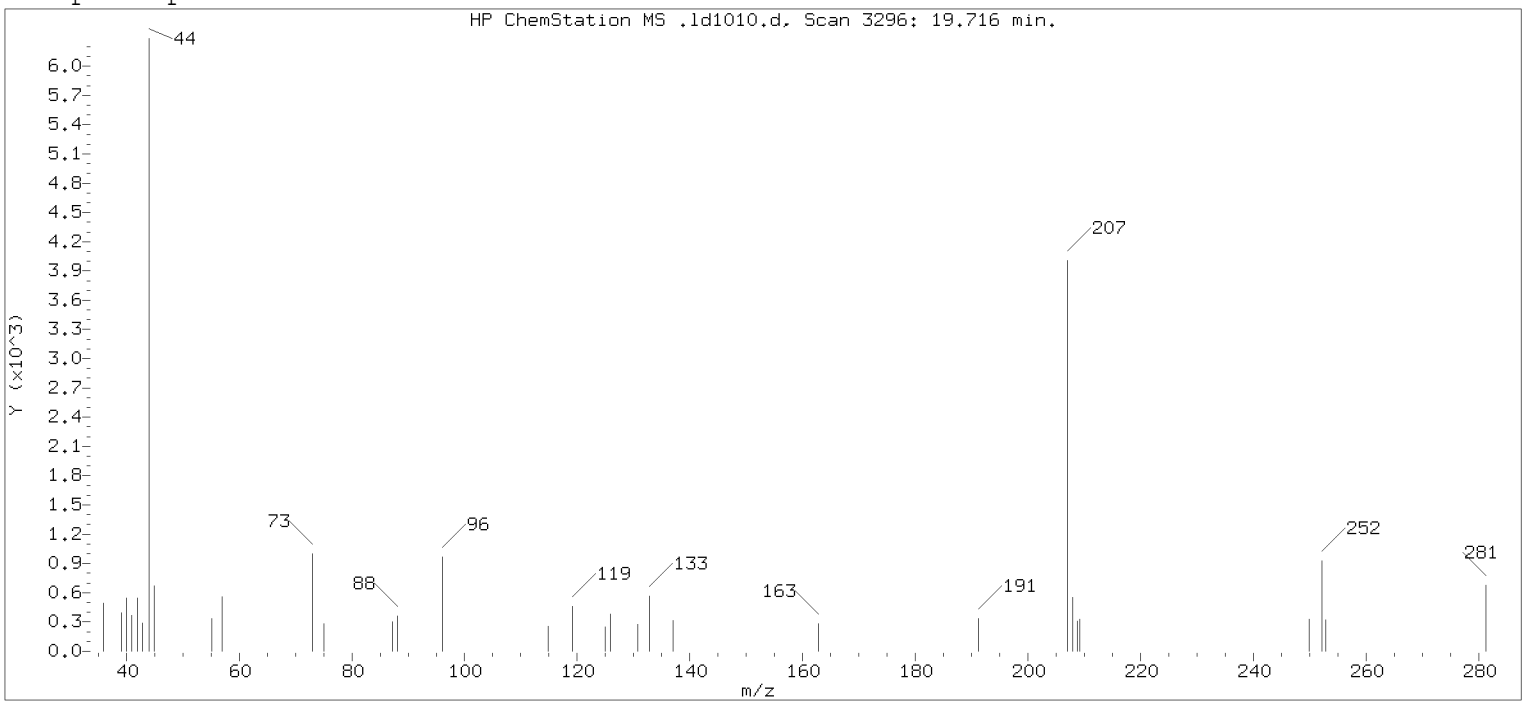
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Scan Number : 3295
Retention Time (minutes) : 19.711
Quant Ion : 252.00
Area (flag) : 2175M
On-Column Amount (ng/ul) : 0.0171
Integration start scan : 3289 Integration stop scan: 3298
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

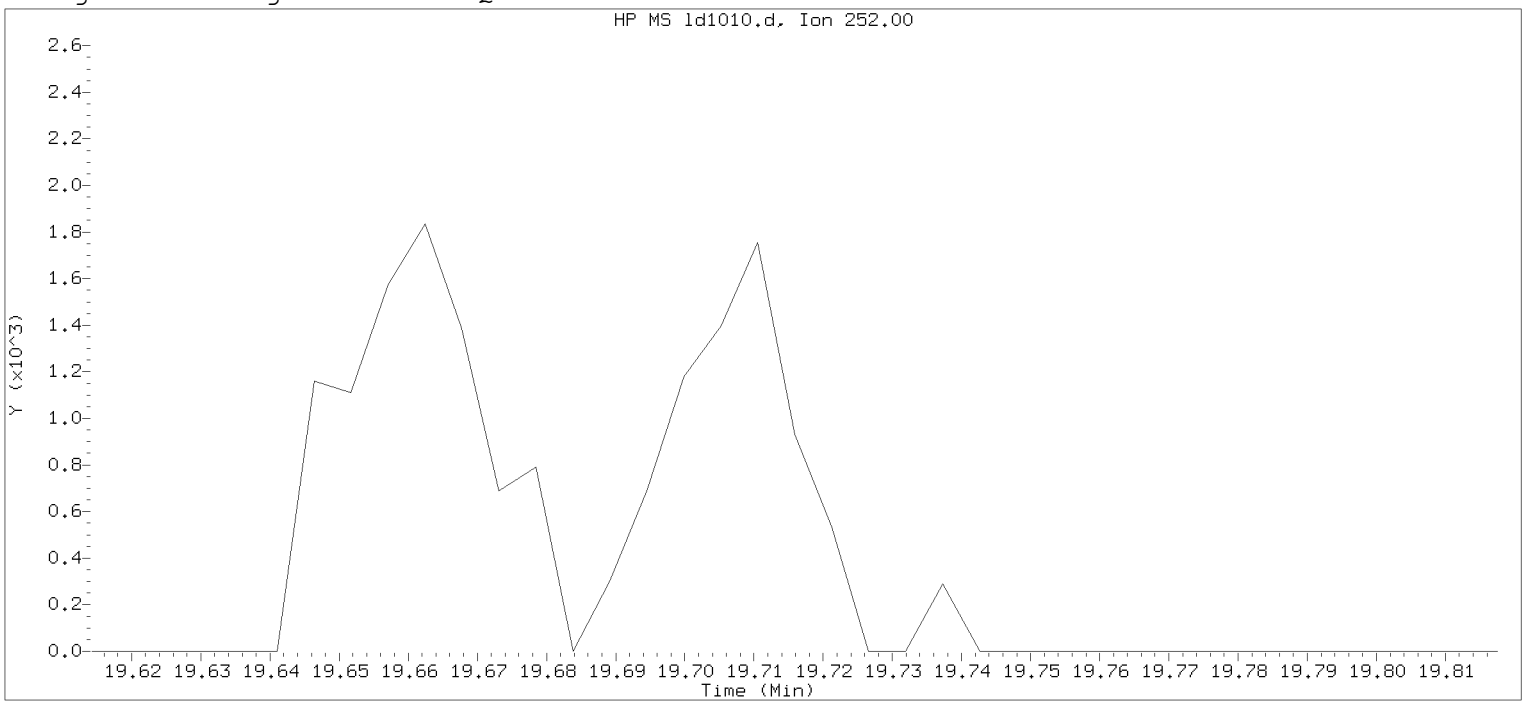
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

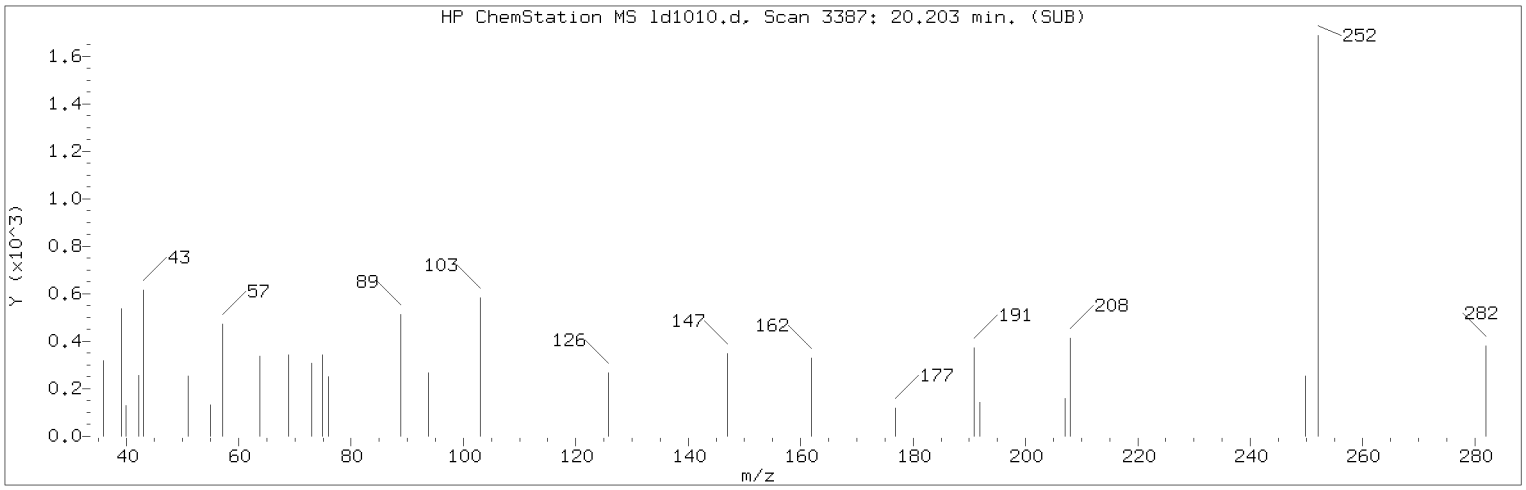
Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:07 chemist

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

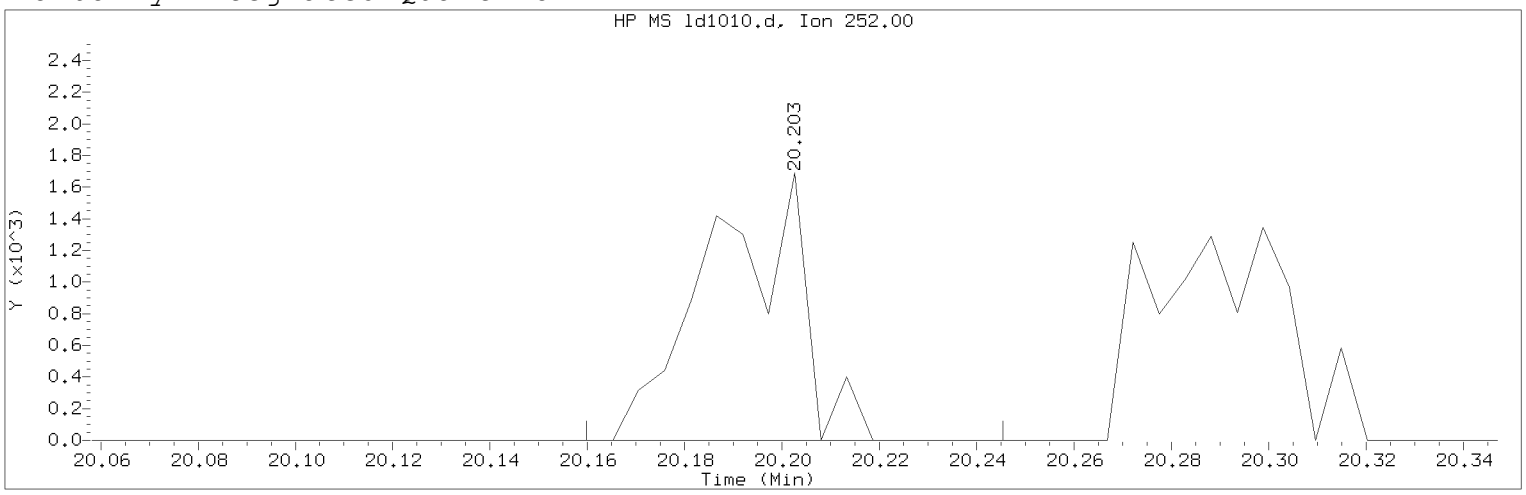
Compound Number : 213
Compound Name : Benzo(k)fluoranthene
Expected RT (minutes) : 19.716
Quant Ion : 252.00

Digitally signed by Ashley R. Transue on 04/16/2019 at 21:47.
Target 3.5 esignature used. Page 2022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

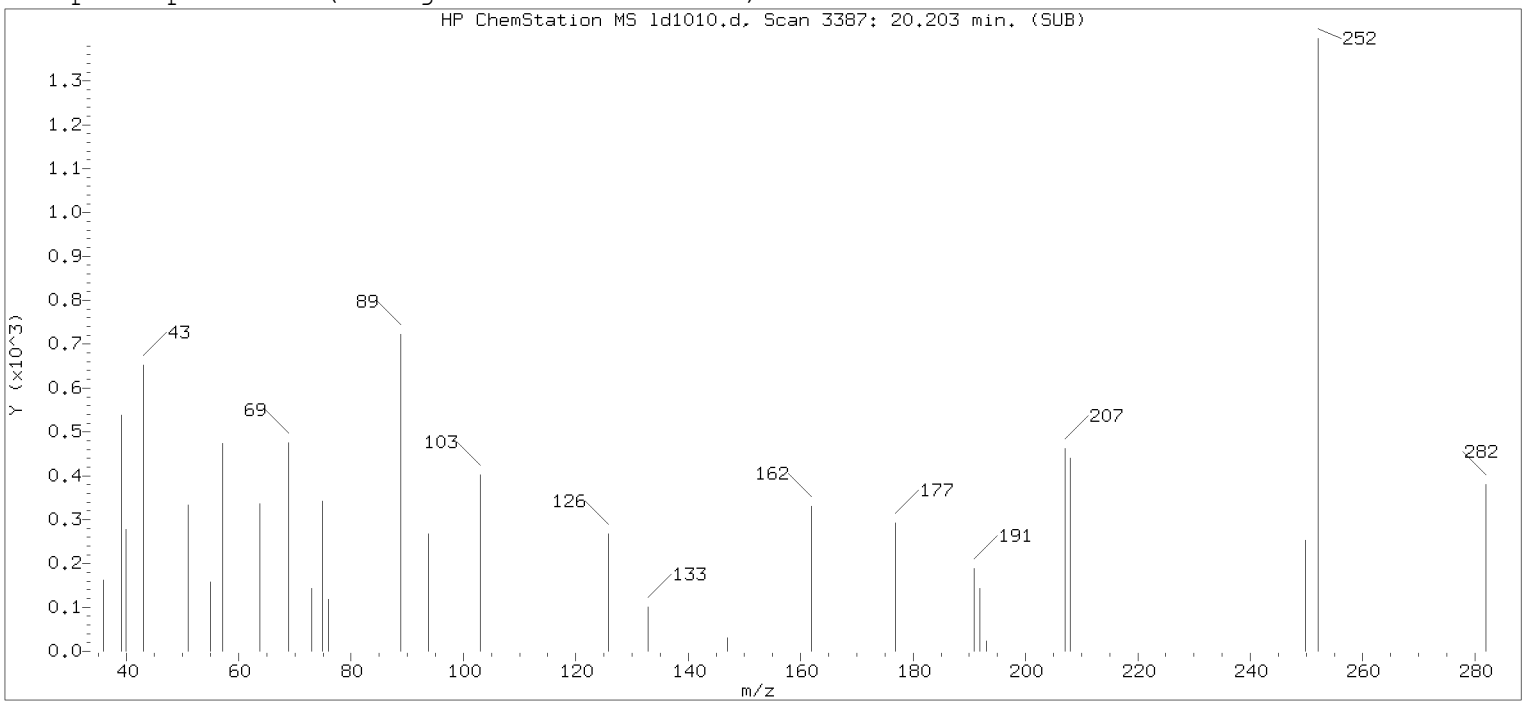
Compound Number : 216
Compound Name : Benzo(a)pyrene
Scan Number : 3387
Retention Time (minutes) : 20.203
Quant Ion : 252.00
Area (flag) : 2326M
On-Column Amount (ng/ul) : 0.0193
Integration start scan : 3378 Integration stop scan: 3394
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

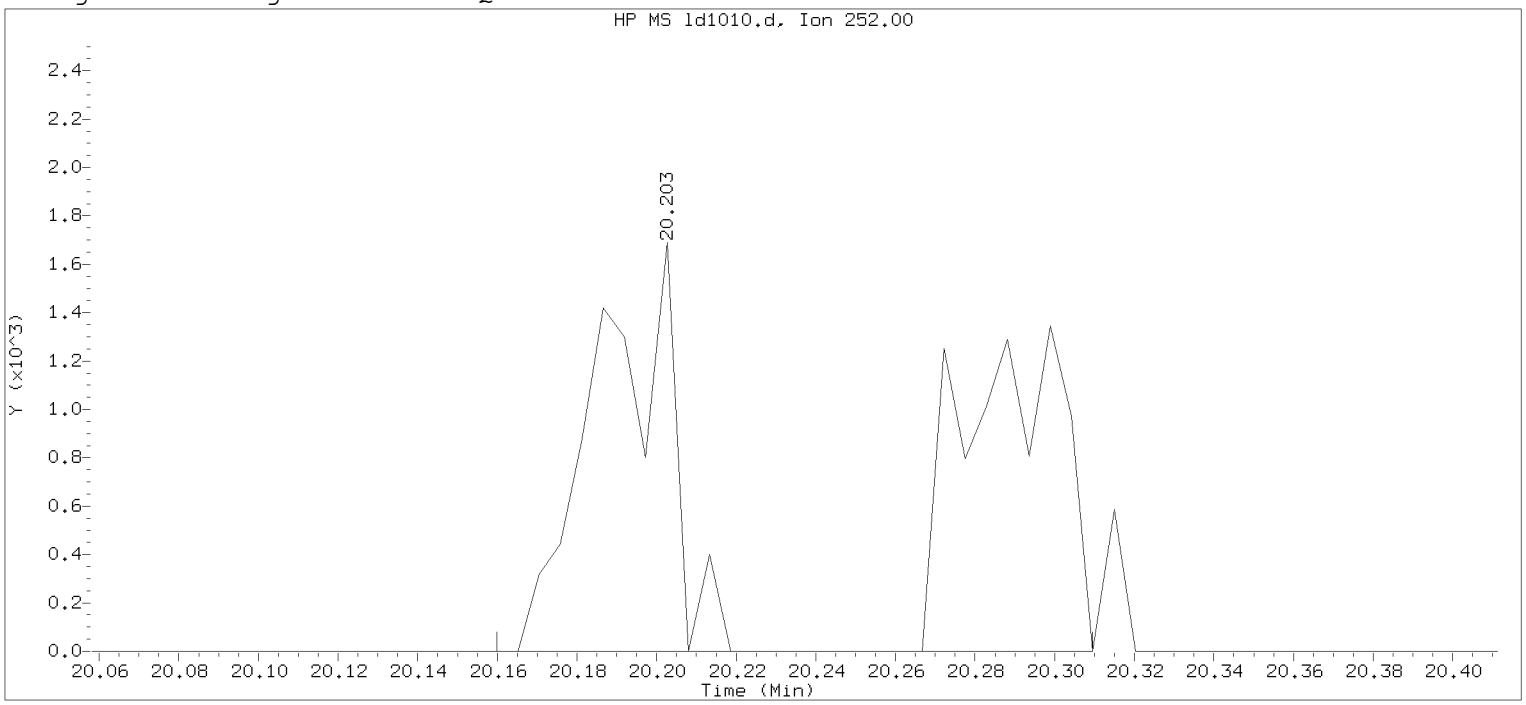
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:07 chemist

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

Compound Number	: 216		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 3387		
Retention Time (minutes)	: 20.203		
Quant Ion	: 252.00		
Area	: 4723		
On-column Amount (ng/ul)	: 0.0393		
Integration start scan	: 3378	Integration stop scan:	3406
Y at integration start	: 0	Y at integration end:	0

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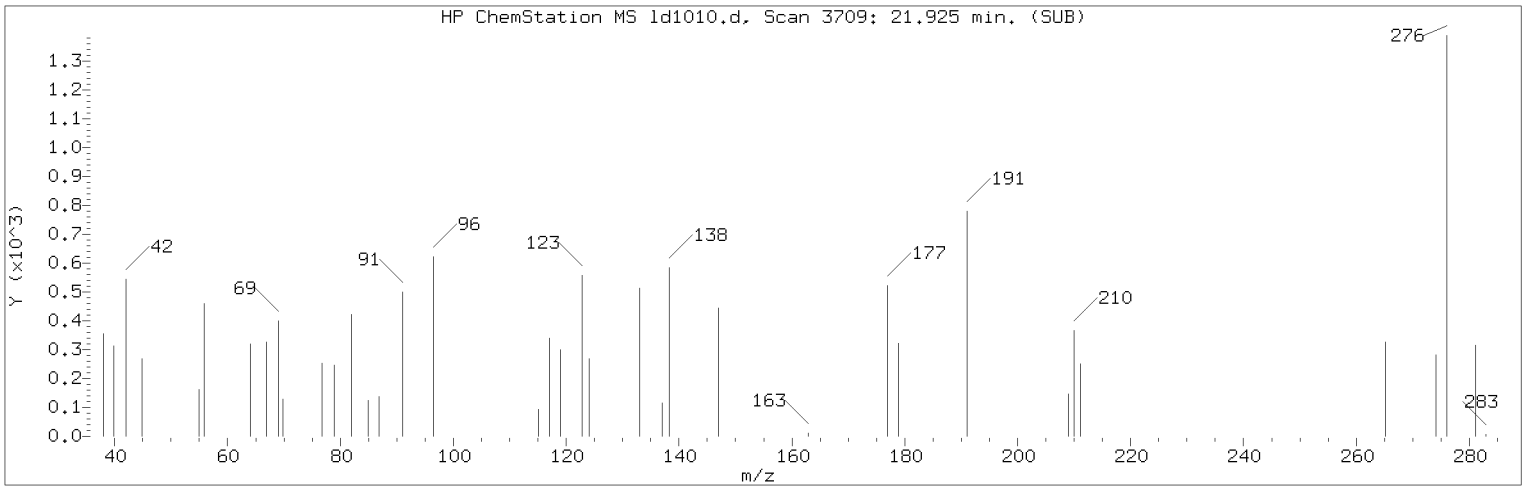
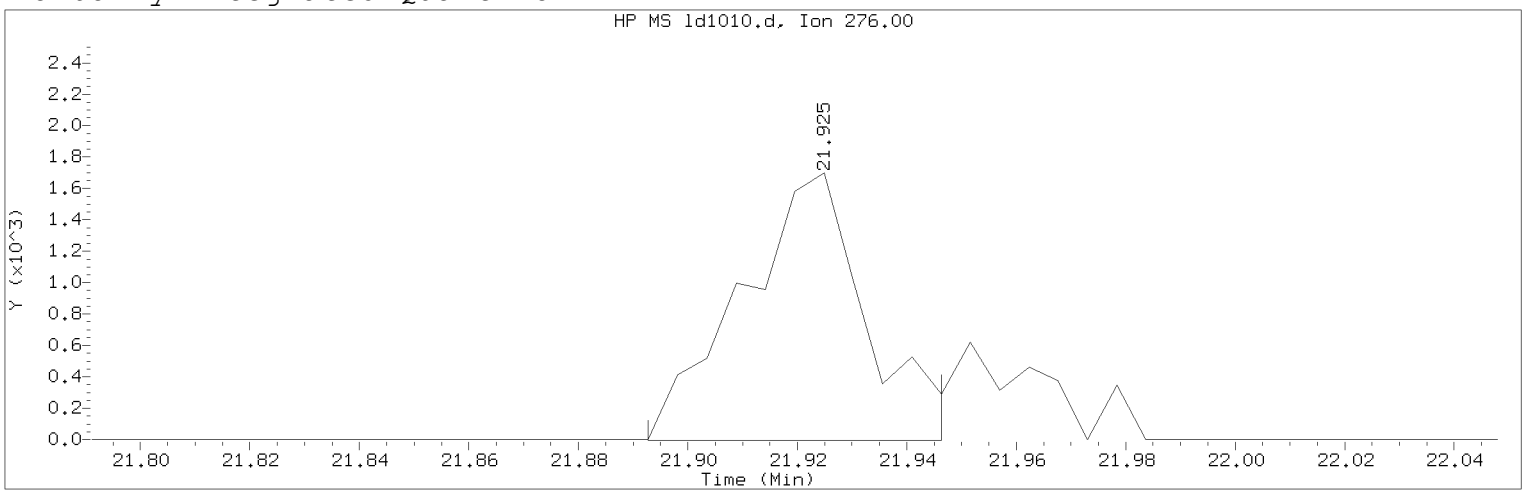
Target 3.5 esignature used. Page 24

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:47 art12405

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

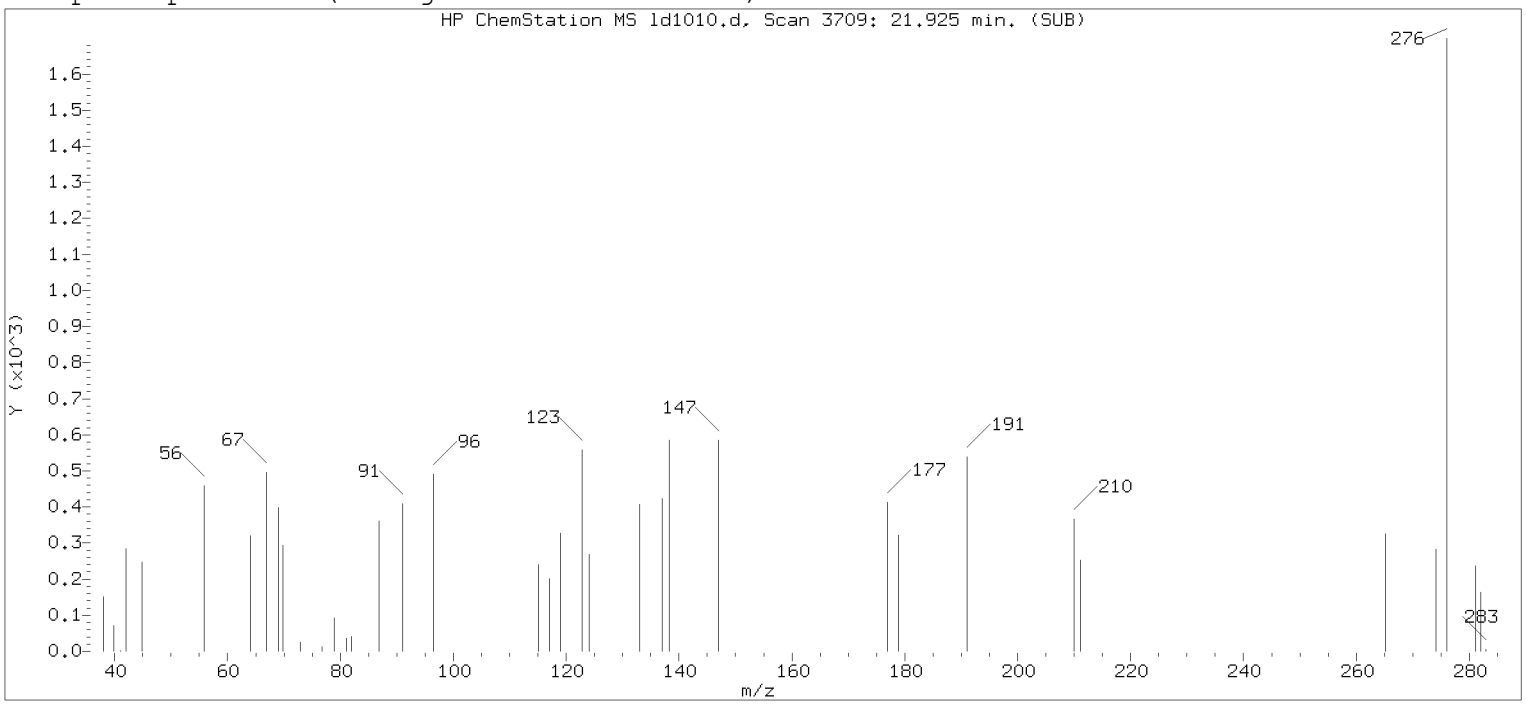
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3709
Retention Time (minutes) : 21.925
Quant Ion : 276.00
Area (flag) : 2694M
On-Column Amount (ng/ul) : 0.0229
Integration start scan : 3702 Integration stop scan: 3712
Y at integration start : -4 Y at integration end: -4

Reason for manual integration: improper integration

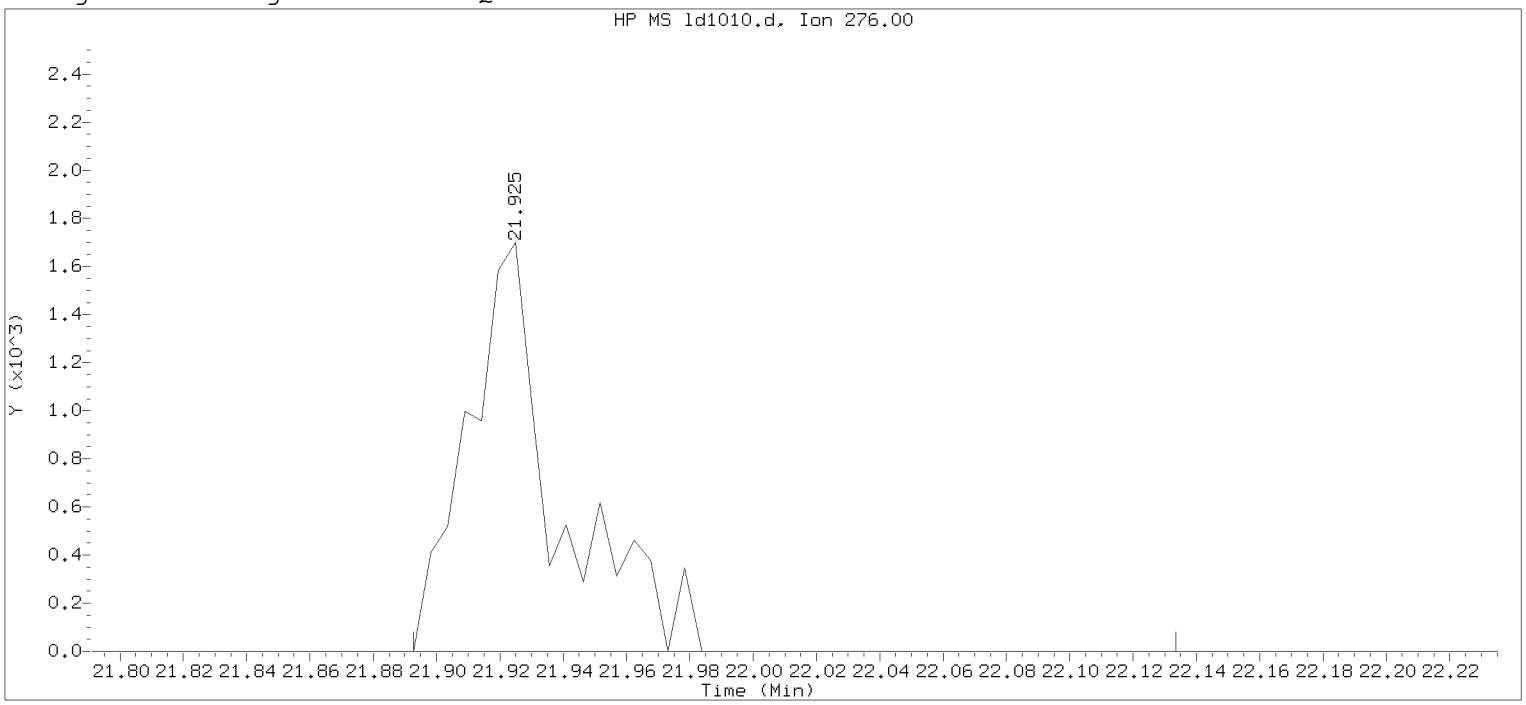
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/16/2019 at 21:47.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:50.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1010.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 20:36 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: pahmdlall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:07 chemist

Sample Name: SSTD0.025 Lab Sample ID: rvSTD0929

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3709		
Retention Time (minutes)	: 21.925		
Quant Ion	: 276.00		
Area	: 3359		
On-column Amount (ng/ul)	: 0.0286		
Integration start scan	: 3702	Integration stop scan:	3747
Y at integration start	: 0	Y at integration end:	0

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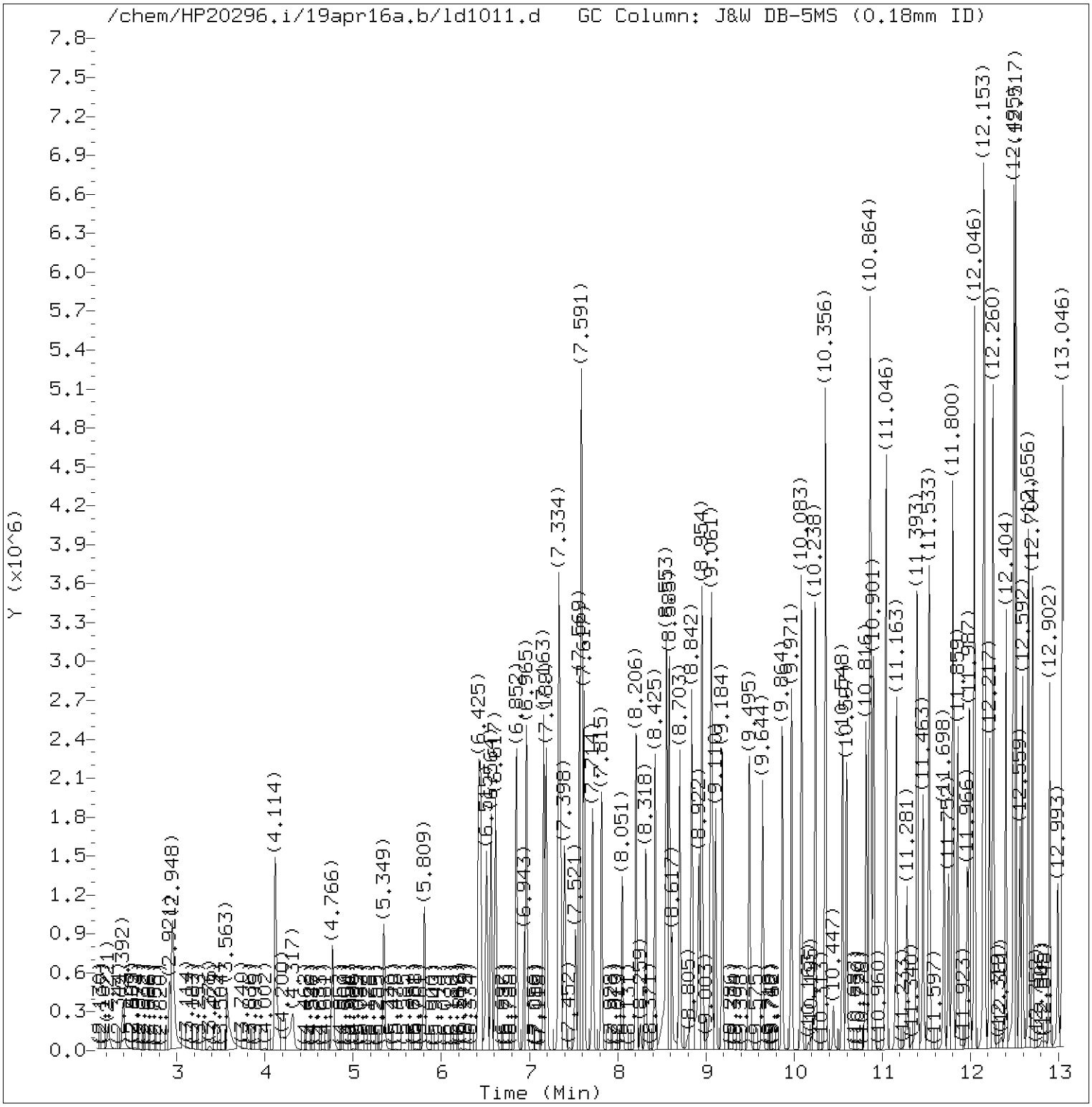
Target 3.5 esignature user: F35 Page 2026



Total Ion Chromatogram (TIC)

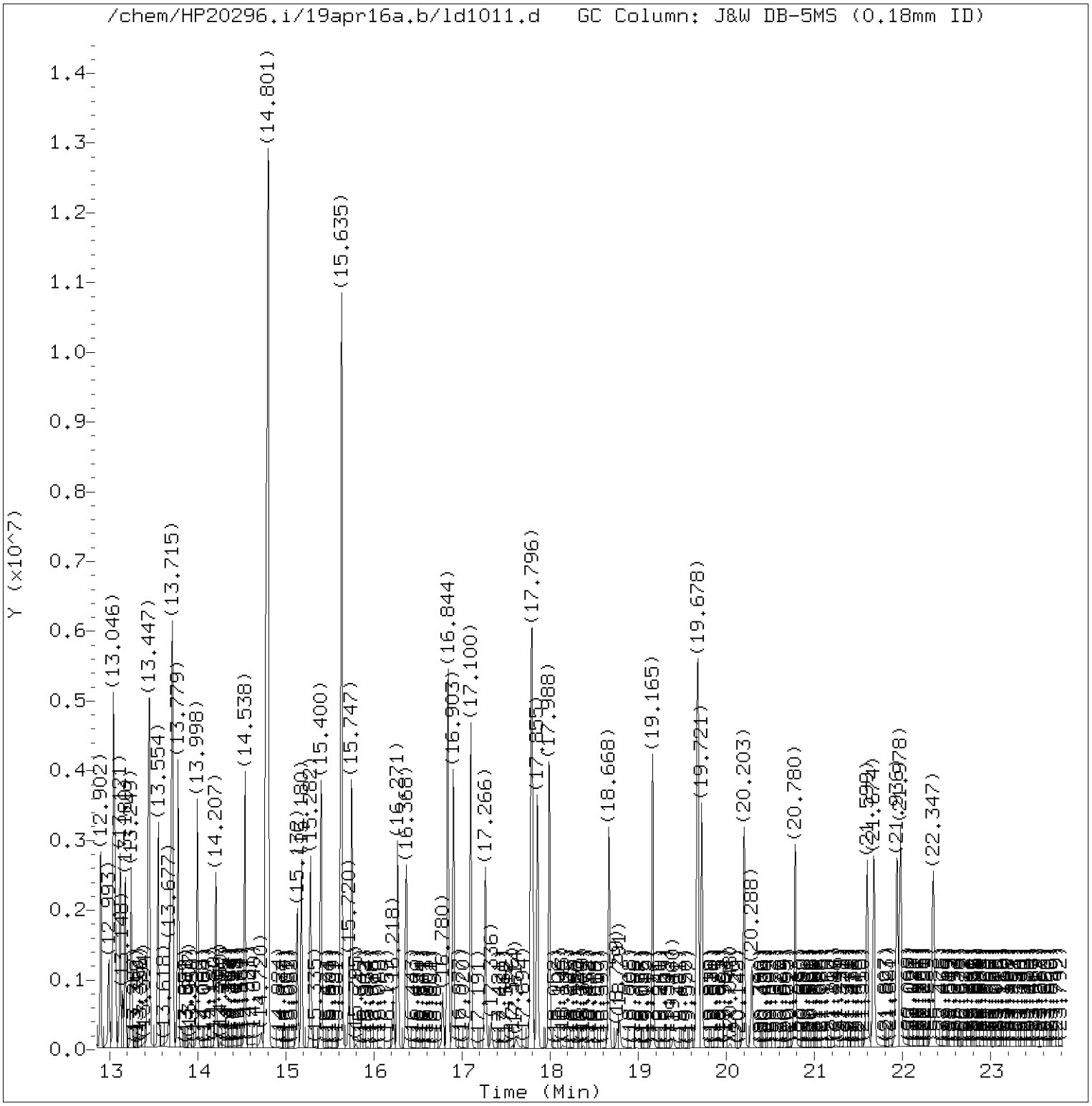
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1)	1,4-Dioxane	(1)	2.392	88	310719	12.279
5)	N-Nitrosodimethylamine	(1)	2.921	74	524808	13.315
6)	Pyridine	(1)	2.953	79	801617	11.516
8)	2-Picoline	(1)	4.114	93	879139	12.666
9)	N-Nitrosomethylethylamine	(1)	4.317	88	348593	12.316
10)	Methyl methanesulfonate	(1)	4.766	80	450675	12.924
14)	N-Nitrosodiethylamine	(1)	5.349	102	331573	12.163
43)	Total Cresols	(1)	5.660	100	1437755	25.218
16)	Ethyl methanesulfonate	(1)	5.809	109	351134	12.128
19)	Phenol	(1)	6.425	94	1088849	12.544
20)	Aniline	(1)	6.446	93	1103765	10.958
23)	bis(2-Chloroethyl)ether	(1)	6.564	93	813490	12.584
24)	2-Chlorophenol	(1)	6.617	128	666007	12.656
25)	1,3-Dichlorobenzene	(1)	6.852	146	720282	12.654
26)*	1,4-Dichlorobenzene-d4	(1)	6.938	152	173104	5.000
27)	1,4-Dichlorobenzene	(1)	6.965	146	729804	12.638
28)	Benzyl alcohol	(1)	7.163	108	496044	13.915
29)	1,2-Dichlorobenzene	(1)	7.189	146	691607	12.772
31)	Indene	(1)	7.328	115	1290448	18.498
32)	2-Methylphenol	(1)	7.350	108	673212	12.548
100)	Isosafrole	(3)	7.383	162	519545	12.302
35)	bis(2-Chloroisopropyl)ether	(1)	7.398	45	996676	12.199
34)	2,2'-oxybis(1-Chloropropane)	(1)	7.398	45	996676	12.199
36)	N-Nitrosopyrrolidine	(1)	7.521	100	361879	12.614
37)	Acetophenone	(1)	7.564	105	1099618	13.241
39)	N-Nitroso-di-n-propylamine	(1)	7.591	70	609564	12.975
38)	4-Methylphenol	(1)	7.591	108	764543	12.670
40)	N-Nitrosomorpholine	(1)	7.591	56	426294	12.393
41)	o-Toluidine	(1)	7.617	106	1128664	12.036
44)	Hexachloroethane	(1)	7.714	117	326175	12.630
46)	Nitrobenzene	(2)	7.815	77	891746	12.840
125)	2,4_2,6-Dinitrotoluenes	(3)	8.050	165	628903	26.405
50)	N-Nitrosopiperidine	(2)	8.051	114	316904	12.149
52)	Isophorone	(2)	8.211	82	1509869	12.477
53)	2-Nitrophenol	(2)	8.318	139	316626	12.843
55)	2,4-Dimethylphenol	(2)	8.425	107	578878	10.064
59)	O,O,O-Triethylphosphorothioate	(2)	8.553	198	301370	13.326
57)	bis(2-Chloroethoxy)methane	(2)	8.585	93	1026490	13.425
58)	Benzoic acid	(2)	8.617	105	1041850	25.896
62)	2,4-Dichlorophenol	(2)	8.703	162	510535	12.529

* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
151) Diallate trans/cis	(4)	8.775	86	638877	12.615
65) 1,2,4-Trichlorobenzene	(2)	8.842	180	581354	12.887
68)*Naphthalene-d8	(2)	8.922	136	664607	5.000
69) Naphthalene	(2)	8.954	128	1899385	12.612
70) 4-Chloroaniline	(2)	9.056	127	757710	12.169
71) 2,6-Dichlorophenol	(2)	9.067	162	491387	12.310
72) Hexachloropropene	(2)	9.110	213	354661	12.927
74) Hexachlorobutadiene	(2)	9.190	225	325042	12.952
78) Quinoline	(2)	9.495	129	1155734	13.117
80) N-Nitrosodi-n-butylamine	(2)	9.644	84	537316	11.818
83) 4-Chloro-3-methylphenol	(2)	9.864	107	636465	12.702
85) Safrole	(2)	9.971	162	431409	12.163
86) 2-Methylnaphthalene	(2)	10.083	142	1206666	12.876
87) 1-Methylnaphthalene	(2)	10.243	142	1161619	12.793
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.356	216	540262	12.654
88) Hexachlorocyclopentadiene	(3)	10.356	237	448549	18.190
91) cis-Isosafrole	(3)	10.447	162	58603	1.540
93) 2,4,6-Trichlorophenol	(3)	10.548	196	367007	13.181
95) 2,4,5-Trichlorophenol	(3)	10.597	196	386468	13.213
97) trans-Isosafrole	(3)	10.816	162	460942	10.762
98) 1,1'-Biphenyl	(3)	10.859	154	1429578	13.164
99) 2-Chloronaphthalene	(3)	10.869	162	1133156	12.531
101) 1-Chloronaphthalene	(3)	10.901	162	1046402	12.921
103) Diphenyl ether	(3)	11.046	170	715867	12.535
104) 2-Nitroaniline	(3)	11.046	138	354048	13.349
108) 1,4-Naphthoquinone	(3)	11.163	158	553772	16.138
109) 1,4-Dinitrobenzene	(3)	11.281	168	171359	13.269
110) Dimethylphthalate	(3)	11.393	163	1188962	12.810
111) 1,3-Dinitrobenzene	(3)	11.399	168	189346	13.399
113) 2,6-Dinitrotoluene	(3)	11.463	165	269428	13.319
114) Acenaphthylene	(3)	11.538	152	1602569	13.203
117) 3-Nitroaniline	(3)	11.698	138	305703	13.202
118)*Acenaphthene-d10	(3)	11.752	164	306984	5.000
119) Acenaphthene	(3)	11.800	153	1169681	12.819
120) 2,4-Dinitrophenol	(3)	11.859	184	313336	26.696
121) 4-Nitrophenol	(3)	11.966	109	234374	13.565
122) Pentachlorobenzene	(3)	11.992	250	433639	12.204
124) Dibenzofuran	(3)	12.046	168	1549296	13.019
123) 2,4-Dinitrotoluene	(3)	12.046	165	359475	13.086
126) 1-Naphthylamine	(3)	12.153	143	1918687	21.999

* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
127) 2,3,4,6-Tetrachlorophenol	(3)	12.217	232	285193	13.276
128) 2-Naphthylamine	(3)	12.260	143	1762095	20.804
129) Diethylphthalate	(3)	12.404	149	1190673	12.810
131) Fluorene	(3)	12.490	166	1210347	12.689
130) Thionazin	(3)	12.495	107	261651	13.720
133) 5-Nitro-o-toluidine	(3)	12.511	152	329335	12.961
134) 4-Nitroaniline	(3)	12.517	138	297332	12.110
132) 4-Chlorophenyl-phenylether	(3)	12.517	204	549261	12.240
135) 4,6-Dinitro-2-methylphenol	(4)	12.559	198	195753	12.910
136) N-Nitrosodiphenylamine	(4)	12.661	169	986306	13.015
137) NDPA as diphenylamine	(4)	12.661	169	986306	13.015
139) 1,2-Diphenylhydrazine	(4)	12.704	77	1739896	13.540
142) Tetraethyldithiopyrophosphate	(4)	12.896	97	262256	13.315
144) 1,3,5-Trinitrobenzene	(4)	12.993	213	111853	12.309
145) Diallate (peak 1)	(4)	13.041	86	478953	8.987
146) Phorate	(4)	13.046	75	1043651	13.695
147) Phenacetin	(4)	13.062	108	709248	12.831
148) 4-Bromophenyl-phenylether	(4)	13.126	248	301231	12.259
149) Diallate (peak 2)	(4)	13.148	86	159924	3.628
150) Hexachlorobenzene	(4)	13.180	284	334977	12.215
152) Dimethoate	(4)	13.244	87	665102	13.442
154) Pentachlorophenol	(4)	13.437	266	232734	13.380
155) 4-Aminobiphenyl	(4)	13.447	169	1216847	13.881
156) Pentachloronitrobenzene	(4)	13.453	237	148435	12.996
157) Pronamide	(4)	13.554	173	545925	13.560
158)*Phenanthrene-d10	(4)	13.677	188	566528	5.000
159) Dinoseb	(4)	13.699	211	274954	12.316
160) Phenanthrene	(4)	13.709	178	1729026	12.625
162) Anthracene	(4)	13.779	178	1704897	12.476
168) Carbazole	(4)	13.998	167	1610130	13.226
169) Methyl parathion	(4)	14.207	109	510864	14.297
170) Di-n-butylphthalate	(4)	14.538	149	2134956	12.923
172) Parathion	(4)	14.774	109	345688	14.980
173) 4-Nitroquinoline-1-oxide	(4)	14.806	190	2607738	152.262
227) Total PAHs	(6)	15.000	100	29360896	233.547
176) Isodrin	(4)	15.180	193	203874	12.776
178) Fluoranthene	(4)	15.400	202	1841218	12.921
179) Benzidine	(5)	15.635	184	5498086	56.265
180)*Pyrene-d10	(5)	15.720	212	567205	5.000
182) Pyrene	(5)	15.747	202	1903757	12.390

* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

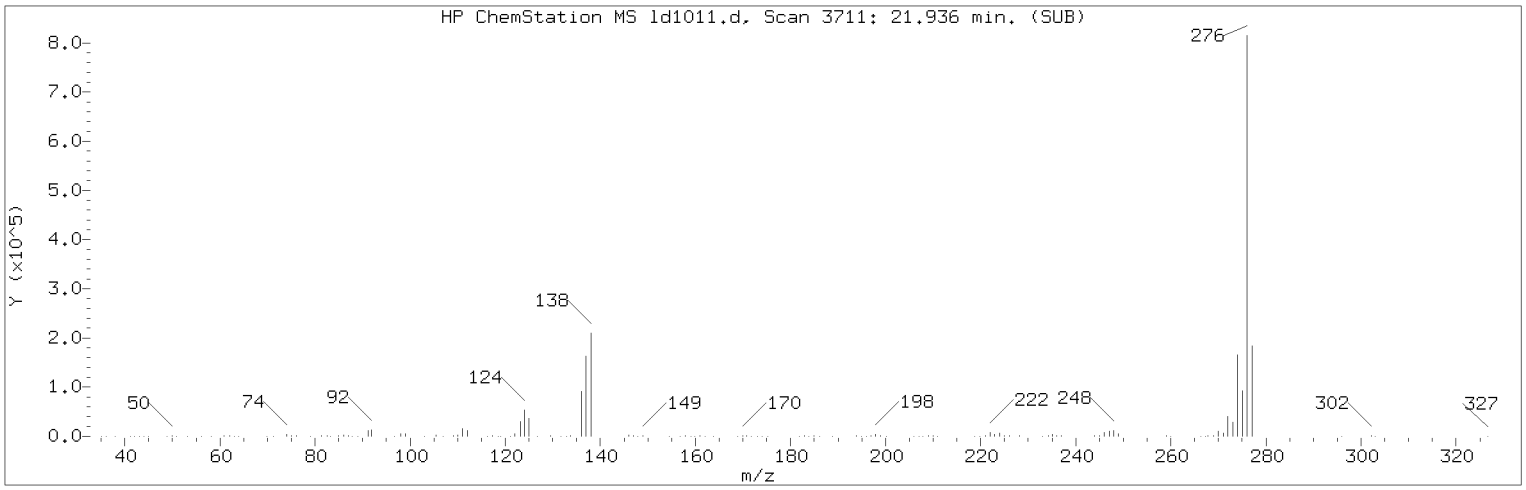
Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
187) p-Dimethylaminoazobenzene	(5)	16.271	225	342509	13.866
190) Chlorobenzilate	(5)	16.368	139	678281	13.602
192) 3,3'-Dimethylbenzidine	(5)	16.844	212	2432278	24.265
193) Butylbenzylphthalate	(5)	16.903	149	1026043	13.522
196) 2-Acetylaminofluorene	(5)	17.266	181	752590	12.010
198) 3,3'-Dichlorobenzidine	(5)	17.780	252	677863	12.990
200) Benzo(a)anthracene	(5)	17.796	228	1823488	13.183
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.801	231	372305	12.890
201) Chrysene	(5)	17.855	228	1721639	12.819
204) bis(2-Ethylhexyl)phthalate	(5)	17.994	149	1481110	13.413
208) 6-Methylchrysene	(5)	18.668	242	1196355	12.758
210) Di-n-octylphthalate	(6)	19.165	149	2590238	13.671
211) Benzo(b)fluoranthene	(6)	19.673	252	1788065	12.897
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.678	256	820971	14.234
213) Benzo(k)fluoranthene	(6)	19.721	252	1768810	13.295
216) Benzo(a)pyrene	(6)	20.203	252	1693853	13.439
218)*Perylene-d12	(6)	20.288	264	545988	5.000
220) 3-Methylcholanthrene	(6)	20.780	268	875445	13.557
222) Dibenz(a,h)acridine	(6)	21.599	279	1430187	13.028
223) Dibenz(a,j)acridine	(6)	21.679	279	1547454	14.214
224) Indeno(1,2,3-cd)pyrene	(6)	21.936	276	1653786M	13.414
225) Dibenz(a,h)anthracene	(6)	21.978	278	1776629	14.008
226) Benzo(g,h,i)perylene	(6)	22.353	276	1705461	13.089

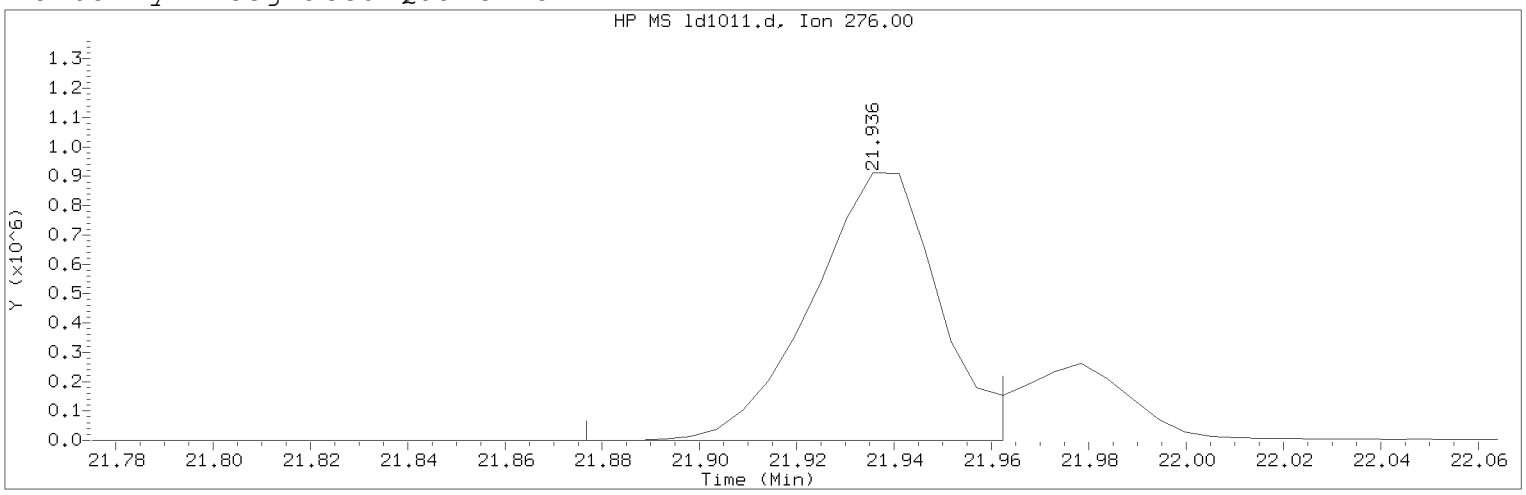
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

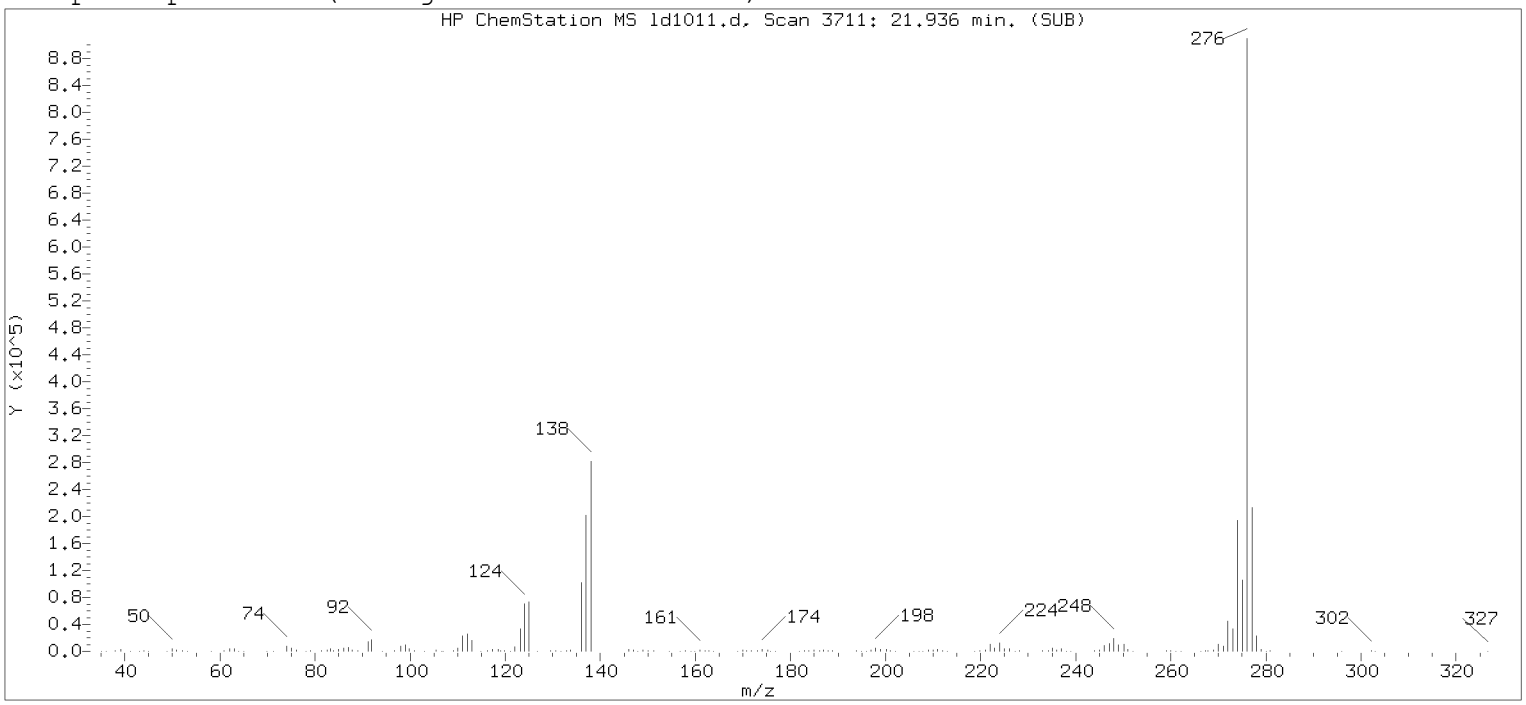
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3711
Retention Time (minutes) : 21.936
Quant Ion : 276.00
Area (flag) : 1653786M
On-Column Amount (ng/ul) : 13.4137
Integration start scan : 3699 Integration stop scan: 3715
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

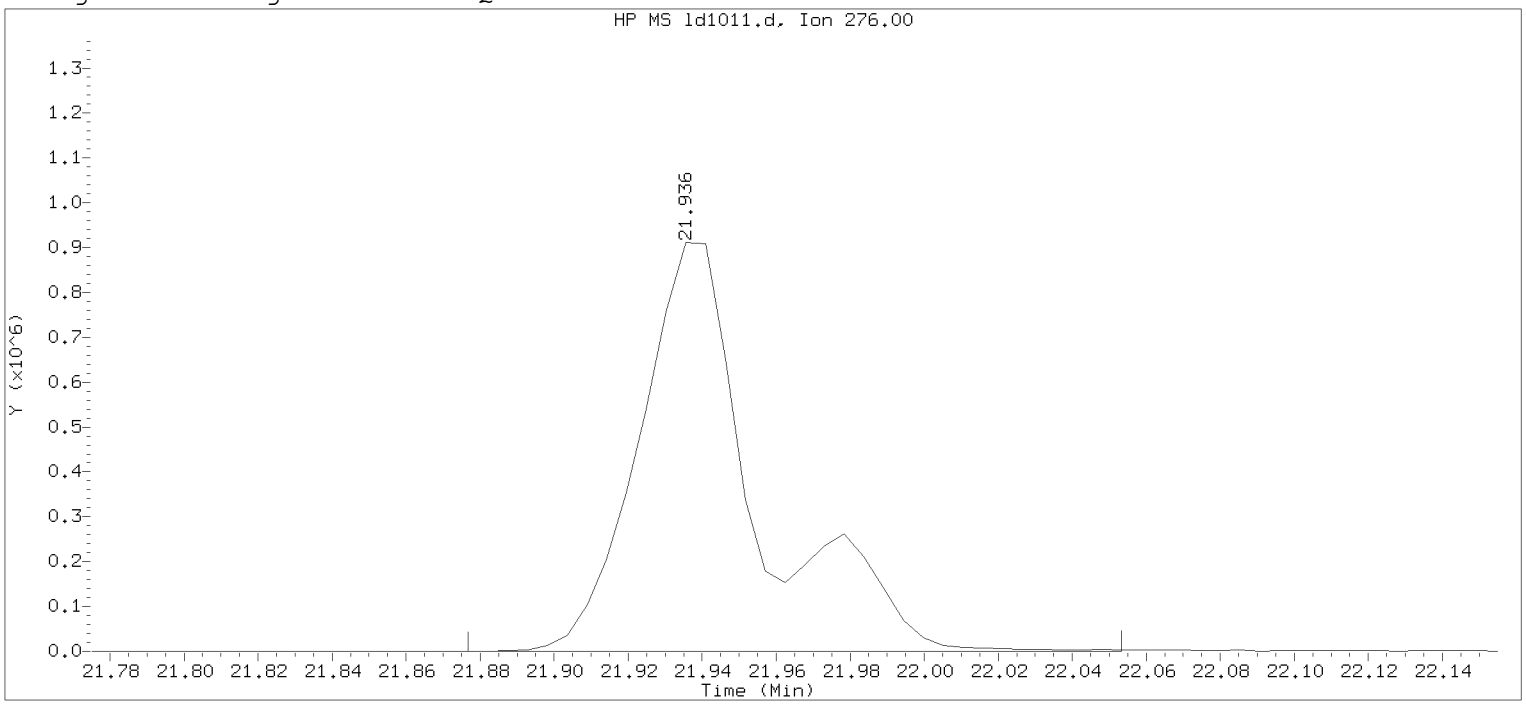
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 07:46.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



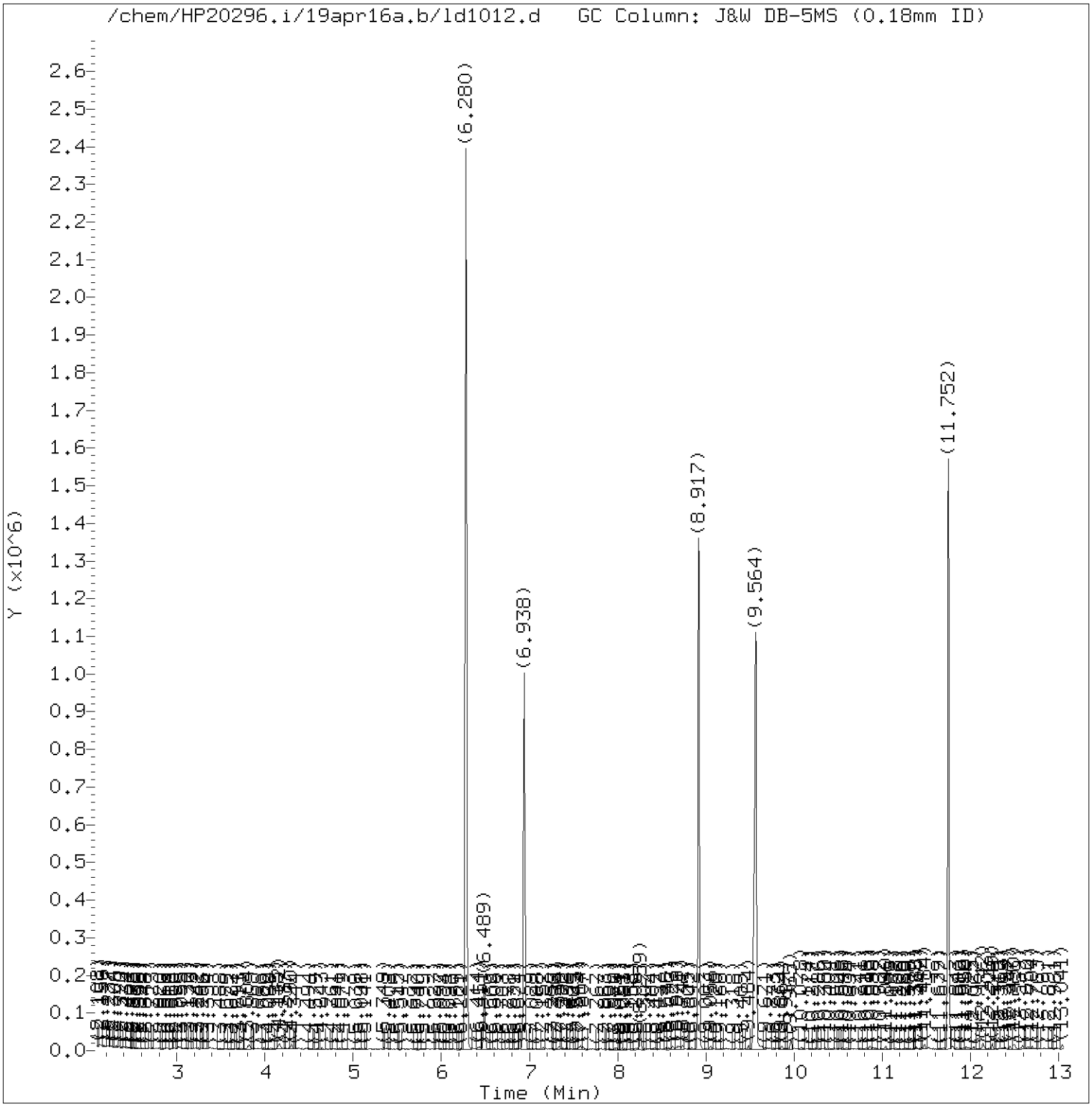
Data File: /chem/HP20296.i/19apr16a.b/ld1011.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:05 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: icvall1
Calibration date and time: 16-APR-2019 20:51
Date, time and analyst ID of latest file update: 16-Apr-2019 21:36 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvICV0929

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3711		
Retention Time (minutes)	: 21.936		
Quant Ion	: 276.00		
Area	: 2035765		
On-column Amount (ng/ul)	: 16.5118		
Integration start scan	: 3699	Integration stop scan:	3732
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/22/2019 at 18:50.
Target 3.5 esignature used. F35 Page 2034



Total Ion Chromatogram (TIC)

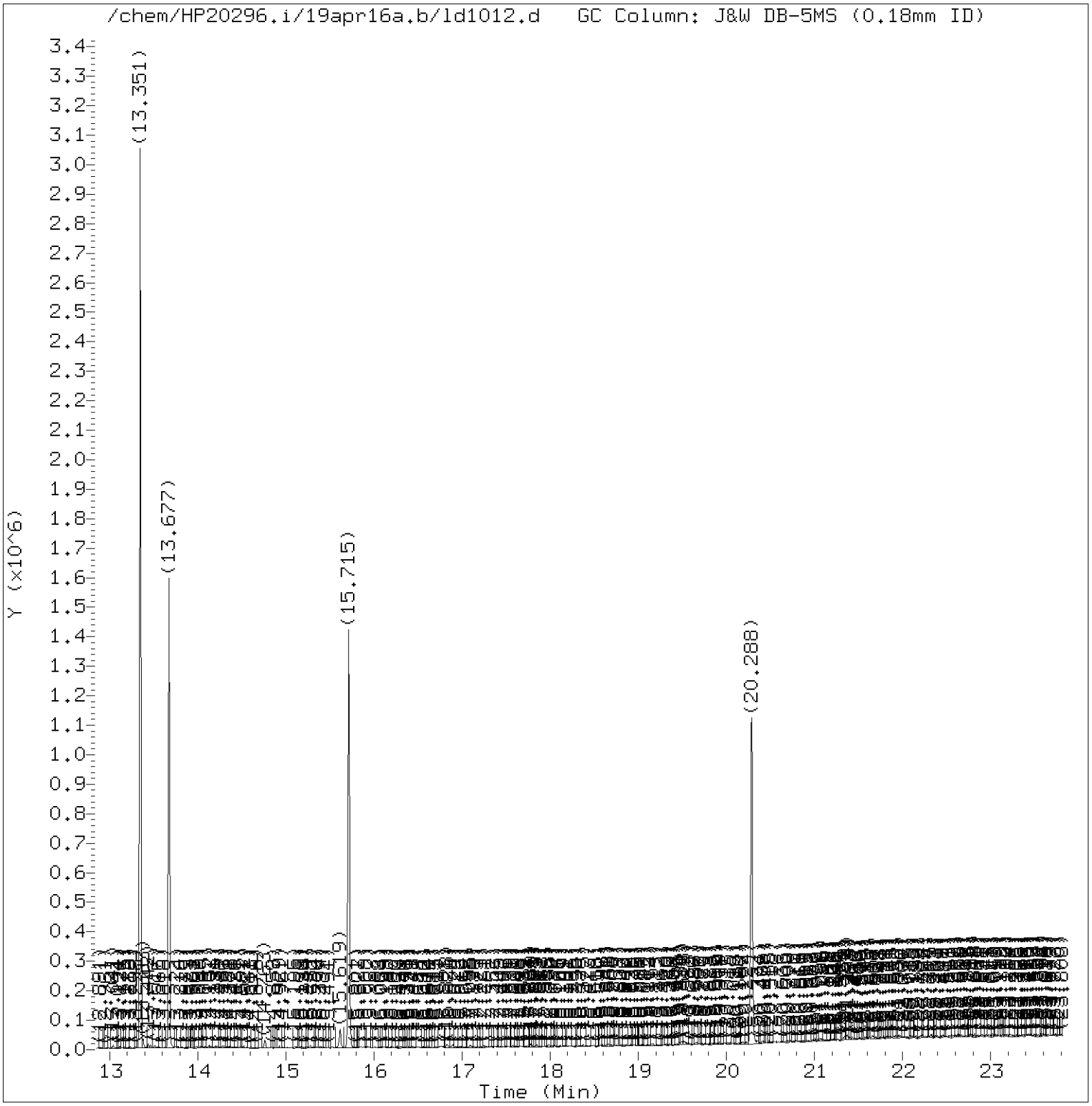
Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1012.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:34 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: basicvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: BASICV0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1012.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:34 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: basicvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: BASICV0929

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr16a.b/ld1012.d Instrument ID: HP20296.i
Injection date and time: 16-APR-2019 21:34 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr16a.b/rv8270d.m Sublist used: basicvall1
Calibration date and time: 22-APR-2019 18:45
Date, time and analyst ID of latest file update: 22-Apr-2019 18:49 art12405

Sample Name: SSTD12.5 Lab Sample ID: BASICV0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
17) Benzaldehyde	(1)	6.280	77	761958	13.625
26)*1,4-Dichlorobenzene-d4	(1)	6.938	152	188617	5.000
68)*Naphthalene-d8	(2)	8.917	136	733557	5.000
79) Caprolactam	(2)	9.564	113	187398	12.999
118)*Acenaphthene-d10	(3)	11.752	164	333129	5.000
153) Atrazine	(4)	13.351	200	327487	12.889
158)*Phenanthrene-d10	(4)	13.677	188	636564	5.000
180)*Pyrene-d10	(5)	15.715	212	597060	5.000
218)*Perylene-d12	(6)	20.288	264	536627	5.000

* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/22/2019 at 18:50.
Target 3.5 esignature user ID: art12405

Data File: /chem/HP20296.i/19apr17.b/ld1020a.d

Date : 17-APR-2019 23:09

Client ID: DFTPP12.5

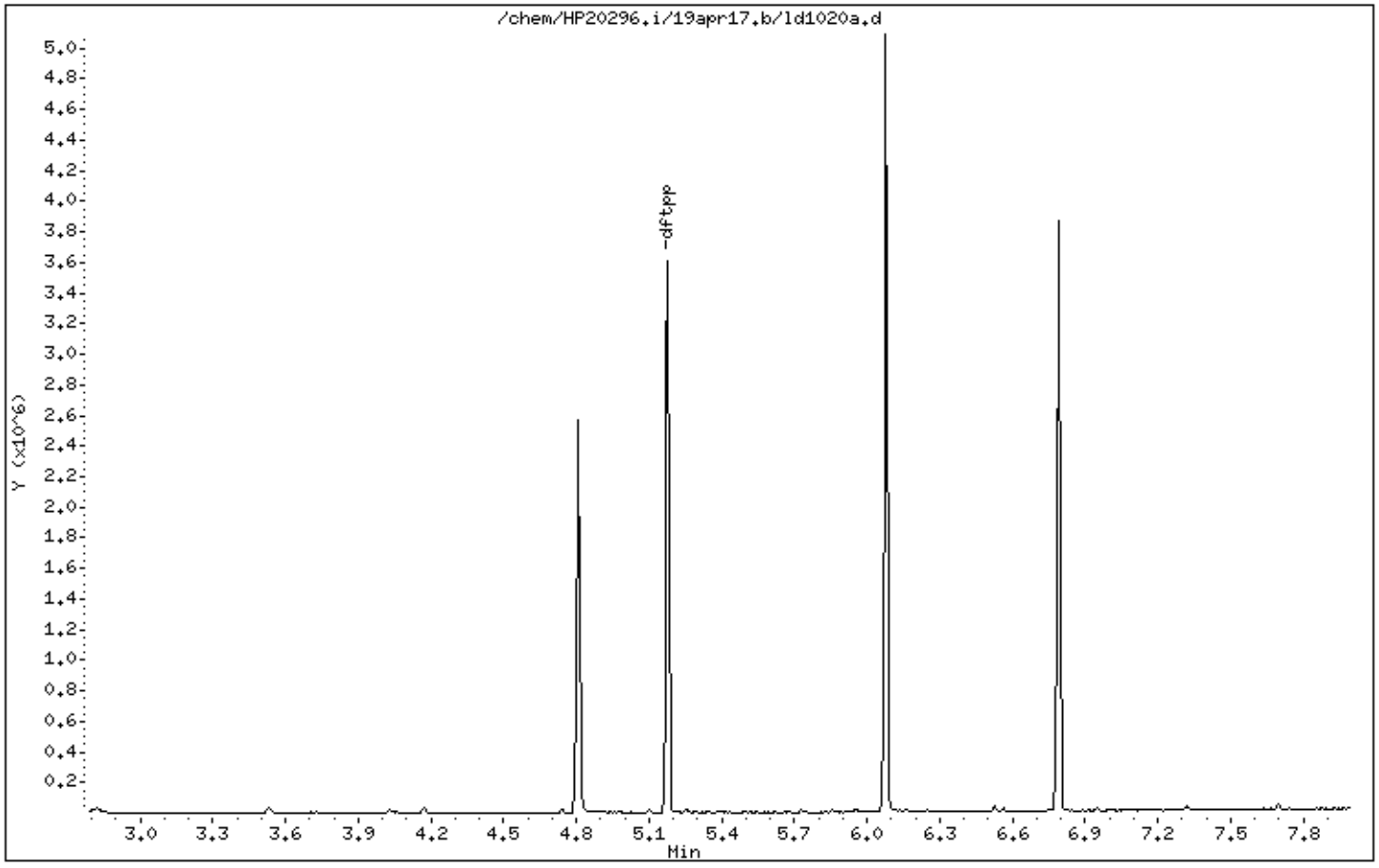
Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Edward Monborne on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP20296.i/19apr17.b/ld1020a.d

Date : 17-APR-2019 23:09

Client ID: DFTPP12.5

Instrument: HP20296.i

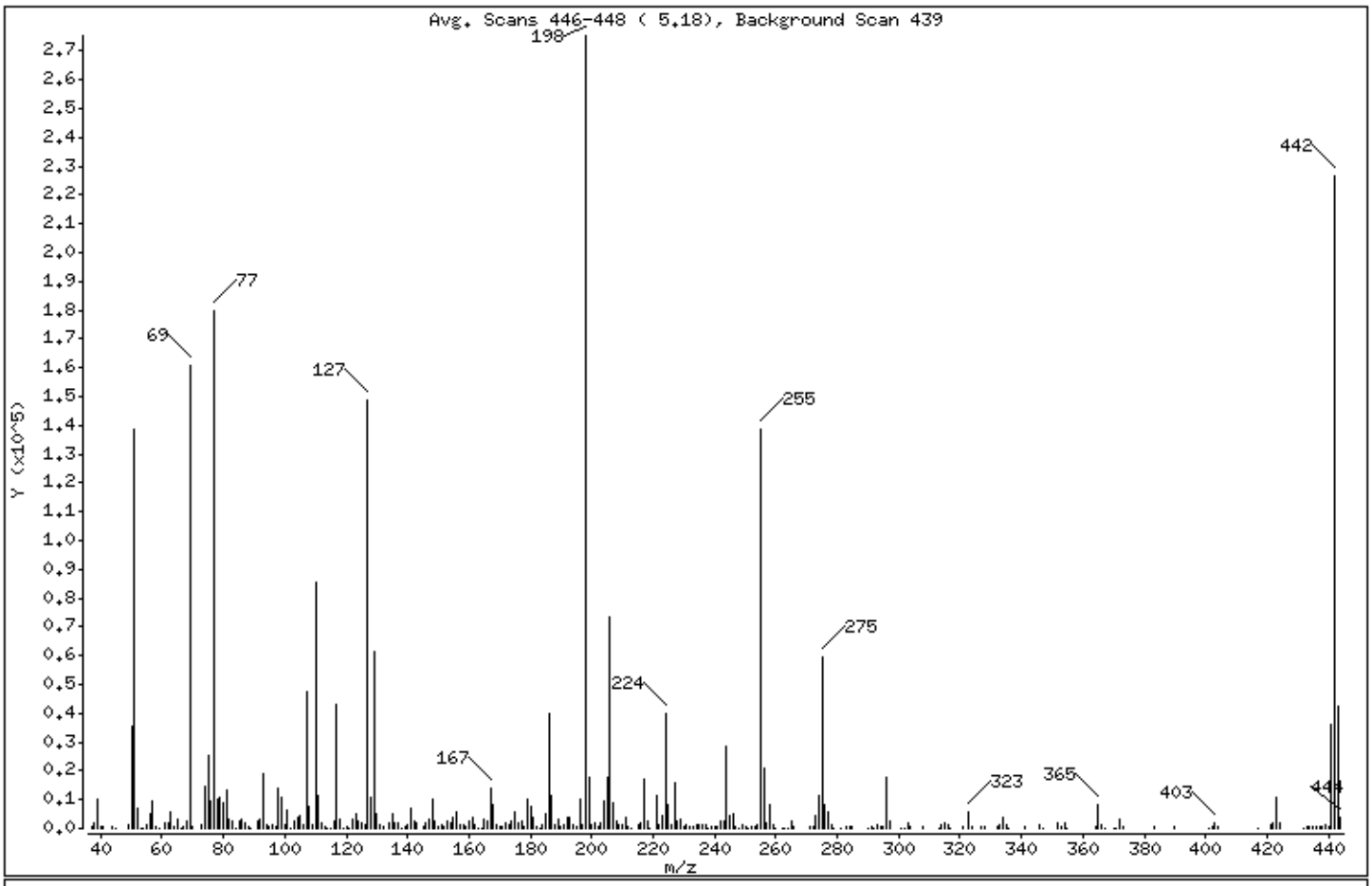
Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	50.47
68	Less than 2.00% of mass 69	0.86 (1.48)
69	Mass 69 relative abundance	58.35
70	Less than 2.00% of mass 69	0.25 (0.44)
127	10.00 - 80.00% of mass 198	54.05
197	Less than 2.00% of mass 198	0.42
199	5.00 - 9.00% of mass 198	6.47
275	10.00 - 60.00% of mass 198	21.55
365	Greater than 1.00% of mass 198	2.90
441	0.01 - 24.00% of mass 442	13.18 (16.00)
442	50.00 - 99.99% of mass 198	82.34
443	15.00 - 24.00% of mass 442	15.31 (18.59)

Digitally signed by Edward Monborne on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Date : 17-APR-2019 23:09

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1020a.d
Spectrum: Avg. Scans 446-448 (5.18), Background Scan 439
Location of Maximum: 198.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	550	121.00	89	198.00	275264	281.00	162
38.00	1690	122.00	3257	199.00	17800	283.00	342
39.00	10228	123.00	4775	200.00	1396	284.00	380
40.00	479	124.00	2390	201.00	1826	285.00	869
41.00	621	125.00	2123	202.00	384	290.00	103
44.00	390	126.00	1486	203.00	1969	291.00	392
45.00	217	127.00	148736	204.00	9514	292.00	241
49.00	1085	128.00	10470	205.00	17568	293.00	1294
50.00	35752	129.00	61272	206.00	73136	294.00	583
51.00	138880	130.00	5089	207.00	8970	295.00	453
52.00	7001	131.00	963	208.00	2412	296.00	17584
53.00	105	132.00	420	209.00	1187	297.00	2413
54.00	173	134.00	1664	210.00	1109	301.00	296
55.00	1102	135.00	4807	211.00	3661	302.00	95
56.00	4976	136.00	2106	212.00	317	303.00	2153
57.00	9402	137.00	1994	213.00	90	304.00	846
58.00	422	138.00	230	215.00	1010	308.00	327
59.00	114	139.00	363	216.00	2171	313.00	192
61.00	1938	140.00	1022	217.00	17160	314.00	1041
62.00	1910	141.00	6690	218.00	2607	315.00	1604
63.00	5521	142.00	2787	219.00	102	316.00	1142
64.00	727	143.00	1951	221.00	11289	317.00	209
65.00	2991	145.00	322	222.00	1132	321.00	422
66.00	293	146.00	1624	223.00	4339	323.00	5477
67.00	409	147.00	3435	224.00	39560	324.00	803
68.00	2380	148.00	10166	225.00	8386	327.00	887
69.00	160576	149.00	2450	226.00	1533	328.00	527
70.00	700	150.00	401	227.00	15955	332.00	541
73.00	1270	151.00	957	228.00	2603	333.00	955
74.00	14818	152.00	522	229.00	2901	334.00	3582
75.00	25616	153.00	2259	230.00	730	335.00	1077
76.00	9275	154.00	2119	231.00	1460	336.00	187
77.00	179712	155.00	3708	232.00	522	341.00	424
78.00	10136	156.00	5813	233.00	335	346.00	1053
79.00	10793	157.00	1051	234.00	1148	347.00	220

Digitally signed by Edward Monborne on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Date : 17-APR-2019 23:09

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1020a.d
Spectrum: Avg. Scans 446-448 (5.18), Background Scan 439
Location of Maximum: 198.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	8890	158.00	1434	235.00	1433	352.00	1856
81.00	13114	159.00	791	236.00	1013	353.00	902
82.00	3419	160.00	2249	237.00	1460	354.00	1844
83.00	2307	161.00	3512	238.00	223	355.00	252
84.00	309	162.00	1133	239.00	821	364.00	462
85.00	2237	163.00	153	240.00	709	365.00	7986
86.00	3443	164.00	265	241.00	833	366.00	980
87.00	1916	165.00	3321	242.00	2365	367.00	128
88.00	723	166.00	2606	243.00	2403	370.00	84
89.00	268	167.00	14052	244.00	28384	371.00	212
91.00	2644	168.00	8264	245.00	4184	372.00	2910
92.00	2973	169.00	1088	246.00	5151	373.00	873
93.00	19224	170.00	710	247.00	878	383.00	768
94.00	1107	171.00	416	248.00	171	390.00	479
95.00	373	172.00	1605	249.00	1478	401.00	221
96.00	1259	173.00	1436	250.00	409	402.00	928
97.00	709	174.00	2471	251.00	238	403.00	2162
98.00	14019	175.00	5809	252.00	899	404.00	789
99.00	10712	176.00	1678	253.00	544	417.00	83
100.00	1059	177.00	2601	254.00	1291	421.00	1458
101.00	6403	178.00	599	255.00	138688	422.00	1787
102.00	299	179.00	10108	256.00	21176	423.00	10689
103.00	2606	180.00	7360	257.00	1736	424.00	2172
104.00	3860	181.00	3660	258.00	8504	432.00	136
105.00	4543	182.00	669	259.00	1423	433.00	369
106.00	1547	183.00	300	260.00	209	434.00	679
107.00	47368	184.00	1267	262.00	112	435.00	496
108.00	7386	185.00	4889	263.00	132	436.00	495
109.00	1385	186.00	39656	264.00	270	437.00	416
110.00	85352	187.00	11581	265.00	2532	438.00	379
111.00	11527	188.00	1127	266.00	921	439.00	962
112.00	1638	189.00	3177	271.00	668	440.00	387
113.00	326	190.00	708	272.00	562	441.00	36272
114.00	124	191.00	1316	273.00	4219	442.00	226624
115.00	261	192.00	3585	274.00	11577	443.00	42144

Digitally signed by Edward Monborne on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Date : 17-APR-2019 23:09

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1020a.d

Spectrum: Avg. Scans 446-448 (5.18), Background Scan 439

Location of Maximum: 198.00

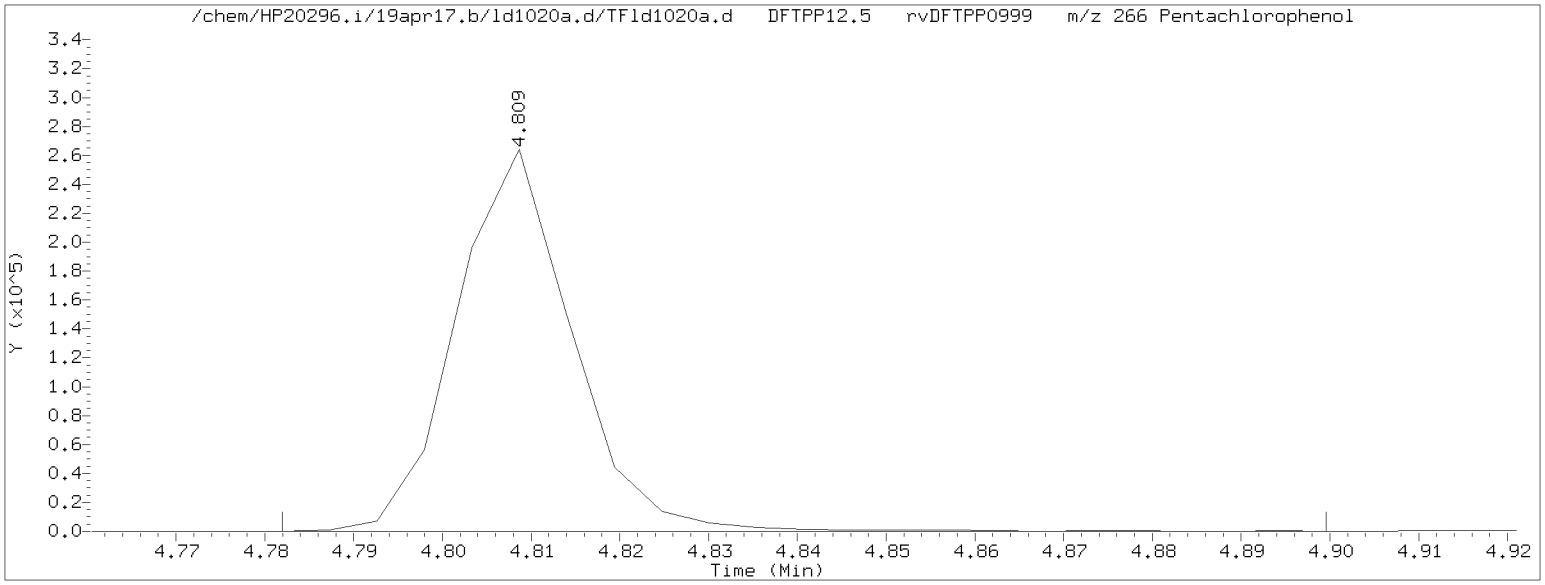
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2541	193.00	3593	275.00	59312	444.00	3820
117.00	43136	194.00	1287	276.00	8194		
118.00	3228	195.00	532	277.00	5477		
119.00	200	196.00	10436	278.00	1130		
120.00	494	197.00	1146	279.00	230		

Digitally signed by Edward Monborne on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Assessment of GC Column Performance and Injection Port Inertness for

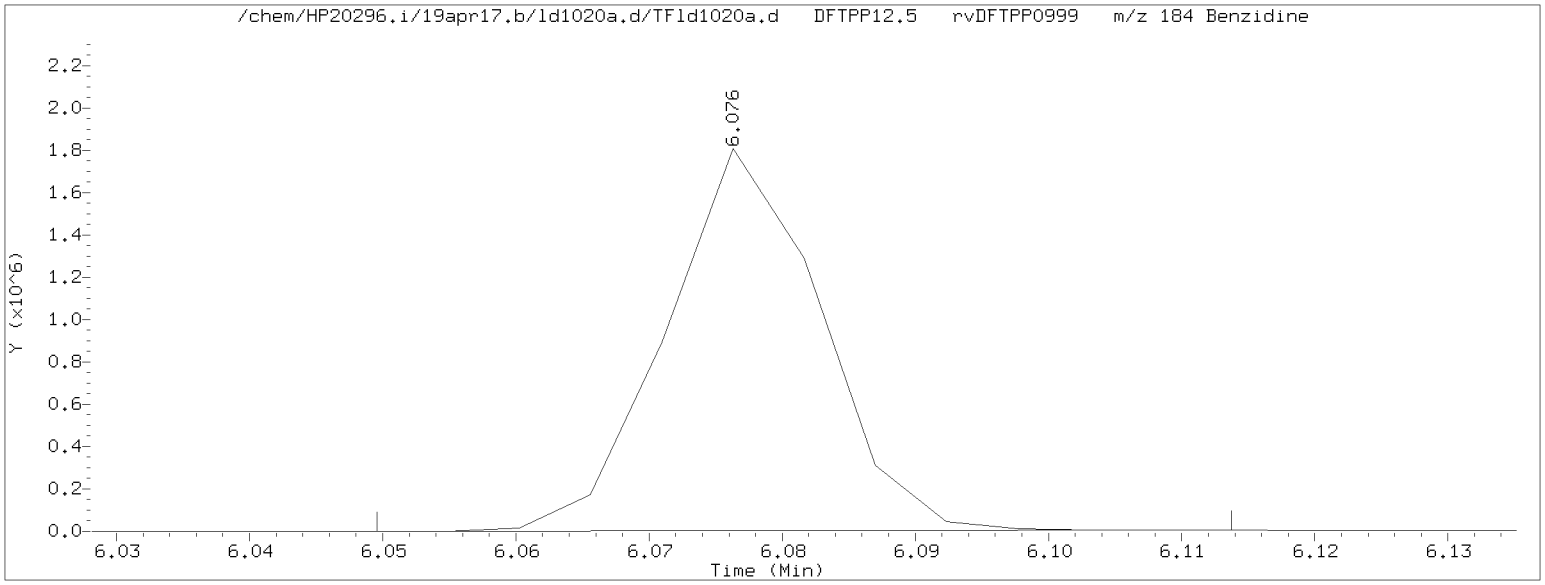
Instrument ID: HP20296.i Injection Date: 17-APR-2019 23:09 Operator: bkc25363



Pentachlorophenol EICP peak height = 264384 EICP peak height at 10% = 26438 Pentachlorophenol EICP area = 239768

Pentachlorophenol EICP peak apex (min.) = 4.809
RT at 10% of front half of EICP (min.) = 4.795 'Front' peak width (min.) = 0.0139500000
RT at 10% of back half of EICP (min.) = 4.822 'Tailing' peak width (min.) = 0.0137833333

$$\text{PCP tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0137833333}{0.0139500000} = 0.988$$



Benzidine EICP peak height = 1805396 EICP peak height at 10% = 180540 Benzidine EICP area = 1456115

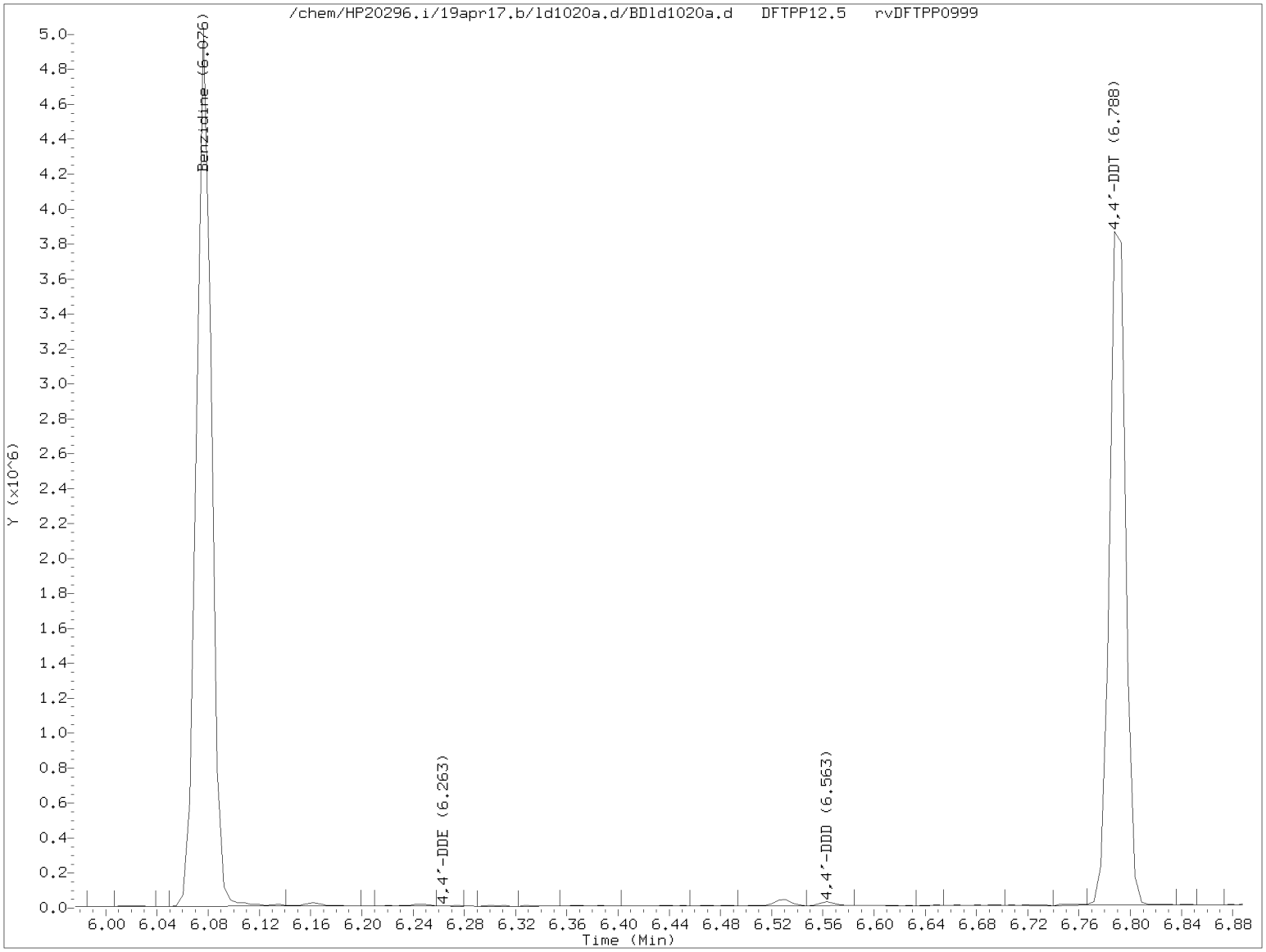
Benzidine EICP peak apex (min.) = 6.076
RT at 10% of front half of EICP (min.) = 6.066 'Front' peak width (min.) = 0.0106166667
RT at 10% of back half of EICP (min.) = 6.090 'Tailing' peak width (min.) = 0.0132833333

$$\text{Benzidine tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0132833333}{0.0106166667} = 1.251$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 08:29. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

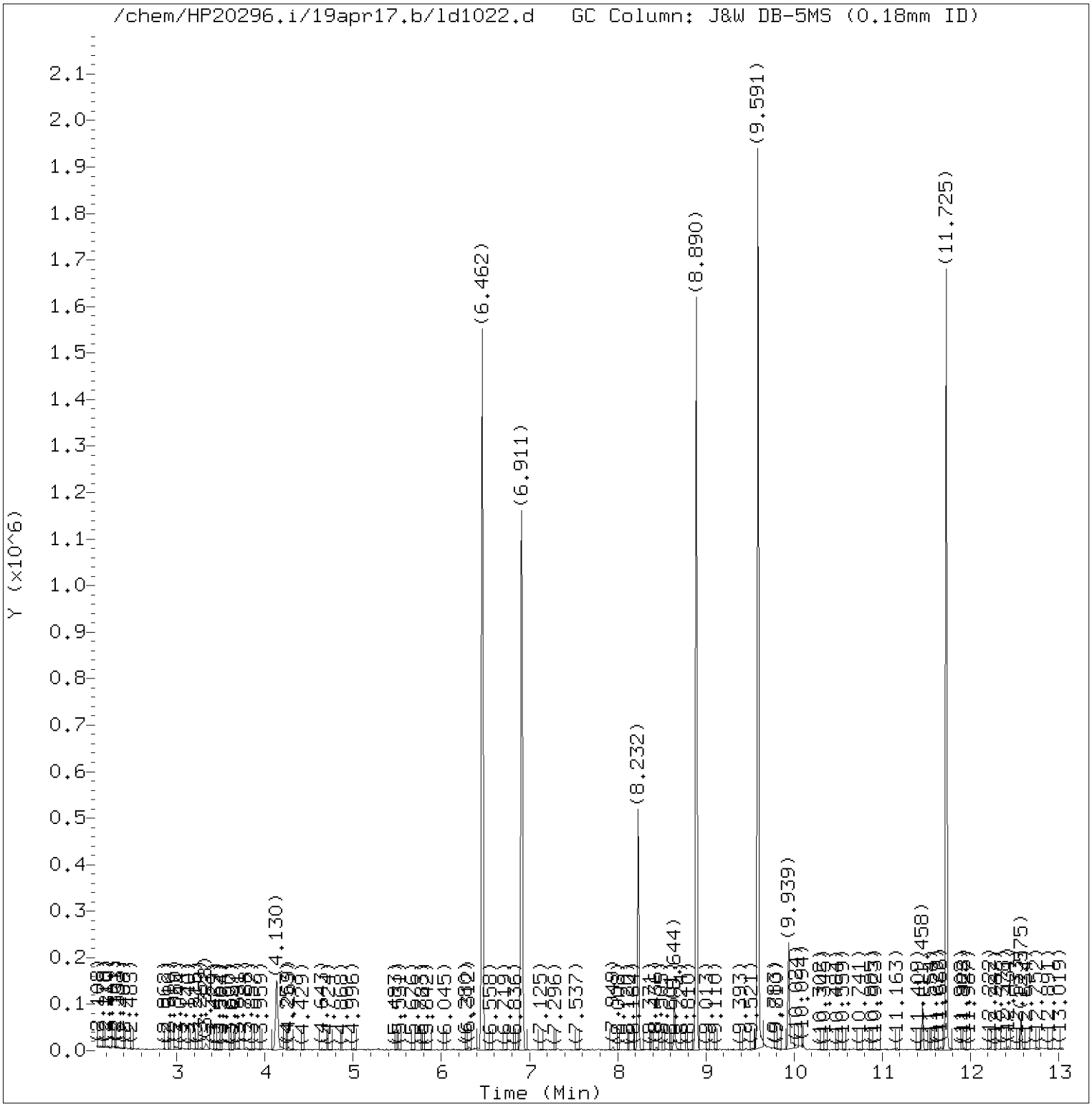
Instrument ID: HP20296.i Injection Date: 17-APR-2019 23:09 Operator: bkc25363



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{1928 + 19374}{1928 + 19374 + 3455942} \times 100 = 0.6$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 08:29. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

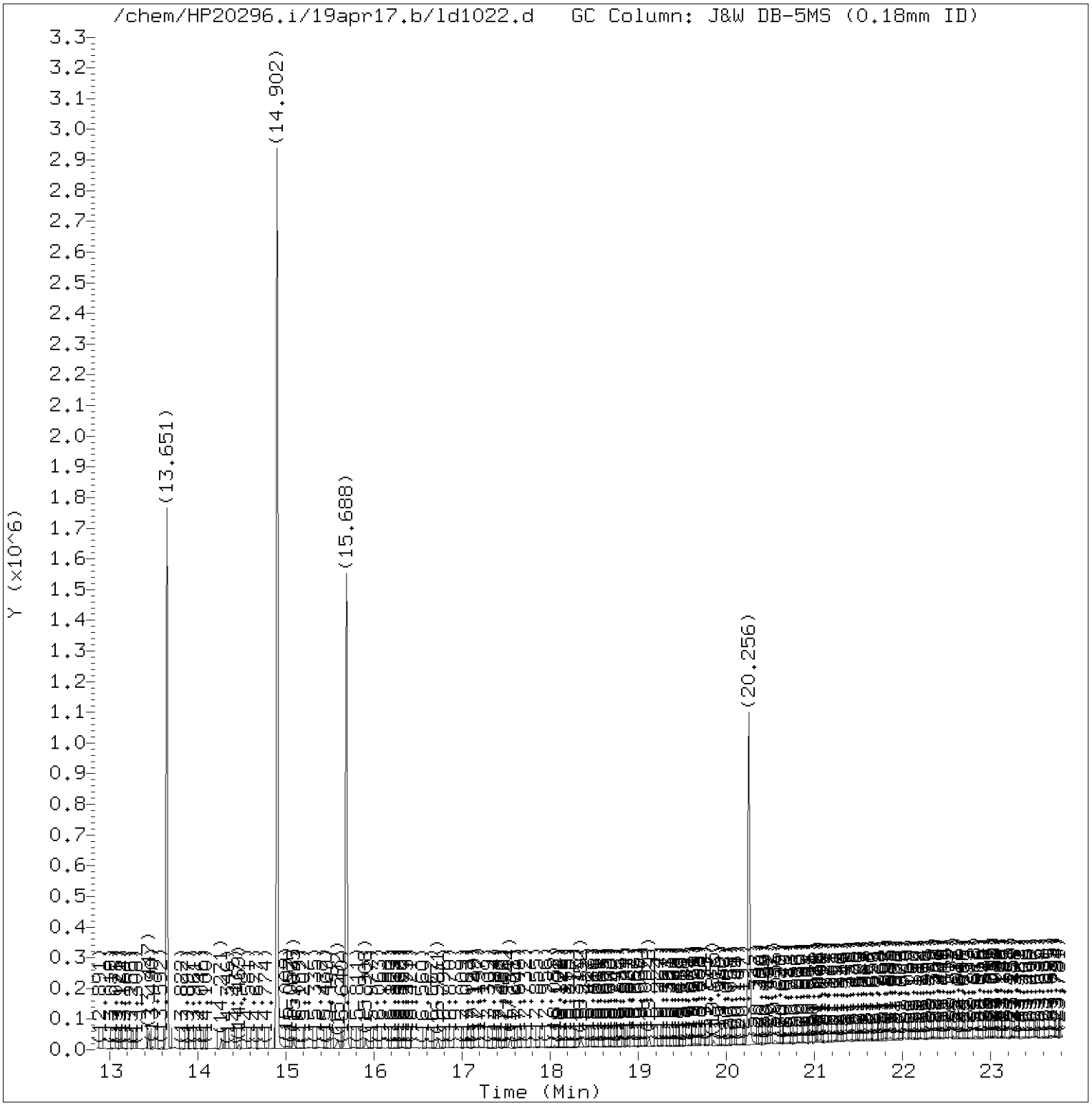
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1022.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:01 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1022.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:01 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1022.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:01 Analyst ID: bkc25363

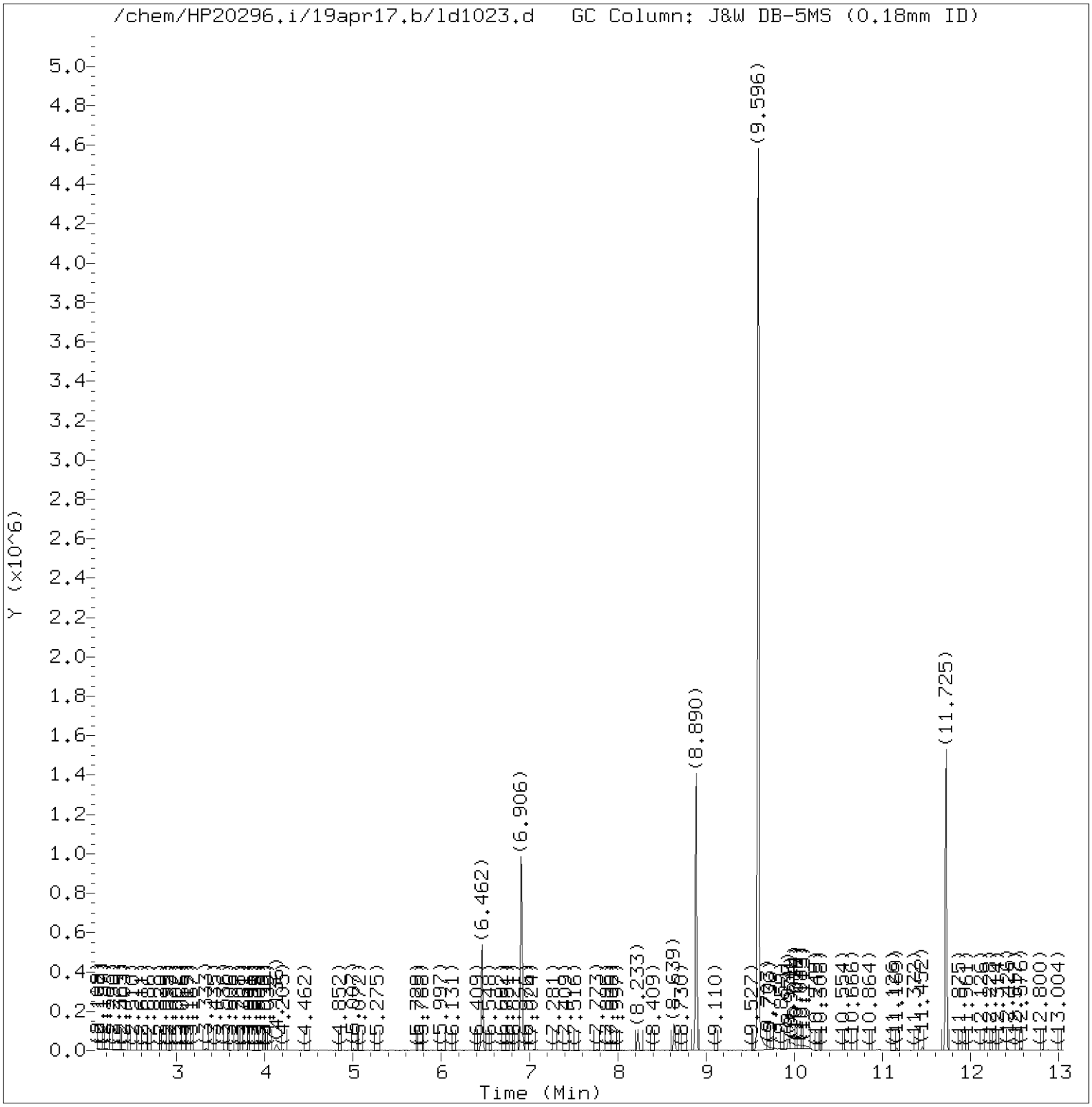
Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	220508	5.000
68)*Naphthalene-d8	(2)	8.890	136	847407	5.000
84) 1,4-Phenylenediamine	(2)	9.591	108	729003	10.767
118)*Acenaphthene-d10	(3)	11.725	164	361997	5.000
158)*Phenanthrene-d10	(4)	13.651	188	653691	5.000
180)*Pyrene-d10	(5)	15.688	212	636562	5.000
218)*Perylene-d12	(6)	20.256	264	520768	5.000

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1023.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:30 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD30 Lab Sample ID: rvPDA0529

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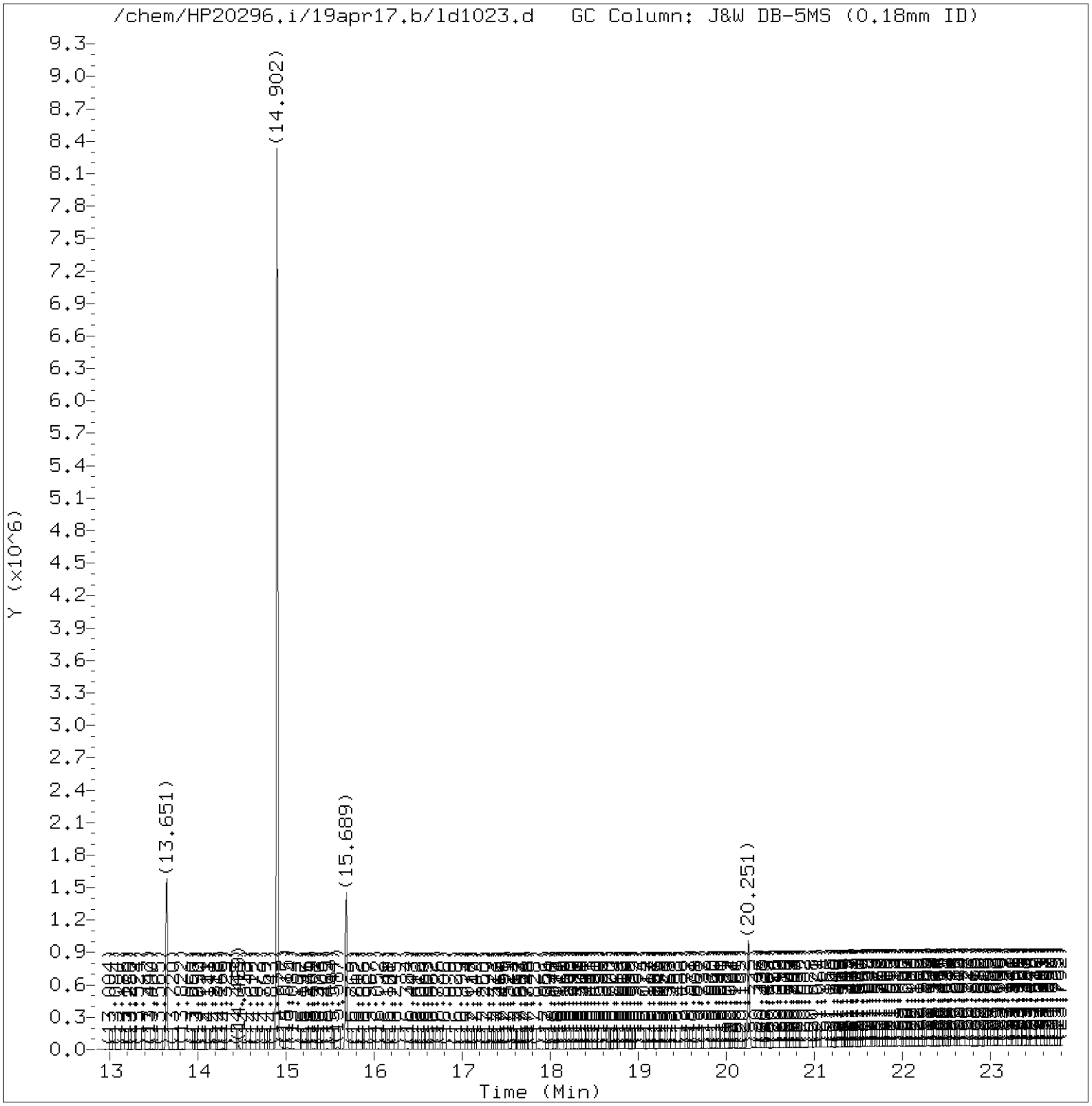
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1023.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:30 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD30 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1023.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:30 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD30 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.906	152	192676	5.000
68)*Naphthalene-d8	(2)	8.890	136	733892	5.000
84) 1,4-Phenylenediamine	(2)	9.596	108	1823561	31.099
118)*Acenaphthene-d10	(3)	11.725	164	331119	5.000
158)*Phenanthrene-d10	(4)	13.651	188	630472	5.000
180)*Pyrene-d10	(5)	15.689	212	613419	5.000
218)*Perylene-d12	(6)	20.251	264	485231	5.000

* = Compound is an internal standard.

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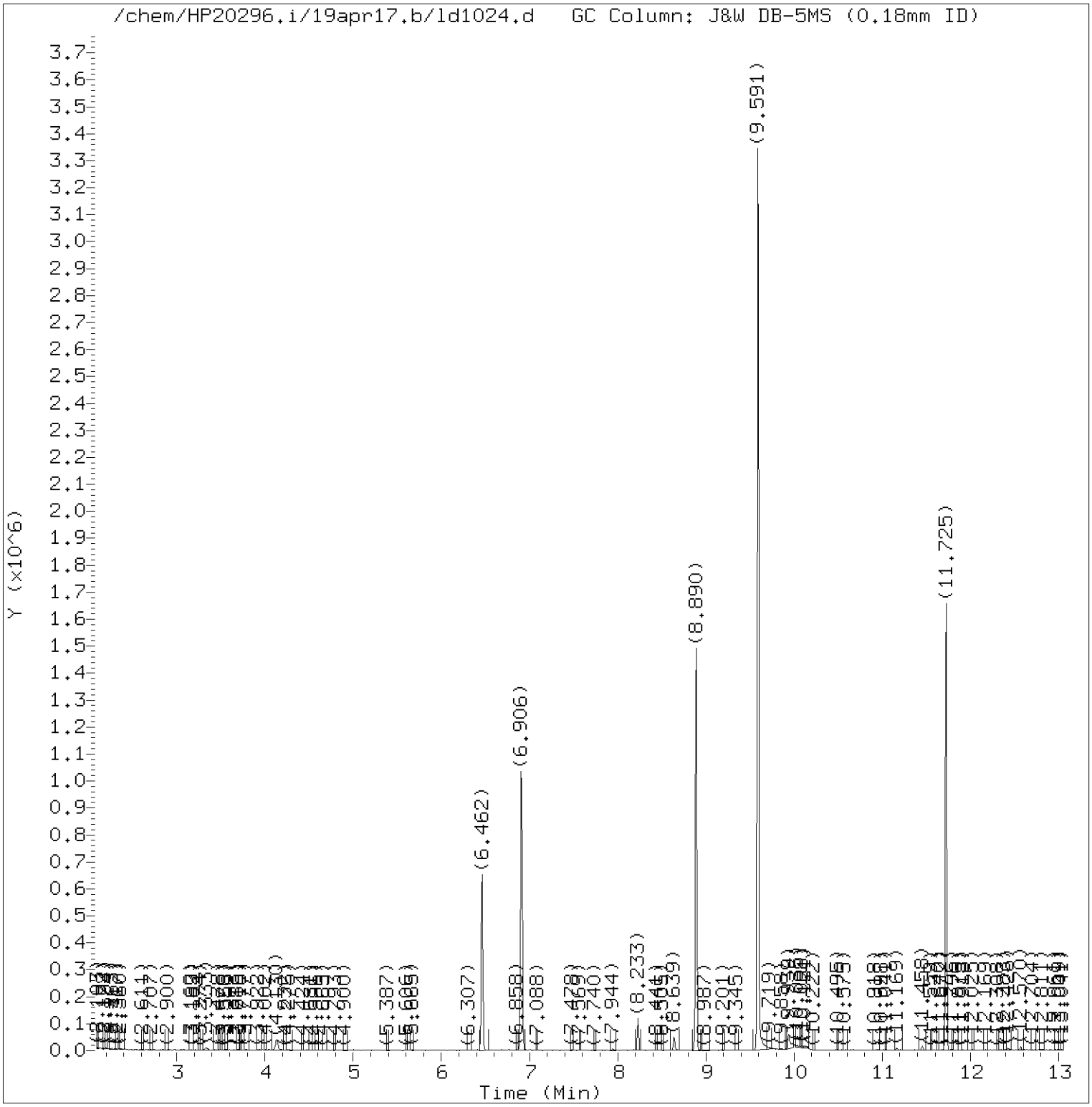
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

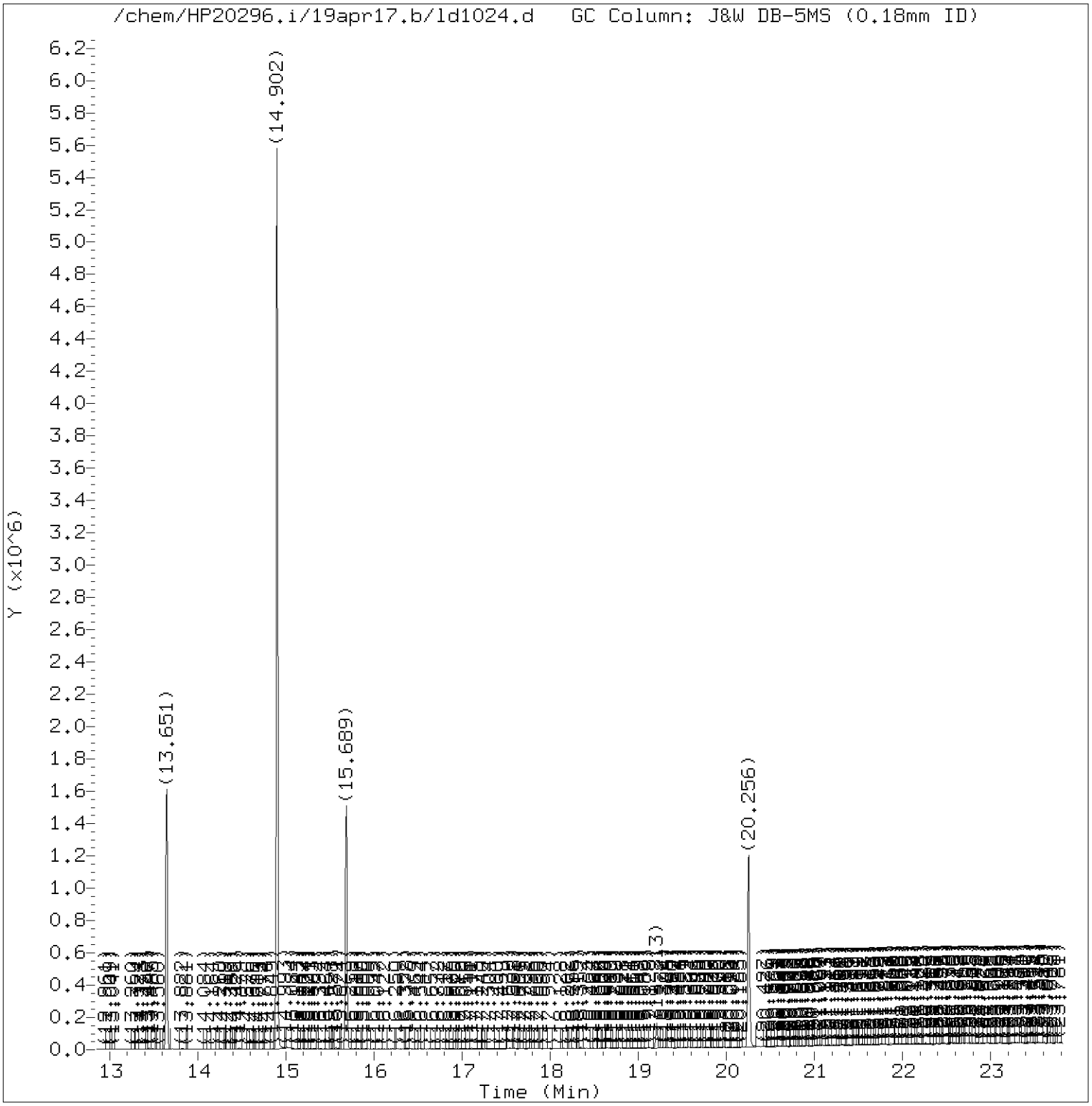
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1024.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:59 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD20 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1024.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:59 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD20 Lab Sample ID: rvPDA0529

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1024.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 00:59 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD20 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.906	152	198821	5.000
68)*Naphthalene-d8	(2)	8.890	136	771406	5.000
84) 1,4-Phenylenediamine	(2)	9.591	108	1308416	21.228
118)*Acenaphthene-d10	(3)	11.725	164	350694	5.000
158)*Phenanthrene-d10	(4)	13.651	188	642546	5.000
180)*Pyrene-d10	(5)	15.689	212	635694	5.000
218)*Perylene-d12	(6)	20.256	264	561617	5.000

* = Compound is an internal standard.

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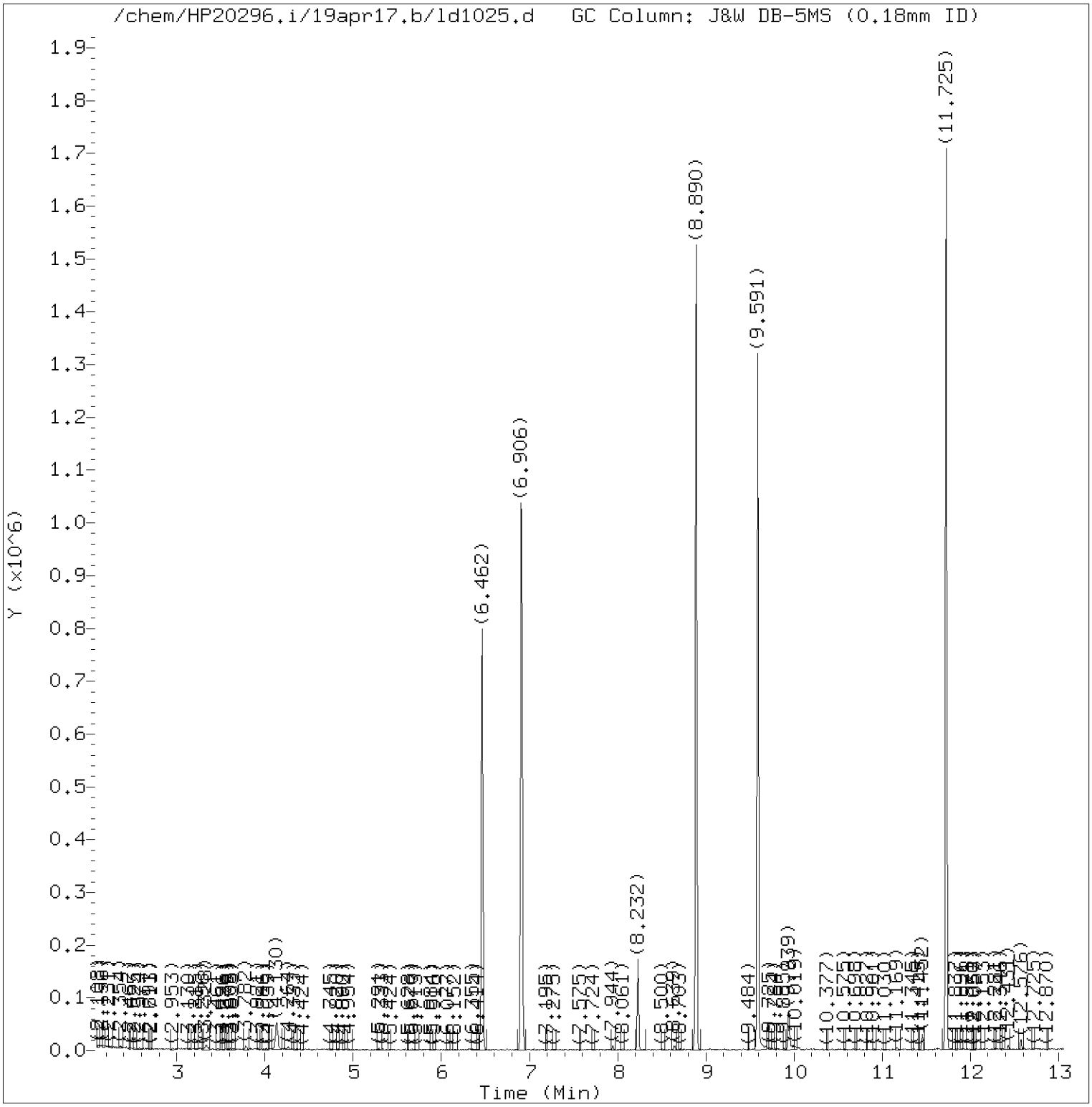
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

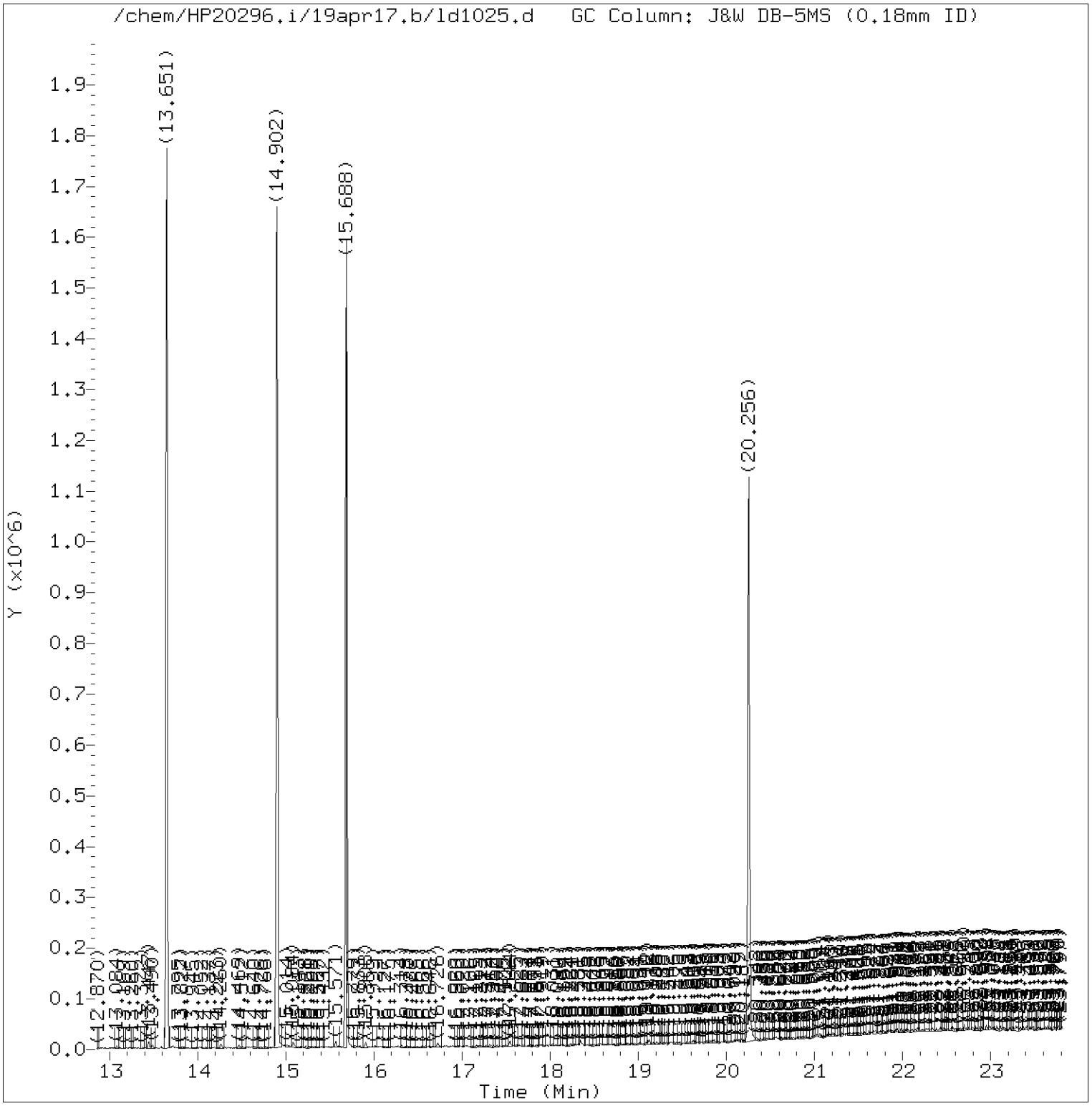
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1025.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 01:27 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD7.5 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1025.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 01:27 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD7.5 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1025.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 01:27 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD7.5 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	207639	5.000
68)*Naphthalene-d8	(2)	8.890	136	786449	5.000
84) 1,4-Phenylenediamine	(2)	9.591	108	492446	7.837
118)*Acenaphthene-d10	(3)	11.725	164	355932	5.000
158)*Phenanthrene-d10	(4)	13.651	188	655921	5.000
180)*Pyrene-d10	(5)	15.688	212	645930	5.000
218)*Perylene-d12	(6)	20.256	264	535601	5.000

* = Compound is an internal standard.

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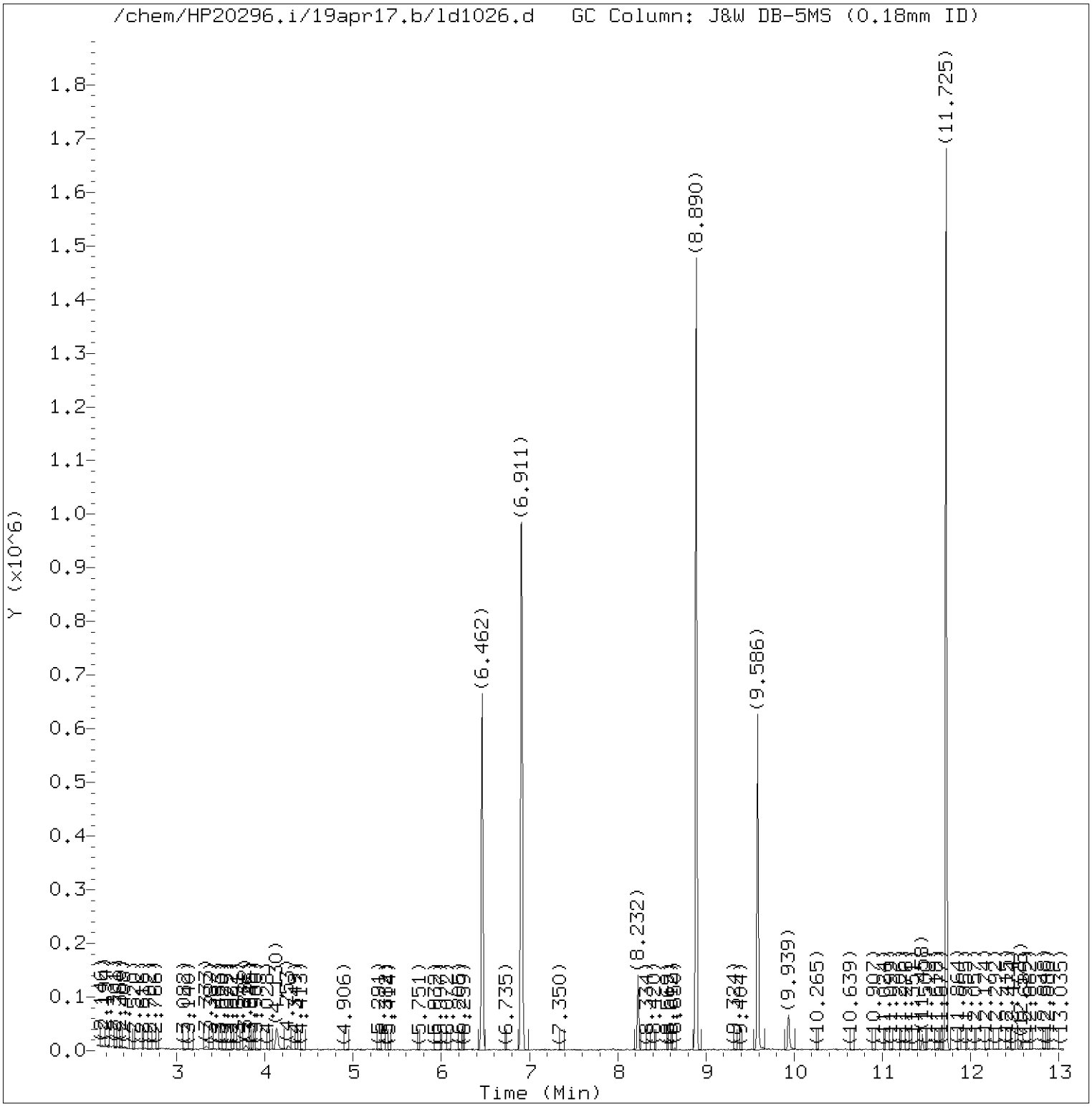
on 04/18/2019 at 09:48.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

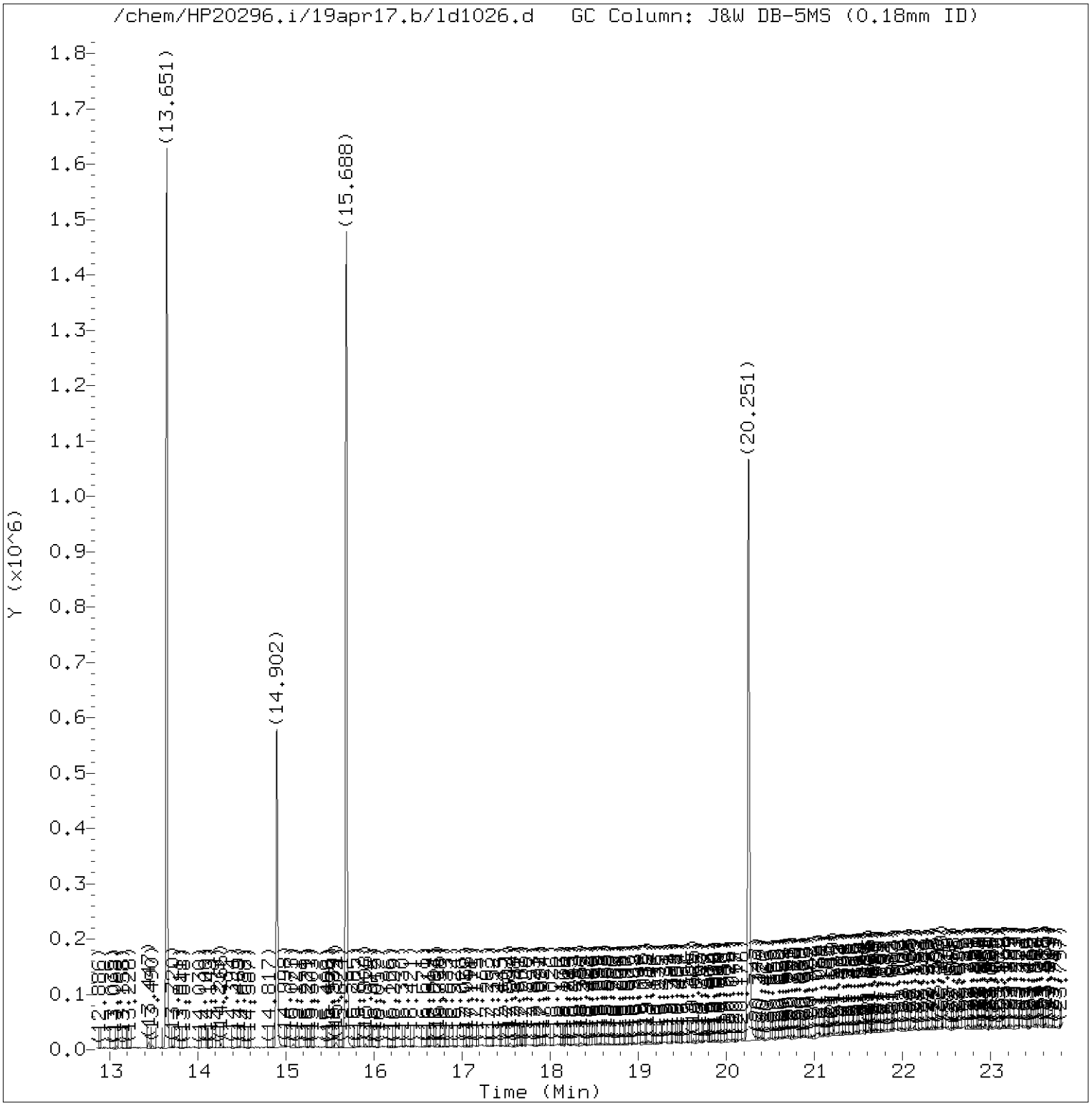
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1026.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 01:56 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD3.75 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1026.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 01:56 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD3.75 Lab Sample ID: rvPDA0529

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1026.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 01:56 Analyst ID: bkc25363

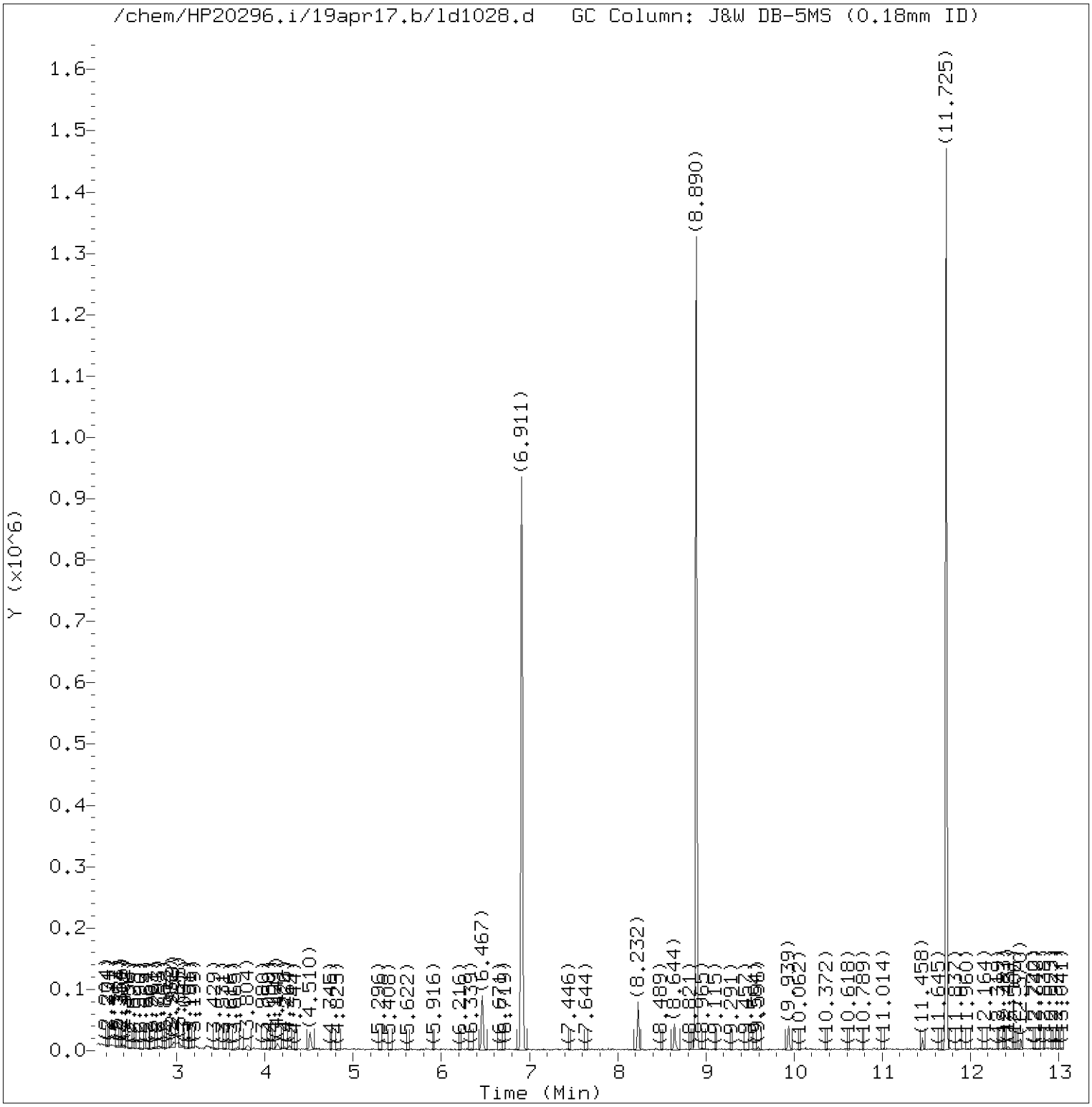
Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: pda
Calibration date and time: 18-APR-2019 09:26
Date, time and analyst ID of latest file update: 18-Apr-2019 09:26 em10340

Sample Name: SSTD3.75 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	199563	5.000
68)*Naphthalene-d8	(2)	8.890	136	754405	5.000
84) 1,4-Phenylenediamine	(2)	9.586	108	225066	3.734
118)*Acenaphthene-d10	(3)	11.725	164	343253	5.000
158)*Phenanthrene-d10	(4)	13.651	188	627291	5.000
180)*Pyrene-d10	(5)	15.688	212	615939	5.000
218)*Perylene-d12	(6)	20.256	264	520950	5.000

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1028.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 02:55 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

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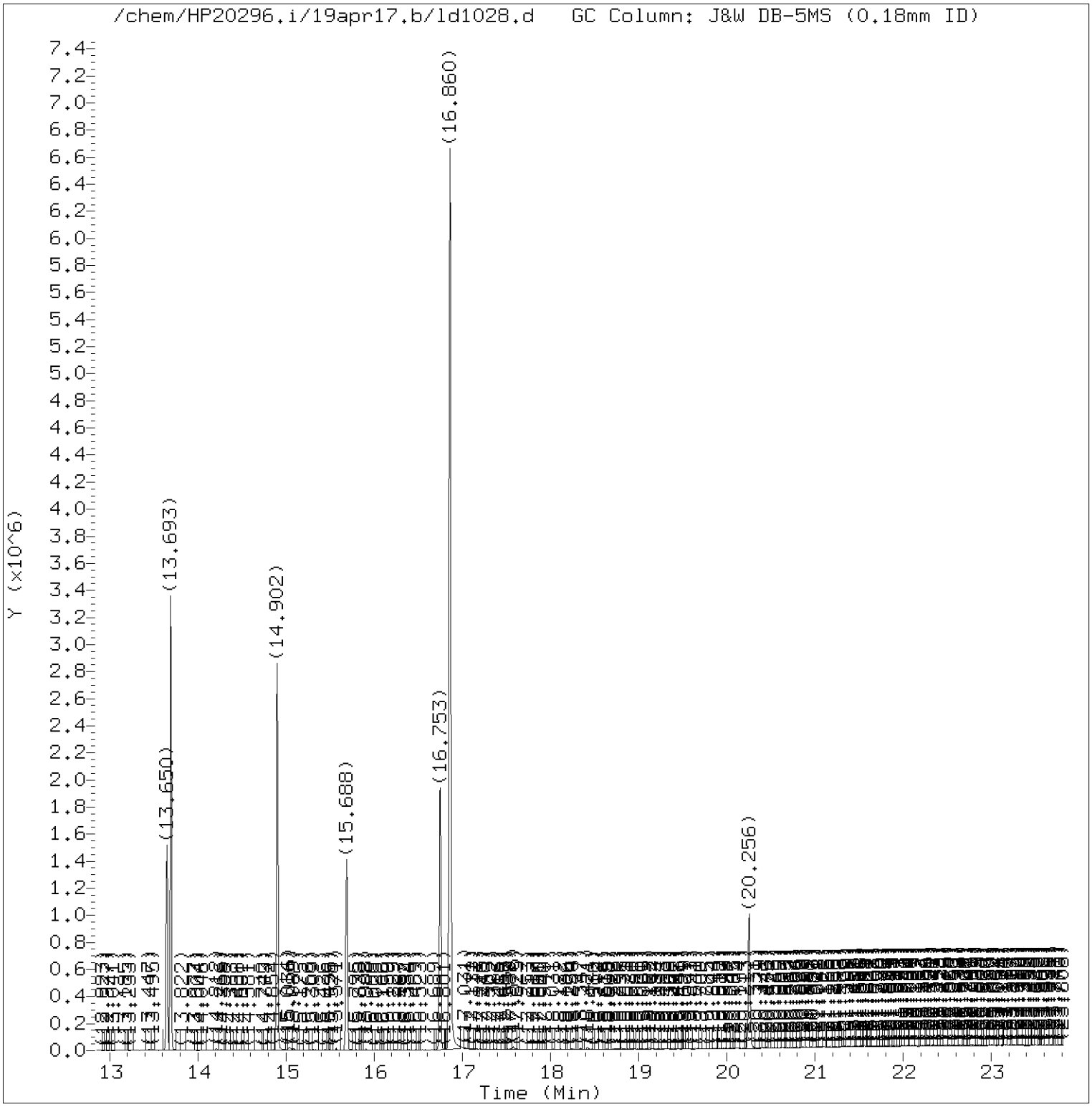
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1028.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 02:55 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1028.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 02:55 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	176306	5.000
68)*Naphthalene-d8	(2)	8.890	136	699777	5.000
118)*Acenaphthene-d10	(3)	11.725	164	318803	5.000
158)*Phenanthrene-d10	(4)	13.650	188	567839	5.000
167) Disulfoton	(4)	13.693	88	762502	13.990
175) Methapyrilene	(4)	14.902	97	689885	14.587
180)*Pyrene-d10	(5)	15.688	212	568963	5.000
194) Famphur	(5)	16.753	218	563204	14.324
195) Kepone	(5)	16.860	272	789485	60.853
218)*Perylene-d12	(6)	20.256	264	476667	5.000

* = Compound is an internal standard.

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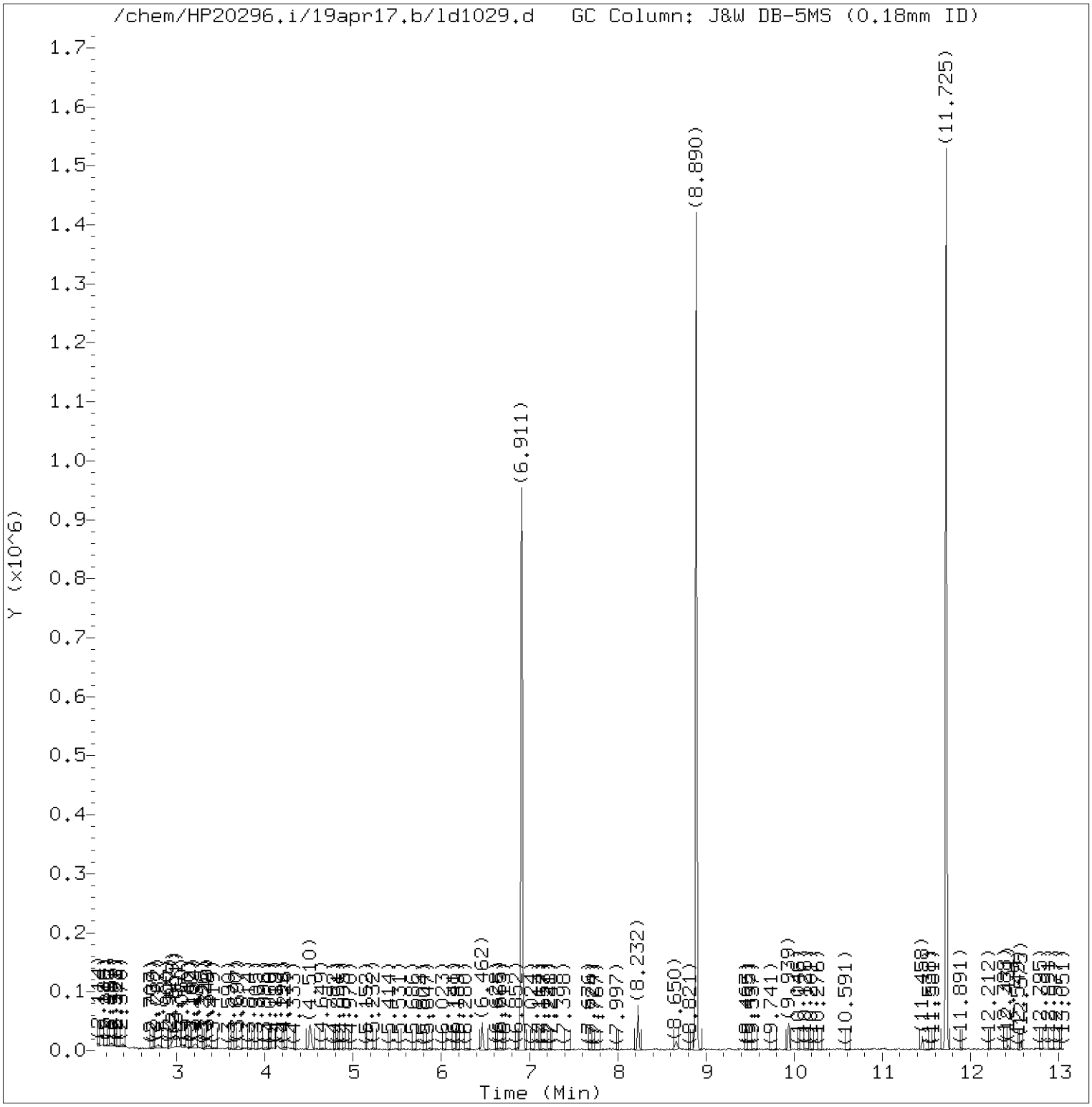
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1029.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 03:24 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD30 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
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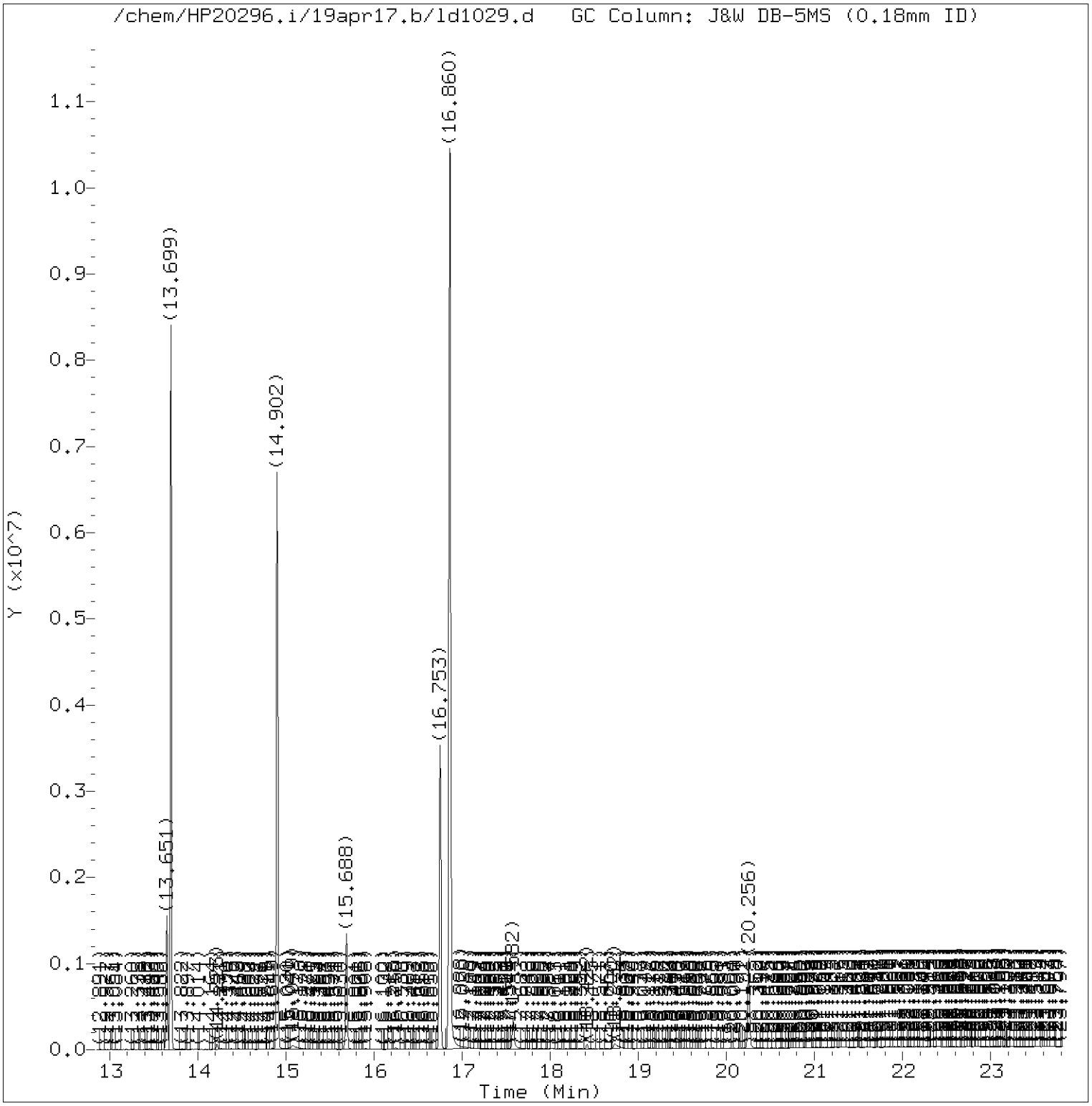
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1029.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 03:24 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD30 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1029.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 03:24 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD30 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	175710	5.000
68)*Naphthalene-d8	(2)	8.890	136	691625	5.000
118)*Acenaphthene-d10	(3)	11.725	164	310768	5.000
158)*Phenanthrene-d10	(4)	13.651	188	574288	5.000
167) Disulfoton	(4)	13.699	88	1953267	35.436
175) Methapyrilene	(4)	14.902	97	1594762	33.342
180)*Pyrene-d10	(5)	15.688	212	553854	5.000
194) Famphur	(5)	16.753	218	997950	26.073
195) Kepone	(5)	16.865	272	1273371	100.828
218)*Perylene-d12	(6)	20.256	264	471298	5.000

* = Compound is an internal standard.

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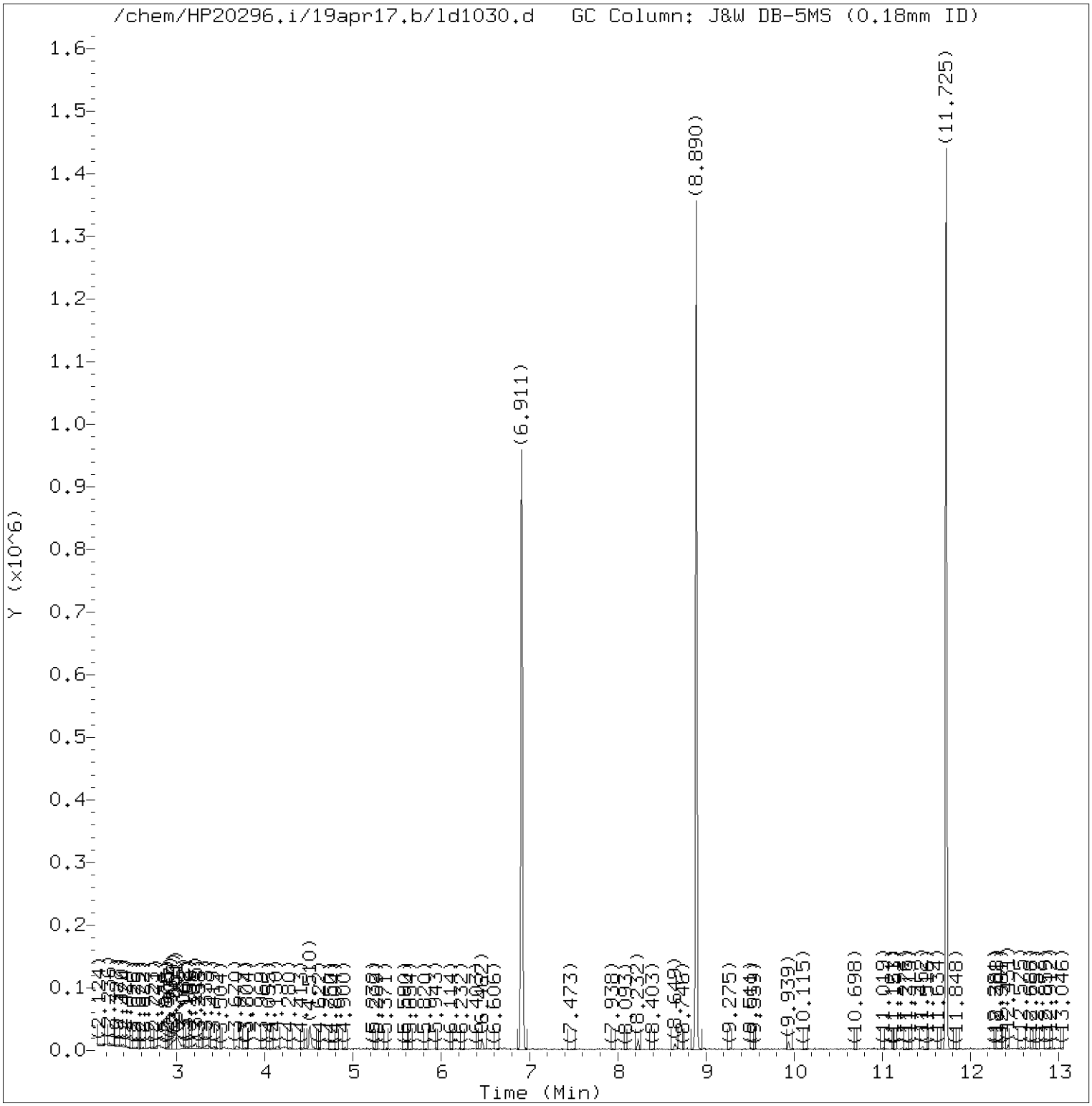
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1030.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 03:52 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD20 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
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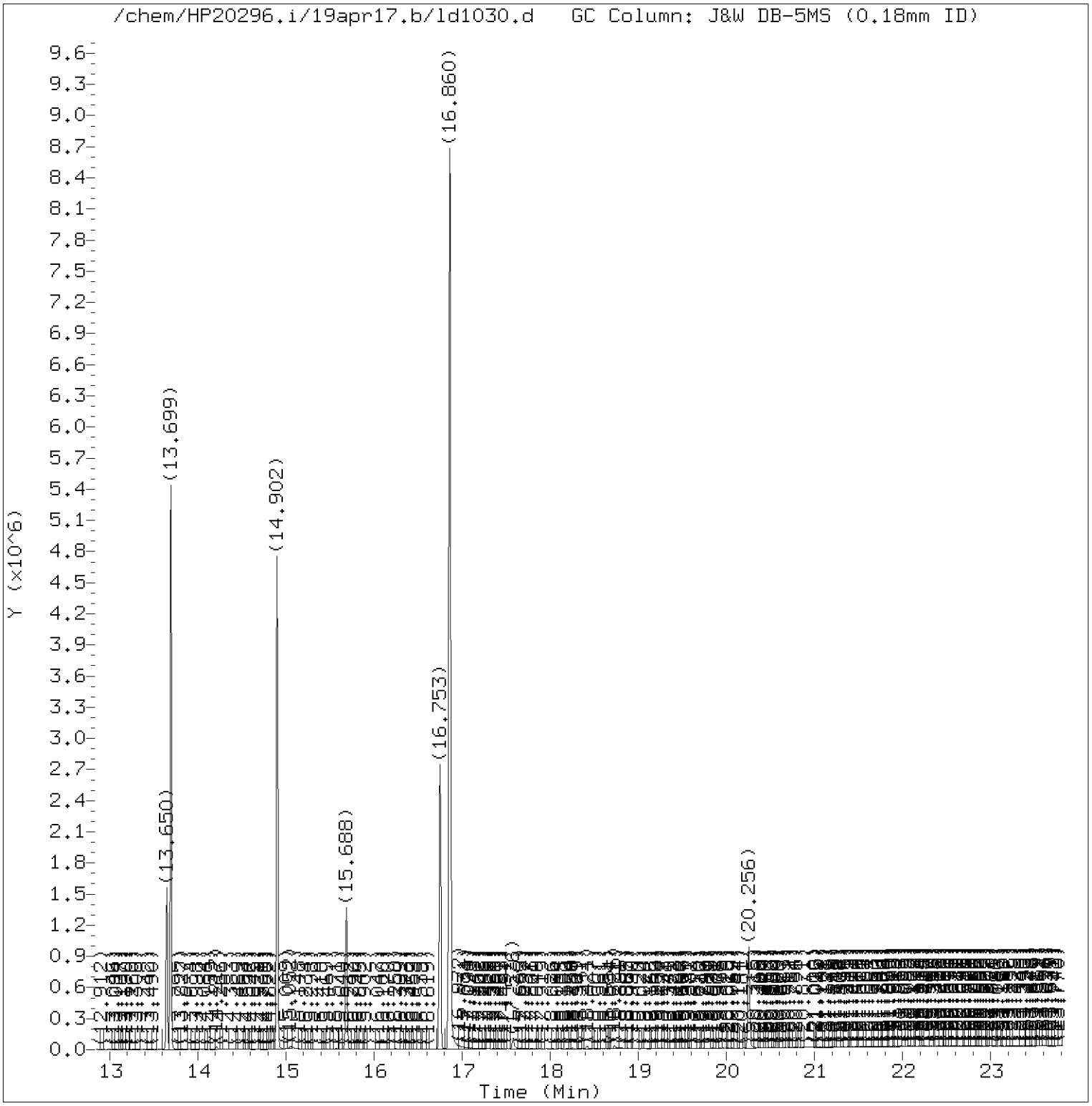
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1030.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 03:52 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD20 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1030.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 03:52 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD20 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	178480	5.000
68)*Naphthalene-d8	(2)	8.890	136	687063	5.000
118)*Acenaphthene-d10	(3)	11.725	164	308628	5.000
158)*Phenanthrene-d10	(4)	13.650	188	563898	5.000
167) Disulfoton	(4)	13.699	88	1252662	23.144
175) Methapyrilene	(4)	14.902	97	1094438	23.303
180)*Pyrene-d10	(5)	15.688	212	559979	5.000
194) Famphur	(5)	16.753	218	787536	20.351
195) Kepone	(5)	16.860	272	1051786	82.371
218)*Perylene-d12	(6)	20.256	264	458975	5.000

* = Compound is an internal standard.

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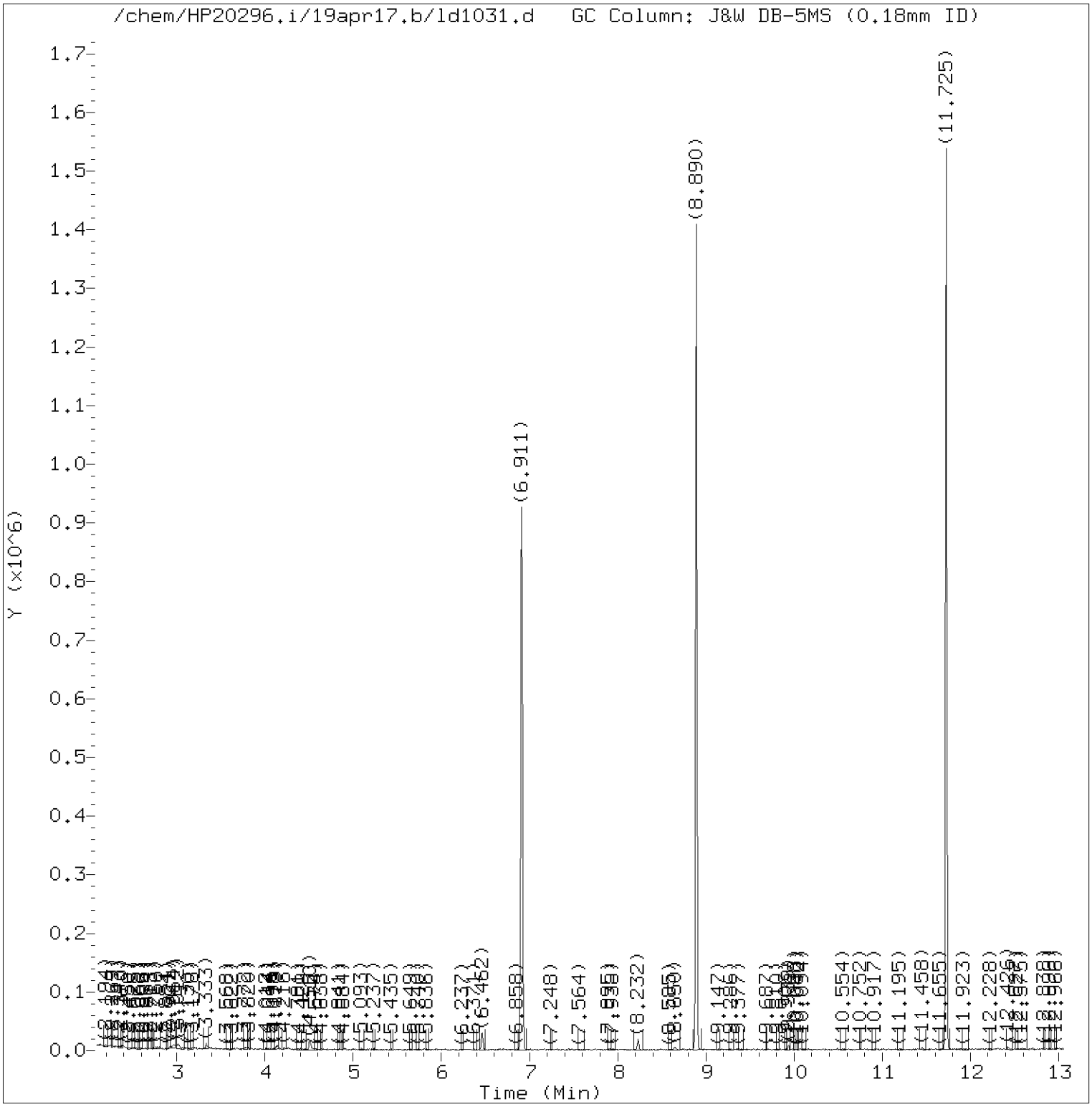
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

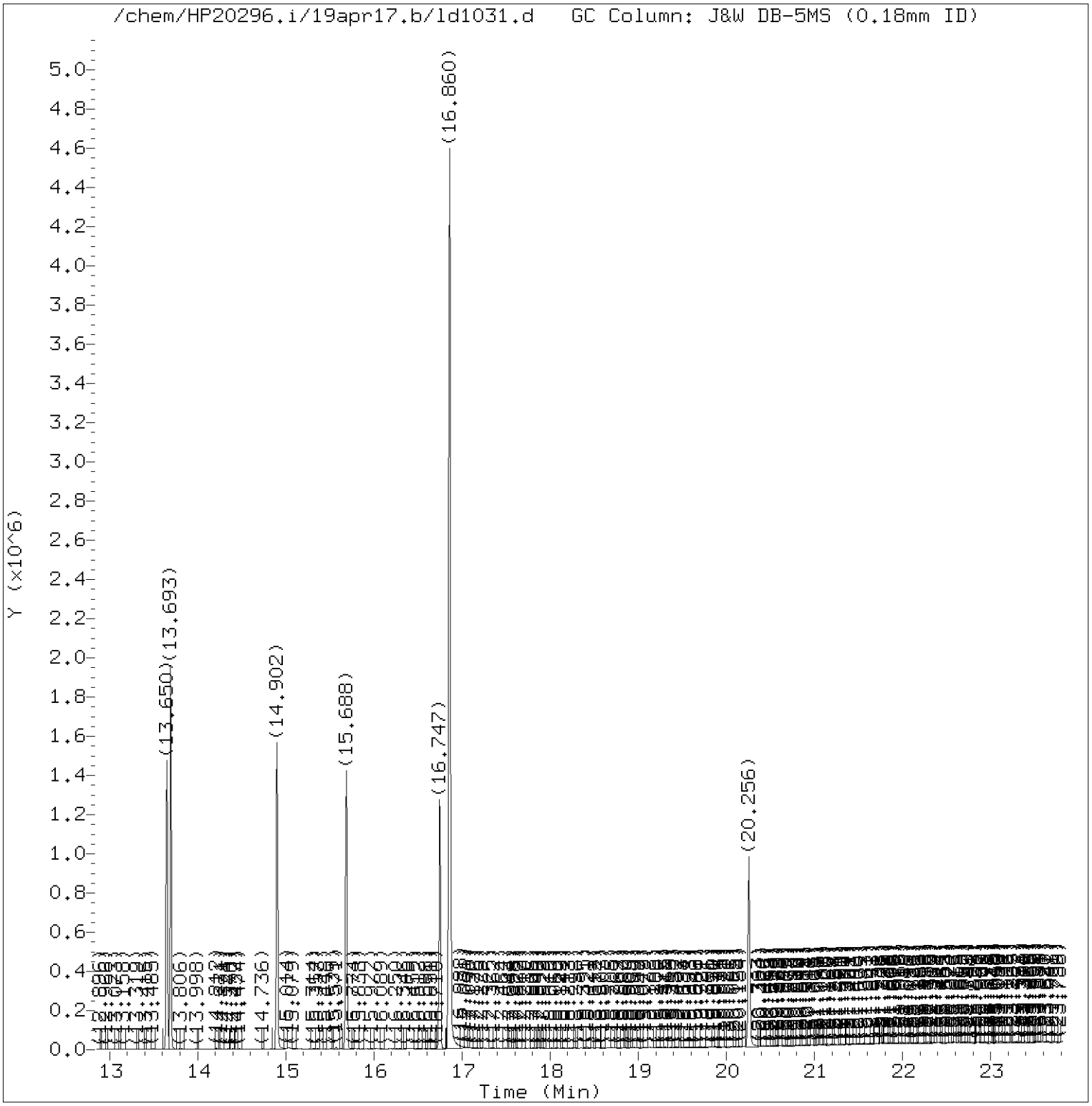
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1031.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 04:21 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD7.5 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1031.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 04:21 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD7.5 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1031.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 04:21 Analyst ID: bkc25363

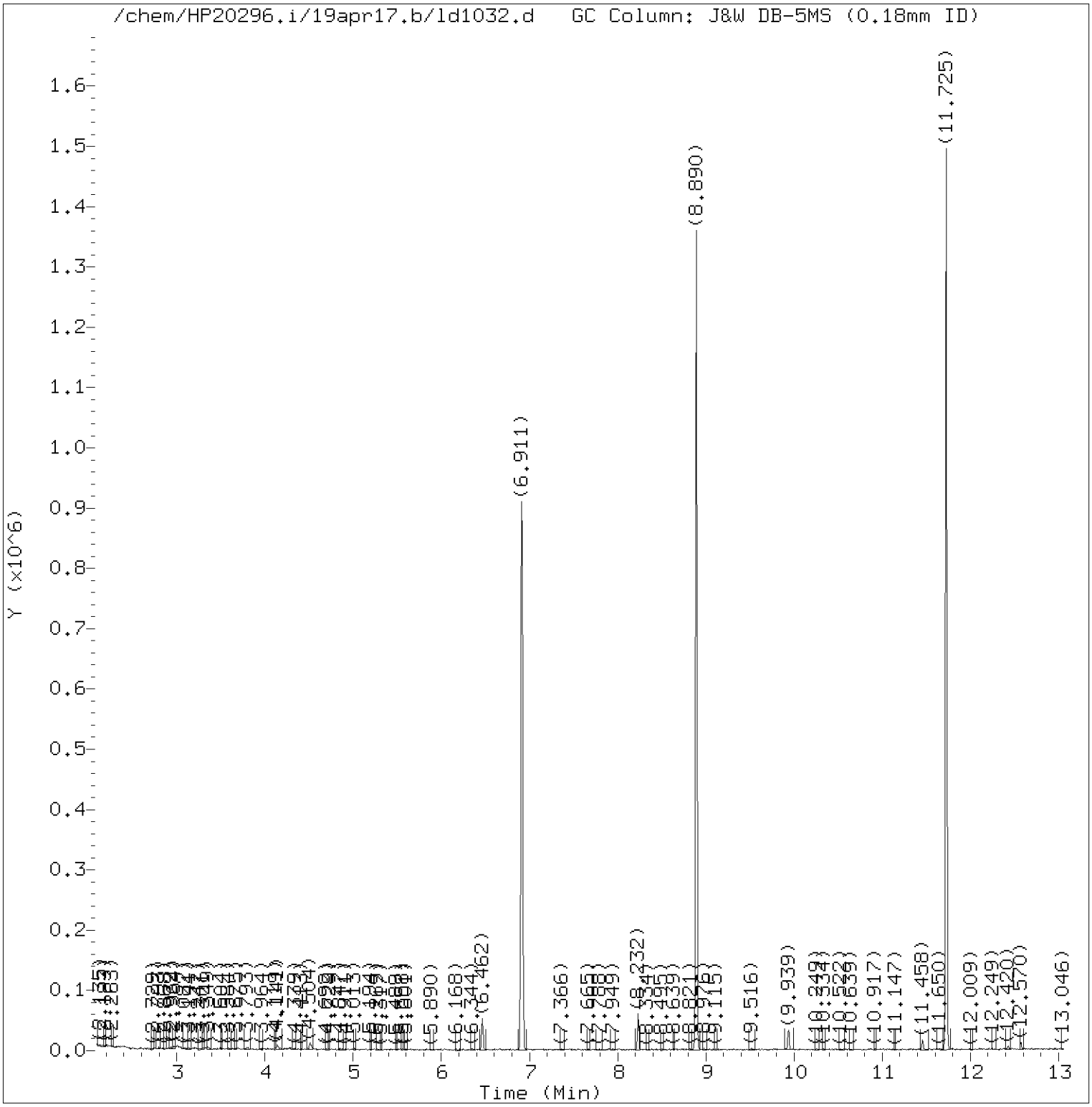
Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD7.5 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	178105	5.000
68)*Naphthalene-d8	(2)	8.890	136	683129	5.000
118)*Acenaphthene-d10	(3)	11.725	164	304075	5.000
158)*Phenanthrene-d10	(4)	13.650	188	556851	5.000
167) Disulfoton	(4)	13.693	88	415666	7.777
175) Methapyrilene	(4)	14.902	97	361816	7.801
180)*Pyrene-d10	(5)	15.688	212	552507	5.000
194) Famphur	(5)	16.753	218	324692	8.504
195) Kepone	(5)	16.860	272	511878	40.630
218)*Perylene-d12	(6)	20.256	264	445698	5.000

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

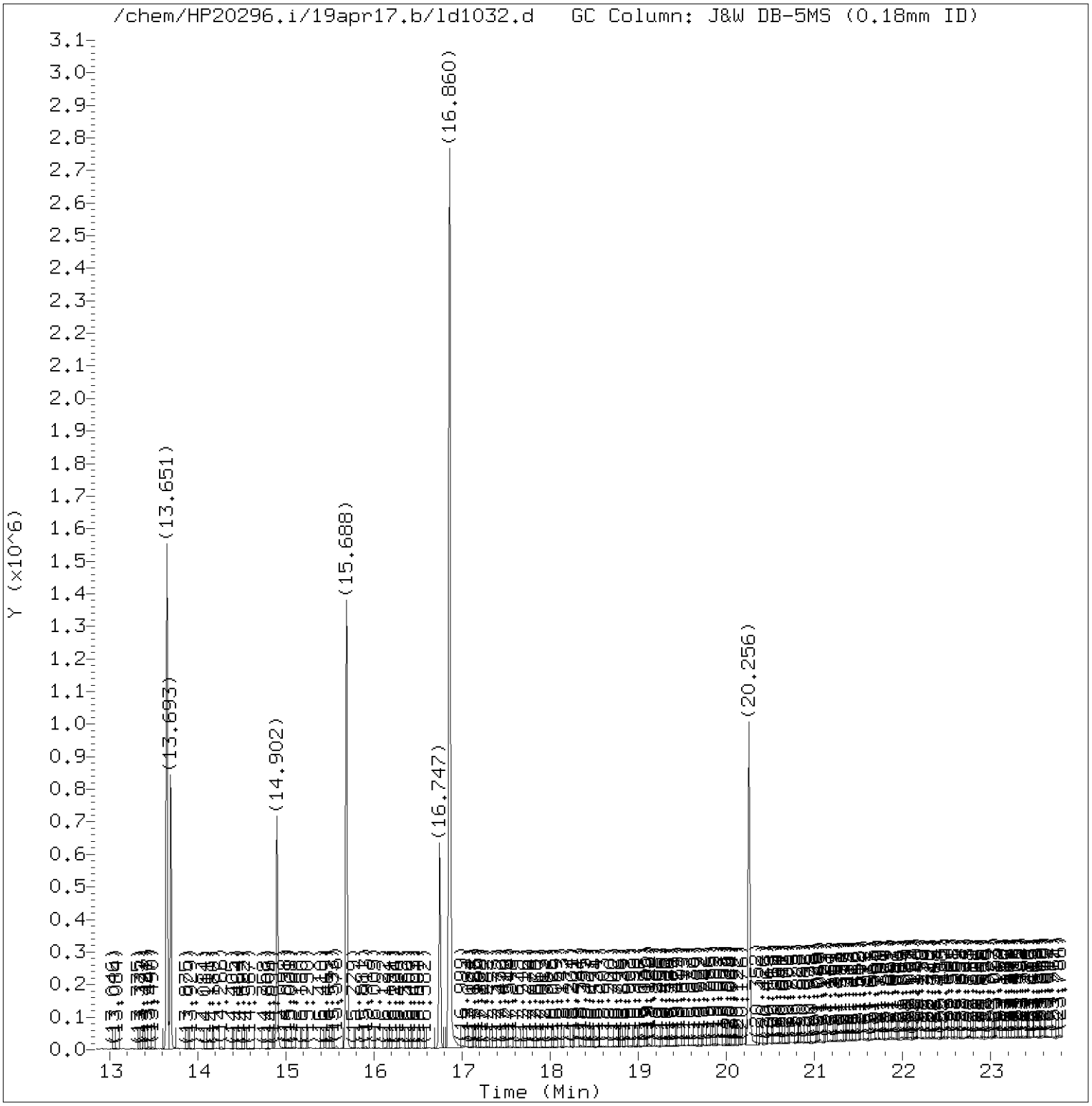
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1032.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 04:49 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD3.75 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1032.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 04:49 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD3.75 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1032.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 04:49 Analyst ID: bkc25363

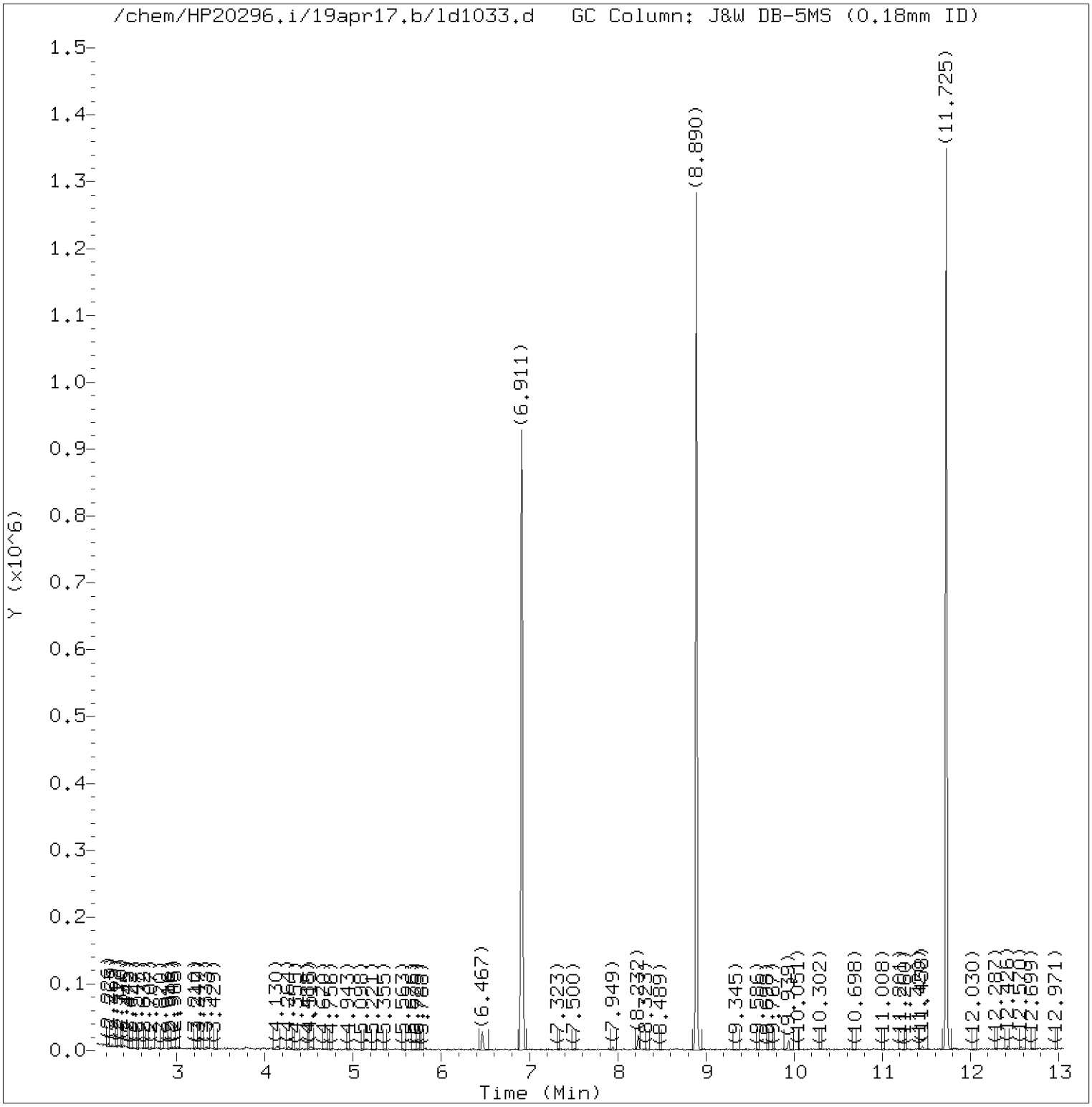
Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD3.75 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	175336	5.000
68)*Naphthalene-d8	(2)	8.890	136	685372	5.000
118)*Acenaphthene-d10	(3)	11.725	164	300975	5.000
158)*Phenanthrene-d10	(4)	13.651	188	569279	5.000
167) Disulfoton	(4)	13.693	88	182302	3.336
175) Methapyrilene	(4)	14.902	97	167887	3.541
180)*Pyrene-d10	(5)	15.688	212	550808	5.000
194) Famphur	(5)	16.747	218	158150	4.155
195) Kepone	(5)	16.860	272	319838	25.465
218)*Perylene-d12	(6)	20.262	264	463424	5.000

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

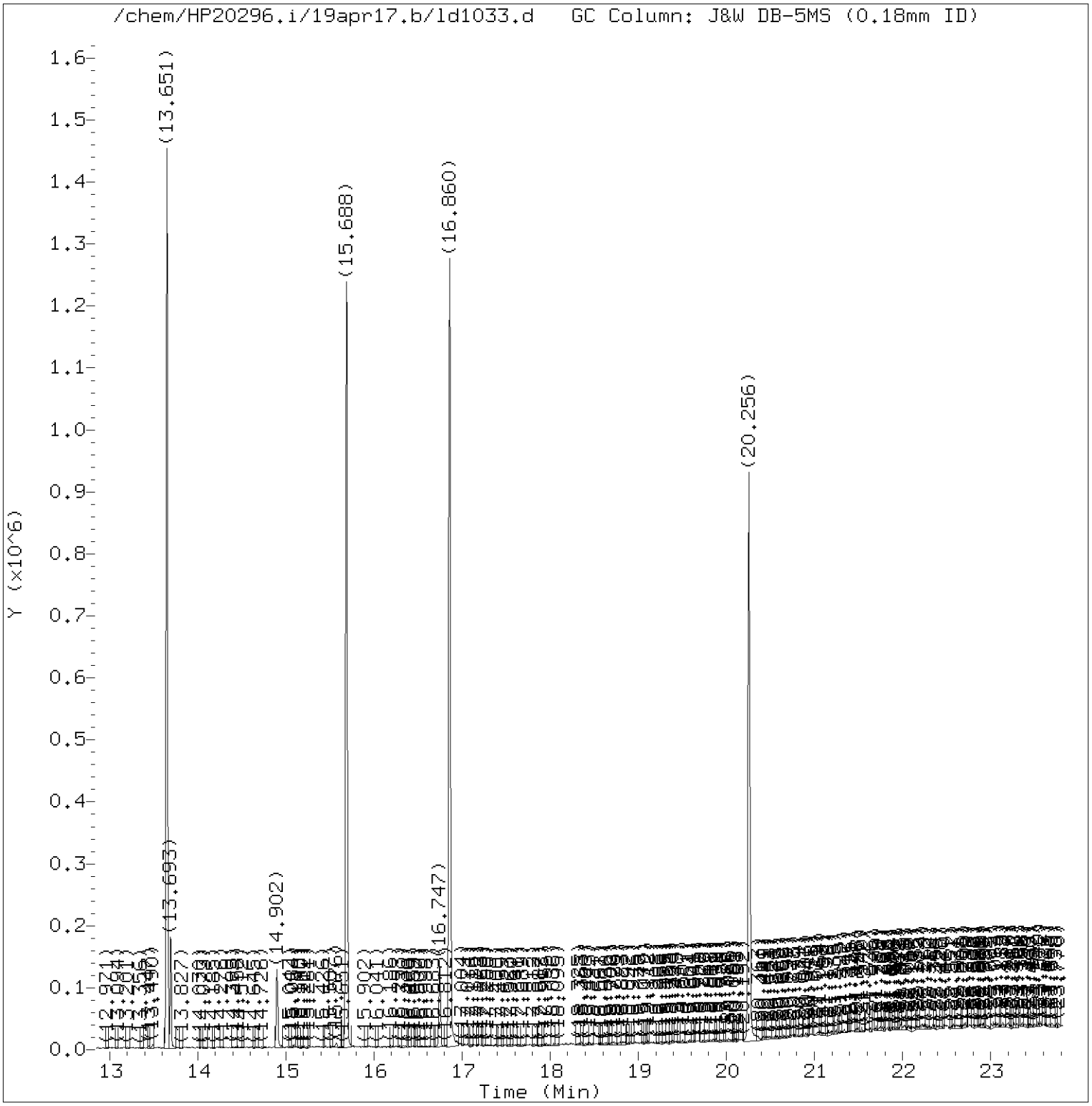
Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1033.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 05:18 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD1.25 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1033.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 05:18 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD1.25 Lab Sample ID: rvABC1009

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr17.b/ld1033.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 05:18 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

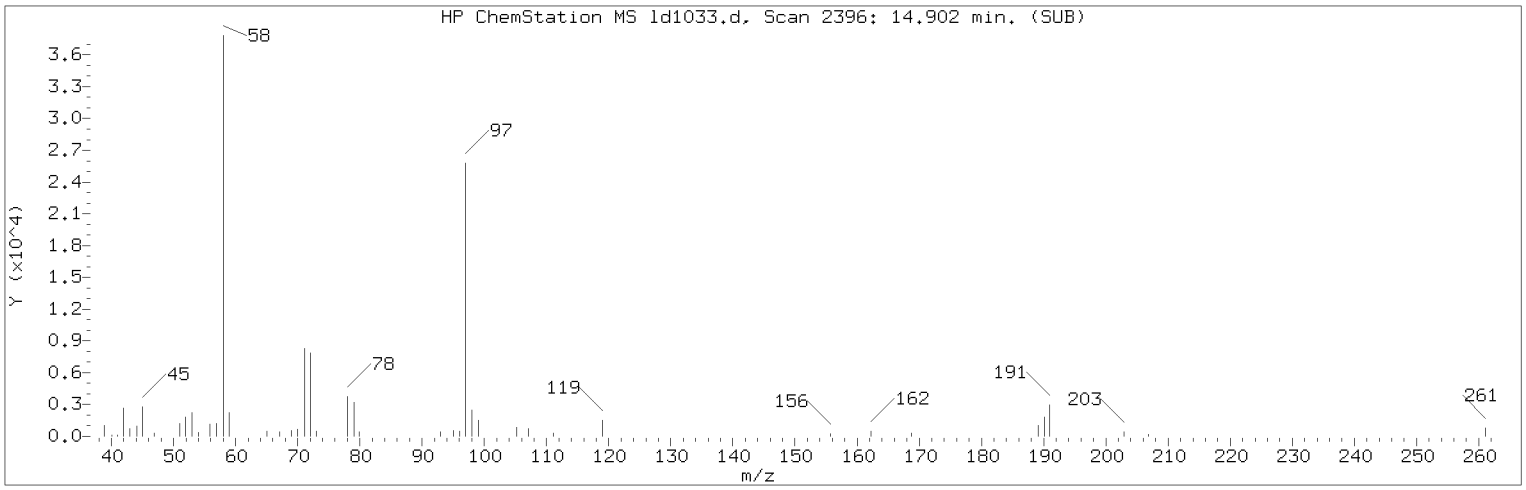
Sample Name: SSTD1.25 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	166535	5.000
68)*Naphthalene-d8	(2)	8.890	136	653351	5.000
118)*Acenaphthene-d10	(3)	11.725	164	291105	5.000
158)*Phenanthrene-d10	(4)	13.651	188	540298	5.000
167) Disulfoton	(4)	13.693	88	39911	0.770
175) Methapyrilene	(4)	14.902	97	32173M	0.715
180)*Pyrene-d10	(5)	15.688	212	520164	5.000
194) Famphur	(5)	16.753	218	32605	0.907
195) Kepone	(5)	16.860	272	135439	11.419
218)*Perylene-d12	(6)	20.256	264	429461	5.000

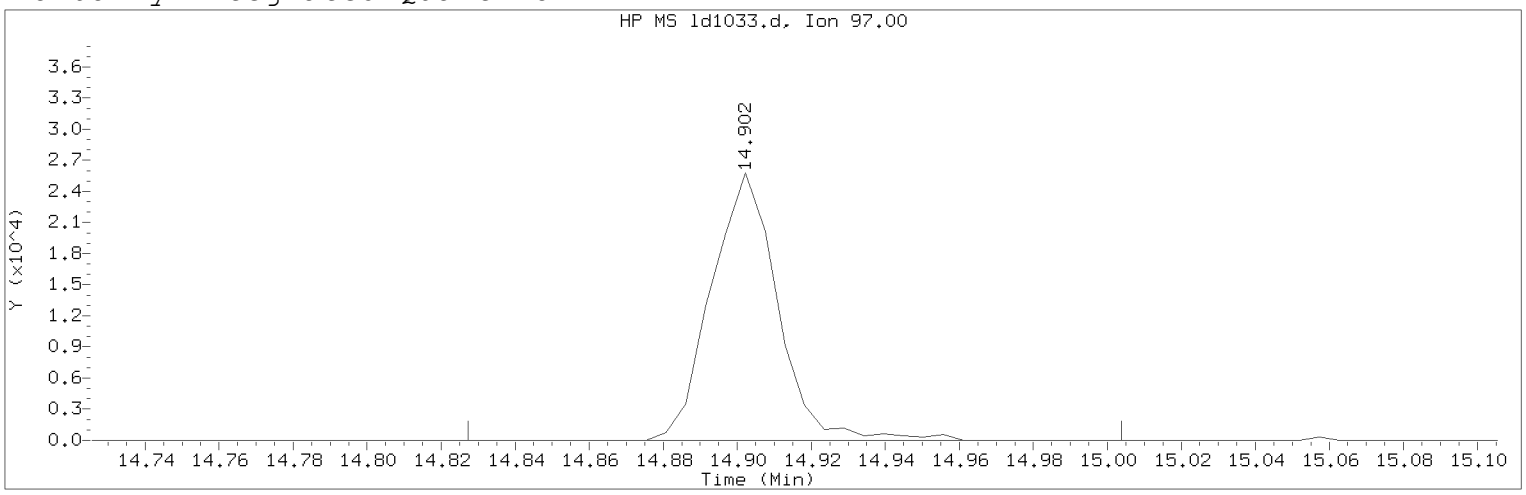
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr17.b/ld1033.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 05:18 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 09:25
Date, time and analyst ID of latest file update: 18-Apr-2019 09:25 em10340

Sample Name: SSTD1.25 Lab Sample ID: rvABC1009

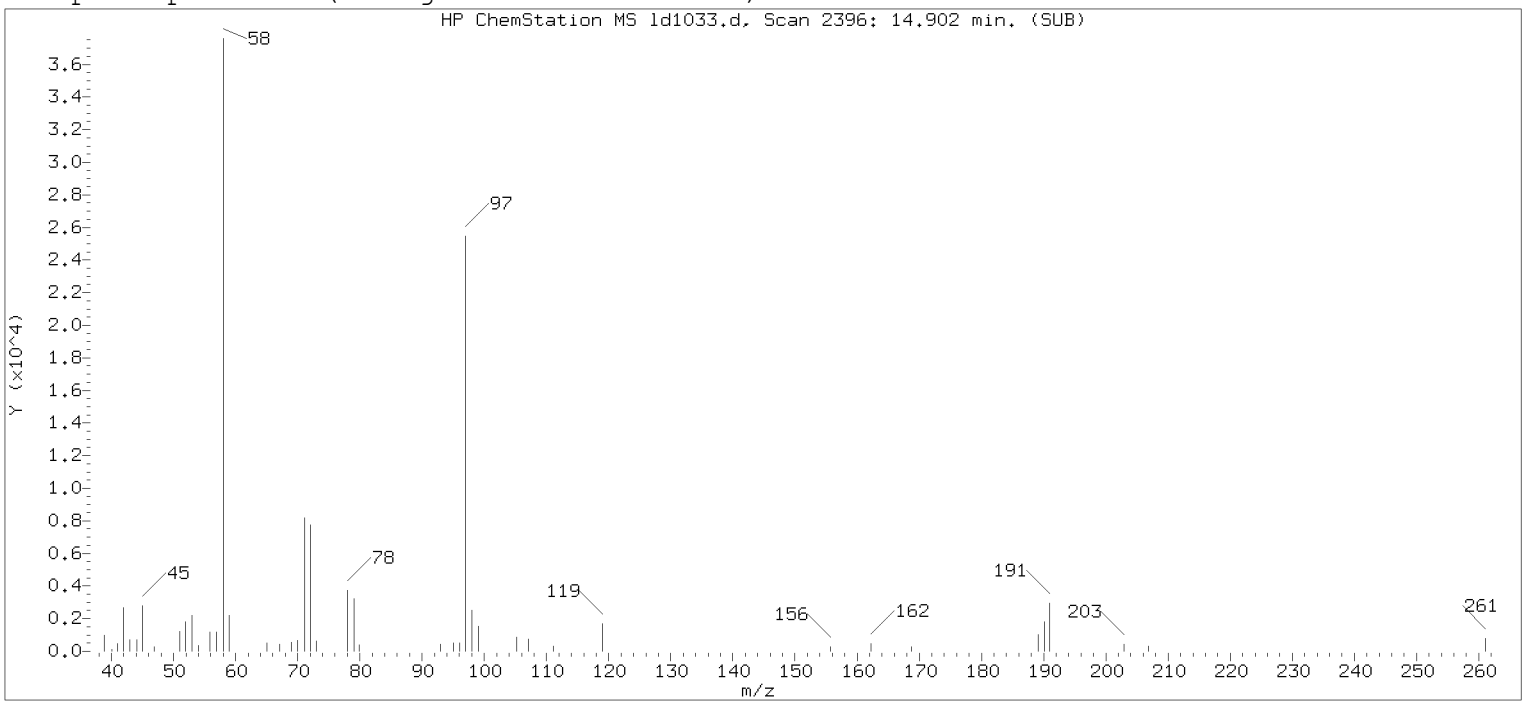
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2396
Retention Time (minutes) : 14.902
Quant Ion : 97.00
Area (flag) : 32173M
On-Column Amount (ng/ul) : 0.7150
Integration start scan : 2381 Integration stop scan: 2414
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

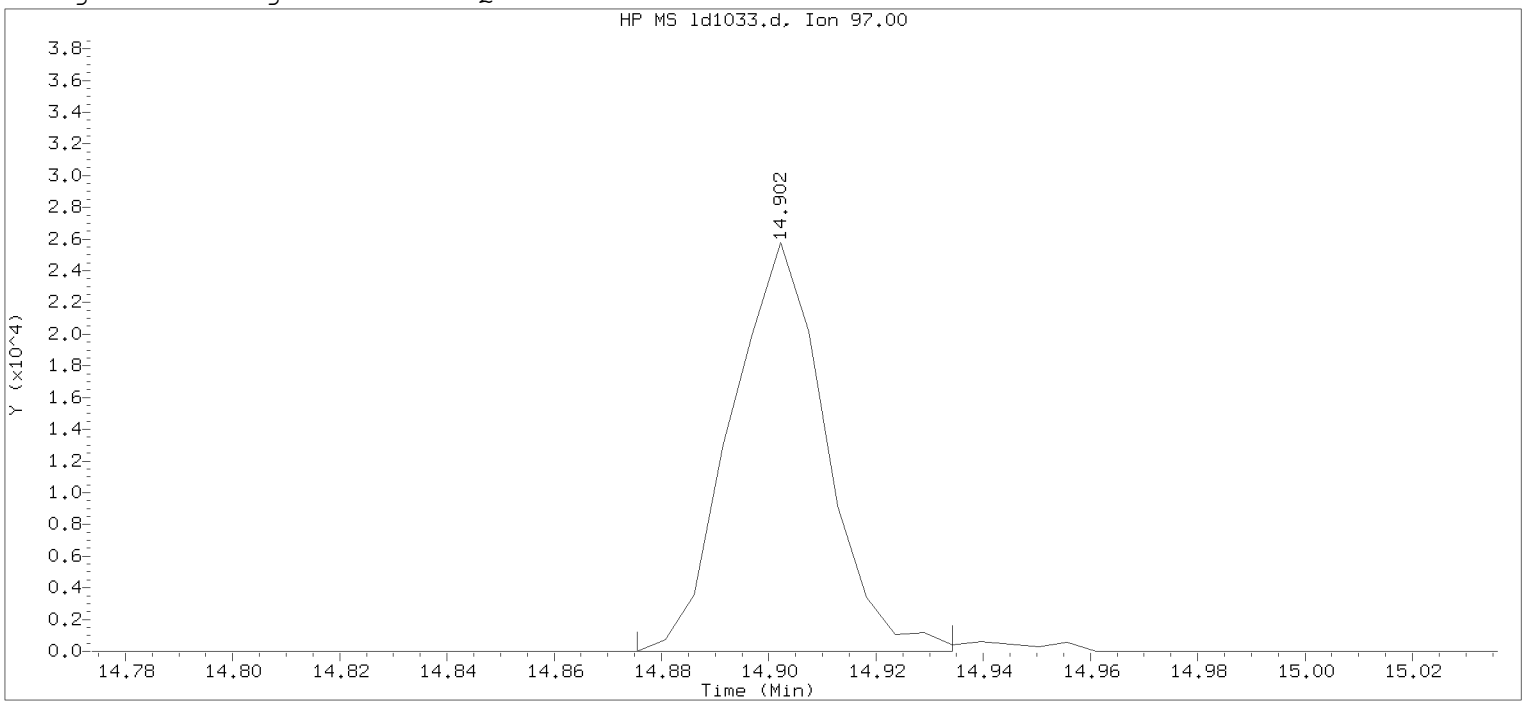
Analyst responsible for change: Digitally signed by Edward Monborne
on 04/18/2019 at 09:49.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 08:36.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr17.b/ld1033.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 05:18 Analyst ID: bkc25363

Method used: /chem/HP20296.i/19apr17.b/rv8270d.m Sublist used: abc
Calibration date and time: 18-APR-2019 08:18
Date, time and analyst ID of latest file update: 18-Apr-2019 08:18 em10340

Sample Name: SSTD1.25 Lab Sample ID: rvABC1009

Compound Number	: 175		
Compound Name	: Methapyrilene		
Scan Number	: 2396		
Retention Time (minutes)	: 14.902		
Quant Ion	: 97.00		
Area	: 31482		
On-column Amount (ng/ul)	: 0.7256		
Integration start scan	: 2390	Integration stop scan:	2401
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 04/18/2019 at 09:49.
Target 3.5 esignature user: EM10340

Data File: /chem/HP20296.i/19apr18a.b/ld1100.d

Date : 18-APR-2019 18:04

Client ID: DFTPP12.5

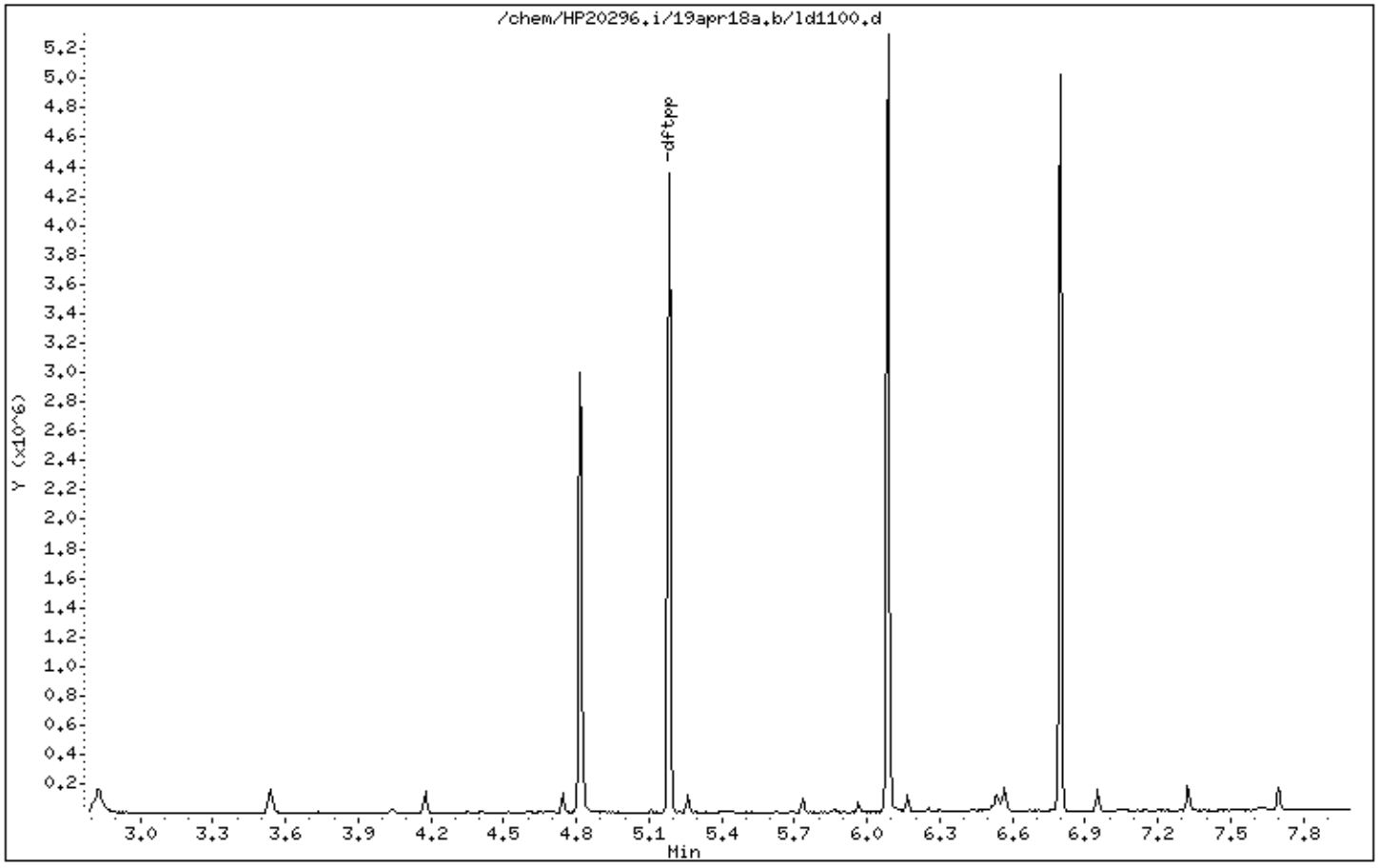
Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Kira N. Beck on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Data File: /chem/HP20296.i/19apr18a.b/ld1100.d

Date : 18-APR-2019 18:04

Client ID: DFTPP12.5

Instrument: HP20296.i

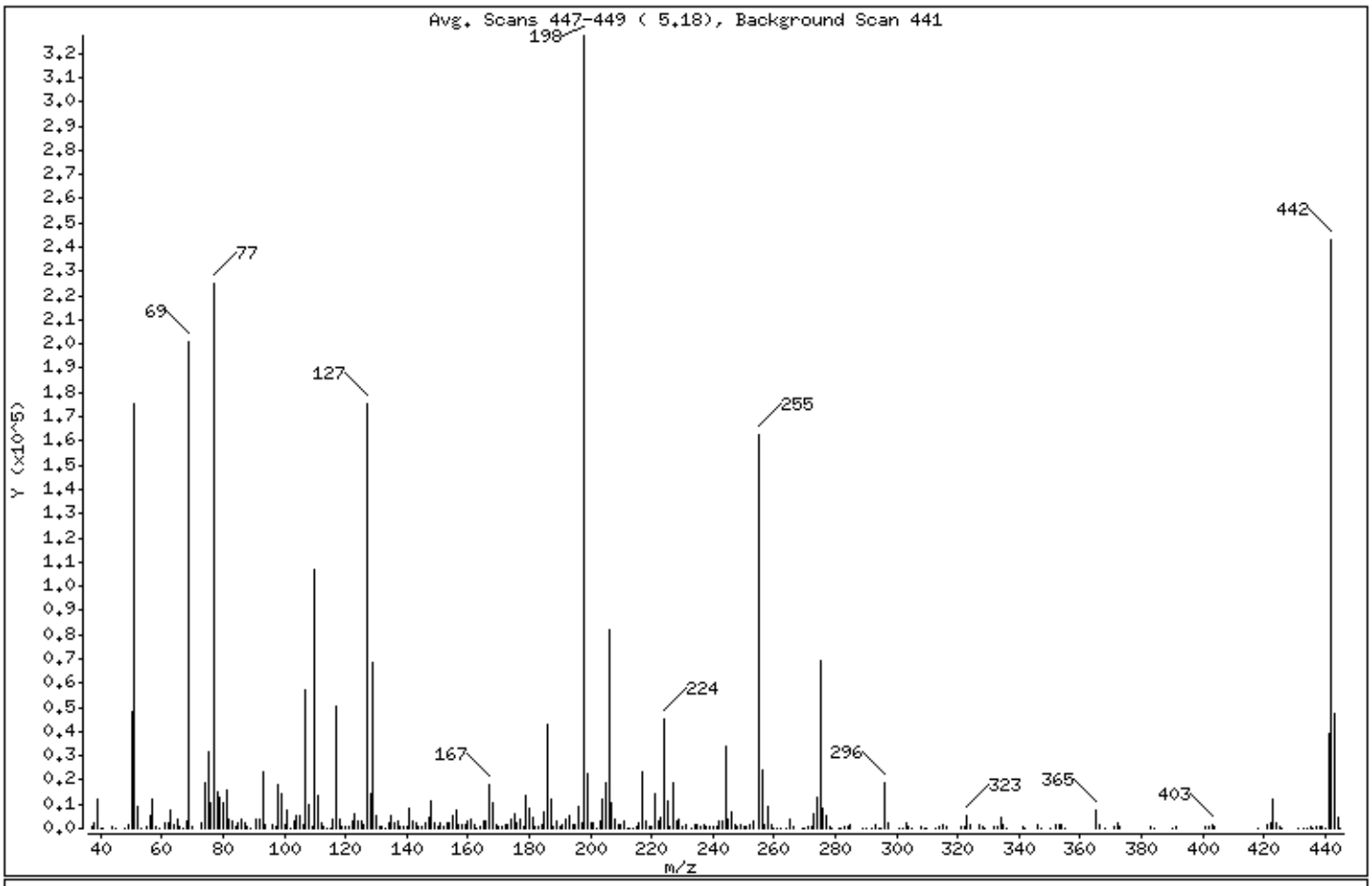
Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	53.61
68	Less than 2.00% of mass 69	0.88 (1.43)
69	Mass 69 relative abundance	61.30
70	Less than 2.00% of mass 69	0.29 (0.47)
127	10.00 - 80.00% of mass 198	53.46
197	Less than 2.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.91
275	10.00 - 60.00% of mass 198	21.23
365	Greater than 1.00% of mass 198	2.33
441	0.01 - 24.00% of mass 442	11.97 (16.14)
442	50.00 - 99.99% of mass 198	74.15
443	15.00 - 24.00% of mass 442	14.39 (19.41)

Digitally signed by Kira N. Beck on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Date : 18-APR-2019 18:04

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1100.d
Spectrum: Avg. Scans 447-449 (5.18), Background Scan 441
Location of Maximum: 198.00
Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	976	125.00	2860	203.00	2646	290.00	93
38.00	1996	126.00	1589	204.00	12052	292.00	333
39.00	12108	127.00	174976	205.00	18800	293.00	1473
40.00	342	128.00	14324	206.00	81920	294.00	223
41.00	169	129.00	68416	207.00	10223	295.00	215
44.00	415	130.00	5597	208.00	3567	296.00	19000
45.00	316	131.00	1048	209.00	1167	297.00	2522
48.00	133	132.00	1100	210.00	1845	301.00	282
49.00	1656	133.00	148	211.00	2655	302.00	262
50.00	47944	134.00	2403	212.00	363	303.00	2542
51.00	175424	135.00	5377	213.00	285	304.00	472
52.00	8890	136.00	2535	214.00	178	305.00	229
53.00	373	137.00	2968	215.00	1052	308.00	466
55.00	493	138.00	473	216.00	2250	309.00	243
56.00	5448	139.00	671	217.00	23240	310.00	126
57.00	12026	140.00	538	218.00	2880	313.00	323
58.00	658	141.00	8449	219.00	521	314.00	995
59.00	242	142.00	3002	220.00	931	315.00	1810
61.00	2244	143.00	2433	221.00	13970	316.00	1033
62.00	2367	144.00	523	222.00	2681	321.00	687
63.00	7370	145.00	552	223.00	4562	322.00	388
64.00	1817	146.00	1968	224.00	44904	323.00	5465
65.00	3460	147.00	4436	225.00	10959	324.00	1336
66.00	460	148.00	11528	226.00	1025	327.00	1132
67.00	197	149.00	2365	227.00	18464	328.00	812
68.00	2875	150.00	670	228.00	2996	329.00	120
69.00	200640	151.00	1991	229.00	3682	332.00	586
70.00	936	152.00	497	230.00	662	333.00	491
73.00	2101	153.00	2613	231.00	1618	334.00	4283
74.00	19184	154.00	2258	233.00	201	335.00	1312
75.00	31896	155.00	5023	234.00	1244	336.00	198
76.00	10365	156.00	7208	235.00	1454	341.00	529
77.00	224960	157.00	1560	236.00	1024	342.00	119
78.00	15209	158.00	1419	237.00	1798	346.00	1198
79.00	13007	159.00	1388	238.00	380	347.00	348

Digitally signed by Kira N. Beck on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Date : 18-APR-2019 18:04

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1100.d
Spectrum: Avg. Scans 447-449 (5.18), Background Scan 441
Location of Maximum: 198.00
Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	10749	160.00	2655	239.00	528	350.00	179
81.00	15904	161.00	3738	240.00	682	352.00	1685
82.00	3868	162.00	1250	241.00	1067	353.00	1698
83.00	3046	163.00	252	242.00	2978	354.00	1881
84.00	843	164.00	481	243.00	3336	355.00	258
85.00	2060	165.00	2688	244.00	33608	365.00	7642
86.00	3711	166.00	2673	245.00	3557	366.00	1311
87.00	1895	167.00	17768	246.00	6704	368.00	138
88.00	650	168.00	10362	247.00	1877	371.00	693
89.00	203	169.00	1671	248.00	440	372.00	2316
91.00	3410	170.00	417	249.00	1554	373.00	1105
92.00	3742	171.00	802	250.00	413	383.00	736
93.00	23080	172.00	1656	251.00	507	384.00	348
94.00	1712	173.00	1836	252.00	1317	390.00	269
96.00	1316	174.00	3466	253.00	2734	391.00	419
97.00	580	175.00	6095	255.00	162816	401.00	433
98.00	17912	176.00	1919	256.00	23968	402.00	984
99.00	14495	177.00	3978	257.00	1598	403.00	1818
100.00	1515	178.00	1106	258.00	8968	404.00	553
101.00	7647	179.00	13754	259.00	1474	418.00	95
102.00	230	180.00	8105	260.00	127	421.00	1610
103.00	2769	181.00	4379	261.00	277	422.00	1933
104.00	5398	182.00	694	262.00	86	423.00	11713
105.00	5040	183.00	477	264.00	362	424.00	2028
106.00	1881	184.00	1251	265.00	3973	425.00	426
107.00	57384	185.00	6727	266.00	557	426.00	192
108.00	9792	186.00	42576	269.00	209	431.00	152
109.00	685	187.00	12273	270.00	263	433.00	168
110.00	106968	188.00	1070	271.00	888	434.00	342
111.00	13223	189.00	2710	272.00	567	435.00	784
112.00	2392	190.00	495	273.00	5872	436.00	204
113.00	730	191.00	1158	274.00	12505	437.00	512
114.00	85	192.00	3801	275.00	69480	438.00	693
115.00	157	193.00	5341	276.00	8584	439.00	782
116.00	3665	194.00	1284	277.00	5498	440.00	315

Digitally signed by Kira N. Beck on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Date : 18-APR-2019 18:04

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: art12405

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1100.d
Spectrum: Avg. Scans 447-449 (5.18), Background Scan 441
Location of Maximum: 198.00
Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	50456	195.00	1211	278.00	1050	441.00	39160
118.00	3506	196.00	9298	279.00	137	442.00	242688
119.00	667	197.00	2363	281.00	100	443.00	47112
120.00	846	198.00	327296	282.00	249	444.00	4186
121.00	409	199.00	22624	283.00	522	445.00	347
122.00	3222	200.00	2087	284.00	529		
123.00	6041	201.00	2323	285.00	1141		
124.00	2962	202.00	372	289.00	302		

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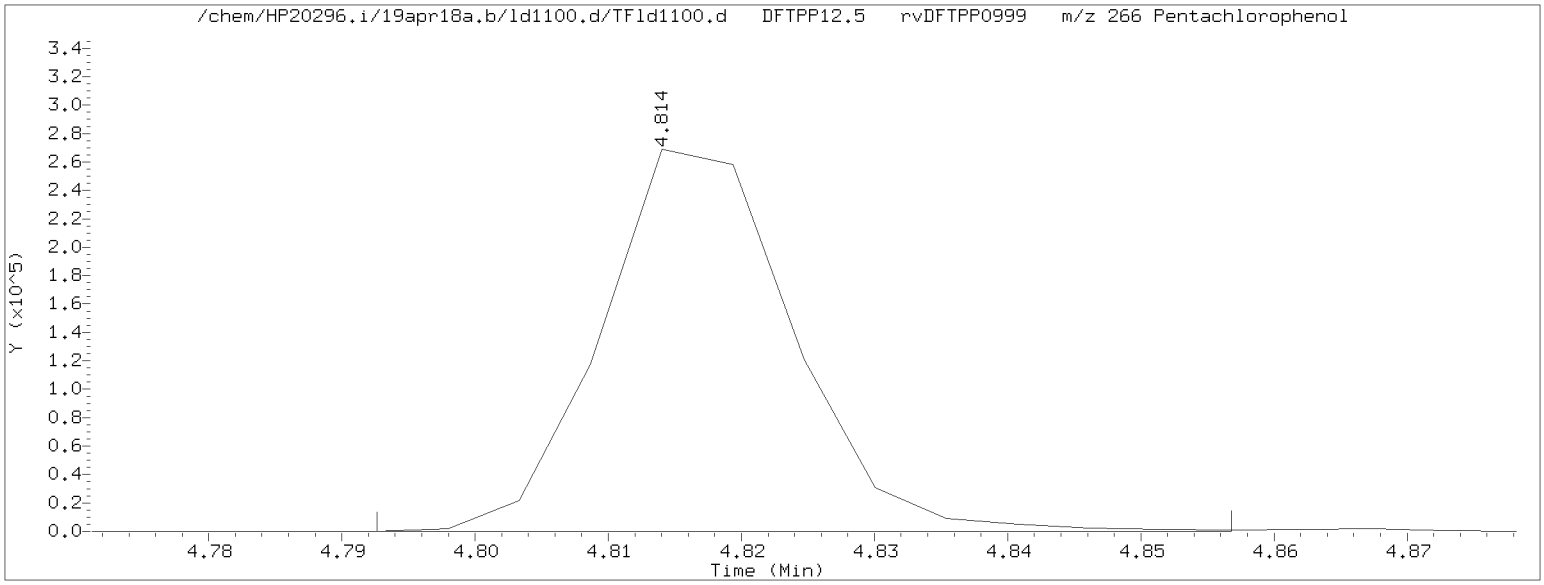
Target 3.5 esignature user ID: knb25316

Assessment of GC Column Performance and Injection Port Inertness for

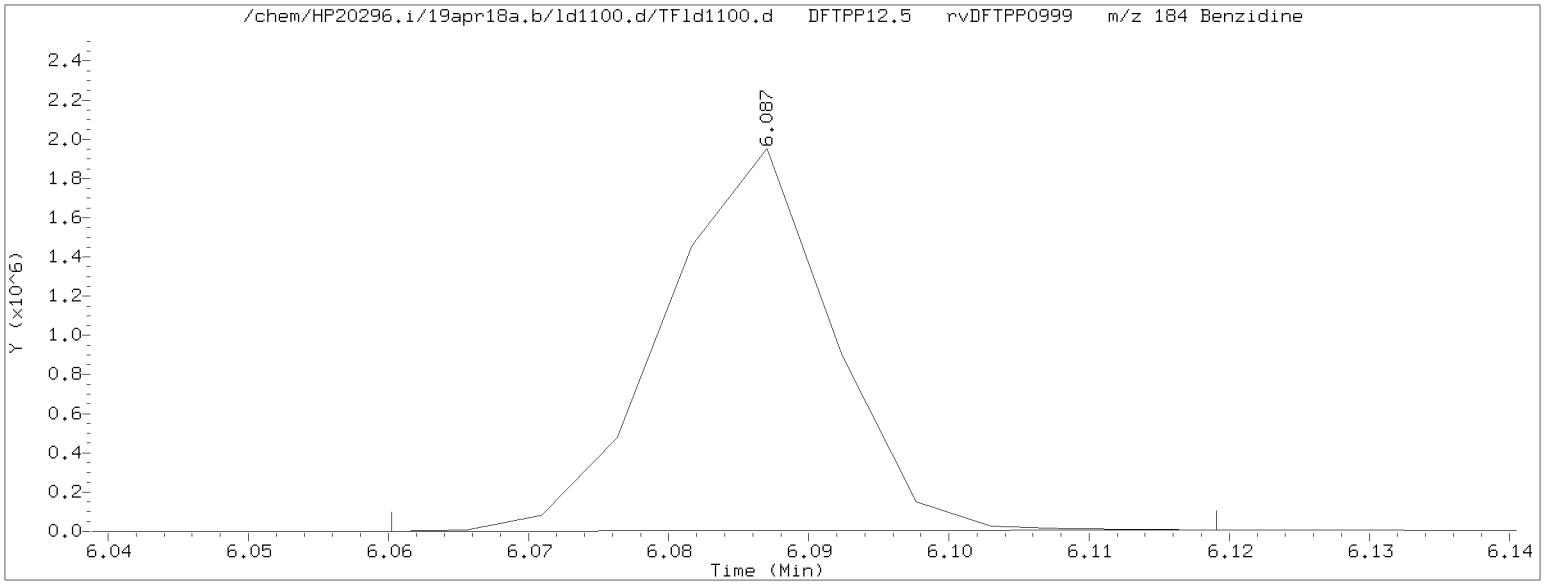
Instrument ID: HP20296.i Injection Date: 18-APR-2019 18:04 Operator: art12405



Pentachlorophenol EICP peak height = 269056 EICP peak height at 10% = 26906 Pentachlorophenol EICP area = 268760

Pentachlorophenol EICP peak apex (min.) = 4.814
RT at 10% of front half of EICP (min.) = 4.804 'Front' peak width (min.) = 0.0103833333
RT at 10% of back half of EICP (min.) = 4.831 'Tailing' peak width (min.) = 0.0168833333

$$\text{PCP tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0168833333}{0.0103833333} = 1.626$$



Benzidine EICP peak height = 1950604 EICP peak height at 10% = 195060 Benzidine EICP area = 1617283

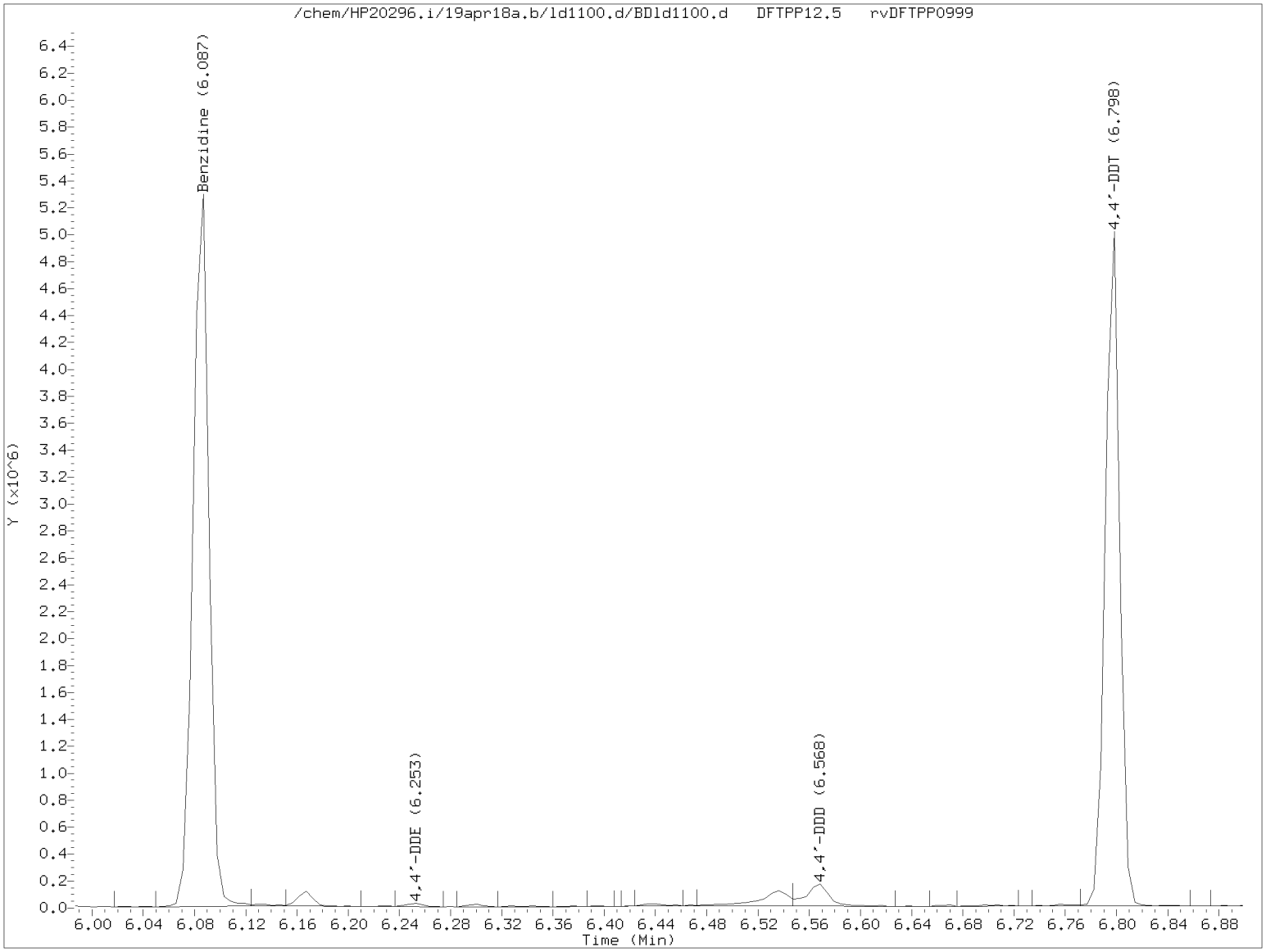
Benzidine EICP peak apex (min.) = 6.087
RT at 10% of front half of EICP (min.) = 6.073 'Front' peak width (min.) = 0.0144500000
RT at 10% of back half of EICP (min.) = 6.097 'Tailing' peak width (min.) = 0.0103333333

$$\text{Benzidine tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0103333333}{0.0144500000} = 0.715$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

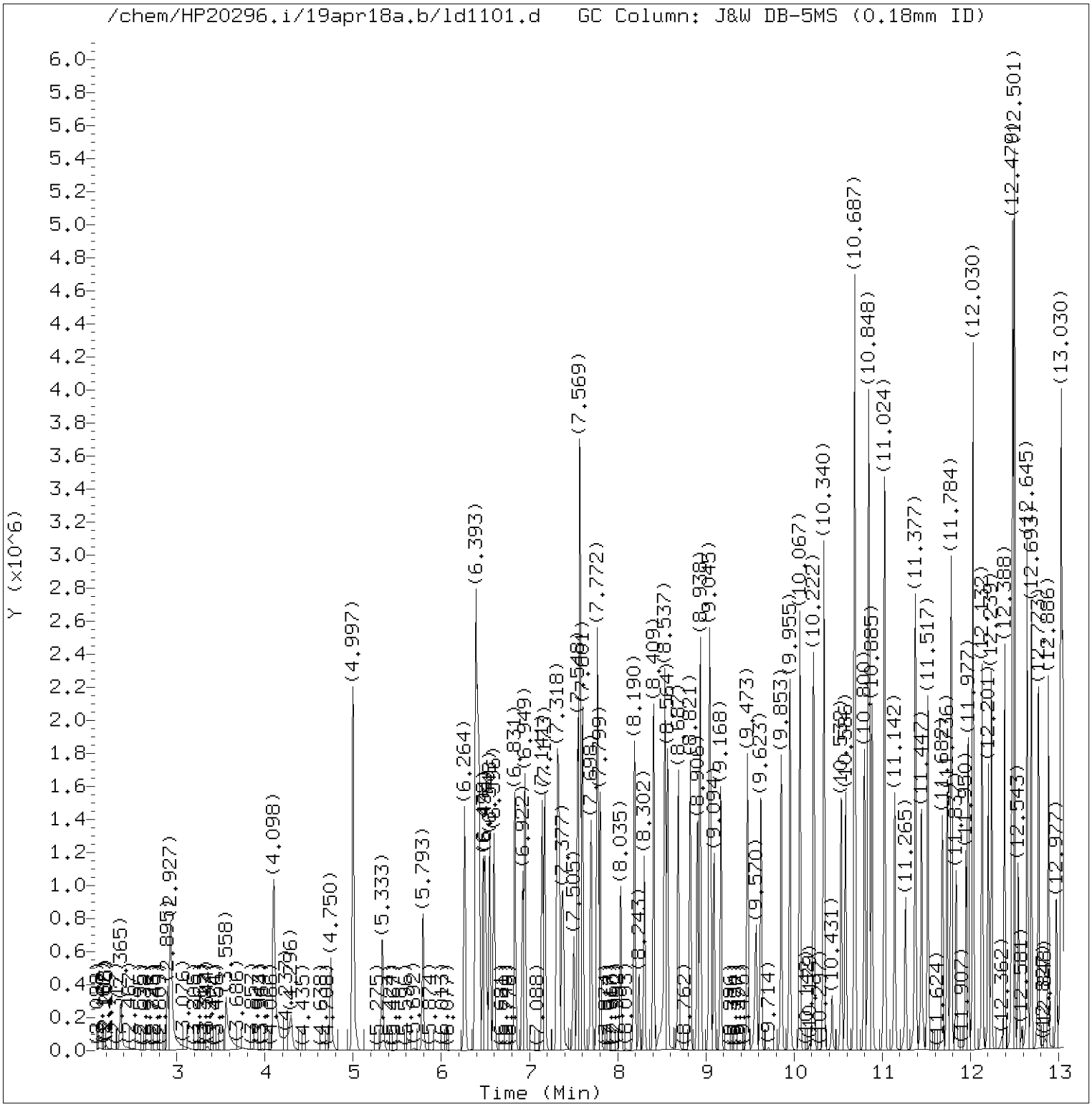
Instrument ID: HP20296.i Injection Date: 18-APR-2019 18:04 Operator: art12405



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{18609 + 205141}{18609 + 205141 + 3960734} \times 100 = 5.3$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

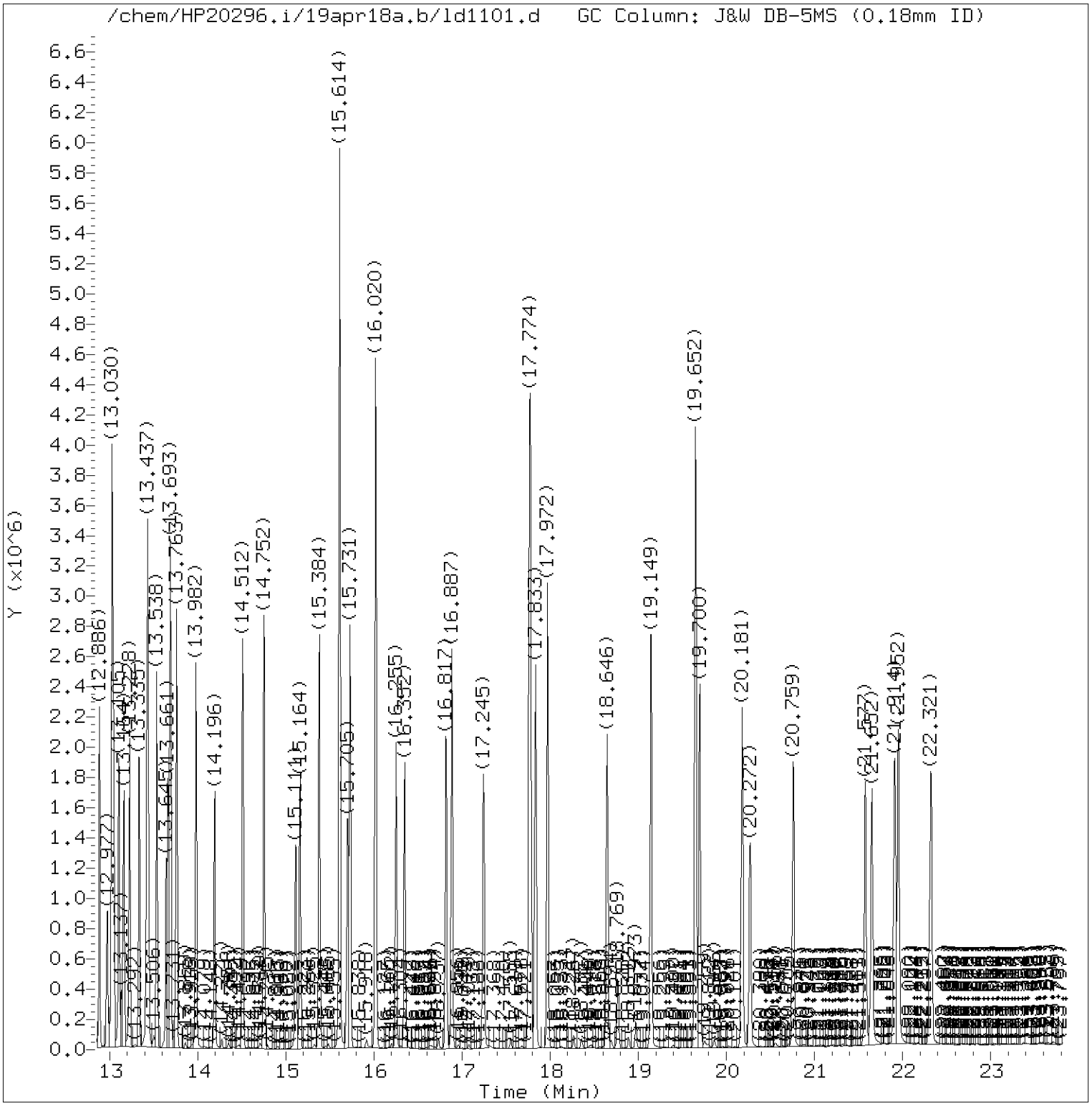
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.365	88	226200	7.849
5) N-Nitrosodimethylamine	(1)	2.895	74	367356	8.184
6) Pyridine	(1)	2.932	79	617416	7.788
8) 2-Picoline	(1)	4.098	93	615429	7.786
9) N-Nitrosomethylethylamine	(1)	4.296	88	241449	7.491
10) Methyl methanesulfonate	(1)	4.750	80	308931	7.779
12)$2-Fluorophenol	(1)	4.997	112	957267	15.122
14) N-Nitrosodiethylamine	(1)	5.333	102	236146	7.607
43) Total Cresols	(1)			1019134	15.699
16) Ethyl methanesulfonate	(1)	5.793	109	244522	7.416
17) Benzaldehyde	(1)	6.264	77	476787	8.157
18)$Phenol-d6	(1)	6.393	99	1283368	15.279
19) Phenol	(1)	6.409	94	759107	7.679
20) Aniline	(1)	6.425	93	880346	7.675
21) a-methylstyrene	(1)	6.516	118	78745	7.080
23) bis(2-Chloroethyl)ether	(1)	6.548	93	566939	7.701
24) 2-Chlorophenol	(1)	6.596	128	449397	7.498
25) 1,3-Dichlorobenzene	(1)	6.831	146	468027	7.220
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	197141	5.000
27) 1,4-Dichlorobenzene	(1)	6.949	146	478871	7.281
28) Benzyl alcohol	(1)	7.141	108	303230	7.469
29) 1,2-Dichlorobenzene	(1)	7.173	146	455943	7.394
31) Indene	(1)	7.312	115	585198	7.366
32) 2-Methylphenol	(1)	7.334	108	478923	7.838
35) bis(2-Chloroisopropyl)ether	(1)	7.371	45	753153	8.094
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.371	45	753153	8.094
100) Isosafrole	(3)			375896	7.512
36) N-Nitrosopyrrolidine	(1)	7.505	100	259716	7.949
37) Acetophenone	(1)	7.548	105	744933	7.877
39) N-Nitroso-di-n-propylamine	(1)	7.569	70	436356	8.156
38) 4-Methylphenol	(1)	7.575	108	540211	7.861
40) N-Nitrosomorpholine	(1)	7.575	56	324683	8.288
41) o-Toluidine	(1)	7.601	106	821492	7.692
44) Hexachloroethane	(1)	7.698	117	221594	7.534
45)$Nitrobenzene-d5	(2)	7.772	82	1209866	15.915
46) Nitrobenzene	(2)	7.799	77	637171	7.956
50) N-Nitrosopiperidine	(2)	8.035	114	231334	7.691
125) 2,4_2,6-Dinitrotoluenes	(3)			446434	15.723
52) Isophorone	(2)	8.190	82	1102953	7.904
53) 2-Nitrophenol	(2)	8.302	139	214086	7.531

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.409	107	521839	7.867
59) O,O,O-Triethylphosphorothioate	(2)	8.537	198	195516	7.497
58) Benzoic acid	(2)	8.548	105	405621	8.743
57) bis(2-Chloroethoxy)methane	(2)	8.564	93	702816	7.971
62) 2,4-Dichlorophenol	(2)	8.687	162	357028	7.598
151) Diallate trans/cis	(4)			505892	8.160
65) 1,2,4-Trichlorobenzene	(2)	8.821	180	383476	7.372
68)*Naphthalene-d8	(2)	8.906	136	766378	5.000
69) Naphthalene	(2)	8.938	128	1303206	7.505
70) 4-Chloroaniline	(2)	9.040	127	535489	7.458
71) 2,6-Dichlorophenol	(2)	9.051	162	347962	7.560
72) Hexachloropropene	(2)	9.094	213	231885	7.330
74) Hexachlorobutadiene	(2)	9.168	225	208615	7.209
78) Quinoline	(2)	9.473	129	770855	7.587
79) Caprolactam	(2)	9.570	113	121919	8.095
80) N-Nitrosodi-n-butylamine	(2)	9.623	84	394928	7.533
83) 4-Chloro-3-methylphenol	(2)	9.853	107	444816	7.699
85) Safrole	(2)	9.955	162	309232	7.561
86) 2-Methylnaphthalene	(2)	10.067	142	830801	7.688
87) 1-Methylnaphthalene	(2)	10.222	142	784028	7.488
88) Hexachlorocyclopentadiene	(3)	10.340	237	208744	7.109
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	216	365883	7.197
91) cis-Isosafrole	(3)	10.431	162	57320	1.265
93) 2,4,6-Trichlorophenol	(3)	10.532	196	236237	7.125
95) 2,4,5-Trichlorophenol	(3)	10.586	196	252559	7.252
96)$2-Fluorobiphenyl	(3)	10.687	172	1769784	15.084
97) trans-Isosafrole	(3)	10.800	162	318576	6.247
98) 1,1'-Biphenyl	(3)	10.843	154	959287	7.418
99) 2-Chloronaphthalene	(3)	10.853	162	807039	7.495
101) 1-Chloronaphthalene	(3)	10.885	162	707045	7.332
103) Diphenyl ether	(3)	11.024	170	501985	7.382
104) 2-Nitroaniline	(3)	11.030	138	245970	7.788
108) 1,4-Naphthoquinone	(3)	11.142	158	311024	7.612
109) 1,4-Dinitrobenzene	(3)	11.265	168	115707	7.524
110) Dimethylphthalate	(3)	11.377	163	855337	7.739
111) 1,3-Dinitrobenzene	(3)	11.383	168	128297	7.624
113) 2,6-Dinitrotoluene	(3)	11.447	165	189616	7.872
114) Acenaphthylene	(3)	11.517	152	1106054	7.652
117) 3-Nitroaniline	(3)	11.682	138	208039	7.545
118)*Acenaphthene-d10	(3)	11.736	164	365549	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.784	153	804044	7.400
120) 2,4-Dinitrophenol	(3)	11.837	184	122686	8.778
121) 4-Nitrophenol	(3)	11.950	109	167275	8.131
122) Pentachlorobenzene	(3)	11.977	250	306506	7.244
123) 2,4-Dinitrotoluene	(3)	12.030	165	256818	7.851
124) Dibenzofuran	(3)	12.030	168	1068166	7.538
126) 1-Naphthylamine	(3)	12.132	143	764884	7.365
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201	232	183991	7.193
128) 2-Naphthylamine	(3)	12.239	143	749659	7.433
129) Diethylphthalate	(3)	12.388	149	826224	7.465
131) Fluorene	(3)	12.474	166	835243	7.354
130) Thionazin	(3)	12.479	107	188754	8.312
133) 5-Nitro-o-toluidine	(3)	12.495	152	242935	8.029
134) 4-Nitroaniline	(3)	12.501	138	237467	8.122
132) 4-Chlorophenyl-phenylether	(3)	12.501	204	396350	7.417
135) 4,6-Dinitro-2-methylphenol	(4)	12.549	198	124159	6.847
136) N-Nitrosodiphenylamine	(4)	12.645	169	690897	7.623
137) NDPA as diphenylamine	(4)	12.645	169	690897	7.623
139) 1,2-Diphenylhydrazine	(4)	12.693	77	1240303	8.071
140)$2,4,6-Tribromophenol	(3)	12.773	330	211159	14.282
142) Tetraethyldithiopyrophosphate	(4)	12.886	97	190803	8.100
144) 1,3,5-Trinitrobenzene	(4)	12.977	213	75904	6.984
145) Diallate (peak 1)	(4)	13.025	86	437964	6.871
146) Phorate	(4)	13.030	75	777697	8.533
147) Phenacetin	(4)	13.046	108	530987	8.032
148) 4-Bromophenyl-phenylether	(4)	13.110	248	219786	7.479
149) Diallate (peak 2)	(4)	13.137	86	67928	1.289
150) Hexachlorobenzene	(4)	13.164	284	225840	6.886
152) Dimethoate	(4)	13.228	87	467547	7.901
153) Atrazine	(4)	13.340	200	210196	7.773
154) Pentachlorophenol	(4)	13.421	266	148127	7.121
155) 4-Aminobiphenyl	(4)	13.431	169	777091	7.413
156) Pentachloronitrobenzene	(4)	13.437	237	105908	7.753
157) Pronamide	(4)	13.538	173	390729	8.115
158)*Phenanthrene-d10	(4)	13.661	188	677522	5.000
159) Dinoseb	(4)	13.683	211	188386	7.056
160) Phenanthrene	(4)	13.693	178	1220005	7.449
162) Anthracene	(4)	13.763	178	1200611	7.347
168) Carbazole	(4)	13.982	167	1084470	7.449
169) Methyl parathion	(4)	14.196	109	345318	8.081

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

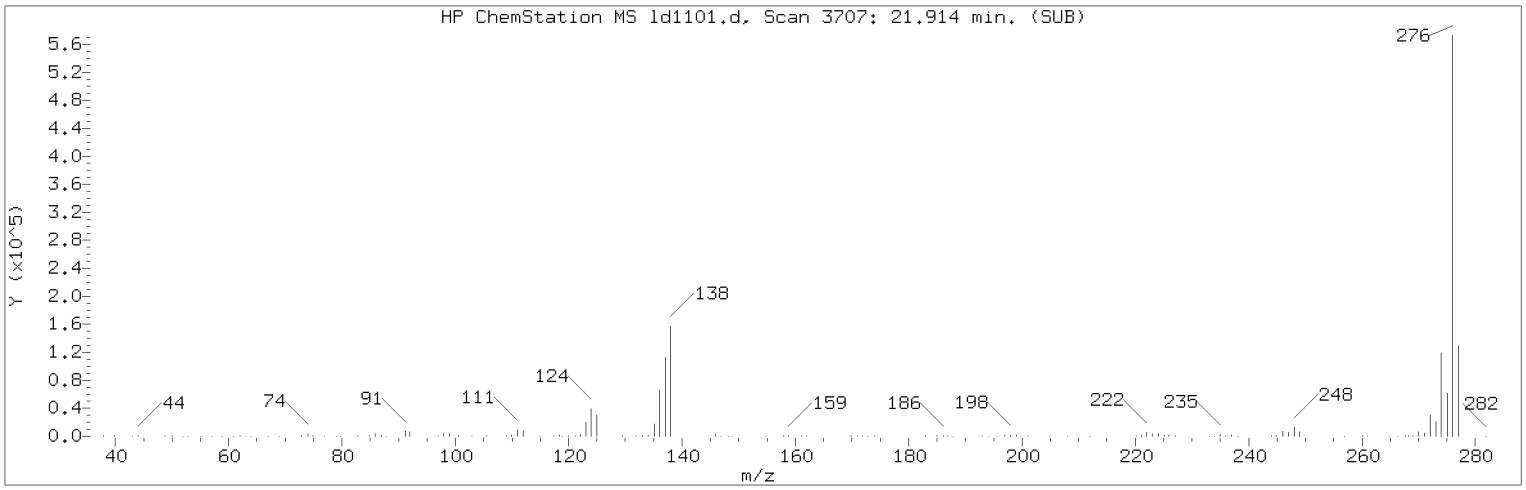
Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.512	149	1494741	7.565
172) Parathion	(4)	14.752	109	221626	8.031
173) 4-Nitroquinoline-1-oxide	(4)	14.758	190	93681	6.609
227) Total PAHs	(6)			20294426	136.655
174) Octachlorostyrene	(4)	15.116	308	84077	6.972
176) Isodrin	(4)	15.164	193	138043	7.234
178) Fluoranthene	(4)	15.384	202	1312246	7.700
179) Benzidine	(5)	15.614	184	2635121	22.526
180)*Pyrene-d10	(5)	15.699	212	679027	5.000
182) Pyrene	(5)	15.731	202	1342003	7.296
184)$Terphenyl-d14	(5)	16.020	244	1636755	14.755
187) p-Dimethylaminoazobenzene	(5)	16.255	225	223119	7.545
190) Chlorobenzilate	(5)	16.352	139	470101	7.875
192) 3,3'-Dimethylbenzidine	(5)	16.822	212	884003	7.367
193) Butylbenzylphthalate	(5)	16.887	149	708205	7.796
196) 2-Acetylaminofluorene	(5)	17.245	181	535613	7.140
198) 3,3'-Dichlorobenzidine	(5)	17.758	252	460329	7.369
200) Benzo(a)anthracene	(5)	17.774	228	1283114	7.749
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.780	231	262268	7.585
201) Chrysene	(5)	17.839	228	1213075	7.545
204) bis(2-Ethylhexyl)phthalate	(5)	17.972	149	1034157	7.823
208) 6-Methylchrysene	(5)	18.646	242	819873	7.303
210) Di-n-octylphthalate	(6)	19.149	149	1749679	7.885
211) Benzo(b)fluoranthene	(6)	19.652	252	1247879	7.686
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657	256	540087	7.995
213) Benzo(k)fluoranthene	(6)	19.700	252	1229182	7.889
216) Benzo(a)pyrene	(6)	20.181	252	1148365	7.779
218)*Perylene-d12	(6)	20.272	264	639432	5.000
220) 3-Methylcholanthrene	(6)	20.764	268	574977	7.603
222) Dibenz(a,h)acridine	(6)	21.577	279	926181	7.204
223) Dibenz(a,j)acridine	(6)	21.652	279	958072	7.514
224) Indeno(1,2,3-cd)pyrene	(6)	21.914	276	1109514M	7.684
225) Dibenz(a,h)anthracene	(6)	21.952	278	1168451	7.866
226) Benzo(g,h,i)perylene	(6)	22.326	276	1156605	7.579

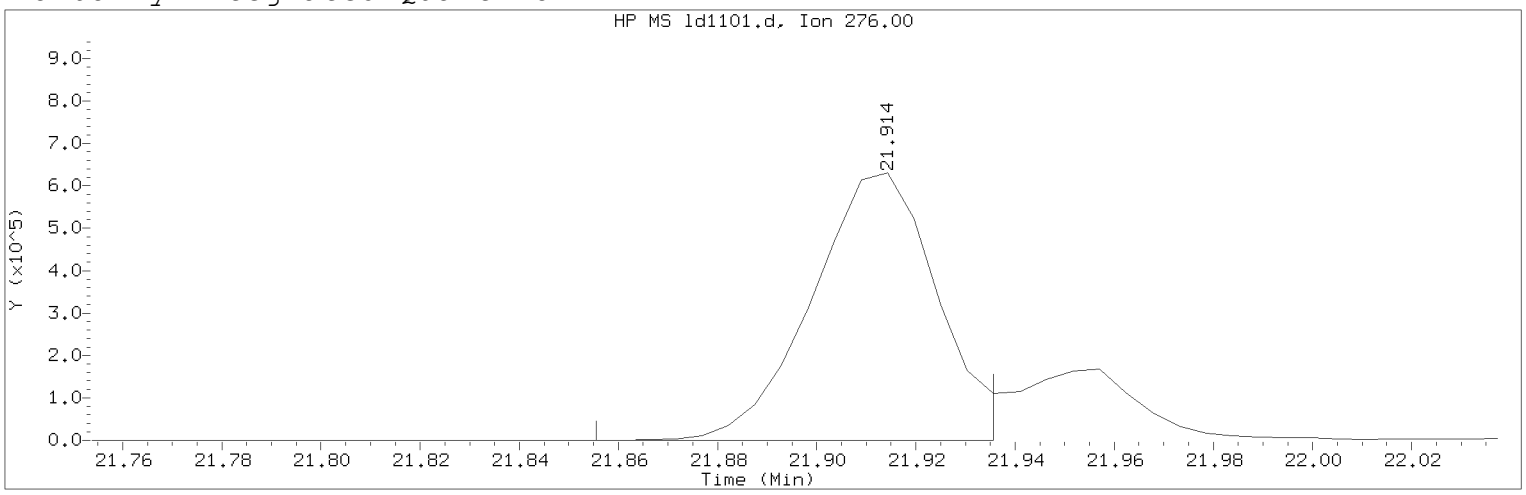
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 13:39
Date, time and analyst ID of latest file update: 23-Apr-2019 13:39 apb10206

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

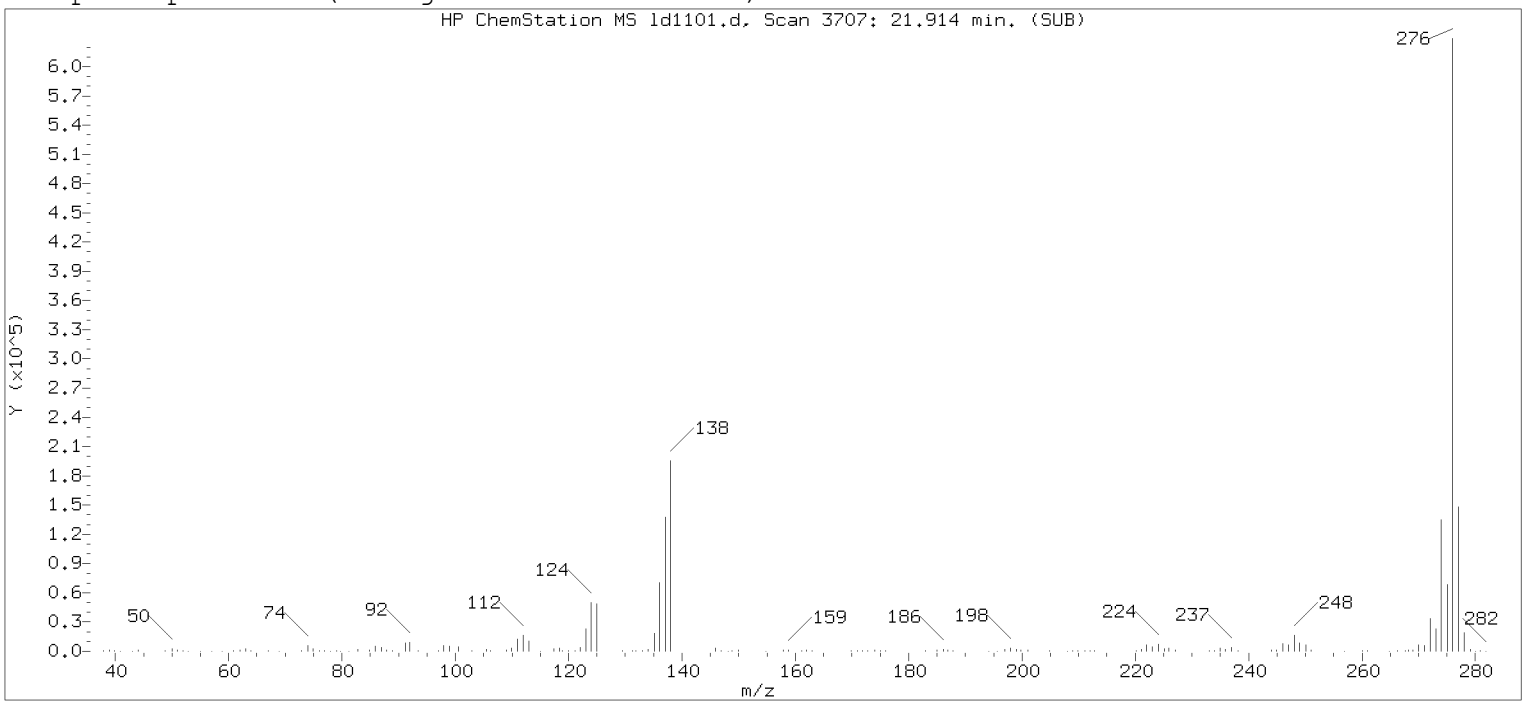
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area (flag) : 1109514M
On-Column Amount (ng/ul) : 7.6840
Integration start scan : 3695 Integration stop scan: 3710
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

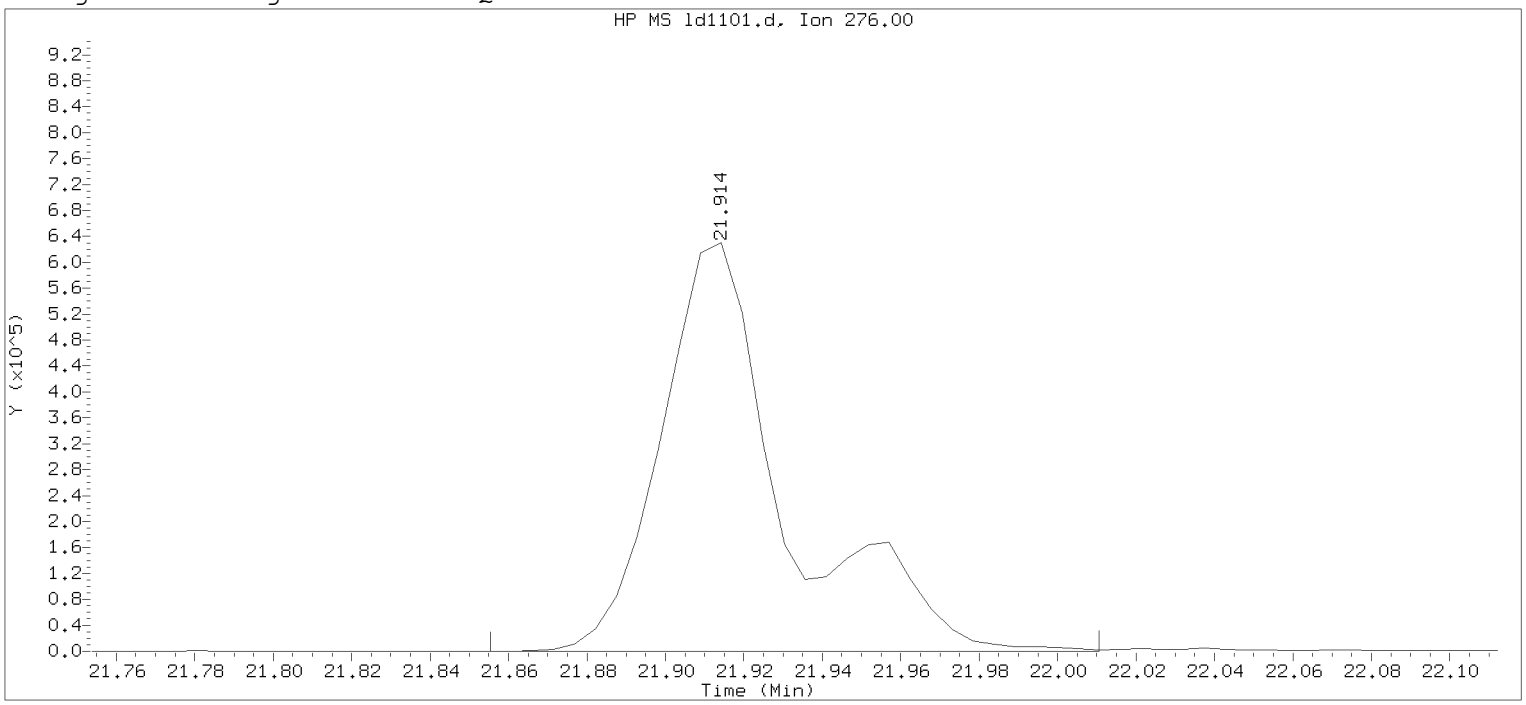
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/23/2019 at 14:02.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



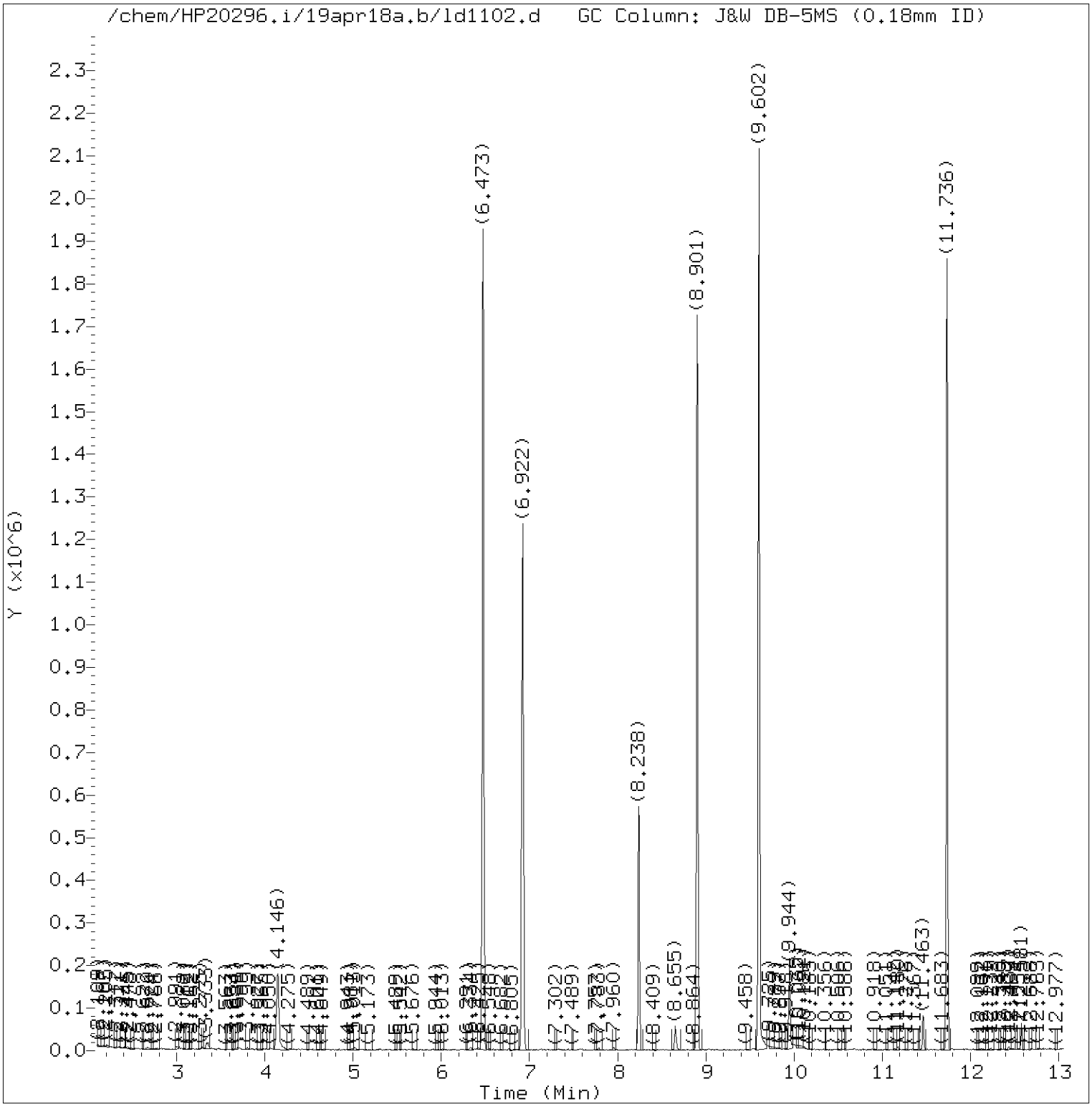
Data File: /chem/HP20296.i/19apr18a.b/ld1101.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: all1
Calibration date and time: 18-APR-2019 18:51
Date, time and analyst ID of latest file update: 18-Apr-2019 18:51 chemist

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area : 1383218
On-column Amount (ng/ul) : 9.5796
Integration start scan : 3695 Integration stop scan: 3724
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/23/2019 at 14:02.
Target 3.5 esignature used for this report.



Total Ion Chromatogram (TIC)

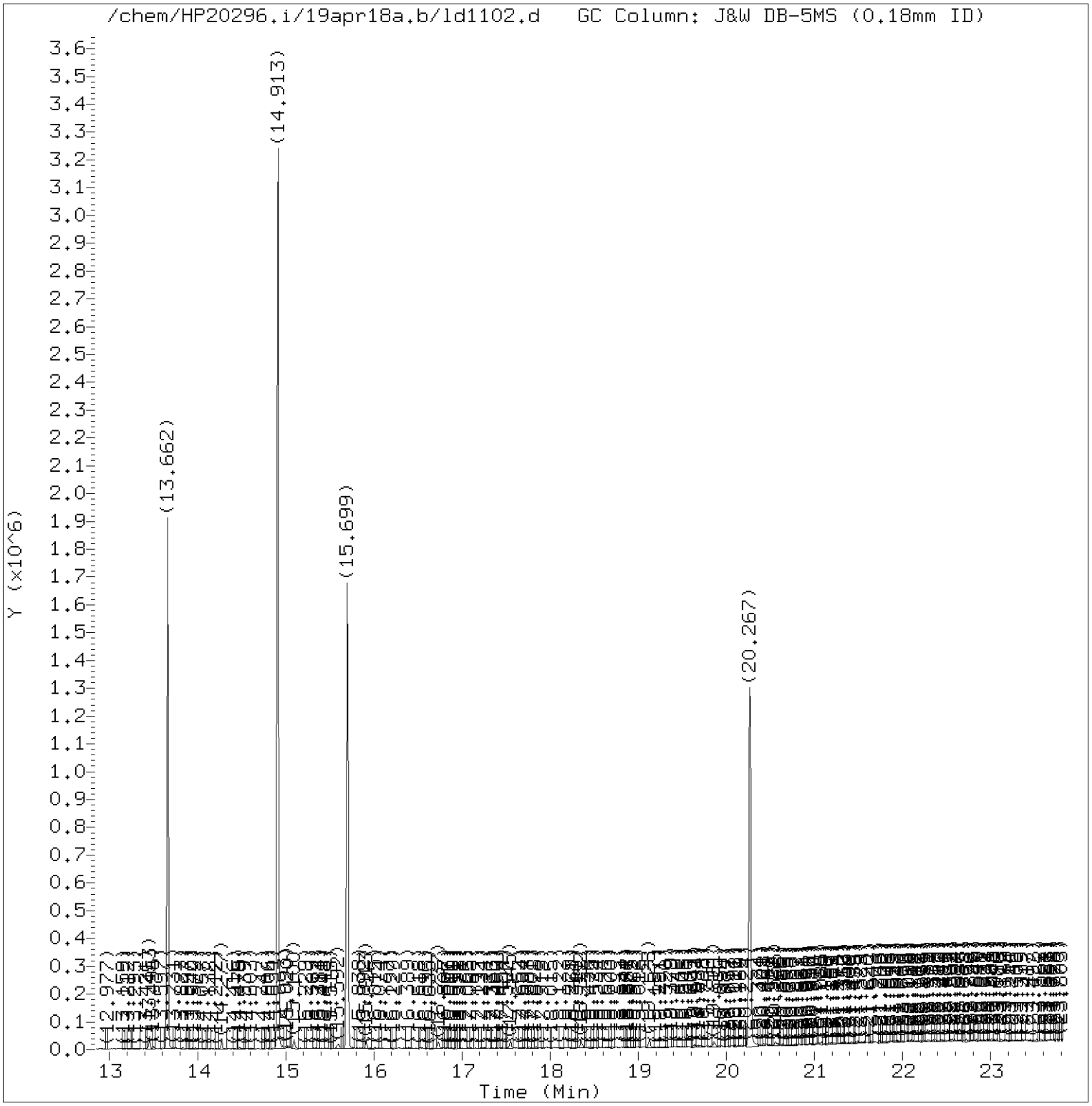
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1102.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:51 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: pda
Calibration date and time: 23-APR-2019 00:08
Date, time and analyst ID of latest file update: 23-Apr-2019 00:08 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Digitally signed by Kira N. Beck
on 04/23/2019 at 13:22.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1102.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:51 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: pda
Calibration date and time: 23-APR-2019 00:08
Date, time and analyst ID of latest file update: 23-Apr-2019 00:08 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Digitally signed by Kira N. Beck
on 04/23/2019 at 13:22.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1102.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 18:51 Analyst ID: art12405

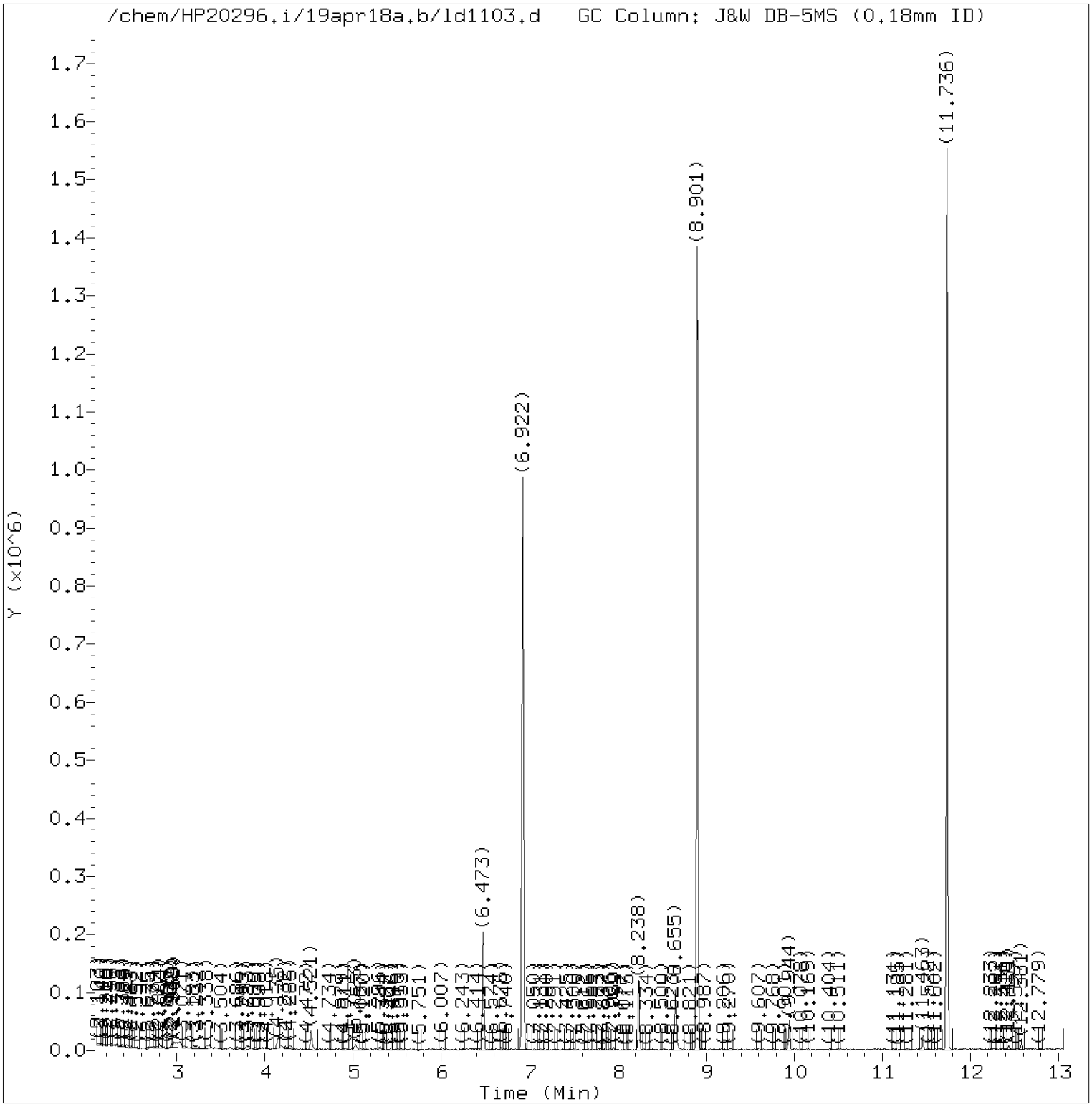
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: pda
Calibration date and time: 23-APR-2019 00:08
Date, time and analyst ID of latest file update: 23-Apr-2019 00:08 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	240136	5.000
68)*Naphthalene-d8	(2)	8.901	136	907705	5.000
84) 1,4-Phenylenediamine	(2)	9.602	108	761925	0.000
118)*Acenaphthene-d10	(3)	11.736	164	385056	5.000
158)*Phenanthrene-d10	(4)	13.662	188	713345	5.000
180)*Pyrene-d10	(5)	15.699	212	695194	5.000
218)*Perylene-d12	(6)	20.267	264	609886	5.000

* = Compound is an internal standard.

Digitally signed by Kira N. Beck
on 04/23/2019 at 13:22.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

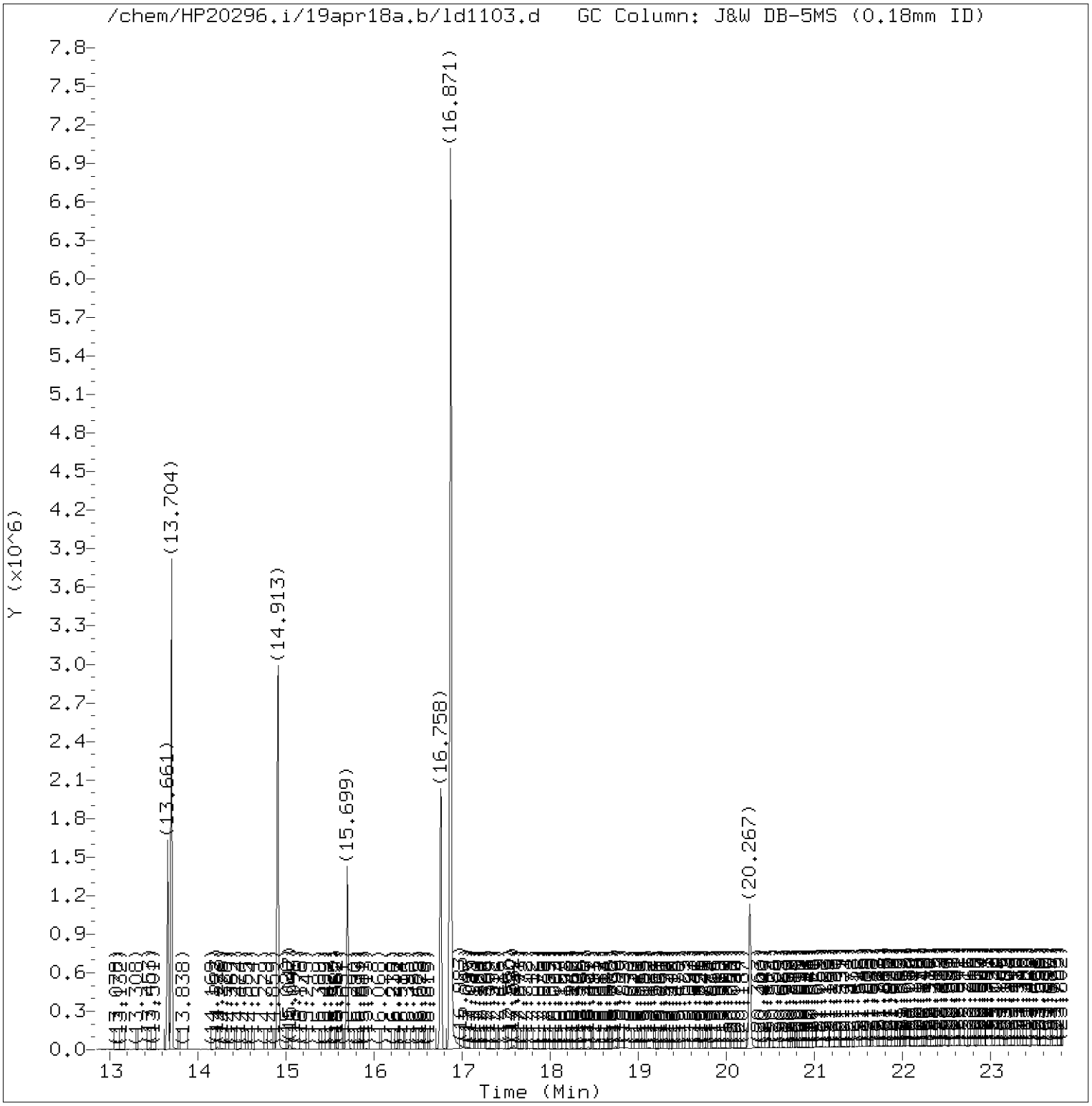
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1103.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 19:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 00:08
Date, time and analyst ID of latest file update: 23-Apr-2019 00:08 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Digitally signed by Kira N. Beck
on 04/23/2019 at 13:22.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1103.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 19:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 00:08
Date, time and analyst ID of latest file update: 23-Apr-2019 00:08 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Digitally signed by Kira N. Beck
on 04/23/2019 at 13:22.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1103.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 19:20 Analyst ID: art12405

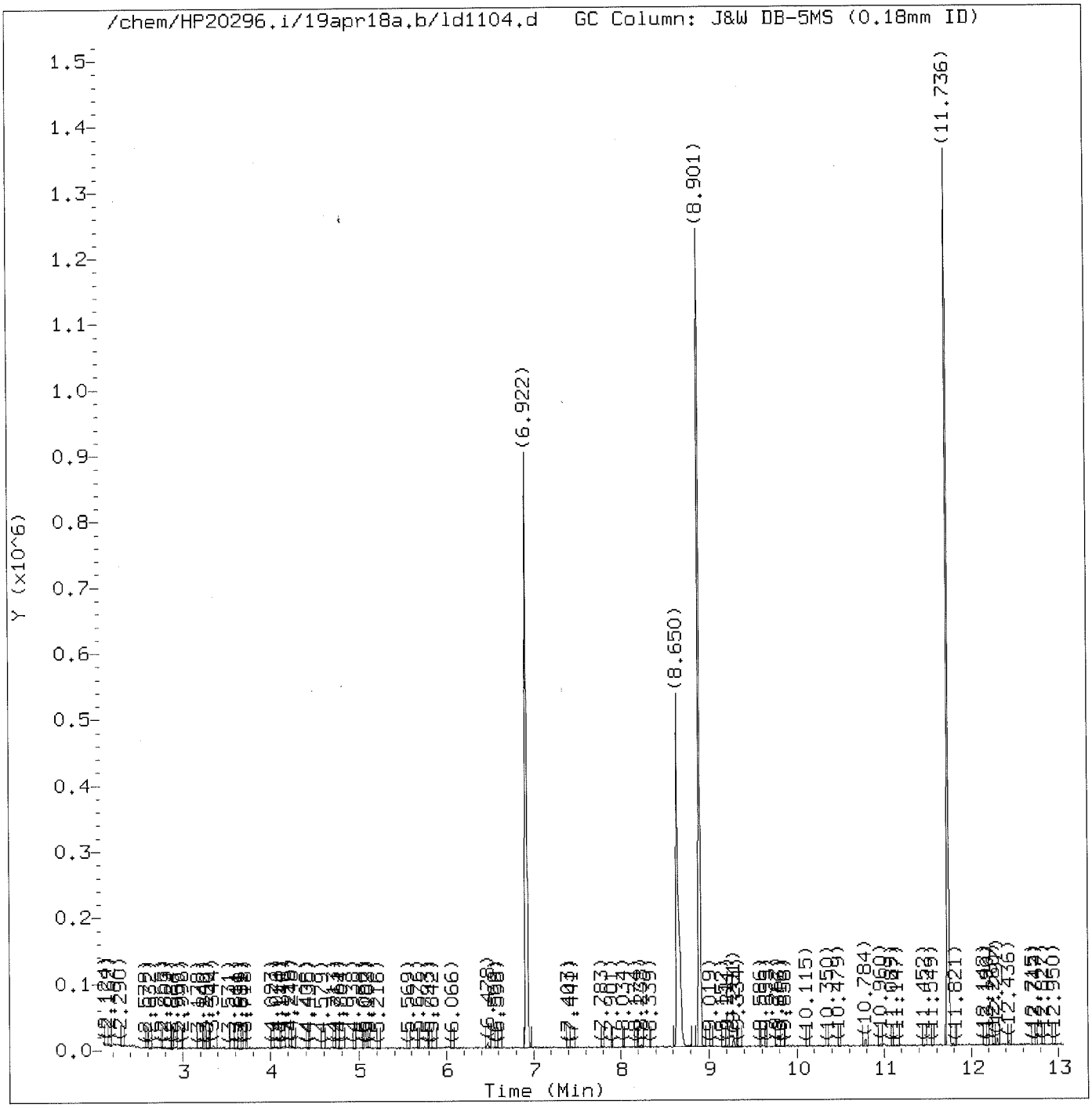
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 00:08
Date, time and analyst ID of latest file update: 23-Apr-2019 00:08 art12405

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	186032	5.000
68)*Naphthalene-d8	(2)	8.901	136	713451	5.000
118)*Acenaphthene-d10	(3)	11.736	164	318255	5.000
158)*Phenanthrene-d10	(4)	13.661	188	586034	5.000
167) Disulfoton	(4)	13.704	88	810365	0.000
175) Methapyrilene	(4)	14.913	97	739445	0.000
180)*Pyrene-d10	(5)	15.699	212	595808	5.000
194) Famphur	(5)	16.758	218	558615	0.000
195) Kepone	(5)	16.871	272	832122	0.000
218)*Perylene-d12	(6)	20.267	264	529321	5.000

* = Compound is an internal standard.

Digitally signed by Kira N. Beck
on 04/23/2019 at 13:22.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

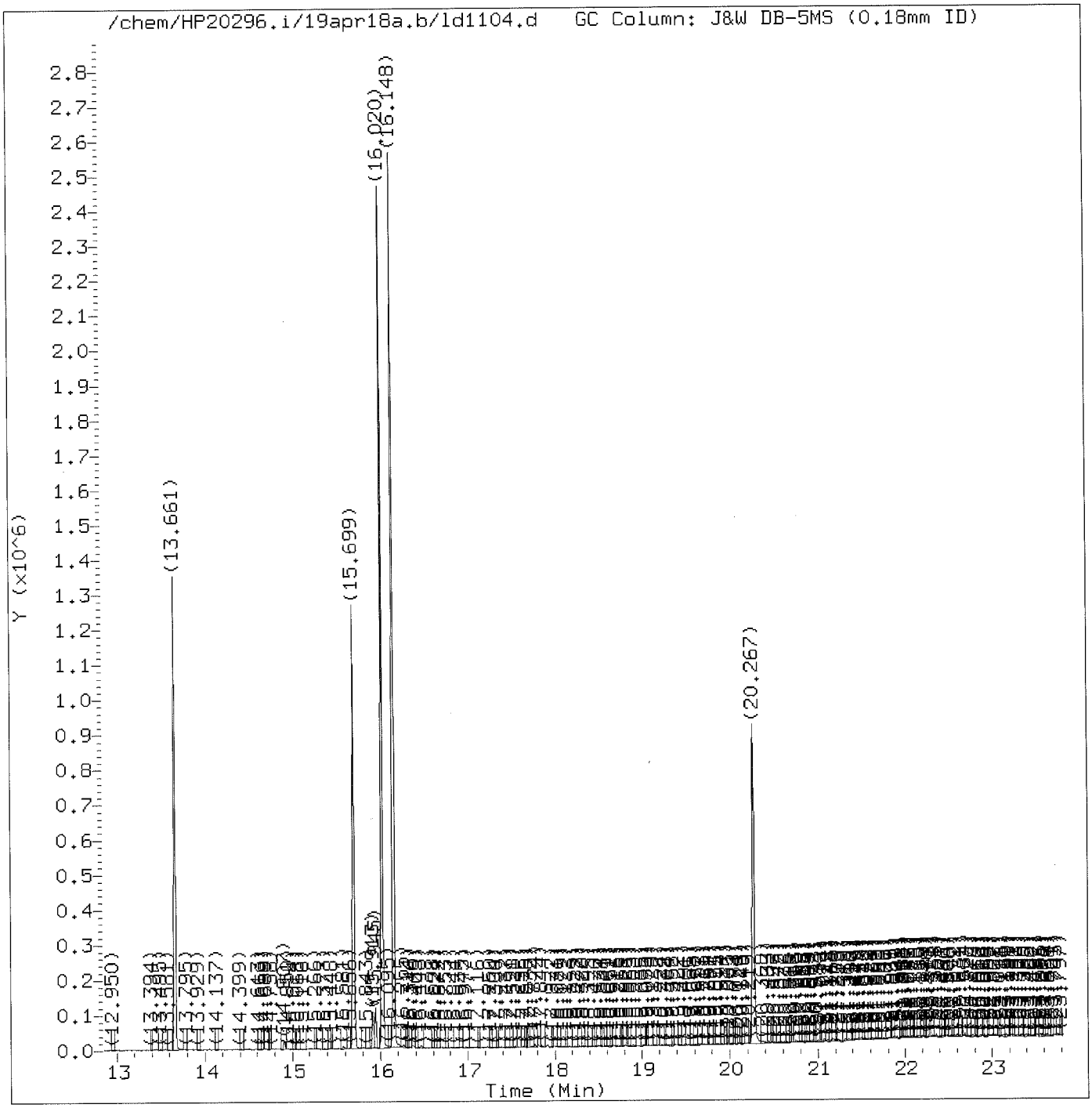
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1104.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 19:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: aap
Calibration date and time: 24-APR-2019 10:12
Date, time and analyst ID of latest file update: 24-Apr-2019 10:12 hbz01996

Sample Name: SSTD12.5 Lab Sample ID: rvAAP1089

Digitally signed by Holly B. Ziegler
on 04/24/2019 at 10:13.
Target 3.5 esignature user ID: hbz01996



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1104.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 19:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: aap
Calibration date and time: 24-APR-2019 10:12
Date, time and analyst ID of latest file update: 24-Apr-2019 10:12 hbz01996

Sample Name: SSTD12.5 Lab Sample ID: rvAAP1089

Digitally signed by Holly B. Ziegler
on 04/24/2019 at 10:13.
Target 3.5 esignature user ID: hbz01996

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1104.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 19:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: aap
Calibration date and time: 24-APR-2019 10:12
Date, time and analyst ID of latest file update: 24-Apr-2019 10:12 hbz01996

Sample Name: SSTD12.5 Lab Sample ID: rvAAP1089

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	165331	5.000
67) a,a-Dimethylphenethylamine	(2)	8.650	58	532518	12.500
68)*Naphthalene-d8	(2)	8.901	136	637554	5.000
191) Aramite	(5)			416698	12.500
118)*Acenaphthene-d10	(3)	11.736	164	282066	5.000
158)*Phenanthrene-d10	(4)	13.661	188	530122	5.000
180)*Pyrene-d10	(5)	15.699	212	506230	5.000
185) Aramite (1)	(5)	15.913	185	6403	1.250
186) Aramite (2)	(5)	15.945	185	7949	1.250
188) Aramite (3)	(5)	16.025	185	172274	5.000
189) Aramite (4)	(5)	16.154	185	230072	5.000
218)*Perylene-d12	(6)	20.267	264	449078	5.000

* = Compound is an internal standard.

Digitally signed by Holly B. Ziegler
on 04/24/2019 at 10:13.
Target 3.5 esignature user ID: hbz01996

Data File: /chem/HP20296.i/19apr19.b/ld1130.d

Date : 19-APR-2019 07:48

Client ID: DFTPP12.5

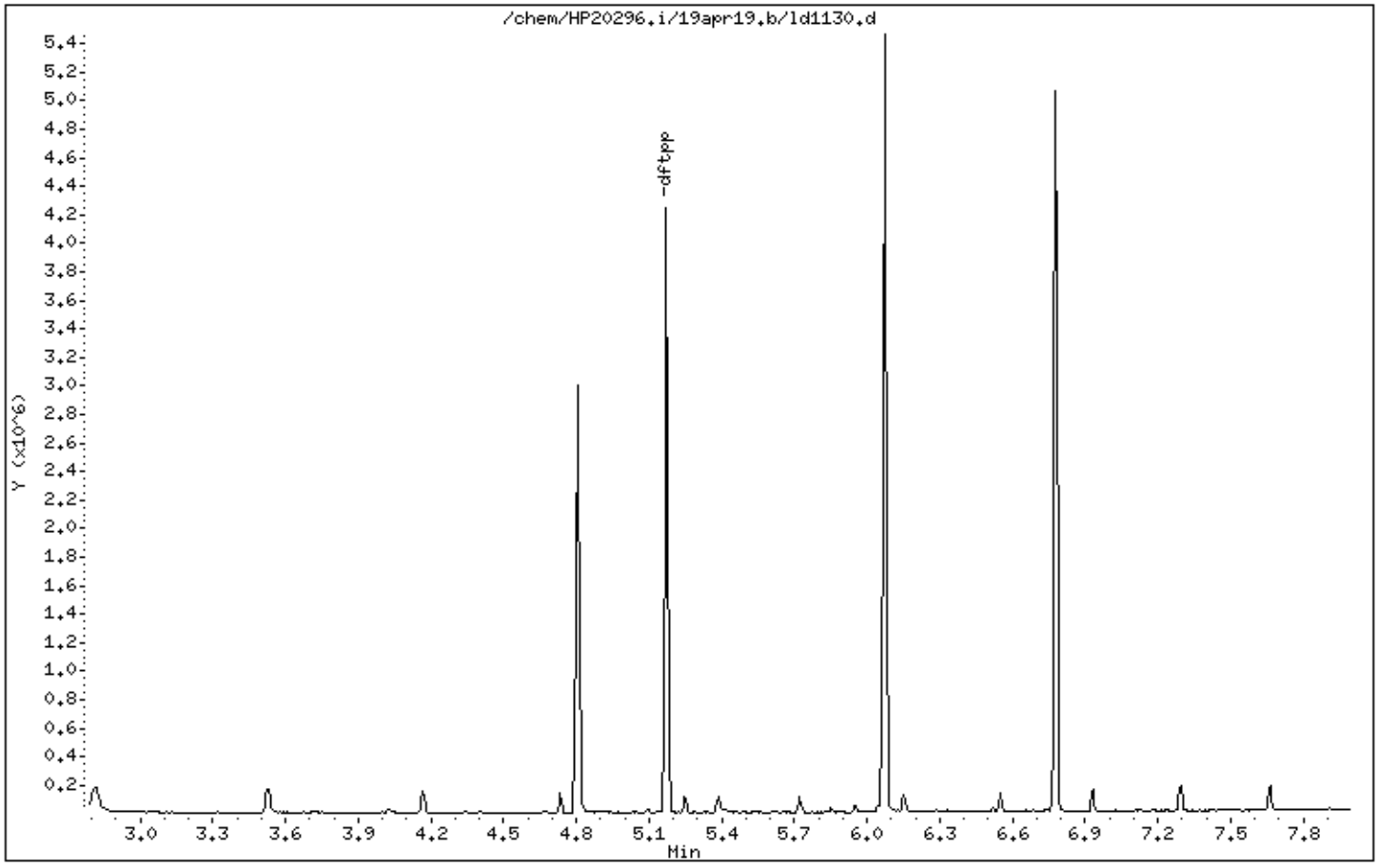
Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: knb25316

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Kira N. Beck on 04/19/2019 at 08:41.
Target 3.5 esignature user ID: knb25316

Data File: /chem/HP20296.i/19apr19.b/ld1130.d

Date : 19-APR-2019 07:48

Client ID: DFTPP12.5

Instrument: HP20296.i

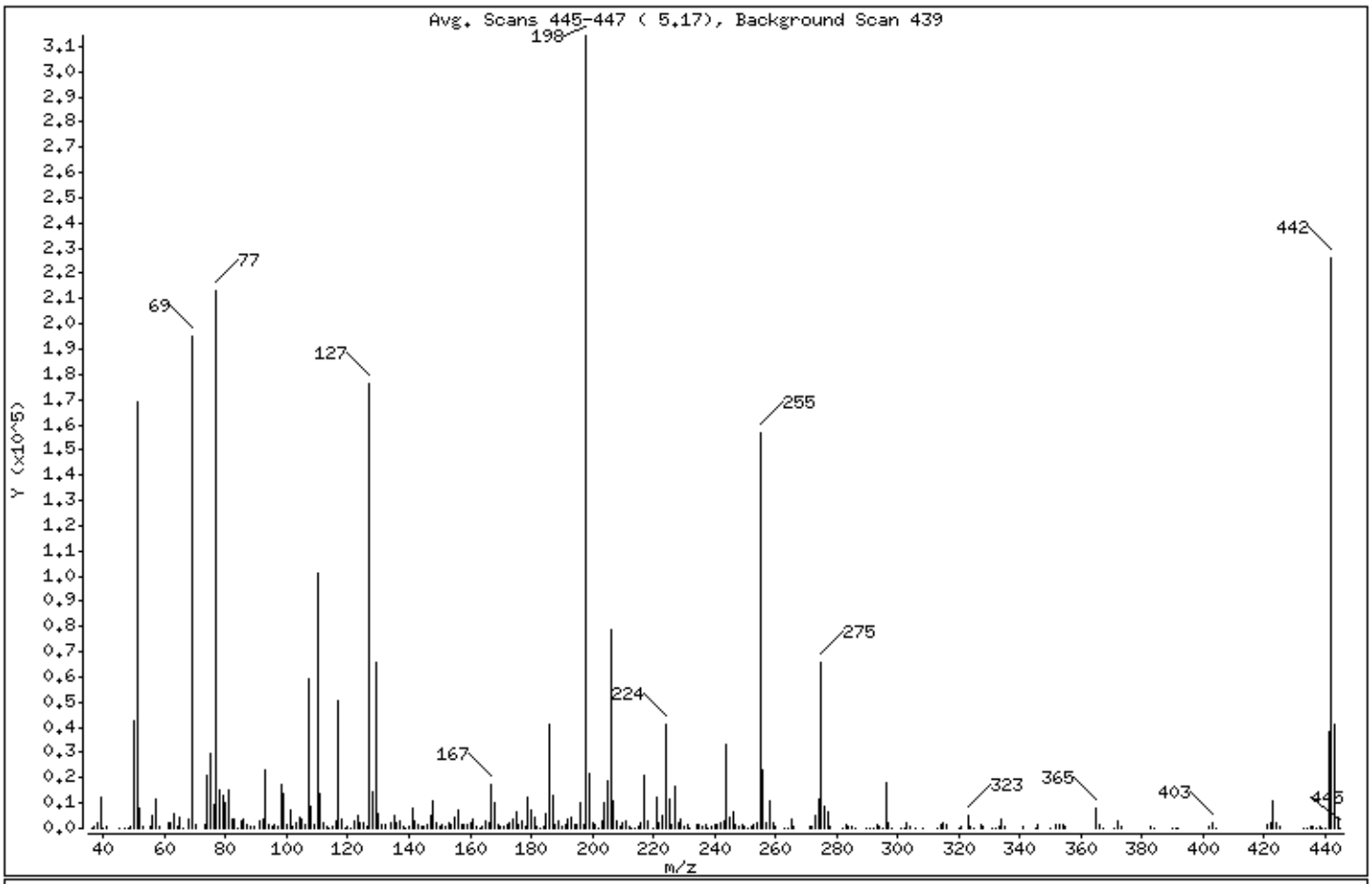
Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP;

Operator: knb25316

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	53.81
68	Less than 2.00% of mass 69	1.16 (1.87)
69	Mass 69 relative abundance	62.18
70	Less than 2.00% of mass 69	0.38 (0.61)
127	10.00 - 80.00% of mass 198	56.17
197	Less than 2.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	20.89
365	Greater than 1.00% of mass 198	2.55
441	0.01 - 24.00% of mass 442	12.16 (16.88)
442	50.00 - 99.99% of mass 198	72.01
443	15.00 - 24.00% of mass 442	13.20 (18.34)

Digitally signed by Kira N. Beck on 04/19/2019 at 08:41.
Target 3.5 esignature user ID: knb25316

Date : 19-APR-2019 07:48

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP; Operator: knb25316

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1130.d
Spectrum: Avg. Scans 445-447 (5.17), Background Scan 439
Location of Maximum: 198.00
Number of points: 299

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	326	122.00	3172	198.00	314240	284.00	472
37.00	808	123.00	4838	199.00	21968	285.00	957
38.00	2268	124.00	2383	200.00	1905	286.00	182
39.00	12119	125.00	2470	201.00	1683	290.00	152
40.00	173	126.00	597	202.00	351	291.00	310
41.00	409	127.00	176512	203.00	3185	292.00	159
45.00	172	128.00	14462	204.00	10092	293.00	1409
47.00	155	129.00	65688	205.00	18432	294.00	591
48.00	146	130.00	6051	206.00	78864	295.00	139
49.00	914	131.00	1159	207.00	10515	296.00	17872
50.00	42880	132.00	1101	208.00	2988	297.00	2349
51.00	169088	134.00	1836	209.00	1042	298.00	98
52.00	8147	135.00	5028	210.00	2222	301.00	114
53.00	416	136.00	2387	211.00	3042	302.00	288
55.00	975	137.00	2882	212.00	507	303.00	2087
56.00	5106	138.00	506	213.00	160	304.00	739
57.00	11808	139.00	229	214.00	280	306.00	113
58.00	526	140.00	1015	215.00	774	308.00	202
61.00	2448	141.00	8007	216.00	1843	313.00	122
62.00	2516	142.00	3046	217.00	20728	314.00	1116
63.00	5731	143.00	1727	218.00	2749	315.00	1978
64.00	1056	144.00	642	220.00	288	316.00	1300
65.00	4072	145.00	491	221.00	12515	320.00	83
66.00	283	146.00	1427	222.00	1987	321.00	818
68.00	3651	147.00	4752	223.00	5174	323.00	5417
69.00	195392	148.00	10760	224.00	41312	324.00	774
70.00	1187	149.00	2309	225.00	11435	325.00	90
73.00	1132	150.00	669	226.00	1295	327.00	1389
74.00	21072	151.00	1326	227.00	16896	328.00	1001
75.00	29520	152.00	681	228.00	2311	331.00	116
76.00	9617	153.00	1893	229.00	3627	332.00	233
77.00	212992	154.00	1755	230.00	471	333.00	701
78.00	15530	155.00	4496	231.00	1468	334.00	3326
79.00	12979	156.00	7432	232.00	331	335.00	975
80.00	10253	157.00	1788	234.00	1612	341.00	486

Digitally signed by Kira N. Beck on 04/19/2019 at 08:41.
Target 3.5 esignature user ID: knb25316

Date : 19-APR-2019 07:48

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP; Operator: knb25316

Column phase: DB-5MS Column diameter: 0.18

Data File: ld1130.d
Spectrum: Avg. Scans 445-447 (5.17), Background Scan 439
Location of Maximum: 198.00
Number of points: 299

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	14949	158.00	1486	235.00	1165	345.00	97
82.00	3787	159.00	1310	236.00	965	346.00	1271
83.00	3285	160.00	2340	237.00	1393	350.00	140
84.00	38	161.00	3617	238.00	303	352.00	1725
85.00	2656	162.00	868	239.00	718	353.00	1665
86.00	3969	163.00	134	240.00	1159	354.00	1749
87.00	1736	164.00	445	241.00	1130	355.00	551
88.00	992	165.00	2743	242.00	2287	365.00	8024
89.00	864	166.00	2454	243.00	2661	366.00	1098
91.00	3101	167.00	17152	244.00	33056	367.00	244
92.00	3935	168.00	10183	245.00	4307	371.00	327
93.00	22824	169.00	1509	246.00	6574	372.00	2789
94.00	1533	170.00	654	247.00	1134	373.00	1000
95.00	641	171.00	739	248.00	603	383.00	950
96.00	1159	172.00	1499	249.00	1438	384.00	226
97.00	393	173.00	1974	250.00	554	390.00	267
98.00	17560	174.00	3951	251.00	313	391.00	237
99.00	13869	175.00	6571	252.00	881	392.00	277
100.00	1563	176.00	1687	253.00	1788	402.00	1021
101.00	7449	177.00	2639	254.00	2156	403.00	1916
102.00	530	178.00	863	255.00	157120	404.00	353
103.00	2170	179.00	12305	256.00	22944	421.00	1441
104.00	4602	180.00	7298	257.00	1844	422.00	1938
105.00	3957	181.00	4490	258.00	11091	423.00	10953
106.00	1621	182.00	666	259.00	1826	424.00	2466
107.00	58976	183.00	216	260.00	717	425.00	407
108.00	8855	184.00	857	263.00	247	433.00	132
109.00	1554	185.00	5574	264.00	131	434.00	315
110.00	100784	186.00	41448	265.00	3520	435.00	437
111.00	14035	187.00	12682	266.00	1041	436.00	540
112.00	2178	188.00	1411	271.00	578	437.00	317
113.00	662	189.00	3215	272.00	843	438.00	641
114.00	311	190.00	608	273.00	4701	439.00	103
115.00	380	191.00	1292	274.00	11254	440.00	325
116.00	3058	192.00	3958	275.00	65648	441.00	38200

Digitally signed by Kira N. Beck on 04/19/2019 at 08:41.
Target 3.5 esignature user ID: knb25316

Date : 19-APR-2019 07:48

Client ID: DFTPP12.5 Instrument: HP20296.i

Sample Info: DFTPP12.5;rvDFTPP0999;1;3;DFTPP; Operator: knb25316

Column phase: DB-5MS Column diameter: 0.18

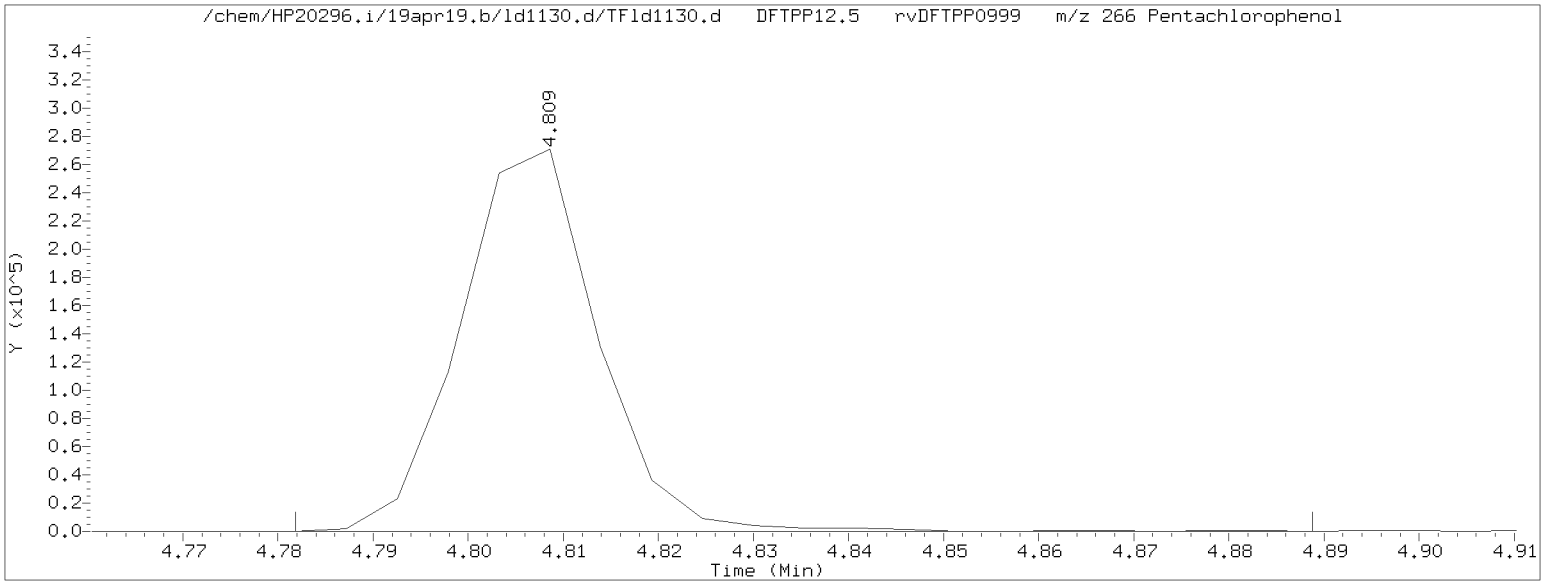
Data File: ld1130.d
Spectrum: Avg. Scans 445-447 (5.17), Background Scan 439
Location of Maximum: 198.00
Number of points: 299

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	50584	193.00	4207	276.00	8976	442.00	226304
118.00	3876	194.00	1143	277.00	6652	443.00	41496
119.00	298	195.00	1624	278.00	1033	444.00	3581
120.00	794	196.00	10227	282.00	311	445.00	111
121.00	200	197.00	1587	283.00	1093		

Digitally signed by Kira N. Beck on 04/19/2019 at 08:41.
Target 3.5 esignature user ID: knb25316

Assessment of GC Column Performance and Injection Port Inertness for

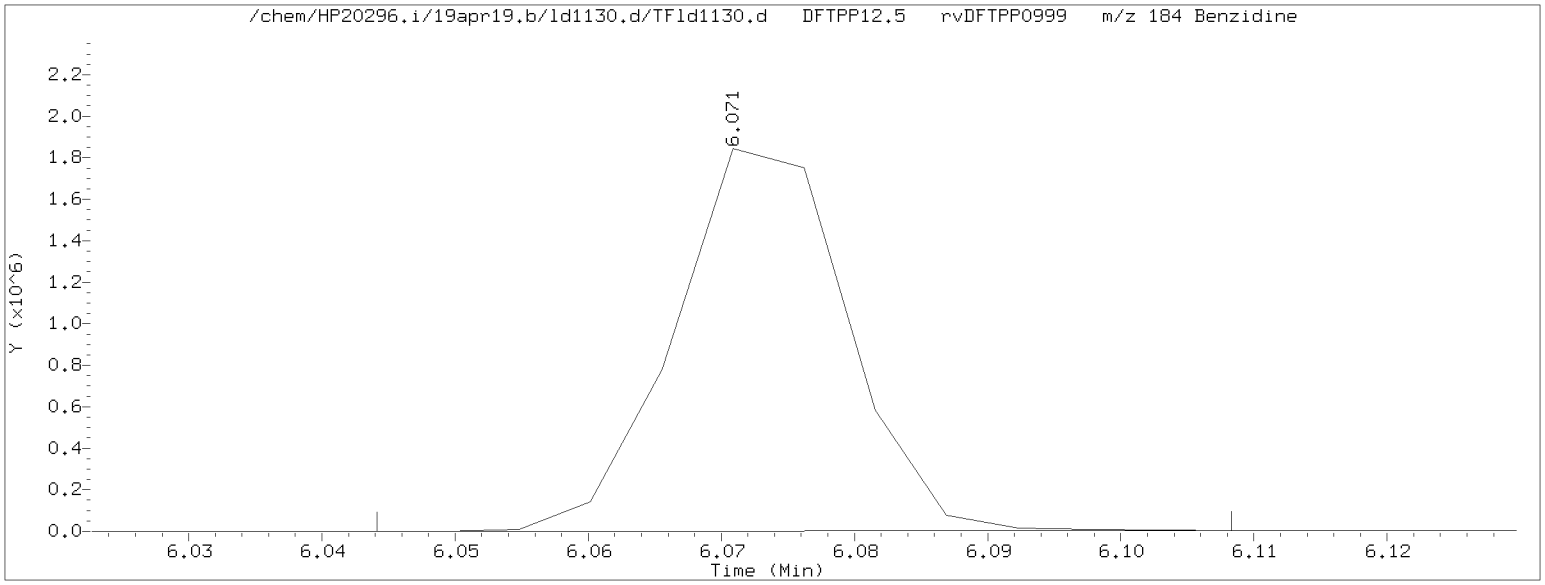
Instrument ID: HP20296.i Injection Date: 19-APR-2019 07:48 Operator: knb25316



Pentachlorophenol EICP peak height = 271104 EICP peak height at 10% = 27110 Pentachlorophenol EICP area = 273192

Pentachlorophenol EICP peak apex (min.) = 4.809
RT at 10% of front half of EICP (min.) = 4.793 'Front' peak width (min.) = 0.0158000000
RT at 10% of back half of EICP (min.) = 4.821 'Tailing' peak width (min.) = 0.0124666667

$$\text{PCP tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0124666667}{0.0158000000} = 0.789$$



Benzidine EICP peak height = 1841859 EICP peak height at 10% = 184186 Benzidine EICP area = 1668087

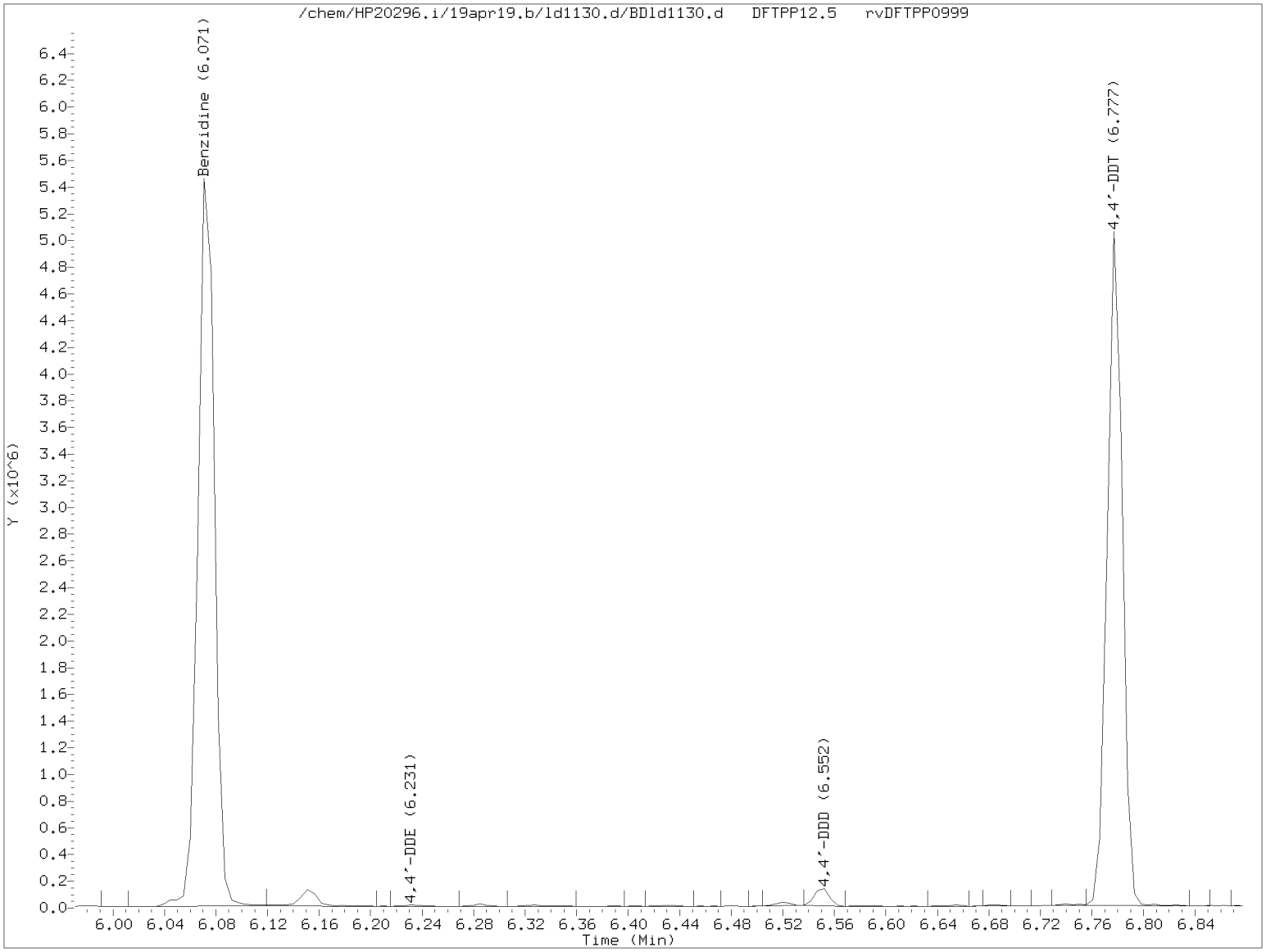
Benzidine EICP peak apex (min.) = 6.071
RT at 10% of front half of EICP (min.) = 6.061 'Front' peak width (min.) = 0.0103333333
RT at 10% of back half of EICP (min.) = 6.086 'Tailing' peak width (min.) = 0.0149000000

$$\text{Benzidine tailing factor} = \frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0149000000}{0.0103333333} = 1.442$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:57. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

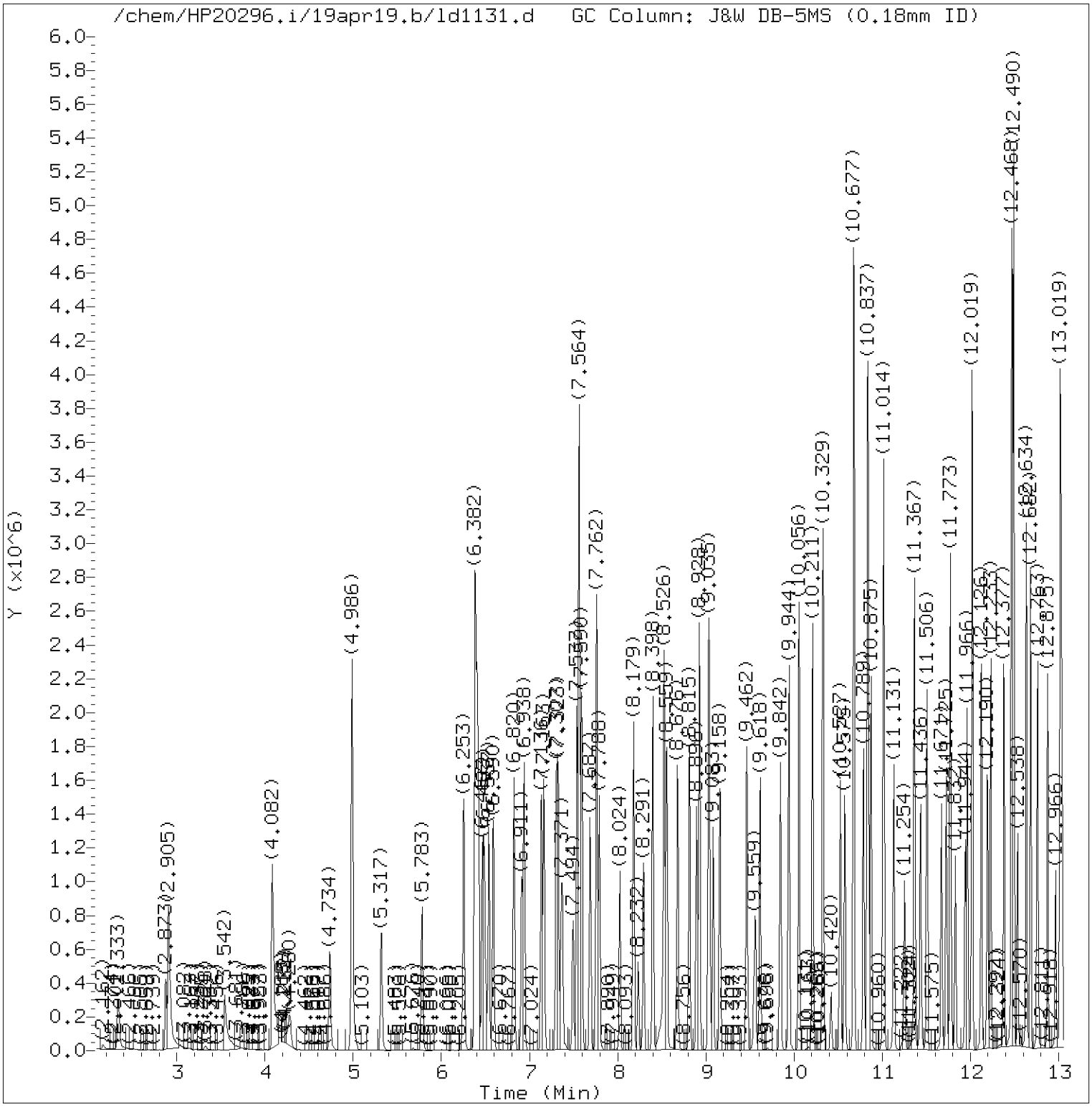
Instrument ID: HP20296.i Injection Date: 19-APR-2019 07:48 Operator: knb25316



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{9953 + 108822}{9953 + 108822 + 4108257} \times 100 = 2.8$$

Secondary review performed and digitally signed by Matthew E. Barton on 04/22/2019 at 07:57. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

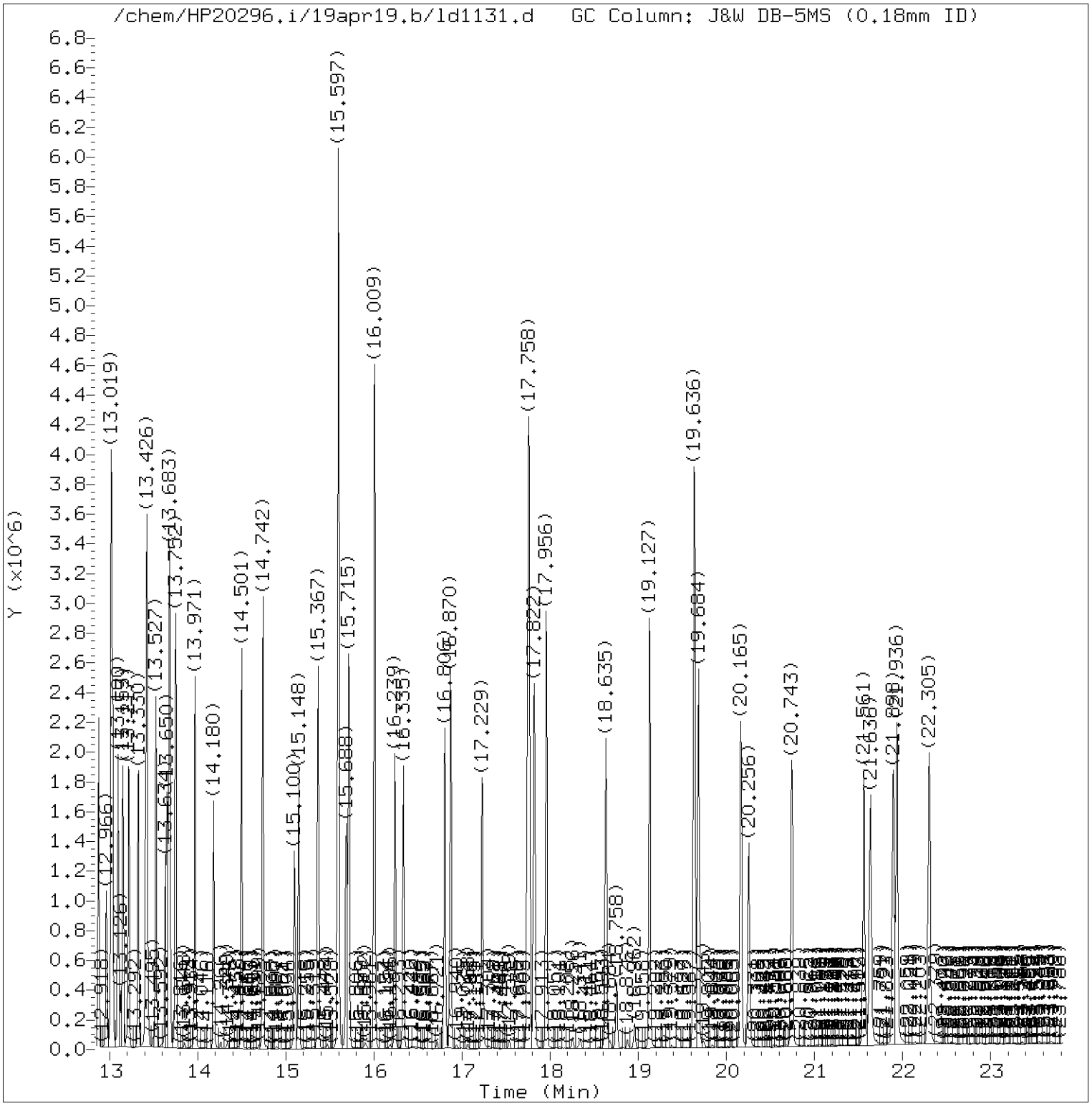
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.333	88	220755	7.567
5) N-Nitrosodimethylamine	(1)	2.873	74	373337	8.216
6) Pyridine	(1)	2.905	79	614835	7.661
8) 2-Picoline	(1)	4.082	93	614118	7.674
9) N-Nitrosomethylethylamine	(1)	4.274	88	247697	7.591
10) Methyl methanesulfonate	(1)	4.734	80	317543	7.898
12)$2-Fluorophenol	(1)	4.986	112	963805	15.039
14) N-Nitrosodiethylamine	(1)	5.323	102	245027	7.796
43) Total Cresols	(1)			1024330	15.581
16) Ethyl methanesulfonate	(1)	5.783	109	257045	7.700
17) Benzaldehyde	(1)	6.253	77	489181	8.267
18)$Phenol-d6	(1)	6.382	99	1308390	15.387
19) Phenol	(1)	6.403	94	769983	7.694
20) Aniline	(1)	6.419	93	889833	7.663
21) a-methylstyrene	(1)	6.505	118	79814	7.088
23) bis(2-Chloroethyl)ether	(1)	6.537	93	565392	7.586
24) 2-Chlorophenol	(1)	6.590	128	447611	7.377
25) 1,3-Dichlorobenzene	(1)	6.820	146	484413	7.381
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	199574	5.000
27) 1,4-Dichlorobenzene	(1)	6.938	146	483614	7.264
28) Benzyl alcohol	(1)	7.136	108	299952	7.298
29) 1,2-Dichlorobenzene	(1)	7.163	146	457652	7.331
31) Indene	(1)	7.302	115	600122	7.462
32) 2-Methylphenol	(1)	7.323	108	478008	7.728
35) bis(2-Chloroisopropyl)ether	(1)	7.366	45	766285	8.135
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.366	45	766285	8.135
100) Isosafrole	(3)			373598	7.630
36) N-Nitrosopyrrolidine	(1)	7.494	100	268005	8.103
37) Acetophenone	(1)	7.537	105	742819	7.758
38) 4-Methylphenol	(1)	7.564	108	546322	7.853
39) N-Nitroso-di-n-propylamine	(1)	7.564	70	433444	8.002
40) N-Nitrosomorpholine	(1)	7.564	56	327995	8.270
41) o-Toluidine	(1)	7.590	106	823358	7.616
44) Hexachloroethane	(1)	7.687	117	220363	7.401
45)$Nitrobenzene-d5	(2)	7.762	82	1214030	15.916
46) Nitrobenzene	(2)	7.788	77	645687	8.035
50) N-Nitrosopiperidine	(2)	8.024	114	239011	7.919
125) 2,4_2,6-Dinitrotoluenes	(3)			434190	15.675
52) Isophorone	(2)	8.179	82	1096563	7.832
53) 2-Nitrophenol	(2)	8.291	139	222750	7.809

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) 2,4-Dimethylphenol	(2)	8.398	107	524397	7.879
59) O,O,O-Triethylphosphorothioate	(2)	8.526	198	194125	7.419
58) Benzoic acid	(2)	8.543	105	418469	8.990
57) bis(2-Chloroethoxy)methane	(2)	8.559	93	718121	8.117
62) 2,4-Dichlorophenol	(2)	8.676	162	350970	7.444
151) Diallate trans/cis	(4)			477824	8.097
65) 1,2,4-Trichlorobenzene	(2)	8.815	180	377105	7.225
68)*Naphthalene-d8	(2)	8.896	136	768967	5.000
69) Naphthalene	(2)	8.928	128	1291787	7.414
70) 4-Chloroaniline	(2)	9.029	127	537765	7.465
71) 2,6-Dichlorophenol	(2)	9.040	162	338515	7.330
72) Hexachloropropene	(2)	9.083	213	242530	7.640
74) Hexachlorobutadiene	(2)	9.163	225	210881	7.263
78) Quinoline	(2)	9.462	129	777423	7.626
79) Caprolactam	(2)	9.564	113	122015	8.074
80) N-Nitrosodi-n-butylamine	(2)	9.618	84	391532	7.443
83) 4-Chloro-3-methylphenol	(2)	9.848	107	437107	7.540
85) Safrole	(2)	9.944	162	303339	7.392
86) 2-Methylnaphthalene	(2)	10.056	142	823911	7.598
87) 1-Methylnaphthalene	(2)	10.211	142	774773	7.375
88) Hexachlorocyclopentadiene	(3)	10.329	237	221014	7.697
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.329	216	361054	7.262
91) cis-Isosafrole	(3)	10.420	162	55352	1.249
93) 2,4,6-Trichlorophenol	(3)	10.527	196	241420	7.446
95) 2,4,5-Trichlorophenol	(3)	10.575	196	247697	7.272
96)$2-Fluorobiphenyl	(3)	10.682	172	1737786	15.145
97) trans-Isosafrole	(3)	10.789	162	318246	6.381
98) 1,1'-Biphenyl	(3)	10.832	154	959305	7.586
99) 2-Chloronaphthalene	(3)	10.842	162	802258	7.618
101) 1-Chloronaphthalene	(3)	10.875	162	706004	7.486
103) Diphenyl ether	(3)	11.014	170	504494	7.586
104) 2-Nitroaniline	(3)	11.019	138	240920	7.800
108) 1,4-Naphthoquinone	(3)	11.131	158	304708	7.625
109) 1,4-Dinitrobenzene	(3)	11.254	168	113568	7.552
110) Dimethylphthalate	(3)	11.367	163	825445	7.637
111) 1,3-Dinitrobenzene	(3)	11.372	168	126027	7.659
113) 2,6-Dinitrotoluene	(3)	11.436	165	187829	7.974
114) Acenaphthylene	(3)	11.506	152	1084538	7.673
117) 3-Nitroaniline	(3)	11.671	138	212617	7.885
118)*Acenaphthene-d10	(3)	11.725	164	357485	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
119) Acenaphthene	(3)	11.773	153	785154	7.389
120) 2,4-Dinitrophenol	(3)	11.832	184	132822	9.718
121) 4-Nitrophenol	(3)	11.944	109	171107	8.505
122) Pentachlorobenzene	(3)	11.966	250	295226	7.135
123) 2,4-Dinitrotoluene	(3)	12.019	165	246361	7.701
124) Dibenzofuran	(3)	12.019	168	1051367	7.586
126) 1-Naphthylamine	(3)	12.126	143	753659	7.420
127) 2,3,4,6-Tetrachlorophenol	(3)	12.196	232	189849	7.589
128) 2-Naphthylamine	(3)	12.233	143	735530	7.457
129) Diethylphthalate	(3)	12.377	149	809412	7.478
131) Fluorene	(3)	12.468	166	813690	7.326
130) Thionazin	(3)	12.474	107	176435	7.945
133) 5-Nitro-o-toluidine	(3)	12.484	152	237530	8.027
132) 4-Chlorophenyl-phenylether	(3)	12.490	204	382698	7.324
134) 4-Nitroaniline	(3)	12.495	138	235716	8.244
135) 4,6-Dinitro-2-methylphenol	(4)	12.538	198	129739	7.503
136) N-Nitrosodiphenylamine	(4)	12.634	169	668281	7.733
137) NDPA as diphenylamine	(4)	12.634	169	668281	7.733
139) 1,2-Diphenylhydrazine	(4)	12.682	77	1218013	8.312
140)$2,4,6-Tribromophenol	(3)	12.763	330	212088	14.669
142) Tetraethyldithiopyrophosphate	(4)	12.875	97	186217	8.291
144) 1,3,5-Trinitrobenzene	(4)	12.966	213	76238	7.357
145) Diallate (peak 1)	(4)	13.019	86	409428	6.736
146) Phorate	(4)	13.025	75	741472	8.532
147) Phenacetin	(4)	13.035	108	522656	8.291
148) 4-Bromophenyl-phenylether	(4)	13.100	248	201428	7.188
149) Diallate (peak 2)	(4)	13.126	86	68396	1.361
150) Hexachlorobenzene	(4)	13.153	284	226135	7.231
152) Dimethoate	(4)	13.217	87	461558	8.180
153) Atrazine	(4)	13.330	200	204062	7.914
154) Pentachlorophenol	(4)	13.410	266	146867	7.404
156) Pentachloronitrobenzene	(4)	13.426	237	100037	7.680
155) 4-Aminobiphenyl	(4)	13.426	169	765093	7.653
157) Pronamide	(4)	13.527	173	373771	8.141
158)*Phenanthrene-d10	(4)	13.650	188	646063	5.000
159) Dinoseb	(4)	13.672	211	194568	7.643
160) Phenanthrene	(4)	13.683	178	1173086	7.511
162) Anthracene	(4)	13.752	178	1217497	7.813
168) Carbazole	(4)	13.971	167	1078022	7.765
169) Methyl parathion	(4)	14.180	109	331903	8.145

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

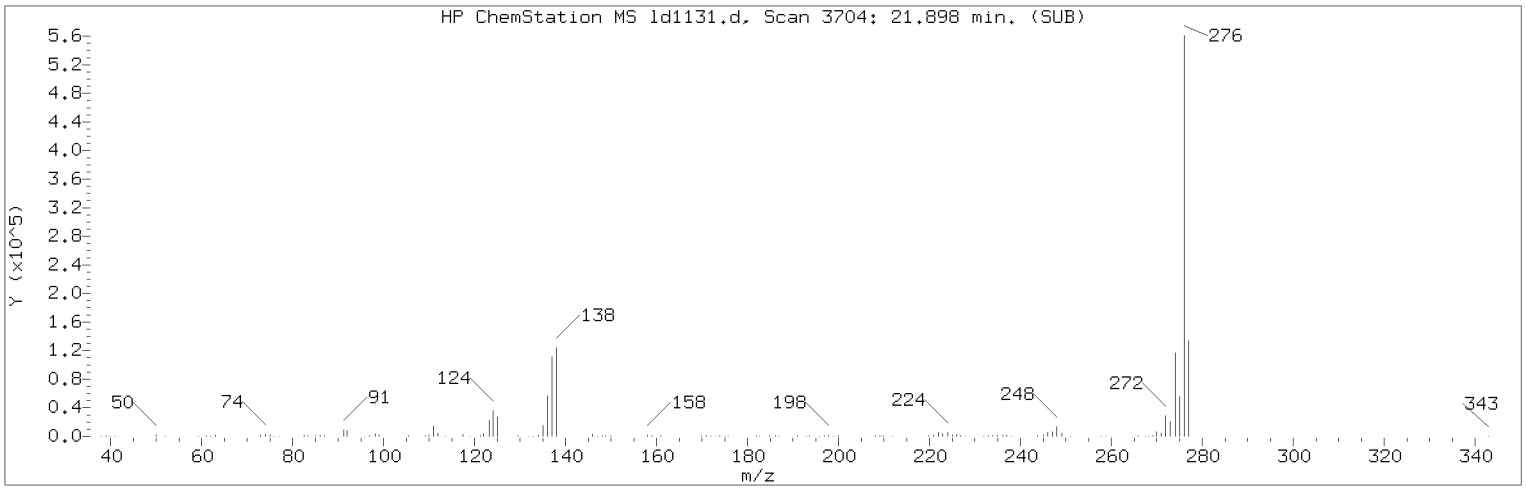
Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
170) Di-n-butylphthalate	(4)	14.501	149	1441046	7.649
173) 4-Nitroquinoline-1-oxide	(4)	14.742	190	103808	7.340
172) Parathion	(4)	14.742	109	212779	8.085
227) Total PAHs	(6)			20072620	136.775
174) Octachlorostyrene	(4)	15.100	308	80740	7.021
176) Isodrin	(4)	15.148	193	131912	7.249
178) Fluoranthene	(4)	15.367	202	1252094	7.705
179) Benzidine	(5)	15.597	184	2613887	23.184
180)*Pyrene-d10	(5)	15.688	212	654428	5.000
182) Pyrene	(5)	15.715	202	1311059	7.395
184)$Terphenyl-d14	(5)	16.009	244	1591761	14.889
187) p-Dimethylaminoazobenzene	(5)	16.239	225	211860	7.434
190) Chlorobenzilate	(5)	16.335	139	453308	7.879
192) 3,3'-Dimethylbenzidine	(5)	16.806	212	861852	7.452
193) Butylbenzylphthalate	(5)	16.870	149	691832	7.902
196) 2-Acetylaminofluorene	(5)	17.234	181	526904	7.288
198) 3,3'-Dichlorobenzidine	(5)	17.748	252	437768	7.271
200) Benzo(a)anthracene	(5)	17.758	228	1215588	7.617
203) 4,4'-Methylenebis(2-chloroanil	(5)	17.764	231	252878	7.588
201) Chrysene	(5)	17.822	228	1172419	7.566
204) bis(2-Ethylhexyl)phthalate	(5)	17.956	149	990305	7.773
208) 6-Methylchrysene	(5)	18.635	242	795664	7.354
210) Di-n-octylphthalate	(6)	19.127	149	1750531	7.767
211) Benzo(b)fluoranthene	(6)	19.636	252	1276291	7.739
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.641	256	523863	7.635
213) Benzo(k)fluoranthene	(6)	19.684	252	1224018	7.734
216) Benzo(a)pyrene	(6)	20.165	252	1150193	7.671
218)*Perylene-d12	(6)	20.256	264	649466	5.000
220) 3-Methylcholanthrene	(6)	20.743	268	577977	7.525
222) Dibenz(a,h)acridine	(6)	21.561	279	951483	7.287
223) Dibenz(a,j)acridine	(6)	21.636	279	964777	7.450
224) Indeno(1,2,3-cd)pyrene	(6)	21.898	276	1128550M	7.695
225) Dibenz(a,h)anthracene	(6)	21.936	278	1197458	7.937
226) Benzo(g,h,i)perylene	(6)	22.305	276	1180514	7.617

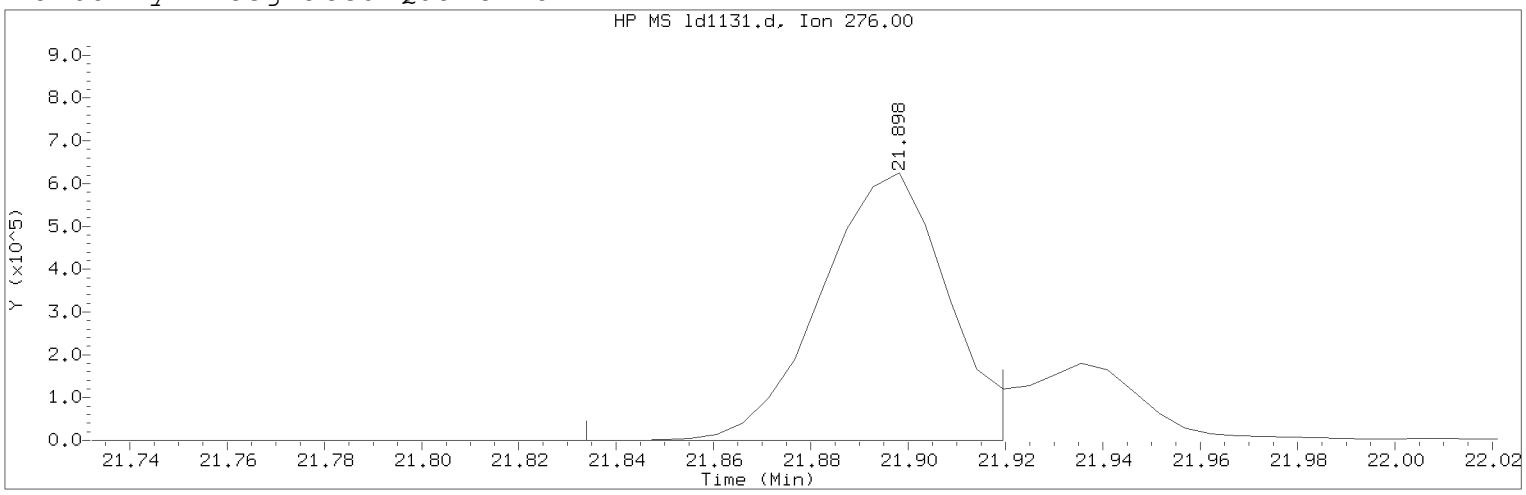
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 23-APR-2019 00:06
Date, time and analyst ID of latest file update: 23-Apr-2019 00:06 art12405

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

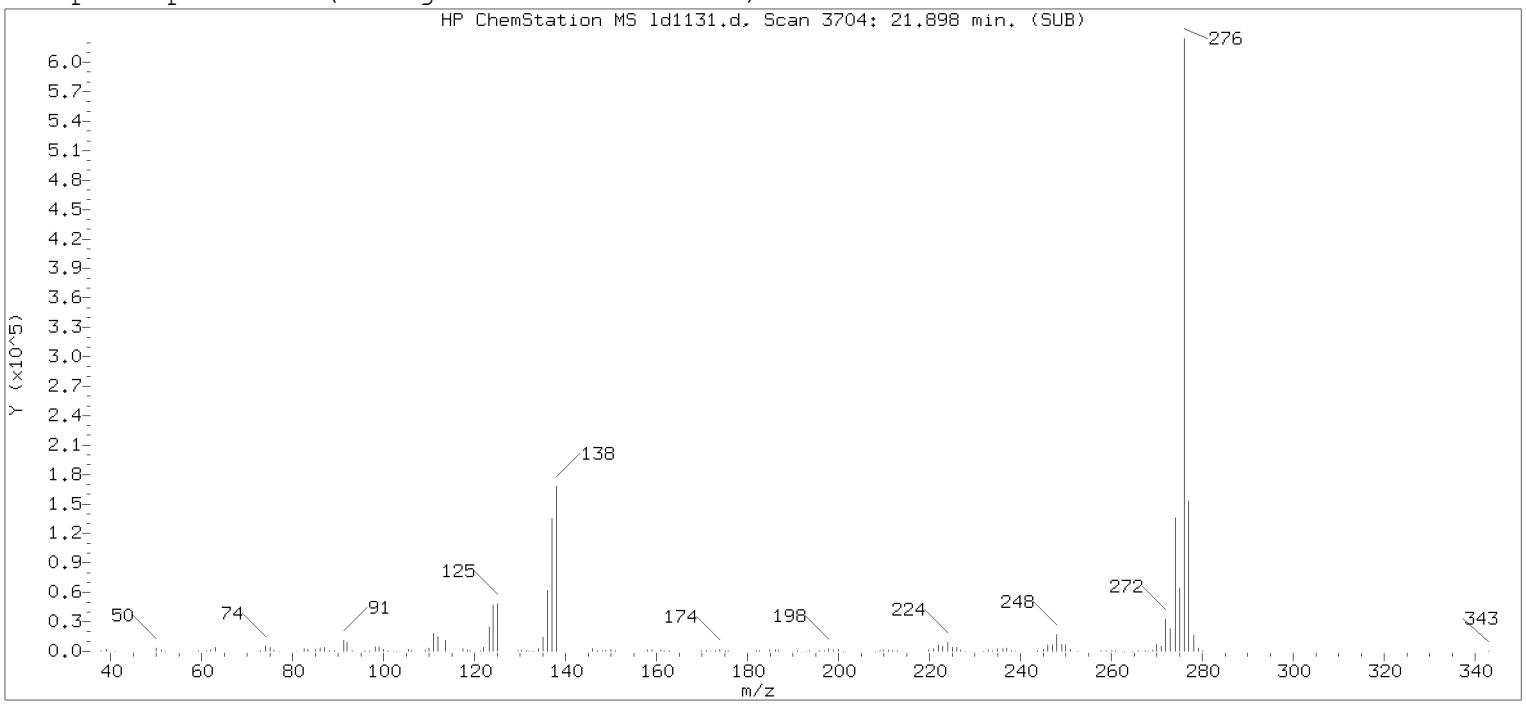
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3704
Retention Time (minutes) : 21.898
Quant Ion : 276.00
Area (flag) : 1128550M
On-Column Amount (ng/ul) : 7.6951
Integration start scan : 3691 Integration stop scan: 3707
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

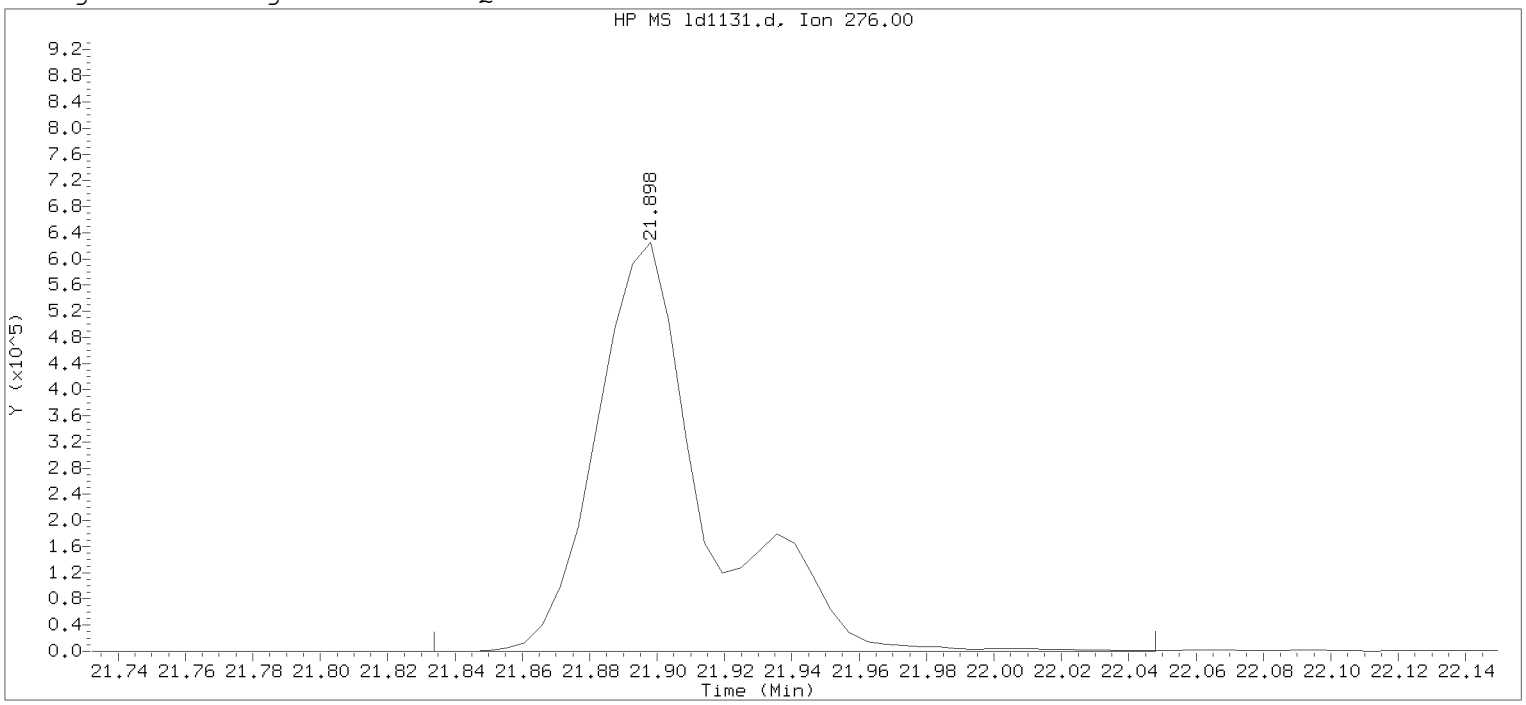
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/23/2019 at 00:07.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Matthew E. Barton on 04/23/2019 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



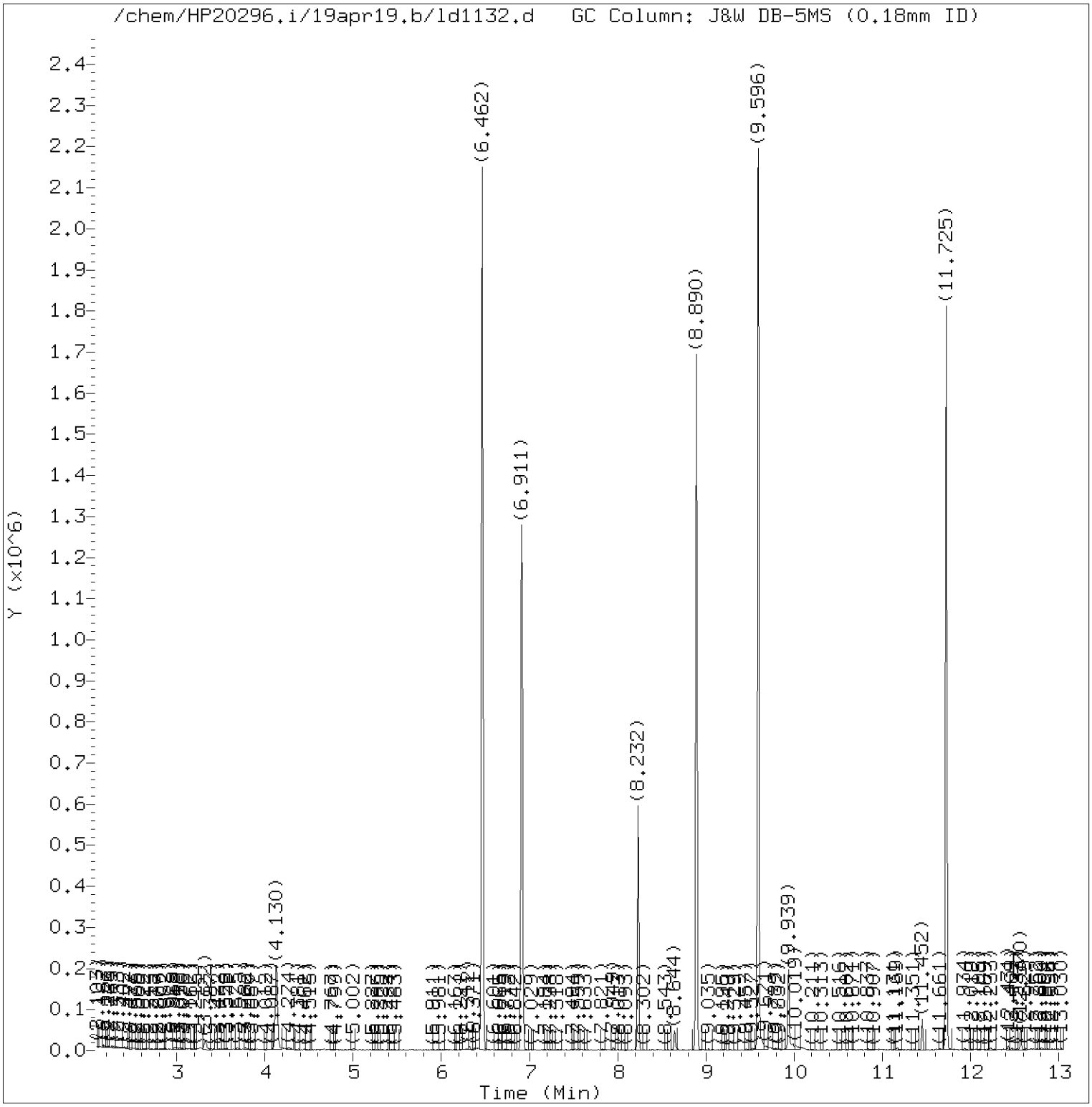
Data File: /chem/HP20296.i/19apr19.b/ld1131.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:02 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: all1
Calibration date and time: 19-APR-2019 08:39
Date, time and analyst ID of latest file update: 19-Apr-2019 08:39 knb25316

Sample Name: SSTD7.5 Lab Sample ID: rvSTD0929

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3704		
Retention Time (minutes)	: 21.898		
Quant Ion	: 276.00		
Area	: 1421634		
On-column Amount (ng/ul)	: 9.6935		
Integration start scan	: 3691	Integration stop scan:	3731
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/23/2019 at 00:07.
Target 3.5 esignature used. F35 Page 2



Total Ion Chromatogram (TIC)

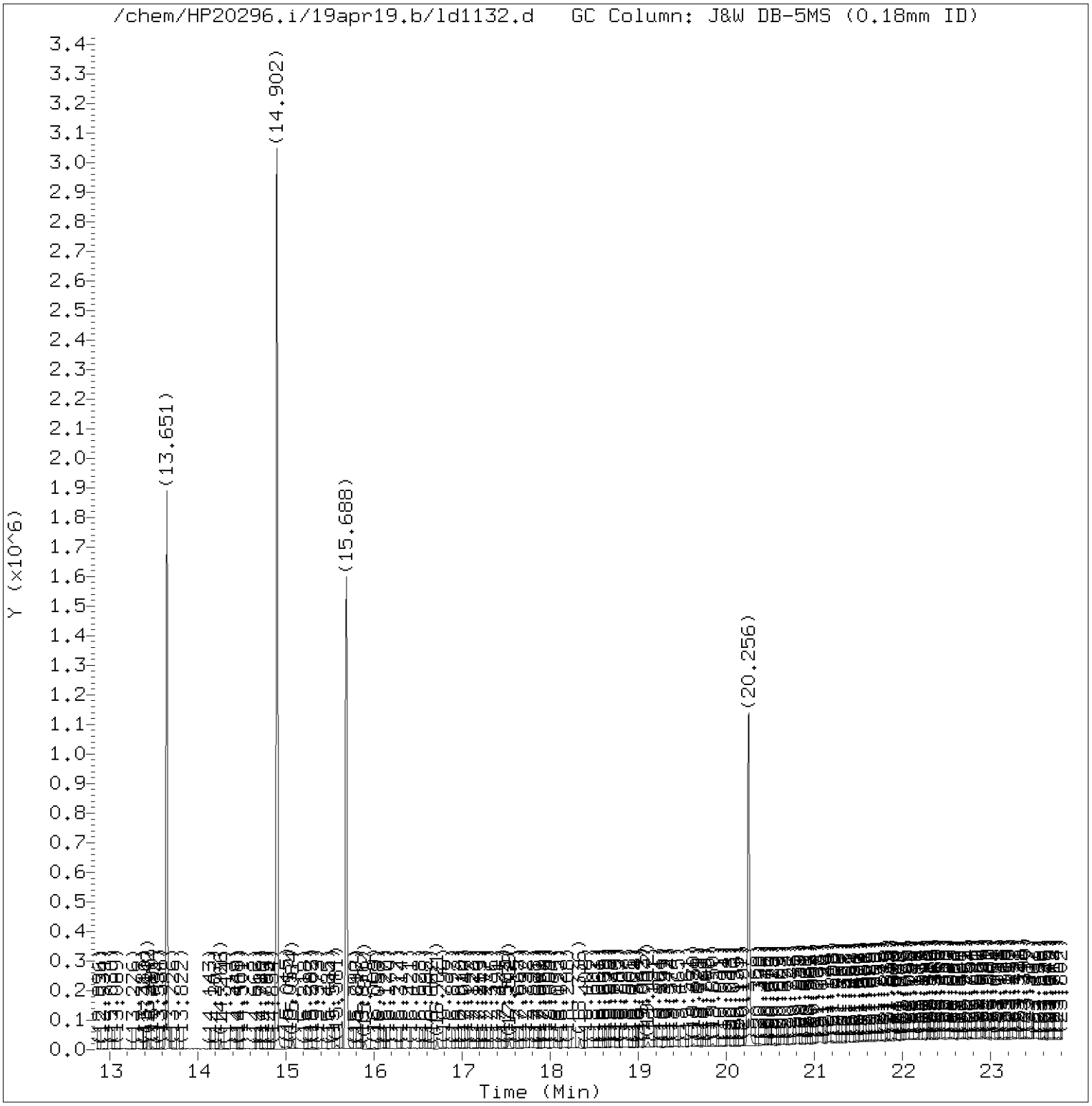
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1132.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:37 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: pda
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1132.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:37 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: pda
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1132.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 08:37 Analyst ID: knb25316

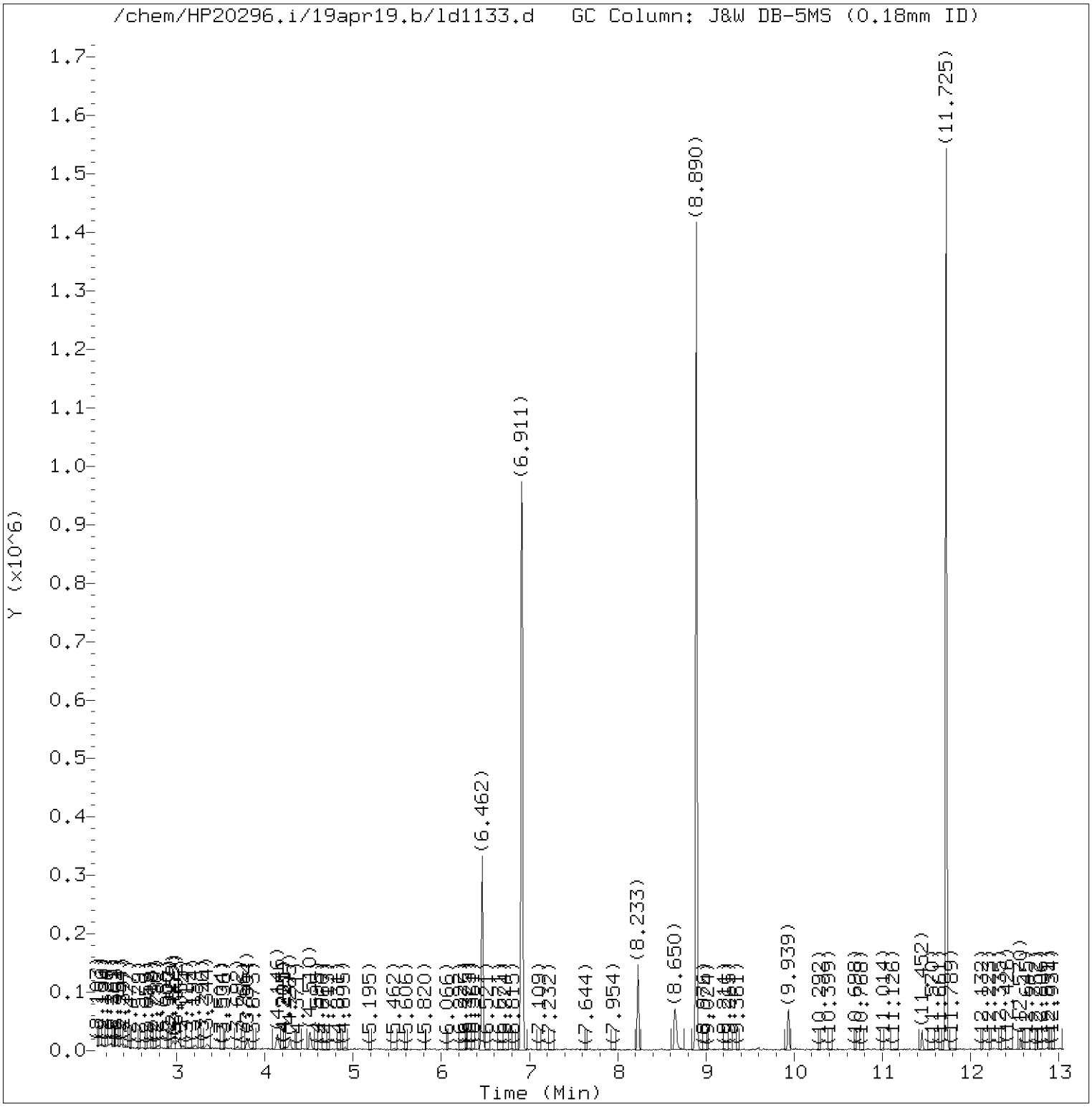
Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: pda
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvPDA0529

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	235287	5.000
68)*Naphthalene-d8	(2)	8.896	136	911503	5.000
84) 1,4-Phenylenediamine	(2)	9.596	108	844314	11.593
118)*Acenaphthene-d10	(3)	11.725	164	378760	5.000
158)*Phenanthrene-d10	(4)	13.651	188	690709	5.000
180)*Pyrene-d10	(5)	15.688	212	673726	5.000
218)*Perylene-d12	(6)	20.256	264	542059	5.000

* = Compound is an internal standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

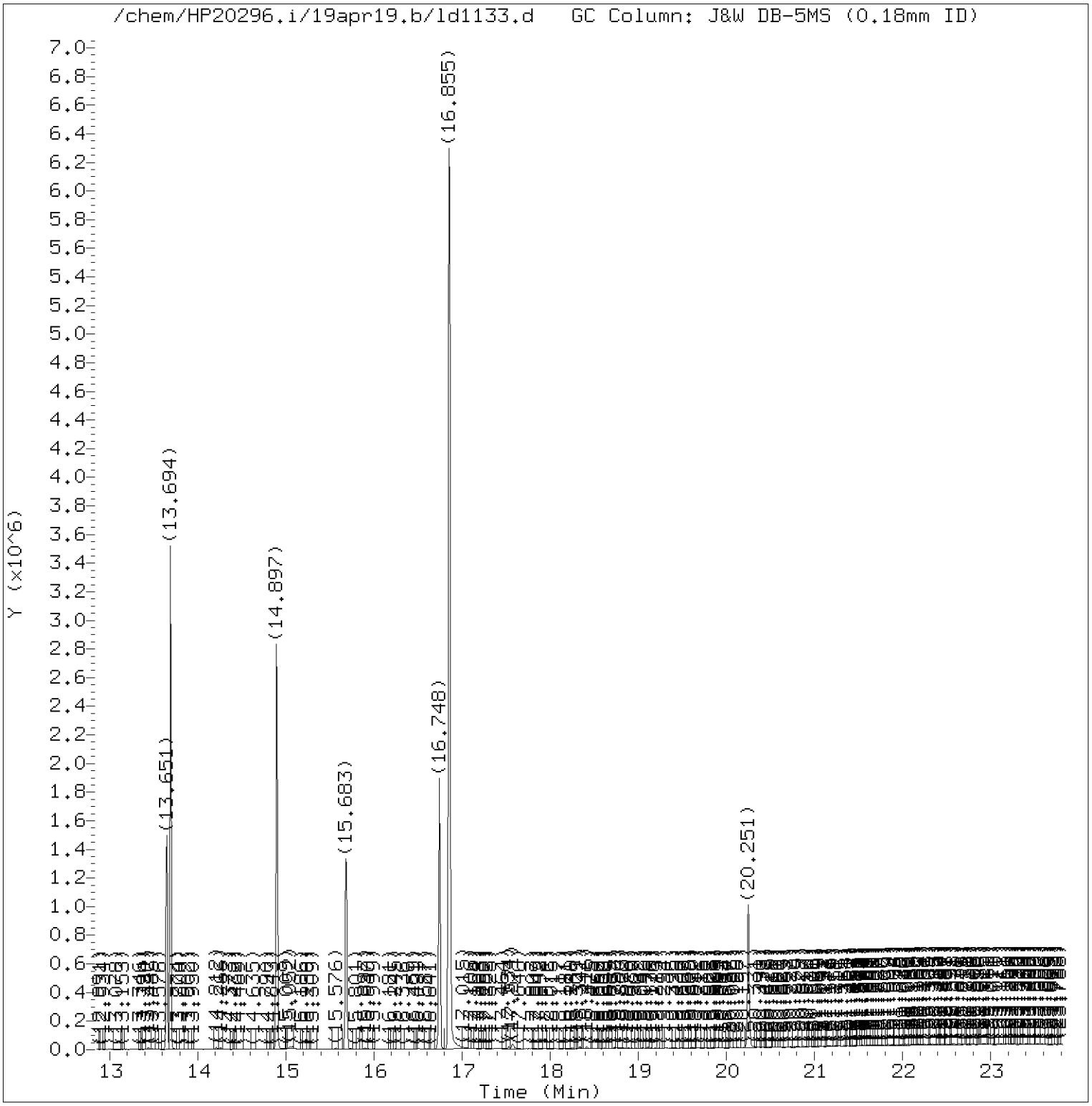
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

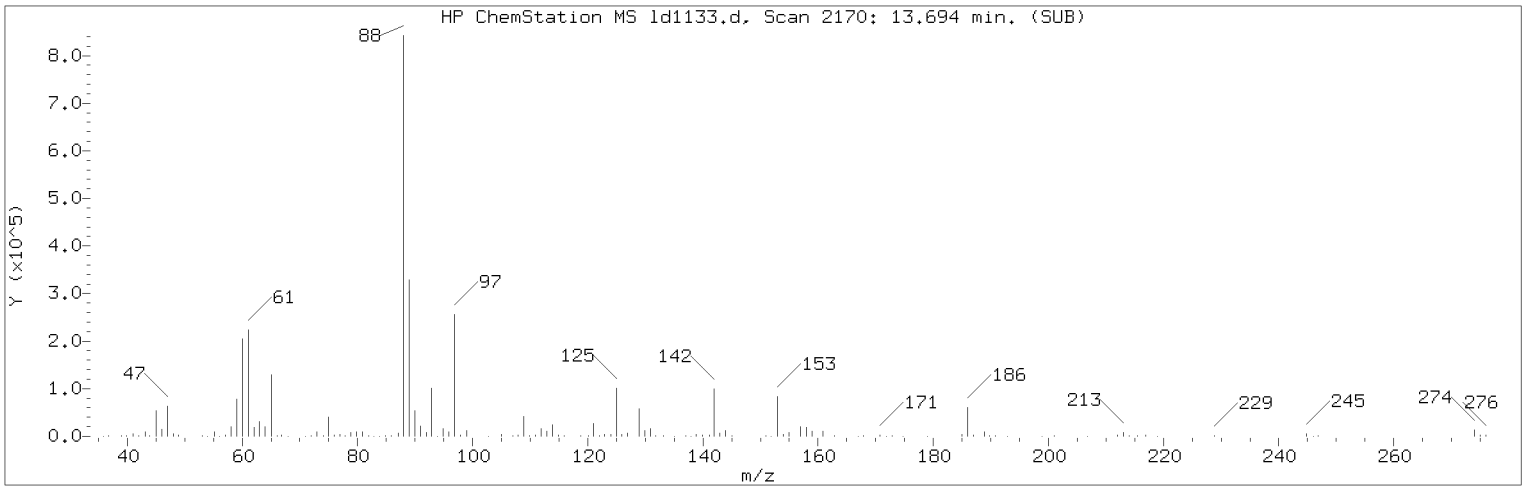
Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	183946	5.000
68)*Naphthalene-d8	(2)	8.890	136	725904	5.000
118)*Acenaphthene-d10	(3)	11.725	164	321520	5.000
158)*Phenanthrene-d10	(4)	13.651	188	565812	5.000
167) Disulfoton	(4)	13.694	88	774809M	14.267
175) Methapyrilene	(4)	14.897	97	680427M	14.439
180)*Pyrene-d10	(5)	15.683	212	555895	5.000
194) Famphur	(5)	16.748	218	527745M	13.738
195) Kepone	(5)	16.855	272	746884M	58.922
218)*Perylene-d12	(6)	20.251	264	478151	5.000

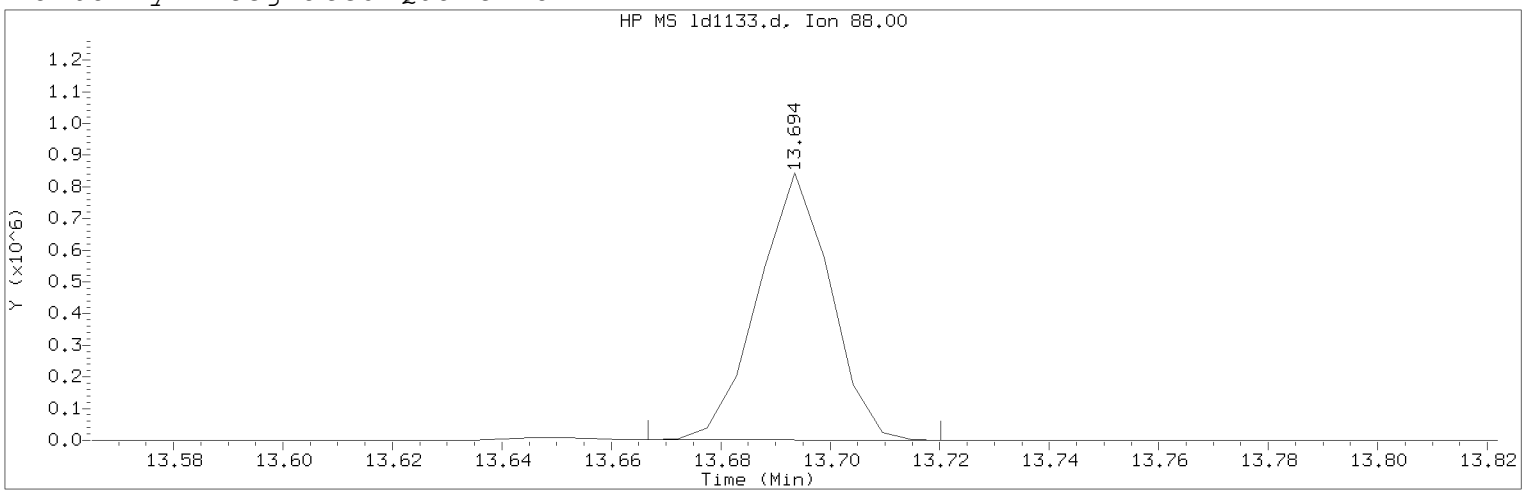
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

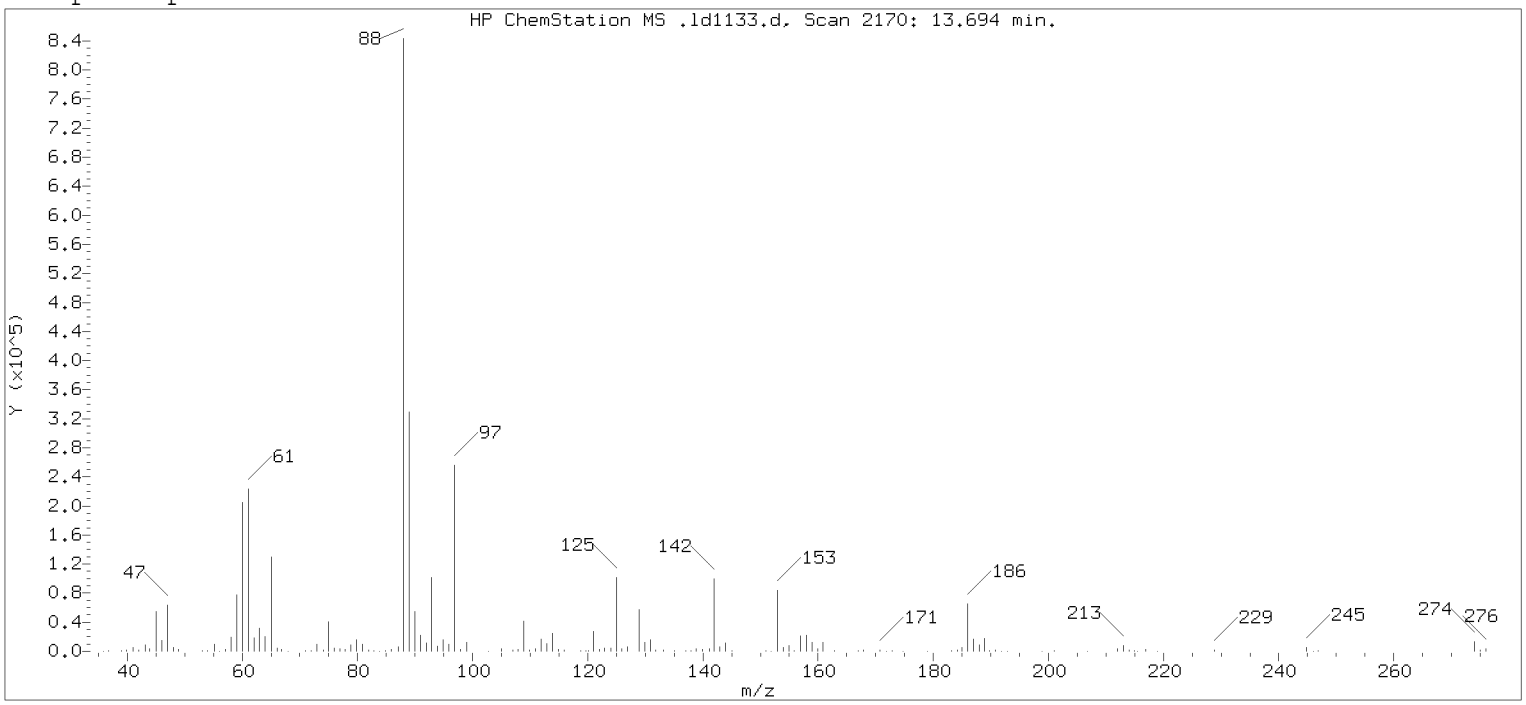
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2170
Retention Time (minutes) : 13.694
Quant Ion : 88.00
Area (flag) : 774809M
On-Column Amount (ng/ul) : 14.2671
Integration start scan : 2164 Integration stop scan: 2174
Y at integration start : 1038 Y at integration end: 738

Reason for manual integration: missed peak

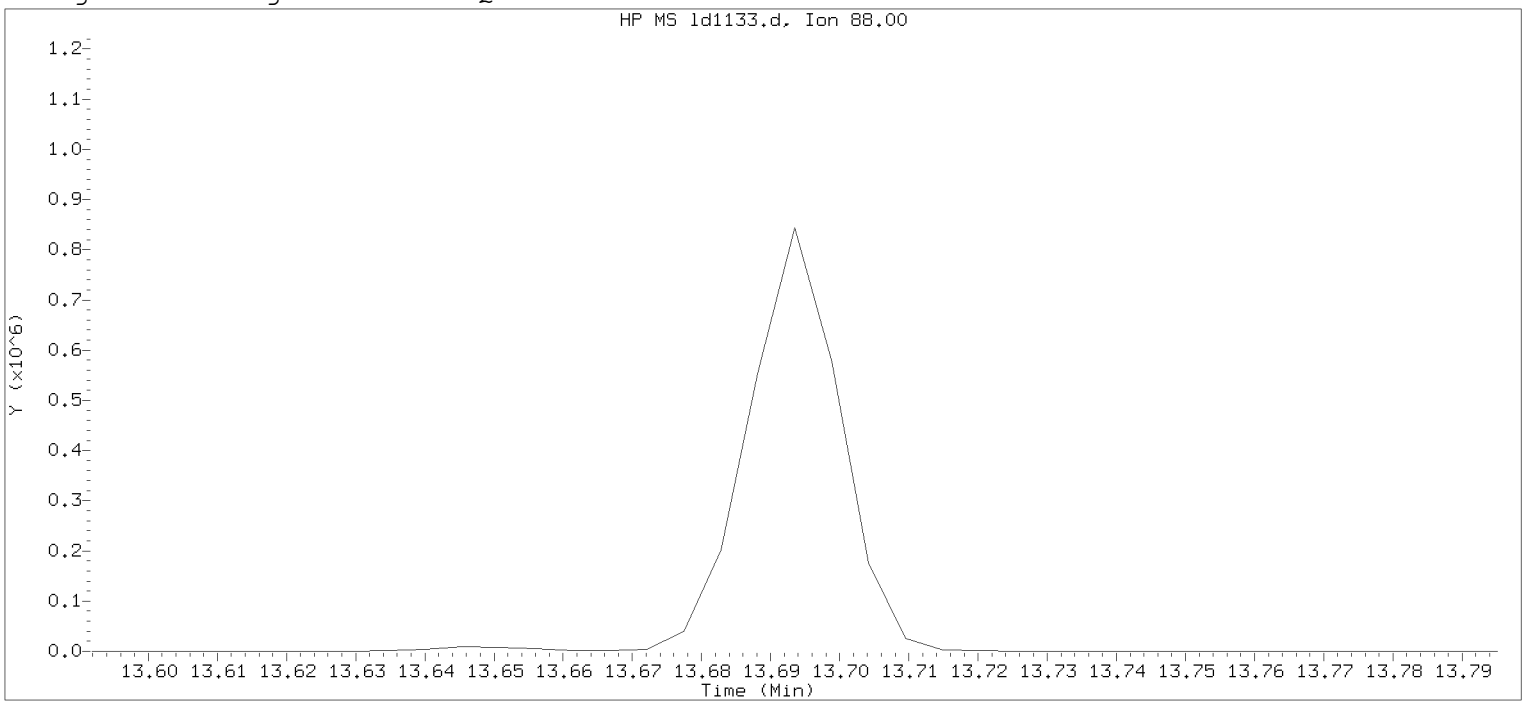
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

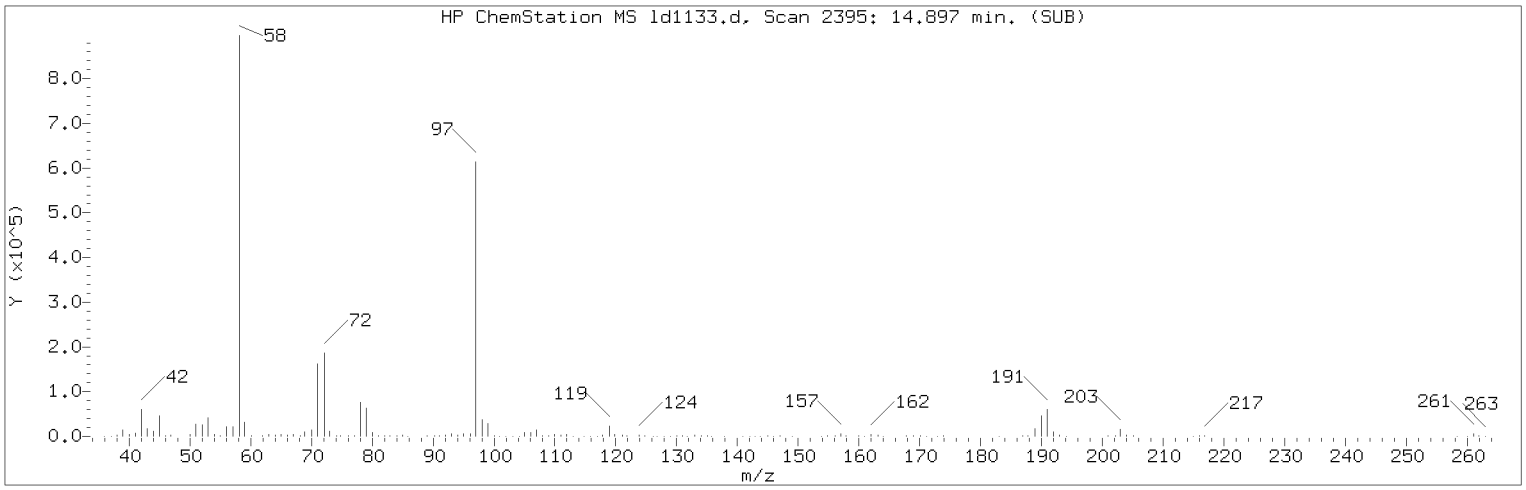
Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 19-APR-2019 09:37
Date, time and analyst ID of latest file update: 19-Apr-2019 09:37 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

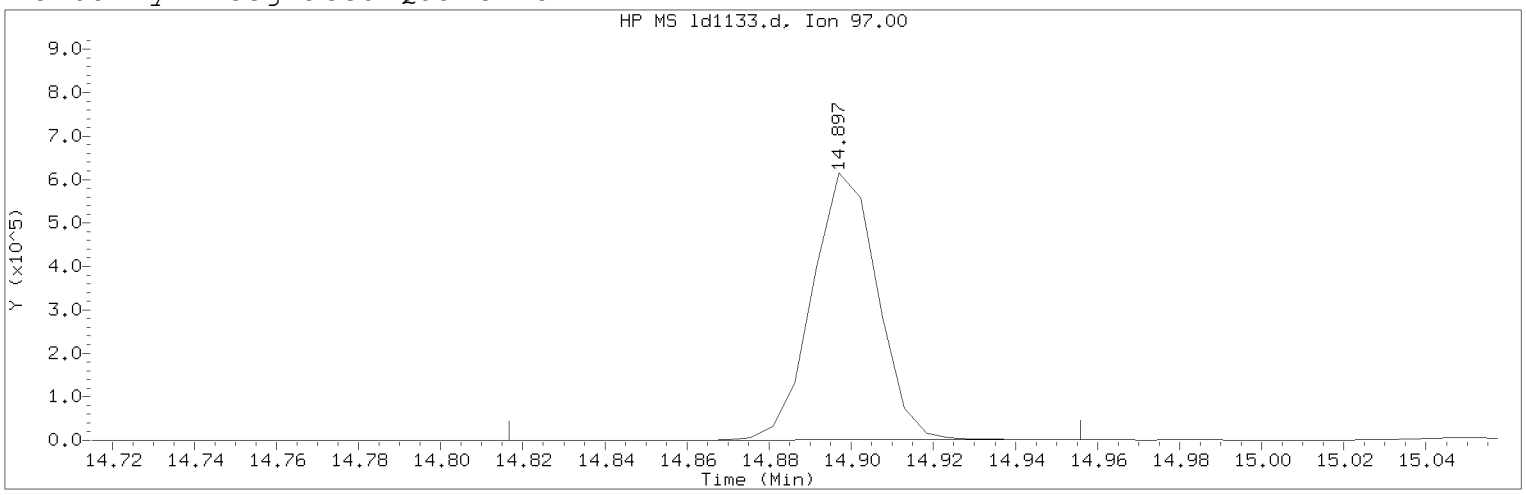
Compound Number : 167
Compound Name : Disulfoton
Expected RT (minutes) : 13.694
Quant Ion : 88.00

Digitally signed by William H Saadeh on 04/23/2019 at 17:30.
Target 3.5 esignature user: RAF35 Page 2126 of 2326

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

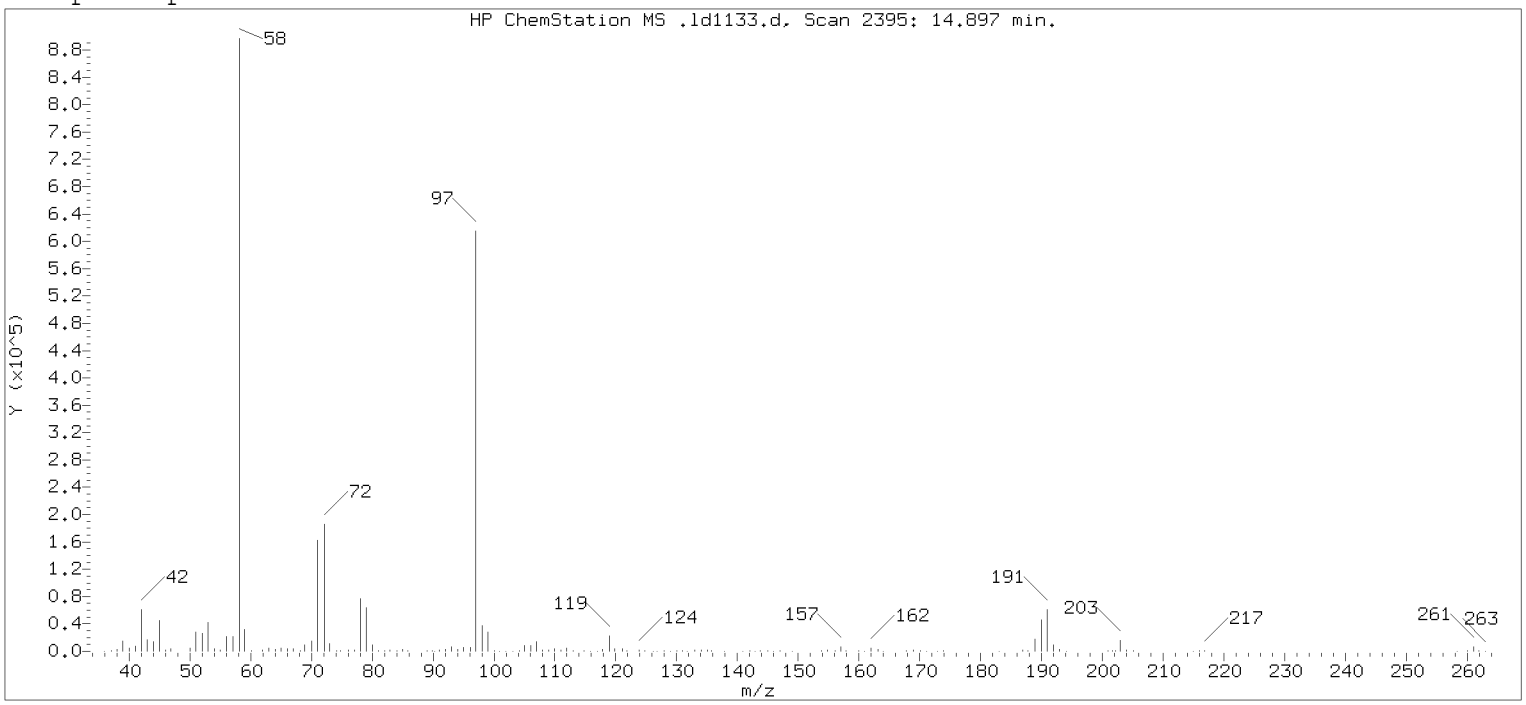
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2395
Retention Time (minutes) : 14.897
Quant Ion : 97.00
Area (flag) : 680427M
On-Column Amount (ng/ul) : 14.4390
Integration start scan : 2379 Integration stop scan: 2405
Y at integration start : 0 Y at integration end: 825

Reason for manual integration: missed peak

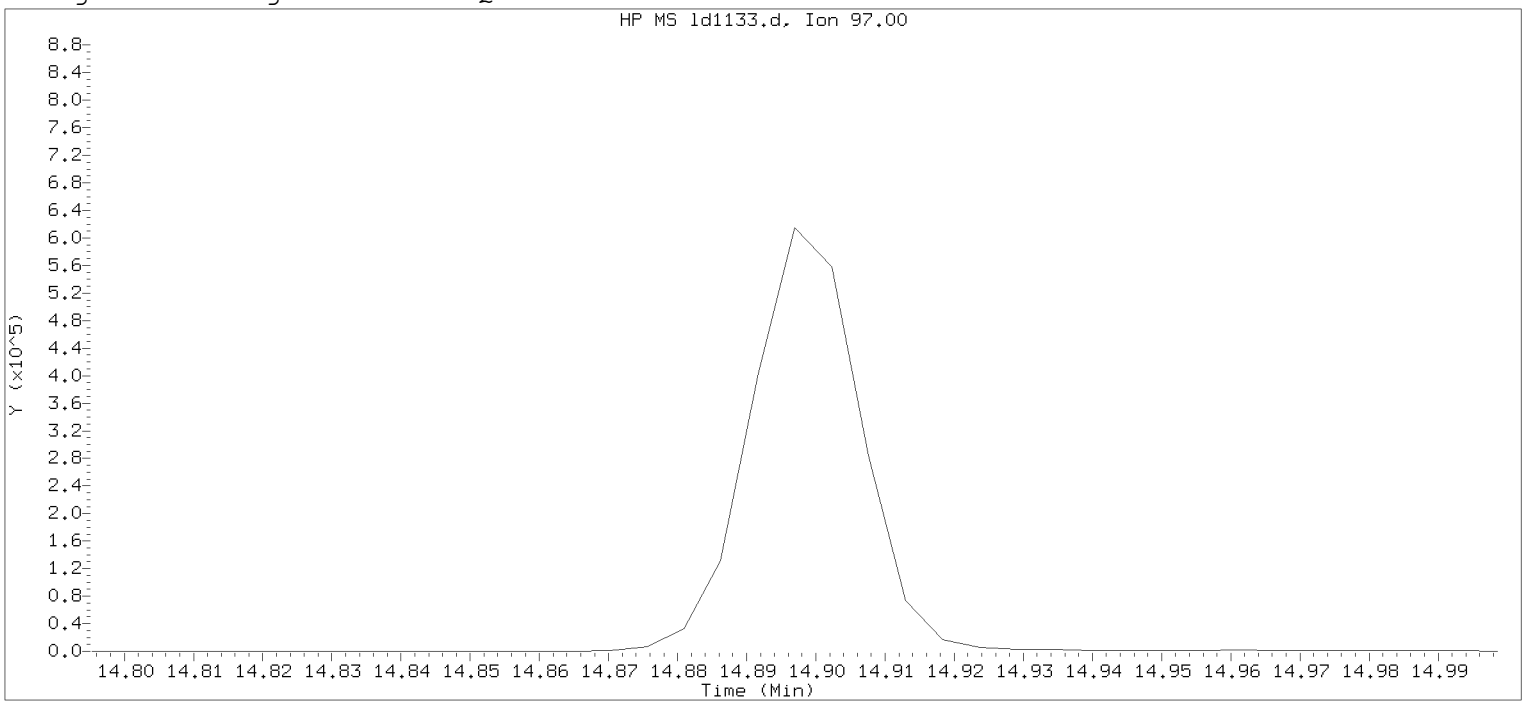
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

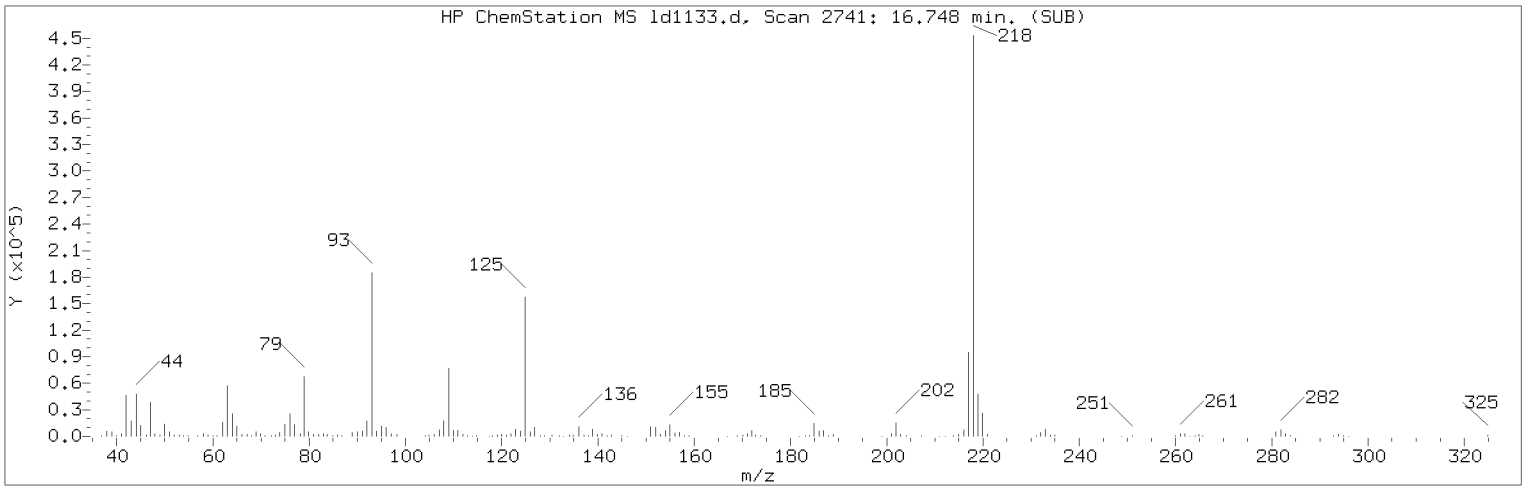
Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 19-APR-2019 09:37
Date, time and analyst ID of latest file update: 19-Apr-2019 09:37 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

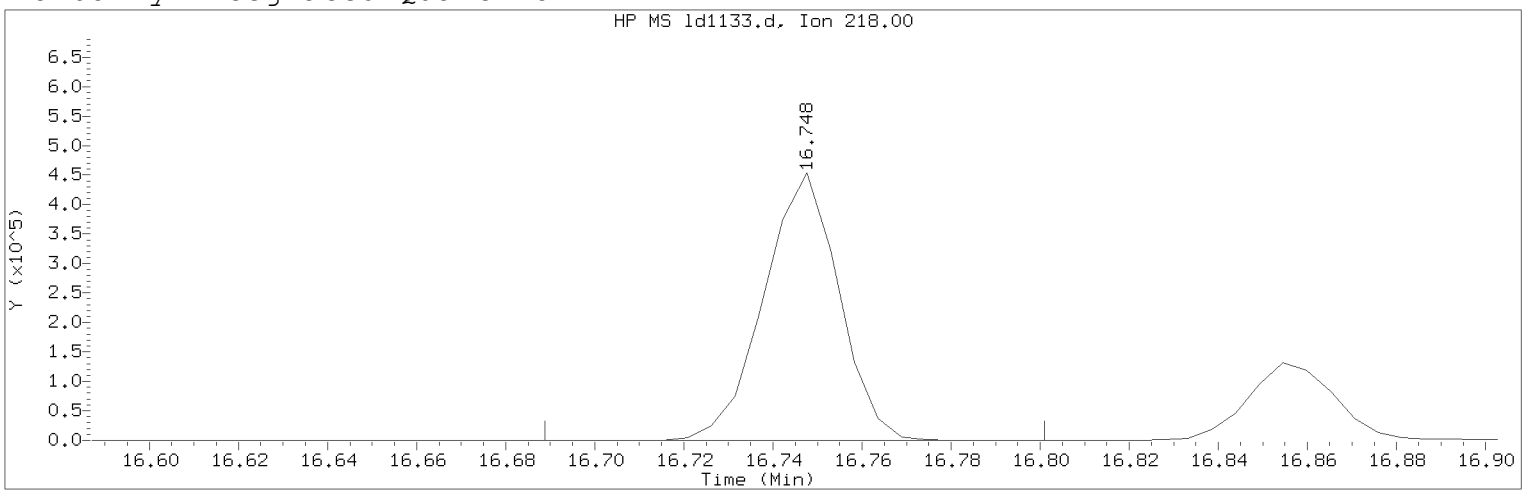
Compound Number : 175
Compound Name : Methapyrilene
Expected RT (minutes) : 14.897
Quant Ion : 97.00

Digitally signed by William H Saadeh on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: 2128

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

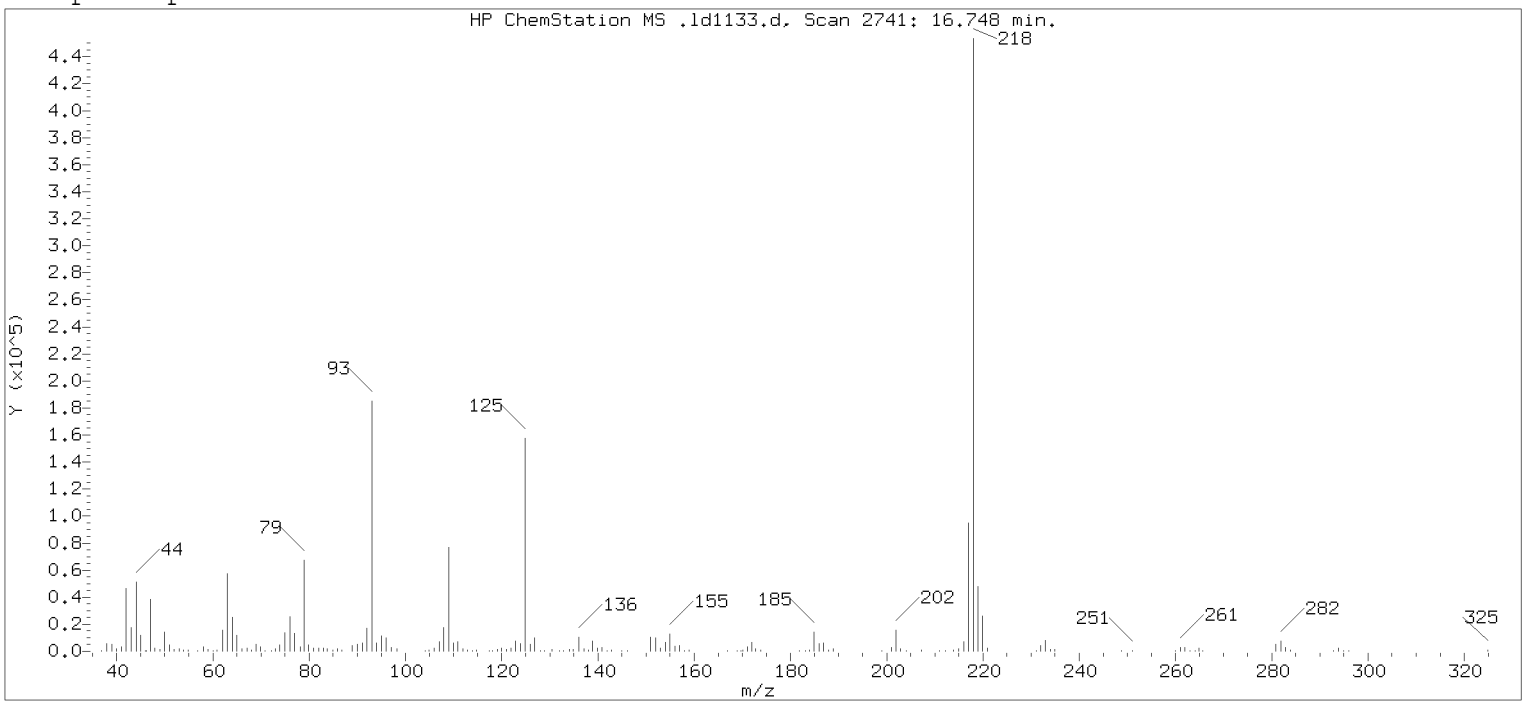
Compound Number : 194
Compound Name : Famphur
Scan Number : 2741
Retention Time (minutes) : 16.748
Quant Ion : 218.00
Area (flag) : 527745M
On-Column Amount (ng/ul) : 13.7377
Integration start scan : 2729 Integration stop scan: 2750
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

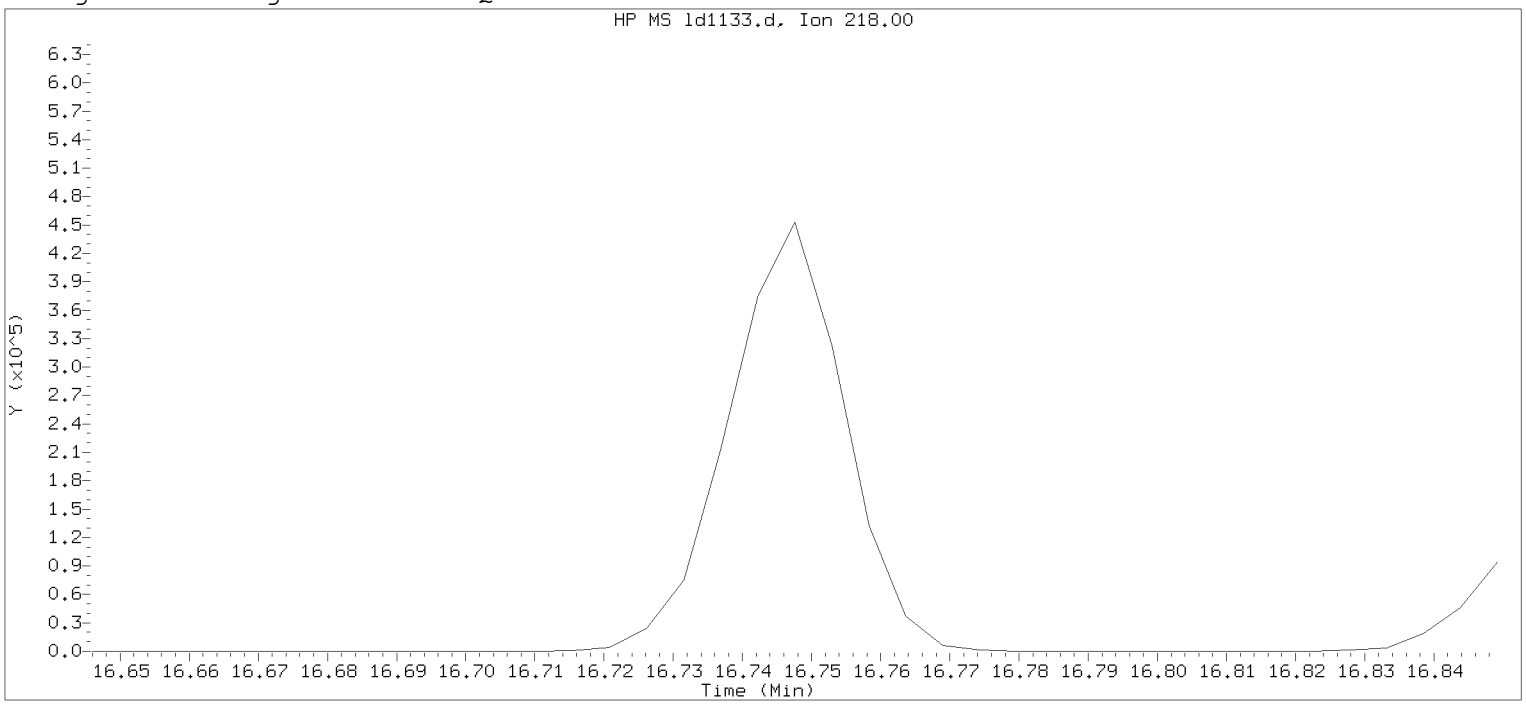
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

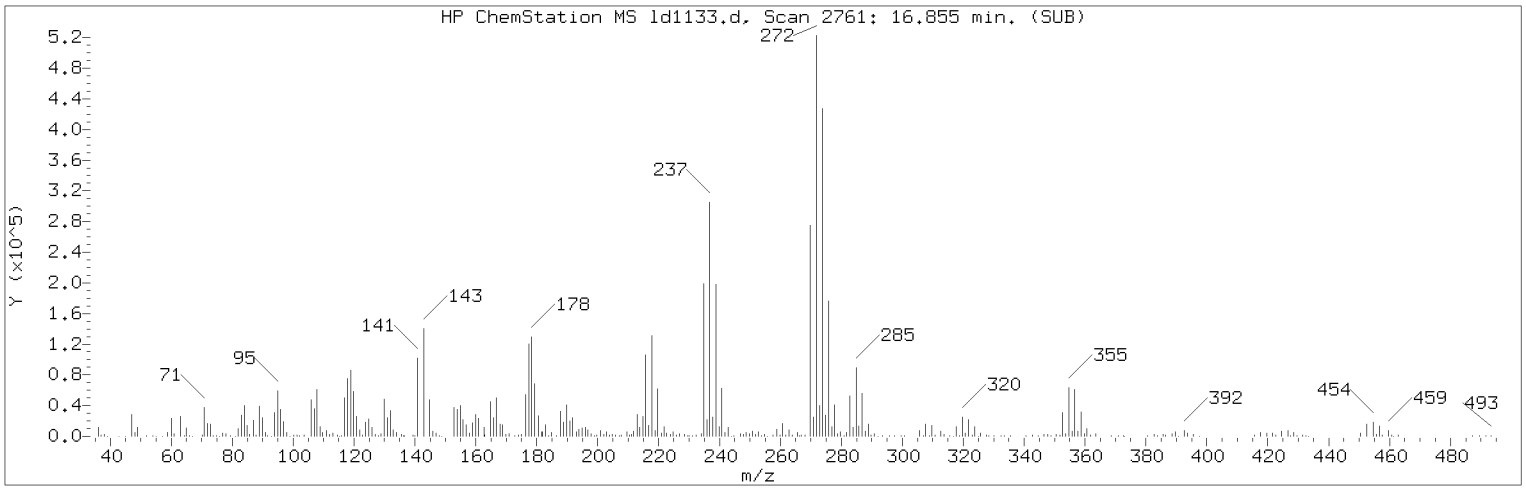
Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 19-APR-2019 09:37
Date, time and analyst ID of latest file update: 19-Apr-2019 09:37 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

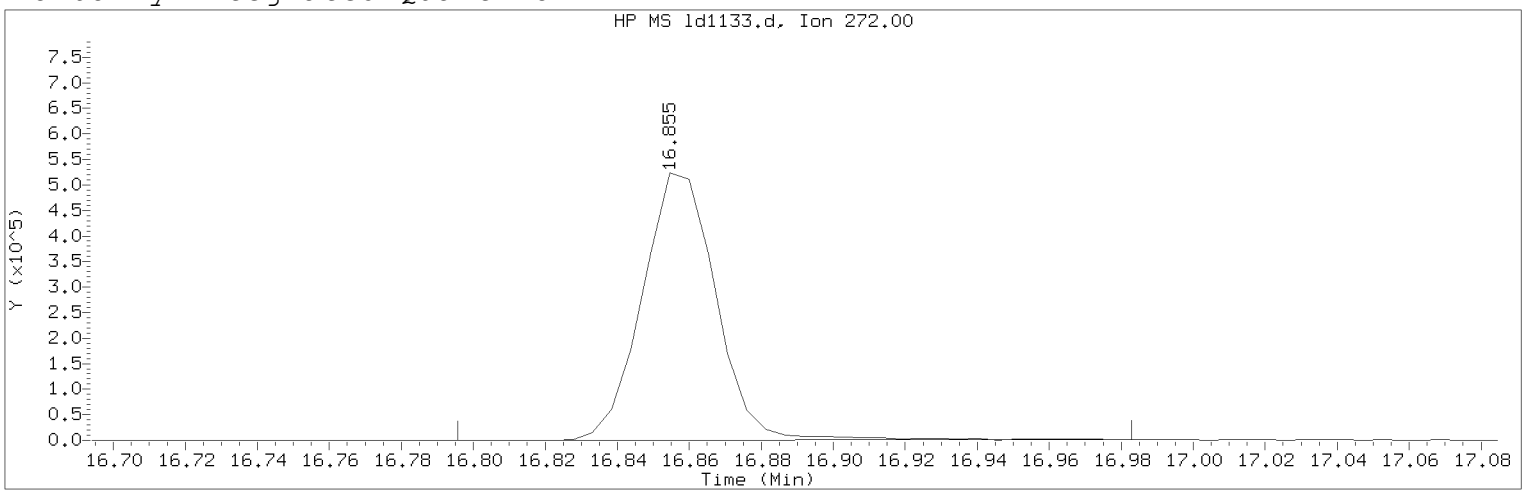
Compound Number : 194
Compound Name : Famphur
Expected RT (minutes) : 16.748
Quant Ion : 218.00

Digitally signed by William H Saadeh on 04/23/2019 at 17:30.
Target 3.5 esignature used. Page 2130

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 23-APR-2019 17:25
Date, time and analyst ID of latest file update: 23-Apr-2019 17:25 whs02991

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

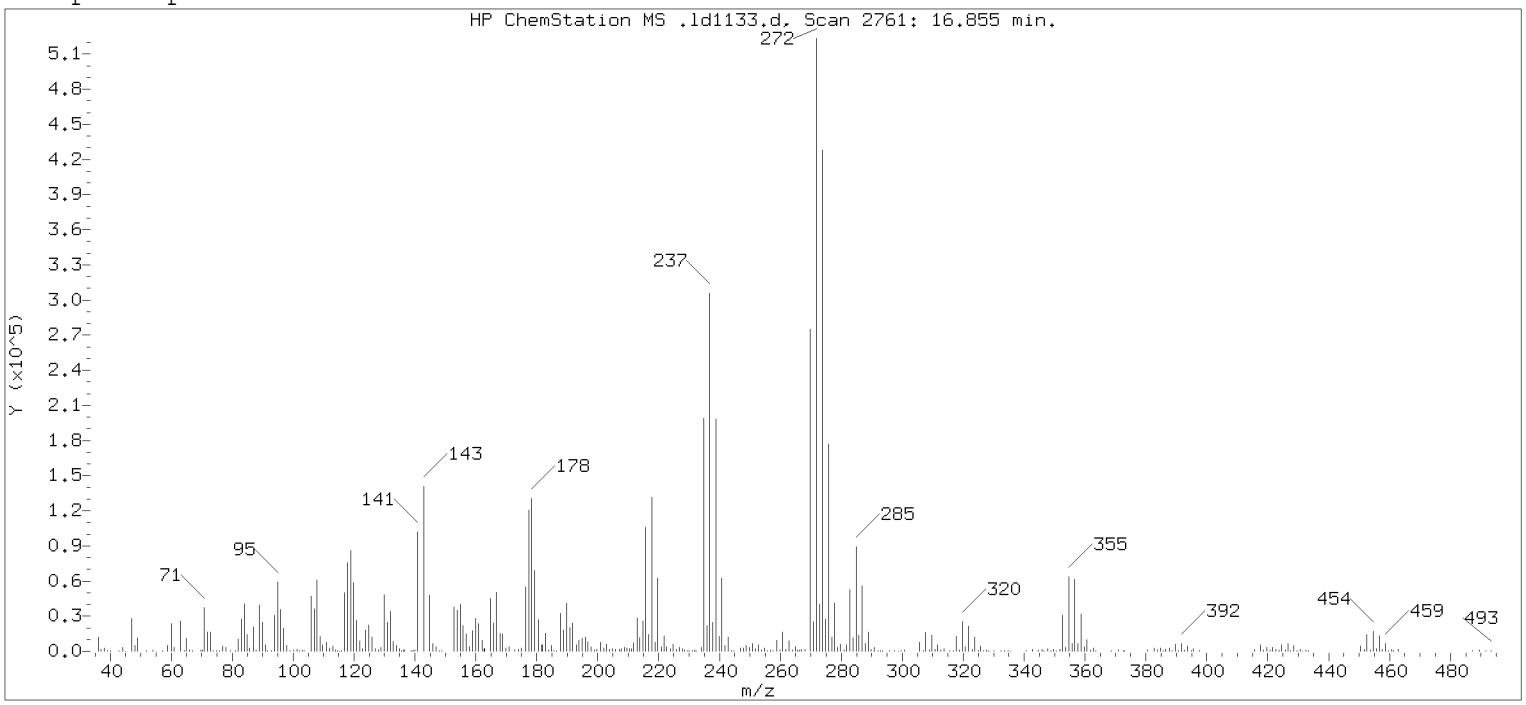
Compound Number : 195
Compound Name : Kepone
Scan Number : 2761
Retention Time (minutes) : 16.855
Quant Ion : 272.00
Area (flag) : 746884M
On-Column Amount (ng/ul) : 58.9223
Integration start scan : 2749 Integration stop scan: 2784
Y at integration start : 0 Y at integration end: 898

Reason for manual integration: missed peak

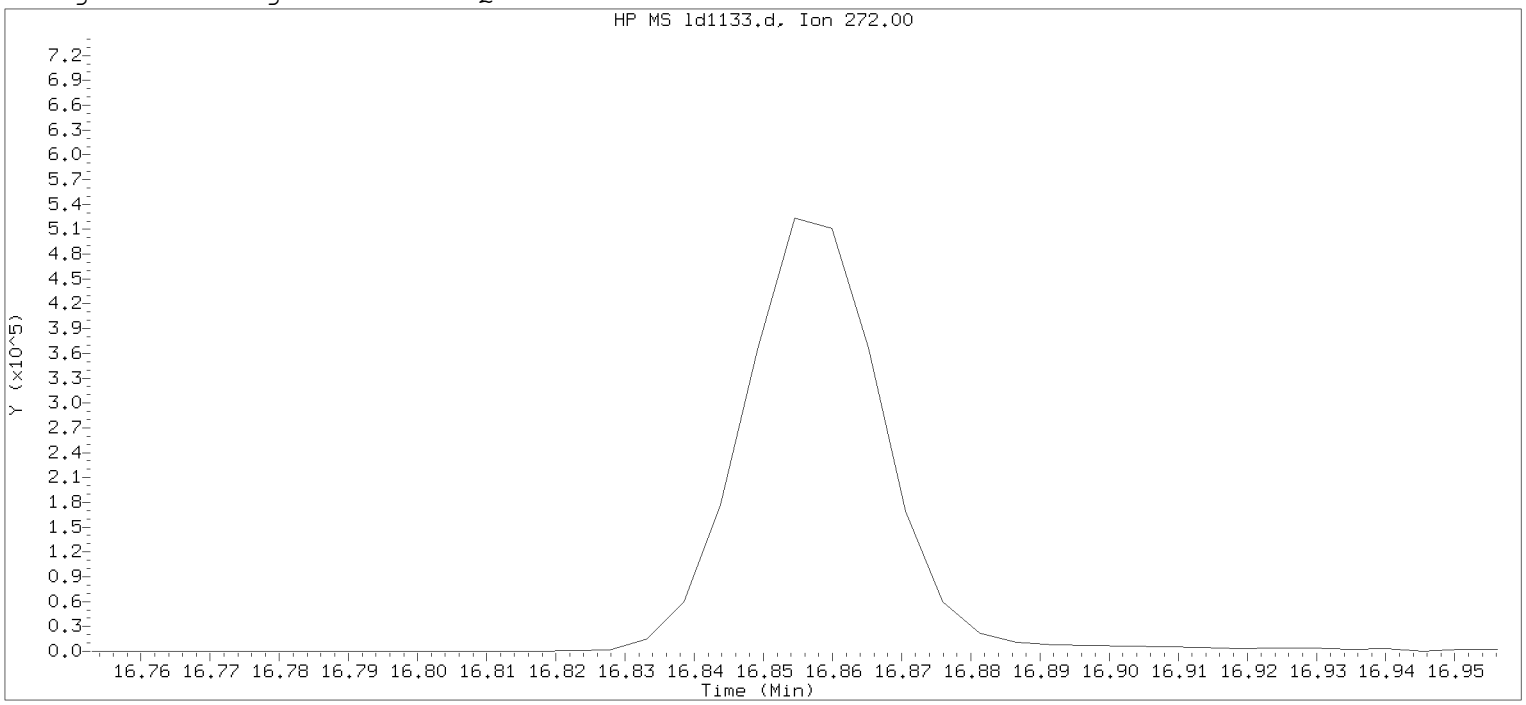
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:30.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



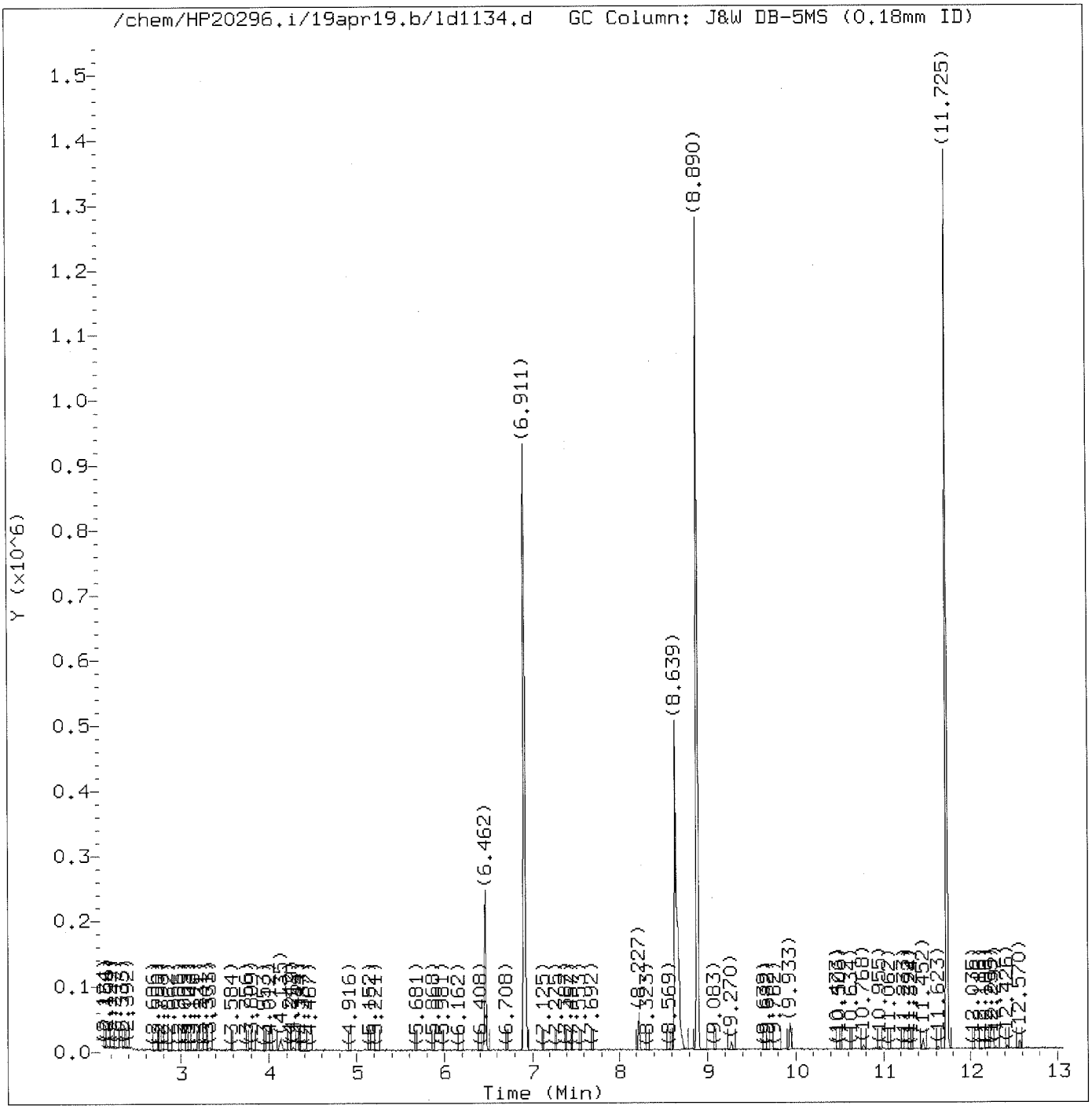
Data File: /chem/HP20296.i/19apr19.b/ld1133.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:06 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: abc
Calibration date and time: 19-APR-2019 09:37
Date, time and analyst ID of latest file update: 19-Apr-2019 09:37 chemist

Sample Name: SSTD12.5 Lab Sample ID: rvABC1009

Compound Number : 195
Compound Name : Kepone
Expected RT (minutes) : 16.855
Quant Ion : 272.00

Digitally signed by William H Saadeh on 04/23/2019 at 17:30.
Target 3.5 esignature user: RAF35 Page 132 of 2326



Total Ion Chromatogram (TIC)

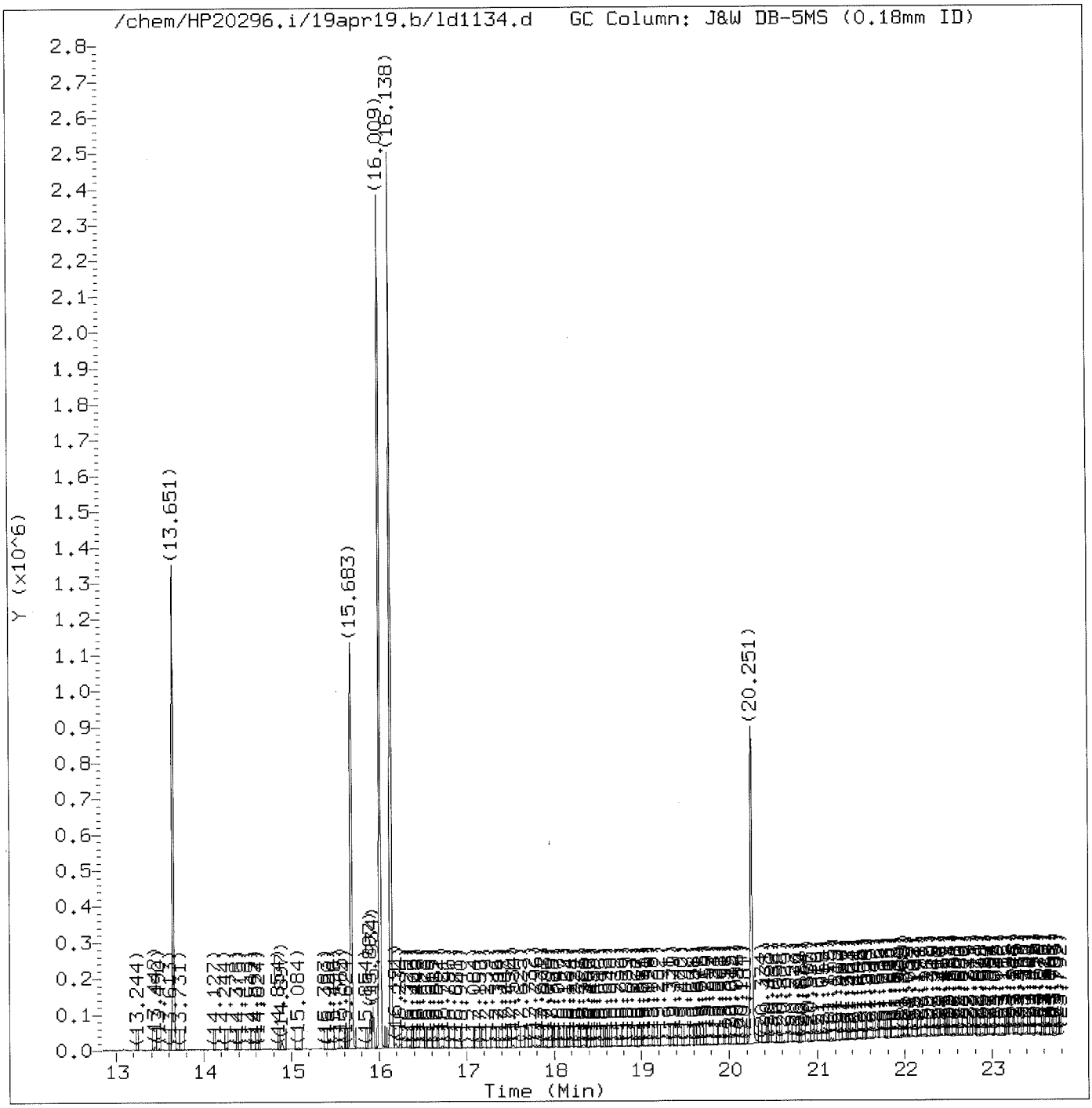
Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1134.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:35 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: aap
Calibration date and time: 24-APR-2019 10:22
Date, time and analyst ID of latest file update: 24-Apr-2019 10:22 hbz01996

Sample Name: SSTD12.5 Lab Sample ID: rvAAP1089

Digitally signed by Holly B. Ziegler
on 04/24/2019 at 10:23.
Target 3.5 esignature user ID: hbz01996



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1134.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:35 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: aap
Calibration date and time: 24-APR-2019 10:22
Date, time and analyst ID of latest file update: 24-Apr-2019 10:22 hbz01996

Sample Name: SSTD12.5 Lab Sample ID: rvAAP1089

Digitally signed by Holly B. Ziegler
on 04/24/2019 at 10:23.
Target 3.5 esignature user ID: hbz01996

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr19.b/ld1134.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 09:35 Analyst ID: knb25316

Method used: /chem/HP20296.i/19apr19.b/rv8270d.m Sublist used: aap
Calibration date and time: 24-APR-2019 10:22
Date, time and analyst ID of latest file update: 24-Apr-2019 10:22 hbz01996

Sample Name: SSTD12.5 Lab Sample ID: rvAAP1089

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
26)*1,4-Dichlorobenzene-d4	(1)	6.911	152	172051	5.000
67) a,a-Dimethylphenethylamine	(2)	8.639	58	555661	12.500
68)*Naphthalene-d8	(2)	8.890	136	653973	5.000
191) Aramite	(5)			396388	12.500
118)*Acenaphthene-d10	(3)	11.725	164	286897	5.000
158)*Phenanthrene-d10	(4)	13.651	188	508996	5.000
180)*Pyrene-d10	(5)	15.683	212	490743	5.000
185) Aramite (1)	(5)	15.902	185	5827	1.250
186) Aramite (2)	(5)	15.934	185	7047	1.250
188) Aramite (3)	(5)	16.009	185	166093	5.000
189) Aramite (4)	(5)	16.138	185	217419	5.000
218)*Perylene-d12	(6)	20.251	264	427757	5.000

* = Compound is an internal standard.

Digitally signed by Holly B. Ziegler
on 04/24/2019 at 10:23.
Target 3.5 esignature user ID: hbz01996

Raw QC Data

Semivolatiles by GC/MS

Data file: /chem/HP20296.i/19apr18a.b/ld1109.d Injection date and time: **19-APR-2019 00:31**
Data file Sample Info. Line: SBLKWN106;SBLKWN106;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNM**
Calibration date and time (Last Method Edit): 24-APR-2019 08:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922(0.000)	904	152	181746 (-8)	5.00	
68) Naphthalene-d8	8.901(0.005)	1274	136	702716 (-8)	5.00	
118) Acenaphthene-d10	11.736(0.000)	1804	164	321459 (-12)	5.00	
158) Phenanthrene-d10	13.661(0.000)	2164	188	586341 (-13)	5.00	
180) Pyrene-d10	15.699(0.000)	2545	212	575861 (-15)	5.00	
218) Perylene-d12	20.267(0.005)	3399	264	536302 (-16)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	4.997(0.000)	112	1361809	23.334	47%
18) Phenol-d6	(1)	6.387(0.001)	99	1350740	17.443	35%
45) Nitrobenzene-d5	(2)	7.767(0.000)	82	1268519	18.198	73%
96) 2-Fluorobiphenyl	(3)	10.688(0.000)	172	1530573	14.834	59%
140) 2,4,6-Tribromophenol	(3)	12.774(0.000)	330	544885	41.909	84%
184) Terphenyl-d14	(5)	16.020(0.000)	244	2175966	23.130	93%

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)			Not Detected					0.5
6) Pyridine	(1)			Not Detected					0.5
8) 2-Picoline	(1)			Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
17) Benzaldehyde	(1)			Not Detected					0.8
19) Phenol	(1)			Not Detected					0.1
20) Aniline	(1)			Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)			Not Detected					0.1
24) 2-Chlorophenol	(1)			Not Detected					0.1
28) Benzyl alcohol	(1)			Not Detected					3
32) 2-Methylphenol	(1)			Not Detected					0.1
34) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.5
35) bis(2-Chloroisopropyl)ether	(1)			Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)			Not Detected					1
38) 4-Methylphenol	(1)			Not Detected					0.1
39) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.2
40) N-Nitrosomorpholine	(1)			Not Detected					0.5
41) o-Toluidine	(1)			Not Detected					1
44) Hexachloroethane	(1)			Not Detected					0.3
46) Nitrobenzene	(2)			Not Detected					0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)			Not Detected					0.1
53) 2-Nitrophenol	(2)			Not Detected					0.8

Digitally signed by William H Saadeh on 04/24/2019 at 08:52. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1109.d Injection date and time: **19-APR-2019 00:31**
Data file Sample Info. Line: SBLKWN106;SBLKWN106;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNM**
Calibration date and time (Last Method Edit): 24-APR-2019 08:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
55) 2,4-Dimethylphenol	(2)				Not Detected					0.8
59) O,O,O-Triethylphosphorothioate	(2)				Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.1
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
74) Hexachlorobutadiene	(2)				Not Detected					0.1
79) Caprolactam	(2)				Not Detected					1
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.1
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.03
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.1
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.1
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.1
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
98) 1,1'-Biphenyl	(3)				Not Detected					0.8
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.03
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.03
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.03
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.8
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1

Digitally signed by William H Saadeh on 04/24/2019 at 08:52. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1109.d Injection date and time: **19-APR-2019 00:31**
Data file Sample Info. Line: SBLKWN106;SBLKWN106;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNM**
Calibration date and time (Last Method Edit): 24-APR-2019 08:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.03
152) Dimethoate	(4)				Not Detected					0.8
153) Atrazine	(4)				Not Detected					0.5
154) Pentachlorophenol	(4)				Not Detected					0.3
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.03
162) Anthracene	(4)				Not Detected					0.03
167) Disulfoton	(4)				Not Detected					6
168) Carbazole	(4)				Not Detected					0.1
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.03
182) Pyrene	(5)				Not Detected					0.03
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.03
201) Chrysene	(5)				Not Detected					0.03
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.03
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.03
216) Benzo(a)pyrene	(6)				Not Detected					0.03
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.03
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.03
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.03

Digitally signed by William H Saadeh on 04/24/2019 at 08:52. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1109.d Injection date and time: **19-APR-2019 00:31**
Data file Sample Info. Line: SBLKWN106;SBLKWN106;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNM**
Calibration date and time (Last Method Edit): 24-APR-2019 08:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

THIS SPACE

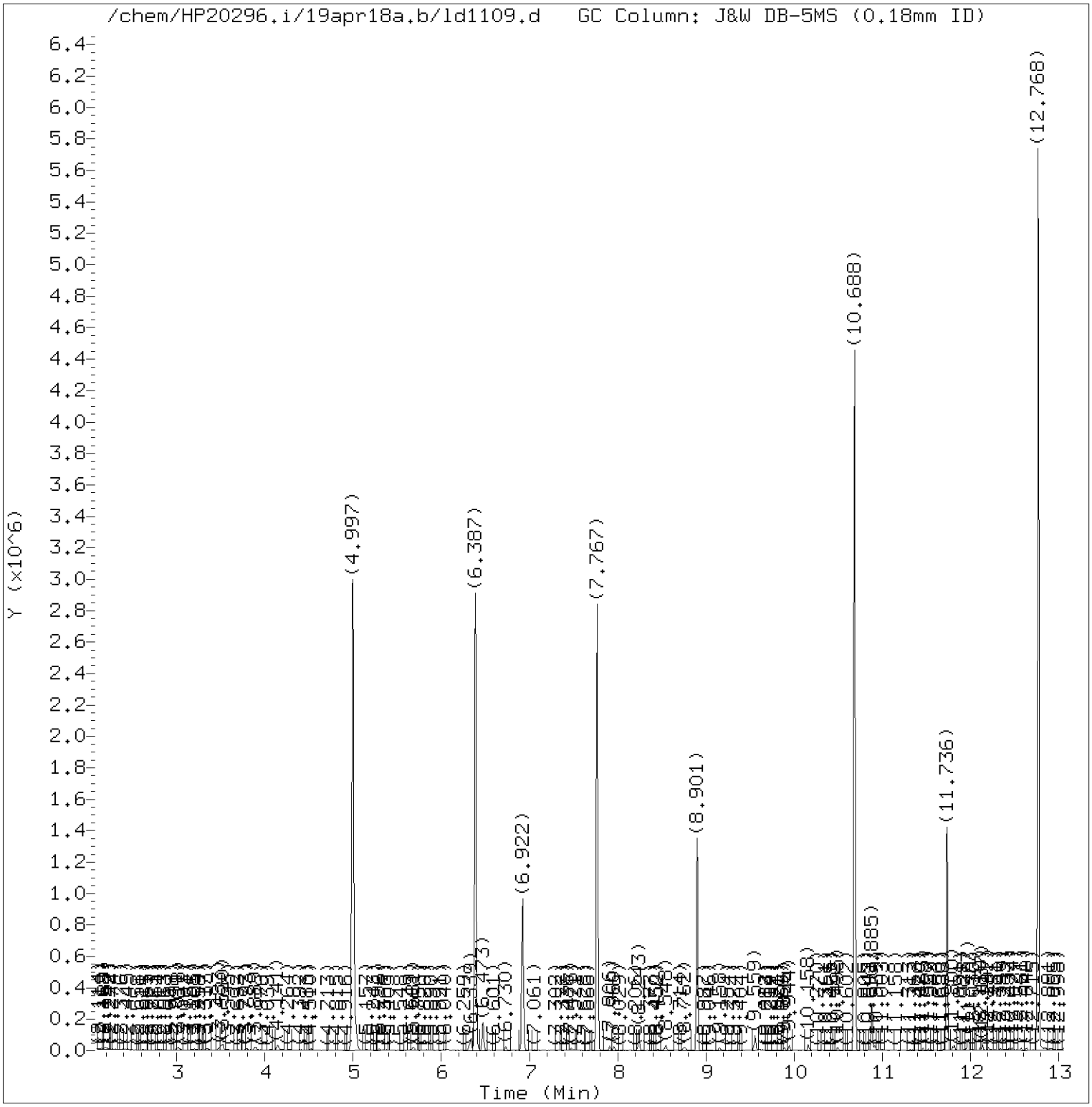
WAS LEFT

BLANK INTENTIONALLY

Total number of targets = 127

Digitally signed by William H Saadeh on 04/24/2019 at 08:52. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

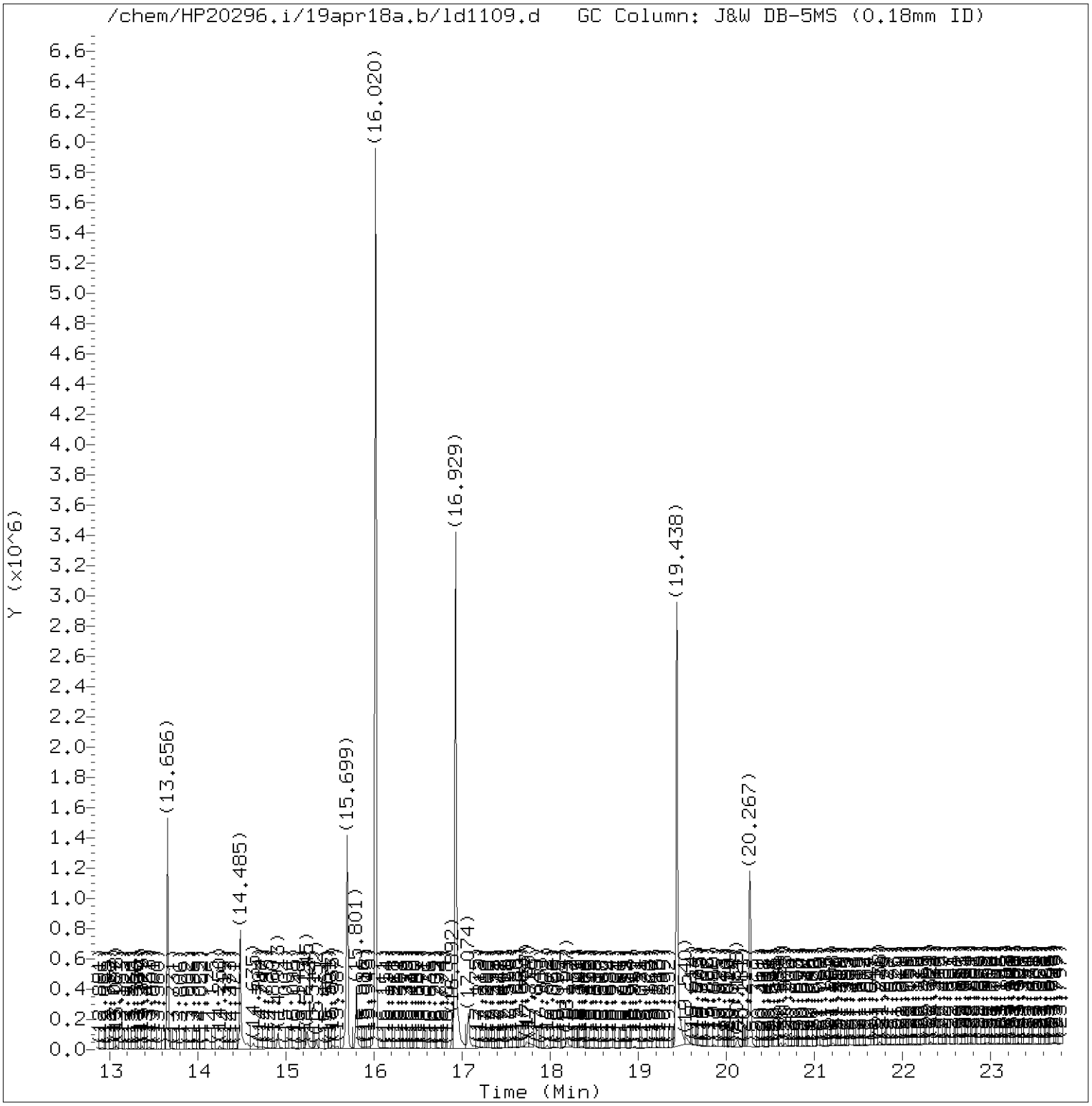
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1109.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:31 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNM
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Sample Name: SBLKWN106 Lab Sample ID: SBLKWN106

Digitally signed by William H Saadeh
on 04/24/2019 at 08:52.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1109.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:31 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNM
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Sample Name: SBLKWN106 Lab Sample ID: SBLKWN106

Digitally signed by William H Saadeh
on 04/24/2019 at 08:52.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1109.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:31 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNM
Calibration date and time: 24-APR-2019 08:51
Date, time and analyst ID of latest file update: 24-Apr-2019 08:51 whs02991

Sample Name: SBLKWN106 Lab Sample ID: SBLKWN106

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.997	112	1361809	23.334
18)$Phenol-d6	(1)	6.387	99	1350740	17.443
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	181746	5.000
45)$Nitrobenzene-d5	(2)	7.767	82	1268519	18.198
68)*Naphthalene-d8	(2)	8.901	136	702716	5.000
96)$2-Fluorobiphenyl	(3)	10.688	172	1530573	14.834
118)*Acenaphthene-d10	(3)	11.736	164	321459	5.000
140)$2,4,6-Tribromophenol	(3)	12.774	330	544885	41.909
158)*Phenanthrene-d10	(4)	13.661	188	586341	5.000
180)*Pyrene-d10	(5)	15.699	212	575861	5.000
184)$Terphenyl-d14	(5)	16.020	244	2175966	23.130
218)*Perylene-d12	(6)	20.267	264	536302	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 08:52.
Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1105.d Injection date and time: **18-APR-2019 22:35**
Data file Sample Info. Line: SBLKWJ107;SBLKWJ107;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 13:03 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922(0.000)	904	152	165642 (-16)	5.00	
68) Naphthalene-d8	8.906(0.000)	1275	136	637341 (-17)	5.00	
118) Acenaphthene-d10	11.736(0.000)	1804	164	291005 (-20)	5.00	
158) Phenanthrene-d10	13.667(-0.005)	2165	188	527768 (-22)	5.00	
180) Pyrene-d10	15.705(-0.005)	2546	212	511723 (-25)	5.00	
218) Perylene-d12	20.272(0.000)	3400	264	476097 (-26)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	4.997(0.000)	112	1189205	22.358	45%
18) Phenol-d6	(1)	6.387(0.001)	99	1225482	17.364	35%
45) Nitrobenzene-d5	(2)	7.773(0.000)	82	1208862	19.121	76%
96) 2-Fluorobiphenyl	(3)	10.693(0.000)	172	1485870	15.908	64%
140) 2,4,6-Tribromophenol	(3)	12.774(0.000)	330	473563	40.235	80%
184) Terphenyl-d14	(5)	16.026(0.000)	244	1894421	22.662	91%

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)			Not Detected					0.5
6) Pyridine	(1)			Not Detected					0.5
8) 2-Picoline	(1)			Not Detected					0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
19) Phenol	(1)			Not Detected					0.2
20) Aniline	(1)			Not Detected					0.8
23) bis(2-Chloroethyl)ether	(1)			Not Detected					0.1
24) 2-Chlorophenol	(1)			Not Detected					0.2
28) Benzyl alcohol	(1)			Not Detected					3
32) 2-Methylphenol	(1)			Not Detected					0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.1
35) bis(2-Chloroisopropyl)ether	(1)			Not Detected					0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)			Not Detected					1
38) 4-Methylphenol	(1)			Not Detected					0.6
39) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.2
40) N-Nitrosomorpholine	(1)			Not Detected					0.5
41) o-Toluidine	(1)			Not Detected					1
46) Nitrobenzene	(2)			Not Detected					0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)			Not Detected					0.1
53) 2-Nitrophenol	(2)			Not Detected					0.8
55) 2,4-Dimethylphenol	(2)			Not Detected					0.8
59) O,O,O-Triethylphosphorothioate	(2)			Not Detected					0.5

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:08. Target 3.5 esignature user ID: art12405

Data file: /chem/HP20296.i/19apr18a.b/ld1105.d Injection date and time: **18-APR-2019 22:35**
Data file Sample Info. Line: SBLKWJ107;SBLKWJ107;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 13:03 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
57) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.1
62) 2,4-Dichlorophenol	(2)				Not Detected					0.4
67) a,a-Dimethylphenethylamine	(2)				Not Detected					1
70) 4-Chloroaniline	(2)				Not Detected					1
71) 2,6-Dichlorophenol	(2)				Not Detected					0.1
72) Hexachloropropene	(2)				Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)				Not Detected					3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
83) 4-Chloro-3-methylphenol	(2)				Not Detected					0.3
85) Safrole	(2)				Not Detected					0.5
86) 2-Methylnaphthalene	(2)				Not Detected					0.07
88) Hexachlorocyclopentadiene	(3)				Not Detected					1
89) 1,2,4,5-Tetrachlorobenzene	(3)				Not Detected					0.5
91) cis-Isosafrole	(3)				Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)				Not Detected					0.2
95) 2,4,5-Trichlorophenol	(3)				Not Detected					0.2
97) trans-Isosafrole	(3)				Not Detected					0.3
100) Isosafrole	(3)				Not Detected					1
99) 2-Chloronaphthalene	(3)				Not Detected					0.1
104) 2-Nitroaniline	(3)				Not Detected					0.5
108) 1,4-Naphthoquinone	(3)				Not Detected					6
110) Dimethylphthalate	(3)				Not Detected					0.5
111) 1,3-Dinitrobenzene	(3)				Not Detected					0.5
113) 2,6-Dinitrotoluene	(3)				Not Detected					0.1
114) Acenaphthylene	(3)				Not Detected					0.1
117) 3-Nitroaniline	(3)				Not Detected					0.8
119) Acenaphthene	(3)				Not Detected					0.09
120) 2,4-Dinitrophenol	(3)				Not Detected					4
121) 4-Nitrophenol	(3)				Not Detected					3
122) Pentachlorobenzene	(3)				Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)				Not Detected					0.3
124) Dibenzofuran	(3)				Not Detected					0.1
126) 1-Naphthylamine	(3)				Not Detected					2
127) 2,3,4,6-Tetrachlorophenol	(3)				Not Detected					1
128) 2-Naphthylamine	(3)				Not Detected					2
129) Diethylphthalate	(3)				Not Detected					0.5
130) Thionazin	(3)				Not Detected					0.5
131) Fluorene	(3)				Not Detected					0.1
132) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.1
133) 5-Nitro-o-toluidine	(3)				Not Detected					1
134) 4-Nitroaniline	(3)				Not Detected					0.2
135) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					2
136) N-Nitrosodiphenylamine	(4)				Not Detected					0.2
137) NDPA as diphenylamine	(4)				Not Detected					0.2
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)				Not Detected					0.06
146) Phorate	(4)				Not Detected					0.1
147) Phenacetin	(4)				Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)				Not Detected					0.1
149) Diallate (peak 2)	(4)				Not Detected					0.06
151) Diallate trans/cis	(4)				Not Detected					0.3
150) Hexachlorobenzene	(4)				Not Detected					0.2
152) Dimethoate	(4)				Not Detected					0.8
154) Pentachlorophenol	(4)				Not Detected					0.7

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Data file: /chem/HP20296.i/19apr18a.b/ld1105.d Injection date and time: **18-APR-2019 22:35**
Data file Sample Info. Line: SBLKWJ107;SBLKWJ107;1;3;BLANK;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 13:03 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

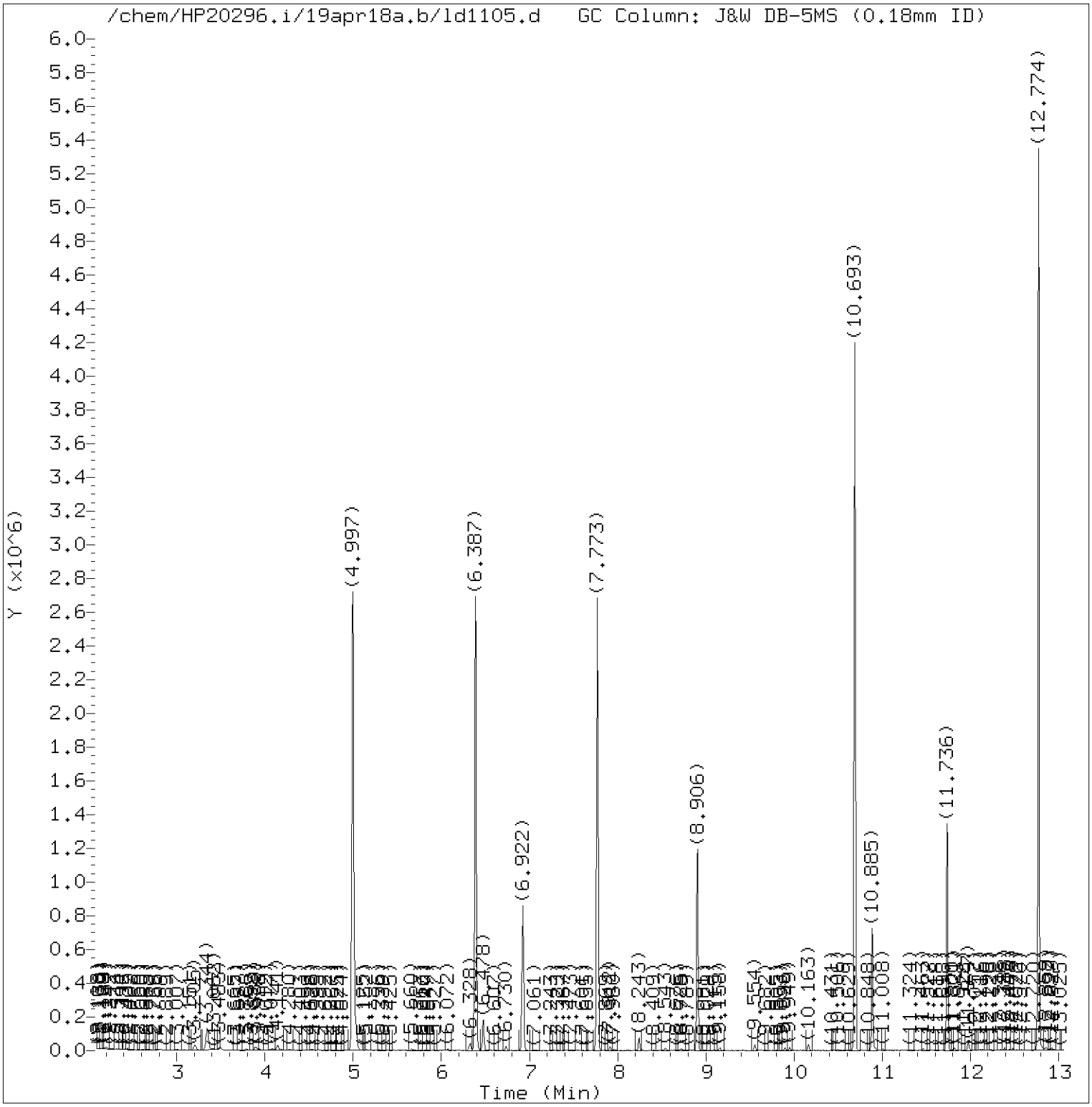
Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
155) 4-Aminobiphenyl	(4)				Not Detected					1
156) Pentachloronitrobenzene	(4)				Not Detected					0.5
157) Pronamide	(4)				Not Detected					0.1
160) Phenanthrene	(4)				Not Detected					0.1
162) Anthracene	(4)				Not Detected					0.1
167) Disulfoton	(4)				Not Detected					6
169) Methyl parathion	(4)				Not Detected					0.3
170) Di-n-butylphthalate	(4)				Not Detected					0.5
172) Parathion	(4)				Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)				Not Detected					5
175) Methapyrilene	(4)				Not Detected					4
176) Isodrin	(4)				Not Detected					0.1
178) Fluoranthene	(4)				Not Detected					0.1
182) Pyrene	(5)				Not Detected					0.1
185) Aramite (1)	(5)				Not Detected					0.3
186) Aramite (2)	(5)				Not Detected					0.3
188) Aramite (3)	(5)				Not Detected					0.3
189) Aramite (4)	(5)				Not Detected					0.3
191) Aramite	(5)				Not Detected					1
187) p-Dimethylaminoazobenzene	(5)				Not Detected					1
190) Chlorobenzilate	(5)				Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)				Not Detected					6
193) Butylbenzylphthalate	(5)				Not Detected					0.5
194) Famphur	(5)				Not Detected					6
195) Kepone	(5)				Not Detected					6
196) 2-Acetylaminofluorene	(5)				Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)				Not Detected					0.8
200) Benzo(a)anthracene	(5)				Not Detected					0.1
201) Chrysene	(5)				Not Detected					0.08
204) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					1
210) Di-n-octylphthalate	(6)				Not Detected					1
211) Benzo(b)fluoranthene	(6)				Not Detected					0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)				Not Detected					1
213) Benzo(k)fluoranthene	(6)				Not Detected					0.4
216) Benzo(a)pyrene	(6)				Not Detected					0.4
220) 3-Methylcholanthrene	(6)				Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.04
225) Dibenz(a,h)anthracene	(6)				Not Detected					0.1
226) Benzo(g,h,i)perylene	(6)				Not Detected					0.1

Total number of targets = 120

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:08. Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

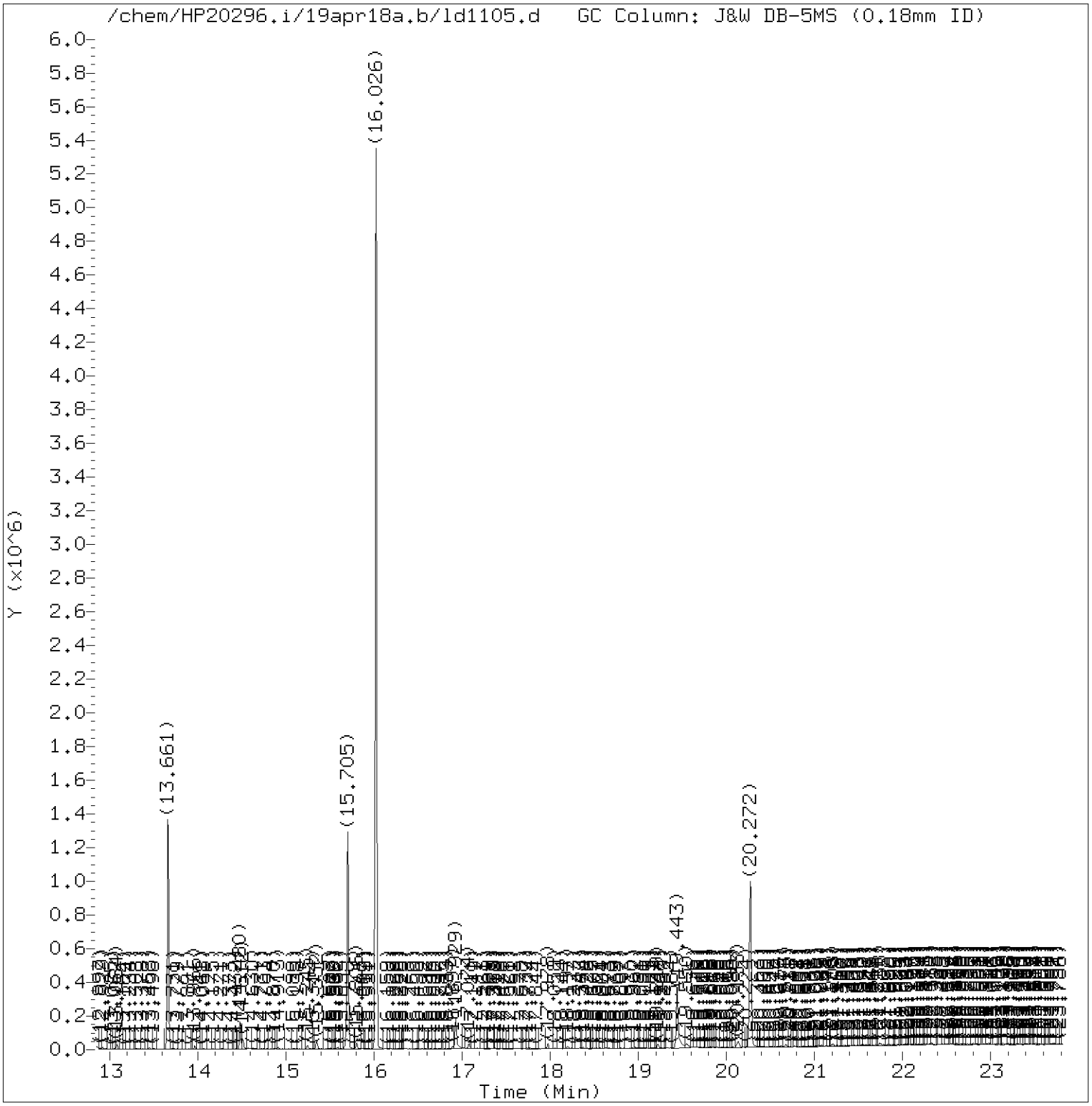
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1105.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 22:35 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 13:03 hbz01996

Sample Name: SBLKWJ107 Lab Sample ID: SBLKWJ107

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:08.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1105.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 22:35 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 13:03 hbz01996

Sample Name: SBLKWJ107 Lab Sample ID: SBLKWJ107

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:08.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1105.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 22:35 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 13:03 hbz01996

Sample Name: SBLKWJ107 Lab Sample ID: SBLKWJ107

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
12)$2-Fluorophenol	(1)	4.997	112	1189205	22.358
18)$Phenol-d6	(1)	6.387	99	1225482	17.364
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	165642	5.000
45)$Nitrobenzene-d5	(2)	7.773	82	1208862	19.121
68)*Naphthalene-d8	(2)	8.906	136	637341	5.000
96)$2-Fluorobiphenyl	(3)	10.693	172	1485870	15.908
118)*Acenaphthene-d10	(3)	11.736	164	291005	5.000
140)$2,4,6-Tribromophenol	(3)	12.774	330	473563	40.235
158)*Phenanthrene-d10	(4)	13.667	188	527768	5.000
180)*Pyrene-d10	(5)	15.705	212	511723	5.000
184)$Terphenyl-d14	(5)	16.026	244	1894421	22.662
218)*Perylene-d12	(6)	20.272	264	476097	5.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:08.
Target 3.5 esignature user ID: art12405

F3504MS

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

1034105

Data file: /chem/HP20296.i/19apr18a.b/ld1119.d
Data file Sample Info. Line: F3504MS;1034105;1;3;MS;;RAAP;
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Injection date and time: **19-APR-2019 05:20**
Instrument ID: **HP20296.i** Batch: **19107WAJ**

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.928	(-0.005)	905	152	178286	(-10)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	683774	(-11)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	317972	(-13)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	566121	(-16)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	580266	(-15)	5.00	
218) Perylene-d12	20.272	(0.000)	3400	264	574246	(-10)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	5.018	(-0.003)	112	538187	9.401	19%		10 - 84
18) Phenol-d6	(1)	6.398	(0.000)	99	1253394	16.500	33%		10 - 67
45) Nitrobenzene-d5	(2)	7.773	(-0.001)	82	1551612	22.876	92%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.693	(0.000)	172	2104691	20.622	82%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.774	(0.000)	330	36714	2.855	6%	*	23 - 135
184) Terphenyl-d14	(5)	16.020	(0.000)	244	1555433	16.409	66%		33 - 126

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)	2.932	(-0.005)	74	333168	8.207	32.70			0.5
6) Pyridine	(1)	2.964	(-0.004)	79	455428	6.353	25.31			0.5
8) 2-Picoline	(1)	4.119	(-0.002)	93	708424	9.910	39.48			0.5
9) N-Nitrosomethylethylamine	(1)				Not Detected					0.5
10) Methyl methanesulfonate	(1)				Not Detected					0.3
14) N-Nitrosodiethylamine	(1)				Not Detected					0.1
16) Ethyl methanesulfonate	(1)				Not Detected					0.1
19) Phenol	(1)	6.419	(-0.000)	94	429853	4.808	19.16			0.2
20) Aniline	(1)	6.430	(-0.000)	93	853566	8.228	32.78			0.8
23) bis(2-Chloroethyl)ether	(1)	6.553	(-0.000)	93	741100	11.131	44.35			0.1
24) 2-Chlorophenol	(1)	6.606	(-0.000)	128	302545	5.582	22.24			0.2
28) Benzyl alcohol	(1)	7.147	(0.000)	108	428860	11.680	46.54			3
32) 2-Methylphenol	(1)	7.334	(0.000)	108	517423	9.364	37.31			0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	(-0.000)	45	957459	11.378	45.33			0.1
35) bis(2-Chloroisopropyl)ether	(1)	7.382	(-0.000)	45	957459	11.378	45.33			0.1
36) N-Nitrosopyrrolidine	(1)				Not Detected					0.1
37) Acetophenone	(1)	7.548	(0.000)	105	1027390	12.012	47.86			1
38) 4-Methylphenol	(1)	7.575	(0.000)	108	542865	8.735	34.80			0.6
39) N-Nitroso-di-n-propylamine	(1)	7.569	(0.000)	70	594140	12.279	48.92			0.2
40) N-Nitrosomorpholine	(1)				Not Detected					0.5
41) o-Toluidine	(1)	7.601	(0.000)	106	917991	9.505	37.87			1
46) Nitrobenzene	(2)	7.799	(-0.000)	77	845418	11.831	47.14			0.1
50) N-Nitrosopiperidine	(2)				Not Detected					0.1
52) Isophorone	(2)	8.190	(-0.000)	82	1574174	12.644	50.38			0.1
53) 2-Nitrophenol	(2)	8.302	(-0.000)	139	289582	11.417	45.49			0.8
55) 2,4-Dimethylphenol	(2)	8.409	(-0.000)	107	551395	9.317	37.12			0.8

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1119.d Injection date and time: **19-APR-2019 05:20**
Data file Sample Info. Line: F3504MS;1034105;1;3;MS;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
59) O,O,O-Triethylphosphorothioate	(2)			Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)	8.564(-0.000)	93	978028	12.432	49.53			0.1
62) 2,4-Dichlorophenol	(2)	8.687(-0.000)	162	186870	4.458	17.76			0.4
67) a,a-Dimethylphenethylamine	(2)			Not Detected					1
70) 4-Chloroaniline	(2)	9.040(-0.000)	127	643833	10.050	40.04			1
71) 2,6-Dichlorophenol	(2)			Not Detected					0.1
72) Hexachloropropene	(2)			Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)			Not Detected					3
84) 1,4-Phenylenediamine	(2)			Not Detected					19
83) 4-Chloro-3-methylphenol	(2)	9.853(-0.000)	107	528783	10.257	40.87			0.3
85) Safrole	(2)			Not Detected					0.5
86) 2-Methylnaphthalene	(2)	10.067(-0.000)	142	1046898	10.858	43.26			0.07
88) Hexachlorocyclopentadiene	(3)	10.340(0.000)	237	276919	10.842	43.19			1
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340(0.000)	216	424921	9.608	38.28			0.5
91) cis-Isosafrole	(3)			Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)	10.532(0.000)	196	37050	1.285	5.12		J	0.2
95) 2,4,5-Trichlorophenol	(3)	10.586(0.000)	196	158228	5.223	20.81			0.2
97) trans-Isosafrole	(3)			Not Detected					0.3
100) Isosafrole	(3)			Not Detected					1
99) 2-Chloronaphthalene	(3)	10.853(0.000)	162	1027745	10.972	43.71			0.1
104) 2-Nitroaniline	(3)	11.030(-0.000)	138	354906	12.919	51.47			0.5
108) 1,4-Naphthoquinone	(3)			Not Detected					6
110) Dimethylphthalate	(3)	11.378(0.000)	163	1162416	12.091	48.17			0.5
111) 1,3-Dinitrobenzene	(3)	11.383(0.000)	168	178765A	12.213	48.66			0.5
113) 2,6-Dinitrotoluene	(3)	11.452(-0.000)	165	266698	12.728	50.71			0.1
114) Acenaphthylene	(3)	11.522(-0.000)	152	1561164	12.417	49.47			0.1
117) 3-Nitroaniline	(3)	11.688(-0.000)	138	270507	11.279	44.93			0.8
119) Acenaphthene	(3)	11.784(0.000)	153	1100585	11.645	46.39			0.09
120) 2,4-Dinitrophenol	(3)	11.843(-0.000)	184	275543	22.665	90.30			4
121) 4-Nitrophenol	(3)	11.955(-0.000)	109	128138	7.160	28.53		J	3
122) Pentachlorobenzene	(3)			Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)	12.030(0.000)	165	349525	12.284	48.94			0.3
124) Dibenzofuran	(3)	12.030(0.000)	168	1444190	11.716	46.68			0.1
126) 1-Naphthylamine	(3)	12.137(-0.000)	143	1327361	14.693	58.54			2
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201(0.000)	232	26434	1.188	4.73		J	1
128) 2-Naphthylamine	(3)	12.244(-0.000)	143	1288489	14.687	58.51			2
129) Diethylphthalate	(3)	12.388(0.000)	149	1138748	11.828	47.12			0.5
130) Thionazin	(3)			Not Detected					0.5
131) Fluorene	(3)	12.474(0.000)	166	1142933	11.568	46.09			0.1
132) 4-Chlorophenyl-phenylether	(3)	12.501(0.000)	204	513439	11.046	44.01			0.1
133) 5-Nitro-o-toluidine	(3)			Not Detected					1
134) 4-Nitroaniline	(3)	12.501(0.000)	138	284640	11.192	44.59			0.2
135) 4,6-Dinitro-2-methylphenol	(4)	12.549(-0.000)	198	182567	12.049	48.00			2
136) N-Nitrosodiphenylamine	(4)	12.645(-0.000)	169	976245	12.891	51.36			0.2
137) NDPA as diphenylamine	(4)	12.645(-0.000)	169	972202M	12.838	51.15			0.2
144) 1,3,5-Trinitrobenzene	(4)			Not Detected					24
145) Diallate (peak 1)	(4)			Not Detected					0.06
146) Phorate	(4)			Not Detected					0.1
147) Phenacetin	(4)			Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)	13.110(-0.000)	248	279846	11.397	45.41			0.1
149) Diallate (peak 2)	(4)			Not Detected					0.06
151) Diallate trans/cis	(4)			Not Detected					0.3
150) Hexachlorobenzene	(4)	13.164(-0.000)	284	312029	11.386	45.36			0.2
152) Dimethoate	(4)			Not Detected					0.8

A = User selected an alternate peak. M = Compound was manually integrated.

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1119.d Injection date and time: **19-APR-2019 05:20**
Data file Sample Info. Line: F3504MS;1034105;1;3;MS;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
154) Pentachlorophenol	(4)	13.410(0.000)	266	49704	2.860	11.39			0.7
155) 4-Aminobiphenyl	(4)			Not Detected					1
156) Pentachloronitrobenzene	(4)			Not Detected					0.5
157) Pronamide	(4)			Not Detected					0.1
160) Phenanthrene	(4)	13.694(-0.000)	178	1641000	11.991	47.77			0.1
162) Anthracene	(4)	13.763(-0.000)	178	1648416	12.071	48.09			0.1
167) Disulfoton	(4)			Not Detected					6
169) Methyl parathion	(4)			Not Detected					0.3
170) Di-n-butylphthalate	(4)	14.512(0.000)	149	2171810	13.155	52.41			0.5
172) Parathion	(4)			Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)			Not Detected					5
175) Methapyrilene	(4)			Not Detected					4
176) Isodrin	(4)			Not Detected					0.1
178) Fluoranthene	(4)	15.384(0.000)	202	1823382	12.805	51.01			0.1
182) Pyrene	(5)	15.731(-0.000)	202	1868305	11.886	47.35			0.1
185) Aramite (1)	(5)			Not Detected					0.3
186) Aramite (2)	(5)			Not Detected					0.3
188) Aramite (3)	(5)			Not Detected					0.3
189) Aramite (4)	(5)			Not Detected					0.3
191) Aramite	(5)			Not Detected					1
187) p-Dimethylaminoazobenzene	(5)			Not Detected					1
190) Chlorobenzilate	(5)			Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)	16.822(0.000)	212	801857	7.819	31.15		J	6
193) Butylbenzylphthalate	(5)	16.887(0.000)	149	975843	12.571	50.08			0.5
194) Famphur	(5)			Not Detected					6
195) Kepone	(5)			Not Detected					6
196) 2-Acetylaminofluorene	(5)			Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)	17.764(-0.000)	252	550152	10.305	41.06			0.8
200) Benzo(a)anthracene	(5)	17.774(0.000)	228	1699074	12.007	47.84			0.1
201) Chrysene	(5)	17.839(-0.000)	228	1641184	11.945	47.59			0.08
204) bis(2-Ethylhexyl)phthalate	(5)	17.972(0.000)	149	1397964	12.375	49.30			1
210) Di-n-octylphthalate	(6)	19.144(0.000)	149	2466506	12.378	49.31			1
211) Benzo(b)fluoranthene	(6)	19.652(-0.000)	252	1737295	11.915	47.47			0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657(-0.000)	256	725554	11.960	47.65			1
213) Benzo(k)fluoranthene	(6)	19.705(-0.000)	252	1678515	11.996	47.79			0.4
216) Benzo(a)pyrene	(6)	20.181(-0.000)	252	1504660	11.350	45.22			0.4
220) 3-Methylcholanthrene	(6)			Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)	21.920(-0.000)	276	1438986M	11.097	44.21			0.04
225) Dibenz(a,h)anthracene	(6)	21.957(-0.000)	278	1569192	11.763	46.87			0.1
226) Benzo(g,h,i)perylene	(6)	22.326(-0.000)	276	1469717	10.725	42.73			0.1

M = Compound was manually integrated.

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1119.d Injection date and time: **19-APR-2019 05:20**
Data file Sample Info. Line: F3504MS;1034105;1;3;MS;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 251 ml Volume Injected (Vi): 1 ul

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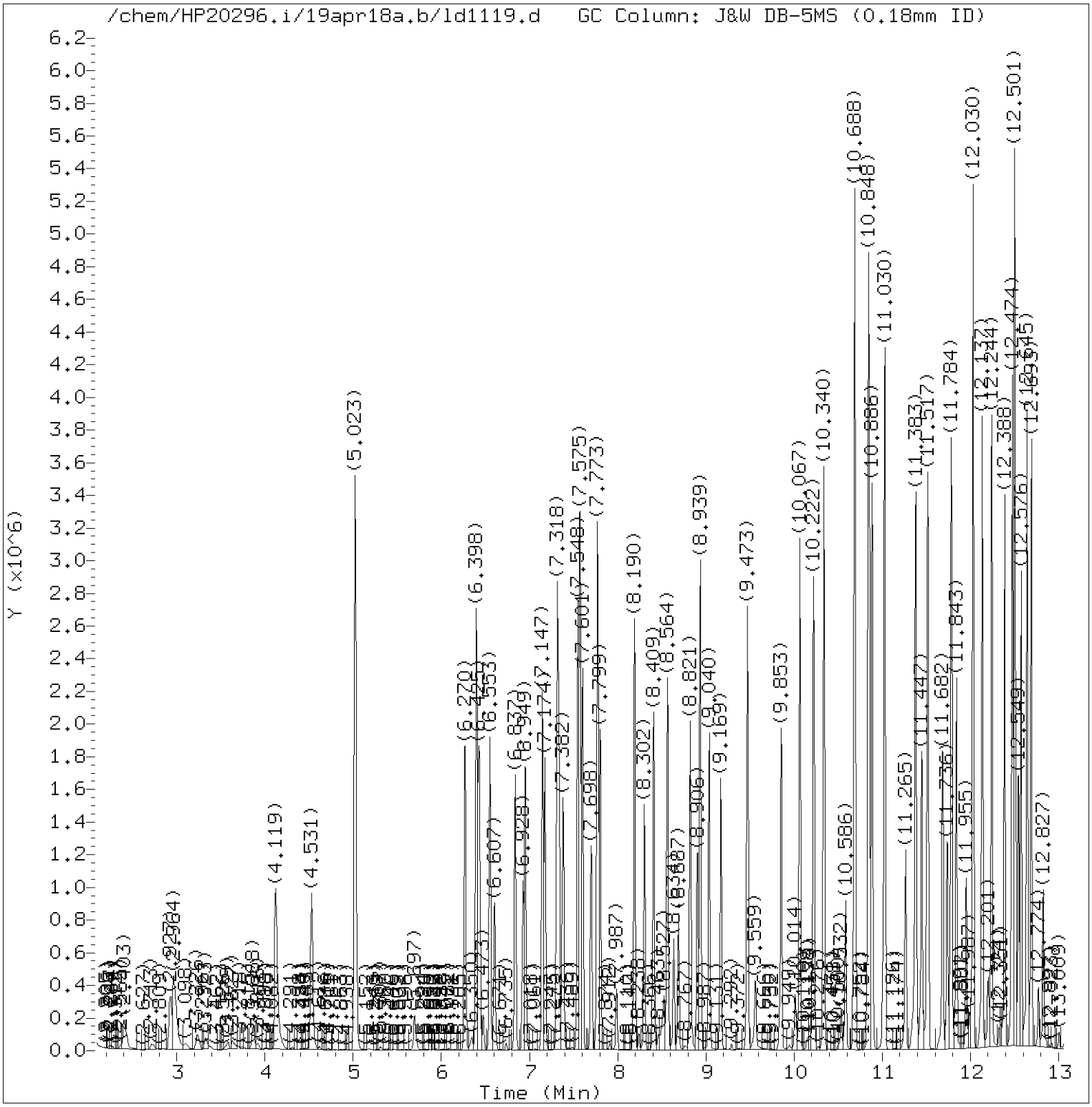
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 120

Digitally signed by William H Saadeh on 04/23/2019 at 17:07. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

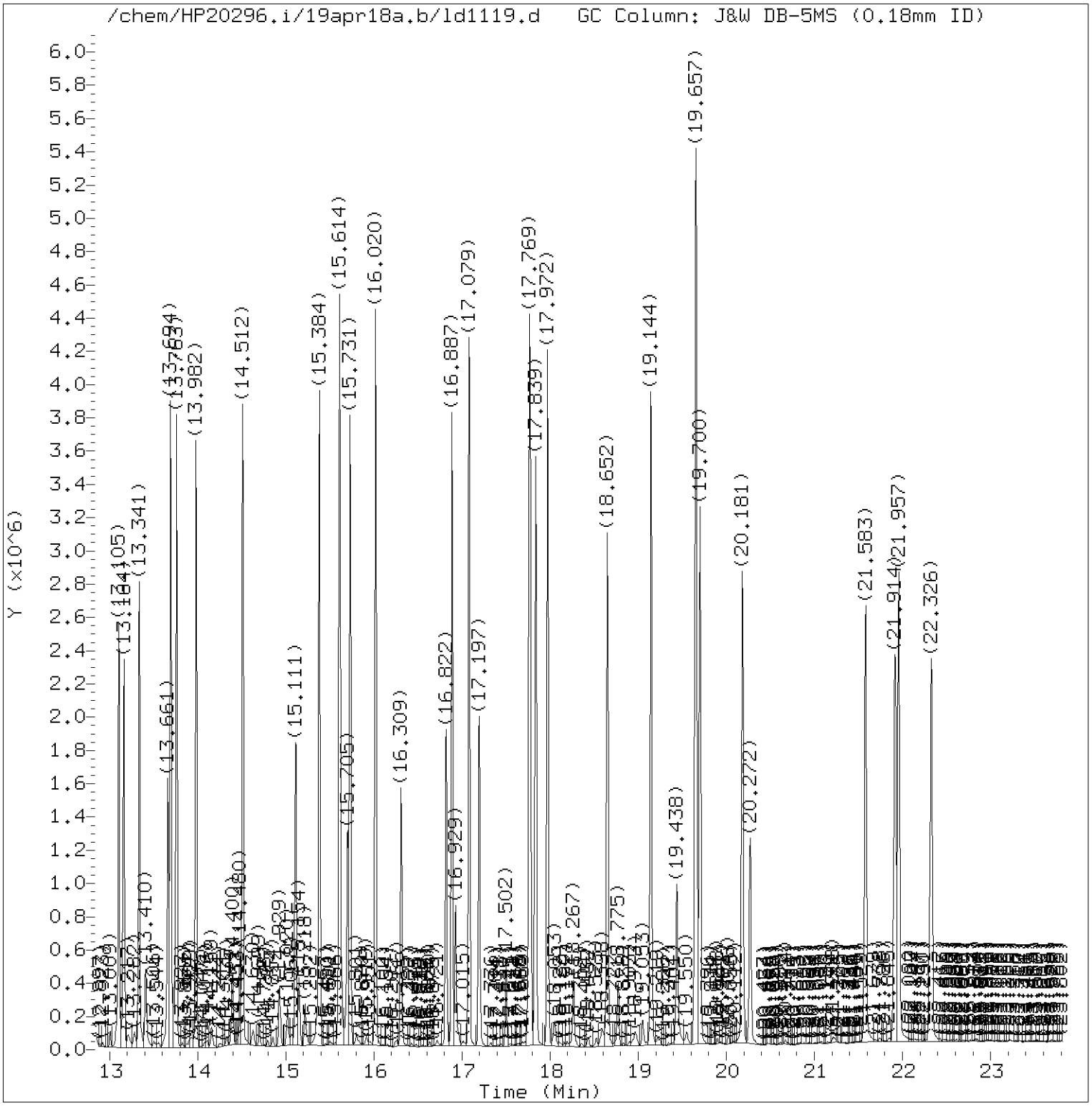
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) N-Nitrosodimethylamine	(1)	2.932	74	333168	8.207
6) Pyridine	(1)	2.964	79	455428	6.353
8) 2-Picoline	(1)	4.119	93	708424	9.910
12)$2-Fluorophenol	(1)	5.018	112	538187	9.401
18)$Phenol-d6	(1)	6.398	99	1253394	16.500
19) Phenol	(1)	6.419	94	429853	4.808
20) Aniline	(1)	6.430	93	853566	8.228
23) bis(2-Chloroethyl)ether	(1)	6.553	93	741100	11.131
24) 2-Chlorophenol	(1)	6.607	128	302545	5.582
26)*1,4-Dichlorobenzene-d4	(1)	6.928	152	178286	5.000
28) Benzyl alcohol	(1)	7.147	108	428860	11.680
32) 2-Methylphenol	(1)	7.334	108	517423	9.364
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	957459	11.378
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	957459	11.378
37) Acetophenone	(1)	7.548	105	1027390	12.012
39) N-Nitroso-di-n-propylamine	(1)	7.569	70	594140	12.279
38) 4-Methylphenol	(1)	7.575	108	542865	8.735
41) o-Toluidine	(1)	7.601	106	917991	9.505
45)$Nitrobenzene-d5	(2)	7.773	82	1551612	22.876
46) Nitrobenzene	(2)	7.799	77	845418	11.831
52) Isophorone	(2)	8.190	82	1574174	12.644
53) 2-Nitrophenol	(2)	8.302	139	289582	11.417
55) 2,4-Dimethylphenol	(2)	8.409	107	551395	9.317
57) bis(2-Chloroethoxy)methane	(2)	8.564	93	978028	12.432
62) 2,4-Dichlorophenol	(2)	8.687	162	186870	4.458
68)*Naphthalene-d8	(2)	8.901	136	683774	5.000
70) 4-Chloroaniline	(2)	9.040	127	643833	10.050
83) 4-Chloro-3-methylphenol	(2)	9.853	107	528783	10.257
86) 2-Methylnaphthalene	(2)	10.067	142	1046898	10.858
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	216	424921	9.608
88) Hexachlorocyclopentadiene	(3)	10.340	237	276919	10.842
93) 2,4,6-Trichlorophenol	(3)	10.532	196	37050	1.285
95) 2,4,5-Trichlorophenol	(3)	10.586	196	158228	5.223
96)$2-Fluorobiphenyl	(3)	10.693	172	2104691	20.622
99) 2-Chloronaphthalene	(3)	10.853	162	1027745	10.972
104) 2-Nitroaniline	(3)	11.030	138	354906	12.919
110) Dimethylphthalate	(3)	11.378	163	1162416	12.091
111) 1,3-Dinitrobenzene	(3)	11.383	168	178765A	12.213
113) 2,6-Dinitrotoluene	(3)	11.452	165	266698	12.728
114) Acenaphthylene	(3)	11.522	152	1561164	12.417

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) 3-Nitroaniline	(3)	11.688	138	270507	11.279
118)*Acenaphthene-d10	(3)	11.736	164	317972	5.000
119) Acenaphthene	(3)	11.784	153	1100585	11.645
120) 2,4-Dinitrophenol	(3)	11.843	184	275543	22.665
121) 4-Nitrophenol	(3)	11.955	109	128138	7.160
123) 2,4-Dinitrotoluene	(3)	12.030	165	349525	12.284
124) Dibenzofuran	(3)	12.030	168	1444190	11.716
126) 1-Naphthylamine	(3)	12.137	143	1327361	14.693
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201	232	26434	1.188
128) 2-Naphthylamine	(3)	12.244	143	1288489	14.687
129) Diethylphthalate	(3)	12.388	149	1138748	11.828
131) Fluorene	(3)	12.474	166	1142933	11.568
132) 4-Chlorophenyl-phenylether	(3)	12.501	204	513439	11.046
134) 4-Nitroaniline	(3)	12.501	138	284640	11.192
135) 4,6-Dinitro-2-methylphenol	(4)	12.549	198	182567	12.049
137) NDPA as diphenylamine	(4)	12.645	169	972202M	12.838
136) N-Nitrosodiphenylamine	(4)	12.645	169	976245	12.891
140)$2,4,6-Tribromophenol	(3)	12.774	330	36714	2.855
148) 4-Bromophenyl-phenylether	(4)	13.111	248	279846	11.397
150) Hexachlorobenzene	(4)	13.164	284	312029	11.386
154) Pentachlorophenol	(4)	13.410	266	49704	2.860
158)*Phenanthrene-d10	(4)	13.661	188	566121	5.000
160) Phenanthrene	(4)	13.694	178	1641000	11.991
162) Anthracene	(4)	13.763	178	1648416	12.071
170) Di-n-butylphthalate	(4)	14.512	149	2171810	13.155
178) Fluoranthene	(4)	15.384	202	1823382	12.805
180)*Pyrene-d10	(5)	15.699	212	580266	5.000
182) Pyrene	(5)	15.731	202	1868305	11.886
184)$Terphenyl-d14	(5)	16.020	244	1555433	16.409
192) 3,3'-Dimethylbenzidine	(5)	16.822	212	801857	7.819
193) Butylbenzylphthalate	(5)	16.887	149	975843	12.571
198) 3,3'-Dichlorobenzidine	(5)	17.764	252	550152	10.305
200) Benzo(a)anthracene	(5)	17.775	228	1699074	12.007
201) Chrysene	(5)	17.839	228	1641184	11.945
204) bis(2-Ethylhexyl)phthalate	(5)	17.972	149	1397964	12.375
210) Di-n-octylphthalate	(6)	19.144	149	2466506	12.378
211) Benzo(b)fluoranthene	(6)	19.652	252	1737295	11.915
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657	256	725554	11.960
213) Benzo(k)fluoranthene	(6)	19.705	252	1678515	11.996
216) Benzo(a)pyrene	(6)	20.181	252	1504660	11.350

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

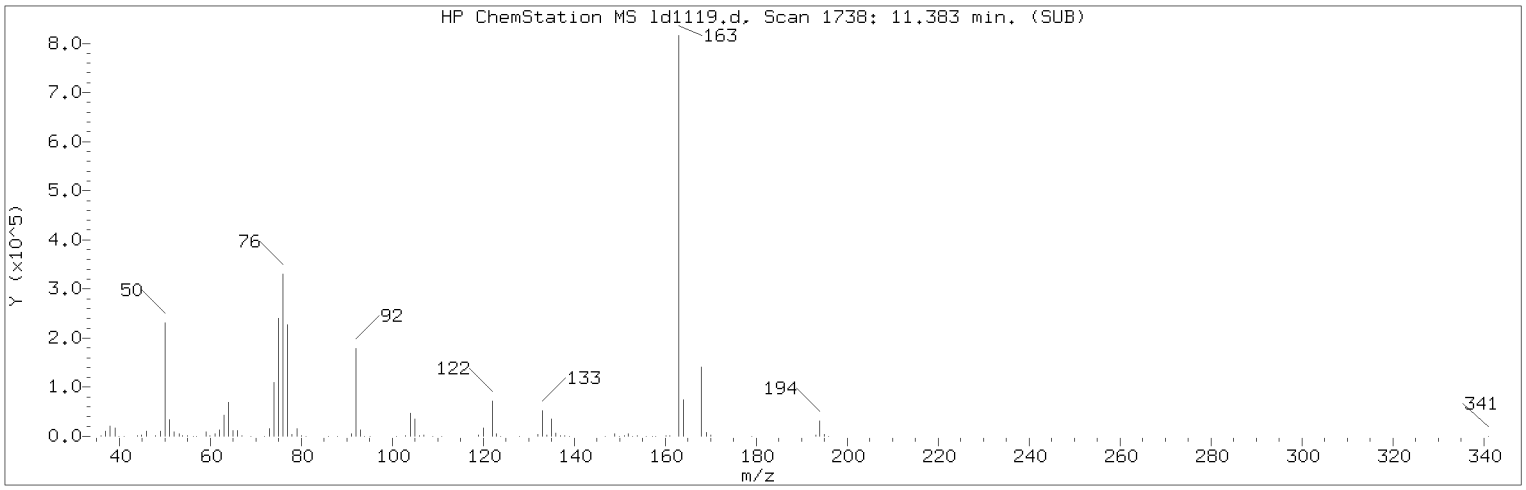
Sample Name: F3504MS Lab Sample ID: 1034105

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
218)*Perylene-d12	(6)	20.272	264	574246	5.000
224) Indeno(1,2,3-cd)pyrene	(6)	21.920	276	1438986M	11.097
225) Dibenz(a,h)anthracene	(6)	21.957	278	1569192	11.763
226) Benzo(g,h,i)perylene	(6)	22.326	276	1469717	10.725

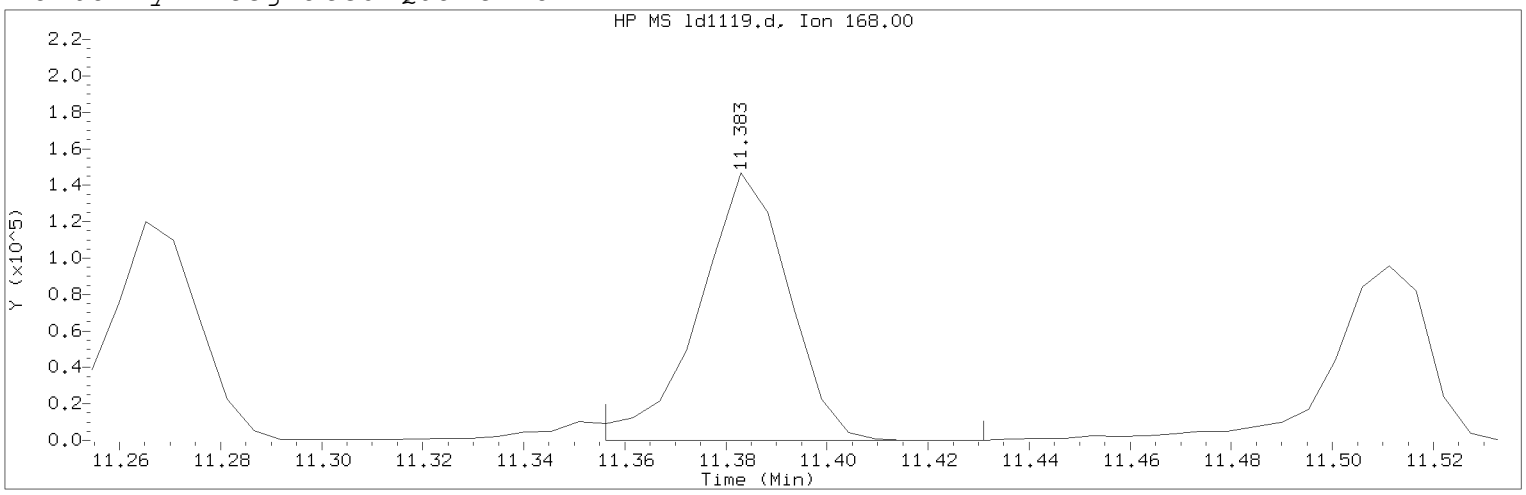
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

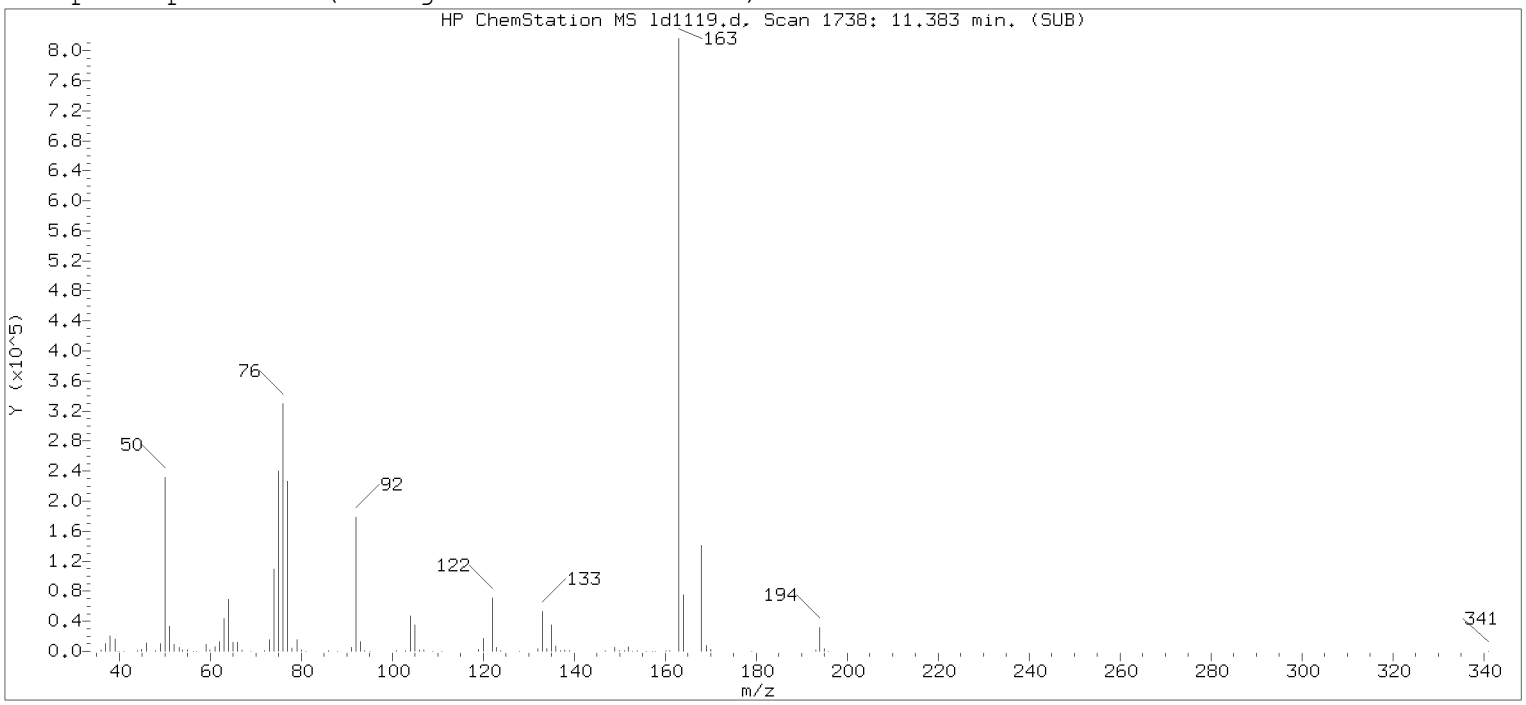
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1738
Retention Time (minutes) : 11.383
Quant Ion : 168.00
Area (flag) : 178765A
On-Column Amount (ng/ul) : 12.2133
Integration start scan : 1732 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

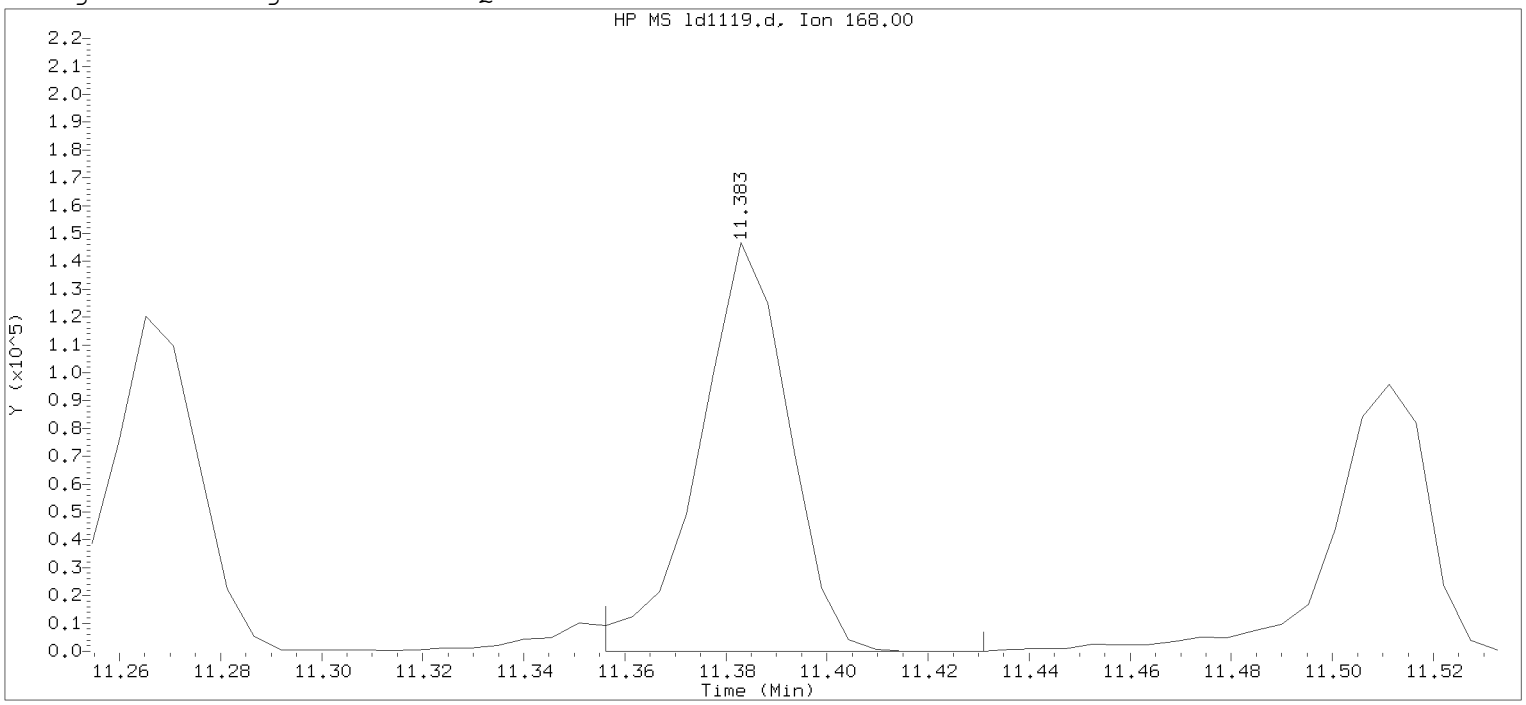
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

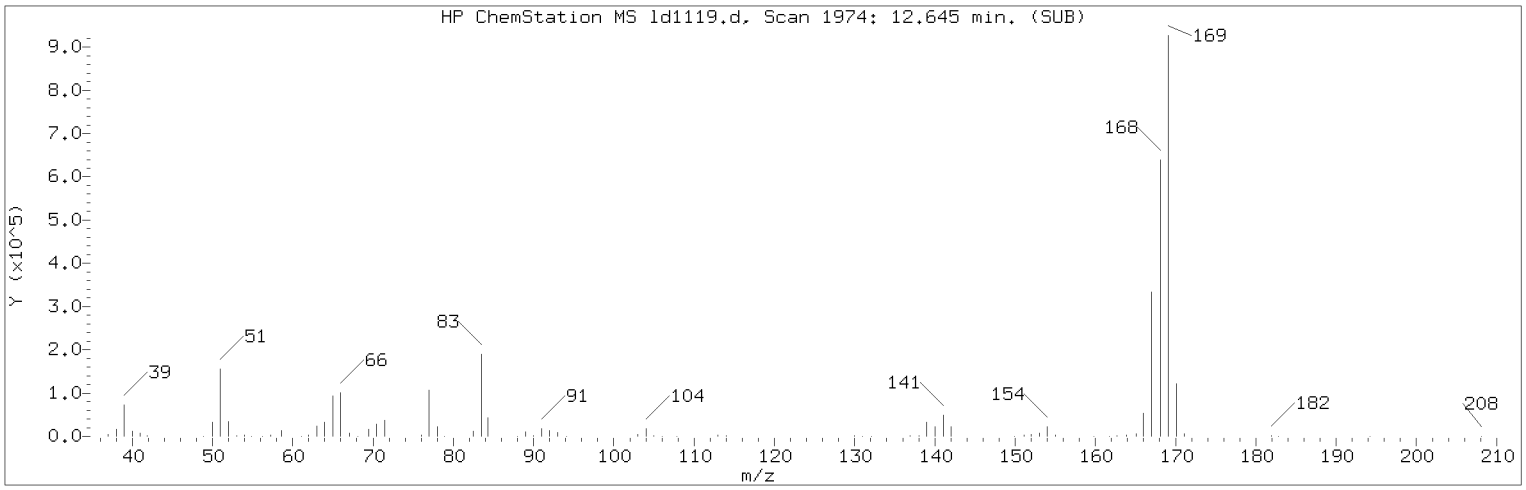
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 05:51 chemist

Sample Name: F3504MS Lab Sample ID: 1034105

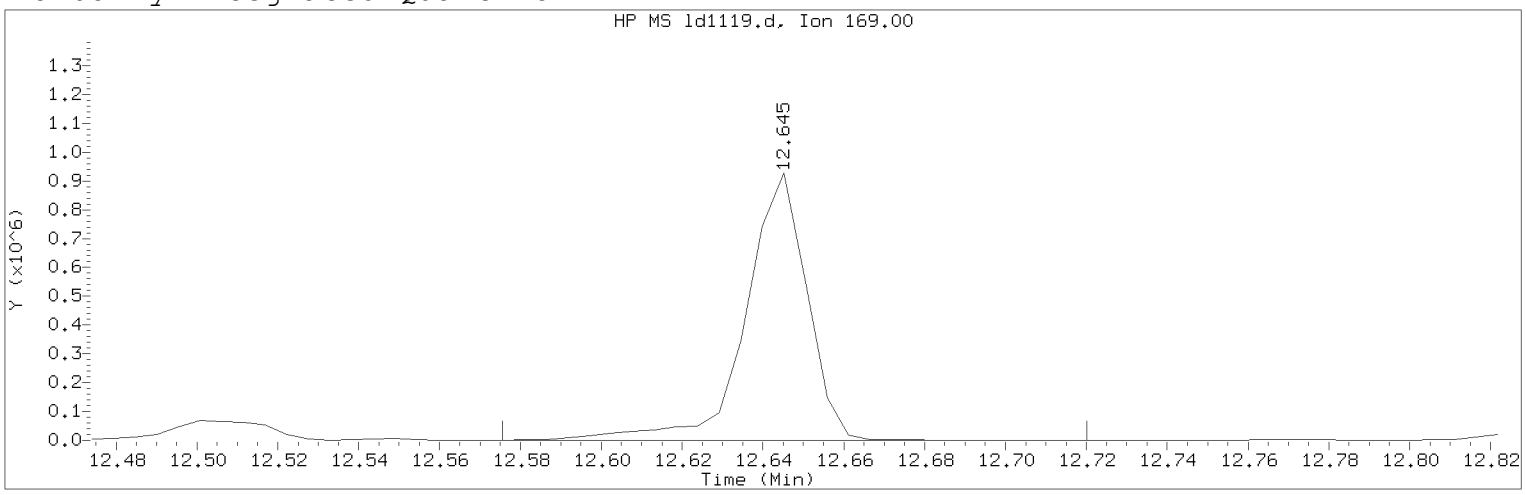
Compound Number : 111
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1738
Retention Time (minutes) : 11.383
Quant Ion : 168.00
Area : 178765
On-column Amount (ng/ul) : 12.3044
Integration start scan : 1732 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Digitally signed by William H Saadeh on 04/23/2019 at 17:07.
Target 3.5 esignature used. F35 Page 2160

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

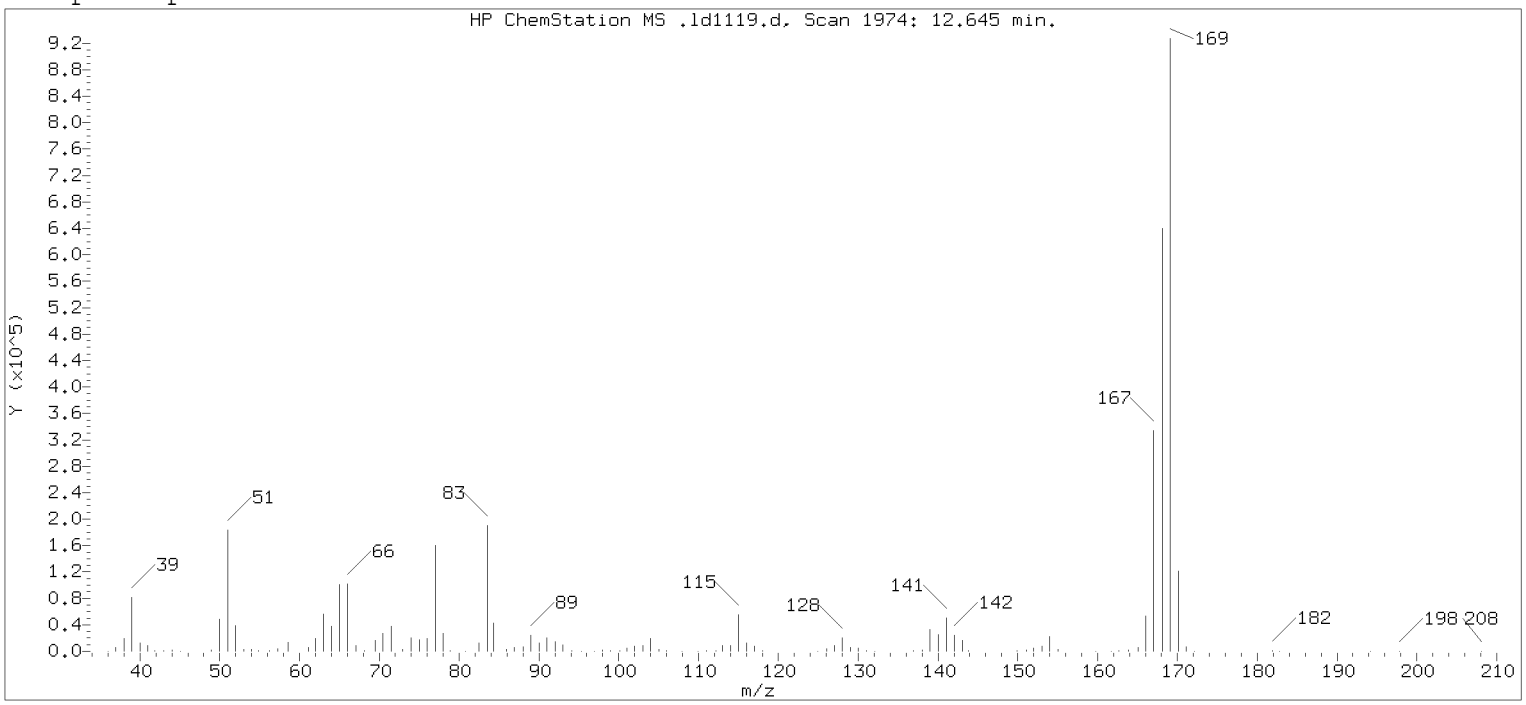
Compound Number : 137
Compound Name : NDPA as diphenylamine
Scan Number : 1974
Retention Time (minutes) : 12.645
Quant Ion : 169.00
Area (flag) : 972202M
On-Column Amount (ng/ul) : 12.8380
Integration start scan : 1960 Integration stop scan: 1987
Y at integration start : 642 Y at integration end: 452

Reason for manual integration: missed peak

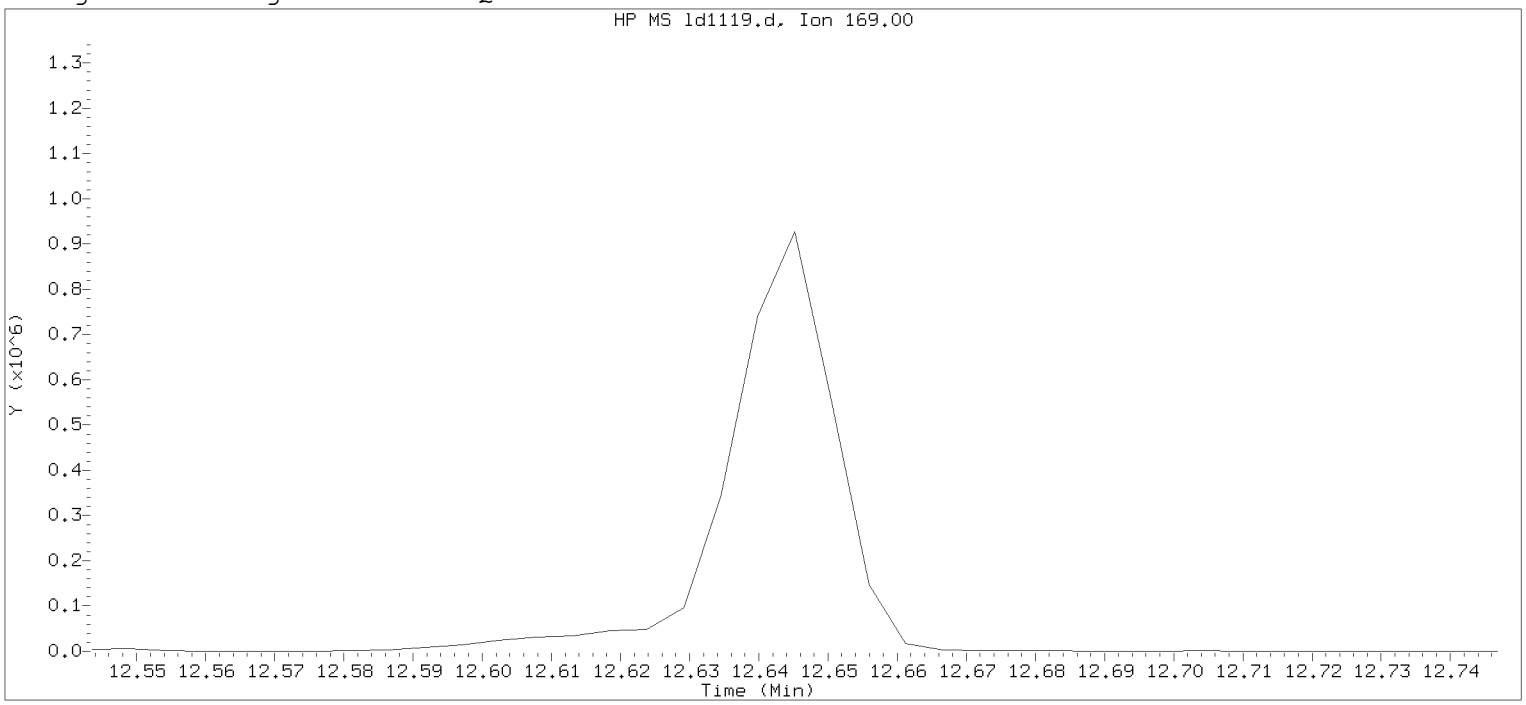
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

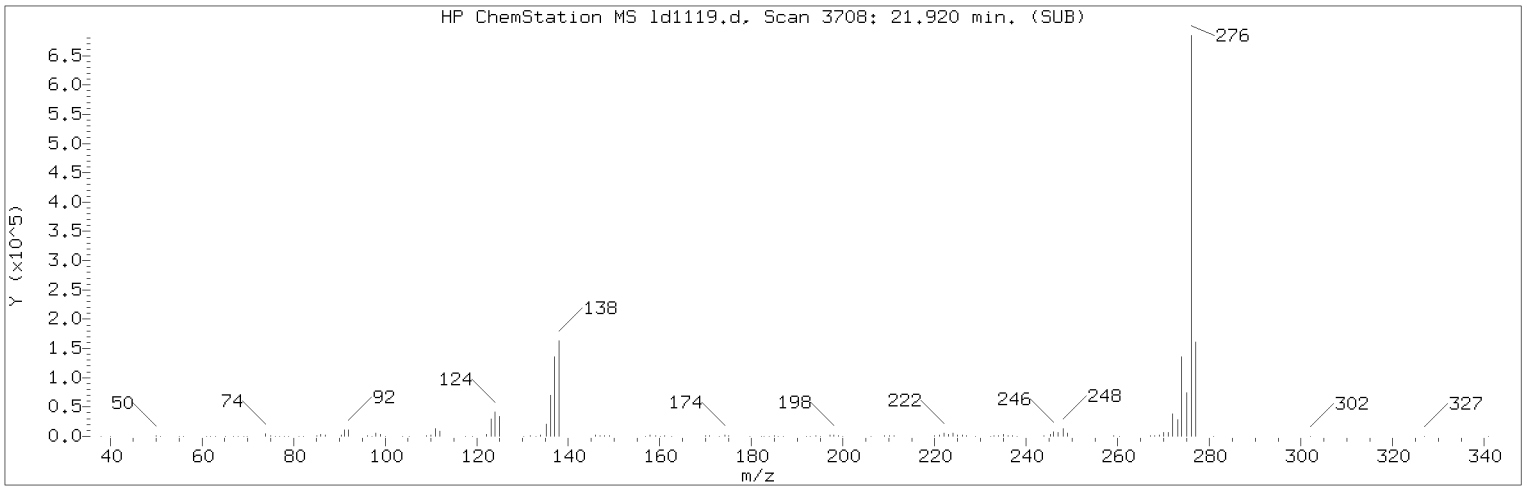
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 05:51 chemist

Sample Name: F3504MS Lab Sample ID: 1034105

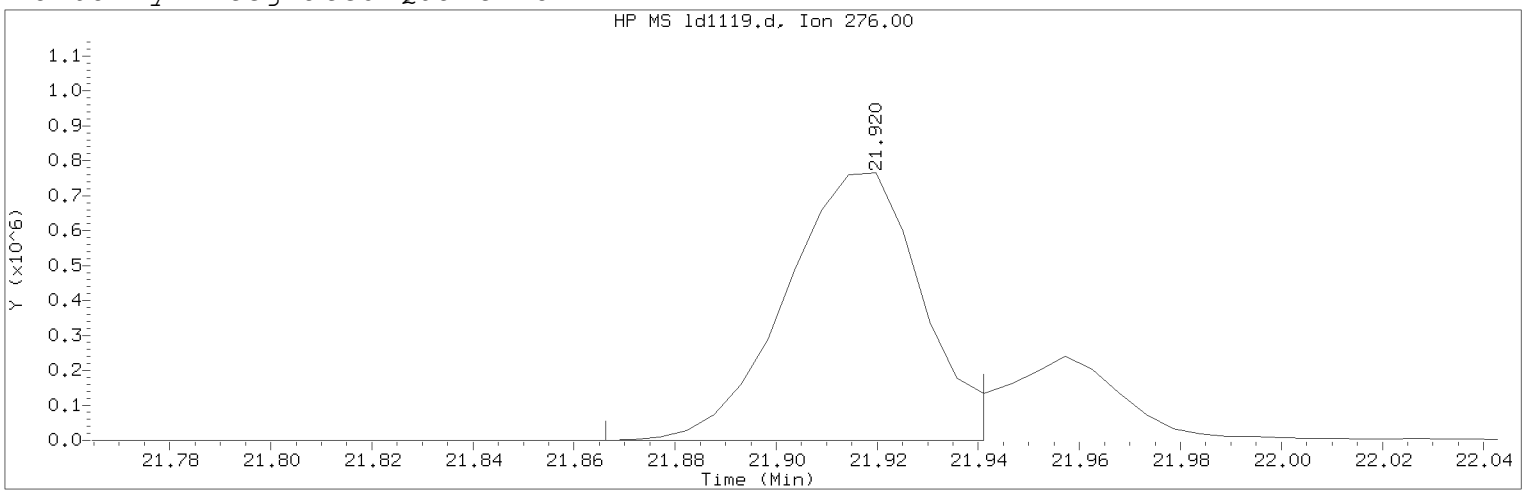
Compound Number : 137
Compound Name : NDPA as diphenylamine
Expected RT (minutes) : 12.645
Quant Ion : 169.00

Digitally signed by William H Saadeh on 04/23/2019 at 17:07.
Target 3.5 esignature used for F35 Page 2162

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 23-Apr-2019 17:05 whs02991

Sample Name: F3504MS Lab Sample ID: 1034105

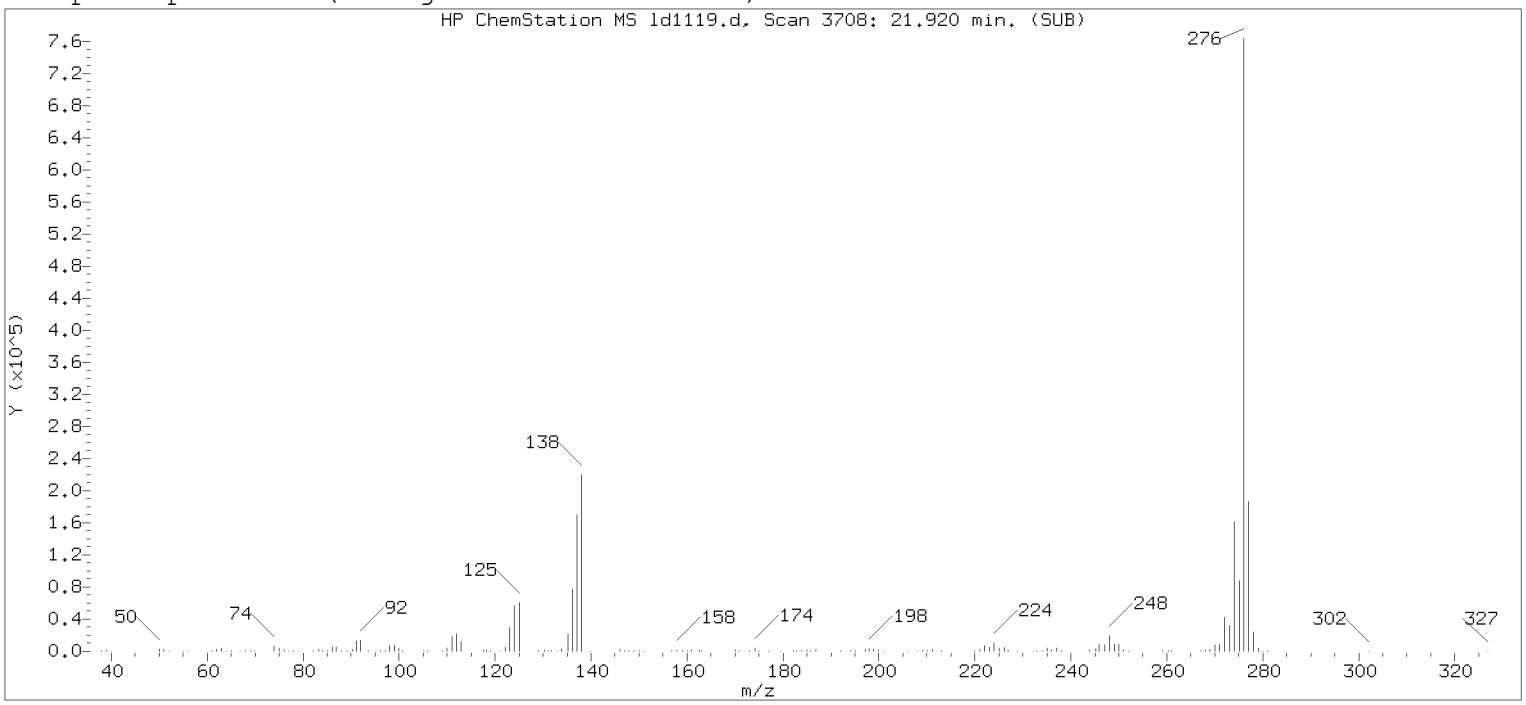
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3708
Retention Time (minutes) : 21.920
Quant Ion : 276.00
Area (flag) : 1438986M
On-Column Amount (ng/ul) : 11.0971
Integration start scan : 3697 Integration stop scan: 3711
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

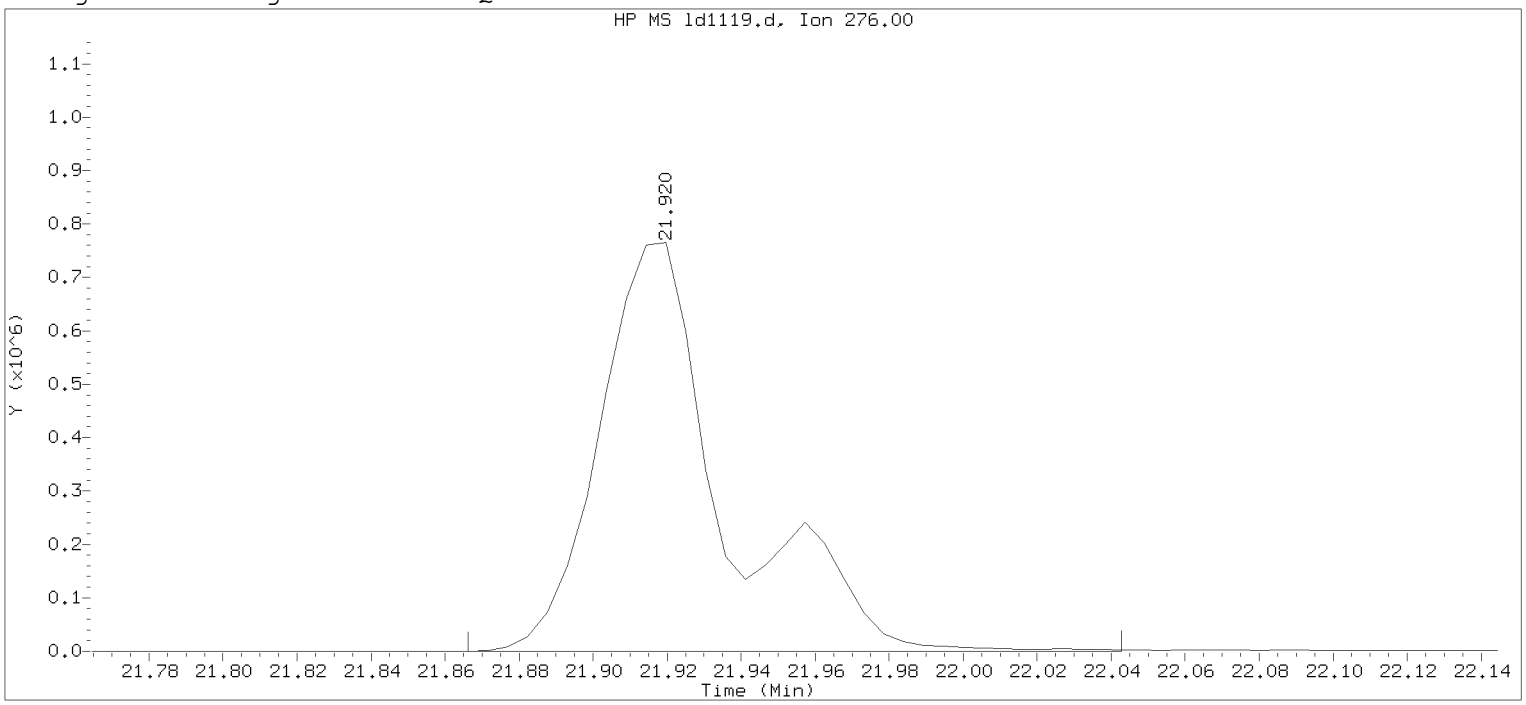
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/23/2019 at 17:07.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 09:15.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1119.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:20 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 05:51 chemist

Sample Name: F3504MS Lab Sample ID: 1034105

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3708		
Retention Time (minutes)	: 21.920		
Quant Ion	: 276.00		
Area	: 1799269		
On-column Amount (ng/ul)	: 13.8755		
Integration start scan	: 3697	Integration stop scan:	3730
Y at integration start	: 0	Y at integration end:	0

Digitally signed by William H Saadeh on 04/23/2019 at 17:07.
Target 3.5 esignature user: F35 Page 2164

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr18a.b/ld1120.d
Injection date and time: **19-APR-2019 05:49**
Data file Sample Info. Line: F3504MSD;1034106;1;3;MSD;;RAAP;
Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.927(-0.005)	905	152	175373 (-11)	5.00	
68) Naphthalene-d8	8.906(0.000)	1275	136	669445 (-13)	5.00	
118) Acenaphthene-d10	11.736(0.000)	1804	164	318855 (-13)	5.00	
158) Phenanthrene-d10	13.661(0.000)	2164	188	575292 (-15)	5.00	
180) Pyrene-d10	15.704(-0.005)	2546	212	587058 (-14)	5.00	
218) Perylene-d12	20.272(0.000)	3400	264	563839 (-12)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
12) 2-Fluorophenol	(1)	5.023(-0.003)	112	892272	15.844	32%		10 - 84
18) Phenol-d6	(1)	6.403(-0.001)	99	1614394	21.605	43%		10 - 67
45) Nitrobenzene-d5	(2)	7.772(0.000)	82	1443610	21.739	87%		35 - 107
96) 2-Fluorobiphenyl	(3)	10.693(0.000)	172	2066020	20.187	81%		44 - 102
140) 2,4,6-Tribromophenol	(3)	12.773(0.000)	330	65539	5.082	10%	*	23 - 135
184) Terphenyl-d14	(5)	16.020(0.000)	244	1534324	15.999	64%		33 - 126

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)	2.926(-0.004)	74	309253	7.745	30.98			0.5
6) Pyridine	(1)	2.969(-0.005)	79	447480	6.345	25.38			0.5
8) 2-Picoline	(1)	4.119(-0.002)	93	656758	9.340	37.36			0.5
9) N-Nitrosomethylethylamine	(1)			Not Detected					0.5
10) Methyl methanesulfonate	(1)			Not Detected					0.3
14) N-Nitrosodiethylamine	(1)			Not Detected					0.1
16) Ethyl methanesulfonate	(1)			Not Detected					0.1
19) Phenol	(1)	6.419(-0.000)	94	549651	6.250	25.00			0.2
20) Aniline	(1)	6.430(-0.000)	93	885535	8.678	34.71			0.8
23) bis(2-Chloroethyl)ether	(1)	6.553(-0.000)	93	704933	10.764	43.05			0.1
24) 2-Chlorophenol	(1)	6.606(-0.000)	128	402159	7.543	30.17			0.2
28) Benzyl alcohol	(1)	7.146(0.000)	108	411360	11.390	45.56			3
32) 2-Methylphenol	(1)	7.334(0.000)	108	533833	9.821	39.28			0.2
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382(-0.000)	45	880700	10.640	42.56			0.1
35) bis(2-Chloroisopropyl)ether	(1)	7.382(-0.000)	45	880700	10.640	42.56			0.1
36) N-Nitrosopyrrolidine	(1)			Not Detected					0.1
37) Acetophenone	(1)	7.548(0.000)	105	967088	11.495	45.98			1
38) 4-Methylphenol	(1)	7.574(0.000)	108	581615	9.514	38.06			0.6
39) N-Nitroso-di-n-propylamine	(1)	7.569(0.000)	70	556135	11.685	46.74			0.2
40) N-Nitrosomorpholine	(1)	7.569(0.001)	56	34864	1.000	4.00		J	0.5
41) o-Toluidine	(1)	7.601(0.000)	106	991821	10.440	41.76			1
46) Nitrobenzene	(2)	7.804(-0.000)	77	799319	11.426	45.70			0.1
50) N-Nitrosopiperidine	(2)			Not Detected					0.1
52) Isophorone	(2)	8.190(0.000)	82	1455161	11.938	47.75			0.1
53) 2-Nitrophenol	(2)	8.302(0.000)	139	278356	11.209	44.84			0.8
55) 2,4-Dimethylphenol	(2)	8.409(0.000)	107	532051	9.183	36.73			0.8

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09. Target 3.5 esignature user ID: art12405

Data file: /chem/HP20296.i/19apr18a.b/ld1120.d Injection date and time: **19-APR-2019 05:49**
Data file Sample Info. Line: F3504MSD;1034106;1;3;MSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
59) O,O,O-Triethylphosphorothioate	(2)			Not Detected					0.5
57) bis(2-Chloroethoxy)methane	(2)	8.564(0.000)	93	914008	11.867	47.47			0.1
62) 2,4-Dichlorophenol	(2)	8.687(0.000)	162	274342	6.684	26.74			0.4
67) a,a-Dimethylphenethylamine	(2)			Not Detected					1
70) 4-Chloroaniline	(2)	9.040(0.000)	127	655649	10.454	41.82			1
71) 2,6-Dichlorophenol	(2)			Not Detected					0.1
72) Hexachloropropene	(2)			Not Detected					0.5
80) N-Nitrosodi-n-butylamine	(2)			Not Detected					3
84) 1,4-Phenylenediamine	(2)			Not Detected					19
83) 4-Chloro-3-methylphenol	(2)	9.853(-0.000)	107	555982	11.016	44.06			0.3
85) Safrole	(2)			Not Detected					0.5
86) 2-Methylnaphthalene	(2)	10.067(-0.000)	142	992991	10.519	42.08			0.07
88) Hexachlorocyclopentadiene	(3)	10.340(0.000)	237	279437	10.910	43.64			1
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340(0.000)	216	420546	9.483	37.93			0.5
91) cis-Isosafrole	(3)			Not Detected					0.3
93) 2,4,6-Trichlorophenol	(3)	10.538(-0.000)	196	79881	2.762	11.05			0.2
95) 2,4,5-Trichlorophenol	(3)	10.586(0.000)	196	220545	7.260	29.04			0.2
97) trans-Isosafrole	(3)			Not Detected					0.3
100) Isosafrole	(3)			Not Detected					1
99) 2-Chloronaphthalene	(3)	10.853(0.000)	162	983195	10.468	41.87			0.1
104) 2-Nitroaniline	(3)	11.030(0.000)	138	339800	12.335	49.34			0.5
108) 1,4-Naphthoquinone	(3)			Not Detected					6
110) Dimethylphthalate	(3)	11.377(0.000)	163	1122383	11.642	46.57			0.5
111) 1,3-Dinitrobenzene	(3)	11.383(0.000)	168	175010	11.924	47.69			0.5
113) 2,6-Dinitrotoluene	(3)	11.447(0.000)	165	252237	12.005	48.02			0.1
114) Acenaphthylene	(3)	11.522(-0.000)	152	1495969	11.866	47.46			0.1
117) 3-Nitroaniline	(3)	11.688(-0.000)	138	271835	11.303	45.21			0.8
119) Acenaphthene	(3)	11.784(-0.000)	153	1053956	11.120	44.48			0.09
120) 2,4-Dinitrophenol	(3)	11.843(-0.000)	184	254051	20.839	83.36			4
121) 4-Nitrophenol	(3)	11.955(-0.000)	109	125711	7.005	28.02		J	3
122) Pentachlorobenzene	(3)			Not Detected					0.1
123) 2,4-Dinitrotoluene	(3)	12.030(-0.000)	165	347316A	12.173	48.69			0.3
124) Dibenzofuran	(3)	12.030(-0.000)	168	1394618	11.283	45.13			0.1
126) 1-Naphthylamine	(3)	12.137(-0.000)	143	1652726	18.244	72.97			2
127) 2,3,4,6-Tetrachlorophenol	(3)	12.206(-0.000)	232	51873	2.325	9.30		J	1
128) 2-Naphthylamine	(3)	12.244(-0.000)	143	1426783	16.218	64.87			2
129) Diethylphthalate	(3)	12.388(-0.000)	149	1110017	11.498	45.99			0.5
130) Thionazin	(3)			Not Detected					0.5
131) Fluorene	(3)	12.474(-0.000)	166	1100804A	11.111	44.44			0.1
132) 4-Chlorophenyl-phenylether	(3)	12.500(-0.000)	204	513022	11.007	44.03			0.1
133) 5-Nitro-o-toluidine	(3)			Not Detected					1
134) 4-Nitroaniline	(3)	12.500(-0.000)	138	286694	11.242	44.97			0.2
135) 4,6-Dinitro-2-methylphenol	(4)	12.549(0.000)	198	172132	11.179	44.72			2
136) N-Nitrosodiphenylamine	(4)	12.645(0.000)	169	926806	12.043	48.17			0.2
137) NDPA as diphenylamine	(4)	12.645(0.000)	169	914326M	11.881	47.52			0.2
144) 1,3,5-Trinitrobenzene	(4)			Not Detected					24
145) Diallate (peak 1)	(4)			Not Detected					0.06
146) Phorate	(4)			Not Detected					0.1
147) Phenacetin	(4)			Not Detected					0.1
148) 4-Bromophenyl-phenylether	(4)	13.110(0.000)	248	271211	10.869	43.48			0.1
149) Diallate (peak 2)	(4)			Not Detected					0.06
151) Diallate trans/cis	(4)			Not Detected					0.3
150) Hexachlorobenzene	(4)	13.164(0.000)	284	306443	11.004	44.02			0.2
152) Dimethoate	(4)			Not Detected					0.8

A = User selected an alternate peak. M = Compound was manually integrated.

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09. Target 3.5 esignature user ID: art12405

Data file: /chem/HP20296.i/19apr18a.b/ld1120.d Injection date and time: **19-APR-2019 05:49**
Data file Sample Info. Line: F3504MSD;1034106;1;3;MSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
154) Pentachlorophenol	(4)	13.420(0.000)	266	54323	3.076	12.30			0.7
155) 4-Aminobiphenyl	(4)			Not Detected					1
156) Pentachloronitrobenzene	(4)			Not Detected					0.5
157) Pronamide	(4)			Not Detected					0.1
160) Phenanthrene	(4)	13.693(-0.000)	178	1583271	11.384	45.54			0.1
162) Anthracene	(4)	13.763(-0.000)	178	1591208	11.467	45.87			0.1
167) Disulfoton	(4)			Not Detected					6
169) Methyl parathion	(4)			Not Detected					0.3
170) Di-n-butylphthalate	(4)	14.512(-0.000)	149	2072491	12.354	49.41			0.5
172) Parathion	(4)			Not Detected					1
173) 4-Nitroquinoline-1-oxide	(4)			Not Detected					5
175) Methapyrilene	(4)			Not Detected					4
176) Isodrin	(4)			Not Detected					0.1
178) Fluoranthene	(4)	15.383(-0.000)	202	1731378	11.965	47.86			0.1
182) Pyrene	(5)	15.731(0.000)	202	1795177	11.288	45.15			0.1
185) Aramite (1)	(5)			Not Detected					0.3
186) Aramite (2)	(5)			Not Detected					0.3
188) Aramite (3)	(5)			Not Detected					0.3
189) Aramite (4)	(5)			Not Detected					0.3
191) Aramite	(5)			Not Detected					1
187) p-Dimethylaminoazobenzene	(5)			Not Detected					1
190) Chlorobenzilate	(5)			Not Detected					0.8
192) 3,3'-Dimethylbenzidine	(5)	16.822(0.000)	212	1356188A	13.072	52.29		J	6
193) Butylbenzylphthalate	(5)	16.886(0.000)	149	925027	11.778	47.11			0.5
194) Famphur	(5)			Not Detected					6
195) Kepone	(5)			Not Detected					6
196) 2-Acetylaminofluorene	(5)			Not Detected					3
198) 3,3'-Dichlorobenzidine	(5)	17.764(0.000)	252	585504	10.841	43.36			0.8
200) Benzo(a)anthracene	(5)	17.774(0.000)	228	1654797	11.559	46.24			0.1
201) Chrysene	(5)	17.838(0.000)	228	1592497	11.456	45.83			0.08
204) bis(2-Ethylhexyl)phthalate	(5)	17.972(0.000)	149	1364934	11.943	47.77			1
210) Di-n-octylphthalate	(6)	19.149(0.000)	149	2361119	12.067	48.27			1
211) Benzo(b)fluoranthene	(6)	19.652(0.000)	252	1659273	11.589	46.36			0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.662(-0.000)	256	697544	11.711	46.84			1
213) Benzo(k)fluoranthene	(6)	19.705(-0.000)	252	1603254	11.669	46.68			0.4
216) Benzo(a)pyrene	(6)	20.186(-0.000)	252	1489928	11.446	45.79			0.4
220) 3-Methylcholanthrene	(6)			Not Detected					1
224) Indeno(1,2,3-cd)pyrene	(6)	21.914(-0.000)	276	1385114M	10.879	43.52			0.04
225) Dibenz(a,h)anthracene	(6)	21.957(-0.000)	278	1490303	11.378	45.51			0.1
226) Benzo(g,h,i)perylene	(6)	22.326(-0.000)	276	1413908	10.508	42.03			0.1

A = User selected an alternate peak. M = Compound was manually integrated.

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09. Target 3.5 esignature user ID: art12405

Data file: /chem/HP20296.i/19apr18a.b/ld1120.d Injection date and time: **19-APR-2019 05:49**
Data file Sample Info. Line: F3504MSD;1034106;1;3;MSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090M**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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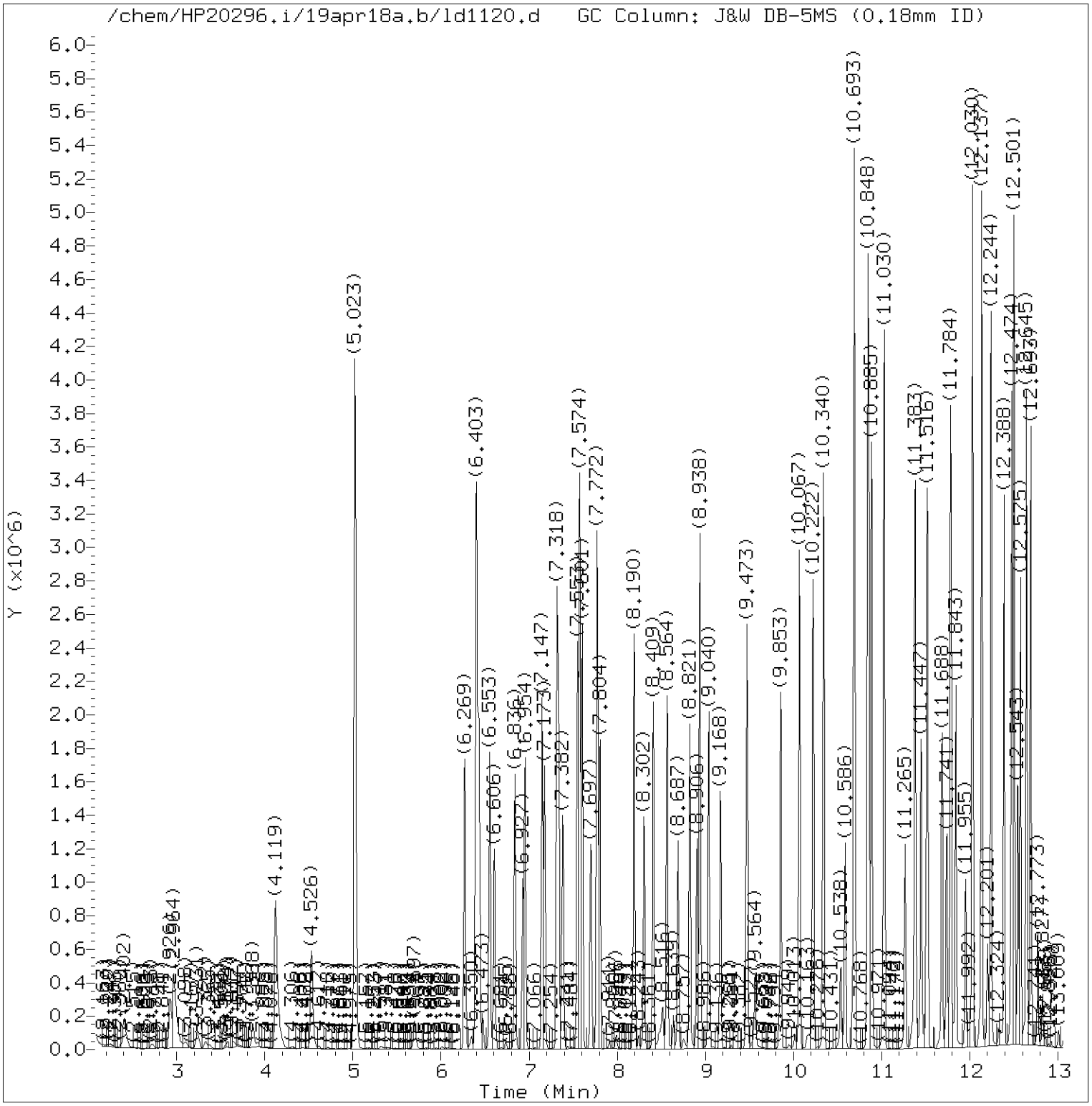
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 120

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09. Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

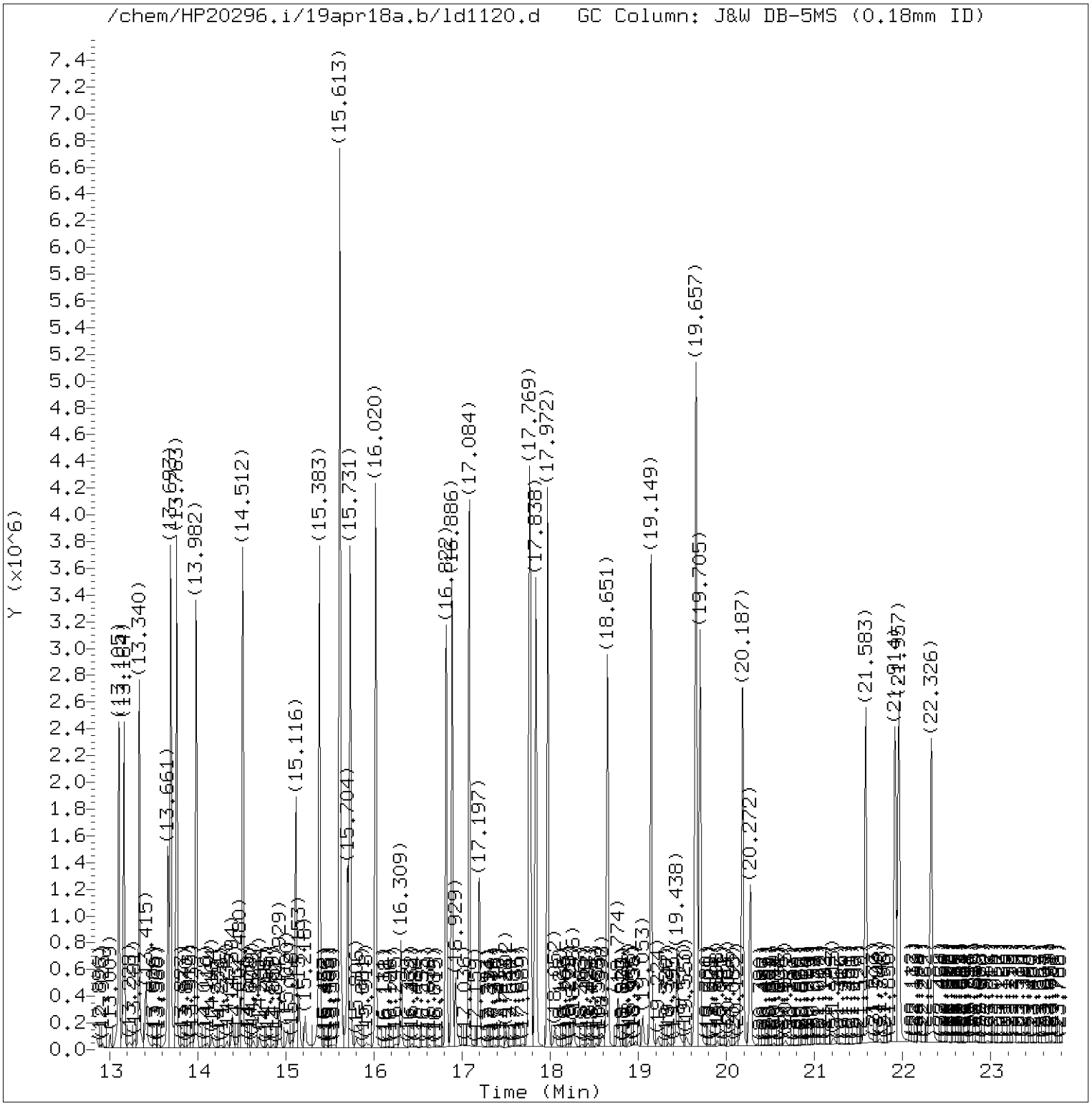
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) N-Nitrosodimethylamine	(1)	2.926	74	309253	7.745
6) Pyridine	(1)	2.969	79	447480	6.345
8) 2-Picoline	(1)	4.119	93	656758	9.340
12)$2-Fluorophenol	(1)	5.023	112	892272	15.844
18)$Phenol-d6	(1)	6.403	99	1614394	21.605
19) Phenol	(1)	6.419	94	549651	6.250
20) Aniline	(1)	6.430	93	885535	8.678
23) bis(2-Chloroethyl)ether	(1)	6.553	93	704933	10.764
24) 2-Chlorophenol	(1)	6.606	128	402159	7.543
26)*1,4-Dichlorobenzene-d4	(1)	6.927	152	175373	5.000
28) Benzyl alcohol	(1)	7.147	108	411360	11.390
32) 2-Methylphenol	(1)	7.334	108	533833	9.821
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	880700	10.640
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	880700	10.640
37) Acetophenone	(1)	7.548	105	967088	11.495
39) N-Nitroso-di-n-propylamine	(1)	7.569	70	556135	11.685
40) N-Nitrosomorpholine	(1)	7.569	56	34864	1.000
38) 4-Methylphenol	(1)	7.574	108	581615	9.514
41) o-Toluidine	(1)	7.601	106	991821	10.440
45)$Nitrobenzene-d5	(2)	7.772	82	1443610	21.739
46) Nitrobenzene	(2)	7.804	77	799319	11.426
52) Isophorone	(2)	8.190	82	1455161	11.938
53) 2-Nitrophenol	(2)	8.302	139	278356	11.209
55) 2,4-Dimethylphenol	(2)	8.409	107	532051	9.183
57) bis(2-Chloroethoxy)methane	(2)	8.564	93	914008	11.867
62) 2,4-Dichlorophenol	(2)	8.687	162	274342	6.684
68)*Naphthalene-d8	(2)	8.906	136	669445	5.000
70) 4-Chloroaniline	(2)	9.040	127	655649	10.454
83) 4-Chloro-3-methylphenol	(2)	9.853	107	555982	11.016
86) 2-Methylnaphthalene	(2)	10.067	142	992991	10.519
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	216	420546	9.483
88) Hexachlorocyclopentadiene	(3)	10.340	237	279437	10.910
93) 2,4,6-Trichlorophenol	(3)	10.538	196	79881	2.762
95) 2,4,5-Trichlorophenol	(3)	10.586	196	220545	7.260
96)$2-Fluorobiphenyl	(3)	10.693	172	2066020	20.187
99) 2-Chloronaphthalene	(3)	10.853	162	983195	10.468
104) 2-Nitroaniline	(3)	11.030	138	339800	12.335
110) Dimethylphthalate	(3)	11.377	163	1122383	11.642
111) 1,3-Dinitrobenzene	(3)	11.383	168	175010	11.924
113) 2,6-Dinitrotoluene	(3)	11.447	165	252237	12.005

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
114) Acenaphthylene	(3)	11.522	152	1495969	11.866
117) 3-Nitroaniline	(3)	11.688	138	271835	11.303
118)*Acenaphthene-d10	(3)	11.736	164	318855	5.000
119) Acenaphthene	(3)	11.784	153	1053956	11.120
120) 2,4-Dinitrophenol	(3)	11.843	184	254051	20.839
121) 4-Nitrophenol	(3)	11.955	109	125711	7.005
123) 2,4-Dinitrotoluene	(3)	12.030	165	347316A	12.173
124) Dibenzofuran	(3)	12.030	168	1394618	11.283
126) 1-Naphthylamine	(3)	12.137	143	1652726	18.244
127) 2,3,4,6-Tetrachlorophenol	(3)	12.206	232	51873	2.325
128) 2-Naphthylamine	(3)	12.244	143	1426783	16.218
129) Diethylphthalate	(3)	12.388	149	1110017	11.498
131) Fluorene	(3)	12.474	166	1100804A	11.111
134) 4-Nitroaniline	(3)	12.501	138	286694	11.242
132) 4-Chlorophenyl-phenylether	(3)	12.501	204	513022	11.007
135) 4,6-Dinitro-2-methylphenol	(4)	12.549	198	172132	11.179
137) NDPA as diphenylamine	(4)	12.645	169	914326M	11.881
136) N-Nitrosodiphenylamine	(4)	12.645	169	926806	12.043
140)$2,4,6-Tribromophenol	(3)	12.773	330	65539	5.082
148) 4-Bromophenyl-phenylether	(4)	13.110	248	271211	10.869
150) Hexachlorobenzene	(4)	13.164	284	306443	11.004
154) Pentachlorophenol	(4)	13.421	266	54323	3.076
158)*Phenanthrene-d10	(4)	13.661	188	575292	5.000
160) Phenanthrene	(4)	13.693	178	1583271	11.384
162) Anthracene	(4)	13.763	178	1591208	11.467
170) Di-n-butylphthalate	(4)	14.512	149	2072491	12.354
178) Fluoranthene	(4)	15.383	202	1731378	11.965
180)*Pyrene-d10	(5)	15.704	212	587058	5.000
182) Pyrene	(5)	15.731	202	1795177	11.288
184)$Terphenyl-d14	(5)	16.020	244	1534324	15.999
192) 3,3'-Dimethylbenzidine	(5)	16.822	212	1356188A	13.072
193) Butylbenzylphthalate	(5)	16.886	149	925027	11.778
198) 3,3'-Dichlorobenzidine	(5)	17.764	252	585504	10.841
200) Benzo(a)anthracene	(5)	17.774	228	1654797	11.559
201) Chrysene	(5)	17.838	228	1592497	11.456
204) bis(2-Ethylhexyl)phthalate	(5)	17.972	149	1364934	11.943
210) Di-n-octylphthalate	(6)	19.149	149	2361119	12.067
211) Benzo(b)fluoranthene	(6)	19.652	252	1659273	11.589
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.662	256	697544	11.711
213) Benzo(k)fluoranthene	(6)	19.705	252	1603254	11.669

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

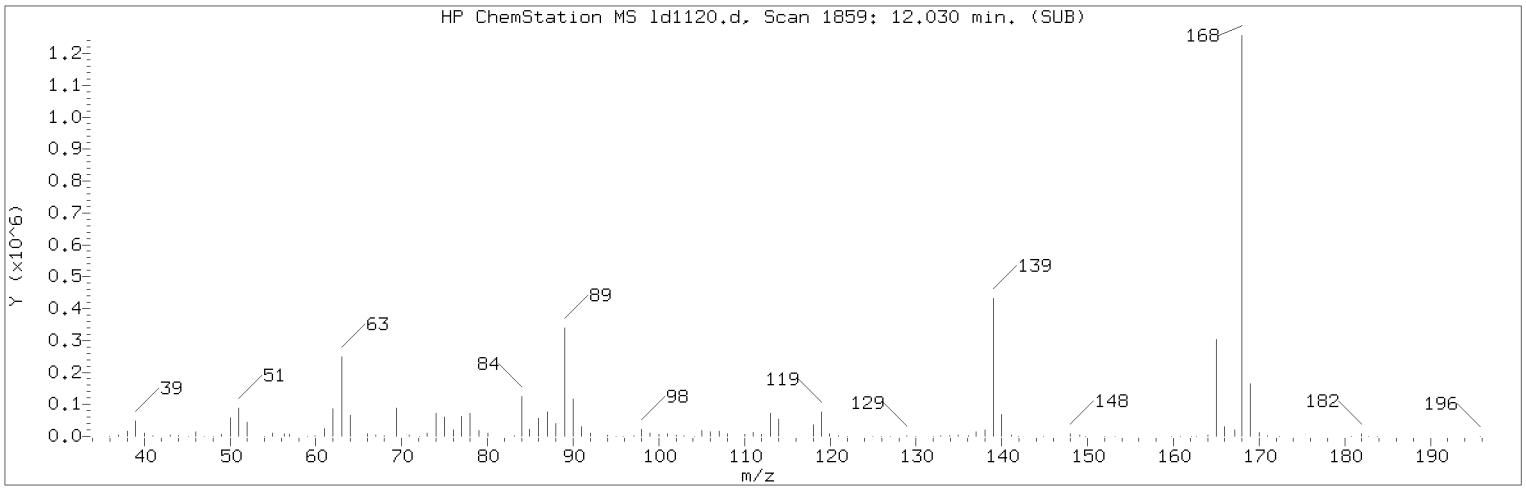
Sample Name: F3504MSD Lab Sample ID: 1034106

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
216) Benzo(a)pyrene	(6)	20.187	252	1489928	11.446
218)*Perylene-d12	(6)	20.272	264	563839	5.000
224) Indeno(1,2,3-cd)pyrene	(6)	21.914	276	1385114M	10.879
225) Dibenz(a,h)anthracene	(6)	21.957	278	1490303	11.378
226) Benzo(g,h,i)perylene	(6)	22.326	276	1413908	10.508

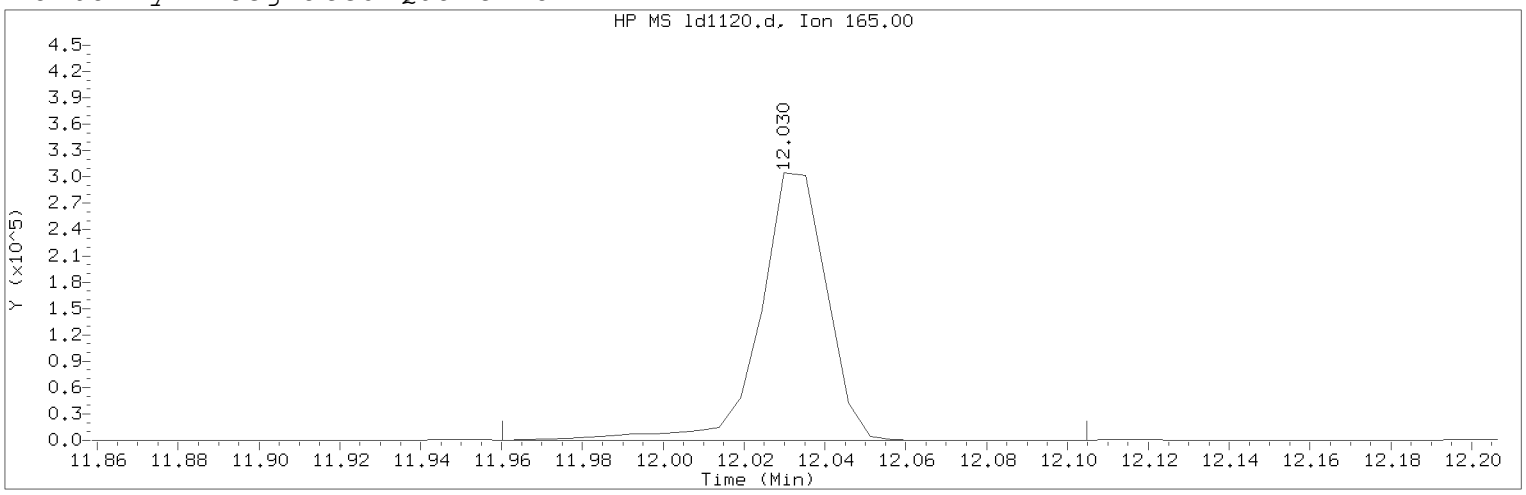
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

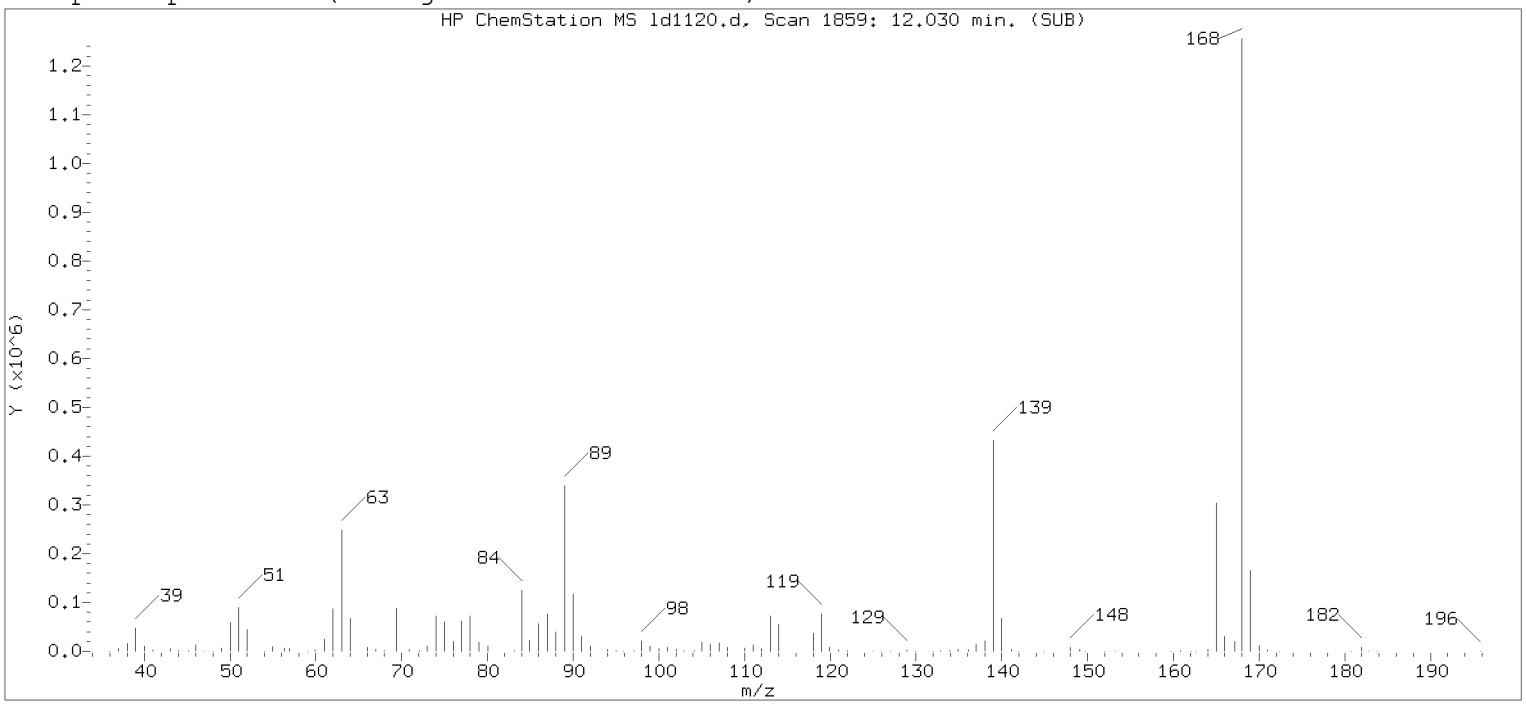
Compound Number : 123
Compound Name : 2,4-Dinitrotoluene
Scan Number : 1859
Retention Time (minutes) : 12.030
Quant Ion : 165.00
Area (flag) : 347316A
On-Column Amount (ng/ul) : 12.1727
Integration start scan : 1845 Integration stop scan: 1872
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

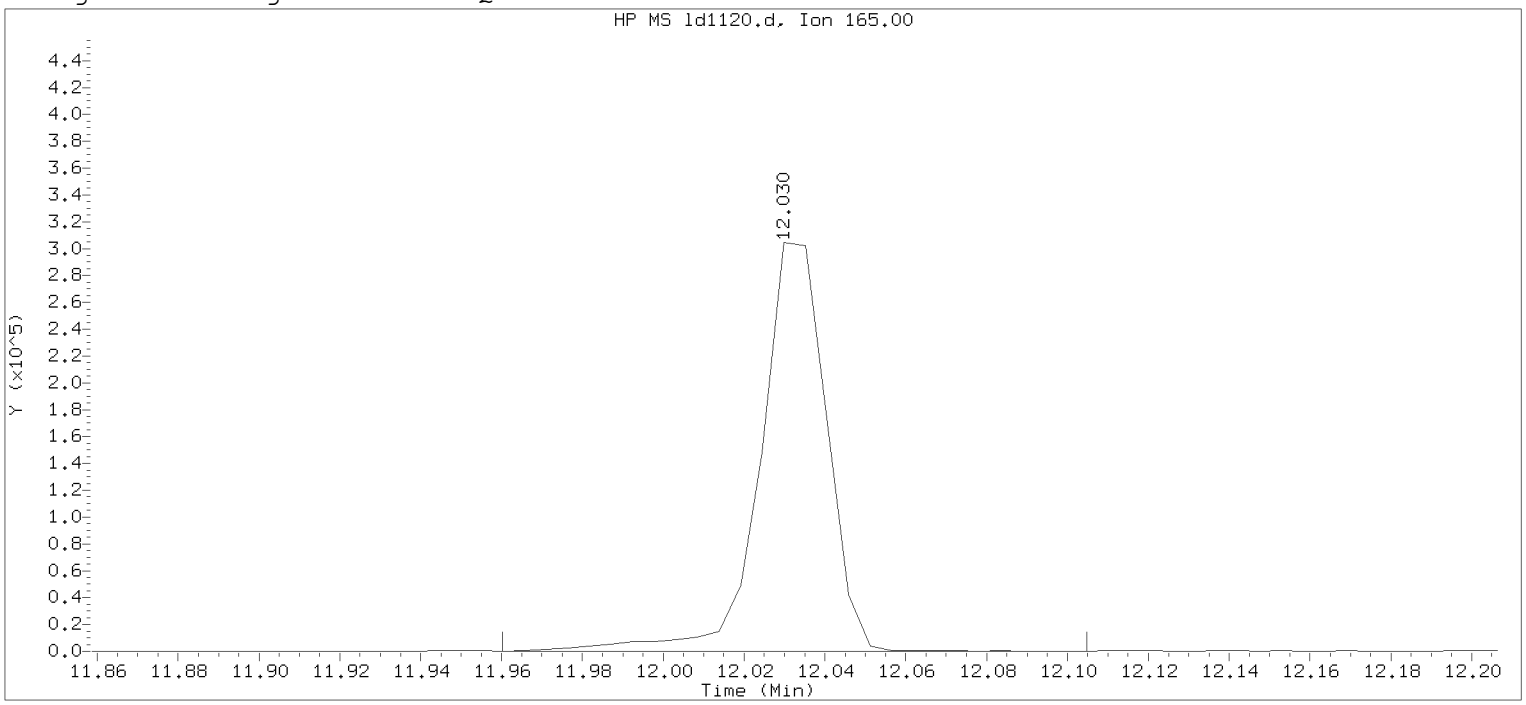
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

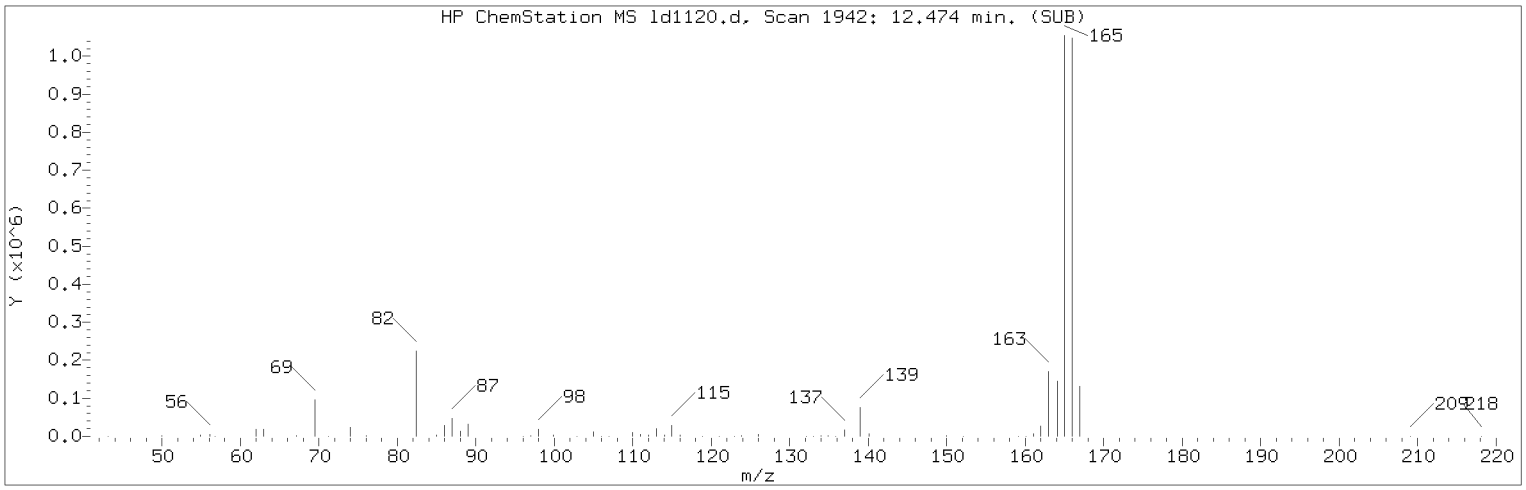
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 06:20 chemist

Sample Name: F3504MSD Lab Sample ID: 1034106

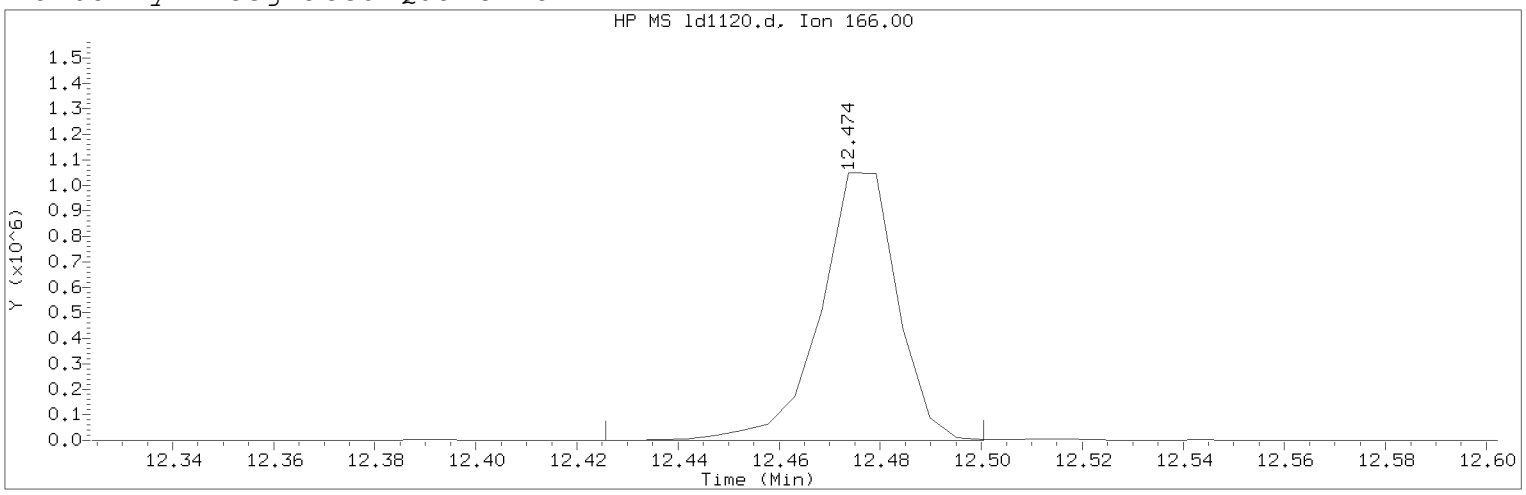
Compound Number	: 123		
Compound Name	: 2,4-Dinitrotoluene		
Scan Number	: 1859		
Retention Time (minutes)	: 12.030		
Quant Ion	: 165.00		
Area	: 347316		
On-column Amount (ng/ul)	: 12.1727		
Integration start scan	: 1845	Integration stop scan:	1872
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09.
Target 3.5 esignature used. F35 Page 2175

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

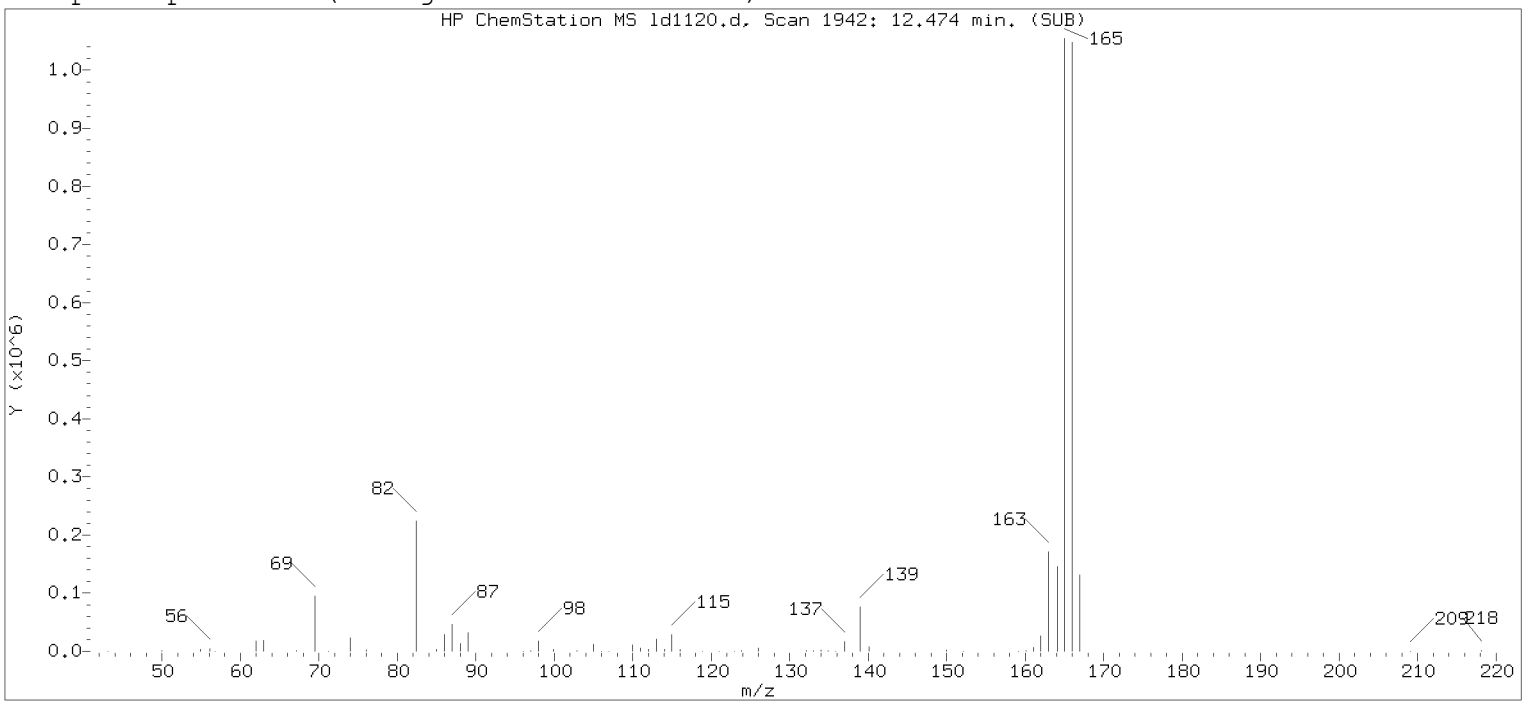
Compound Number : 131
Compound Name : Fluorene
Scan Number : 1942
Retention Time (minutes) : 12.474
Quant Ion : 166.00
Area (flag) : 1100804A
On-Column Amount (ng/ul) : 11.1111
Integration start scan : 1932 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

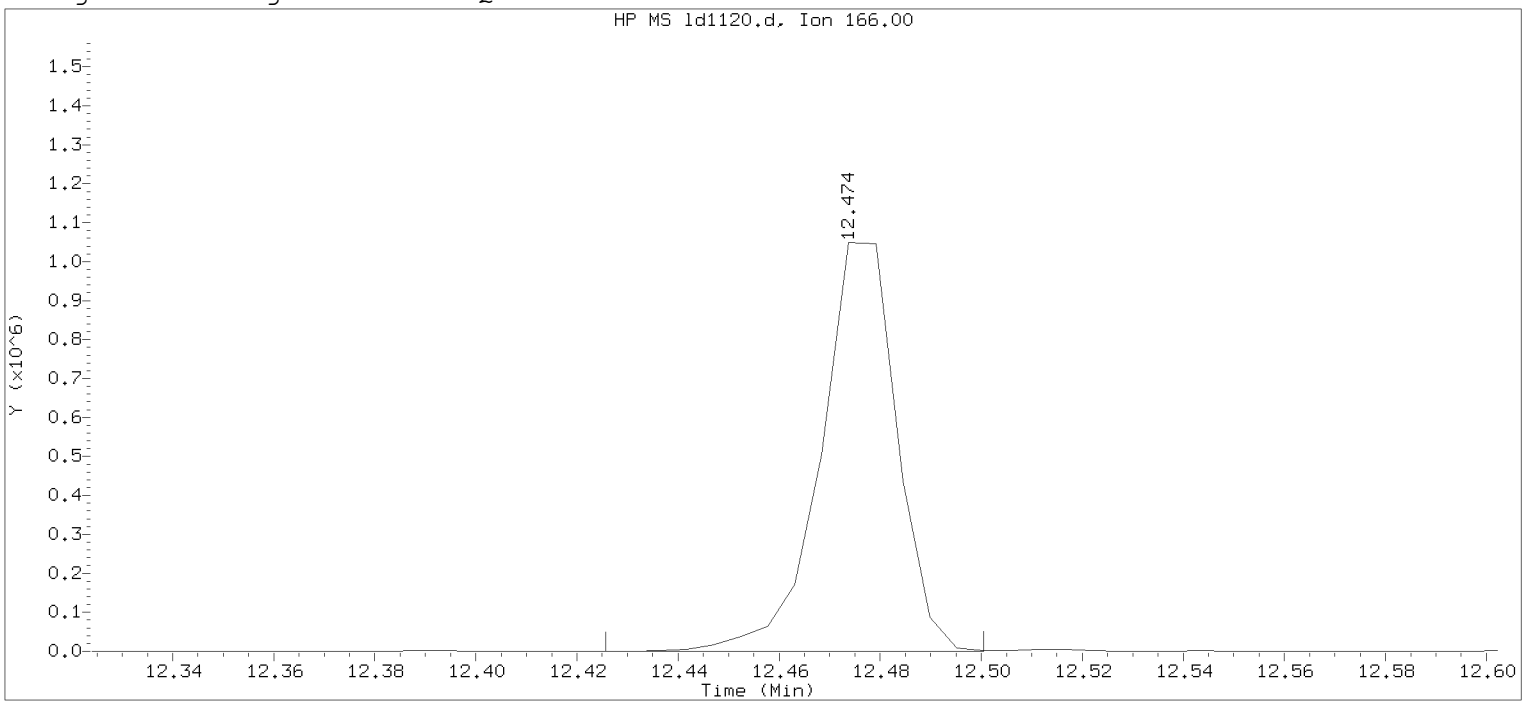
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

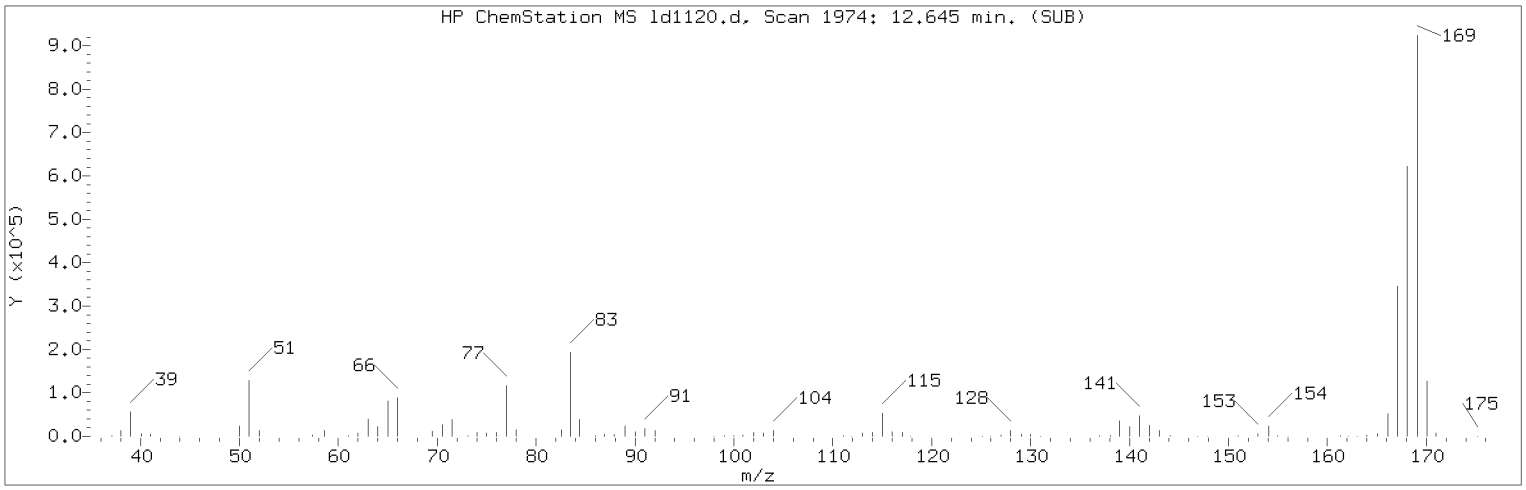
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 06:20 chemist

Sample Name: F3504MSD Lab Sample ID: 1034106

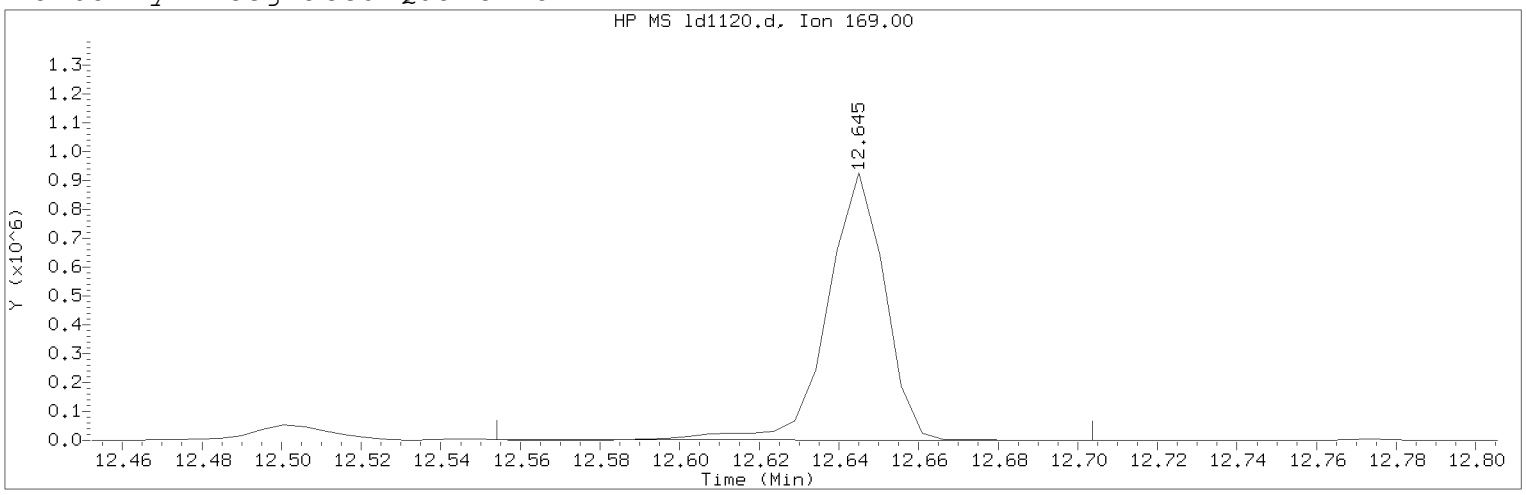
Compound Number	: 131		
Compound Name	: Fluorene		
Scan Number	: 1942		
Retention Time (minutes)	: 12.474		
Quant Ion	: 166.00		
Area	: 1100804		
On-column Amount (ng/ul)	: 11.1111		
Integration start scan	: 1932	Integration stop scan:	1946
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09.
Target 3.5 esignature user: F35 Page 2177

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

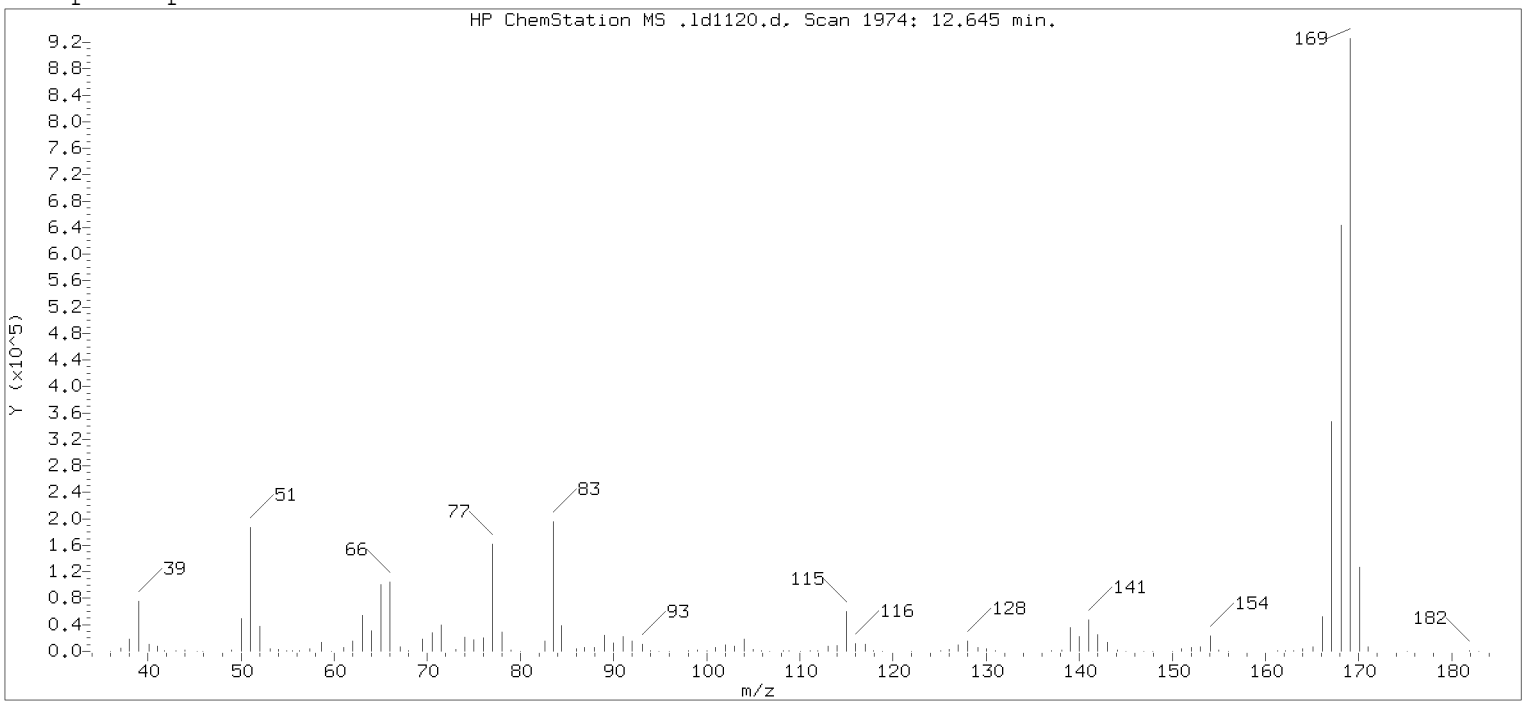
Compound Number : 137
Compound Name : NDPA as diphenylamine
Scan Number : 1974
Retention Time (minutes) : 12.645
Quant Ion : 169.00
Area (flag) : 914326M
On-Column Amount (ng/ul) : 11.8812
Integration start scan : 1956 Integration stop scan: 1984
Y at integration start : 1773 Y at integration end: 1028

Reason for manual integration: missed peak

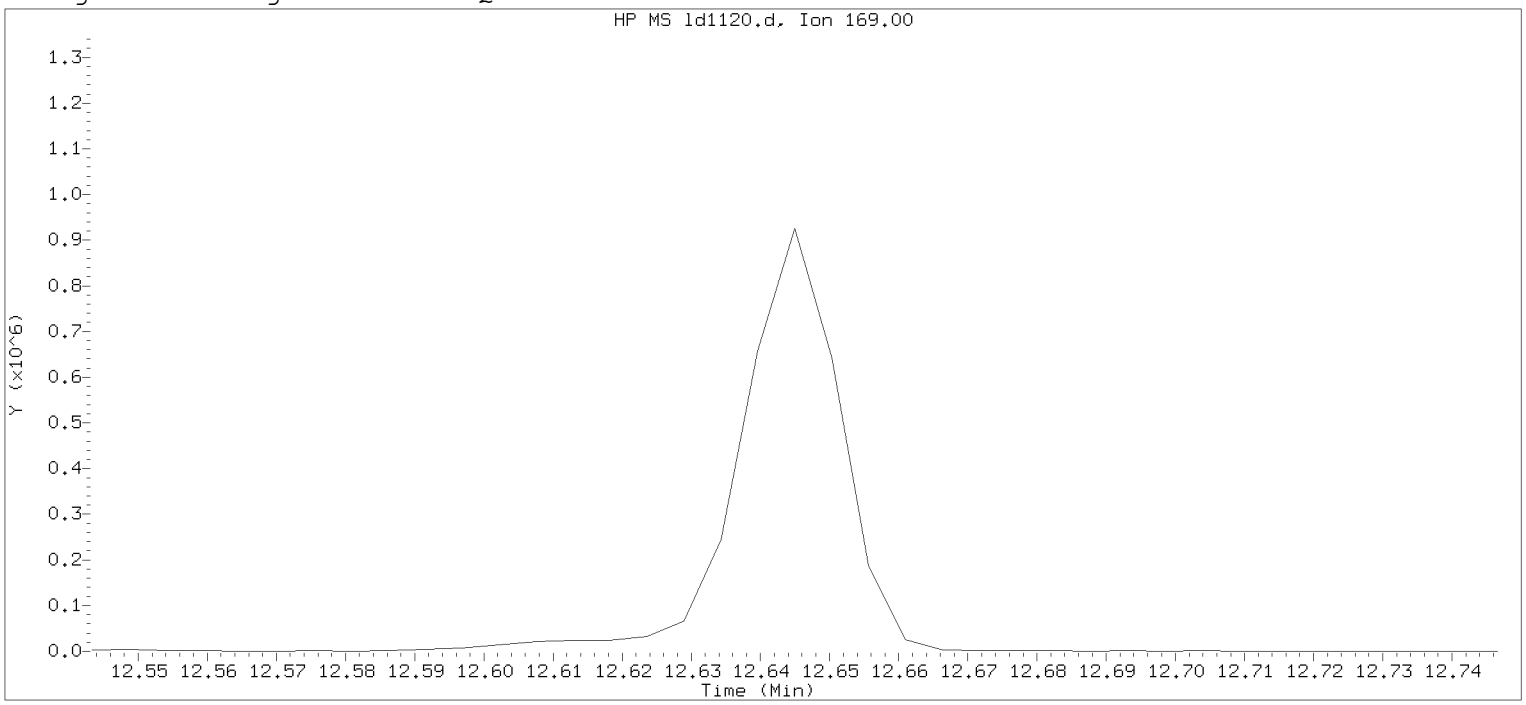
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

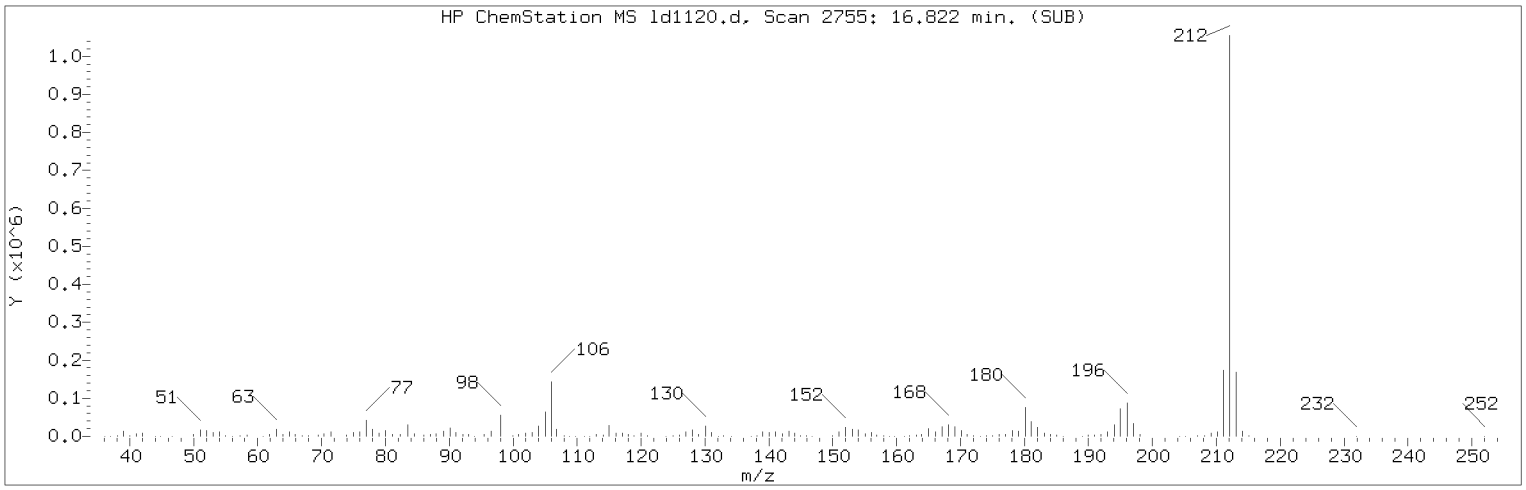
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 06:20 chemist

Sample Name: F3504MSD Lab Sample ID: 1034106

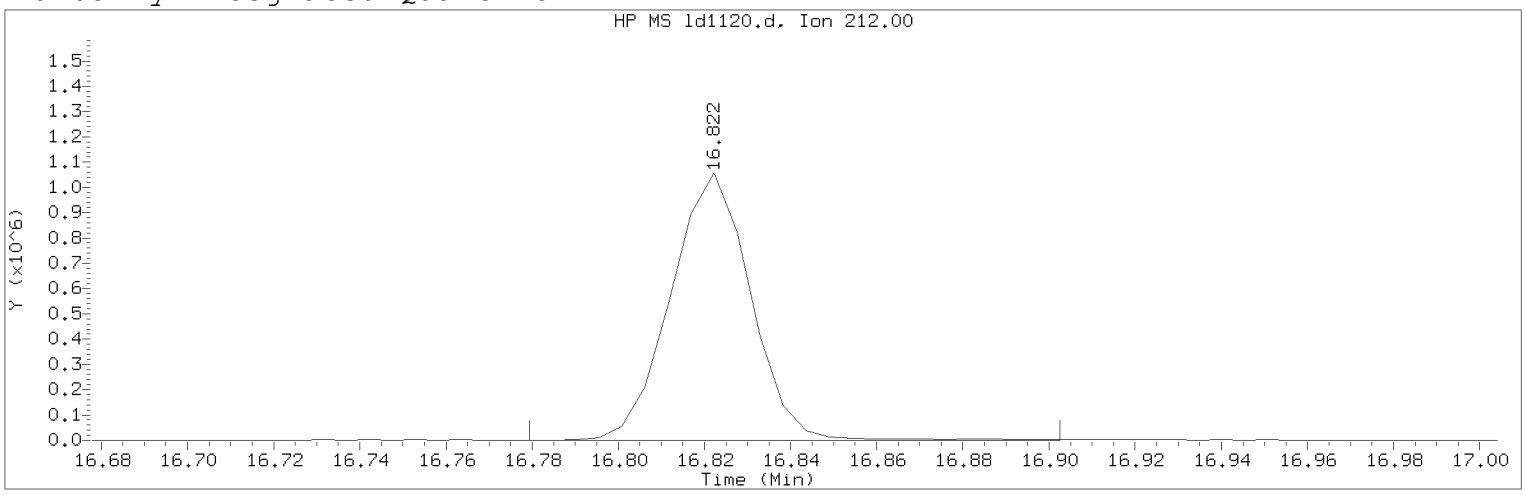
Compound Number : 137
Compound Name : NDPA as diphenylamine
Expected RT (minutes) : 12.645
Quant Ion : 169.00

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09.
Target 3.5 esignature used. F35 Page 2179

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

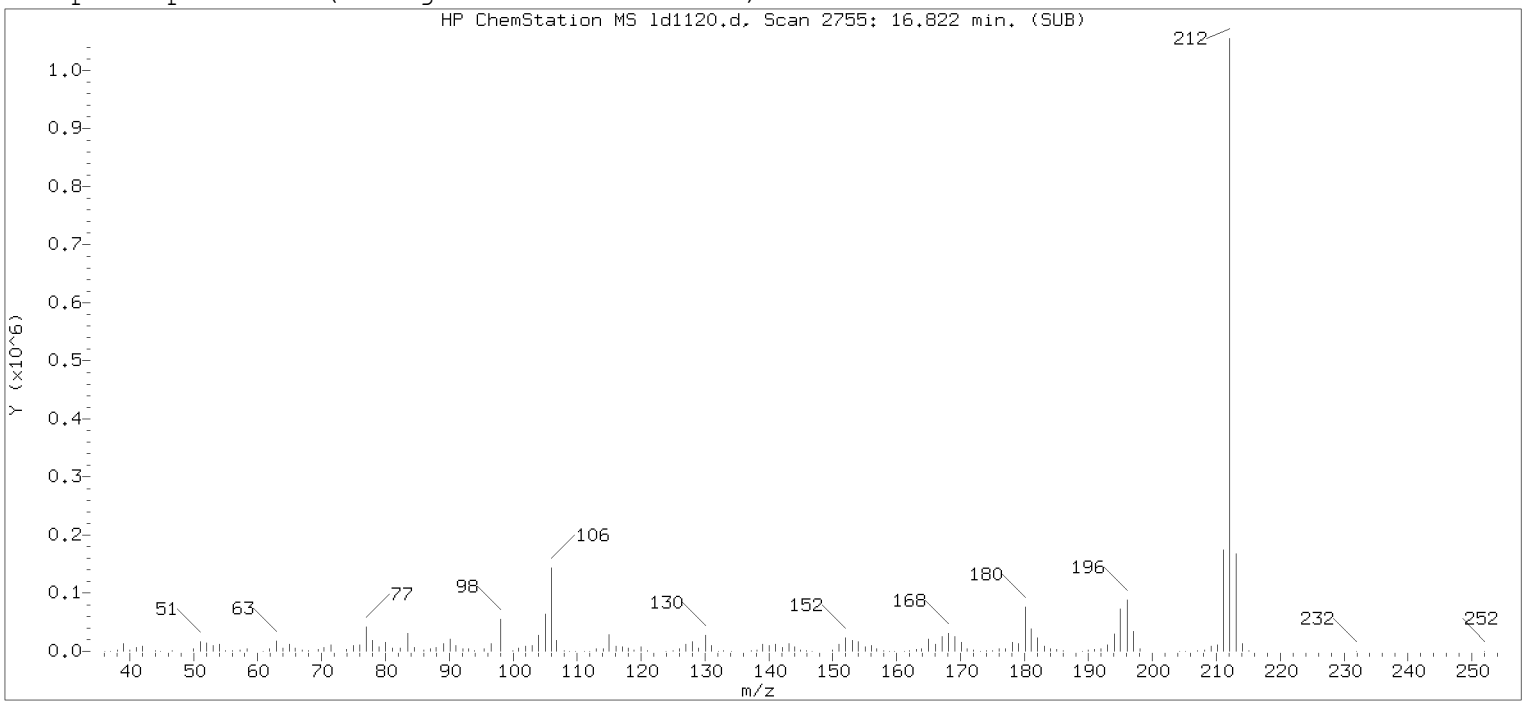
Compound Number : 192
Compound Name : 3,3'-Dimethylbenzidine
Scan Number : 2755
Retention Time (minutes) : 16.822
Quant Ion : 212.00
Area (flag) : 1356188A
On-Column Amount (ng/ul) : 13.0719
Integration start scan : 2746 Integration stop scan: 2769
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

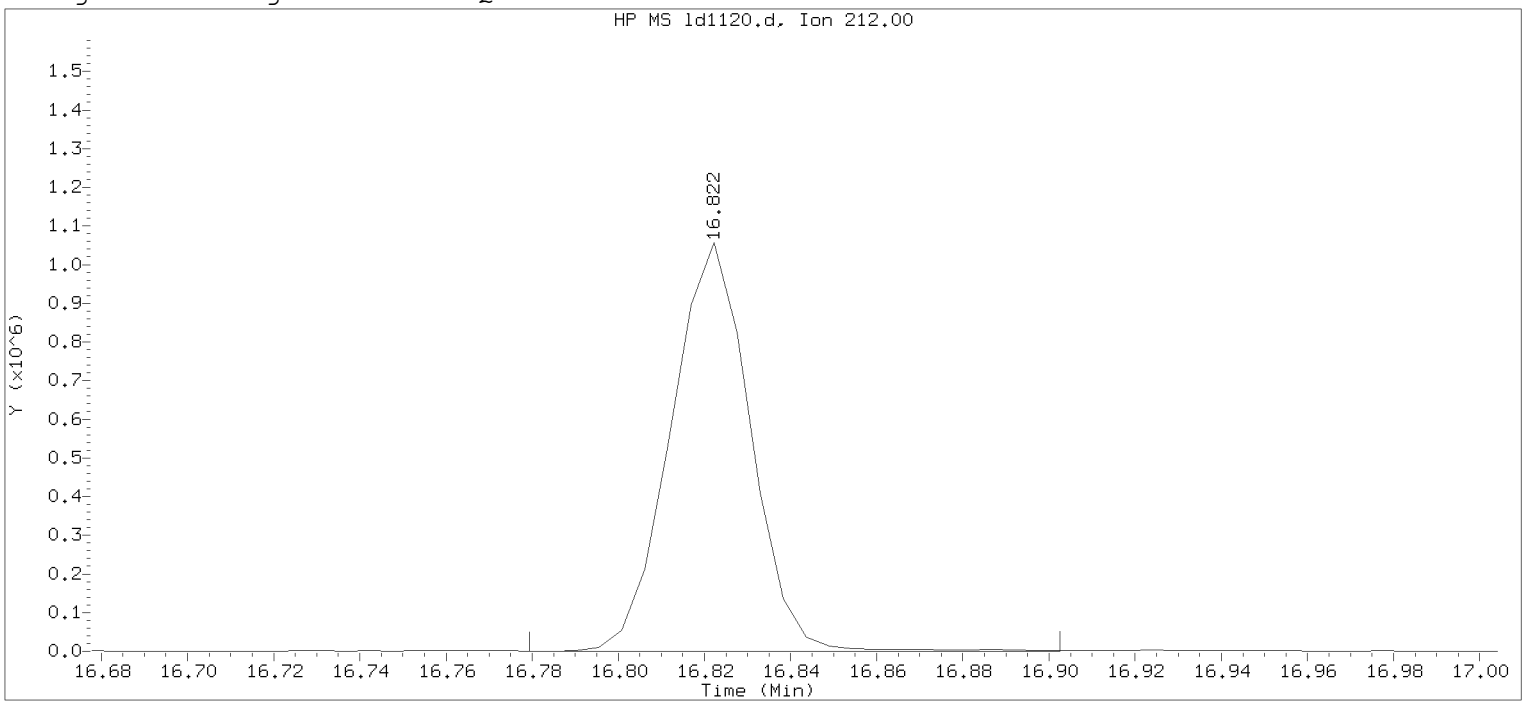
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

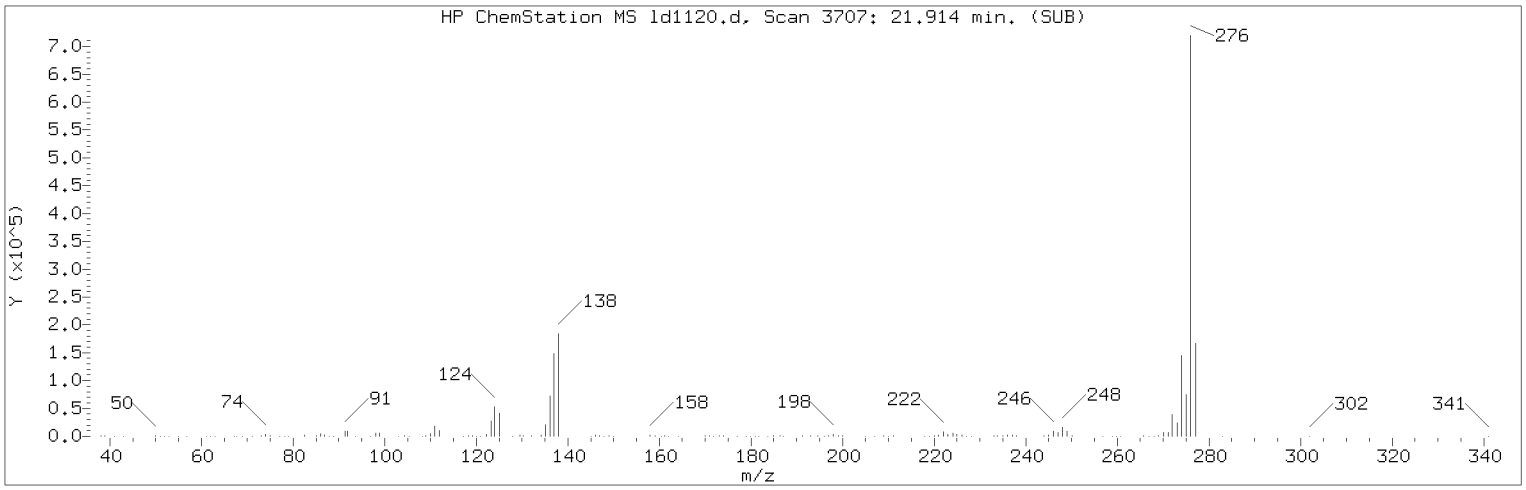
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 06:20 chemist

Sample Name: F3504MSD Lab Sample ID: 1034106

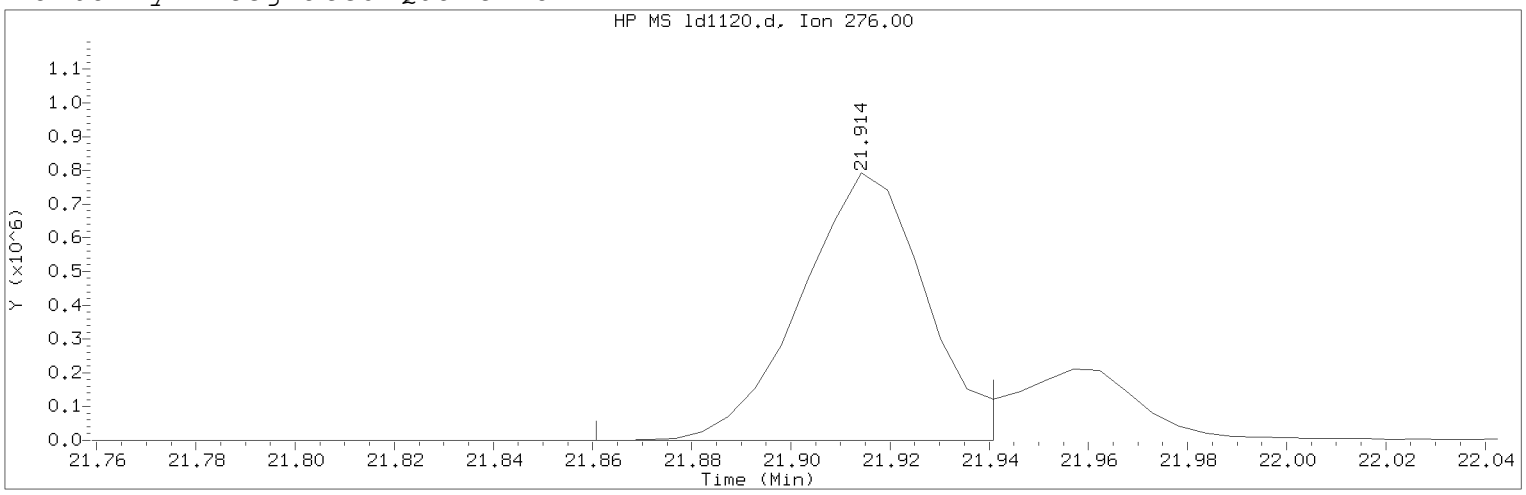
Compound Number : 192
Compound Name : 3,3'-Dimethylbenzidine
Scan Number : 2755
Retention Time (minutes) : 16.822
Quant Ion : 212.00
Area : 1356188
On-column Amount (ng/ul) : 13.0719
Integration start scan : 2746 Integration stop scan: 2769
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09.
Target 3.5 esignature used. F35 Page 2181

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090M
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 14:08 hbz01996

Sample Name: F3504MSD Lab Sample ID: 1034106

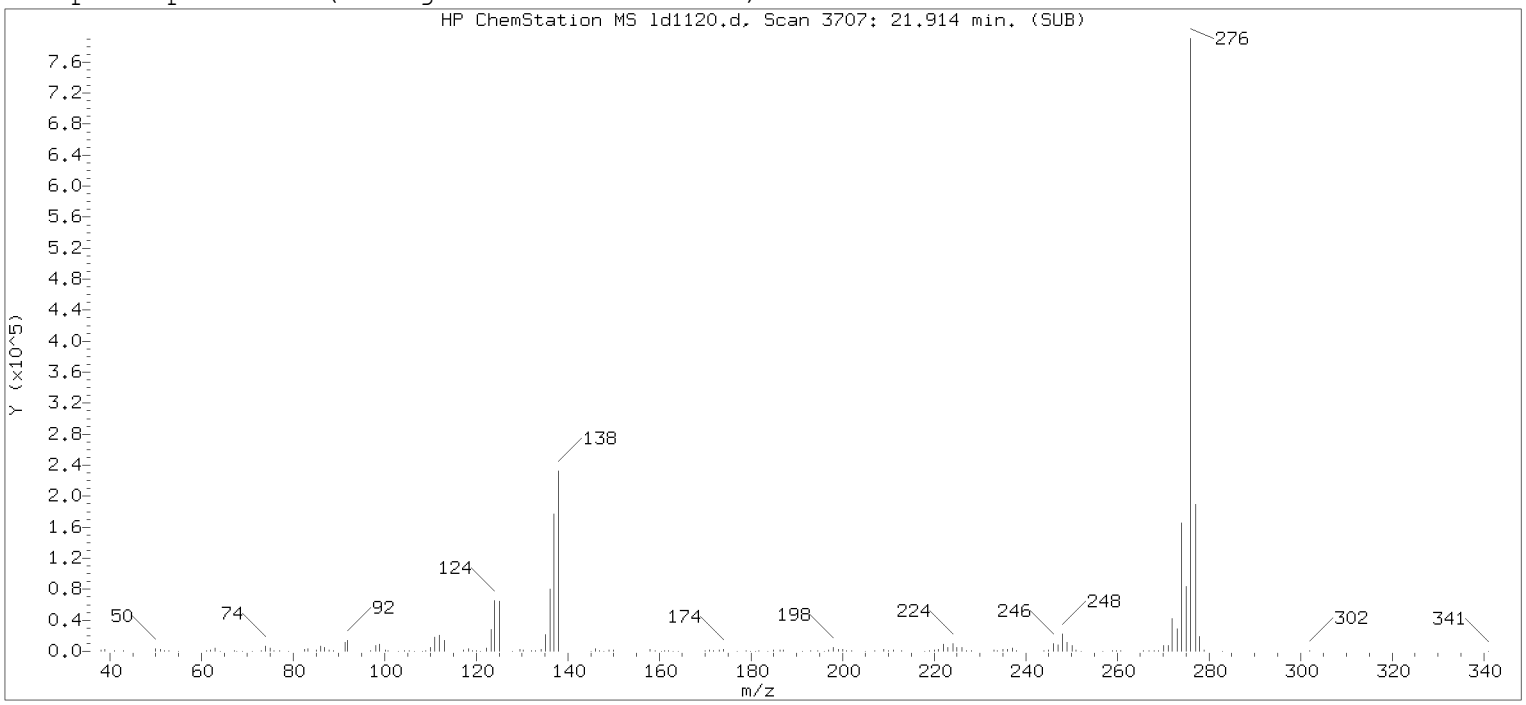
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area (flag) : 1385114M
On-Column Amount (ng/ul) : 10.8788
Integration start scan : 3696 Integration stop scan: 3711
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

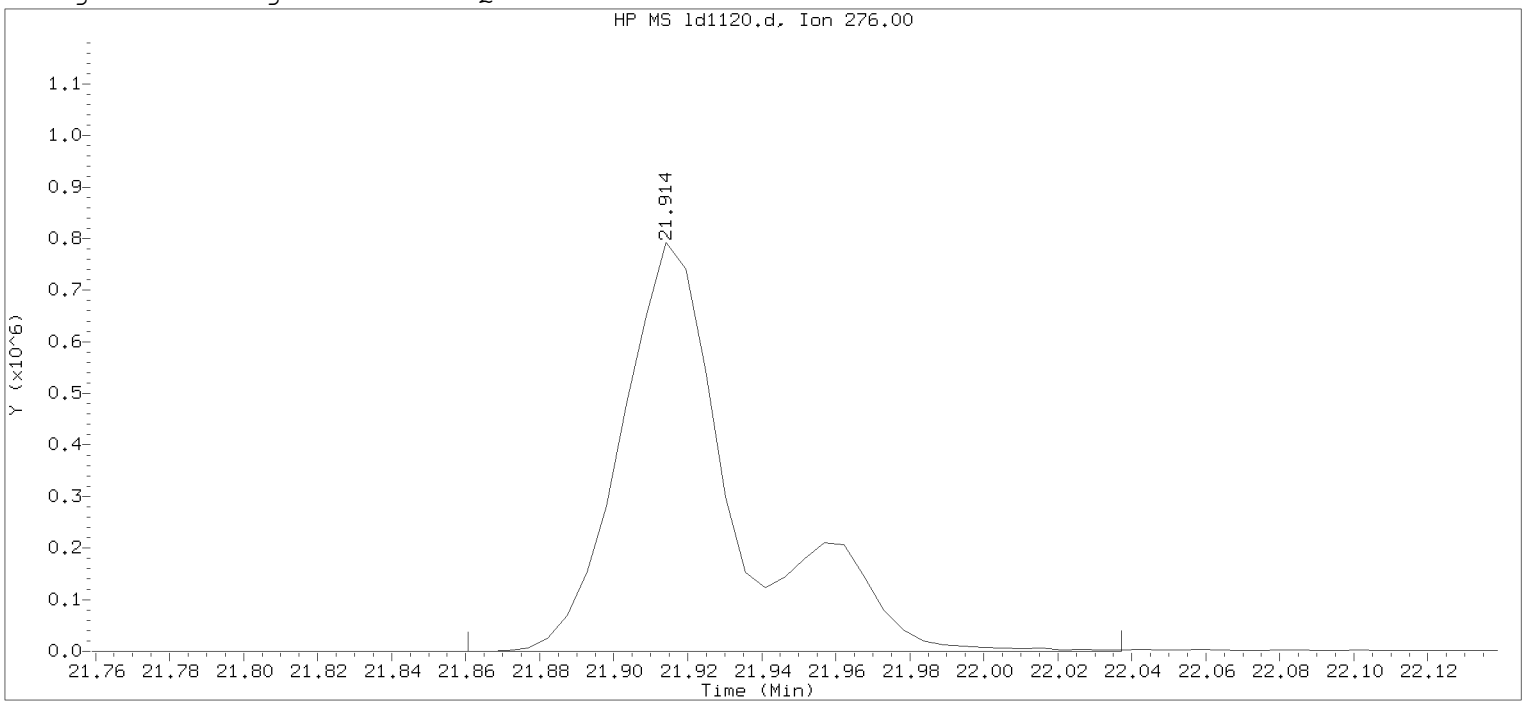
Analyst responsible for change: Digitally signed by Ashley R. Transue
on 04/24/2019 at 17:09.
Target 3.5 esignature user ID: art12405

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:18.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1120.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 05:49 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJM
Calibration date and time: 18-APR-2019 22:46
Date, time and analyst ID of latest file update: 19-Apr-2019 06:20 chemist

Sample Name: F3504MSD Lab Sample ID: 1034106

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3707		
Retention Time (minutes)	: 21.914		
Quant Ion	: 276.00		
Area	: 1733728		
On-column Amount (ng/ul)	: 13.6169		
Integration start scan	: 3696	Integration stop scan:	3729
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Ashley R. Transue on 04/24/2019 at 17:09.
Target 3.5 esignature used.

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

106WNLCS

Data file: /chem/HP20296.i/19apr18a.b/ld1110.d
Data file Sample Info. Line: 106WNLCS;106WNLCS;1;3;LCS;;RAAP;
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Injection date and time: **19-APR-2019 01:00**
Instrument ID: **HP20296.i** Batch: **19106WAN**

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMa**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.927	(-0.005)	905	152	187984	(-5)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	722810	(-6)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	324557	(-11)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	611208	(-10)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	608644	(-10)	5.00	
218) Perylene-d12	20.272	(0.000)	3400	264	588961	(-8)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.023	(-0.003)	112	1847341	30.603	61%
18) Phenol-d6	(1)	6.398	(0.000)	99	1837621	22.943	46%
45) Nitrobenzene-d5	(2)	7.772	(-0.001)	82	1519283	21.190	85%
96) 2-Fluorobiphenyl	(3)	10.687	(0.000)	172	1932398	18.550	74%
140) 2,4,6-Tribromophenol	(3)	12.773	(0.000)	330	607784	46.301	93%
184) Terphenyl-d14	(5)	16.020	(0.000)	244	2314973	23.283	93%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)	2.927	(-0.004)	74	344887	8.058	32.23			0.5
6) Pyridine	(1)	2.959	(-0.003)	79	493205	6.525	26.10			0.5
8) 2-Picoline	(1)	4.119	(-0.002)	93	703895	9.338	37.35			0.5
17) Benzaldehyde	(1)	6.270	(-0.000)	77	591793	10.618	42.47			0.8
19) Phenol	(1)	6.419	(-0.000)	94	630016	6.683	26.73			0.1
20) Aniline	(1)	6.430	(-0.000)	93	852162	7.791	31.16			0.8
23) bis(2-Chloroethyl)ether	(1)	6.553	(-0.000)	93	747488	10.648	42.59			0.1
24) 2-Chlorophenol	(1)	6.606	(-0.000)	128	587542	10.281	41.12			0.1
28) Benzyl alcohol	(1)	7.147	(0.000)	108	438276	11.321	45.28			3
32) 2-Methylphenol	(1)	7.334	(0.000)	108	606824	10.415	41.66			0.1
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	(-0.000)	45	926467	10.442	41.77			0.1
35) bis(2-Chloroisopropyl)ether	(1)	7.382	(-0.000)	45	926467	10.442	41.77			0.1
37) Acetophenone	(1)	7.548	(0.000)	105	1009804	11.197	44.79			1
38) 4-Methylphenol	(1)	7.574	(0.000)	108	661315	10.092	40.37			0.1
39) N-Nitroso-di-n-propylamine	(1)	7.569	(0.000)	70	587308	11.512	46.05			0.2
41) o-Toluidine	(1)	7.596	(0.001)	106	773912	7.600	30.40			1
44) Hexachloroethane	(1)	7.698	(0.000)	117	146382	5.219	20.88			0.3
46) Nitrobenzene	(2)	7.799	(-0.000)	77	835796	11.065	44.26			0.1
52) Isophorone	(2)	8.190	(-0.000)	82	1547080	11.755	47.02			0.1
53) 2-Nitrophenol	(2)	8.302	(-0.000)	139	294646	10.989	43.96			0.8
55) 2,4-Dimethylphenol	(2)	8.409	(-0.000)	107	576599	9.217	36.87			0.8
57) bis(2-Chloroethoxy)methane	(2)	8.564	(-0.000)	93	956342	11.500	46.00			0.1
62) 2,4-Dichlorophenol	(2)	8.692	(-0.001)	162	481159	10.857	43.43			0.1
70) 4-Chloroaniline	(2)	9.040	(-0.000)	127	587975	8.683	34.73			1
74) Hexachlorobutadiene	(2)	9.168	(-0.000)	225	125285	4.590	18.36			0.1
79) Caprolactam	(2)	9.564	(-0.000)	113	52817	3.718	14.87			1
83) 4-Chloro-3-methylphenol	(2)	9.853	(-0.000)	107	615577	11.296	45.18			0.1

Digitally signed by William H Saadeh on 04/24/2019 at 09:00. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1110.d Injection date and time: **19-APR-2019 01:00**
Data file Sample Info. Line: 106WNLCS;106WNLCS;1;3;LCS;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMa**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
86) 2-Methylnaphthalene	(2)	10.067(-0.000)	142	911111	8.939	35.76			0.03
88) Hexachlorocyclopentadiene	(3)	10.340(0.000)	237	147448	5.656	22.62			1
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340(0.000)	216	355291	7.871	31.48			0.1
93) 2,4,6-Trichlorophenol	(3)	10.538(-0.000)	196	346463	11.770	47.08			0.1
95) 2,4,5-Trichlorophenol	(3)	10.586(0.000)	196	349487	11.302	45.21			0.1
98) 1,1'-Biphenyl	(3)	10.842(0.000)	154	1154333	10.054	40.22			0.8
99) 2-Chloronaphthalene	(3)	10.853(0.000)	162	952684	9.965	39.86			0.1
104) 2-Nitroaniline	(3)	11.030(0.000)	138	351572	12.538	50.15			0.5
110) Dimethylphthalate	(3)	11.377(0.000)	163	929973	9.477	37.91			0.5
111) 1,3-Dinitrobenzene	(3)	11.383(0.000)	168	181232	12.131	48.52			0.5
113) 2,6-Dinitrotoluene	(3)	11.447(0.000)	165	265100	12.395	49.58			0.1
114) Acenaphthylene	(3)	11.516(0.000)	152	1492176	11.628	46.51			0.03
117) 3-Nitroaniline	(3)	11.682(0.000)	138	275695	11.262	45.05			0.8
119) Acenaphthene	(3)	11.784(0.000)	153	1048105	10.864	43.46			0.03
120) 2,4-Dinitrophenol	(3)	11.843(-0.000)	184	259988	20.952	83.81			4
121) 4-Nitrophenol	(3)	11.955(-0.000)	109	136354	7.465	29.86		J	3
123) 2,4-Dinitrotoluene	(3)	12.030(-0.000)	165	363770	12.525	50.10			0.3
124) Dibenzofuran	(3)	12.030(-0.000)	168	1407129	11.184	44.73			0.1
126) 1-Naphthylamine	(3)	12.137(-0.000)	143	1259718	13.661	54.64			2
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201(-0.000)	232	278130	12.247	48.99			1
128) 2-Naphthylamine	(3)	12.244(-0.000)	143	1141025	12.742	50.97			2
129) Diethylphthalate	(3)	12.388(-0.000)	149	1040475	10.588	42.35			0.5
131) Fluorene	(3)	12.474(-0.000)	166	1134107	11.246	44.98			0.03
132) 4-Chlorophenyl-phenylether	(3)	12.501(0.000)	204	511148	10.774	43.10			0.1
134) 4-Nitroaniline	(3)	12.501(0.000)	138	254067	9.787	39.15			0.2
135) 4,6-Dinitro-2-methylphenol	(4)	12.549(0.000)	198	170861	10.445	41.78			2
136) N-Nitrosodiphenylamine	(4)	12.645(0.000)	169	963701	11.787	47.15			0.2
137) NDPA as diphenylamine	(4)	12.645(0.000)	169	958221M	11.720	46.88			0.8
148) 4-Bromophenyl-phenylether	(4)	13.105(0.000)	248	288599	10.886	43.55			0.1
150) Hexachlorobenzene	(4)	13.164(0.000)	284	322774	10.909	43.64			0.03
153) Atrazine	(4)	13.340(0.000)	200	311726	12.778	51.11			0.5
154) Pentachlorophenol	(4)	13.421(0.000)	266	210232M	11.203	44.81			0.3
160) Phenanthrene	(4)	13.693(-0.000)	178	1727518	11.692	46.77			0.03
162) Anthracene	(4)	13.763(-0.000)	178	1691926	11.476	45.90			0.03
168) Carbazole	(4)	13.982(-0.000)	167	1567915	11.938	47.75			0.1
170) Di-n-butylphthalate	(4)	14.512(-0.000)	149	2097700	11.769	47.08			0.5
178) Fluoranthene	(4)	15.384(0.000)	202	1847234	12.015	48.06			0.03
182) Pyrene	(5)	15.731(-0.000)	202	1929631	11.703	46.81			0.03
192) 3,3'-Dimethylbenzidine	(5)			Not Detected					6
193) Butylbenzylphthalate	(5)	16.886(0.000)	149	986378	12.114	48.46			0.5
198) 3,3'-Dichlorobenzidine	(5)	17.764(-0.000)	252	474597	8.476	33.90			0.8
200) Benzo(a)anthracene	(5)	17.774(-0.000)	228	1773713	11.950	47.80			0.03
201) Chrysene	(5)	17.839(-0.000)	228	1703722	11.822	47.29			0.03
204) bis(2-Ethylhexyl)phthalate	(5)	17.972(-0.000)	149	1494828	12.616	50.46			1
210) Di-n-octylphthalate	(6)	19.149(0.000)	149	2669639	13.062	52.25			1
211) Benzo(b)fluoranthene	(6)	19.657(-0.000)	252	1825442	12.206	48.82			0.03
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657(0.000)	256	810011	13.019	52.08			1
213) Benzo(k)fluoranthene	(6)	19.705(-0.000)	252	1779508	12.400	49.60			0.03
216) Benzo(a)pyrene	(6)	20.181(0.000)	252	1657497	12.191	48.76			0.03
224) Indeno(1,2,3-cd)pyrene	(6)	21.914(-0.000)	276	1572592M	11.824	47.30			0.03
225) Dibenz(a,h)anthracene	(6)	21.957(-0.000)	278	1661322	12.143	48.57			0.03
226) Benzo(g,h,i)perylene	(6)	22.326(-0.000)	276	1614553	11.487	45.95			0.03

M = Compound was manually integrated.

Digitally signed by William H Saadeh on 04/24/2019 at 09:00. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1110.d Injection date and time: **19-APR-2019 01:00**
Data file Sample Info. Line: 106WNLCS;106WNLCS;1;3;LCS;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMa**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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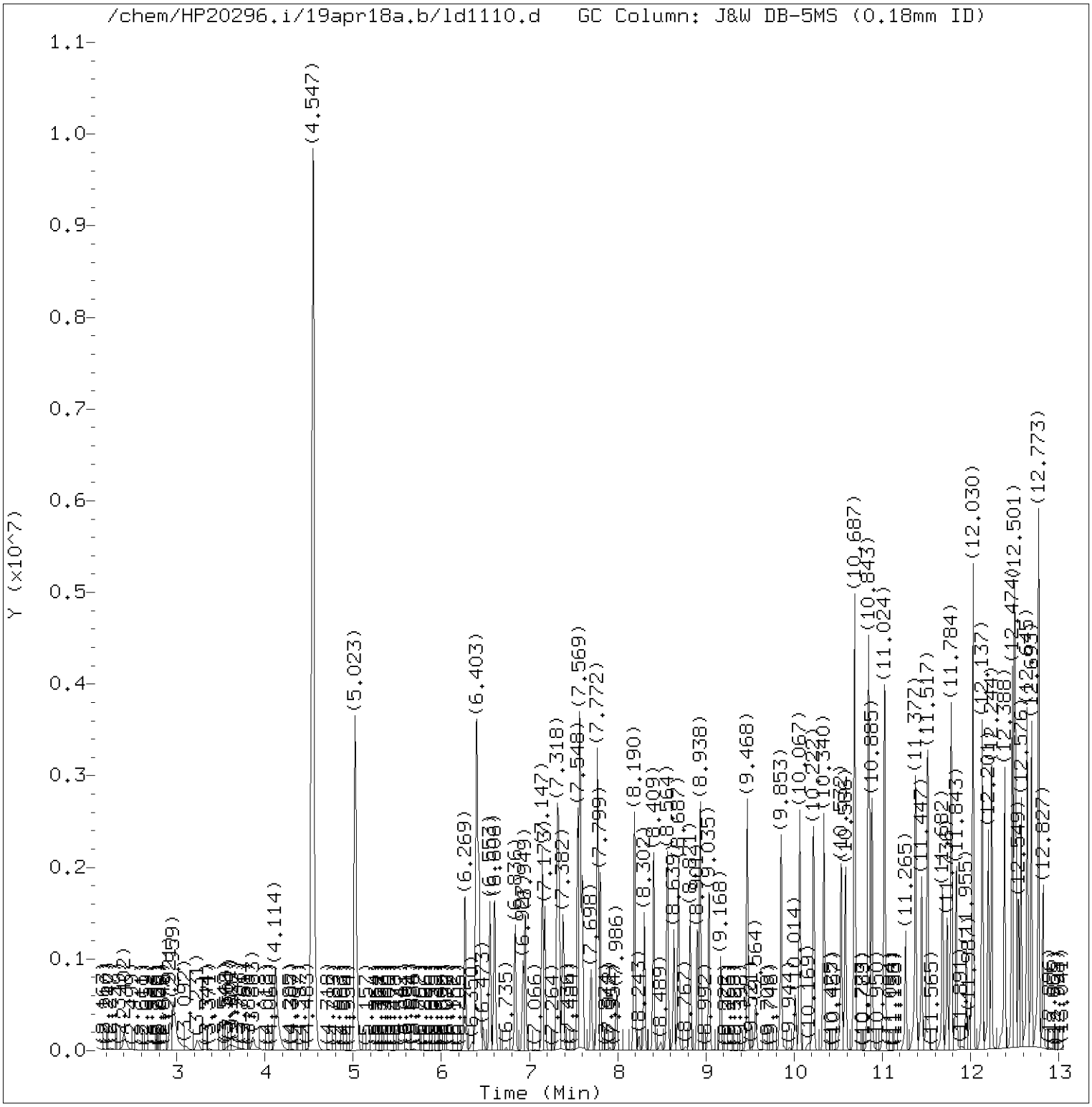
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 79

Digitally signed by William H Saadeh on 04/24/2019 at 09:00. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

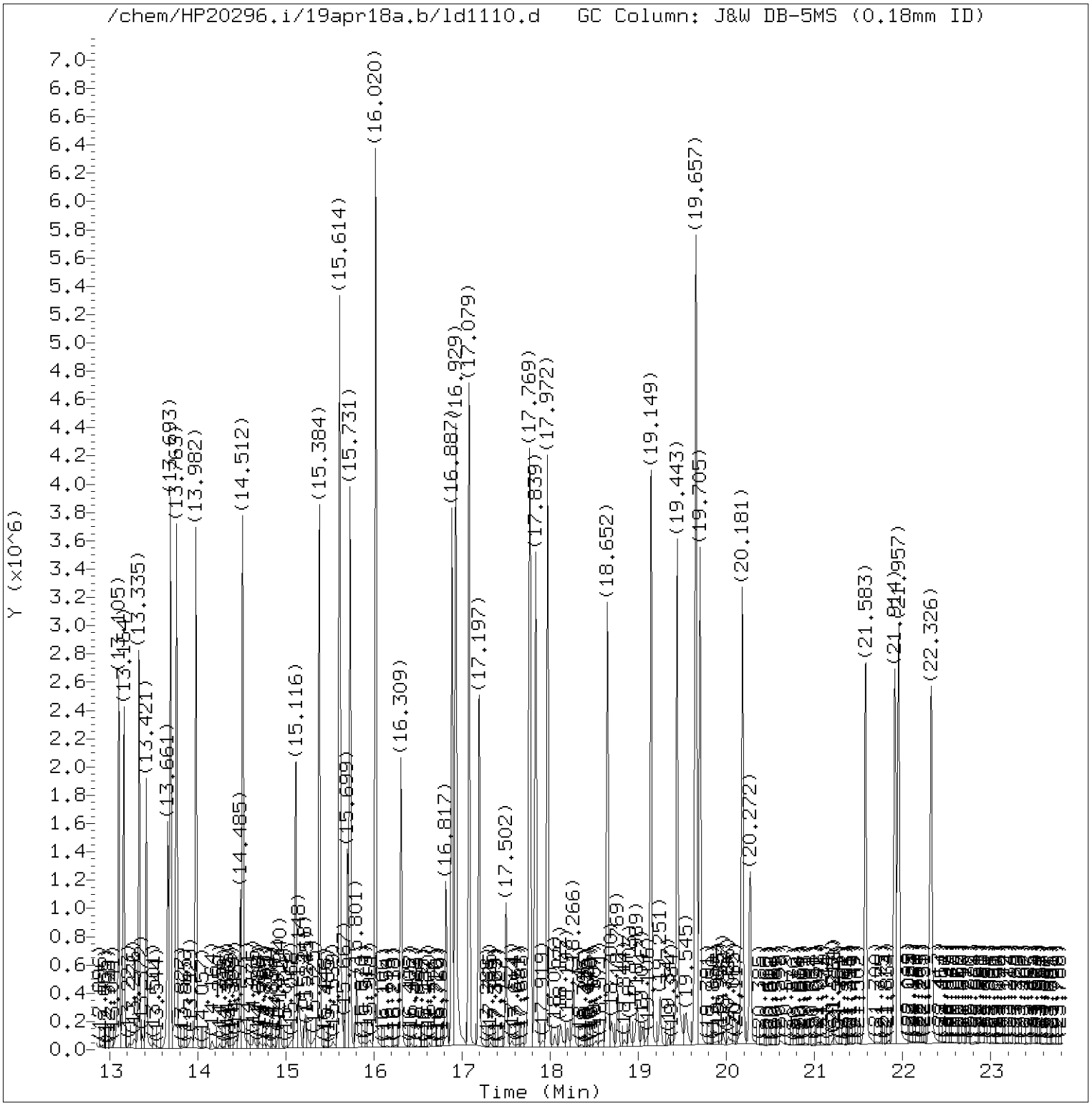
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) N-Nitrosodimethylamine	(1)	2.927	74	344887	8.058
6) Pyridine	(1)	2.959	79	493205	6.525
8) 2-Picoline	(1)	4.119	93	703895	9.338
12)$2-Fluorophenol	(1)	5.023	112	1847341	30.603
17) Benzaldehyde	(1)	6.269	77	591793	10.618
18)$Phenol-d6	(1)	6.398	99	1837621	22.943
19) Phenol	(1)	6.419	94	630016	6.683
20) Aniline	(1)	6.430	93	852162	7.791
23) bis(2-Chloroethyl)ether	(1)	6.553	93	747488	10.648
24) 2-Chlorophenol	(1)	6.606	128	587542	10.281
26)*1,4-Dichlorobenzene-d4	(1)	6.927	152	187984	5.000
28) Benzyl alcohol	(1)	7.147	108	438276	11.321
32) 2-Methylphenol	(1)	7.334	108	606824	10.415
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	926467	10.442
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	926467	10.442
37) Acetophenone	(1)	7.548	105	1009804	11.197
39) N-Nitroso-di-n-propylamine	(1)	7.569	70	587308	11.512
38) 4-Methylphenol	(1)	7.575	108	661315	10.092
41) o-Toluidine	(1)	7.596	106	773912	7.600
44) Hexachloroethane	(1)	7.698	117	146382	5.219
45)$Nitrobenzene-d5	(2)	7.772	82	1519283	21.190
46) Nitrobenzene	(2)	7.799	77	835796	11.065
52) Isophorone	(2)	8.190	82	1547080	11.755
53) 2-Nitrophenol	(2)	8.302	139	294646	10.989
55) 2,4-Dimethylphenol	(2)	8.409	107	576599	9.217
57) bis(2-Chloroethoxy)methane	(2)	8.564	93	956342	11.500
62) 2,4-Dichlorophenol	(2)	8.692	162	481159	10.857
68)*Naphthalene-d8	(2)	8.901	136	722810	5.000
70) 4-Chloroaniline	(2)	9.040	127	587975	8.683
74) Hexachlorobutadiene	(2)	9.168	225	125285	4.590
79) Caprolactam	(2)	9.564	113	52817	3.718
83) 4-Chloro-3-methylphenol	(2)	9.853	107	615577	11.296
86) 2-Methylnaphthalene	(2)	10.067	142	911111	8.939
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	216	355291	7.871
88) Hexachlorocyclopentadiene	(3)	10.340	237	147448	5.656
93) 2,4,6-Trichlorophenol	(3)	10.538	196	346463	11.770
95) 2,4,5-Trichlorophenol	(3)	10.586	196	349487	11.302
96)$2-Fluorobiphenyl	(3)	10.687	172	1932398	18.550
98) 1,1'-Biphenyl	(3)	10.843	154	1154333	10.054
99) 2-Chloronaphthalene	(3)	10.853	162	952684	9.965

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
104) 2-Nitroaniline	(3)	11.030	138	351572	12.538
110) Dimethylphthalate	(3)	11.377	163	929973	9.477
111) 1,3-Dinitrobenzene	(3)	11.383	168	181232	12.131
113) 2,6-Dinitrotoluene	(3)	11.447	165	265100	12.395
114) Acenaphthylene	(3)	11.517	152	1492176	11.628
117) 3-Nitroaniline	(3)	11.682	138	275695	11.262
118)*Acenaphthene-d10	(3)	11.736	164	324557	5.000
119) Acenaphthene	(3)	11.784	153	1048105	10.864
120) 2,4-Dinitrophenol	(3)	11.843	184	259988	20.952
121) 4-Nitrophenol	(3)	11.955	109	136354	7.465
123) 2,4-Dinitrotoluene	(3)	12.030	165	363770	12.525
124) Dibenzofuran	(3)	12.030	168	1407129	11.184
126) 1-Naphthylamine	(3)	12.137	143	1259718	13.661
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201	232	278130	12.247
128) 2-Naphthylamine	(3)	12.244	143	1141025	12.742
129) Diethylphthalate	(3)	12.388	149	1040475	10.588
131) Fluorene	(3)	12.474	166	1134107	11.246
132) 4-Chlorophenyl-phenylether	(3)	12.501	204	511148	10.774
134) 4-Nitroaniline	(3)	12.501	138	254067	9.787
135) 4,6-Dinitro-2-methylphenol	(4)	12.549	198	170861	10.445
136) N-Nitrosodiphenylamine	(4)	12.645	169	963701	11.787
137) NDPA as diphenylamine	(4)	12.645	169	958221M	11.720
140)$2,4,6-Tribromophenol	(3)	12.773	330	607784	46.301
148) 4-Bromophenyl-phenylether	(4)	13.105	248	288599	10.886
150) Hexachlorobenzene	(4)	13.164	284	322774	10.909
153) Atrazine	(4)	13.340	200	311726	12.778
154) Pentachlorophenol	(4)	13.421	266	210232M	11.203
158)*Phenanthrene-d10	(4)	13.661	188	611208	5.000
160) Phenanthrene	(4)	13.693	178	1727518	11.692
162) Anthracene	(4)	13.763	178	1691926	11.476
168) Carbazole	(4)	13.982	167	1567915	11.938
170) Di-n-butylphthalate	(4)	14.512	149	2097700	11.769
178) Fluoranthene	(4)	15.384	202	1847234	12.015
180)*Pyrene-d10	(5)	15.699	212	608644	5.000
182) Pyrene	(5)	15.731	202	1929631	11.703
184)$Terphenyl-d14	(5)	16.020	244	2314973	23.283
193) Butylbenzylphthalate	(5)	16.887	149	986378	12.114
198) 3,3'-Dichlorobenzidine	(5)	17.764	252	474597	8.476
200) Benzo(a)anthracene	(5)	17.774	228	1773713	11.950
201) Chrysene	(5)	17.839	228	1703722	11.822

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

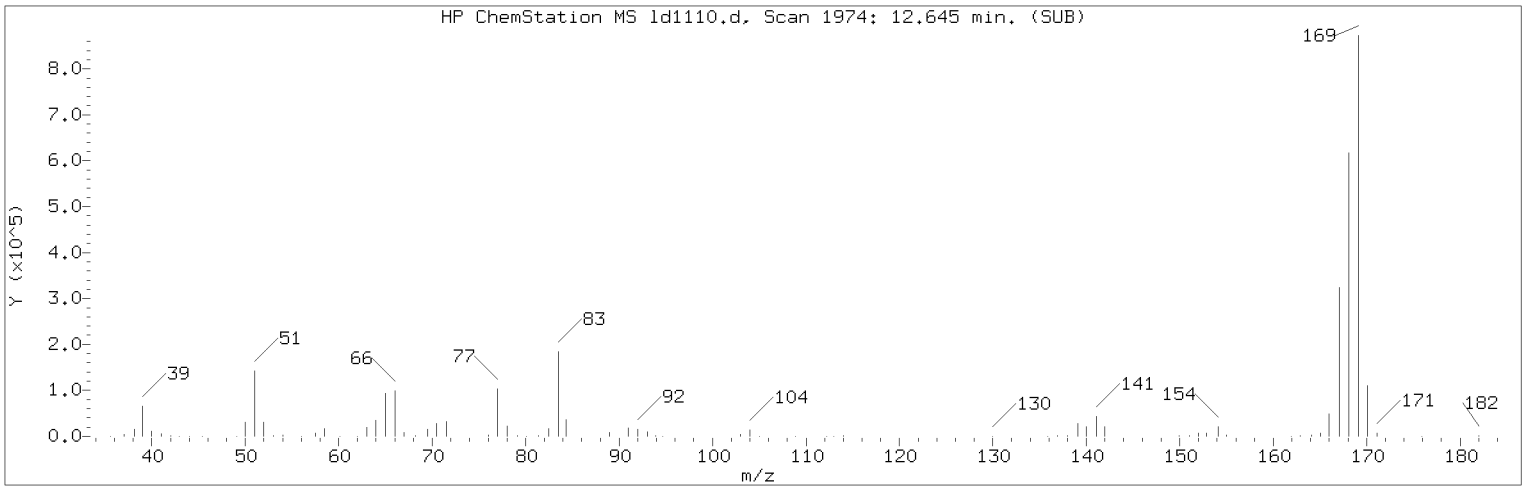
Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
204) bis(2-Ethylhexyl)phthalate	(5)	17.972	149	1494828	12.616
210) Di-n-octylphthalate	(6)	19.149	149	2669639	13.062
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657	256	810011	13.019
211) Benzo(b)fluoranthene	(6)	19.657	252	1825442	12.206
213) Benzo(k)fluoranthene	(6)	19.705	252	1779508	12.400
216) Benzo(a)pyrene	(6)	20.181	252	1657497	12.191
218)*Perylene-d12	(6)	20.272	264	588961	5.000
224) Indeno(1,2,3-cd)pyrene	(6)	21.914	276	1572592M	11.824
225) Dibenz(a,h)anthracene	(6)	21.957	278	1661322	12.143
226) Benzo(g,h,i)perylene	(6)	22.326	276	1614553	11.487

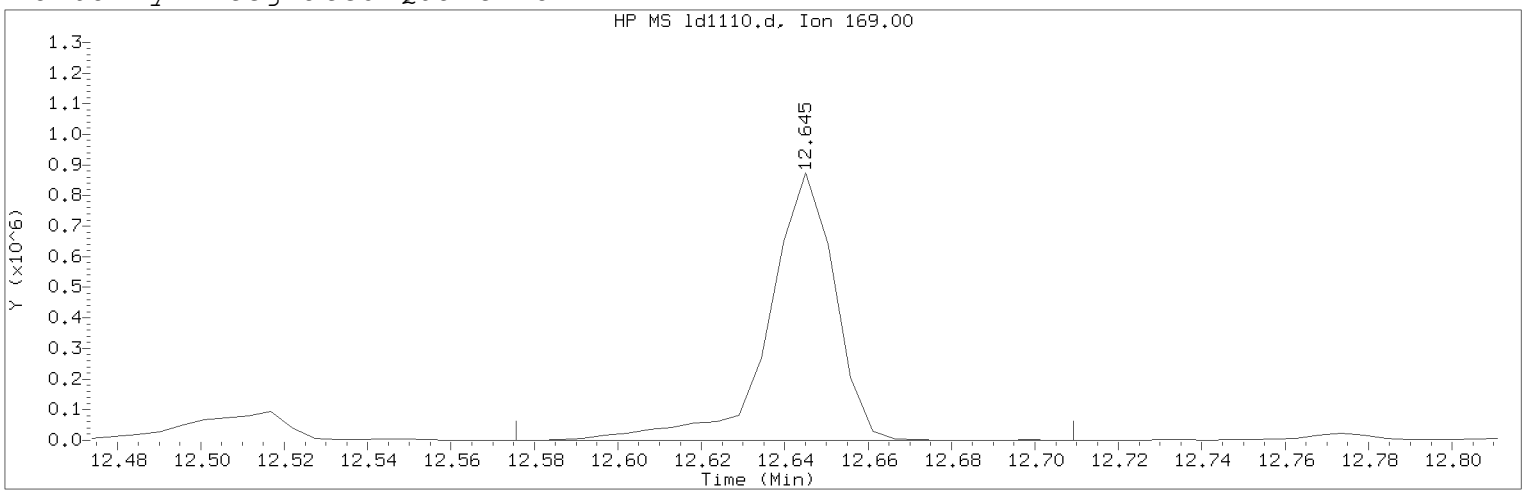
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

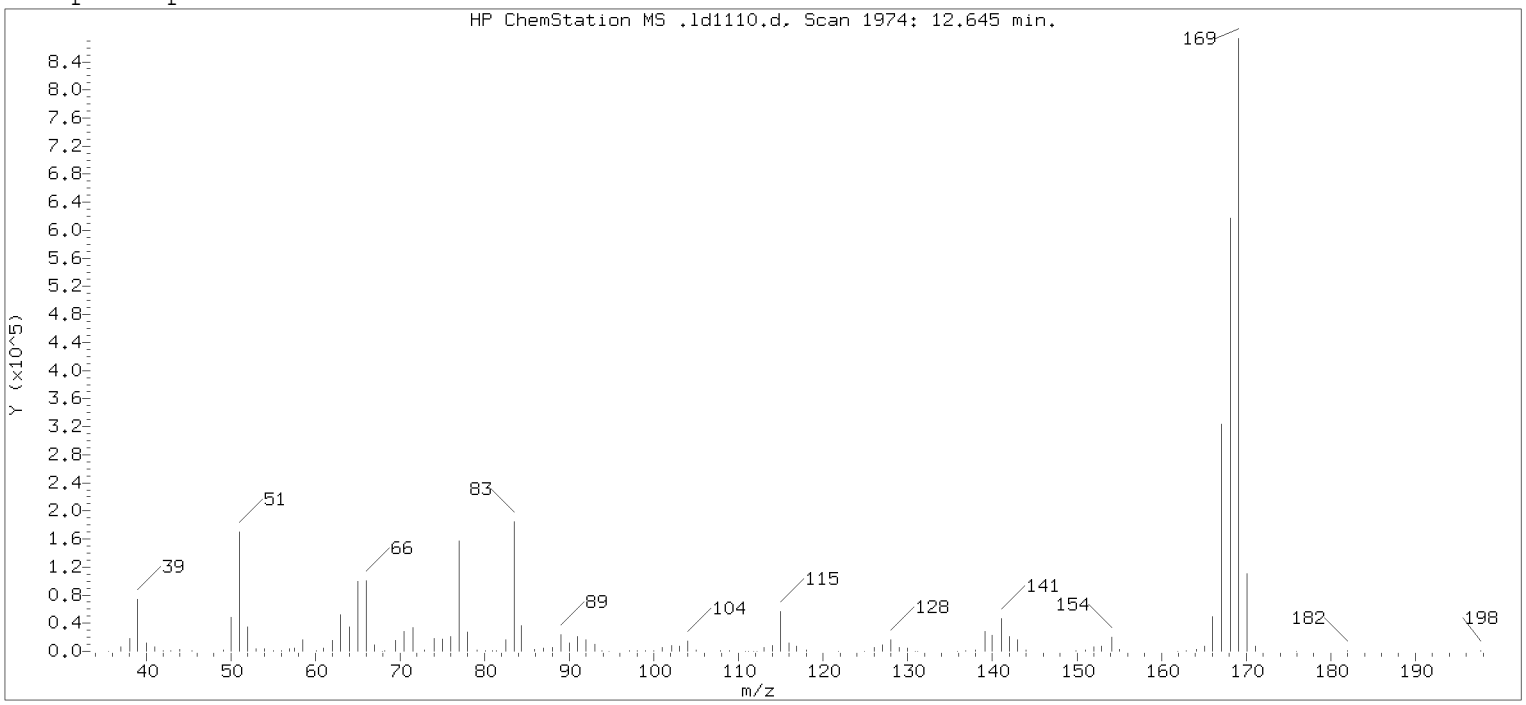
Compound Number : 137
Compound Name : NDPA as diphenylamine
Scan Number : 1974
Retention Time (minutes) : 12.645
Quant Ion : 169.00
Area (flag) : 958221M
On-Column Amount (ng/ul) : 11.7199
Integration start scan : 1960 Integration stop scan: 1985
Y at integration start : 642 Y at integration end: 720

Reason for manual integration: missed peak

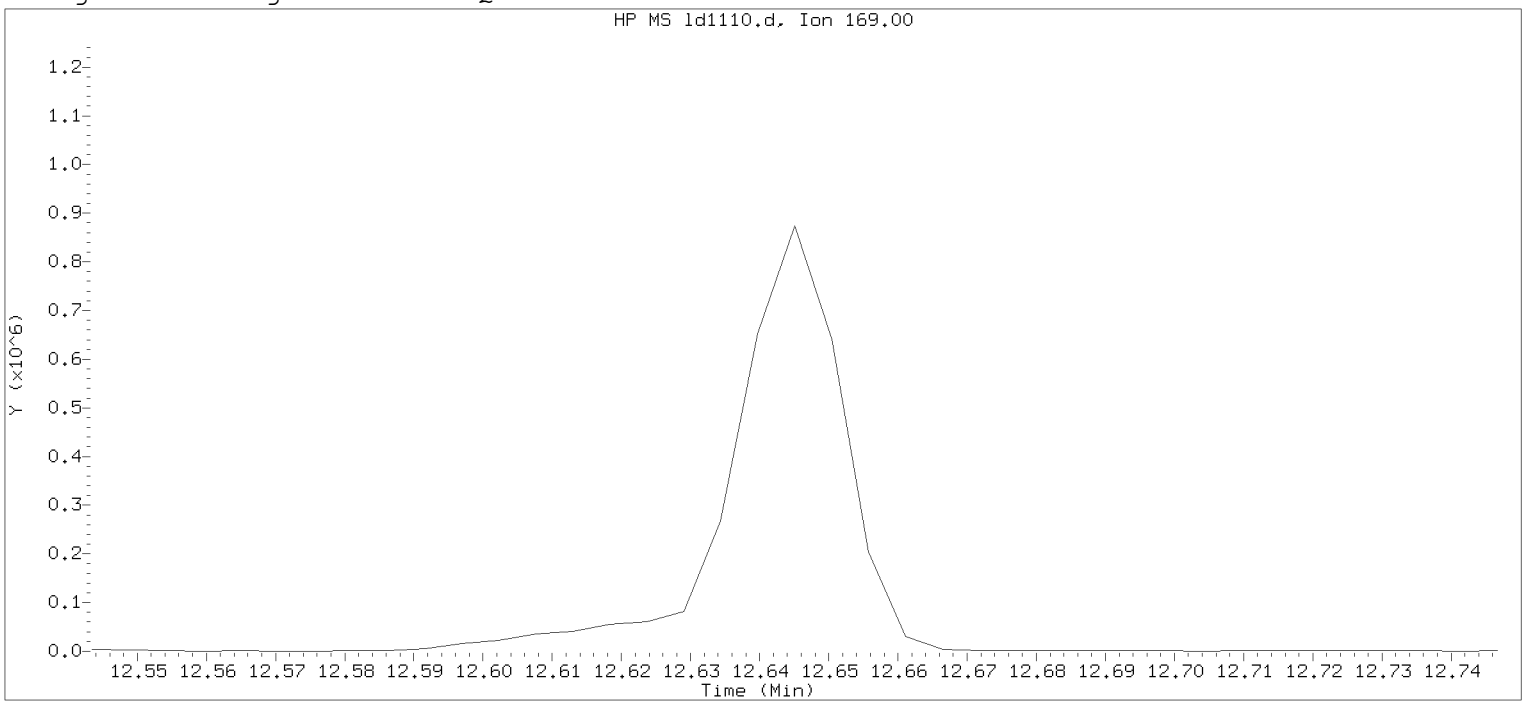
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

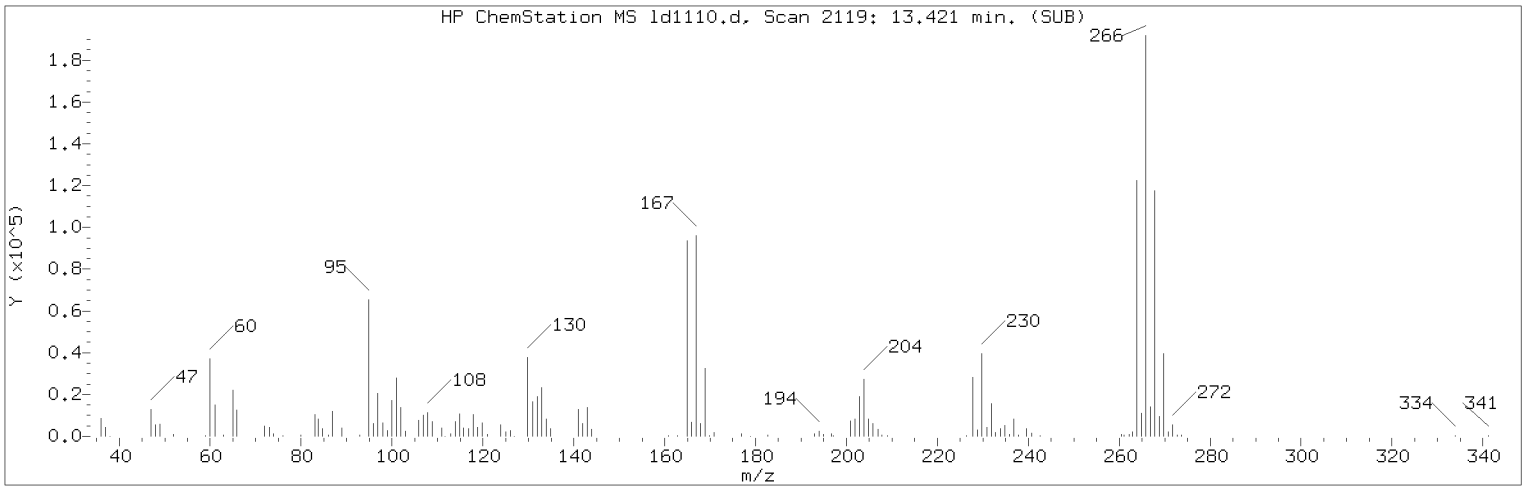
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

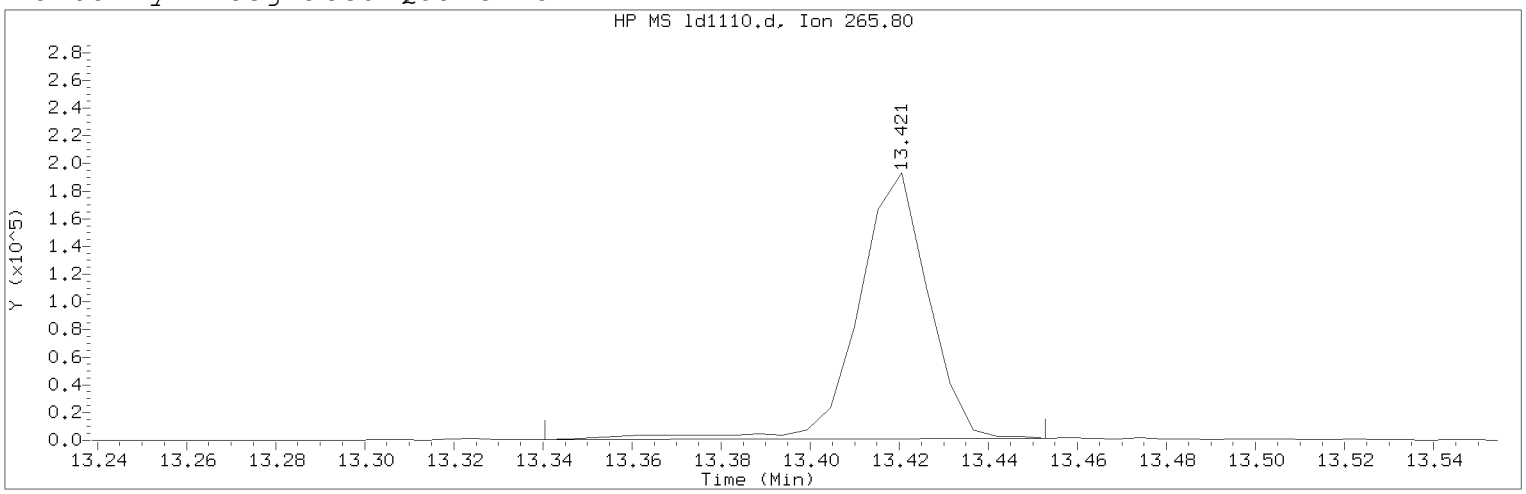
Compound Number : 137
Compound Name : NDPA as diphenylamine
Expected RT (minutes) : 12.645
Quant Ion : 169.00

Digitally signed by William H Saadeh on 04/24/2019 at 09:00.
Target 3.5 esignature used. Page 2193

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

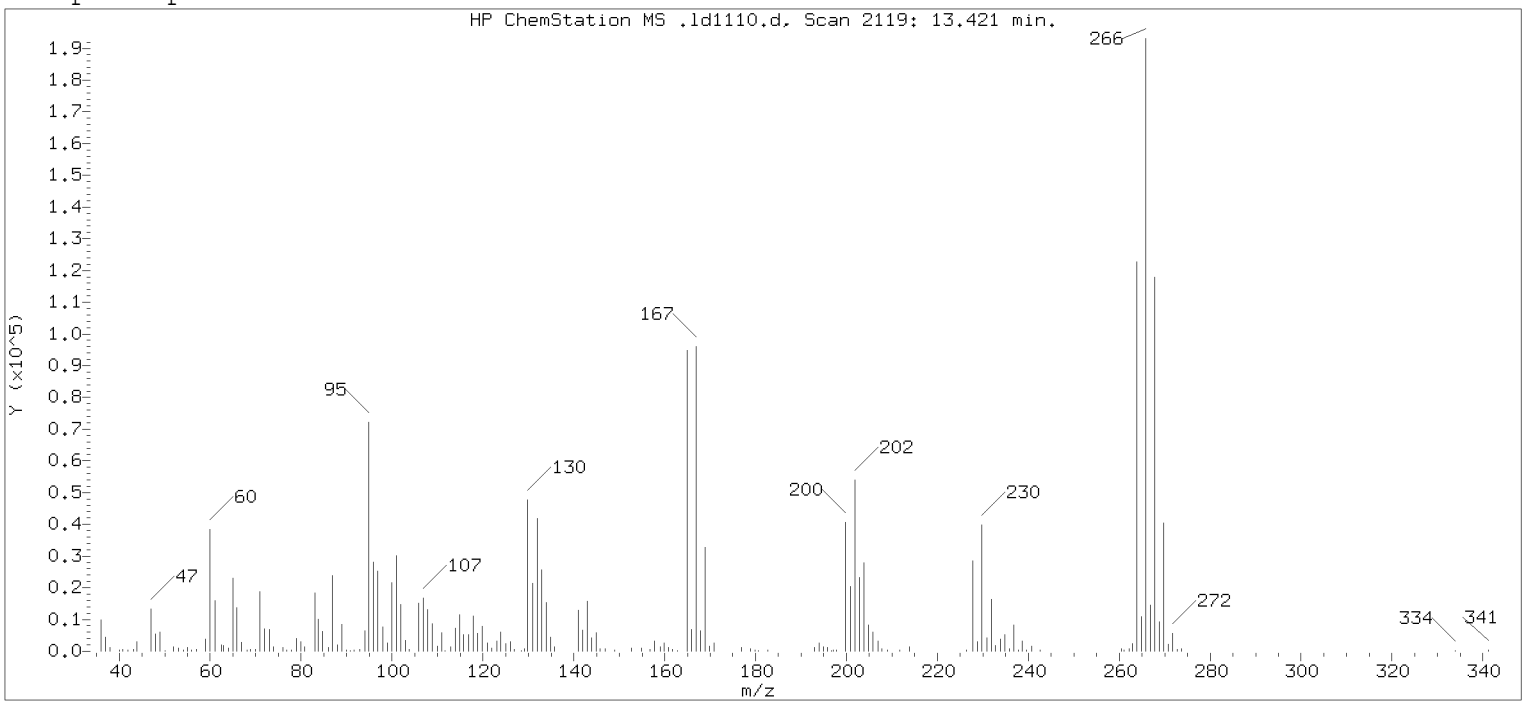
Compound Number : 154
Compound Name : Pentachlorophenol
Scan Number : 2119
Retention Time (minutes) : 13.421
Quant Ion : 266.00
Area (flag) : 210232M
On-Column Amount (ng/ul) : 11.2029
Integration start scan : 2103 Integration stop scan: 2124
Y at integration start : 301 Y at integration end: 1381

Reason for manual integration: missed peak

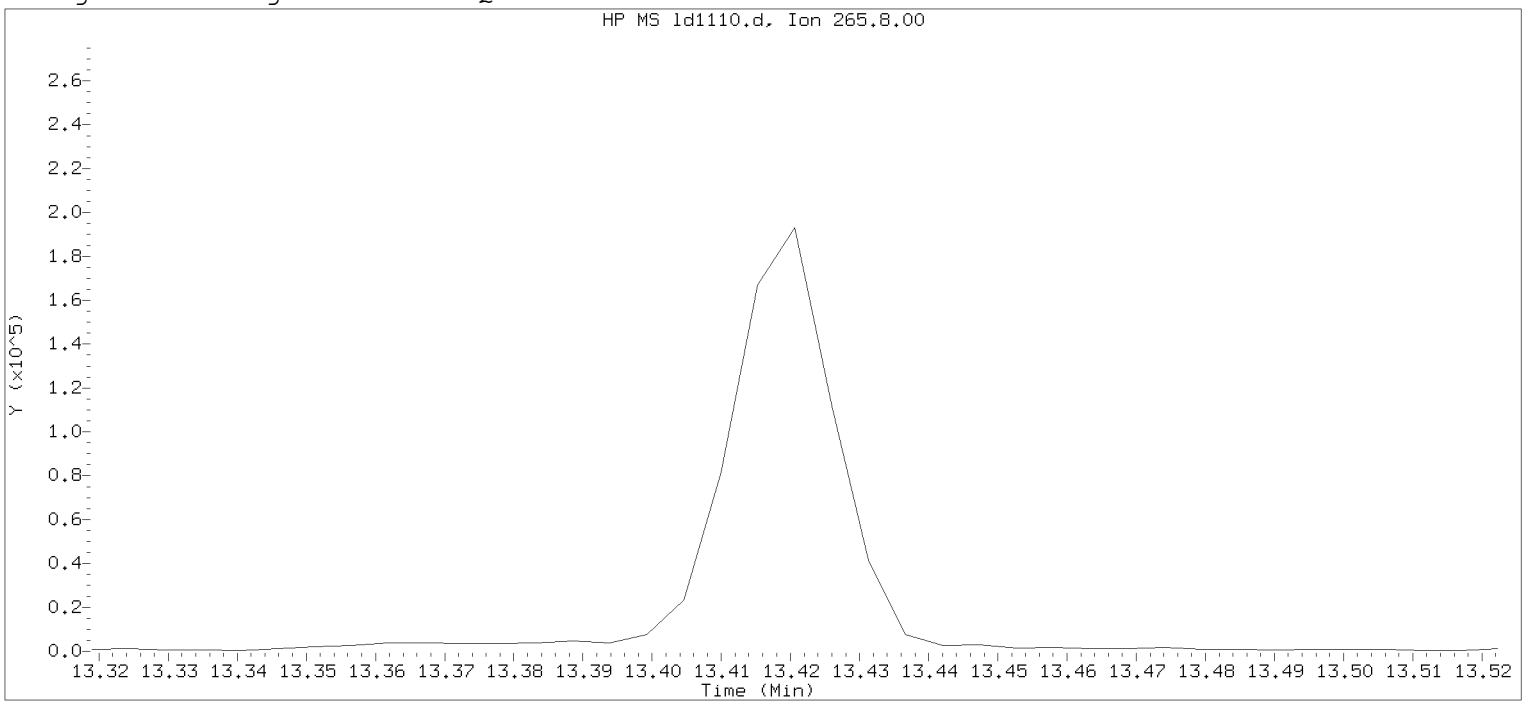
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

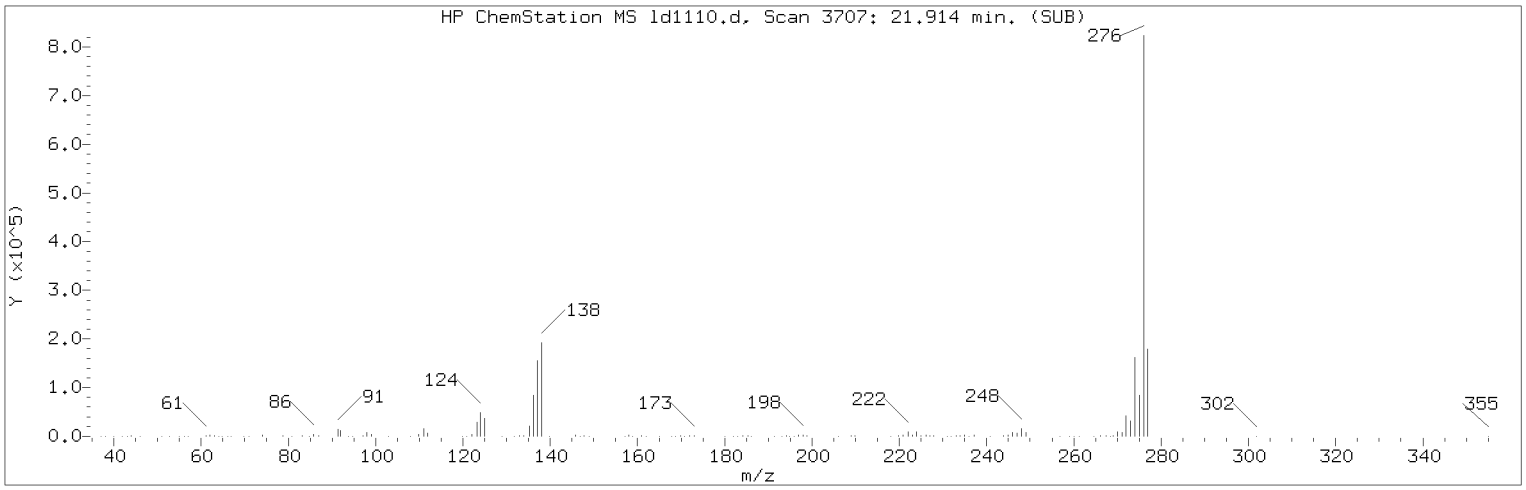
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

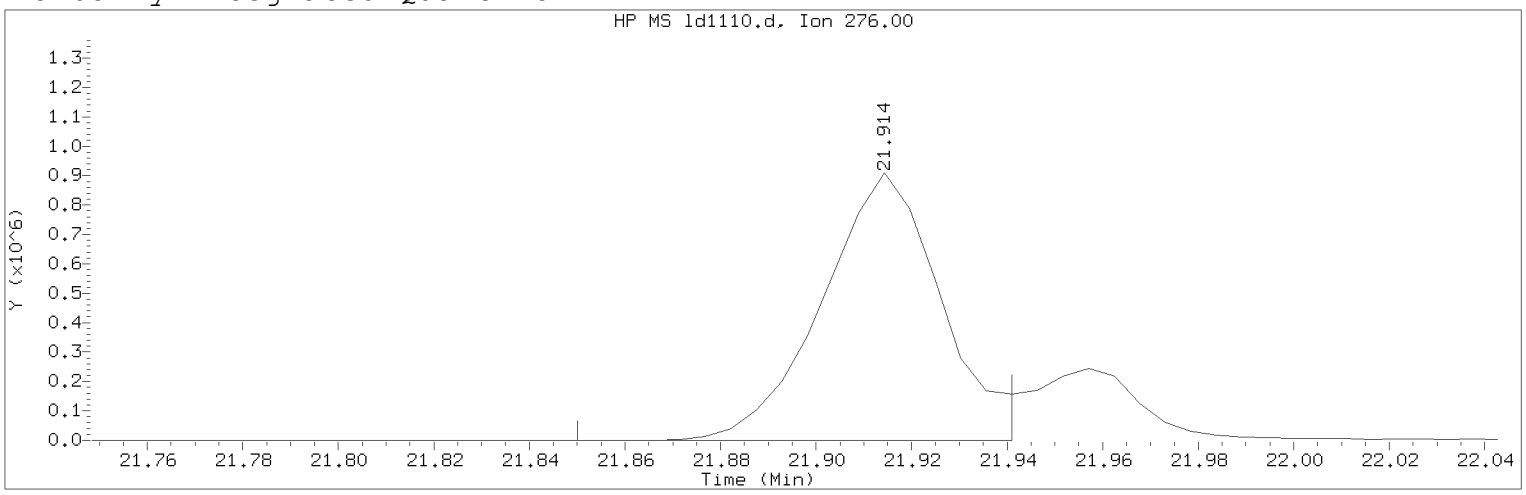
Compound Number : 154
Compound Name : Pentachlorophenol
Expected RT (minutes) : 13.421
Quant Ion : 266.00

Digitally signed by William H Saadeh on 04/24/2019 at 09:00.
Target 3.5 esignature used. F35 Page 0295

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

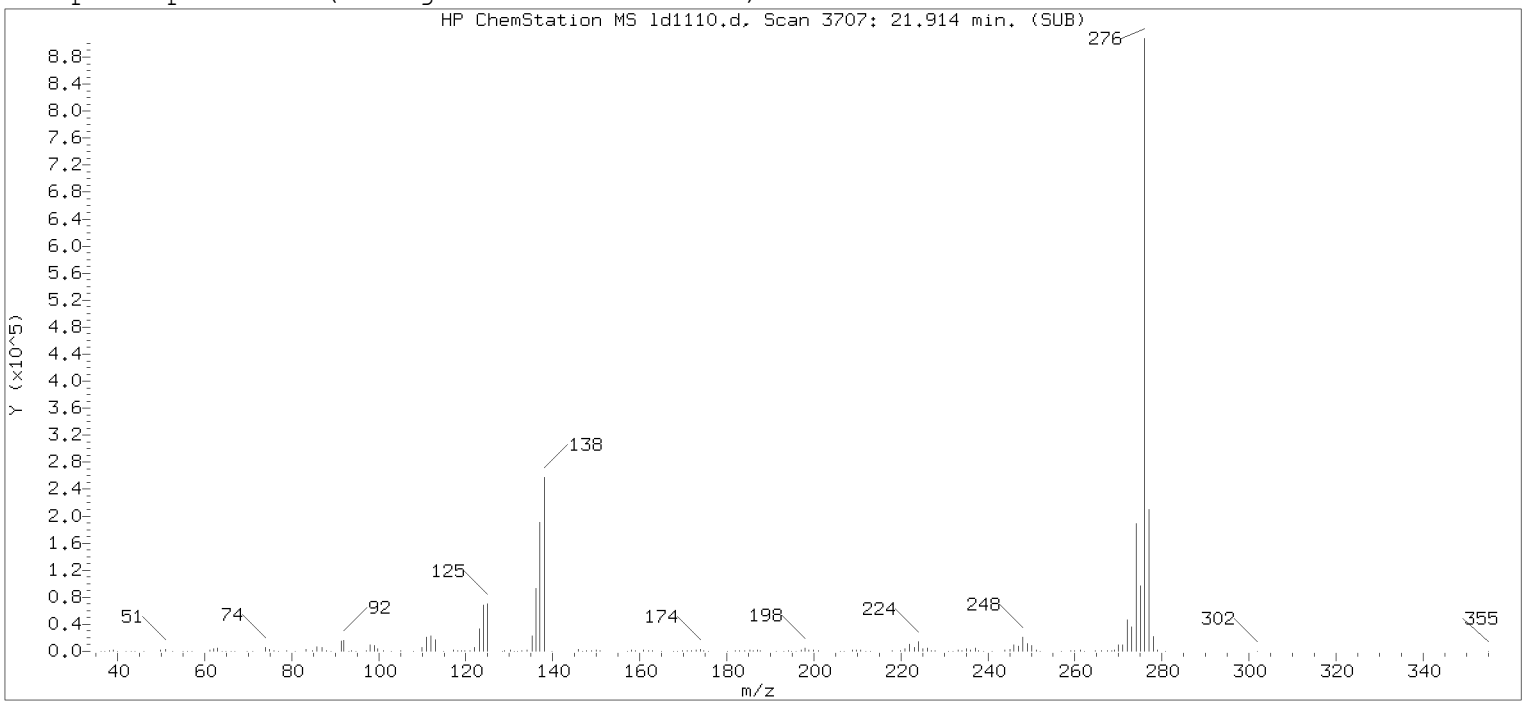
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area (flag) : 1572592M
On-Column Amount (ng/ul) : 11.8244
Integration start scan : 3694 Integration stop scan: 3711
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

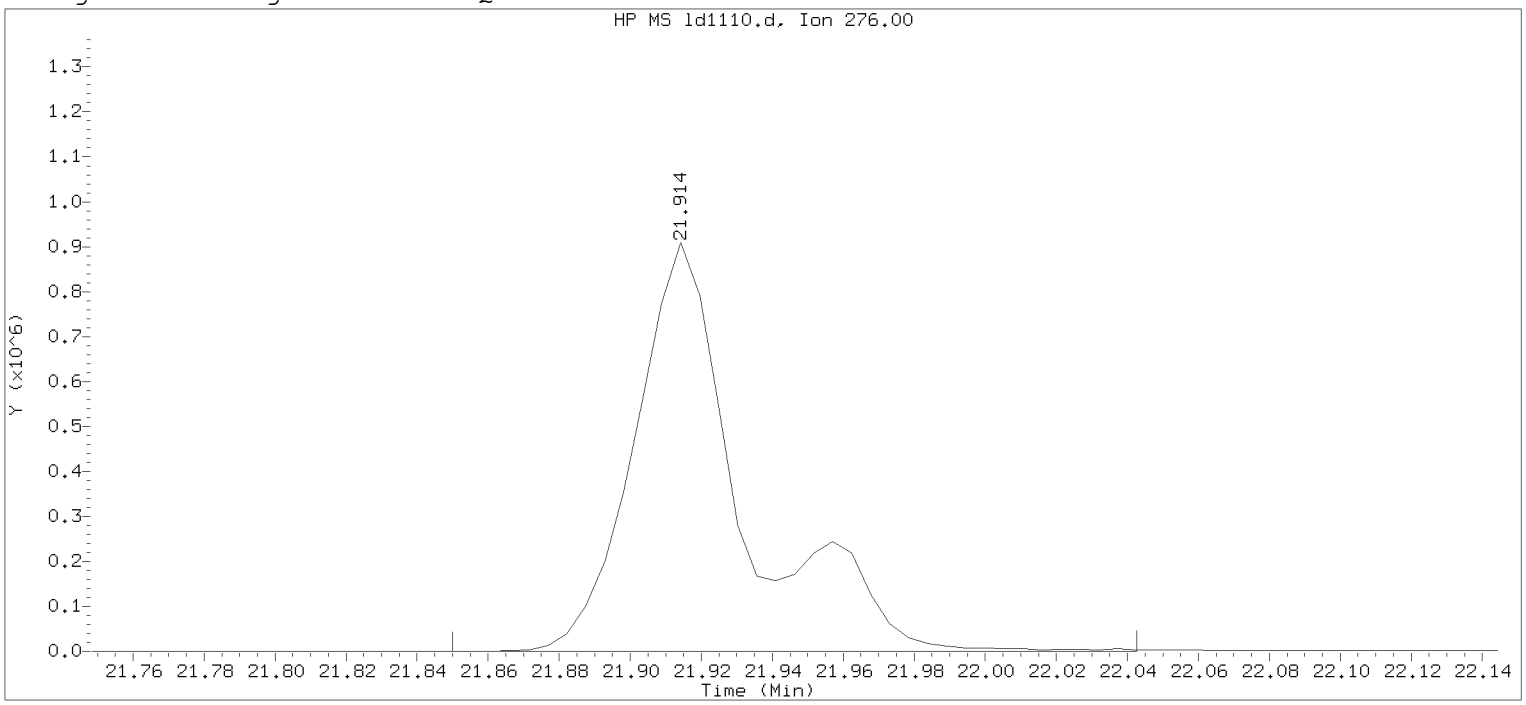
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1110.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:00 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 106WNLCS Lab Sample ID: 106WNLCS

Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area : 1939671
On-column Amount (ng/ul) : 14.5845
Integration start scan : 3694 Integration stop scan: 3730
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature used. Page 197

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

106WNLCSD

Data file: /chem/HP20296.i/19apr18a.b/ld1111.d Injection date and time: **19-APR-2019 01:29**
Data file Sample Info. Line: 106WNLCSD;106WNLCSD;1;3;LCSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMa**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.927	(-0.005)	905	152	187985	(-5)	5.00	
68) Naphthalene-d8	8.901	(0.006)	1274	136	738296	(-4)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	343522	(-6)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	595279	(-12)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	624943	(-8)	5.00	
218) Perylene-d12	20.272	(0.000)	3400	264	593492	(-7)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.023	(-0.003)	112	1803243	29.873	60%
18) Phenol-d6	(1)	6.398	(0.000)	99	1790747	22.357	45%
45) Nitrobenzene-d5	(2)	7.772	(-0.001)	82	1563835	21.354	85%
96) 2-Fluorobiphenyl	(3)	10.687	(0.000)	172	2024788	18.364	73%
140) 2,4,6-Tribromophenol	(3)	12.773	(0.000)	330	620212	44.639	89%
184) Terphenyl-d14	(5)	16.020	(0.000)	244	2338846	22.909	92%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)	2.932	(-0.005)	74	343492	8.025	32.10			0.5
6) Pyridine	(1)	2.964	(-0.004)	79	485877	6.428	25.71			0.5
8) 2-Picoline	(1)	4.119	(-0.002)	93	709049	9.407	37.63			0.5
17) Benzaldehyde	(1)	6.269	(-0.000)	77	613444	11.006	44.03			0.8
19) Phenol	(1)	6.419	(-0.000)	94	601611	6.382	25.53			0.1
20) Aniline	(1)	6.430	(-0.000)	93	846968	7.743	30.97			0.8
23) bis(2-Chloroethyl)ether	(1)	6.553	(-0.000)	93	761328	10.845	43.38			0.1
24) 2-Chlorophenol	(1)	6.606	(-0.000)	128	597188	10.450	41.80			0.1
28) Benzyl alcohol	(1)	7.146	(0.000)	108	447545	11.560	46.24			3
32) 2-Methylphenol	(1)	7.334	(0.000)	108	613433	10.529	42.11			0.1
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	(-0.000)	45	950504	10.713	42.85			0.1
35) bis(2-Chloroisopropyl)ether	(1)	7.382	(-0.000)	45	950504	10.713	42.85			0.1
37) Acetophenone	(1)	7.548	(0.000)	105	1037440	11.504	46.01			1
38) 4-Methylphenol	(1)	7.574	(0.000)	108	640785	9.779	39.11			0.1
39) N-Nitroso-di-n-propylamine	(1)	7.569	(0.000)	70	587543	11.516	46.07			0.2
41) o-Toluidine	(1)	7.601	(0.000)	106	764256	7.505	30.02			1
44) Hexachloroethane	(1)	7.697	(0.000)	117	150861	5.379	21.52			0.3
46) Nitrobenzene	(2)	7.799	(-0.000)	77	870761	11.286	45.14			0.1
52) Isophorone	(2)	8.190	(-0.000)	82	1556907	11.582	46.33			0.1
53) 2-Nitrophenol	(2)	8.302	(-0.000)	139	302622	11.050	44.20			0.8
55) 2,4-Dimethylphenol	(2)	8.409	(-0.000)	107	596102	9.329	37.32			0.8
57) bis(2-Chloroethoxy)methane	(2)	8.564	(-0.000)	93	980601	11.545	46.18			0.1
62) 2,4-Dichlorophenol	(2)	8.692	(-0.001)	162	483093	10.672	42.69			0.1
70) 4-Chloroaniline	(2)	9.040	(-0.000)	127	585867	8.470	33.88			1
74) Hexachlorobutadiene	(2)	9.168	(-0.000)	225	134239	4.815	19.26			0.1
79) Caprolactam	(2)	9.564	(-0.000)	113	50759	3.498	13.99			1
83) 4-Chloro-3-methylphenol	(2)	9.853	(-0.000)	107	615888	11.065	44.26			0.1

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Data file: /chem/HP20296.i/19apr18a.b/ld1111.d Injection date and time: **19-APR-2019 01:29**
Data file Sample Info. Line: 106WNLCSD;106WNLCSD;1;3;LCSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMa**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
86) 2-Methylnaphthalene	(2)	10.067(-0.000)	142	931344	8.946	35.78			0.03
88) Hexachlorocyclopentadiene	(3)	10.340(0.000)	237	155488	5.635	22.54			1
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340(0.000)	216	365526	7.651	30.60			0.1
93) 2,4,6-Trichlorophenol	(3)	10.538(-0.000)	196	355073	11.396	45.58			0.1
95) 2,4,5-Trichlorophenol	(3)	10.586(0.000)	196	365358	11.163	44.65			0.1
98) 1,1'-Biphenyl	(3)	10.842(0.000)	154	1172729	9.650	38.60			0.8
99) 2-Chloronaphthalene	(3)	10.853(0.000)	162	949877	9.387	37.55			0.1
104) 2-Nitroaniline	(3)	11.030(0.000)	138	368881	12.429	49.72			0.5
110) Dimethylphthalate	(3)	11.377(0.000)	163	967001	9.310	37.24			0.5
111) 1,3-Dinitrobenzene	(3)	11.383(0.000)	168	185298	11.718	46.87			0.5
113) 2,6-Dinitrotoluene	(3)	11.447(0.000)	165	277558	12.262	49.05			0.1
114) Acenaphthylene	(3)	11.516(0.000)	152	1506238	11.089	44.36			0.03
117) 3-Nitroaniline	(3)	11.682(0.000)	138	258569	9.979	39.92			0.8
119) Acenaphthene	(3)	11.784(-0.000)	153	1070164	10.481	41.92			0.03
120) 2,4-Dinitrophenol	(3)	11.843(-0.000)	184	252537	19.228	76.91			4
121) 4-Nitrophenol	(3)	11.955(-0.000)	109	129972	6.723	26.89		J	3
123) 2,4-Dinitrotoluene	(3)	12.030(-0.000)	165	367588	11.958	47.83			0.3
124) Dibenzofuran	(3)	12.030(-0.000)	168	1434897	10.775	43.10			0.1
126) 1-Naphthylamine	(3)	12.137(-0.000)	143	1219931	12.499	50.00			2
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201(-0.000)	232	277455	11.542	46.17			1
128) 2-Naphthylamine	(3)	12.244(-0.000)	143	1125684	11.877	47.51			2
129) Diethylphthalate	(3)	12.388(-0.000)	149	1059519	10.186	40.75			0.5
131) Fluorene	(3)	12.474(-0.000)	166	1150412	10.778	43.11			0.03
132) 4-Chlorophenyl-phenylether	(3)	12.500(-0.000)	204	515882	10.274	41.09			0.1
134) 4-Nitroaniline	(3)	12.500(-0.000)	138	273074	9.939	39.75			0.2
135) 4,6-Dinitro-2-methylphenol	(4)	12.549(0.000)	198	176243	11.062	44.25			2
136) N-Nitrosodiphenylamine	(4)	12.645(-0.000)	169	987997	12.407	49.63			0.2
137) NDPA as diphenylamine	(4)	12.645(-0.000)	169	977906M	12.281	49.12			0.8
148) 4-Bromophenyl-phenylether	(4)	13.110(0.000)	248	291174	11.277	45.11			0.1
150) Hexachlorobenzene	(4)	13.164(0.000)	284	322716	11.199	44.80			0.03
153) Atrazine	(4)	13.340(0.000)	200	305724	12.867	51.47			0.5
154) Pentachlorophenol	(4)	13.420(0.000)	266	200533M	10.972	43.89			0.3
160) Phenanthrene	(4)	13.693(-0.000)	178	1723080	11.974	47.89			0.03
162) Anthracene	(4)	13.763(-0.000)	178	1716148	11.952	47.81			0.03
168) Carbazole	(4)	13.982(-0.000)	167	1610666	12.591	50.37			0.1
170) Di-n-butylphthalate	(4)	14.512(-0.000)	149	2135241	12.300	49.20			0.5
178) Fluoranthene	(4)	15.383(-0.000)	202	1860202	12.423	49.69			0.03
182) Pyrene	(5)	15.731(-0.000)	202	1947300	11.502	46.01			0.03
192) 3,3'-Dimethylbenzidine	(5)			Not Detected					6
193) Butylbenzylphthalate	(5)	16.886(-0.000)	149	991528	11.860	47.44			0.5
198) 3,3'-Dichlorobenzidine	(5)	17.764(-0.000)	252	476981	8.296	33.18			0.8
200) Benzo(a)anthracene	(5)	17.774(-0.000)	228	1785114	11.714	46.85			0.03
201) Chrysene	(5)	17.838(-0.000)	228	1705019	11.522	46.09			0.03
204) bis(2-Ethylhexyl)phthalate	(5)	17.972(-0.000)	149	1531776	12.590	50.36			1
210) Di-n-octylphthalate	(6)	19.149(0.000)	149	2692913	13.075	52.30			1
211) Benzo(b)fluoranthene	(6)	19.657(-0.000)	252	1799071	11.938	47.75			0.03
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.662(-0.000)	256	793258	12.652	50.61			1
213) Benzo(k)fluoranthene	(6)	19.705(-0.000)	252	1756226	12.144	48.58			0.03
216) Benzo(a)pyrene	(6)	20.186(-0.000)	252	1669983	12.189	48.75			0.03
224) Indeno(1,2,3-cd)pyrene	(6)	21.914(-0.000)	276	1552550M	11.585	46.34			0.03
225) Dibenz(a,h)anthracene	(6)	21.957(-0.000)	278	1662104	12.056	48.22			0.03
226) Benzo(g,h,i)perylene	(6)	22.326(-0.000)	276	1608609	11.357	45.43			0.03

M = Compound was manually integrated.

Digitally signed by William H Saadeh on 04/24/2019 at 09:00. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP20296.i/19apr18a.b/ld1111.d Injection date and time: **19-APR-2019 01:29**
Data file Sample Info. Line: 106WNLCSD;106WNLCSD;1;3;LCSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMa**
Calibration date and time (Last Method Edit): 23-APR-2019 14:18
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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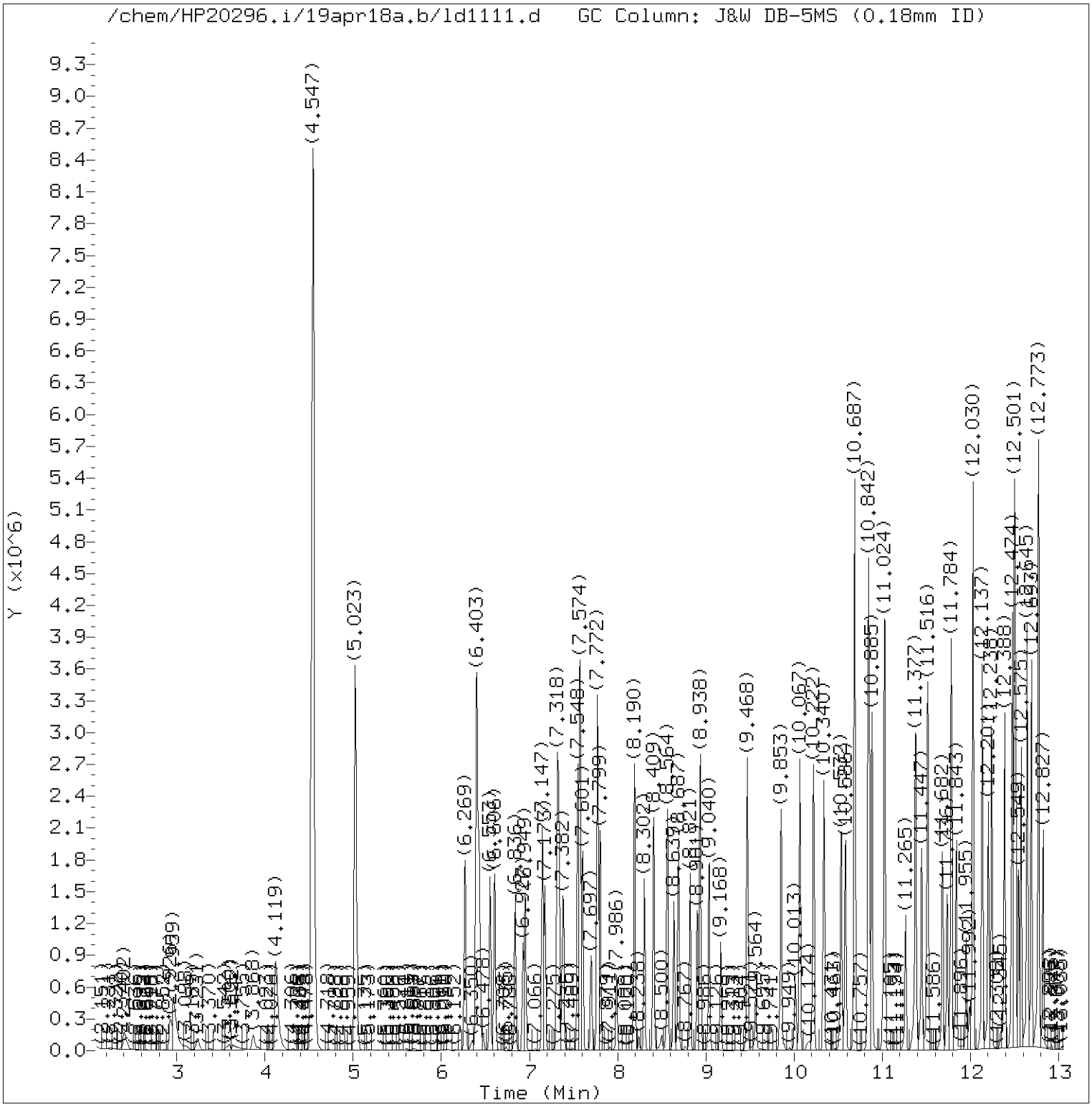
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 79

Digitally signed by William H Saadeh on 04/24/2019 at 09:00. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

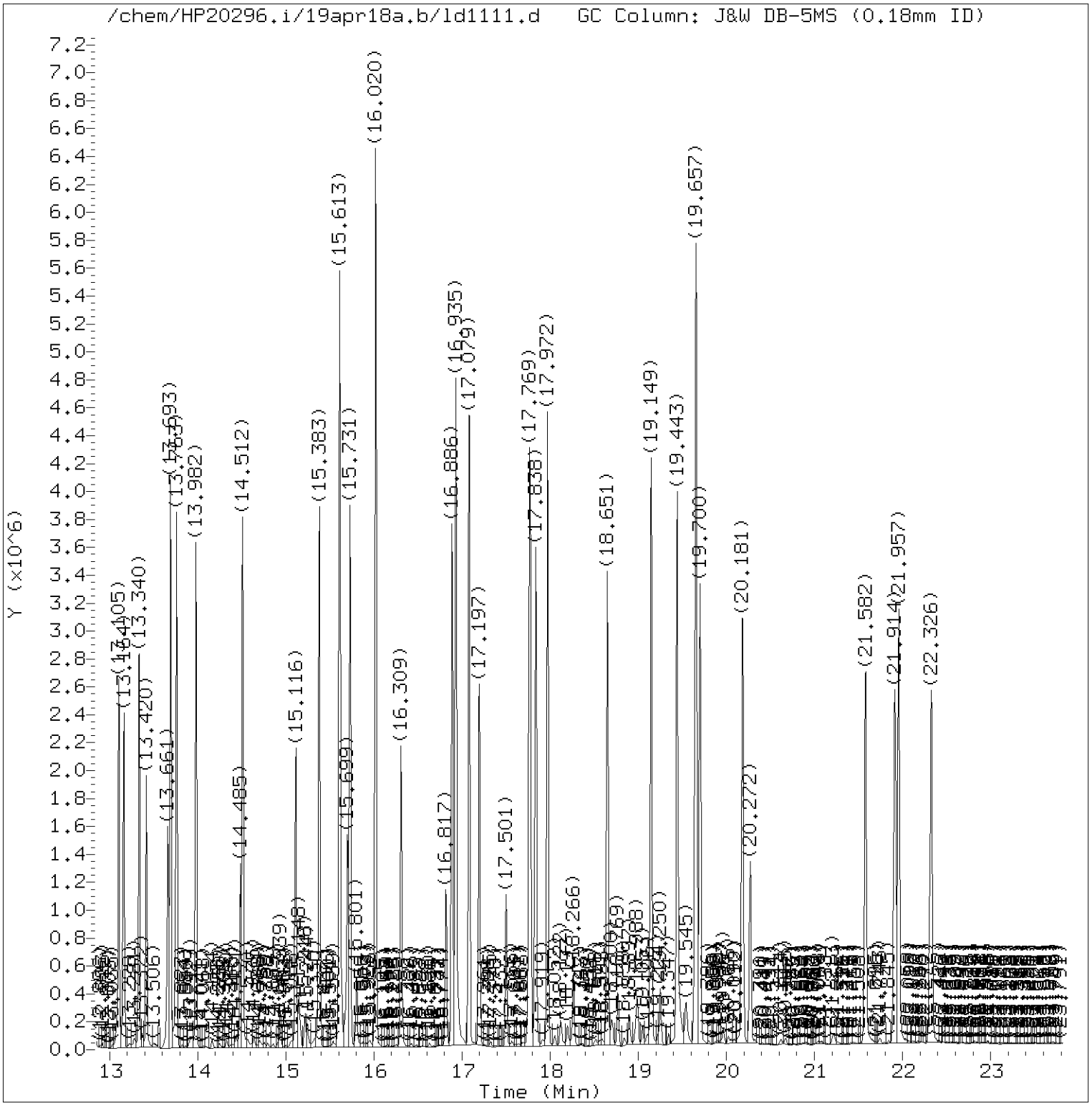
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) N-Nitrosodimethylamine	(1)	2.932	74	343492	8.025
6) Pyridine	(1)	2.964	79	485877	6.428
8) 2-Picoline	(1)	4.119	93	709049	9.407
12)$2-Fluorophenol	(1)	5.023	112	1803243	29.873
17) Benzaldehyde	(1)	6.269	77	613444	11.006
18)$Phenol-d6	(1)	6.398	99	1790747	22.357
19) Phenol	(1)	6.419	94	601611	6.382
20) Aniline	(1)	6.430	93	846968	7.743
23) bis(2-Chloroethyl)ether	(1)	6.553	93	761328	10.845
24) 2-Chlorophenol	(1)	6.606	128	597188	10.450
26)*1,4-Dichlorobenzene-d4	(1)	6.927	152	187985	5.000
28) Benzyl alcohol	(1)	7.147	108	447545	11.560
32) 2-Methylphenol	(1)	7.334	108	613433	10.529
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	950504	10.713
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	950504	10.713
37) Acetophenone	(1)	7.548	105	1037440	11.504
39) N-Nitroso-di-n-propylamine	(1)	7.569	70	587543	11.516
38) 4-Methylphenol	(1)	7.574	108	640785	9.779
41) o-Toluidine	(1)	7.601	106	764256	7.505
44) Hexachloroethane	(1)	7.697	117	150861	5.379
45)$Nitrobenzene-d5	(2)	7.772	82	1563835	21.354
46) Nitrobenzene	(2)	7.799	77	870761	11.286
52) Isophorone	(2)	8.190	82	1556907	11.582
53) 2-Nitrophenol	(2)	8.302	139	302622	11.050
55) 2,4-Dimethylphenol	(2)	8.409	107	596102	9.329
57) bis(2-Chloroethoxy)methane	(2)	8.564	93	980601	11.545
62) 2,4-Dichlorophenol	(2)	8.692	162	483093	10.672
68)*Naphthalene-d8	(2)	8.901	136	738296	5.000
70) 4-Chloroaniline	(2)	9.040	127	585867	8.470
74) Hexachlorobutadiene	(2)	9.168	225	134239	4.815
79) Caprolactam	(2)	9.564	113	50759	3.498
83) 4-Chloro-3-methylphenol	(2)	9.853	107	615888	11.065
86) 2-Methylnaphthalene	(2)	10.067	142	931344	8.946
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	216	365526	7.651
88) Hexachlorocyclopentadiene	(3)	10.340	237	155488	5.635
93) 2,4,6-Trichlorophenol	(3)	10.538	196	355073	11.396
95) 2,4,5-Trichlorophenol	(3)	10.586	196	365358	11.163
96)$2-Fluorobiphenyl	(3)	10.687	172	2024788	18.364
98) 1,1'-Biphenyl	(3)	10.842	154	1172729	9.650
99) 2-Chloronaphthalene	(3)	10.853	162	949877	9.387

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
104) 2-Nitroaniline	(3)	11.030	138	368881	12.429
110) Dimethylphthalate	(3)	11.377	163	967001	9.310
111) 1,3-Dinitrobenzene	(3)	11.383	168	185298	11.718
113) 2,6-Dinitrotoluene	(3)	11.447	165	277558	12.262
114) Acenaphthylene	(3)	11.516	152	1506238	11.089
117) 3-Nitroaniline	(3)	11.682	138	258569	9.979
118)*Acenaphthene-d10	(3)	11.736	164	343522	5.000
119) Acenaphthene	(3)	11.784	153	1070164	10.481
120) 2,4-Dinitrophenol	(3)	11.843	184	252537	19.228
121) 4-Nitrophenol	(3)	11.955	109	129972	6.723
123) 2,4-Dinitrotoluene	(3)	12.030	165	367588	11.958
124) Dibenzofuran	(3)	12.030	168	1434897	10.775
126) 1-Naphthylamine	(3)	12.137	143	1219931	12.499
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201	232	277455	11.542
128) 2-Naphthylamine	(3)	12.244	143	1125684	11.877
129) Diethylphthalate	(3)	12.388	149	1059519	10.186
131) Fluorene	(3)	12.474	166	1150412	10.778
132) 4-Chlorophenyl-phenylether	(3)	12.501	204	515882	10.274
134) 4-Nitroaniline	(3)	12.501	138	273074	9.939
135) 4,6-Dinitro-2-methylphenol	(4)	12.549	198	176243	11.062
136) N-Nitrosodiphenylamine	(4)	12.645	169	987997	12.407
137) NDPA as diphenylamine	(4)	12.645	169	977906M	12.281
140)$2,4,6-Tribromophenol	(3)	12.773	330	620212	44.639
148) 4-Bromophenyl-phenylether	(4)	13.110	248	291174	11.277
150) Hexachlorobenzene	(4)	13.164	284	322716	11.199
153) Atrazine	(4)	13.340	200	305724	12.867
154) Pentachlorophenol	(4)	13.420	266	200533M	10.972
158)*Phenanthrene-d10	(4)	13.661	188	595279	5.000
160) Phenanthrene	(4)	13.693	178	1723080	11.974
162) Anthracene	(4)	13.763	178	1716148	11.952
168) Carbazole	(4)	13.982	167	1610666	12.591
170) Di-n-butylphthalate	(4)	14.512	149	2135241	12.300
178) Fluoranthene	(4)	15.383	202	1860202	12.423
180)*Pyrene-d10	(5)	15.699	212	624943	5.000
182) Pyrene	(5)	15.731	202	1947300	11.502
184)$Terphenyl-d14	(5)	16.020	244	2338846	22.909
193) Butylbenzylphthalate	(5)	16.886	149	991528	11.860
198) 3,3'-Dichlorobenzidine	(5)	17.764	252	476981	8.296
200) Benzo(a)anthracene	(5)	17.774	228	1785114	11.714
201) Chrysene	(5)	17.838	228	1705019	11.522

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

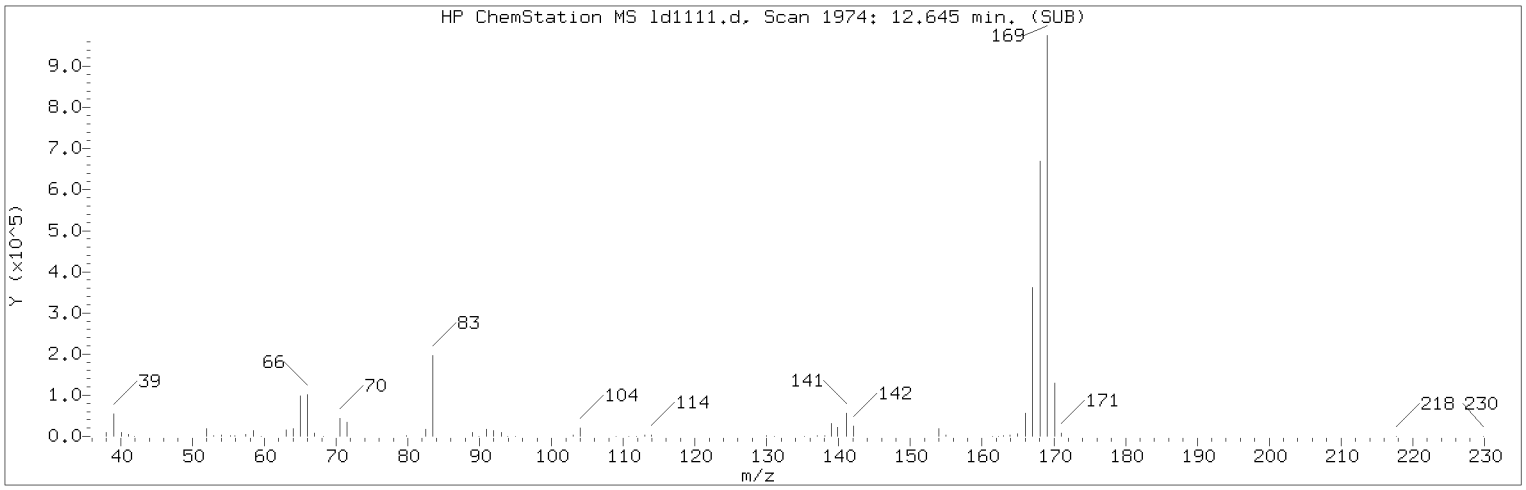
Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
204) bis(2-Ethylhexyl)phthalate	(5)	17.972	149	1531776	12.590
210) Di-n-octylphthalate	(6)	19.149	149	2692913	13.075
211) Benzo(b)fluoranthene	(6)	19.657	252	1799071	11.938
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.662	256	793258	12.652
213) Benzo(k)fluoranthene	(6)	19.705	252	1756226	12.144
216) Benzo(a)pyrene	(6)	20.186	252	1669983	12.189
218)*Perylene-d12	(6)	20.272	264	593492	5.000
224) Indeno(1,2,3-cd)pyrene	(6)	21.914	276	1552550M	11.585
225) Dibenz(a,h)anthracene	(6)	21.957	278	1662104	12.056
226) Benzo(g,h,i)perylene	(6)	22.326	276	1608609	11.357

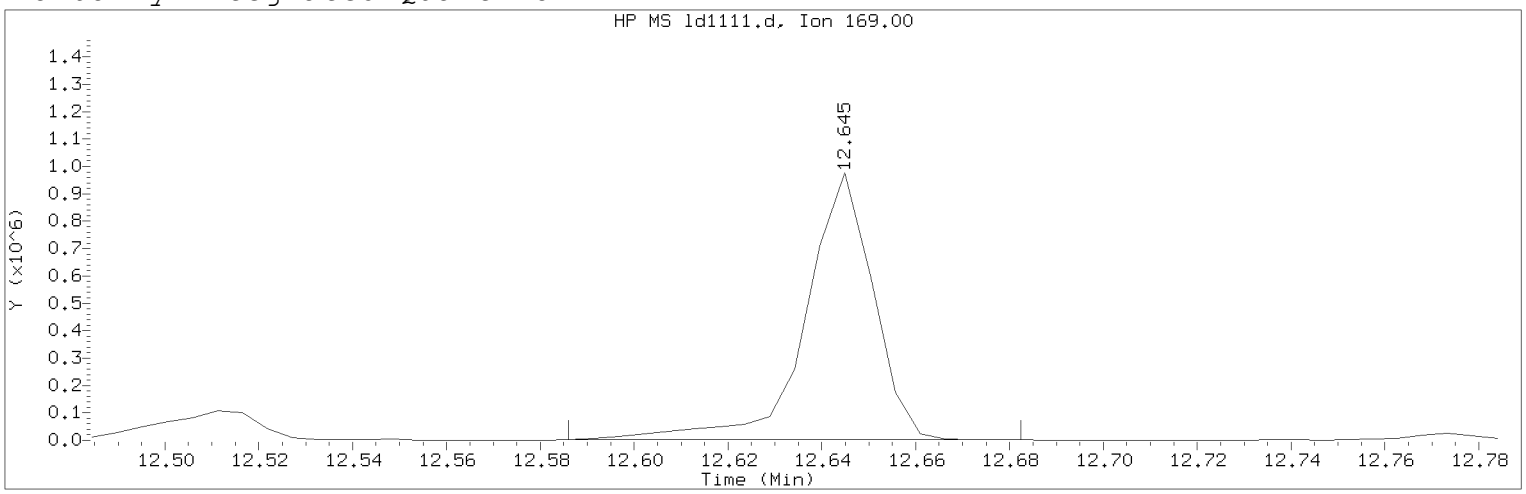
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

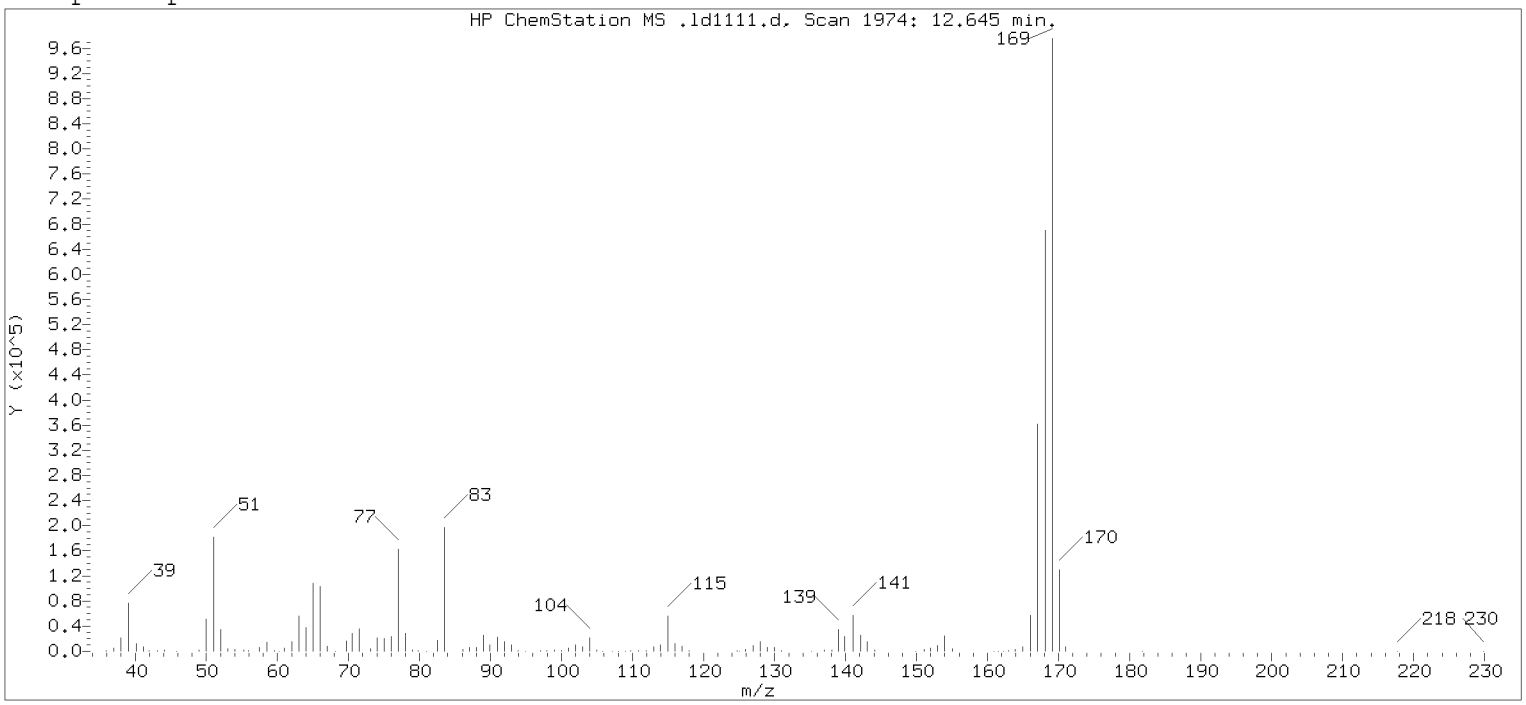
Compound Number : 137
Compound Name : NDPA as diphenylamine
Scan Number : 1974
Retention Time (minutes) : 12.645
Quant Ion : 169.00
Area (flag) : 977906M
On-Column Amount (ng/ul) : 12.2808
Integration start scan : 1962 Integration stop scan: 1980
Y at integration start : 1573 Y at integration end: 1556

Reason for manual integration: missed peak

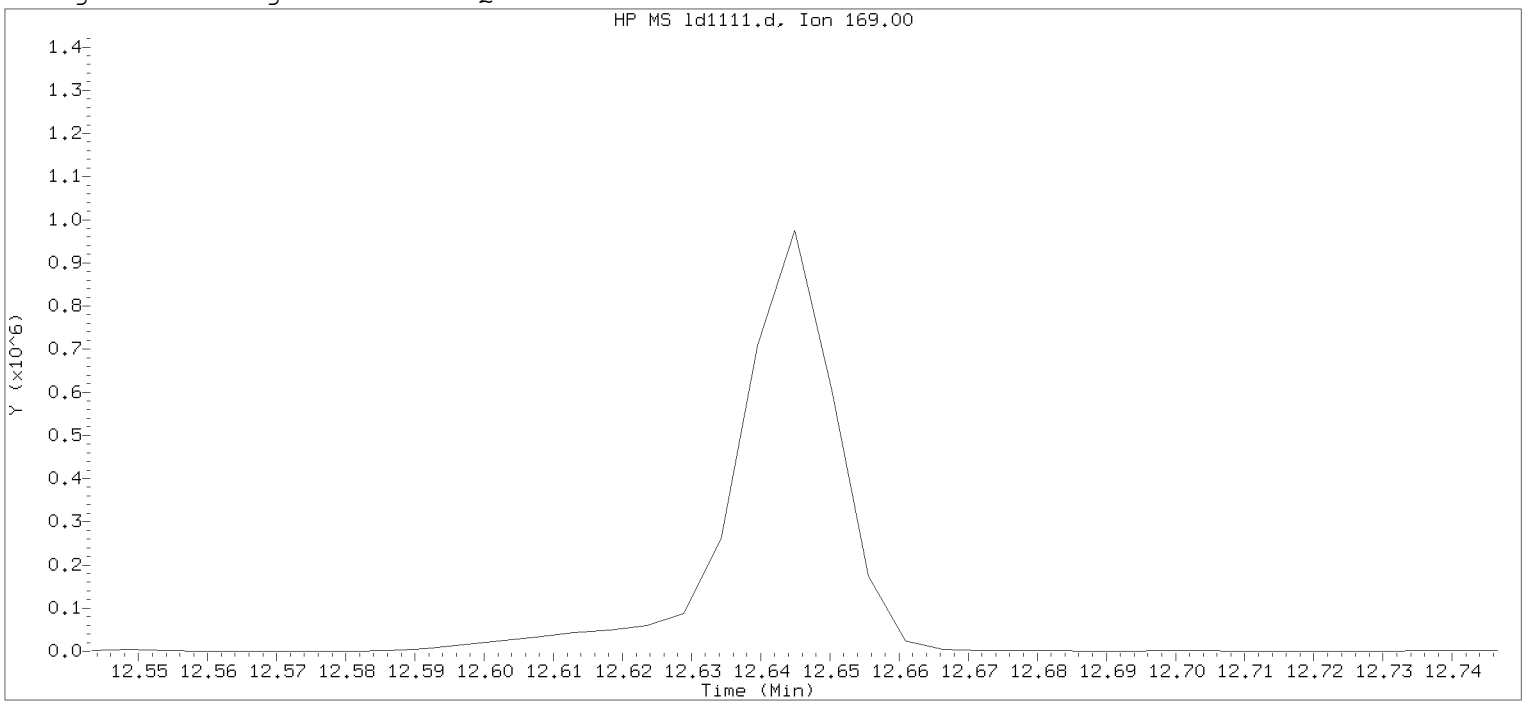
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

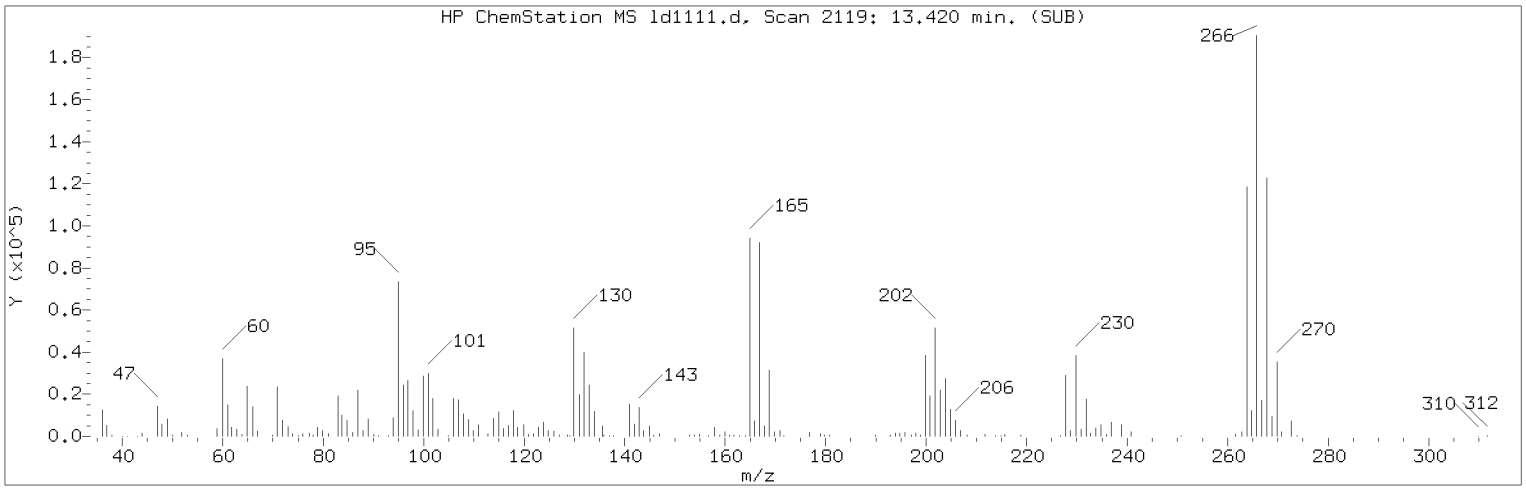
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

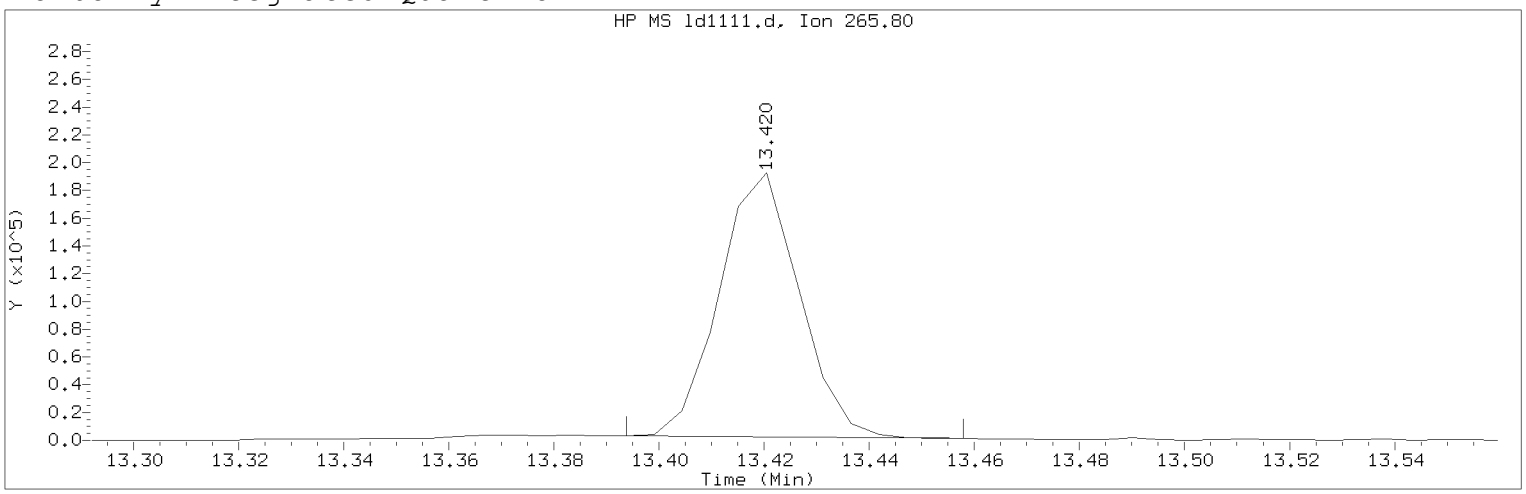
Compound Number : 137
Compound Name : NDPA as diphenylamine
Expected RT (minutes) : 12.645
Quant Ion : 169.00

Digitally signed by William H Saadeh on 04/24/2019 at 09:00.
Target 3.5 esignature used. F35 Page 2207

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

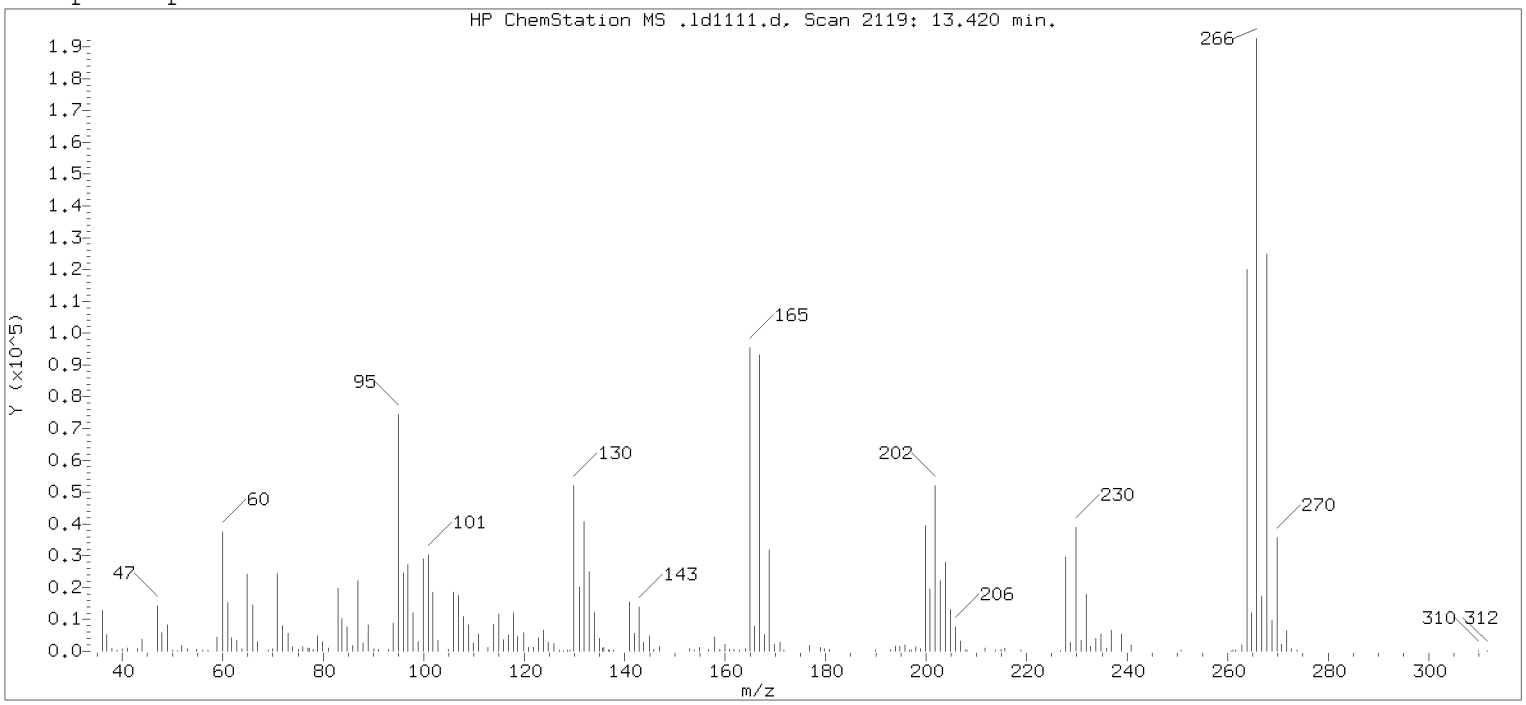
Compound Number : 154
Compound Name : Pentachlorophenol
Scan Number : 2119
Retention Time (minutes) : 13.420
Quant Ion : 266.00
Area (flag) : 200533M
On-Column Amount (ng/ul) : 10.9720
Integration start scan : 2113 Integration stop scan: 2125
Y at integration start : 3102 Y at integration end: 1271

Reason for manual integration: missed peak

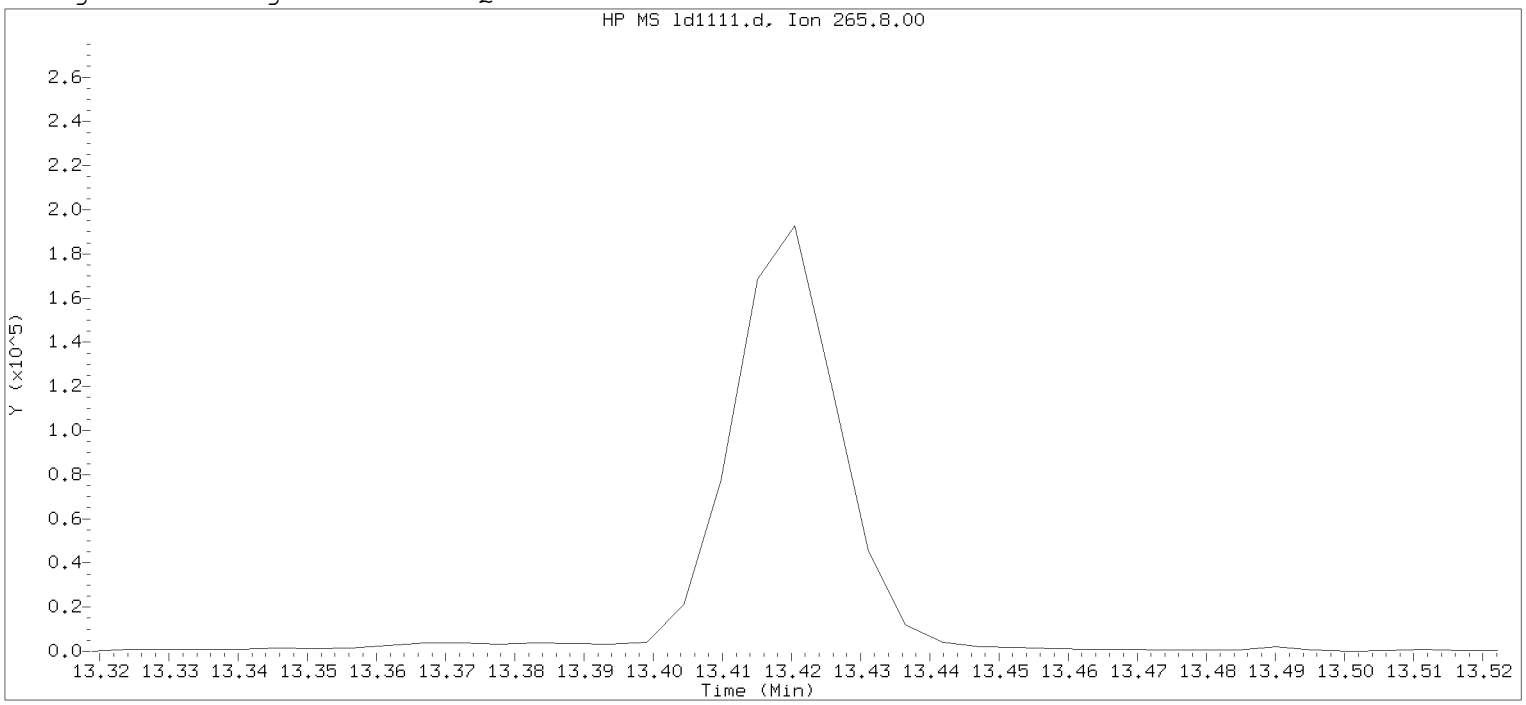
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

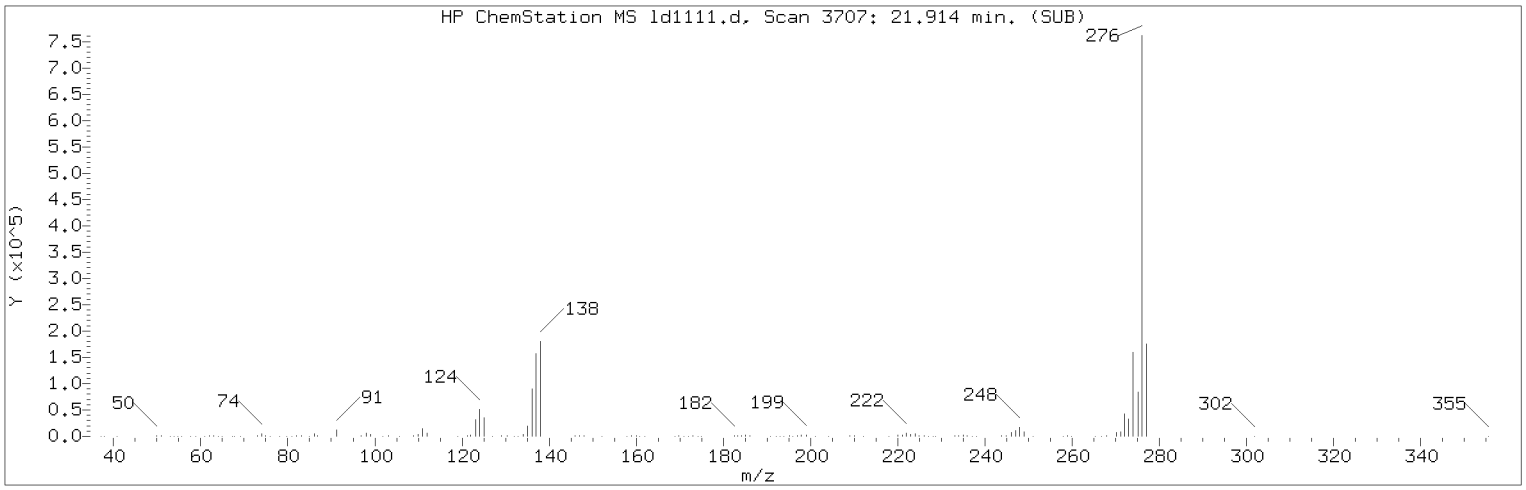
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

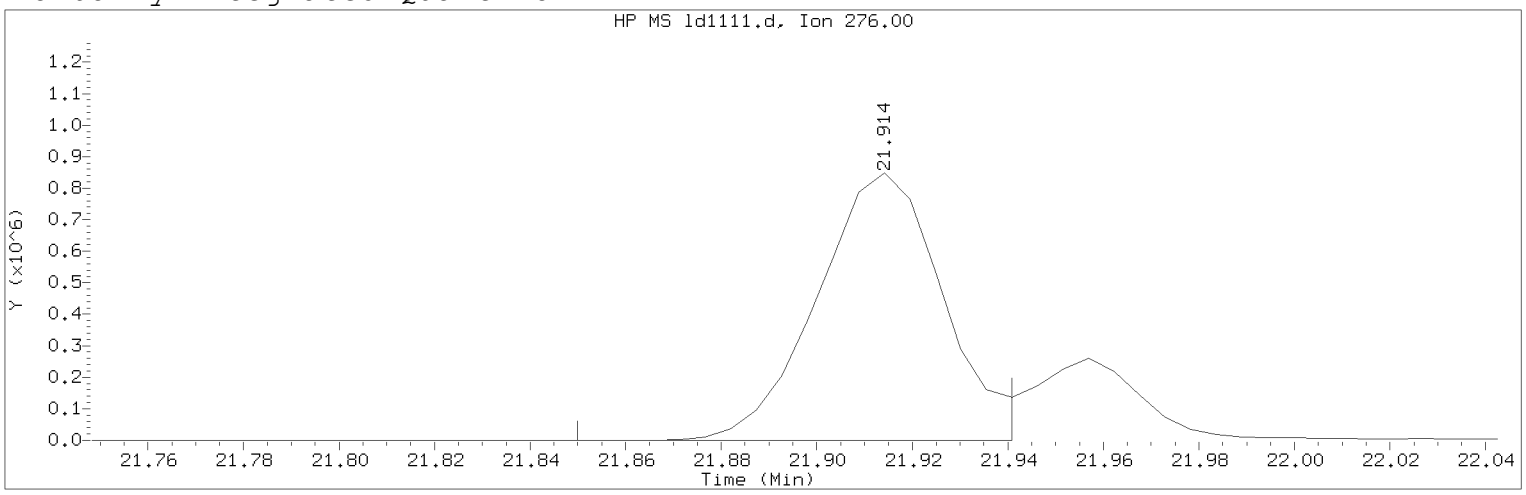
Compound Number : 154
Compound Name : Pentachlorophenol
Expected RT (minutes) : 13.421
Quant Ion : 266.00

Digitally signed by William H Saadeh on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: WHS

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 23-APR-2019 14:18
Date, time and analyst ID of latest file update: 24-Apr-2019 08:22 whs02991

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

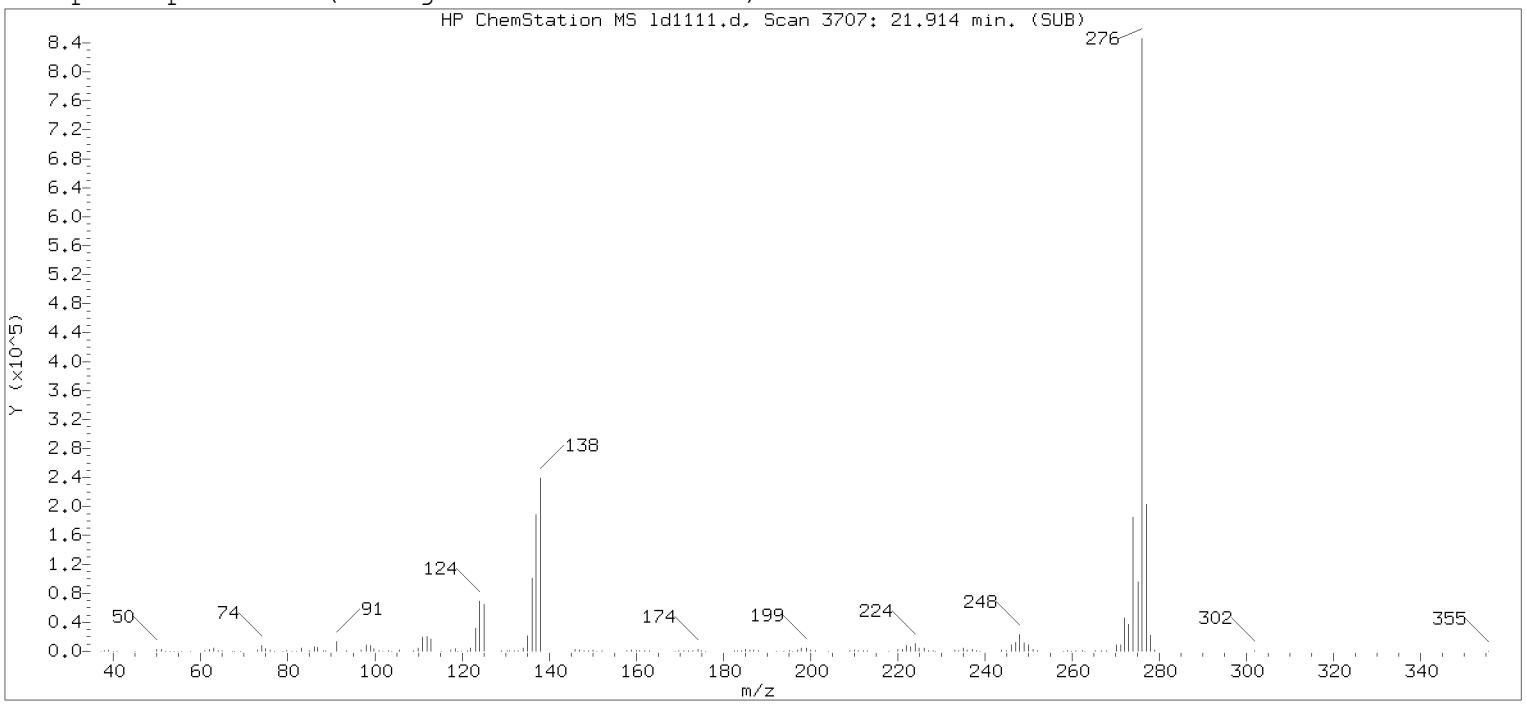
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area (flag) : 1552550M
On-Column Amount (ng/ul) : 11.5846
Integration start scan : 3694 Integration stop scan: 3711
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

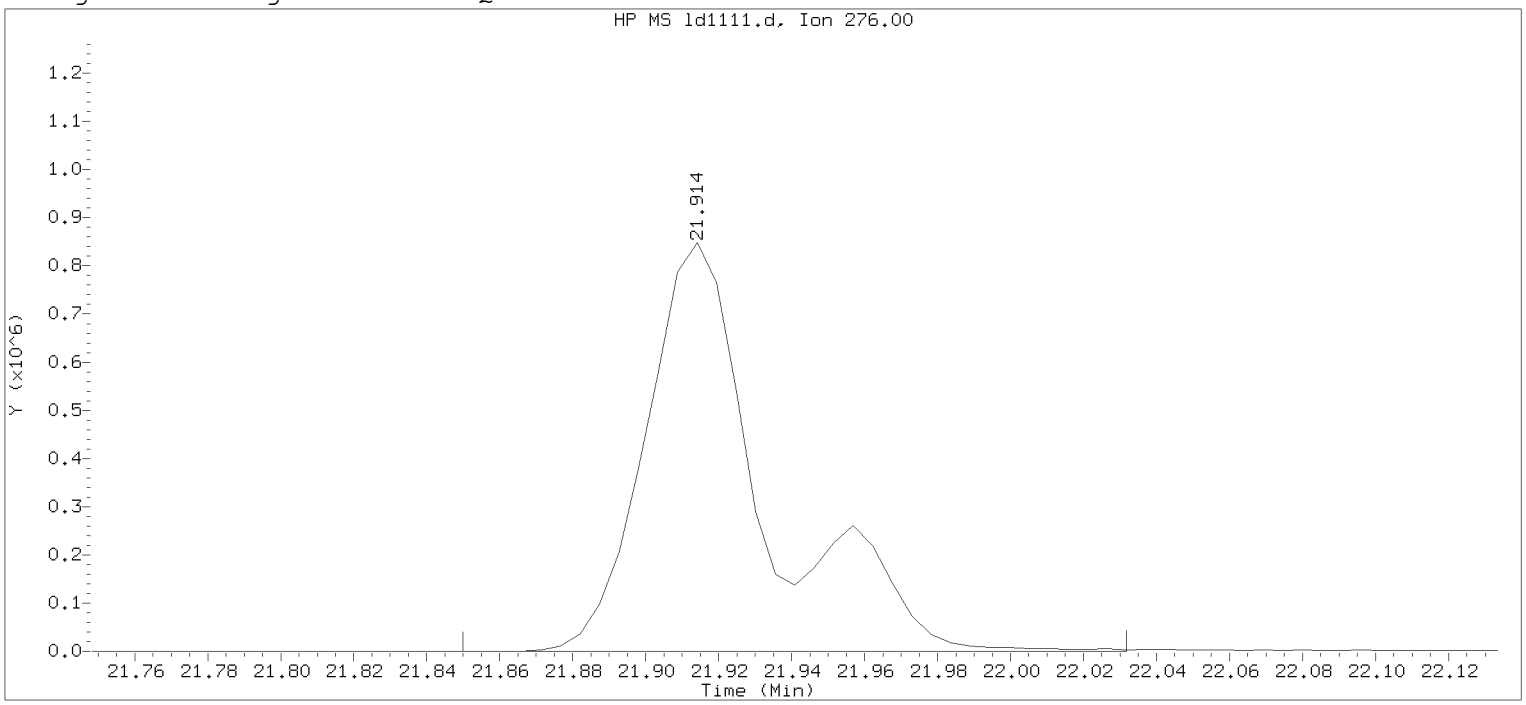
Analyst responsible for change: Digitally signed by William H Saadeh
on 04/24/2019 at 09:00.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Matthew E. Barton on 04/24/2019 at 08:55.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1111.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:29 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMa
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 106WNLCSD Lab Sample ID: 106WNLCSD

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3707		
Retention Time (minutes)	: 21.914		
Quant Ion	: 276.00		
Area	: 1936974		
On-column Amount (ng/ul)	: 14.4531		
Integration start scan	: 3694	Integration stop scan:	3728
Y at integration start	: 0	Y at integration end:	0

Digitally signed by William H Saadeh on 04/24/2019 at 09:00.
Target 3.5 esignature user: F35 Page 2211

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

106WNLCS2

Data file: /chem/HP20296.i/19apr18a.b/ld1112.d
Injection date and time: **19-APR-2019 01:58**
Data file Sample Info. Line: 106WNLCS2;106WNLCS2;1;3;LCS;;RAAP;
Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.927	(-0.005)	905	152	189812	(-4)	5.00	
68) Naphthalene-d8	8.906	(0.000)	1275	136	738683	(-4)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	335392	(-8)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	614484	(-9)	5.00	
180) Pyrene-d10	15.704	(-0.005)	2546	212	590503	(-13)	5.00	
218) Perylene-d12	20.272	(0.000)	3400	264	569086	(-11)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.018	(-0.003)	112	1818176	29.830	60%
18) Phenol-d6	(1)	6.398	(0.000)	99	1773443	21.928	44%
45) Nitrobenzene-d5	(2)	7.772	(0.000)	82	1540020	21.017	84%
96) 2-Fluorobiphenyl	(3)	10.687	(0.000)	172	1873838	17.407	70%
140) 2,4,6-Tribromophenol	(3)	12.779	(0.000)	330	582797	42.963	86%
184) Terphenyl-d14	(5)	16.025	(0.000)	244	2312199	23.969	96%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
9) N-Nitrosomethylethylamine	(1)	4.312	(-0.001)	88	330743	10.657	42.63			0.5
10) Methyl methanesulfonate	(1)	4.761	(-0.001)	80	363357	9.503	38.01			0.3
14) N-Nitrosodiethylamine	(1)	5.339	(-0.000)	102	328908	11.004	44.01			0.1
16) Ethyl methanesulfonate	(1)	5.799	(-0.000)	109	341384	10.753	43.01			0.1
36) N-Nitrosopyrrolidine	(1)	7.500	(0.001)	100	354118	11.257	45.03			0.1
40) N-Nitrosomorpholine	(1)	7.569	(0.001)	56	390930	10.364	41.46			0.5
50) N-Nitrosopiperidine	(2)	8.034	(0.000)	114	322380	11.120	44.48			0.1
59) O,O,O-Triethylphosphorothioate	(2)	8.532	(0.000)	198	263165	10.470	41.88			0.5
67) a,a-Dimethylphenethylamine	(2)	8.655	(-0.000)	58	1746074M	35.375	141.50		E	1
71) 2,6-Dichlorophenol	(2)	9.051	(-0.000)	162	451991	10.188	40.75			0.1
72) Hexachloropropene	(2)	9.093	(-0.000)	213	114405	3.752	15.01			0.5
80) N-Nitrosodi-n-butylamine	(2)	9.623	(-0.000)	84	543961	10.764	43.06			3
84) 1,4-Phenylenediamine	(2)	9.612	(-0.001)	108	2236245	37.889	151.56		EJ	19
85) Safrole	(2)	9.955	(-0.000)	162	374711	9.505	38.02			0.5
91) cis-Isosafrole	(3)	10.431	(0.000)	162	49597	1.193	4.77			0.3
97) trans-Isosafrole	(3)	10.800	(0.000)	162	435639	9.310	37.24			0.3
100) Isosafrole	(3)				485236	10.503	42.01			0.3
108) 1,4-Naphthoquinone	(3)				Not Detected					6
122) Pentachlorobenzene	(3)	11.976	(0.000)	250	314702	8.107	32.43			0.1
130) Thionazin	(3)	12.479	(0.000)	107	257009	12.335	49.34			0.5
133) 5-Nitro-o-toluidine	(3)	12.495	(0.000)	152	238507	8.591	34.36			1
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)	13.025	(0.000)	86	505525	8.745	34.98			0.06
146) Phorate	(4)	13.035	(-0.000)	75	1038456	12.563	50.25			0.1
147) Phenacetin	(4)	13.046	(-0.000)	108	754543	12.585	50.34			0.1
149) Diallate (peak 2)	(4)	13.137	(0.000)	86	158128	3.308	13.23			0.06
151) Diallate trans/cis	(4)				663653	12.053	48.21			0.3

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32. Target 3.5 esignature user ID: knb25316

Data file: /chem/HP20296.i/19apr18a.b/ld1112.d Injection date and time: **19-APR-2019 01:58**
Data file Sample Info. Line: 106WNLCS2;106WNLCS2;1;3;LCS;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

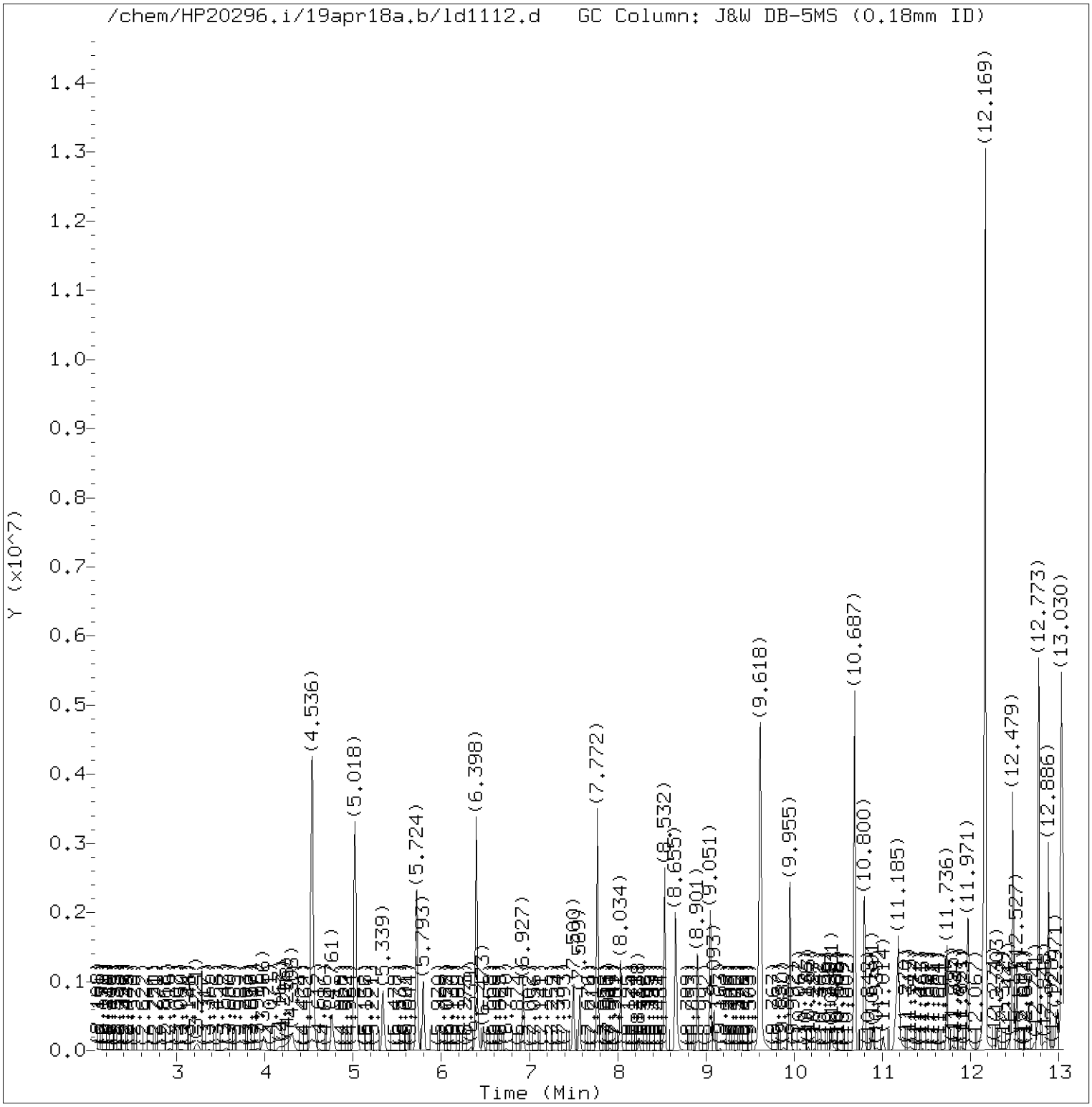
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
152) Dimethoate	(4)	13.228(0.000)	87	222870	4.153	16.61			0.8
155) 4-Aminobiphenyl	(4)	13.431(-0.000)	169	591903	6.225	24.90			1
156) Pentachloronitrobenzene	(4)	13.436(-0.000)	237	139894	11.292	45.17			0.5
157) Pronamide	(4)	13.538(0.000)	173	571327	13.084	52.33			0.1
167) Disulfoton	(4)	13.704(-0.000)	88	1670715M	28.327	113.31			6
169) Methyl parathion	(4)	14.196(-0.000)	109	290333	7.491	29.96			0.3
172) Parathion	(4)	14.758(-0.000)	109	343647	13.729	54.92			1
173) 4-Nitroquinoline-1-oxide	(4)	14.784(-0.001)	190	2019241	109.300	437.20		E	5
175) Methapyrilene	(4)	14.924(-0.000)	97	5948690M	116.236	464.94		E	4
176) Isodrin	(4)	15.164(-0.000)	193	208084	12.022	48.09			0.1
185) Aramite (1)	(5)	15.918(-0.000)	185	3998M	0.669	2.68		J	0.3
186) Aramite (2)	(5)	15.950(-0.000)	185	3913M	0.528	2.11		J	0.3
188) Aramite (3)	(5)	16.025(0.000)	185	94000M	2.339	9.36			0.3
189) Aramite (4)	(5)	16.154(0.000)	185	96940M	1.806	7.22			0.3
191) Aramite	(5)			198851	5.342	21.37			1
187) p-Dimethylaminoazobenzene	(5)	16.255(0.000)	225	339947	13.220	52.88			1
190) Chlorobenzilate	(5)	16.352(0.000)	139	545511	10.508	42.03			0.8
194) Famphur	(5)	16.758(0.000)	218	271513M	6.654	26.61		J	6
195) Kepone	(5)	16.967(-0.005)	272	126730M	9.412	37.65		J	6
196) 2-Acetylaminofluorene	(5)	17.250(0.000)	181	825649	12.656	50.62			3
220) 3-Methylcholanthrene	(6)	20.764(-0.000)	268	860366	12.783	51.13			1

M = Compound was manually integrated. E = Compound concentration above calibration range.

Total number of targets = 48

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32. Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

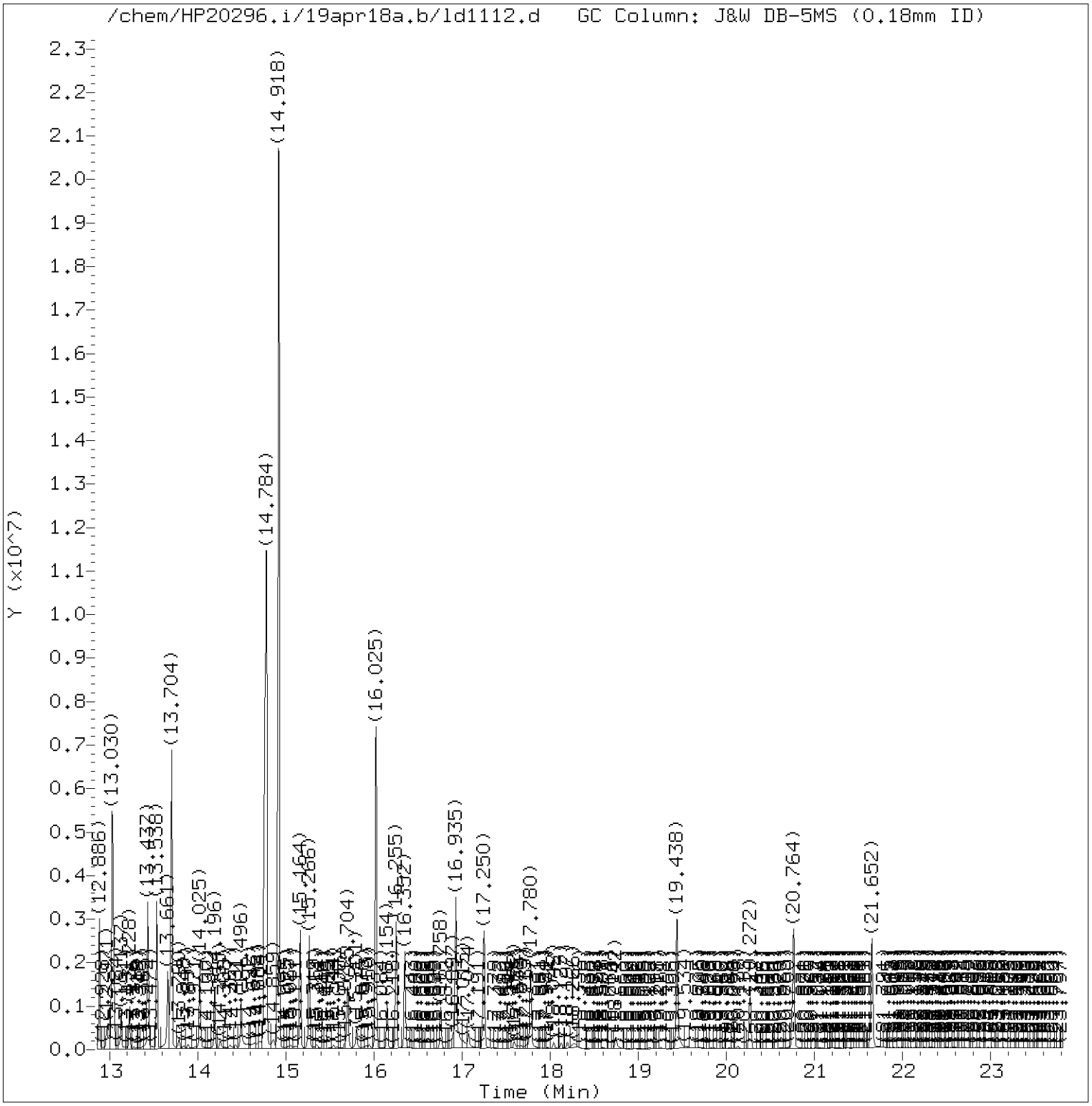
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
9) N-Nitrosomethylethylamine	(1)	4.312	88	330743	10.657
10) Methyl methanesulfonate	(1)	4.761	80	363357	9.503
12)$2-Fluorophenol	(1)	5.018	112	1818176	29.830
14) N-Nitrosodiethylamine	(1)	5.339	102	328908	11.004
16) Ethyl methanesulfonate	(1)	5.799	109	341384	10.753
18)$Phenol-d6	(1)	6.398	99	1773443	21.928
26)*1,4-Dichlorobenzene-d4	(1)	6.927	152	189812	5.000
100) Isosafrole	(3)			485236	10.503
36) N-Nitrosopyrrolidine	(1)	7.500	100	354118	11.257
40) N-Nitrosomorpholine	(1)	7.569	56	390930	10.364
45)$Nitrobenzene-d5	(2)	7.772	82	1540020	21.017
50) N-Nitrosopiperidine	(2)	8.034	114	322380	11.120
59) O,O,O-Triethylphosphorothioate	(2)	8.532	198	263165	10.470
67) a,a-Dimethylphenethylamine	(2)	8.655	58	1746074M	35.375
151) Diallate trans/cis	(4)			663653	12.053
68)*Naphthalene-d8	(2)	8.906	136	738683	5.000
71) 2,6-Dichlorophenol	(2)	9.051	162	451991	10.188
72) Hexachloropropene	(2)	9.093	213	114405	3.752
84) 1,4-Phenylenediamine	(2)	9.612	108	2236245	37.889
80) N-Nitrosodi-n-butylamine	(2)	9.623	84	543961	10.764
85) Safrole	(2)	9.955	162	374711	9.505
91) cis-Isosafrole	(3)	10.431	162	49597	1.193
191) Aramite	(5)			198851	5.342
96)$2-Fluorobiphenyl	(3)	10.687	172	1873838	17.407
97) trans-Isosafrole	(3)	10.800	162	435639	9.310
118)*Acenaphthene-d10	(3)	11.736	164	335392	5.000
122) Pentachlorobenzene	(3)	11.976	250	314702	8.107
130) Thionazin	(3)	12.479	107	257009	12.335
133) 5-Nitro-o-toluidine	(3)	12.495	152	238507	8.591
140)$2,4,6-Tribromophenol	(3)	12.779	330	582797	42.963
145) Diallate (peak 1)	(4)	13.025	86	505525	8.745
146) Phorate	(4)	13.035	75	1038456	12.563
147) Phenacetin	(4)	13.046	108	754543	12.585
149) Diallate (peak 2)	(4)	13.137	86	158128	3.308
152) Dimethoate	(4)	13.228	87	222870	4.153
155) 4-Aminobiphenyl	(4)	13.431	169	591903	6.225
156) Pentachloronitrobenzene	(4)	13.437	237	139894	11.292
157) Pronamide	(4)	13.538	173	571327	13.084
158)*Phenanthrene-d10	(4)	13.661	188	614484	5.000
167) Disulfoton	(4)	13.704	88	1670715M	28.327

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

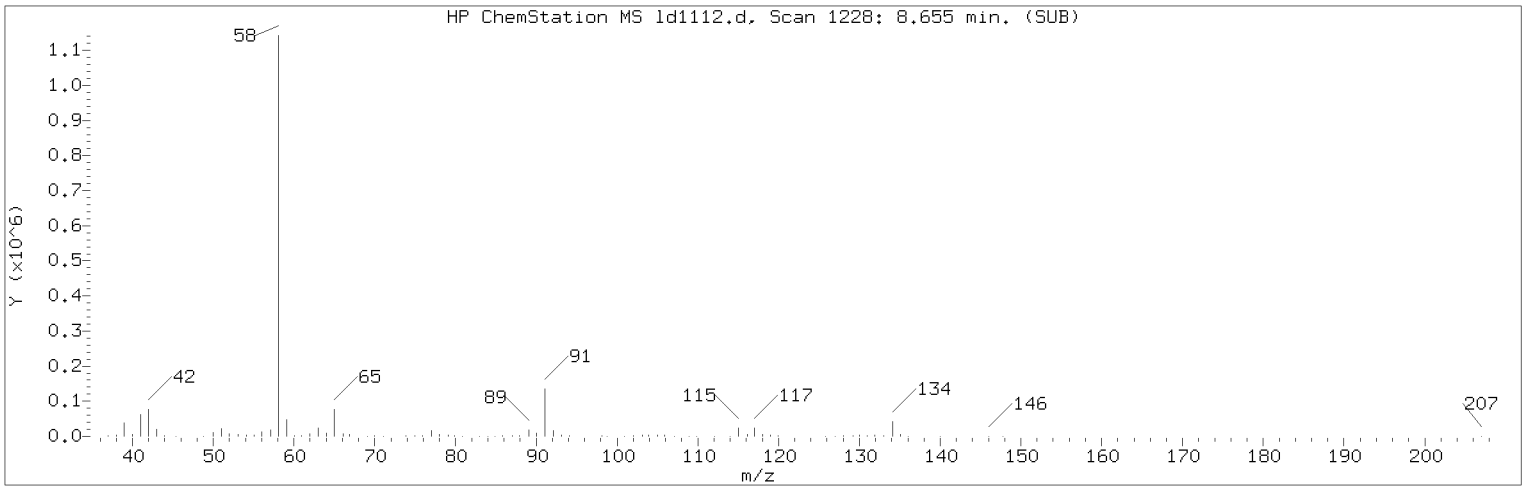
Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Methyl parathion	(4)	14.196	109	290333	7.491
172) Parathion	(4)	14.758	109	343647	13.729
173) 4-Nitroquinoline-1-oxide	(4)	14.784	190	2019241	109.300
175) Methapyrilene	(4)	14.924	97	5948690M	116.236
176) Isodrin	(4)	15.164	193	208084	12.022
180)*Pyrene-d10	(5)	15.704	212	590503	5.000
185) Aramite (1)	(5)	15.918	185	3998M	0.669
186) Aramite (2)	(5)	15.950	185	3913M	0.528
188) Aramite (3)	(5)	16.025	185	94000M	2.339
184)$Terphenyl-d14	(5)	16.025	244	2312199	23.969
189) Aramite (4)	(5)	16.154	185	96940M	1.806
187) p-Dimethylaminoazobenzene	(5)	16.255	225	339947	13.220
190) Chlorobenzilate	(5)	16.352	139	545511	10.508
194) Famphur	(5)	16.758	218	271513M	6.654
195) Kepone	(5)	16.967	272	126730M	9.412
196) 2-Acetylaminofluorene	(5)	17.250	181	825649	12.656
218)*Perylene-d12	(6)	20.272	264	569086	5.000
220) 3-Methylcholanthrene	(6)	20.764	268	860366	12.783

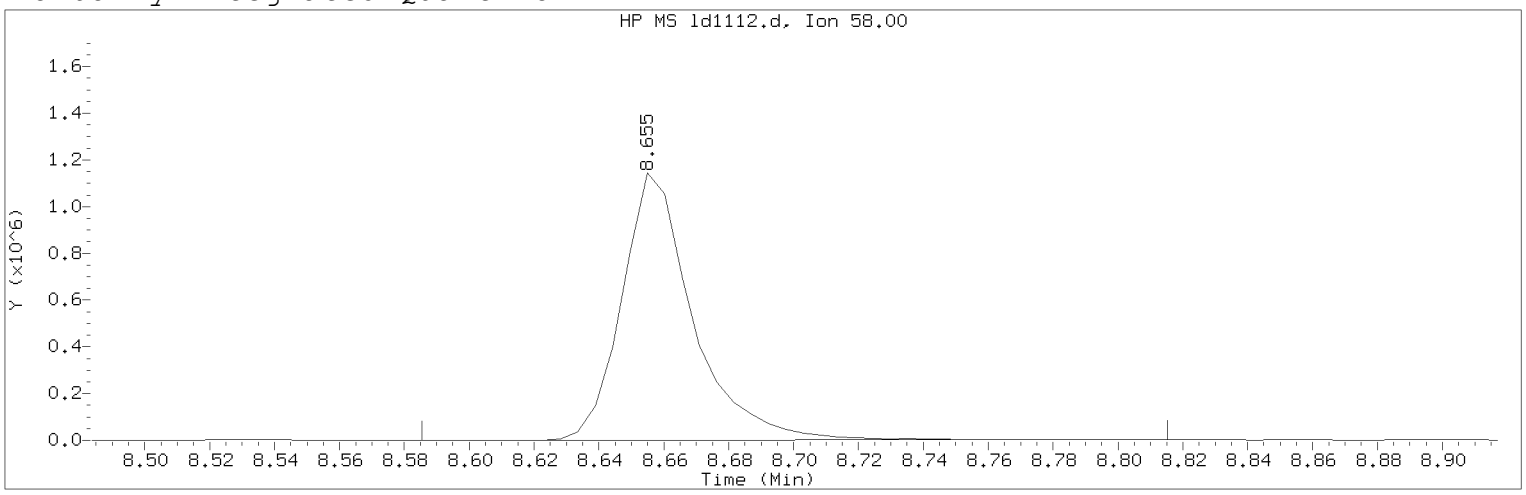
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

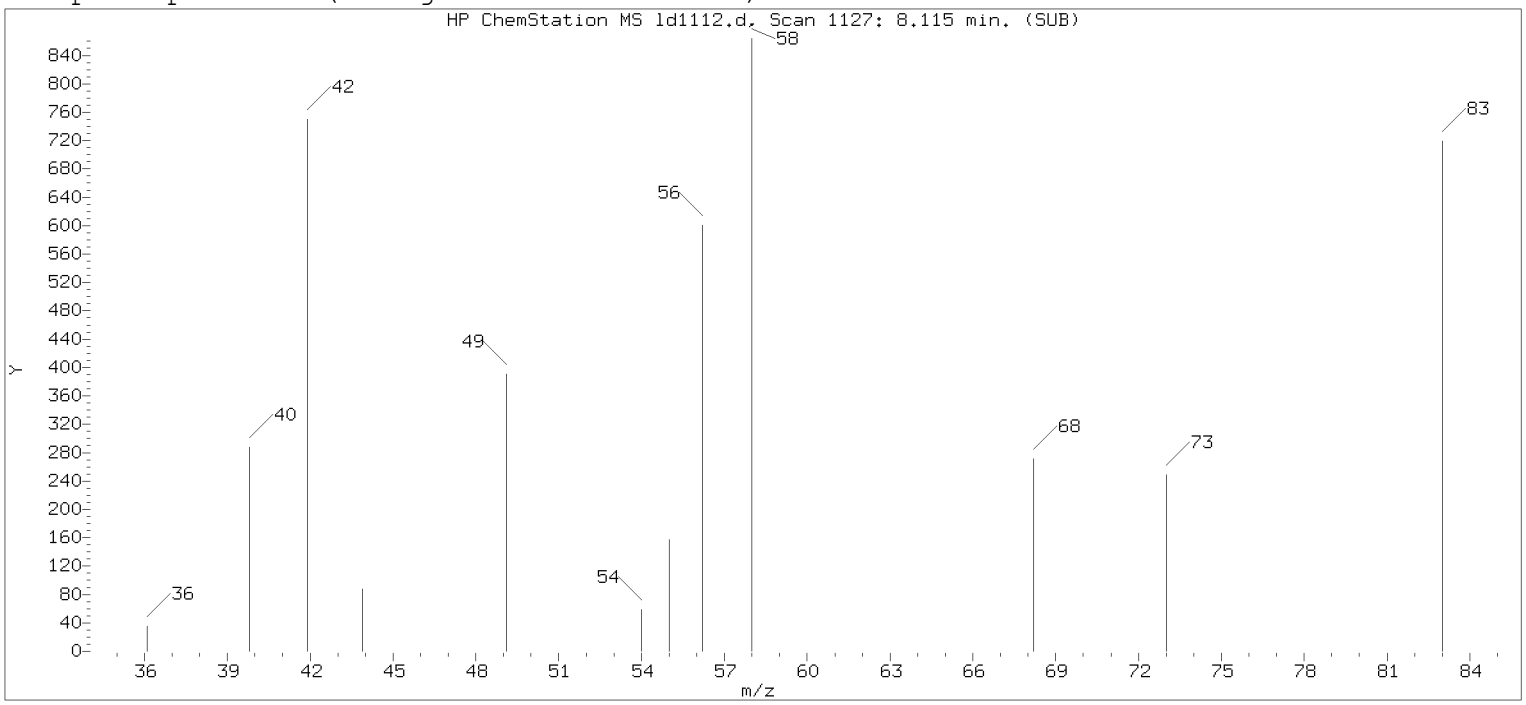
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1228
Retention Time (minutes) : 8.655
Quant Ion : 58.00
Area (flag) : 1746074M
On-Column Amount (ng/ul) : 35.3751
Integration start scan : 1214 Integration stop scan: 1257
Y at integration start : 695 Y at integration end: 1484

Reason for manual integration: improper integration

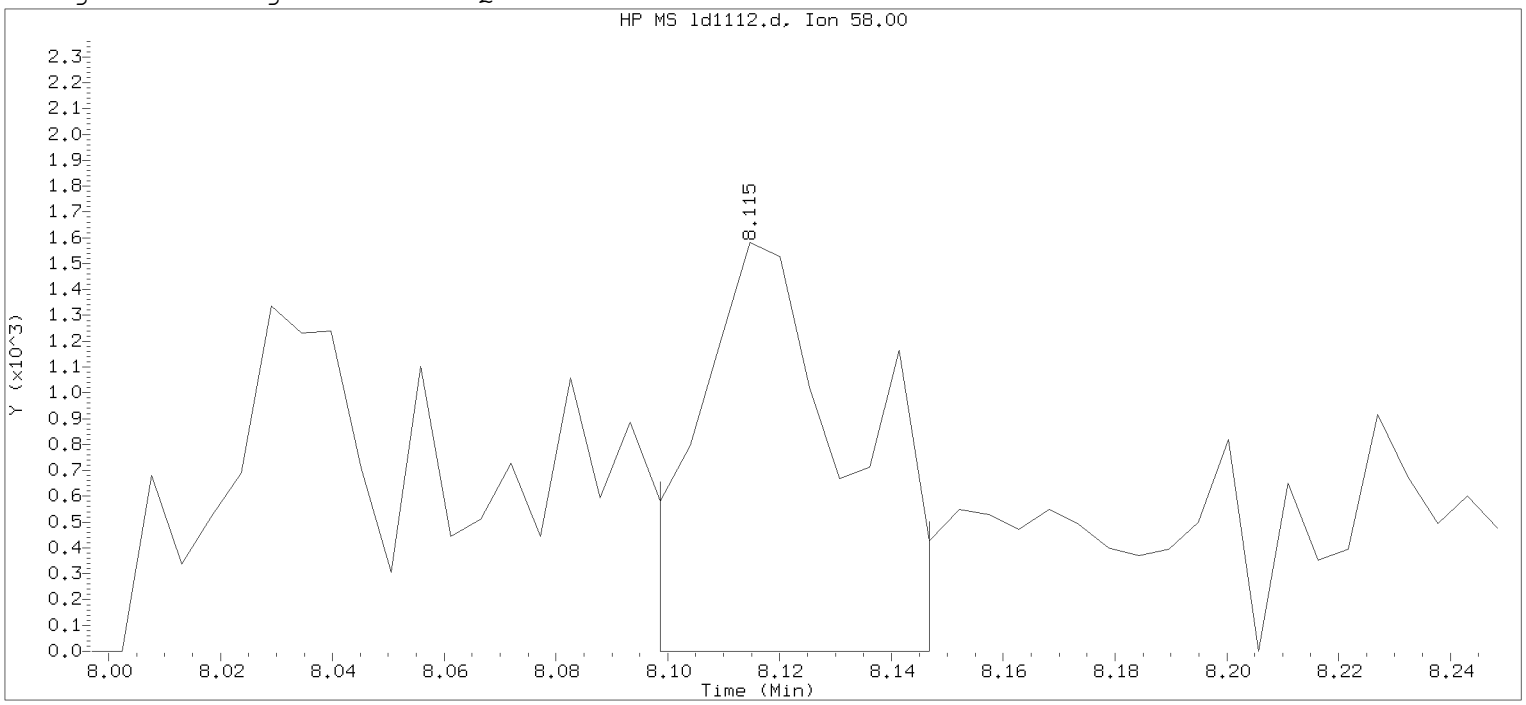
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1127
Retention Time (minutes) : 8.115
Quant Ion : 58.00
Area : 2941
On-column Amount (ng/ul) : 0.0596
Integration start scan : 1123 Integration stop scan: 1132
Y at integration start : 0 Y at integration end: 0

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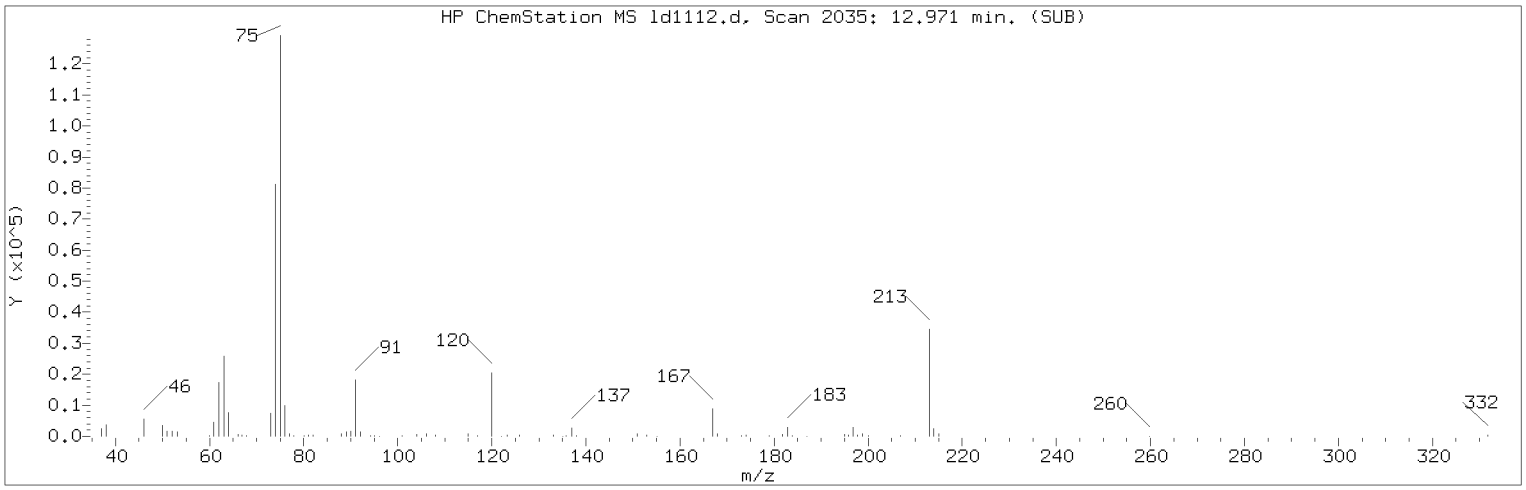
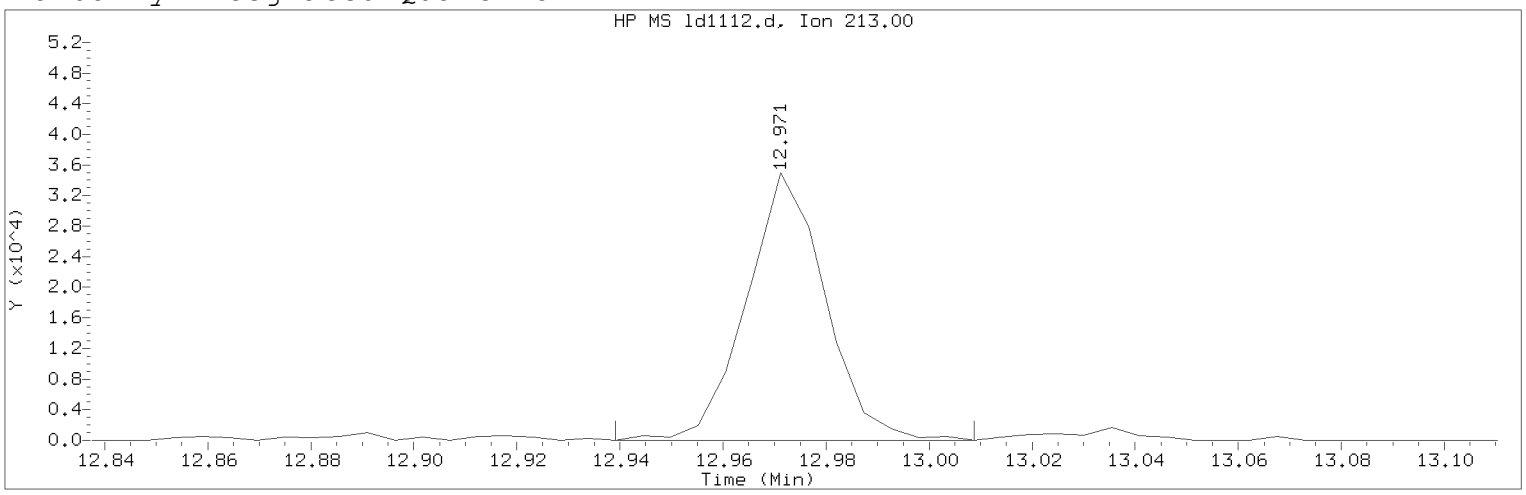
Target 3.5 esignature user: KBECK

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

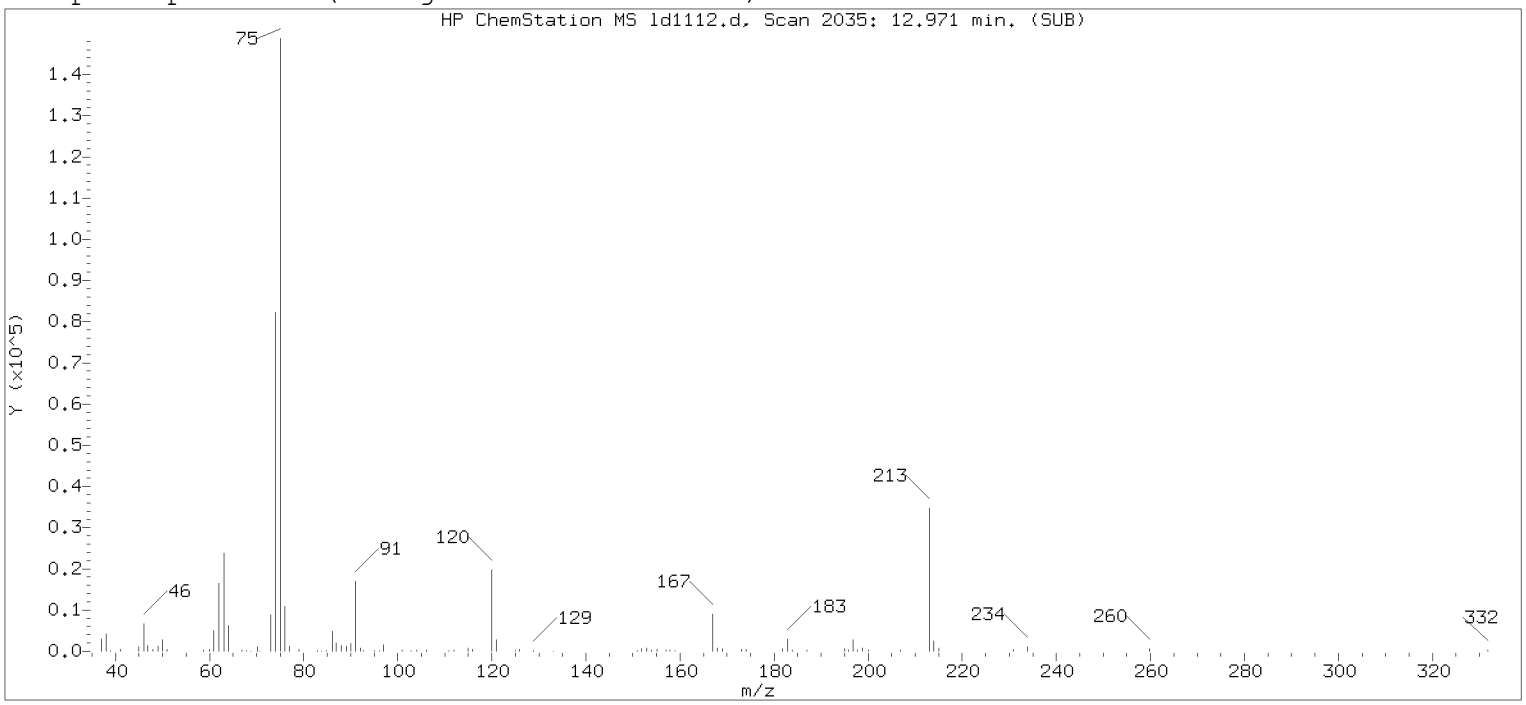
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 2035
Retention Time (minutes) : 12.971
Quant Ion : 213.00
Area (flag) : 36849M
On-Column Amount (ng/ul) : 3.7386
Integration start scan : 2028 Integration stop scan: 2041
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

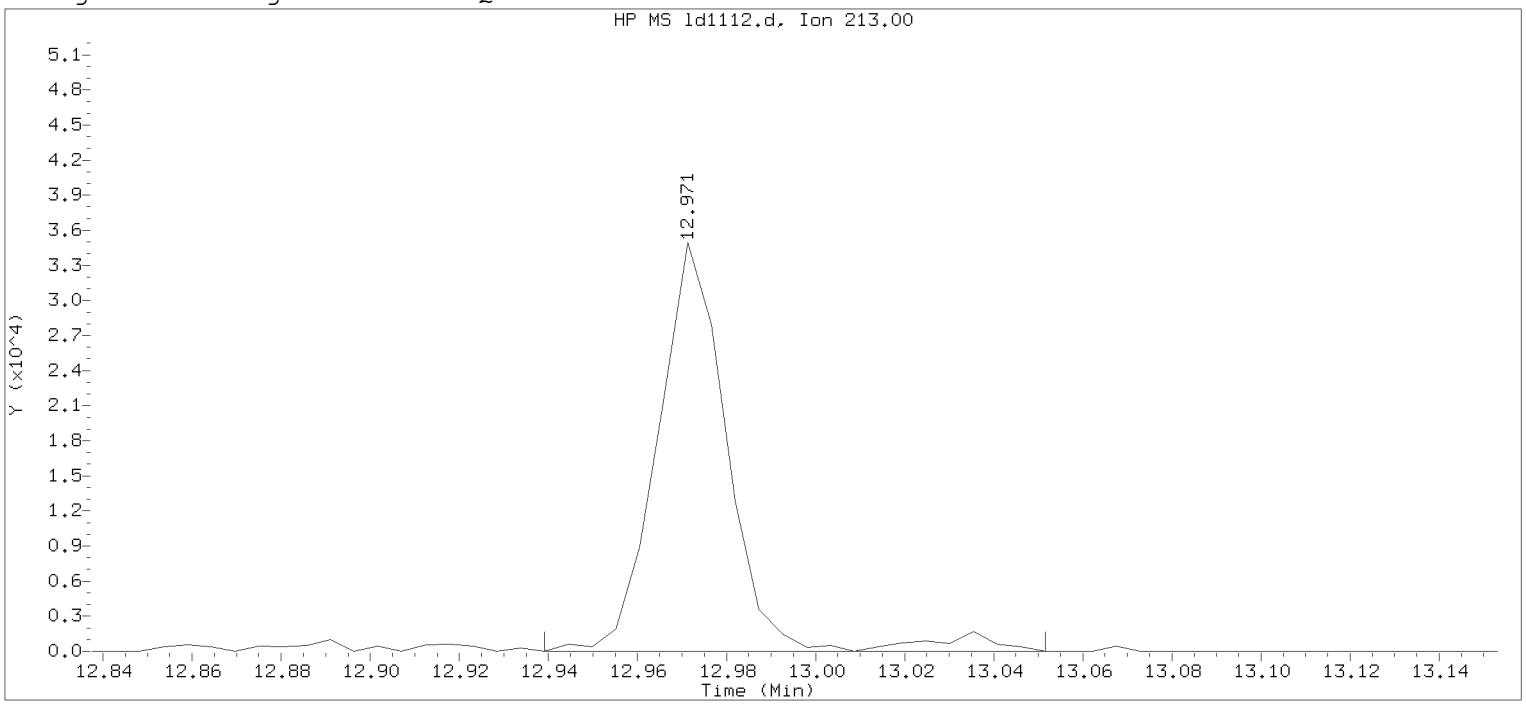
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

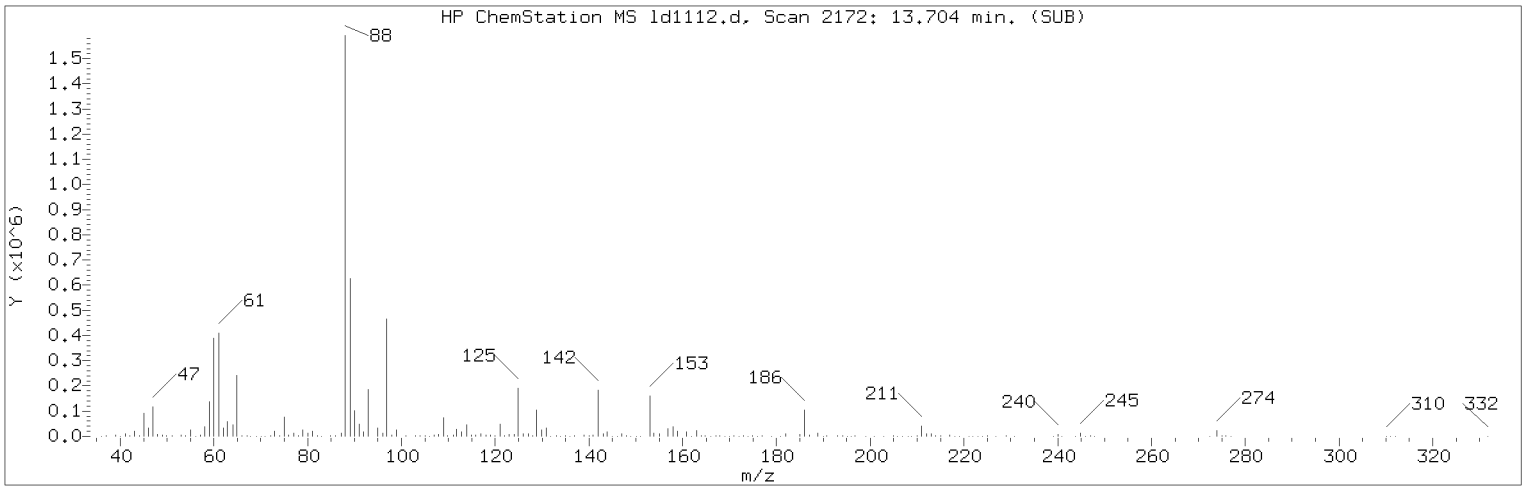
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

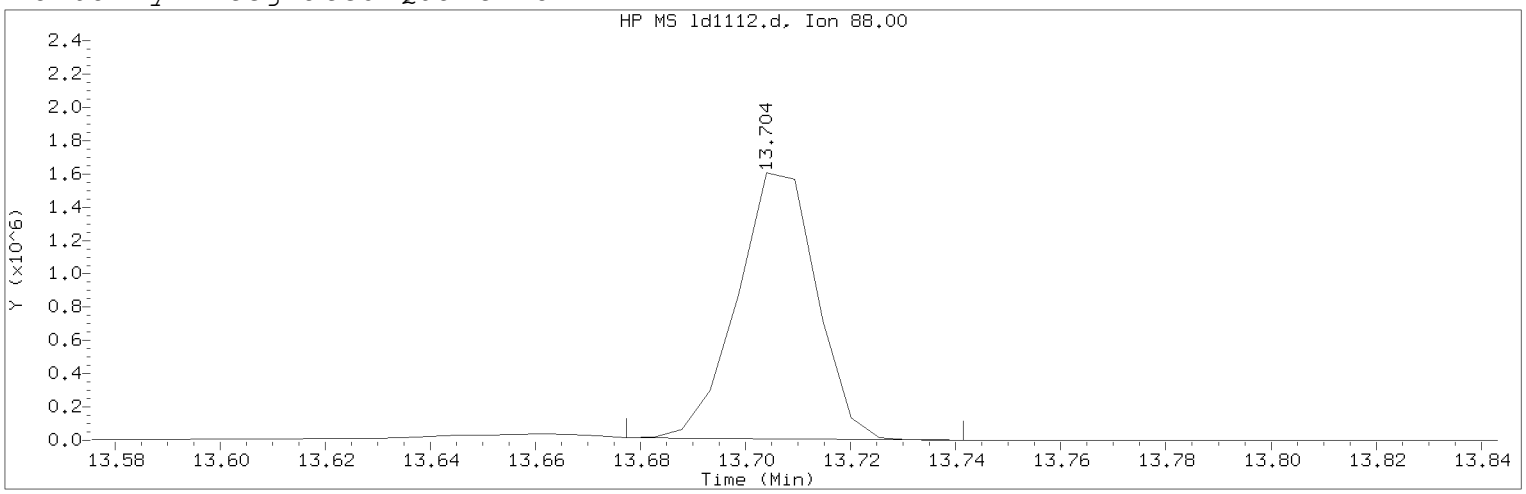
Compound Number : 144
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 2035
Retention Time (minutes) : 12.971
Quant Ion : 213.00
Area : 38568
On-column Amount (ng/ul) : 3.9130
Integration start scan : 2028 Integration stop scan: 2049
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. Page 2221

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

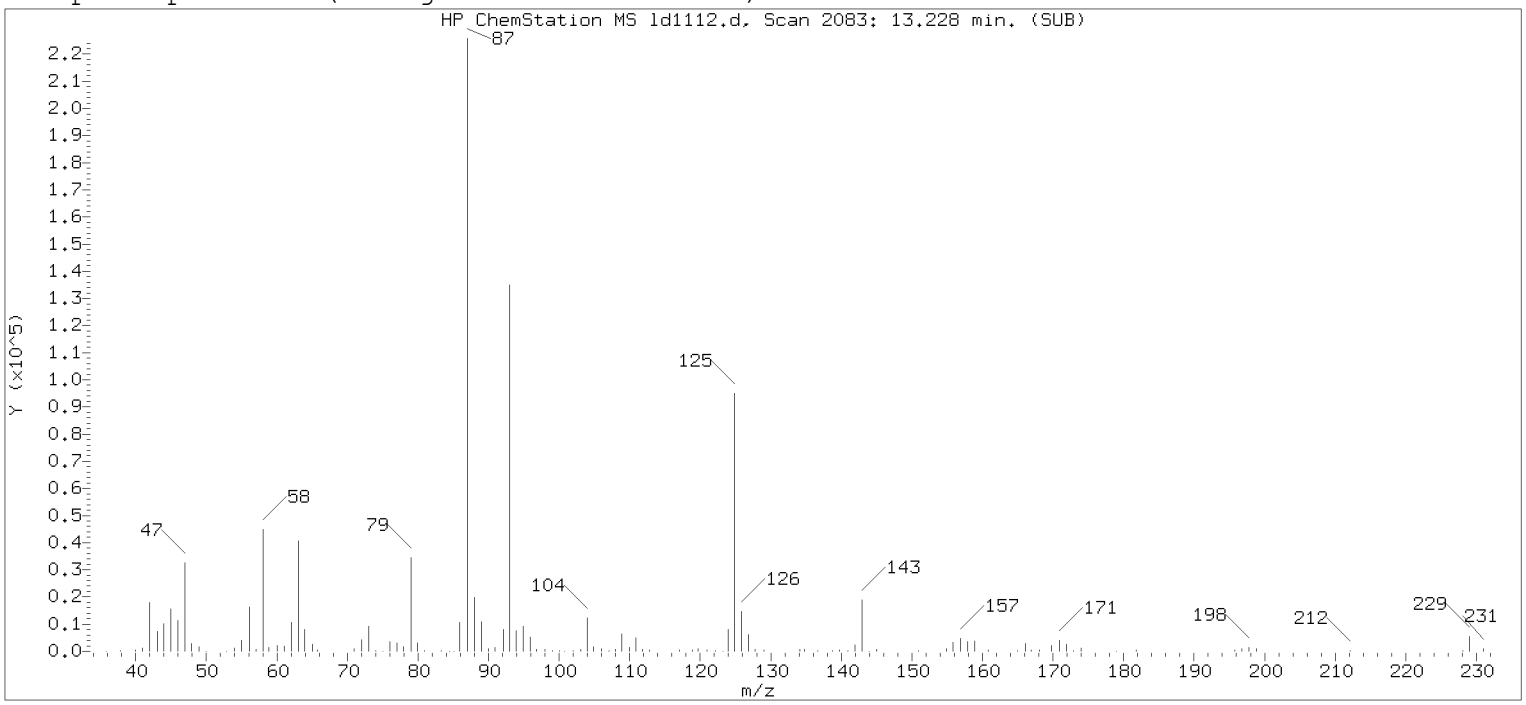
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2172
Retention Time (minutes) : 13.704
Quant Ion : 88.00
Area (flag) : 1670715M
On-Column Amount (ng/ul) : 28.3273
Integration start scan : 2166 Integration stop scan: 2178
Y at integration start : 16120 Y at integration end: 1395

Reason for manual integration: improper integration

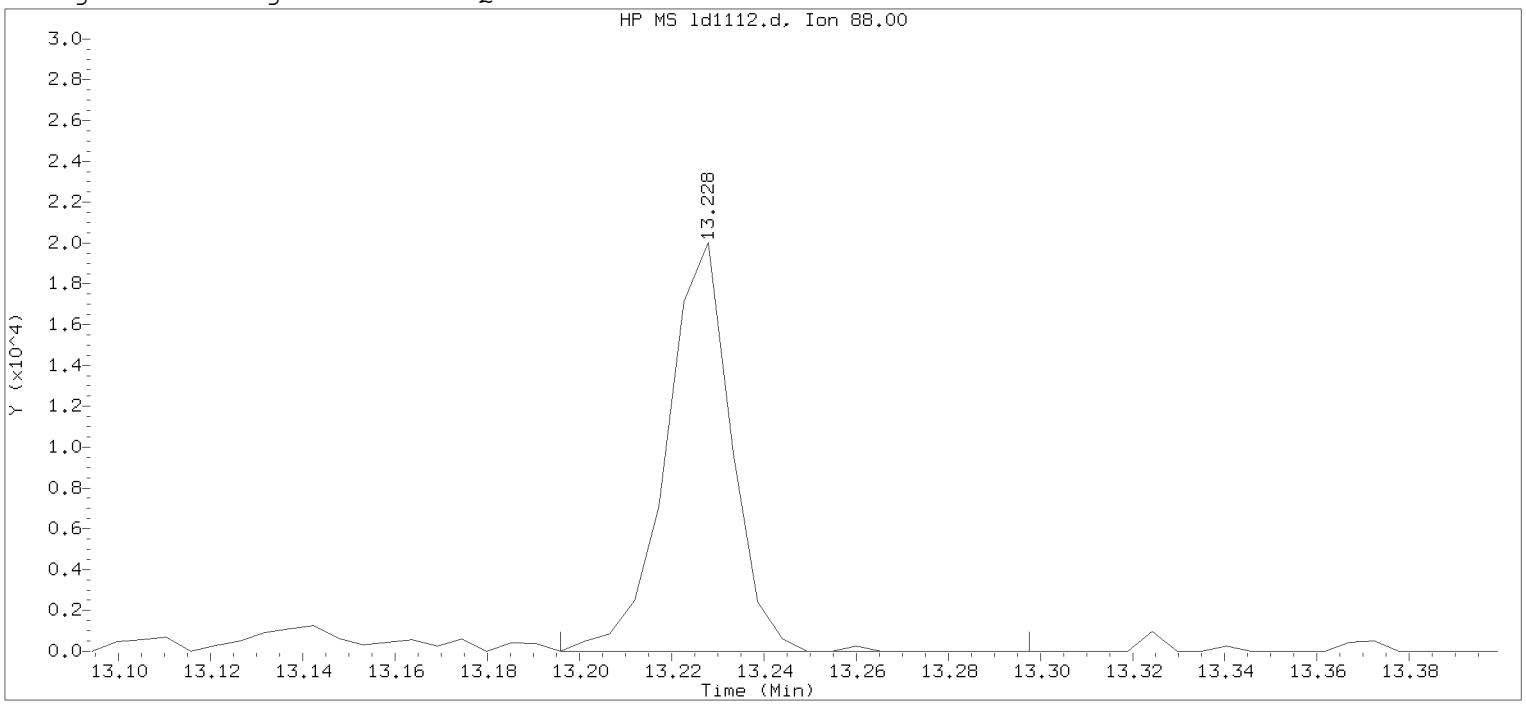
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

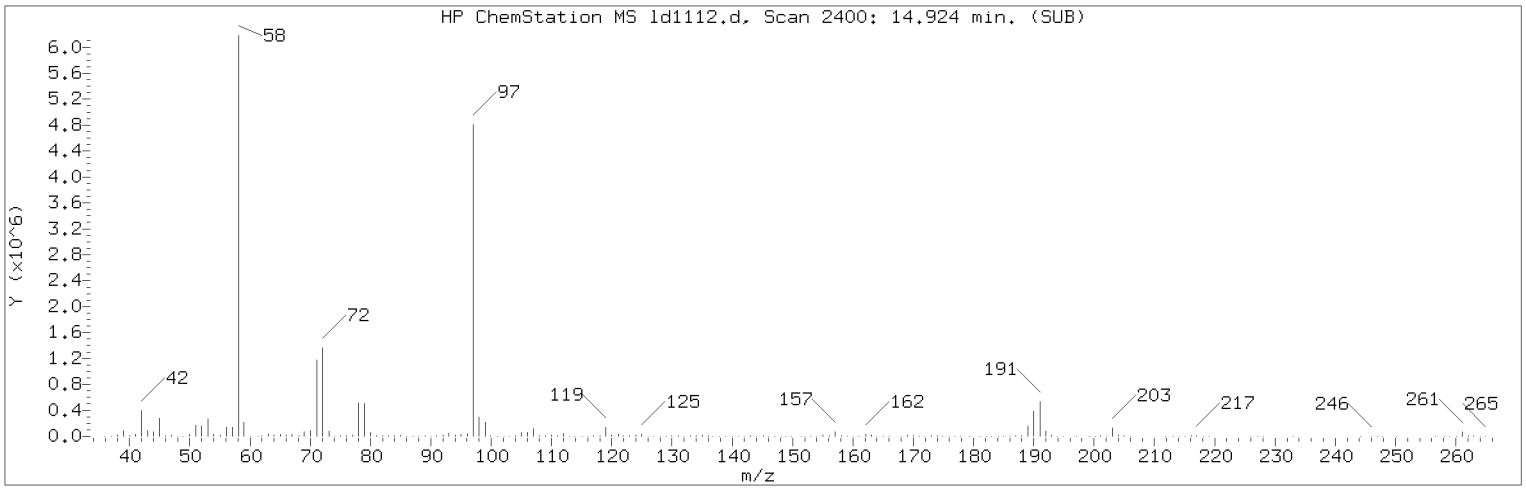
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

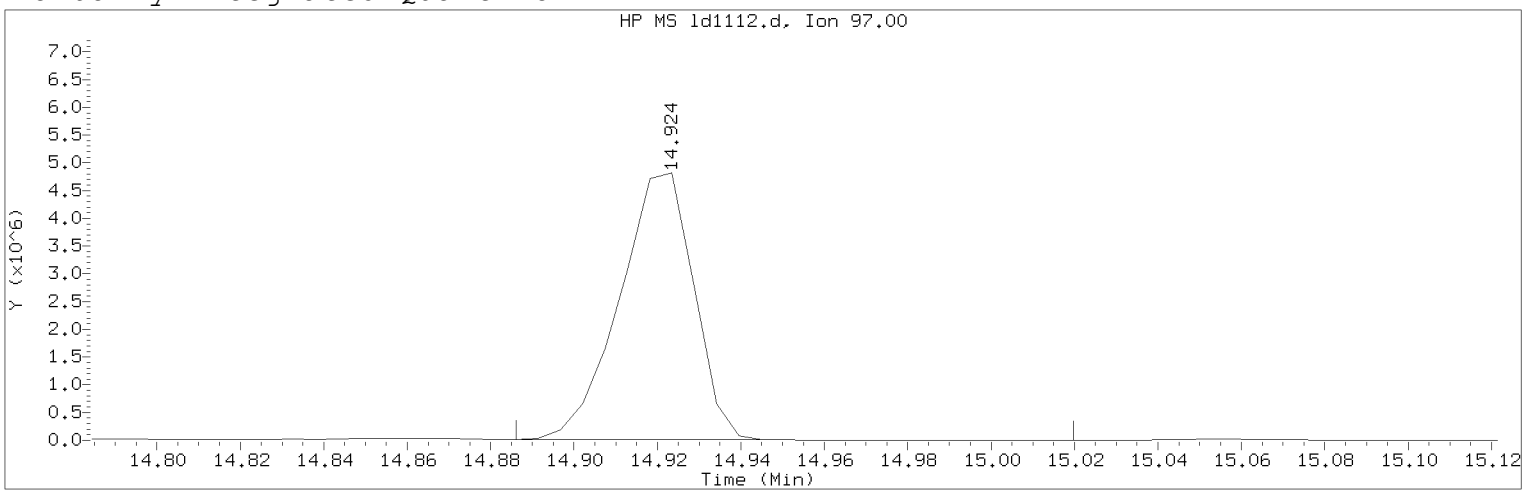
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2083
Retention Time (minutes) : 13.228
Quant Ion : 88.00
Area : 19601
On-column Amount (ng/ul) : 1.1814
Integration start scan : 2076 Integration stop scan: 2095
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Page 2223

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

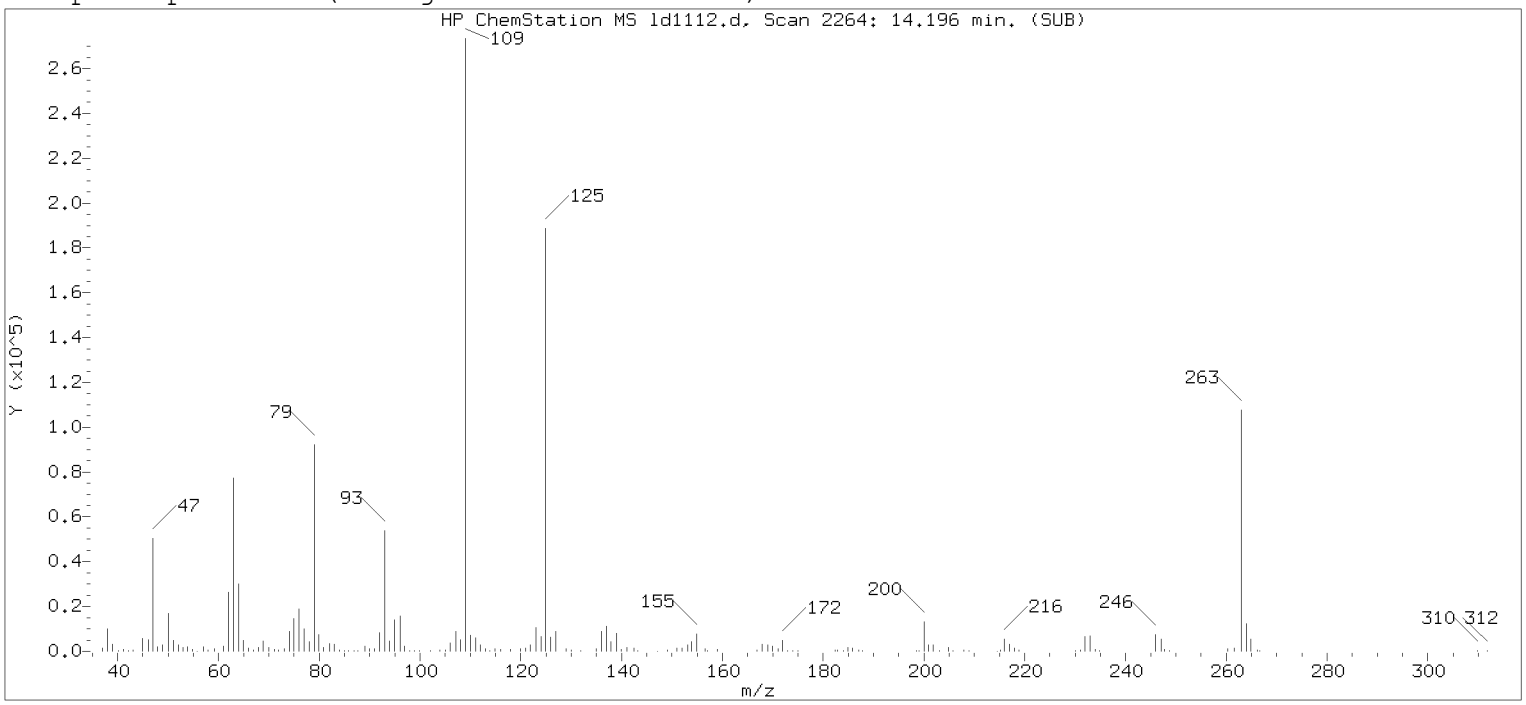
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2400
Retention Time (minutes) : 14.924
Quant Ion : 97.00
Area (flag) : 5948690M
On-Column Amount (ng/ul) : 116.2356
Integration start scan : 2392 Integration stop scan: 2417
Y at integration start : 12462 Y at integration end: 2120

Reason for manual integration: improper integration

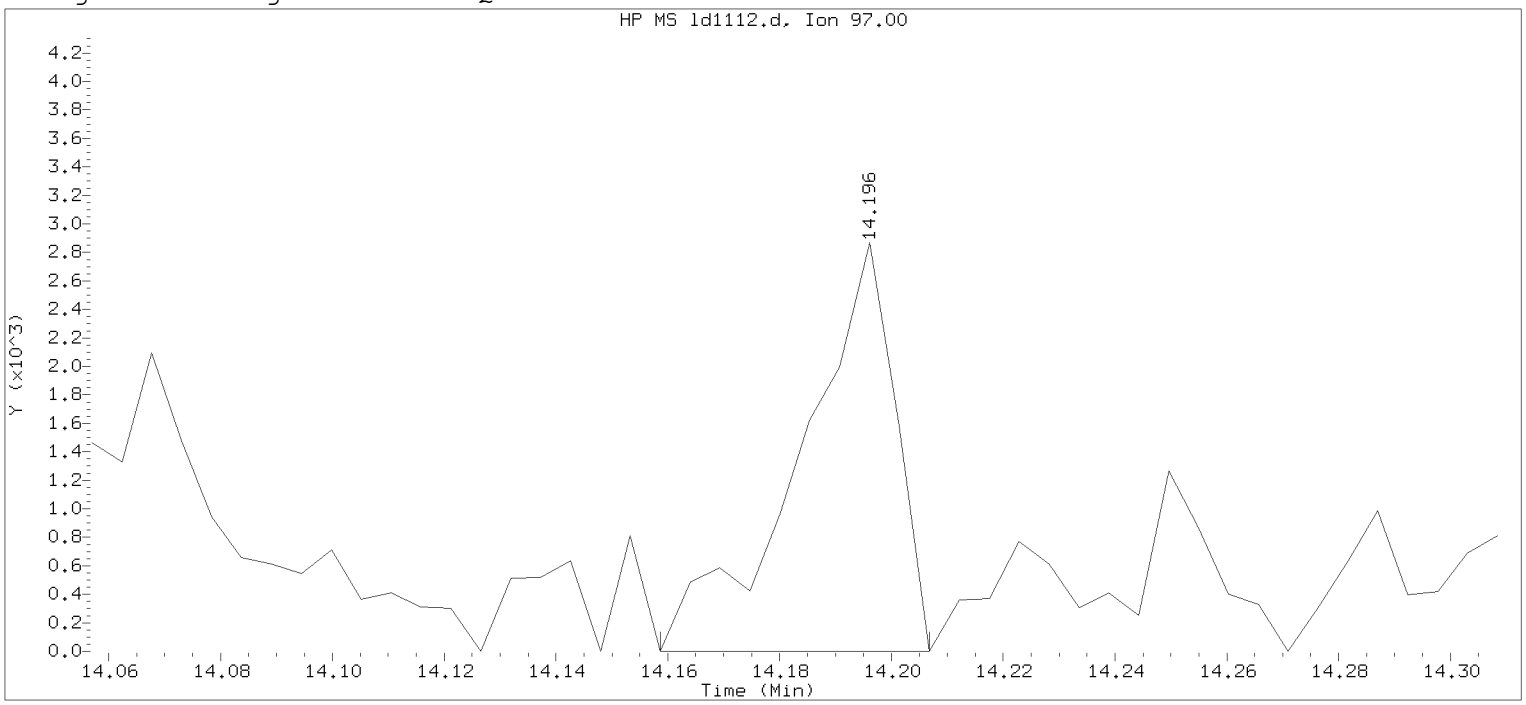
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

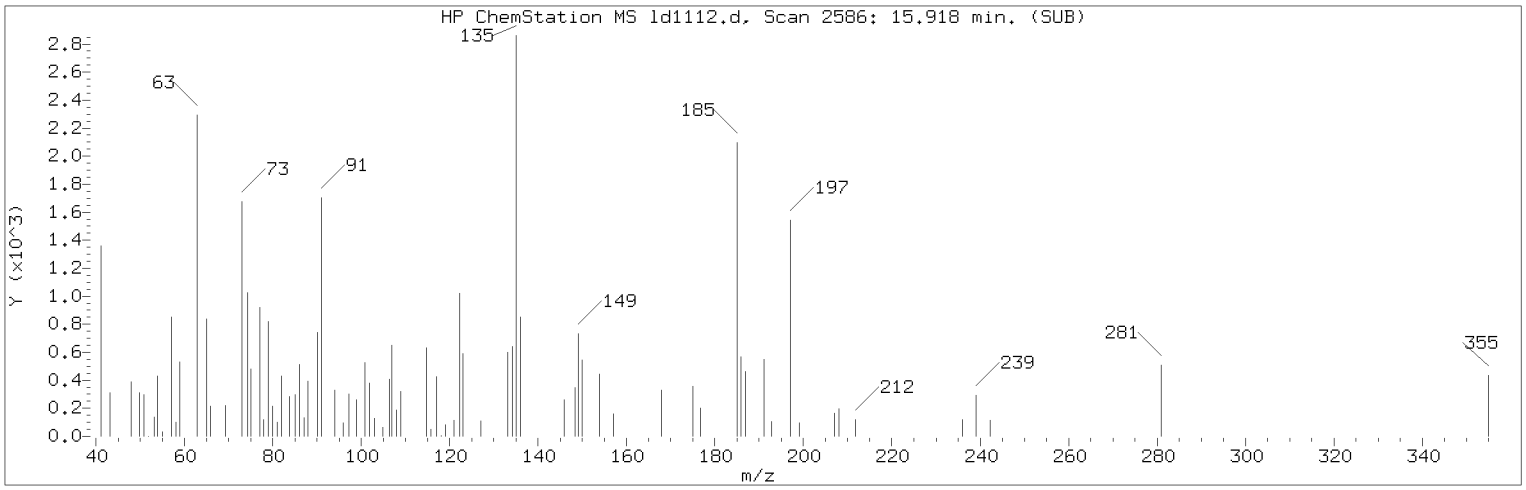
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

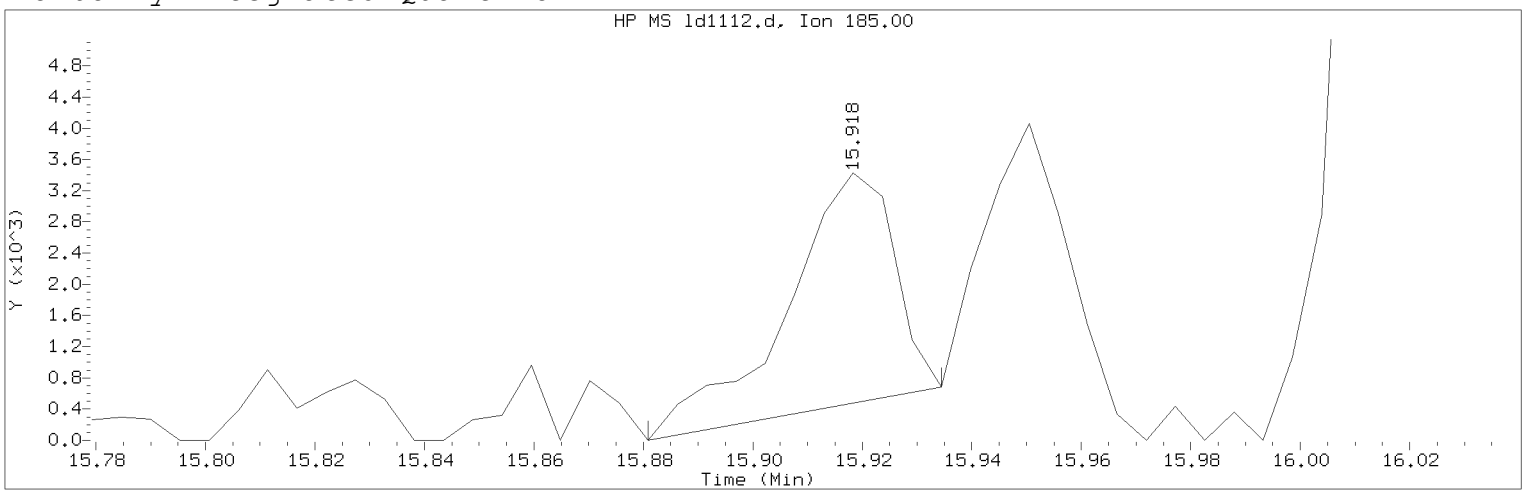
Compound Number	: 175		
Compound Name	: Methapyrilene		
Scan Number	: 2264		
Retention Time (minutes)	: 14.196		
Quant Ion	: 97.00		
Area	: 3377		
On-column Amount (ng/ul)	: 0.5318		
Integration start scan	: 2256	Integration stop scan:	2265
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 3.5

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

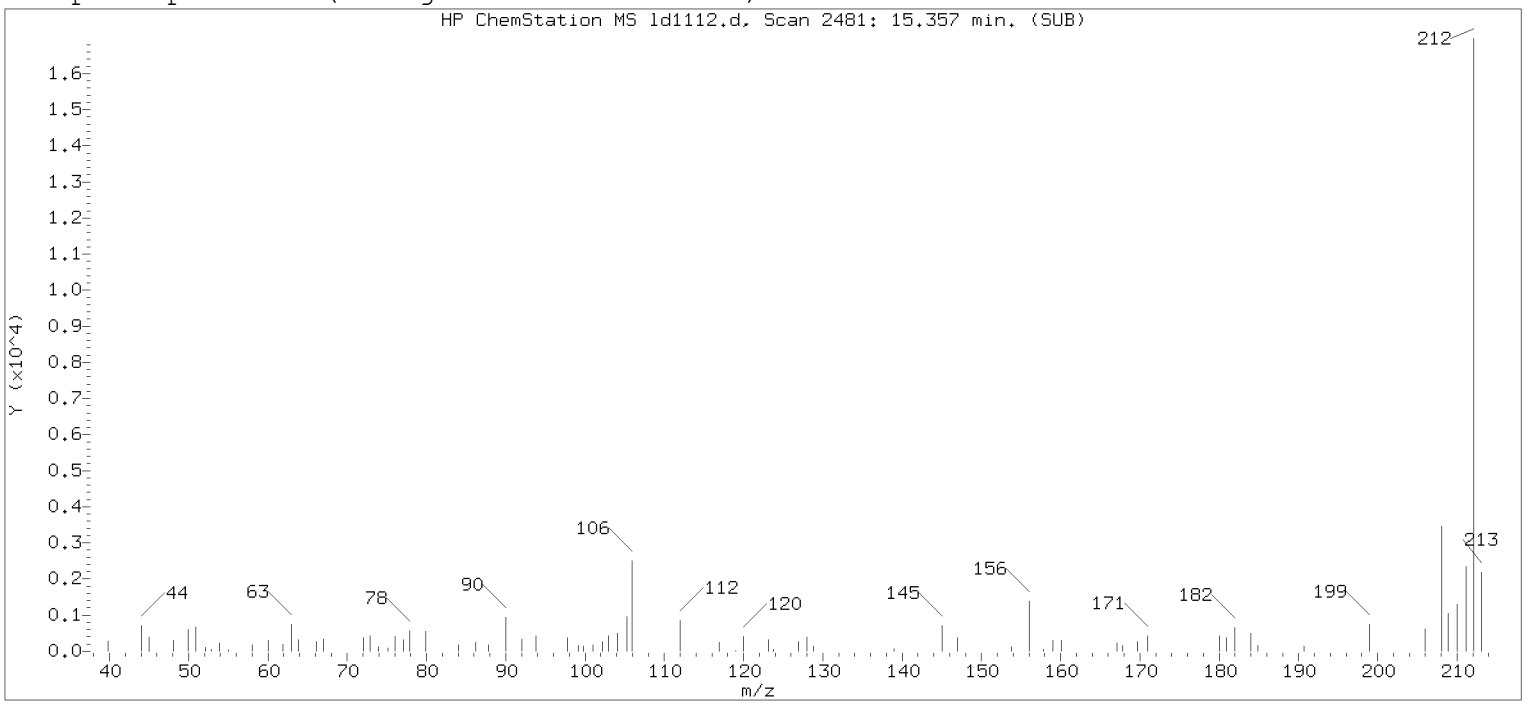
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2586
Retention Time (minutes) : 15.918
Quant Ion : 185.00
Area (flag) : 3998M
On-Column Amount (ng/ul) : 0.6691
Integration start scan : 2578 Integration stop scan: 2588
Y at integration start : 0 Y at integration end: 683

Reason for manual integration: improper integration

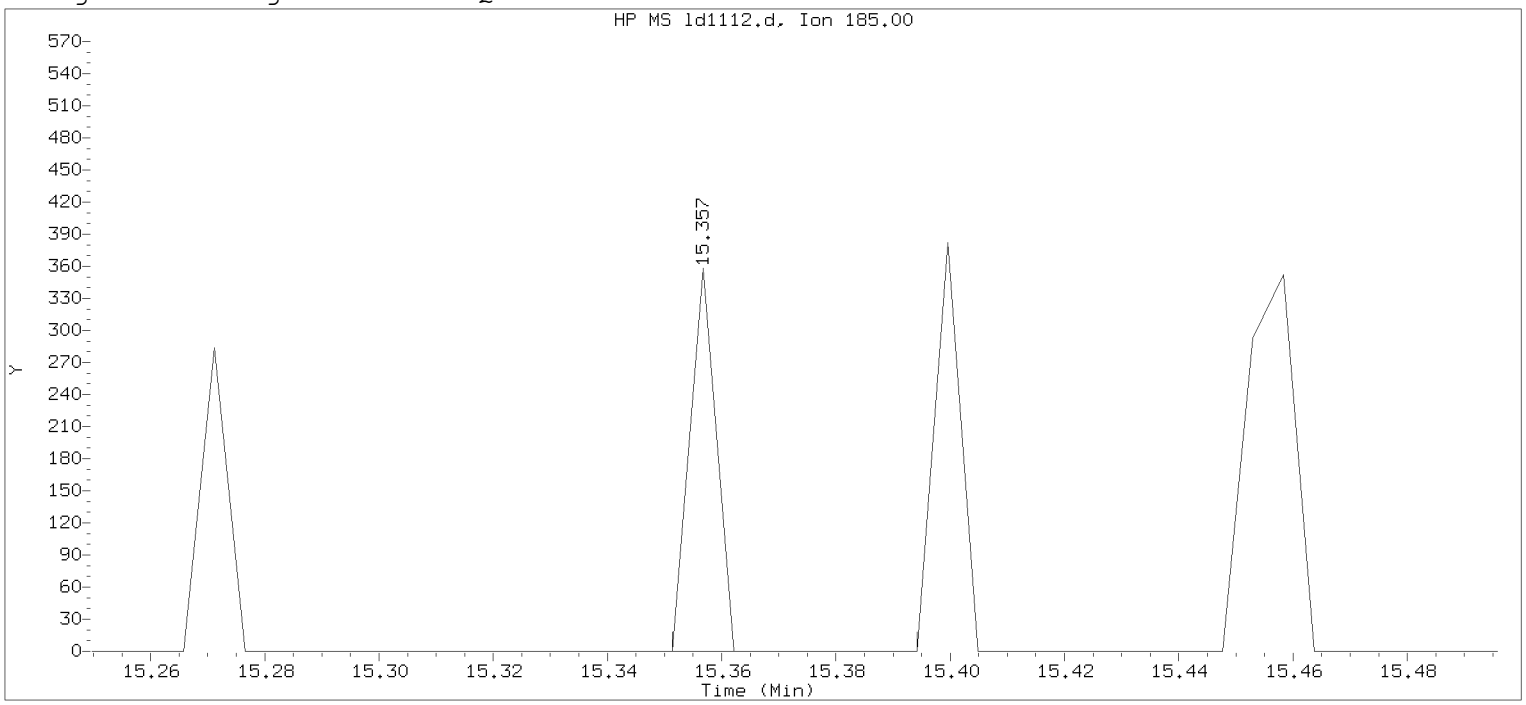
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

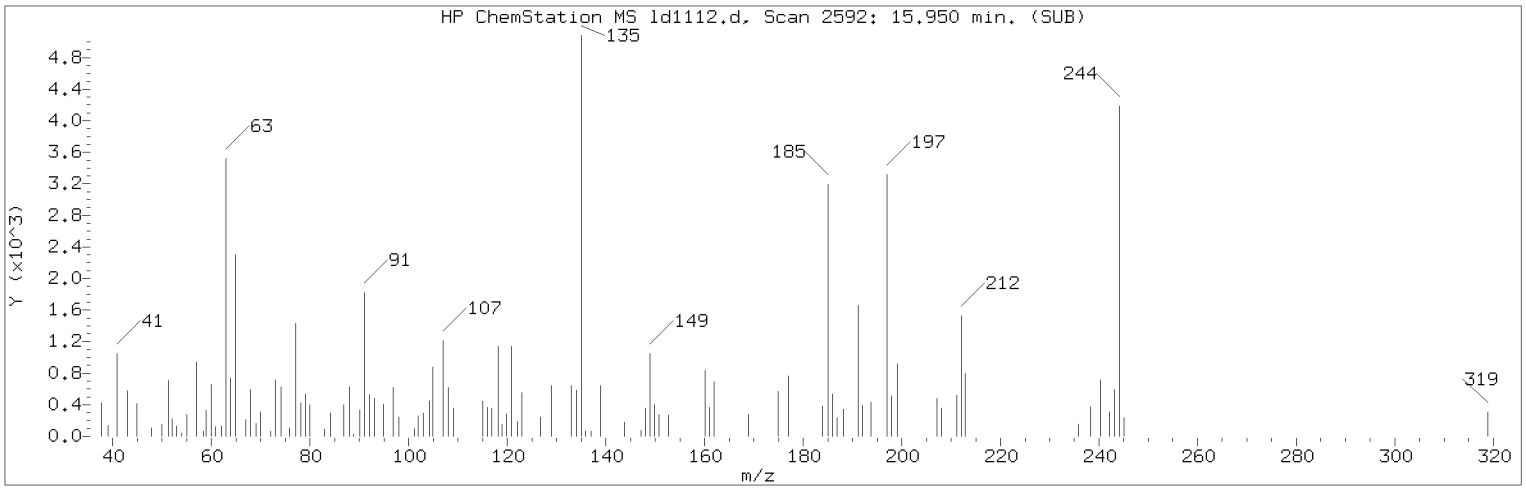
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

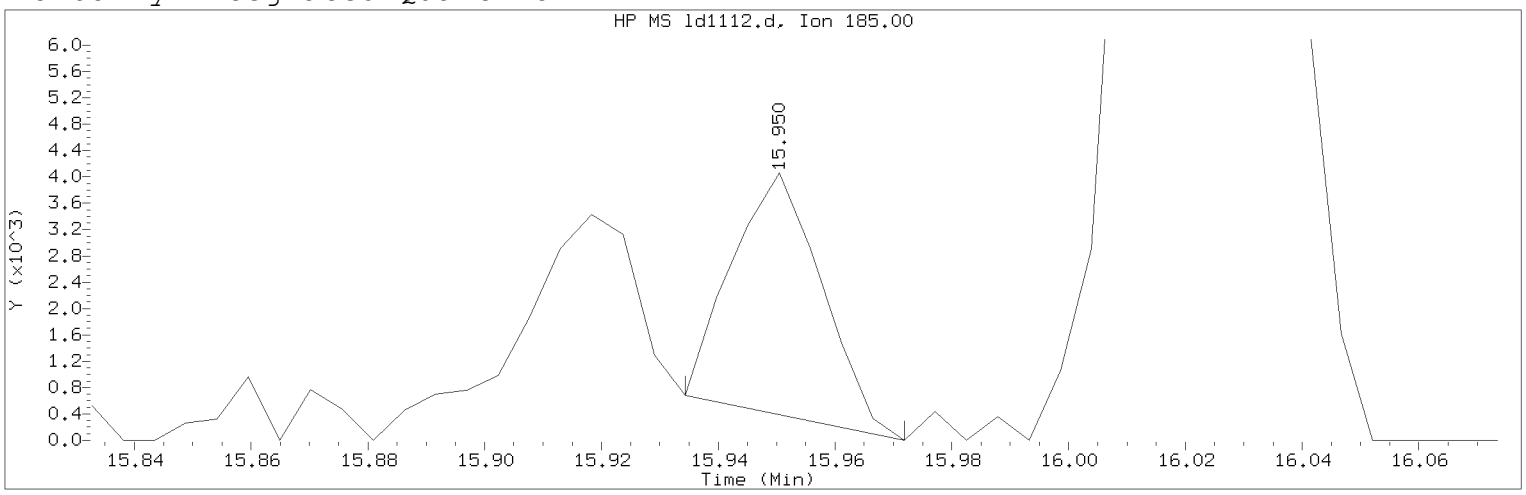
Compound Number	: 185		
Compound Name	: Aramite (1)		
Scan Number	: 2481		
Retention Time (minutes)	: 15.357		
Quant Ion	: 185.00		
Area	: 114		
On-column Amount (ng/ul)	: 0.0769		
Integration start scan	: 2479	Integration stop scan:	2487
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

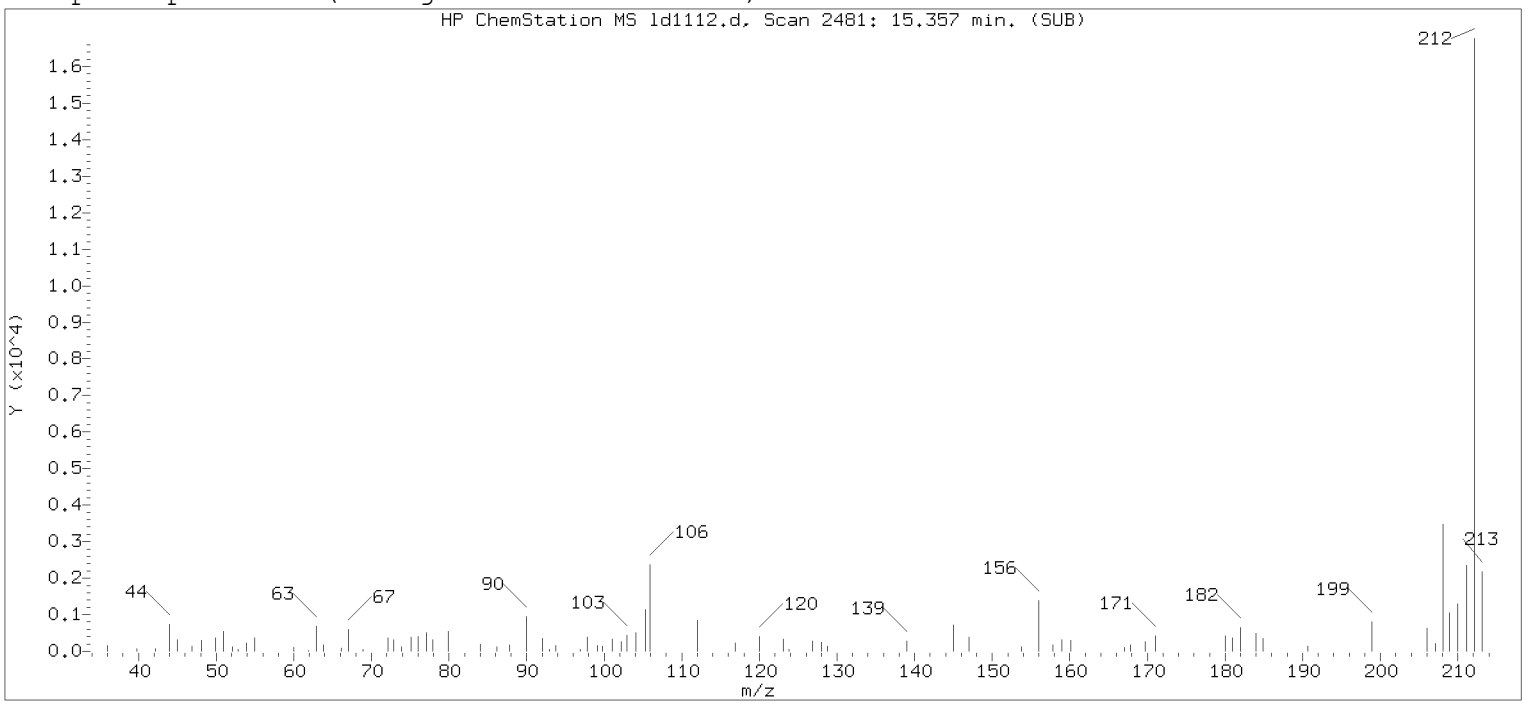
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2592
Retention Time (minutes) : 15.950
Quant Ion : 185.00
Area (flag) : 3913M
On-Column Amount (ng/ul) : 0.5275
Integration start scan : 2588 Integration stop scan: 2595
Y at integration start : 683 Y at integration end: 0

Reason for manual integration: improper integration

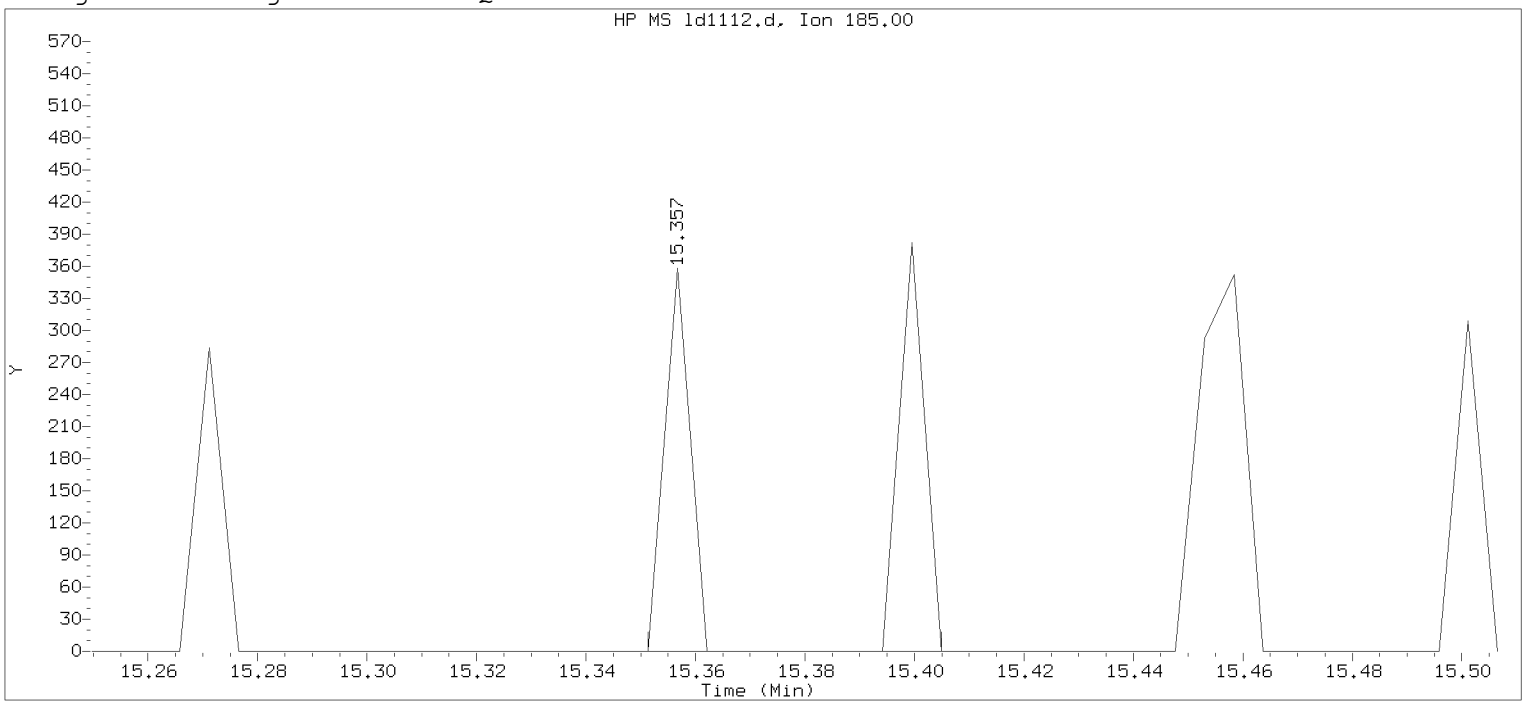
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

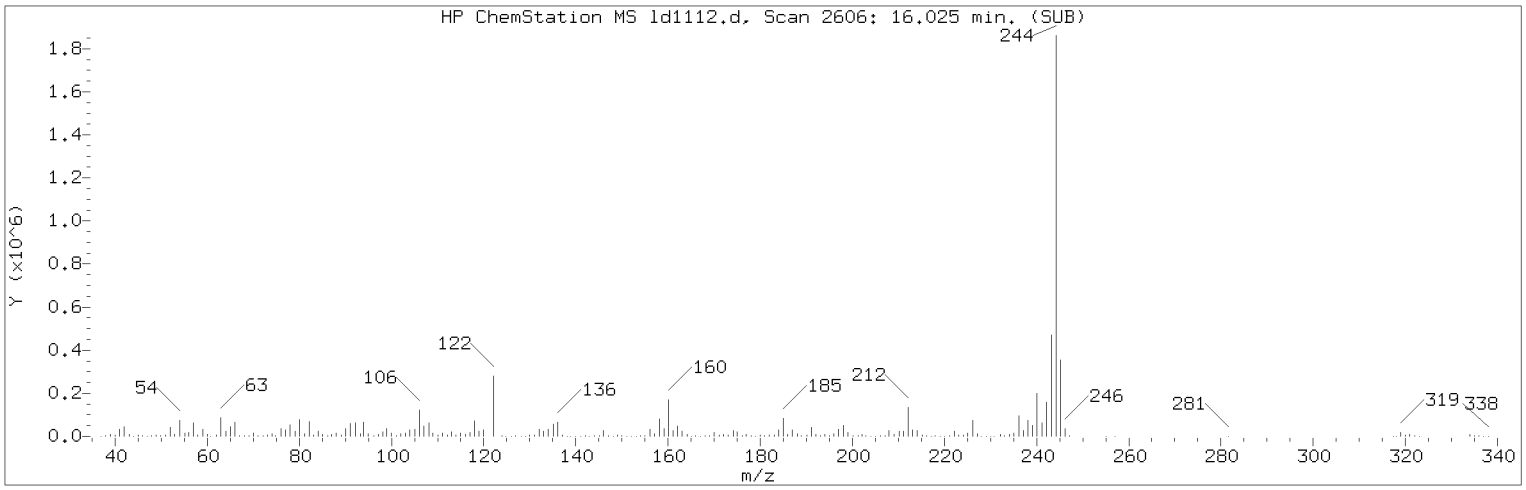
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

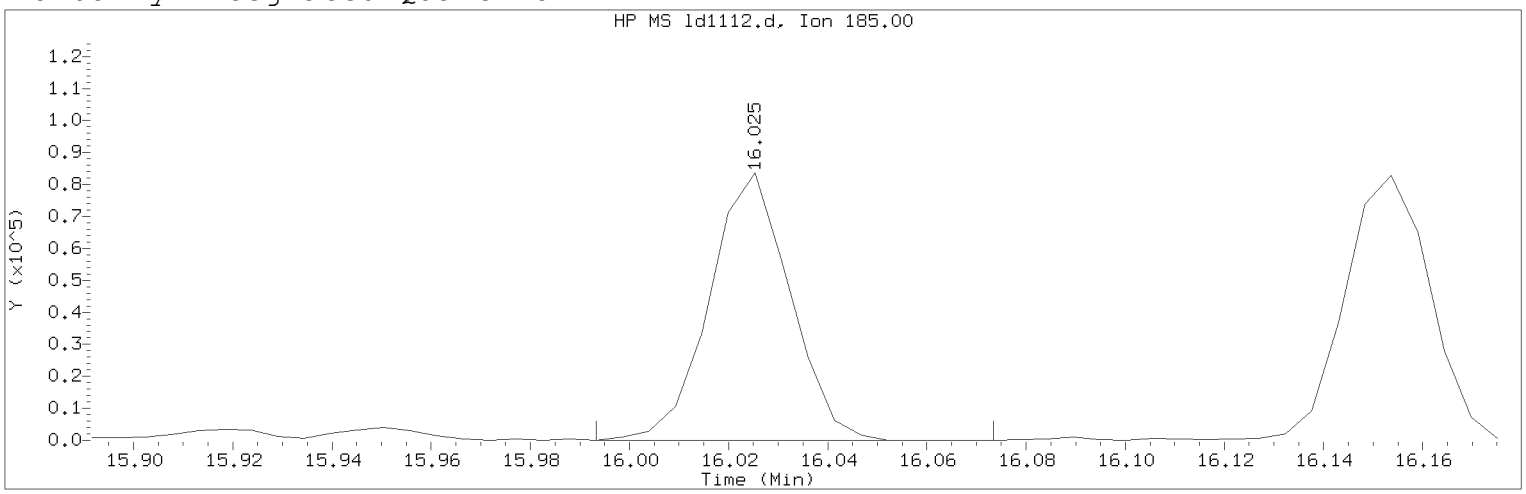
Compound Number	: 186		
Compound Name	: Aramite (2)		
Scan Number	: 2481		
Retention Time (minutes)	: 15.357		
Quant Ion	: 185.00		
Area	: 237		
On-column Amount (ng/ul)	: 0.1281		
Integration start scan	: 2479	Integration stop scan:	2489
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature user: KNB25316 Reason: Approved

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

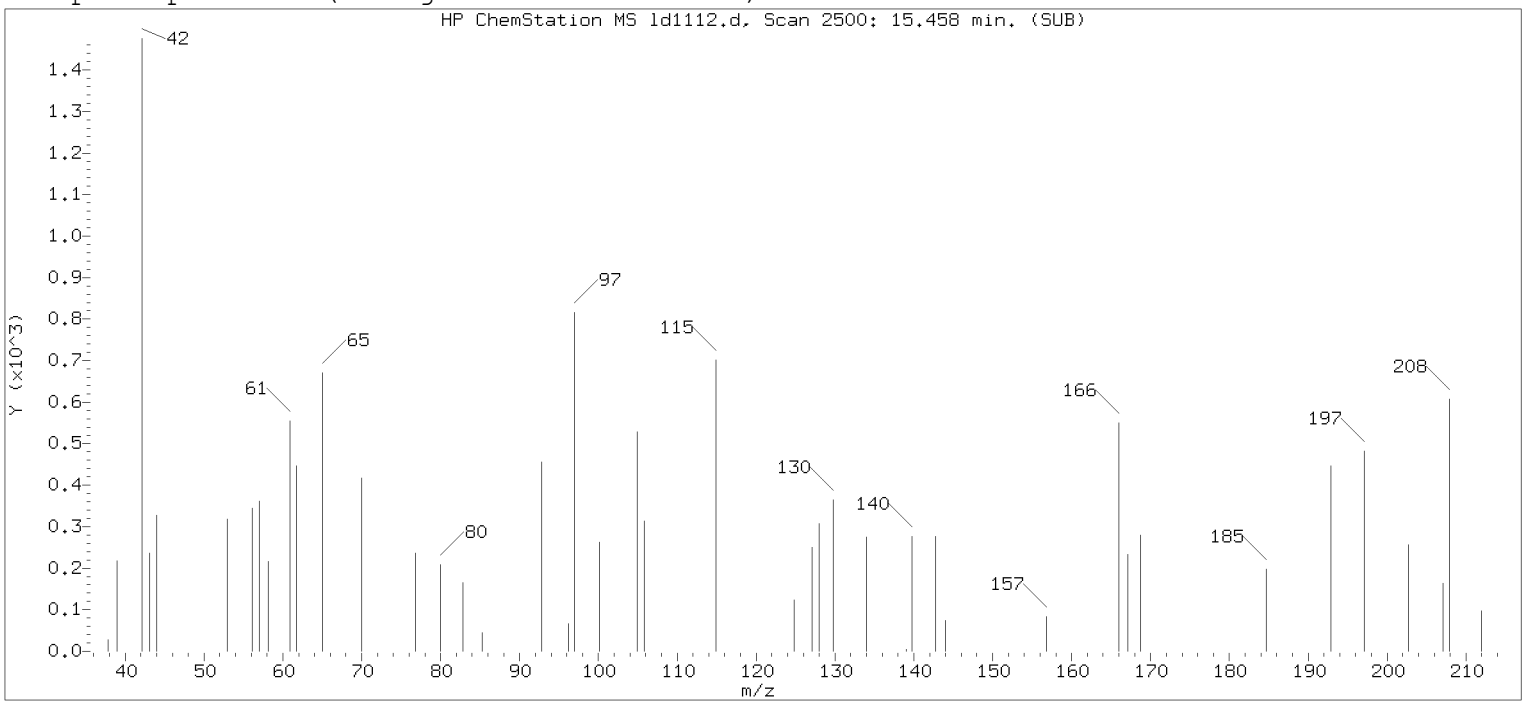
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2606
Retention Time (minutes) : 16.025
Quant Ion : 185.00
Area (flag) : 94000M
On-Column Amount (ng/ul) : 2.3389
Integration start scan : 2599 Integration stop scan: 2614
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

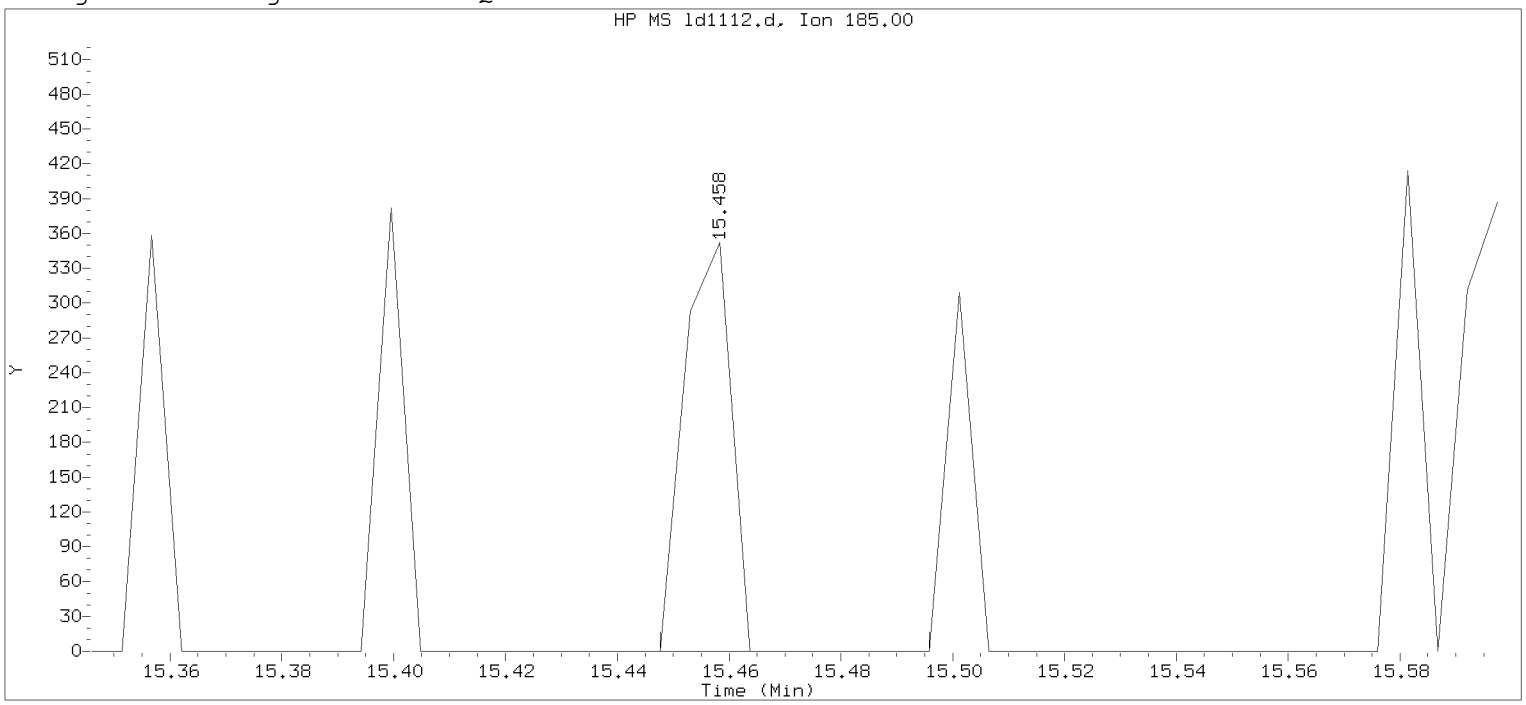
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

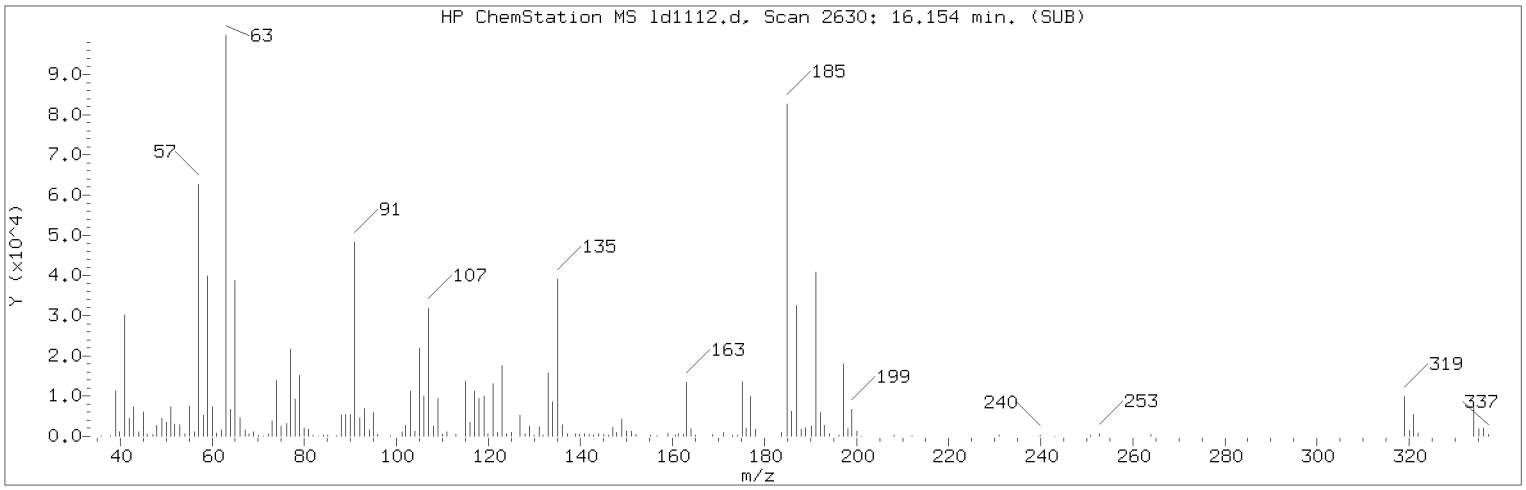
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

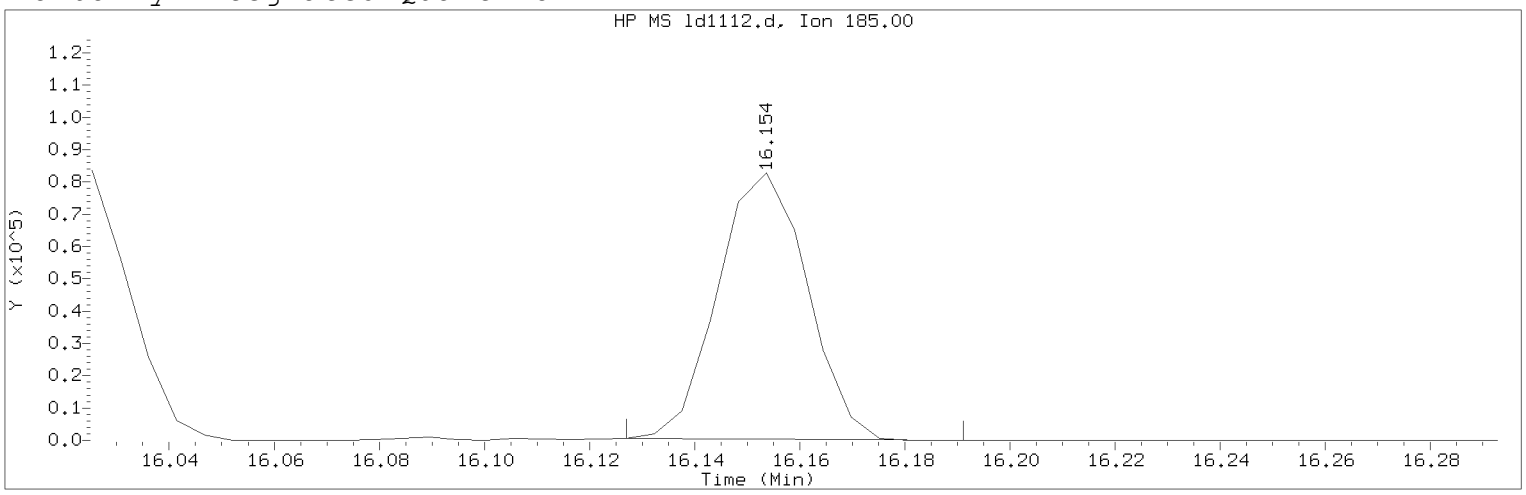
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2500
Retention Time (minutes) : 15.458
Quant Ion : 185.00
Area : 206
On-column Amount (ng/ul) : 0.0013
Integration start scan : 2497 Integration stop scan: 2506
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 3.5.1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

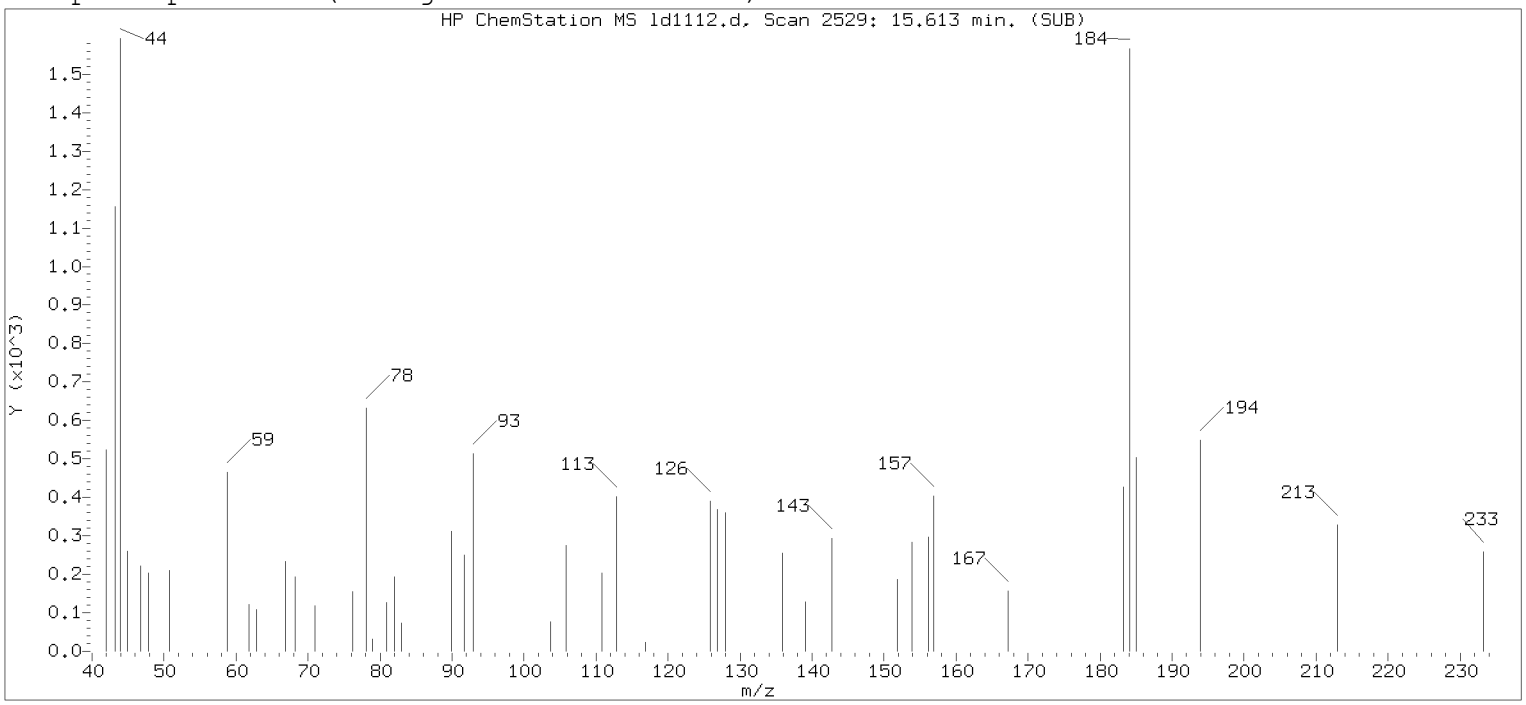
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2630
Retention Time (minutes) : 16.154
Quant Ion : 185.00
Area (flag) : 96940M
On-Column Amount (ng/ul) : 1.8061
Integration start scan : 2624 Integration stop scan: 2636
Y at integration start : 620 Y at integration end: 0

Reason for manual integration: improper integration

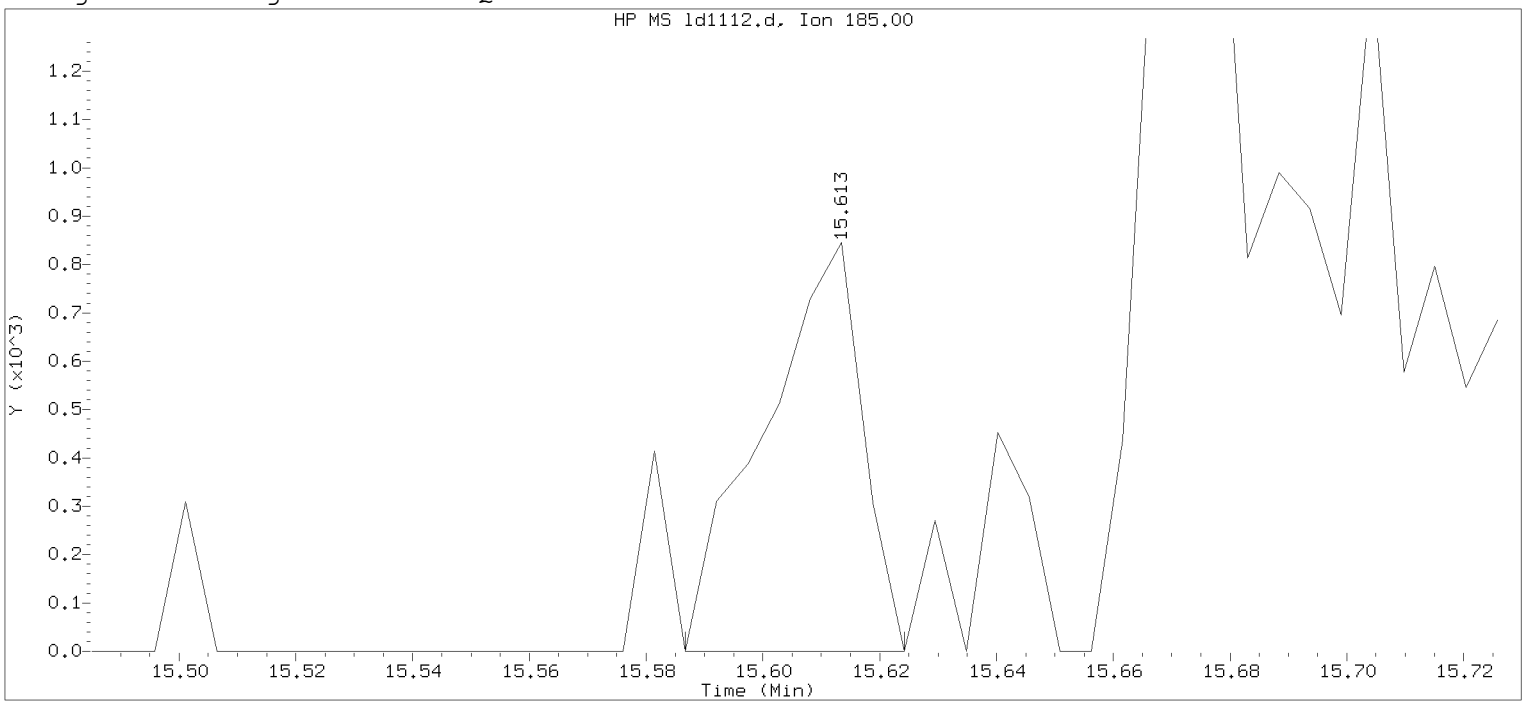
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

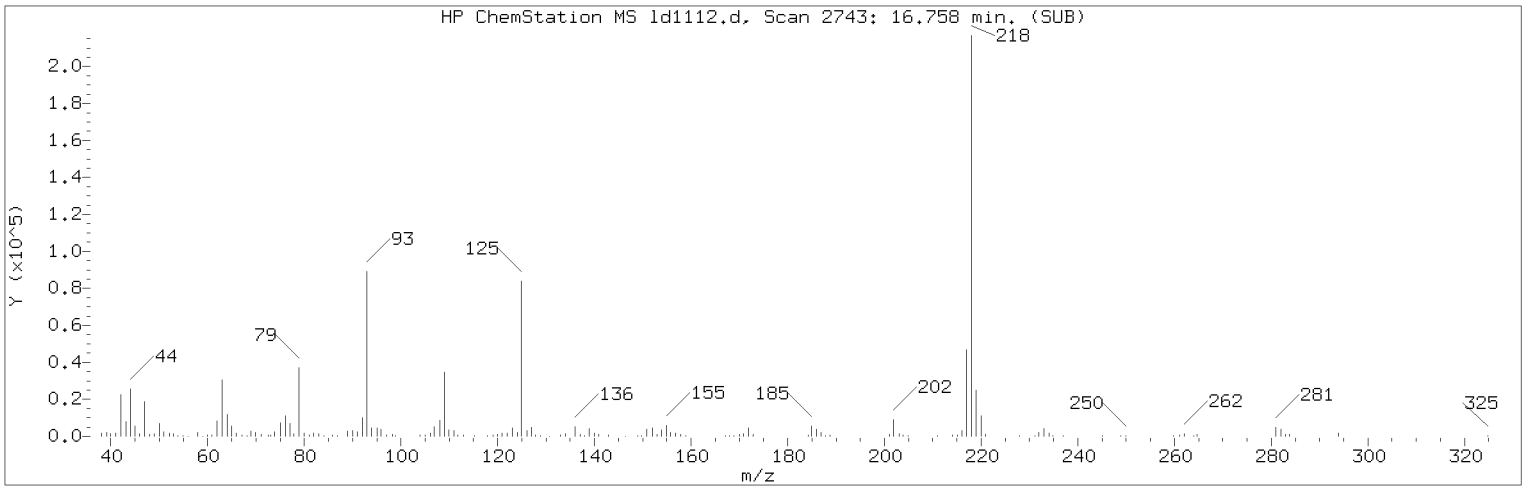
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

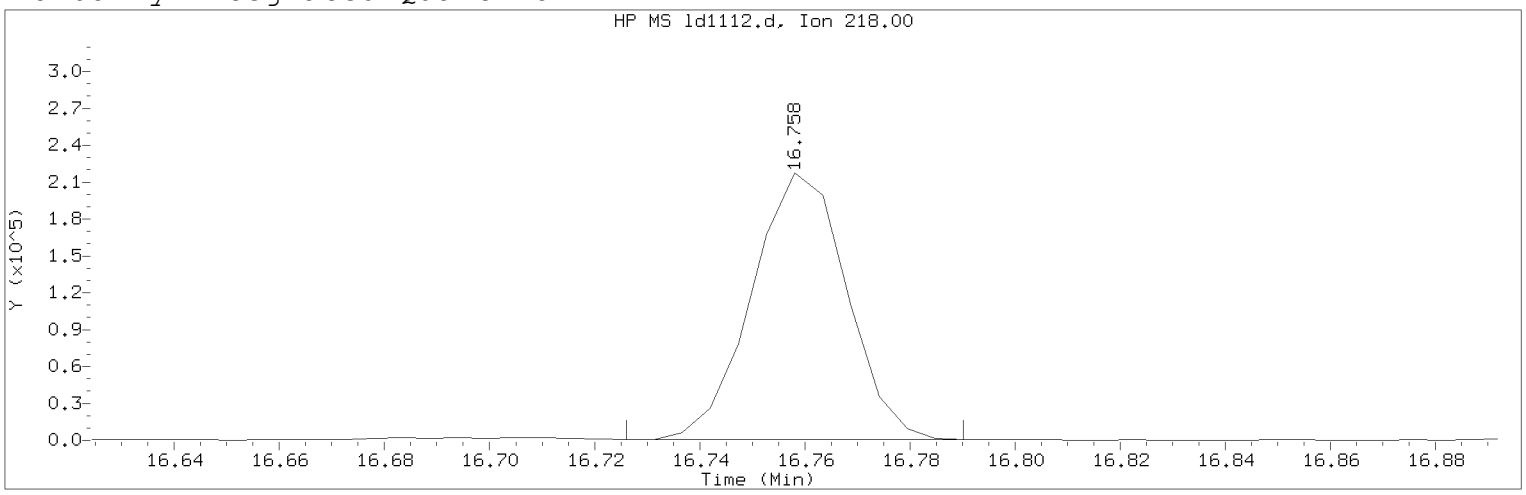
Compound Number	: 189		
Compound Name	: Aramite (4)		
Scan Number	: 2529		
Retention Time (minutes)	: 15.613		
Quant Ion	: 185.00		
Area	: 991		
On-column Amount (ng/ul)	: 0.0046		
Integration start scan	: 2523	Integration stop scan:	2530
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Page 2233

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

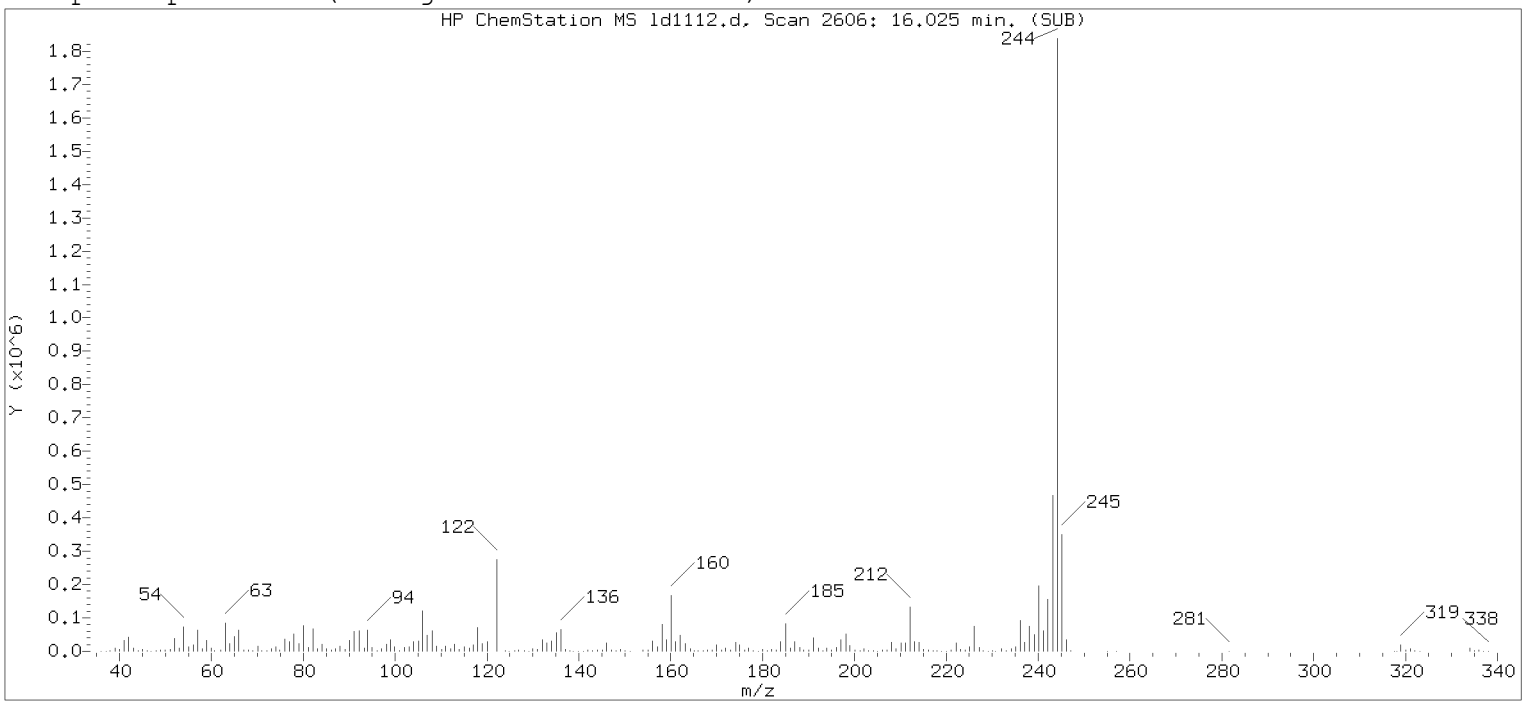
Compound Number : 194
Compound Name : Famphur
Scan Number : 2743
Retention Time (minutes) : 16.758
Quant Ion : 218.00
Area (flag) : 271513M
On-Column Amount (ng/ul) : 6.6535
Integration start scan : 2736 Integration stop scan: 2748
Y at integration start : 265 Y at integration end: 629

Reason for manual integration: improper integration

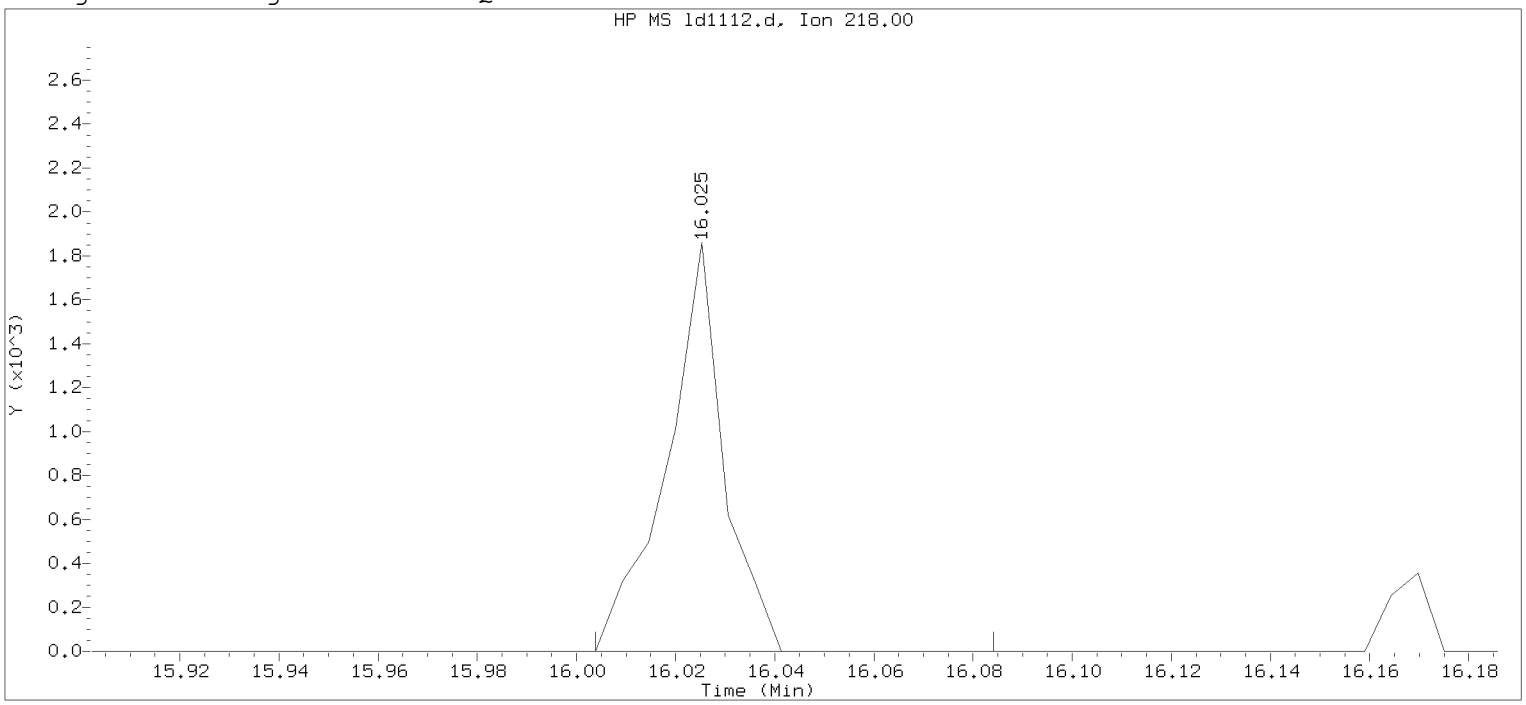
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

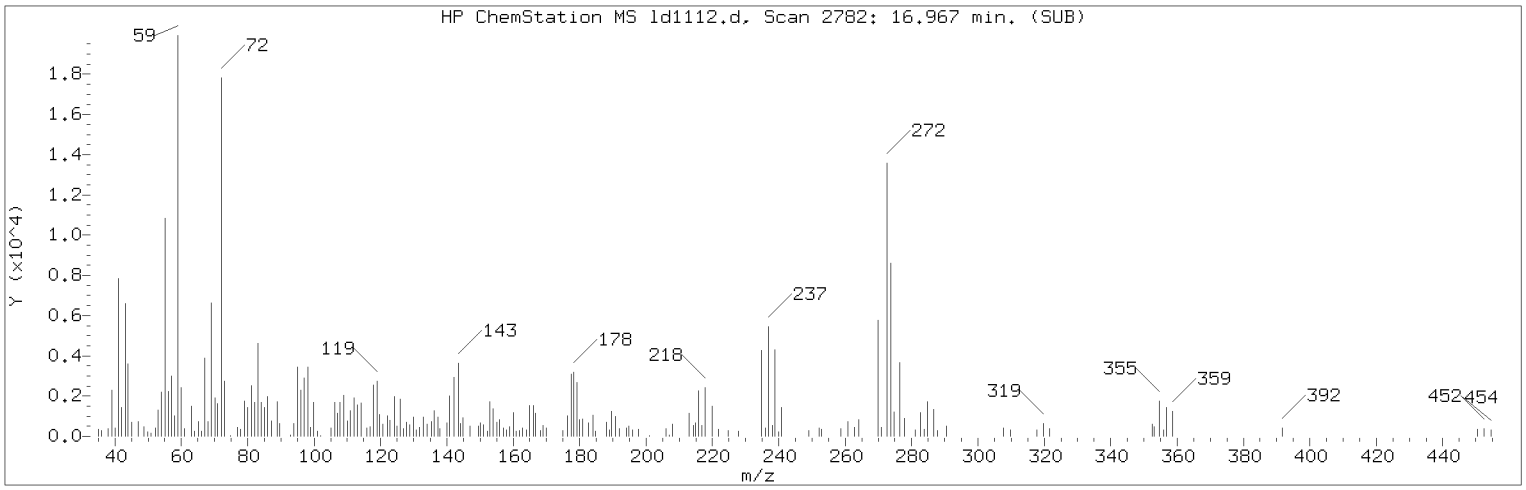
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

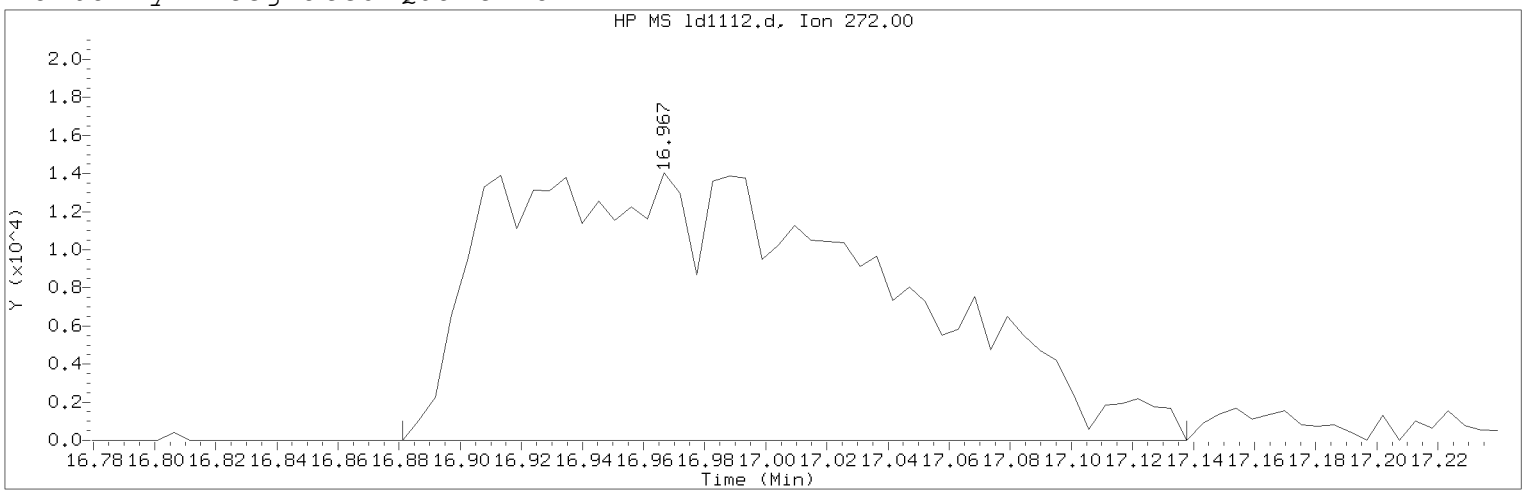
Compound Number	: 194		
Compound Name	: Famphur		
Scan Number	: 2606		
Retention Time (minutes)	: 16.025		
Quant Ion	: 218.00		
Area	: 1483		
On-column Amount (ng/ul)	: 0.0364		
Integration start scan	: 2601	Integration stop scan:	2616
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: KNB25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

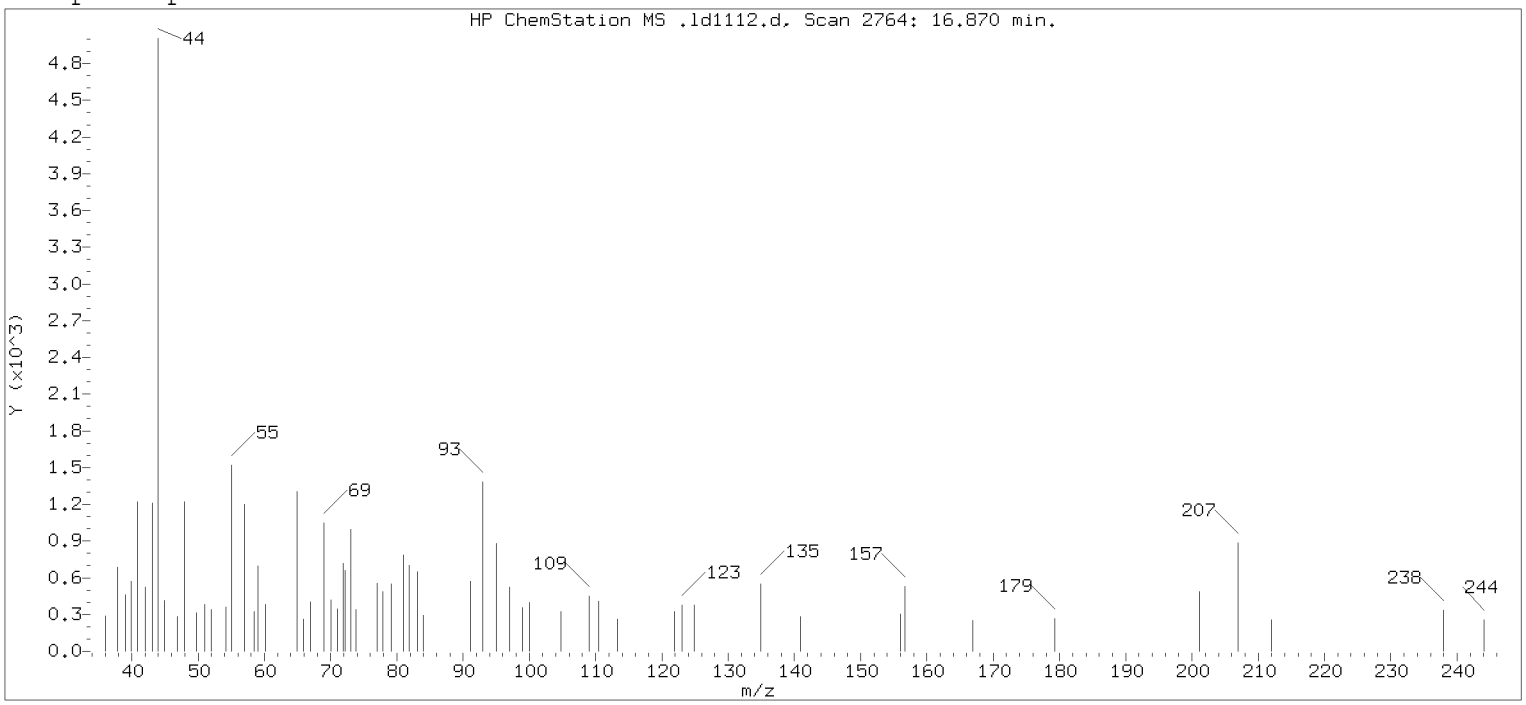
Compound Number : 195
Compound Name : Kepone
Scan Number : 2782
Retention Time (minutes) : 16.967
Quant Ion : 272.00
Area (flag) : 126730M
On-Column Amount (ng/ul) : 9.4119
Integration start scan : 2765 Integration stop scan: 2813
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

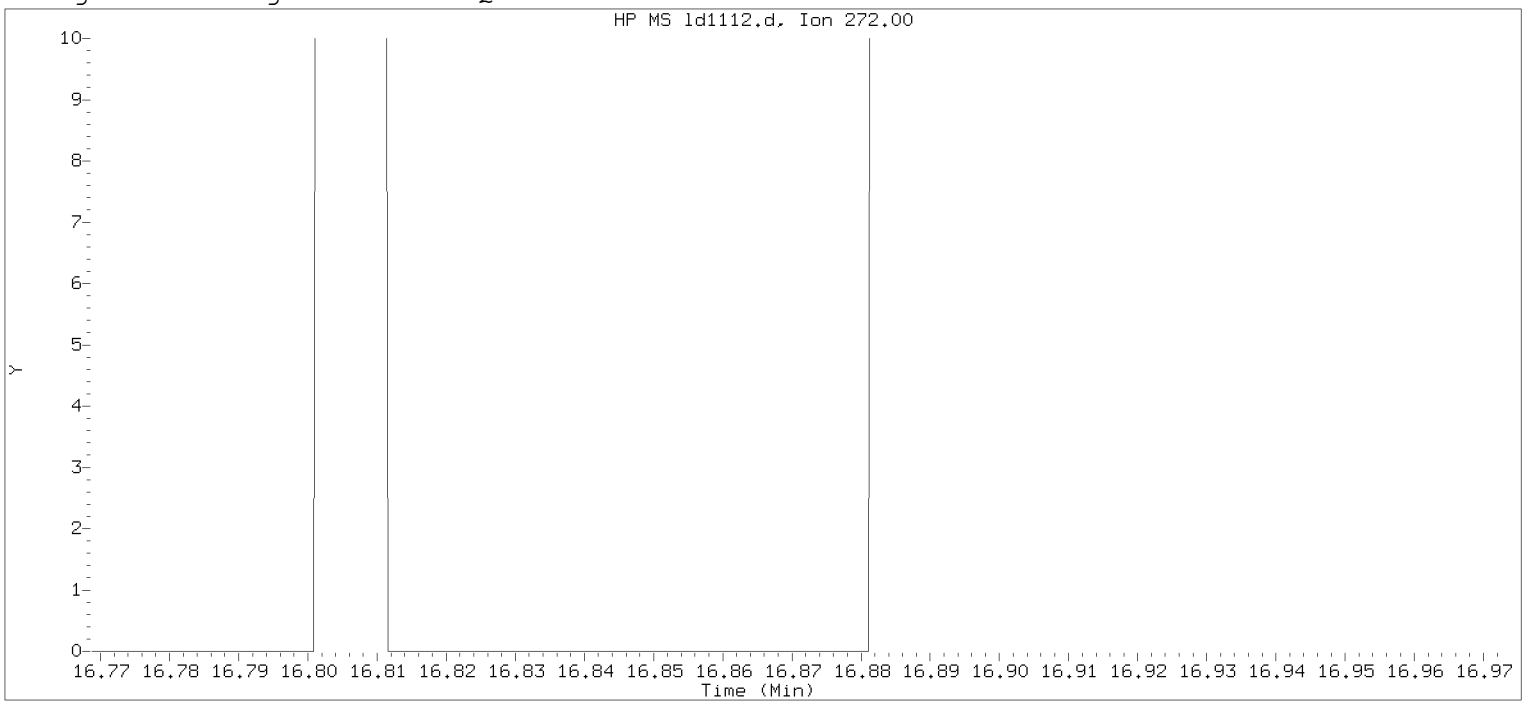
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1112.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 01:58 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCS2 Lab Sample ID: 106WNLCS2

Compound Number : 195
Compound Name : Kepone
Expected RT (minutes) : 16.871
Quant Ion : 272.00

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. Page 2237

Lancaster Laboratories, Inc.

Analysis Summary for GC/MS Semivolatiles

106WNLCSD2

Data file: /chem/HP20296.i/19apr18a.b/ld1113.d Injection date and time: **19-APR-2019 02:27**
Data file Sample Info. Line: 106WNLCSD2;106WNLCSD2;1;3;LCSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.927(-0.005)	905	152	185768 (-6)	5.00	
68) Naphthalene-d8	8.901(0.005)	1274	136	707058 (-8)	5.00	
118) Acenaphthene-d10	11.736(0.000)	1804	164	330046 (-10)	5.00	
158) Phenanthrene-d10	13.661(0.000)	2164	188	617252 (-9)	5.00	
180) Pyrene-d10	15.699(0.000)	2545	212	581783 (-14)	5.00	
218) Perylene-d12	20.272(0.000)	3400	264	558335 (-13)	5.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.023(-0.003)	112	1772693	29.717	59%
18) Phenol-d6	(1)	6.398(0.000)	99	1757611	22.205	44%
45) Nitrobenzene-d5	(2)	7.772(-0.001)	82	1512017	21.558	86%
96) 2-Fluorobiphenyl	(3)	10.687(0.000)	172	1880198	17.749	71%
140) 2,4,6-Tribromophenol	(3)	12.779(0.000)	330	603629	45.219	90%
184) Terphenyl-d14	(5)	16.025(0.000)	244	2275434	23.942	96%

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
9) N-Nitrosomethylethylamine	(1)	4.312(-0.001)	88	333101	10.967	43.87			0.5
10) Methyl methanesulfonate	(1)	4.761(-0.001)	80	356847	9.536	38.14			0.3
14) N-Nitrosodiethylamine	(1)	5.339(-0.000)	102	323360	11.053	44.21			0.1
16) Ethyl methanesulfonate	(1)	5.793(0.000)	109	335690	10.804	43.22			0.1
36) N-Nitrosopyrrolidine	(1)	7.500(0.001)	100	352532	11.450	45.80			0.1
40) N-Nitrosomorpholine	(1)	7.569(0.001)	56	387078	10.485	41.94			0.5
50) N-Nitrosopiperidine	(2)	8.034(-0.000)	114	315150	11.356	45.43			0.1
59) O,O,O-Triethylphosphorothioate	(2)	8.532(0.000)	198	265474	11.034	44.14			0.5
67) a,a-Dimethylphenethylamine	(2)	8.655(-0.001)	58	1659127M	35.117	140.47		E	1
71) 2,6-Dichlorophenol	(2)	9.051(-0.000)	162	455499	10.726	42.90			0.1
72) Hexachloropropene	(2)	9.094(-0.000)	213	96948	3.322	13.29			0.5
80) N-Nitrosodi-n-butylamine	(2)	9.623(-0.000)	84	544530	11.257	45.03			3
84) 1,4-Phenylenediamine	(2)	9.612(-0.001)	108	2118630	37.502	150.01		EJ	19
85) Safrole	(2)	9.955(-0.000)	162	372054	9.860	39.44			0.5
91) cis-Isosafrole	(3)	10.431(0.000)	162	54082	1.322	5.29			0.3
97) trans-Isosafrole	(3)	10.800(0.000)	162	430711	9.354	37.42			0.3
100) Isosafrole	(3)			484793	10.676	42.70			0.3
108) 1,4-Naphthoquinone	(3)			Not Detected					6
122) Pentachlorobenzene	(3)	11.976(0.000)	250	322101	8.432	33.73			0.1
130) Thionazin	(3)	12.479(-0.000)	107	268446	13.093	52.37			0.5
133) 5-Nitro-o-toluidine	(3)	12.495(0.000)	152	237135	8.680	34.72			1
144) 1,3,5-Trinitrobenzene	(4)			Not Detected					24
145) Diallate (peak 1)	(4)	13.025(0.000)	86	520122	8.957	35.83			0.06
146) Phorate	(4)	13.036(-0.000)	75	1070109	12.888	51.55			0.1
147) Phenacetin	(4)	13.046(0.000)	108	731057	12.139	48.55			0.1
149) Diallate (peak 2)	(4)	13.137(0.000)	86	164703	3.430	13.72			0.06
151) Diallate trans/cis	(4)			684825	12.387	49.55			0.3

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32. Target 3.5 esignature user ID: knb25316

Data file: /chem/HP20296.i/19apr18a.b/ld1113.d Injection date and time: **19-APR-2019 02:27**
Data file Sample Info. Line: 106WNLCSD2;106WNLCSD2;1;3;LCSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19106WAN**
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1109.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC106WNMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

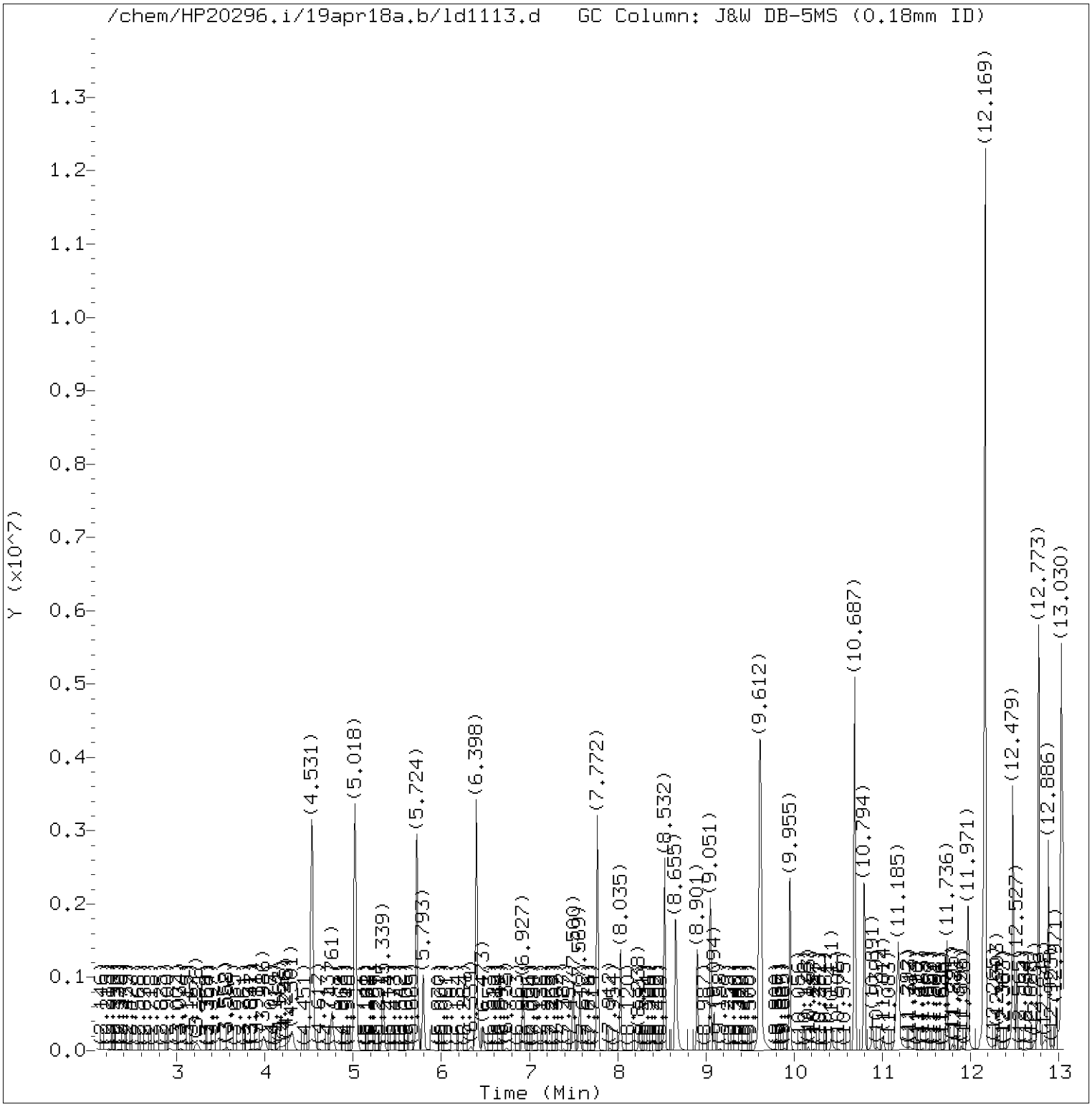
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
152) Dimethoate	(4)	13.228(0.000)	87	242433	4.497	17.99			0.8
155) 4-Aminobiphenyl	(4)	13.431(0.000)	169	571691	5.986	23.94			1
156) Pentachloronitrobenzene	(4)	13.437(0.000)	237	137493	11.049	44.19			0.5
157) Pronamide	(4)	13.538(0.000)	173	553561	12.620	50.48			0.1
167) Disulfoton	(4)	13.709(-0.000)	88	1635437M	27.605	110.42			6
169) Methyl parathion	(4)	14.191(0.000)	109	290820	7.470	29.88			0.3
172) Parathion	(4)	14.758(-0.000)	109	338022	13.444	53.78			1
173) 4-Nitroquinoline-1-oxide	(4)	14.784(-0.001)	190	2001961	107.906	431.62		E	5
175) Methapyrilene	(4)	14.918(-0.000)	97	5685859M	110.602	442.41		E	4
176) Isodrin	(4)	15.164(-0.000)	193	206719	11.890	47.56			0.1
185) Aramite (1)	(5)	15.913(-0.000)	185	4255M	0.723	2.89		J	0.3
186) Aramite (2)	(5)	15.950(-0.000)	185	4702M	0.643	2.57		J	0.3
188) Aramite (3)	(5)	16.025(-0.000)	185	94746M	2.393	9.57			0.3
189) Aramite (4)	(5)	16.154(0.000)	185	102066M	1.930	7.72			0.3
191) Aramite	(5)			205769	5.689	22.76			1
187) p-Dimethylaminoazobenzene	(5)	16.255(-0.000)	225	330441	13.043	52.17			1
190) Chlorobenzilate	(5)	16.352(-0.000)	139	552732	10.806	43.22			0.8
194) Famphur	(5)			Not Detected					6
195) Kepone	(5)	16.924(-0.003)	272	128628M	9.696	38.78		J	6
196) 2-Acetylaminofluorene	(5)	17.250(-0.000)	181	796465	12.392	49.57			3
220) 3-Methylcholanthrene	(6)	20.764(-0.000)	268	839343	12.711	50.84			1

M = Compound was manually integrated. E = Compound concentration above calibration range.

Total number of targets = 48

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32. Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

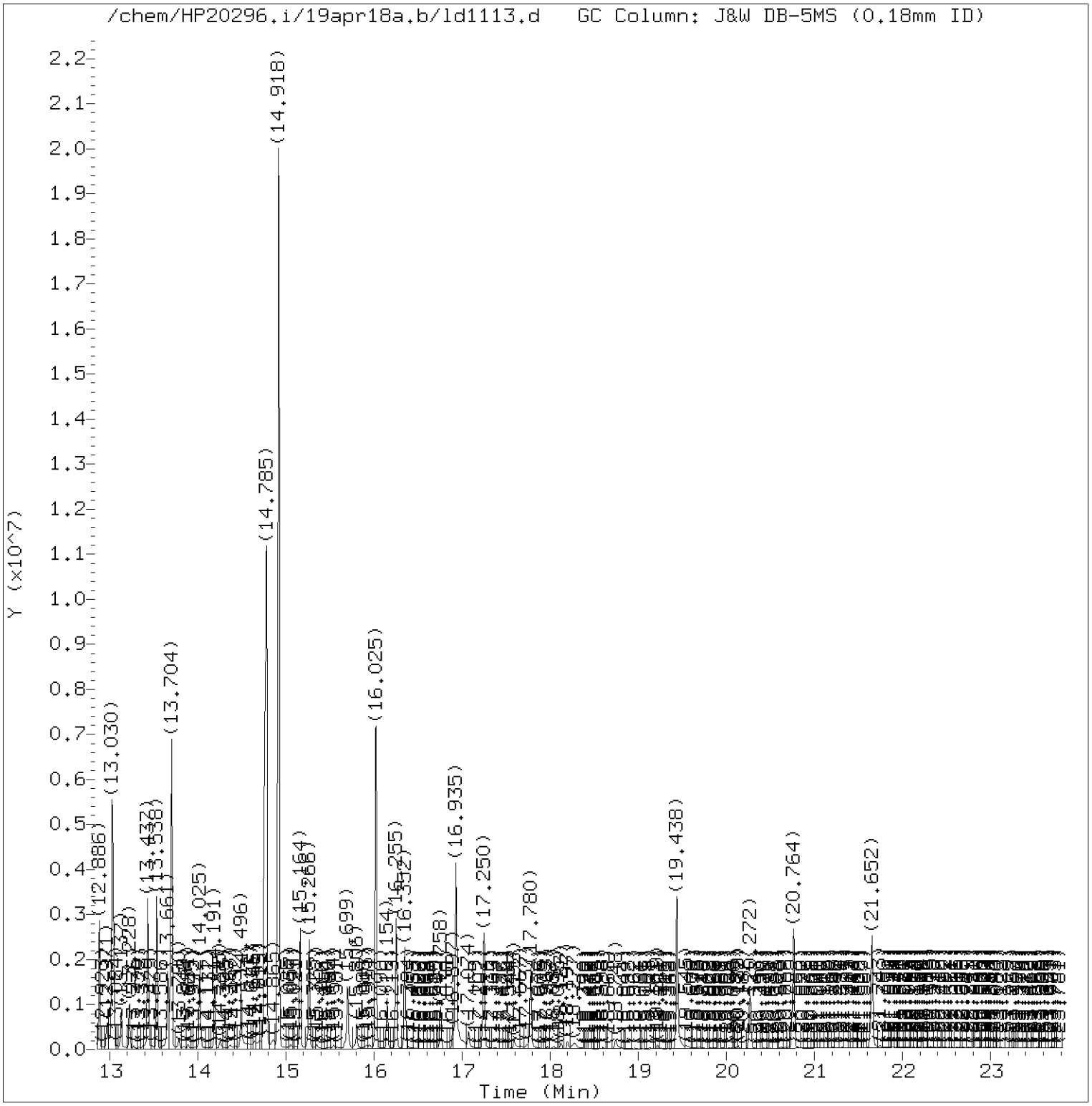
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
9) N-Nitrosomethylethylamine	(1)	4.312	88	333101	10.967
10) Methyl methanesulfonate	(1)	4.761	80	356847	9.536
12)$2-Fluorophenol	(1)	5.023	112	1772693	29.717
14) N-Nitrosodiethylamine	(1)	5.339	102	323360	11.053
16) Ethyl methanesulfonate	(1)	5.793	109	335690	10.804
18)$Phenol-d6	(1)	6.398	99	1757611	22.205
26)*1,4-Dichlorobenzene-d4	(1)	6.927	152	185768	5.000
100) Isosafrole	(3)			484793	10.676
36) N-Nitrosopyrrolidine	(1)	7.500	100	352532	11.450
40) N-Nitrosomorpholine	(1)	7.569	56	387078	10.485
45)$Nitrobenzene-d5	(2)	7.772	82	1512017	21.558
50) N-Nitrosopiperidine	(2)	8.035	114	315150	11.356
59) O,O,O-Triethylphosphorothioate	(2)	8.532	198	265474	11.034
67) a,a-Dimethylphenethylamine	(2)	8.655	58	1659127M	35.117
151) Diallate trans/cis	(4)			684825	12.387
68)*Naphthalene-d8	(2)	8.901	136	707058	5.000
71) 2,6-Dichlorophenol	(2)	9.051	162	455499	10.726
72) Hexachloropropene	(2)	9.094	213	96948	3.322
84) 1,4-Phenylenediamine	(2)	9.612	108	2118630	37.502
80) N-Nitrosodi-n-butylamine	(2)	9.623	84	544530	11.257
85) Safrole	(2)	9.955	162	372054	9.860
91) cis-Isosafrole	(3)	10.431	162	54082	1.322
191) Aramite	(5)			205769	5.689
96)$2-Fluorobiphenyl	(3)	10.687	172	1880198	17.749
97) trans-Isosafrole	(3)	10.800	162	430711	9.354
118)*Acenaphthene-d10	(3)	11.736	164	330046	5.000
122) Pentachlorobenzene	(3)	11.976	250	322101	8.432
130) Thionazin	(3)	12.479	107	268446	13.093
133) 5-Nitro-o-toluidine	(3)	12.495	152	237135	8.680
140)$2,4,6-Tribromophenol	(3)	12.779	330	603629	45.219
145) Diallate (peak 1)	(4)	13.025	86	520122	8.957
146) Phorate	(4)	13.036	75	1070109	12.888
147) Phenacetin	(4)	13.046	108	731057	12.139
149) Diallate (peak 2)	(4)	13.137	86	164703	3.430
152) Dimethoate	(4)	13.228	87	242433	4.497
155) 4-Aminobiphenyl	(4)	13.431	169	571691	5.986
156) Pentachloronitrobenzene	(4)	13.437	237	137493	11.049
157) Pronamide	(4)	13.538	173	553561	12.620
158)*Phenanthrene-d10	(4)	13.661	188	617252	5.000
167) Disulfoton	(4)	13.709	88	1635437M	27.605

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

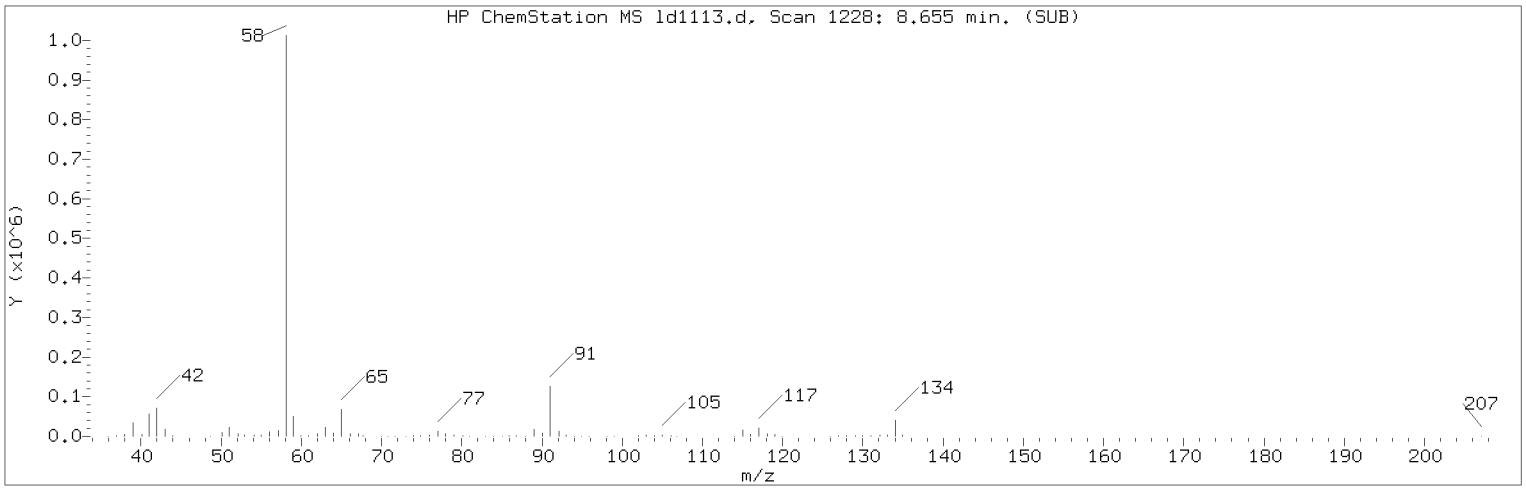
Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Methyl parathion	(4)	14.191	109	290820	7.470
172) Parathion	(4)	14.758	109	338022	13.444
173) 4-Nitroquinoline-1-oxide	(4)	14.785	190	2001961	107.906
175) Methapyrilene	(4)	14.918	97	5685859M	110.602
176) Isodrin	(4)	15.164	193	206719	11.890
180)*Pyrene-d10	(5)	15.699	212	581783	5.000
185) Aramite (1)	(5)	15.913	185	4255M	0.723
186) Aramite (2)	(5)	15.951	185	4702M	0.643
188) Aramite (3)	(5)	16.025	185	94746M	2.393
184)$Terphenyl-d14	(5)	16.025	244	2275434	23.942
189) Aramite (4)	(5)	16.154	185	102066M	1.930
187) p-Dimethylaminoazobenzene	(5)	16.255	225	330441	13.043
190) Chlorobenzilate	(5)	16.352	139	552732	10.806
195) Kepone	(5)	16.924	272	128628M	9.696
196) 2-Acetylaminofluorene	(5)	17.250	181	796465	12.392
218)*Perylene-d12	(6)	20.272	264	558335	5.000
220) 3-Methylcholanthrene	(6)	20.764	268	839343	12.711

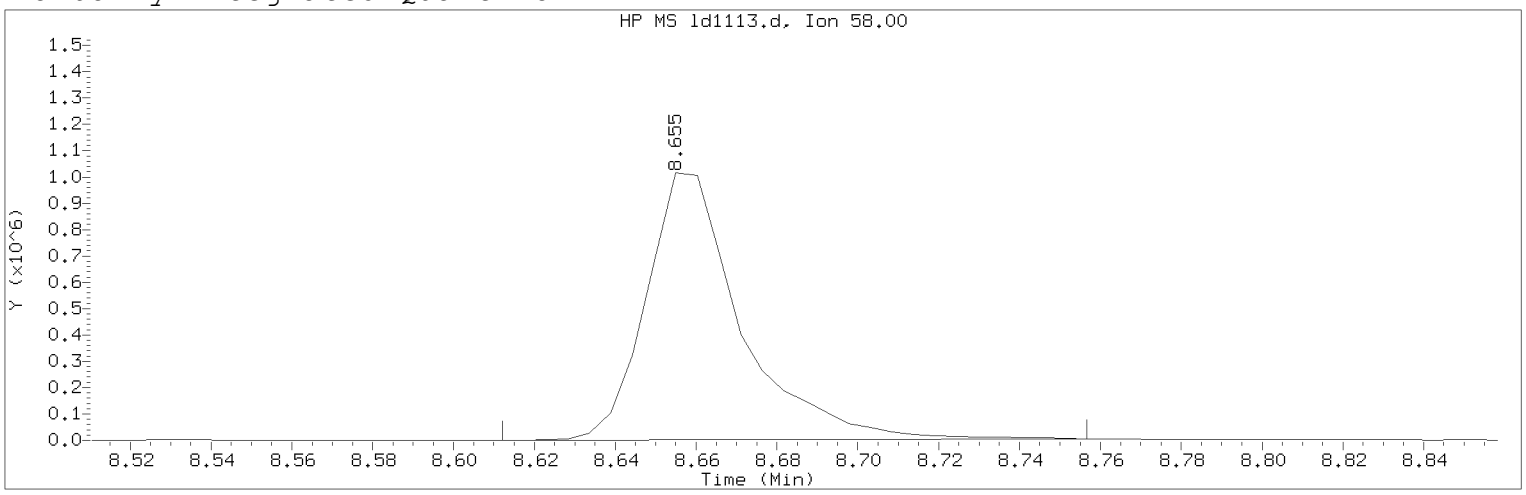
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

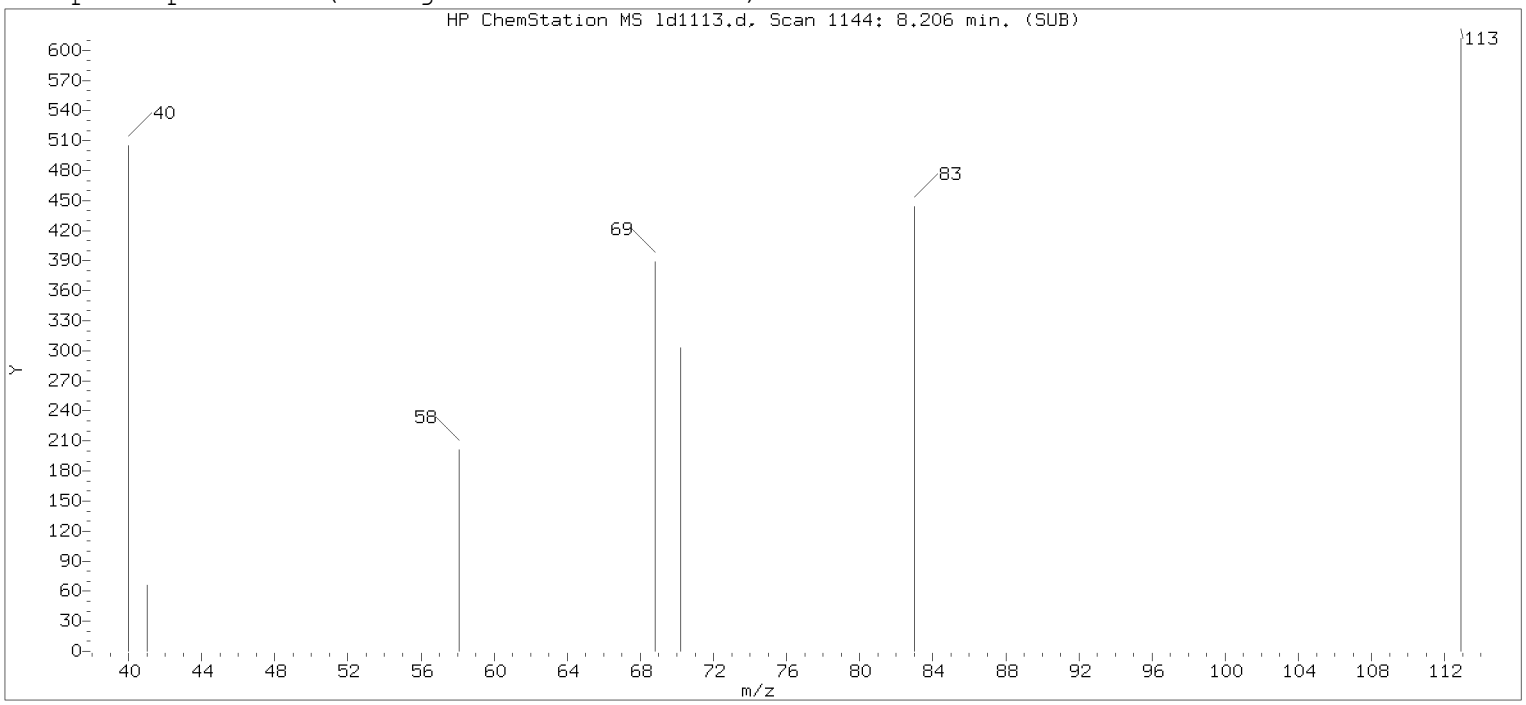
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1228
Retention Time (minutes) : 8.655
Quant Ion : 58.00
Area (flag) : 1659127M
On-Column Amount (ng/ul) : 35.1170
Integration start scan : 1219 Integration stop scan: 1246
Y at integration start : 681 Y at integration end: 4586

Reason for manual integration: improper integration

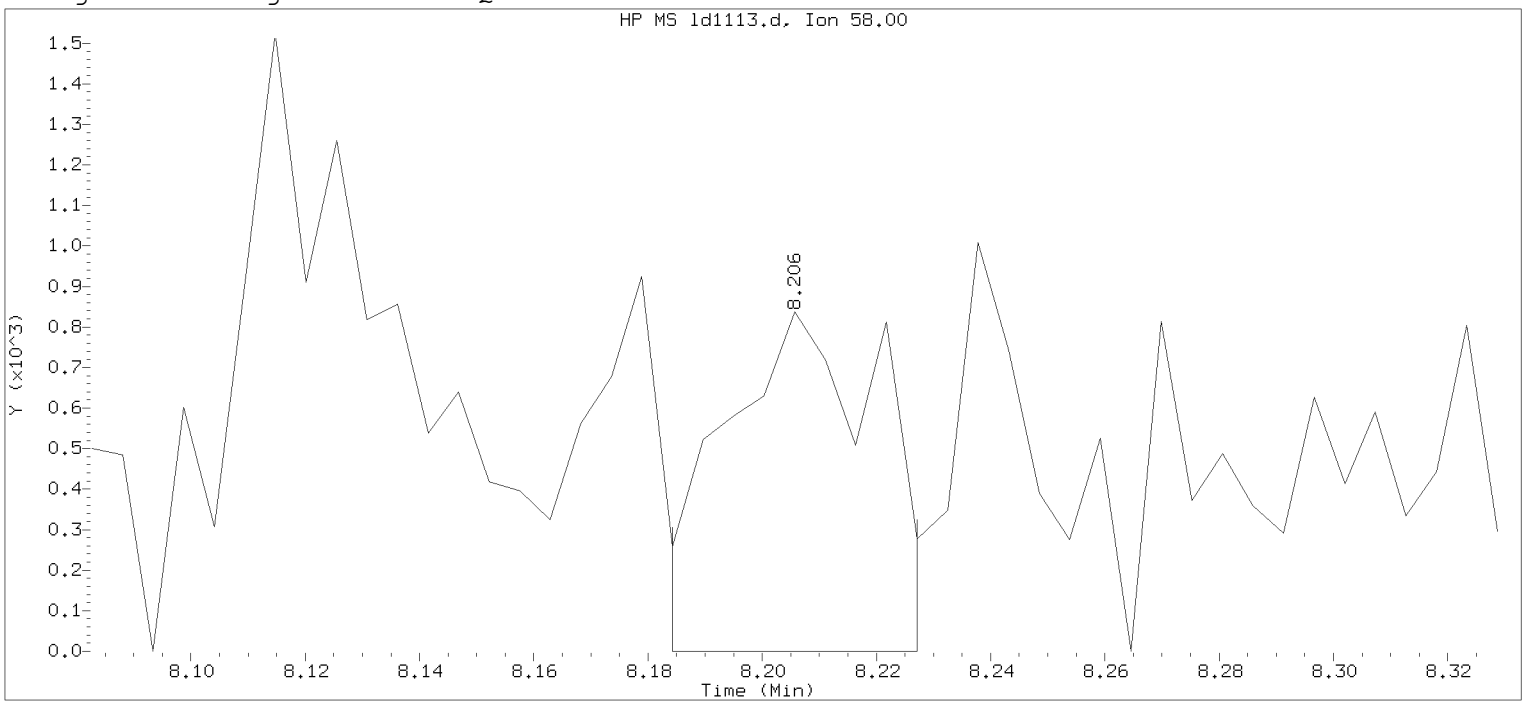
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

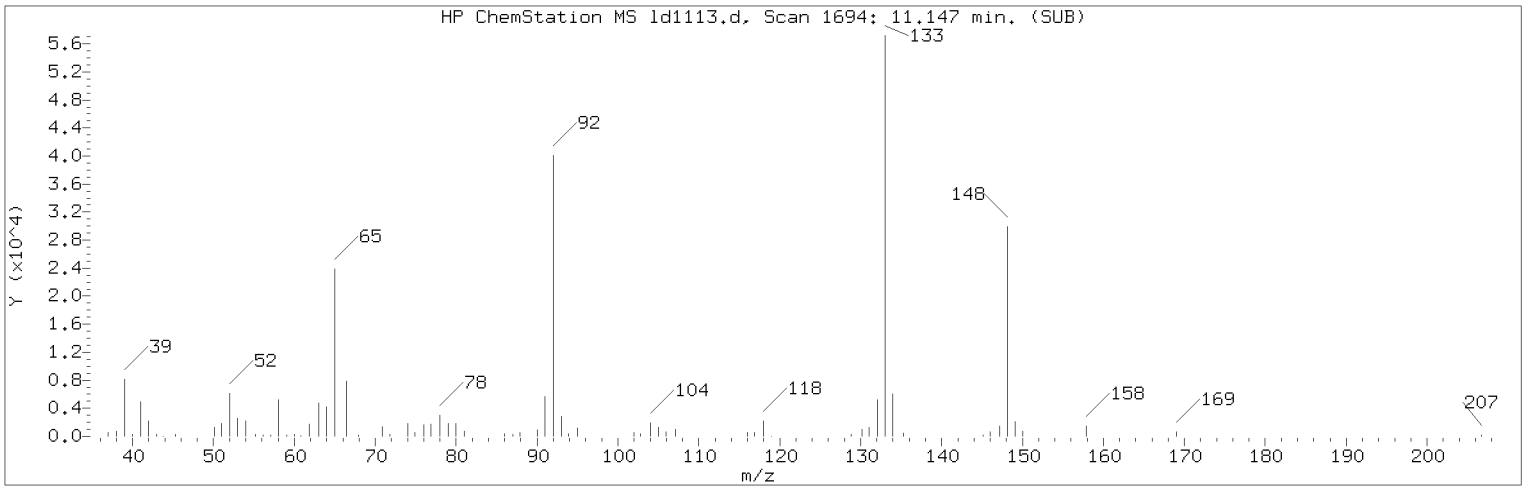
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

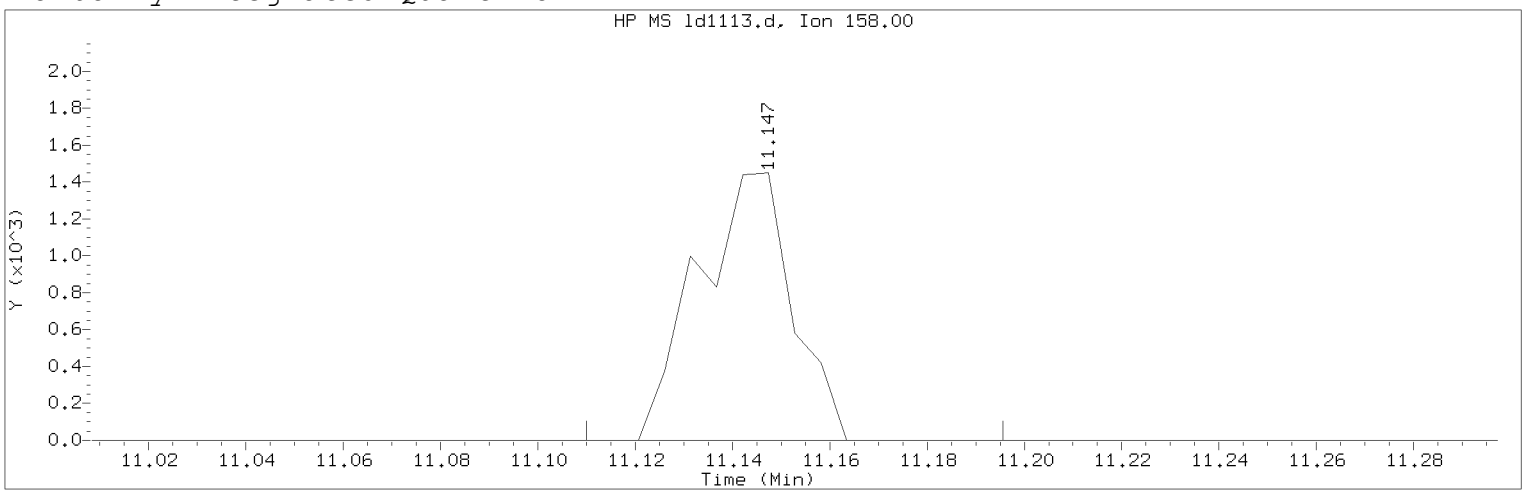
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1144
Retention Time (minutes) : 8.206
Quant Ion : 58.00
Area : 1565
On-column Amount (ng/ul) : 0.0331
Integration start scan : 1139 Integration stop scan: 1147
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

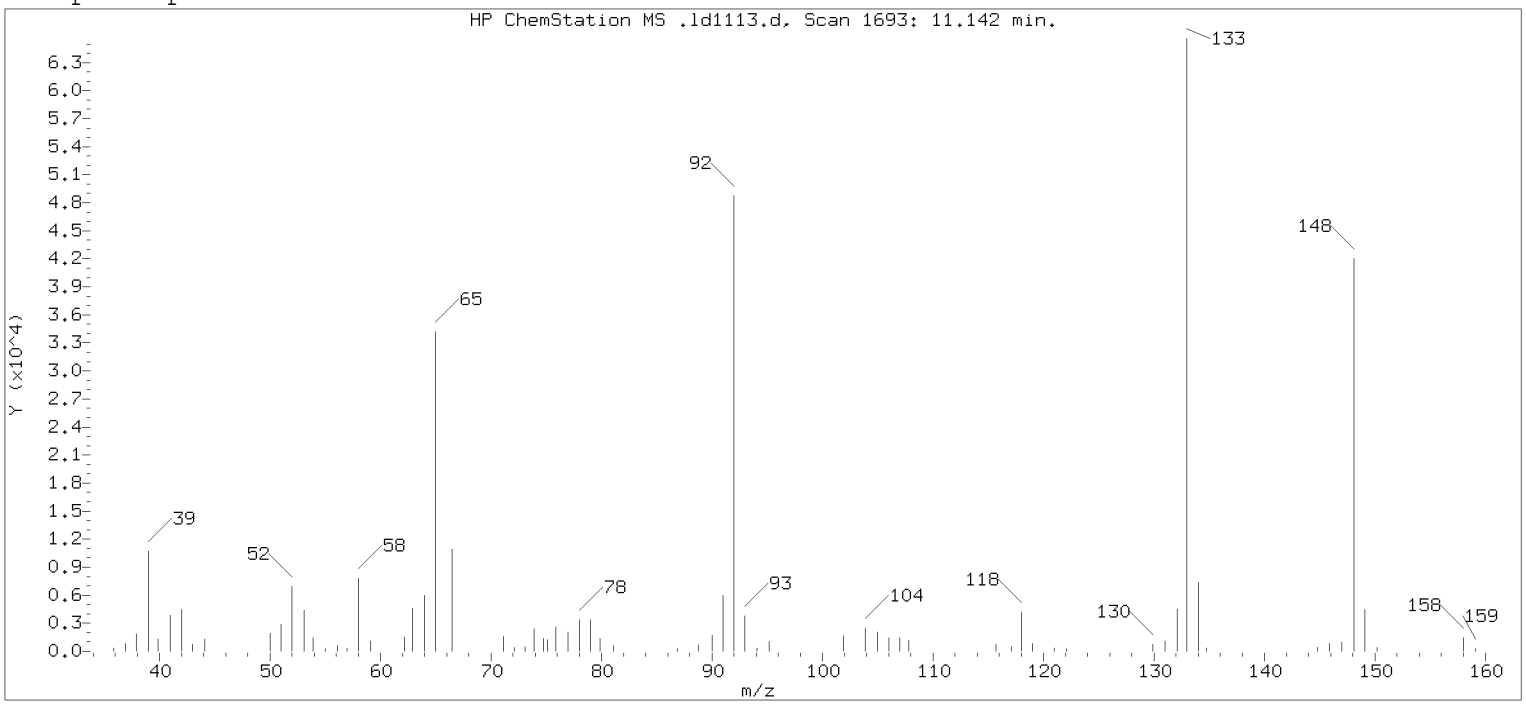
Compound Number : 108
Compound Name : 1,4-Naphthoquinone
Scan Number : 1694
Retention Time (minutes) : 11.147
Quant Ion : 158.00
Area (flag) : 1955M
On-Column Amount (ng/ul) : 0.0530
Integration start scan : 1686 Integration stop scan: 1702
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

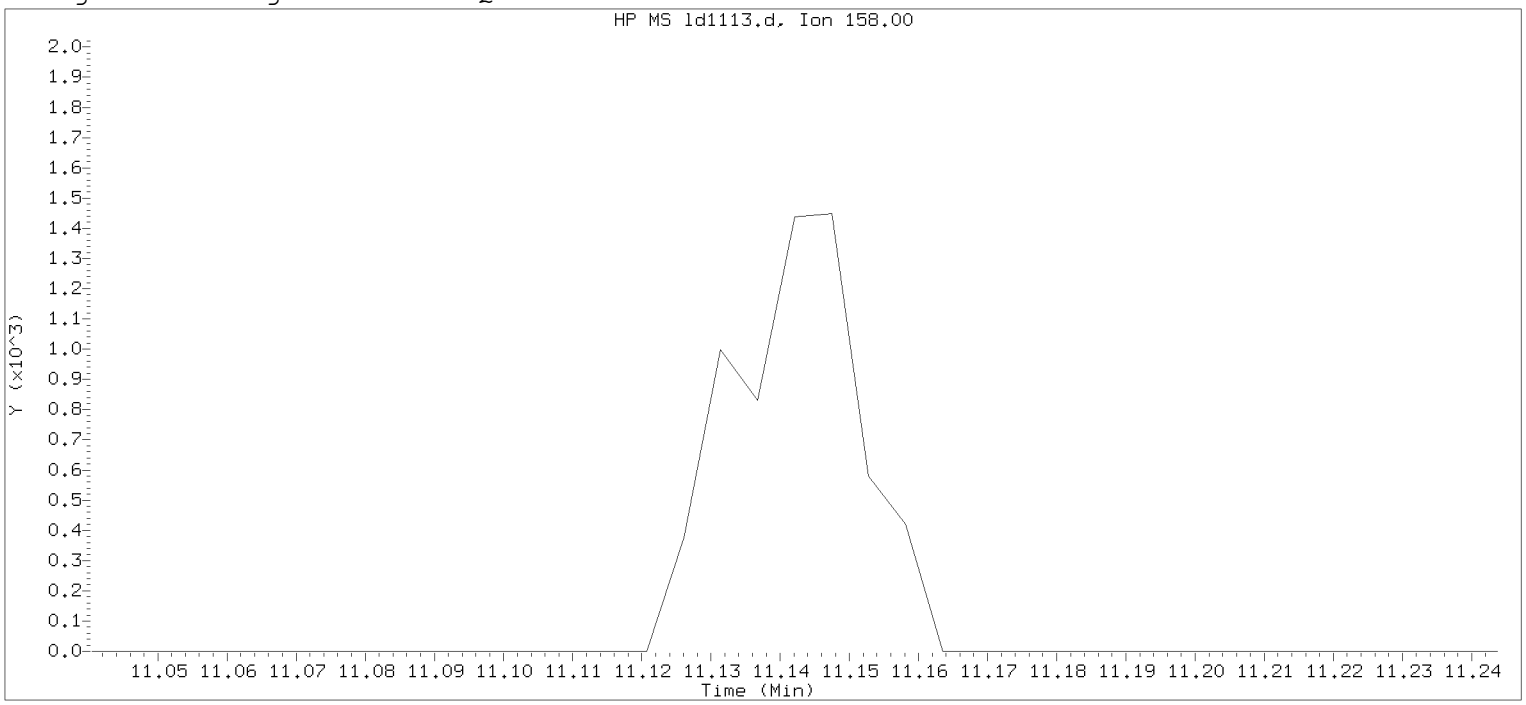
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

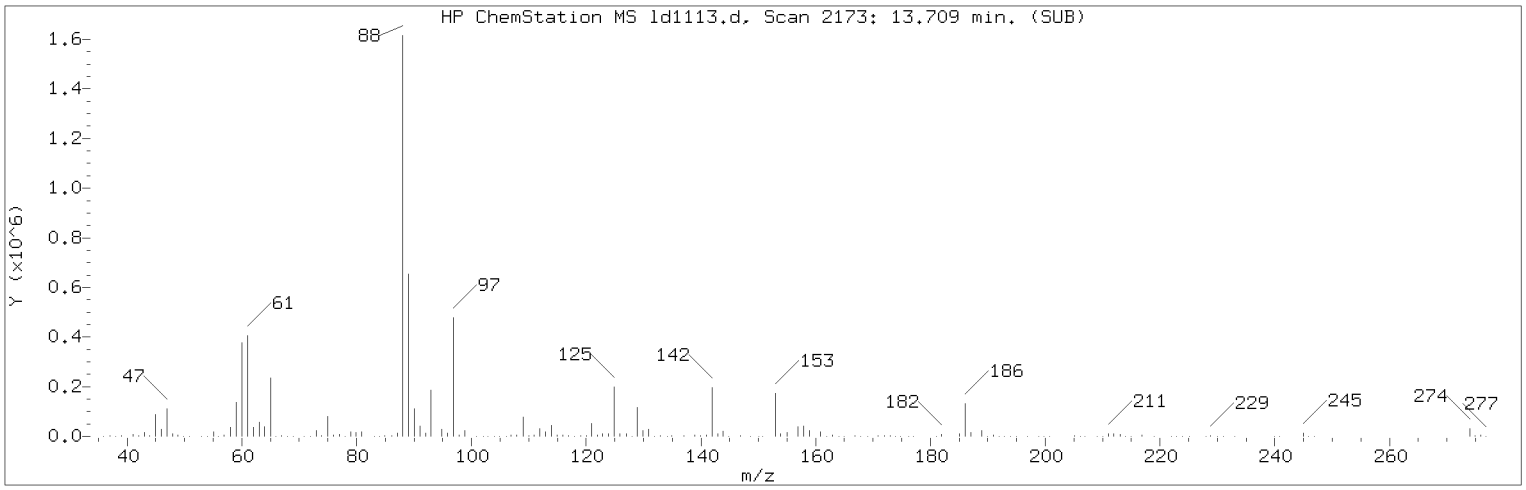
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

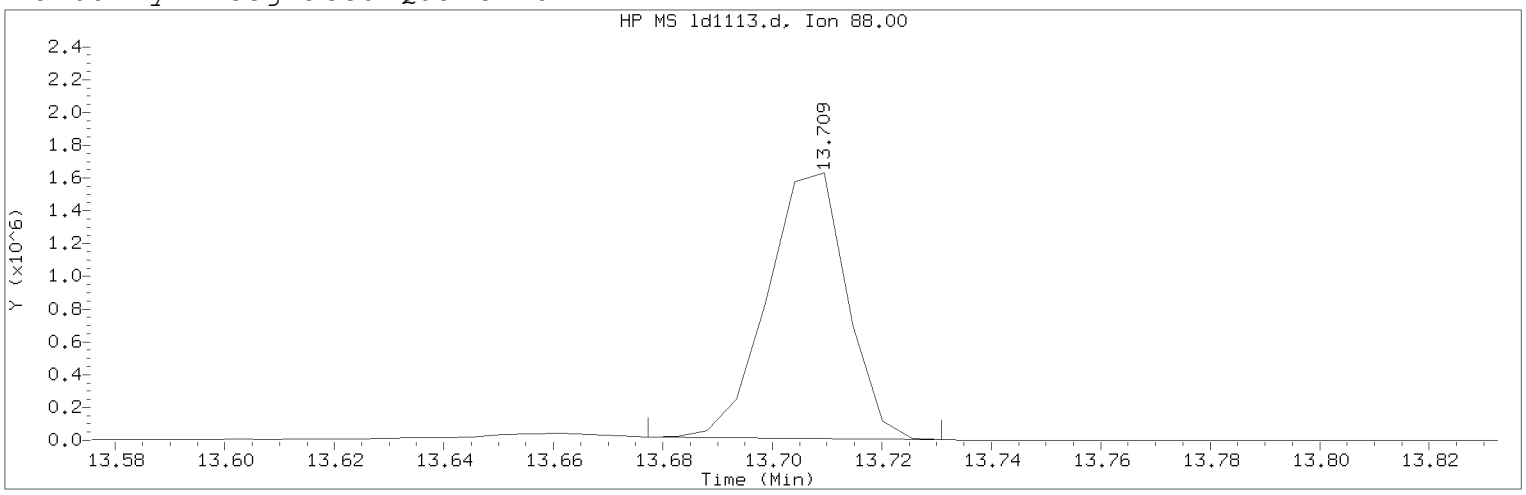
Compound Number : 108
Compound Name : 1,4-Naphthoquinone
Expected RT (minutes) : 11.142
Quant Ion : 158.00

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. Page 2247

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

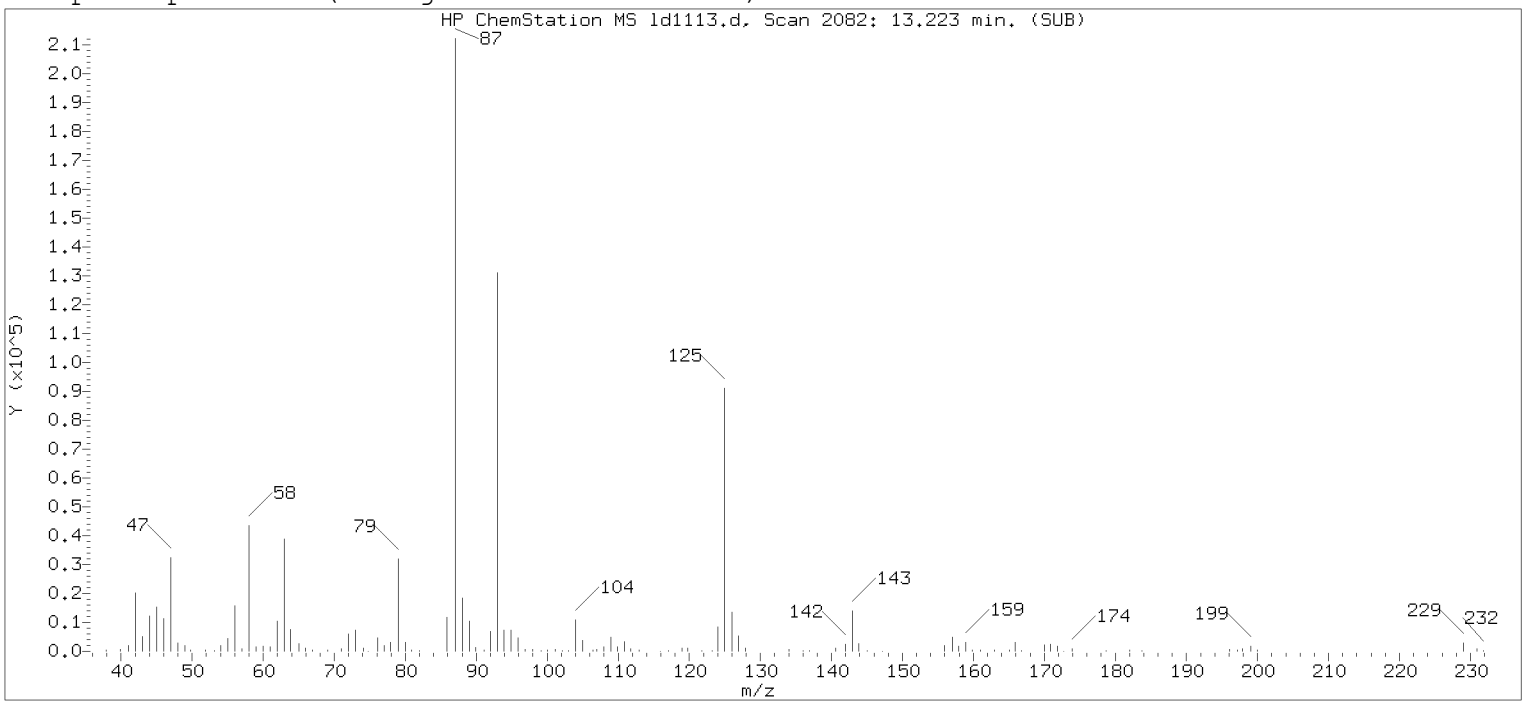
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2173
Retention Time (minutes) : 13.709
Quant Ion : 88.00
Area (flag) : 1635437M
On-Column Amount (ng/ul) : 27.6048
Integration start scan : 2166 Integration stop scan: 2176
Y at integration start : 19464 Y at integration end: 2632

Reason for manual integration: improper integration

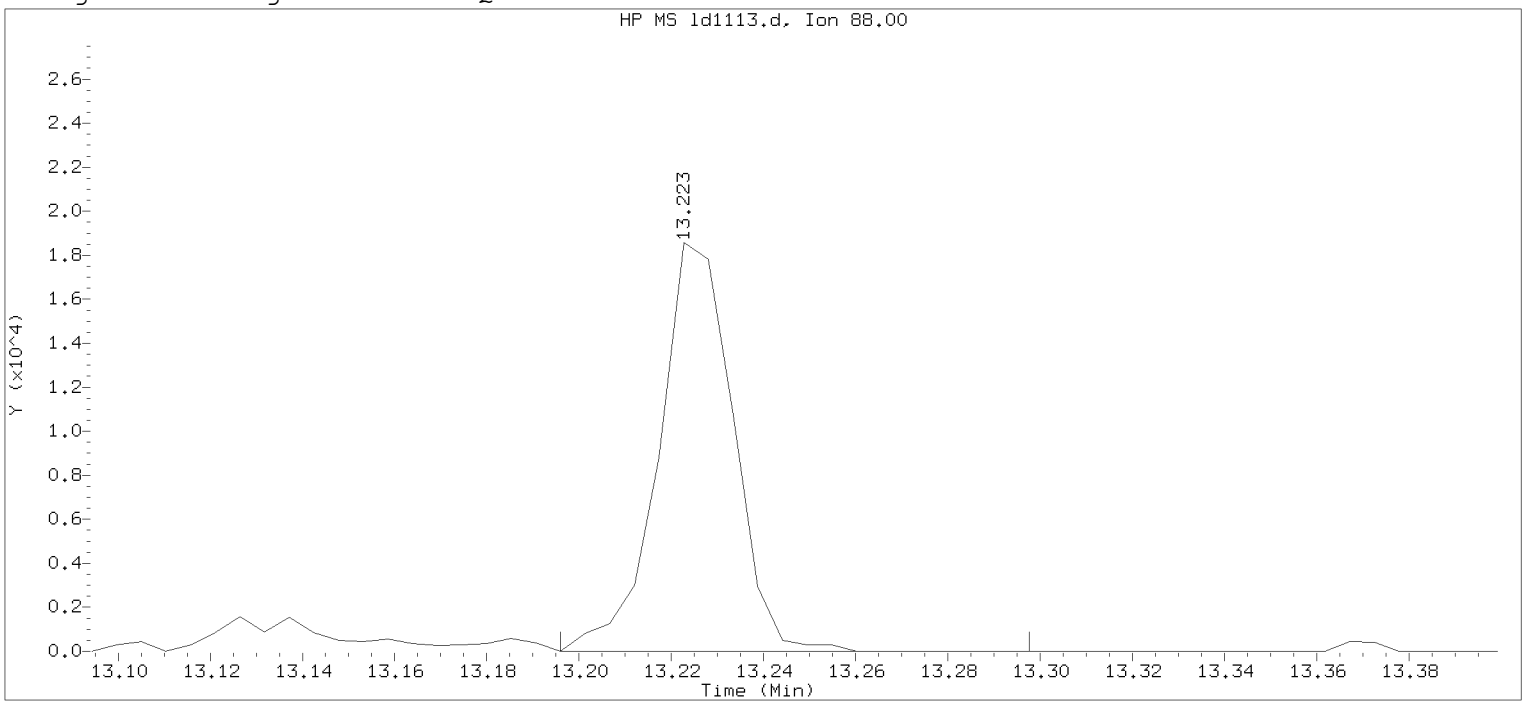
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

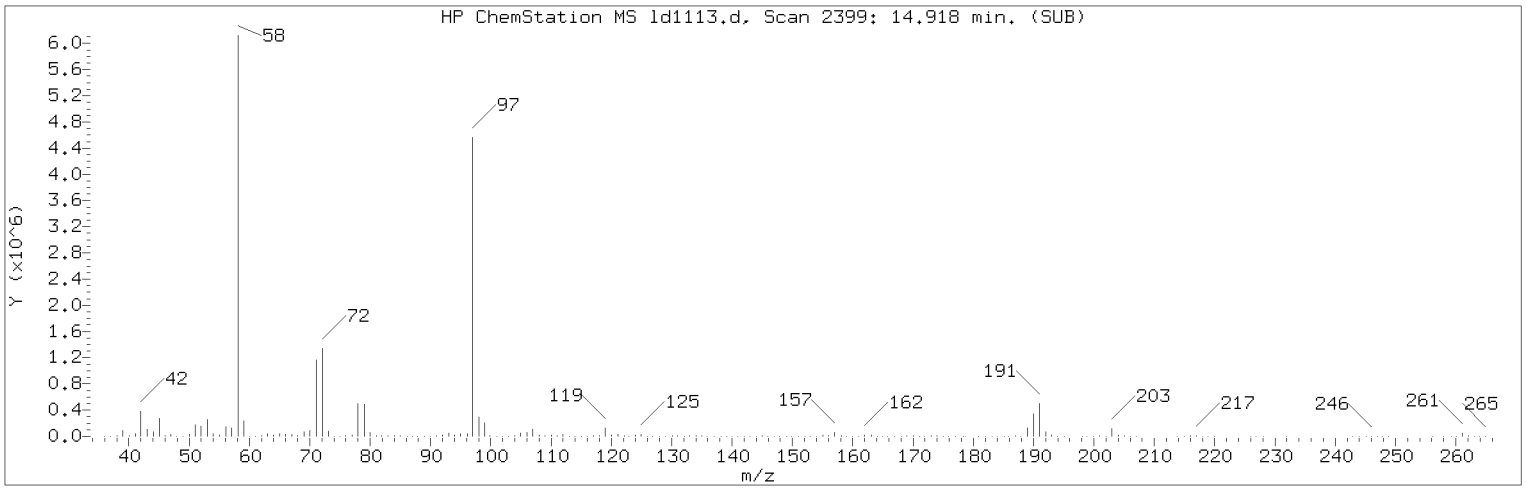
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

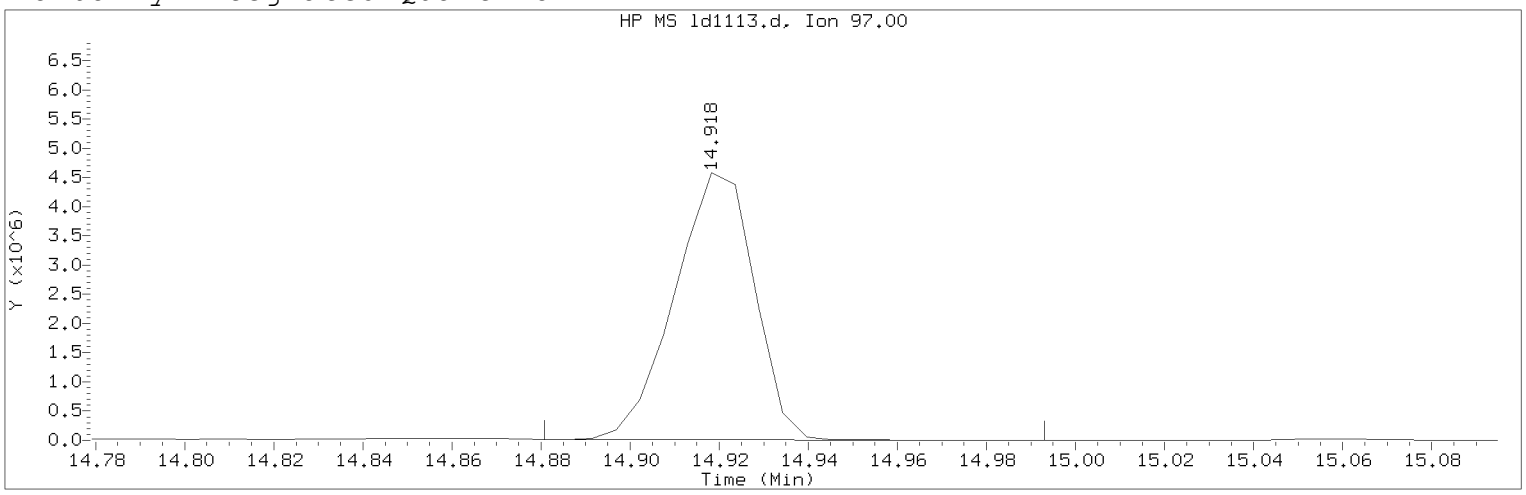
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2082
Retention Time (minutes) : 13.223
Quant Ion : 88.00
Area : 20876
On-column Amount (ng/ul) : 1.1979
Integration start scan : 2076 Integration stop scan: 2095
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 5.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

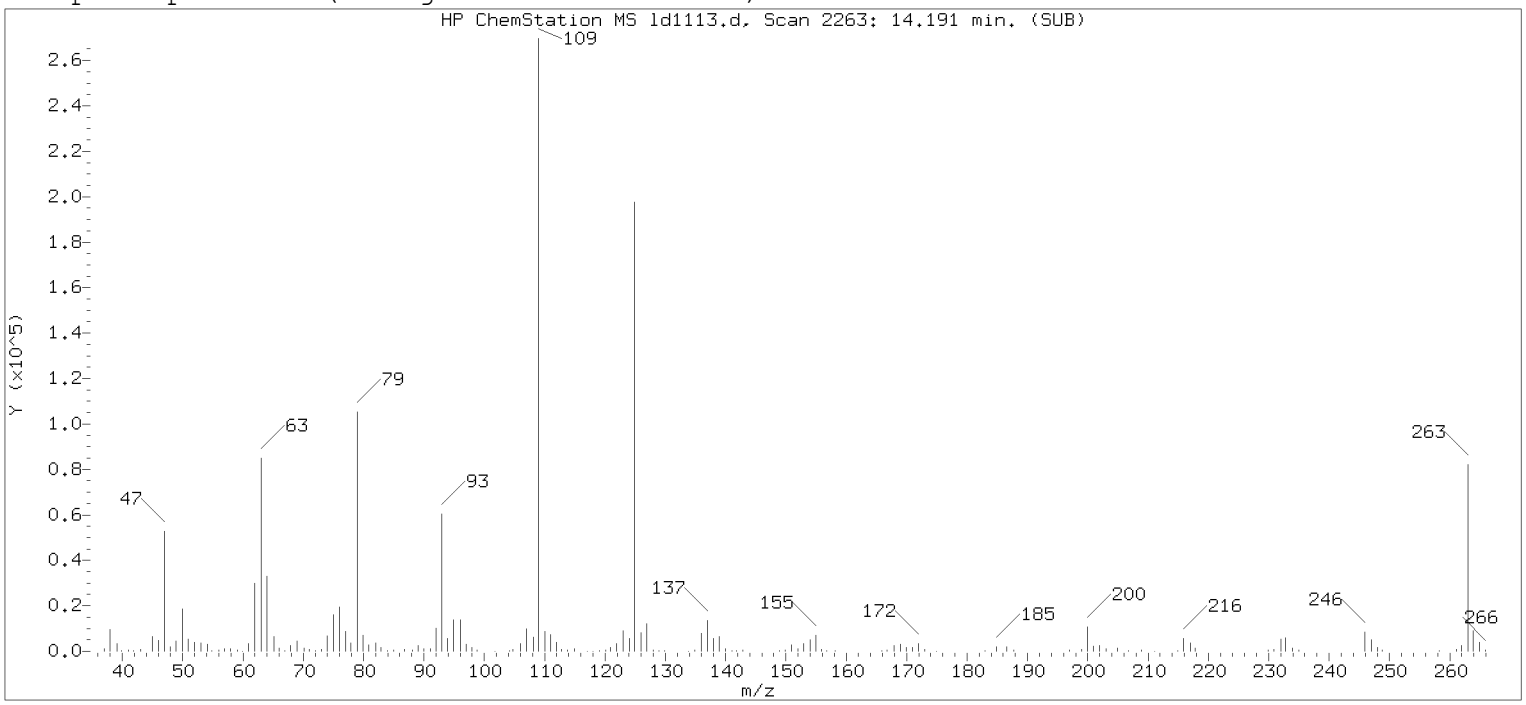
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2399
Retention Time (minutes) : 14.918
Quant Ion : 97.00
Area (flag) : 5685859M
On-Column Amount (ng/ul) : 110.6017
Integration start scan : 2391 Integration stop scan: 2412
Y at integration start : 11983 Y at integration end: 4271

Reason for manual integration: improper integration

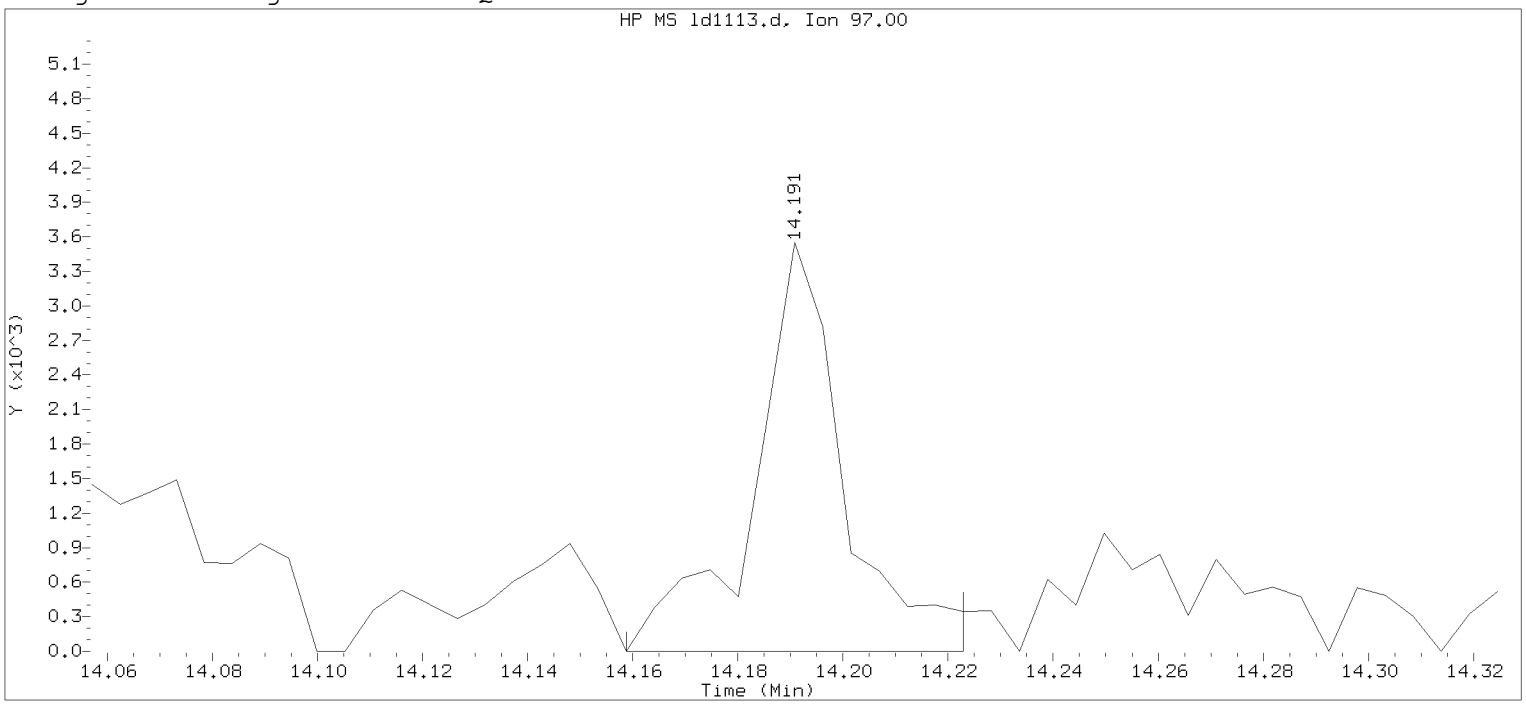
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

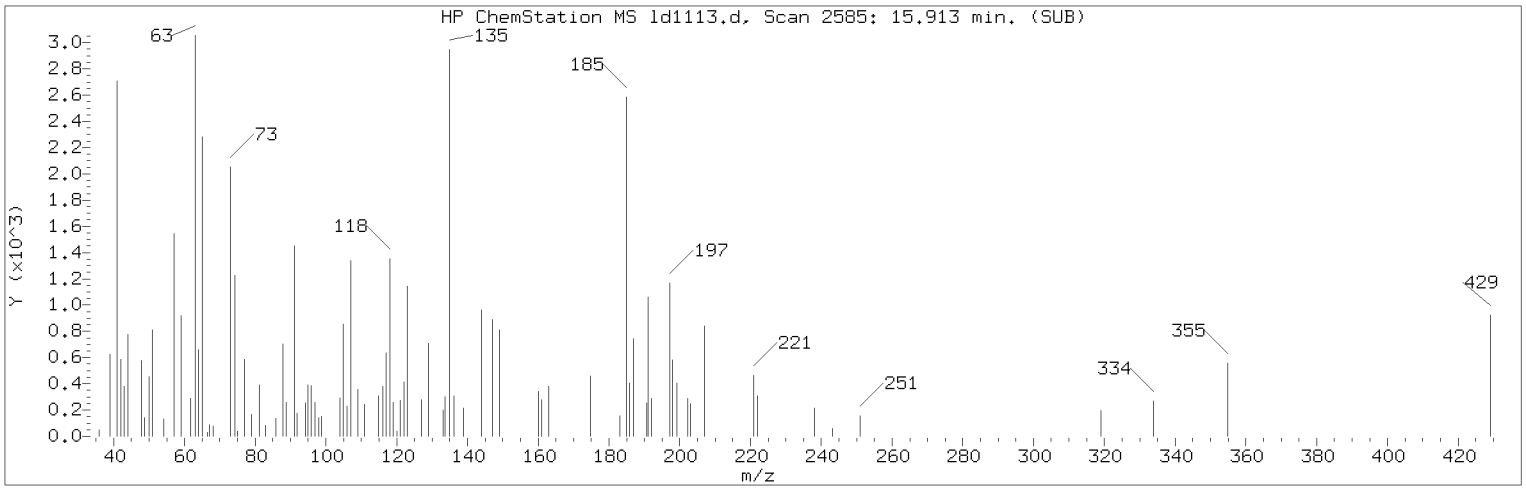
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

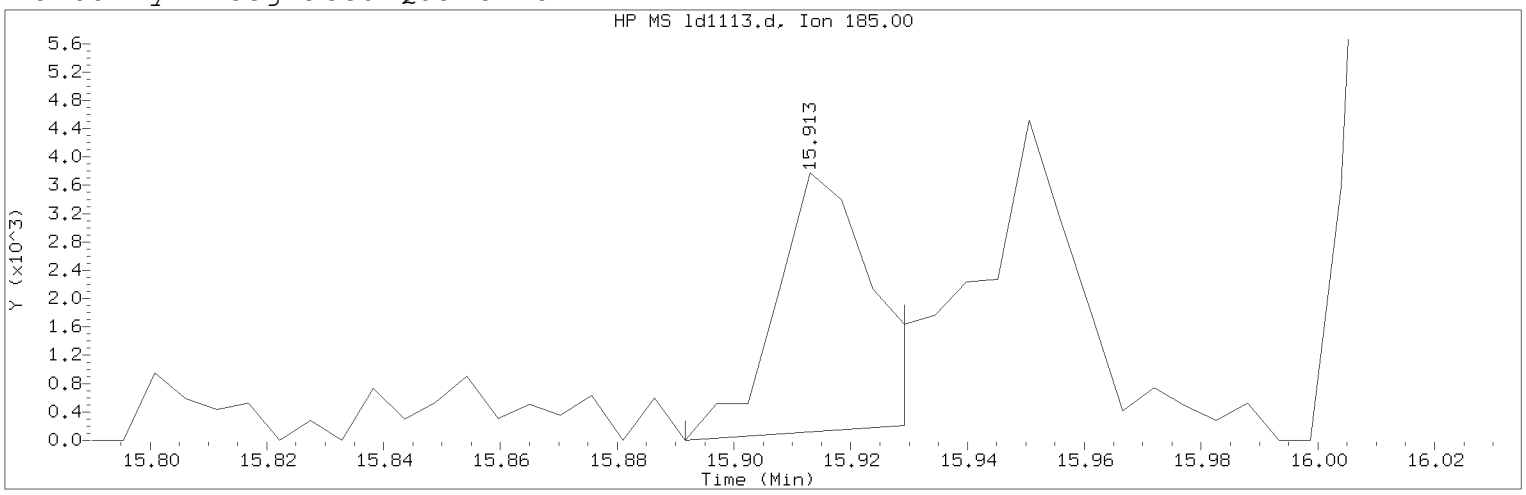
Compound Number	: 175		
Compound Name	: Methapyrilene		
Scan Number	: 2263		
Retention Time (minutes)	: 14.191		
Quant Ion	: 97.00		
Area	: 4192		
On-column Amount (ng/ul)	: 0.5453		
Integration start scan	: 2256	Integration stop scan:	2268
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 3.5.1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

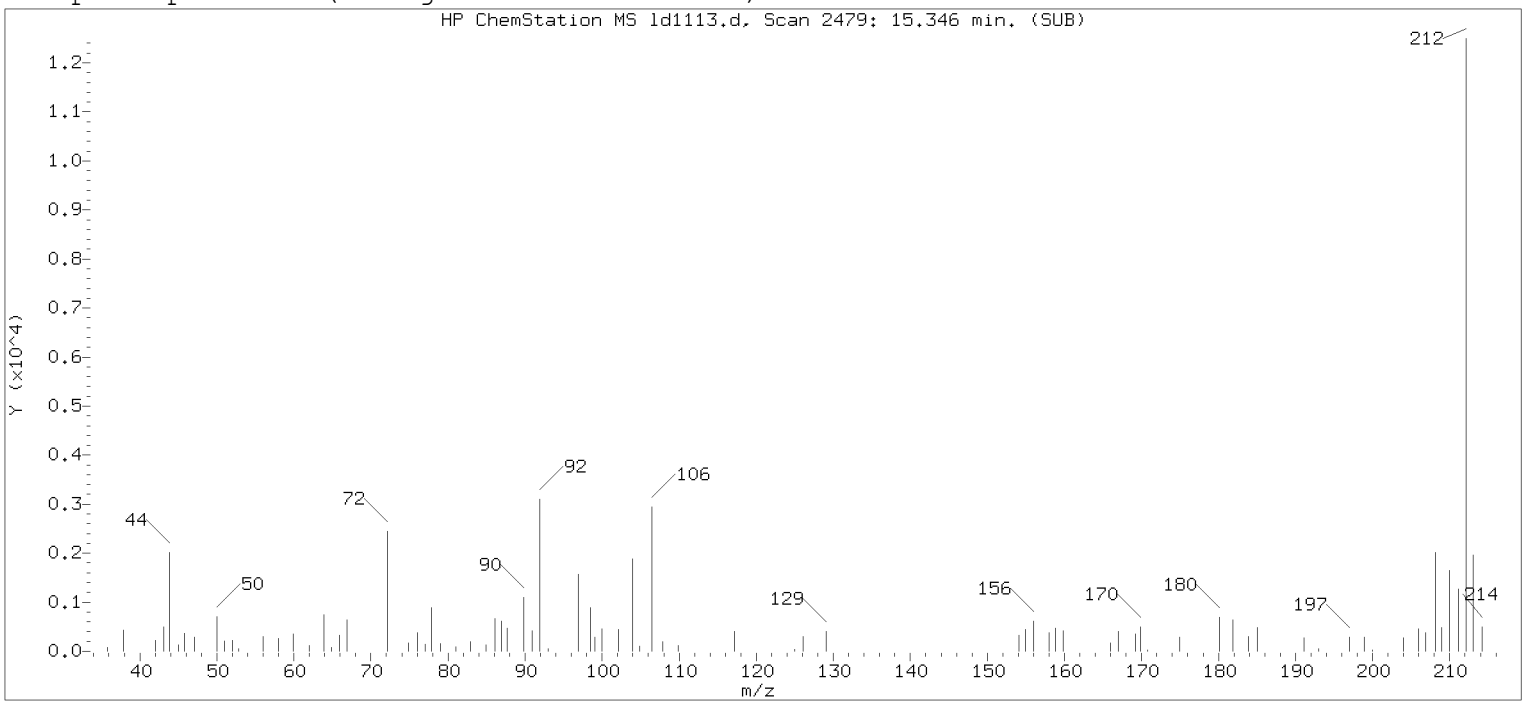
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2585
Retention Time (minutes) : 15.913
Quant Ion : 185.00
Area (flag) : 4255M
On-Column Amount (ng/ul) : 0.7228
Integration start scan : 2580 Integration stop scan: 2587
Y at integration start : 0 Y at integration end: 207

Reason for manual integration: improper integration

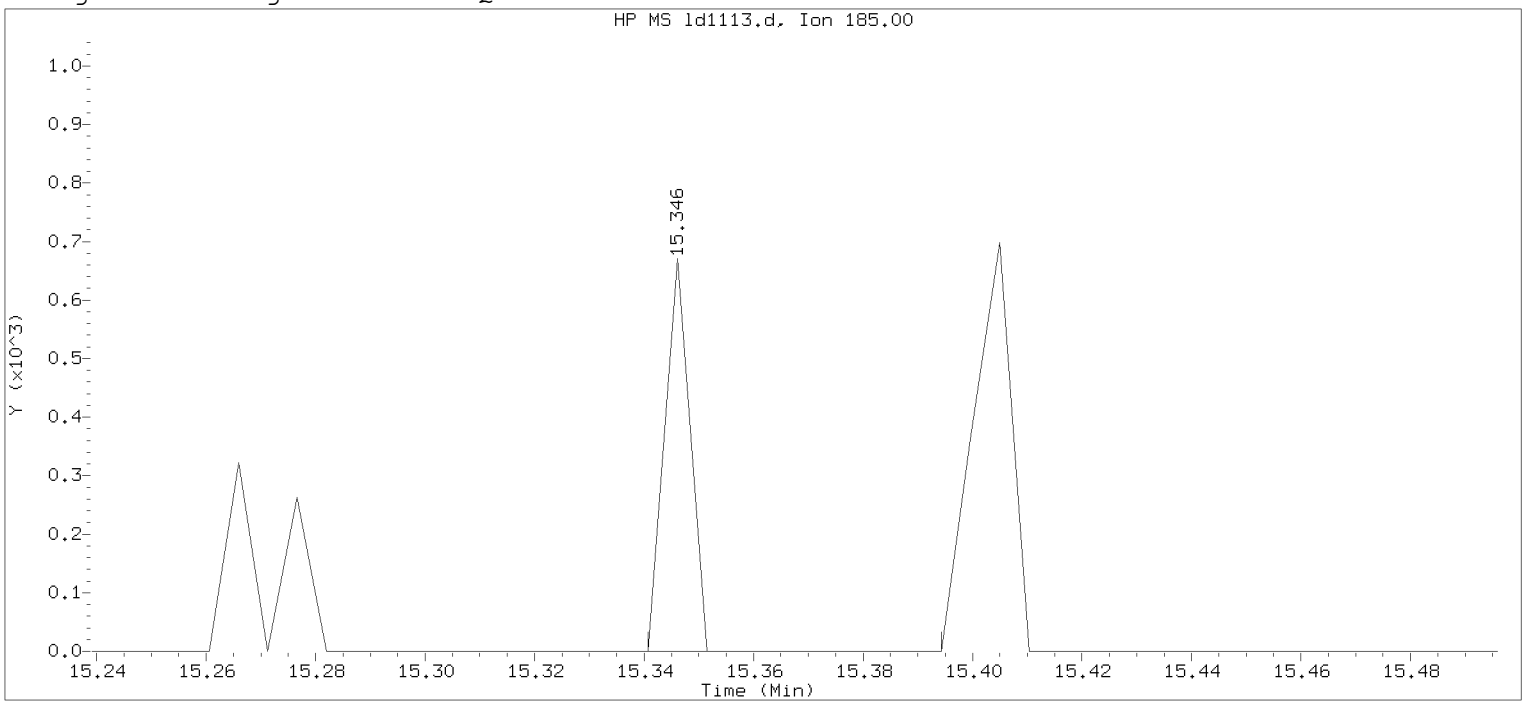
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

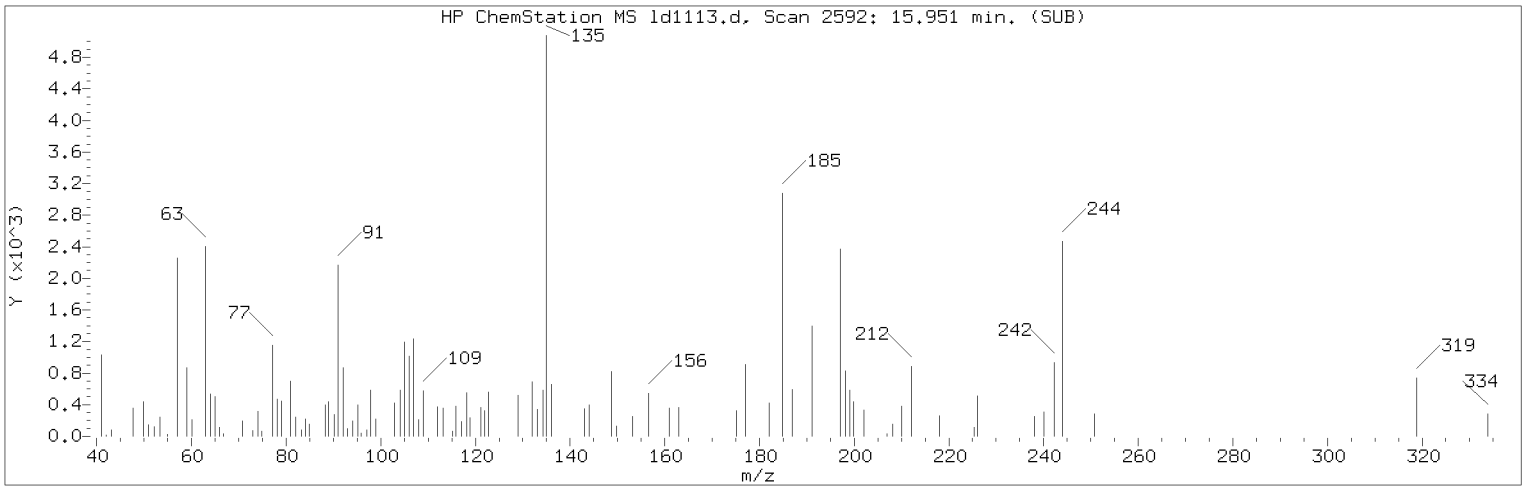
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

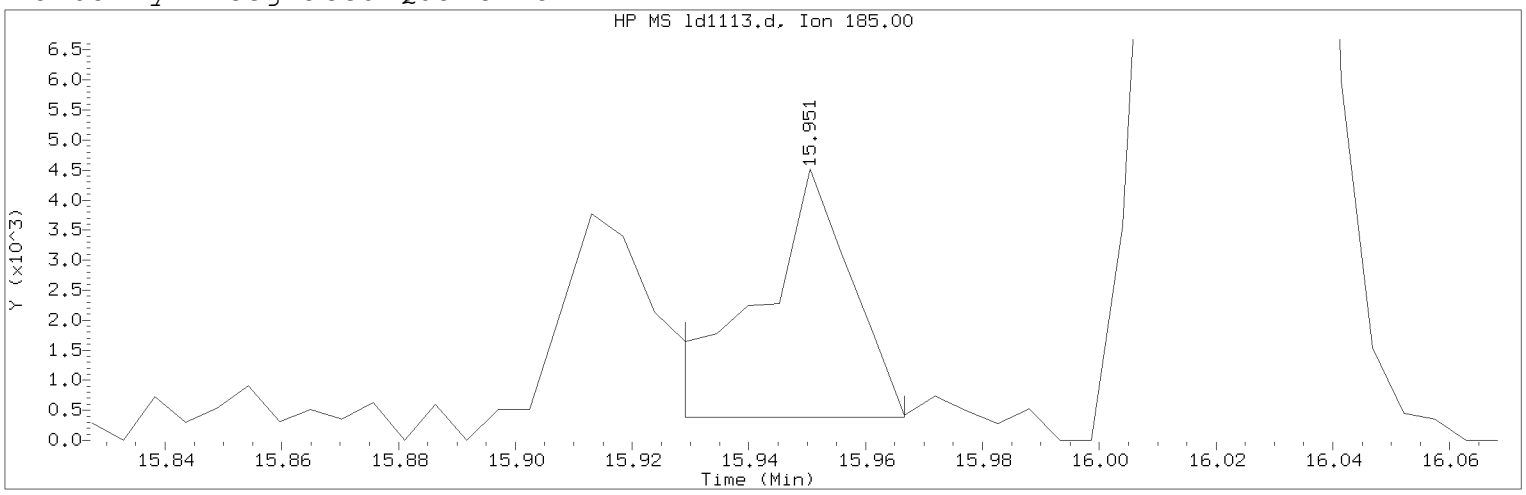
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2479
Retention Time (minutes) : 15.346
Quant Ion : 185.00
Area : 215
On-column Amount (ng/ul) : 0.1463
Integration start scan : 2477 Integration stop scan: 2487
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 5.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

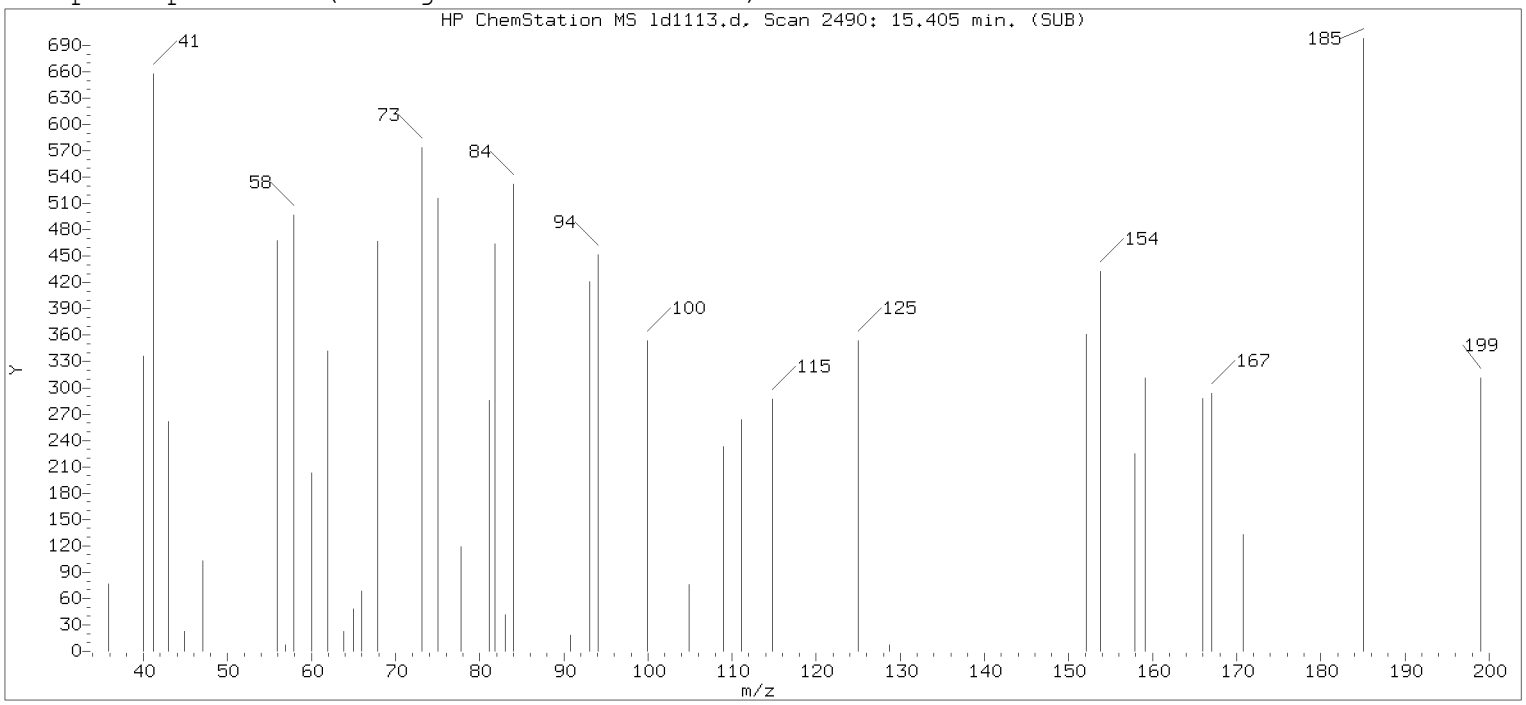
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2592
Retention Time (minutes) : 15.951
Quant Ion : 185.00
Area (flag) : 4702M
On-Column Amount (ng/ul) : 0.6434
Integration start scan : 2587 Integration stop scan: 2594
Y at integration start : 387 Y at integration end: 387

Reason for manual integration: improper integration

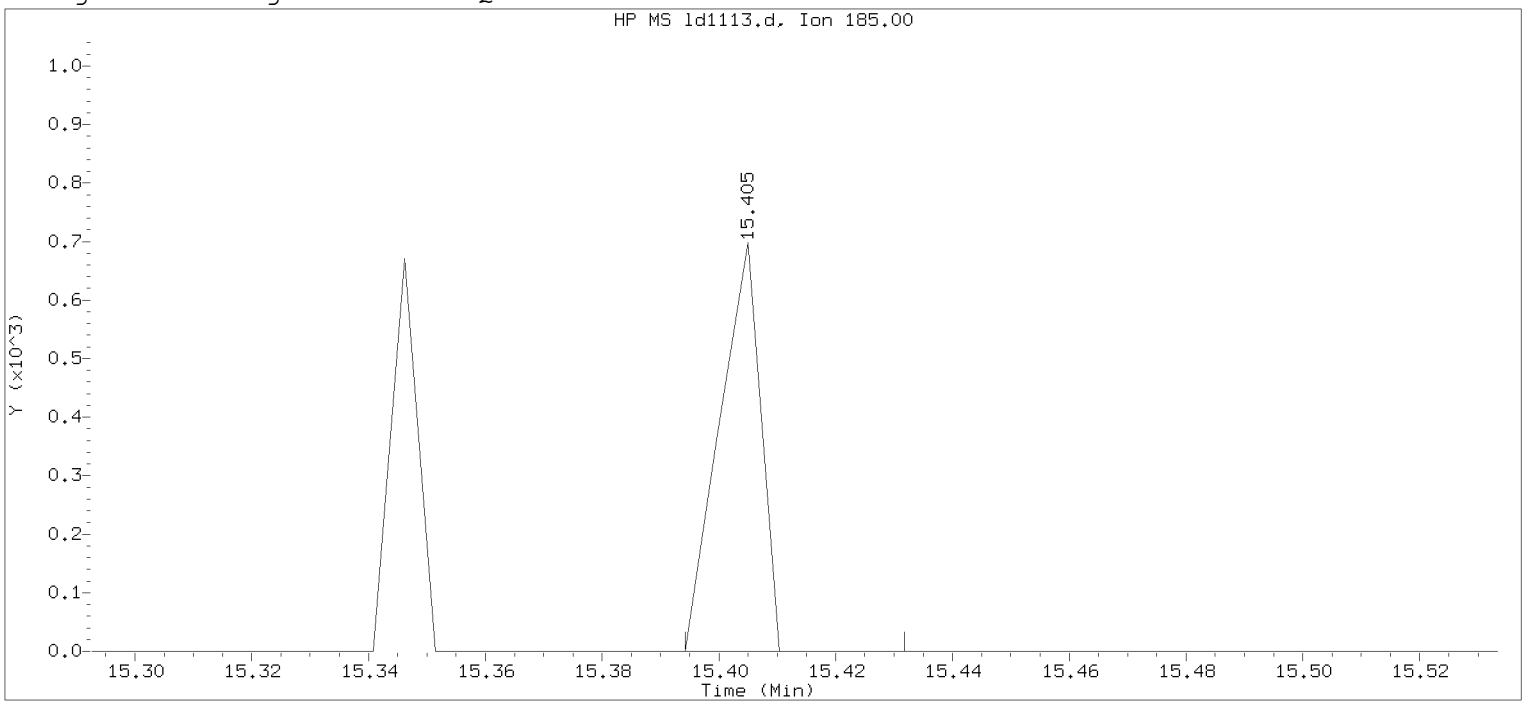
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

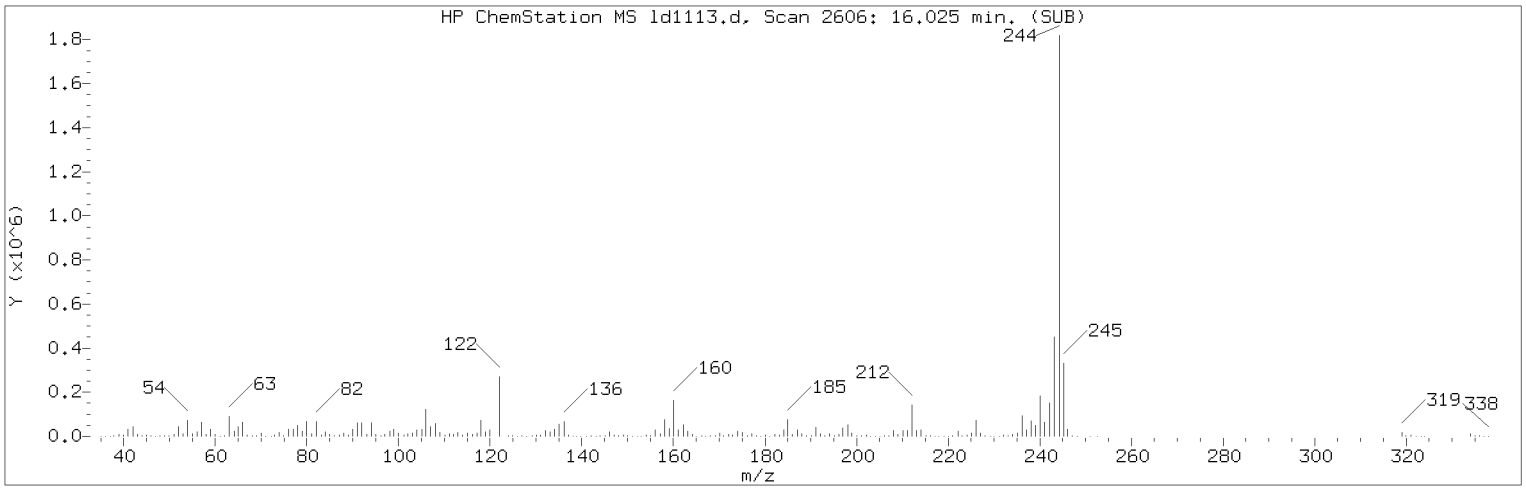
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

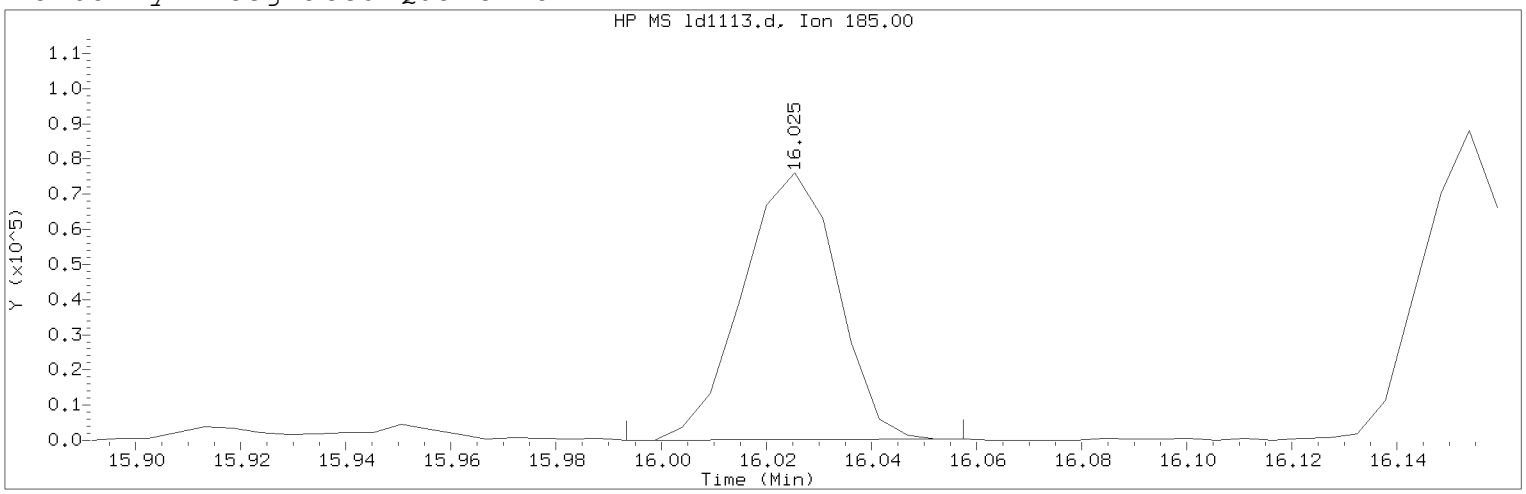
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2490
Retention Time (minutes) : 15.405
Quant Ion : 185.00
Area : 340
On-column Amount (ng/ul) : 0.1862
Integration start scan : 2487 Integration stop scan: 2494
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. Page 2255

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

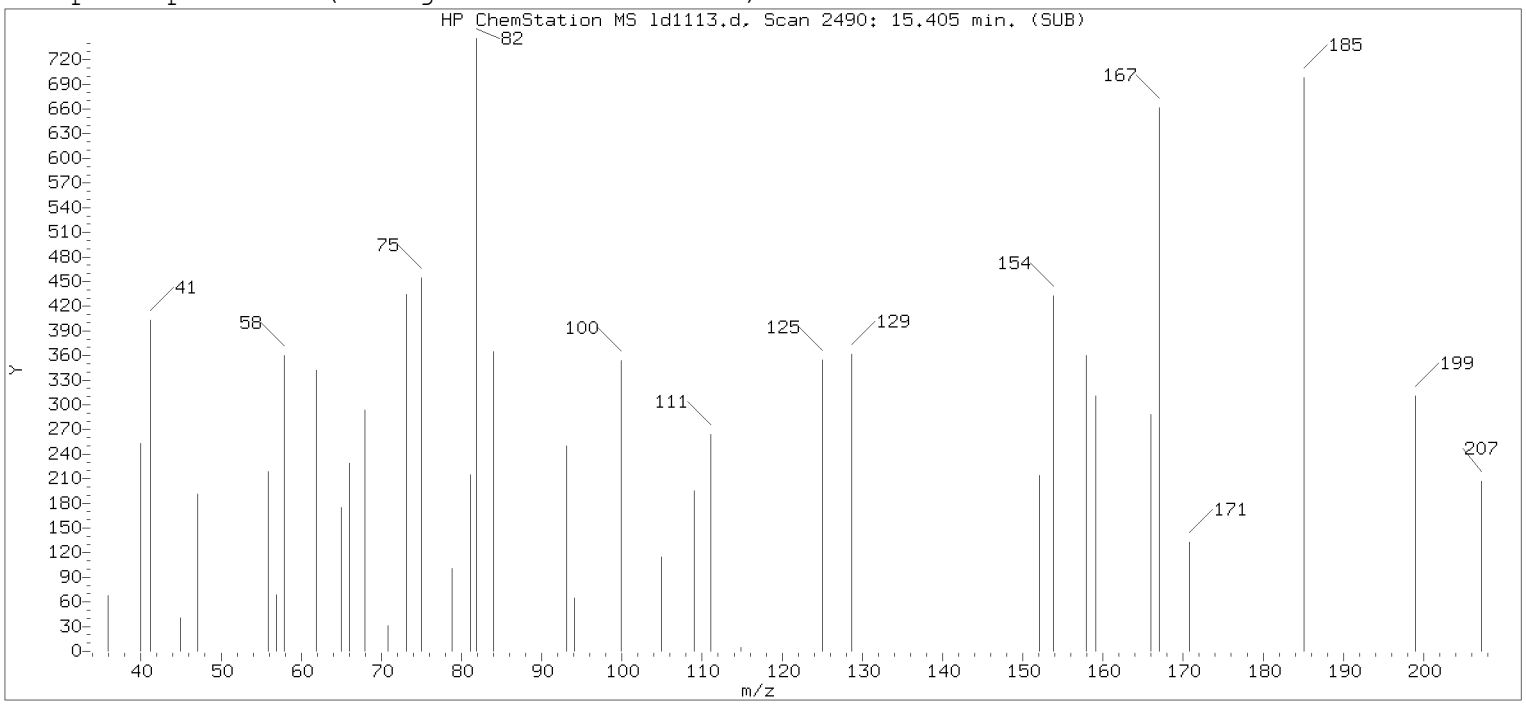
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2606
Retention Time (minutes) : 16.025
Quant Ion : 185.00
Area (flag) : 94746M
On-Column Amount (ng/ul) : 2.3928
Integration start scan : 2599 Integration stop scan: 2611
Y at integration start : 0 Y at integration end: 357

Reason for manual integration: improper integration

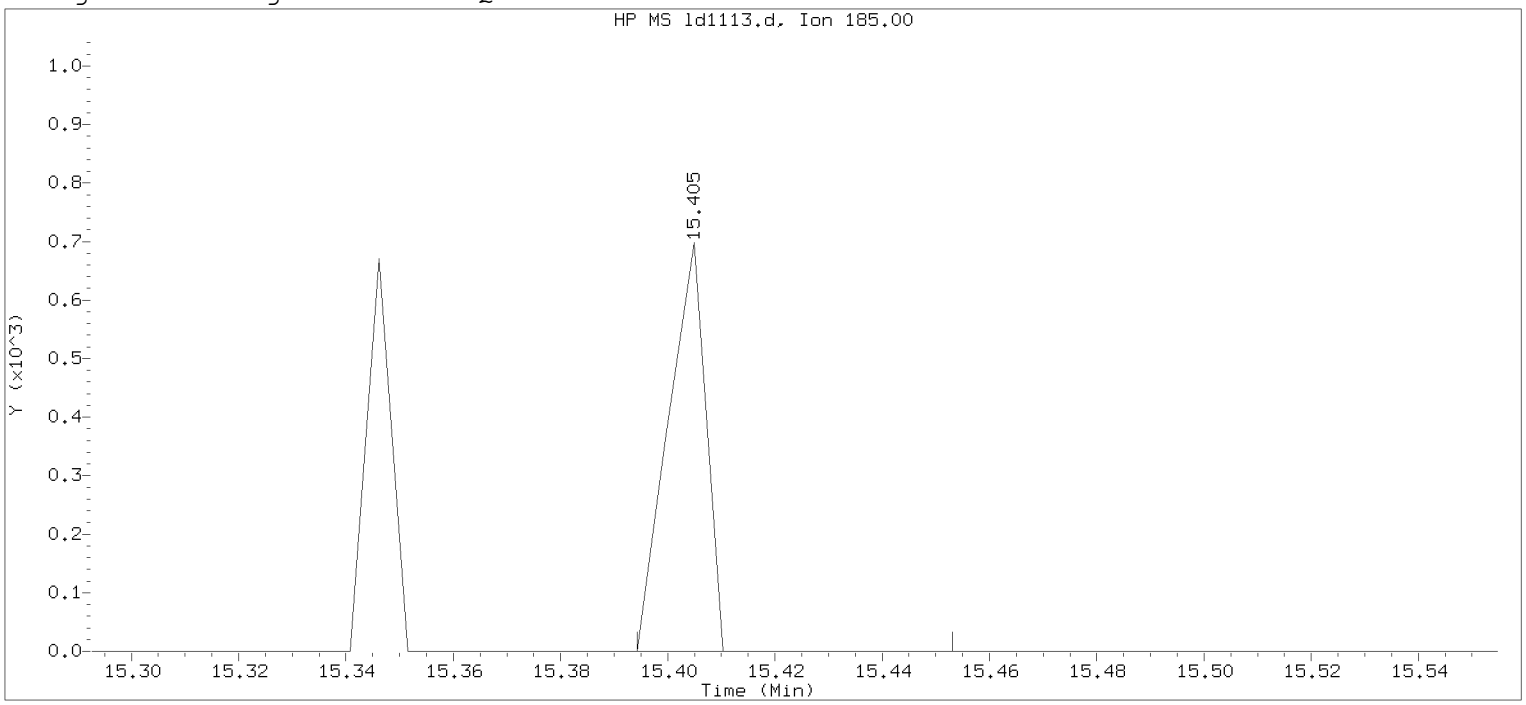
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

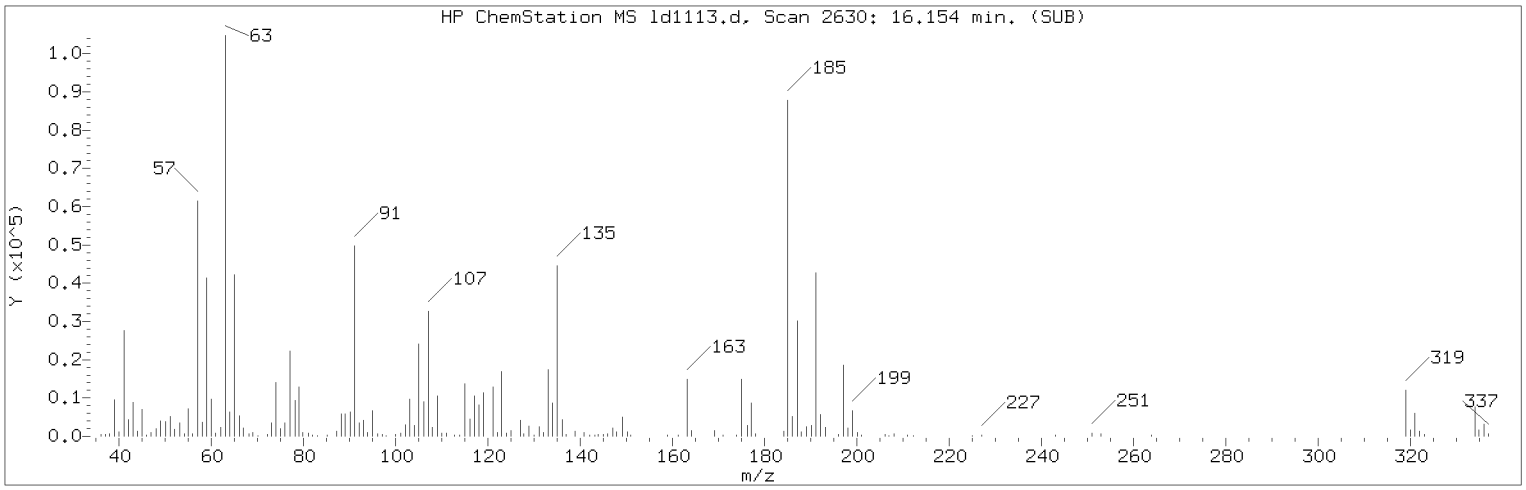
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

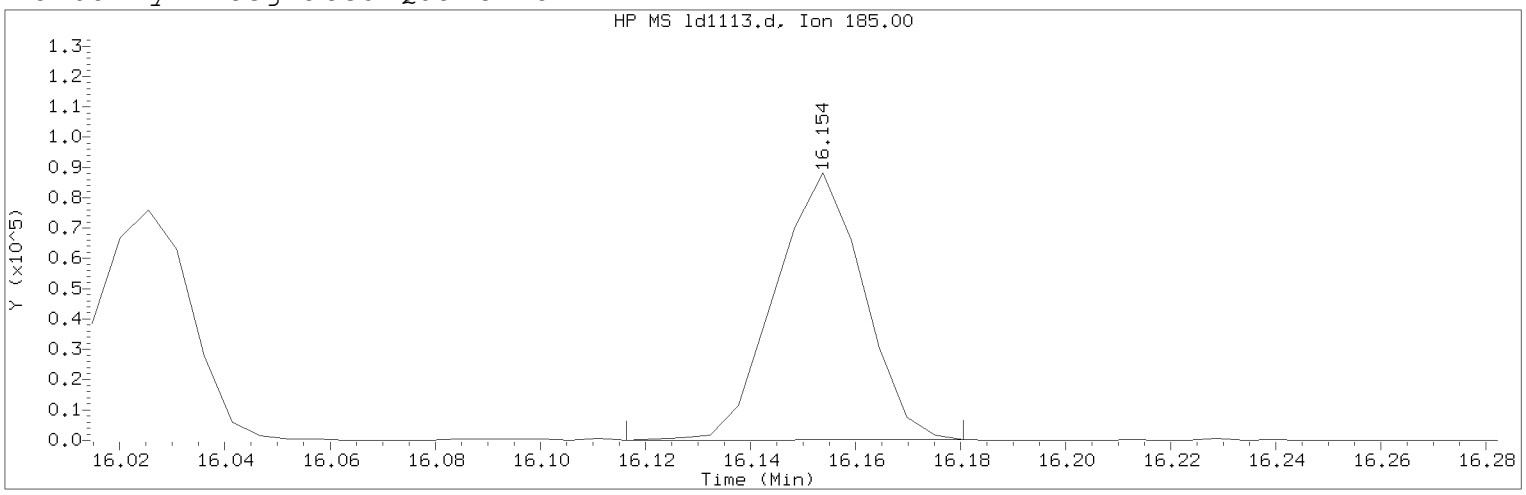
Compound Number	: 188		
Compound Name	: Aramite (3)		
Scan Number	: 2490		
Retention Time (minutes)	: 15.405		
Quant Ion	: 185.00		
Area	: 340		
On-column Amount (ng/ul)	: 0.0021		
Integration start scan	: 2487	Integration stop scan:	2498
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. Page 2257

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

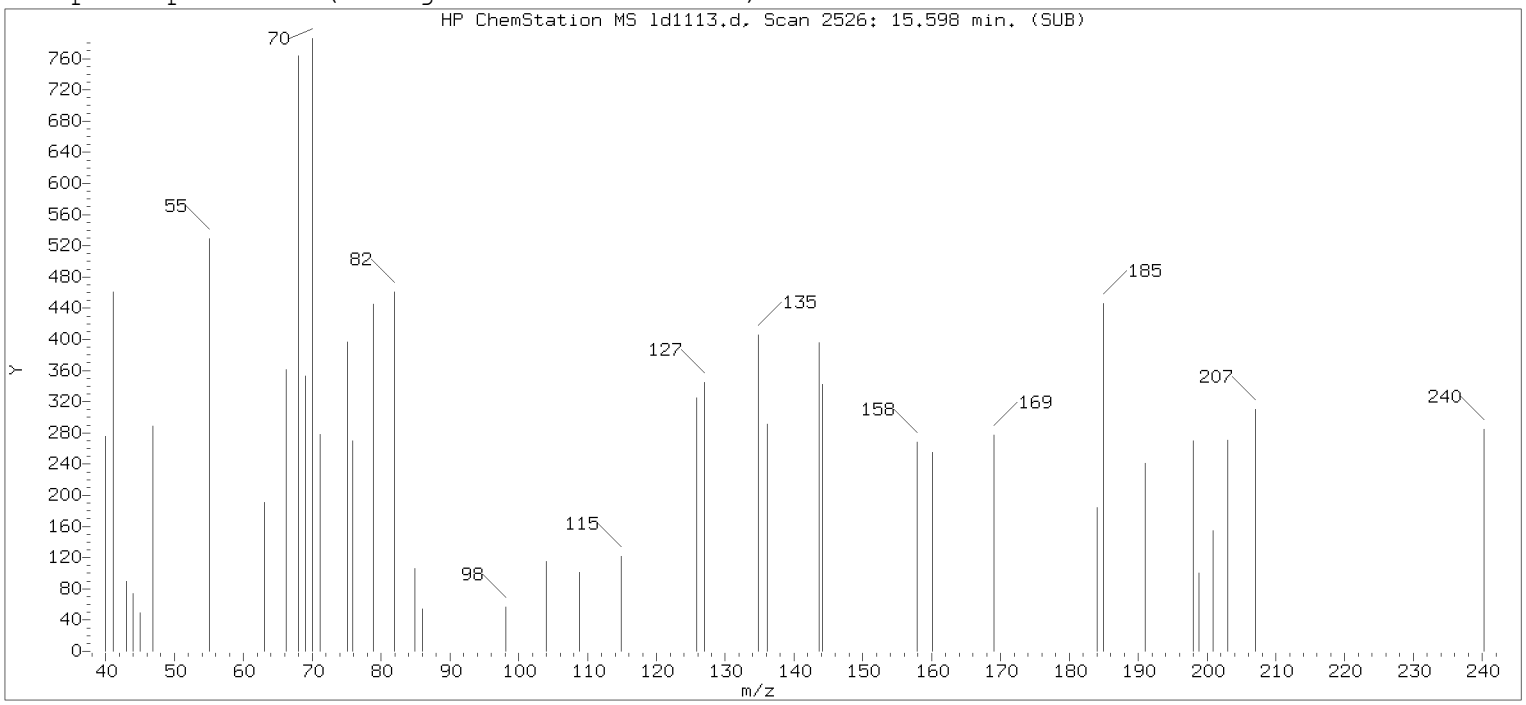
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2630
Retention Time (minutes) : 16.154
Quant Ion : 185.00
Area (flag) : 102066M
On-Column Amount (ng/ul) : 1.9301
Integration start scan : 2622 Integration stop scan: 2634
Y at integration start : 0 Y at integration end: 253

Reason for manual integration: improper integration

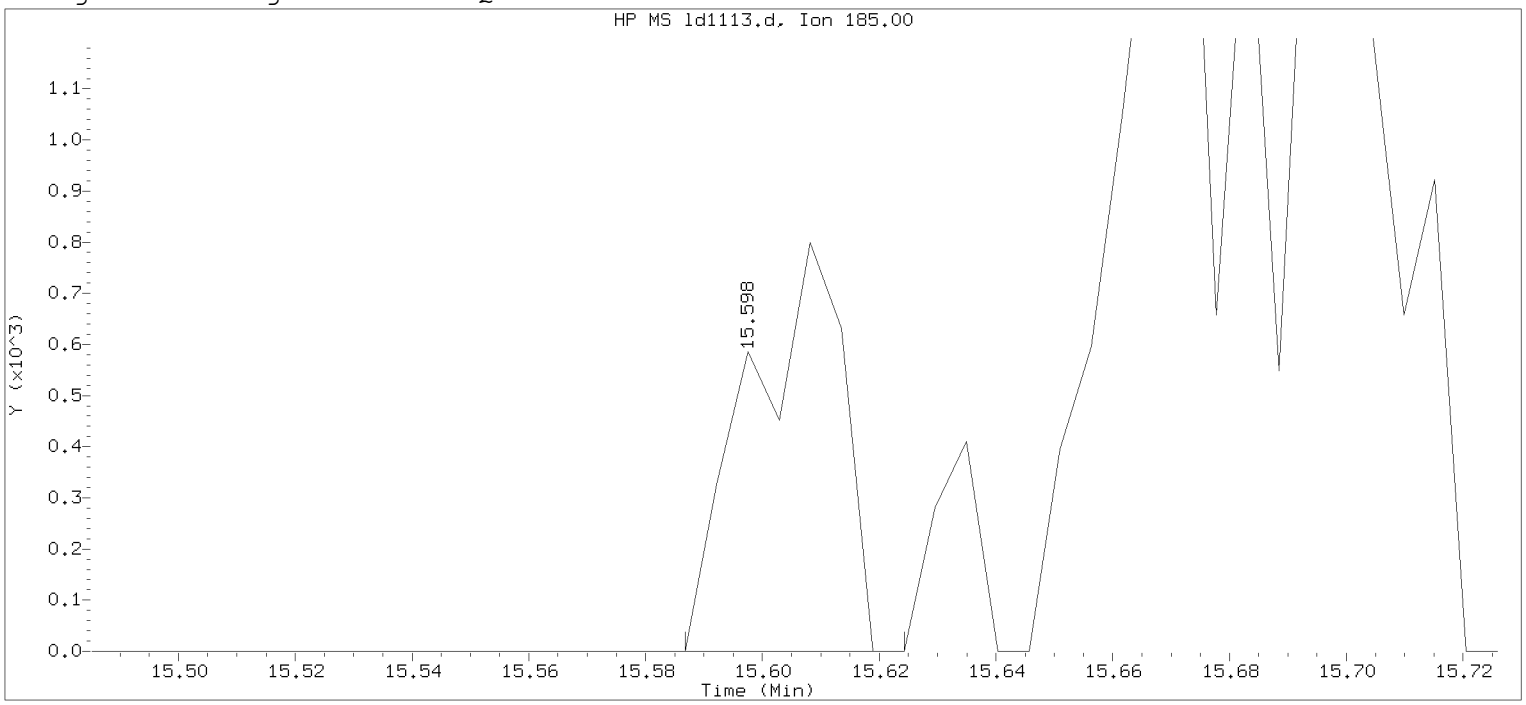
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

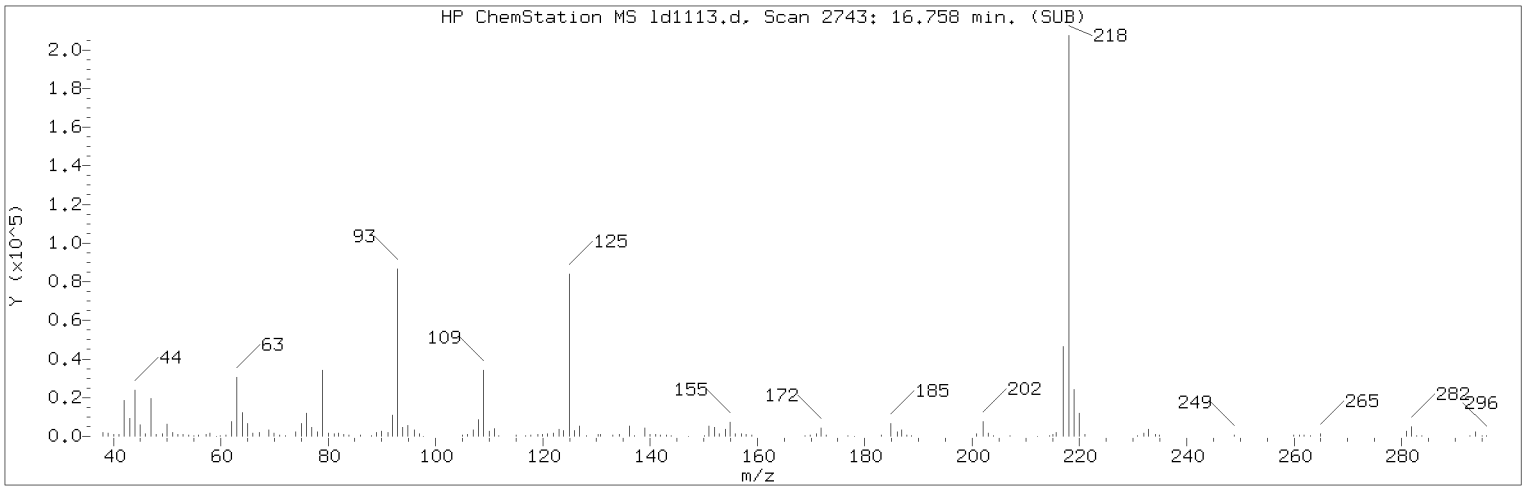
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

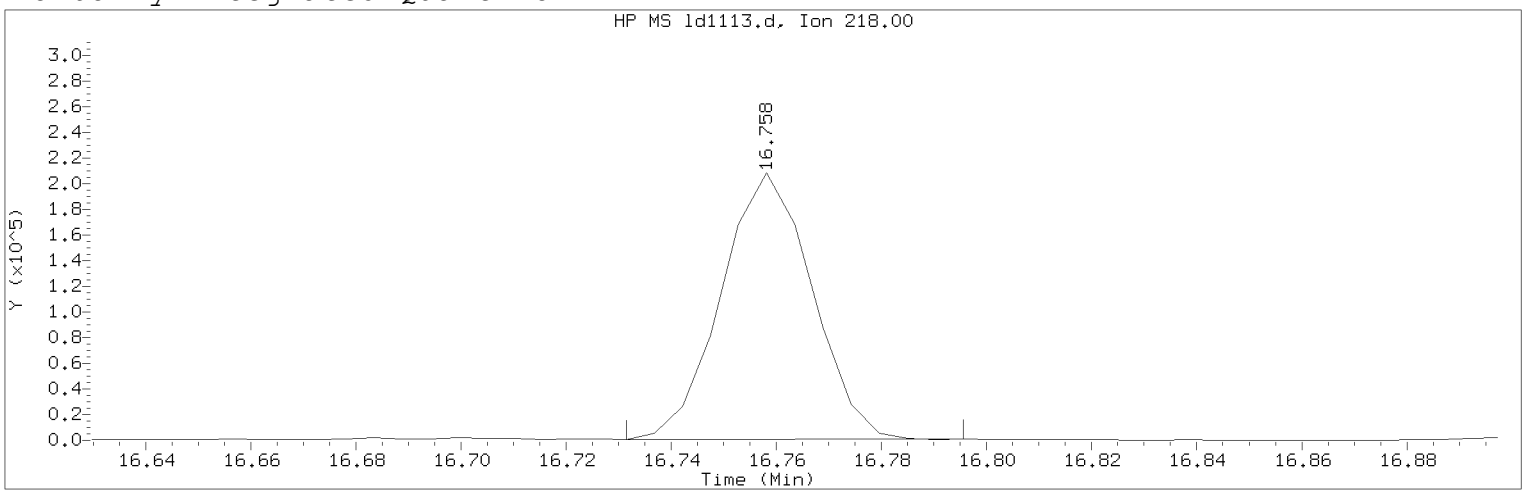
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2526
Retention Time (minutes) : 15.598
Quant Ion : 185.00
Area : 896
On-column Amount (ng/ul) : 0.0042
Integration start scan : 2523 Integration stop scan: 2530
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 2.59

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

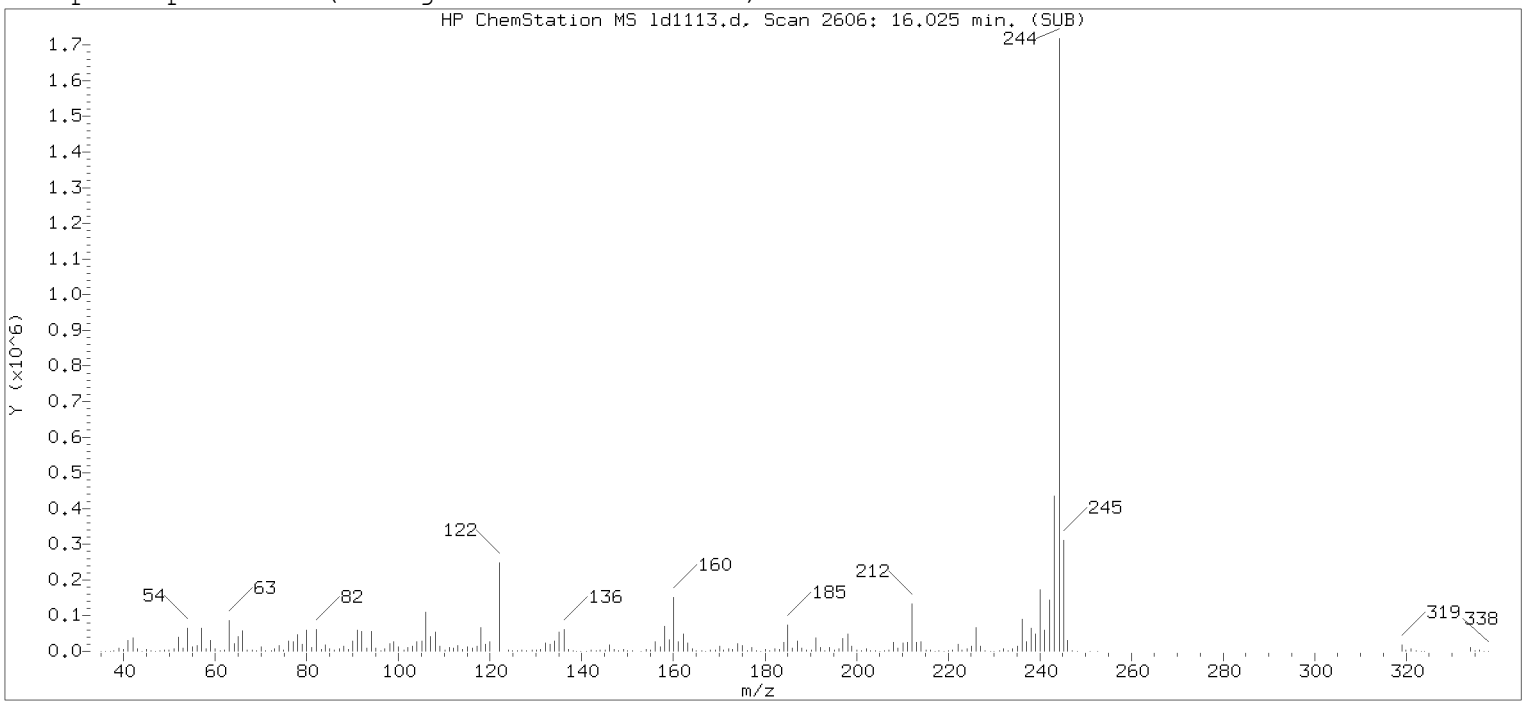
Compound Number : 194
Compound Name : Famphur
Scan Number : 2743
Retention Time (minutes) : 16.758
Quant Ion : 218.00
Area (flag) : 248103M
On-Column Amount (ng/ul) : 6.1710
Integration start scan : 2737 Integration stop scan: 2749
Y at integration start : 723 Y at integration end: 755

Reason for manual integration: improper integration

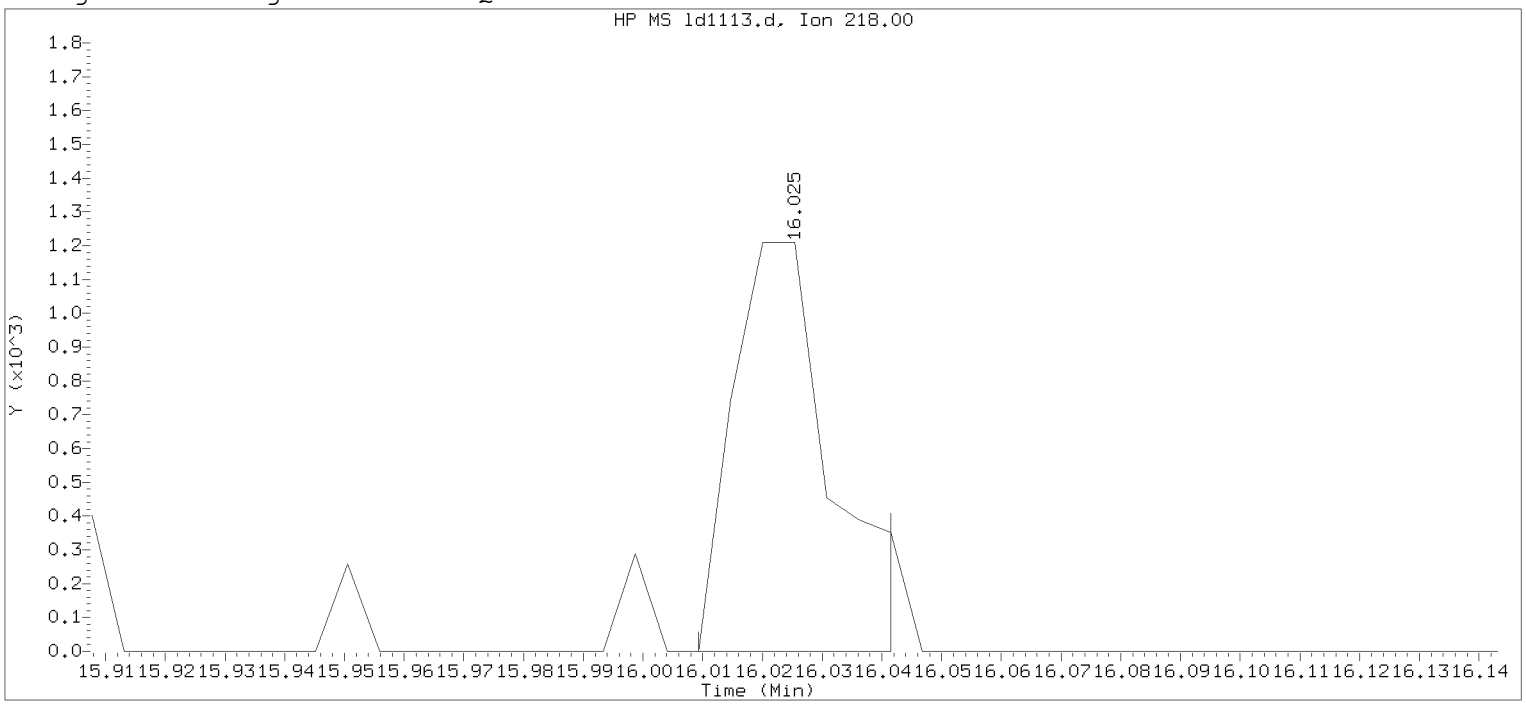
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

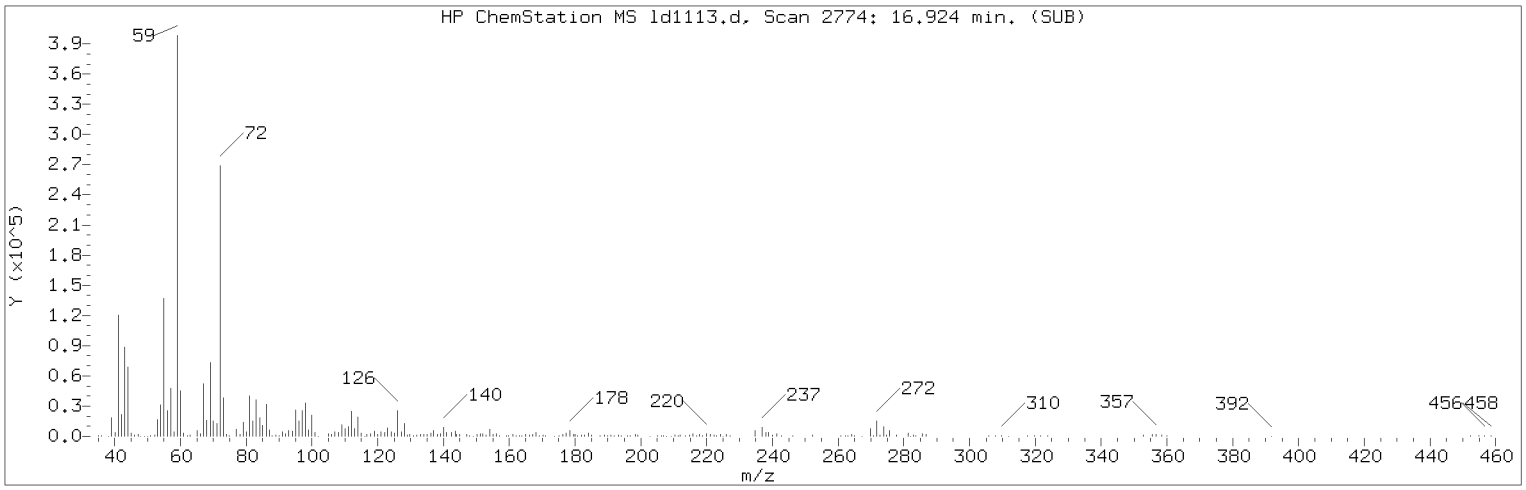
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

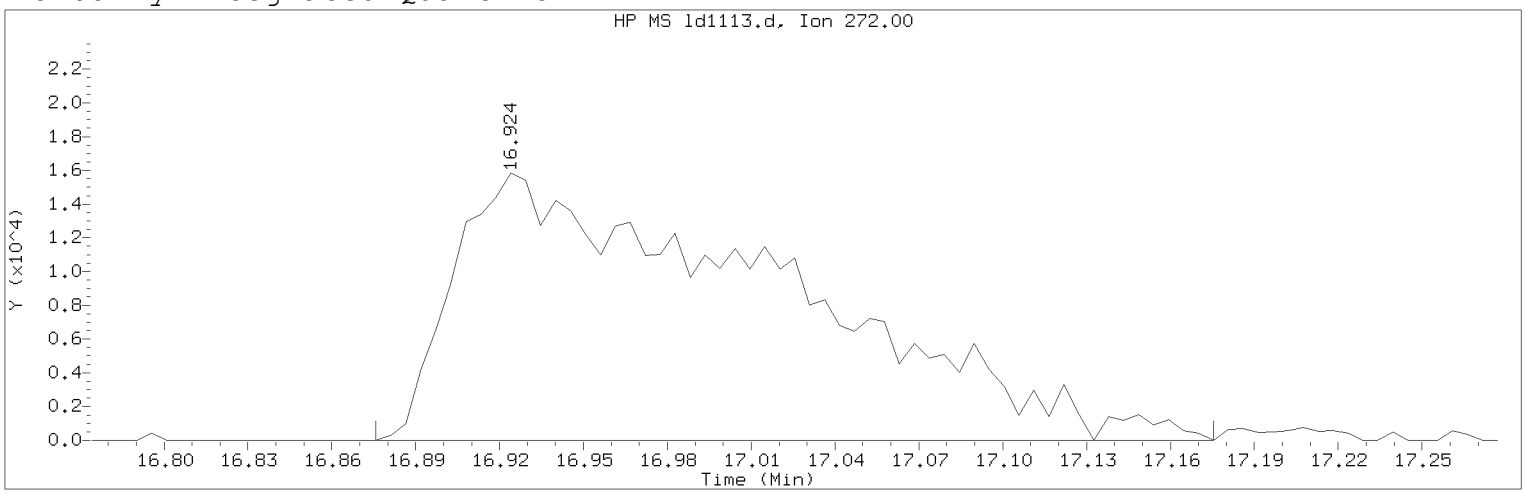
Compound Number	: 194		
Compound Name	: Famphur		
Scan Number	: 2606		
Retention Time (minutes)	: 16.025		
Quant Ion	: 218.00		
Area	: 1341		
On-column Amount (ng/ul)	: 0.0334		
Integration start scan	: 2602	Integration stop scan:	2608
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. F35 Rev 3.5.1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 10:13 hbz01996

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

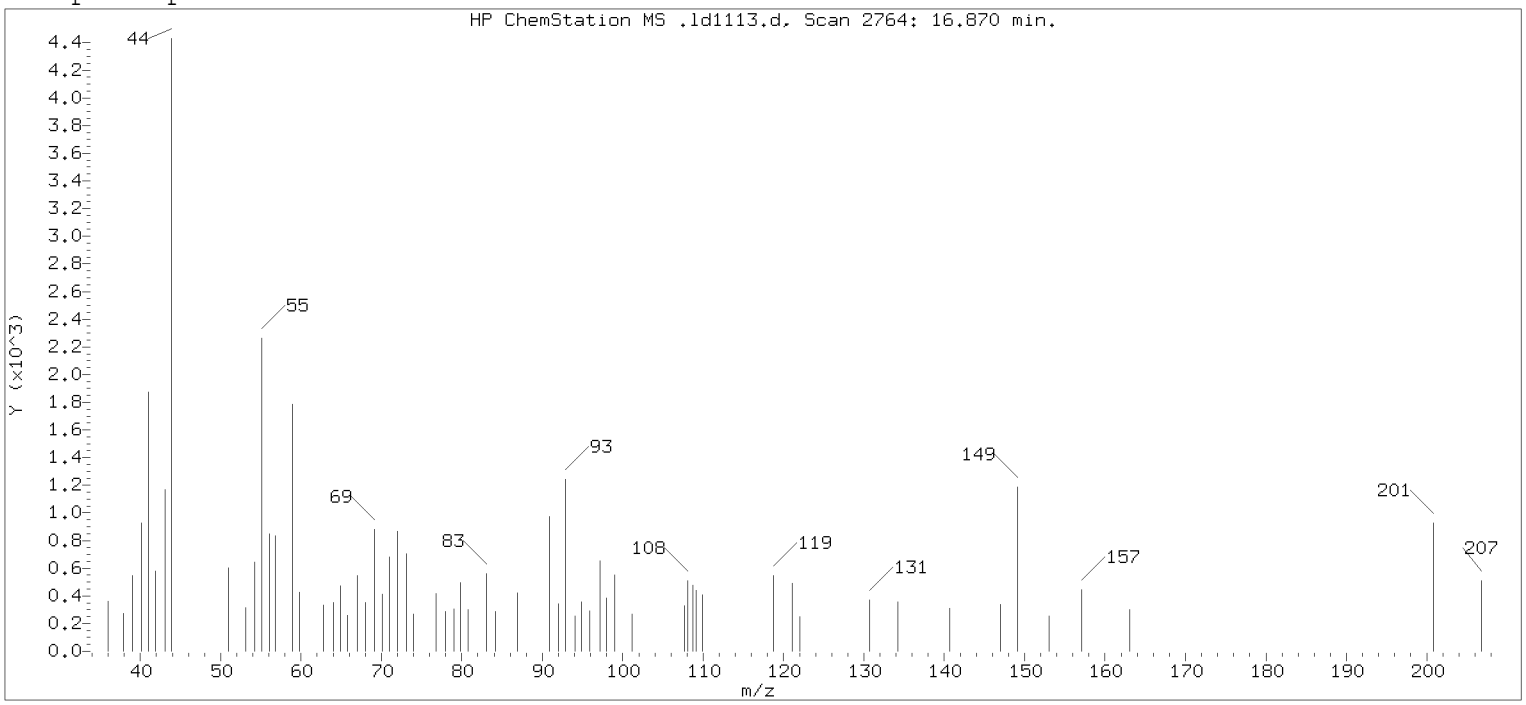
Compound Number : 195
Compound Name : Kepone
Scan Number : 2774
Retention Time (minutes) : 16.924
Quant Ion : 272.00
Area (flag) : 128628M
On-Column Amount (ng/ul) : 9.6960
Integration start scan : 2764 Integration stop scan: 2820
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

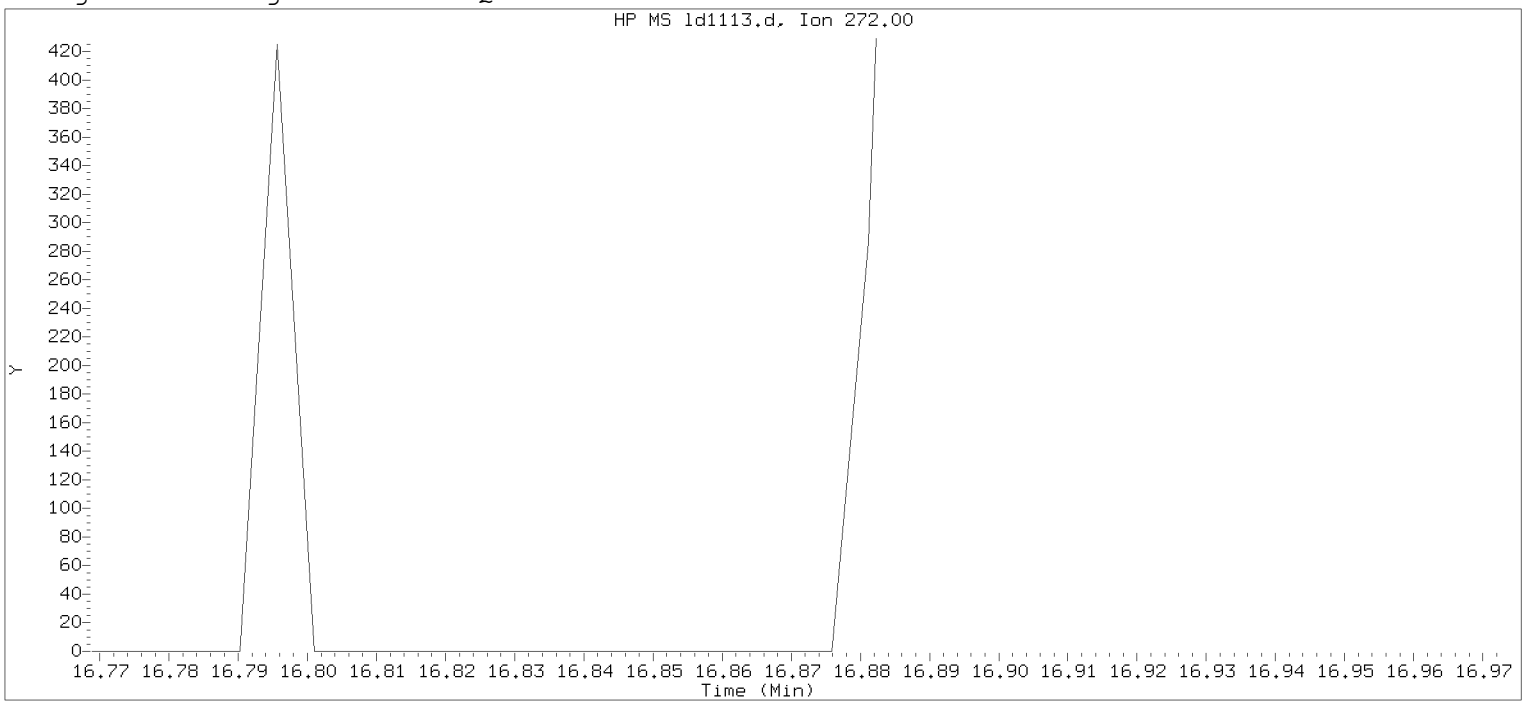
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 10:32.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 10:29.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1113.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 02:27 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC106WNMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 14:00 knb25316

Sample Name: 106WNLCSD2 Lab Sample ID: 106WNLCSD2

Compound Number : 195
Compound Name : Kepone
Expected RT (minutes) : 16.871
Quant Ion : 272.00

Digitally signed by Kira N. Beck on 04/24/2019 at 10:32.
Target 3.5 esignature used. EPA 8270D

Data file: /chem/HP20296.i/19apr18a.b/ld1106.d Injection date and time: **18-APR-2019 23:04**
Data file Sample Info. Line: 107WJLCS;107WJLCS;1;3;LCS;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090L**
Calibration date and time (Last Method Edit): 25-APR-2019 07:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.927	(-0.005)	905	152	159173	(-19)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	614535	(-20)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	280895	(-23)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	506117	(-25)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	528199	(-22)	5.00	
218) Perylene-d12	20.272	(0.000)	3400	264	503703	(-21)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.013	(-0.002)	112	1509433	29.532	59%
18) Phenol-d6	(1)	6.398	(0.000)	99	1868084	27.544	55%
45) Nitrobenzene-d5	(2)	7.772	(-0.001)	82	1239084	20.327	81%
96) 2-Fluorobiphenyl	(3)	10.687	(0.000)	172	1573857	17.457	70%
140) 2,4,6-Tribromophenol	(3)	12.773	(0.000)	330	502534	44.233	88%
184) Terphenyl-d14	(5)	16.020	(0.000)	244	1888100	21.881	88%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) N-Nitrosodimethylamine	(1)	2.921	(-0.003)	74	278117	7.674	30.70			0.5
6) Pyridine	(1)	2.953	(-0.002)	79	368982	5.765	23.06			0.5
8) 2-Picoline	(1)	4.114	(-0.001)	93	560220	8.778	35.11			0.5
19) Phenol	(1)	6.414	(-0.000)	94	626728	7.852	31.41			0.2
20) Aniline	(1)	6.430	(-0.000)	93	781642	8.439	33.76			0.1
23) bis(2-Chloroethyl)ether	(1)	6.553	(-0.000)	93	599075	10.078	40.31			0.1
24) 2-Chlorophenol	(1)	6.601	(-0.000)	128	486744	10.059	40.23			0.2
28) Benzyl alcohol	(1)	7.147	(0.000)	108	346379	10.567	42.27			3
32) 2-Methylphenol	(1)	7.328	(0.001)	108	507782	10.293	41.17			0.1
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	(-0.000)	45	764921M	10.182	40.73			0.1
35) bis(2-Chloroisopropyl)ether	(1)	7.382	(-0.000)	45	765499	10.189	40.76			0.1
37) Acetophenone	(1)	7.548	(0.000)	105	838050	10.975	43.90			0.1
38) 4-Methylphenol	(1)	7.574	(0.000)	108	582625	10.500	42.00			0.1
39) N-Nitroso-di-n-propylamine	(1)	7.569	(0.000)	70	488497	11.308	45.23			0.1
41) o-Toluidine	(1)	7.601	(0.000)	106	869348	10.082	40.33			0.1
46) Nitrobenzene	(2)	7.799	(-0.000)	77	697258	10.857	43.43			0.1
52) Isophorone	(2)	8.190	(-0.000)	82	1273253	11.379	45.52			0.1
53) 2-Nitrophenol	(2)	8.302	(-0.000)	139	227539	9.982	39.93			0.3
55) 2,4-Dimethylphenol	(2)	8.404	(0.000)	107	476295	8.955	35.82			0.2
57) bis(2-Chloroethoxy)methane	(2)	8.564	(-0.000)	93	798407	11.293	45.17			0.1
62) 2,4-Dichlorophenol	(2)	8.687	(-0.000)	162	386908	10.269	41.08			0.4
70) 4-Chloroaniline	(2)	9.040	(-0.000)	127	566547	9.840	39.36			0.5
83) 4-Chloro-3-methylphenol	(2)	9.853	(-0.000)	107	515927	11.136	44.54			0.3
86) 2-Methylnaphthalene	(2)	10.067	(-0.000)	142	734017	8.470	33.88			0.07
88) Hexachlorocyclopentadiene	(3)	10.340	(0.000)	237	69878	3.097	12.39		J	1
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	(0.000)	216	284342	7.278	29.11			0.5
93) 2,4,6-Trichlorophenol	(3)	10.532	(0.000)	196	273506	10.735	42.94			0.2

M = Compound was manually integrated.

Digitally signed by Kira N. Beck on 04/25/2019 at 07:54. Target 3.5 esignature user ID: knb25316

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

107WJLCS

Data file: /chem/HP20296.i/19apr18a.b/ld1106.d
Injection date and time: **18-APR-2019 23:04**
Data file Sample Info. Line: 107WJLCS;107WJLCS;1;3;LCS;;RAAP;
Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090L**
Calibration date and time (Last Method Edit): 25-APR-2019 07:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
95) 2,4,5-Trichlorophenol	(3)	10.586(0.000)	196	290539	10.856	43.43			0.2
99) 2-Chloronaphthalene	(3)	10.853(0.000)	162	737856	8.917	35.67			0.1
104) 2-Nitroaniline	(3)	11.030(0.000)	138	284910	11.740	46.96			0.1
110) Dimethylphthalate	(3)	11.377(0.000)	163	957234	11.271	45.08			0.5
111) 1,3-Dinitrobenzene	(3)	11.383(0.000)	168	150788	11.662	46.65			0.5
113) 2,6-Dinitrotoluene	(3)	11.447(0.000)	165	220793	11.929	47.71			0.1
114) Acenaphthylene	(3)	11.516(0.000)	152	1188094	10.697	42.79			0.1
117) 3-Nitroaniline	(3)	11.682(0.000)	138	240055	11.330	45.32			0.1
119) Acenaphthene	(3)	11.784(0.000)	153	826814	9.903	39.61			0.09
120) 2,4-Dinitrophenol	(3)	11.843(-0.000)	184	228263	21.254	85.02			3
121) 4-Nitrophenol	(3)	11.950(-0.000)	109	119812	7.579	30.31			3
123) 2,4-Dinitrotoluene	(3)	12.030(0.000)	165	292219	11.626	46.50			0.3
124) Dibenzofuran	(3)	12.030(0.000)	168	1099099	10.093	40.37			0.1
126) 1-Naphthylamine	(3)	12.137(-0.000)	143	1475693	18.491	73.96			1
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201(-0.000)	232	221472	11.268	45.07			0.2
128) 2-Naphthylamine	(3)	12.244(-0.000)	143	1213730	15.661	62.64			1
129) Diethylphthalate	(3)	12.388(-0.000)	149	1004331	11.809	47.23			0.5
131) Fluorene	(3)	12.474(-0.000)	166	876604	10.044	40.18			0.1
132) 4-Chlorophenyl-phenylether	(3)	12.501(0.000)	204	376162	9.161	36.64			0.1
134) 4-Nitroaniline	(3)	12.501(0.000)	138	237231	10.559	42.24			0.2
135) 4,6-Dinitro-2-methylphenol	(4)	12.549(0.000)	198	152541	11.261	45.04			1
136) N-Nitrosodiphenylamine	(4)	12.645(-0.000)	169	796024	11.758	47.03			0.1
137) NDPA as diphenylamine	(4)	12.645(-0.000)	169	796024	11.758	47.03			0.1
148) 4-Bromophenyl-phenylether	(4)	13.105(0.000)	248	210471	9.588	38.35			0.1
150) Hexachlorobenzene	(4)	13.164(0.000)	284	230456	9.406	37.63			0.2
154) Pentachlorophenol	(4)	13.421(0.000)	266	179508	11.552	46.21			0.7
160) Phenanthrene	(4)	13.693(-0.000)	178	1316482	10.760	43.04			0.1
162) Anthracene	(4)	13.763(-0.000)	178	1301373	10.660	42.64			0.1
170) Di-n-butylphthalate	(4)	14.512(-0.000)	149	1822203	12.346	49.39			0.5
178) Fluoranthene	(4)	15.384(-0.000)	202	1521318	11.950	47.80			0.1
182) Pyrene	(5)	15.731(-0.000)	202	1577947	11.028	44.11			0.1
192) 3,3'-Dimethylbenzidine	(5)	16.822(-0.000)	212	1076412	11.531	46.13		J	6
193) Butylbenzylphthalate	(5)	16.886(-0.000)	149	805817	11.404	45.61			0.5
198) 3,3'-Dichlorobenzidine	(5)	17.758(-0.000)	252	481020	9.899	39.59			0.5
200) Benzo(a)anthracene	(5)	17.774(-0.000)	228	1431163	11.111	44.44			0.1
201) Chrysene	(5)	17.839(-0.000)	228	1387524	11.094	44.38			0.08
204) bis(2-Ethylhexyl)phthalate	(5)	17.972(-0.000)	149	1175144	11.428	45.71			0.5
210) Di-n-octylphthalate	(6)	19.149(-0.000)	149	2037718	11.658	46.63			0.5
211) Benzo(b)fluoranthene	(6)	19.652(-0.000)	252	1418122	11.088	44.35			0.3
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657(-0.000)	256	593666	11.157	44.63			0.1
213) Benzo(k)fluoranthene	(6)	19.700(0.000)	252	1434429	11.687	46.75			0.4
216) Benzo(a)pyrene	(6)	20.181(-0.000)	252	1275836	10.972	43.89			0.4
224) Indeno(1,2,3-cd)pyrene	(6)	21.914(-0.000)	276	1235611M	10.863	43.45			0.04
225) Dibenz(a,h)anthracene	(6)	21.957(-0.000)	278	1324585	11.320	45.28			0.1
226) Benzo(g,h,i)perylene	(6)	22.326(-0.000)	276	1282360	10.668	42.67			0.1

M = Compound was manually integrated.

Digitally signed by Kira N. Beck on 04/25/2019 at 07:54. Target 3.5 esignature user ID: knb25316

Data file: /chem/HP20296.i/19apr18a.b/ld1106.d Injection date and time: **18-APR-2019 23:04**
Data file Sample Info. Line: 107WJLCS;107WJLCS;1;3;LCS;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **27090L**
Calibration date and time (Last Method Edit): 25-APR-2019 07:51
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

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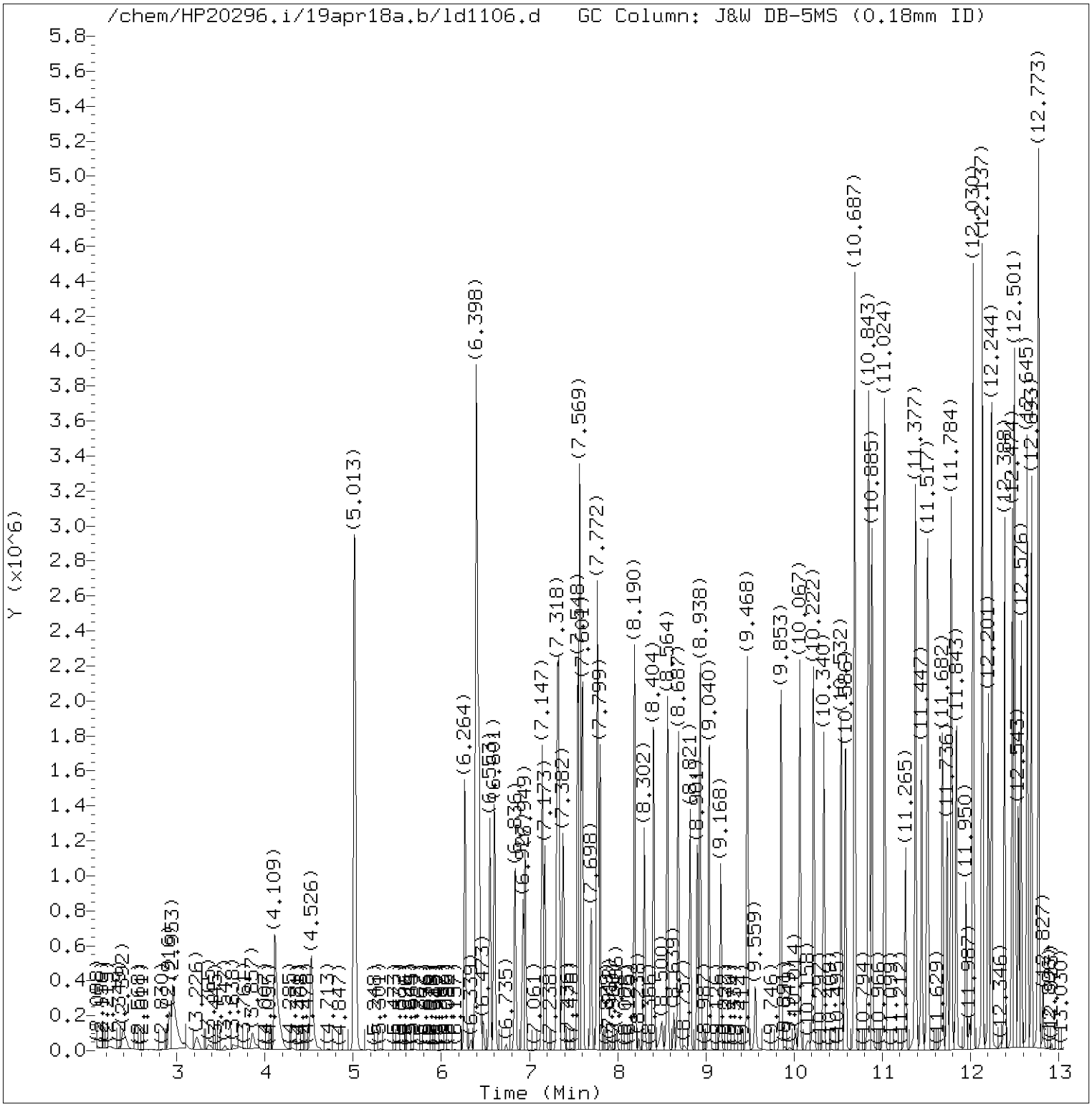
Total number of targets = 72

Digitally signed by Kira N. Beck on 04/25/2019 at 07:54. Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:52. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

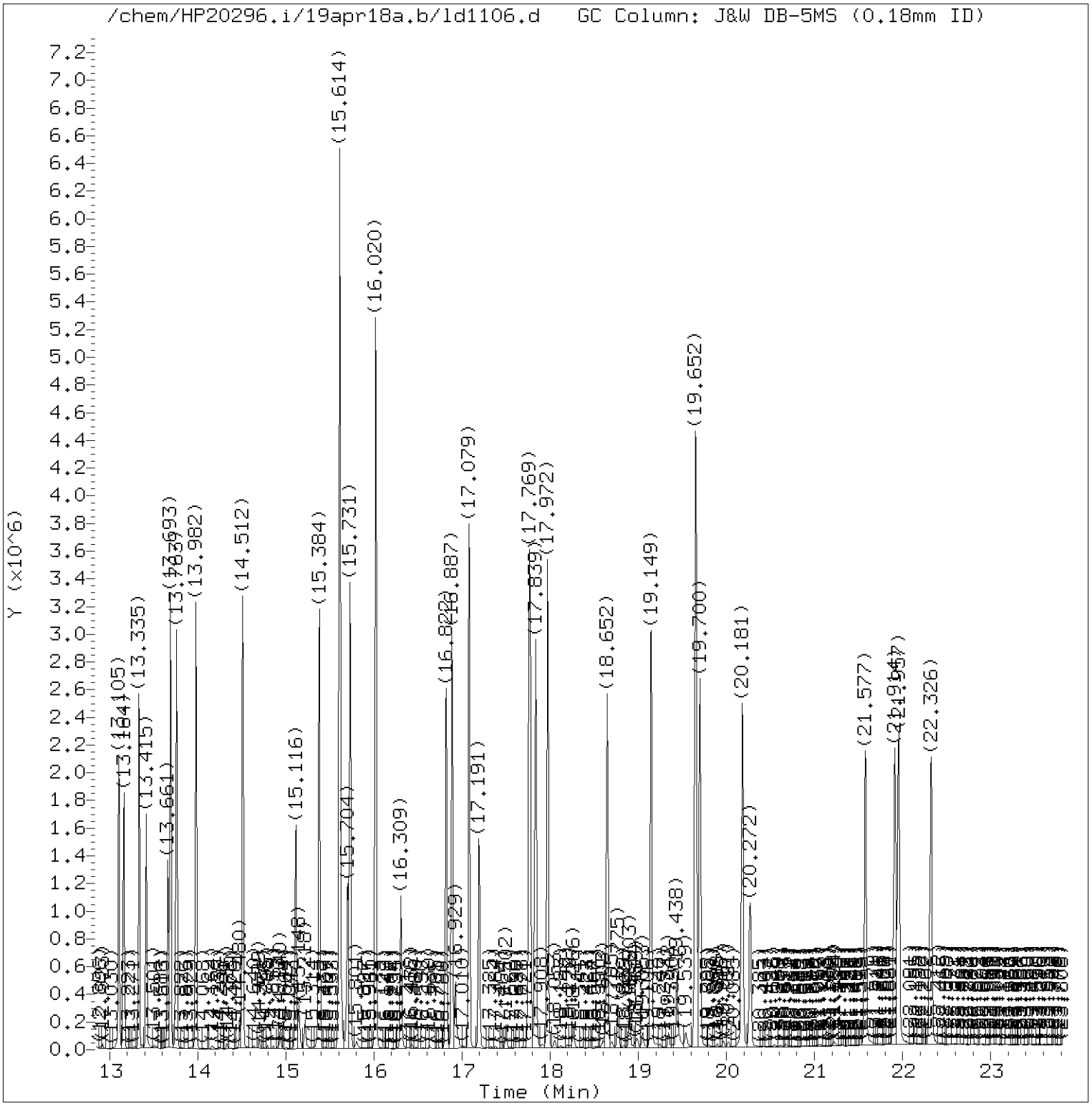
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Digitally signed by Kira N. Beck
on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Digitally signed by Kira N. Beck
on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) N-Nitrosodimethylamine	(1)	2.921	74	278117	7.674
6) Pyridine	(1)	2.953	79	368982	5.765
8) 2-Picoline	(1)	4.114	93	560220	8.778
12)$2-Fluorophenol	(1)	5.013	112	1509433	29.532
18)$Phenol-d6	(1)	6.398	99	1868084	27.544
19) Phenol	(1)	6.414	94	626728	7.852
20) Aniline	(1)	6.430	93	781642	8.439
23) bis(2-Chloroethyl)ether	(1)	6.553	93	599075	10.078
24) 2-Chlorophenol	(1)	6.601	128	486744	10.059
26)*1,4-Dichlorobenzene-d4	(1)	6.927	152	159173	5.000
28) Benzyl alcohol	(1)	7.147	108	346379	10.567
32) 2-Methylphenol	(1)	7.329	108	507782	10.293
35) bis(2-Chloroisopropyl)ether	(1)	7.382	45	765499	10.189
34) 2,2'-oxybis(1-Chloropropane)	(1)	7.382	45	764921M	10.182
37) Acetophenone	(1)	7.548	105	838050	10.975
39) N-Nitroso-di-n-propylamine	(1)	7.569	70	488497	11.308
38) 4-Methylphenol	(1)	7.575	108	582625	10.500
41) o-Toluidine	(1)	7.601	106	869348	10.082
45)$Nitrobenzene-d5	(2)	7.772	82	1239084	20.327
46) Nitrobenzene	(2)	7.799	77	697258	10.857
52) Isophorone	(2)	8.190	82	1273253	11.379
53) 2-Nitrophenol	(2)	8.302	139	227539	9.982
55) 2,4-Dimethylphenol	(2)	8.404	107	476295	8.955
57) bis(2-Chloroethoxy)methane	(2)	8.564	93	798407	11.293
62) 2,4-Dichlorophenol	(2)	8.687	162	386908	10.269
68)*Naphthalene-d8	(2)	8.901	136	614535	5.000
70) 4-Chloroaniline	(2)	9.040	127	566547	9.840
83) 4-Chloro-3-methylphenol	(2)	9.853	107	515927	11.136
86) 2-Methylnaphthalene	(2)	10.067	142	734017	8.470
89) 1,2,4,5-Tetrachlorobenzene	(3)	10.340	216	284342	7.278
88) Hexachlorocyclopentadiene	(3)	10.340	237	69878	3.097
93) 2,4,6-Trichlorophenol	(3)	10.532	196	273506	10.735
95) 2,4,5-Trichlorophenol	(3)	10.586	196	290539	10.856
96)$2-Fluorobiphenyl	(3)	10.687	172	1573857	17.457
99) 2-Chloronaphthalene	(3)	10.853	162	737856	8.917
104) 2-Nitroaniline	(3)	11.030	138	284910	11.740
110) Dimethylphthalate	(3)	11.377	163	957234	11.271
111) 1,3-Dinitrobenzene	(3)	11.383	168	150788	11.662
113) 2,6-Dinitrotoluene	(3)	11.447	165	220793	11.929
114) Acenaphthylene	(3)	11.517	152	1188094	10.697

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) 3-Nitroaniline	(3)	11.682	138	240055	11.330
118)*Acenaphthene-d10	(3)	11.736	164	280895	5.000
119) Acenaphthene	(3)	11.784	153	826814	9.903
120) 2,4-Dinitrophenol	(3)	11.843	184	228263	21.254
121) 4-Nitrophenol	(3)	11.950	109	119812	7.579
123) 2,4-Dinitrotoluene	(3)	12.030	165	292219	11.626
124) Dibenzofuran	(3)	12.030	168	1099099	10.093
126) 1-Naphthylamine	(3)	12.137	143	1475693	18.491
127) 2,3,4,6-Tetrachlorophenol	(3)	12.201	232	221472	11.268
128) 2-Naphthylamine	(3)	12.244	143	1213730	15.661
129) Diethylphthalate	(3)	12.388	149	1004331	11.809
131) Fluorene	(3)	12.474	166	876604	10.044
132) 4-Chlorophenyl-phenylether	(3)	12.501	204	376162	9.161
134) 4-Nitroaniline	(3)	12.501	138	237231	10.559
135) 4,6-Dinitro-2-methylphenol	(4)	12.549	198	152541	11.261
136) N-Nitrosodiphenylamine	(4)	12.645	169	796024	11.758
137) NDPA as diphenylamine	(4)	12.645	169	796024	11.758
140)$2,4,6-Tribromophenol	(3)	12.773	330	502534	44.233
148) 4-Bromophenyl-phenylether	(4)	13.105	248	210471	9.588
150) Hexachlorobenzene	(4)	13.164	284	230456	9.406
154) Pentachlorophenol	(4)	13.421	266	179508	11.552
158)*Phenanthrene-d10	(4)	13.661	188	506117	5.000
160) Phenanthrene	(4)	13.693	178	1316482	10.760
162) Anthracene	(4)	13.763	178	1301373	10.660
170) Di-n-butylphthalate	(4)	14.512	149	1822203	12.346
178) Fluoranthene	(4)	15.384	202	1521318	11.950
180)*Pyrene-d10	(5)	15.699	212	528199	5.000
182) Pyrene	(5)	15.731	202	1577947	11.028
184)$Terphenyl-d14	(5)	16.020	244	1888100	21.881
192) 3,3'-Dimethylbenzidine	(5)	16.822	212	1076412	11.531
193) Butylbenzylphthalate	(5)	16.887	149	805817	11.404
198) 3,3'-Dichlorobenzidine	(5)	17.758	252	481020	9.899
200) Benzo(a)anthracene	(5)	17.774	228	1431163	11.111
201) Chrysene	(5)	17.839	228	1387524	11.094
204) bis(2-Ethylhexyl)phthalate	(5)	17.972	149	1175144	11.428
210) Di-n-octylphthalate	(6)	19.149	149	2037718	11.658
211) Benzo(b)fluoranthene	(6)	19.652	252	1418122	11.088
212) 7,12-Dimethylbenz[a]anthracene	(6)	19.657	256	593666	11.157
213) Benzo(k)fluoranthene	(6)	19.700	252	1434429	11.687
216) Benzo(a)pyrene	(6)	20.181	252	1275836	10.972

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

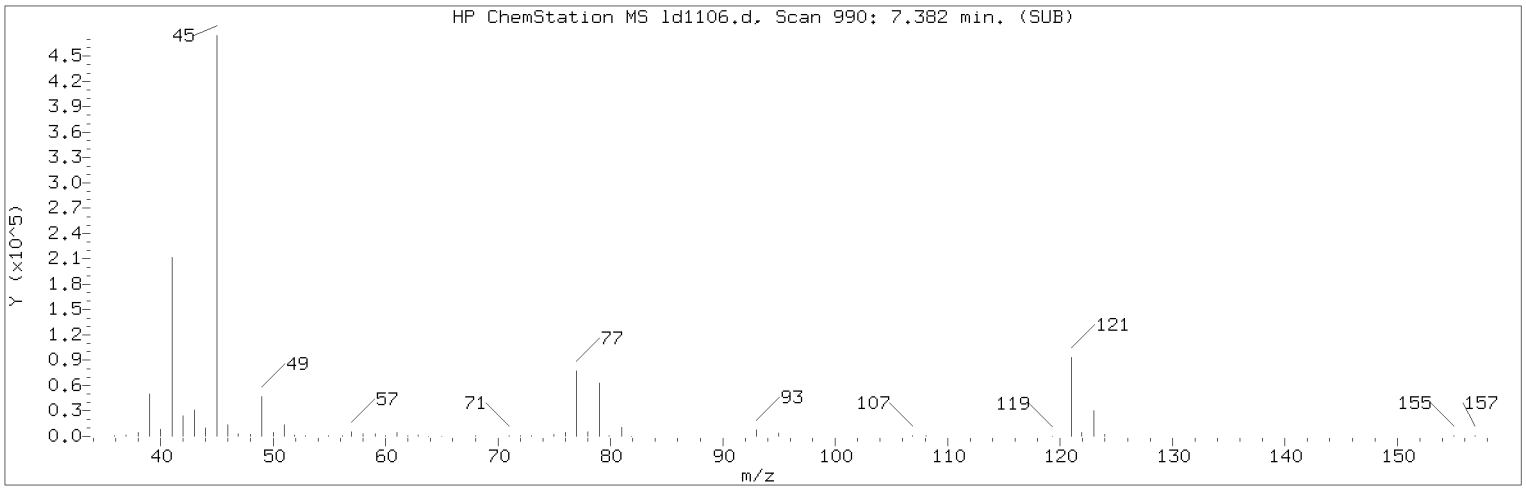
Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
218)*Perylene-d12	(6)	20.272	264	503703	5.000
224) Indeno(1,2,3-cd)pyrene	(6)	21.914	276	1235611M	10.863
225) Dibenz(a,h)anthracene	(6)	21.957	278	1324585	11.320
226) Benzo(g,h,i)perylene	(6)	22.326	276	1282360	10.668

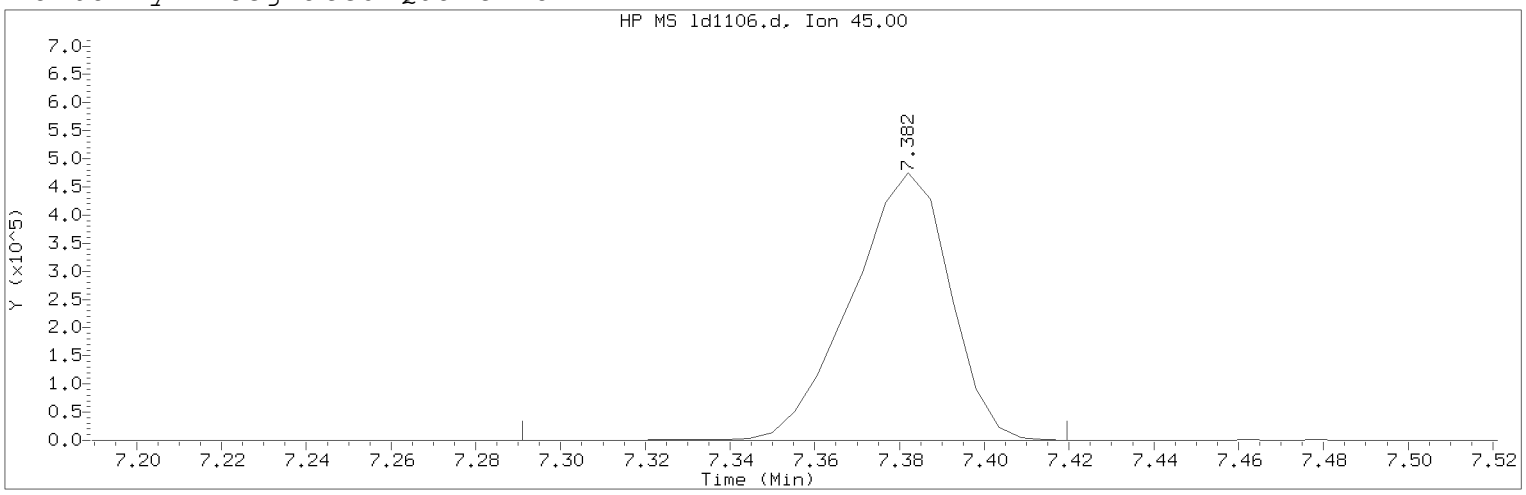
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Kira N. Beck
on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

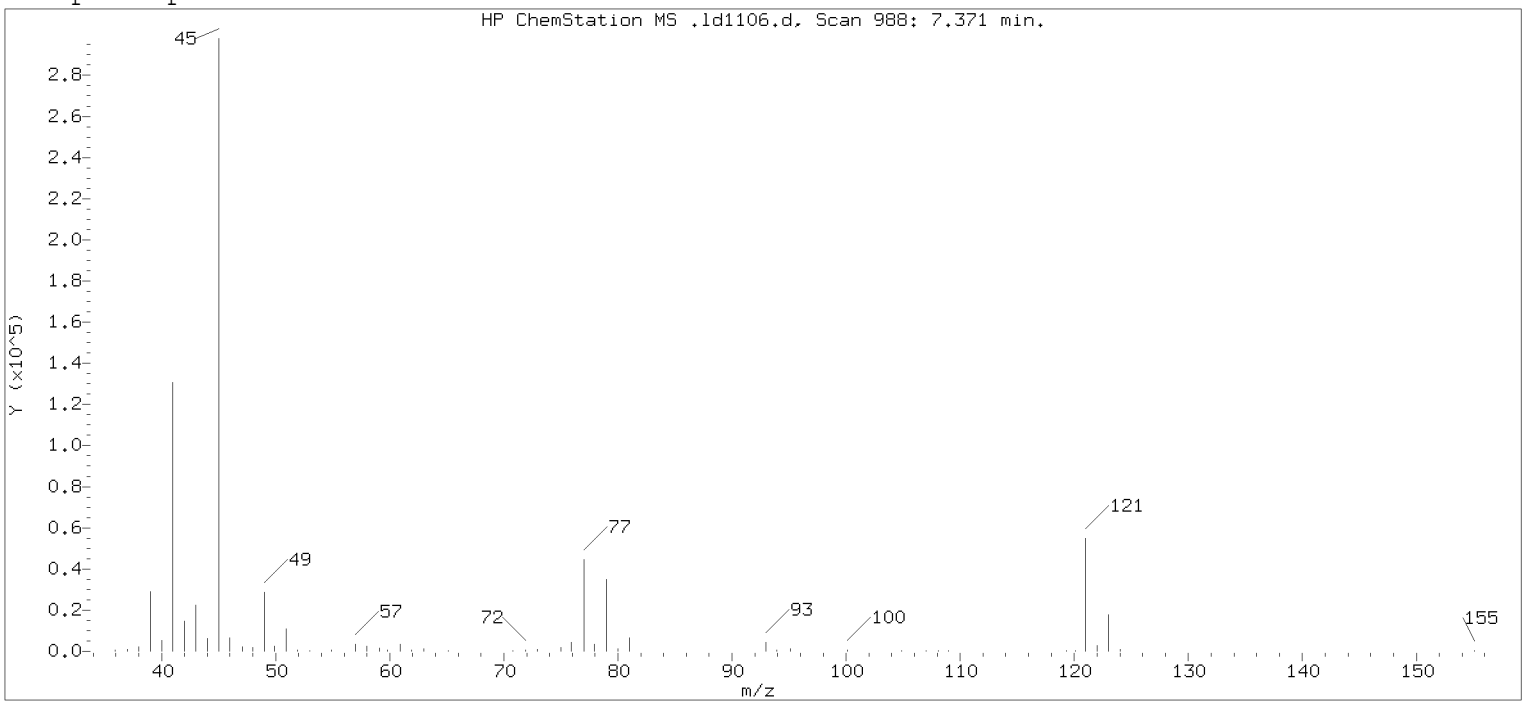
Compound Number : 34
Compound Name : 2,2'-oxybis(1-Chloropropane)
Scan Number : 990
Retention Time (minutes) : 7.382
Quant Ion : 45.00
Area (flag) : 764921M
On-Column Amount (ng/ul) : 10.1817
Integration start scan : 972 Integration stop scan: 996
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

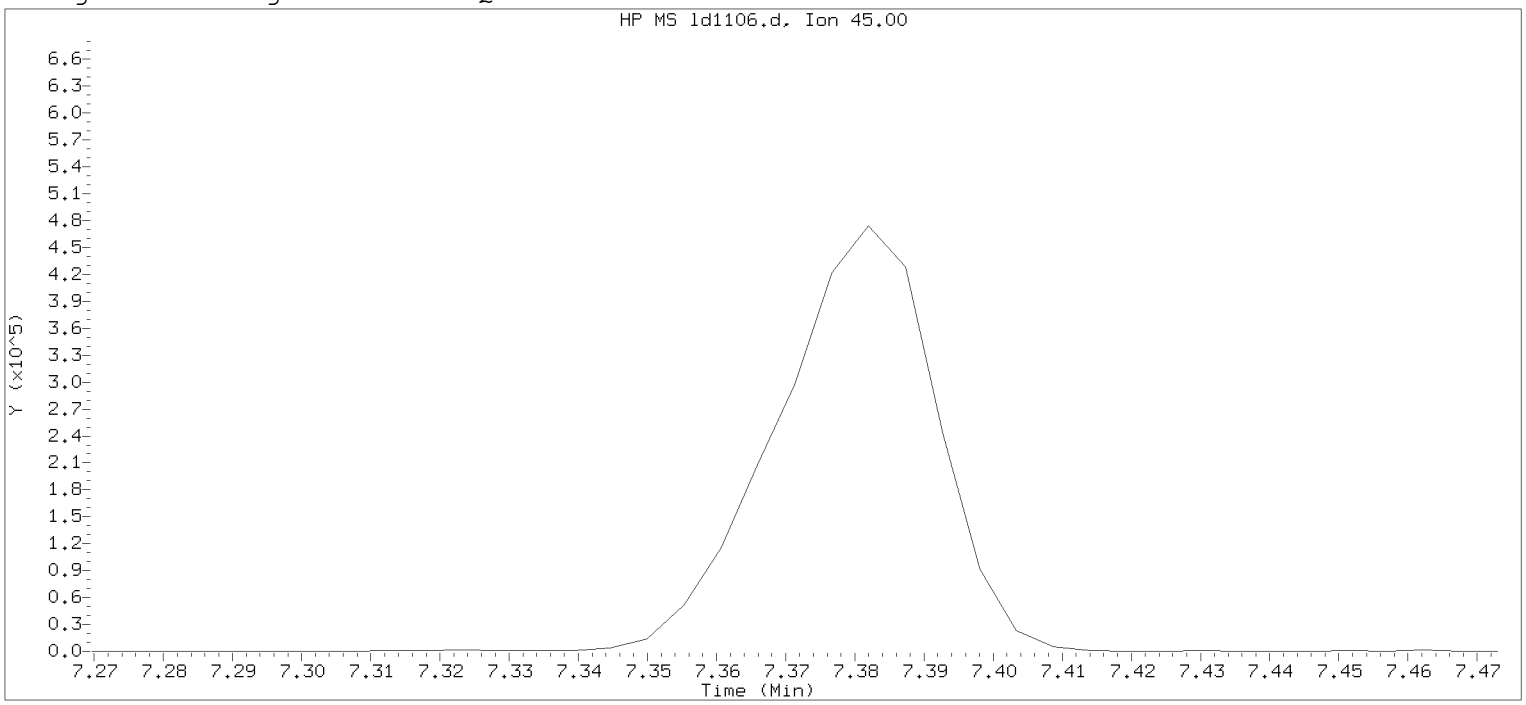
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:52.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 13:07 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Compound Number : 34
Compound Name : 2,2'-oxybis(1-Chloropropane)
Expected RT (minutes) : 7.371
Quant Ion : 45.00

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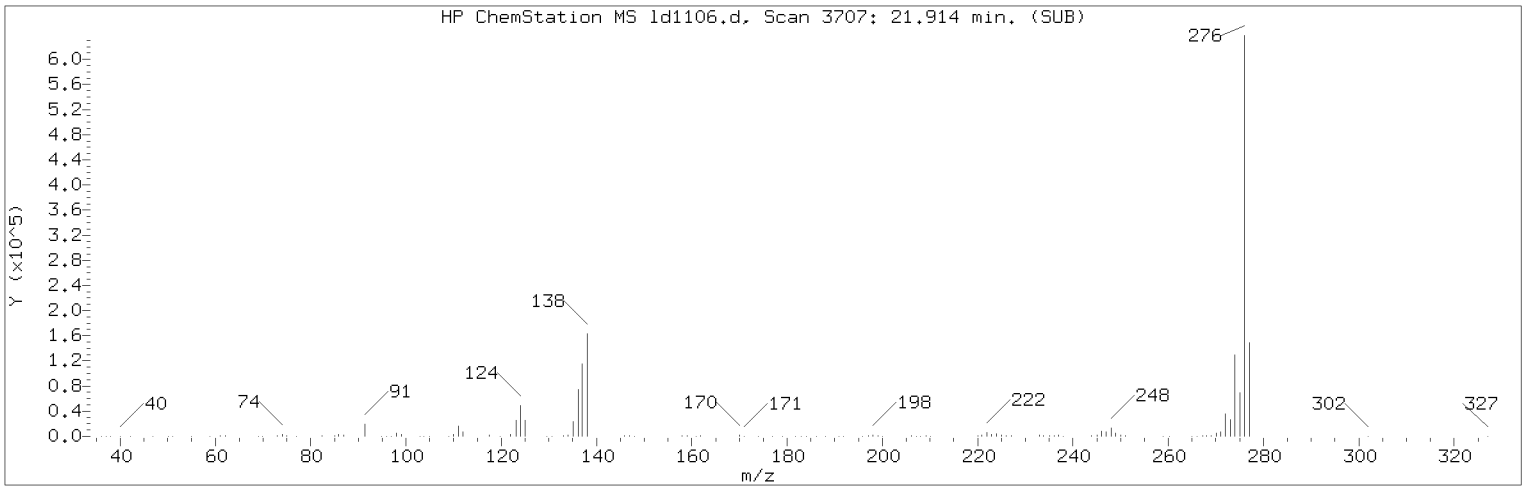
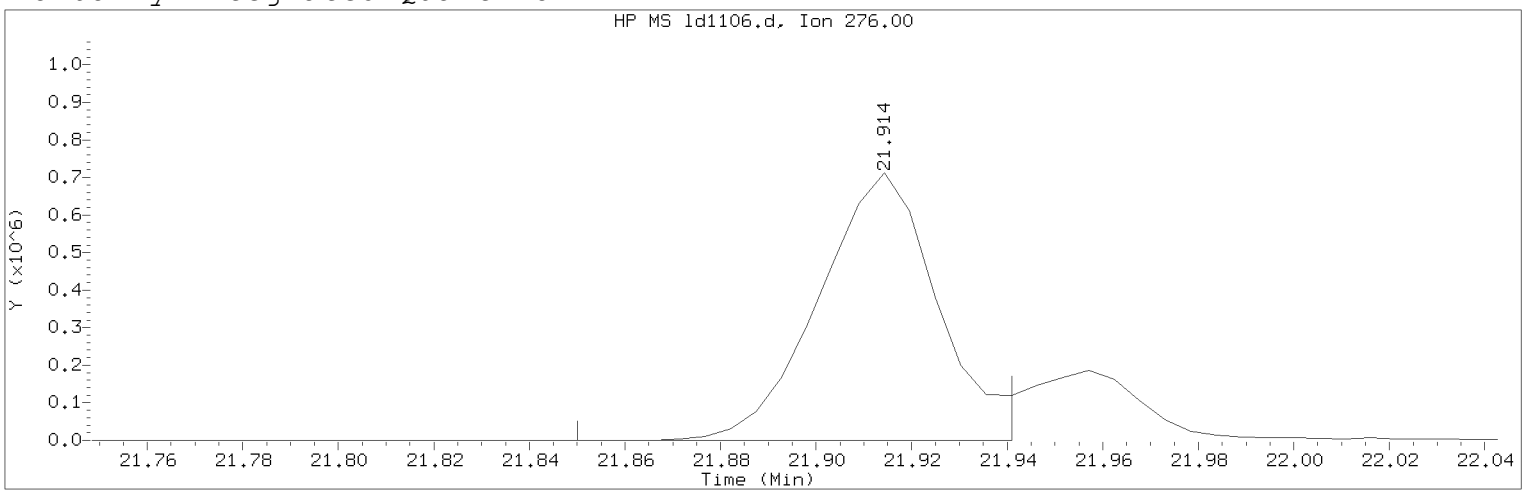
Target 3.5 esignature used. Page 2273

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 25-APR-2019 07:51
Date, time and analyst ID of latest file update: 25-Apr-2019 07:53 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

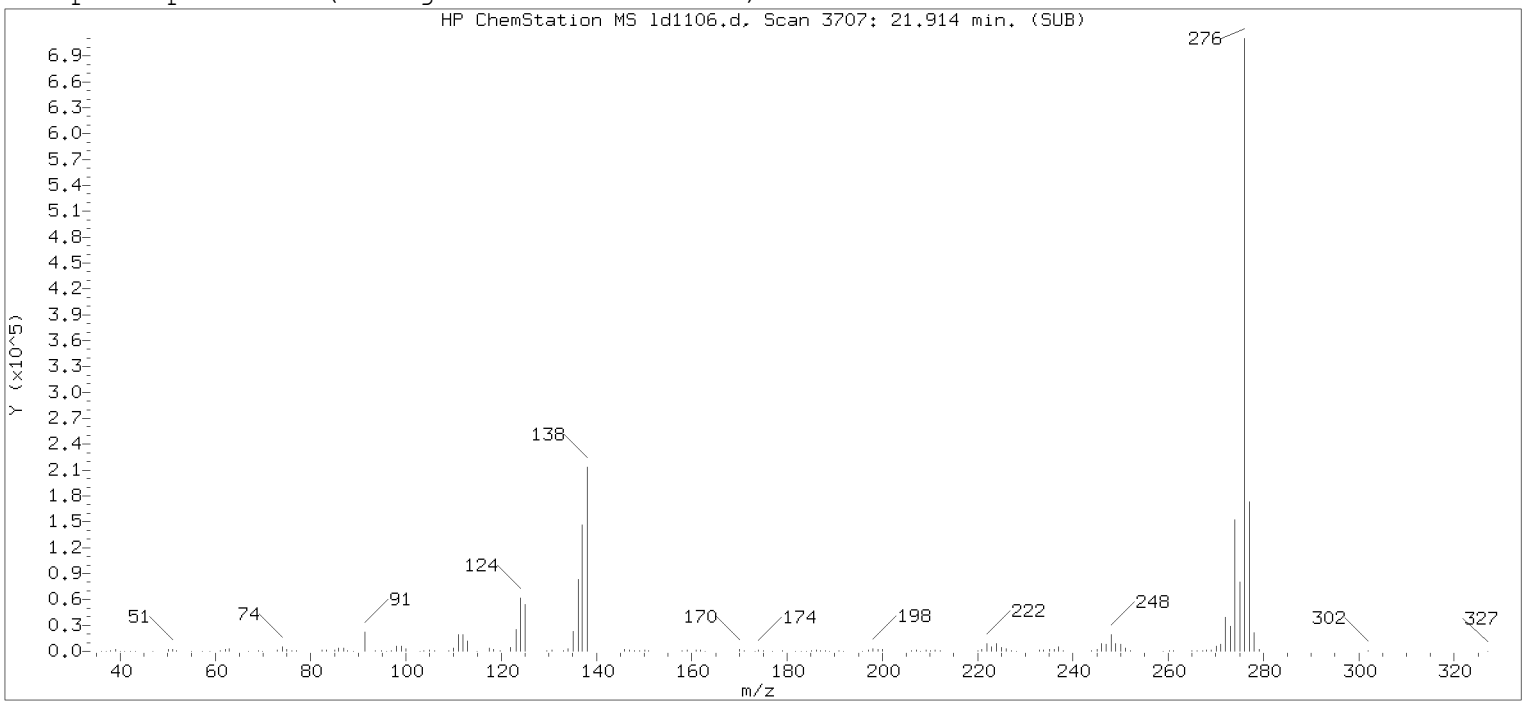
Compound Number : 224
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 3707
Retention Time (minutes) : 21.914
Quant Ion : 276.00
Area (flag) : 1235611M
On-Column Amount (ng/ul) : 10.8632
Integration start scan : 3694 Integration stop scan: 3711
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

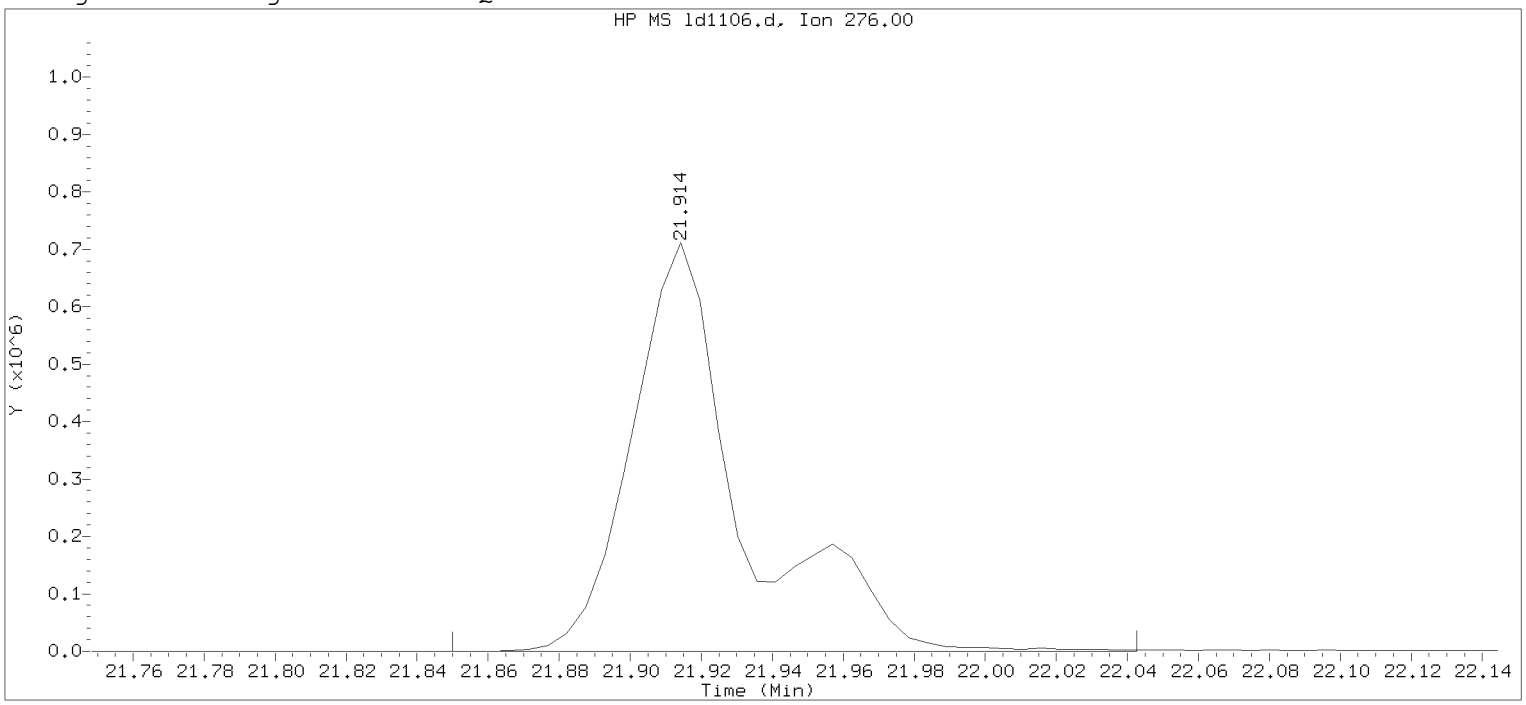
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/25/2019 at 07:54.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/25/2019 at 07:52.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1106.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:04 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: 27090L
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 13:07 hbz01996

Sample Name: 107WJLCS Lab Sample ID: 107WJLCS

Compound Number	: 224		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 3707		
Retention Time (minutes)	: 21.914		
Quant Ion	: 276.00		
Area	: 1528935		
On-column Amount (ng/ul)	: 13.4421		
Integration start scan	: 3694	Integration stop scan:	3730
Y at integration start	: 0	Y at integration end:	0

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Target 3.5 esignature used. Page 2275

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

107WJLCS2

Data file: /chem/HP20296.i/19apr18a.b/ld1107.d
Injection date and time: **18-APR-2019 23:33**
Data file Sample Info. Line: 107WJLCS2;107WJLCS2;1;3;LCS;;RAAP;
Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC107WJMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922	(0.000)	904	152	168482	(-15)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	681975	(-11)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	307812	(-16)	5.00	
158) Phenanthrene-d10	13.662	(0.000)	2164	188	570382	(-16)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	562988	(-17)	5.00	
218) Perylene-d12	20.267	(0.005)	3399	264	519615	(-19)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.013	(-0.002)	112	1613330	29.820	60%
18) Phenol-d6	(1)	6.398	(-0.001)	99	1781559	24.817	50%
45) Nitrobenzene-d5	(2)	7.773	(-0.001)	82	1459871	21.580	86%
96) 2-Fluorobiphenyl	(3)	10.688	(0.000)	172	1696791	17.174	69%
140) 2,4,6-Tribromophenol	(3)	12.774	(0.000)	330	557032	44.743	89%
184) Terphenyl-d14	(5)	16.020	(0.000)	244	2140335	23.272	93%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
9) N-Nitrosomethylethylamine	(1)	4.307	(-0.001)	88	310423	11.269	45.07			0.5
10) Methyl methanesulfonate	(1)	4.751	(-0.000)	80	324462	9.560	38.24			0.3
14) N-Nitrosodiethylamine	(1)	5.334	(-0.000)	102	310033	11.685	46.74			0.1
16) Ethyl methanesulfonate	(1)	5.794	(-0.000)	109	315154	11.184	44.73			0.1
36) N-Nitrosopyrrolidine	(1)	7.500	(0.000)	100	330752	11.845	47.38			0.1
40) N-Nitrosomorpholine	(1)	7.569	(0.000)	56	366341	10.942	43.77			0.5
50) N-Nitrosopiperidine	(2)	8.035	(-0.000)	114	304669	11.382	45.53			0.1
59) O,O,O-Triethylphosphorothioate	(2)	8.532	(0.000)	198	242037	10.430	41.72			0.5
67) a,a-Dimethylphenethylamine	(2)	8.655	(-0.001)	58	1562213M	34.282	137.13		E	1
71) 2,6-Dichlorophenol	(2)	9.051	(-0.000)	162	415698	10.149	40.60			0.1
72) Hexachloropropene	(2)	9.094	(-0.000)	213	70056	2.488	9.95			0.5
80) N-Nitrosodi-n-butylamine	(2)	9.623	(-0.000)	84	520472	11.156	44.62			3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
85) Safrole	(2)	9.955	(-0.000)	162	359042	9.865	39.46			0.5
91) cis-Isosafrole	(3)	10.431	(-0.000)	162	47938	1.256	5.03			0.3
97) trans-Isosafrole	(3)	10.800	(-0.000)	162	402635	9.376	37.50			0.3
100) Isosafrole	(3)				450573	10.632	42.53			0.3
108) 1,4-Naphthoquinone	(3)				Not Detected					6
122) Pentachlorobenzene	(3)	11.971	(0.000)	250	276450	7.759	31.04			0.1
130) Thionazin	(3)	12.479	(0.000)	107	245515	12.840	51.36			0.5
133) 5-Nitro-o-toluidine	(3)	12.490	(0.000)	152	309308	12.140	48.56			1
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)	13.025	(-0.000)	86	467757	8.717	34.87			0.06
146) Phorate	(4)	13.030	(-0.000)	75	987866	12.875	51.50			0.1
147) Phenacetin	(4)	13.046	(-0.000)	108	711586	12.786	51.15			0.1
149) Diallate (peak 2)	(4)	13.132	(0.000)	86	152890	3.445	13.78			0.06
151) Diallate trans/cis	(4)				620647	12.163	48.65			0.3

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13. Target 3.5 esignature user ID: knb25316

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr18a.b/ld1107.d Injection date and time: **18-APR-2019 23:33**
Data file Sample Info. Line: 107WJLCS2;107WJLCS2;1;3;LCS;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC107WJMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

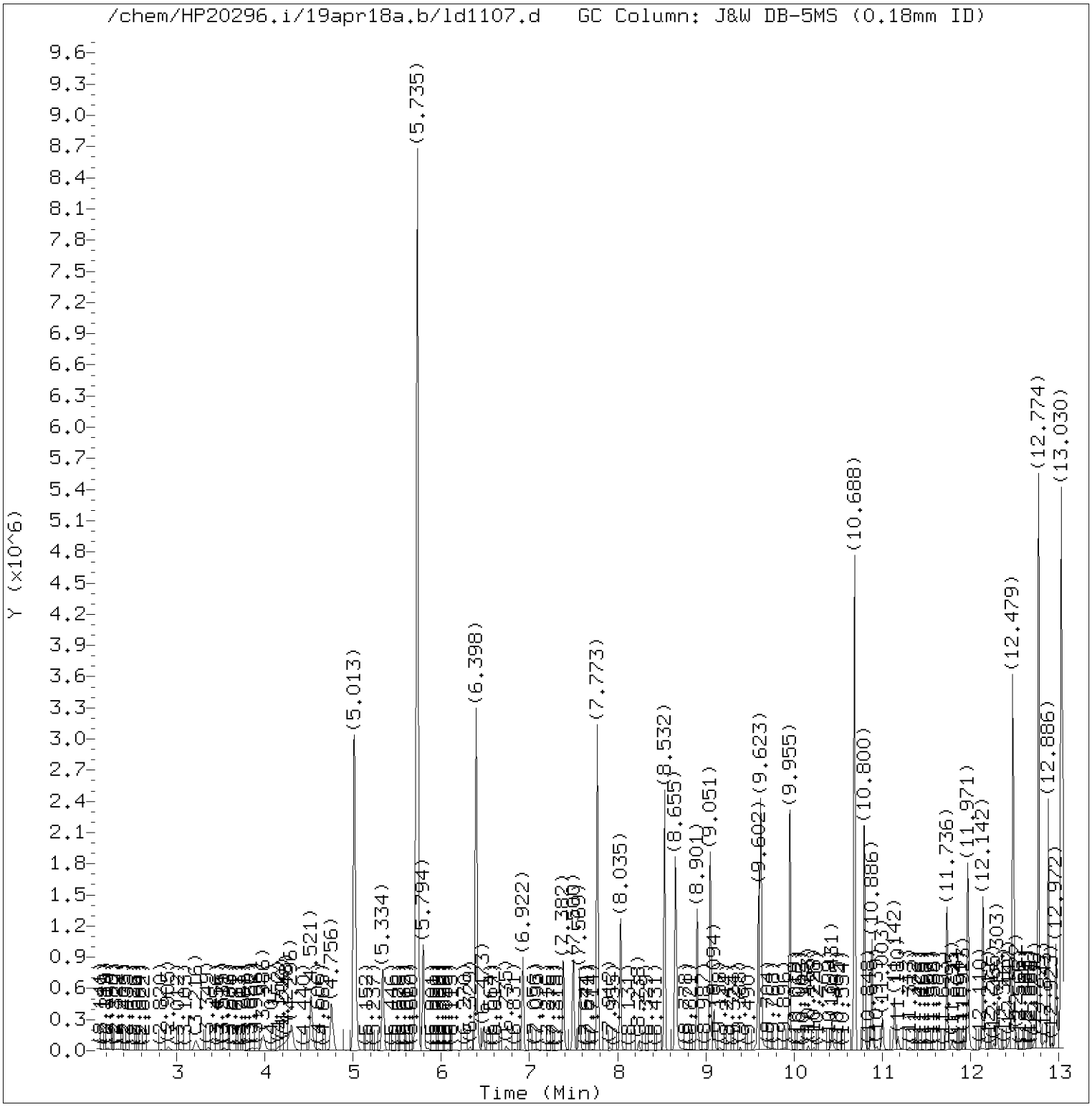
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
152) Dimethoate	(4)	13.228(0.000)	87	281639	5.654	22.61			0.8
155) 4-Aminobiphenyl	(4)	13.432(-0.000)	169	947188	10.732	42.93			1
156) Pentachloronitrobenzene	(4)	13.437(-0.000)	237	120705	10.497	41.99			0.5
157) Pronamide	(4)	13.538(-0.000)	173	544728	13.439	53.76			0.1
167) Disulfoton	(4)	13.704(0.000)	88	1555148M	28.407	113.63			6
169) Methyl parathion	(4)	14.191(0.000)	109	252931	7.031	28.12			0.3
172) Parathion	(4)	14.753(0.000)	109	316161	13.608	54.43			1
173) 4-Nitroquinoline-1-oxide	(4)	14.779(-0.001)	190	1966078	114.548	458.19		E	5
175) Methapyrilene	(4)	14.918(-0.000)	97	5491054M	115.589	462.36		E	4
176) Isodrin	(4)	15.164(0.000)	193	156064	9.714	38.86			0.1
185) Aramite (1)	(5)	15.913(-0.000)	185	1956M	0.343	1.37		J	0.3
186) Aramite (2)	(5)			Not Detected					0.3
188) Aramite (3)	(5)	16.020(0.000)	185	77902M	2.033	8.13			0.3
189) Aramite (4)	(5)	16.154(0.000)	185	80094M	1.565	6.26			0.3
191) Aramite	(5)			159952	3.942	15.77			1
187) p-Dimethylaminoazobenzene	(5)	16.256(0.000)	225	311559	12.708	50.83			1
190) Chlorobenzilate	(5)	16.352(0.000)	139	548546	11.082	44.33			0.8
194) Famphur	(5)			Not Detected					6
195) Kepone	(5)	16.881(-0.000)	272	117443M	9.148	36.59		J	6
196) 2-Acetylaminofluorene	(5)	17.245(0.000)	181	749410	12.049	48.19			3
220) 3-Methylcholanthrene	(6)	20.759(-0.000)	268	767526	12.489	49.96			1

M = Compound was manually integrated. E = Compound concentration above calibration range.

Total number of targets = 48

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13. Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

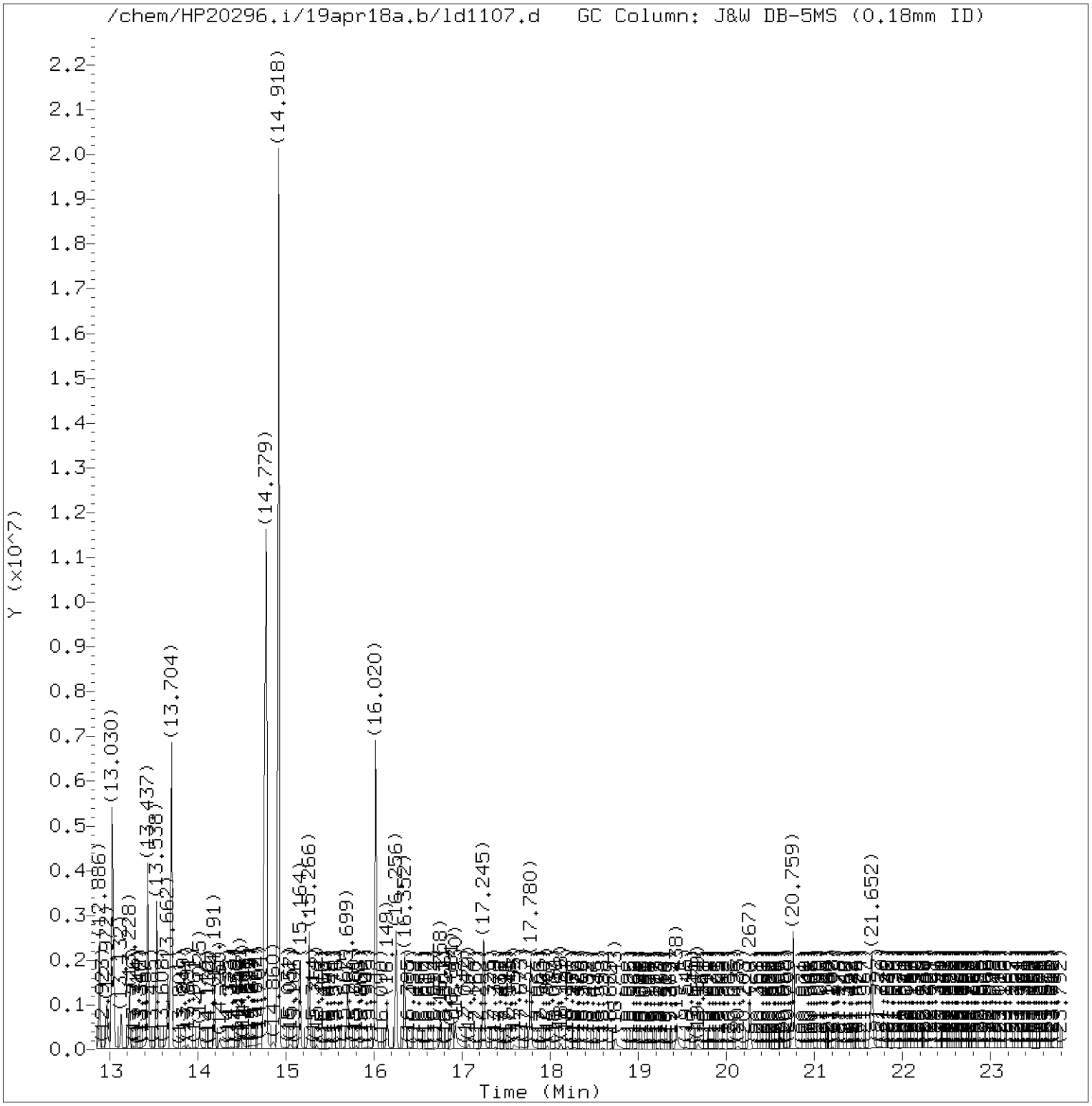
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
9) N-Nitrosomethylethylamine	(1)	4.307	88	310423	11.269
10) Methyl methanesulfonate	(1)	4.751	80	324462	9.560
12)$2-Fluorophenol	(1)	5.013	112	1613330	29.820
14) N-Nitrosodiethylamine	(1)	5.334	102	310033	11.685
16) Ethyl methanesulfonate	(1)	5.794	109	315154	11.184
18)$Phenol-d6	(1)	6.398	99	1781559	24.817
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	168482	5.000
100) Isosafrole	(3)			450573	10.632
36) N-Nitrosopyrrolidine	(1)	7.500	100	330752	11.845
40) N-Nitrosomorpholine	(1)	7.569	56	366341	10.942
45)$Nitrobenzene-d5	(2)	7.773	82	1459871	21.580
50) N-Nitrosopiperidine	(2)	8.035	114	304669	11.382
59) O,O,O-Triethylphosphorothioate	(2)	8.532	198	242037	10.430
67) a,a-Dimethylphenethylamine	(2)	8.655	58	1562213M	34.282
151) Diallate trans/cis	(4)			620647	12.163
68)*Naphthalene-d8	(2)	8.901	136	681975	5.000
71) 2,6-Dichlorophenol	(2)	9.051	162	415698	10.149
72) Hexachloropropene	(2)	9.094	213	70056	2.488
80) N-Nitrosodi-n-butylamine	(2)	9.623	84	520472	11.156
85) Safrole	(2)	9.955	162	359042	9.865
91) cis-Isosafrole	(3)	10.431	162	47938	1.256
191) Aramite	(5)			159952	3.942
96)$2-Fluorobiphenyl	(3)	10.688	172	1696791	17.174
97) trans-Isosafrole	(3)	10.800	162	402635	9.376
118)*Acenaphthene-d10	(3)	11.736	164	307812	5.000
122) Pentachlorobenzene	(3)	11.971	250	276450	7.759
130) Thionazin	(3)	12.479	107	245515	12.840
133) 5-Nitro-o-toluidine	(3)	12.490	152	309308	12.140
140)$2,4,6-Tribromophenol	(3)	12.774	330	557032	44.743
145) Diallate (peak 1)	(4)	13.025	86	467757	8.717
146) Phorate	(4)	13.030	75	987866	12.875
147) Phenacetin	(4)	13.046	108	711586	12.786
149) Diallate (peak 2)	(4)	13.132	86	152890	3.445
152) Dimethoate	(4)	13.228	87	281639	5.654
155) 4-Aminobiphenyl	(4)	13.431	169	947188	10.732
156) Pentachloronitrobenzene	(4)	13.437	237	120705	10.497
157) Pronamide	(4)	13.538	173	544728	13.439
158)*Phenanthrene-d10	(4)	13.662	188	570382	5.000
167) Disulfoton	(4)	13.704	88	1555148M	28.407
169) Methyl parathion	(4)	14.191	109	252931	7.031

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

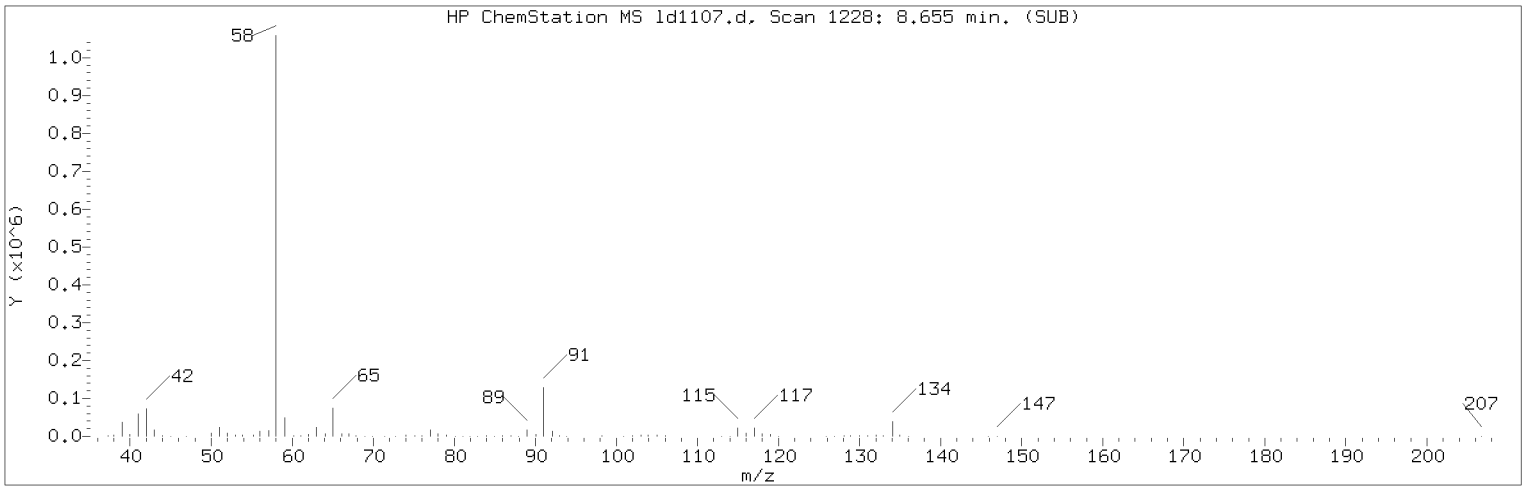
Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
172) Parathion	(4)	14.753	109	316161	13.608
173) 4-Nitroquinoline-1-oxide	(4)	14.779	190	1966078	114.548
175) Methapyrilene	(4)	14.918	97	5491054M	115.589
176) Isodrin	(4)	15.164	193	156064	9.714
180)*Pyrene-d10	(5)	15.699	212	562988	5.000
185) Aramite (1)	(5)	15.913	185	1956M	0.343
188) Aramite (3)	(5)	16.020	185	77902M	2.033
184)$Terphenyl-d14	(5)	16.020	244	2140335	23.272
189) Aramite (4)	(5)	16.154	185	80094M	1.565
187) p-Dimethylaminoazobenzene	(5)	16.256	225	311559	12.708
190) Chlorobenzilate	(5)	16.352	139	548546	11.082
195) Kepone	(5)	16.881	272	117443M	9.148
196) 2-Acetylaminofluorene	(5)	17.245	181	749410	12.049
218)*Perylene-d12	(6)	20.267	264	519615	5.000
220) 3-Methylcholanthrene	(6)	20.759	268	767526	12.489

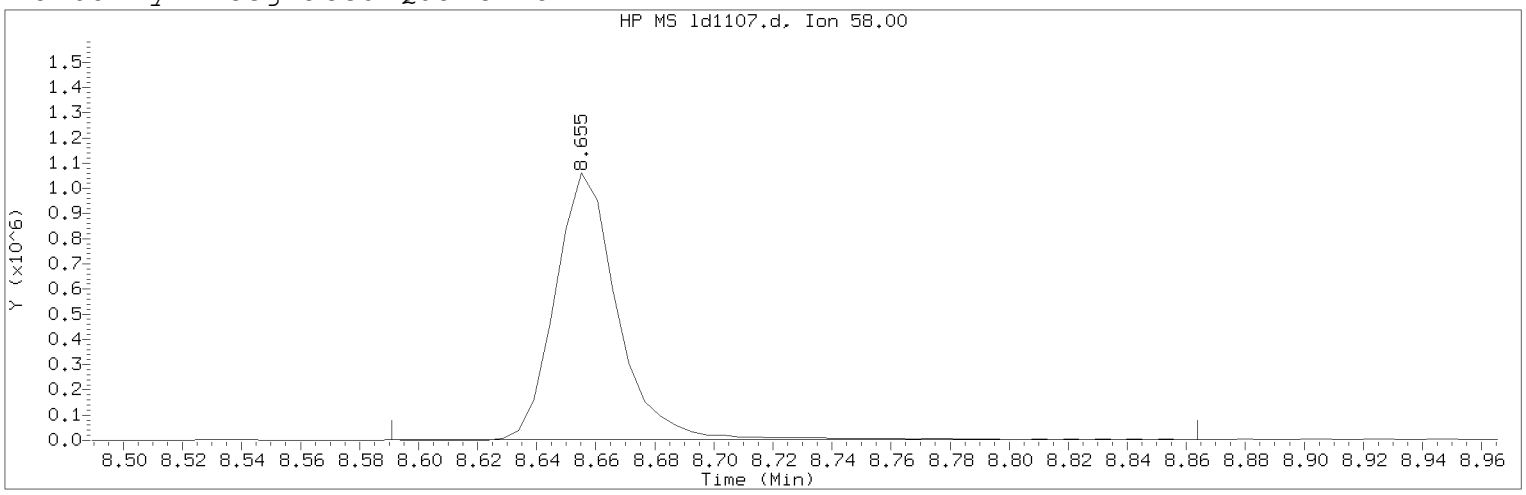
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

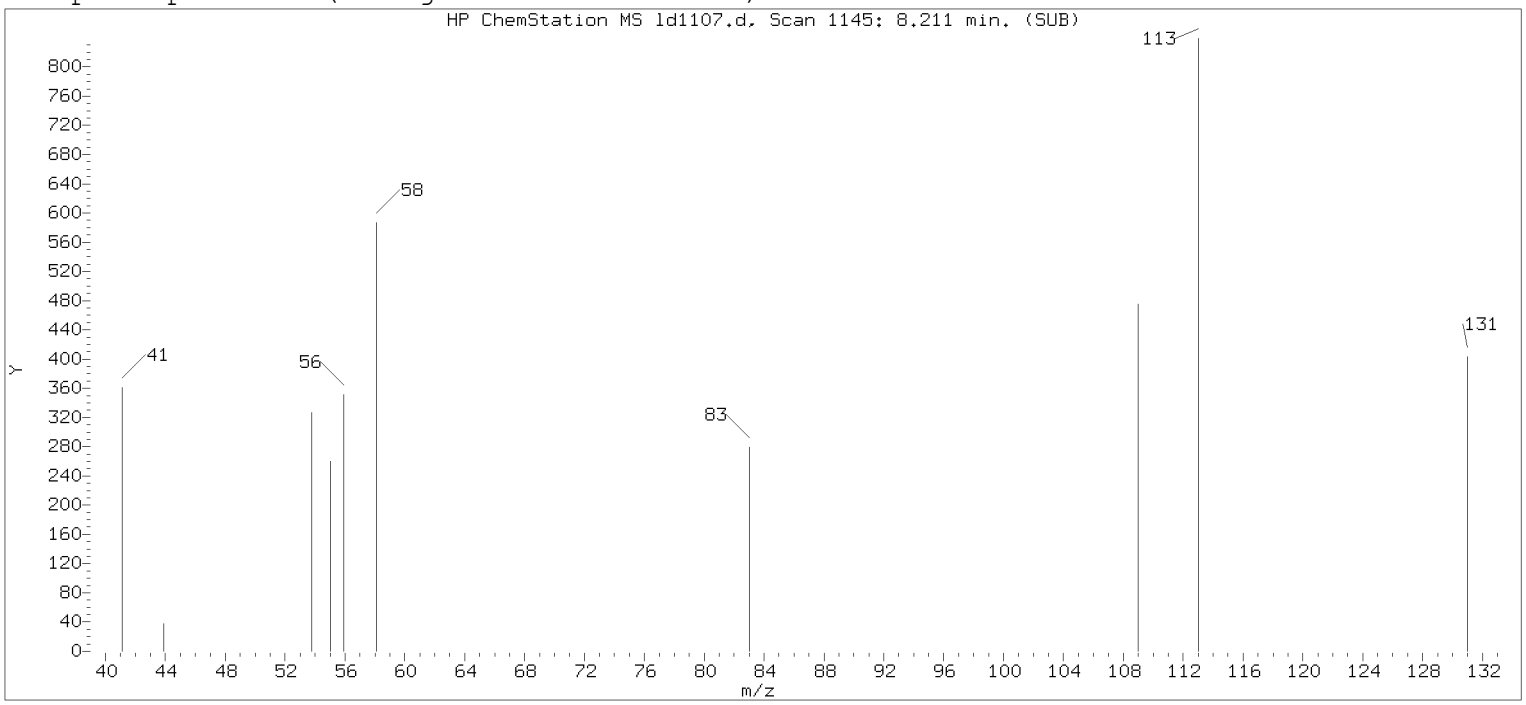
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1228
Retention Time (minutes) : 8.655
Quant Ion : 58.00
Area (flag) : 1562213M
On-Column Amount (ng/ul) : 34.2819
Integration start scan : 1215 Integration stop scan: 1266
Y at integration start : 1351 Y at integration end: 3620

Reason for manual integration: improper integration

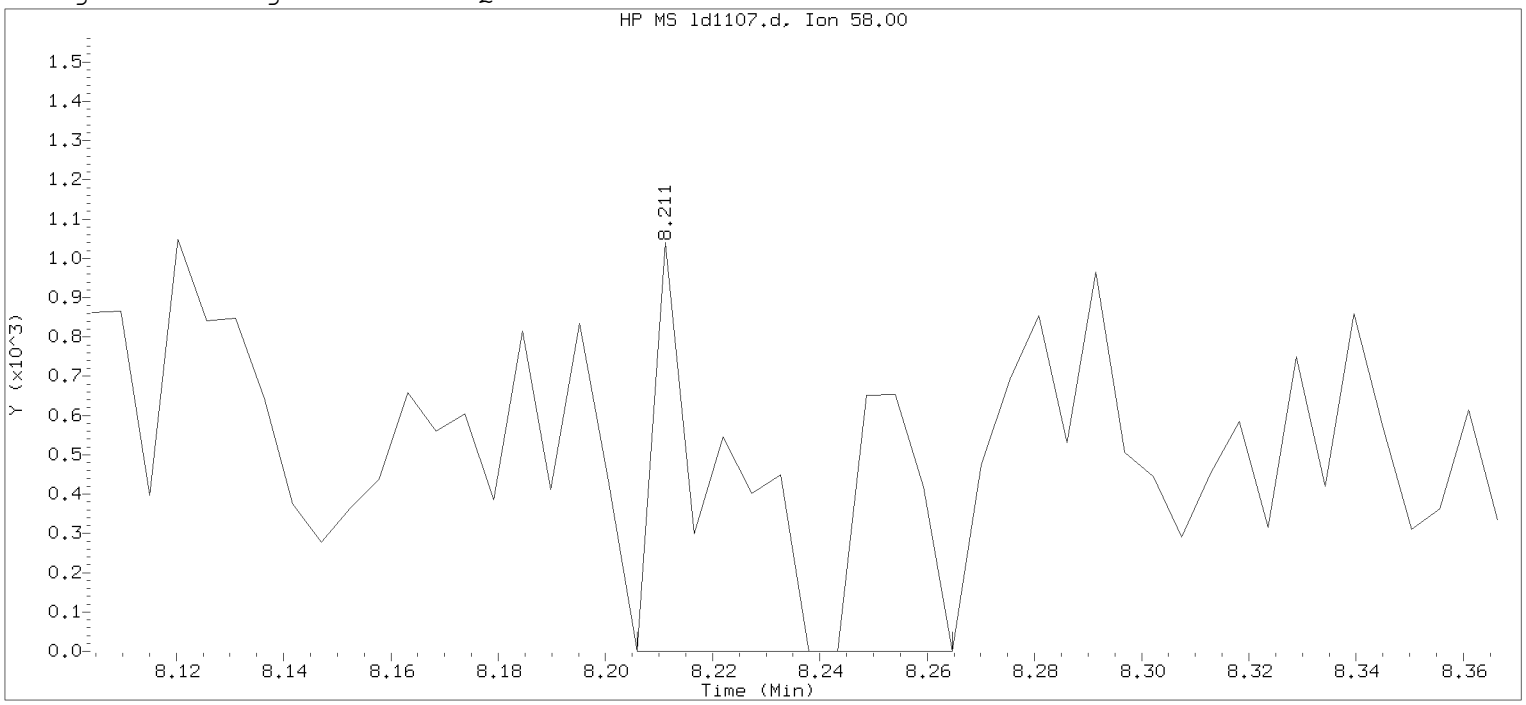
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

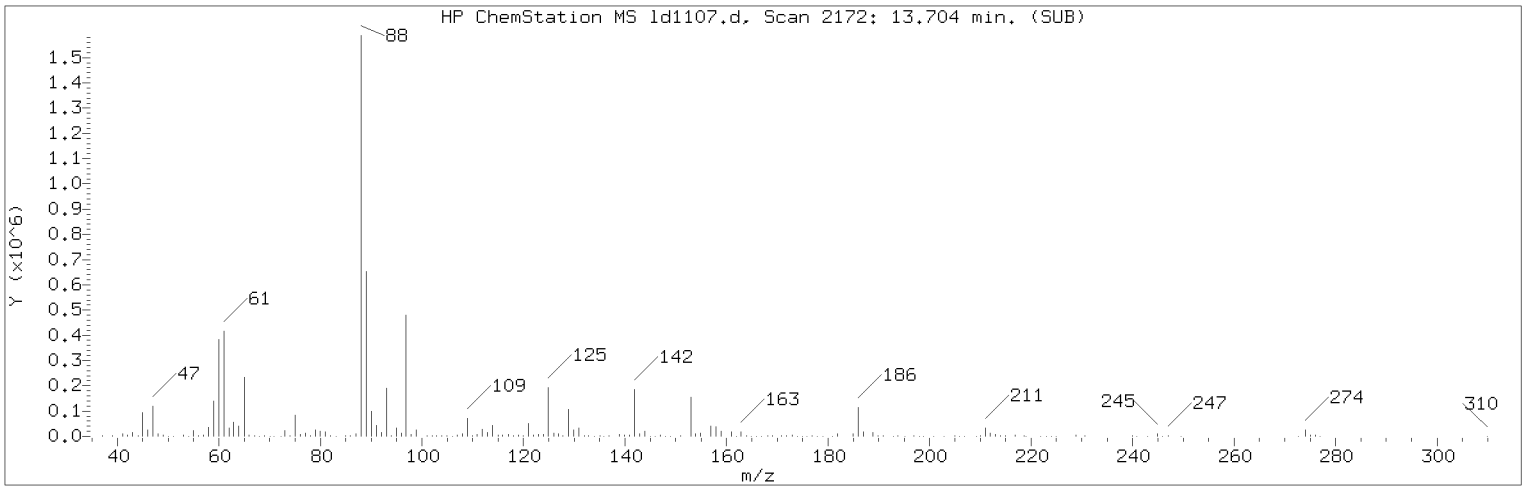
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

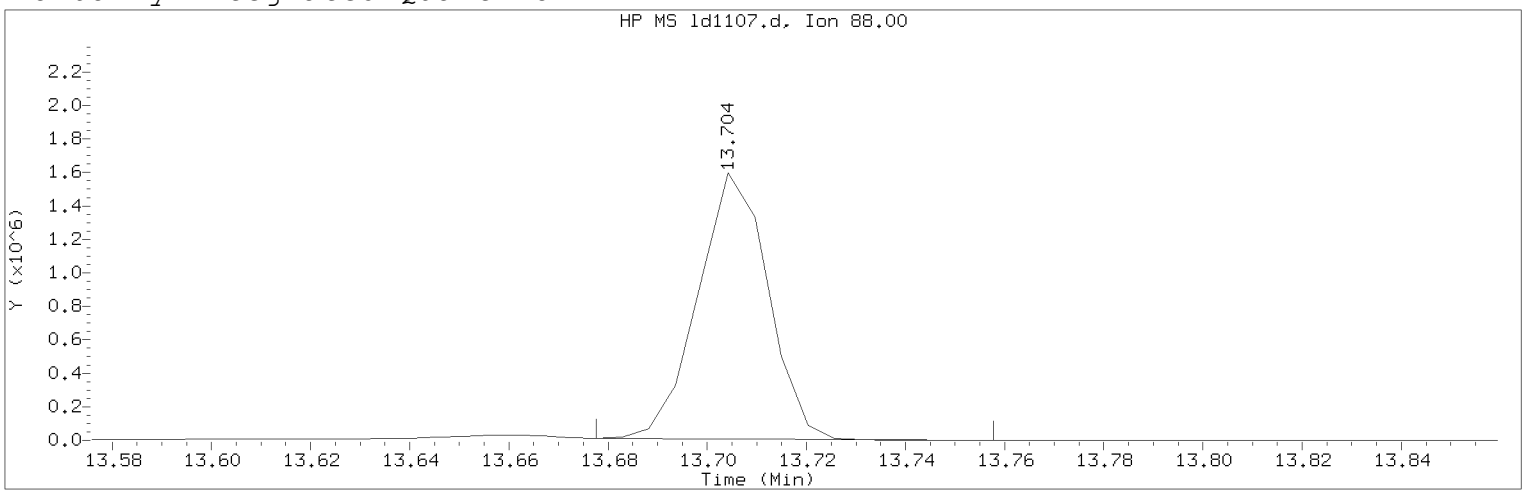
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1145
Retention Time (minutes) : 8.211
Quant Ion : 58.00
Area : 1430
On-column Amount (ng/ul) : 0.0314
Integration start scan : 1143 Integration stop scan: 1154
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 5.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

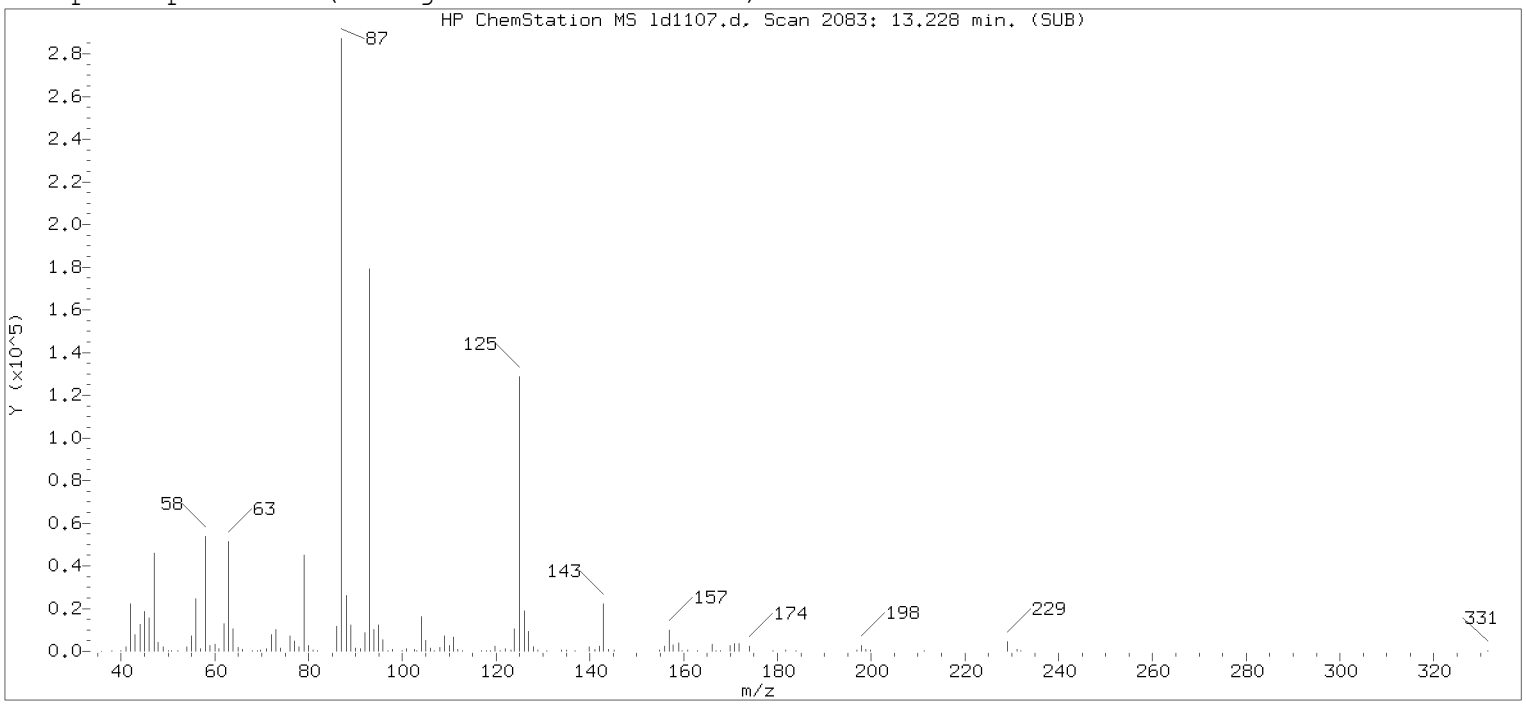
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2172
Retention Time (minutes) : 13.704
Quant Ion : 88.00
Area (flag) : 1555148M
On-Column Amount (ng/ul) : 28.4066
Integration start scan : 2166 Integration stop scan: 2181
Y at integration start : 10291 Y at integration end: 600

Reason for manual integration: improper integration

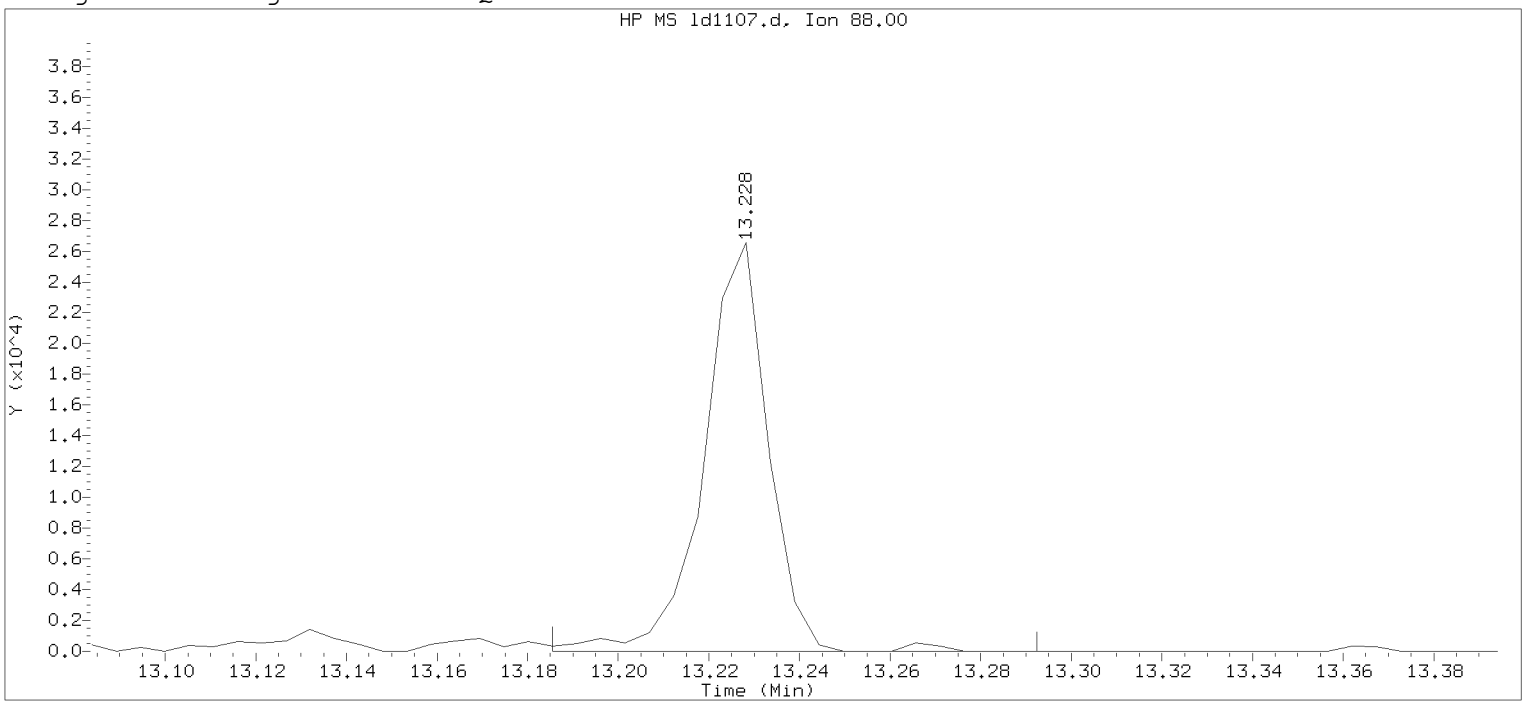
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

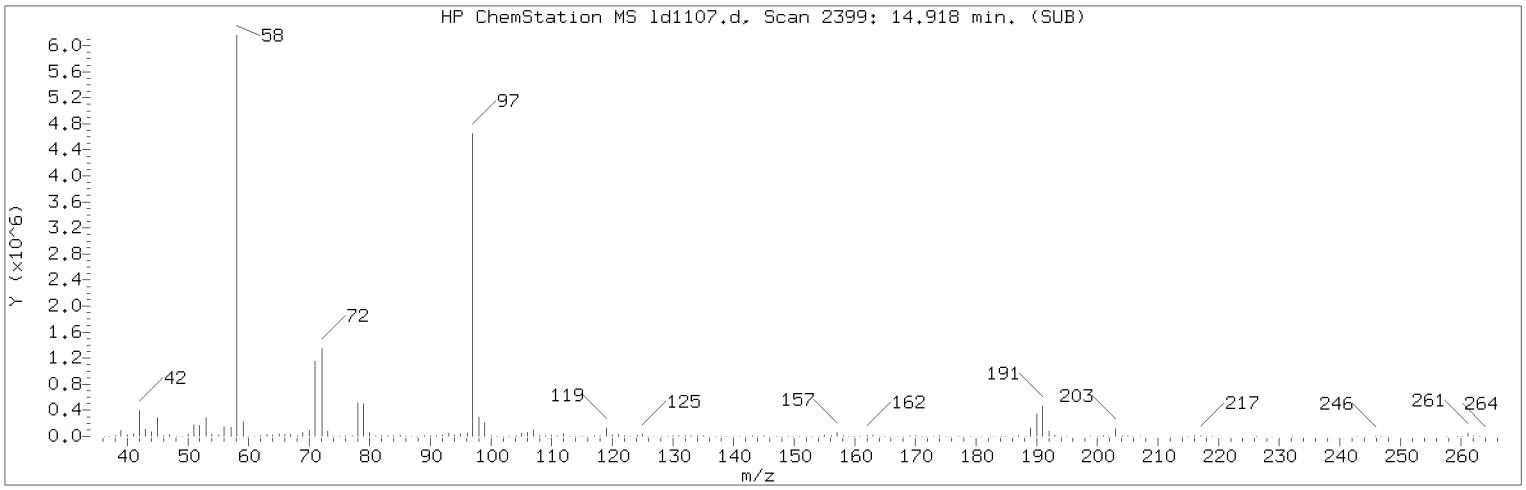
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

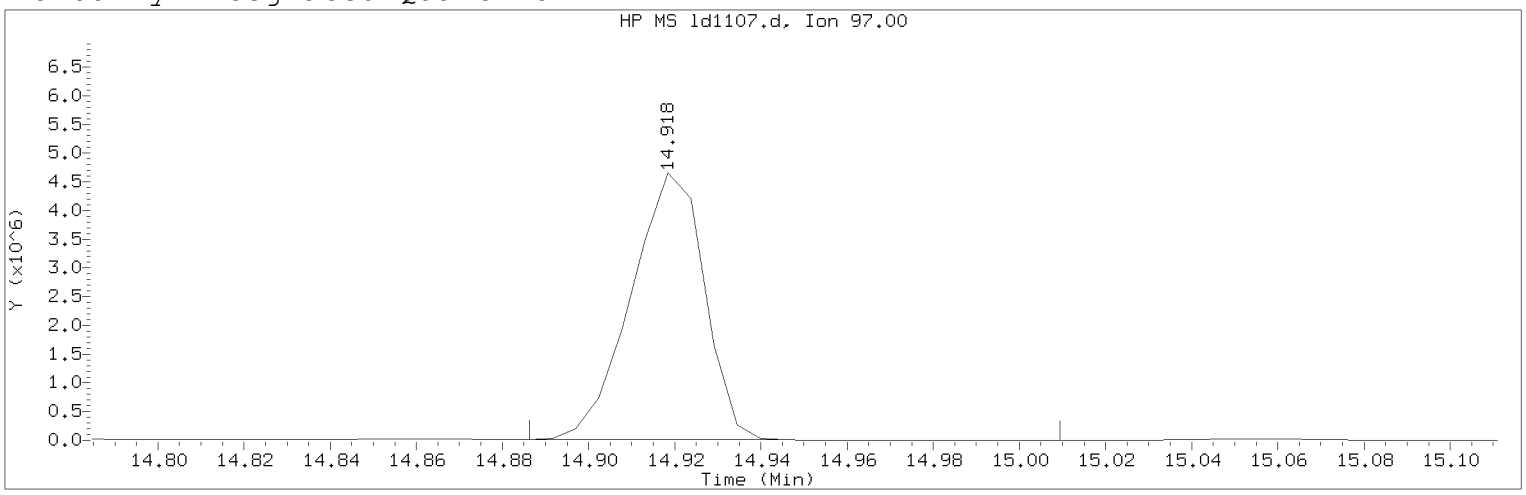
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2083
Retention Time (minutes) : 13.228
Quant Ion : 88.00
Area : 26292
On-column Amount (ng/ul) : 1.3032
Integration start scan : 2074 Integration stop scan: 2094
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 2.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

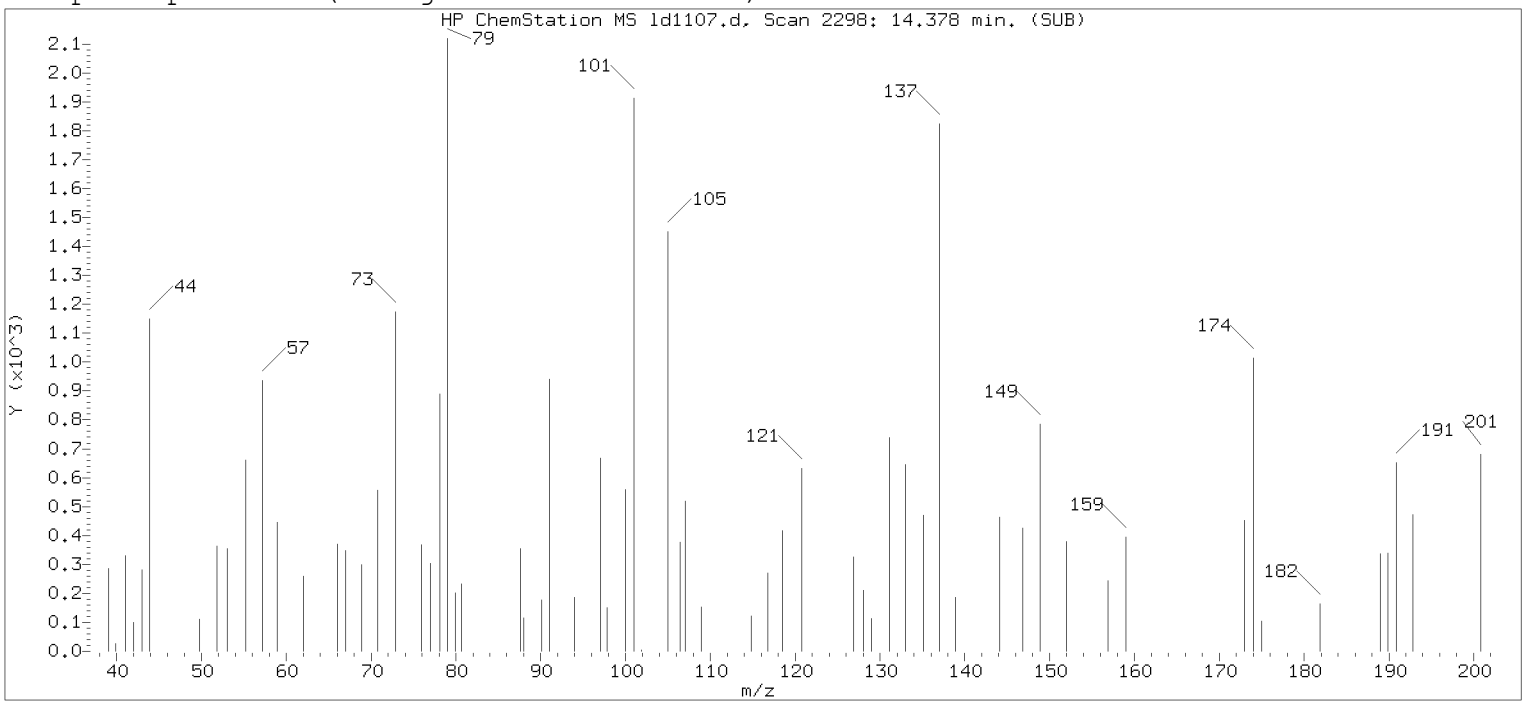
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2399
Retention Time (minutes) : 14.918
Quant Ion : 97.00
Area (flag) : 5491054M
On-Column Amount (ng/ul) : 115.5895
Integration start scan : 2392 Integration stop scan: 2415
Y at integration start : 8972 Y at integration end: 1899

Reason for manual integration: improper integration

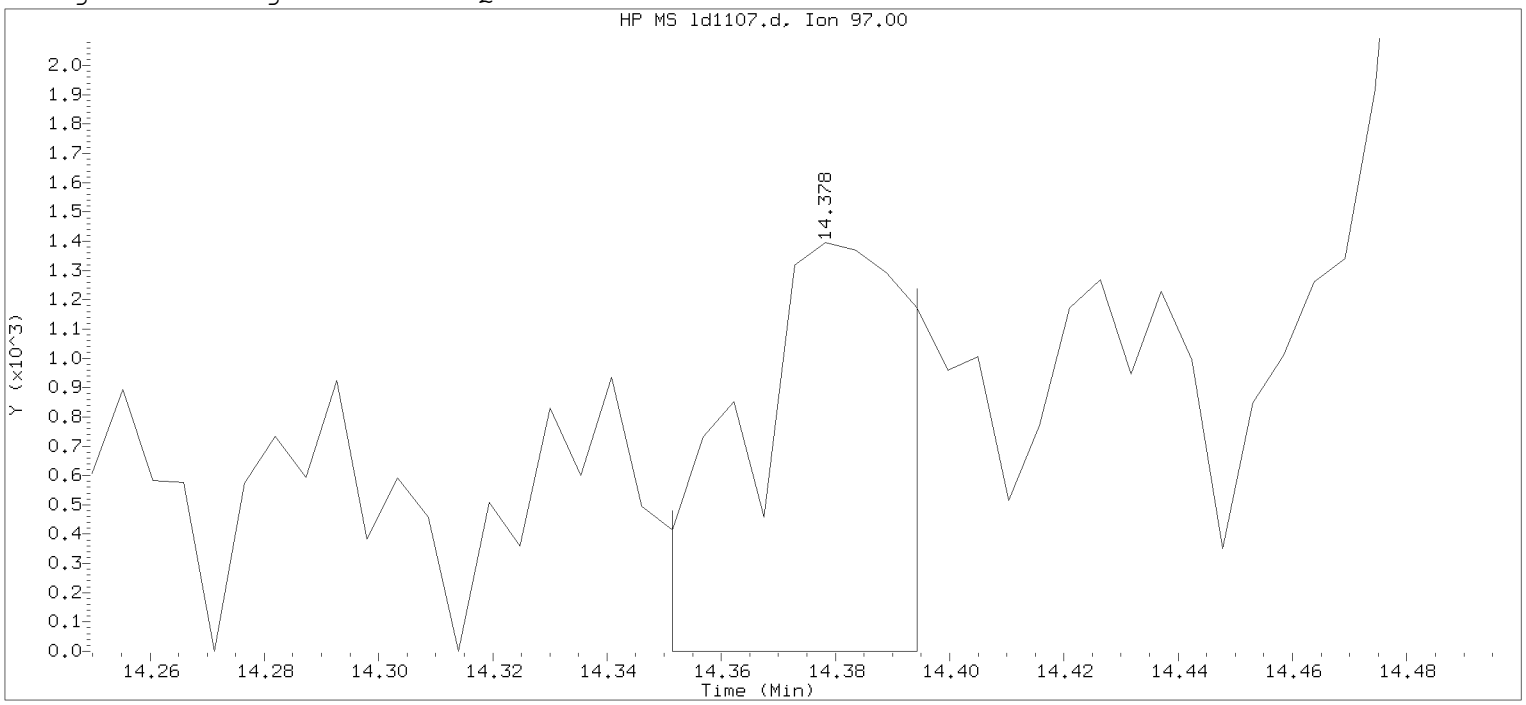
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

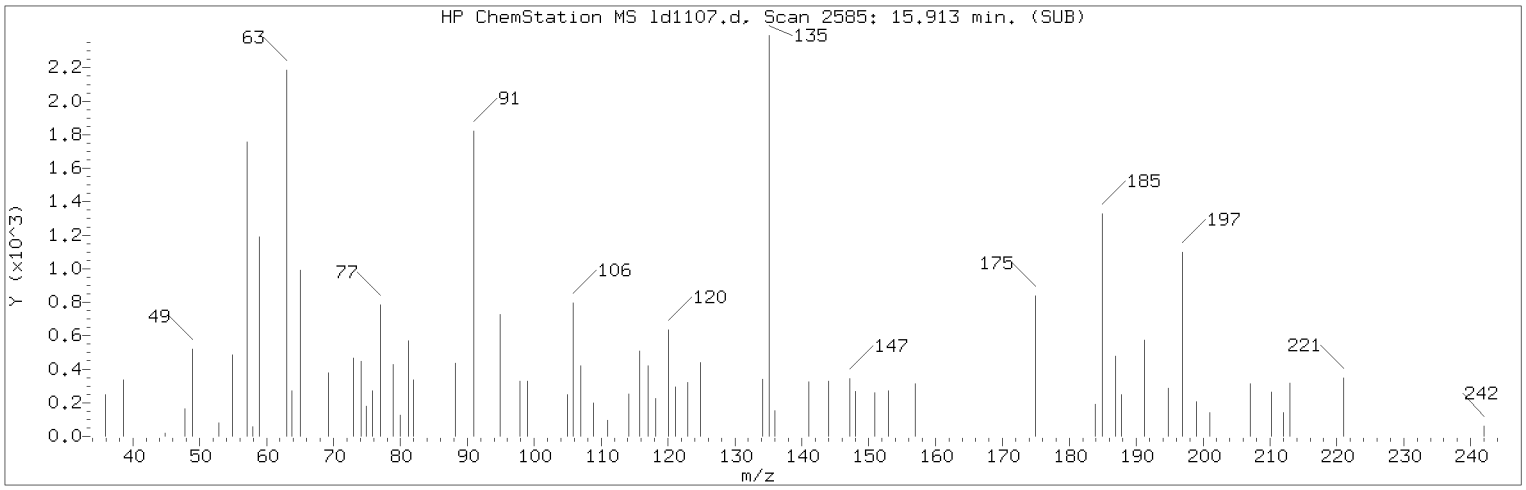
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

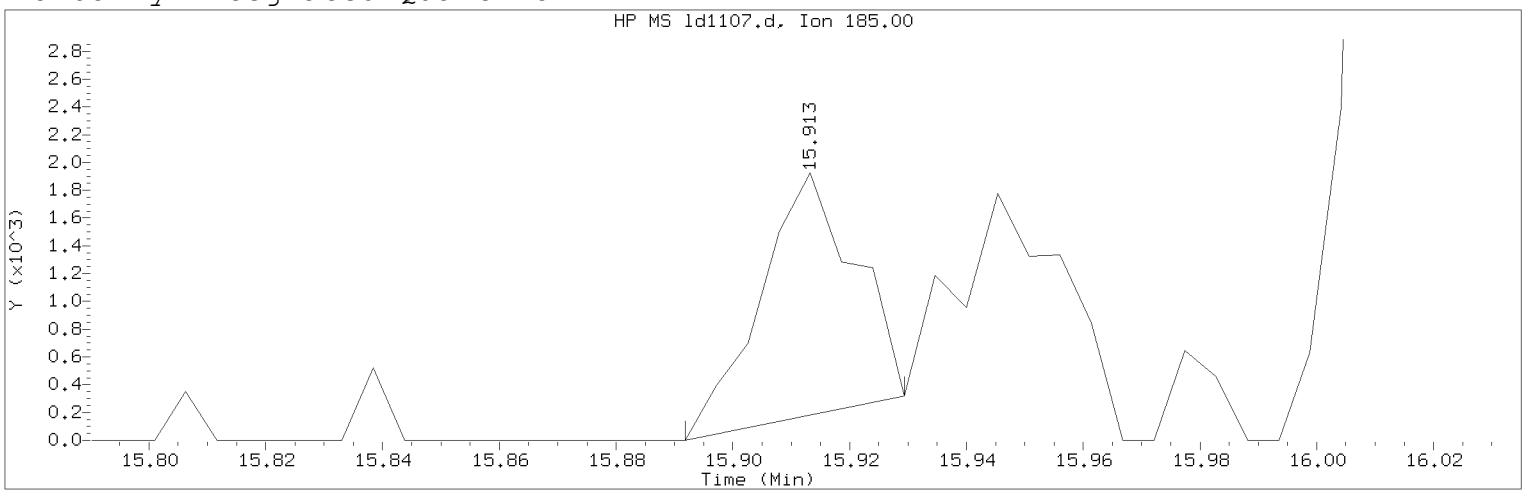
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2298
Retention Time (minutes) : 14.378
Quant Ion : 97.00
Area : 2635
On-column Amount (ng/ul) : 0.5227
Integration start scan : 2292 Integration stop scan: 2300
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 2.7

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

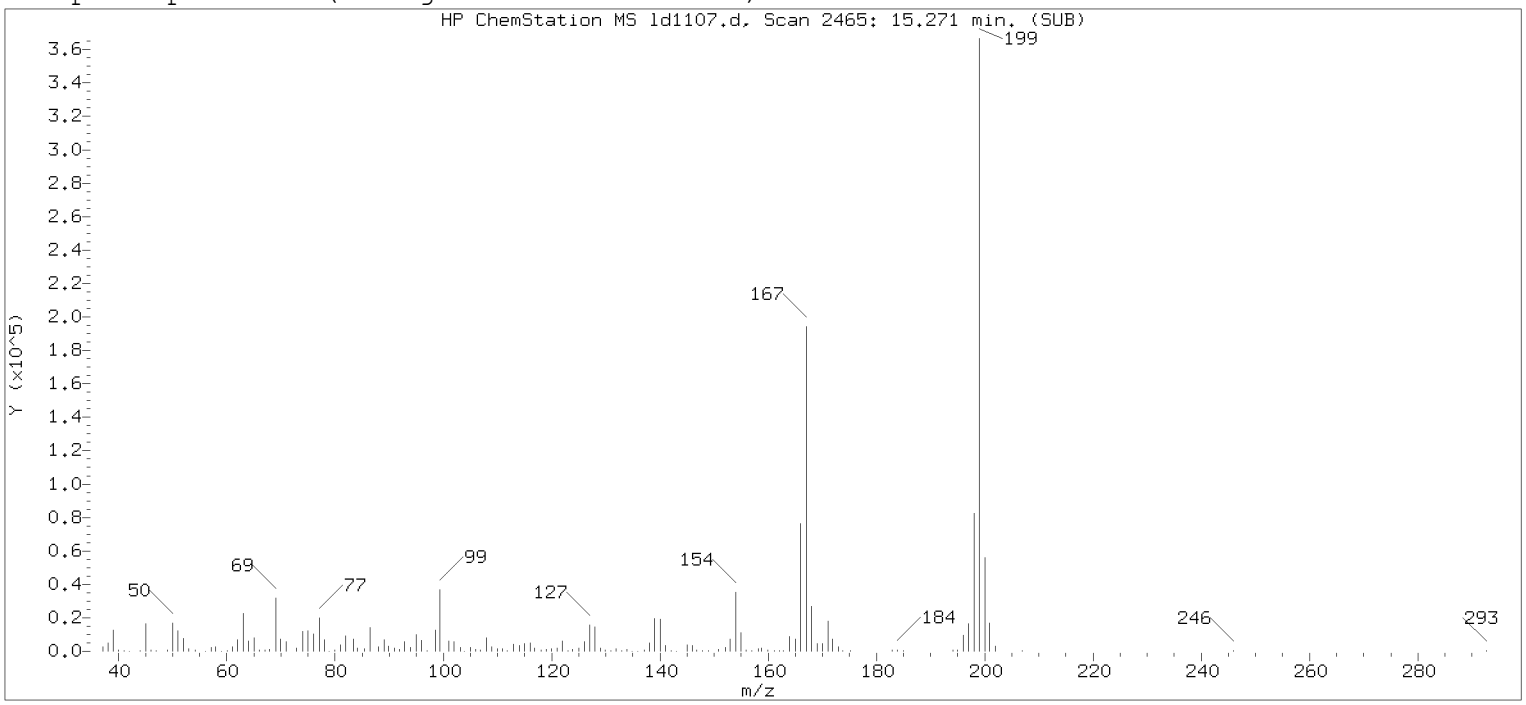
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2585
Retention Time (minutes) : 15.913
Quant Ion : 185.00
Area (flag) : 1956M
On-Column Amount (ng/ul) : 0.3434
Integration start scan : 2580 Integration stop scan: 2587
Y at integration start : 0 Y at integration end: 319

Reason for manual integration: improper integration

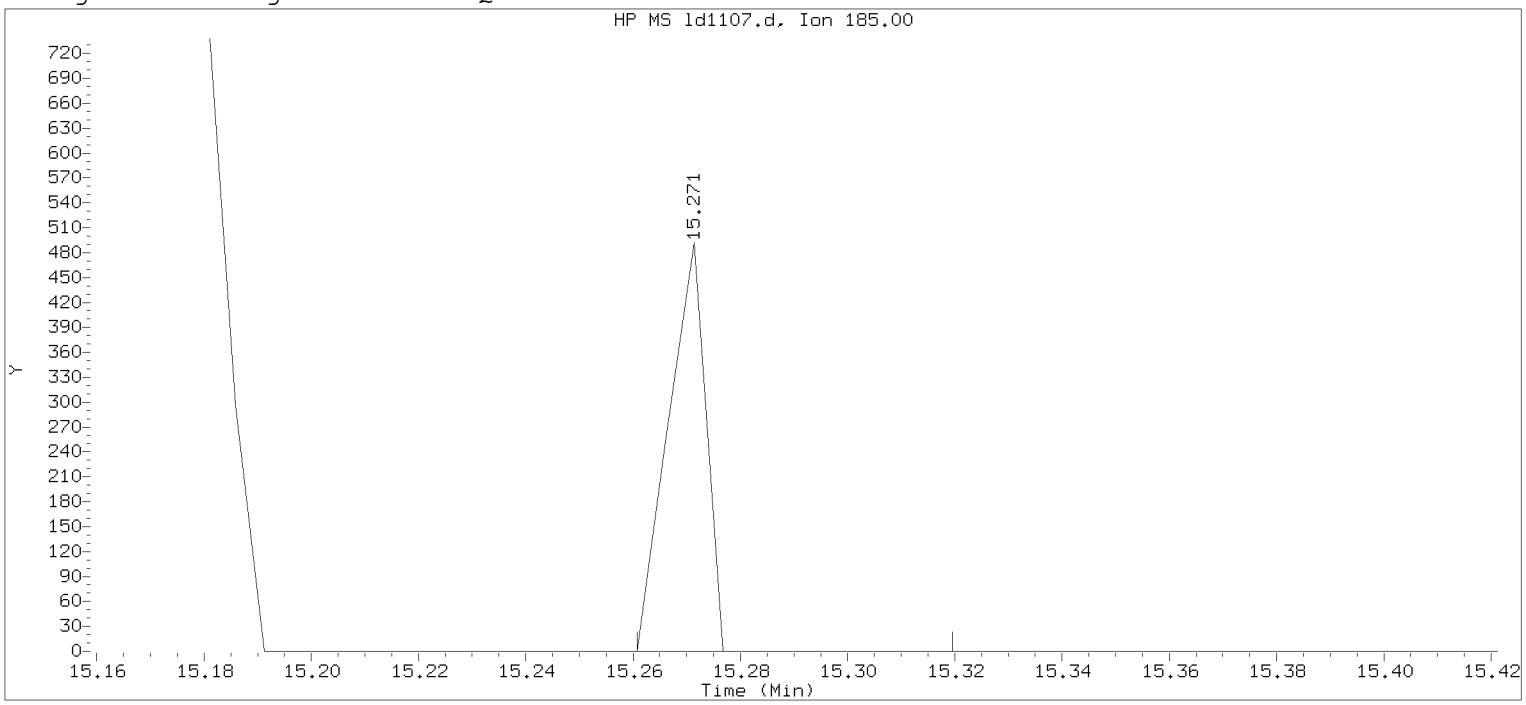
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

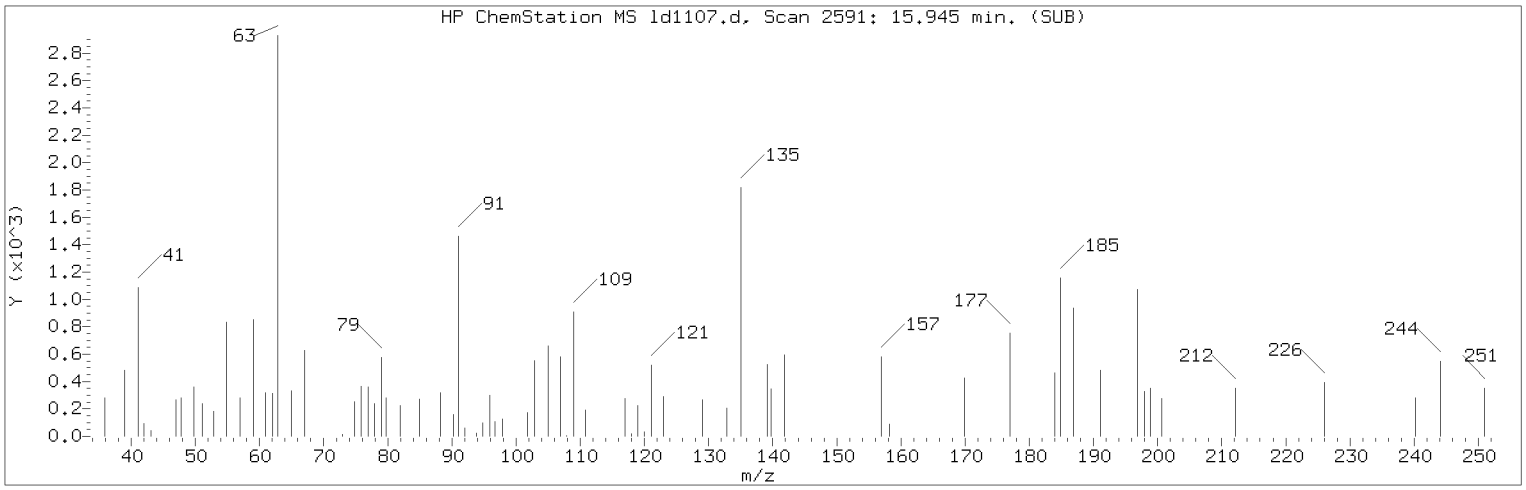
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

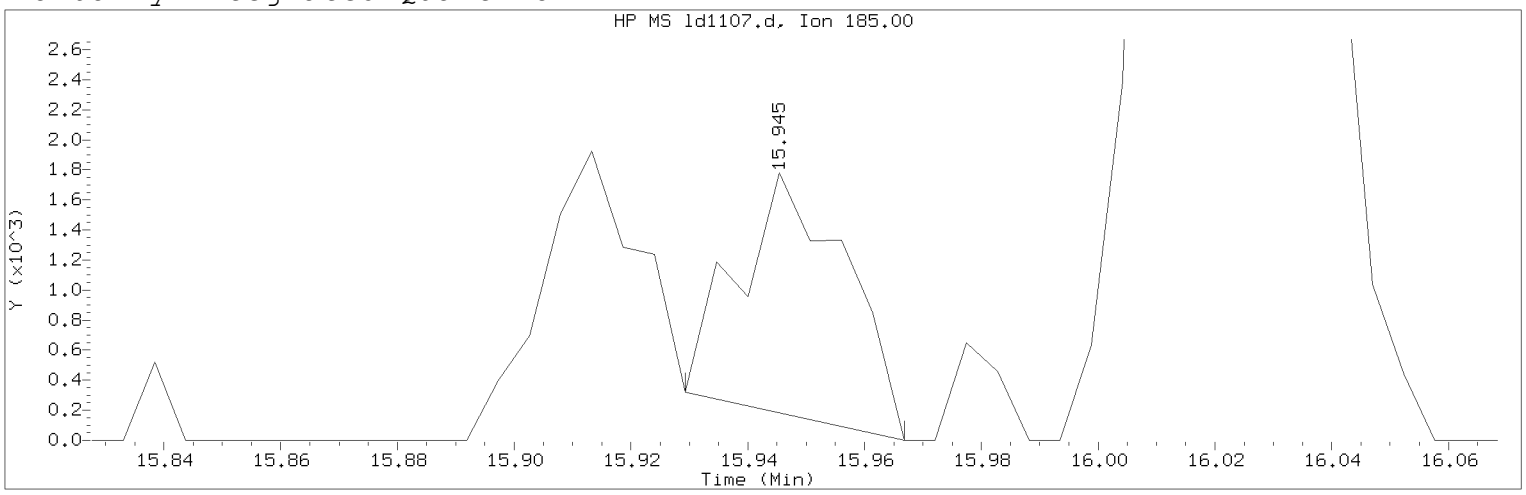
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2465
Retention Time (minutes) : 15.271
Quant Ion : 185.00
Area : 238
On-column Amount (ng/ul) : 0.1676
Integration start scan : 2462 Integration stop scan: 2473
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. Page 2289

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

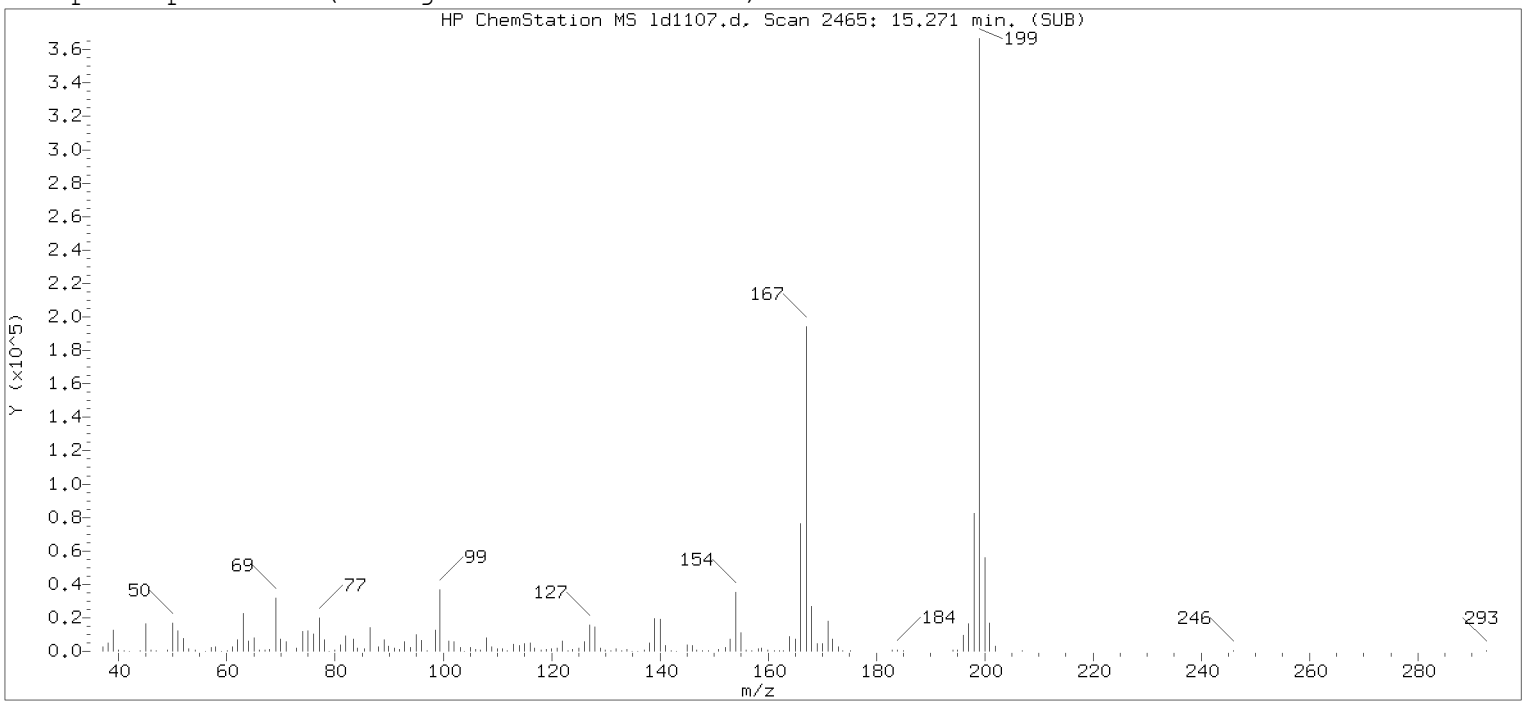
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2591
Retention Time (minutes) : 15.945
Quant Ion : 185.00
Area (flag) : 2078M
On-Column Amount (ng/ul) : 0.2938
Integration start scan : 2587 Integration stop scan: 2594
Y at integration start : 319 Y at integration end: 0

Reason for manual integration: improper integration

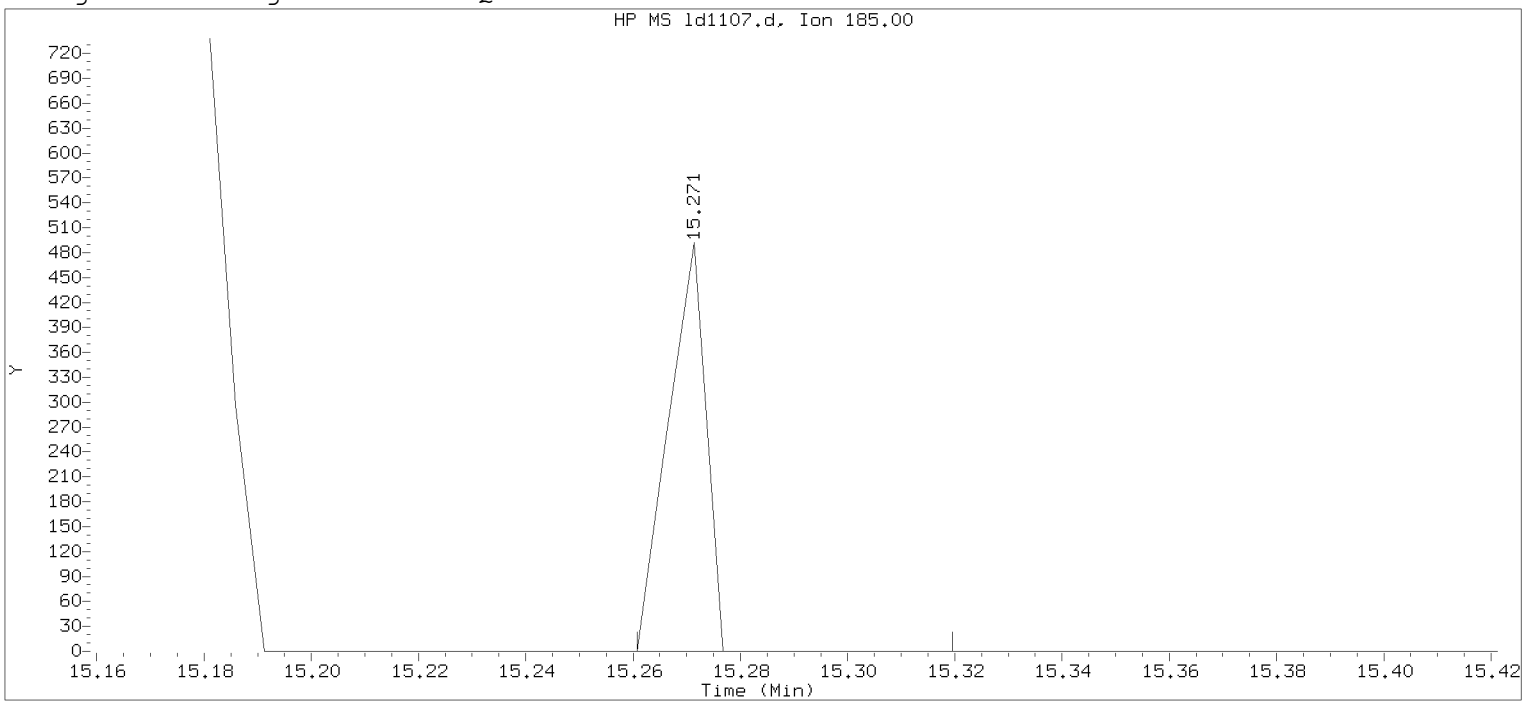
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

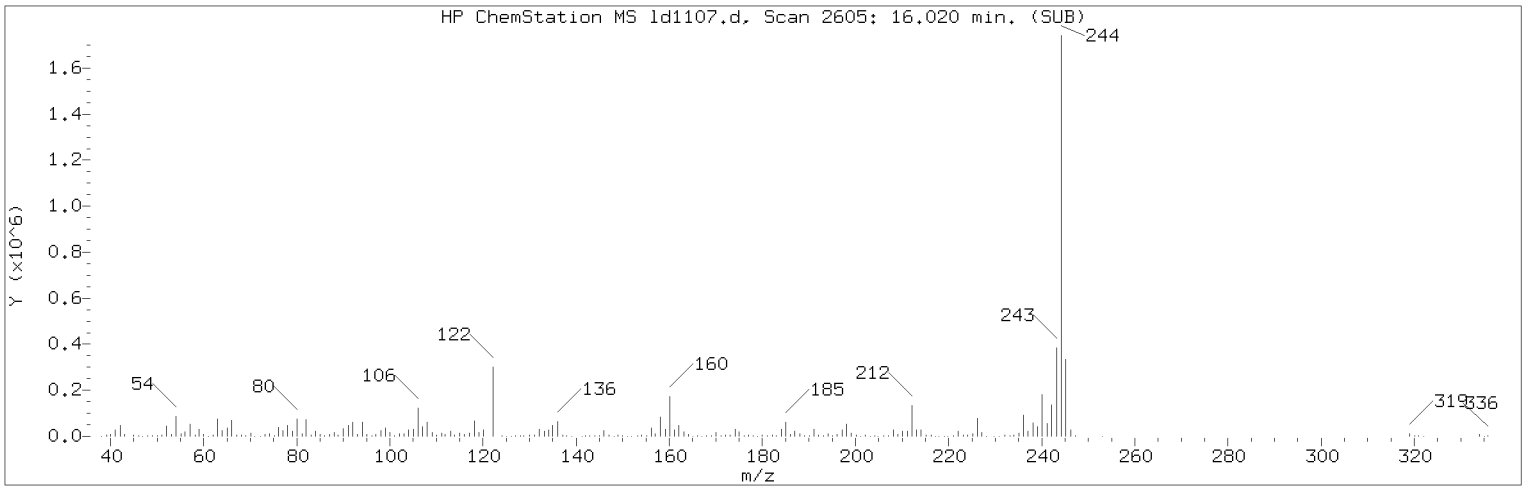
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

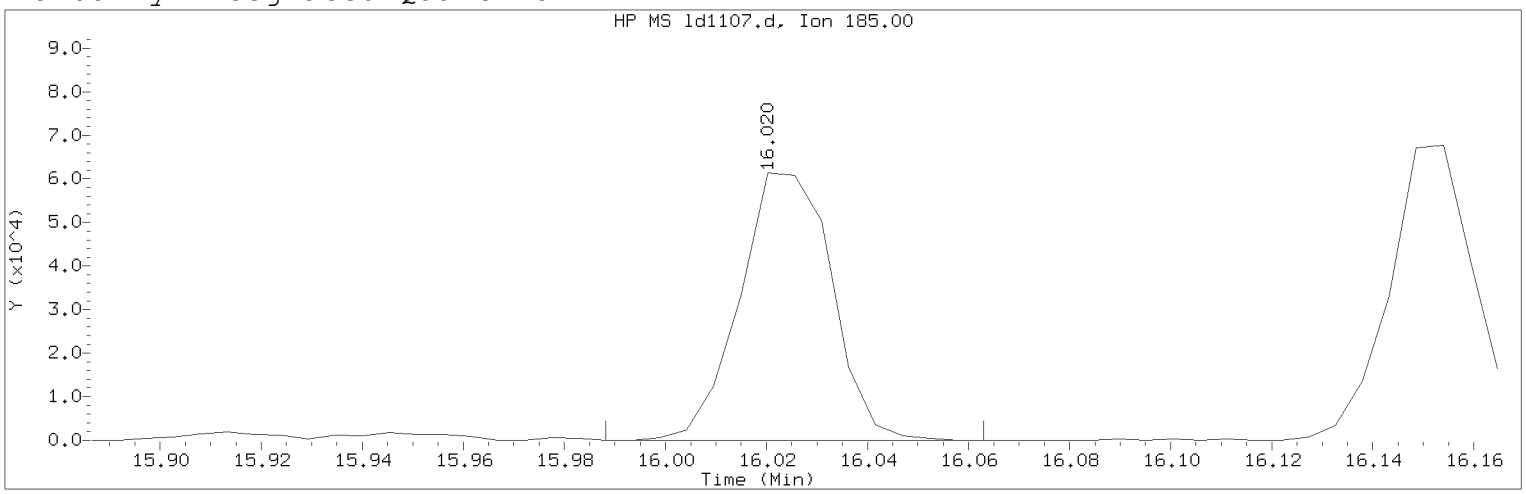
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2465
Retention Time (minutes) : 15.271
Quant Ion : 185.00
Area : 238
On-column Amount (ng/ul) : 0.1350
Integration start scan : 2462 Integration stop scan: 2473
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 2.1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

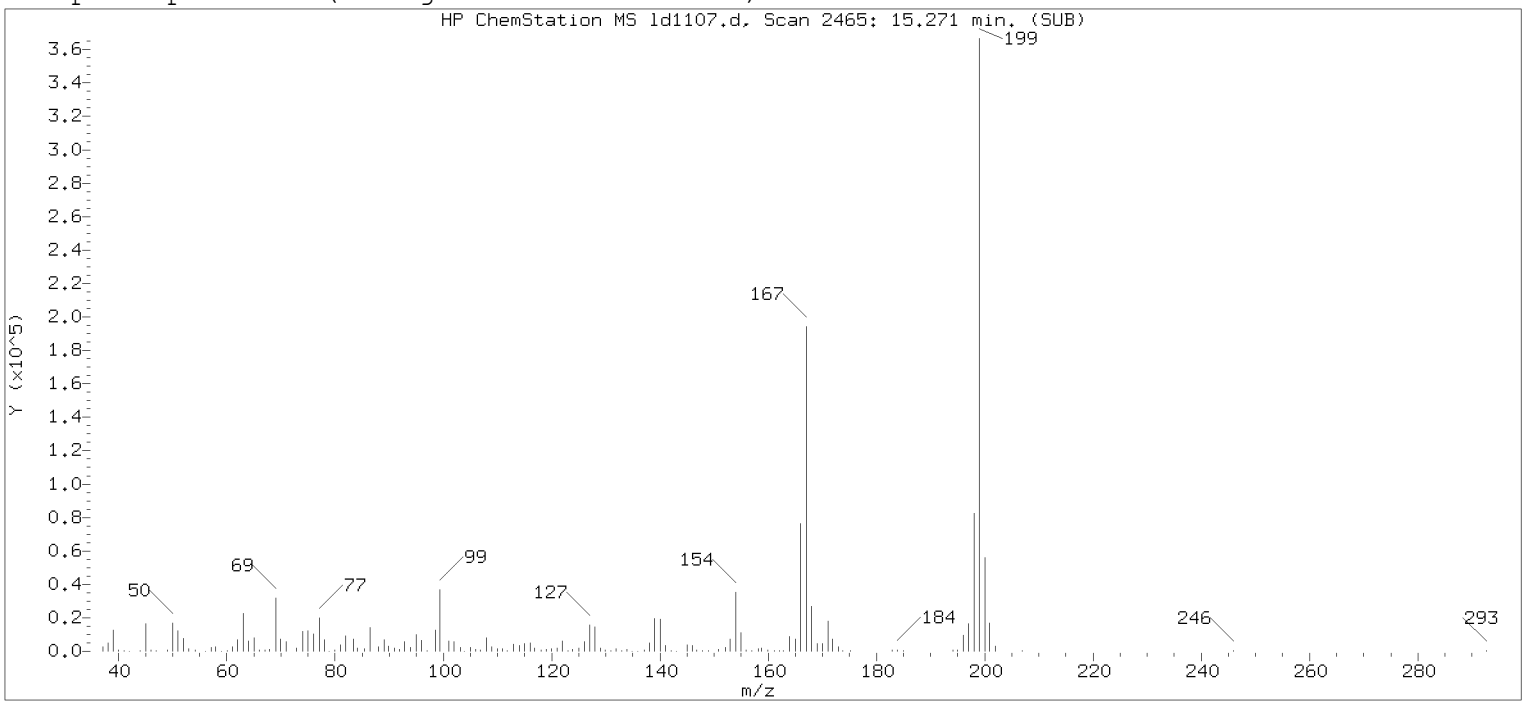
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2605
Retention Time (minutes) : 16.020
Quant Ion : 185.00
Area (flag) : 77902M
On-Column Amount (ng/ul) : 2.0330
Integration start scan : 2598 Integration stop scan: 2612
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

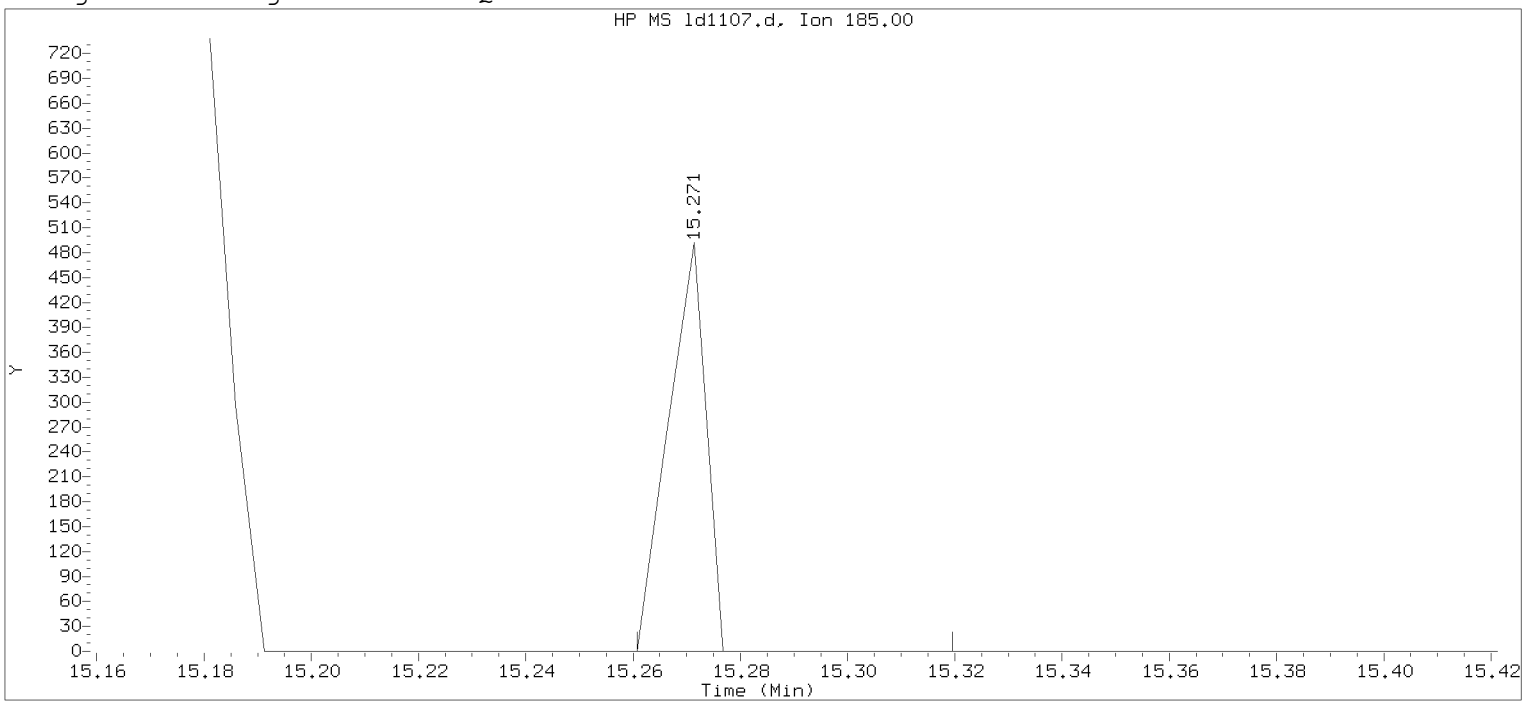
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

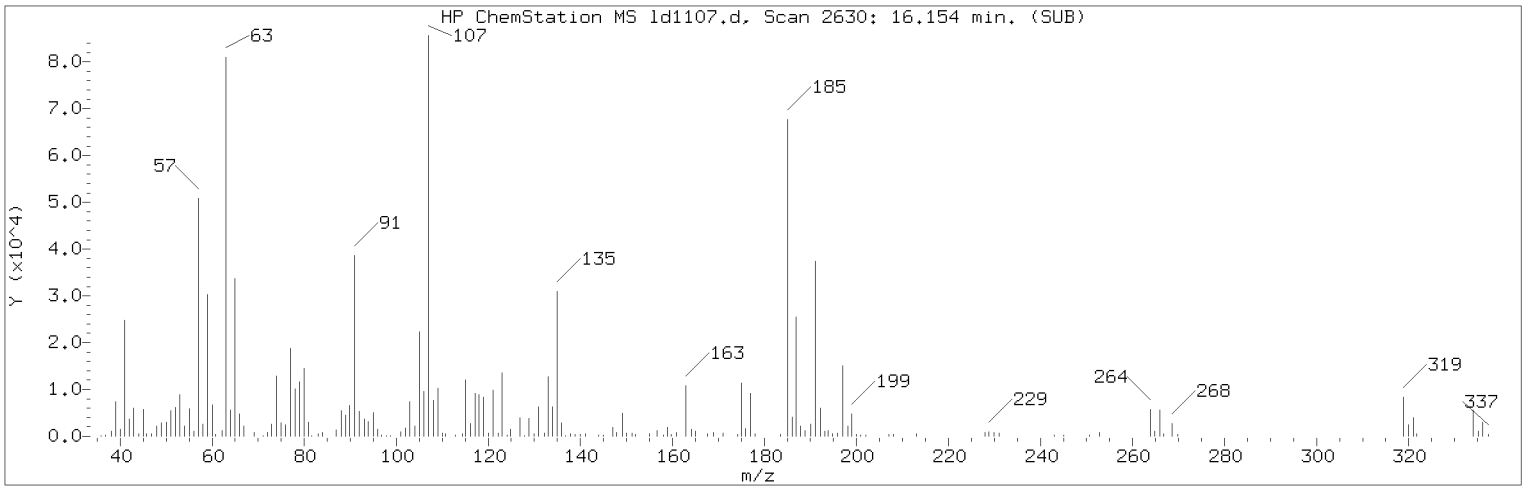
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

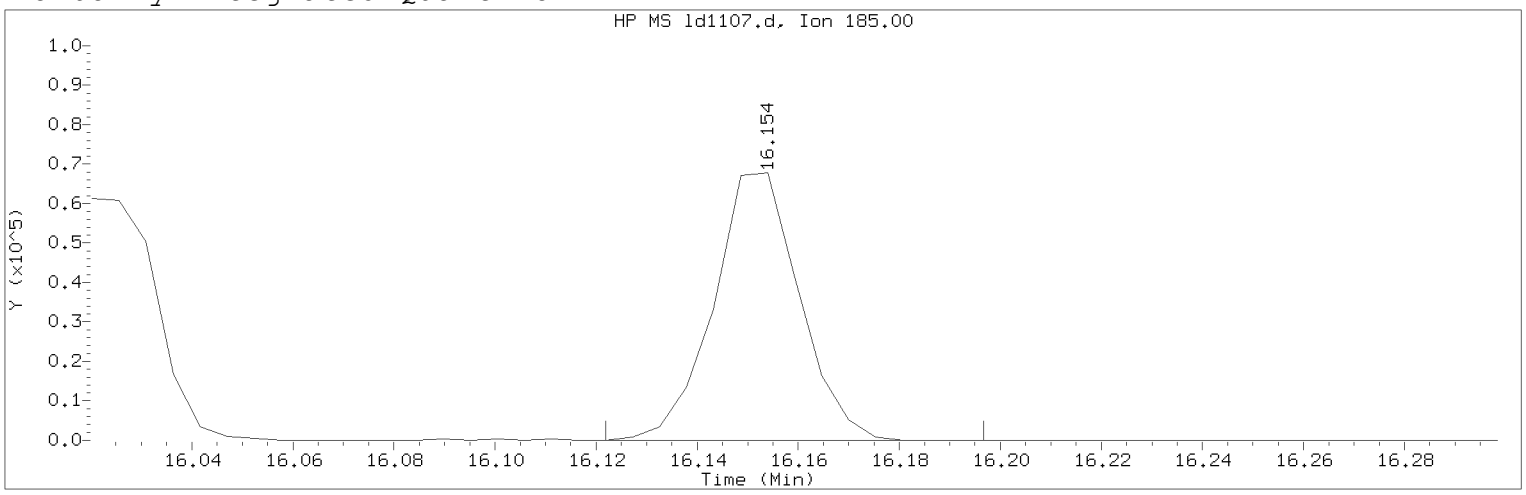
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2465
Retention Time (minutes) : 15.271
Quant Ion : 185.00
Area : 238
On-column Amount (ng/ul) : 0.0016
Integration start scan : 2462 Integration stop scan: 2473
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 5.0.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

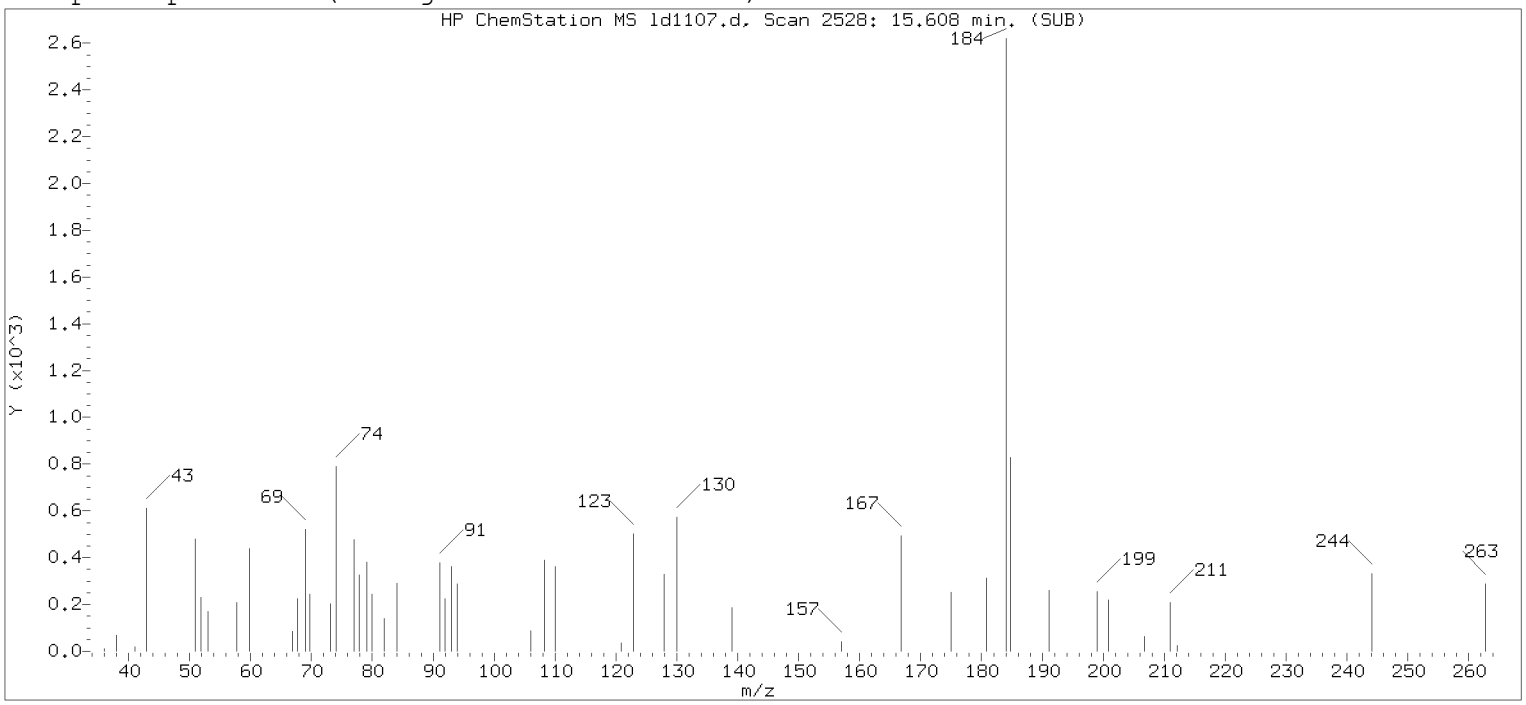
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2630
Retention Time (minutes) : 16.154
Quant Ion : 185.00
Area (flag) : 80094M
On-Column Amount (ng/ul) : 1.5651
Integration start scan : 2623 Integration stop scan: 2637
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

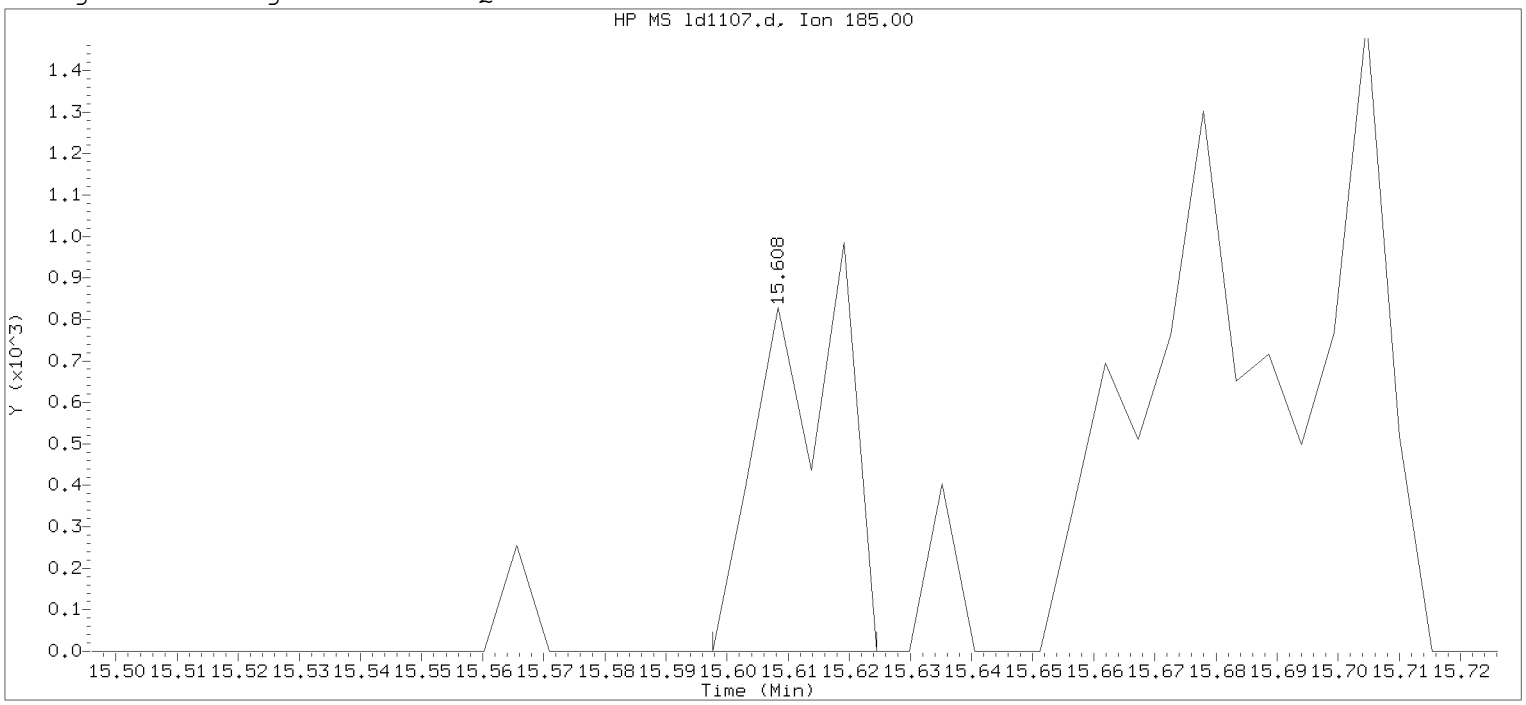
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

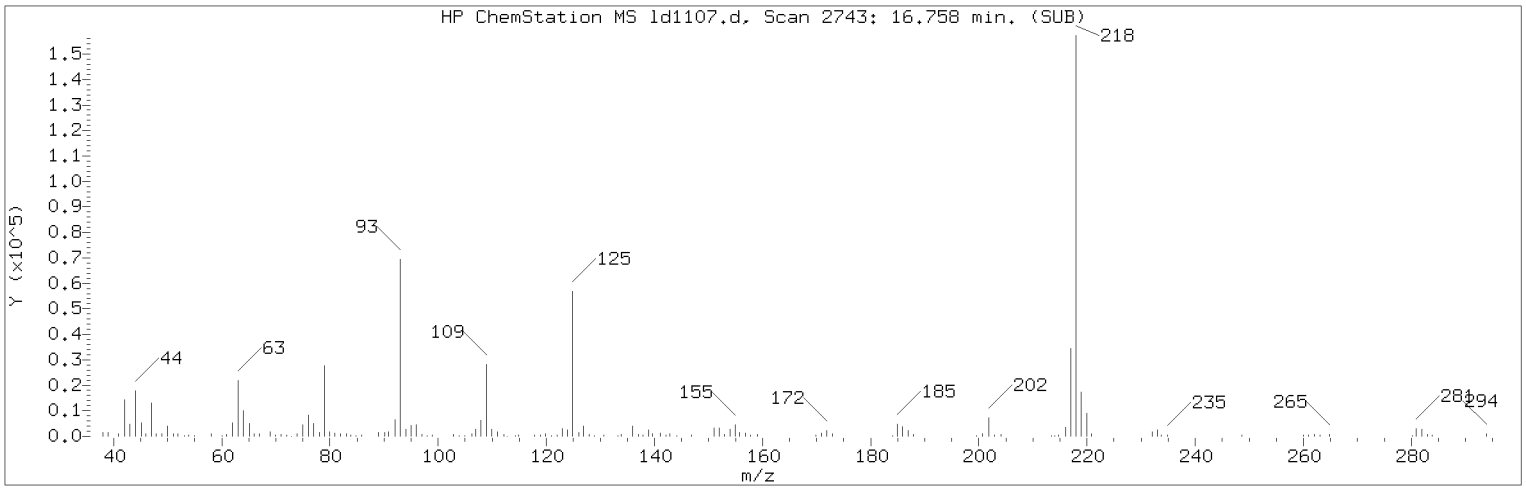
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

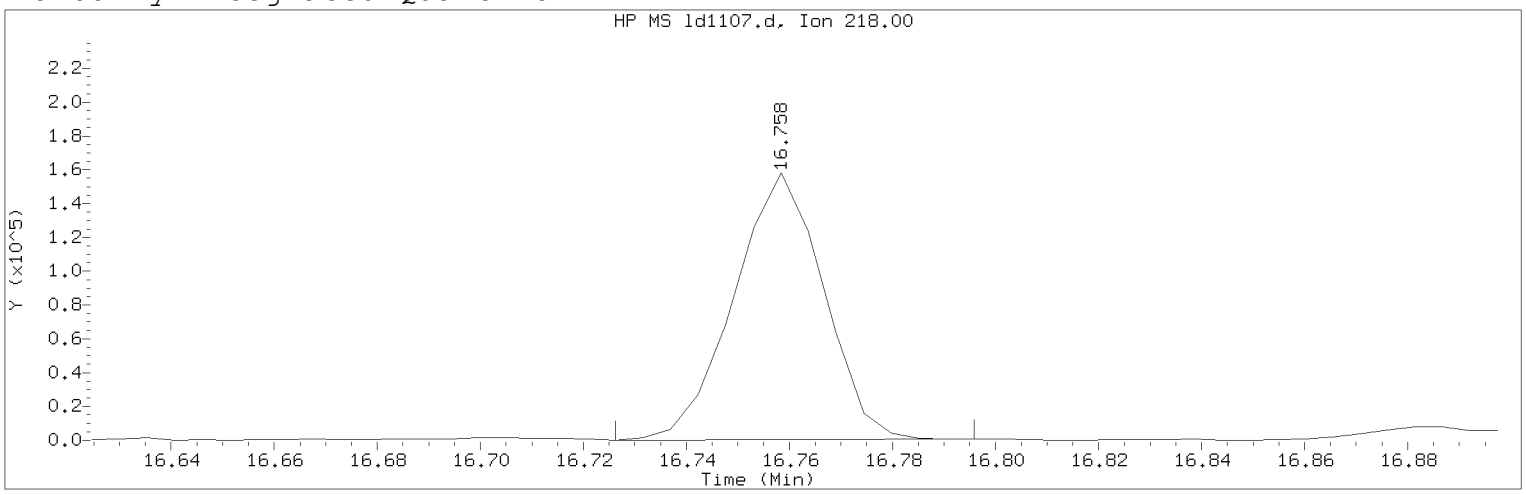
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2528
Retention Time (minutes) : 15.608
Quant Ion : 185.00
Area : 848
On-column Amount (ng/ul) : 0.0041
Integration start scan : 2525 Integration stop scan: 2530
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 5.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

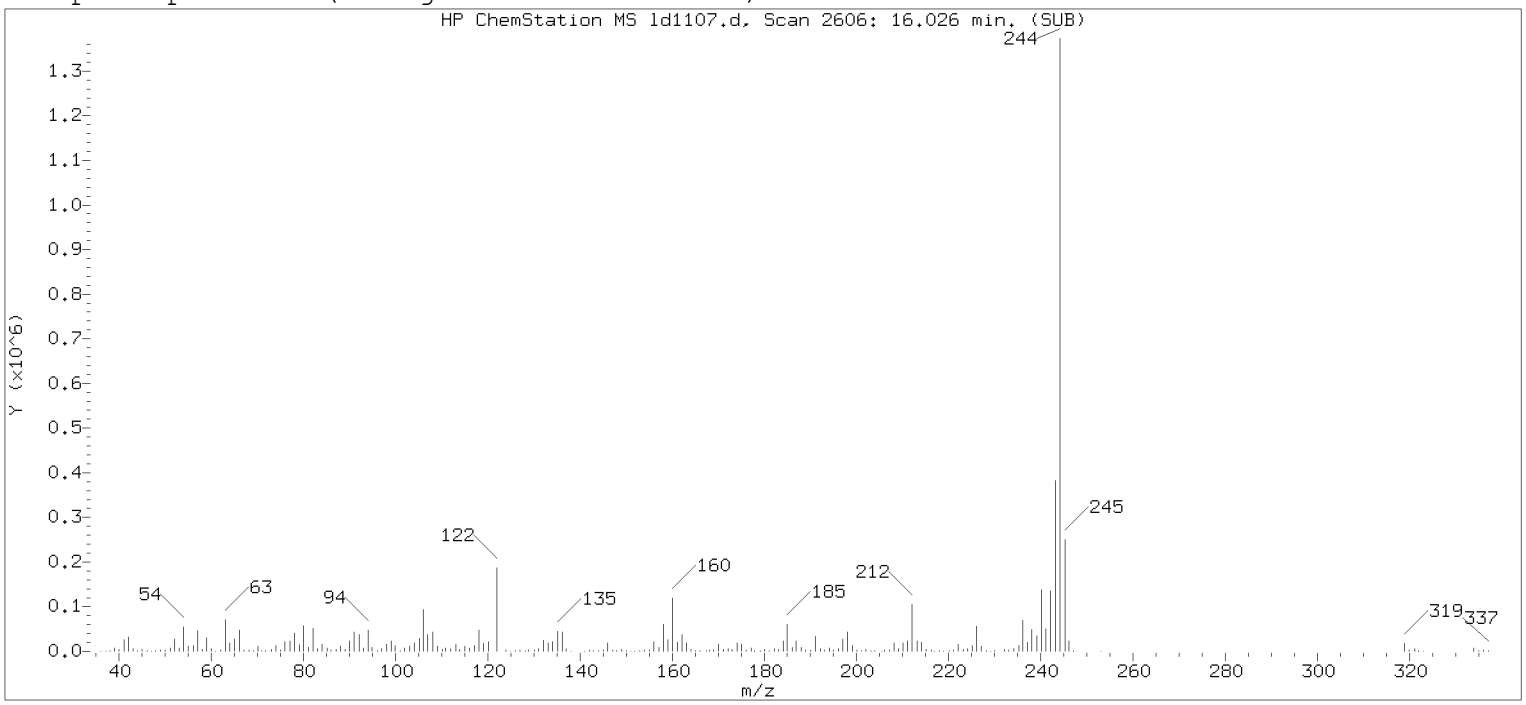
Compound Number : 194
Compound Name : Famphur
Scan Number : 2743
Retention Time (minutes) : 16.758
Quant Ion : 218.00
Area (flag) : 190235M
On-Column Amount (ng/ul) : 4.8896
Integration start scan : 2736 Integration stop scan: 2749
Y at integration start : 0 Y at integration end: 588

Reason for manual integration: improper integration

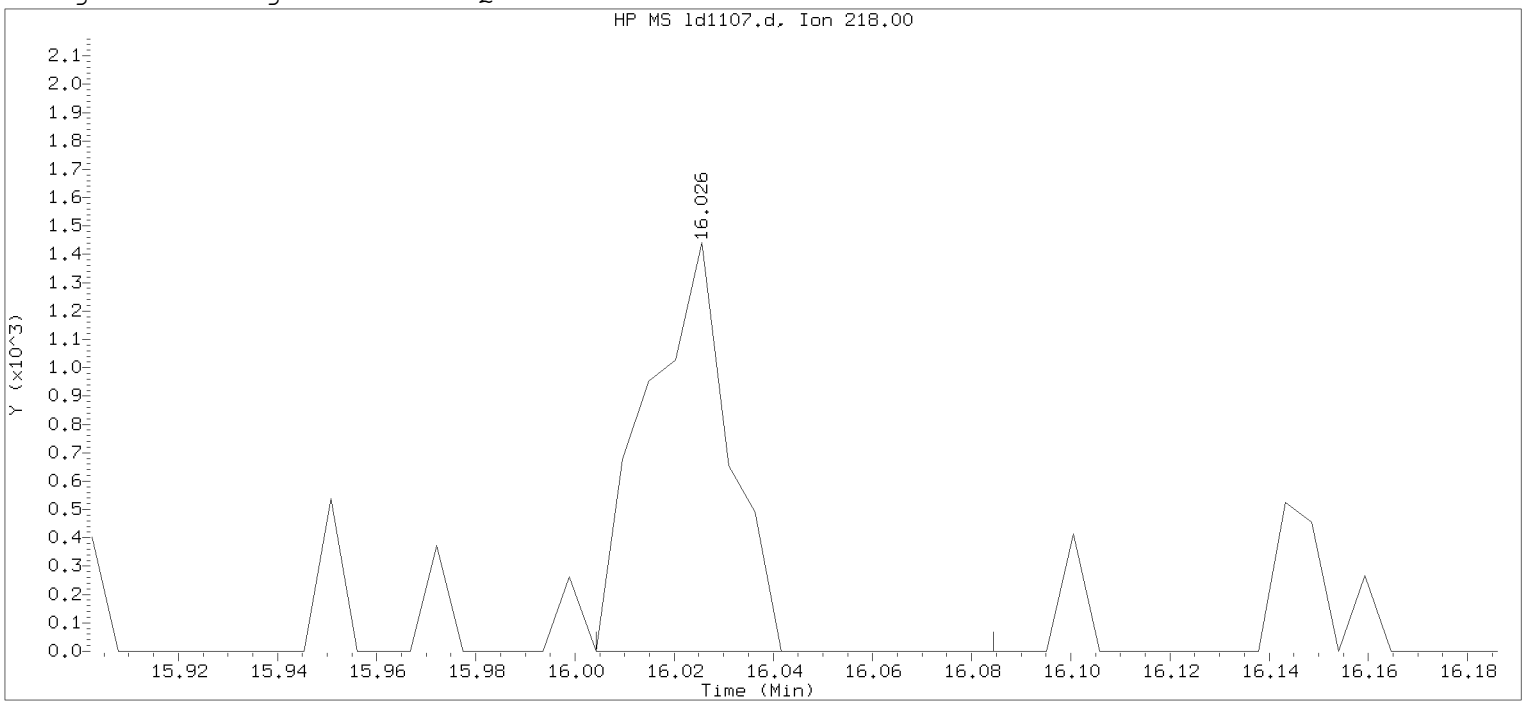
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

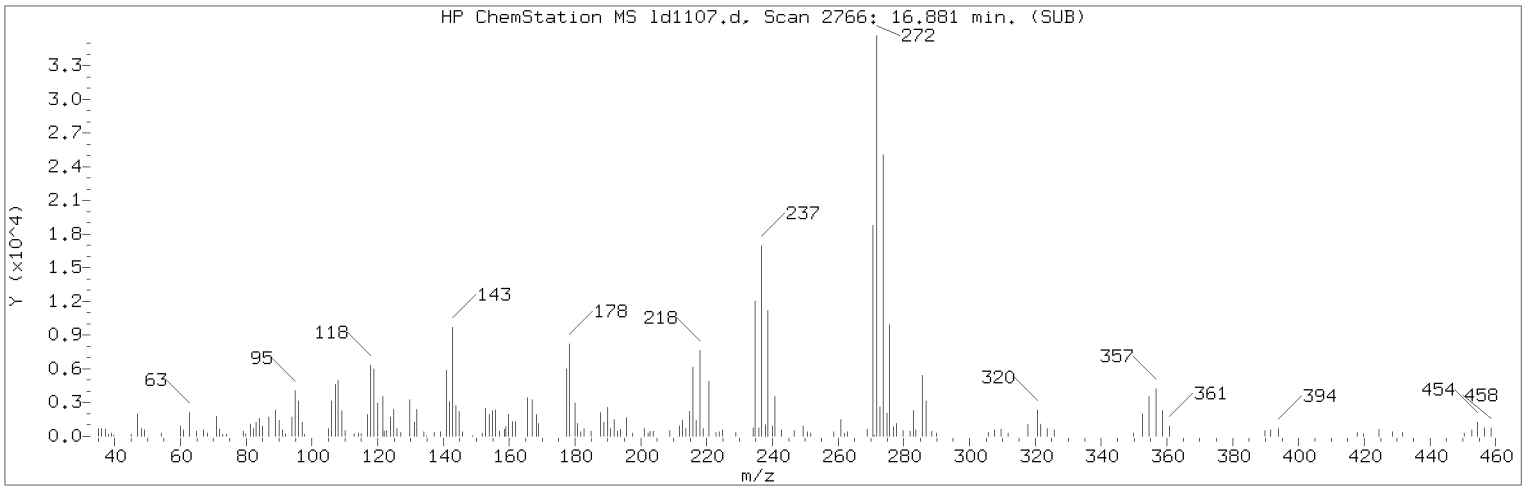
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

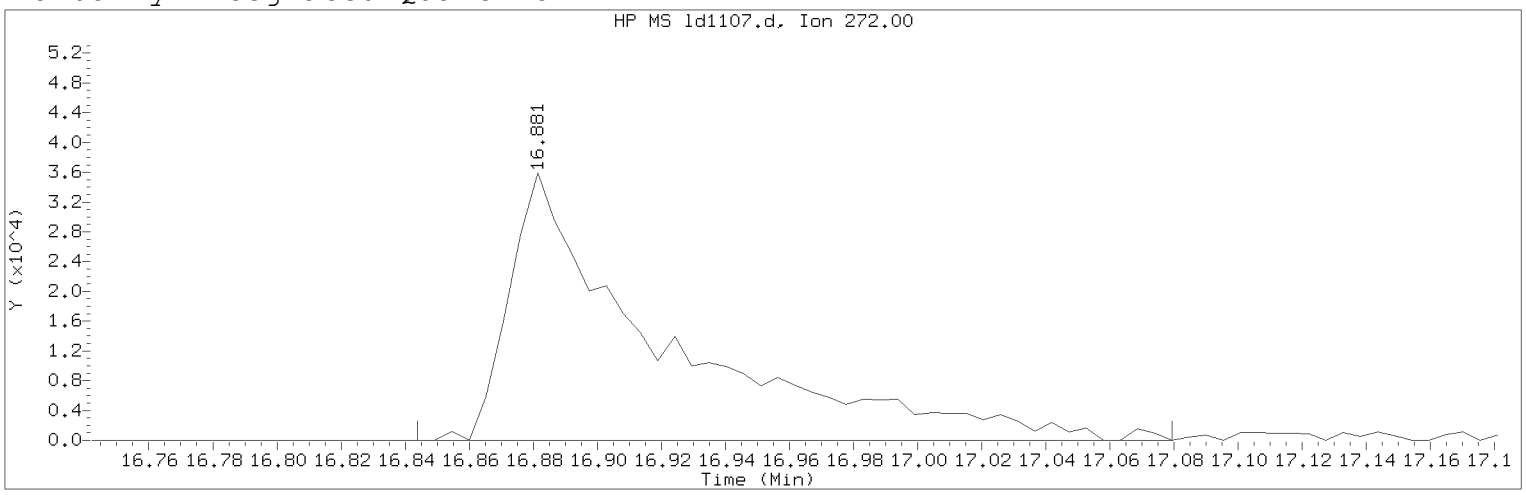
Compound Number : 194
Compound Name : Famphur
Scan Number : 2606
Retention Time (minutes) : 16.026
Quant Ion : 218.00
Area : 1682
On-column Amount (ng/ul) : 0.0432
Integration start scan : 2601 Integration stop scan: 2616
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Page 2297

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:08 hbz01996

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

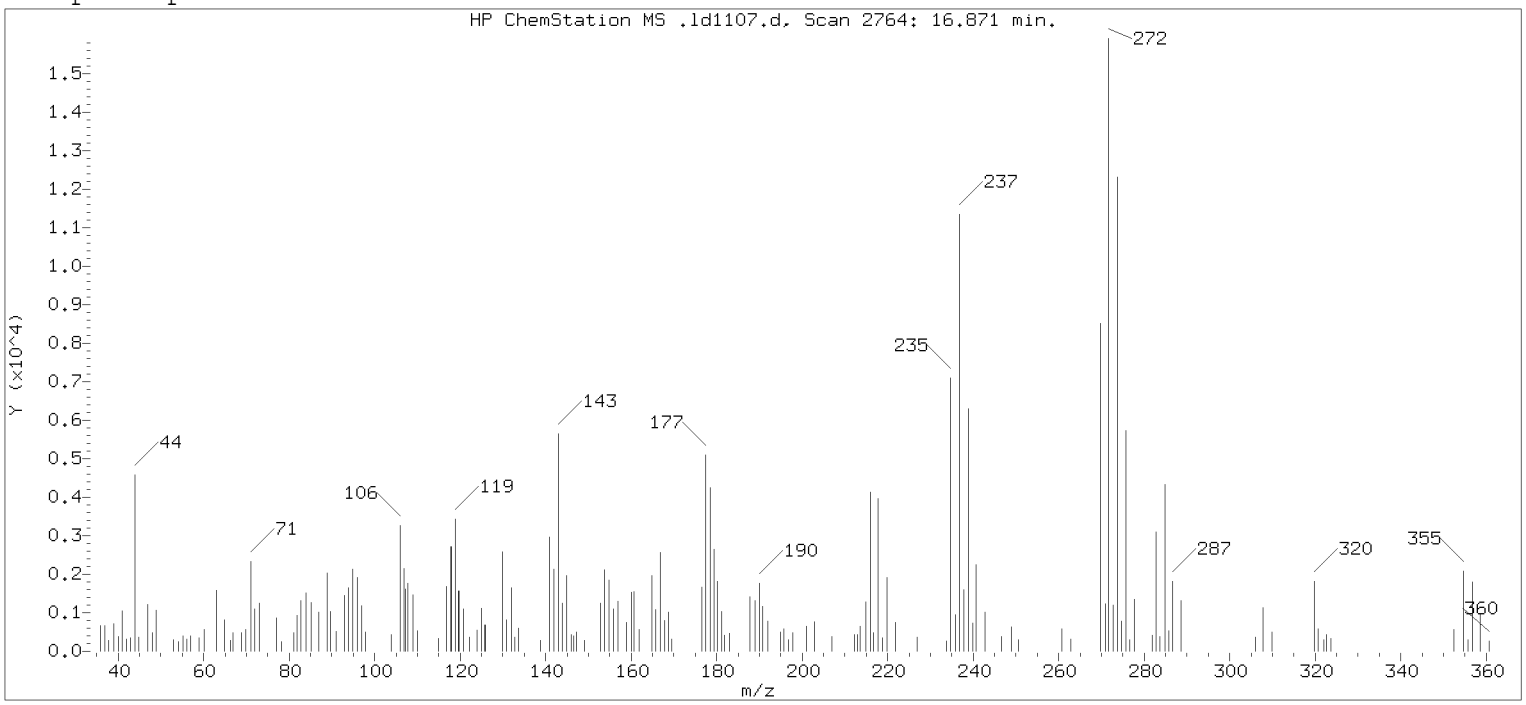
Compound Number : 195
Compound Name : Kepone
Scan Number : 2766
Retention Time (minutes) : 16.881
Quant Ion : 272.00
Area (flag) : 117443M
On-Column Amount (ng/ul) : 9.1484
Integration start scan : 2758 Integration stop scan: 2802
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

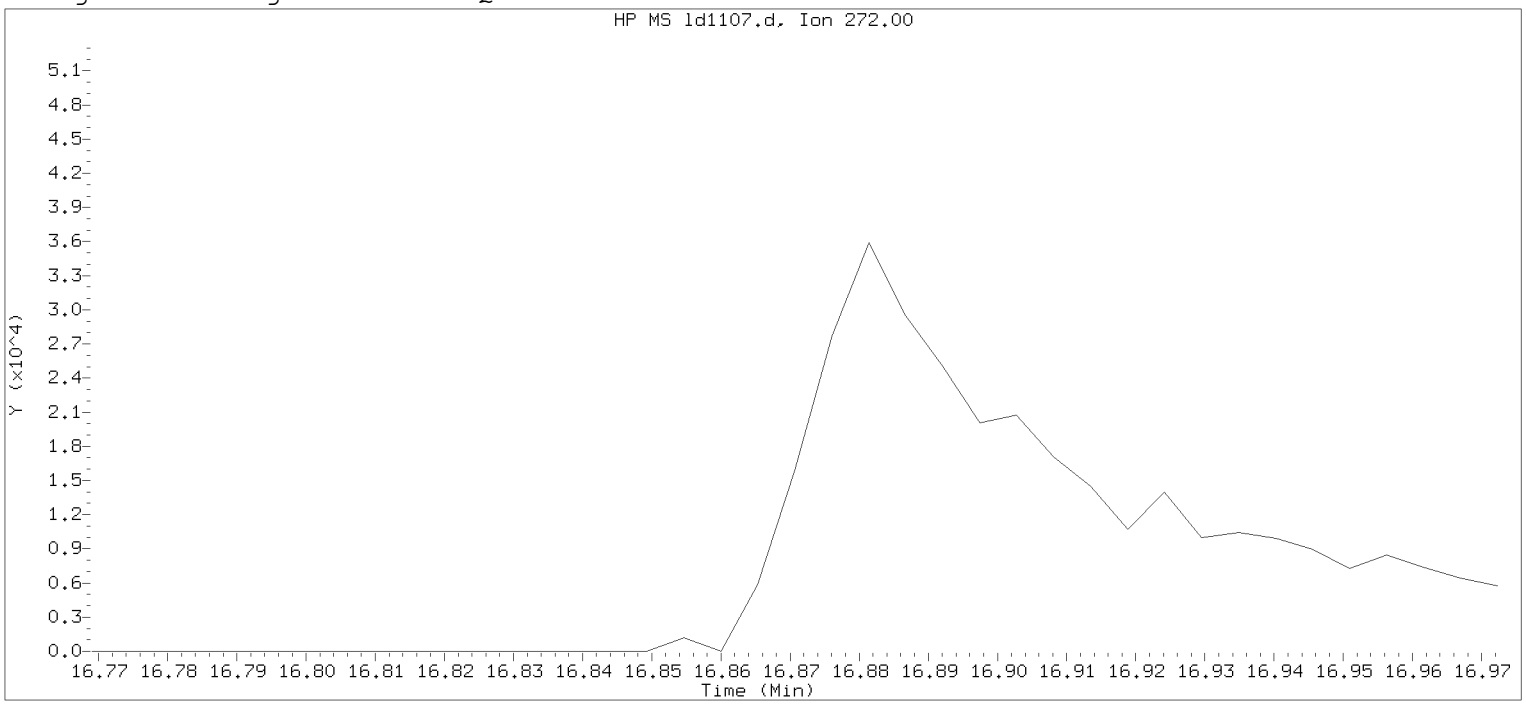
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:13.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1107.d Instrument ID: HP20296.i
Injection date and time: 18-APR-2019 23:33 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:58 knb25316

Sample Name: 107WJLCS2 Lab Sample ID: 107WJLCS2

Compound Number : 195
Compound Name : Kepone
Expected RT (minutes) : 16.871
Quant Ion : 272.00

Digitally signed by Kira N. Beck on 04/24/2019 at 11:13.
Target 3.5 esignature used. F35 Rev 5.0

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

107WJLCSD2

Data file: /chem/HP20296.i/19apr18a.b/ld1108.d
Injection date and time: **19-APR-2019 00:02**
Data file Sample Info. Line: 107WJLCSD2;107WJLCSD2;1;3;LCSD;;RAAP;
Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC107WJMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) 1,4-Dichlorobenzene-d4	6.922	(0.000)	904	152	176304	(-11)	5.00	
68) Naphthalene-d8	8.901	(0.005)	1274	136	684980	(-11)	5.00	
118) Acenaphthene-d10	11.736	(0.000)	1804	164	320252	(-12)	5.00	
158) Phenanthrene-d10	13.661	(0.000)	2164	188	594150	(-12)	5.00	
180) Pyrene-d10	15.699	(0.000)	2545	212	556722	(-18)	5.00	
218) Perylene-d12	20.267	(0.005)	3399	264	523853	(-18)	5.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
12) 2-Fluorophenol	(1)	5.013	(-0.002)	112	1673087	29.553	59%
18) Phenol-d6	(1)	6.398	(-0.001)	99	1862313	24.791	50%
45) Nitrobenzene-d5	(2)	7.773	(-0.001)	82	1483785	21.838	87%
96) 2-Fluorobiphenyl	(3)	10.688	(0.000)	172	1800469	17.516	70%
140) 2,4,6-Tribromophenol	(3)	12.774	(0.000)	330	574113	44.324	89%
184) Terphenyl-d14	(5)	16.020	(0.000)	244	2193219	24.115	96%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
9) N-Nitrosomethylethylamine	(1)	4.301	(-0.000)	88	318689	11.055	44.22			0.5
10) Methyl methanesulfonate	(1)	4.756	(-0.000)	80	340426	9.585	38.34			0.3
14) N-Nitrosodiethylamine	(1)	5.339	(-0.000)	102	311704	11.227	44.91			0.1
16) Ethyl methanesulfonate	(1)	5.794	(-0.000)	109	316788	10.743	42.97			0.1
36) N-Nitrosopyrrolidine	(1)	7.500	(0.000)	100	345627	11.828	47.31			0.1
40) N-Nitrosomorpholine	(1)	7.569	(0.000)	56	375106	10.707	42.83			0.5
50) N-Nitrosopiperidine	(2)	8.035	(-0.000)	114	306725	11.409	45.64			0.1
59) O,O,O-Triethylphosphorothioate	(2)	8.532	(0.000)	198	249968	10.725	42.90			0.5
67) a,a-Dimethylphenethylamine	(2)	8.655	(-0.001)	58	1658901M	36.244	144.98		E	1
71) 2,6-Dichlorophenol	(2)	9.051	(-0.000)	162	418148	10.164	40.66			0.1
72) Hexachloropropene	(2)	9.094	(-0.000)	213	77159	2.729	10.92			0.5
80) N-Nitrosodi-n-butylamine	(2)	9.623	(-0.000)	84	528961	11.288	45.15			3
84) 1,4-Phenylenediamine	(2)				Not Detected					19
85) Safrole	(2)	9.949	(-0.000)	162	365748	10.005	40.02			0.5
91) cis-Isosafrole	(3)	10.431	(-0.000)	162	50468	1.271	5.08			0.3
97) trans-Isosafrole	(3)	10.794	(0.000)	162	418938	9.376	37.51			0.3
100) Isosafrole	(3)				469406	10.648	42.59			0.3
108) 1,4-Naphthoquinone	(3)				Not Detected					6
122) Pentachlorobenzene	(3)	11.971	(0.000)	250	315313	8.506	34.03			0.1
130) Thionazin	(3)	12.479	(0.000)	107	259983	13.068	52.27			0.5
133) 5-Nitro-o-toluidine	(3)	12.495	(0.000)	152	306882	11.577	46.31			1
144) 1,3,5-Trinitrobenzene	(4)				Not Detected					24
145) Diallate (peak 1)	(4)	13.025	(-0.000)	86	509257	9.111	36.44			0.06
146) Phorate	(4)	13.036	(-0.000)	75	1029883	12.886	51.54			0.1
147) Phenacetin	(4)	13.046	(-0.000)	108	740095	12.767	51.07			0.1
149) Diallate (peak 2)	(4)	13.132	(0.000)	86	161474	3.493	13.97			0.06
151) Diallate trans/cis	(4)				670731	12.604	50.42			0.3

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14. Target 3.5 esignature user ID: knb25316

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP20296.i/19apr18a.b/ld1108.d Injection date and time: **19-APR-2019 00:02**
Data file Sample Info. Line: 107WJLCSD2;107WJLCSD2;1;3;LCSD;;RAAP; Instrument ID: **HP20296.i** Batch: **19107WAJ**
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Blank Data file reference: **/chem/HP20296.i/19apr18a.b/ld1105.d**

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: **QC107WJMb**
Calibration date and time (Last Method Edit): 24-APR-2019 10:13
Mid Level Daily Calibration Standard Reference: **/chem/HP20296.i/19apr18a.b/ld1101.d**

Matrix: WATER Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * DF * gpcf*(Uf * Vt/(Vo))

Dilution Factor (DF): 1 Unit Correction Factor (Uf): 1 Final Extract Volume (Vt): 1000 ul
Sample Volume (Vo): 250 ml Volume Injected (Vi): 1 ul

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
152) Dimethoate	(4)	13.228(-0.000)	87	290744	5.603	22.41			0.8
155) 4-Aminobiphenyl	(4)	13.437(-0.000)	169	955094	10.389	41.56			1
156) Pentachloronitrobenzene	(4)	13.437(-0.000)	237	128763	10.749	43.00			0.5
157) Pronamide	(4)	13.538(-0.000)	173	563228	13.340	53.36			0.1
167) Disulfoton	(4)	13.704(0.000)	88	1640214M	28.762	115.05			6
169) Methyl parathion	(4)	14.191(0.000)	109	250720	6.691	26.76			0.3
172) Parathion	(4)	14.758(-0.000)	109	329070	13.597	54.39			1
173) 4-Nitroquinoline-1-oxide	(4)	14.785(-0.001)	190	2076653	116.121	464.48		E	5
175) Methapyrilene	(4)	14.918(-0.000)	97	5748863M	116.175	464.70		E	4
176) Isodrin	(4)	15.164(0.000)	193	176013	10.518	42.07			0.1
185) Aramite (1)	(5)	15.913(-0.000)	185	2489M	0.442	1.77		J	0.3
186) Aramite (2)	(5)			Not Detected					0.3
188) Aramite (3)	(5)	16.025(-0.000)	185	80330M	2.120	8.48			0.3
189) Aramite (4)	(5)	16.154(0.000)	185	84779M	1.675	6.70			0.3
191) Aramite	(5)			167598	4.237	16.95			1
187) p-Dimethylaminoazobenzene	(5)	16.255(-0.000)	225	325126	13.411	53.64			1
190) Chlorobenzilate	(5)	16.352(0.000)	139	573034	11.707	46.83			0.8
194) Famphur	(5)			Not Detected					6
195) Kepone	(5)	16.887(-0.001)	272	122933M	9.684	38.74		J	6
196) 2-Acetylaminofluorene	(5)	17.245(-0.000)	181	774486	12.592	50.37			3
220) 3-Methylcholanthrene	(6)	20.764(-0.000)	268	786664	12.697	50.79			1

M = Compound was manually integrated. E = Compound concentration above calibration range.

Total number of targets = 48

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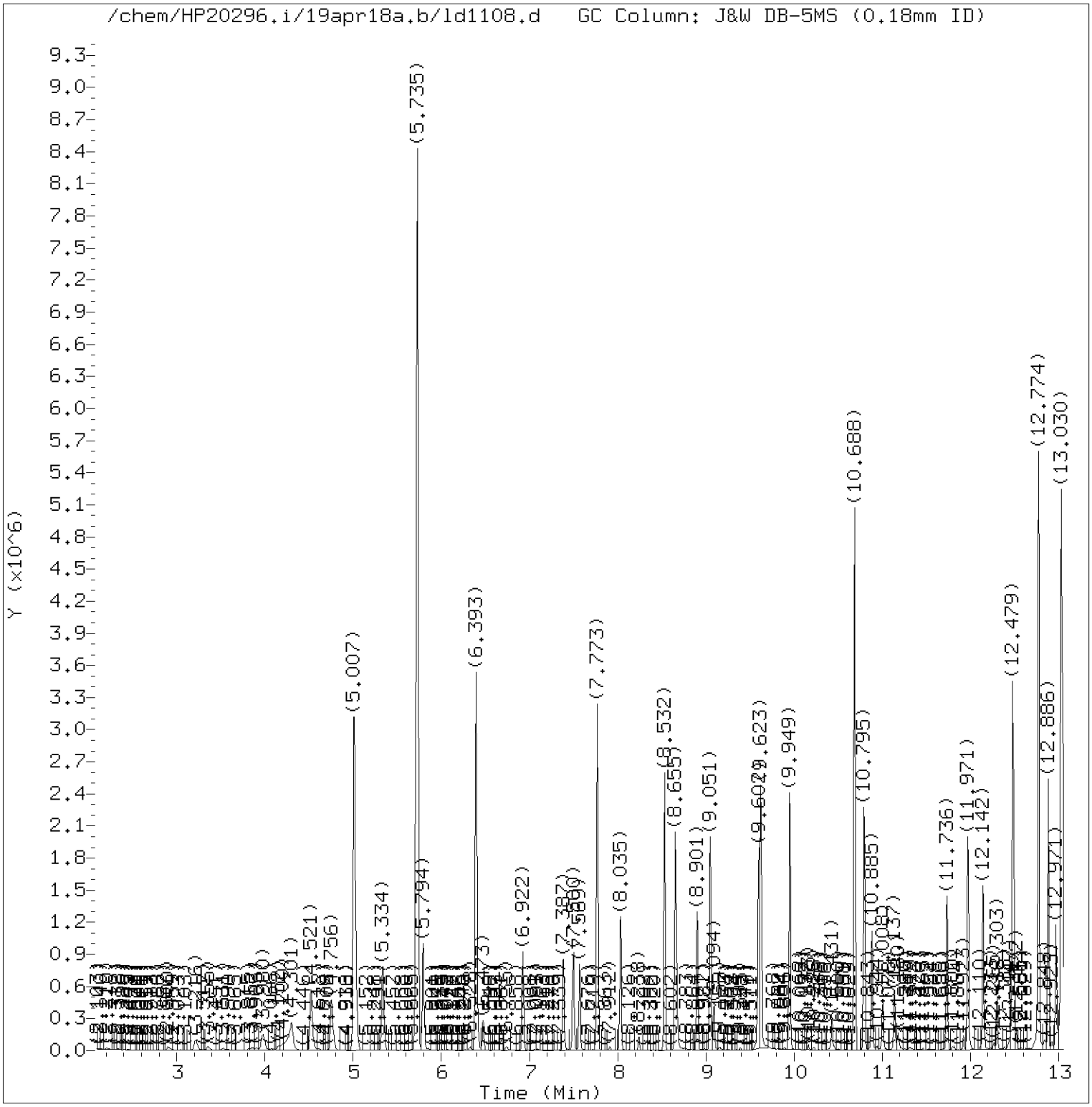
Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

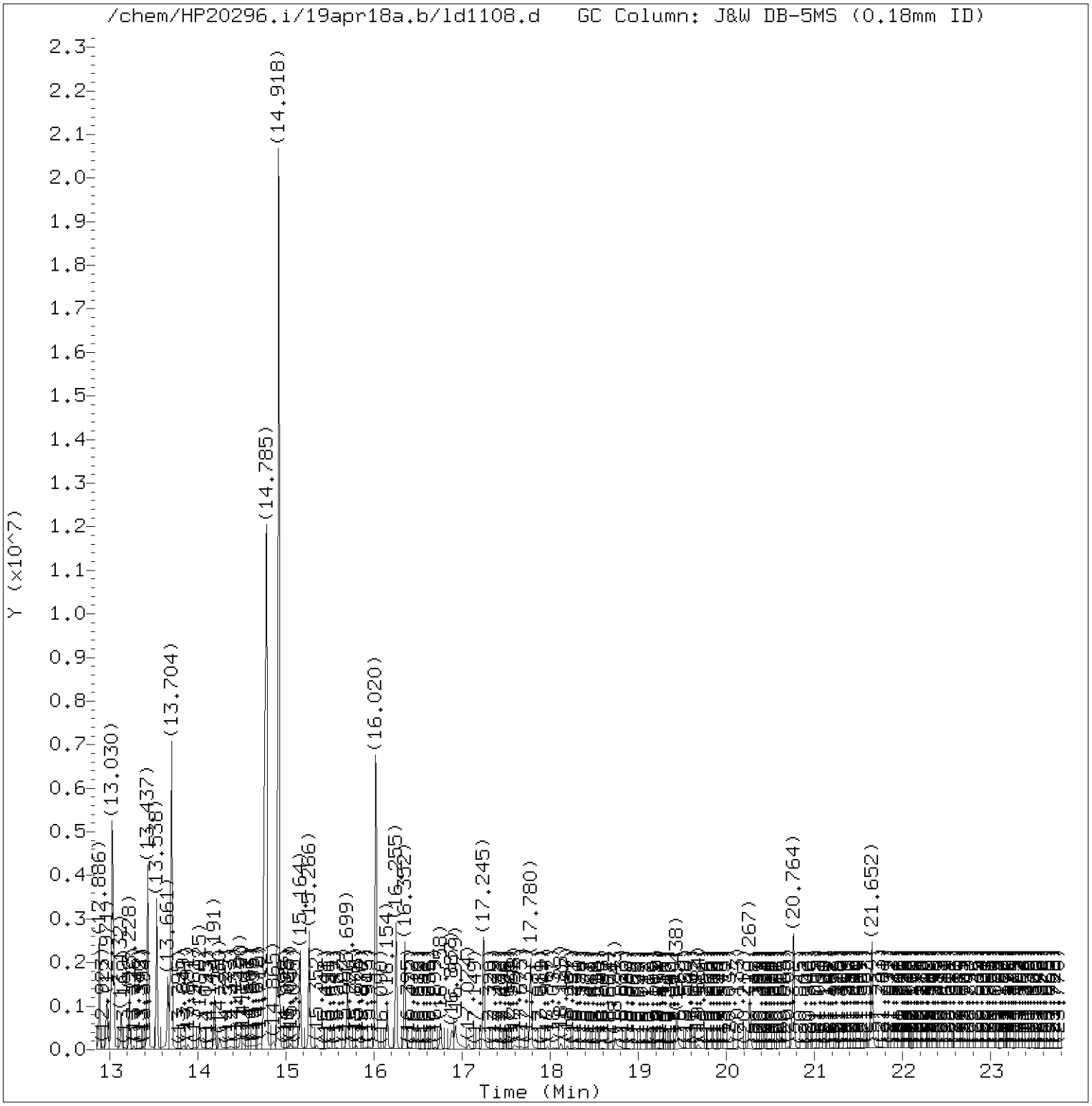
Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
9) N-Nitrosomethylethylamine	(1)	4.301	88	318689	11.055
10) Methyl methanesulfonate	(1)	4.756	80	340426	9.585
12)$2-Fluorophenol	(1)	5.013	112	1673087	29.553
14) N-Nitrosodiethylamine	(1)	5.339	102	311704	11.227
16) Ethyl methanesulfonate	(1)	5.794	109	316788	10.743
18)$Phenol-d6	(1)	6.398	99	1862313	24.791
26)*1,4-Dichlorobenzene-d4	(1)	6.922	152	176304	5.000
100) Isosafrole	(3)			469406	10.648
36) N-Nitrosopyrrolidine	(1)	7.500	100	345627	11.828
40) N-Nitrosomorpholine	(1)	7.569	56	375106	10.707
45)$Nitrobenzene-d5	(2)	7.773	82	1483785	21.838
50) N-Nitrosopiperidine	(2)	8.035	114	306725	11.409
59) O,O,O-Triethylphosphorothioate	(2)	8.532	198	249968	10.725
67) a,a-Dimethylphenethylamine	(2)	8.655	58	1658901M	36.244
151) Diallate trans/cis	(4)			670731	12.604
68)*Naphthalene-d8	(2)	8.901	136	684980	5.000
71) 2,6-Dichlorophenol	(2)	9.051	162	418148	10.164
72) Hexachloropropene	(2)	9.094	213	77159	2.729
80) N-Nitrosodi-n-butylamine	(2)	9.623	84	528961	11.288
85) Safrole	(2)	9.949	162	365748	10.005
91) cis-Isosafrole	(3)	10.431	162	50468	1.271
191) Aramite	(5)			167598	4.237
96)$2-Fluorobiphenyl	(3)	10.688	172	1800469	17.516
97) trans-Isosafrole	(3)	10.795	162	418938	9.376
118)*Acenaphthene-d10	(3)	11.736	164	320252	5.000
122) Pentachlorobenzene	(3)	11.971	250	315313	8.506
130) Thionazin	(3)	12.479	107	259983	13.068
133) 5-Nitro-o-toluidine	(3)	12.495	152	306882	11.577
140)$2,4,6-Tribromophenol	(3)	12.774	330	574113	44.324
145) Diallate (peak 1)	(4)	13.025	86	509257	9.111
146) Phorate	(4)	13.036	75	1029883	12.886
147) Phenacetin	(4)	13.046	108	740095	12.767
149) Diallate (peak 2)	(4)	13.132	86	161474	3.493
152) Dimethoate	(4)	13.228	87	290744	5.603
156) Pentachloronitrobenzene	(4)	13.437	237	128763	10.749
155) 4-Aminobiphenyl	(4)	13.437	169	955094	10.389
157) Pronamide	(4)	13.538	173	563228	13.340
158)*Phenanthrene-d10	(4)	13.661	188	594150	5.000
167) Disulfoton	(4)	13.704	88	1640214M	28.762
169) Methyl parathion	(4)	14.191	109	250720	6.691

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Quant Report

Target Revision 3.5

Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
172) Parathion	(4)	14.758	109	329070	13.597
173) 4-Nitroquinoline-1-oxide	(4)	14.785	190	2076653	116.121
175) Methapyrilene	(4)	14.918	97	5748863M	116.175
176) Isodrin	(4)	15.164	193	176013	10.518
180)*Pyrene-d10	(5)	15.699	212	556722	5.000
185) Aramite (1)	(5)	15.913	185	2489M	0.442
184)$Terphenyl-d14	(5)	16.020	244	2193219	24.115
188) Aramite (3)	(5)	16.025	185	80330M	2.120
189) Aramite (4)	(5)	16.154	185	84779M	1.675
187) p-Dimethylaminoazobenzene	(5)	16.255	225	325126	13.411
190) Chlorobenzilate	(5)	16.352	139	573034	11.707
195) Kepone	(5)	16.887	272	122933M	9.684
196) 2-Acetylaminofluorene	(5)	17.245	181	774486	12.592
218)*Perylene-d12	(6)	20.267	264	523853	5.000
220) 3-Methylcholanthrene	(6)	20.764	268	786664	12.697

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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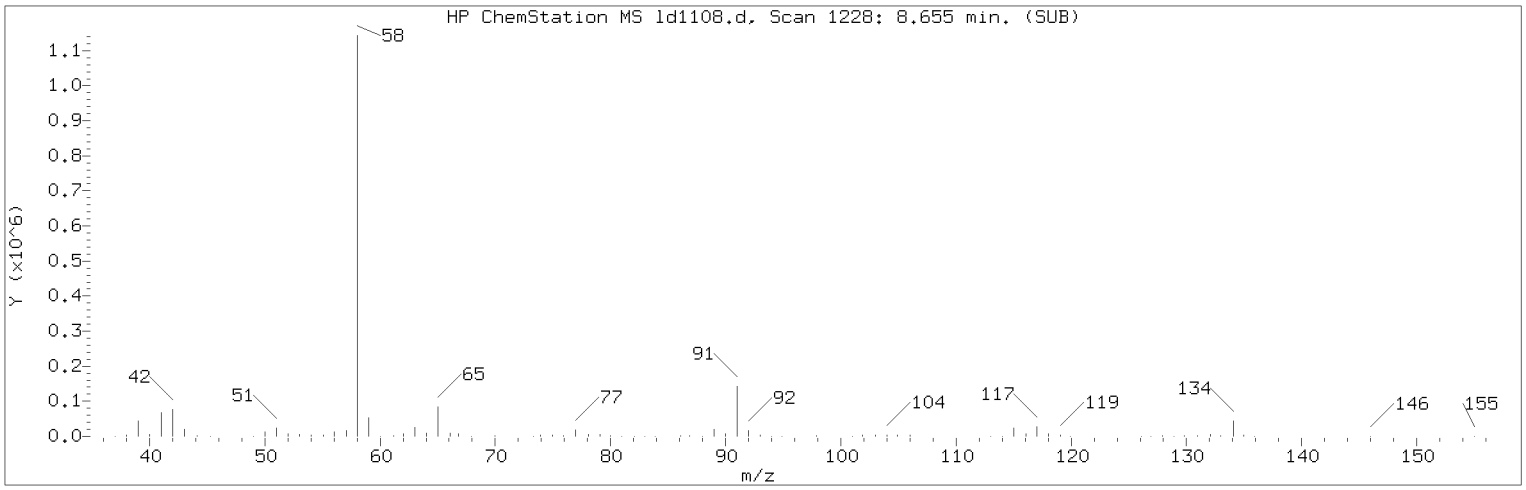
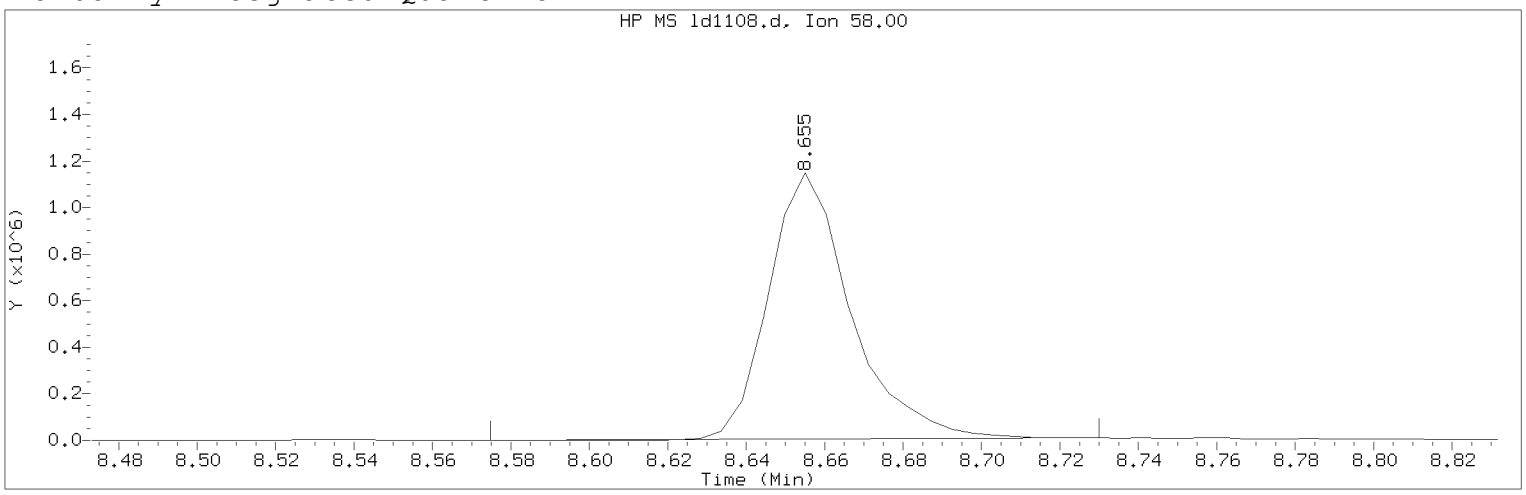
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

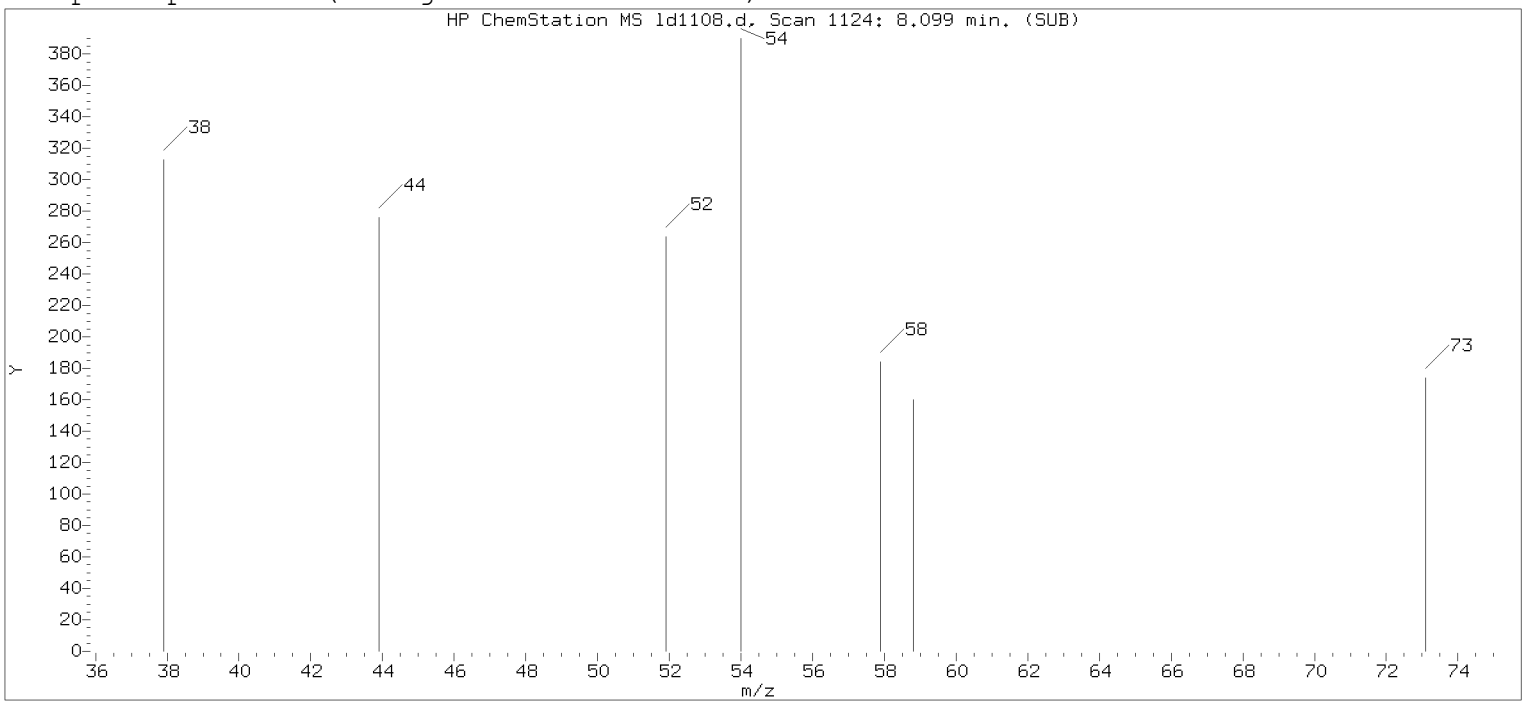
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1228
Retention Time (minutes) : 8.655
Quant Ion : 58.00
Area (flag) : 1658901M
On-Column Amount (ng/ul) : 36.2439
Integration start scan : 1212 Integration stop scan: 1241
Y at integration start : 546 Y at integration end: 10793

Reason for manual integration: improper integration

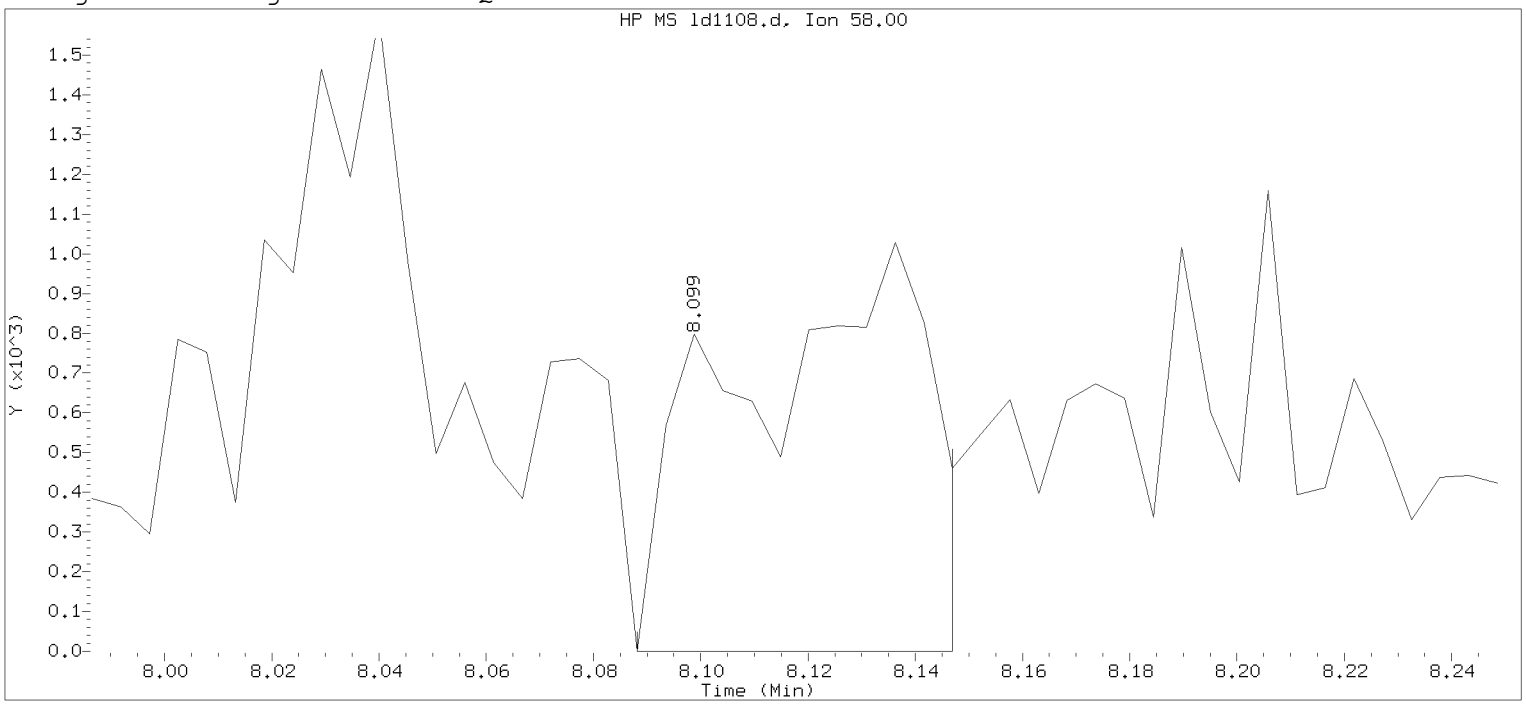
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

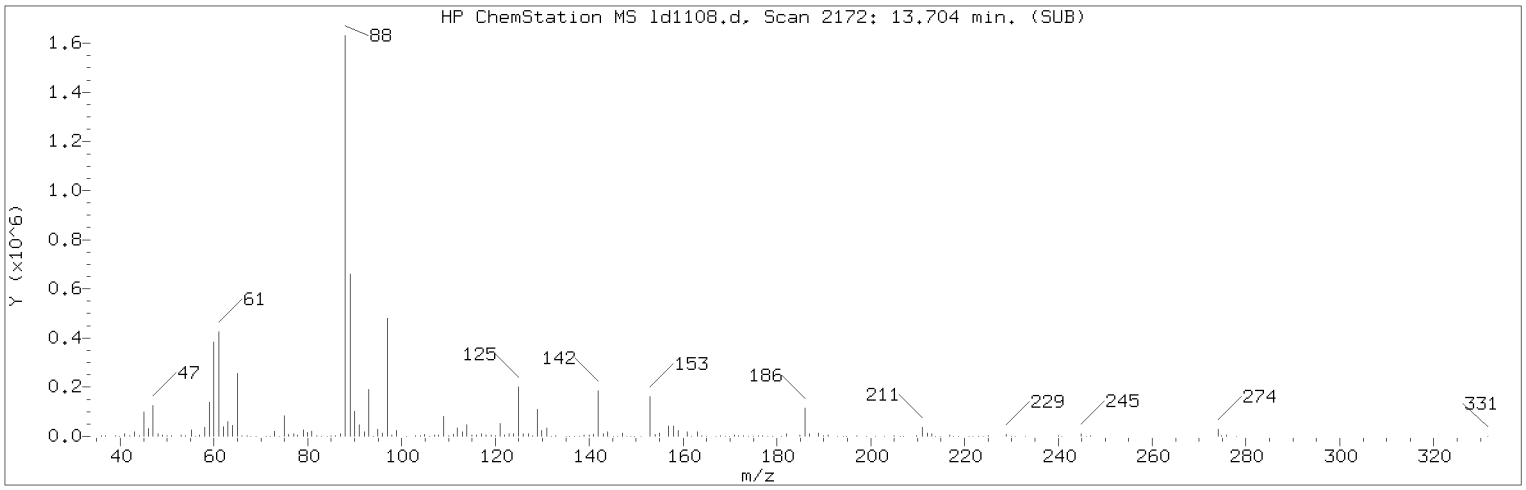
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

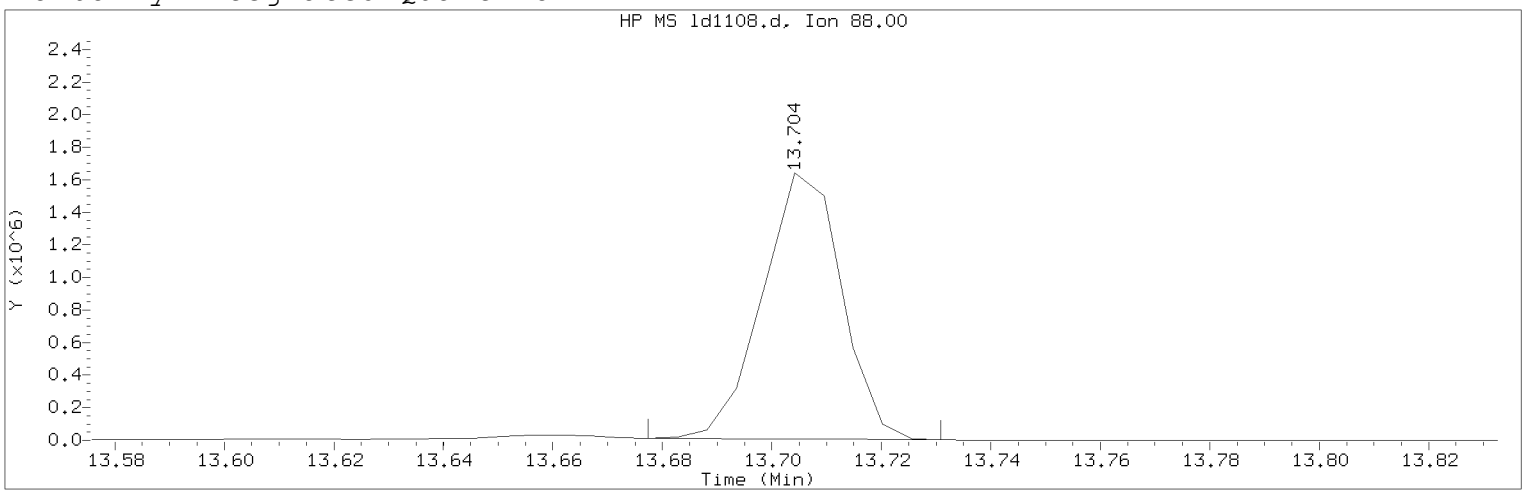
Compound Number : 67
Compound Name : a,a-Dimethylphenethylamine
Scan Number : 1124
Retention Time (minutes) : 8.099
Quant Ion : 58.00
Area : 2461
On-column Amount (ng/ul) : 0.0538
Integration start scan : 1121 Integration stop scan: 1132
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

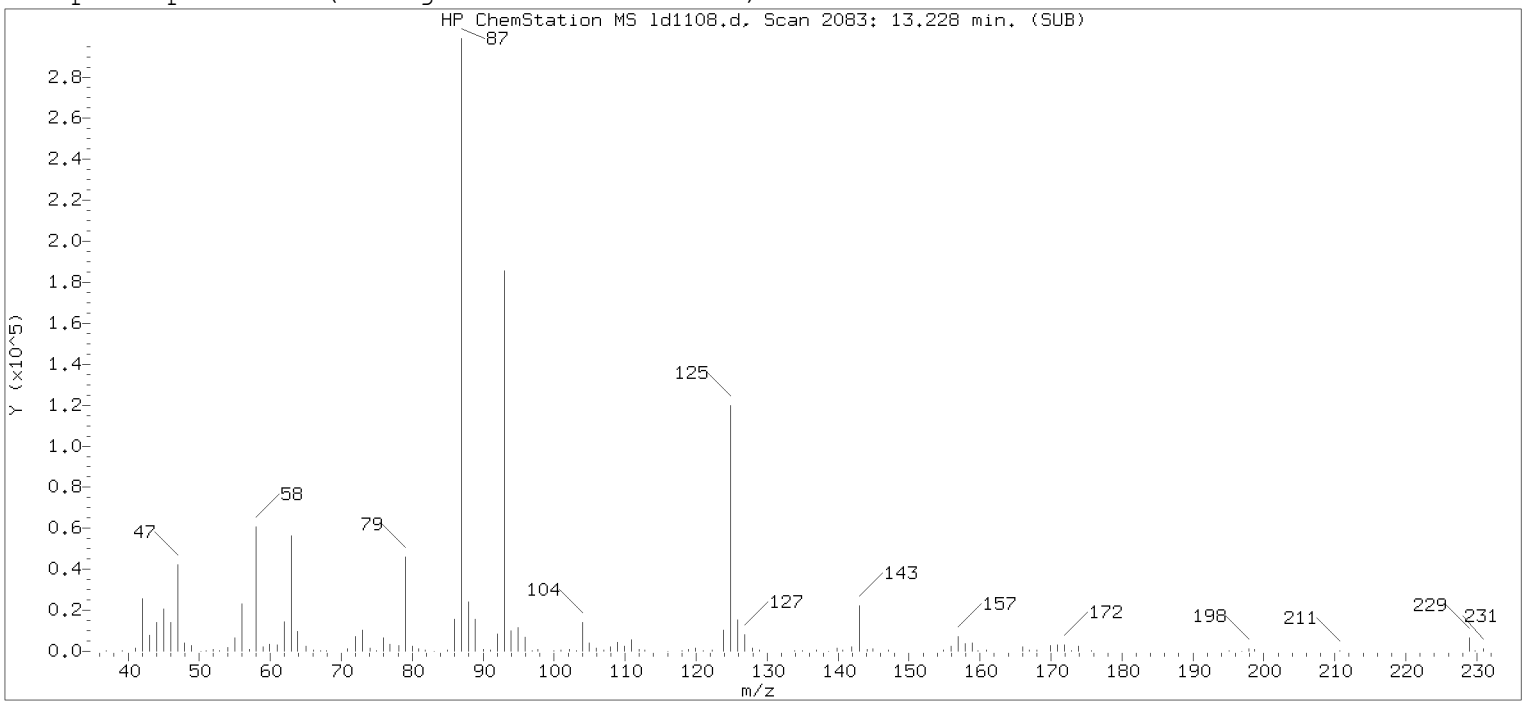
Compound Number : 167
Compound Name : Disulfoton
Scan Number : 2172
Retention Time (minutes) : 13.704
Quant Ion : 88.00
Area (flag) : 1640214M
On-Column Amount (ng/ul) : 28.7619
Integration start scan : 2166 Integration stop scan: 2176
Y at integration start : 13343 Y at integration end: 2619

Reason for manual integration: improper integration

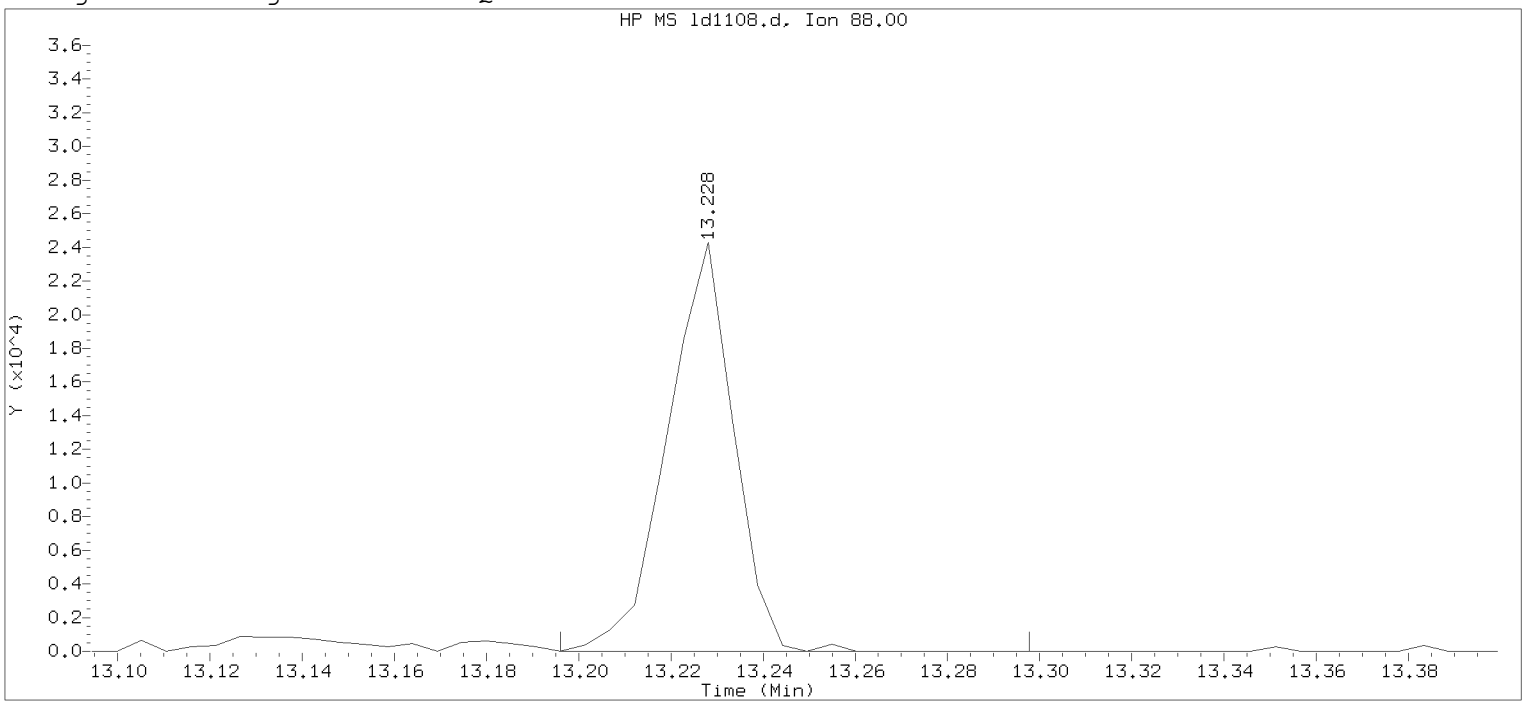
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

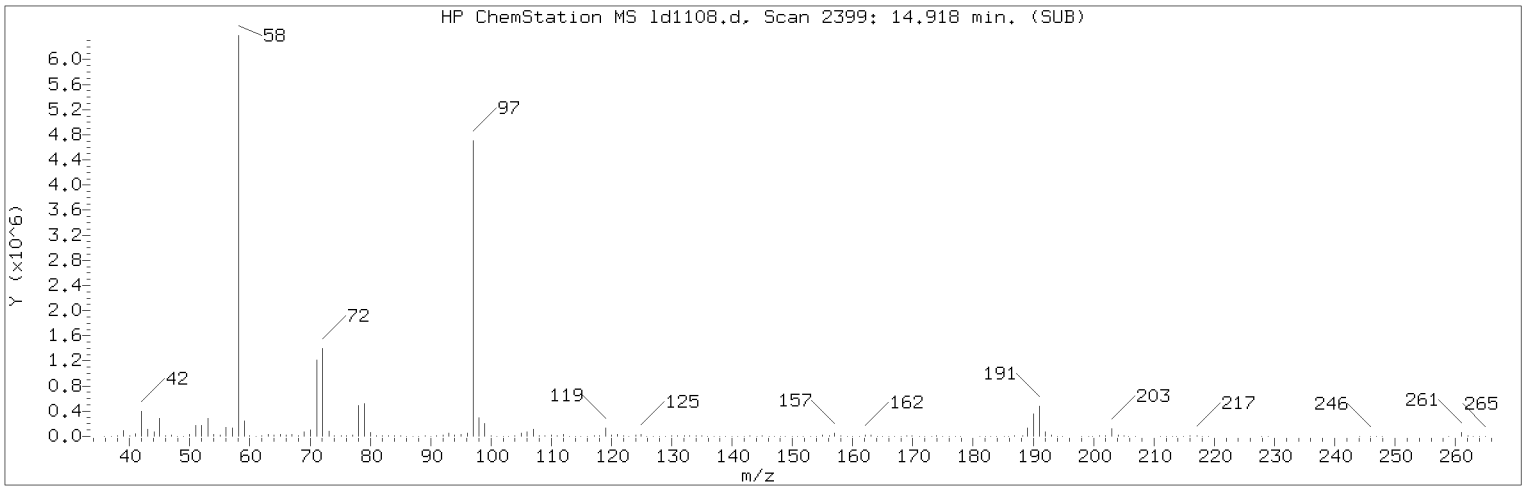
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

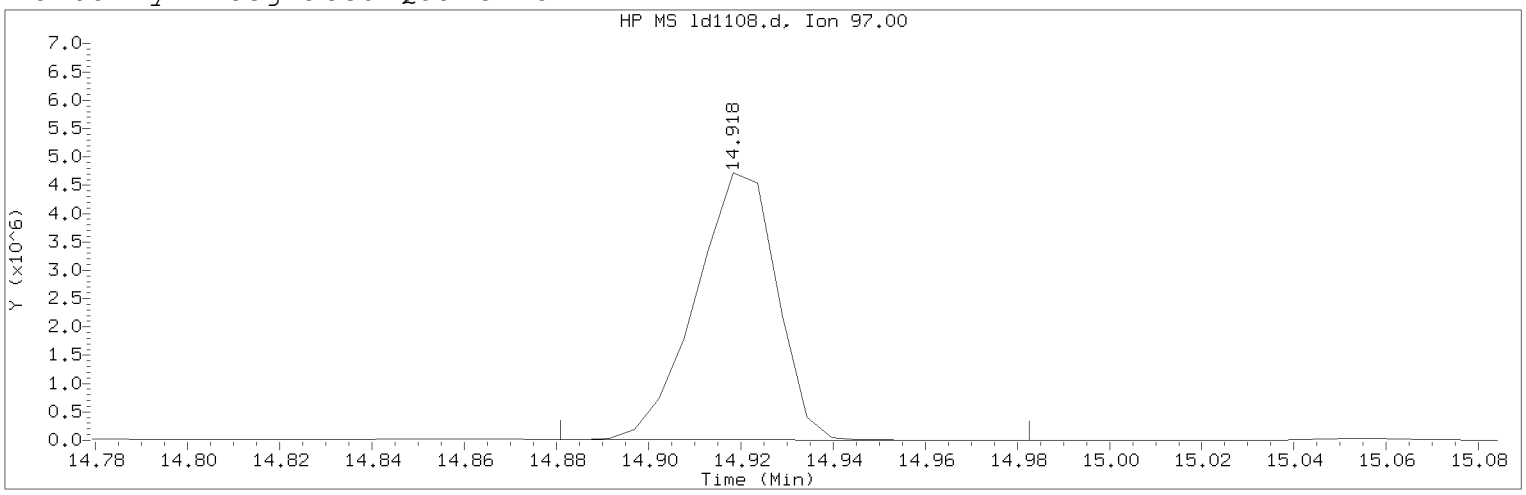
Compound Number	: 167		
Compound Name	: Disulfoton		
Scan Number	: 2083		
Retention Time (minutes)	: 13.228		
Quant Ion	: 88.00		
Area	: 24211		
On-column Amount (ng/ul)	: 1.2573		
Integration start scan	: 2076	Integration stop scan:	2095
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: KNB25316

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

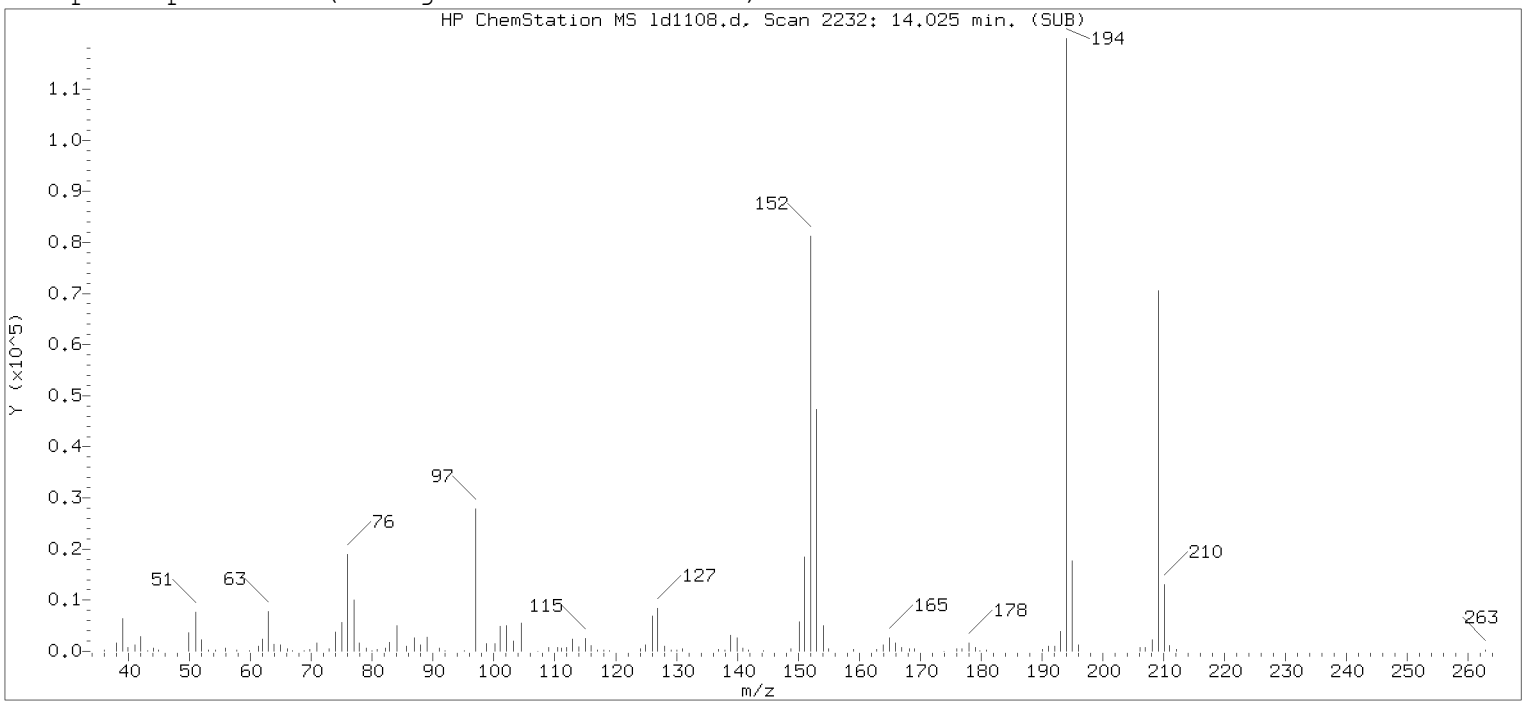
Compound Number : 175
Compound Name : Methapyrilene
Scan Number : 2399
Retention Time (minutes) : 14.918
Quant Ion : 97.00
Area (flag) : 5748863M
On-Column Amount (ng/ul) : 116.1754
Integration start scan : 2391 Integration stop scan: 2410
Y at integration start : 11564 Y at integration end: 2389

Reason for manual integration: improper integration

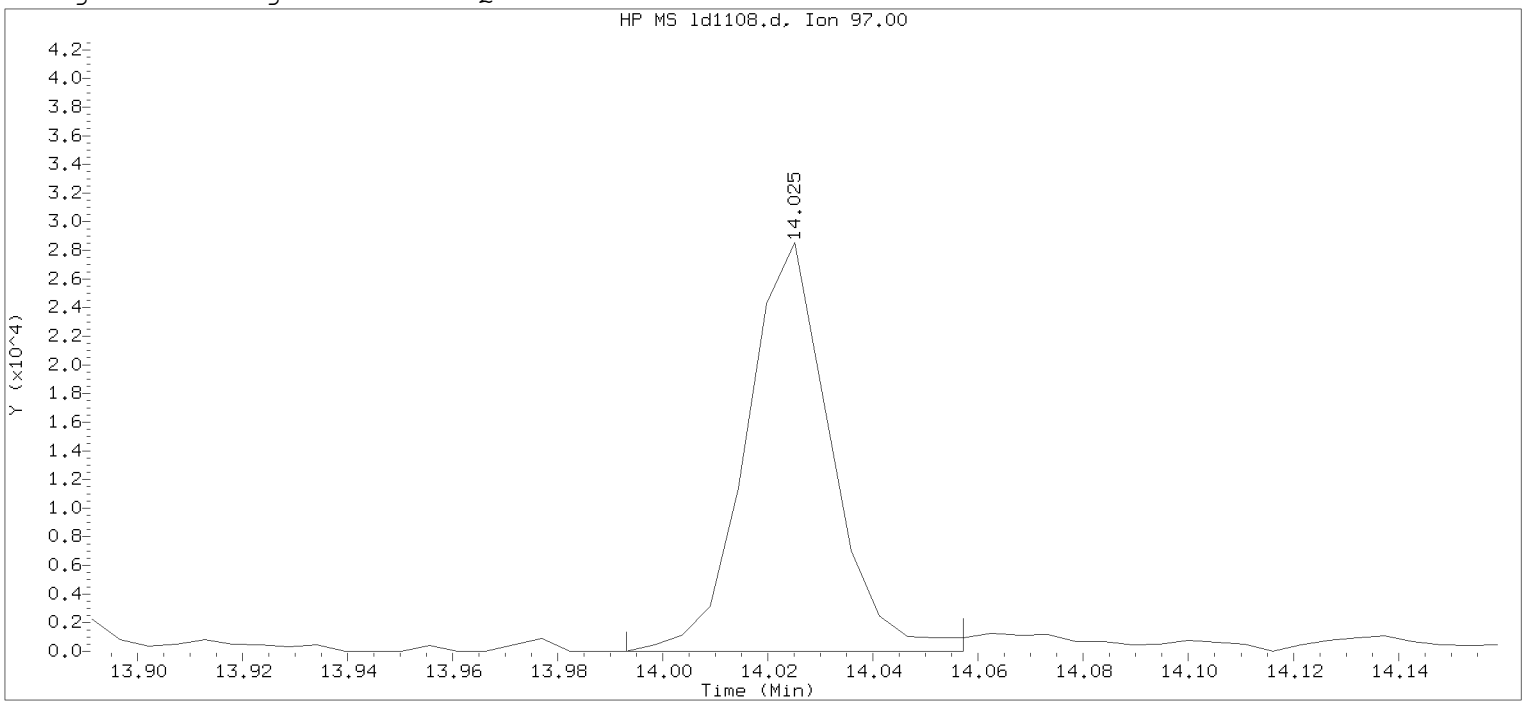
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

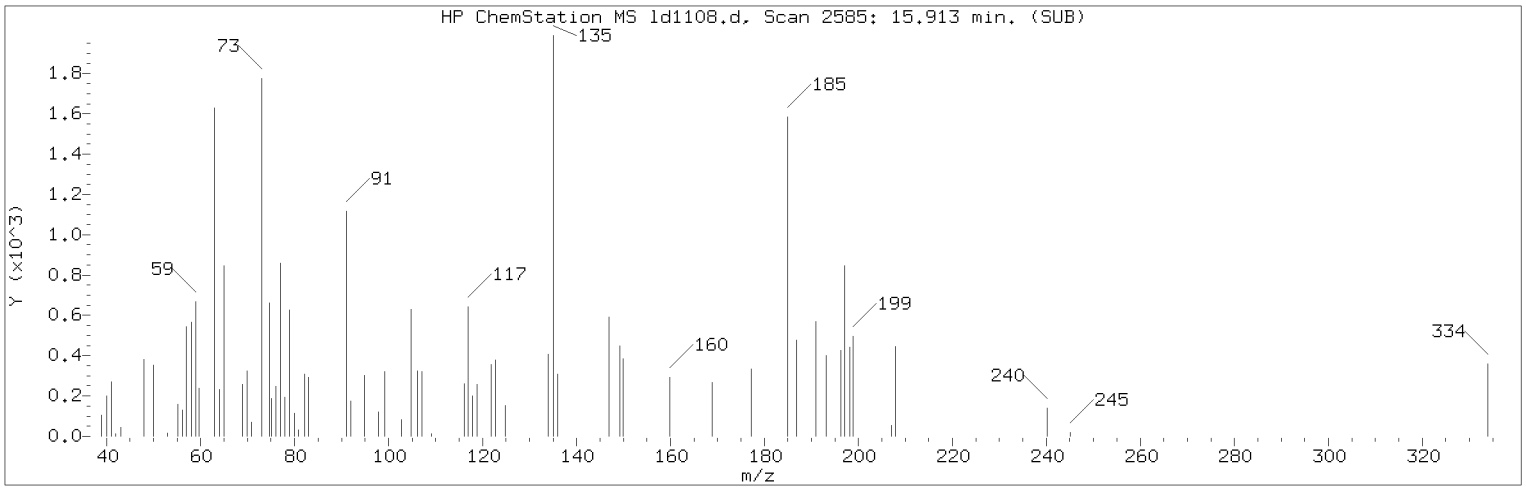
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

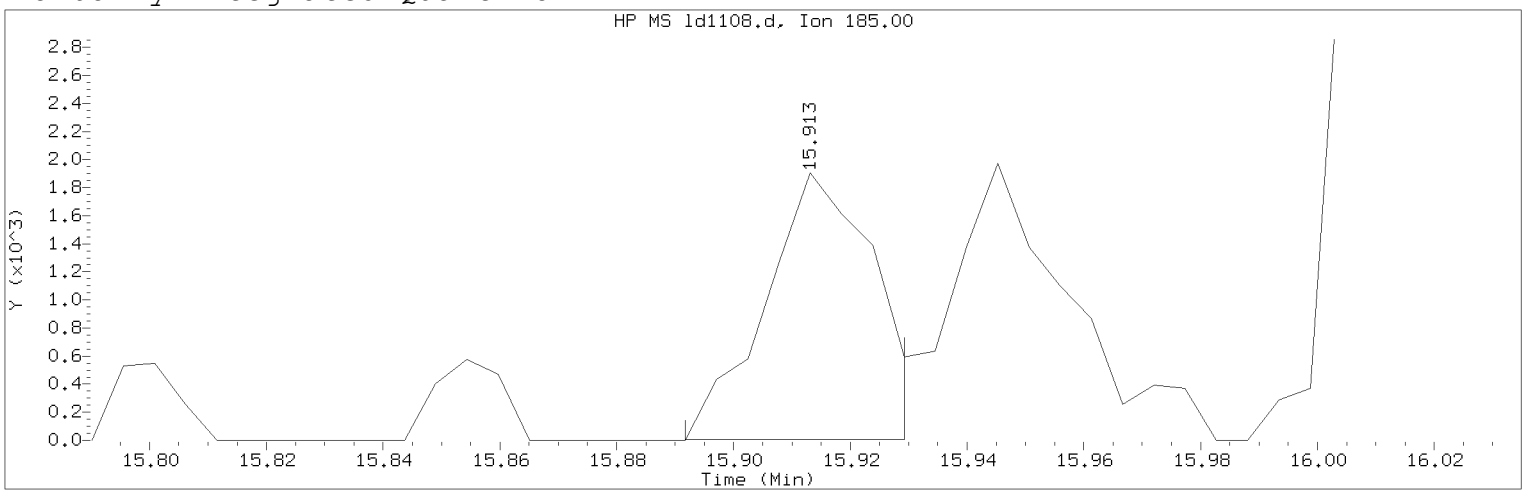
Compound Number	: 175		
Compound Name	: Methapyrilene		
Scan Number	: 2232		
Retention Time (minutes)	: 14.025		
Quant Ion	: 97.00		
Area	: 31615		
On-column Amount (ng/ul)	: 1.0281		
Integration start scan	: 2225	Integration stop scan:	2237
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. F35 Page 2311

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

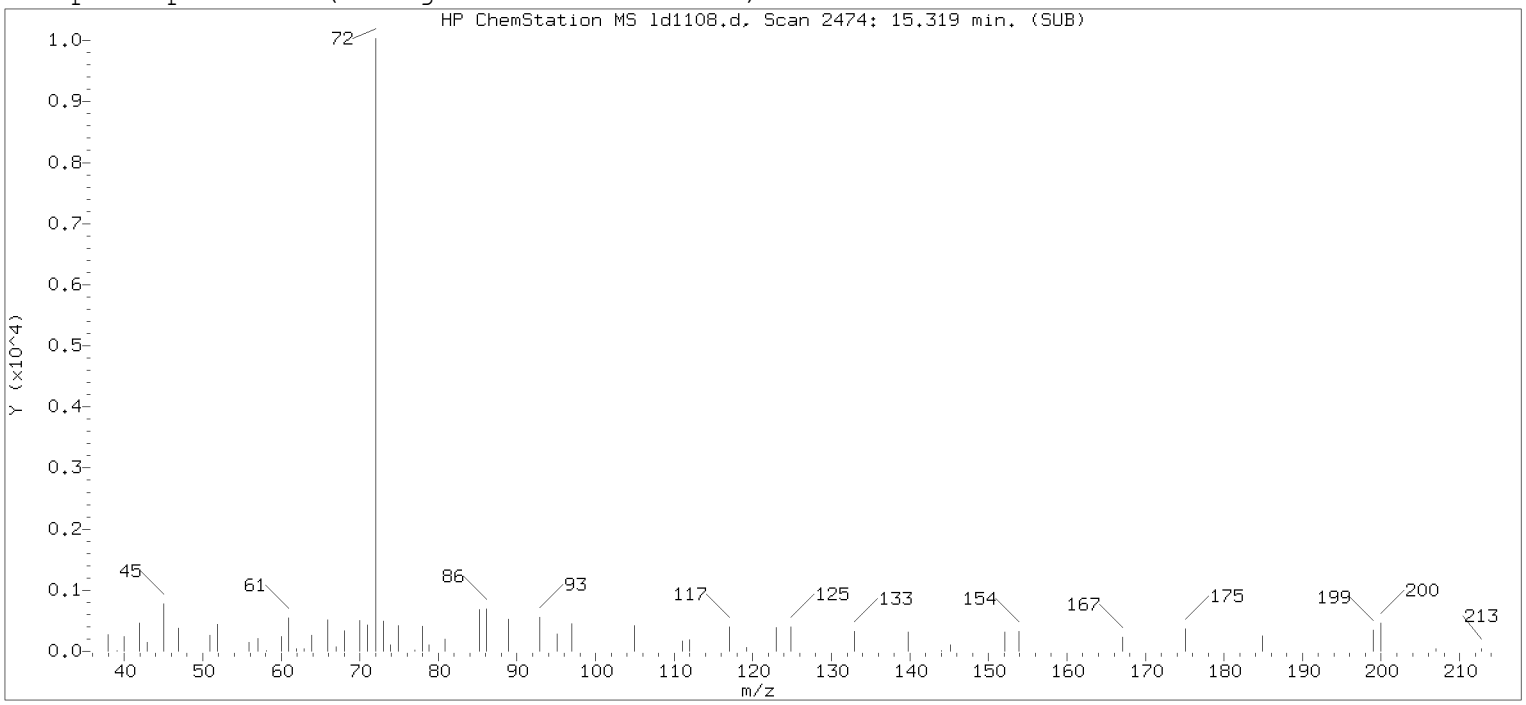
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2585
Retention Time (minutes) : 15.913
Quant Ion : 185.00
Area (flag) : 2489M
On-Column Amount (ng/ul) : 0.4418
Integration start scan : 2580 Integration stop scan: 2587
Y at integration start : 4 Y at integration end: 4

Reason for manual integration: improper integration

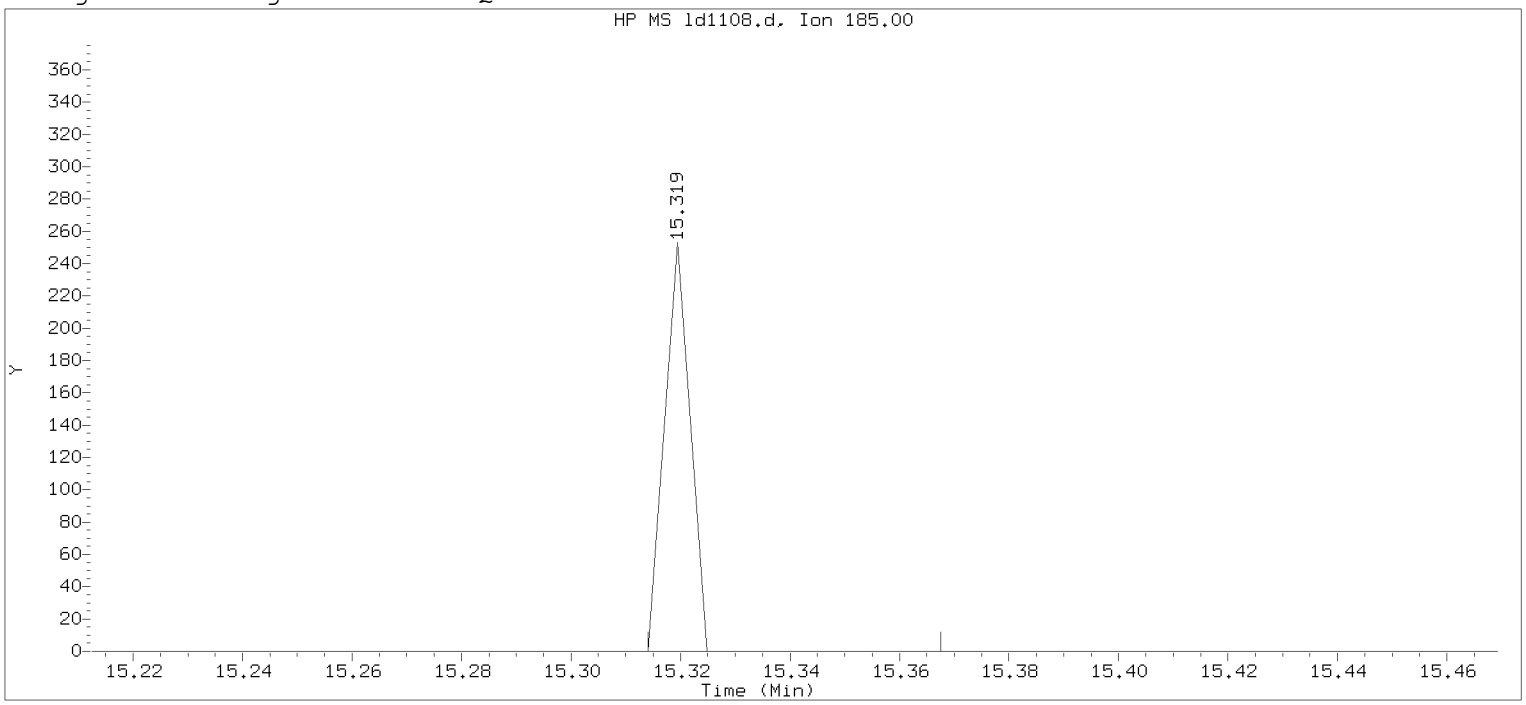
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

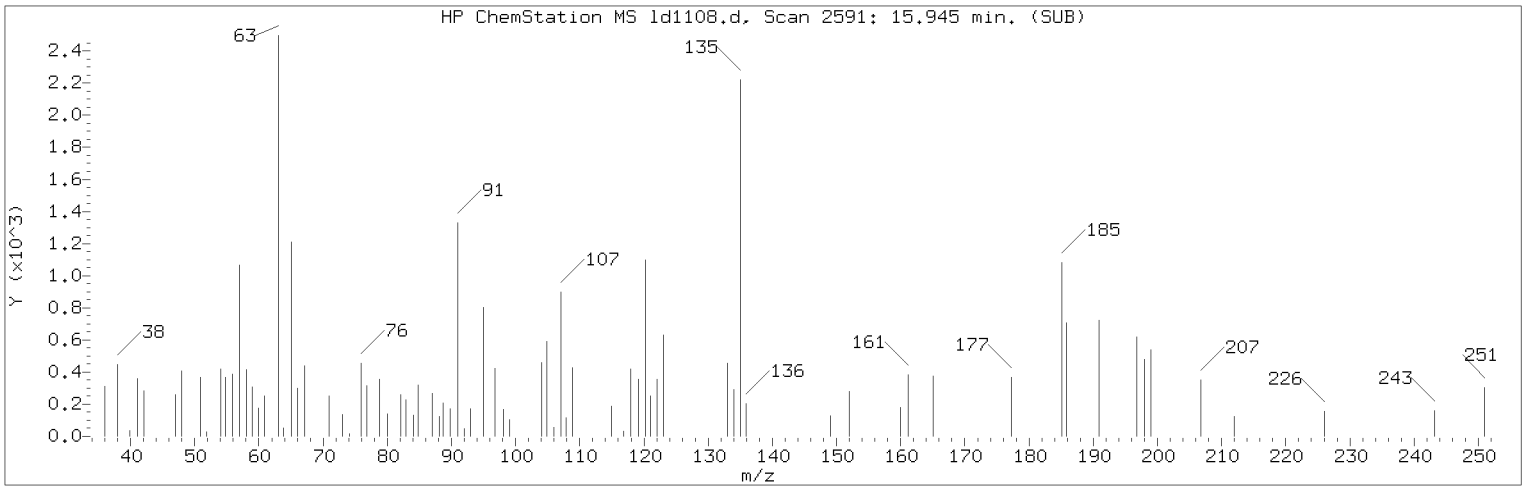
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

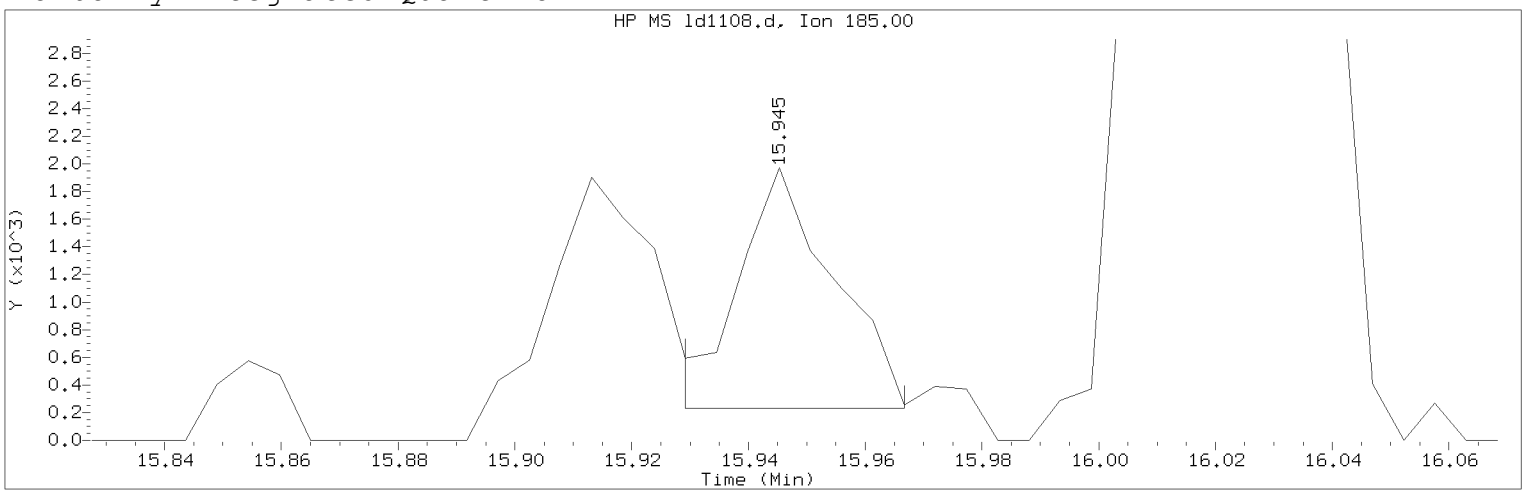
Compound Number : 185
Compound Name : Aramite (1)
Scan Number : 2474
Retention Time (minutes) : 15.319
Quant Ion : 185.00
Area : 81
On-column Amount (ng/ul) : 0.0577
Integration start scan : 2472 Integration stop scan: 2482
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. Page 2313

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

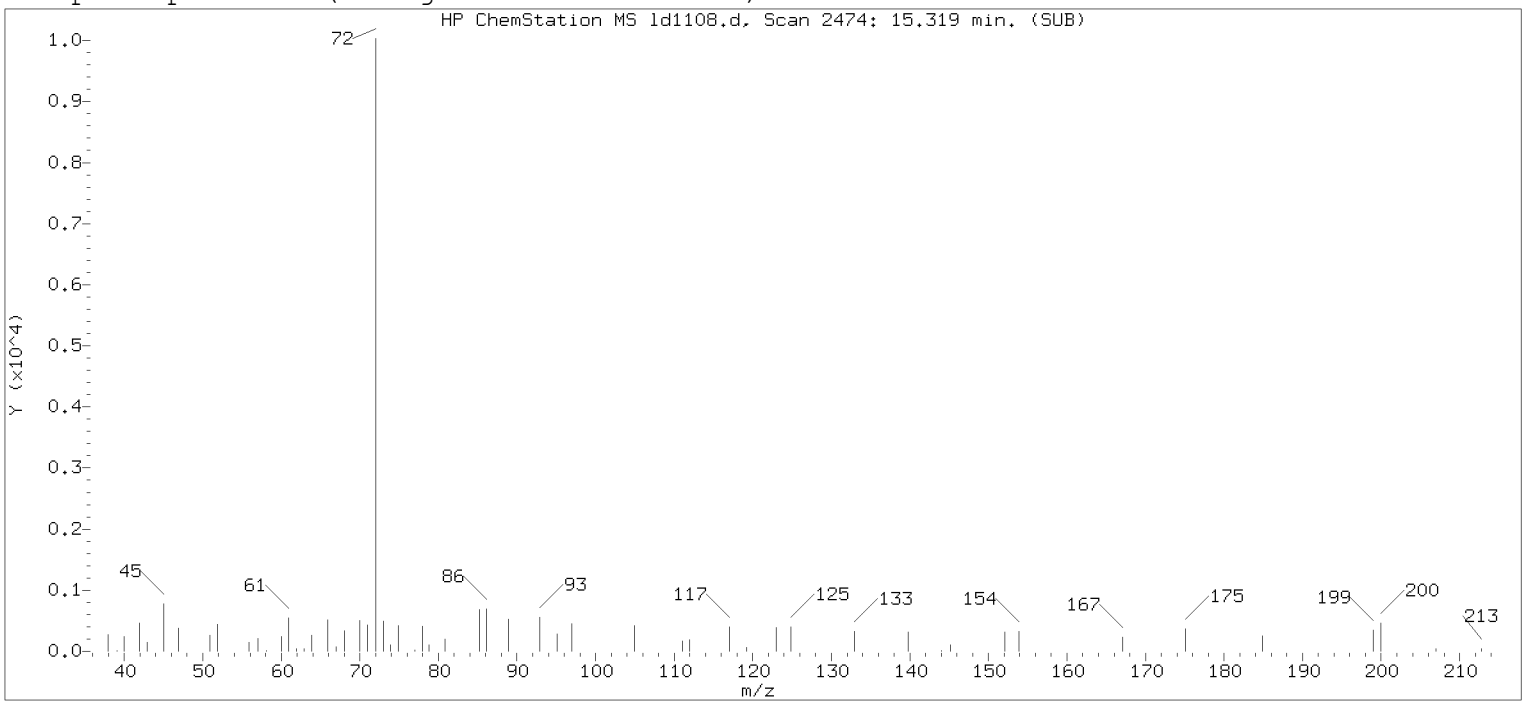
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2591
Retention Time (minutes) : 15.945
Quant Ion : 185.00
Area (flag) : 2026M
On-Column Amount (ng/ul) : 0.2897
Integration start scan : 2587 Integration stop scan: 2594
Y at integration start : 233 Y at integration end: 233

Reason for manual integration: improper integration

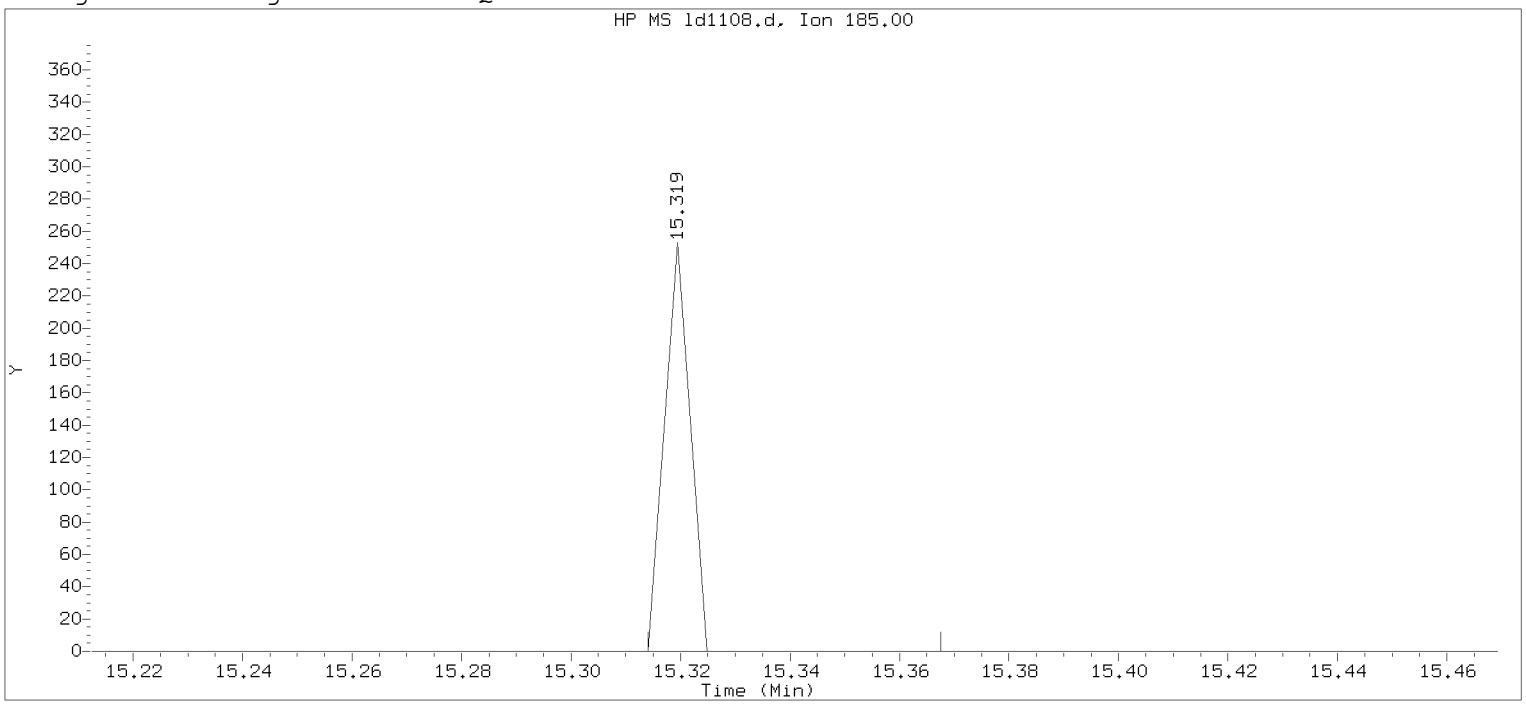
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

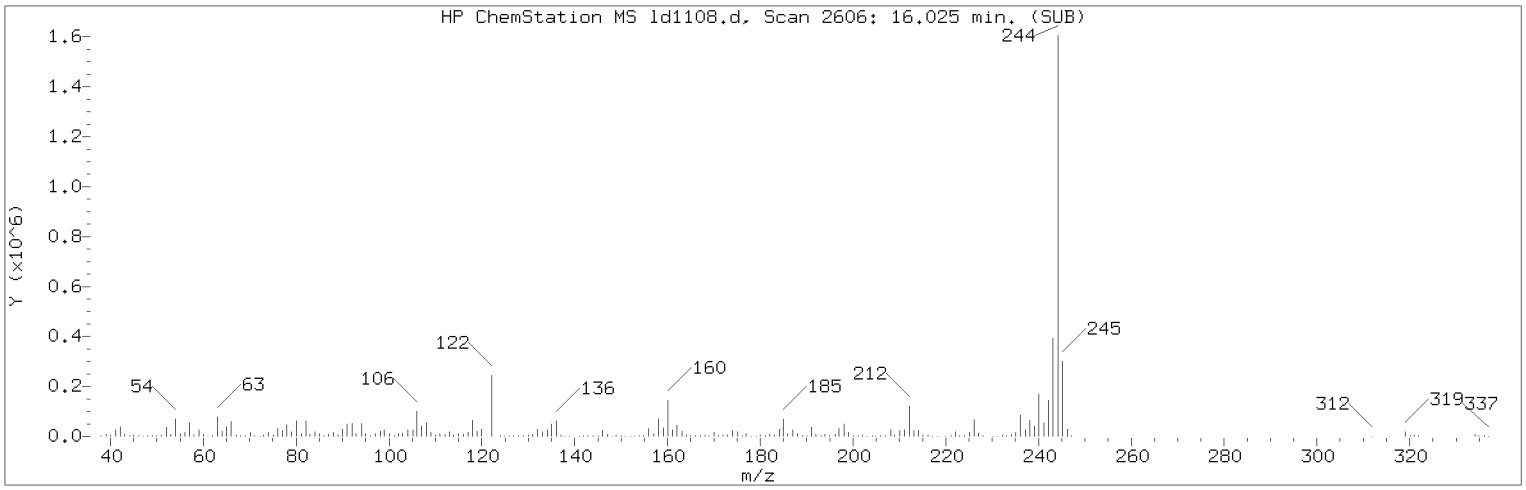
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

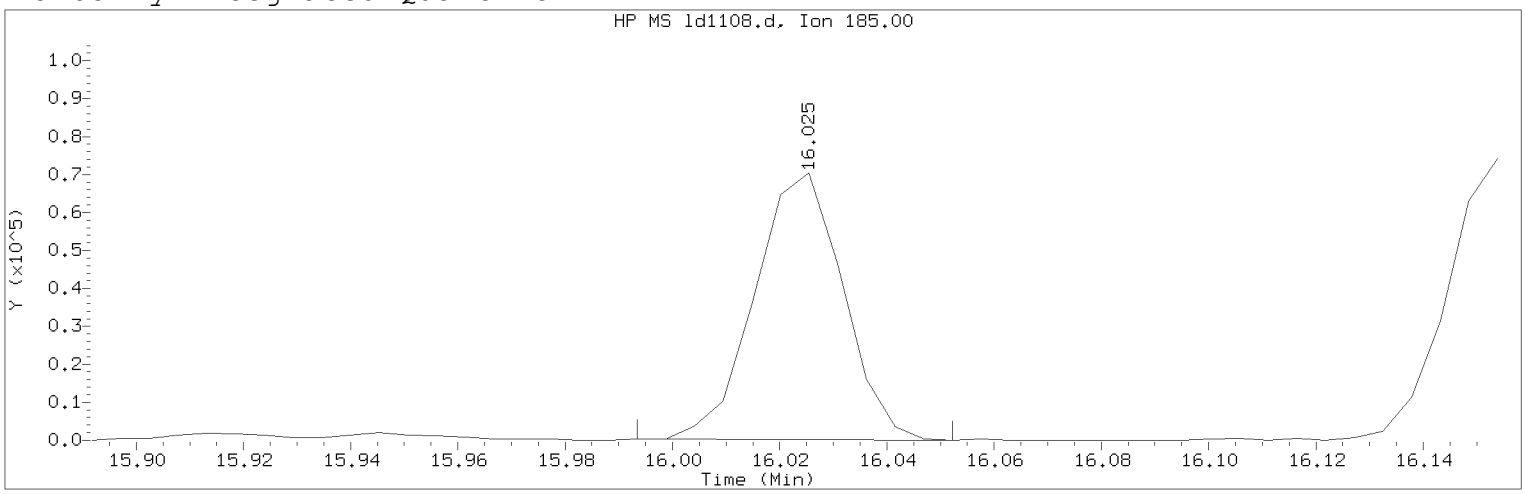
Compound Number : 186
Compound Name : Aramite (2)
Scan Number : 2474
Retention Time (minutes) : 15.319
Quant Ion : 185.00
Area : 81
On-column Amount (ng/ul) : 0.0464
Integration start scan : 2472 Integration stop scan: 2482
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. F35

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

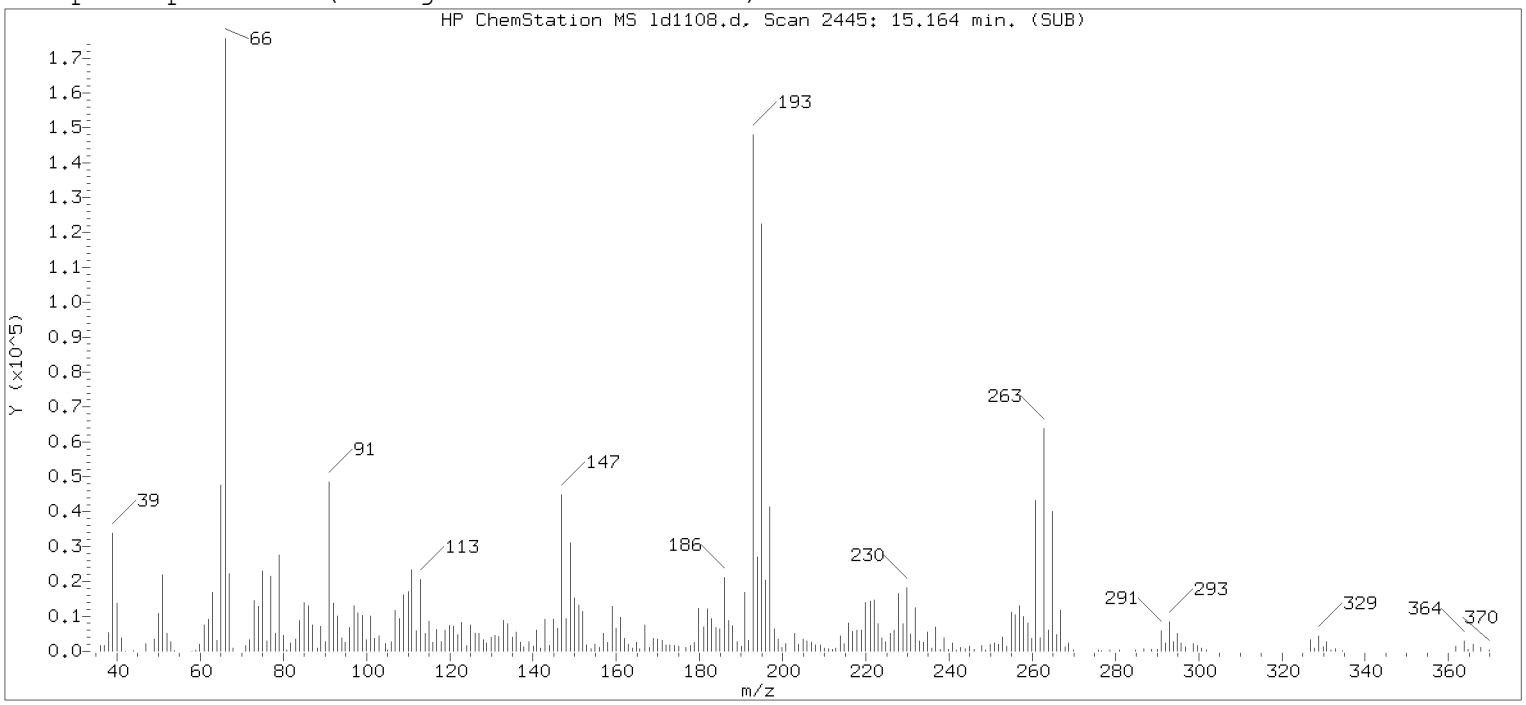
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2606
Retention Time (minutes) : 16.025
Quant Ion : 185.00
Area (flag) : 80330M
On-Column Amount (ng/ul) : 2.1200
Integration start scan : 2599 Integration stop scan: 2610
Y at integration start : 289 Y at integration end: 0

Reason for manual integration: improper integration

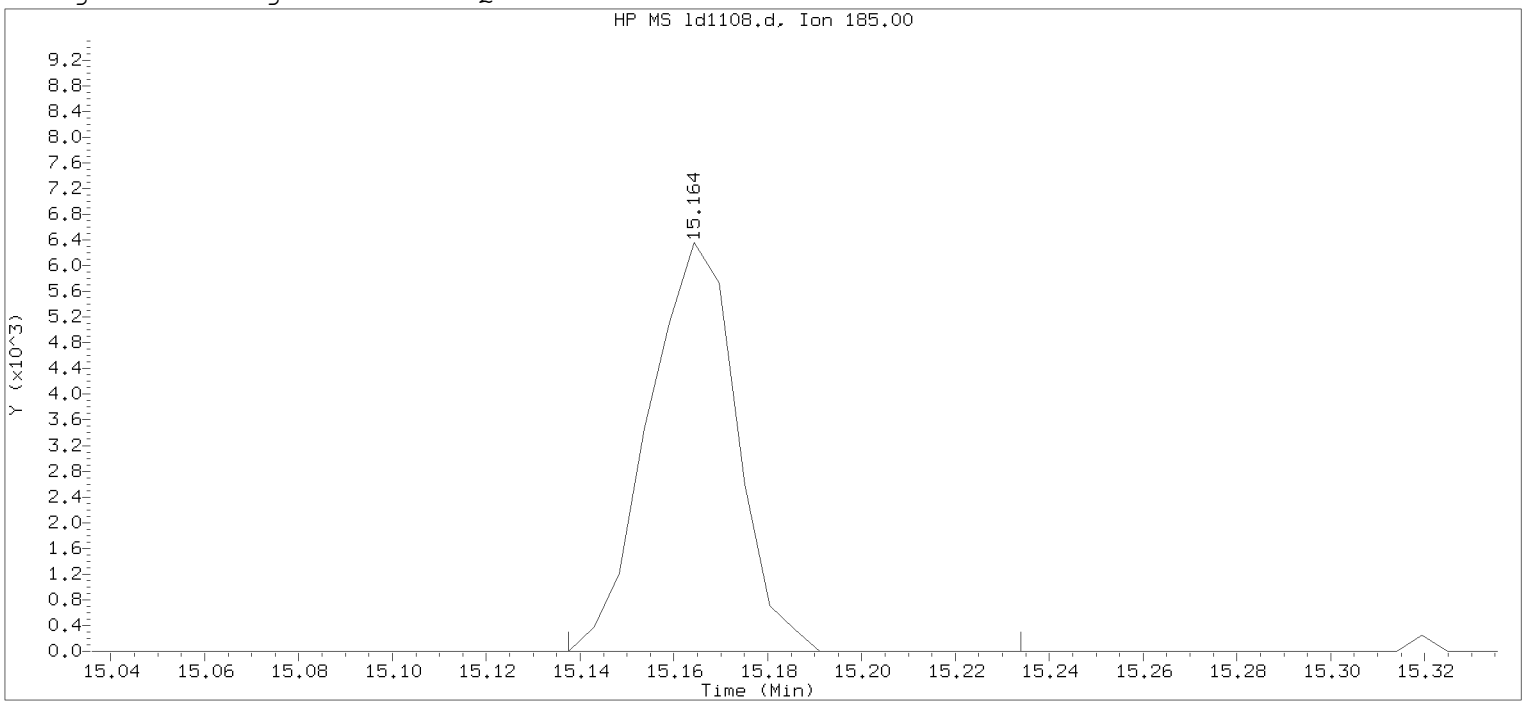
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

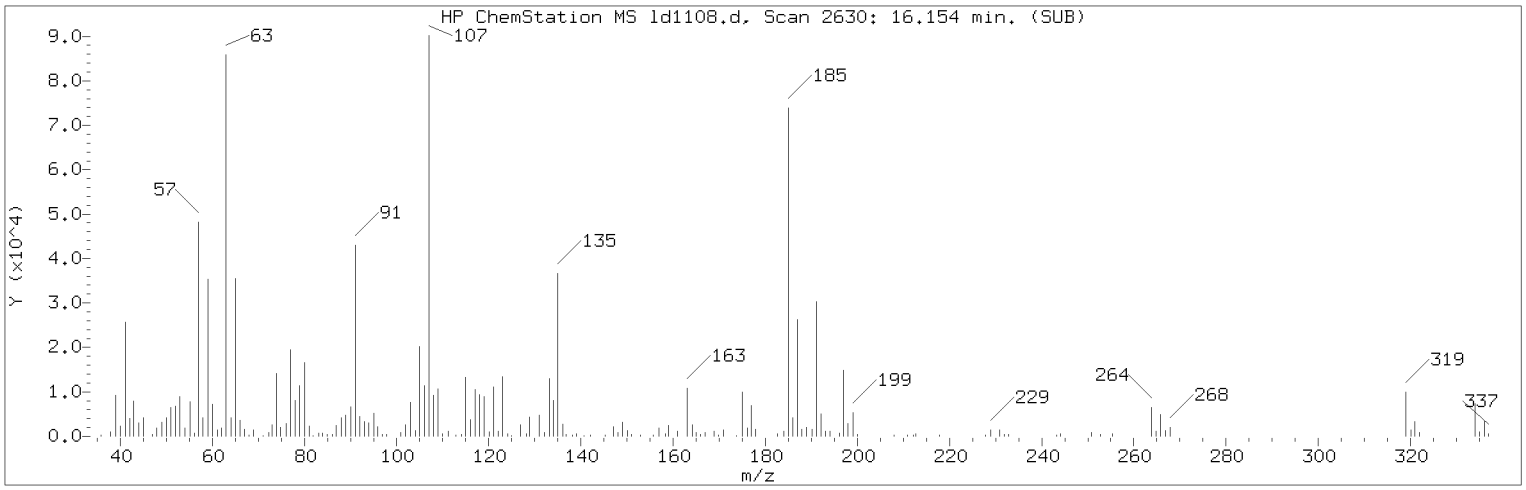
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

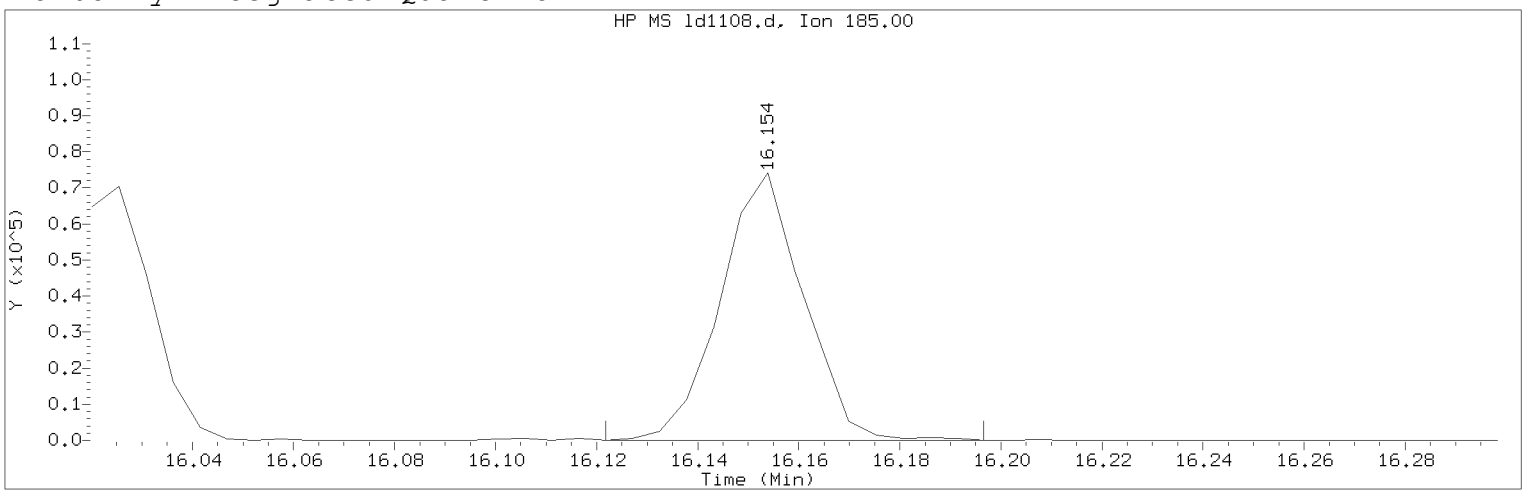
Compound Number : 188
Compound Name : Aramite (3)
Scan Number : 2445
Retention Time (minutes) : 15.164
Quant Ion : 185.00
Area : 8300
On-column Amount (ng/ul) : 0.0548
Integration start scan : 2439 Integration stop scan: 2457
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. F35 Rev 2.17

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

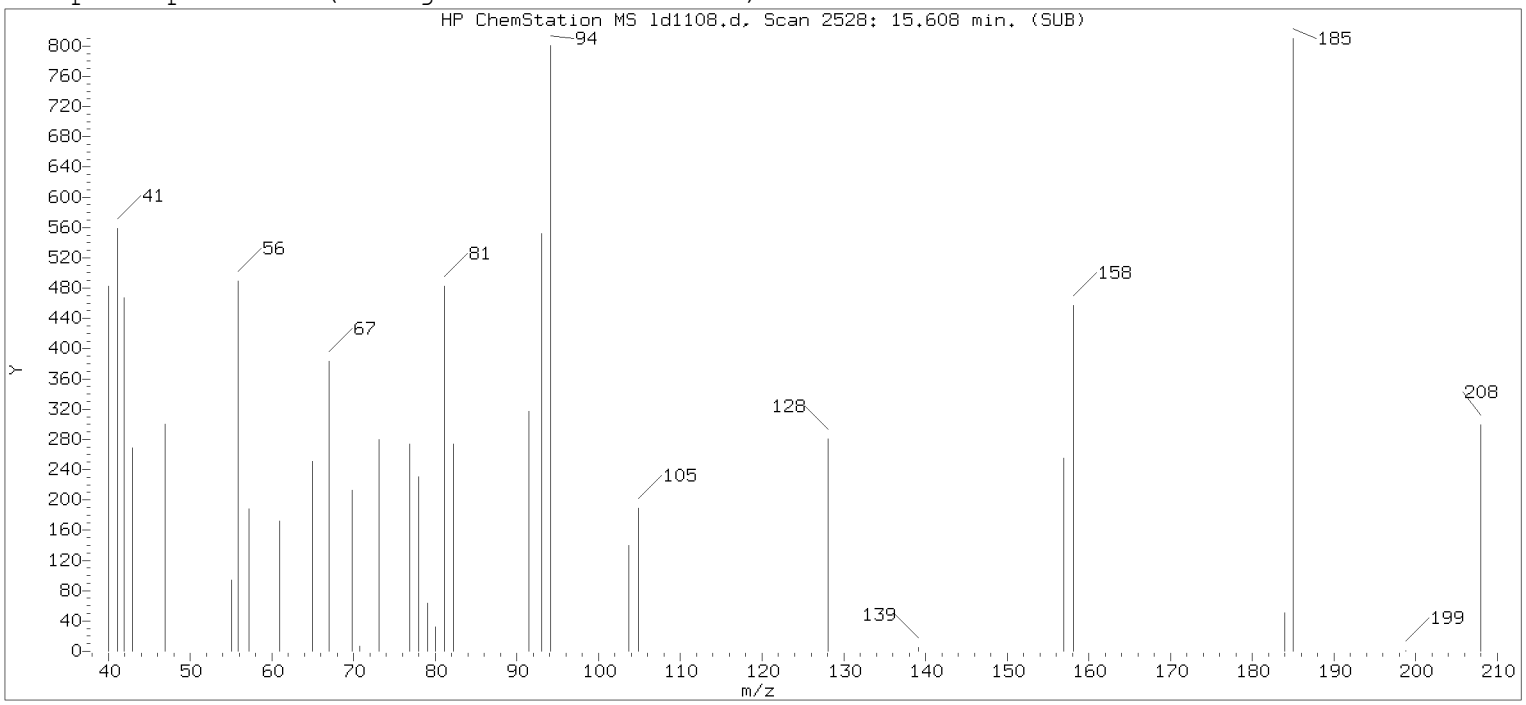
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2630
Retention Time (minutes) : 16.154
Quant Ion : 185.00
Area (flag) : 84779M
On-Column Amount (ng/ul) : 1.6753
Integration start scan : 2623 Integration stop scan: 2637
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

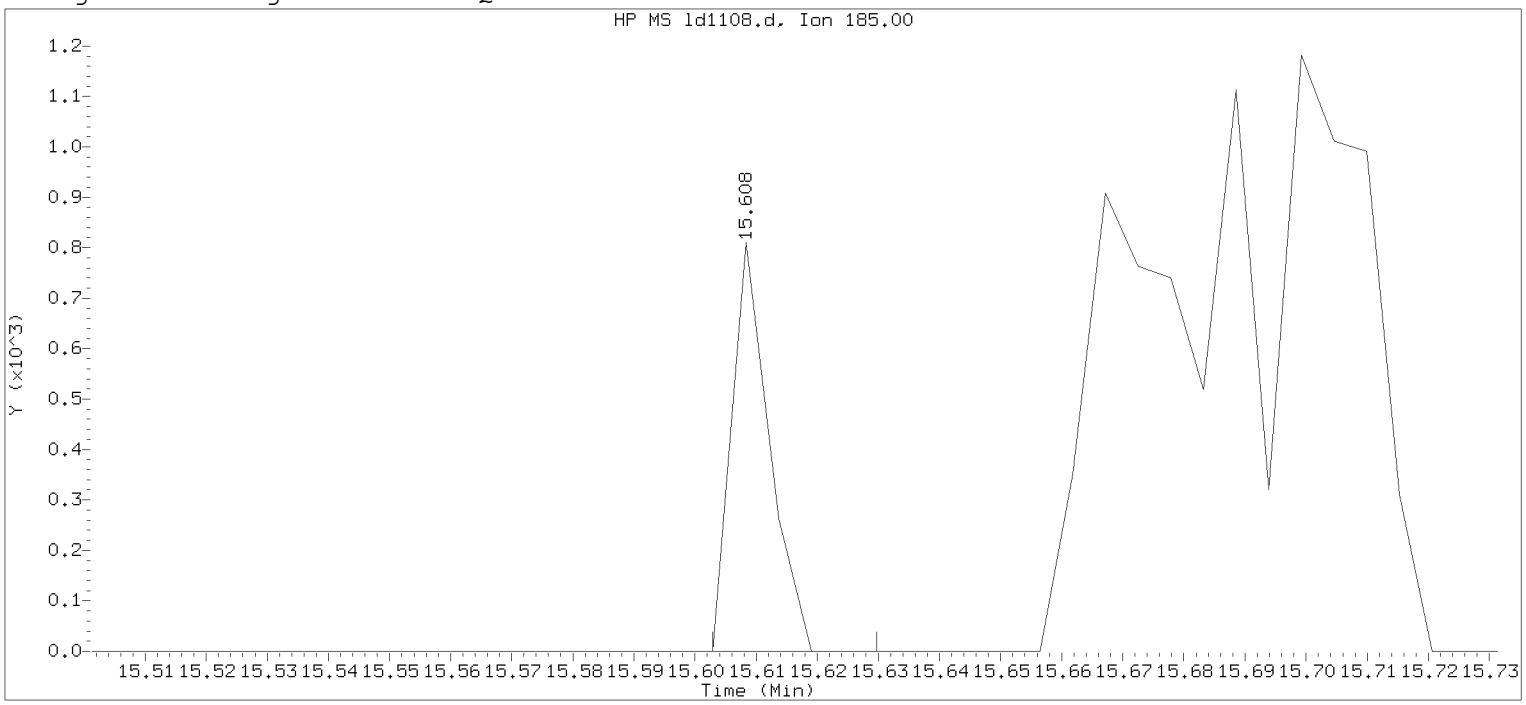
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

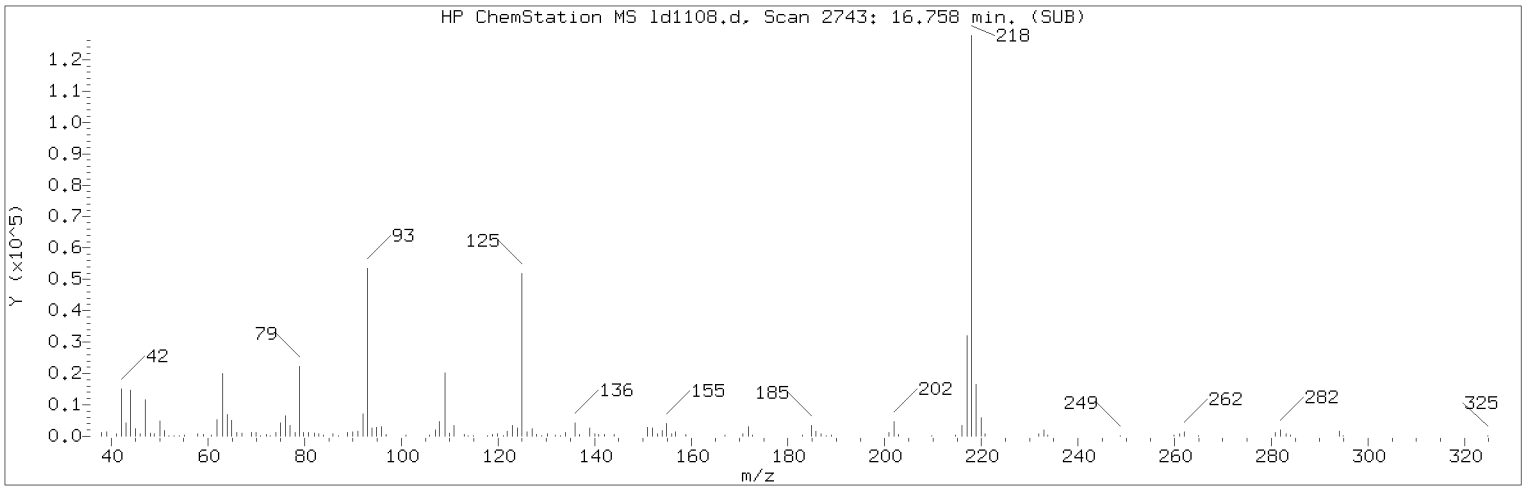
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

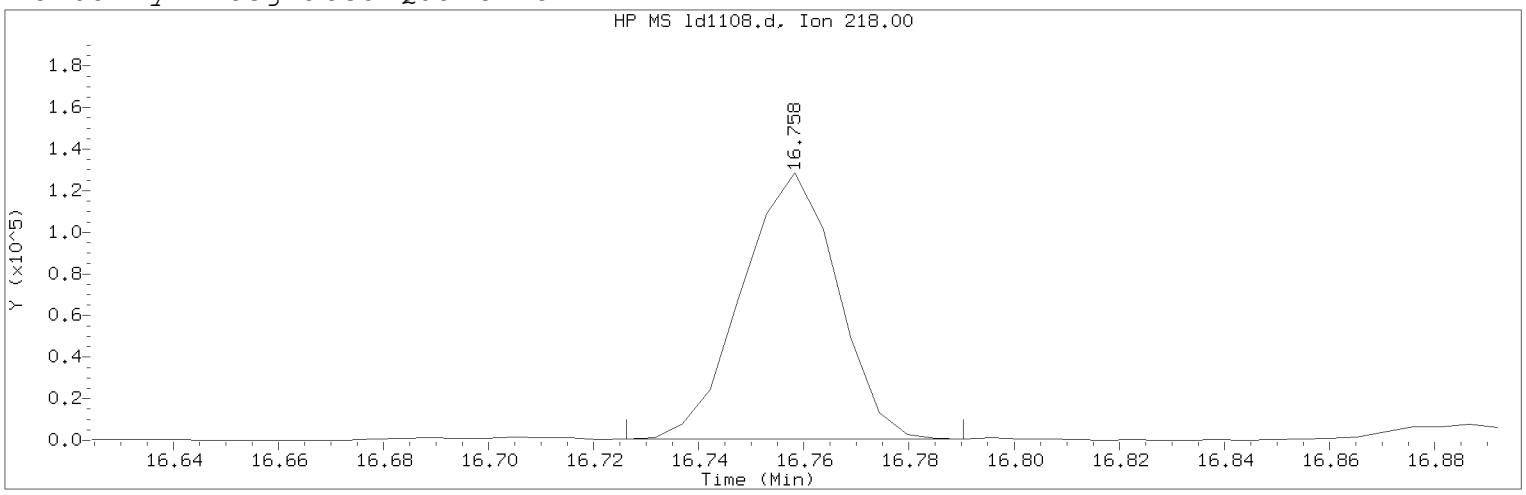
Compound Number : 189
Compound Name : Aramite (4)
Scan Number : 2528
Retention Time (minutes) : 15.608
Quant Ion : 185.00
Area : 344
On-column Amount (ng/ul) : 0.0017
Integration start scan : 2526 Integration stop scan: 2531
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. Page 2310

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

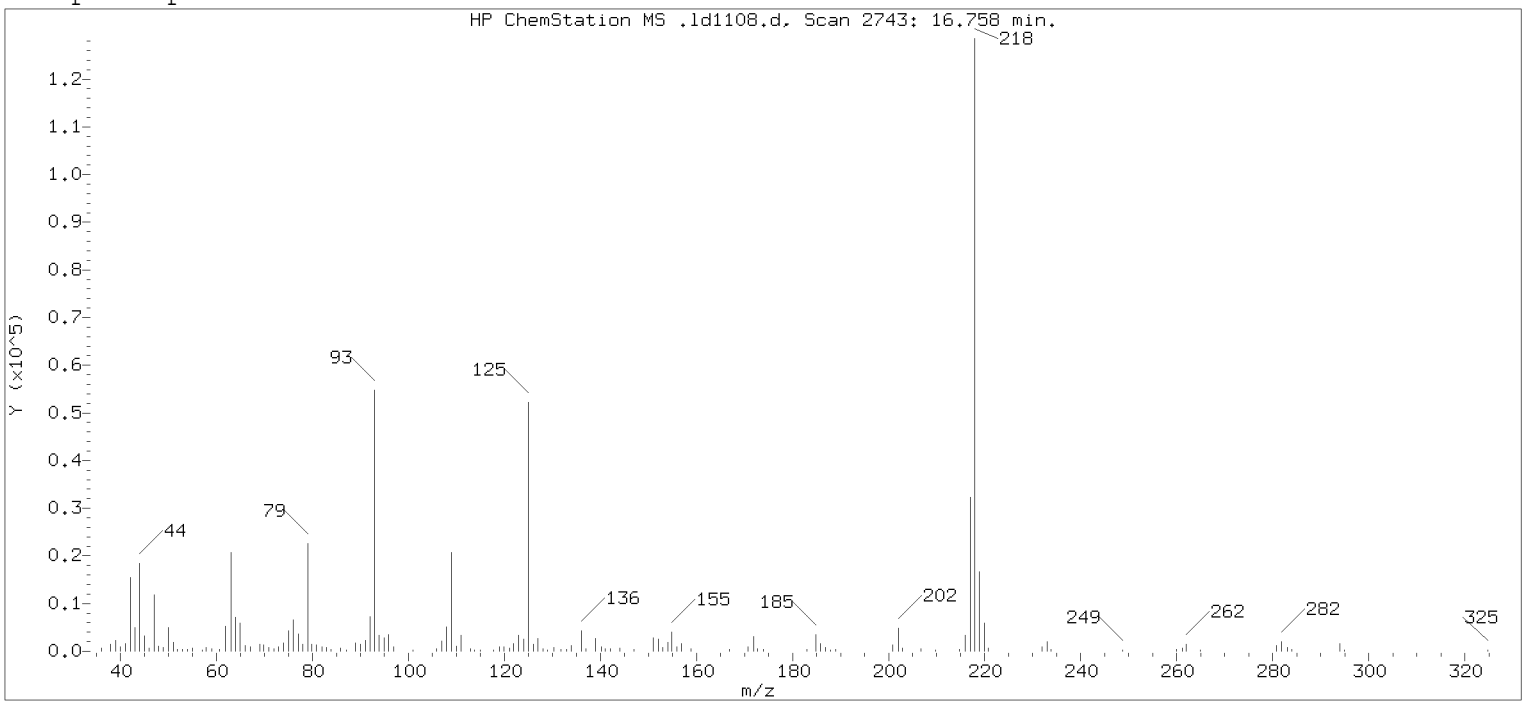
Compound Number : 194
Compound Name : Famphur
Scan Number : 2743
Retention Time (minutes) : 16.758
Quant Ion : 218.00
Area (flag) : 160659M
On-Column Amount (ng/ul) : 4.1759
Integration start scan : 2736 Integration stop scan: 2748
Y at integration start : 536 Y at integration end: 464

Reason for manual integration: missed peak

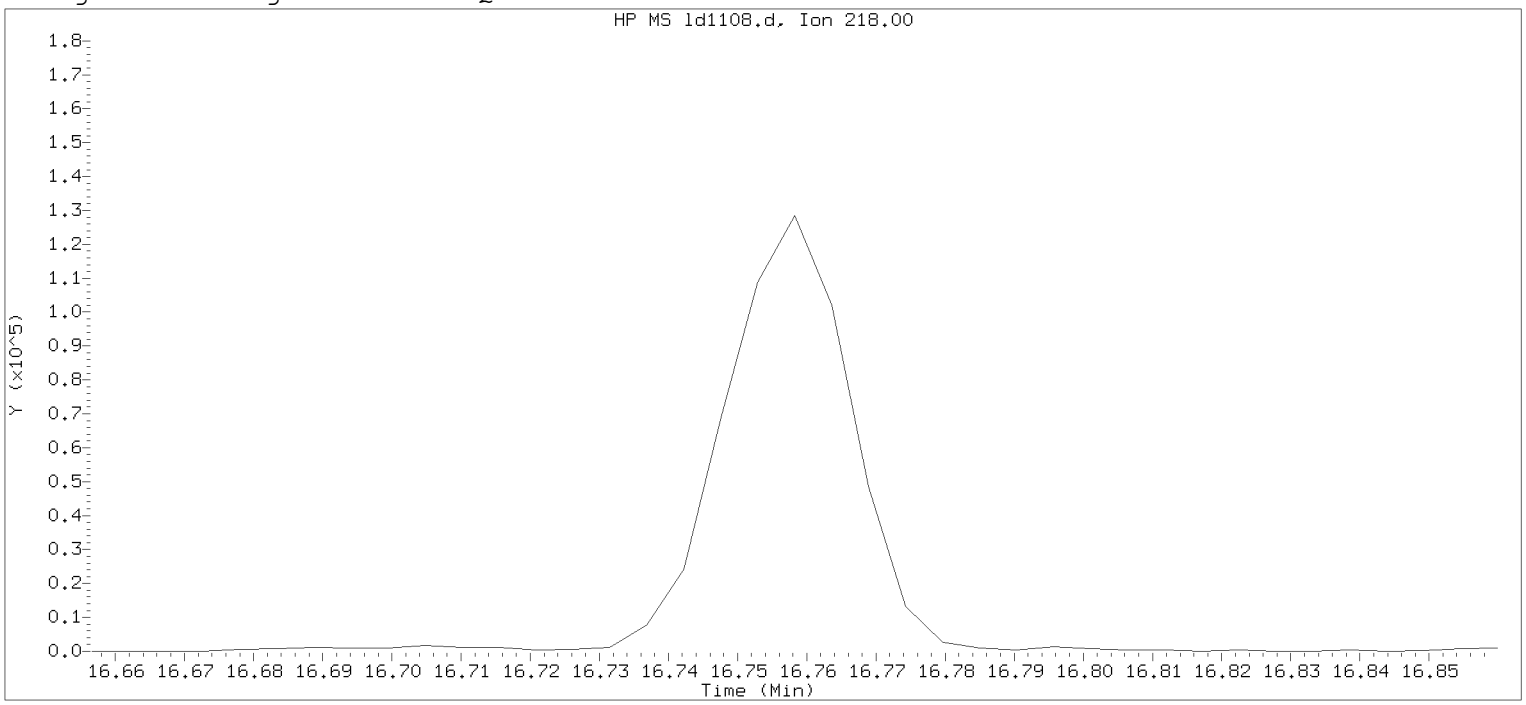
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

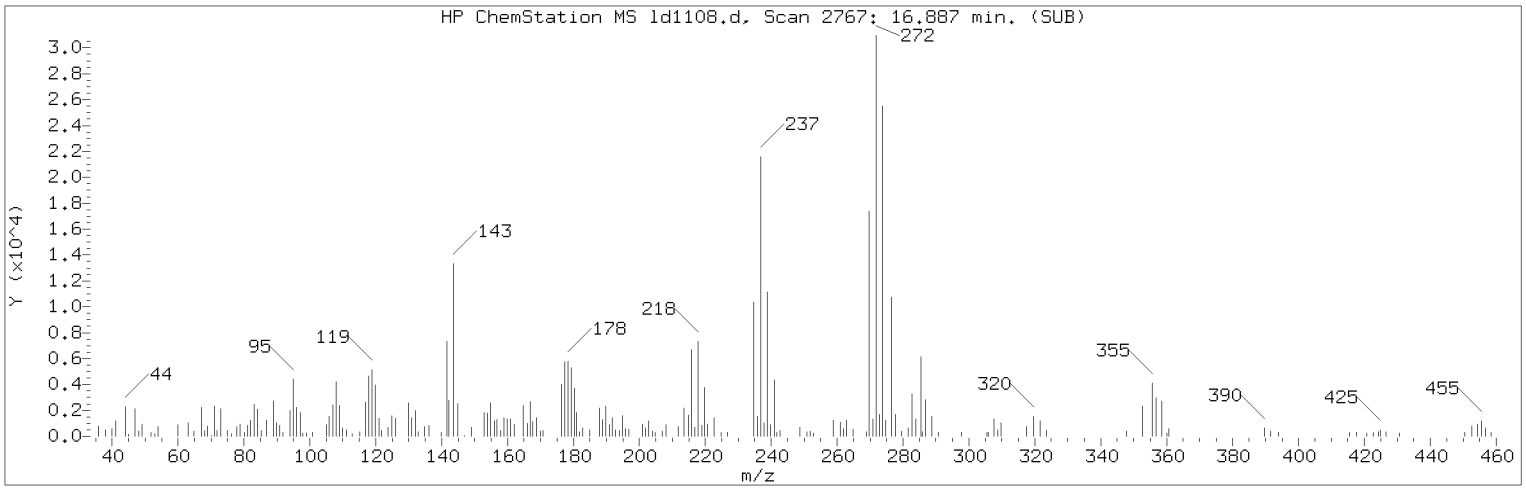
Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

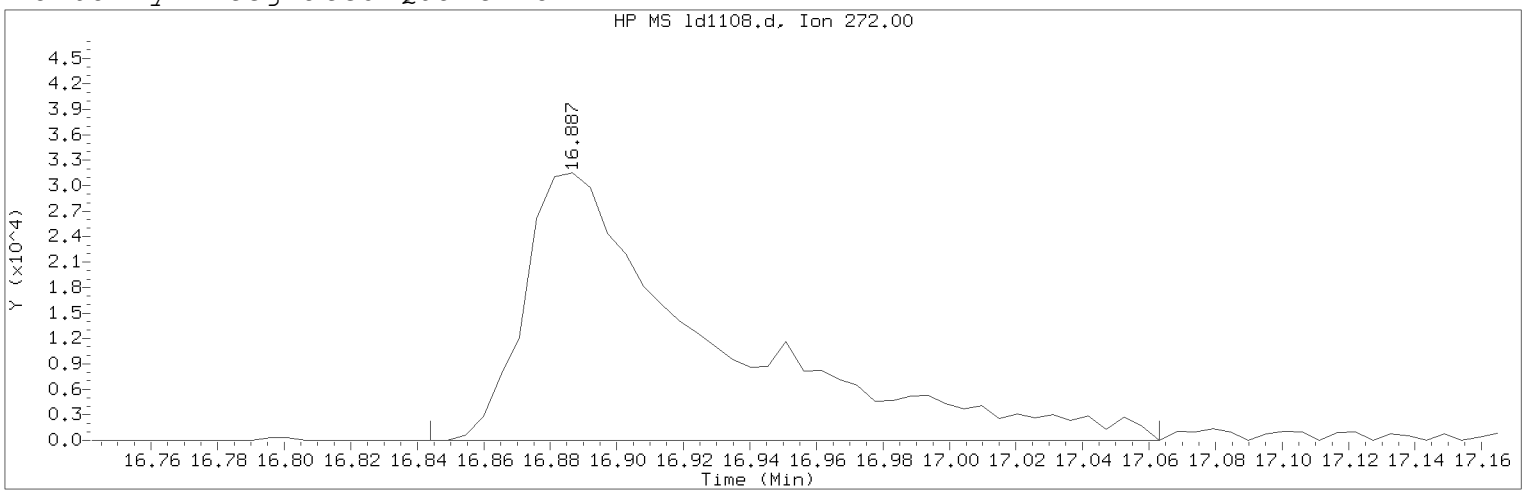
Compound Number : 194
Compound Name : Famphur
Expected RT (minutes) : 16.758
Quant Ion : 218.00

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. F35 Page 2321

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 24-APR-2019 10:13
Date, time and analyst ID of latest file update: 24-Apr-2019 11:09 hbz01996

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

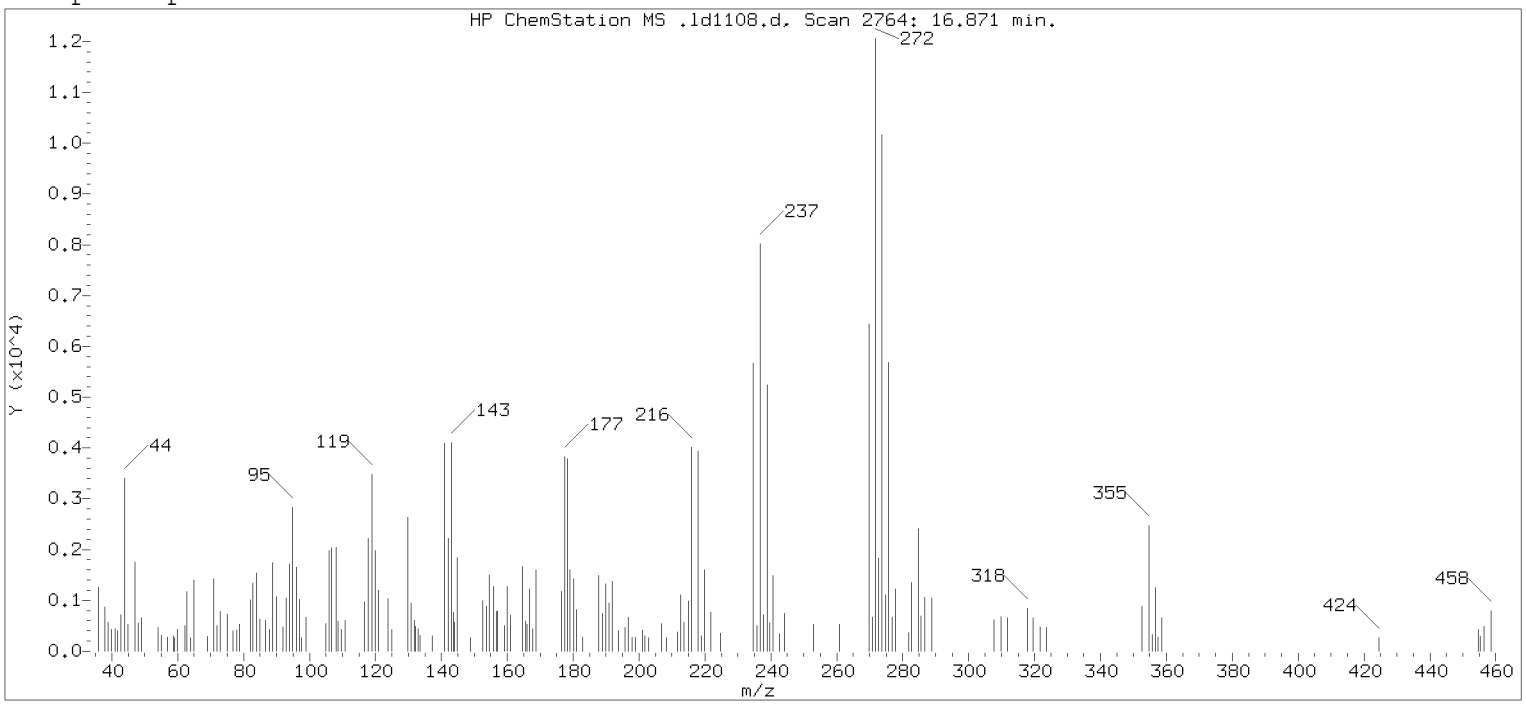
Compound Number : 195
Compound Name : Kepone
Scan Number : 2767
Retention Time (minutes) : 16.887
Quant Ion : 272.00
Area (flag) : 122933M
On-Column Amount (ng/ul) : 9.6839
Integration start scan : 2758 Integration stop scan: 2799
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

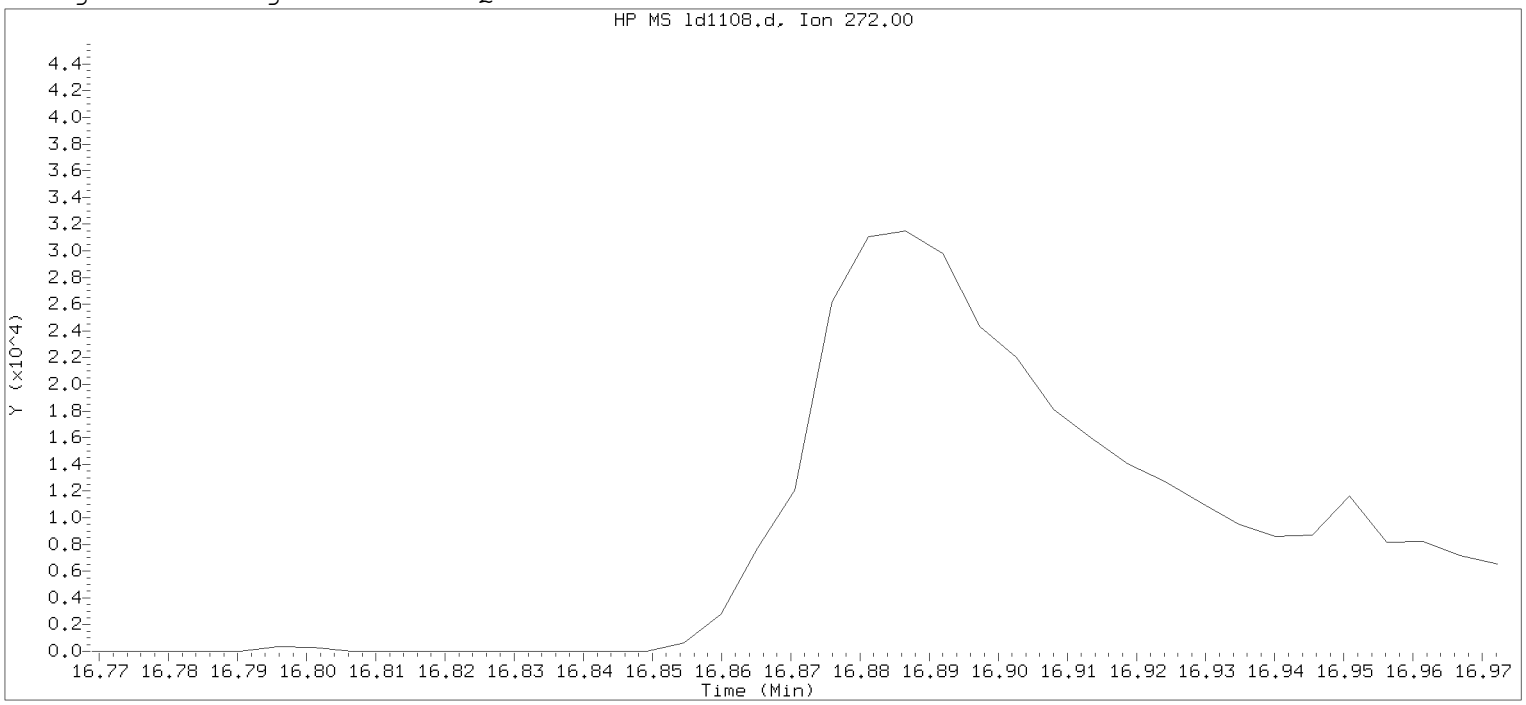
Analyst responsible for change: Digitally signed by Kira N. Beck
on 04/24/2019 at 11:14.
Target 3.5 esignature user ID: knb25316

Secondary review performed and digitally signed by Holly B. Ziegler on 04/24/2019 at 13:39.
PARALLAX ID: hb01996

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP20296.i/19apr18a.b/ld1108.d Instrument ID: HP20296.i
Injection date and time: 19-APR-2019 00:02 Analyst ID: art12405

Method used: /chem/HP20296.i/19apr18a.b/rv8270d.m Sublist used: QC107WJMb
Calibration date and time: 19-APR-2019 13:53
Date, time and analyst ID of latest file update: 19-Apr-2019 13:59 knb25316

Sample Name: 107WJLCSD2 Lab Sample ID: 107WJLCSD2

Compound Number : 195
Compound Name : Kepone
Expected RT (minutes) : 16.871
Quant Ion : 272.00

Digitally signed by Kira N. Beck on 04/24/2019 at 11:14.
Target 3.5 esignature used. F35 Rev 5.0

Extraction/Distillation/Digestion Logs

Semivolatiles by GC/MS

Organic Extraction Batchlog Assigned to: 26557 Logan Brosemer Reviewed by: EC410340 Start Date: 4-17-19 Start time: 8:00

19106WAN026 Tech 1: DB28914 Tech 2:

Dept: 26 Prep Analysis: 11010 8270D BNA Extraction SVOAs 8270D/E MINI

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH <2	pH >11	BC	Comments
BLANKA	SBLKWN106	250	SS1909526A	1.0			1.0	✓	✓	7	Tap H2O
LCSA	106WNLCS	250	SS1909526A		MS1910026B MS1910126A	1.0 1.0	1.0	✓	✓		
LCSAP1	106WNLCS	250	SS1909526A		MS1910026D MS1910126B	⑧ ~~1.0~~ 0.25 1.0	1.0	✓	✓		
LCSDA	106WNLCSD	250	SS1909526A		MS1910026B MS1910126A	1.0 1.0	1.0	✓	✓		
LCSDAP1	106WNLCSD	250	SS1909526A		MS1910026D MS1910126B	0.25 1.0	1.0	✓	✓		

⑧ 0.25. DB28914 4-17-19

Solvent Used	Lot No.
10N NaOH	4808F65
Methylene Chloride	188819
Sodium Sulfate	19106A
Sulfuric Acid	188014

Spike Solutions: Witness: N/A

MS1910126B	APPIX #1 MINI SPIKE
MS1910026D	APPIX MIX #2
MS1910126A	MINI SEP. LCS SPIKE #1
MS1910026B	MINI SEP. LCS SPIKE #2
SS1909526A	MINI SEP. BNA SURROGATE

~~3a Sample moved to 19106WA2026 BC 2826 E 4/17~~ (8b) Sample returned to this batch - EC410340 4/18/19

	Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH <2	pH >11	BC	Comments	Analyses	List	Due Date	Prio
1	1034102	F3502	250	SS1909526A	1.0	1.0	✓	✓	153A	clear	14241	24841	04/23/2019	N
2	1034109	F3507	249	SS1909526A		1.0	✓	✓	153A	clear	14241	22230	04/23/2019	N
3	1034110	F3508	250	SS1909526A		1.0	✓	✓	153A	clear	14241	22230	04/23/2019	N
4	1034111	F3509	249	SS1909526A		1.0	✓	✓	153A	clear	14241	22230	04/23/2019	N
5	1034112	F3510	249	SS1909526A		1.0	✓	✓	153A	clear	14241	22230	04/23/2019	N
6	1034113	F3511	251	SS1909526A		1.0	✓	✓	153A	clear	14241	22230	04/23/2019	N

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N/A DB28914 4-17-19

Bench#	Bench#	Bench#		
Rack ID:		Work Station	Tumble	Micro Temp 100?
Internal Standard	rvlSTD0949	Balance #	25996	

R-VAP ID 2	90° C	R-VAP ID 1	90°C	R-VAP ID	C
S-bath ID	C	S-bath ID	C	N-Evap C	M-vap C

19106WAN026

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Organic Extraction Batchlog Assigned to: 11067 Osvaldo Sanchez Reviewed by: EDG 10/30/19 Start Date: 4/17/19 Start time: 16:55

19107WAJ026 Tech 1: OSilva Tech 2: LCD28104

Dept: 26 Prep Analysis: 11010 8270D BNA Extraction SVOAs 8270D/E MINI

QC	Sample Code	Amt (ml)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH <2	pH >11	BC	Comments
1034105MS	F3504	251	SS1909526A	1.0	MS1910026B MS1910126A	1.0 1.0	1	✓	✓	153A	tan tint
1034106MSD	F3504	250	SS1909526A	1.0	MS1910026B MS1910126A	1.0 1.0	1	✓	✓	153A	clear
BLANKA	SBLKWJ107	250	SS1909526A	1.0	—	—	1	✓	✓		Tap H_2O
LCSA	107WJLCS	250	SS1909526A	1.0	MS1910026B MS1910126A	1.0 1.0	1	✓	✓		Tap H_2O
LCSAP	107WJLCS	250	SS1909526A	1.0	MS1910026D MS1910126B	1.0 1.0	1	✓	✓		Tap H_2O
LCSDAP	107WJLCSD	250	SS1909526A	1.0	MS1910026D MS1910126B	1.0 1.0	1	✓	✓		Tap H_2O

Solvent Used	Lot No.
10N NaOH	4508F65
Methylene Chloride	188814
Sodium Sulfate	191062
Sulfuric Acid	168014

NA

NA

Spike Solutions: Witness: —

MS1910126B	APPIX #1 MINI SPIKE
MS1910026D	APPIX MIX #2
MS1910126A	MINI SEP. LCS SPIKE #1
MS1910026B	MINI SEP. LCS SPIKE #2
SS1909526A	MINI SEP. BNA SURROGATE

(8) Sample moved to 19107WAZ026 16825316 4.23.19

Sample #		Sample Code	Amt (ml)	SS/IS Sol.	Amt (mL)	FV (mL)	pH <2	pH >11	BC	Comments	Analyses	List	Due Date	Prio
(8) 1	1031253 R	GW03A	247	SS1909526A	1.0	1	✓	✓	153C	orange, cloudy	14241	28125	04/19/2019	N
2	1034101	F3501	251	SS1909526A	1.0	1	✓	✓	153A	clear	14241	24841	04/23/2019	N
3	1034103	F3503	251	SS1909526A	1.0	1	✓	✓	153A	clear	14241	24841	04/23/2019	N
4	1034104BKG	F3504	250	SS1909526A	1.0	1	✓	✓	153A	tan tint	14241	24841	04/23/2019	N
5	1034107	F3505	250	SS1909526A	1.0	1	✓	✓	153A	clear	14241	24841	04/23/2019	N
6	1034108	F3506	250	SS1909526A	1.0	1	✓	✓	153A	clear	14241	24841	04/23/2019	N

NA

Bench# 3	Bench# 2	Bench# —	
Rack ID:		Work Station	tumble
Internal Standard	rvlSTD0949	Balance #	25996

Micro Temp 100? —

R-VAP ID 6	90 C	R-VAP ID 2	90 C	R-VAP ID	C		
~~S-bath ID~~	~~C~~	~~S-bath ID~~	~~C~~	N-Evap	C	M-vap	C

19107WAJ026

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Microbac

Laboratory Report Number: L19041033 *(Revised)*

Revised report to report as method 8270D.

Janet Frazier
Draper Aden Associates
2206 South Main Street
Blacksburg, VA 24060

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Michelle Taylor – Client Services Specialist
(740) 373-4071
Michelle.Taylor@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on April 30 2019

Leslie Bucina – Laboratory Manager

State of Origin: VA
Accrediting Authority: Common Wealth of Virginia ID:460187
QAPP: Microbac OVD

Microbac

Lab Report #: L19041033
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00115430	I	2.0		1Z2373010197816202	X
0017800	I	1.0		1Z2373010199745795	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	NA
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac

Lab Report #: L19041033
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
16C1	L19041033-01	04/11/2019 13:20	04/12/2019 10:22
16MW8	L19041033-02	04/10/2019 12:45	04/12/2019 10:22
16MW9	L19041033-03	04/11/2019 12:25	04/12/2019 10:22
16WC1A	L19041033-04	04/11/2019 11:00	04/12/2019 10:22
16WC1A	L19041033-05	04/11/2019 11:00	04/12/2019 10:22
16WC1A	L19041033-06	04/11/2019 11:00	04/12/2019 10:22
16WDUP	L19041033-07	04/11/2019 11:15	04/12/2019 10:22
16WC1B	L19041033-08	04/11/2019 10:15	04/12/2019 10:22

Microbac REPORT L19041033
PREPARED FOR Draper Aden Associates
WORK ID:

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1.0 Summary Data

1.1 Narratives

Login Number: L19041033
Department: Semivolatiles
Analyst: Sarah Bogolin

METHOD

Preparation 3510C

Analysis SW-846 8270D

HOLDING TIMES

Sample Preparation: Samples 01 to 08 were re-extracted 1 to 2 days out of hold. In the original extraction analysis an incorrect spike was used; neither target analyte was spiked in the LCS or MS, MSD. Both sets of sample results were reported.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: The LCS associated with the original extractions, analyzed 4/24/19, WG703405-02, was non-detect for all analytes. The LCS was not spiked with the appropriated spike; all associated samples were re-extracted. For the LCS and LCSDUP analyzed 4/22/19 on HPMS12, Hexachlorophene - Estimated was non-detect. The analyte was reported as an estimated value only. Please see the applicable QC report for a detailed presentation of the failures.

Matrix Spikes: 05 MS and 06 MSD were non-detect for all analytes. The samples were not spiked with the appropriated spike. The samples were re-extracted out of hold. For 05 MS and 06 MSD sample re-extracts, Hexachlorophene - Estimated was non-detect. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peakcompletely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low areacounts for the target compound.

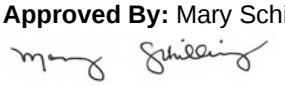
Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene andbenzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 148691
Approved By: Mary Schilling



1.2 Certificate of Analysis

Certificate of Analysis

Sample #:	L19041033-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16C1	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 13:54
Collect Date:	04/11/2019 13:20	**Dilution:**	1	**File ID:**	12M71275
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	100	10.0
Sulfotepp	3689-24-5		U,H1	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	108	22	142	
2-Fluorobiphenyl	96.4	43	116	
2-Fluorophenol	58.3	19	119	
Nitrobenzene-d5	95.6	35	114	
p-Terphenyl-d14	99.0	10	130	
Phenol-d5	37.8	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16C1	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 17:39
Collect Date:	04/11/2019 13:20	**Dilution:**	1	**File ID:**	19M007119
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	102	22	142	
2-Fluorobiphenyl	101	43	116	
2-Fluorophenol	52.1	19	119	
Nitrobenzene-d5	101	35	114	
p-Terphenyl-d14	112	10	130	
Phenol-d5	34.2	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16MW8	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 14:26
Collect Date:	04/10/2019 12:45	**Dilution:**	1	**File ID:**	12M71276
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5		U,H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	92.9	22	142	
2-Fluorobiphenyl	86.9	43	116	
2-Fluorophenol	47.7	19	119	
Nitrobenzene-d5	84.1	35	114	
p-Terphenyl-d14	89.8	10	130	
Phenol-d5	31.0	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16MW8	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 18:17
Collect Date:	04/10/2019 12:45	**Dilution:**	1	**File ID:**	19M007120
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	106	22	142	
2-Fluorobiphenyl	98.8	43	116	
2-Fluorophenol	50.5	19	119	
Nitrobenzene-d5	93.8	35	114	
p-Terphenyl-d14	112	10	130	
Phenol-d5	35.3	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16MW9	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 18:53
Collect Date:	04/11/2019 12:25	**Dilution:**	1	**File ID:**	19M007121
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	104	22	142	
2-Fluorobiphenyl	98.5	43	116	
2-Fluorophenol	54.0	19	119	
Nitrobenzene-d5	96.8	35	114	
p-Terphenyl-d14	104	10	130	
Phenol-d5	34.3	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16MW9	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 14:58
Collect Date:	04/11/2019 12:25	**Dilution:**	1	**File ID:**	12M71277
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	104	10.4
Sulfotepp	3689-24-5		U,H1	10.4	1.04

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	111	22	142	
2-Fluorobiphenyl	103	43	116	
2-Fluorophenol	58.1	19	119	
Nitrobenzene-d5	100	35	114	
p-Terphenyl-d14	105	10	130	
Phenol-d5	38.2	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 19:34
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	19M007122
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	105	22	142	
2-Fluorobiphenyl	95.4	43	116	
2-Fluorophenol	50.6	19	119	
Nitrobenzene-d5	94.4	35	114	
p-Terphenyl-d14	109	10	130	
Phenol-d5	33.7	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 15:30
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	12M71278
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	105	10.5
Sulfotepp	3689-24-5		U,H1	10.5	1.05

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	110	22	142	
2-Fluorobiphenyl	102	43	116	
2-Fluorophenol	58.1	19	119	
Nitrobenzene-d5	99.0	35	114	
p-Terphenyl-d14	104	10	130	
Phenol-d5	38.3	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-05	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 16:02
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	12M71279
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5	52.5	H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	112	22	142	
2-Fluorobiphenyl	106	43	116	
2-Fluorophenol	59.9	19	119	
Nitrobenzene-d5	104	35	114	
p-Terphenyl-d14	98.7	10	130	
Phenol-d5	39.5	10	94	

H1	Sample analysis performed past holding time.
U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-05	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 18:18
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	19M007134
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	105	10.5
Sulfotepp	3689-24-5		U	10.5	1.05

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	113	22	142	
2-Fluorobiphenyl	107	43	116	
2-Fluorophenol	57.8	19	119	
Nitrobenzene-d5	107	35	114	
p-Terphenyl-d14	110	10	130	
Phenol-d5	39.6	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 16:35
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	12M71280
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5	52.7	H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	113	22	142	
2-Fluorobiphenyl	107	43	116	
2-Fluorophenol	57.8	19	119	
Nitrobenzene-d5	103	35	114	
p-Terphenyl-d14	96.1	10	130	
Phenol-d5	38.1	10	94	

H1	Sample analysis performed past holding time.
U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 18:49
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	19M007135
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	109	22	142	
2-Fluorobiphenyl	104	43	116	
2-Fluorophenol	54.4	19	119	
Nitrobenzene-d5	105	35	114	
p-Terphenyl-d14	82.5	10	130	
Phenol-d5	36.8	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WDUP	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 17:07
Collect Date:	04/11/2019 11:15	**Dilution:**	1	**File ID:**	12M71281
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	102	10.2
Sulfotepp	3689-24-5		U,H1	10.2	1.02

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	105	22	142	
2-Fluorobiphenyl	98.5	43	116	
2-Fluorophenol	53.9	19	119	
Nitrobenzene-d5	94.1	35	114	
p-Terphenyl-d14	102	10	130	
Phenol-d5	36.0	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WDUP	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 19:20
Collect Date:	04/11/2019 11:15	**Dilution:**	1	**File ID:**	19M007136
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	105	10.5
Sulfotepp	3689-24-5		U	10.5	1.05

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	103	22	142	
2-Fluorobiphenyl	103	43	116	
2-Fluorophenol	57.1	19	119	
Nitrobenzene-d5	106	35	114	
p-Terphenyl-d14	89.6	10	130	
Phenol-d5	38.8	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-08	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1B	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 19:51
Collect Date:	04/11/2019 10:15	**Dilution:**	1	**File ID:**	19M007137
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	101	22	142	
2-Fluorobiphenyl	107	43	116	
2-Fluorophenol	56.8	19	119	
Nitrobenzene-d5	109	35	114	
p-Terphenyl-d14	78.4	10	130	
Phenol-d5	39.2	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-08	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1B	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 17:39
Collect Date:	04/11/2019 10:15	**Dilution:**	1	**File ID:**	12M71282
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5		U,H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	103	22	142	
2-Fluorobiphenyl	95.9	43	116	
2-Fluorophenol	53.0	19	119	
Nitrobenzene-d5	94.4	35	114	
p-Terphenyl-d14	93.1	10	130	
Phenol-d5	34.8	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

2.0 Full Sample Data Package

2.1 Semivolatiles Data

2.1.1 Semivolatiles GC/MS Data (8270)

2.1.1.1 Summary Data

Login Number: L19041033
Department: Semivolatiles
Analyst: Sarah Bogolin

METHOD

Preparation 3510C

Analysis SW-846 8270D

HOLDING TIMES

Sample Preparation: Samples 01 to 08 were re-extracted 1 to 2 days out of hold. In the original extraction analysis an incorrect spike was used; neither target analyte was spiked in the LCS or MS, MSD. Both sets of sample results were reported.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: The LCS associated with the original extractions, analyzed 4/24/19, WG703405-02, was non-detect for all analytes. The LCS was not spiked with the appropriated spike; all associated samples were re-extracted. For the LCS and LCSDUP analyzed 4/22/19 on HPMS12, Hexachlorophene - Estimated was non-detect. The analyte was reported as an estimated value only. Please see the applicable QC report for a detailed presentation of the failures.

Matrix Spikes: 05 MS and 06 MSD were non-detect for all analytes. The samples were not spiked with the appropriated spike. The samples were re-extracted out of hold. For 05 MS and 06 MSD sample re-extracts, Hexachlorophene - Estimated was non-detect. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peakcompletely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low areacounts for the target compound.

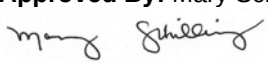
Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene andbenzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 148691
Approved By: Mary Schilling



Certificate of Analysis

Sample #:	L19041033-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16C1	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 13:54
Collect Date:	04/11/2019 13:20	**Dilution:**	1	**File ID:**	12M71275
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	100	10.0
Sulfotepp	3689-24-5		U,H1	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	108	22	142	
2-Fluorobiphenyl	96.4	43	116	
2-Fluorophenol	58.3	19	119	
Nitrobenzene-d5	95.6	35	114	
p-Terphenyl-d14	99.0	10	130	
Phenol-d5	37.8	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16C1	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 17:39
Collect Date:	04/11/2019 13:20	**Dilution:**	1	**File ID:**	19M007119
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	102	22	142	
2-Fluorobiphenyl	101	43	116	
2-Fluorophenol	52.1	19	119	
Nitrobenzene-d5	101	35	114	
p-Terphenyl-d14	112	10	130	
Phenol-d5	34.2	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16MW8	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 14:26
Collect Date:	04/10/2019 12:45	**Dilution:**	1	**File ID:**	12M71276
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5		U,H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	92.9	22	142	
2-Fluorobiphenyl	86.9	43	116	
2-Fluorophenol	47.7	19	119	
Nitrobenzene-d5	84.1	35	114	
p-Terphenyl-d14	89.8	10	130	
Phenol-d5	31.0	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16MW8	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 18:17
Collect Date:	04/10/2019 12:45	**Dilution:**	1	**File ID:**	19M007120
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	106	22	142	
2-Fluorobiphenyl	98.8	43	116	
2-Fluorophenol	50.5	19	119	
Nitrobenzene-d5	93.8	35	114	
p-Terphenyl-d14	112	10	130	
Phenol-d5	35.3	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16MW9	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 18:53
Collect Date:	04/11/2019 12:25	**Dilution:**	1	**File ID:**	19M007121
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	104	22	142	
2-Fluorobiphenyl	98.5	43	116	
2-Fluorophenol	54.0	19	119	
Nitrobenzene-d5	96.8	35	114	
p-Terphenyl-d14	104	10	130	
Phenol-d5	34.3	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16MW9	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 14:58
Collect Date:	04/11/2019 12:25	**Dilution:**	1	**File ID:**	12M71277
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	104	10.4
Sulfotepp	3689-24-5		U,H1	10.4	1.04

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	111	22	142	
2-Fluorobiphenyl	103	43	116	
2-Fluorophenol	58.1	19	119	
Nitrobenzene-d5	100	35	114	
p-Terphenyl-d14	105	10	130	
Phenol-d5	38.2	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 15:30
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	12M71278
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	105	10.5
Sulfotepp	3689-24-5		U,H1	10.5	1.05

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	110	22	142	
2-Fluorobiphenyl	102	43	116	
2-Fluorophenol	58.1	19	119	
Nitrobenzene-d5	99.0	35	114	
p-Terphenyl-d14	104	10	130	
Phenol-d5	38.3	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/24/2019 19:34
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	19M007122
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	105	22	142	
2-Fluorobiphenyl	95.4	43	116	
2-Fluorophenol	50.6	19	119	
Nitrobenzene-d5	94.4	35	114	
p-Terphenyl-d14	109	10	130	
Phenol-d5	33.7	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-05	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 16:02
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	12M71279
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5	52.5	H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	112	22	142	
2-Fluorobiphenyl	106	43	116	
2-Fluorophenol	59.9	19	119	
Nitrobenzene-d5	104	35	114	
p-Terphenyl-d14	98.7	10	130	
Phenol-d5	39.5	10	94	

H1	Sample analysis performed past holding time.
U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-05	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 18:18
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	19M007134
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	105	10.5
Sulfotepp	3689-24-5		U	10.5	1.05

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	113	22	142	
2-Fluorobiphenyl	107	43	116	
2-Fluorophenol	57.8	19	119	
Nitrobenzene-d5	107	35	114	
p-Terphenyl-d14	110	10	130	
Phenol-d5	39.6	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 18:49
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	19M007135
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	109	22	142	
2-Fluorobiphenyl	104	43	116	
2-Fluorophenol	54.4	19	119	
Nitrobenzene-d5	105	35	114	
p-Terphenyl-d14	82.5	10	130	
Phenol-d5	36.8	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1A	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 16:35
Collect Date:	04/11/2019 11:00	**Dilution:**	1	**File ID:**	12M71280
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5	52.7	H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	113	22	142	
2-Fluorobiphenyl	107	43	116	
2-Fluorophenol	57.8	19	119	
Nitrobenzene-d5	103	35	114	
p-Terphenyl-d14	96.1	10	130	
Phenol-d5	38.1	10	94	

H1	Sample analysis performed past holding time.
U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WDUP	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 17:07
Collect Date:	04/11/2019 11:15	**Dilution:**	1	**File ID:**	12M71281
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	102	10.2
Sulfotepp	3689-24-5		U,H1	10.2	1.02

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	105	22	142	
2-Fluorobiphenyl	98.5	43	116	
2-Fluorophenol	53.9	19	119	
Nitrobenzene-d5	94.1	35	114	
p-Terphenyl-d14	102	10	130	
Phenol-d5	36.0	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

Sample #:	L19041033-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WDUP	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 19:20
Collect Date:	04/11/2019 11:15	**Dilution:**	1	**File ID:**	19M007136
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	105	10.5
Sulfotepp	3689-24-5		U	10.5	1.05

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	103	22	142	
2-Fluorobiphenyl	103	43	116	
2-Fluorophenol	57.1	19	119	
Nitrobenzene-d5	106	35	114	
p-Terphenyl-d14	89.6	10	130	
Phenol-d5	38.8	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-08	**PrePrep Method:**	N/A	**Instrument:**	HPMS19
Client ID:	16WC1B	**Prep Method:**	3510C	**Prep Date:**	04/16/2019 09:15
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/03/2019 15:51
Workgroup #:	WG704943	**Analyst:**	SCB	**Run Date:**	04/25/2019 19:51
Collect Date:	04/11/2019 10:15	**Dilution:**	1	**File ID:**	19M007137
Sample Tag:	02	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U	100	10.0
Sulfotepp	3689-24-5		U	10.0	1.00

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	101	22	142	
2-Fluorobiphenyl	107	43	116	
2-Fluorophenol	56.8	19	119	
Nitrobenzene-d5	109	35	114	
p-Terphenyl-d14	78.4	10	130	
Phenol-d5	39.2	10	94	

U	Not detected at or above adjusted sample detection limit

Certificate of Analysis

Sample #:	L19041033-08	**PrePrep Method:**	N/A	**Instrument:**	HPMS12
Client ID:	16WC1B	**Prep Method:**	3510C	**Prep Date:**	04/19/2019 16:00
Matrix:	Water	**Analytical Method:**	8270D	**Cal Date:**	04/12/2019 14:52
Workgroup #:	WG704370	**Analyst:**	SCB	**Run Date:**	04/22/2019 17:39
Collect Date:	04/11/2019 10:15	**Dilution:**	1	**File ID:**	12M71282
Sample Tag:	RE	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	RL	MDL
Hexachlorophene - Estimated	70-30-4		U,H1	101	10.1
Sulfotepp	3689-24-5		U,H1	10.1	1.01

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	103	22	142	
2-Fluorobiphenyl	95.9	43	116	
2-Fluorophenol	53.0	19	119	
Nitrobenzene-d5	94.4	35	114	
p-Terphenyl-d14	93.1	10	130	
Phenol-d5	34.8	10	94	

U,H1	Not detected; sample analysis performed past holding time.

Certificate of Analysis

2.1.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG704098
Analyst: JDH
Spike Analyst: JDH
Method: 3510C
Run Date: 04/19/2019 16:00
SOP: EXB08 Revision 16
Spike Witness: ATK
Surr Solution: STD91214

Methylene Chloride Lot #: COA21323
Sodium Sulfate, Anhydrous, Granular Lot # COA21324
1:1 H2SO4 Lot #: RGT45016
10N NaOH Lot #: RGT47335

	SAMPLE #	Type	Reference	pH	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L19041033-01	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
2	L19041033-02	SAMP		<2>12	827-SPE	990 mL	.5 mL			1 mL	Transparent
3	L19041033-03	SAMP		<2>12	827-SPE	960 mL	.5 mL			1 mL	Transparent
4	L19041033-04	RS01		<2>12	827-SPE	950 mL	.5 mL			1 mL	Colored
5	L19041033-05	MS01	L19041033-04	<2>12	827-SPE	990 mL	.5 mL	1 mL	STD93104	1 mL	Colored
6	L19041033-06	SD01	L19041033-04	<2>12	827-SPE	990 mL	.5 mL	1 mL	STD93104	1 mL	Colored
7	L19041033-07	SAMP		<2>12	827-SPE	980 mL	.5 mL			1 mL	Transparent
8	L19041033-08	SAMP		<2>12	827-SPE	990 mL	.5 mL			1 mL	Transparent
9	L19041361-02	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
10	L19041361-04	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
11	L19041361-06	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
12	L19041361-08	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
13	L19041361-10	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
14	L19041361-12	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
15	L19041361-14	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
16	L19041361-16	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Colored
17	WG704098-01	BLANK		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
18	WG704098-02	LCS		<2>12	827-SPE	1000 mL	.5 mL	1 mL	STD93104	1 mL	Colored
19	WG704098-03	LCS2		<2>12	827-SPE	1000 mL	.5 mL	1 mL	STD93104	1 mL	Colored
20	WG704098-04	REF	L19041033-04	<2>12	827-SPE	950 mL	.5 mL			1 mL	Colored
21	WG704098-05	MS	L19041033-04	<2>12	827-SPE	990 mL	.5 mL	1 mL	STD93104	1 mL	Colored
22	WG704098-06	MSD	L19041033-04	<2>12	827-SPE	990 mL	.5 mL	1 mL	STD93104	1 mL	Colored

pH 0-3 Lot#220416A
pH 10-12 Lot#213515B
TV1P5,6

L19041033-04	RE-EXT OUT HOLD
L19041033-05	RE-EXT OUT HOLD
L19041033-01	RE-EXT OUT HOLD
L19041033-02	RE-EXT OUT HOLD
L19041033-03	RE-EXT OUT HOLD
L19041033-06	RE-EXT OUT HOLD
L19041033-07	RE-EXT OUT HOLD
L19041033-08	RE-EXT OUT HOLD
WG704098-04	RE-EXT OUT HOLD
WG704098-05	RE-EXT OUT HOLD
WG704098-06	RE-EXT OUT HOLD

EXTRACT - Modified 10/22/2008
PDF ID: 6408785
Report generated: 04/22/2019 11:23

Microbac Laboratories Inc.
Sample Extract Log

Workgroup:	WG704098
Analyst:	JDH
Spike Analyst:	JDH
Method:	3510C
Run Date:	04/19/2019 16:00
SOP:	EXB08 Revision 16
Spike Witness:	ATK
Surr Solution:	STD91214

Methylene Chloride Lot #:	COA21323
Sodium Sulfate, Anhydrous, Granular Lot #	COA21324
1:1 H2SO4 Lot #:	RGT45016
10N NaOH Lot #:	RGT47335

Analyst: Justin Hesson

Reviewer: Kendrick Davis

EXTRACT - Modified 10/22/2008
PDF ID: 6408785
Report generated: 04/22/2019 11:23

Microbac Laboratories Inc.
Sample Extract Log

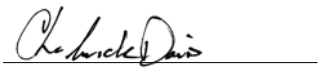
Workgroup: WG703405
Analyst: CPD
Spike Analyst: CPD
Method: 3510C
Run Date: 04/16/2019 09:15
SOP: EXB08 Revision 16
Spike Witness: JDH
Surr Solution: STD92810

Methylene Chloride Lot #: COA21323
Sodium Sulfate, Anhydrous, Granular Lot #: COA21310
1:1 H2SO4 Lot #: RGT45016
10N NaOH Lot #: RGT46839

	SAMPLE #	Type	Reference	pH	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L19041025-04	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
2	L19041033-01	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
3	L19041033-02	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
4	L19041033-03	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
5	L19041033-04	RS01		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
6	L19041033-05	MS01	L19041033-04	<2>12	827-SPE	950 mL	.5 mL	.5 mL	STD92809	1 mL	Transparent
7	L19041033-06	SD01	L19041033-04	<2>12	827-SPE	1000 mL	.5 mL	.5 mL	STD92809	1 mL	Transparent
8	L19041033-07	SAMP		<2>12	827-SPE	950 mL	.5 mL			1 mL	Transparent
9	L19041033-08	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
10	L19041061-01	SAMP		<2>12	625-SPE	980 mL	.5 mL			8 mL	Transparent
11	L19041069-01	SAMP		<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
12	L19041212-01	SAMP		<2>12	625-SPE	1000 mL	.5 mL			1 mL	Transparent
13	L19041212-02	SAMP		<2>12	625-SPE	1000 mL	.5 mL			1 mL	Transparent
14	L19041212-03	SAMP		<2>12	625-SPE	1000 mL	.5 mL			1 mL	Transparent
15	WG703405-01	BLANK		<2>12	625-SPE	1000 mL	.5 mL			1 mL	Transparent
16	WG703405-02	LCS		<2>12	625-SPE	1000 mL	.5 mL	.5 mL	STD92809	1 mL	Transparent
17	WG703405-03	REF	L19041033-04	<2>12	827-SPE	1000 mL	.5 mL			1 mL	Transparent
18	WG703405-04	MS	L19041033-04	<2>12	827-SPE	950 mL	.5 mL	.5 mL	STD92809	1 mL	Transparent
19	WG703405-05	MSD	L19041033-04	<2>12	827-SPE	1000 mL	.5 mL	.5 mL	STD92809	1 mL	Transparent

pH 0-3 Lot#220416A
pH 10-12 Lot#213515B
TV1P5

L19041061-01	EMULSION (A/B), SX BECAME THICK WHILE CONCENTRATING

Analyst: 

Reviewer:

EXTRACT - Modified 10/22/2008
PDF ID: 6401068
Report generated: 04/18/2019 12:29

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS19 Dataset: 040319
Analyst1: SCB Analyst2: NA
Method: 8270C/D SOP: MSS01 Rev: 29
Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:
Eluent ID#:

Workgroups: Column 1 ID: RXI-5MS Column 2 ID: NA
WG701995, WG702106, WG701825
Internal STD: COA21253 Surrogate STD: NA Calibration STD
CCV STD: STD92410 LCS STD: MS/MSD STD:

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	19M006769	RINSE W/IS	1	1		04/03/19 08:35
2	19M006770	RINSE W/IS	1	1		04/03/19 10:09
3	19M006771	WG701995-01 50PPM DFTPP	1	1	STD91965	04/03/19 10:44
4	19M006772	WG701995-02 50PPM 8270 STD	1	1	STD92410	04/03/19 11:01
5	19M006773	WG701995-01 50PPM DFTPP	1	1	STD91965	04/03/19 11:34
6	19M006774	WG701995-02 50PPM 8270 STD	1	1	STD92410	04/03/19 11:51
7	19M006775	WG701995-03 1PPM 8270 STD	1	1	STD92410	04/03/19 12:21
8	19M006776	WG701995-04 3PPM 8270 STD	1	1	STD92410	04/03/19 12:51
9	19M006777	WG701995-05 10PPM 8270 STD	1	1	STD92410	04/03/19 13:21
10	19M006778	WG701995-06 15PPM 8270 STD	1	1	STD92410	04/03/19 13:51
11	19M006779	WG701995-07 25PPM 8270 STD	1	1	STD92410	04/03/19 14:21
12	19M006780	WG701995-08 80PPM 8270 STD	1	1	STD92410	04/03/19 14:51
13	19M006781	WG701995-09 100PPM 8270 STD	1	1	STD92410	04/03/19 15:21
14	19M006782	WG701995-10 120PPM 8270 STD	1	1	STD92410	04/03/19 15:51
15	19M006783	WG701995-11 50PPM 8270 ALT SRC	1	1	STD90563	04/03/19 16:24
16	19M006784	WG701995-12 50PPM 1,4-DIOX ALT SRC	1	1	STD90899	04/03/19 16:53
17	19M006785	WG701995-13 50PPM MP,A9,BEN ALT SRC	1	1	STD91960	04/03/19 17:24
18	19M006786	WG701412-02 LCS 3/29	2	1		04/03/19 17:54
19	19M006787	WG701412-03 LCS2 3/29	2	1		04/03/19 18:24
20	19M006788	WG701412-01 BLANK 3/29	2	1		04/03/19 18:54
21	19M006789	WG701647-01 BLANK 4/1	7	1	SOIL	04/03/19 19:24
22	19M006790	WG701647-02 LCS 4/1	7	1	SOIL	04/03/19 19:54
23	19M006791	WG701647-03 LCS2 4/1	7	1	SOIL	04/03/19 20:23
24	19M006792	L19032001-01	7	1	SOIL	04/03/19 20:53
25	19M006793	L19032001-02 5X	7	5	SOIL	04/03/19 21:23
26	19M006794	L19031855-01	2	1		04/03/19 21:53
27	19M006795	L19031855-02	2	1		04/03/19 22:23
28	19M006796	BAKE OUT	1	1		04/03/19 22:53
29	19M006797	BNA SPK #1 100PPM	1	1	STD92809	04/03/19 23:22
30	19M006798	BNA SURR #1 200A/100B	1	1	STD92810	04/03/19 23:52
31	19M006799	BAKE OUT	1	1		04/04/19 00:22
32	19M006800	BAKE OUT	1	1		04/04/19 00:52
33	19M006801	BAKE OUT	1	1		04/04/19 01:22

Page: 1 Approved: 04-APR-19

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS19 Dataset: 040319

Analyst1: SCB Analyst2: NA

Method: 8270C/D SOP: MSS01 Rev: 29

Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:

Eluent ID#:

Workgroups: Column 1 ID: RXI-5MS Column 2 ID: NA

WG701995, WG702106, WG701825

Internal STD: COA21253 Surrogate STD: NA

CCV STD: STD92410 LCS STD:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3				
	WG701995-01 50PPM DFTPP re-ran, DNR			
4				
	WG701995-02 50PPM 8270 STD lowered voltage, DNR			
25				
	L19032001-02 5X ran at a dilution due to a dark green sample matrix			

Page: 2 Approved: 04-APR-19

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 041219
Analyst1: SCB Analyst2: NA
Method: 8270C/D SOP: MSS01 Rev: 29
Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:
Eluent ID#:

Workgroups: Column 1 ID: RXI-5MS Column 2 ID: NA
WG703239, WG703551
Internal STD: COA21253 Surrogate STD: NA Calibration STD
CCV STD: STD92410 LCS STD: MS/MSD STD:

Comments: For analytes 49 and 111 at the 100ppm residual calculations were >50%. Analytes 49 and 111 will not be reported at concentrations >80ppm.

WG703551(WG703181) needs rerun with kepone standard.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M71141	WG703239-01 50PPM DFTPP STD	1	1	STD91965	04/12/19 10:12
2	12M71142	WG703239-02 50PPM 8270 STD	1	1	STD92410	04/12/19 10:30
3	12M71143	WG703239-03 1PPM 8270 STD	1	1	STD92410	04/12/19 11:05
4	12M71144	WG703239-04 3PPM 8270 STD	1	1	STD92410	04/12/19 11:37
5	12M71145	WG703239-05 10PPM 8270 STD	1	1	STD92410	04/12/19 12:10
6	12M71146	WG703239-06 15PPM 8270 STD	1	1	STD92410	04/12/19 12:43
7	12M71147	WG703239-07 25PPM 8270 STD	1	1	STD92410	04/12/19 13:15
8	12M71148	WG703239-08 80PPM 8270 STD	1	1	STD92410	04/12/19 13:48
9	12M71149	WG703239-09 100PPM 8270 STD	1	1	STD92410	04/12/19 14:19
10	12M71150	WG703239-10 120PPM 8270 STD	1	1	STD92410	04/12/19 14:52
11	12M71151	WG703239-11 50PPM 8270 ALT SRC	1	1	STD90563	04/12/19 15:50
12	12M71152	WG703239-12 50PPM 1,4-DIOX ALT SRC	1	1	STD90899	04/12/19 16:22
13	12M71153	WG703239-13 50PPM MP,BEN,A9 ALT SRC	1	1	STD91960	04/12/19 16:54
14	12M71154	WG703239-14 25PPM P-PHEN ALT SRC	1	1	STD91970	04/12/19 17:27
15	12M71155	WG703181-01 BLANK 4/11	1	1		04/12/19 17:59
16	12M71156	WG703181-02 LCS 4/11	1	1		04/12/19 18:31
17	12M71157	WG703181-03 LCS2 4/11	1	1		04/12/19 19:03
18	12M71158	L19040780-01	1	1		04/12/19 19:35
19	12M71159	L19040780-03	1	1		04/12/19 20:07
20	12M71160	L19040780-05	1	1		04/12/19 20:39
21	12M71161	BAKE OUT	1	1		04/12/19 21:10
22	12M71162	BAKE OUT	1	1		04/12/19 21:42
23	12M71163	BAKE OUT	1	1		04/12/19 22:14
24	12M71164	BAKE OUT	1	1		04/12/19 22:46
25	12M71165	BAKE OUT	1	1		04/12/19 23:18
26	12M71166	BAKE OUT	1	1		04/12/19 23:50

Comments

Seq.	Rerun	Dil.	Reason	Analytes

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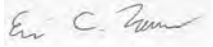

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 042219
Analyst1: SCB Analyst2: NA
Method: 8270C/D SOP: MSS01 Rev: 29
Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:
Eluent ID#:

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG704370
Internal STD: COA21253 Surrogate STD: NA Calibration STD
CCV STD: STD92410, 92242 LCS STD: MS/MSD STD:

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M71269	WG704385-01 50PPM DFTPP STD	1	1	STD91965	04/22/19 10:51
2	12M71270	WG704385-02 50PPM 8270 STD	1	1	STD92410	04/22/19 11:09
3	12M71271	500PPM KEPONE STD	1	1	STD92242	04/22/19 11:45
4	12M71272	WG704098-01 BLANK 4/19	1	1		04/22/19 12:17
5	12M71273	WG704098-02 LCS 4/19	1	1		04/22/19 12:49
6	12M71274	WG704098-03 LCS2 4/19	1	1		04/22/19 13:21
7	12M71275	L19041033-01 RE	1	1		04/22/19 13:54
8	12M71276	L19041033-02 RE	1	1		04/22/19 14:26
9	12M71277	L19041033-03 RE	1	1		04/22/19 14:58
10	12M71278	L19041033-04 REF RE	1	1		04/22/19 15:30
11	12M71279	L19041033-05 MS RE	1	1		04/22/19 16:02
12	12M71280	L19041033-06 MSD RE	1	1		04/22/19 16:35
13	12M71281	L19041033-07 RE	1	1		04/22/19 17:07
14	12M71282	L19041033-08 RE	1	1		04/22/19 17:39
15	12M71283	L19041361-02	1	1		04/22/19 18:11
16	12M71284	L19041361-04	1	1		04/22/19 18:43
17	12M71285	L19041361-06	1	1		04/22/19 19:15
18	12M71286	L19041361-08	1	1		04/22/19 19:47
19	12M71287	L19041361-10	1	1		04/22/19 20:19
20	12M71288	L19041361-12	1	1		04/22/19 20:51
21	12M71289	L19041361-14	1	1		04/22/19 21:22
22	12M71290	L19041361-16	1	1		04/22/19 21:54
23	12M71291	BAKE OUT	1	1		04/22/19 22:27
24	12M71292	BAKE OUT	1	1		04/22/19 22:58
25	12M71293	BAKE OUT	1	1		04/22/19 23:30
26	12M71294	BAKE OUT	1	1		04/23/19 00:02
27	12M71295	BAKE OUT	1	1		04/23/19 00:35

Comments

Seq.	Rerun	Dil.	Reason	Analytes
5				
	WG704098-02 LCS 4/19 hexachlorophene non-detect			
6				

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 042219

Analyst1: SCB Analyst2: NA

Method: 8270C/D SOP: MSS01 Rev: 29

Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:

Eluent ID#:

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG704370

Internal STD: COA21253 Surrogate STD: NA

CCV STD: STD92410, 92242 LCS STD:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	WG704098-03 LCS2 4/19 hexachlorophene non-detect			
11				
	L19041033-05 MS RE hexachlorophene non-detect			
12				
	L19041033-06 MSD RE hexachlorophene non-detect			
18	X	10	Over Calibration Range	44
	L19041361-08			

Page: 2 Approved: 23-APR-19

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS19 Dataset: 042419
Analyst1: SCB Analyst2: NA
Method: 8270C/D SOP: MSS01 Rev: 29
Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:
Eluent ID#:

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG704943
Internal STD: COA21253 Surrogate STD: NA Calibration STD
CCV STD: STD92410, 92242 LCS STD: MS/MSD STD:

Comments: QC and samples for WG704943 were rerun with hexachlorophene standard, the original run the standard was not run.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	19M007111	WG704765-01 50PPM DFTPP	1	1	STD91965	04/24/19 11:38
2	19M007112	WG704765-02 50PPM 8270 STD	1	1	STD92410	04/24/19 12:00
3	19M007113	WG704765-02 50PPM 8270 STD	1	1	STD92410	04/24/19 12:39
4	19M007114	WG704765-01 50PPM DFTPP	1	1	STD91965	04/24/19 13:42
5	19M007115	WG704765-02 50PPM 8270 STD	1	1	STD92410	04/24/19 14:01
6	19M007116	500PPM KEPONE STD	1	1	STD92242	04/24/19 15:37
7	19M007117	WG703405-01 BLANK 4/16	1	1		04/24/19 16:12
8	19M007118	WG703405-02 LCS 4/16	1	1		04/24/19 16:46
9	19M007119	L19041033-01	1	1		04/24/19 17:39
10	19M007120	L19041033-02	1	1		04/24/19 18:17
11	19M007121	L19041033-03	1	1		04/24/19 18:53
12	19M007122	L19041033-04 REF	2	1		04/24/19 19:34

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	WG704765-02 50PPM 8270 STD has a CCC with a high %D, DNR			
3				
	WG704765-02 50PPM 8270 STD has a CCC with a high %D, changed liner, DNR			

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS19 Dataset: 042519
Analyst1: SCB Analyst2: NA
Method: 8270C/D SOP: MSS01 Rev: 29
Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:
Eluent ID#:

Workgroups: Column 1 ID: RXI-5MS Column 2 ID: NA
WG704943, WG704854, WG704738
Internal STD: COA21253 Surrogate STD: NA Calibration STD
CCV STD: STD92410, 92242 LCS STD: MS/MSD STD:

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	19M007123	BAKE OUT	1	1		04/25/19 11:34
2	19M007124	BAKE OUT	1	1		04/25/19 12:16
3	19M007125	WG704868-01 50PPM DFTPP	1	1	STD91965	04/25/19 12:46
4	19M007126	WG704868-02 50PPM 8270 STD	1	1	STD92410	04/25/19 13:40
5	19M007127	500PPM KEPONE STD	1	1	STD92242	04/25/19 14:40
6	19M007128	WG704406-01 BLANK 4/23	1	1		04/25/19 15:11
7	19M007129	WG704406-02 LCS 4/23	1	1		04/25/19 15:42
8	19M007130	WG704406-03 LCS2 4/23	1	1		04/25/19 16:13
9	19M007131	WG704675-02 LCS 4/24	2	1		04/25/19 16:44
10	19M007132	WG704675-03 LCS2 4/24	2	1		04/25/19 17:15
11	19M007133	WG704675-01 BLANK 4/24	2	1		04/25/19 17:47
33	19M007134	L19041033-05 MS	1	1		04/25/19 18:18
34	19M007135	L19041033-06 MSD	1	1		04/25/19 18:49
14	19M007136	L19041033-07	1	1		04/25/19 19:20
15	19M007137	L19041033-08	1	1		04/25/19 19:51
16	19M007138	L19041509-02 827-SPE	1	1		04/25/19 20:22
17	19M007139	L19041509-04 827-SPE	1	1		04/25/19 20:53
18	19M007140	L19041509-06 827-SPE	1	1		04/25/19 21:25
19	19M007141	L19041509-08 827-SPE	1	1		04/25/19 21:56
20	19M007142	L19041509-10 827-SPE	1	1		04/25/19 22:27
21	19M007143	L19041509-14 827-SPE	1	1		04/25/19 22:58
22	19M007144	L19041509-12 827-SPE	1	1		04/25/19 23:28
23	19M007145	L19041509-12 5X 827-SPE	1	5		04/25/19 23:59
24	19M007146	L19041742-03	2	1		04/26/19 00:31
25	19M007147	L19041697-01 5X 625-SPE	2	5		04/26/19 01:02
26	19M007148	BAKE OUT	1	1		04/26/19 01:33
27	19M007149	BAKE OUT	1	1		04/26/19 02:04
28	19M007150	BAKE OUT	1	1		04/26/19 02:35
29	19M007151	BAKE OUT	1	1		04/26/19 03:06
30	19M007152	BAKE OUT	1	1		04/26/19 03:37
31	19M007153	BAKE OUT	1	1		04/26/19 04:08
32	19M007154	BAKE OUT	1	1		04/26/19 04:39

Comments

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS19 Dataset: 042519
Analyst1: SCB Analyst2: NA
Method: 8270C/D SOP: MSS01 Rev: 29
Method: OVAP SOP: MSS01 Rev: 1

Maintenance Log ID: Syringe Filter Lot#:
Eluent ID#:

Workgroups: Column 1 ID: RXI-5MS Column 2 ID: NA
WG704943, WG704854, WG704738
Internal STD: COA21253 Surrogate STD: NA
CCV STD: STD92410, 92242 LCS STD:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
9				
	WG704675-02 LCS 4/24 has six high %REC for sample L19041742-03 and 8 high %REC for sample L19041697-01, has one high base surrogate recovery			
10				
	WG704675-03 LCS2 4/24 has six high %REC for sample L19041742-03 and 8 high %REC for sample L19041697-01			
11				
	WG704675-01 BLANK 4/24 has two high base surrogate recoveries			
20	X	5	Over Calibration Range	20
	L19041509-10 827-SPE			
23				
	L19041509-12 5X 827-SPE ran at a dilution due to a pink sample matrix, dilution not needed, DNR			
25				
	L19041697-01 5X 625-SPE ran at a dilution due to a blue sample matrix, needs re-extract due to a hit of a high outlier in the LCS and LCSdup %REC			

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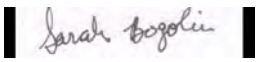
Microbac Laboratories Inc.

Data Checklist

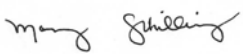
Date: 03-APR-2019
Analyst: SCB
Analyst: NA
Method: 8270/625
Instrument: HPMS19
Curve Workgroup: NA
Runlog ID: 96151
Analytical Workgroups: WG701995, L19032001, L19031855

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	SCB
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MES

Primary Reviewer:
04-APR-2019



Secondary Reviewer:
04-APR-2019



CHECKLIST1 - Modified 03/05/2008
Generated: APR-04-2019 14:14:35

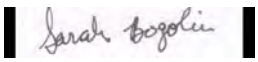
Microbac Laboratories Inc.

Data Checklist

Date: 12-APR-2019
Analyst: SCB
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 96358
Analytical Workgroups: WG703239, L19040780

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	SCB
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
15-APR-2019



Secondary Reviewer:
15-APR-2019

CHECKLIST1 - Modified 03/05/2008
Generated: APR-15-2019 18:03:44

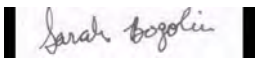
Microbac Laboratories Inc.

Data Checklist

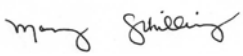
Date: 22-APR-2019
Analyst: SCB
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 96558
Analytical Workgroups: L19041033, L19041361

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	SCB
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MES

Primary Reviewer:
23-APR-2019



Secondary Reviewer:
23-APR-2019



CHECKLIST1 - Modified 03/05/2008
Generated: APR-23-2019 17:05:08

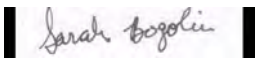
Microbac Laboratories Inc.

Data Checklist

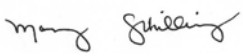
Date: 24-APR-2019
Analyst: SCB
Analyst: NA
Method: 8270/625
Instrument: HPMS19
Curve Workgroup: NA
Runlog ID: 96615
Analytical Workgroups: L19041033

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	SCB
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MES

Primary Reviewer:
25-APR-2019



Secondary Reviewer:
26-APR-2019



CHECKLIST1 - Modified 03/05/2008
Generated: APR-26-2019 10:52:25

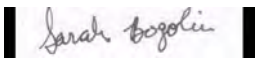
Microbac Laboratories Inc.

Data Checklist

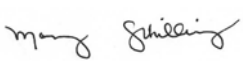
Date: 25-APR-2019
Analyst: SCB
Analyst: NA
Method: 8270/625
Instrument: HPMS19
Curve Workgroup: NA
Runlog ID: 96636
Analytical Workgroups: L19041033, L19041509, L19041742, L19041697

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	SCB
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MES

Primary Reviewer:
26-APR-2019



Secondary Reviewer:
27-APR-2019



CHECKLIST1 - Modified 03/05/2008
Generated: APR-27-2019 12:58:37

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270D **AAB#:** WG704370

Login Number: L19041033

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
16C1	01	04/11/19					04/19/2019	8.1	7	*	04/22/19	2.9	40	
16MW8	02	04/10/19					04/19/2019	9.1	7	*	04/22/19	2.9	40	
16MW9	03	04/11/19					04/19/2019	8.1	7	*	04/22/19	3	40	
16WC1A	04	04/11/19					04/19/2019	8.2	7	*	04/22/19	3	40	
16WC1A	05	04/11/19					04/19/2019	8.2	7	*	04/22/19	3	40	
16WC1A	06	04/11/19					04/19/2019	8.2	7	*	04/22/19	3	40	
16WDUP	07	04/11/19					04/19/2019	8.2	7	*	04/22/19	3	40	
16WC1B	08	04/11/19					04/19/2019	8.2	7	*	04/22/19	3.1	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 6405194
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270D **AAB#:** WG704943

Login Number: L19041033

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
16C1	01	04/11/19					04/16/2019	4.8	7		04/24/19	8.4	40	
16MW8	02	04/10/19					04/16/2019	5.9	7		04/24/19	8.4	40	
16MW9	03	04/11/19					04/16/2019	4.9	7		04/24/19	8.4	40	
16WC1A	04	04/11/19					04/16/2019	4.9	7		04/24/19	8.4	40	
16WC1A	05	04/11/19					04/16/2019	4.9	7		04/25/19	9.4	40	
16WC1A	06	04/11/19					04/16/2019	4.9	7		04/25/19	9.4	40	
16WDUP	07	04/11/19					04/16/2019	4.9	7		04/25/19	9.4	40	
16WC1B	08	04/11/19					04/16/2019	5	7		04/25/19	9.4	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 6405194
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L19041033
Instrument Id: HPMS12
Workgroup (AAB#): WG704370

Method: 8270
CAL ID: HPMS12-12-APR-19
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
L19041033-01	1.00	RE	108	96.4	58.3	95.6	99.0	37.8
L19041033-02	1.00	RE	92.9	86.9	47.7	84.1	89.8	31.0
L19041033-03	1.00	RE	111	103	58.1	100	105	38.2
L19041033-04	1.00	RE	110	102	58.1	99.0	104	38.3
L19041033-05	1.00	RE	112	106	59.9	104	98.7	39.5
L19041033-06	1.00	RE	113	107	57.8	103	96.1	38.1
L19041033-07	1.00	RE	105	98.5	53.9	94.1	102	36.0
L19041033-08	1.00	RE	103	95.9	53.0	94.4	93.1	34.8
WG704098-01	1.00	01	107	88.7	47.8	81.5	103	34.2
WG704098-02	1.00	01	116	103	63.8	101	105	43.1
WG704098-03	1.00	01	112	99.3	63.3	100	102	42.5

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	22	-	142
2 - 2-Fluorobiphenyl	43	-	116
3 - 2-Fluorophenol	19	-	119
4 - Nitrobenzene-d5	35	-	114
5 - p-Terphenyl-d14	10	-	130
6 - Phenol-d5	10	-	94

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 6405204
Report generated: 04/29/2019 16:55

Login Number: L19041033
Instrument Id: HPMS19
Workgroup (AAB#): WG704943

Method: 8270
CAL ID: HPMS19-03-APR-19
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
L19041033-01	1.00	02	102	101	52.1	101	112	34.2
L19041033-02	1.00	02	106	98.8	50.5	93.8	112	35.3
L19041033-03	1.00	02	104	98.5	54.0	96.8	104	34.3
L19041033-04	1.00	02	105	95.4	50.6	94.4	109	33.7
L19041033-05	1.00	02	113	107	57.8	107	110	39.6
L19041033-06	1.00	02	109	104	54.4	105	82.5	36.8
L19041033-07	1.00	02	103	103	57.1	106	89.6	38.8
L19041033-08	1.00	02	101	107	56.8	109	78.4	39.2
WG703405-01	1.00	02	108	97.8	49.4	90.9	119	34.1
WG703405-02	1.00	02	114	106	51.8	103	115	37.1

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	22	-	142
2 - 2-Fluorobiphenyl	43	-	116
3 - 2-Fluorophenol	19	-	119
4 - Nitrobenzene-d5	35	-	114
5 - p-Terphenyl-d14	10	-	130
6 - Phenol-d5	10	-	94

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 6405204
Report generated: 04/29/2019 16:55

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L19041033
Work Group: WG704370
Blank File ID: 12M71272
Blank Sample ID: WG704098-01
Prep Date: 04/19/19 16:00
Instrument ID: HPMS12
Analyzed Date: 04/22/19 12:17
Method: 8270D
Analyst: SCB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG704098-02	12M71273	04/22/19 12:49	01
LCS2	WG704098-03	12M71274	04/22/19 13:21	01
16C1	L19041033-01	12M71275	04/22/19 13:54	RE
16MW8	L19041033-02	12M71276	04/22/19 14:26	RE
16MW9	L19041033-03	12M71277	04/22/19 14:58	RE
16WC1A	L19041033-04	12M71278	04/22/19 15:30	RE
16WC1A	L19041033-05	12M71279	04/22/19 16:02	RE
16WC1A	L19041033-06	12M71280	04/22/19 16:35	RE
16WDUP	L19041033-07	12M71281	04/22/19 17:07	RE
16WC1B	L19041033-08	12M71282	04/22/19 17:39	RE

Report Name: BLANK_SUMMARY
PDF File ID: 6405195
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L19041033
Work Group: WG704943
Blank File ID: 19M007117
Blank Sample ID: WG703405-01
Prep Date: 04/16/19 09:15
Instrument ID: HPMS19
Analyzed Date: 04/24/19 16:12
Method: 8270D
Analyst: SCB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG703405-02	19M007118	04/24/19 16:46	02
16C1	L19041033-01	19M007119	04/24/19 17:39	02
16MW8	L19041033-02	19M007120	04/24/19 18:17	02
16MW9	L19041033-03	19M007121	04/24/19 18:53	02
16WC1A	L19041033-04	19M007122	04/24/19 19:34	02
16WC1A	L19041033-05	19M007134	04/25/19 18:18	02
16WC1A	L19041033-06	19M007135	04/25/19 18:49	02
16WDUP	L19041033-07	19M007136	04/25/19 19:20	02
16WC1B	L19041033-08	19M007137	04/25/19 19:51	02

Report Name: BLANK_SUMMARY
PDF File ID: 6405195
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L19041033 Prep Date: 04/19/19 16:00 Sample ID: WG704098-01
Instrument ID: HPMS12 Run Date: 04/22/19 12:17 Prep Method: 3510C
File ID: 12M71272 Analyst: SCB Method: 8270D
Workgroup (AAB#): WG704370 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS12-12-APR-19

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Hexachlorophene - Estimated	10.0	100	10.0	1	U
Sulfotepp	1.00	10.0	1.00	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	107	22	-	142	PASS
2-Fluorobiphenyl	88.7	43	-	116	PASS
2-Fluorophenol	47.8	19	-	119	PASS
Nitrobenzene-d5	81.5	35	-	114	PASS
p-Terphenyl-d14	103	10	-	130	PASS
Phenol-d5	34.2	10	-	94	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 6405196
29-APR-2019 16:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L19041033 Prep Date: 04/16/19 09:15 Sample ID: WG703405-01
Instrument ID: HPMS19 Run Date: 04/24/19 16:12 Prep Method: 3510C
File ID: 19M007117 Analyst: SCB Method: 8270D
Workgroup (AAB#): WG704943 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS19-03-APR-19

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Hexachlorophene - Estimated	10.0	100	10.0	1	U
Sulfotepp	1.00	10.0	1.00	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	108	22	-	142	PASS
2-Fluorobiphenyl	97.8	43	-	116	PASS
2-Fluorophenol	49.4	19	-	119	PASS
Nitrobenzene-d5	90.9	35	-	114	PASS
p-Terphenyl-d14	119	10	-	130	PASS
Phenol-d5	34.1	10	-	94	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 6405196
29-APR-2019 16:55

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L19041033 Run Date: 04/24/2019 Sample ID: WG703405-02
Instrument ID: HPMS19 Run Time: 16:46 Prep Method: 3510C
File ID: 19M007118 Analyst: SCB Method: 8270D
Workgroup (AAB#): WG704943 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD92809 Cal ID: HPMS19-03-APR-19

Analytes	Expected	Found	% Rec	LCS Limits	Q
Hexachlorophene - Estimated	NS	-------	-------	------- - 200	NO LIM
Sulfotepp	NS	-------	-------	------- - 135	NO LIM

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	114	22 - 142	PASS
2-Fluorobiphenyl	106	43 - 116	PASS
2-Fluorophenol	51.8	19 - 119	PASS
Nitrobenzene-d5	103	35 - 114	PASS
p-Terphenyl-d14	115	10 - 130	PASS
Phenol-d5	37.1	10 - 94	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 6405197
Report generated: 04/29/2019 16:55

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L19041033 Analyst: SCB Prep Method: 3510C
Instrument ID: HPMS12 Matrix: Water Method: 8270D
Workgroup (AAB#): WG704370 Units: ug/L
QC Key: STD Lot #: STD93104

Sample ID: WG704098-02 LCS File ID: 12M71273 Run Date: 04/22/2019 12:49
Sample ID: WG704098-03 LCS2 File ID: 12M71274 Run Date: 04/22/2019 13:21

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Hexachlorophene - Estimated	50.0	0.00	0.00	50.0	0.00	0.00	NA	1 - 200	30	*#
Sulfotepp	50.0	53.6	107	50.0	52.3	105	2.39	70 - 135	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
2,4,6-Tribromophenol	116	112	22 - 142	PASS
2-Fluorobiphenyl	103	99.3	43 - 116	PASS
2-Fluorophenol	63.8	63.3	19 - 119	PASS
Nitrobenzene-d5	101	100	35 - 114	PASS
p-Terphenyl-d14	105	102	10 - 130	PASS
Phenol-d5	43.1	42.5	10 - 94	PASS

* EXCEEDS %REC LIMIT
# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 6413840
Report generated: 04/29/2019 16:55

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum:L19041033 Cal ID:HPMS12- Worknum:WG704370

Instrument ID:HPMS12 Contract #: Method:8270C

Parent ID:WG704098-04 File ID:12M71278 Dil:1 Matrix:WATER

Sample ID:WG704098-05 MS File ID:12M71279 Dil:1 Units:ug/L

Sample ID:WG704098-06 MSD File ID:12M71280 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Hexachlorophene - Estimated	ND	50.5	ND	0	50.5	ND	0	0	1 - 200	30	*
Sulfotepp	ND	50.5	52.5	104	50.5	52.7	104	0.409	70 - 135	30	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID: 6419531

Report generated 04/26/2019 17:46

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L19041033
Instrument: HPMS12
Analyst: SCB
Workgroup: WG703239

Tune ID: WG703239-01
Run Date: 04/12/2019
Run Time: 10:12
File ID: 12M71141
Cal ID: HPMS12 - 12-APR-19

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	34.3	21567	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	36.2	22750	PASS
70.0	69.0	0	2.00	0.290	66	PASS
127	198	40.0	60.0	49.6	31234	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	62922	PASS
199	198	5.00	9.00	6.83	4298	PASS
275	198	10.0	30.0	25.7	16165	PASS
365	198	1.00	100	2.79	1756	PASS
441	443	0.0100	100	74.3	7335	PASS
442	198	40.0	100	79.6	50098	PASS
443	442	17.0	23.0	19.7	9872	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG703239-02	STD-CCV	01	04/12/2019 10:30	
WG703239-03	STD	01	04/12/2019 11:05	
WG703239-04	STD	01	04/12/2019 11:37	
WG703239-05	STD	01	04/12/2019 12:10	
WG703239-06	STD	01	04/12/2019 12:43	
WG703239-07	STD	01	04/12/2019 13:15	
WG703239-08	STD	01	04/12/2019 13:48	
WG703239-09	STD	01	04/12/2019 14:19	
WG703239-10	STD	01	04/12/2019 14:52	
WG703239-11	SSCV	01	04/12/2019 15:50	
WG703239-12	SSCV	01	04/12/2019 16:22	
WG703239-13	SSCV	01	04/12/2019 16:54	
WG703239-14	SSCV	01	04/12/2019 17:27	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 6405201
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L19041033
Instrument: HPMS12
Analyst: SCB
Workgroup: WG704385

Tune ID: WG704385-01
Run Date: 04/22/2019
Run Time: 10:51
File ID: 12M71269
Cal ID: HPMS12 - 12-APR-19

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	40.0	19762	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	40.3	19891	PASS
70.0	69.0	0	2.00	0.623	124	PASS
127	198	40.0	60.0	52.7	26032	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	49389	PASS
199	198	5.00	9.00	7.10	3505	PASS
275	198	10.0	30.0	24.6	12158	PASS
365	198	1.00	100	2.57	1269	PASS
441	443	0.0100	100	73.6	4746	PASS
442	198	40.0	100	66.1	32631	PASS
443	442	17.0	23.0	19.8	6448	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG704385-02	CCV	01	04/22/2019 11:09	
WG704098-01	BLANK	01	04/22/2019 12:17	
WG704098-02	LCS	01	04/22/2019 12:49	
WG704098-03	LCS2	01	04/22/2019 13:21	
L19041033-01	16C1	RE	04/22/2019 13:54	
L19041033-02	16MW8	RE	04/22/2019 14:26	
L19041033-03	16MW9	RE	04/22/2019 14:58	
L19041033-04	16WC1A	RE	04/22/2019 15:30	
L19041033-05	16WC1A	RE	04/22/2019 16:02	
L19041033-06	16WC1A	RE	04/22/2019 16:35	
L19041033-07	16WDUP	RE	04/22/2019 17:07	
L19041033-08	16WC1B	RE	04/22/2019 17:39	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 6405201
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L19041033
Instrument: HPMS19
Analyst: SCB
Workgroup: WG701995

Tune ID: WG701995-01
Run Date: 04/03/2019
Run Time: 11:34
File ID: 19M006773
Cal ID: HPMS19-03-APR-19

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	47.5	88555	PASS
68.0	69.0	0	2.00	1.67	1523	PASS
69.0	198	0	100	48.9	91168	PASS
70.0	69.0	0	2.00	0.521	475	PASS
127	198	40.0	60.0	55.3	103061	PASS
197	198	0	1.00	0.727	1355	PASS
198	198	100	100	100	186267	PASS
199	198	5.00	9.00	6.82	12710	PASS
275	198	10.0	30.0	24.6	45859	PASS
365	198	1.00	100	3.45	6426	PASS
441	443	0.0100	100	73.8	20757	PASS
442	198	40.0	100	76.7	142920	PASS
443	442	17.0	23.0	19.7	28107	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG701995-02	STD-CCV	01	04/03/2019 11:51	
WG701995-03	STD	01	04/03/2019 12:21	
WG701995-04	STD	01	04/03/2019 12:51	
WG701995-05	STD	01	04/03/2019 13:21	
WG701995-06	STD	01	04/03/2019 13:51	
WG701995-07	STD	01	04/03/2019 14:21	
WG701995-08	STD	01	04/03/2019 14:51	
WG701995-09	STD	01	04/03/2019 15:21	
WG701995-10	STD	01	04/03/2019 15:51	
WG701995-11	SSCV	01	04/03/2019 16:24	
WG701995-12	SSCV	01	04/03/2019 16:53	
WG701995-13	SSCV	01	04/03/2019 17:24	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 6405201
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L19041033
Instrument: HPMS19
Analyst: SCB
Workgroup: WG704765

Tune ID: WG704765-01
Run Date: 04/24/2019
Run Time: 13:42
File ID: 19M007114
Cal ID: HPMS19-03-APR-19

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	53.7	52560	PASS
68.0	69.0	0	2.00	1.36	716	PASS
69.0	198	0	100	53.9	52725	PASS
70.0	69.0	0	2.00	0	0	PASS
127	198	40.0	60.0	58.0	56709	PASS
197	198	0	1.00	0.752	736	PASS
198	198	100	100	100	97848	PASS
199	198	5.00	9.00	6.96	6815	PASS
275	198	10.0	30.0	25.2	24688	PASS
365	198	1.00	100	3.37	3297	PASS
441	443	0.0100	100	78.7	9779	PASS
442	198	40.0	100	66.7	65301	PASS
443	442	17.0	23.0	19.0	12424	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG704765-02	CCV	01	04/24/2019 14:01	
WG703405-01	BLANK	02	04/24/2019 16:12	
WG703405-02	LCS	02	04/24/2019 16:46	
L19041033-01	16C1	02	04/24/2019 17:39	
L19041033-02	16MW8	02	04/24/2019 18:17	
L19041033-03	16MW9	02	04/24/2019 18:53	
L19041033-04	16WC1A	02	04/24/2019 19:34	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 6405201
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L19041033
Instrument: HPMS19
Analyst: SCB
Workgroup: WG704868

Tune ID: WG704868-01
Run Date: 04/25/2019
Run Time: 12:46
File ID: 19M007125
Cal ID: HPMS19-03-APR-19

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	54.4	57784	PASS
68.0	69.0	0	2.00	1.61	939	PASS
69.0	198	0	100	54.8	58149	PASS
70.0	69.0	0	2.00	0	0	PASS
127	198	40.0	60.0	59.3	62952	PASS
197	198	0	1.00	0.536	569	PASS
198	198	100	100	100	106192	PASS
199	198	5.00	9.00	7.14	7587	PASS
275	198	10.0	30.0	25.1	26693	PASS
365	198	1.00	100	3.47	3687	PASS
441	443	0.0100	100	78.2	9963	PASS
442	198	40.0	100	61.4	65165	PASS
443	442	17.0	23.0	19.6	12747	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG704868-02	CCV	01	04/25/2019 13:40	
L19041033-05	16WC1A	02	04/25/2019 18:18	
L19041033-06	16WC1A	02	04/25/2019 18:49	
L19041033-07	16WDUP	02	04/25/2019 19:20	
L19041033-08	16WC1B	02	04/25/2019 19:51	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 6405201
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L19041033 **Instrument ID:** HPMS12

Analytical Method: 8270D **Initial Calibration Date:** 12-APR-19 14:52

ICAL Workgroup: WG703239 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
2,4-Dinitrophenol	SPCC	0.1135	43.9		0.99900
4-Nitrophenol	SPCC	0.1999	12.8		
Hexachlorocyclopentadiene	SPCC	0.2069	20.1		0.99500
n-Nitrosodipropylamine	SPCC	0.7775	10.5		
Sulfotepp		0.1302	2.95		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 6405199
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L19041033 **Instrument ID:** HPMS19

Analytical Method: 8270D **Initial Calibration Date:** 03-APR-19 15:51

ICAL Workgroup: WG701995 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
2,4-Dinitrophenol	SPCC	0.09501	56.2		0.99900
4-Nitrophenol	SPCC	0.3238	10.9		
Hexachlorocyclopentadiene	SPCC	0.2300	15.9		0.99700
n-Nitrosodipropylamine	SPCC	1.134	3.78		
Sulfotepp		0.1141	6.14		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 6405199
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L19041033
Analytical Method: 8270D
Instrument ID: HPMS12
Initial Calibration Date: 12-APR-19 14:52
Column ID: F

Analyte	WG703239-02			WG703239-03			WG703239-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4-Dinitrophenol	50.0	40202.0000	0.1149	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	78359.0000	0.2239	NA	NA	NA	3.00	2830.00000	0.1413
Hexachlorocyclopentadiene	50.0	68197.0000	0.1948	NA	NA	NA	3.00	3726.00000	0.1860
n-Nitrosodipropylamine	50.0	132366.000	0.8082	NA	NA	NA	3.00	7984.00000	0.8333
Sulfotepp	50.0	76661.0000	0.1298	NA	NA	NA	3.00	4237.00000	0.1244

INT_CAL - Modified 03/06/2008
PDF File ID: 6405199
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L19041033
Analytical Method: 8270D
Instrument ID: HPMS12
Initial Calibration Date: 12-APR-19 14:52
Column ID: F

Analyte	WG703239-05			WG703239-06			WG703239-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4-Dinitrophenol	10.0	2864.00000	0.04210	15.0	6508.00000	0.06170	25.0	16736.0000	0.09530
4-Nitrophenol	10.0	13098.0000	0.1924	15.0	21484.0000	0.2035	25.0	37784.0000	0.2152
Hexachlorocyclopentadiene	10.0	16762.0000	0.2463	15.0	26736.0000	0.2533	25.0	46229.0000	0.2633
n-Nitrosodipropylamine	10.0	27787.0000	0.8579	15.0	40610.0000	0.8303	25.0	68026.0000	0.8422
Sulfotepp	10.0	15702.0000	0.1353	15.0	23093.0000	0.1281	25.0	39425.0000	0.1319

INT_CAL - Modified 03/06/2008
PDF File ID: 6405199
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L19041033
Analytical Method: 8270D
Instrument ID: HPMS12
Initial Calibration Date: 12-APR-19 14:52
Column ID: F

Analyte	WG703239-08			WG703239-09			WG703239-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4-Dinitrophenol	80.0	89835.0000	0.1492	100	124126.000	0.1633	120	153816.000	0.1683
4-Nitrophenol	80.0	128577.000	0.2135	100	158824.000	0.2089	120	183110.000	0.2004
Hexachlorocyclopentadiene	80.0	113553.000	0.1886	100	129449.000	0.1703	120	139514.000	0.1527
n-Nitrosodipropylamine	80.0	194668.000	0.7133	100	235654.000	0.6847	120	268849.000	0.6501
Sulfotepp	80.0	129620.000	0.1307	100	162964.000	0.1304	120	194787.000	0.1311

INT_CAL - Modified 03/06/2008
PDF File ID: 6405199
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L19041033
Analytical Method: 8270D
Instrument ID: HPMS19
Initial Calibration Date: 03-APR-19 15:51
Column ID: F

Analyte	WG701995-02			WG701995-03			WG701995-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4-Dinitrophenol	50.0	33898.0000	0.1078	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	110502.000	0.3513	NA	NA	NA	3.00	4325.00000	0.2569
Hexachlorocyclopentadiene	50.0	82952.0000	0.2637	NA	NA	NA	3.00	3188.00000	0.1894
n-Nitrosodipropylamine	50.0	171536.000	1.136	NA	NA	NA	3.00	9401.00000	1.145
Sulfotepp	50.0	60965.0000	0.1150	NA	NA	NA	3.00	2762.00000	0.1032

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L19041033
Analytical Method: 8270D
Instrument ID: HPMS19
Initial Calibration Date: 03-APR-19 15:51
Column ID: F

Analyte	WG701995-05			WG701995-06			WG701995-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4-Dinitrophenol	10.0	1069.00000	0.01830	15.0	5004.00000	0.04800	25.0	8702.00000	0.05910
4-Nitrophenol	10.0	16890.0000	0.2886	15.0	33445.0000	0.3206	25.0	47006.0000	0.3190
Hexachlorocyclopentadiene	10.0	14611.0000	0.2497	15.0	26947.0000	0.2583	25.0	38765.0000	0.2631
n-Nitrosodipropylamine	10.0	33255.0000	1.192	15.0	58982.0000	1.103	25.0	86373.0000	1.200
Sulfotepp	10.0	11212.0000	0.1184	15.0	18905.0000	0.1103	25.0	29505.0000	0.1219

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L19041033
Analytical Method: 8270D
Instrument ID: HPMS19
Initial Calibration Date: 03-APR-19 15:51
Column ID: F

Analyte	WG701995-08			WG701995-09			WG701995-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4-Dinitrophenol	80.0	62275.0000	0.1287	100	91214.0000	0.1481	120	119457.000	0.1551
4-Nitrophenol	80.0	168998.000	0.3492	100	217128.000	0.3525	120	271104.000	0.3521
Hexachlorocyclopentadiene	80.0	98377.0000	0.2033	100	112612.000	0.1828	NA	NA	NA
n-Nitrosodipropylamine	80.0	256709.000	1.114	100	323265.000	1.106	120	389249.000	1.080
Sulfotepp	80.0	94328.0000	0.1141	100	121111.000	0.1149	120	148586.000	0.1148

INT_CAL - Modified 03/06/2008
PDF File ID: 6405199
Report generated 04/29/2019 16:55

Calibration Table Report
Method: MEGAMIX.M
Title: OVD MSS01 8270/625 ICAL 04/12/19
Last Calibration: Mon Apr 15 13:24:11 2019
Curve: WG703239
Calibration Files

Compound	3 12M71144.D	10 12M71145.D	15 12M71146.D	25 12M71147.D	50 12M71142.D	80 12M71148.D	100 12M71149.D	120 12M71150.D	1 12M71143.D	Avg	%RSD	Linear	Quadratic
1,4-Dichlorobenzene-d4	ISTD												
1,4-Dioxane	0.359	0.495	0.528	0.558	0.570	0.533	0.531	0.526		0.513	12.839		
n-Nitrosodimethylamine	0.623	0.762	0.761	0.791	0.814	0.752	0.756	0.746		0.750	7.512		
Pyridine	1.242	1.395	1.362	1.426	1.432	1.308	1.301	1.282		1.343	5.241		
2-Picoline	1.388	1.517	1.485	1.539	1.524	1.425	1.428	1.414		1.465	3.957		
n-Nitrosomethylethylamine	0.544	0.606	0.606	0.625	0.636	0.604	0.607	0.603		0.604	4.437		
Methyl Methanesulfonate	0.635	0.699	0.672	0.691	0.715	0.629	0.625	0.608		0.659	6.079		
2-Fluorophenol	1.144	1.271	1.237	1.279	1.257	1.209	1.208	1.195		1.225	3.677		
n-Nitrosodiethylamine	0.560	0.615	0.612	0.642	0.637	0.604	0.605	0.599		0.609	4.149		
Ethyl Methanesulfonate	0.842	0.911	0.885	0.914	0.922	0.852	0.847	0.833		0.876	4.152		
Aniline	0.657	0.711	0.695	0.721	0.708	0.665	0.653	0.643		0.682	4.478		
Phenol-d5	1.447	1.537	1.502	1.544	1.524	1.426	1.420	1.396		1.475	3.987		
Phenol	1.561	1.622	1.578	1.609	1.563	1.480	1.470	1.441		1.540	4.403		
bis(2-Chloroethyl)ether	0.938	0.963	0.936	0.942	0.912	0.841	0.818	0.794		0.893	7.304		
Pentachloroethane	0.500	0.539	0.526	0.549	0.532	0.514	0.517	0.510		0.523	3.078		
2-Chlorophenol	1.292	1.403	1.373	1.405	1.396	1.338	1.339	1.327		1.359	3.042		
1,3-Dichlorobenzene	1.498	1.544	1.501	1.542	1.496	1.447	1.449	1.418		1.487	3.059		
1,4-Dichlorobenzene	1.480	1.562	1.512	1.557	1.518	1.470	1.473	1.442		1.502	2.864		
Benzyl Alcohol	0.762	0.861	0.846	0.877	0.875	0.848	0.855	0.848		0.846	4.294		
1,2-Dichlorobenzene	1.389	1.481	1.418	1.452	1.414	1.345	1.344	1.315		1.395	4.115		
2-Methylphenol	0.961	1.038	1.016	1.056	1.019	0.984	0.971	0.959		1.000	3.670		
bis(2-Chloroisopropyl)ether	1.517	1.573	1.530	1.580	1.580	1.428	1.389	1.347		1.493	6.190		
3-,4-Methylphenol	1.273	1.356	1.339	1.384	1.347	1.326	1.314	1.297		1.329	2.634		
n-Nitrosopyrrolidine	0.562	0.601	0.591	0.609	0.602	0.565	0.557	0.544		0.579	4.266		
n-Nitrosodipropylamine	0.833	0.858	0.830	0.842	0.808	0.713	0.685	0.650		0.778	10.479		
Acetophenone	1.674	1.710	1.677	1.709	1.641	1.545	1.505	1.465		1.616	5.978		
n-Nitrosomorpholine	0.670	0.713	0.680	0.684	0.660	0.580	0.561	0.542		0.636	10.210		
o-Toluidine	1.972	2.063	2.010	2.079	2.046	1.980	1.975	1.937		2.008	2.498		
Hexachloroethane	0.498	0.550	0.538	0.566	0.568	0.549	0.549	0.541		0.545	3.967		
Naphthalene-d8	ISTD												
Nitrobenzene-d5	0.324	0.353	0.339	0.350	0.346	0.330	0.328	0.323		0.337	3.602		
Nitrobenzene	0.341	0.355	0.348	0.356	0.350	0.330	0.328	0.323		0.341	3.769		
n-Nitrosopiperidine	0.161	0.182	0.178	0.187	0.184	0.175	0.176	0.175		0.177	4.464		
Isophorone	0.625	0.664	0.641	0.665	0.642	0.604	0.598	0.588		0.628	4.729		
2-Nitrophenol	0.156	0.187	0.186	0.198	0.196	0.194	0.193	0.193		0.188	7.307		
2,4-Dimethylphenol	0.312	0.331	0.326	0.338	0.331	0.315	0.314	0.315		0.323	3.098		
0,0,0-Triethyl Phosphorothioate	0.187	0.194	0.188	0.192	0.181	0.175	0.173	0.172		0.183	4.839		
bis(2-Chloroethoxy)methane	0.517	0.528	0.507	0.514	0.491	0.457	0.442	0.428		0.486	7.858		
Benzoic Acid		0.041	0.057	0.099	0.119	0.193	0.217	0.237		0.138	57.061		0.997
2,4-Dichlorophenol	0.286	0.312	0.304	0.316	0.304	0.295	0.299	0.296		0.301	3.163		
a,a-Dimethylphenethylamine	0.703	0.835	0.813	0.859	0.875	0.829	0.839	0.835		0.824	6.363		
1,2,4-Trichlorobenzene	0.321	0.339	0.327	0.338	0.325	0.314	0.309	0.306		0.32267	3.85199		
Naphthalene	1.134	1.162	1.112	1.157	1.1	1.042	1.022	1.013		1.09296	5.45299		
4-Chloroaniline	0.11	0.125	0.118	0.122	0.122	0.115	0.113	0.11		0.11674	4.85824		
2,6-Dichlorophenol	0.278	0.301	0.292	0.306	0.294	0.287	0.288	0.284		0.29122	3.10623		
Hexachloropropene	0.163	0.198	0.198	0.214	0.193	0.202	0.198	0.195		0.19531	7.40773		
Hexachlorobutadiene	0.18	0.195	0.187	0.19	0.183	0.177	0.174	0.172	0.167	0.18059	4.96038		
n-Nitrosodi-n-Butylamine	0.27	0.295	0.285	0.295	0.288	0.277	0.276	0.225		0.27615	8.17507		
p-Phenylenediamine		0.329	0.315	0.312	0.243	0.178	0.152			0.25493	29.8392		0.996
4-Chloro-3-Methylphenol	0.271	0.3	0.294	0.308	0.298	0.288	0.287	0.282		0.29109	3.99496		
Safrole	0.29	0.306	0.297	0.31	0.299	0.289	0.288	0.284		0.29537	3.11256		
2-Methylnaphthalene	0.739	0.765	0.738	0.762	0.732	0.705	0.692	0.684		0.72709	4.19427		
1-Methylnaphthalene	0.691	0.723	0.694	0.72	0.695	0.665	0.658	0.646		0.68664	4.09927		
Acenaphthene-d10	ISTD												
1,2,4,5-Tetrachlorobenzene	0.586	0.602	0.576	0.59	0.576	0.552	0.552	0.541		0.57181	3.74421		
Hexachlorocyclopentadiene	0.186	0.246	0.253	0.263	0.195	0.189	0.17	0.153		0.20691	20.0792		0.995
2,4,6-Trichlorophenol	0.324	0.377	0.368	0.385	0.383	0.369	0.371	0.362		0.36744	5.215		
2,4,5-Trichlorophenol	0.33	0.386	0.381	0.404	0.401	0.387	0.387	0.381		0.38211	5.92637		
2-Fluorobiphenyl	1.374	1.417	1.359	1.4	1.355	1.295	1.282	1.257		1.34253	4.31334		
Isosafrole	0.489	0.528	0.504	0.528	0.524	0.501	0.501	0.494		0.50854	3.09416		
2-Chloronaphthalene	1.171	1.207	1.166	1.186	1.181	1.114	1.102	1.083		1.15125	3.91146		
1-Chloronaphthalene	1.099	1.123	1.08	1.103	1.084	1.02	1.005	0.977		1.06137	5.02974		
2-Nitroaniline		0.303	0.293	0.313	0.318	0.3	0.299	0.292		0.30269	3.2577		
1,4-Naphthoquinone	0.408	0.472	0.459	0.455	0.366	0.344	0.32	0.301		0.39075	17.1586		0.997
Dimethylphthalate	1.272	1.328	1.281	1.322	1.301	1.237	1.216	1.197		1.26936	3.8355		
1,3-Dinitrobenzene	0.184	0.223	0.223	0.239	0.242	0.236	0.238	0.234		0.22737	8.3533		
2,6-Dinitrotoluene	0.281	0.308	0.305	0.32	0.322	0.308	0.308	0.304		0.30713	4.0653		
Acenaphthylene	1.784	1.888	1.811	1.843	1.816	1.692	1.653	1.602		1.76105	5.70187		
3-Nitroaniline		0.337	0.329	0.35	0.347	0.338	0.337	0.331		0.33846	2.26411		
2,4-Dinitrophenol		0.042	0.062	0.095	0.115	0.149	0.163	0.168		0.11353	43.8656		0.999
Acenaphthene	1.111	1.174	1.142	1.185	1.163	1.118	1.1	1.058		1.13126	3.77656		
4-Nitrophenol	0.141	0.192	0.204	0.215	0.224	0.214	0.209	0.2		0.1999	12.7998		
2,4-Dinitrotoluene	0.329	0.397	0.39	0.42	0.421	0.403	0.402	0.397		0.39469	7.31756		
Pentachlorobenzene	0.498	0.51	0.502	0.51	0.5	0.481	0.477	0.473		0.49391	2.9906		
Dibenzofuran	1.676	1.73	1.661	1.704	1.642	1.558	1.533	1.494		1.62485	5.27792		
2,3,5,6-Tetrachlorophenol	0.219	0.293	0.289	0.303	0.329	0.301	0.307	0.305		0.2934	10.9898		
2,3,4,6-Tetrachlorophenol	0.268	0.324	0.316	0.332	0.336	0.326	0.324	0.32		0.31828	6.67743		
1-Naphthylamine	1.214	1.272	1.245	1.266	1.221	1.098	1.062	1.018		1.17447	8.48699		
2-Naphthylamine	1.255	1.24	1.18	1.235	1.237	1.182	1.157	1.108		1.19922	4.2669		
Diethylphthalate	1.262	1.312	1.254	1.294	1.278	1.192	1.176	1.14		1.23844	4.97267		

Thionazin	0.179	0.203	0.199	0.211	0.208	0.198	0.195	0.191		0.19806	5.08721		
Fluorene	1.359	1.398	1.341	1.383	1.35	1.281	1.272	1.232		1.32711	4.40782		
4-Chlorophenyl Phenyl Ether	0.665	0.685	0.667	0.682	0.673	0.633	0.627	0.618		0.65653	4.0228		
4-Nitroaniline		0.352	0.348	0.361	0.358	0.344	0.347	0.338		0.34963	2.28039		
5-Nitro-o-Toluidine	0.363	0.401	0.389	0.407	0.405	0.392	0.389	0.381		0.39098	3.63909		
1,2-Diphenylhydrazine	1.141	1.204	1.173	1.205	1.185	1.089	1.062	1.023		1.13538	6.09947		
2,4,6-Tribromophenol	0.143	0.175	0.174	0.185	0.18	0.181	0.184	0.184		0.17569	7.96681		
Phenanthrene-d10	ISTD												
4,6-Dinitro-2-Methylphenol		0.068	0.081	0.107	0.118	0.137	0.144	0.147		0.11454	27.3654	0.997	
Diphenylamine/n-Nitrosodiphenylar	0.703	0.727	0.701	0.728	0.719	0.702	0.697	0.685		0.70792	2.1803		
Sulfotepp	0.124	0.135	0.128	0.132	0.13	0.131	0.13	0.131		0.13021	2.38886		
Sym-Trinitrobenzene	0.075	0.128	0.142	0.165	0.18	0.182	0.185	0.185		0.15524	25.0529	0.999	
Diallate	0.272	0.286	0.275	0.289	0.281	0.262	0.251	0.242		0.26982	6.25228		
Phenacetin	0.3	0.357	0.357	0.373	0.376	0.361	0.353	0.343		0.35245	6.66741		
Phorate	0.407	0.441	0.427	0.439	0.429	0.408	0.394	0.379		0.41564	5.32455		
4-Bromophenyl Phenyl Ether	0.22	0.237	0.229	0.235	0.232	0.228	0.226	0.226		0.22909	2.35645		
Hexachlorobenzene	0.234	0.242	0.235	0.24	0.236	0.23	0.231	0.229		0.23454	2.03871		
Dimethoate	0.249	0.284	0.273	0.276	0.257	0.22	0.198			0.25091	12.6217		
4-Aminobiphenyl	0.817	0.883	0.87	0.913	0.897	0.864	0.844	0.822		0.86358	3.97643		
Pentachlorophenol		0.1	0.11	0.131	0.141	0.145	0.146	0.146		0.13134	14.5424	1	
Pronamide	0.319	0.354	0.345	0.358	0.353	0.343	0.341	0.336		0.34343	3.63662		
Pentachloronitrobenzene	0.074	0.09	0.089	0.092	0.093	0.089	0.088	0.087		0.08788	6.66789		
Disulfoton	0.345	0.386	0.373	0.387	0.375	0.358	0.347	0.337		0.36367	5.25421		
Phenanthrene	1.135	1.161	1.116	1.146	1.112	1.074	1.065	1.043		1.10659	3.77973		
Anthracene	1.136	1.198	1.15	1.173	1.151	1.112	1.096	1.074		1.13614	3.59692		
Carbazole	1.034	1.105	1.061	1.103	1.08	1.041	1.026	1.014		1.05795	3.30789		
Parathion Methyl	0.172	0.223	0.228	0.238	0.237	0.207	0.187	0.172		0.20792	13.3782		
Di-n-Butyl Phthalate	1.174	1.291	1.246	1.289	1.264	1.2	1.183	1.159		1.22561	4.32946		
Parathion Ethyl	0.099	0.133	0.137	0.148	0.15	0.145	0.143	0.139		0.13684	11.7893		
4-Nitroquinoline 1-Oxide	0.012	0.046	0.062	0.083	0.093	0.101	0.097	0.09		0.07306	42.476	0.994	
Methapyrilene	0.344	0.425	0.407	0.395	0.362	0.265	0.234			0.34756	20.9466		0.998
Isodrin	0.123	0.127	0.122	0.128	0.126	0.122	0.122	0.119		0.12352	2.57962		
Fluoranthene	1.236	1.299	1.239	1.273	1.227	1.19	1.173	1.149		1.22343	4.13524		
Chrysene-d12	ISTD												
Benzidine	0.554	0.623	0.63	0.653	0.539	0.543	0.505	0.474		0.56524	11.2749		
Pyrene	1.273	1.345	1.308	1.354	1.321	1.256	1.235	1.225		1.2896	3.84438		
Aramite	0.054	0.071	0.071	0.075	0.075	0.071	0.069	0.068		0.06934	9.85614		
p-Terphenyl-d14	0.957	1.008	0.971	0.996	0.973	0.934	0.926	0.92		0.96075	3.37018		
p-(Dimethylamino)azobenzene	0.239	0.27	0.267	0.283	0.281	0.269	0.267	0.266		0.26766	4.93786		
Chlorobenzilate	0.335	0.377	0.369	0.388	0.382	0.375	0.373	0.375		0.37183	4.23135		
Famphur					0.069					0.06876	0		
Butyl Benzyl Phthalate	0.56	0.595	0.577	0.597	0.588	0.545	0.53	0.52		0.56398	5.30511		
3,3'-Dimethylbenzidine	1.502	1.537	1.467	1.399	1.064	1.064	1.026	1.007		1.25818	18.8349		0.994
2-Acetylaminofluorene	0.339	0.448	0.467	0.515	0.529	0.524	0.526	0.525		0.48421	13.6356		
bis(2-Ethylhexyl)phthalate	0.696	0.776	0.769	0.809	0.805	0.765	0.755	0.753	0.635	0.75164	7.26742		
3,3'-Dichlorobenzidine	0.398	0.442	0.427	0.444	0.419	0.405	0.406	0.407		0.41843	4.19407		
Benzo[a]anthracene	1.186	1.232	1.187	1.238	1.206	1.175	1.164	1.163		1.19379	2.42552		
Chrysene	1.14	1.172	1.136	1.177	1.153	1.112	1.106	1.102		1.13727	2.56359		
Perylene-d12	ISTD												
Di-n-Octyl Phthalate	1.126	1.318	1.308	1.398	1.395	1.368	1.37	1.359		1.33014	6.67385		
7,12-Dimethylbenz[a]anthracene	0.537	0.572	0.561	0.59	0.583	0.585	0.591	0.589		0.57608	3.256		
Benzo[b]fluoranthene	1.193	1.188	1.162	1.244	1.234	1.265	1.267	1.279		1.22908	3.50533		
Benzo[k]fluoranthene	1.052	1.074	1.13	1.147	1.082	1.06	1.075	1.031		1.08145	3.58905		
Benzo[a]pyrene	0.994	1.091	1.067	1.135	1.104	1.118	1.125	1.114		1.0934	4.14454		
3-Methylcholanthrene	0.513	0.571	0.565	0.605	0.598	0.597	0.599	0.588		0.57944	5.27682		
Indeno[1,2,3-cd]pyrene	1.05	1.204	1.193	1.281	1.261	1.285	1.285	1.254		1.22665	6.49223		
Dibenz[ah]anthracene	0.854	1.014	1.009	1.08	1.082	1.105	1.109	1.081		1.04168	8.1434		
Benzo[ghi]perylene	0.889	1.015	1.008	1.07	1.048	1.061	1.046	1.011		1.0185	5.62655		

Mon Apr 15 13:46:43 2019

Calibration Table Report
Method: MEGAMIX.M
Title: OVD MSS01 8270/625 ICAL 04/03/19
Last Calibration: Thu Apr 04 18:10:47 2019
Curve: WG701995
Calibration Files

Compound	3 19M006776.D	10 19M006777.D	15 19M006778.D	25 19M006779.D	50 19M006774.D	80 19M006780.D	100 19M006781.D	120 19M006782.D	1 19M006775.D	Avg	%RSD	Linear	Quadratic
1,4-Dichlorobenzene-d4	ISTD												
1,4-Dioxane	0.595	0.651	0.666	0.665	0.644	0.657	0.658	0.663		0.650	3.613		
n-Nitrosodimethylamine	0.868	0.942	0.972	0.986	0.957	0.983	0.998	1.002		0.964	4.516		
Pyridine	1.539	1.641	1.671	1.698	1.610	1.642	1.661	1.650		1.639	2.909		
2-Picoline	1.586	1.711	1.679	1.708	1.676	1.697	1.717	1.700		1.684	2.511		
n-Nitrosomethylethylamine	0.687	0.695	0.698	0.733	0.705	0.724	0.729	0.734		0.713	2.647		
Methyl Methanesulfonate	0.936	0.967	0.950	0.975	0.956	0.918	0.908	0.906		0.939	2.839		
2-Fluorophenol	1.265	1.343	1.372	1.401	1.363	1.380	1.387	1.390		1.363	3.169		
n-Nitrosodiethylamine	0.641	0.691	0.674	0.695	0.693	0.701	0.708	0.711		0.689	3.281		
Ethyl Methanesulfonate	1.109	1.193	1.129	1.201	1.168	1.173	1.180	1.173		1.166	2.694		
Aniline	0.922	0.974	0.963	1.005	0.969	0.981	0.970	0.963		0.968	2.377		
Phenol-d5	1.654	1.759	1.715	1.780	1.747	1.771	1.768	1.775		1.746	2.433		
Phenol	1.786	1.865	1.819	1.892	1.837	1.858	1.868	1.867		1.849	1.823		
bis(2-Chloroethyl)ether	1.313	1.336	1.265	1.347	1.278	1.282	1.267	1.260		1.293	2.610		
Pentachloroethane	0.483	0.534	0.533	0.545	0.532	0.533	0.531	0.524		0.527	3.520		
2-Chlorophenol	1.407	1.473	1.452	1.482	1.459	1.473	1.469	1.475		1.461	1.631		
1,3-Dichlorobenzene	1.465	1.536	1.486	1.551	1.502	1.529	1.519	1.527		1.514	1.870		
1,4-Dichlorobenzene	1.527	1.557	1.515	1.573	1.519	1.534	1.544	1.549		1.540	1.278		
Benzyl Alcohol	0.851	0.931	0.897	0.960	0.948	0.962	0.958	0.968		0.934	4.361		
1,2-Dichlorobenzene	1.400	1.436	1.411	1.458	1.423	1.414	1.424	1.409		1.422	1.292		
2-Methylphenol	1.094	1.116	1.071	1.145	1.112	1.127	1.123	1.108		1.112	2.006		
bis(2-Chloroisopropyl)ether	2.437	2.515	2.383	2.548	2.399	2.441	2.427	2.416		2.446	2.325		
3-,4-Methylphenol	1.371	1.466	1.390	1.460	1.462	1.453	1.472	1.462		1.442	2.678		
n-Nitrosopyrrolidine	0.597	0.680	0.636	0.694	0.685	0.682	0.687	0.685		0.668	5.051		
n-Nitrosodipropylamine	1.145	1.192	1.103	1.200	1.136	1.114	1.106	1.080		1.134	3.775		
Acetophenone	1.923	1.994	1.844	1.995	1.916	1.885	1.860	1.856		1.909	3.114		
n-Nitrosomorpholine	1.088	1.116	1.045	1.116	1.065	1.037	1.021	0.986		1.059	4.346		
o-Toluidine	2.145	2.251	2.174	2.272	2.202	2.208	2.218	2.207		2.210	1.806		
Hexachloroethane	0.595	0.629	0.604	0.640	0.629	0.620	0.620	0.624		0.620	2.307		
Naphthalene-d8	ISTD												
Nitrobenzene-d5	0.397	0.411	0.413	0.432	0.420	0.418	0.415	0.411		0.415	2.352		
Nitrobenzene	0.417	0.433	0.425	0.444	0.428	0.428	0.426	0.423		0.428	1.866		
n-Nitrosopiperidine	0.171	0.182	0.178	0.186	0.179	0.182	0.183	0.181		0.180	2.403		
Isophorone	0.714	0.756	0.729	0.771	0.754	0.753	0.753	0.744		0.747	2.374		
2-Nitrophenol	0.150	0.179	0.184	0.191	0.191	0.192	0.195	0.191		0.184	7.963		
2,4-Dimethylphenol	0.311	0.328	0.325	0.332	0.330	0.326	0.325	0.327		0.325	1.921		
0,0,0-Triethyl Phosphorothioate	0.161	0.165	0.155	0.165	0.160	0.159	0.157	0.157		0.160	2.457		
bis(2-Chloroethoxy)methane	0.546	0.572	0.549	0.577	0.558	0.556	0.557	0.550		0.558	1.981		
Benzoic Acid		0.063	0.135	0.133	0.202	0.217	0.235	0.249		0.176	38.463		0.999
2,4-Dichlorophenol	0.250	0.275	0.268	0.278	0.275	0.276	0.276	0.277		0.272	3.417		
a,a-Dimethylphenethylamine	0.910	1.059	1.021	1.125	1.085	1.125	1.123	1.107		1.069	6.930		
1,2,4-Trichlorobenzene	0.291	0.296	0.285	0.303	0.29	0.289	0.288	0.286		0.2908	2.08101		
Naphthalene	1.082	1.112	1.076	1.134	1.094	1.094	1.098	1.105		1.09938	1.63676		
4-Chloroaniline	0.151	0.163	0.156	0.167	0.16	0.159	0.159	0.158		0.15909	2.92647		
2,6-Dichlorophenol	0.256	0.262	0.255	0.274	0.267	0.263	0.264	0.263		0.26314	2.27663		
Hexachloropropene	0.151	0.188	0.18	0.191	0.199	0.188	0.187	0.185		0.18349	7.72571		
Hexachlorobutadiene	0.157	0.167	0.16	0.166	0.159	0.159	0.159	0.157	0.153	0.15965	2.82489		
n-Nitrosodi-n-Butylamine	0.323	0.331	0.314	0.344	0.337	0.329	0.336	0.332		0.33055	2.75972		
p-Phenylenediamine	0.318	0.366	0.358	0.356	0.302	0.247	0.22			0.30952	18.5821		
4-Chloro-3-Methylphenol	0.285	0.312	0.301	0.315	0.315	0.313	0.315	0.315		0.30886	3.51688		
Safrole	0.253	0.269	0.254	0.277	0.267	0.27	0.271	0.272		0.26666	3.25119		
2-Methylnaphthalene	0.675	0.707	0.67	0.72	0.698	0.704	0.704	0.704		0.69786	2.42034		
1-Methylnaphthalene	0.634	0.666	0.629	0.676	0.658	0.66	0.663	0.662		0.65612	2.45404		
Acenaphthene-d10	ISTD												
1,2,4,5-Tetrachlorobenzene	0.525	0.536	0.535	0.552	0.526	0.524	0.517	0.523		0.52984	2.09254		
Hexachlorocyclopentadiene	0.189	0.25	0.258	0.263	0.264	0.203	0.183			0.23003	15.8839		0.997
2,4,6-Trichlorophenol	0.308	0.342	0.347	0.353	0.363	0.361	0.363	0.359		0.34962	5.24897		
2,4,5-Trichlorophenol	0.3	0.351	0.36	0.384	0.376	0.375	0.378	0.373		0.36221	7.48219		
2-Fluorobiphenyl	1.308	1.361	1.333	1.396	1.344	1.331	1.34	1.329		1.3426	1.94223		
Isosafrole	0.473	0.498	0.502	0.525	0.51	0.508	0.508	0.506		0.50382	2.95127		
2-Chloronaphthalene	1.145	1.195	1.178	1.202	1.168	1.16	1.158	1.155		1.17016	1.69491		
1-Chloronaphthalene	1.102	1.105	1.099	1.137	1.092	1.095	1.091	1.084		1.10058	1.46039		
2-Nitroaniline		0.429	0.438	0.445	0.45	0.445	0.443	0.435		0.44083	1.62084		
1,4-Naphthoquinone	0.377	0.453	0.457	0.479	0.44	0.411	0.384	0.358		0.41987	10.3877		
Dimethylphthalate	1.294	1.322	1.267	1.349	1.309	1.299	1.3	1.291		1.30391	1.84174		
1,3-Dinitrobenzene	0.177	0.216	0.217	0.228	0.233	0.236	0.238	0.236		0.22276	9.20377		
2,6-Dinitrotoluene	0.278	0.303	0.297	0.327	0.313	0.313	0.317	0.313		0.30764	4.78129		
Acenaphthylene	1.794	1.846	1.851	1.941	1.88	1.863	1.864	1.846		1.86066	2.21283		
3-Nitroaniline		0.325	0.338	0.349	0.35	0.348	0.355	0.348		0.3448	2.92413		
2,4-Dinitrophenol		0.018	0.048	0.059	0.108	0.129	0.148	0.155		0.09499	56.2381		0.999
Acenaphthene	1.078	1.143	1.129	1.192	1.178	1.191	1.201	1.19		1.16285	3.67849		
4-Nitrophenol	0.257	0.289	0.321	0.319	0.351	0.349	0.352	0.352		0.32377	10.9332		
2,4-Dinitrotoluene	0.33	0.386	0.393	0.415	0.422	0.425	0.431	0.42		0.40267	8.28875		
Pentachlorobenzene	0.43	0.464	0.45	0.465	0.458	0.451	0.455	0.448		0.45274	2.41392		
Dibenzofuran	1.603	1.681	1.63	1.715	1.644	1.668	1.659	1.655		1.65694	2.02795		
2,3,5,6-Tetrachlorophenol	0.163	0.24	0.262	0.269	0.284	0.283	0.292	0.292		0.26068	16.5748	1	
2,3,4,6-Tetrachlorophenol	0.176	0.257	0.279	0.298	0.303	0.309	0.307	0.299		0.27857	16.0709	1	
1-Naphthylamine	1.228	1.309	1.3	1.337	1.279	1.209	1.204	1.164		1.25379	4.84635		
2-Naphthylamine	1.241	1.309	1.341	1.371	1.341	1.335	1.34	1.31		1.32357	2.93407		
Diethylphthalate	1.315	1.356	1.281	1.365	1.36	1.345	1.347	1.325		1.33671	2.11759		

Thionazin	0.191	0.222	0.213	0.23	0.23	0.23	0.233	0.227		0.22202	6.30332		
Fluorene	1.326	1.339	1.315	1.377	1.354	1.342	1.353	1.326		1.34169	1.4653		
4-Chlorophenyl Phenyl Ether	0.598	0.617	0.588	0.636	0.623	0.624	0.621	0.613		0.6148	2.49694		
4-Nitroaniline		0.34	0.354	0.357	0.366	0.368	0.375	0.367		0.36091	3.24147		
5-Nitro-o-Toluidine	0.339	0.38	0.389	0.41	0.412	0.415	0.42	0.414		0.39743	6.84836		
1,2-Diphenylhydrazine	1.492	1.576	1.535	1.613	1.606	1.571	1.576	1.55		1.56475	2.50099		
2,4,6-Tribromophenol	0.105	0.156	0.158	0.167	0.171	0.171	0.17	0.167		0.15806	14.0427		
Phenanthrene-d10	ISTD												
4,6-Dinitro-2-Methylphenol		0.039	0.061	0.073	0.107	0.116	0.125	0.13		0.09294	37.9751		0.999
Diphenylamine/n-Nitrosodiphenylar	0.685	0.715	0.7	0.735	0.697	0.692	0.696	0.696		0.70191	2.2376		
Sulfotepp	0.103	0.118	0.11	0.122	0.115	0.114	0.115	0.115		0.11408	4.85891		
Sym-Trinitrobenzene	0.106	0.197	0.216	0.3	0.275	0.272	0.274	0.274		0.23927	26.6117	0.997	
Diallate	0.35	0.358	0.339	0.36	0.346	0.345	0.344	0.343		0.348	2.13366		
Phenacetin	0.37	0.404	0.415	0.44	0.44	0.435	0.437	0.437		0.42231	5.90594		
Phorate	0.545	0.579	0.552	0.591	0.567	0.562	0.562	0.557		0.56428	2.6146		
4-Bromophenyl Phenyl Ether	0.206	0.214	0.208	0.219	0.212	0.208	0.209	0.21		0.21077	1.99438		
Hexachlorobenzene	0.217	0.217	0.213	0.223	0.209	0.21	0.211	0.21		0.21367	2.29315		
Dimethoate	0.298	0.348	0.339	0.349	0.32	0.3	0.283	0.261		0.31226	10.2707		
4-Aminobiphenyl	0.826	0.908	0.897	0.935	0.915	0.905	0.91	0.901		0.89953	3.55074		
Pentachlorophenol		0.078	0.102	0.112	0.129	0.132	0.136	0.139		0.11822	18.8662	1	
Pronamide	0.296	0.341	0.34	0.356	0.359	0.35	0.353	0.351		0.34318	5.93543		
Pentachloronitrobenzene	0.076	0.095	0.091	0.096	0.097	0.093	0.094	0.093		0.0917	7.40928		
Disulfoton	0.437	0.453	0.437	0.469	0.452	0.452	0.443	0.444		0.4483	2.4233		
Phenanthrene	1.115	1.147	1.11	1.168	1.117	1.114	1.12	1.134		1.12805	1.79193		
Anthracene	1.111	1.166	1.135	1.194	1.157	1.154	1.164	1.158		1.15484	2.08944		
Carbazole	1.002	1.057	1.074	1.101	1.087	1.084	1.098	1.098		1.07514	3.05781		
Parathion Methyl	0.214	0.263	0.272	0.288	0.275	0.256	0.247	0.231		0.25569	9.58385		
Di-n-Butyl Phthalate	1.23	1.344	1.291	1.398	1.399	1.367	1.367	1.37		1.34596	4.31092		
Parathion Ethyl	0.131	0.166	0.169	0.184	0.192	0.189	0.189	0.188		0.1762	11.6751		
4-Nitroquinoline 1-Oxide	0.024	0.049	0.057	0.07	0.106	0.101	0.104	0.098		0.07608	40.4967		0.991
Methapyrilene	0.623	0.714	0.677	0.704	0.559	0.489	0.439			0.60063	18.0229		0.998
Isodrin	0.118	0.125	0.118	0.128	0.124	0.122	0.124	0.123		0.1227	2.79207		
Fluoranthene	1.124	1.214	1.21	1.261	1.224	1.236	1.253	1.241		1.22048	3.49791		
Chrysene-d12	ISTD												
Benzidine	0.642	0.7	0.721	0.748	0.698	0.606	0.585	0.547		0.65599	10.9435		
Pyrene	1.334	1.389	1.34	1.416	1.385	1.351	1.357	1.352		1.36551	2.06516		
Aramite	0.054	0.072	0.072	0.078	0.081	0.079	0.078	0.078		0.07405	11.7749		
p-Terphenyl-d14	0.953	0.989	0.937	0.992	0.966	0.948	0.94	0.941		0.95833	2.28247		
p-(Dimethylamino)azobenzene	0.213	0.253	0.252	0.271	0.271	0.267	0.268	0.266		0.25754	7.62105		
Chlorobenzilate	0.355	0.381	0.36	0.385	0.394	0.379	0.374	0.379		0.3759	3.44811		
Famphur					0.189					0.18857	0		
Butyl Benzyl Phthalate	0.621	0.68	0.644	0.698	0.694	0.67	0.672	0.664		0.66761	3.83069		
3,3'-Dimethylbenzidine	1.605	1.647	1.576	1.598	1.329	1.159	1.115	1.066		1.38692	17.8077		0.998
2-Acetylaminofluorene	0.33	0.405	0.463	0.487	0.542	0.53	0.54	0.536		0.47907	16.0696	0.999	
bis(2-Ethylhexyl)phthalate	0.761	0.858	0.812	0.902	0.933	0.902	0.891	0.896	0.811	0.86291	6.55468		
3,3'-Dichlorobenzidine	0.38	0.417	0.417	0.429	0.422	0.409	0.405	0.394		0.40902	3.90397		
Benzo[a]anthracene	1.175	1.195	1.172	1.231	1.199	1.195	1.206	1.2		1.19662	1.51976		
Chrysene	1.104	1.149	1.13	1.166	1.136	1.121	1.13	1.133		1.13383	1.63724		
Perylene-d12	ISTD												
Di-n-Octyl Phthalate	1.35	1.513	1.432	1.606	1.699	1.689	1.715	1.758		1.5953	9.30179		
7,12-Dimethylbenz[a]anthracene	0.541	0.577	0.567	0.601	0.593	0.599	0.612	0.616		0.58827	4.28694		
Benzo[b]fluoranthene	1.211	1.246	1.228	1.279	1.229	1.25	1.243	1.328		1.25155	2.92301		
Benzo[k]fluoranthene	1.052	1.153	1.128	1.193	1.15	1.182	1.117	1.115		1.13645	3.8983		
Benzo[a]pyrene	0.969	1.072	1.06	1.14	1.109	1.125	1.156	1.134		1.0956	5.57118		
3-Methylcholanthrene	0.477	0.538	0.535	0.582	0.578	0.582	0.587	0.578		0.55708	6.8516		
Indeno[1,2,3-cd]pyrene	0.941	1.036	1.092	1.133	1.123	1.107	1.096	1.06		1.07344	5.77696		
Dibenz[ah]anthracene	0.787	0.874	0.921	0.947	0.948	0.945	0.937	0.902		0.90762	6.09428		
Benzo[ghi]perylene	0.804	0.859	0.904	0.917	0.895	0.888	0.872	0.841		0.87237	4.26667		

Thu Apr 04 18:24:18 2019

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L19041033 Run Date: 04/12/2019 Sample ID: WG703239-11
Instrument ID: HPMS12 Run Time: 15:50 Method: 8270D
File ID: 12M71151 Analyst: SCB QC Key: STD
ICal Workgroup: WG703239 Cal ID: HPMS12 - 12-APR-19

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4-Dinitrophenol	SPCC	50000	51200	ug/L	0.126	2.30	40	
Hexachlorocyclopentadiene	SPCC	50000	82500	ug/L	0.307	64.9	40	*
4-Nitrophenol	SPCC	50000	55900	ug/L	0.224	11.8	40	
n-Nitrosodipropylamine	SPCC	50000	54000	ug/L	0.840	8.00	30	
Sulfotepp		50000	48900	ug/L	0.127	2.20	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 6405200
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L19041033 Run Date: 04/03/2019 Sample ID: WG701995-11
Instrument ID: HPMS19 Run Time: 16:24 Method: 8270D
File ID: 19M006783 Analyst: SCB QC Key: STD
ICal Workgroup: WG701995 Cal ID: HPMS19 - 03-APR-19

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4-Dinitrophenol	SPCC	50000	50000	ug/L	0.104	0.100	40	
Hexachlorocyclopentadiene	SPCC	50000	68600	ug/L	0.306	37.2	40	
4-Nitrophenol	SPCC	50000	51500	ug/L	0.333	2.90	40	
n-Nitrosodipropylamine	SPCC	50000	52000	ug/L	1.18	4.00	30	
Sulfotepp		50000	51600	ug/L	0.118	3.20	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 6405200
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19041033 Run Date: 04/22/2019 Sample ID: WG704385-02
Instrument ID: HPMS12 Run Time: 11:09 Method: 8270D
File ID: 12M71270 Analyst: SCB QC Key: STD
Workgroup (AAB#): WG704370 Cal ID: HPMS12 - 12-APR-19
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dichlorobenzene	CCC	50000	50600	ug/L	1.52	1.26	20	
2,4,6-Trichlorophenol	CCC	50000	50600	ug/L	0.372	1.17	20	
2,4-Dichlorophenol	CCC	50000	50400	ug/L	0.304	0.773	20	
2-Nitrophenol	CCC	50000	53200	ug/L	0.200	6.42	20	
4-Chloro-3-Methylphenol	CCC	50000	50300	ug/L	0.293	0.533	20	
Acenaphthene	CCC	50000	51200	ug/L	1.16	2.33	20	
Benzo[a]pyrene	CCC	50000	50700	ug/L	1.11	1.45	20	
Di-n-Octyl Phthalate	CCC	50000	54100	ug/L	1.44	8.15	20	
Fluoranthene	CCC	50000	49900	ug/L	1.22	0.262	20	
Hexachlorobutadiene	CCC	50000	50800	ug/L	0.183	1.51	20	
Diphenylamine/n-Nitrosodiphenylamine	CCC	50000	50900	ug/L	0.720	1.74	20	
Pentachlorophenol	CCC	50000	46000	ug/L	0.129	7.93	20	
Phenol	CCC	50000	50900	ug/L	1.57	1.76	20	
2,4-Dinitrophenol	SPCC	50000	53000	ug/L	0.132	6.07	40	
4-Nitrophenol	SPCC	50000	54200	ug/L	0.217	8.38	40	
Hexachlorocyclopentadiene	SPCC	50000	40700	ug/L	0.183	18.6	40	
n-Nitrosodipropylamine	SPCC	50000	54200	ug/L	0.842	8.32	40	
Sulfotepp		50000	51000	ug/L	0.133	2.08	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 6405202
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19041033 Run Date: 04/24/2019 Sample ID: WG704765-02
Instrument ID: HPMS19 Run Time: 14:01 Method: 8270D
File ID: 19M007115 Analyst: SCB QC Key: STD
Workgroup (AAB#): WG704943 Cal ID: HPMS19 - 03-APR-19
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dichlorobenzene	CCC	50000	49800	ug/L	1.54	0.308	20	
2,4,6-Trichlorophenol	CCC	50000	51300	ug/L	0.359	2.70	20	
2,4-Dichlorophenol	CCC	50000	51300	ug/L	0.279	2.61	20	
2-Nitrophenol	CCC	50000	54300	ug/L	0.200	8.65	20	
4-Chloro-3-Methylphenol	CCC	50000	53600	ug/L	0.331	7.29	20	
Acenaphthene	CCC	50000	53300	ug/L	1.24	6.52	20	
Benzo[a]pyrene	CCC	50000	51600	ug/L	1.13	3.26	20	
Di-n-Octyl Phthalate	CCC	50000	61800	ug/L	1.97	23.5	20	*
Fluoranthene	CCC	50000	51300	ug/L	1.25	2.63	20	
Hexachlorobutadiene	CCC	50000	51000	ug/L	0.163	1.92	20	
Diphenylamine/n-Nitrosodiphenylamine	CCC	50000	51900	ug/L	0.729	3.88	20	
Pentachlorophenol	CCC	50000	46300	ug/L	0.119	7.31	20	
Phenol	CCC	50000	51800	ug/L	1.92	3.59	20	
2,4-Dinitrophenol	SPCC	50000	68600	ug/L	0.165	37.2	40	
4-Nitrophenol	SPCC	50000	53000	ug/L	0.343	6.06	40	
Hexachlorocyclopentadiene	SPCC	50000	41300	ug/L	0.211	17.4	40	
n-Nitrosodipropylamine	SPCC	50000	53000	ug/L	1.20	6.06	40	
Sulfotepp		50000	51800	ug/L	0.118	3.62	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 6405202
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19041033 Run Date: 04/25/2019 Sample ID: WG704868-02
Instrument ID: HPMS19 Run Time: 13:40 Method: 8270D
File ID: 19M007126 Analyst: SCB QC Key: STD
Workgroup (AAB#): WG704943 Cal ID: HPMS19 - 03-APR-19
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dichlorobenzene	CCC	50000	50300	ug/L	1.55	0.687	20	
2,4,6-Trichlorophenol	CCC	50000	50500	ug/L	0.353	0.983	20	
2,4-Dichlorophenol	CCC	50000	51800	ug/L	0.282	3.65	20	
2-Nitrophenol	CCC	50000	53800	ug/L	0.198	7.63	20	
4-Chloro-3-Methylphenol	CCC	50000	53800	ug/L	0.332	7.59	20	
Acenaphthene	CCC	50000	52400	ug/L	1.22	4.89	20	
Benzo[a]pyrene	CCC	50000	51300	ug/L	1.12	2.57	20	
Di-n-Octyl Phthalate	CCC	50000	59900	ug/L	1.91	19.9	20	
Fluoranthene	CCC	50000	50600	ug/L	1.24	1.21	20	
Hexachlorobutadiene	CCC	50000	52000	ug/L	0.166	3.94	20	
Diphenylamine/n-Nitrosodiphenylamine	CCC	50000	51200	ug/L	0.718	2.36	20	
Pentachlorophenol	CCC	50000	46200	ug/L	0.118	7.64	20	
Phenol	CCC	50000	51700	ug/L	1.91	3.34	20	
2,4-Dinitrophenol	SPCC	50000	63300	ug/L	0.147	26.6	40	
4-Nitrophenol	SPCC	50000	52400	ug/L	0.340	4.88	40	
Hexachlorocyclopentadiene	SPCC	50000	42100	ug/L	0.214	15.8	40	
n-Nitrosodipropylamine	SPCC	50000	53500	ug/L	1.21	6.97	40	
Sulfotepp		50000	52200	ug/L	0.119	4.41	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 6405202
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L19041033 CCV Number: WG704385-02

Instrument ID: HPMS12 CAL ID: HPMS12-12-APR-19

Workgroup (AAB#): WG704370 Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG704385-02	NA	NA	108481	237487	366564	404729	366178	395383
Upper Limit	NA	NA	216962	474974	733128	809458	732356	790766
Lower Limit	NA	NA	54241	118744	183282	202365	183089	197692
L19041033-01	1.00	RE	100952	214361	352554	365444	349880	363019
L19041033-02	1.00	RE	101039	213986	352633	362952	346103	362577
L19041033-03	1.00	RE	101007	214576	355558	363156	349332	364796
L19041033-04	1.00	RE	99628	214272	353318	362918	348509	365177
L19041033-05	1.00	RE	103654	227585	369482	378786	364059	385433
L19041033-06	1.00	RE	104840	228174	371041	384652	362216	388298
L19041033-07	1.00	RE	103481	219328	360549	372547	351277	371320
L19041033-08	1.00	RE	107821	226420	371241	382586	365876	381932
WG704098-01	1.00	01	100240	209057	342883	360997	346252	345391
WG704098-02	1.00	01	102066	221288	360837	375967	353482	376319
WG704098-03	1.00	01	103435	225769	365012	379728	359183	381671

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-D10
IS-3 - Chrysene-D12
IS-4 - Naphthalene-D8
IS-5 - Perylene-D12
IS-6 - Phenanthrene-D10

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 6405203
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L19041033
Instrument ID: HPMS19
Workgroup (AAB#): WG704943

CCV Number: WG704765-02
CAL ID: HPMS19-03-APR-19
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG704765-02	NA	NA	134285	292602	431136	529453	392176	485538
Upper Limit	NA	NA	268570	585204	862272	1058906	784352	971076
Lower Limit	NA	NA	67143	146301	215568	264727	196088	242769
L19041033-01	1.00	02	123307	270682	381856	486582	332080	445814
L19041033-02	1.00	02	117123	259779	371089	474853	324561	433103
L19041033-03	1.00	02	117283	260622	376269	472625	325641	434711
L19041033-04	1.00	02	163842	357388	494041	644446	420726	587285
WG703405-01	1.00	02	117791	261451	379604	477198	328026	431718
WG703405-02	1.00	02	154235	337249	473440	609033	415369	554112

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-D10
IS-3 - Chrysene-D12
IS-4 - Naphthalene-D8
IS-5 - Perylene-D12
IS-6 - Phenanthrene-D10

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 6405203
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L19041033 **CCV Number:** WG704868-02
Instrument ID: HPMS19 **CAL ID:** HPMS19-03-APR-19
Workgroup (AAB#): WG704943 **Matrix:** WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG704868-02	NA	NA	137901	307946	425443	546357	383719	510590
Upper Limit	NA	NA	275802	615892	850886	1092714	767438	1021180
Lower Limit	NA	NA	68951	153973	212722	273179	191860	255295
L19041033-05	1.00	02	127597	283680	391435	506043	341867	470355
L19041033-06	1.00	02	130732	290104	396929	520519	345093	478632
L19041033-07	1.00	02	130778	293215	401239	524177	340443	479554
L19041033-08	1.00	02	127904	286753	393375	516455	333643	471561

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-D10
IS-3 - Chrysene-D12
IS-4 - Naphthalene-D8
IS-5 - Perylene-D12
IS-6 - Phenanthrene-D10

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 6405203
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number:L19041033 CCV Number:WG704385-02
Instrument ID:HPMS12 CAL ID: HPMS12-12-APR-19
Workgroup (AAB#):WG704370 Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG704385-02	NA	NA	7.83	10.93	16.24	9.12	19.07	12.55
Upper Limit	NA	NA	8.33	11.43	16.74	9.62	19.57	13.05
Lower Limit	NA	NA	7.33	10.43	15.74	8.62	18.57	12.05
L19041033-01	1.00	RE	7.829	10.932	16.232	9.121	19.074	12.54
L19041033-02	1.00	RE	7.828	10.932	16.232	9.121	19.068	12.54
L19041033-03	1.00	RE	7.829	10.932	16.232	9.121	19.069	12.54
L19041033-04	1.00	RE	7.828	10.932	16.232	9.121	19.069	12.54
L19041033-05	1.00	RE	7.828	10.932	16.237	9.121	19.074	12.546
L19041033-06	1.00	RE	7.829	10.932	16.237	9.121	19.074	12.546
L19041033-07	1.00	RE	7.829	10.932	16.232	9.121	19.074	12.54
L19041033-08	1.00	RE	7.829	10.932	16.232	9.121	19.069	12.54
WG704098-01	1.00	01	7.829	10.932	16.232	9.121	19.069	12.54
WG704098-02	1.00	01	7.829	10.932	16.237	9.121	19.074	12.546
WG704098-03	1.00	01	7.828	10.932	16.237	9.121	19.074	12.546

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-D10
IS-3 - Chrysene-D12
IS-4 - Naphthalene-D8
IS-5 - Perylene-D12
IS-6 - Phenanthrene-D10

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 6405205
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number:L19041033 CCV Number:WG704765-02
Instrument ID:HPMS19 CAL ID: HPMS19 - 03-APR-19
Workgroup (AAB#):WG704943 Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG704765-02	NA	NA	7.69	10.78	16.02	8.97	18.69	12.37
Upper Limit	NA	NA	8.19	11.28	16.52	9.47	19.19	12.87
Lower Limit	NA	NA	7.19	10.28	15.52	8.47	18.19	11.87
L19041033-01	1.00	02	7.681	10.781	16.022	8.975	18.692	12.369
L19041033-02	1.00	02	7.687	10.78	16.015	8.975	18.692	12.369
L19041033-03	1.00	02	7.681	10.78	16.015	8.969	18.686	12.369
L19041033-04	1.00	02	7.681	10.781	16.016	8.969	18.692	12.369
WG703405-01	1.00	02	7.681	10.781	16.015	8.969	18.692	12.369
WG703405-02	1.00	02	7.681	10.78	16.021	8.975	18.692	12.369

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-D10
IS-3 - Chrysene-D12
IS-4 - Naphthalene-D8
IS-5 - Perylene-D12
IS-6 - Phenanthrene-D10

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 6405205
Report generated 04/29/2019 16:55

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number:L19041033 CCV Number:WG704868-02
Instrument ID:HPMS19 CAL ID: HPMS19 - 03-APR-19
Workgroup (AAB#):WG704943 Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG704868-02	NA	NA	7.69	10.79	16.04	8.97	18.73	12.39
Upper Limit	NA	NA	8.19	11.29	16.54	9.47	19.23	12.89
Lower Limit	NA	NA	7.19	10.29	15.54	8.47	18.23	11.89
L19041033-05	1.00	02	7.681	10.786	16.039	8.969	18.721	12.374
L19041033-06	1.00	02	7.681	10.78	16.033	8.969	18.715	12.374
L19041033-07	1.00	02	7.681	10.781	16.033	8.969	18.721	12.375
L19041033-08	1.00	02	7.681	10.78	16.027	8.969	18.709	12.374

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-D10
IS-3 - Chrysene-D12
IS-4 - Naphthalene-D8
IS-5 - Perylene-D12
IS-6 - Phenanthrene-D10

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 6405205
Report generated 04/29/2019 16:55

2.1.1.3 Sample Data

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71275.D Vial: 7
Acq On : 22 Apr 2019 1:54 pm Operator: SCB
Sample : L19041033-01 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:14 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

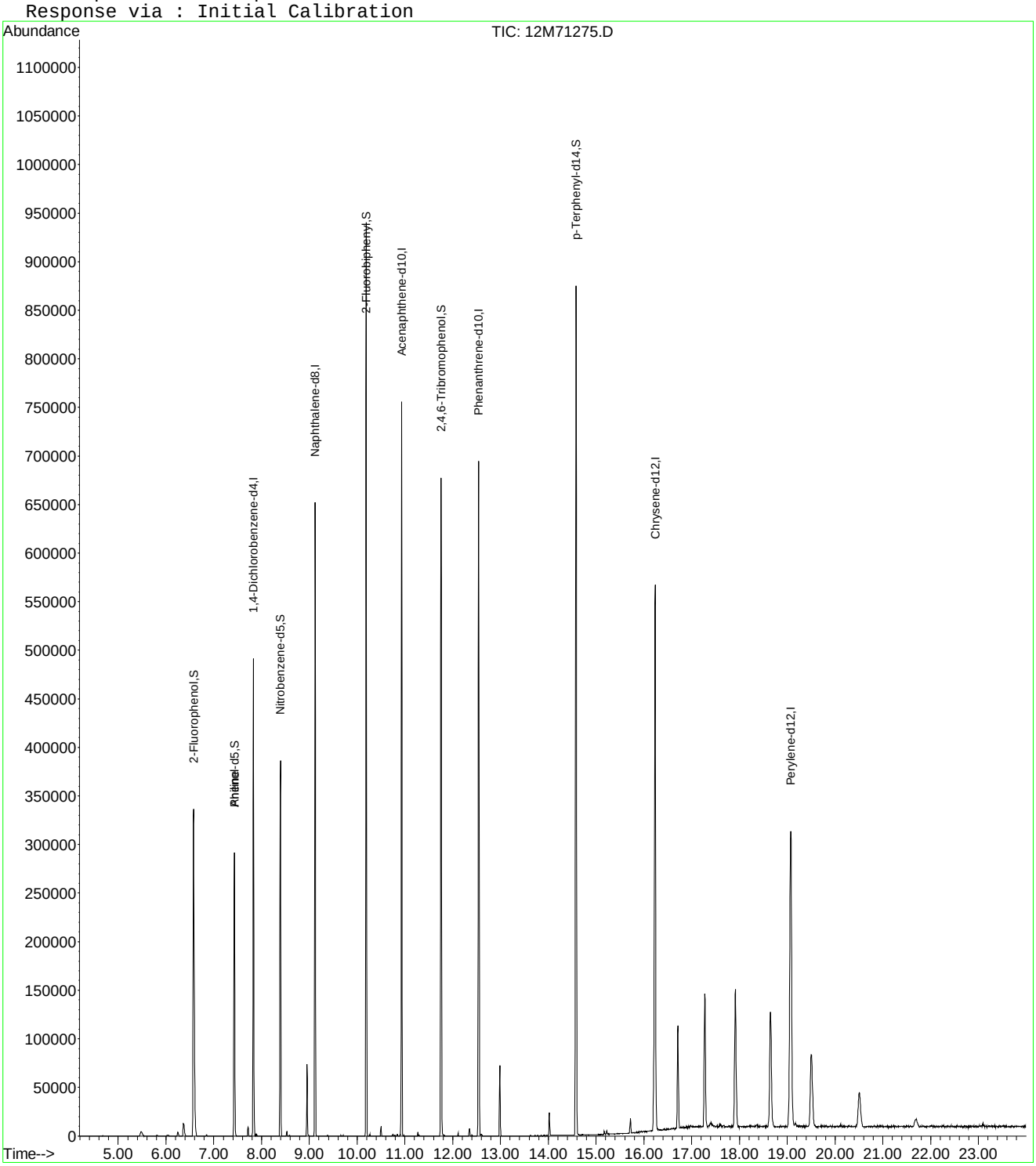
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	100952	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	365444	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	214361	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	363019	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	352554	40.0000	ug/ml	-0.027
129) Perylene-d12	19.074	264	349880	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.579	112	180233	58.2848906	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 58.28%			
12) Phenol-d5	7.428	99	140663	37.7936694	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 37.79%			
31) Nitrobenzene-d5	8.395	82	147027	47.7848542	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 95.57%			
59) 2-Fluorobiphenyl	10.190	172	346833	48.2072075	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 96.41%			
87) 2,4,6-Tribromophenol	11.755	330	102127	108.4693620	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 108.47%			
118) p-Terphenyl-d14	14.581	244	418961	49.4762197	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 98.95%			
Target Compounds						Qvalue
11) Aniline	7.43	66	5910	3.4356	ug/ml#	1

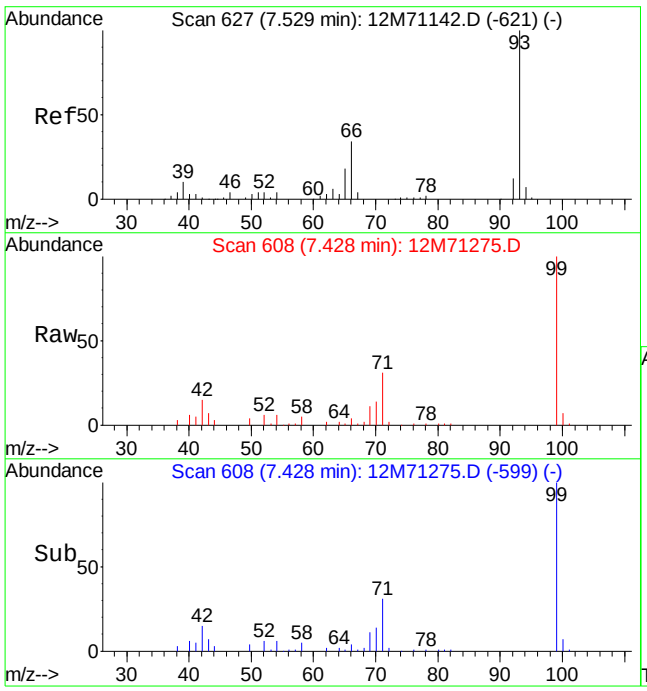
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71275.D MEGAMIX.M Tue Apr 23 08:29:15 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71275.D Vial: 7
Acq On : 22 Apr 2019 1:54 pm Operator: SCB
Sample : L19041033-01 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

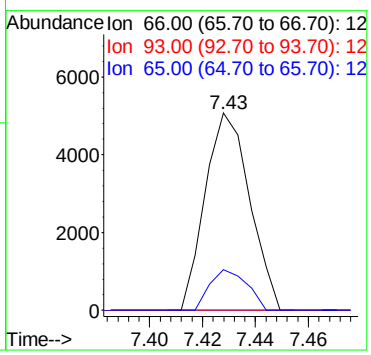




#11
Aniline
Concen: 3.4356 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71275.D
Acq: 22 Apr 2019 1:54 pm

Tgt Ion: 66 Resp: 5910

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	17.2	52.9	123.5#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71275.D Vial: 7
Acq On : 22 Apr 2019 1:54 pm Operator: SCB
Sample : L19041033-01 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:43 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	352554	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	349880	40.0000	ug/L	0.000

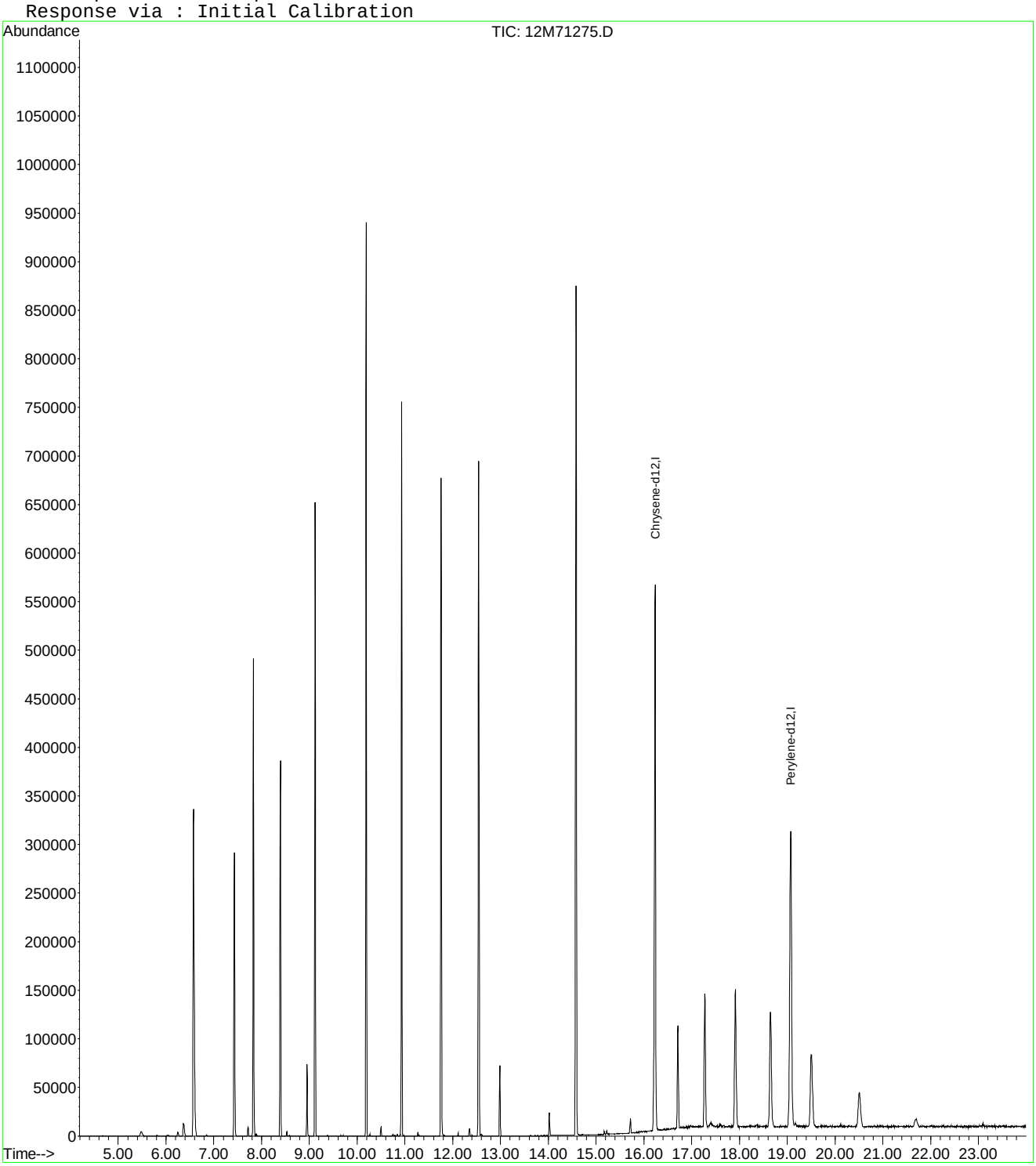
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71275.D A9B.M Tue Apr 23 08:20:44 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71275.D Vial: 7
Acq On : 22 Apr 2019 1:54 pm Operator: SCB
Sample : L19041033-01 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007119.D Vial: 6
Acq On : 24 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-01 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:04:55 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

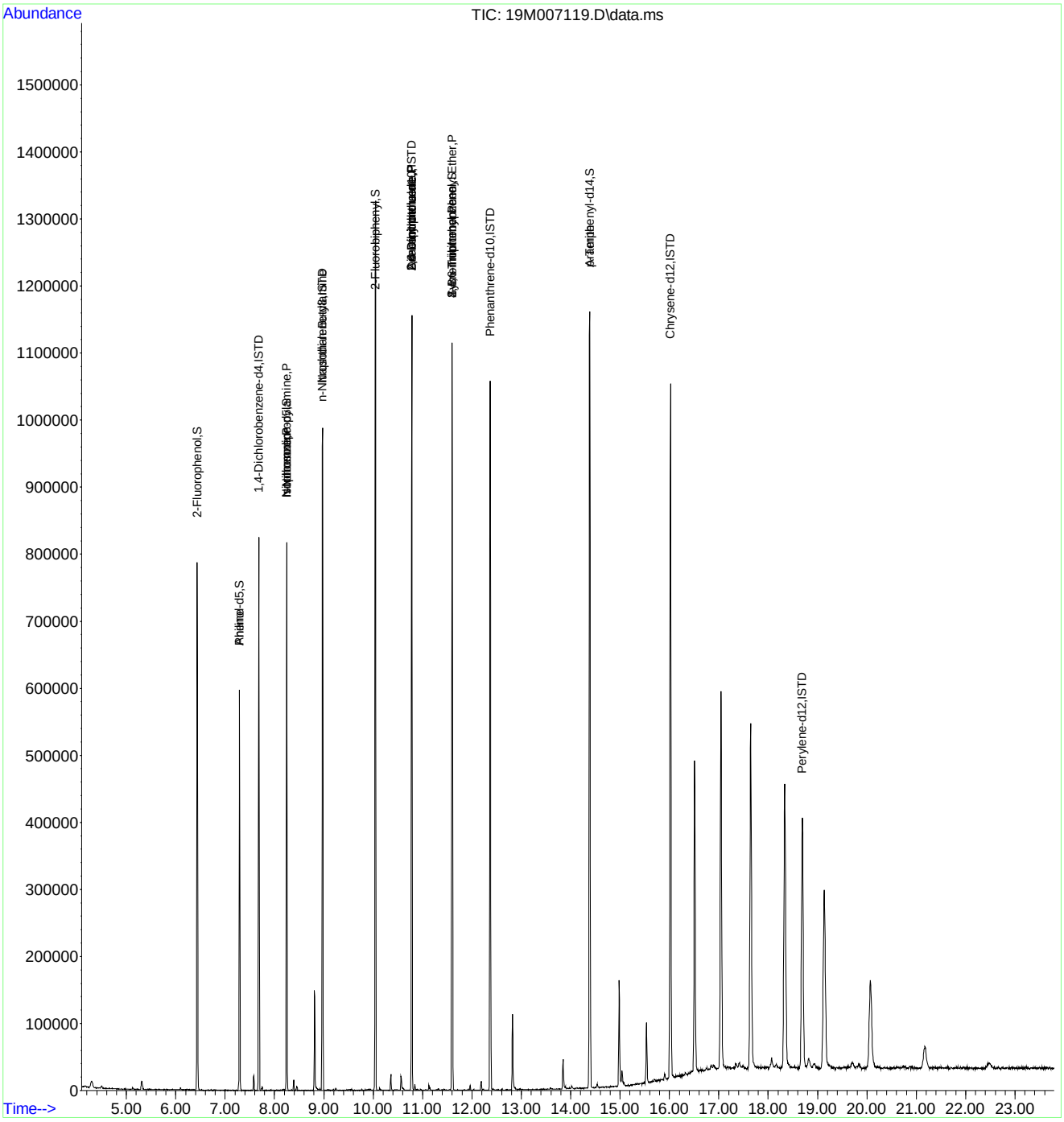
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	123307	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.975	136	486582	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.781	164	270682	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	445814	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.022	240	381856	40.0000	ug/mL	-0.0116
129) Perylene-d12	18.692	264	332080	40.0000	ug/mL	-0.0116
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	218711	52.0610	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 52.0610%			
12) Phenol-d5	7.293	99	184158	34.2147	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 34.2147%			
31) Nitrobenzene-d5	8.246	82	255807	50.7242	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 101.4484%			
59) 2-Fluorobiphenyl	10.045	172	458273	50.4404	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 100.8808%			
87) 2,4,6-Tribromophenol	11.598	330	109390	102.2717	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 102.2717%			
118) p-Terphenyl-d14	14.386	244	514255	56.2112	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 112.4224%			
Target Compounds						Qvalue
11) Aniline	7.293	66	10798	3.6170	ug/mL#	1
25) n-Nitrosodipropylamine	8.246	70	38282	10.9469	ug/mL#	40
34) Isophorone	8.246	82	255807	28.1562	ug/mL#	66
48) n-Nitrosodi-n-Butylamine	8.969	84	14090	3.5041	ug/mL#	12
65) Dimethylphthalate	10.781	163	58093	6.5838	ug/mL#	1
67) 2,6-Dinitrotoluene	10.781	165	34766	16.7001	ug/mL#	15
73) 2,4-Dinitrotoluene	10.781	165	34766	12.7586	ug/mL#	4
92) Sym-Trinitrobenzene	11.598	75	725	2.1960	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	7446	3.1697	ug/mL#	1
117) Aramite	14.386	185	1203	1.7017	ug/mL#	31

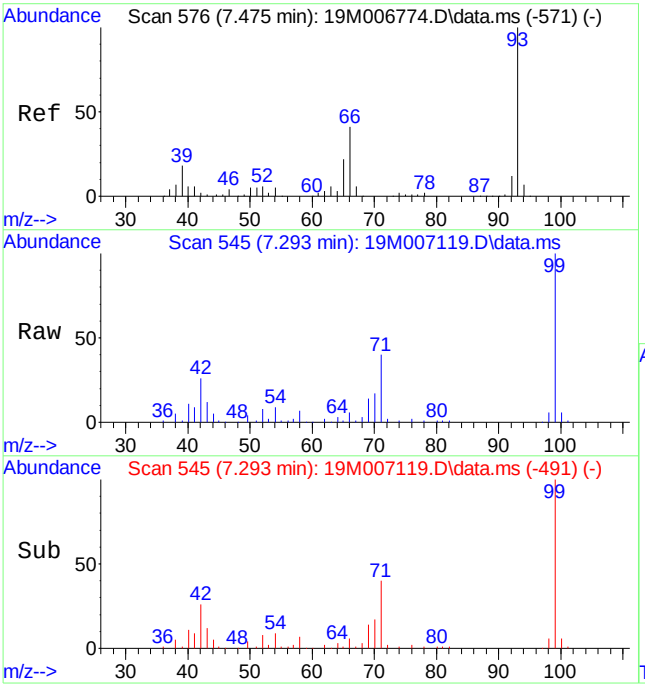
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007119.D Vial: 6
Acq On : 24 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-01 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:04:55 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

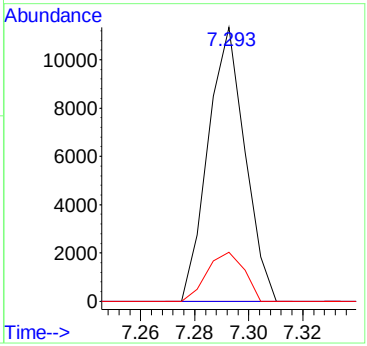


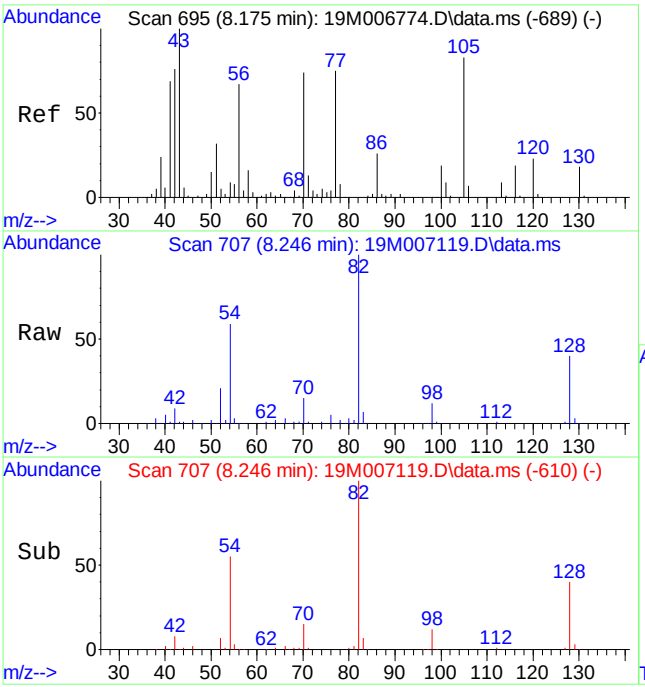


#11
Aniline
Concen: 3.6170 ug/mL
RT: 7.293 min Scan# 545
Delta R.T. -0.082 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion: 66 Resp: 10798

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	17.9	41.4	77.0#

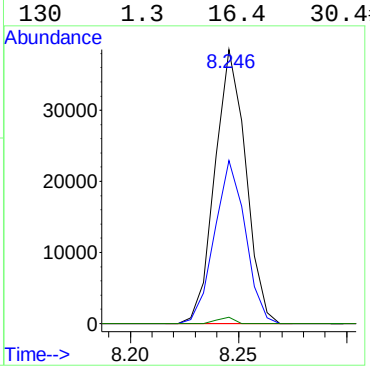


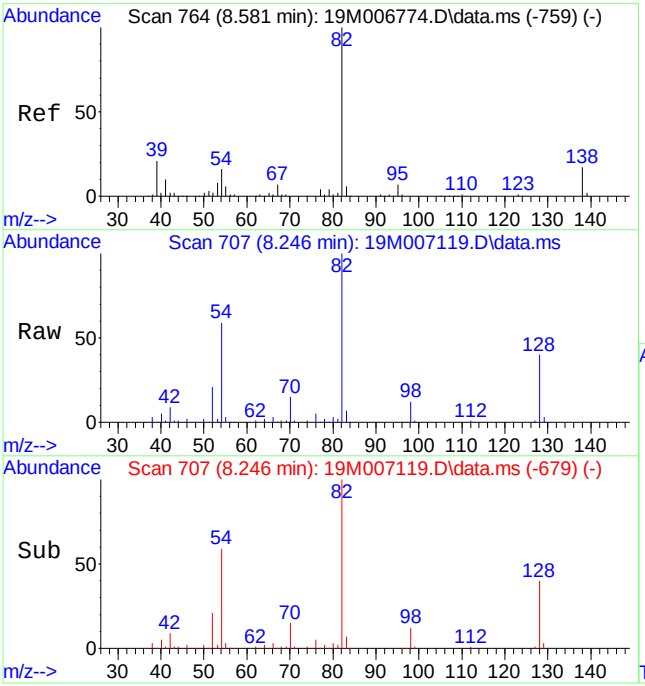


#25
n-Nitrosodipropylamine
Concen: 10.9469 ug/mL
RT: 8.246 min Scan# 707
Delta R.T. 0.171 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion: 70 Resp: 38282

Ion	Ratio	Lower	Upper
70	100		
42	59.2	95.8	178.0#
101	0.0	9.6	17.8#
130	1.3	16.4	30.4#

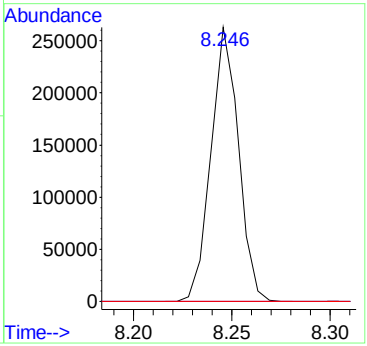


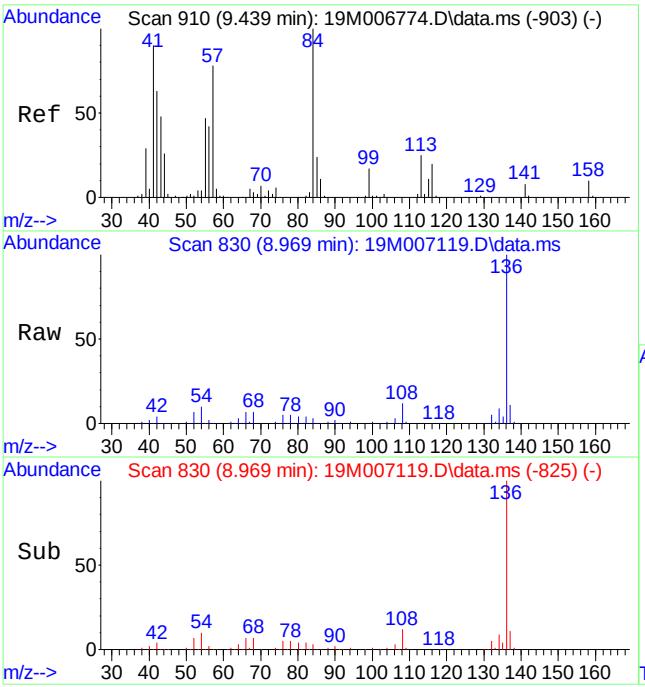


#34
Isophorone
Concen: 28.1562 ug/mL
RT: 8.246 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion: 82 Resp: 255807

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

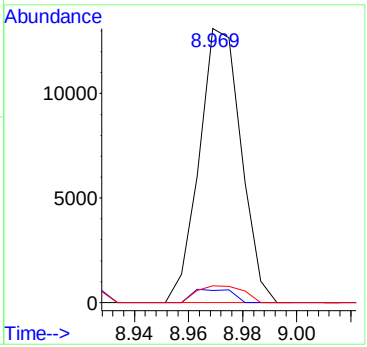


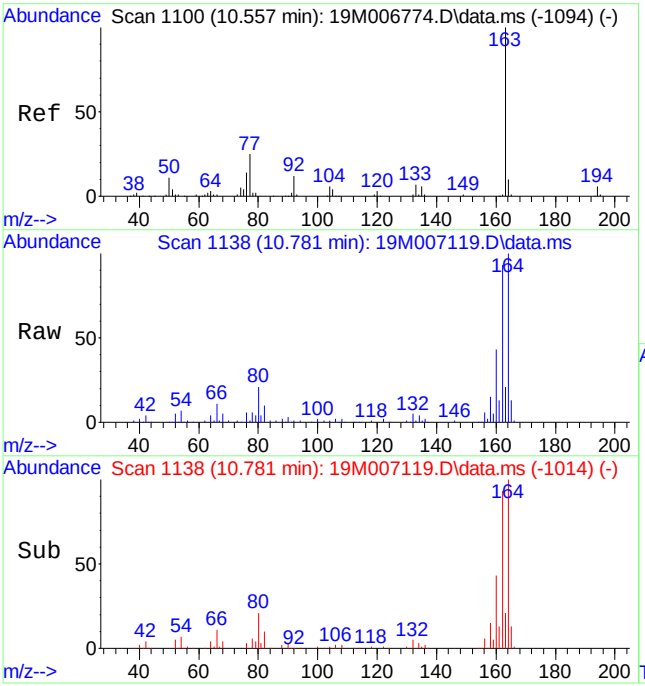


#48
n-Nitrosodi-n-Butylamine
Concen: 3.5041 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. -0.370 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion: 84 Resp: 14090

Ion	Ratio	Lower	Upper
84	100		
57	4.5	51.9	96.5#
41	6.8	68.9	127.9#

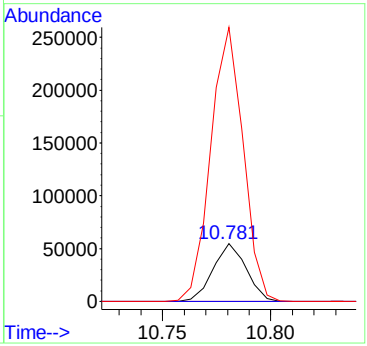


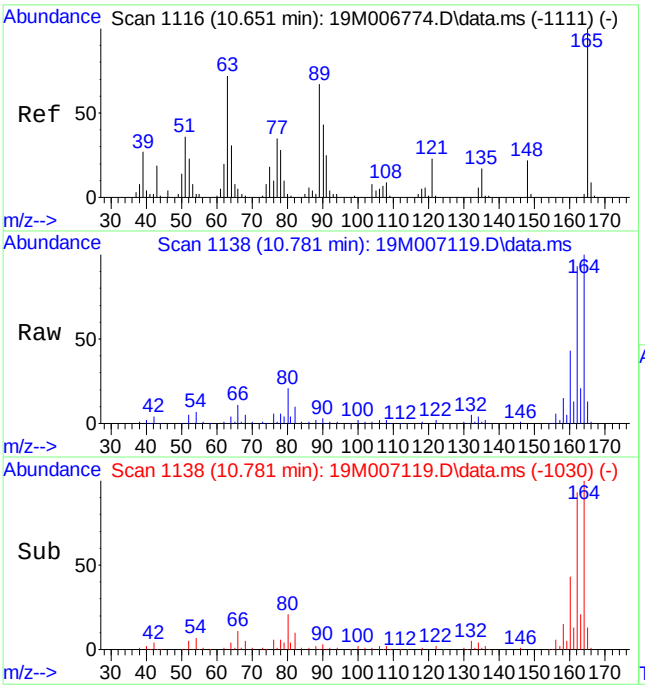


#65
Dimethylphthalate
Concen: 6.5838 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.330 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion:163 Resp: 58093

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	465.9	7.2	13.4#

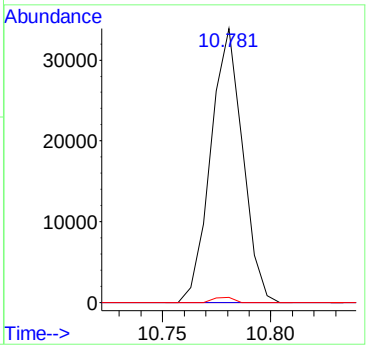


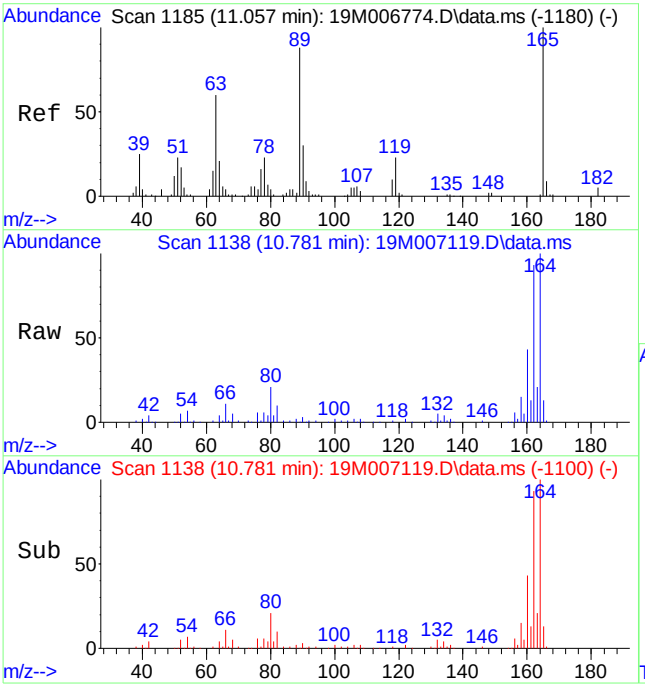


#67
2,6-Dinitrotoluene
Concen: 16.7001 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion:165 Resp: 34766

Ion	Ratio	Lower	Upper
165	100		
63	0.0	50.8	94.4#
89	1.2	47.1	87.5#

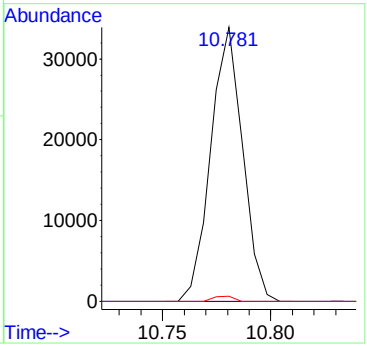


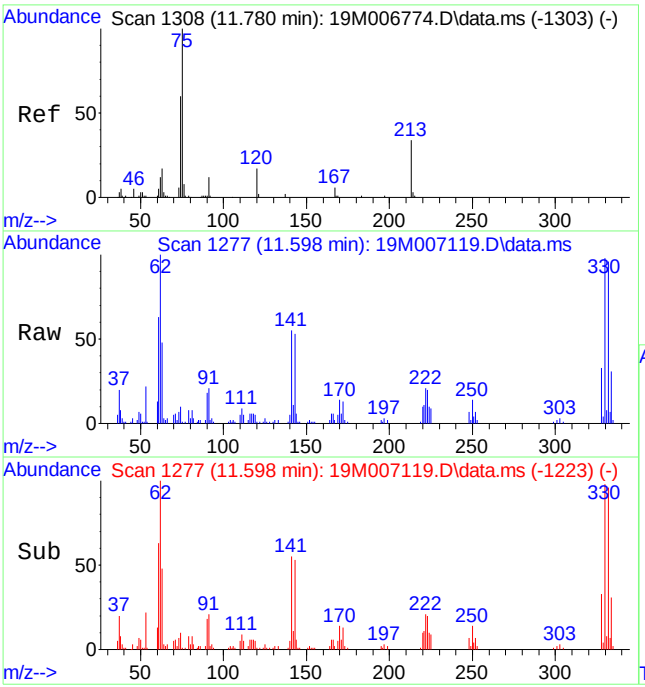


#73
2,4-Dinitrotoluene
Concen: 12.7586 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. -0.176 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion:165 Resp: 34766

Ion	Ratio	Lower	Upper
165	100		
63	0.0	58.0	107.8#
89	1.2	71.3	132.5#

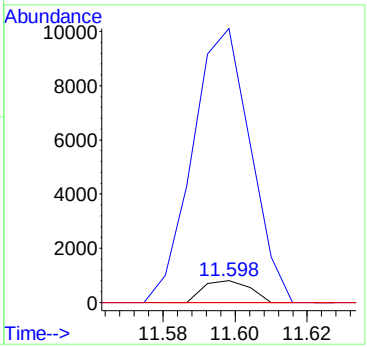


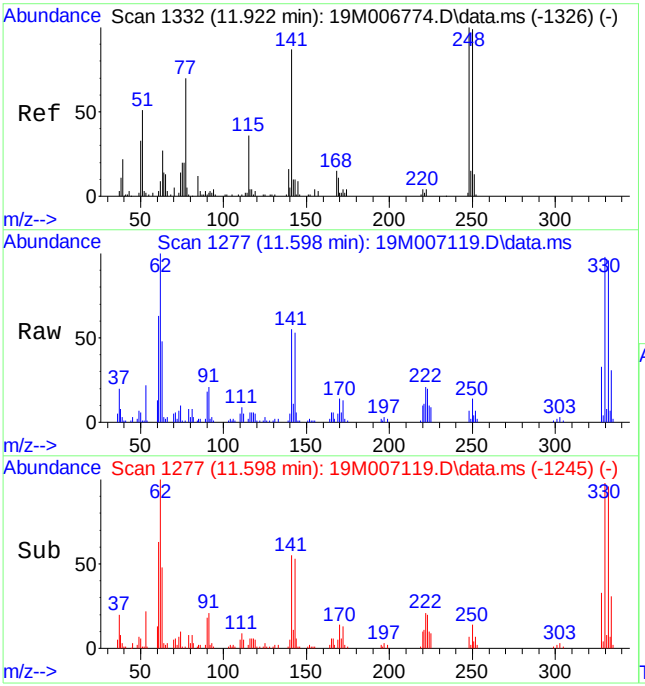


#92
Sym-Trinitrobenzene
Concen: 2.1960 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.082 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion: 75 Resp: 725

Ion	Ratio	Lower	Upper
75	100		
74	1562.2	41.6	77.3#
213	0.0	25.1	46.5#

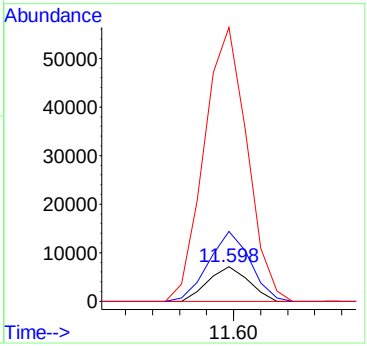


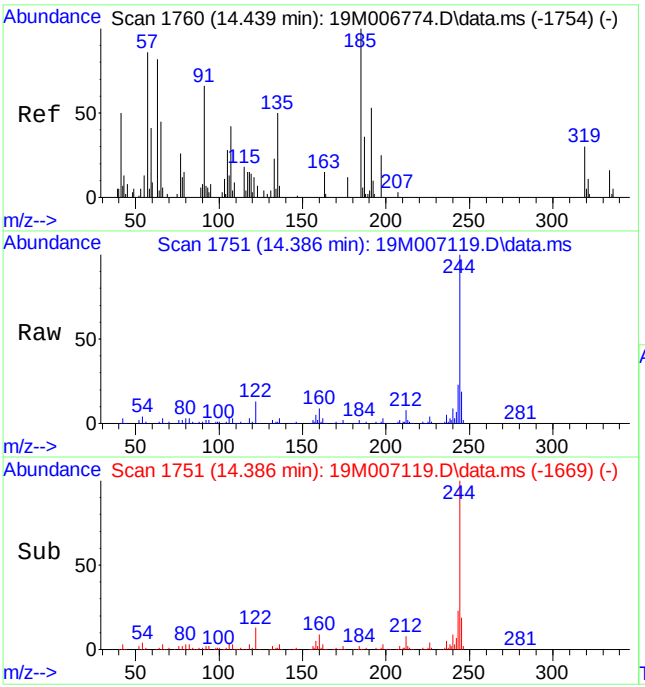


#96
4-Bromophenyl Phenyl Ether
Concen: 3.1697 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion:248 Resp: 7446

Ion	Ratio	Lower	Upper
248	100		
250	207.3	68.1	126.5#
141	835.8	62.4	116.0#

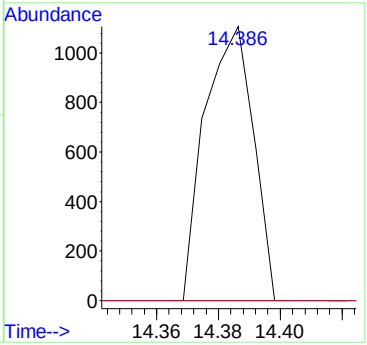




#117
Aramite
Concen: 1.7017 ug/mL
RT: 14.386 min Scan# 1751
Delta R.T. 0.082 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion:185 Resp: 1203

Ion	Ratio	Lower	Upper
185	100		
191	0.0	37.6	69.8#
319	0.0	22.5	41.7#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007119.D Vial: 6
Acq On : 24 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-01 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:35 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

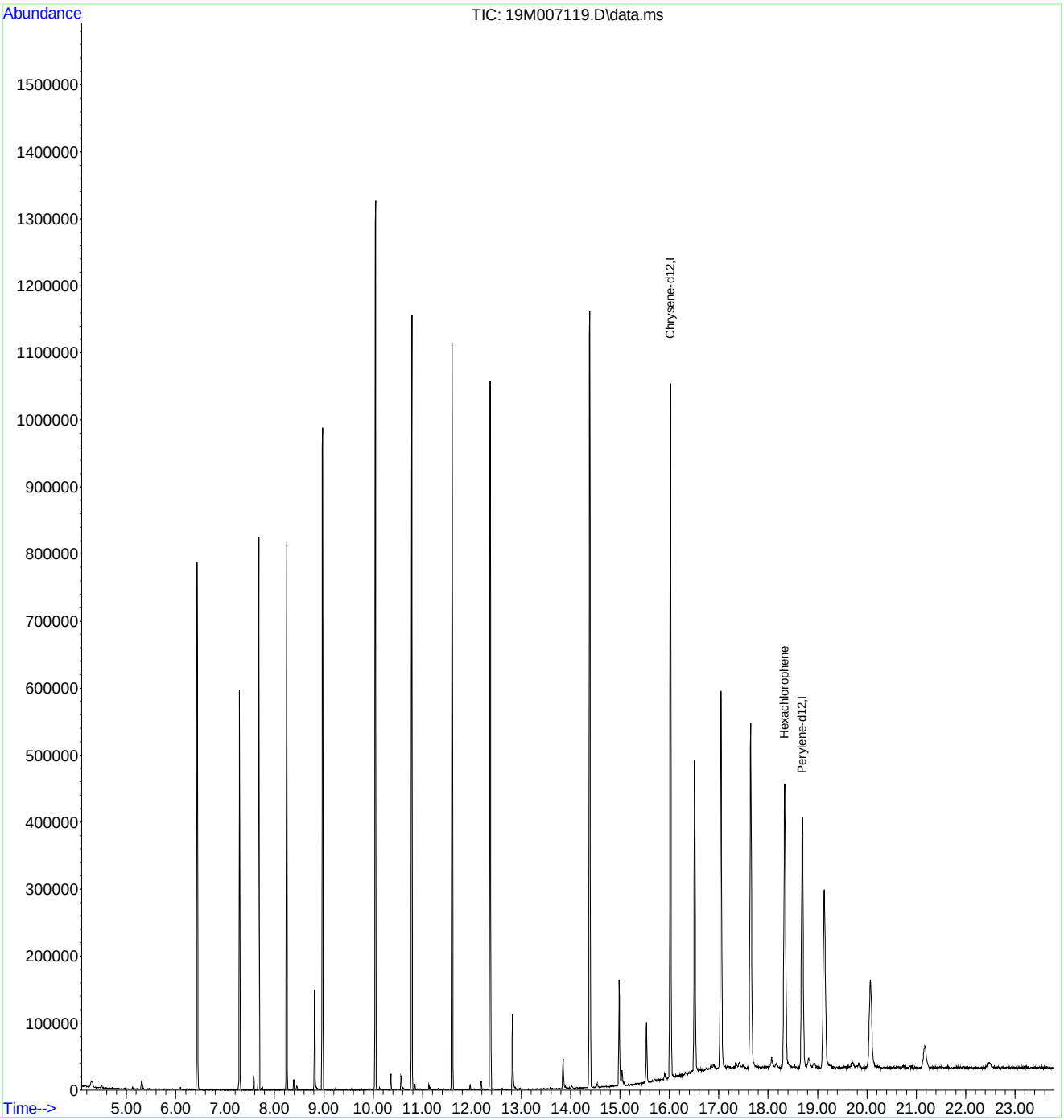
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.022	240	381856	40.0000	ug/mL	0.0000
3) Perylene-d12	18.692	264	332080	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
4) Hexachlorophene	18.333	196	1175	0.4421	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

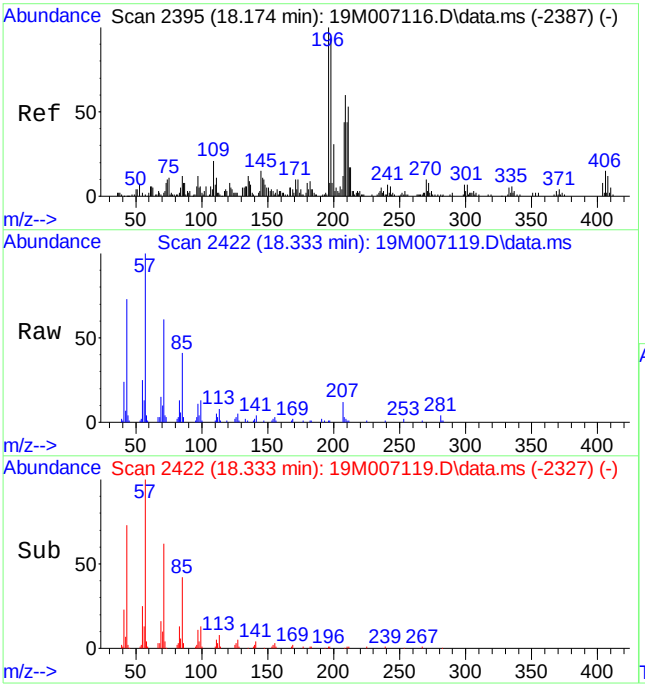
Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007119.D Vial: 6
Acq On : 24 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-01 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:35 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



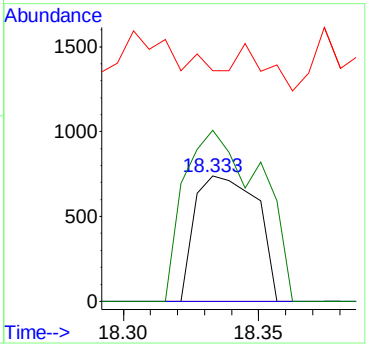
19M007119.D A9B.M Thu Apr 25 18:09:36 2019 SVOA1 Page: 2



#4
Hexachlorophene
Concen: 0.4421 ug/mL
RT: 18.333 min Scan# 2422
Delta R.T. 0.159 min
Lab File: 19M007119.D
Acq: 24 Apr 2019 5:39 pm

Tgt Ion:196 Resp: 1175

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	16.3	47.7	71.5#
211	166.9	42.5	63.7#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71276.D Vial: 8
Acq On : 22 Apr 2019 2:26 pm Operator: SCB
Sample : L19041033-02 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:16 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

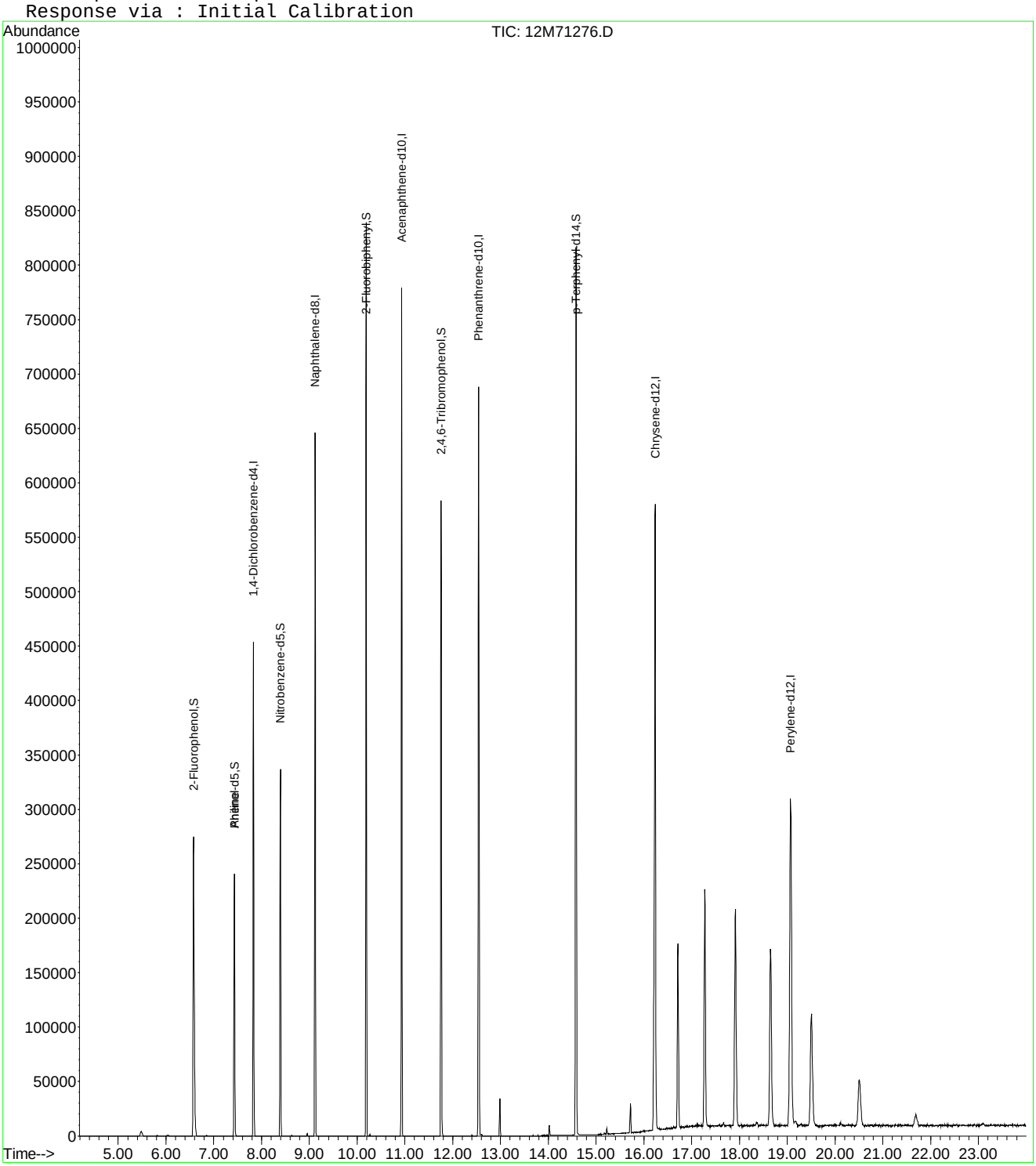
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.828	152	101039	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	362952	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	213986	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	362577	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	352633	40.0000	ug/ml	-0.027
129) Perylene-d12	19.068	264	346103	40.0000	ug/ml	-0.032
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	147568	47.6803850	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 47.68%			
12) Phenol-d5	7.428	99	115497	31.0052885	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 31.01%			
31) Nitrobenzene-d5	8.395	82	128477	42.0426612	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 84.09%			
59) 2-Fluorobiphenyl	10.190	172	311976	43.4383342	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 86.88%			
87) 2,4,6-Tribromophenol	11.755	330	87271	92.8532004	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 92.85%			
118) p-Terphenyl-d14	14.581	244	380199	44.8886533	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 89.78%			
Target Compounds						Qvalue
11) Aniline	7.43	66	4860	2.8227	ug/ml#	1

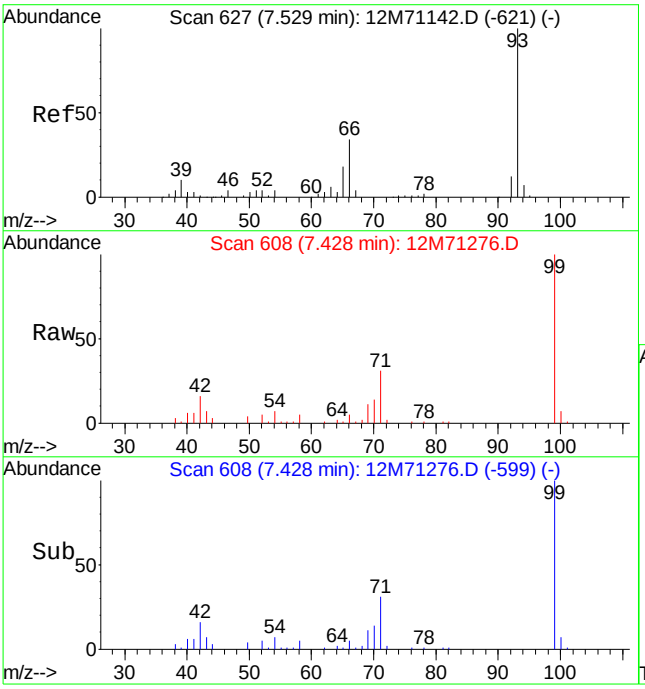
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71276.D MEGAMIX.M Tue Apr 23 08:29:17 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71276.D Vial: 8
Acq On : 22 Apr 2019 2:26 pm Operator: SCB
Sample : L19041033-02 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

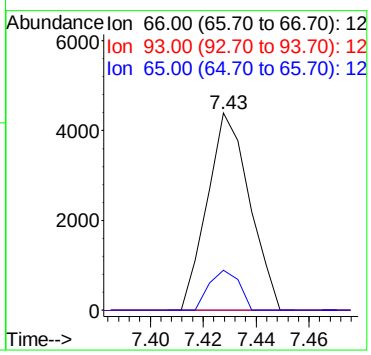




#11
Aniline
Concen: 2.8227 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71276.D
Acq: 22 Apr 2019 2:26 pm

Tgt Ion: 66 Resp: 4860

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	14.4	52.9	123.5#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71276.D Vial: 8
Acq On : 22 Apr 2019 2:26 pm Operator: SCB
Sample : L19041033-02 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:44 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	352633	40.0000	ug/L	0.000
3) Perylene-d12	19.068	264	346103	40.0000	ug/L	0.000

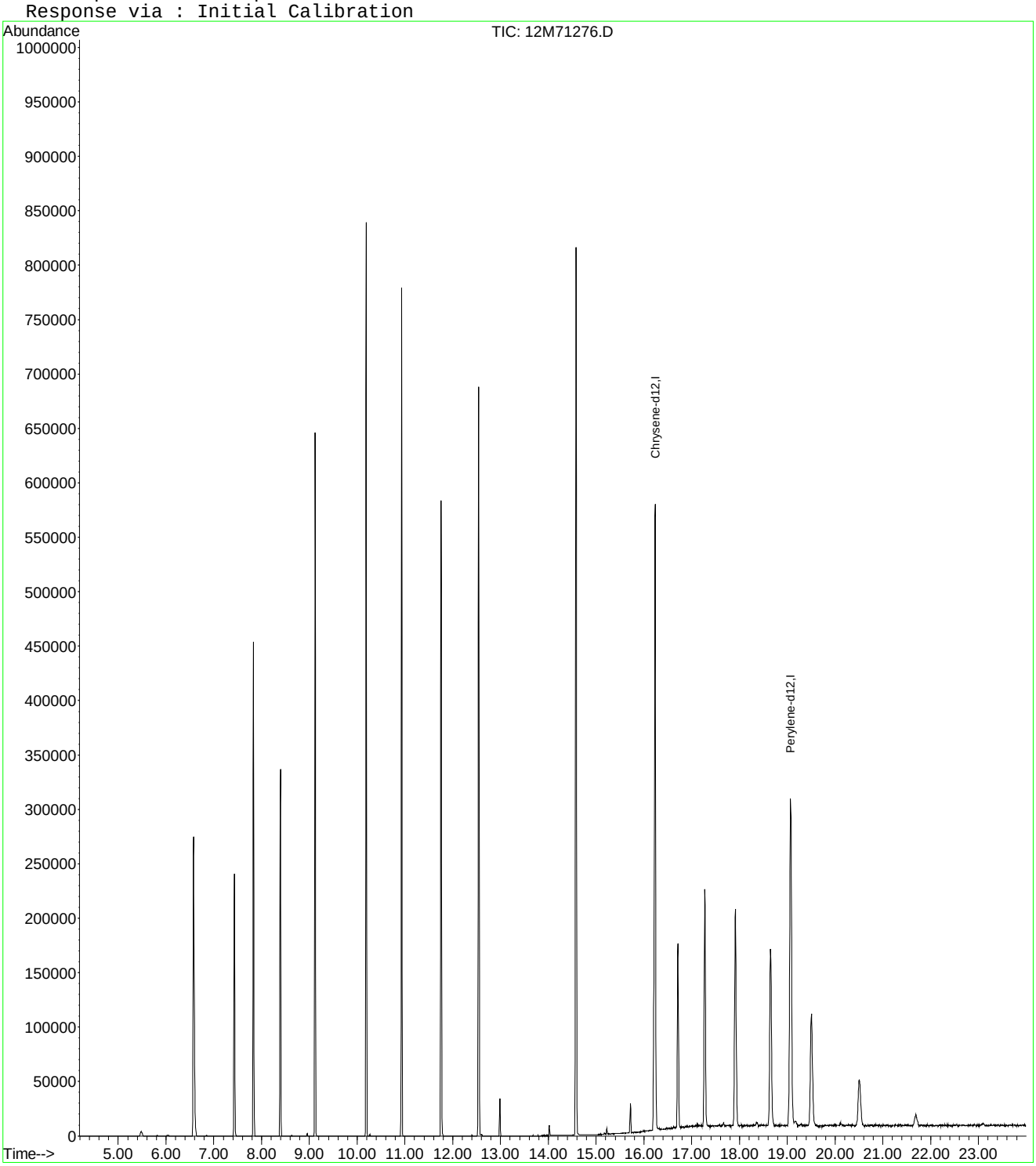
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71276.D A9B.M Tue Apr 23 08:20:44 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71276.D Vial: 8
Acq On : 22 Apr 2019 2:26 pm Operator: SCB
Sample : L19041033-02 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007120.D Vial: 7
Acq On : 24 Apr 2019 6:17 pm Operator: SCB
Sample : L19041033-02 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:05:02 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

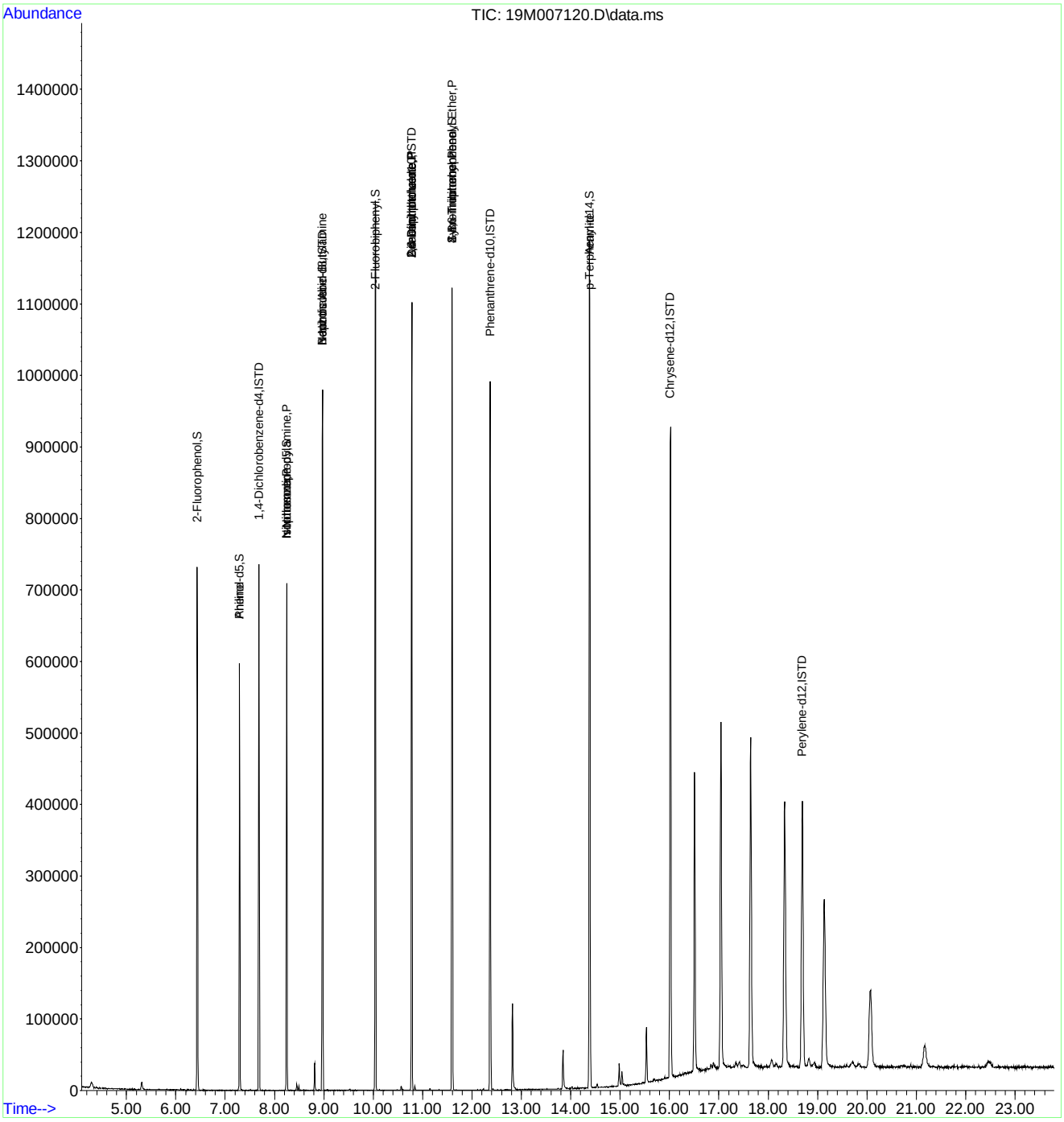
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.687	152	117123	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.975	136	474853	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.780	164	259779	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	433103	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.015	240	371089	40.0000	ug/mL	-0.0177
129) Perylene-d12	18.692	264	324561	40.0000	ug/mL	-0.0118
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	201617	50.5260	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	50.5260%		
12) Phenol-d5	7.292	99	180545	35.3145	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	35.3145%		
31) Nitrobenzene-d5	8.245	82	230754	46.8866	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	93.7732%		
59) 2-Fluorobiphenyl	10.045	172	430927	49.4212	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	98.8424%		
87) 2,4,6-Tribromophenol	11.598	330	108564	105.7595	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	105.7595%		
118) p-Terphenyl-d14	14.380	244	499732	56.2086	ug/mL	-0.0118
Spiked Amount 50.0000	Range 33 - 141		Recovery =	112.4172%		
Target Compounds						Qvalue
11) Aniline	7.292	66	11005	3.8810	ug/mL#	1
25) n-Nitrosodipropylamine	8.245	70	34120	10.2719	ug/mL#	41
34) Isophorone	8.245	82	230754	26.0260	ug/mL#	66
39) Benzoic Acid	8.975	105	178	6.5232	ug/mL#	1
48) n-Nitrosodi-n-Butylamine	8.975	84	13814	3.5203	ug/mL#	8
65) Dimethylphthalate	10.780	163	56823	6.7101	ug/mL#	1
67) 2,6-Dinitrotoluene	10.780	165	34395	17.2153	ug/mL#	15
73) 2,4-Dinitrotoluene	10.780	165	34395	13.1523	ug/mL#	3
92) Sym-Trinitrobenzene	11.598	75	520	2.1354	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	7396	3.2408	ug/mL#	1
117) Aramite	14.386	185	1311	1.9083	ug/mL#	31

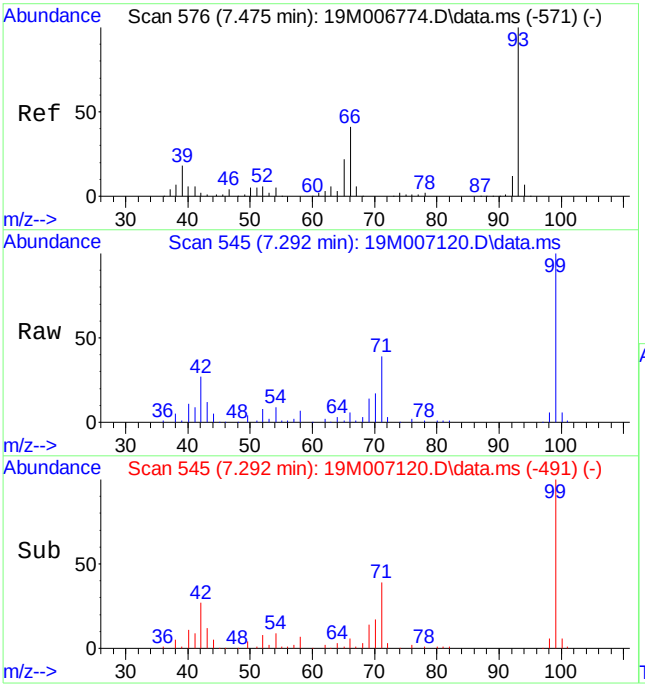
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007120.D Vial: 7
Acq On : 24 Apr 2019 6:17 pm Operator: SCB
Sample : L19041033-02 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:05:02 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

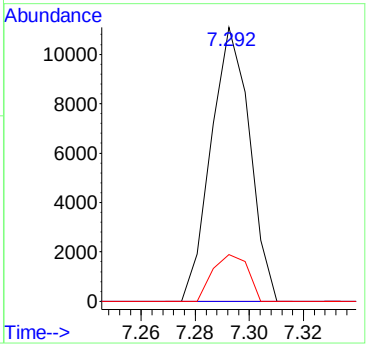


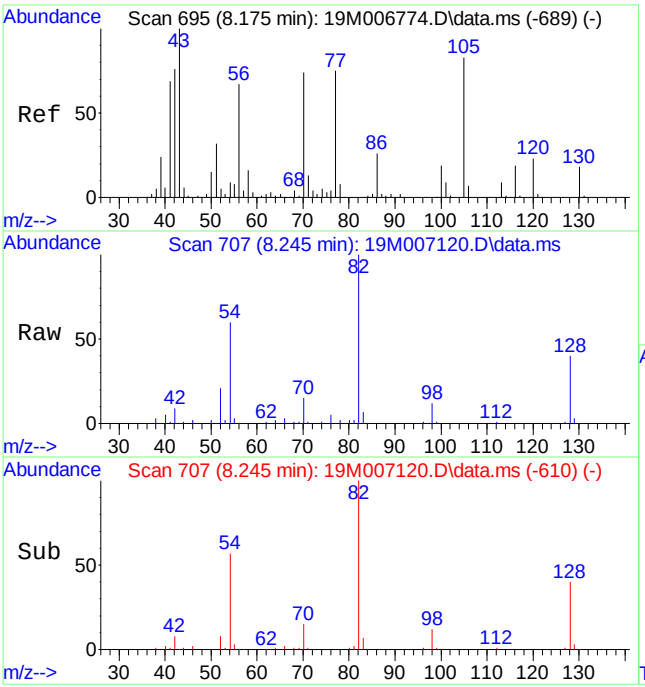


#11
Aniline
Concen: 3.8810 ug/mL
RT: 7.292 min Scan# 545
Delta R.T. -0.082 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion: 66 Resp: 11005

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	15.5	41.4	77.0#

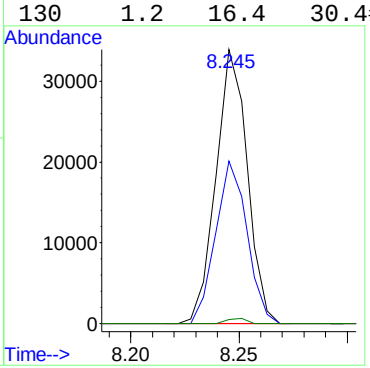


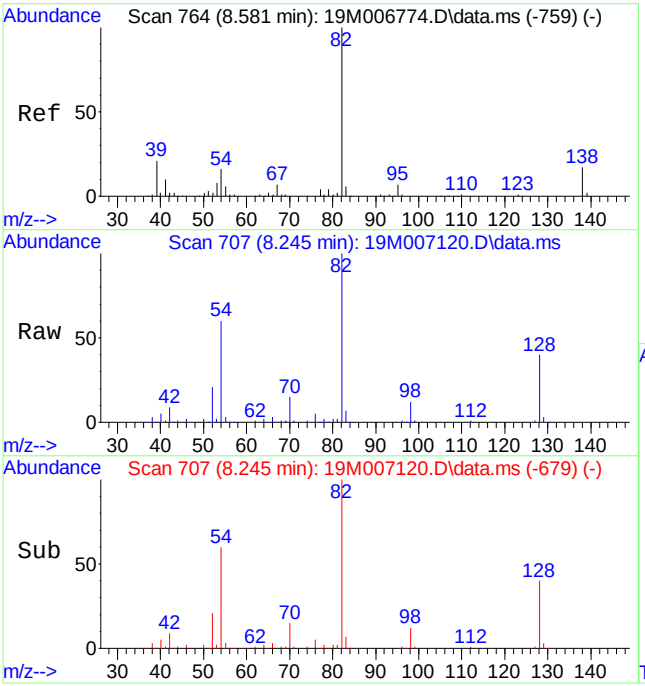


#25
n-Nitrosodipropylamine
Concen: 10.2719 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. 0.170 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion: 70 Resp: 34120

Ion	Ratio	Lower	Upper
70	100		
42	59.5	95.8	178.0#
101	0.0	9.6	17.8#
130	1.2	16.4	30.4#

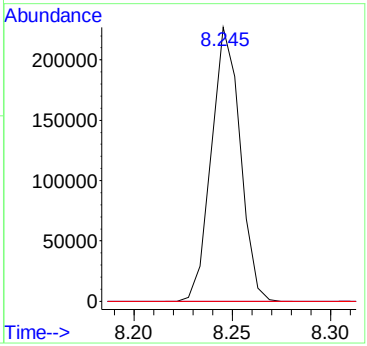


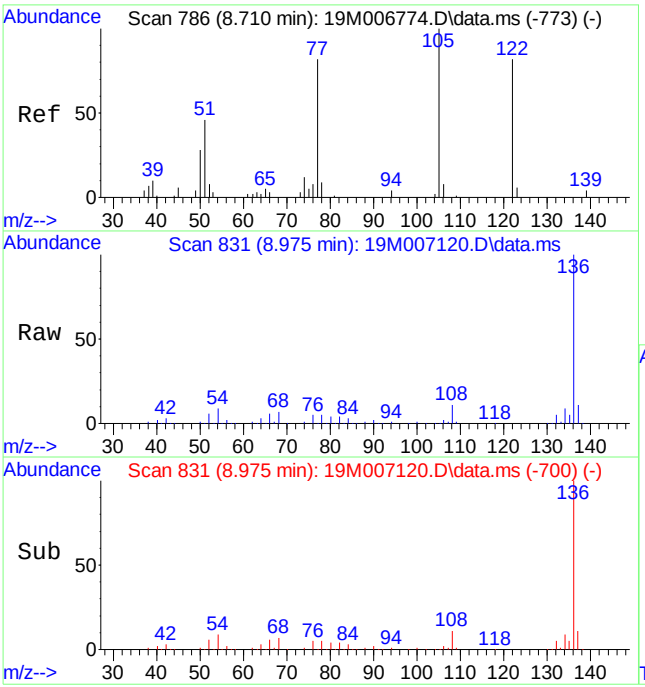


#34
Isophorone
Concen: 26.0260 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion: 82 Resp: 230754

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

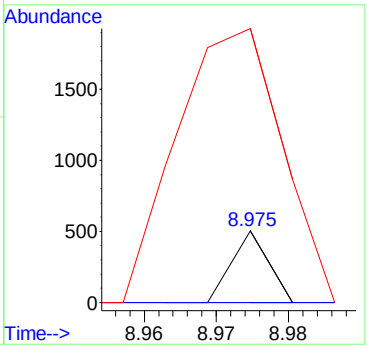


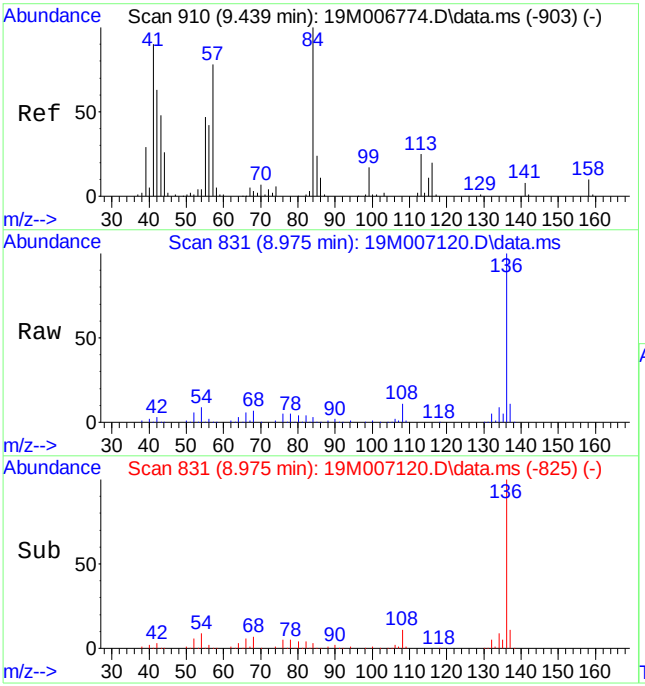


#39
Benzoic Acid
Concen: 6.5232 ug/mL
RT: 8.975 min Scan# 831
Delta R.T. 0.370 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:105 Resp: 178

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.5	86.3#
77	1100.6	47.8	88.8#

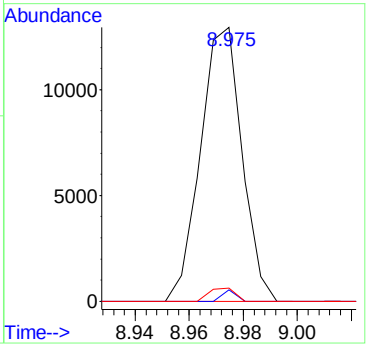


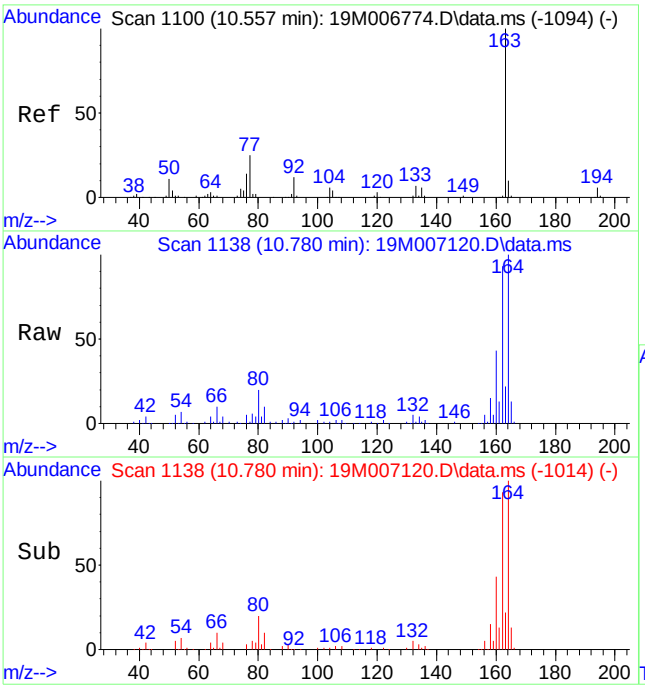


#48
n-Nitrosodi-n-Butylamine
Concen: 3.5203 ug/mL
RT: 8.975 min Scan# 831
Delta R.T. -0.365 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion: 84 Resp: 13814

Ion	Ratio	Lower	Upper
84	100		
57	1.4	51.9	96.5#
41	3.0	68.9	127.9#

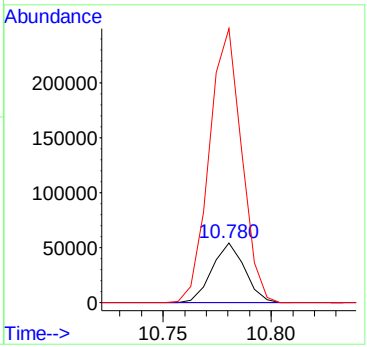


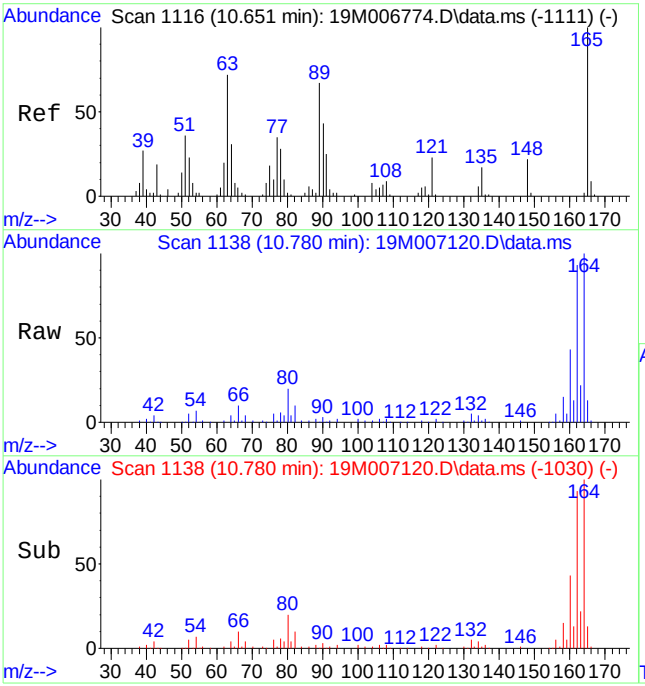


#65
Dimethylphthalate
Concen: 6.7101 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. 0.329 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:163 Resp: 56823

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	457.2	7.2	13.4#

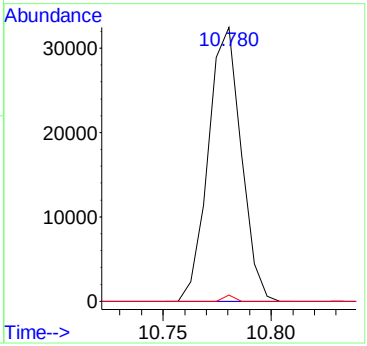


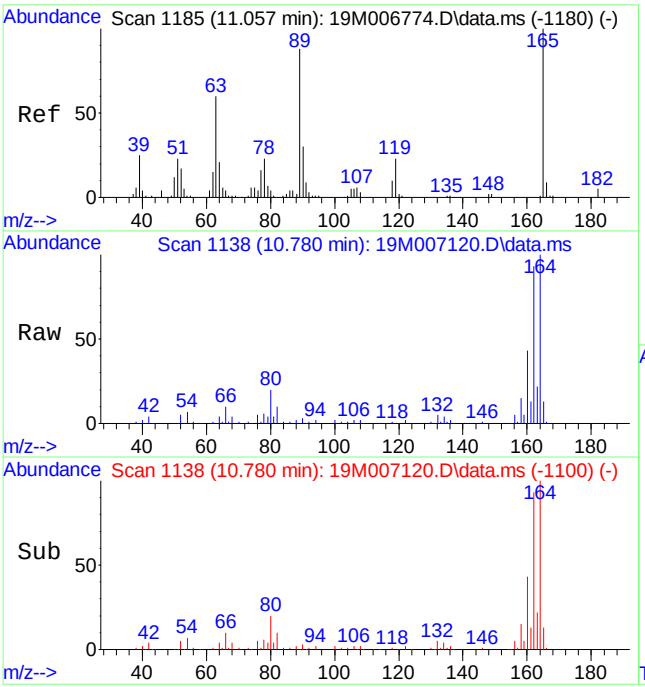


#67
2,6-Dinitrotoluene
Concen: 17.2153 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:165 Resp: 34395

Ion	Ratio	Lower	Upper
165	100		
63	0.0	50.8	94.4#
89	0.7	47.1	87.5#

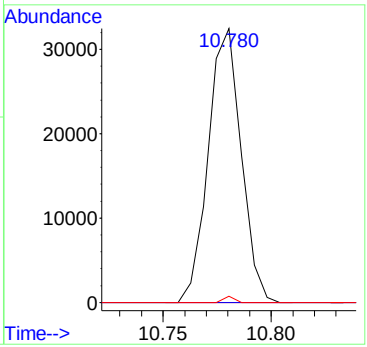


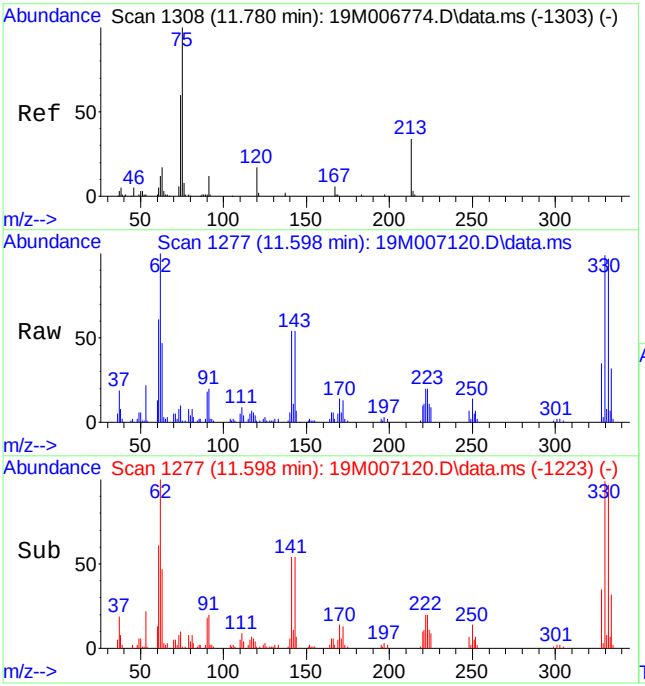


#73
2,4-Dinitrotoluene
Concen: 13.1523 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. -0.177 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:165 Resp: 34395

Ion	Ratio	Lower	Upper
165	100		
63	0.0	58.0	107.8#
89	0.7	71.3	132.5#

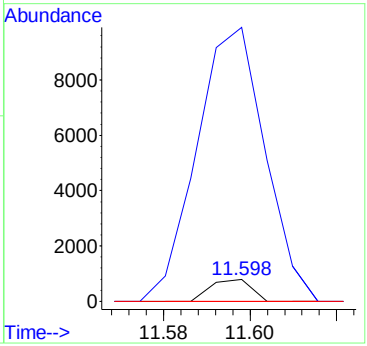


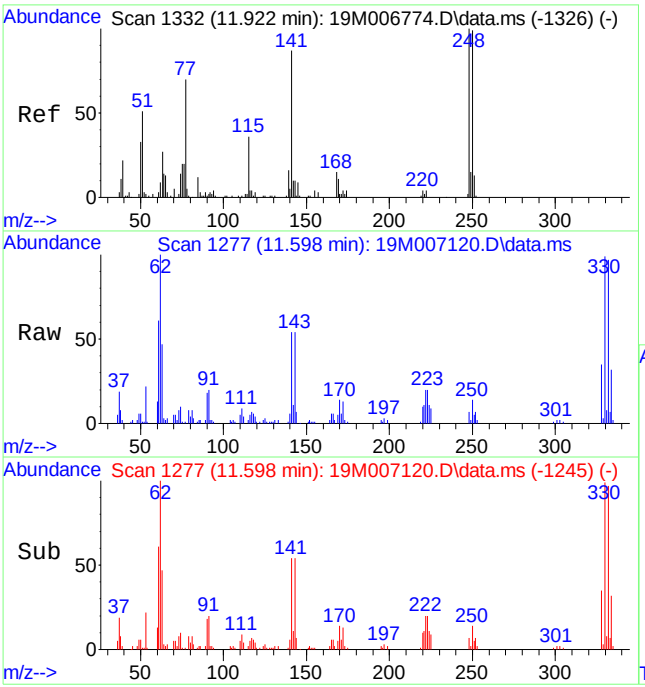


#92
Sym-Trinitrobenzene
Concen: 2.1354 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.082 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion: 75 Resp: 520

Ion	Ratio	Lower	Upper
75	100		
74	2089.4	41.6	77.3#
213	0.0	25.1	46.5#

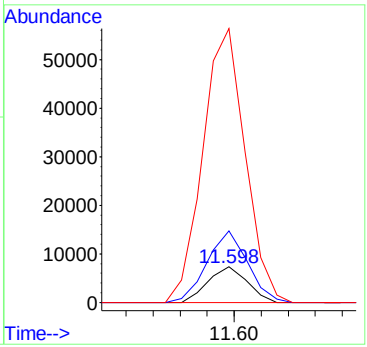


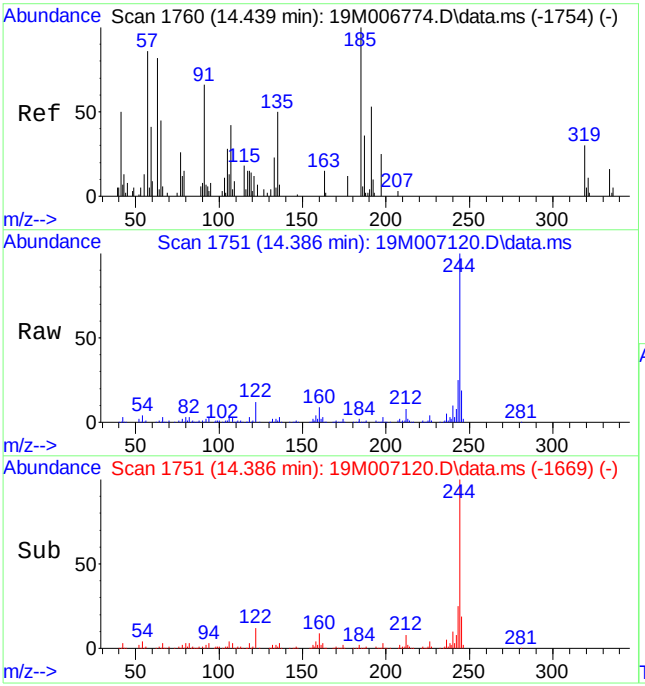


#96
4-Bromophenyl Phenyl Ether
Concen: 3.2408 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:248 Resp: 7396

Ion	Ratio	Lower	Upper
248	100		
250	207.9	68.1	126.5#
141	828.8	62.4	116.0#

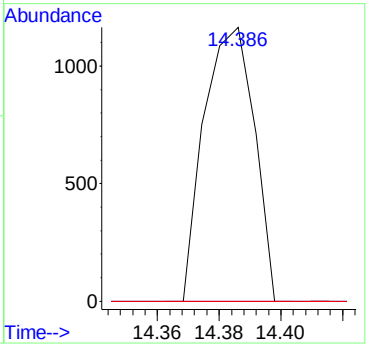




#117
Aramite
Concen: 1.9083 ug/mL
RT: 14.386 min Scan# 1751
Delta R.T. 0.082 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:185 Resp: 1311

Ion	Ratio	Lower	Upper
185	100		
191	0.0	37.6	69.8#
319	0.0	22.5	41.7#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007120.D Vial: 7
Acq On : 24 Apr 2019 6:17 pm Operator: SCB
Sample : L19041033-02 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:38 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

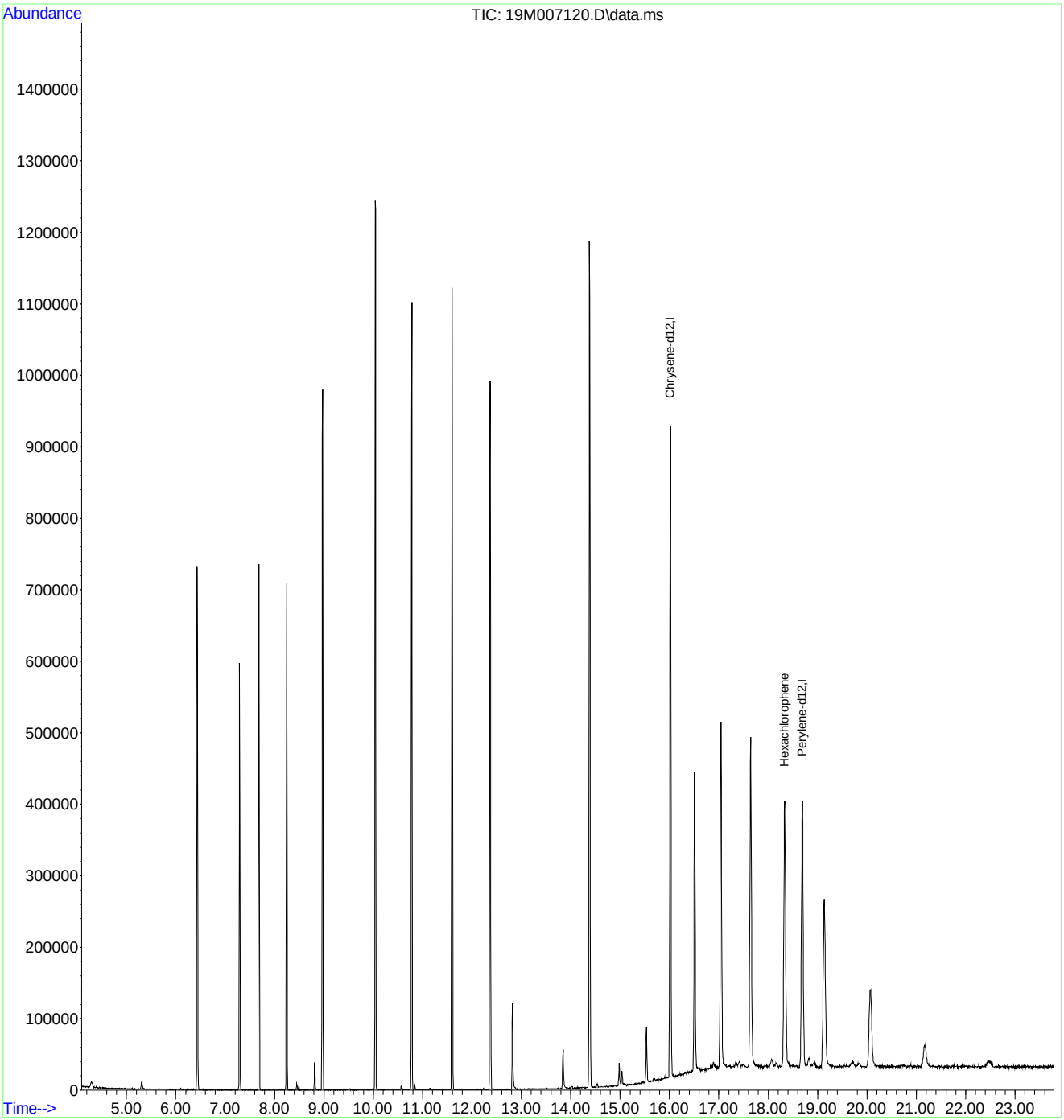
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.015	240	371089	40.0000	ug/mL	0.0000
3) Perylene-d12	18.692	264	324561	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
4) Hexachlorophene	18.327	196	850	0.3272	ug/mL#	1

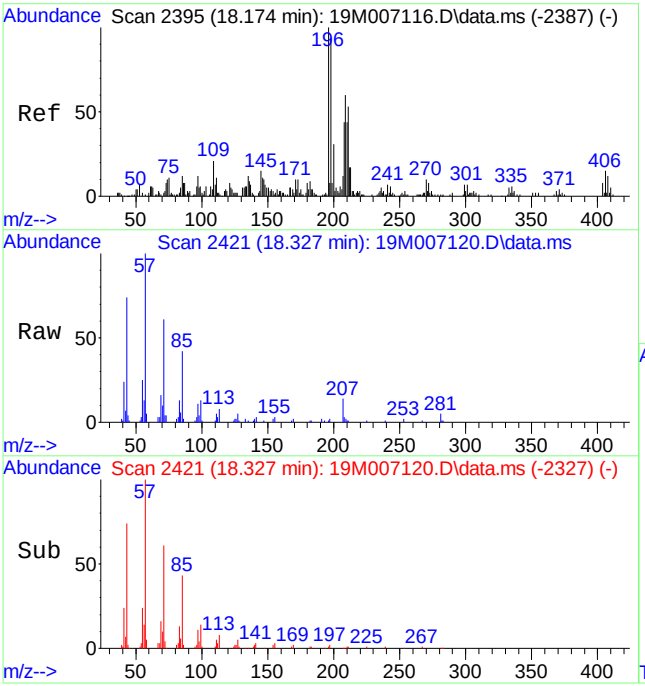
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007120.D Vial: 7
Acq On : 24 Apr 2019 6:17 pm Operator: SCB
Sample : L19041033-02 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:38 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

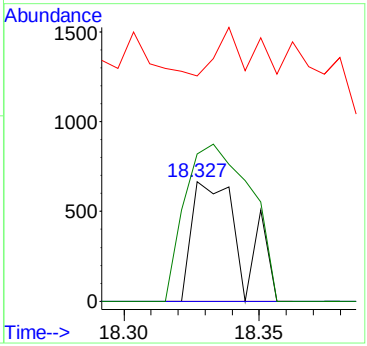




#4
Hexachlorophene
Concen: 0.3272 ug/mL
RT: 18.327 min Scan# 2421
Delta R.T. 0.153 min
Lab File: 19M007120.D
Acq: 24 Apr 2019 6:17 pm

Tgt Ion:196 Resp: 850

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	119.9	47.7	71.5#
211	173.9	42.5	63.7#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71277.D Vial: 9
Acq On : 22 Apr 2019 2:58 pm Operator: SCB
Sample : L19041033-03 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:17 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

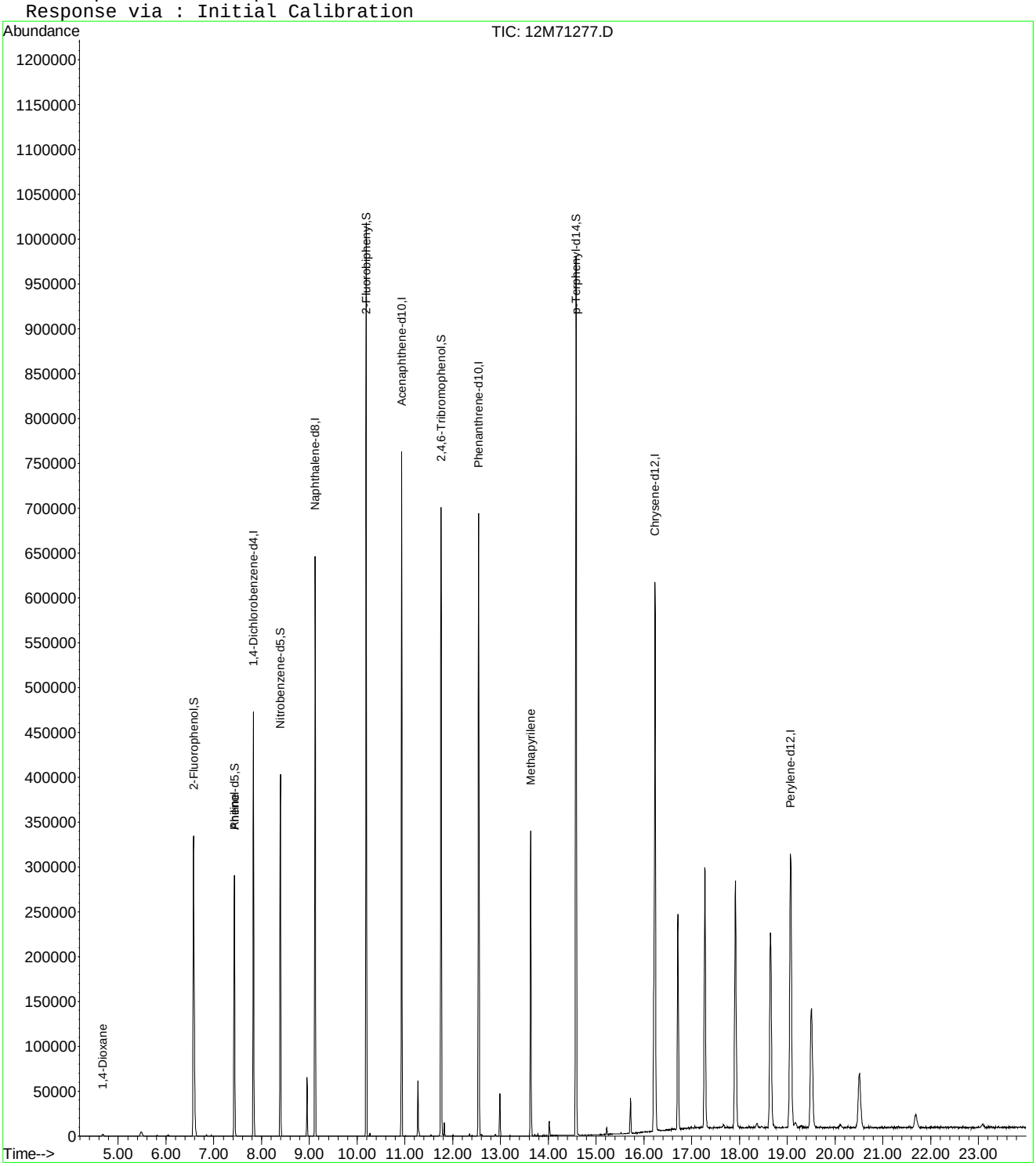
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	101007	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	363156	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	214576	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	364796	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	355558	40.0000	ug/ml	-0.027
129) Perylene-d12	19.069	264	349332	40.0000	ug/ml	-0.032
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	179913	58.1497262	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 58.15%			
12) Phenol-d5	7.428	99	142125	38.1656899	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 38.17%			
31) Nitrobenzene-d5	8.395	82	153300	50.1375301	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 100.28%			
59) 2-Fluorobiphenyl	10.190	172	372020	51.6562030	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.31%			
87) 2,4,6-Tribromophenol	11.755	330	105031	111.4419341	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 111.44%			
118) p-Terphenyl-d14	14.581	244	446784	52.3161427	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 104.63%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.67	88	2460	1.9007	ug/ml	82
11) Aniline	7.43	66	5988	3.4790	ug/ml#	1
111) Methapyrilene	13.63	58	10302	3.2051	ug/ml#	21

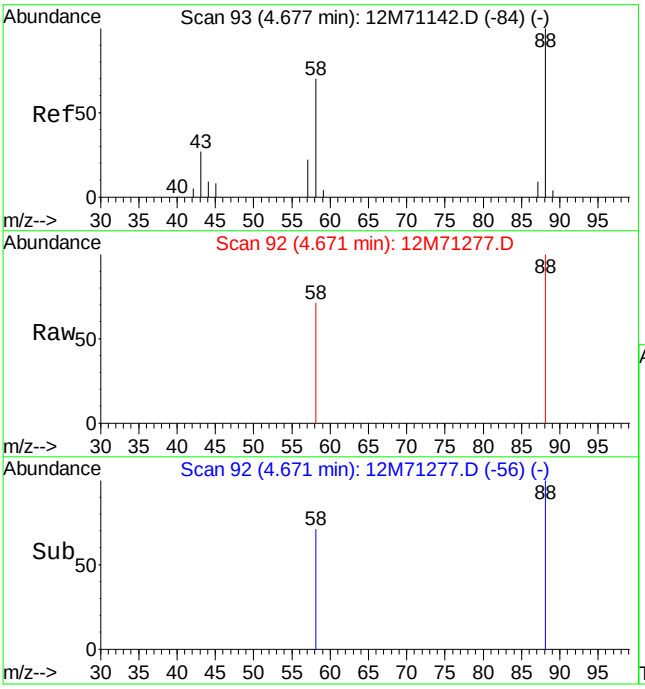
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71277.D MEGAMIX.M Tue Apr 23 08:29:18 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71277.D Vial: 9
Acq On : 22 Apr 2019 2:58 pm Operator: SCB
Sample : L19041033-03 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

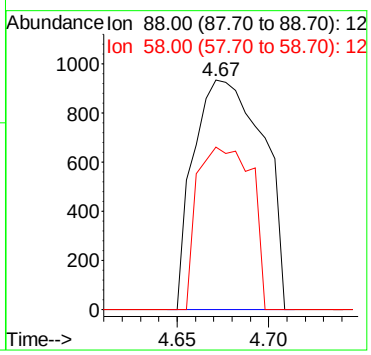


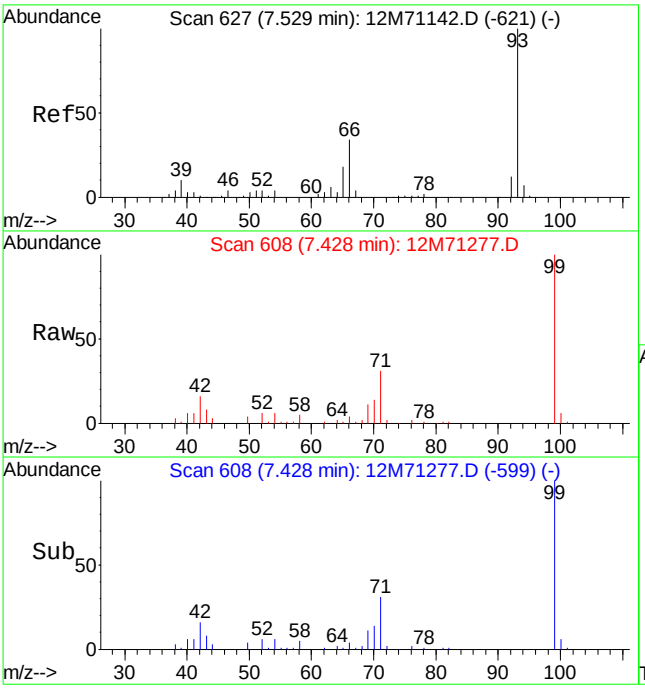


#2
1,4-Dioxane
Concen: 1.9007 ug/ml
RT: 4.67 min Scan# 92
Delta R.T. -0.01 min
Lab File: 12M71277.D
Acq: 22 Apr 2019 2:58 pm

Tgt Ion: 88 Resp: 2460

Ion	Ratio	Lower	Upper
88	100		
58	55.2	41.9	97.7

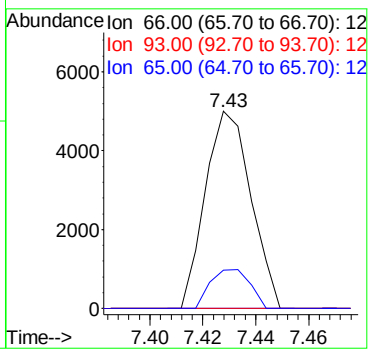


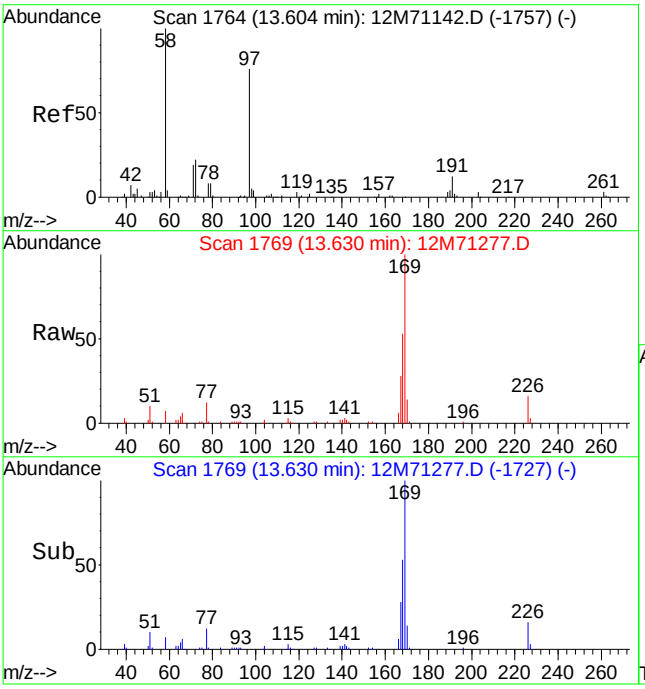


#11
Aniline
Concen: 3.4790 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71277.D
Acq: 22 Apr 2019 2:58 pm

Tgt Ion: 66 Resp: 5988

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	17.2	52.9	123.5#

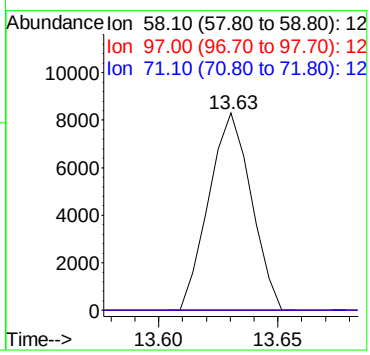




#111
Methapyrilene
Concen: 3.2051 ug/ml
RT: 13.63 min Scan# 1769
Delta R.T. 0.03 min
Lab File: 12M71277.D
Acq: 22 Apr 2019 2:58 pm

Tgt Ion: 58 Resp: 10302

Ion	Ratio	Lower	Upper
58	100		
97	0.0	60.2	90.4#
71	0.0	14.9	22.3#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71277.D Vial: 9
Acq On : 22 Apr 2019 2:58 pm Operator: SCB
Sample : L19041033-03 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:45 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

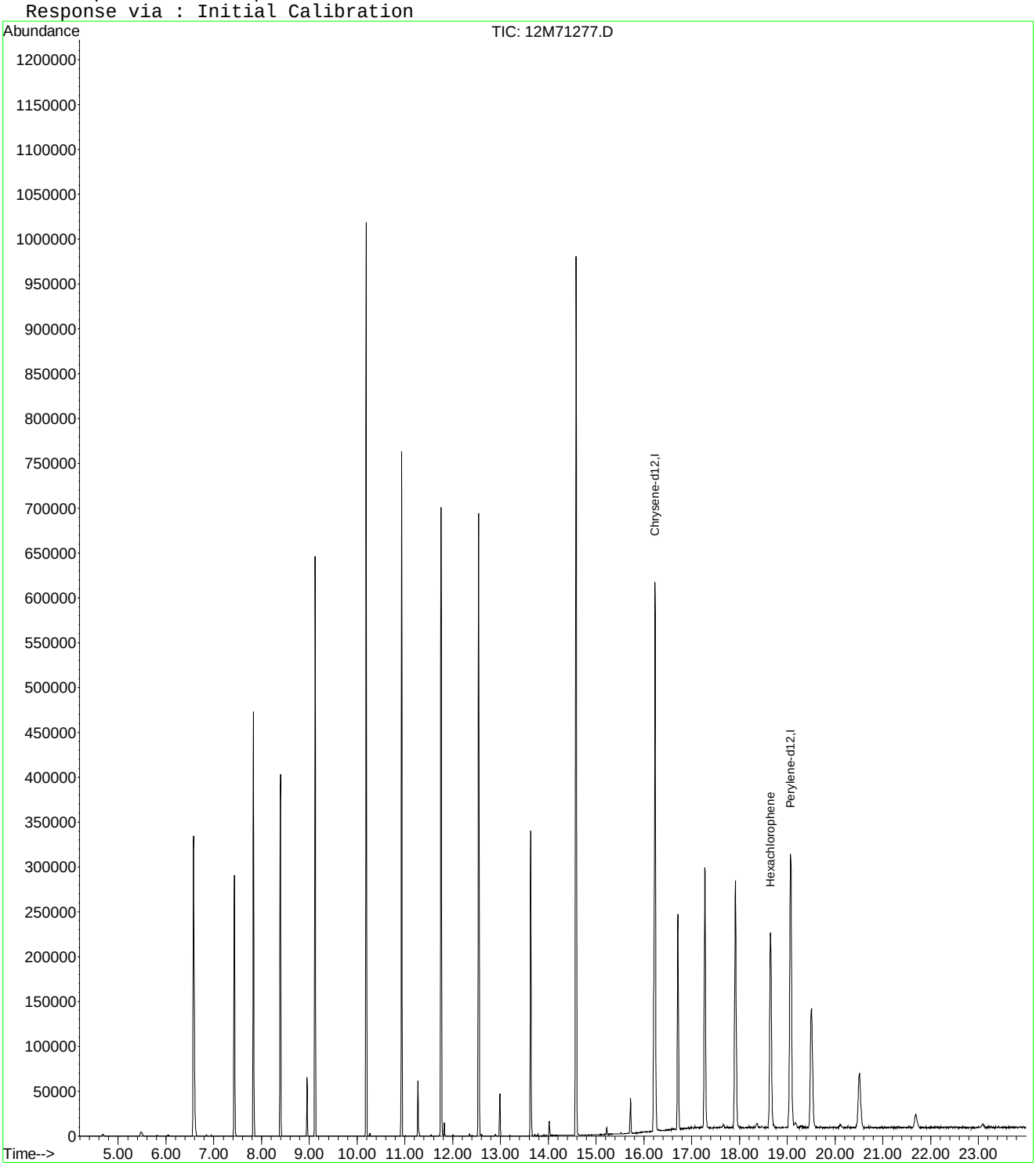
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	355558	40.0000	ug/L	0.000
3) Perylene-d12	19.069	264	349332	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	719	0.4248	ug/L #	1

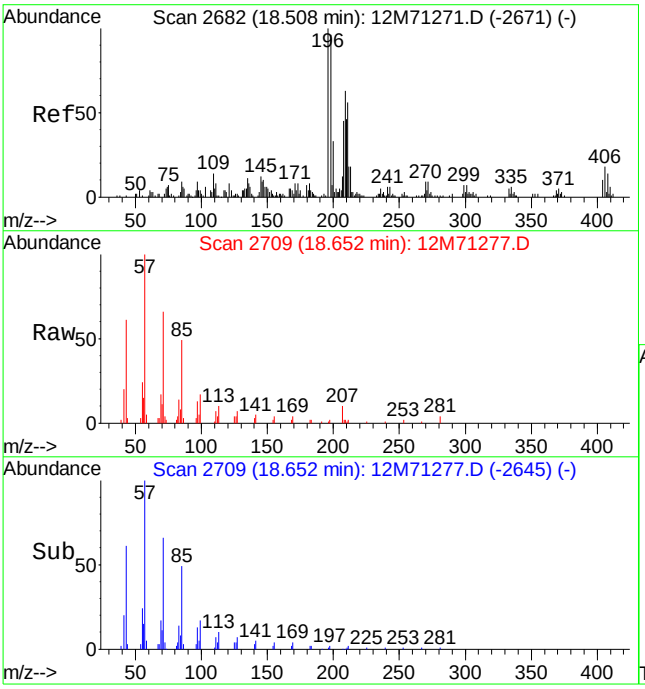
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71277.D A9B.M Tue Apr 23 08:20:45 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71277.D Vial: 9
Acq On : 22 Apr 2019 2:58 pm Operator: SCB
Sample : L19041033-03 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration

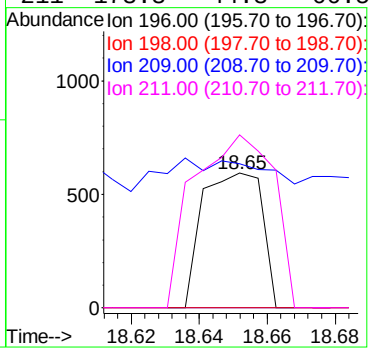




#4
Hexachlorophene
Concen: 0.4248 ug/L
RT: 18.65 min Scan# 2709
Delta R.T. 0.14 min
Lab File: 12M71277.D
Acq: 22 Apr 2019 2:58 pm

Tgt Ion:196 Resp: 719

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	0.0	49.8	74.8#
211	173.3	44.3	66.5#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007121.D Vial: 8
Acq On : 24 Apr 2019 6:53 pm Operator: SCB
Sample : L19041033-03 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:05:10 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

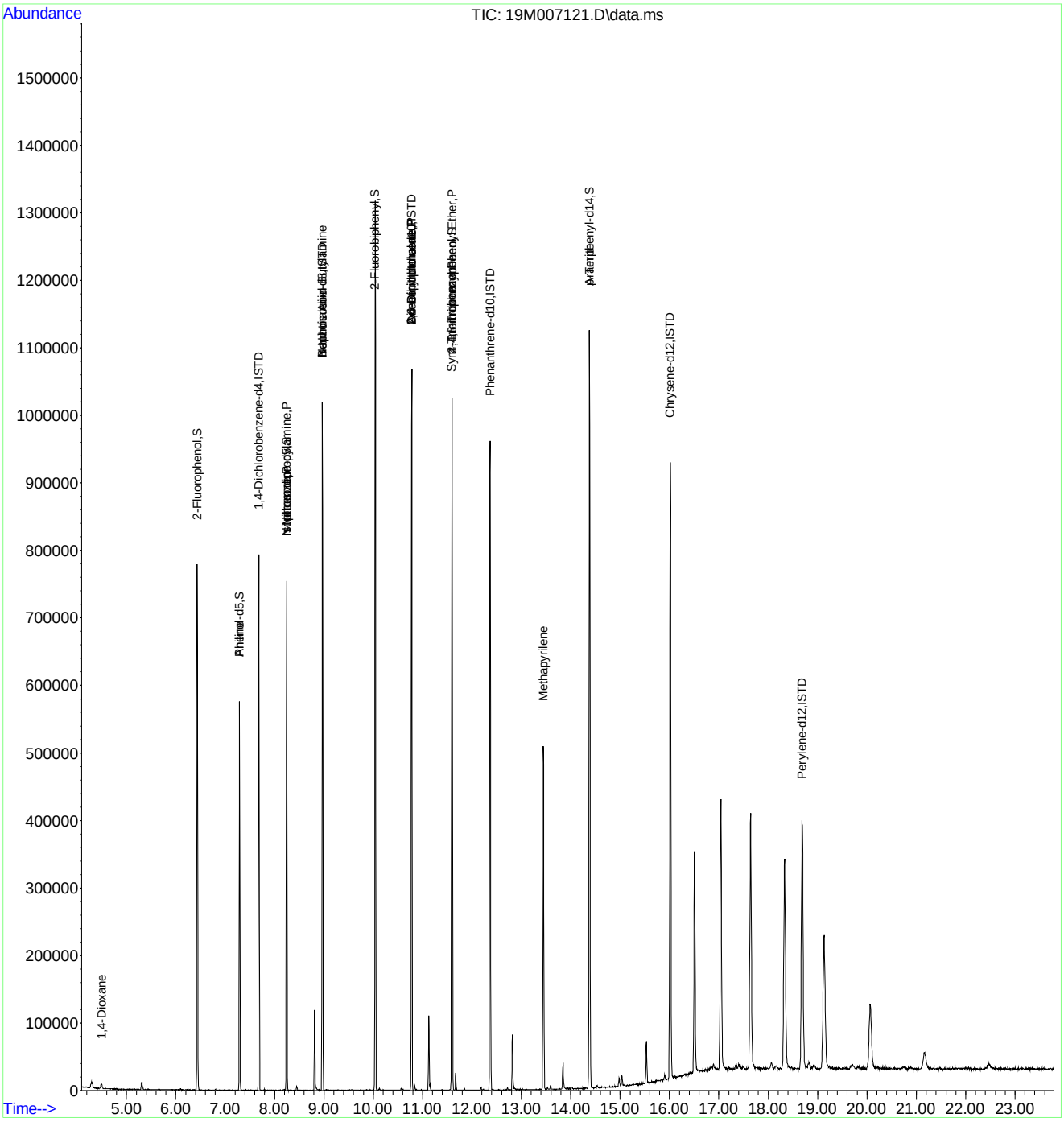
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	117283	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	472625	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.780	164	260622	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	434711	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.015	240	376269	40.0000	ug/mL	-0.0177
129) Perylene-d12	18.686	264	325641	40.0000	ug/mL	-0.0177
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	215793	54.0047	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 54.0047%			
12) Phenol-d5	7.292	99	175792	34.3379	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 34.3379%			
31) Nitrobenzene-d5	8.245	82	237187	48.4209	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 96.8418%			
59) 2-Fluorobiphenyl	10.039	172	430930	49.2617	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 98.5234%			
87) 2,4,6-Tribromophenol	11.598	330	106606	103.5161	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 103.5161%			
118) p-Terphenyl-d14	14.380	244	467577	51.8679	ug/mL	-0.0119
Spiked Amount 50.0000	Range 33 - 141		Recovery = 103.7358%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.498	88	5645	2.9621	ug/mL	85
11) Aniline	7.292	66	10857	3.8236	ug/mL#	1
25) n-Nitrosodipropylamine	8.245	70	35062	10.5411	ug/mL#	40
34) Isophorone	8.245	82	237187	26.8777	ug/mL#	66
39) Benzoic Acid	8.969	105	186	6.5270	ug/mL#	1
48) n-Nitrosodi-n-Butylamine	8.969	84	13753	3.5213	ug/mL#	9
65) Dimethylphthalate	10.780	163	56478	6.6478	ug/mL#	1
67) 2,6-Dinitrotoluene	10.780	165	34170	17.0474	ug/mL#	15
73) 2,4-Dinitrotoluene	10.780	165	34170	13.0239	ug/mL#	4
92) Sym-Trinitrobenzene	11.592	75	661	2.1810	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	7581	3.3096	ug/mL#	1
111) Methapyrilene	13.445	58	24075	3.3579	ug/mL#	27
117) Aramite	14.380	185	1256	1.8031	ug/mL#	31

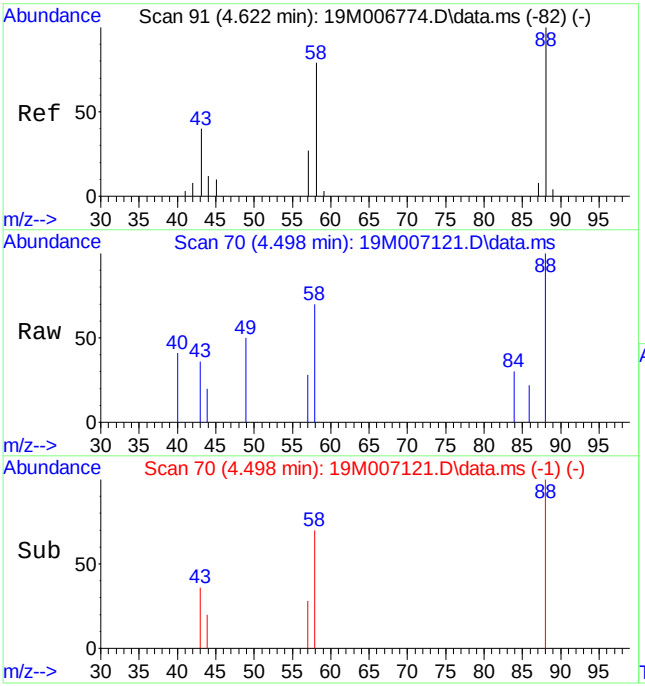
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007121.D Vial: 8
Acq On : 24 Apr 2019 6:53 pm Operator: SCB
Sample : L19041033-03 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:05:10 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

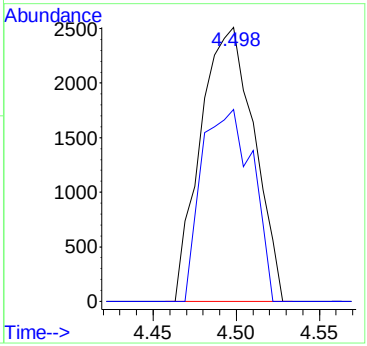


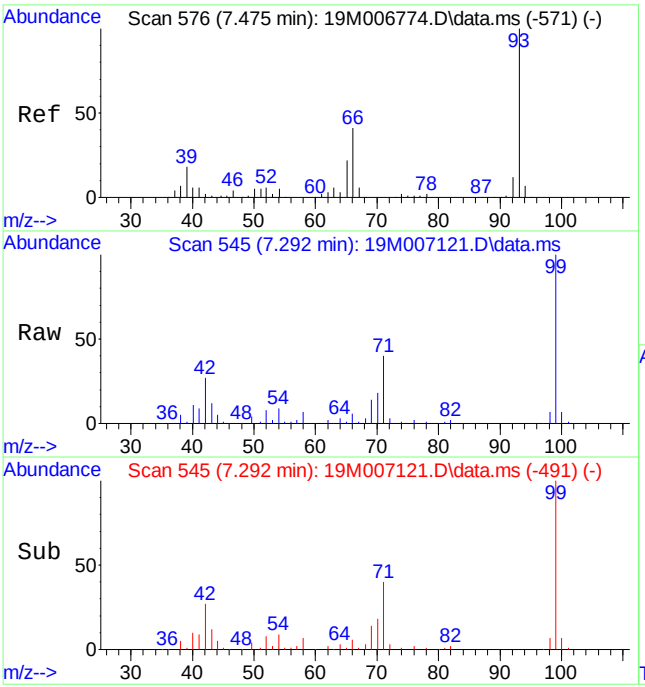


#2
1,4-Dioxane
Concen: 2.9621 ug/mL
RT: 4.498 min Scan# 70
Delta R.T. 0.012 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 88 Resp: 5645

Ion	Ratio	Lower	Upper
88	100		
58	66.8	56.0	104.0

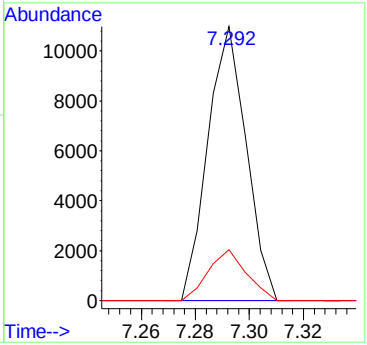


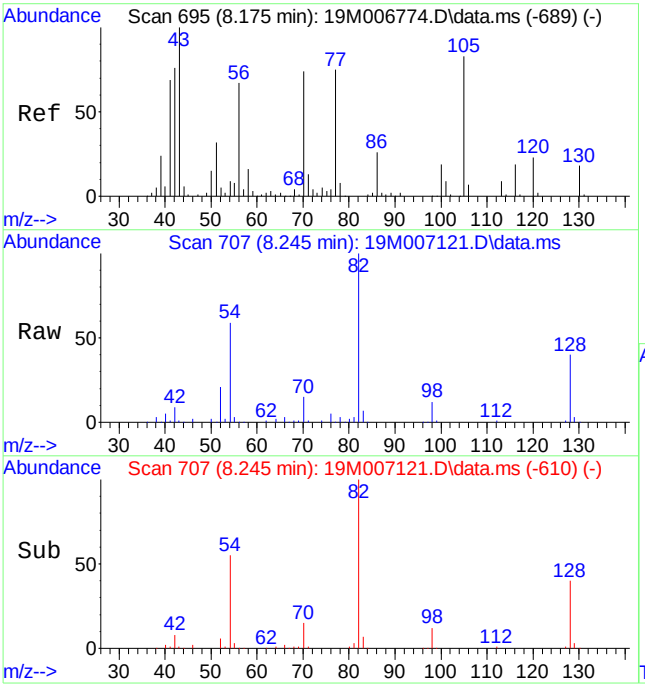


#11
Aniline
Concen: 3.8236 ug/mL
RT: 7.292 min Scan# 545
Delta R.T. -0.082 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 66 Resp: 10857

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	18.4	41.4	77.0#

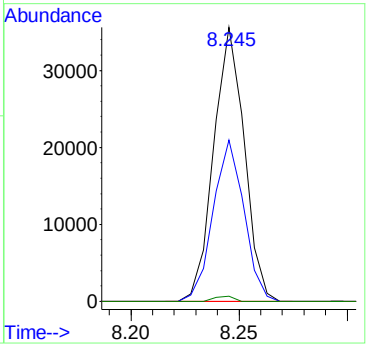


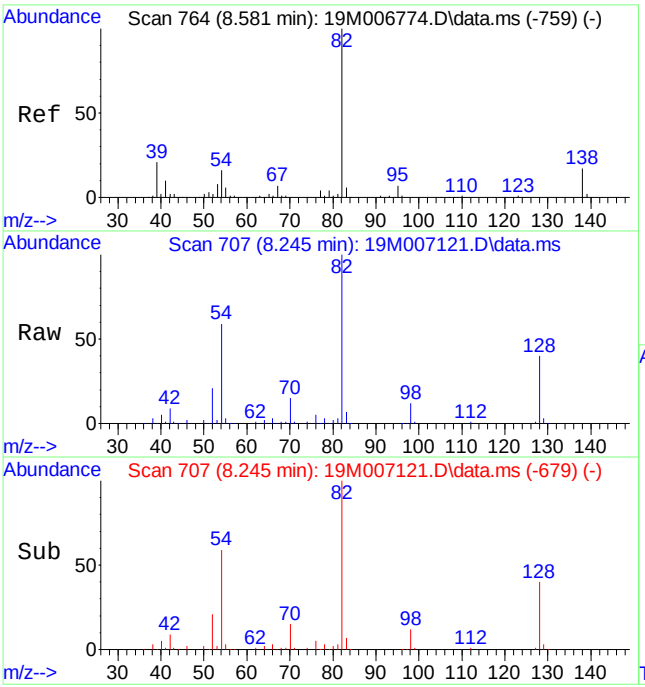


#25
n-Nitrosodipropylamine
Concen: 10.5411 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. 0.170 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 70 Resp: 35062

Ion	Ratio	Lower	Upper
70	100		
42	59.3	95.8	178.0#
101	0.0	9.6	17.8#
130	1.2	16.4	30.4#

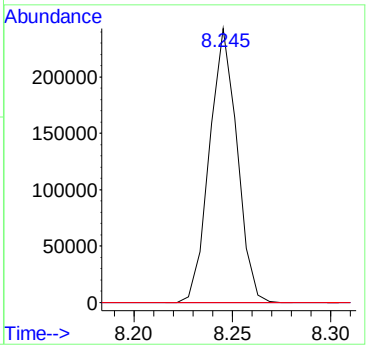


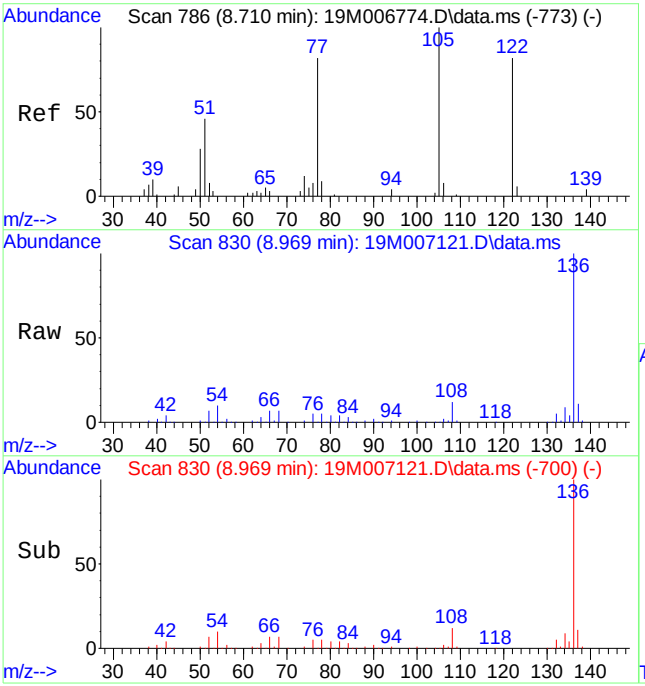


#34
Isophorone
Concen: 26.8777 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 82 Resp: 237187

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

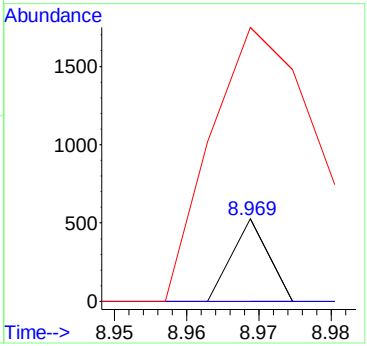


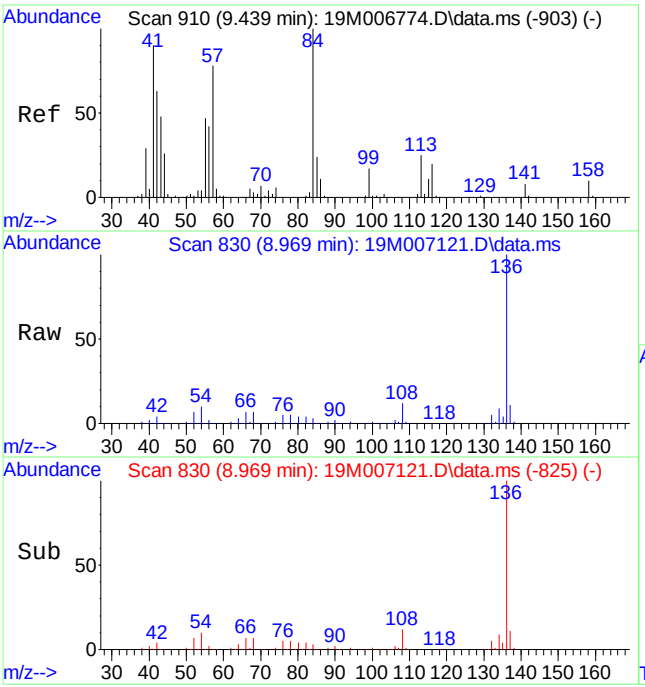


#39
Benzoic Acid
Concen: 6.5270 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. 0.365 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:105 Resp: 186

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.5	86.3#
77	946.8	47.8	88.8#

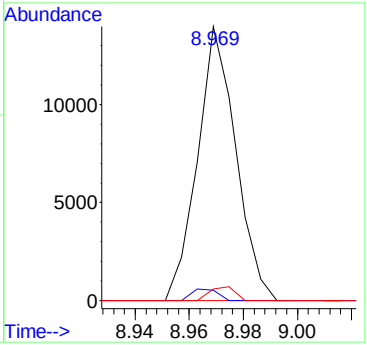


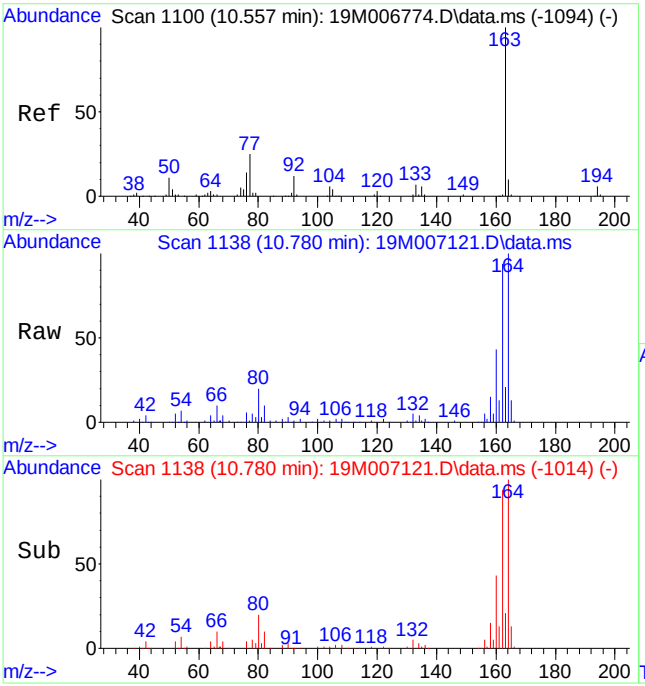


#48
n-Nitrosodi-n-Butylamine
Concen: 3.5213 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. -0.371 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 84 Resp: 13753

Ion	Ratio	Lower	Upper
84	100		
57	2.9	51.9	96.5#
41	3.4	68.9	127.9#

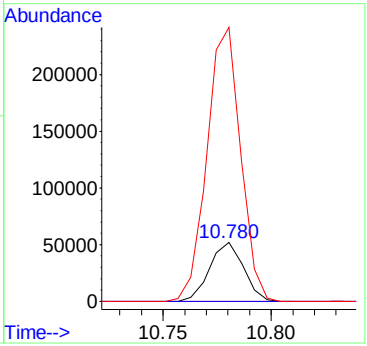


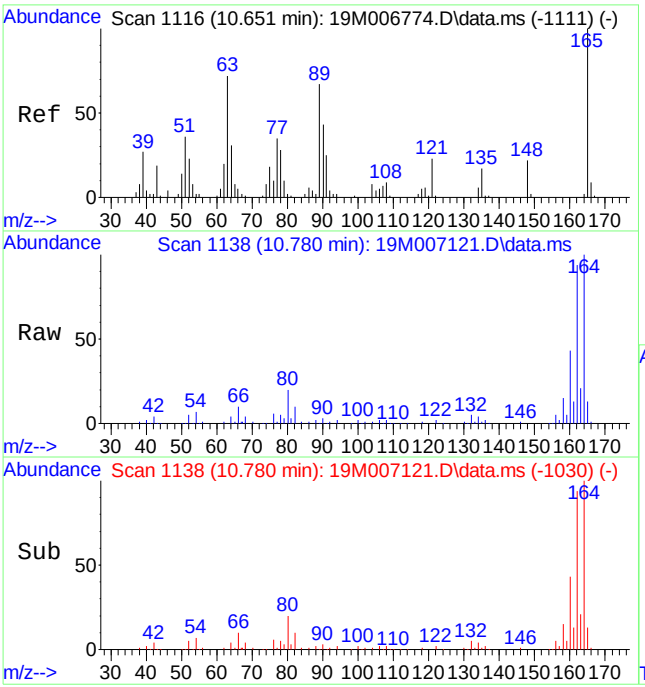


#65
Dimethylphthalate
Concen: 6.6478 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. 0.329 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:163 Resp: 56478

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	461.5	7.2	13.4#

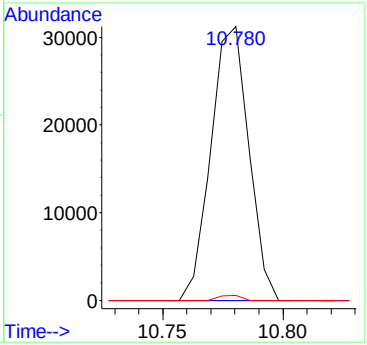


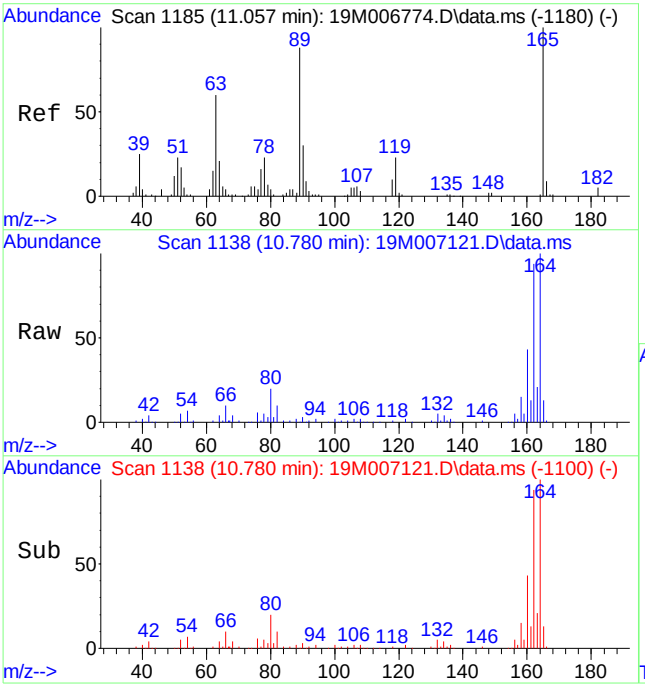


#67
2,6-Dinitrotoluene
Concen: 17.0474 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:165 Resp: 34170

Ion	Ratio	Lower	Upper
165	100		
63	0.0	50.8	94.4#
89	1.1	47.1	87.5#

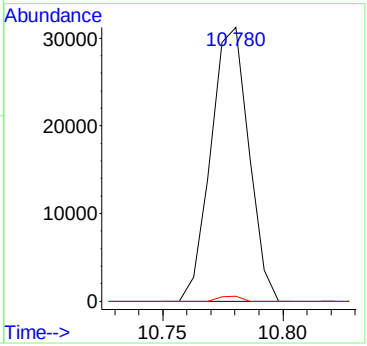


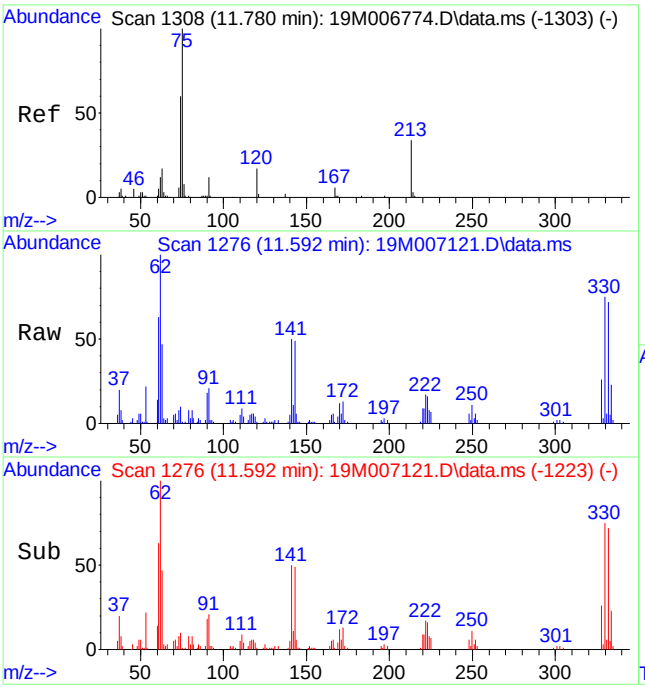


#73
2,4-Dinitrotoluene
Concen: 13.0239 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. -0.177 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:165 Resp: 34170

Ion	Ratio	Lower	Upper
165	100		
63	0.0	58.0	107.8#
89	1.1	71.3	132.5#

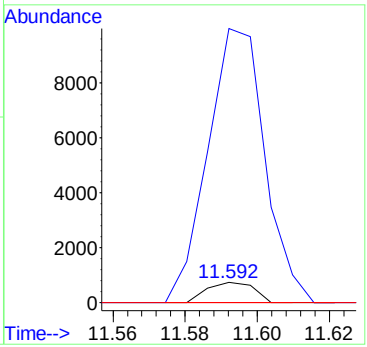


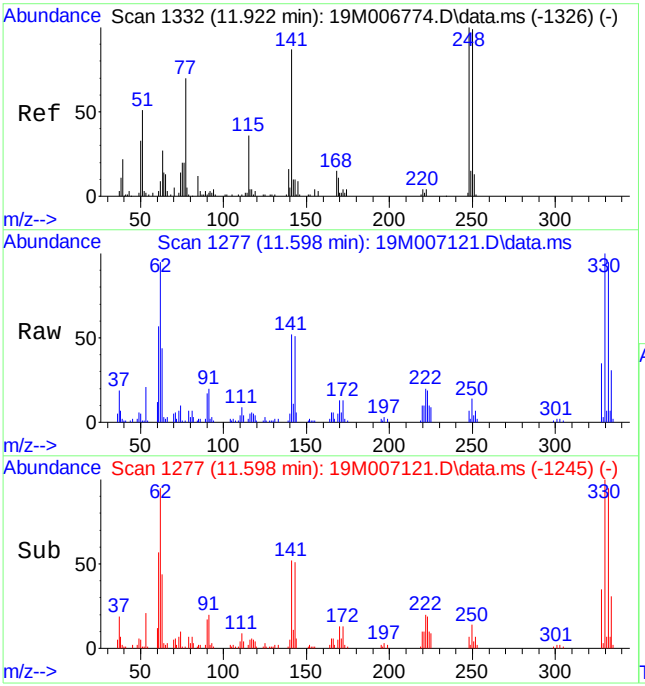


#92
Sym-Trinitrobenzene
Concen: 2.1810 ug/mL
RT: 11.592 min Scan# 1276
Delta R.T. -0.088 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 75 Resp: 661

Ion	Ratio	Lower	Upper
75	100		
74	1659.6	41.6	77.3#
213	0.0	25.1	46.5#

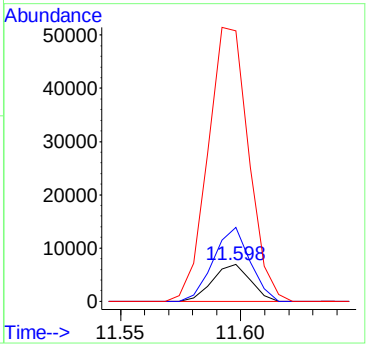


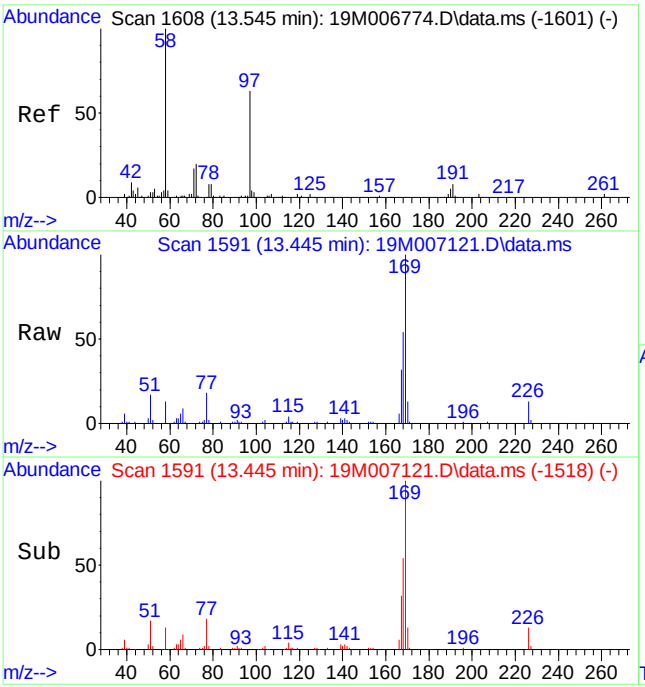


#96
4-Bromophenyl Phenyl Ether
Concen: 3.3096 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:248 Resp: 7581

Ion	Ratio	Lower	Upper
248	100		
250	193.8	68.1	126.5#
141	797.0	62.4	116.0#

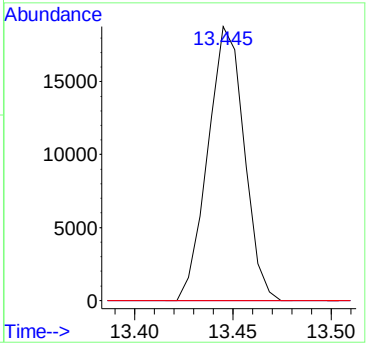


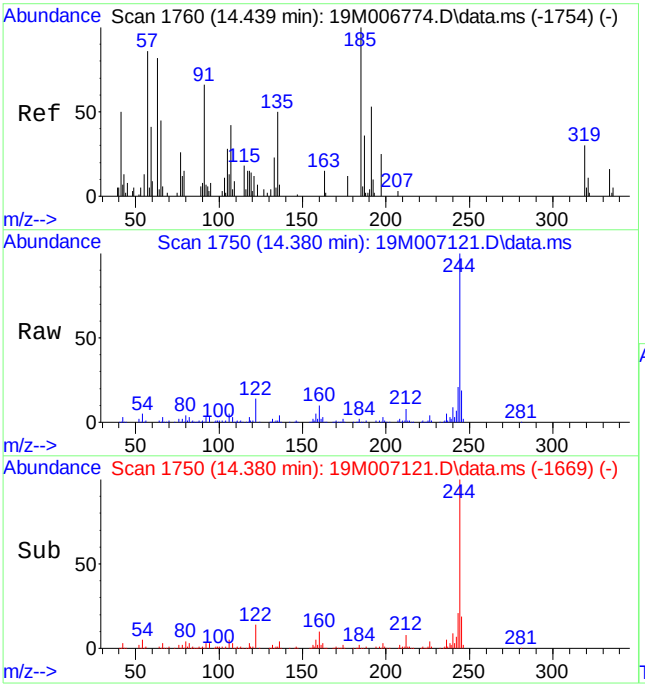


#111
Methapyrilene
Concen: 3.3579 ug/mL
RT: 13.445 min Scan# 1591
Delta R.T. 0.029 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion: 58 Resp: 24075

Ion	Ratio	Lower	Upper
58	100		
97	0.0	45.1	83.7#
71	0.0	19.7	36.5#

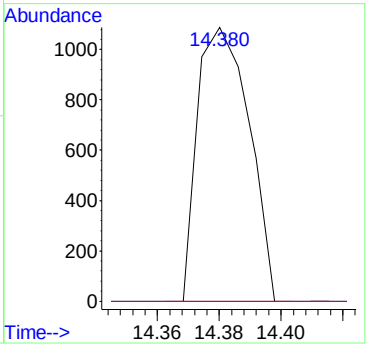




#117
Aramite
Concen: 1.8031 ug/mL
RT: 14.380 min Scan# 1750
Delta R.T. 0.076 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:185 Resp: 1256

Ion	Ratio	Lower	Upper
185	100		
191	0.0	37.6	69.8#
319	0.0	22.5	41.7#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007121.D Vial: 8
Acq On : 24 Apr 2019 6:53 pm Operator: SCB
Sample : L19041033-03 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:41 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

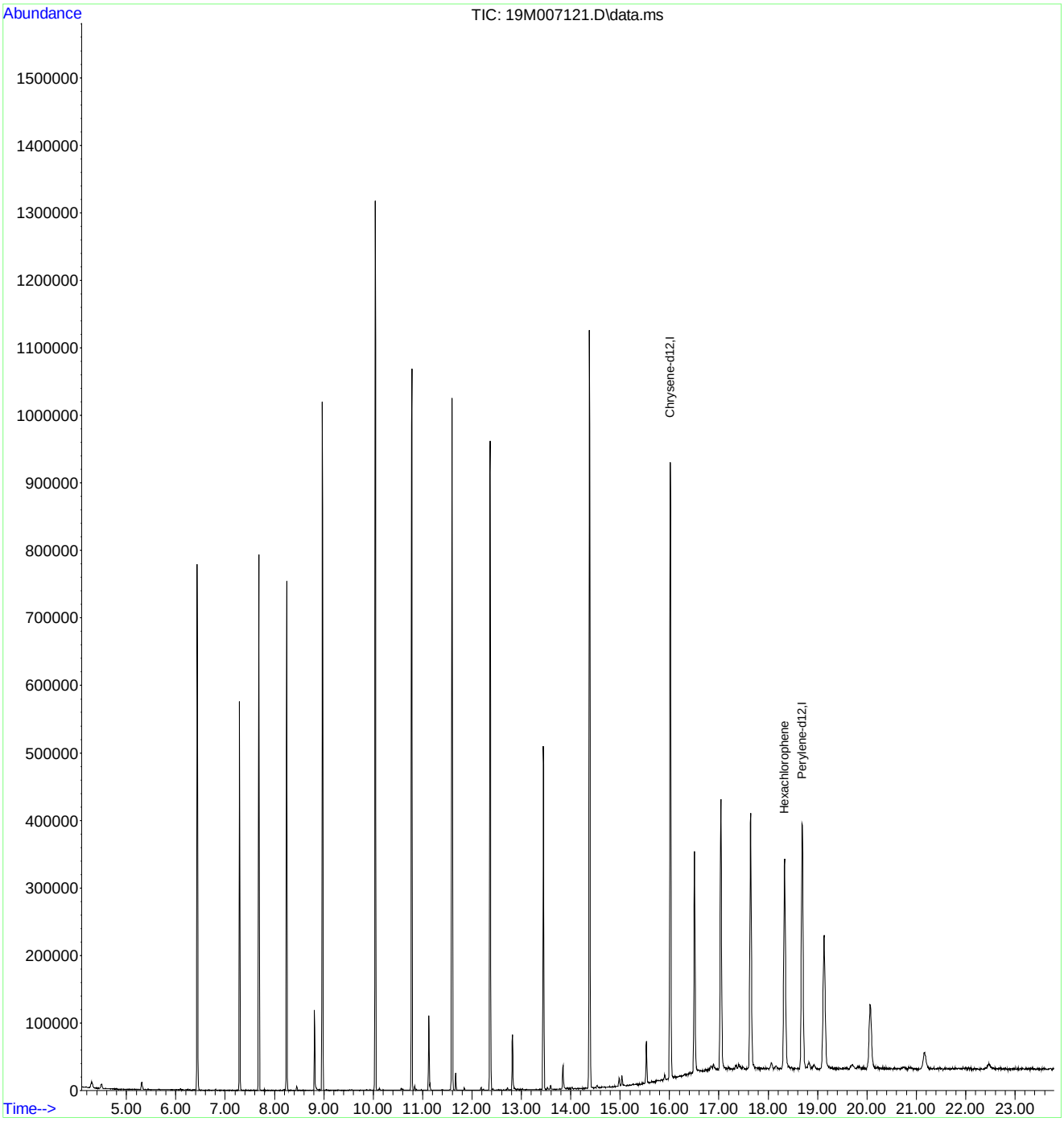
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.015	240	376269	40.0000	ug/mL	0.0000
3) Perylene-d12	18.686	264	325641	40.0000	ug/mL	-0.0120
Target Compounds						Qvalue
4) Hexachlorophene	18.333	196	831	0.3188	ug/mL#	21

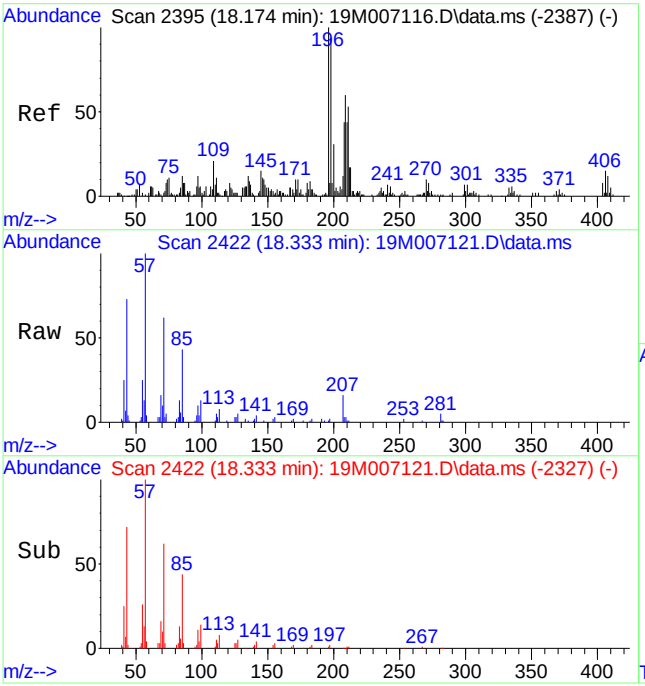
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007121.D Vial: 8
Acq On : 24 Apr 2019 6:53 pm Operator: SCB
Sample : L19041033-03 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:41 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

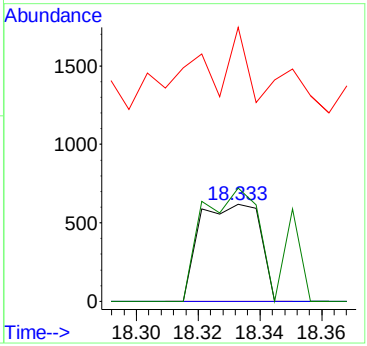




#4
Hexachlorophene
Concen: 0.3188 ug/mL
RT: 18.333 min Scan# 2422
Delta R.T. 0.159 min
Lab File: 19M007121.D
Acq: 24 Apr 2019 6:53 pm

Tgt Ion:196 Resp: 831

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	45.2	47.7	71.5#
211	132.7	42.5	63.7#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71278.D Vial: 10
Acq On : 22 Apr 2019 3:30 pm Operator: SCB
Sample : L19041033-04 REF RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:19 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

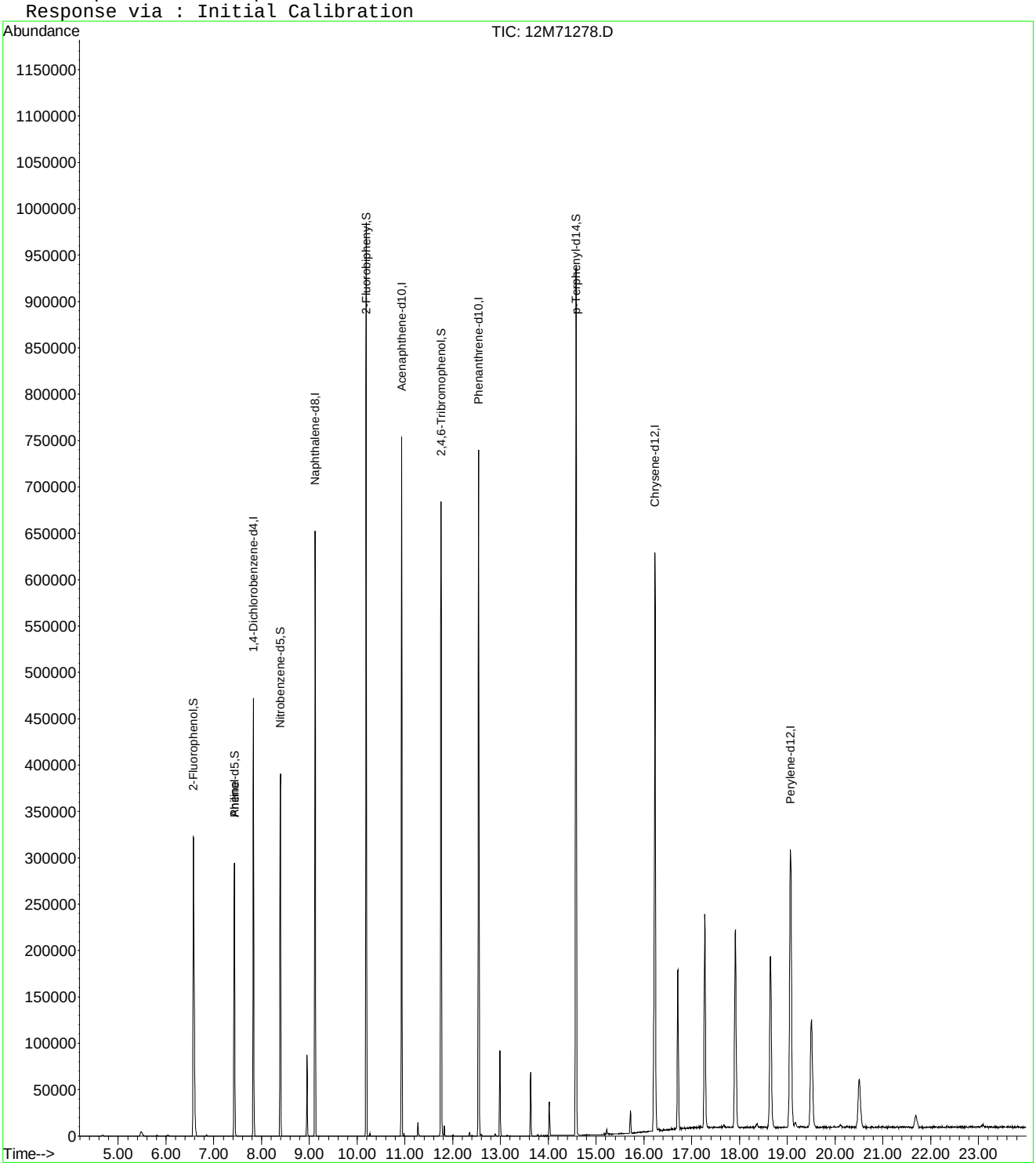
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.828	152	99628	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	362918	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	214272	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	365177	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	353318	40.0000	ug/ml	-0.027
129) Perylene-d12	19.069	264	348509	40.0000	ug/ml	-0.032
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	177300	58.0983669	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 58.10%			
12) Phenol-d5	7.428	99	140711	38.3089942	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 38.31%			
31) Nitrobenzene-d5	8.395	82	151208	49.4857624	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 98.97%			
59) 2-Fluorobiphenyl	10.190	172	367669	51.1244828	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 102.25%			
87) 2,4,6-Tribromophenol	11.755	330	103466	109.9371620	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 109.94%			
118) p-Terphenyl-d14	14.581	244	439233	51.7580322	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 103.52%			
Target Compounds						Qvalue
11) Aniline	7.43	66	5952	3.5060	ug/ml#	1

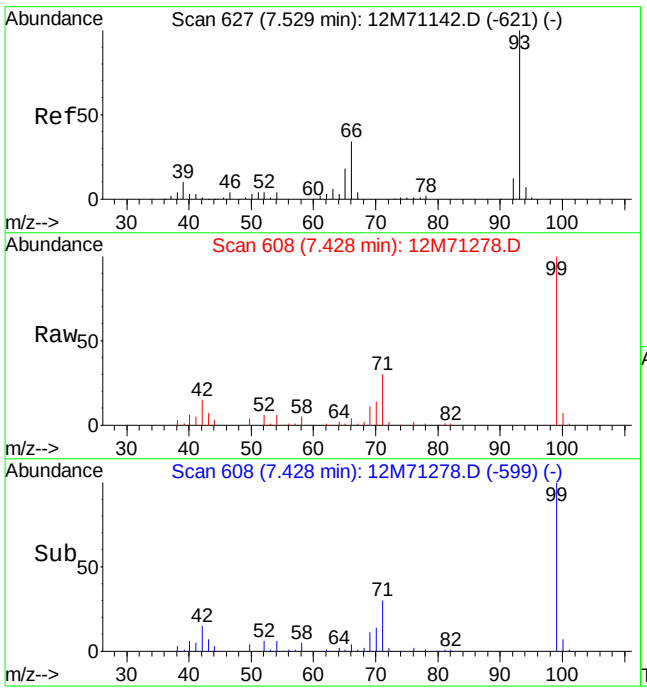
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71278.D MEGAMIX.M Tue Apr 23 08:29:20 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71278.D Vial: 10
Acq On : 22 Apr 2019 3:30 pm Operator: SCB
Sample : L19041033-04 REF RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

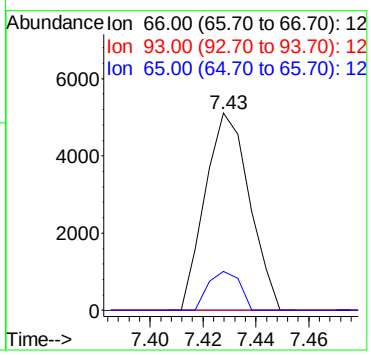




#11
Aniline
Concen: 3.5060 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71278.D
Acq: 22 Apr 2019 3:30 pm

Tgt Ion: 66 Resp: 5952

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	13.9	52.9	123.5#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71278.D Vial: 10
Acq On : 22 Apr 2019 3:30 pm Operator: SCB
Sample : L19041033-04 REF RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:46 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

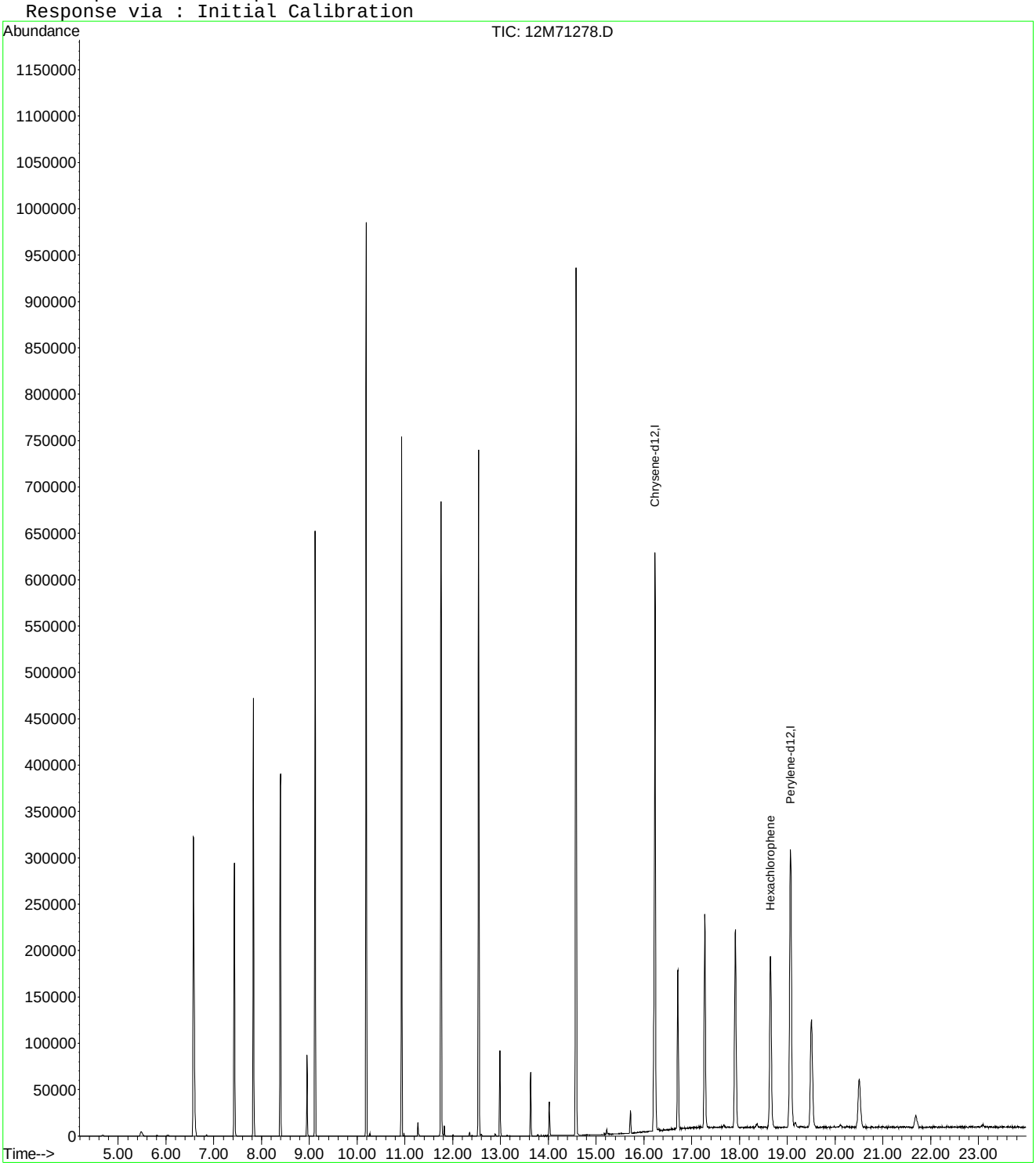
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	353318	40.0000	ug/L	0.000
3) Perylene-d12	19.069	264	348509	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	165	0.0977	ug/L #	1

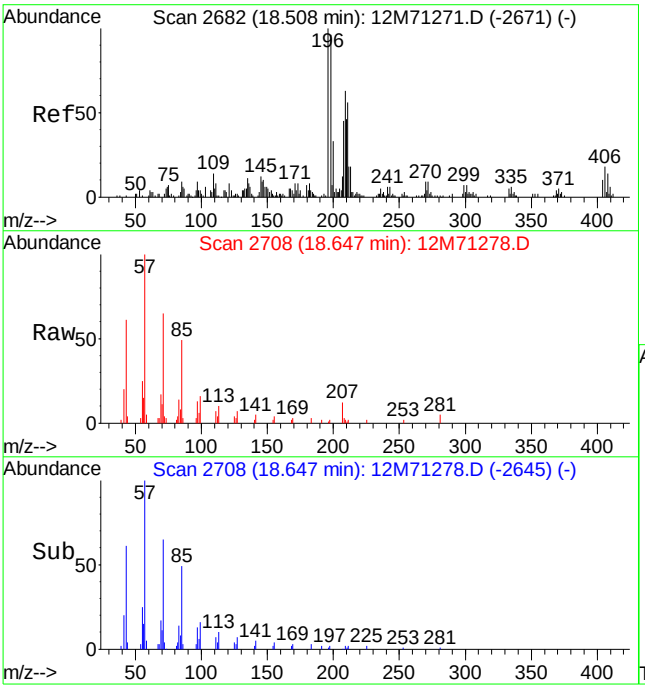
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71278.D A9B.M Tue Apr 23 08:20:46 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71278.D Vial: 10
Acq On : 22 Apr 2019 3:30 pm Operator: SCB
Sample : L19041033-04 REF RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration

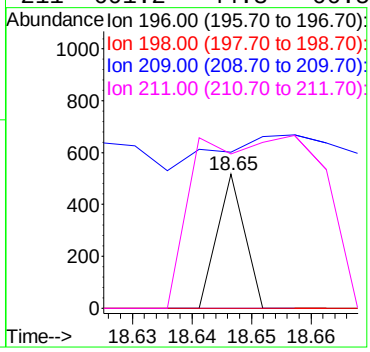




#4
Hexachlorophene
Concen: 0.0977 ug/L
RT: 18.65 min Scan# 2708
Delta R.T. 0.14 min
Lab File: 12M71278.D
Acq: 22 Apr 2019 3:30 pm

Tgt Ion:196 Resp: 165

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	0.0	49.8	74.8#
211	601.2	44.3	66.5#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007122.D Vial: 9
Acq On : 24 Apr 2019 7:34 pm Operator: SCB
Sample : L19041033-04 REF Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:05:18 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

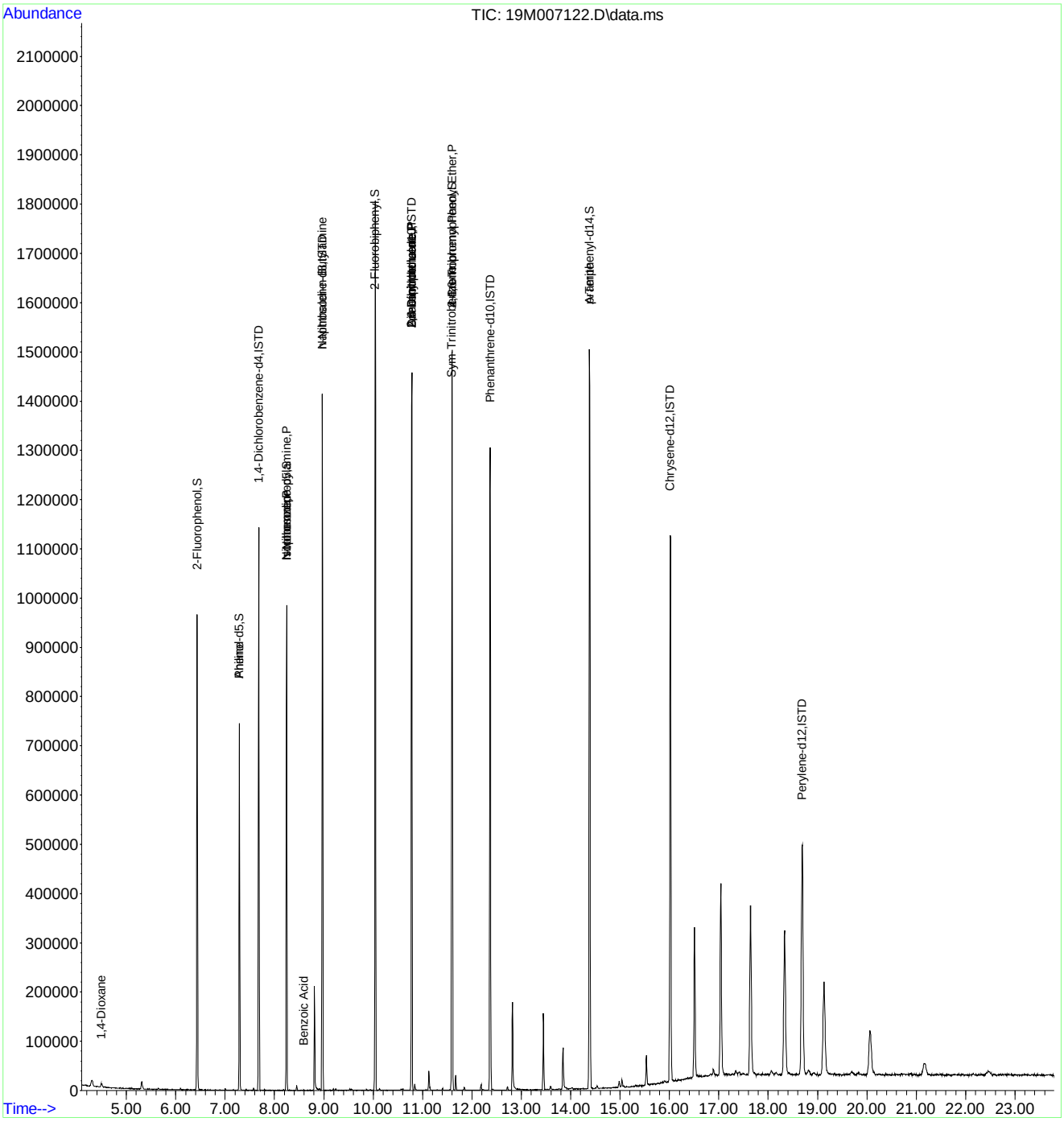
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	163842	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	644446	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.781	164	357388	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	587285	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.016	240	494041	40.0000	ug/mL	-0.0176
129) Perylene-d12	18.692	264	420726	40.0000	ug/mL	-0.0117
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	282640	50.6335	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	50.6335%		
12) Phenol-d5	7.287	99	240954	33.6914	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	33.6914%		
31) Nitrobenzene-d5	8.245	82	315202	47.1912	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	94.3824%		
59) 2-Fluorobiphenyl	10.039	172	572125	47.6941	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	95.3882%		
87) 2,4,6-Tribromophenol	11.598	330	148798	105.3646	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	105.3646%		
118) p-Terphenyl-d14	14.380	244	643469	54.3636	ug/mL	-0.0117
Spiked Amount 50.0000	Range 33 - 141		Recovery =	108.7272%		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.493	88	5319	1.9979	ug/mL	89
11) Aniline	7.287	66	14783	3.7268	ug/mL#	1
25) n-Nitrosodipropylamine	8.245	70	46337	9.9721	ug/mL#	41
34) Isophorone	8.245	82	315202	26.1951	ug/mL#	66
39) Benzoic Acid	8.598	105	413	6.5777	ug/mL#	77
48) n-Nitrosodi-n-Butylamine	8.969	84	18760	3.5226	ug/mL#	11
65) Dimethylphthalate	10.781	163	76661	6.5803	ug/mL#	1
67) 2,6-Dinitrotoluene	10.781	165	45917	16.7054	ug/mL#	16
73) 2,4-Dinitrotoluene	10.781	165	45917	12.7627	ug/mL#	4
92) Sym-Trinitrobenzene	11.592	75	1154	2.2443	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	10500	3.3931	ug/mL#	1
117) Aramite	14.380	185	1882	2.0577	ug/mL#	31

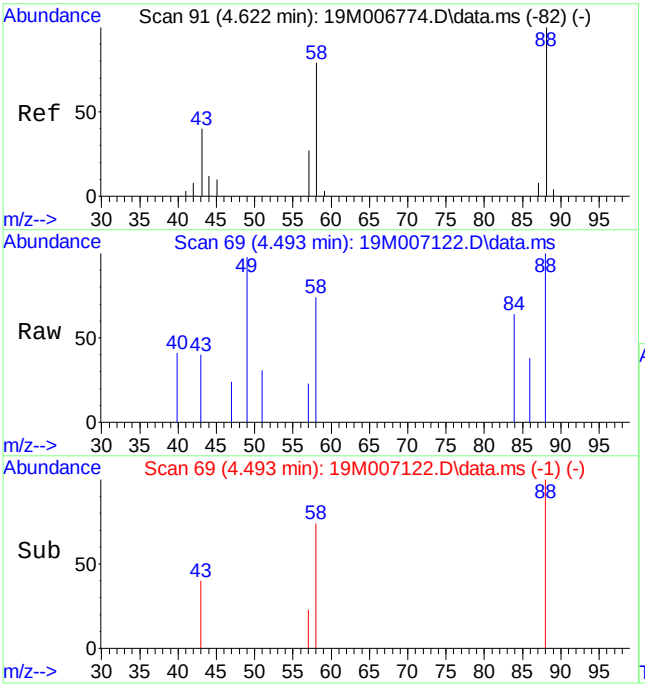
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007122.D Vial: 9
Acq On : 24 Apr 2019 7:34 pm Operator: SCB
Sample : L19041033-04 REF Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:05:18 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

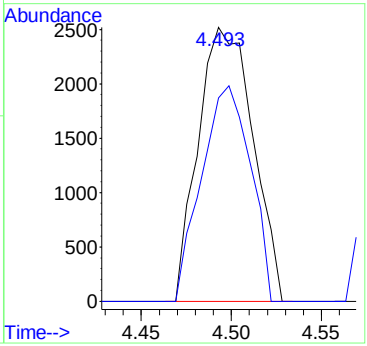


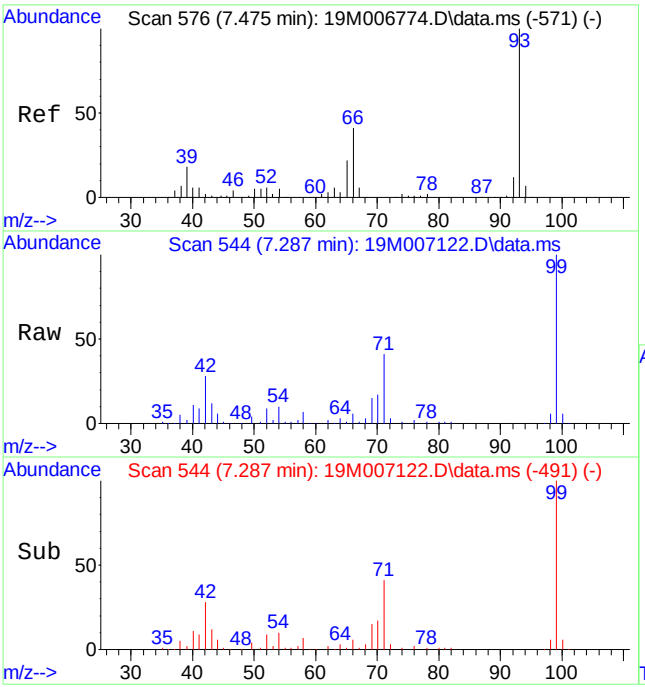


#2
1,4-Dioxane
Concen: 1.9979 ug/mL
RT: 4.493 min Scan# 69
Delta R.T. 0.006 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion: 88 Resp: 5319

Ion	Ratio	Lower	Upper
88	100		
58	70.6	56.0	104.0

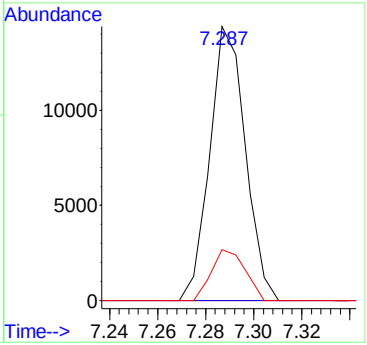


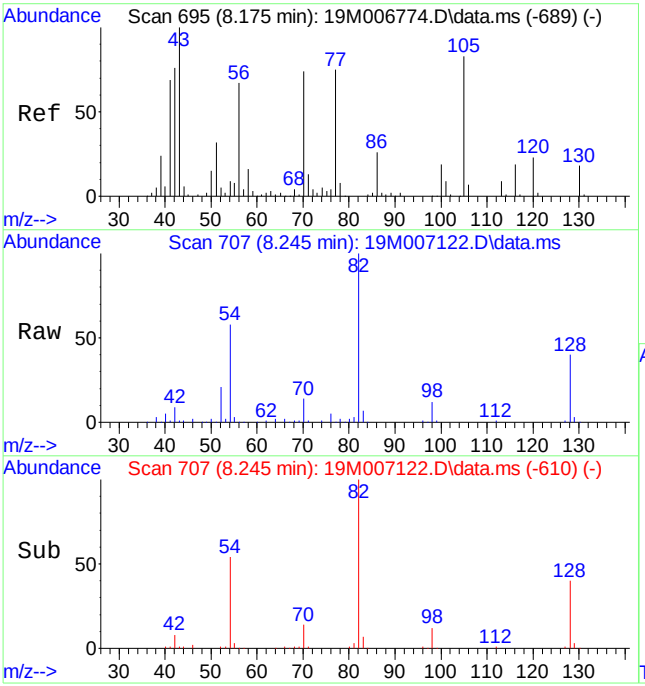


#11
Aniline
Concen: 3.7268 ug/mL
RT: 7.287 min Scan# 544
Delta R.T. -0.088 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion: 66 Resp: 14783

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	17.5	41.4	77.0#

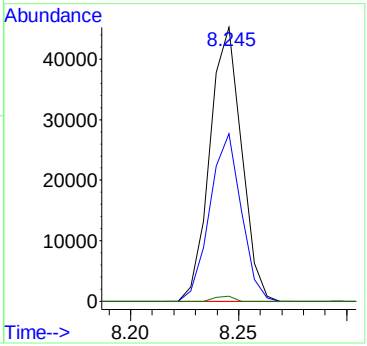


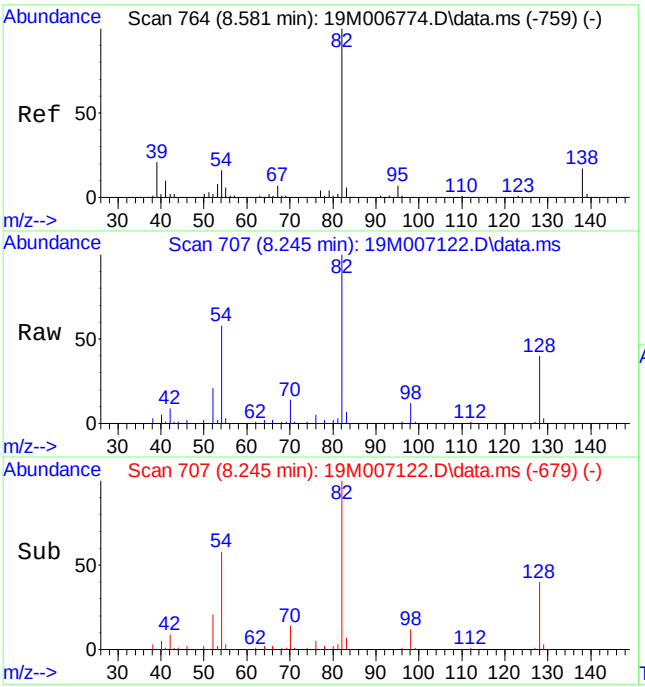


#25
n-Nitrosodipropylamine
Concen: 9.9721 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. 0.171 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion: 70 Resp: 46337

Ion	Ratio	Lower	Upper
70	100		
42	60.6	95.8	178.0#
101	0.0	9.6	17.8#
130	1.1	16.4	30.4#

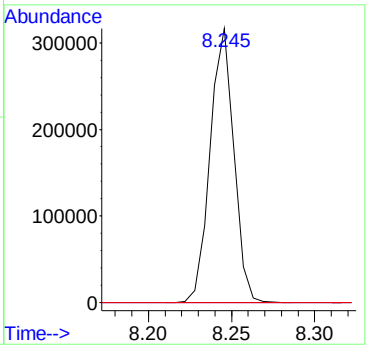


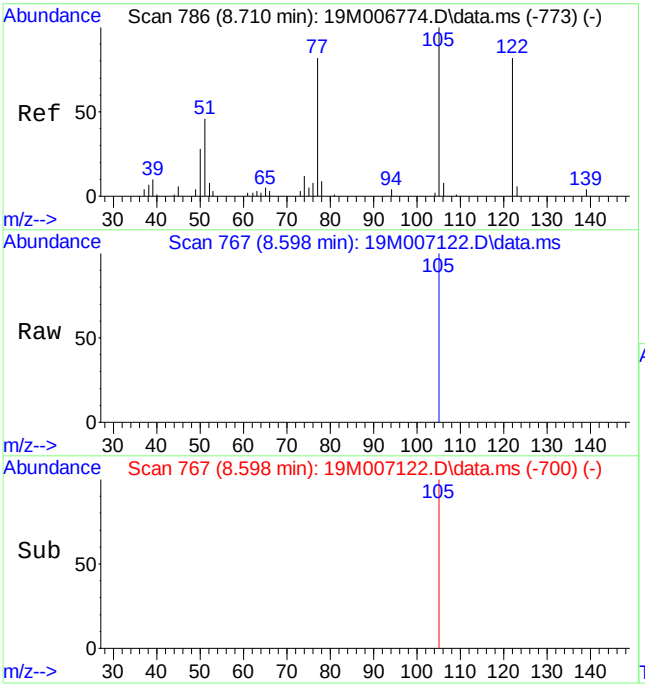


#34
Isophorone
Concen: 26.1951 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion: 82 Resp: 315202

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

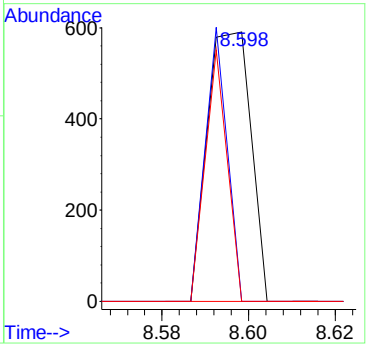


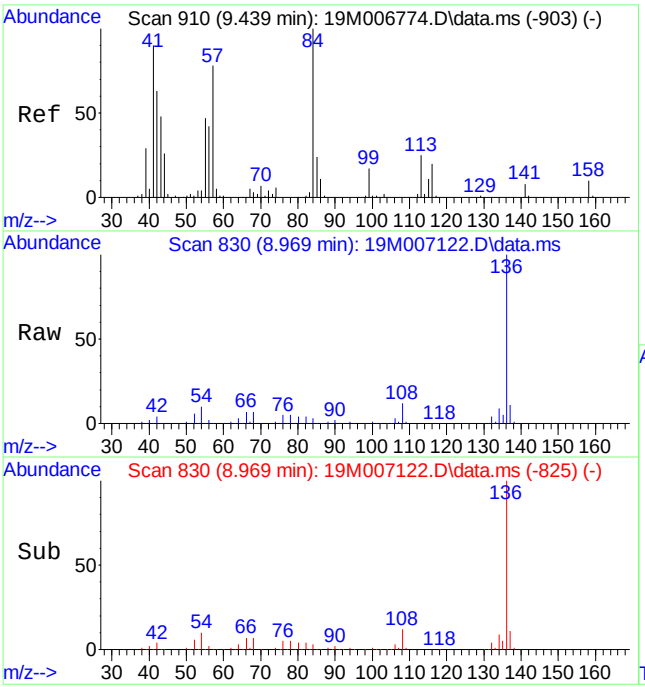


#39
Benzoic Acid
Concen: 6.5777 ug/mL
RT: 8.598 min Scan# 767
Delta R.T. -0.006 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:105 Resp: 413

Ion	Ratio	Lower	Upper
105	100		
122	51.3	46.5	86.3
77	47.2	47.8	88.8#

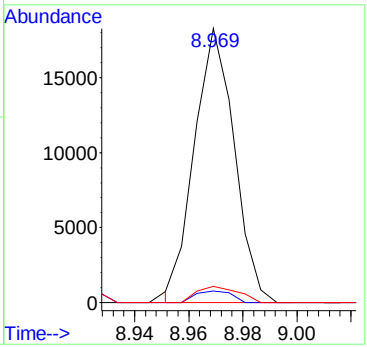


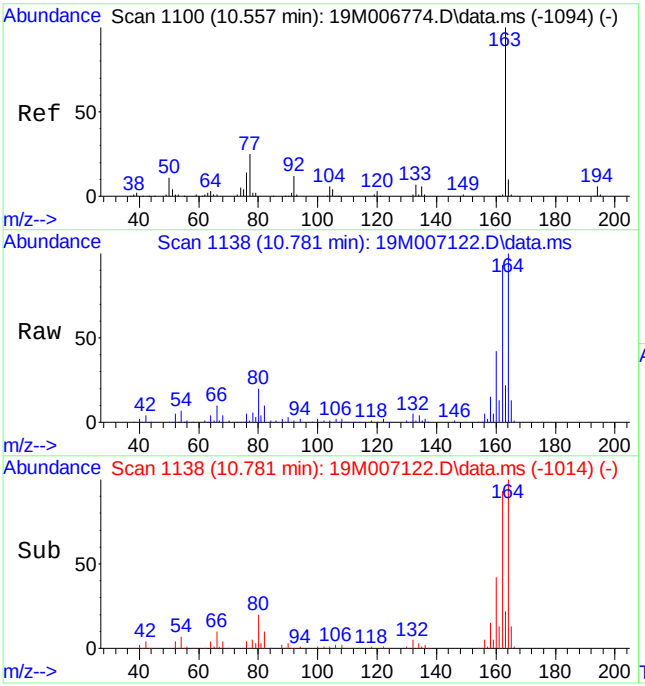


#48
n-Nitrosodi-n-Butylamine
Concen: 3.5226 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. -0.370 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion: 84 Resp: 18760

Ion	Ratio	Lower	Upper
84	100		
57	3.8	51.9	96.5#
41	6.1	68.9	127.9#

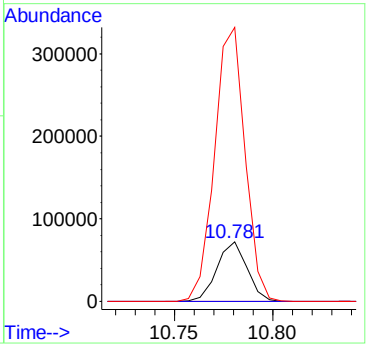


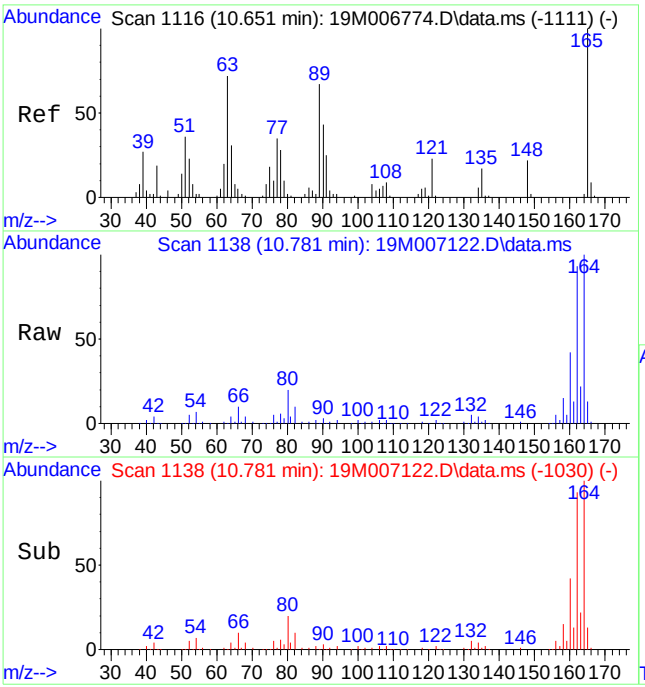


#65
Dimethylphthalate
Concen: 6.5803 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.329 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:163 Resp: 76661

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	466.2	7.2	13.4#

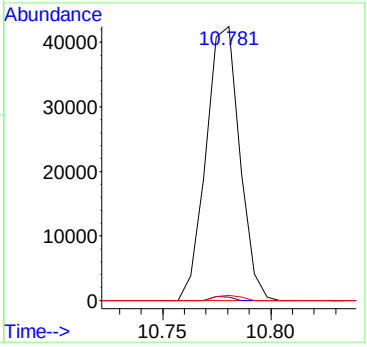


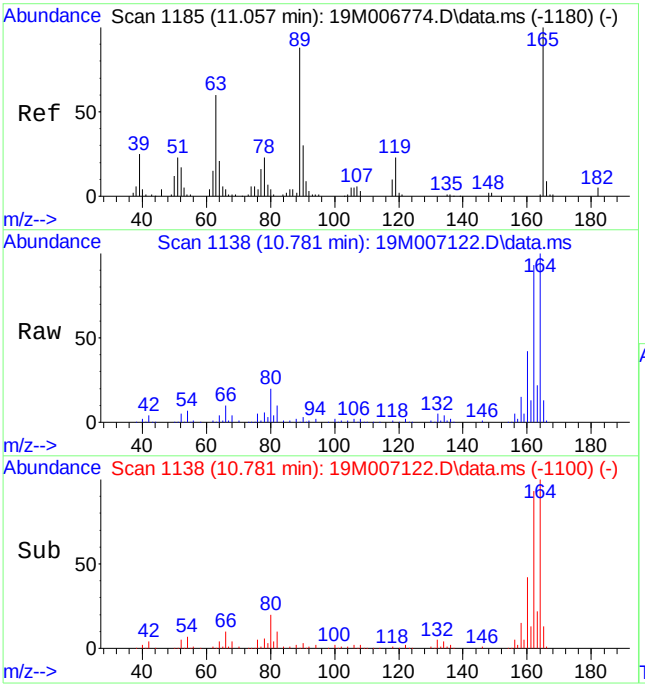


#67
2,6-Dinitrotoluene
Concen: 16.7054 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:165 Resp: 45917

Ion	Ratio	Lower	Upper
165	100		
63	0.9	50.8	94.4#
89	1.5	47.1	87.5#

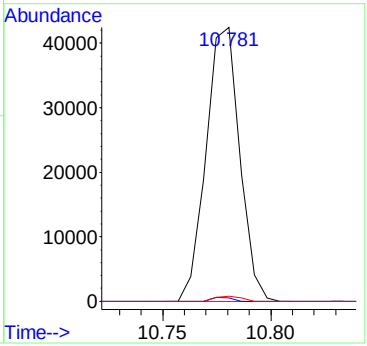


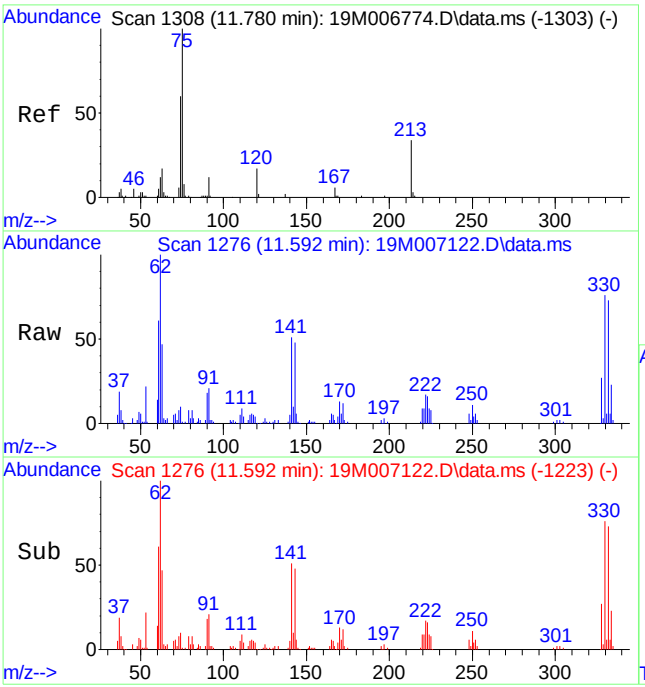


#73
2,4-Dinitrotoluene
Concen: 12.7627 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. -0.176 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:165 Resp: 45917

Ion	Ratio	Lower	Upper
165	100		
63	0.9	58.0	107.8#
89	1.5	71.3	132.5#

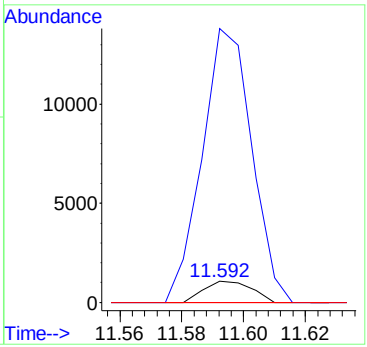


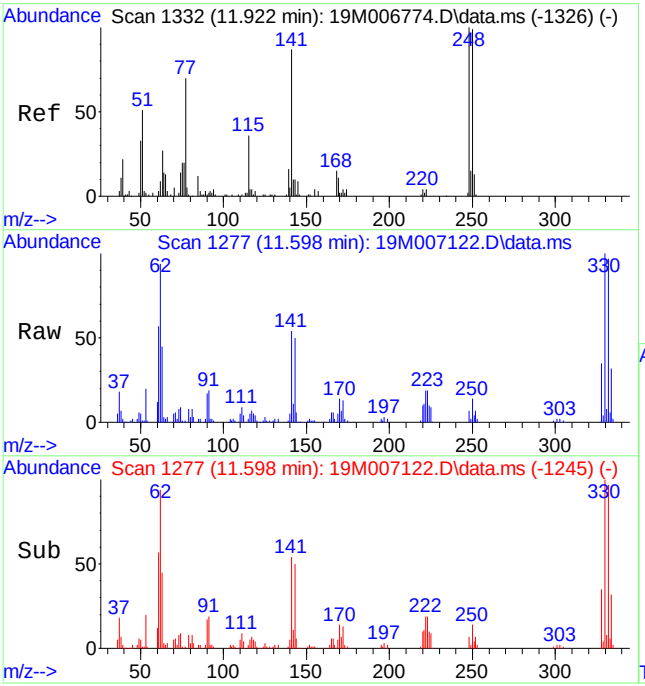


#92
Sym-Trinitrobenzene
Concen: 2.2443 ug/mL
RT: 11.592 min Scan# 1276
Delta R.T. -0.088 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion: 75 Resp: 1154

Ion	Ratio	Lower	Upper
75	100		
74	1335.1	41.6	77.3#
213	0.0	25.1	46.5#

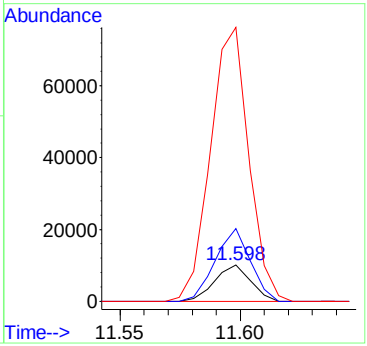


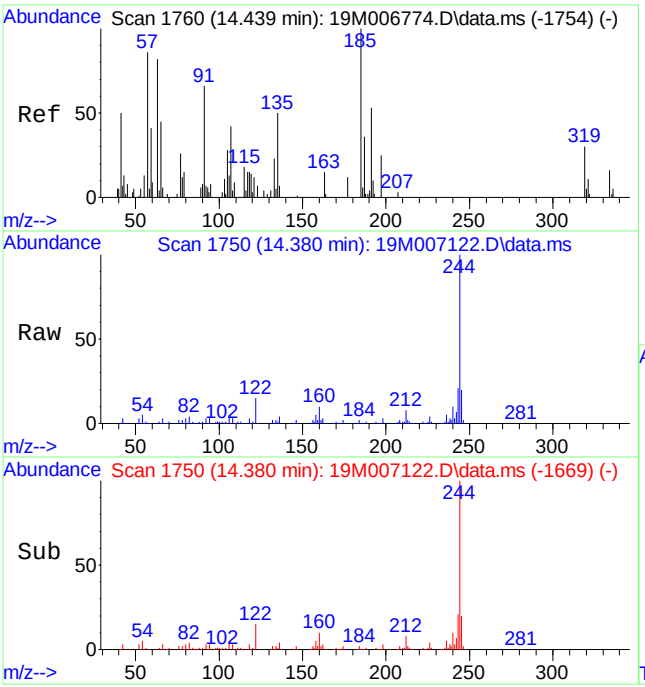


#96
4-Bromophenyl Phenyl Ether
Concen: 3.3931 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:248 Resp: 10500

Ion	Ratio	Lower	Upper
248	100		
250	196.2	68.1	126.5#
141	803.4	62.4	116.0#

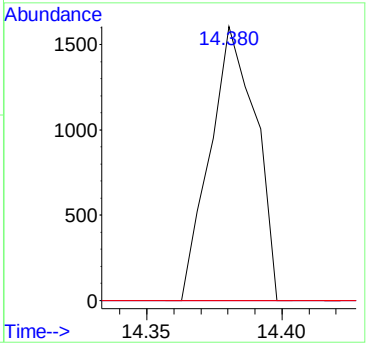




#117
Aramite
Concen: 2.0577 ug/mL
RT: 14.380 min Scan# 1750
Delta R.T. 0.077 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:185 Resp: 1882

Ion	Ratio	Lower	Upper
185	100		
191	0.0	37.6	69.8#
319	0.0	22.5	41.7#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007122.D Vial: 9
Acq On : 24 Apr 2019 7:34 pm Operator: SCB
Sample : L19041033-04 REF Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:44 2019
Quant Results File: A9B.RES

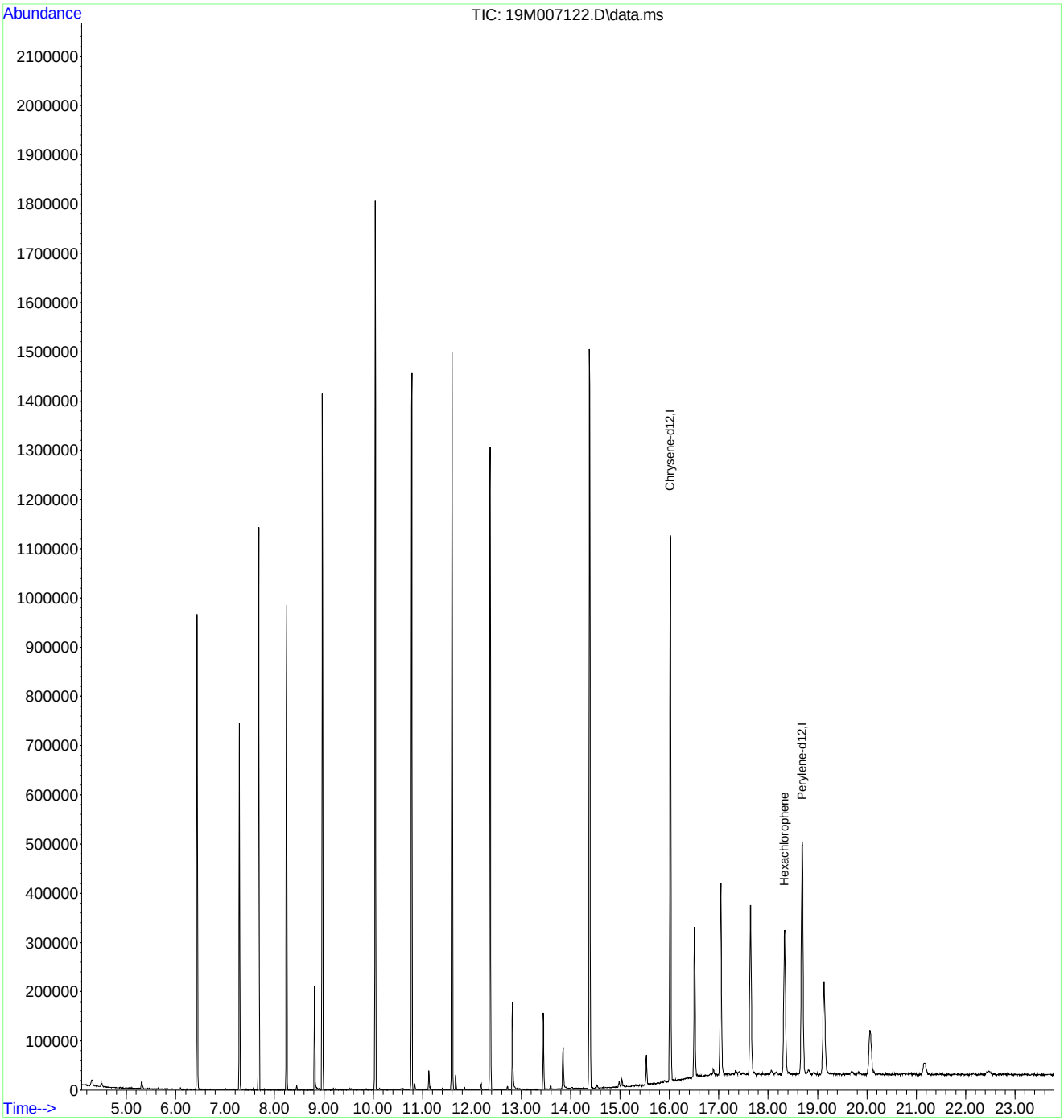
Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

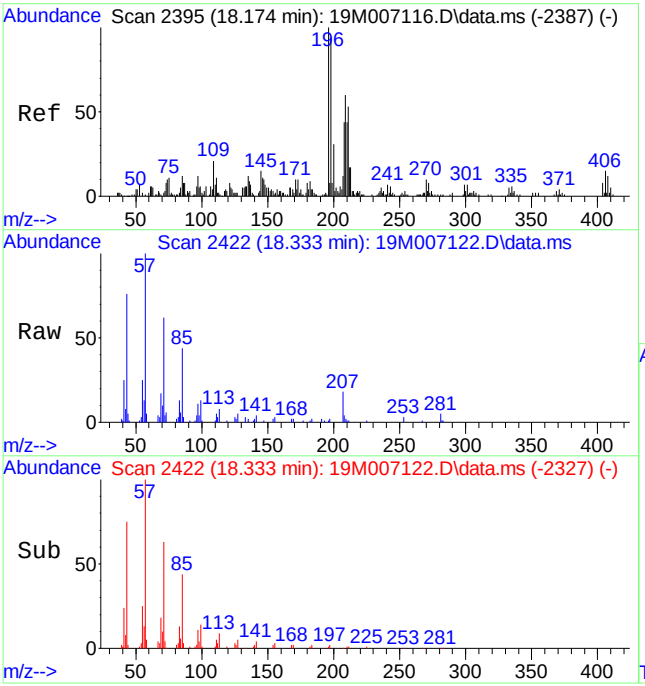
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.016	240	494041	40.0000	ug/mL	0.0000
3) Perylene-d12	18.692	264	420726	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
4) Hexachlorophene	18.333	196	595	0.1767	ug/mL#	8

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\msdchem\4\DATA\042419\19M007122.D Vial: 9
Acq On : 24 Apr 2019 7:34 pm Operator: SCB
Sample : L19041033-04 REF Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:44 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

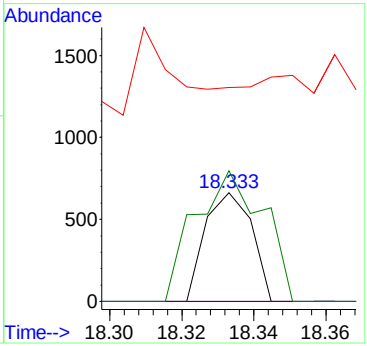




#4
Hexachlorophene
Concen: 0.1767 ug/mL
RT: 18.333 min Scan# 2422
Delta R.T. 0.159 min
Lab File: 19M007122.D
Acq: 24 Apr 2019 7:34 pm

Tgt Ion:196 Resp: 595

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	67.7	47.7	71.5
211	176.0	42.5	63.7#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71279.D Vial: 11
Acq On : 22 Apr 2019 4:02 pm Operator: SCB
Sample : L19041033-05 MS RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:18:11 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.828	152	103654	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	378786	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	227585	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.546	188	385433	40.0000	ug/ml	-0.011
114) Chrysene-d12	16.237	240	369482	40.0000	ug/ml	-0.022
129) Perylene-d12	19.074	264	364059	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	190337	59.9478697	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 59.95%			
12) Phenol-d5	7.433	99	151111	39.5425002	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 39.54%			
31) Nitrobenzene-d5	8.395	82	165764	51.9768916	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 103.95%			
59) 2-Fluorobiphenyl	10.190	172	404816	52.9970104	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 105.99%			
87) 2,4,6-Tribromophenol	11.760	330	111533	111.5763204	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 111.58%			
118) p-Terphenyl-d14	14.581	244	437869	49.3400371	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 98.68%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.13	74	57015	29.3241	ug/ml	96
4) Pyridine	5.15	79	93352	26.8152	ug/ml	99
5) 2-Picoline	5.99	93	150474	39.6379	ug/ml	99
6) n-Nitrosomethylethylamine	6.11	88	71473	45.6826	ug/ml	97
7) Methyl Methanesulfonate	6.41	80	67520	39.5170	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	78152	49.4945	ug/ml	99
10) Ethyl Methanesulfonate	7.07	79	107387	47.3167	ug/ml	100
11) Aniline	7.52	66	81180	45.9608	ug/ml	99
13) Phenol	7.44	94	82372	20.6352	ug/ml	95
14) bis(2-Chloroethyl)ether	7.54	63	107568	46.4923	ug/ml	95
15) Pentachloroethane	7.56	167	23226	17.1242	ug/ml	98
16) 2-Chlorophenol	7.65	128	160226	45.4953	ug/ml	100
17) 1,3-Dichlorobenzene	7.80	146	74126	19.2388	ug/ml	99
18) 1,4-Dichlorobenzene	7.84	146	80413	20.6636	ug/ml	99
19) Benzyl Alcohol	7.94	108	101579	46.3210	ug/ml	99
20) 1,2-Dichlorobenzene	8.04	146	83569	23.1212	ug/ml	100
21) 2-Methylphenol	8.04	107	116658	44.9971	ug/ml	100
22) bis(2-Chloroisopropyl)ethe	8.08	45	149819	38.7234	ug/ml	100
23) 3-,4-Methylphenol	8.16	107	156163	45.3307	ug/ml	90
24) n-Nitrosopyrrolidine	8.21	100	76611	51.0700	ug/ml	97
25) n-Nitrosodipropylamine	8.22	70	104553	51.8926	ug/ml	100
26) Acetophenone	8.22	105	204718	48.8974	ug/ml	100
27) n-Nitrosomorpholine	8.22	56	81458	49.3945	ug/ml	100
28) o-Toluidine	8.27	106	216930	41.6936	ug/ml	100
29) Hexachloroethane	8.36	117	27418	19.4157	ug/ml	99
32) Nitrobenzene	8.42	77	152660	47.2383	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	85422	50.8752	ug/ml	99
34) Isophorone	8.63	82	339336	57.0302	ug/ml	100
35) 2-Nitrophenol	8.73	139	89353	50.1877	ug/ml	99
36) 2,4-Dimethylphenol	8.70	122	167207	54.7003	ug/ml	97
37) 0,0,0-Triethyl Phosphoroth	8.80	198	87000	50.2869	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.80	93	230758	50.1901	ug/ml	99
39) Benzoic Acid	8.74	105	4473	10.8901	ug/ml#	1

(#) = qualifier out of range (m) = manual integration

Data File : I:\MSDCHEM\1\DATA\042219\12M71279.D Vial: 11
Acq On : 22 Apr 2019 4:02 pm Operator: SCB
Sample : L19041033-05 MS RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:18:11 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40)	2,4-Dichlorophenol	8.96	162	145835	51.0847 ug/ml	99
41)	a,a-Dimethylphenethylamine	8.98	58	192181	24.6435 ug/ml	98
42)	1,2,4-Trichlorobenzene	9.06	180	110433	36.1411 ug/ml	100
43)	Naphthalene	9.14	128	415503	40.1456 ug/ml#	97
44)	4-Chloroaniline	9.17	65	56290	50.9169 ug/ml	67
45)	2,6-Dichlorophenol	9.20	162	144666	52.4576 ug/ml	100
46)	Hexachloropropene	9.26	213	63140	34.1388 ug/ml	100
47)	Hexachlorobutadiene	9.29	225	61666	36.0586 ug/ml	99
48)	n-Nitrosodi-n-Butylamine	9.48	84	109818	41.9942 ug/ml	85
50)	4-Chloro-3-Methylphenol	9.61	107	144974	52.5927 ug/ml	99
51)	Safrole	9.70	162	123335	44.0954 ug/ml	99
52)	2-Methylnaphthalene	9.83	142	304543	44.2310 ug/ml	99
53)	1-Methylnaphthalene	9.95	142	316827	48.7255 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.04	216	142276	43.7320 ug/ml	99
56)	Hexachlorocyclopentadiene	10.05	237	47299	36.3674 ug/ml	100
57)	2,4,6-Trichlorophenol	10.12	196	107829	51.5784 ug/ml	99
58)	2,4,5-Trichlorophenol	10.17	196	111561	51.3149 ug/ml	99
60)	Isosafrole	10.22	162	316206	109.2849 ug/ml	100
61)	2-Chloronaphthalene	10.34	162	349300	53.3267 ug/ml	100
62)	1-Chloronaphthalene	10.38	162	261675	43.3323 ug/ml	100
63)	2-Nitroaniline	10.44	65	93937	54.5444 ug/ml	99
64)	1,4-Naphthoquinone	10.50	158	132636	62.2785 ug/ml	99
65)	Dimethylphthalate	10.60	163	410366	56.8201 ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	68793	53.1783 ug/ml	99
67)	2,6-Dinitrotoluene	10.69	165	95413	54.6019 ug/ml	99
68)	Acenaphthylene	10.78	152	505081	50.4088 ug/ml	100
69)	3-Nitroaniline	10.85	138	98890	51.3531 ug/ml	100
70)	2,4-Dinitrophenol	10.95	184	32668	47.7863 ug/ml	91
71)	Acenaphthene	10.96	154	320308	49.7647 ug/ml	100
72)	4-Nitrophenol	10.97	65	31426	27.6308 ug/ml	89
73)	2,4-Dinitrotoluene	11.10	165	126008	56.1123 ug/ml	100
74)	Pentachlorobenzene	11.15	250	140054	49.8387 ug/ml	99
75)	Dibenzofuran	11.12	168	472620	51.1230 ug/ml	100
76)	2,3,5,6-Tetrachlorophenol	11.27	232	86205	51.6403 ug/ml	96
77)	2,3,4,6-Tetrachlorophenol	11.27	232	86213	47.6080 ug/ml	99
78)	1-Naphthylamine	11.20	143	211876	31.7070 ug/ml	98
79)	2-Naphthylamine	11.26	143	293313	42.9882 ug/ml	100
80)	Diethylphthalate	11.30	149	377787	53.6153 ug/ml	100
81)	Thionazin	11.40	107	62019	55.0372 ug/ml	100
82)	Fluorene	11.48	166	391711	51.8769 ug/ml	100
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	179341	48.0113 ug/ml	99
84)	4-Nitroaniline	11.49	138	102910	51.7321 ug/ml	98
85)	5-Nitro-o-Toluidine	11.48	152	116535	52.3865 ug/ml	99
86)	1,2-Diphenylhydrazine	11.59	77	352653	54.5912 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.53	198	69989	54.6035 ug/ml	79
90)	Diphenylamine/n-Nitrosodip	11.55	169	639855	93.8011 ug/ml	99
91)	Sulfotepp	11.74	322	65153	51.9297 ug/ml	98
92)	Sym-Trinitrobenzene	11.83	75	64213	37.8907 ug/ml	99
93)	Diallate	11.87	86	250194	96.2301 ug/ml	88
94)	Phenacetin	11.86	108	193651	57.0206 ug/ml	95
95)	Phorate	11.89	75	213420	53.2884 ug/ml#	100
96)	4-Bromophenyl Phenyl Ether	11.96	248	109418	49.5679 ug/ml	100
97)	Hexachlorobenzene	12.18	284	119680	52.9553 ug/ml	99
98)	Dimethoate	12.11	87	139585	57.7337 ug/ml	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71279.D Vial: 11
Acq On : 22 Apr 2019 4:02 pm Operator: SCB
Sample : L19041033-05 MS RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:18:11 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

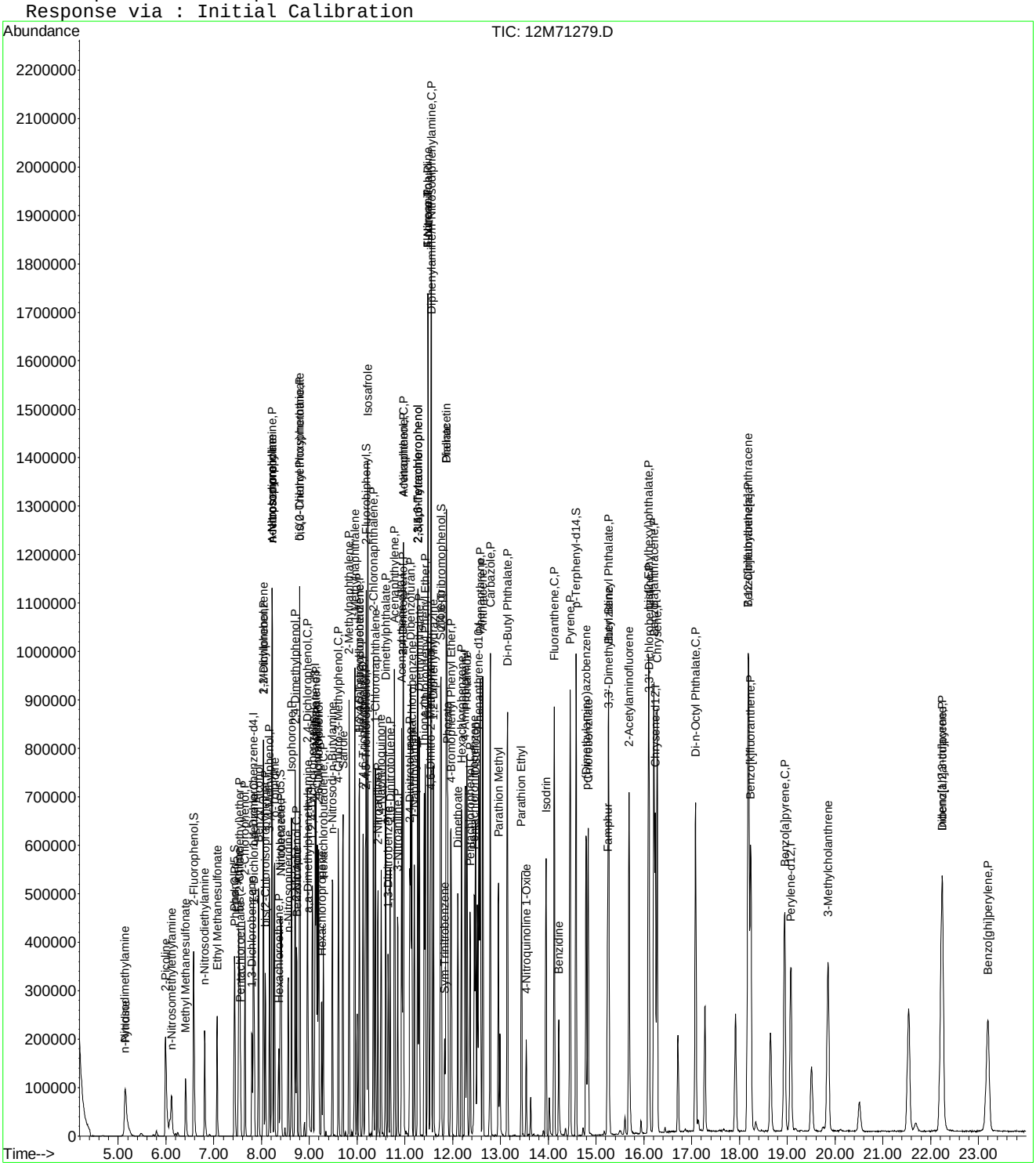
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	4-Aminobiphenyl	12.26	169	367492	44.1630	ug/ml	99
100)	Pentachlorophenol	12.36	266	74635	54.7583	ug/ml	99
101)	Pronamide	12.30	173	182440	55.1308	ug/ml	100
102)	Pentachloronitrobenzene	12.45	237	47489	56.0807	ug/ml	99
103)	Disulfoton	12.48	88	187580	53.5293	ug/ml	99
104)	Phenanthrene	12.58	178	548153	51.4076	ug/ml	100
105)	Anthracene	12.63	178	560531	51.2008	ug/ml	100
106)	Carbazole	12.79	167	570140	55.9278	ug/ml	100
107)	Parathion Methyl	12.96	109	125117	62.4496	ug/ml	98
108)	Di-n-Butyl Phthalate	13.14	149	652191	55.2246	ug/ml	100
109)	Parathion Ethyl	13.44	97	74526	56.5200	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.54	190	35228	40.7760	ug/ml	99
112)	Isodrin	13.95	193	61690	51.8306	ug/ml	98
113)	Fluoranthene	14.13	202	585853	49.6960	ug/ml	99
115)	Benzidine	14.22	184	169450	32.4545	ug/ml	100
116)	Pyrene	14.46	202	603376	50.6523	ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.79	225	134720	54.4905	ug/ml	99
120)	Chlorobenzilate	14.83	251	179712	52.3241	ug/ml	100
121)	Famphur	15.24	218	133282	209.8491	ug/ml#	77
122)	Butyl Benzyl Phthalate	15.26	149	285093	54.7253	ug/ml	99
123)	3,3'-Dimethylbenzidine	15.27	212	182376	14.6323	ug/ml	97
124)	2-Acetylaminofluorene	15.69	181	251365	56.1999	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.09	149	396732	57.1422	ug/ml	99
126)	3,3'-Dichlorobenzidine	16.11	252	192474	49.7980	ug/ml	99
127)	Benzo[a]anthracene	16.21	228	551396	50.0037	ug/ml	100
128)	Chrysene	16.28	228	557512	53.0712	ug/ml	100
130)	Di-n-Octyl Phthalate	17.08	149	666125	55.0231	ug/ml	99
131)	7,12-Dimethylbenz[a]anthra	18.19	256	262665	50.0968	ug/ml	100
132)	Benzo[b]fluoranthene	18.19	252	594583	53.1523	ug/ml	99
133)	Benzo[k]fluoranthene	18.24	252	503842	51.1890	ug/ml	99
134)	Benzo[a]pyrene	18.95	252	496667	49.9084	ug/ml	99
135)	3-Methylcholanthrene	19.85	268	275920	52.3199	ug/ml	99
136)	Indeno[1,2,3-cd]pyrene	22.24	276	570881	51.1344	ug/ml	100
137)	Dibenz[ah]anthracene	22.24	278	500077	52.7464	ug/ml	100
138)	Benzo[ghi]perylene	23.20	276	461308	49.7642	ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71279.D Vial: 11
Acq On : 22 Apr 2019 4:02 pm Operator: SCB
Sample : L19041033-05 MS RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:18 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71279.D Vial: 11
Acq On : 22 Apr 2019 4:02 pm Operator: SCB
Sample : L19041033-05 MS RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:22:15 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

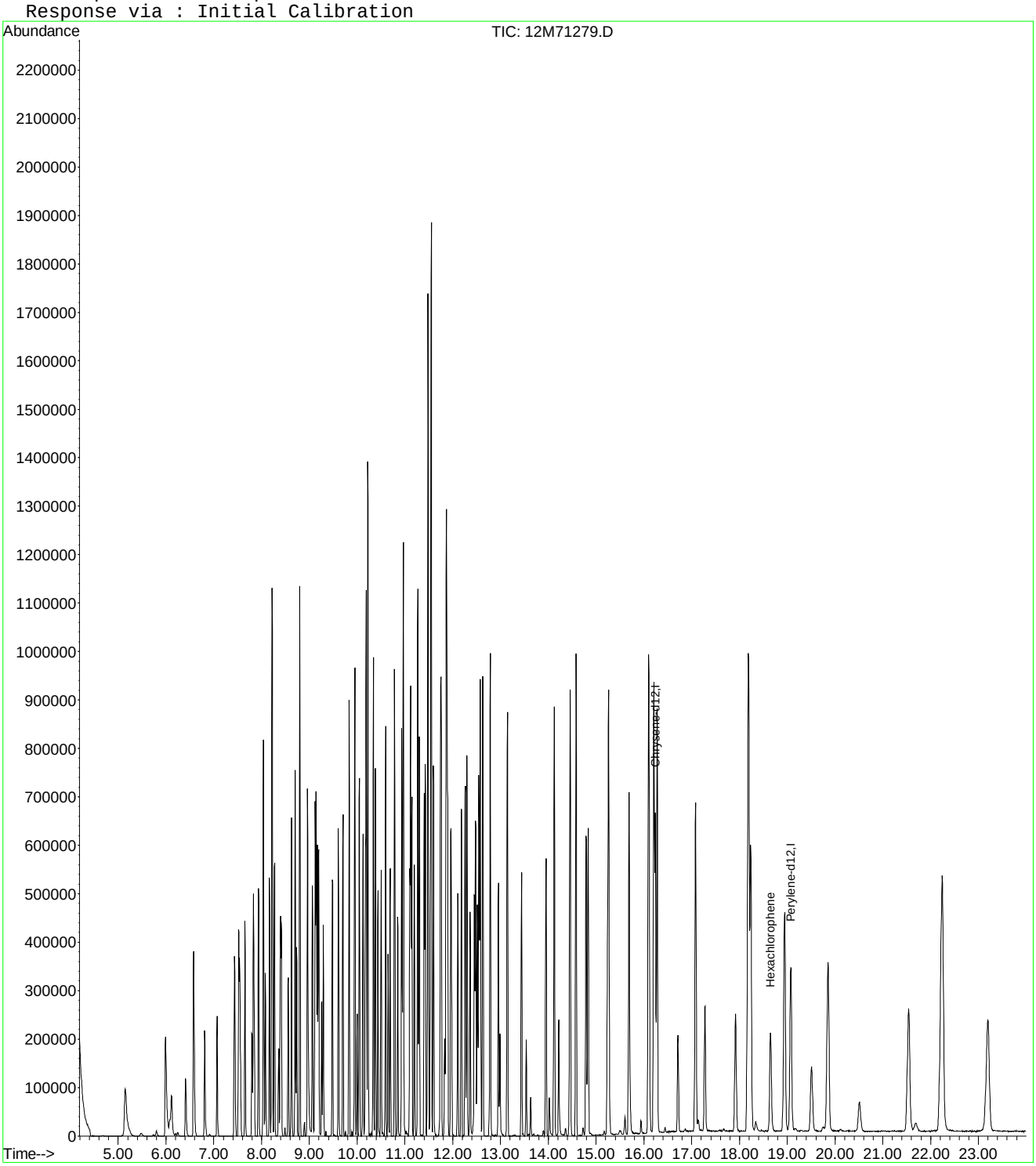
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.237	240	369482	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	364059	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	712	0.4036	ug/L #	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71279.D A9B.M Tue Apr 23 08:22:16 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71279.D Vial: 11
Acq On : 22 Apr 2019 4:02 pm Operator: SCB
Sample : L19041033-05 MS RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:22 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007134.D Vial: 10
Acq On : 25 Apr 2019 6:18 pm Operator: SCB
Sample : L19041033-05 MS Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:29 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	127597	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	506043	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.786	164	283680	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.374	188	470355	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.039	240	391435	40.0000	ug/mL	0.0000
129) Perylene-d12	18.721	264	341867	40.0000	ug/mL	0.0176
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	251045	57.7485	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 57.7485%			
12) Phenol-d5	7.287	99	220516	39.5922	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 39.5922%			
31) Nitrobenzene-d5	8.245	82	281313	53.6366	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 107.2732%			
59) 2-Fluorobiphenyl	10.045	172	511149	53.6825	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 107.3650%			
87) 2,4,6-Tribromophenol	11.604	330	127189	113.4640	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 113.4640%			
118) p-Terphenyl-d14	14.392	244	516628	55.0886	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 110.1772%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.499	88	4223	2.0368	ug/mL	94
3) n-Nitrosodimethylamine	4.957	74	89955	29.2672	ug/mL	96
4) Pyridine	4.981	79	131146	25.0835	ug/mL	97
11) Aniline	7.375	66	128718	41.6675	ug/mL	95
13) Phenol	7.298	94	121267	20.5607	ug/mL	94
14) bis(2-Chloroethyl)ether	7.398	63	215581	52.2535	ug/mL	87
16) 2-Chlorophenol	7.504	128	220635	47.3257	ug/mL	98
17) 1,3-Dichlorobenzene	7.651	146	170034	35.1981	ug/mL	99
18) 1,4-Dichlorobenzene	7.698	146	172612	35.1396	ug/mL	99
19) Benzyl Alcohol	7.792	108	147561	49.5099	ug/mL	98
20) 1,2-Dichlorobenzene	7.892	146	170012	37.4869	ug/mL	100
21) 2-Methylphenol	7.892	107	169282	47.7206	ug/mL	99
22) bis(2-Chloroisopropyl)...	7.934	45	424276	54.3861	ug/mL	99
23) 3-,4-Methylphenol	8.022	107	200913	43.6734	ug/mL	99
25) n-Nitrosodipropylamine	8.069	70	208483	57.6120	ug/mL#	57
26) Acetophenone	8.075	105	319843	52.5237	ug/mL	99
27) n-Nitrosomorpholine	8.069	56	15043	4.4517	ug/mL#	51
28) o-Toluidine	8.075	106	24717	3.5066	ug/mL#	1
29) Hexachloroethane	8.204	117	72113	36.4549	ug/mL	98
32) Nitrobenzene	8.263	77	296979	54.8368	ug/mL	98
34) Isophorone	8.475	82	575841	60.9443	ug/mL	99
35) 2-Nitrophenol	8.587	139	128432	55.1541	ug/mL	97
36) 2,4-Dimethylphenol	8.557	122	227605	55.2745	ug/mL	97
38) bis(2-Chloroethoxy)met...	8.657	93	332018	47.0323	ug/mL	88
39) Benzoic Acid	8.598	105	51586	26.1538	ug/mL	77
40) 2,4-Dichlorophenol	8.816	162	187179	54.3978	ug/mL	99
42) 1,2,4-Trichlorobenzene	8.916	180	160542	43.6383	ug/mL	99
43) Naphthalene	8.992	128	646799	46.5043	ug/mL#	100
44) 4-Chloroaniline	9.022	65	97351	48.3683	ug/mL	70
47) Hexachlorobutadiene	9.145	225	93467	46.2767	ug/mL	100
49) p-Phenylenediamine	9.463	108	18341	4.6838	ug/mL#	1
50) 4-Chloro-3-Methylphenol	9.463	107	231847	59.3352	ug/mL	97

Data File : C:\msdchem\4\DATA\042519\19M007134.D Vial: 10
Acq On : 25 Apr 2019 6:18 pm Operator: SCB
Sample : L19041033-05 MS Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:29 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52)	2-Methylnaphthalene	9.681	142	439946	49.8313	ug/mL	99
53)	1-Methylnaphthalene	9.798	142	441553	53.1949	ug/mL	99
56)	Hexachlorocyclopentadiene	9.904	237	79813	44.7135	ug/mL	100
57)	2,4,6-Trichlorophenol	9.975	196	139721	56.3502	ug/mL	100
58)	2,4,5-Trichlorophenol	10.022	196	145363	56.5875	ug/mL	98
60)	Isosafrole	9.992	162	32559	9.1124	ug/mL#	35
61)	2-Chloronaphthalene	10.186	162	430910	51.9246	ug/mL	99
62)	1-Chloronaphthalene	10.186	162	430910	55.2073	ug/mL	99
63)	2-Nitroaniline	10.286	65	186124	59.5332	ug/mL	98
65)	Dimethylphthalate	10.451	163	558763	60.4241	ug/mL	100
66)	1,3-Dinitrobenzene	10.504	168	90562	57.3240	ug/mL	95
67)	2,6-Dinitrotoluene	10.545	165	129959	59.5665	ug/mL	96
68)	Acenaphthylene	10.633	152	728496	55.2067	ug/mL	100
69)	3-Nitroaniline	10.704	138	135284	55.3239	ug/mL	98
70)	2,4-Dinitrophenol	10.804	184	51968	63.2377	ug/mL	65
71)	Acenaphthene	10.816	154	484041	58.6932	ug/mL	98
72)	4-Nitrophenol	10.822	65	62747	27.3271	ug/mL	92
73)	2,4-Dinitrotoluene	10.957	165	174264	61.0222	ug/mL	97
75)	Dibenzofuran	10.975	168	633315	53.8943	ug/mL	99
76)	2,3,5,6-Tetrachlorophenol	11.075	232	117611	58.0451	ug/mL	98
77)	2,3,4,6-Tetrachlorophenol	11.122	232	117695	55.0475	ug/mL	99
80)	Diethylphthalate	11.163	149	592691	62.5207	ug/mL	100
82)	Fluorene	11.333	166	554549	58.2801	ug/mL	100
83)	4-Chlorophenyl Phenyl ...	11.280	204	254283	58.3198	ug/mL	99
84)	4-Nitroaniline	11.339	138	142412	55.6390	ug/mL	96
85)	5-Nitro-o-Toluidine	11.380	152	5655	2.0063	ug/mL#	1
86)	1,2-Diphenylhydrazine	11.451	77	674536	60.7843	ug/mL	99
89)	4,6-Dinitro-2-Methylph...	11.380	198	84377	64.9677	ug/mL	96
90)	Diphenylamine/n-Nitros...	11.404	169	479554	58.1016	ug/mL	100
92)	Sym-Trinitrobenzene	11.804	75	33381	12.0786	ug/mL#	70
94)	Phenacetin	12.022	108	14291	2.8779	ug/mL#	50
95)	Phorate	11.804	75	33381	5.0308	ug/mL#	45
96)	4-Bromophenyl Phenyl E...	11.810	248	144008	58.1050	ug/mL	98
97)	Hexachlorobenzene	12.022	284	138841	55.2602	ug/mL	97
100)	Pentachlorophenol	12.198	266	92921	60.0802	ug/mL	99
102)	Pentachloronitrobenzene	12.198	237	3786	3.5112	ug/mL#	16
103)	Disulfoton	12.404	88	62277	11.8139	ug/mL#	10
104)	Phenanthrene	12.404	178	757376	57.0974	ug/mL	100
105)	Anthracene	12.457	178	769793	56.6875	ug/mL	100
106)	Carbazole	12.616	167	721770	57.0911	ug/mL	100
108)	Di-n-Butyl Phthalate	12.980	149	982651	62.0872	ug/mL	99
113)	Fluoranthene	13.939	202	792548	55.2241	ug/mL	99
115)	Benzidine	14.033	184	125986	19.6257	ug/mL	100
116)	Pyrene	14.263	202	817113	61.1487	ug/mL	100
117)	Aramite	14.398	185	1296	1.7884	ug/mL#	31
122)	Butyl Benzyl Phthalate	15.074	149	440180	67.3769	ug/mL	97
125)	bis(2-Ethylhexyl)phtha...	15.915	149	605977	71.7611	ug/mL	100
126)	3,3'-Dichlorobenzidine	15.921	252	238154	59.5003	ug/mL	99
127)	Benzo[a]anthracene	16.010	228	686928	58.6620	ug/mL	99
128)	Chrysene	16.074	228	664258	59.8674	ug/mL	100
130)	Di-n-Octyl Phthalate	16.868	149	981171	71.9625	ug/mL	99
132)	Benzo[b]fluoranthene	17.880	252	590213	55.1776	ug/mL	96
133)	Benzo[k]fluoranthene	17.927	252	583472	60.0720	ug/mL	100
134)	Benzo[a]pyrene	18.598	252	529835	56.5838	ug/mL	98
136)	Indeno[1,2,3-cd]pyrene	21.680	276	553657	60.3482	ug/mL	99

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007134.D Vial: 10
Acq On : 25 Apr 2019 6:18 pm Operator: SCB
Sample : L19041033-05 MS Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:29 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

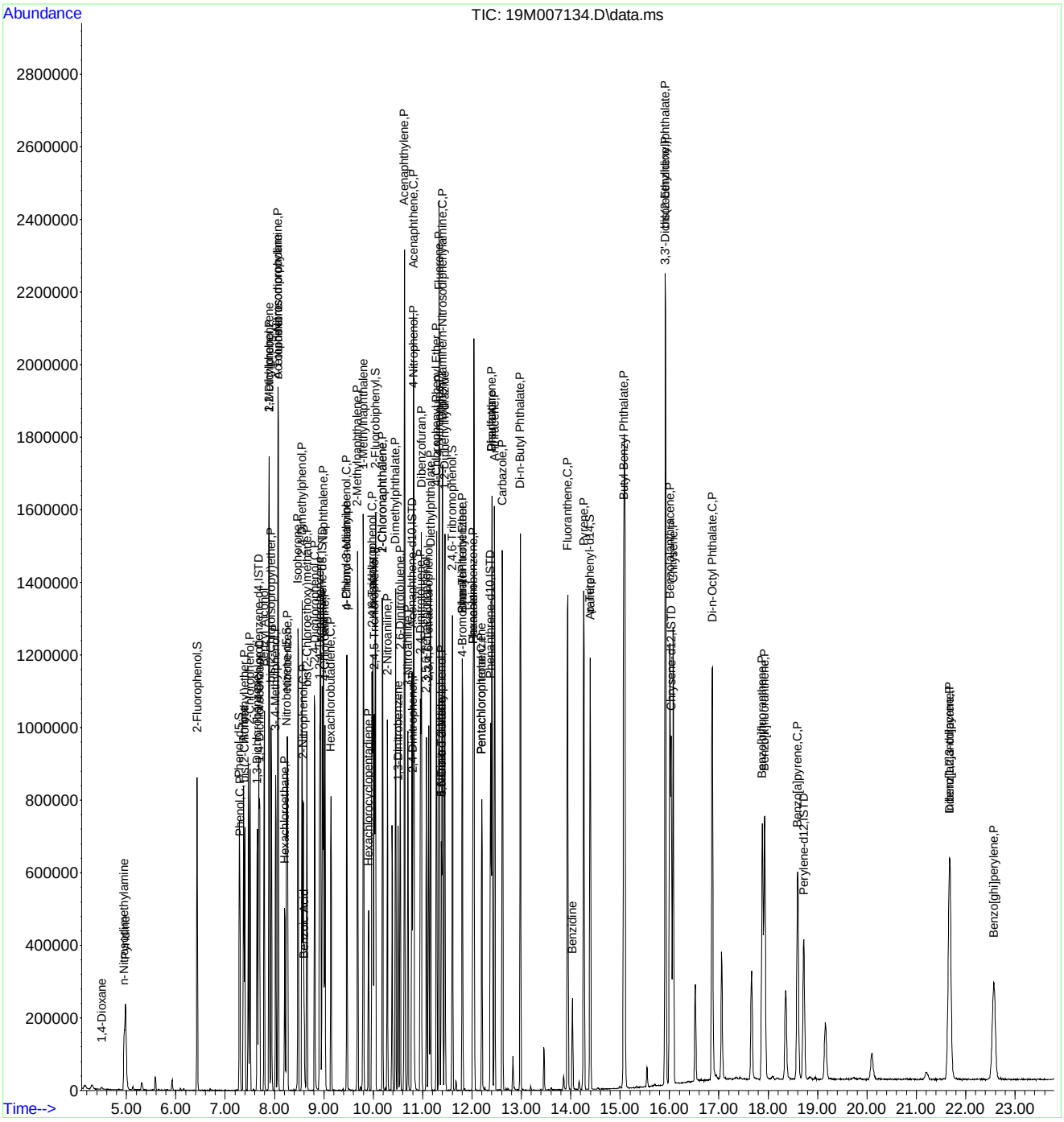
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
137) Dibenz[ah]anthracene	21.674	278	480101	61.8915	ug/mL	99
138) Benzo[ghi]perylene	22.568	276	465597	62.4470	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007134.D Vial: 10
Acq On : 25 Apr 2019 6:18 pm Operator: SCB
Sample : L19041033-05 MS Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:29 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007134.D Vial: 10
Acq On : 25 Apr 2019 6:18 pm Operator: SCB
Sample : L19041033-05 MS Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:14 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

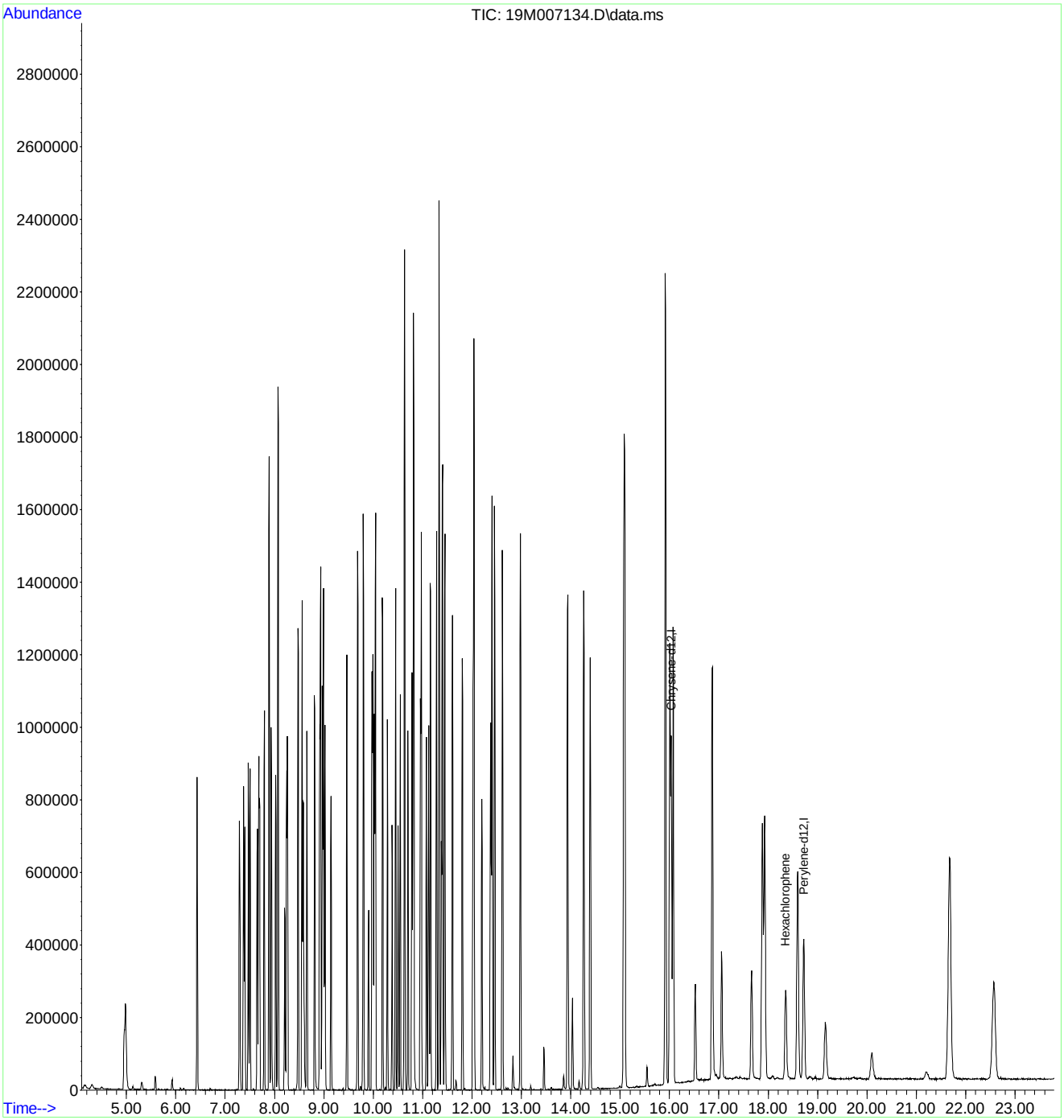
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.039	240	391435	40.0000	ug/mL	0.0000
3) Perylene-d12	18.721	264	341867	40.0000	ug/mL	-0.0177
Target Compounds						Qvalue
4) Hexachlorophene	18.351	196	189	0.0527	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007134.D Vial: 10
Acq On : 25 Apr 2019 6:18 pm Operator: SCB
Sample : L19041033-05 MS Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:14 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71280.D Vial: 12
Acq On : 22 Apr 2019 4:35 pm Operator: SCB
Sample : L19041033-06 MSD RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:18:13 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	104840	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	384652	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	228174	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.546	188	388298	40.0000	ug/ml	-0.011
114) Chrysene-d12	16.237	240	371041	40.0000	ug/ml	-0.021
129) Perylene-d12	19.074	264	362216	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	185747	57.8404146	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 57.84%			
12) Phenol-d5	7.428	99	147337	38.1187739	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 38.12%			
31) Nitrobenzene-d5	8.395	82	167076	51.5893528	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 103.18%			
59) 2-Fluorobiphenyl	10.190	172	409301	53.4458498	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 106.89%			
87) 2,4,6-Tribromophenol	11.760	330	112959	112.7111727	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 112.71%			
118) p-Terphenyl-d14	14.581	244	428424	48.0729140	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 96.15%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.14	74	57441	29.2090	ug/ml	97
4) Pyridine	5.16	79	66397	18.8567	ug/ml	98
5) 2-Picoline	5.99	93	113954	29.6782	ug/ml	100
6) n-Nitrosomethylethylamine	6.11	88	72686	45.9323	ug/ml	98
7) Methyl Methanesulfonate	6.41	80	67806	39.2354	ug/ml	100
9) n-Nitrosodiethylamine	6.81	102	79829	49.9846	ug/ml	99
10) Ethyl Methanesulfonate	7.07	79	108982	47.4763	ug/ml	100
11) Aniline	7.52	66	79602	44.5576	ug/ml	93
13) Phenol	7.44	94	81265	20.1276	ug/ml	95
14) bis(2-Chloroethyl)ether	7.54	63	113168	48.3593	ug/ml	91
15) Pentachloroethane	7.56	167	30177	21.9974	ug/ml	99
16) 2-Chlorophenol	7.65	128	166021	46.6075	ug/ml	100
17) 1,3-Dichlorobenzene	7.80	146	93141	23.9005	ug/ml	99
18) 1,4-Dichlorobenzene	7.84	146	99994	25.4046	ug/ml	99
19) Benzyl Alcohol	7.94	108	102606	46.2601	ug/ml	99
20) 1,2-Dichlorobenzene	8.04	146	100997	27.6269	ug/ml	99
21) 2-Methylphenol	8.04	107	117448	44.7893	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	166411	42.5253	ug/ml	100
23) 3-,4-Methylphenol	8.17	107	157440	45.1843	ug/ml	89
24) n-Nitrosopyrrolidine	8.21	100	77518	51.0900	ug/ml	97
25) n-Nitrosodipropylamine	8.22	70	108861	53.4195	ug/ml	99
26) Acetophenone	8.22	105	213941	50.5223	ug/ml	100
27) n-Nitrosomorpholine	8.22	56	82280	49.3286	ug/ml	99
28) o-Toluidine	8.27	106	223926	42.5514	ug/ml	100
29) Hexachloroethane	8.36	117	33197	23.2421	ug/ml	99
32) Nitrobenzene	8.42	77	164351	50.0804	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	85992	50.4336	ug/ml	99
34) Isophorone	8.62	82	349083	57.7736	ug/ml	100
35) 2-Nitrophenol	8.73	139	94017	52.0020	ug/ml	99
36) 2,4-Dimethylphenol	8.70	122	170415	54.8995	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.80	198	88670	50.4706	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.80	93	236538	50.6627	ug/ml	99
39) Benzoic Acid	8.74	105	18112	22.4377	ug/ml#	40

(#) = qualifier out of range (m) = manual integration

Data File : I:\MSDCHEM\1\DATA\042219\12M71280.D Vial: 12
Acq On : 22 Apr 2019 4:35 pm Operator: SCB
Sample : L19041033-06 MSD RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:18:13 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40)	2,4-Dichlorophenol	8.96	162	148882	51.3567 ug/ml	100
41)	a,a-Dimethylphenethylamine	8.98	58	81559	10.2989 ug/ml#	94
42)	1,2,4-Trichlorobenzene	9.06	180	113967	36.7289 ug/ml	100
43)	Naphthalene	9.14	128	430171	40.9289 ug/ml#	97
44)	4-Chloroaniline	9.17	65	57307	51.0463 ug/ml	68
45)	2,6-Dichlorophenol	9.20	162	148512	53.0309 ug/ml	100
46)	Hexachloropropene	9.25	213	66472	35.3922 ug/ml	100
47)	Hexachlorobutadiene	9.29	225	64640	37.2212 ug/ml	99
48)	n-Nitrosodi-n-Butylamine	9.48	84	111101	41.8369 ug/ml	85
49)	p-Phenylenediamine	9.52	108	669	Below Cal #	40
50)	4-Chloro-3-Methylphenol	9.61	107	147913	52.8406 ug/ml	99
51)	Safrole	9.70	162	122944	43.2852 ug/ml	99
52)	2-Methylnaphthalene	9.83	142	304956	43.6156 ug/ml	99
53)	1-Methylnaphthalene	9.95	142	315258	47.7448 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.04	216	140339	43.0253 ug/ml	100
56)	Hexachlorocyclopentadiene	10.05	237	49206	37.9600 ug/ml	99
57)	2,4,6-Trichlorophenol	10.12	196	109234	52.1156 ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	114231	52.4074 ug/ml	99
60)	Isosafrole	10.22	162	312465	107.7132 ug/ml	99
61)	2-Chloronaphthalene	10.34	162	347863	52.9702 ug/ml	100
62)	1-Chloronaphthalene	10.38	162	260858	43.0855 ug/ml	99
63)	2-Nitroaniline	10.44	65	95501	55.3094 ug/ml	99
64)	1,4-Naphthoquinone	10.50	158	138564	65.7308 ug/ml	100
65)	Dimethylphthalate	10.60	163	415632	57.4007 ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	70447	54.3163 ug/ml	100
67)	2,6-Dinitrotoluene	10.69	165	96486	55.0734 ug/ml	100
68)	Acenaphthylene	10.78	152	501746	49.9467 ug/ml	99
69)	3-Nitroaniline	10.85	138	99902	51.7447 ug/ml	100
70)	2,4-Dinitrophenol	10.95	184	40787	56.1283 ug/ml	53
71)	Acenaphthene	10.96	154	322606	49.9924 ug/ml	99
72)	4-Nitrophenol	10.97	65	30771	26.9851 ug/ml	89
73)	2,4-Dinitrotoluene	11.10	165	127745	56.7389 ug/ml	99
74)	Pentachlorobenzene	11.15	250	137953	48.9643 ug/ml	99
75)	Dibenzofuran	11.12	168	467201	50.4063 ug/ml	100
76)	2,3,5,6-Tetrachlorophenol	11.27	232	89032	53.1961 ug/ml	96
77)	2,3,4,6-Tetrachlorophenol	11.27	232	89025	49.0339 ug/ml	100
78)	1-Naphthylamine	11.19	143	196955	29.3980 ug/ml	98
79)	2-Naphthylamine	11.26	143	285836	41.7842 ug/ml	100
80)	Diethylphthalate	11.30	149	377230	53.3981 ug/ml	100
81)	Thionazin	11.40	107	63149	55.8953 ug/ml	99
82)	Fluorene	11.48	166	388679	51.3425 ug/ml	99
83)	4-Chlorophenyl Phenyl Ethe	11.42	204	176665	47.1728 ug/ml	99
84)	4-Nitroaniline	11.49	138	103997	52.1436 ug/ml	99
85)	5-Nitro-o-Toluidine	11.48	152	117892	52.8597 ug/ml	99
86)	1,2-Diphenylhydrazine	11.59	77	348004	53.7325 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.53	198	76822	58.9003 ug/ml	86
90)	Diphenylamine/n-Nitrosodip	11.55	169	639256	93.0219 ug/ml	99
91)	Sulfotepp	11.74	322	65906	52.1423 ug/ml	97
92)	Sym-Trinitrobenzene	11.83	75	65170	38.1545 ug/ml	99
93)	Diallate	11.87	86	248109	94.7241 ug/ml	88
94)	Phenacetin	11.86	108	195097	57.0225 ug/ml	95
95)	Phorate	11.89	75	214826	53.2437 ug/ml#	100
96)	4-Bromophenyl Phenyl Ether	11.96	248	107505	48.3420 ug/ml	100
97)	Hexachlorobenzene	12.18	284	116707	51.2588 ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71280.D Vial: 12
Acq On : 22 Apr 2019 4:35 pm Operator: SCB
Sample : L19041033-06 MSD RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:18:13 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

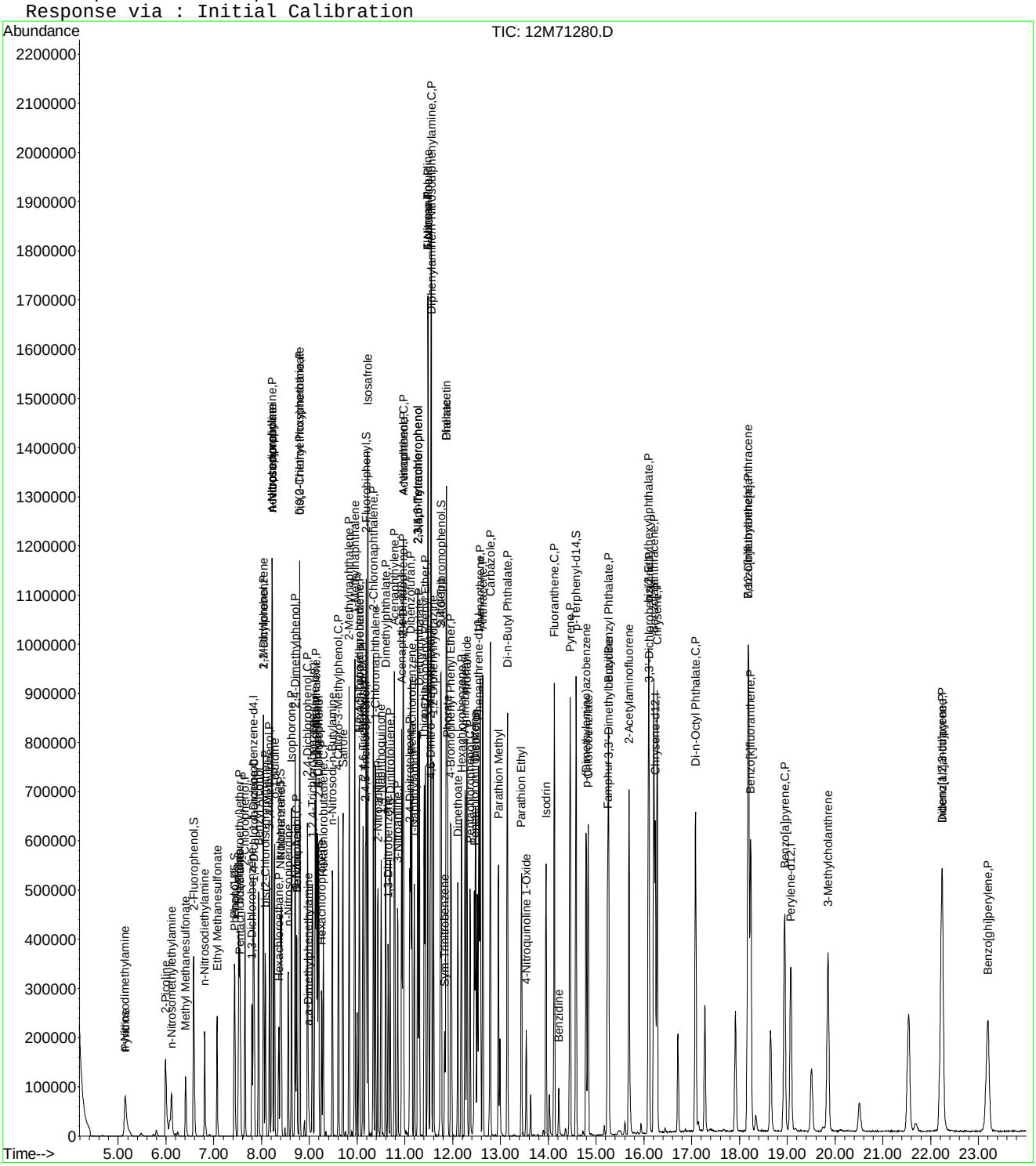
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98)	Dimethoate	12.11	87	141501	58.0944	ug/ml	94
99)	4-Aminobiphenyl	12.26	169	357729	42.6726	ug/ml	99
100)	Pentachlorophenol	12.36	266	79661	57.8002	ug/ml	99
101)	Pronamide	12.30	173	181196	54.3509	ug/ml	100
102)	Pentachloronitrobenzene	12.45	237	46595	54.6190	ug/ml	99
103)	Disulfoton	12.48	88	189568	53.6975	ug/ml	100
104)	Phenanthrene	12.58	178	540186	50.2866	ug/ml	100
105)	Anthracene	12.63	178	548971	49.7749	ug/ml	99
106)	Carbazole	12.79	167	566379	55.1489	ug/ml	100
107)	Parathion Methyl	12.96	109	127612	63.2250	ug/ml	98
108)	Di-n-Butyl Phthalate	13.14	149	641123	53.8868	ug/ml	100
109)	Parathion Ethyl	13.44	97	75330	56.7082	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.54	190	38717	44.1713	ug/ml	99
112)	Isodrin	13.95	193	60698	50.6209	ug/ml	97
113)	Fluoranthene	14.13	202	576674	48.5564	ug/ml	100
115)	Benzidine	14.22	184	76128	14.5194	ug/ml	100
116)	Pyrene	14.46	202	595102	49.7478	ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.79	225	132352	53.3078	ug/ml	99
120)	Chlorobenzilate	14.83	251	175907	51.0011	ug/ml	99
121)	Famphur	15.24	218	166363	260.8337	ug/ml#	76
122)	Butyl Benzyl Phthalate	15.26	149	280291	53.5774	ug/ml	99
123)	3,3'-Dimethylbenzidine	15.27	212	107791	8.0447	ug/ml#	95
124)	2-Acetylaminofluorene	15.69	181	251979	56.1004	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.10	149	390083	55.9484	ug/ml	99
126)	3,3'-Dichlorobenzidine	16.11	252	190975	49.2026	ug/ml	100
127)	Benzo[a]anthracene	16.21	228	541374	48.8886	ug/ml	100
128)	Chrysene	16.28	228	547492	51.8984	ug/ml	100
130)	Di-n-Octyl Phthalate	17.08	149	653799	54.2797	ug/ml	98
131)	7,12-Dimethylbenz[a]anthra	18.19	256	256492	49.1684	ug/ml	99
132)	Benzo[b]fluoranthene	18.19	252	542104	48.7076	ug/ml	100
133)	Benzo[k]fluoranthene	18.24	252	491230	50.1616	ug/ml	99
134)	Benzo[a]pyrene	18.95	252	487694	49.2561	ug/ml	99
135)	3-Methylcholanthrene	19.85	268	270528	51.5584	ug/ml	98
136)	Indeno[1,2,3-cd]pyrene	22.24	276	560077	50.4219	ug/ml	99
137)	Dibenz[ah]anthracene	22.24	278	488217	51.7574	ug/ml	100
138)	Benzo[ghi]perylene	23.20	276	451111	48.9118	ug/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71280.D Vial: 12
Acq On : 22 Apr 2019 4:35 pm Operator: SCB
Sample : L19041033-06 MSD RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:18 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71280.D Vial: 12
Acq On : 22 Apr 2019 4:35 pm Operator: SCB
Sample : L19041033-06 MSD RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:22:16 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

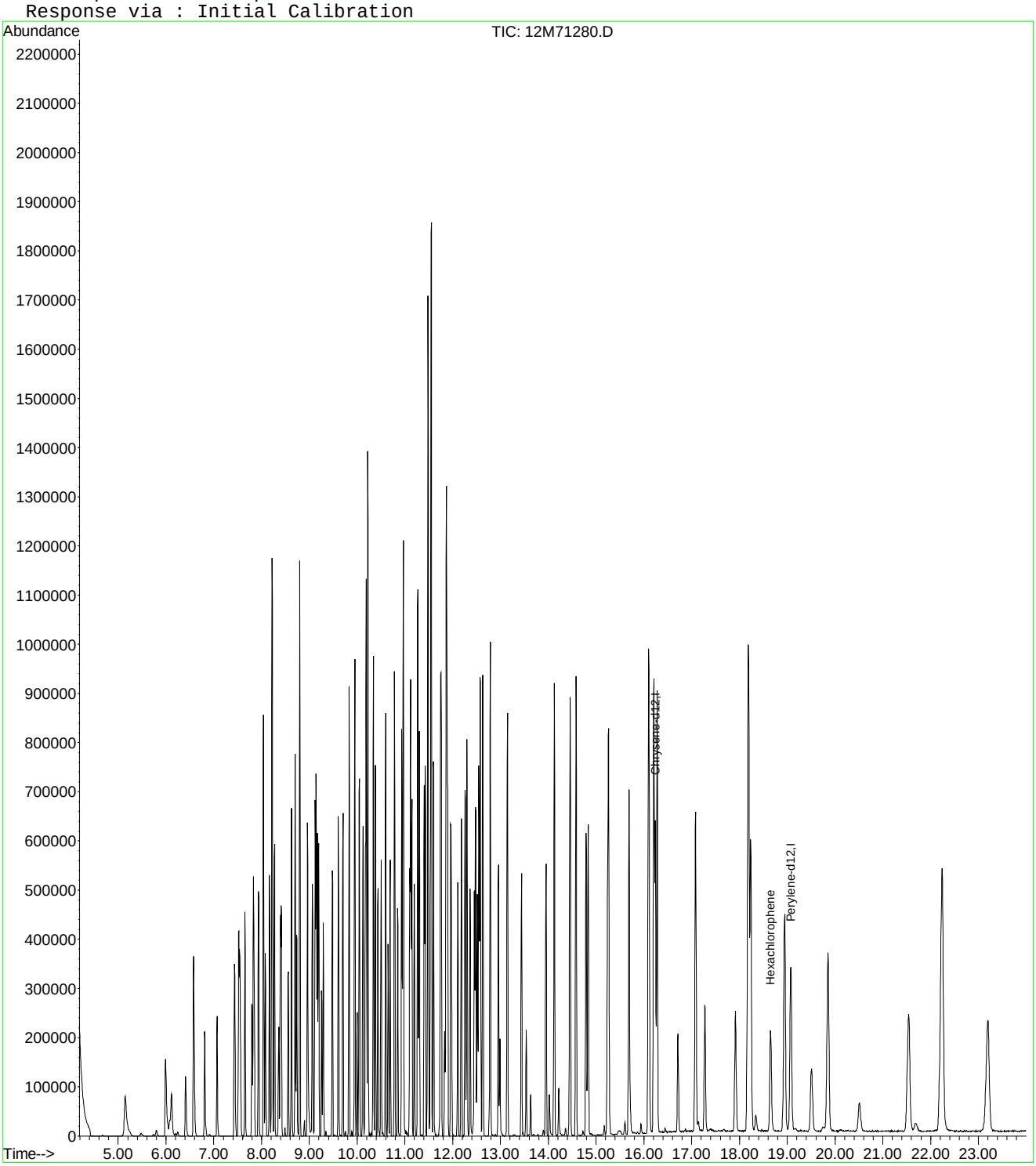
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.237	240	371041	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	362216	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	542	0.3088	ug/L #	5

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71280.D A9B.M Tue Apr 23 08:22:16 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71280.D Vial: 12
Acq On : 22 Apr 2019 4:35 pm Operator: SCB
Sample : L19041033-06 MSD RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:22 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007135.D Vial: 11
Acq On : 25 Apr 2019 6:49 pm Operator: SCB
Sample : L19041033-06 MSD Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:35 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	130732	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	520519	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.780	164	290104	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.374	188	478632	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.033	240	396929	40.0000	ug/mL	0.0000
129) Perylene-d12	18.715	264	345093	40.0000	ug/mL	0.0116
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	242286	54.3971	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 54.3971%			
12) Phenol-d5	7.287	99	210045	36.8079	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 36.8079%			
31) Nitrobenzene-d5	8.245	82	283634	52.5752	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 105.1504%			
59) 2-Fluorobiphenyl	10.045	172	508495	52.2212	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 104.4424%			
87) 2,4,6-Tribromophenol	11.604	330	125210	109.2252	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 109.2252%			
118) p-Terphenyl-d14	14.392	244	392375	41.2603	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 82.5206%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.493	88	4430	2.0854	ug/mL	96
3) n-Nitrosodimethylamine	4.957	74	90789	28.8302	ug/mL	98
4) Pyridine	4.981	79	98121	18.3170	ug/mL	97
11) Aniline	7.375	66	102785	32.4748	ug/mL	94
13) Phenol	7.304	94	117276	19.4072	ug/mL	96
14) bis(2-Chloroethyl)ether	7.398	63	212161	50.1914	ug/mL	84
16) 2-Chlorophenol	7.504	128	208522	43.6549	ug/mL	98
17) 1,3-Dichlorobenzene	7.651	146	174234	35.2026	ug/mL	100
18) 1,4-Dichlorobenzene	7.698	146	179816	35.7284	ug/mL	99
19) Benzyl Alcohol	7.792	108	142003	46.5025	ug/mL	97
20) 1,2-Dichlorobenzene	7.892	146	175653	37.8020	ug/mL	99
21) 2-Methylphenol	7.892	107	152336	41.9138	ug/mL	99
22) bis(2-Chloroisopropyl)...	7.934	45	417296	52.2086	ug/mL	99
23) 3-,4-Methylphenol	8.022	107	183176	38.8630	ug/mL	99
25) n-Nitrosodipropylamine	8.069	70	203344	54.8444	ug/mL#	58
26) Acetophenone	8.075	105	319938	51.2793	ug/mL	99
27) n-Nitrosomorpholine	8.069	56	15500	4.4770	ug/mL#	50
28) o-Toluidine	8.075	106	24310	3.3662	ug/mL#	1
29) Hexachloroethane	8.210	117	75070	37.0397	ug/mL	99
32) Nitrobenzene	8.263	77	296059	53.1466	ug/mL	98
34) Isophorone	8.481	82	567840	58.4262	ug/mL	100
35) 2-Nitrophenol	8.586	139	125208	52.2742	ug/mL	98
36) 2,4-Dimethylphenol	8.557	122	201126	47.4856	ug/mL	97
38) bis(2-Chloroethoxy)met...	8.657	93	333237	45.8922	ug/mL	88
39) Benzoic Acid	8.598	105	52361	25.9075	ug/mL	76
40) 2,4-Dichlorophenol	8.816	162	181725	51.3440	ug/mL	99
42) 1,2,4-Trichlorobenzene	8.916	180	161035	42.5549	ug/mL	99
43) Naphthalene	8.992	128	636624	44.4997	ug/mL#	99
44) 4-Chloroaniline	9.022	65	93133	44.9857	ug/mL	68
47) Hexachlorobutadiene	9.145	225	93143	44.8338	ug/mL	99
49) p-Phenylenediamine	9.463	108	16655	4.1350	ug/mL#	1
50) 4-Chloro-3-Methylphenol	9.463	107	213306	53.0719	ug/mL	99

Data File : C:\msdchem\4\DATA\042519\19M007135.D Vial: 11
Acq On : 25 Apr 2019 6:49 pm Operator: SCB
Sample : L19041033-06 MSD Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:35 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
52)	2-Methylnaphthalene	9.680	142	435397	47.9446 ug/mL	99
53)	1-Methylnaphthalene	9.798	142	441899	51.7561 ug/mL	99
56)	Hexachlorocyclopentadiene	9.904	237	73726	39.4978 ug/mL	100
57)	2,4,6-Trichlorophenol	9.975	196	137451	54.2071 ug/mL	100
58)	2,4,5-Trichlorophenol	10.022	196	142684	54.3146 ug/mL	99
60)	Isosafrole	9.992	162	31890	8.7275 ug/mL#	35
61)	2-Chloronaphthalene	10.186	162	423753	49.9315 ug/mL	98
62)	1-Chloronaphthalene	10.186	162	423753	53.0881 ug/mL	99
63)	2-Nitroaniline	10.286	65	183137	57.2807 ug/mL	100
65)	Dimethylphthalate	10.451	163	554261	58.6100 ug/mL	100
66)	1,3-Dinitrobenzene	10.504	168	90328	55.9098 ug/mL	96
67)	2,6-Dinitrotoluene	10.545	165	130347	58.4214 ug/mL	97
68)	Acenaphthylene	10.633	152	719490	53.3169 ug/mL	100
69)	3-Nitroaniline	10.704	138	130134	52.0393 ug/mL	99
70)	2,4-Dinitrophenol	10.804	184	51452	61.8480 ug/mL	65
71)	Acenaphthene	10.816	154	477855	56.6600 ug/mL	100
72)	4-Nitrophenol	10.816	65	58564	24.9406 ug/mL	94
73)	2,4-Dinitrotoluene	10.951	165	172943	59.2186 ug/mL	97
75)	Dibenzofuran	10.969	168	632013	52.5926 ug/mL	99
76)	2,3,5,6-Tetrachlorophenol	11.075	232	115929	56.0025 ug/mL	98
77)	2,3,4,6-Tetrachlorophenol	11.122	232	113469	51.9720 ug/mL	98
80)	Diethylphthalate	11.157	149	589292	60.7856 ug/mL	99
82)	Fluorene	11.327	166	552512	56.7802 ug/mL	99
83)	4-Chlorophenyl Phenyl ...	11.280	204	251461	56.3955 ug/mL	99
84)	4-Nitroaniline	11.333	138	140870	53.8178 ug/mL	95
85)	5-Nitro-o-Toluidine	11.380	152	5604	1.9442 ug/mL#	1
86)	1,2-Diphenylhydrazine	11.445	77	671669	59.1857 ug/mL	98
89)	4,6-Dinitro-2-Methylph...	11.380	198	84403	64.0906 ug/mL	95
90)	Diphenylamine/n-Nitros...	11.398	169	472439	56.2497 ug/mL	100
92)	Sym-Trinitrobenzene	11.804	75	33989	12.0847 ug/mL#	70
94)	Phenacetin	12.016	108	14543	2.8780 ug/mL#	52
95)	Phorate	11.804	75	33989	5.0338 ug/mL#	45
96)	4-Bromophenyl Phenyl E...	11.804	248	141825	56.2346 ug/mL	96
97)	Hexachlorobenzene	12.016	284	137391	53.7374 ug/mL	97
100)	Pentachlorophenol	12.198	266	91977	58.5678 ug/mL	100
102)	Pentachloronitrobenzene	12.198	237	3592	3.2737 ug/mL#	16
103)	Disulfoton	12.404	88	60761	11.3270 ug/mL#	9
104)	Phenanthrene	12.404	178	751649	55.6857 ug/mL	100
105)	Anthracene	12.457	178	766418	55.4629 ug/mL	100
106)	Carbazole	12.610	167	707921	55.0273 ug/mL	100
108)	Di-n-Butyl Phthalate	12.974	149	977376	60.6859 ug/mL	99
113)	Fluoranthene	13.933	202	782349	53.5708 ug/mL	99
115)	Benzidine	14.033	184	37078	5.6959 ug/mL	100
116)	Pyrene	14.263	202	803566	59.3026 ug/mL	99
122)	Butyl Benzyl Phthalate	15.068	149	434741	65.6233 ug/mL	98
123)	3,3'-Dimethylbenzidine	15.092	212	4783	Below Cal #	1
125)	bis(2-Ethylhexyl)phtha...	15.915	149	596939	69.7123 ug/mL	100
126)	3,3'-Dichlorobenzidine	15.915	252	224154	55.2274 ug/mL	99
127)	Benzo[a]anthracene	16.004	228	678171	57.1125 ug/mL	100
128)	Chrysene	16.074	228	654808	58.1989 ug/mL	99
130)	Di-n-Octyl Phthalate	16.862	149	1010934	73.4522 ug/mL	99
132)	Benzo[b]fluoranthene	17.874	252	622934	57.6922 ug/mL	93
133)	Benzo[k]fluoranthene	17.921	252	520103	53.0472 ug/mL	96
134)	Benzo[a]pyrene	18.592	252	517594	54.7598 ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	21.668	276	539174	58.2201 ug/mL	99

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007135.D Vial: 11
Acq On : 25 Apr 2019 6:49 pm Operator: SCB
Sample : L19041033-06 MSD Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:35 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

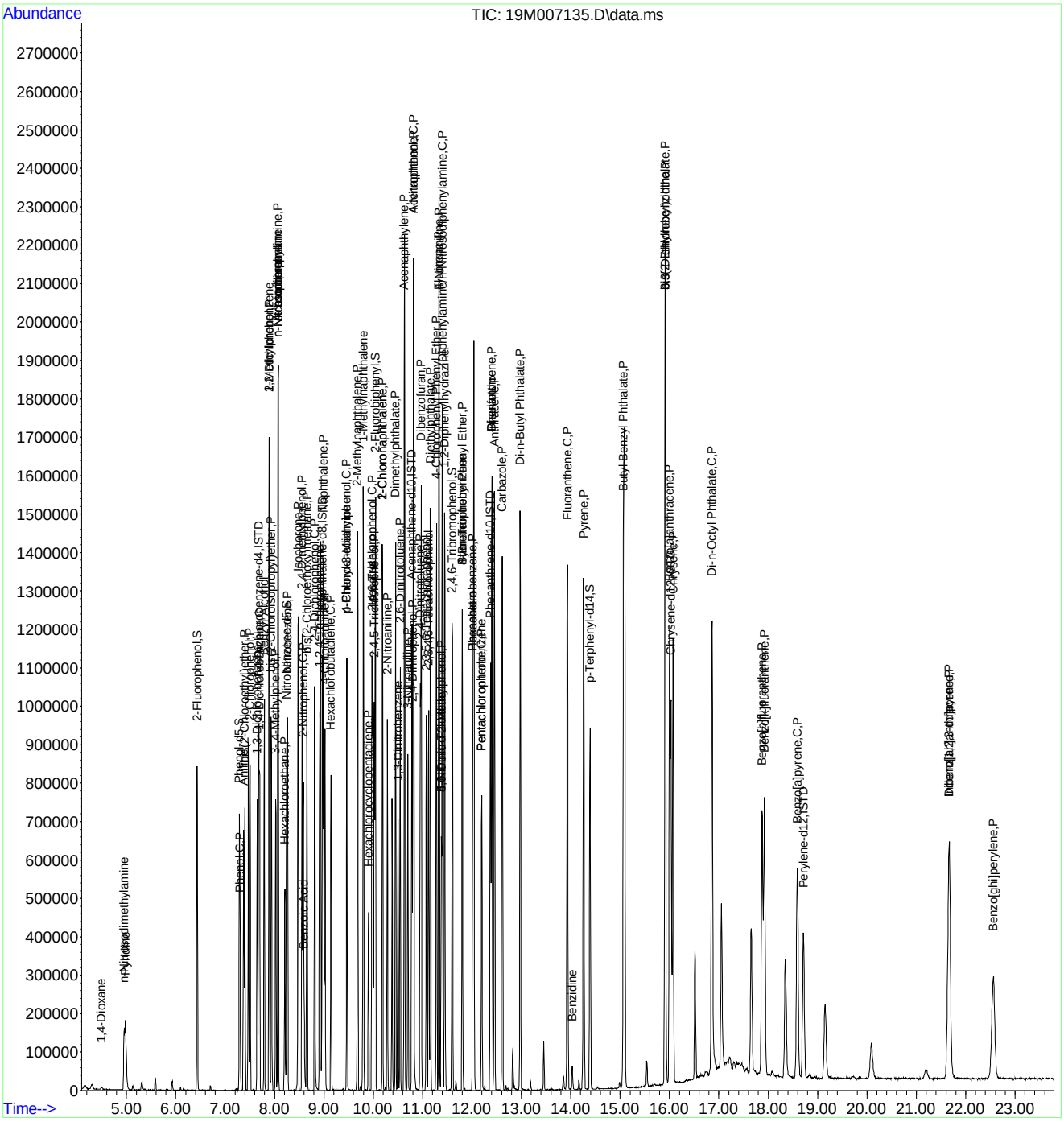
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
137) Dibenz[ah]anthracene	21.668	278	469878	60.0074 ug/mL	99
138) Benzo[ghi]perylene	22.562	276	447982	59.5227 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007135.D Vial: 11
Acq On : 25 Apr 2019 6:49 pm Operator: SCB
Sample : L19041033-06 MSD Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:35 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007135.D Vial: 11
Acq On : 25 Apr 2019 6:49 pm Operator: SCB
Sample : L19041033-06 MSD Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:17 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

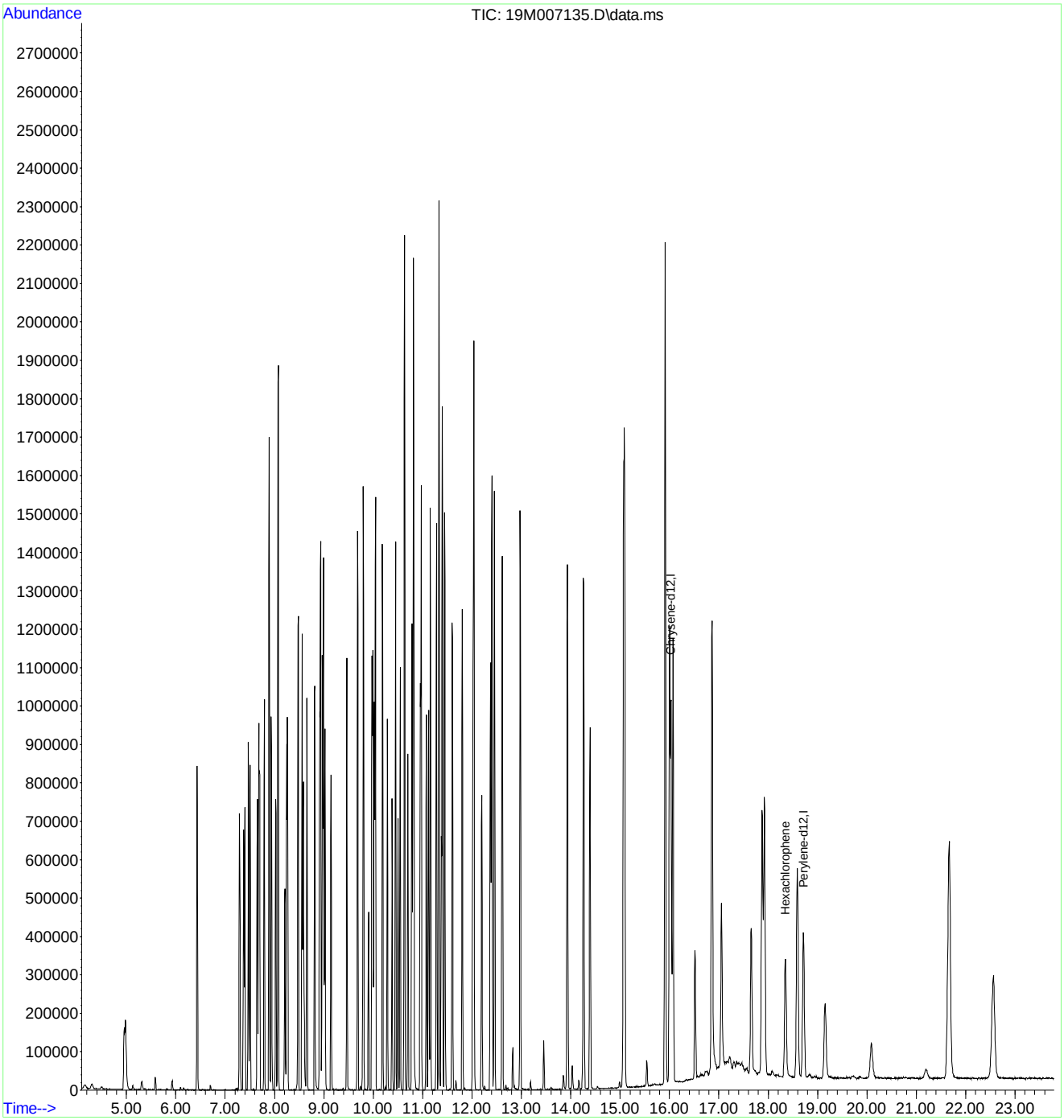
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.033	240	396929	40.0000	ug/mL	-0.0119
3) Perylene-d12	18.715	264	345093	40.0000	ug/mL	-0.0236
Target Compounds						Qvalue
4) Hexachlorophene	18.351	196	770	0.2128	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007135.D Vial: 11
Acq On : 25 Apr 2019 6:49 pm Operator: SCB
Sample : L19041033-06 MSD Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:17 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71281.D Vial: 13
Acq On : 22 Apr 2019 5:07 pm Operator: SCB
Sample : L19041033-07 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:21 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

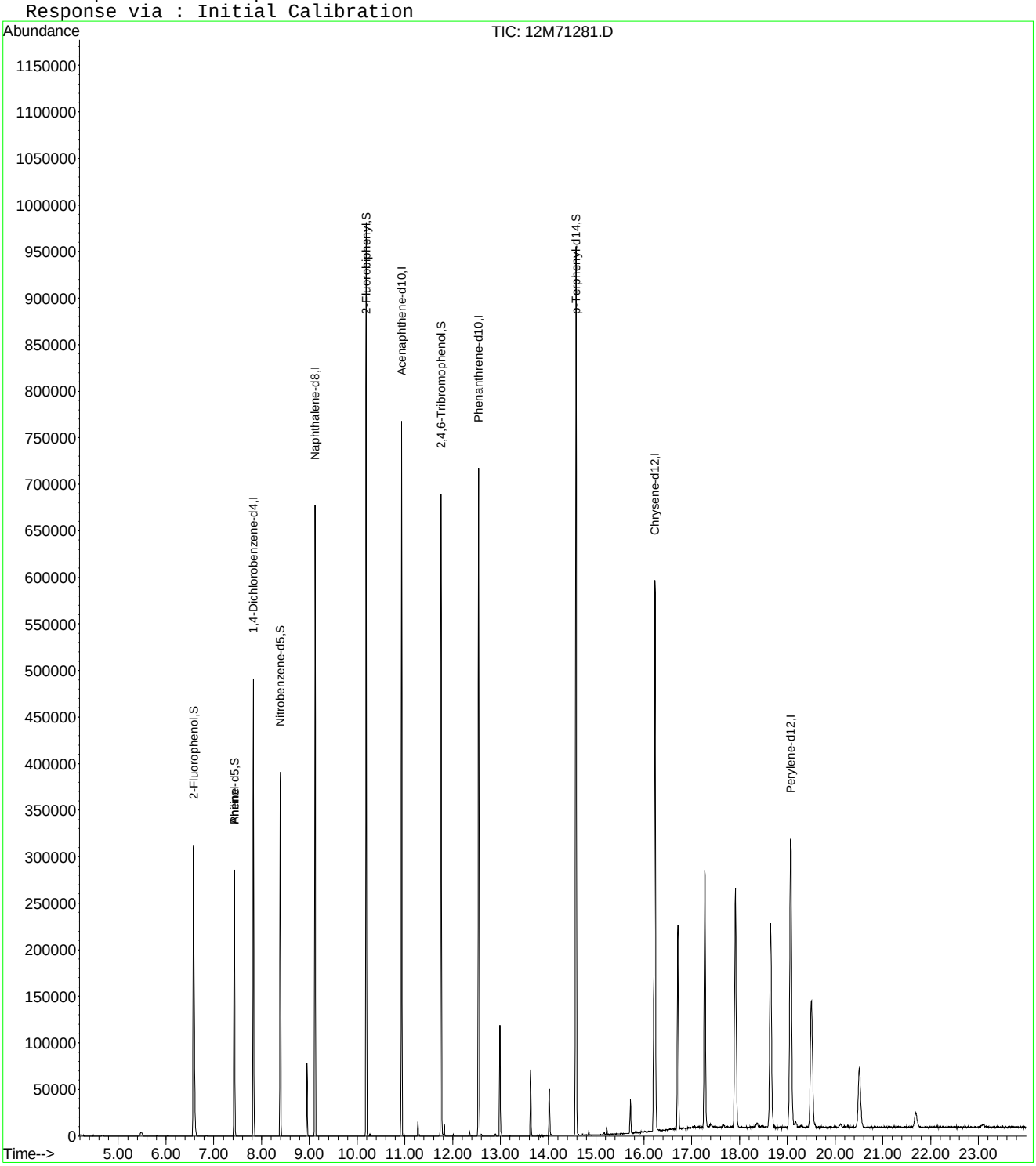
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	103481	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	372547	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	219328	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	371320	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	360549	40.0000	ug/ml	-0.027
129) Perylene-d12	19.074	264	351265	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.579	112	170760	53.8718798	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 53.87%			
12) Phenol-d5	7.428	99	137186	35.9586425	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 35.96%			
31) Nitrobenzene-d5	8.395	82	147517	47.0300030	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 94.06%			
59) 2-Fluorobiphenyl	10.190	172	362583	49.2550423	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 98.51%			
87) 2,4,6-Tribromophenol	11.755	330	101077	104.9229640	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 104.92%			
118) p-Terphenyl-d14	14.581	244	440121	50.8225385	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 101.64%			
Target Compounds						Qvalue
11) Aniline	7.43	66	5771	3.2728	ug/ml#	1

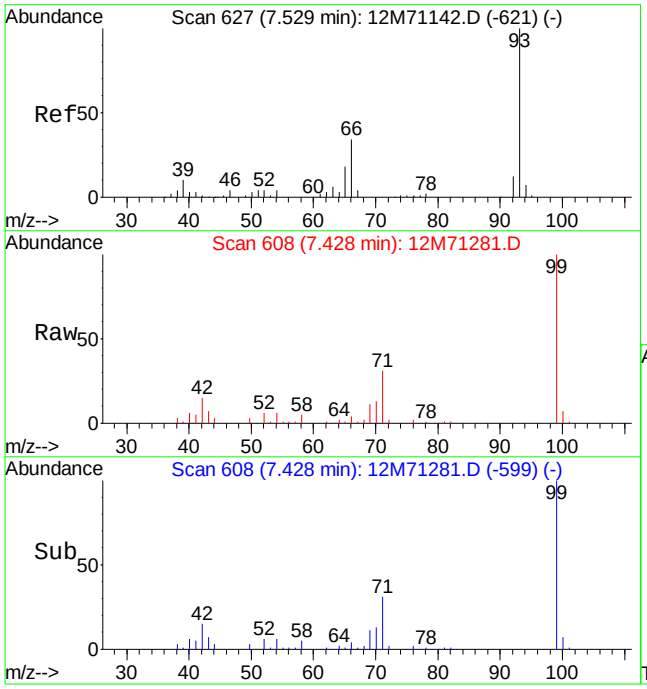
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71281.D MEGAMIX.M Tue Apr 23 08:29:22 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71281.D Vial: 13
Acq On : 22 Apr 2019 5:07 pm Operator: SCB
Sample : L19041033-07 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

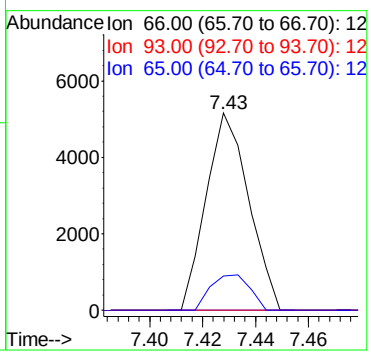




#11
Aniline
Concen: 3.2728 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71281.D
Acq: 22 Apr 2019 5:07 pm

Tgt Ion: 66 Resp: 5771

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	16.5	52.9	123.5#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71281.D Vial: 13
Acq On : 22 Apr 2019 5:07 pm Operator: SCB
Sample : L19041033-07 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:47 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

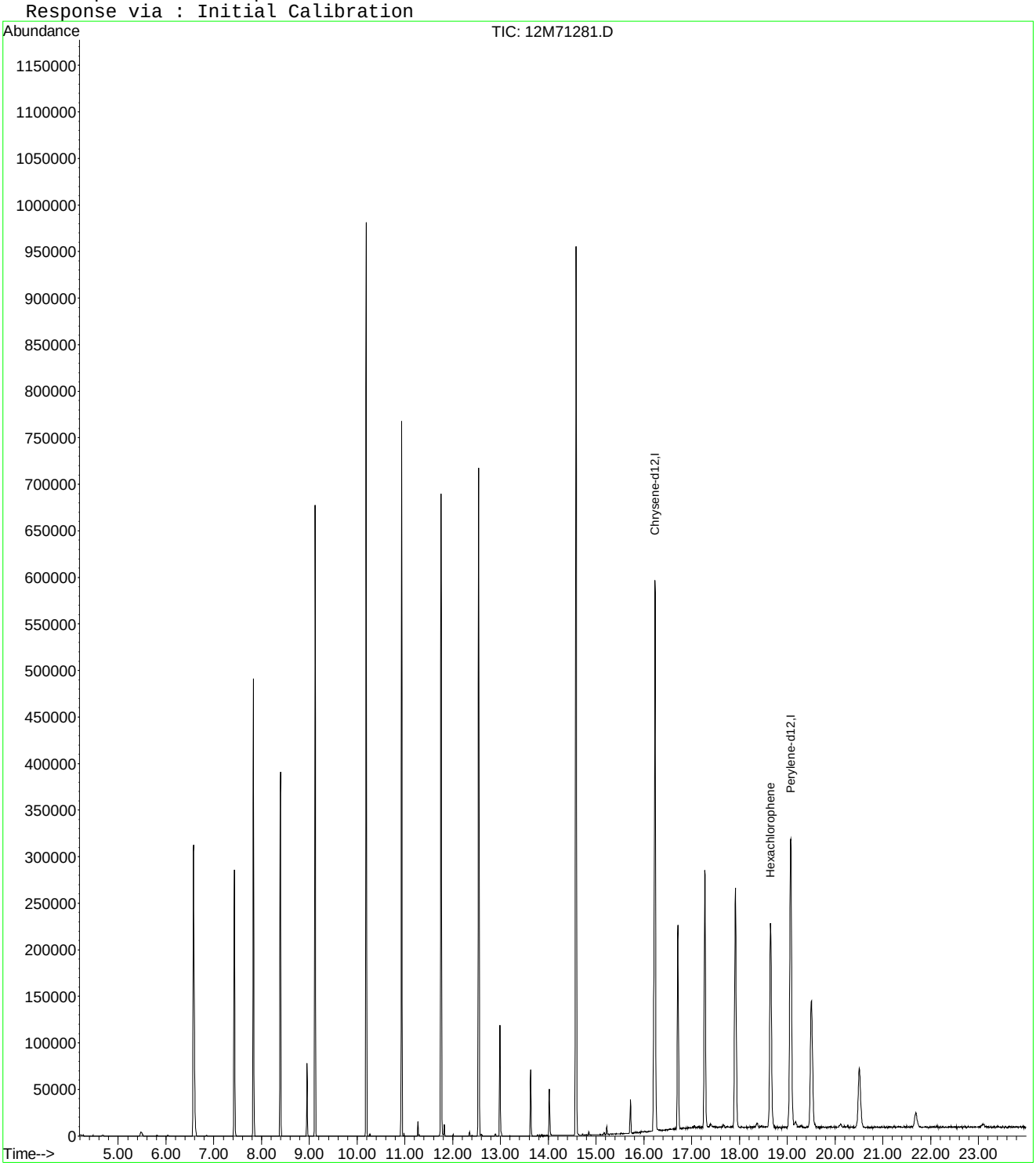
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	360549	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	351277	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	562	0.3302	ug/L #	1

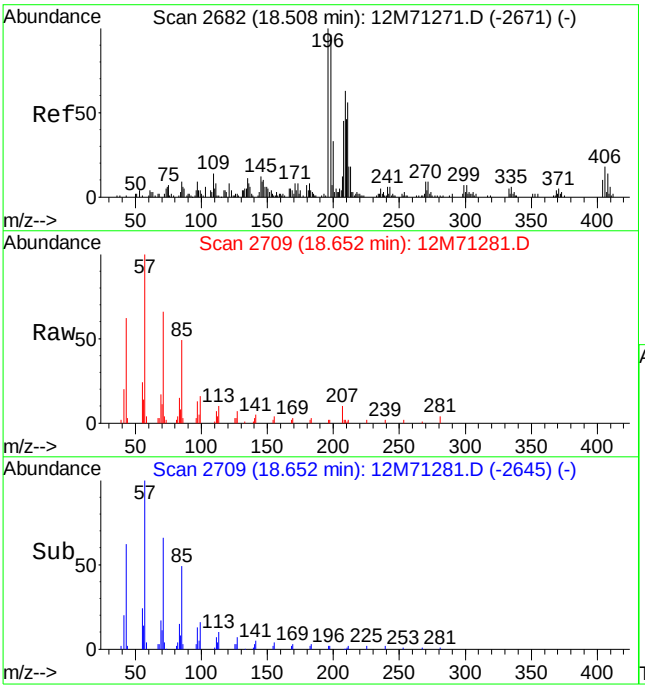
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71281.D A9B.M Tue Apr 23 08:20:47 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71281.D Vial: 13
Acq On : 22 Apr 2019 5:07 pm Operator: SCB
Sample : L19041033-07 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration

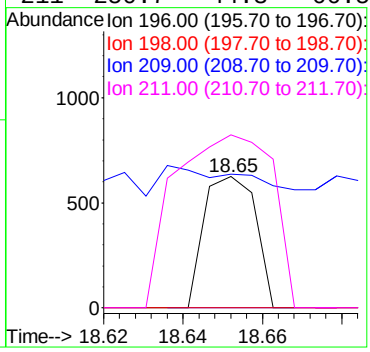




#4
Hexachlorophene
Concen: 0.3302 ug/L
RT: 18.65 min Scan# 2709
Delta R.T. 0.14 min
Lab File: 12M71281.D
Acq: 22 Apr 2019 5:07 pm

Tgt Ion:196 Resp: 562

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	0.0	49.8	74.8#
211	250.7	44.3	66.5#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007136.D Vial: 12
Acq On : 25 Apr 2019 7:20 pm Operator: SCB
Sample : L19041033-07 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:40 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

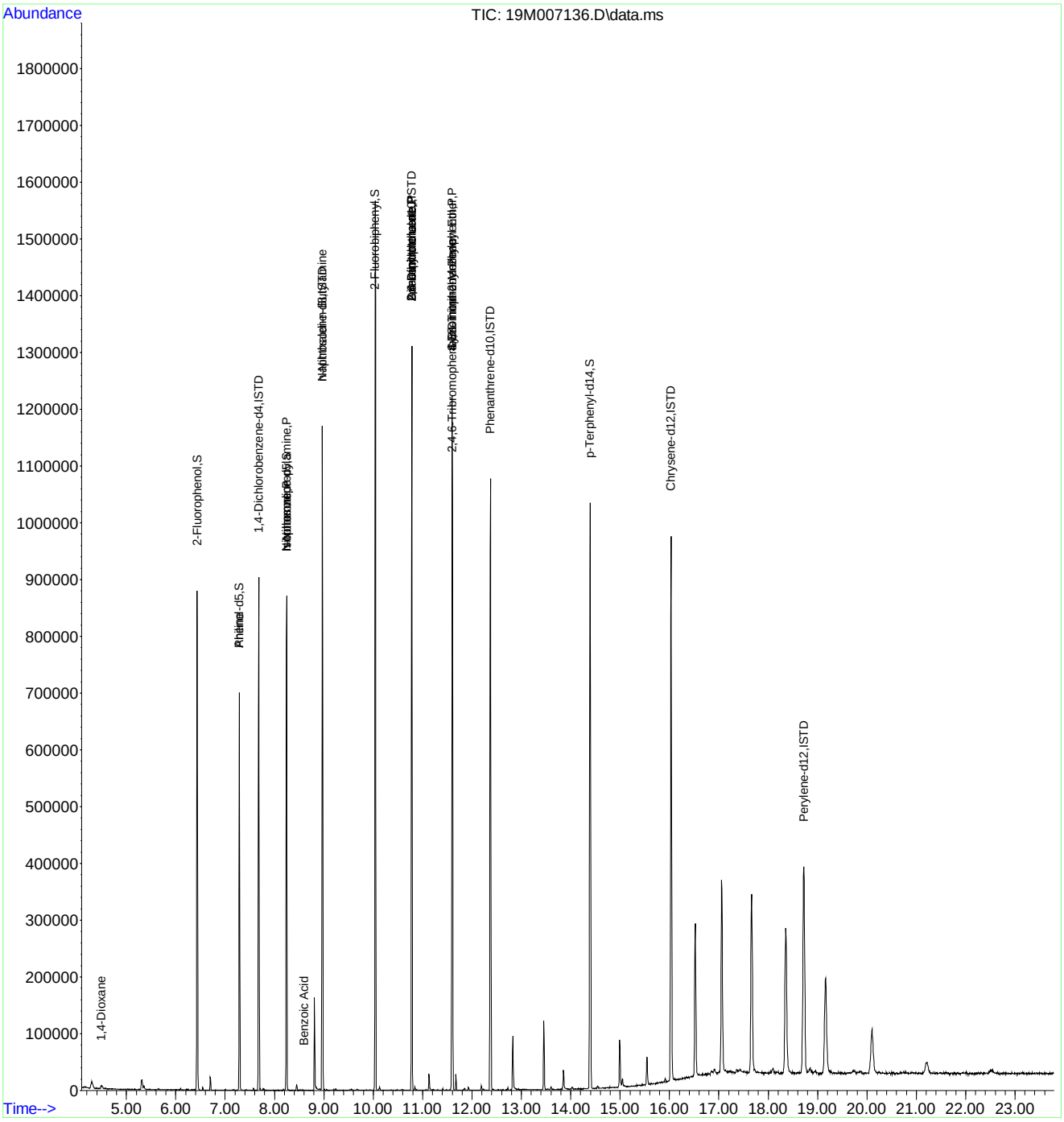
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	130778	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	524177	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.781	164	293215	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.375	188	479554	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.033	240	401239	40.0000	ug/mL	0.0000
129) Perylene-d12	18.721	264	340443	40.0000	ug/mL	0.0177
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	254263	57.0661	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 57.0661%			
12) Phenol-d5	7.287	99	221408	38.7854	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 38.7854%			
31) Nitrobenzene-d5	8.245	82	287574	52.9335	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 105.8670%			
59) 2-Fluorobiphenyl	10.039	172	506570	51.4715	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 102.9430%			
87) 2,4,6-Tribromophenol	11.604	330	118894	102.6151	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 102.6151%			
118) p-Terphenyl-d14	14.392	244	430774	44.8115	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 89.6230%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.493	88	4599	2.1642	ug/mL	93
11) Aniline	7.287	66	13915	4.3949	ug/mL#	1
25) n-Nitrosodipropylamine	8.245	70	41682	11.2382	ug/mL#	40
34) Isophorone	8.245	82	287574	29.3826	ug/mL#	66
39) Benzoic Acid	8.598	105	369	6.5907	ug/mL#	49
48) n-Nitrosodi-n-Butylamine	8.969	84	15415	3.5586	ug/mL#	11
65) Dimethylphthalate	10.781	163	62777	6.5679	ug/mL#	1
67) 2,6-Dinitrotoluene	10.781	165	37985	16.8442	ug/mL#	16
73) 2,4-Dinitrotoluene	10.781	165	37985	12.8687	ug/mL#	4
89) 4,6-Dinitro-2-Methylph...	11.598	198	363	7.0843	ug/mL#	1
92) Sym-Trinitrobenzene	11.598	75	762	2.1907	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	8093	3.2028	ug/mL#	1

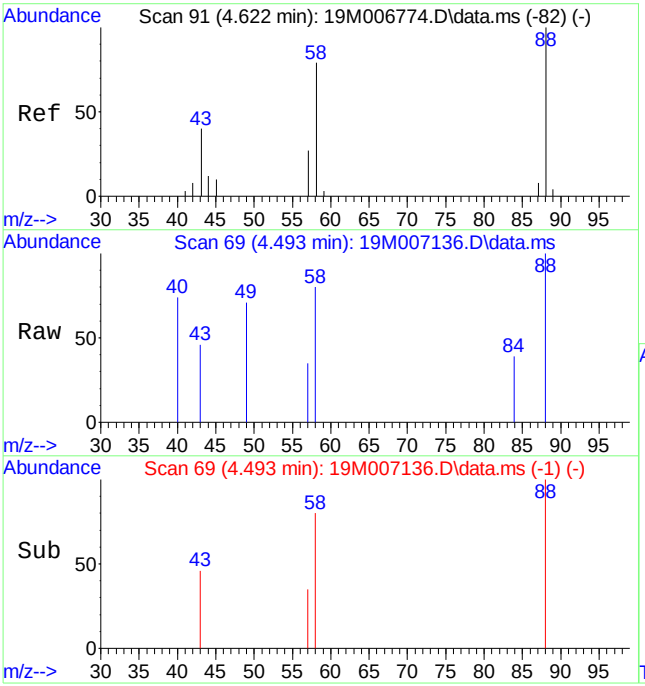
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007136.D Vial: 12
Acq On : 25 Apr 2019 7:20 pm Operator: SCB
Sample : L19041033-07 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:40 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

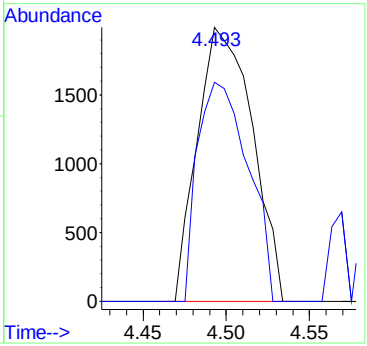


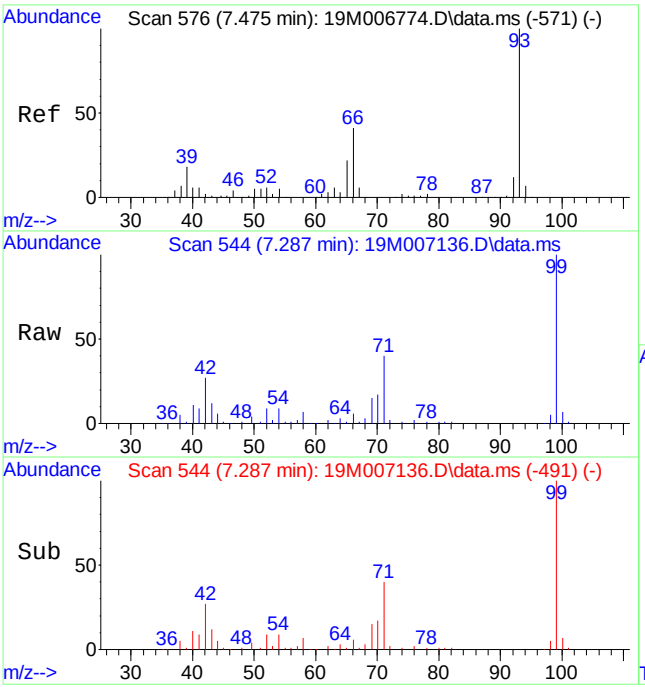


#2
1,4-Dioxane
Concen: 2.1642 ug/mL
RT: 4.493 min Scan# 69
Delta R.T. 0.006 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion: 88 Resp: 4599

Ion	Ratio	Lower	Upper
88	100		
58	73.6	56.0	104.0

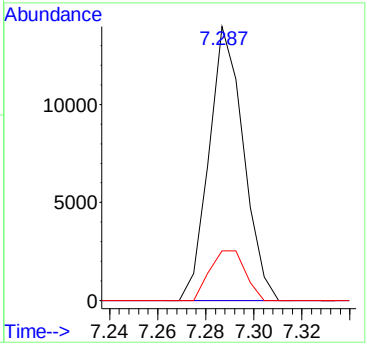


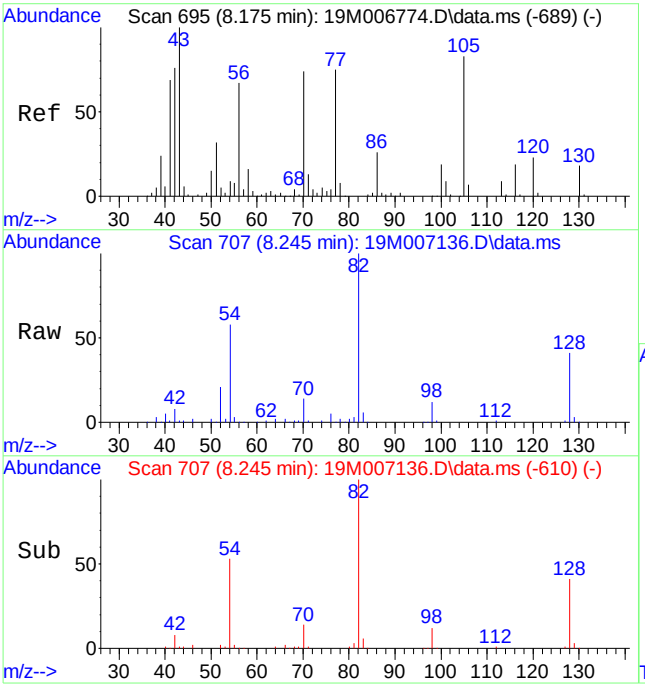


#11
Aniline
Concen: 4.3949 ug/mL
RT: 7.287 min Scan# 544
Delta R.T. -0.088 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion: 66 Resp: 13915

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	18.6	41.4	77.0#

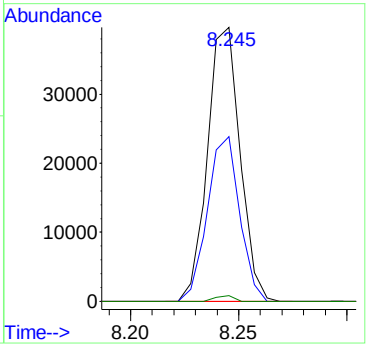


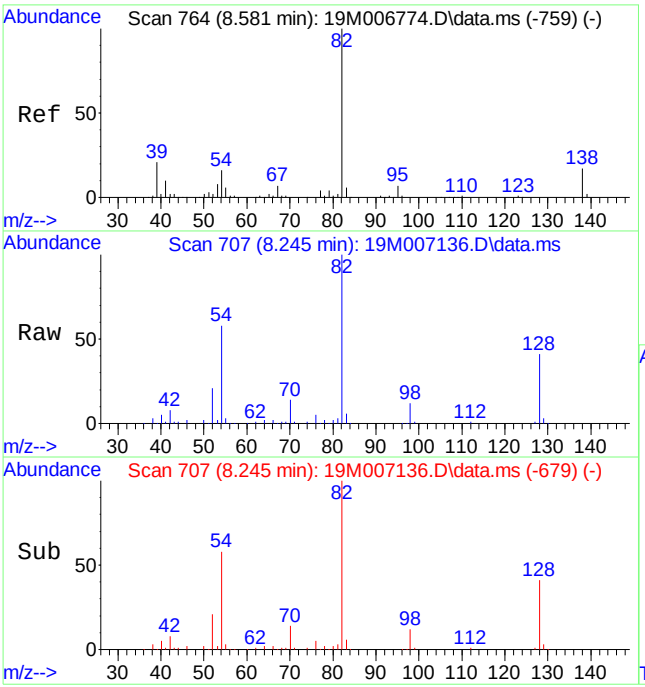


#25
n-Nitrosodipropylamine
Concen: 11.2382 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. 0.171 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion: 70 Resp: 41682

Ion	Ratio	Lower	Upper
70	100		
42	59.3	95.8	178.0#
101	0.0	9.6	17.8#
130	1.2	16.4	30.4#

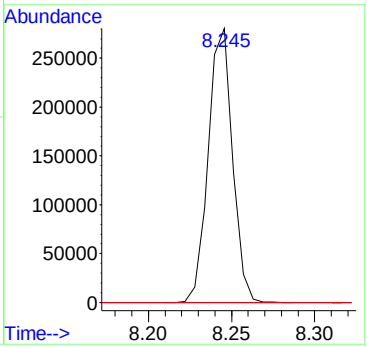


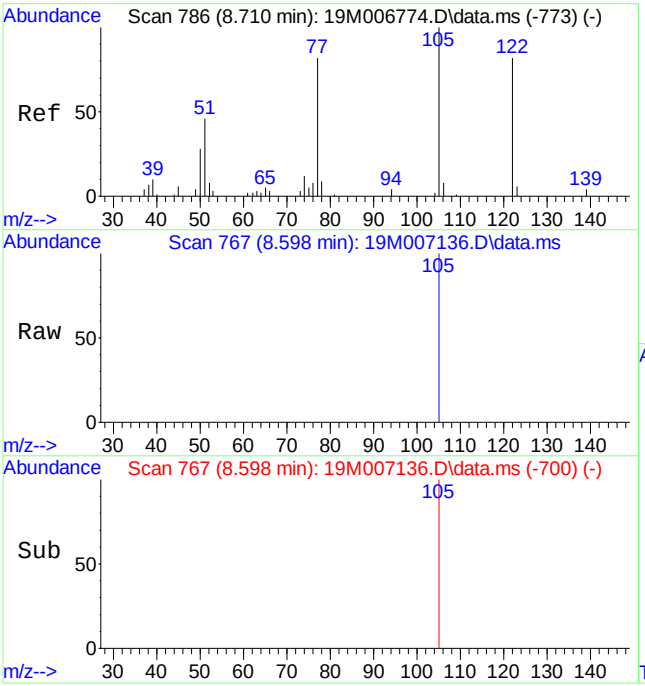


#34
Isophorone
Concen: 29.3826 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion: 82 Resp: 287574

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

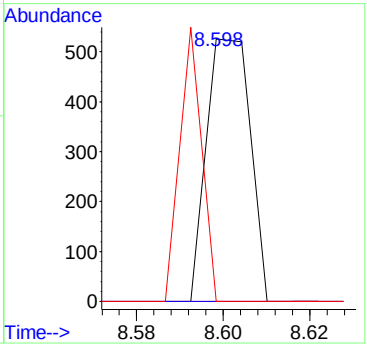


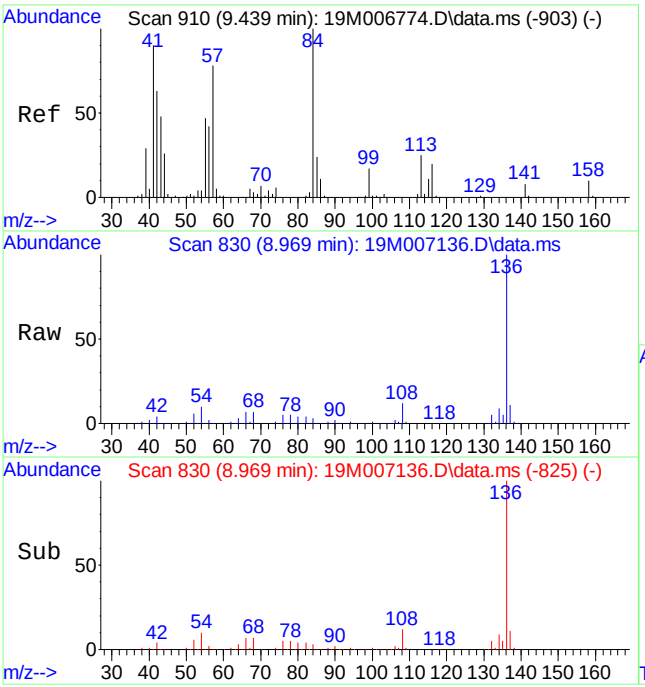


#39
Benzoic Acid
Concen: 6.5907 ug/mL
RT: 8.598 min Scan# 767
Delta R.T. -0.006 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:105 Resp: 369

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.5	86.3#
77	52.6	47.8	88.8

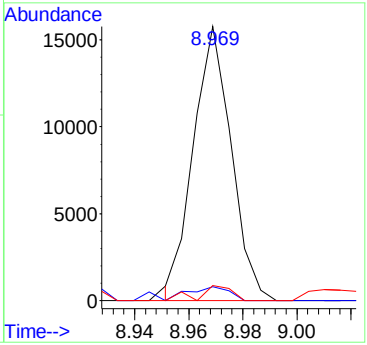


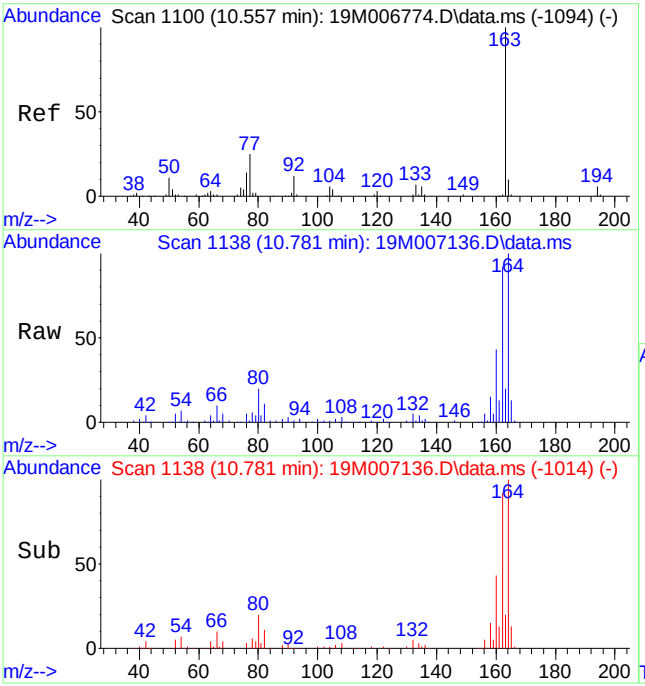


#48
n-Nitrosodi-n-Butylamine
Concen: 3.5586 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. -0.370 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion: 84 Resp: 15415

Ion	Ratio	Lower	Upper
84	100		
57	5.4	51.9	96.5#
41	4.7	68.9	127.9#

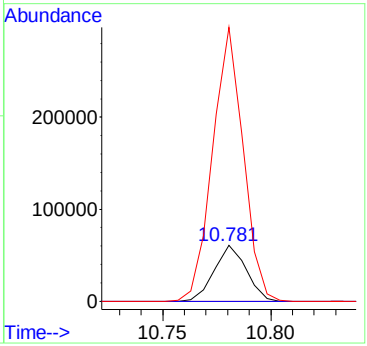


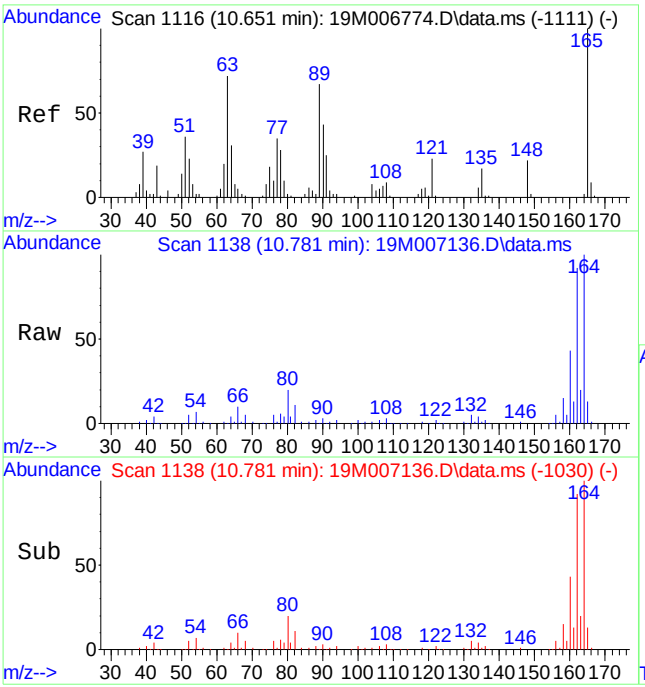


#65
Dimethylphthalate
Concen: 6.5679 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.329 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:163 Resp: 62777

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	467.1	7.2	13.4#

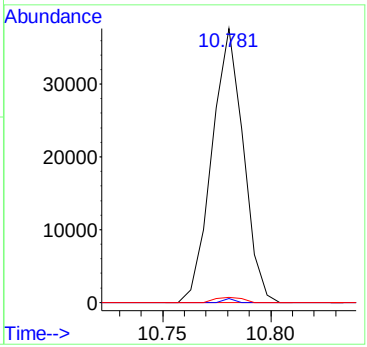


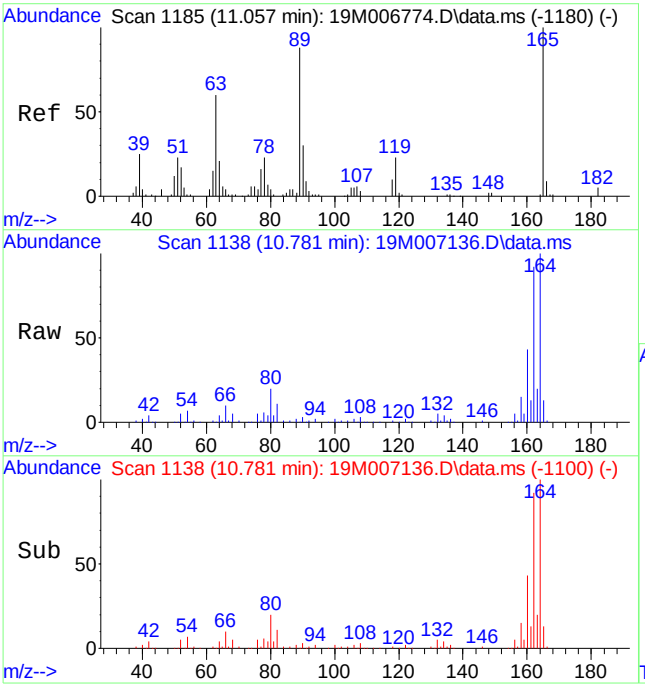


#67
2,6-Dinitrotoluene
Concen: 16.8442 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:165 Resp: 37985

Ion	Ratio	Lower	Upper
165	100		
63	0.5	50.8	94.4#
89	1.6	47.1	87.5#

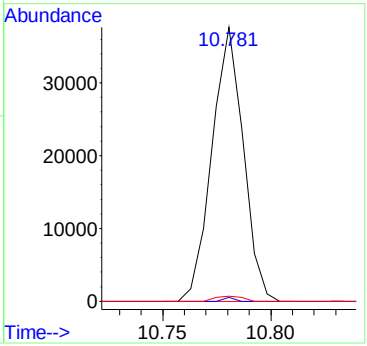


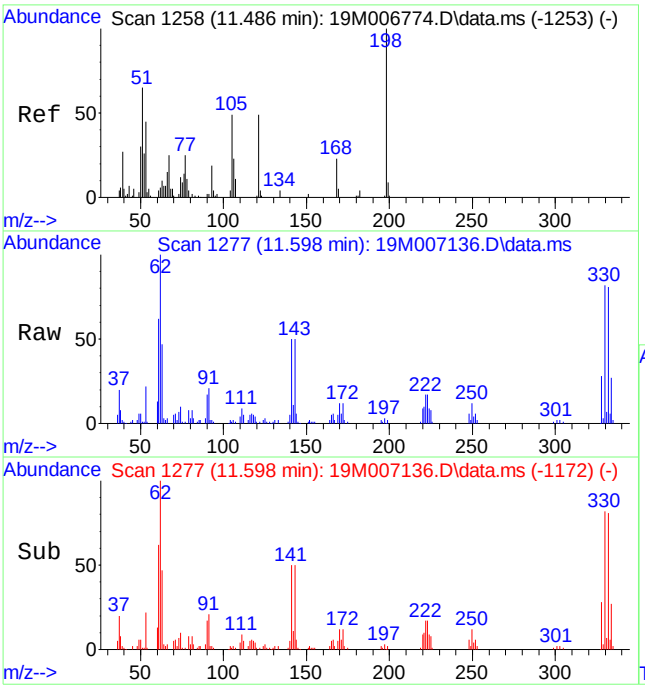


#73
2,4-Dinitrotoluene
Concen: 12.8687 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. -0.176 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:165 Resp: 37985

Ion	Ratio	Lower	Upper
165	100		
63	0.5	58.0	107.8#
89	1.6	71.3	132.5#

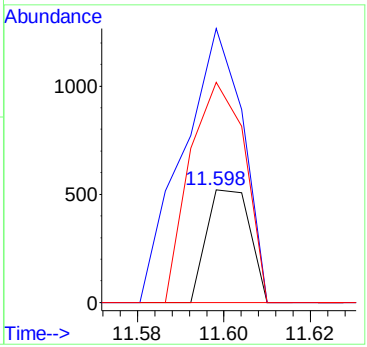


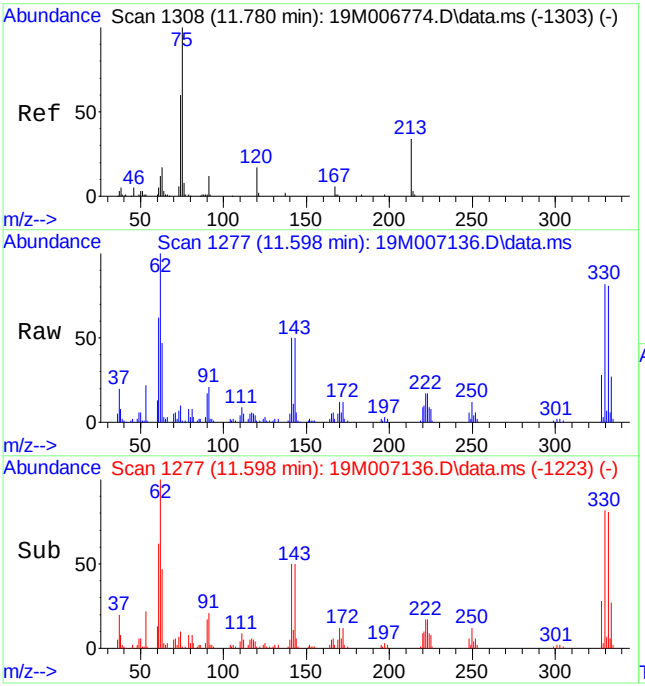


#89
4,6-Dinitro-2-Methylphenol
Concen: 7.0843 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. 0.218 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:198 Resp: 363

Ion	Ratio	Lower	Upper
198	100		
51	335.3	132.7	246.5#
105	247.4	34.6	64.3#

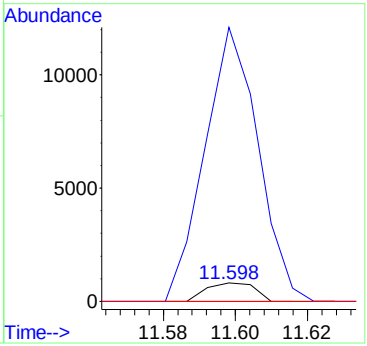


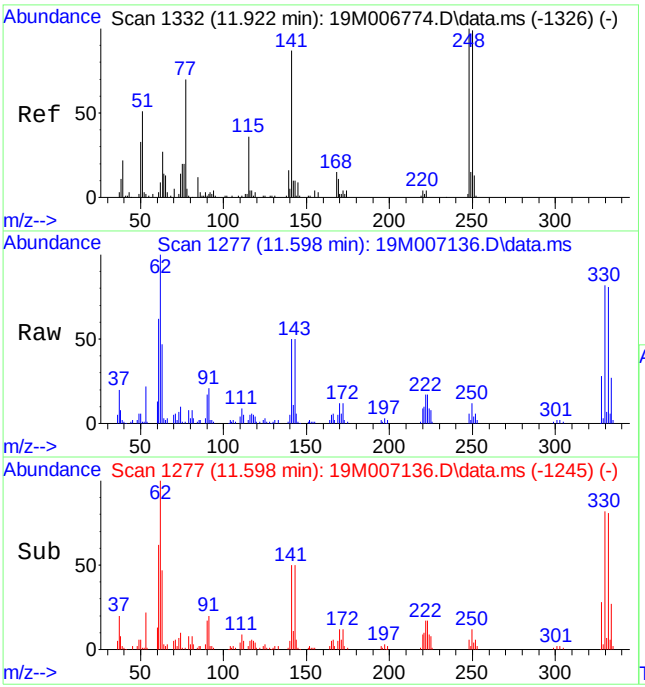


#92
Sym-Trinitrobenzene
Concen: 2.1907 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.082 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion: 75 Resp: 762

Ion	Ratio	Lower	Upper
75	100		
74	1636.6	41.6	77.3#
213	0.0	25.1	46.5#

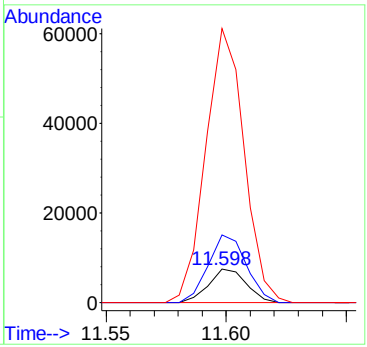




#96
4-Bromophenyl Phenyl Ether
Concen: 3.2028 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:248 Resp: 8093

Ion	Ratio	Lower	Upper
248	100		
250	204.8	68.1	126.5#
141	835.5	62.4	116.0#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007136.D Vial: 12
Acq On : 25 Apr 2019 7:20 pm Operator: SCB
Sample : L19041033-07 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:34 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

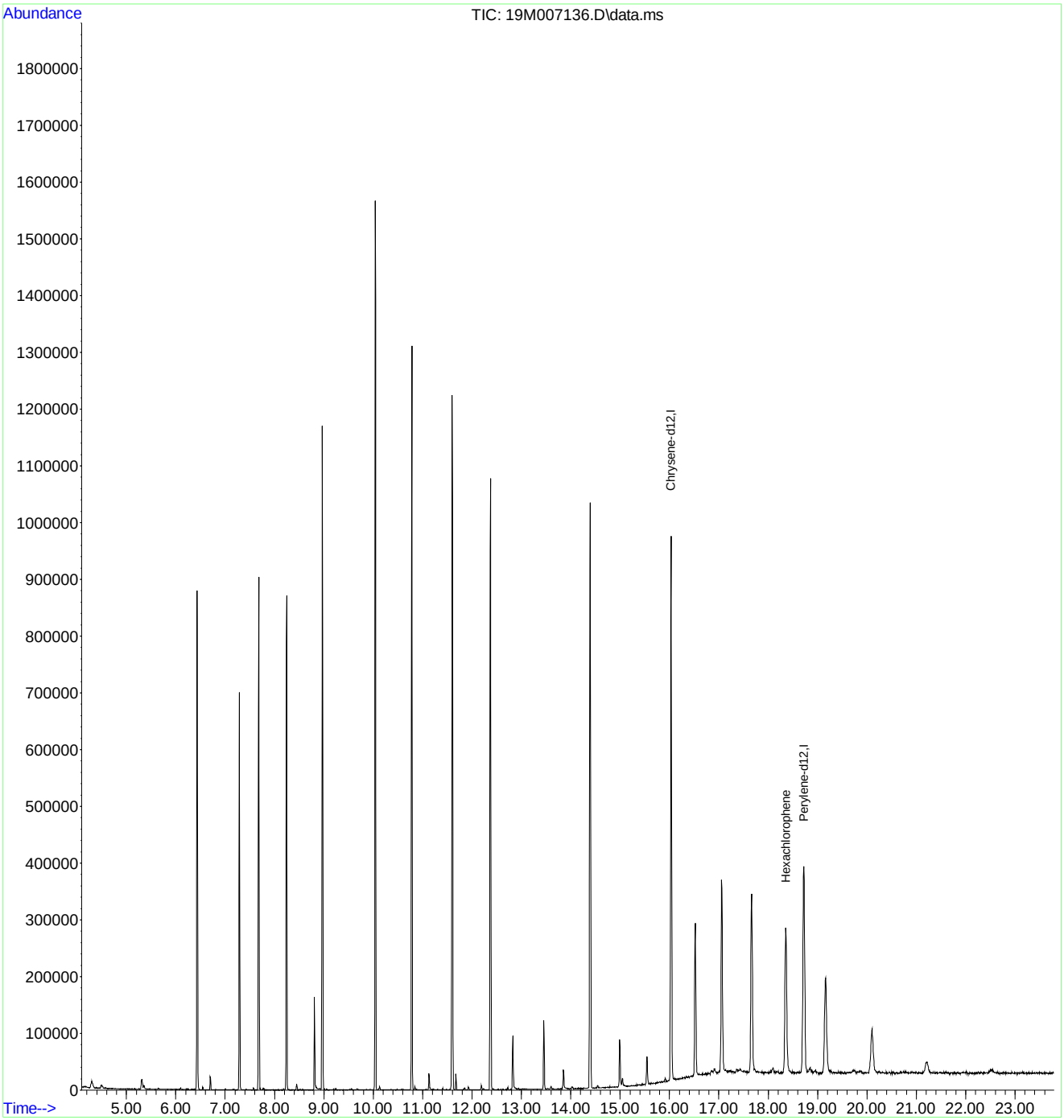
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.033	240	401239	40.0000	ug/mL	-0.0117
3) Perylene-d12	18.721	264	340443	40.0000	ug/mL	-0.0176
Target Compounds						Qvalue
4) Hexachlorophene	18.357	196	193	0.0541	ug/mL#	1

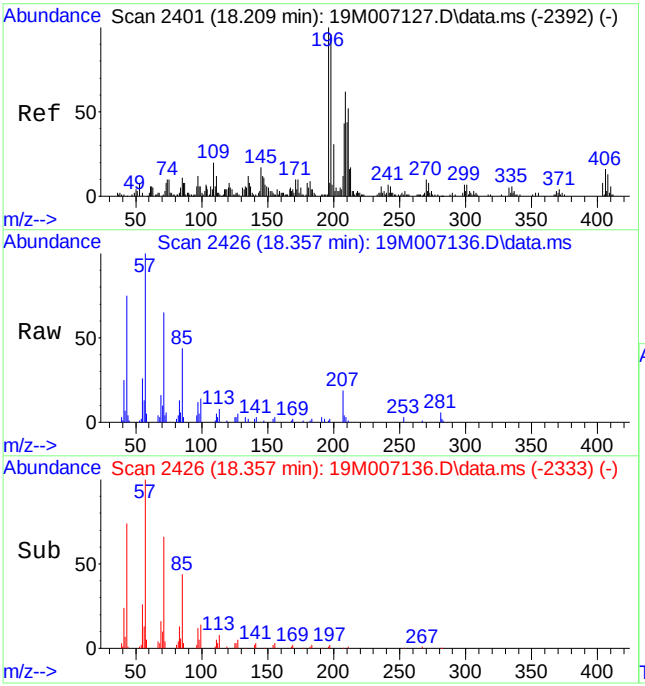
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007136.D Vial: 12
Acq On : 25 Apr 2019 7:20 pm Operator: SCB
Sample : L19041033-07 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:34 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

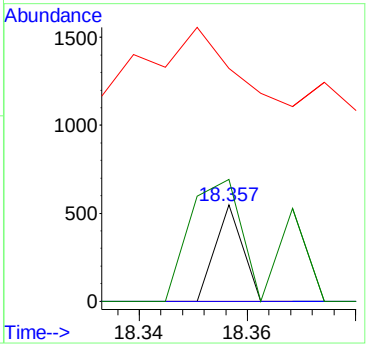




#4
Hexachlorophene
Concen: 0.0541 ug/mL
RT: 18.357 min Scan# 2426
Delta R.T. 0.147 min
Lab File: 19M007136.D
Acq: 25 Apr 2019 7:20 pm

Tgt Ion:196 Resp: 193

Ion	Ratio	Lower	Upper
196	100		
198	0.0	76.2	114.4#
209	230.6	48.3	72.5#
211	332.6	41.4	62.0#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71282.D Vial: 14
Acq On : 22 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-08 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:23 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

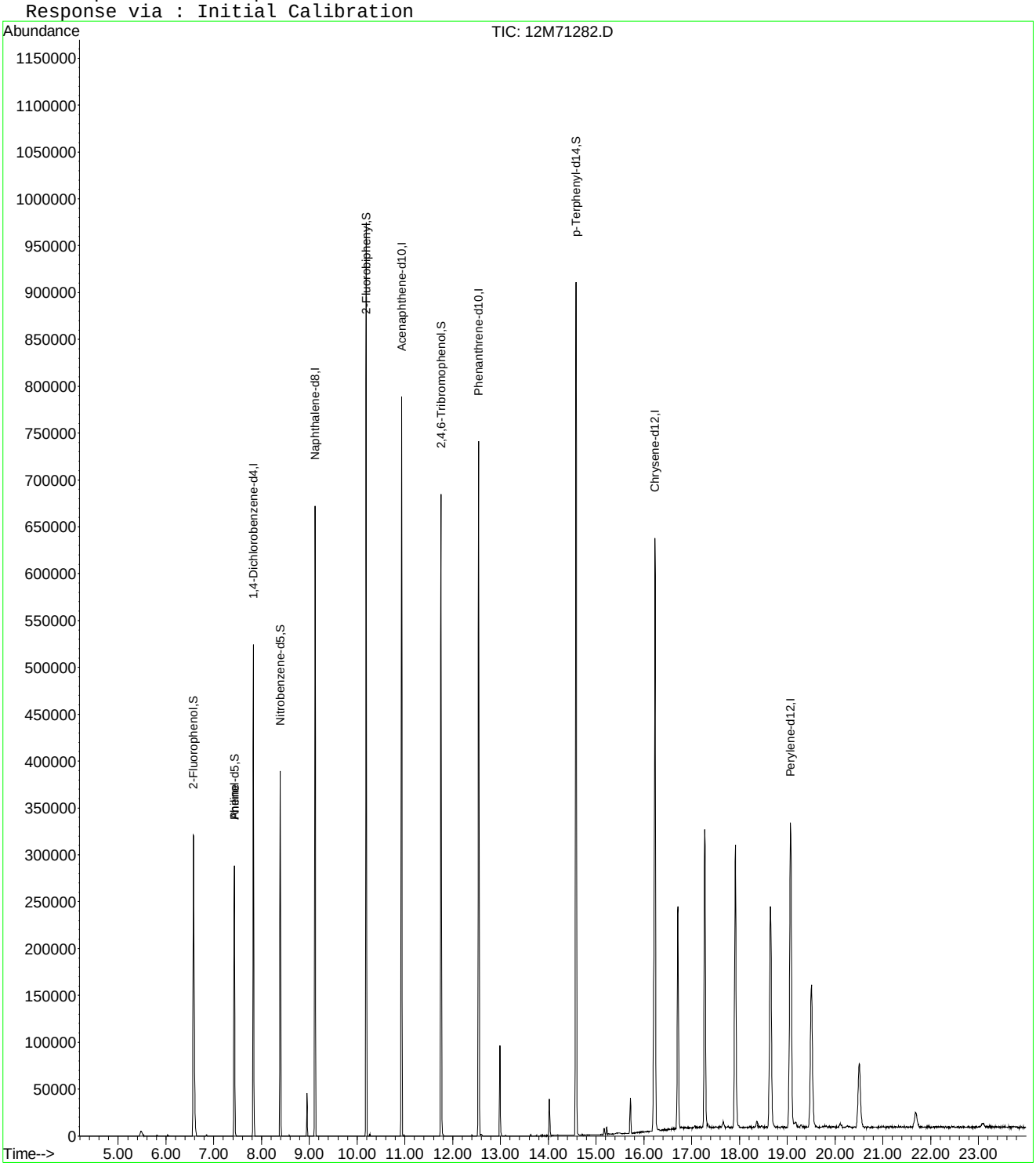
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	107821	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	382586	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	226420	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	381932	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	371241	40.0000	ug/ml	-0.027
129) Perylene-d12	19.069	264	365876	40.0000	ug/ml	-0.032
System Monitoring Compounds						
8) 2-Fluorophenol	6.579	112	175125	53.0250875	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 53.03%			
12) Phenol-d5	7.428	99	138248	34.7784013	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 34.78%			
31) Nitrobenzene-d5	8.390	82	152029	47.1966713	ug/ml	-0.01
Spiked Amount 50.000	Range 35 - 114		Recovery = 94.39%			
59) 2-Fluorobiphenyl	10.190	172	364475	47.9612282	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 95.92%			
87) 2,4,6-Tribromophenol	11.755	330	102123	102.6883235	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 102.69%			
118) p-Terphenyl-d14	14.581	244	415089	46.5515181	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 93.10%			
Target Compounds						Qvalue
11) Aniline	7.43	66	5694	3.0991	ug/ml#	1

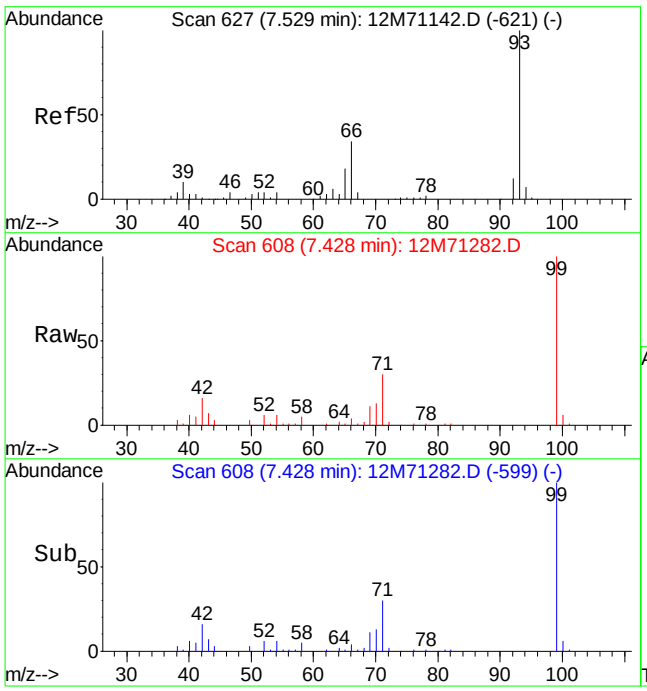
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71282.D MEGAMIX.M Tue Apr 23 08:29:24 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71282.D Vial: 14
Acq On : 22 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-08 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

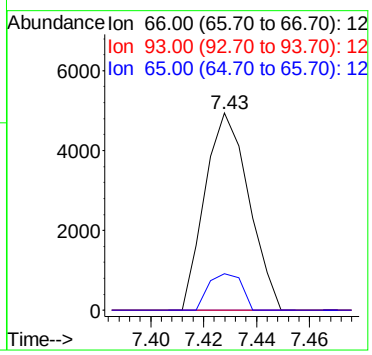




#11
Aniline
Concen: 3.0991 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71282.D
Acq: 22 Apr 2019 5:39 pm

Tgt Ion: 66 Resp: 5694

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	13.9	52.9	123.5#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71282.D Vial: 14
Acq On : 22 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-08 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:47 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

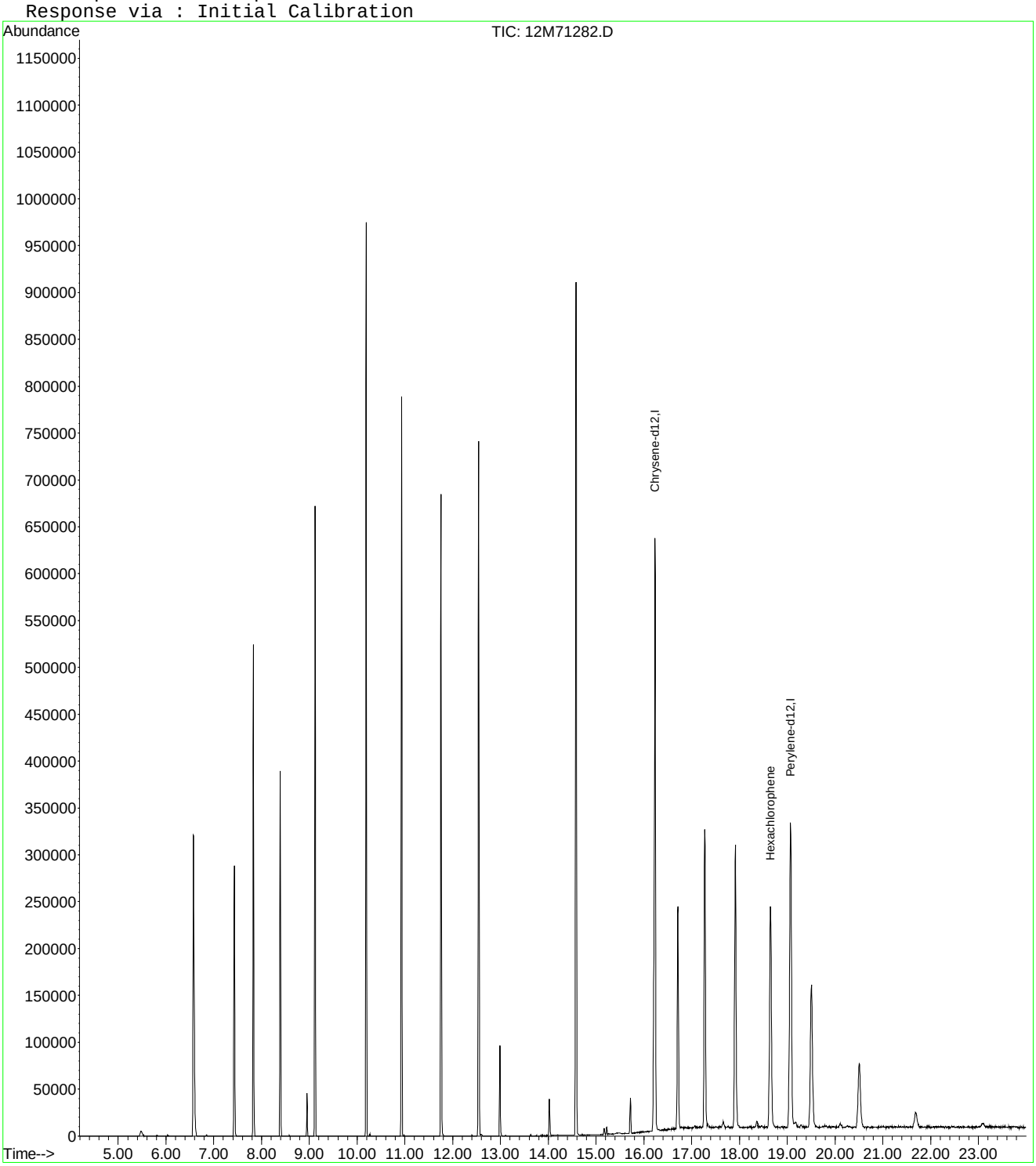
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	371241	40.0000	ug/L	0.000
3) Perylene-d12	19.069	264	365876	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	964	0.5437	ug/L #	1

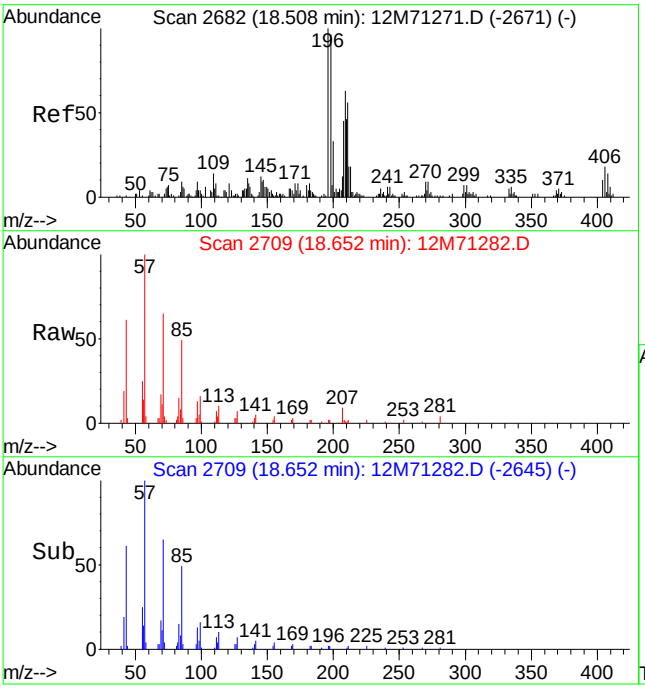
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71282.D A9B.M Tue Apr 23 08:20:47 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71282.D Vial: 14
Acq On : 22 Apr 2019 5:39 pm Operator: SCB
Sample : L19041033-08 RE Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration

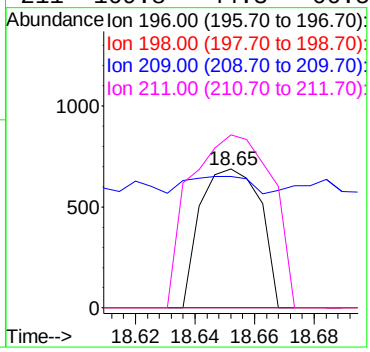




#4
Hexachlorophene
Concen: 0.5437 ug/L
RT: 18.65 min Scan# 2709
Delta R.T. 0.14 min
Lab File: 12M71282.D
Acq: 22 Apr 2019 5:39 pm

Tgt Ion:196 Resp: 964

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	0.0	49.8	74.8#
211	169.8	44.3	66.5#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007137.D Vial: 13
Acq On : 25 Apr 2019 7:51 pm Operator: SCB
Sample : L19041033-08 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:45 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

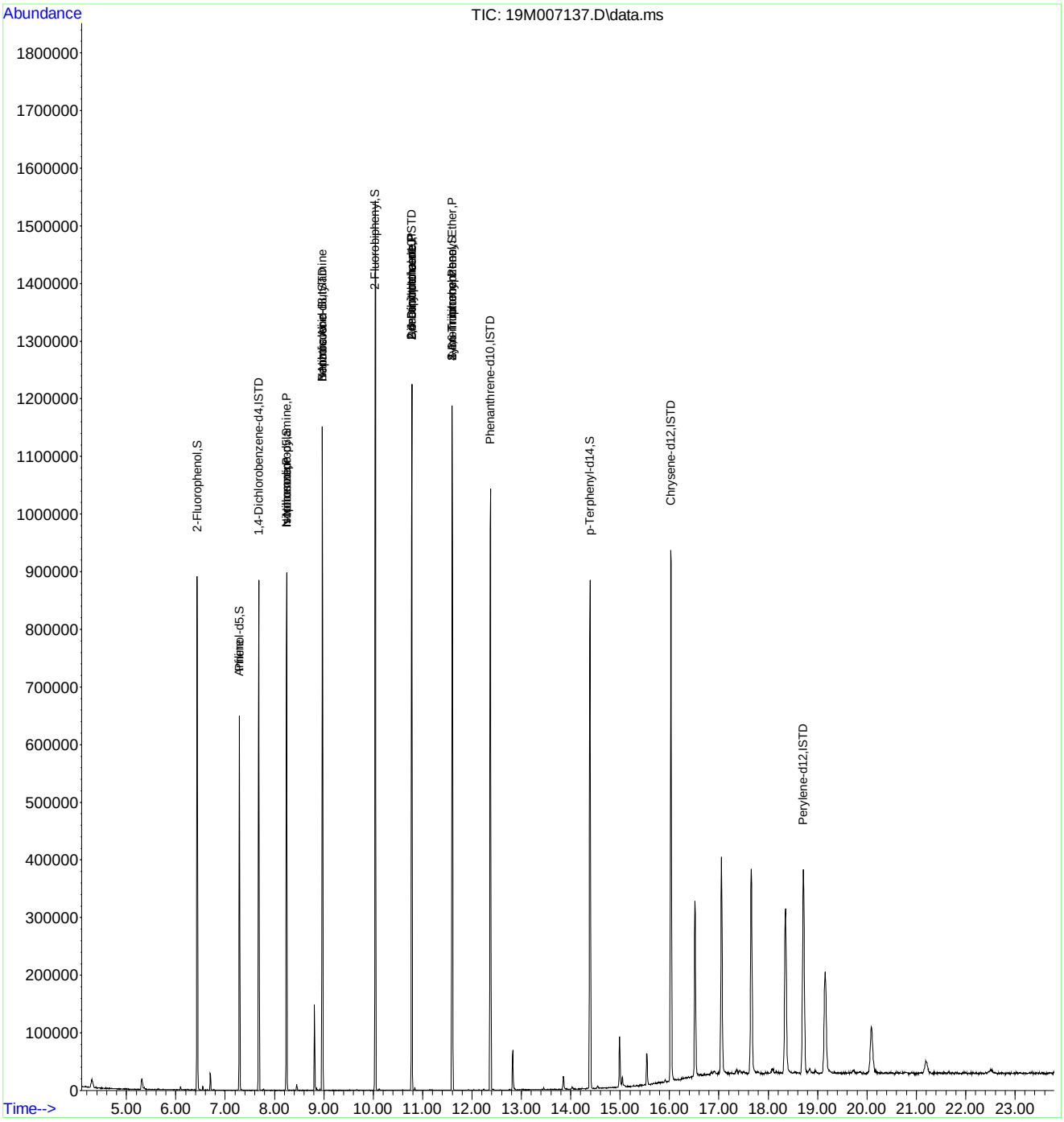
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	127904	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	516455	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.780	164	286753	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.374	188	471561	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.027	240	393375	40.0000	ug/mL	0.0000
129) Perylene-d12	18.709	264	333643	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	247658	56.8326	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 56.8326%			
12) Phenol-d5	7.292	99	218775	39.1853	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 39.1853%			
31) Nitrobenzene-d5	8.245	82	292277	54.6036	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 109.2072%			
59) 2-Fluorobiphenyl	10.039	172	515149	53.5228	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 107.0456%			
87) 2,4,6-Tribromophenol	11.598	330	114563	101.1053	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 101.1053%			
118) p-Terphenyl-d14	14.392	244	369299	39.1846	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 78.3692%			
Target Compounds						Qvalue
11) Aniline	7.287	66	13239	4.2753	ug/mL#	1
25) n-Nitrosodipropylamine	8.245	70	43773	12.0672	ug/mL#	40
34) Isophorone	8.245	82	292277	30.3096	ug/mL#	66
39) Benzoic Acid	8.969	105	186	6.5202	ug/mL#	1
48) n-Nitrosodi-n-Butylamine	8.969	84	14794	3.4663	ug/mL#	9
65) Dimethylphthalate	10.780	163	61308	6.5587	ug/mL#	1
67) 2,6-Dinitrotoluene	10.780	165	37192	16.8642	ug/mL#	16
73) 2,4-Dinitrotoluene	10.780	165	37192	12.8840	ug/mL#	5
92) Sym-Trinitrobenzene	11.598	75	649	2.1604	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	8011	3.2240	ug/mL#	1

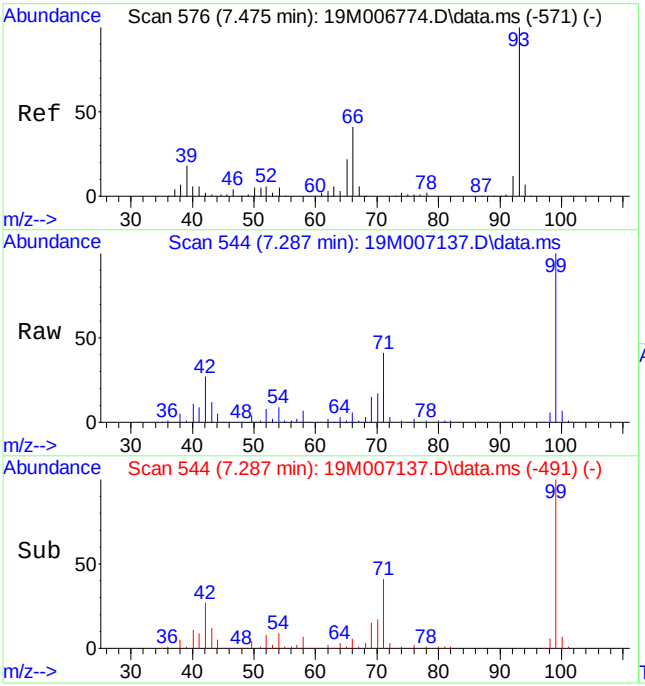
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007137.D Vial: 13
Acq On : 25 Apr 2019 7:51 pm Operator: SCB
Sample : L19041033-08 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:31:45 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

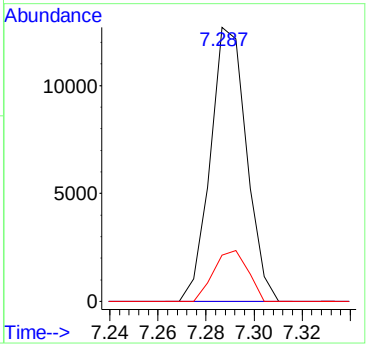


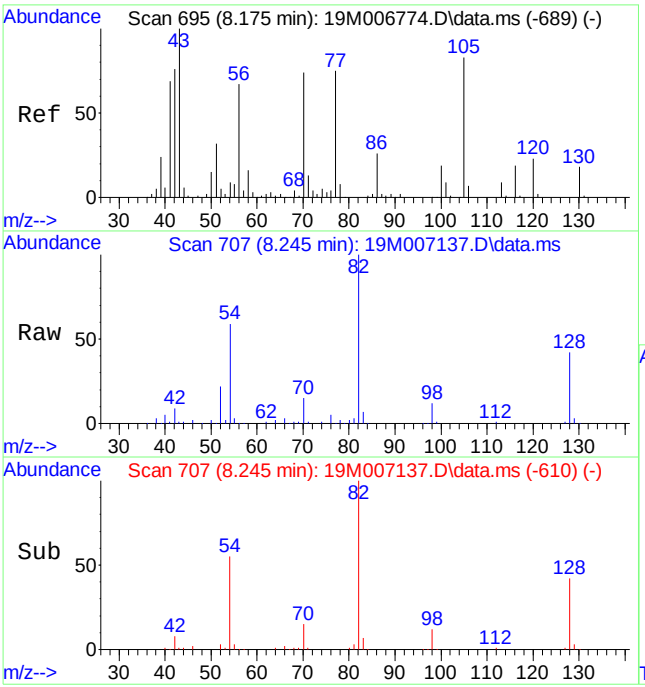


#11
Aniline
Concen: 4.2753 ug/mL
RT: 7.287 min Scan# 544
Delta R.T. -0.088 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion: 66 Resp: 13239

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	17.7	41.4	77.0#

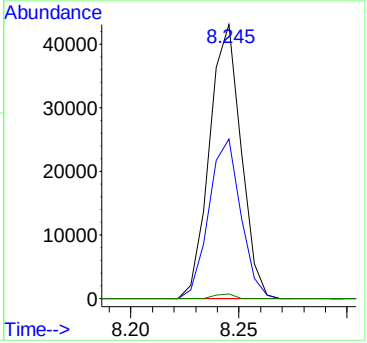


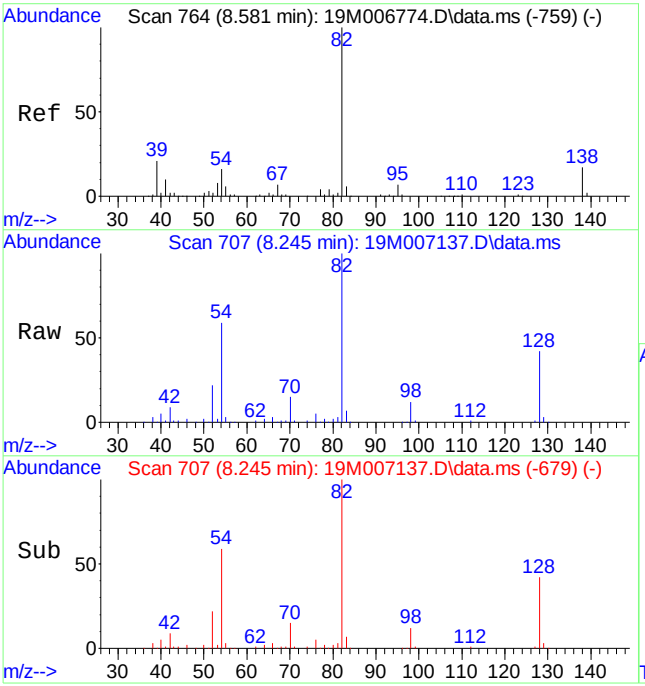


#25
n-Nitrosodipropylamine
Concen: 12.0672 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. 0.171 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion: 70 Resp: 43773

Ion	Ratio	Lower	Upper
70	100		
42	58.8	95.8	178.0#
101	0.0	9.6	17.8#
130	1.1	16.4	30.4#

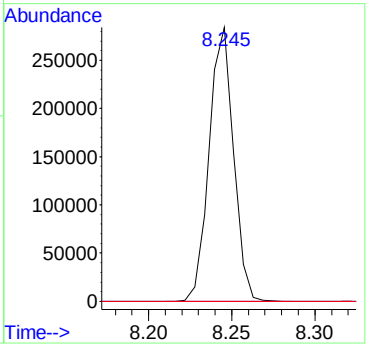


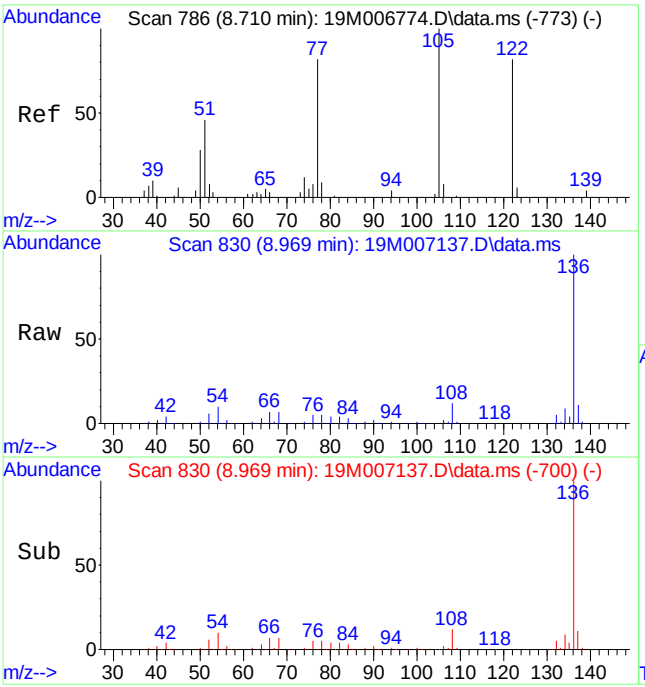


#34
Isophorone
Concen: 30.3096 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion: 82 Resp: 292277

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

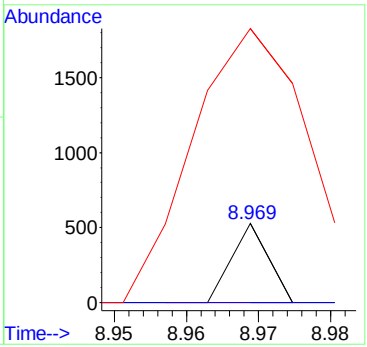


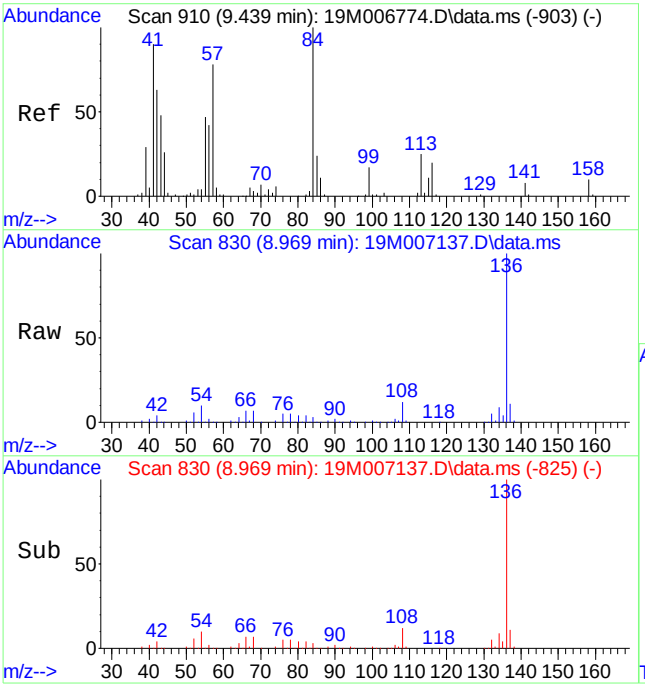


#39
Benzoic Acid
Concen: 6.5202 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. 0.365 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion:105 Resp: 186

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.5	86.3#
77	1093.5	47.8	88.8#

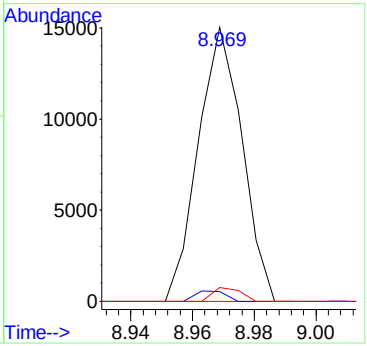


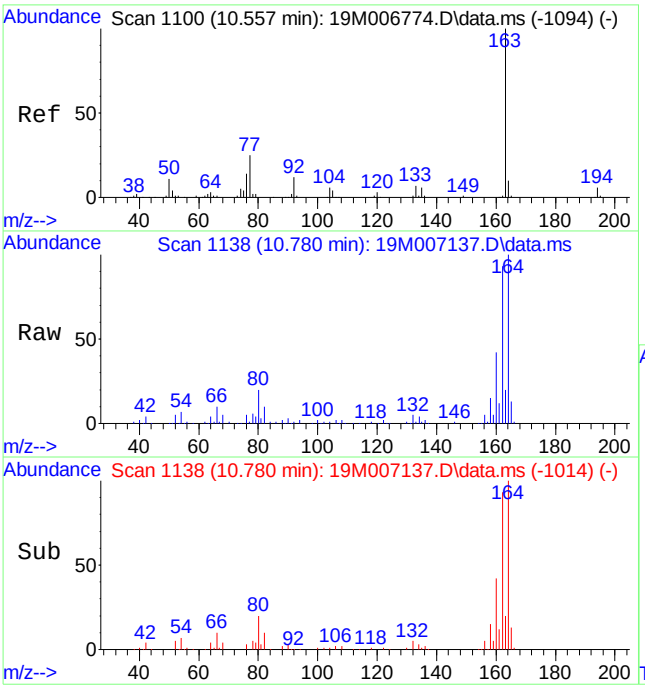


#48
n-Nitrosodi-n-Butylamine
Concen: 3.4663 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. -0.371 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion: 84 Resp: 14794

Ion	Ratio	Lower	Upper
84	100		
57	2.6	51.9	96.5#
41	3.3	68.9	127.9#

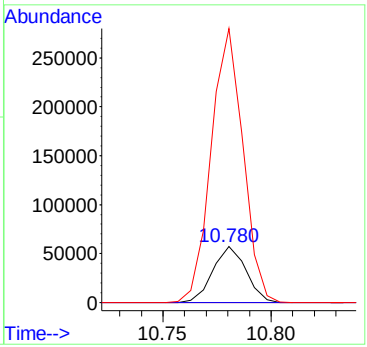


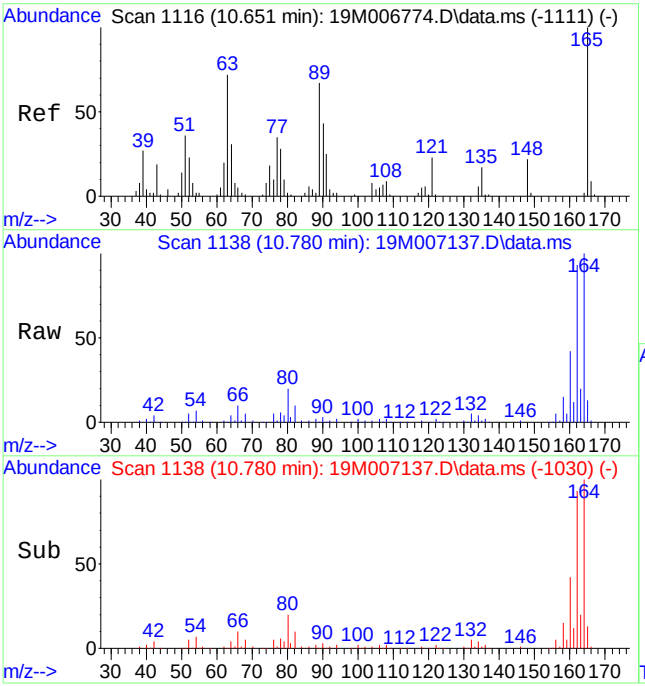


#65
Dimethylphthalate
Concen: 6.5587 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. 0.329 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion:163 Resp: 61308

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	467.7	7.2	13.4#

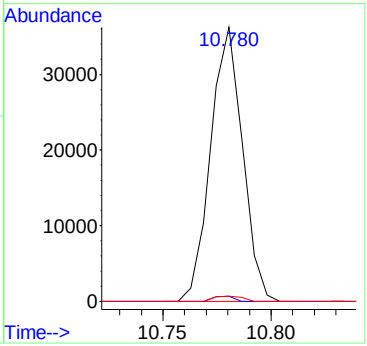


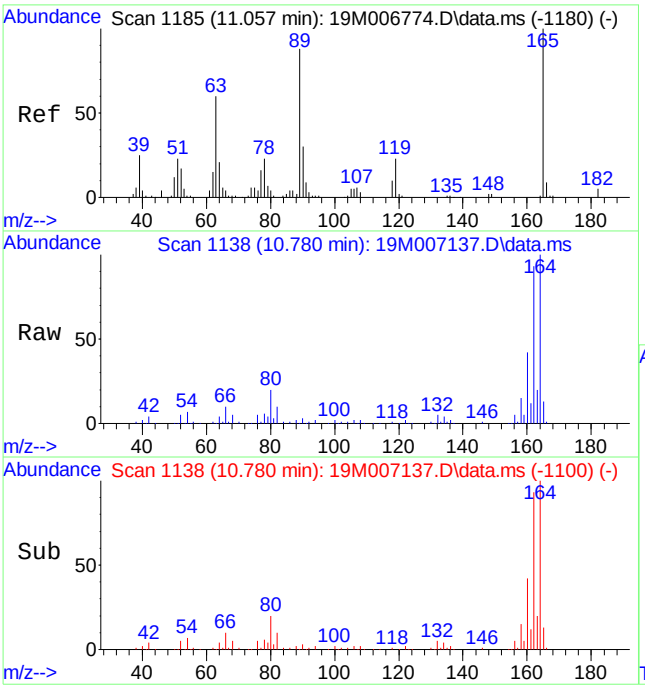


#67
2,6-Dinitrotoluene
Concen: 16.8642 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion:165 Resp: 37192

Ion	Ratio	Lower	Upper
165	100		
63	1.2	50.8	94.4#
89	1.7	47.1	87.5#

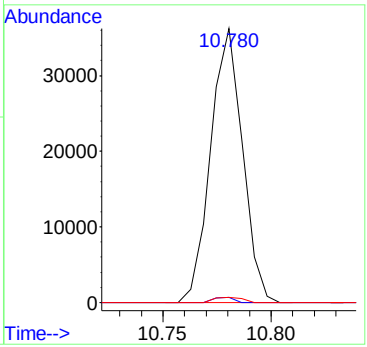


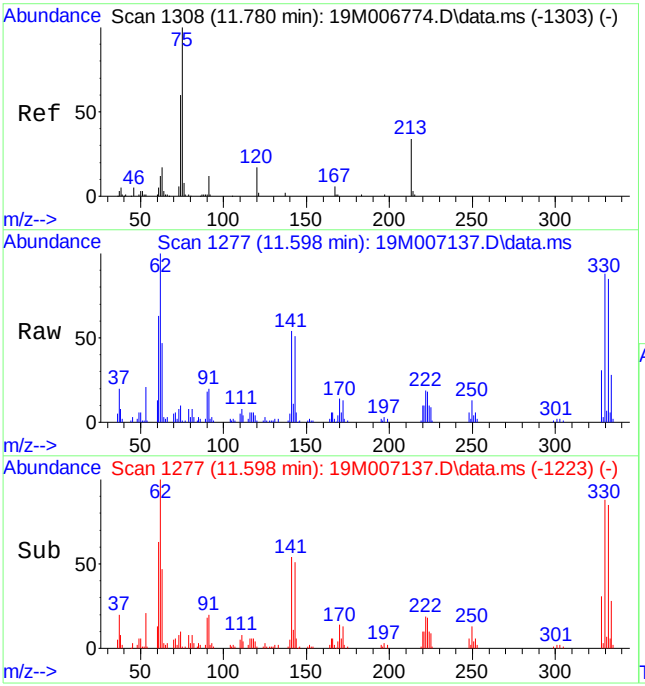


#73
2,4-Dinitrotoluene
Concen: 12.8840 ug/mL
RT: 10.780 min Scan# 1138
Delta R.T. -0.177 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion:165 Resp: 37192

Ion	Ratio	Lower	Upper
165	100		
63	1.2	58.0	107.8#
89	1.7	71.3	132.5#

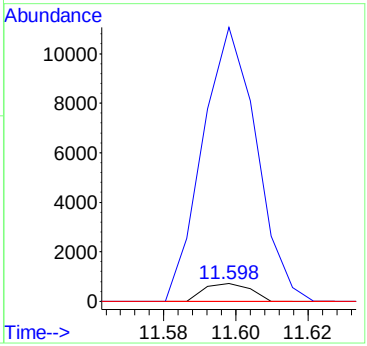


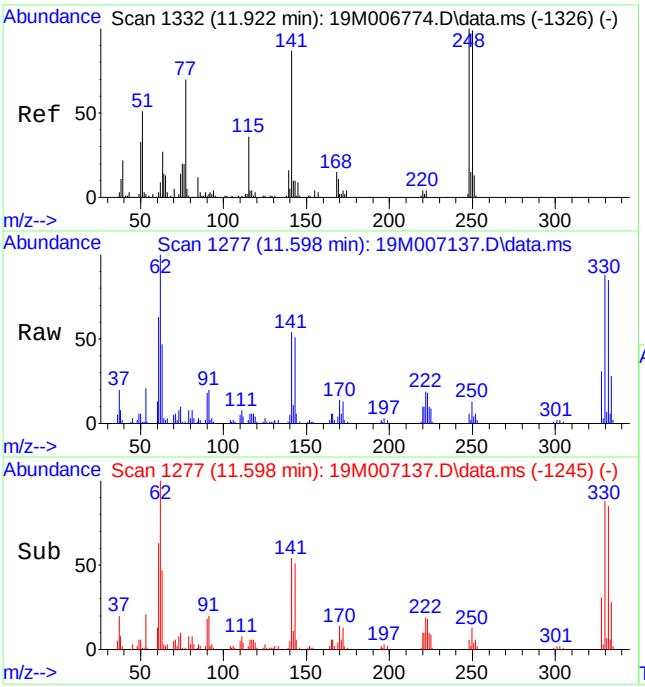


#92
Sym-Trinitrobenzene
Concen: 2.1604 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.082 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion: 75 Resp: 649

Ion	Ratio	Lower	Upper
75	100		
74	1776.9	41.6	77.3#
213	0.0	25.1	46.5#

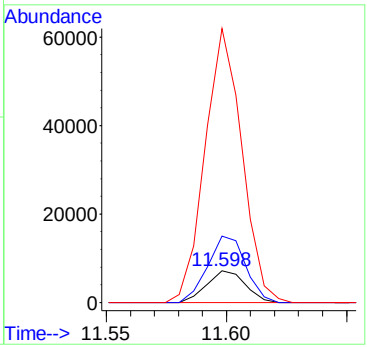




#96
4-Bromophenyl Phenyl Ether
Concen: 3.2240 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion:248 Resp: 8011

Ion	Ratio	Lower	Upper
248	100		
250	205.2	68.1	126.5#
141	824.4	62.4	116.0#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007137.D Vial: 13
Acq On : 25 Apr 2019 7:51 pm Operator: SCB
Sample : L19041033-08 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:37 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

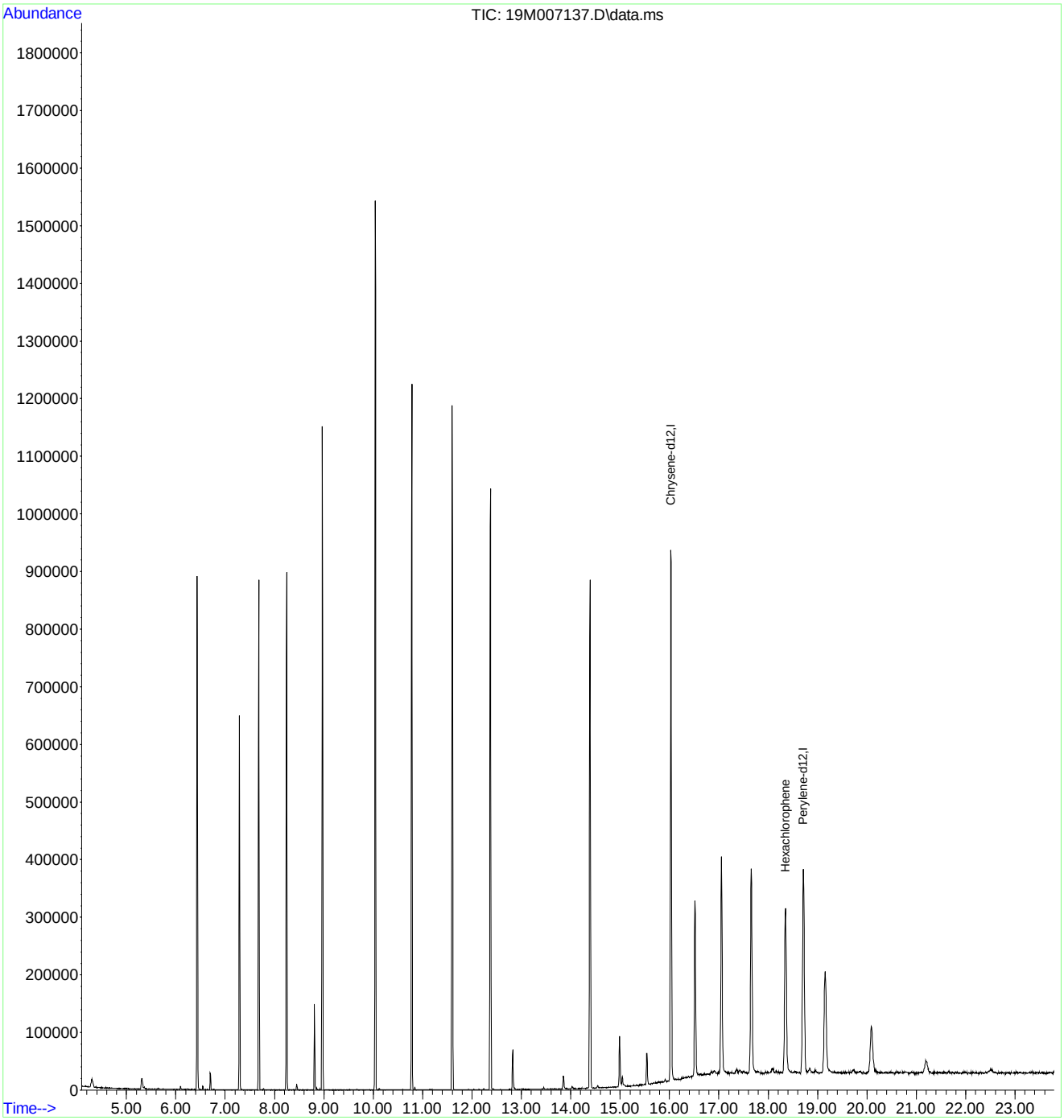
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.027	240	393375	40.0000	ug/mL	-0.0177
3) Perylene-d12	18.709	264	333643	40.0000	ug/mL	-0.0294
Target Compounds						Qvalue
4) Hexachlorophene	18.345	196	190	0.0543	ug/mL#	1

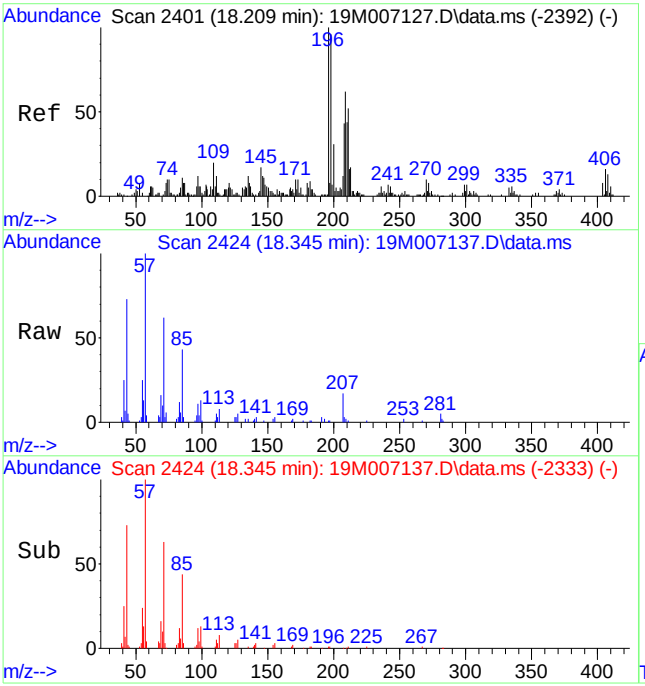
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007137.D Vial: 13
Acq On : 25 Apr 2019 7:51 pm Operator: SCB
Sample : L19041033-08 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 16:43:37 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

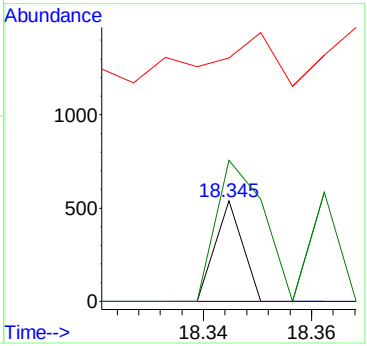




#4
Hexachlorophene
Concen: 0.0543 ug/mL
RT: 18.345 min Scan# 2424
Delta R.T. 0.135 min
Lab File: 19M007137.D
Acq: 25 Apr 2019 7:51 pm

Tgt Ion:196 Resp: 190

Ion	Ratio	Lower	Upper
196	100		
198	0.0	76.2	114.4#
209	150.5	48.3	72.5#
211	351.1	41.4	62.0#



2.1.1.4 Standards Data

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:33:54 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	131020	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	484514	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.943	164	280030	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.556	188	472486	40.0000	ug/ml	0.000
114) Chrysene-d12	16.259	240	448440	40.0000	ug/ml	0.000
129) Perylene-d12	19.101	264	444419	40.0000	ug/ml	0.000
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	205885	51.3007498	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 51.30%			
12) Phenol-d5	7.428	99	249670	51.6871848	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 51.69%			
31) Nitrobenzene-d5	8.400	82	209596	51.3795936	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 102.76%			
59) 2-Fluorobiphenyl	10.201	172	474285	50.4628955	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 100.93%			
87) 2,4,6-Tribromophenol	11.766	330	63100	51.3023293	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 51.30%			
118) p-Terphenyl-d14	14.597	244	545321	50.6286604	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 101.26%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	93320	55.5873	ug/ml	100
3) n-Nitrosodimethylamine	5.14	74	133259	54.2226	ug/ml	100
4) Pyridine	5.16	79	234479	53.2857	ug/ml	100
5) 2-Picoline	6.00	93	249544	52.0050	ug/ml	100
6) n-Nitrosomethylethylamine	6.12	88	104186	52.6825	ug/ml	100
7) Methyl Methanesulfonate	6.42	80	117169	54.2516	ug/ml	100
9) n-Nitrosodiethylamine	6.81	102	104350	52.2826	ug/ml	100
10) Ethyl Methanesulfonate	7.08	79	151041	52.6509	ug/ml	100
11) Aniline	7.53	66	116018	51.9652	ug/ml	100
13) Phenol	7.44	94	255899	50.7161	ug/ml	100
14) bis(2-Chloroethyl)ether	7.55	63	149310	51.0546	ug/ml	100
15) Pentachloroethane	7.57	167	87123	50.8179	ug/ml	100
16) 2-Chlorophenol	7.66	128	228711	51.3771	ug/ml	100
17) 1,3-Dichlorobenzene	7.81	146	244994	50.3050	ug/ml	100
18) 1,4-Dichlorobenzene	7.86	146	248592	50.5376	ug/ml	100
19) Benzyl Alcohol	7.94	108	143370	51.7227	ug/ml	100
20) 1,2-Dichlorobenzene	8.05	146	231527	50.6774	ug/ml	100
21) 2-Methylphenol	8.04	107	166814	50.9039	ug/ml	100
22) bis(2-Chloroisopropyl)ethe	8.09	45	258801	52.9201	ug/ml	100
23) 3-,4-Methylphenol	8.17	107	220617	50.6642	ug/ml	100
24) n-Nitrosopyrrolidine	8.22	100	98610	52.0049	ug/ml	100
25) n-Nitrosodipropylamine	8.22	70	132366	51.9749	ug/ml	100
26) Acetophenone	8.23	105	268799	50.7932	ug/ml	100
27) n-Nitrosomorpholine	8.23	56	108168	51.8910	ug/ml	100
28) o-Toluidine	8.28	106	335058	50.9470	ug/ml	100
29) Hexachloroethane	8.37	117	92957	52.0773	ug/ml	100
32) Nitrobenzene	8.42	77	211871	51.2541	ug/ml	100
33) n-Nitrosopiperidine	8.57	114	111730	52.0228	ug/ml	100
34) Isophorone	8.64	82	389034	51.1152	ug/ml	100
35) 2-Nitrophenol	8.74	139	118994	52.2517	ug/ml	100
36) 2,4-Dimethylphenol	8.70	122	200572	51.2971	ug/ml	100
37) 0,0,0-Triethyl Phosphoroth	8.81	198	109920	49.6707	ug/ml	100
38) bis(2-Chloroethoxy)methane	8.81	93	297271	50.5477	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:33:54 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Benzoic Acid	8.75	105	71931m	45.9429 ug/ml	
40)	2,4-Dichlorophenol	8.97	162	184147	50.4291 ug/ml	100
41)	a,a-Dimethylphenethylamine	8.97	58	530006	53.1326 ug/ml	100
42)	1,2,4-Trichlorobenzene	9.07	180	197114	50.4322 ug/ml	100
43)	Naphthalene	9.15	128	666365	50.3342 ug/ml#	100
44)	4-Chloroaniline	9.17	65	73871	52.2387 ug/ml	100
45)	2,6-Dichlorophenol	9.20	162	178253	50.5319 ug/ml	100
46)	Hexachloropropene	9.27	213	116625	49.2972 ug/ml	100
47)	Hexachlorobutadiene	9.30	225	110661	50.5878 ug/ml	100
48)	n-Nitrosodi-n-Butylamine	9.49	84	174303	52.1084 ug/ml	100
49)	p-Phenylenediamine	9.52	108	147115	49.2794 ug/ml	100
50)	4-Chloro-3-Methylphenol	9.61	107	180737	51.2590 ug/ml	100
51)	Safrole	9.71	162	181000	50.5909 ug/ml	100
52)	2-Methylnaphthalene	9.84	142	443139	50.3160 ug/ml	100
53)	1-Methylnaphthalene	9.96	142	421055	50.6245 ug/ml	100
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	201691	50.3841 ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	68197	43.8568 ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	134238	52.1852 ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	140254	52.4307 ug/ml	100
60)	Isosafrole	10.23	162	183307	51.4883 ug/ml	100
61)	2-Chloronaphthalene	10.35	162	413424	51.2957 ug/ml	100
62)	1-Chloronaphthalene	10.39	162	379342	51.0528 ug/ml	100
63)	2-Nitroaniline	10.44	65	111482	52.6087 ug/ml	100
64)	1,4-Naphthoquinone	10.51	158	128088	46.1327 ug/ml	100
65)	Dimethylphthalate	10.61	163	455563	51.2646 ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	84848	53.3054 ug/ml	100
67)	2,6-Dinitrotoluene	10.70	165	112871	52.4954 ug/ml	100
68)	Acenaphthylene	10.79	152	635567	51.5521 ug/ml	100
69)	3-Nitroaniline	10.86	138	121522	51.2871 ug/ml	100
70)	2,4-Dinitrophenol	10.96	184	40202	47.7915 ug/ml	100
71)	Acenaphthene	10.98	154	406994	51.3903 ug/ml	100
72)	4-Nitrophenol	10.96	65	78359	55.9929 ug/ml	100
73)	2,4-Dinitrotoluene	11.11	165	147370	53.3345 ug/ml	100
74)	Pentachlorobenzene	11.16	250	175094	50.6386 ug/ml	100
75)	Dibenzofuran	11.13	168	574823	50.5332 ug/ml	100
76)	2,3,5,6-Tetrachlorophenol	11.23	232	115334	56.1504 ug/ml	100
77)	2,3,4,6-Tetrachlorophenol	11.28	232	117663	52.8064 ug/ml	100
78)	1-Naphthylamine	11.20	143	427401	51.9813 ug/ml	100
79)	2-Naphthylamine	11.27	143	432962	51.5711 ug/ml	100
80)	Diethylphthalate	11.31	149	447459	51.6100 ug/ml	100
81)	Thionazin	11.41	107	72872	52.5571 ug/ml	100
82)	Fluorene	11.49	166	472469	50.8535 ug/ml	100
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	235694	51.2804 ug/ml	100
84)	4-Nitroaniline	11.50	138	125344	51.2088 ug/ml	100
85)	5-Nitro-o-Toluidine	11.49	152	141681	51.7623 ug/ml	100
86)	1,2-Diphenylhydrazine	11.61	77	414892	52.1975 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.54	198	69725	45.6137 ug/ml	100
90)	Diphenylamine/n-Nitrosodip	11.56	169	424872	50.8095 ug/ml	100
91)	Sulfotepp	11.76	322	76661	49.8443 ug/ml	100
92)	Sym-Trinitrobenzene	11.84	75	106138	50.2822 ug/ml	100
93)	Diallate	11.88	86	166193	52.1443 ug/ml	100
94)	Phenacetin	11.87	108	221885	53.2967 ug/ml	100
95)	Phorate	11.90	75	253240	51.5810 ug/ml#	100
96)	4-Bromophenyl Phenyl Ether	11.97	248	136734	50.5299 ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:33:54 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

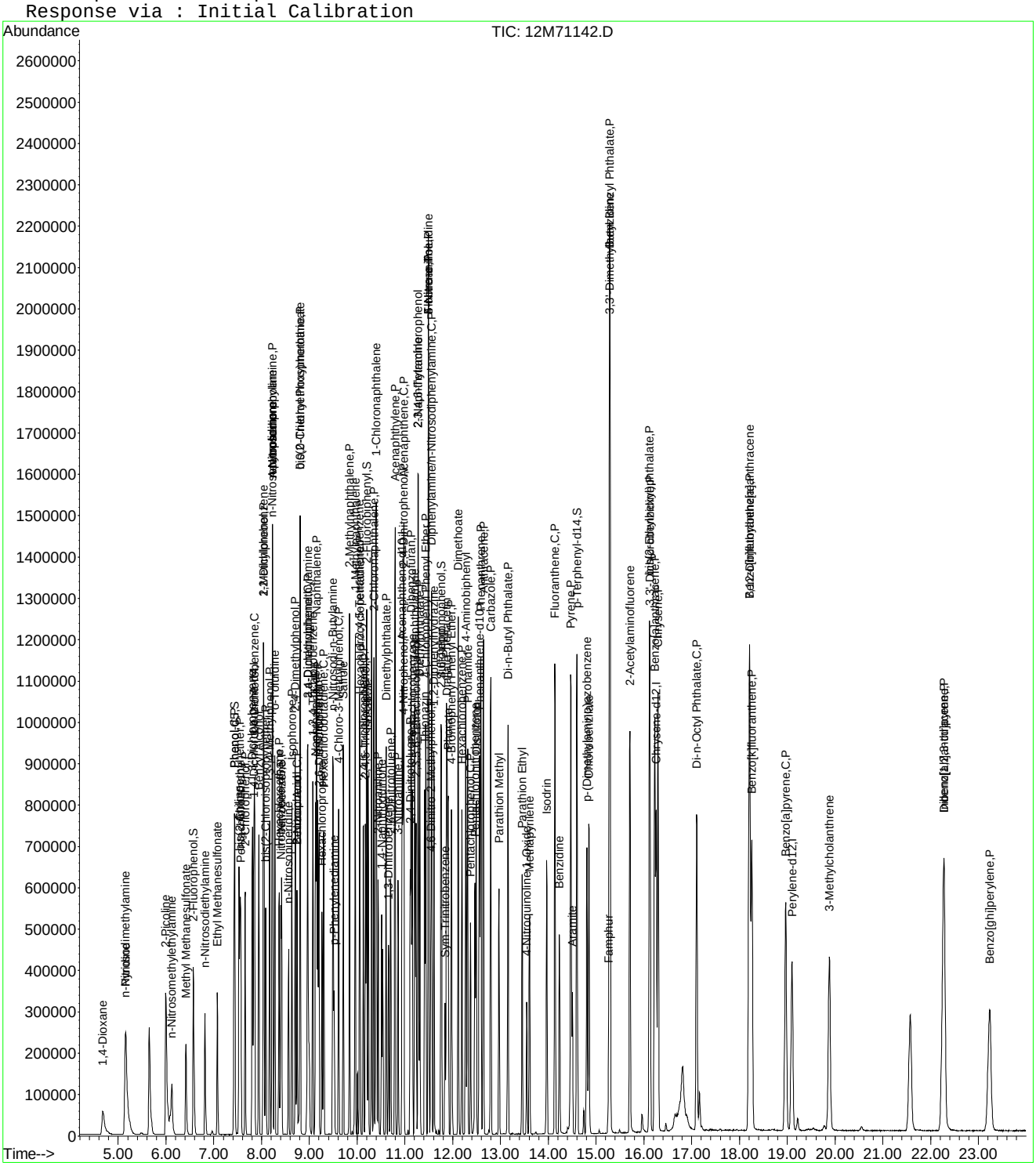
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	139428	50.3266	ug/ml	100
98)	Dimethoate	12.12	87	151804	51.2193	ug/ml	100
99)	4-Aminobiphenyl	12.27	169	529705	51.9284	ug/ml	100
100)	Pentachlorophenol	12.37	266	83463	50.2694	ug/ml	100
101)	Pronamide	12.31	173	208393	51.3709	ug/ml	100
102)	Pentachloronitrobenzene	12.47	237	54927	52.9135	ug/ml	100
103)	Disulfoton	12.49	88	221606	51.5878	ug/ml	100
104)	Phenanthrene	12.59	178	656720	50.2418	ug/ml	100
105)	Anthracene	12.64	178	679515	50.6333	ug/ml	100
106)	Carbazole	12.80	167	638124	51.0636	ug/ml	100
107)	Parathion Methyl	12.97	109	140174	57.0743	ug/ml	100
108)	Di-n-Butyl Phthalate	13.15	149	746362	51.5545	ug/ml	100
109)	Parathion Ethyl	13.45	97	88483	54.7412	ug/ml	100
110)	4-Nitroquinoline 1-Oxide	13.55	190	54830	50.8453	ug/ml	100
111)	Methapyrilene	13.60	58	213717	53.0833	ug/ml	100
112)	Isodrin	13.97	193	74370	50.9717	ug/ml	100
113)	Fluoranthene	14.14	202	724946	50.1647	ug/ml	100
115)	Benzidine	14.23	184	302181	47.6859	ug/ml	100
116)	Pyrene	14.47	202	740670	51.2301	ug/ml	100
117)	Aramite	14.50	185	42316	54.4359	ug/ml	100
119)	p-(Dimethylamino)azobenzen	14.81	225	157507	52.4901	ug/ml	100
120)	Chlorobenzilate	14.85	251	213892	51.3107	ug/ml	100
121)	Famphur	15.25	218	38543	50.0000	ug/ml	100
122)	Butyl Benzyl Phthalate	15.28	149	329721	52.1479	ug/ml	100
123)	3,3'-Dimethylbenzidine	15.29	212	596527	44.1586	ug/ml	100
124)	2-Acetylaminofluorene	15.71	181	296266	54.5759	ug/ml	100
125)	bis(2-Ethylhexyl)phthalate	16.11	149	451140	53.5377	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.13	252	235049	50.1057	ug/ml	100
127)	Benzo[a]anthracene	16.23	228	675799	50.4946	ug/ml	100
128)	Chrysene	16.30	228	646373	50.6964	ug/ml	100
130)	Di-n-Octyl Phthalate	17.10	149	775086	52.4467	ug/ml	100
131)	7,12-Dimethylbenz[a]anthra	18.21	256	323935	50.6110	ug/ml	100
132)	Benzo[b]fluoranthene	18.21	252	685488	50.1983	ug/ml	100
133)	Benzo[k]fluoranthene	18.26	252	601241	50.0392	ug/ml	100
134)	Benzo[a]pyrene	18.97	252	613282	50.4833	ug/ml	100
135)	3-Methylcholanthrene	19.88	268	332474	51.6440	ug/ml	100
136)	Indeno[1,2,3-cd]pyrene	22.28	276	700677	51.4120	ug/ml	100
137)	Dibenz[ah]anthracene	22.28	278	600827	51.9140	ug/ml	100
138)	Benzo[ghi]perylene	23.24	276	582315	51.4592	ug/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:34 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	50.000	55.587	-11.2	100	0.00
3		n-Nitrosodimethylamine	50.000	54.223	-8.4	100	0.00
4		Pyridine	50.000	53.286	-6.6	100	0.00
5		2-Picoline	50.000	52.005	-4.0	100	0.00
6		n-Nitrosomethylethylamine	50.000	52.683	-5.4	100	0.00
7		Methyl Methanesulfonate	50.000	54.252	-8.5	100	0.00
8	S	2-Fluorophenol	50.000	51.301	-2.6	100	0.00
9		n-Nitrosodiethylamine	50.000	52.283	-4.6	100	0.00
10		Ethyl Methanesulfonate	50.000	52.651	-5.3	100	0.00
11		Aniline	50.000	51.965	-3.9	100	0.00
12	S	Phenol-d5	50.000	51.687	-3.4	100	0.00
13	C,P	Phenol	50.000	50.716	-1.4	100	0.00
14	P	bis(2-Chloroethyl)ether	50.000	51.055	-2.1	100	0.00
15		Pentachloroethane	50.000	50.818	-1.6	100	0.00
16	P	2-Chlorophenol	50.000	51.377	-2.8	100	0.00
17		1,3-Dichlorobenzene	50.000	50.305	-0.6	100	0.00
18	C	1,4-Dichlorobenzene	50.000	50.538	-1.1	100	0.00
19		Benzyl Alcohol	50.000	51.723	-3.4	100	0.00
20		1,2-Dichlorobenzene	50.000	50.677	-1.4	100	0.00
21	P	2-Methylphenol	50.000	50.904	-1.8	100	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	52.920	-5.8	100	0.00
23	P	3-,4-Methylphenol	50.000	50.664	-1.3	100	0.00
24		n-Nitrosopyrrolidine	50.000	52.005	-4.0	100	0.00
25	P	n-Nitrosodipropylamine	50.000	51.975	-4.0	100	0.00
26		Acetophenone	50.000	50.793	-1.6	100	0.00
27		n-Nitrosomorpholine	50.000	51.891	-3.8	100	0.00
28		o-Toluidine	50.000	50.947	-1.9	100	0.00
29	P	Hexachloroethane	50.000	52.077	-4.2	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	50.000	51.380	-2.8	100	0.00
32	P	Nitrobenzene	50.000	51.254	-2.5	100	0.00
33		n-Nitrosopiperidine	50.000	52.023	-4.0	100	0.00
34	P	Isophorone	50.000	51.115	-2.2	100	0.00
35	C,P	2-Nitrophenol	50.000	52.252	-4.5	100	0.00
36	P	2,4-Dimethylphenol	50.000	51.297	-2.6	100	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	49.671	0.7	100	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	50.548	-1.1	100	0.00
39		Benzoic Acid	50.000	45.943	8.1	100	0.00
40	C,P	2,4-Dichlorophenol	50.000	50.429	-0.9	100	0.00
41		a,a-Dimethylphenethylamine	50.000	53.133	-6.3	100	0.00
42		1,2,4-Trichlorobenzene	50.000	50.432	-0.9	100	0.00
43	P	Naphthalene	50.000	50.334	-0.7	100	0.00
44	P	4-Chloroaniline	50.000	52.239	-4.5	100	0.00
45		2,6-Dichlorophenol	50.000	50.532	-1.1	100	0.00
46		Hexachloropropene	50.000	49.297	1.4	100	0.00
47	C,P	Hexachlorobutadiene	50.000	50.588	-1.2	100	0.00
48		n-Nitrosodi-n-Butylamine	50.000	52.108	-4.2	100	0.00
49		p-Phenylenediamine	50.000	49.279	1.4	100	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	51.259	-2.5	100	0.00
51		Safrole	50.000	50.591	-1.2	100	0.00
52	P	2-Methylnaphthalene	50.000	50.316	-0.6	100	0.00
53		1-Methylnaphthalene	50.000	50.624	-1.2	100	0.00

(#) = Out of Range
12M71142.D MEGAMIX.M Mon Apr 15 13:34:29 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	50.384	-0.8	100	0.00
56	P	Hexachlorocyclopentadiene	50.000	43.857	12.3	100	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	52.185	-4.4	100	0.00
58	P	2,4,5-Trichlorophenol	50.000	52.431	-4.9	100	0.00
59	S	2-Fluorobiphenyl	50.000	50.463	-0.9	100	0.00
60		Isosafrole	50.000	51.488	-3.0	100	0.00
61	P	2-Chloronaphthalene	50.000	51.296	-2.6	100	0.00
62		1-Chloronaphthalene	50.000	51.053	-2.1	100	0.00
63	P	2-Nitroaniline	50.000	52.609	-5.2	100	0.00
64		1,4-Naphthoquinone	50.000	46.133	7.7	100	0.00
65	P	Dimethylphthalate	50.000	51.265	-2.5	100	0.00
66		1,3-Dinitrobenzene	50.000	53.305	-6.6	100	0.00
67	P	2,6-Dinitrotoluene	50.000	52.495	-5.0	100	0.00
68	P	Acenaphthylene	50.000	51.552	-3.1	100	0.00
69	P	3-Nitroaniline	50.000	51.287	-2.6	100	0.00
70	P	2,4-Dinitrophenol	50.000	47.792	4.4	100	0.00
71	C,P	Acenaphthene	50.000	51.390	-2.8	100	0.00
72	P	4-Nitrophenol	50.000	55.993	-12.0	100	0.00
73	P	2,4-Dinitrotoluene	50.000	53.334	-6.7	100	0.00
74		Pentachlorobenzene	50.000	50.639	-1.3	100	0.00
75	P	Dibenzofuran	50.000	50.533	-1.1	100	0.00
76		2,3,5,6-Tetrachlorophenol	50.000	56.150	-12.3	100	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	52.806	-5.6	100	0.00
78		1-Naphthylamine	50.000	51.981	-4.0	100	0.00
79		2-Naphthylamine	50.000	51.571	-3.1	100	0.00
80	P	Diethylphthalate	50.000	51.610	-3.2	100	0.00
81		Thionazin	50.000	52.557	-5.1	100	0.00
82	P	Fluorene	50.000	50.854	-1.7	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	50.000	51.280	-2.6	100	0.00
84	P	4-Nitroaniline	50.000	51.209	-2.4	100	0.00
85		5-Nitro-o-Toluidine	50.000	51.762	-3.5	100	0.00
86		1,2-Diphenylhydrazine	50.000	52.197	-4.4	100	0.00
87	S	2,4,6-Tribromophenol	50.000	51.302	-2.6	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	45.614	8.8	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	50.809	-1.6	100	0.00
91		Sulfotepp	50.000	49.844	0.3	100	0.00
92		Sym-Trinitrobenzene	50.000	50.282	-0.6	100	0.00
93		Diallate	50.000	52.144	-4.3	100	0.00
94		Phenacetin	50.000	53.297	-6.6	100	0.00
95		Phorate	50.000	51.581	-3.2	100	0.00
96	P	4-Bromophenyl Phenyl Ether	50.000	50.530	-1.1	100	0.00
97	P	Hexachlorobenzene	50.000	50.327	-0.7	100	0.00
98		Dimethoate	50.000	51.219	-2.4	100	0.00
99		4-Aminobiphenyl	50.000	51.928	-3.9	100	0.00
100	C,P	Pentachlorophenol	50.000	50.269	-0.5	100	0.00
101		Pronamide	50.000	51.371	-2.7	100	0.00
102		Pentachloronitrobenzene	50.000	52.913	-5.8	100	0.00
103		Disulfoton	50.000	51.588	-3.2	100	0.00
104	P	Phenanthrene	50.000	50.242	-0.5	100	0.00
105	P	Anthracene	50.000	50.633	-1.3	100	0.00
106	P	Carbazole	50.000	51.064	-2.1	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

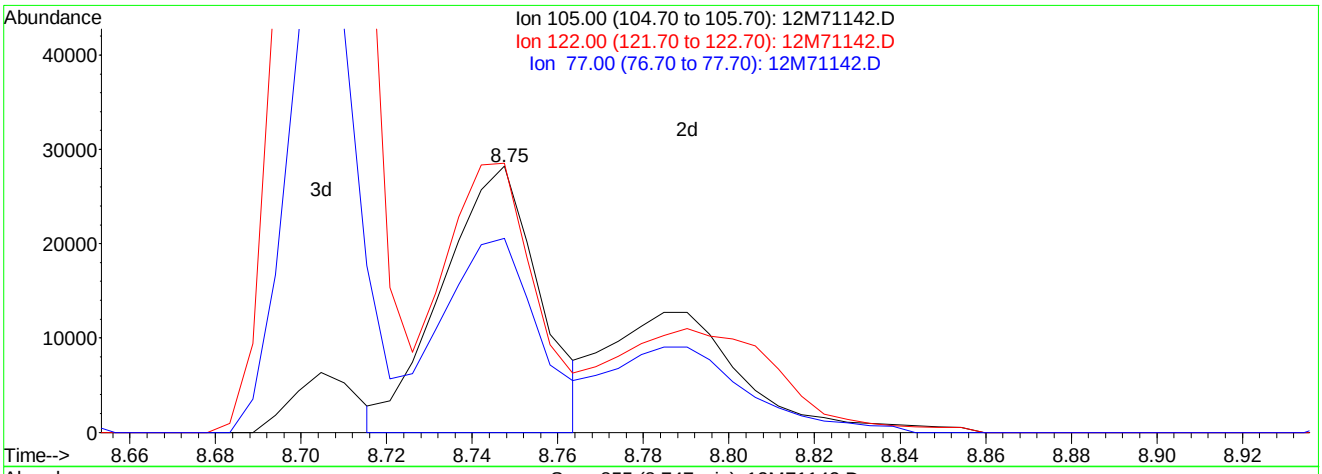
Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

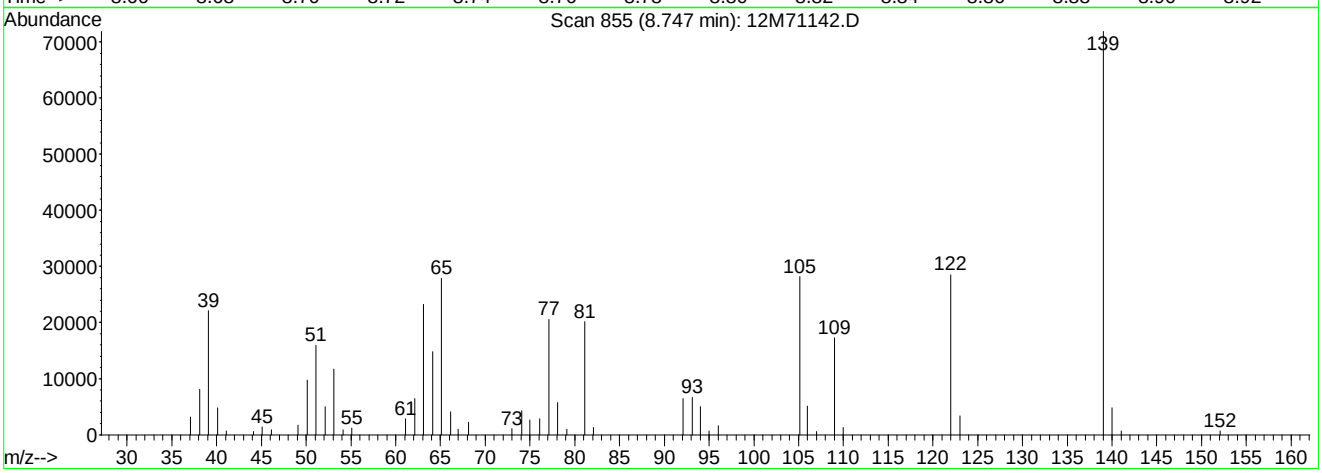
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	50.000	57.074	-14.1	100	0.00
108	P	Di-n-Butyl Phthalate	50.000	51.555	-3.1	100	0.00
109		Parathion Ethyl	50.000	54.741	-9.5	100	0.00
110		4-Nitroquinoline 1-Oxide	50.000	50.845	-1.7	100	0.00
111		Methapyrilene	50.000	53.083	-6.2	100	0.00
112		Isodrin	50.000	50.972	-1.9	100	0.00
113	C,P	Fluoranthene	50.000	50.165	-0.3	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	50.000	47.686	4.6	100	0.00
116	P	Pyrene	50.000	51.230	-2.5	100	0.00
117		Aramite	50.000	54.436	-8.9	100	0.00
118	S	p-Terphenyl-d14	50.000	50.629	-1.3	100	0.00
119		p-(Dimethylamino)azobenzene	50.000	52.490	-5.0	100	0.00
120		Chlorobenzilate	50.000	51.311	-2.6	100	0.00
121		Famphur	50.000	50.000	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	50.000	52.148	-4.3	100	0.00
123		3,3'-Dimethylbenzidine	50.000	44.159	11.7	100	0.00
124		2-Acetylaminofluorene	50.000	54.576	-9.2	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	50.000	53.538	-7.1	100	0.00
126	P	3,3'-Dichlorobenzidine	50.000	50.106	-0.2	100	0.00
127	P	Benzo[a]anthracene	50.000	50.495	-1.0	100	0.00
128	P	Chrysene	50.000	50.696	-1.4	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	52.447	-4.9	100	0.00
131		7,12-Dimethylbenz[a]anthrac	50.000	50.611	-1.2	100	0.00
132	P	Benzo[b]fluoranthene	50.000	50.198	-0.4	100	0.00
133	P	Benzo[k]fluoranthene	50.000	50.039	-0.1	100	0.00
134	C,P	Benzo[a]pyrene	50.000	50.483	-1.0	100	0.00
135		3-Methylcholanthrene	50.000	51.644	-3.3	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	50.000	51.412	-2.8	100	0.00
137	P	Dibenz[ah]anthracene	50.000	51.914	-3.8	100	0.00
138	P	Benzo[ghi]perylene	50.000	51.459	-2.9	100	0.00

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:10 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:08:34 2019
Response via : Multiple Level Calibration





TIC: 12M71142.D

(39) Benzoic Acid

8.75min 33.68ug/ml

response 43912

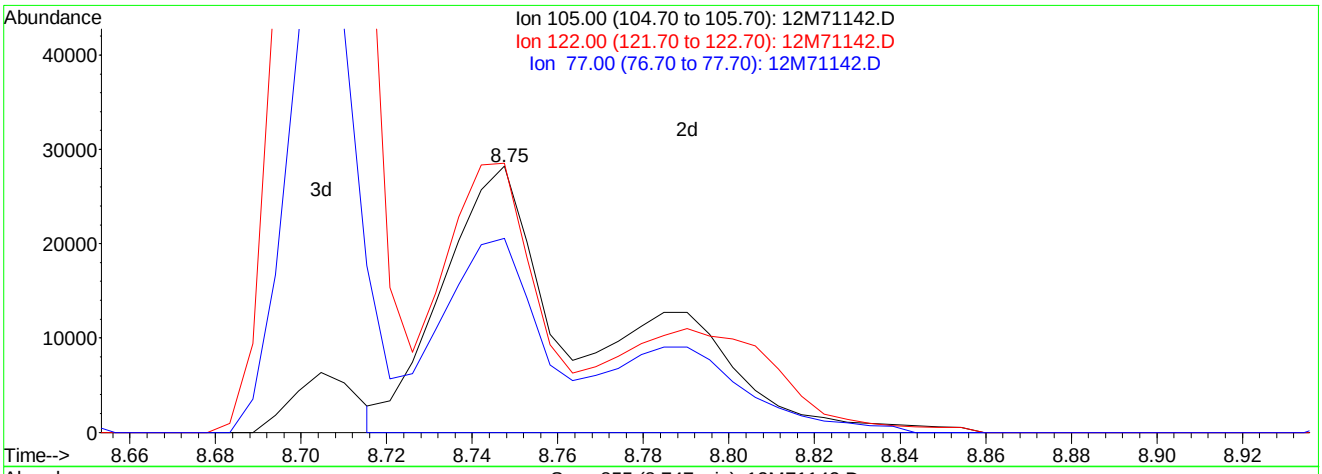
Ion	Exp%	Act%
105.00	100	100
122.00	57.30	93.88#
77.00	41.90	68.58#
0.00	0.00	0.00

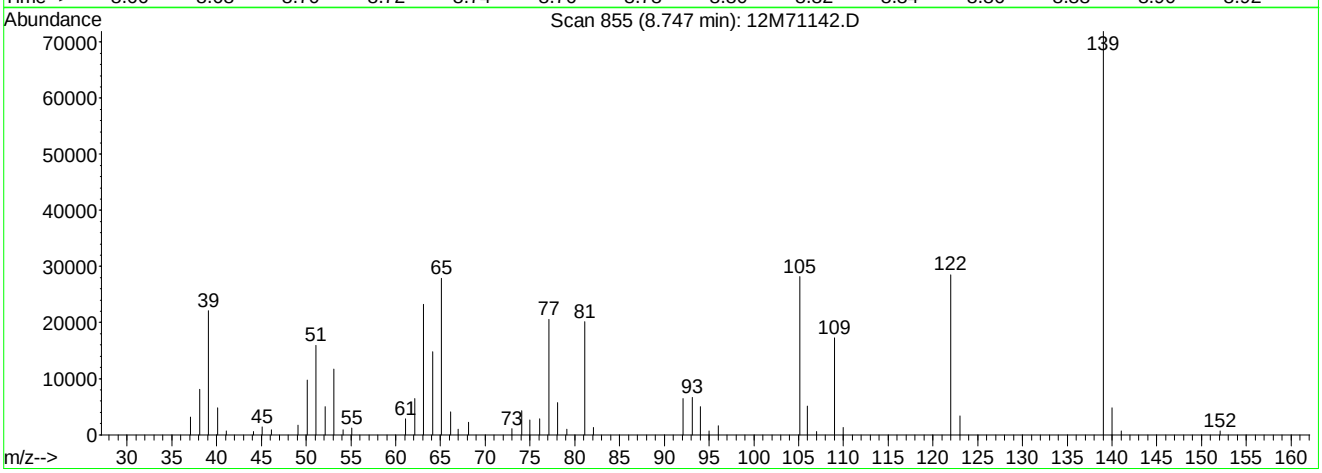
12M71142.D MEGAMIX.M Mon Apr 15 13:11:08 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:11 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:08:34 2019
Response via : Multiple Level Calibration





TIC: 12M71142.D

(39) Benzoic Acid

8.75min 45.95ug/ml mint

response 71935

Ion	Exp%	Act%
105.00	100	100
122.00	57.30	57.31
77.00	41.90	41.86
0.00	0.00	0.00

12M71142.D MEGAMIX.M Mon Apr 15 19

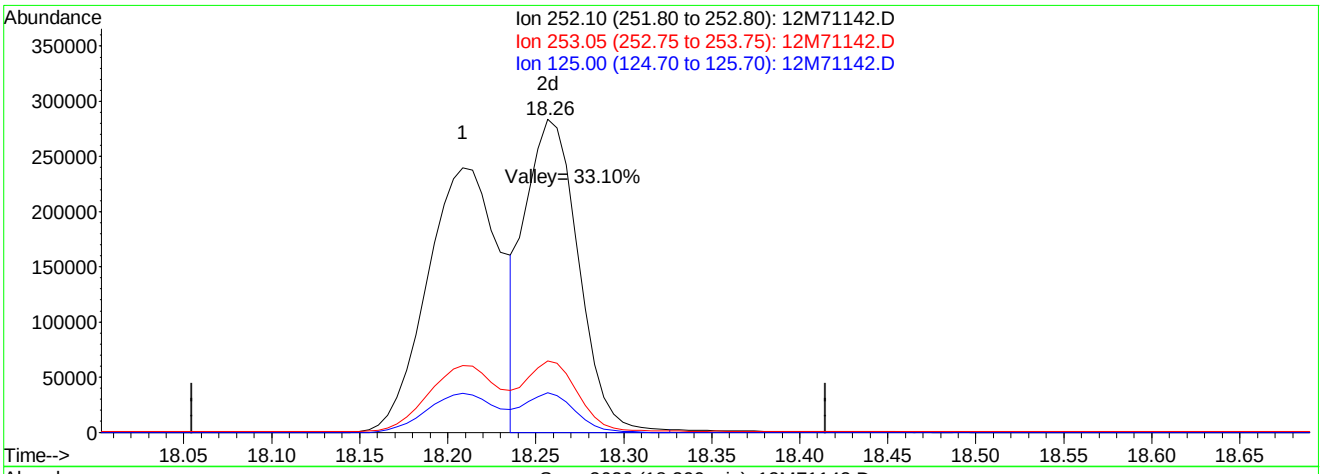
Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

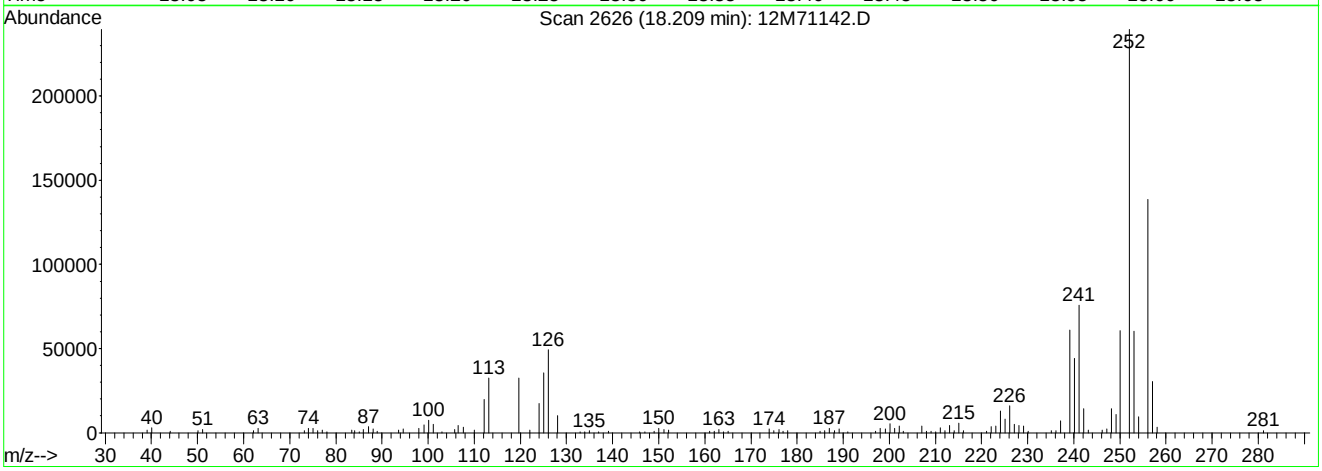
#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71142.D Vial: 2
Acq On : 12 Apr 2019 10:30 am Operator: SCB
Sample : WG703239-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:34 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration





TIC: 12M71142.D

(132) Benzo[b]fluoranthene (P)

18.21min 50.20ug/ml

response 685488

Ion	Exp%	Act%
252.10	100	100
253.05	24.30	24.28
125.00	14.20	14.21
0.00	0.00	0.00

12M71142.D MEGAMIX.M Mon Apr 15 13:45:14 2019

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:12:10 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	129668	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	463434	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	270383	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	458780	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	448398	40.0000	ug/ml	-0.011
129) Perylene-d12	19.090	264	430020	40.0000	ug/ml	-0.011
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	3511	0.8839641	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 0.88%#			
12) Phenol-d5	7.422	99	4643	0.9712253	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 0.97%#			
31) Nitrobenzene-d5	8.400	82	3688	0.9451854	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 1.89%#			
59) 2-Fluorobiphenyl	10.195	172	9120	1.0049693	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 2.01%#			
87) 2,4,6-Tribromophenol	11.766	330	666	0.5607989	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 0.56%#			
118) p-Terphenyl-d14	14.592	244	10625	0.9865380	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 1.97%#			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.14	74	1439	0.5916	ug/ml#	68
4) Pyridine	5.17	79	3012	0.6916	ug/ml#	76
5) 2-Picoline	6.01	93	3984	0.8389	ug/ml#	80
6) n-Nitrosomethylethylamine	6.12	88	1001	0.5114	ug/ml#	65
7) Methyl Methanesulfonate	6.42	80	1866	0.8730	ug/ml#	84
9) n-Nitrosodiethylamine	6.81	102	1512	0.7655	ug/ml	92
10) Ethyl Methanesulfonate	7.08	79	2644	0.9313	ug/ml#	93
11) Aniline	7.52	66	2098	0.9495	ug/ml#	82
13) Phenol	7.43	94	4719	0.9450	ug/ml	91
14) bis(2-Chloroethyl)ether	7.55	63	2699	0.9325	ug/ml	88
15) Pentachloroethane	7.56	167	1425	0.8399	ug/ml	97
16) 2-Chlorophenol	7.65	128	4048	0.9188	ug/ml	93
17) 1,3-Dichlorobenzene	7.81	146	4729	0.9811	ug/ml	96
18) 1,4-Dichlorobenzene	7.85	146	4714	0.9683	ug/ml#	82
19) Benzyl Alcohol	7.94	108	2340	0.8530	ug/ml	98
20) 1,2-Dichlorobenzene	8.05	146	4626	1.0231	ug/ml	96
21) 2-Methylphenol	8.03	107	3082	0.9503	ug/ml	94
22) bis(2-Chloroisopropyl)ethe	8.08	45	4886	1.0095	ug/ml#	87
23) 3-,4-Methylphenol	8.16	107	4060	0.9421	ug/ml	96
24) n-Nitrosopyrrolidine	8.21	100	1598	0.8515	ug/ml#	78
25) n-Nitrosodipropylamine	8.22	70	2628	1.0427	ug/ml#	91
26) Acetophenone	8.22	105	5547	1.0591	ug/ml	97
27) n-Nitrosomorpholine	8.22	56	1972	0.9559	ug/ml#	82
28) o-Toluidine	8.27	106	6215	0.9549	ug/ml	97
29) Hexachloroethane	8.36	117	1470	0.8321	ug/ml	96
32) Nitrobenzene	8.42	77	3814	0.9646	ug/ml#	88
33) n-Nitrosopiperidine	8.56	114	1726	0.8402	ug/ml	92
34) Isophorone	8.63	82	7059	0.9697	ug/ml#	91
35) 2-Nitrophenol	8.74	139	1582	0.7263	ug/ml#	77
36) 2,4-Dimethylphenol	8.70	122	3317	0.8869	ug/ml	97
37) 0,0,0-Triethyl Phosphoroth	8.81	198	2007	0.9482	ug/ml	97
38) bis(2-Chloroethoxy)methane	8.80	93	5946	1.0570	ug/ml#	92
40) 2,4-Dichlorophenol	8.96	162	3106	0.8893	ug/ml	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:12:10 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	a,a-Dimethylphenethylamine	8.92	58	6795	0.7121 ug/ml#	84
42)	1,2,4-Trichlorobenzene	9.07	180	3816	1.0207 ug/ml	99
43)	Naphthalene	9.15	128	13230	1.0448 ug/ml#	95
44)	4-Chloroaniline	9.17	65	1160	0.8576 ug/ml	80
45)	2,6-Dichlorophenol	9.20	162	3069	0.9096 ug/ml	94
46)	Hexachloropropene	9.27	213	1518	0.6708 ug/ml	88
47)	Hexachlorobutadiene	9.30	225	1935	0.9248 ug/ml	98
48)	n-Nitrosodi-n-Butylamine	9.48	84	2816	0.8801 ug/ml	97
49)	p-Phenylenediamine	9.51	108	2650	0.1948 ug/ml#	85
50)	4-Chloro-3-Methylphenol	9.61	107	2959	0.8774 ug/ml	97
51)	Safrole	9.71	162	3267	0.9547 ug/ml#	91
52)	2-Methylnaphthalene	9.84	142	8262	0.9808 ug/ml	96
53)	1-Methylnaphthalene	9.95	142	8039	1.0105 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	3826	0.9899 ug/ml#	95
56)	Hexachlorocyclopentadiene	10.06	237	952	1.4949 ug/ml#	68
57)	2,4,6-Trichlorophenol	10.13	196	1858	0.7481 ug/ml	90
58)	2,4,5-Trichlorophenol	10.17	196	1901	0.7360 ug/ml	92
60)	Isosafrole	10.23	162	3234	0.9408 ug/ml	93
61)	2-Chloronaphthalene	10.34	162	7736	0.9941 ug/ml	98
62)	1-Chloronaphthalene	10.39	162	7208	1.0047 ug/ml	99
63)	2-Nitroaniline	10.44	65	1538	0.7517 ug/ml	97
64)	1,4-Naphthoquinone	10.50	158	2235	1.1311 ug/ml	97
65)	Dimethylphthalate	10.60	163	8515	0.9924 ug/ml	90
66)	1,3-Dinitrobenzene	10.65	168	1000	0.6507 ug/ml	94
67)	2,6-Dinitrotoluene	10.70	165	1574	0.7582 ug/ml	78
68)	Acenaphthylene	10.79	152	12267	1.0305 ug/ml#	96
69)	3-Nitroaniline	10.85	138	1947	0.8510 ug/ml#	91
71)	Acenaphthene	10.97	154	7543	0.9864 ug/ml	96
72)	4-Nitrophenol	10.95	65	629	0.4655 ug/ml	92
73)	2,4-Dinitrotoluene	11.10	165	1888	0.7077 ug/ml	75
74)	Pentachlorobenzene	11.15	250	3384	1.0136 ug/ml#	91
75)	Dibenzofuran	11.12	168	11085	1.0093 ug/ml	97
76)	2,3,5,6-Tetrachlorophenol	11.23	232	1075	0.5420 ug/ml#	69
77)	2,3,4,6-Tetrachlorophenol	11.27	232	1336	0.6210 ug/ml#	86
78)	1-Naphthylamine	11.20	143	7894	0.9943 ug/ml	97
79)	2-Naphthylamine	11.27	143	7969	0.9831 ug/ml	97
80)	Diethylphthalate	11.30	149	8303	0.9918 ug/ml	95
81)	Thionazin	11.41	107	1061	0.7925 ug/ml	96
82)	Fluorene	11.49	166	8873	0.9891 ug/ml	95
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	4317	0.9728 ug/ml	95
84)	4-Nitroaniline	11.48	138	1826	0.7726 ug/ml	92
85)	5-Nitro-o-Toluidine	11.48	152	2153	0.8146 ug/ml	93
86)	1,2-Diphenylhydrazine	11.61	77	7365	0.9596 ug/ml	97
90)	Diphenylamine/n-Nitrosodip	11.55	169	7861	0.9682 ug/ml	96
91)	Sulfotepp	11.75	322	1234	0.8263 ug/ml#	87
92)	Sym-Trinitrobenzene	11.82	75	187	2.4074 ug/ml#	22
93)	Diallate	11.88	86	2880	0.9306 ug/ml	98
94)	Phenacetin	11.86	108	3144	0.7777 ug/ml	91
95)	Phorate	11.90	75	4230	0.8873 ug/ml#	91
96)	4-Bromophenyl Phenyl Ether	11.97	248	2483	0.9450 ug/ml	95
97)	Hexachlorobenzene	12.19	284	2474	0.9197 ug/ml#	81
98)	Dimethoate	12.11	87	2475	0.8600 ug/ml	91
99)	4-Aminobiphenyl	12.27	169	9023	0.9110 ug/ml	93
101)	Pronamide	12.31	173	3086	0.7835 ug/ml#	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:12:10 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

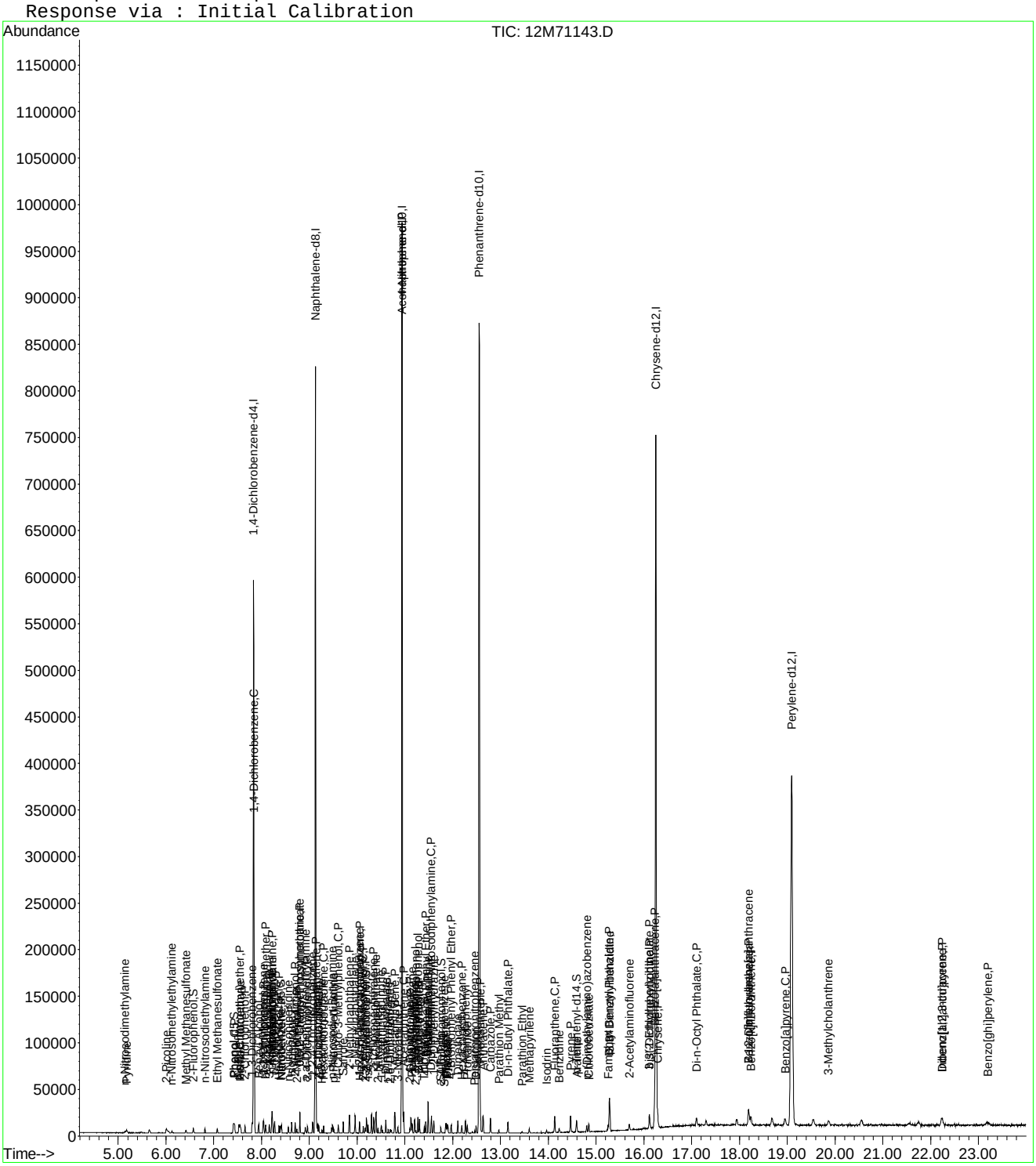
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Pentachloronitrobenzene	12.46	237	428	0.4246 ug/ml#	40
103) Disulfoton	12.49	88	3366	0.8070 ug/ml	92
104) Phenanthrene	12.58	178	12893	1.0158 ug/ml	94
105) Anthracene	12.64	178	12758	0.9790 ug/ml	94
106) Carbazole	12.79	167	11354	0.9357 ug/ml#	89
107) Parathion Methyl	12.97	109	1340	0.5619 ug/ml	95
108) Di-n-Butyl Phthalate	13.15	149	12366	0.8797 ug/ml#	90
109) Parathion Ethyl	13.45	97	631	0.4020 ug/ml#	62
111) Methapyrilene	13.60	58	2644	1.2800 ug/ml#	92
112) Isodrin	13.96	193	1089	0.7687 ug/ml#	68
113) Fluoranthene	14.13	202	13338	0.9505 ug/ml	93
115) Benzidine	14.23	184	4788	0.7556 ug/ml	100
116) Pyrene	14.46	202	13564	0.9383 ug/ml	98
117) Aramite	14.60	185	364	0.4683 ug/ml#	30
119) p-(Dimethylamino)azobenzen	14.81	225	2112	0.7039 ug/ml	93
120) Chlorobenzilate	14.85	251	3211	0.7704 ug/ml	99
121) Famphur	15.25	218	4080	5.2933 ug/ml#	60
122) Butyl Benzyl Phthalate	15.27	149	5885	0.9308 ug/ml	95
123) 3,3'-Dimethylbenzidine	15.28	212	15685	0.0188 ug/ml	97
124) 2-Acetylaminofluorene	15.70	181	3049	0.5617 ug/ml	98
125) bis(2-Ethylhexyl)phthalate	16.11	149	7119	0.8449 ug/ml#	90
126) 3,3'-Dichlorobenzidine	16.12	252	4036	0.8604 ug/ml#	92
127) Benzo[a]anthracene	16.22	228	14027	1.0482 ug/ml	91
128) Chrysene	16.29	228	12796	1.0037 ug/ml	96
130) Di-n-Octyl Phthalate	17.10	149	10994	0.7688 ug/ml#	87
131) 7,12-Dimethylbenz[a]anthra	18.20	256	5084	0.8209 ug/ml	95
132) Benzo[b]fluoranthene	18.19	252	12722	0.9628 ug/ml#	88
133) Benzo[k]fluoranthene	18.24	252	10549	0.9074 ug/ml#	94
134) Benzo[a]pyrene	18.96	252	10043	0.8544 ug/ml#	80
135) 3-Methylcholanthrene	19.86	268	4841	0.7771 ug/ml#	72
136) Indeno[1,2,3-cd]pyrene	22.24	276	9945	0.7541 ug/ml#	72
137) Dibenz[ah]anthracene	22.24	278	7636	0.6819 ug/ml#	62
138) Benzo[ghi]perylene	23.19	276	8705	0.7950 ug/ml#	59

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:12 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	-1.000	0.000	0.0	0	-4.68#
3		n-Nitrosodimethylamine	-1.000	0.592	0.0	100	0.00
4		Pyridine	-1.000	0.692	0.0	100	0.02
5		2-Picoline	-1.000	0.839	0.0	100	0.01
6		n-Nitrosomethylethylamine	-1.000	0.511	0.0	100	0.00
7		Methyl Methanesulfonate	-1.000	0.873	0.0	100	0.00
8	S	2-Fluorophenol	-1.000	0.884	0.0	100	0.00
9		n-Nitrosodiethylamine	-1.000	0.765	0.0	100	0.00
10		Ethyl Methanesulfonate	-1.000	0.931	0.0	100	0.00
11		Aniline	-1.000	0.950	0.0	100	0.00
12	S	Phenol-d5	-1.000	0.971	0.0	100	0.00
13	C,P	Phenol	-1.000	0.945	0.0	100	0.00
14	P	bis(2-Chloroethyl)ether	-1.000	0.933	0.0	100	0.00
15		Pentachloroethane	-1.000	0.840	0.0	100	0.00
16	P	2-Chlorophenol	-1.000	0.919	0.0	100	0.00
17		1,3-Dichlorobenzene	-1.000	0.981	0.0	100	0.00
18	C	1,4-Dichlorobenzene	-1.000	0.968	0.0	100	0.00
19		Benzyl Alcohol	-1.000	0.853	0.0	100	0.00
20		1,2-Dichlorobenzene	-1.000	1.023	0.0	100	0.00
21	P	2-Methylphenol	-1.000	0.950	0.0	100	0.00
22	P	bis(2-Chloroisopropyl)ether	-1.000	1.010	0.0	100	0.00
23	P	3-,4-Methylphenol	-1.000	0.942	0.0	100	0.00
24		n-Nitrosopyrrolidine	-1.000	0.852	0.0	100	-0.01
25	P	n-Nitrosodipropylamine	-1.000	1.043	0.0	100	0.00
26		Acetophenone	-1.000	1.059	0.0	100	0.00
27		n-Nitrosomorpholine	-1.000	0.956	0.0	100	-0.01
28		o-Toluidine	-1.000	0.955	0.0	100	0.00
29	P	Hexachloroethane	-1.000	0.832	0.0	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	-1.000	0.945	0.0	100	0.00
32	P	Nitrobenzene	-1.000	0.965	0.0	100	0.00
33		n-Nitrosopiperidine	-1.000	0.840	0.0	100	0.00
34	P	Isophorone	-1.000	0.970	0.0	100	0.00
35	C,P	2-Nitrophenol	-1.000	0.726	0.0	100	0.00
36	P	2,4-Dimethylphenol	-1.000	0.887	0.0	100	0.00
37		0,0,0-Triethyl Phosphorothi	-1.000	0.948	0.0	100	0.00
38	P	bis(2-Chloroethoxy)methane	-1.000	1.057	0.0	100	0.00
39		Benzoic Acid	-1.000	0.000	0.0	0	-8.75#
40	C,P	2,4-Dichlorophenol	-1.000	0.889	0.0	100	0.00
41		a,a-Dimethylphenethylamine	-1.000	0.712	0.0	100	-0.05
42		1,2,4-Trichlorobenzene	-1.000	1.021	0.0	100	0.00
43	P	Naphthalene	-1.000	1.045	0.0	100	0.00
44	P	4-Chloroaniline	-1.000	0.858	0.0	100	0.00
45		2,6-Dichlorophenol	-1.000	0.910	0.0	100	0.00
46		Hexachloropropene	-1.000	0.671	0.0	100	0.00
47	C,P	Hexachlorobutadiene	1.000	0.925	7.5	100	0.00
48		n-Nitrosodi-n-Butylamine	-1.000	0.880	0.0	100	0.00
49		p-Phenylenediamine	-1.000	0.195	0.0	0	0.00
50	C,P	4-Chloro-3-Methylphenol	-1.000	0.877	0.0	100	0.00
51		Safrole	-1.000	0.955	0.0	100	0.00
52	P	2-Methylnaphthalene	-1.000	0.981	0.0	100	0.00
53		1-Methylnaphthalene	-1.000	1.011	0.0	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	-1.000	0.990	0.0	100	0.00
56	P	Hexachlorocyclopentadiene	-1.000	1.495	0.0	100	0.00
57	C,P	2,4,6-Trichlorophenol	-1.000	0.748	0.0	100	0.00
58	P	2,4,5-Trichlorophenol	-1.000	0.736	0.0	100	0.00
59	S	2-Fluorobiphenyl	-1.000	1.005	0.0	100	0.00
60		Isosafrole	-1.000	0.941	0.0	100	0.00
61	P	2-Chloronaphthalene	-1.000	0.994	0.0	100	0.00
62		1-Chloronaphthalene	-1.000	1.005	0.0	100	0.00
63	P	2-Nitroaniline	-1.000	0.752	0.0	100	0.00
64		1,4-Naphthoquinone	-1.000	1.131	0.0	100	0.00
65	P	Dimethylphthalate	-1.000	0.992	0.0	100	0.00
66		1,3-Dinitrobenzene	-1.000	0.651	0.0	100	0.00
67	P	2,6-Dinitrotoluene	-1.000	0.758	0.0	100	0.00
68	P	Acenaphthylene	-1.000	1.031	0.0	100	0.00
69	P	3-Nitroaniline	-1.000	0.851	0.0	100	0.00
70	P	2,4-Dinitrophenol	-1.000	0.000	0.0	0	-10.96#
71	C,P	Acenaphthene	-1.000	0.986	0.0	100	0.00
72	P	4-Nitrophenol	-1.000	0.466	0.0	100	-0.01
73	P	2,4-Dinitrotoluene	-1.000	0.708	0.0	100	0.00
74		Pentachlorobenzene	-1.000	1.014	0.0	100	0.00
75	P	Dibenzofuran	-1.000	1.009	0.0	100	0.00
76		2,3,5,6-Tetrachlorophenol	-1.000	0.542	0.0	100	0.00
77		2,3,4,6-Tetrachlorophenol	-1.000	0.621	0.0	100	0.00
78		1-Naphthylamine	-1.000	0.994	0.0	100	0.00
79		2-Naphthylamine	-1.000	0.983	0.0	100	0.00
80	P	Diethylphthalate	-1.000	0.992	0.0	100	-0.01
81		Thionazin	-1.000	0.793	0.0	100	0.00
82	P	Fluorene	-1.000	0.989	0.0	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	-1.000	0.973	0.0	100	0.00
84	P	4-Nitroaniline	-1.000	0.773	0.0	100	-0.02
85		5-Nitro-o-Toluidine	-1.000	0.815	0.0	100	-0.01
86		1,2-Diphenylhydrazine	-1.000	0.960	0.0	100	0.00
87	S	2,4,6-Tribromophenol	-1.000	0.561	0.0	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	-1.000	0.000	0.0	0	-11.54#
90	C,P	Diphenylamine/n-Nitrosodiph	-1.000	0.968	0.0	100	0.00
91		Sulfotepp	-1.000	0.826	0.0	100	0.00
92		Sym-Trinitrobenzene	-1.000	2.407	0.0	100	-0.02
93		Diallate	-1.000	0.931	0.0	100	0.00
94		Phenacetin	-1.000	0.778	0.0	100	-0.01
95		Phorate	-1.000	0.887	0.0	100	0.00
96	P	4-Bromophenyl Phenyl Ether	-1.000	0.945	0.0	100	0.00
97	P	Hexachlorobenzene	-1.000	0.920	0.0	100	0.00
98		Dimethoate	-1.000	0.860	0.0	0	-0.01
99		4-Aminobiphenyl	-1.000	0.911	0.0	100	0.00
100	C,P	Pentachlorophenol	-1.000	0.000	0.0	0	-12.37#
101		Pronamide	-1.000	0.783	0.0	100	0.00
102		Pentachloronitrobenzene	-1.000	0.425	0.0	100	0.00
103		Disulfoton	-1.000	0.807	0.0	100	0.00
104	P	Phenanthrene	-1.000	1.016	0.0	100	0.00
105	P	Anthracene	-1.000	0.979	0.0	100	0.00
106	P	Carbazole	-1.000	0.936	0.0	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71143.D Vial: 3
Acq On : 12 Apr 2019 11:05 am Operator: SCB
Sample : WG703239-03 1PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	-1.000	0.562	0.0	100	0.00
108	P	Di-n-Butyl Phthalate	-1.000	0.880	0.0	100	0.00
109		Parathion Ethyl	-1.000	0.402	0.0	100	0.00
110		4-Nitroquinoline 1-Oxide	-1.000	0.000	0.0	0	-13.55#
111		Methapyrilene	-1.000	1.280	0.0	0	0.00
112		Isodrin	-1.000	0.769	0.0	100	0.00
113	C,P	Fluoranthene	-1.000	0.951	0.0	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	-0.01
115		Benzidine	-1.000	0.756	0.0	100	0.00
116	P	Pyrene	-1.000	0.938	0.0	100	0.00
117		Aramite	-1.000	0.468	0.0	100	0.10
118	S	p-Terphenyl-d14	-1.000	0.987	0.0	100	0.00
119		p-(Dimethylamino)azobenzene	-1.000	0.704	0.0	100	0.00
120		Chlorobenzilate	-1.000	0.770	0.0	100	0.00
121		Famphur	-1.000	5.293	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	-1.000	0.931	0.0	100	0.00
123		3,3'-Dimethylbenzidine	-1.000	0.019	0.0	100	-0.01
124		2-Acetylaminofluorene	-1.000	0.562	0.0	100	-0.01
125	P	bis(2-Ethylhexyl)phthalate	1.000	0.845	15.5	100	0.00
126	P	3,3'-Dichlorobenzidine	-1.000	0.860	0.0	100	0.00
127	P	Benzo[a]anthracene	-1.000	1.048	0.0	100	0.00
128	P	Chrysene	-1.000	1.004	0.0	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	-0.01
130	C,P	Di-n-Octyl Phthalate	-1.000	0.769	0.0	100	0.00
131		7,12-Dimethylbenz[a]anthrac	-1.000	0.821	0.0	100	-0.02
132	P	Benzo[b]fluoranthene	-1.000	0.963	0.0	100	-0.02
133	P	Benzo[k]fluoranthene	-1.000	0.907	0.0	100	-0.02
134	C,P	Benzo[a]pyrene	-1.000	0.854	0.0	100	-0.01
135		3-Methylcholanthrene	-1.000	0.777	0.0	100	-0.02
136	P	Indeno[1,2,3-cd]pyrene	-1.000	0.754	0.0	100	-0.04
137	P	Dibenz[ah]anthracene	-1.000	0.682	0.0	100	-0.04
138	P	Benzo[ghi]perylene	-1.000	0.795	0.0	100	-0.05

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35:08 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	127744	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	453553	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	267095	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	454079	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	448634	40.0000	ug/ml	-0.011
129) Perylene-d12	19.090	264	439492	40.0000	ug/ml	-0.011
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	10965	2.8022361	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 2.80%#			
12) Phenol-d5	7.422	99	13867	2.9443953	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 2.94%#			
31) Nitrobenzene-d5	8.395	82	11011	2.8834520	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 5.77%#			
59) 2-Fluorobiphenyl	10.195	172	27526	3.0705395	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 6.14%#			
87) 2,4,6-Tribromophenol	11.760	330	2858	2.4361765	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 2.44%#			
118) p-Terphenyl-d14	14.592	244	32197	2.9879394	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 5.98%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	3441	2.1022	ug/ml	85
3) n-Nitrosodimethylamine	5.14	74	5965	2.4894	ug/ml#	97
4) Pyridine	5.17	79	11904	2.7746	ug/ml#	94
5) 2-Picoline	6.00	93	13295	2.8417	ug/ml	92
6) n-Nitrosomethylethylamine	6.12	88	5216	2.7052	ug/ml	91
7) Methyl Methanesulfonate	6.41	80	6088	2.8912	ug/ml#	96
9) n-Nitrosodiethylamine	6.81	102	5366	2.7575	ug/ml	95
10) Ethyl Methanesulfonate	7.07	79	8070	2.8852	ug/ml	96
11) Aniline	7.52	66	6297	2.8928	ug/ml	90
13) Phenol	7.43	94	14957	3.0403	ug/ml	97
14) bis(2-Chloroethyl)ether	7.55	63	8983	3.1504	ug/ml	93
15) Pentachloroethane	7.56	167	4793	2.8674	ug/ml	98
16) 2-Chlorophenol	7.65	128	12380	2.8523	ug/ml	98
17) 1,3-Dichlorobenzene	7.80	146	14349	3.0219	ug/ml	98
18) 1,4-Dichlorobenzene	7.85	146	14179	2.9564	ug/ml	91
19) Benzyl Alcohol	7.94	108	7296	2.6996	ug/ml	98
20) 1,2-Dichlorobenzene	8.04	146	13307	2.9874	ug/ml	99
21) 2-Methylphenol	8.03	107	9208	2.8819	ug/ml	98
22) bis(2-Chloroisopropyl)ethe	8.08	45	14531	3.0475	ug/ml	97
23) 3-,4-Methylphenol	8.16	107	12195	2.8724	ug/ml	96
24) n-Nitrosopyrrolidine	8.21	100	5382	2.9111	ug/ml	88
25) n-Nitrosodipropylamine	8.21	70	7984	3.2154	ug/ml	97
26) Acetophenone	8.22	105	16034	3.1075	ug/ml	100
27) n-Nitrosomorpholine	8.22	56	6418	3.1578	ug/ml	96
28) o-Toluidine	8.27	106	18893	2.9464	ug/ml	98
29) Hexachloroethane	8.36	117	4774	2.7431	ug/ml	97
32) Nitrobenzene	8.42	77	11607	2.9995	ug/ml	95
33) n-Nitrosopiperidine	8.56	114	5484	2.7277	ug/ml	95
34) Isophorone	8.63	82	21262	2.9843	ug/ml	98
35) 2-Nitrophenol	8.74	139	5292	2.4824	ug/ml	94
36) 2,4-Dimethylphenol	8.70	122	10609	2.8985	ug/ml	97
37) 0,0,0-Triethyl Phosphoroth	8.80	198	6369	3.0745	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.80	93	17595	3.1961	ug/ml	96

(#) = qualifier out of range (m) = manual integration
12M71144.D MEGAMIX.M Mon Apr 15 13:42:28 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35:08 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	2,4-Dichlorophenol	8.96	162	9733	2.8474	ug/ml	98
41)	a,a-Dimethylphenethylamine	8.91	58	23897	2.5592	ug/ml#	93
42)	1,2,4-Trichlorobenzene	9.07	180	10927	2.9866	ug/ml	100
43)	Naphthalene	9.15	128	38571	3.1124	ug/ml#	96
44)	4-Chloroaniline	9.17	65	3728	2.8163	ug/ml	85
45)	2,6-Dichlorophenol	9.20	162	9473	2.8688	ug/ml	98
46)	Hexachloropropene	9.27	213	5552	2.5070	ug/ml	98
47)	Hexachlorobutadiene	9.30	225	6126	2.9916	ug/ml	97
48)	n-Nitrosodi-n-Butylamine	9.48	84	9173	2.9295	ug/ml	96
49)	p-Phenylenediamine	9.51	108	10140	2.1927	ug/ml	99
50)	4-Chloro-3-Methylphenol	9.61	107	9228	2.7958	ug/ml	99
51)	Safrole	9.71	162	9867	2.9462	ug/ml	97
52)	2-Methylnaphthalene	9.84	142	25125	3.0475	ug/ml	99
53)	1-Methylnaphthalene	9.95	142	23513	3.0200	ug/ml	98
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	11744	3.0758	ug/ml	97
56)	Hexachlorocyclopentadiene	10.06	237	3726	2.7499	ug/ml#	87
57)	2,4,6-Trichlorophenol	10.13	196	6491	2.6456	ug/ml	97
58)	2,4,5-Trichlorophenol	10.17	196	6611	2.5911	ug/ml	98
60)	Isosafrole	10.23	162	9788	2.8825	ug/ml	99
61)	2-Chloronaphthalene	10.34	162	23450	3.0505	ug/ml	99
62)	1-Chloronaphthalene	10.39	162	22023	3.1074	ug/ml	98
63)	2-Nitroaniline	10.44	65	5247	2.5960	ug/ml	99
64)	1,4-Naphthoquinone	10.50	158	8183	2.6838	ug/ml	99
65)	Dimethylphthalate	10.60	163	25474	3.0054	ug/ml	97
66)	1,3-Dinitrobenzene	10.65	168	3677	2.4219	ug/ml	99
67)	2,6-Dinitrotoluene	10.69	165	5631	2.7458	ug/ml	97
68)	Acenaphthylene	10.79	152	35733	3.0387	ug/ml	99
69)	3-Nitroaniline	10.85	138	6106	2.7018	ug/ml	99
71)	Acenaphthene	10.97	154	22248	2.9453	ug/ml	94
72)	4-Nitrophenol	10.95	65	2830	2.1202	ug/ml	90
73)	2,4-Dinitrotoluene	11.10	165	6585	2.4986	ug/ml	90
74)	Pentachlorobenzene	11.15	250	9981	3.0264	ug/ml	98
75)	Dibenzofuran	11.12	168	33565	3.0936	ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	4393	2.2423	ug/ml	98
77)	2,3,4,6-Tetrachlorophenol	11.27	232	5369	2.5263	ug/ml	95
78)	1-Naphthylamine	11.20	143	24316	3.1006	ug/ml	99
79)	2-Naphthylamine	11.27	143	25142	3.1398	ug/ml	99
80)	Diethylphthalate	11.30	149	25271	3.0559	ug/ml	98
81)	Thionazin	11.40	107	3594	2.7176	ug/ml	98
82)	Fluorene	11.49	166	27215	3.0711	ug/ml	98
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	13330	3.0407	ug/ml	99
84)	4-Nitroaniline	11.48	138	6394	2.7388	ug/ml	95
85)	5-Nitro-o-Toluidine	11.48	152	7281	2.7889	ug/ml	97
86)	1,2-Diphenylhydrazine	11.60	77	22849	3.0138	ug/ml	98
89)	4,6-Dinitro-2-Methylphenol	11.53	198	734	7.0392	ug/ml#	1
90)	Diphenylamine/n-Nitrosodip	11.55	169	23946	2.9797	ug/ml	98
91)	Sulfotepp	11.75	322	4237	2.8665	ug/ml	92
92)	Sym-Trinitrobenzene	11.82	75	2546	3.5175	ug/ml	92
93)	Diallate	11.88	86	9260	3.0232	ug/ml	99
94)	Phenacetin	11.85	108	10231	2.5571	ug/ml	96
95)	Phorate	11.89	75	13873	2.9403	ug/ml#	98
96)	4-Bromophenyl Phenyl Ether	11.97	248	7499	2.8836	ug/ml	96
97)	Hexachlorobenzene	12.19	284	7960	2.9896	ug/ml	96
98)	Dimethoate	12.10	87	8463	2.9712	ug/ml	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35:08 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

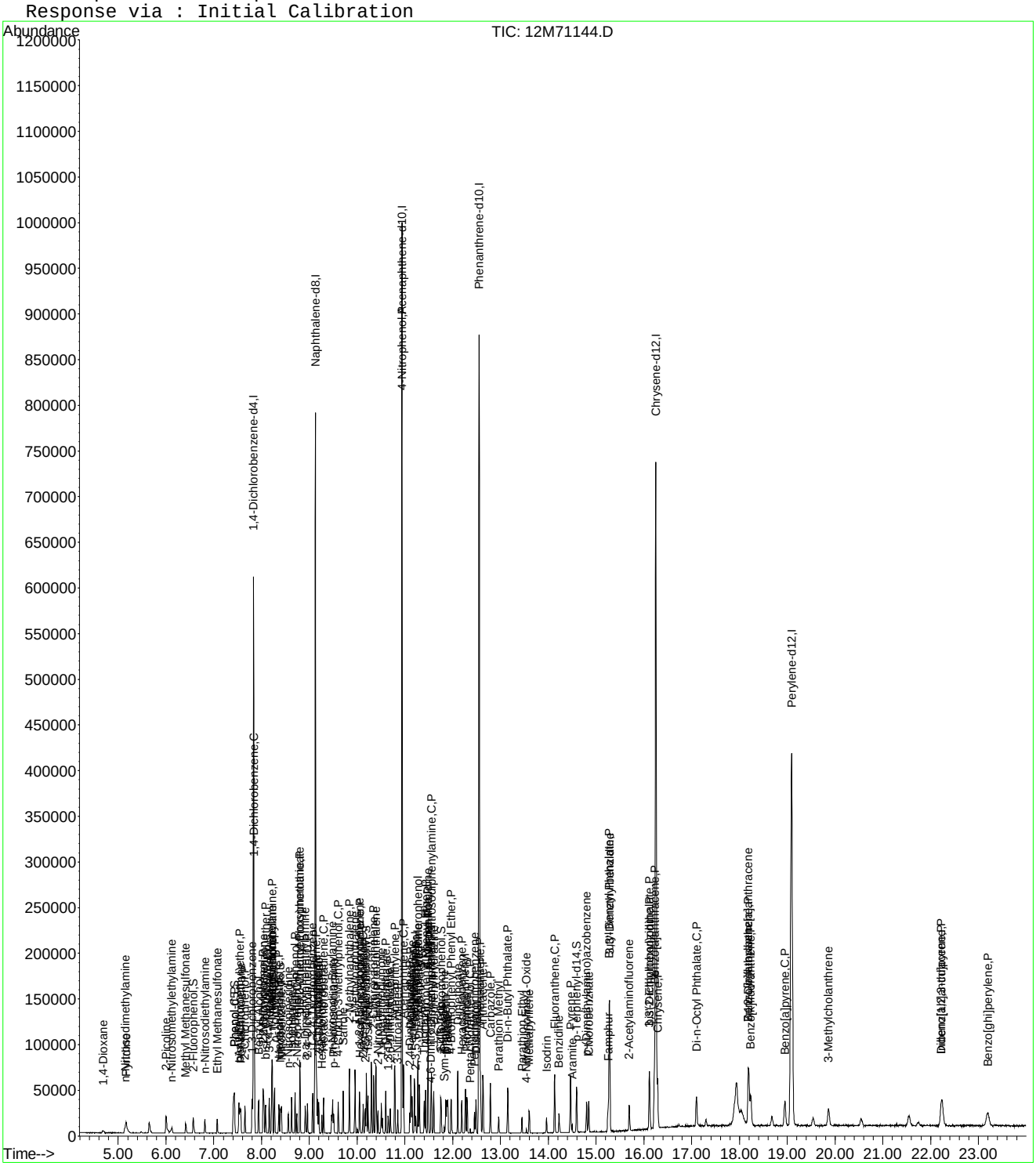
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	4-Aminobiphenyl	12.27	169	27822	2.8380	ug/ml	99
100)	Pentachlorophenol	12.36	266	1511	4.4845	ug/ml	85
101)	Pronamide	12.30	173	10848	2.7825	ug/ml	96
102)	Pentachloronitrobenzene	12.45	237	2531	2.5371	ug/ml	96
103)	Disulfoton	12.49	88	11766	2.8500	ug/ml	98
104)	Phenanthrene	12.58	178	38660	3.0775	ug/ml	99
105)	Anthracene	12.63	178	38689	2.9997	ug/ml	98
106)	Carbazole	12.79	167	35219	2.9325	ug/ml	97
107)	Parathion Methyl	12.96	109	5848	2.4776	ug/ml	96
108)	Di-n-Butyl Phthalate	13.15	149	39984	2.8738	ug/ml	98
109)	Parathion Ethyl	13.45	97	3383	2.1778	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.54	190	403	3.7991	ug/ml#	48
111)	Methapyrilene	13.60	58	11720	2.9951	ug/ml	99
112)	Isodrin	13.96	193	4179	2.9803	ug/ml	95
113)	Fluoranthene	14.13	202	42109	3.0320	ug/ml	98
115)	Benzidine	14.22	184	18631	2.9388	ug/ml	100
116)	Pyrene	14.46	202	42840	2.9618	ug/ml	98
117)	Aramite	14.50	185	1808	2.3248	ug/ml#	84
119)	p-(Dimethylamino)azobenzen	14.80	225	8047	2.6805	ug/ml	99
120)	Chlorobenzilate	14.85	251	11286	2.7062	ug/ml	98
121)	Famphur	15.25	218	14198	18.4104	ug/ml#	73
122)	Butyl Benzyl Phthalate	15.27	149	18830	2.9768	ug/ml	97
123)	3,3'-Dimethylbenzidine	15.28	212	50522	2.4279	ug/ml	99
124)	2-Acetylaminofluorene	15.69	181	11420	2.1028	ug/ml	98
125)	bis(2-Ethylhexyl)phthalate	16.11	149	23432	2.7795	ug/ml	97
126)	3,3'-Dichlorobenzidine	16.12	252	13379	2.8508	ug/ml	97
127)	Benzo[a]anthracene	16.22	228	39911	2.9808	ug/ml	98
128)	Chrysene	16.29	228	38342	3.0059	ug/ml	98
130)	Di-n-Octyl Phthalate	17.10	149	37099	2.5385	ug/ml#	98
131)	7,12-Dimethylbenz[a]anthra	18.19	256	17710	2.7980	ug/ml	100
132)	Benzo[b]fluoranthene	18.19	252	39323	2.9119	ug/ml	97
133)	Benzo[k]fluoranthene	18.24	252	34688	2.9193	ug/ml	95
134)	Benzo[a]pyrene	18.95	252	32773	2.7280	ug/ml	98
135)	3-Methylcholanthrene	19.86	268	16893	2.6535	ug/ml	96
136)	Indeno[1,2,3-cd]pyrene	22.23	276	34621	2.5688	ug/ml	95
137)	Dibenz[ah]anthracene	22.23	278	28138	2.4585	ug/ml	93
138)	Benzo[ghi]perylene	23.20	276	29304	2.6186	ug/ml	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71144.D MEGAMIX.M Mon Apr 15 13:42:28 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



12M71144.D MEGAMIX.M Mon Apr 15 13:42:29 2019 Page 4

Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	3.000	2.102	29.9	100	0.00
3		n-Nitrosodimethylamine	3.000	2.489	17.0	100	0.00
4		Pyridine	3.000	2.775	7.5	100	0.01
5		2-Picoline	3.000	2.842	5.3	100	0.00
6		n-Nitrosomethylethylamine	3.000	2.705	9.8	100	0.00
7		Methyl Methanesulfonate	3.000	2.891	3.6	100	0.00
8	S	2-Fluorophenol	3.000	2.802	6.6	100	0.00
9		n-Nitrosodiethylamine	3.000	2.757	8.1	100	0.00
10		Ethyl Methanesulfonate	3.000	2.885	3.8	100	0.00
11		Aniline	3.000	2.893	3.6	100	0.00
12	S	Phenol-d5	3.000	2.944	1.9	100	0.00
13	C,P	Phenol	3.000	3.040	-1.3	100	0.00
14	P	bis(2-Chloroethyl)ether	3.000	3.150	-5.0	100	0.00
15		Pentachloroethane	3.000	2.867	4.4	100	0.00
16	P	2-Chlorophenol	3.000	2.852	4.9	100	0.00
17		1,3-Dichlorobenzene	3.000	3.022	-0.7	100	0.00
18	C	1,4-Dichlorobenzene	3.000	2.956	1.5	100	0.00
19		Benzyl Alcohol	3.000	2.700	10.0	100	0.00
20		1,2-Dichlorobenzene	3.000	2.987	0.4	100	0.00
21	P	2-Methylphenol	3.000	2.882	3.9	100	0.00
22	P	bis(2-Chloroisopropyl)ether	3.000	3.048	-1.6	100	0.00
23	P	3-,4-Methylphenol	3.000	2.872	4.3	100	-0.01
24		n-Nitrosopyrrolidine	3.000	2.911	3.0	100	-0.01
25	P	n-Nitrosodipropylamine	3.000	3.215	-7.2	100	-0.01
26		Acetophenone	3.000	3.108	-3.6	100	0.00
27		n-Nitrosomorpholine	3.000	3.158	-5.3	100	-0.01
28		o-Toluidine	3.000	2.946	1.8	100	0.00
29	P	Hexachloroethane	3.000	2.743	8.6	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	3.000	2.883	3.9	100	0.00
32	P	Nitrobenzene	3.000	3.000	0.0	100	0.00
33		n-Nitrosopiperidine	3.000	2.728	9.1	100	0.00
34	P	Isophorone	3.000	2.984	0.5	100	0.00
35	C,P	2-Nitrophenol	3.000	2.482	17.3	100	0.00
36	P	2,4-Dimethylphenol	3.000	2.899	3.4	100	0.00
37		0,0,0-Triethyl Phosphorothi	3.000	3.074	-2.5	100	0.00
38	P	bis(2-Chloroethoxy)methane	3.000	3.196	-6.5	100	0.00
39		Benzoic Acid	-1.000	0.000	0.0	0	-8.75#
40	C,P	2,4-Dichlorophenol	3.000	2.847	5.1	100	0.00
41		a,a-Dimethylphenethylamine	3.000	2.559	14.7	100	-0.06
42		1,2,4-Trichlorobenzene	3.000	2.987	0.4	100	0.00
43	P	Naphthalene	3.000	3.112	-3.7	100	0.00
44	P	4-Chloroaniline	3.000	2.816	6.1	100	0.00
45		2,6-Dichlorophenol	3.000	2.869	4.4	100	0.00
46		Hexachloropropene	3.000	2.507	16.4	100	0.00
47	C,P	Hexachlorobutadiene	3.000	2.992	0.3	100	0.00
48		n-Nitrosodi-n-Butylamine	3.000	2.929	2.4	100	0.00
49		p-Phenylenediamine	-1.000	2.193	0.0	0	-0.01
50	C,P	4-Chloro-3-Methylphenol	3.000	2.796	6.8	100	0.00
51		Safrole	3.000	2.946	1.8	100	0.00
52	P	2-Methylnaphthalene	3.000	3.048	-1.6	100	0.00
53		1-Methylnaphthalene	3.000	3.020	-0.7	100	0.00

(#) = Out of Range
12M71144.D MEGAMIX.M Mon Apr 15 13:35:14 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	3.000	3.076	-2.5	100	0.00
56	P	Hexachlorocyclopentadiene	3.000	2.750	8.3	100	0.00
57	C,P	2,4,6-Trichlorophenol	3.000	2.646	11.8	100	0.00
58	P	2,4,5-Trichlorophenol	3.000	2.591	13.6	100	0.00
59	S	2-Fluorobiphenyl	3.000	3.071	-2.4	100	0.00
60		Isosafrole	3.000	2.882	3.9	100	0.00
61	P	2-Chloronaphthalene	3.000	3.050	-1.7	100	0.00
62		1-Chloronaphthalene	3.000	3.107	-3.6	100	0.00
63	P	2-Nitroaniline	-1.000	2.596	0.0	100	0.00
64		1,4-Naphthoquinone	3.000	2.684	10.5	100	0.00
65	P	Dimethylphthalate	3.000	3.005	-0.2	100	0.00
66		1,3-Dinitrobenzene	3.000	2.422	19.3	100	0.00
67	P	2,6-Dinitrotoluene	3.000	2.746	8.5	100	-0.01
68	P	Acenaphthylene	3.000	3.039	-1.3	100	0.00
69	P	3-Nitroaniline	-1.000	2.702	0.0	100	0.00
70	P	2,4-Dinitrophenol	-1.000	0.000	0.0	0	-10.96#
71	C,P	Acenaphthene	3.000	2.945	1.8	100	0.00
72	P	4-Nitrophenol	3.000	2.120	29.3	100	-0.01
73	P	2,4-Dinitrotoluene	3.000	2.499	16.7	100	0.00
74		Pentachlorobenzene	3.000	3.026	-0.9	100	0.00
75	P	Dibenzofuran	3.000	3.094	-3.1	100	0.00
76		2,3,5,6-Tetrachlorophenol	3.000	2.242	25.3	100	0.00
77		2,3,4,6-Tetrachlorophenol	3.000	2.526	15.8	100	0.00
78		1-Naphthylamine	3.000	3.101	-3.4	100	0.00
79		2-Naphthylamine	3.000	3.140	-4.7	100	0.00
80	P	Diethylphthalate	3.000	3.056	-1.9	100	-0.01
81		Thionazin	3.000	2.718	9.4	100	-0.01
82	P	Fluorene	3.000	3.071	-2.4	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	3.000	3.041	-1.4	100	0.00
84	P	4-Nitroaniline	-1.000	2.739	0.0	100	-0.02
85		5-Nitro-o-Toluidine	3.000	2.789	7.0	100	-0.01
86		1,2-Diphenylhydrazine	3.000	3.014	-0.5	100	0.00
87	S	2,4,6-Tribromophenol	3.000	2.436	18.8	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	-1.000	7.039	0.0	100	-0.01
90	C,P	Diphenylamine/n-Nitrosodiph	3.000	2.980	0.7	100	0.00
91		Sulfotepp	3.000	2.867	4.4	100	0.00
92		Sym-Trinitrobenzene	3.000	3.517	-17.2	100	-0.02
93		Diallate	3.000	3.023	-0.8	100	0.00
94		Phenacetin	3.000	2.557	14.8	100	-0.02
95		Phorate	3.000	2.940	2.0	100	-0.01
96	P	4-Bromophenyl Phenyl Ether	3.000	2.884	3.9	100	0.00
97	P	Hexachlorobenzene	3.000	2.990	0.3	100	0.00
98		Dimethoate	3.000	2.971	1.0	100	-0.02
99		4-Aminobiphenyl	3.000	2.838	5.4	100	0.00
100	C,P	Pentachlorophenol	-1.000	4.484	0.0	100	-0.01
101		Pronamide	3.000	2.783	7.2	100	-0.01
102		Pentachloronitrobenzene	3.000	2.537	15.4	100	-0.01
103		Disulfoton	3.000	2.850	5.0	100	0.00
104	P	Phenanthrene	3.000	3.078	-2.6	100	-0.01
105	P	Anthracene	3.000	3.000	0.0	100	-0.01
106	P	Carbazole	3.000	2.933	2.2	100	-0.01

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71144.D Vial: 4
Acq On : 12 Apr 2019 11:37 am Operator: SCB
Sample : WG703239-04 3PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	3.000	2.478	17.4	100	0.00
108	P	Di-n-Butyl Phthalate	3.000	2.874	4.2	100	0.00
109		Parathion Ethyl	3.000	2.178	27.4	100	0.00
110		4-Nitroquinoline 1-Oxide	3.000	3.799	-26.6	100	-0.01
111		Methapyrilene	3.000	2.995	0.2	100	0.00
112		Isodrin	3.000	2.980	0.7	100	0.00
113	C,P	Fluoranthene	3.000	3.032	-1.1	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	-0.01
115		Benzidine	3.000	2.939	2.0	100	-0.01
116	P	Pyrene	3.000	2.962	1.3	100	0.00
117		Aramite	3.000	2.325	22.5	100	0.00
118	S	p-Terphenyl-d14	3.000	2.988	0.4	100	0.00
119		p-(Dimethylamino)azobenzene	3.000	2.681	10.6	100	-0.01
120		Chlorobenzilate	3.000	2.706	9.8	100	0.00
121		Famphur	-1.000	18.410	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	3.000	2.977	0.8	100	0.00
123		3,3'-Dimethylbenzidine	3.000	2.428	19.1	100	-0.01
124		2-Acetylaminofluorene	3.000	2.103	29.9	100	-0.02
125	P	bis(2-Ethylhexyl)phthalate	3.000	2.780	7.3	100	0.00
126	P	3,3'-Dichlorobenzidine	3.000	2.851	5.0	100	0.00
127	P	Benzo[a]anthracene	3.000	2.981	0.6	100	0.00
128	P	Chrysene	3.000	3.006	-0.2	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	-0.01
130	C,P	Di-n-Octyl Phthalate	3.000	2.538	15.4	100	0.00
131		7,12-Dimethylbenz[a]anthrac	3.000	2.798	6.7	100	-0.02
132	P	Benzo[b]fluoranthene	3.000	2.912	2.9	100	-0.02
133	P	Benzo[k]fluoranthene	3.000	2.919	2.7	100	-0.02
134	C,P	Benzo[a]pyrene	3.000	2.728	9.1	100	-0.02
135		3-Methylcholanthrene	3.000	2.653	11.6	100	-0.02
136	P	Indeno[1,2,3-cd]pyrene	3.000	2.569	14.4	100	-0.05
137	P	Dibenz[ah]anthracene	3.000	2.458	18.1	100	-0.05
138	P	Benzo[ghi]perylene	3.000	2.619	12.7	100	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12M71144.D MEGAMIX.M Mon Apr 15 13:35:14 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35:40 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	129552	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	461592	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	272252	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	464255	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	454748	40.0000	ug/ml	-0.011
129) Perylene-d12	19.090	264	445380	40.0000	ug/ml	-0.011
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	41173	10.3754034	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 10.38%#			
12) Phenol-d5	7.423	99	49786	10.4235877	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 10.42%			
31) Nitrobenzene-d5	8.395	82	40780	10.4930793	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 20.99%#			
59) 2-Fluorobiphenyl	10.195	172	96449	10.5551397	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 21.11%#			
87) 2,4,6-Tribromophenol	11.760	330	11906	9.9565089	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 9.96%#			
118) p-Terphenyl-d14	14.592	244	114627	10.4945709	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 20.99%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	16048	9.6675	ug/ml	98
3) n-Nitrosodimethylamine	5.14	74	24674	10.1535	ug/ml#	99
4) Pyridine	5.16	79	45168	10.3808	ug/ml	99
5) 2-Picoline	6.00	93	49134	10.3556	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	19625	10.0360	ug/ml	99
7) Methyl Methanesulfonate	6.41	80	22645	10.6039	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	19920	10.0936	ug/ml	98
10) Ethyl Methanesulfonate	7.07	79	29507	10.4023	ug/ml	100
11) Aniline	7.52	66	23024	10.4294	ug/ml#	90
13) Phenol	7.43	94	52529	10.5286	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	31200	10.7893	ug/ml	96
15) Pentachloroethane	7.56	167	17469	10.3049	ug/ml	98
16) 2-Chlorophenol	7.65	128	45432	10.3214	ug/ml	99
17) 1,3-Dichlorobenzene	7.80	146	50020	10.3871	ug/ml	99
18) 1,4-Dichlorobenzene	7.85	146	50586	10.4004	ug/ml	98
19) Benzyl Alcohol	7.94	108	27876	10.1706	ug/ml	99
20) 1,2-Dichlorobenzene	8.04	146	47973	10.6195	ug/ml	98
21) 2-Methylphenol	8.03	107	33610	10.3724	ug/ml	100
22) bis(2-Chloroisopropyl)ethe	8.09	45	50935	10.5333	ug/ml	100
23) 3-,4-Methylphenol	8.16	107	43928	10.2023	ug/ml	98
24) n-Nitrosopyrrolidine	8.21	100	19476	10.3876	ug/ml	91
25) n-Nitrosodipropylamine	8.22	70	27787	11.0345	ug/ml	98
26) Acetophenone	8.22	105	55378	10.5830	ug/ml	98
27) n-Nitrosomorpholine	8.22	56	23094	11.2043	ug/ml	96
28) o-Toluidine	8.27	106	66820	10.2754	ug/ml	98
29) Hexachloroethane	8.36	117	17824	10.0987	ug/ml	99
32) Nitrobenzene	8.42	77	40930	10.3931	ug/ml	99
33) n-Nitrosopiperidine	8.56	114	20968	10.2478	ug/ml	99
34) Isophorone	8.63	82	76601	10.5644	ug/ml	99
35) 2-Nitrophenol	8.74	139	21637	9.9729	ug/ml	98
36) 2,4-Dimethylphenol	8.70	122	38251	10.2686	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.81	198	22441	10.6442	ug/ml	98
38) bis(2-Chloroethoxy)methane	8.80	93	60969	10.8819	ug/ml	99

(#) = qualifier out of range (m) = manual integration
12M71145.D MEGAMIX.M Mon Apr 15 13:42:30 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35:40 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Benzoic Acid	8.74	105	4688	10.2588 ug/ml#	34
40)	2,4-Dichlorophenol	8.96	162	35960	10.3368 ug/ml	99
41)	a,a-Dimethylphenethylamine	8.92	58	96375	10.1413 ug/ml	100
42)	1,2,4-Trichlorobenzene	9.07	180	39166	10.5184 ug/ml	99
43)	Naphthalene	9.15	128	134076	10.6304 ug/ml#	97
44)	4-Chloroaniline	9.17	65	14386	10.6784 ug/ml	78
45)	2,6-Dichlorophenol	9.20	162	34680	10.3194 ug/ml	100
46)	Hexachloropropene	9.27	213	22889	10.1556 ug/ml	99
47)	Hexachlorobutadiene	9.30	225	22472	10.7830 ug/ml	100
48)	n-Nitrosodi-n-Butylamine	9.48	84	34000	10.6692 ug/ml	99
49)	p-Phenylenediamine	9.51	108	37971	9.8073 ug/ml	100
50)	4-Chloro-3-Methylphenol	9.61	107	34637	10.3113 ug/ml	98
51)	Safrole	9.71	162	35278	10.3501 ug/ml	100
52)	2-Methylnaphthalene	9.84	142	88309	10.5249 ug/ml	98
53)	1-Methylnaphthalene	9.95	142	83418	10.5276 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	40943	10.5201 ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	16762	10.1854 ug/ml	99
57)	2,4,6-Trichlorophenol	10.13	196	25644	10.2539 ug/ml	98
58)	2,4,5-Trichlorophenol	10.17	196	26274	10.1025 ug/ml	98
60)	Isosafrole	10.23	162	35918	10.3771 ug/ml	99
61)	2-Chloronaphthalene	10.34	162	82144	10.4832 ug/ml	99
62)	1-Chloronaphthalene	10.39	162	76461	10.5843 ug/ml	99
63)	2-Nitroaniline	10.44	65	20599	9.9984 ug/ml	100
64)	1,4-Naphthoquinone	10.51	158	32113	10.5865 ug/ml	99
65)	Dimethylphthalate	10.60	163	90415	10.4651 ug/ml	99
66)	1,3-Dinitrobenzene	10.65	168	15196	9.8196 ug/ml	98
67)	2,6-Dinitrotoluene	10.70	165	20959	10.0264 ug/ml	99
68)	Acenaphthylene	10.79	152	128513	10.7217 ug/ml	99
69)	3-Nitroaniline	10.85	138	22919	9.9491 ug/ml	100
70)	2,4-Dinitrophenol	10.95	184	2864	10.3496 ug/ml#	1
71)	Acenaphthene	10.97	154	79895	10.3764 ug/ml	97
72)	4-Nitrophenol	10.95	65	13098	9.6268 ug/ml	98
73)	2,4-Dinitrotoluene	11.10	165	27009	10.0540 ug/ml	99
74)	Pentachlorobenzene	11.15	250	34702	10.3228 ug/ml	99
75)	Dibenzofuran	11.12	168	117782	10.6501 ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	19944	9.9871 ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.27	232	22056	10.1814 ug/ml	99
78)	1-Naphthylamine	11.20	143	86561	10.8285 ug/ml	99
79)	2-Naphthylamine	11.27	143	84407	10.3411 ug/ml	100
80)	Diethylphthalate	11.30	149	89315	10.5959 ug/ml	99
81)	Thionazin	11.40	107	13799	10.2365 ug/ml	100
82)	Fluorene	11.49	166	95181	10.5373 ug/ml	99
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	46645	10.4386 ug/ml	99
84)	4-Nitroaniline	11.49	138	23959	10.0680 ug/ml	97
85)	5-Nitro-o-Toluidine	11.48	152	27284	10.2528 ug/ml	98
86)	1,2-Diphenylhydrazine	11.60	77	81971	10.6074 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.53	198	7837	11.0735 ug/ml#	63
90)	Diphenylamine/n-Nitrosodip	11.55	169	84434	10.2763 ug/ml	99
91)	Sulfotepp	11.75	322	15702	10.3903 ug/ml	96
92)	Sym-Trinitrobenzene	11.82	75	14879	9.1631 ug/ml	99
93)	Diallate	11.88	86	33245	10.6158 ug/ml	97
94)	Phenacetin	11.86	108	41442	10.1308 ug/ml	98
95)	Phorate	11.89	75	51194	10.6123 ug/ml#	99
96)	4-Bromophenyl Phenyl Ether	11.97	248	27516	10.3488 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35:40 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

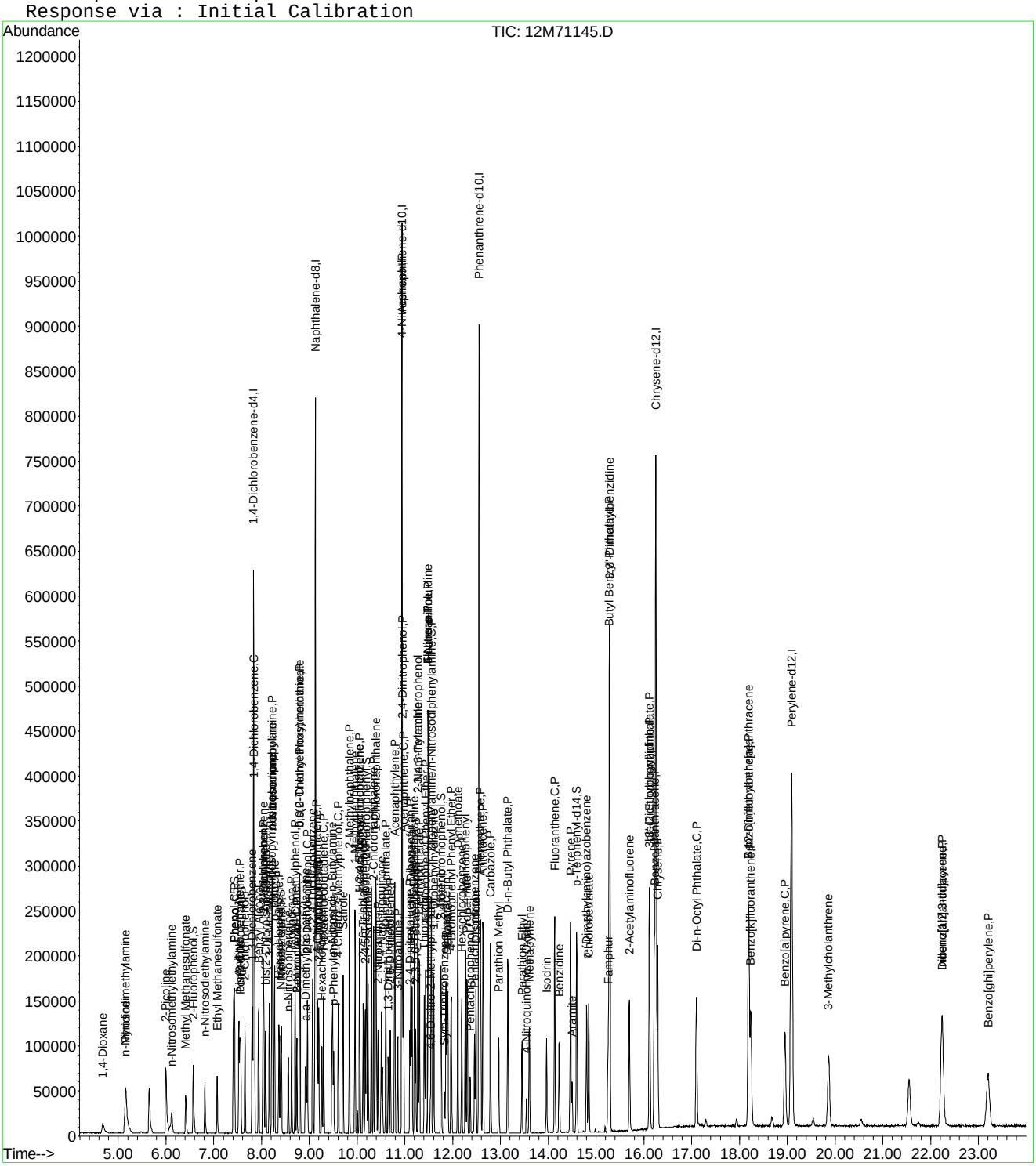
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	28108	10.3255	ug/ml	98
98)	Dimethoate	12.11	87	32958	11.3173	ug/ml	98
99)	4-Aminobiphenyl	12.27	169	102468	10.2233	ug/ml	99
100)	Pentachlorophenol	12.37	266	11558	10.1820	ug/ml	99
101)	Pronamide	12.30	173	41081	10.3064	ug/ml	99
102)	Pentachloronitrobenzene	12.45	237	10472	10.2670	ug/ml	99
103)	Disulfoton	12.49	88	44762	10.6049	ug/ml	98
104)	Phenanthrene	12.58	178	134786	10.4945	ug/ml	99
105)	Anthracene	12.63	178	139008	10.5417	ug/ml	99
106)	Carbazole	12.79	167	128228	10.4429	ug/ml	99
107)	Parathion Methyl	12.96	109	25872	10.7210	ug/ml	97
108)	Di-n-Butyl Phthalate	13.15	149	149795	10.5305	ug/ml	99
109)	Parathion Ethyl	13.45	97	15454	9.7303	ug/ml	98
110)	4-Nitroquinoline 1-Oxide	13.54	190	5332	8.1286	ug/ml	92
111)	Methapyrilene	13.60	58	49335	10.2166	ug/ml	99
112)	Isodrin	13.96	193	14745	10.2851	ug/ml	97
113)	Fluoranthene	14.13	202	150824	10.6217	ug/ml	99
115)	Benzidine	14.23	184	70874	11.0292	ug/ml	100
116)	Pyrene	14.46	202	152952	10.4325	ug/ml	99
117)	Aramite	14.50	185	8068	10.2348	ug/ml	98
119)	p-(Dimethylamino)azobenzen	14.80	225	30695	10.0874	ug/ml	99
120)	Chlorobenzilate	14.85	251	42904	10.1495	ug/ml	98
121)	Famphur	15.25	218	44098	56.4127	ug/ml#	76
122)	Butyl Benzyl Phthalate	15.27	149	67609	10.5446	ug/ml	98
123)	3,3'-Dimethylbenzidine	15.28	212	174791	11.0651	ug/ml	99
124)	2-Acetylaminofluorene	15.70	181	50938	9.2533	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.11	149	88249	10.3274	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.13	252	50237	10.5605	ug/ml	99
127)	Benzo[a]anthracene	16.22	228	140043	10.3186	ug/ml	99
128)	Chrysene	16.29	228	133268	10.3075	ug/ml	99
130)	Di-n-Octyl Phthalate	17.10	149	146786	9.9109	ug/ml	100
131)	7,12-Dimethylbenz[a]anthra	18.19	256	63664	9.9253	ug/ml	99
132)	Benzo[b]fluoranthene	18.19	252	132332	9.6698	ug/ml	98
133)	Benzo[k]fluoranthene	18.24	252	119619	9.9340	ug/ml	98
134)	Benzo[a]pyrene	18.95	252	121486	9.9787	ug/ml	95
135)	3-Methylcholanthrene	19.86	268	63570	9.8532	ug/ml#	93
136)	Indeno[1,2,3-cd]pyrene	22.24	276	134048	9.8145	ug/ml	98
137)	Dibenz[ah]anthracene	22.24	278	112923	9.7360	ug/ml	98
138)	Benzo[ghi]perylene	23.20	276	113045	9.9682	ug/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:35 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	10.000	9.668	3.3	100	0.00
3		n-Nitrosodimethylamine	10.000	10.154	-1.5	100	0.00
4		Pyridine	10.000	10.381	-3.8	100	0.00
5		2-Picoline	10.000	10.356	-3.6	100	0.00
6		n-Nitrosomethylethylamine	10.000	10.036	-0.4	100	0.00
7		Methyl Methanesulfonate	10.000	10.604	-6.0	100	0.00
8	S	2-Fluorophenol	10.000	10.375	-3.8	100	0.00
9		n-Nitrosodiethylamine	10.000	10.094	-0.9	100	0.00
10		Ethyl Methanesulfonate	10.000	10.402	-4.0	100	0.00
11		Aniline	10.000	10.429	-4.3	100	0.00
12	S	Phenol-d5	10.000	10.424	-4.2	100	0.00
13	C,P	Phenol	10.000	10.529	-5.3	100	0.00
14	P	bis(2-Chloroethyl)ether	10.000	10.789	-7.9	100	0.00
15		Pentachloroethane	10.000	10.305	-3.0	100	0.00
16	P	2-Chlorophenol	10.000	10.321	-3.2	100	0.00
17		1,3-Dichlorobenzene	10.000	10.387	-3.9	100	0.00
18	C	1,4-Dichlorobenzene	10.000	10.400	-4.0	100	0.00
19		Benzyl Alcohol	10.000	10.171	-1.7	100	0.00
20		1,2-Dichlorobenzene	10.000	10.619	-6.2	100	0.00
21	P	2-Methylphenol	10.000	10.372	-3.7	100	0.00
22	P	bis(2-Chloroisopropyl)ether	10.000	10.533	-5.3	100	0.00
23	P	3-,4-Methylphenol	10.000	10.202	-2.0	100	-0.01
24		n-Nitrosopyrrolidine	10.000	10.388	-3.9	100	-0.01
25	P	n-Nitrosodipropylamine	10.000	11.034	-10.3	100	0.00
26		Acetophenone	10.000	10.583	-5.8	100	0.00
27		n-Nitrosomorpholine	10.000	11.204	-12.0	100	-0.01
28		o-Toluidine	10.000	10.275	-2.8	100	0.00
29	P	Hexachloroethane	10.000	10.099	-1.0	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	10.000	10.493	-4.9	100	0.00
32	P	Nitrobenzene	10.000	10.393	-3.9	100	0.00
33		n-Nitrosopiperidine	10.000	10.248	-2.5	100	0.00
34	P	Isophorone	10.000	10.564	-5.6	100	0.00
35	C,P	2-Nitrophenol	10.000	9.973	0.3	100	0.00
36	P	2,4-Dimethylphenol	10.000	10.269	-2.7	100	0.00
37		0,0,0-Triethyl Phosphorothi	10.000	10.644	-6.4	100	0.00
38	P	bis(2-Chloroethoxy)methane	10.000	10.882	-8.8	100	0.00
39		Benzoic Acid	10.000	10.259	-2.6	100	0.00
40	C,P	2,4-Dichlorophenol	10.000	10.337	-3.4	100	0.00
41		a,a-Dimethylphenethylamine	10.000	10.141	-1.4	100	-0.05
42		1,2,4-Trichlorobenzene	10.000	10.518	-5.2	100	0.00
43	P	Naphthalene	10.000	10.630	-6.3	100	0.00
44	P	4-Chloroaniline	10.000	10.678	-6.8	100	0.00
45		2,6-Dichlorophenol	10.000	10.319	-3.2	100	0.00
46		Hexachloropropene	10.000	10.156	-1.6	100	0.00
47	C,P	Hexachlorobutadiene	10.000	10.783	-7.8	100	0.00
48		n-Nitrosodi-n-Butylamine	10.000	10.669	-6.7	100	0.00
49		p-Phenylenediamine	10.000	9.807	1.9	100	0.00
50	C,P	4-Chloro-3-Methylphenol	10.000	10.311	-3.1	100	0.00
51		Safrole	10.000	10.350	-3.5	100	0.00
52	P	2-Methylnaphthalene	10.000	10.525	-5.3	100	0.00
53		1-Methylnaphthalene	10.000	10.528	-5.3	100	0.00

(#) = Out of Range
12M71145.D MEGAMIX.M Mon Apr 15 13:35:46 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	10.000	10.520	-5.2	100	0.00
56	P	Hexachlorocyclopentadiene	10.000	10.185	-1.9	100	0.00
57	C,P	2,4,6-Trichlorophenol	10.000	10.254	-2.5	100	0.00
58	P	2,4,5-Trichlorophenol	10.000	10.103	-1.0	100	0.00
59	S	2-Fluorobiphenyl	10.000	10.555	-5.5	100	0.00
60		Isosafrole	10.000	10.377	-3.8	100	0.00
61	P	2-Chloronaphthalene	10.000	10.483	-4.8	100	0.00
62		1-Chloronaphthalene	10.000	10.584	-5.8	100	0.00
63	P	2-Nitroaniline	10.000	9.998	0.0	100	0.00
64		1,4-Naphthoquinone	10.000	10.587	-5.9	100	0.00
65	P	Dimethylphthalate	10.000	10.465	-4.6	100	0.00
66		1,3-Dinitrobenzene	10.000	9.820	1.8	100	0.00
67	P	2,6-Dinitrotoluene	10.000	10.026	-0.3	100	0.00
68	P	Acenaphthylene	10.000	10.722	-7.2	100	0.00
69	P	3-Nitroaniline	10.000	9.949	0.5	100	0.00
70	P	2,4-Dinitrophenol	10.000	10.350	-3.5	100	-0.01
71	C,P	Acenaphthene	10.000	10.376	-3.8	100	0.00
72	P	4-Nitrophenol	10.000	9.627	3.7	100	-0.01
73	P	2,4-Dinitrotoluene	10.000	10.054	-0.5	100	0.00
74		Pentachlorobenzene	10.000	10.323	-3.2	100	0.00
75	P	Dibenzofuran	10.000	10.650	-6.5	100	0.00
76		2,3,5,6-Tetrachlorophenol	10.000	9.987	0.1	100	0.00
77		2,3,4,6-Tetrachlorophenol	10.000	10.181	-1.8	100	0.00
78		1-Naphthylamine	10.000	10.828	-8.3	100	0.00
79		2-Naphthylamine	10.000	10.341	-3.4	100	0.00
80	P	Diethylphthalate	10.000	10.596	-6.0	100	-0.01
81		Thionazin	10.000	10.237	-2.4	100	-0.01
82	P	Fluorene	10.000	10.537	-5.4	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	10.000	10.439	-4.4	100	0.00
84	P	4-Nitroaniline	10.000	10.068	-0.7	100	-0.01
85		5-Nitro-o-Toluidine	10.000	10.253	-2.5	100	-0.01
86		1,2-Diphenylhydrazine	10.000	10.607	-6.1	100	0.00
87	S	2,4,6-Tribromophenol	10.000	9.957	0.4	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	10.000	11.073	-10.7	100	-0.01
90	C,P	Diphenylamine/n-Nitrosodiph	10.000	10.276	-2.8	100	0.00
91		Sulfotepp	10.000	10.390	-3.9	100	0.00
92		Sym-Trinitrobenzene	10.000	9.163	8.4	100	-0.02
93		Diallate	10.000	10.616	-6.2	100	0.00
94		Phenacetin	10.000	10.131	-1.3	100	-0.01
95		Phorate	10.000	10.612	-6.1	100	-0.01
96	P	4-Bromophenyl Phenyl Ether	10.000	10.349	-3.5	100	0.00
97	P	Hexachlorobenzene	10.000	10.325	-3.2	100	0.00
98		Dimethoate	10.000	11.317	-13.2	100	-0.01
99		4-Aminobiphenyl	10.000	10.223	-2.2	100	0.00
100	C,P	Pentachlorophenol	10.000	10.182	-1.8	100	0.00
101		Pronamide	10.000	10.306	-3.1	100	-0.01
102		Pentachloronitrobenzene	10.000	10.267	-2.7	100	-0.01
103		Disulfoton	10.000	10.605	-6.1	100	0.00
104	P	Phenanthrene	10.000	10.495	-4.9	100	-0.01
105	P	Anthracene	10.000	10.542	-5.4	100	-0.01
106	P	Carbazole	10.000	10.443	-4.4	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71145.D Vial: 5
Acq On : 12 Apr 2019 12:10 pm Operator: SCB
Sample : WG703239-05 10PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	10.000	10.721	-7.2	100	0.00
108	P	Di-n-Butyl Phthalate	10.000	10.530	-5.3	100	0.00
109		Parathion Ethyl	10.000	9.730	2.7	100	0.00
110		4-Nitroquinoline 1-Oxide	10.000	8.129	18.7	100	0.00
111		Methapyrilene	10.000	10.217	-2.2	100	0.00
112		Isodrin	10.000	10.285	-2.9	100	0.00
113	C,P	Fluoranthene	10.000	10.622	-6.2	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	-0.01
115		Benzidine	10.000	11.029	-10.3	100	0.00
116	P	Pyrene	10.000	10.433	-4.3	100	0.00
117		Aramite	10.000	10.235	-2.3	100	0.00
118	S	p-Terphenyl-d14	10.000	10.495	-4.9	100	0.00
119		p-(Dimethylamino)azobenzene	10.000	10.087	-0.9	100	-0.01
120		Chlorobenzilate	10.000	10.150	-1.5	100	0.00
121		Famphur	-1.000	56.413	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	10.000	10.545	-5.4	100	0.00
123		3,3'-Dimethylbenzidine	10.000	11.065	-10.6	100	-0.01
124		2-Acetylaminofluorene	10.000	9.253	7.5	100	-0.01
125	P	bis(2-Ethylhexyl)phthalate	10.000	10.327	-3.3	100	0.00
126	P	3,3'-Dichlorobenzidine	10.000	10.561	-5.6	100	0.00
127	P	Benzo[a]anthracene	10.000	10.319	-3.2	100	0.00
128	P	Chrysene	10.000	10.307	-3.1	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	-0.01
130	C,P	Di-n-Octyl Phthalate	10.000	9.911	0.9	100	0.00
131		7,12-Dimethylbenz[a]anthrac	10.000	9.925	0.7	100	-0.02
132	P	Benzo[b]fluoranthene	10.000	9.670	3.3	100	-0.02
133	P	Benzo[k]fluoranthene	10.000	9.934	0.7	100	-0.02
134	C,P	Benzo[a]pyrene	10.000	9.979	0.2	100	-0.02
135		3-Methylcholanthrene	10.000	9.853	1.5	100	-0.02
136	P	Indeno[1,2,3-cd]pyrene	10.000	9.815	1.9	100	-0.04
137	P	Dibenz[ah]anthracene	10.000	9.736	2.6	100	-0.04
138	P	Benzo[ghi]perylene	10.000	9.968	0.3	100	-0.04

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36:13 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	130422	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	475462	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	281498	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	480614	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	466613	40.0000	ug/ml	-0.011
129) Perylene-d12	19.090	264	457614	40.0000	ug/ml	-0.011
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	60522	15.1495250	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 15.15%#			
12) Phenol-d5	7.422	99	73449	15.2752787	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 15.28%			
31) Nitrobenzene-d5	8.395	82	60500	15.1131004	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 30.23%#			
59) 2-Fluorobiphenyl	10.195	172	143500	15.1884664	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 30.38%#			
87) 2,4,6-Tribromophenol	11.760	330	18316	14.8138385	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 14.81%			
118) p-Terphenyl-d14	14.586	244	169923	15.1615601	ug/ml	-0.01
Spiked Amount 50.000	Range 33 - 141		Recovery = 30.32%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	25819	15.4500	ug/ml	96
3) n-Nitrosodimethylamine	5.14	74	37196	15.2043	ug/ml#	98
4) Pyridine	5.16	79	66609	15.2064	ug/ml	99
5) 2-Picoline	6.00	93	72640	15.2076	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	29622	15.0473	ug/ml	98
7) Methyl Methanesulfonate	6.41	80	32873	15.2906	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	29941	15.0702	ug/ml	98
10) Ethyl Methanesulfonate	7.07	79	43288	15.1588	ug/ml	100
11) Aniline	7.52	66	33976	15.2878	ug/ml	90
13) Phenol	7.43	94	77171	15.3645	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	45784	15.7270	ug/ml	97
15) Pentachloroethane	7.56	167	25708	15.0640	ug/ml	99
16) 2-Chlorophenol	7.65	128	67141	15.1515	ug/ml	99
17) 1,3-Dichlorobenzene	7.80	146	73425	15.1456	ug/ml	99
18) 1,4-Dichlorobenzene	7.85	146	73951	15.1028	ug/ml	98
19) Benzyl Alcohol	7.94	108	41356	14.9882	ug/ml	99
20) 1,2-Dichlorobenzene	8.04	146	69342	15.2474	ug/ml	99
21) 2-Methylphenol	8.03	107	49698	15.2351	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	74853	15.3763	ug/ml	100
23) 3-,4-Methylphenol	8.16	107	65497	15.1102	ug/ml	98
24) n-Nitrosopyrrolidine	8.21	100	28897	15.3096	ug/ml	95
25) n-Nitrosodipropylamine	8.22	70	40610	16.0191	ug/ml	99
26) Acetophenone	8.22	105	82024	15.5706	ug/ml	99
27) n-Nitrosomorpholine	8.22	56	33271	16.0342	ug/ml	98
28) o-Toluidine	8.27	106	98311	15.0171	ug/ml	99
29) Hexachloroethane	8.36	117	26330	14.8185	ug/ml	98
32) Nitrobenzene	8.42	77	62019	15.2888	ug/ml	99
33) n-Nitrosopiperidine	8.56	114	31694	15.0380	ug/ml	99
34) Isophorone	8.63	82	114312	15.3054	ug/ml	99
35) 2-Nitrophenol	8.74	139	33174	14.8444	ug/ml	99
36) 2,4-Dimethylphenol	8.70	122	58200	15.1683	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.80	198	33456	15.4059	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.80	93	90391	15.6626	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36:13 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Benzoic Acid	8.75	105	10209	14.3836 ug/ml#	46
40)	2,4-Dichlorophenol	8.96	162	54162	15.1148 ug/ml	99
41)	a,a-Dimethylphenethylamine	8.94	58	144989	14.8117 ug/ml	99
42)	1,2,4-Trichlorobenzene	9.07	180	58385	15.2224 ug/ml	100
43)	Naphthalene	9.15	128	198352	15.2679 ug/ml#	98
44)	4-Chloroaniline	9.17	65	20973	15.1137 ug/ml	80
45)	2,6-Dichlorophenol	9.20	162	52058	15.0386 ug/ml	100
46)	Hexachloropropene	9.27	213	35312	15.2105 ug/ml	100
47)	Hexachlorobutadiene	9.30	225	33317	15.5206 ug/ml	99
48)	n-Nitrosodi-n-Butylamine	9.48	84	50729	15.4543 ug/ml	99
49)	p-Phenylenediamine	9.51	108	56240	14.7667 ug/ml	99
50)	4-Chloro-3-Methylphenol	9.61	107	52412	15.1476 ug/ml	98
51)	Safrole	9.71	162	52972	15.0880 ug/ml	99
52)	2-Methylnaphthalene	9.84	142	131559	15.2222 ug/ml	98
53)	1-Methylnaphthalene	9.95	142	123820	15.1706 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	60769	15.1014 ug/ml	99
56)	Hexachlorocyclopentadiene	10.06	237	26736	15.6716 ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	38847	15.0231 ug/ml	99
58)	2,4,5-Trichlorophenol	10.17	196	40205	14.9513 ug/ml	99
60)	Isosafrole	10.23	162	53167	14.8560 ug/ml	99
61)	2-Chloronaphthalene	10.34	162	123043	15.1870 ug/ml	99
62)	1-Chloronaphthalene	10.39	162	114023	15.2655 ug/ml	99
63)	2-Nitroaniline	10.44	65	30959	14.5335 ug/ml	99
64)	1,4-Naphthoquinone	10.50	158	48500	15.7132 ug/ml	98
65)	Dimethylphthalate	10.60	163	135227	15.1378 ug/ml	99
66)	1,3-Dinitrobenzene	10.65	168	23593	14.7449 ug/ml	99
67)	2,6-Dinitrotoluene	10.70	165	32240	14.9164 ug/ml	99
68)	Acenaphthylene	10.79	152	191145	15.4233 ug/ml	100
69)	3-Nitroaniline	10.85	138	34738	14.5844 ug/ml	100
70)	2,4-Dinitrophenol	10.95	184	6508	14.4576 ug/ml#	1
71)	Acenaphthene	10.97	154	120552	15.1425 ug/ml	97
72)	4-Nitrophenol	10.95	65	21484	15.2717 ug/ml	95
73)	2,4-Dinitrotoluene	11.10	165	41137	14.8102 ug/ml	99
74)	Pentachlorobenzene	11.15	250	53042	15.2602 ug/ml	99
75)	Dibenzofuran	11.12	168	175382	15.3376 ug/ml	100
76)	2,3,5,6-Tetrachlorophenol	11.23	232	30538	14.7899 ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.27	232	33405	14.9138 ug/ml	99
78)	1-Naphthylamine	11.20	143	131381	15.8955 ug/ml	99
79)	2-Naphthylamine	11.27	143	124513	14.7537 ug/ml	100
80)	Diethylphthalate	11.31	149	132341	15.1846 ug/ml	100
81)	Thionazin	11.40	107	20995	15.0631 ug/ml	99
82)	Fluorene	11.49	166	141592	15.1606 ug/ml	98
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	70448	15.2476 ug/ml	100
84)	4-Nitroaniline	11.49	138	36701	14.9159 ug/ml	98
85)	5-Nitro-o-Toluidine	11.48	152	41056	14.9213 ug/ml	99
86)	1,2-Diphenylhydrazine	11.60	77	123798	15.4938 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.53	198	14565	14.6214 ug/ml	80
90)	Diphenylamine/n-Nitrosodip	11.55	169	126346	14.8539 ug/ml	99
91)	Sulfotepp	11.75	322	23093	14.7609 ug/ml	98
92)	Sym-Trinitrobenzene	11.82	75	25544	13.6680 ug/ml	99
93)	Diallate	11.88	86	49554	15.2850 ug/ml	96
94)	Phenacetin	11.86	108	64283	15.1796 ug/ml	99
95)	Phorate	11.89	75	76941	15.4066 ug/ml#	99
96)	4-Bromophenyl Phenyl Ether	11.97	248	41214	14.9730 ug/ml	99

(#) = qualifier out of range (m) = manual integration
12M71146.D MEGAMIX.M Mon Apr 15 13:42:32 2019 Page 2

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36:13 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

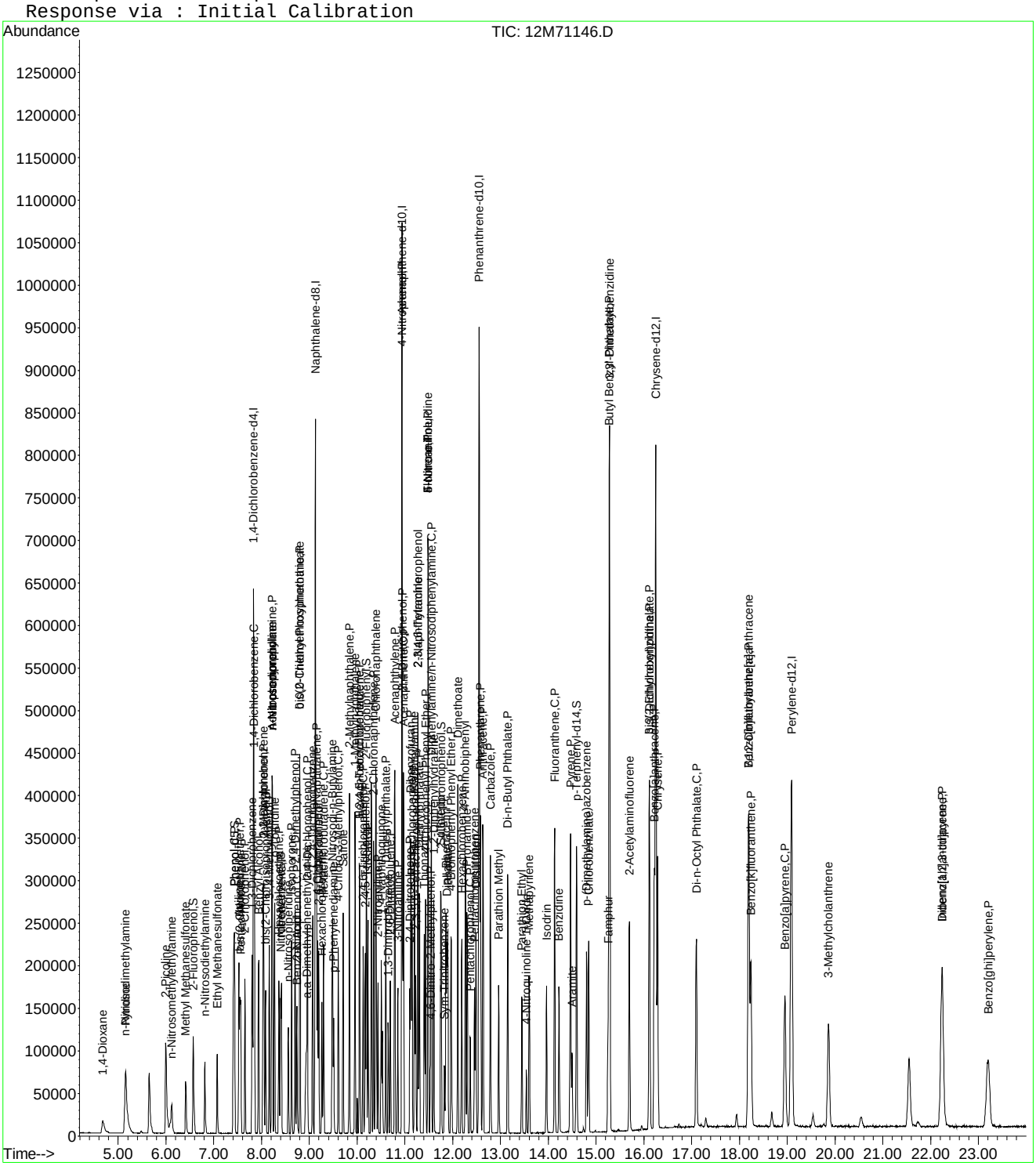
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	42316	15.0157	ug/ml	98
98)	Dimethoate	12.11	87	49176	16.3116	ug/ml	99
99)	4-Aminobiphenyl	12.26	169	156773	15.1090	ug/ml	100
100)	Pentachlorophenol	12.37	266	19844	14.5125	ug/ml	99
101)	Pronamide	12.30	173	62103	15.0501	ug/ml	98
102)	Pentachloronitrobenzene	12.45	237	16071	15.2200	ug/ml	100
103)	Disulfoton	12.49	88	67248	15.3899	ug/ml	98
104)	Phenanthrene	12.58	178	201123	15.1265	ug/ml	99
105)	Anthracene	12.63	178	207293	15.1850	ug/ml	99
106)	Carbazole	12.79	167	191216	15.0426	ug/ml	100
107)	Parathion Methyl	12.96	109	41020	16.4196	ug/ml	98
108)	Di-n-Butyl Phthalate	13.15	149	224575	15.2501	ug/ml	99
109)	Parathion Ethyl	13.44	97	24736	15.0444	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.54	190	11241	12.9917	ug/ml	95
111)	Methapyrilene	13.60	58	73430	14.6783	ug/ml	99
112)	Isodrin	13.96	193	21937	14.7809	ug/ml	98
113)	Fluoranthene	14.13	202	223327	15.1924	ug/ml	99
115)	Benzidine	14.22	184	110183	16.7103	ug/ml	100
116)	Pyrene	14.46	202	228871	15.2138	ug/ml	99
117)	Aramite	14.50	185	12377	15.3018	ug/ml	98
119)	p-(Dimethylamino)azobenzen	14.80	225	46746	14.9716	ug/ml	99
120)	Chlorobenzilate	14.84	251	64560	14.8842	ug/ml	99
121)	Famphur	15.25	218	52924	65.9819	ug/ml#	77
122)	Butyl Benzyl Phthalate	15.27	149	101003	15.3523	ug/ml	98
123)	3,3'-Dimethylbenzidine	15.28	212	256675	16.4998	ug/ml	99
124)	2-Acetylaminofluorene	15.69	181	81759	14.4745	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.11	149	134575	15.3483	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.12	252	74746	15.3132	ug/ml	99
127)	Benzo[a]anthracene	16.22	228	207633	14.9098	ug/ml	99
128)	Chrysene	16.29	228	198745	14.9809	ug/ml	100
130)	Di-n-Octyl Phthalate	17.10	149	224419	14.7476	ug/ml	100
131)	7,12-Dimethylbenz[a]anthra	18.19	256	96296	14.6113	ug/ml	99
132)	Benzo[b]fluoranthene	18.19	252	199349	14.1774	ug/ml	98
133)	Benzo[k]fluoranthene	18.24	252	193918	15.6737	ug/ml	97
134)	Benzo[a]pyrene	18.95	252	183055	14.6340	ug/ml	99
135)	3-Methylcholanthrene	19.86	268	96893	14.6167	ug/ml	98
136)	Indeno[1,2,3-cd]pyrene	22.24	276	204740	14.5896	ug/ml	98
137)	Dibenz[ah]anthracene	22.24	278	173103	14.5256	ug/ml	98
138)	Benzo[ghi]perylene	23.20	276	172989	14.8462	ug/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71146.D MEGAMIX.M Mon Apr 15 13:42:32 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	15.000	15.450	-3.0	100	0.00
3		n-Nitrosodimethylamine	15.000	15.204	-1.4	100	0.00
4		Pyridine	15.000	15.206	-1.4	100	0.00
5		2-Picoline	15.000	15.208	-1.4	100	0.00
6		n-Nitrosomethylethylamine	15.000	15.047	-0.3	100	0.00
7		Methyl Methanesulfonate	15.000	15.291	-1.9	100	0.00
8	S	2-Fluorophenol	15.000	15.150	-1.0	100	0.00
9		n-Nitrosodiethylamine	15.000	15.070	-0.5	100	0.00
10		Ethyl Methanesulfonate	15.000	15.159	-1.1	100	0.00
11		Aniline	15.000	15.288	-1.9	100	0.00
12	S	Phenol-d5	15.000	15.275	-1.8	100	0.00
13	C,P	Phenol	15.000	15.364	-2.4	100	0.00
14	P	bis(2-Chloroethyl)ether	15.000	15.727	-4.8	100	0.00
15		Pentachloroethane	15.000	15.064	-0.4	100	0.00
16	P	2-Chlorophenol	15.000	15.152	-1.0	100	0.00
17		1,3-Dichlorobenzene	15.000	15.146	-1.0	100	0.00
18	C	1,4-Dichlorobenzene	15.000	15.103	-0.7	100	0.00
19		Benzyl Alcohol	15.000	14.988	0.1	100	0.00
20		1,2-Dichlorobenzene	15.000	15.247	-1.6	100	0.00
21	P	2-Methylphenol	15.000	15.235	-1.6	100	0.00
22	P	bis(2-Chloroisopropyl)ether	15.000	15.376	-2.5	100	0.00
23	P	3-,4-Methylphenol	15.000	15.110	-0.7	100	-0.01
24		n-Nitrosopyrrolidine	15.000	15.310	-2.1	100	0.00
25	P	n-Nitrosodipropylamine	15.000	16.019	-6.8	100	0.00
26		Acetophenone	15.000	15.571	-3.8	100	0.00
27		n-Nitrosomorpholine	15.000	16.034	-6.9	100	-0.01
28		o-Toluidine	15.000	15.017	-0.1	100	0.00
29	P	Hexachloroethane	15.000	14.818	1.2	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	15.000	15.113	-0.8	100	0.00
32	P	Nitrobenzene	15.000	15.289	-1.9	100	0.00
33		n-Nitrosopiperidine	15.000	15.038	-0.3	100	0.00
34	P	Isophorone	15.000	15.305	-2.0	100	0.00
35	C,P	2-Nitrophenol	15.000	14.844	1.0	100	0.00
36	P	2,4-Dimethylphenol	15.000	15.168	-1.1	100	0.00
37		0,0,0-Triethyl Phosphorothi	15.000	15.406	-2.7	100	0.00
38	P	bis(2-Chloroethoxy)methane	15.000	15.663	-4.4	100	0.00
39		Benzoic Acid	15.000	14.384	4.1	100	0.00
40	C,P	2,4-Dichlorophenol	15.000	15.115	-0.8	100	0.00
41		a,a-Dimethylphenethylamine	15.000	14.812	1.3	100	-0.03
42		1,2,4-Trichlorobenzene	15.000	15.222	-1.5	100	0.00
43	P	Naphthalene	15.000	15.268	-1.8	100	0.00
44	P	4-Chloroaniline	15.000	15.114	-0.8	100	0.00
45		2,6-Dichlorophenol	15.000	15.039	-0.3	100	0.00
46		Hexachloropropene	15.000	15.211	-1.4	100	0.00
47	C,P	Hexachlorobutadiene	15.000	15.521	-3.5	100	0.00
48		n-Nitrosodi-n-Butylamine	15.000	15.454	-3.0	100	0.00
49		p-Phenylenediamine	15.000	14.767	1.6	100	0.00
50	C,P	4-Chloro-3-Methylphenol	15.000	15.148	-1.0	100	0.00
51		Safrole	15.000	15.088	-0.6	100	0.00
52	P	2-Methylnaphthalene	15.000	15.222	-1.5	100	0.00
53		1-Methylnaphthalene	15.000	15.171	-1.1	100	0.00

(#) = Out of Range
12M71146.D MEGAMIX.M Mon Apr 15 13:36:18 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	15.000	15.101	-0.7	100	0.00
56	P	Hexachlorocyclopentadiene	15.000	15.672	-4.5	100	0.00
57	C,P	2,4,6-Trichlorophenol	15.000	15.023	-0.2	100	0.00
58	P	2,4,5-Trichlorophenol	15.000	14.951	0.3	100	0.00
59	S	2-Fluorobiphenyl	15.000	15.188	-1.3	100	0.00
60		Isosafrole	15.000	14.856	1.0	100	0.00
61	P	2-Chloronaphthalene	15.000	15.187	-1.2	100	0.00
62		1-Chloronaphthalene	15.000	15.265	-1.8	100	0.00
63	P	2-Nitroaniline	15.000	14.533	3.1	100	0.00
64		1,4-Naphthoquinone	15.000	15.713	-4.8	100	0.00
65	P	Dimethylphthalate	15.000	15.138	-0.9	100	0.00
66		1,3-Dinitrobenzene	15.000	14.745	1.7	100	0.00
67	P	2,6-Dinitrotoluene	15.000	14.916	0.6	100	0.00
68	P	Acenaphthylene	15.000	15.423	-2.8	100	0.00
69	P	3-Nitroaniline	15.000	14.584	2.8	100	0.00
70	P	2,4-Dinitrophenol	15.000	14.458	3.6	100	-0.01
71	C,P	Acenaphthene	15.000	15.142	-0.9	100	0.00
72	P	4-Nitrophenol	15.000	15.272	-1.8	100	-0.01
73	P	2,4-Dinitrotoluene	15.000	14.810	1.3	100	0.00
74		Pentachlorobenzene	15.000	15.260	-1.7	100	0.00
75	P	Dibenzofuran	15.000	15.338	-2.3	100	0.00
76		2,3,5,6-Tetrachlorophenol	15.000	14.790	1.4	100	0.00
77		2,3,4,6-Tetrachlorophenol	15.000	14.914	0.6	100	0.00
78		1-Naphthylamine	15.000	15.895	-6.0	100	0.00
79		2-Naphthylamine	15.000	14.754	1.6	100	0.00
80	P	Diethylphthalate	15.000	15.185	-1.2	100	0.00
81		Thionazin	15.000	15.063	-0.4	100	-0.01
82	P	Fluorene	15.000	15.161	-1.1	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	15.000	15.248	-1.7	100	0.00
84	P	4-Nitroaniline	15.000	14.916	0.6	100	-0.01
85		5-Nitro-o-Toluidine	15.000	14.921	0.5	100	-0.01
86		1,2-Diphenylhydrazine	15.000	15.494	-3.3	100	0.00
87	S	2,4,6-Tribromophenol	15.000	14.814	1.2	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	15.000	14.621	2.5	100	-0.01
90	C,P	Diphenylamine/n-Nitrosodiph	15.000	14.854	1.0	100	0.00
91		Sulfotepp	15.000	14.761	1.6	100	0.00
92		Sym-Trinitrobenzene	15.000	13.668	8.9	100	-0.02
93		Diallate	15.000	15.285	-1.9	100	0.00
94		Phenacetin	15.000	15.180	-1.2	100	-0.01
95		Phorate	15.000	15.407	-2.7	100	-0.01
96	P	4-Bromophenyl Phenyl Ether	15.000	14.973	0.2	100	0.00
97	P	Hexachlorobenzene	15.000	15.016	-0.1	100	0.00
98		Dimethoate	15.000	16.312	-8.7	100	-0.01
99		4-Aminobiphenyl	15.000	15.109	-0.7	100	-0.01
100	C,P	Pentachlorophenol	15.000	14.513	3.2	100	0.00
101		Pronamide	15.000	15.050	-0.3	100	-0.01
102		Pentachloronitrobenzene	15.000	15.220	-1.5	100	-0.01
103		Disulfoton	15.000	15.390	-2.6	100	0.00
104	P	Phenanthrene	15.000	15.127	-0.8	100	-0.01
105	P	Anthracene	15.000	15.185	-1.2	100	-0.01
106	P	Carbazole	15.000	15.043	-0.3	100	-0.01

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71146.D Vial: 6
Acq On : 12 Apr 2019 12:43 pm Operator: SCB
Sample : WG703239-06 15PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	15.000	16.420	-9.5	100	0.00
108	P	Di-n-Butyl Phthalate	15.000	15.250	-1.7	100	0.00
109		Parathion Ethyl	15.000	15.044	-0.3	100	-0.01
110		4-Nitroquinoline 1-Oxide	15.000	12.992	13.4	100	-0.01
111		Methapyrilene	15.000	14.678	2.1	100	0.00
112		Isodrin	15.000	14.781	1.5	100	0.00
113	C,P	Fluoranthene	15.000	15.192	-1.3	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	-0.01
115		Benzidine	15.000	16.710	-11.4	100	-0.01
116	P	Pyrene	15.000	15.214	-1.4	100	0.00
117		Aramite	15.000	15.302	-2.0	100	0.00
118	S	p-Terphenyl-d14	15.000	15.162	-1.1	100	-0.01
119		p-(Dimethylamino)azobenzene	15.000	14.972	0.2	100	-0.01
120		Chlorobenzilate	15.000	14.884	0.8	100	-0.01
121		Famphur	-1.000	65.982	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	15.000	15.352	-2.3	100	0.00
123		3,3'-Dimethylbenzidine	15.000	16.500	-10.0	100	-0.01
124		2-Acetylaminofluorene	15.000	14.474	3.5	100	-0.02
125	P	bis(2-Ethylhexyl)phthalate	15.000	15.348	-2.3	100	0.00
126	P	3,3'-Dichlorobenzidine	15.000	15.313	-2.1	100	-0.01
127	P	Benzo[a]anthracene	15.000	14.910	0.6	100	0.00
128	P	Chrysene	15.000	14.981	0.1	100	-0.01
129	I	Perylene-d12	40.000	40.000	0.0	100	-0.01
130	C,P	Di-n-Octyl Phthalate	15.000	14.748	1.7	100	0.00
131		7,12-Dimethylbenz[a]anthrac	15.000	14.611	2.6	100	-0.02
132	P	Benzo[b]fluoranthene	15.000	14.177	5.5	100	-0.02
133	P	Benzo[k]fluoranthene	15.000	15.674	-4.5	100	-0.02
134	C,P	Benzo[a]pyrene	15.000	14.634	2.4	100	-0.02
135		3-Methylcholanthrene	15.000	14.617	2.6	100	-0.02
136	P	Indeno[1,2,3-cd]pyrene	15.000	14.590	2.7	100	-0.04
137	P	Dibenz[ah]anthracene	15.000	14.526	3.2	100	-0.04
138	P	Benzo[ghi]perylene	15.000	14.846	1.0	100	-0.04

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	129242	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	470461	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	280886	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	478234	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	458975	40.0000	ug/ml	-0.011
129) Perylene-d12	19.090	264	450897	40.0000	ug/ml	-0.011
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	103351	26.1064376	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 26.11%			
12) Phenol-d5	7.423	99	124747	26.1806577	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 26.18%			
31) Nitrobenzene-d5	8.395	82	103054	26.0168810	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 52.03%			
59) 2-Fluorobiphenyl	10.195	172	245805	26.0734174	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 52.15%			
87) 2,4,6-Tribromophenol	11.766	330	32400	26.2619640	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 26.26%			
118) p-Terphenyl-d14	14.587	244	285817	25.9267204	ug/ml	-0.01
Spiked Amount 50.000	Range 33 - 141		Recovery = 51.85%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	45044	27.2002	ug/ml	97
3) n-Nitrosodimethylamine	5.14	74	63859	26.3415	ug/ml	99
4) Pyridine	5.16	79	115215	26.5430	ug/ml	99
5) 2-Picoline	6.00	93	124290	26.2584	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	50453	25.8629	ug/ml	98
7) Methyl Methanesulfonate	6.41	80	55815	26.1990	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	51878	26.3501	ug/ml	97
10) Ethyl Methanesulfonate	7.07	79	73799	26.0793	ug/ml	99
11) Aniline	7.52	66	58256	26.4522	ug/ml#	94
13) Phenol	7.43	94	129991	26.1171	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	76077	26.3714	ug/ml	98
15) Pentachloroethane	7.56	167	44324	26.2094	ug/ml	98
16) 2-Chlorophenol	7.65	128	113474	25.8412	ug/ml	99
17) 1,3-Dichlorobenzene	7.80	146	124521	25.9198	ug/ml	99
18) 1,4-Dichlorobenzene	7.85	146	125785	25.9233	ug/ml	98
19) Benzyl Alcohol	7.94	108	70817	25.8997	ug/ml	100
20) 1,2-Dichlorobenzene	8.04	146	117304	26.0291	ug/ml	99
21) 2-Methylphenol	8.03	107	85306	26.3895	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.09	45	127633	26.4577	ug/ml	99
23) 3-,4-Methylphenol	8.17	107	111759	26.0183	ug/ml	99
24) n-Nitrosopyrrolidine	8.21	100	49188	26.2976	ug/ml	97
25) n-Nitrosodipropylamine	8.22	70	68026	27.0786	ug/ml	99
26) Acetophenone	8.23	105	138011	26.4378	ug/ml	99
27) n-Nitrosomorpholine	8.22	56	55279	26.8836	ug/ml	99
28) o-Toluidine	8.27	106	167904	25.8817	ug/ml	99
29) Hexachloroethane	8.36	117	45757	25.9871	ug/ml	99
32) Nitrobenzene	8.42	77	104631	26.0675	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	55035	26.3904	ug/ml	98
34) Isophorone	8.63	82	195590	26.4662	ug/ml	100
35) 2-Nitrophenol	8.74	139	58316	26.3722	ug/ml	100
36) 2,4-Dimethylphenol	8.70	122	99273	26.1479	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.81	198	56327	26.2134	ug/ml	100
38) bis(2-Chloroethoxy)methane	8.80	93	151171	26.4728	ug/ml	99

(#) = qualifier out of range (m) = manual integration
12M71147.D MEGAMIX.M Mon Apr 15 13:42:34 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Benzoic Acid	8.76	105	29251m	26.6070 ug/ml	
40)	2,4-Dichlorophenol	8.96	162	92925	26.2079 ug/ml	99
41)	a,a-Dimethylphenethylamine	8.95	58	252687	26.0883 ug/ml	99
42)	1,2,4-Trichlorobenzene	9.07	180	99493	26.2160 ug/ml	99
43)	Naphthalene	9.15	128	340251	26.4687 ug/ml#	98
44)	4-Chloroaniline	9.17	65	35833	26.0966 ug/ml	80
45)	2,6-Dichlorophenol	9.20	162	90045	26.2888 ug/ml	100
46)	Hexachloropropene	9.27	213	62945	27.4015 ug/ml	100
47)	Hexachlorobutadiene	9.30	225	55950	26.3411 ug/ml	100
48)	n-Nitrosodi-n-Butylamine	9.48	84	86704	26.6947 ug/ml	99
49)	p-Phenylenediamine	9.51	108	91650	26.6170 ug/ml	99
50)	4-Chloro-3-Methylphenol	9.61	107	90690	26.4890 ug/ml	99
51)	Safrole	9.71	162	91192	26.2503 ug/ml	99
52)	2-Methylnaphthalene	9.84	142	224088	26.2040 ug/ml	98
53)	1-Methylnaphthalene	9.95	142	211809	26.2270 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	103581	25.7966 ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	46229	27.9757 ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	67549	26.1797 ug/ml	99
58)	2,4,5-Trichlorophenol	10.17	196	70854	26.4064 ug/ml	100
60)	Isosafrole	10.23	162	92742	25.9705 ug/ml	99
61)	2-Chloronaphthalene	10.34	162	208262	25.7614 ug/ml	100
62)	1-Chloronaphthalene	10.39	162	193616	25.9779 ug/ml	99
63)	2-Nitroaniline	10.44	65	55025	25.8873 ug/ml	99
64)	1,4-Naphthoquinone	10.51	158	79834	26.8642 ug/ml	99
65)	Dimethylphthalate	10.60	163	232144	26.0436 ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	41870	26.2245 ug/ml	100
67)	2,6-Dinitrotoluene	10.70	165	56147	26.0340 ug/ml	99
68)	Acenaphthylene	10.79	152	323545	26.1634 ug/ml	99
69)	3-Nitroaniline	10.85	138	61423	25.8439 ug/ml	98
70)	2,4-Dinitrophenol	10.96	184	16736	25.5451 ug/ml	54
71)	Acenaphthene	10.97	154	208059	26.1911 ug/ml	99
72)	4-Nitrophenol	10.95	65	37784	26.9170 ug/ml	99
73)	2,4-Dinitrotoluene	11.10	165	73744	26.6072 ug/ml	100
74)	Pentachlorobenzene	11.15	250	89453	25.7917 ug/ml	100
75)	Dibenzofuran	11.12	168	299065	26.2110 ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	53261	25.8511 ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.27	232	58286	26.0786 ug/ml	100
78)	1-Naphthylamine	11.20	143	222331	26.9579 ug/ml	99
79)	2-Naphthylamine	11.27	143	216866	25.7527 ug/ml	100
80)	Diethylphthalate	11.31	149	227088	26.1126 ug/ml	100
81)	Thionazin	11.41	107	37094	26.6716 ug/ml	99
82)	Fluorene	11.49	166	242746	26.0480 ug/ml	99
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	119804	25.9865 ug/ml	99
84)	4-Nitroaniline	11.49	138	63347	25.8013 ug/ml	99
85)	5-Nitro-o-Toluidine	11.48	152	71507	26.0450 ug/ml	98
86)	1,2-Diphenylhydrazine	11.60	77	211582	26.5380 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.54	198	31864	24.2214 ug/ml	95
90)	Diphenylamine/n-Nitrosodip	11.55	169	217624	25.7124 ug/ml	99
91)	Sulfotepp	11.75	322	39425	25.3257 ug/ml	98
92)	Sym-Trinitrobenzene	11.83	75	49423	24.3853 ug/ml	99
93)	Diallate	11.88	86	86325	26.7596 ug/ml	99
94)	Phenacetin	11.86	108	111414	26.4399 ug/ml	99
95)	Phorate	11.90	75	131353	26.4330 ug/ml#	99
96)	4-Bromophenyl Phenyl Ether	11.97	248	70232	25.6422 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:36:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

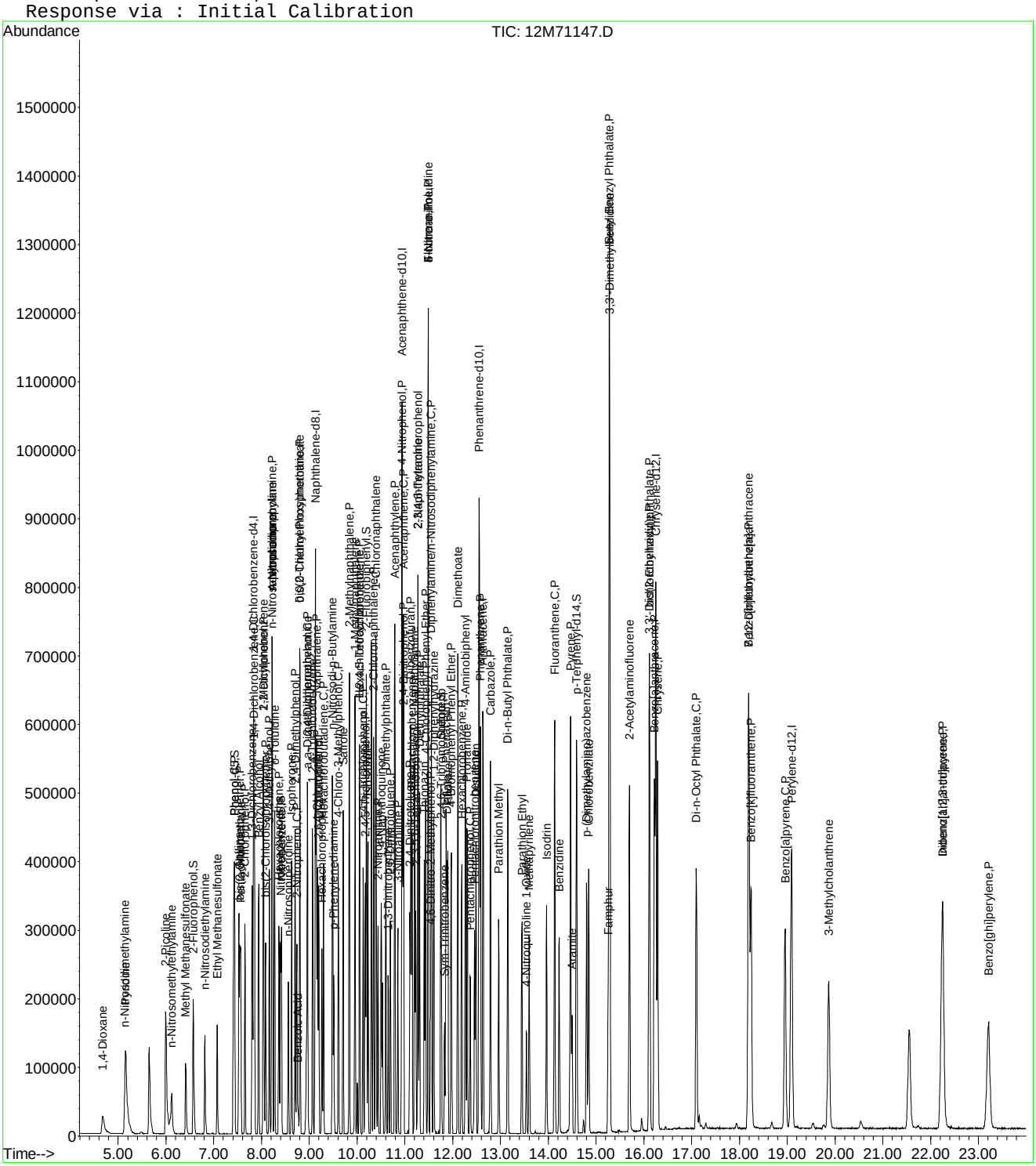
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	71756	25.5891	ug/ml	99
98)	Dimethoate	12.11	87	82573	27.5256	ug/ml	99
99)	4-Aminobiphenyl	12.27	169	272789	26.4208	ug/ml	100
100)	Pentachlorophenol	12.37	266	39127	25.2183	ug/ml	99
101)	Pronamide	12.31	173	106922	26.0405	ug/ml	99
102)	Pentachloronitrobenzene	12.45	237	27611	26.2791	ug/ml	98
103)	Disulfoton	12.49	88	115630	26.5940	ug/ml	99
104)	Phenanthrene	12.58	178	342432	25.8826	ug/ml	100
105)	Anthracene	12.63	178	350706	25.8184	ug/ml	99
106)	Carbazole	12.79	167	329665	26.0632	ug/ml	100
107)	Parathion Methyl	12.96	109	71006	28.5639	ug/ml	98
108)	Di-n-Butyl Phthalate	13.15	149	385204	26.2880	ug/ml	100
109)	Parathion Ethyl	13.45	97	44206	27.0199	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.54	190	24883	24.6930	ug/ml	99
111)	Methapyrilene	13.60	58	118198	24.5636	ug/ml	99
112)	Isodrin	13.96	193	38322	25.9494	ug/ml	99
113)	Fluoranthene	14.13	202	380521	26.0148	ug/ml	99
115)	Benzidine	14.23	184	187385	28.8917	ug/ml	100
116)	Pyrene	14.46	202	388343	26.2441	ug/ml	100
117)	Aramite	14.50	185	21606	27.1563	ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.80	225	81058	26.3930	ug/ml	99
120)	Chlorobenzilate	14.85	251	111173	26.0572	ug/ml	100
121)	Famphur	15.25	218	54699	69.3297	ug/ml#	82
122)	Butyl Benzyl Phthalate	15.27	149	171297	26.4701	ug/ml	98
123)	3,3'-Dimethylbenzidine	15.29	212	401271	27.5444	ug/ml	100
124)	2-Acetylaminofluorene	15.70	181	147656	26.5758	ug/ml	100
125)	bis(2-Ethylhexyl)phthalate	16.11	149	232049	26.9057	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.13	252	127228	26.4989	ug/ml	99
127)	Benzo[a]anthracene	16.22	228	355203	25.9310	ug/ml	100
128)	Chrysene	16.29	228	337742	25.8818	ug/ml	100
130)	Di-n-Octyl Phthalate	17.10	149	393943	26.2734	ug/ml	100
131)	7,12-Dimethylbenz[a]anthra	18.20	256	166240	25.5999	ug/ml	99
132)	Benzo[b]fluoranthene	18.19	252	350679	25.3113	ug/ml	99
133)	Benzo[k]fluoranthene	18.25	252	323113	26.5052	ug/ml	100
134)	Benzo[a]pyrene	18.96	252	319852	25.9509	ug/ml	99
135)	3-Methylcholanthrene	19.86	268	170517	26.1063	ug/ml	99
136)	Indeno[1,2,3-cd]pyrene	22.25	276	360875	26.0987	ug/ml	99
137)	Dibenz[ah]anthracene	22.25	278	304418	25.9251	ug/ml	99
138)	Benzo[ghi]perylene	23.21	276	301405	26.2525	ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:37 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



12M71147.D MEGAMIX.M Mon Apr 15 13:42:35 2019 Page 4

Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	25.000	27.200	-8.8	100	0.00
3		n-Nitrosodimethylamine	25.000	26.341	-5.4	100	0.00
4		Pyridine	25.000	26.543	-6.2	100	0.00
5		2-Picoline	25.000	26.258	-5.0	100	0.00
6		n-Nitrosomethylethylamine	25.000	25.863	-3.5	100	0.00
7		Methyl Methanesulfonate	25.000	26.199	-4.8	100	0.00
8	S	2-Fluorophenol	25.000	26.106	-4.4	100	0.00
9		n-Nitrosodiethylamine	25.000	26.350	-5.4	100	0.00
10		Ethyl Methanesulfonate	25.000	26.079	-4.3	100	0.00
11		Aniline	25.000	26.452	-5.8	100	0.00
12	S	Phenol-d5	25.000	26.181	-4.7	100	0.00
13	C,P	Phenol	25.000	26.117	-4.5	100	0.00
14	P	bis(2-Chloroethyl)ether	25.000	26.371	-5.5	100	0.00
15		Pentachloroethane	25.000	26.209	-4.8	100	0.00
16	P	2-Chlorophenol	25.000	25.841	-3.4	100	0.00
17		1,3-Dichlorobenzene	25.000	25.920	-3.7	100	0.00
18	C	1,4-Dichlorobenzene	25.000	25.923	-3.7	100	0.00
19		Benzyl Alcohol	25.000	25.900	-3.6	100	0.00
20		1,2-Dichlorobenzene	25.000	26.029	-4.1	100	0.00
21	P	2-Methylphenol	25.000	26.390	-5.6	100	0.00
22	P	bis(2-Chloroisopropyl)ether	25.000	26.458	-5.8	100	0.00
23	P	3-,4-Methylphenol	25.000	26.018	-4.1	100	0.00
24		n-Nitrosopyrrolidine	25.000	26.298	-5.2	100	0.00
25	P	n-Nitrosodipropylamine	25.000	27.079	-8.3	100	0.00
26		Acetophenone	25.000	26.438	-5.8	100	0.00
27		n-Nitrosomorpholine	25.000	26.884	-7.5	100	0.00
28		o-Toluidine	25.000	25.882	-3.5	100	0.00
29	P	Hexachloroethane	25.000	25.987	-3.9	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	25.000	26.017	-4.1	100	0.00
32	P	Nitrobenzene	25.000	26.068	-4.3	100	0.00
33		n-Nitrosopiperidine	25.000	26.390	-5.6	100	0.00
34	P	Isophorone	25.000	26.466	-5.9	100	0.00
35	C,P	2-Nitrophenol	25.000	26.372	-5.5	100	0.00
36	P	2,4-Dimethylphenol	25.000	26.148	-4.6	100	0.00
37		0,0,0-Triethyl Phosphorothi	25.000	26.213	-4.9	100	0.00
38	P	bis(2-Chloroethoxy)methane	25.000	26.473	-5.9	100	0.00
39		Benzoic Acid	25.000	26.607	-6.4	100	0.02
40	C,P	2,4-Dichlorophenol	25.000	26.208	-4.8	100	0.00
41		a,a-Dimethylphenethylamine	25.000	26.088	-4.4	100	-0.02
42		1,2,4-Trichlorobenzene	25.000	26.216	-4.9	100	0.00
43	P	Naphthalene	25.000	26.469	-5.9	100	0.00
44	P	4-Chloroaniline	25.000	26.097	-4.4	100	0.00
45		2,6-Dichlorophenol	25.000	26.289	-5.2	100	0.00
46		Hexachloropropene	25.000	27.402	-9.6	100	0.00
47	C,P	Hexachlorobutadiene	25.000	26.341	-5.4	100	0.00
48		n-Nitrosodi-n-Butylamine	25.000	26.695	-6.8	100	0.00
49		p-Phenylenediamine	25.000	26.617	-6.5	100	0.00
50	C,P	4-Chloro-3-Methylphenol	25.000	26.489	-6.0	100	0.00
51		Safrole	25.000	26.250	-5.0	100	0.00
52	P	2-Methylnaphthalene	25.000	26.204	-4.8	100	0.00
53		1-Methylnaphthalene	25.000	26.227	-4.9	100	0.00

(#) = Out of Range
12M71147.D MEGAMIX.M Mon Apr 15 13:37:17 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	25.000	25.797	-3.2	100	0.00
56	P	Hexachlorocyclopentadiene	25.000	27.976	-11.9	100	0.00
57	C,P	2,4,6-Trichlorophenol	25.000	26.180	-4.7	100	0.00
58	P	2,4,5-Trichlorophenol	25.000	26.406	-5.6	100	0.00
59	S	2-Fluorobiphenyl	25.000	26.073	-4.3	100	0.00
60		Isosafrole	25.000	25.970	-3.9	100	0.00
61	P	2-Chloronaphthalene	25.000	25.761	-3.0	100	0.00
62		1-Chloronaphthalene	25.000	25.978	-3.9	100	0.00
63	P	2-Nitroaniline	25.000	25.887	-3.5	100	0.00
64		1,4-Naphthoquinone	25.000	26.864	-7.5	100	0.00
65	P	Dimethylphthalate	25.000	26.044	-4.2	100	0.00
66		1,3-Dinitrobenzene	25.000	26.224	-4.9	100	0.00
67	P	2,6-Dinitrotoluene	25.000	26.034	-4.1	100	0.00
68	P	Acenaphthylene	25.000	26.163	-4.7	100	0.00
69	P	3-Nitroaniline	25.000	25.844	-3.4	100	0.00
70	P	2,4-Dinitrophenol	25.000	25.545	-2.2	100	0.00
71	C,P	Acenaphthene	25.000	26.191	-4.8	100	0.00
72	P	4-Nitrophenol	25.000	26.917	-7.7	100	-0.01
73	P	2,4-Dinitrotoluene	25.000	26.607	-6.4	100	0.00
74		Pentachlorobenzene	25.000	25.792	-3.2	100	0.00
75	P	Dibenzofuran	25.000	26.211	-4.8	100	0.00
76		2,3,5,6-Tetrachlorophenol	25.000	25.851	-3.4	100	0.00
77		2,3,4,6-Tetrachlorophenol	25.000	26.079	-4.3	100	0.00
78		1-Naphthylamine	25.000	26.958	-7.8	100	0.00
79		2-Naphthylamine	25.000	25.753	-3.0	100	0.00
80	P	Diethylphthalate	25.000	26.113	-4.5	100	0.00
81		Thionazin	25.000	26.672	-6.7	100	0.00
82	P	Fluorene	25.000	26.048	-4.2	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	25.000	25.987	-3.9	100	0.00
84	P	4-Nitroaniline	25.000	25.801	-3.2	100	-0.01
85		5-Nitro-o-Toluidine	25.000	26.045	-4.2	100	-0.01
86		1,2-Diphenylhydrazine	25.000	26.538	-6.2	100	0.00
87	S	2,4,6-Tribromophenol	25.000	26.262	-5.0	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	25.000	24.221	3.1	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	25.000	25.712	-2.8	100	0.00
91		Sulfotepp	25.000	25.326	-1.3	100	0.00
92		Sym-Trinitrobenzene	25.000	24.385	2.5	100	-0.01
93		Diallate	25.000	26.760	-7.0	100	0.00
94		Phenacetin	25.000	26.440	-5.8	100	0.00
95		Phorate	25.000	26.433	-5.7	100	0.00
96	P	4-Bromophenyl Phenyl Ether	25.000	25.642	-2.6	100	0.00
97	P	Hexachlorobenzene	25.000	25.589	-2.4	100	0.00
98		Dimethoate	25.000	27.526	-10.1	100	-0.01
99		4-Aminobiphenyl	25.000	26.421	-5.7	100	0.00
100	C,P	Pentachlorophenol	25.000	25.218	-0.9	100	0.00
101		Pronamide	25.000	26.041	-4.2	100	0.00
102		Pentachloronitrobenzene	25.000	26.279	-5.1	100	-0.01
103		Disulfoton	25.000	26.594	-6.4	100	0.00
104	P	Phenanthrene	25.000	25.883	-3.5	100	0.00
105	P	Anthracene	25.000	25.818	-3.3	100	-0.01
106	P	Carbazole	25.000	26.063	-4.3	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

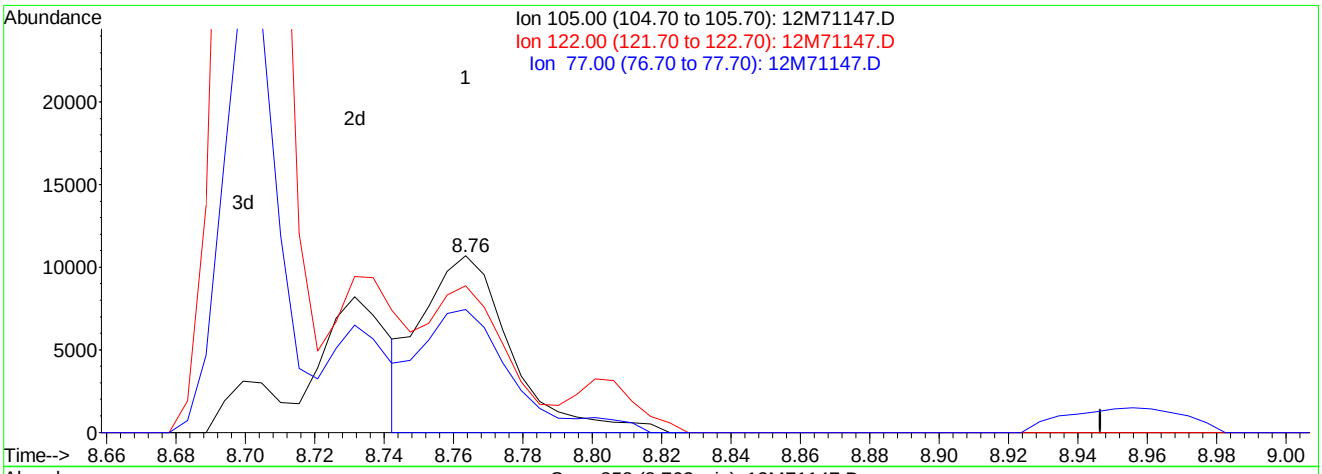
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	25.000	28.564	-14.3	100	0.00
108	P	Di-n-Butyl Phthalate	25.000	26.288	-5.2	100	0.00
109		Parathion Ethyl	25.000	27.020	-8.1	100	0.00
110		4-Nitroquinoline 1-Oxide	25.000	24.693	1.2	100	0.00
111		Methapyrilene	25.000	24.564	1.7	100	0.00
112		Isodrin	25.000	25.949	-3.8	100	0.00
113	C,P	Fluoranthene	25.000	26.015	-4.1	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	-0.01
115		Benzidine	25.000	28.892	-15.6	100	0.00
116	P	Pyrene	25.000	26.244	-5.0	100	0.00
117		Aramite	25.000	27.156	-8.6	100	0.00
118	S	p-Terphenyl-d14	25.000	25.927	-3.7	100	-0.01
119		p-(Dimethylamino)azobenzene	25.000	26.393	-5.6	100	-0.01
120		Chlorobenzilate	25.000	26.057	-4.2	100	0.00
121		Famphur	-1.000	69.330	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	25.000	26.470	-5.9	100	0.00
123		3,3'-Dimethylbenzidine	25.000	27.544	-10.2	100	0.00
124		2-Acetylaminofluorene	25.000	26.576	-6.3	100	-0.01
125	P	bis(2-Ethylhexyl)phthalate	25.000	26.906	-7.6	100	0.00
126	P	3,3'-Dichlorobenzidine	25.000	26.499	-6.0	100	0.00
127	P	Benzo[a]anthracene	25.000	25.931	-3.7	100	0.00
128	P	Chrysene	25.000	25.882	-3.5	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	-0.01
130	C,P	Di-n-Octyl Phthalate	25.000	26.273	-5.1	100	0.00
131		7,12-Dimethylbenz[a]anthrac	25.000	25.600	-2.4	100	-0.02
132	P	Benzo[b]fluoranthene	25.000	25.311	-1.2	100	-0.02
133	P	Benzo[k]fluoranthene	25.000	26.505	-6.0	100	-0.01
134	C,P	Benzo[a]pyrene	25.000	25.951	-3.8	100	-0.01
135		3-Methylcholanthrene	25.000	26.106	-4.4	100	-0.02
136	P	Indeno[1,2,3-cd]pyrene	25.000	26.099	-4.4	100	-0.03
137	P	Dibenz[ah]anthracene	25.000	25.925	-3.7	100	-0.03
138	P	Benzo[ghi]perylene	25.000	26.252	-5.0	100	-0.03

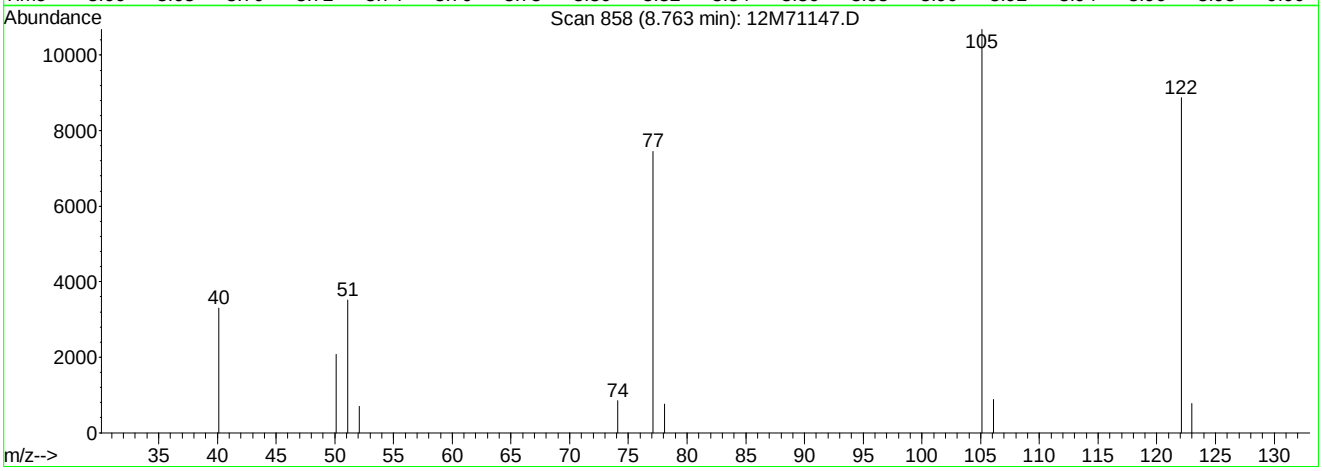
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12M71147.D MEGAMIX.M Mon Apr 15 13:37:17 2019 Page 3

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:13 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Multiple Level Calibration





TIC: 12M71147.D

(39) Benzoic Acid

8.76min 20.50ug/ml

response 19068

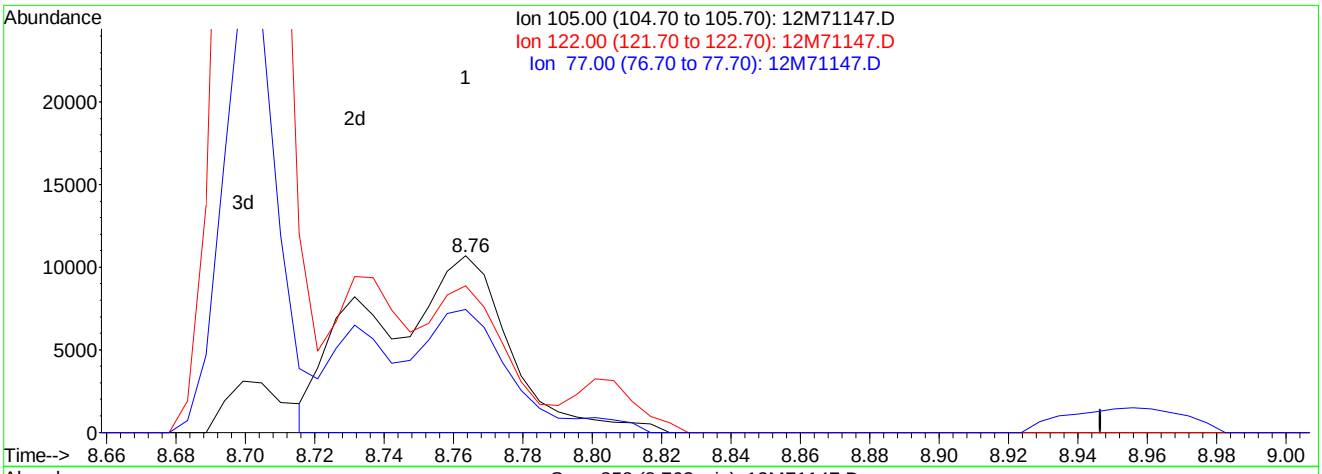
Ion	Exp%	Act%
105.00	100	100
122.00	57.30	72.58
77.00	41.90	65.12#
0.00	0.00	0.00

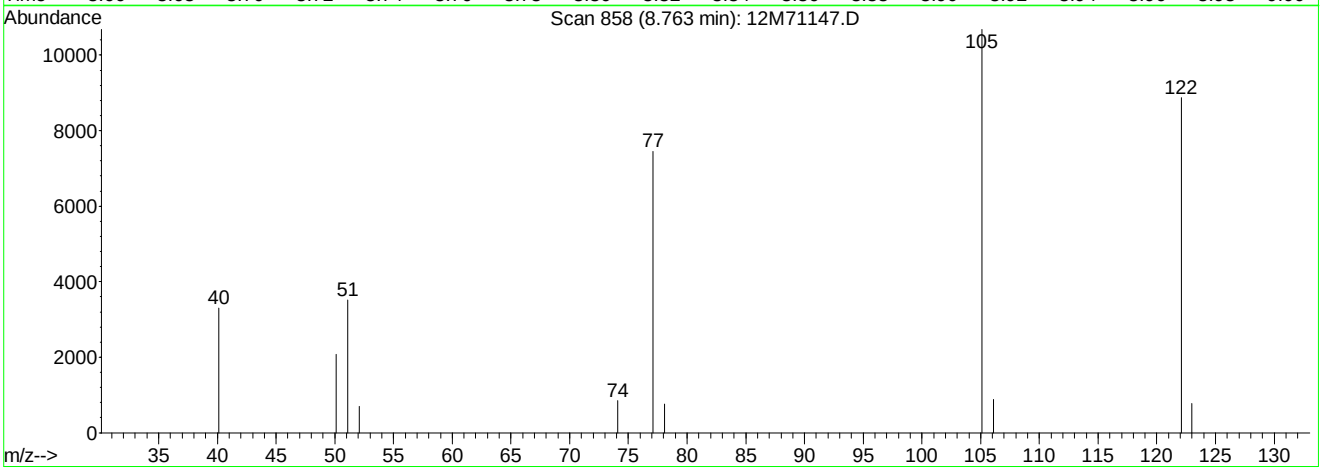
12M71147.D MEGAMIX.M Mon Apr 15 13:13:59 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71147.D Vial: 7
Acq On : 12 Apr 2019 1:15 pm Operator: SCB
Sample : WG703239-07 25PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:14 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:11:53 2019
Response via : Multiple Level Calibration





TIC: 12M71147.D

(39) Benzoic Acid

8.76min 26.60ug/ml mint

response 29251

Ion	Exp%	Act%
105.00	100	100
122.00	57.30	47.31
77.00	41.90	42.45
0.00	0.00	0.00

12M71147.D MEGAMIX.M Mon Apr 15 19

Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:37:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	136457	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	510810	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.943	164	301047	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.556	188	495883	40.0000	ug/ml	0.000
114) Chrysene-d12	16.259	240	478205	40.0000	ug/ml	0.000
129) Perylene-d12	19.095	264	464934	40.0000	ug/ml	0.000
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	329860	78.9169763	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 78.92%			
12) Phenol-d5	7.428	99	389138	77.3502881	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 77.35%			
31) Nitrobenzene-d5	8.400	82	336873	78.3286819	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 156.66%#			
59) 2-Fluorobiphenyl	10.200	172	779878	77.1844302	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 154.37%#			
87) 2,4,6-Tribromophenol	11.766	330	108988	82.4245652	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 82.42%			
118) p-Terphenyl-d14	14.592	244	893396	77.7818823	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 155.56%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	145329	83.1180	ug/ml	98
3) n-Nitrosodimethylamine	5.14	74	205110	80.1332	ug/ml	98
4) Pyridine	5.16	79	356862	77.8661	ug/ml	99
5) 2-Picoline	6.00	93	388953	77.8281	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	164718	79.9723	ug/ml	97
7) Methyl Methanesulfonate	6.42	80	171785	76.3707	ug/ml	100
9) n-Nitrosodiethylamine	6.81	102	164775	79.2681	ug/ml	96
10) Ethyl Methanesulfonate	7.08	79	232497	77.8162	ug/ml	99
11) Aniline	7.53	66	181408	78.0163	ug/ml	99
13) Phenol	7.44	94	403894	76.8575	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	229460	75.3347	ug/ml	97
15) Pentachloroethane	7.57	167	140298	78.5738	ug/ml	99
16) 2-Chlorophenol	7.66	128	365030	78.7322	ug/ml	99
17) 1,3-Dichlorobenzene	7.81	146	395019	77.8781	ug/ml	99
18) 1,4-Dichlorobenzene	7.85	146	401229	78.3179	ug/ml	98
19) Benzyl Alcohol	7.95	108	231376	80.1462	ug/ml	99
20) 1,2-Dichlorobenzene	8.05	146	367143	77.1596	ug/ml	99
21) 2-Methylphenol	8.04	107	268449	78.6542	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	389663	76.5043	ug/ml	96
23) 3-,4-Methylphenol	8.17	107	361759	79.7670	ug/ml	99
24) n-Nitrosopyrrolidine	8.22	100	154239	78.1014	ug/ml	90
25) n-Nitrosodipropylamine	8.23	70	194668	73.3928	ug/ml	97
26) Acetophenone	8.23	105	421654	76.5026	ug/ml	98
27) n-Nitrosomorpholine	8.23	56	158298	72.9140	ug/ml	95
28) o-Toluidine	8.28	106	540503	78.9111	ug/ml	99
29) Hexachloroethane	8.36	117	149712	80.5313	ug/ml	98
32) Nitrobenzene	8.42	77	337312	77.3990	ug/ml	99
33) n-Nitrosopiperidine	8.57	114	178965	79.0385	ug/ml	96
34) Isophorone	8.64	82	616836	76.8740	ug/ml	99
35) 2-Nitrophenol	8.74	139	197923	82.4364	ug/ml	99
36) 2,4-Dimethylphenol	8.70	122	321849	78.0767	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.81	198	178429	76.4779	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.81	93	466784	75.2856	ug/ml	100

(#) = qualifier out of range (m) = manual integration
12M71148.D MEGAMIX.M Mon Apr 15 13:42:36 2019 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:37:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Benzoic Acid	8.77	105	197094m	82.6198	ug/ml	
40)	2,4-Dichlorophenol	8.97	162	301766	78.3851	ug/ml	99
41)	a,a-Dimethylphenethylamine	8.98	58	847030m	80.5426	ug/ml	
42)	1,2,4-Trichlorobenzene	9.07	180	320545	77.7905	ug/ml	100
43)	Naphthalene	9.15	128	1064736	76.2851	ug/ml#	99
44)	4-Chloroaniline	9.17	65	117151	78.5799	ug/ml	99
45)	2,6-Dichlorophenol	9.20	162	293165	78.8294	ug/ml	99
46)	Hexachloropropene	9.27	213	206682	82.8667	ug/ml	100
47)	Hexachlorobutadiene	9.30	225	180683	78.3457	ug/ml	99
48)	n-Nitrosodi-n-Butylamine	9.49	84	283092	80.2745	ug/ml	97
49)	p-Phenylenediamine	9.52	108	182048	68.0115	ug/ml	99
50)	4-Chloro-3-Methylphenol	9.61	107	293798	79.0349	ug/ml	100
51)	Safrole	9.71	162	295617	78.3737	ug/ml	99
52)	2-Methylnaphthalene	9.84	142	720070	77.5511	ug/ml	100
53)	1-Methylnaphthalene	9.96	142	679591	77.5026	ug/ml	100
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	332331	77.2233	ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	113553	79.8988	ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	222085	80.3084	ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	233044	81.0361	ug/ml	99
60)	Isosafrole	10.23	162	301949	78.8920	ug/ml	100
61)	2-Chloronaphthalene	10.35	162	670529	77.3879	ug/ml	99
62)	1-Chloronaphthalene	10.39	162	614134	76.8815	ug/ml	99
63)	2-Nitroaniline	10.44	65	180474	79.2205	ug/ml	97
64)	1,4-Naphthoquinone	10.51	158	207080	78.0428	ug/ml	99
65)	Dimethylphthalate	10.61	163	744710	77.9520	ug/ml	100
66)	1,3-Dinitrobenzene	10.66	168	141924	82.9384	ug/ml	100
67)	2,6-Dinitrotoluene	10.70	165	185501	80.2520	ug/ml	99
68)	Acenaphthylene	10.79	152	1018811	76.8686	ug/ml	99
69)	3-Nitroaniline	10.86	138	203370	79.8382	ug/ml	98
70)	2,4-Dinitrophenol	10.96	184	89835	81.5159	ug/ml	46
71)	Acenaphthene	10.98	154	673015	79.0475	ug/ml	98
72)	4-Nitrophenol	10.96	65	128577	85.4629	ug/ml	97
73)	2,4-Dinitrotoluene	11.11	165	242529	81.6456	ug/ml	98
74)	Pentachlorobenzene	11.16	250	289624	77.9140	ug/ml	100
75)	Dibenzofuran	11.13	168	938139	76.7150	ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	181389	82.1441	ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.28	232	196219	81.9139	ug/ml	99
78)	1-Naphthylamine	11.20	143	661143	74.7959	ug/ml	100
79)	2-Naphthylamine	11.28	143	711435	78.8247	ug/ml	99
80)	Diethylphthalate	11.31	149	717811	77.0125	ug/ml	99
81)	Thionazin	11.41	107	119218	79.9802	ug/ml	99
82)	Fluorene	11.49	166	771464	77.2384	ug/ml	100
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	381413	77.1913	ug/ml	100
84)	4-Nitroaniline	11.50	138	206936	78.6408	ug/ml	97
85)	5-Nitro-o-Toluidine	11.49	152	236027	80.2110	ug/ml	96
86)	1,2-Diphenylhydrazine	11.61	77	655704	76.7348	ug/ml	98
89)	4,6-Dinitro-2-Methylphenol	11.54	198	135951	79.0701	ug/ml	88
90)	Diphenylamine/n-Nitrosodip	11.56	169	696377	79.3489	ug/ml	99
91)	Sulfotepp	11.76	322	129620	80.3013	ug/ml	95
92)	Sym-Trinitrobenzene	11.84	75	180856	80.1900	ug/ml	98
93)	Diallate	11.88	86	259917	77.7031	ug/ml	91
94)	Phenacetin	11.87	108	358387	82.0227	ug/ml	99
95)	Phorate	11.90	75	404888	78.5783	ug/ml#	97
96)	4-Bromophenyl Phenyl Ether	11.97	248	226479	79.7461	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:37:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

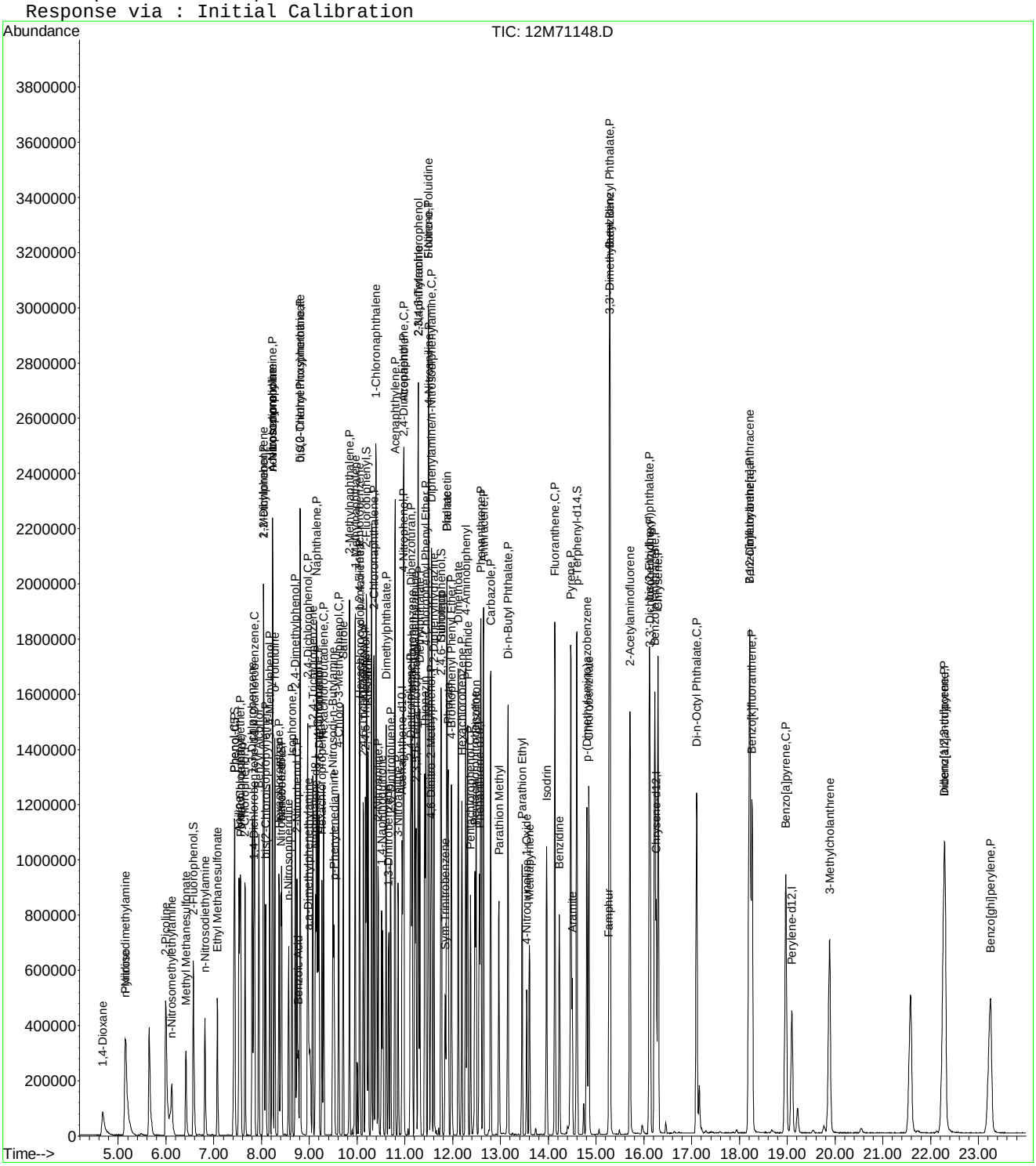
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	227845	78.3605	ug/ml	99
98)	Dimethoate	12.12	87	217701	69.9876	ug/ml	99
99)	4-Aminobiphenyl	12.27	169	856926	80.0431	ug/ml	99
100)	Pentachlorophenol	12.37	266	143964	80.2977	ug/ml	99
101)	Pronamide	12.31	173	340487	79.9732	ug/ml	100
102)	Pentachloronitrobenzene	12.47	237	88461	81.1974	ug/ml	98
103)	Disulfoton	12.49	88	355153	78.7754	ug/ml	100
104)	Phenanthrene	12.59	178	1065546	77.6725	ug/ml	99
105)	Anthracene	12.64	178	1102820	78.2982	ug/ml	99
106)	Carbazole	12.80	167	1032015	78.6868	ug/ml	100
107)	Parathion Methyl	12.97	109	205735	79.8162	ug/ml	100
108)	Di-n-Butyl Phthalate	13.15	149	1190538	78.3557	ug/ml	100
109)	Parathion Ethyl	13.45	97	143967	84.8647	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.55	190	100224	86.0064	ug/ml	98
111)	Methapyrilene	13.60	58	262512	70.7356	ug/ml	98
112)	Isodrin	13.97	193	121093	79.0788	ug/ml	100
113)	Fluoranthene	14.14	202	1180280	77.8193	ug/ml	99
115)	Benzidine	14.23	184	519445	76.8692	ug/ml	100
116)	Pyrene	14.47	202	1200893	77.8923	ug/ml	99
117)	Aramite	14.50	185	68078	82.1254	ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.81	225	256894	80.2827	ug/ml	100
120)	Chlorobenzilate	14.85	251	359014	80.7635	ug/ml	99
121)	Famphur	15.25	218	10518	12.7952	ug/ml#	1
122)	Butyl Benzyl Phthalate	15.28	149	521013	77.2732	ug/ml	98
123)	3,3'-Dimethylbenzidine	15.29	212	1017635	77.3997	ug/ml	99
124)	2-Acetylaminofluorene	15.71	181	501091	86.5618	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.11	149	732090	81.4710	ug/ml	99
126)	3,3'-Dichlorobenzidine	16.13	252	387761	77.5146	ug/ml	100
127)	Benzo[a]anthracene	16.23	228	1123774	78.7402	ug/ml	100
128)	Chrysene	16.30	228	1063919	78.2515	ug/ml	99
130)	Di-n-Octyl Phthalate	17.10	149	1272325	82.2939	ug/ml	99
131)	7,12-Dimethylbenz[a]anthra	18.21	256	544323	81.2915	ug/ml	99
132)	Benzo[b]fluoranthene	18.21	252	1176163	82.3299	ug/ml	99
133)	Benzo[k]fluoranthene	18.26	252	985284	78.3834	ug/ml	99
134)	Benzo[a]pyrene	18.97	252	1039206	81.7694	ug/ml	99
135)	3-Methylcholanthrene	19.89	268	555040	82.4115	ug/ml	100
136)	Indeno[1,2,3-cd]pyrene	22.30	276	1194650	83.7893	ug/ml	99
137)	Dibenz[ah]anthracene	22.29	278	1027170	84.8357	ug/ml	99
138)	Benzo[ghi]perylene	23.25	276	986720	83.3489	ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71148.D MEGAMIX.M Mon Apr 15 13:42:37 2019 Page 3

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:38 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



12M71148.D MEGAMIX.M Mon Apr 15 13:42:37 2019 Page 4

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	80.000	83.118	-3.9	100	0.00
3		n-Nitrosodimethylamine	80.000	80.133	-0.2	100	0.00
4		Pyridine	80.000	77.866	2.7	100	0.00
5		2-Picoline	80.000	77.828	2.7	100	0.00
6		n-Nitrosomethylethylamine	80.000	79.972	0.0	100	0.00
7		Methyl Methanesulfonate	80.000	76.371	4.5	100	0.00
8	S	2-Fluorophenol	80.000	78.917	1.4	100	0.00
9		n-Nitrosodiethylamine	80.000	79.268	0.9	100	0.00
10		Ethyl Methanesulfonate	80.000	77.816	2.7	100	0.00
11		Aniline	80.000	78.016	2.5	100	0.00
12	S	Phenol-d5	80.000	77.350	3.3	100	0.00
13	C,P	Phenol	80.000	76.858	3.9	100	0.00
14	P	bis(2-Chloroethyl)ether	80.000	75.335	5.8	100	0.00
15		Pentachloroethane	80.000	78.574	1.8	100	0.00
16	P	2-Chlorophenol	80.000	78.732	1.6	100	0.00
17		1,3-Dichlorobenzene	80.000	77.878	2.7	100	0.00
18	C	1,4-Dichlorobenzene	80.000	78.318	2.1	100	0.00
19		Benzyl Alcohol	80.000	80.146	-0.2	100	0.00
20		1,2-Dichlorobenzene	80.000	77.160	3.6	100	0.00
21	P	2-Methylphenol	80.000	78.654	1.7	100	0.00
22	P	bis(2-Chloroisopropyl)ether	80.000	76.504	4.4	100	0.00
23	P	3-,4-Methylphenol	80.000	79.767	0.3	100	0.00
24		n-Nitrosopyrrolidine	80.000	78.101	2.4	100	0.00
25	P	n-Nitrosodipropylamine	80.000	73.393	8.3	100	0.00
26		Acetophenone	80.000	76.503	4.4	100	0.00
27		n-Nitrosomorpholine	80.000	72.914	8.9	100	0.00
28		o-Toluidine	80.000	78.911	1.4	100	0.00
29	P	Hexachloroethane	80.000	80.531	-0.7	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	80.000	78.329	2.1	100	0.00
32	P	Nitrobenzene	80.000	77.399	3.3	100	0.00
33		n-Nitrosopiperidine	80.000	79.038	1.2	100	0.00
34	P	Isophorone	80.000	76.874	3.9	100	0.00
35	C,P	2-Nitrophenol	80.000	82.436	-3.0	100	0.00
36	P	2,4-Dimethylphenol	80.000	78.077	2.4	100	0.00
37		0,0,0-Triethyl Phosphorothi	80.000	76.478	4.4	100	0.00
38	P	bis(2-Chloroethoxy)methane	80.000	75.286	5.9	100	0.00
39		Benzoic Acid	80.000	82.620	-3.3	100	0.02
40	C,P	2,4-Dichlorophenol	80.000	78.385	2.0	100	0.00
41		a,a-Dimethylphenethylamine	80.000	80.543	-0.7	100	0.01
42		1,2,4-Trichlorobenzene	80.000	77.791	2.8	100	0.00
43	P	Naphthalene	80.000	76.285	4.6	100	0.00
44	P	4-Chloroaniline	80.000	78.580	1.8	100	0.00
45		2,6-Dichlorophenol	80.000	78.829	1.5	100	0.00
46		Hexachloropropene	80.000	82.867	-3.6	100	0.00
47	C,P	Hexachlorobutadiene	80.000	78.346	2.1	100	0.00
48		n-Nitrosodi-n-Butylamine	80.000	80.274	-0.3	100	0.00
49		p-Phenylenediamine	80.000	68.011	15.0	100	0.00
50	C,P	4-Chloro-3-Methylphenol	80.000	79.035	1.2	100	0.00
51		Safrole	80.000	78.374	2.0	100	0.00
52	P	2-Methylnaphthalene	80.000	77.551	3.1	100	0.00
53		1-Methylnaphthalene	80.000	77.503	3.1	100	0.00

(#) = Out of Range
12M71148.D MEGAMIX.M Mon Apr 15 13:39:03 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	80.000	77.223	3.5	100	0.00
56	P	Hexachlorocyclopentadiene	80.000	79.899	0.1	100	0.00
57	C,P	2,4,6-Trichlorophenol	80.000	80.308	-0.4	100	0.00
58	P	2,4,5-Trichlorophenol	80.000	81.036	-1.3	100	0.00
59	S	2-Fluorobiphenyl	80.000	77.184	3.5	100	0.00
60		Isosafrole	80.000	78.892	1.4	100	0.00
61	P	2-Chloronaphthalene	80.000	77.388	3.3	100	0.00
62		1-Chloronaphthalene	80.000	76.881	3.9	100	0.00
63	P	2-Nitroaniline	80.000	79.220	1.0	100	0.00
64		1,4-Naphthoquinone	80.000	78.043	2.4	100	0.00
65	P	Dimethylphthalate	80.000	77.952	2.6	100	0.00
66		1,3-Dinitrobenzene	80.000	82.938	-3.7	100	0.00
67	P	2,6-Dinitrotoluene	80.000	80.252	-0.3	100	0.00
68	P	Acenaphthylene	80.000	76.869	3.9	100	0.00
69	P	3-Nitroaniline	80.000	79.838	0.2	100	0.00
70	P	2,4-Dinitrophenol	80.000	81.516	-1.9	100	0.00
71	C,P	Acenaphthene	80.000	79.047	1.2	100	0.00
72	P	4-Nitrophenol	80.000	85.463	-6.8	100	0.00
73	P	2,4-Dinitrotoluene	80.000	81.646	-2.1	100	0.00
74		Pentachlorobenzene	80.000	77.914	2.6	100	0.00
75	P	Dibenzofuran	80.000	76.715	4.1	100	0.00
76		2,3,5,6-Tetrachlorophenol	80.000	82.144	-2.7	100	0.00
77		2,3,4,6-Tetrachlorophenol	80.000	81.914	-2.4	100	0.00
78		1-Naphthylamine	80.000	74.796	6.5	100	0.00
79		2-Naphthylamine	80.000	78.825	1.5	100	0.00
80	P	Diethylphthalate	80.000	77.013	3.7	100	0.00
81		Thionazin	80.000	79.980	0.0	100	0.00
82	P	Fluorene	80.000	77.238	3.5	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	80.000	77.191	3.5	100	0.00
84	P	4-Nitroaniline	80.000	78.641	1.7	100	0.00
85		5-Nitro-o-Toluidine	80.000	80.211	-0.3	100	0.00
86		1,2-Diphenylhydrazine	80.000	76.735	4.1	100	0.00
87	S	2,4,6-Tribromophenol	80.000	82.425	-3.0	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	80.000	79.070	1.2	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	80.000	79.349	0.8	100	0.00
91		Sulfotepp	80.000	80.301	-0.4	100	0.00
92		Sym-Trinitrobenzene	80.000	80.190	-0.2	100	0.00
93		Diallate	80.000	77.703	2.9	100	0.00
94		Phenacetin	80.000	82.023	-2.5	100	0.00
95		Phorate	80.000	78.578	1.8	100	0.00
96	P	4-Bromophenyl Phenyl Ether	80.000	79.746	0.3	100	0.00
97	P	Hexachlorobenzene	80.000	78.360	2.1	100	0.00
98		Dimethoate	80.000	69.988	12.5	100	0.00
99		4-Aminobiphenyl	80.000	80.043	-0.1	100	0.00
100	C,P	Pentachlorophenol	80.000	80.298	-0.4	100	0.00
101		Pronamide	80.000	79.973	0.0	100	0.00
102		Pentachloronitrobenzene	80.000	81.197	-1.5	100	0.00
103		Disulfoton	80.000	78.775	1.5	100	0.00
104	P	Phenanthrene	80.000	77.672	2.9	100	0.00
105	P	Anthracene	80.000	78.298	2.1	100	0.00
106	P	Carbazole	80.000	78.687	1.6	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

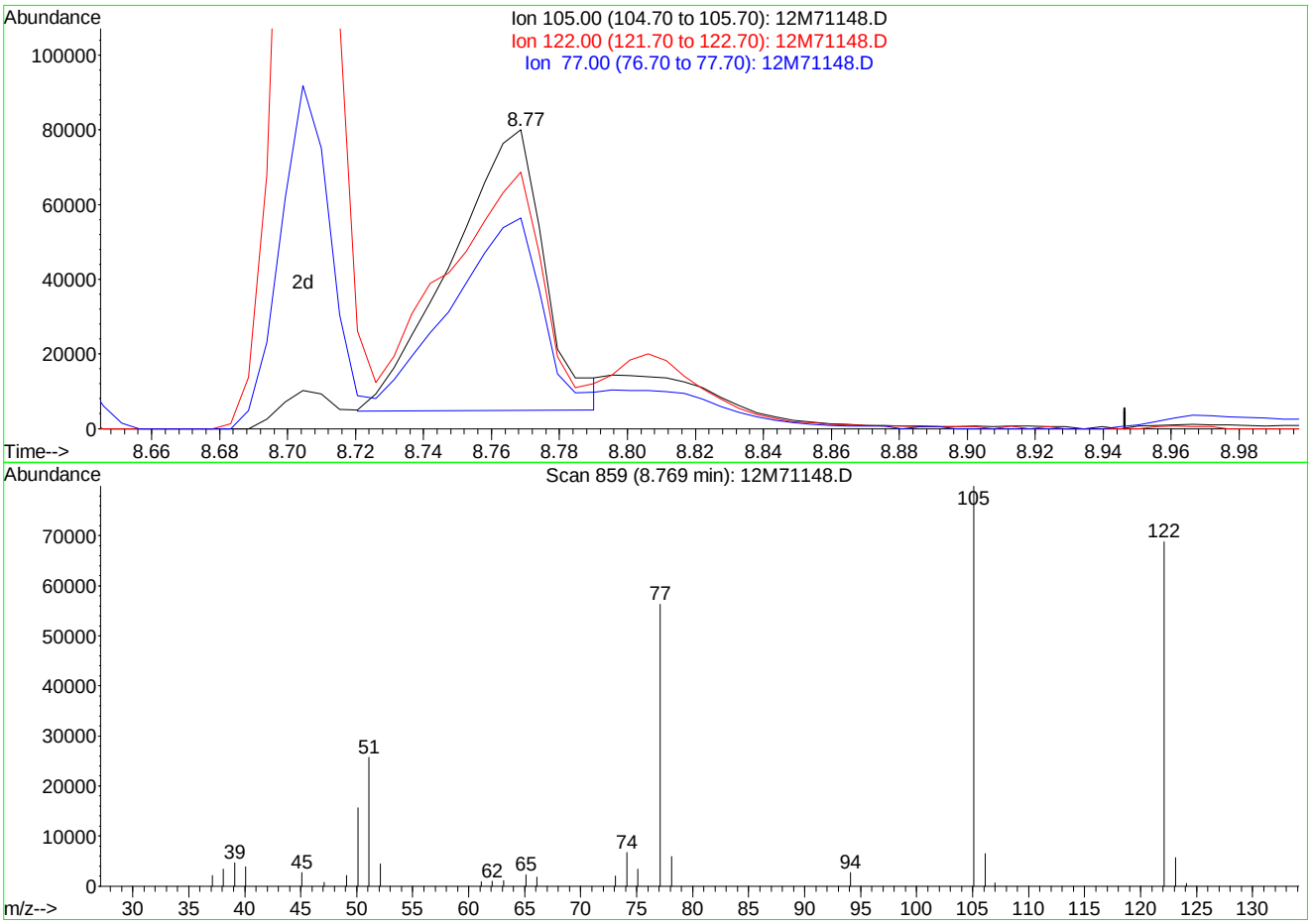
Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	80.000	79.816	0.2	100	0.00
108	P	Di-n-Butyl Phthalate	80.000	78.356	2.1	100	0.00
109		Parathion Ethyl	80.000	84.865	-6.1	100	0.00
110		4-Nitroquinoline 1-Oxide	80.000	86.006	-7.5	100	0.00
111		Methapyrilene	80.000	70.736	11.6	100	0.00
112		Isodrin	80.000	79.079	1.2	100	0.00
113	C,P	Fluoranthene	80.000	77.819	2.7	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	80.000	76.869	3.9	100	0.00
116	P	Pyrene	80.000	77.892	2.6	100	0.00
117		Aramite	80.000	82.125	-2.7	100	0.00
118	S	p-Terphenyl-d14	80.000	77.782	2.8	100	0.00
119		p-(Dimethylamino)azobenzene	80.000	80.283	-0.4	100	0.00
120		Chlorobenzilate	80.000	80.764	-1.0	100	0.00
121		Famphur	-1.000	12.795	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	80.000	77.273	3.4	100	0.00
123		3,3'-Dimethylbenzidine	80.000	77.400	3.2	100	0.00
124		2-Acetylaminofluorene	80.000	86.562	-8.2	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	80.000	81.471	-1.8	100	0.00
126	P	3,3'-Dichlorobenzidine	80.000	77.515	3.1	100	0.00
127	P	Benzo[a]anthracene	80.000	78.740	1.6	100	0.00
128	P	Chrysene	80.000	78.251	2.2	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	80.000	82.294	-2.9	100	0.00
131		7,12-Dimethylbenz[a]anthrac	80.000	81.291	-1.6	100	0.00
132	P	Benzo[b]fluoranthene	80.000	82.330	-2.9	100	0.00
133	P	Benzo[k]fluoranthene	80.000	78.383	2.0	100	0.00
134	C,P	Benzo[a]pyrene	80.000	81.769	-2.2	100	0.00
135		3-Methylcholanthrene	80.000	82.412	-3.0	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	80.000	83.789	-4.7	100	0.02
137	P	Dibenz[ah]anthracene	80.000	84.836	-6.0	100	0.01
138	P	Benzo[ghi]perylene	80.000	83.349	-4.2	100	0.01

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:14 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:14:20 2019
Response via : Multiple Level Calibration



TIC: 12M71148.D

(39) Benzoic Acid

8.77min 67.75ug/ml

response 141845

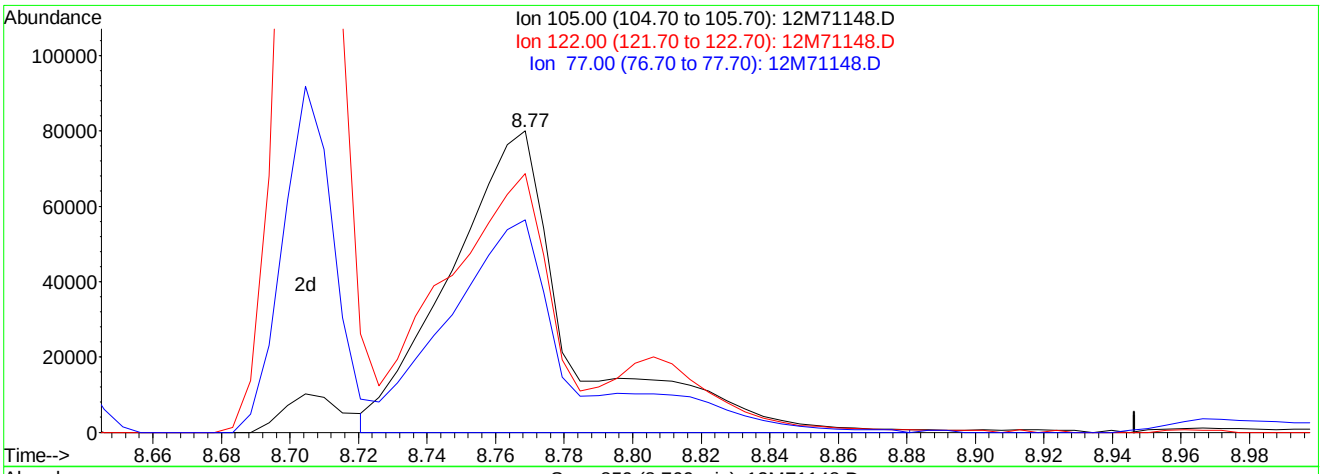
Ion	Exp%	Act%
105.00	100	100
122.00	57.30	102.81#
77.00	41.90	61.46#
0.00	0.00	0.00

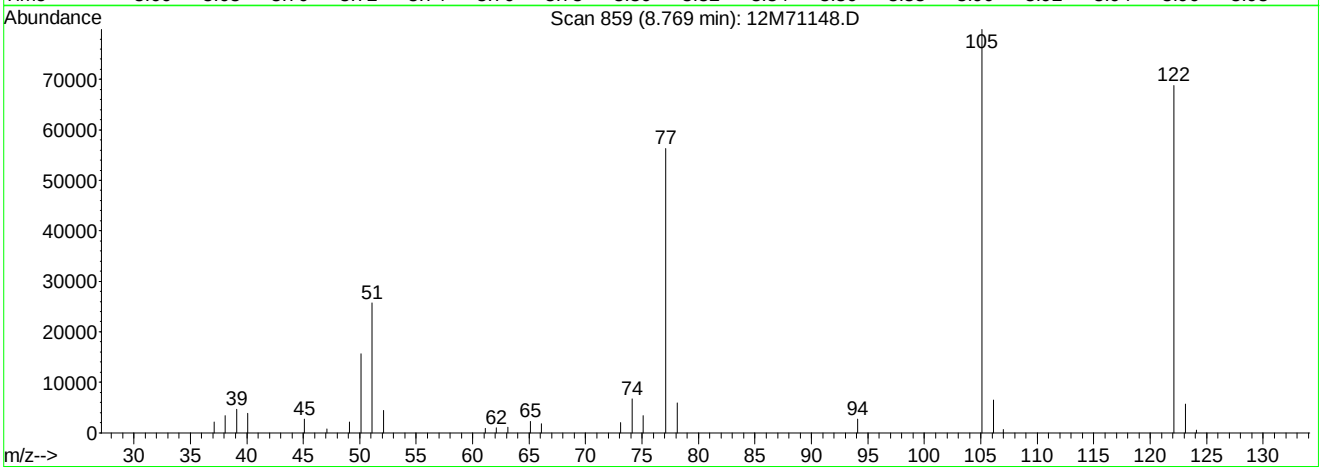
12M71148.D MEGAMIX.M Mon Apr 15 13:14:52 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:14 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:14:20 2019
Response via : Multiple Level Calibration





TIC: 12M71148.D

(39) Benzoic Acid

8.77min 82.81ug/ml mint

response 197605

Ion	Exp%	Act%
105.00	100	100
122.00	57.30	73.80
77.00	41.90	44.11
0.00	0.00	0.00

12M71148.D MEGAMIX.M Mon Apr 15 19

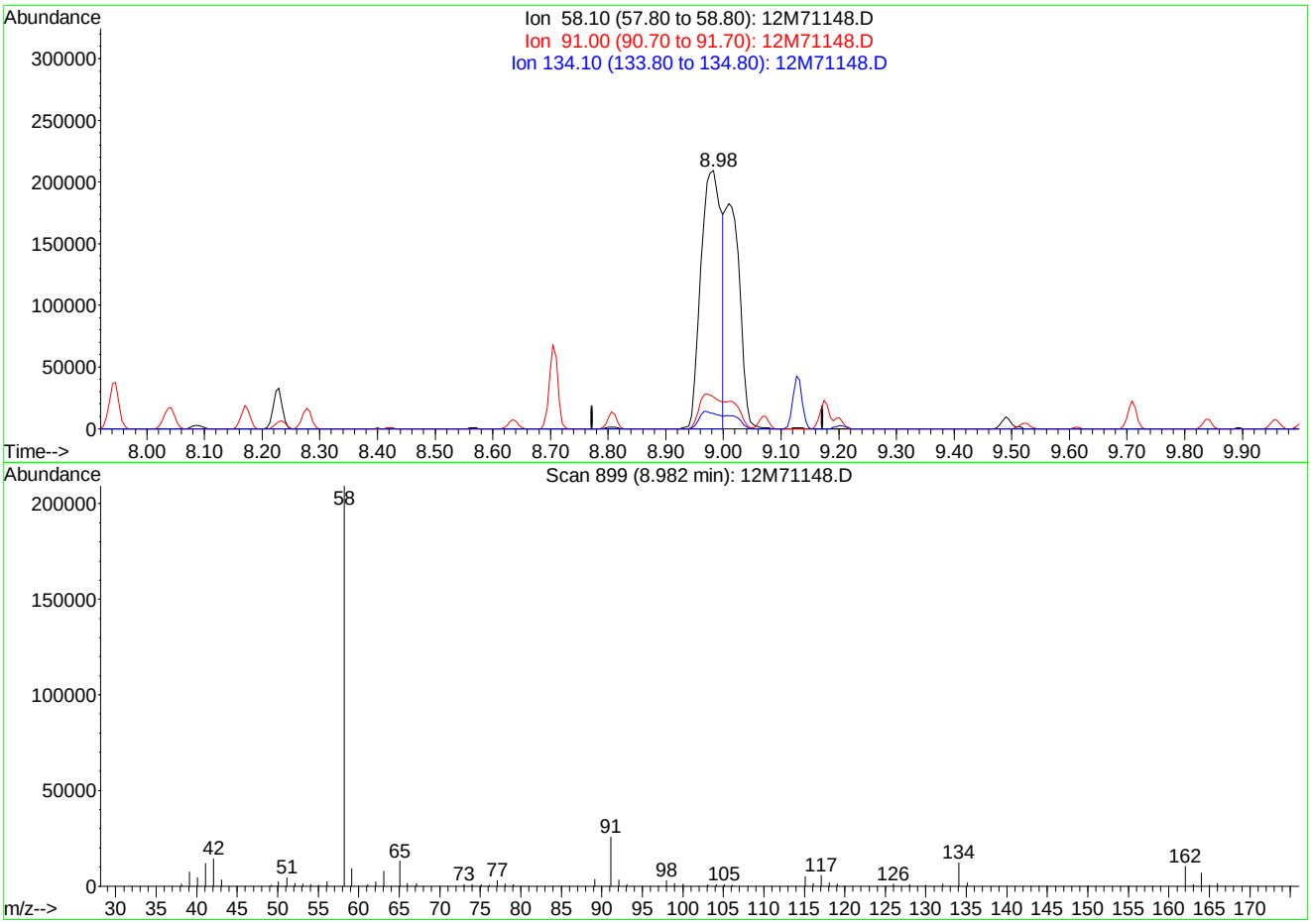
Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:14 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:14:20 2019
Response via : Multiple Level Calibration



TIC: 12M71148.D

(41) a,a-Dimethylphenethylamine

8.98min 49.10ug/ml

response 516404

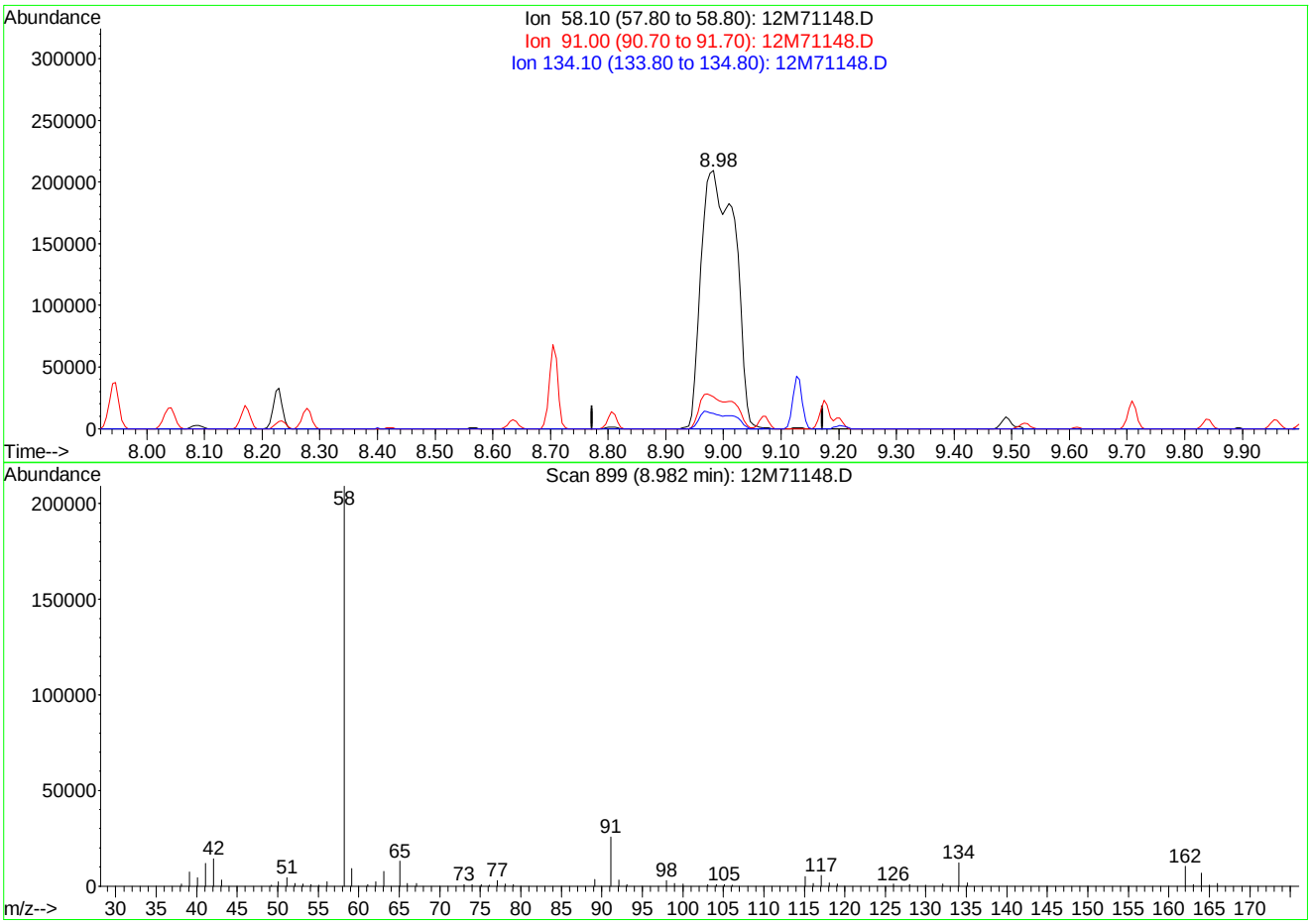
Ion	Exp%	Act%
58.10	100	100
91.00	12.60	14.93
134.10	6.00	6.56
0.00	0.00	0.00

12M71148.D MEGAMIX.M Mon Apr 15 13:15:04 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71148.D Vial: 8
Acq On : 12 Apr 2019 1:48 pm Operator: SCB
Sample : WG703239-08 80PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:15 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:14:20 2019
Response via : Multiple Level Calibration



TIC: 12M71148.D

(41) a,a-Dimethylphenethylamine

8.98min 80.56ug/ml mint

response 847341

Ion	Exp%	Act%
58.10	100	100
91.00	12.60	9.10#
134.10	6.00	4.00#
0.00	0.00	0.00

12M71148.D MEGAMIX.M Mon Apr 15 19

Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:39:25 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	137662	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	518909	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.943	164	304089	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.556	188	500060	40.0000	ug/ml	0.000
114) Chrysene-d12	16.259	240	483710	40.0000	ug/ml	0.000
129) Perylene-d12	19.095	264	466112	40.0000	ug/ml	0.000
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	415835	98.6151334	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 98.62%			
12) Phenol-d5	7.428	99	488845	96.3188336	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 96.32%#			
31) Nitrobenzene-d5	8.405	82	425608	97.4165140	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 194.83%#			
59) 2-Fluorobiphenyl	10.200	172	974527	95.4839777	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 190.97%#			
87) 2,4,6-Tribromophenol	11.766	330	140095	104.8900302	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 104.89%			
118) p-Terphenyl-d14	14.592	244	1120102	96.4097740	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 192.82%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	182848	103.6608	ug/ml	100
3) n-Nitrosodimethylamine	5.14	74	260146	100.7452	ug/ml	98
4) Pyridine	5.16	79	447754	96.8433	ug/ml	99
5) 2-Picoline	6.00	93	491568	97.5000	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	208903	100.5368	ug/ml	97
7) Methyl Methanesulfonate	6.42	80	215018	94.7541	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	208150	99.2579	ug/ml	95
10) Ethyl Methanesulfonate	7.08	79	291639	96.7565	ug/ml	98
11) Aniline	7.53	66	224757	95.8128	ug/ml	98
13) Phenol	7.44	94	505835	95.4134	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	281365	91.5671	ug/ml	94
15) Pentachloroethane	7.56	167	178043	98.8400	ug/ml	99
16) 2-Chlorophenol	7.66	128	460885	98.5368	ug/ml	99
17) 1,3-Dichlorobenzene	7.81	146	498531	97.4252	ug/ml	99
18) 1,4-Dichlorobenzene	7.85	146	506958	98.0895	ug/ml	98
19) Benzyl Alcohol	7.95	108	294172	101.0061	ug/ml	98
20) 1,2-Dichlorobenzene	8.05	146	462645	96.3794	ug/ml	99
21) 2-Methylphenol	8.04	107	334218	97.0670	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	477970	93.0206	ug/ml	95
23) 3-,4-Methylphenol	8.18	107	452282	98.8542	ug/ml	100
24) n-Nitrosopyrrolidine	8.23	100	191748	96.2448	ug/ml	87
25) n-Nitrosodipropylamine	8.23	70	235654	88.0674	ug/ml	96
26) Acetophenone	8.23	105	517976	93.1561	ug/ml	97
27) n-Nitrosomorpholine	8.23	56	193165	88.1953	ug/ml	94
28) o-Toluidine	8.28	106	679793	98.3781	ug/ml	99
29) Hexachloroethane	8.36	117	188975	100.7615	ug/ml	98
32) Nitrobenzene	8.42	77	425577	96.1280	ug/ml	98
33) n-Nitrosopiperidine	8.57	114	228048	99.1437	ug/ml	94
34) Isophorone	8.64	82	775359	95.1219	ug/ml	99
35) 2-Nitrophenol	8.74	139	250530	102.7189	ug/ml	100
36) 2,4-Dimethylphenol	8.70	122	406794	97.1431	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.81	198	224330	94.6512	ug/ml	97
38) bis(2-Chloroethoxy)methane	8.81	93	572862	90.9524	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:39:25 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Benzoic Acid	8.78	105	281462	101.1415 ug/ml	83
40)	2,4-Dichlorophenol	8.97	162	387440	99.0686 ug/ml	99
41)	a,a-Dimethylphenethylamine	8.99	58	1088120m	101.8526 ug/ml	
42)	1,2,4-Trichlorobenzene	9.07	180	401219	95.8489 ug/ml	99
43)	Naphthalene	9.15	128	1326343	93.5453 ug/ml#	99
44)	4-Chloroaniline	9.17	65	146700	96.8643 ug/ml	95
45)	2,6-Dichlorophenol	9.20	162	373138	98.7674 ug/ml	99
46)	Hexachloropropene	9.27	213	257457	101.6133 ug/ml	99
47)	Hexachlorobutadiene	9.30	225	226267	96.5800 ug/ml	99
48)	n-Nitrosodi-n-Butylamine	9.49	84	357713	99.8511 ug/ml#	87
49)	p-Phenylenediamine	9.53	108	197620	Below Cal	98
50)	4-Chloro-3-Methylphenol	9.62	107	371797	98.4564 ug/ml	99
51)	Safrole	9.71	162	373082	97.3674 ug/ml	99
52)	2-Methylnaphthalene	9.84	142	898139	95.2192 ug/ml	100
53)	1-Methylnaphthalene	9.96	142	853405	95.8059 ug/ml	100
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	419665	96.5414 ug/ml	99
56)	Hexachlorocyclopentadiene	10.06	237	129449	100.7677 ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	282120	100.9972 ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	294460	101.3679 ug/ml	99
60)	Isosafrole	10.23	162	381093	98.5744 ug/ml	100
61)	2-Chloronaphthalene	10.35	162	838112	95.7615 ug/ml	99
62)	1-Chloronaphthalene	10.39	162	763742	94.6540 ug/ml	99
63)	2-Nitroaniline	10.44	65	227238	98.7501 ug/ml	97
64)	1,4-Naphthoquinone	10.51	158	243610	99.0262 ug/ml	99
65)	Dimethylphthalate	10.61	163	924561	95.8096 ug/ml	100
66)	1,3-Dinitrobenzene	10.66	168	180631	104.5022 ug/ml	99
67)	2,6-Dinitrotoluene	10.70	165	234468	100.4215 ug/ml	99
68)	Acenaphthylene	10.79	152	1256428	93.8483 ug/ml	99
69)	3-Nitroaniline	10.86	138	256508	99.6915 ug/ml	98
70)	2,4-Dinitrophenol	10.96	184	124126	101.9173 ug/ml	30
71)	Acenaphthene	10.98	154	836206	97.2322 ug/ml	97
72)	4-Nitrophenol	10.96	65	158824	104.5115 ug/ml	93
73)	2,4-Dinitrotoluene	11.11	165	305526	101.8241 ug/ml	97
74)	Pentachlorobenzene	11.16	250	362873	96.6427 ug/ml	99
75)	Dibenzofuran	11.13	168	1165713	94.3710 ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	233138	104.5231 ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.28	232	246194	101.7484 ug/ml	99
78)	1-Naphthylamine	11.21	143	807588	90.4494 ug/ml	99
79)	2-Naphthylamine	11.28	143	879907	96.5155 ug/ml	99
80)	Diethylphthalate	11.31	149	893817	94.9365 ug/ml	99
81)	Thionazin	11.42	107	148428	98.5803 ug/ml	99
82)	Fluorene	11.49	166	967322	95.8788 ug/ml	99
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	476827	95.5361 ug/ml	99
84)	4-Nitroaniline	11.50	138	263812	99.2521 ug/ml	96
85)	5-Nitro-o-Toluidine	11.50	152	296016	99.5912 ug/ml	95
86)	1,2-Diphenylhydrazine	11.61	77	807716	93.5787 ug/ml	97
89)	4,6-Dinitro-2-Methylphenol	11.55	198	180546	102.0342 ug/ml	83
90)	Diphenylamine/n-Nitrosodip	11.56	169	871496	98.4734 ug/ml	99
91)	Sulfotepp	11.76	322	162964	100.1151 ug/ml	93
92)	Sym-Trinitrobenzene	11.85	75	231046	100.9689 ug/ml	98
93)	Diallate	11.88	86	313971	93.0787 ug/ml	87
94)	Phenacetin	11.88	108	440745	100.0291 ug/ml	99
95)	Phorate	11.90	75	492492	94.7816 ug/ml#	96
96)	4-Bromophenyl Phenyl Ether	11.97	248	282883	98.7746 ug/ml	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:39:25 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

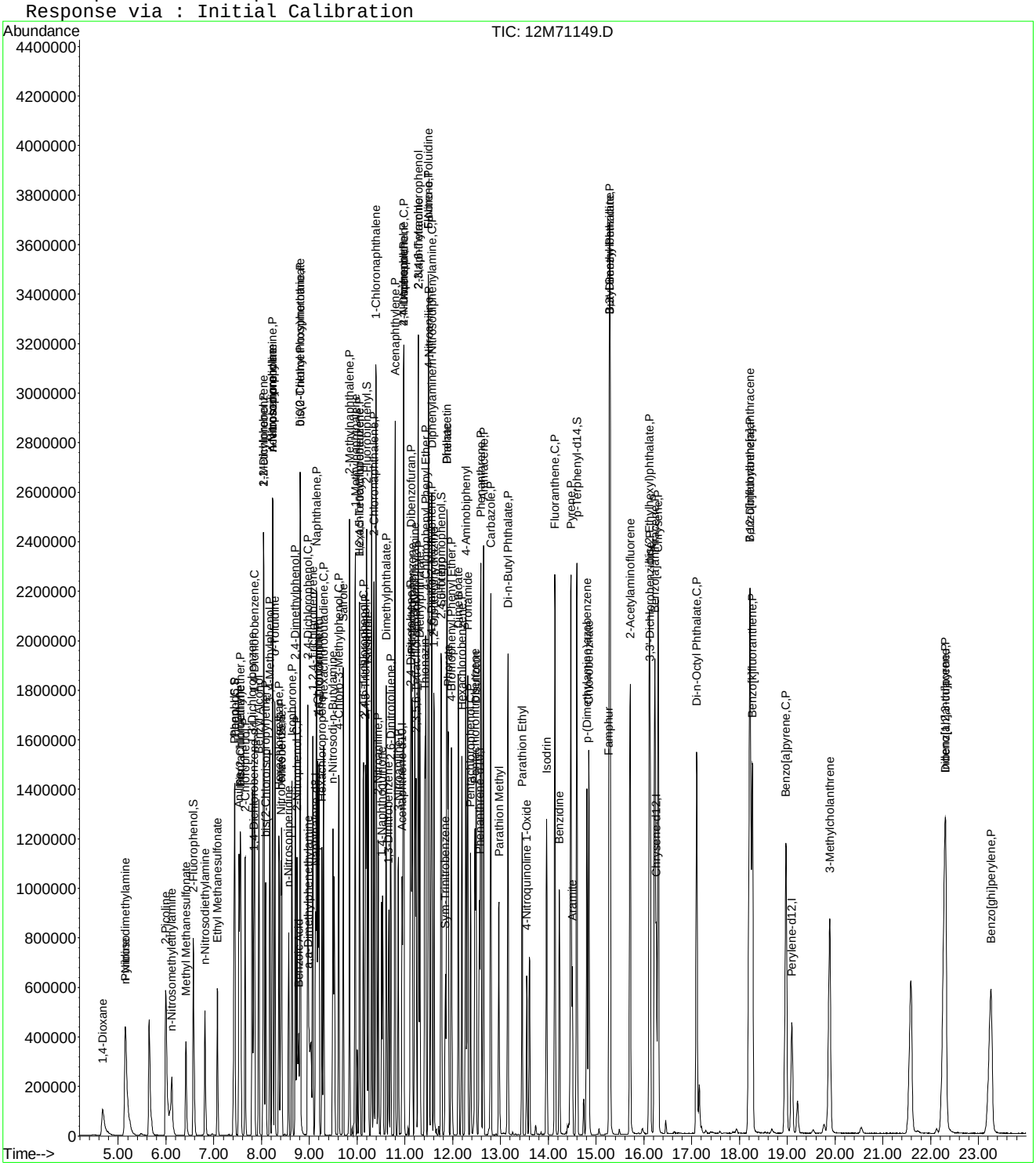
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	288517	98.3979 ug/ml	99
98)	Dimethoate	12.12	87	247858	79.0170 ug/ml	99
99)	4-Aminobiphenyl	12.27	169	1054741	97.6975 ug/ml	98
100)	Pentachlorophenol	12.37	266	182987	100.2717 ug/ml	99
101)	Pronamide	12.31	173	426083	99.2419 ug/ml	100
102)	Pentachloronitrobenzene	12.47	237	109924	100.0552 ug/ml	98
103)	Disulfoton	12.49	88	434313	95.5289 ug/ml	99
104)	Phenanthrene	12.59	178	1331922	96.2789 ug/ml	99
105)	Anthracene	12.64	178	1369781	96.4396 ug/ml	99
106)	Carbazole	12.80	167	1282207	96.9463 ug/ml	100
107)	Parathion Methyl	12.96	109	234050	90.0427 ug/ml	99
108)	Di-n-Butyl Phthalate	13.15	149	1478521	96.4965 ug/ml	99
109)	Parathion Ethyl	13.45	97	178511	104.3485 ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.55	190	121014	102.3016 ug/ml	98
111)	Methapyrilene	13.60	58	292883	Below Cal	98
112)	Isodrin	13.97	193	151925	98.3847 ug/ml	99
113)	Fluoranthene	14.14	202	1466319	95.8711 ug/ml	99
115)	Benzidine	14.23	184	610956	89.3824 ug/ml	100
116)	Pyrene	14.47	202	1492937	95.7328 ug/ml	98
117)	Aramite	14.50	185	83794	99.9339 ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.81	225	322760	99.7187 ug/ml	100
120)	Chlorobenzilate	14.85	251	451262	100.3603 ug/ml	99
121)	Famphur	15.26	218	5453	6.5581 ug/ml#	1
122)	Butyl Benzyl Phthalate	15.28	149	640942	93.9785 ug/ml	97
123)	3,3'-Dimethylbenzidine	15.29	212	1240680	99.0150 ug/ml	99
124)	2-Acetylaminofluorene	15.71	181	636646	108.7268 ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.11	149	913604	100.5138 ug/ml	99
126)	3,3'-Dichlorobenzidine	16.14	252	490573	96.9509 ug/ml	100
127)	Benzo[a]anthracene	16.23	228	1407995	97.5322 ug/ml	99
128)	Chrysene	16.30	228	1336997	97.2173 ug/ml	99
130)	Di-n-Octyl Phthalate	17.10	149	1595994	102.9679 ug/ml	99
131)	7,12-Dimethylbenz[a]anthra	18.22	256	688544	102.5701 ug/ml	99
132)	Benzo[b]fluoranthene	18.22	252	1476251	103.0745 ug/ml	99
133)	Benzo[k]fluoranthene	18.27	252	1253060	99.4341 ug/ml	99
134)	Benzo[a]pyrene	18.97	252	1310847	102.8827 ug/ml	99
135)	3-Methylcholanthrene	19.89	268	697525	103.3058 ug/ml	100
136)	Indeno[1,2,3-cd]pyrene	22.31	276	1497619	104.7732 ug/ml	99
137)	Dibenz[ah]anthracene	22.31	278	1292742	106.4999 ug/ml	99
138)	Benzo[ghi]perylene	23.26	276	1218610	102.6767 ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:39 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	100.000	103.661	-3.7	100	0.00
3		n-Nitrosodimethylamine	100.000	100.745	-0.7	100	0.00
4		Pyridine	100.000	96.843	3.2	100	0.00
5		2-Picoline	100.000	97.500	2.5	100	0.00
6		n-Nitrosomethylethylamine	100.000	100.537	-0.5	100	0.00
7		Methyl Methanesulfonate	100.000	94.754	5.2	100	0.00
8	S	2-Fluorophenol	100.000	98.615	1.4	100	0.00
9		n-Nitrosodiethylamine	100.000	99.258	0.7	100	0.00
10		Ethyl Methanesulfonate	100.000	96.757	3.2	100	0.00
11		Aniline	100.000	95.813	4.2	100	0.00
12	S	Phenol-d5	100.000	96.319	3.7	100	0.00
13	C,P	Phenol	100.000	95.413	4.6	100	0.00
14	P	bis(2-Chloroethyl)ether	100.000	91.567	8.4	100	0.00
15		Pentachloroethane	100.000	98.840	1.2	100	0.00
16	P	2-Chlorophenol	100.000	98.537	1.5	100	0.00
17		1,3-Dichlorobenzene	100.000	97.425	2.6	100	0.00
18	C	1,4-Dichlorobenzene	100.000	98.090	1.9	100	0.00
19		Benzyl Alcohol	100.000	101.006	-1.0	100	0.00
20		1,2-Dichlorobenzene	100.000	96.379	3.6	100	0.00
21	P	2-Methylphenol	100.000	97.067	2.9	100	0.00
22	P	bis(2-Chloroisopropyl)ether	100.000	93.021	7.0	100	0.00
23	P	3-,4-Methylphenol	100.000	98.854	1.1	100	0.00
24		n-Nitrosopyrrolidine	100.000	96.245	3.8	100	0.01
25	P	n-Nitrosodipropylamine	100.000	88.067	11.9	100	0.00
26		Acetophenone	100.000	93.156	6.8	100	0.00
27		n-Nitrosomorpholine	100.000	88.195	11.8	100	0.00
28		o-Toluidine	100.000	98.378	1.6	100	0.00
29	P	Hexachloroethane	100.000	100.761	-0.8	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	100.000	97.417	2.6	100	0.00
32	P	Nitrobenzene	100.000	96.128	3.9	100	0.00
33		n-Nitrosopiperidine	100.000	99.144	0.9	100	0.00
34	P	Isophorone	100.000	95.122	4.9	100	0.00
35	C,P	2-Nitrophenol	100.000	102.719	-2.7	100	0.00
36	P	2,4-Dimethylphenol	100.000	97.143	2.9	100	0.00
37		0,0,0-Triethyl Phosphorothi	100.000	94.651	5.3	100	0.00
38	P	bis(2-Chloroethoxy)methane	100.000	90.952	9.0	100	0.00
39		Benzoic Acid	100.000	101.141	-1.1	100	0.03
40	C,P	2,4-Dichlorophenol	100.000	99.069	0.9	100	0.00
41		a,a-Dimethylphenethylamine	100.000	101.853	-1.9	100	0.02
42		1,2,4-Trichlorobenzene	100.000	95.849	4.2	100	0.00
43	P	Naphthalene	100.000	93.545	6.5	100	0.00
44	P	4-Chloroaniline	100.000	96.864	3.1	100	0.00
45		2,6-Dichlorophenol	100.000	98.767	1.2	100	0.00
46		Hexachloropropene	100.000	101.613	-1.6	100	0.00
47	C,P	Hexachlorobutadiene	100.000	96.580	3.4	100	0.00
48		n-Nitrosodi-n-Butylamine	100.000	99.851	0.1	100	0.00
49		p-Phenylenediamine	100.000	-40.000	140.0#	100	0.01
50	C,P	4-Chloro-3-Methylphenol	100.000	98.456	1.5	100	0.00
51		Safrole	100.000	97.367	2.6	100	0.00
52	P	2-Methylnaphthalene	100.000	95.219	4.8	100	0.00
53		1-Methylnaphthalene	100.000	95.806	4.2	100	0.00

(#) = Out of Range
12M71149.D MEGAMIX.M Mon Apr 15 13:39:50 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	100.000	96.541	3.5	100	0.00
56	P	Hexachlorocyclopentadiene	100.000	100.768	-0.8	100	0.00
57	C,P	2,4,6-Trichlorophenol	100.000	100.997	-1.0	100	0.00
58	P	2,4,5-Trichlorophenol	100.000	101.368	-1.4	100	0.00
59	S	2-Fluorobiphenyl	100.000	95.484	4.5	100	0.00
60		Isosafrole	100.000	98.574	1.4	100	0.00
61	P	2-Chloronaphthalene	100.000	95.762	4.2	100	0.00
62		1-Chloronaphthalene	100.000	94.654	5.3	100	0.00
63	P	2-Nitroaniline	100.000	98.750	1.3	100	0.00
64		1,4-Naphthoquinone	100.000	99.026	1.0	100	0.00
65	P	Dimethylphthalate	100.000	95.810	4.2	100	0.00
66		1,3-Dinitrobenzene	100.000	104.502	-4.5	100	0.00
67	P	2,6-Dinitrotoluene	100.000	100.421	-0.4	100	0.00
68	P	Acenaphthylene	100.000	93.848	6.2	100	0.00
69	P	3-Nitroaniline	100.000	99.691	0.3	100	0.00
70	P	2,4-Dinitrophenol	100.000	101.917	-1.9	100	0.00
71	C,P	Acenaphthene	100.000	97.232	2.8	100	0.00
72	P	4-Nitrophenol	100.000	104.512	-4.5	100	0.00
73	P	2,4-Dinitrotoluene	100.000	101.824	-1.8	100	0.00
74		Pentachlorobenzene	100.000	96.643	3.4	100	0.00
75	P	Dibenzofuran	100.000	94.371	5.6	100	0.00
76		2,3,5,6-Tetrachlorophenol	100.000	104.523	-4.5	100	0.00
77		2,3,4,6-Tetrachlorophenol	100.000	101.748	-1.7	100	0.00
78		1-Naphthylamine	100.000	90.449	9.6	100	0.00
79		2-Naphthylamine	100.000	96.516	3.5	100	0.00
80	P	Diethylphthalate	100.000	94.937	5.1	100	0.00
81		Thionazin	100.000	98.580	1.4	100	0.00
82	P	Fluorene	100.000	95.879	4.1	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	100.000	95.536	4.5	100	0.00
84	P	4-Nitroaniline	100.000	99.252	0.7	100	0.00
85		5-Nitro-o-Toluidine	100.000	99.591	0.4	100	0.00
86		1,2-Diphenylhydrazine	100.000	93.579	6.4	100	0.00
87	S	2,4,6-Tribromophenol	100.000	104.890	-4.9	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	100.000	102.034	-2.0	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	100.000	98.473	1.5	100	0.00
91		Sulfotepp	100.000	100.115	-0.1	100	0.00
92		Sym-Trinitrobenzene	100.000	100.969	-1.0	100	0.00
93		Diallate	100.000	93.079	6.9	100	0.00
94		Phenacetin	100.000	100.029	-0.0	100	0.01
95		Phorate	100.000	94.782	5.2	100	0.00
96	P	4-Bromophenyl Phenyl Ether	100.000	98.775	1.2	100	0.00
97	P	Hexachlorobenzene	100.000	98.398	1.6	100	0.00
98		Dimethoate	100.000	79.017	21.0	100	0.00
99		4-Aminobiphenyl	100.000	97.698	2.3	100	0.00
100	C,P	Pentachlorophenol	100.000	100.272	-0.3	100	0.00
101		Pronamide	100.000	99.242	0.8	100	0.00
102		Pentachloronitrobenzene	100.000	100.055	-0.1	100	0.00
103		Disulfoton	100.000	95.529	4.5	100	0.00
104	P	Phenanthrene	100.000	96.279	3.7	100	0.00
105	P	Anthracene	100.000	96.440	3.6	100	0.00
106	P	Carbazole	100.000	96.946	3.1	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

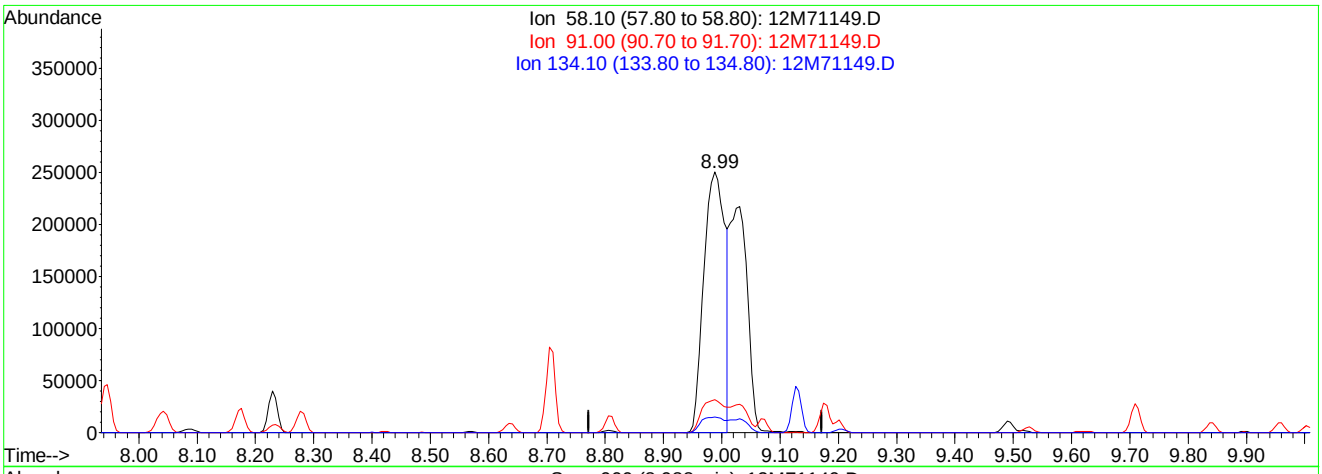
Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

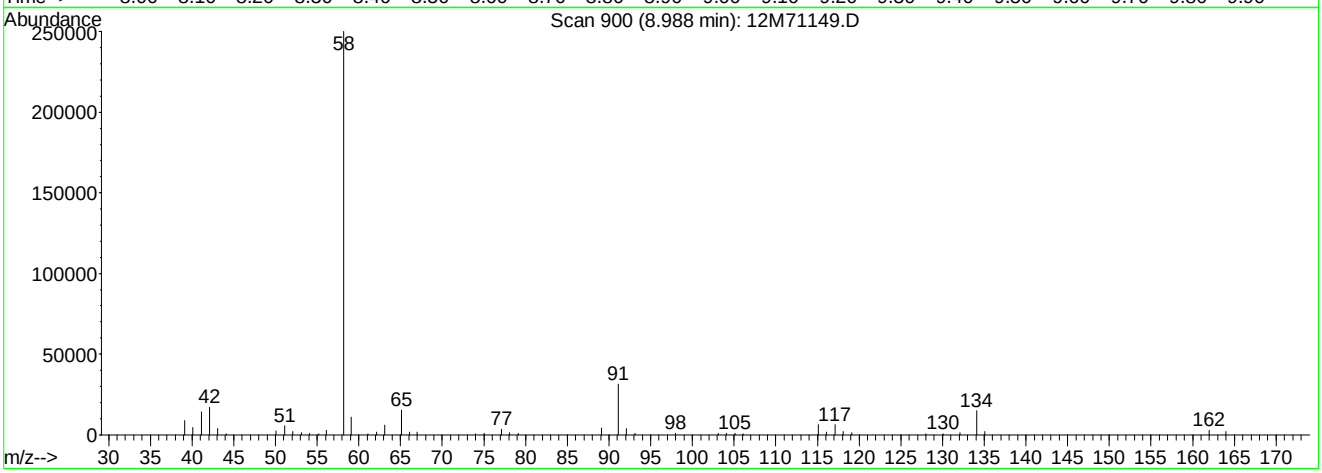
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	100.000	90.043	10.0	100	0.00
108	P	Di-n-Butyl Phthalate	100.000	96.497	3.5	100	0.00
109		Parathion Ethyl	100.000	104.348	-4.3	100	0.00
110		4-Nitroquinoline 1-Oxide	100.000	102.302	-2.3	100	0.00
111		Methapyrilene	100.000	-40.000	140.0#	100	0.00
112		Isodrin	100.000	98.385	1.6	100	0.00
113	C,P	Fluoranthene	100.000	95.871	4.1	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	100.000	89.382	10.6	100	0.00
116	P	Pyrene	100.000	95.733	4.3	100	0.00
117		Aramite	100.000	99.934	0.1	100	0.00
118	S	p-Terphenyl-d14	100.000	96.410	3.6	100	0.00
119		p-(Dimethylamino)azobenzene	100.000	99.719	0.3	100	0.00
120		Chlorobenzilate	100.000	100.360	-0.4	100	0.00
121		Famphur	-1.000	6.558	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	100.000	93.978	6.0	100	0.00
123		3,3'-Dimethylbenzidine	100.000	99.015	1.0	100	0.00
124		2-Acetylaminofluorene	100.000	108.727	-8.7	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	100.000	100.514	-0.5	100	0.00
126	P	3,3'-Dichlorobenzidine	100.000	96.951	3.0	100	0.00
127	P	Benzo[a]anthracene	100.000	97.532	2.5	100	0.00
128	P	Chrysene	100.000	97.217	2.8	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	100.000	102.968	-3.0	100	0.00
131		7,12-Dimethylbenz[a]anthrac	100.000	102.570	-2.6	100	0.01
132	P	Benzo[b]fluoranthene	100.000	103.075	-3.1	100	0.02
133	P	Benzo[k]fluoranthene	100.000	99.434	0.6	100	0.02
134	C,P	Benzo[a]pyrene	100.000	102.883	-2.9	100	0.00
135		3-Methylcholanthrene	100.000	103.306	-3.3	100	0.01
136	P	Indeno[1,2,3-cd]pyrene	100.000	104.773	-4.8	100	0.03
137	P	Dibenz[ah]anthracene	100.000	106.500	-6.5	100	0.03
138	P	Benzo[ghi]perylene	100.000	102.677	-2.7	100	0.02

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:15 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:15:19 2019
Response via : Multiple Level Calibration





TIC: 12M71149.D

(41) a,a-Dimethylphenethylamine

8.99min 59.71ug/ml

response 637996

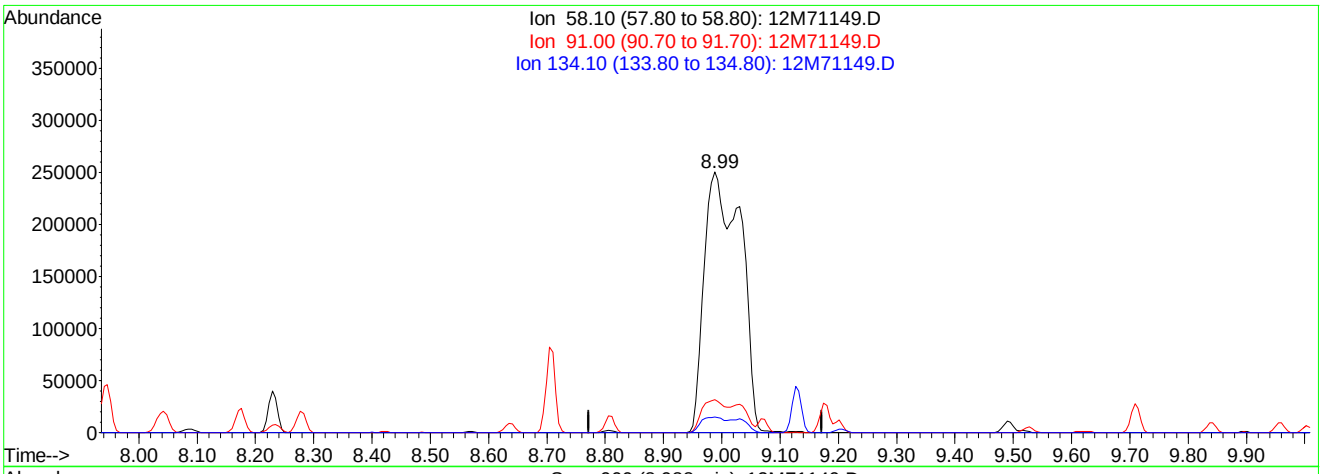
Ion	Exp%	Act%
58.10	100	100
91.00	12.60	13.58
134.10	6.00	6.53
0.00	0.00	0.00

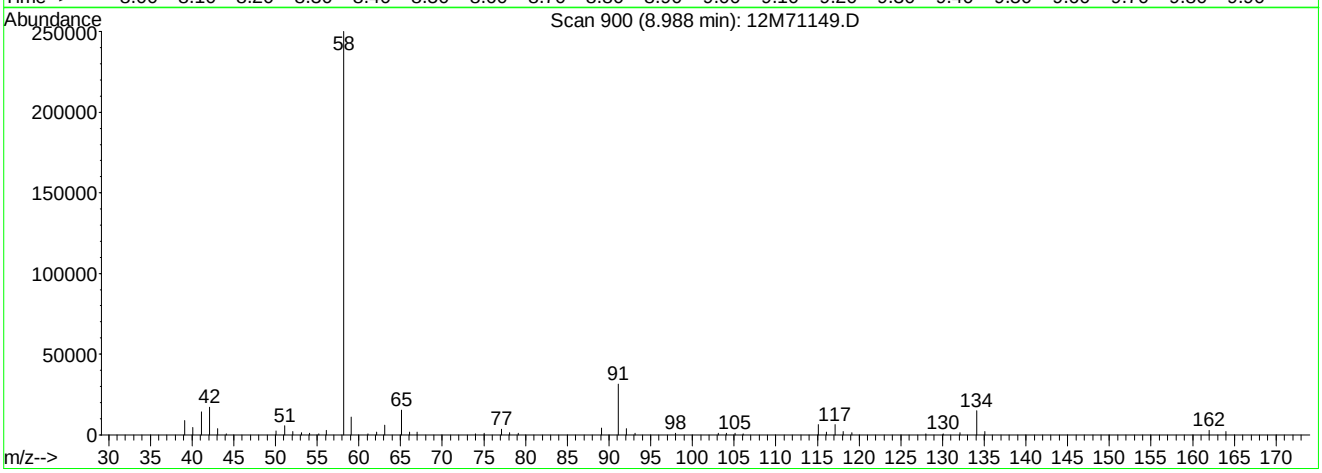
12M71149.D MEGAMIX.M Mon Apr 15 13:15:46 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71149.D Vial: 9
Acq On : 12 Apr 2019 2:19 pm Operator: SCB
Sample : WG703239-09 100PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:15 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:15:19 2019
Response via : Multiple Level Calibration





TIC: 12M71149.D

(41) a,a-Dimethylphenethylamine

8.99min 101.84ug/ml mint

response 1088120

Ion	Exp%	Act%
58.10	100	100
91.00	12.60	7.96#
134.10	6.00	3.83#
0.00	0.00	0.00

12M71149.D MEGAMIX.M Mon Apr 15 19

Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24:20 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	137857	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	517682	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.943	164	304563	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.556	188	495413	40.0000	ug/ml	0.000
114) Chrysene-d12	16.259	240	475057	40.0000	ug/ml	0.000
129) Perylene-d12	19.101	264	461575	40.0000	ug/ml	0.000
System Monitoring Compounds						
8) 2-Fluorophenol	6.579	112	494325	117.0631896	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 117.06%#			
12) Phenol-d5	7.428	99	577442	113.6144728	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 113.61%#			
31) Nitrobenzene-d5	8.406	82	502354	115.2552733	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 230.51%#			
59) 2-Fluorobiphenyl	10.201	172	1148843	112.3882420	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 224.78%#			
87) 2,4,6-Tribromophenol	11.771	330	168387	125.8762230	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 125.88%#			
118) p-Terphenyl-d14	14.597	244	1311426	114.9334983	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 229.87%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	217727	123.2600	ug/ml	98
3) n-Nitrosodimethylamine	5.14	74	308445	119.2807	ug/ml	98
4) Pyridine	5.16	79	530109	114.4934	ug/ml	98
5) 2-Picoline	6.00	93	584704	115.8091	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	249284	119.8009	ug/ml	97
7) Methyl Methanesulfonate	6.42	80	251246	110.5624	ug/ml	99
9) n-Nitrosodiethylamine	6.82	102	247899	118.0453	ug/ml	94
10) Ethyl Methanesulfonate	7.08	79	344454	114.1172	ug/ml	98
11) Aniline	7.53	66	265792	113.1456	ug/ml	99
13) Phenol	7.44	94	596020	112.2656	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	328329	106.6999	ug/ml	93
15) Pentachloroethane	7.57	167	210866	116.8960	ug/ml	98
16) 2-Chlorophenol	7.66	128	548734	117.1528	ug/ml	98
17) 1,3-Dichlorobenzene	7.81	146	586436	114.4418	ug/ml	100
18) 1,4-Dichlorobenzene	7.86	146	596277	115.2084	ug/ml	98
19) Benzyl Alcohol	7.95	108	350518	120.1827	ug/ml	97
20) 1,2-Dichlorobenzene	8.05	146	543829	113.1316	ug/ml	99
21) 2-Methylphenol	8.04	107	396777	115.0731	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.09	45	557281	108.3024	ug/ml	94
23) 3-,4-Methylphenol	8.18	107	536238	117.0385	ug/ml	99
24) n-Nitrosopyrrolidine	8.23	100	224930	112.7403	ug/ml	85
25) n-Nitrosodipropylamine	8.23	70	268849	100.3308	ug/ml	95
26) Acetophenone	8.23	105	605764	108.7904	ug/ml	97
27) n-Nitrosomorpholine	8.24	56	224102	102.1758	ug/ml	93
28) o-Toluidine	8.28	106	801142	115.7755	ug/ml	99
29) Hexachloroethane	8.36	117	223700	119.1081	ug/ml	98
32) Nitrobenzene	8.43	77	500877	113.4047	ug/ml	97
33) n-Nitrosopiperidine	8.57	114	272054	118.5556	ug/ml	93
34) Isophorone	8.64	82	912723	112.2393	ug/ml	98
35) 2-Nitrophenol	8.74	139	300175	123.3654	ug/ml	99
36) 2,4-Dimethylphenol	8.71	122	489539	117.1799	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.81	198	266499	112.7100	ug/ml	96
38) bis(2-Chloroethoxy)methane	8.81	93	664911	105.8171	ug/ml	97

(#) = qualifier out of range (m) = manual integration
12M71150.D MEGAMIX.M Mon Apr 15 13:42:41 2019 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24:20 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Benzoic Acid	8.79	105	368727m	118.5745 ug/ml	
40)	2,4-Dichlorophenol	8.97	162	459836	117.8590 ug/ml	99
41)	a,a-Dimethylphenethylamine	9.00	58	1296357m	121.6320 ug/ml	
42)	1,2,4-Trichlorobenzene	9.07	180	475904	113.9602 ug/ml	99
43)	Naphthalene	9.15	128	1573838	111.2639 ug/ml#	100
44)	4-Chloroaniline	9.18	65	171573	113.5561 ug/ml	64
45)	2,6-Dichlorophenol	9.20	162	440519	116.8792 ug/ml	99
46)	Hexachloropropene	9.27	213	303555	120.0912 ug/ml	100
47)	Hexachlorobutadiene	9.30	225	267699	114.5357 ug/ml	100
48)	n-Nitrosodi-n-Butylamine	9.50	84	349279	97.7280 ug/ml	86
49)	p-Phenylenediamine	9.53	108	195831	Below Cal	99
50)	4-Chloro-3-Methylphenol	9.62	107	438451	116.3824 ug/ml	99
51)	Safrole	9.71	162	441235	115.4270 ug/ml	99
52)	2-Methylnaphthalene	9.84	142	1062338	112.8943 ug/ml	100
53)	1-Methylnaphthalene	9.96	142	1003241	112.8939 ug/ml	100
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	494083	113.4840 ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	139514	130.1859 ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	331188	118.3787 ug/ml	100
58)	2,4,5-Trichlorophenol	10.18	196	348363	119.7373 ug/ml	98
60)	Isosafrole	10.23	162	450988	116.4720 ug/ml	99
61)	2-Chloronaphthalene	10.35	162	989882	112.9266 ug/ml	99
62)	1-Chloronaphthalene	10.39	162	892498	110.4392 ug/ml	99
63)	2-Nitroaniline	10.45	65	267119	115.9004 ug/ml	96
64)	1,4-Naphthoquinone	10.51	158	275222	126.5751 ug/ml	99
65)	Dimethylphthalate	10.61	163	1093652	113.1556 ug/ml	99
66)	1,3-Dinitrobenzene	10.67	168	214162	123.7084 ug/ml	99
67)	2,6-Dinitrotoluene	10.70	165	277545	118.6862 ug/ml	98
68)	Acenaphthylene	10.79	152	1463876	109.1733 ug/ml	98
69)	3-Nitroaniline	10.86	138	302567	117.4092 ug/ml	98
70)	2,4-Dinitrophenol	10.97	184	153816	118.2840 ug/ml	21
71)	Acenaphthene	10.98	154	966691	112.2298 ug/ml	97
72)	4-Nitrophenol	10.96	65	183110	120.3050 ug/ml	90
73)	2,4-Dinitrotoluene	11.11	165	362283	120.5519 ug/ml	95
74)	Pentachlorobenzene	11.16	250	431777	114.8147 ug/ml	99
75)	Dibenzofuran	11.13	168	1365121	110.3422 ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	278470	124.6526 ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.28	232	292217	120.5811 ug/ml	96
78)	1-Naphthylamine	11.21	143	929888	103.9848 ug/ml	99
79)	2-Naphthylamine	11.29	143	1012143	110.8475 ug/ml	99
80)	Diethylphthalate	11.31	149	1041854	110.4880 ug/ml	98
81)	Thionazin	11.42	107	174212	115.5250 ug/ml	99
82)	Fluorene	11.49	166	1125993	111.4322 ug/ml	99
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	564323	112.8906 ug/ml	99
84)	4-Nitroaniline	11.51	138	308930	116.0457 ug/ml	97
85)	5-Nitro-o-Toluidine	11.50	152	348208	116.9683 ug/ml	94
86)	1,2-Diphenylhydrazine	11.61	77	934986	108.1550 ug/ml	96
89)	4,6-Dinitro-2-Methylphenol	11.55	198	218854	123.3658 ug/ml	80
90)	Diphenylamine/n-Nitrosodip	11.56	169	1018039	116.1108 ug/ml	99
91)	Sulfotepp	11.76	322	194787	120.7877 ug/ml	90
92)	Sym-Trinitrobenzene	11.85	75	274972	120.8250 ug/ml	98
93)	Diallate	11.88	86	359454	107.5620 ug/ml	85
94)	Phenacetin	11.88	108	509929	116.8163 ug/ml	98
95)	Phorate	11.90	75	563738	109.5107 ug/ml#	95
96)	4-Bromophenyl Phenyl Ether	11.97	248	335325	118.1842 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24:20 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

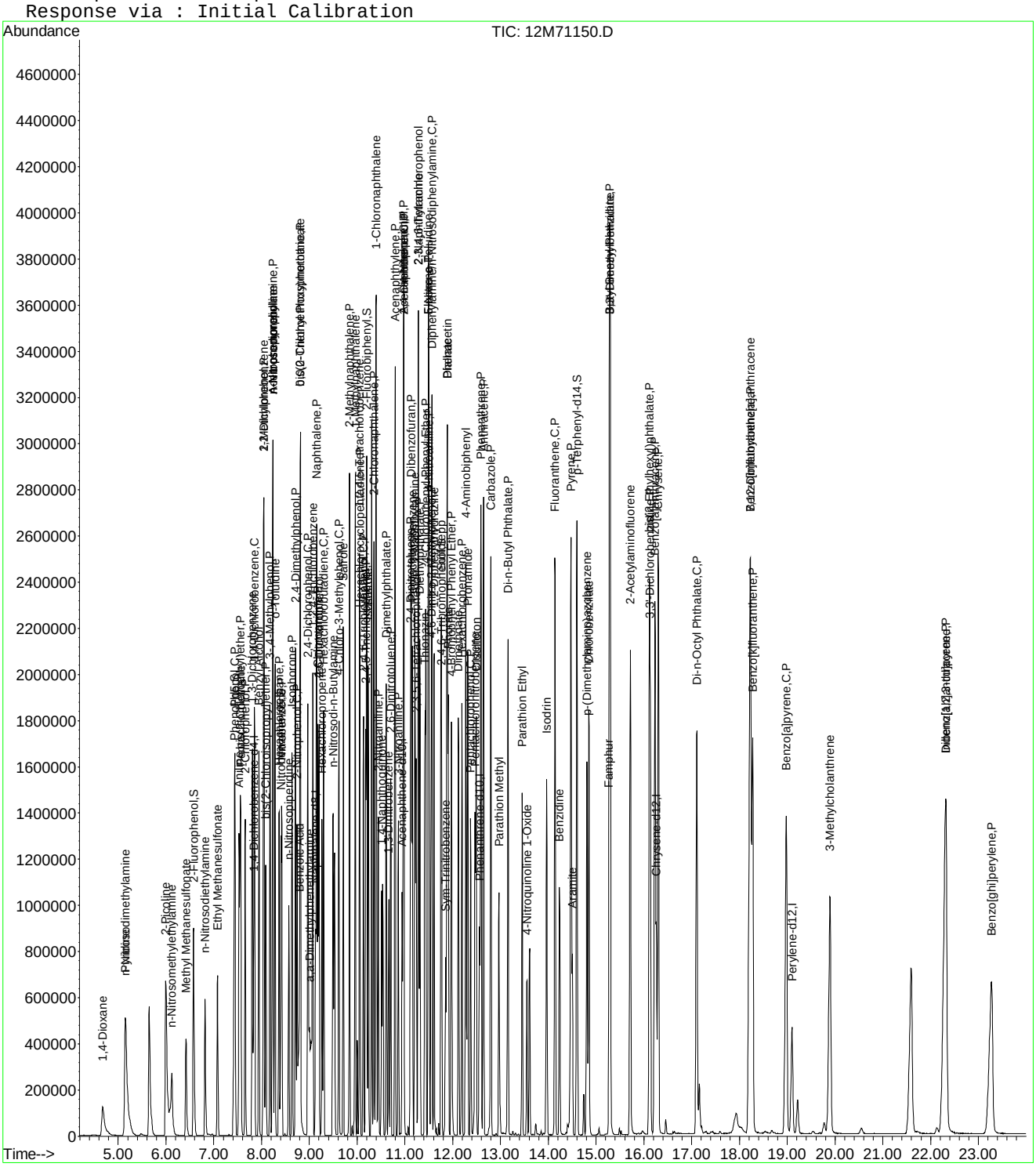
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.19	284	340320	117.1539	ug/ml	99
98)	Dimethoate	12.12	87	265688	85.4957	ug/ml	99
99)	4-Aminobiphenyl	12.27	169	1221206	114.1777	ug/ml	98
100)	Pentachlorophenol	12.37	266	216875	119.2483	ug/ml	98
101)	Pronamide	12.32	173	498874	117.2861	ug/ml	99
102)	Pentachloronitrobenzene	12.47	237	129043	118.5595	ug/ml	97
103)	Disulfoton	12.49	88	501583	111.3601	ug/ml	99
104)	Phenanthrene	12.59	178	1549965	113.0912	ug/ml	99
105)	Anthracene	12.64	178	1595817	113.4076	ug/ml	98
106)	Carbazole	12.80	167	1507141	115.0222	ug/ml	99
107)	Parathion Methyl	12.97	109	255007	99.0255	ug/ml	98
108)	Di-n-Butyl Phthalate	13.15	149	1721953	113.4384	ug/ml	99
109)	Parathion Ethyl	13.45	97	207073	122.1798	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.56	190	134360	114.2345	ug/ml	98
111)	Methapyrilene	13.61	58	324226	Below Cal		98
112)	Isodrin	13.97	193	176773	115.5497	ug/ml	100
113)	Fluoranthene	14.14	202	1707400	112.6807	ug/ml	99
115)	Benzidine	14.23	184	676176	100.7259	ug/ml	100
116)	Pyrene	14.47	202	1745762	113.9840	ug/ml	98
117)	Aramite	14.50	185	96900	117.6693	ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.81	225	378936	119.2071	ug/ml	99
120)	Chlorobenzilate	14.85	251	534709	121.0849	ug/ml	98
121)	Famphur	15.26	218	2943	3.6039	ug/ml#	1
122)	Butyl Benzyl Phthalate	15.28	149	741338	110.6790	ug/ml	96
123)	3,3'-Dimethylbenzidine	15.30	212	1434571	126.0001	ug/ml	98
124)	2-Acetylaminofluorene	15.72	181	748701	130.1926	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.11	149	1073478	120.2542	ug/ml	99
126)	3,3'-Dichlorobenzidine	16.14	252	579818	116.6754	ug/ml	99
127)	Benzo[a]anthracene	16.23	228	1656858	116.8615	ug/ml	99
128)	Chrysene	16.30	228	1570600	116.2835	ug/ml	98
130)	Di-n-Octyl Phthalate	17.11	149	1881208	122.5619	ug/ml	98
131)	7,12-Dimethylbenz[a]anthra	18.22	256	815785	122.7193	ug/ml	98
132)	Benzo[b]fluoranthene	18.24	252	1771617	124.9134	ug/ml	99
133)	Benzo[k]fluoranthene	18.27	252	1427804	114.4143	ug/ml	99
134)	Benzo[a]pyrene	18.98	252	1542137	122.2253	ug/ml	98
135)	3-Methylcholanthrene	19.89	268	814730	121.8503	ug/ml	100
136)	Indeno[1,2,3-cd]pyrene	22.32	276	1736560	122.6836	ug/ml	98
137)	Dibenz[ah]anthracene	22.31	278	1496964	124.5365	ug/ml	98
138)	Benzo[ghi]perylene	23.27	276	1399966	119.1167	ug/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:26 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



12M71150.D MEGAMIX.M Mon Apr 15 13:42:42 2019 Page 4

Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	120.000	123.260	-2.7	100	0.00
3		n-Nitrosodimethylamine	120.000	119.281	0.6	100	0.00
4		Pyridine	120.000	114.493	4.6	100	0.00
5		2-Picoline	120.000	115.809	3.5	100	0.00
6		n-Nitrosomethylethylamine	120.000	119.801	0.2	100	0.00
7		Methyl Methanesulfonate	120.000	110.562	7.9	100	0.00
8	S	2-Fluorophenol	120.000	117.063	2.4	100	0.00
9		n-Nitrosodiethylamine	120.000	118.045	1.6	100	0.00
10		Ethyl Methanesulfonate	120.000	114.117	4.9	100	0.00
11		Aniline	120.000	113.146	5.7	100	0.00
12	S	Phenol-d5	120.000	113.614	5.3	100	0.00
13	C,P	Phenol	120.000	112.266	6.4	100	0.00
14	P	bis(2-Chloroethyl)ether	120.000	106.700	11.1	100	0.00
15		Pentachloroethane	120.000	116.896	2.6	100	0.00
16	P	2-Chlorophenol	120.000	117.153	2.4	100	0.00
17		1,3-Dichlorobenzene	120.000	114.442	4.6	100	0.00
18	C	1,4-Dichlorobenzene	120.000	115.208	4.0	100	0.00
19		Benzyl Alcohol	120.000	120.183	-0.2	100	0.00
20		1,2-Dichlorobenzene	120.000	113.132	5.7	100	0.00
21	P	2-Methylphenol	120.000	115.073	4.1	100	0.00
22	P	bis(2-Chloroisopropyl)ether	120.000	108.302	9.7	100	0.00
23	P	3-,4-Methylphenol	120.000	117.038	2.5	100	0.00
24		n-Nitrosopyrrolidine	120.000	112.740	6.1	100	0.02
25	P	n-Nitrosodipropylamine	120.000	100.331	16.4	100	0.01
26		Acetophenone	120.000	108.790	9.3	100	0.00
27		n-Nitrosomorpholine	120.000	102.176	14.9	100	0.01
28		o-Toluidine	120.000	115.775	3.5	100	0.00
29	P	Hexachloroethane	120.000	119.108	0.7	100	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	120.000	115.255	4.0	100	0.00
32	P	Nitrobenzene	120.000	113.405	5.5	100	0.00
33		n-Nitrosopiperidine	120.000	118.556	1.2	100	0.00
34	P	Isophorone	120.000	112.239	6.5	100	0.00
35	C,P	2-Nitrophenol	120.000	123.365	-2.8	100	0.00
36	P	2,4-Dimethylphenol	120.000	117.180	2.3	100	0.00
37		0,0,0-Triethyl Phosphorothi	120.000	112.710	6.1	100	0.00
38	P	bis(2-Chloroethoxy)methane	120.000	105.817	11.8	100	0.00
39		Benzoic Acid	120.000	118.574	1.2	100	0.04
40	C,P	2,4-Dichlorophenol	120.000	117.859	1.8	100	0.00
41		a,a-Dimethylphenethylamine	120.000	121.632	-1.4	100	0.03
42		1,2,4-Trichlorobenzene	120.000	113.960	5.0	100	0.00
43	P	Naphthalene	120.000	111.264	7.3	100	0.00
44	P	4-Chloroaniline	120.000	113.556	5.4	100	0.00
45		2,6-Dichlorophenol	120.000	116.879	2.6	100	0.00
46		Hexachloropropene	120.000	120.091	-0.1	100	0.00
47	C,P	Hexachlorobutadiene	120.000	114.536	4.6	100	0.00
48		n-Nitrosodi-n-Butylamine	120.000	97.728	18.6	100	0.00
49		p-Phenylenediamine	-1.000	-40.000	0.0	100	0.01
50	C,P	4-Chloro-3-Methylphenol	120.000	116.382	3.0	100	0.00
51		Safrole	120.000	115.427	3.8	100	0.00
52	P	2-Methylnaphthalene	120.000	112.894	5.9	100	0.00
53		1-Methylnaphthalene	120.000	112.894	5.9	100	0.00

(#) = Out of Range
12M71150.D MEGAMIX.M Mon Apr 15 13:29:38 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	120.000	113.484	5.4	100	0.00
56	P	Hexachlorocyclopentadiene	120.000	130.186	-8.5	100	0.00
57	C,P	2,4,6-Trichlorophenol	120.000	118.379	1.4	100	0.00
58	P	2,4,5-Trichlorophenol	120.000	119.737	0.2	100	0.00
59	S	2-Fluorobiphenyl	120.000	112.388	6.3	100	0.00
60		Isosafrole	120.000	116.472	2.9	100	0.00
61	P	2-Chloronaphthalene	120.000	112.927	5.9	100	0.00
62		1-Chloronaphthalene	120.000	110.439	8.0	100	0.00
63	P	2-Nitroaniline	120.000	115.900	3.4	100	0.00
64		1,4-Naphthoquinone	120.000	126.575	-5.5	100	0.00
65	P	Dimethylphthalate	120.000	113.156	5.7	100	0.00
66		1,3-Dinitrobenzene	120.000	123.708	-3.1	100	0.01
67	P	2,6-Dinitrotoluene	120.000	118.686	1.1	100	0.00
68	P	Acenaphthylene	120.000	109.173	9.0	100	0.00
69	P	3-Nitroaniline	120.000	117.409	2.2	100	0.00
70	P	2,4-Dinitrophenol	120.000	118.284	1.4	100	0.00
71	C,P	Acenaphthene	120.000	112.230	6.5	100	0.00
72	P	4-Nitrophenol	120.000	120.305	-0.3	100	0.00
73	P	2,4-Dinitrotoluene	120.000	120.552	-0.5	100	0.00
74		Pentachlorobenzene	120.000	114.815	4.3	100	0.00
75	P	Dibenzofuran	120.000	110.342	8.0	100	0.00
76		2,3,5,6-Tetrachlorophenol	120.000	124.653	-3.9	100	0.00
77		2,3,4,6-Tetrachlorophenol	120.000	120.581	-0.5	100	0.00
78		1-Naphthylamine	120.000	103.985	13.3	100	0.00
79		2-Naphthylamine	120.000	110.848	7.6	100	0.01
80	P	Diethylphthalate	120.000	110.488	7.9	100	0.00
81		Thionazin	120.000	115.525	3.7	100	0.00
82	P	Fluorene	120.000	111.432	7.1	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	120.000	112.891	5.9	100	0.00
84	P	4-Nitroaniline	120.000	116.046	3.3	100	0.01
85		5-Nitro-o-Toluidine	120.000	116.968	2.5	100	0.00
86		1,2-Diphenylhydrazine	120.000	108.155	9.9	100	0.00
87	S	2,4,6-Tribromophenol	120.000	125.876	-4.9	100	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	120.000	123.366	-2.8	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	120.000	116.111	3.2	100	0.00
91		Sulfotepp	120.000	120.788	-0.7	100	0.00
92		Sym-Trinitrobenzene	120.000	120.825	-0.7	100	0.01
93		Diallate	120.000	107.562	10.4	100	0.00
94		Phenacetin	120.000	116.816	2.7	100	0.02
95		Phorate	120.000	109.511	8.7	100	0.00
96	P	4-Bromophenyl Phenyl Ether	120.000	118.184	1.5	100	0.00
97	P	Hexachlorobenzene	120.000	117.154	2.4	100	0.00
98		Dimethoate	-1.000	85.496	0.0	100	0.00
99		4-Aminobiphenyl	120.000	114.178	4.9	100	0.00
100	C,P	Pentachlorophenol	120.000	119.248	0.6	100	0.00
101		Pronamide	120.000	117.286	2.3	100	0.00
102		Pentachloronitrobenzene	120.000	118.559	1.2	100	0.00
103		Disulfoton	120.000	111.360	7.2	100	0.00
104	P	Phenanthrene	120.000	113.091	5.8	100	0.00
105	P	Anthracene	120.000	113.408	5.5	100	0.00
106	P	Carbazole	120.000	115.022	4.1	100	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

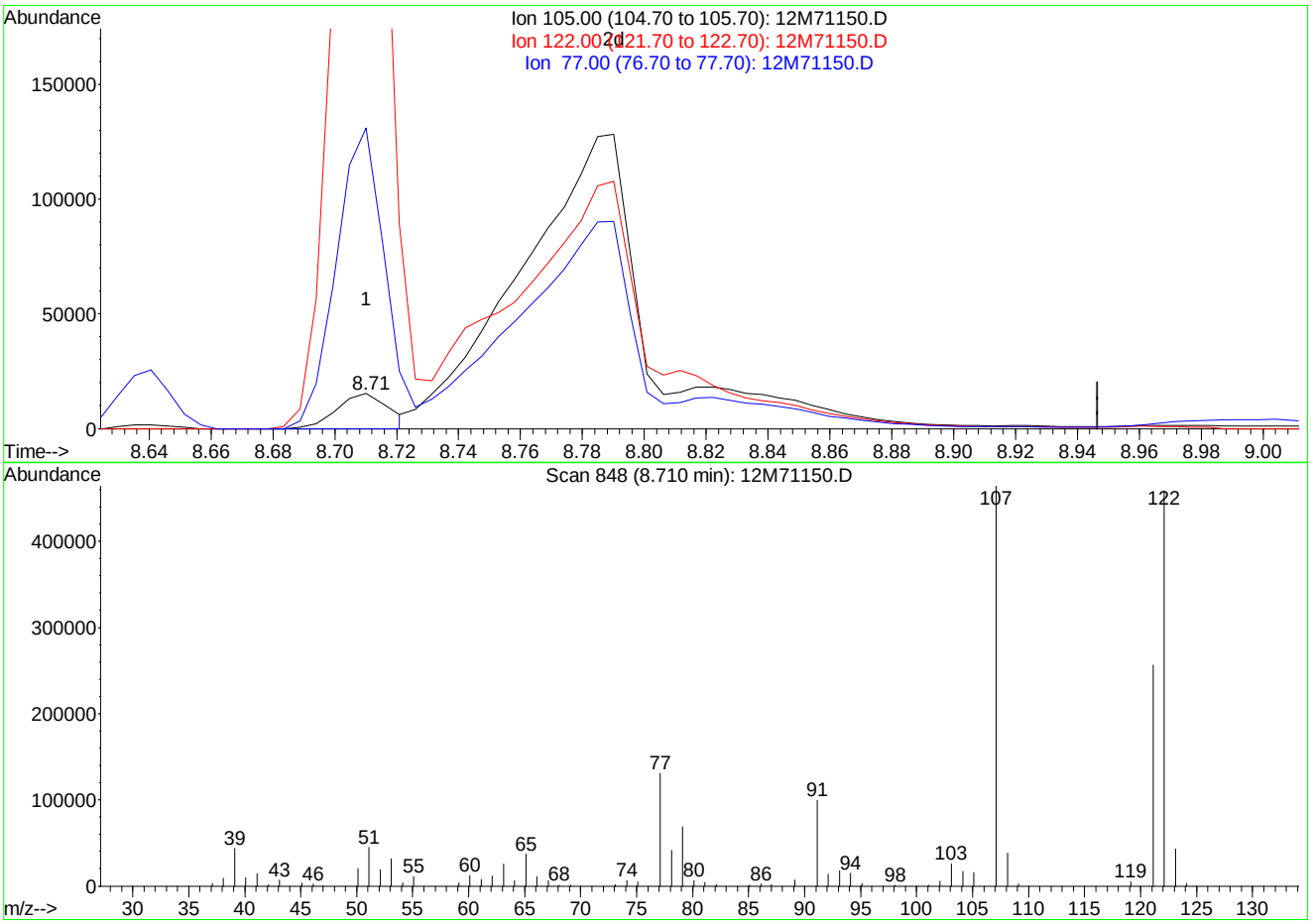
Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	120.000	99.025	17.5	100	0.00
108	P	Di-n-Butyl Phthalate	120.000	113.438	5.5	100	0.00
109		Parathion Ethyl	120.000	122.180	-1.8	100	0.00
110		4-Nitroquinoline 1-Oxide	120.000	114.234	4.8	100	0.00
111		Methapyrilene	-1.000	-40.000	0.0	100	0.00
112		Isodrin	120.000	115.550	3.7	100	0.00
113	C,P	Fluoranthene	120.000	112.681	6.1	100	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	120.000	100.726	16.1	100	0.00
116	P	Pyrene	120.000	113.984	5.0	100	0.00
117		Aramite	120.000	117.669	1.9	100	0.00
118	S	p-Terphenyl-d14	120.000	114.933	4.2	100	0.00
119		p-(Dimethylamino)azobenzene	120.000	119.207	0.7	100	0.00
120		Chlorobenzilate	120.000	121.085	-0.9	100	0.00
121		Famphur	-1.000	3.604	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	120.000	110.679	7.8	100	0.00
123		3,3'-Dimethylbenzidine	120.000	126.000	-5.0	100	0.00
124		2-Acetylaminofluorene	120.000	130.193	-8.5	100	0.01
125	P	bis(2-Ethylhexyl)phthalate	120.000	120.254	-0.2	100	0.00
126	P	3,3'-Dichlorobenzidine	120.000	116.675	2.8	100	0.00
127	P	Benzo[a]anthracene	120.000	116.861	2.6	100	0.00
128	P	Chrysene	120.000	116.283	3.1	100	0.00
129	I	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	120.000	122.562	-2.1	100	0.00
131		7,12-Dimethylbenz[a]anthrac	120.000	122.719	-2.3	100	0.01
132	P	Benzo[b]fluoranthene	120.000	124.913	-4.1	100	0.03
133	P	Benzo[k]fluoranthene	120.000	114.414	4.7	100	0.02
134	C,P	Benzo[a]pyrene	120.000	122.225	-1.9	100	0.02
135		3-Methylcholanthrene	120.000	121.850	-1.5	100	0.01
136	P	Indeno[1,2,3-cd]pyrene	120.000	122.684	-2.2	100	0.04
137	P	Dibenz[ah]anthracene	120.000	124.536	-3.8	100	0.03
138	P	Benzo[ghi]perylene	120.000	119.117	0.7	100	0.03

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:16 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:15:58 2019
Response via : Multiple Level Calibration



TIC: 12M71150.D

(39) Benzoic Acid

8.71min 18.50ug/ml

response 17626

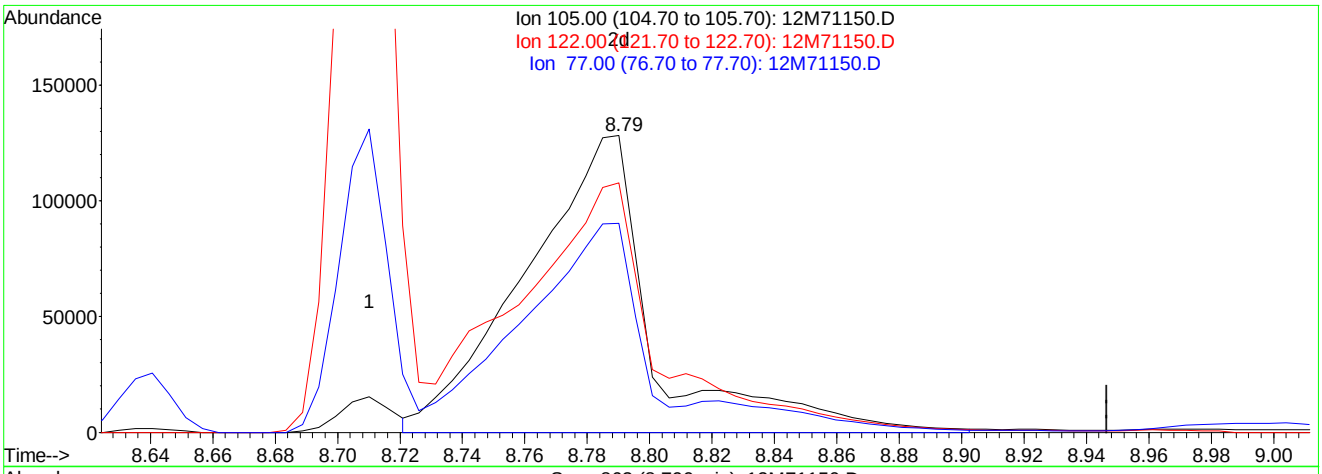
Ion	Exp%	Act%
105.00	100	100
122.00	57.30	2777.37#
77.00	41.90	810.34#
0.00	0.00	0.00

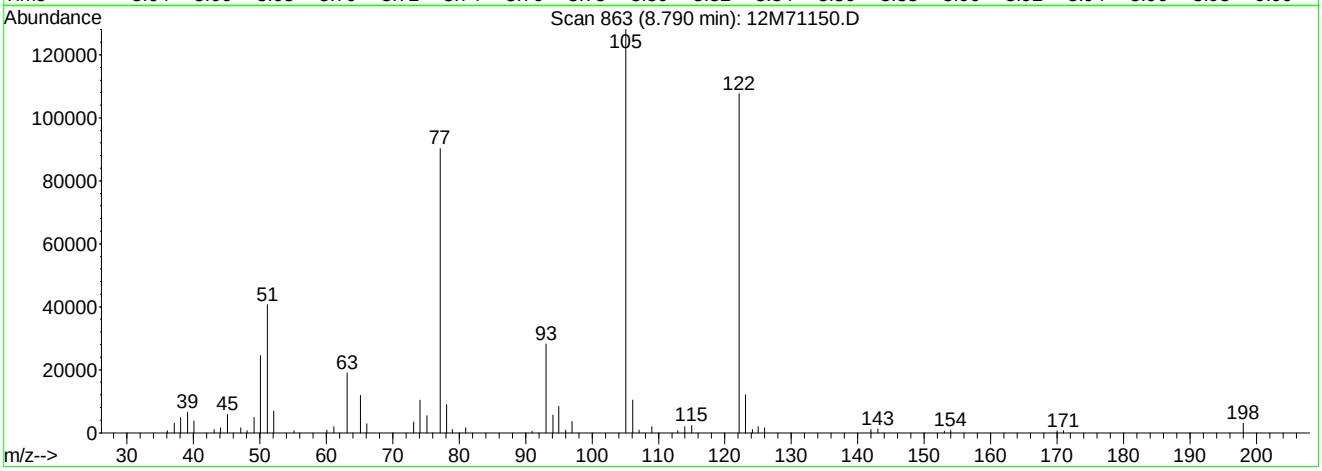
12M71150.D MEGAMIX.M Mon Apr 15 13:16:25 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:16 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:15:58 2019
Response via : Multiple Level Calibration





TIC: 12M71150.D

(39) Benzoic Acid

8.79min 118.69ug/ml mint

response 368727

Ion	Exp%	Act%
105.00	100	100
122.00	57.30	132.76#
77.00	41.90	38.74
0.00	0.00	0.00

12M71150.D MEGAMIX.M Mon Apr 15 19

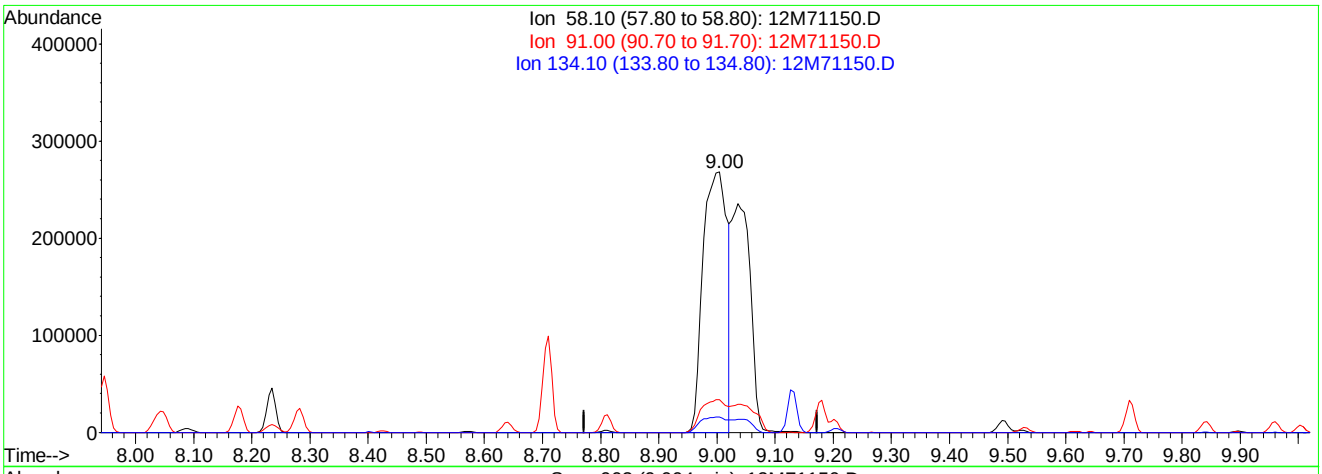
Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

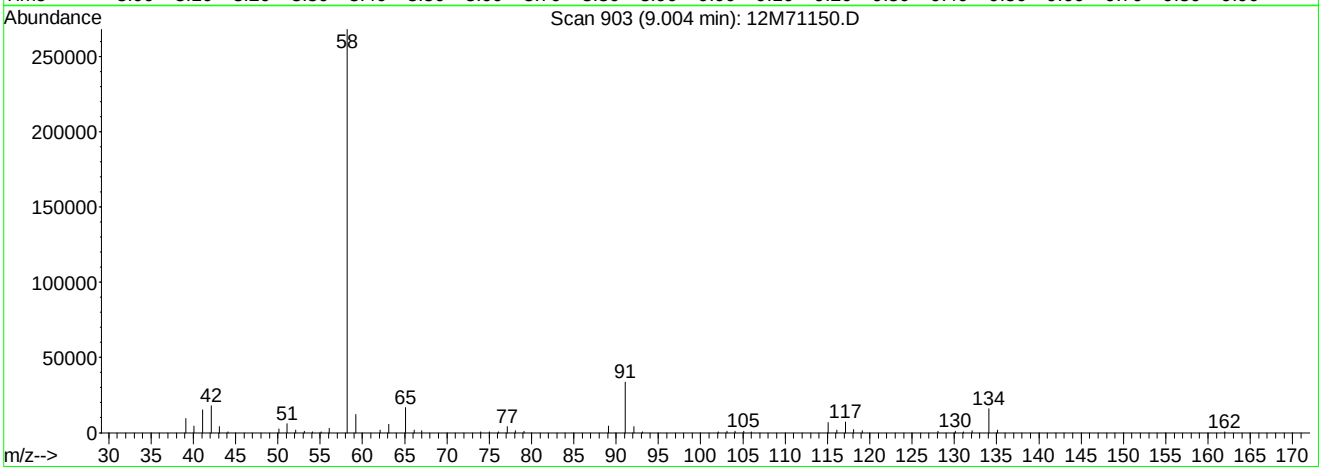
#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:16 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:15:58 2019
Response via : Multiple Level Calibration





TIC: 12M71150.D

(41) a,a-Dimethylphenethylamine

9.00min 71.66ug/ml

response 763773

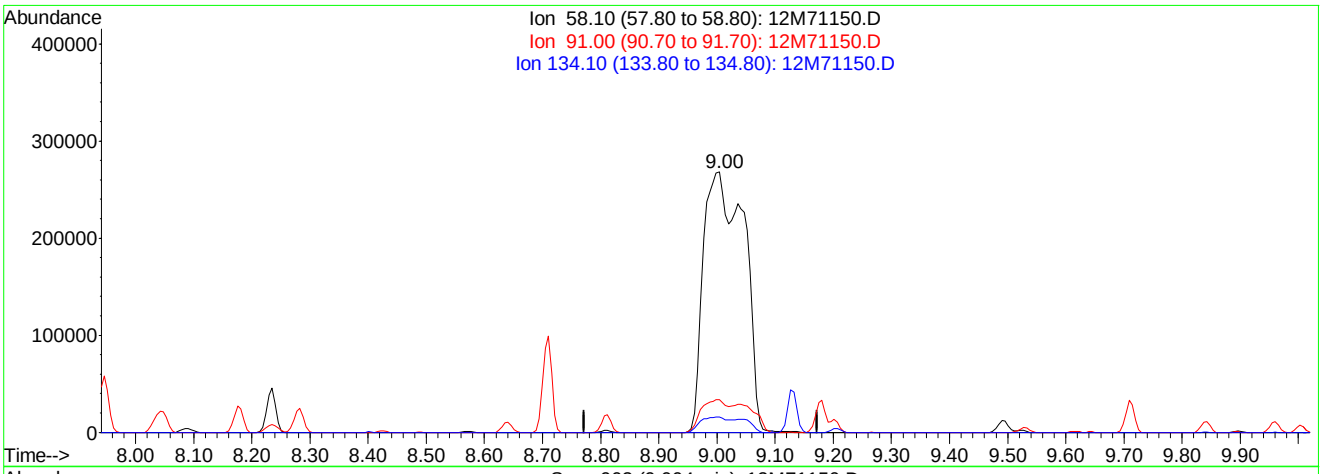
Ion	Exp%	Act%
58.10	100	100
91.00	12.60	13.53
134.10	6.00	6.55
0.00	0.00	0.00

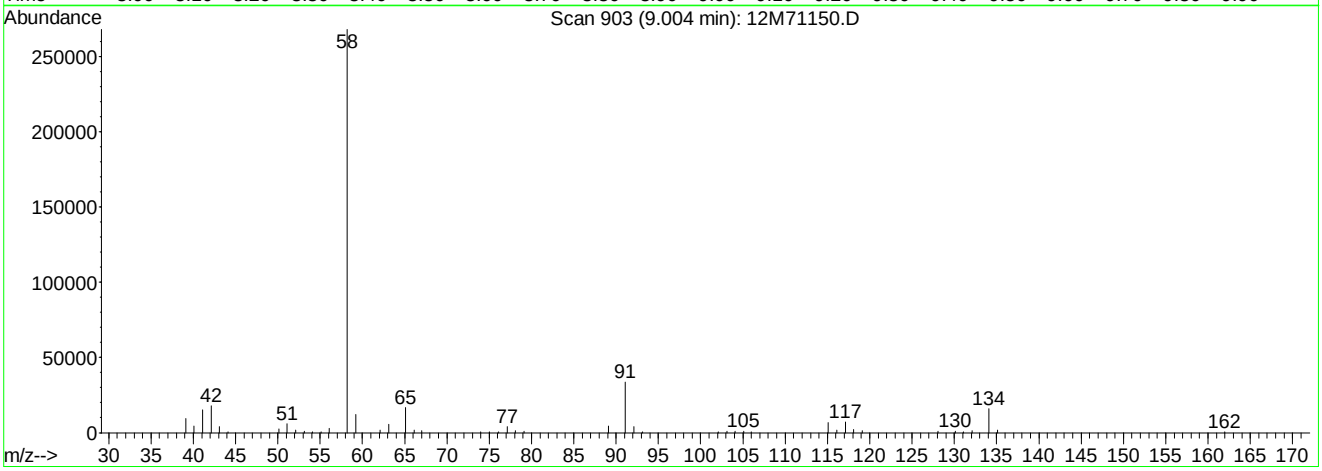
12M71150.D MEGAMIX.M Mon Apr 15 13:16:40 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71150.D Vial: 10
Acq On : 12 Apr 2019 2:52 pm Operator: SCB
Sample : WG703239-10 120PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:16 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:15:58 2019
Response via : Multiple Level Calibration





TIC: 12M71150.D

(41) a,a-Dimethylphenethylamine

9.00min 121.62ug/ml mint

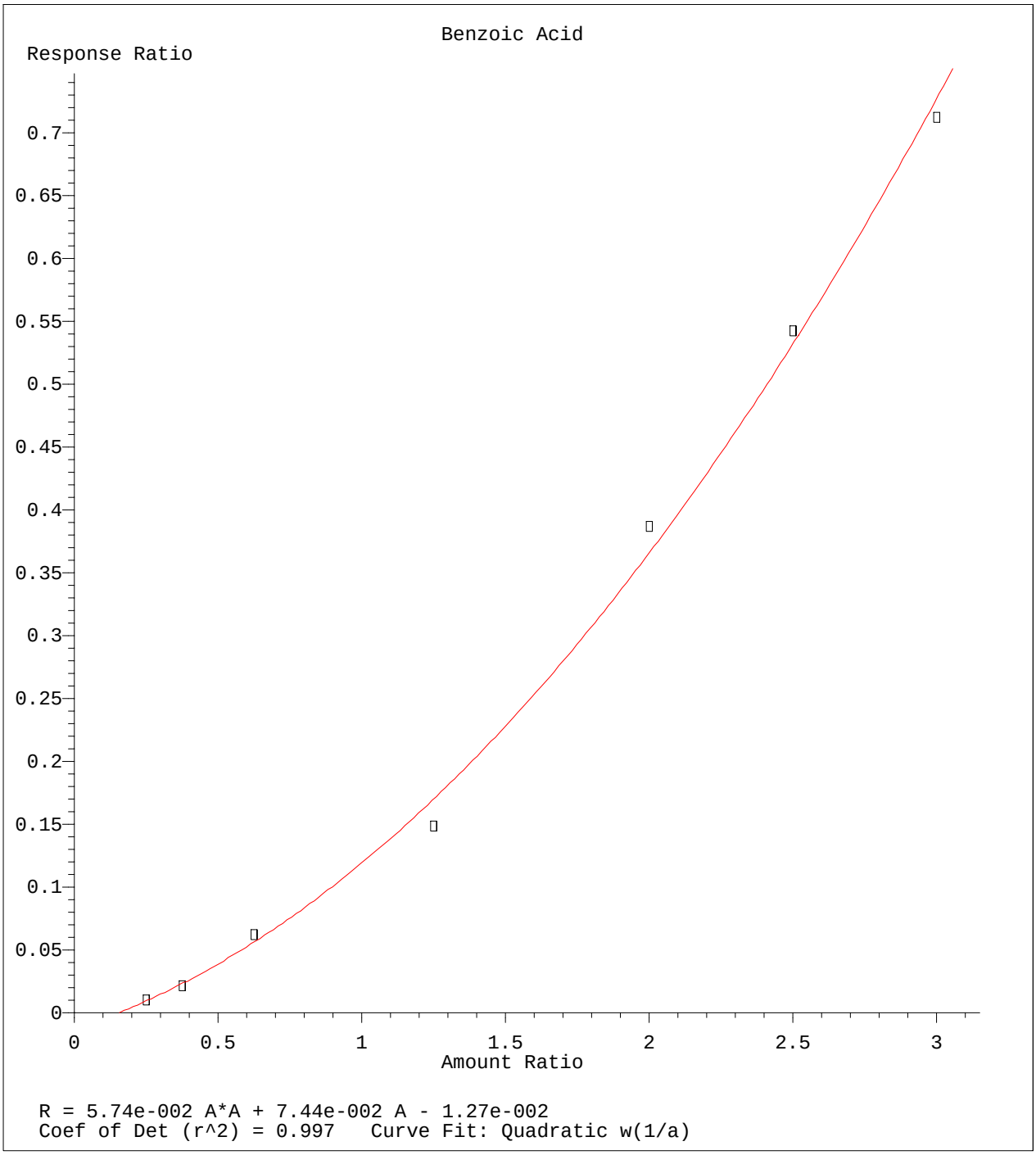
response 1296232

Ion	Exp%	Act%
58.10	100	100
91.00	12.60	7.97#
134.10	6.00	3.86#
0.00	0.00	0.00

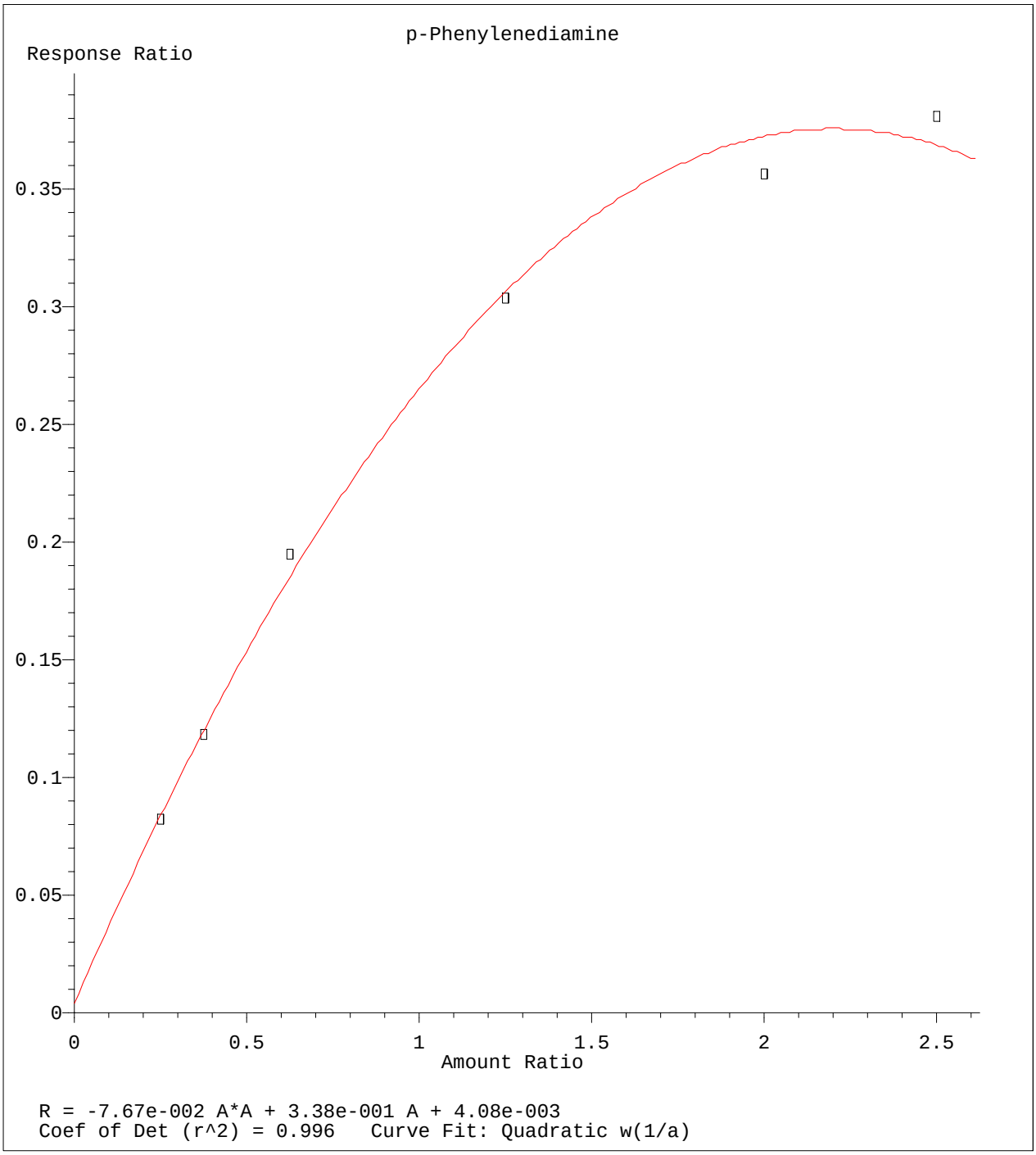
12M71150.D MEGAMIX.M Mon Apr 15 19

Analyst: 04/15/2019 16:15 Supervisor: 04/15/2019 17:56

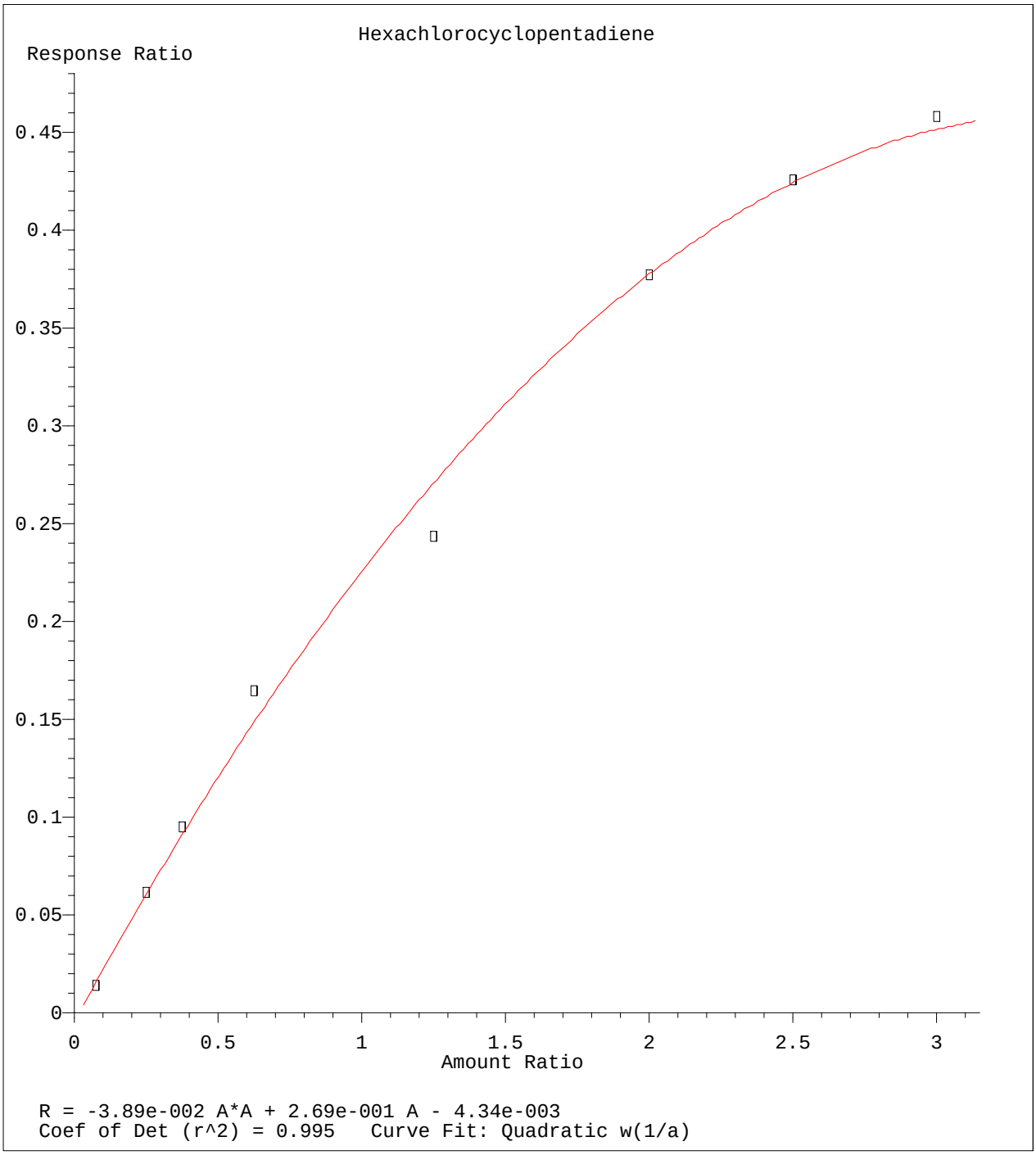
#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak



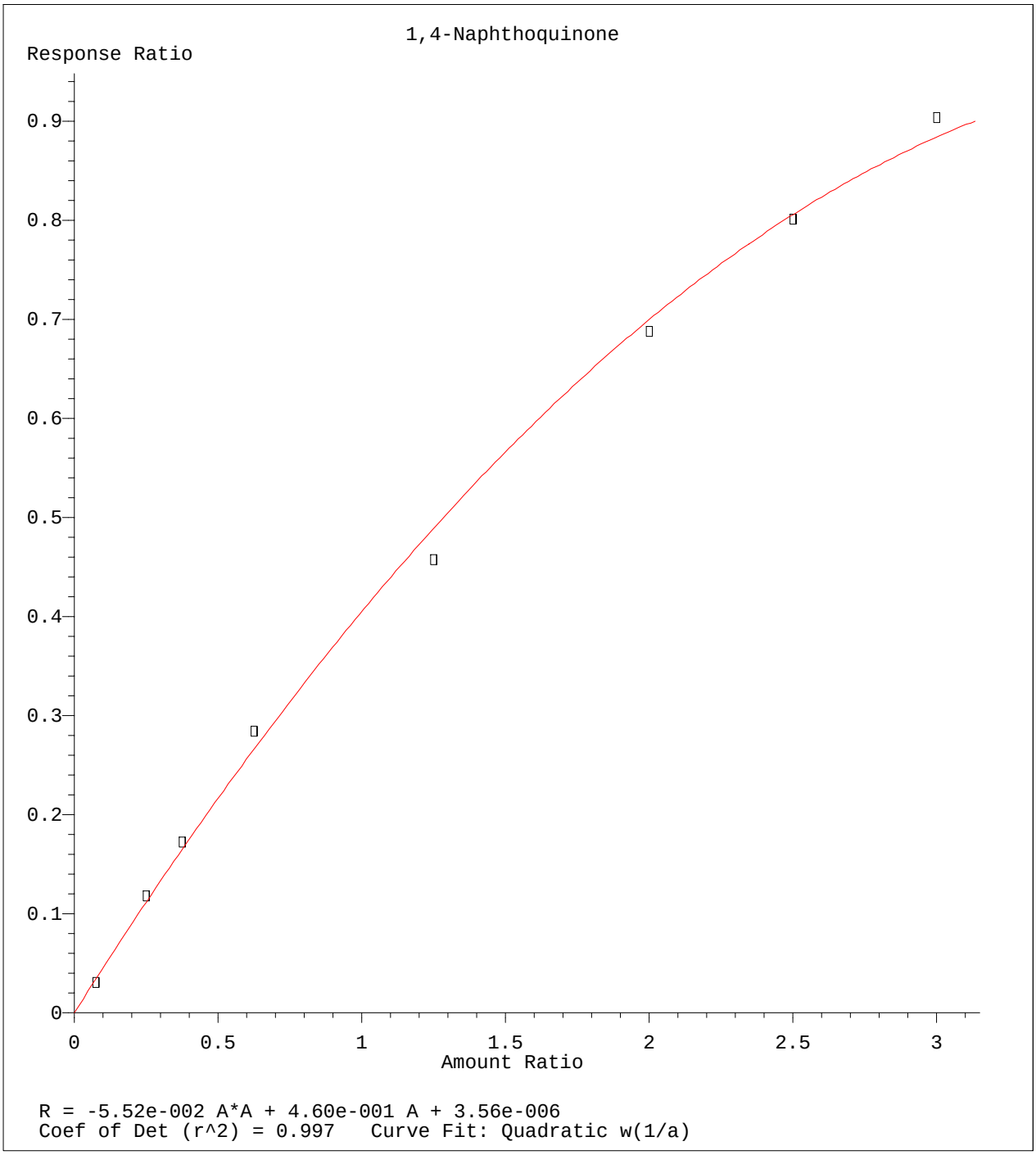
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



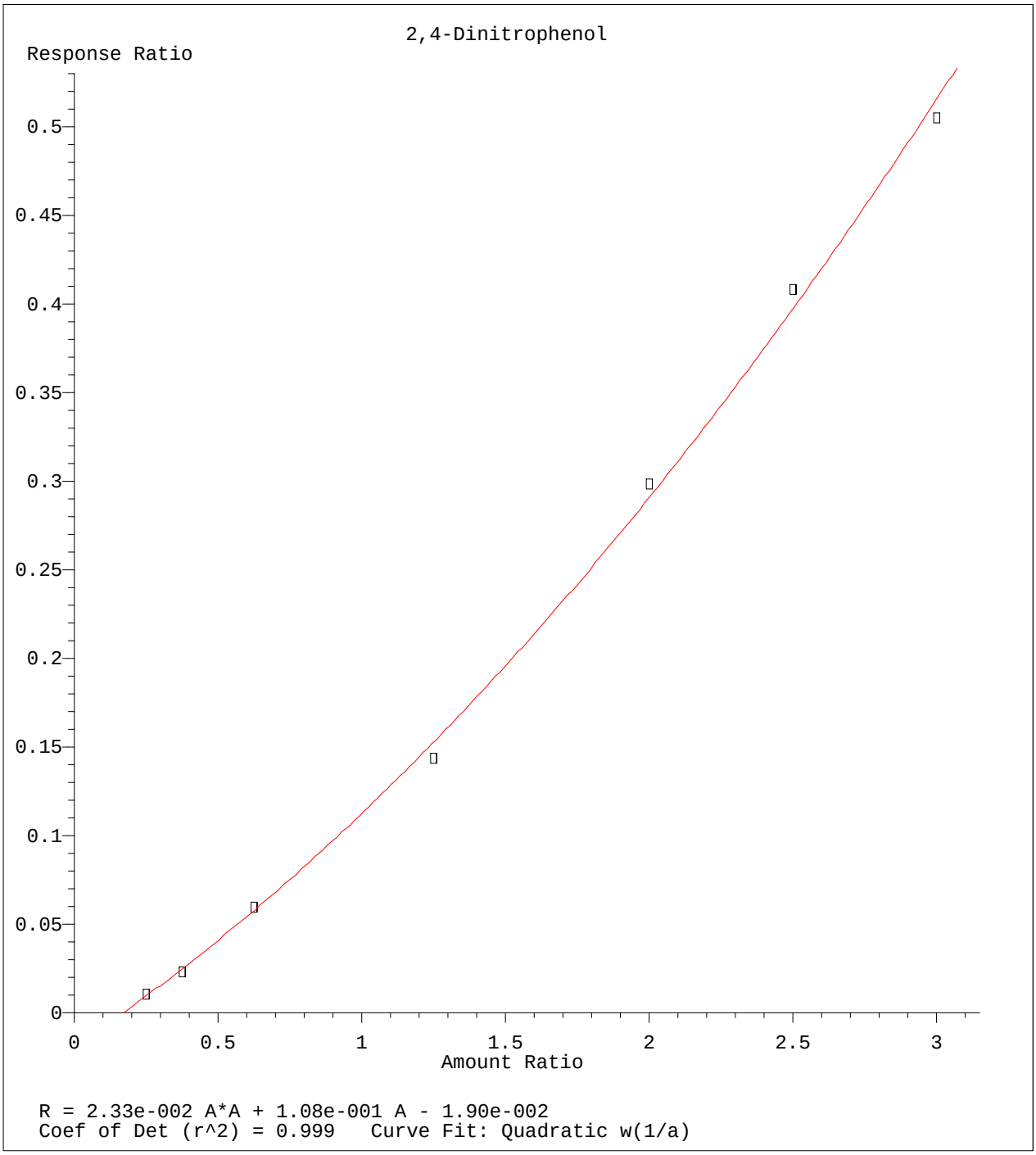
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



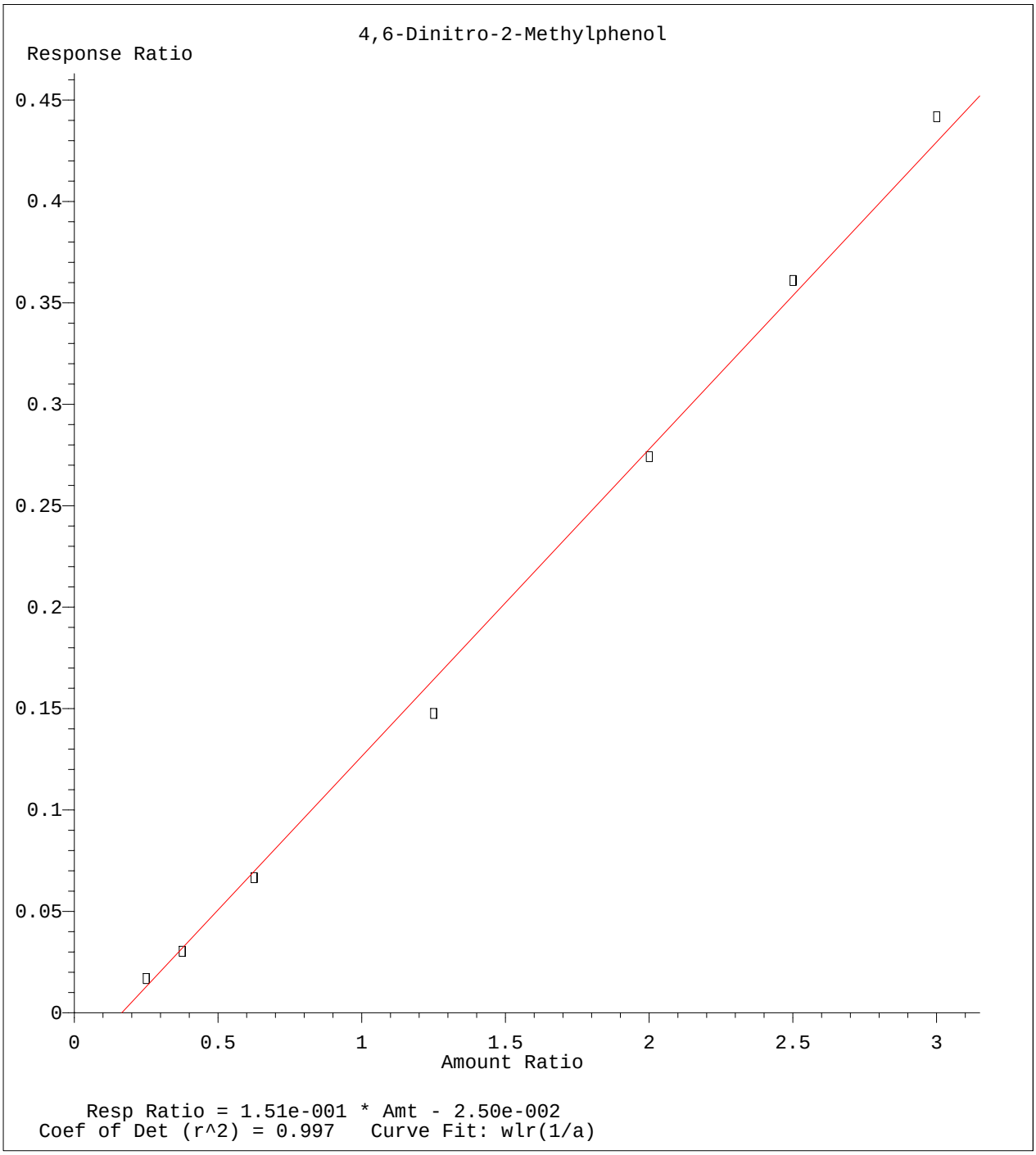
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



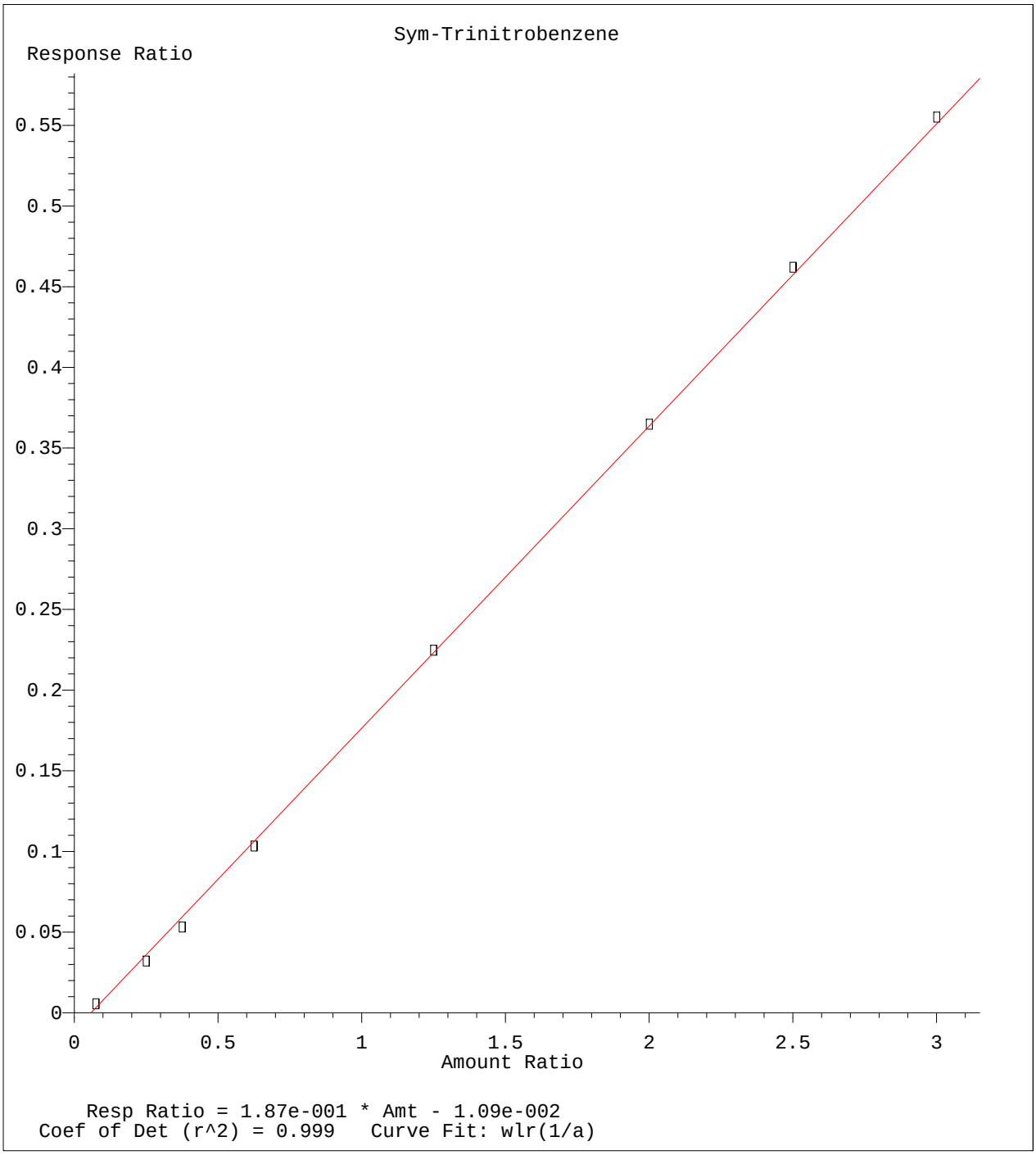
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



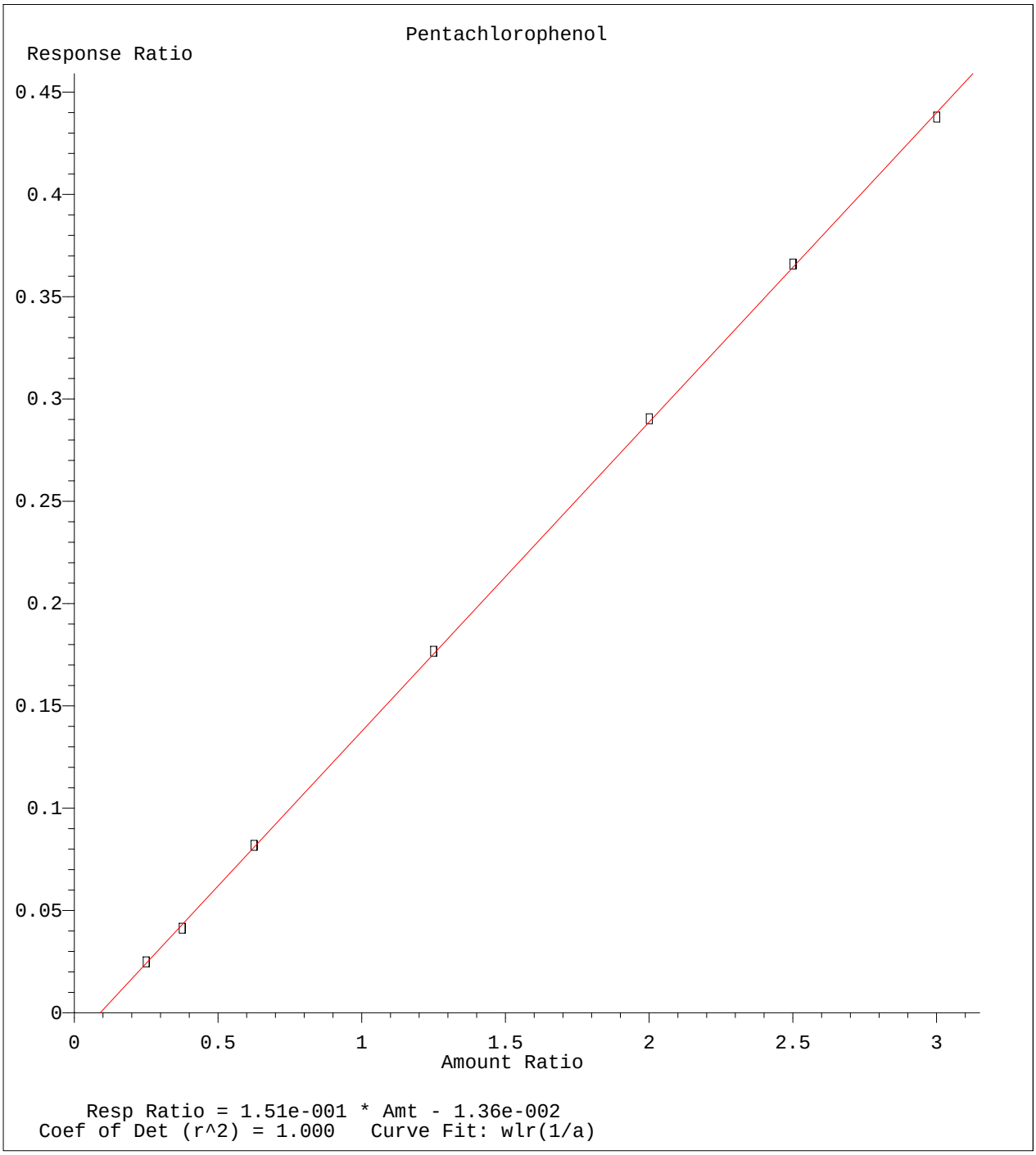
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



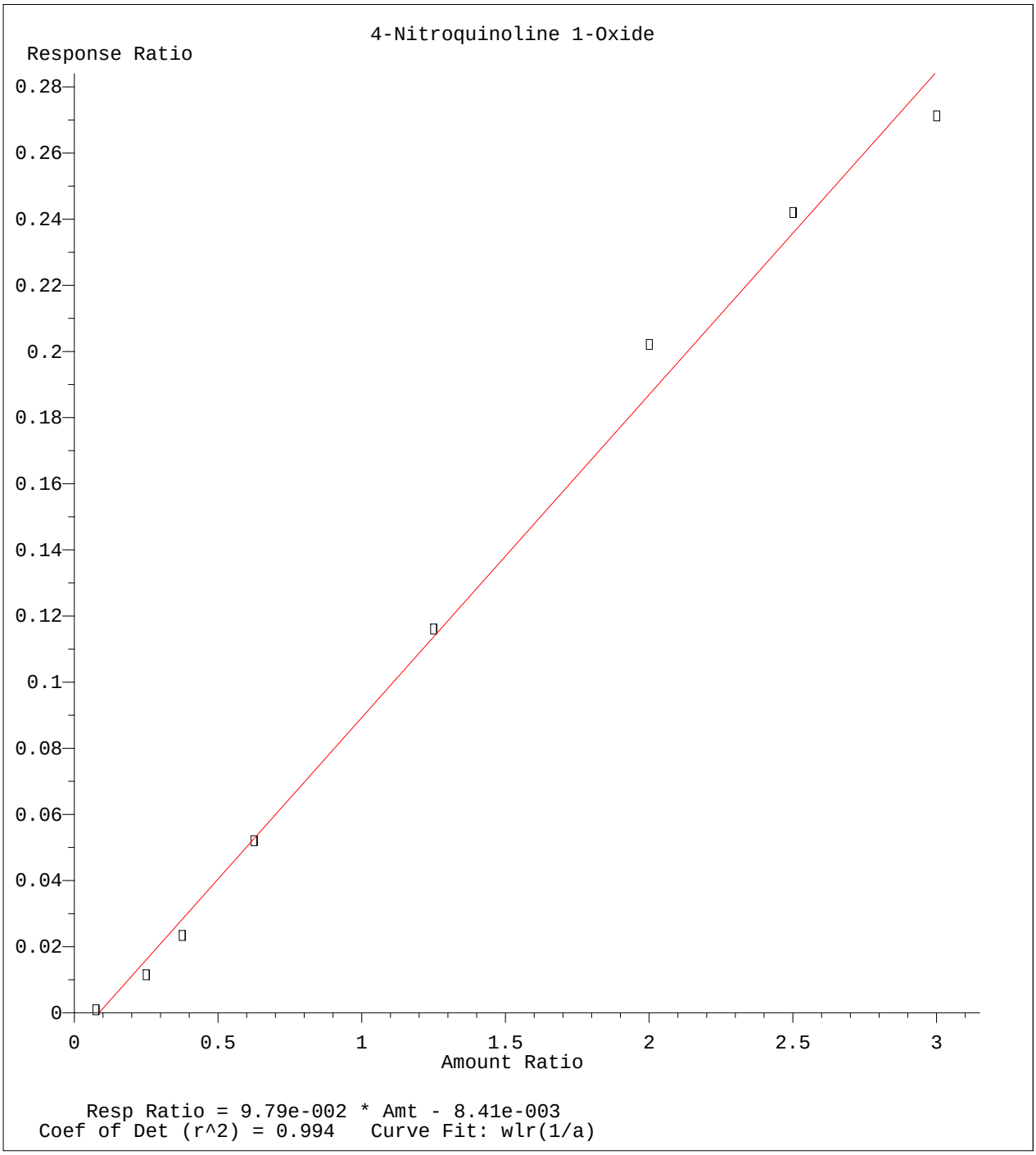
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



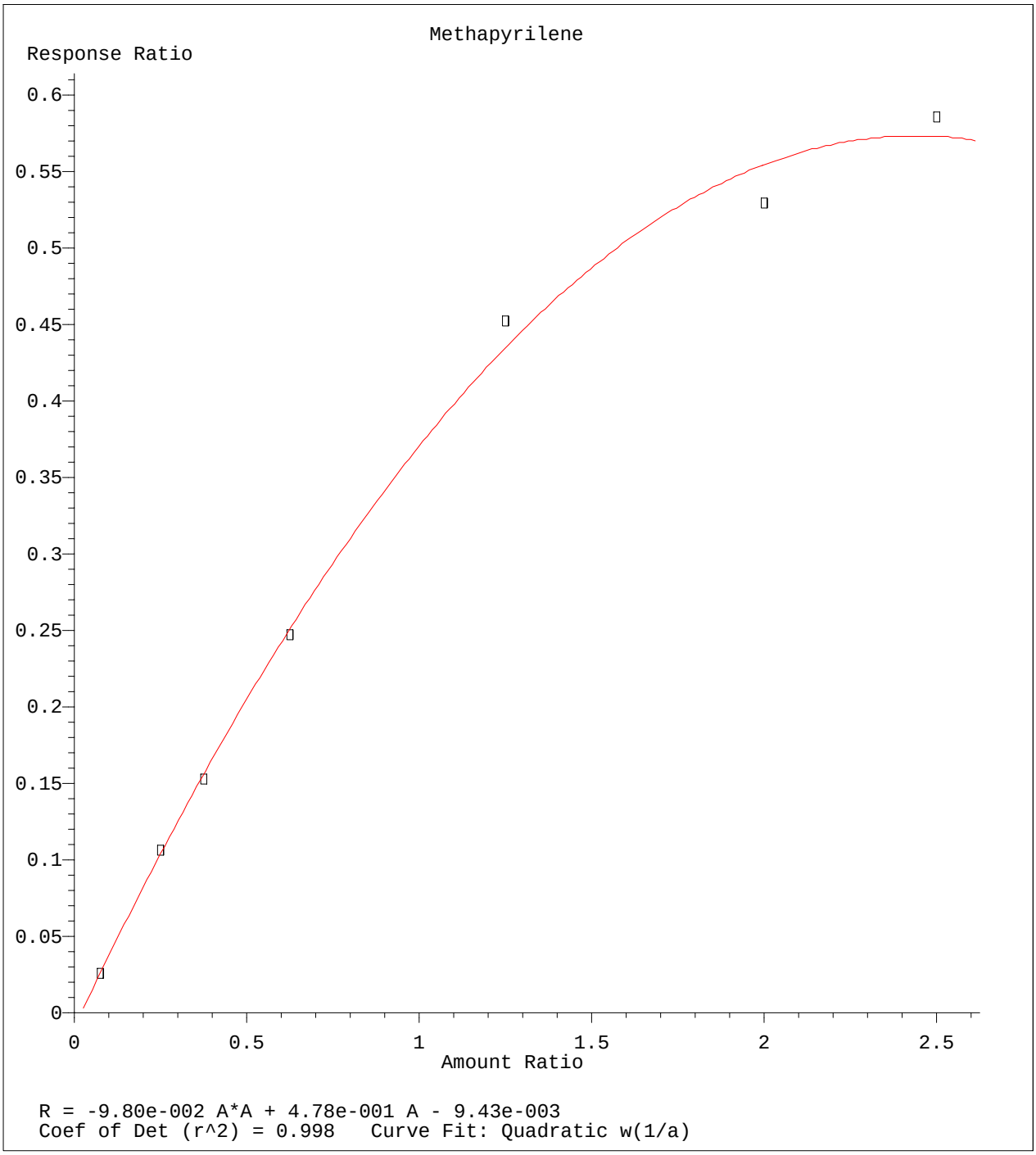
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



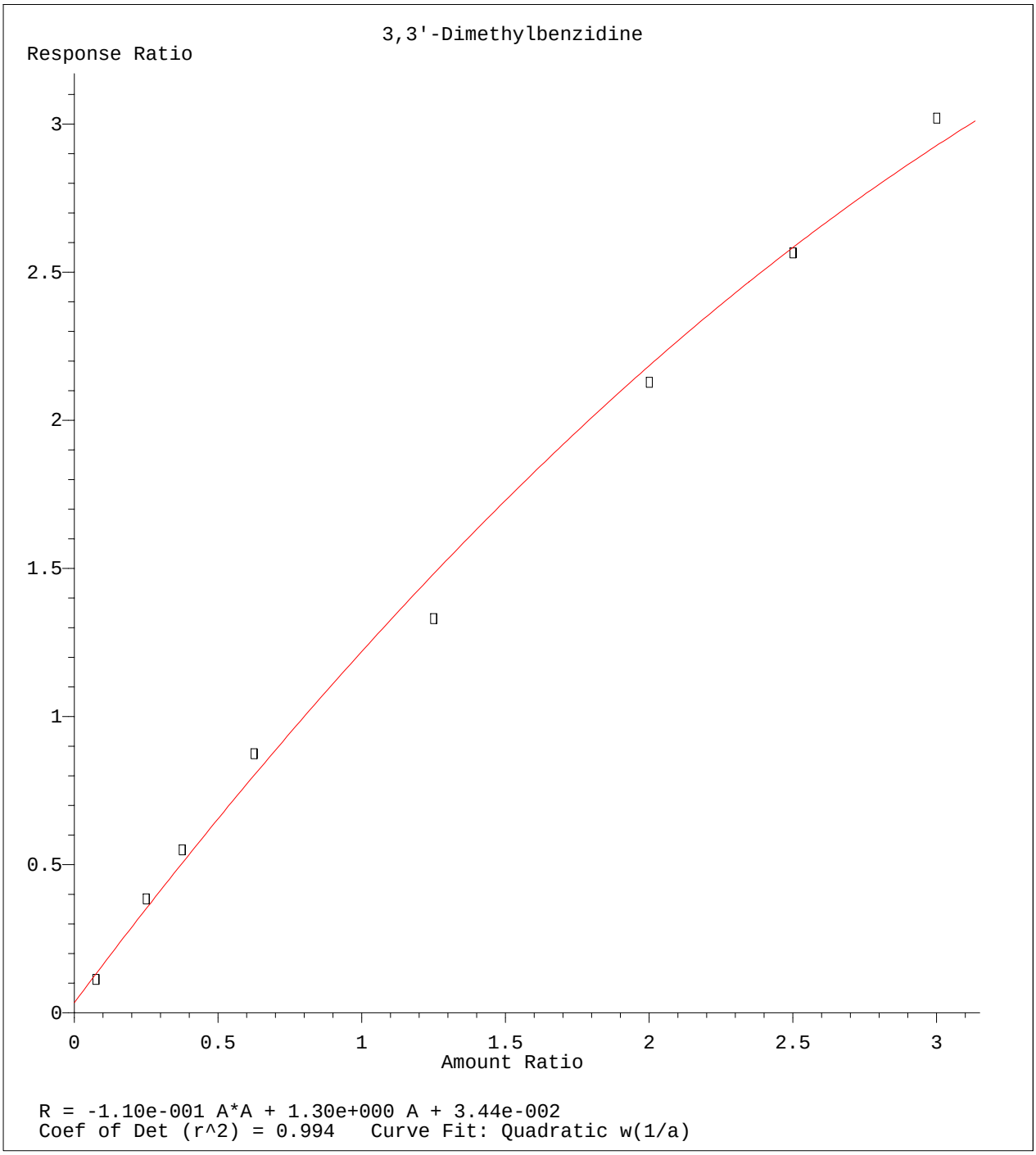
Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019



Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Mon Apr 15 13:24:11 2019

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24:48 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.839	152	133556	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.132	136	497842	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.943	164	292314	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.556	188	489232	40.0000	ug/ml	0.000
114) Chrysene-d12	16.253	240	463120	40.0000	ug/ml	0.000
129) Perylene-d12	19.101	264	457058	40.0000	ug/ml	0.000
System Monitoring Compounds						
8) 2-Fluorophenol	6.573	112	210183	51.3772417	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 51.38%			
12) Phenol-d5	7.428	99	249938	50.7601619	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 50.76%			
31) Nitrobenzene-d5	8.400	82	214893	51.2678071	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 102.54%			
59) 2-Fluorobiphenyl	10.200	172	496805	50.6376659	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 101.28%			
87) 2,4,6-Tribromophenol	11.766	330	65430	50.9611934	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 50.96%			
118) p-Terphenyl-d14	14.592	244	567841	51.0483569	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 102.10%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.14	74	131819	52.6182	ug/ml	99
4) Pyridine	5.16	79	245093	54.6401	ug/ml	99
7) Methyl Methanesulfonate	6.42	80	112692	51.1878	ug/ml	100
10) Ethyl Methanesulfonate	7.08	79	144245	49.3272	ug/ml	99
11) Aniline	7.53	66	114362	50.2508	ug/ml	93
13) Phenol	7.44	94	268732	52.2481	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	147650	49.5283	ug/ml	100
15) Pentachloroethane	7.57	167	86671	49.5944	ug/ml	99
16) 2-Chlorophenol	7.66	128	239459	52.7701	ug/ml	99
17) 1,3-Dichlorobenzene	7.81	146	263730	53.1238	ug/ml	99
18) 1,4-Dichlorobenzene	7.86	146	258824	51.6186	ug/ml	99
19) Benzyl Alcohol	7.95	108	152441	53.9509	ug/ml	99
20) 1,2-Dichlorobenzene	8.05	146	246096	52.8435	ug/ml	99
21) 2-Methylphenol	8.04	107	177420	53.1123	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	250125	50.1749	ug/ml	98
23) 3-,4-Methylphenol	8.17	107	233878	52.6897	ug/ml	99
25) n-Nitrosodipropylamine	8.22	70	140207	54.0084	ug/ml#	68
26) Acetophenone	8.23	105	276364	51.2311	ug/ml	100
27) n-Nitrosomorpholine	8.22	56	8909	4.1927	ug/ml#	40
28) o-Toluidine	8.23	106	21878	3.2635	ug/ml#	1
29) Hexachloroethane	8.37	117	94043	51.6853	ug/ml	98
32) Nitrobenzene	8.42	77	207596	48.8754	ug/ml	99
34) Isophorone	8.64	82	388402	49.6660	ug/ml	100
35) 2-Nitrophenol	8.74	139	126481	54.0525	ug/ml	99
36) 2,4-Dimethylphenol	8.70	122	220737	54.9430	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.81	198	105098	46.2203	ug/ml#	46
38) bis(2-Chloroethoxy)methane	8.81	93	313710	51.9149	ug/ml#	95
39) Benzoic Acid	8.76	105	122729	62.9484	ug/ml#	58
40) 2,4-Dichlorophenol	8.97	162	198179	52.8188	ug/ml	100
42) 1,2,4-Trichlorobenzene	9.07	180	210198	52.3400	ug/ml	100
43) Naphthalene	9.15	128	696939	51.2343	ug/ml#	99
44) 4-Chloroaniline	9.17	65	73961	50.9021	ug/ml	87
45) 2,6-Dichlorophenol	9.20	162	193739	53.4516	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24:48 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	Hexachloropropene	9.27	213	134471	55.3190	ug/ml	100
47)	Hexachlorobutadiene	9.30	225	125364	55.7749	ug/ml	100
49)	p-Phenylenediamine	9.61	108	15743	3.3257	ug/ml#	1
50)	4-Chloro-3-Methylphenol	9.61	107	190701	52.6370	ug/ml	99
51)	Safrole	9.71	162	177541	48.2956	ug/ml	99
52)	2-Methylnaphthalene	9.84	142	450546	49.7875	ug/ml	99
53)	1-Methylnaphthalene	9.96	142	432674	50.6288	ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	210899	50.4704	ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	112334	82.4621	ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	143009	53.2586	ug/ml	99
58)	2,4,5-Trichlorophenol	10.17	196	149070	53.3845	ug/ml	99
60)	Isosafrole	10.23	162	214982	57.8477	ug/ml	100
61)	2-Chloronaphthalene	10.35	162	483619	57.4835	ug/ml	100
62)	1-Chloronaphthalene	10.39	162	379892	48.9783	ug/ml	100
63)	2-Nitroaniline	10.44	65	117225	52.9941	ug/ml	98
64)	1,4-Naphthoquinone	10.51	158	188878	71.4707	ug/ml	98
65)	Dimethylphthalate	10.61	163	460841	49.6793	ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	87480	52.6493	ug/ml	100
67)	2,6-Dinitrotoluene	10.70	165	120008	53.4693	ug/ml	99
68)	Acenaphthylene	10.79	152	683368	53.1000	ug/ml	100
69)	3-Nitroaniline	10.86	138	125053	50.5595	ug/ml	99
70)	2,4-Dinitrophenol	10.96	184	46043	51.1539	ug/ml	89
71)	Acenaphthene	10.98	154	442972	53.5826	ug/ml	100
72)	4-Nitrophenol	10.95	65	81669	55.9057	ug/ml	99
73)	2,4-Dinitrotoluene	11.11	165	154122	53.4341	ug/ml	100
74)	Pentachlorobenzene	11.16	250	185004	51.2562	ug/ml	100
75)	Dibenzofuran	11.13	168	608228	51.2229	ug/ml	100
76)	2,3,5,6-Tetrachlorophenol	11.23	232	126290	58.9005	ug/ml	100
77)	2,3,4,6-Tetrachlorophenol	11.27	232	121313	52.1565	ug/ml	97
80)	Diethylphthalate	11.31	149	450436	49.7701	ug/ml	100
81)	Thionazin	11.41	107	72290	49.9463	ug/ml	99
82)	Fluorene	11.49	166	504870	52.0573	ug/ml	100
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	241404	50.3155	ug/ml	100
84)	4-Nitroaniline	11.49	138	123905	48.4937	ug/ml	95
86)	1,2-Diphenylhydrazine	11.61	77	440749	53.1203	ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.54	198	79537	49.5793	ug/ml	94
90)	Diphenylamine/n-Nitrosodip	11.56	169	450092	51.9831	ug/ml	99
91)	Sulfotepp	11.76	322	77838	48.8773	ug/ml	98
92)	Sym-Trinitrobenzene	11.84	75	123665	56.2896	ug/ml	99
93)	Diallate	11.88	86	157502	47.7259	ug/ml	99
94)	Phenacetin	11.87	108	232811	54.0070	ug/ml	99
95)	Phorate	11.90	75	245256	48.2449	ug/ml#	99
96)	4-Bromophenyl Phenyl Ether	11.97	248	140491	50.1412	ug/ml	99
97)	Hexachlorobenzene	12.19	284	149178	52.0028	ug/ml	99
98)	Dimethoate	12.12	87	177572	57.8628	ug/ml	94
100)	Pentachlorophenol	12.37	266	109982	62.9914	ug/ml	99
101)	Pronamide	12.31	173	223647	53.2441	ug/ml	99
102)	Pentachloronitrobenzene	12.46	237	56589	52.6485	ug/ml	98
103)	Disulfoton	12.49	88	212682	47.8156	ug/ml	100
104)	Phenanthrene	12.59	178	693506	51.2401	ug/ml	100
105)	Anthracene	12.64	178	703235	50.6072	ug/ml	100
106)	Carbazole	12.80	167	680580	52.5968	ug/ml	100
107)	Parathion Methyl	12.97	109	157609	61.9767	ug/ml	99
108)	Di-n-Butyl Phthalate	13.15	149	749380	49.9912	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24:48 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

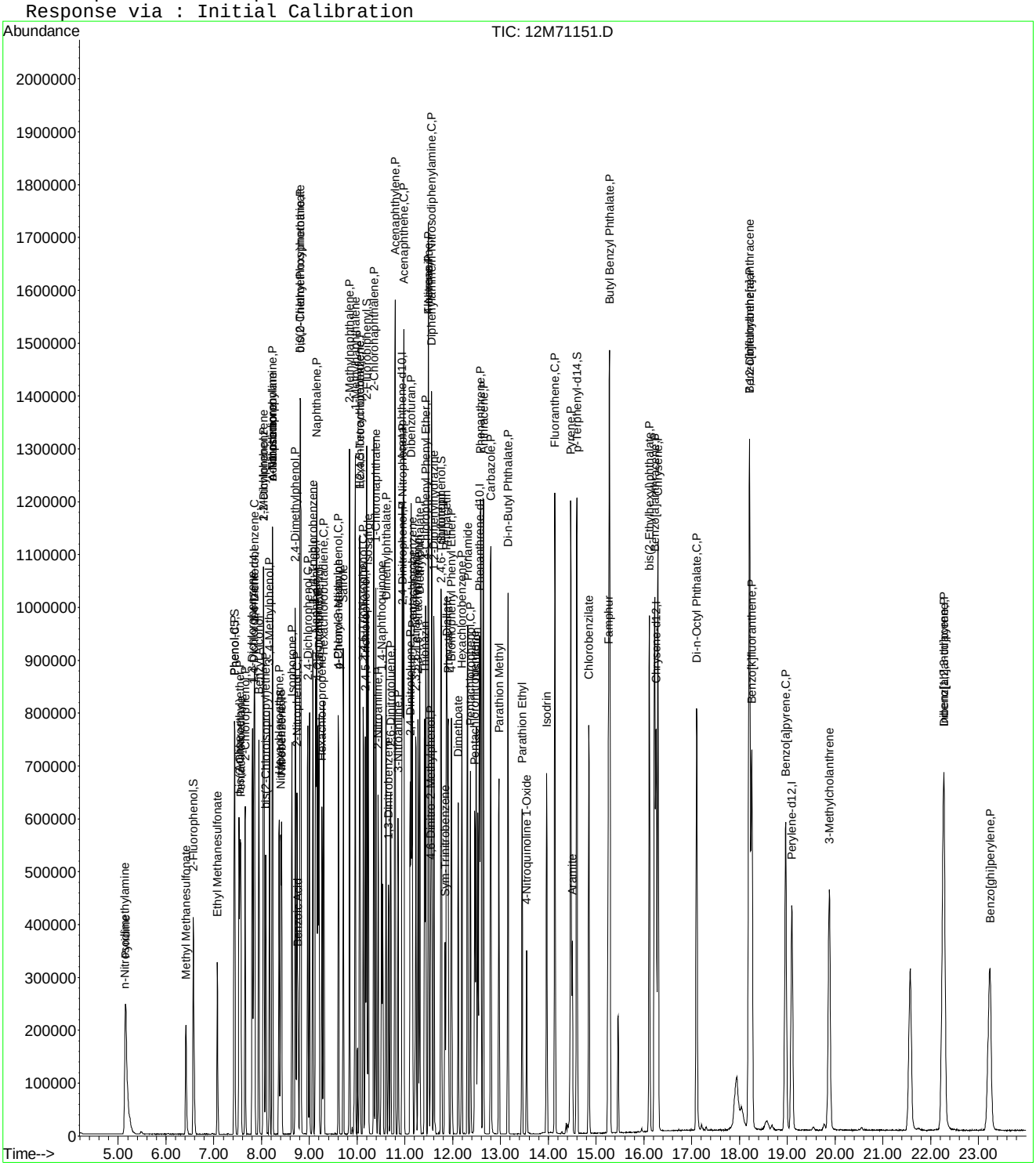
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
109)	Parathion Ethyl	13.45	97	89133	53.2558 ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.55	190	65917	58.4807 ug/ml	98
112)	Isodrin	13.97	193	78486	51.9515 ug/ml	98
113)	Fluoranthene	14.14	202	744818	49.7756 ug/ml	100
116)	Pyrene	14.47	202	759580	50.8727 ug/ml	99
117)	Aramite	14.50	185	44461	55.3823 ug/ml	99
120)	Chlorobenzilate	14.85	251	222385	51.6571 ug/ml	99
121)	Famphur	15.25	218	283324	355.8924 ug/ml#	74
122)	Butyl Benzyl Phthalate	15.28	149	345787	52.9553 ug/ml	99
123)	3,3'-Dimethylbenzidine	15.29	212	4424	Below Cal #	1
125)	bis(2-Ethylhexyl)phthalate	16.11	149	469698	53.9732 ug/ml	100
127)	Benzo[a]anthracene	16.23	228	696707	50.4067 ug/ml	100
128)	Chrysene	16.30	228	681480	51.7556 ug/ml	100
130)	Di-n-Octyl Phthalate	17.10	149	799914	52.6300 ug/ml	100
131)	7,12-Dimethylbenz[a]anthra	18.21	256	362759	55.1095 ug/ml	100
132)	Benzo[b]fluoranthene	18.21	252	740147	52.7021 ug/ml	100
133)	Benzo[k]fluoranthene	18.26	252	611427	49.4797 ug/ml	100
134)	Benzo[a]pyrene	18.97	252	634257	50.7662 ug/ml	99
135)	3-Methylcholanthrene	19.88	268	360008	54.3746 ug/ml	99
136)	Indeno[1,2,3-cd]pyrene	22.28	276	718113	51.2343 ug/ml	100
137)	Dibenz[ah]anthracene	22.27	278	621724	52.2341 ug/ml	100
138)	Benzo[ghi]perylene	23.24	276	612762	52.6524 ug/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 13:24 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00
2		1,4-Dioxane	0.513	0.000#	100.0#	0#	-4.68#
3		n-Nitrosodimethylamine	0.750	0.790	-5.3	99	0.00
4		Pyridine	1.343	1.468	-9.3	105	0.00
5		2-Picoline	1.465	0.000#	100.0#	0#	-6.00#
6		n-Nitrosomethylethylamine	0.604	0.000#	100.0#	0#	-6.12#
7		Methyl Methanesulfonate	0.659	0.675	-2.4	96	0.00
8	S	2-Fluorophenol	1.225	1.259	-2.8	102	0.00
9		n-Nitrosodiethylamine	0.609	0.000#	100.0#	0#	-6.81#
10		Ethyl Methanesulfonate	0.876	0.864	1.4	96	0.00
11		Aniline	0.682	0.685	-0.4	99	0.00
12	S	Phenol-d5	1.475	1.497	-1.5	100	0.00
13	C,P	Phenol	1.540	1.610	-4.5	105	0.00
14	P	bis(2-Chloroethyl)ether	0.893	0.884	1.0	99	0.00
15		Pentachloroethane	0.523	0.519	0.8	99	0.00
16	P	2-Chlorophenol	1.359	1.434	-5.5	105	0.00
17		1,3-Dichlorobenzene	1.487	1.580	-6.3	108	0.00
18	C	1,4-Dichlorobenzene	1.502	1.550	-3.2	104	0.00
19		Benzyl Alcohol	0.846	0.913	-7.9	106	0.00
20		1,2-Dichlorobenzene	1.395	1.474	-5.7	106	0.00
21	P	2-Methylphenol	1.000	1.063	-6.3	106	0.00
22	P	bis(2-Chloroisopropyl)ether	1.493	1.498	-0.3	97	0.00
23	P	3-,4-Methylphenol	1.329	1.401	-5.4	106	0.00
24		n-Nitrosopyrrolidine	0.579	0.000#	100.0#	0#	-8.22#
25	P	n-Nitrosodipropylamine	0.778	0.840	-8.0	106	0.00
26		Acetophenone	1.616	1.655	-2.4	103	0.00
27		n-Nitrosomorpholine	0.636	0.053	91.7#	8	0.00
28		o-Toluidine	2.008	0.131	93.5#	7	-0.05
29	P	Hexachloroethane	0.545	0.563	-3.3	101	0.00
30	I	Naphthalene-d8	1.000	1.000	0.0	103	0.00
31	S	Nitrobenzene-d5	0.337	0.345	-2.4	103	0.00
32	P	Nitrobenzene	0.341	0.334	2.1	98	0.00
33		n-Nitrosopiperidine	0.177	0.000#	100.0#	0#	-8.57#
34	P	Isophorone	0.628	0.624	0.6	100	0.00
35	C,P	2-Nitrophenol	0.188	0.203	-8.0	106	0.00
36	P	2,4-Dimethylphenol	0.323	0.355	-9.9	110	0.00
37		0,0,0-Triethyl Phosphorothi	0.183	0.169	7.7	96	0.00
38	P	bis(2-Chloroethoxy)methane	0.486	0.504	-3.7	106	0.00
39		Benzoic Acid	0.138	0.197	-42.8#	171	0.02
40	C,P	2,4-Dichlorophenol	0.301	0.318	-5.6	108	0.00
41		a,a-Dimethylphenethylamine	0.824	0.004#	99.5#	0#	0.03
42		1,2,4-Trichlorobenzene	0.323	0.338	-4.6	107	0.00
43	P	Naphthalene	1.093	1.120	-2.5	105	0.00
44	P	4-Chloroaniline	0.117	0.119	-1.7	100	0.00
45		2,6-Dichlorophenol	0.291	0.311	-6.9	109	0.00
46		Hexachloropropene	0.195	0.216	-10.8	115	0.00
47	C,P	Hexachlorobutadiene	0.181	0.201	-11.0	113	0.00
48		n-Nitrosodi-n-Butylamine	0.276	0.002#	99.3#	1#	0.12
49		p-Phenylenediamine	0.255	0.025#	90.2#	11	0.09
50	C,P	4-Chloro-3-Methylphenol	0.291	0.306	-5.2	106	0.00
51		Safrole	0.295	0.285	3.4	98	0.00
52	P	2-Methylnaphthalene	0.727	0.724	0.4	102	0.00
53		1-Methylnaphthalene	0.687	0.695	-1.2	103	0.00

(#) = Out of Range
12M71151.D MEGAMIX.M Mon Apr 15 13:29:06 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00
55		1,2,4,5-Tetrachlorobenzene	0.572	0.577	-0.9	105	0.00
56	P	Hexachlorocyclopentadiene	0.207	0.307	-48.3#	165	0.00
57	C,P	2,4,6-Trichlorophenol	0.367	0.391	-6.5	107	0.00
58	P	2,4,5-Trichlorophenol	0.382	0.408	-6.8	106	0.00
59	S	2-Fluorobiphenyl	1.343	1.360	-1.3	105	0.00
60		Isosafrole	0.509	0.588	-15.5	117	0.00
61	P	2-Chloronaphthalene	1.151	1.324	-15.0	117	0.00
62		1-Chloronaphthalene	1.061	1.040	2.0	100	0.00
63	P	2-Nitroaniline	0.303	0.321	-5.9	105	0.00
64		1,4-Naphthoquinone	0.391	0.517	-32.2	147	0.00
65	P	Dimethylphthalate	1.269	1.261	0.6	101	0.00
66		1,3-Dinitrobenzene	0.227	0.239	-5.3	103	0.00
67	P	2,6-Dinitrotoluene	0.307	0.328	-6.8	106	0.00
68	P	Acenaphthylene	1.761	1.870	-6.2	108	0.00
69	P	3-Nitroaniline	0.338	0.342	-1.2	103	0.00
70	P	2,4-Dinitrophenol	0.114	0.126	-10.5	115	0.00
71	C,P	Acenaphthene	1.131	1.212	-7.2	109	0.00
72	P	4-Nitrophenol	0.200	0.224	-12.0	104	0.00
73	P	2,4-Dinitrotoluene	0.395	0.422	-6.8	105	0.00
74		Pentachlorobenzene	0.494	0.506	-2.4	106	0.00
75	P	Dibenzofuran	1.625	1.665	-2.5	106	0.00
76		2,3,5,6-Tetrachlorophenol	0.293	0.346	-18.1	109	0.00
77		2,3,4,6-Tetrachlorophenol	0.318	0.332	-4.4	103	0.00
78		1-Naphthylamine	1.174	0.006#	99.5#	0#	0.02
79		2-Naphthylamine	1.199	0.008#	99.3#	1#	0.00
80	P	Diethylphthalate	1.238	1.233	0.4	101	0.00
81		Thionazin	0.198	0.198	0.0	99	0.00
82	P	Fluorene	1.327	1.382	-4.1	107	0.00
83	P	4-Chlorophenyl Phenyl Ether	0.657	0.661	-0.6	102	0.00
84	P	4-Nitroaniline	0.350	0.339	3.1	99	0.00
85		5-Nitro-o-Toluidine	0.391	0.013#	96.7#	3	0.04
86		1,2-Diphenylhydrazine	1.135	1.206	-6.3	106	0.00
87	S	2,4,6-Tribromophenol	0.176	0.179	-1.7	104	0.00
88	I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00
89	P	4,6-Dinitro-2-Methylphenol	0.115	0.130	-13.0	114	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	0.708	0.736	-4.0	106	0.00
91		Sulfotepp	0.130	0.127	2.3	102	0.00
92		Sym-Trinitrobenzene	0.155	0.202	-30.3	117	0.00
93		Diallate	0.270	0.258	4.4	95	0.00
94		Phenacetin	0.352	0.381	-8.2	105	0.00
95		Phorate	0.416	0.401	3.6	97	0.00
96	P	4-Bromophenyl Phenyl Ether	0.229	0.230	-0.4	103	0.00
97	P	Hexachlorobenzene	0.235	0.244	-3.8	107	0.00
98		Dimethoate	0.251	0.290	-15.5	117	0.00
99		4-Aminobiphenyl	0.864	0.001#	99.9#	0#	-0.08
100	C,P	Pentachlorophenol	0.131	0.180	-37.4#	132	0.00
101		Pronamide	0.343	0.366	-6.7	107	0.00
102		Pentachloronitrobenzene	0.088	0.093	-5.7	103	0.00
103		Disulfoton	0.364	0.348	4.4	96	0.00
104	P	Phenanthrene	1.107	1.134	-2.4	106	0.00
105	P	Anthracene	1.136	1.150	-1.2	103	0.00
106	P	Carbazole	1.058	1.113	-5.2	107	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
107		Parathion Methyl	0.208	0.258	-24.0	112	0.00
108	P	Di-n-Butyl Phthalate	1.226	1.225	0.1	100	0.00
109		Parathion Ethyl	0.137	0.146	-6.6	101	0.00
110		4-Nitroquinoline 1-Oxide	0.073	0.108	-47.9#	120	0.00
111		Methapyrilene	0.348	0.000#	100.0#	0#	-13.60#
112		Isodrin	0.124	0.128	-3.2	106	0.00
113	C,P	Fluoranthene	1.223	1.218	0.4	103	0.00
114	I	Chrysene-d12	1.000	1.000	0.0	103	0.00
115		Benzidine	0.565	0.000#	100.0#	0#	-14.23#
116	P	Pyrene	1.290	1.312	-1.7	103	0.00
117		Aramite	0.069	0.077	-11.6	105	0.00
118	S	p-Terphenyl-d14	0.961	0.981	-2.1	104	0.00
119		p-(Dimethylamino)azobenzene	0.268	0.000#	100.0#	0#	-14.81#
120		Chlorobenzilate	0.372	0.384	-3.2	104	0.00
121		Famphur	0.069	0.489	-608.7#	735#	0.00
122	P	Butyl Benzyl Phthalate	0.564	0.597	-5.9	105	0.00
123		3,3'-Dimethylbenzidine	1.258	0.008#	99.4#	1#	0.00
124		2-Acetylaminofluorene	0.484	0.000#	100.0#	0#	-15.71#
125	P	bis(2-Ethylhexyl)phthalate	0.752	0.811	-7.8	104	0.00
126	P	3,3'-Dichlorobenzidine	0.418	0.000#	100.0#	0#	-16.13#
127	P	Benzo[a]anthracene	1.194	1.204	-0.8	103	0.00
128	P	Chrysene	1.137	1.177	-3.5	105	0.00
129	I	Perylene-d12	1.000	1.000	0.0	103	0.00
130	C,P	Di-n-Octyl Phthalate	1.330	1.400	-5.3	103	0.00
131		7,12-Dimethylbenz[a]anthrac	0.576	0.635	-10.2	112	0.00
132	P	Benzo[b]fluoranthene	1.229	1.295	-5.4	108	0.00
133	P	Benzo[k]fluoranthene	1.081	1.070	1.0	102	0.00
134	C,P	Benzo[a]pyrene	1.093	1.110	-1.6	103	0.00
135		3-Methylcholanthrene	0.579	0.630	-8.8	108	0.00
136	P	Indeno[1,2,3-cd]pyrene	1.227	1.257	-2.4	102	0.00
137	P	Dibenz[ah]anthracene	1.042	1.088	-4.4	103	0.00
138	P	Benzo[ghi]perylene	1.019	1.073	-5.3	105	0.00

Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	102	0.00
2		1,4-Dioxane	50.000	0.000	100.0#	0	-4.68#
3		n-Nitrosodimethylamine	50.000	52.618	-5.2	99	0.00
4		Pyridine	50.000	54.640	-9.3	105	0.00
5		2-Picoline	50.000	0.000	100.0#	0	-6.00#
6		n-Nitrosomethylethylamine	50.000	0.000	100.0#	0	-6.12#
7		Methyl Methanesulfonate	50.000	51.188	-2.4	96	0.00
8	S	2-Fluorophenol	50.000	51.377	-2.8	102	0.00
9		n-Nitrosodiethylamine	50.000	0.000	100.0#	0	-6.81#
10		Ethyl Methanesulfonate	50.000	49.327	1.3	96	0.00
11		Aniline	50.000	50.251	-0.5	99	0.00
12	S	Phenol-d5	50.000	50.760	-1.5	100	0.00
13	C,P	Phenol	50.000	52.248	-4.5	105	0.00
14	P	bis(2-Chloroethyl)ether	50.000	49.528	0.9	99	0.00
15		Pentachloroethane	50.000	49.594	0.8	99	0.00
16	P	2-Chlorophenol	50.000	52.770	-5.5	105	0.00
17		1,3-Dichlorobenzene	50.000	53.124	-6.2	108	0.00
18	C	1,4-Dichlorobenzene	50.000	51.619	-3.2	104	0.00
19		Benzyl Alcohol	50.000	53.951	-7.9	106	0.00
20		1,2-Dichlorobenzene	50.000	52.844	-5.7	106	0.00
21	P	2-Methylphenol	50.000	53.112	-6.2	106	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	50.175	-0.3	97	0.00
23	P	3-,4-Methylphenol	50.000	52.690	-5.4	106	0.00
24		n-Nitrosopyrrolidine	50.000	0.000	100.0#	0	-8.22#
25	P	n-Nitrosodipropylamine	50.000	54.008	-8.0	106	0.00
26		Acetophenone	50.000	51.231	-2.5	103	0.00
27		n-Nitrosomorpholine	50.000	4.193	91.6#	8	0.00
28		o-Toluidine	50.000	3.263	93.5#	7	-0.05
29	P	Hexachloroethane	50.000	51.685	-3.4	101	0.00
30	I	Naphthalene-d8	40.000	40.000	0.0	103	0.00
31	S	Nitrobenzene-d5	50.000	51.268	-2.5	103	0.00
32	P	Nitrobenzene	50.000	48.875	2.3	98	0.00
33		n-Nitrosopiperidine	50.000	0.000	100.0#	0	-8.57#
34	P	Isophorone	50.000	49.666	0.7	100	0.00
35	C,P	2-Nitrophenol	50.000	54.052	-8.1	106	0.00
36	P	2,4-Dimethylphenol	50.000	54.943	-9.9	110	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	46.220	7.6	96	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	51.915	-3.8	106	0.00
39		Benzoic Acid	50.000	62.948	-25.9	171	0.02
40	C,P	2,4-Dichlorophenol	50.000	52.819	-5.6	108	0.00
41		a,a-Dimethylphenethylamine	50.000	0.257	99.5#	0	0.03
42		1,2,4-Trichlorobenzene	50.000	52.340	-4.7	107	0.00
43	P	Naphthalene	50.000	51.234	-2.5	105	0.00
44	P	4-Chloroaniline	50.000	50.902	-1.8	100	0.00
45		2,6-Dichlorophenol	50.000	53.452	-6.9	109	0.00
46		Hexachloropropene	50.000	55.319	-10.6	115	0.00
47	C,P	Hexachlorobutadiene	50.000	55.775	-11.5	113	0.00
48		n-Nitrosodi-n-Butylamine	50.000	0.321	99.4#	1	0.12
49		p-Phenylenediamine	50.000	3.326	93.3#	11	0.09
50	C,P	4-Chloro-3-Methylphenol	50.000	52.637	-5.3	106	0.00
51		Safrole	50.000	48.296	3.4	98	0.00
52	P	2-Methylnaphthalene	50.000	49.787	0.4	102	0.00
53		1-Methylnaphthalene	50.000	50.629	-1.3	103	0.00

(#) = Out of Range
12M71151.D MEGAMIX.M Mon Apr 15 13:24:57 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	104	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	50.470	-0.9	105	0.00
56	P	Hexachlorocyclopentadiene	50.000	82.462	-64.9#	165	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	53.259	-6.5	107	0.00
58	P	2,4,5-Trichlorophenol	50.000	53.385	-6.8	106	0.00
59	S	2-Fluorobiphenyl	50.000	50.638	-1.3	105	0.00
60		Isosafrole	50.000	57.848	-15.7	117	0.00
61	P	2-Chloronaphthalene	50.000	57.484	-15.0	117	0.00
62		1-Chloronaphthalene	50.000	48.978	2.0	100	0.00
63	P	2-Nitroaniline	50.000	52.994	-6.0	105	0.00
64		1,4-Naphthoquinone	50.000	71.471	-42.9#	147	0.00
65	P	Dimethylphthalate	50.000	49.679	0.6	101	0.00
66		1,3-Dinitrobenzene	50.000	52.649	-5.3	103	0.00
67	P	2,6-Dinitrotoluene	50.000	53.469	-6.9	106	0.00
68	P	Acenaphthylene	50.000	53.100	-6.2	108	0.00
69	P	3-Nitroaniline	50.000	50.559	-1.1	103	0.00
70	P	2,4-Dinitrophenol	50.000	51.154	-2.3	115	0.00
71	C,P	Acenaphthene	50.000	53.583	-7.2	109	0.00
72	P	4-Nitrophenol	50.000	55.906	-11.8	104	0.00
73	P	2,4-Dinitrotoluene	50.000	53.434	-6.9	105	0.00
74		Pentachlorobenzene	50.000	51.256	-2.5	106	0.00
75	P	Dibenzofuran	50.000	51.223	-2.4	106	0.00
76		2,3,5,6-Tetrachlorophenol	50.000	58.901	-17.8	109	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	52.157	-4.3	103	0.00
78		1-Naphthylamine	50.000	0.245	99.5#	0	0.02
79		2-Naphthylamine	50.000	0.329	99.3#	1	0.00
80	P	Diethylphthalate	50.000	49.770	0.5	101	0.00
81		Thionazin	50.000	49.946	0.1	99	0.00
82	P	Fluorene	50.000	52.057	-4.1	107	0.00
83	P	4-Chlorophenyl Phenyl Ether	50.000	50.316	-0.6	102	0.00
84	P	4-Nitroaniline	50.000	48.494	3.0	99	0.00
85		5-Nitro-o-Toluidine	50.000	1.649	96.7#	3	0.04
86		1,2-Diphenylhydrazine	50.000	53.120	-6.2	106	0.00
87	S	2,4,6-Tribromophenol	50.000	50.961	-1.9	104	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	104	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	49.579	0.8	114	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	51.983	-4.0	106	0.00
91		Sulfotepp	50.000	48.877	2.2	102	0.00
92		Sym-Trinitrobenzene	50.000	56.290	-12.6	117	0.00
93		Diallate	50.000	47.726	4.5	95	0.00
94		Phenacetin	50.000	54.007	-8.0	105	0.00
95		Phorate	50.000	48.245	3.5	97	0.00
96	P	4-Bromophenyl Phenyl Ether	50.000	50.141	-0.3	103	0.00
97	P	Hexachlorobenzene	50.000	52.003	-4.0	107	0.00
98		Dimethoate	50.000	57.863	-15.7	117	0.00
99		4-Aminobiphenyl	50.000	0.056	99.9#	0	-0.08
100	C,P	Pentachlorophenol	50.000	62.991	-26.0#	132	0.00
101		Pronamide	50.000	53.244	-6.5	107	0.00
102		Pentachloronitrobenzene	50.000	52.649	-5.3	103	0.00
103		Disulfoton	50.000	47.816	4.4	96	0.00
104	P	Phenanthrene	50.000	51.240	-2.5	106	0.00
105	P	Anthracene	50.000	50.607	-1.2	103	0.00
106	P	Carbazole	50.000	52.597	-5.2	107	0.00

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71151.D Vial: 11
Acq On : 12 Apr 2019 3:50 pm Operator: SCB
Sample : WG703239-11 50PPM 8270 ALT SRC Inst : MSD12
Misc : 1,1 STD90563 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	50.000	61.977	-24.0	112	0.00
108	P	Di-n-Butyl Phthalate	50.000	49.991	0.0	100	0.00
109		Parathion Ethyl	50.000	53.256	-6.5	101	0.00
110		4-Nitroquinoline 1-Oxide	50.000	58.481	-17.0	120	0.00
111		Methapyrilene	50.000	0.000	100.0#	0	-13.60#
112		Isodrin	50.000	51.951	-3.9	106	0.00
113	C,P	Fluoranthene	50.000	49.776	0.4	103	0.00
114	I	Chrysene-d12	40.000	40.000	0.0	103	0.00
115		Benzidine	50.000	0.000	100.0#	0	-14.23#
116	P	Pyrene	50.000	50.873	-1.7	103	0.00
117		Aramite	50.000	55.382	-10.8	105	0.00
118	S	p-Terphenyl-d14	50.000	51.048	-2.1	104	0.00
119		p-(Dimethylamino)azobenzene	50.000	0.000	100.0#	0	-14.81#
120		Chlorobenzilate	50.000	51.657	-3.3	104	0.00
121		Famphur	50.000	355.892	-611.8#	735	0.00
122	P	Butyl Benzyl Phthalate	50.000	52.955	-5.9	105	0.00
123		3,3'-Dimethylbenzidine	50.000	-1.000	102.0#	1	0.00
124		2-Acetylaminofluorene	50.000	0.000	100.0#	0	-15.71#
125	P	bis(2-Ethylhexyl)phthalate	50.000	53.973	-7.9	104	0.00
126	P	3,3'-Dichlorobenzidine	50.000	0.000	100.0#	0	-16.13#
127	P	Benzo[a]anthracene	50.000	50.407	-0.8	103	0.00
128	P	Chrysene	50.000	51.756	-3.5	105	0.00
129	I	Perylene-d12	40.000	40.000	0.0	103	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	52.630	-5.3	103	0.00
131		7,12-Dimethylbenz[a]anthrac	50.000	55.109	-10.2	112	0.00
132	P	Benzo[b]fluoranthene	50.000	52.702	-5.4	108	0.00
133	P	Benzo[k]fluoranthene	50.000	49.480	1.0	102	0.00
134	C,P	Benzo[a]pyrene	50.000	50.766	-1.5	103	0.00
135		3-Methylcholanthrene	50.000	54.375	-8.8	108	0.00
136	P	Indeno[1,2,3-cd]pyrene	50.000	51.234	-2.5	102	0.00
137	P	Dibenz[ah]anthracene	50.000	52.234	-4.5	103	0.00
138	P	Benzo[ghi]perylene	50.000	52.652	-5.3	105	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1
12M71151.D MEGAMIX.M Mon Apr 15 13:24:59 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71152.D Vial: 12
Acq On : 12 Apr 2019 4:22 pm Operator: SCB
Sample : WG703239-12 50PPM 1,4-DIOX ALT SRC Inst : MSD12
Misc : 1,1 STD90899 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 09:34:43 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	130362	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	480815	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	274076	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	457053	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	440488	40.0000	ug/ml	-0.011
129) Perylene-d12	19.085	264	420737	40.0000	ug/ml	-0.016

System Monitoring Compounds						
8) 2-Fluorophenol	0.000	112	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
12) Phenol-d5	0.000	99	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
31) Nitrobenzene-d5	0.000	82	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 35 - 114		Recovery =	0.00%#		
59) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 43 - 116		Recovery =	0.00%#		
87) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
118) p-Terphenyl-d14	0.000	244	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 33 - 141		Recovery =	0.00%#		

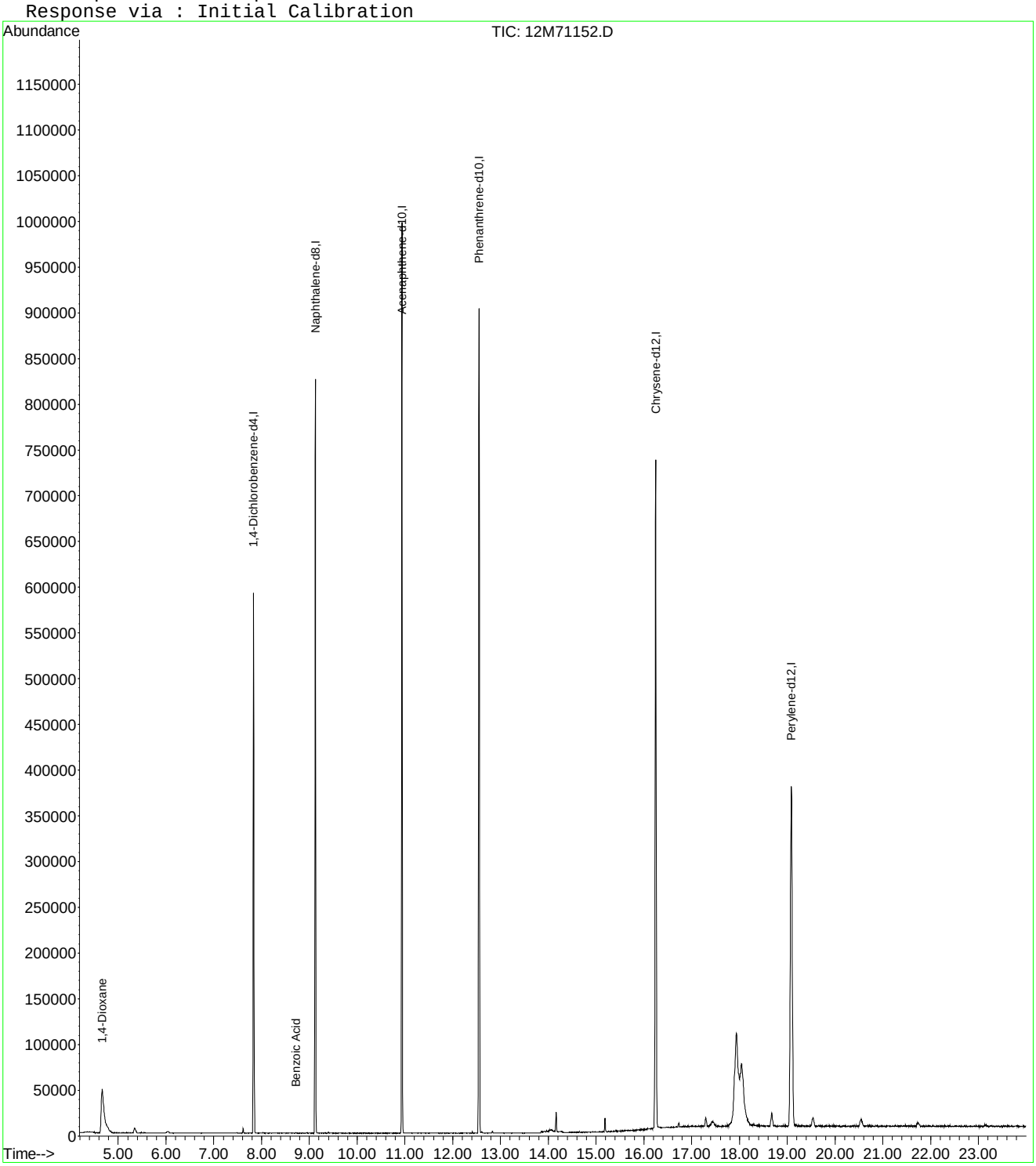
Target Compounds						Qvalue
2) 1,4-Dioxane	4.67	88	90934	54.4395	ug/ml	98
39) Benzoic Acid	8.72	105	178	6.2814	ug/ml#	27

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71152.D MEGAMIX.M Mon Apr 15 13:56:36 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71152.D Vial: 12
Acq On : 12 Apr 2019 4:22 pm Operator: SCB
Sample : WG703239-12 50PPM 1,4-DIOX ALT SRC Inst : MSD12
Misc : 1,1 STD90899 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 9:34 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\041219\12M71152.D Vial: 12
Acq On : 12 Apr 2019 4:22 pm Operator: SCB
Sample : WG703239-12 50PPM 1,4-DIOX ALT SRC Inst : MSD12
Misc : 1,1 STD90899 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	99	0.00
2		1,4-Dioxane	50.000	54.439	-8.9	97	-0.01
3		n-Nitrosodimethylamine	50.000	0.000	100.0#	0	-5.14#
4		Pyridine	50.000	0.000	100.0#	0	-5.16#
5		2-Picoline	50.000	0.000	100.0#	0	-6.00#
6		n-Nitrosomethylethylamine	50.000	0.000	100.0#	0	-6.12#
7		Methyl Methanesulfonate	50.000	0.000	100.0#	0	-6.42#
8	S	2-Fluorophenol	50.000	0.000	100.0#	0	-6.57#
9		n-Nitrosodiethylamine	50.000	0.000	100.0#	0	-6.81#
10		Ethyl Methanesulfonate	50.000	0.000	100.0#	0	-7.08#
11		Aniline	50.000	0.000	100.0#	0	-7.53#
12	S	Phenol-d5	50.000	0.000	100.0#	0	-7.43#
13	C,P	Phenol	50.000	0.000	100.0#	0	-7.44#
14	P	bis(2-Chloroethyl)ether	50.000	0.000	100.0#	0	-7.55#
15		Pentachloroethane	50.000	0.000	100.0#	0	-7.57#
16	P	2-Chlorophenol	50.000	0.000	100.0#	0	-7.66#
17		1,3-Dichlorobenzene	50.000	0.000	100.0#	0	-7.81#
18	C	1,4-Dichlorobenzene	50.000	0.000	100.0#	0	-7.86#
19		Benzyl Alcohol	50.000	0.000	100.0#	0	-7.94#
20		1,2-Dichlorobenzene	50.000	0.000	100.0#	0	-8.05#
21	P	2-Methylphenol	50.000	0.000	100.0#	0	-8.04#
22	P	bis(2-Chloroisopropyl)ether	50.000	0.000	100.0#	0	-8.09#
23	P	3-,4-Methylphenol	50.000	0.000	100.0#	0	-8.17#
24		n-Nitrosopyrrolidine	50.000	0.000	100.0#	0	-8.22#
25	P	n-Nitrosodipropylamine	50.000	0.000	100.0#	0	-8.22#
26		Acetophenone	50.000	0.000	100.0#	0	-8.23#
27		n-Nitrosomorpholine	50.000	0.000	100.0#	0	-8.23#
28		o-Toluidine	50.000	0.000	100.0#	0	-8.28#
29	P	Hexachloroethane	50.000	0.000	100.0#	0	-8.37#
30	I	Naphthalene-d8	40.000	40.000	0.0	99	0.00
31	S	Nitrobenzene-d5	50.000	0.000	100.0#	0	-8.40#
32	P	Nitrobenzene	50.000	0.000	100.0#	0	-8.42#
33		n-Nitrosopiperidine	50.000	0.000	100.0#	0	-8.57#
34	P	Isophorone	50.000	0.000	100.0#	0	-8.64#
35	C,P	2-Nitrophenol	50.000	0.000	100.0#	0	-8.74#
36	P	2,4-Dimethylphenol	50.000	0.000	100.0#	0	-8.70#
37		0,0,0-Triethyl Phosphorothi	50.000	0.000	100.0#	0	-8.81#
38	P	bis(2-Chloroethoxy)methane	50.000	0.000	100.0#	0	-8.81#
39		Benzoic Acid	50.000	6.281	87.4#	0	-0.03
40	C,P	2,4-Dichlorophenol	50.000	0.000	100.0#	0	-8.97#
41		a,a-Dimethylphenethylamine	50.000	0.110	99.8#	0	-0.02
42		1,2,4-Trichlorobenzene	50.000	0.000	100.0#	0	-9.07#
43	P	Naphthalene	50.000	0.000	100.0#	0	-9.15#
44	P	4-Chloroaniline	50.000	0.000	100.0#	0	-9.17#
45		2,6-Dichlorophenol	50.000	0.000	100.0#	0	-9.20#
46		Hexachloropropene	50.000	0.000	100.0#	0	-9.27#
47	C,P	Hexachlorobutadiene	50.000	0.000	100.0#	0	-9.30#
48		n-Nitrosodi-n-Butylamine	50.000	0.000	100.0#	0	-9.49#
49		p-Phenylenediamine	50.000	0.000	100.0#	0	-9.52#
50	C,P	4-Chloro-3-Methylphenol	50.000	0.000	100.0#	0	-9.61#
51		Safrole	50.000	0.000	100.0#	0	-9.71#
52	P	2-Methylnaphthalene	50.000	0.000	100.0#	0	-9.84#
53		1-Methylnaphthalene	50.000	0.000	100.0#	0	-9.96#

(#) = Out of Range
12M71152.D MEGAMIX.M Mon Apr 15 09:34:48 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71152.D Vial: 12
Acq On : 12 Apr 2019 4:22 pm Operator: SCB
Sample : WG703239-12 50PPM 1,4-DIOX ALT SRC Inst : MSD12
Misc : 1,1 STD90899 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	98	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	0.000	100.0#	0	-10.05#
56	P	Hexachlorocyclopentadiene	50.000	0.000	100.0#	0	-10.06#
57	C,P	2,4,6-Trichlorophenol	50.000	0.000	100.0#	0	-10.13#
58	P	2,4,5-Trichlorophenol	50.000	0.000	100.0#	0	-10.17#
59	S	2-Fluorobiphenyl	50.000	0.000	100.0#	0	-10.20#
60		Isosafrole	50.000	0.000	100.0#	0	-10.23#
61	P	2-Chloronaphthalene	50.000	0.000	100.0#	0	-10.35#
62		1-Chloronaphthalene	50.000	0.000	100.0#	0	-10.39#
63	P	2-Nitroaniline	50.000	0.000	100.0#	0	-10.44#
64		1,4-Naphthoquinone	50.000	0.000	100.0#	0	-10.51#
65	P	Dimethylphthalate	50.000	0.000	100.0#	0	-10.61#
66		1,3-Dinitrobenzene	50.000	0.000	100.0#	0	-10.65#
67	P	2,6-Dinitrotoluene	50.000	0.000	100.0#	0	-10.70#
68	P	Acenaphthylene	50.000	0.000	100.0#	0	-10.79#
69	P	3-Nitroaniline	50.000	0.000	100.0#	0	-10.86#
70	P	2,4-Dinitrophenol	50.000	0.000	100.0#	0	-10.96#
71	C,P	Acenaphthene	50.000	0.086	99.8#	0	-0.04
72	P	4-Nitrophenol	50.000	0.000	100.0#	0	-10.96#
73	P	2,4-Dinitrotoluene	50.000	0.000	100.0#	0	-11.11#
74		Pentachlorobenzene	50.000	0.000	100.0#	0	-11.16#
75	P	Dibenzofuran	50.000	0.000	100.0#	0	-11.13#
76		2,3,5,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.23#
77		2,3,4,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.28#
78		1-Naphthylamine	50.000	0.000	100.0#	0	-11.20#
79		2-Naphthylamine	50.000	0.000	100.0#	0	-11.27#
80	P	Diethylphthalate	50.000	0.000	100.0#	0	-11.31#
81		Thionazin	50.000	0.000	100.0#	0	-11.41#
82	P	Fluorene	50.000	0.000	100.0#	0	-11.49#
83	P	4-Chlorophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.43#
84	P	4-Nitroaniline	50.000	0.000	100.0#	0	-11.50#
85		5-Nitro-o-Toluidine	50.000	0.000	100.0#	0	-11.49#
86		1,2-Diphenylhydrazine	50.000	0.000	100.0#	0	-11.61#
87	S	2,4,6-Tribromophenol	50.000	0.000	100.0#	0	-11.77#
88	I	Phenanthrene-d10	40.000	40.000	0.0	97	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	0.000	100.0#	0	-11.54#
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	0.000	100.0#	0	-11.56#
91		Sulfotepp	50.000	0.000	100.0#	0	-11.76#
92		Sym-Trinitrobenzene	50.000	0.000	100.0#	0	-11.84#
93		Diallate	50.000	0.000	100.0#	0	-11.88#
94		Phenacetin	50.000	0.000	100.0#	0	-11.87#
95		Phorate	50.000	0.000	100.0#	0	-11.90#
96	P	4-Bromophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.97#
97	P	Hexachlorobenzene	50.000	0.000	100.0#	0	-12.19#
98		Dimethoate	50.000	0.000	100.0#	0	-12.12#
99		4-Aminobiphenyl	50.000	0.000	100.0#	0	-12.27#
100	C,P	Pentachlorophenol	50.000	0.000	100.0#	0	-12.37#
101		Pronamide	50.000	0.000	100.0#	0	-12.31#
102		Pentachloronitrobenzene	50.000	0.000	100.0#	0	-12.47#
103		Disulfoton	50.000	0.938	98.1#	2	0.06
104	P	Phenanthrene	50.000	0.000	100.0#	0	-12.59#
105	P	Anthracene	50.000	0.000	100.0#	0	-12.64#
106	P	Carbazole	50.000	0.000	100.0#	0	-12.80#

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71152.D Vial: 12
Acq On : 12 Apr 2019 4:22 pm Operator: SCB
Sample : WG703239-12 50PPM 1,4-DIOX ALT SRC Inst : MSD12
Misc : 1,1 STD90899 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	50.000	0.000	100.0#	0	-12.97#
108	P	Di-n-Butyl Phthalate	50.000	0.000	100.0#	0	-13.15#
109		Parathion Ethyl	50.000	0.000	100.0#	0	-13.45#
110		4-Nitroquinoline 1-Oxide	50.000	0.000	100.0#	0	-13.55#
111		Methapyrilene	50.000	0.000	100.0#	0	-13.60#
112		Isodrin	50.000	0.000	100.0#	0	-13.97#
113	C,P	Fluoranthene	50.000	0.000	100.0#	0	-14.14#
114	I	Chrysene-d12	40.000	40.000	0.0	98	-0.01
115		Benzidine	50.000	0.000	100.0#	0	-14.23#
116	P	Pyrene	50.000	0.000	100.0#	0	-14.47#
117		Aramite	50.000	0.000	100.0#	0	-14.50#
118	S	p-Terphenyl-d14	50.000	0.000	100.0#	0	-14.60#
119		p-(Dimethylamino)azobenzene	50.000	0.000	100.0#	0	-14.81#
120		Chlorobenzilate	50.000	0.000	100.0#	0	-14.85#
121		Famphur	50.000	0.000	100.0#	0	-15.25#
122	P	Butyl Benzyl Phthalate	50.000	0.000	100.0#	0	-15.28#
123		3,3'-Dimethylbenzidine	50.000	0.000	100.0#	0	-15.29#
124		2-Acetylaminofluorene	50.000	0.000	100.0#	0	-15.71#
125	P	bis(2-Ethylhexyl)phthalate	50.000	0.000	100.0#	0	-16.11#
126	P	3,3'-Dichlorobenzidine	50.000	0.000	100.0#	0	-16.13#
127	P	Benzo[a]anthracene	50.000	0.045	99.9#	0	0.02
128	P	Chrysene	50.000	0.048	99.9#	0	-0.05
129	I	Perylene-d12	40.000	40.000	0.0	95	-0.02
130	C,P	Di-n-Octyl Phthalate	50.000	0.000	100.0#	0	-17.10#
131		7,12-Dimethylbenz[a]anthrac	50.000	0.000	100.0#	0	-18.21#
132	P	Benzo[b]fluoranthene	50.000	0.000	100.0#	0	-18.21#
133	P	Benzo[k]fluoranthene	50.000	0.000	100.0#	0	-18.26#
134	C,P	Benzo[a]pyrene	50.000	0.029	99.9#	0	0.12
135		3-Methylcholanthrene	50.000	0.000	100.0#	0	-19.88#
136	P	Indeno[1,2,3-cd]pyrene	50.000	0.000	100.0#	0	-22.28#
137	P	Dibenz[ah]anthracene	50.000	0.000	100.0#	0	-22.28#
138	P	Benzo[ghi]perylene	50.000	0.000	100.0#	0	-23.24#

(#) = Out of Range SPCC's out = 0 CCC's out = 13
12M71152.D MEGAMIX.M Mon Apr 15 09:34:48 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71153.D Vial: 13
Acq On : 12 Apr 2019 4:54 pm Operator: SCB
Sample : WG703239-13 50PPM MP,BEN,A9 ALT SRC Inst : MSD12
Misc : 1,1 STD91960 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 09:34:55 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	138675	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	495393	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	290927	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	492094	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	490807	40.0000	ug/ml	-0.011
129) Perylene-d12	19.085	264	469314	40.0000	ug/ml	-0.016

System Monitoring Compounds						
8) 2-Fluorophenol	0.000	112	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
12) Phenol-d5	0.000	99	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
31) Nitrobenzene-d5	0.000	82	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 35 - 114		Recovery =	0.00%#		
59) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 43 - 116		Recovery =	0.00%#		
87) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
118) p-Terphenyl-d14	0.000	244	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 33 - 141		Recovery =	0.00%#		

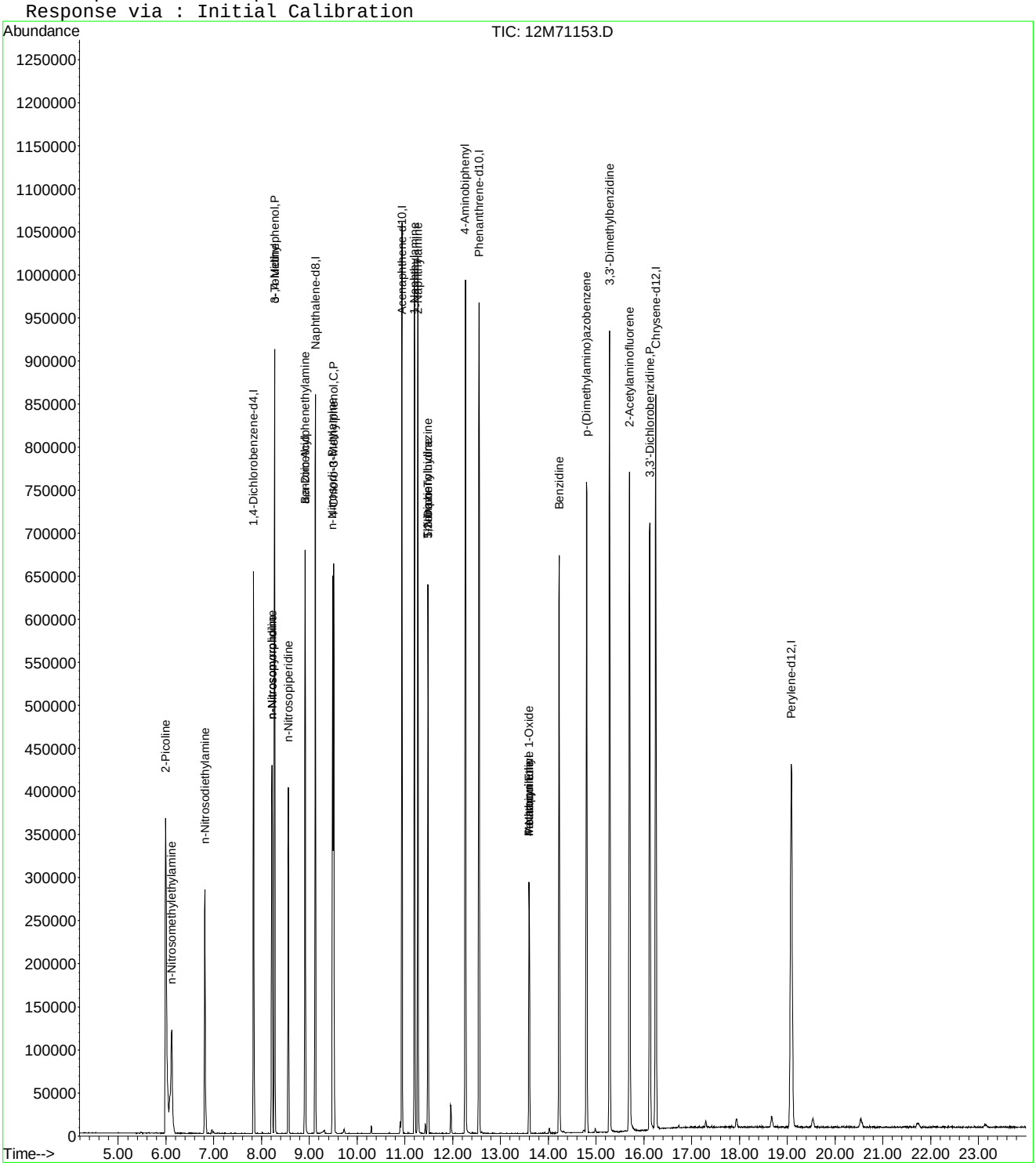
Target Compounds						Qvalue
5) 2-Picoline	6.00	93	246491	48.5331	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	104443	49.8972	ug/ml	97
9) n-Nitrosodiethylamine	6.81	102	104591	49.5107	ug/ml	97
23) 3-,4-Methylphenol	8.27	107	251092	54.4797	ug/ml#	37
24) n-Nitrosopyrrolidine	8.21	100	101549	50.5985	ug/ml#	48
27) n-Nitrosomorpholine	8.22	56	110524	50.0944	ug/ml	96
28) o-Toluidine	8.27	106	322328	46.3058	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	104232	47.4658	ug/ml	96
39) Benzoic Acid	8.91	105	1050	7.0282	ug/ml#	1
41) a,a-Dimethylphenethylamine	8.91	58	500409	49.0579	ug/ml	100
48) n-Nitrosodi-n-Butylamine	9.48	84	134991	39.4697	ug/ml	89
49) p-Phenylenediamine	9.51	108	267370	Below Cal		99
50) 4-Chloro-3-Methylphenol	9.51	107	75115	20.8356	ug/ml#	16
78) 1-Naphthylamine	11.20	143	430916	50.4458	ug/ml	97
79) 2-Naphthylamine	11.27	143	455416	52.2138	ug/ml	99
81) Thionazin	11.48	107	9128	6.3368	ug/ml#	1
85) 5-Nitro-o-Toluidine	11.48	152	140174	49.2935	ug/ml	100
86) 1,2-Diphenylhydrazine	11.48	77	97634	11.8232	ug/ml#	48
99) 4-Aminobiphenyl	12.27	169	502246	47.2746	ug/ml	100
109) Parathion Ethyl	13.60	97	85914	51.0339	ug/ml#	7
110) 4-Nitroquinoline 1-Oxide	13.60	190	9618	11.4213	ug/ml#	21
111) Methapyrilene	13.60	58	113112	22.6540	ug/ml	99
115) Benzidine	14.23	184	411026	59.2633	ug/ml	100
119) p-(Dimethylamino)azobenzen	14.81	225	173787	52.9162	ug/ml	97
123) 3,3'-Dimethylbenzidine	15.28	212	516227	33.8492	ug/ml	98
124) 2-Acetylaminofluorene	15.70	181	298774	50.2870	ug/ml	98
126) 3,3'-Dichlorobenzidine	16.13	252	268838	52.3617	ug/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71153.D Vial: 13
Acq On : 12 Apr 2019 4:54 pm Operator: SCB
Sample : WG703239-13 50PPM MP,BEN,A9 ALT SRC Inst : MSD12
Misc : 1,1 STD91960 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 9:34 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041219\12M71153.D Vial: 13
Acq On : 12 Apr 2019 4:54 pm Operator: SCB
Sample : WG703239-13 50PPM MP,BEN,A9 ALT SRC Inst : MSD12
Misc : 1,1 STD91960 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	106	0.00
2		1,4-Dioxane	50.000	0.000	100.0#	0	-4.68#
3		n-Nitrosodimethylamine	50.000	0.000	100.0#	0	-5.14#
4		Pyridine	50.000	0.000	100.0#	0	-5.16#
5		2-Picoline	50.000	48.533	2.9	99	0.00
6		n-Nitrosomethylethylamine	50.000	49.897	0.2	100	0.00
7		Methyl Methanesulfonate	50.000	0.000	100.0#	0	-6.42#
8	S	2-Fluorophenol	50.000	0.000	100.0#	0	-6.57#
9		n-Nitrosodiethylamine	50.000	49.511	1.0	100	0.00
10		Ethyl Methanesulfonate	50.000	0.000	100.0#	0	-7.08#
11		Aniline	50.000	0.000	100.0#	0	-7.53#
12	S	Phenol-d5	50.000	0.000	100.0#	0	-7.43#
13	C,P	Phenol	50.000	0.000	100.0#	0	-7.44#
14	P	bis(2-Chloroethyl)ether	50.000	0.000	100.0#	0	-7.55#
15		Pentachloroethane	50.000	0.000	100.0#	0	-7.57#
16	P	2-Chlorophenol	50.000	0.000	100.0#	0	-7.66#
17		1,3-Dichlorobenzene	50.000	0.000	100.0#	0	-7.81#
18	C	1,4-Dichlorobenzene	50.000	0.000	100.0#	0	-7.86#
19		Benzyl Alcohol	50.000	0.000	100.0#	0	-7.94#
20		1,2-Dichlorobenzene	50.000	0.000	100.0#	0	-8.05#
21	P	2-Methylphenol	50.000	0.000	100.0#	0	-8.04#
22	P	bis(2-Chloroisopropyl)ether	50.000	0.000	100.0#	0	-8.09#
23	P	3-,4-Methylphenol	50.000	54.480	-9.0	114	0.10
24		n-Nitrosopyrrolidine	50.000	50.599	-1.2	103	0.00
25	P	n-Nitrosodipropylamine	50.000	0.588	98.8#	1	-0.01
26		Acetophenone	50.000	0.000	100.0#	0	-8.23#
27		n-Nitrosomorpholine	50.000	50.094	-0.2	102	0.00
28		o-Toluidine	50.000	46.306	7.4	96	0.00
29	P	Hexachloroethane	50.000	0.000	100.0#	0	-8.37#
30	I	Naphthalene-d8	40.000	40.000	0.0	102	0.00
31	S	Nitrobenzene-d5	50.000	0.000	100.0#	0	-8.40#
32	P	Nitrobenzene	50.000	0.000	100.0#	0	-8.42#
33		n-Nitrosopiperidine	50.000	47.466	5.1	93	0.00
34	P	Isophorone	50.000	0.727	98.5#	1	-0.07
35	C,P	2-Nitrophenol	50.000	0.000	100.0#	0	-8.74#
36	P	2,4-Dimethylphenol	50.000	0.000	100.0#	0	-8.70#
37		0,0,0-Triethyl Phosphorothi	50.000	0.000	100.0#	0	-8.81#
38	P	bis(2-Chloroethoxy)methane	50.000	0.174	99.7#	0	0.10
39		Benzoic Acid	50.000	7.028	85.9#	1	0.17
40	C,P	2,4-Dichlorophenol	50.000	0.000	100.0#	0	-8.97#
41		a,a-Dimethylphenethylamine	50.000	49.058	1.9	94	-0.06
42		1,2,4-Trichlorobenzene	50.000	0.000	100.0#	0	-9.07#
43	P	Naphthalene	50.000	0.000	100.0#	0	-9.15#
44	P	4-Chloroaniline	50.000	0.000	100.0#	0	-9.17#
45		2,6-Dichlorophenol	50.000	0.000	100.0#	0	-9.20#
46		Hexachloropropene	50.000	0.000	100.0#	0	-9.27#
47	C,P	Hexachlorobutadiene	50.000	0.000	100.0#	0	-9.30#
48		n-Nitrosodi-n-Butylamine	50.000	39.470	21.1	77	0.00
49		p-Phenylenediamine	50.000	-40.000	180.0#	182	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	20.836	58.3#	42	-0.10
51		Safrole	50.000	0.000	100.0#	0	-9.71#
52	P	2-Methylnaphthalene	50.000	0.000	100.0#	0	-9.84#
53		1-Methylnaphthalene	50.000	0.000	100.0#	0	-9.96#

(#) = Out of Range
12M71153.D MEGAMIX.M Mon Apr 15 09:35:00 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71153.D Vial: 13
Acq On : 12 Apr 2019 4:54 pm Operator: SCB
Sample : WG703239-13 50PPM MP,BEN,A9 ALT SRC Inst : MSD12
Misc : 1,1 STD91960 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	104	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	0.000	100.0#	0	-10.05#
56	P	Hexachlorocyclopentadiene	50.000	0.000	100.0#	0	-10.06#
57	C,P	2,4,6-Trichlorophenol	50.000	0.000	100.0#	0	-10.13#
58	P	2,4,5-Trichlorophenol	50.000	0.000	100.0#	0	-10.17#
59	S	2-Fluorobiphenyl	50.000	0.000	100.0#	0	-10.20#
60		Isosafrole	50.000	0.000	100.0#	0	-10.23#
61	P	2-Chloronaphthalene	50.000	0.000	100.0#	0	-10.35#
62		1-Chloronaphthalene	50.000	0.000	100.0#	0	-10.39#
63	P	2-Nitroaniline	50.000	0.000	100.0#	0	-10.44#
64		1,4-Naphthoquinone	50.000	0.000	100.0#	0	-10.51#
65	P	Dimethylphthalate	50.000	0.000	100.0#	0	-10.61#
66		1,3-Dinitrobenzene	50.000	0.000	100.0#	0	-10.65#
67	P	2,6-Dinitrotoluene	50.000	0.000	100.0#	0	-10.70#
68	P	Acenaphthylene	50.000	0.000	100.0#	0	-10.79#
69	P	3-Nitroaniline	50.000	0.000	100.0#	0	-10.86#
70	P	2,4-Dinitrophenol	50.000	0.000	100.0#	0	-10.96#
71	C,P	Acenaphthene	50.000	0.090	99.8#	0	-0.04
72	P	4-Nitrophenol	50.000	0.000	100.0#	0	-10.96#
73	P	2,4-Dinitrotoluene	50.000	0.000	100.0#	0	-11.11#
74		Pentachlorobenzene	50.000	0.000	100.0#	0	-11.16#
75	P	Dibenzofuran	50.000	0.000	100.0#	0	-11.13#
76		2,3,5,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.23#
77		2,3,4,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.28#
78		1-Naphthylamine	50.000	50.446	-0.9	101	0.00
79		2-Naphthylamine	50.000	52.214	-4.4	105	0.00
80	P	Diethylphthalate	50.000	0.000	100.0#	0	-11.31#
81		Thionazin	50.000	6.337	87.3#	13	0.07
82	P	Fluorene	50.000	0.000	100.0#	0	-11.49#
83	P	4-Chlorophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.43#
84	P	4-Nitroaniline	50.000	0.000	100.0#	0	-11.50#
85		5-Nitro-o-Toluidine	50.000	49.294	1.4	99	-0.01
86		1,2-Diphenylhydrazine	50.000	11.823	76.4#	24	-0.12
87	S	2,4,6-Tribromophenol	50.000	0.000	100.0#	0	-11.77#
88	I	Phenanthrene-d10	40.000	40.000	0.0	104	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	0.000	100.0#	0	-11.54#
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	0.359	99.3#	1	-0.13
91		Sulfotepp	50.000	0.000	100.0#	0	-11.76#
92		Sym-Trinitrobenzene	50.000	0.000	100.0#	0	-11.84#
93		Diallate	50.000	0.000	100.0#	0	-11.88#
94		Phenacetin	50.000	0.000	100.0#	0	-11.87#
95		Phorate	50.000	0.000	100.0#	0	-11.90#
96	P	4-Bromophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.97#
97	P	Hexachlorobenzene	50.000	0.000	100.0#	0	-12.19#
98		Dimethoate	50.000	1.394	97.2#	3	0.14
99		4-Aminobiphenyl	50.000	47.275	5.5	95	0.00
100	C,P	Pentachlorophenol	50.000	0.000	100.0#	0	-12.37#
101		Pronamide	50.000	0.000	100.0#	0	-12.31#
102		Pentachloronitrobenzene	50.000	0.000	100.0#	0	-12.47#
103		Disulfoton	50.000	0.966	98.1#	2	0.05
104	P	Phenanthrene	50.000	0.000	100.0#	0	-12.59#
105	P	Anthracene	50.000	0.000	100.0#	0	-12.64#
106	P	Carbazole	50.000	0.000	100.0#	0	-12.80#

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71153.D Vial: 13
Acq On : 12 Apr 2019 4:54 pm Operator: SCB
Sample : WG703239-13 50PPM MP,BEN,A9 ALT SRC Inst : MSD12
Misc : 1,1 STD91960 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	50.000	0.000	100.0#	0	-12.97#
108	P	Di-n-Butyl Phthalate	50.000	0.000	100.0#	0	-13.15#
109		Parathion Ethyl	50.000	51.034	-2.1	97	0.14
110		4-Nitroquinoline 1-Oxide	50.000	11.421	77.2#	18	0.05
111		Methapyrilene	50.000	22.654	54.7#	53	0.00
112		Isodrin	50.000	0.000	100.0#	0	-13.97#
113	C,P	Fluoranthene	50.000	0.000	100.0#	0	-14.14#
114	I	Chrysene-d12	40.000	40.000	0.0	109	-0.01
115		Benzidine	50.000	59.263	-18.5	136	0.00
116	P	Pyrene	50.000	0.000	100.0#	0	-14.47#
117		Aramite	50.000	0.000	100.0#	0	-14.50#
118	S	p-Terphenyl-d14	50.000	0.000	100.0#	0	-14.60#
119		p-(Dimethylamino)azobenzene	50.000	52.916	-5.8	110	0.00
120		Chlorobenzilate	50.000	0.000	100.0#	0	-14.85#
121		Famphur	50.000	0.000	100.0#	0	-15.25#
122	P	Butyl Benzyl Phthalate	50.000	0.000	100.0#	0	-15.28#
123		3,3'-Dimethylbenzidine	50.000	33.849	32.3	87	-0.01
124		2-Acetylaminofluorene	50.000	50.287	-0.6	101	-0.01
125	P	bis(2-Ethylhexyl)phthalate	50.000	0.065	99.9#	0	0.00
126	P	3,3'-Dichlorobenzidine	50.000	52.362	-4.7	114	0.00
127	P	Benzo[a]anthracene	50.000	0.048	99.9#	0	0.02
128	P	Chrysene	50.000	0.050	99.9#	0	-0.05
129	I	Perylene-d12	40.000	40.000	0.0	106	-0.02
130	C,P	Di-n-Octyl Phthalate	50.000	0.000	100.0#	0	-17.10#
131		7,12-Dimethylbenz[a]anthrac	50.000	0.000	100.0#	0	-18.21#
132	P	Benzo[b]fluoranthene	50.000	0.000	100.0#	0	-18.21#
133	P	Benzo[k]fluoranthene	50.000	0.000	100.0#	0	-18.26#
134	C,P	Benzo[a]pyrene	50.000	0.054	99.9#	0	0.12
135		3-Methylcholanthrene	50.000	0.000	100.0#	0	-19.88#
136	P	Indeno[1,2,3-cd]pyrene	50.000	0.000	100.0#	0	-22.28#
137	P	Dibenz[ah]anthracene	50.000	0.000	100.0#	0	-22.28#
138	P	Benzo[ghi]perylene	50.000	0.000	100.0#	0	-23.24#

(#) = Out of Range SPCC's out = 0 CCC's out = 13
12M71153.D MEGAMIX.M Mon Apr 15 09:35:00 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71154.D Vial: 14
Acq On : 12 Apr 2019 5:27 pm Operator: SCB
Sample : WG703239-14 25PPM P-PHEN ALT SRC Inst : MSD12
Misc : 1,1 STD91970 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 09:38:17 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.834	152	125071	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.127	136	446254	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.938	164	261848	40.0000	ug/ml	0.000
88) Phenanthrene-d10	12.551	188	442663	40.0000	ug/ml	0.000
114) Chrysene-d12	16.248	240	437737	40.0000	ug/ml	-0.011
129) Perylene-d12	19.084	264	419493	40.0000	ug/ml	-0.016

System Monitoring Compounds						
8) 2-Fluorophenol	0.000	112	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
12) Phenol-d5	0.000	99	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
31) Nitrobenzene-d5	0.000	82	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 35 - 114		Recovery =	0.00%#		
59) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 43 - 116		Recovery =	0.00%#		
87) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ug/ml	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
118) p-Terphenyl-d14	0.000	244	0	0.0000000	ug/ml	
Spiked Amount 50.000	Range 33 - 141		Recovery =	0.00%#		

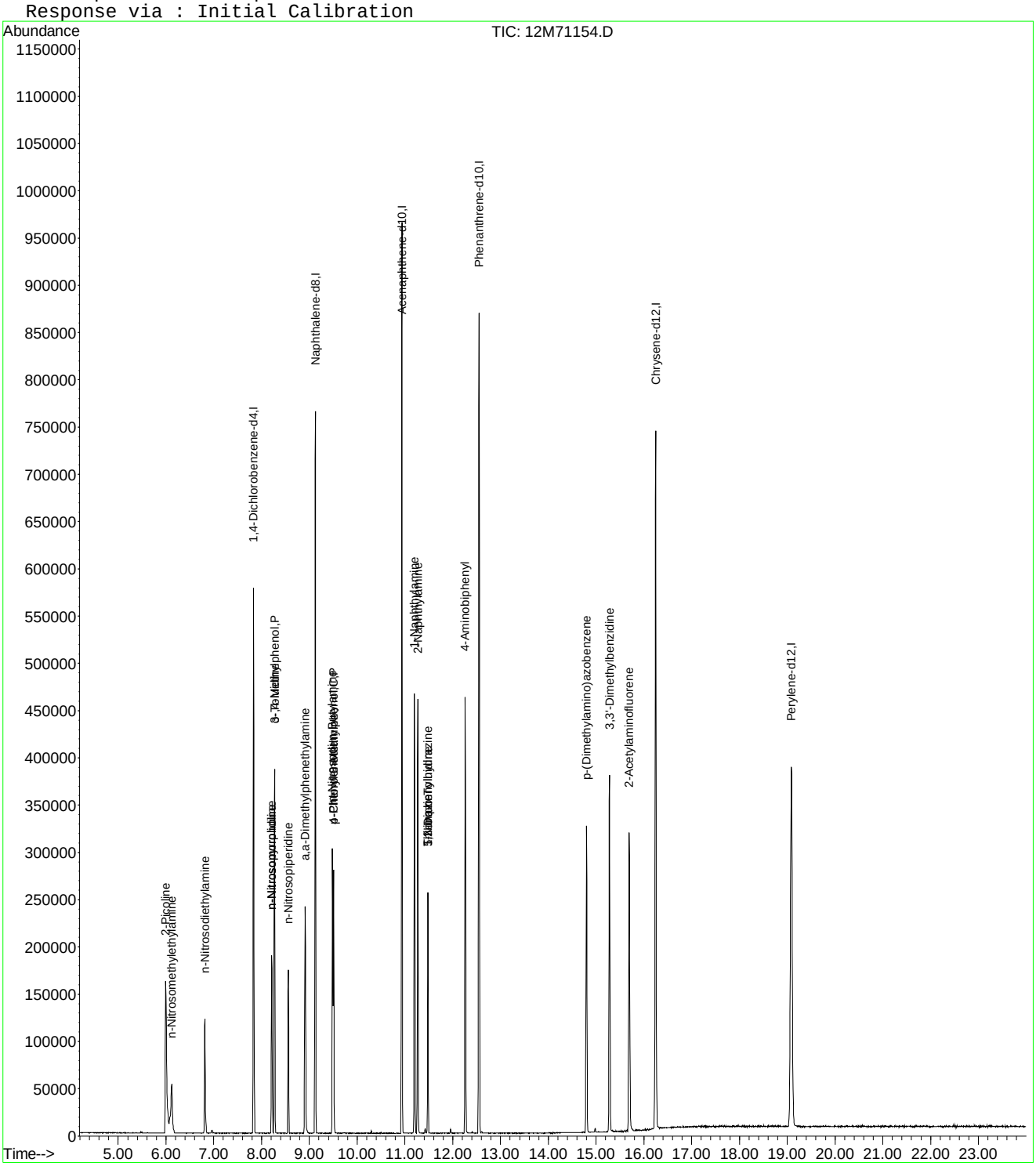
Target Compounds						Qvalue
5) 2-Picoline	6.00	93	105747	23.0859	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	44000	23.3072	ug/ml	98
9) n-Nitrosodiethylamine	6.81	102	43997	23.0924	ug/ml	98
23) 3-,4-Methylphenol	8.27	107	109096	26.2453	ug/ml#	37
24) n-Nitrosopyrrolidine	8.21	100	42731	23.6073	ug/ml#	50
27) n-Nitrosomorpholine	8.22	56	48463	24.3548	ug/ml	98
28) o-Toluidine	8.27	106	142251	22.6587	ug/ml	99
33) n-Nitrosopiperidine	8.56	114	44149	22.3187	ug/ml	97
41) a,a-Dimethylphenethylamine	8.91	58	213039	23.1852	ug/ml	99
48) n-Nitrosodi-n-Butylamine	9.48	84	57782	18.7551	ug/ml	89
49) p-Phenylenediamine	9.51	108	109522	35.9163	ug/ml	99
50) 4-Chloro-3-Methylphenol	9.51	107	31261	9.6261	ug/ml#	16
78) 1-Naphthylamine	11.20	143	189795	24.6861	ug/ml	97
79) 2-Naphthylamine	11.27	143	198299	25.2599	ug/ml	100
81) Thionazin	11.48	107	3514	2.7104	ug/ml#	1
85) 5-Nitro-o-Toluidine	11.48	152	56019	21.8873	ug/ml	98
86) 1,2-Diphenylhydrazine	11.48	77	39801	5.3551	ug/ml#	48
99) 4-Aminobiphenyl	12.26	169	213615	22.3521	ug/ml	99
119) p-(Dimethylamino)azobenzen	14.80	225	71825	24.5213	ug/ml	98
123) 3,3'-Dimethylbenzidine	15.28	212	211727	14.3062	ug/ml	98
124) 2-Acetylaminofluorene	15.69	181	113572	21.4329	ug/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\041219\12M71154.D Vial: 14
Acq On : 12 Apr 2019 5:27 pm Operator: SCB
Sample : WG703239-14 25PPM P-PHEN ALT SRC Inst : MSD12
Misc : 1,1 STD91970 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 15 9:38 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 15 13:24:11 2019
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041219\12M71154.D Vial: 14
Acq On : 12 Apr 2019 5:27 pm Operator: SCB
Sample : WG703239-14 25PPM P-PHEN ALT SRC Inst : MSD12
Misc : 1,1 STD91970 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	97	0.00
2		1,4-Dioxane	25.000	0.000	100.0#	0	-4.68#
3		n-Nitrosodimethylamine	25.000	0.000	100.0#	0	-5.14#
4		Pyridine	25.000	0.000	100.0#	0	-5.16#
5		2-Picoline	25.000	23.086	7.7	85	0.00
6		n-Nitrosomethylethylamine	25.000	23.307	6.8	87	0.00
7		Methyl Methanesulfonate	25.000	0.000	100.0#	0	-6.42#
8	S	2-Fluorophenol	25.000	0.000	100.0#	0	-6.57#
9		n-Nitrosodiethylamine	25.000	23.092	7.6	85	0.00
10		Ethyl Methanesulfonate	25.000	0.000	100.0#	0	-7.08#
11		Aniline	25.000	0.000	100.0#	0	-7.53#
12	S	Phenol-d5	25.000	0.000	100.0#	0	-7.43#
13	C,P	Phenol	25.000	0.000	100.0#	0	-7.44#
14	P	bis(2-Chloroethyl)ether	25.000	0.000	100.0#	0	-7.55#
15		Pentachloroethane	25.000	0.000	100.0#	0	-7.57#
16	P	2-Chlorophenol	25.000	0.000	100.0#	0	-7.66#
17		1,3-Dichlorobenzene	25.000	0.000	100.0#	0	-7.81#
18	C	1,4-Dichlorobenzene	25.000	0.000	100.0#	0	-7.86#
19		Benzyl Alcohol	25.000	0.000	100.0#	0	-7.94#
20		1,2-Dichlorobenzene	25.000	0.000	100.0#	0	-8.05#
21	P	2-Methylphenol	25.000	0.000	100.0#	0	-8.04#
22	P	bis(2-Chloroisopropyl)ether	25.000	0.000	100.0#	0	-8.09#
23	P	3-,4-Methylphenol	25.000	26.245	-5.0	98	0.10
24		n-Nitrosopyrrolidine	25.000	23.607	5.6	87	-0.01
25	P	n-Nitrosodipropylamine	25.000	0.178	99.3#	1	-0.02
26		Acetophenone	25.000	0.000	100.0#	0	-8.23#
27		n-Nitrosomorpholine	25.000	24.355	2.6	88	-0.01
28		o-Toluidine	25.000	22.659	9.4	85	0.00
29	P	Hexachloroethane	25.000	0.000	100.0#	0	-8.37#
30	I	Naphthalene-d8	40.000	40.000	0.0	95	0.00
31	S	Nitrobenzene-d5	25.000	0.000	100.0#	0	-8.40#
32	P	Nitrobenzene	25.000	0.000	100.0#	0	-8.42#
33		n-Nitrosopiperidine	25.000	22.319	10.7	80	0.00
34	P	Isophorone	25.000	0.350	98.6#	1	-0.07
35	C,P	2-Nitrophenol	25.000	0.000	100.0#	0	-8.74#
36	P	2,4-Dimethylphenol	25.000	0.000	100.0#	0	-8.70#
37		0,0,0-Triethyl Phosphorothi	25.000	0.000	100.0#	0	-8.81#
38	P	bis(2-Chloroethoxy)methane	25.000	0.000	100.0#	0	-8.81#
39		Benzoic Acid	25.000	0.000	100.0#	0	-8.75#
40	C,P	2,4-Dichlorophenol	25.000	0.000	100.0#	0	-8.97#
41		a,a-Dimethylphenethylamine	25.000	23.185	7.3	84	-0.06
42		1,2,4-Trichlorobenzene	25.000	0.000	100.0#	0	-9.07#
43	P	Naphthalene	25.000	0.000	100.0#	0	-9.15#
44	P	4-Chloroaniline	25.000	0.000	100.0#	0	-9.17#
45		2,6-Dichlorophenol	25.000	0.000	100.0#	0	-9.20#
46		Hexachloropropene	25.000	0.000	100.0#	0	-9.27#
47	C,P	Hexachlorobutadiene	25.000	0.000	100.0#	0	-9.30#
48		n-Nitrosodi-n-Butylamine	25.000	18.755	25.0	67	0.00
49		p-Phenylenediamine	25.000	35.916	-43.7#	120	-0.01
50	C,P	4-Chloro-3-Methylphenol	25.000	9.626	61.5#	34	-0.11
51		Safrole	25.000	0.000	100.0#	0	-9.71#
52	P	2-Methylnaphthalene	25.000	0.000	100.0#	0	-9.84#
53		1-Methylnaphthalene	25.000	0.000	100.0#	0	-9.96#

(#) = Out of Range
12M71154.D MEGAMIX.M Mon Apr 15 09:38:28 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\041219\12M71154.D Vial: 14
Acq On : 12 Apr 2019 5:27 pm Operator: SCB
Sample : WG703239-14 25PPM P-PHEN ALT SRC Inst : MSD12
Misc : 1,1 STD91970 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	93	0.00
55		1,2,4,5-Tetrachlorobenzene	25.000	0.000	100.0#	0	-10.05#
56	P	Hexachlorocyclopentadiene	25.000	0.000	100.0#	0	-10.06#
57	C,P	2,4,6-Trichlorophenol	25.000	0.000	100.0#	0	-10.13#
58	P	2,4,5-Trichlorophenol	25.000	0.000	100.0#	0	-10.17#
59	S	2-Fluorobiphenyl	25.000	0.000	100.0#	0	-10.20#
60		Isosafrole	25.000	0.000	100.0#	0	-10.23#
61	P	2-Chloronaphthalene	25.000	0.000	100.0#	0	-10.35#
62		1-Chloronaphthalene	25.000	0.000	100.0#	0	-10.39#
63	P	2-Nitroaniline	25.000	0.000	100.0#	0	-10.44#
64		1,4-Naphthoquinone	25.000	0.000	100.0#	0	-10.51#
65	P	Dimethylphthalate	25.000	0.000	100.0#	0	-10.61#
66		1,3-Dinitrobenzene	25.000	0.000	100.0#	0	-10.65#
67	P	2,6-Dinitrotoluene	25.000	0.000	100.0#	0	-10.70#
68	P	Acenaphthylene	25.000	0.000	100.0#	0	-10.79#
69	P	3-Nitroaniline	25.000	0.000	100.0#	0	-10.86#
70	P	2,4-Dinitrophenol	25.000	0.000	100.0#	0	-10.96#
71	C,P	Acenaphthene	25.000	0.090	99.6#	0	-0.04
72	P	4-Nitrophenol	25.000	0.000	100.0#	0	-10.96#
73	P	2,4-Dinitrotoluene	25.000	0.000	100.0#	0	-11.11#
74		Pentachlorobenzene	25.000	0.000	100.0#	0	-11.16#
75	P	Dibenzofuran	25.000	0.000	100.0#	0	-11.13#
76		2,3,5,6-Tetrachlorophenol	25.000	0.000	100.0#	0	-11.23#
77		2,3,4,6-Tetrachlorophenol	25.000	0.000	100.0#	0	-11.28#
78		1-Naphthylamine	25.000	24.686	1.3	85	0.00
79		2-Naphthylamine	25.000	25.260	-1.0	91	0.00
80	P	Diethylphthalate	25.000	0.000	100.0#	0	-11.31#
81		Thionazin	25.000	2.710	89.2#	9	0.07
82	P	Fluorene	25.000	0.000	100.0#	0	-11.49#
83	P	4-Chlorophenyl Phenyl Ether	25.000	0.000	100.0#	0	-11.43#
84	P	4-Nitroaniline	25.000	0.000	100.0#	0	-11.50#
85		5-Nitro-o-Toluidine	25.000	21.887	12.5	78	-0.01
86		1,2-Diphenylhydrazine	25.000	5.355	78.6#	19	-0.12
87	S	2,4,6-Tribromophenol	25.000	0.000	100.0#	0	-11.77#
88	I	Phenanthrene-d10	40.000	40.000	0.0	93	0.00
89	P	4,6-Dinitro-2-Methylphenol	25.000	0.000	100.0#	0	-11.54#
90	C,P	Diphenylamine/n-Nitrosodiph	25.000	0.149	99.4#	1	-0.13
91		Sulfotepp	25.000	0.000	100.0#	0	-11.76#
92		Sym-Trinitrobenzene	25.000	0.000	100.0#	0	-11.84#
93		Diallate	25.000	0.000	100.0#	0	-11.88#
94		Phenacetin	25.000	0.000	100.0#	0	-11.87#
95		Phorate	25.000	0.000	100.0#	0	-11.90#
96	P	4-Bromophenyl Phenyl Ether	25.000	0.000	100.0#	0	-11.97#
97	P	Hexachlorobenzene	25.000	0.000	100.0#	0	-12.19#
98		Dimethoate	25.000	0.631	97.5#	2	0.14
99		4-Aminobiphenyl	25.000	22.352	10.6	78	-0.01
100	C,P	Pentachlorophenol	25.000	0.000	100.0#	0	-12.37#
101		Pronamide	25.000	0.000	100.0#	0	-12.31#
102		Pentachloronitrobenzene	25.000	0.000	100.0#	0	-12.47#
103		Disulfoton	25.000	0.987	96.1#	3	0.05
104	P	Phenanthrene	25.000	0.000	100.0#	0	-12.59#
105	P	Anthracene	25.000	0.000	100.0#	0	-12.64#
106	P	Carbazole	25.000	0.000	100.0#	0	-12.80#

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\041219\12M71154.D Vial: 14
Acq On : 12 Apr 2019 5:27 pm Operator: SCB
Sample : WG703239-14 25PPM P-PHEN ALT SRC Inst : MSD12
Misc : 1,1 STD91970 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Fri Apr 12 15:42:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	25.000	0.000	100.0#	0	-12.97#
108	P	Di-n-Butyl Phthalate	25.000	0.000	100.0#	0	-13.15#
109		Parathion Ethyl	25.000	0.000	100.0#	0	-13.45#
110		4-Nitroquinoline 1-Oxide	25.000	0.000	100.0#	0	-13.55#
111		Methapyrilene	25.000	0.000	100.0#	0	-13.60#
112		Isodrin	25.000	0.000	100.0#	0	-13.97#
113	C,P	Fluoranthene	25.000	0.000	100.0#	0	-14.14#
114	I	Chrysene-d12	40.000	40.000	0.0	95	-0.01
115		Benzidine	25.000	0.000	100.0#	0	-14.23#
116	P	Pyrene	25.000	0.000	100.0#	0	-14.47#
117		Aramite	25.000	0.000	100.0#	0	-14.50#
118	S	p-Terphenyl-d14	25.000	0.000	100.0#	0	-14.60#
119		p-(Dimethylamino)azobenzene	25.000	24.521	1.9	89	-0.01
120		Chlorobenzilate	25.000	0.000	100.0#	0	-14.85#
121		Famphur	-1.000	0.000	0.0	0	-15.25#
122	P	Butyl Benzyl Phthalate	25.000	0.000	100.0#	0	-15.28#
123		3,3'-Dimethylbenzidine	25.000	14.306	42.8#	53	-0.01
124		2-Acetylaminofluorene	25.000	21.433	14.3	77	-0.02
125	P	bis(2-Ethylhexyl)phthalate	25.000	0.000	100.0#	0	-16.11#
126	P	3,3'-Dichlorobenzidine	25.000	0.000	100.0#	0	-16.13#
127	P	Benzo[a]anthracene	25.000	0.045	99.8#	0	0.02
128	P	Chrysene	25.000	0.048	99.8#	0	-0.05
129	I	Perylene-d12	40.000	40.000	0.0	93	-0.02
130	C,P	Di-n-Octyl Phthalate	25.000	0.000	100.0#	0	-17.10#
131		7,12-Dimethylbenz[a]anthrac	25.000	0.000	100.0#	0	-18.21#
132	P	Benzo[b]fluoranthene	25.000	0.000	100.0#	0	-18.21#
133	P	Benzo[k]fluoranthene	25.000	0.000	100.0#	0	-18.26#
134	C,P	Benzo[a]pyrene	25.000	0.029	99.9#	0	0.12
135		3-Methylcholanthrene	25.000	0.000	100.0#	0	-19.88#
136	P	Indeno[1,2,3-cd]pyrene	25.000	0.000	100.0#	0	-22.28#
137	P	Dibenz[ah]anthracene	25.000	0.000	100.0#	0	-22.28#
138	P	Benzo[ghi]perylene	25.000	0.000	100.0#	0	-23.24#

(#) = Out of Range SPCC's out = 0 CCC's out = 13
12M71154.D MEGAMIX.M Mon Apr 15 09:38:28 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:21 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	120834	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.081	136	471841	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.892	164	251629	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	424250	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.186	240	384653	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	360672	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	205941	50.0246	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 50.0246%			
12) Phenol-d5	7.375	99	263837	50.0215	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 50.0215%			
31) Nitrobenzene-d5	8.351	82	247543	50.6190	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 101.2380%			
59) 2-Fluorobiphenyl	10.151	172	422797	50.0593	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 100.1186%			
87) 2,4,6-Tribromophenol	11.716	330	53715	54.0222	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 54.0222%			
118) p-Terphenyl-d14	14.527	244	464532	50.4069	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 100.8138%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.622	88	97305	49.5581	ug/mL	100
3) n-Nitrosodimethylamine	5.075	74	144615	49.6844	ug/mL	100
4) Pyridine	5.098	79	243185	49.1158	ug/mL	100
5) 2-Picoline	5.945	93	253198	49.7631	ug/mL	100
6) n-Nitrosomethylethylamine	6.063	88	106469	49.4323	ug/mL	100
7) Methyl Methanesulfonate	6.363	80	144472	50.9084	ug/mL	100
9) n-Nitrosodiethylamine	6.763	102	104645	50.2577	ug/mL	100
10) Ethyl Methanesulfonate	7.022	79	176374	50.0881	ug/mL	100
11) Aniline	7.475	66	146412	50.0479	ug/mL	100
13) Phenol	7.387	94	277443	49.6730	ug/mL	100
14) bis(2-Chloroethyl)ether	7.498	63	193072	49.4169	ug/mL	100
15) Pentachloroethane	7.516	167	80421	50.5119	ug/mL	100
16) 2-Chlorophenol	7.604	128	220381	49.9170	ug/mL	100
17) 1,3-Dichlorobenzene	7.757	146	226846	49.5868	ug/mL	100
18) 1,4-Dichlorobenzene	7.804	146	229489	49.3332	ug/mL	100
19) Benzyl Alcohol	7.892	108	143148	50.7174	ug/mL	100
20) 1,2-Dichlorobenzene	7.998	146	214863	50.0280	ug/mL	100
21) 2-Methylphenol	7.987	107	167933	49.9900	ug/mL	100
22) bis(2-Chloroisopropyl)...	8.039	45	362306	49.0418	ug/mL	100
23) 3-,4-Methylphenol	8.116	107	220819	50.6870	ug/mL	100
24) n-Nitrosopyrrolidine	8.163	100	103427	51.2353	ug/mL	100
25) n-Nitrosodipropylamine	8.175	70	171536	50.0552	ug/mL	100
26) Acetophenone	8.181	105	289335	50.1730	ug/mL	100
27) n-Nitrosomorpholine	8.175	56	160864	50.2694	ug/mL	100
28) o-Toluidine	8.228	106	332621	49.8303	ug/mL	100
29) Hexachloroethane	8.316	117	95001	50.7134	ug/mL	100
32) Nitrobenzene	8.369	77	252601	50.0234	ug/mL	100
33) n-Nitrosopiperidine	8.516	114	105774	49.7774	ug/mL	100
34) Isophorone	8.581	82	444515	50.4555	ug/mL	100
35) 2-Nitrophenol	8.692	139	112655	51.8856	ug/mL	100
36) 2,4-Dimethylphenol	8.657	122	194627	50.6918	ug/mL	100
37) 0,0,0-Triethyl Phospho...	8.763	198	94144	49.9301	ug/mL	100

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:21 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	329312	50.0304 ug/mL	100
39) Benzoic Acid	8.710	105	119073	51.8523 ug/mL	100
40) 2,4-Dichlorophenol	8.916	162	162379	50.6111 ug/mL	100
41) a,a-Dimethylphenethyla...	8.904	58	639882	50.7360 ug/mL	100
42) 1,2,4-Trichlorobenzene	9.022	180	170751	49.7776 ug/mL	100
43) Naphthalene	9.098	128	645071	49.7419 ug/mL#	100
44) 4-Chloroaniline	9.128	65	94221	50.2065 ug/mL	100
45) 2,6-Dichlorophenol	9.151	162	157472	50.7319 ug/mL	100
46) Hexachloropropene	9.216	213	117507	54.2886 ug/mL	100
47) Hexachlorobutadiene	9.251	225	93732	49.7718 ug/mL	100
48) n-Nitrosodi-n-Butylamine	9.439	84	198601	50.9335 ug/mL	100
49) p-Phenylenediamine	9.463	108	177992	48.7497 ug/mL	100
50) 4-Chloro-3-Methylphenol	9.563	107	185925	51.0318 ug/mL	100
51) Safrole	9.663	162	157742	50.1486 ug/mL	100
52) 2-Methylnaphthalene	9.792	142	411583	49.9980 ug/mL	100
53) 1-Methylnaphthalene	9.910	142	388359	50.1779 ug/mL	100
55) 1,2,4,5-Tetrachloroben...	10.004	216	165374	49.6164 ug/mL	100
56) Hexachlorocyclopentadiene	10.010	237	82952	54.9997 ug/mL	100
57) 2,4,6-Trichlorophenol	10.081	196	114109	51.8826 ug/mL	100
58) 2,4,5-Trichlorophenol	10.122	196	118126	51.8418 ug/mL	100
60) Isosafrole	10.181	162	160562	50.6607 ug/mL	100
61) 2-Chloronaphthalene	10.298	162	367529	49.9282 ug/mL	100
62) 1-Chloronaphthalene	10.339	162	343407	49.6006 ug/mL	100
63) 2-Nitroaniline	10.392	65	141578	51.0530 ug/mL	100
64) 1,4-Naphthoquinone	10.457	158	138327	52.3710 ug/mL	100
65) Dimethylphthalate	10.557	163	411842	50.2090 ug/mL	100
66) 1,3-Dinitrobenzene	10.604	168	73441	52.4080 ug/mL	100
67) 2,6-Dinitrotoluene	10.651	165	98342	50.8163 ug/mL	100
68) Acenaphthylene	10.739	152	591292	50.5167 ug/mL	100
69) 3-Nitroaniline	10.804	138	110104	50.7618 ug/mL	100
70) 2,4-Dinitrophenol	10.910	184	33898	51.2083 ug/mL	100
71) Acenaphthene	10.928	154	370637	50.6667 ug/mL	100
72) 4-Nitrophenol	10.904	65	110502	54.2549 ug/mL	100
73) 2,4-Dinitrotoluene	11.057	165	132600	52.3470 ug/mL	100
74) Pentachlorobenzene	11.104	250	144122	50.6035 ug/mL	100
75) Dibenzofuran	11.080	168	517204	49.6196 ug/mL	100
76) 2,3,5,6-Tetrachlorophenol	11.180	232	89260	49.8816 ug/mL	100
77) 2,3,4,6-Tetrachlorophenol	11.227	232	95371	50.4031 ug/mL	100
78) 1-Naphthylamine	11.157	143	402138	50.9857 ug/mL	100
79) 2-Naphthylamine	11.227	143	421929	50.6748 ug/mL	100
80) Diethylphthalate	11.263	149	427629	50.8546 ug/mL	100
81) Thionazin	11.363	107	72389	51.8298 ug/mL	100
82) Fluorene	11.439	166	426025	50.4758 ug/mL	100
83) 4-Chlorophenyl Phenyl ...	11.386	204	195927	50.6595 ug/mL	100
84) 4-Nitroaniline	11.445	138	115156	50.7209 ug/mL	100
85) 5-Nitro-o-Toluidine	11.439	152	129595	51.8353 ug/mL	100
86) 1,2-Diphenylhydrazine	11.557	77	505083	51.3118 ug/mL	100
89) 4,6-Dinitro-2-Methylph...	11.486	198	56660	51.4414 ug/mL	100
90) Diphenylamine/n-Nitros...	11.510	169	369606	49.6471 ug/mL	100
91) Sulfotepp	11.710	322	60965	50.3853 ug/mL	100
92) Sym-Trinitrobenzene	11.780	75	145808	50.9447 ug/mL	100
93) Diallate	11.833	86	183662	49.7597 ug/mL	100
94) Phenacetin	11.816	108	233543	52.1406 ug/mL	100
95) Phorate	11.851	75	300598	50.2259 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.922	248	112245	50.2109 ug/mL	100

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:21 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

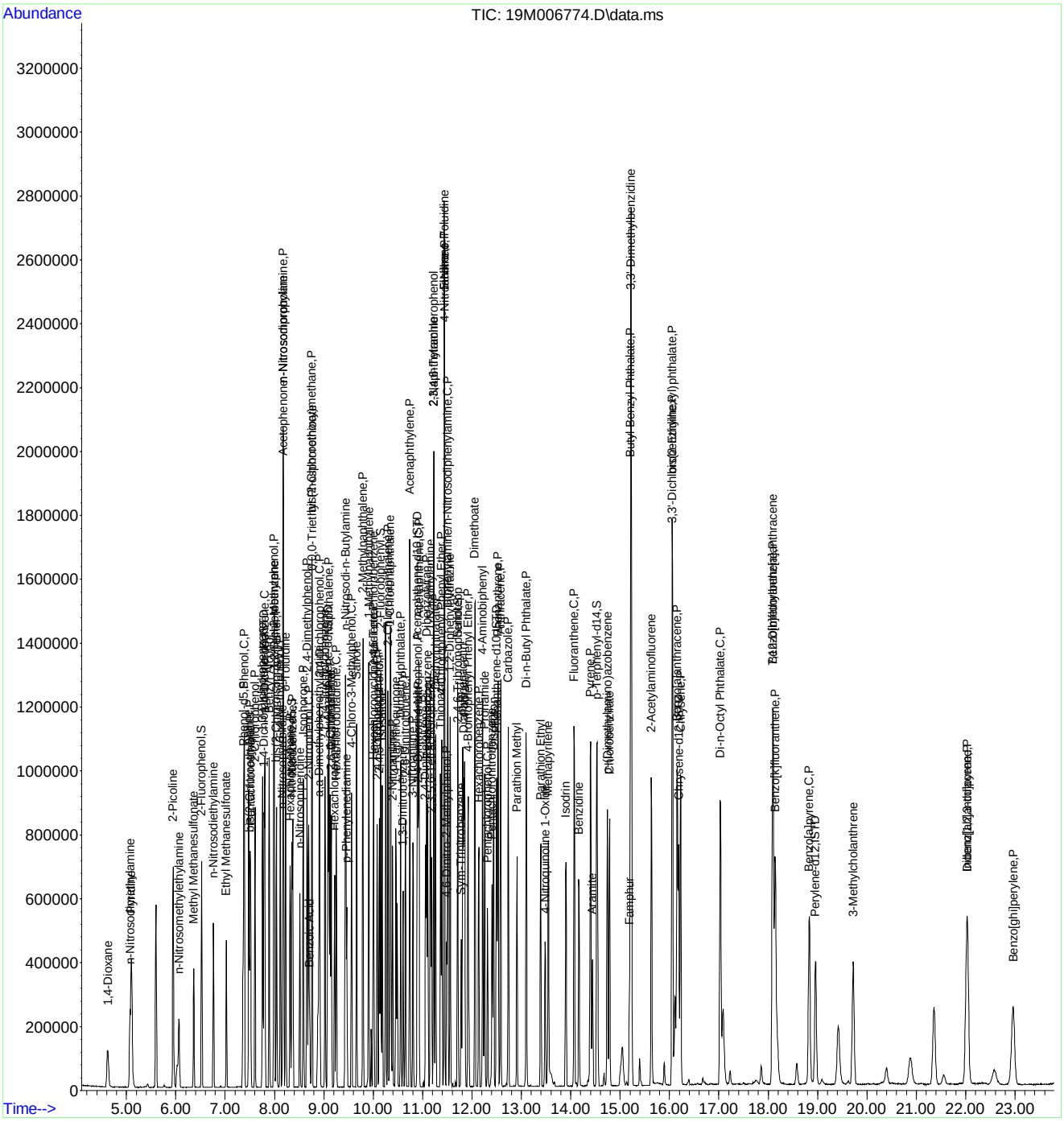
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	Hexachlorobenzene	12.139	284	111000	48.9803	ug/mL	100
98)	Dimethoate	12.057	87	169614	51.2135	ug/mL	100
99)	4-Aminobiphenyl	12.216	169	485100	50.8459	ug/mL	100
100)	Pentachlorophenol	12.316	266	68521	49.9640	ug/mL	100
101)	Pronamide	12.257	173	190444	52.3223	ug/mL	100
102)	Pentachloronitrobenzene	12.404	237	51413	52.8630	ug/mL	100
103)	Disulfoton	12.439	88	239712	50.4148	ug/mL	100
104)	Phenanthrene	12.527	178	592120	49.4901	ug/mL	100
105)	Anthracene	12.580	178	613318	50.0729	ug/mL	100
106)	Carbazole	12.733	167	576207	50.5303	ug/mL	100
107)	Parathion Methyl	12.910	109	146079	53.8654	ug/mL	100
108)	Di-n-Butyl Phthalate	13.098	149	742104	51.9842	ug/mL	100
109)	Parathion Ethyl	13.392	97	102046	54.6062	ug/mL	100
110)	4-Nitroquinoline 1-Oxide	13.486	190	56051	56.5039	ug/mL	100
111)	Methapyrilene	13.545	58	296599	46.8192	ug/mL	100
112)	Isodrin	13.904	193	65693	50.4796	ug/mL	100
113)	Fluoranthene	14.068	202	649082	50.1426	ug/mL	100
115)	Benzidine	14.163	184	335465	53.1790	ug/mL	100
116)	Pyrene	14.404	202	666005	50.7193	ug/mL	100
117)	Aramite	14.439	185	39171	55.0072	ug/mL	100
119)	p-(Dimethylamino)azobe...	14.745	225	130246	52.5909	ug/mL	100
120)	Chlorobenzilate	14.786	251	189599	52.4509	ug/mL	100
121)	Famphur	15.192	218	90665	50.0000	ug/mL	100
122)	Butyl Benzyl Phthalate	15.210	149	333663	51.9732	ug/mL	100
123)	3,3'-Dimethylbenzidine	15.221	212	639089	48.5497	ug/mL	100
124)	2-Acetylaminofluorene	15.633	181	260608	51.5060	ug/mL	100
125)	bis(2-Ethylhexyl)phtha...	16.057	149	448369	54.0330	ug/mL	100
126)	3,3'-Dichlorobenzidine	16.062	252	202981	51.6068	ug/mL	100
127)	Benzo[a]anthracene	16.157	228	576574	50.1061	ug/mL	100
128)	Chrysene	16.227	228	546224	50.0974	ug/mL	100
130)	Di-n-Octyl Phthalate	17.033	149	766128	53.2608	ug/mL	100
131)	7,12-Dimethylbenz[a]an...	18.098	256	267161	50.3666	ug/mL	100
132)	Benzo[b]fluoranthene	18.092	252	554021	49.0936	ug/mL	100
133)	Benzo[k]fluoranthene	18.139	252	518622	50.6113	ug/mL	100
134)	Benzo[a]pyrene	18.833	252	499955	50.6090	ug/mL	100
135)	3-Methylcholanthrene	19.721	268	260653	51.8914	ug/mL	100
136)	Indeno[1,2,3-cd]pyrene	22.033	276	506081	52.2863	ug/mL	100
137)	Dibenz[ah]anthracene	22.033	278	427422	52.2276	ug/mL	100
138)	Benzo[ghi]perylene	22.962	276	403376	51.2810	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:21 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



19M006774.D MEGAMIX.M Thu Apr 04 18:16:22 2019 SVOA1 Page: 4

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:36 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	50.000	49.558	0.9	100	0.00
3		n-Nitrosodimethylamine	50.000	49.684	0.6	100	0.00
4		Pyridine	50.000	49.116	1.8	100	0.00
5		2-Picoline	50.000	49.763	0.5	100	0.00
6		n-Nitrosomethylethylamine	50.000	51.288	-2.6	100	0.00
7		Methyl Methanesulfonate	50.000	50.908	-1.8	100	0.00
8	S	2-Fluorophenol	50.000	50.025	-0.0	100	0.00
9		n-Nitrosodiethylamine	50.000	50.258	-0.5	100	0.00
10		Ethyl Methanesulfonate	50.000	50.088	-0.2	100	0.00
11		Aniline	50.000	50.048	-0.1	100	0.00
12	S	Phenol-d5	50.000	50.021	-0.0	100	0.00
13	C,P	Phenol	50.000	49.673	0.7	100	0.00
14	P	bis(2-Chloroethyl)ether	50.000	49.417	1.2	100	0.00
15		Pentachloroethane	50.000	50.512	-1.0	100	0.00
16	P	2-Chlorophenol	50.000	49.917	0.2	100	0.00
17		1,3-Dichlorobenzene	50.000	49.587	0.8	100	0.00
18	C	1,4-Dichlorobenzene	50.000	49.333	1.3	100	0.00
19		Benzyl Alcohol	50.000	50.717	-1.4	100	0.00
20		1,2-Dichlorobenzene	50.000	50.028	-0.1	100	0.00
21	P	2-Methylphenol	50.000	49.990	0.0	100	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	49.042	1.9	100	0.00
23	P	3-,4-Methylphenol	50.000	50.687	-1.4	100	0.00
24		n-Nitrosopyrrolidine	50.000	51.235	-2.5	100	0.00
25	P	n-Nitrosodipropylamine	50.000	50.055	-0.1	100	0.00
26		Acetophenone	50.000	50.173	-0.3	100	0.00
27		n-Nitrosomorpholine	50.000	50.269	-0.5	100	0.00
28		o-Toluidine	50.000	49.830	0.3	100	0.00
29	P	Hexachloroethane	50.000	50.713	-1.4	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	50.000	50.619	-1.2	100	0.00
32	P	Nitrobenzene	50.000	50.023	-0.0	100	0.00
33		n-Nitrosopiperidine	50.000	49.777	0.4	100	0.00
34	P	Isophorone	50.000	50.456	-0.9	100	0.00
35	C,P	2-Nitrophenol	50.000	51.886	-3.8	100	0.00
36	P	2,4-Dimethylphenol	50.000	50.692	-1.4	100	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	49.930	0.1	100	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	50.030	-0.1	100	0.00
39		Benzoic Acid	50.000	56.386	-12.8	100	0.00
40	C,P	2,4-Dichlorophenol	50.000	50.611	-1.2	100	0.00
41		a,a-Dimethylphenethylamine	50.000	50.736	-1.5	100	0.00
42		1,2,4-Trichlorobenzene	50.000	49.778	0.4	100	0.00
43	P	Naphthalene	50.000	49.742	0.5	100	0.00
44	P	4-Chloroaniline	50.000	50.206	-0.4	100	0.00
45		2,6-Dichlorophenol	50.000	50.732	-1.5	100	0.00
46		Hexachloropropene	50.000	54.289	-8.6	100	0.00
47	C,P	Hexachlorobutadiene	50.000	49.772	0.5	100	0.00
48		n-Nitrosodi-n-Butylamine	50.000	50.934	-1.9	100	0.00
49		p-Phenylenediamine	50.000	48.750	2.5	100	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	51.032	-2.1	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:36 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	50.000	50.149	-0.3	100	0.00
52	P	2-Methylnaphthalene	50.000	49.998	0.0	100	0.00
53		1-Methylnaphthalene	50.000	50.178	-0.4	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	49.616	0.8	100	0.00
56	P	Hexachlorocyclopentadiene	50.000	55.000	-10.0	100	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	51.883	-3.8	100	0.00
58	P	2,4,5-Trichlorophenol	50.000	51.842	-3.7	100	0.00
59	S	2-Fluorobiphenyl	50.000	50.059	-0.1	100	0.00
60		Isosafrole	50.000	50.661	-1.3	100	0.00
61	P	2-Chloronaphthalene	50.000	49.928	0.1	100	0.00
62		1-Chloronaphthalene	50.000	49.601	0.8	100	0.00
63	P	2-Nitroaniline	50.000	51.002	-2.0	100	0.00
64		1,4-Naphthoquinone	50.000	52.371	-4.7	100	0.00
65	P	Dimethylphthalate	50.000	50.209	-0.4	100	0.00
66		1,3-Dinitrobenzene	50.000	52.408	-4.8	100	0.00
67	P	2,6-Dinitrotoluene	50.000	50.816	-1.6	100	0.00
68	P	Acenaphthylene	50.000	50.517	-1.0	100	0.00
69	P	3-Nitroaniline	50.000	50.762	-1.5	100	0.00
70	P	2,4-Dinitrophenol	50.000	51.208	-2.4	100	0.00
71	C,P	Acenaphthene	50.000	50.667	-1.3	100	0.00
72	P	4-Nitrophenol	50.000	54.255	-8.5	100	0.00
73	P	2,4-Dinitrotoluene	50.000	52.347	-4.7	100	0.00
74		Pentachlorobenzene	50.000	50.604	-1.2	100	0.00
75	P	Dibenzofuran	50.000	49.620	0.8	100	0.00
76		2,3,5,6-Tetrachlorophenol	50.000	49.882	0.2	100	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	50.403	-0.8	100	0.00
78		1-Naphthylamine	50.000	50.986	-2.0	100	0.00
79		2-Naphthylamine	50.000	50.675	-1.3	100	0.00
80	P	Diethylphthalate	50.000	50.855	-1.7	100	0.00
81		Thionazin	50.000	51.830	-3.7	100	0.00
82	P	Fluorene	50.000	50.476	-1.0	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	50.000	50.660	-1.3	100	0.00
84	P	4-Nitroaniline	50.000	50.721	-1.4	100	0.00
85		5-Nitro-o-Toluidine	50.000	51.835	-3.7	100	0.00
86		1,2-Diphenylhydrazine	50.000	51.312	-2.6	100	0.00
87	S	2,4,6-Tribromophenol	50.000	54.022	-8.0	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	51.441	-2.9	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	49.647	0.7	100	0.00
91		Sulfotepp	50.000	50.385	-0.8	100	0.00
92		Sym-Trinitrobenzene	50.000	50.945	-1.9	100	0.00
93		Diallate	50.000	49.760	0.5	100	0.00
94		Phenacetin	50.000	52.141	-4.3	100	0.00
95		Phorate	50.000	50.235	-0.5	100	0.00
96	P	4-Bromophenyl Phenyl Ether	50.000	50.211	-0.4	100	0.00
97	P	Hexachlorobenzene	50.000	48.980	2.0	100	0.00
98		Dimethoate	50.000	51.213	-2.4	100	0.00
99		4-Aminobiphenyl	50.000	50.846	-1.7	100	0.00

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006774.D Vial: 2
Acq On : 3 Apr 2019 11:51 am Operator: SCB
Sample : WG701995-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:36 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	50.000	49.964	0.1	100	0.00
101		Pronamide	50.000	52.322	-4.6	100	0.00
102		Pentachloronitrobenzene	50.000	52.863	-5.7	100	0.00
103		Disulfoton	50.000	50.415	-0.8	100	0.00
104	P	Phenanthrene	50.000	49.490	1.0	100	0.00
105	P	Anthracene	50.000	50.074	-0.1	100	0.00
106	P	Carbazole	50.000	50.530	-1.1	100	0.00
107		Parathion Methyl	50.000	53.865	-7.7	100	0.00
108	P	Di-n-Butyl Phthalate	50.000	51.984	-4.0	100	0.00
109		Parathion Ethyl	50.000	54.606	-9.2	100	0.00
110		4-Nitroquinoline 1-Oxide	50.000	56.504	-13.0	100	0.00
111		Methapyrilene	50.000	46.819	6.4	100	0.00
112		Isodrin	50.000	50.480	-1.0	100	0.00
113	C,P	Fluoranthene	50.000	50.143	-0.3	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	50.000	53.179	-6.4	100	0.00
116	P	Pyrene	50.000	50.719	-1.4	100	0.00
117		Aramite	50.000	55.007	-10.0	100	0.00
118	S	p-Terphenyl-d14	50.000	50.407	-0.8	100	0.00
119		p-(Dimethylamino)azobenzene	50.000	52.591	-5.2	100	0.00
120		Chlorobenzilate	50.000	52.451	-4.9	100	0.00
121		Famphur	50.000	50.000	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	50.000	51.973	-3.9	100	0.00
123		3,3'-Dimethylbenzidine	50.000	48.550	2.9	100	0.00
124		2-Acetylaminofluorene	50.000	51.506	-3.0	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	50.000	54.033	-8.1	100	0.00
126	P	3,3'-Dichlorobenzidine	50.000	51.607	-3.2	100	0.00
127	P	Benzo[a]anthracene	50.000	50.106	-0.2	100	0.00
128	P	Chrysene	50.000	50.114	-0.2	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	53.261	-6.5	100	0.00
131		7,12-Dimethylbenz[a]anthrac	50.000	50.367	-0.7	100	0.00
132	P	Benzo[b]fluoranthene	50.000	49.094	1.8	100	0.00
133	P	Benzo[k]fluoranthene	50.000	50.582	-1.2	100	0.00
134	C,P	Benzo[a]pyrene	50.000	50.609	-1.2	100	0.00
135		3-Methylcholanthrene	50.000	51.891	-3.8	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	50.000	52.286	-4.6	100	0.00
137	P	Dibenz[ah]anthracene	50.000	52.228	-4.5	100	0.00
138	P	Benzo[ghi]perylene	50.000	51.281	-2.6	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	135793	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.075	136	510916	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.886	164	258862	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	411117	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	354697	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	332075	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	4632	1.0012	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	1.0012%#		
12) Phenol-d5	7.375	99	5662	0.9552	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	0.9552%#		
31) Nitrobenzene-d5	8.351	82	5079	0.9592	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	1.9184%#		
59) 2-Fluorobiphenyl	10.145	172	8590	0.9886	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	1.9772%#		
87) 2,4,6-Tribromophenol	11.716	330	508	0.4966	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	0.4966%#		
118) p-Terphenyl-d14	14.527	244	8167	0.9611	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery =	1.9222%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.634	88	1934	0.8765	ug/mL	87
3) n-Nitrosodimethylamine	5.081	74	2880	0.8805	ug/mL	94
4) Pyridine	5.128	79	5008	0.9000	ug/mL#	82
5) 2-Picoline	5.963	93	5224	0.9136	ug/mL	89
6) n-Nitrosomethylethylamine	6.075	88	1516	0.6498	ug/mL	77
7) Methyl Methanesulfonate	6.363	80	2852	0.8943	ug/mL#	94
9) n-Nitrosodiethylamine	6.763	102	2158	0.9222	ug/mL#	50
10) Ethyl Methanesulfonate	7.022	79	3627	0.9166	ug/mL#	96
11) Aniline	7.475	66	3034	0.9229	ug/mL	94
13) Phenol	7.387	94	6184	0.9852	ug/mL	94
14) bis(2-Chloroethyl)ether	7.498	63	4004	0.9119	ug/mL#	26
15) Pentachloroethane	7.516	167	1708	0.9546	ug/mL	92
16) 2-Chlorophenol	7.604	128	4792	0.9658	ug/mL	92
17) 1,3-Dichlorobenzene	7.757	146	5001	0.9728	ug/mL	98
18) 1,4-Dichlorobenzene	7.804	146	5158	0.9867	ug/mL#	79
19) Benzyl Alcohol	7.887	108	2892	0.9118	ug/mL	95
20) 1,2-Dichlorobenzene	7.992	146	4482	0.9286	ug/mL	94
21) 2-Methylphenol	7.981	107	3726	0.9870	ug/mL	92
22) bis(2-Chloroisopropyl)...	8.040	45	7626	0.9185	ug/mL	99
23) 3-,4-Methylphenol	8.110	107	4570	0.9334	ug/mL	97
24) n-Nitrosopyrrolidine	8.157	100	1898	0.8366	ug/mL	70
25) n-Nitrosodipropylamine	8.169	70	3621	0.9402	ug/mL#	91
26) Acetophenone	8.175	105	6367	0.9825	ug/mL	98
27) n-Nitrosomorpholine	8.169	56	3349	0.9313	ug/mL	92
28) o-Toluidine	8.222	106	6996	0.9326	ug/mL	98
29) Hexachloroethane	8.316	117	2003	0.9515	ug/mL	89
32) Nitrobenzene	8.363	77	5389	0.9856	ug/mL#	91
33) n-Nitrosopiperidine	8.510	114	1989	0.8644	ug/mL	88
34) Isophorone	8.581	82	8983	0.9417	ug/mL#	92
35) 2-Nitrophenol	8.687	139	1738	0.7393	ug/mL	90
36) 2,4-Dimethylphenol	8.657	122	3711	0.8926	ug/mL	99
37) 0,0,0-Triethyl Phospho...	8.757	198	1723	0.8439	ug/mL	92

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	bis(2-Chloroethoxy)met...	8.757	93	6650	0.9330 ug/mL#	86
40)	2,4-Dichlorophenol	8.910	162	3361	0.9675 ug/mL	92
41)	a,a-Dimethylphenethyla...	8.869	58	11765	0.8615 ug/mL#	91
42)	1,2,4-Trichlorobenzene	9.022	180	3723	1.0023 ug/mL	96
43)	Naphthalene	9.098	128	14203	1.0114 ug/mL#	96
44)	4-Chloroaniline	9.122	65	1777	0.8745 ug/mL	82
45)	2,6-Dichlorophenol	9.145	162	2992	0.8902 ug/mL	92
46)	Hexachloropropene	9.216	213	1876	0.8004 ug/mL	89
47)	Hexachlorobutadiene	9.251	225	1948	0.9553 ug/mL	86
48)	n-Nitrosodi-n-Butylamine	9.439	84	4353	1.0310 ug/mL#	70
49)	p-Phenylenediamine	9.463	108	3420	1.2902 ug/mL	95
50)	4-Chloro-3-Methylphenol	9.557	107	3872	0.9815 ug/mL	89
51)	Safrole	9.657	162	3046	0.8943 ug/mL	91
52)	2-Methylnaphthalene	9.786	142	8971	1.0064 ug/mL	97
53)	1-Methylnaphthalene	9.904	142	8552	1.0205 ug/mL	96
55)	1,2,4,5-Tetrachloroben...	9.998	216	3541	1.0327 ug/mL#	87
56)	Hexachlorocyclopentadiene	10.010	237	924	1.8582 ug/mL#	52
57)	2,4,6-Trichlorophenol	10.075	196	1630	0.7204 ug/mL#	85
58)	2,4,5-Trichlorophenol	10.122	196	1895	0.8084 ug/mL	96
60)	Isosafrole	10.181	162	3110	0.9539 ug/mL	90
61)	2-Chloronaphthalene	10.292	162	7329	0.9678 ug/mL	97
62)	1-Chloronaphthalene	10.339	162	7592	1.0659 ug/mL	93
63)	2-Nitroaniline	10.386	65	2559	0.8961 ug/mL#	100
64)	1,4-Naphthoquinone	10.457	158	2040	0.7508 ug/mL	93
65)	Dimethylphthalate	10.551	163	8282	0.9815 ug/mL#	79
66)	1,3-Dinitrobenzene	10.604	168	952	0.6604 ug/mL	87
67)	2,6-Dinitrotoluene	10.645	165	1709	0.8584 ug/mL	85
68)	Acenaphthylene	10.739	152	11794	0.9795 ug/mL	93
69)	3-Nitroaniline	10.804	138	1820	0.8156 ug/mL#	91
71)	Acenaphthene	10.922	154	7122	0.9464 ug/mL	92
72)	4-Nitrophenol	10.892	65	2385	1.1383 ug/mL#	60
73)	2,4-Dinitrotoluene	11.057	165	1777	0.6819 ug/mL	86
74)	Pentachlorobenzene	11.104	250	2562	0.8744 ug/mL	91
75)	Dibenzofuran	11.081	168	10555	0.9843 ug/mL	98
76)	2,3,5,6-Tetrachlorophenol	11.181	232	854	1.9565 ug/mL#	80
77)	2,3,4,6-Tetrachlorophenol	11.222	232	1048	1.8552 ug/mL	92
78)	1-Naphthylamine	11.151	143	8109	0.9994 ug/mL#	100
79)	2-Naphthylamine	11.222	143	8014	0.9356 ug/mL	94
80)	Diethylphthalate	11.257	149	8151	0.9423 ug/mL	97
81)	Thionazin	11.357	107	1207	0.8401 ug/mL	98
82)	Fluorene	11.439	166	8368	0.9637 ug/mL	98
83)	4-Chlorophenyl Phenyl ...	11.386	204	3994	1.0038 ug/mL	88
84)	4-Nitroaniline	11.433	138	1844	0.7895 ug/mL	92
85)	5-Nitro-o-Toluidine	11.433	152	1881	0.7313 ug/mL	90
86)	1,2-Diphenylhydrazine	11.557	77	9381	0.9264 ug/mL#	76
90)	Diphenylamine/n-Nitros...	11.504	169	6983	0.9680 ug/mL	93
91)	Sulfotepp	11.704	322	672	0.5731 ug/mL	79
92)	Sym-Trinitrobenzene	11.775	75	777	2.2336 ug/mL#	48
93)	Diallate	11.833	86	3487	0.9749 ug/mL	98
94)	Phenacetin	11.804	108	3770	0.8686 ug/mL	96
95)	Phorate	11.845	75	5035	0.8683 ug/mL#	100
96)	4-Bromophenyl Phenyl E...	11.916	248	2046	0.9445 ug/mL	98
97)	Hexachlorobenzene	12.133	284	1899	0.8647 ug/mL#	92
98)	Dimethoate	12.057	87	2513	0.7830 ug/mL	98
99)	4-Aminobiphenyl	12.216	169	8068	0.8727 ug/mL	96

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

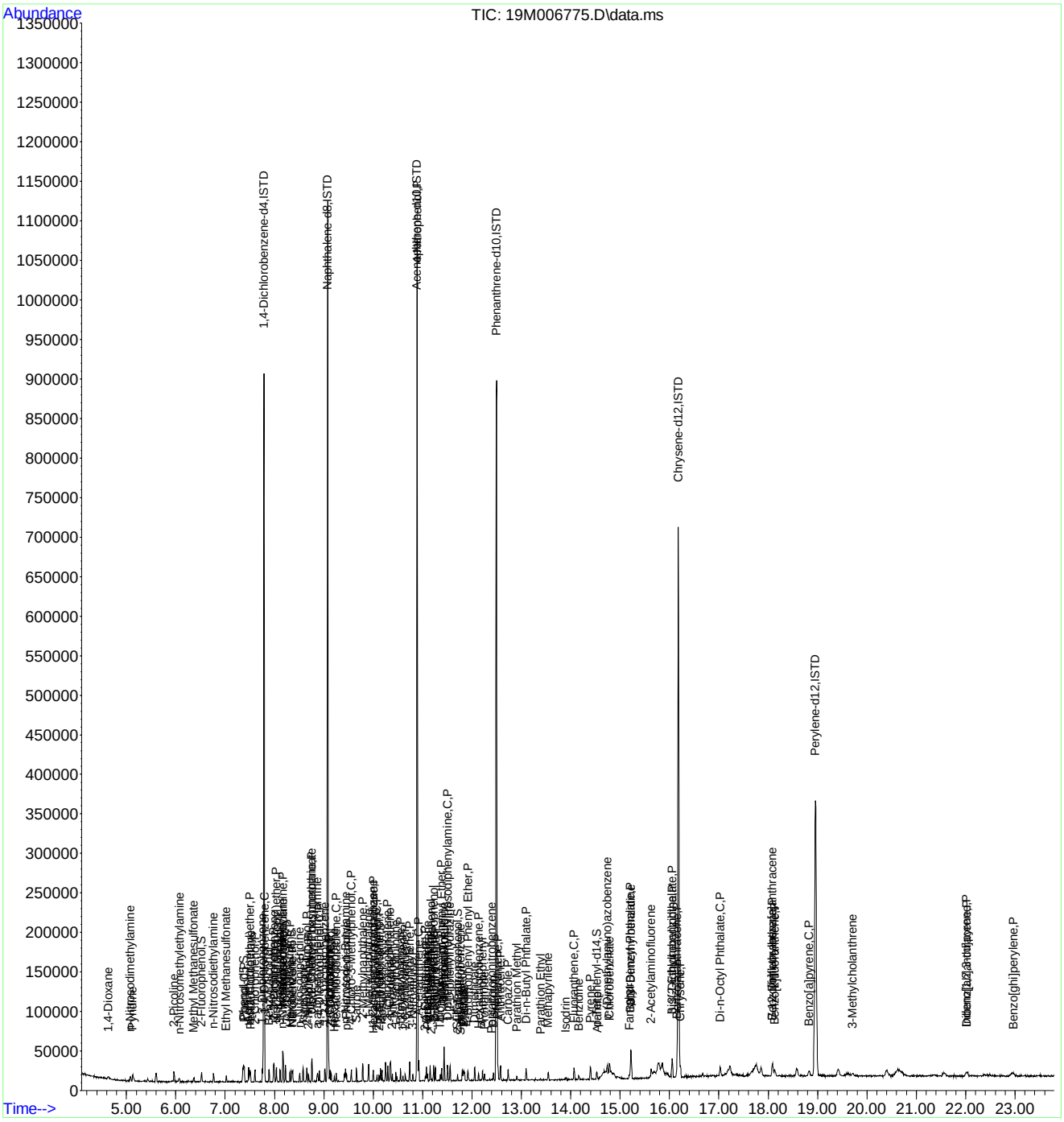
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) Pronamide	12.251	173	2970	0.8420	ug/mL	89
102) Pentachloronitrobenzene	12.404	237	388	0.4117	ug/mL#	47
103) Disulfoton	12.433	88	3920	0.8508	ug/mL	89
104) Phenanthrene	12.522	178	11204	0.9664	ug/mL	98
105) Anthracene	12.580	178	11091	0.9344	ug/mL	98
106) Carbazole	12.733	167	10028	0.9075	ug/mL	96
107) Parathion Methyl	12.910	109	1554	0.5913	ug/mL#	84
108) Di-n-Butyl Phthalate	13.098	149	12169	0.8797	ug/mL#	94
109) Parathion Ethyl	13.392	97	1019	0.5627	ug/mL#	68
111) Methapyrilene	13.545	58	5570	1.0912	ug/mL#	89
112) Isodrin	13.904	193	1022	0.8104	ug/mL#	75
113) Fluoranthene	14.069	202	11008	0.8776	ug/mL	95
115) Benzidine	14.163	184	5406	0.9294	ug/mL	100
116) Pyrene	14.404	202	11582	0.9565	ug/mL	98
117) Aramite	14.545	185	243	0.3701	ug/mL#	31
119) p-(Dimethylamino)azobe...	14.739	225	2000	0.8758	ug/mL	94
120) Chlorobenzilate	14.786	251	2600	0.7800	ug/mL	93
121) Famphur	15.186	218	2842	1.6997	ug/mL	87
122) Butyl Benzyl Phthalate	15.210	149	5538	0.9355	ug/mL#	96
123) 3,3'-Dimethylbenzidine	15.221	212	14268	0.7037	ug/mL	95
124) 2-Acetylaminofluorene	15.627	181	3285	2.2757	ug/mL	84
125) bis(2-Ethylhexyl)phtha...	16.057	149	7188	0.9394	ug/mL#	93
126) 3,3'-Dichlorobenzidine	16.057	252	3487	0.9614	ug/mL#	91
127) Benzo[a]anthracene	16.151	228	11252	1.0604	ug/mL	92
128) Chrysene	16.221	228	9583	0.9535	ug/mL	96
130) Di-n-Octyl Phthalate	17.027	149	10778	0.8138	ug/mL#	88
131) 7,12-Dimethylbenz[a]an...	18.086	256	4421	0.9052	ug/mL	88
132) Benzo[b]fluoranthene	18.080	252	9639	0.9277	ug/mL#	83
133) Benzo[k]fluoranthene	18.127	252	8932	0.9462	ug/mL#	81
134) Benzo[a]pyrene	18.833	252	8411	0.9247	ug/mL#	67
135) 3-Methylcholanthrene	19.709	268	4079	0.8820	ug/mL#	75
136) Indeno[1,2,3-cd]pyrene	22.015	276	8250	0.9258	ug/mL#	73
137) Dibenz[ah]anthracene	22.021	278	6203	0.8232	ug/mL#	55
138) Benzo[ghi]perylene	22.962	276	6532	0.9019	ug/mL#	52

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	-1.000	0.876	0.0	100	0.01
3		n-Nitrosodimethylamine	-1.000	0.880	0.0	100	0.00
4		Pyridine	-1.000	0.900	0.0	100	0.03
5		2-Picoline	-1.000	0.914	0.0	100	0.02
6		n-Nitrosomethylethylamine	-1.000	0.650	0.0	100	0.01
7		Methyl Methanesulfonate	-1.000	0.894	0.0	100	0.00
8	S	2-Fluorophenol	-1.000	1.001	0.0	100	0.00
9		n-Nitrosodiethylamine	-1.000	0.922	0.0	100	0.00
10		Ethyl Methanesulfonate	-1.000	0.917	0.0	100	0.00
11		Aniline	-1.000	0.923	0.0	100	0.00
12	S	Phenol-d5	-1.000	0.955	0.0	100	0.00
13	C,P	Phenol	-1.000	0.985	0.0	100	0.00
14	P	bis(2-Chloroethyl)ether	-1.000	0.912	0.0	100	0.00
15		Pentachloroethane	-1.000	0.955	0.0	100	0.00
16	P	2-Chlorophenol	-1.000	0.966	0.0	100	0.00
17		1,3-Dichlorobenzene	-1.000	0.973	0.0	100	0.00
18	C	1,4-Dichlorobenzene	-1.000	0.987	0.0	100	0.00
19		Benzyl Alcohol	-1.000	0.912	0.0	100	0.00
20		1,2-Dichlorobenzene	-1.000	0.929	0.0	100	0.00
21	P	2-Methylphenol	-1.000	0.987	0.0	100	0.00
22	P	bis(2-Chloroisopropyl)ether	-1.000	0.919	0.0	100	0.00
23	P	3-,4-Methylphenol	-1.000	0.933	0.0	100	0.00
24		n-Nitrosopyrrolidine	-1.000	0.837	0.0	100	0.00
25	P	n-Nitrosodipropylamine	-1.000	0.940	0.0	100	0.00
26		Acetophenone	-1.000	0.982	0.0	100	0.00
27		n-Nitrosomorpholine	-1.000	0.931	0.0	100	0.00
28		o-Toluidine	-1.000	0.933	0.0	100	0.00
29	P	Hexachloroethane	-1.000	0.951	0.0	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	-1.000	0.959	0.0	100	0.00
32	P	Nitrobenzene	-1.000	0.986	0.0	100	0.00
33		n-Nitrosopiperidine	-1.000	0.864	0.0	100	0.00
34	P	Isophorone	-1.000	0.942	0.0	100	0.00
35	C,P	2-Nitrophenol	-1.000	0.739	0.0	100	0.00
36	P	2,4-Dimethylphenol	-1.000	0.893	0.0	100	0.00
37		0,0,0-Triethyl Phosphorothi	-1.000	0.844	0.0	100	0.00
38	P	bis(2-Chloroethoxy)methane	-1.000	0.933	0.0	100	0.00
39		Benzoic Acid	-1.000	0.000	0.0	0	-8.71#
40	C,P	2,4-Dichlorophenol	-1.000	0.967	0.0	100	0.00
41		a,a-Dimethylphenethylamine	-1.000	0.861	0.0	100	-0.04
42		1,2,4-Trichlorobenzene	-1.000	1.002	0.0	100	0.00
43	P	Naphthalene	-1.000	1.011	0.0	100	0.00
44	P	4-Chloroaniline	-1.000	0.874	0.0	100	0.00
45		2,6-Dichlorophenol	-1.000	0.890	0.0	100	0.00
46		Hexachloropropene	-1.000	0.800	0.0	100	0.00
47	C,P	Hexachlorobutadiene	1.000	0.955	4.5	100	0.00
48		n-Nitrosodi-n-Butylamine	-1.000	1.031	0.0	100	0.00
49		p-Phenylenediamine	-1.000	1.290	0.0	100	0.00
50	C,P	4-Chloro-3-Methylphenol	-1.000	0.981	0.0	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	-1.000	0.894	0.0	100	0.00
52	P	2-Methylnaphthalene	-1.000	1.006	0.0	100	0.00
53		1-Methylnaphthalene	-1.000	1.020	0.0	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	-1.000	1.033	0.0	100	0.00
56	P	Hexachlorocyclopentadiene	-1.000	1.858	0.0	100	0.00
57	C,P	2,4,6-Trichlorophenol	-1.000	0.720	0.0	100	0.00
58	P	2,4,5-Trichlorophenol	-1.000	0.808	0.0	100	0.00
59	S	2-Fluorobiphenyl	-1.000	0.989	0.0	100	0.00
60		Isosafrole	-1.000	0.954	0.0	100	0.00
61	P	2-Chloronaphthalene	-1.000	0.968	0.0	100	0.00
62		1-Chloronaphthalene	-1.000	1.066	0.0	100	0.00
63	P	2-Nitroaniline	-1.000	0.896	0.0	100	0.00
64		1,4-Naphthoquinone	-1.000	0.751	0.0	100	0.00
65	P	Dimethylphthalate	-1.000	0.981	0.0	100	0.00
66		1,3-Dinitrobenzene	-1.000	0.660	0.0	100	0.00
67	P	2,6-Dinitrotoluene	-1.000	0.858	0.0	100	0.00
68	P	Acenaphthylene	-1.000	0.979	0.0	100	0.00
69	P	3-Nitroaniline	-1.000	0.816	0.0	100	0.00
70	P	2,4-Dinitrophenol	-1.000	0.000	0.0	0	-10.91#
71	C,P	Acenaphthene	-1.000	0.946	0.0	100	0.00
72	P	4-Nitrophenol	-1.000	1.138	0.0	100	-0.01
73	P	2,4-Dinitrotoluene	-1.000	0.682	0.0	100	0.00
74		Pentachlorobenzene	-1.000	0.874	0.0	100	0.00
75	P	Dibenzofuran	-1.000	0.984	0.0	100	0.00
76		2,3,5,6-Tetrachlorophenol	-1.000	1.957	0.0	100	0.00
77		2,3,4,6-Tetrachlorophenol	-1.000	1.855	0.0	100	0.00
78		1-Naphthylamine	-1.000	0.999	0.0	100	0.00
79		2-Naphthylamine	-1.000	0.936	0.0	100	0.00
80	P	Diethylphthalate	-1.000	0.942	0.0	100	0.00
81		Thionazin	-1.000	0.840	0.0	100	0.00
82	P	Fluorene	-1.000	0.964	0.0	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	-1.000	1.004	0.0	100	0.00
84	P	4-Nitroaniline	-1.000	0.790	0.0	100	-0.01
85		5-Nitro-o-Toluidine	-1.000	0.731	0.0	100	0.00
86		1,2-Diphenylhydrazine	-1.000	0.926	0.0	100	0.00
87	S	2,4,6-Tribromophenol	-1.000	0.497	0.0	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	-1.000	0.000	0.0	0	-11.49#
90	C,P	Diphenylamine/n-Nitrosodiph	-1.000	0.968	0.0	100	0.00
91		Sulfotepp	-1.000	0.573	0.0	100	0.00
92		Sym-Trinitrobenzene	-1.000	2.234	0.0	100	0.00
93		Diallate	-1.000	0.975	0.0	100	0.00
94		Phenacetin	-1.000	0.869	0.0	100	-0.01
95		Phorate	-1.000	0.868	0.0	100	0.00
96	P	4-Bromophenyl Phenyl Ether	-1.000	0.944	0.0	100	0.00
97	P	Hexachlorobenzene	-1.000	0.865	0.0	100	0.00
98		Dimethoate	-1.000	0.783	0.0	100	0.00
99		4-Aminobiphenyl	-1.000	0.873	0.0	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006775.D Vial: 3
Acq On : 3 Apr 2019 12:21 pm Operator: SCB
Sample : WG701995-03 1PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:37:01 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	-1.000	0.000	0.0	0	-12.32#
101		Pronamide	-1.000	0.842	0.0	100	0.00
102		Pentachloronitrobenzene	-1.000	0.412	0.0	100	0.00
103		Disulfoton	-1.000	0.851	0.0	100	0.00
104	P	Phenanthrene	-1.000	0.966	0.0	100	0.00
105	P	Anthracene	-1.000	0.934	0.0	100	0.00
106	P	Carbazole	-1.000	0.907	0.0	100	0.00
107		Parathion Methyl	-1.000	0.591	0.0	100	0.00
108	P	Di-n-Butyl Phthalate	-1.000	0.880	0.0	100	0.00
109		Parathion Ethyl	-1.000	0.563	0.0	100	0.00
110		4-Nitroquinoline 1-Oxide	-1.000	0.000	0.0	0	-13.49#
111		Methapyrilene	-1.000	1.091	0.0	100	0.00
112		Isodrin	-1.000	0.810	0.0	100	0.00
113	C,P	Fluoranthene	-1.000	0.878	0.0	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	-1.000	0.929	0.0	100	0.00
116	P	Pyrene	-1.000	0.957	0.0	100	0.00
117		Aramite	-1.000	0.370	0.0	100	0.11
118	S	p-Terphenyl-d14	-1.000	0.961	0.0	100	0.00
119		p-(Dimethylamino)azobenzene	-1.000	0.876	0.0	100	0.00
120		Chlorobenzilate	-1.000	0.780	0.0	100	0.00
121		Famphur	-1.000	1.700	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	-1.000	0.935	0.0	100	0.00
123		3,3'-Dimethylbenzidine	-1.000	0.704	0.0	100	0.00
124		2-Acetylaminofluorene	-1.000	2.276	0.0	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	1.000	0.939	6.1	100	0.00
126	P	3,3'-Dichlorobenzidine	-1.000	0.961	0.0	100	0.00
127	P	Benzo[a]anthracene	-1.000	1.060	0.0	100	0.00
128	P	Chrysene	-1.000	0.953	0.0	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	-1.000	0.814	0.0	100	0.00
131		7,12-Dimethylbenz[a]anthrac	-1.000	0.905	0.0	100	-0.01
132	P	Benzo[b]fluoranthene	-1.000	0.928	0.0	100	-0.01
133	P	Benzo[k]fluoranthene	-1.000	0.946	0.0	100	-0.01
134	C,P	Benzo[a]pyrene	-1.000	0.925	0.0	100	0.00
135		3-Methylcholanthrene	-1.000	0.882	0.0	100	-0.01
136	P	Indeno[1,2,3-cd]pyrene	-1.000	0.926	0.0	100	-0.02
137	P	Dibenz[ah]anthracene	-1.000	0.823	0.0	100	-0.01
138	P	Benzo[ghi]perylene	-1.000	0.902	0.0	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:52:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	109517	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.075	136	427926	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.886	164	224471	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.492	188	356905	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	313063	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	277340	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	10394	2.7857	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	2.7857%		
12) Phenol-d5	7.375	99	13586	2.8420	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	2.8420%		
31) Nitrobenzene-d5	8.345	82	12740	2.8725	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	5.7450%		
59) 2-Fluorobiphenyl	10.145	172	22023	2.9230	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	5.8460%		
87) 2,4,6-Tribromophenol	11.710	330	1769	1.9944	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	1.9944%		
118) p-Terphenyl-d14	14.527	244	22386	2.9846	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery =	5.9692%		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.622	88	4885	2.7451	ug/mL	95
3) n-Nitrosodimethylamine	5.075	74	7129	2.7024	ug/mL#	3
4) Pyridine	5.116	79	12643	2.8174	ug/mL	97
5) 2-Picoline	5.951	93	13027	2.8249	ug/mL	97
6) n-Nitrosomethylethylamine	6.069	88	5640m	2.8892	ug/mL	
7) Methyl Methanesulfonate	6.363	80	7686	2.9882	ug/mL	99
9) n-Nitrosodiethylamine	6.763	102	5266	2.7904	ug/mL#	69
10) Ethyl Methanesulfonate	7.022	79	9107	2.8535	ug/mL	99
11) Aniline	7.475	66	7574	2.8566	ug/mL	92
13) Phenol	7.387	94	14666	2.8971	ug/mL	97
14) bis(2-Chloroethyl)ether	7.498	63	10783	3.0451	ug/mL#	38
15) Pentachloroethane	7.516	167	3969	2.7505	ug/mL	97
16) 2-Chlorophenol	7.604	128	11560	2.8889	ug/mL	98
17) 1,3-Dichlorobenzene	7.757	146	12034	2.9024	ug/mL	99
18) 1,4-Dichlorobenzene	7.804	146	12541	2.9745	ug/mL	91
19) Benzyl Alcohol	7.892	108	6990	2.7325	ug/mL	94
20) 1,2-Dichlorobenzene	7.998	146	11498	2.9538	ug/mL	98
21) 2-Methylphenol	7.981	107	8987	2.9517	ug/mL	97
22) bis(2-Chloroisopropyl)...	8.040	45	20013	2.9889	ug/mL	98
23) 3-,4-Methylphenol	8.116	107	11264	2.8527	ug/mL	97
24) n-Nitrosopyrrolidine	8.163	100	4906	2.6815	ug/mL	80
25) n-Nitrosodipropylamine	8.169	70	9401	3.0267	ug/mL	97
26) Acetophenone	8.175	105	15792	3.0214	ug/mL	99
27) n-Nitrosomorpholine	8.169	56	8939	3.0821	ug/mL	95
28) o-Toluidine	8.222	106	17616	2.9118	ug/mL	100
29) Hexachloroethane	8.316	117	4891	2.8807	ug/mL	98
32) Nitrobenzene	8.369	77	13395	2.9249	ug/mL	96
33) n-Nitrosopiperidine	8.510	114	5494	2.8508	ug/mL	98
34) Isophorone	8.581	82	22926	2.8693	ug/mL	99
35) 2-Nitrophenol	8.687	139	4814	2.4447	ug/mL	97
36) 2,4-Dimethylphenol	8.651	122	9994	2.8701	ug/mL	99
37) 0,0,0-Triethyl Phospho...	8.757	198	5157	3.0157	ug/mL	96

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:52:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	17511	2.9334 ug/mL	99
40) 2,4-Dichlorophenol	8.910	162	8036	2.7617 ug/mL	100
41) a,a-Dimethylphenethyla...	8.863	58	29217	2.5543 ug/mL#	94
42) 1,2,4-Trichlorobenzene	9.022	180	9332	2.9997 ug/mL	97
43) Naphthalene	9.098	128	34737	2.9535 ug/mL#	99
44) 4-Chloroaniline	9.122	65	4835	2.8408 ug/mL	65
45) 2,6-Dichlorophenol	9.145	162	8215	2.9182 ug/mL	95
46) Hexachloropropene	9.216	213	4850	2.4707 ug/mL	98
47) Hexachlorobutadiene	9.251	225	5028	2.9439 ug/mL	96
48) n-Nitrosodi-n-Butylamine	9.439	84	10368	2.9319 ug/mL#	78
49) p-Phenylenediamine	9.457	108	10210	3.0834 ug/mL	96
50) 4-Chloro-3-Methylphenol	9.557	107	9141	2.7665 ug/mL	100
51) Safrole	9.657	162	8107	2.8418 ug/mL	98
52) 2-Methylnaphthalene	9.786	142	21653	2.9003 ug/mL	99
53) 1-Methylnaphthalene	9.904	142	20344	2.8983 ug/mL	100
55) 1,2,4,5-Tetrachloroben...	9.998	216	8842	2.9738 ug/mL	97
56) Hexachlorocyclopentadiene	10.010	237	3188	3.2082 ug/mL#	83
57) 2,4,6-Trichlorophenol	10.075	196	5193	2.6468 ug/mL	96
58) 2,4,5-Trichlorophenol	10.116	196	5057	2.4879 ug/mL	98
60) Isosafrole	10.181	162	7957	2.8143 ug/mL	99
61) 2-Chloronaphthalene	10.292	162	19282	2.9363 ug/mL	98
62) 1-Chloronaphthalene	10.333	162	18552	3.0038 ug/mL	98
63) 2-Nitroaniline	10.386	65	6359	2.5705 ug/mL	98
64) 1,4-Naphthoquinone	10.457	158	6355	2.6971 ug/mL	98
65) Dimethylphthalate	10.551	163	21777	2.9761 ug/mL#	81
66) 1,3-Dinitrobenzene	10.604	168	2975	2.3798 ug/mL	95
67) 2,6-Dinitrotoluene	10.645	165	4685	2.7138 ug/mL	96
68) Acenaphthylene	10.739	152	30197	2.8920 ug/mL	100
69) 3-Nitroaniline	10.804	138	5121	2.6466 ug/mL#	92
71) Acenaphthene	10.922	154	18152	2.7816 ug/mL	94
72) 4-Nitrophenol	10.892	65	4325	2.3804 ug/mL	77
73) 2,4-Dinitrotoluene	11.057	165	5550	2.4561 ug/mL	96
74) Pentachlorobenzene	11.104	250	7247	2.8524 ug/mL	97
75) Dibenzofuran	11.075	168	26984	2.9020 ug/mL	99
76) 2,3,5,6-Tetrachlorophenol	11.180	232	2745	3.1743 ug/mL	96
77) 2,3,4,6-Tetrachlorophenol	11.222	232	2970	3.0441 ug/mL	95
78) 1-Naphthylamine	11.151	143	20674	2.9383 ug/mL	98
79) 2-Naphthylamine	11.222	143	20890	2.8125 ug/mL	99
80) Diethylphthalate	11.257	149	22141	2.9516 ug/mL	98
81) Thionazin	11.357	107	3218	2.5828 ug/mL	93
82) Fluorene	11.439	166	22331	2.9659 ug/mL	98
83) 4-Chlorophenyl Phenyl ...	11.386	204	10068	2.9182 ug/mL	97
84) 4-Nitroaniline	11.433	138	5169	2.5522 ug/mL	98
85) 5-Nitro-o-Toluidine	11.433	152	5714	2.5620 ug/mL	94
86) 1,2-Diphenylhydrazine	11.551	77	25111	2.8597 ug/mL	99
90) Diphenylamine/n-Nitros...	11.504	169	18343	2.9288 ug/mL	97
91) Sulfotepp	11.704	322	2762	2.7134 ug/mL	98
92) Sym-Trinitrobenzene	11.775	75	2848	3.1015 ug/mL	93
93) Diallate	11.828	86	9364	3.0157 ug/mL	95
94) Phenacetin	11.804	108	9898	2.6268 ug/mL	97
95) Phorate	11.851	75	14593	2.8984 ug/mL#	97
96) 4-Bromophenyl Phenyl E...	11.916	248	5524	2.9373 ug/mL	95
97) Hexachlorobenzene	12.133	284	5798	3.0412 ug/mL	96
98) Dimethoate	12.051	87	7983	2.8652 ug/mL	98
99) 4-Aminobiphenyl	12.210	169	22105	2.7541 ug/mL	100

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:52:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

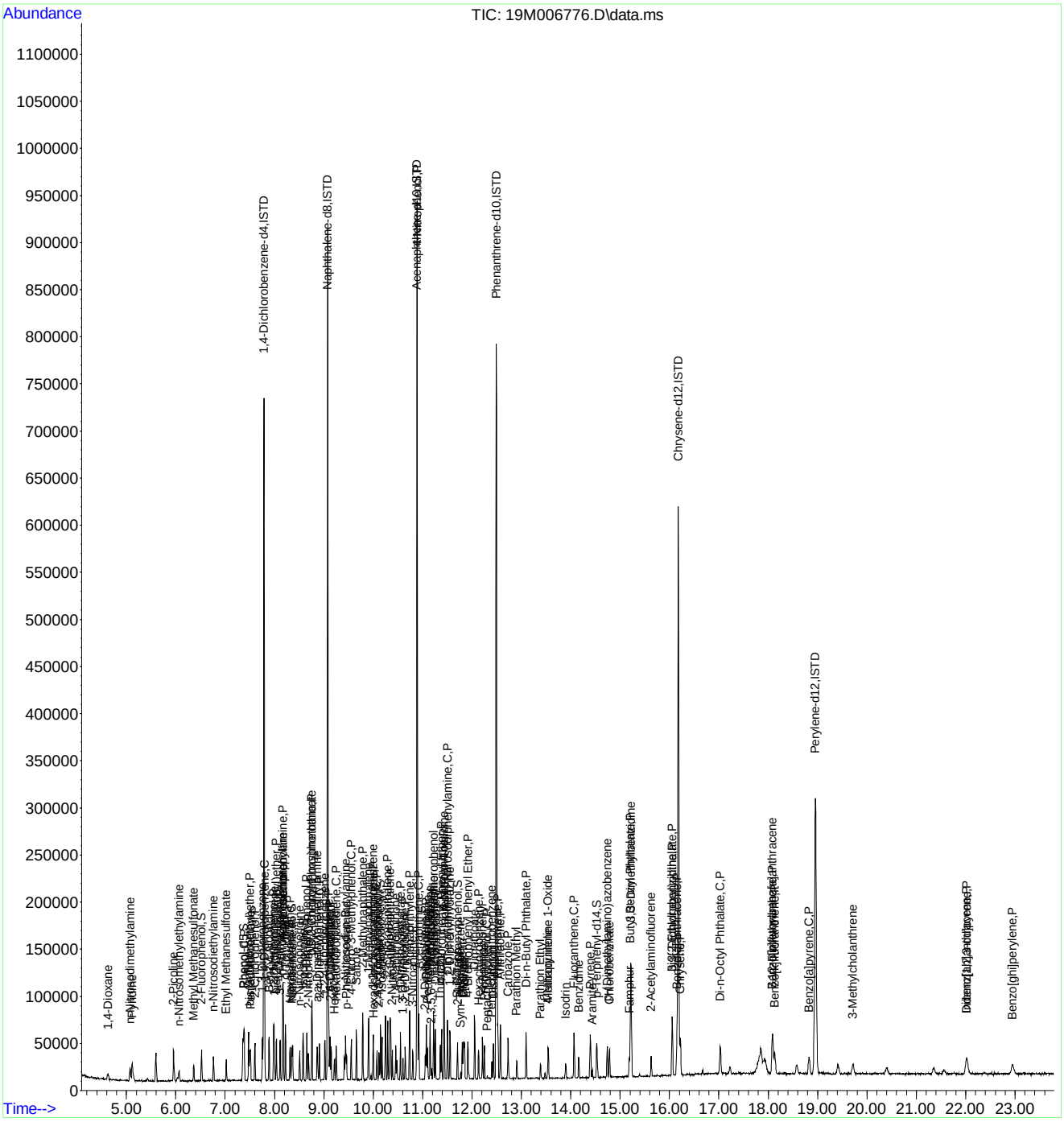
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
100) Pentachlorophenol	12.310	266	1201	5.5790 ug/mL#	70
101) Pronamide	12.251	173	7912	2.5839 ug/mL	97
102) Pentachloronitrobenzene	12.404	237	2022	2.4713 ug/mL	97
103) Disulfoton	12.433	88	11686	2.9215 ug/mL	95
104) Phenanthrene	12.522	178	29856	2.9663 ug/mL	98
105) Anthracene	12.575	178	29737	2.8859 ug/mL	98
106) Carbazole	12.733	167	26822	2.7960 ug/mL	97
107) Parathion Methyl	12.904	109	5717	2.5059 ug/mL	98
108) Di-n-Butyl Phthalate	13.098	149	32926	2.7417 ug/mL	100
109) Parathion Ethyl	13.386	97	3517	2.2371 ug/mL	93
110) 4-Nitroquinoline 1-Oxide	13.545	190	635	3.9784 ug/mL#	11
111) Methapyrilene	13.539	58	16665	2.8835 ug/mL#	90
112) Isodrin	13.898	193	3160	2.8864 ug/mL	89
113) Fluoranthene	14.069	202	30100	2.7640 ug/mL	98
115) Benzidine	14.163	184	15072	2.9356 ug/mL	100
116) Pyrene	14.398	202	31314	2.9300 ug/mL	98
117) Aramite	14.439	185	1270	2.1913 ug/mL#	76
119) p-(Dimethylamino)azobe...	14.739	225	4995	2.4781 ug/mL	94
120) Chlorobenzilate	14.786	251	8335	2.8331 ug/mL	100
121) Famphur	15.186	218	8883	6.0190 ug/mL	89
122) Butyl Benzyl Phthalate	15.210	149	14571	2.7887 ug/mL	99
123) 3,3'-Dimethylbenzidine	15.221	212	37691	2.7498 ug/mL	98
124) 2-Acetylaminofluorene	15.627	181	7739	3.4146 ug/mL	93
125) bis(2-Ethylhexyl)phtha...	16.057	149	17861	2.6446 ug/mL	99
126) 3,3'-Dichlorobenzidine	16.057	252	8923	2.7874 ug/mL	95
127) Benzo[a]anthracene	16.151	228	27600	2.9470 ug/mL	96
128) Chrysene	16.221	228	25911	2.9199 ug/mL	96
130) Di-n-Octyl Phthalate	17.027	149	28076	2.5383 ug/mL#	99
131) 7,12-Dimethylbenz[a]an...	18.086	256	11256	2.7596 ug/mL	98
132) Benzo[b]fluoranthene	18.086	252	25188	2.9026 ug/mL	94
133) Benzo[k]fluoranthene	18.127	252	21887	2.7777 ug/mL	92
134) Benzo[a]pyrene	18.827	252	20146	2.6521 ug/mL	92
135) 3-Methylcholanthrene	19.715	268	9929	2.5706 ug/mL#	85
136) Indeno[1,2,3-cd]pyrene	22.021	276	19582	2.6310 ug/mL#	73
137) Dibenz[ah]anthracene	22.015	278	16361	2.5999 ug/mL	87
138) Benzo[ghi]perylene	22.944	276	16714	2.7633 ug/mL#	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:52:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:07:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	3.000	2.745	8.5	100	0.00
3		n-Nitrosodimethylamine	3.000	2.702	9.9	100	0.00
4		Pyridine	3.000	2.817	6.1	100	0.02
5		2-Picoline	3.000	2.825	5.8	100	0.00
6		n-Nitrosomethylethylamine	3.000	2.998	0.1	100	0.00
7		Methyl Methanesulfonate	3.000	2.988	0.4	100	0.00
8	S	2-Fluorophenol	3.000	2.786	7.1	100	0.00
9		n-Nitrosodiethylamine	3.000	2.790	7.0	100	0.00
10		Ethyl Methanesulfonate	3.000	2.854	4.9	100	0.00
11		Aniline	3.000	2.857	4.8	100	0.00
12	S	Phenol-d5	3.000	2.842	5.3	100	0.00
13	C,P	Phenol	3.000	2.897	3.4	100	0.00
14	P	bis(2-Chloroethyl)ether	3.000	3.045	-1.5	100	0.00
15		Pentachloroethane	3.000	2.751	8.3	100	0.00
16	P	2-Chlorophenol	3.000	2.889	3.7	100	0.00
17		1,3-Dichlorobenzene	3.000	2.902	3.3	100	0.00
18	C	1,4-Dichlorobenzene	3.000	2.975	0.8	100	0.00
19		Benzyl Alcohol	3.000	2.732	8.9	100	0.00
20		1,2-Dichlorobenzene	3.000	2.954	1.5	100	0.00
21	P	2-Methylphenol	3.000	2.952	1.6	100	0.00
22	P	bis(2-Chloroisopropyl)ether	3.000	2.989	0.4	100	0.00
23	P	3-,4-Methylphenol	3.000	2.853	4.9	100	0.00
24		n-Nitrosopyrrolidine	3.000	2.681	10.6	100	0.00
25	P	n-Nitrosodipropylamine	3.000	3.027	-0.9	100	0.00
26		Acetophenone	3.000	3.021	-0.7	100	0.00
27		n-Nitrosomorpholine	3.000	3.082	-2.7	100	0.00
28		o-Toluidine	3.000	2.912	2.9	100	0.00
29	P	Hexachloroethane	3.000	2.881	4.0	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	3.000	2.872	4.3	100	0.00
32	P	Nitrobenzene	3.000	2.925	2.5	100	0.00
33		n-Nitrosopiperidine	3.000	2.851	5.0	100	0.00
34	P	Isophorone	3.000	2.869	4.4	100	0.00
35	C,P	2-Nitrophenol	3.000	2.445	18.5	100	0.00
36	P	2,4-Dimethylphenol	3.000	2.870	4.3	100	0.00
37		0,0,0-Triethyl Phosphorothi	3.000	3.016	-0.5	100	0.00
38	P	bis(2-Chloroethoxy)methane	3.000	2.933	2.2	100	0.00
39		Benzoic Acid	-1.000	0.000	0.0	0	-8.71#
40	C,P	2,4-Dichlorophenol	3.000	2.762	7.9	100	0.00
41		a,a-Dimethylphenethylamine	3.000	2.554	14.9	100	-0.04
42		1,2,4-Trichlorobenzene	3.000	3.000	0.0	100	0.00
43	P	Naphthalene	3.000	2.953	1.6	100	0.00
44	P	4-Chloroaniline	3.000	2.841	5.3	100	0.00
45		2,6-Dichlorophenol	3.000	2.918	2.7	100	0.00
46		Hexachloropropene	3.000	2.471	17.6	100	0.00
47	C,P	Hexachlorobutadiene	3.000	2.944	1.9	100	0.00
48		n-Nitrosodi-n-Butylamine	3.000	2.932	2.3	100	0.00
49		p-Phenylenediamine	3.000	3.083	-2.8	100	0.00
50	C,P	4-Chloro-3-Methylphenol	3.000	2.766	7.8	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:07:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	3.000	2.842	5.3	100	0.00
52	P	2-Methylnaphthalene	3.000	2.900	3.3	100	0.00
53		1-Methylnaphthalene	3.000	2.898	3.4	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	3.000	2.974	0.9	100	0.00
56	P	Hexachlorocyclopentadiene	3.000	3.208	-6.9	100	0.00
57	C,P	2,4,6-Trichlorophenol	3.000	2.647	11.8	100	0.00
58	P	2,4,5-Trichlorophenol	3.000	2.488	17.1	100	0.00
59	S	2-Fluorobiphenyl	3.000	2.923	2.6	100	0.00
60		Isosafrole	3.000	2.814	6.2	100	0.00
61	P	2-Chloronaphthalene	3.000	2.936	2.1	100	0.00
62		1-Chloronaphthalene	3.000	3.004	-0.1	100	0.00
63	P	2-Nitroaniline	-1.000	2.568	0.0	100	0.00
64		1,4-Naphthoquinone	3.000	2.697	10.1	100	0.00
65	P	Dimethylphthalate	3.000	2.976	0.8	100	0.00
66		1,3-Dinitrobenzene	3.000	2.380	20.7	100	0.00
67	P	2,6-Dinitrotoluene	3.000	2.714	9.5	100	0.00
68	P	Acenaphthylene	3.000	2.892	3.6	100	0.00
69	P	3-Nitroaniline	-1.000	2.647	0.0	100	0.00
70	P	2,4-Dinitrophenol	-1.000	0.000	0.0	0	-10.91#
71	C,P	Acenaphthene	3.000	2.782	7.3	100	0.00
72	P	4-Nitrophenol	3.000	2.380	20.7	100	-0.01
73	P	2,4-Dinitrotoluene	3.000	2.456	18.1	100	0.00
74		Pentachlorobenzene	3.000	2.852	4.9	100	0.00
75	P	Dibenzofuran	3.000	2.902	3.3	100	0.00
76		2,3,5,6-Tetrachlorophenol	3.000	3.174	-5.8	100	0.00
77		2,3,4,6-Tetrachlorophenol	3.000	3.044	-1.5	100	0.00
78		1-Naphthylamine	3.000	2.938	2.1	100	0.00
79		2-Naphthylamine	3.000	2.813	6.2	100	0.00
80	P	Diethylphthalate	3.000	2.952	1.6	100	0.00
81		Thionazin	3.000	2.583	13.9	100	0.00
82	P	Fluorene	3.000	2.966	1.1	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	3.000	2.918	2.7	100	0.00
84	P	4-Nitroaniline	-1.000	2.552	0.0	100	-0.01
85		5-Nitro-o-Toluidine	3.000	2.562	14.6	100	0.00
86		1,2-Diphenylhydrazine	3.000	2.860	4.7	100	0.00
87	S	2,4,6-Tribromophenol	3.000	1.994	33.5	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	-1.000	0.000	0.0	0	-11.49#
90	C,P	Diphenylamine/n-Nitrosodiph	3.000	2.929	2.4	100	0.00
91		Sulfotepp	3.000	2.713	9.6	100	0.00
92		Sym-Trinitrobenzene	3.000	3.102	-3.4	100	0.00
93		Diallate	3.000	3.016	-0.5	100	0.00
94		Phenacetin	3.000	2.627	12.4	100	-0.01
95		Phorate	3.000	2.899	3.4	100	0.00
96	P	4-Bromophenyl Phenyl Ether	3.000	2.937	2.1	100	0.00
97	P	Hexachlorobenzene	3.000	3.041	-1.4	100	0.00
98		Dimethoate	3.000	2.865	4.5	100	0.00
99		4-Aminobiphenyl	3.000	2.754	8.2	100	0.00

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:07:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

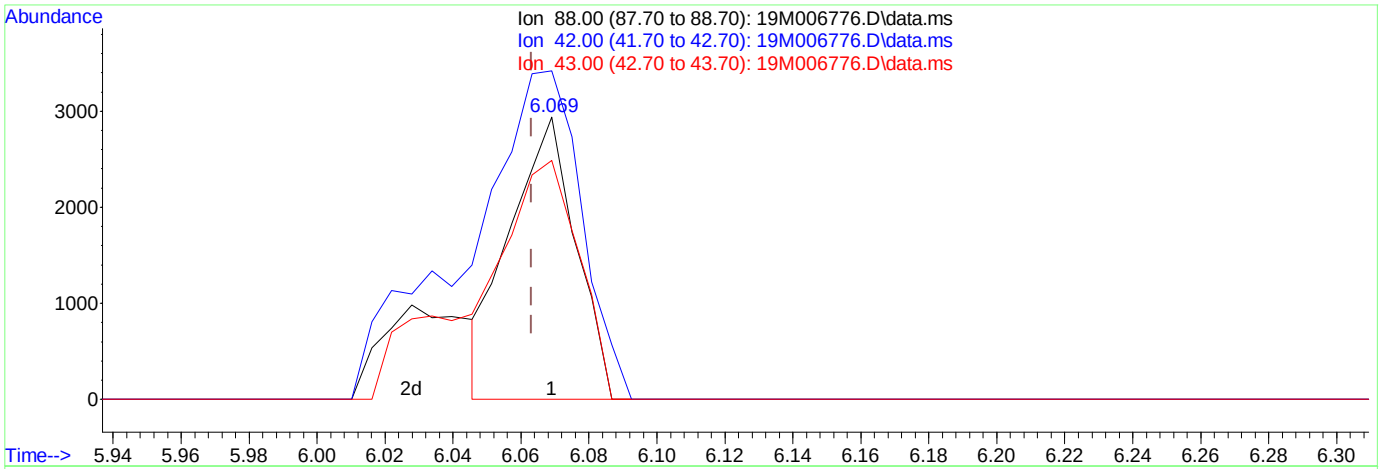
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	-1.000	5.579	0.0	100	0.00
101		Pronamide	3.000	2.584	13.9	100	0.00
102		Pentachloronitrobenzene	3.000	2.471	17.6	100	0.00
103		Disulfoton	3.000	2.921	2.6	100	0.00
104	P	Phenanthrene	3.000	2.966	1.1	100	0.00
105	P	Anthracene	3.000	2.886	3.8	100	0.00
106	P	Carbazole	3.000	2.796	6.8	100	0.00
107		Parathion Methyl	3.000	2.506	16.5	100	0.00
108	P	Di-n-Butyl Phthalate	3.000	2.742	8.6	100	0.00
109		Parathion Ethyl	3.000	2.237	25.4	100	0.00
110		4-Nitroquinoline 1-Oxide	3.000	3.978	-32.6	100	0.06
111		Methapyrilene	3.000	2.883	3.9	100	0.00
112		Isodrin	3.000	2.886	3.8	100	0.00
113	C,P	Fluoranthene	3.000	2.764	7.9	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	3.000	2.936	2.1	100	0.00
116	P	Pyrene	3.000	2.930	2.3	100	0.00
117		Aramite	3.000	2.191	27.0	100	0.00
118	S	p-Terphenyl-d14	3.000	2.985	0.5	100	0.00
119		p-(Dimethylamino)azobenzene	3.000	2.478	17.4	100	0.00
120		Chlorobenzilate	3.000	2.833	5.6	100	0.00
121		Famphur	-1.000	6.019	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	3.000	2.789	7.0	100	0.00
123		3,3'-Dimethylbenzidine	3.000	2.750	8.3	100	0.00
124		2-Acetylaminofluorene	3.000	3.415	-13.8	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	3.000	2.645	11.8	100	0.00
126	P	3,3'-Dichlorobenzidine	3.000	2.787	7.1	100	0.00
127	P	Benzo[a]anthracene	3.000	2.947	1.8	100	0.00
128	P	Chrysene	3.000	2.921	2.6	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	3.000	2.538	15.4	100	0.00
131		7,12-Dimethylbenz[a]anthrac	3.000	2.760	8.0	100	-0.01
132	P	Benzo[b]fluoranthene	3.000	2.903	3.2	100	0.00
133	P	Benzo[k]fluoranthene	3.000	2.776	7.5	100	-0.01
134	C,P	Benzo[a]pyrene	3.000	2.652	11.6	100	0.00
135		3-Methylcholanthrene	3.000	2.571	14.3	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	3.000	2.631	12.3	100	-0.01
137	P	Dibenz[ah]anthracene	3.000	2.600	13.3	100	-0.02
138	P	Benzo[ghi]perylene	3.000	2.763	7.9	100	-0.02

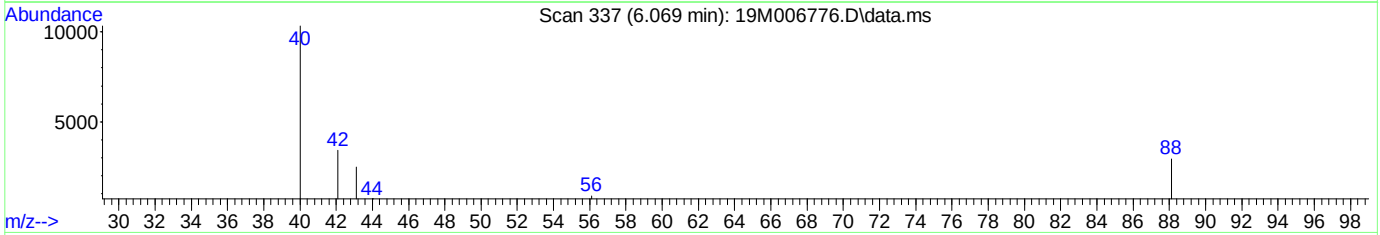
(#) = Out of Range SPCC's out = 0 CCC's out = 0

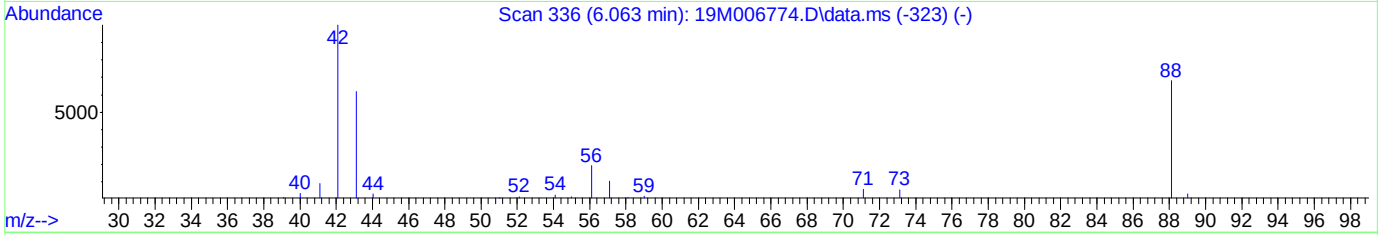
Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:40 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M







TIC: 19M006776.D\data.ms

(6) n-Nitrosomethylethylamine

6.069min (+0.006) 2.097 ug/mL

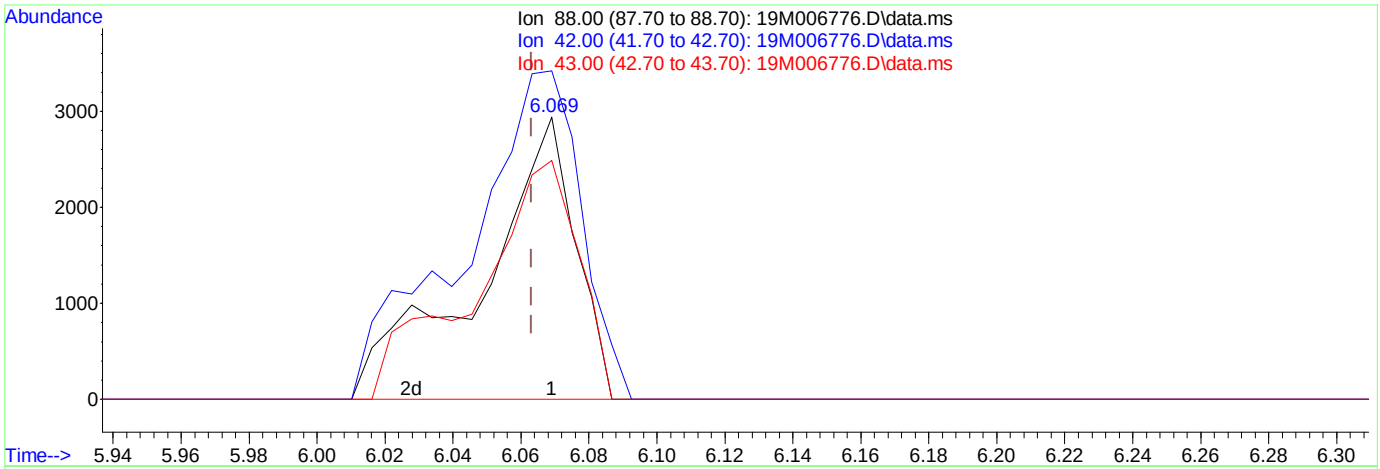
response 3945

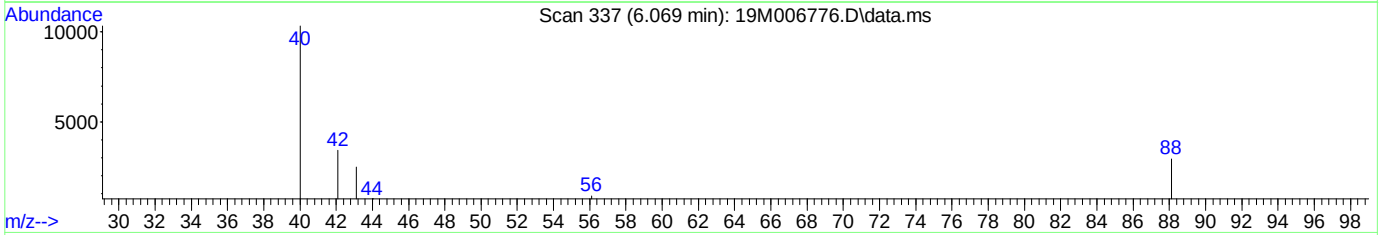
Ion	Exp%	Act%
88.00	100	100
42.00	148.20	206.13#
43.00	98.00	132.19#
0.00	0.00	0.00

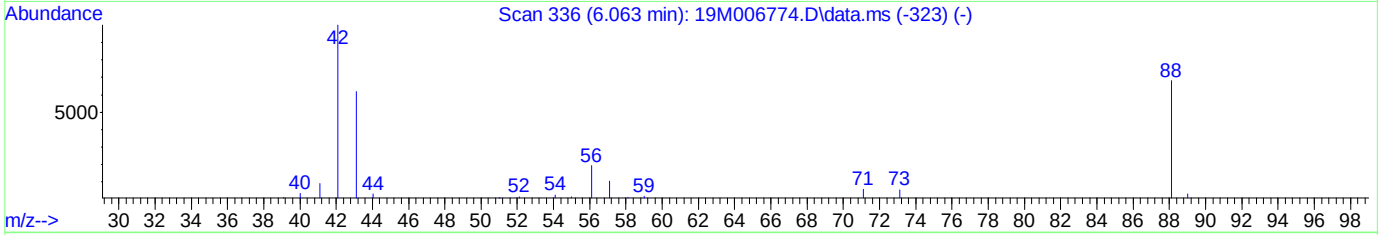
Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006776.D Vial: 4
Acq On : 3 Apr 2019 12:51 pm Operator: SCB
Sample : WG701995-04 3PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:40 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M







TIC: 19M006776.D\data.ms

(6) n-Nitrosomethylethylamine

6.069min (+0.006) 2.998 ug/mL mint

response 5640

Ion	Exp%	Act%
88.00	100	100
42.00	148.20	144.18
43.00	98.00	92.46
0.00	0.00	0.00

Analyst: 04/04/2019 18:30 Supervisor: 04/04/2019 18:41

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:32 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	111601	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.081	136	436745	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.886	164	234084	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.492	188	378736	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	337882	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	302710	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	37470	9.8547	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	9.8547%#		
12) Phenol-d5	7.375	99	49078	10.0746	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	10.0746%		
31) Nitrobenzene-d5	8.351	82	44909	9.9212	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	19.8424%#		
59) 2-Fluorobiphenyl	10.145	172	79626	10.1344	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	20.2688%#		
87) 2,4,6-Tribromophenol	11.710	330	9119	9.8585	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	9.8585%#		
118) p-Terphenyl-d14	14.527	244	83559	10.3222	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery =	20.6444%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.622	88	18171	10.0203	ug/mL	100
3) n-Nitrosodimethylamine	5.069	74	26284	9.7773	ug/mL	99
4) Pyridine	5.104	79	45782	10.0115	ug/mL	99
5) 2-Picoline	5.946	93	47737	10.1584	ug/mL	98
6) n-Nitrosomethylethylamine	6.063	88	19395	9.7499	ug/mL	99
7) Methyl Methanesulfonate	6.363	80	26981	10.2940	ug/mL	98
9) n-Nitrosodiethylamine	6.763	102	19283	10.0272	ug/mL	92
10) Ethyl Methanesulfonate	7.022	79	33278	10.2324	ug/mL	99
11) Aniline	7.475	66	27166	10.0544	ug/mL	89
13) Phenol	7.387	94	52034	10.0868	ug/mL	99
14) bis(2-Chloroethyl)ether	7.498	63	37263	10.3265	ug/mL#	39
15) Pentachloroethane	7.516	167	14911	10.1403	ug/mL	99
16) 2-Chlorophenol	7.604	128	41101	10.0797	ug/mL	100
17) 1,3-Dichlorobenzene	7.757	146	42859	10.1437	ug/mL	99
18) 1,4-Dichlorobenzene	7.804	146	43434	10.1095	ug/mL	98
19) Benzyl Alcohol	7.892	108	25965	9.9605	ug/mL	98
20) 1,2-Dichlorobenzene	7.998	146	40066	10.1006	ug/mL	98
21) 2-Methylphenol	7.981	107	31145	10.0382	ug/mL	99
22) bis(2-Chloroisopropyl)...	8.039	45	70169	10.2839	ug/mL	100
23) 3-,4-Methylphenol	8.116	107	40907	10.1667	ug/mL	99
24) n-Nitrosopyrrolidine	8.163	100	18982	10.1812	ug/mL	91
25) n-Nitrosodipropylamine	8.169	70	33255	10.5068	ug/mL	99
26) Acetophenone	8.175	105	55629	10.4446	ug/mL	99
27) n-Nitrosomorpholine	8.169	56	31130	10.5328	ug/mL	98
28) o-Toluidine	8.222	106	62794	10.1855	ug/mL	99
29) Hexachloroethane	8.316	117	17556	10.1471	ug/mL	98
32) Nitrobenzene	8.369	77	47331	10.1263	ug/mL	99
33) n-Nitrosopiperidine	8.510	114	19821	10.0774	ug/mL	100
34) Isophorone	8.581	82	82586	10.1274	ug/mL	100
35) 2-Nitrophenol	8.686	139	19564	9.7347	ug/mL	98
36) 2,4-Dimethylphenol	8.657	122	35853	10.0885	ug/mL	100
37) 0,0,0-Triethyl Phospho...	8.757	198	18069	10.3531	ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:32 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	62429	10.2466 ug/mL	100
39) Benzoic Acid	8.681	105	6826	9.6199 ug/mL	83
40) 2,4-Dichlorophenol	8.910	162	29994	10.0999 ug/mL	99
41) a,a-Dimethylphenethyla...	8.863	58	115575	9.9003 ug/mL	98
42) 1,2,4-Trichlorobenzene	9.022	180	32315	10.1775 ug/mL	100
43) Naphthalene	9.098	128	121390	10.1127 ug/mL#	99
44) 4-Chloroaniline	9.122	65	17797	10.2453 ug/mL	96
45) 2,6-Dichlorophenol	9.145	162	28656	9.9738 ug/mL	98
46) Hexachloropropene	9.216	213	20521	10.2426 ug/mL	97
47) Hexachlorobutadiene	9.251	225	18228	10.4569 ug/mL	96
48) n-Nitrosodi-n-Butylamine	9.439	84	36153	10.0169 ug/mL	96
49) p-Phenylenediamine	9.463	108	39974	11.8281 ug/mL	99
50) 4-Chloro-3-Methylphenol	9.557	107	34045	10.0954 ug/mL	99
51) Safrole	9.657	162	29349	10.0803 ug/mL	98
52) 2-Methylnaphthalene	9.786	142	77238	10.1366 ug/mL	99
53) 1-Methylnaphthalene	9.904	142	72727	10.1518 ug/mL	100
55) 1,2,4,5-Tetrachloroben...	9.998	216	31353	10.1117 ug/mL	97
56) Hexachlorocyclopentadiene	10.010	237	14611	9.5373 ug/mL	95
57) 2,4,6-Trichlorophenol	10.075	196	20020	9.7849 ug/mL	99
58) 2,4,5-Trichlorophenol	10.116	196	20548	9.6938 ug/mL	98
60) Isosafrole	10.181	162	29161	9.8905 ug/mL	99
61) 2-Chloronaphthalene	10.292	162	69923	10.2109 ug/mL	99
62) 1-Chloronaphthalene	10.339	162	64680	10.0424 ug/mL	99
63) 2-Nitroaniline	10.386	65	25094	9.7271 ug/mL	98
64) 1,4-Naphthoquinone	10.457	158	26519	10.7927 ug/mL	99
65) Dimethylphthalate	10.551	163	77379	10.1406 ug/mL	99
66) 1,3-Dinitrobenzene	10.604	168	12637	9.6937 ug/mL	98
67) 2,6-Dinitrotoluene	10.645	165	17735	9.8511 ug/mL	99
68) Acenaphthylene	10.739	152	108041	9.9223 ug/mL	100
69) 3-Nitroaniline	10.804	138	19025	9.4286 ug/mL	99
70) 2,4-Dinitrophenol	10.910	184	1069	10.4412 ug/mL#	1
71) Acenaphthene	10.922	154	66874	9.8270 ug/mL	97
72) 4-Nitrophenol	10.898	65	16890	8.9143 ug/mL	97
73) 2,4-Dinitrotoluene	11.057	165	22581	9.5825 ug/mL	90
74) Pentachlorobenzene	11.104	250	27144	10.2450 ug/mL	98
75) Dibenzofuran	11.075	168	98367	10.1445 ug/mL	98
76) 2,3,5,6-Tetrachlorophenol	11.180	232	14038	9.6848 ug/mL	98
77) 2,3,4,6-Tetrachlorophenol	11.222	232	15032	9.6453 ug/mL	99
78) 1-Naphthylamine	11.151	143	76585	10.4377 ug/mL	99
79) 2-Naphthylamine	11.222	143	76601	9.8895 ug/mL	100
80) Diethylphthalate	11.257	149	79359	10.1449 ug/mL	99
81) Thionazin	11.357	107	12982	9.9917 ug/mL	98
82) Fluorene	11.439	166	78364	9.9805 ug/mL	99
83) 4-Chlorophenyl Phenyl ...	11.386	204	36093	10.0318 ug/mL	99
84) 4-Nitroaniline	11.433	138	19886	9.4154 ug/mL	97
85) 5-Nitro-o-Toluidine	11.433	152	22236	9.5606 ug/mL	96
86) 1,2-Diphenylhydrazine	11.557	77	92217	10.0706 ug/mL	100
89) 4,6-Dinitro-2-Methylph...	11.480	198	3646	10.3531 ug/mL#	1
90) Diphenylamine/n-Nitros...	11.504	169	67717	10.1891 ug/mL	98
91) Sulfotepp	11.704	322	11212	10.3799 ug/mL	95
92) Sym-Trinitrobenzene	11.775	75	18686	8.9957 ug/mL	96
93) Diallate	11.827	86	33926	10.2962 ug/mL	97
94) Phenacetin	11.804	108	38271	9.5712 ug/mL	95
95) Phorate	11.851	75	54810	10.2586 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.916	248	20224	10.1341 ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:32 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

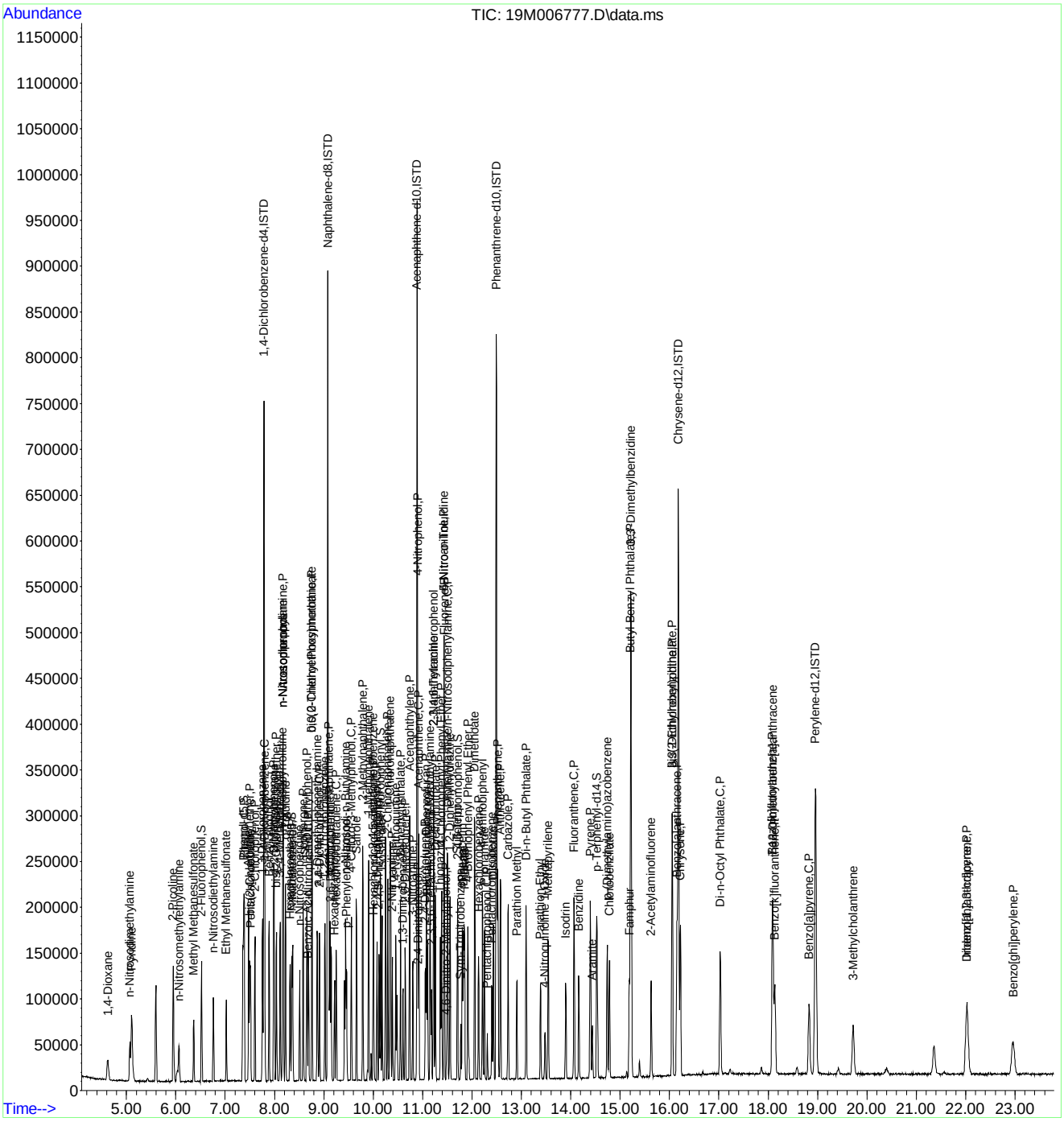
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	Hexachlorobenzene	12.133	284	20537	10.1513 ug/mL	98
98)	Dimethoate	12.051	87	32938	11.1405 ug/mL	98
99)	4-Aminobiphenyl	12.210	169	85927	10.0888 ug/mL	99
100)	Pentachlorophenol	12.310	266	7379	10.1027 ug/mL	98
101)	Pronamide	12.251	173	32303	9.9414 ug/mL	99
102)	Pentachloronitrobenzene	12.404	237	8952	10.3106 ug/mL	98
103)	Disulfoton	12.433	88	42924	10.1124 ug/mL	98
104)	Phenanthrene	12.522	178	108629	10.1704 ug/mL	100
105)	Anthracene	12.574	178	110388	10.0954 ug/mL	100
106)	Carbazole	12.733	167	100126	9.8357 ug/mL	99
107)	Parathion Methyl	12.910	109	24874	10.2743 ug/mL	96
108)	Di-n-Butyl Phthalate	13.098	149	127302	9.9891 ug/mL	99
109)	Parathion Ethyl	13.386	97	15757	9.4451 ug/mL	99
110)	4-Nitroquinoline 1-Oxide	13.480	190	4645	8.4466 ug/mL	89
111)	Methapyrilene	13.539	58	67580	10.3018 ug/mL#	92
112)	Isodrin	13.898	193	11827	10.1802 ug/mL	97
113)	Fluoranthene	14.069	202	114954	9.9476 ug/mL	99
115)	Benzidine	14.163	184	59162	10.6768 ug/mL	100
116)	Pyrene	14.398	202	117339	10.1728 ug/mL	99
117)	Aramite	14.439	185	6092	9.7391 ug/mL	98
119)	p-(Dimethylamino)azobe...	14.739	225	21361	9.8191 ug/mL	98
120)	Chlorobenzilate	14.786	251	32208	10.1434 ug/mL	99
121)	Famphur	15.186	218	38581	24.2219 ug/mL	91
122)	Butyl Benzyl Phthalate	15.210	149	57411	10.1805 ug/mL	99
123)	3,3'-Dimethylbenzidine	15.215	212	139110	10.4041 ug/mL	99
124)	2-Acetylaminofluorene	15.627	181	34241	9.0592 ug/mL	98
125)	bis(2-Ethylhexyl)phtha...	16.057	149	72506	9.9472 ug/mL	99
126)	3,3'-Dichlorobenzidine	16.057	252	35222	10.1946 ug/mL	97
127)	Benzo[a]anthracene	16.151	228	100956	9.9879 ug/mL	99
128)	Chrysene	16.221	228	97093	10.1376 ug/mL	98
130)	Di-n-Octyl Phthalate	17.027	149	114516	9.4854 ug/mL	99
131)	7,12-Dimethylbenz[a]an...	18.092	256	43634	9.8012 ug/mL	99
132)	Benzo[b]fluoranthene	18.086	252	94285	9.9547 ug/mL	98
133)	Benzo[k]fluoranthene	18.133	252	87269	10.1471 ug/mL	99
134)	Benzo[a]pyrene	18.827	252	81134	9.7855 ug/mL	98
135)	3-Methylcholanthrene	19.721	268	40678	9.6489 ug/mL	95
136)	Indeno[1,2,3-cd]pyrene	22.027	276	78391	9.6498 ug/mL	99
137)	Dibenz[ah]anthracene	22.021	278	66174	9.6342 ug/mL	99
138)	Benzo[ghi]perylene	22.962	276	64973	9.8416 ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:32 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	10.000	10.020	-0.2	100	0.00
3		n-Nitrosodimethylamine	10.000	9.777	2.2	100	0.00
4		Pyridine	10.000	10.012	-0.1	100	0.00
5		2-Picoline	10.000	10.158	-1.6	100	0.00
6		n-Nitrosomethylethylamine	10.000	10.116	-1.2	100	0.00
7		Methyl Methanesulfonate	10.000	10.294	-2.9	100	0.00
8	S	2-Fluorophenol	10.000	9.855	1.4	100	0.00
9		n-Nitrosodiethylamine	10.000	10.027	-0.3	100	0.00
10		Ethyl Methanesulfonate	10.000	10.232	-2.3	100	0.00
11		Aniline	10.000	10.054	-0.5	100	0.00
12	S	Phenol-d5	10.000	10.075	-0.7	100	0.00
13	C,P	Phenol	10.000	10.087	-0.9	100	0.00
14	P	bis(2-Chloroethyl)ether	10.000	10.327	-3.3	100	0.00
15		Pentachloroethane	10.000	10.140	-1.4	100	0.00
16	P	2-Chlorophenol	10.000	10.080	-0.8	100	0.00
17		1,3-Dichlorobenzene	10.000	10.144	-1.4	100	0.00
18	C	1,4-Dichlorobenzene	10.000	10.109	-1.1	100	0.00
19		Benzyl Alcohol	10.000	9.960	0.4	100	0.00
20		1,2-Dichlorobenzene	10.000	10.101	-1.0	100	0.00
21	P	2-Methylphenol	10.000	10.038	-0.4	100	0.00
22	P	bis(2-Chloroisopropyl)ether	10.000	10.284	-2.8	100	0.00
23	P	3-,4-Methylphenol	10.000	10.167	-1.7	100	0.00
24		n-Nitrosopyrrolidine	10.000	10.181	-1.8	100	0.00
25	P	n-Nitrosodipropylamine	10.000	10.507	-5.1	100	0.00
26		Acetophenone	10.000	10.445	-4.5	100	0.00
27		n-Nitrosomorpholine	10.000	10.533	-5.3	100	0.00
28		o-Toluidine	10.000	10.186	-1.9	100	0.00
29	P	Hexachloroethane	10.000	10.147	-1.5	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	10.000	9.921	0.8	100	0.00
32	P	Nitrobenzene	10.000	10.126	-1.3	100	0.00
33		n-Nitrosopiperidine	10.000	10.077	-0.8	100	0.00
34	P	Isophorone	10.000	10.127	-1.3	100	0.00
35	C,P	2-Nitrophenol	10.000	9.735	2.7	100	0.00
36	P	2,4-Dimethylphenol	10.000	10.089	-0.9	100	0.00
37		0,0,0-Triethyl Phosphorothi	10.000	10.353	-3.5	100	0.00
38	P	bis(2-Chloroethoxy)methane	10.000	10.247	-2.5	100	0.00
39		Benzoic Acid	10.000	8.864	11.4	100	-0.03
40	C,P	2,4-Dichlorophenol	10.000	10.100	-1.0	100	0.00
41		a,a-Dimethylphenethylamine	10.000	9.900	1.0	100	-0.04
42		1,2,4-Trichlorobenzene	10.000	10.178	-1.8	100	0.00
43	P	Naphthalene	10.000	10.113	-1.1	100	0.00
44	P	4-Chloroaniline	10.000	10.245	-2.4	100	0.00
45		2,6-Dichlorophenol	10.000	9.974	0.3	100	0.00
46		Hexachloropropene	10.000	10.243	-2.4	100	0.00
47	C,P	Hexachlorobutadiene	10.000	10.457	-4.6	100	0.00
48		n-Nitrosodi-n-Butylamine	10.000	10.017	-0.2	100	0.00
49		p-Phenylenediamine	10.000	11.828	-18.3	100	0.00
50	C,P	4-Chloro-3-Methylphenol	10.000	10.095	-1.0	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	10.000	10.080	-0.8	100	0.00
52	P	2-Methylnaphthalene	10.000	10.137	-1.4	100	0.00
53		1-Methylnaphthalene	10.000	10.152	-1.5	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	10.000	10.112	-1.1	100	0.00
56	P	Hexachlorocyclopentadiene	10.000	9.537	4.6	100	0.00
57	C,P	2,4,6-Trichlorophenol	10.000	9.785	2.1	100	0.00
58	P	2,4,5-Trichlorophenol	10.000	9.694	3.1	100	0.00
59	S	2-Fluorobiphenyl	10.000	10.134	-1.3	100	0.00
60		Isosafrole	10.000	9.891	1.1	100	0.00
61	P	2-Chloronaphthalene	10.000	10.211	-2.1	100	0.00
62		1-Chloronaphthalene	10.000	10.042	-0.4	100	0.00
63	P	2-Nitroaniline	10.000	9.717	2.8	100	0.00
64		1,4-Naphthoquinone	10.000	10.793	-7.9	100	0.00
65	P	Dimethylphthalate	10.000	10.141	-1.4	100	0.00
66		1,3-Dinitrobenzene	10.000	9.694	3.1	100	0.00
67	P	2,6-Dinitrotoluene	10.000	9.851	1.5	100	0.00
68	P	Acenaphthylene	10.000	9.922	0.8	100	0.00
69	P	3-Nitroaniline	10.000	9.429	5.7	100	0.00
70	P	2,4-Dinitrophenol	10.000	10.441	-4.4	100	0.00
71	C,P	Acenaphthene	10.000	9.827	1.7	100	0.00
72	P	4-Nitrophenol	10.000	8.914	10.9	100	0.00
73	P	2,4-Dinitrotoluene	10.000	9.583	4.2	100	0.00
74		Pentachlorobenzene	10.000	10.245	-2.4	100	0.00
75	P	Dibenzofuran	10.000	10.144	-1.4	100	0.00
76		2,3,5,6-Tetrachlorophenol	10.000	9.685	3.1	100	0.00
77		2,3,4,6-Tetrachlorophenol	10.000	9.645	3.6	100	0.00
78		1-Naphthylamine	10.000	10.438	-4.4	100	0.00
79		2-Naphthylamine	10.000	9.890	1.1	100	0.00
80	P	Diethylphthalate	10.000	10.145	-1.4	100	0.00
81		Thionazin	10.000	9.992	0.1	100	0.00
82	P	Fluorene	10.000	9.981	0.2	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	10.000	10.032	-0.3	100	0.00
84	P	4-Nitroaniline	10.000	9.415	5.9	100	-0.01
85		5-Nitro-o-Toluidine	10.000	9.561	4.4	100	0.00
86		1,2-Diphenylhydrazine	10.000	10.071	-0.7	100	0.00
87	S	2,4,6-Tribromophenol	10.000	9.859	1.4	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	10.000	10.353	-3.5	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	10.000	10.189	-1.9	100	0.00
91		Sulfotepp	10.000	10.380	-3.8	100	0.00
92		Sym-Trinitrobenzene	10.000	8.996	10.0	100	0.00
93		Diallate	10.000	10.296	-3.0	100	0.00
94		Phenacetin	10.000	9.571	4.3	100	-0.01
95		Phorate	10.000	10.260	-2.6	100	0.00
96	P	4-Bromophenyl Phenyl Ether	10.000	10.134	-1.3	100	0.00
97	P	Hexachlorobenzene	10.000	10.151	-1.5	100	0.00
98		Dimethoate	10.000	11.141	-11.4	100	0.00
99		4-Aminobiphenyl	10.000	10.089	-0.9	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006777.D Vial: 5
Acq On : 3 Apr 2019 1:21 pm Operator: SCB
Sample : WG701995-05 10PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	10.000	10.103	-1.0	100	0.00
101		Pronamide	10.000	9.941	0.6	100	0.00
102		Pentachloronitrobenzene	10.000	10.311	-3.1	100	0.00
103		Disulfoton	10.000	10.112	-1.1	100	0.00
104	P	Phenanthrene	10.000	10.170	-1.7	100	0.00
105	P	Anthracene	10.000	10.096	-1.0	100	0.00
106	P	Carbazole	10.000	9.836	1.6	100	0.00
107		Parathion Methyl	10.000	10.274	-2.7	100	0.00
108	P	Di-n-Butyl Phthalate	10.000	9.989	0.1	100	0.00
109		Parathion Ethyl	10.000	9.445	5.5	100	0.00
110		4-Nitroquinoline 1-Oxide	10.000	8.447	15.5	100	0.00
111		Methapyrilene	10.000	10.302	-3.0	100	0.00
112		Isodrin	10.000	10.180	-1.8	100	0.00
113	C,P	Fluoranthene	10.000	9.948	0.5	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	10.000	10.677	-6.8	100	0.00
116	P	Pyrene	10.000	10.173	-1.7	100	0.00
117		Aramite	10.000	9.739	2.6	100	0.00
118	S	p-Terphenyl-d14	10.000	10.322	-3.2	100	0.00
119		p-(Dimethylamino)azobenzene	10.000	9.819	1.8	100	0.00
120		Chlorobenzilate	10.000	10.143	-1.4	100	0.00
121		Famphur	-1.000	24.222	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	10.000	10.181	-1.8	100	0.00
123		3,3'-Dimethylbenzidine	10.000	10.404	-4.0	100	0.00
124		2-Acetylaminofluorene	10.000	9.059	9.4	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	10.000	9.947	0.5	100	0.00
126	P	3,3'-Dichlorobenzidine	10.000	10.195	-2.0	100	0.00
127	P	Benzo[a]anthracene	10.000	9.988	0.1	100	0.00
128	P	Chrysene	10.000	10.141	-1.4	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	10.000	9.485	5.2	100	0.00
131		7,12-Dimethylbenz[a]anthrac	10.000	9.801	2.0	100	0.00
132	P	Benzo[b]fluoranthene	10.000	9.955	0.4	100	0.00
133	P	Benzo[k]fluoranthene	10.000	10.141	-1.4	100	0.00
134	C,P	Benzo[a]pyrene	10.000	9.786	2.1	100	0.00
135		3-Methylcholanthrene	10.000	9.649	3.5	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	10.000	9.650	3.5	100	0.00
137	P	Dibenz[ah]anthracene	10.000	9.634	3.7	100	-0.01
138	P	Benzo[ghi]perylene	10.000	9.842	1.6	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	142573	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.081	136	542223	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.892	164	278218	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.492	188	456873	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	420869	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	393310	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	73363	15.1032	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	15.1032%#		
12) Phenol-d5	7.375	99	91704	14.7354	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	14.7354%		
31) Nitrobenzene-d5	8.351	82	84039	14.9542	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	29.9084%#		
59) 2-Fluorobiphenyl	10.151	172	139084	14.8938	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	29.7876%#		
87) 2,4,6-Tribromophenol	11.716	330	16435	14.9493	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	14.9493%		
118) p-Terphenyl-d14	14.527	244	147847	14.6625	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery =	29.3250%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.628	88	35605	15.3689	ug/mL	99
3) n-Nitrosodimethylamine	5.075	74	51954	15.1279	ug/mL	97
4) Pyridine	5.104	79	89362	15.2964	ug/mL	99
5) 2-Picoline	5.946	93	89768	14.9527	ug/mL	99
6) n-Nitrosomethylethylamine	6.063	88	37321	14.6856	ug/mL	98
7) Methyl Methanesulfonate	6.363	80	50778	15.1647	ug/mL	99
9) n-Nitrosodiethylamine	6.763	102	36028	14.6648	ug/mL	97
10) Ethyl Methanesulfonate	7.022	79	60356	14.5269	ug/mL	99
11) Aniline	7.475	66	51494	14.9183	ug/mL	97
13) Phenol	7.387	94	97256	14.7576	ug/mL	99
14) bis(2-Chloroethyl)ether	7.498	63	67609	14.6660	ug/mL#	20
15) Pentachloroethane	7.516	167	28496	15.1691	ug/mL	100
16) 2-Chlorophenol	7.604	128	77637	14.9037	ug/mL	99
17) 1,3-Dichlorobenzene	7.757	146	79456	14.7202	ug/mL	99
18) 1,4-Dichlorobenzene	7.804	146	81024	14.7619	ug/mL	99
19) Benzyl Alcohol	7.892	108	47976	14.4061	ug/mL	99
20) 1,2-Dichlorobenzene	7.998	146	75439	14.8867	ug/mL	99
21) 2-Methylphenol	7.987	107	57257	14.4453	ug/mL	99
22) bis(2-Chloroisopropyl)...	8.040	45	127426	14.6184	ug/mL	99
23) 3-,4-Methylphenol	8.116	107	74320	14.4583	ug/mL	98
24) n-Nitrosopyrrolidine	8.163	100	33993	14.2717	ug/mL	91
25) n-Nitrosodipropylamine	8.169	70	58982	14.5870	ug/mL	99
26) Acetophenone	8.181	105	98589	14.4894	ug/mL	100
27) n-Nitrosomorpholine	8.175	56	55848	14.7912	ug/mL	99
28) o-Toluidine	8.222	106	116259	14.7612	ug/mL	98
29) Hexachloroethane	8.316	117	32280	14.6043	ug/mL	97
32) Nitrobenzene	8.369	77	86492	14.9050	ug/mL	100
33) n-Nitrosopiperidine	8.510	114	36110	14.7876	ug/mL	99
34) Isophorone	8.581	82	148156	14.6339	ug/mL	99
35) 2-Nitrophenol	8.692	139	37340	14.9654	ug/mL	97
36) 2,4-Dimethylphenol	8.657	122	66055	14.9713	ug/mL	98
37) 0,0,0-Triethyl Phospho...	8.757	198	31447	14.5133	ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	111554	14.7479 ug/mL	100
39) Benzoic Acid	8.687	105	27429	16.5071 ug/mL	93
40) 2,4-Dichlorophenol	8.916	162	54432	14.7635 ug/mL	100
41) a,a-Dimethylphenethyla...	8.869	58	207511	14.3178 ug/mL	97
42) 1,2,4-Trichlorobenzene	9.022	180	57891	14.6859 ug/mL	99
43) Naphthalene	9.098	128	218749	14.6784 ug/mL#	99
44) 4-Chloroaniline	9.122	65	31786	14.7389 ug/mL	98
45) 2,6-Dichlorophenol	9.151	162	51943	14.5620 ug/mL	100
46) Hexachloropropene	9.216	213	36638	14.7297 ug/mL	99
47) Hexachlorobutadiene	9.251	225	32512	15.0230 ug/mL	98
48) n-Nitrosodi-n-Butylamine	9.439	84	63751	14.2274 ug/mL	97
49) p-Phenylenediamine	9.463	108	72873	17.3682 ug/mL	99
50) 4-Chloro-3-Methylphenol	9.557	107	61154	14.6065 ug/mL	99
51) Safrole	9.663	162	51690	14.3000 ug/mL	99
52) 2-Methylnaphthalene	9.792	142	136321	14.4104 ug/mL	100
53) 1-Methylnaphthalene	9.910	142	127983	14.3896 ug/mL	99
55) 1,2,4,5-Tetrachloroben...	9.998	216	55863	15.1585 ug/mL	99
56) Hexachlorocyclopentadiene	10.010	237	26947	14.2901 ug/mL	99
57) 2,4,6-Trichlorophenol	10.075	196	36165	14.8719 ug/mL	99
58) 2,4,5-Trichlorophenol	10.122	196	37590	14.9205 ug/mL	99
60) Isosafrole	10.181	162	52333	14.9341 ug/mL	99
61) 2-Chloronaphthalene	10.298	162	122909	15.1013 ug/mL	99
62) 1-Chloronaphthalene	10.339	162	114664	14.9789 ug/mL	98
63) 2-Nitroaniline	10.386	65	45732	14.9149 ug/mL	99
64) 1,4-Naphthoquinone	10.457	158	47659	16.3194 ug/mL	99
65) Dimethylphthalate	10.551	163	132226	14.5795 ug/mL	100
66) 1,3-Dinitrobenzene	10.604	168	22672	14.6327 ug/mL	97
67) 2,6-Dinitrotoluene	10.645	165	31029	14.5013 ug/mL	97
68) Acenaphthylene	10.739	152	193165	14.9258 ug/mL	99
69) 3-Nitroaniline	10.804	138	35279	14.7104 ug/mL	99
70) 2,4-Dinitrophenol	10.910	184	5004	15.5497 ug/mL#	1
71) Acenaphthene	10.922	154	117801	14.5646 ug/mL	97
72) 4-Nitrophenol	10.898	65	33445	14.8517 ug/mL	98
73) 2,4-Dinitrotoluene	11.057	165	41050	14.6567 ug/mL	99
74) Pentachlorobenzene	11.104	250	46931	14.9034 ug/mL	99
75) Dibenzofuran	11.080	168	170067	14.7566 ug/mL	98
76) 2,3,5,6-Tetrachlorophenol	11.180	232	27307	14.8915 ug/mL	99
77) 2,3,4,6-Tetrachlorophenol	11.228	232	29133	14.8885 ug/mL	100
78) 1-Naphthylamine	11.151	143	135618	15.5513 ug/mL	98
79) 2-Naphthylamine	11.222	143	139947	15.2017 ug/mL	99
80) Diethylphthalate	11.257	149	133641	14.3740 ug/mL	99
81) Thionazin	11.357	107	22219	14.3882 ug/mL	100
82) Fluorene	11.439	166	137224	14.7046 ug/mL	99
83) 4-Chlorophenyl Phenyl ...	11.386	204	61308	14.3370 ug/mL	100
84) 4-Nitroaniline	11.439	138	36887	14.6943 ug/mL	98
85) 5-Nitro-o-Toluidine	11.433	152	40637	14.7006 ug/mL	98
86) 1,2-Diphenylhydrazine	11.557	77	160191	14.7187 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.486	198	10474	15.1566 ug/mL#	44
90) Diphenylamine/n-Nitros...	11.504	169	119869	14.9516 ug/mL	99
91) Sulfotepp	11.710	322	18905	14.5086 ug/mL	95
92) Sym-Trinitrobenzene	11.775	75	36971	13.4969 ug/mL	99
93) Diallate	11.827	86	58044	14.6030 ug/mL	98
94) Phenacetin	11.810	108	71178	14.7564 ug/mL	99
95) Phorate	11.851	75	94587	14.6757 ug/mL#	98
96) 4-Bromophenyl Phenyl E...	11.916	248	35649	14.8083 ug/mL	99

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

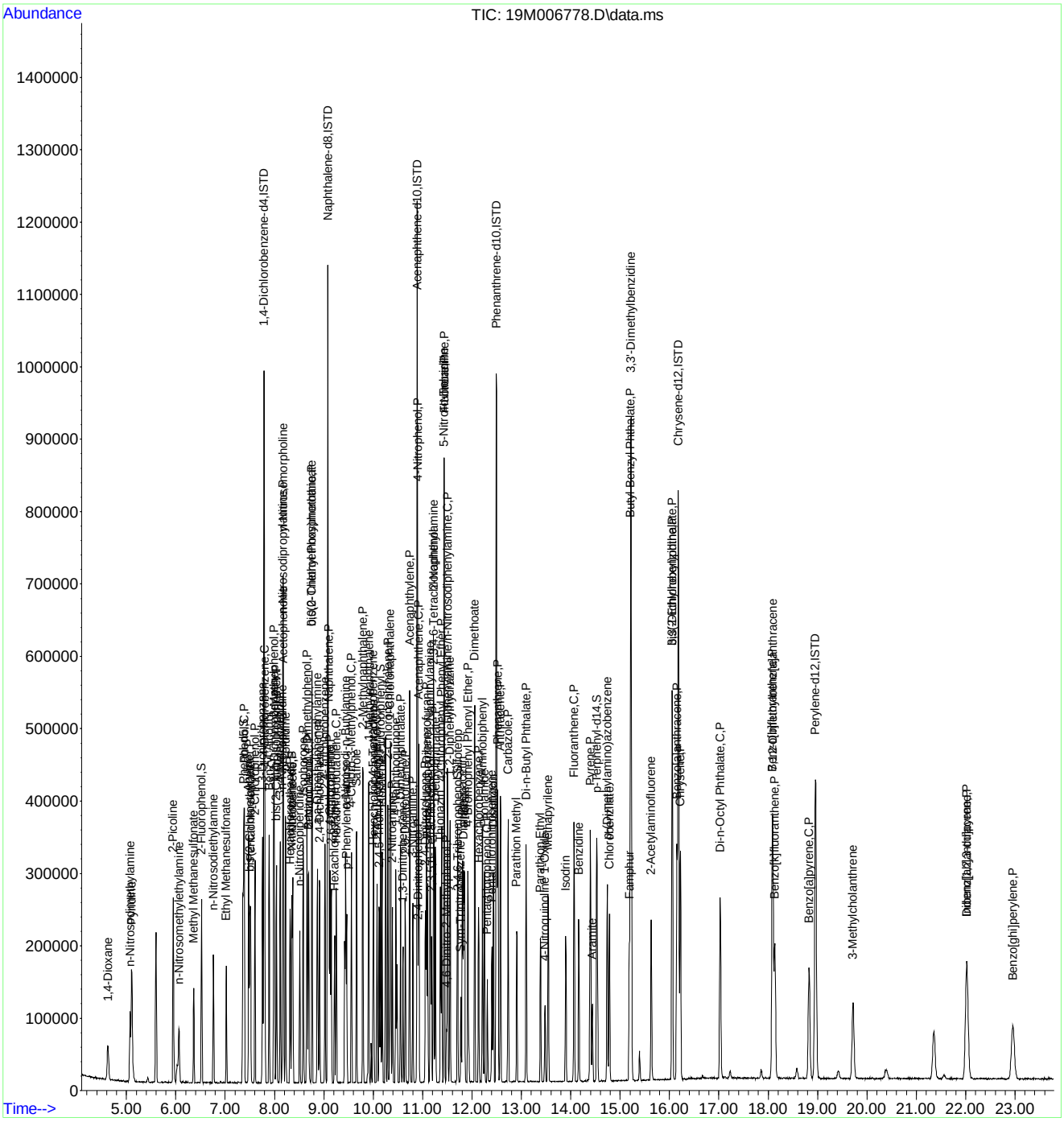
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	Hexachlorobenzene	12.133	284	36436	14.9299	ug/mL	98
98)	Dimethoate	12.057	87	58076	16.2834	ug/mL	98
99)	4-Aminobiphenyl	12.216	169	153656	14.9555	ug/mL	99
100)	Pentachlorophenol	12.310	266	17459	15.3597	ug/mL	96
101)	Pronamide	12.251	173	58184	14.8439	ug/mL	97
102)	Pentachloronitrobenzene	12.404	237	15587	14.8822	ug/mL	98
103)	Disulfoton	12.433	88	74786	14.6055	ug/mL	98
104)	Phenanthrene	12.522	178	190171	14.7598	ug/mL	100
105)	Anthracene	12.575	178	194407	14.7386	ug/mL	100
106)	Carbazole	12.733	167	184034	14.9864	ug/mL	100
107)	Parathion Methyl	12.904	109	46636	15.9687	ug/mL	99
108)	Di-n-Butyl Phthalate	13.098	149	221150	14.3853	ug/mL	99
109)	Parathion Ethyl	13.386	97	28928	14.3744	ug/mL	97
110)	4-Nitroquinoline 1-Oxide	13.480	190	9817	12.3379	ug/mL	93
111)	Methapyrilene	13.539	58	115960	14.7857	ug/mL#	91
112)	Isodrin	13.898	193	20155	14.3816	ug/mL	99
113)	Fluoranthene	14.069	202	207312	14.8716	ug/mL	99
115)	Benzidine	14.163	184	113870	16.4977	ug/mL	100
116)	Pyrene	14.398	202	211513	14.7216	ug/mL	100
117)	Aramite	14.439	185	11338	14.5517	ug/mL	99
119)	p-(Dimethylamino)azobe...	14.739	225	39720	14.6581	ug/mL	96
120)	Chlorobenzilate	14.786	251	56768	14.3530	ug/mL	99
121)	Famphur	15.186	218	63584	32.0480	ug/mL	92
122)	Butyl Benzyl Phthalate	15.210	149	101602	14.4642	ug/mL	99
123)	3,3'-Dimethylbenzidine	15.221	212	248657	15.2966	ug/mL	99
124)	2-Acetylaminofluorene	15.627	181	73107	14.3903	ug/mL	98
125)	bis(2-Ethylhexyl)phtha...	16.057	149	128209	14.1210	ug/mL	99
126)	3,3'-Dichlorobenzidine	16.057	252	65746	15.2772	ug/mL	99
127)	Benzo[a]anthracene	16.151	228	184965	14.6909	ug/mL	100
128)	Chrysene	16.221	228	178398	14.9540	ug/mL	99
130)	Di-n-Octyl Phthalate	17.027	149	211238	13.4665	ug/mL	98
131)	7,12-Dimethylbenz[a]an...	18.092	256	83683	14.4672	ug/mL	99
132)	Benzo[b]fluoranthene	18.086	252	181099	14.7161	ug/mL	99
133)	Benzo[k]fluoranthene	18.133	252	166373	14.8887	ug/mL	96
134)	Benzo[a]pyrene	18.827	252	156366	14.5150	ug/mL	99
135)	3-Methylcholanthrene	19.715	268	78955	14.4142	ug/mL	98
136)	Indeno[1,2,3-cd]pyrene	22.021	276	161052	15.2585	ug/mL	99
137)	Dibenz[ah]anthracene	22.021	278	135844	15.2216	ug/mL	100
138)	Benzo[ghi]perylene	22.956	276	133394	15.5511	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	15.000	15.369	-2.5	100	0.00
3		n-Nitrosodimethylamine	15.000	15.128	-0.9	100	0.00
4		Pyridine	15.000	15.296	-2.0	100	0.00
5		2-Picoline	15.000	14.953	0.3	100	0.00
6		n-Nitrosomethylethylamine	15.000	15.237	-1.6	100	0.00
7		Methyl Methanesulfonate	15.000	15.165	-1.1	100	0.00
8	S	2-Fluorophenol	15.000	15.103	-0.7	100	0.00
9		n-Nitrosodiethylamine	15.000	14.665	2.2	100	0.00
10		Ethyl Methanesulfonate	15.000	14.527	3.2	100	0.00
11		Aniline	15.000	14.918	0.5	100	0.00
12	S	Phenol-d5	15.000	14.735	1.8	100	0.00
13	C,P	Phenol	15.000	14.758	1.6	100	0.00
14	P	bis(2-Chloroethyl)ether	15.000	14.666	2.2	100	0.00
15		Pentachloroethane	15.000	15.169	-1.1	100	0.00
16	P	2-Chlorophenol	15.000	14.904	0.6	100	0.00
17		1,3-Dichlorobenzene	15.000	14.720	1.9	100	0.00
18	C	1,4-Dichlorobenzene	15.000	14.762	1.6	100	0.00
19		Benzyl Alcohol	15.000	14.406	4.0	100	0.00
20		1,2-Dichlorobenzene	15.000	14.887	0.8	100	0.00
21	P	2-Methylphenol	15.000	14.445	3.7	100	0.00
22	P	bis(2-Chloroisopropyl)ether	15.000	14.618	2.5	100	0.00
23	P	3-,4-Methylphenol	15.000	14.458	3.6	100	0.00
24		n-Nitrosopyrrolidine	15.000	14.272	4.9	100	0.00
25	P	n-Nitrosodipropylamine	15.000	14.587	2.8	100	0.00
26		Acetophenone	15.000	14.489	3.4	100	0.00
27		n-Nitrosomorpholine	15.000	14.791	1.4	100	0.00
28		o-Toluidine	15.000	14.761	1.6	100	0.00
29	P	Hexachloroethane	15.000	14.604	2.6	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	15.000	14.954	0.3	100	0.00
32	P	Nitrobenzene	15.000	14.905	0.6	100	0.00
33		n-Nitrosopiperidine	15.000	14.788	1.4	100	0.00
34	P	Isophorone	15.000	14.634	2.4	100	0.00
35	C,P	2-Nitrophenol	15.000	14.965	0.2	100	0.00
36	P	2,4-Dimethylphenol	15.000	14.971	0.2	100	0.00
37		0,0,0-Triethyl Phosphorothi	15.000	14.513	3.2	100	0.00
38	P	bis(2-Chloroethoxy)methane	15.000	14.748	1.7	100	0.00
39		Benzoic Acid	15.000	16.738	-11.6	100	-0.02
40	C,P	2,4-Dichlorophenol	15.000	14.763	1.6	100	0.00
41		a,a-Dimethylphenethylamine	15.000	14.318	4.5	100	-0.04
42		1,2,4-Trichlorobenzene	15.000	14.686	2.1	100	0.00
43	P	Naphthalene	15.000	14.678	2.1	100	0.00
44	P	4-Chloroaniline	15.000	14.739	1.7	100	0.00
45		2,6-Dichlorophenol	15.000	14.562	2.9	100	0.00
46		Hexachloropropene	15.000	14.730	1.8	100	0.00
47	C,P	Hexachlorobutadiene	15.000	15.023	-0.2	100	0.00
48		n-Nitrosodi-n-Butylamine	15.000	14.227	5.2	100	0.00
49		p-Phenylenediamine	15.000	17.368	-15.8	100	0.00
50	C,P	4-Chloro-3-Methylphenol	15.000	14.606	2.6	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	15.000	14.300	4.7	100	0.00
52	P	2-Methylnaphthalene	15.000	14.410	3.9	100	0.00
53		1-Methylnaphthalene	15.000	14.390	4.1	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	15.000	15.159	-1.1	100	0.00
56	P	Hexachlorocyclopentadiene	15.000	14.290	4.7	100	0.00
57	C,P	2,4,6-Trichlorophenol	15.000	14.872	0.9	100	0.00
58	P	2,4,5-Trichlorophenol	15.000	14.920	0.5	100	0.00
59	S	2-Fluorobiphenyl	15.000	14.894	0.7	100	0.00
60		Isosafrole	15.000	14.934	0.4	100	0.00
61	P	2-Chloronaphthalene	15.000	15.101	-0.7	100	0.00
62		1-Chloronaphthalene	15.000	14.979	0.1	100	0.00
63	P	2-Nitroaniline	15.000	14.900	0.7	100	0.00
64		1,4-Naphthoquinone	15.000	16.319	-8.8	100	0.00
65	P	Dimethylphthalate	15.000	14.580	2.8	100	0.00
66		1,3-Dinitrobenzene	15.000	14.633	2.4	100	0.00
67	P	2,6-Dinitrotoluene	15.000	14.501	3.3	100	0.00
68	P	Acenaphthylene	15.000	14.926	0.5	100	0.00
69	P	3-Nitroaniline	15.000	14.710	1.9	100	0.00
70	P	2,4-Dinitrophenol	15.000	15.550	-3.7	100	0.00
71	C,P	Acenaphthene	15.000	14.565	2.9	100	0.00
72	P	4-Nitrophenol	15.000	14.852	1.0	100	0.00
73	P	2,4-Dinitrotoluene	15.000	14.657	2.3	100	0.00
74		Pentachlorobenzene	15.000	14.903	0.6	100	0.00
75	P	Dibenzofuran	15.000	14.757	1.6	100	0.00
76		2,3,5,6-Tetrachlorophenol	15.000	14.891	0.7	100	0.00
77		2,3,4,6-Tetrachlorophenol	15.000	14.889	0.7	100	0.00
78		1-Naphthylamine	15.000	15.551	-3.7	100	0.00
79		2-Naphthylamine	15.000	15.202	-1.3	100	0.00
80	P	Diethylphthalate	15.000	14.374	4.2	100	0.00
81		Thionazin	15.000	14.388	4.1	100	0.00
82	P	Fluorene	15.000	14.705	2.0	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	15.000	14.337	4.4	100	0.00
84	P	4-Nitroaniline	15.000	14.694	2.0	100	0.00
85		5-Nitro-o-Toluidine	15.000	14.701	2.0	100	0.00
86		1,2-Diphenylhydrazine	15.000	14.719	1.9	100	0.00
87	S	2,4,6-Tribromophenol	15.000	14.949	0.3	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	15.000	15.157	-1.0	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	15.000	14.952	0.3	100	0.00
91		Sulfotepp	15.000	14.509	3.3	100	0.00
92		Sym-Trinitrobenzene	15.000	13.497	10.0	100	0.00
93		Diallate	15.000	14.603	2.6	100	0.00
94		Phenacetin	15.000	14.756	1.6	100	0.00
95		Phorate	15.000	14.678	2.1	100	0.00
96	P	4-Bromophenyl Phenyl Ether	15.000	14.808	1.3	100	0.00
97	P	Hexachlorobenzene	15.000	14.930	0.5	100	0.00
98		Dimethoate	15.000	16.283	-8.6	100	0.00
99		4-Aminobiphenyl	15.000	14.955	0.3	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006778.D Vial: 6
Acq On : 3 Apr 2019 1:51 pm Operator: SCB
Sample : WG701995-06 15PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	15.000	15.360	-2.4	100	0.00
101		Pronamide	15.000	14.844	1.0	100	0.00
102		Pentachloronitrobenzene	15.000	14.882	0.8	100	0.00
103		Disulfoton	15.000	14.605	2.6	100	0.00
104	P	Phenanthrene	15.000	14.760	1.6	100	0.00
105	P	Anthracene	15.000	14.739	1.7	100	0.00
106	P	Carbazole	15.000	14.986	0.1	100	0.00
107		Parathion Methyl	15.000	15.969	-6.5	100	0.00
108	P	Di-n-Butyl Phthalate	15.000	14.385	4.1	100	0.00
109		Parathion Ethyl	15.000	14.374	4.2	100	0.00
110		4-Nitroquinoline 1-Oxide	15.000	12.338	17.7	100	0.00
111		Methapyrilene	15.000	14.786	1.4	100	0.00
112		Isodrin	15.000	14.382	4.1	100	0.00
113	C,P	Fluoranthene	15.000	14.872	0.9	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	15.000	16.498	-10.0	100	0.00
116	P	Pyrene	15.000	14.722	1.9	100	0.00
117		Aramite	15.000	14.552	3.0	100	0.00
118	S	p-Terphenyl-d14	15.000	14.663	2.2	100	0.00
119		p-(Dimethylamino)azobenzene	15.000	14.658	2.3	100	0.00
120		Chlorobenzilate	15.000	14.353	4.3	100	0.00
121		Famphur	-1.000	32.048	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	15.000	14.464	3.6	100	0.00
123		3,3'-Dimethylbenzidine	15.000	15.297	-2.0	100	0.00
124		2-Acetylaminofluorene	15.000	14.390	4.1	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	15.000	14.121	5.9	100	0.00
126	P	3,3'-Dichlorobenzidine	15.000	15.277	-1.8	100	0.00
127	P	Benzo[a]anthracene	15.000	14.691	2.1	100	0.00
128	P	Chrysene	15.000	14.959	0.3	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	15.000	13.467	10.2	100	0.00
131		7,12-Dimethylbenz[a]anthrac	15.000	14.467	3.6	100	0.00
132	P	Benzo[b]fluoranthene	15.000	14.716	1.9	100	0.00
133	P	Benzo[k]fluoranthene	15.000	14.880	0.8	100	0.00
134	C,P	Benzo[a]pyrene	15.000	14.515	3.2	100	0.00
135		3-Methylcholanthrene	15.000	14.414	3.9	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	15.000	15.258	-1.7	100	-0.01
137	P	Dibenz[ah]anthracene	15.000	15.222	-1.5	100	-0.01
138	P	Benzo[ghi]perylene	15.000	15.551	-3.7	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006779.D Vial: 7
Acq On : 3 Apr 2019 2:21 pm Operator: SCB
Sample : WG701995-07 25PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	115174	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.081	136	446532	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.892	164	235779	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	387193	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	353055	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	321539	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	100845	25.6998	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery =	25.6998%		
12) Phenol-d5	7.375	99	128114	25.4831	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery =	25.4831%		
31) Nitrobenzene-d5	8.351	82	120454	26.0272	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery =	52.0544%		
59) 2-Fluorobiphenyl	10.151	172	205662	25.9874	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery =	51.9748%		
87) 2,4,6-Tribromophenol	11.716	330	24603	26.4071	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery =	26.4071%		
118) p-Terphenyl-d14	14.527	244	218837	25.8715	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery =	51.7430%		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.622	88	47887	25.5877	ug/mL	100
3) n-Nitrosodimethylamine	5.075	74	70983	25.5856	ug/mL	98
4) Pyridine	5.104	79	122205	25.8945	ug/mL	100
5) 2-Picoline	5.945	93	122971	25.3562	ug/mL	100
6) n-Nitrosomethylethylamine	6.063	88	52745	25.6924	ug/mL	96
7) Methyl Methanesulfonate	6.363	80	70150	25.9339	ug/mL	100
9) n-Nitrosodiethylamine	6.763	102	50011	25.1991	ug/mL	94
10) Ethyl Methanesulfonate	7.022	79	86464	25.7614	ug/mL	100
11) Aniline	7.475	66	72313	25.9335	ug/mL	100
13) Phenol	7.387	94	136214	25.5860	ug/mL	98
14) bis(2-Chloroethyl)ether	7.498	63	96935	26.0298	ug/mL	99
15) Pentachloroethane	7.516	167	39204	25.8338	ug/mL	99
16) 2-Chlorophenol	7.604	128	106695	25.3544	ug/mL	100
17) 1,3-Dichlorobenzene	7.757	146	111673	25.6105	ug/mL	99
18) 1,4-Dichlorobenzene	7.804	146	113233	25.5379	ug/mL	100
19) Benzyl Alcohol	7.892	108	69081	25.6782	ug/mL	99
20) 1,2-Dichlorobenzene	7.998	146	104964	25.6405	ug/mL	99
21) 2-Methylphenol	7.987	107	82439	25.7463	ug/mL	99
22) bis(2-Chloroisopropyl)...	8.039	45	183384	26.0427	ug/mL	99
23) 3-,4-Methylphenol	8.116	107	105113	25.3135	ug/mL	99
24) n-Nitrosopyrrolidine	8.163	100	49935	25.9523	ug/mL	96
25) n-Nitrosodipropylamine	8.169	70	86373	26.4427	ug/mL	99
26) Acetophenone	8.181	105	143572	26.1200	ug/mL	100
27) n-Nitrosomorpholine	8.175	56	80368	26.3489	ug/mL	99
28) o-Toluidine	8.222	106	163541	25.7042	ug/mL	99
29) Hexachloroethane	8.316	117	46043	25.7865	ug/mL	98
32) Nitrobenzene	8.369	77	123964	25.9404	ug/mL	100
33) n-Nitrosopiperidine	8.516	114	51850	25.7837	ug/mL	99
34) Isophorone	8.581	82	215144	25.8045	ug/mL	100
35) 2-Nitrophenol	8.692	139	53310	25.9447	ug/mL	99
36) 2,4-Dimethylphenol	8.657	122	92659	25.5015	ug/mL	100
37) 0,0,0-Triethyl Phospho...	8.757	198	46171	25.8751	ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006779.D Vial: 7
Acq On : 3 Apr 2019 2:21 pm Operator: SCB
Sample : WG701995-07 25PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	160967	25.8408 ug/mL	100
39) Benzoic Acid	8.692	105	37240	22.7308 ug/mL	86
40) 2,4-Dichlorophenol	8.916	162	77622	25.5649 ug/mL	99
41) a,a-Dimethylphenethyla...	8.869	58	313965	26.3052 ug/mL	99
42) 1,2,4-Trichlorobenzene	9.022	180	84604	26.0618 ug/mL	99
43) Naphthalene	9.098	128	316385	25.7795 ug/mL#	100
44) 4-Chloroaniline	9.122	65	46497	26.1806 ug/mL	97
45) 2,6-Dichlorophenol	9.151	162	76554	26.0608 ug/mL	99
46) Hexachloropropene	9.216	213	53219	25.9809 ug/mL	100
47) Hexachlorobutadiene	9.251	225	46360	26.0125 ug/mL	98
48) n-Nitrosodi-n-Butylamine	9.439	84	95871	25.9808 ug/mL	98
49) p-Phenylenediamine	9.463	108	99278	28.7321 ug/mL	100
50) 4-Chloro-3-Methylphenol	9.557	107	87963	25.5121 ug/mL	100
51) Safrole	9.663	162	77279	25.9607 ug/mL	98
52) 2-Methylnaphthalene	9.792	142	200986	25.7991 ug/mL	99
53) 1-Methylnaphthalene	9.910	142	188764	25.7716 ug/mL	99
55) 1,2,4,5-Tetrachloroben...	9.998	216	81407	26.0660 ug/mL	98
56) Hexachlorocyclopentadiene	10.010	237	38765	24.2986 ug/mL	99
57) 2,4,6-Trichlorophenol	10.075	196	52092	25.2771 ug/mL	98
58) 2,4,5-Trichlorophenol	10.122	196	56602	26.5107 ug/mL	98
60) Isosafrole	10.181	162	77383	26.0573 ug/mL	98
61) 2-Chloronaphthalene	10.298	162	177060	25.6703 ug/mL	100
62) 1-Chloronaphthalene	10.339	162	167498	25.8192 ug/mL	99
63) 2-Nitroaniline	10.386	65	65539	25.2221 ug/mL	99
64) 1,4-Naphthoquinone	10.457	158	70528	28.4971 ug/mL	98
65) Dimethylphthalate	10.551	163	198780	25.8630 ug/mL	99
66) 1,3-Dinitrobenzene	10.604	168	33575	25.5700 ug/mL	99
67) 2,6-Dinitrotoluene	10.651	165	48115	26.5338 ug/mL	96
68) Acenaphthylene	10.739	152	286043	26.0807 ug/mL	100
69) 3-Nitroaniline	10.804	138	51414	25.2971 ug/mL	99
70) 2,4-Dinitrophenol	10.910	184	8702	22.2725 ug/mL#	1
71) Acenaphthene	10.922	154	175639	25.6242 ug/mL	98
72) 4-Nitrophenol	10.898	65	47006	24.6307 ug/mL	99
73) 2,4-Dinitrotoluene	11.057	165	61191	25.7805 ug/mL	100
74) Pentachlorobenzene	11.104	250	68517	25.6746 ug/mL	98
75) Dibenzofuran	11.080	168	252737	25.8771 ug/mL	98
76) 2,3,5,6-Tetrachlorophenol	11.180	232	39692	24.4640 ug/mL	98
77) 2,3,4,6-Tetrachlorophenol	11.227	232	43890	25.4323 ug/mL	99
78) 1-Naphthylamine	11.151	143	197093	26.6686 ug/mL	98
79) 2-Naphthylamine	11.222	143	202060	25.8994 ug/mL	99
80) Diethylphthalate	11.257	149	201204	25.5361 ug/mL	99
81) Thionazin	11.357	107	33873	25.8831 ug/mL	99
82) Fluorene	11.439	166	202893	25.6549 ug/mL	100
83) 4-Chlorophenyl Phenyl ...	11.386	204	93692	25.8538 ug/mL	99
84) 4-Nitroaniline	11.439	138	52602	24.7263 ug/mL	97
85) 5-Nitro-o-Toluidine	11.433	152	60406	25.7854 ug/mL	98
86) 1,2-Diphenylhydrazine	11.557	77	237653	25.7664 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.486	198	17710	23.1452 ug/mL#	63
90) Diphenylamine/n-Nitros...	11.504	169	177774	26.1648 ug/mL	99
91) Sulfotepp	11.704	322	29505	26.7186 ug/mL	94
92) Sym-Trinitrobenzene	11.775	75	58057	23.3336 ug/mL	98
93) Diallate	11.833	86	87001	25.8272 ug/mL	97
94) Phenacetin	11.810	108	106409	26.0305 ug/mL	100
95) Phorate	11.851	75	143053	26.1898 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.916	248	53104	26.0287 ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006779.D Vial: 7
Acq On : 3 Apr 2019 2:21 pm Operator: SCB
Sample : WG701995-07 25PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

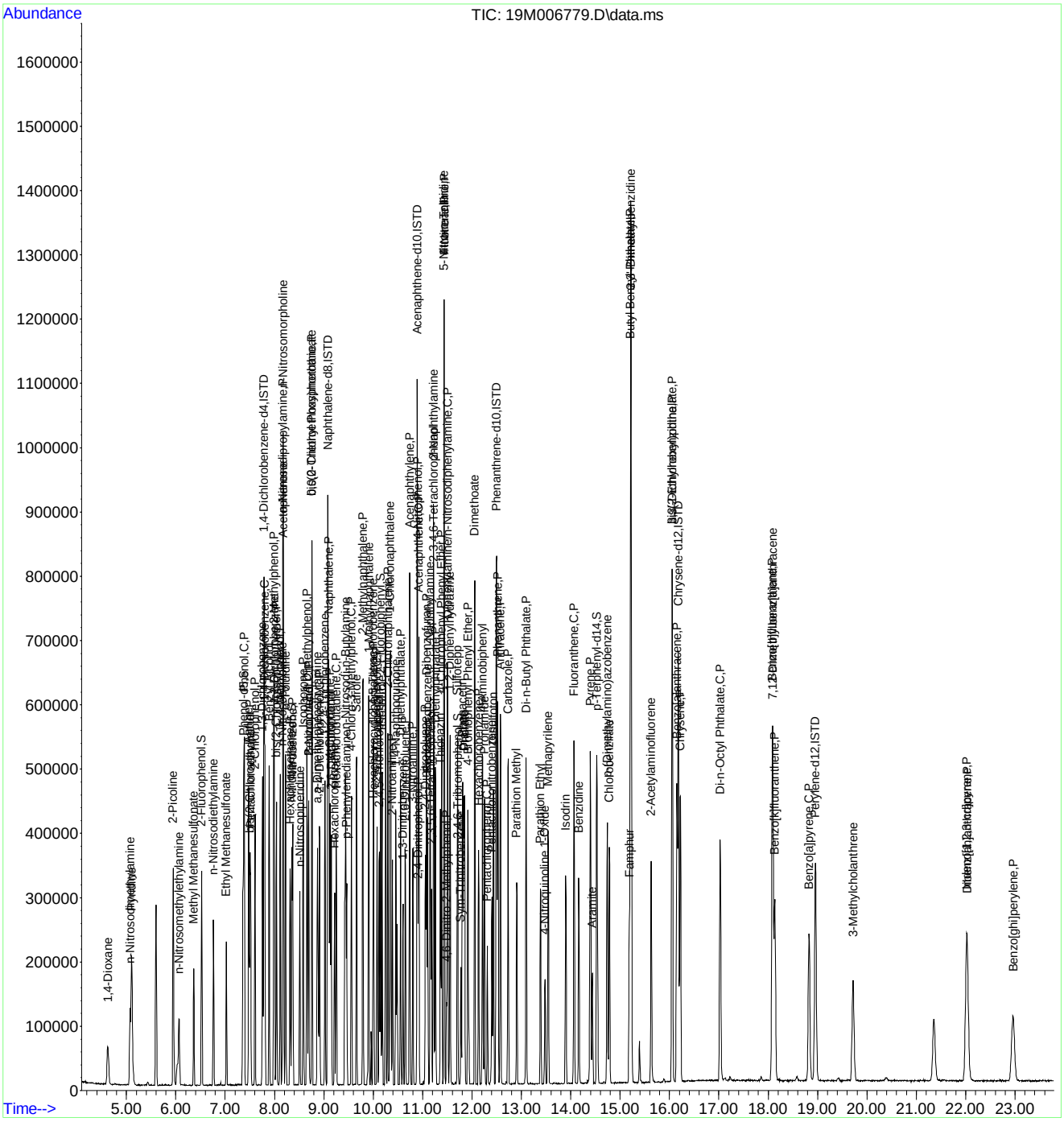
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	Hexachlorobenzene	12.133	284	54027	26.1218 ug/mL	98
98)	Dimethoate	12.057	87	84422	27.9301 ug/mL	99
99)	4-Aminobiphenyl	12.216	169	226264	25.9857 ug/mL	99
100)	Pentachlorophenol	12.310	266	27029	24.2267 ug/mL	97
101)	Pronamide	12.251	173	86161	25.9373 ug/mL	98
102)	Pentachloronitrobenzene	12.404	237	23216	26.1553 ug/mL	98
103)	Disulfoton	12.433	88	113603	26.1790 ug/mL	98
104)	Phenanthrene	12.522	178	282576	25.8784 ug/mL	99
105)	Anthracene	12.574	178	288886	25.8427 ug/mL	100
106)	Carbazole	12.733	167	266325	25.5906 ug/mL	100
107)	Parathion Methyl	12.904	109	69601	28.1211 ug/mL	100
108)	Di-n-Butyl Phthalate	13.098	149	338408	25.9741 ug/mL	100
109)	Parathion Ethyl	13.386	97	44487	26.0839 ug/mL	98
110)	4-Nitroquinoline 1-Oxide	13.480	190	16822	21.4623 ug/mL	95
111)	Methapyrilene	13.539	58	170473	26.8200 ug/mL#	90
112)	Isodrin	13.898	193	30888	26.0065 ug/mL	99
113)	Fluoranthene	14.068	202	305199	25.8336 ug/mL	100
115)	Benzidine	14.163	184	165106	28.5156 ug/mL	100
116)	Pyrene	14.398	202	312373	25.9177 ug/mL	99
117)	Aramite	14.439	185	17315	26.4914 ug/mL	99
119)	p-(Dimethylamino)azobe...	14.739	225	59837	26.3234 ug/mL	96
120)	Chlorobenzilate	14.780	251	85017	25.6242 ug/mL	99
121)	Famphur	15.186	218	84707	50.8951 ug/mL	93
122)	Butyl Benzyl Phthalate	15.210	149	154015	26.1373 ug/mL	100
123)	3,3'-Dimethylbenzidine	15.215	212	352546	27.0528 ug/mL	100
124)	2-Acetylaminofluorene	15.627	181	107540	24.0332 ug/mL	98
125)	bis(2-Ethylhexyl)phtha...	16.057	149	199102	26.1412 ug/mL	99
126)	3,3'-Dichlorobenzidine	16.057	252	94641	26.2155 ug/mL	99
127)	Benzo[a]anthracene	16.151	228	271527	25.7084 ug/mL	99
128)	Chrysene	16.221	228	257387	25.7192 ug/mL	99
130)	Di-n-Octyl Phthalate	17.027	149	322666	25.1616 ug/mL	98
131)	7,12-Dimethylbenz[a]an...	18.092	256	120860	25.5582 ug/mL	99
132)	Benzo[b]fluoranthene	18.086	252	256993	25.5446 ug/mL	99
133)	Benzo[k]fluoranthene	18.133	252	239803	26.2501 ug/mL	98
134)	Benzo[a]pyrene	18.827	252	229079	26.0112 ug/mL	100
135)	3-Methylcholanthrene	19.721	268	116860	26.0962 ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	22.027	276	227602	26.3768 ug/mL	99
137)	Dibenz[ah]anthracene	22.033	278	190378	26.0939 ug/mL	100
138)	Benzo[ghi]perylene	22.962	276	184255	26.2751 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006779.D Vial: 7
Acq On : 3 Apr 2019 2:21 pm Operator: SCB
Sample : WG701995-07 25PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:16:44 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006779.D Vial: 7
Acq On : 3 Apr 2019 2:21 pm Operator: SCB
Sample : WG701995-07 25PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:52 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	25.000	25.588	-2.4	100	0.00
3		n-Nitrosodimethylamine	25.000	25.586	-2.3	100	0.00
4		Pyridine	25.000	25.895	-3.6	100	0.00
5		2-Picoline	25.000	25.356	-1.4	100	0.00
6		n-Nitrosomethylethylamine	25.000	26.657	-6.6	100	0.00
7		Methyl Methanesulfonate	25.000	25.934	-3.7	100	0.00
8	S	2-Fluorophenol	25.000	25.700	-2.8	100	0.00
9		n-Nitrosodiethylamine	25.000	25.199	-0.8	100	0.00
10		Ethyl Methanesulfonate	25.000	25.761	-3.0	100	0.00
11		Aniline	25.000	25.933	-3.7	100	0.00
12	S	Phenol-d5	25.000	25.483	-1.9	100	0.00
13	C,P	Phenol	25.000	25.586	-2.3	100	0.00
14	P	bis(2-Chloroethyl)ether	25.000	26.030	-4.1	100	0.00
15		Pentachloroethane	25.000	25.834	-3.3	100	0.00
16	P	2-Chlorophenol	25.000	25.354	-1.4	100	0.00
17		1,3-Dichlorobenzene	25.000	25.610	-2.4	100	0.00
18	C	1,4-Dichlorobenzene	25.000	25.538	-2.2	100	0.00
19		Benzyl Alcohol	25.000	25.678	-2.7	100	0.00
20		1,2-Dichlorobenzene	25.000	25.641	-2.6	100	0.00
21	P	2-Methylphenol	25.000	25.746	-3.0	100	0.00
22	P	bis(2-Chloroisopropyl)ether	25.000	26.043	-4.2	100	0.00
23	P	3-,4-Methylphenol	25.000	25.313	-1.3	100	0.00
24		n-Nitrosopyrrolidine	25.000	25.952	-3.8	100	0.00
25	P	n-Nitrosodipropylamine	25.000	26.443	-5.8	100	0.00
26		Acetophenone	25.000	26.120	-4.5	100	0.00
27		n-Nitrosomorpholine	25.000	26.349	-5.4	100	0.00
28		o-Toluidine	25.000	25.704	-2.8	100	0.00
29	P	Hexachloroethane	25.000	25.787	-3.1	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	25.000	26.027	-4.1	100	0.00
32	P	Nitrobenzene	25.000	25.940	-3.8	100	0.00
33		n-Nitrosopiperidine	25.000	25.784	-3.1	100	0.00
34	P	Isophorone	25.000	25.804	-3.2	100	0.00
35	C,P	2-Nitrophenol	25.000	25.945	-3.8	100	0.00
36	P	2,4-Dimethylphenol	25.000	25.501	-2.0	100	0.00
37		0,0,0-Triethyl Phosphorothi	25.000	25.875	-3.5	100	0.00
38	P	bis(2-Chloroethoxy)methane	25.000	25.841	-3.4	100	0.00
39		Benzoic Acid	25.000	23.803	4.8	100	-0.02
40	C,P	2,4-Dichlorophenol	25.000	25.565	-2.3	100	0.00
41		a,a-Dimethylphenethylamine	25.000	26.305	-5.2	100	-0.04
42		1,2,4-Trichlorobenzene	25.000	26.062	-4.2	100	0.00
43	P	Naphthalene	25.000	25.779	-3.1	100	0.00
44	P	4-Chloroaniline	25.000	26.181	-4.7	100	0.00
45		2,6-Dichlorophenol	25.000	26.061	-4.2	100	0.00
46		Hexachloropropene	25.000	25.981	-3.9	100	0.00
47	C,P	Hexachlorobutadiene	25.000	26.013	-4.1	100	0.00
48		n-Nitrosodi-n-Butylamine	25.000	25.981	-3.9	100	0.00
49		p-Phenylenediamine	25.000	28.732	-14.9	100	0.00
50	C,P	4-Chloro-3-Methylphenol	25.000	25.512	-2.0	100	0.00

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Acq On : 3 Apr 2019 2:21 pm Operator: SCB
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Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:52 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	25.000	25.961	-3.8	100	0.00
52	P	2-Methylnaphthalene	25.000	25.799	-3.2	100	0.00
53		1-Methylnaphthalene	25.000	25.772	-3.1	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	25.000	26.066	-4.3	100	0.00
56	P	Hexachlorocyclopentadiene	25.000	24.299	2.8	100	0.00
57	C,P	2,4,6-Trichlorophenol	25.000	25.277	-1.1	100	0.00
58	P	2,4,5-Trichlorophenol	25.000	26.511	-6.0	100	0.00
59	S	2-Fluorobiphenyl	25.000	25.987	-3.9	100	0.00
60		Isosafrole	25.000	26.057	-4.2	100	0.00
61	P	2-Chloronaphthalene	25.000	25.670	-2.7	100	0.00
62		1-Chloronaphthalene	25.000	25.819	-3.3	100	0.00
63	P	2-Nitroaniline	25.000	25.197	-0.8	100	0.00
64		1,4-Naphthoquinone	25.000	28.497	-14.0	100	0.00
65	P	Dimethylphthalate	25.000	25.863	-3.5	100	0.00
66		1,3-Dinitrobenzene	25.000	25.570	-2.3	100	0.00
67	P	2,6-Dinitrotoluene	25.000	26.534	-6.1	100	0.00
68	P	Acenaphthylene	25.000	26.081	-4.3	100	0.00
69	P	3-Nitroaniline	25.000	25.297	-1.2	100	0.00
70	P	2,4-Dinitrophenol	25.000	22.273	10.9	100	0.00
71	C,P	Acenaphthene	25.000	25.624	-2.5	100	0.00
72	P	4-Nitrophenol	25.000	24.631	1.5	100	0.00
73	P	2,4-Dinitrotoluene	25.000	25.780	-3.1	100	0.00
74		Pentachlorobenzene	25.000	25.675	-2.7	100	0.00
75	P	Dibenzofuran	25.000	25.877	-3.5	100	0.00
76		2,3,5,6-Tetrachlorophenol	25.000	24.464	2.1	100	0.00
77		2,3,4,6-Tetrachlorophenol	25.000	25.432	-1.7	100	0.00
78		1-Naphthylamine	25.000	26.669	-6.7	100	0.00
79		2-Naphthylamine	25.000	25.899	-3.6	100	0.00
80	P	Diethylphthalate	25.000	25.536	-2.1	100	0.00
81		Thionazin	25.000	25.883	-3.5	100	0.00
82	P	Fluorene	25.000	25.655	-2.6	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	25.000	25.854	-3.4	100	0.00
84	P	4-Nitroaniline	25.000	24.726	1.1	100	0.00
85		5-Nitro-o-Toluidine	25.000	25.785	-3.1	100	0.00
86		1,2-Diphenylhydrazine	25.000	25.766	-3.1	100	0.00
87	S	2,4,6-Tribromophenol	25.000	26.407	-5.6	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	25.000	23.145	7.4	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	25.000	26.165	-4.7	100	0.00
91		Sulfotepp	25.000	26.719	-6.9	100	0.00
92		Sym-Trinitrobenzene	20.000	23.334	-16.7	100	0.00
93		Diallate	25.000	25.827	-3.3	100	0.00
94		Phenacetin	25.000	26.030	-4.1	100	0.00
95		Phorate	25.000	26.195	-4.8	100	0.00
96	P	4-Bromophenyl Phenyl Ether	25.000	26.029	-4.1	100	0.00
97	P	Hexachlorobenzene	25.000	26.122	-4.5	100	0.00
98		Dimethoate	25.000	27.930	-11.7	100	0.00
99		4-Aminobiphenyl	25.000	25.986	-3.9	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006779.D Vial: 7
Acq On : 3 Apr 2019 2:21 pm Operator: SCB
Sample : WG701995-07 25PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:52 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	25.000	24.227	3.1	100	0.00
101		Pronamide	25.000	25.937	-3.7	100	0.00
102		Pentachloronitrobenzene	25.000	26.155	-4.6	100	0.00
103		Disulfoton	25.000	26.179	-4.7	100	0.00
104	P	Phenanthrene	25.000	25.878	-3.5	100	0.00
105	P	Anthracene	25.000	25.843	-3.4	100	0.00
106	P	Carbazole	25.000	25.591	-2.4	100	0.00
107		Parathion Methyl	25.000	28.121	-12.5	100	0.00
108	P	Di-n-Butyl Phthalate	25.000	25.974	-3.9	100	0.00
109		Parathion Ethyl	25.000	26.084	-4.3	100	0.00
110		4-Nitroquinoline 1-Oxide	25.000	21.462	14.2	100	0.00
111		Methapyrilene	25.000	26.820	-7.3	100	0.00
112		Isodrin	25.000	26.006	-4.0	100	0.00
113	C,P	Fluoranthene	25.000	25.834	-3.3	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	25.000	28.516	-14.1	100	0.00
116	P	Pyrene	25.000	25.918	-3.7	100	0.00
117		Aramite	25.000	26.491	-6.0	100	0.00
118	S	p-Terphenyl-d14	25.000	25.872	-3.5	100	0.00
119		p-(Dimethylamino)azobenzene	25.000	26.323	-5.3	100	0.00
120		Chlorobenzilate	25.000	25.624	-2.5	100	0.00
121		Famphur	-1.000	50.895	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	25.000	26.137	-4.5	100	0.00
123		3,3'-Dimethylbenzidine	25.000	27.053	-8.2	100	0.00
124		2-Acetylaminofluorene	25.000	24.033	3.9	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	25.000	26.141	-4.6	100	0.00
126	P	3,3'-Dichlorobenzidine	25.000	26.215	-4.9	100	0.00
127	P	Benzo[a]anthracene	25.000	25.708	-2.8	100	0.00
128	P	Chrysene	25.000	25.728	-2.9	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	25.000	25.162	-0.6	100	0.00
131		7,12-Dimethylbenz[a]anthrac	25.000	25.558	-2.2	100	0.00
132	P	Benzo[b]fluoranthene	25.000	25.545	-2.2	100	0.00
133	P	Benzo[k]fluoranthene	25.000	26.235	-4.9	100	0.00
134	C,P	Benzo[a]pyrene	25.000	26.011	-4.0	100	0.00
135		3-Methylcholanthrene	25.000	26.096	-4.4	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	25.000	26.377	-5.5	100	0.00
137	P	Dibenz[ah]anthracene	25.000	26.094	-4.4	100	0.00
138	P	Benzo[ghi]perylene	25.000	26.275	-5.1	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:54:00 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	115247	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.081	136	450949	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.892	164	241981	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	413514	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	385831	40.0000	ug/mL	0.0000
129) Perylene-d12	18.957	264	350798	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	318068	81.0065	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 81.0065%			
12) Phenol-d5	7.375	99	408181	81.1397	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 81.1397%			
31) Nitrobenzene-d5	8.351	82	376810	80.6220	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 161.2440%#			
59) 2-Fluorobiphenyl	10.151	172	643932	79.2816	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 158.5632%#			
87) 2,4,6-Tribromophenol	11.716	330	82818	86.6126	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 86.6126%			
118) p-Terphenyl-d14	14.527	244	731564	79.1405	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 158.2810%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.616	88	151500	80.9005	ug/mL	99
3) n-Nitrosodimethylamine	5.069	74	226608	81.6284	ug/mL	96
4) Pyridine	5.099	79	378382	80.1262	ug/mL	99
5) 2-Picoline	5.940	93	391060	80.5842	ug/mL	100
6) n-Nitrosomethylethylamine	6.063	88	166828	81.2113	ug/mL	96
7) Methyl Methanesulfonate	6.363	80	211573	78.1674	ug/mL	98
9) n-Nitrosodiethylamine	6.763	102	161592	81.3698	ug/mL	100
10) Ethyl Methanesulfonate	7.022	79	270417	80.5180	ug/mL	100
11) Aniline	7.475	66	226173	81.0606	ug/mL	97
13) Phenol	7.387	94	428316	80.4027	ug/mL	97
14) bis(2-Chloroethyl)ether	7.498	63	295389	79.2702	ug/mL#	20
15) Pentachloroethane	7.516	167	122887	80.9262	ug/mL	100
16) 2-Chlorophenol	7.604	128	339582	80.6451	ug/mL	99
17) 1,3-Dichlorobenzene	7.757	146	352425	80.7721	ug/mL	98
18) 1,4-Dichlorobenzene	7.804	146	353636	79.7065	ug/mL	99
19) Benzyl Alcohol	7.893	108	221675	82.3470	ug/mL	98
20) 1,2-Dichlorobenzene	7.998	146	325961	79.5750	ug/mL	100
21) 2-Methylphenol	7.987	107	259745	81.0687	ug/mL	99
22) bis(2-Chloroisopropyl)...	8.040	45	562547	79.8379	ug/mL	99
23) 3-,4-Methylphenol	8.116	107	334904	80.6010	ug/mL	99
24) n-Nitrosopyrrolidine	8.169	100	157289	81.6946	ug/mL	96
25) n-Nitrosodipropylamine	8.175	70	256709	78.5406	ug/mL	98
26) Acetophenone	8.181	105	434546	79.0068	ug/mL	100
27) n-Nitrosomorpholine	8.175	56	239096	78.3387	ug/mL	99
28) o-Toluidine	8.228	106	508985	79.9481	ug/mL	99
29) Hexachloroethane	8.316	117	142892	79.9764	ug/mL	99
32) Nitrobenzene	8.369	77	385649	79.9095	ug/mL	100
33) n-Nitrosopiperidine	8.516	114	163847	80.6789	ug/mL	97
34) Isophorone	8.587	82	679545	80.7065	ug/mL	100
35) 2-Nitrophenol	8.693	139	172838	83.2922	ug/mL	98
36) 2,4-Dimethylphenol	8.657	122	293650	80.0263	ug/mL	100
37) 0,0,0-Triethyl Phospho...	8.763	198	143269	79.5042	ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:54:00 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	501805	79.7681 ug/mL	100
39) Benzoic Acid	8.716	105	195631m	79.1500 ug/mL	
40) 2,4-Dichlorophenol	8.916	162	249288	81.2991 ug/mL	99
41) a,a-Dimethylphenethyla...	8.910	58	1014561	84.1711 ug/mL	99
42) 1,2,4-Trichlorobenzene	9.022	180	260372	79.4206 ug/mL	99
43) Naphthalene	9.098	128	987024	79.6363 ug/mL#	100
44) 4-Chloroaniline	9.128	65	143387	79.9448 ug/mL	100
45) 2,6-Dichlorophenol	9.151	162	237617	80.0983 ug/mL	99
46) Hexachloropropene	9.216	213	169299	81.8403 ug/mL	99
47) Hexachlorobutadiene	9.251	225	143773	79.8806 ug/mL	99
48) n-Nitrosodi-n-Butylamine	9.440	84	296833	79.6531 ug/mL	99
49) p-Phenylenediamine	9.463	108	222454	63.7499 ug/mL	99
50) 4-Chloro-3-Methylphenol	9.563	107	282524	81.1384 ug/mL	99
51) Safrole	9.663	162	243089	80.8621 ug/mL	98
52) 2-Methylnaphthalene	9.792	142	635054	80.7186 ug/mL	99
53) 1-Methylnaphthalene	9.910	142	595514	80.5081 ug/mL	99
55) 1,2,4,5-Tetrachloroben...	9.998	216	253653	79.1366 ug/mL	99
56) Hexachlorocyclopentadiene	10.010	237	98377	76.1114 ug/mL	99
57) 2,4,6-Trichlorophenol	10.081	196	174936	82.7104 ug/mL	99
58) 2,4,5-Trichlorophenol	10.122	196	181473	82.8182 ug/mL	99
60) Isosafrole	10.181	162	245852	80.6643 ug/mL	97
61) 2-Chloronaphthalene	10.298	162	561338	79.2973 ug/mL	99
62) 1-Chloronaphthalene	10.339	162	529965	79.5984 ug/mL	99
63) 2-Nitroaniline	10.387	65	215452	80.7895 ug/mL	98
64) 1,4-Naphthoquinone	10.457	158	198999	78.3455 ug/mL	97
65) Dimethylphthalate	10.557	163	628503	79.6778 ug/mL	99
66) 1,3-Dinitrobenzene	10.604	168	114402	84.8930 ug/mL	97
67) 2,6-Dinitrotoluene	10.651	165	151434	81.3704 ug/mL	99
68) Acenaphthylene	10.739	152	901836	80.1198 ug/mL	100
69) 3-Nitroaniline	10.804	138	168576	80.8182 ug/mL	99
70) 2,4-Dinitrophenol	10.910	184	62275	79.7802 ug/mL	68
71) Acenaphthene	10.922	154	576606	81.9657 ug/mL	99
72) 4-Nitrophenol	10.904	65	168998	86.2838 ug/mL	97
73) 2,4-Dinitrotoluene	11.057	165	205631	84.4143 ug/mL	97
74) Pentachlorobenzene	11.104	250	218507	79.7802 ug/mL	99
75) Dibenzofuran	11.081	168	807378	80.5467 ug/mL	98
76) 2,3,5,6-Tetrachlorophenol	11.181	232	137131	78.7888 ug/mL	99
77) 2,3,4,6-Tetrachlorophenol	11.228	232	149305	81.2172 ug/mL	97
78) 1-Naphthylamine	11.157	143	585135	77.1452 ug/mL	98
79) 2-Naphthylamine	11.222	143	646290	80.7161 ug/mL	99
80) Diethylphthalate	11.263	149	650728	80.4715 ug/mL	99
81) Thionazin	11.363	107	111510	83.0233 ug/mL	99
82) Fluorene	11.439	166	649371	80.0056 ug/mL	99
83) 4-Chlorophenyl Phenyl ...	11.386	204	301771	81.1379 ug/mL	99
84) 4-Nitroaniline	11.439	138	178039	81.5446 ug/mL	97
85) 5-Nitro-o-Toluidine	11.439	152	200837	83.5335 ug/mL	98
86) 1,2-Diphenylhydrazine	11.557	77	760309	80.3200 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.486	198	96330	79.9173 ug/mL	90
90) Diphenylamine/n-Nitros...	11.504	169	572184	78.8537 ug/mL	100
91) Sulfotepp	11.710	322	94328	79.9826 ug/mL	96
92) Sym-Trinitrobenzene	11.781	75	224549	79.3541 ug/mL	100
93) Diallate	11.833	86	284941	79.2036 ug/mL	100
94) Phenacetin	11.816	108	360142	82.4926 ug/mL	99
95) Phorate	11.851	75	464506	79.6278 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.916	248	171662	78.7838 ug/mL	99

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:54:00 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

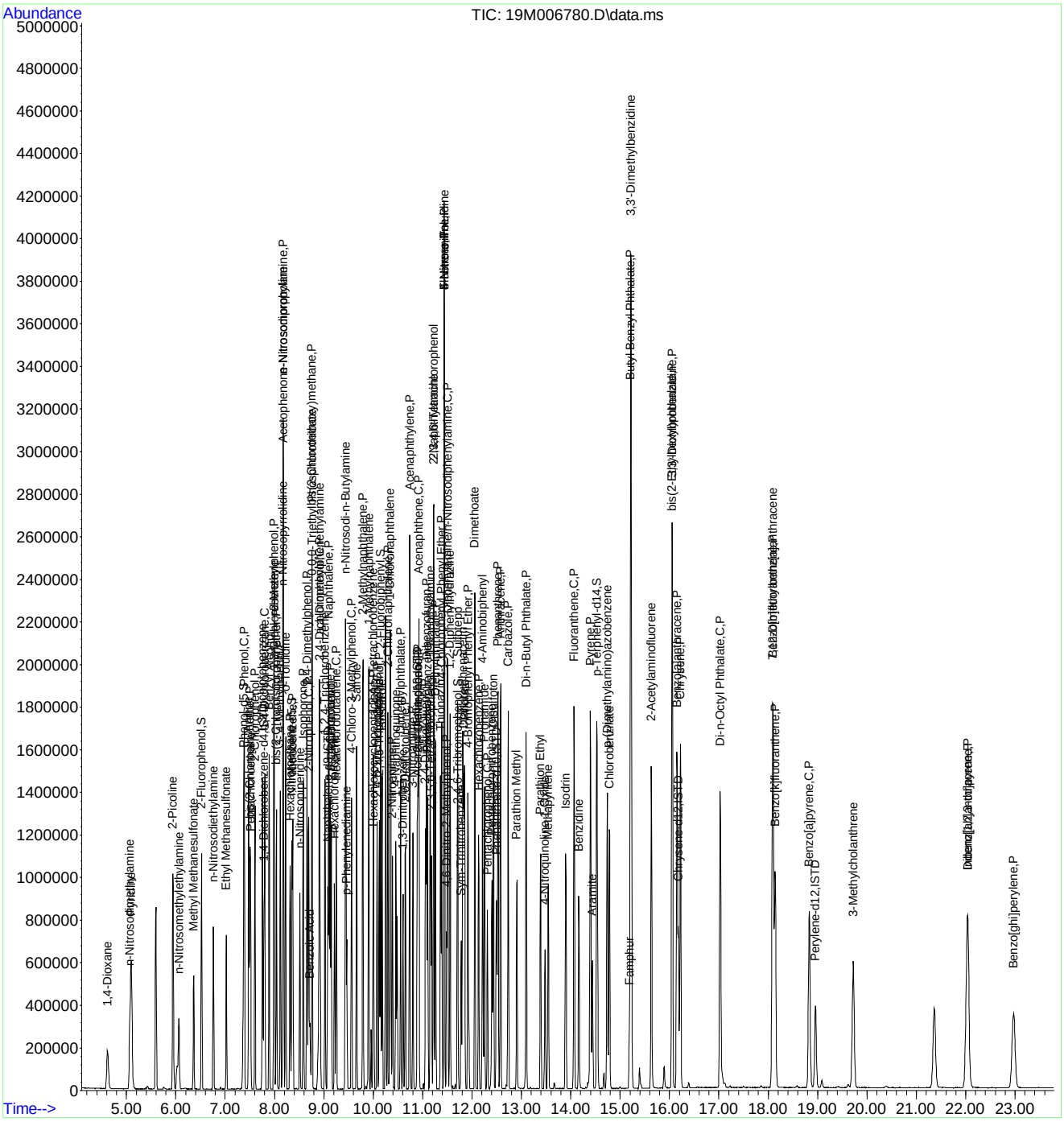
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	Hexachlorobenzene	12.133	284	173377	78.4913 ug/mL	99
98)	Dimethoate	12.057	87	248240	76.9000 ug/mL	98
99)	4-Aminobiphenyl	12.216	169	748502	80.4913 ug/mL	99
100)	Pentachlorophenol	12.316	266	109133	78.7050 ug/mL	99
101)	Pronamide	12.251	173	289304	81.5465 ug/mL	100
102)	Pentachloronitrobenzene	12.404	237	76945	81.1691 ug/mL	98
103)	Disulfoton	12.433	88	373743	80.6442 ug/mL	98
104)	Phenanthrene	12.528	178	920941	78.9718 ug/mL	100
105)	Anthracene	12.580	178	954775	79.9742 ug/mL	100
106)	Carbazole	12.733	167	896782	80.6849 ug/mL	100
107)	Parathion Methyl	12.904	109	211953	80.1851 ug/mL	99
108)	Di-n-Butyl Phthalate	13.098	149	1130695	81.2612 ug/mL	100
109)	Parathion Ethyl	13.386	97	156291	85.8047 ug/mL	99
110)	4-Nitroquinoline 1-Oxide	13.480	190	83416	82.2743 ug/mL	97
111)	Methapyrilene	13.545	58	404408	78.3885 ug/mL#	91
112)	Isodrin	13.898	193	100637	79.3389 ug/mL	98
113)	Fluoranthene	14.069	202	1022184	81.0154 ug/mL	99
115)	Benzidine	14.163	184	467766	73.9254 ug/mL	100
116)	Pyrene	14.398	202	1042898	79.1789 ug/mL	100
117)	Aramite	14.439	185	60658	84.9210 ug/mL	98
119)	p-(Dimethylamino)azobe...	14.739	225	205750	82.8243 ug/mL	98
120)	Chlorobenzilate	14.786	251	292302	80.6159 ug/mL	99
121)	Famphur	15.186	218	71633	39.3836 ug/mL	87
122)	Butyl Benzyl Phthalate	15.210	149	516685	80.2360 ug/mL	99
123)	3,3'-Dimethylbenzidine	15.221	212	894550	74.4632 ug/mL	99
124)	2-Acetylaminofluorene	15.633	181	408770	79.6435 ug/mL	99
125)	bis(2-Ethylhexyl)phtha...	16.051	149	696125	83.6340 ug/mL	100
126)	3,3'-Dichlorobenzidine	16.057	252	315792	80.0433 ug/mL	99
127)	Benzo[a]anthracene	16.151	228	922051	79.8846 ug/mL	100
128)	Chrysene	16.221	228	865232	79.1132 ug/mL	100
130)	Di-n-Octyl Phthalate	17.027	149	1185311	84.7215 ug/mL	97
131)	7,12-Dimethylbenz[a]an...	18.098	256	419932	81.3961 ug/mL	99
132)	Benzo[b]fluoranthene	18.092	252	876697	79.8736 ug/mL	98
133)	Benzo[k]fluoranthene	18.139	252	829200	83.1977 ug/mL	96
134)	Benzo[a]pyrene	18.833	252	789579	82.1764 ug/mL	99
135)	3-Methylcholanthrene	19.721	268	408639	83.6427 ug/mL	100
136)	Indeno[1,2,3-cd]pyrene	22.039	276	776961	82.5320 ug/mL	99
137)	Dibenz[ah]anthracene	22.039	278	662686	83.2542 ug/mL	99
138)	Benzo[ghi]perylene	22.968	276	623300	81.4702 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:54:00 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:09:07 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	80.000	80.901	-1.1	100	0.00
3		n-Nitrosodimethylamine	80.000	81.628	-2.0	100	0.00
4		Pyridine	80.000	80.126	-0.2	100	0.00
5		2-Picoline	80.000	80.584	-0.7	100	0.00
6		n-Nitrosomethylethylamine	80.000	84.260	-5.3	100	0.00
7		Methyl Methanesulfonate	80.000	78.167	2.3	100	0.00
8	S	2-Fluorophenol	80.000	81.007	-1.3	100	0.00
9		n-Nitrosodiethylamine	80.000	81.370	-1.7	100	0.00
10		Ethyl Methanesulfonate	80.000	80.518	-0.6	100	0.00
11		Aniline	80.000	81.061	-1.3	100	0.00
12	S	Phenol-d5	80.000	81.140	-1.4	100	0.00
13	C,P	Phenol	80.000	80.403	-0.5	100	0.00
14	P	bis(2-Chloroethyl)ether	80.000	79.270	0.9	100	0.00
15		Pentachloroethane	80.000	80.926	-1.2	100	0.00
16	P	2-Chlorophenol	80.000	80.645	-0.8	100	0.00
17		1,3-Dichlorobenzene	80.000	80.772	-1.0	100	0.00
18	C	1,4-Dichlorobenzene	80.000	79.706	0.4	100	0.00
19		Benzyl Alcohol	80.000	82.347	-2.9	100	0.00
20		1,2-Dichlorobenzene	80.000	79.575	0.5	100	0.00
21	P	2-Methylphenol	80.000	81.069	-1.3	100	0.00
22	P	bis(2-Chloroisopropyl)ether	80.000	79.838	0.2	100	0.00
23	P	3-,4-Methylphenol	80.000	80.601	-0.8	100	0.00
24		n-Nitrosopyrrolidine	80.000	81.695	-2.1	100	0.00
25	P	n-Nitrosodipropylamine	80.000	78.541	1.8	100	0.00
26		Acetophenone	80.000	79.007	1.2	100	0.00
27		n-Nitrosomorpholine	80.000	78.339	2.1	100	0.00
28		o-Toluidine	80.000	79.948	0.1	100	0.00
29	P	Hexachloroethane	80.000	79.976	0.0	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	80.000	80.622	-0.8	100	0.00
32	P	Nitrobenzene	80.000	79.909	0.1	100	0.00
33		n-Nitrosopiperidine	80.000	80.679	-0.8	100	0.00
34	P	Isophorone	80.000	80.707	-0.9	100	0.00
35	C,P	2-Nitrophenol	80.000	83.292	-4.1	100	0.00
36	P	2,4-Dimethylphenol	80.000	80.026	-0.0	100	0.00
37		0,0,0-Triethyl Phosphorothi	80.000	79.504	0.6	100	0.00
38	P	bis(2-Chloroethoxy)methane	80.000	79.768	0.3	100	0.00
39		Benzoic Acid	80.000	86.362	-8.0	100	0.00
40	C,P	2,4-Dichlorophenol	80.000	81.299	-1.6	100	0.00
41		a,a-Dimethylphenethylamine	80.000	84.171	-5.2	100	0.00
42		1,2,4-Trichlorobenzene	80.000	79.421	0.7	100	0.00
43	P	Naphthalene	80.000	79.636	0.5	100	0.00
44	P	4-Chloroaniline	80.000	79.945	0.1	100	0.00
45		2,6-Dichlorophenol	80.000	80.098	-0.1	100	0.00
46		Hexachloropropene	80.000	81.840	-2.3	100	0.00
47	C,P	Hexachlorobutadiene	80.000	79.881	0.1	100	0.00
48		n-Nitrosodi-n-Butylamine	80.000	79.653	0.4	100	0.00
49		p-Phenylenediamine	80.000	63.750	20.3	100	0.00
50	C,P	4-Chloro-3-Methylphenol	80.000	81.138	-1.4	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:09:07 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	80.000	80.862	-1.1	100	0.00
52	P	2-Methylnaphthalene	80.000	80.719	-0.9	100	0.00
53		1-Methylnaphthalene	80.000	80.508	-0.6	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	80.000	79.137	1.1	100	0.00
56	P	Hexachlorocyclopentadiene	80.000	76.111	4.9	100	0.00
57	C,P	2,4,6-Trichlorophenol	80.000	82.710	-3.4	100	0.00
58	P	2,4,5-Trichlorophenol	80.000	82.818	-3.5	100	0.00
59	S	2-Fluorobiphenyl	80.000	79.282	0.9	100	0.00
60		Isosafrole	80.000	80.664	-0.8	100	0.00
61	P	2-Chloronaphthalene	80.000	79.297	0.9	100	0.00
62		1-Chloronaphthalene	80.000	79.598	0.5	100	0.00
63	P	2-Nitroaniline	80.000	80.709	-0.9	100	0.00
64		1,4-Naphthoquinone	80.000	78.345	2.1	100	0.00
65	P	Dimethylphthalate	80.000	79.678	0.4	100	0.00
66		1,3-Dinitrobenzene	80.000	84.893	-6.1	100	0.00
67	P	2,6-Dinitrotoluene	80.000	81.370	-1.7	100	0.00
68	P	Acenaphthylene	80.000	80.120	-0.2	100	0.00
69	P	3-Nitroaniline	80.000	80.818	-1.0	100	0.00
70	P	2,4-Dinitrophenol	80.000	79.780	0.3	100	0.00
71	C,P	Acenaphthene	80.000	81.966	-2.5	100	0.00
72	P	4-Nitrophenol	80.000	86.284	-7.9	100	0.00
73	P	2,4-Dinitrotoluene	80.000	84.414	-5.5	100	0.00
74		Pentachlorobenzene	80.000	79.780	0.3	100	0.00
75	P	Dibenzofuran	80.000	80.547	-0.7	100	0.00
76		2,3,5,6-Tetrachlorophenol	80.000	78.789	1.5	100	0.00
77		2,3,4,6-Tetrachlorophenol	80.000	81.217	-1.5	100	0.00
78		1-Naphthylamine	80.000	77.145	3.6	100	0.00
79		2-Naphthylamine	80.000	80.716	-0.9	100	0.00
80	P	Diethylphthalate	80.000	80.472	-0.6	100	0.00
81		Thionazin	80.000	83.023	-3.8	100	0.00
82	P	Fluorene	80.000	80.006	-0.0	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	80.000	81.138	-1.4	100	0.00
84	P	4-Nitroaniline	80.000	81.545	-1.9	100	0.00
85		5-Nitro-o-Toluidine	80.000	83.534	-4.4	100	0.00
86		1,2-Diphenylhydrazine	80.000	80.320	-0.4	100	0.00
87	S	2,4,6-Tribromophenol	80.000	86.613	-8.3	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	80.000	79.917	0.1	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	80.000	78.854	1.4	100	0.00
91		Sulfotepp	80.000	79.983	0.0	100	0.00
92		Sym-Trinitrobenzene	80.000	79.354	0.8	100	0.00
93		Diallate	80.000	79.204	1.0	100	0.00
94		Phenacetin	80.000	82.493	-3.1	100	0.00
95		Phorate	80.000	79.642	0.4	100	0.00
96	P	4-Bromophenyl Phenyl Ether	80.000	78.784	1.5	100	0.00
97	P	Hexachlorobenzene	80.000	78.491	1.9	100	0.00
98		Dimethoate	80.000	76.900	3.9	100	0.00
99		4-Aminobiphenyl	80.000	80.491	-0.6	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:09:07 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

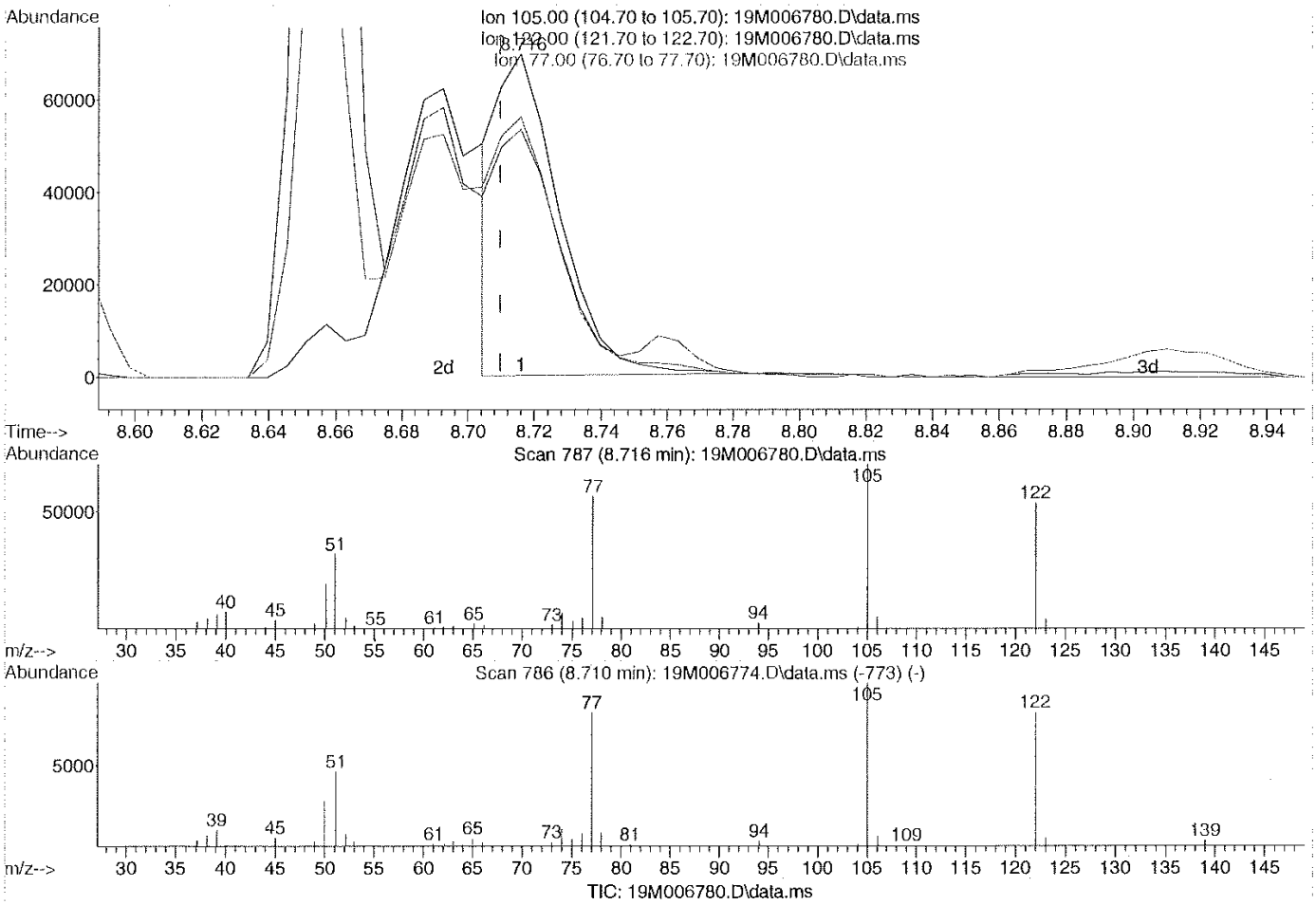
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	80.000	78.705	1.6	100	0.00
101		Pronamide	80.000	81.547	-1.9	100	0.00
102		Pentachloronitrobenzene	80.000	81.169	-1.5	100	0.00
103		Disulfoton	80.000	80.644	-0.8	100	0.00
104	P	Phenanthrene	80.000	78.972	1.3	100	0.00
105	P	Anthracene	80.000	79.976	0.0	100	0.00
106	P	Carbazole	80.000	80.685	-0.9	100	0.00
107		Parathion Methyl	80.000	80.185	-0.2	100	0.00
108	P	Di-n-Butyl Phthalate	80.000	81.261	-1.6	100	0.00
109		Parathion Ethyl	80.000	85.805	-7.3	100	0.00
110		4-Nitroquinoline 1-Oxide	80.000	82.274	-2.8	100	0.00
111		Methapyrilene	80.000	78.388	2.0	100	0.00
112		Isodrin	80.000	79.339	0.8	100	0.00
113	C,P	Fluoranthene	80.000	81.015	-1.3	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	80.000	73.925	7.6	100	0.00
116	P	Pyrene	80.000	79.179	1.0	100	0.00
117		Aramite	80.000	84.921	-6.2	100	0.00
118	S	p-Terphenyl-d14	80.000	79.140	1.1	100	0.00
119		p-(Dimethylamino)azobenzene	80.000	82.824	-3.5	100	0.00
120		Chlorobenzilate	80.000	80.616	-0.8	100	0.00
121		Famphur	-1.000	39.384	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	80.000	80.236	-0.3	100	0.00
123		3,3'-Dimethylbenzidine	80.000	74.463	6.9	100	0.00
124		2-Acetylaminofluorene	80.000	79.644	0.4	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	80.000	83.634	-4.5	100	0.00
126	P	3,3'-Dichlorobenzidine	80.000	80.043	-0.1	100	0.00
127	P	Benzo[a]anthracene	80.000	79.885	0.1	100	0.00
128	P	Chrysene	80.000	79.139	1.1	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	80.000	84.721	-5.9	100	0.00
131		7,12-Dimethylbenz[a]anthrac	80.000	81.396	-1.7	100	0.00
132	P	Benzo[b]fluoranthene	80.000	79.874	0.2	100	0.00
133	P	Benzo[k]fluoranthene	80.000	83.150	-3.9	100	0.00
134	C,P	Benzo[a]pyrene	80.000	82.176	-2.7	100	0.00
135		3-Methylcholanthrene	80.000	83.643	-4.6	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	80.000	82.532	-3.2	100	0.00
137	P	Dibenz[ah]anthracene	80.000	83.254	-4.1	100	0.00
138	P	Benzo[ghi]perylene	80.000	81.470	-1.8	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:56 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



TIC: 19M006780.D\data.ms

(39) Benzoic Acid

8.716min (+0.006) 47.217 ug/mL

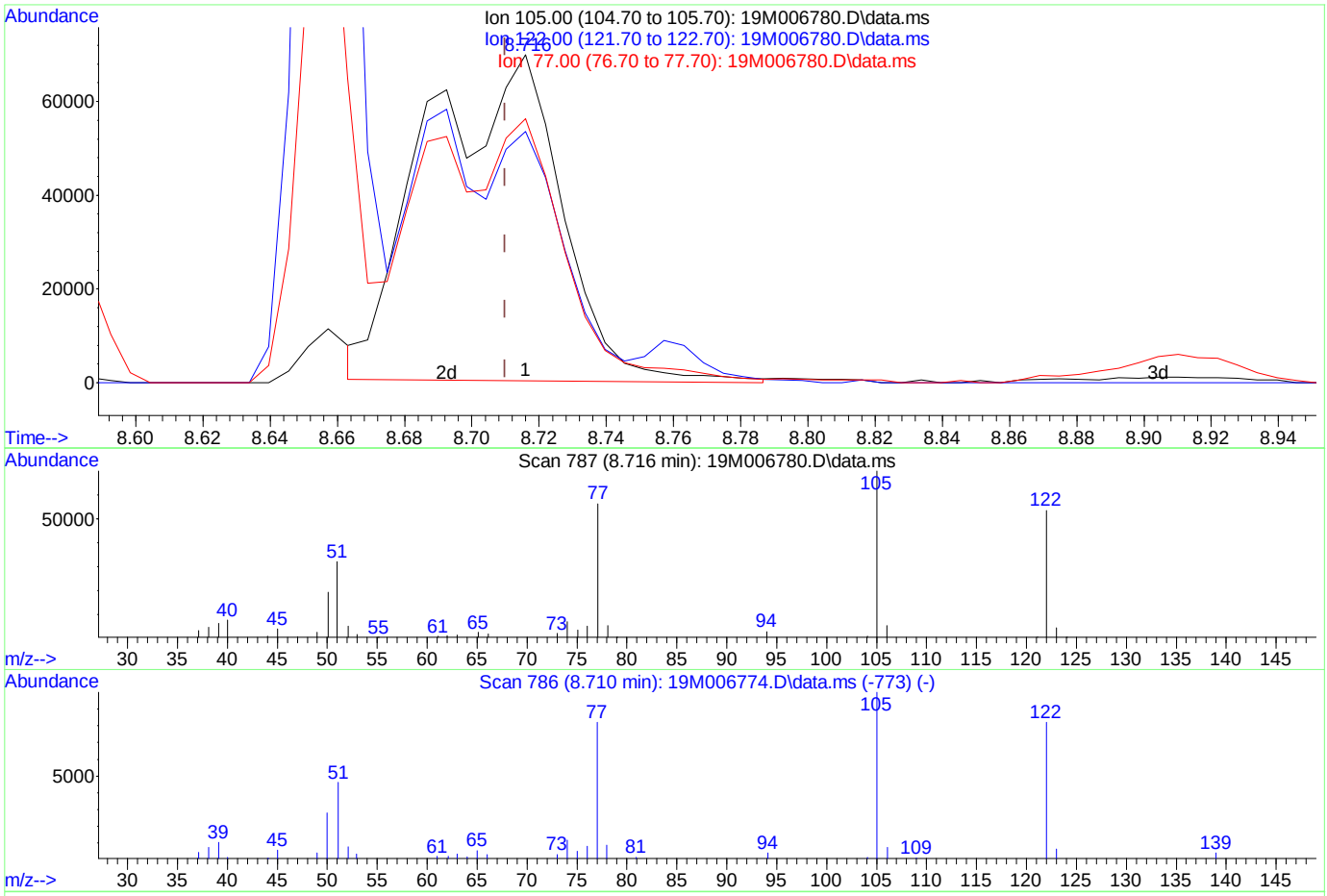
response 91037

Ion	Exp%	Act%
105.00	100	100
122.00	70.60	78.41
77.00	72.60	86.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006780.D Vial: 8
Acq On : 3 Apr 2019 2:51 pm Operator: SCB
Sample : WG701995-08 80PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:05:56 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



TIC: 19M006780.D\data.ms

(39) Benzoic Acid

8.716min (+0.006) 86.362 ug/mL mint

response 195451

Ion	Exp%	Act%
105.00	100	100
122.00	70.60	36.52#
77.00	72.60	40.47#
0.00	0.00	0.00

Analyst: 04/04/2019 18:30 Supervisor: 04/04/2019 18:42

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:57:14 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	116873	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.081	136	457382	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.892	164	246402	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	421453	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	395778	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	354886	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.528	112	405277	101.7812	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 101.7812%#			
12) Phenol-d5	7.375	99	516506	101.2444	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 101.2444%#			
31) Nitrobenzene-d5	8.351	82	474830	100.1654	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 200.3308%#			
59) 2-Fluorobiphenyl	10.151	172	825256	99.7834	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 199.5668%#			
87) 2,4,6-Tribromophenol	11.716	330	104542	107.3703	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 107.3703%			
118) p-Terphenyl-d14	14.527	244	930303	98.1107	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 196.2214%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.622	88	192369	101.2953	ug/mL	100
3) n-Nitrosodimethylamine	5.075	74	291480	103.5358	ug/mL	95
4) Pyridine	5.104	79	485440	101.3666	ug/mL	99
5) 2-Picoline	5.945	93	501678	101.9406	ug/mL	99
6) n-Nitrosomethylethylamine	6.063	88	212879	102.1870	ug/mL	96
7) Methyl Methanesulfonate	6.363	80	265427	96.6998	ug/mL	98
9) n-Nitrosodiethylamine	6.763	102	206837	102.7040	ug/mL	98
10) Ethyl Methanesulfonate	7.028	79	344820	101.2435	ug/mL	99
11) Aniline	7.475	66	283560	100.2143	ug/mL	100
13) Phenol	7.392	94	545809	101.0328	ug/mL	97
14) bis(2-Chloroethyl)ether	7.498	63	370220	97.9696	ug/mL#	21
15) Pentachloroethane	7.516	167	155166	100.7617	ug/mL	99
16) 2-Chlorophenol	7.604	128	429351	100.5452	ug/mL	99
17) 1,3-Dichlorobenzene	7.757	146	443681	100.2723	ug/mL	99
18) 1,4-Dichlorobenzene	7.804	146	451167	100.2744	ug/mL	99
19) Benzyl Alcohol	7.892	108	279942	102.5450	ug/mL	99
20) 1,2-Dichlorobenzene	7.998	146	415936	100.1275	ug/mL	99
21) 2-Methylphenol	7.992	107	328066	100.9678	ug/mL	99
22) bis(2-Chloroisopropyl)...	8.039	45	709156	99.2447	ug/mL	99
23) 3-,4-Methylphenol	8.122	107	430112	102.0744	ug/mL	99
24) n-Nitrosopyrrolidine	8.169	100	200735	102.8095	ug/mL	91
25) n-Nitrosodipropylamine	8.175	70	323265	97.5276	ug/mL	97
26) Acetophenone	8.181	105	543476	97.4372	ug/mL	99
27) n-Nitrosomorpholine	8.181	56	298239	96.3571	ug/mL	99
28) o-Toluidine	8.228	106	647992	100.3664	ug/mL	99
29) Hexachloroethane	8.316	117	181147	99.9771	ug/mL	100
32) Nitrobenzene	8.369	77	486918	99.4742	ug/mL	99
33) n-Nitrosopiperidine	8.516	114	208725	101.3314	ug/mL	96
34) Isophorone	8.586	82	861569	100.8855	ug/mL	100
35) 2-Nitrophenol	8.692	139	222514	105.7233	ug/mL	98
36) 2,4-Dimethylphenol	8.657	122	371135	99.7202	ug/mL	99
37) 0,0,0-Triethyl Phospho...	8.763	198	179411	98.1602	ug/mL	97

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:57:14 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	636674	99.7838 ug/mL	100
39) Benzoic Acid	8.698	105	267928m	99.7810 ug/mL	
40) 2,4-Dichlorophenol	8.916	162	315615	101.4823 ug/mL	99
41) a,a-Dimethylphenethyla...	8.916	58	1283676	104.9998 ug/mL	99
42) 1,2,4-Trichlorobenzene	9.022	180	329098	98.9720 ug/mL	100
43) Naphthalene	9.098	128	1255769	99.8945 ug/mL#	100
44) 4-Chloroaniline	9.128	65	181968	100.0285 ug/mL	99
45) 2,6-Dichlorophenol	9.151	162	301619	100.2427 ug/mL	99
46) Hexachloropropene	9.216	213	213317	101.6686 ug/mL	100
47) Hexachlorobutadiene	9.251	225	182269	99.8448 ug/mL	99
48) n-Nitrosodi-n-Butylamine	9.439	84	383851	101.5551 ug/mL	97
49) p-Phenylenediamine	9.463	108	251418	71.0369 ug/mL	100
50) 4-Chloro-3-Methylphenol	9.563	107	360468	102.0672 ug/mL	100
51) Safrole	9.663	162	310283	101.7621 ug/mL	97
52) 2-Methylnaphthalene	9.792	142	805076	100.8901 ug/mL	99
53) 1-Methylnaphthalene	9.910	142	757693	100.9925 ug/mL	98
55) 1,2,4,5-Tetrachloroben...	9.998	216	318421	97.5609 ug/mL	99
56) Hexachlorocyclopentadiene	10.010	237	112612	99.6905 ug/mL	99
57) 2,4,6-Trichlorophenol	10.080	196	223719	103.8773 ug/mL	98
58) 2,4,5-Trichlorophenol	10.122	196	232831	104.3498 ug/mL	99
60) Isosafrole	10.180	162	312979	100.8462 ug/mL	97
61) 2-Chloronaphthalene	10.298	162	713319	98.9589 ug/mL	99
62) 1-Chloronaphthalene	10.339	162	672232	99.1547 ug/mL	99
63) 2-Nitroaniline	10.392	65	273025	100.5412 ug/mL	98
64) 1,4-Naphthoquinone	10.457	158	236615	91.4834 ug/mL	97
65) Dimethylphthalate	10.557	163	800718	99.6888 ug/mL	100
66) 1,3-Dinitrobenzene	10.604	168	146666	106.8820 ug/mL	97
67) 2,6-Dinitrotoluene	10.651	165	195168	102.9886 ug/mL	97
68) Acenaphthylene	10.739	152	1148198	100.1766 ug/mL	100
69) 3-Nitroaniline	10.804	138	218927	103.0742 ug/mL	100
70) 2,4-Dinitrophenol	10.910	184	91214	101.9177 ug/mL	46
71) Acenaphthene	10.922	154	739848	103.2839 ug/mL	99
72) 4-Nitrophenol	10.904	65	217128	108.8681 ug/mL	96
73) 2,4-Dinitrotoluene	11.063	165	265480	107.0277 ug/mL	96
74) Pentachlorobenzene	11.104	250	280341	100.5202 ug/mL	99
75) Dibenzofuran	11.080	168	1022249	100.1531 ug/mL	98
76) 2,3,5,6-Tetrachlorophenol	11.180	232	180116	101.1924 ug/mL	99
77) 2,3,4,6-Tetrachlorophenol	11.227	232	189152	100.7216 ug/mL	97
78) 1-Naphthylamine	11.157	143	741831	96.0494 ug/mL	98
79) 2-Naphthylamine	11.227	143	825288	101.2220 ug/mL	99
80) Diethylphthalate	11.263	149	829868	100.7833 ug/mL	100
81) Thionazin	11.363	107	143226	104.7237 ug/mL	99
82) Fluorene	11.439	166	833632	100.8647 ug/mL	99
83) 4-Chlorophenyl Phenyl ...	11.386	204	382552	101.0122 ug/mL	98
84) 4-Nitroaniline	11.445	138	230771	103.8003 ug/mL	95
85) 5-Nitro-o-Toluidine	11.439	152	258775	105.7003 ug/mL	96
86) 1,2-Diphenylhydrazine	11.557	77	970860	100.7227 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.486	198	131443	100.5475 ug/mL	87
90) Diphenylamine/n-Nitros...	11.510	169	733618	99.1967 ug/mL	100
91) Sulfotepp	11.710	322	121111	100.7580 ug/mL	94
92) Sym-Trinitrobenzene	11.780	75	289071	99.7146 ug/mL	99
93) Diallate	11.833	86	362499	98.8639 ug/mL	99
94) Phenacetin	11.816	108	460269	103.4413 ug/mL	99
95) Phorate	11.851	75	591769	99.5328 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.922	248	220390	99.2420 ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:57:14 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

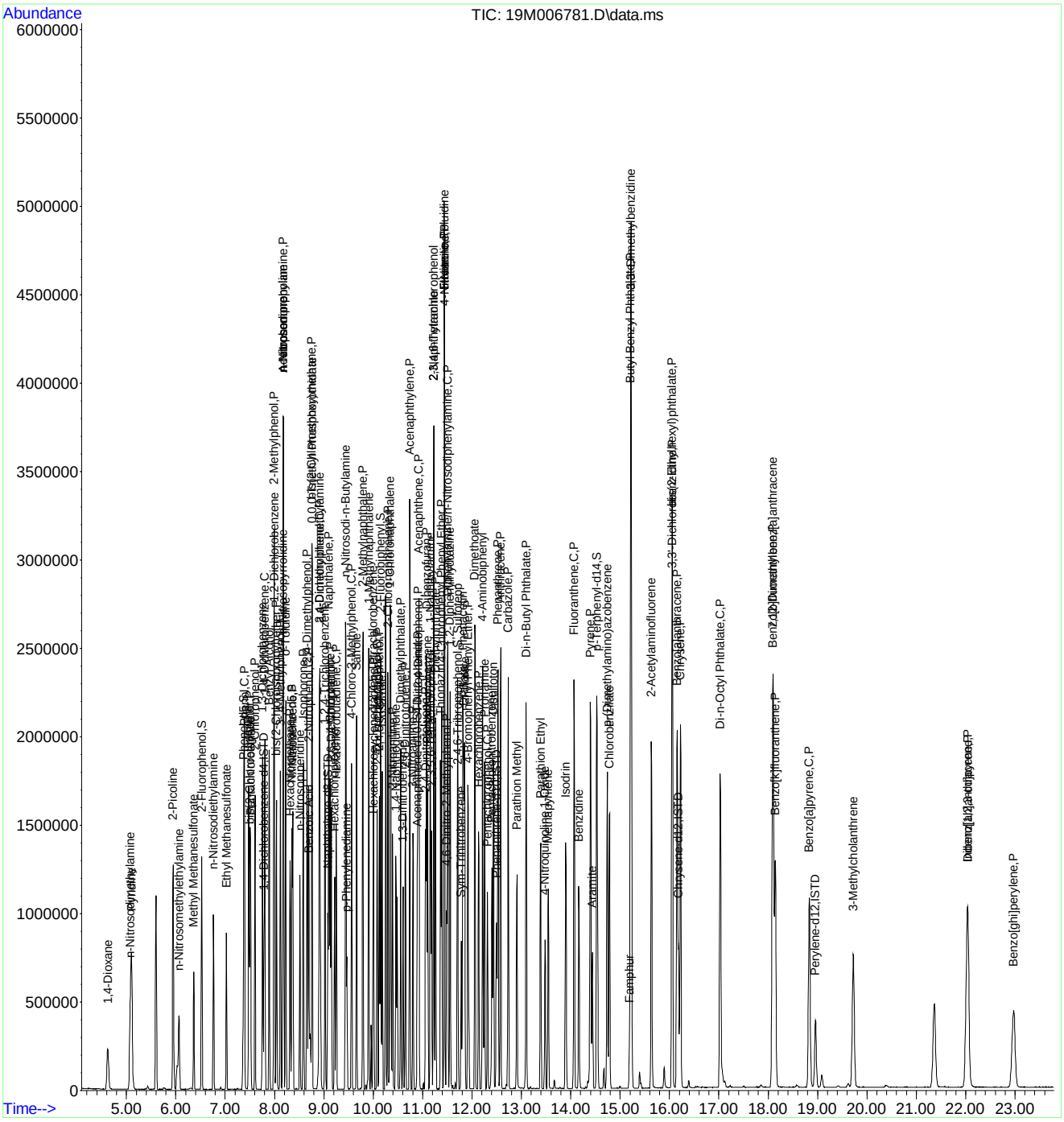
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	Hexachlorobenzene	12.133	284	222328	98.7564	ug/mL	98
98)	Dimethoate	12.057	87	298378	90.6906	ug/mL	97
99)	4-Aminobiphenyl	12.216	169	958953	101.1799	ug/mL	100
100)	Pentachlorophenol	12.316	266	143122	99.9441	ug/mL	99
101)	Pronamide	12.257	173	371609	102.7728	ug/mL	99
102)	Pentachloronitrobenzene	12.404	237	99013	102.4810	ug/mL	99
103)	Disulfoton	12.433	88	466629	98.7900	ug/mL	99
104)	Phenanthrene	12.527	178	1180481	99.3208	ug/mL	100
105)	Anthracene	12.580	178	1226876	100.8302	ug/mL	100
106)	Carbazole	12.733	167	1157382	102.1699	ug/mL	99
107)	Parathion Methyl	12.910	109	260160	96.5685	ug/mL	98
108)	Di-n-Butyl Phthalate	13.098	149	1440838	101.6001	ug/mL	100
109)	Parathion Ethyl	13.392	97	199338	107.3763	ug/mL	98
110)	4-Nitroquinoline 1-Oxide	13.480	190	110009	103.2128	ug/mL	96
111)	Methapyrilene	13.545	58	462051	108.7305	ug/mL#	91
112)	Isodrin	13.898	193	131014	101.3415	ug/mL	100
113)	Fluoranthene	14.068	202	1320178	102.6626	ug/mL	99
115)	Benzidine	14.163	184	578432	89.1174	ug/mL	100
116)	Pyrene	14.398	202	1342642	99.3741	ug/mL	100
117)	Aramite	14.439	185	76975	105.0564	ug/mL	99
119)	p-(Dimethylamino)azobe...	14.739	225	265039	104.0096	ug/mL	96
120)	Chlorobenzilate	14.786	251	370216	99.5382	ug/mL	99
121)	Famphur	15.186	218	53486	28.6674	ug/mL#	68
122)	Butyl Benzyl Phthalate	15.210	149	664605	100.6126	ug/mL	98
123)	3,3'-Dimethylbenzidine	15.221	212	1103583	98.4575	ug/mL	99
124)	2-Acetylaminofluorene	15.633	181	533854	100.9650	ug/mL	100
125)	bis(2-Ethylhexyl)phtha...	16.051	149	881934	103.2945	ug/mL	99
126)	3,3'-Dichlorobenzidine	16.062	252	400338	98.9228	ug/mL	99
127)	Benzo[a]anthracene	16.157	228	1193347	100.7906	ug/mL	100
128)	Chrysene	16.221	228	1118328	99.6852	ug/mL	100
130)	Di-n-Octyl Phthalate	17.027	149	1521637	107.5080	ug/mL	97
131)	7,12-Dimethylbenz[a]an...	18.098	256	543179	104.0725	ug/mL	99
132)	Benzo[b]fluoranthene	18.092	252	1102687	99.3057	ug/mL	95
133)	Benzo[k]fluoranthene	18.145	252	991186	98.3050	ug/mL	99
134)	Benzo[a]pyrene	18.833	252	1025527	105.5036	ug/mL	99
135)	3-Methylcholanthrene	19.727	268	520551	105.3221	ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	22.039	276	972145	102.0757	ug/mL	99
137)	Dibenz[ah]anthracene	22.039	278	831458	103.2540	ug/mL	99
138)	Benzo[ghi]perylene	22.968	276	773481	99.9354	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:57:14 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:47:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
2		1,4-Dioxane	0.650	0.658	-1.2	100	0.00
3		n-Nitrosodimethylamine	0.964	0.998	-3.5	100	0.00
4		Pyridine	1.639	1.661	-1.3	100	0.00
5		2-Picoline	1.684	1.717	-2.0	100	0.00
6		n-Nitrosomethylethylamine	0.687	0.729	-6.1	100	0.00
7		Methyl Methanesulfonate	0.939	0.908	3.3	100	0.00
8	S	2-Fluorophenol	1.363	1.387	-1.8	100	0.00
9		n-Nitrosodiethylamine	0.689	0.708	-2.8	100	0.00
10		Ethyl Methanesulfonate	1.166	1.180	-1.2	100	0.00
11		Aniline	0.968	0.970	-0.2	100	0.00
12	S	Phenol-d5	1.746	1.768	-1.3	100	0.00
13	C,P	Phenol	1.849	1.868	-1.0	100	0.00
14	P	bis(2-Chloroethyl)ether	1.293	1.267	2.0	100	0.00
15		Pentachloroethane	0.527	0.531	-0.8	100	0.00
16	P	2-Chlorophenol	1.461	1.469	-0.5	100	0.00
17		1,3-Dichlorobenzene	1.514	1.519	-0.3	100	0.00
18	C	1,4-Dichlorobenzene	1.540	1.544	-0.3	100	0.00
19		Benzyl Alcohol	0.934	0.958	-2.6	100	0.00
20		1,2-Dichlorobenzene	1.422	1.424	-0.1	100	0.00
21	P	2-Methylphenol	1.112	1.123	-1.0	100	0.00
22	P	bis(2-Chloroisopropyl)ether	2.446	2.427	0.8	100	0.00
23	P	3-,4-Methylphenol	1.442	1.472	-2.1	100	0.00
24		n-Nitrosopyrrolidine	0.668	0.687	-2.8	100	0.00
25	P	n-Nitrosodipropylamine	1.134	1.106	2.5	100	0.00
26		Acetophenone	1.909	1.860	2.6	100	0.00
27		n-Nitrosomorpholine	1.059	1.021	3.6	100	0.00
28		o-Toluidine	2.210	2.218	-0.4	100	0.00
29	P	Hexachloroethane	0.620	0.620	0.0	100	0.00
30	ISTD	Naphthalene-d8	1.000	1.000	0.0	100	0.00
31	S	Nitrobenzene-d5	0.415	0.415	0.0	100	0.00
32	P	Nitrobenzene	0.428	0.426	0.5	100	0.00
33		n-Nitrosopiperidine	0.180	0.183	-1.7	100	0.00
34	P	Isophorone	0.747	0.753	-0.8	100	0.00
35	C,P	2-Nitrophenol	0.184	0.195	-6.0	100	0.00
36	P	2,4-Dimethylphenol	0.325	0.325	0.0	100	0.00
37		0,0,0-Triethyl Phosphorothi	0.160	0.157	1.9	100	0.00
38	P	bis(2-Chloroethoxy)methane	0.558	0.557	0.2	100	0.00
39		Benzoic Acid	0.175	0.235	-34.3	99	-0.01
40	C,P	2,4-Dichlorophenol	0.272	0.276	-1.5	100	0.00
41		a,a-Dimethylphenethylamine	1.069	1.123	-5.1	100	0.01
42		1,2,4-Trichlorobenzene	0.291	0.288	1.0	100	0.00
43	P	Naphthalene	1.099	1.098	0.1	100	0.00
44	P	4-Chloroaniline	0.159	0.159	0.0	100	0.00
45		2,6-Dichlorophenol	0.263	0.264	-0.4	100	0.00
46		Hexachloropropene	0.183	0.187	-2.2	100	0.00
47	C,P	Hexachlorobutadiene	0.160	0.159	0.6	100	0.00
48		n-Nitrosodi-n-Butylamine	0.331	0.336	-1.5	100	0.00
49		p-Phenylenediamine	0.324	0.000#	100.0#	0#	0.00
50	C,P	4-Chloro-3-Methylphenol	0.309	0.315	-1.9	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:47:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		Safrole	0.267	0.271	-1.5	100	0.00
52	P	2-Methylnaphthalene	0.698	0.704	-0.9	100	0.00
53		1-Methylnaphthalene	0.656	0.663	-1.1	100	0.00
54	ISTD	Acenaphthene-d10	1.000	1.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	0.530	0.517	2.5	100	0.00
56	P	Hexachlorocyclopentadiene	0.230	0.183	20.4	100	0.00
57	C,P	2,4,6-Trichlorophenol	0.350	0.363	-3.7	100	0.00
58	P	2,4,5-Trichlorophenol	0.362	0.378	-4.4	100	0.00
59	S	2-Fluorobiphenyl	1.343	1.340	0.2	100	0.00
60		Isosafrole	0.504	0.508	-0.8	100	0.00
61	P	2-Chloronaphthalene	1.170	1.158	1.0	100	0.00
62		1-Chloronaphthalene	1.101	1.091	0.9	100	0.00
63	P	2-Nitroaniline	0.441	0.443	-0.5	100	0.00
64		1,4-Naphthoquinone	0.420	0.384	8.6	100	0.00
65	P	Dimethylphthalate	1.304	1.300	0.3	100	0.00
66		1,3-Dinitrobenzene	0.223	0.238	-6.7	100	0.00
67	P	2,6-Dinitrotoluene	0.308	0.317	-2.9	100	0.00
68	P	Acenaphthylene	1.861	1.864	-0.2	100	0.00
69	P	3-Nitroaniline	0.345	0.355	-2.9	100	0.00
70	P	2,4-Dinitrophenol	0.095	0.148	-55.8#	100	0.00
71	C,P	Acenaphthene	1.163	1.201	-3.3	100	0.00
72	P	4-Nitrophenol	0.324	0.352	-8.6	100	0.00
73	P	2,4-Dinitrotoluene	0.403	0.431	-6.9	100	0.00
74		Pentachlorobenzene	0.453	0.455	-0.4	100	0.00
75	P	Dibenzofuran	1.657	1.659	-0.1	100	0.00
76		2,3,5,6-Tetrachlorophenol	0.261	0.292	-11.9	100	0.00
77		2,3,4,6-Tetrachlorophenol	0.279	0.307	-10.0	100	0.00
78		1-Naphthylamine	1.254	1.204	4.0	100	0.00
79		2-Naphthylamine	1.324	1.340	-1.2	100	0.00
80	P	Diethylphthalate	1.337	1.347	-0.7	100	0.00
81		Thionazin	0.222	0.233	-5.0	100	0.00
82	P	Fluorene	1.342	1.353	-0.8	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	0.615	0.621	-1.0	100	0.00
84	P	4-Nitroaniline	0.361	0.375	-3.9	100	0.00
85		5-Nitro-o-Toluidine	0.397	0.420	-5.8	100	0.00
86		1,2-Diphenylhydrazine	1.565	1.576	-0.7	100	0.00
87	S	2,4,6-Tribromophenol	0.158	0.170	-7.6	100	0.00
88	ISTD	Phenanthrene-d10	1.000	1.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	0.093	0.125	-34.4	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	0.702	0.696	0.9	100	0.00
91		Sulfotepp	0.114	0.115	-0.9	100	0.00
92		Sym-Trinitrobenzene	0.239	0.274	-14.6	100	0.00
93		Diallate	0.348	0.344	1.1	100	0.00
94		Phenacetin	0.422	0.437	-3.6	100	0.00
95		Phorate	0.564	0.562	0.4	100	0.00
96	P	4-Bromophenyl Phenyl Ether	0.211	0.209	0.9	100	0.00
97	P	Hexachlorobenzene	0.214	0.211	1.4	100	0.00
98		Dimethoate	0.312	0.283	9.3	100	0.00
99		4-Aminobiphenyl	0.900	0.910	-1.1	100	0.00

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Acq On : 3 Apr 2019 3:21 pm Operator: SCB
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Misc : 1,1 STD92410 Multiplr: 1.00
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Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	0.118	0.136	-15.3	100	0.00
101		Pronamide	0.343	0.353	-2.9	100	0.00
102		Pentachloronitrobenzene	0.092	0.094	-2.2	100	0.00
103		Disulfoton	0.448	0.443	1.1	100	0.00
104	P	Phenanthrene	1.128	1.120	0.7	100	0.00
105	P	Anthracene	1.155	1.164	-0.8	100	0.00
106	P	Carbazole	1.075	1.098	-2.1	100	0.00
107		Parathion Methyl	0.256	0.247	3.5	100	0.00
108	P	Di-n-Butyl Phthalate	1.346	1.367	-1.6	100	0.00
109		Parathion Ethyl	0.176	0.189	-7.4	100	0.00
110		4-Nitroquinoline 1-Oxide	0.076	0.104	-36.8	100	0.00
111		Methapyrilene	0.601	0.439	27.0	100	0.00
112		Isodrin	0.123	0.124	-0.8	100	0.00
113	C,P	Fluoranthene	1.220	1.253	-2.7	100	0.00
114	ISTD	Chrysene-d12	1.000	1.000	0.0	100	0.00
115		Benzidine	0.656	0.585	10.8	100	0.00
116	P	Pyrene	1.366	1.357	0.7	100	0.00
117		Aramite	0.074	0.078	-5.4	100	0.00
118	S	p-Terphenyl-d14	0.958	0.940	1.9	100	0.00
119		p-(Dimethylamino)azobenzene	0.258	0.268	-3.9	100	0.00
120		Chlorobenzilate	0.376	0.374	0.5	100	0.00
121		Famphur	0.189	0.000#	100.0#	100	0.00
122	P	Butyl Benzyl Phthalate	0.668	0.672	-0.6	100	0.00
123		3,3'-Dimethylbenzidine	1.387	1.115	19.6	100	0.00
124		2-Acetylaminofluorene	0.479	0.540	-12.7	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	0.863	0.891	-3.2	100	0.00
126	P	3,3'-Dichlorobenzidine	0.409	0.405	1.0	100	0.00
127	P	Benzo[a]anthracene	1.197	1.206	-0.8	100	0.00
128	P	Chrysene	1.133	1.130	0.3	100	0.00
129	ISTD	Perylene-d12	1.000	1.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	1.595	1.715	-7.5	100	0.00
131		7,12-Dimethylbenz[a]anthrac	0.588	0.612	-4.1	100	0.00
132	P	Benzo[b]fluoranthene	1.252	1.243	0.7	100	0.00
133	P	Benzo[k]fluoranthene	1.137	1.117	1.8	100	0.00
134	C,P	Benzo[a]pyrene	1.096	1.156	-5.5	100	0.00
135		3-Methylcholanthrene	0.557	0.587	-5.4	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	1.073	1.096	-2.1	100	0.00
137	P	Dibenz[ah]anthracene	0.908	0.937	-3.2	100	0.00
138	P	Benzo[ghi]perylene	0.872	0.872	0.0	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:09:52 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	100.000	101.295	-1.3	100	0.00
3		n-Nitrosodimethylamine	100.000	103.536	-3.5	100	0.00
4		Pyridine	100.000	101.367	-1.4	100	0.00
5		2-Picoline	100.000	101.941	-1.9	100	0.00
6		n-Nitrosomethylethylamine	100.000	106.023	-6.0	100	0.00
7		Methyl Methanesulfonate	100.000	96.700	3.3	100	0.00
8	S	2-Fluorophenol	100.000	101.781	-1.8	100	0.00
9		n-Nitrosodiethylamine	100.000	102.704	-2.7	100	0.00
10		Ethyl Methanesulfonate	100.000	101.243	-1.2	100	0.00
11		Aniline	100.000	100.214	-0.2	100	0.00
12	S	Phenol-d5	100.000	101.244	-1.2	100	0.00
13	C,P	Phenol	100.000	101.033	-1.0	100	0.00
14	P	bis(2-Chloroethyl)ether	100.000	97.970	2.0	100	0.00
15		Pentachloroethane	100.000	100.762	-0.8	100	0.00
16	P	2-Chlorophenol	100.000	100.545	-0.5	100	0.00
17		1,3-Dichlorobenzene	100.000	100.272	-0.3	100	0.00
18	C	1,4-Dichlorobenzene	100.000	100.274	-0.3	100	0.00
19		Benzyl Alcohol	100.000	102.545	-2.5	100	0.00
20		1,2-Dichlorobenzene	100.000	100.127	-0.1	100	0.00
21	P	2-Methylphenol	100.000	100.968	-1.0	100	0.00
22	P	bis(2-Chloroisopropyl)ether	100.000	99.245	0.8	100	0.00
23	P	3-,4-Methylphenol	100.000	102.074	-2.1	100	0.00
24		n-Nitrosopyrrolidine	100.000	102.810	-2.8	100	0.00
25	P	n-Nitrosodipropylamine	100.000	97.528	2.5	100	0.00
26		Acetophenone	100.000	97.437	2.6	100	0.00
27		n-Nitrosomorpholine	100.000	96.357	3.6	100	0.00
28		o-Toluidine	100.000	100.366	-0.4	100	0.00
29	P	Hexachloroethane	100.000	99.977	0.0	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	100.000	100.165	-0.2	100	0.00
32	P	Nitrobenzene	100.000	99.474	0.5	100	0.00
33		n-Nitrosopiperidine	100.000	101.331	-1.3	100	0.00
34	P	Isophorone	100.000	100.886	-0.9	100	0.00
35	C,P	2-Nitrophenol	100.000	105.723	-5.7	100	0.00
36	P	2,4-Dimethylphenol	100.000	99.720	0.3	100	0.00
37		0,0,0-Triethyl Phosphorothi	100.000	98.160	1.8	100	0.00
38	P	bis(2-Chloroethoxy)methane	100.000	99.784	0.2	100	0.00
39		Benzoic Acid	100.000	109.197	-9.2	100	-0.01
40	C,P	2,4-Dichlorophenol	100.000	101.482	-1.5	100	0.00
41		a,a-Dimethylphenethylamine	100.000	105.000	-5.0	100	0.01
42		1,2,4-Trichlorobenzene	100.000	98.972	1.0	100	0.00
43	P	Naphthalene	100.000	99.894	0.1	100	0.00
44	P	4-Chloroaniline	100.000	100.028	-0.0	100	0.00
45		2,6-Dichlorophenol	100.000	100.243	-0.2	100	0.00
46		Hexachloropropene	100.000	101.669	-1.7	100	0.00
47	C,P	Hexachlorobutadiene	100.000	99.845	0.2	100	0.00
48		n-Nitrosodi-n-Butylamine	100.000	101.555	-1.6	100	0.00
49		p-Phenylenediamine	100.000	71.037	29.0	100	0.00
50	C,P	4-Chloro-3-Methylphenol	100.000	102.067	-2.1	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:09:52 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	100.000	101.762	-1.8	100	0.00
52	P	2-Methylnaphthalene	100.000	100.890	-0.9	100	0.00
53		1-Methylnaphthalene	100.000	100.993	-1.0	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	100.000	97.561	2.4	100	0.00
56	P	Hexachlorocyclopentadiene	100.000	99.690	0.3	100	0.00
57	C,P	2,4,6-Trichlorophenol	100.000	103.877	-3.9	100	0.00
58	P	2,4,5-Trichlorophenol	100.000	104.350	-4.3	100	0.00
59	S	2-Fluorobiphenyl	100.000	99.783	0.2	100	0.00
60		Isosafrole	100.000	100.846	-0.8	100	0.00
61	P	2-Chloronaphthalene	100.000	98.959	1.0	100	0.00
62		1-Chloronaphthalene	100.000	99.155	0.8	100	0.00
63	P	2-Nitroaniline	100.000	100.441	-0.4	100	0.00
64		1,4-Naphthoquinone	100.000	91.483	8.5	100	0.00
65	P	Dimethylphthalate	100.000	99.689	0.3	100	0.00
66		1,3-Dinitrobenzene	100.000	106.882	-6.9	100	0.00
67	P	2,6-Dinitrotoluene	100.000	102.989	-3.0	100	0.00
68	P	Acenaphthylene	100.000	100.177	-0.2	100	0.00
69	P	3-Nitroaniline	100.000	103.074	-3.1	100	0.00
70	P	2,4-Dinitrophenol	100.000	101.918	-1.9	100	0.00
71	C,P	Acenaphthene	100.000	103.284	-3.3	100	0.00
72	P	4-Nitrophenol	100.000	108.868	-8.9	100	0.00
73	P	2,4-Dinitrotoluene	100.000	107.028	-7.0	100	0.00
74		Pentachlorobenzene	100.000	100.520	-0.5	100	0.00
75	P	Dibenzofuran	100.000	100.153	-0.2	100	0.00
76		2,3,5,6-Tetrachlorophenol	100.000	101.192	-1.2	100	0.00
77		2,3,4,6-Tetrachlorophenol	100.000	100.722	-0.7	100	0.00
78		1-Naphthylamine	100.000	96.050	4.0	100	0.00
79		2-Naphthylamine	100.000	101.222	-1.2	100	0.00
80	P	Diethylphthalate	100.000	100.783	-0.8	100	0.00
81		Thionazin	100.000	104.724	-4.7	100	0.00
82	P	Fluorene	100.000	100.865	-0.9	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	100.000	101.012	-1.0	100	0.00
84	P	4-Nitroaniline	100.000	103.800	-3.8	100	0.00
85		5-Nitro-o-Toluidine	100.000	105.700	-5.7	100	0.00
86		1,2-Diphenylhydrazine	100.000	100.723	-0.7	100	0.00
87	S	2,4,6-Tribromophenol	100.000	107.370	-7.4	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	100.000	100.547	-0.5	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	100.000	99.197	0.8	100	0.00
91		Sulfotepp	100.000	100.758	-0.8	100	0.00
92		Sym-Trinitrobenzene	100.000	99.715	0.3	100	0.00
93		Diallate	100.000	98.864	1.1	100	0.00
94		Phenacetin	100.000	103.441	-3.4	100	0.00
95		Phorate	100.000	99.551	0.4	100	0.00
96	P	4-Bromophenyl Phenyl Ether	100.000	99.242	0.8	100	0.00
97	P	Hexachlorobenzene	100.000	98.756	1.2	100	0.00
98		Dimethoate	100.000	90.691	9.3	100	0.00
99		4-Aminobiphenyl	100.000	101.180	-1.2	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:09:52 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

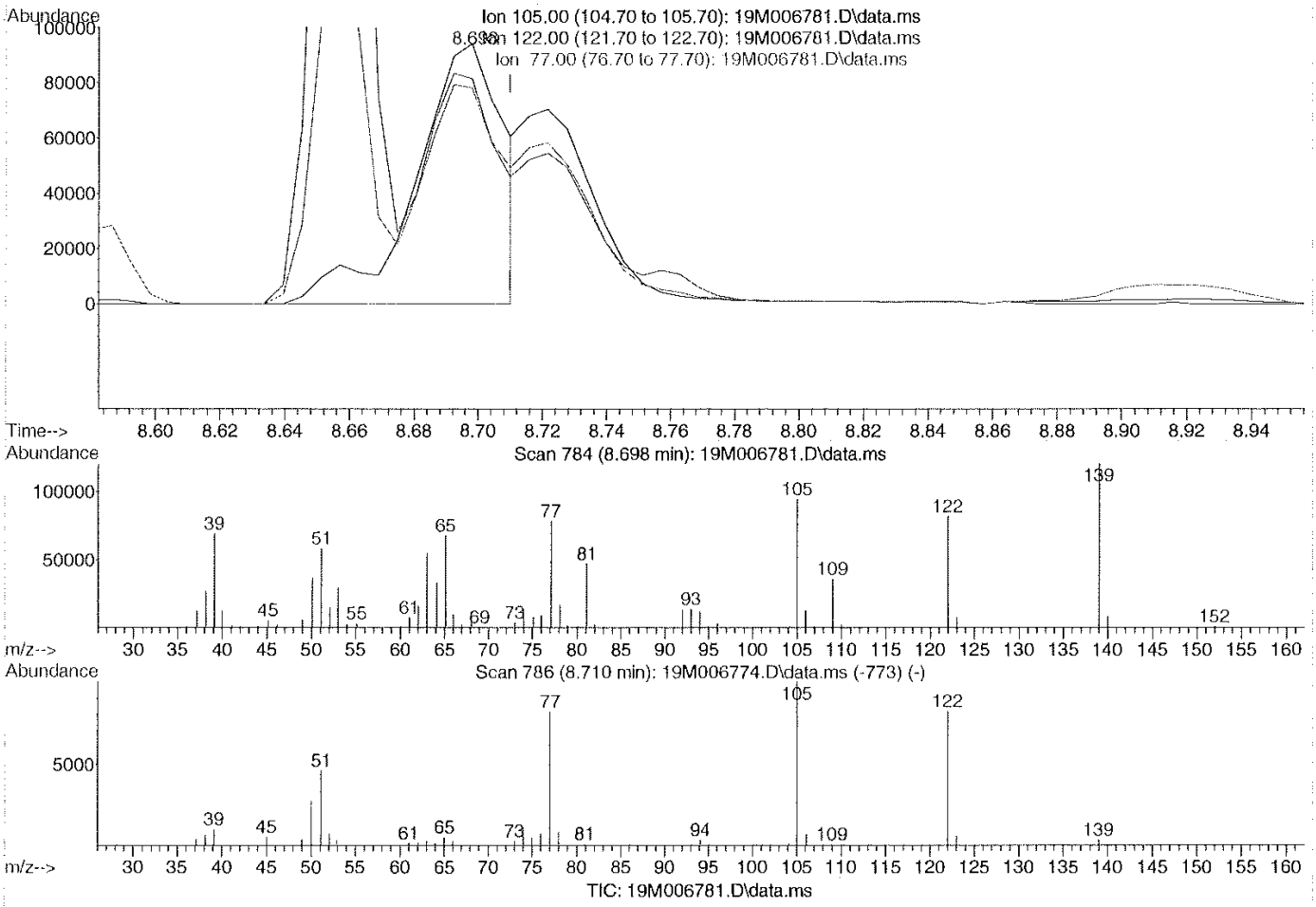
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	100.000	99.944	0.1	100	0.00
101		Pronamide	100.000	102.773	-2.8	100	0.00
102		Pentachloronitrobenzene	100.000	102.481	-2.5	100	0.00
103		Disulfoton	100.000	98.790	1.2	100	0.00
104	P	Phenanthrene	100.000	99.321	0.7	100	0.00
105	P	Anthracene	100.000	100.832	-0.8	100	0.00
106	P	Carbazole	100.000	102.170	-2.2	100	0.00
107		Parathion Methyl	100.000	96.569	3.4	100	0.00
108	P	Di-n-Butyl Phthalate	100.000	101.600	-1.6	100	0.00
109		Parathion Ethyl	100.000	107.376	-7.4	100	0.00
110		4-Nitroquinoline 1-Oxide	100.000	103.213	-3.2	100	0.00
111		Methapyrilene	100.000	108.730	-8.7	100	0.00
112		Isodrin	100.000	101.342	-1.3	100	0.00
113	C,P	Fluoranthene	100.000	102.663	-2.7	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	100.000	89.117	10.9	100	0.00
116	P	Pyrene	100.000	99.374	0.6	100	0.00
117		Aramite	100.000	105.056	-5.1	100	0.00
118	S	p-Terphenyl-d14	100.000	98.111	1.9	100	0.00
119		p-(Dimethylamino)azobenzene	100.000	104.010	-4.0	100	0.00
120		Chlorobenzilate	100.000	99.538	0.5	100	0.00
121		Famphur	-1.000	28.667	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	100.000	100.613	-0.6	100	0.00
123		3,3'-Dimethylbenzidine	100.000	98.458	1.5	100	0.00
124		2-Acetylaminofluorene	100.000	100.965	-1.0	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	100.000	103.294	-3.3	100	0.00
126	P	3,3'-Dichlorobenzidine	100.000	98.923	1.1	100	0.00
127	P	Benzo[a]anthracene	100.000	100.791	-0.8	100	0.00
128	P	Chrysene	100.000	99.718	0.3	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	100.000	107.508	-7.5	100	0.00
131		7,12-Dimethylbenz[a]anthrac	100.000	104.072	-4.1	100	0.00
132	P	Benzo[b]fluoranthene	100.000	99.306	0.7	100	0.00
133	P	Benzo[k]fluoranthene	100.000	98.248	1.8	100	0.00
134	C,P	Benzo[a]pyrene	100.000	105.504	-5.5	100	0.00
135		3-Methylcholanthrene	100.000	105.322	-5.3	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	100.000	102.076	-2.1	100	0.00
137	P	Dibenz[ah]anthracene	100.000	103.254	-3.3	100	0.00
138	P	Benzo[ghi]perylene	100.000	99.935	0.1	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:03:07 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



TIC: 19M006781.D\data.ms

(39) Benzoic Acid

8.698min (-0.012) 78.874 ug/mL

response 176499

Ion	Exp%	Act%
105.00	100	100
122.00	70.60	43.69#
77.00	72.60	47.49#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006781.D Vial: 9
Acq On : 3 Apr 2019 3:21 pm Operator: SCB
Sample : WG701995-09 100PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
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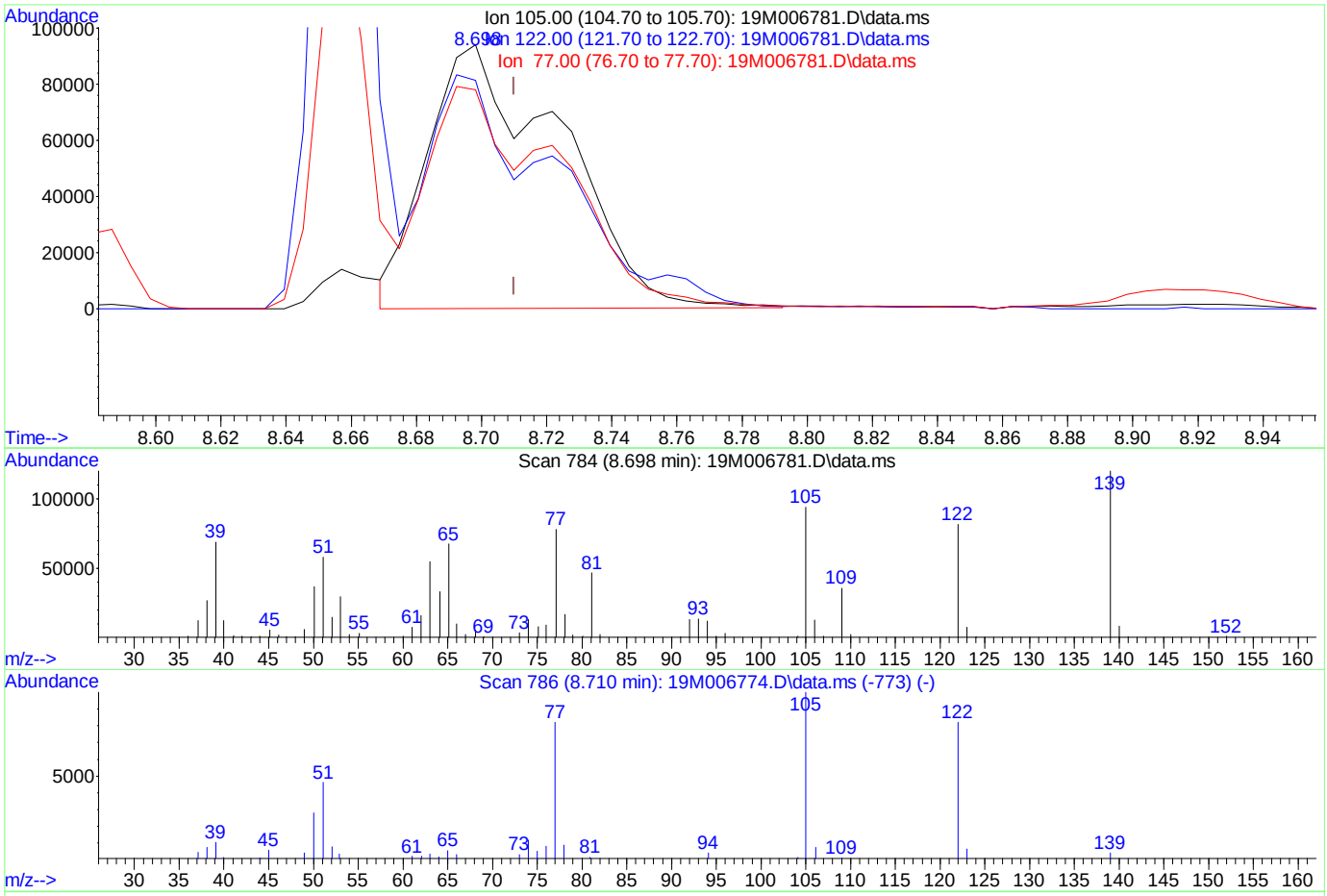
Quant Time: Apr 04 18:03:07 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 16:35:37 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



TIC: 19M006781.D\data.ms

(39) Benzoic Acid

8.698min (-0.012) 109.197 ug/mL mint

response 268861

Ion	Exp%	Act%
105.00	100	100
122.00	70.60	28.68#
77.00	72.60	31.17#
0.00	0.00	0.00

Analyst: 04/04/2019 18:31 Supervisor: 04/04/2019 18:42

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:58:17 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	120130	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.075	136	474805	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.887	164	256675	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	431353	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	406058	40.0000	ug/mL	0.0000
129) Perylene-d12	18.957	264	357233	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	501063	122.4251	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 122.4251%#			
12) Phenol-d5	7.375	99	639576	121.9694	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 121.9694%#			
31) Nitrobenzene-d5	8.351	82	584937	118.8646	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 237.7292%#			
59) 2-Fluorobiphenyl	10.145	172	1023261	118.7727	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 237.5454%#			
87) 2,4,6-Tribromophenol	11.716	330	128970	127.1577	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 127.1577%#			
118) p-Terphenyl-d14	14.527	244	1146455	117.8454	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 235.6908%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.610	88	238806	122.3382	ug/mL	99
3) n-Nitrosodimethylamine	5.069	74	361182	124.8161	ug/mL	94
4) Pyridine	5.099	79	594604	120.7953	ug/mL	99
5) 2-Picoline	5.940	93	612761	121.1367	ug/mL	100
6) n-Nitrosomethylethylamine	6.057	88	264549	123.5469	ug/mL	95
7) Methyl Methanesulfonate	6.357	80	326350	115.6716	ug/mL	98
9) n-Nitrosodiethylamine	6.757	102	256404	123.8644	ug/mL	98
10) Ethyl Methanesulfonate	7.022	79	422611	120.7197	ug/mL	99
11) Aniline	7.475	66	346957	119.2952	ug/mL	93
13) Phenol	7.387	94	672677	121.1410	ug/mL	96
14) bis(2-Chloroethyl)ether	7.498	63	454207	116.9359	ug/mL#	29
15) Pentachloroethane	7.510	167	189006	119.4090	ug/mL	99
16) 2-Chlorophenol	7.604	128	531678	121.1324	ug/mL	99
17) 1,3-Dichlorobenzene	7.751	146	550295	120.9952	ug/mL	99
18) 1,4-Dichlorobenzene	7.798	146	558384	120.7392	ug/mL	99
19) Benzyl Alcohol	7.893	108	348996	124.3741	ug/mL	97
20) 1,2-Dichlorobenzene	7.993	146	507636	118.8890	ug/mL	100
21) 2-Methylphenol	7.987	107	399400	119.5893	ug/mL	98
22) bis(2-Chloroisopropyl)...	8.034	45	870596	118.5345	ug/mL	99
23) 3-,4-Methylphenol	8.116	107	527011	121.6796	ug/mL	99
24) n-Nitrosopyrrolidine	8.169	100	246739	122.9450	ug/mL	88
25) n-Nitrosodipropylamine	8.175	70	389249	114.2507	ug/mL	96
26) Acetophenone	8.181	105	668862	116.6658	ug/mL	99
27) n-Nitrosomorpholine	8.175	56	355477	111.7362	ug/mL	99
28) o-Toluidine	8.222	106	795535	119.8783	ug/mL	100
29) Hexachloroethane	8.310	117	224879	120.7482	ug/mL	99
32) Nitrobenzene	8.369	77	601869	118.4460	ug/mL	99
33) n-Nitrosopiperidine	8.510	114	258508	120.8948	ug/mL	96
34) Isophorone	8.581	82	1059866	119.5511	ug/mL	100
35) 2-Nitrophenol	8.687	139	272682	124.8054	ug/mL	97
36) 2,4-Dimethylphenol	8.657	122	465909	120.5914	ug/mL	99
37) 0,0,0-Triethyl Phospho...	8.757	198	223785	117.9454	ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:58:17 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.757	93	783054	118.2220 ug/mL	100
39) Benzoic Acid	8.698	105	355161m	120.1109 ug/mL	
40) 2,4-Dichlorophenol	8.910	162	394905	122.3177 ug/mL	99
41) a,a-Dimethylphenethyla...	8.922	58	1576161	124.1931 ug/mL	99
42) 1,2,4-Trichlorobenzene	9.022	180	407095	117.9361 ug/mL	99
43) Naphthalene	9.098	128	1574220	120.6315 ug/mL#	98
44) 4-Chloroaniline	9.122	65	225482	119.4000 ug/mL	68
45) 2,6-Dichlorophenol	9.145	162	374207	119.8036 ug/mL	99
46) Hexachloropropene	9.216	213	262809	120.6606 ug/mL	100
47) Hexachlorobutadiene	9.251	225	223613	117.9976 ug/mL	100
48) n-Nitrosodi-n-Butylamine	9.440	84	472449	120.4086 ug/mL	97
49) p-Phenylenediamine	9.463	108	271140	73.7981 ug/mL	100
50) 4-Chloro-3-Methylphenol	9.557	107	448093	122.2226 ug/mL	99
51) Safrole	9.657	162	388022	122.5880 ug/mL	97
52) 2-Methylnaphthalene	9.787	142	1003071	121.0896 ug/mL	99
53) 1-Methylnaphthalene	9.904	142	942736	121.0458 ug/mL	99
55) 1,2,4,5-Tetrachloroben...	9.998	216	402769	118.4653 ug/mL	98
56) Hexachlorocyclopentadiene	10.010	237	129990	Below Cal	100
57) 2,4,6-Trichlorophenol	10.075	196	276325	123.1682 ug/mL	99
58) 2,4,5-Trichlorophenol	10.122	196	287460	123.6770 ug/mL	100
60) Isosafrole	10.181	162	389872	120.5944 ug/mL	97
61) 2-Chloronaphthalene	10.298	162	889515	118.4636 ug/mL	99
62) 1-Chloronaphthalene	10.339	162	834423	118.1520 ug/mL	99
63) 2-Nitroaniline	10.387	65	335290	118.5285 ug/mL	97
64) 1,4-Naphthoquinone	10.457	158	275551	102.2734 ug/mL	97
65) Dimethylphthalate	10.557	163	994386	118.8455 ug/mL	100
66) 1,3-Dinitrobenzene	10.604	168	181978	127.3077 ug/mL	97
67) 2,6-Dinitrotoluene	10.651	165	241352	122.2621 ug/mL	97
68) Acenaphthylene	10.739	152	1421147	119.0280 ug/mL	100
69) 3-Nitroaniline	10.804	138	267721	121.0023 ug/mL	100
70) 2,4-Dinitrophenol	10.910	184	119457	118.5866 ug/mL	38
71) Acenaphthene	10.922	154	916388	122.8090 ug/mL	98
72) 4-Nitrophenol	10.904	65	271104	130.4913 ug/mL	96
73) 2,4-Dinitrotoluene	11.057	165	323191	125.0790 ug/mL	97
74) Pentachlorobenzene	11.104	250	345005	118.7553 ug/mL	99
75) Dibenzofuran	11.081	168	1274106	119.8323 ug/mL	98
76) 2,3,5,6-Tetrachlorophenol	11.181	232	224761	120.9226 ug/mL	99
77) 2,3,4,6-Tetrachlorophenol	11.228	232	230594	117.6479 ug/mL	97
78) 1-Naphthylamine	11.157	143	896682	111.4523 ug/mL	98
79) 2-Naphthylamine	11.228	143	1008436	118.7349 ug/mL	98
80) Diethylphthalate	11.263	149	1020138	118.9321 ug/mL	99
81) Thionazin	11.363	107	175019	122.8483 ug/mL	98
82) Fluorene	11.439	166	1021326	118.6287 ug/mL	100
83) 4-Chlorophenyl Phenyl ...	11.386	204	471802	119.5925 ug/mL	98
84) 4-Nitroaniline	11.445	138	282929	122.1674 ug/mL	94
85) 5-Nitro-o-Toluidine	11.439	152	318461	124.8737 ug/mL	96
86) 1,2-Diphenylhydrazine	11.557	77	1193270	118.8421 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.486	198	167812	119.3887 ug/mL	83
90) Diphenylamine/n-Nitros...	11.510	169	900021	118.9039 ug/mL	100
91) Sulfotepp	11.704	322	148586	120.7787 ug/mL	93
92) Sym-Trinitrobenzene	11.781	75	354411	119.0590 ug/mL	99
93) Diallate	11.834	86	443421	118.1581 ug/mL	98
94) Phenacetin	11.816	108	565028	124.0705 ug/mL	99
95) Phorate	11.851	75	720612	118.4219 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.916	248	272115	119.7216 ug/mL	98

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:58:17 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

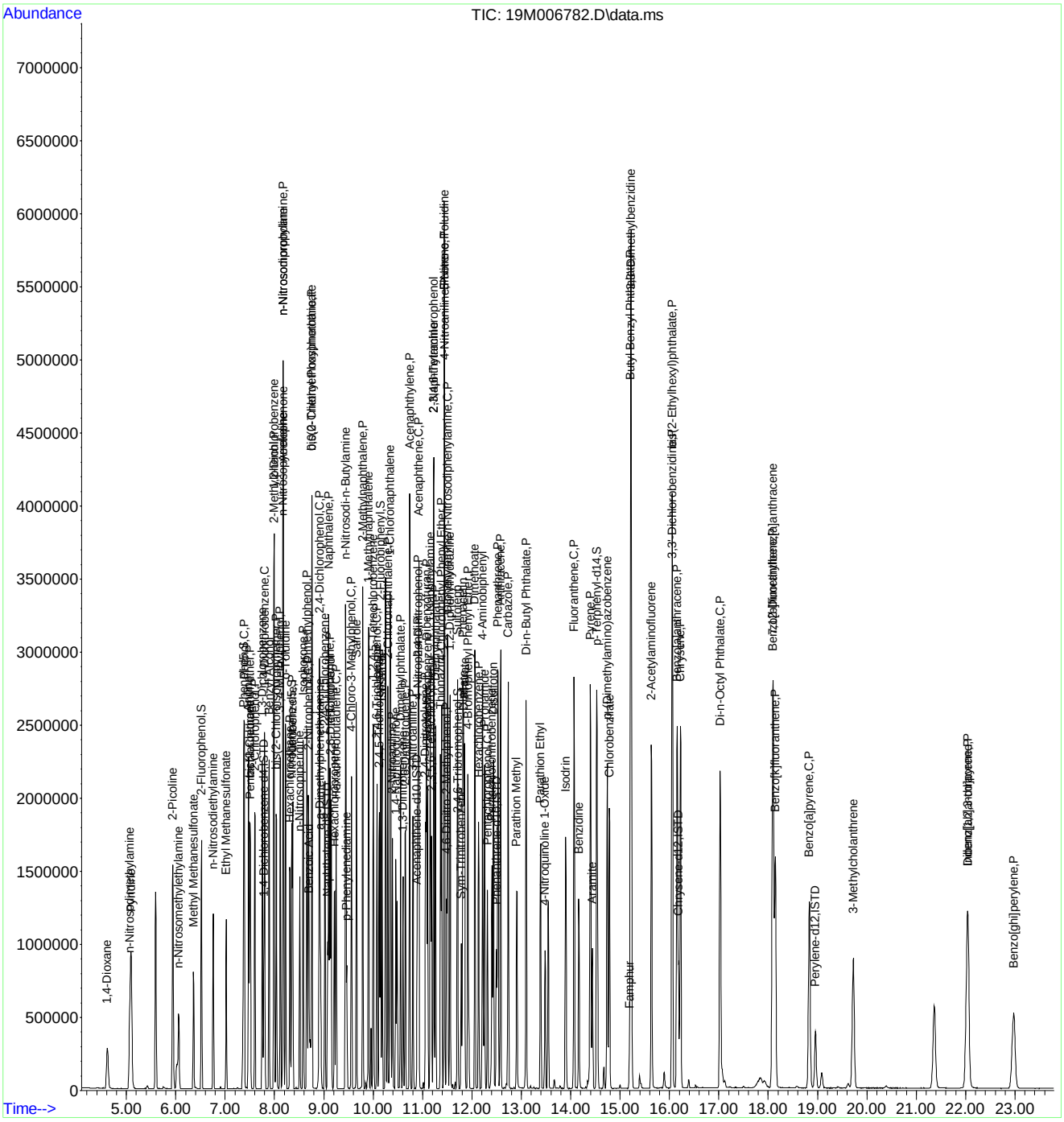
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	Hexachlorobenzene	12.134	284	271696	117.9154 ug/mL	98
98)	Dimethoate	12.057	87	337685	100.2821 ug/mL	97
99)	4-Aminobiphenyl	12.216	169	1166090	120.2113 ug/mL	100
100)	Pentachlorophenol	12.316	266	179918	121.6978 ug/mL	99
101)	Pronamide	12.257	173	454736	122.8762 ug/mL	99
102)	Pentachloronitrobenzene	12.404	237	119864	121.2150 ug/mL	99
103)	Disulfoton	12.433	88	574227	118.7794 ug/mL	98
104)	Phenanthrene	12.528	178	1466954	120.5908 ug/mL	100
105)	Anthracene	12.581	178	1498569	120.3325 ug/mL	100
106)	Carbazole	12.733	167	1420304	122.5022 ug/mL	99
107)	Parathion Methyl	12.904	109	298633	108.3052 ug/mL	98
108)	Di-n-Butyl Phthalate	13.098	149	1772688	122.1315 ug/mL	100
109)	Parathion Ethyl	13.386	97	243897	128.3634 ug/mL	98
110)	4-Nitroquinoline 1-Oxide	13.480	190	126904	114.5646 ug/mL	96
111)	Methapyrilene	13.545	58	527892	Below Cal #	91
112)	Isodrin	13.898	193	159745	120.7295 ug/mL	99
113)	Fluoranthene	14.069	202	1606139	122.0336 ug/mL	99
115)	Benzidine	14.163	184	666847	100.1383 ug/mL	100
116)	Pyrene	14.398	202	1646850	118.8039 ug/mL	100
117)	Aramite	14.439	185	95050	126.4411 ug/mL	99
119)	p-(Dimethylamino)azobe...	14.739	225	324613	124.1633 ug/mL	96
120)	Chlorobenzilate	14.786	251	461284	120.8834 ug/mL	97
121)	Famphur	15.186	218	41497	21.6784 ug/mL#	40
122)	Butyl Benzyl Phthalate	15.210	149	808440	119.2889 ug/mL	98
123)	3,3'-Dimethylbenzidine	15.222	212	1298853	129.4959 ug/mL	99
124)	2-Acetylaminofluorene	15.633	181	652573	119.9882 ug/mL	99
125)	bis(2-Ethylhexyl)phtha...	16.057	149	1091411	124.5928 ug/mL	100
126)	3,3'-Dichlorobenzidine	16.063	252	479517	115.4880 ug/mL	100
127)	Benzo[a]anthracene	16.157	228	1461419	120.3072 ug/mL	100
128)	Chrysene	16.221	228	1380548	119.9435 ug/mL	100
130)	Di-n-Octyl Phthalate	17.027	149	1883747	132.2176 ug/mL	97
131)	7,12-Dimethylbenz[a]an...	18.098	256	660510	125.7215 ug/mL	99
132)	Benzo[b]fluoranthene	18.092	252	1422817	127.2942 ug/mL	99
133)	Benzo[k]fluoranthene	18.145	252	1195477	117.7874 ug/mL	100
134)	Benzo[a]pyrene	18.833	252	1215116	124.1867 ug/mL	99
135)	3-Methylcholanthrene	19.727	268	619024	124.4231 ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	22.039	276	1136108	118.5082 ug/mL	99
137)	Dibenz[ah]anthracene	22.039	278	966523	119.2384 ug/mL	99
138)	Benzo[ghi]perylene	22.974	276	900940	115.6386 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:58:17 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:10:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:04 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	100	0.00
2		1,4-Dioxane	120.000	122.338	-1.9	100	-0.01
3		n-Nitrosodimethylamine	120.000	124.816	-4.0	100	0.00
4		Pyridine	120.000	120.795	-0.7	100	0.00
5		2-Picoline	120.000	121.137	-0.9	100	0.00
6		n-Nitrosomethylethylamine	120.000	123.547	-3.0	100	0.00
7		Methyl Methanesulfonate	120.000	115.672	3.6	100	0.00
8	S	2-Fluorophenol	120.000	122.425	-2.0	100	0.00
9		n-Nitrosodiethylamine	120.000	123.864	-3.2	100	0.00
10		Ethyl Methanesulfonate	120.000	120.720	-0.6	100	0.00
11		Aniline	120.000	119.295	0.6	100	0.00
12	S	Phenol-d5	120.000	121.969	-1.6	100	0.00
13	C,P	Phenol	120.000	121.141	-1.0	100	0.00
14	P	bis(2-Chloroethyl)ether	120.000	116.936	2.6	100	0.00
15		Pentachloroethane	120.000	119.409	0.5	100	0.00
16	P	2-Chlorophenol	120.000	121.132	-0.9	100	0.00
17		1,3-Dichlorobenzene	120.000	120.995	-0.8	100	0.00
18	C	1,4-Dichlorobenzene	120.000	120.739	-0.6	100	0.00
19		Benzyl Alcohol	120.000	124.374	-3.6	100	0.00
20		1,2-Dichlorobenzene	120.000	118.889	0.9	100	0.00
21	P	2-Methylphenol	120.000	119.589	0.3	100	0.00
22	P	bis(2-Chloroisopropyl)ether	120.000	118.535	1.2	100	0.00
23	P	3-,4-Methylphenol	120.000	121.680	-1.4	100	0.00
24		n-Nitrosopyrrolidine	120.000	122.945	-2.5	100	0.00
25	P	n-Nitrosodipropylamine	120.000	114.251	4.8	100	0.00
26		Acetophenone	120.000	116.666	2.8	100	0.00
27		n-Nitrosomorpholine	120.000	111.736	6.9	100	0.00
28		o-Toluidine	120.000	119.878	0.1	100	0.00
29	P	Hexachloroethane	120.000	120.748	-0.6	100	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	100	0.00
31	S	Nitrobenzene-d5	120.000	118.865	0.9	100	0.00
32	P	Nitrobenzene	120.000	118.446	1.3	100	0.00
33		n-Nitrosopiperidine	120.000	120.895	-0.7	100	0.00
34	P	Isophorone	120.000	119.551	0.4	100	0.00
35	C,P	2-Nitrophenol	120.000	124.805	-4.0	100	0.00
36	P	2,4-Dimethylphenol	120.000	120.591	-0.5	100	0.00
37		0,0,0-Triethyl Phosphorothi	120.000	117.945	1.7	100	0.00
38	P	bis(2-Chloroethoxy)methane	120.000	118.222	1.5	100	0.00
39		Benzoic Acid	120.000	120.234	-0.2	100	-0.01
40	C,P	2,4-Dichlorophenol	120.000	122.318	-1.9	100	0.00
41		a,a-Dimethylphenethylamine	120.000	124.193	-3.5	100	0.02
42		1,2,4-Trichlorobenzene	120.000	117.936	1.7	100	0.00
43	P	Naphthalene	120.000	120.632	-0.5	100	0.00
44	P	4-Chloroaniline	120.000	119.400	0.5	100	0.00
45		2,6-Dichlorophenol	120.000	119.804	0.2	100	0.00
46		Hexachloropropene	120.000	120.661	-0.6	100	0.00
47	C,P	Hexachlorobutadiene	120.000	117.998	1.7	100	0.00
48		n-Nitrosodi-n-Butylamine	120.000	120.409	-0.3	100	0.00
49		p-Phenylenediamine	-1.000	73.798	0.0	100	0.00
50	C,P	4-Chloro-3-Methylphenol	120.000	122.223	-1.9	100	0.00

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:10:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:04 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	120.000	122.588	-2.2	100	0.00
52	P	2-Methylnaphthalene	120.000	121.090	-0.9	100	0.00
53		1-Methylnaphthalene	120.000	121.046	-0.9	100	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	100	0.00
55		1,2,4,5-Tetrachlorobenzene	120.000	118.465	1.3	100	0.00
56	P	Hexachlorocyclopentadiene	-1.000	-40.000	0.0	100	0.00
57	C,P	2,4,6-Trichlorophenol	120.000	123.168	-2.6	100	0.00
58	P	2,4,5-Trichlorophenol	120.000	123.677	-3.1	100	0.00
59	S	2-Fluorobiphenyl	120.000	118.773	1.0	100	0.00
60		Isosafrole	120.000	120.594	-0.5	100	0.00
61	P	2-Chloronaphthalene	120.000	118.464	1.3	100	0.00
62		1-Chloronaphthalene	120.000	118.152	1.5	100	0.00
63	P	2-Nitroaniline	120.000	118.529	1.2	100	0.00
64		1,4-Naphthoquinone	120.000	102.273	14.8	100	0.00
65	P	Dimethylphthalate	120.000	118.845	1.0	100	0.00
66		1,3-Dinitrobenzene	120.000	127.308	-6.1	100	0.00
67	P	2,6-Dinitrotoluene	120.000	122.262	-1.9	100	0.00
68	P	Acenaphthylene	120.000	119.028	0.8	100	0.00
69	P	3-Nitroaniline	120.000	121.002	-0.8	100	0.00
70	P	2,4-Dinitrophenol	120.000	118.587	1.2	100	0.00
71	C,P	Acenaphthene	120.000	122.809	-2.3	100	0.00
72	P	4-Nitrophenol	120.000	130.491	-8.7	100	0.00
73	P	2,4-Dinitrotoluene	120.000	125.079	-4.2	100	0.00
74		Pentachlorobenzene	120.000	118.755	1.0	100	0.00
75	P	Dibenzofuran	120.000	119.832	0.1	100	0.00
76		2,3,5,6-Tetrachlorophenol	120.000	120.923	-0.8	100	0.00
77		2,3,4,6-Tetrachlorophenol	120.000	117.648	2.0	100	0.00
78		1-Naphthylamine	120.000	111.452	7.1	100	0.00
79		2-Naphthylamine	120.000	118.735	1.1	100	0.00
80	P	Diethylphthalate	120.000	118.932	0.9	100	0.00
81		Thionazin	120.000	122.848	-2.4	100	0.00
82	P	Fluorene	120.000	118.629	1.1	100	0.00
83	P	4-Chlorophenyl Phenyl Ether	120.000	119.592	0.3	100	0.00
84	P	4-Nitroaniline	120.000	122.167	-1.8	100	0.00
85		5-Nitro-o-Toluidine	120.000	124.874	-4.1	100	0.00
86		1,2-Diphenylhydrazine	120.000	118.842	1.0	100	0.00
87	S	2,4,6-Tribromophenol	120.000	127.158	-6.0	100	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	120.000	119.389	0.5	100	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	120.000	118.904	0.9	100	0.00
91		Sulfotepp	120.000	120.779	-0.6	100	0.00
92		Sym-Trinitrobenzene	120.000	119.059	0.8	100	0.00
93		Diallate	120.000	118.158	1.5	100	0.00
94		Phenacetin	120.000	124.070	-3.4	100	0.00
95		Phorate	120.000	118.422	1.3	100	0.00
96	P	4-Bromophenyl Phenyl Ether	120.000	119.722	0.2	100	0.00
97	P	Hexachlorobenzene	120.000	117.915	1.7	100	0.00
98		Dimethoate	120.000	100.282	16.4	100	0.00
99		4-Aminobiphenyl	120.000	120.211	-0.2	100	0.00

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:10:33 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:04 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

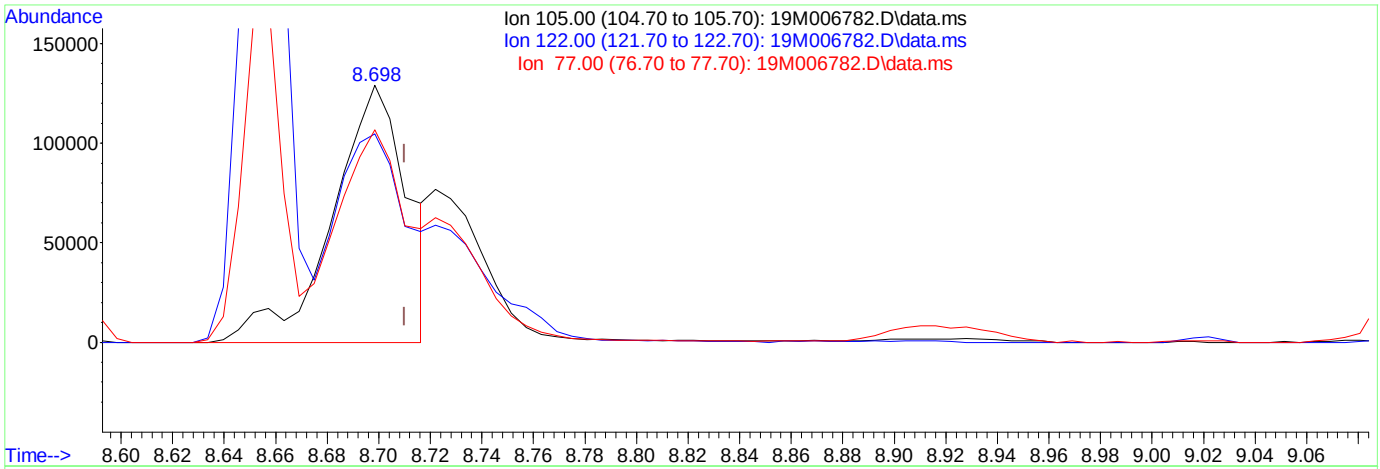
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	120.000	121.698	-1.4	100	0.00
101		Pronamide	120.000	122.876	-2.4	100	0.00
102		Pentachloronitrobenzene	120.000	121.215	-1.0	100	0.00
103		Disulfoton	120.000	118.779	1.0	100	0.00
104	P	Phenanthrene	120.000	120.591	-0.5	100	0.00
105	P	Anthracene	120.000	120.332	-0.3	100	0.00
106	P	Carbazole	120.000	122.502	-2.1	100	0.00
107		Parathion Methyl	120.000	108.305	9.7	100	0.00
108	P	Di-n-Butyl Phthalate	120.000	122.131	-1.8	100	0.00
109		Parathion Ethyl	120.000	128.363	-7.0	100	0.00
110		4-Nitroquinoline 1-Oxide	120.000	114.565	4.5	100	0.00
111		Methapyrilene	-1.000	-40.000	0.0	100	0.00
112		Isodrin	120.000	120.729	-0.6	100	0.00
113	C,P	Fluoranthene	120.000	122.034	-1.7	100	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	100	0.00
115		Benzidine	120.000	100.138	16.6	100	0.00
116	P	Pyrene	120.000	118.804	1.0	100	0.00
117		Aramite	120.000	126.441	-5.4	100	0.00
118	S	p-Terphenyl-d14	120.000	117.845	1.8	100	0.00
119		p-(Dimethylamino)azobenzene	120.000	124.163	-3.5	100	0.00
120		Chlorobenzilate	120.000	120.883	-0.7	100	0.00
121		Famphur	-1.000	21.678	0.0	100	0.00
122	P	Butyl Benzyl Phthalate	120.000	119.289	0.6	100	0.00
123		3,3'-Dimethylbenzidine	120.000	129.496	-7.9	100	0.00
124		2-Acetylaminofluorene	120.000	119.988	0.0	100	0.00
125	P	bis(2-Ethylhexyl)phthalate	120.000	124.593	-3.8	100	0.00
126	P	3,3'-Dichlorobenzidine	120.000	115.488	3.8	100	0.00
127	P	Benzo[a]anthracene	120.000	120.307	-0.3	100	0.00
128	P	Chrysene	120.000	119.944	0.0	100	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	100	0.00
130	C,P	Di-n-Octyl Phthalate	120.000	132.218	-10.2	100	0.00
131		7,12-Dimethylbenz[a]anthrac	120.000	125.722	-4.8	100	0.00
132	P	Benzo[b]fluoranthene	120.000	127.294	-6.1	100	0.00
133	P	Benzo[k]fluoranthene	120.000	117.787	1.8	100	0.00
134	C,P	Benzo[a]pyrene	120.000	124.187	-3.5	100	0.00
135		3-Methylcholanthrene	120.000	124.423	-3.7	100	0.00
136	P	Indeno[1,2,3-cd]pyrene	120.000	118.508	1.2	100	0.00
137	P	Dibenz[ah]anthracene	120.000	119.238	0.6	100	0.00
138	P	Benzo[ghi]perylene	120.000	115.639	3.6	100	0.01

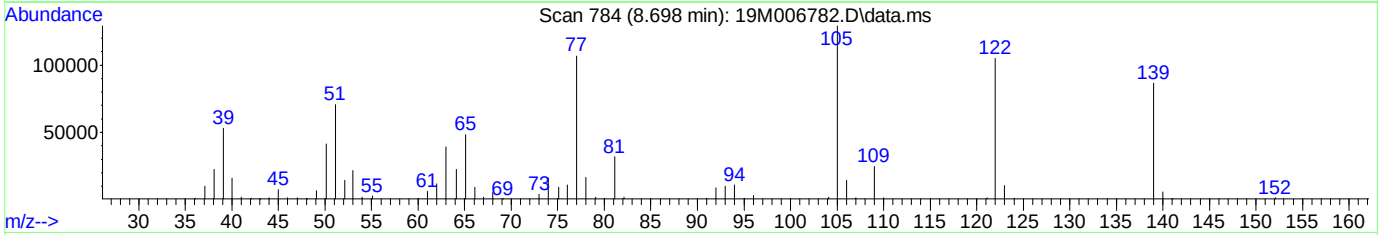
(#) = Out of Range SPCC's out = 0 CCC's out = 0

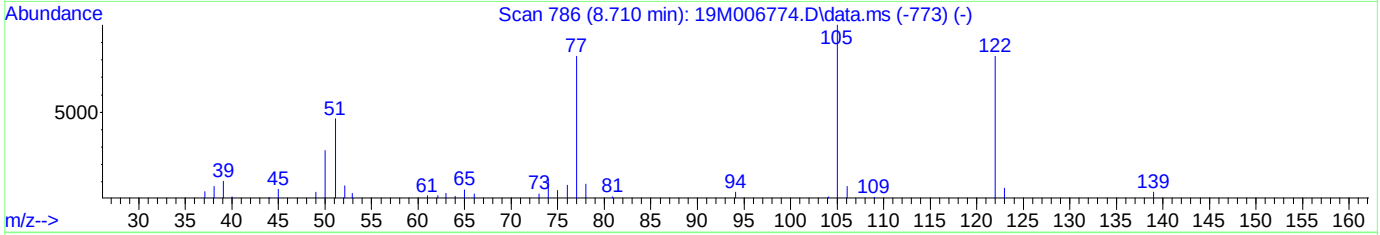
Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:10:18 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:04 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M







TIC: 19M006782.D\data.ms

(39) Benzoic Acid

8.698min (-0.012) 94.545 ug/mL

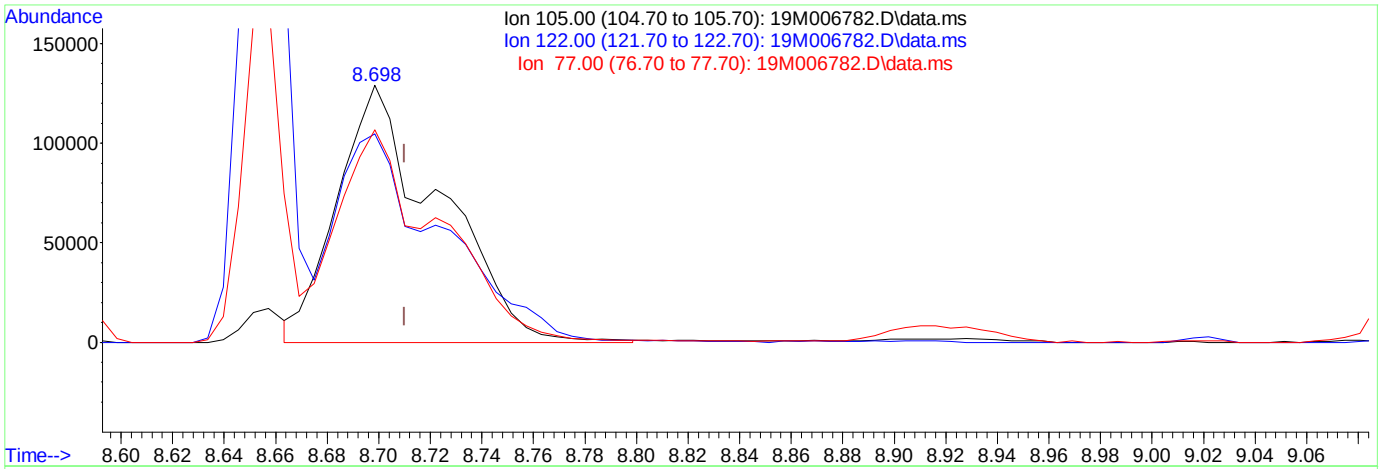
response 259067

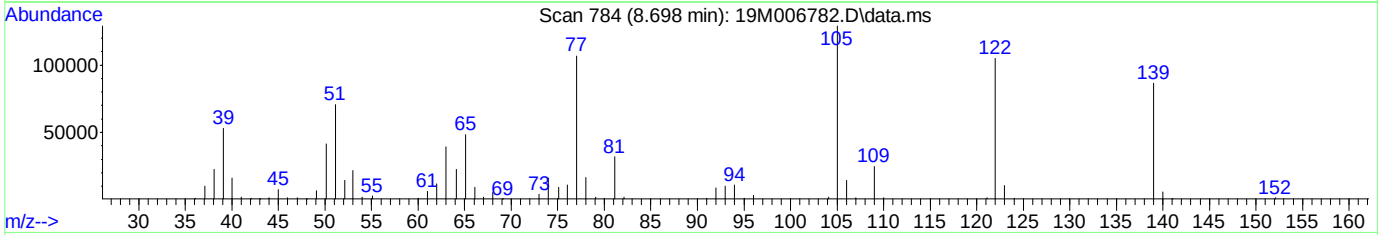
Ion	Exp%	Act%
105.00	100	100
122.00	66.40	114.39#
77.00	68.30	44.24#
0.00	0.00	0.00

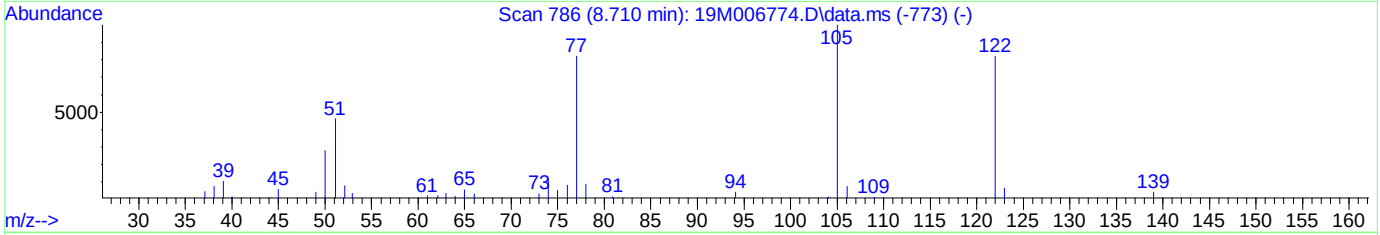
Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006782.D Vial: 10
Acq On : 3 Apr 2019 3:51 pm Operator: SCB
Sample : WG701995-10 120PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:10:18 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:04 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M







TIC: 19M006782.D\data.ms

(39) Benzoic Acid

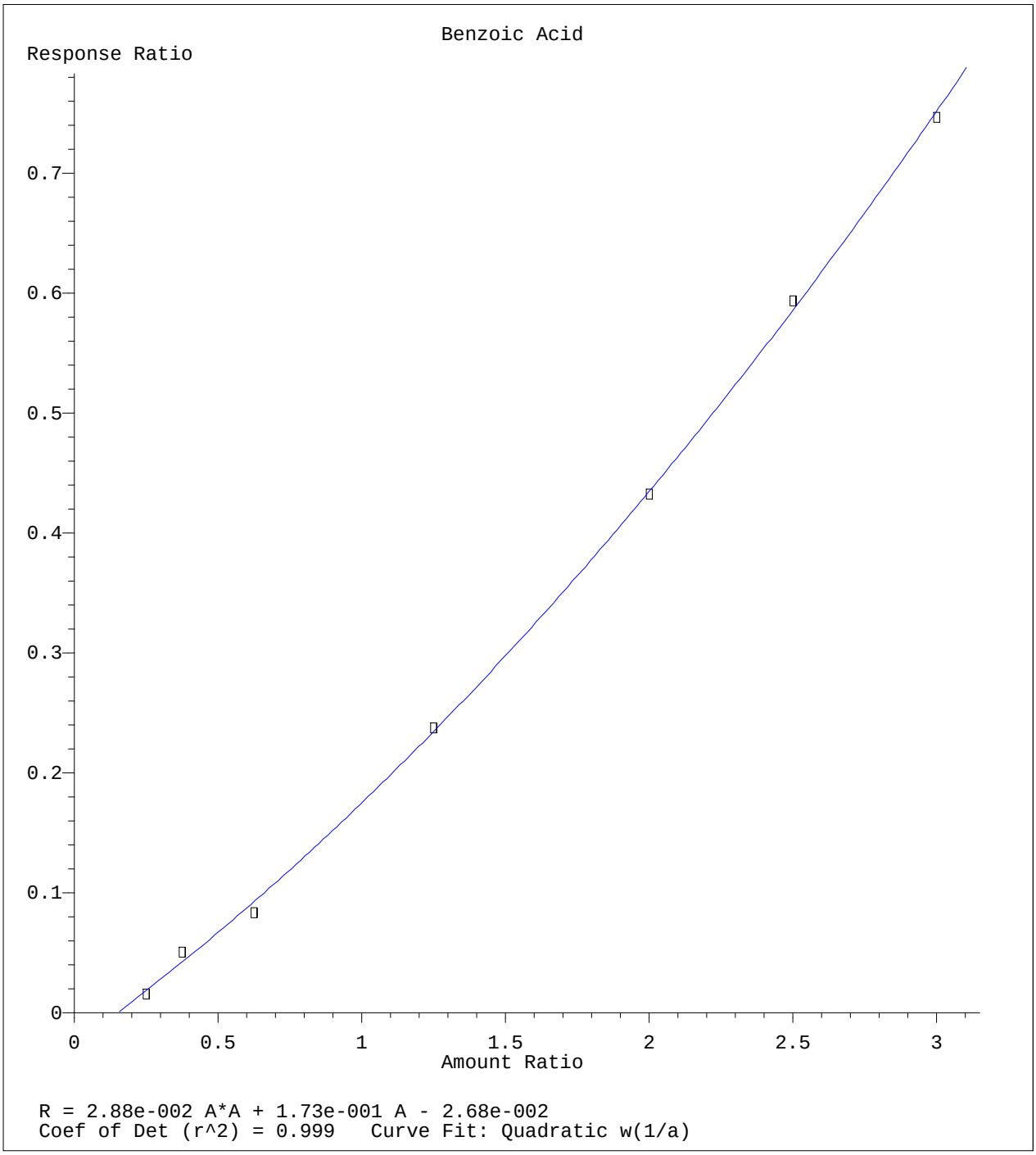
8.698min (-0.012) 120.234 ug/mL mint

response 355161

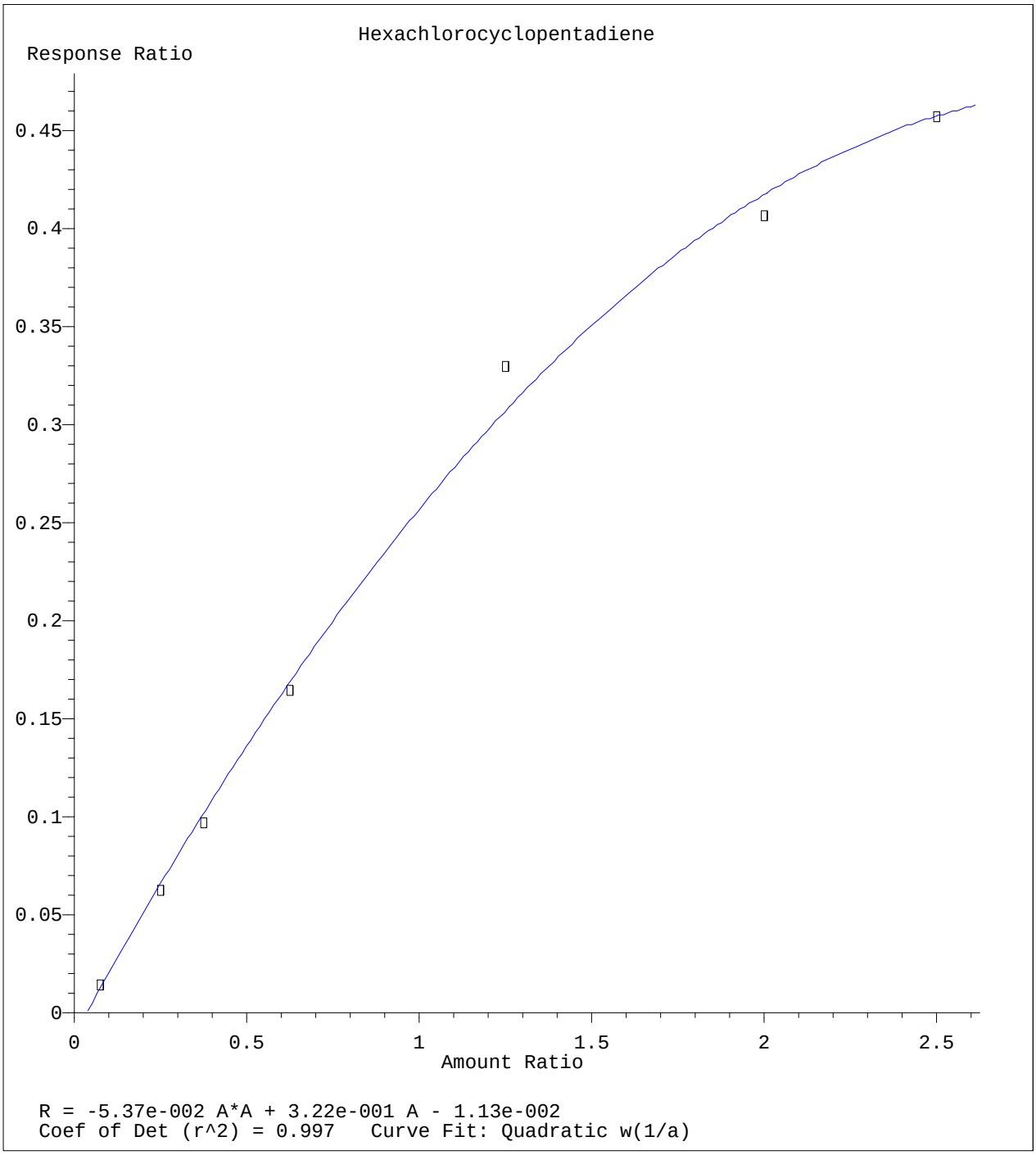
Ion	Exp%	Act%
105.00	100	100
122.00	66.40	83.44
77.00	68.30	32.27#
0.00	0.00	0.00

Analyst: 04/04/2019 18:31 Supervisor: 04/04/2019 18:44

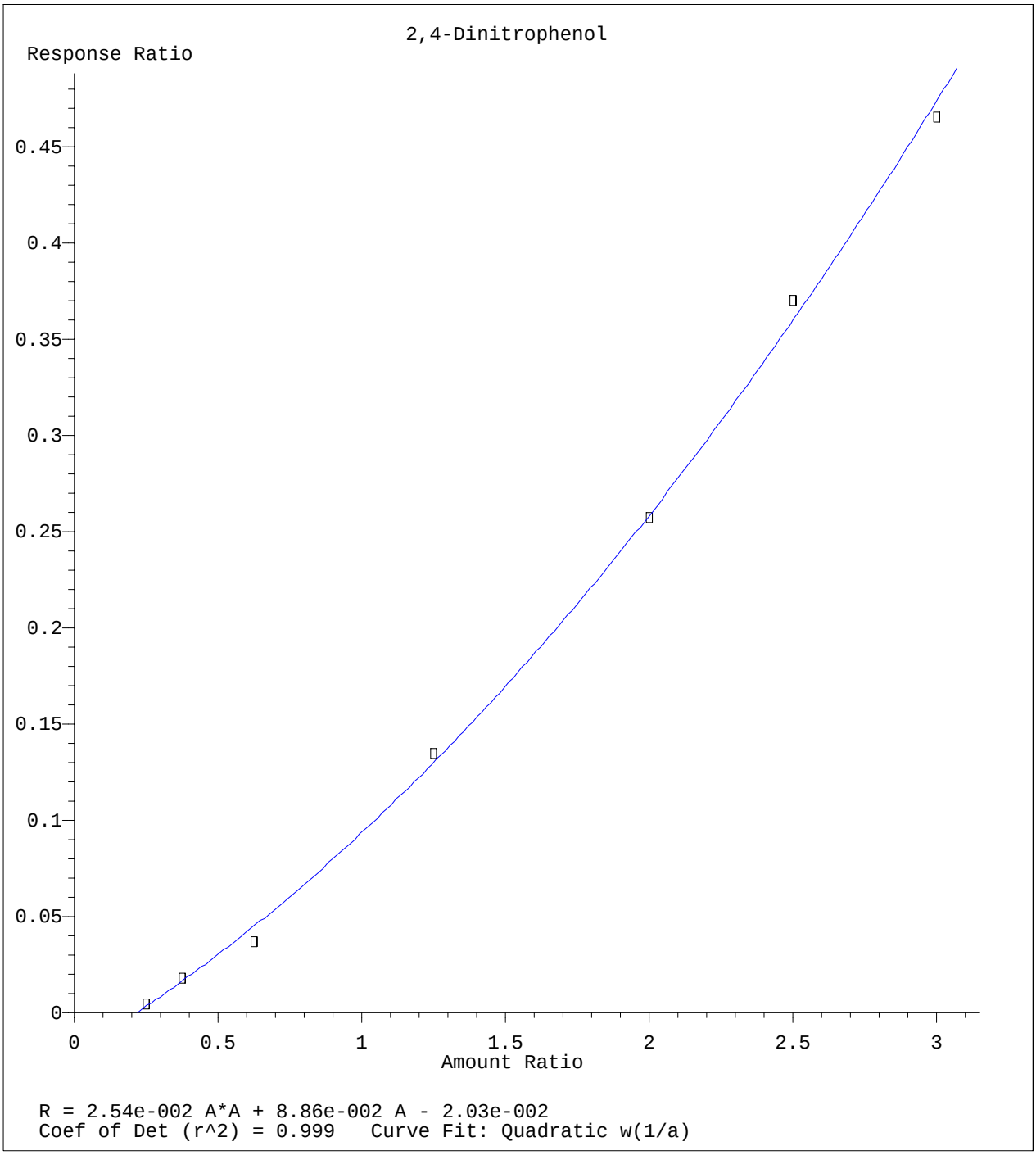
#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak



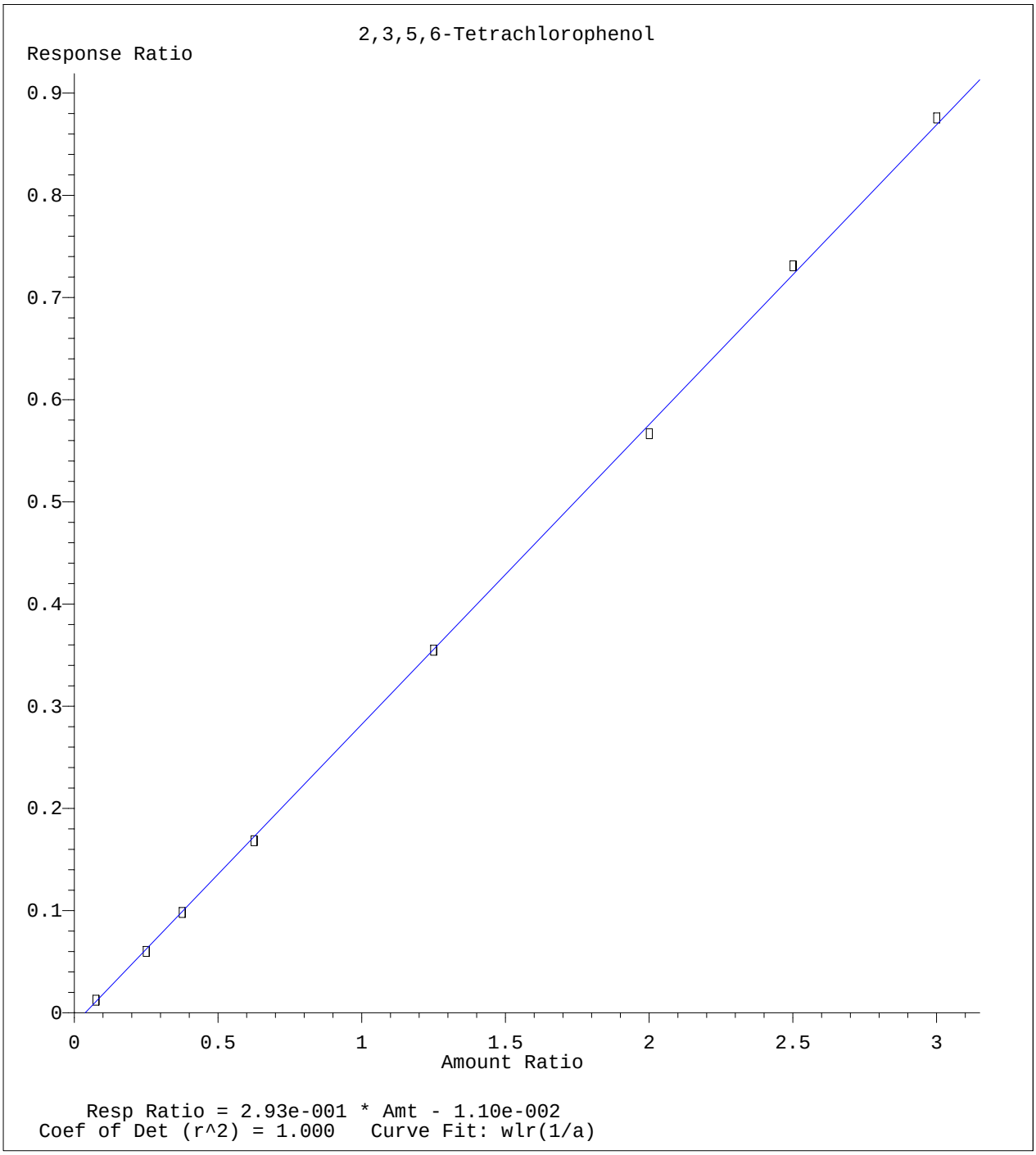
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



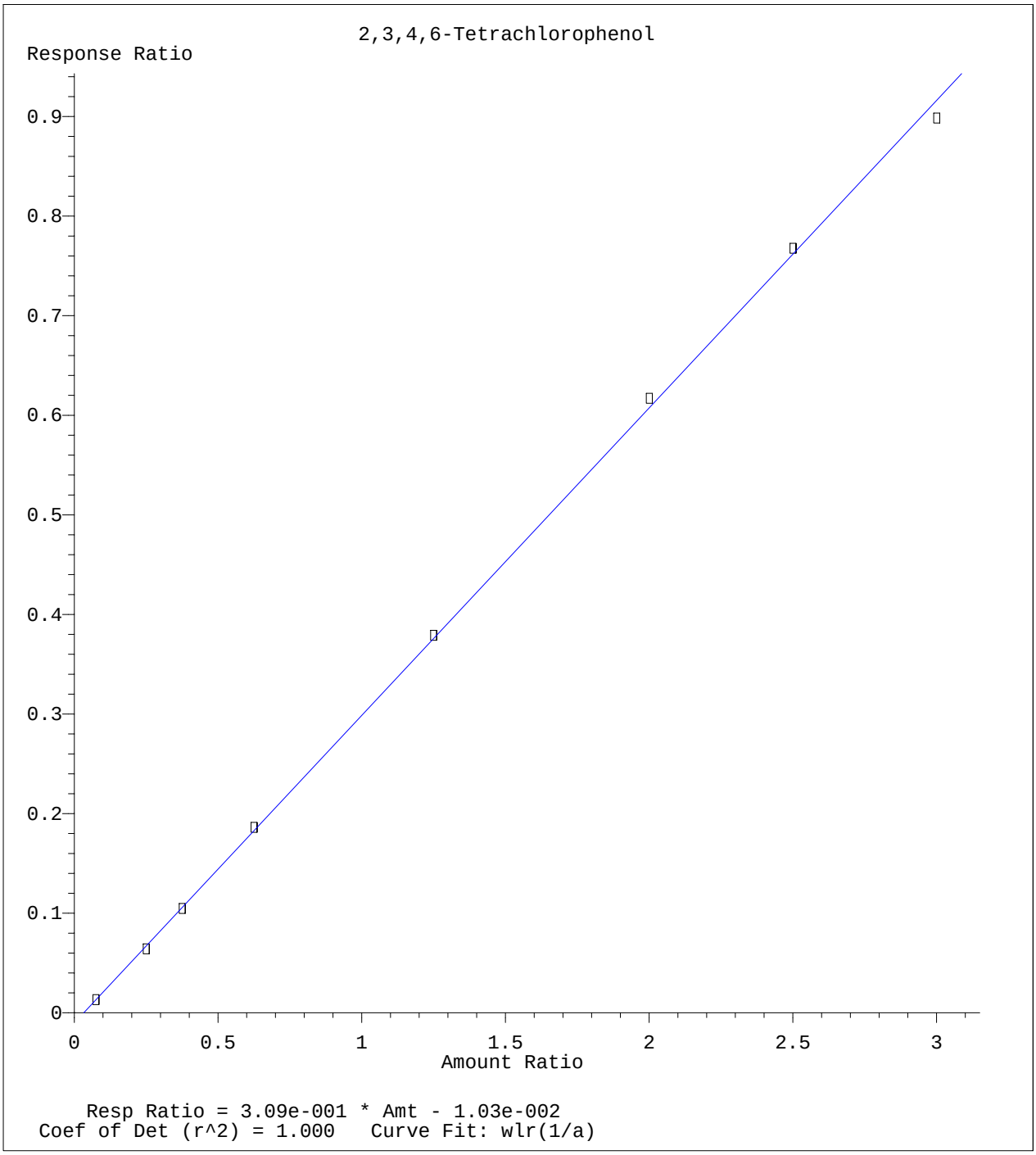
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



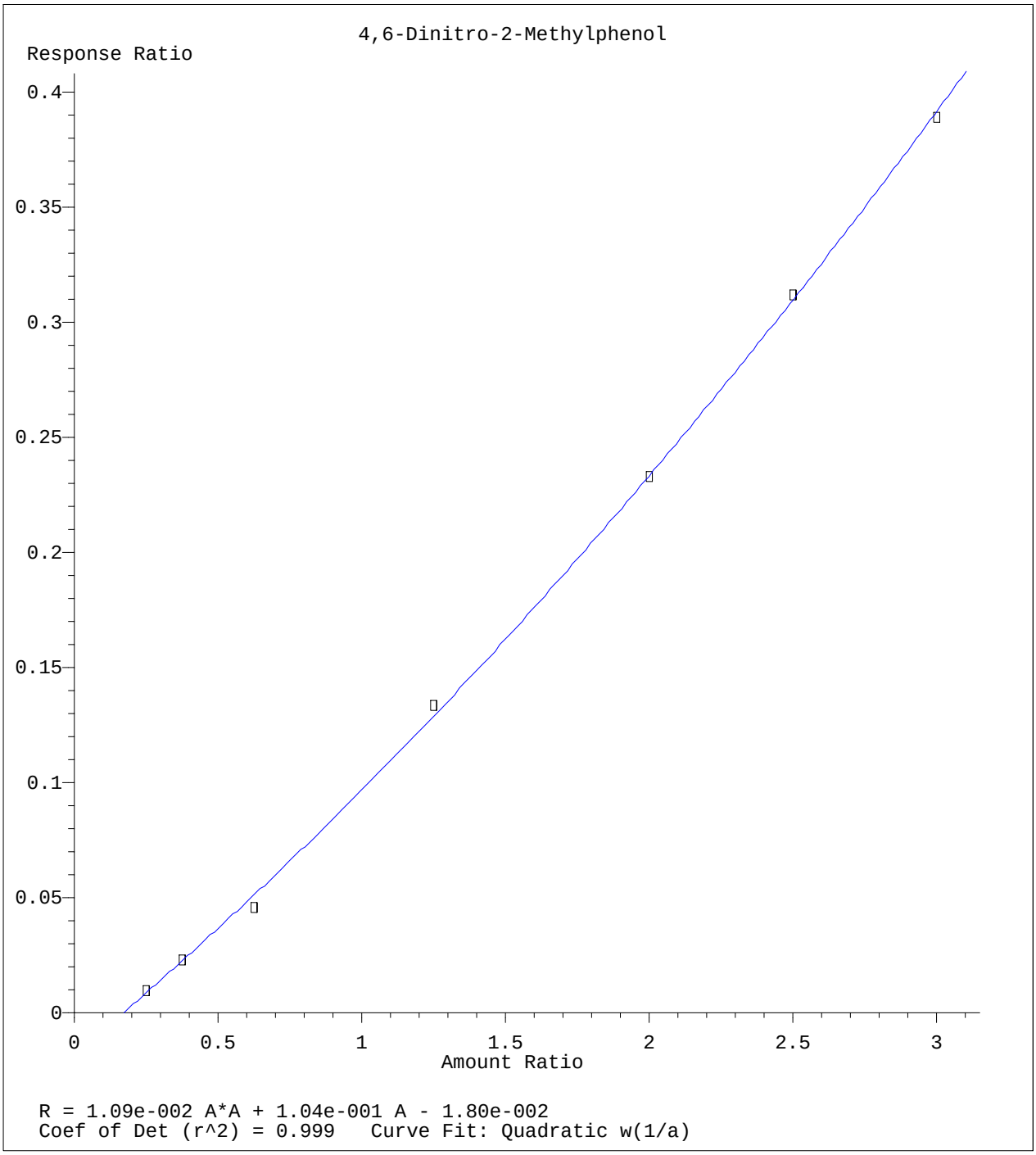
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



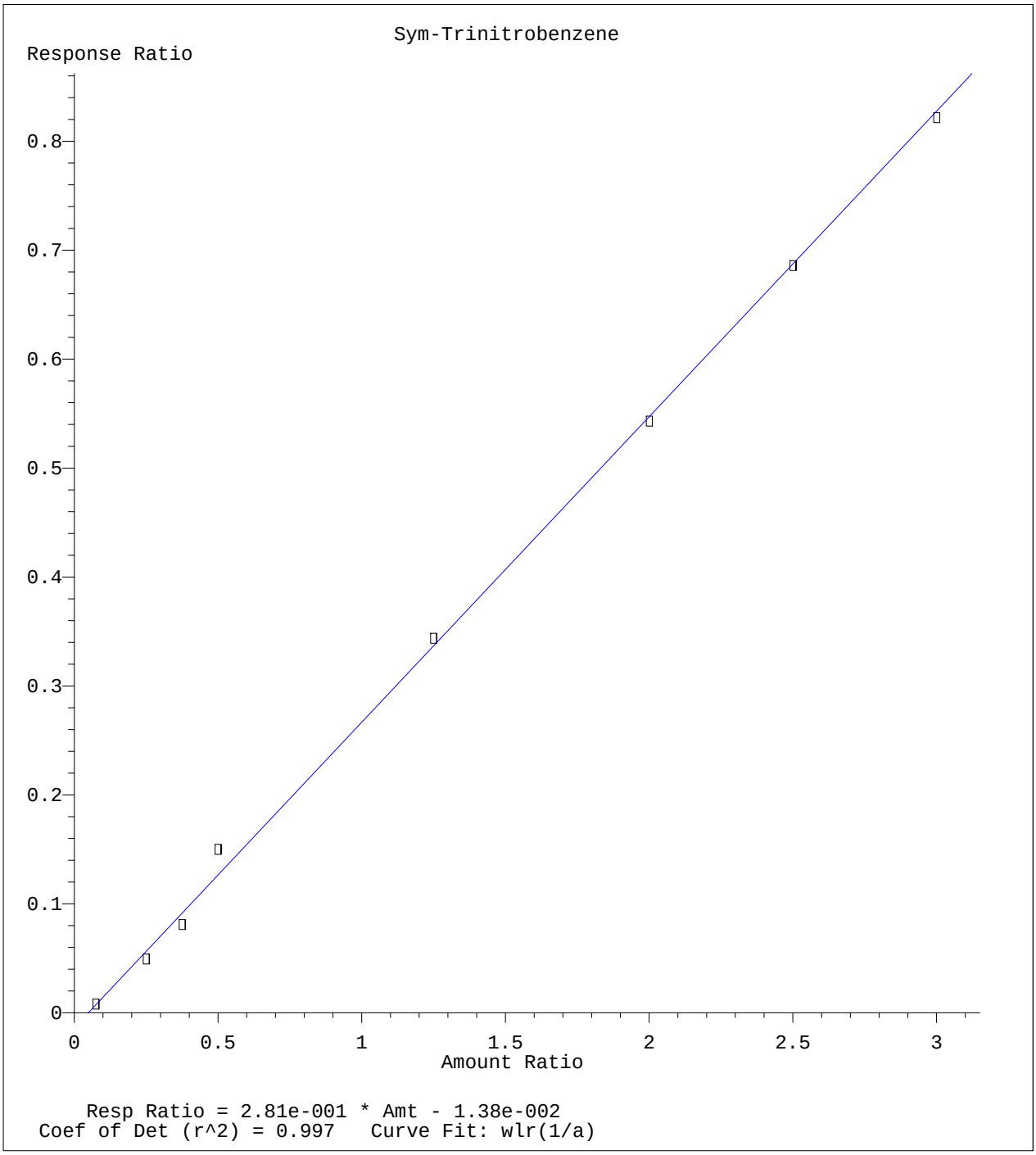
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



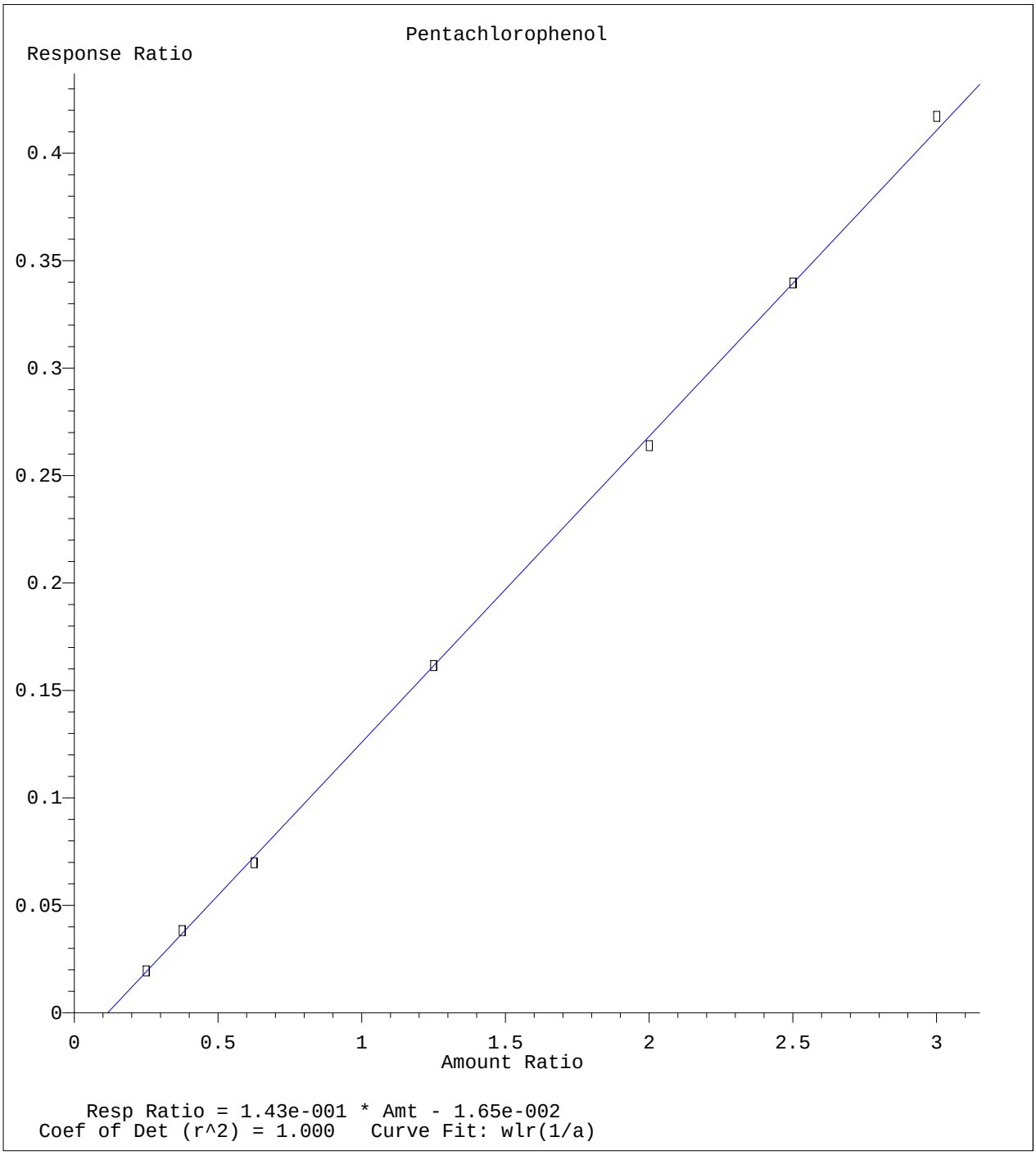
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



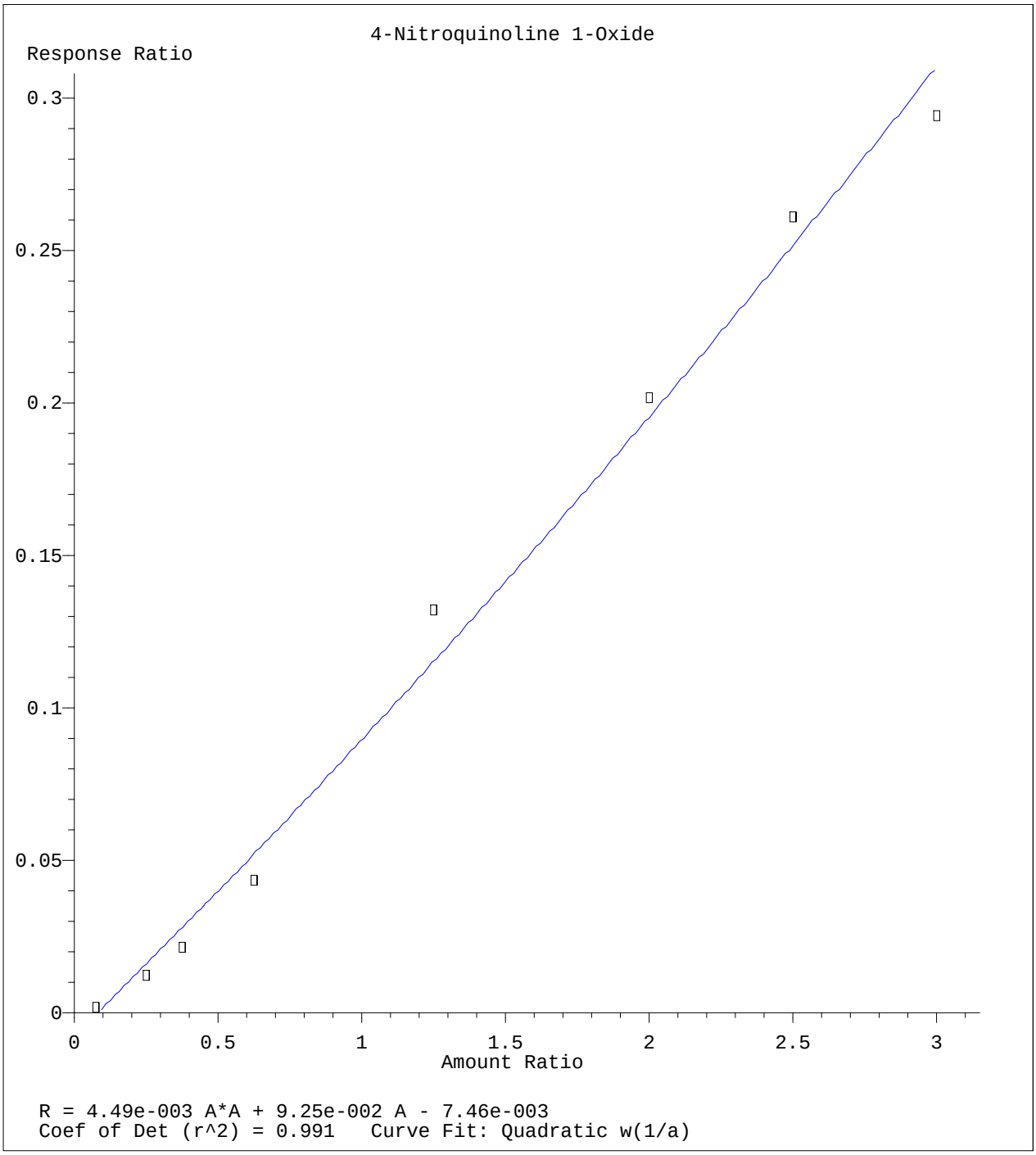
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



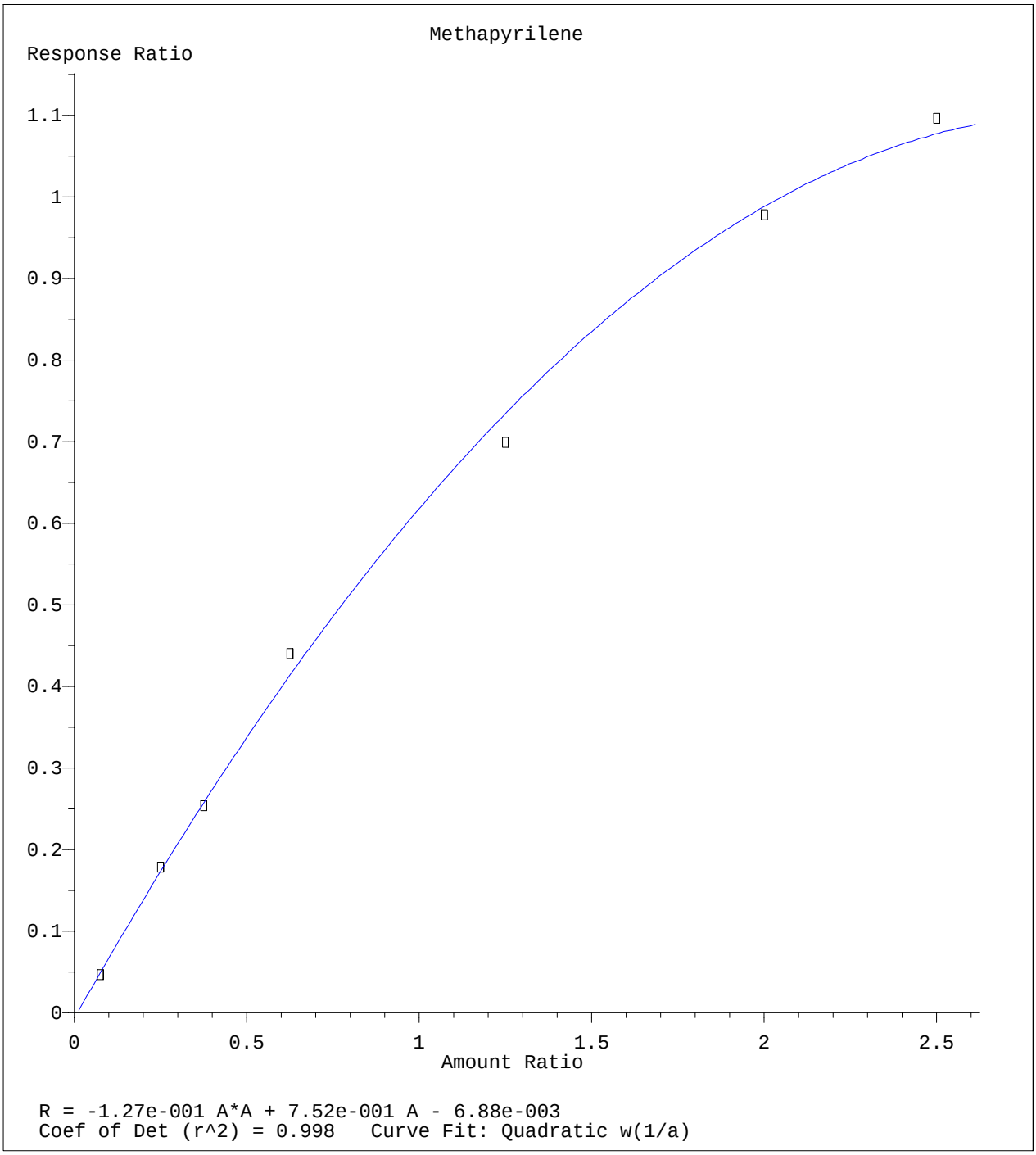
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



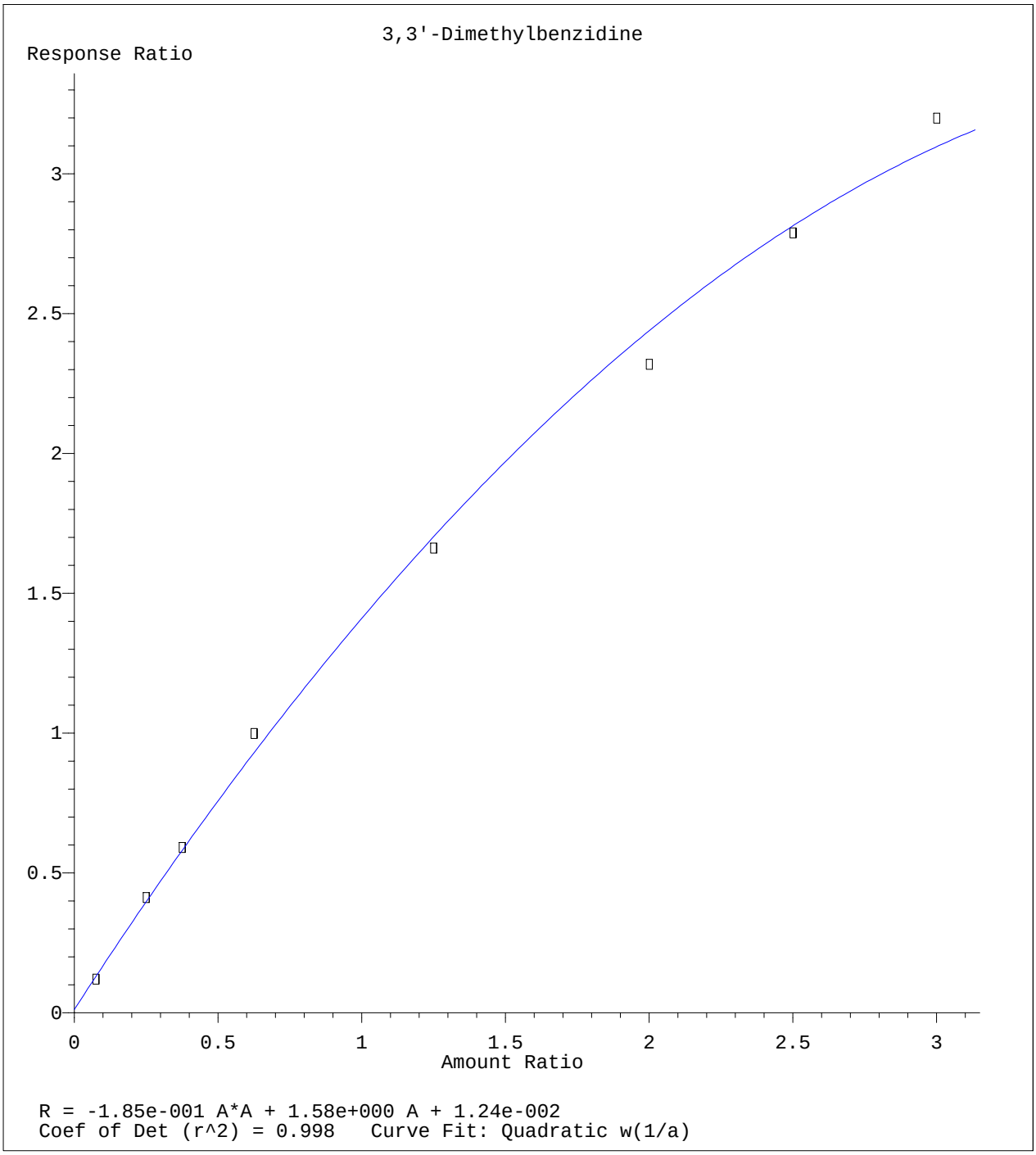
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



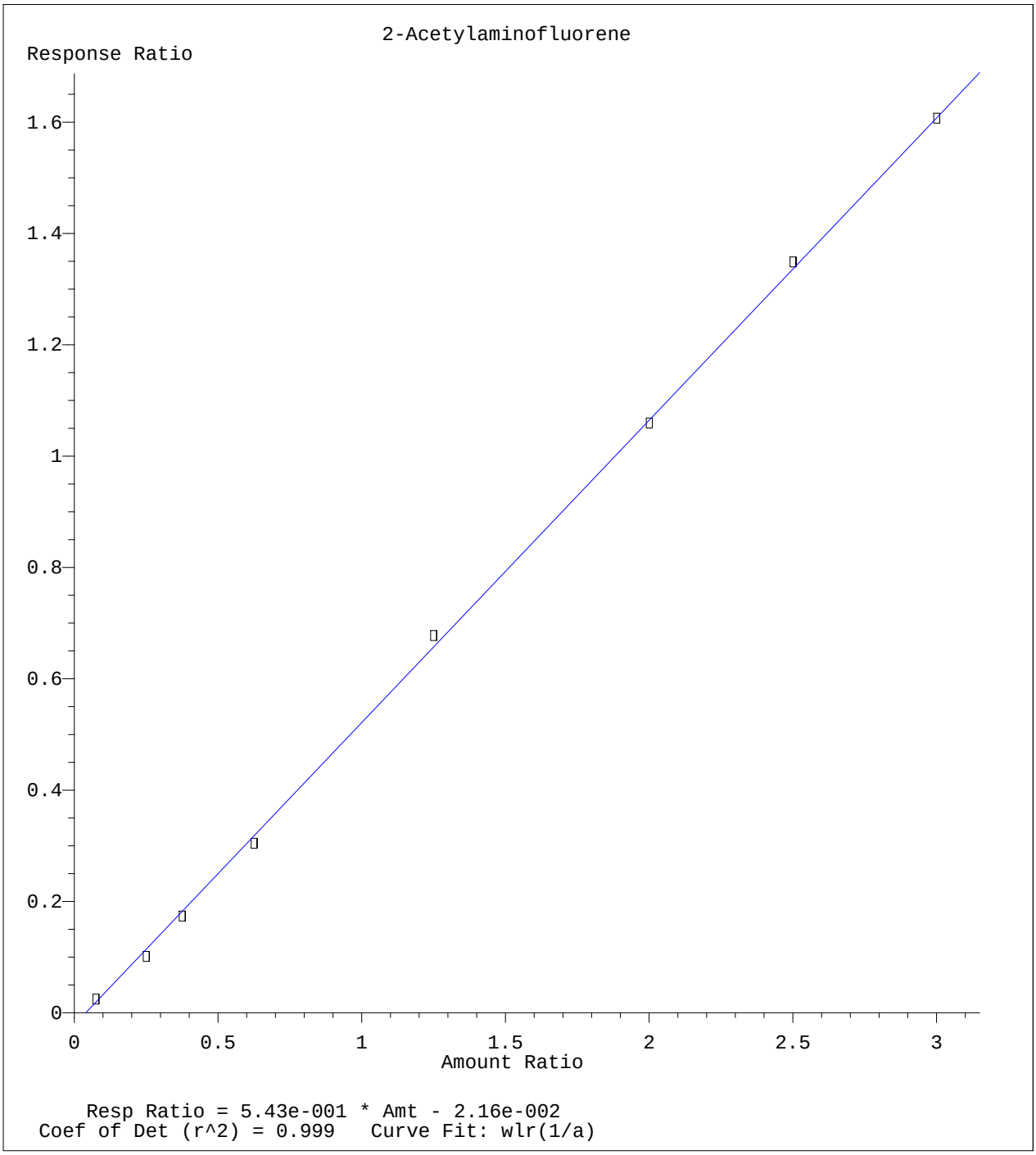
Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019



Method Name: C:\msdchem\4\METHODS\MEGAMIX.M
Calibration Table Last Updated: Thu Apr 04 09:33:47 2019

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:05 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.787	152	118802	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.075	136	458217	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.892	164	241109	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.498	188	395011	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.180	240	361249	40.0000	ug/mL	0.0000
129) Perylene-d12	18.956	264	328024	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.522	112	205662	50.8113	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 50.8113%			
12) Phenol-d5	7.375	99	258461	49.8404	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 49.8404%			
31) Nitrobenzene-d5	8.351	82	244254	51.4315	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 102.8630%			
59) 2-Fluorobiphenyl	10.151	172	411368	50.8312	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 101.6624%			
87) 2,4,6-Tribromophenol	11.716	330	50273	52.7666	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 52.7666%			
118) p-Terphenyl-d14	14.527	244	451766	52.1976	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 104.3952%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.069	74	143504	50.1460	ug/mL	94
4) Pyridine	5.098	79	256270	52.6438	ug/mL	98
7) Methyl Methanesulfonate	6.357	80	136539	48.9359	ug/mL	97
10) Ethyl Methanesulfonate	7.022	79	167373	48.3449	ug/mL	100
11) Aniline	7.475	66	143627	49.9357	ug/mL	88
13) Phenol	7.387	94	286605	52.1910	ug/mL	96
14) bis(2-Chloroethyl)ether	7.498	63	188372	49.0386	ug/mL#	34
15) Pentachloroethane	7.516	167	77975	49.8132	ug/mL	98
16) 2-Chlorophenol	7.604	128	227051	52.3074	ug/mL	99
17) 1,3-Dichlorobenzene	7.757	146	238812	53.0954	ug/mL	98
18) 1,4-Dichlorobenzene	7.804	146	236987	51.8164	ug/mL	99
19) Benzyl Alcohol	7.892	108	149576	53.9013	ug/mL	96
20) 1,2-Dichlorobenzene	7.998	146	221057	52.3506	ug/mL	100
21) 2-Methylphenol	7.981	107	172252	52.1527	ug/mL	98
22) bis(2-Chloroisopropyl)...	8.039	45	365860	50.3699	ug/mL	98
23) 3-,4-Methylphenol	8.116	107	223919	52.2777	ug/mL	99
25) n-Nitrosodipropylamine	8.169	70	175137	51.9801	ug/mL#	56
26) Acetophenone	8.181	105	281927	49.7246	ug/mL	99
27) n-Nitrosomorpholine	8.169	56	12592	4.0023	ug/mL#	50
28) o-Toluidine	8.175	106	21639	3.2972	ug/mL#	1
29) Hexachloroethane	8.316	117	94473	51.2941	ug/mL	100
32) Nitrobenzene	8.369	77	241342	49.2148	ug/mL	100
33) n-Nitrosopiperidine	8.757	114	39445	19.1148	ug/mL#	1
34) Isophorone	8.581	82	423843	49.5395	ug/mL	100
35) 2-Nitrophenol	8.686	139	112786	53.4905	ug/mL	98
36) 2,4-Dimethylphenol	8.657	122	216739	58.1295	ug/mL	96
37) 0,0,0-Triethyl Phospho...	8.757	198	88332	48.2405	ug/mL#	49
38) bis(2-Chloroethoxy)met...	8.757	93	342158	53.5276	ug/mL#	95
39) Benzoic Acid	8.686	105	113148	50.9805	ug/mL	97
40) 2,4-Dichlorophenol	8.910	162	164272	52.7235	ug/mL	99
42) 1,2,4-Trichlorobenzene	9.022	180	173985	52.2284	ug/mL	99
43) Naphthalene	9.098	128	652821	51.8363	ug/mL#	99

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:05 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	4-Chloroaniline	9.122	65	91289	50.0905 ug/mL	97
45)	2,6-Dichlorophenol	9.151	162	158772	52.6715 ug/mL	99
46)	Hexachloropropene	9.216	213	112059	53.3109 ug/mL	100
47)	Hexachlorobutadiene	9.251	225	100439	54.9190 ug/mL	99
49)	p-Phenylenediamine	9.557	108	14556	4.1052 ug/mL#	1
50)	4-Chloro-3-Methylphenol	9.557	107	184059	52.0217 ug/mL	99
51)	Safrole	9.663	162	148519	48.6203 ug/mL	97
52)	2-Methylnaphthalene	9.786	142	399909	50.0242 ug/mL	98
53)	1-Methylnaphthalene	9.904	142	385273	51.2593 ug/mL	99
55)	1,2,4,5-Tetrachloroben...	9.998	216	164423	51.4835 ug/mL	99
56)	Hexachlorocyclopentadiene	10.010	237	92250	68.5952 ug/mL	100
57)	2,4,6-Trichlorophenol	10.075	196	111829	53.0644 ug/mL	99
58)	2,4,5-Trichlorophenol	10.116	196	117962	54.0286 ug/mL	99
60)	Isosafrole	10.181	162	179574	59.1315 ug/mL	96
61)	2-Chloronaphthalene	10.298	162	412890	58.5378 ug/mL	99
62)	1-Chloronaphthalene	10.339	162	324404	48.9003 ug/mL	98
63)	2-Nitroaniline	10.386	65	138121	51.9795 ug/mL	100
64)	1,4-Naphthoquinone	10.457	158	155566	61.4675 ug/mL	96
65)	Dimethylphthalate	10.557	163	390981	49.7455 ug/mL	100
66)	1,3-Dinitrobenzene	10.604	168	69486	51.7491 ug/mL	97
67)	2,6-Dinitrotoluene	10.651	165	99197	53.4946 ug/mL	96
68)	Acenaphthylene	10.739	152	599877	53.4863 ug/mL	100
69)	3-Nitroaniline	10.804	138	106977	51.4721 ug/mL	98
70)	2,4-Dinitrophenol	10.904	184	31343	49.9728 ug/mL	80
71)	Acenaphthene	10.922	154	379149	54.0917 ug/mL	100
72)	4-Nitrophenol	10.898	65	100435	51.4637 ug/mL	96
73)	2,4-Dinitrotoluene	11.057	165	128176	52.8083 ug/mL	97
74)	Pentachlorobenzene	11.104	250	141873	51.9873 ug/mL	99
75)	Dibenzofuran	11.080	168	513059	51.3696 ug/mL	98
76)	2,3,5,6-Tetrachlorophenol	11.180	232	95013	55.2462 ug/mL	98
77)	2,3,4,6-Tetrachlorophenol	11.227	232	89790	49.5472 ug/mL	97
80)	Diethylphthalate	11.263	149	397597	49.3462 ug/mL	99
81)	Thionazin	11.363	107	65065	48.6185 ug/mL	98
82)	Fluorene	11.439	166	419141	51.8270 ug/mL	100
83)	4-Chlorophenyl Phenyl ...	11.386	204	187399	50.5687 ug/mL	97
84)	4-Nitroaniline	11.439	138	107208	49.2805 ug/mL	93
86)	1,2-Diphenylhydrazine	11.557	77	492967	52.2660 ug/mL	99
89)	4,6-Dinitro-2-Methylph...	11.486	198	53639	52.1193 ug/mL	99
90)	Diphenylamine/n-Nitros...	11.504	169	364482	52.5827 ug/mL	99
91)	Sulfotepp	11.710	322	58139	51.6064 ug/mL	93
92)	Sym-Trinitrobenzene	11.780	75	142113	53.2371 ug/mL	99
93)	Diallate	11.833	86	163782	47.6581 ug/mL	95
94)	Phenacetin	11.810	108	219111	52.5395 ug/mL	99
95)	Phorate	11.851	75	269226	48.3138 ug/mL#	100
96)	4-Bromophenyl Phenyl E...	11.922	248	106336	51.0886 ug/mL	97
97)	Hexachlorobenzene	12.133	284	112597	53.3627 ug/mL	97
98)	Dimethoate	12.057	87	178855	58.0011 ug/mL	94
100)	Pentachlorophenol	12.316	266	80375	61.7417 ug/mL	98
101)	Pronamide	12.251	173	181284	53.4923 ug/mL	99
102)	Pentachloronitrobenzene	12.404	237	47638	52.6071 ug/mL	99
103)	Disulfoton	12.433	88	211057	47.6739 ug/mL	97
104)	Phenanthrene	12.522	178	584024	52.4266 ug/mL	100
105)	Anthracene	12.580	178	583905	51.2002 ug/mL	100
106)	Carbazole	12.733	167	563637	53.0867 ug/mL	100
107)	Parathion Methyl	12.910	109	153663	60.8561 ug/mL	99

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:05 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

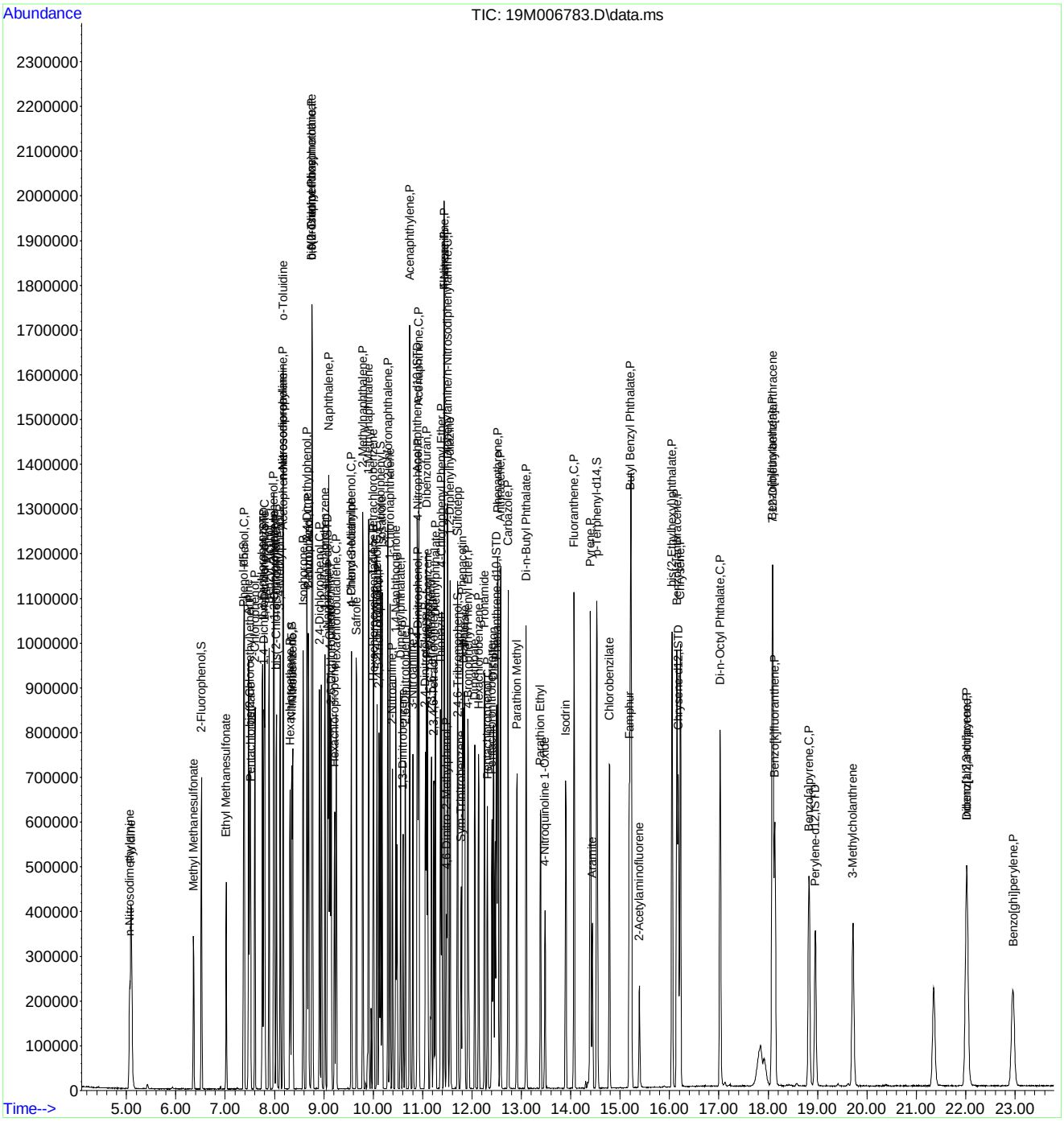
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
108) Di-n-Butyl Phthalate	13.098	149	673720	50.6872 ug/mL	99
109) Parathion Ethyl	13.386	97	90225	51.8543 ug/mL	97
110) 4-Nitroquinoline 1-Oxide	13.480	190	48805	53.2345 ug/mL	95
112) Isodrin	13.898	193	65081	53.7111 ug/mL	98
113) Fluoranthene	14.068	202	618241	51.2953 ug/mL	99
116) Pyrene	14.398	202	639026	51.8175 ug/mL	100
117) Aramite	14.439	185	36532	54.6250 ug/mL	99
120) Chlorobenzilate	14.786	251	173382	51.0721 ug/mL	98
121) Famphur	15.186	218	227180	133.4022 ug/mL	87
122) Butyl Benzyl Phthalate	15.210	149	314045	52.0865 ug/mL	97
123) 3,3'-Dimethylbenzidine	15.227	212	3556	Below Cal #	1
124) 2-Acetylaminofluorene	15.392	181	846	1.7659 ug/mL#	9
125) bis(2-Ethylhexyl)phtha...	16.051	149	414431	53.1788 ug/mL	100
127) Benzo[a]anthracene	16.151	228	557454	51.5831 ug/mL	100
128) Chrysene	16.221	228	536770	52.4197 ug/mL	100
130) Di-n-Octyl Phthalate	17.027	149	677729	51.8047 ug/mL	98
131) 7,12-Dimethylbenz[a]an...	18.092	256	275004	57.0053 ug/mL	100
132) Benzo[b]fluoranthene	18.086	252	533805	52.0101 ug/mL	96
133) Benzo[k]fluoranthene	18.133	252	488979	52.4679 ug/mL	97
134) Benzo[a]pyrene	18.827	252	461798	51.3991 ug/mL	100
135) 3-Methylcholanthrene	19.715	268	252561	55.2848 ug/mL	99
136) Indeno[1,2,3-cd]pyrene	22.021	276	461399	52.4145 ug/mL	99
137) Dibenz[ah]anthracene	22.021	278	396655	53.2921 ug/mL	99
138) Benzo[ghi]perylene	22.962	276	385677	53.9109 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:05 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:28:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
2		1,4-Dioxane	0.650	0.000#	100.0#	0#	-4.62#
3		n-Nitrosodimethylamine	0.964	0.966	-0.2	99	0.00
4		Pyridine	1.639	1.726	-5.3	105	0.00
5		2-Picoline	1.684	0.000#	100.0#	0#	-5.95#
6		n-Nitrosomethylethylamine	0.687	0.000#	100.0#	0#	-6.06#
7		Methyl Methanesulfonate	0.939	0.919	2.1	95	0.00
8	S	2-Fluorophenol	1.363	1.385	-1.6	100	0.00
9		n-Nitrosodiethylamine	0.689	0.000#	100.0#	0#	-6.76#
10		Ethyl Methanesulfonate	1.166	1.127	3.3	95	0.00
11		Aniline	0.968	0.967	0.1	98	0.00
12	S	Phenol-d5	1.746	1.740	0.3	98	0.00
13	C,P	Phenol	1.849	1.930	-4.4	103	0.00
14	P	bis(2-Chloroethyl)ether	1.293	1.268	1.9	98	0.00
15		Pentachloroethane	0.527	0.525	0.4	97	0.00
16	P	2-Chlorophenol	1.461	1.529	-4.7	103	0.00
17		1,3-Dichlorobenzene	1.514	1.608	-6.2	105	0.00
18	C	1,4-Dichlorobenzene	1.540	1.596	-3.6	103	0.00
19		Benzyl Alcohol	0.934	1.007	-7.8	104	0.00
20		1,2-Dichlorobenzene	1.422	1.489	-4.7	103	0.00
21	P	2-Methylphenol	1.112	1.160	-4.3	103	0.00
22	P	bis(2-Chloroisopropyl)ether	2.446	2.464	-0.7	101	0.00
23	P	3-,4-Methylphenol	1.442	1.508	-4.6	101	0.00
24		n-Nitrosopyrrolidine	0.668	0.000#	100.0#	0#	-8.16#
25	P	n-Nitrosodipropylamine	1.134	1.179	-4.0	102	0.00
26		Acetophenone	1.909	1.898	0.6	97	0.00
27		n-Nitrosomorpholine	1.059	0.085	92.0#	8	0.00
28		o-Toluidine	2.210	0.146	93.4#	7	-0.05
29	P	Hexachloroethane	0.620	0.636	-2.6	99	0.00
30	ISTD	Naphthalene-d8	1.000	1.000	0.0	97	0.00
31	S	Nitrobenzene-d5	0.415	0.426	-2.7	99	0.00
32	P	Nitrobenzene	0.428	0.421	1.6	96	0.00
33		n-Nitrosopiperidine	0.180	0.069	61.7#	37	0.24
34	P	Isophorone	0.747	0.740	0.9	95	0.00
35	C,P	2-Nitrophenol	0.184	0.197	-7.1	100	0.00
36	P	2,4-Dimethylphenol	0.325	0.378	-16.3	111	0.00
37		0,0,0-Triethyl Phosphorothi	0.160	0.154	3.8	94	0.00
38	P	bis(2-Chloroethoxy)methane	0.558	0.597	-7.0	104	0.00
39		Benzoic Acid	0.175	0.198	-13.1	101	-0.02
40	C,P	2,4-Dichlorophenol	0.272	0.287	-5.5	101	0.00
41		a,a-Dimethylphenethylamine	1.069	0.012#	98.9#	1	0.00
42		1,2,4-Trichlorobenzene	0.291	0.304	-4.5	102	0.00
43	P	Naphthalene	1.099	1.140	-3.7	101	0.00
44	P	4-Chloroaniline	0.159	0.159	0.0	97	0.00
45		2,6-Dichlorophenol	0.263	0.277	-5.3	101	0.00
46		Hexachloropropene	0.183	0.196	-7.1	95	0.00
47	C,P	Hexachlorobutadiene	0.160	0.175	-9.4	107	0.00
48		n-Nitrosodi-n-Butylamine	0.331	0.002#	99.4#	1#	0.12
49		p-Phenylenediamine	0.324	0.025#	92.3#	8	0.10
50	C,P	4-Chloro-3-Methylphenol	0.309	0.321	-3.9	99	0.00

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:28:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		Safrole	0.267	0.259	3.0	94	0.00
52	P	2-Methylnaphthalene	0.698	0.698	0.0	97	0.00
53		1-Methylnaphthalene	0.656	0.673	-2.6	99	0.00
54	ISTD	Acenaphthene-d10	1.000	1.000	0.0	96	0.00
55		1,2,4,5-Tetrachlorobenzene	0.530	0.546	-3.0	99	0.00
56	P	Hexachlorocyclopentadiene	0.230	0.306	-33.0	111	0.00
57	C,P	2,4,6-Trichlorophenol	0.350	0.371	-6.0	98	0.00
58	P	2,4,5-Trichlorophenol	0.362	0.391	-8.0	100	0.00
59	S	2-Fluorobiphenyl	1.343	1.365	-1.6	97	0.00
60		Isosafrole	0.504	0.596	-18.3	112	0.00
61	P	2-Chloronaphthalene	1.170	1.370	-17.1	112	0.00
62		1-Chloronaphthalene	1.101	1.076	2.3	94	0.00
63	P	2-Nitroaniline	0.441	0.458	-3.9	97	0.00
64		1,4-Naphthoquinone	0.420	0.516	-22.9	112	0.00
65	P	Dimethylphthalate	1.304	1.297	0.5	95	0.00
66		1,3-Dinitrobenzene	0.223	0.231	-3.6	95	0.00
67	P	2,6-Dinitrotoluene	0.308	0.329	-6.8	101	0.00
68	P	Acenaphthylene	1.861	1.990	-6.9	101	0.00
69	P	3-Nitroaniline	0.345	0.355	-2.9	97	0.00
70	P	2,4-Dinitrophenol	0.095	0.104	-9.5	92	0.00
71	C,P	Acenaphthene	1.163	1.258	-8.2	102	0.00
72	P	4-Nitrophenol	0.324	0.333	-2.8	91	0.00
73	P	2,4-Dinitrotoluene	0.403	0.425	-5.5	97	0.00
74		Pentachlorobenzene	0.453	0.471	-4.0	98	0.00
75	P	Dibenzofuran	1.657	1.702	-2.7	99	0.00
76		2,3,5,6-Tetrachlorophenol	0.261	0.315	-20.7	106	0.00
77		2,3,4,6-Tetrachlorophenol	0.279	0.298	-6.8	94	0.00
78		1-Naphthylamine	1.254	0.007#	99.4#	1#	0.02
79		2-Naphthylamine	1.324	0.009#	99.3#	1#	0.00
80	P	Diethylphthalate	1.337	1.319	1.3	93	0.00
81		Thionazin	0.222	0.216	2.7	90	0.00
82	P	Fluorene	1.342	1.391	-3.7	98	0.00
83	P	4-Chlorophenyl Phenyl Ether	0.615	0.622	-1.1	96	0.00
84	P	4-Nitroaniline	0.361	0.356	1.4	93	0.00
85		5-Nitro-o-Toluidine	0.397	0.012#	97.0#	3	0.05
86		1,2-Diphenylhydrazine	1.565	1.636	-4.5	98	0.00
87	S	2,4,6-Tribromophenol	0.158	0.167	-5.7	94	0.00
88	ISTD	Phenanthrene-d10	1.000	1.000	0.0	93	0.00
89	P	4,6-Dinitro-2-Methylphenol	0.093	0.109	-17.2	95	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	0.702	0.738	-5.1	99	0.00
91		Sulfotepp	0.114	0.118	-3.5	95	0.00
92		Sym-Trinitrobenzene	0.239	0.288	-20.5	97	0.00
93		Diallate	0.348	0.332	4.6	89	0.00
94		Phenacetin	0.422	0.444	-5.2	94	0.00
95		Phorate	0.564	0.545	3.4	90	0.00
96	P	4-Bromophenyl Phenyl Ether	0.211	0.215	-1.9	95	0.00
97	P	Hexachlorobenzene	0.214	0.228	-6.5	101	0.00
98		Dimethoate	0.312	0.362	-16.0	105	0.00
99		4-Aminobiphenyl	0.900	0.001#	99.9#	0#	-0.08

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:28:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	0.118	0.163	-38.1#	117	0.00
101		Pronamide	0.343	0.367	-7.0	95	0.00
102		Pentachloronitrobenzene	0.092	0.096	-4.3	93	0.00
103		Disulfoton	0.448	0.427	4.7	88	0.00
104	P	Phenanthrene	1.128	1.183	-4.9	99	0.00
105	P	Anthracene	1.155	1.183	-2.4	95	0.00
106	P	Carbazole	1.075	1.142	-6.2	98	0.00
107		Parathion Methyl	0.256	0.311	-21.5	105	0.00
108	P	Di-n-Butyl Phthalate	1.346	1.364	-1.3	91	0.00
109		Parathion Ethyl	0.176	0.183	-4.0	88	0.00
110		4-Nitroquinoline 1-Oxide	0.076	0.099	-30.3	87	0.00
111		Methapyrilene	0.601	0.000#	100.0#	0#	-13.55#
112		Isodrin	0.123	0.132	-7.3	99	0.00
113	C,P	Fluoranthene	1.220	1.252	-2.6	95	0.00
114	ISTD	Chrysene-d12	1.000	1.000	0.0	94	0.00
115		Benzidine	0.656	0.009#	98.6#	1	-0.26
116	P	Pyrene	1.366	1.415	-3.6	96	0.00
117		Aramite	0.074	0.081	-9.5	93	0.00
118	S	p-Terphenyl-d14	0.958	1.000	-4.4	97	0.00
119		p-(Dimethylamino)azobenzene	0.258	0.003#	98.8#	1#	-0.22
120		Chlorobenzilate	0.376	0.384	-2.1	91	0.00
121		Famphur	0.189	0.503	-166.1#	251	0.00
122	P	Butyl Benzyl Phthalate	0.668	0.695	-4.0	94	0.00
123		3,3'-Dimethylbenzidine	1.387	0.008#	99.4#	1#	0.00
124		2-Acetylaminofluorene	0.479	0.002#	99.6#	0#	-0.24
125	P	bis(2-Ethylhexyl)phthalate	0.863	0.918	-6.4	92	0.00
126	P	3,3'-Dichlorobenzidine	0.409	0.000#	100.0#	0#	-16.06#
127	P	Benzo[a]anthracene	1.197	1.235	-3.2	97	0.00
128	P	Chrysene	1.133	1.189	-4.9	99	0.00
129	ISTD	Perylene-d12	1.000	1.000	0.0	91	0.00
130	C,P	Di-n-Octyl Phthalate	1.595	1.653	-3.6	88	0.00
131		7,12-Dimethylbenz[a]anthrac	0.588	0.671	-14.1	103	0.00
132	P	Benzo[b]fluoranthene	1.252	1.302	-4.0	96	0.00
133	P	Benzo[k]fluoranthene	1.137	1.193	-4.9	94	0.00
134	C,P	Benzo[a]pyrene	1.096	1.126	-2.7	92	0.00
135		3-Methylcholanthrene	0.557	0.616	-10.6	97	0.00
136	P	Indeno[1,2,3-cd]pyrene	1.073	1.125	-4.8	91	-0.01
137	P	Dibenz[ah]anthracene	0.908	0.967	-6.5	93	-0.01
138	P	Benzo[ghi]perylene	0.872	0.941	-7.9	96	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:28:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	98	0.00
2		1,4-Dioxane	50.000	0.000	100.0#	0	-4.62#
3		n-Nitrosodimethylamine	50.000	50.146	-0.3	99	0.00
4		Pyridine	50.000	52.644	-5.3	105	0.00
5		2-Picoline	50.000	0.000	100.0#	0	-5.95#
6		n-Nitrosomethylethylamine	50.000	0.000	100.0#	0	-6.06#
7		Methyl Methanesulfonate	50.000	48.936	2.1	95	0.00
8	S	2-Fluorophenol	50.000	50.811	-1.6	100	0.00
9		n-Nitrosodiethylamine	50.000	0.000	100.0#	0	-6.76#
10		Ethyl Methanesulfonate	50.000	48.345	3.3	95	0.00
11		Aniline	50.000	49.936	0.1	98	0.00
12	S	Phenol-d5	50.000	49.840	0.3	98	0.00
13	C,P	Phenol	50.000	52.191	-4.4	103	0.00
14	P	bis(2-Chloroethyl)ether	50.000	49.039	1.9	98	0.00
15		Pentachloroethane	50.000	49.813	0.4	97	0.00
16	P	2-Chlorophenol	50.000	52.307	-4.6	103	0.00
17		1,3-Dichlorobenzene	50.000	53.095	-6.2	105	0.00
18	C	1,4-Dichlorobenzene	50.000	51.816	-3.6	103	0.00
19		Benzyl Alcohol	50.000	53.901	-7.8	104	0.00
20		1,2-Dichlorobenzene	50.000	52.351	-4.7	103	0.00
21	P	2-Methylphenol	50.000	52.153	-4.3	103	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	50.370	-0.7	101	0.00
23	P	3-,4-Methylphenol	50.000	52.278	-4.6	101	0.00
24		n-Nitrosopyrrolidine	50.000	0.000	100.0#	0	-8.16#
25	P	n-Nitrosodipropylamine	50.000	51.980	-4.0	102	0.00
26		Acetophenone	50.000	49.725	0.5	97	0.00
27		n-Nitrosomorpholine	50.000	4.002	92.0#	8	0.00
28		o-Toluidine	50.000	3.297	93.4#	7	-0.05
29	P	Hexachloroethane	50.000	51.294	-2.6	99	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	97	0.00
31	S	Nitrobenzene-d5	50.000	51.432	-2.9	99	0.00
32	P	Nitrobenzene	50.000	49.215	1.6	96	0.00
33		n-Nitrosopiperidine	50.000	19.115	61.8#	37	0.24
34	P	Isophorone	50.000	49.540	0.9	95	0.00
35	C,P	2-Nitrophenol	50.000	53.490	-7.0	100	0.00
36	P	2,4-Dimethylphenol	50.000	58.129	-16.3	111	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	48.241	3.5	94	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	53.527	-7.1	104	0.00
39		Benzoic Acid	50.000	52.009	-4.0	101	-0.02
40	C,P	2,4-Dichlorophenol	50.000	52.724	-5.4	101	0.00
41		a,a-Dimethylphenethylamine	50.000	0.561	98.9#	1	0.00
42		1,2,4-Trichlorobenzene	50.000	52.228	-4.5	102	0.00
43	P	Naphthalene	50.000	51.836	-3.7	101	0.00
44	P	4-Chloroaniline	50.000	50.090	-0.2	97	0.00
45		2,6-Dichlorophenol	50.000	52.672	-5.3	101	0.00
46		Hexachloropropene	50.000	53.311	-6.6	95	0.00
47	C,P	Hexachlorobutadiene	50.000	54.919	-9.8	107	0.00
48		n-Nitrosodi-n-Butylamine	50.000	0.358	99.3#	1	0.12
49		p-Phenylenediamine	50.000	3.794	92.4#	8	0.10
50	C,P	4-Chloro-3-Methylphenol	50.000	52.022	-4.0	99	0.00

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:28:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	50.000	48.620	2.8	94	0.00
52	P	2-Methylnaphthalene	50.000	50.024	-0.0	97	0.00
53		1-Methylnaphthalene	50.000	51.259	-2.5	99	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	96	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	51.483	-3.0	99	0.00
56	P	Hexachlorocyclopentadiene	50.000	68.595	-37.2	111	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	53.064	-6.1	98	0.00
58	P	2,4,5-Trichlorophenol	50.000	54.029	-8.1	100	0.00
59	S	2-Fluorobiphenyl	50.000	50.831	-1.7	97	0.00
60		Isosafrole	50.000	59.131	-18.3	112	0.00
61	P	2-Chloronaphthalene	50.000	58.538	-17.1	112	0.00
62		1-Chloronaphthalene	50.000	48.900	2.2	94	0.00
63	P	2-Nitroaniline	50.000	51.928	-3.9	97	0.00
64		1,4-Naphthoquinone	50.000	61.467	-22.9	112	0.00
65	P	Dimethylphthalate	50.000	49.745	0.5	95	0.00
66		1,3-Dinitrobenzene	50.000	51.749	-3.5	95	0.00
67	P	2,6-Dinitrotoluene	50.000	53.495	-7.0	101	0.00
68	P	Acenaphthylene	50.000	53.486	-7.0	101	0.00
69	P	3-Nitroaniline	50.000	51.472	-2.9	97	0.00
70	P	2,4-Dinitrophenol	50.000	49.973	0.1	92	0.00
71	C,P	Acenaphthene	50.000	54.092	-8.2	102	0.00
72	P	4-Nitrophenol	50.000	51.464	-2.9	91	0.00
73	P	2,4-Dinitrotoluene	50.000	52.808	-5.6	97	0.00
74		Pentachlorobenzene	50.000	51.987	-4.0	98	0.00
75	P	Dibenzofuran	50.000	51.370	-2.7	99	0.00
76		2,3,5,6-Tetrachlorophenol	50.000	55.246	-10.5	106	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	49.547	0.9	94	0.00
78		1-Naphthylamine	50.000	0.282	99.4#	1	0.02
79		2-Naphthylamine	50.000	0.330	99.3#	1	0.00
80	P	Diethylphthalate	50.000	49.346	1.3	93	0.00
81		Thionazin	50.000	48.618	2.8	90	0.00
82	P	Fluorene	50.000	51.827	-3.7	98	0.00
83	P	4-Chlorophenyl Phenyl Ether	50.000	50.569	-1.1	96	0.00
84	P	4-Nitroaniline	50.000	49.281	1.4	93	0.00
85		5-Nitro-o-Toluidine	50.000	1.449	97.1#	3	0.05
86		1,2-Diphenylhydrazine	50.000	52.266	-4.5	98	0.00
87	S	2,4,6-Tribromophenol	50.000	52.767	-5.5	94	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	93	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	52.119	-4.2	95	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	52.583	-5.2	99	0.00
91		Sulfotepp	50.000	51.606	-3.2	95	0.00
92		Sym-Trinitrobenzene	50.000	53.237	-6.5	97	0.00
93		Diallate	50.000	47.658	4.7	89	0.00
94		Phenacetin	50.000	52.540	-5.1	94	0.00
95		Phorate	50.000	48.322	3.4	90	0.00
96	P	4-Bromophenyl Phenyl Ether	50.000	51.089	-2.2	95	0.00
97	P	Hexachlorobenzene	50.000	53.363	-6.7	101	0.00
98		Dimethoate	50.000	58.001	-16.0	105	0.00
99		4-Aminobiphenyl	50.000	0.051	99.9#	0	-0.08

Data File : C:\msdchem\4\DATA\040319\19M006783.D Vial: 11
Acq On : 3 Apr 2019 4:24 pm Operator: SCB
Sample : WG701995-11 50PPM 8270 ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90563 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:28:38 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	50.000	61.742	-23.5#	117	0.00
101		Pronamide	50.000	53.492	-7.0	95	0.00
102		Pentachloronitrobenzene	50.000	52.607	-5.2	93	0.00
103		Disulfoton	50.000	47.674	4.7	88	0.00
104	P	Phenanthrene	50.000	52.427	-4.9	99	0.00
105	P	Anthracene	50.000	51.201	-2.4	95	0.00
106	P	Carbazole	50.000	53.087	-6.2	98	0.00
107		Parathion Methyl	50.000	60.856	-21.7	105	0.00
108	P	Di-n-Butyl Phthalate	50.000	50.687	-1.4	91	0.00
109		Parathion Ethyl	50.000	51.854	-3.7	88	0.00
110		4-Nitroquinoline 1-Oxide	50.000	53.235	-6.5	87	0.00
111		Methapyrilene	50.000	0.000	100.0#	0	-13.55#
112		Isodrin	50.000	53.711	-7.4	99	0.00
113	C,P	Fluoranthene	50.000	51.295	-2.6	95	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	94	0.00
115		Benzidine	50.000	0.662	98.7#	1	-0.26
116	P	Pyrene	50.000	51.818	-3.6	96	0.00
117		Aramite	50.000	54.625	-9.3	93	0.00
118	S	p-Terphenyl-d14	50.000	52.198	-4.4	97	0.00
119		p-(Dimethylamino)azobenzene	50.000	0.498	99.0#	1	-0.22
120		Chlorobenzilate	50.000	51.072	-2.1	91	0.00
121		Famphur	50.000	133.402	-166.8#	251	0.00
122	P	Butyl Benzyl Phthalate	50.000	52.087	-4.2	94	0.00
123		3,3'-Dimethylbenzidine	50.000	-1.000	102.0#	1	0.00
124		2-Acetylaminofluorene	50.000	1.766	96.5#	0	-0.24
125	P	bis(2-Ethylhexyl)phthalate	50.000	53.179	-6.4	92	0.00
126	P	3,3'-Dichlorobenzidine	50.000	0.000	100.0#	0	-16.06#
127	P	Benzo[a]anthracene	50.000	51.583	-3.2	97	0.00
128	P	Chrysene	50.000	52.437	-4.9	99	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	91	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	51.805	-3.6	88	0.00
131		7,12-Dimethylbenz[a]anthrac	50.000	57.005	-14.0	103	0.00
132	P	Benzo[b]fluoranthene	50.000	52.010	-4.0	96	0.00
133	P	Benzo[k]fluoranthene	50.000	52.438	-4.9	94	0.00
134	C,P	Benzo[a]pyrene	50.000	51.399	-2.8	92	0.00
135		3-Methylcholanthrene	50.000	55.285	-10.6	97	0.00
136	P	Indeno[1,2,3-cd]pyrene	50.000	52.414	-4.8	91	-0.01
137	P	Dibenz[ah]anthracene	50.000	53.292	-6.6	93	-0.01
138	P	Benzo[ghi]perylene	50.000	53.911	-7.8	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006784.D Vial: 12
Acq On : 3 Apr 2019 4:53 pm Operator: SCB
Sample : WG701995-12 50PPM 1,4-DIOX ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90899 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:10 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

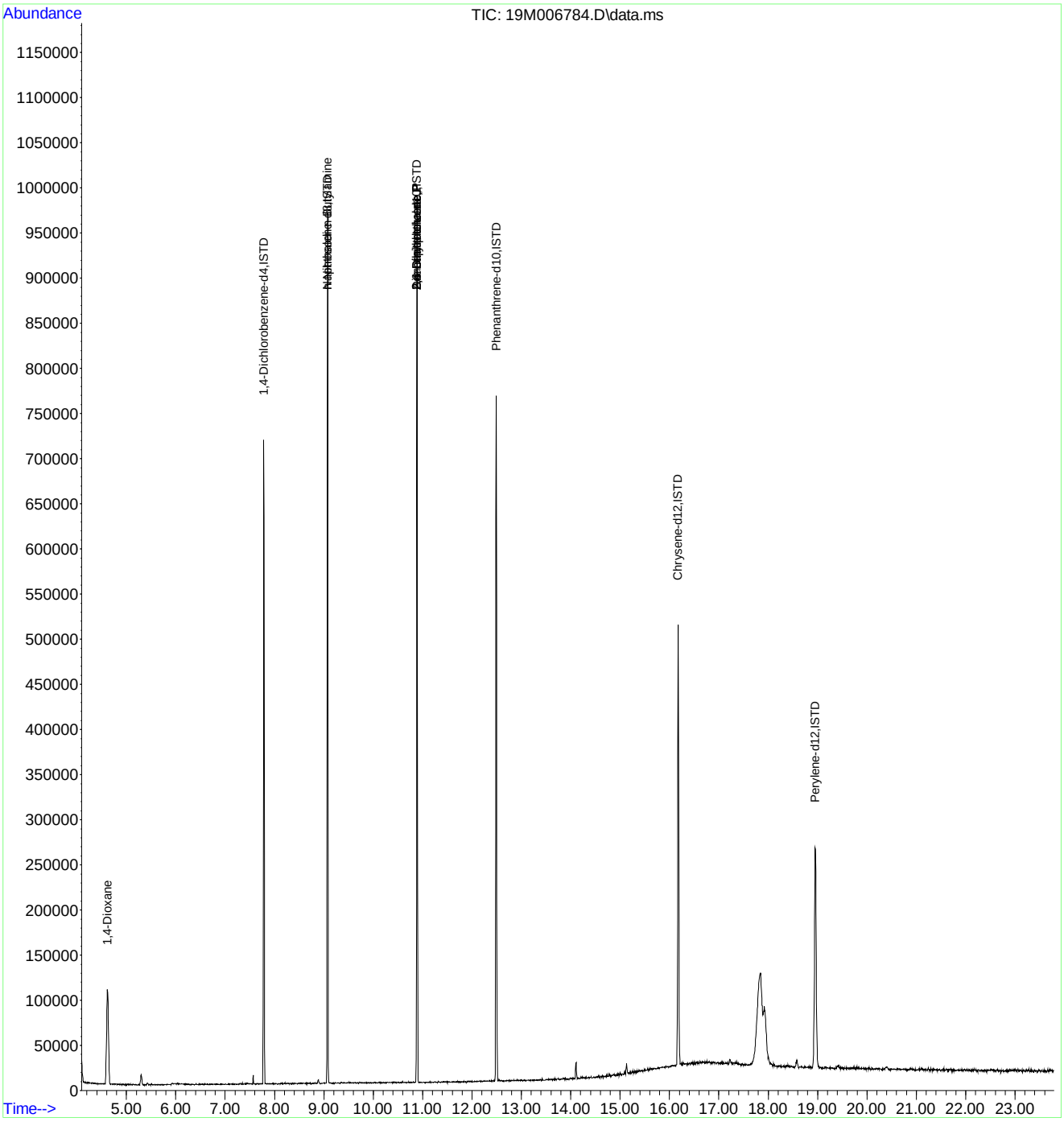
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.781	152	112256	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.075	136	447875	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.886	164	227041	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.492	188	336932	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.174	240	267514	40.0000	ug/mL	-0.0118
129) Perylene-d12	18.951	264	239028	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	0.000	112	0	0.0000	ug/mL	
Spiked Amount 100.0000	Range 21 - 100		Recovery =	0.0000%		
12) Phenol-d5	0.000	99	0	0.0000	ug/mL	
Spiked Amount 100.0000	Range 10 - 94		Recovery =	0.0000%		
31) Nitrobenzene-d5	0.000	82	0	0.0000	ug/mL	
Spiked Amount 50.0000	Range 35 - 114		Recovery =	0.0000%		
59) 2-Fluorobiphenyl	0.000	172	0	0.0000	ug/mL	
Spiked Amount 50.0000	Range 43 - 116		Recovery =	0.0000%		
87) 2,4,6-Tribromophenol	0.000	330	0	0.0000	ug/mL	
Spiked Amount 100.0000	Range 10 - 123		Recovery =	0.0000%		
118) p-Terphenyl-d14	0.000	244	0	0.0000	ug/mL	
Spiked Amount 50.0000	Range 33 - 141		Recovery =	0.0000%		
Target Compounds						Qvalue
2) 1,4-Dioxane	4.616	88	94523	51.8199	ug/mL	100
48) n-Nitrosodi-n-Butylamine	9.075	84	12600	3.4043	ug/mL#	6
65) Dimethylphthalate	10.886	163	49072	6.6304	ug/mL#	1
67) 2,6-Dinitrotoluene	10.886	165	29590	16.9459	ug/mL#	15
73) 2,4-Dinitrotoluene	10.886	165	29590	12.9464	ug/mL#	3

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006784.D Vial: 12
Acq On : 3 Apr 2019 4:53 pm Operator: SCB
Sample : WG701995-12 50PPM 1,4-DIOX ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90899 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:10 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006784.D Vial: 12
Acq On : 3 Apr 2019 4:53 pm Operator: SCB
Sample : WG701995-12 50PPM 1,4-DIOX ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90899 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:01:22 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	93	0.00
2		1,4-Dioxane	50.000	51.820	-3.6	97	0.00
3		n-Nitrosodimethylamine	50.000	0.000	100.0#	0	-5.07#
4		Pyridine	50.000	0.000	100.0#	0	-5.10#
5		2-Picoline	50.000	0.000	100.0#	0	-5.95#
6		n-Nitrosomethylethylamine	50.000	0.000	100.0#	0	-6.06#
7		Methyl Methanesulfonate	50.000	0.000	100.0#	0	-6.36#
8	S	2-Fluorophenol	50.000	0.000	100.0#	0	-6.52#
9		n-Nitrosodiethylamine	50.000	0.000	100.0#	0	-6.76#
10		Ethyl Methanesulfonate	50.000	0.000	100.0#	0	-7.02#
11		Aniline	50.000	0.924	98.2#	2	0.31
12	S	Phenol-d5	50.000	0.000	100.0#	0	-7.37#
13	C,P	Phenol	50.000	0.000	100.0#	0	-7.39#
14	P	bis(2-Chloroethyl)ether	50.000	1.108	97.8#	2	0.28
15		Pentachloroethane	50.000	0.000	100.0#	0	-7.52#
16	P	2-Chlorophenol	50.000	0.000	100.0#	0	-7.60#
17		1,3-Dichlorobenzene	50.000	0.000	100.0#	0	-7.76#
18	C	1,4-Dichlorobenzene	50.000	0.000	100.0#	0	-7.80#
19		Benzyl Alcohol	50.000	0.000	100.0#	0	-7.89#
20		1,2-Dichlorobenzene	50.000	0.000	100.0#	0	-8.00#
21	P	2-Methylphenol	50.000	0.000	100.0#	0	-7.99#
22	P	bis(2-Chloroisopropyl)ether	50.000	0.000	100.0#	0	-8.04#
23	P	3-,4-Methylphenol	50.000	0.000	100.0#	0	-8.12#
24		n-Nitrosopyrrolidine	50.000	0.000	100.0#	0	-8.16#
25	P	n-Nitrosodipropylamine	50.000	0.000	100.0#	0	-8.17#
26		Acetophenone	50.000	0.000	100.0#	0	-8.18#
27		n-Nitrosomorpholine	50.000	0.000	100.0#	0	-8.17#
28		o-Toluidine	50.000	0.000	100.0#	0	-8.23#
29	P	Hexachloroethane	50.000	0.000	100.0#	0	-8.32#
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	95	0.00
31	S	Nitrobenzene-d5	50.000	0.000	100.0#	0	-8.35#
32	P	Nitrobenzene	50.000	0.000	100.0#	0	-8.37#
33		n-Nitrosopiperidine	50.000	0.000	100.0#	0	-8.52#
34	P	Isophorone	50.000	0.000	100.0#	0	-8.58#
35	C,P	2-Nitrophenol	50.000	0.000	100.0#	0	-8.69#
36	P	2,4-Dimethylphenol	50.000	0.000	100.0#	0	-8.66#
37		0,0,0-Triethyl Phosphorothi	50.000	0.000	100.0#	0	-8.76#
38	P	bis(2-Chloroethoxy)methane	50.000	0.000	100.0#	0	-8.76#
39		Benzoic Acid	50.000	0.000	100.0#	0	-8.71#
40	C,P	2,4-Dichlorophenol	50.000	0.000	100.0#	0	-8.92#
41		a,a-Dimethylphenethylamine	50.000	0.393	99.2#	1	-0.02
42		1,2,4-Trichlorobenzene	50.000	0.000	100.0#	0	-9.02#
43	P	Naphthalene	50.000	0.000	100.0#	0	-9.10#
44	P	4-Chloroaniline	50.000	0.450	99.1#	1	-0.05
45		2,6-Dichlorophenol	50.000	0.000	100.0#	0	-9.15#
46		Hexachloropropene	50.000	0.000	100.0#	0	-9.22#
47	C,P	Hexachlorobutadiene	50.000	0.000	100.0#	0	-9.25#
48		n-Nitrosodi-n-Butylamine	50.000	3.404	93.2#	6	-0.36
49		p-Phenylenediamine	50.000	0.000	100.0#	0	-9.46#
50	C,P	4-Chloro-3-Methylphenol	50.000	0.000	100.0#	0	-9.56#

Data File : C:\msdchem\4\DATA\040319\19M006784.D Vial: 12
Acq On : 3 Apr 2019 4:53 pm Operator: SCB
Sample : WG701995-12 50PPM 1,4-DIOX ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90899 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:01:22 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	50.000	0.000	100.0#	0	-9.66#
52	P	2-Methylnaphthalene	50.000	0.000	100.0#	0	-9.79#
53		1-Methylnaphthalene	50.000	0.000	100.0#	0	-9.91#
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	90	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	0.000	100.0#	0	-10.00#
56	P	Hexachlorocyclopentadiene	50.000	0.000	100.0#	0	-10.01#
57	C,P	2,4,6-Trichlorophenol	50.000	0.000	100.0#	0	-10.08#
58	P	2,4,5-Trichlorophenol	50.000	0.000	100.0#	0	-10.12#
59	S	2-Fluorobiphenyl	50.000	0.000	100.0#	0	-10.15#
60		Isosafrole	50.000	0.000	100.0#	0	-10.18#
61	P	2-Chloronaphthalene	50.000	0.000	100.0#	0	-10.30#
62		1-Chloronaphthalene	50.000	0.000	100.0#	0	-10.34#
63	P	2-Nitroaniline	50.000	0.000	100.0#	0	-10.39#
64		1,4-Naphthoquinone	50.000	0.000	100.0#	0	-10.46#
65	P	Dimethylphthalate	50.000	6.630	86.7#	12	0.33
66		1,3-Dinitrobenzene	50.000	0.000	100.0#	0	-10.60#
67	P	2,6-Dinitrotoluene	50.000	16.946	66.1#	30	0.24
68	P	Acenaphthylene	50.000	0.000	100.0#	0	-10.74#
69	P	3-Nitroaniline	50.000	0.000	100.0#	0	-10.80#
70	P	2,4-Dinitrophenol	50.000	0.000	100.0#	0	-10.91#
71	C,P	Acenaphthene	50.000	0.062	99.9#	0	-0.04
72	P	4-Nitrophenol	50.000	0.554	98.9#	1	-0.02
73	P	2,4-Dinitrotoluene	50.000	12.946	74.1#	22	-0.17
74		Pentachlorobenzene	50.000	0.000	100.0#	0	-11.10#
75	P	Dibenzofuran	50.000	0.000	100.0#	0	-11.08#
76		2,3,5,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.18#
77		2,3,4,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.23#
78		1-Naphthylamine	50.000	0.000	100.0#	0	-11.16#
79		2-Naphthylamine	50.000	0.000	100.0#	0	-11.23#
80	P	Diethylphthalate	50.000	0.000	100.0#	0	-11.26#
81		Thionazin	50.000	0.000	100.0#	0	-11.36#
82	P	Fluorene	50.000	0.000	100.0#	0	-11.44#
83	P	4-Chlorophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.39#
84	P	4-Nitroaniline	50.000	0.000	100.0#	0	-11.45#
85		5-Nitro-o-Toluidine	50.000	0.000	100.0#	0	-11.44#
86		1,2-Diphenylhydrazine	50.000	0.000	100.0#	0	-11.56#
87	S	2,4,6-Tribromophenol	50.000	0.000	100.0#	0	-11.72#
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	79	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	0.000	100.0#	0	-11.49#
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	0.000	100.0#	0	-11.51#
91		Sulfotepp	50.000	0.000	100.0#	0	-11.71#
92		Sym-Trinitrobenzene	50.000	0.000	100.0#	0	-11.78#
93		Diallate	50.000	0.000	100.0#	0	-11.83#
94		Phenacetin	50.000	0.000	100.0#	0	-11.82#
95		Phorate	50.000	0.000	100.0#	0	-11.85#
96	P	4-Bromophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.92#
97	P	Hexachlorobenzene	50.000	0.000	100.0#	0	-12.14#
98		Dimethoate	50.000	0.000	100.0#	0	-12.06#
99		4-Aminobiphenyl	50.000	0.000	100.0#	0	-12.22#

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006784.D Vial: 12
Acq On : 3 Apr 2019 4:53 pm Operator: SCB
Sample : WG701995-12 50PPM 1,4-DIOX ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD90899 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 09:01:22 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Wed Apr 03 16:13:30 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	50.000	0.000	100.0#	0	-12.32#
101		Pronamide	50.000	0.000	100.0#	0	-12.26#
102		Pentachloronitrobenzene	50.000	0.000	100.0#	0	-12.40#
103		Disulfoton	50.000	1.141	97.7#	2	0.05
104	P	Phenanthrene	50.000	0.000	100.0#	0	-12.53#
105	P	Anthracene	50.000	0.000	100.0#	0	-12.58#
106	P	Carbazole	50.000	0.000	100.0#	0	-12.73#
107		Parathion Methyl	50.000	0.000	100.0#	0	-12.91#
108	P	Di-n-Butyl Phthalate	50.000	0.000	100.0#	0	-13.10#
109		Parathion Ethyl	50.000	0.000	100.0#	0	-13.39#
110		4-Nitroquinoline 1-Oxide	50.000	0.000	100.0#	0	-13.49#
111		Methapyrilene	50.000	0.000	100.0#	0	-13.55#
112		Isodrin	50.000	0.000	100.0#	0	-13.90#
113	C,P	Fluoranthene	50.000	0.000	100.0#	0	-14.07#
114	ISTD	Chrysene-d12	40.000	40.000	0.0	70	-0.01
115		Benzidine	50.000	0.000	100.0#	0	-14.16#
116	P	Pyrene	50.000	0.000	100.0#	0	-14.40#
117		Aramite	50.000	0.000	100.0#	0	-14.44#
118	S	p-Terphenyl-d14	50.000	0.000	100.0#	0	-14.53#
119		p-(Dimethylamino)azobenzene	50.000	0.000	100.0#	0	-14.74#
120		Chlorobenzilate	50.000	0.000	100.0#	0	-14.79#
121		Famphur	50.000	0.000	100.0#	0	-15.19#
122	P	Butyl Benzyl Phthalate	50.000	0.000	100.0#	0	-15.21#
123		3,3'-Dimethylbenzidine	50.000	0.000	100.0#	0	-15.22#
124		2-Acetylaminofluorene	50.000	0.000	100.0#	0	-15.63#
125	P	bis(2-Ethylhexyl)phthalate	50.000	0.000	100.0#	0	-16.06#
126	P	3,3'-Dichlorobenzidine	50.000	0.000	100.0#	0	-16.06#
127	P	Benzo[a]anthracene	50.000	0.049	99.9#	0	0.02
128	P	Chrysene	50.000	0.051	99.9#	0	-0.05
129	ISTD	Perylene-d12	40.000	40.000	0.0	66	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	0.000	100.0#	0	-17.03#
131		7,12-Dimethylbenz[a]anthrac	50.000	0.000	100.0#	0	-18.10#
132	P	Benzo[b]fluoranthene	50.000	0.025	100.0#	0	-0.27
133	P	Benzo[k]fluoranthene	50.000	0.028	99.9#	0	-0.32
134	C,P	Benzo[a]pyrene	50.000	0.000	100.0#	0	-18.83#
135		3-Methylcholanthrene	50.000	0.000	100.0#	0	-19.72#
136	P	Indeno[1,2,3-cd]pyrene	50.000	0.000	100.0#	0	-22.03#
137	P	Dibenz[ah]anthracene	50.000	0.000	100.0#	0	-22.03#
138	P	Benzo[ghi]perylene	50.000	0.000	100.0#	0	-22.96#

(#) = Out of Range SPCC's out = 0 CCC's out = 13

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006785.D Vial: 13
Acq On : 3 Apr 2019 5:24 pm Operator: SCB
Sample : WG701995-13 50PPM MP,A9,BEN ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD91960 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:15 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.786	152	131995	40.0000	ug/mL	0.0000
30) Naphthalene-d8	9.075	136	507328	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.886	164	265848	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.492	188	422492	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.174	240	379853	40.0000	ug/mL	-0.0118
129) Perylene-d12	18.956	264	331702	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	0.000	112	0	0.0000	ug/mL	
Spiked Amount 100.0000	Range 21 - 100		Recovery =	0.0000%		
12) Phenol-d5	0.000	99	0	0.0000	ug/mL	
Spiked Amount 100.0000	Range 10 - 94		Recovery =	0.0000%		
31) Nitrobenzene-d5	8.510	82	6966	1.3248	ug/mL	0.1588
Spiked Amount 50.0000	Range 35 - 114		Recovery =	2.6496%		
59) 2-Fluorobiphenyl	0.000	172	0	0.0000	ug/mL	
Spiked Amount 50.0000	Range 43 - 116		Recovery =	0.0000%		
87) 2,4,6-Tribromophenol	0.000	330	0	0.0000	ug/mL	
Spiked Amount 100.0000	Range 10 - 123		Recovery =	0.0000%		
118) p-Terphenyl-d14	0.000	244	0	0.0000	ug/mL	
Spiked Amount 50.0000	Range 33 - 141		Recovery =	0.0000%		
Target Compounds						Qvalue
5) 2-Picoline	5.940	93	265412	47.7528	ug/mL	100
6) n-Nitrosomethylethylamine	6.063	88	112990	48.0241	ug/mL	96
9) n-Nitrosodiethylamine	6.763	102	108001	47.4836	ug/mL	97
19) Benzyl Alcohol	8.222	108	20220	6.5582	ug/mL#	1
21) 2-Methylphenol	8.222	107	267360	72.8576	ug/mL#	26
23) 3-,4-Methylphenol	8.222	107	267360	56.1809	ug/mL#	39
24) n-Nitrosopyrrolidine	8.163	100	107585	48.7886	ug/mL#	38
27) n-Nitrosomorpholine	8.169	56	167614	47.9498	ug/mL	99
28) o-Toluidine	8.222	106	347234	47.6209	ug/mL	99
32) Nitrobenzene	8.222	77	69692	12.8359	ug/mL#	48
33) n-Nitrosopiperidine	8.510	114	105751	46.2854	ug/mL	97
39) Benzoic Acid	8.863	105	1028	6.8613	ug/mL#	1
41) a,a-Dimethylphenethyla...	8.863	58	724513	53.4281	ug/mL	97
44) 4-Chloroaniline	8.863	65	45117	22.3593	ug/mL#	1
48) n-Nitrosodi-n-Butylamine	9.439	84	159449	38.0322	ug/mL	87
49) p-Phenylenediamine	9.457	108	279848	71.2853	ug/mL	99
50) 4-Chloro-3-Methylphenol	9.457	107	75154	19.1850	ug/mL#	21
65) Dimethylphthalate	10.886	163	57789	6.6684	ug/mL#	1
67) 2,6-Dinitrotoluene	10.886	165	33762	16.5127	ug/mL#	15
73) 2,4-Dinitrotoluene	10.886	165	33762	12.6155	ug/mL#	3
78) 1-Naphthylamine	11.151	143	413095	49.5736	ug/mL	96
79) 2-Naphthylamine	11.222	143	428033	48.6584	ug/mL	98
81) Thionazin	11.433	107	8998	6.0979	ug/mL#	1
85) 5-Nitro-o-Toluidine	11.433	152	117901	44.6357	ug/mL	99
86) 1,2-Diphenylhydrazine	11.433	77	120494	11.5864	ug/mL#	65
92) Sym-Trinitrobenzene	11.433	75	3496	3.1435	ug/mL#	25
99) 4-Aminobiphenyl	12.210	169	447936	47.1459	ug/mL	99
109) Parathion Ethyl	13.539	97	94924	51.0064	ug/mL#	10
110) 4-Nitroquinoline 1-Oxide	13.539	190	8019	11.2837	ug/mL#	11
111) Methapyrilene	13.539	58	153828	21.7214	ug/mL#	91
115) Benzidine	14.163	184	360062	57.7995	ug/mL	100
117) Aramite	14.163	185	51031	72.5676	ug/mL#	31

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006785.D Vial: 13
Acq On : 3 Apr 2019 5:24 pm Operator: SCB
Sample : WG701995-13 50PPM MP,A9,BEN ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD91960 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:15 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

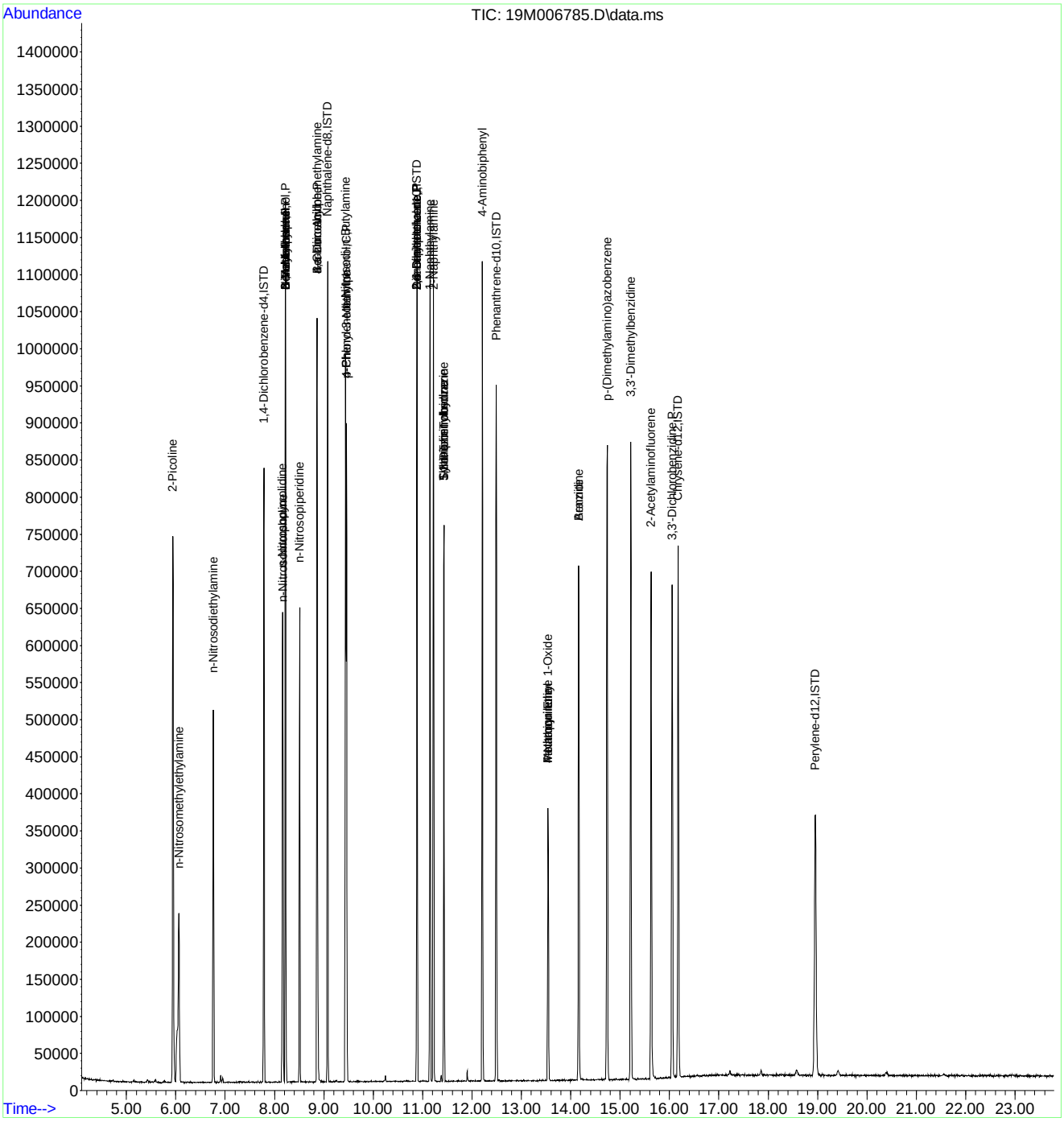
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) p-(Dimethylamino)azobe...	14.739	225	133064	54.4077	ug/mL	94
123) 3,3'-Dimethylbenzidine	15.215	212	409250	29.4382	ug/mL	99
124) 2-Acetylaminofluorene	15.627	181	214406	43.1761	ug/mL	97
126) 3,3'-Dichlorobenzidine	16.057	252	201177	51.7945	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\040319\19M006785.D Vial: 13
Acq On : 3 Apr 2019 5:24 pm Operator: SCB
Sample : WG701995-13 50PPM MP,A9,BEN ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD91960 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:17:15 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006785.D Vial: 13
Acq On : 3 Apr 2019 5:24 pm Operator: SCB
Sample : WG701995-13 50PPM MP,A9,BEN ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD91960 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:12:57 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	109	0.00
2		1,4-Dioxane	50.000	0.000	100.0#	0	-4.62#
3		n-Nitrosodimethylamine	50.000	0.000	100.0#	0	-5.07#
4		Pyridine	50.000	0.000	100.0#	0	-5.10#
5		2-Picoline	50.000	47.753	4.5	105	0.00
6		n-Nitrosomethylethylamine	50.000	48.024	4.0	106	0.00
7		Methyl Methanesulfonate	50.000	0.000	100.0#	0	-6.36#
8	S	2-Fluorophenol	50.000	0.000	100.0#	0	-6.52#
9		n-Nitrosodiethylamine	50.000	47.484	5.0	103	0.00
10		Ethyl Methanesulfonate	50.000	0.000	100.0#	0	-7.02#
11		Aniline	50.000	0.938	98.1#	2	0.31
12	S	Phenol-d5	50.000	0.000	100.0#	0	-7.37#
13	C,P	Phenol	50.000	0.000	100.0#	0	-7.39#
14	P	bis(2-Chloroethyl)ether	50.000	1.047	97.9#	2	0.28
15		Pentachloroethane	50.000	0.000	100.0#	0	-7.52#
16	P	2-Chlorophenol	50.000	0.000	100.0#	0	-7.60#
17		1,3-Dichlorobenzene	50.000	0.000	100.0#	0	-7.76#
18	C	1,4-Dichlorobenzene	50.000	0.000	100.0#	0	-7.80#
19		Benzyl Alcohol	50.000	6.558	86.9#	14	0.33
20		1,2-Dichlorobenzene	50.000	0.000	100.0#	0	-8.00#
21	P	2-Methylphenol	50.000	72.858	-45.7#	159	0.24
22	P	bis(2-Chloroisopropyl)ether	50.000	0.249	99.5#	1	0.13
23	P	3-,4-Methylphenol	50.000	56.181	-12.4	121	0.11
24		n-Nitrosopyrrolidine	50.000	48.789	2.4	104	0.00
25	P	n-Nitrosodipropylamine	50.000	0.602	98.8#	1	-0.01
26		Acetophenone	50.000	0.427	99.1#	1	0.04
27		n-Nitrosomorpholine	50.000	47.950	4.1	104	0.00
28		o-Toluidine	50.000	47.621	4.8	104	0.00
29	P	Hexachloroethane	50.000	1.276	97.4#	3	-0.15
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	108	0.00
31	S	Nitrobenzene-d5	50.000	1.325	97.3#	3	0.16
32	P	Nitrobenzene	50.000	12.836	74.3#	28	-0.15
33		n-Nitrosopiperidine	50.000	46.285	7.4	100	0.00
34	P	Isophorone	50.000	0.735	98.5#	2	-0.07
35	C,P	2-Nitrophenol	50.000	0.000	100.0#	0	-8.69#
36	P	2,4-Dimethylphenol	50.000	0.000	100.0#	0	-8.66#
37		0,0,0-Triethyl Phosphorothi	50.000	0.000	100.0#	0	-8.76#
38	P	bis(2-Chloroethoxy)methane	50.000	0.182	99.6#	0	0.11
39		Benzoic Acid	50.000	6.861	86.3#	1	0.15
40	C,P	2,4-Dichlorophenol	50.000	0.000	100.0#	0	-8.92#
41		a,a-Dimethylphenethylamine	50.000	53.428	-6.9	113	-0.04
42		1,2,4-Trichlorobenzene	50.000	0.000	100.0#	0	-9.02#
43	P	Naphthalene	50.000	0.053	99.9#	0	-0.24
44	P	4-Chloroaniline	50.000	22.359	55.3#	48	-0.26
45		2,6-Dichlorophenol	50.000	0.000	100.0#	0	-9.15#
46		Hexachloropropene	50.000	0.000	100.0#	0	-9.22#
47	C,P	Hexachlorobutadiene	50.000	0.000	100.0#	0	-9.25#
48		n-Nitrosodi-n-Butylamine	50.000	38.032	23.9	80	0.00
49		p-Phenylenediamine	50.000	71.285	-42.6#	157	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	19.185	61.6#	40	-0.11

Data File : C:\msdchem\4\DATA\040319\19M006785.D Vial: 13
Acq On : 3 Apr 2019 5:24 pm Operator: SCB
Sample : WG701995-13 50PPM MP,A9,BEN ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD91960 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:12:57 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	50.000	0.000	100.0#	0	-9.66#
52	P	2-Methylnaphthalene	50.000	0.159	99.7#	0	-0.35
53		1-Methylnaphthalene	50.000	0.000	100.0#	0	-9.91#
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	106	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	0.000	100.0#	0	-10.00#
56	P	Hexachlorocyclopentadiene	50.000	0.000	100.0#	0	-10.01#
57	C,P	2,4,6-Trichlorophenol	50.000	0.000	100.0#	0	-10.08#
58	P	2,4,5-Trichlorophenol	50.000	0.000	100.0#	0	-10.12#
59	S	2-Fluorobiphenyl	50.000	0.000	100.0#	0	-10.15#
60		Isosafrole	50.000	0.000	100.0#	0	-10.18#
61	P	2-Chloronaphthalene	50.000	0.000	100.0#	0	-10.30#
62		1-Chloronaphthalene	50.000	0.000	100.0#	0	-10.34#
63	P	2-Nitroaniline	50.000	0.000	100.0#	0	-10.39#
64		1,4-Naphthoquinone	50.000	0.000	100.0#	0	-10.46#
65	P	Dimethylphthalate	50.000	6.668	86.7#	14	0.33
66		1,3-Dinitrobenzene	50.000	0.000	100.0#	0	-10.60#
67	P	2,6-Dinitrotoluene	50.000	16.513	67.0#	34	0.24
68	P	Acenaphthylene	50.000	0.000	100.0#	0	-10.74#
69	P	3-Nitroaniline	50.000	0.000	100.0#	0	-10.80#
70	P	2,4-Dinitrophenol	50.000	0.000	100.0#	0	-10.91#
71	C,P	Acenaphthene	50.000	0.104	99.8#	0	-0.04
72	P	4-Nitrophenol	50.000	0.548	98.9#	1	-0.02
73	P	2,4-Dinitrotoluene	50.000	12.615	74.8#	25	-0.17
74		Pentachlorobenzene	50.000	0.000	100.0#	0	-11.10#
75	P	Dibenzofuran	50.000	0.287	99.4#	1	0.29
76		2,3,5,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.18#
77		2,3,4,6-Tetrachlorophenol	50.000	0.000	100.0#	0	-11.23#
78		1-Naphthylamine	50.000	49.574	0.9	103	0.00
79		2-Naphthylamine	50.000	48.658	2.7	101	0.00
80	P	Diethylphthalate	50.000	0.000	100.0#	0	-11.26#
81		Thionazin	50.000	6.098	87.8#	12	0.07
82	P	Fluorene	50.000	0.000	100.0#	0	-11.44#
83	P	4-Chlorophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.39#
84	P	4-Nitroaniline	50.000	0.000	100.0#	0	-11.45#
85		5-Nitro-o-Toluidine	50.000	44.636	10.7	91	0.00
86		1,2-Diphenylhydrazine	50.000	11.586	76.8#	24	-0.12
87	S	2,4,6-Tribromophenol	50.000	0.000	100.0#	0	-11.72#
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	100	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	0.000	100.0#	0	-11.49#
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	0.457	99.1#	1	-0.14
91		Sulfotepp	50.000	0.000	100.0#	0	-11.71#
92		Sym-Trinitrobenzene	50.000	3.144	93.7#	2	-0.35
93		Diallate	50.000	0.000	100.0#	0	-11.83#
94		Phenacetin	50.000	0.000	100.0#	0	-11.82#
95		Phorate	50.000	1.177	97.6#	2	0.36
96	P	4-Bromophenyl Phenyl Ether	50.000	0.000	100.0#	0	-11.92#
97	P	Hexachlorobenzene	50.000	0.000	100.0#	0	-12.14#
98		Dimethoate	50.000	1.614	96.8#	3	0.15
99		4-Aminobiphenyl	50.000	47.146	5.7	92	0.00

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\040319\19M006785.D Vial: 13
Acq On : 3 Apr 2019 5:24 pm Operator: SCB
Sample : WG701995-13 50PPM MP,A9,BEN ALT SRC Inst : HPMS19NEW
Misc : 1,1 STD91960 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 04 18:12:57 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Thu Apr 04 18:10:47 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	50.000	0.000	100.0#	0	-12.32#
101		Pronamide	50.000	0.000	100.0#	0	-12.26#
102		Pentachloronitrobenzene	50.000	0.000	100.0#	0	-12.40#
103		Disulfoton	50.000	1.213	97.6#	2	0.05
104	P	Phenanthrene	50.000	0.000	100.0#	0	-12.53#
105	P	Anthracene	50.000	0.000	100.0#	0	-12.58#
106	P	Carbazole	50.000	0.000	100.0#	0	-12.73#
107		Parathion Methyl	50.000	0.000	100.0#	0	-12.91#
108	P	Di-n-Butyl Phthalate	50.000	0.000	100.0#	0	-13.10#
109		Parathion Ethyl	50.000	51.006	-2.0	93	0.15
110		4-Nitroquinoline 1-Oxide	50.000	11.284	77.4#	14	0.05
111		Methapyrilene	50.000	21.721	56.6#	52	0.00
112		Isodrin	50.000	0.144	99.7#	0	-0.36
113	C,P	Fluoranthene	50.000	0.000	100.0#	0	-14.07#
114	ISTD	Chrysene-d12	40.000	40.000	0.0	99	-0.01
115		Benzidine	50.000	57.799	-15.6	107	0.00
116	P	Pyrene	50.000	0.000	100.0#	0	-14.40#
117		Aramite	50.000	72.568	-45.1#	130	-0.28
118	S	p-Terphenyl-d14	50.000	0.000	100.0#	0	-14.53#
119		p-(Dimethylamino)azobenzene	50.000	54.408	-8.8	102	0.00
120		Chlorobenzilate	50.000	0.000	100.0#	0	-14.79#
121		Famphur	50.000	0.000	100.0#	0	-15.19#
122	P	Butyl Benzyl Phthalate	50.000	0.000	100.0#	0	-15.21#
123		3,3'-Dimethylbenzidine	50.000	29.438	41.1#	64	0.00
124		2-Acetylaminofluorene	50.000	43.176	13.6	82	0.00
125	P	bis(2-Ethylhexyl)phthalate	50.000	0.072	99.9#	0	0.00
126	P	3,3'-Dichlorobenzidine	50.000	51.795	-3.6	99	0.00
127	P	Benzo[a]anthracene	50.000	0.019	100.0#	0	0.02
128	P	Chrysene	50.000	0.020	100.0#	0	-0.05
129	ISTD	Perylene-d12	40.000	40.000	0.0	92	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	0.000	100.0#	0	-17.03#
131		7,12-Dimethylbenz[a]anthrac	50.000	0.000	100.0#	0	-18.10#
132	P	Benzo[b]fluoranthene	50.000	0.000	100.0#	0	-18.09#
133	P	Benzo[k]fluoranthene	50.000	0.000	100.0#	0	-18.14#
134	C,P	Benzo[a]pyrene	50.000	0.040	99.9#	0	0.13
135		3-Methylcholanthrene	50.000	0.000	100.0#	0	-19.72#
136	P	Indeno[1,2,3-cd]pyrene	50.000	0.000	100.0#	0	-22.03#
137	P	Dibenz[ah]anthracene	50.000	0.000	100.0#	0	-22.03#
138	P	Benzo[ghi]perylene	50.000	0.000	100.0#	0	-22.96#

(#) = Out of Range SPCC's out = 0 CCC's out = 13

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:39:24 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	108481	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	404729	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	237487	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.546	188	395383	40.0000	ug/ml	-0.011
114) Chrysene-d12	16.243	240	366564	40.0000	ug/ml	-0.016
129) Perylene-d12	19.074	264	366178	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.579	112	171403	51.5823757	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 51.58%			
12) Phenol-d5	7.428	99	207027	51.7639514	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 51.76%			
31) Nitrobenzene-d5	8.395	82	177798	52.1766933	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 104.35%			
59) 2-Fluorobiphenyl	10.190	172	402281	50.4692693	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 100.94%			
87) 2,4,6-Tribromophenol	11.761	330	52641	50.4657317	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 50.47%			
118) p-Terphenyl-d14	14.581	244	459039	52.1372754	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 104.27%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.68	88	75852	54.5697	ug/ml	98
3) n-Nitrosodimethylamine	5.14	74	108359	53.2516	ug/ml	94
4) Pyridine	5.15	79	190984	52.4188	ug/ml	97
5) 2-Picoline	6.00	93	206582	51.9965	ug/ml	100
6) n-Nitrosomethylethylamine	6.11	88	85789	52.3929	ug/ml	95
7) Methyl Methanesulfonate	6.41	80	98449	55.0547	ug/ml	98
9) n-Nitrosodiethylamine	6.81	102	87074	52.6911	ug/ml	96
10) Ethyl Methanesulfonate	7.07	79	125858	52.9878	ug/ml	99
11) Aniline	7.52	66	97631	52.8152	ug/ml	99
13) Phenol	7.44	94	212565	50.8807	ug/ml	99
14) bis(2-Chloroethyl)ether	7.55	63	127484	52.6485	ug/ml	97
15) Pentachloroethane	7.56	167	72940	51.3847	ug/ml	99
16) 2-Chlorophenol	7.65	128	190288	51.6271	ug/ml	100
17) 1,3-Dichlorobenzene	7.80	146	202759	50.2828	ug/ml	99
18) 1,4-Dichlorobenzene	7.85	146	206207	50.6308	ug/ml	99
19) Benzyl Alcohol	7.94	108	114229	49.7718	ug/ml	98
20) 1,2-Dichlorobenzene	8.04	146	192333	50.8453	ug/ml	99
21) 2-Methylphenol	8.04	107	138838	51.1694	ug/ml	100
22) bis(2-Chloroisopropyl)ethe	8.08	45	222748	55.0114	ug/ml	99
23) 3-,4-Methylphenol	8.17	107	182545	50.6310	ug/ml	100
24) n-Nitrosopyrrolidine	8.21	100	83002	52.8683	ug/ml	93
25) n-Nitrosodipropylamine	8.22	70	114201	54.1590	ug/ml	97
26) Acetophenone	8.22	105	229491	52.3755	ug/ml	99
27) n-Nitrosomorpholine	8.22	56	94430	54.7126	ug/ml	99
28) o-Toluidine	8.27	106	277818	51.0203	ug/ml	99
29) Hexachloroethane	8.36	117	77752	52.6092	ug/ml	99
32) Nitrobenzene	8.42	77	178136	51.5882	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	93111	51.8999	ug/ml	96
34) Isophorone	8.63	82	326714	51.3893	ug/ml	100
35) 2-Nitrophenol	8.74	139	101224	53.2110	ug/ml	98
36) 2,4-Dimethylphenol	8.70	122	164206	50.2752	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.80	198	94502	51.1219	ug/ml	100
38) bis(2-Chloroethoxy)methane	8.80	93	255066	51.9211	ug/ml	100

(#) = qualifier out of range (m) = manual integration
12M71270.D MEGAMIX.M Tue Apr 23 08:13:30 2019 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:39:24 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Benzoic Acid	8.75	105	40850m	36.0433	ug/ml	
40)	2,4-Dichlorophenol	8.97	162	153693	50.3863	ug/ml	99
41)	a,a-Dimethylphenethylamine	8.98	58	349151	41.9021	ug/ml	100
42)	1,2,4-Trichlorobenzene	9.07	180	164527	50.3930	ug/ml	100
43)	Naphthalene	9.14	128	555235	50.2076	ug/ml#	99
44)	4-Chloroaniline	9.17	65	62854	53.2100	ug/ml	96
45)	2,6-Dichlorophenol	9.20	162	147071	49.9112	ug/ml	100
46)	Hexachloropropene	9.26	213	109275	55.2960	ug/ml	100
47)	Hexachlorobutadiene	9.29	225	92745	50.7555	ug/ml	100
48)	n-Nitrosodi-n-Butylamine	9.48	84	149758	53.5963	ug/ml	98
49)	p-Phenylenediamine	9.52	108	104968	38.7826	ug/ml	99
50)	4-Chloro-3-Methylphenol	9.61	107	148052	50.2666	ug/ml	99
51)	Safrole	9.70	162	151215	50.5977	ug/ml	99
52)	2-Methylnaphthalene	9.83	142	372237	50.5973	ug/ml	100
53)	1-Methylnaphthalene	9.95	142	350642	50.4694	ug/ml	100
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	169443	49.9109	ug/ml	100
56)	Hexachlorocyclopentadiene	10.06	237	54321	40.6820	ug/ml	100
57)	2,4,6-Trichlorophenol	10.13	196	110355	50.5858	ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	113233	49.9123	ug/ml	99
60)	Isosafrole	10.23	162	152502	50.5091	ug/ml	98
61)	2-Chloronaphthalene	10.34	162	347956	50.9066	ug/ml	99
62)	1-Chloronaphthalene	10.38	162	325882	51.7146	ug/ml	100
63)	2-Nitroaniline	10.44	65	94306	52.4755	ug/ml	99
64)	1,4-Naphthoquinone	10.51	158	109486	46.5673	ug/ml	100
65)	Dimethylphthalate	10.60	163	384449	51.0121	ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	71382	52.8789	ug/ml	98
67)	2,6-Dinitrotoluene	10.69	165	95703	52.4843	ug/ml	100
68)	Acenaphthylene	10.78	152	531609	50.8443	ug/ml	100
69)	3-Nitroaniline	10.85	138	99484	49.5075	ug/ml	100
70)	2,4-Dinitrophenol	10.96	184	39294	53.0344	ug/ml	72
71)	Acenaphthene	10.97	154	343641	51.1638	ug/ml	99
72)	4-Nitrophenol	10.97	65	64312	54.1877	ug/ml	96
73)	2,4-Dinitrotoluene	11.10	165	125867	53.7125	ug/ml	99
74)	Pentachlorobenzene	11.15	250	145941	49.7683	ug/ml	100
75)	Dibenzofuran	11.12	168	481539	49.9159	ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.23	232	89663	51.4723	ug/ml	99
77)	2,3,4,6-Tetrachlorophenol	11.27	232	97514	51.6034	ug/ml	99
78)	1-Naphthylamine	11.20	143	351027	50.3405	ug/ml	100
79)	2-Naphthylamine	11.27	143	355167	49.8832	ug/ml	99
80)	Diethylphthalate	11.30	149	379939	51.6725	ug/ml	100
81)	Thionazin	11.40	107	61567	52.3580	ug/ml	99
82)	Fluorene	11.48	166	401220	50.9208	ug/ml	100
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	198177	50.8418	ug/ml	100
84)	4-Nitroaniline	11.49	138	103099	49.6662	ug/ml	98
85)	5-Nitro-o-Toluidine	11.48	152	119032	51.2779	ug/ml	99
86)	1,2-Diphenylhydrazine	11.60	77	349304	51.8182	ug/ml	99
89)	4,6-Dinitro-2-Methylphenol	11.53	198	65016	50.0716	ug/ml	98
90)	Diphenylamine/n-Nitrosodip	11.55	169	355965	50.8704	ug/ml	100
91)	Sulfotepp	11.74	322	65692	51.0416	ug/ml	100
92)	Sym-Trinitrobenzene	11.83	75	91543	51.7539	ug/ml	99
93)	Diallate	11.87	86	139624	52.3510	ug/ml	96
94)	Phenacetin	11.86	108	185268	53.1794	ug/ml	100
95)	Phorate	11.89	75	215655	52.4914	ug/ml#	100
96)	4-Bromophenyl Phenyl Ether	11.96	248	115037	50.8019	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:39:24 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

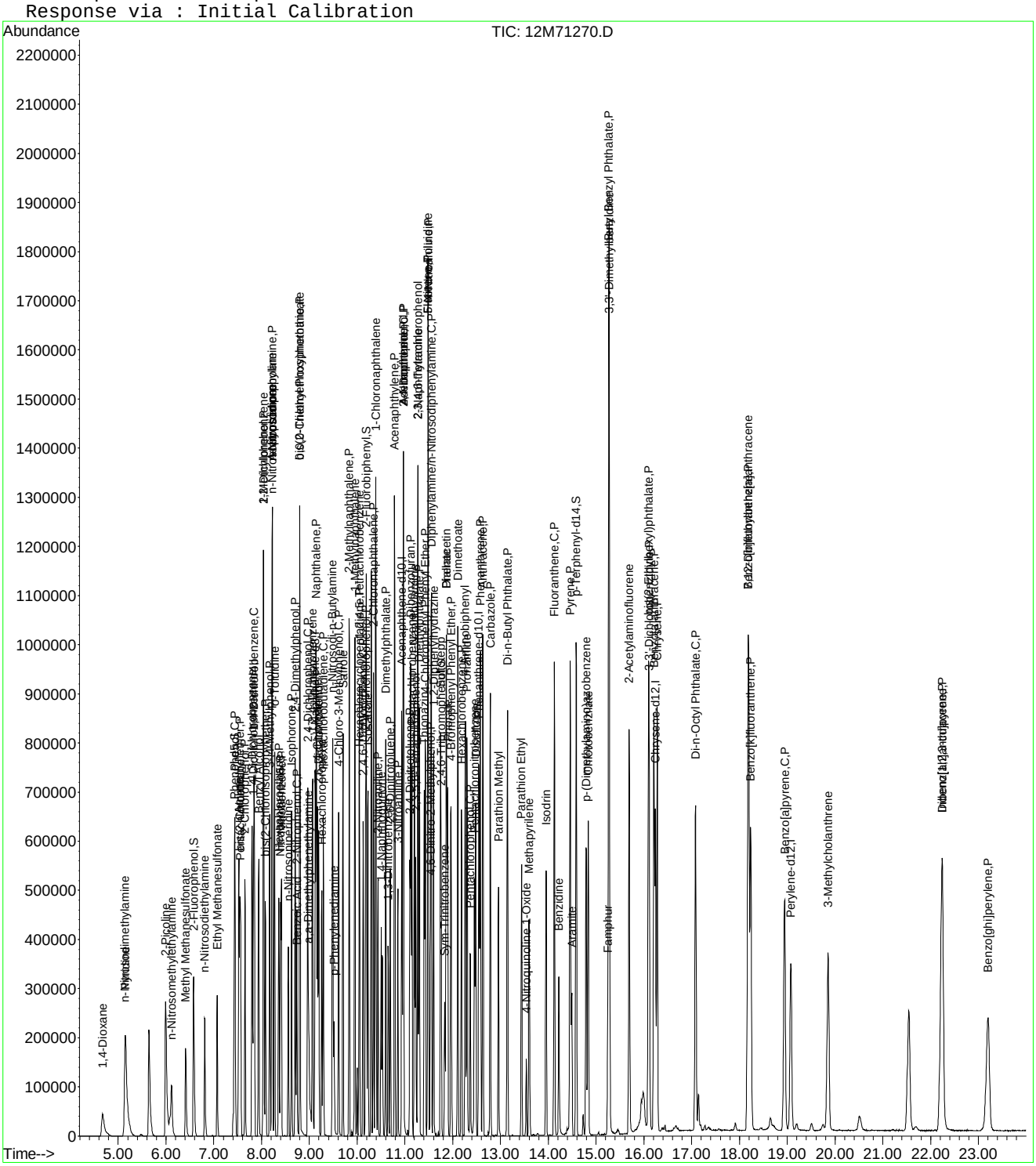
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	Hexachlorobenzene	12.18	284	115879	49.9831	ug/ml	98
98)	Dimethoate	12.11	87	130064	52.4419	ug/ml	99
99)	4-Aminobiphenyl	12.26	169	423335	49.5936	ug/ml	100
100)	Pentachlorophenol	12.37	266	63504	46.0341	ug/ml	99
101)	Pronamide	12.30	173	176095	51.8743	ug/ml	99
102)	Pentachloronitrobenzene	12.46	237	46876	53.9637	ug/ml	100
103)	Disulfoton	12.48	88	184190	51.2392	ug/ml	99
104)	Phenanthrene	12.58	178	549934	50.2767	ug/ml	99
105)	Anthracene	12.63	178	566053	50.4041	ug/ml	100
106)	Carbazole	12.79	167	527260	50.4199	ug/ml	100
107)	Parathion Methyl	12.96	109	118711	57.7611	ug/ml	100
108)	Di-n-Butyl Phthalate	13.14	149	632759	52.2308	ug/ml	100
109)	Parathion Ethyl	13.44	97	74944	55.4067	ug/ml	99
110)	4-Nitroquinoline 1-Oxide	13.54	190	26605	30.9265	ug/ml	98
111)	Methapyrilene	13.60	58	195739	61.7804	ug/ml	99
112)	Isodrin	13.96	193	61520	50.3870	ug/ml	99
113)	Fluoranthene	14.13	202	603069	49.8690	ug/ml	100
115)	Benzidine	14.22	184	235841	45.5299	ug/ml	100
116)	Pyrene	14.46	202	612574	51.8338	ug/ml	100
117)	Aramite	14.49	185	35473	55.8256	ug/ml	100
119)	p-(Dimethylamino)azobenzen	14.79	225	129410	52.7594	ug/ml	98
120)	Chlorobenzilate	14.84	251	183557	53.8690	ug/ml	99
121)	Famphur	15.24	218	34353	54.5185	ug/ml	99
122)	Butyl Benzyl Phthalate	15.26	149	282329	54.6261	ug/ml	100
123)	3,3'-Dimethylbenzidine	15.28	212	508793	46.3686	ug/ml	99
124)	2-Acetylaminofluorene	15.69	181	250331	56.4142	ug/ml	100
125)	bis(2-Ethylhexyl)phthalate	16.10	149	383248	55.6395	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.11	252	197162	51.4170	ug/ml	100
127)	Benzo[a]anthracene	16.21	228	559724	51.1630	ug/ml	100
128)	Chrysene	16.28	228	531094	50.9589	ug/ml	100
130)	Di-n-Octyl Phthalate	17.08	149	658451	54.0745	ug/ml	99
131)	7,12-Dimethylbenz[a]anthra	18.19	256	272416	51.6559	ug/ml	100
132)	Benzo[b]fluoranthene	18.19	252	579508	51.5049	ug/ml	100
133)	Benzo[k]fluoranthene	18.24	252	499431	50.4472	ug/ml	100
134)	Benzo[a]pyrene	18.95	252	507720	50.7239	ug/ml	100
135)	3-Methylcholanthrene	19.85	268	269731	50.8503	ug/ml	100
136)	Indeno[1,2,3-cd]pyrene	22.24	276	586041	52.1885	ug/ml	99
137)	Dibenz[ah]anthracene	22.24	278	500291	52.4636	ug/ml	100
138)	Benzo[ghi]perylene	23.20	276	478479	51.3178	ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:13 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration



Continuing Calibration Area and RT check

Instrument: MSD12
Initial cal date: 12 Apr 2019 10:30 am
CCV date: 22 Apr 2019 11:09 am
CCV Filename: 12M71270.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	131020	7.83	484514	9.13	280030	10.94
CCV	108481	7.83	404729	9.12	237487	10.93

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	472486	12.56	448440	16.26	444419	19.10
CCV	395383	12.55	366564	16.24	366178	19.07

Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00
2		1,4-Dioxane	0.513	0.559	-9.0	81	0.00
3		n-Nitrosodimethylamine	0.750	0.799	-6.5	81	0.00
4		Pyridine	1.343	1.408	-4.8	81	0.00
5		2-Picoline	1.465	1.523	-4.0	83	0.00
6		n-Nitrosomethylethylamine	0.604	0.633	-4.8	82	-0.01
7		Methyl Methanesulfonate	0.659	0.726	-10.2	84	0.00
8	S	2-Fluorophenol	1.225	1.264	-3.2	83	0.00
9		n-Nitrosodiethylamine	0.609	0.642	-5.4	83	0.00
10		Ethyl Methanesulfonate	0.876	0.928	-5.9	83	0.00
11		Aniline	0.682	0.720	-5.6	84	0.00
12	S	Phenol-d5	1.475	1.527	-3.5	83	0.00
13	C,P	Phenol	1.540	1.568	-1.8	83	0.00
14	P	bis(2-Chloroethyl)ether	0.893	0.940	-5.3	85	0.00
15		Pentachloroethane	0.523	0.538	-2.9	84	0.00
16	P	2-Chlorophenol	1.359	1.403	-3.2	83	0.00
17		1,3-Dichlorobenzene	1.487	1.495	-0.5	83	0.00
18	C	1,4-Dichlorobenzene	1.502	1.521	-1.3	83	0.00
19		Benzyl Alcohol	0.846	0.842	0.5	80	0.00
20		1,2-Dichlorobenzene	1.395	1.418	-1.6	83	0.00
21	P	2-Methylphenol	1.000	1.024	-2.4	83	0.00
22	P	bis(2-Chloroisopropyl)ether	1.493	1.643	-10.0	86	0.00
23	P	3-,4-Methylphenol	1.329	1.346	-1.3	83	0.00
24		n-Nitrosopyrrolidine	0.579	0.612	-5.7	84	0.00
25	P	n-Nitrosodipropylamine	0.778	0.842	-8.2	86	0.00
26		Acetophenone	1.616	1.692	-4.7	85	0.00
27		n-Nitrosomorpholine	0.636	0.696	-9.4	87	0.00
28		o-Toluidine	2.008	2.049	-2.0	83	0.00
29	P	Hexachloroethane	0.545	0.573	-5.1	84	-0.01
30	I	Naphthalene-d8	1.000	1.000	0.0	84	0.00
31	S	Nitrobenzene-d5	0.337	0.351	-4.2	85	0.00
32	P	Nitrobenzene	0.341	0.352	-3.2	84	0.00
33		n-Nitrosopiperidine	0.177	0.184	-4.0	83	0.00
34	P	Isophorone	0.628	0.646	-2.9	84	0.00
35	C,P	2-Nitrophenol	0.188	0.200	-6.4	85	0.00
36	P	2,4-Dimethylphenol	0.323	0.325	-0.6	82	0.00
37		0,0,0-Triethyl Phosphorothi	0.183	0.187	-2.2	86	0.00
38	P	bis(2-Chloroethoxy)methane	0.486	0.504	-3.7	86	0.00
39		Benzoic Acid	0.138	0.081	41.3#	57	0.00
40	C,P	2,4-Dichlorophenol	0.301	0.304	-1.0	83	0.00
41		a,a-Dimethylphenethylamine	0.824	0.690	16.3	66	0.01
42		1,2,4-Trichlorobenzene	0.323	0.325	-0.6	83	0.00
43	P	Naphthalene	1.093	1.097	-0.4	83	-0.01
44	P	4-Chloroaniline	0.117	0.124	-6.0	85	0.00
45		2,6-Dichlorophenol	0.291	0.291	0.0	83	0.00
46		Hexachloropropene	0.195	0.216	-10.8	94	0.00
47	C,P	Hexachlorobutadiene	0.181	0.183	-1.1	84	-0.01
48		n-Nitrosodi-n-Butylamine	0.276	0.296	-7.2	86	0.00
49		p-Phenylenediamine	0.255	0.207	18.8	71	0.00
50	C,P	4-Chloro-3-Methylphenol	0.291	0.293	-0.7	82	0.00
51		Safrole	0.295	0.299	-1.4	84	0.00
52	P	2-Methylnaphthalene	0.727	0.736	-1.2	84	-0.01
53		1-Methylnaphthalene	0.687	0.693	-0.9	83	-0.01

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	1.000	1.000	0.0	85	-0.01
55		1,2,4,5-Tetrachlorobenzene	0.572	0.571	0.2	84	0.00
56	P	Hexachlorocyclopentadiene	0.207	0.183	11.6	80	0.00
57	C,P	2,4,6-Trichlorophenol	0.367	0.372	-1.4	82	0.00
58	P	2,4,5-Trichlorophenol	0.382	0.381	0.3	81	0.00
59	S	2-Fluorobiphenyl	1.343	1.355	-0.9	85	-0.01
60		Isosafrole	0.509	0.514	-1.0	83	0.00
61	P	2-Chloronaphthalene	1.151	1.172	-1.8	84	-0.01
62		1-Chloronaphthalene	1.061	1.098	-3.5	86	-0.01
63	P	2-Nitroaniline	0.303	0.318	-5.0	85	0.00
64		1,4-Naphthoquinone	0.391	0.369	5.6	85	0.00
65	P	Dimethylphthalate	1.269	1.295	-2.0	84	-0.01
66		1,3-Dinitrobenzene	0.227	0.240	-5.7	84	0.00
67	P	2,6-Dinitrotoluene	0.307	0.322	-4.9	85	-0.01
68	P	Acenaphthylene	1.761	1.791	-1.7	84	-0.01
69	P	3-Nitroaniline	0.338	0.335	0.9	82	0.00
70	P	2,4-Dinitrophenol	0.114	0.132	-15.8	98	0.00
71	C,P	Acenaphthene	1.131	1.158	-2.4	84	0.00
72	P	4-Nitrophenol	0.200	0.217	-8.5	82	0.01
73	P	2,4-Dinitrotoluene	0.395	0.424	-7.3	85	0.00
74		Pentachlorobenzene	0.494	0.492	0.4	83	-0.01
75	P	Dibenzofuran	1.625	1.622	0.2	84	-0.01
76		2,3,5,6-Tetrachlorophenol	0.293	0.302	-3.1	78	0.00
77		2,3,4,6-Tetrachlorophenol	0.318	0.328	-3.1	83	-0.01
78		1-Naphthylamine	1.174	1.182	-0.7	82	0.00
79		2-Naphthylamine	1.199	1.196	0.3	82	0.00
80	P	Diethylphthalate	1.238	1.280	-3.4	85	-0.01
81		Thionazin	0.198	0.207	-4.5	84	-0.01
82	P	Fluorene	1.327	1.352	-1.9	85	-0.01
83	P	4-Chlorophenyl Phenyl Ether	0.657	0.668	-1.7	84	0.00
84	P	4-Nitroaniline	0.350	0.347	0.9	82	0.00
85		5-Nitro-o-Toluidine	0.391	0.401	-2.6	84	-0.01
86		1,2-Diphenylhydrazine	1.135	1.177	-3.7	84	0.00
87	S	2,4,6-Tribromophenol	0.176	0.177	-0.6	83	0.00
88	I	Phenanthrene-d10	1.000	1.000	0.0	84	-0.01
89	P	4,6-Dinitro-2-Methylphenol	0.115	0.132	-14.8	93	-0.01
90	C,P	Diphenylamine/n-Nitrosodiph	0.708	0.720	-1.7	84	0.00
91		Sulfotepp	0.130	0.133	-2.3	86	-0.01
92		Sym-Trinitrobenzene	0.155	0.185	-19.4	86	-0.01
93		Diallate	0.270	0.283	-4.8	84	-0.01
94		Phenacetin	0.352	0.375	-6.5	83	0.00
95		Phorate	0.416	0.436	-4.8	85	-0.01
96	P	4-Bromophenyl Phenyl Ether	0.229	0.233	-1.7	84	-0.01
97	P	Hexachlorobenzene	0.235	0.234	0.4	83	-0.01
98		Dimethoate	0.251	0.263	-4.8	86	-0.01
99		4-Aminobiphenyl	0.864	0.857	0.8	80	-0.01
100	C,P	Pentachlorophenol	0.131	0.128	2.3	76	0.00
101		Pronamide	0.343	0.356	-3.8	85	-0.01
102		Pentachloronitrobenzene	0.088	0.095	-8.0	85	-0.01
103		Disulfoton	0.364	0.373	-2.5	83	-0.01
104	P	Phenanthrene	1.107	1.113	-0.5	84	-0.01
105	P	Anthracene	1.136	1.145	-0.8	83	-0.01
106	P	Carbazole	1.058	1.067	-0.9	83	-0.01

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
107		Parathion Methyl	0.208	0.240	-15.4	85	-0.01
108	P	Di-n-Butyl Phthalate	1.226	1.280	-4.4	85	-0.01
109		Parathion Ethyl	0.137	0.152	-10.9	85	-0.02
110		4-Nitroquinoline 1-Oxide	0.073	0.054	26.0	49	-0.01
111		Methapyrilene	0.348	0.396	-13.8	92	0.00
112		Isodrin	0.124	0.124	0.0	83	-0.01
113	C,P	Fluoranthene	1.223	1.220	0.2	83	-0.01
114	I	Chrysene-d12	1.000	1.000	0.0	82	-0.02
115		Benzidine	0.565	0.515	8.8	78	-0.02
116	P	Pyrene	1.290	1.337	-3.6	83	-0.01
117		Aramite	0.069	0.077	-11.6	84	-0.01
118	S	p-Terphenyl-d14	0.961	1.002	-4.3	84	-0.02
119		p-(Dimethylamino)azobenzene	0.268	0.282	-5.2	82	-0.02
120		Chlorobenzilate	0.372	0.401	-7.8	86	-0.02
121		Famphur	0.069	0.075	-8.7	89	-0.02
122	P	Butyl Benzyl Phthalate	0.564	0.616	-9.2	86	-0.02
123		3,3'-Dimethylbenzidine	1.258	1.110	11.8	85	-0.02
124		2-Acetylaminofluorene	0.484	0.546	-12.8	84	-0.02
125	P	bis(2-Ethylhexyl)phthalate	0.752	0.836	-11.2	85	-0.02
126	P	3,3'-Dichlorobenzidine	0.418	0.430	-2.9	84	-0.02
127	P	Benzo[a]anthracene	1.194	1.222	-2.3	83	-0.02
128	P	Chrysene	1.137	1.159	-1.9	82	-0.02
129	I	Perylene-d12	1.000	1.000	0.0	82	-0.03
130	C,P	Di-n-Octyl Phthalate	1.330	1.439	-8.2	85	-0.02
131		7,12-Dimethylbenz[a]anthrac	0.576	0.595	-3.3	84	-0.03
132	P	Benzo[b]fluoranthene	1.229	1.266	-3.0	85	-0.02
133	P	Benzo[k]fluoranthene	1.081	1.091	-0.9	83	-0.02
134	C,P	Benzo[a]pyrene	1.093	1.109	-1.5	83	-0.02
135		3-Methylcholanthrene	0.579	0.589	-1.7	81	-0.03
136	P	Indeno[1,2,3-cd]pyrene	1.227	1.280	-4.3	84	-0.04
137	P	Dibenz[ah]anthracene	1.042	1.093	-4.9	83	-0.04
138	P	Benzo[ghi]perylene	1.019	1.045	-2.6	82	-0.04

Evaluate Continuing Calibration Report

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	83	0.00
2		1,4-Dioxane	50.000	54.570	-9.1	81	0.00
3		n-Nitrosodimethylamine	50.000	53.252	-6.5	81	0.00
4		Pyridine	50.000	52.419	-4.8	81	0.00
5		2-Picoline	50.000	51.996	-4.0	83	0.00
6		n-Nitrosomethylethylamine	50.000	52.393	-4.8	82	-0.01
7		Methyl Methanesulfonate	50.000	55.055	-10.1	84	0.00
8	S	2-Fluorophenol	50.000	51.582	-3.2	83	0.00
9		n-Nitrosodiethylamine	50.000	52.691	-5.4	83	0.00
10		Ethyl Methanesulfonate	50.000	52.988	-6.0	83	0.00
11		Aniline	50.000	52.815	-5.6	84	0.00
12	S	Phenol-d5	50.000	51.764	-3.5	83	0.00
13	C,P	Phenol	50.000	50.881	-1.8	83	0.00
14	P	bis(2-Chloroethyl)ether	50.000	52.648	-5.3	85	0.00
15		Pentachloroethane	50.000	51.385	-2.8	84	0.00
16	P	2-Chlorophenol	50.000	51.627	-3.3	83	0.00
17		1,3-Dichlorobenzene	50.000	50.283	-0.6	83	0.00
18	C	1,4-Dichlorobenzene	50.000	50.631	-1.3	83	0.00
19		Benzyl Alcohol	50.000	49.772	0.5	80	0.00
20		1,2-Dichlorobenzene	50.000	50.845	-1.7	83	0.00
21	P	2-Methylphenol	50.000	51.169	-2.3	83	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	55.011	-10.0	86	0.00
23	P	3-,4-Methylphenol	50.000	50.631	-1.3	83	0.00
24		n-Nitrosopyrrolidine	50.000	52.868	-5.7	84	0.00
25	P	n-Nitrosodipropylamine	50.000	54.159	-8.3	86	0.00
26		Acetophenone	50.000	52.375	-4.8	85	0.00
27		n-Nitrosomorpholine	50.000	54.713	-9.4	87	0.00
28		o-Toluidine	50.000	51.020	-2.0	83	0.00
29	P	Hexachloroethane	50.000	52.609	-5.2	84	-0.01
30	I	Naphthalene-d8	40.000	40.000	0.0	84	0.00
31	S	Nitrobenzene-d5	50.000	52.177	-4.4	85	0.00
32	P	Nitrobenzene	50.000	51.588	-3.2	84	0.00
33		n-Nitrosopiperidine	50.000	51.900	-3.8	83	0.00
34	P	Isophorone	50.000	51.389	-2.8	84	0.00
35	C,P	2-Nitrophenol	50.000	53.211	-6.4	85	0.00
36	P	2,4-Dimethylphenol	50.000	50.275	-0.5	82	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	51.122	-2.2	86	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	51.921	-3.8	86	0.00
39		Benzoic Acid	50.000	36.043	27.9	57	0.00
40	C,P	2,4-Dichlorophenol	50.000	50.386	-0.8	83	0.00
41		a,a-Dimethylphenethylamine	50.000	41.902	16.2	66	0.01
42		1,2,4-Trichlorobenzene	50.000	50.393	-0.8	83	0.00
43	P	Naphthalene	50.000	50.208	-0.4	83	-0.01
44	P	4-Chloroaniline	50.000	53.210	-6.4	85	0.00
45		2,6-Dichlorophenol	50.000	49.911	0.2	83	0.00
46		Hexachloropropene	50.000	55.296	-10.6	94	0.00
47	C,P	Hexachlorobutadiene	50.000	50.756	-1.5	84	-0.01
48		n-Nitrosodi-n-Butylamine	50.000	53.596	-7.2	86	0.00
49		p-Phenylenediamine	50.000	38.783	22.4	71	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	50.267	-0.5	82	0.00
51		Safrole	50.000	50.598	-1.2	84	0.00
52	P	2-Methylnaphthalene	50.000	50.597	-1.2	84	-0.01
53		1-Methylnaphthalene	50.000	50.469	-0.9	83	-0.01

(#) = Out of Range
12M71270.D MEGAMIX.M Tue Apr 23 08:13:36 2019 Page 1

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
54	I	Acenaphthene-d10	40.000	40.000	0.0	85	-0.01
55		1,2,4,5-Tetrachlorobenzene	50.000	49.911	0.2	84	0.00
56	P	Hexachlorocyclopentadiene	50.000	40.682	18.6	80	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	50.586	-1.2	82	0.00
58	P	2,4,5-Trichlorophenol	50.000	49.912	0.2	81	0.00
59	S	2-Fluorobiphenyl	50.000	50.469	-0.9	85	-0.01
60		Isosafrole	50.000	50.509	-1.0	83	0.00
61	P	2-Chloronaphthalene	50.000	50.907	-1.8	84	-0.01
62		1-Chloronaphthalene	50.000	51.715	-3.4	86	-0.01
63	P	2-Nitroaniline	50.000	52.476	-5.0	85	0.00
64		1,4-Naphthoquinone	50.000	46.567	6.9	85	0.00
65	P	Dimethylphthalate	50.000	51.012	-2.0	84	-0.01
66		1,3-Dinitrobenzene	50.000	52.879	-5.8	84	0.00
67	P	2,6-Dinitrotoluene	50.000	52.484	-5.0	85	-0.01
68	P	Acenaphthylene	50.000	50.844	-1.7	84	-0.01
69	P	3-Nitroaniline	50.000	49.508	1.0	82	0.00
70	P	2,4-Dinitrophenol	50.000	53.034	-6.1	98	0.00
71	C,P	Acenaphthene	50.000	51.164	-2.3	84	0.00
72	P	4-Nitrophenol	50.000	54.188	-8.4	82	0.01
73	P	2,4-Dinitrotoluene	50.000	53.712	-7.4	85	0.00
74		Pentachlorobenzene	50.000	49.768	0.5	83	-0.01
75	P	Dibenzofuran	50.000	49.916	0.2	84	-0.01
76		2,3,5,6-Tetrachlorophenol	50.000	51.472	-2.9	78	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	51.603	-3.2	83	-0.01
78		1-Naphthylamine	50.000	50.340	-0.7	82	0.00
79		2-Naphthylamine	50.000	49.883	0.2	82	0.00
80	P	Diethylphthalate	50.000	51.672	-3.3	85	-0.01
81		Thionazin	50.000	52.358	-4.7	84	-0.01
82	P	Fluorene	50.000	50.921	-1.8	85	-0.01
83	P	4-Chlorophenyl Phenyl Ether	50.000	50.842	-1.7	84	0.00
84	P	4-Nitroaniline	50.000	49.666	0.7	82	0.00
85		5-Nitro-o-Toluidine	50.000	51.278	-2.6	84	-0.01
86		1,2-Diphenylhydrazine	50.000	51.818	-3.6	84	0.00
87	S	2,4,6-Tribromophenol	50.000	50.466	-0.9	83	0.00
88	I	Phenanthrene-d10	40.000	40.000	0.0	84	-0.01
89	P	4,6-Dinitro-2-Methylphenol	50.000	50.072	-0.1	93	-0.01
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	50.870	-1.7	84	0.00
91		Sulfotepp	50.000	51.042	-2.1	86	-0.01
92		Sym-Trinitrobenzene	50.000	51.754	-3.5	86	-0.01
93		Diallate	50.000	52.351	-4.7	84	-0.01
94		Phenacetin	50.000	53.179	-6.4	83	0.00
95		Phorate	50.000	52.491	-5.0	85	-0.01
96	P	4-Bromophenyl Phenyl Ether	50.000	50.802	-1.6	84	-0.01
97	P	Hexachlorobenzene	50.000	49.983	0.0	83	-0.01
98		Dimethoate	50.000	52.442	-4.9	86	-0.01
99		4-Aminobiphenyl	50.000	49.594	0.8	80	-0.01
100	C,P	Pentachlorophenol	50.000	46.034	7.9	76	0.00
101		Pronamide	50.000	51.874	-3.7	85	-0.01
102		Pentachloronitrobenzene	50.000	53.964	-7.9	85	-0.01
103		Disulfoton	50.000	51.239	-2.5	83	-0.01
104	P	Phenanthrene	50.000	50.277	-0.6	84	-0.01
105	P	Anthracene	50.000	50.404	-0.8	83	-0.01
106	P	Carbazole	50.000	50.420	-0.8	83	-0.01

(#) = Out of Range

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration

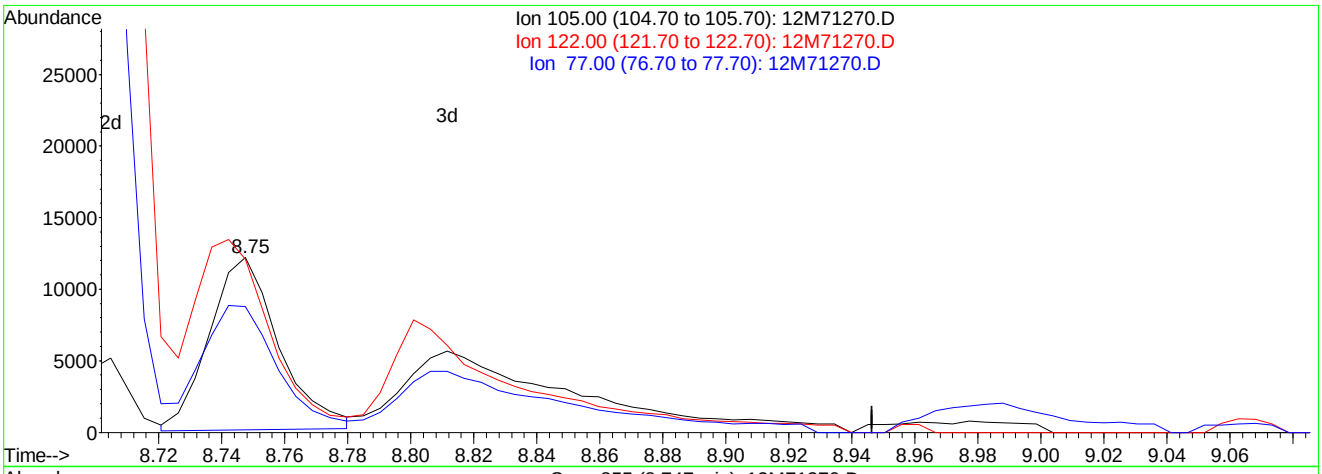
Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

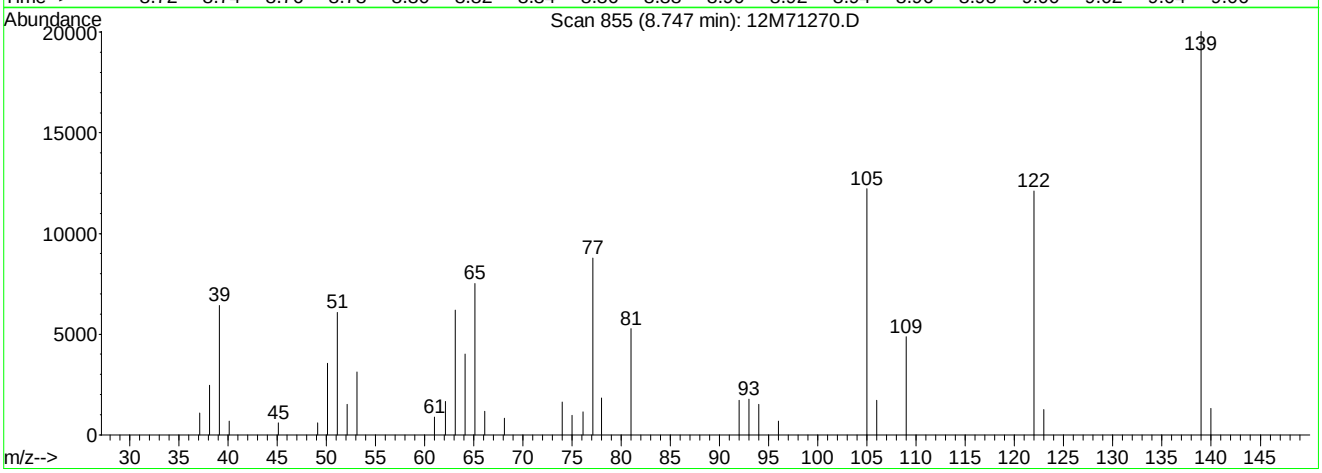
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
107		Parathion Methyl	50.000	57.761	-15.5	85	-0.01
108	P	Di-n-Butyl Phthalate	50.000	52.231	-4.5	85	-0.01
109		Parathion Ethyl	50.000	55.407	-10.8	85	-0.02
110		4-Nitroquinoline 1-Oxide	50.000	30.926	38.1	49	-0.01
111		Methapyrilene	50.000	61.780	-23.6	92	0.00
112		Isodrin	50.000	50.387	-0.8	83	-0.01
113	C,P	Fluoranthene	50.000	49.869	0.3	83	-0.01
114	I	Chrysene-d12	40.000	40.000	0.0	82	-0.02
115		Benzidine	50.000	45.530	8.9	78	-0.02
116	P	Pyrene	50.000	51.834	-3.7	83	-0.01
117		Aramite	50.000	55.826	-11.7	84	-0.01
118	S	p-Terphenyl-d14	50.000	52.137	-4.3	84	-0.02
119		p-(Dimethylamino)azobenzene	50.000	52.759	-5.5	82	-0.02
120		Chlorobenzilate	50.000	53.869	-7.7	86	-0.02
121		Famphur	50.000	54.518	-9.0	89	-0.02
122	P	Butyl Benzyl Phthalate	50.000	54.626	-9.3	86	-0.02
123		3,3'-Dimethylbenzidine	50.000	46.369	7.3	85	-0.02
124		2-Acetylaminofluorene	50.000	56.414	-12.8	84	-0.02
125	P	bis(2-Ethylhexyl)phthalate	50.000	55.639	-11.3	85	-0.02
126	P	3,3'-Dichlorobenzidine	50.000	51.417	-2.8	84	-0.02
127	P	Benzo[a]anthracene	50.000	51.163	-2.3	83	-0.02
128	P	Chrysene	50.000	50.959	-1.9	82	-0.02
129	I	Perylene-d12	40.000	40.000	0.0	82	-0.03
130	C,P	Di-n-Octyl Phthalate	50.000	54.074	-8.1	85	-0.02
131		7,12-Dimethylbenz[a]anthrac	50.000	51.656	-3.3	84	-0.03
132	P	Benzo[b]fluoranthene	50.000	51.505	-3.0	85	-0.02
133	P	Benzo[k]fluoranthene	50.000	50.447	-0.9	83	-0.02
134	C,P	Benzo[a]pyrene	50.000	50.724	-1.4	83	-0.02
135		3-Methylcholanthrene	50.000	50.850	-1.7	81	-0.03
136	P	Indeno[1,2,3-cd]pyrene	50.000	52.189	-4.4	84	-0.04
137	P	Dibenz[ah]anthracene	50.000	52.464	-4.9	83	-0.04
138	P	Benzo[ghi]perylene	50.000	51.318	-2.6	82	-0.04

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:39 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration





TIC: 12M71270.D

(39) Benzoic Acid

8.75min 22.03ug/ml

response 18488

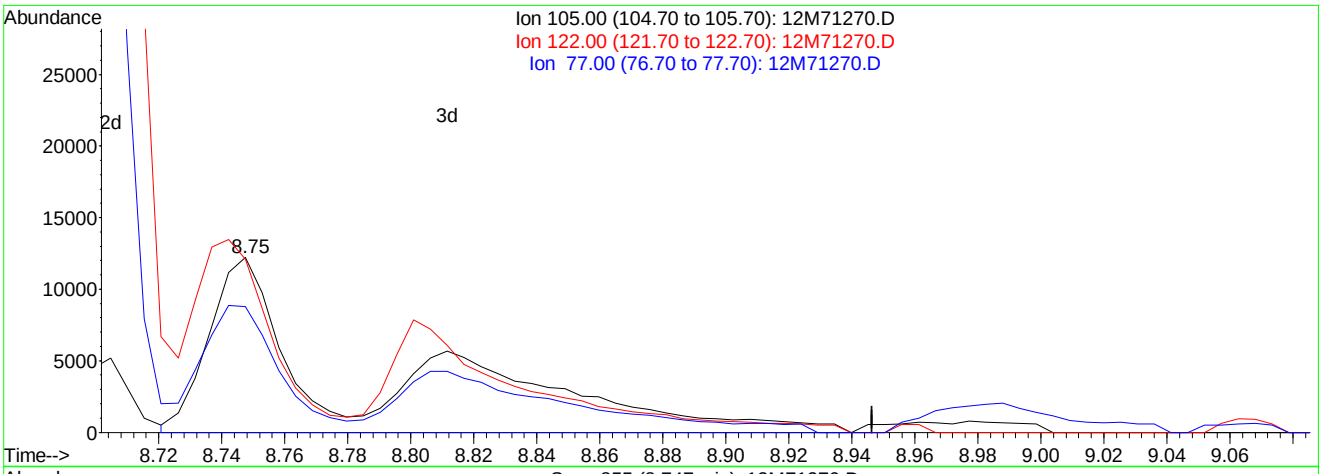
Ion	Exp%	Act%
105.00	100	100
122.00	57.30	116.06#
77.00	41.90	74.93#
0.00	0.00	0.00

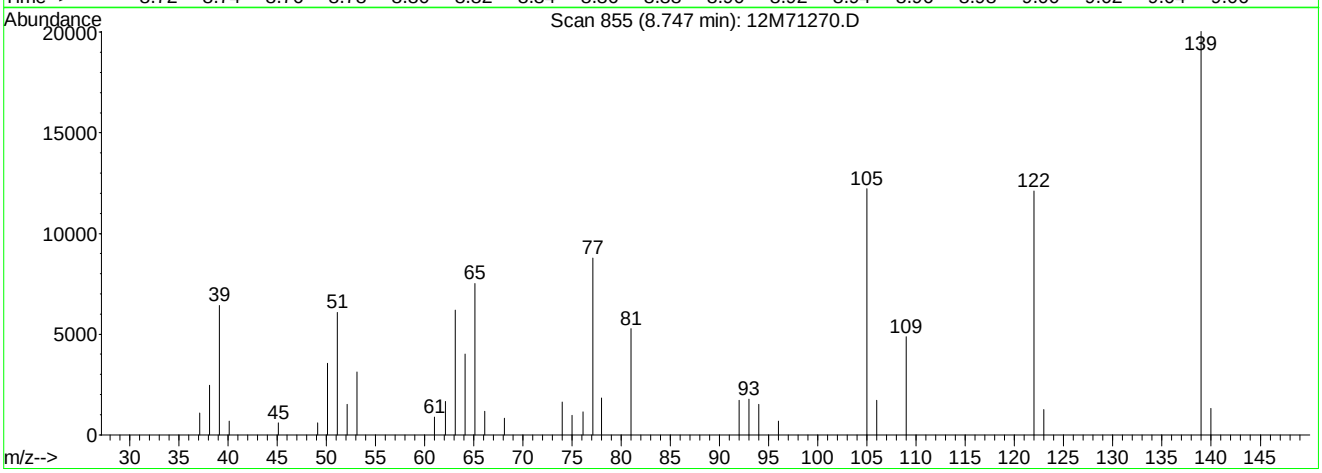
12M71270.D MEGAMIX.M Tue Apr 23 08:13:07 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:13 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration





TIC: 12M71270.D

(39) Benzoic Acid

8.75min 36.04ug/ml mint

response 40850

Ion	Exp%	Act%
105.00	100	100
122.00	57.30	52.53
77.00	41.90	33.91
0.00	0.00	0.00

12M71270.D MEGAMIX.M Tue Apr 23 19

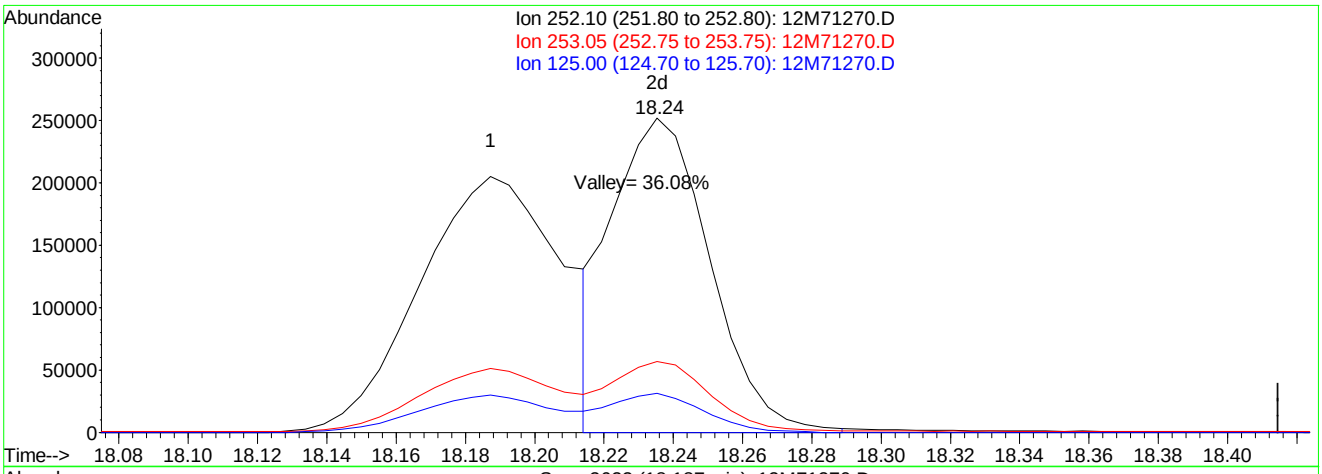
Analyst: 04/23/2019 17:01 Supervisor: 04/23/2019 17:05

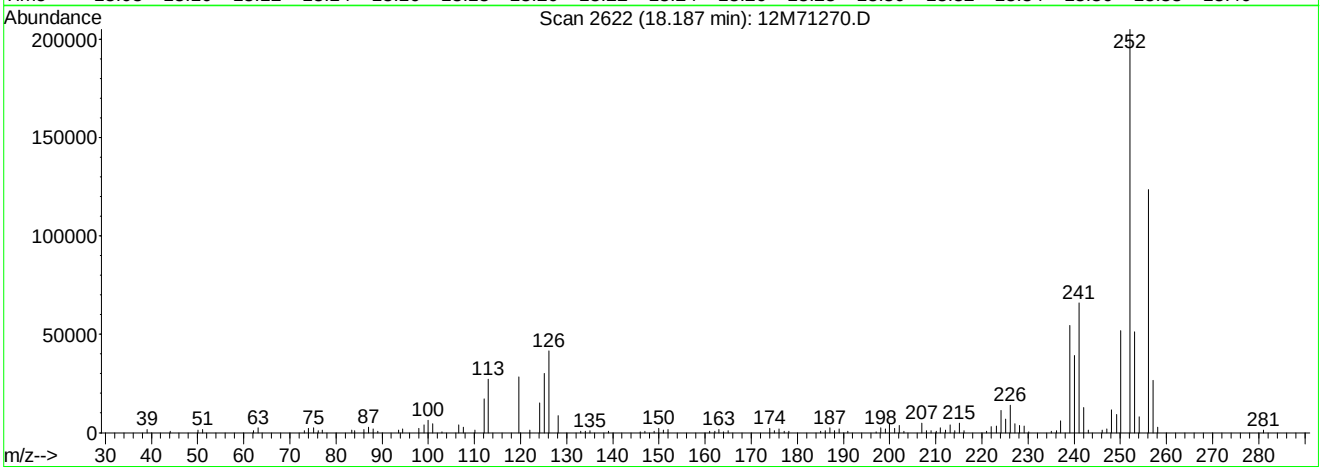
#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\042219\12M71270.D Vial: 2
Acq On : 22 Apr 2019 11:09 am Operator: SCB
Sample : WG704385-02 50PPM 8270 STD Inst : MSD12
Misc : 1,1 STD92410 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:13 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Multiple Level Calibration





TIC: 12M71270.D

(132) Benzo[b]fluoranthene (P)

18.19min 51.50ug/ml

response 579508

Ion	Exp%	Act%
252.10	100	100
253.05	24.30	24.14
125.00	14.20	14.04
0.00	0.00	0.00

12M71270.D MEGAMIX.M Tue Apr 23 08:14:11 2019

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.687	152	134285	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.975	136	529453	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.781	164	292602	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	485538	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.021	240	431136	40.0000	ug/mL	-0.0117
129) Perylene-d12	18.692	264	392176	40.0000	ug/mL	-0.0117
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	233591	51.0573	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 51.0573%			
12) Phenol-d5	7.293	99	300850	51.3254	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 51.3254%			
31) Nitrobenzene-d5	8.245	82	285966	52.1130	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 104.2260%			
59) 2-Fluorobiphenyl	10.045	172	496027	50.5058	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 101.0116%			
87) 2,4,6-Tribromophenol	11.598	330	58185	50.3235	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 50.3235%			
118) p-Terphenyl-d14	14.380	244	553473	53.5828	ug/mL	-0.0117
Spiked Amount 50.0000	Range 33 - 141		Recovery = 107.1656%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.487	88	109324	50.1021	ug/mL	100
3) n-Nitrosodimethylamine	4.957	74	161149	49.8191	ug/mL	100
4) Pyridine	4.981	79	271517	49.3450	ug/mL	99
5) 2-Picoline	5.834	93	284978	50.3988	ug/mL	99
6) n-Nitrosomethylethylamine	5.957	88	121331	50.6899	ug/mL	99
7) Methyl Methanesulfonate	6.263	80	169119	53.6241	ug/mL	99
9) n-Nitrosodiethylamine	6.657	102	120239	51.9626	ug/mL	97
10) Ethyl Methanesulfonate	6.928	79	207801	53.1018	ug/mL	99
11) Aniline	7.375	66	167274	51.4517	ug/mL	97
13) Phenol	7.304	94	321502	51.7955	ug/mL	98
14) bis(2-Chloroethyl)ether	7.398	63	226111	52.0762	ug/mL	99
15) Pentachloroethane	7.410	167	90640	51.2278	ug/mL	99
16) 2-Chlorophenol	7.504	128	250438	51.0430	ug/mL	99
17) 1,3-Dichlorobenzene	7.651	146	258265	50.7998	ug/mL	99
18) 1,4-Dichlorobenzene	7.698	146	257685	49.8458	ug/mL	99
19) Benzyl Alcohol	7.793	108	162792	51.8999	ug/mL	99
20) 1,2-Dichlorobenzene	7.893	146	241987	50.6997	ug/mL	99
21) 2-Methylphenol	7.898	107	194661	52.1420	ug/mL	99
22) bis(2-Chloroisopropyl)...	7.940	45	438073	53.3579	ug/mL	99
23) 3-,4-Methylphenol	8.028	107	252251	52.1021	ug/mL	99
24) n-Nitrosopyrrolidine	8.063	100	117371	52.3188	ug/mL	95
25) n-Nitrosodipropylamine	8.075	70	201968	53.0320	ug/mL	100
26) Acetophenone	8.081	105	336637	52.5282	ug/mL	99
27) n-Nitrosomorpholine	8.075	56	188429	52.9851	ug/mL	98
28) o-Toluidine	8.122	106	377654	50.9096	ug/mL	100
29) Hexachloroethane	8.210	117	108310	52.0265	ug/mL	99
32) Nitrobenzene	8.269	77	294916	52.0481	ug/mL	99
33) n-Nitrosopiperidine	8.410	114	122446	51.3530	ug/mL	99
34) Isophorone	8.481	82	527872	53.3973	ug/mL	100
35) 2-Nitrophenol	8.587	139	132353	54.3249	ug/mL	85
36) 2,4-Dimethylphenol	8.563	122	224241	52.0497	ug/mL	99
37) 0,0,0-Triethyl Phospho...	8.663	198	111546	52.7220	ug/mL	99

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.657	93	396655	53.7041 ug/mL	99
39) Benzoic Acid	8.604	105	26667	16.4648 ug/mL#	73
40) 2,4-Dichlorophenol	8.816	162	184701	51.3043 ug/mL	99
41) a,a-Dimethylphenethyla...	8.816	58	749893	52.9888 ug/mL	98
42) 1,2,4-Trichlorobenzene	8.916	180	194534	50.5399 ug/mL	99
43) Naphthalene	8.992	128	736903	50.6400 ug/mL#	98
44) 4-Chloroaniline	9.022	65	110826	52.6286 ug/mL	69
45) 2,6-Dichlorophenol	9.045	162	177989	51.1021 ug/mL	99
46) Hexachloropropene	9.110	213	137697	56.6940 ug/mL	99
47) Hexachlorobutadiene	9.145	225	107687	50.9598 ug/mL	100
48) n-Nitrosodi-n-Butylamine	9.340	84	236517	54.0571 ug/mL	98
49) p-Phenylenediamine	9.363	108	161022	39.3029 ug/mL	99
50) 4-Chloro-3-Methylphenol	9.469	107	219314	53.6460 ug/mL	98
51) Safrole	9.557	162	186686	52.8922 ug/mL	98
52) 2-Methylnaphthalene	9.681	142	482884	52.2764 ug/mL	98
53) 1-Methylnaphthalene	9.798	142	455802	52.4836 ug/mL	99
55) 1,2,4,5-Tetrachloroben...	9.892	216	192686	49.7155 ug/mL	99
56) Hexachlorocyclopentadiene	9.904	237	77165	41.2951 ug/mL	98
57) 2,4,6-Trichlorophenol	9.975	196	131324	51.3486 ug/mL	99
58) 2,4,5-Trichlorophenol	10.022	196	134707	50.8403 ug/mL	99
60) Isosafrole	10.075	162	189039	51.2936 ug/mL	99
61) 2-Chloronaphthalene	10.187	162	434069	50.7104 ug/mL	100
62) 1-Chloronaphthalene	10.228	162	404656	50.2628 ug/mL	99
63) 2-Nitroaniline	10.287	65	167986	52.0933 ug/mL	99
64) 1,4-Naphthoquinone	10.351	158	149383	48.6371 ug/mL	100
65) Dimethylphthalate	10.451	163	500935	52.5189 ug/mL	99
66) 1,3-Dinitrobenzene	10.498	168	88371	54.2315 ug/mL	98
67) 2,6-Dinitrotoluene	10.545	165	117696	52.3009 ug/mL	99
68) Acenaphthylene	10.628	152	689446	50.6543 ug/mL	100
69) 3-Nitroaniline	10.698	138	129782	51.4555 ug/mL	99
70) 2,4-Dinitrophenol	10.804	184	60344	68.5889 ug/mL#	35
71) Acenaphthene	10.816	154	453066	53.2621 ug/mL	97
72) 4-Nitrophenol	10.816	65	125596	53.0307 ug/mL	98
73) 2,4-Dinitrotoluene	10.951	165	159760	54.2375 ug/mL	99
74) Pentachlorobenzene	10.992	250	163010	49.2207 ug/mL	97
75) Dibenzofuran	10.969	168	614072	50.6634 ug/mL	99
76) 2,3,5,6-Tetrachlorophenol	11.075	232	103898	49.9300 ug/mL	99
77) 2,3,4,6-Tetrachlorophenol	11.122	232	106904	48.6347 ug/mL	98
78) 1-Naphthylamine	11.045	143	457511	49.8837 ug/mL	99
79) 2-Naphthylamine	11.116	143	474224	48.9801 ug/mL	99
80) Diethylphthalate	11.157	149	528902	54.0906 ug/mL	100
81) Thionazin	11.251	107	88510	54.4982 ug/mL	98
82) Fluorene	11.328	166	504402	51.3935 ug/mL	99
83) 4-Chlorophenyl Phenyl ...	11.275	204	233027	51.8151 ug/mL	100
84) 4-Nitroaniline	11.334	138	137971	52.2603 ug/mL	99
85) 5-Nitro-o-Toluidine	11.328	152	152314	52.3915 ug/mL	99
86) 1,2-Diphenylhydrazine	11.445	77	619364	54.1108 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.375	198	86894	64.8453 ug/mL	88
90) Diphenylamine/n-Nitros...	11.398	169	442542	51.9407 ug/mL	99
91) Sulfotepp	11.598	322	71742	51.8078 ug/mL	93
92) Sym-Trinitrobenzene	11.675	75	177500	54.0643 ug/mL	99
93) Diallate	11.716	86	230491	54.5646 ug/mL	98
94) Phenacetin	11.704	108	285945	55.7816 ug/mL	100
95) Phorate	11.733	75	379876	55.4603 ug/mL#	100
96) 4-Bromophenyl Phenyl E...	11.804	248	131542	51.4155 ug/mL	100

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

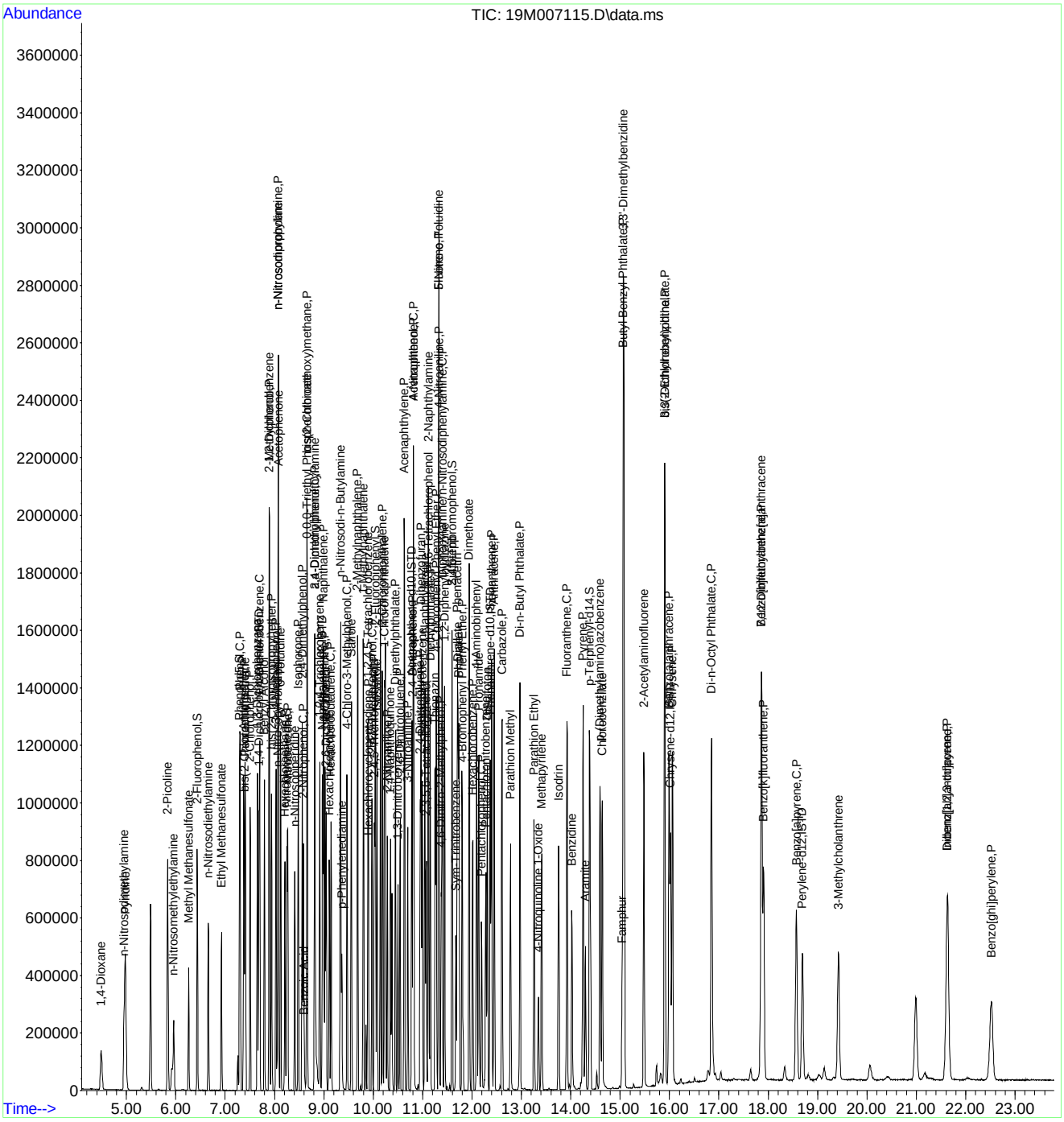
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	Hexachlorobenzene	12.016	284	127865	49.3002 ug/mL	97
98)	Dimethoate	11.939	87	212019	55.9366 ug/mL	98
99)	4-Aminobiphenyl	12.092	169	546377	50.0398 ug/mL	100
100)	Pentachlorophenol	12.192	266	72158	46.3446 ug/mL	99
101)	Pronamide	12.139	173	231427	55.5561 ug/mL	100
102)	Pentachloronitrobenzene	12.281	237	58857	52.8780 ug/mL	99
103)	Disulfoton	12.310	88	296771	54.5367 ug/mL	99
104)	Phenanthrene	12.398	178	696013	50.8305 ug/mL	100
105)	Anthracene	12.451	178	718634	51.2653 ug/mL	100
106)	Carbazole	12.610	167	670406	51.3701 ug/mL	99
107)	Parathion Methyl	12.780	109	183332	59.0690 ug/mL	98
108)	Di-n-Butyl Phthalate	12.969	149	914366	55.9661 ug/mL	99
109)	Parathion Ethyl	13.257	97	126728	59.2539 ug/mL	97
110)	4-Nitroquinoline 1-Oxide	13.345	190	37731	35.3281 ug/mL	99
111)	Methapyrilene	13.410	58	356575	49.9987 ug/mL#	91
112)	Isodrin	13.757	193	79831	53.6003 ug/mL	99
113)	Fluoranthene	13.922	202	760217	51.3149 ug/mL	99
115)	Benzidine	14.022	184	348530	49.2933 ug/mL	100
116)	Pyrene	14.251	202	769831	52.3053 ug/mL	100
117)	Aramite	14.298	185	48676	60.9853 ug/mL	99
119)	p-(Dimethylamino)azobe...	14.592	225	153948	55.4594 ug/mL	98
120)	Chlorobenzilate	14.639	251	224093	55.3096 ug/mL	97
121)	Famphur	15.039	218	100591	49.4931 ug/mL	100
122)	Butyl Benzyl Phthalate	15.063	149	412941	57.3871 ug/mL	99
123)	3,3'-Dimethylbenzidine	15.069	212	649581	43.2063 ug/mL	99
124)	2-Acetylaminofluorene	15.480	181	310859	54.7113 ug/mL	100
125)	bis(2-Ethylhexyl)phtha...	15.904	149	570834	61.3745 ug/mL	100
126)	3,3'-Dichlorobenzidine	15.904	252	231482	52.5078 ug/mL	99
127)	Benzo[a]anthracene	15.992	228	671686	52.0783 ug/mL	100
128)	Chrysene	16.063	228	631993	51.7144 ug/mL	100
130)	Di-n-Octyl Phthalate	16.851	149	966108	61.7679 ug/mL	98
131)	7,12-Dimethylbenz[a]an...	17.862	256	295511	51.2359 ug/mL	99
132)	Benzo[b]fluoranthene	17.862	252	641630	52.2895 ug/mL	99
133)	Benzo[k]fluoranthene	17.904	252	552395	49.5767 ug/mL	99
134)	Benzo[a]pyrene	18.574	252	554595	51.6302 ug/mL	98
135)	3-Methylcholanthrene	19.427	268	288580	52.8361 ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	21.633	276	572782	54.4238 ug/mL	98
137)	Dibenz[ah]anthracene	21.633	278	485364	54.5434 ug/mL	99
138)	Benzo[ghi]perylene	22.527	276	459943	53.7751 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Continuing Calibration Area and RT check

Instrument: HPMS19NEW
Initial cal date: 3 Apr 2019 11:51 am
CCV date: 24 Apr 2019 2:01 pm
CCV Filename: 19M007115.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	120834	7.79	471841	9.08	251629	10.89
CCV	134285	7.69	529453	8.97	292602	10.78

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	424250	12.50	384653	16.19	360672	18.96
CCV	485538	12.37	431136	16.02	392176	18.69

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
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Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00
2		1,4-Dioxane	0.650	0.651	-0.2	112	0.00
3		n-Nitrosodimethylamine	0.964	0.960	0.4	111	0.00
4		Pyridine	1.639	1.618	1.3	112	0.00
5		2-Picoline	1.684	1.698	-0.8	113	0.00
6		n-Nitrosomethylethylamine	0.713	0.723	-1.4	114	0.00
7		Methyl Methanesulfonate	0.939	1.008	-7.3	117	0.00
8	S	2-Fluorophenol	1.363	1.392	-2.1	113	0.00
9		n-Nitrosodiethylamine	0.689	0.716	-3.9	115	0.00
10		Ethyl Methanesulfonate	1.166	1.238	-6.2	118	0.00
11		Aniline	0.968	0.997	-3.0	114	0.00
12	S	Phenol-d5	1.746	1.792	-2.6	114	0.00
13	C,P	Phenol	1.849	1.915	-3.6	116	0.00
14	P	bis(2-Chloroethyl)ether	1.293	1.347	-4.2	117	0.00
15		Pentachloroethane	0.527	0.540	-2.5	113	0.00
16	P	2-Chlorophenol	1.461	1.492	-2.1	114	0.00
17		1,3-Dichlorobenzene	1.514	1.539	-1.7	114	0.00
18	C	1,4-Dichlorobenzene	1.540	1.535	0.3	112	0.00
19		Benzyl Alcohol	0.934	0.970	-3.9	114	0.00
20		1,2-Dichlorobenzene	1.422	1.442	-1.4	113	0.00
21	P	2-Methylphenol	1.112	1.160	-4.3	116	0.00
22	P	bis(2-Chloroisopropyl)ether	2.446	2.610	-6.7	121	0.00
23	P	3-,4-Methylphenol	1.442	1.503	-4.2	114	0.00
24		n-Nitrosopyrrolidine	0.668	0.699	-4.6	113	0.00
25	P	n-Nitrosodipropylamine	1.134	1.203	-6.1	118	0.00
26		Acetophenone	1.909	2.006	-5.1	116	0.00
27		n-Nitrosomorpholine	1.059	1.123	-6.0	117	0.00
28		o-Toluidine	2.210	2.250	-1.8	114	0.00
29	P	Hexachloroethane	0.620	0.645	-4.0	114	0.00
30	ISTD	Naphthalene-d8	1.000	1.000	0.0	112	0.00
31	S	Nitrobenzene-d5	0.415	0.432	-4.1	116	0.00
32	P	Nitrobenzene	0.428	0.446	-4.2	117	0.00
33		n-Nitrosopiperidine	0.180	0.185	-2.8	116	0.00
34	P	Isophorone	0.747	0.798	-6.8	119	0.00
35	C,P	2-Nitrophenol	0.184	0.200	-8.7	117	0.00
36	P	2,4-Dimethylphenol	0.325	0.339	-4.3	115	0.00
37		0,0,0-Triethyl Phosphorothi	0.160	0.169	-5.6	118	0.00
38	P	bis(2-Chloroethoxy)methane	0.558	0.599	-7.3	120	0.00
39		Benzoic Acid	0.176	0.040#	77.3#	22	0.00
40	C,P	2,4-Dichlorophenol	0.272	0.279	-2.6	114	0.00
41		a,a-Dimethylphenethylamine	1.069	1.133	-6.0	117	0.00
42		1,2,4-Trichlorobenzene	0.291	0.294	-1.0	114	0.00
43	P	Naphthalene	1.099	1.113	-1.3	114	0.00
44	P	4-Chloroaniline	0.159	0.167	-5.0	118	0.00
45		2,6-Dichlorophenol	0.263	0.269	-2.3	113	0.00
46		Hexachloropropene	0.183	0.208	-13.7	117	0.00
47	C,P	Hexachlorobutadiene	0.160	0.163	-1.9	115	0.00
48		n-Nitrosodi-n-Butylamine	0.331	0.357	-7.9	119	0.00
49		p-Phenylenediamine	0.310	0.243	21.6	90	0.00
50	C,P	4-Chloro-3-Methylphenol	0.309	0.331	-7.1	118	0.00

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		Safrole	0.267	0.282	-5.6	118	0.00
52	P	2-Methylnaphthalene	0.698	0.730	-4.6	117	0.00
53		1-Methylnaphthalene	0.656	0.689	-5.0	117	0.00
54	ISTD	Acenaphthene-d10	1.000	1.000	0.0	116	0.00
55		1,2,4,5-Tetrachlorobenzene	0.530	0.527	0.6	117	0.00
56	P	Hexachlorocyclopentadiene	0.230	0.211	8.3	93	0.00
57	C,P	2,4,6-Trichlorophenol	0.350	0.359	-2.6	115	0.00
58	P	2,4,5-Trichlorophenol	0.362	0.368	-1.7	114	0.00
59	S	2-Fluorobiphenyl	1.343	1.356	-1.0	117	0.00
60		Isosafrole	0.504	0.517	-2.6	118	0.00
61	P	2-Chloronaphthalene	1.170	1.187	-1.5	118	0.00
62		1-Chloronaphthalene	1.101	1.106	-0.5	118	0.00
63	P	2-Nitroaniline	0.441	0.459	-4.1	119	0.00
64		1,4-Naphthoquinone	0.420	0.408	2.9	108	0.00
65	P	Dimethylphthalate	1.304	1.370	-5.1	122	0.00
66		1,3-Dinitrobenzene	0.223	0.242	-8.5	120	0.00
67	P	2,6-Dinitrotoluene	0.308	0.322	-4.5	120	0.00
68	P	Acenaphthylene	1.861	1.885	-1.3	117	0.00
69	P	3-Nitroaniline	0.345	0.355	-2.9	118	0.00
70	P	2,4-Dinitrophenol	0.095	0.165	-73.7#	178	0.00
71	C,P	Acenaphthene	1.163	1.239	-6.5	122	0.00
72	P	4-Nitrophenol	0.324	0.343	-5.9	114	0.00
73	P	2,4-Dinitrotoluene	0.403	0.437	-8.4	120	0.00
74		Pentachlorobenzene	0.453	0.446	1.5	113	0.00
75	P	Dibenzofuran	1.657	1.679	-1.3	119	0.00
76		2,3,5,6-Tetrachlorophenol	0.261	0.284	-8.8	116	0.00
77		2,3,4,6-Tetrachlorophenol	0.279	0.292	-4.7	112	0.00
78		1-Naphthylamine	1.254	1.251	0.2	114	0.00
79		2-Naphthylamine	1.324	1.297	2.0	112	0.00
80	P	Diethylphthalate	1.337	1.446	-8.2	124	0.00
81		Thionazin	0.222	0.242	-9.0	122	0.00
82	P	Fluorene	1.342	1.379	-2.8	118	0.00
83	P	4-Chlorophenyl Phenyl Ether	0.615	0.637	-3.6	119	0.00
84	P	4-Nitroaniline	0.361	0.377	-4.4	120	0.00
85		5-Nitro-o-Toluidine	0.397	0.416	-4.8	118	0.00
86		1,2-Diphenylhydrazine	1.565	1.693	-8.2	123	0.00
87	S	2,4,6-Tribromophenol	0.158	0.159	-0.6	108	0.00
88	ISTD	Phenanthrene-d10	1.000	1.000	0.0	114	0.00
89	P	4,6-Dinitro-2-Methylphenol	0.093	0.143	-53.8#	153	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	0.702	0.729	-3.8	120	0.00
91		Sulfotepp	0.114	0.118	-3.5	118	0.00
92		Sym-Trinitrobenzene	0.239	0.292	-22.2	122	0.00
93		Diallate	0.348	0.380	-9.2	125	0.00
94		Phenacetin	0.422	0.471	-11.6	122	0.00
95		Phorate	0.564	0.626	-11.0	126	0.00
96	P	4-Bromophenyl Phenyl Ether	0.211	0.217	-2.8	117	0.00
97	P	Hexachlorobenzene	0.214	0.211	1.4	115	0.00
98		Dimethoate	0.312	0.349	-11.9	125	0.00
99		4-Aminobiphenyl	0.900	0.900	0.0	113	0.00

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	0.118	0.119	-0.8	105	0.00
101		Pronamide	0.343	0.381	-11.1	122	0.00
102		Pentachloronitrobenzene	0.092	0.097	-5.4	114	0.00
103		Disulfoton	0.448	0.489	-9.2	124	-0.01
104	P	Phenanthrene	1.128	1.147	-1.7	118	0.00
105	P	Anthracene	1.155	1.184	-2.5	117	0.00
106	P	Carbazole	1.075	1.105	-2.8	116	0.00
107		Parathion Methyl	0.256	0.302	-18.0	126	0.00
108	P	Di-n-Butyl Phthalate	1.346	1.507	-12.0	123	0.00
109		Parathion Ethyl	0.176	0.209	-18.8	124	0.00
110		4-Nitroquinoline 1-Oxide	0.076	0.062	18.4	67	0.00
111		Methapyrilene	0.601	0.588	2.2	120	0.00
112		Isodrin	0.123	0.132	-7.3	122	0.00
113	C,P	Fluoranthene	1.220	1.253	-2.7	117	-0.01
114	ISTD	Chrysene-d12	1.000	1.000	0.0	112	-0.01
115		Benzidine	0.656	0.647	1.4	104	-0.01
116	P	Pyrene	1.366	1.428	-4.5	116	0.00
117		Aramite	0.074	0.090	-21.6	124	0.00
118	S	p-Terphenyl-d14	0.958	1.027	-7.2	119	-0.01
119		p-(Dimethylamino)azobenzene	0.258	0.286	-10.9	118	-0.01
120		Chlorobenzilate	0.376	0.416	-10.6	118	-0.01
121		Famphur	0.189	0.187	1.1	111	-0.01
122	P	Butyl Benzyl Phthalate	0.668	0.766	-14.7	124	0.00
123		3,3'-Dimethylbenzidine	1.387	1.205	13.1	102	-0.01
124		2-Acetylaminofluorene	0.479	0.577	-20.5	119	-0.01
125	P	bis(2-Ethylhexyl)phthalate	0.863	1.059	-22.7	127	-0.01
126	P	3,3'-Dichlorobenzidine	0.409	0.430	-5.1	114	-0.01
127	P	Benzo[a]anthracene	1.197	1.246	-4.1	116	-0.01
128	P	Chrysene	1.134	1.173	-3.4	116	0.00
129	ISTD	Perylene-d12	1.000	1.000	0.0	109	-0.01
130	C,P	Di-n-Octyl Phthalate	1.595	1.971	-23.6#	126	0.00
131		7,12-Dimethylbenz[a]anthrac	0.588	0.603	-2.6	111	-0.01
132	P	Benzo[b]fluoranthene	1.252	1.309	-4.6	116	0.00
133	P	Benzo[k]fluoranthene	1.136	1.127	0.8	107	-0.01
134	C,P	Benzo[a]pyrene	1.096	1.131	-3.2	111	0.00
135		3-Methylcholanthrene	0.557	0.589	-5.7	111	0.00
136	P	Indeno[1,2,3-cd]pyrene	1.073	1.168	-8.9	113	0.00
137	P	Dibenz[ah]anthracene	0.908	0.990	-9.0	114	0.00
138	P	Benzo[ghi]perylene	0.872	0.938	-7.6	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
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Quant Time: Apr 24 14:50:48 2019
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Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	111	0.00
2		1,4-Dioxane	50.000	50.102	-0.2	112	0.00
3		n-Nitrosodimethylamine	50.000	49.819	0.4	111	0.00
4		Pyridine	50.000	49.345	1.3	112	0.00
5		2-Picoline	50.000	50.399	-0.8	113	0.00
6		n-Nitrosomethylethylamine	50.000	50.690	-1.4	114	0.00
7		Methyl Methanesulfonate	50.000	53.624	-7.2	117	0.00
8	S	2-Fluorophenol	50.000	51.057	-2.1	113	0.00
9		n-Nitrosodiethylamine	50.000	51.963	-3.9	115	0.00
10		Ethyl Methanesulfonate	50.000	53.102	-6.2	118	0.00
11		Aniline	50.000	51.452	-2.9	114	0.00
12	S	Phenol-d5	50.000	51.325	-2.7	114	0.00
13	C,P	Phenol	50.000	51.796	-3.6	116	0.00
14	P	bis(2-Chloroethyl)ether	50.000	52.076	-4.2	117	0.00
15		Pentachloroethane	50.000	51.228	-2.5	113	0.00
16	P	2-Chlorophenol	50.000	51.043	-2.1	114	0.00
17		1,3-Dichlorobenzene	50.000	50.800	-1.6	114	0.00
18	C	1,4-Dichlorobenzene	50.000	49.846	0.3	112	0.00
19		Benzyl Alcohol	50.000	51.900	-3.8	114	0.00
20		1,2-Dichlorobenzene	50.000	50.700	-1.4	113	0.00
21	P	2-Methylphenol	50.000	52.142	-4.3	116	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	53.358	-6.7	121	0.00
23	P	3-,4-Methylphenol	50.000	52.102	-4.2	114	0.00
24		n-Nitrosopyrrolidine	50.000	52.319	-4.6	113	0.00
25	P	n-Nitrosodipropylamine	50.000	53.032	-6.1	118	0.00
26		Acetophenone	50.000	52.528	-5.1	116	0.00
27		n-Nitrosomorpholine	50.000	52.985	-6.0	117	0.00
28		o-Toluidine	50.000	50.910	-1.8	114	0.00
29	P	Hexachloroethane	50.000	52.026	-4.1	114	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	112	0.00
31	S	Nitrobenzene-d5	50.000	52.113	-4.2	116	0.00
32	P	Nitrobenzene	50.000	52.048	-4.1	117	0.00
33		n-Nitrosopiperidine	50.000	51.353	-2.7	116	0.00
34	P	Isophorone	50.000	53.397	-6.8	119	0.00
35	C,P	2-Nitrophenol	50.000	54.325	-8.7	117	0.00
36	P	2,4-Dimethylphenol	50.000	52.050	-4.1	115	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	52.722	-5.4	118	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	53.704	-7.4	120	0.00
39		Benzoic Acid	50.000	16.465	67.1#	22	0.00
40	C,P	2,4-Dichlorophenol	50.000	51.304	-2.6	114	0.00
41		a,a-Dimethylphenethylamine	50.000	52.989	-6.0	117	0.00
42		1,2,4-Trichlorobenzene	50.000	50.540	-1.1	114	0.00
43	P	Naphthalene	50.000	50.640	-1.3	114	0.00
44	P	4-Chloroaniline	50.000	52.629	-5.3	118	0.00
45		2,6-Dichlorophenol	50.000	51.102	-2.2	113	0.00
46		Hexachloropropene	50.000	56.694	-13.4	117	0.00
47	C,P	Hexachlorobutadiene	50.000	50.960	-1.9	115	0.00
48		n-Nitrosodi-n-Butylamine	50.000	54.057	-8.1	119	0.00
49		p-Phenylenediamine	50.000	39.303	21.4	90	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	53.646	-7.3	118	0.00

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	50.000	52.892	-5.8	118	0.00
52	P	2-Methylnaphthalene	50.000	52.276	-4.6	117	0.00
53		1-Methylnaphthalene	50.000	52.484	-5.0	117	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	116	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	49.715	0.6	117	0.00
56	P	Hexachlorocyclopentadiene	50.000	41.295	17.4	93	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	51.349	-2.7	115	0.00
58	P	2,4,5-Trichlorophenol	50.000	50.840	-1.7	114	0.00
59	S	2-Fluorobiphenyl	50.000	50.506	-1.0	117	0.00
60		Isosafrole	50.000	51.294	-2.6	118	0.00
61	P	2-Chloronaphthalene	50.000	50.710	-1.4	118	0.00
62		1-Chloronaphthalene	50.000	50.263	-0.5	118	0.00
63	P	2-Nitroaniline	50.000	52.093	-4.2	119	0.00
64		1,4-Naphthoquinone	50.000	48.637	2.7	108	0.00
65	P	Dimethylphthalate	50.000	52.519	-5.0	122	0.00
66		1,3-Dinitrobenzene	50.000	54.232	-8.5	120	0.00
67	P	2,6-Dinitrotoluene	50.000	52.301	-4.6	120	0.00
68	P	Acenaphthylene	50.000	50.654	-1.3	117	0.00
69	P	3-Nitroaniline	50.000	51.456	-2.9	118	0.00
70	P	2,4-Dinitrophenol	50.000	68.589	-37.2	178	0.00
71	C,P	Acenaphthene	50.000	53.262	-6.5	122	0.00
72	P	4-Nitrophenol	50.000	53.031	-6.1	114	0.00
73	P	2,4-Dinitrotoluene	50.000	54.237	-8.5	120	0.00
74		Pentachlorobenzene	50.000	49.221	1.6	113	0.00
75	P	Dibenzofuran	50.000	50.663	-1.3	119	0.00
76		2,3,5,6-Tetrachlorophenol	50.000	49.930	0.1	116	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	48.635	2.7	112	0.00
78		1-Naphthylamine	50.000	49.884	0.2	114	0.00
79		2-Naphthylamine	50.000	48.980	2.0	112	0.00
80	P	Diethylphthalate	50.000	54.091	-8.2	124	0.00
81		Thionazin	50.000	54.498	-9.0	122	0.00
82	P	Fluorene	50.000	51.394	-2.8	118	0.00
83	P	4-Chlorophenyl Phenyl Ether	50.000	51.815	-3.6	119	0.00
84	P	4-Nitroaniline	50.000	52.260	-4.5	120	0.00
85		5-Nitro-o-Toluidine	50.000	52.391	-4.8	118	0.00
86		1,2-Diphenylhydrazine	50.000	54.111	-8.2	123	0.00
87	S	2,4,6-Tribromophenol	50.000	50.324	-0.6	108	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	114	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	64.845	-29.7	153	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	51.941	-3.9	120	0.00
91		Sulfotepp	50.000	51.808	-3.6	118	0.00
92		Sym-Trinitrobenzene	50.000	54.064	-8.1	122	0.00
93		Diallate	50.000	54.565	-9.1	125	0.00
94		Phenacetin	50.000	55.782	-11.6	122	0.00
95		Phorate	50.000	55.460	-10.9	126	0.00
96	P	4-Bromophenyl Phenyl Ether	50.000	51.415	-2.8	117	0.00
97	P	Hexachlorobenzene	50.000	49.300	1.4	115	0.00
98		Dimethoate	50.000	55.937	-11.9	125	0.00
99		4-Aminobiphenyl	50.000	50.040	-0.1	113	0.00

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

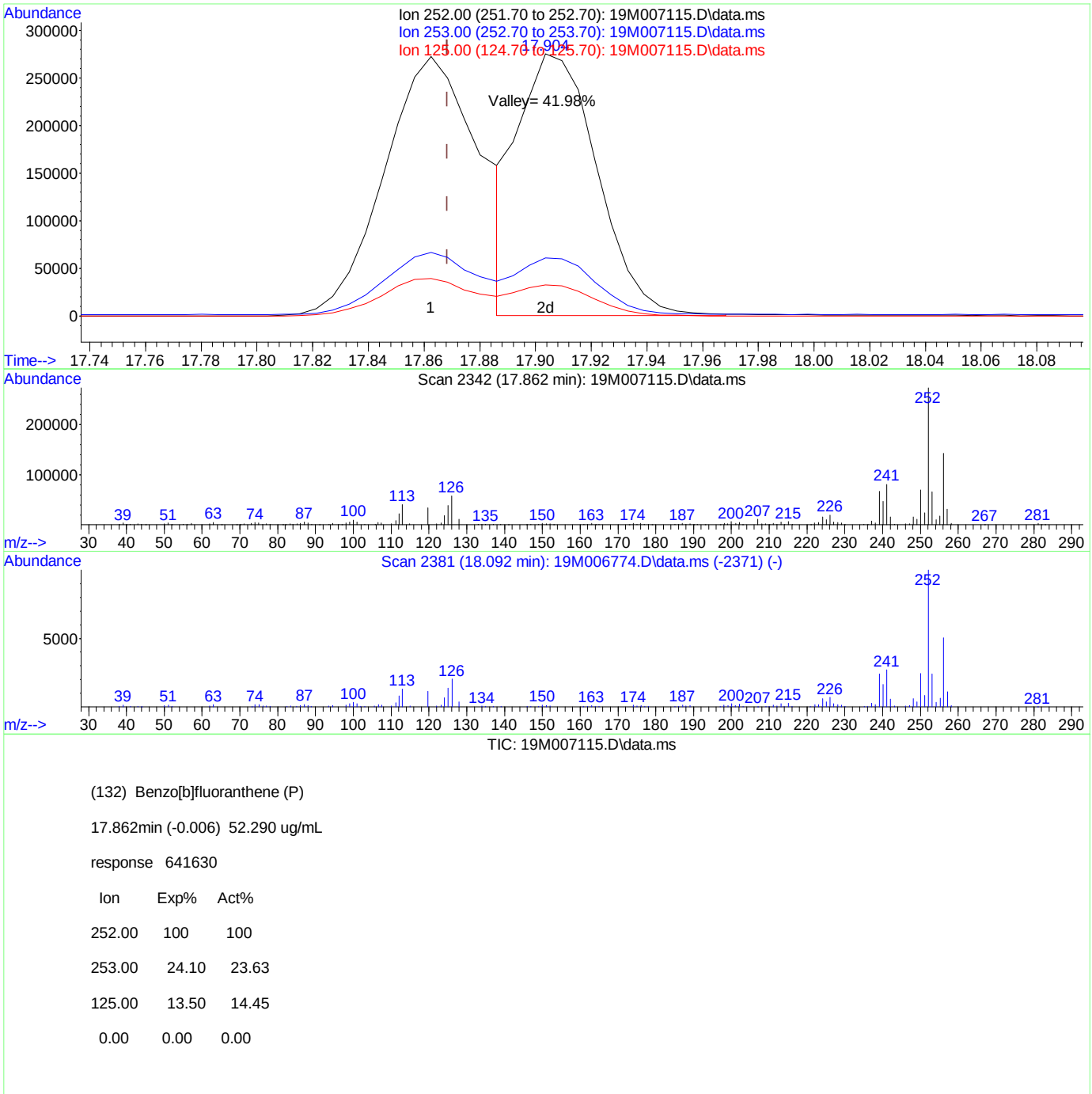
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	50.000	46.345	7.3	105	0.00
101		Pronamide	50.000	55.556	-11.1	122	0.00
102		Pentachloronitrobenzene	50.000	52.878	-5.8	114	0.00
103		Disulfoton	50.000	54.537	-9.1	124	-0.01
104	P	Phenanthrene	50.000	50.831	-1.7	118	0.00
105	P	Anthracene	50.000	51.265	-2.5	117	0.00
106	P	Carbazole	50.000	51.370	-2.7	116	0.00
107		Parathion Methyl	50.000	59.069	-18.1	126	0.00
108	P	Di-n-Butyl Phthalate	50.000	55.966	-11.9	123	0.00
109		Parathion Ethyl	50.000	59.254	-18.5	124	0.00
110		4-Nitroquinoline 1-Oxide	50.000	35.328	29.3	67	0.00
111		Methapyrilene	50.000	49.999	0.0	120	0.00
112		Isodrin	50.000	53.600	-7.2	122	0.00
113	C,P	Fluoranthene	50.000	51.315	-2.6	117	-0.01
114	ISTD	Chrysene-d12	40.000	40.000	0.0	112	-0.01
115		Benzidine	50.000	49.293	1.4	104	-0.01
116	P	Pyrene	50.000	52.305	-4.6	116	0.00
117		Aramite	50.000	60.985	-22.0	124	0.00
118	S	p-Terphenyl-d14	50.000	53.583	-7.2	119	-0.01
119		p-(Dimethylamino)azobenzene	50.000	55.459	-10.9	118	-0.01
120		Chlorobenzilate	50.000	55.310	-10.6	118	-0.01
121		Famphur	50.000	49.493	1.0	111	-0.01
122	P	Butyl Benzyl Phthalate	50.000	57.387	-14.8	124	0.00
123		3,3'-Dimethylbenzidine	50.000	43.206	13.6	102	-0.01
124		2-Acetylaminofluorene	50.000	54.711	-9.4	119	-0.01
125	P	bis(2-Ethylhexyl)phthalate	50.000	61.375	-22.8	127	-0.01
126	P	3,3'-Dichlorobenzidine	50.000	52.508	-5.0	114	-0.01
127	P	Benzo[a]anthracene	50.000	52.078	-4.2	116	-0.01
128	P	Chrysene	50.000	51.714	-3.4	116	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	109	-0.01
130	C,P	Di-n-Octyl Phthalate	50.000	61.768	-23.5#	126	0.00
131		7,12-Dimethylbenz[a]anthrac	50.000	51.236	-2.5	111	-0.01
132	P	Benzo[b]fluoranthene	50.000	52.290	-4.6	116	0.00
133	P	Benzo[k]fluoranthene	50.000	49.577	0.8	107	-0.01
134	C,P	Benzo[a]pyrene	50.000	51.630	-3.3	111	0.00
135		3-Methylcholanthrene	50.000	52.836	-5.7	111	0.00
136	P	Indeno[1,2,3-cd]pyrene	50.000	54.424	-8.8	113	0.00
137	P	Dibenz[ah]anthracene	50.000	54.543	-9.1	114	0.00
138	P	Benzo[ghi]perylene	50.000	53.775	-7.5	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042419\19M007115.D Vial: 2
Acq On : 24 Apr 2019 2:01 pm Operator: SCB
Sample : WG704765-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 24 14:50:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



TIC: 19M007115.D\data.ms

(132) Benzo[b]fluoranthene (P)

17.862min (-0.006) 52.290 ug/mL

response 641630

Ion	Exp%	Act%
252.00	100	100
253.00	24.10	23.63
125.00	13.50	14.45
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.687	152	137901	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.975	136	546357	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.792	164	307946	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.386	188	510590	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.045	240	425443	40.0000	ug/mL	0.0000
129) Perylene-d12	18.733	264	383719	40.0000	ug/mL	0.0000
System Monitoring Compounds						
8) 2-Fluorophenol	6.440	112	243011	51.7235	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 51.7235%			
12) Phenol-d5	7.293	99	310740	51.6226	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 51.6226%			
31) Nitrobenzene-d5	8.251	82	297240	52.4916	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 104.9832%			
59) 2-Fluorobiphenyl	10.051	172	520808	50.3868	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 100.7736%			
87) 2,4,6-Tribromophenol	11.616	330	61212	50.3036	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 50.3036%			
118) p-Terphenyl-d14	14.404	244	564599	55.3914	ug/mL	0.0000
Spiked Amount 50.0000	Range 33 - 141		Recovery = 110.7828%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.493	88	115713	51.6396	ug/mL	99
3) n-Nitrosodimethylamine	4.957	74	168183	50.6303	ug/mL	96
4) Pyridine	4.981	79	282592	50.0111	ug/mL	99
5) 2-Picoline	5.840	93	293136	50.4822	ug/mL	99
6) n-Nitrosomethylethylamine	5.963	88	125809	51.1825	ug/mL	98
7) Methyl Methanesulfonate	6.263	80	176489	54.4935	ug/mL	99
9) n-Nitrosodiethylamine	6.663	102	123915	52.1470	ug/mL	95
10) Ethyl Methanesulfonate	6.928	79	214505	53.3776	ug/mL	99
11) Aniline	7.381	66	172790	51.7547	ug/mL	94
13) Phenol	7.304	94	329371	51.6718	ug/mL	99
14) bis(2-Chloroethyl)ether	7.404	63	235369	52.7870	ug/mL	96
15) Pentachloroethane	7.410	167	95671	52.6533	ug/mL	100
16) 2-Chlorophenol	7.510	128	257908	51.1871	ug/mL	98
17) 1,3-Dichlorobenzene	7.657	146	266507	51.0464	ug/mL	99
18) 1,4-Dichlorobenzene	7.704	146	267266	50.3435	ug/mL	100
19) Benzyl Alcohol	7.798	108	167158	51.8944	ug/mL	98
20) 1,2-Dichlorobenzene	7.893	146	250989	51.2069	ug/mL	99
21) 2-Methylphenol	7.898	107	199395	52.0095	ug/mL	99
22) bis(2-Chloroisopropyl)...	7.940	45	449973	53.3702	ug/mL	99
23) 3-,4-Methylphenol	8.028	107	260012	52.2969	ug/mL	99
24) n-Nitrosopyrrolidine	8.069	100	122595	53.2145	ug/mL	94
25) n-Nitrosodipropylamine	8.075	70	209170	53.4829	ug/mL	99
26) Acetophenone	8.081	105	350268	53.2220	ug/mL	99
27) n-Nitrosomorpholine	8.075	56	198104	54.2450	ug/mL	98
28) o-Toluidine	8.128	106	392267	51.4929	ug/mL	99
29) Hexachloroethane	8.210	117	114477	53.5469	ug/mL	98
32) Nitrobenzene	8.269	77	307276	52.5516	ug/mL	98
33) n-Nitrosopiperidine	8.410	114	125974	51.1980	ug/mL	95
34) Isophorone	8.481	82	545186	53.4424	ug/mL	100
35) 2-Nitrophenol	8.587	139	135300	53.8163	ug/mL	96
36) 2,4-Dimethylphenol	8.563	122	228002	51.2853	ug/mL	98
37) 0,0,0-Triethyl Phospho...	8.663	198	116930	53.5568	ug/mL	99

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) bis(2-Chloroethoxy)met...	8.663	93	414313	54.3593 ug/mL	99
39) Benzoic Acid	8.604	105	19444	13.5865 ug/mL#	48
40) 2,4-Dichlorophenol	8.816	162	192525	51.8230 ug/mL	99
41) a,a-Dimethylphenethyla...	8.816	58	782092	53.5542 ug/mL	99
42) 1,2,4-Trichlorobenzene	8.922	180	204592	51.5084 ug/mL	100
43) Naphthalene	8.998	128	762111	50.7519 ug/mL#	99
44) 4-Chloroaniline	9.028	65	118236	54.4103 ug/mL	66
45) 2,6-Dichlorophenol	9.051	162	184186	51.2452 ug/mL	98
46) Hexachloropropene	9.116	213	146191	58.3290 ug/mL	100
47) Hexachlorobutadiene	9.151	225	113327	51.9695 ug/mL	99
48) n-Nitrosodi-n-Butylamine	9.345	84	248934	55.1348 ug/mL	98
49) p-Phenylenediamine	9.369	108	156896	37.1109 ug/mL	97
50) 4-Chloro-3-Methylphenol	9.475	107	226941	53.7941 ug/mL	98
51) Safrole	9.563	162	194392	53.3714 ug/mL	99
52) 2-Methylnaphthalene	9.687	142	495572	51.9901 ug/mL	100
53) 1-Methylnaphthalene	9.804	142	472943	52.7725 ug/mL	99
55) 1,2,4,5-Tetrachloroben...	9.898	216	201981	49.5170 ug/mL	99
56) Hexachlorocyclopentadiene	9.910	237	82526	42.1090 ug/mL	99
57) 2,4,6-Trichlorophenol	9.981	196	135903	50.4913 ug/mL	99
58) 2,4,5-Trichlorophenol	10.034	196	142909	51.2484 ug/mL	98
60) Isosafrole	10.087	162	199224	51.3636 ug/mL	100
61) 2-Chloronaphthalene	10.198	162	450083	49.9612 ug/mL	100
62) 1-Chloronaphthalene	10.239	162	426043	50.2825 ug/mL	99
63) 2-Nitroaniline	10.292	65	177456	52.2880 ug/mL	98
64) 1,4-Naphthoquinone	10.363	158	152431	47.1566 ug/mL	98
65) Dimethylphthalate	10.457	163	524549	52.2544 ug/mL	100
66) 1,3-Dinitrobenzene	10.510	168	91188	53.1719 ug/mL	96
67) 2,6-Dinitrotoluene	10.551	165	123653	52.2101 ug/mL	96
68) Acenaphthylene	10.639	152	718874	50.1847 ug/mL	100
69) 3-Nitroaniline	10.710	138	135240	50.9478 ug/mL	100
70) 2,4-Dinitrophenol	10.816	184	56513	63.3144 ug/mL	52
71) Acenaphthene	10.822	154	469528	52.4471 ug/mL	98
72) 4-Nitrophenol	10.828	65	130707	52.4389 ug/mL	100
73) 2,4-Dinitrotoluene	10.963	165	166246	53.6272 ug/mL	97
74) Pentachlorobenzene	11.004	250	171531	49.2129 ug/mL	97
75) Dibenzofuran	10.981	168	643988	50.4842 ug/mL	99
76) 2,3,5,6-Tetrachlorophenol	11.086	232	109829	50.1437 ug/mL	97
77) 2,3,4,6-Tetrachlorophenol	11.134	232	113703	49.1363 ug/mL	99
78) 1-Naphthylamine	11.057	143	467026	48.3839 ug/mL	99
79) 2-Naphthylamine	11.128	143	490073	48.0950 ug/mL	99
80) Diethylphthalate	11.169	149	555544	53.9843 ug/mL	99
81) Thionazin	11.269	107	93901	54.9368 ug/mL	99
82) Fluorene	11.339	166	529758	51.2876 ug/mL	100
83) 4-Chlorophenyl Phenyl ...	11.286	204	244726	51.7051 ug/mL	99
84) 4-Nitroaniline	11.345	138	141229	50.8289 ug/mL	99
85) 5-Nitro-o-Toluidine	11.339	152	158653	51.8528 ug/mL	98
86) 1,2-Diphenylhydrazine	11.457	77	656626	54.5078 ug/mL	99
89) 4,6-Dinitro-2-Methylph...	11.392	198	86230	61.9312 ug/mL	93
90) Diphenylamine/n-Nitros...	11.410	169	458538	51.1775 ug/mL	99
91) Sulfotepp	11.610	322	76019	52.2029 ug/mL	93
92) Sym-Trinitrobenzene	11.686	75	187196	54.2144 ug/mL	98
93) Diallate	11.733	86	244598	55.0631 ug/mL	99
94) Phenacetin	11.716	108	298139	55.3067 ug/mL	99
95) Phorate	11.751	75	399149	55.4148 ug/mL#	98
96) 4-Bromophenyl Phenyl E...	11.816	248	138183	51.3612 ug/mL	98

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

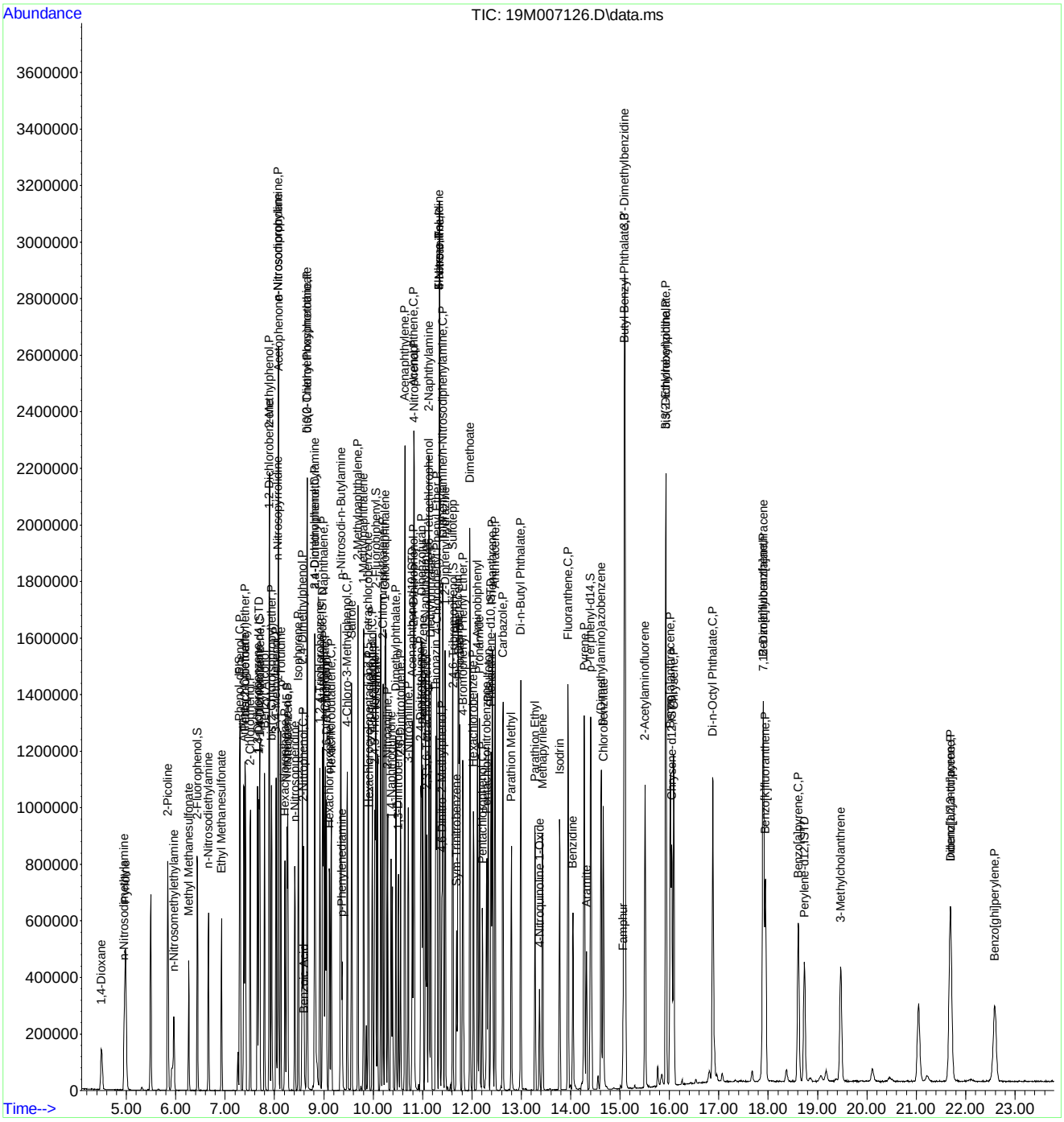
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	Hexachlorobenzene	12.028	284	134744	49.4035 ug/mL	97
98)	Dimethoate	11.957	87	216551	54.3291 ug/mL	99
99)	4-Aminobiphenyl	12.110	169	565377	49.2393 ug/mL	100
100)	Pentachlorophenol	12.210	266	75582	46.1802 ug/mL	97
101)	Pronamide	12.151	173	240749	54.9583 ug/mL	99
102)	Pentachloronitrobenzene	12.298	237	63878	54.5732 ug/mL	99
103)	Disulfoton	12.328	88	310969	54.3419 ug/mL	100
104)	Phenanthrene	12.416	178	727127	50.4973 ug/mL	100
105)	Anthracene	12.469	178	750722	50.9267 ug/mL	100
106)	Carbazole	12.628	167	700688	51.0561 ug/mL	100
107)	Parathion Methyl	12.798	109	187637	57.4897 ug/mL	98
108)	Di-n-Butyl Phthalate	12.986	149	968600	56.3768 ug/mL	100
109)	Parathion Ethyl	13.275	97	130687	58.1069 ug/mL	97
110)	4-Nitroquinoline 1-Oxide	13.369	190	41340	36.6233 ug/mL	97
111)	Methapyrilene	13.428	58	373387	49.7128 ug/mL#	92
112)	Isodrin	13.775	193	84207	53.7644 ug/mL	99
113)	Fluoranthene	13.945	202	788357	50.6034 ug/mL	100
115)	Benzidine	14.045	184	340049	48.7374 ug/mL	100
116)	Pyrene	14.275	202	792986	54.5995 ug/mL	99
117)	Aramite	14.322	185	49511	62.8615 ug/mL	99
119)	p-(Dimethylamino)azobe...	14.616	225	155441	56.7466 ug/mL	97
120)	Chlorobenzilate	14.663	251	228052	57.0399 ug/mL	96
121)	Famphur	15.063	218	86001	42.8807 ug/mL	95
122)	Butyl Benzyl Phthalate	15.086	149	418711	58.9676 ug/mL	100
123)	3,3'-Dimethylbenzidine	15.092	212	633597	42.6192 ug/mL	99
124)	2-Acetylaminofluorene	15.504	181	298154	53.2221 ug/mL	99
125)	bis(2-Ethylhexyl)phtha...	15.927	149	566717	61.7472 ug/mL	99
126)	3,3'-Dichlorobenzidine	15.927	252	224157	51.5267 ug/mL	99
127)	Benzo[a]anthracene	16.021	228	659243	51.7976 ug/mL	99
128)	Chrysene	16.086	228	624496	51.7847 ug/mL	100
130)	Di-n-Octyl Phthalate	16.880	149	917298	59.9398 ug/mL	98
131)	7,12-Dimethylbenz[a]an...	17.904	256	287779	50.9950 ug/mL	99
132)	Benzo[b]fluoranthene	17.898	252	600208	49.9919 ug/mL	99
133)	Benzo[k]fluoranthene	17.945	252	554148	50.8302 ug/mL	99
134)	Benzo[a]pyrene	18.610	252	539029	51.2870 ug/mL	98
135)	3-Methylcholanthrene	19.468	268	273043	51.0932 ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	21.692	276	559300	54.3140 ug/mL	99
137)	Dibenz[ah]anthracene	21.692	278	476929	54.7767 ug/mL	99
138)	Benzo[ghi]perylene	22.586	276	451835	53.9915 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M


Abundance
TIC: 19M007126.D\data.ms
Time-->
1,4-Dioxane
n-Nitrosodiethylamine
n-Nitrosomethylethylamine
2-Picoline
Methyl Methanesulfonate
n-Nitrosodiethylamine
Ethyl Methanesulfonate
Benzene
Toluene-d8,S
Toluene
Ethylbenzene
p-Xylene
o-Xylene
Styrene
Isopropylbenzene
Bromobenzene
n-Propylbenzene
1,3,5-Trimethylbenzene
1,4-Dichlorobenzene-d4,IS
1,4-Dichlorobenzene
1,2-Dichlorobenzene
n-Nitrosopyrrolidine
Acetophenone
n-Nitrosodipropylamine,P
Hexachloroethane
n-Nitrosodi-n-propylamine
Nitrobenzene-d5,S
Nitrobenzene
Isophorone
2-Nitrophenol,C,P
2,4-Dimethylphenol
Benzoic Acid
Bis(2-Chloroethoxy)methane
2,4-Dichlorophenol
1,2,4-Trichlorobenzene
Naphthalene-d8,IS
Naphthalene
4-Chloroaniline
Hexachlorobutadiene
Hexachlorocyclopentadiene
2-Methylnaphthalene-d10,IS
2-Methylnaphthalene
1-Methylnaphthalene
2,6-Dichlorophenol
Hexachlorocyclopentadiene
2-Chloronaphthalene
1,1'-Biphenyl
2-Chlorophenol-d4,S
2-Chlorophenol,C,P
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Benzyl Alcohol
1,2-Dichlorobenzene
2-Methylphenol
Bis(2-chloroisopropyl)ether,P
4-Methylphenol
n-Nitroso-di-n-propylamine
Hexachloroethane

Continuing Calibration Area and RT check

Instrument: HPMS19NEW
Initial cal date: 3 Apr 2019 11:51 am
CCV date: 25 Apr 2019 1:40 pm
CCV Filename: 19M007126.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	120834	7.79	471841	9.08	251629	10.89
CCV	137901	7.69	546357	8.97	307946	10.79

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	424250	12.50	384653	16.19	360672	18.96
CCV	510590	12.39	425443	16.04	383719	18.73

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00
2		1,4-Dioxane	0.650	0.671	-3.2	119	0.00
3		n-Nitrosodimethylamine	0.964	0.976	-1.2	116	0.00
4		Pyridine	1.639	1.639	0.0	116	0.00
5		2-Picoline	1.684	1.701	-1.0	116	0.00
6		n-Nitrosomethylethylamine	0.713	0.730	-2.4	118	0.00
7		Methyl Methanesulfonate	0.939	1.024	-9.1	122	0.00
8	S	2-Fluorophenol	1.363	1.410	-3.4	118	0.00
9		n-Nitrosodiethylamine	0.689	0.719	-4.4	118	0.00
10		Ethyl Methanesulfonate	1.166	1.244	-6.7	122	0.00
11		Aniline	0.968	1.002	-3.5	118	0.00
12	S	Phenol-d5	1.746	1.803	-3.3	118	0.00
13	C,P	Phenol	1.849	1.911	-3.4	119	0.00
14	P	bis(2-Chloroethyl)ether	1.293	1.365	-5.6	122	0.00
15		Pentachloroethane	0.527	0.555	-5.3	119	0.00
16	P	2-Chlorophenol	1.461	1.496	-2.4	117	0.00
17		1,3-Dichlorobenzene	1.514	1.546	-2.1	117	0.00
18	C	1,4-Dichlorobenzene	1.540	1.550	-0.6	116	0.00
19		Benzyl Alcohol	0.934	0.970	-3.9	117	0.00
20		1,2-Dichlorobenzene	1.422	1.456	-2.4	117	0.00
21	P	2-Methylphenol	1.112	1.157	-4.0	119	0.00
22	P	bis(2-Chloroisopropyl)ether	2.446	2.610	-6.7	124	0.00
23	P	3-,4-Methylphenol	1.442	1.508	-4.6	118	0.00
24		n-Nitrosopyrrolidine	0.668	0.711	-6.4	119	0.00
25	P	n-Nitrosodipropylamine	1.134	1.213	-7.0	122	0.00
26		Acetophenone	1.909	2.032	-6.4	121	0.00
27		n-Nitrosomorpholine	1.059	1.149	-8.5	123	0.00
28		o-Toluidine	2.210	2.276	-3.0	118	0.00
29	P	Hexachloroethane	0.620	0.664	-7.1	121	0.00
30	ISTD	Naphthalene-d8	1.000	1.000	0.0	116	0.00
31	S	Nitrobenzene-d5	0.415	0.435	-4.8	120	0.00
32	P	Nitrobenzene	0.428	0.450	-5.1	122	0.00
33		n-Nitrosopiperidine	0.180	0.184	-2.2	119	0.00
34	P	Isophorone	0.747	0.798	-6.8	123	0.00
35	C,P	2-Nitrophenol	0.184	0.198	-7.6	120	0.00
36	P	2,4-Dimethylphenol	0.325	0.334	-2.8	117	0.00
37		0,0,0-Triethyl Phosphorothi	0.160	0.171	-6.9	124	0.00
38	P	bis(2-Chloroethoxy)methane	0.558	0.607	-8.8	126	0.00
39		Benzoic Acid	0.176	0.028#	84.1#	16	0.00
40	C,P	2,4-Dichlorophenol	0.272	0.282	-3.7	119	0.00
41		a,a-Dimethylphenethylamine	1.069	1.145	-7.1	122	0.00
42		1,2,4-Trichlorobenzene	0.291	0.300	-3.1	120	0.00
43	P	Naphthalene	1.099	1.116	-1.5	118	0.00
44	P	4-Chloroaniline	0.159	0.173	-8.8	125	0.00
45		2,6-Dichlorophenol	0.263	0.270	-2.7	117	0.00
46		Hexachloropropene	0.183	0.214	-16.9	124	0.00
47	C,P	Hexachlorobutadiene	0.160	0.166	-3.8	121	0.00
48		n-Nitrosodi-n-Butylamine	0.331	0.365	-10.3	125	0.00
49		p-Phenylenediamine	0.310	0.230	25.8	88	0.00
50	C,P	4-Chloro-3-Methylphenol	0.309	0.332	-7.4	122	0.00

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		Safrole	0.267	0.285	-6.7	123	0.00
52	P	2-Methylnaphthalene	0.698	0.726	-4.0	120	0.00
53		1-Methylnaphthalene	0.656	0.693	-5.6	122	0.00
54	ISTD	Acenaphthene-d10	1.000	1.000	0.0	122	0.00
55		1,2,4,5-Tetrachlorobenzene	0.530	0.525	0.9	122	0.00
56	P	Hexachlorocyclopentadiene	0.230	0.214	7.0	99	0.00
57	C,P	2,4,6-Trichlorophenol	0.350	0.353	-0.9	119	0.00
58	P	2,4,5-Trichlorophenol	0.362	0.371	-2.5	121	0.00
59	S	2-Fluorobiphenyl	1.343	1.353	-0.7	123	0.00
60		Isosafrole	0.504	0.518	-2.8	124	0.00
61	P	2-Chloronaphthalene	1.170	1.169	0.1	122	0.00
62		1-Chloronaphthalene	1.101	1.107	-0.5	124	0.00
63	P	2-Nitroaniline	0.441	0.461	-4.5	125	0.00
64		1,4-Naphthoquinone	0.420	0.396	5.7	110	0.00
65	P	Dimethylphthalate	1.304	1.363	-4.5	127	0.00
66		1,3-Dinitrobenzene	0.223	0.237	-6.3	124	0.00
67	P	2,6-Dinitrotoluene	0.308	0.321	-4.2	126	0.00
68	P	Acenaphthylene	1.861	1.868	-0.4	122	0.00
69	P	3-Nitroaniline	0.345	0.351	-1.7	123	0.00
70	P	2,4-Dinitrophenol	0.095	0.147	-54.7#	167	0.00
71	C,P	Acenaphthene	1.163	1.220	-4.9	127	0.00
72	P	4-Nitrophenol	0.324	0.340	-4.9	118	0.00
73	P	2,4-Dinitrotoluene	0.403	0.432	-7.2	125	0.00
74		Pentachlorobenzene	0.453	0.446	1.5	119	0.00
75	P	Dibenzofuran	1.657	1.673	-1.0	125	0.00
76		2,3,5,6-Tetrachlorophenol	0.261	0.285	-9.2	123	0.00
77		2,3,4,6-Tetrachlorophenol	0.279	0.295	-5.7	119	0.00
78		1-Naphthylamine	1.254	1.213	3.3	116	0.00
79		2-Naphthylamine	1.324	1.273	3.9	116	0.00
80	P	Diethylphthalate	1.337	1.443	-7.9	130	0.00
81		Thionazin	0.222	0.244	-9.9	130	0.00
82	P	Fluorene	1.342	1.376	-2.5	124	0.00
83	P	4-Chlorophenyl Phenyl Ether	0.615	0.636	-3.4	125	0.00
84	P	4-Nitroaniline	0.361	0.367	-1.7	123	0.00
85		5-Nitro-o-Toluidine	0.397	0.412	-3.8	122	0.00
86		1,2-Diphenylhydrazine	1.565	1.706	-9.0	130	0.00
87	S	2,4,6-Tribromophenol	0.158	0.159	-0.6	114	0.00
88	ISTD	Phenanthrene-d10	1.000	1.000	0.0	120	0.00
89	P	4,6-Dinitro-2-Methylphenol	0.093	0.135	-45.2#	152	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	0.702	0.718	-2.3	124	0.00
91		Sulfotepp	0.114	0.119	-4.4	125	0.00
92		Sym-Trinitrobenzene	0.239	0.293	-22.6	128	0.00
93		Diallate	0.348	0.383	-10.1	133	0.00
94		Phenacetin	0.422	0.467	-10.7	128	0.00
95		Phorate	0.564	0.625	-10.8	133	0.00
96	P	4-Bromophenyl Phenyl Ether	0.211	0.217	-2.8	123	0.00
97	P	Hexachlorobenzene	0.214	0.211	1.4	121	0.00
98		Dimethoate	0.312	0.339	-8.7	128	0.00
99		4-Aminobiphenyl	0.900	0.886	1.6	117	0.00

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	0.118	0.118	0.0	110	0.00
101		Pronamide	0.343	0.377	-9.9	126	0.00
102		Pentachloronitrobenzene	0.092	0.100	-8.7	124	0.00
103		Disulfoton	0.448	0.487	-8.7	130	0.00
104	P	Phenanthrene	1.128	1.139	-1.0	123	0.00
105	P	Anthracene	1.155	1.176	-1.8	122	0.00
106	P	Carbazole	1.075	1.098	-2.1	122	0.00
107		Parathion Methyl	0.256	0.294	-14.8	128	0.00
108	P	Di-n-Butyl Phthalate	1.346	1.518	-12.8	131	0.00
109		Parathion Ethyl	0.176	0.205	-16.5	128	0.00
110		4-Nitroquinoline 1-Oxide	0.076	0.065	14.5	74	0.00
111		Methapyrilene	0.601	0.585	2.7	126	0.00
112		Isodrin	0.123	0.132	-7.3	128	0.00
113	C,P	Fluoranthene	1.220	1.235	-1.2	121	0.00
114	ISTD	Chrysene-d12	1.000	1.000	0.0	111	0.00
115		Benzidine	0.656	0.639	2.6	101	0.00
116	P	Pyrene	1.366	1.491	-9.2	119	0.00
117		Aramite	0.074	0.093	-25.7	126	0.00
118	S	p-Terphenyl-d14	0.958	1.062	-10.9	122	0.00
119		p-(Dimethylamino)azobenzene	0.258	0.292	-13.2	119	0.00
120		Chlorobenzilate	0.376	0.429	-14.1	120	0.00
121		Famphur	0.189	0.162	14.3	95	0.00
122	P	Butyl Benzyl Phthalate	0.668	0.787	-17.8	125	0.00
123		3,3'-Dimethylbenzidine	1.387	1.191	14.1	99	0.00
124		2-Acetylaminofluorene	0.479	0.561	-17.1	114	0.00
125	P	bis(2-Ethylhexyl)phthalate	0.863	1.066	-23.5	126	0.00
126	P	3,3'-Dichlorobenzidine	0.409	0.422	-3.2	110	0.00
127	P	Benzo[a]anthracene	1.197	1.240	-3.6	114	0.00
128	P	Chrysene	1.134	1.174	-3.5	114	0.00
129	ISTD	Perylene-d12	1.000	1.000	0.0	106	0.00
130	C,P	Di-n-Octyl Phthalate	1.595	1.912	-19.9	120	0.00
131		7,12-Dimethylbenz[a]anthrac	0.588	0.600	-2.0	108	0.00
132	P	Benzo[b]fluoranthene	1.252	1.251	0.1	108	0.00
133	P	Benzo[k]fluoranthene	1.136	1.155	-1.7	107	0.00
134	C,P	Benzo[a]pyrene	1.096	1.124	-2.6	108	0.00
135		3-Methylcholanthrene	0.557	0.569	-2.2	105	0.00
136	P	Indeno[1,2,3-cd]pyrene	1.073	1.166	-8.7	111	0.00
137	P	Dibenz[ah]anthracene	0.908	0.994	-9.5	112	0.00
138	P	Benzo[ghi]perylene	0.872	0.942	-8.0	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	ISTD	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	114	0.00
2		1,4-Dioxane	50.000	51.640	-3.3	119	0.00
3		n-Nitrosodimethylamine	50.000	50.630	-1.3	116	0.00
4		Pyridine	50.000	50.011	-0.0	116	0.00
5		2-Picoline	50.000	50.482	-1.0	116	0.00
6		n-Nitrosomethylethylamine	50.000	51.182	-2.4	118	0.00
7		Methyl Methanesulfonate	50.000	54.494	-9.0	122	0.00
8	S	2-Fluorophenol	50.000	51.724	-3.4	118	0.00
9		n-Nitrosodiethylamine	50.000	52.147	-4.3	118	0.00
10		Ethyl Methanesulfonate	50.000	53.378	-6.8	122	0.00
11		Aniline	50.000	51.755	-3.5	118	0.00
12	S	Phenol-d5	50.000	51.623	-3.2	118	0.00
13	C,P	Phenol	50.000	51.672	-3.3	119	0.00
14	P	bis(2-Chloroethyl)ether	50.000	52.787	-5.6	122	0.00
15		Pentachloroethane	50.000	52.653	-5.3	119	0.00
16	P	2-Chlorophenol	50.000	51.187	-2.4	117	0.00
17		1,3-Dichlorobenzene	50.000	51.046	-2.1	117	0.00
18	C	1,4-Dichlorobenzene	50.000	50.343	-0.7	116	0.00
19		Benzyl Alcohol	50.000	51.894	-3.8	117	0.00
20		1,2-Dichlorobenzene	50.000	51.207	-2.4	117	0.00
21	P	2-Methylphenol	50.000	52.010	-4.0	119	0.00
22	P	bis(2-Chloroisopropyl)ether	50.000	53.370	-6.7	124	0.00
23	P	3-,4-Methylphenol	50.000	52.297	-4.6	118	0.00
24		n-Nitrosopyrrolidine	50.000	53.214	-6.4	119	0.00
25	P	n-Nitrosodipropylamine	50.000	53.483	-7.0	122	0.00
26		Acetophenone	50.000	53.222	-6.4	121	0.00
27		n-Nitrosomorpholine	50.000	54.245	-8.5	123	0.00
28		o-Toluidine	50.000	51.493	-3.0	118	0.00
29	P	Hexachloroethane	50.000	53.547	-7.1	121	0.00
30	ISTD	Naphthalene-d8	40.000	40.000	0.0	116	0.00
31	S	Nitrobenzene-d5	50.000	52.492	-5.0	120	0.00
32	P	Nitrobenzene	50.000	52.552	-5.1	122	0.00
33		n-Nitrosopiperidine	50.000	51.198	-2.4	119	0.00
34	P	Isophorone	50.000	53.442	-6.9	123	0.00
35	C,P	2-Nitrophenol	50.000	53.816	-7.6	120	0.00
36	P	2,4-Dimethylphenol	50.000	51.285	-2.6	117	0.00
37		0,0,0-Triethyl Phosphorothi	50.000	53.557	-7.1	124	0.00
38	P	bis(2-Chloroethoxy)methane	50.000	54.359	-8.7	126	0.00
39		Benzoic Acid	50.000	13.586	72.8#	16	0.00
40	C,P	2,4-Dichlorophenol	50.000	51.823	-3.6	119	0.00
41		a,a-Dimethylphenethylamine	50.000	53.554	-7.1	122	0.00
42		1,2,4-Trichlorobenzene	50.000	51.508	-3.0	120	0.00
43	P	Naphthalene	50.000	50.752	-1.5	118	0.00
44	P	4-Chloroaniline	50.000	54.410	-8.8	125	0.00
45		2,6-Dichlorophenol	50.000	51.245	-2.5	117	0.00
46		Hexachloropropene	50.000	58.329	-16.7	124	0.00
47	C,P	Hexachlorobutadiene	50.000	51.969	-3.9	121	0.00
48		n-Nitrosodi-n-Butylamine	50.000	55.135	-10.3	125	0.00
49		p-Phenylenediamine	50.000	37.111	25.8	88	0.00
50	C,P	4-Chloro-3-Methylphenol	50.000	53.794	-7.6	122	0.00

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Safrole	50.000	53.371	-6.7	123	0.00
52	P	2-Methylnaphthalene	50.000	51.990	-4.0	120	0.00
53		1-Methylnaphthalene	50.000	52.772	-5.5	122	0.00
54	ISTD	Acenaphthene-d10	40.000	40.000	0.0	122	0.00
55		1,2,4,5-Tetrachlorobenzene	50.000	49.517	1.0	122	0.00
56	P	Hexachlorocyclopentadiene	50.000	42.109	15.8	99	0.00
57	C,P	2,4,6-Trichlorophenol	50.000	50.491	-1.0	119	0.00
58	P	2,4,5-Trichlorophenol	50.000	51.248	-2.5	121	0.00
59	S	2-Fluorobiphenyl	50.000	50.387	-0.8	123	0.00
60		Isosafrole	50.000	51.364	-2.7	124	0.00
61	P	2-Chloronaphthalene	50.000	49.961	0.1	122	0.00
62		1-Chloronaphthalene	50.000	50.283	-0.6	124	0.00
63	P	2-Nitroaniline	50.000	52.288	-4.6	125	0.00
64		1,4-Naphthoquinone	50.000	47.157	5.7	110	0.00
65	P	Dimethylphthalate	50.000	52.254	-4.5	127	0.00
66		1,3-Dinitrobenzene	50.000	53.172	-6.3	124	0.00
67	P	2,6-Dinitrotoluene	50.000	52.210	-4.4	126	0.00
68	P	Acenaphthylene	50.000	50.185	-0.4	122	0.00
69	P	3-Nitroaniline	50.000	50.948	-1.9	123	0.00
70	P	2,4-Dinitrophenol	50.000	63.314	-26.6	167	0.00
71	C,P	Acenaphthene	50.000	52.447	-4.9	127	0.00
72	P	4-Nitrophenol	50.000	52.439	-4.9	118	0.00
73	P	2,4-Dinitrotoluene	50.000	53.627	-7.3	125	0.00
74		Pentachlorobenzene	50.000	49.213	1.6	119	0.00
75	P	Dibenzofuran	50.000	50.484	-1.0	125	0.00
76		2,3,5,6-Tetrachlorophenol	50.000	50.144	-0.3	123	0.00
77		2,3,4,6-Tetrachlorophenol	50.000	49.136	1.7	119	0.00
78		1-Naphthylamine	50.000	48.384	3.2	116	0.00
79		2-Naphthylamine	50.000	48.095	3.8	116	0.00
80	P	Diethylphthalate	50.000	53.984	-8.0	130	0.00
81		Thionazin	50.000	54.937	-9.9	130	0.00
82	P	Fluorene	50.000	51.288	-2.6	124	0.00
83	P	4-Chlorophenyl Phenyl Ether	50.000	51.705	-3.4	125	0.00
84	P	4-Nitroaniline	50.000	50.829	-1.7	123	0.00
85		5-Nitro-o-Toluidine	50.000	51.853	-3.7	122	0.00
86		1,2-Diphenylhydrazine	50.000	54.508	-9.0	130	0.00
87	S	2,4,6-Tribromophenol	50.000	50.304	-0.6	114	0.00
88	ISTD	Phenanthrene-d10	40.000	40.000	0.0	120	0.00
89	P	4,6-Dinitro-2-Methylphenol	50.000	61.931	-23.9	152	0.00
90	C,P	Diphenylamine/n-Nitrosodiph	50.000	51.178	-2.4	124	0.00
91		Sulfotepp	50.000	52.203	-4.4	125	0.00
92		Sym-Trinitrobenzene	50.000	54.214	-8.4	128	0.00
93		Diallate	50.000	55.063	-10.1	133	0.00
94		Phenacetin	50.000	55.307	-10.6	128	0.00
95		Phorate	50.000	55.415	-10.8	133	0.00
96	P	4-Bromophenyl Phenyl Ether	50.000	51.361	-2.7	123	0.00
97	P	Hexachlorobenzene	50.000	49.403	1.2	121	0.00
98		Dimethoate	50.000	54.329	-8.7	128	0.00
99		4-Aminobiphenyl	50.000	49.239	1.5	117	0.00

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 13:41:31 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Fri Apr 26 13:41:15 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Min. RRF : 0.050 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

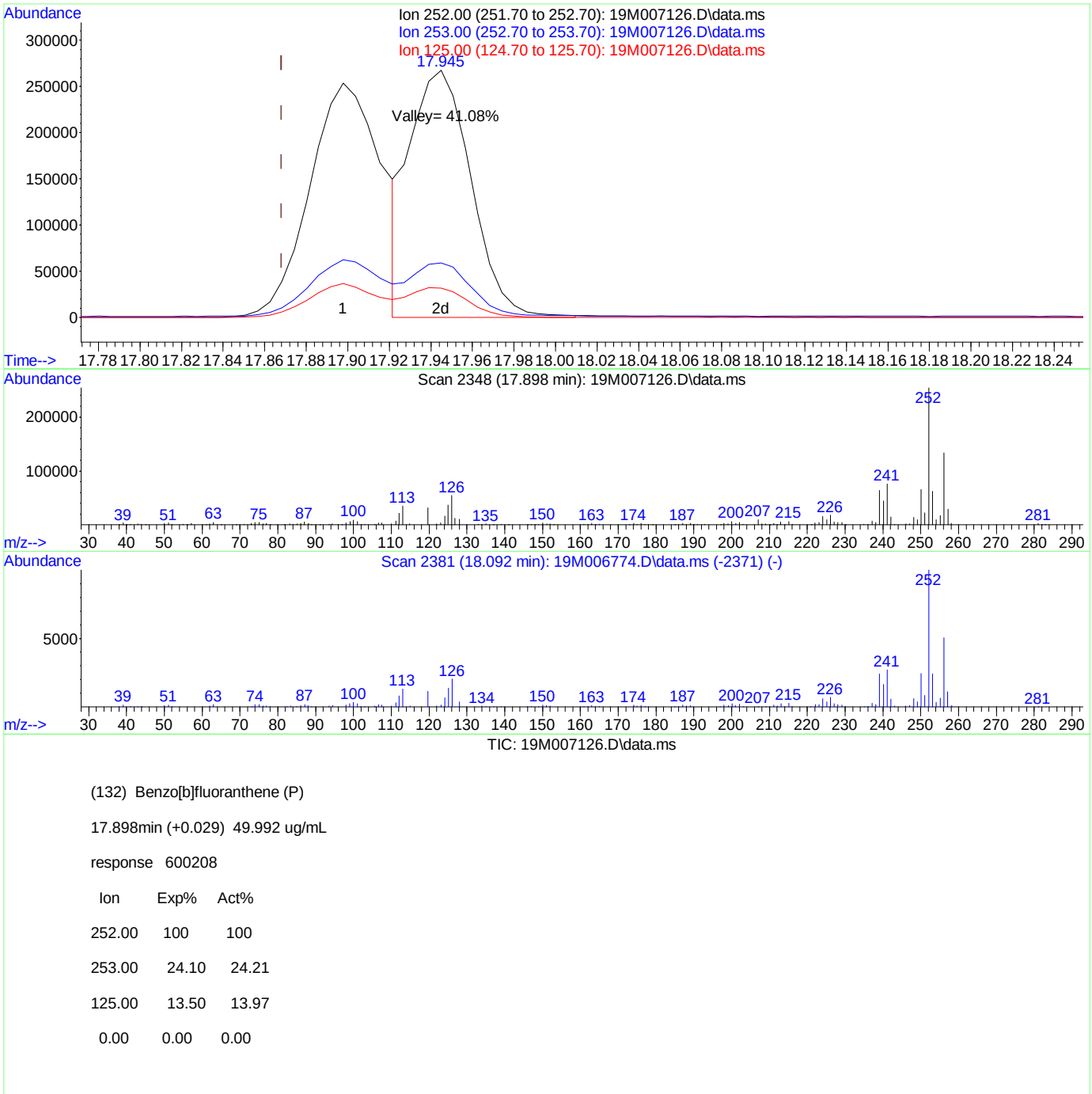
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
100	C,P	Pentachlorophenol	50.000	46.180	7.6	110	0.00
101		Pronamide	50.000	54.958	-9.9	126	0.00
102		Pentachloronitrobenzene	50.000	54.573	-9.1	124	0.00
103		Disulfoton	50.000	54.342	-8.7	130	0.00
104	P	Phenanthrene	50.000	50.497	-1.0	123	0.00
105	P	Anthracene	50.000	50.927	-1.9	122	0.00
106	P	Carbazole	50.000	51.056	-2.1	122	0.00
107		Parathion Methyl	50.000	57.490	-15.0	128	0.00
108	P	Di-n-Butyl Phthalate	50.000	56.377	-12.8	131	0.00
109		Parathion Ethyl	50.000	58.107	-16.2	128	0.00
110		4-Nitroquinoline 1-Oxide	50.000	36.623	26.8	74	0.00
111		Methapyrilene	50.000	49.713	0.6	126	0.00
112		Isodrin	50.000	53.764	-7.5	128	0.00
113	C,P	Fluoranthene	50.000	50.603	-1.2	121	0.00
114	ISTD	Chrysene-d12	40.000	40.000	0.0	111	0.00
115		Benzidine	50.000	48.737	2.5	101	0.00
116	P	Pyrene	50.000	54.600	-9.2	119	0.00
117		Aramite	50.000	62.861	-25.7	126	0.00
118	S	p-Terphenyl-d14	50.000	55.391	-10.8	122	0.00
119		p-(Dimethylamino)azobenzene	50.000	56.747	-13.5	119	0.00
120		Chlorobenzilate	50.000	57.040	-14.1	120	0.00
121		Famphur	50.000	42.881	14.2	95	0.00
122	P	Butyl Benzyl Phthalate	50.000	58.968	-17.9	125	0.00
123		3,3'-Dimethylbenzidine	50.000	42.619	14.8	99	0.00
124		2-Acetylaminofluorene	50.000	53.222	-6.4	114	0.00
125	P	bis(2-Ethylhexyl)phthalate	50.000	61.747	-23.5	126	0.00
126	P	3,3'-Dichlorobenzidine	50.000	51.527	-3.1	110	0.00
127	P	Benzo[a]anthracene	50.000	51.798	-3.6	114	0.00
128	P	Chrysene	50.000	51.785	-3.6	114	0.00
129	ISTD	Perylene-d12	40.000	40.000	0.0	106	0.00
130	C,P	Di-n-Octyl Phthalate	50.000	59.940	-19.9	120	0.00
131		7,12-Dimethylbenz[a]anthrac	50.000	50.995	-2.0	108	0.00
132	P	Benzo[b]fluoranthene	50.000	49.992	0.0	108	0.00
133	P	Benzo[k]fluoranthene	50.000	50.830	-1.7	107	0.00
134	C,P	Benzo[a]pyrene	50.000	51.287	-2.6	108	0.00
135		3-Methylcholanthrene	50.000	51.093	-2.2	105	0.00
136	P	Indeno[1,2,3-cd]pyrene	50.000	54.314	-8.6	111	0.00
137	P	Dibenz[ah]anthracene	50.000	54.777	-9.6	112	0.00
138	P	Benzo[ghi]perylene	50.000	53.991	-8.0	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042519\19M007126.D Vial: 2
Acq On : 25 Apr 2019 1:40 pm Operator: SCB
Sample : WG704868-02 50PPM 8270 STD Inst : HPMS19NEW
Misc : 1,1 STD92410 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 14:27:50 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



TIC: 19M007126.D\data.ms

(132) Benzo[b]fluoranthene (P)

17.898min (+0.029) 49.992 ug/mL

response 600208

Ion	Exp%	Act%
252.00	100	100
253.00	24.10	24.21
125.00	13.50	13.97
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007116.D Vial: 3
Acq On : 24 Apr 2019 3:37 pm Operator: SCB
Sample : 500PPM KEPONE STD Inst : HPMS19NEW
Misc : 1,1 STD92242 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 17:49:11 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

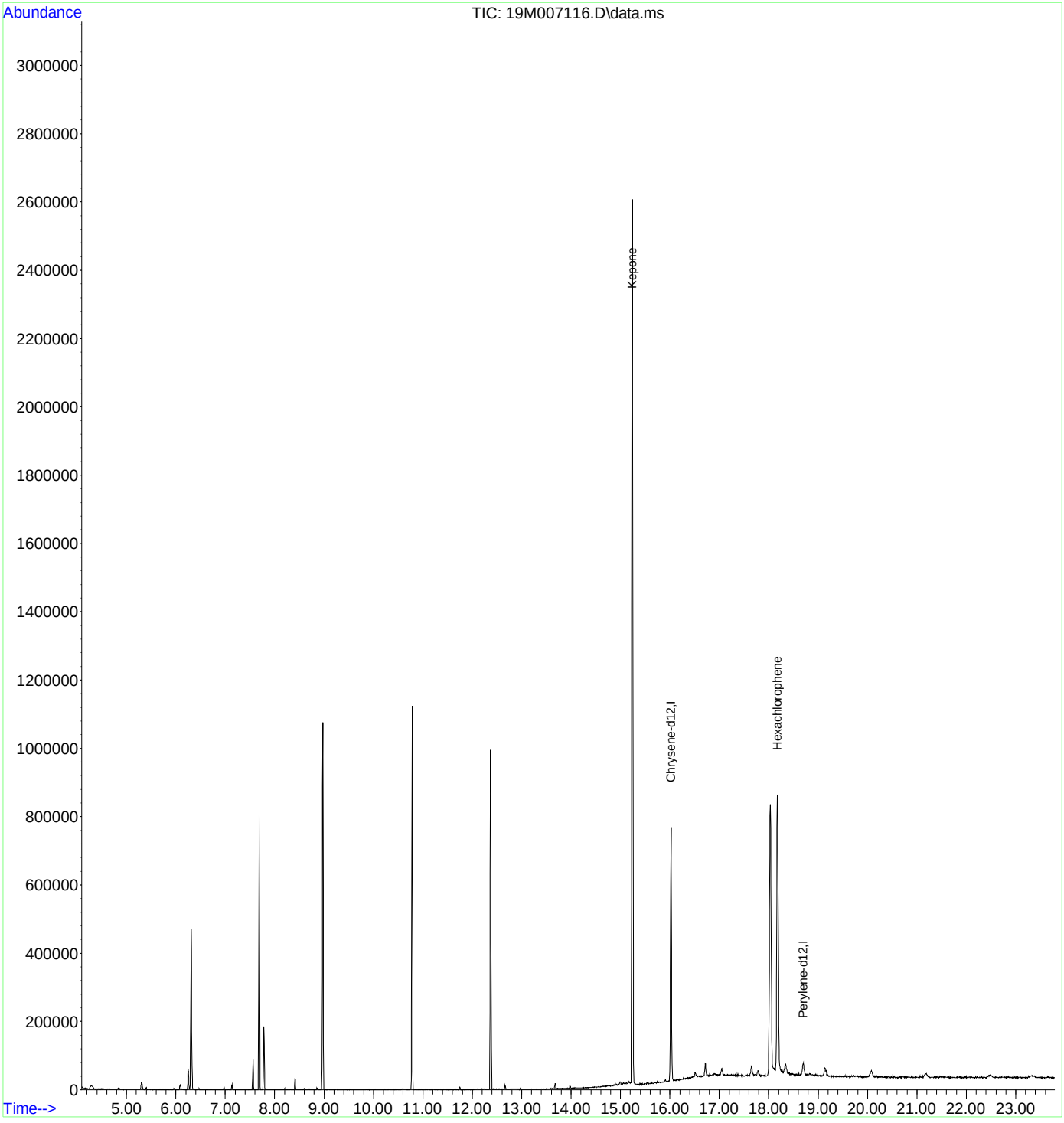
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.022	240	365261	40.0000	ug/mL	0.0000
3) Perylene-d12	18.698	264	34411	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
2) Kepone	15.239	272	334912	500.0000	ug/mL	100
4) Hexachlorophene	18.174	196	137712	500.0000	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007116.D Vial: 3
Acq On : 24 Apr 2019 3:37 pm Operator: SCB
Sample : 500PPM KEPONE STD Inst : HPMS19NEW
Misc : 1,1 STD92242 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 17:49:11 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007127.D Vial: 3
Acq On : 25 Apr 2019 2:40 pm Operator: SCB
Sample : 500PPM KEPONE STD Inst : HPMS19NEW
Misc : 1,1 STD92242 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 12:13:49 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

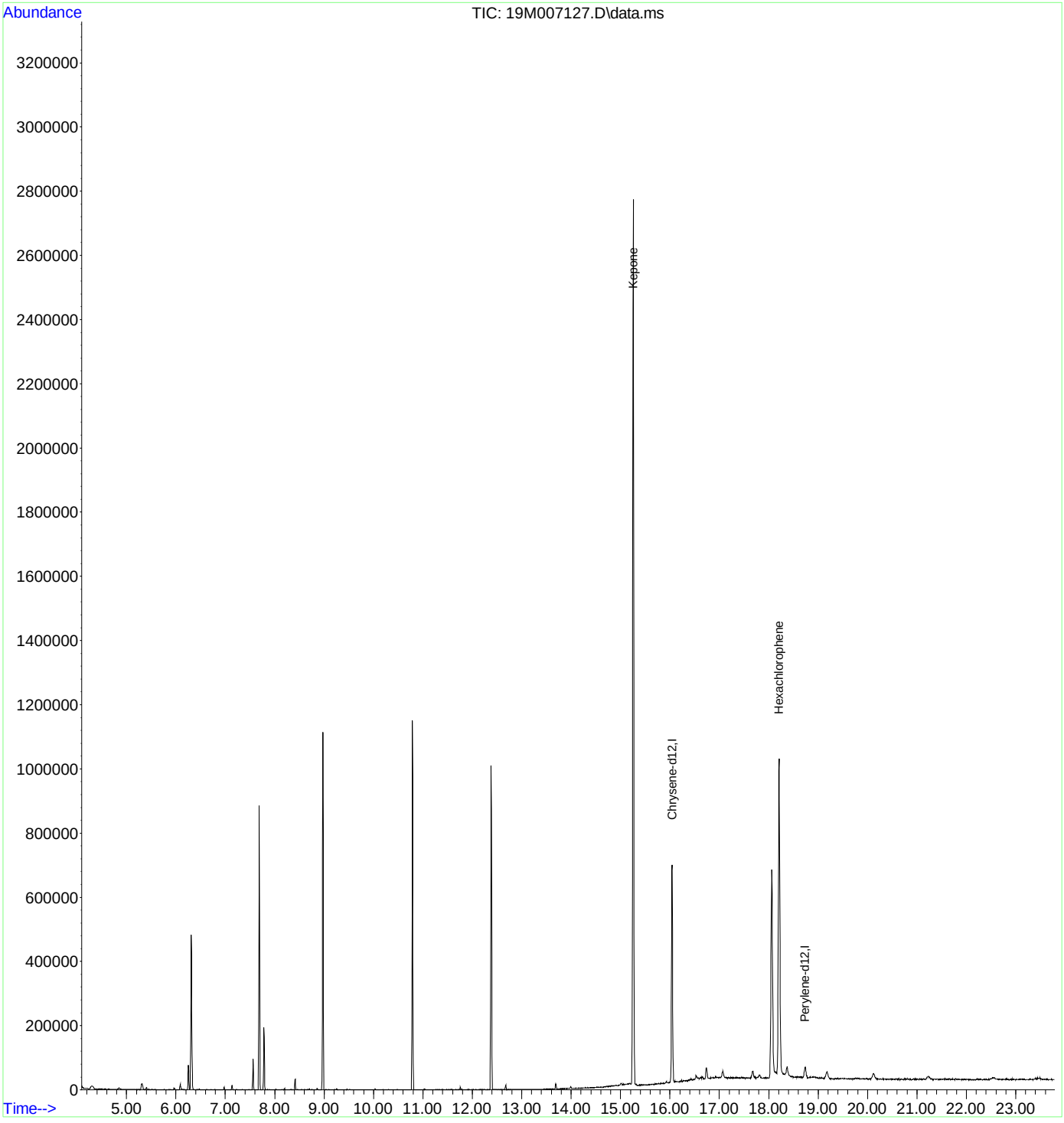
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.045	240	358130	40.0000	ug/mL	0.0000
3) Perylene-d12	18.739	264	31923	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
2) Kepone	15.257	272	363227	500.0000	ug/mL	100
4) Hexachlorophene	18.209	196	167345	500.0000	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042519\19M007127.D Vial: 3
Acq On : 25 Apr 2019 2:40 pm Operator: SCB
Sample : 500PPM KEPONE STD Inst : HPMS19NEW
Misc : 1,1 STD92242 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 26 12:13:49 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Fri Apr 26 12:13:38 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



19M007127.D A9B.M Fri Apr 26 12:13:50 2019 SVOA1 Page: 2

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71271.D Vial: 3
Acq On : 22 Apr 2019 11:45 am Operator: SCB
Sample : 500PPM KEPONE STD Inst : MSD12
Misc : 1,1 STD92242 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:39 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

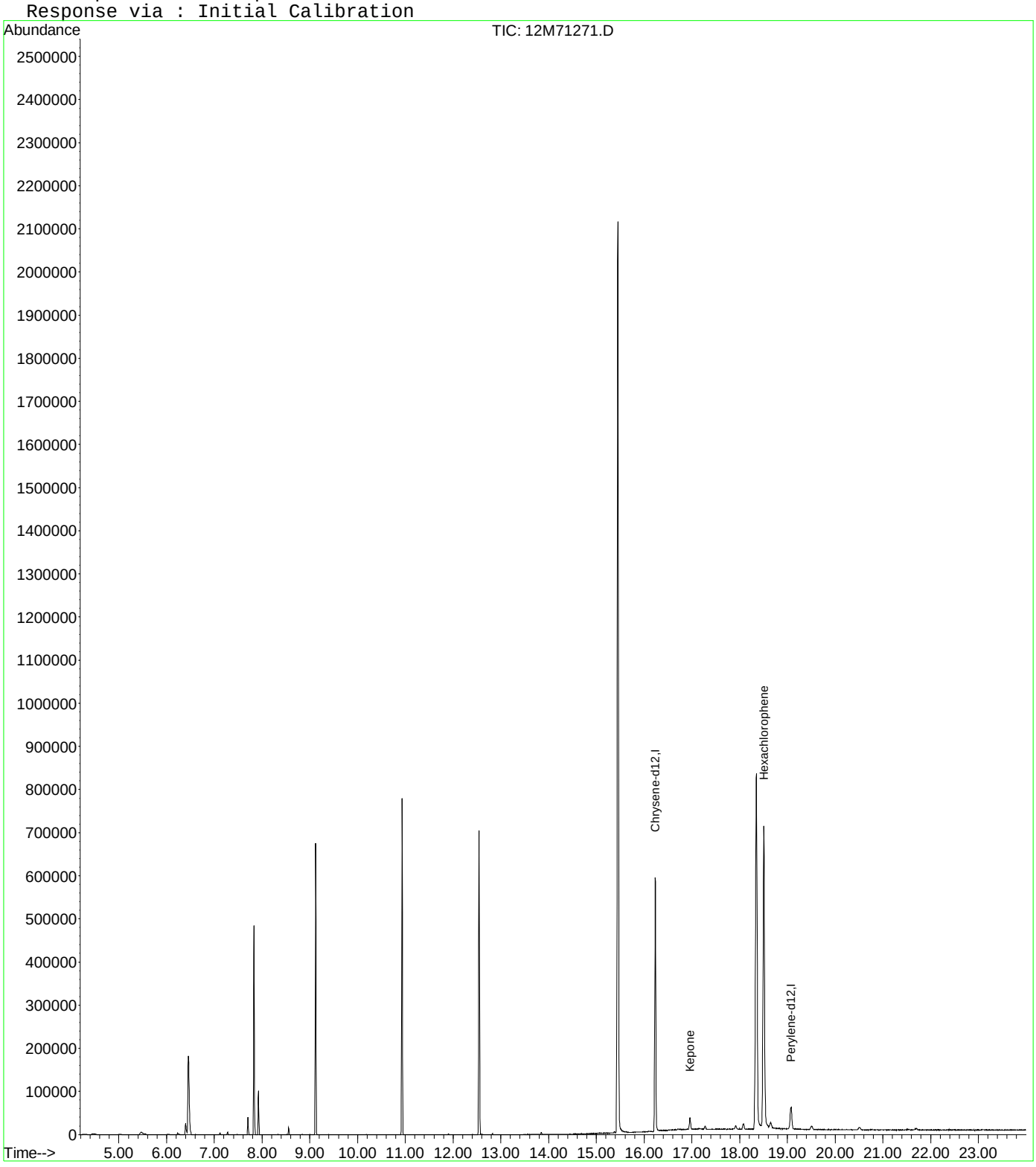
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	355297	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	58581	40.0000	ug/L	0.000
Target Compounds						Qvalue
2) Kepone	16.96	272	9367	500.0000	ug/L #	100
4) Hexachlorophene	18.51	196	141933	500.0000	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71271.D A9B.M Tue Apr 23 08:20:40 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71271.D Vial: 3
Acq On : 22 Apr 2019 11:45 am Operator: SCB
Sample : 500PPM KEPONE STD Inst : MSD12
Misc : 1,1 STD92242 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration

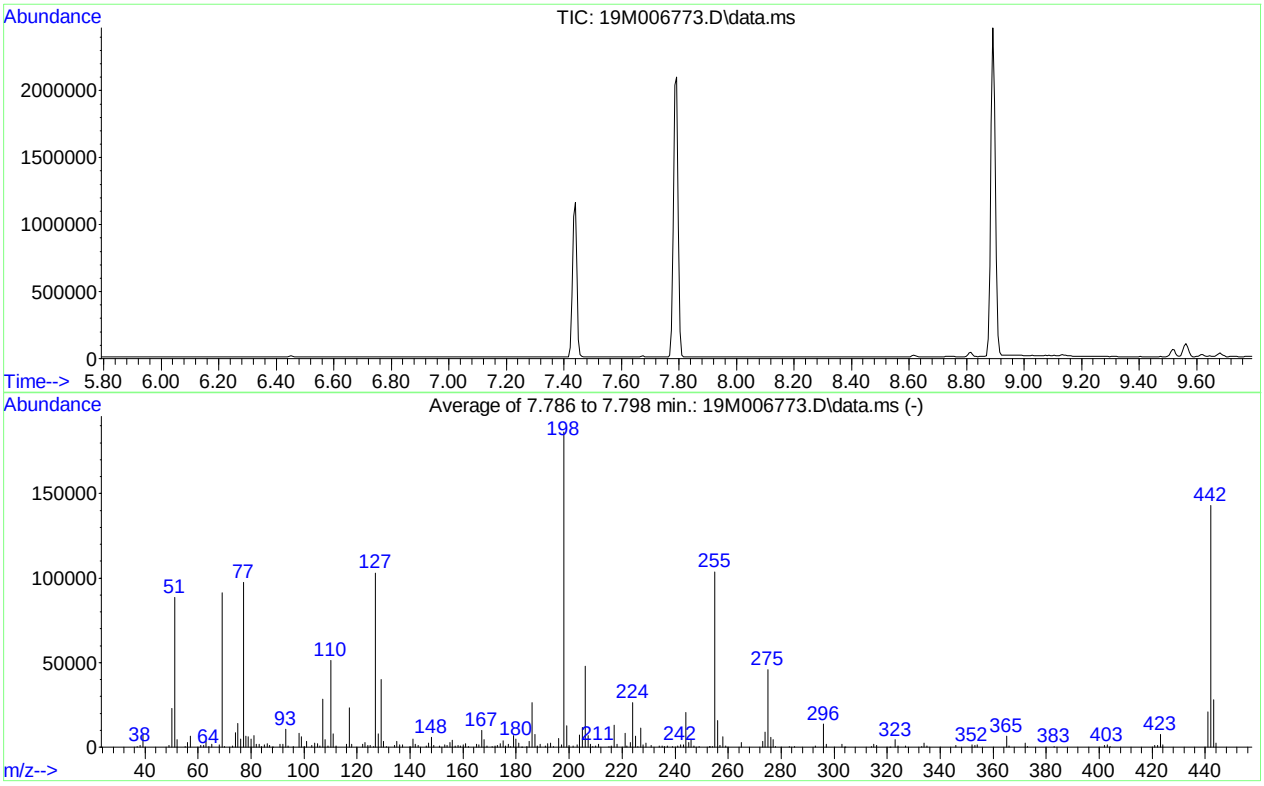


2.1.1.5 Raw QC Data

Data Path : C:\msdchem\4\DATA\040319\
Data File : 19M006773.D
InstName : HPMS19NEW
Acq On   : 3 Apr 2019 11:34 am
Operator : SCB
Sample   : WG701995-01 50PPM DFTPP
Misc   : 1,1 STD91965
ALS Vial : 1   Sample Multiplier: 1

Integration File: events.e

Method   : C:\msdchem\4\METHODS\DFTPP.M
Title   :
Last Update :



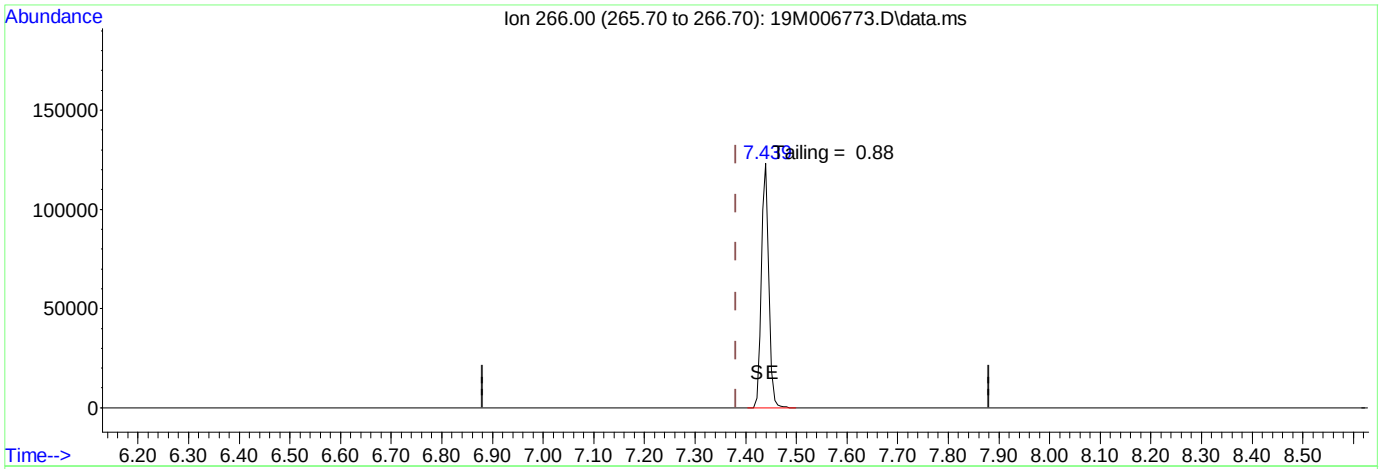
AutoFind: Scans 629, 630, 631; Background Corrected with Scan 624

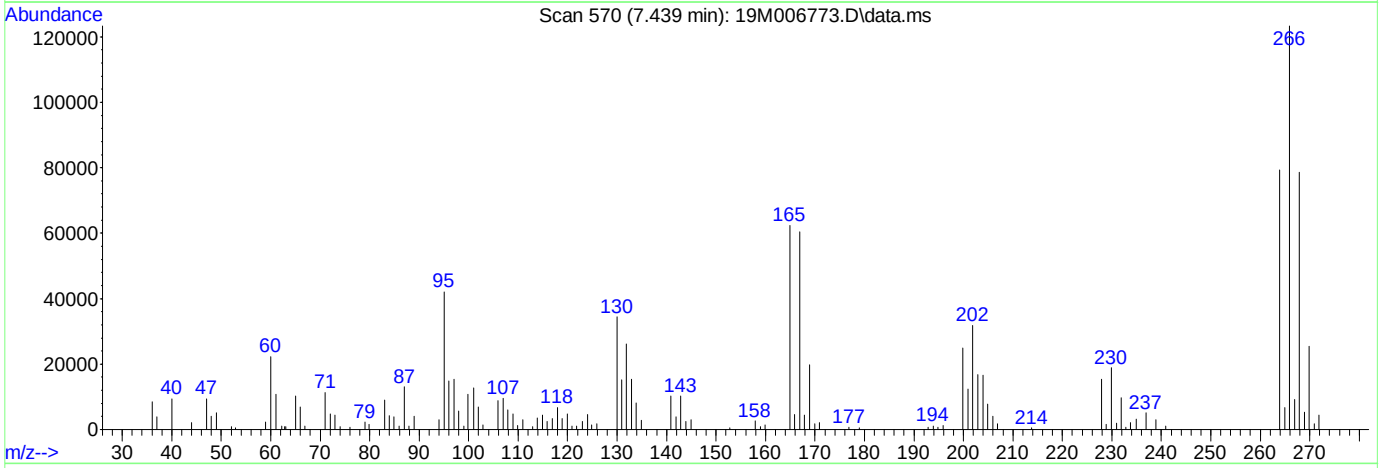
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.5	88555	PASS
68	69	0.00	2	1.7	1523	PASS
69	198	0.00	100	48.9	91168	PASS
70	69	0.00	2	0.5	475	PASS
127	198	40	60	55.3	103061	PASS
197	198	0.00	1	0.7	1355	PASS
198	198	100	100	100.0	186267	PASS
199	198	5	9	6.8	12710	PASS
275	198	10	30	24.6	45859	PASS
365	198	1	100	3.4	6426	PASS
441	443	0.01	100	73.8	20757	PASS
442	198	40	100	76.7	142920	PASS
443	442	17	23	19.7	28107	PASS

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006773.D Vial: 1
Acq On : 3 Apr 2019 11:34 am Operator: SCB
Sample : WG701995-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 03 11:42:17 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M006773.D\data.ms

(1) Pentachlorophenol

7.440min (+0.060) 0.000

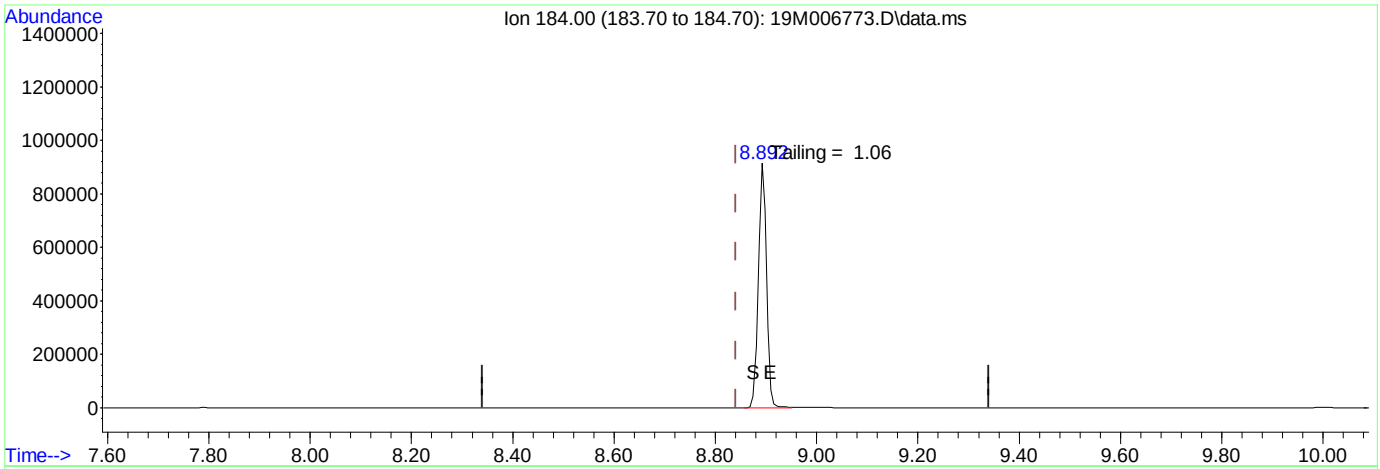
response 1270067

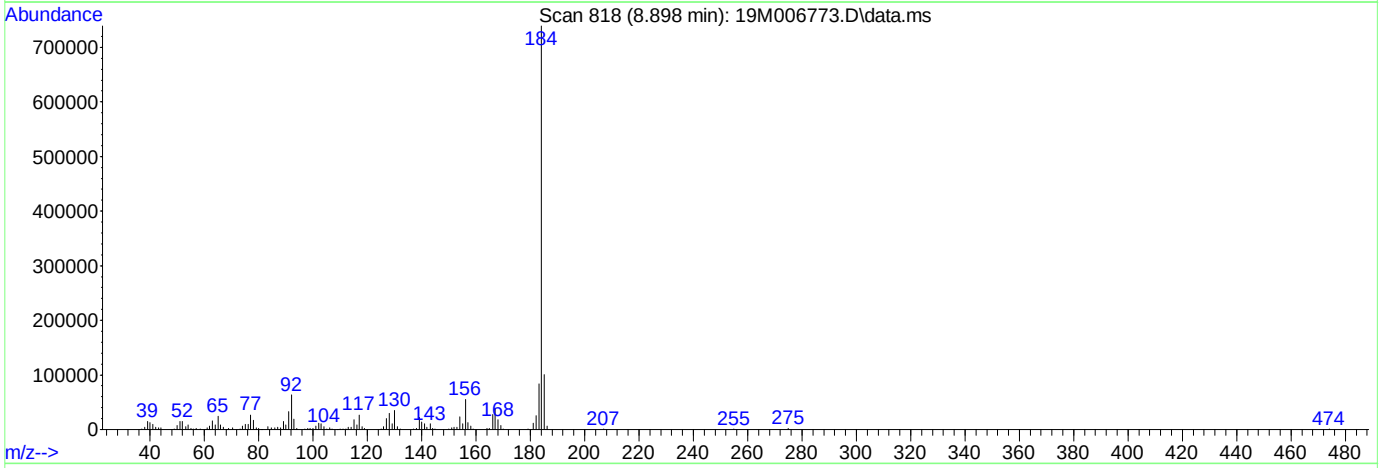
Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006773.D Vial: 1
Acq On : 3 Apr 2019 11:34 am Operator: SCB
Sample : WG701995-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 03 11:42:17 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M006773.D\data.ms

(2) Benzidine

8.895min (+0.055) 0.000

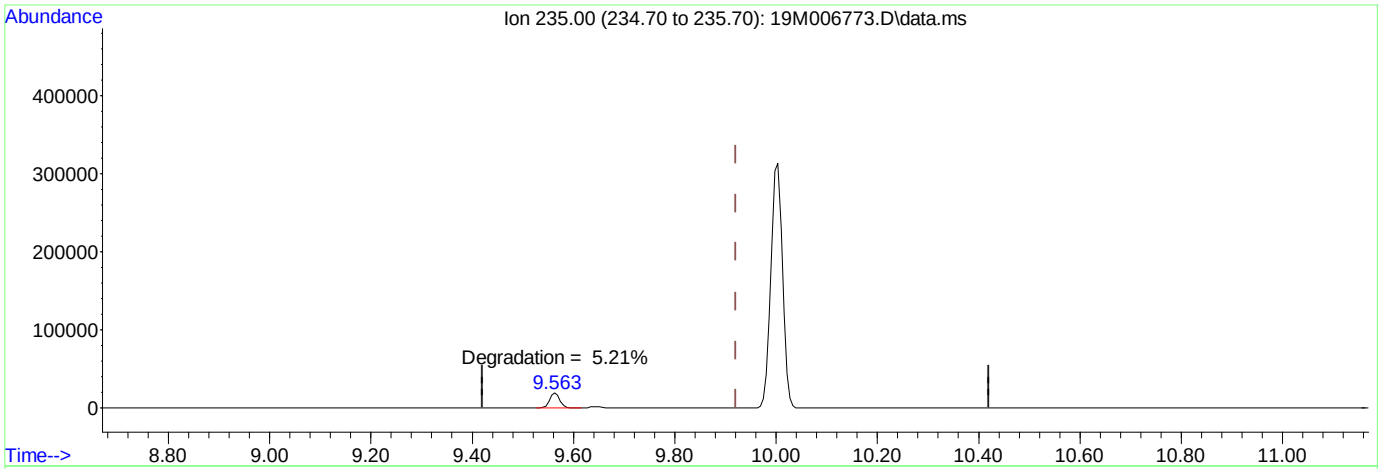
response 10364547

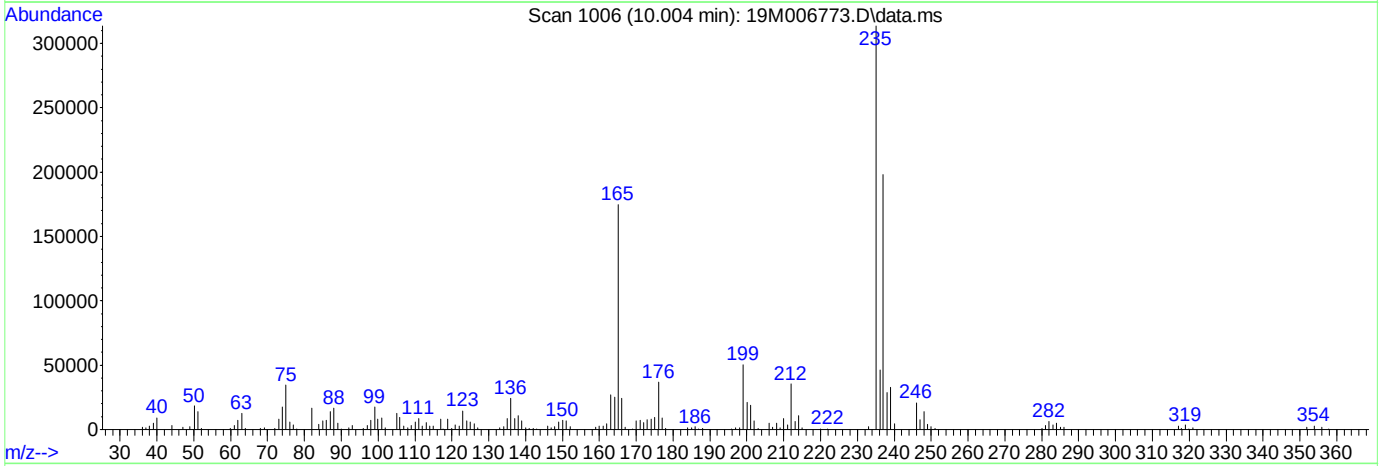
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\040319\19M006773.D Vial: 1
Acq On : 3 Apr 2019 11:34 am Operator: SCB
Sample : WG701995-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 03 11:42:17 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M006773.D\data.ms

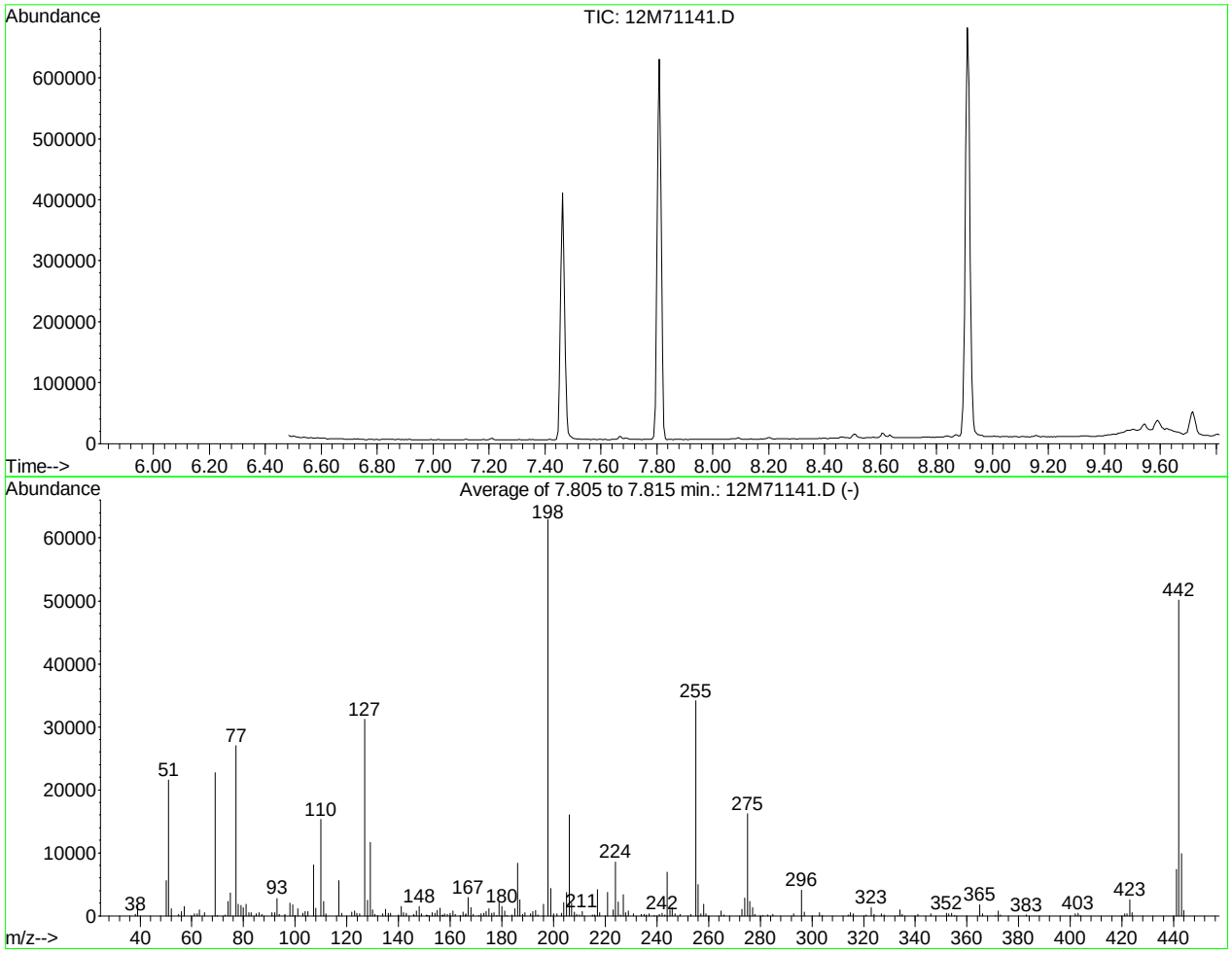
(3) DDT

10.004min (+0.084) 0.000

response 4980298

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041219\12M71141.D Vial: 1
Acq On : 12 Apr 2019 10:12 am Operator: SCB
Sample : WG703239-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



AutoFind: Scans 248, 249, 250; Background Corrected with Scan 242

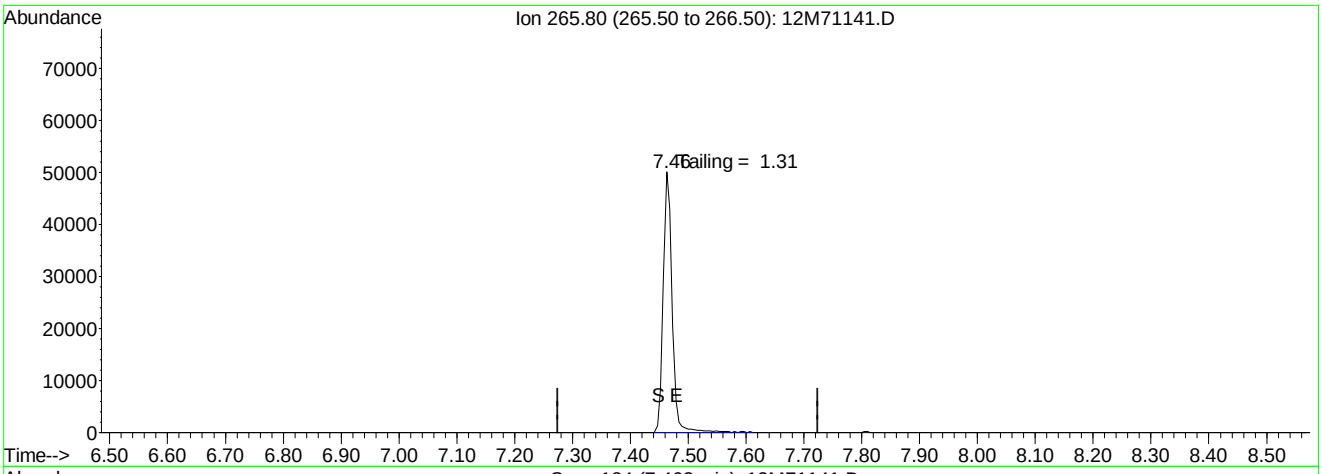
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.3	21567	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.2	22750	PASS
70	69	0.00	2	0.3	66	PASS
127	198	40	60	49.6	31234	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	62922	PASS
199	198	5	9	6.8	4298	PASS
275	198	10	30	25.7	16165	PASS
365	198	1	100	2.8	1756	PASS
441	443	0.01	100	74.3	7335	PASS
442	198	40	100	79.6	50098	PASS
443	442	17	23	19.7	9872	PASS

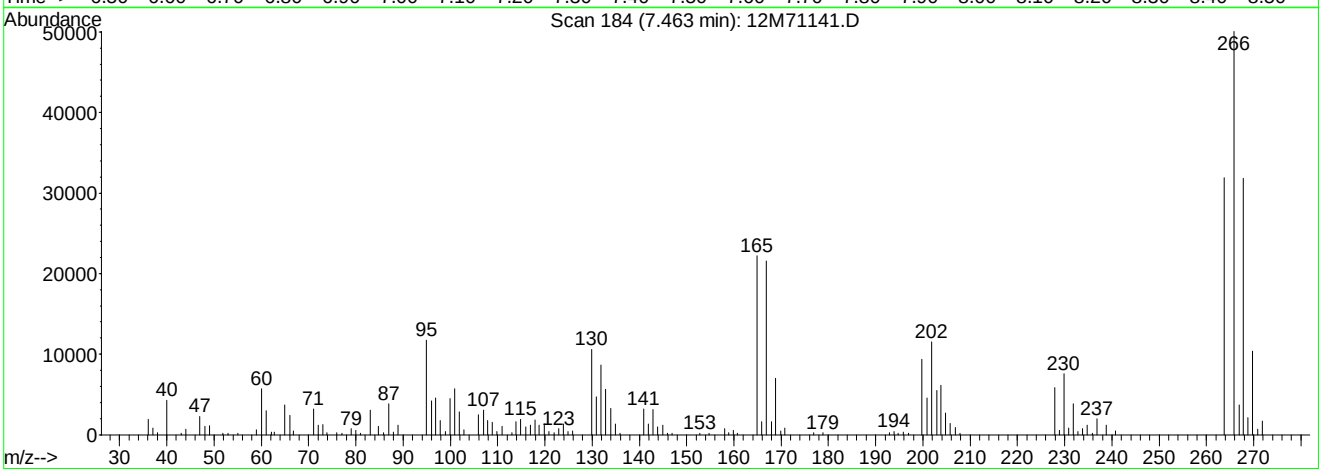
12M71141.D DFTPP.M Mon Apr 15 15:22:07 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71141.D Vial: 1
Acq On : 12 Apr 2019 10:12 am Operator: SCB
Sample : WG703239-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 12 10:25 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Mar 20 09:35:52 2019
Response via : Single Level Calibration





TIC: 12M71141.D

(1) Pentachlorophenol

7.46min 0.00ug/ml

response 53756

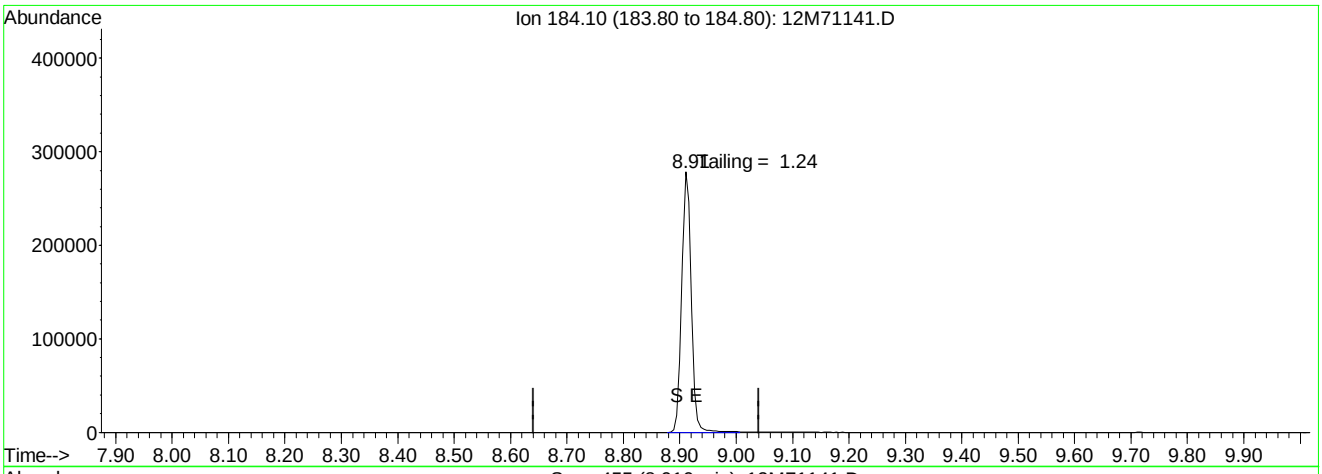
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

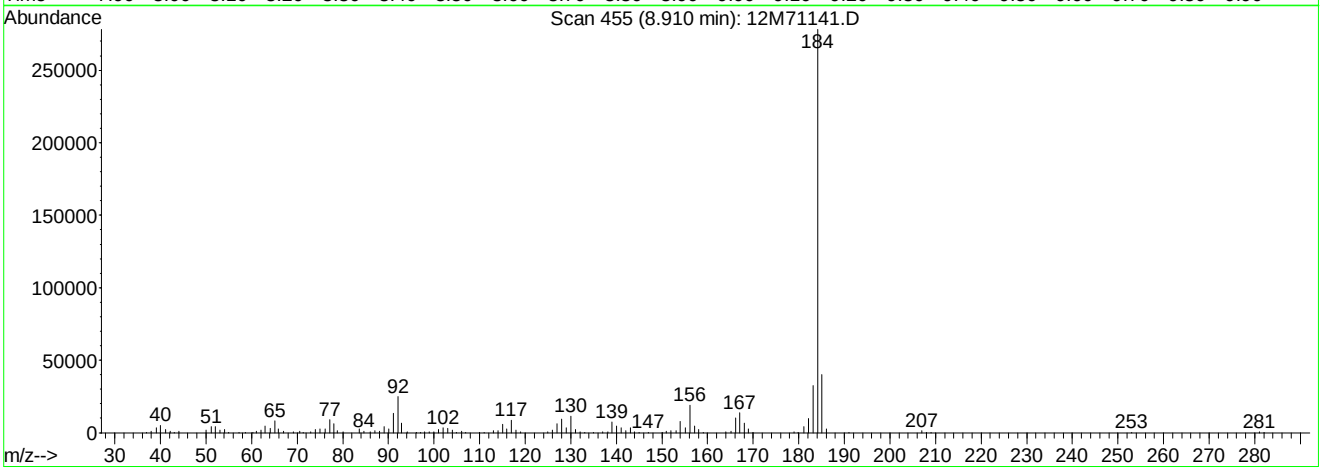
12M71141.D DFTPP.M Mon Apr 15 15:22:16 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71141.D Vial: 1
Acq On : 12 Apr 2019 10:12 am Operator: SCB
Sample : WG703239-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 12 10:25 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Mar 20 09:35:52 2019
Response via : Single Level Calibration





TIC: 12M71141.D

(2) Benzidine

8.91min 0.00ug/ml

response 326561

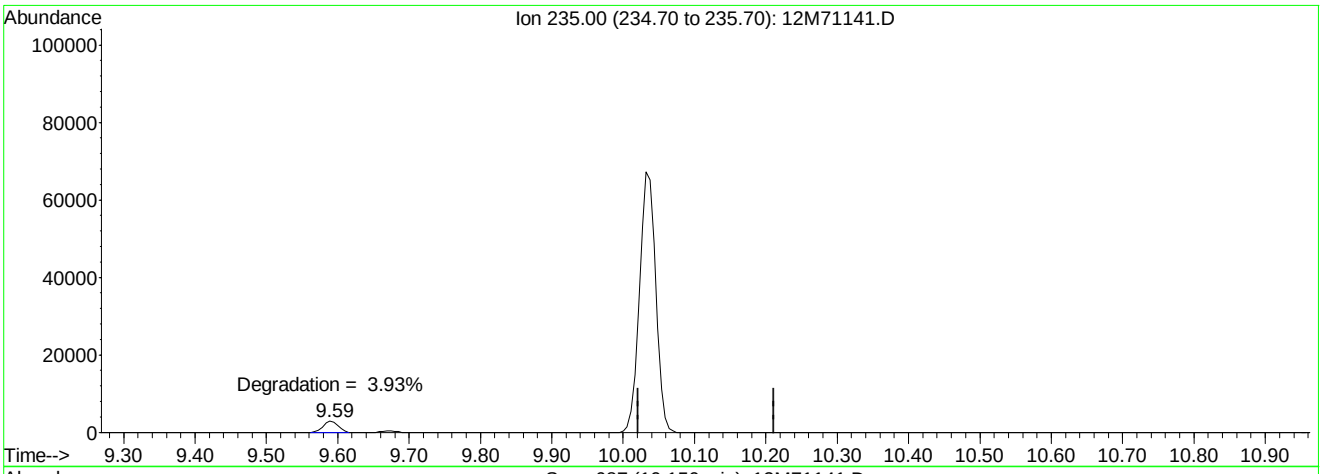
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

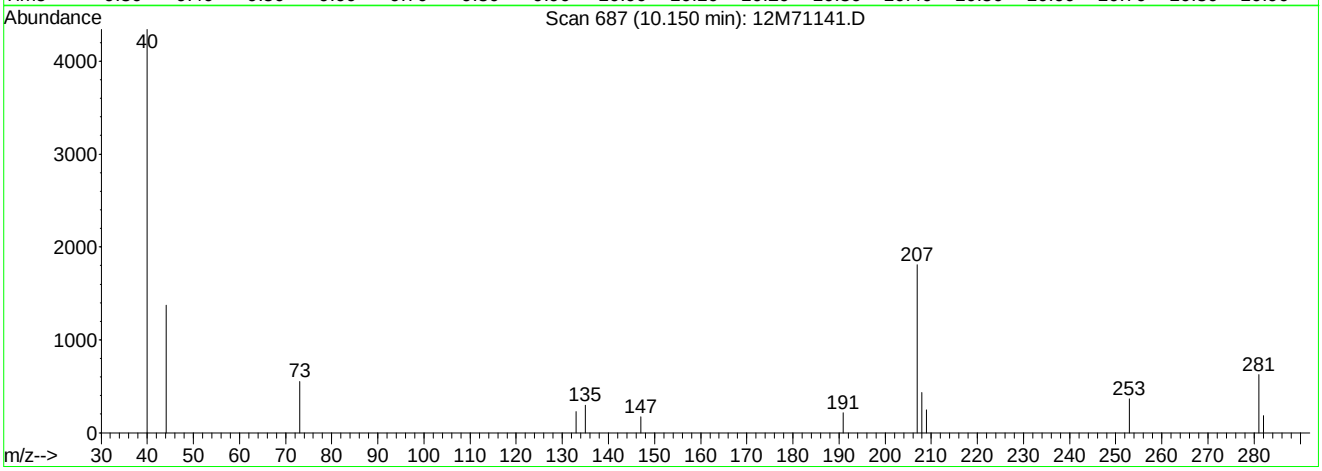
12M71141.D DFTPP.M Mon Apr 15 15:22:24 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041219\12M71141.D Vial: 1
Acq On : 12 Apr 2019 10:12 am Operator: SCB
Sample : WG703239-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 12 10:25 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Mar 20 09:35:52 2019
Response via : Single Level Calibration





TIC: 12M71141.D

(3) DDT

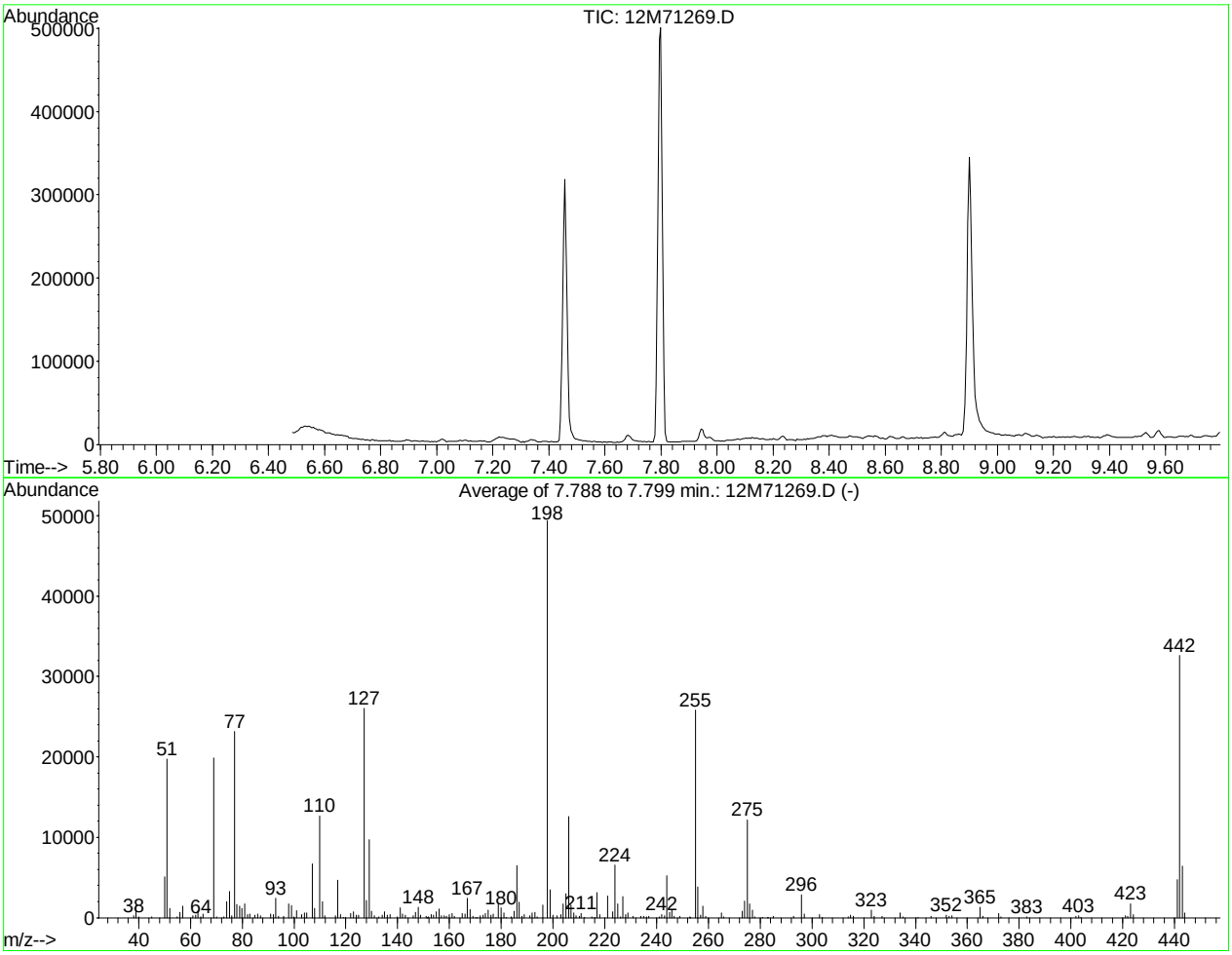
10.15min 0.00ug/ml

response 0

Ion	Exp%	Act%
235.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

12M71141.D DFTPP.M Mon Apr 15 15:22:35 2019

Data File : I:\MSDCHEM\1\DATA\042219\12M71269.D Vial: 1
Acq On : 22 Apr 2019 10:51 am Operator: SCB
Sample : WG704385-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



AutoFind: Scans 245, 246, 247; Background Corrected with Scan 240

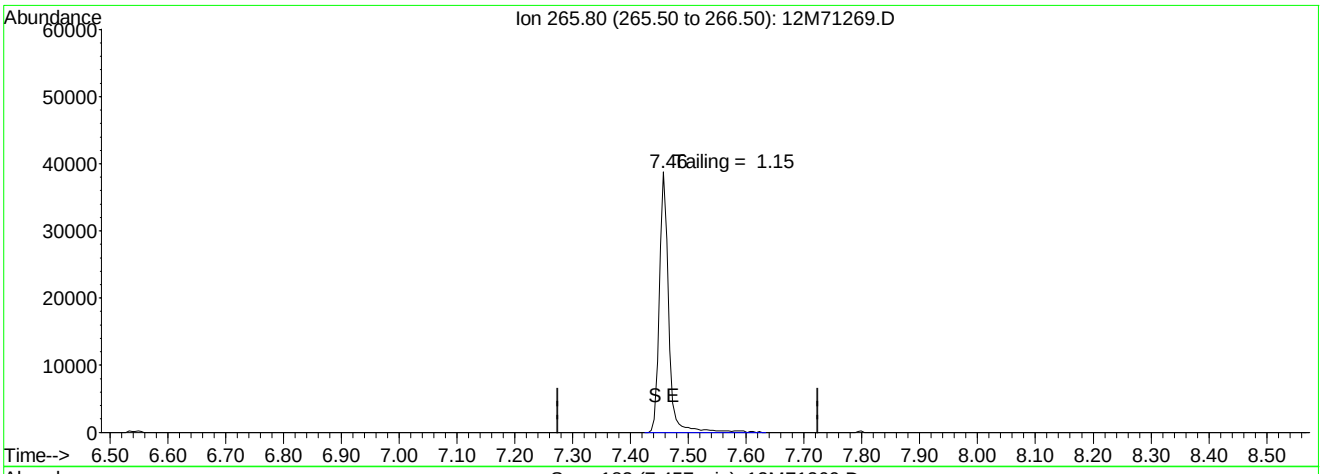
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.0	19762	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.3	19891	PASS
70	69	0.00	2	0.6	124	PASS
127	198	40	60	52.7	26032	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	49389	PASS
199	198	5	9	7.1	3505	PASS
275	198	10	30	24.6	12158	PASS
365	198	1	100	2.6	1269	PASS
441	443	0.01	100	73.6	4746	PASS
442	198	40	100	66.1	32631	PASS
443	442	17	23	19.8	6448	PASS

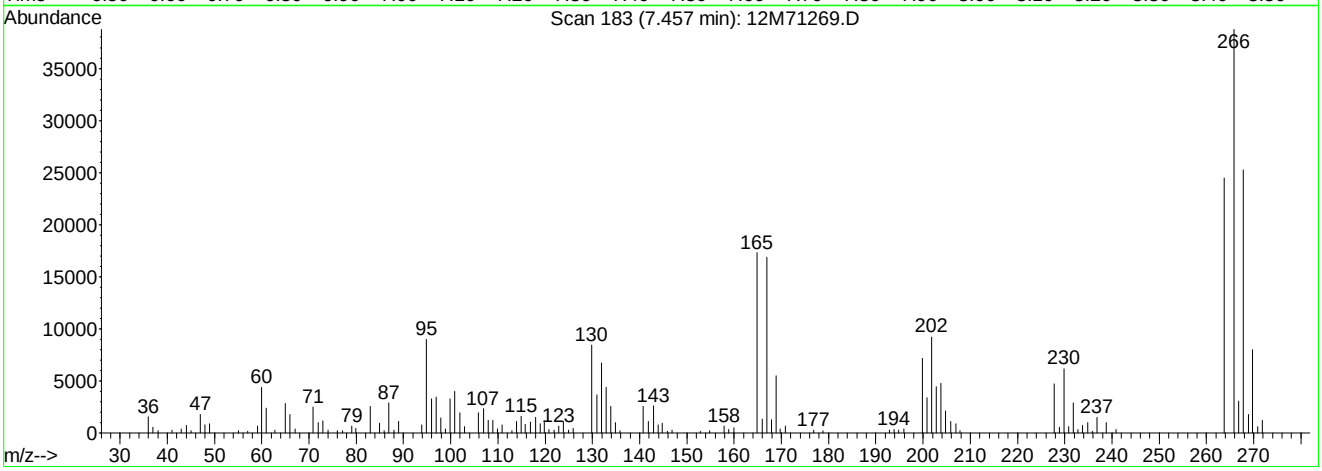
12M71269.D DFTPP.M Tue Apr 23 08:10:19 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\042219\12M71269.D Vial: 1
Acq On : 22 Apr 2019 10:51 am Operator: SCB
Sample : WG704385-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:06 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Mar 20 09:35:52 2019
Response via : Single Level Calibration





TIC: 12M71269.D

(1) Pentachlorophenol

7.46min 0.00ug/ml

response 43186

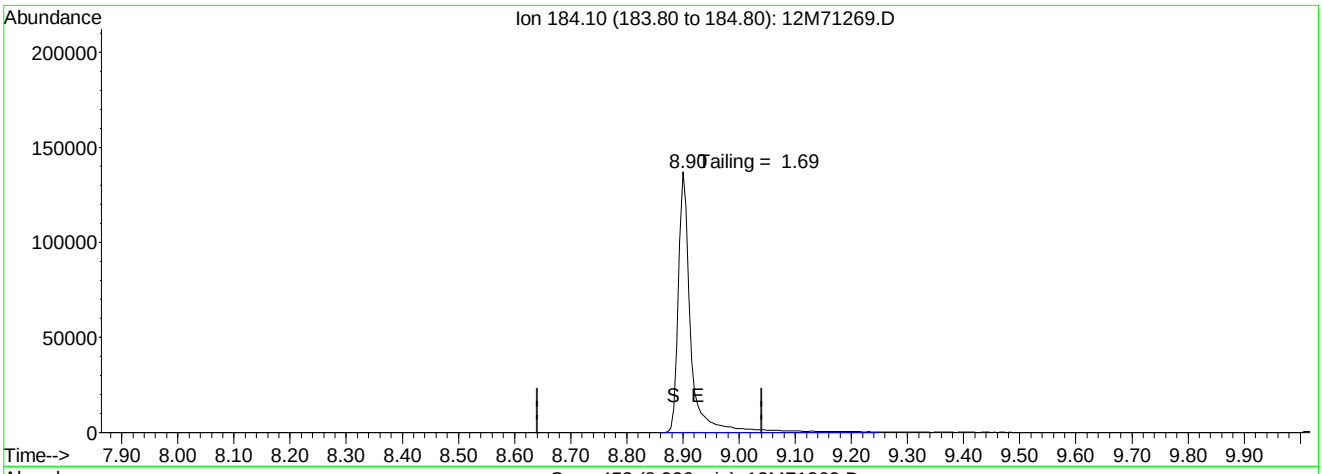
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

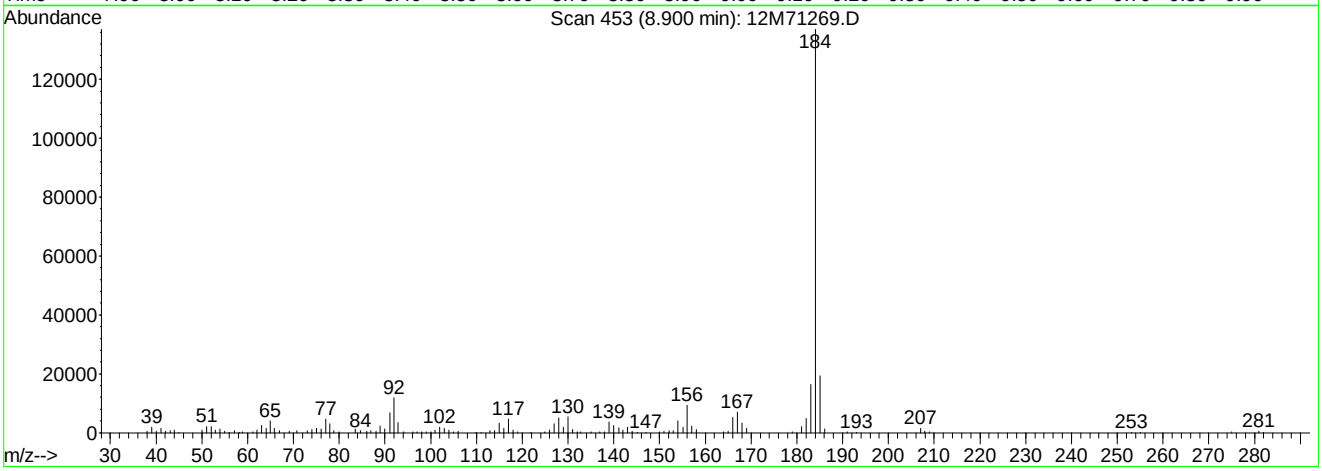
12M71269.D DFTPP.M Tue Apr 23 08:10:29 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\042219\12M71269.D Vial: 1
Acq On : 22 Apr 2019 10:51 am Operator: SCB
Sample : WG704385-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:06 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Mar 20 09:35:52 2019
Response via : Single Level Calibration





TIC: 12M71269.D

(2) Benzidine

8.90min 0.00ug/ml

response 201949

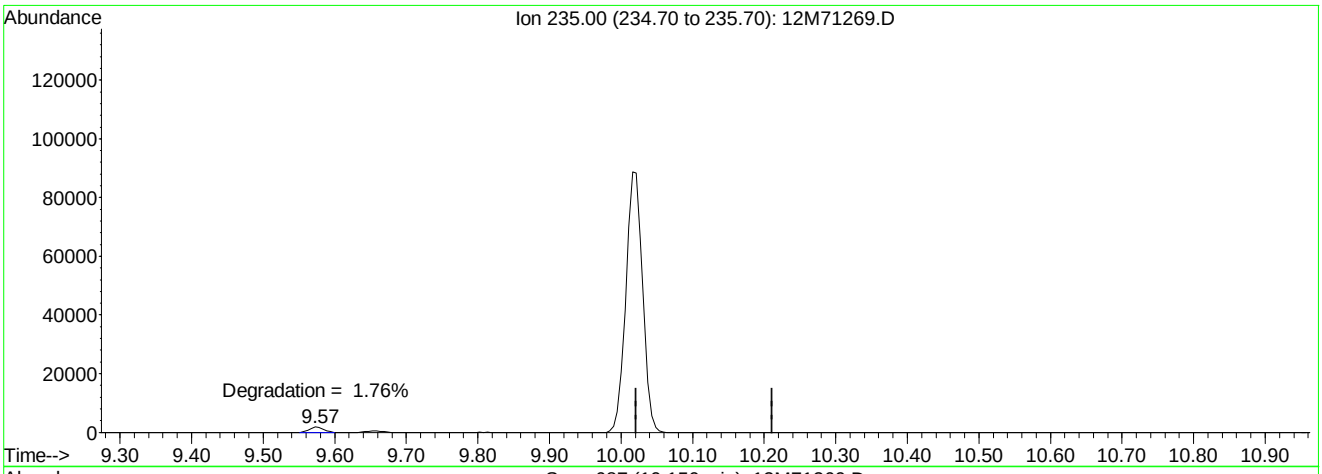
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

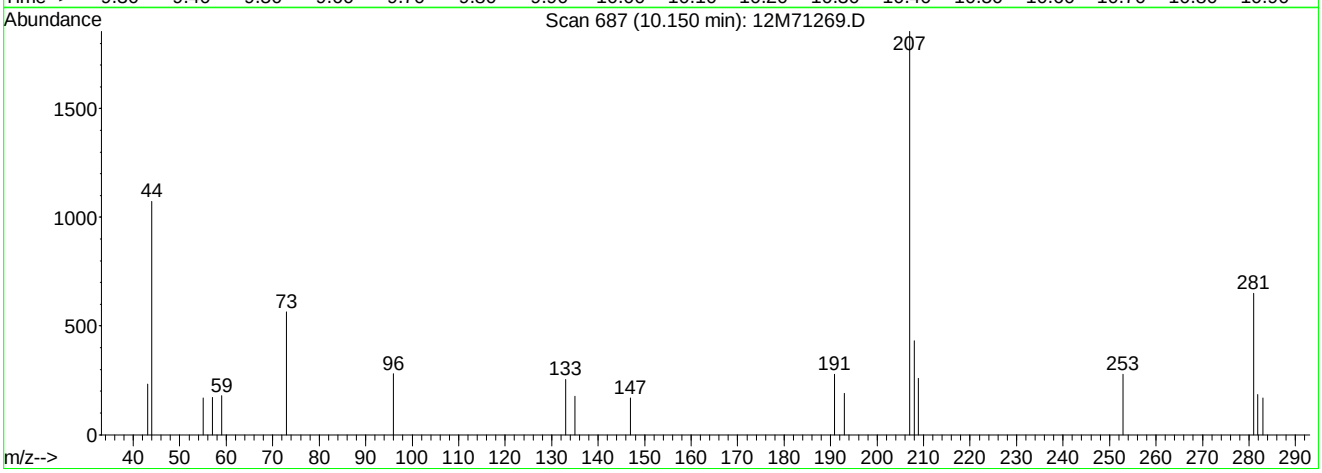
12M71269.D DFTPP.M Tue Apr 23 08:10:39 2019

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\042219\12M71269.D Vial: 1
Acq On : 22 Apr 2019 10:51 am Operator: SCB
Sample : WG704385-01 50PPM DFTPP STD Inst : MSD12
Misc : 1,1 STD91965 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 22 11:06 2019 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Mar 20 09:35:52 2019
Response via : Single Level Calibration





TIC: 12M71269.D

(3) DDT

10.15min 0.00ug/ml

response 0

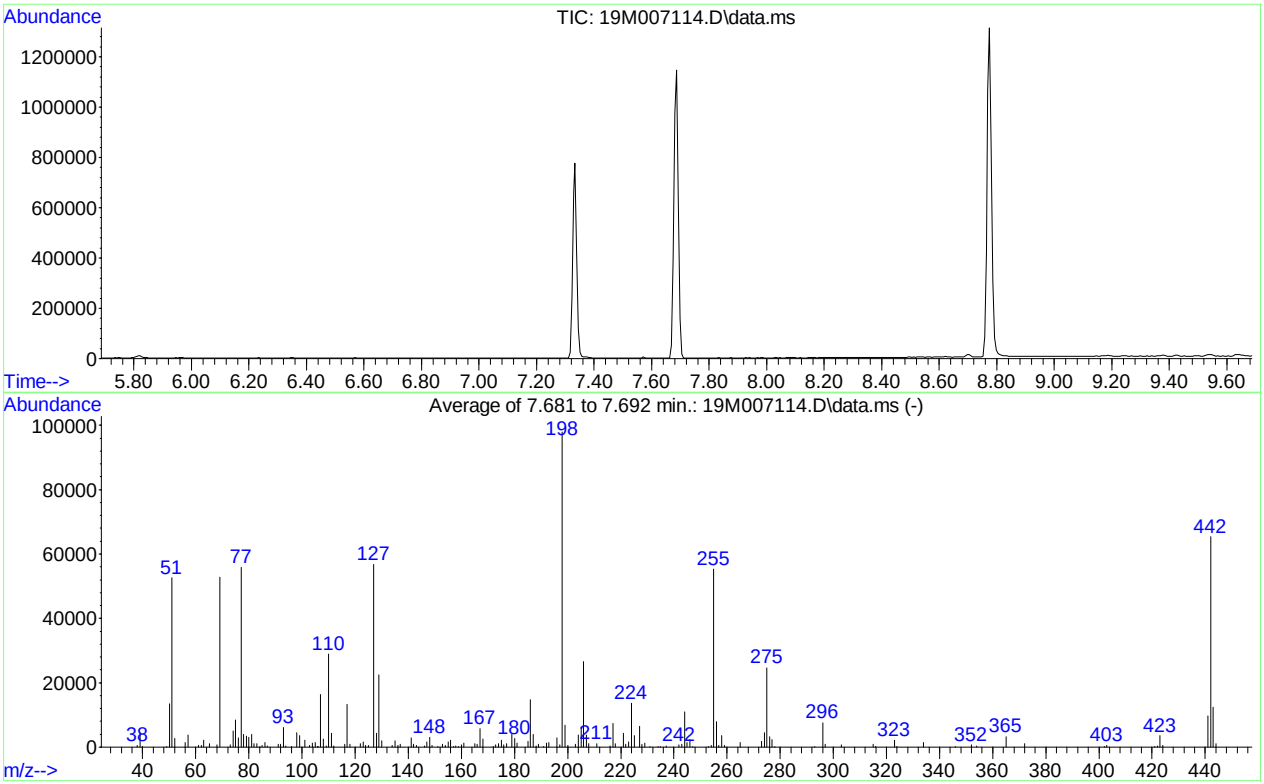
Ion	Exp%	Act%
235.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

12M71269.D DFTPP.M Tue Apr 23 08:10:50 2019

Data Path : C:\msdchem\4\DATA\042419\
Data File : 19M007114.D
InstName : HPMS19NEW
Acq On   : 24 Apr 2019   1:42 pm
Operator : SCB
Sample   : WG704765-01 50PPM DFTPP
Misc   : 1,1 STD91965
ALS Vial : 1   Sample Multiplier: 1

Integration File: events.e

Method   : C:\msdchem\4\METHODS\DFTPP.M
Title   :
Last Update :



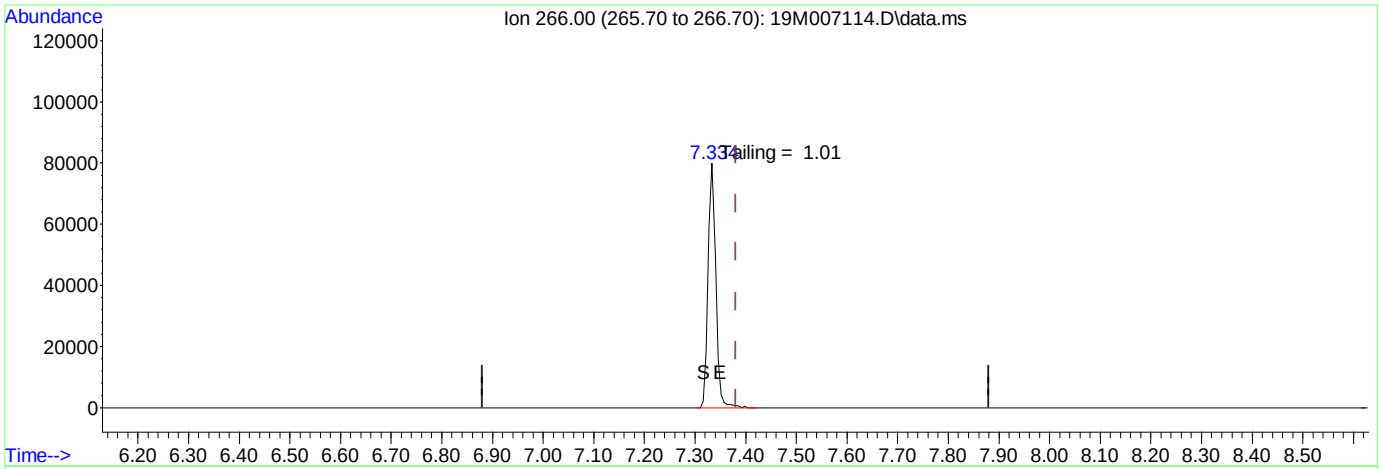
AutoFind: Scans 611, 612, 613; Background Corrected with Scan 606

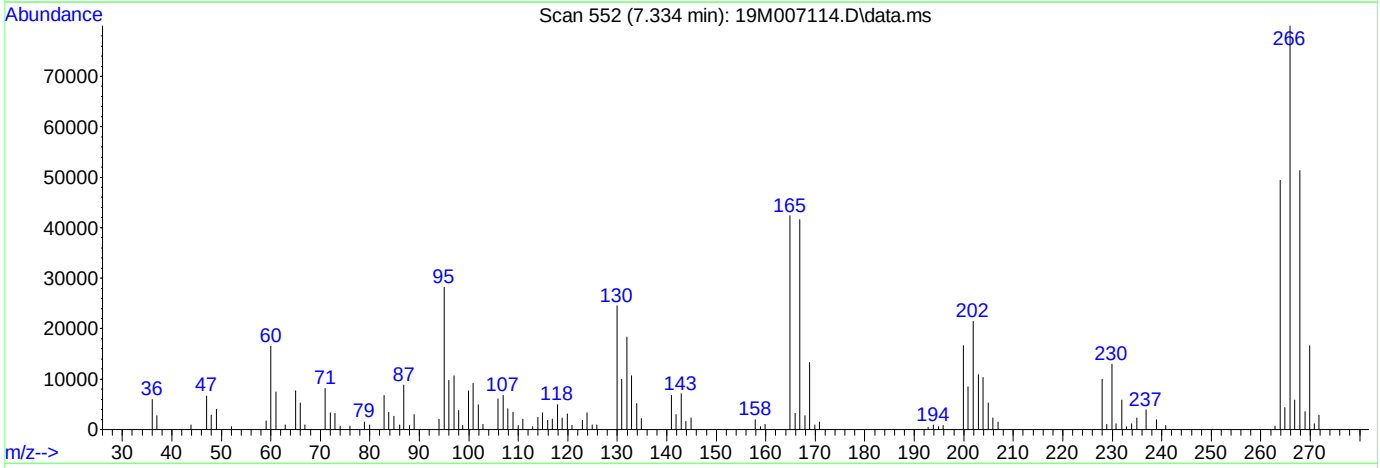
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.7	52560	PASS
68	69	0.00	2	1.4	716	PASS
69	198	0.00	100	53.9	52725	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	58.0	56709	PASS
197	198	0.00	1	0.8	736	PASS
198	198	100	100	100.0	97848	PASS
199	198	5	9	7.0	6815	PASS
275	198	10	30	25.2	24688	PASS
365	198	1	100	3.4	3297	PASS
441	443	0.01	100	78.7	9779	PASS
442	198	40	100	66.7	65301	PASS
443	442	17	23	19.0	12424	PASS

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042419\19M007114.D Vial: 1
Acq On : 24 Apr 2019 1:42 pm Operator: SCB
Sample : WG704765-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 24 13:55:00 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M007114.D\data.ms

(1) Pentachlorophenol

7.336min (-0.044) 0.000

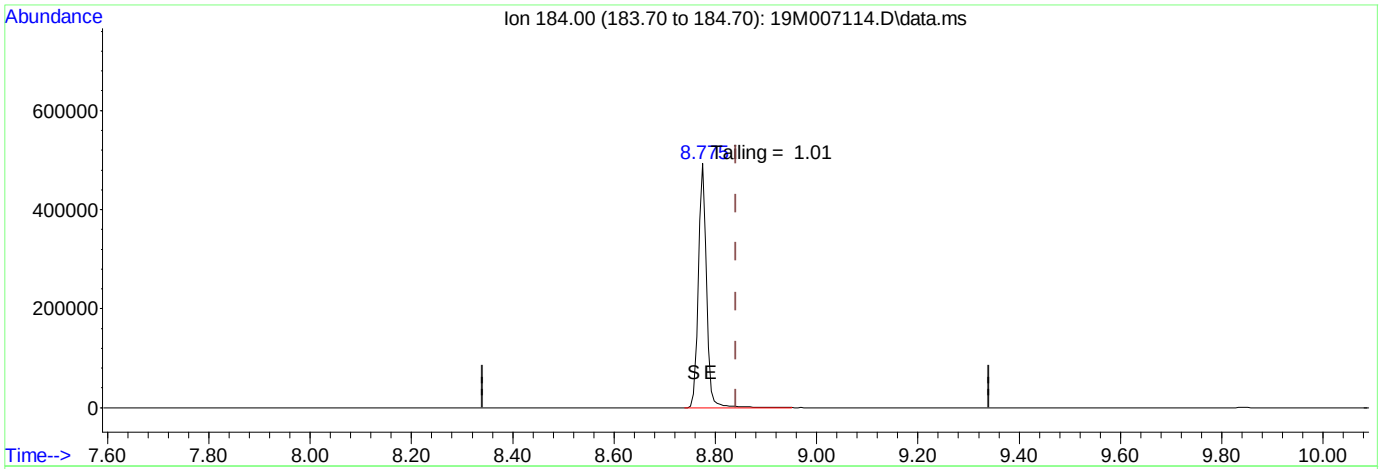
response 834812

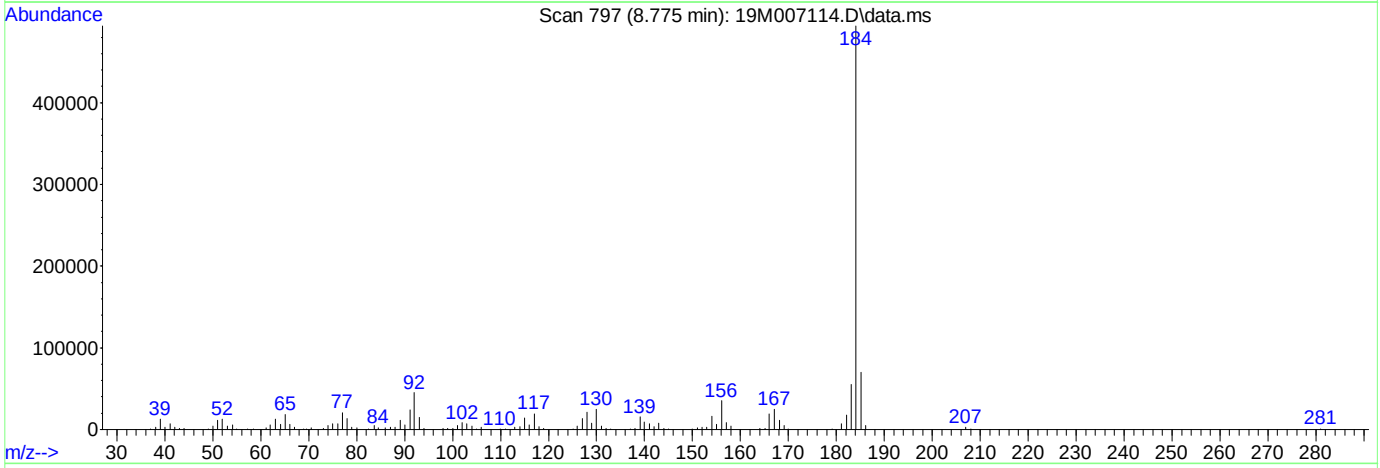
Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042419\19M007114.D Vial: 1
Acq On : 24 Apr 2019 1:42 pm Operator: SCB
Sample : WG704765-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 24 13:55:00 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M007114.D\data.ms

(2) Benzidine

8.777min (-0.063) 0.000

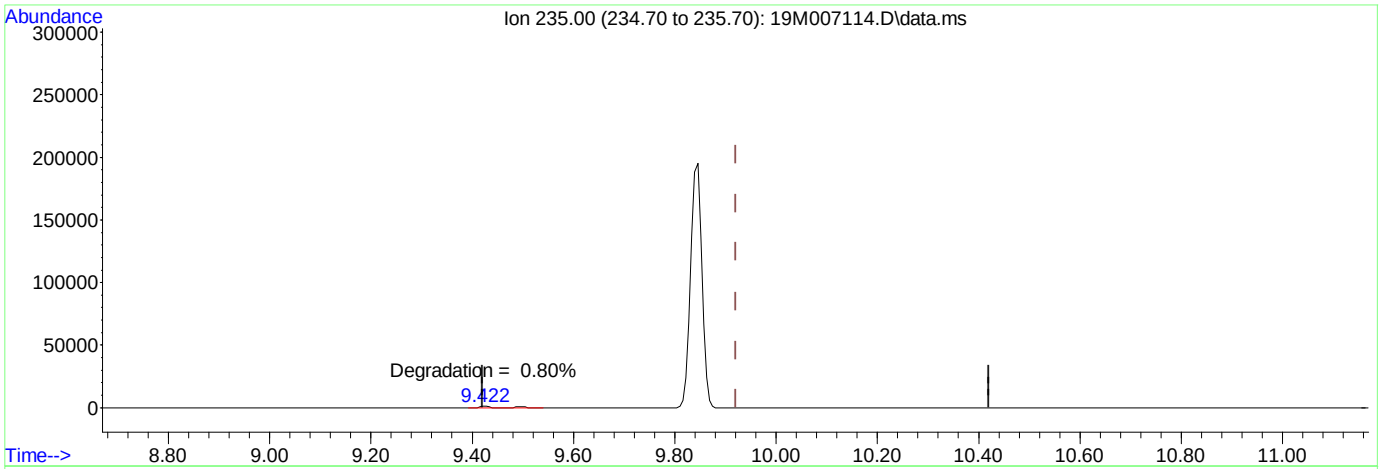
response 5538200

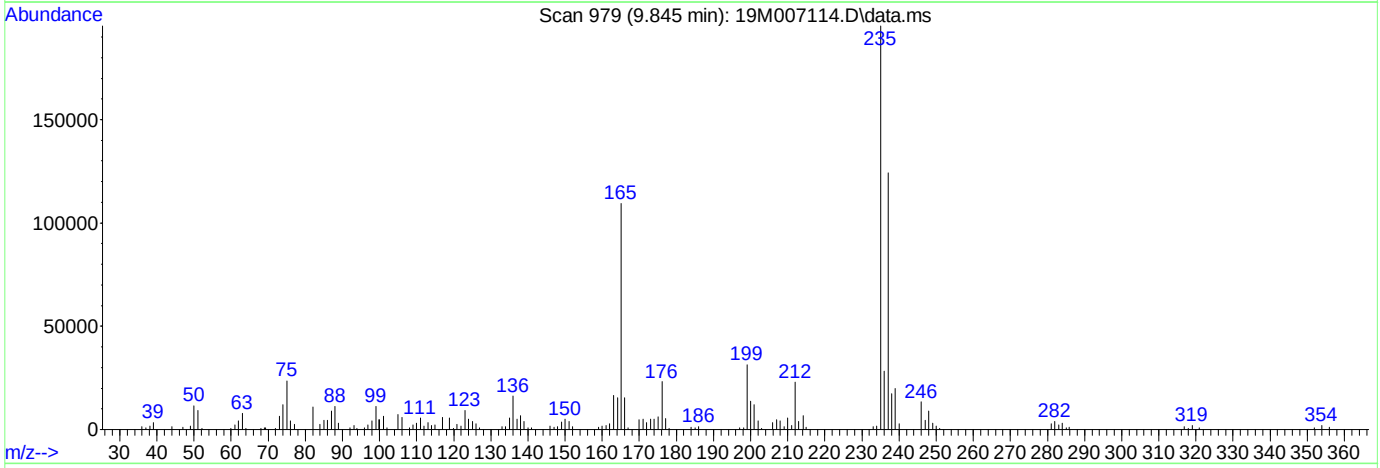
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042419\19M007114.D Vial: 1
Acq On : 24 Apr 2019 1:42 pm Operator: SCB
Sample : WG704765-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 24 13:55:00 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M007114.D\data.ms

(3) DDT

9.845min (-0.075) 0.000

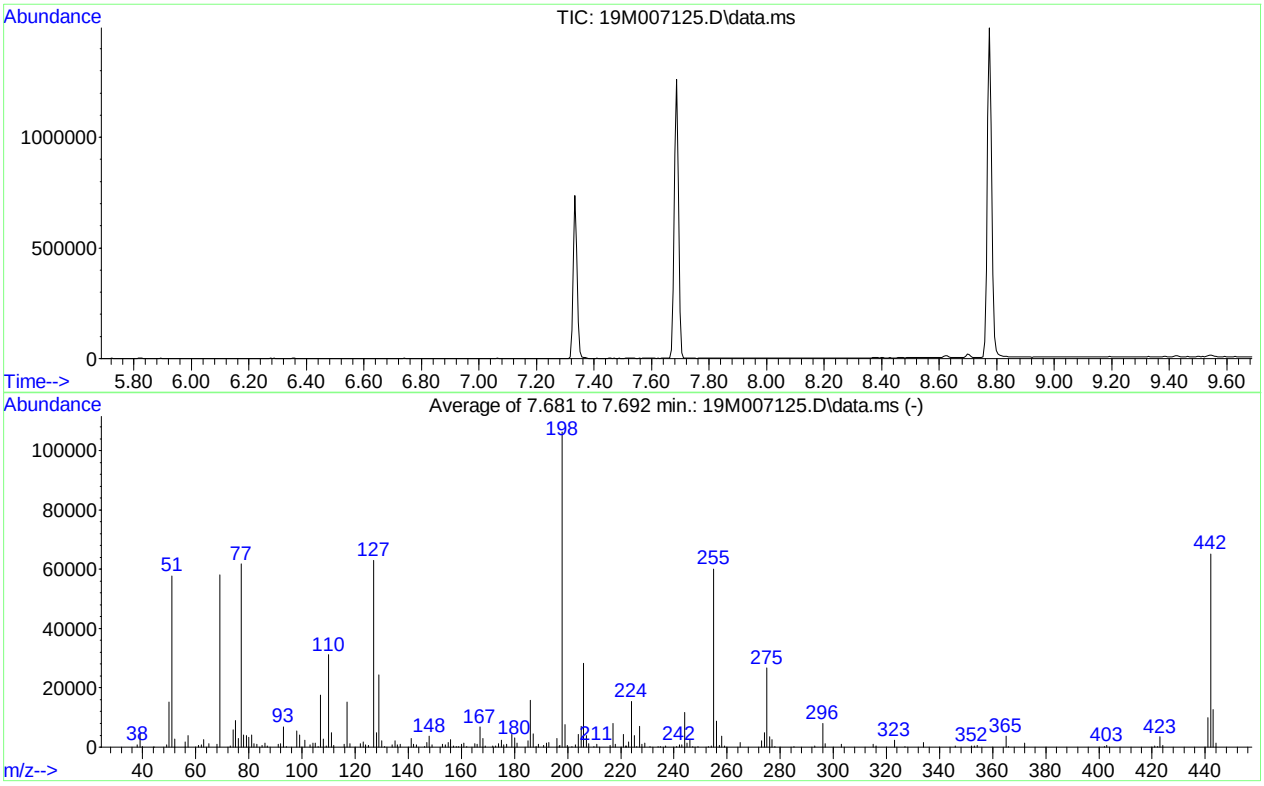
response 3016487

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\msdchem\4\DATA\042519\
Data File : 19M007125.D
InstName : HPMS19NEW
Acq On   : 25 Apr 2019 12:46 pm
Operator : SCB
Sample   : WG704868-01 50PPM DFTPP
Misc   : 1,1 STD91965
ALS Vial : 1   Sample Multiplier: 1

Integration File: events.e

Method   : C:\msdchem\4\METHODS\DFTPP.M
Title   :
Last Update :



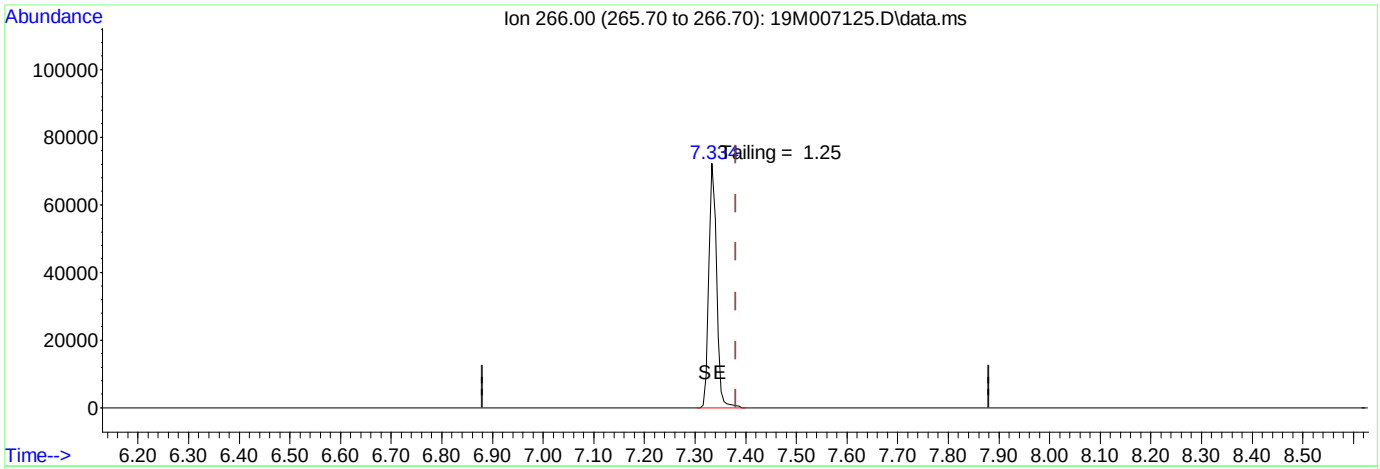
AutoFind: Scans 611, 612, 613; Background Corrected with Scan 606

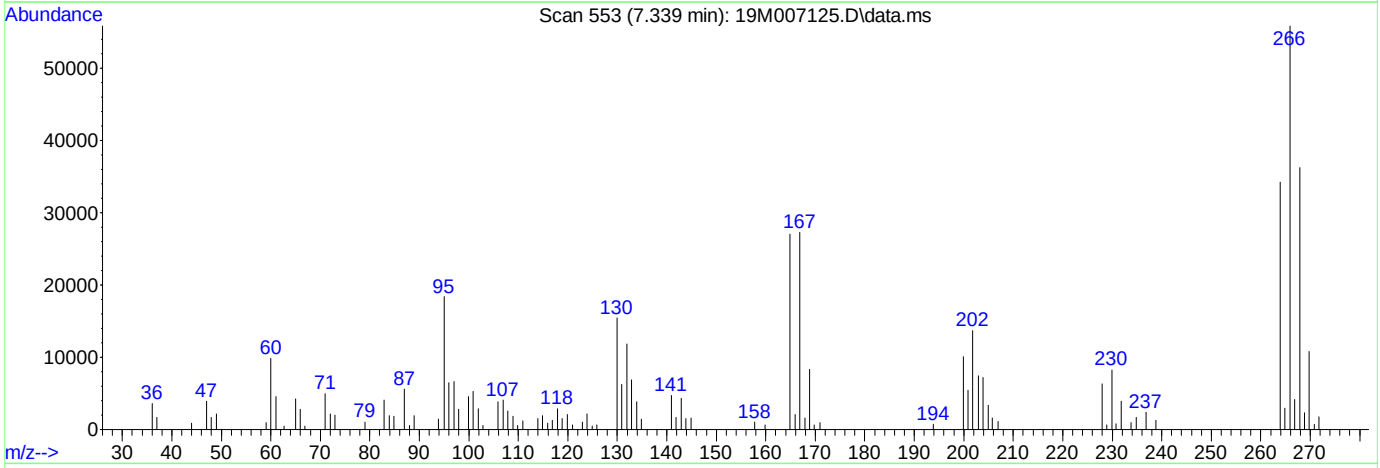
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.4	57784	PASS
68	69	0.00	2	1.6	939	PASS
69	198	0.00	100	54.8	58149	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	59.3	62952	PASS
197	198	0.00	1	0.5	569	PASS
198	198	100	100	100.0	106192	PASS
199	198	5	9	7.1	7587	PASS
275	198	10	30	25.1	26693	PASS
365	198	1	100	3.5	3687	PASS
441	443	0.01	100	78.2	9963	PASS
442	198	40	100	61.4	65165	PASS
443	442	17	23	19.6	12747	PASS

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042519\19M007125.D Vial: 1
Acq On : 25 Apr 2019 12:46 pm Operator: SCB
Sample : WG704868-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 25 13:33:51 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M007125.D\data.ms

(1) Pentachlorophenol

7.337min (-0.043) 0.000

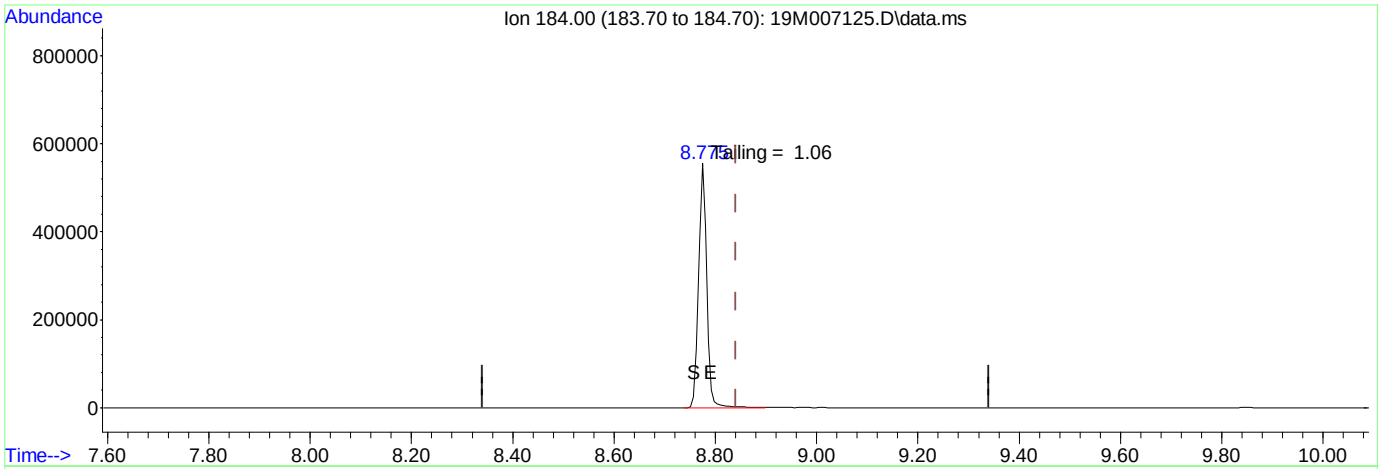
response 753075

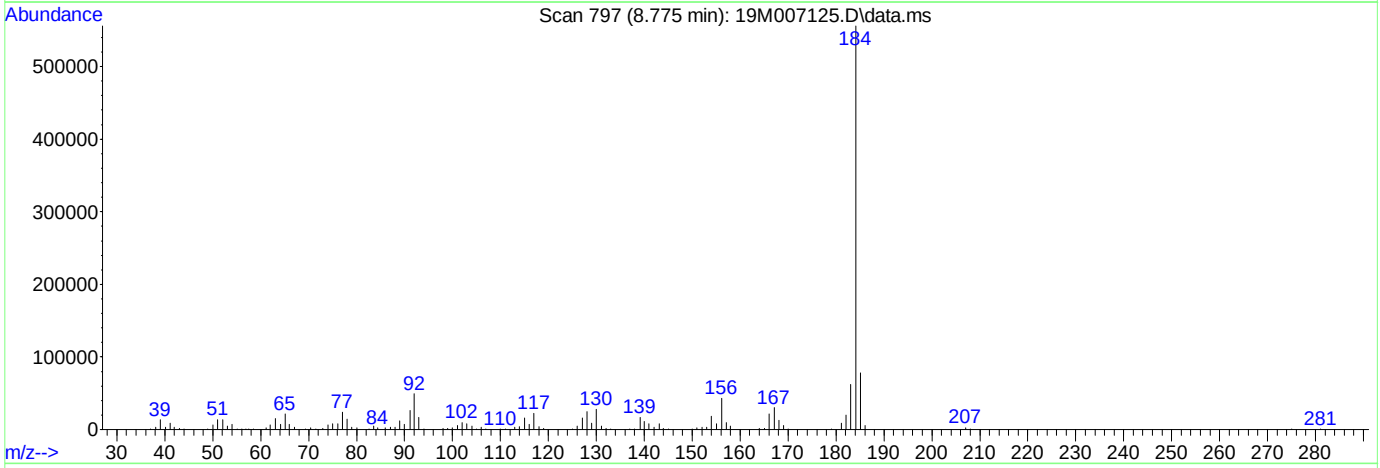
Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042519\19M007125.D Vial: 1
Acq On : 25 Apr 2019 12:46 pm Operator: SCB
Sample : WG704868-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 25 13:33:51 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M007125.D\data.ms

(2) Benzidine

8.777min (-0.063) 0.000

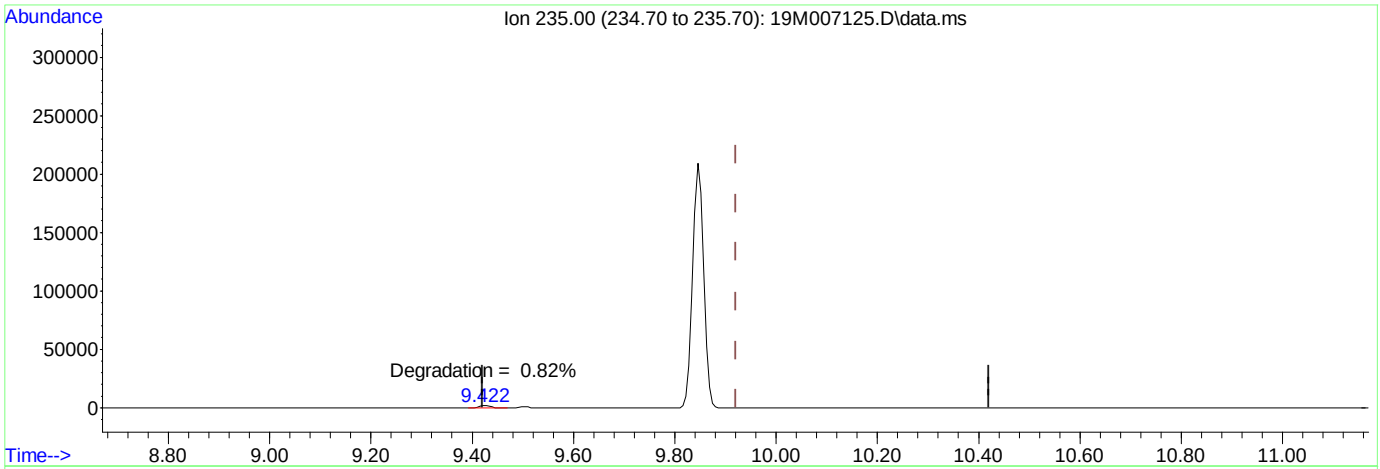
response 6135758

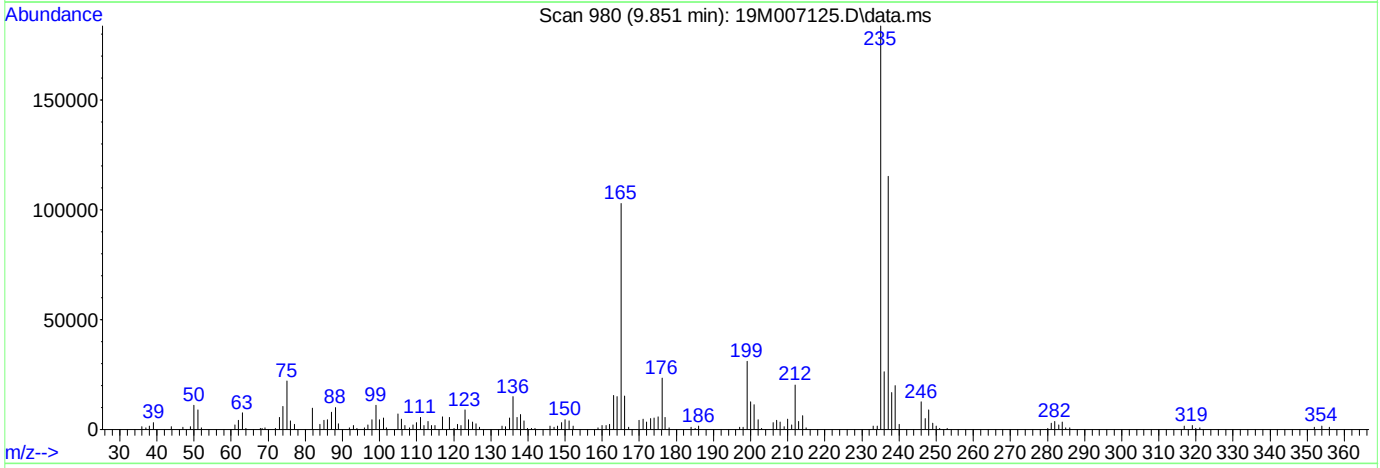
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\msdchem\4\DATA\042519\19M007125.D Vial: 1
Acq On : 25 Apr 2019 12:46 pm Operator: SCB
Sample : WG704868-01 50PPM DFTPP Inst : HPMS19NEW
Misc : 1,1 STD91965 Multiplr: 1.00
Integrator: ChemStation
Quant Time: Apr 25 13:33:51 2019
Quant Results File: DFTPP.RES

Quant Method : C:\msdchem\4\METHODS\DFTPP.M
Quant Title :
QLast Update :
Response via : Initial Calibration
DataAcq Meth:DFTPP.M





TIC: 19M007125.D\data.ms

(3) DDT

9.849min (-0.071) 0.000

response 3150524

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71272.D Vial: 4
Acq On : 22 Apr 2019 12:17 pm Operator: SCB
Sample : WG704098-01 BLANK 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:29:12 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

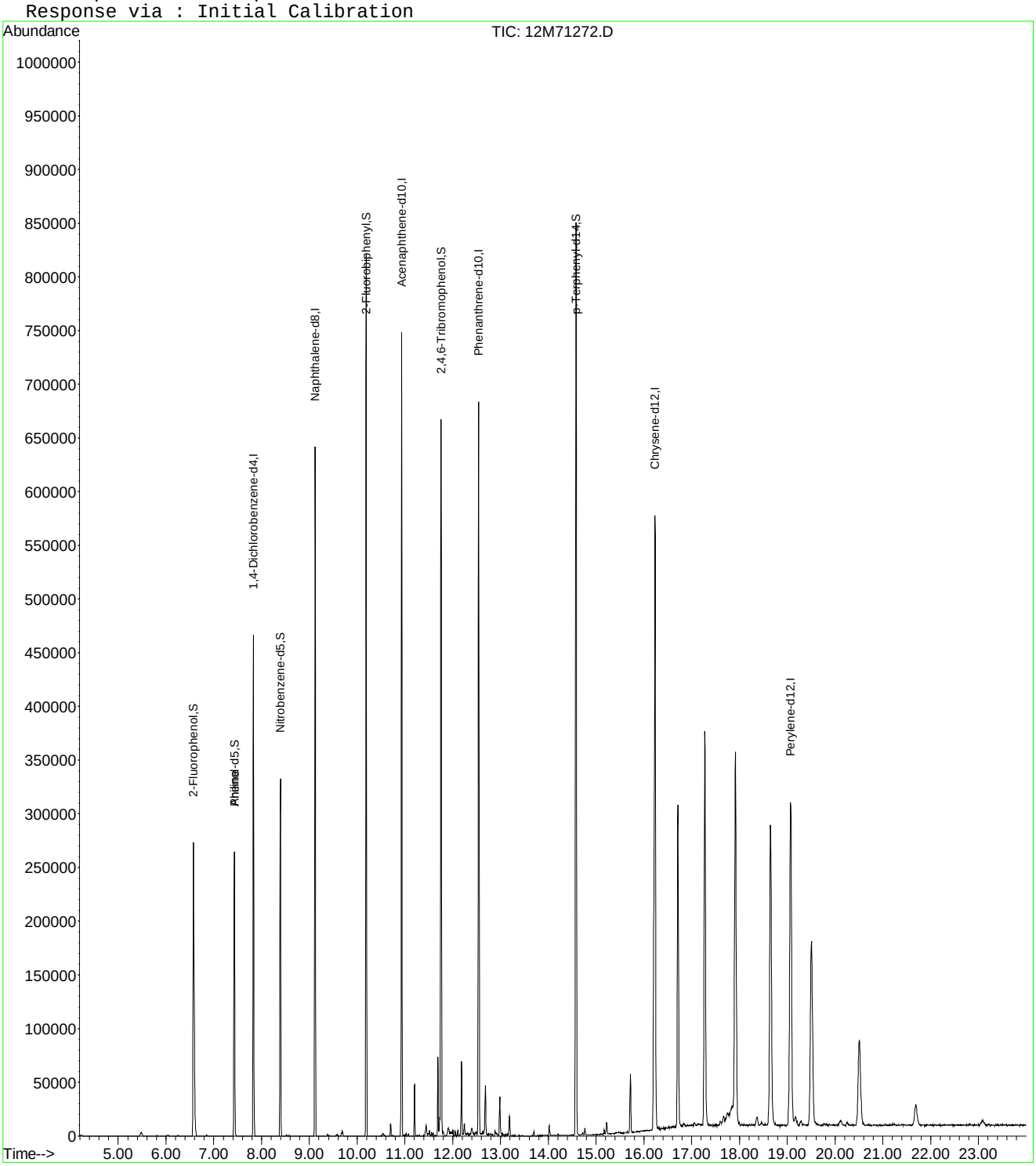
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	100240	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	360997	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	209057	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.540	188	345391	40.0000	ug/ml	-0.016
114) Chrysene-d12	16.232	240	342883	40.0000	ug/ml	-0.027
129) Perylene-d12	19.069	264	346252	40.0000	ug/ml	-0.032
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	146840	47.8233416	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 47.82%			
12) Phenol-d5	7.428	99	126426	34.2097146	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 34.21%			
31) Nitrobenzene-d5	8.395	82	123825	40.7397865	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 81.48%			
59) 2-Fluorobiphenyl	10.190	172	311162	44.3464825	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 88.69%			
87) 2,4,6-Tribromophenol	11.755	330	98445	107.2114661	ug/ml	-0.01
Spiked Amount 100.000	Range 10 - 123		Recovery = 107.21%			
118) p-Terphenyl-d14	14.581	244	423528	51.4262352	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 102.85%			
Target Compounds						Qvalue
11) Aniline	7.43	66	5314	3.1110	ug/ml#	1

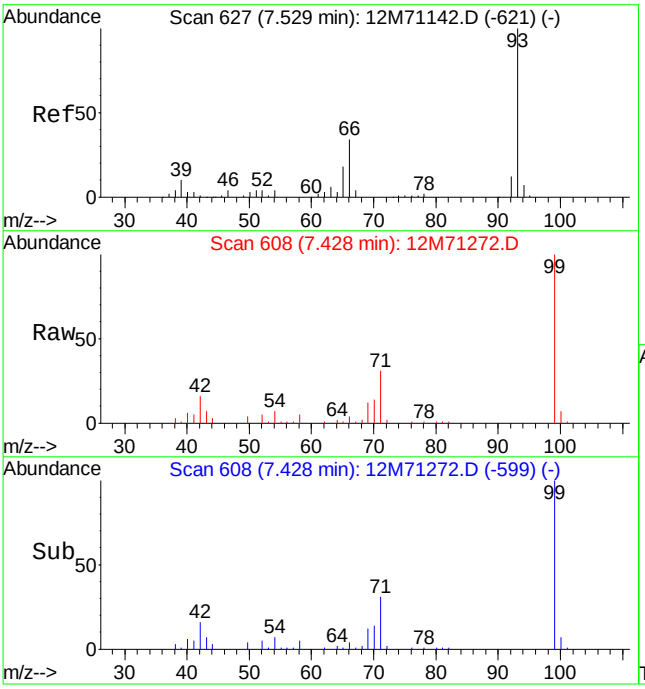
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71272.D MEGAMIX.M Tue Apr 23 08:29:13 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71272.D Vial: 4
Acq On : 22 Apr 2019 12:17 pm Operator: SCB
Sample : WG704098-01 BLANK 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:29 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration

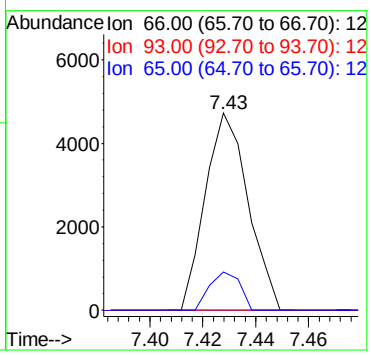




#11
Aniline
Concen: 3.1110 ug/ml
RT: 7.43 min Scan# 608
Delta R.T. -0.10 min
Lab File: 12M71272.D
Acq: 22 Apr 2019 12:17 pm

Tgt Ion: 66 Resp: 5314

Ion	Ratio	Lower	Upper
66	100		
93	0.0	269.0	627.6#
65	13.7	52.9	123.5#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71272.D Vial: 4
Acq On : 22 Apr 2019 12:17 pm Operator: SCB
Sample : WG704098-01 BLANK 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:20:41 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

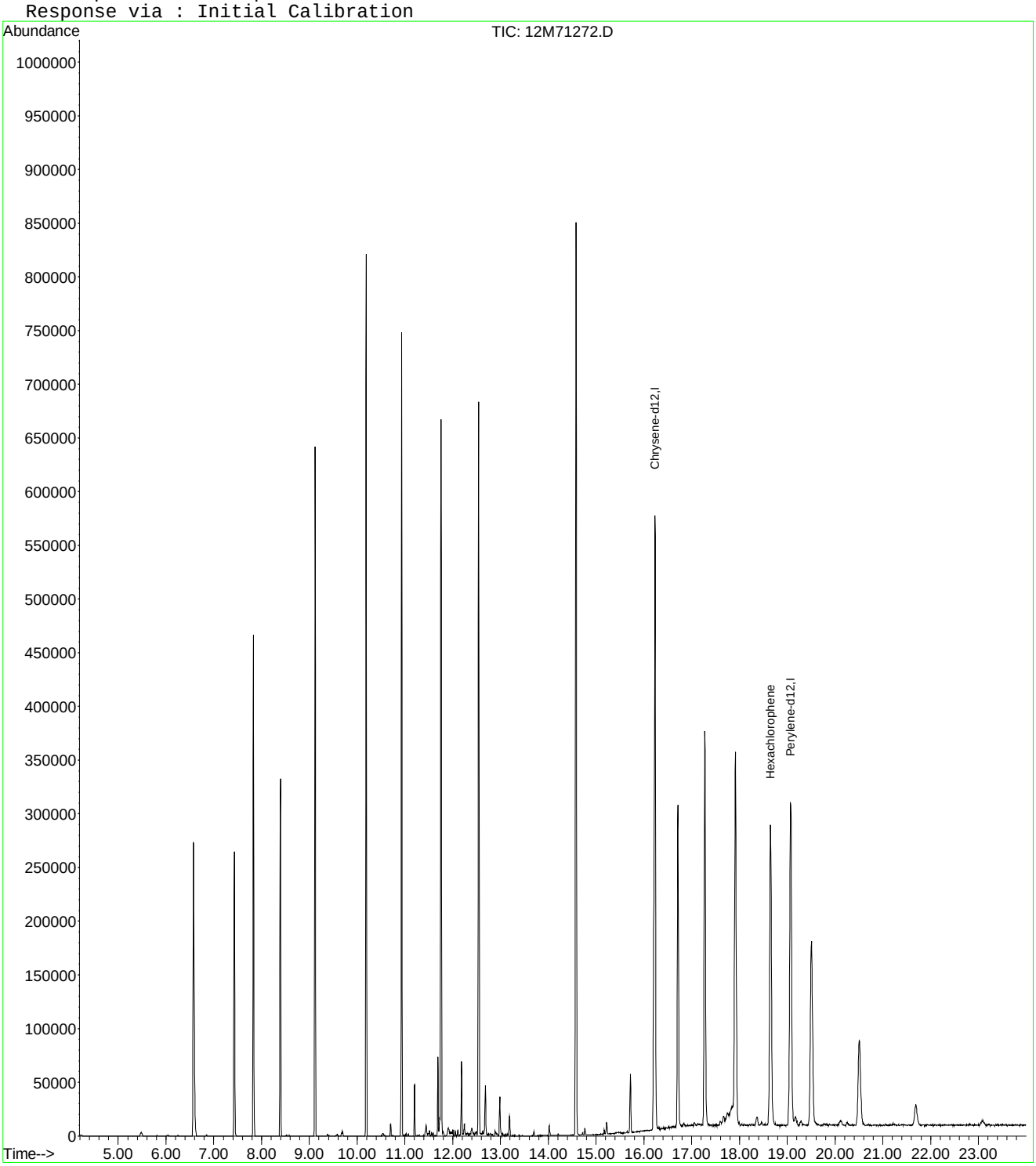
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.232	240	342883	40.0000	ug/L	0.000
3) Perylene-d12	19.069	264	346252	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	1061	0.6324	ug/L	# 1

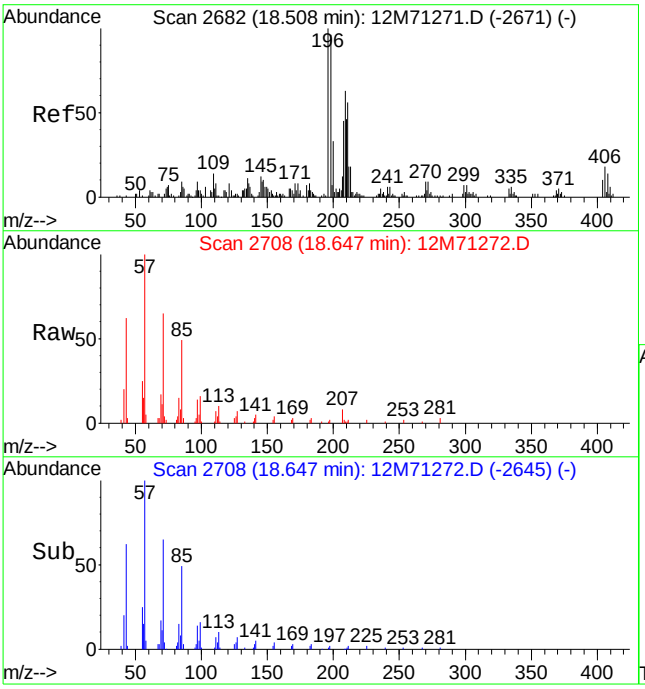
(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71272.D A9B.M Tue Apr 23 08:20:42 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71272.D Vial: 4
Acq On : 22 Apr 2019 12:17 pm Operator: SCB
Sample : WG704098-01 BLANK 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:20 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration

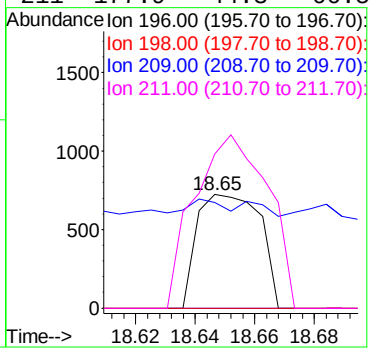




#4
Hexachlorophene
Concen: 0.6324 ug/L
RT: 18.65 min Scan# 2708
Delta R.T. 0.14 min
Lab File: 12M71272.D
Acq: 22 Apr 2019 12:17 pm

Tgt Ion:196 Resp: 1061

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	5.8	49.8	74.8#
211	177.9	44.3	66.5#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007117.D Vial: 4
Acq On : 24 Apr 2019 4:12 pm Operator: SCB
Sample : WG703405-01 BLANK 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:04:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

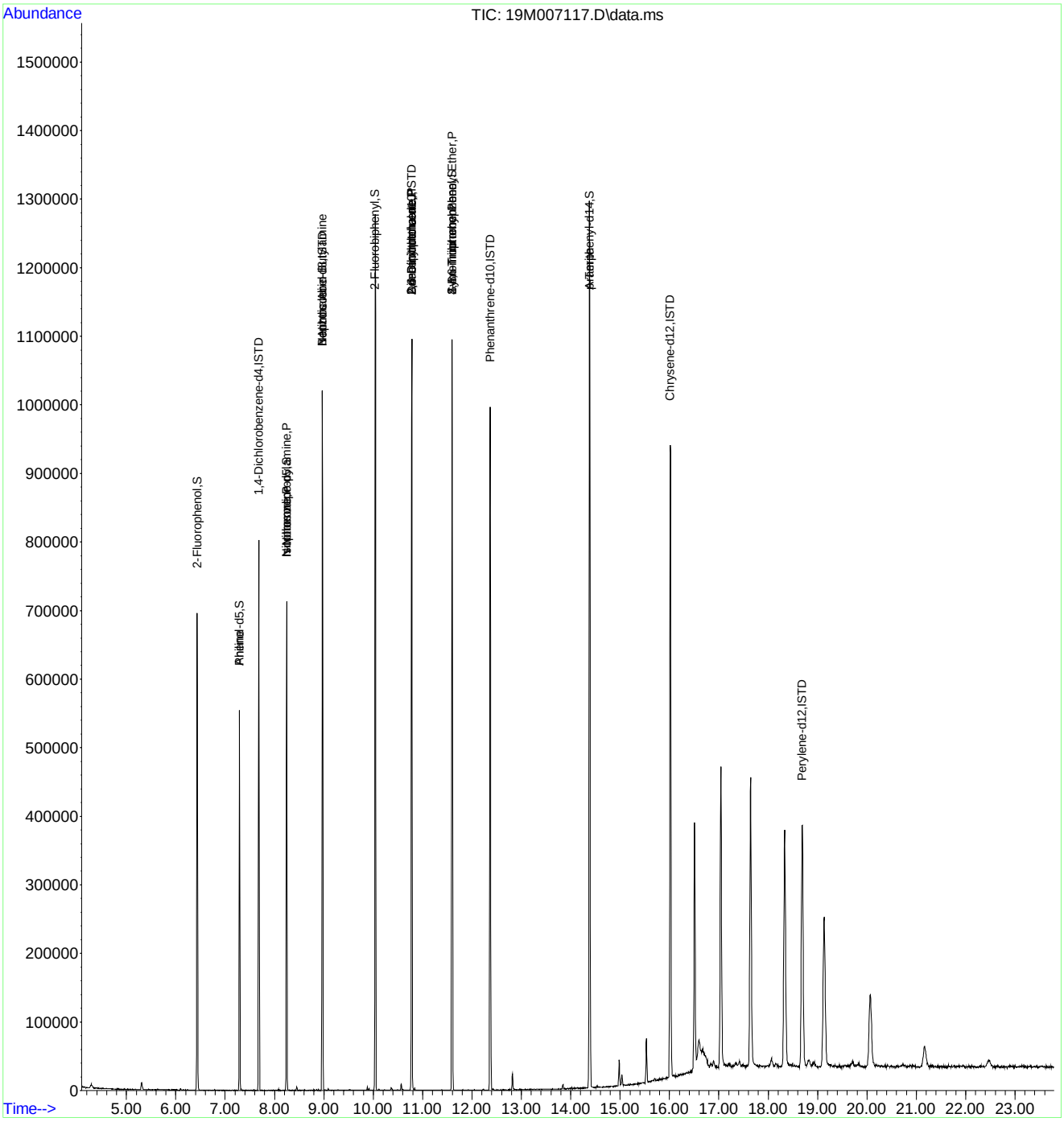
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	117791	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.969	136	477198	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.781	164	261451	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	431718	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.015	240	379604	40.0000	ug/mL	-0.0177
129) Perylene-d12	18.692	264	328026	40.0000	ug/mL	-0.0118
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	198232	49.3959	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 49.3959%			
12) Phenol-d5	7.293	99	175493	34.1317	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 34.1317%			
31) Nitrobenzene-d5	8.245	82	224811	45.4546	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 90.9092%			
59) 2-Fluorobiphenyl	10.039	172	428913	48.8756	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 97.7512%			
87) 2,4,6-Tribromophenol	11.598	330	111441	107.8679	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 107.8679%			
118) p-Terphenyl-d14	14.380	244	543299	59.7381	ug/mL	-0.0118
Spiked Amount 50.0000	Range 33 - 141		Recovery = 119.4762%			
Target Compounds						Qvalue
11) Aniline	7.293	66	10379	3.6395	ug/mL#	1
25) n-Nitrosodipropylamine	8.245	70	32850	9.8335	ug/mL#	41
34) Isophorone	8.245	82	224811	25.2311	ug/mL#	66
39) Benzoic Acid	8.969	105	190	6.5280	ug/mL#	1
48) n-Nitrosodi-n-Butylamine	8.969	84	13819	3.5043	ug/mL#	7
65) Dimethylphthalate	10.781	163	57393	6.7341	ug/mL#	1
67) 2,6-Dinitrotoluene	10.781	165	34196	17.0063	ug/mL#	16
73) 2,4-Dinitrotoluene	10.781	165	34196	12.9925	ug/mL#	4
92) Sym-Trinitrobenzene	11.598	75	446	2.1115	ug/mL#	1
96) 4-Bromophenyl Phenyl E...	11.598	248	7747	3.4055	ug/mL#	1
117) Aramite	14.380	185	1373	1.9537	ug/mL#	31

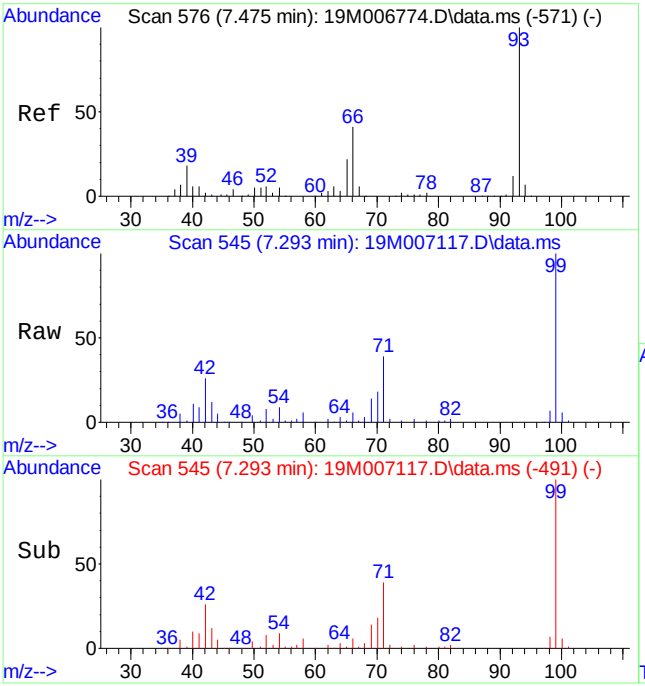
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007117.D Vial: 4
Acq On : 24 Apr 2019 4:12 pm Operator: SCB
Sample : WG703405-01 BLANK 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:04:48 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

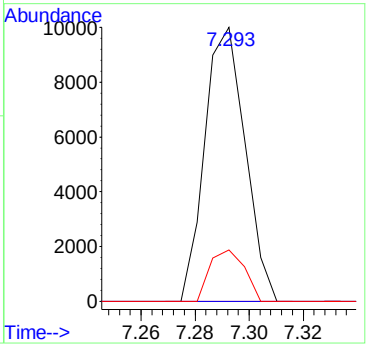


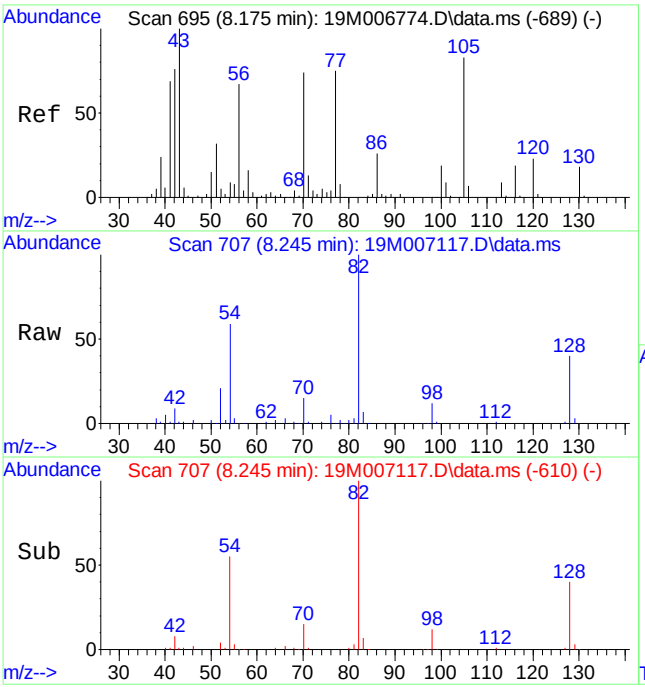


#11
Aniline
Concen: 3.6395 ug/mL
RT: 7.293 min Scan# 545
Delta R.T. -0.082 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion: 66 Resp: 10379

Ion	Ratio	Lower	Upper
66	100		
93	0.0	185.5	344.5#
65	16.1	41.4	77.0#

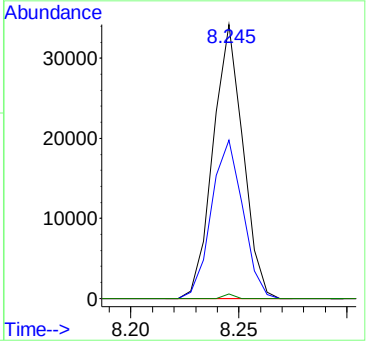


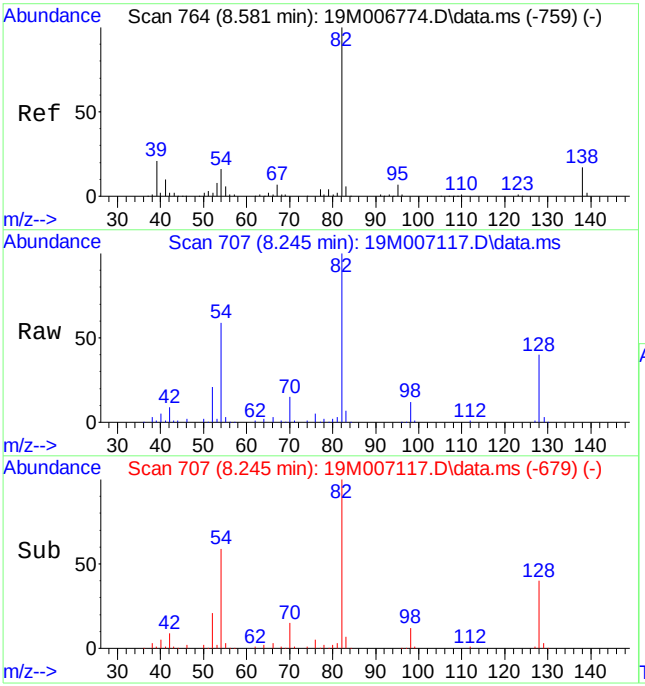


#25
n-Nitrosodipropylamine
Concen: 9.8335 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. 0.171 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion: 70 Resp: 32850

Ion	Ratio	Lower	Upper
70	100		
42	61.0	95.8	178.0#
101	0.0	9.6	17.8#
130	0.6	16.4	30.4#

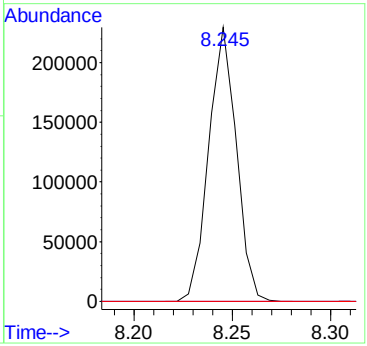


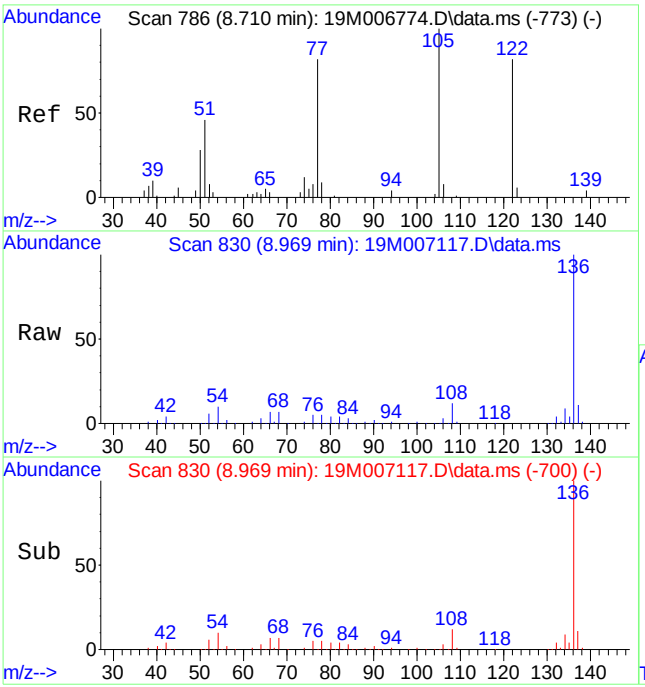


#34
Isophorone
Concen: 25.2311 ug/mL
RT: 8.245 min Scan# 707
Delta R.T. -0.235 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion: 82 Resp: 224811

Ion	Ratio	Lower	Upper
82	100		
95	0.0	5.1	9.5#
138	0.0	12.1	22.5#

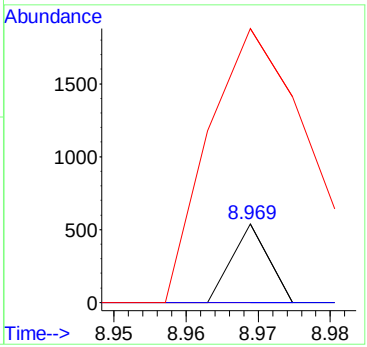


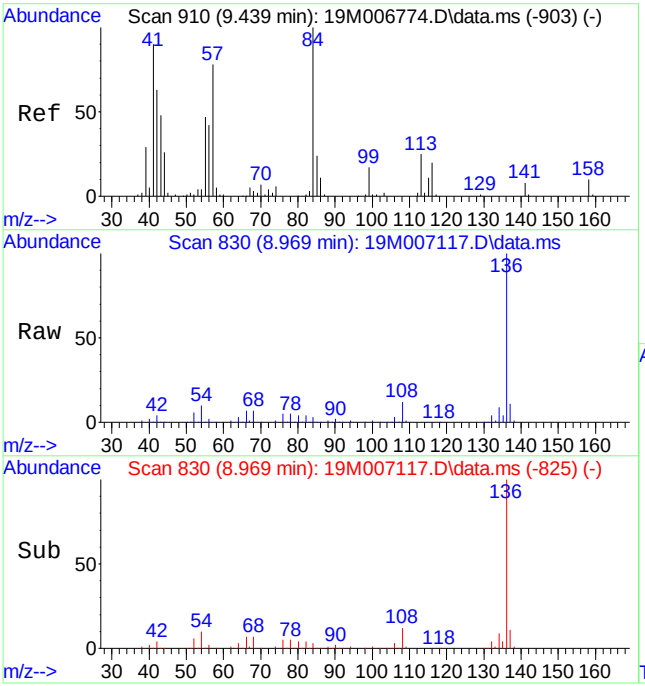


#39
Benzoic Acid
Concen: 6.5280 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. 0.365 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:105 Resp: 190

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.5	86.3#
77	948.9	47.8	88.8#

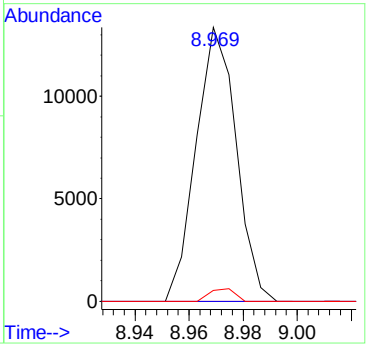


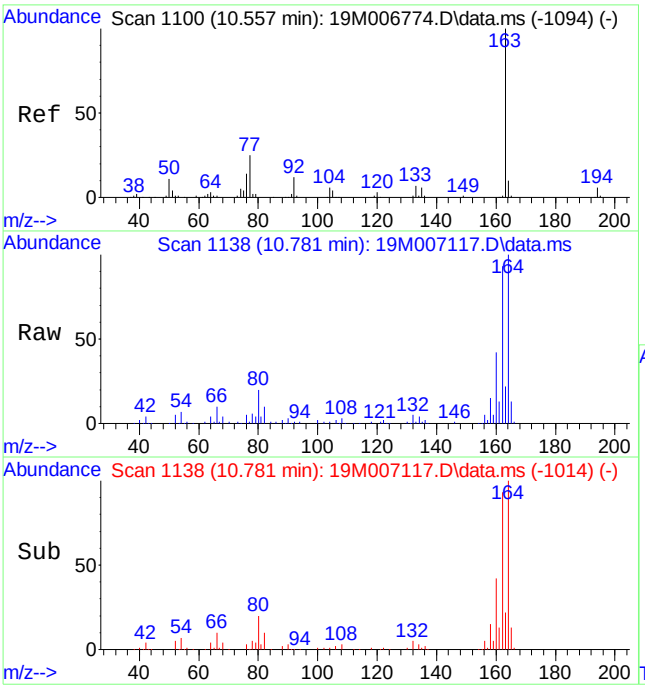


#48
n-Nitrosodi-n-Butylamine
Concen: 3.5043 ug/mL
RT: 8.969 min Scan# 830
Delta R.T. -0.371 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion: 84 Resp: 13819

Ion	Ratio	Lower	Upper
84	100		
57	0.0	51.9	96.5#
41	2.9	68.9	127.9#

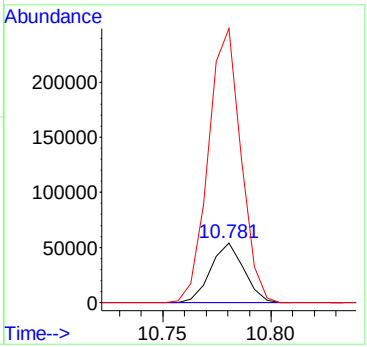


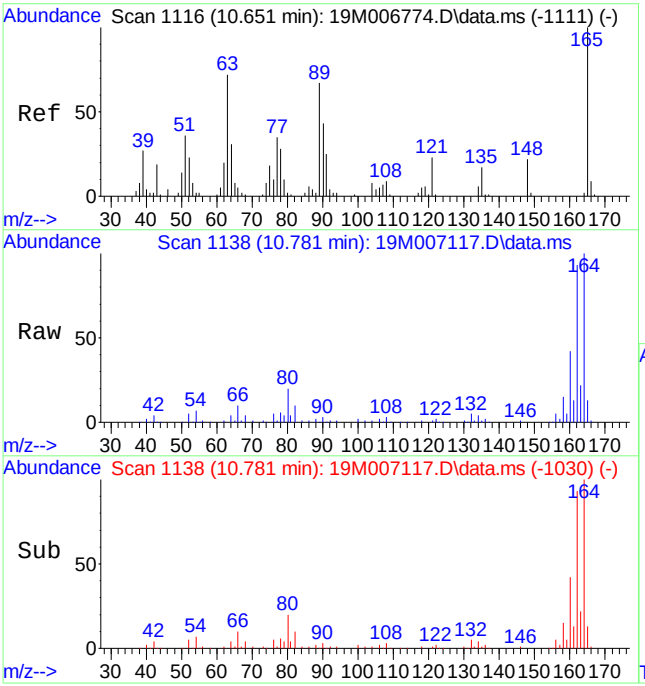


#65
Dimethylphthalate
Concen: 6.7341 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.329 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:163 Resp: 57393

Ion	Ratio	Lower	Upper
163	100		
194	0.0	4.0	7.4#
164	455.5	7.2	13.4#

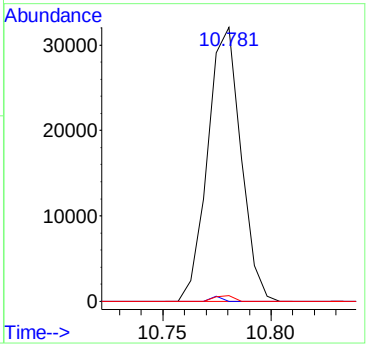


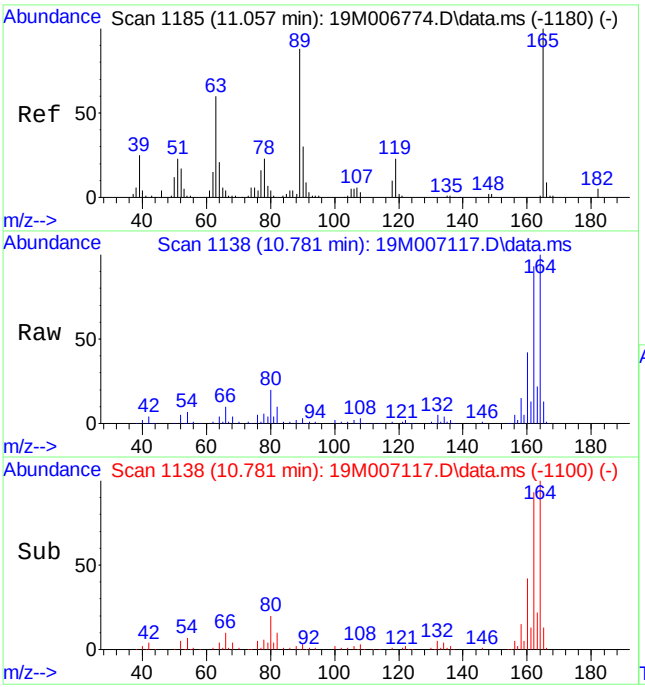


#67
2,6-Dinitrotoluene
Concen: 17.0063 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. 0.235 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:165 Resp: 34196

Ion	Ratio	Lower	Upper
165	100		
63	0.6	50.8	94.4#
89	1.3	47.1	87.5#

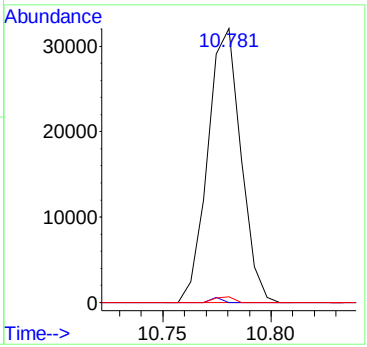


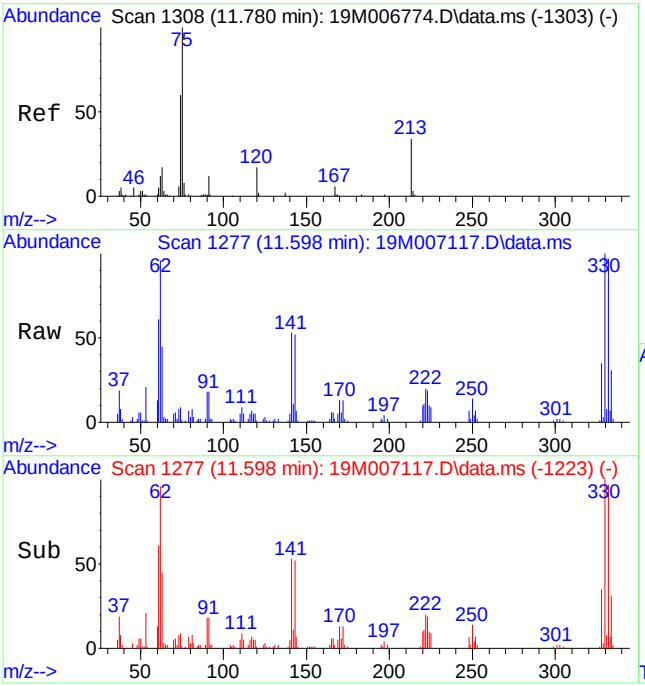


#73
2,4-Dinitrotoluene
Concen: 12.9925 ug/mL
RT: 10.781 min Scan# 1138
Delta R.T. -0.176 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:165 Resp: 34196

Ion	Ratio	Lower	Upper
165	100		
63	0.6	58.0	107.8#
89	1.3	71.3	132.5#

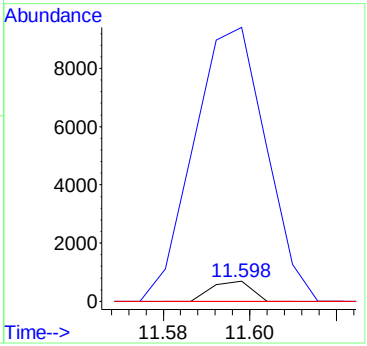


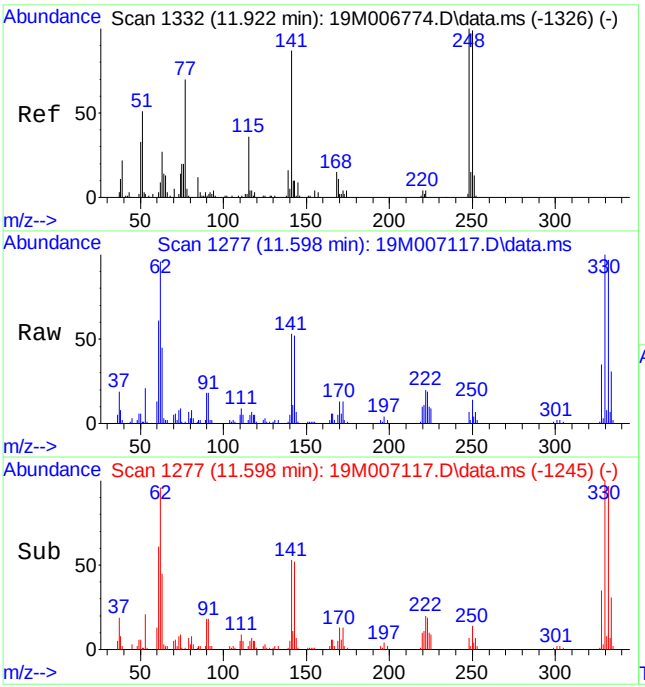


#92
Sym-Trinitrobenzene
Concen: 2.1115 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.082 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion: 75 Resp: 446

Ion	Ratio	Lower	Upper
75	100		
74	2452.0	41.6	77.3#
213	0.0	25.1	46.5#

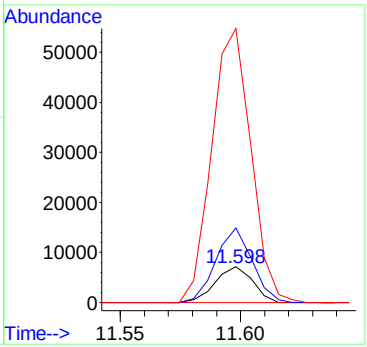


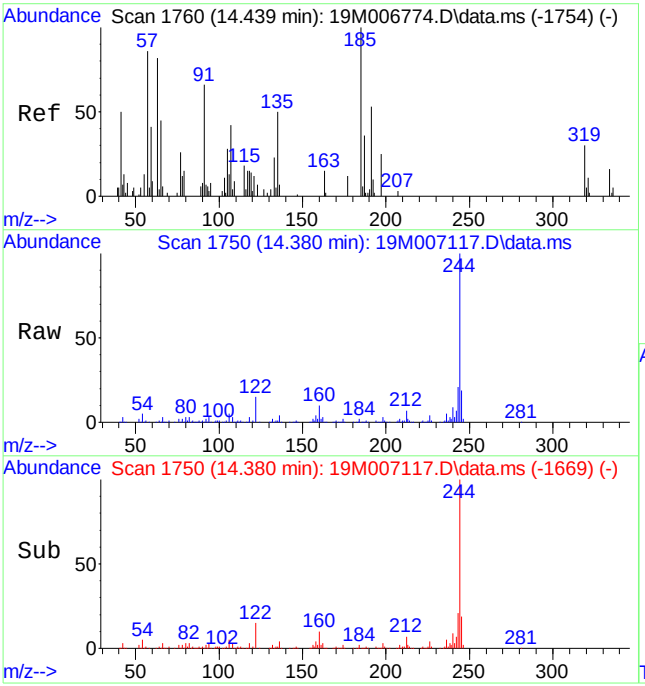


#96
4-Bromophenyl Phenyl Ether
Concen: 3.4055 ug/mL
RT: 11.598 min Scan# 1277
Delta R.T. -0.212 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:248 Resp: 7747

Ion	Ratio	Lower	Upper
248	100		
250	201.6	68.1	126.5#
141	800.2	62.4	116.0#

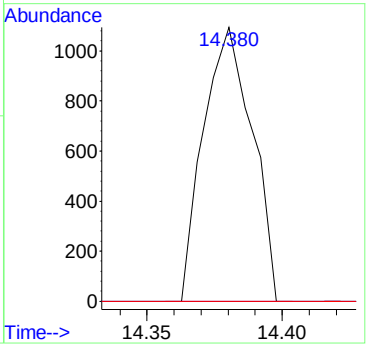




#117
Aramite
Concen: 1.9537 ug/mL
RT: 14.380 min Scan# 1750
Delta R.T. 0.076 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:185 Resp: 1373

Ion	Ratio	Lower	Upper
185	100		
191	0.0	37.6	69.8#
319	0.0	22.5	41.7#



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007117.D Vial: 4
Acq On : 24 Apr 2019 4:12 pm Operator: SCB
Sample : WG703405-01 BLANK 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:32 2019
Quant Results File: A9B.RES

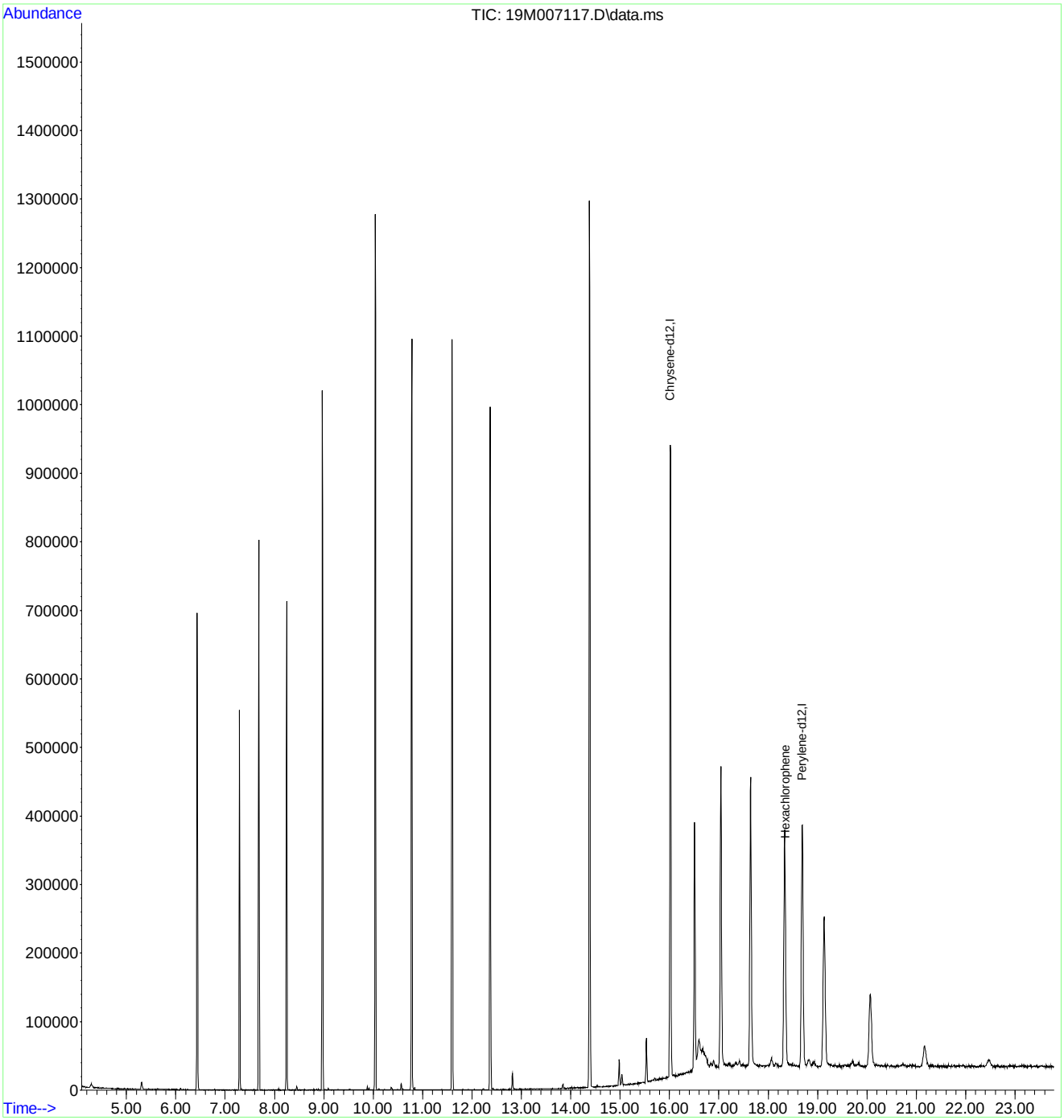
Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

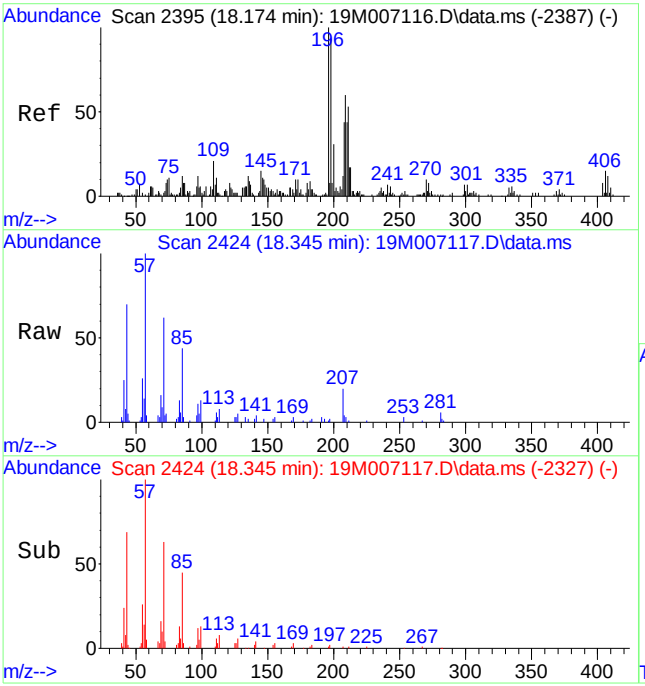
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.015	240	379604	40.0000	ug/mL	0.0000
3) Perylene-d12	18.692	264	328026	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
4) Hexachlorophene	18.345	196	778	0.2963	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\msdchem\4\DATA\042419\19M007117.D Vial: 4
Acq On : 24 Apr 2019 4:12 pm Operator: SCB
Sample : WG703405-01 BLANK 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:09:32 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

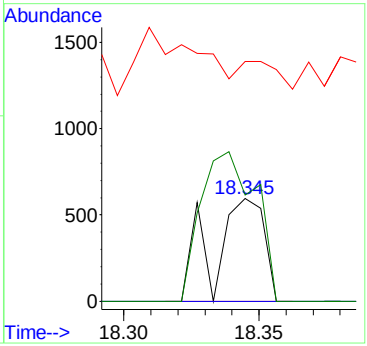




#4
Hexachlorophene
Concen: 0.2963 ug/mL
RT: 18.345 min Scan# 2424
Delta R.T. 0.170 min
Lab File: 19M007117.D
Acq: 24 Apr 2019 4:12 pm

Tgt Ion:196 Resp: 778

Ion	Ratio	Lower	Upper
196	100		
198	0.0	75.9	113.9#
209	0.0	47.7	71.5#
211	158.0	42.5	63.7#



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71273.D Vial: 5
Acq On : 22 Apr 2019 12:49 pm Operator: SCB
Sample : WG704098-02 LCS 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:17:53 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.829	152	102066	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	375967	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	221288	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.546	188	376319	40.0000	ug/ml	-0.011
114) Chrysene-d12	16.237	240	360837	40.0000	ug/ml	-0.021
129) Perylene-d12	19.074	264	353482	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	199614	63.8478832	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 63.85%			
12) Phenol-d5	7.428	99	162205	43.1059533	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 43.11%			
31) Nitrobenzene-d5	8.395	82	160301	50.6407944	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 101.28%			
59) 2-Fluorobiphenyl	10.190	172	383369	51.6174405	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.23%			
87) 2,4,6-Tribromophenol	11.760	330	113039	116.3008071	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 116.30%			
118) p-Terphenyl-d14	14.581	244	457176	52.7498122	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 105.50%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.13	74	55269	28.8683	ug/ml	95
4) Pyridine	5.15	79	77641	22.6493	ug/ml	98
5) 2-Picoline	5.99	93	128786	34.4527	ug/ml	99
6) n-Nitrosomethylethylamine	6.12	88	69575	45.1613	ug/ml	95
7) Methyl Methanesulfonate	6.41	80	65008	38.6387	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	76311	49.0805	ug/ml	99
10) Ethyl Methanesulfonate	7.07	79	104727	46.8626	ug/ml	100
11) Aniline	7.52	66	81992	47.1427	ug/ml	98
13) Phenol	7.44	94	87206	22.1861	ug/ml	95
14) bis(2-Chloroethyl)ether	7.54	63	110831	48.6479	ug/ml	94
15) Pentachloroethane	7.56	167	41696	31.2202	ug/ml	98
16) 2-Chlorophenol	7.65	128	163696	47.2038	ug/ml	100
17) 1,3-Dichlorobenzene	7.80	146	122707	32.3431	ug/ml	99
18) 1,4-Dichlorobenzene	7.84	146	128828	33.6197	ug/ml	99
19) Benzyl Alcohol	7.94	108	100961	46.7555	ug/ml	99
20) 1,2-Dichlorobenzene	8.04	146	125503	35.2633	ug/ml	99
21) 2-Methylphenol	8.04	107	118484	46.4125	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	177012	46.4638	ug/ml	100
23) 3-,4-Methylphenol	8.17	107	160183	47.2210	ug/ml	89
24) n-Nitrosopyrrolidine	8.21	100	76316	51.6648	ug/ml	96
25) n-Nitrosodipropylamine	8.22	70	107101	53.9843	ug/ml	99
26) Acetophenone	8.22	105	210532	51.0685	ug/ml	100
27) n-Nitrosomorpholine	8.22	56	80732	49.7160	ug/ml	100
28) o-Toluidine	8.27	106	224926	43.9030	ug/ml	100
29) Hexachloroethane	8.36	117	39501	28.4074	ug/ml	99
32) Nitrobenzene	8.42	77	165273	51.5247	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	83695	50.2203	ug/ml	98
34) Isophorone	8.63	82	343408	58.1473	ug/ml	100
35) 2-Nitrophenol	8.74	139	91574	51.8208	ug/ml	98
36) 2,4-Dimethylphenol	8.70	122	167018	55.0481	ug/ml	97
37) 0,0,0-Triethyl Phosphoroth	8.80	198	87894	51.1846	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.80	93	232291	50.9024	ug/ml	99
39) Benzoic Acid	8.74	105	1189	7.4554	ug/ml#	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71273.D Vial: 5
Acq On : 22 Apr 2019 12:49 pm Operator: SCB
Sample : WG704098-02 LCS 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:17:53 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40)	2,4-Dichlorophenol	8.96	162	149704	52.8331 ug/ml	100
41)	a,a-Dimethylphenethylamine	9.02	58	14901	1.9251 ug/ml#	81
42)	1,2,4-Trichlorobenzene	9.06	180	116134	38.2919 ug/ml	100
43)	Naphthalene	9.14	128	468413	45.5970 ug/ml#	99
44)	4-Chloroaniline	9.17	65	57755	52.6338 ug/ml	69
45)	2,6-Dichlorophenol	9.20	162	146902	53.6678 ug/ml	99
46)	Hexachloropropene	9.26	213	62363	33.9715 ug/ml	100
47)	Hexachlorobutadiene	9.29	225	61070	35.9779 ug/ml	100
48)	n-Nitrosodi-n-Butylamine	9.48	84	113249	43.6309 ug/ml	85
49)	p-Phenylenediamine	9.61	108	12022	3.3693 ug/ml#	1
50)	4-Chloro-3-Methylphenol	9.61	107	147496	53.9088 ug/ml	99
51)	Safrole	9.70	162	130368	46.9593 ug/ml	100
52)	2-Methylnaphthalene	9.83	142	314449	46.0122 ug/ml	99
53)	1-Methylnaphthalene	9.95	142	325291	50.4023 ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	143162	45.2566 ug/ml	100
56)	Hexachlorocyclopentadiene	10.05	237	42055	32.8356 ug/ml	99
57)	2,4,6-Trichlorophenol	10.12	196	107932	53.0968 ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	115289	54.5387 ug/ml	99
60)	Isosafrole	10.23	162	326138	115.9250 ug/ml	100
61)	2-Chloronaphthalene	10.34	162	358283	56.2546 ug/ml	100
62)	1-Chloronaphthalene	10.38	162	267848	45.6167 ug/ml	100
63)	2-Nitroaniline	10.44	65	94286	56.3049 ug/ml	99
64)	1,4-Naphthoquinone	10.50	158	135780	66.6410 ug/ml	99
65)	Dimethylphthalate	10.60	163	411606	58.6135 ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	69778	55.4746 ug/ml	99
67)	2,6-Dinitrotoluene	10.69	165	98463	57.9507 ug/ml	100
68)	Acenaphthylene	10.78	152	518376	53.2079 ug/ml	100
69)	3-Nitroaniline	10.85	138	99011	52.8790 ug/ml	100
70)	2,4-Dinitrophenol	10.95	184	25091	40.2268 ug/ml	41
71)	Acenaphthene	10.96	154	332561	53.1387 ug/ml	99
72)	4-Nitrophenol	10.97	65	30005	27.1322 ug/ml	91
73)	2,4-Dinitrotoluene	11.10	165	131115	60.0479 ug/ml	99
74)	Pentachlorobenzene	11.15	250	144258	52.7955 ug/ml	100
75)	Dibenzofuran	11.12	168	485628	54.0248 ug/ml	99
76)	2,3,5,6-Tetrachlorophenol	11.27	232	82725	50.9658 ug/ml	96
77)	2,3,4,6-Tetrachlorophenol	11.27	232	82733	46.9864 ug/ml	99
78)	1-Naphthylamine	11.20	143	304554	46.8730 ug/ml	99
79)	2-Naphthylamine	11.27	143	323062	48.6955 ug/ml	100
80)	Diethylphthalate	11.30	149	386608	56.4285 ug/ml	100
81)	Thionazin	11.40	107	61563	56.1872 ug/ml	99
82)	Fluorene	11.48	166	409555	55.7836 ug/ml	100
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	185890	51.1806 ug/ml	99
84)	4-Nitroaniline	11.49	138	103253	53.3815 ug/ml	99
85)	5-Nitro-o-Toluidine	11.48	152	119167	55.0940 ug/ml	99
86)	1,2-Diphenylhydrazine	11.60	77	360713	57.4279 ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.53	198	63924	51.5063 ug/ml	70
90)	Diphenylamine/n-Nitrosodip	11.55	169	660184	99.1253 ug/ml	99
91)	Sulfotepp	11.74	322	65648	53.5914 ug/ml	98
92)	Sym-Trinitrobenzene	11.83	75	66230	39.8966 ug/ml	99
93)	Diallate	11.87	86	259298	102.1471 ug/ml	87
94)	Phenacetin	11.86	108	189333	57.0994 ug/ml	94
95)	Phorate	11.89	75	214868	54.9493 ug/ml#	99
96)	4-Bromophenyl Phenyl Ether	11.96	248	113050	52.4536 ug/ml	100
97)	Hexachlorobenzene	12.18	284	123924	56.1611 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71273.D Vial: 5
Acq On : 22 Apr 2019 12:49 pm Operator: SCB
Sample : WG704098-02 LCS 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:17:53 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

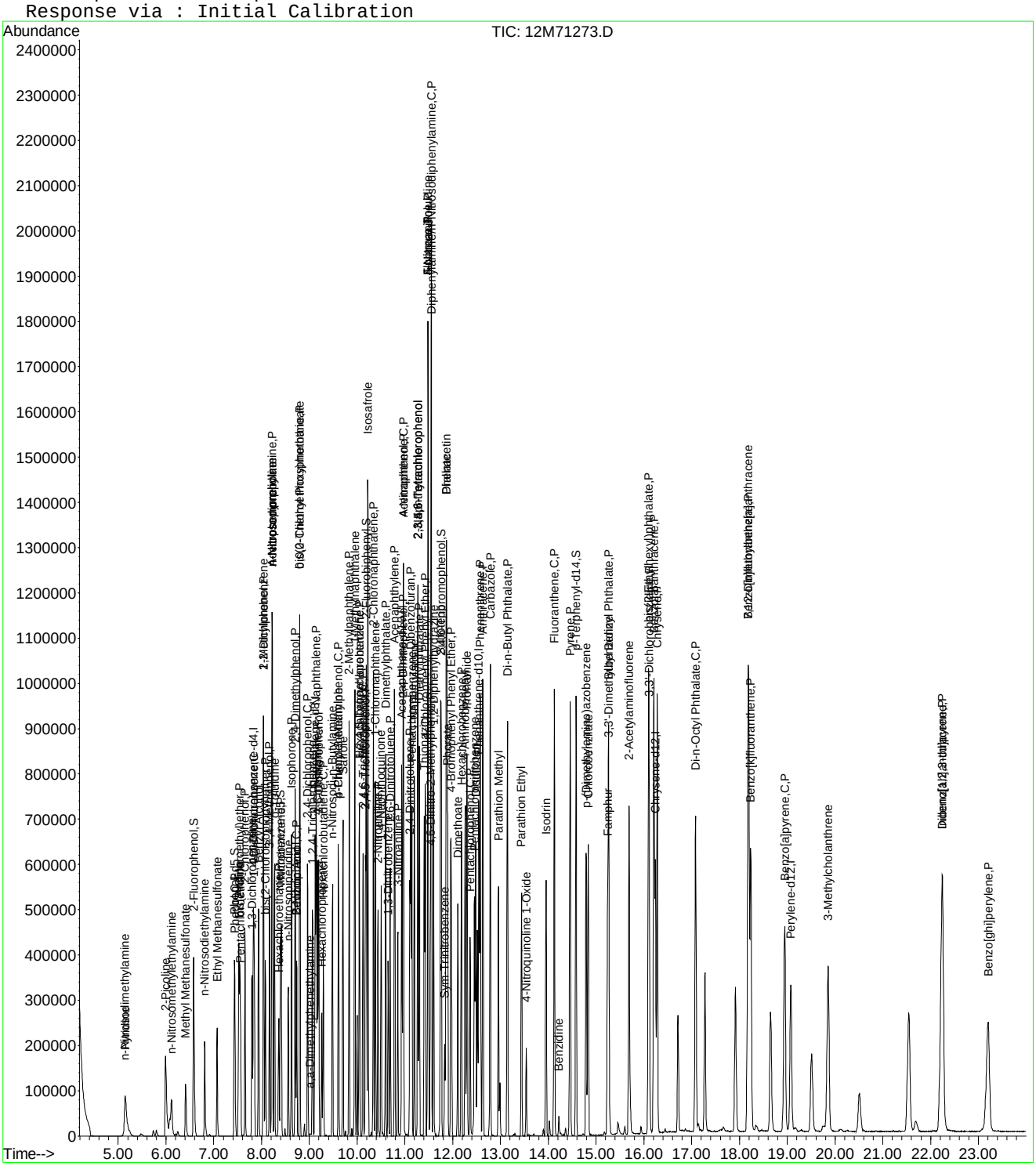
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98)	Dimethoate	12.11	87	140292	59.4315	ug/ml	94
99)	4-Aminobiphenyl	12.26	169	375844	46.2606	ug/ml	99
100)	Pentachlorophenol	12.36	266	69301	52.2529	ug/ml	100
101)	Pronamide	12.30	173	186637	57.7650	ug/ml	100
102)	Pentachloronitrobenzene	12.45	237	48609	58.7936	ug/ml	99
103)	Disulfoton	12.48	88	185954	54.3505	ug/ml	100
104)	Phenanthrene	12.58	178	565902	54.3575	ug/ml	100
105)	Anthracene	12.63	178	574797	53.7755	ug/ml	100
106)	Carbazole	12.79	167	586847	58.9609	ug/ml	100
107)	Parathion Methyl	12.96	109	124983	63.8935	ug/ml	98
108)	Di-n-Butyl Phthalate	13.14	149	673873	58.4424	ug/ml	100
109)	Parathion Ethyl	13.44	97	74349	57.7514	ug/ml	100
110)	4-Nitroquinoline 1-Oxide	13.54	190	34636	41.0376	ug/ml	98
112)	Isodrin	13.96	193	63780	54.8844	ug/ml	98
113)	Fluoranthene	14.13	202	607194	52.7537	ug/ml	100
115)	Benzidine	14.22	184	39883	7.8217	ug/ml	100
116)	Pyrene	14.46	202	623767	53.6187	ug/ml	99
119)	p-(Dimethylamino)azobenzen	14.79	225	138000	57.1544	ug/ml	99
120)	Chlorobenzilate	14.84	251	185320	55.2496	ug/ml	99
121)	Famphur	15.24	218	178081	287.1014	ug/ml#	76
122)	Butyl Benzyl Phthalate	15.26	149	294186	57.8237	ug/ml	99
123)	3,3'-Dimethylbenzidine	15.27	212	132014	10.4661	ug/ml#	96
124)	2-Acetylaminofluorene	15.69	181	260015	59.5266	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.10	149	409095	60.3345	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.11	252	193976	51.3890	ug/ml	99
127)	Benzo[a]anthracene	16.21	228	568717	52.8101	ug/ml	100
128)	Chrysene	16.28	228	572765	55.8295	ug/ml	100
130)	Di-n-Octyl Phthalate	17.08	149	687840	58.5169	ug/ml	98
131)	7,12-Dimethylbenz[a]anthra	18.19	256	266405	52.3305	ug/ml	100
132)	Benzo[b]fluoranthene	18.19	252	605834	55.7786	ug/ml	99
133)	Benzo[k]fluoranthene	18.24	252	524264	54.8576	ug/ml	99
134)	Benzo[a]pyrene	18.95	252	508955	52.6735	ug/ml	99
135)	3-Methylcholanthrene	19.85	268	281794	55.0325	ug/ml	99
136)	Indeno[1,2,3-cd]pyrene	22.24	276	595064	54.8953	ug/ml	99
137)	Dibenz[ah]anthracene	22.24	278	524766	57.0067	ug/ml	99
138)	Benzo[ghi]perylene	23.20	276	482816	53.6429	ug/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71273.D MEGAMIX.M Tue Apr 23 08:17:54 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71273.D Vial: 5
Acq On : 22 Apr 2019 12:49 pm Operator: SCB
Sample : WG704098-02 LCS 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:17 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71273.D Vial: 5
Acq On : 22 Apr 2019 12:49 pm Operator: SCB
Sample : WG704098-02 LCS 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:22:14 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

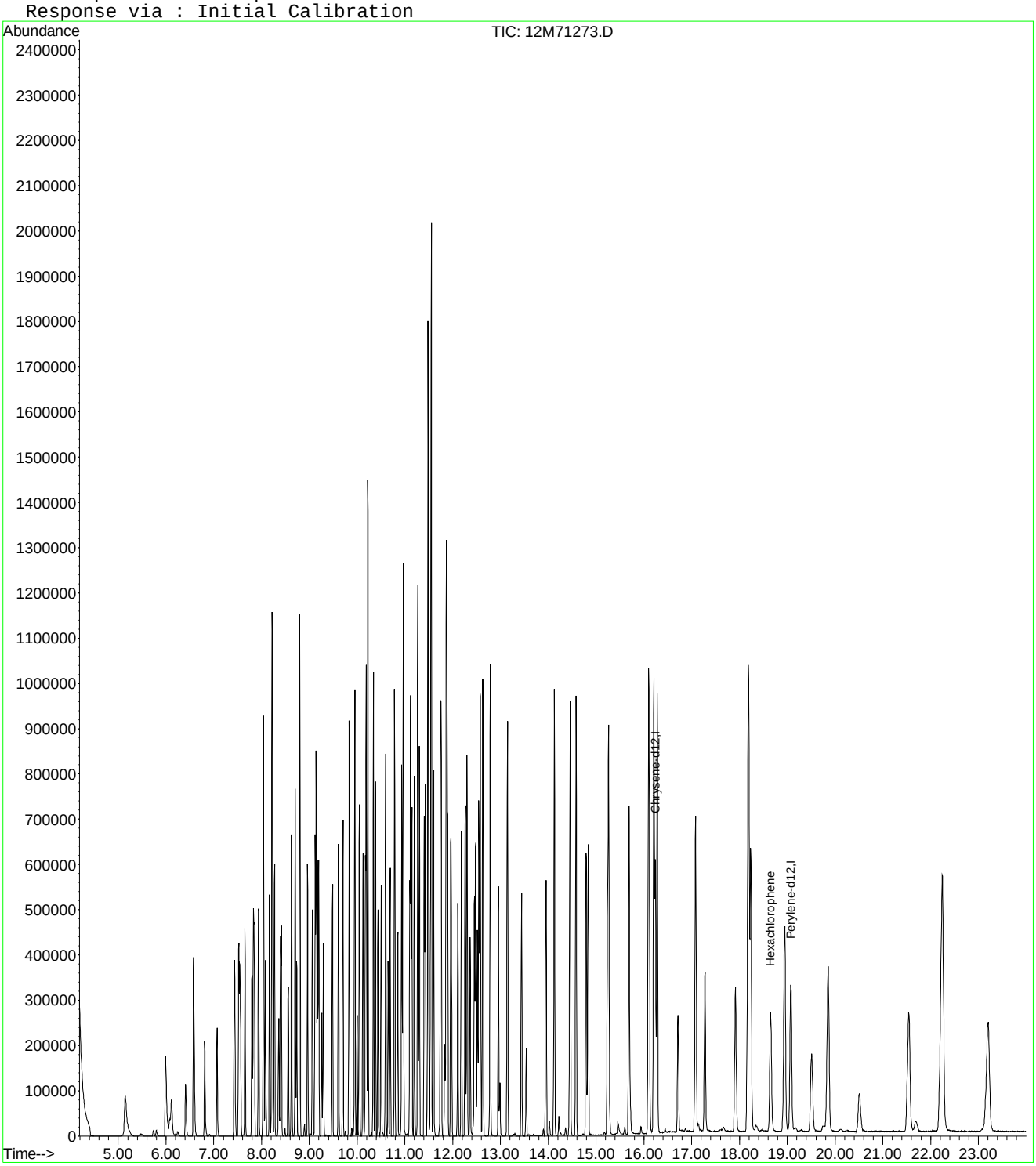
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.237	240	360837	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	353482	40.0000	ug/L	0.000
Target Compounds						Qvalue
4) Hexachlorophene	18.65	196	1021	0.5961	ug/L #	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71273.D A9B.M Tue Apr 23 08:22:14 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71273.D Vial: 5
Acq On : 22 Apr 2019 12:49 pm Operator: SCB
Sample : WG704098-02 LCS 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:22 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007118.D Vial: 5
Acq On : 24 Apr 2019 4:46 pm Operator: SCB
Sample : WG703405-02 LCS 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 17:50:06 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.681	152	154235	40.0000	ug/mL	0.0000
30) Naphthalene-d8	8.975	136	609033	40.0000	ug/mL	0.0000
54) Acenaphthene-d10	10.780	164	337249	40.0000	ug/mL	0.0000
88) Phenanthrene-d10	12.369	188	554112	40.0000	ug/mL	0.0000
114) Chrysene-d12	16.021	240	473440	40.0000	ug/mL	-0.0119
129) Perylene-d12	18.692	264	415369	40.0000	ug/mL	-0.0119
System Monitoring Compounds						
8) 2-Fluorophenol	6.434	112	272127	51.7867	ug/mL	0.0000
Spiked Amount 100.0000	Range 21 - 100		Recovery = 51.7867%			
12) Phenol-d5	7.292	99	249710	37.0905	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 94		Recovery = 37.0905%			
31) Nitrobenzene-d5	8.245	82	324939	51.4778	ug/mL	0.0000
Spiked Amount 50.0000	Range 35 - 114		Recovery = 102.9556%			
59) 2-Fluorobiphenyl	10.045	172	599731	52.9809	ug/mL	0.0000
Spiked Amount 50.0000	Range 43 - 116		Recovery = 105.9618%			
87) 2,4,6-Tribromophenol	11.598	330	152433	114.3841	ug/mL	0.0000
Spiked Amount 100.0000	Range 10 - 123		Recovery = 114.3841%			
118) p-Terphenyl-d14	14.380	244	654391	57.6920	ug/mL	-0.0119
Spiked Amount 50.0000	Range 33 - 141		Recovery = 115.3840%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	4.957	74	96450	25.9606	ug/mL	96
4) Pyridine	4.981	79	106710	16.8848	ug/mL	98
11) Aniline	7.375	66	148903	39.8767	ug/mL	88
13) Phenol	7.304	94	136687	19.1726	ug/mL	95
14) bis(2-Chloroethyl)ether	7.398	63	238696	47.8639	ug/mL	80
16) 2-Chlorophenol	7.504	128	242333	43.0024	ug/mL	99
17) 1,3-Dichlorobenzene	7.651	146	212572	36.4038	ug/mL	99
18) 1,4-Dichlorobenzene	7.698	146	218736	36.8387	ug/mL	99
19) Benzyl Alcohol	7.792	108	169162	46.9549	ug/mL	99
20) 1,2-Dichlorobenzene	7.892	146	214183	39.0700	ug/mL	100
21) 2-Methylphenol	7.892	107	185198	43.1906	ug/mL	99
22) bis(2-Chloroisopropyl)...	7.939	45	480322	50.9365	ug/mL	99
23) 3-,4-Methylphenol	8.028	107	226226	40.6827	ug/mL	99
25) n-Nitrosodipropylamine	8.075	70	234881	53.6967	ug/mL#	57
26) Acetophenone	8.075	105	366520	49.7936	ug/mL	99
27) n-Nitrosomorpholine	8.075	56	17337	4.2445	ug/mL#	52
28) o-Toluidine	8.075	106	28126	3.3011	ug/mL#	1
29) Hexachloroethane	8.210	117	89093	37.2601	ug/mL	98
32) Nitrobenzene	8.263	77	338417	51.9212	ug/mL	99
34) Isophorone	8.481	82	653924	57.5048	ug/mL	100
35) 2-Nitrophenol	8.586	139	147901	52.7743	ug/mL	84
36) 2,4-Dimethylphenol	8.563	122	274633	55.4169	ug/mL	95
38) bis(2-Chloroethoxy)met...	8.657	93	382164	44.9812	ug/mL	88
39) Benzoic Acid	8.598	105	17786	12.3278	ug/mL#	47
40) 2,4-Dichlorophenol	8.816	162	215557	52.0515	ug/mL	99
42) 1,2,4-Trichlorobenzene	8.916	180	194289	43.8807	ug/mL	99
43) Naphthalene	8.992	128	796608	47.5899	ug/mL#	98
44) 4-Chloroaniline	9.022	65	122556	50.5943	ug/mL	72
47) Hexachlorobutadiene	9.145	225	108623	44.6861	ug/mL	99
49) p-Phenylenediamine	9.463	108	20904	4.4356	ug/mL#	1
50) 4-Chloro-3-Methylphenol	9.463	107	263706	56.0761	ug/mL	99
52) 2-Methylnaphthalene	9.681	142	523528	49.2708	ug/mL	97

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007118.D Vial: 5
Acq On : 24 Apr 2019 4:46 pm Operator: SCB
Sample : WG703405-02 LCS 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 17:50:06 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
53)	1-Methylnaphthalene	9.798	142	526489	52.7016 ug/mL	99
56)	Hexachlorocyclopentadiene	9.904	237	82413	37.7064 ug/mL	99
57)	2,4,6-Trichlorophenol	9.975	196	160314	54.3855 ug/mL	99
58)	2,4,5-Trichlorophenol	10.022	196	168554	55.1930 ug/mL	99
60)	Isosafrole	9.992	162	37486	8.8248 ug/mL#	35
61)	2-Chloronaphthalene	10.186	162	497884	50.4653 ug/mL	99
62)	1-Chloronaphthalene	10.186	162	497884	53.6557 ug/mL	100
63)	2-Nitroaniline	10.286	65	217346	58.4772 ug/mL	100
65)	Dimethylphthalate	10.451	163	640246	58.2381 ug/mL	100
66)	1,3-Dinitrobenzene	10.498	168	106059	56.4698 ug/mL	97
67)	2,6-Dinitrotoluene	10.545	165	149899	57.7927 ug/mL	97
68)	Acenaphthylene	10.633	152	846690	53.9719 ug/mL	100
69)	3-Nitroaniline	10.698	138	160142	55.0870 ug/mL	99
70)	2,4-Dinitrophenol	10.804	184	65747	65.9951 ug/mL#	51
71)	Acenaphthene	10.816	154	561595	57.2805 ug/mL	98
72)	4-Nitrophenol	10.816	65	72659	26.6175 ug/mL	92
73)	2,4-Dinitrotoluene	10.951	165	203716	60.0044 ug/mL	98
75)	Dibenzofuran	10.969	168	740403	52.9992 ug/mL	100
76)	2,3,5,6-Tetrachlorophenol	11.075	232	137732	57.2007 ug/mL	98
77)	2,3,4,6-Tetrachlorophenol	11.122	232	135680	53.4197 ug/mL	99
80)	Diethylphthalate	11.157	149	675528	59.9400 ug/mL	99
82)	Fluorene	11.327	166	639093	56.4966 ug/mL	100
83)	4-Chlorophenyl Phenyl ...	11.280	204	292972	56.5201 ug/mL	99
84)	4-Nitroaniline	11.333	138	170465	56.0204 ug/mL	94
85)	5-Nitro-o-Toluidine	11.375	152	6503	1.9407 ug/mL#	1
86)	1,2-Diphenylhydrazine	11.445	77	769978	58.3637 ug/mL	99
89)	4,6-Dinitro-2-Methylph...	11.375	198	101722	66.1675 ug/mL	91
90)	Diphenylamine/n-Nitros...	11.398	169	546984	56.2540 ug/mL	100
92)	Sym-Trinitrobenzene	11.798	75	38380	11.8355 ug/mL#	71
94)	Phenacetin	12.010	108	16088	2.7500 ug/mL#	49
95)	Phorate	11.798	75	38380	4.9099 ug/mL#	45
96)	4-Bromophenyl Phenyl E...	11.804	248	166822	57.1358 ug/mL	98
97)	Hexachlorobenzene	12.016	284	160115	54.0947 ug/mL	97
100)	Pentachlorophenol	12.192	266	110203	60.4526 ug/mL	100
102)	Pentachloronitrobenzene	12.192	237	4298	3.3835 ug/mL#	16
103)	Disulfoton	12.398	88	71101	11.4490 ug/mL#	7
104)	Phenanthrene	12.398	178	883300	56.5251 ug/mL	100
105)	Anthracene	12.451	178	898603	56.1706 ug/mL	100
106)	Carbazole	12.610	167	839861	56.3904 ug/mL	100
108)	Di-n-Butyl Phthalate	12.969	149	1139438	61.1113 ug/mL	99
113)	Fluoranthene	13.927	202	926715	54.8122 ug/mL	99
115)	Benzidine	14.021	184	69498	8.9510 ug/mL	100
116)	Pyrene	14.251	202	949973	58.7775 ug/mL	99
117)	Aramite	14.380	185	1829	2.0868 ug/mL#	31
122)	Butyl Benzyl Phthalate	15.063	149	510779	64.6411 ug/mL	97
125)	bis(2-Ethylhexyl)phtha...	15.904	149	716401	70.1429 ug/mL	99
126)	3,3'-Dichlorobenzidine	15.904	252	275351	56.8778 ug/mL	99
127)	Benzo[a]anthracene	15.992	228	813248	57.4200 ug/mL	100
128)	Chrysene	16.062	228	792022	59.0181 ug/mL	100
130)	Di-n-Octyl Phthalate	16.851	149	1169221	70.5799 ug/mL	98
132)	Benzo[b]fluoranthene	17.856	252	706683	54.3753 ug/mL	96
133)	Benzo[k]fluoranthene	17.904	252	706592	59.8748 ug/mL	99
134)	Benzo[a]pyrene	18.568	252	630133	55.3869 ug/mL	99
136)	Indeno[1,2,3-cd]pyrene	21.627	276	652390	58.5266 ug/mL	99
137)	Dibenz[ah]anthracene	21.627	278	569840	60.4609 ug/mL	99

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007118.D Vial: 5
Acq On : 24 Apr 2019 4:46 pm Operator: SCB
Sample : WG703405-02 LCS 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 17:50:06 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

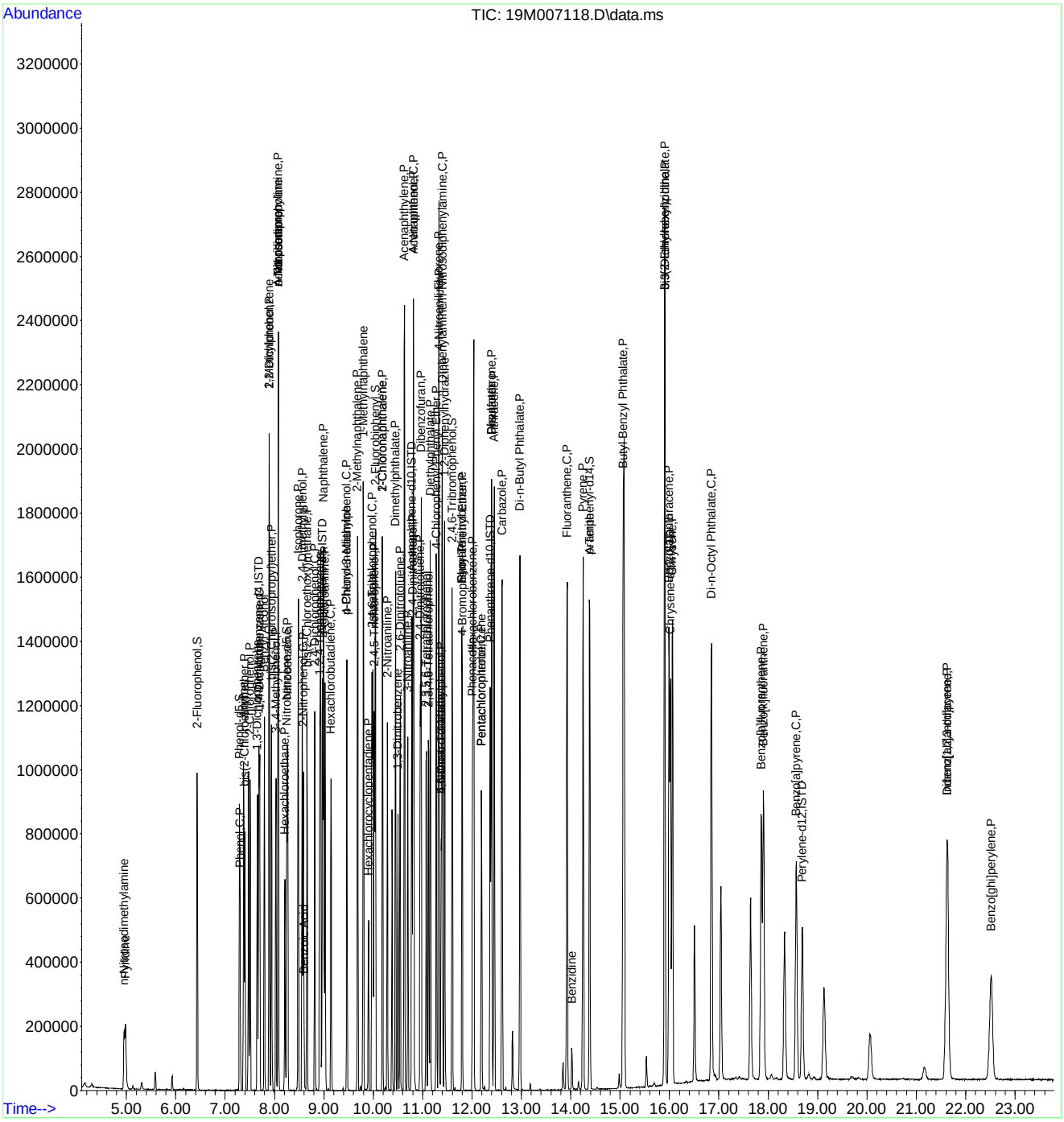
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
138) Benzo[ghi]perylene	22.515	276	546565	60.3346	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007118.D Vial: 5
Acq On : 24 Apr 2019 4:46 pm Operator: SCB
Sample : WG703405-02 LCS 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 17:50:06 2019
Quant Results File: MEGAMIX.RES

Quant Method : C:\msdchem\4\METHODS\MEGAMIX.M
Quant Title : OVD MSS01 8270/625 ICAL 04/03/19
QLast Update : Tue Apr 23 15:26:45 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



19M007118.D MEGAMIX.M Thu Apr 25 17:50:08 2019 SVOA1 Page: 4

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007118.D Vial: 5
Acq On : 24 Apr 2019 4:46 pm Operator: SCB
Sample : WG703405-02 LCS 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:10:13 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M

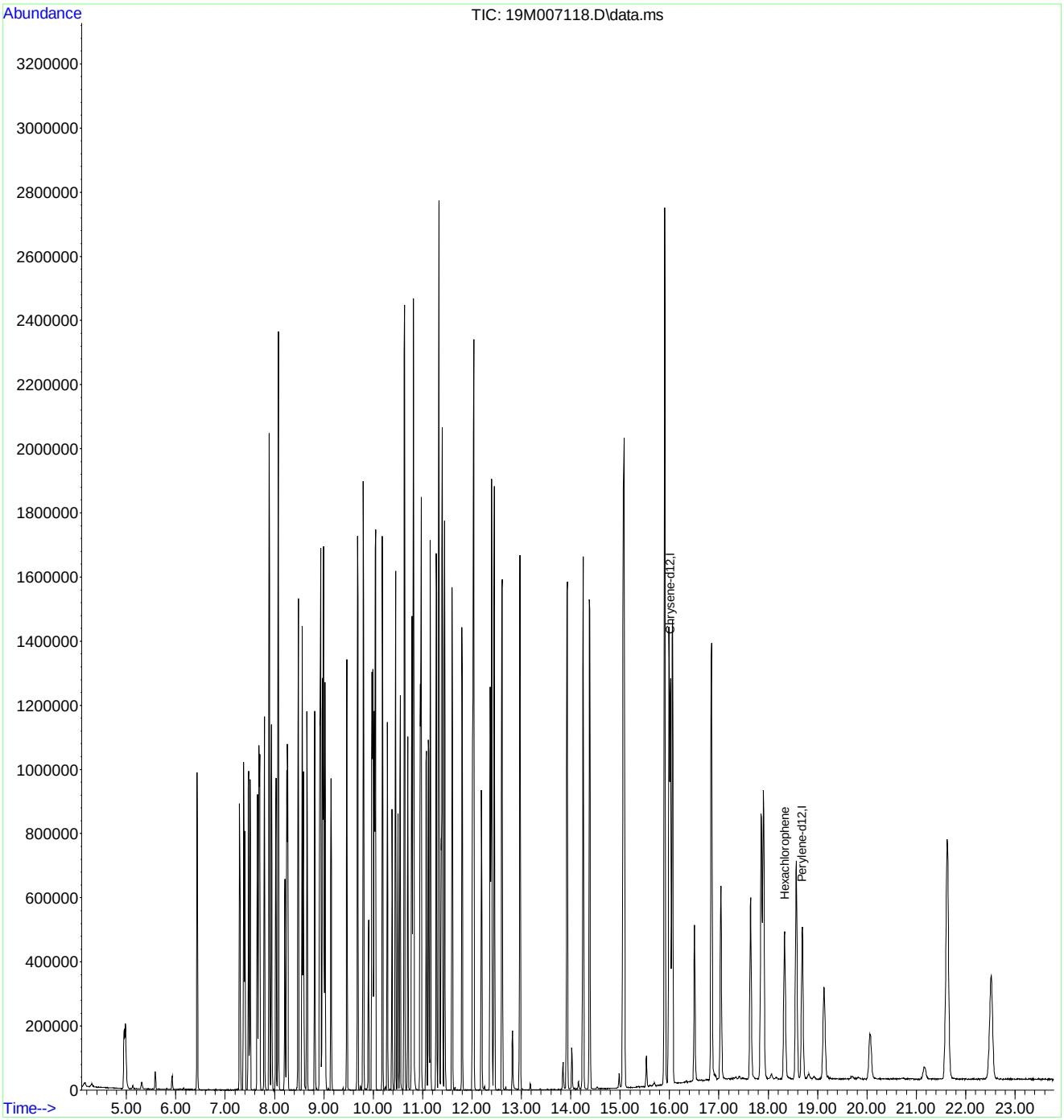
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Chrysene-d12	16.021	240	473440	40.0000	ug/mL	0.0000
3) Perylene-d12	18.692	264	415369	40.0000	ug/mL	0.0000
Target Compounds						Qvalue
4) Hexachlorophene	18.339	196	1260	0.3790	ug/mL#	2

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\msdchem\4\DATA\042419\19M007118.D Vial: 5
Acq On : 24 Apr 2019 4:46 pm Operator: SCB
Sample : WG703405-02 LCS 4/16 Inst : HPMS19NEW
Misc : 1,1 Multiplr: 1.00
Integrator: RTE
Quant Time: Apr 25 18:10:13 2019
Quant Results File: A9B.RES

Quant Method : C:\msdchem\4\METHODS\A9B.M
Quant Title : Appendix IX List/single point screen
QLast Update : Thu Apr 25 17:49:01 2019
Response via : Initial Calibration
DataAcq Meth:BNARUN.M



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71274.D Vial: 6
Acq On : 22 Apr 2019 1:21 pm Operator: SCB
Sample : WG704098-03 LCS2 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:17:57 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.828	152	103435	40.0000	ug/ml	0.000
30) Naphthalene-d8	9.121	136	379728	40.0000	ug/ml	0.000
54) Acenaphthene-d10	10.932	164	225769	40.0000	ug/ml	-0.011
88) Phenanthrene-d10	12.546	188	381671	40.0000	ug/ml	-0.011
114) Chrysene-d12	16.237	240	365012	40.0000	ug/ml	-0.022
129) Perylene-d12	19.074	264	359183	40.0000	ug/ml	-0.027
System Monitoring Compounds						
8) 2-Fluorophenol	6.578	112	200422	63.2578568	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 63.26%			
12) Phenol-d5	7.428	99	162004	42.4827216	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 42.48%			
31) Nitrobenzene-d5	8.395	82	159871	50.0047286	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 100.01%			
59) 2-Fluorobiphenyl	10.190	172	376173	49.6433006	ug/ml	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery = 99.29%			
87) 2,4,6-Tribromophenol	11.760	330	111486	112.4264014	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 112.43%			
118) p-Terphenyl-d14	14.581	244	447855	51.0832880	ug/ml	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 102.17%			
Target Compounds						Qvalue
3) n-Nitrosodimethylamine	5.14	74	55883	28.8027	ug/ml	95
4) Pyridine	5.15	79	44458	12.7975	ug/ml	99
5) 2-Picoline	5.99	93	86923	22.9458	ug/ml	99
6) n-Nitrosomethylethylamine	6.11	88	70422	45.1061	ug/ml	95
7) Methyl Methanesulfonate	6.41	80	66076	38.7537	ug/ml	99
9) n-Nitrosodiethylamine	6.81	102	77553	49.2191	ug/ml	99
10) Ethyl Methanesulfonate	7.07	79	105150	46.4291	ug/ml	100
11) Aniline	7.52	66	74897	42.4934	ug/ml#	85
13) Phenol	7.44	94	87788	22.0385	ug/ml	95
14) bis(2-Chloroethyl)ether	7.54	63	111408	48.2539	ug/ml	87
15) Pentachloroethane	7.56	167	44401	32.8055	ug/ml	99
16) 2-Chlorophenol	7.65	128	164858	46.9097	ug/ml	100
17) 1,3-Dichlorobenzene	7.80	146	130291	33.8875	ug/ml	99
18) 1,4-Dichlorobenzene	7.84	146	136806	35.2292	ug/ml	99
19) Benzyl Alcohol	7.94	108	101844	46.5402	ug/ml	99
20) 1,2-Dichlorobenzene	8.04	146	132546	36.7493	ug/ml	99
21) 2-Methylphenol	8.04	107	117594	45.4542	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	8.08	45	176060	45.6022	ug/ml	99
23) 3-,4-Methylphenol	8.16	107	160504	46.6894	ug/ml	89
24) n-Nitrosopyrrolidine	8.21	100	75346	50.3331	ug/ml	95
25) n-Nitrosodipropylamine	8.22	70	106891	53.1653	ug/ml	99
26) Acetophenone	8.22	105	213248	51.0427	ug/ml	100
27) n-Nitrosomorpholine	8.22	56	80733	49.0586	ug/ml	100
28) o-Toluidine	8.27	106	219251	42.2289	ug/ml	100
29) Hexachloroethane	8.36	117	43189	30.6485	ug/ml	98
32) Nitrobenzene	8.42	77	165463	51.0730	ug/ml	100
33) n-Nitrosopiperidine	8.56	114	83972	49.8875	ug/ml	99
34) Isophorone	8.63	82	341552	57.2603	ug/ml	100
35) 2-Nitrophenol	8.74	139	92526	51.8410	ug/ml	98
36) 2,4-Dimethylphenol	8.70	122	167703	54.7264	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.80	198	86723	50.0025	ug/ml	100
38) bis(2-Chloroethoxy)methane	8.80	93	230714	50.0561	ug/ml	99
39) Benzoic Acid	8.74	105	16920	21.7033	ug/ml#	69

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71274.D Vial: 6
Acq On : 22 Apr 2019 1:21 pm Operator: SCB
Sample : WG704098-03 LCS2 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:17:57 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	2,4-Dichlorophenol	8.96	162	149734	52.3203	ug/ml	99
41)	a,a-Dimethylphenethylamine	9.05	58	25475	3.2586	ug/ml#	73
42)	1,2,4-Trichlorobenzene	9.06	180	122016	39.8328	ug/ml	100
43)	Naphthalene	9.14	128	478656	46.1326	ug/ml#	97
44)	4-Chloroaniline	9.17	65	56651	51.1163	ug/ml	70
45)	2,6-Dichlorophenol	9.20	162	146763	53.0859	ug/ml	100
46)	Hexachloropropene	9.26	213	66016	35.6052	ug/ml	99
47)	Hexachlorobutadiene	9.29	225	66079	38.5432	ug/ml	99
48)	n-Nitrosodi-n-Butylamine	9.48	84	112262	42.8223	ug/ml	85
49)	p-Phenylenediamine	9.61	108	11584	3.1884	ug/ml#	1
50)	4-Chloro-3-Methylphenol	9.61	107	146511	53.0185	ug/ml	99
51)	Safrole	9.70	162	129886	46.3223	ug/ml	99
52)	2-Methylnaphthalene	9.83	142	317588	46.0112	ug/ml	99
53)	1-Methylnaphthalene	9.95	142	327925	50.3072	ug/ml	99
55)	1,2,4,5-Tetrachlorobenzene	10.05	216	143877	44.5799	ug/ml	100
56)	Hexachlorocyclopentadiene	10.05	237	46728	36.1943	ug/ml	99
57)	2,4,6-Trichlorophenol	10.12	196	109554	52.8251	ug/ml	100
58)	2,4,5-Trichlorophenol	10.17	196	115017	53.3301	ug/ml	99
60)	Isosafrole	10.22	162	325022	113.2354	ug/ml	100
61)	2-Chloronaphthalene	10.34	162	359147	55.2711	ug/ml	100
62)	1-Chloronaphthalene	10.38	162	268575	44.8326	ug/ml	100
63)	2-Nitroaniline	10.44	65	93186	54.5436	ug/ml	99
64)	1,4-Naphthoquinone	10.50	158	133867	63.6948	ug/ml	99
65)	Dimethylphthalate	10.60	163	410159	57.2482	ug/ml	100
66)	1,3-Dinitrobenzene	10.65	168	68950	53.7284	ug/ml	98
67)	2,6-Dinitrotoluene	10.69	165	97078	56.0016	ug/ml	99
68)	Acenaphthylene	10.78	152	514957	51.8079	ug/ml	99
69)	3-Nitroaniline	10.85	138	98328	51.4720	ug/ml	99
70)	2,4-Dinitrophenol	10.95	184	37228	52.9019	ug/ml	73
71)	Acenaphthene	10.96	154	332923	52.1407	ug/ml	98
72)	4-Nitrophenol	10.97	65	32307	28.6339	ug/ml	90
73)	2,4-Dinitrotoluene	11.10	165	128728	57.7846	ug/ml	100
74)	Pentachlorobenzene	11.15	250	142829	51.2350	ug/ml	100
75)	Dibenzofuran	11.12	168	483350	52.7042	ug/ml	100
76)	2,3,5,6-Tetrachlorophenol	11.27	232	88924	53.6976	ug/ml	96
77)	2,3,4,6-Tetrachlorophenol	11.27	232	88916	49.4956	ug/ml	100
78)	1-Naphthylamine	11.20	143	301705	45.5129	ug/ml	99
79)	2-Naphthylamine	11.27	143	306247	45.2448	ug/ml	100
80)	Diethylphthalate	11.30	149	380193	54.3908	ug/ml	100
81)	Thionazin	11.40	107	60268	53.9135	ug/ml	99
82)	Fluorene	11.48	166	404113	53.9499	ug/ml	99
83)	4-Chlorophenyl Phenyl Ethe	11.43	204	182832	49.3395	ug/ml	99
84)	4-Nitroaniline	11.49	138	102745	52.0646	ug/ml	99
85)	5-Nitro-o-Toluidine	11.48	152	116864	52.9569	ug/ml	99
86)	1,2-Diphenylhydrazine	11.59	77	356588	55.6444	ug/ml	100
89)	4,6-Dinitro-2-Methylphenol	11.53	198	74343	58.0916	ug/ml	83
90)	Diphenylamine/n-Nitrosodip	11.55	169	651835	96.4993	ug/ml	99
91)	Sulfotepp	11.74	322	65008	52.3248	ug/ml	97
92)	Sym-Trinitrobenzene	11.83	75	66590	39.5710	ug/ml	99
93)	Diallate	11.87	86	255921	99.4031	ug/ml	87
94)	Phenacetin	11.86	108	187253	55.6802	ug/ml	93
95)	Phorate	11.89	75	210101	52.9768	ug/ml#	100
96)	4-Bromophenyl Phenyl Ether	11.96	248	111110	50.8305	ug/ml	100
97)	Hexachlorobenzene	12.18	284	121436	54.2619	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71274.D Vial: 6
Acq On : 22 Apr 2019 1:21 pm Operator: SCB
Sample : WG704098-03 LCS2 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 08:17:57 2019 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

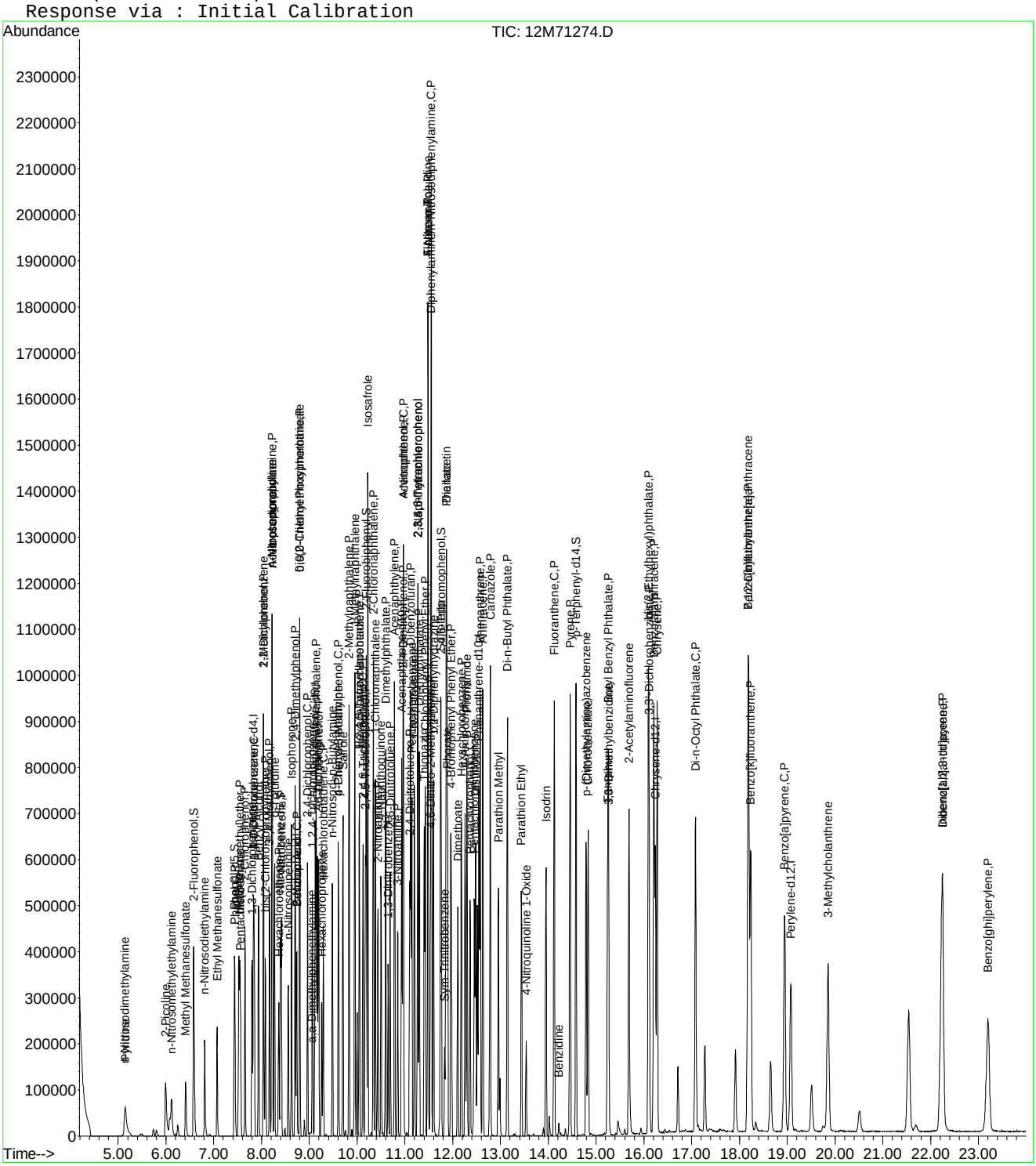
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98)	Dimethoate	12.11	87	136734	57.1119	ug/ml	94
99)	4-Aminobiphenyl	12.26	169	361768	43.9037	ug/ml	99
100)	Pentachlorophenol	12.36	266	81585	60.0729	ug/ml	100
101)	Pronamide	12.30	173	184531	56.3123	ug/ml	100
102)	Pentachloronitrobenzene	12.45	237	48639	58.0049	ug/ml	99
103)	Disulfoton	12.48	88	184486	53.1653	ug/ml	100
104)	Phenanthrene	12.58	178	560836	53.1155	ug/ml	100
105)	Anthracene	12.63	178	569411	52.5246	ug/ml	100
106)	Carbazole	12.79	167	581634	57.6177	ug/ml	100
107)	Parathion Methyl	12.96	109	124243	62.6246	ug/ml	98
108)	Di-n-Butyl Phthalate	13.14	149	667003	57.0355	ug/ml	100
109)	Parathion Ethyl	13.44	97	74243	56.8604	ug/ml	100
110)	4-Nitroquinoline 1-Oxide	13.54	190	37030	43.0729	ug/ml	100
112)	Isodrin	13.95	193	63516	53.8908	ug/ml	97
113)	Fluoranthene	14.13	202	603286	51.6792	ug/ml	100
115)	Benzidine	14.22	184	30356	5.8852	ug/ml	100
116)	Pyrene	14.46	202	623354	52.9703	ug/ml	100
119)	p-(Dimethylamino)azobenzen	14.79	225	136707	55.9713	ug/ml	99
120)	Chlorobenzilate	14.83	251	183608	54.1131	ug/ml	100
121)	Famphur	15.24	218	192547	306.8728	ug/ml#	75
122)	Butyl Benzyl Phthalate	15.26	149	292538	56.8421	ug/ml	99
123)	3,3'-Dimethylbenzidine	15.27	212	62022	4.2222	ug/ml#	91
124)	2-Acetylaminofluorene	15.69	181	257542	58.2860	ug/ml	99
125)	bis(2-Ethylhexyl)phthalate	16.10	149	407884	59.4679	ug/ml	100
126)	3,3'-Dichlorobenzidine	16.11	252	193504	50.6776	ug/ml	99
127)	Benzo[a]anthracene	16.21	228	566236	51.9783	ug/ml	100
128)	Chrysene	16.28	228	573715	55.2824	ug/ml	100
130)	Di-n-Octyl Phthalate	17.08	149	685812	57.4183	ug/ml	99
131)	7,12-Dimethylbenz[a]anthra	18.19	256	265381	51.3019	ug/ml	100
132)	Benzo[b]fluoranthene	18.19	252	607159	55.0134	ug/ml	100
133)	Benzo[k]fluoranthene	18.24	252	523333	53.8910	ug/ml	100
134)	Benzo[a]pyrene	18.95	252	510889	52.0345	ug/ml	99
135)	3-Methylcholanthrene	19.85	268	281290	54.0622	ug/ml	100
136)	Indeno[1,2,3-cd]pyrene	22.25	276	595026	54.0206	ug/ml	99
137)	Dibenz[ah]anthracene	22.24	278	525191	56.1473	ug/ml	99
138)	Benzo[ghi]perylene	23.20	276	484180	52.9406	ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71274.D Vial: 6
Acq On : 22 Apr 2019 1:21 pm Operator: SCB
Sample : WG704098-03 LCS2 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 23 8:17 2019 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 ICAL 04/12/19
Last Update : Mon Apr 22 08:29:36 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71274.D Vial: 6
Acq On : 22 Apr 2019 1:21 pm Operator: SCB
Sample : WG704098-03 LCS2 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 08:22:15 2019 Quant Results File: A9B.RES

Quant Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration
DataAcq Meth : BNARUN

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	16.237	240	365012	40.0000	ug/L	0.000
3) Perylene-d12	19.074	264	359183	40.0000	ug/L	0.000

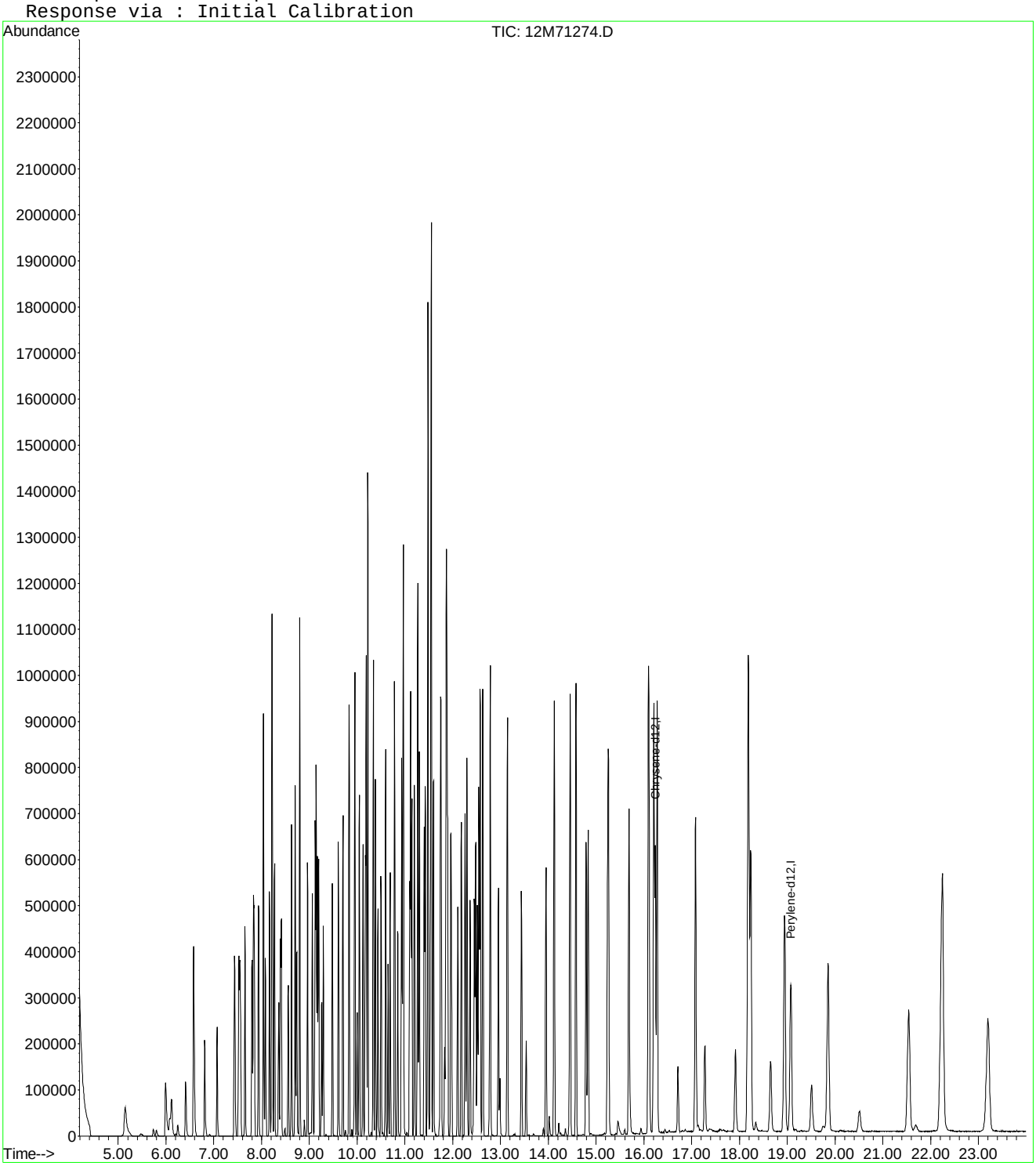
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
12M71274.D A9B.M Tue Apr 23 08:22:15 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\MSDCHEM\1\DATA\042219\12M71274.D Vial: 6
Acq On : 22 Apr 2019 1:21 pm Operator: SCB
Sample : WG704098-03 LCS2 4/19 Inst : MSD12
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 23 8:22 2019 Quant Results File: A9B.RES

Method : I:\MSDCHEM\1\METHODS\A9B.M (RTE Integrator)
Title : Appendix IX List/single point screen
Last Update : Tue Apr 23 08:20:03 2019
Response via : Initial Calibration



3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
April 30, 2019

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001 – BIO-CHEM TESTING WVDEP 220
002 – REIC Consultants, Inc. WVDEP 060
003 – Sturm Environmental
004 – MICROBAC PITTSBURGH
005 – ES LABORATORIES
006 – ALCOSAN LABORATORIES
007 – ALS LABORATORIES
008 – BENCHMARK LABORATORIES
010 – MICROBAC CHICAGOLAND
AC – AMBER R. CARMICHAEL
ACG – ALEX C. GEDON
ADC – ANTHONY D. CANTER
ADG – APRIL D. GREENE
ADW – ALICIA D. WALKER
ALS – ADRIANE L. STEED
APH – ANDREW P. HOUT
AT – Asa R. Timmons
ATK – ALEX T. KLINTWORTH
AWE – ANDREW W. ESSIG
AZH – AFTER HOURS
BLG – BRENDA L. GREENWALT
BRG – BRENDA R. GREGORY
CAS – Craig A. Smith
CEB – CHAD E. BARNES
CLC – CHRYS L. CRAWFORD
COR – Corporate IT
CPD – CHAD P. DAVIS
CSH – CHRIS S. HILL
DIH – DEANNA I. HESSON
DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE
DSM – DAVID S. MOSSOR
ECL – ERIC C. LAWSON
EEA – EMILY E. ALLEN
EGS – EMILY G. SHILLING
EPT – ETHAN P. TIDD
ERP – ERIN R. PORTER
JAO – Jeff A. Ogle
JDH – JUSTIN D. HESSON
JDS – JARED D. SMITH
JKP – JACQUELINE K. PARSONS
JLR – JIMMY L. RUSH
JRH – Justin R. Hill
JST – JOSHUA S. TAYLOR
JTP – JOSHUA T. PEMBERTON
JWR – JOHN W. RICHARDS
JYH – JI Y. HU
KAK – KATHY A. KIRBY
KEB – KATIE E. BARNES
KEH – Katelyn E. Hoover
KFR – KARISSA F. REYNOLDS
KHR – KIM H. RHODES
KKB – KERRI K. BUCK
KMC – KAYLA M. CHEVALIER
KMG – KALEN M. GANDOR
KRA – KATHY R. ALBERTSON
KRP – KATHY R. PARSONS
KWD – Kurtis W. Decker
LLS – LARRY L. STEPHENS
LSB – LESLIE S. BUCINA
LSJ – LAURA S. JONES
MAP – MARLA A. PORTER
MES – MARY E. SCHILLING
MGH – Matthew G. Hackathorn
MMB – MAREN M. BEERY
MRT – MICHELLE R. TAYLOR
PDM – PIERCE D. MORRIS
PIT – MICROBAC WARRENDALE
RLB – BOB BUCHANAN
RNM – Rene N. Miller
RNP – RICK N. PETTY
SAV – SARAH A. VANDENBERG
SCB – SARAH C. BOGOLIN
SLM – STEPHANIE L. MOSSBURG
TB – TODD BOYLE
TMM – TAMMY M. MORRIS
VC – VICKI COLLIER
XXX – UNAVAILABLE OR SUBCONTRACT
ZTB – ZACH T. BARNES

Microbac Laboratories Inc.
List of Valid Qualifiers
April 30, 2019

Qualkey: STD_ND=U

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
CT1	The cooler temperature at receipt exceeded regulatory guidance.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
FP1	Did not ignite.
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated. The cooler temperature at receipt exceeded the regulatory guidance.
J,H1	The analyte was positively identified, but the quantitation was below the RL. Sample analysis performed past holding time
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND, S	Not detected; analyzed by method of standard addition (MSA)
ND,L	Not detected; sample reporting limit (RL) elevated due to interference
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit
U,CT1	Not detected. The cooler temperature at receipt exceeded regulatory guidance.
U,H1	Not detected; sample analysis performed past holding time.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Y	This analyte is not on the laboratory's current scope of accreditation.
Z	Cannot be resolved from isomer - see below

CHAIN OF CUSTODY RECORD

OK JLC 3/27/19

Laboratory: Microbac - Ohio Valley Division- 158 Starlite Drive, Marrietta, OH 45750 - Michelle Taylor, Project Manager- 1-800-373-4071

Client: 0 **Attn:** 0 **Addres** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP, Radford, Virginia **Location:** HWMU16 **Event** 2Q 2019 Annual Groundwater Monitoring Event **DAA JN:** B03204-19A **Lab JN:**	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UPS: Carrier: 1Z 237 301 01 9974 5795 Tracking Number: 1Z 237 301 01 9787 6202

Box 1: Matrix		Box 2: Preservative		Box 3: Filtered/Unfiltered	Box 4: Sample Type	Invoice
SW Surface Water	T Trip Blank	A HCL	E NaOH	F Filtered	G Grab	Copy to Consultant: YES
GW Groundwater	E Equipment Blank	B HNO_3	F ZnAc	U Unfiltered	C Composite	Bill: CLIENT OTHER
L Leachate	P Product	C H_2SO_4	G Other (Specify)	**Box 5: Sample Container Type**		Preserved and shipped on ice: YES
S Soil	O Other	D $Na_2S_2O_3$	H None	P Plastic V VOA AG Amber Glass CG Clear Glass		

Box 4 - Sample Type				G									
Box 3 - Filtered/Unfiltered				U									
Required pH of Sample													
Box 2 - Preservative				H									
Box 5 - Sample Container Type				2 ~~250mL~~ AG									
Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles	8270D/3510C (Semivolatiles) 1000ml JLC 3/27/19								
16C1	4/11	1320	GW	2	X								
16MW8	4/10	1245	GW	2	X								
16MW9	4/11	1225	GW	2	X								
16WC1A	4/11	1100	GW	6	X								
16WDUP	4/11	1115	GW	2	X								
16WC1B	4/11	1015	GW	2	X								
16-2			GW										
16-3			GW										
16-5			GW										
16WC2B			GW										
16SPRING			GW										

GENERAL NOTES:

1. Report results to detection limit, with J flags, for italicized wells.
2. VELAP accreditation required.
3. Full Deliverable
4. 8270 -Analyze for Hexachlorophene and Sulfotepp Only.

Please report to Project QL/DL
Sulfotepp = 10 / 1 ug/L
Hexachlorophene 100 / 10 ug/L (TIC)

Not sampled. JLC 3.27.2019

USE FOR QC

JLC 3.27

Clients Special Instructions:

Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on Ice ____ Yes ____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 4-10-19	#1 Relinquished by (Signature):	Date: 4/11/19	#2 Relinquished by (Signature):	Date:	#3 Relinquished by (Signature):	Date:
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	Time:	Company Name:	Time:
Sampler Name (Print): Graham Snyder	Date: 4/10/19	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date:	#3 Received by (Signature):	Date:
Sampler Signature:	Time: 0700	Company Name:	Time:	Company Name:	Time:	Company Name:	Time:

Microbac OVD
Received: 04/12/2019 10:22
By: BRENDA GREGORY
221000136926

Brenda Gregory

JLC 3/27

JLC 3/27

1/1

MICROBAC®

Cooler ID 6926

COOLER TEMP >6° C LOG

SAMPLE ID	Bottle 1 °C	Bottle 2 °C	Bottle 3 °C	Bottle 4 °C	Bottle 5 °C	Bottle 6 °C

4-12-19 BG

pH Lot # N/A

pH Exceptions

SAMPLE ID	Bottle 1	Bottle 2	Bottle 3	Bottle 4	Bottle 5	Bottle 6

4/12/19 BG

PRESERVATIVE EXCEPTIONS

✓ NONE

__AS NOTED

Document Control # 1957
Last 10-07-2016

BG 4/12/19

Issued to: Document Master File

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19041033
Account: 3070
Project: 3070.001
Samples: 8
Due Date: 23-APR-2019

Samplenum	Container ID	Products
L19041033-01	323659	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:54	JDH	EGS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19041033-02	323660	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER		12-APR-2019 16:35	BRG		

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19041033
Account: 3070
Project: 3070.001
Samples: 8
Due Date: 23-APR-2019

Samplenum	Container ID	Products
L19041033-03	323661	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

Sample extract/digestate/leachate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:54	JDH	EGS	

Sample extract/digestate/leachate

Samplenum	Container ID	Products
L19041033-04	323662	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

Sample extract/digestate/leachate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:53	JDH	EGS	

Sample extract/digestate/leachate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19041033
Account: 3070
Project: 3070.001
Samples: 8
Due Date: 23-APR-2019

Samplenum	Container ID	Products
L19041033-05	323663	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:53	JDH	EGS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19041033-06	323664	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER		12-APR-2019 16:35	BRG		

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:54	JDH	EGS	

Samplenum	Container ID	Products
L19041033-07	323665	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:54	JDH	EGS	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19041033
Account: 3070
Project: 3070.001
Samples: 8
Due Date: 23-APR-2019

Samplenum	Container ID	Products
L19041033-08	323666	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	PREP	W1	EXT	16-APR-2019 08:51	CPD	BRG	
3	ANALYZ*	EXT	SEMI	17-APR-2019 08:48	SCB	CPD	

Sample extract/digestate/leachate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	12-APR-2019 16:35	BRG		
2	ANALYZ	W1	EXT	19-APR-2019 14:53	JDH	EGS	

Sample extract/digestate/leachate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - January 3, 2019

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVD NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Propionaldehyde (HPLC-UV)

SOLID AND HAZARDOUS CHEMICALS
Nitrogen, Ammonia by Method 350.1
Chromium, Hexavalent, Leachable by SM3500 Cr-B 2009
Phenolics, Total by Method 420.1
ASTM D3987-06

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVD HPLC02/HPLC-UV

Nitroglycerin
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVD MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
1,4-Dioxane
Atrazine
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene
Pentachloroethane

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVD MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVD HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

OVD HPLC12/HPLC/UV

Acetate
Formate

OVD RSK01/GC-FID

Acetylene
Propane

OVD K9305/ISE

Fluoroborate

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVD MSS0I/GC-MS

1-Methylnaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVD MSV0I/GC-MS

1.3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
lsoprene
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

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REVISED

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

Report Date: July 03, 2019 16:54

Project: RAAP - Radford, VA - HWMU16

Account #: 11200
Group Number: 2050909
SDG: RAF44
State of Sample Origin: VA

Electronic Copy To	Draper Aden Associates, Inc.	Attn: Janet Frazier
Electronic Copy To	Draper Aden Associates, Inc.	Attn: Kathy Olsen

Respectfully Submitted,

Barbara Weyandt

Barbara A. Weyandt
Specialist

(717) 556-7264

A previous version of this report was generated on 07/01/2019 14:45.

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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REVISED

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
16WC1A Grab Groundwater	06/25/2019 10:25	1089976
16WDUP Grab Groundwater	06/25/2019 10:30	1089977
Trip Blank Water	06/25/2019	1089978

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: RAAP - Radford, VA - HWMU16
ELLE Group #: 2050909

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

REVISED

Sample Description: **16WC1A Grab Groundwater**
2Q 2019 Annual Groundwater Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 06/26/2019 09:45
Collection Date/Time: 06/25/2019 10:25
SDG#: RAF44-01

Draper Aden Associates, Inc.
ELLE Sample #: GW 1089976
ELLE Group #: 2050909
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	G191812AA	07/01/2019 01:02	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	G191812AA	07/01/2019 01:01	Don V Viray	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: **16WDUP Grab Groundwater**
2Q 2019 Annual Groundwater Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 06/26/2019 09:45
Collection Date/Time: 06/25/2019 10:30
SDG#: RAF44-02FD

Draper Aden Associates, Inc.
ELLE Sample #: GW 1089977
ELLE Group #: 2050909
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Vinyl Chloride	75-01-4	0.157 J	0.153	1.00	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	G191812AA	07/01/2019 02:08	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	G191812AA	07/01/2019 02:07	Don V Viray	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: **Trip Blank Water**
2Q 2019 Annual Groundwater Monitoring Event
RAAP - Radford, VA - HWMU16

Project Name: **RAAP - Radford, VA - HWMU16**

Submittal Date/Time: 06/26/2019 09:45
Collection Date/Time: 06/25/2019
SDG#: RAF44-03TB

Draper Aden Associates, Inc.
ELLE Sample #: GW 1089978
ELLE Group #: 2050909
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
11996	Vinyl Chloride	75-01-4	N.D.	0.153	1.00	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C (25 ml)	SW-846 8260C 25mL purge	1	G191812AA	07/01/2019 00:40	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	G191812AA	07/01/2019 00:39	Don V Viray	1

*=This limit was used in the evaluation of the final result

REVISED

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2050909
Reported: 07/03/2019 16:54

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: G191812AA	Sample number(s): 1089976-1089978		
Vinyl Chloride	N.D.	0.153	1.00

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: G191812AA	Sample number(s): 1089976-1089978								
Vinyl Chloride	5.00	4.78			96		60-125		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: G191812AA	Sample number(s): 1089976-1089978 UNSPK: 1089976									
Vinyl Chloride	N.D.	5.00	5.41	5.00	5.44	108	109	60-125	0	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C (25 ml)
Batch number: G191812AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1089976	97	100	96	96
1089977	98	99	96	95
1089978	97	100	96	96

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

REVISED

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 2050909
Reported: 07/03/2019 16:54

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C (25 ml)
Batch number: G191812AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
Blank	99	102	96	95
LCS	99	100	97	96
MS	98	100	96	95
MSD	98	99	96	95
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

11200 | 2050909 | 1089976-78

CHAIN OF CUSTODY RECORD

Laboratory: Eurofins Lancaster Laboratories Environmental, 2425 New Holland Pike, Lancaster, PA, 17605-2425/ Barb Weyandt, Manager/ (717) 656-2300 x1576

MJL 6-20-19

Client: 0 **Attn:** 0 **Addres** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP, Radford, Virginia **Location:** HWMU16 **Event:** 2Q 2019 Annual Groundwater Monitoring Event **DAA JN:** B03204-19A **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES WPS: 12-757-02X-40-5747-6328 **Carrier:** **Tracking Number:**		

Box 1: Matrix		Box 2: Preservative		Box 3: Filtered/Unfiltered	Box 4: Sample Type	Invoice
SW Surface Water	T Trip Blank	A HCL	E NaOH	F Filtered	G Grab	Copy to Consultant: YES
GW Groundwater	E Equipment Blank	B HNO_3	F ZnAc	U Unfiltered	C Composite	Bill: CLIENT OTHER
L Leachate	P Product	C H_2SO_4	G Other (Specify)	**Box 5: Sample Container Type**		Preserved and shipped on ice: YES
S Soil	O Other	D $Na_2S_2O_3$	H None	P Plastic V VOA AG Amber Glass CG Clear Glass		

Box 4 - Sample Type					G								
Box 3 - Filtered/Unfiltered					U								
Required pH of Sample					<2								
Box 2 - Preservative					A								
Box 5 - Sample Container Type					3-40mL V								
Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles	8260C/5030C 25 ml purge volume analyze for vinyl chloride ONLY								
16WC1A	6/25	1025	GW	3	X								
16WDUP	6/25	1030	GW	3	X								
Trip Blank	6/25	—	T	2	X								

GENERAL NOTES:

1. Report results to detection limit, with J flags, for italicized wells. Report to at or above QL for other locations
2. VELAP accreditation required.
3. Full Deliverable with EDD.
4. 8260C - analyze for Vinyl Chloride ONLY.

QL = 1 ug/L
DL = 0.153 ug/L

JLP 6/20/19

Clients Special Instructions:

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington for Ian McGregor	Date: 6-25-19	#1 Relinquished by (Signature):	Date: 6/25/19	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Ian M Gregor	Date: 6-25-19	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: ELE	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0700	Company Name:	Time:	Company Name: 6/26/19 0945	Time:	

MJL 6-20-19

1/1

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Sample Administration Receipt Documentation Log

Doc Log ID: 252518

Group Number(s): 2050909

Client: Draper Aden Assoc.

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	06/26/2019 9:45
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Nicole Reiff (25684) at 15:13 on 06/26/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	5.8	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 10, 2019

Draper Aden Associates, Inc.

Sample Delivery Group:	L1116144
Samples Received:	07/06/2019
Project Number:	803204-19A
Description:	2Q 2019 Annual GW Monitoring Event
Site:	HWMU16 RFAAP, RADFORD, VA
Report To:	Janet C. Frazier 2206 South Main Street Blacksburg, VA 24060

Entire Report Reviewed By:

Heather J Wagner
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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16WC1A L1116144-01 GW

Collected by: Ken Coddington
Collected date/time: 06/25/19 10:25
Received date/time: 07/06/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1308028	1	07/09/19 06:50	07/09/19 06:50	DWR	Mt. Juliet, TN

TRIP BLANK 1 L1116144-02 GW

Collected by: Ken Coddington
Collected date/time: 06/25/19 00:00
Received date/time: 07/06/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1308028	1	07/09/19 07:11	07/09/19 07:11	DWR	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Heather J Wagner
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Vinyl chloride	U		0.118	0.500	1	07/09/2019 06:50	WG1308028
(S) Toluene-d8	*111*			*80.0-120*		*07/09/2019 06:50*	WG1308028
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*07/09/2019 06:50*	WG1308028
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*07/09/2019 06:50*	WG1308028

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Vinyl chloride	U		0.118	0.500	1	07/09/2019 07:11	WG1308028
(S) Toluene-d8	*113*			*80.0-120*		*07/09/2019 07:11*	WG1308028
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*07/09/2019 07:11*	WG1308028
(S) 1,2-Dichloroethane-d4	*95.6*			*70.0-130*		*07/09/2019 07:11*	WG1308028

Method Blank (MB)

(MB) R3429314-4 07/08/19 22:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3429314-1 07/08/19 20:59 • (LCSD) R3429314-2 07/08/19 21:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	25.0	24.1	22.3	96.6	89.1	67.0-131			8.00	20
(S) Toluene-d8				*94.6*	*95.5*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.7*	*89.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*106*	*101*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

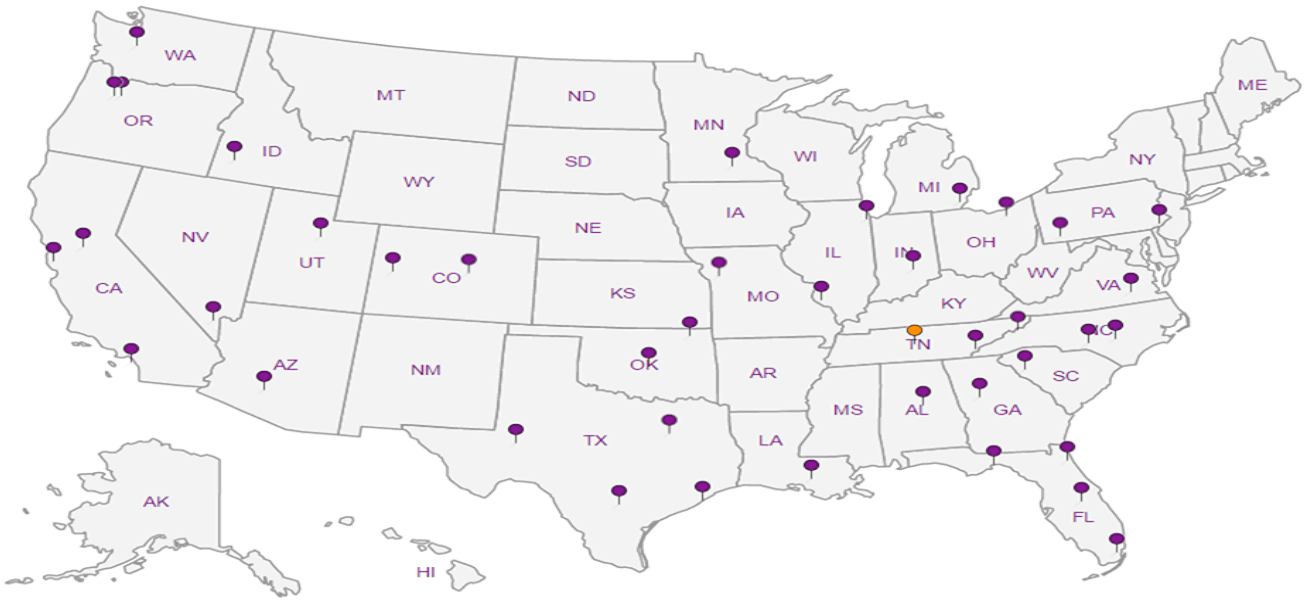
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



2.6/2.7

CHAIN OF CUSTODY RECORD

Laboratory: ELLE TestAmerica Laboratories NORTH CANTON, 4101 Shuffel Drive NW, North Canton, OH 44720. Opal Johnson, Project Manager. 330-497-9396

JC 6 20-19

Client: 0 Attn: 0 Addres 0 0 Phone: 0 Fax: 0 Fax: 0	Consultant: Draper Aden Associates Attn: Janet C. Frazier Address: 2206 South Main Street Blacksburg, Virginia 24060 Phone: (540) 552-0444 Fax: (540) 552-0291	Sample Site: RFAAP, Radford, Virginia Location: HWMU16 Event: 2Q 2019 Annual Groundwater Monitoring Event DAA JN: B03204-19A Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES WPS: 1Z237-301-01-9918-4089 Carrier: Tracking Number:

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type				G	G									
Box 3 - Filtered/Unfiltered				U	U									
Required pH of Sample				<2	<2									
Box 2 - Preservative				A	B									
Box 5 - Sample Container Type				3-40mL V	1-500 mL P									
Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles	8260C/5030C - Analyze for Vinyl Chloride ONLY Low level	ICP/MS 6020A/3005A (Metals-Cobalt & Silver ONLY)								
16WC1A	6/25	1025	GW	3	X									
16MW8	6/25	0920	GW	1		X								
Trip Blank 1	6/25	—	T	2	X									

GENERAL NOTES:
1. Report results to detection limit, with J flags, for italicized wells. Report to at or above QL for other locations
2. VELAP accreditation required.
3. Full Deliverable with EDD.
4. Metals - analyze for Cobalt & Silver ONLY.
5. 8260C - analyze for Vinyl Chloride ONLY.

QL = 1 ug/L
DL = 0.153 ug/L > VC

QL = 5 ug/L
DL = 1 ug/L > Cobalt

QL = 2 ug/L
DL = 0.3 ug/L > Silver

JW 6/24/19

240-115014 Chain of Custody

Clients Special Instructions:
Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on Ice ____ Yes ____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 6-25-19	#1 Relinquished by (Signature):	6/25/19	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Ian McGregor	Date: 6-25-19	#1 Received by (Signature):	6/26/19	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0700	Company Name: ETA	Time: 1030	Company Name:	Time:	

JW 6/27/19

JW 6-20-19

7/1

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: DRAPERBVA	SDG	1116144
Cooler Received/Opened On: 7/6 /19	3.9	
Received By: Jonathan Rochelle		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable		✓	
VOA Zero headspace?		✓	
Preservation Correct / Checked?			

RE: Moving two samples to PACE !!

Johnson, Opal
Today, 08:14 AM
Canton - Sample Receiving; Robison, Rick; Cordell, William; +4 more

Reply all |

Terry,

Could you please send the following:

1. Copy of the original COC
2. Copy of this email (if you could use the original email I sent to everyone without all of the back and forth emails that would be great!)

Shipping (Brent?)

Along with the shipping costs, could you please forward the FedEx tracking number also.

Thanks everyone!

Opal Johnson

Phone: 330-966-9279

E-mail: Opal.Johnson@testamericainc.com

From: Canton - Sample Receiving
Sent: Thursday, July 04, 2019 9:04 AM
To: Robison, Rick; Cordell, William; Johnson, Opal; Canton - Shipping; Canton - Sample Receiving; Canton - MS VOA; Maddux, Ann; Hershman, Lance
Subject: Re: Moving two samples to PACE !!

I pulled these samples and they are on the out cart. Opal, do you need an original COC sent with these samples or just the email. Let me know. I am working Friday.

Thank You,
Terry
Eurofins TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4101 Shuffel Street, NW

Moving two samples to PACE !!

Johnson, Opal
Today, 05:15 PM
Canton - Shipping; Canton - Sample Receiving; **Canton - MS VOA**; +2 more

Reply all |

This message was sent with high importance.

All,

The client would like us ship two samples **ON FRIDAY, 07/05/19** for delivery on SATURDAY, 07/06/19 to another laboratory

Samples:

1. 240-115014-1 (16WC1A) → 3x40
2. 240-115014 -3 (Trip Blank 1) — 2x40

Send them to PACE Labs. This is NOT a subcontract, so no need for an inter-lab report.

Original COC?

The address:

Pace National
Heather Wagner, Project Manager
hwagner@pacenational.com
Direct: 615-289-9801

12065 Lebanon Rd.
Mt. Juliet, TN. 37122

Please let me know if there are any question.

I am assuming someone will be here to ship these.

Opal Johnson

Phone: 330-966-9279

E-mail: Opal.Johnson@testamericainc.com

From: Janet Frazier [mailto:jfrazier@daa.com]
Sent: Wednesday, July 03, 2019 3:50 PM
To: 'hwagner@pacenational.com'; Johnson, Opal
Cc: 'Haynes D. Campbell'; Will Mason-Deese
Subject: RE: Rush project - DAA- for RAAP - HWMU 16 -

-External Email-

All – Please move forward with plan to ship out and analyze samples. Thanks. Janet

---

From: Janet Frazier
Sent: Wednesday, July 03, 2019 11:48 AM
To: 'hwagner@pacenational.com' <hwagner@pacenational.com>; Johnson, Opal <Opal.Johnson@testamericainc.com>
Cc: Haynes D. Campbell <HCampbell@pacenational.com>; Will Mason-Deese <WMason-Deese@daa.com>
Subject: RE: Rush project - DAA- for RAAP - HWMU 16 - take 2

I forgot to add two things:

1. Sample would ship out Friday for Saturday delivery
2. The primary lab is currently re-analyzing this sample and we should have preliminary results back by EOD. If the reanalysis comes back as not detected, we will not need the effort below.

I will continue to keep everyone updated and thanks in advance once again. Janet

---

From: Janet Frazier
Sent: Wednesday, July 03, 2019 11:40 AM
To: hwagner@pacenational.com; Johnson, Opal <Opal.Johnson@testamericainc.com>
Cc: Haynes D. Campbell <HCampbell@pacenational.com>; Will Mason-Deese <WMason-Deese@daa.com>
Subject: Rush project - DAA- for RAAP - HWMU 16

Hi All. Thanks for helping me with this project. Please see project information below. If Opal and Heather could confirm details below, I would appreciate it. Janet

Copied on this email is Opal Johnson at ELLE – Test America – North Canton. Opal will ship overnight for Saturday delivery the project samples noted on the attached COC. Cooler to be sent to

PM contact at Pace National:
Heather Wagner
hwagner@pacenational.com

Direct: 615-289-9801

12065 Lebanon Rd.
Mt. Juliet, TN. 37122

Heather. The sample and dup were collected on 6-25 and 14 day holding time is 7-10. Haynes confirmed that lab could analyzed within hold. We need analysis of **vinyl chloride** only by 8260C. The reporting limit (per permit) should be reported at 1 ug/l and the detection limit per permit should be reported as 0.153 ug/l. If the value is < 0.153 report as ND. If value greater than 0.153 and less than 1 ug/l, result should be reported as a J (estimated value). Also needed is a full deliverable package to come at a later date. However, we have to report to our regulatory agency by 7-15, so if we could just get results and summary QC report as soon as practical, that would be great.

Opal. Thank you! Please invoice your time and shipping costs for this effort. Please continue to hold the sample aliquot for silver as noted on COC and we will get back to you if needed.

Janet C. Frazier
Senior Associate
Program Manager – II - Environmental

Draper Aden Associates
Engineering • Surveying • Environmental Services
Lasting Positive Impact™

Phone: 540.552.0444 • Direct Line: 540.557.1320 • Mobile 540.557.7421

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FW: Rush project - DAA- for RAAP - HWMU 16 -

Johnson, Opal
Today, 09:06 AM
Burns, Terry; Canton - Sample Receiving

Reply all |

Inbox

Here you go

Opal Johnson

Phone: 330-966-9279

E-mail: Opal.Johnson@testamericainc.com

From: Janet Frazier [mailto:jfrazier@daa.com]
Sent: Wednesday, July 03, 2019 3:50 PM
To: 'hwagner@pacenational.com'; Johnson, Opal
Cc: 'Haynes D. Campbell'; Will Mason-Deese
Subject: RE: Rush project - DAA- for RAAP - HWMU 16 -

-External Email-

All – Please move forward with plan to ship out and analyze samples. Thanks. Janet

---

From: Janet Frazier
Sent: Wednesday, July 03, 2019 11:48 AM
To: 'hwagner@pacenational.com' <hwagner@pacenational.com>; Johnson, Opal <Opal.Johnson@testamericainc.com>
Cc: Haynes D. Campbell <HCampbell@pacenational.com>; Will Mason-Deese <WMason-Deese@daa.com>
Subject: RE: Rush project - DAA- for RAAP - HWMU 16 - take 2

I forgot to add two things:

1. Sample would ship out Friday for Saturday delivery
2. The primary lab is currently re-analyzing this sample and we should have preliminary results back by EOD. If the reanalysis comes back as not detected, we will not need the effort below.

I will continue to keep everyone updated and thanks in advance once again. Janet

---

From: Janet Frazier
Sent: Wednesday, July 03, 2019 11:40 AM
To: hwagner@pacenational.com; Johnson, Opal <Opal.Johnson@testamericainc.com>
Cc: Haynes D. Campbell <HCampbell@pacenational.com>; Will Mason-Deese <WMason-Deese@daa.com>
Subject: Rush project - DAA- for RAAP - HWMU 16

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National Center for Testing & Innovation

ANALYTICAL REPORT

July 17, 2019

Draper Aden Associates, Inc.

Sample Delivery Group:	L1116144
Samples Received:	07/06/2019
Project Number:	803204-19A
Description:	2Q 2019 Annual GW Monitoring Event
Site:	HWMU16 RFAAP, RADFORD, VA
Report To:	Janet C. Frazier 2206 South Main Street Blacksburg, VA 24060

Entire Report Reviewed By:

Heather J Wagner
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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16WC1A L1116144-01 GW

Collected by: Ken Coddington
Collected date/time: 06/25/19 10:25
Received date/time: 07/06/19 08:45

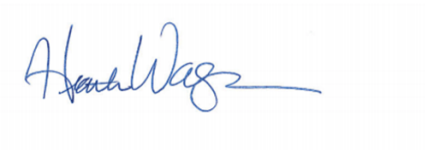
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1308028	1	07/09/19 06:50	07/09/19 06:50	DWR	Mt. Juliet, TN

TRIP BLANK 1 L1116144-02 GW

Collected by: Ken Coddington
Collected date/time: 06/25/19 00:00
Received date/time: 07/06/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1308028	1	07/09/19 07:11	07/09/19 07:11	DWR	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Heather J Wagner
Project Manager

8260C Volatile Organic Compounds (GC/MS)

2A-OR

SURROGATE RECOVERY

Analytical Method: 8260C **SDG:** L1116144
Matrix: GW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 *% Rec.*	DMC-2 *% Rec.*	DMC-3 *% Rec.*	TOT Out
16WC1A	L1116144-01	VOCMS28	0708_55	111	102	95.9	0
TRIP BLANK 1	L1116144-02	VOCMS28	0708_56	113	101	95.6	0
BLANK	R3429314-4	VOCMS28	0708_34	113	105	97.8	0
LCS	R3429314-1	VOCMS28	0708_30LCS	94.6	89.7	106	0
LCSD	R3429314-2	VOCMS28	0708_31	95.5	89.8	101	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Toluene-d8	80.0 - 120
DMC-2	4-Bromofluorobenzene	77.0 - 126
DMC-3	1,2-Dichloroethane-d4	70.0 - 130

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1116144-01,02

SAMPLE NO.:
R3429314-1
R3429314-2

LCS Sample / File ID:	R3429314-1 / 0708_30LCS	**SDG:**	L1116144
LCSD Sample / File ID:	R3429314-2 / 0708_31	**Analytical Batch:**	WG1308028
Instrument ID:	VOCMS28	**Dilution Factor:**	1
Analytical Method:	8260C	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	ug/l	*ug/l*	*ug/l*	*%*	*%*	*%*	*%*	*%*
Vinyl chloride	25.0	24.1	22.3	96.6	89.1	67.0 - 131	8.00	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3429314-4

Lab Sample ID:	R3429314-4	**SDG:**	L1116144
Lab File ID:	0708_34	**Preparation Date/Time:**	07/08/19 22:24
Instrument ID:	VOCMS28	**Analysis Date/Time:**	07/08/19 22:24
Analytical Batch:	WG1308028	**Dilution Factor:**	1
Analytical Method:	8260C	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3429314-1	VOCMS28	0708_30LCS	07/08/19 20:59
LCSD	R3429314-2	VOCMS28	0708_31	07/08/19 21:20
16WC1A	L1116144-01	VOCMS28	0708_55	07/09/19 06:50
TRIP BLANK 1	L1116144-02	VOCMS28	0708_56	07/09/19 07:11

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0625_11-1	**SDG:**	L1116144
Instrument ID:	VOCMS28	**Analytical Method:**	8260C
Analysis Date/Time:	06/25/19 21:09		

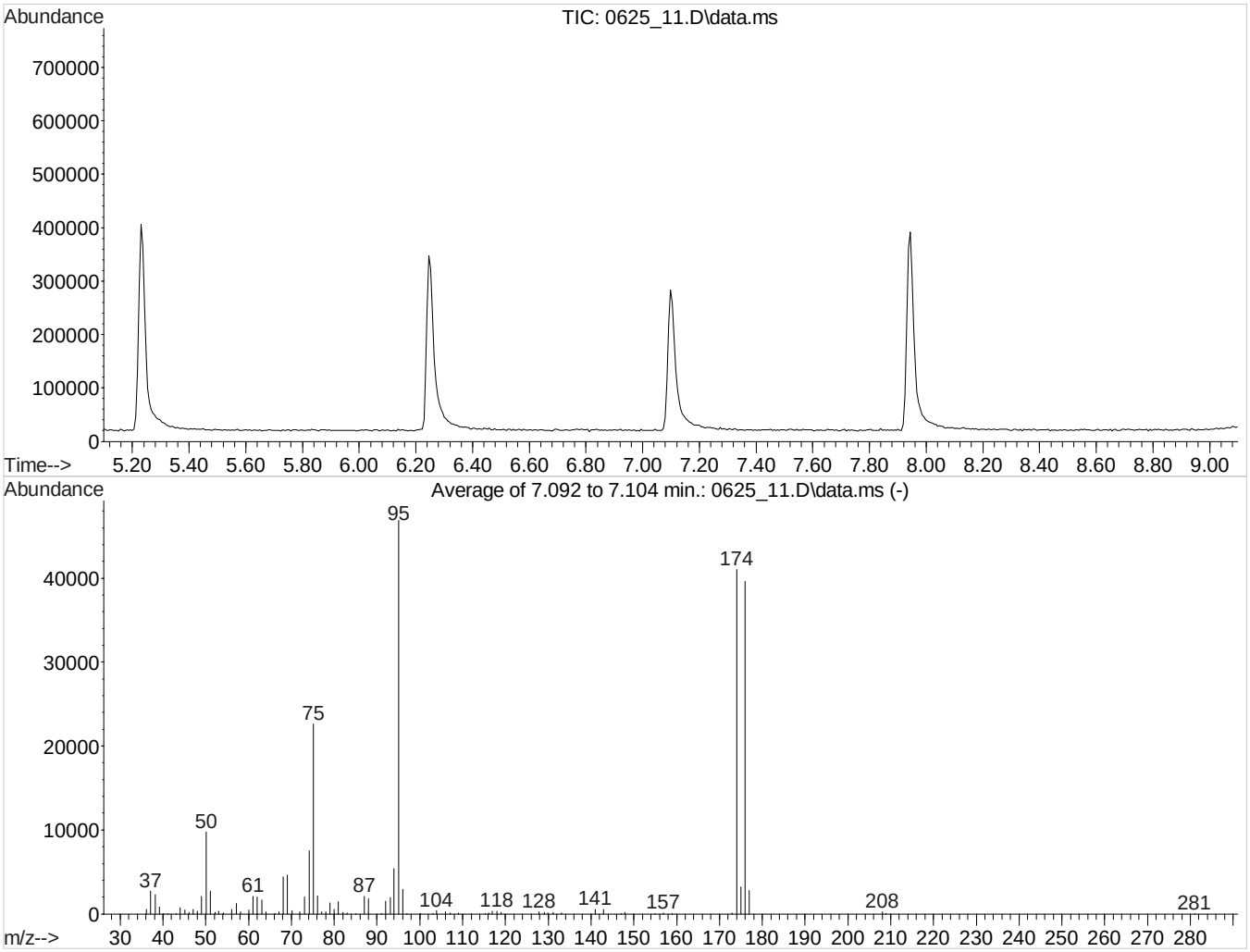
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	114
96	95	5	9	6
173	174	0	2	0
174	95	50	200	88
175	174	5	9	8
176	174	95	105	96
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.04	0.04	0625_15	06/25/19 22:33
STD-0.1	0.1	0625_16	06/25/19 22:54
STD-0.2	0.2	0625_17	06/25/19 23:15
STD-0.5	0.5	0625_18	06/25/19 23:36
STD-1	1	0625_19	06/25/19 23:56
STD-2	2	0625_20	06/26/19 00:17
STD-5.0	5.0	0625_21	06/26/19 00:38
STD-25	25	0625_22	06/26/19 00:59
STD-75	75	0625_23	06/26/19 01:20
STD-100	100	0625_24	06/26/19 01:41
STD-200	200	0625_25	06/26/19 02:02

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_11.D
Acq On : 25 Jun 2019 9:09 pm
Operator : 605
Sample : INSTBLK
Misc : water
ALS Vial : 11 Sample Multiplier: 1

Integration File: RTEINTLRH.P

Method : C:\msdchem\1\methods\V828F25S.M
Title : Volatile Organics by GC/MS
Last Update : Wed Jun 26 11:45:05 2019



AutoFind: Scans 988, 989, 990; Background Corrected with Scan 983

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	9751	PASS
75	95	30	60	48.2	22635	PASS
95	95	100	100	100.0	46913	PASS
96	95	5	9	6.3	2948	PASS
173	174	0.00	2	0.3	128	PASS
174	95	50	100	87.5	41032	PASS
175	174	5	9	7.9	3228	PASS
176	174	95	101	96.5	39597	PASS
177	176	5	9	7.0	2761	PASS

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0625_31-1
Instrument ID: VOCMS28
Analysis Date/Time: 06/26/19 09:38

SDG: L1116144
Analytical Method: 8260C

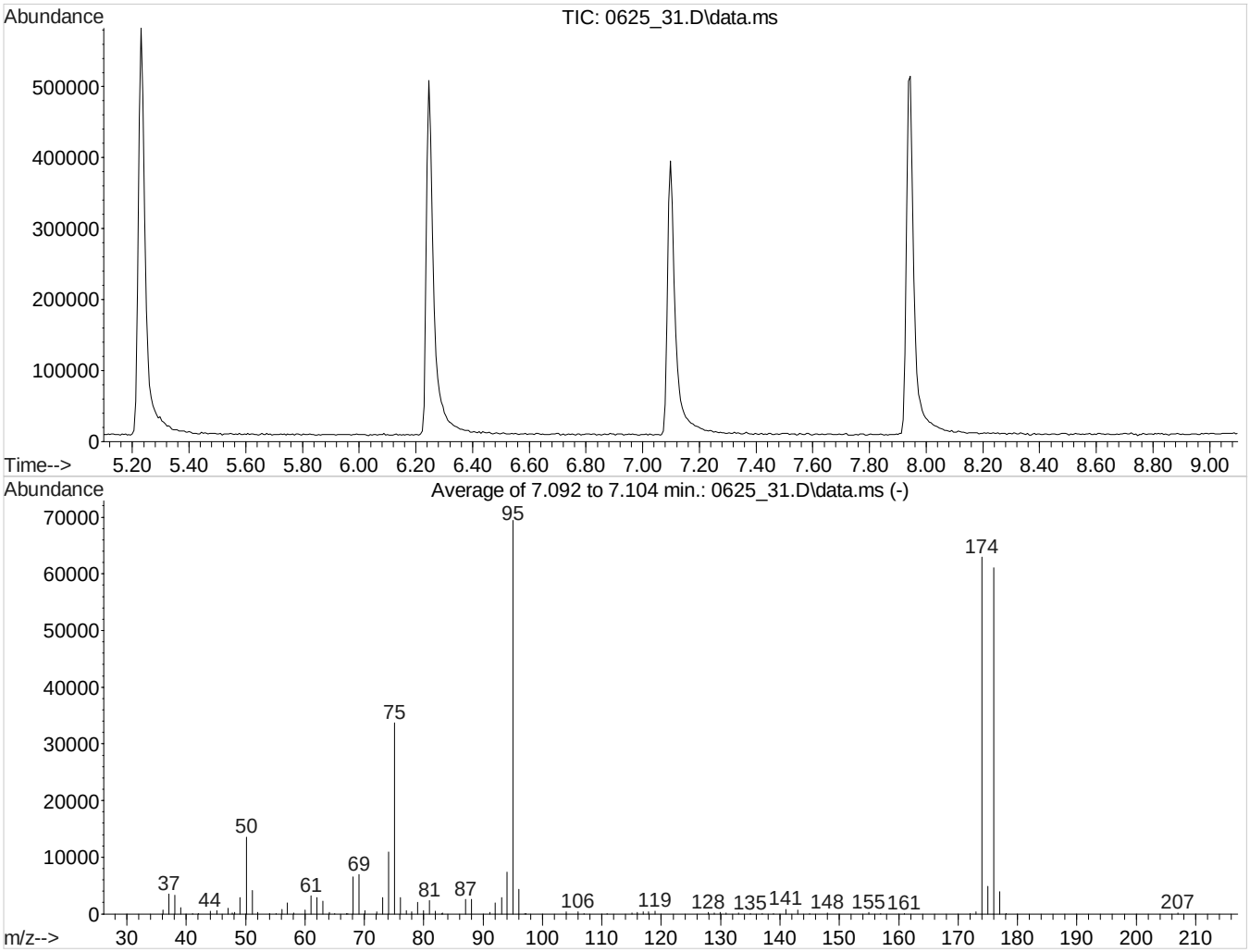
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	110
96	95	5	9	6
173	174	0	2	1
174	95	50	200	91
175	174	5	9	8
176	174	95	105	97
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
SSCV	VOCMS280625190625_33-1474668	0625_33-1	06/26/19 11:42

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_31.D
Acq On : 26 Jun 2019 9:38 am
Operator : 605
Sample : INSTBLK
Misc : water IS/SURR 19E01967
ALS Vial : 31 Sample Multiplier: 1

Integration File: RTEINTLRH.P

Method : C:\msdchem\1\methods\V828F25S.M
Title : Volatile Organics by GC/MS
Last Update : Wed Jun 26 11:45:05 2019



AutoFind: Scans 988, 989, 990; Background Corrected with Scan 982

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	13510	PASS
75	95	30	60	48.5	33661	PASS
95	95	100	100	100.0	69453	PASS
96	95	5	9	6.2	4339	PASS
173	174	0.00	2	0.6	385	PASS
174	95	50	100	90.6	62920	PASS
175	174	5	9	7.8	4912	PASS
176	174	95	101	97.1	61085	PASS
177	176	5	9	6.4	3922	PASS

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0626_55-1	**SDG:**	L1116144
Instrument ID:	VOCMS28	**Analytical Method:**	8260C
Analysis Date/Time:	06/27/19 07:30		

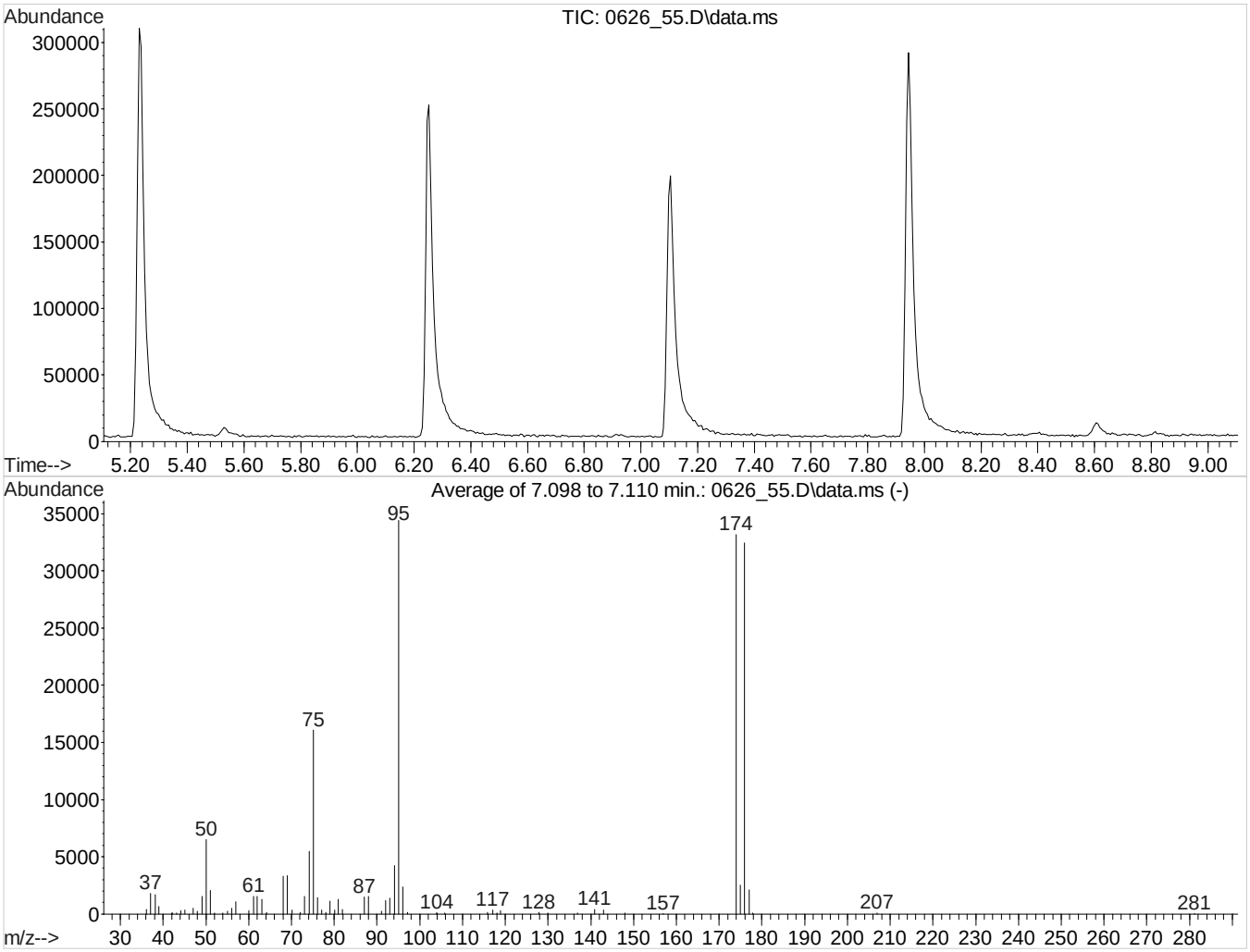
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	104
96	95	5	9	7
173	174	0	2	0
174	95	50	200	96
175	174	5	9	8
176	174	95	105	98
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-1A	1A	0626_58	06/27/19 08:33
STD-5A	5A	0626_59	06/27/19 08:54
STD-10A	10A	0626_60	06/27/19 09:15
STD-15A	15A	0626_61	06/27/19 09:36
STD-20A	20A	0626_62	06/27/19 09:57

Data Path : C:\msdchem\1\data\062619\
Data File : 0626_55.D
Acq On : 27 Jun 2019 7:30 am
Operator : 605
Sample : INSTBLK
Misc : water
ALS Vial : 52 Sample Multiplier: 1

Integration File: RTEINTLRH.P

Method : C:\msdchem\1\methods\V828F26S.M
Title : Volatile Organics by GC/MS
Last Update : Thu Jun 27 11:32:05 2019



AutoFind: Scans 989, 990, 991; Background Corrected with Scan 984

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	6510	PASS
75	95	30	60	46.7	16087	PASS
95	95	100	100	100.0	34440	PASS
96	95	5	9	6.8	2339	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	96.3	33173	PASS
175	174	5	9	7.5	2499	PASS
176	174	95	101	97.8	32445	PASS
177	176	5	9	6.5	2111	PASS

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0708_29T-1
Instrument ID: VOCMS28
Analysis Date/Time: 07/08/19 20:38
SDG: L1116144
Analytical Method: 8260C

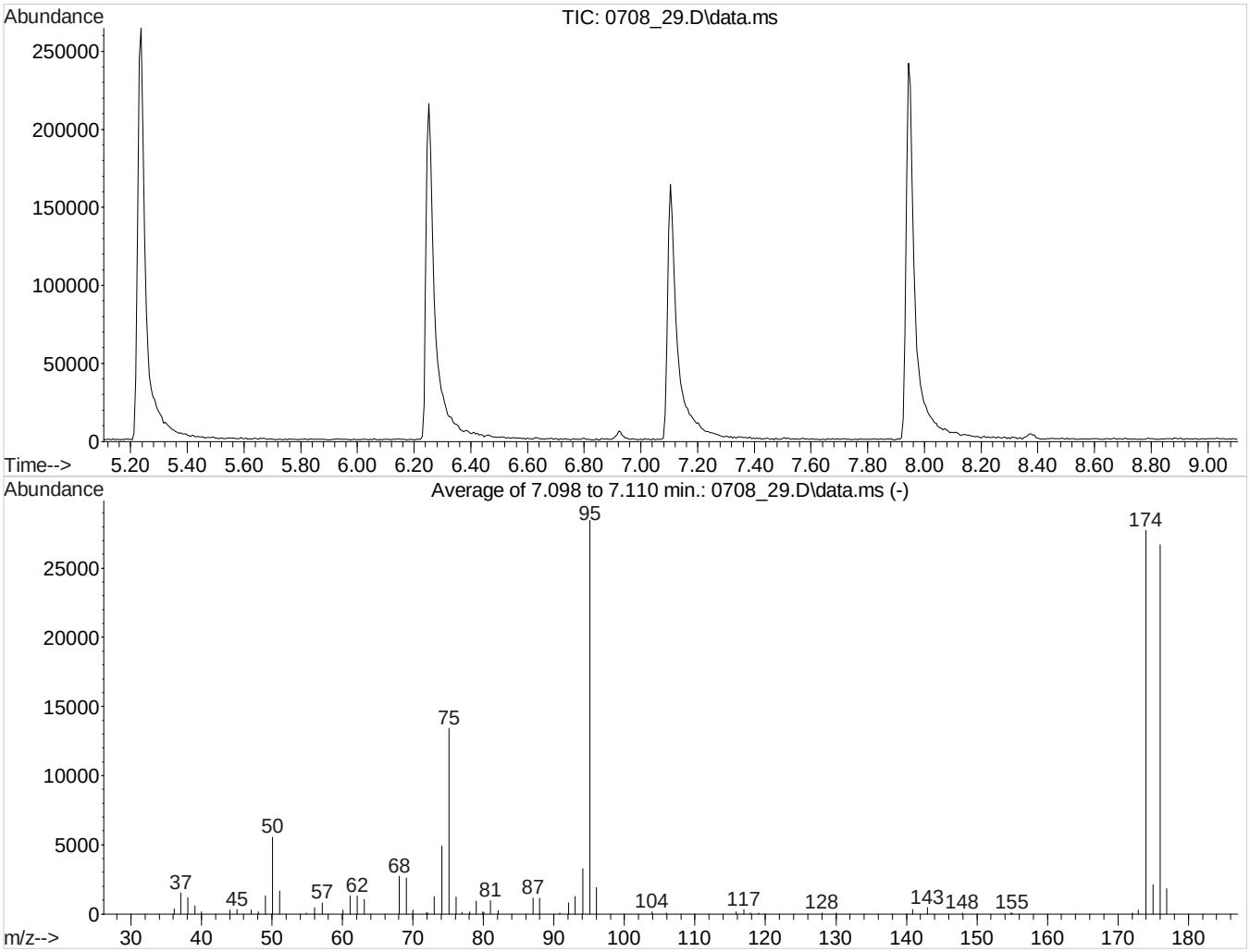
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	103
96	95	5	9	7
173	174	0	2	1
174	95	50	200	97
175	174	5	9	8
176	174	95	105	96
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS280708190708_30-1474668	0708_30-1	07/08/19 20:59
LCS	R3429314-1	0708_30LCS	07/08/19 20:59
LCSD	R3429314-2	0708_31	07/08/19 21:20
BLANK	R3429314-4	0708_34	07/08/19 22:24
RL	VOCMS280708190708_35-1474668	0708_35-1	07/08/19 23:46
16WC1A	L1116144-01	0708_55	07/09/19 06:50
TRIP BLANK 1	L1116144-02	0708_56	07/09/19 07:11

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_29.D
Acq On : 8 Jul 2019 8:38 pm
Operator : 605
Sample : INSTBLK
Misc : water
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINTLRH.P

Method : C:\msdchem\1\methods\V828F26S.M
Title : Volatile Organics by GC/MS
Last Update : Thu Jun 27 11:32:05 2019



AutoFind: Scans 989, 990, 991; Background Corrected with Scan 984

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	5565	PASS
75	95	30	60	47.1	13406	PASS
95	95	100	100	100.0	28467	PASS
96	95	5	9	6.7	1900	PASS
173	174	0.00	2	1.0	274	PASS
174	95	50	100	97.4	27715	PASS
175	174	5	9	7.7	2134	PASS
176	174	95	101	96.4	26709	PASS
177	176	5	9	6.8	1807	PASS

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1116144	**Analytical Method:**	8260C
Instrument ID:	VOCMS28	**Calibration Start Date:**	06/25/19 22:33
Std File:	0708_30-1	**Calibration End Date:**	06/27/19 09:57
		Std Analysis Date:	07/08/19 20:59

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		113512	7.94	100988	6.25	201796	4.31
UPPER LIMIT		227024		201976		403592	
LOWER LIMIT		56756		50494		100898	
LCS R3429314-1 WG1308028 1x	0708_30LCS	113512	7.94	100988	6.25	201796	4.31
LCSD R3429314-2 WG1308028 1x	0708_31	112024	7.94	101451	6.25	203728	4.31
BLANK R3429314-4 WG1308028 1x	0708_34	95672	7.94	79209	6.25	178602	4.32
L1116144-01 WG1308028 1x	0708_55	86972	7.94	73479	6.25	167228	4.32
L1116144-02 WG1308028 1x	0708_56	90717	7.94	73368	6.25	168350	4.32

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
16WC1A

Lab Sample ID:	L1116144-01	**SDG:**	L1116144
Client Sample ID:	16WC1A	**Collected Date/Time:**	06/25/19 10:25
Lab File ID:	0708_55	**Received Date/Time:**	07/06/19 08:45
Instrument ID:	VOCMS28	**Preparation Date/Time:**	07/09/19 06:50
Analytical Batch:	WG1308028	**Analysis Date/Time:**	07/09/19 06:50
Dilution Factor:	1	**Prep Method:**	8260C
Analytical Method:	8260C	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Vinyl chloride	75-01-4	0	U		0.118	0.500

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_55.D
Acq On : 9 Jul 2019 6:50 am
Operator : 605
Sample : L1116144-01 1x WG1308028
Misc : water
ALS Vial : 55 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:59:52 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

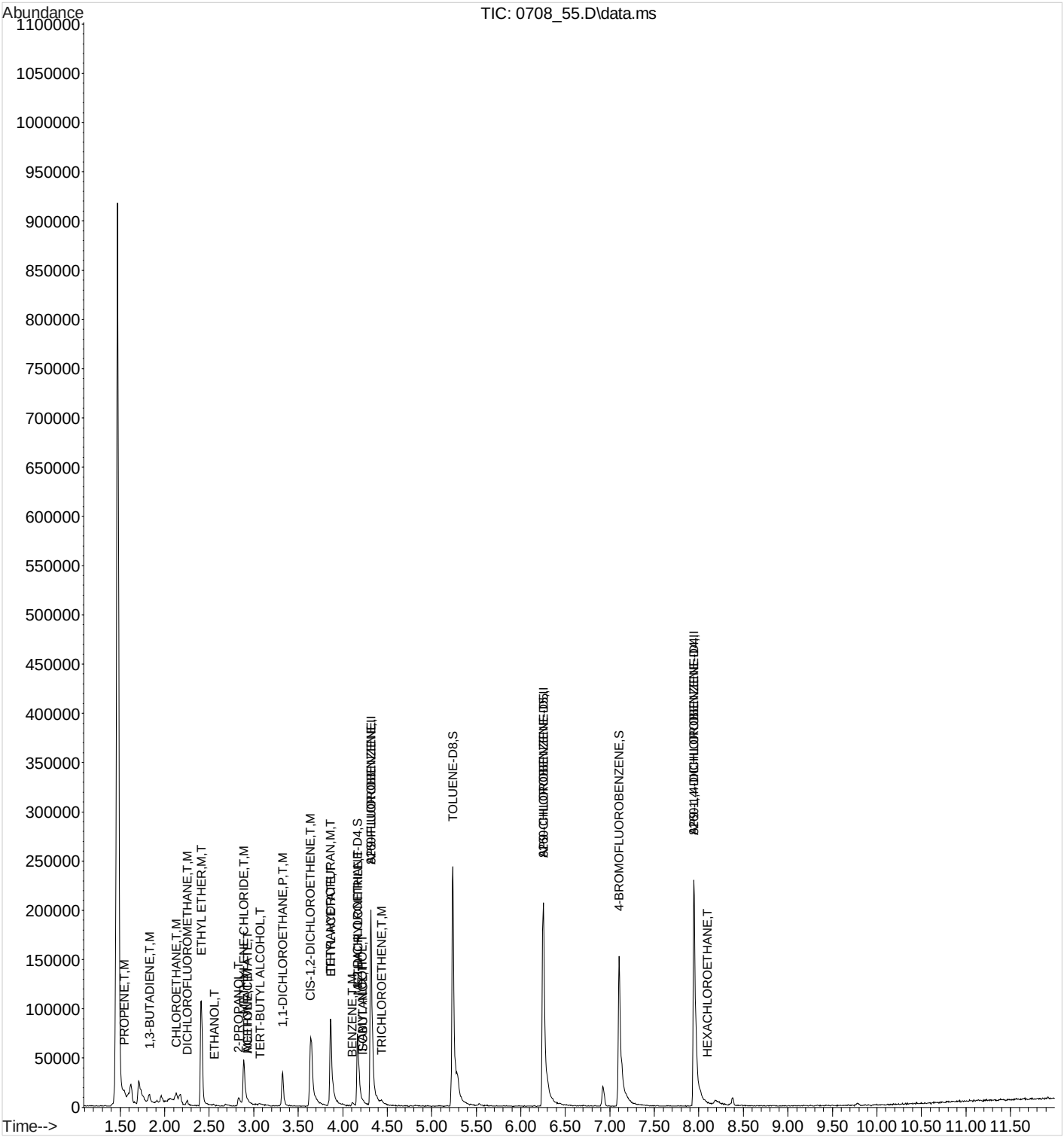
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 8260-FLUOROBENZENE	4.318	96	167228	16.0000000	ppb	# 0.00
58) 8260-CHLOROBENZENE-D5	6.252	82	73479	16.0000000	ppb	0.00
80) 8260-1,4-DICHLOROBENZE...	7.944	152	86972	16.0000000	ppb	# 0.00
107) AP9-FLUOROBENZENE	4.318	96	167228	16.0000000	ppb	0.00
121) AP9-CHLOROBENZENE-D5	6.252	82	71668	16.0000000	ppb	0.00
125) AP9-1,4-DICHLOROBENZEN...	7.944	152	86972	16.0000000	ppb	0.00
System Monitoring Compounds						
47) 1,2-DICHLOROETHANE-D4	4.166	65	53884	15.3432334	ppb	0.00
Spiked Amount 16.000				Recovery = 95.90%		
60) TOLUENE-D8	5.236	98	186712	17.8351513	ppb	0.00
Spiked Amount 16.000	Range 90 - 115			Recovery = 111.47%		
79) 4-BROMOFLUOROBENZENE	7.104	95	72575	16.3238994	ppb	0.00
Spiked Amount 16.000	Range 80 - 120			Recovery = 102.02%		
Target Compounds						Qvalue
4) PROPENE	1.544	41	859	0.3414814	ppb	# 62
8) 1,3-BUTADIENE	1.830	39	703	0.1623966	ppb	# 1
10) CHLOROETHANE	2.128	64	6343	2.2577808	ppb	# 93
12) DICHLOROFLUOROMETHANE	2.255	67	5073	0.6465007	ppb	99
13) ETHYL ETHER	2.414	59	53140	17.4356868	ppb	96
15) ETHANOL	2.560	45	675	14.0510867	ppb	# 55
18) ACETONE	2.931	43	4055	2.2974636	ppb	# 81
22) METHYLENE CHLORIDE	2.888	84	17125	4.3148446	ppb	97
23) METHYL ACETATE	2.931	43	5034	1.1575657	ppb	# 57
28) TERT-BUTYL ALCOHOL	3.071	59	2734	3.5171063	ppb	# 100
29) 1,1-DICHLOROETHANE	3.326	63	29491	4.0535207	ppb	100
34) CIS-1,2-DICHLOROETHENE	3.636	96	9278	2.0600654	ppb	# 80
37) TETRAHYDROFURAN	3.862	42	4274	2.1798510	ppb	# 90
45) BENZENE	4.105	78	3454	0.2148020	ppb	99
49) T-AMYL ALCOHOL	4.220	59	371	0.4760974	ppb	# 67
50) TRICHLOROETHENE	4.433	130	674	0.1539604	ppb	# 98
109) 2-PROPANOL	2.827	45	15285	36.2264412	ppb	# 100
113) ETHYL ACETATE	3.868	43	1362	0.2555225	ppb	# 64
114) METHACRYLONITRILE	4.172	67	28731	12.6756752	ppb	# 95
116) ISOBUTANOL	4.227	43	179	0.3835812	ppb	# 1
129) HEXACHLOROETHANE	8.096	117	437	0.1543127	ppb	# 11

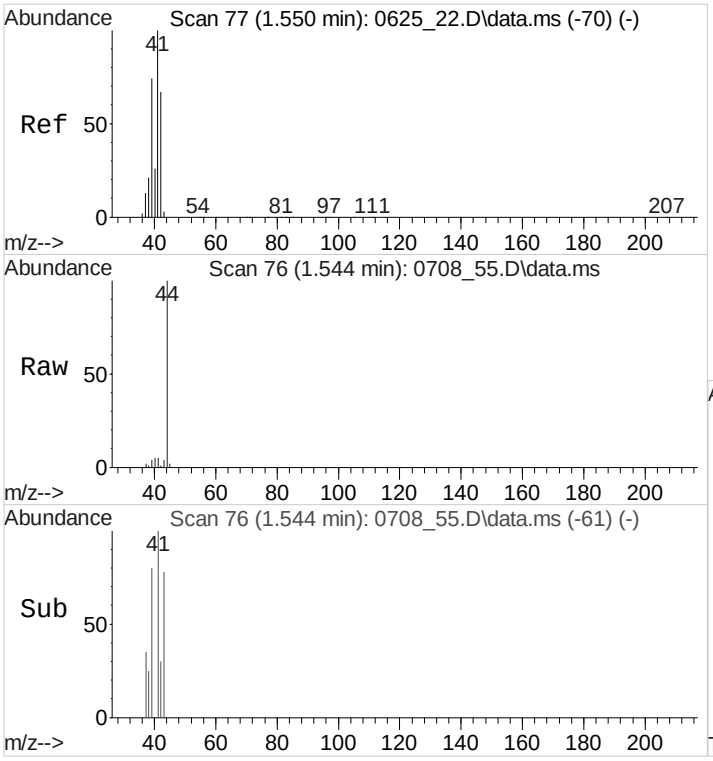
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_55.D
Acq On : 9 Jul 2019 6:50 am
Operator : 605
Sample : L1116144-01 1x WG1308028
Misc : water
ALS Vial : 55 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:59:52 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

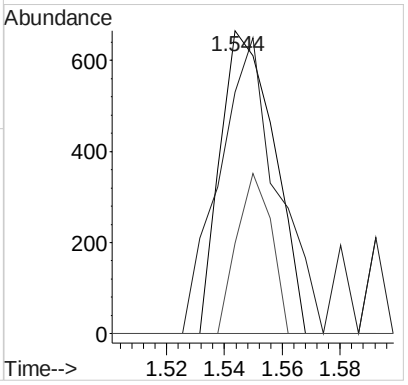


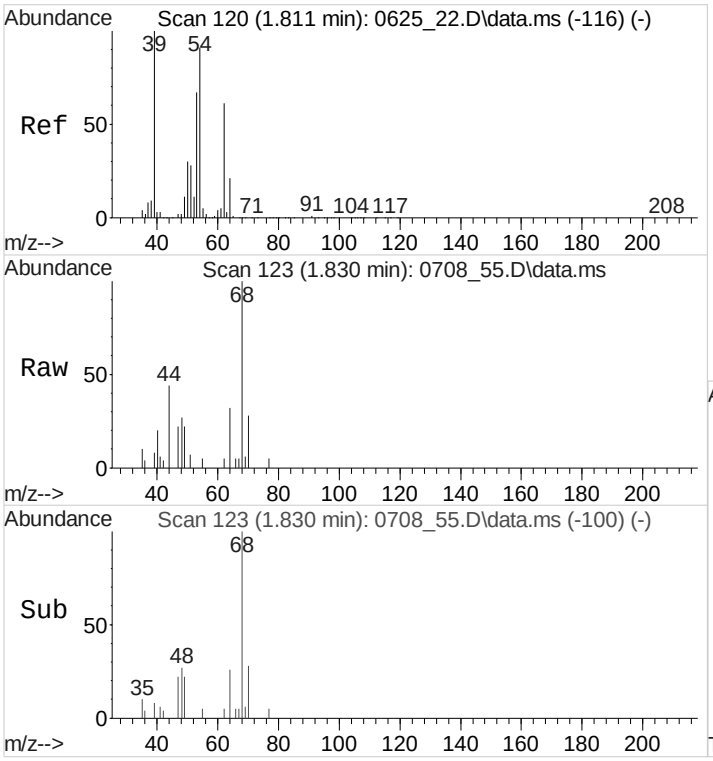


#4
PROPENE
Concen: 0.3414814 ppb
RT: 1.544 min Scan# 76
Delta R.T. -0.005 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 41 Resp: 859

Ion	Ratio	Lower	Upper
41	100		
39	105.7	60.2	90.2#
42	34.1	52.8	79.2#

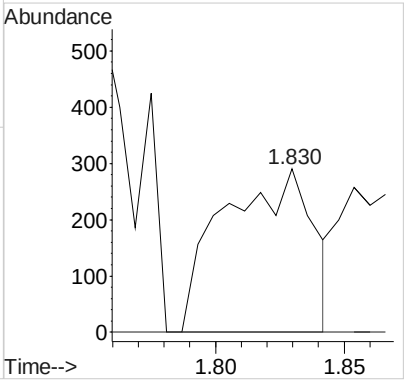


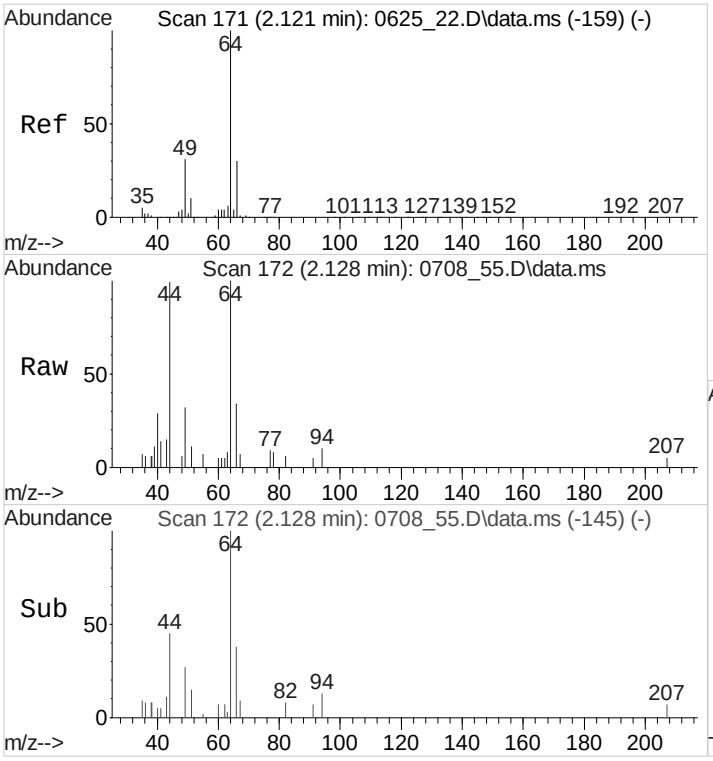


#8
1,3-BUTADIENE
Concen: 0.1623966 ppb
RT: 1.830 min Scan# 123
Delta R.T. 0.019 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 39 Resp: 703

Ion	Ratio	Lower	Upper
39	100		
54	0.0	78.0	117.0#

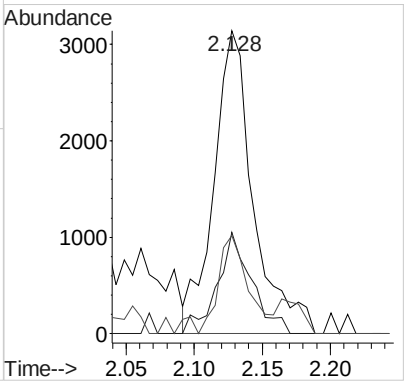


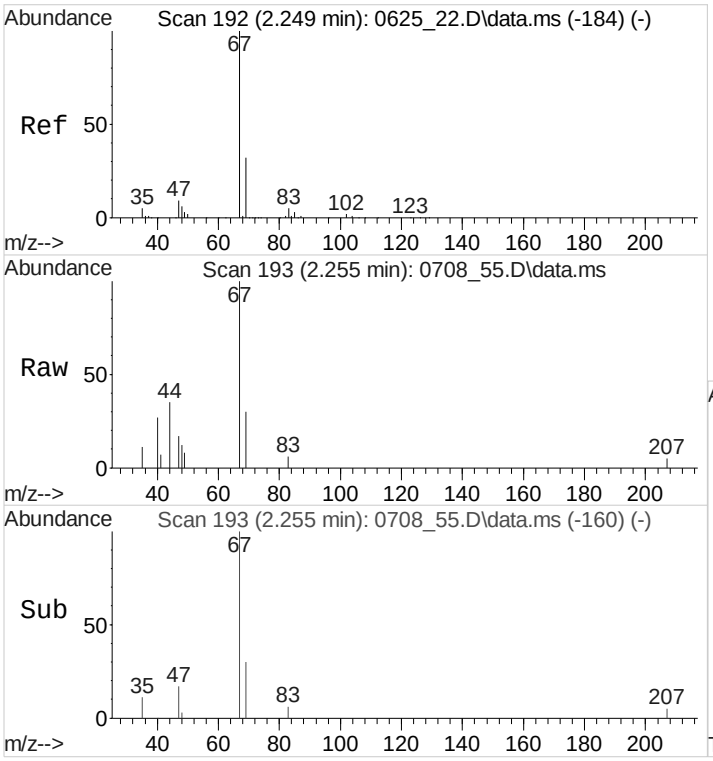


#10
CHLOROETHANE
Concen: 2.2577808 ppb
RT: 2.128 min Scan# 172
Delta R.T. 0.007 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 64 Resp: 6343

Ion	Ratio	Lower	Upper
64	100		
66	29.2	24.5	36.7
49	24.8	24.8	37.2#

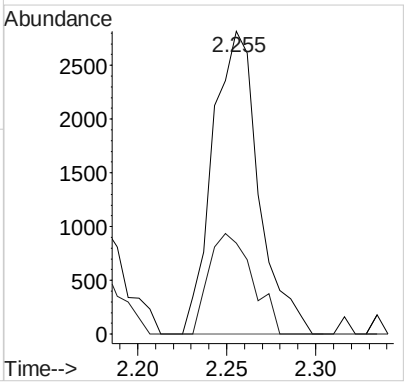


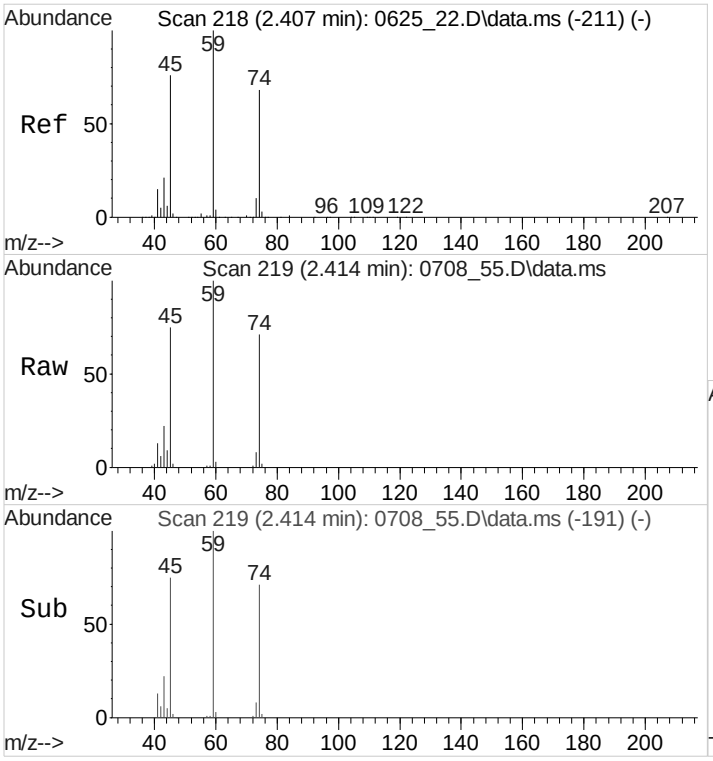


#12
DICHLOROFLUOROMETHANE
Concen: 0.6465007 ppb
RT: 2.255 min Scan# 193
Delta R.T. 0.006 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 67 Resp: 5073

Ion	Ratio	Lower	Upper
67	100		
69	31.6	25.8	38.8

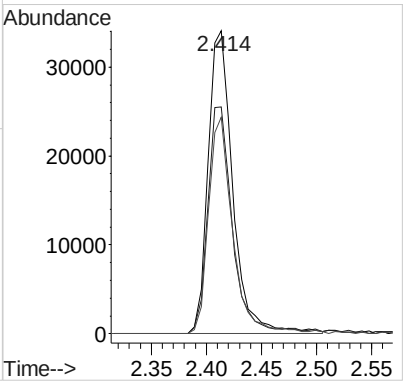


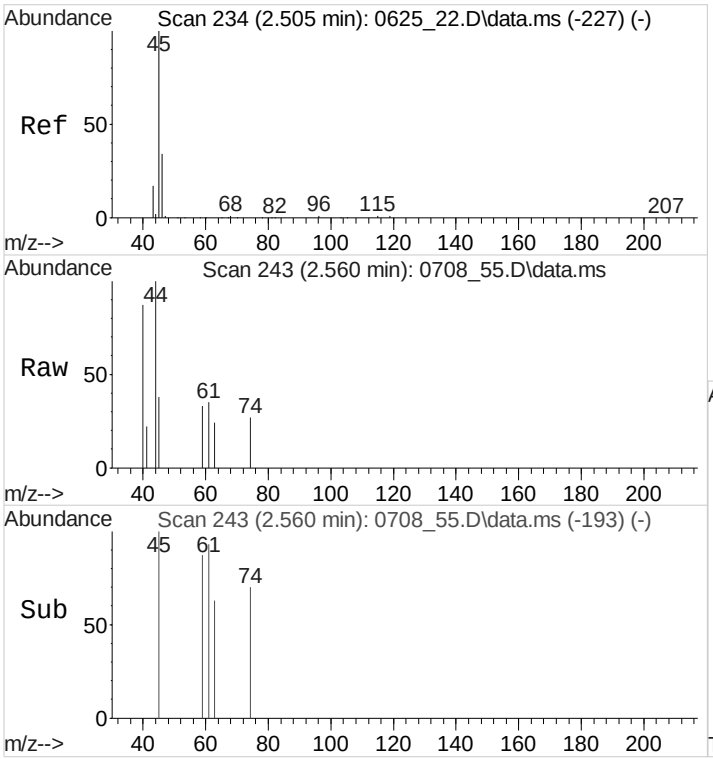


#13
ETHYL ETHER
Concen: 17.4356868 ppb
RT: 2.414 min Scan# 219
Delta R.T. 0.007 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 59 Resp: 53140

Ion	Ratio	Lower	Upper
59	100		
45	73.4	61.0	91.6
74	70.3	53.8	80.8

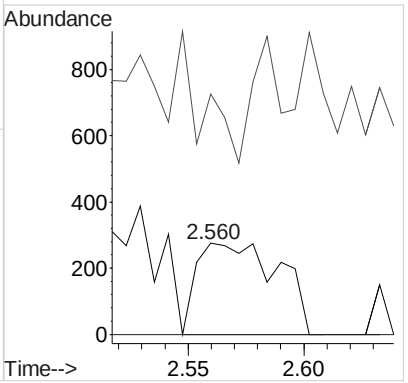


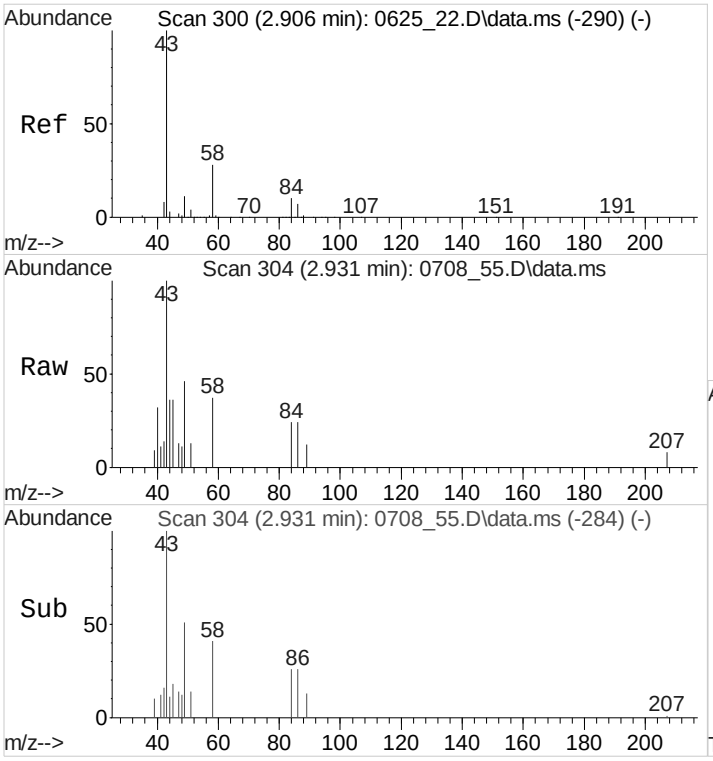


#15
ETHANOL
Concen: 14.0510867 ppb
RT: 2.560 min Scan# 243
Delta R.T. 0.056 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 45 Resp: 675

Ion	Ratio	Lower	Upper
45	100		
46	0.0	18.2	27.4#
44	0.0	0.7	1.1#

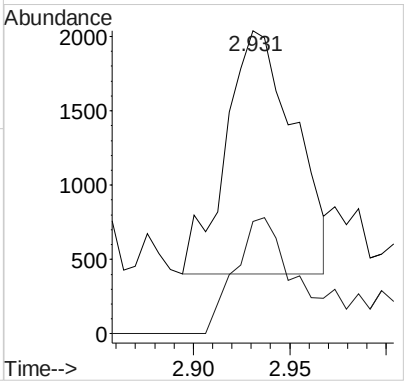


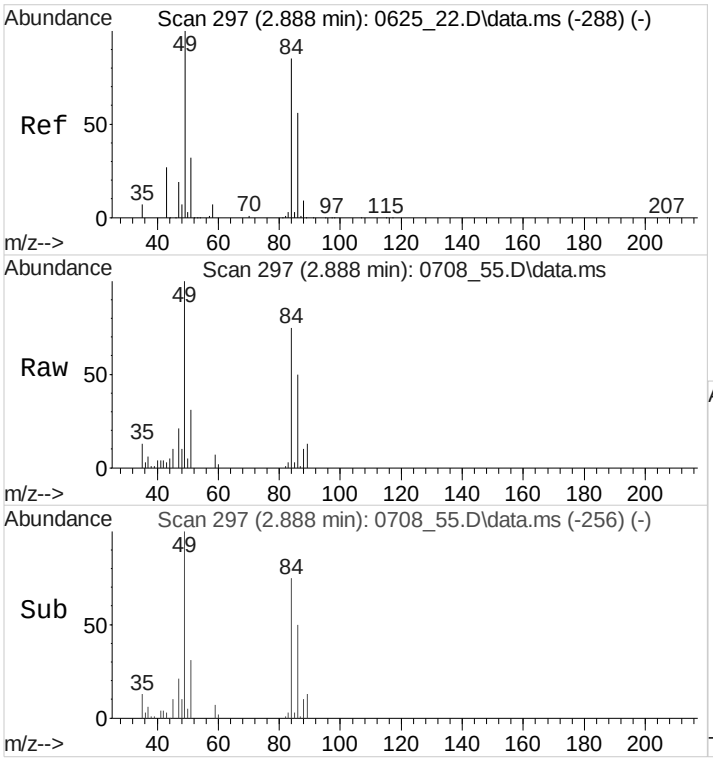


#18
ACETONE
Concen: 2.2974636 ppb
RT: 2.931 min Scan# 304
Delta R.T. 0.025 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 43 Resp: 4055

Ion	Ratio	Lower	Upper
43	100		
58	40.3	23.8	35.8#

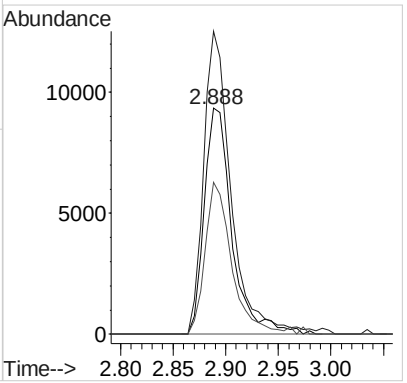


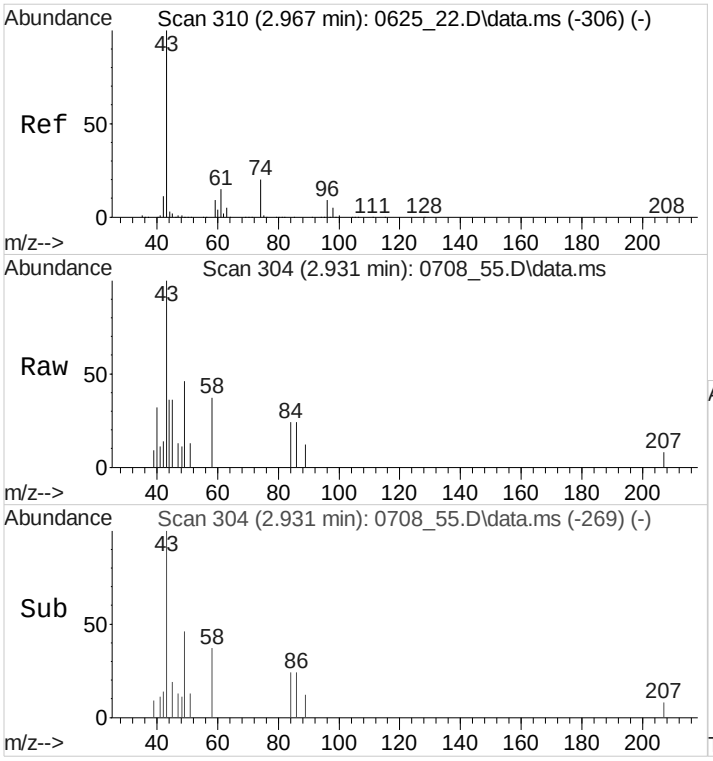


#22
METHYLENE CHLORIDE
Concen: 4.3148446 ppb
RT: 2.888 min Scan# 297
Delta R.T. 0.001 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 84 Resp: 17125

Ion	Ratio	Lower	Upper
84	100		
49	133.6	110.3	165.5
86	64.1	51.8	77.6

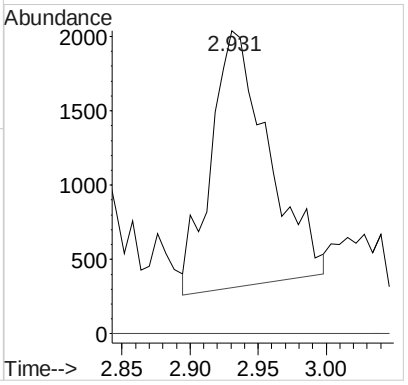


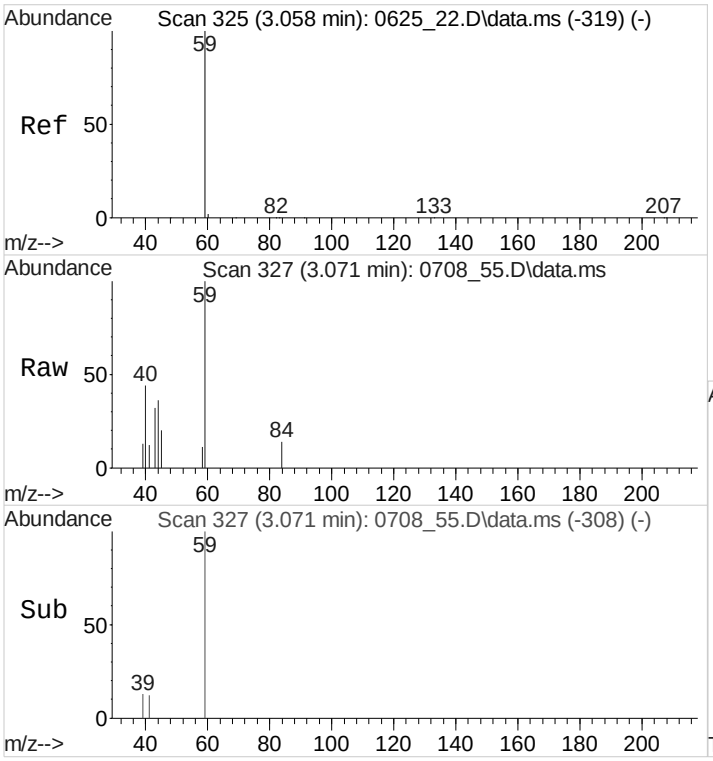


#23
METHYL ACETATE
Concen: 1.1575657 ppb
RT: 2.931 min Scan# 304
Delta R.T. -0.036 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 43 Resp: 5034

Ion	Ratio	Lower	Upper
43	100		
74	0.0	15.8	23.6#
29	0.0	0.0	0.0

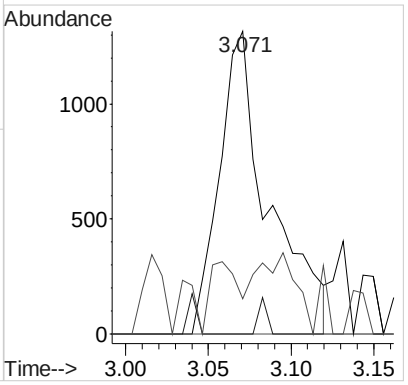


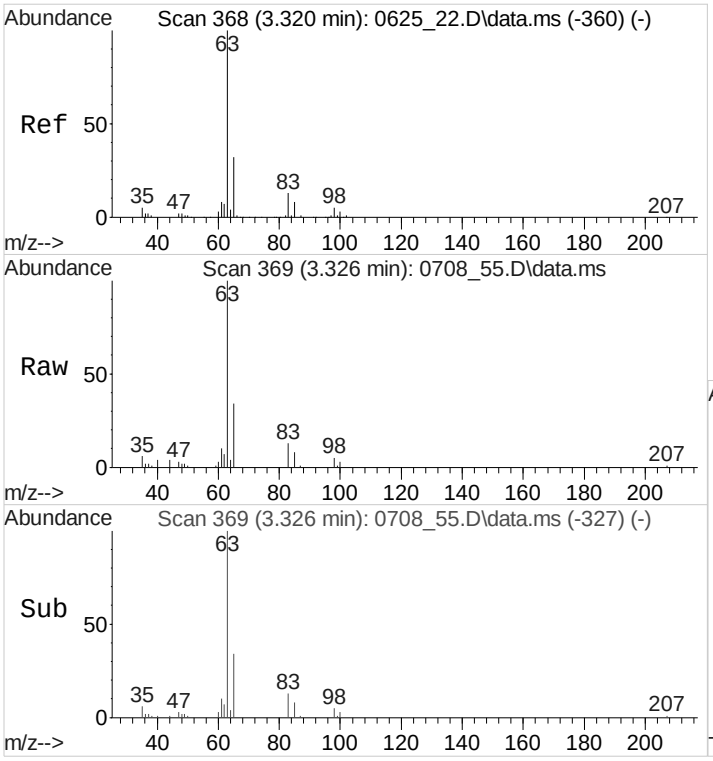


#28
TERT-BUTYL ALCOHOL
Concen: 3.5171063 ppb
RT: 3.071 min Scan# 327
Delta R.T. 0.013 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 59 Resp: 2734

Ion	Ratio	Lower	Upper
59	100		
57	0.0	0.0	0.0
41	13.8	0.0	0.0#

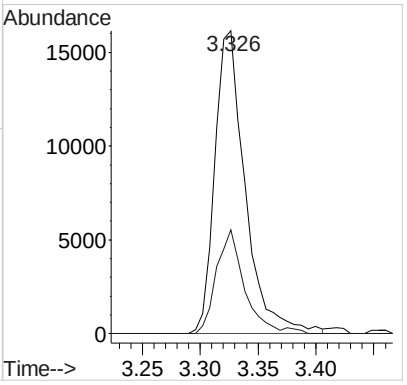


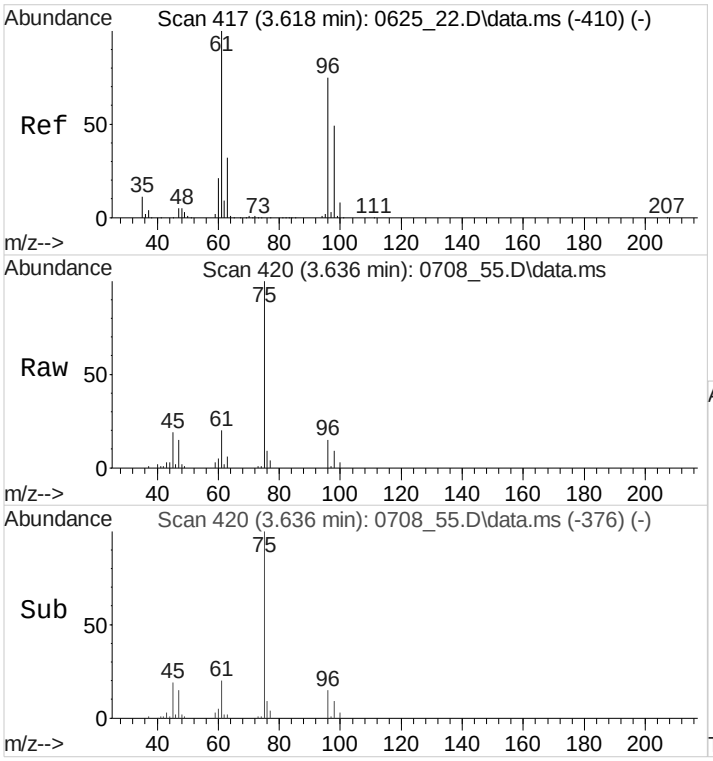


#29
1,1-DICHLOROETHANE
Concen: 4.0535207 ppb
RT: 3.326 min Scan# 369
Delta R.T. 0.006 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 63 Resp: 29491

Ion	Ratio	Lower	Upper
63	100		
65	31.9	25.6	38.4

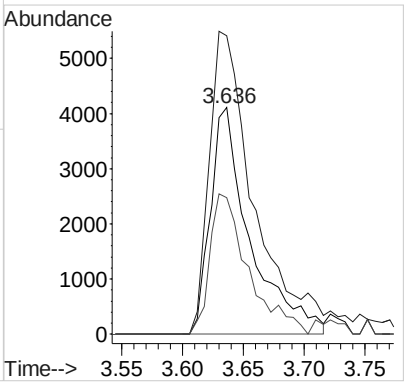


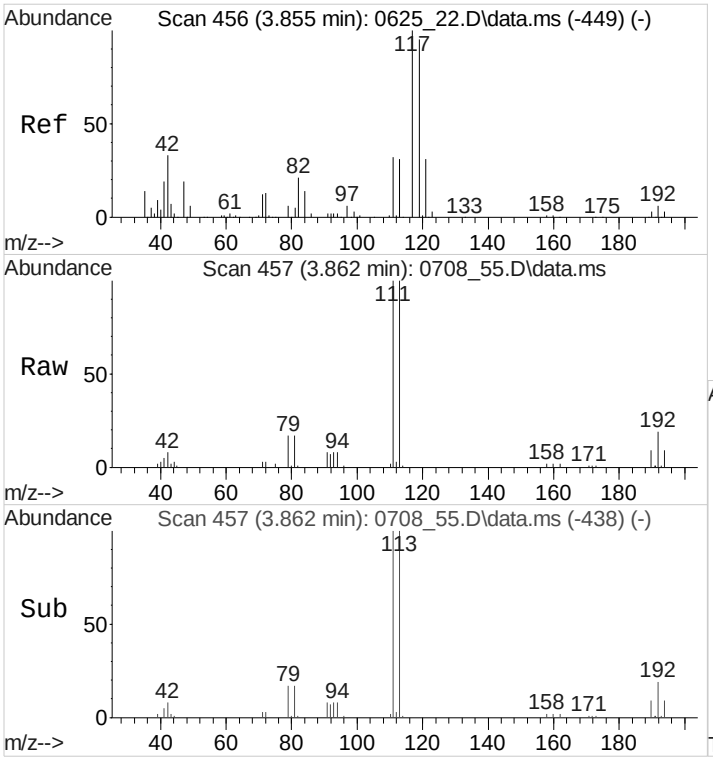


#34
CIS-1,2-DICHLOROETHENE
Concen: 2.0600654 ppb
RT: 3.636 min Scan# 420
Delta R.T. 0.019 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 96 Resp: 9278

Ion	Ratio	Lower	Upper
96	100		
61	156.0	99.8	149.8#
98	60.0	51.1	76.7

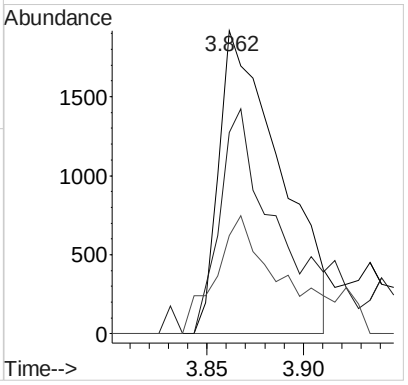


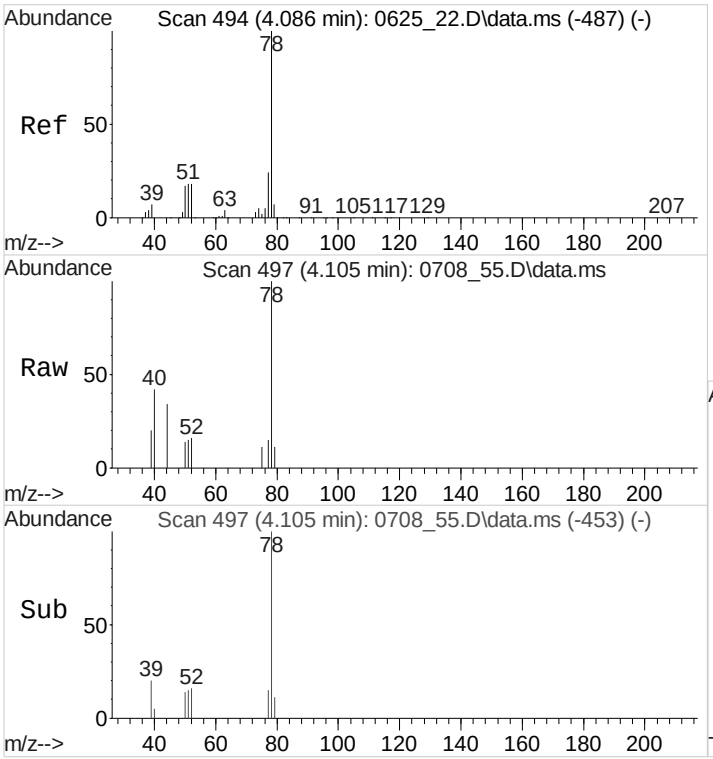


#37
TETRAHYDROFURAN
Concen: 2.1798510 ppb
RT: 3.862 min Scan# 457
Delta R.T. 0.007 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 42 Resp: 4274

Ion	Ratio	Lower	Upper
42	100		
41	66.9	50.4	75.6
39	39.6	22.7	34.1#

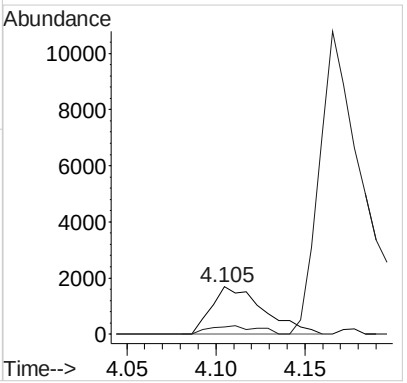


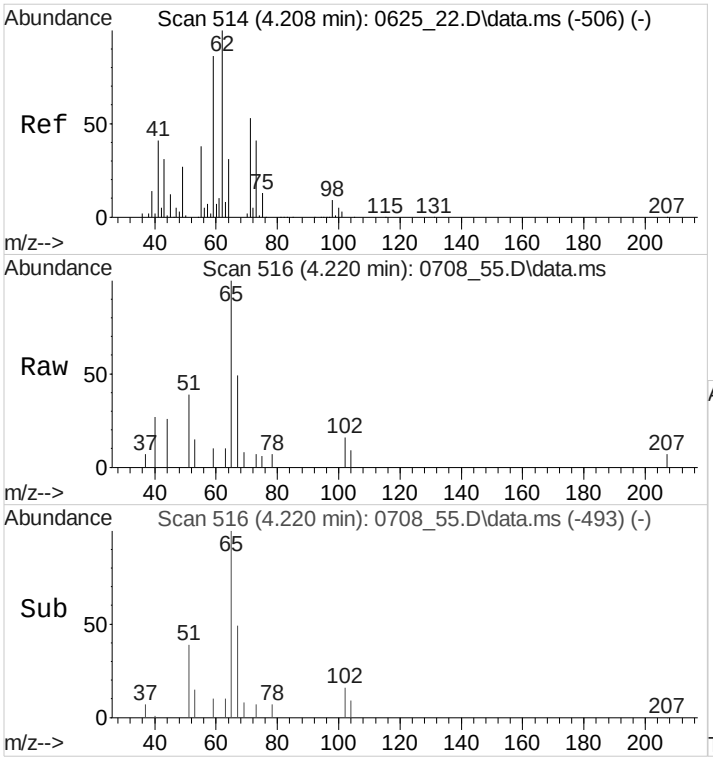


#45
BENZENE
Concen: 0.2148020 ppb
RT: 4.105 min Scan# 497
Delta R.T. 0.019 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 78 Resp: 3454

Ion	Ratio	Lower	Upper
78	100		
51	16.6	13.8	20.6

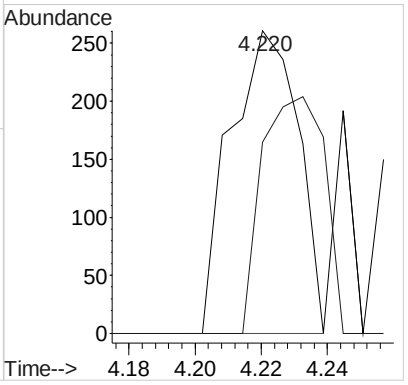


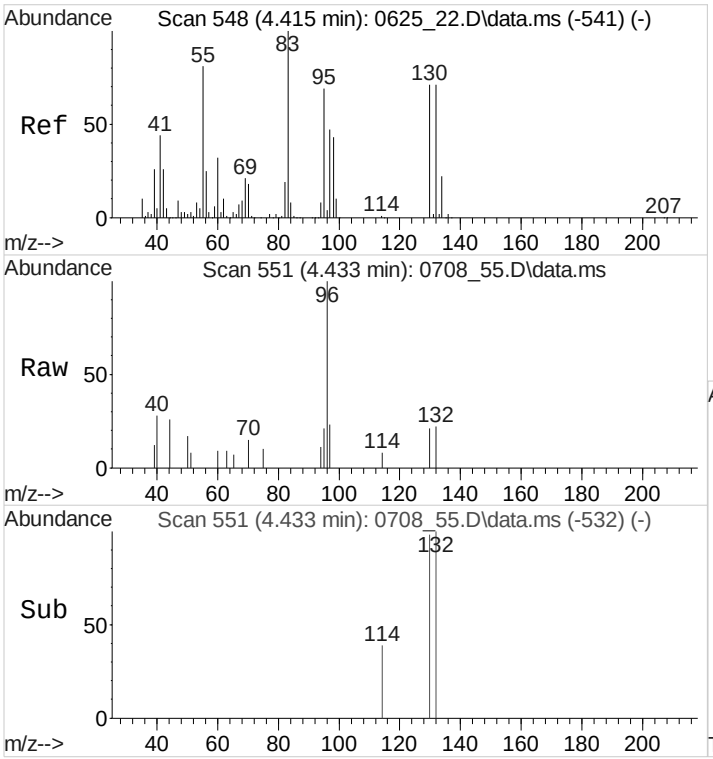


#49
T-AMYL ALCOHOL
Concen: 0.4760974 ppb
RT: 4.220 min Scan# 516
Delta R.T. 0.012 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 59 Resp: 371

Ion	Ratio	Lower	Upper
59	100		
73	72.2	39.7	59.5#

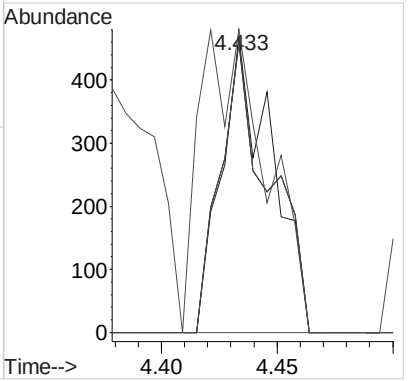


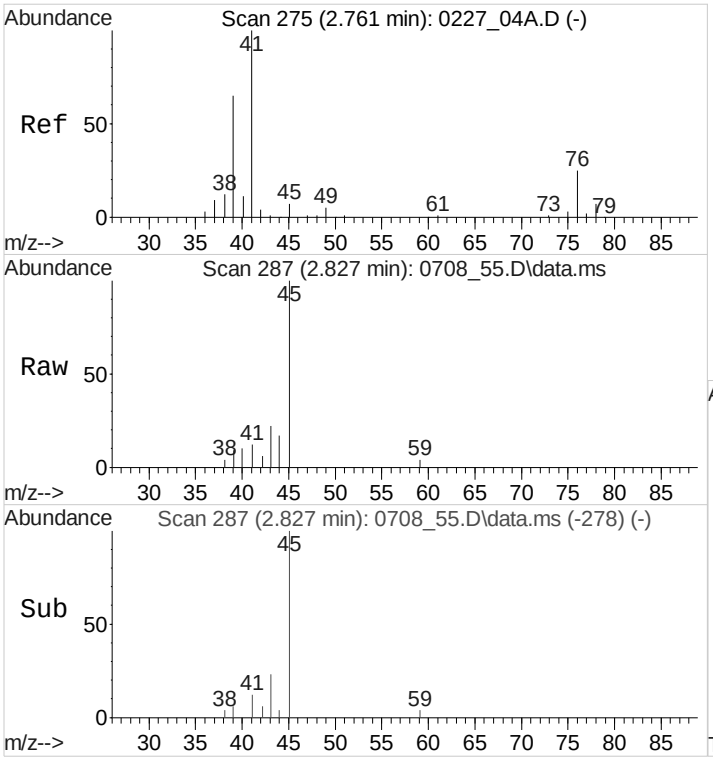


#50
TRICHLOROETHENE
Concen: 0.1539604 ppb
RT: 4.433 min Scan# 551
Delta R.T. 0.018 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion:130 Resp: 674

Ion	Ratio	Lower	Upper
130	100		
132	105.2	80.7	121.1
97	0.0	0.0	0.0
130	100.0	80.0	120.0

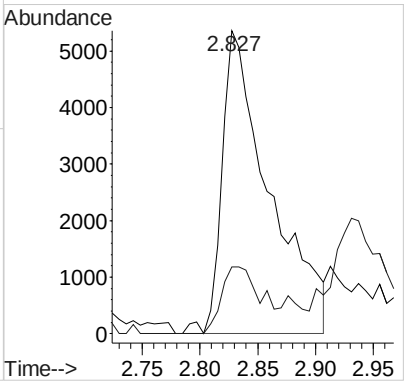


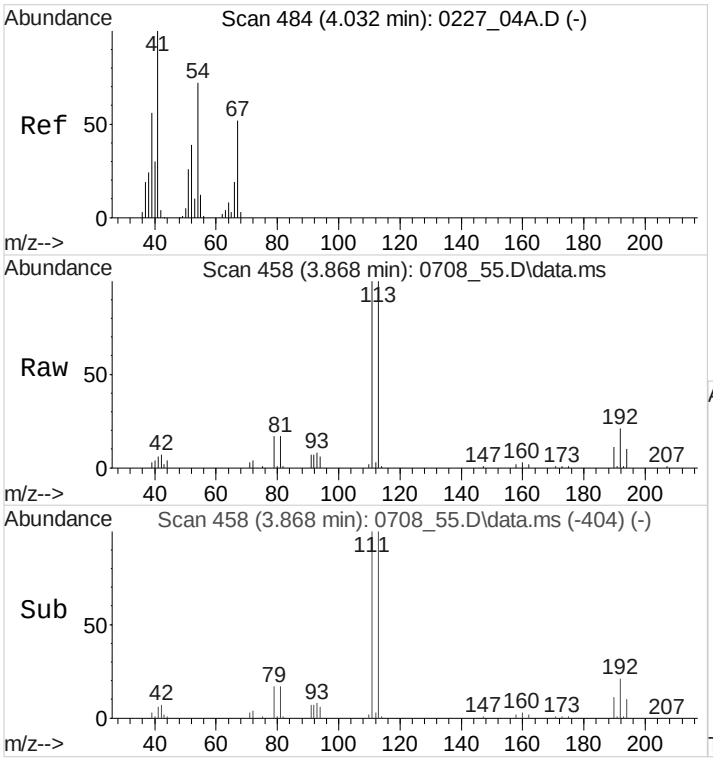


#109
2-PROPANOL
Concen: 36.2264412 ppb
RT: 2.827 min Scan# 287
Delta R.T. -0.006 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 45 Resp: 15285

Ion	Ratio	Lower	Upper
45	100		
43	19.1	0.0	0.0#

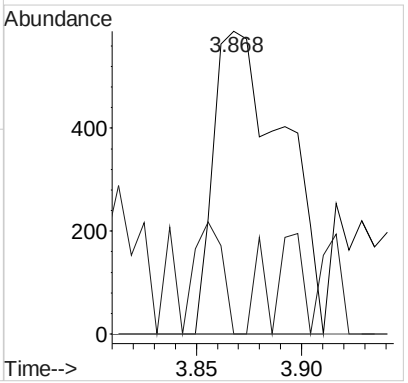


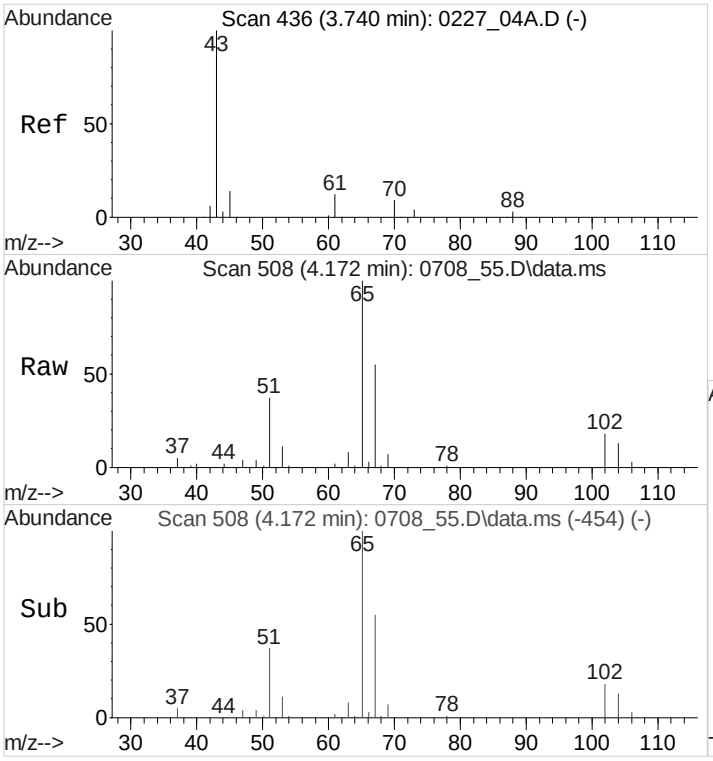


#113
ETHYL ACETATE
Concen: 0.2555225 ppb
RT: 3.868 min Scan# 458
Delta R.T. 0.079 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 43 Resp: 1362

Ion	Ratio	Lower	Upper
43	100		
45	14.9	1.4	2.2#
70	0.0	0.0	0.0

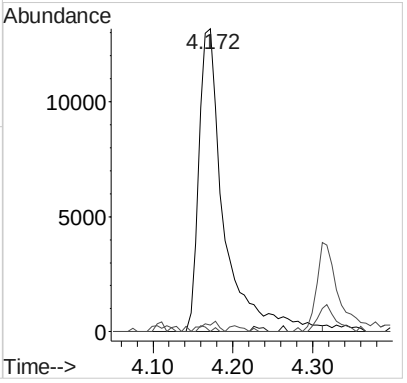


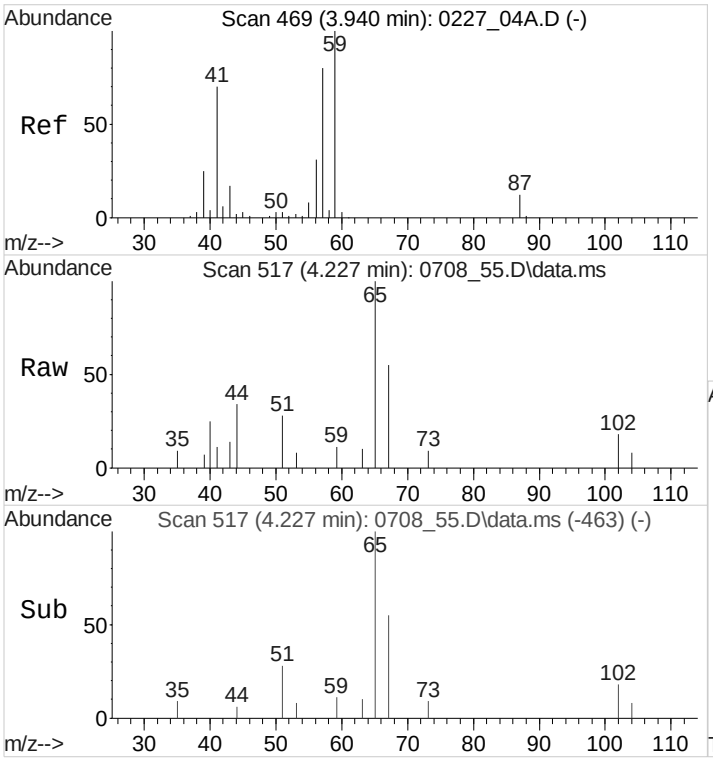


#114
METHACRYLONITRILE
Concen: 12.6756752 ppb
RT: 4.172 min Scan# 508
Delta R.T. 0.079 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 67 Resp: 28731

Ion	Ratio	Lower	Upper
67	100		
41	0.0	1.8	2.6#
39	2.1	1.0	1.4#
52	0.8	0.1	0.1#

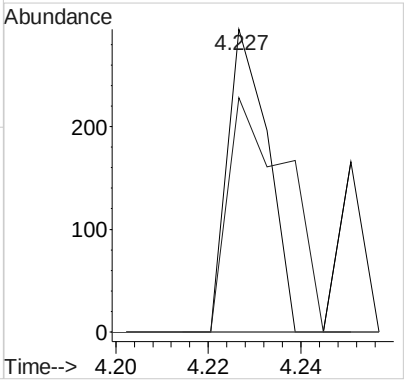


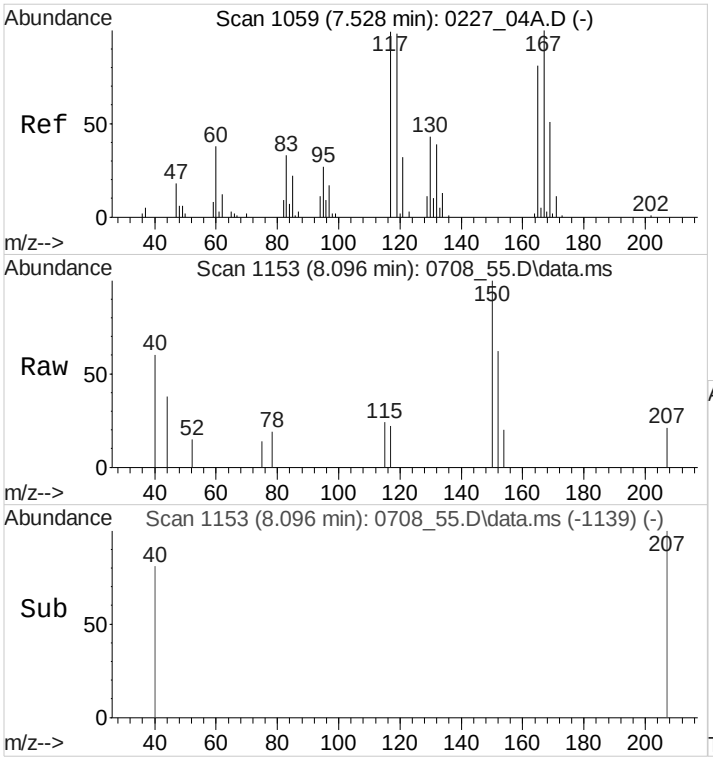


#116
ISOBUTANOL
Concen: 0.3835812 ppb
RT: 4.227 min Scan# 517
Delta R.T. 0.079 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion: 43 Resp: 179

Ion	Ratio	Lower	Upper
43	100		
41	113.4	4.5	6.7#
74	0.0	0.0	0.0

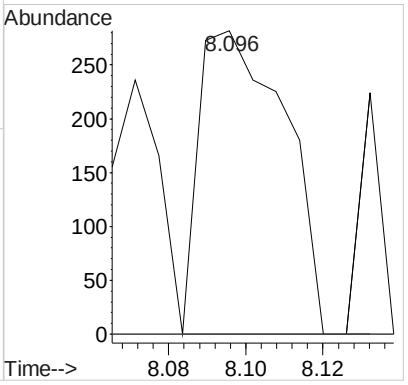




#129
HEXACHLOROETHANE
Concen: 0.1543127 ppb
RT: 8.096 min Scan# 1153
Delta R.T. -0.164 min
Lab File: 0708_55.D
Acq: 9 Jul 2019 6:50 am

Tgt Ion:117 Resp: 437

Ion	Ratio	Lower	Upper
117	100		
119	0.0	77.4	116.2#
94	0.0	29.4	44.0#



1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
TRIP BLANK 1

Lab Sample ID:	L1116144-02	**SDG:**	L1116144
Client Sample ID:	TRIP BLANK 1	**Collected Date/Time:**	06/25/19 00:00
Lab File ID:	0708_56	**Received Date/Time:**	07/06/19 08:45
Instrument ID:	VOCMS28	**Preparation Date/Time:**	07/09/19 07:11
Analytical Batch:	WG1308028	**Analysis Date/Time:**	07/09/19 07:11
Dilution Factor:	1	**Prep Method:**	8260C
Analytical Method:	8260C	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Vinyl chloride	75-01-4	0	U		0.118	0.500

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_56.D
Acq On : 9 Jul 2019 7:11 am
Operator : 605
Sample : L1116144-02 1x WG1308028
Misc : water
ALS Vial : 56 Sample Multiplier: 1
InstName : VOCMS28

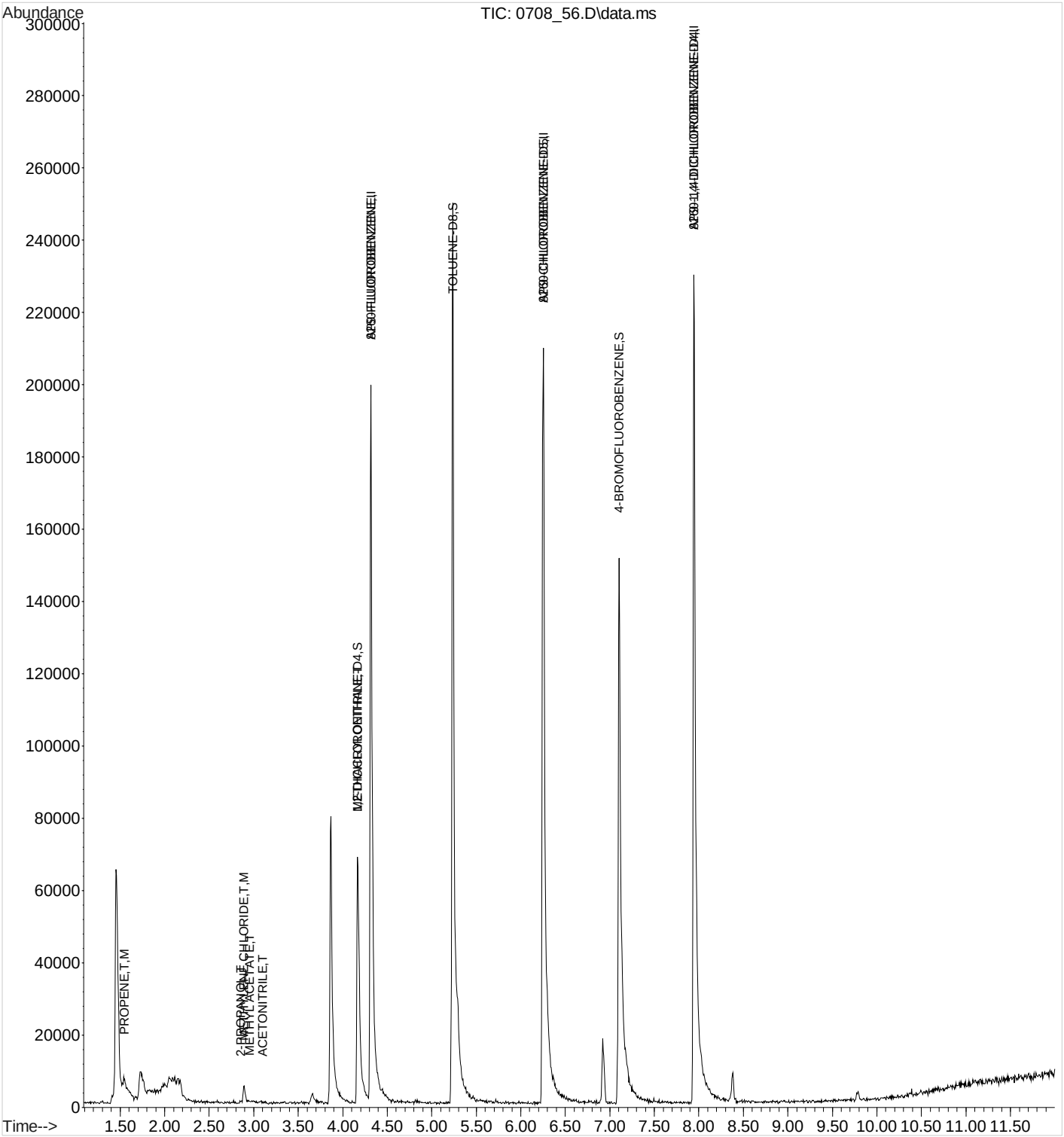
Quant Time: Jul 10 14:00:30 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

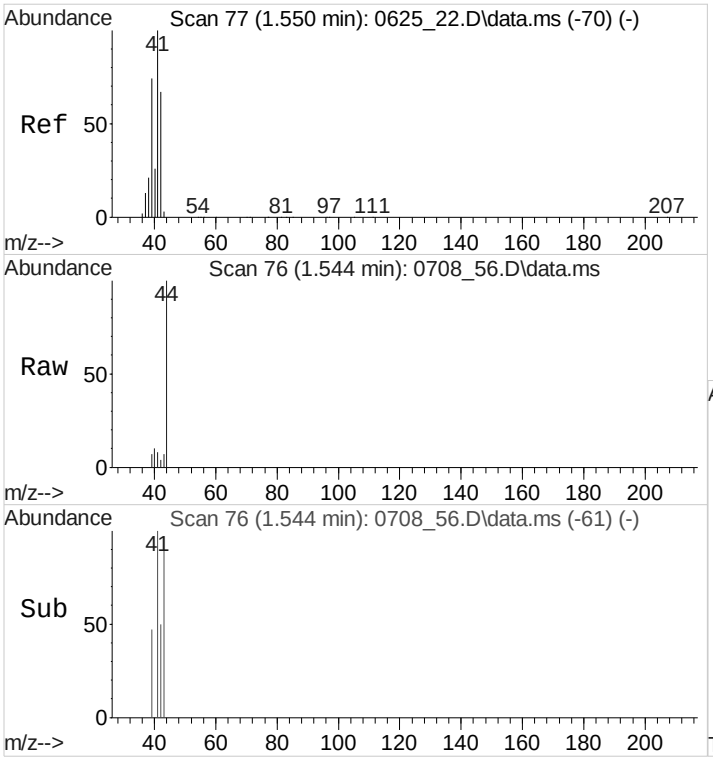
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.318	96	168350	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.252	82	73368	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.943	152	90717	16.0000000	ppb	#	0.00
107) AP9-FLUOROBENZENE	4.318	96	168350	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.252	82	72468	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.943	152	90717	16.0000000	ppb		0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	54059	15.2904739	ppb		0.00
Spiked Amount 16.000			Recovery = 95.57%				
60) TOLUENE-D8	5.236	98	188888	18.0703053	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 112.94%				
79) 4-BROMOFLUOROBENZENE	7.104	95	72063	16.2332606	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 101.46%				
Target Compounds						Qvalue	
4) PROPENE	1.544	41	765	0.3020864	ppb	#	64
22) METHYLENE CHLORIDE	2.888	84	2036	0.5095751	ppb		99
23) METHYL ACETATE	2.955	43	759	0.1733685	ppb	#	57
109) 2-PROPANOL	2.858	45	440	1.0358784	ppb	#	100
110) ACETONITRILE	3.101	41	259	0.3328439	ppb	#	95
114) METHACRYLONITRILE	4.166	67	28029	12.2835483	ppb	#	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_56.D
Acq On : 9 Jul 2019 7:11 am
Operator : 605
Sample : L1116144-02 1x WG1308028
Misc : water
ALS Vial : 56 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 14:00:30 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

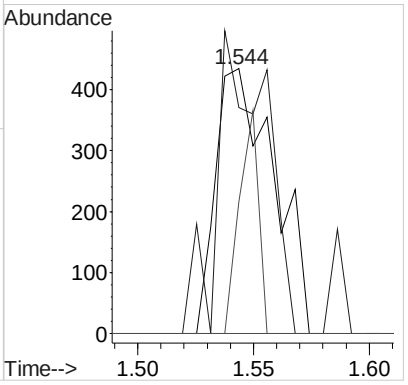


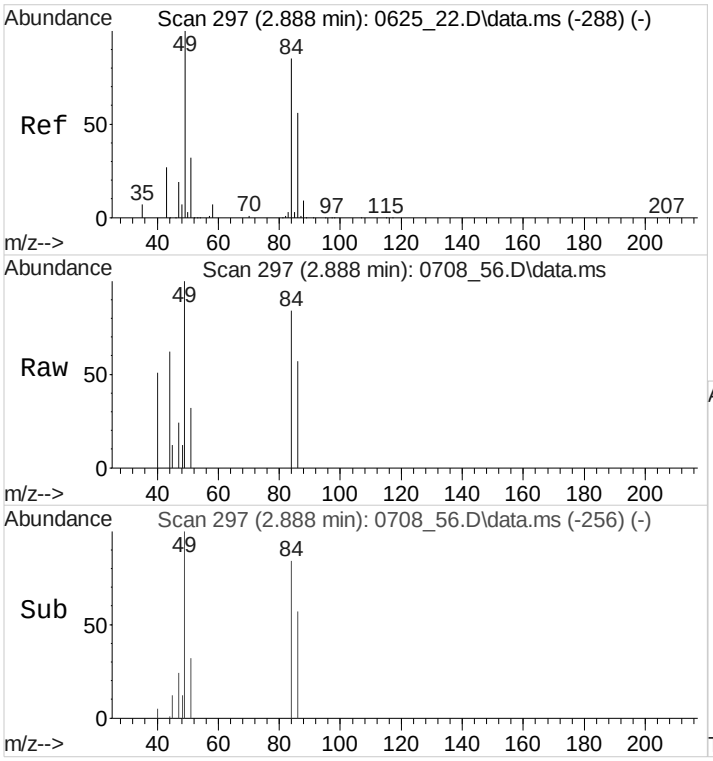


#4
PROPENE
Concen: 0.3020864 ppb
RT: 1.544 min Scan# 76
Delta R.T. -0.005 min
Lab File: 0708_56.D
Acq: 9 Jul 2019 7:11 am

Tgt Ion: 41 Resp: 765

Ion	Ratio	Lower	Upper
41	100		
39	96.6	60.2	90.2#
42	27.7	52.8	79.2#

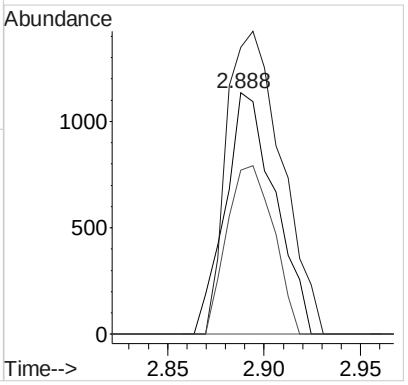


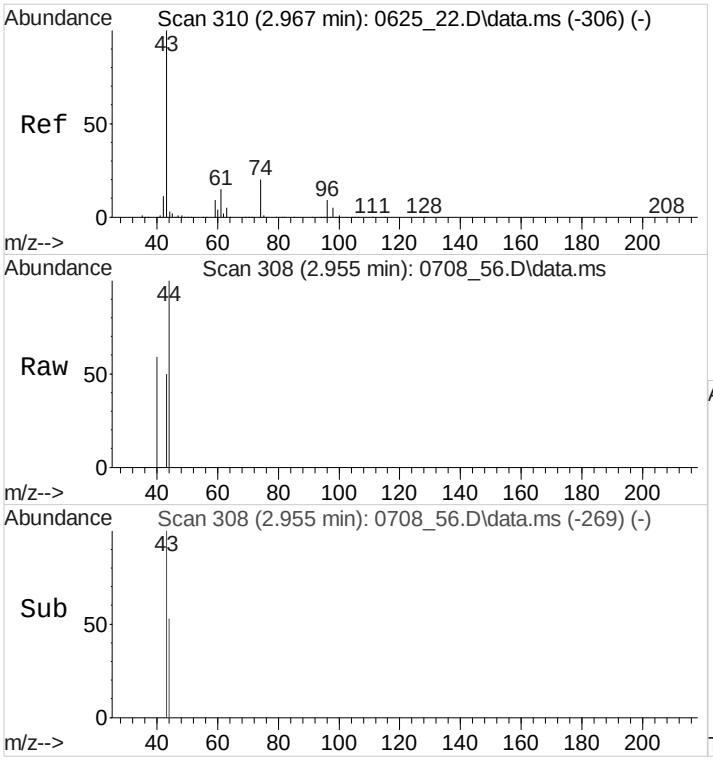


#22
METHYLENE CHLORIDE
Concen: 0.5095751 ppb
RT: 2.888 min Scan# 297
Delta R.T. 0.001 min
Lab File: 0708_56.D
Acq: 9 Jul 2019 7:11 am

Tgt Ion: 84 Resp: 2036

Ion	Ratio	Lower	Upper
84	100		
49	139.0	110.3	165.5
86	65.7	51.8	77.6

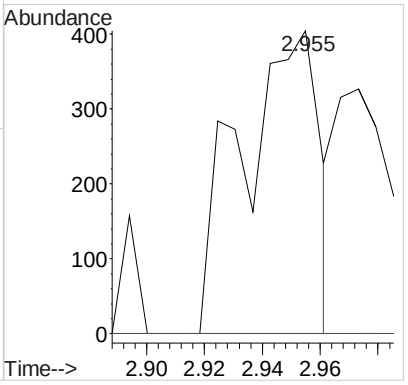


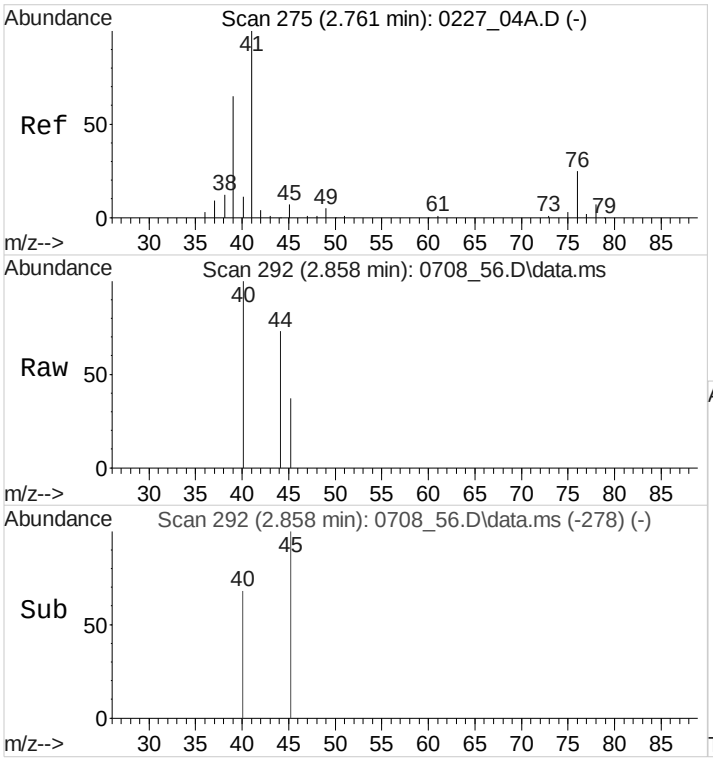


#23
METHYL ACETATE
Concen: 0.1733685 ppb
RT: 2.955 min Scan# 308
Delta R.T. -0.012 min
Lab File: 0708_56.D
Acq: 9 Jul 2019 7:11 am

Tgt Ion: 43 Resp: 759

Ion	Ratio	Lower	Upper
43	100		
74	0.0	15.8	23.6#
29	0.0	0.0	0.0

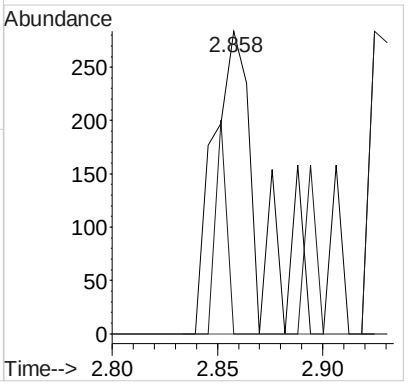


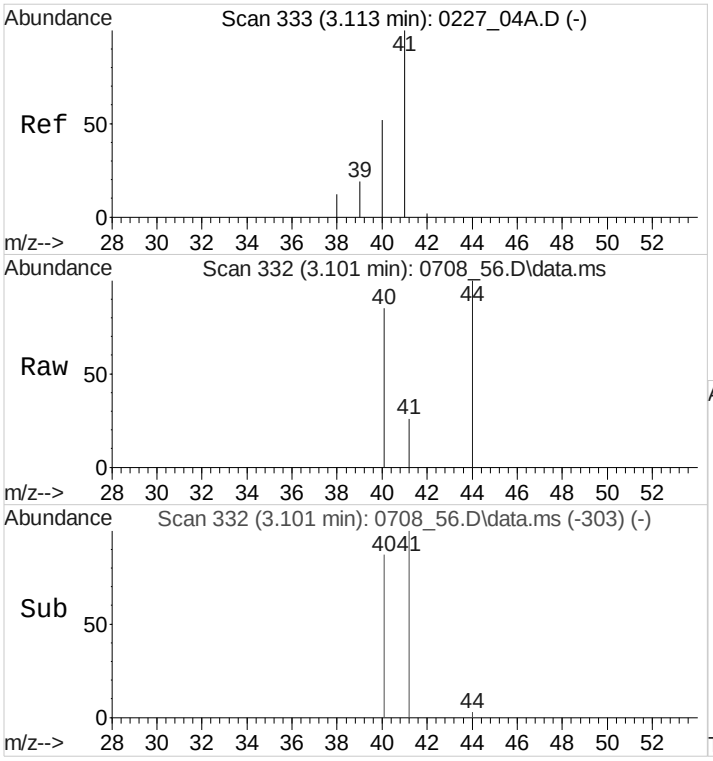


#109
2-PROPANOL
Concen: 1.0358784 ppb
RT: 2.858 min Scan# 292
Delta R.T. 0.024 min
Lab File: 0708_56.D
Acq: 9 Jul 2019 7:11 am

Tgt Ion: 45 Resp: 440

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	0.0

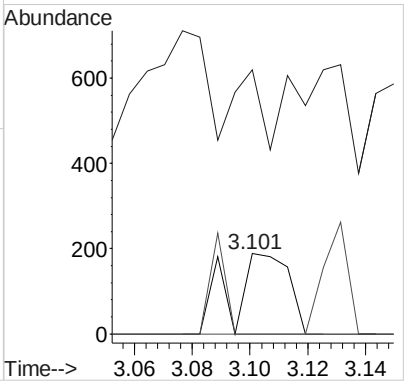


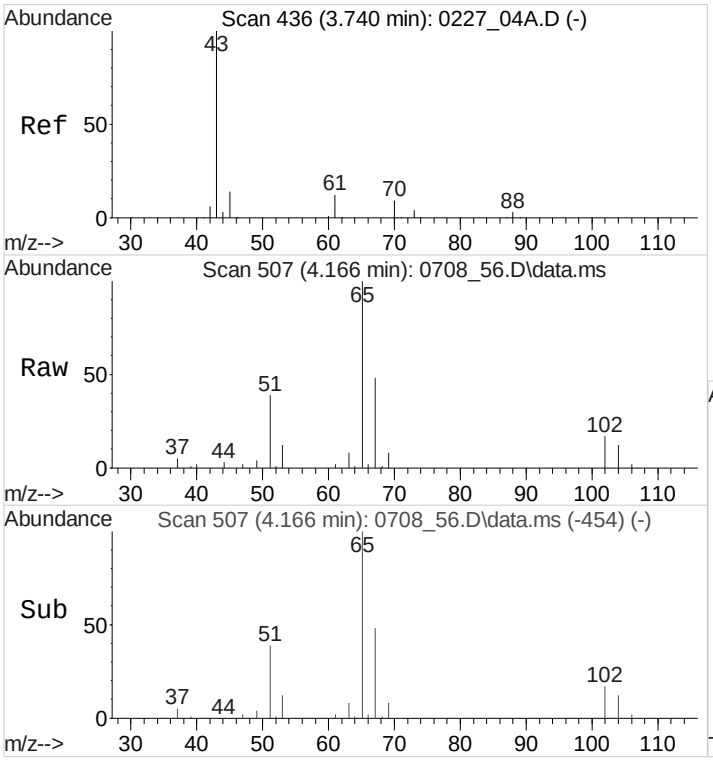


#110
ACETONITRILE
Concen: 0.3328439 ppb
RT: 3.101 min Scan# 332
Delta R.T. -0.073 min
Lab File: 0708_56.D
Acq: 9 Jul 2019 7:11 am

Tgt Ion: 41 Resp: 259

Ion	Ratio	Lower	Upper
41	100		
40	0.0	0.4	0.6#
39	0.0	1.6	2.4#

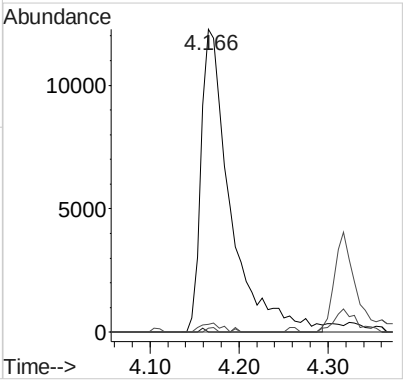




#114
METHACRYLONITRILE
Concen: 12.2835483 ppb
RT: 4.166 min Scan# 507
Delta R.T. 0.073 min
Lab File: 0708_56.D
Acq: 9 Jul 2019 7:11 am

Tgt Ion: 67 Resp: 28029

Ion	Ratio	Lower	Upper
67	100		
41	0.0	1.8	2.6#
39	2.3	1.0	1.4#
52	0.0	0.1	0.1#



6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1116144 **Analytical Method:** 8260C

Instrument ID: VOCMS28

Analyte	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**	**RRF: 0.04**	**RRF: 0.1**
Analysis date/time	06/25/19 23:36	06/25/19 23:56	06/26/19 00:17	06/26/19 00:38	06/26/19 00:59	06/26/19 01:20	06/26/19 01:41	06/26/19 02:02	06/25/19 22:33	06/25/19 22:54
VINYL CHLORIDE	0.4620	0.4690	0.4690	0.4550	0.4710	0.4650	0.4440	0.4620		
1,2-DICHLOROETHANE-D4	0.3250	0.3260	0.3370	0.3270	0.3650	0.4140	0.3130	0.2990	0.3290	0.3240
TOLUENE-D8	2.3620	2.31	2.3110	2.2190	2.3050	2.2080	2.1970	2.1370	2.3470	2.3510
4-BROMOFLUOROBENZENE	0.9770	0.9640	0.9590	0.9270	0.9630	0.96	0.9730	0.96	1.0010	0.9790
File ID:	0625_18	0625_19	0625_20	0625_21	0625_22	0625_23	0625_24	0625_25	0625_15	0625_16

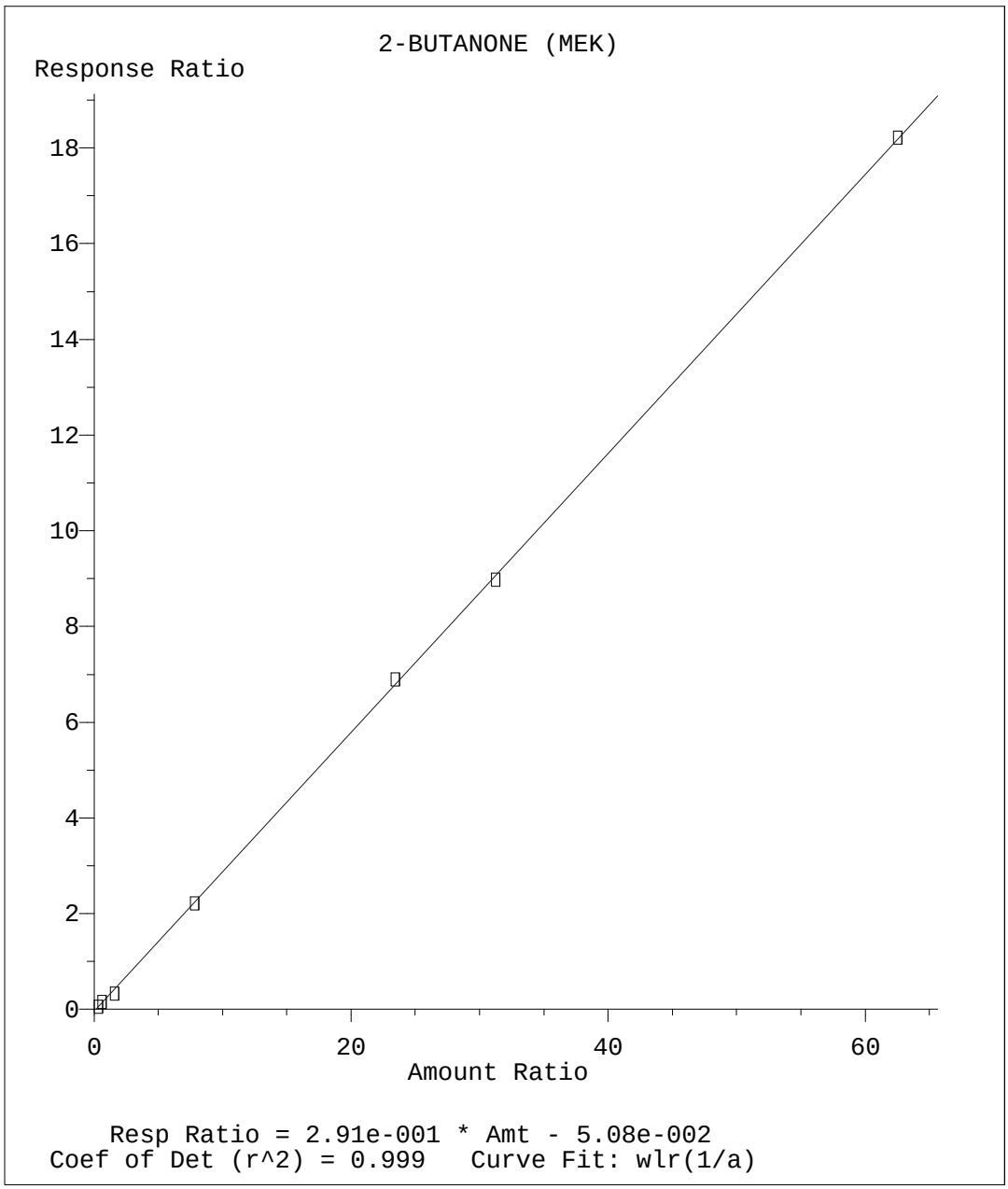
6A-OR

GC/MS INITIAL CALIBRATION DATA

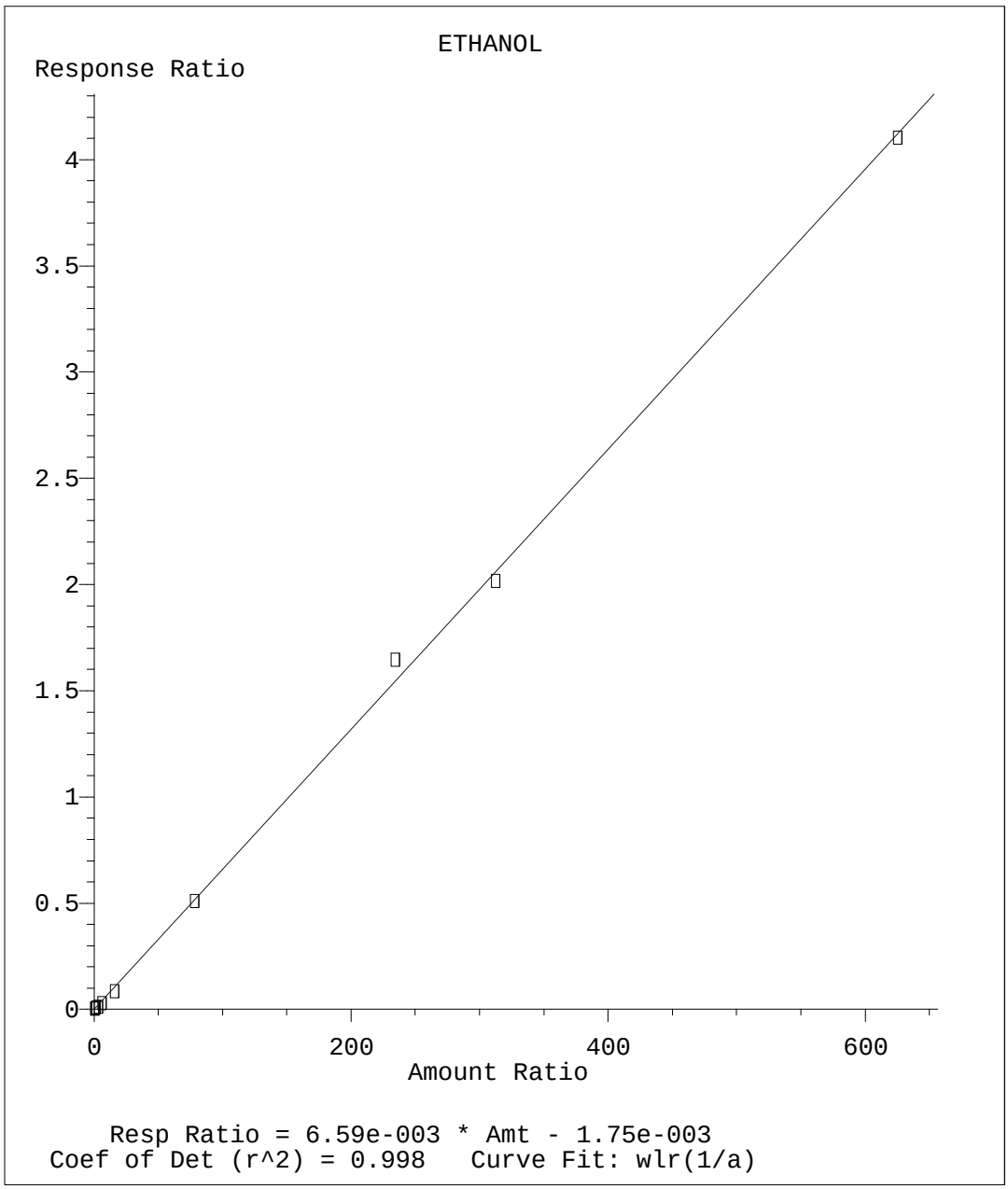
SDG: L1116144 **Analytical Method:** 8260C

Instrument ID: VOCMS28

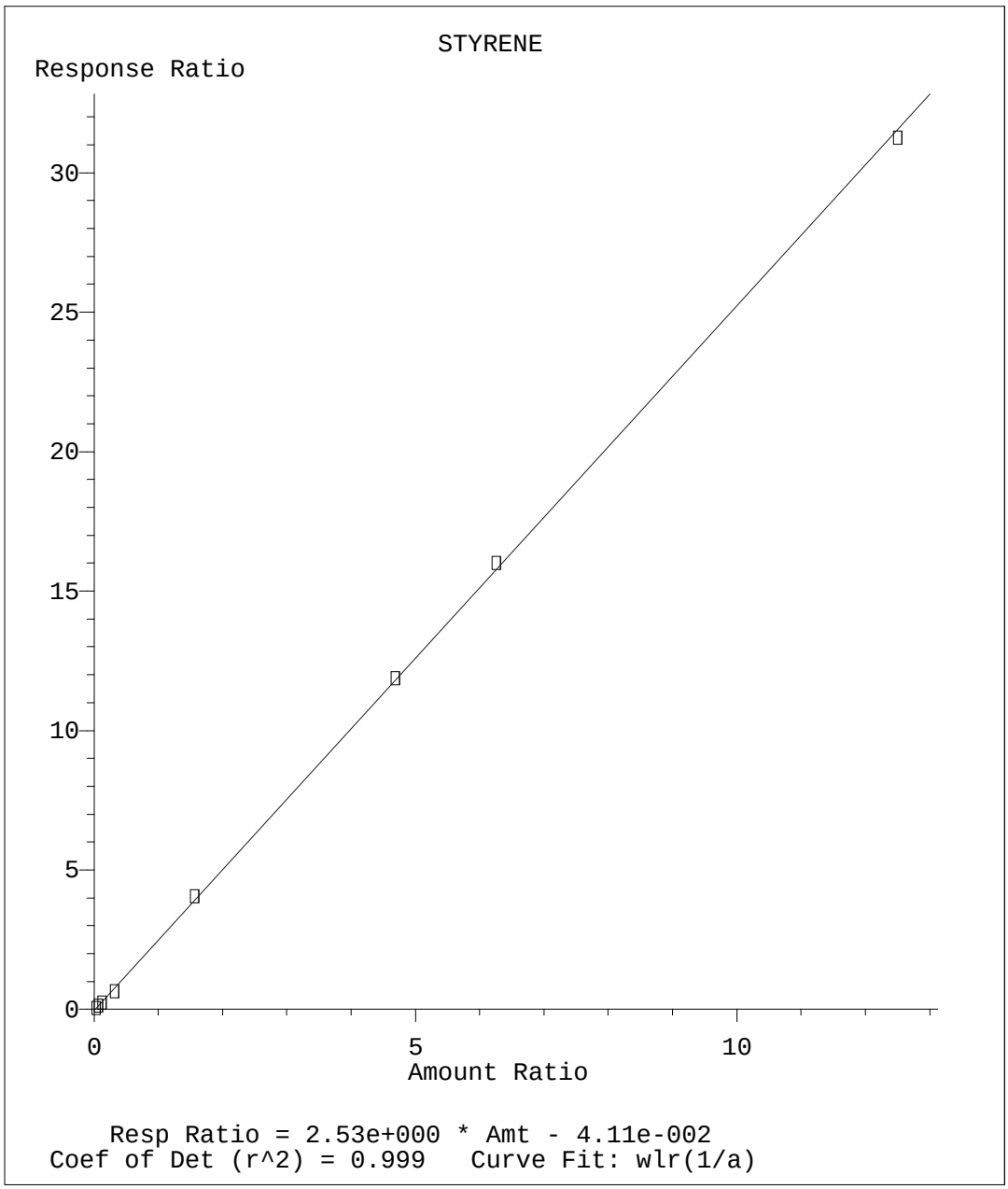
Analyte	RRF: 0.2	RRF. Avg	%RSD	COD
Analysis date/time	06/25/19 23:15			
VINYL CHLORIDE		0.462161	1.94	
1,2-DICHLOROETHANE-D4	0.3380	0.336011	9.06	
TOLUENE-D8	2.3290	2.279566	3.32	
4-BROMOFLUOROBENZENE	0.9860	0.968099	1.96	
File ID:	0625_17			



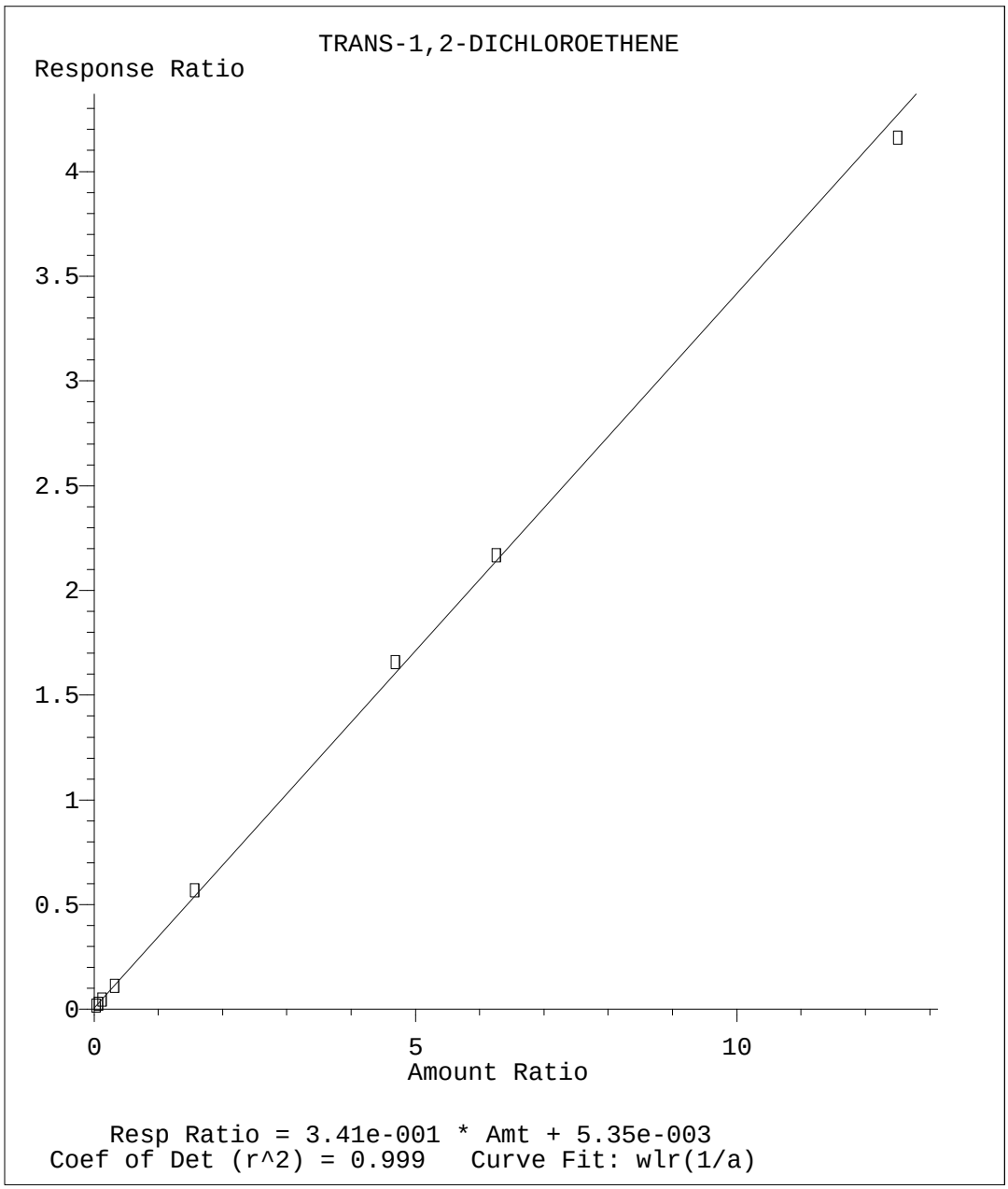
Method Name: C:\msdchem\1\methods\V828F26S.M



Method Name: C:\msdchem\1\methods\V828F26S.M



Method Name: C:\msdchem\1\methods\V828F26S.M



Method Name: C:\msdchem\1\methods\V828F26S.M

Response Factor Report VOCMS28

Method Path : C:\msdchem\1\methods\
Method File : V828F26S.M
Title : Volatile Organics by GC/MS
Last Update : Thu Jun 27 11:32:05 2019
Response Via : Initial Calibration

Calibration Files
0.04=0625_15.D 0.1 =0625_16.D 0.2 =0625_17.D 0.5 =0625_18.D 1 =0625_19.D 2 =0625_20.D 5.0 =0625_21.D 25 =0625_22.D
75 =0625_23.D 100 =0625_24.D 200 =0625_25.D 1a =0626_58.D 5a =0626_59.D 10a =0626_60.D 15a =0626_61.D 20a =0626_62.D

Compound	0.04	0.1	0.2	0.5	1	2	5.0	25	75	100	200	1a	5a	10a	15a	20a	Avg	%RSD
1) I 8260-FLUOROBENZENE	----------ISTD----------																	
2) H TPH (GC/MS) LO...																	0.000#	-1.00
3) H LRH (C5-C8)																	0.000#	-1.00
4) T,M PROPENE						0.242	0.260	0.254	0.241	0.216	0.231						0.241#	6.47
5) T,M DICHLORODIFLUO...				0.488	0.477	0.419	0.449	0.449	0.438	0.388	0.410						0.440	7.60
6) P,T,MCHLOROMETHANE				0.618	0.548	0.517	0.494	0.476	0.478	0.480							0.516	10.09
7) C,T,MVINYL CHLORIDE				0.462	0.469	0.469	0.455	0.471	0.465	0.444	0.462						0.462	1.94#
8) T,M 1,3-BUTADIENE						0.479	0.419	0.399	0.408	0.384	0.396						0.414	8.15
9) T,M BROMOMETHANE						0.270	0.232	0.188	0.191	0.208	0.203						0.215#	14.43
10) T,M CHLOROETHANE					0.304	0.298	0.279	0.273	0.244	0.215							0.269#	12.50
11) T,M TRICHLOROFLUOR...		0.685	0.798	0.607	0.707	0.613	0.654	0.677	0.662	0.627	0.555						0.659	10.06
12) T,M DICHLOROFLUORO...			0.941	0.726	0.790	0.717	0.722	0.740	0.725	0.705	0.690						0.751	10.20
13) M,T ETHYL ETHER			0.345	0.292	0.296	0.283	0.284	0.297	0.278	0.275	0.273						0.292#	7.51
14) T,M ACROLEIN					0.034	0.039	0.042	0.042	0.045	0.045	0.045						0.042#	9.97
15) T ETHANOL		0.006	0.005	0.005	0.004	0.004	0.005	0.007	0.007	0.006	0.007						0.006#	20.54
16) C,T,M1,1-DICHLOROET...				0.392	0.404	0.342	0.327	0.325	0.320	0.311	0.305						0.341	10.92#
17) M,T 1,1,2-TRICHLOR...			0.402	0.297	0.404	0.346	0.360	0.386	0.377	0.359	0.352						0.365	9.01
18) T,M ACETONE				0.187	0.170	0.142	0.157	0.176	0.174	0.172	0.172						0.169#	8.05
19) T,M IODOMETHANE		0.562	0.525	0.475	0.507	0.499	0.532	0.598	0.599	0.570	0.467						0.533	8.95

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20)	T,M	CARBON DISULFIDE		1.122	1.033	1.022	0.972	0.966	0.991	0.973	0.942	0.924	0.994
5.96													
21)	T	ALLYL CHLORIDE	0.198	0.227	0.196	0.207	0.198	0.193	0.201	0.194	0.183	0.158	0.195#
8.99													
22)	T,M	METHYLENE CHLO...					0.434	0.400	0.379	0.364	0.355	0.347	0.380
8.60													
23)	T	METHYL ACETATE				0.478	0.481	0.301	0.402	0.423	0.419	0.408	0.416
14.43													
24)	T,M	ACRYLONITRILE				0.234	0.203	0.176	0.208	0.217	0.209	0.211	0.208#
8.25													
25)	T,M	n-HEXANE			0.320	0.307	0.288	0.296	0.310	0.298	0.287	0.279	0.298#
4.56													
26)	T,M	TRANS-1,2-DICH...			0.509	0.433	0.356	0.357	0.363	0.354	0.347	0.333	0.381
15.66													
27)	T,M	METHYL TERT-BU...	0.918	1.308	1.155	1.143	0.994	1.022	1.104	1.051	1.029	1.014	1.074
10.14													
28)	T	TERT-BUTYL ALC...			0.074	0.067	0.069	0.073	0.079	0.083	0.074	0.076	0.074#
6.79													
29)	P,T,M	1,1-DICHLOROET...	0.685	0.787	0.725	0.706	0.671	0.665	0.697	0.692	0.672	0.660	0.696
5.41													
30)	T,M	VINYL ACETATE				0.758	0.765	0.759	0.898	0.801	0.791	0.750	0.789
6.55													
31)	T,M	DI-ISOPROPYL E...	1.431	1.419	1.250	1.224	1.294	1.335	1.260	1.322	1.282	1.270	1.256	1.304
5.20													
32)	T	ETHYL TERT-BUT...	1.148	1.120	1.295	1.188	1.224	1.184	1.164	1.238	1.184	1.175	1.174	1.190
3.98													
33)	T,M	2,2-DICHLOROPR...				0.729	0.715	0.604	0.585	0.602	0.597	0.575	0.550	0.620
10.59													
34)	T,M	CIS-1,2-DICHLO...				0.472	0.507	0.413	0.424	0.421	0.409	0.404	0.398	0.431
8.86													
35)	T,M	2-BUTANONE (MEK)					0.150	0.237	0.210	0.283	0.294	0.287	0.291	0.250#
21.77													
36)	T,M	BROMOCHLOROMET...			0.212	0.239	0.252	0.233	0.251	0.265	0.234	0.215	0.192	0.233#
9.77													
37)	M,T	TETRAHYDROFURAN					0.202	0.198	0.188	0.188	0.176	0.174	0.188#
6.03													
38)	C,T,M	CHLOROFORM		0.863	0.685	0.693	0.675	0.699	0.721	0.706	0.687	0.669	0.711
8.34#													
39)	T	CYCLOHEXANE				0.532	0.591	0.481	0.513	0.534	0.524	0.502	0.498	0.522
6.37													
40)	T,M	1,1,1-TRICHLOR...				0.575	0.704	0.661	0.618	0.645	0.636	0.617	0.605	0.633
6.16													
41)	T,M	CARBON TETRACH...			0.689	0.524	0.631	0.549	0.582	0.618	0.612	0.596	0.586	0.599
8.00													
42)	T,M	1,1-DICHLOROPR...	0.353	0.497	0.500	0.489	0.461	0.492	0.518	0.508	0.495	0.488	0.480
9.76													
43)	T,M	2,2,4-TRIMETHY...				0.843	0.956	0.825	0.881	0.999	0.968	0.931	0.939	0.918
6.75													
44)	T,M	n-Heptane				0.220	0.258	0.209	0.210	0.232	0.229	0.218	0.220	0.224#

7.02

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45) T,M BENZENE 1.684 1.595 1.609 1.497 1.526 1.451 1.536 1.520 1.485 1.481 1.538
4.62
46) T TERT-AMYL METH... 1.181 1.155 1.085 1.038 1.113 1.068 1.059 1.054 1.094
4.69
47) S 1,2-DICHLOROET... 0.329 0.324 0.338 0.325 0.326 0.337 0.327 0.365 0.414 0.313 0.299 0.336
9.06
48) T,M 1,2-DICHLOROET... 0.587 0.554 0.550 0.512 0.503 0.498 0.519 0.501 0.494 0.497 0.521
6.07
49) T T-AMYL ALCOHOL 0.077 0.066 0.064 0.068 0.080 0.085 0.078 0.078 0.075#
10.06
50) T,M TRICHLOROETHENE 0.380 0.474 0.441 0.433 0.414 0.370 0.424 0.426 0.421 0.405 0.419
7.09
51) T,M METHYL CYCLOHE... 0.543 0.593 0.547 0.591 0.623 0.606 0.590 0.591 0.586
4.70
52) T,M TERT-AMYL ETHY... 1.055 0.894 0.923 0.903 0.851 0.886 0.929 0.904 0.891 0.886 0.912
6.01
53) C,T,M1,2-DICHLOROPR... 0.222 0.264 0.259 0.255 0.257 0.272 0.266 0.261 0.260 0.257
5.55#
54) T,M DIBROMOMETHANE 0.274 0.262 0.258 0.230 0.213 0.241 0.244 0.241 0.240 0.245#
7.36
55) T,M BROMODICHLOROM... 0.563 0.523 0.483 0.552 0.510 0.526 0.519 0.507 0.505 0.521
4.68
56) T,M 2-CHLOROETHYL ... 0.237 0.261 0.302 0.301 0.301 0.306 0.285#
10.14
57) T,M CIS-1,3-DICHLO... 0.499 0.524 0.584 0.539 0.564 0.615 0.614 0.600 0.602 0.571
7.38

58) I 8260-CHLOROBENZENE-D5 ----------ISTD----------
59) T,M 4-METHYL-2-PEN... 1.062 1.190 1.224 1.225 1.400 1.365 1.353 1.281 1.262
8.79
60) S TOLUENE-D8 2.347 2.351 2.329 2.362 2.310 2.311 2.219 2.305 2.208 2.197 2.137 2.280
3.32
61) T,M,CTOLUENE 3.254 3.651 3.605 3.592 3.721 3.578 3.544 3.444 3.549
4.04#
62) T,M TRANS-1,3-DICH... 0.760 1.019 1.007 1.048 1.227 1.187 1.196 1.175 1.077
14.38
63) T,M 1,1,2-TRICHLOR... 0.780 0.884 0.933 0.795 0.697 0.751 0.693 0.701 0.687 0.769
11.58
64) T,M TETRACHLOROETHENE 0.804 0.675 0.812 0.789 0.759 0.833 0.788 0.783 0.744 0.776
5.97
65) T,M 1,3-DICHLOROPR... 1.011 1.115 1.060 1.015 1.178 1.119 1.125 1.104 1.091
5.31
66) T,M 2-HEXANONE 0.449 0.443 0.479 0.550 0.543 0.533 0.524 0.503
9.00
67) T,M CHLORODIBROMOM... 0.798 0.732 0.853 0.888 0.875 0.845 0.933 0.881 0.884 0.874 0.856
6.49
68) T,M 1,2-DIBROMOETHANE 0.902 0.801 0.787 0.739 0.780 0.865 0.824 0.828 0.814 0.815
5.87

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69) P,T,MCHLOROBENZENE 2.319 2.466 2.184 2.297 2.238 2.091 2.377 2.282 2.283 2.176 2.271
4.70
70) T,M 1,1,1,2-TETRAC... 0.852 0.925 0.858 0.781 0.854 0.813 0.809 0.787 0.835
5.68
71) C,T,METHYLBENZENE 1.366 1.267 1.267 1.244 1.252 1.178 1.349 1.308 1.319 1.262 1.281
4.31#
72) T,M M&P-XYLENE 1.706 1.704 1.434 1.578 1.662 1.593 1.463 1.655 1.594 1.596 1.547 1.594
5.55
73) T,M O-XYLENE 1.698 1.729 1.451 1.576 1.605 1.481 1.585 1.539 1.538 1.488 1.569
5.77
74) TOTAL XYLENES 0.000#
-1.00
75) XYLENES, TOTAL 0.000#
-1.00
76) T,M STYRENE 1.667 1.943 1.900 2.054 2.585 2.532 2.558 2.500 2.217
16.49
77) T,P,MBROMOFORM 0.592 0.636 0.609 0.691 0.669 0.675 0.746 0.711 0.722 0.718 0.677
7.51
78) T,M ISOPROPYLBENZENE 4.690 3.945 3.724 3.935 3.823 3.763 4.203 4.089 4.116 3.984 4.027
6.94
79) S 4-BROMOFLUOROB... 1.001 0.979 0.986 0.977 0.964 0.959 0.927 0.963 0.960 0.973 0.960 0.968
1.96

80) I 8260-1,4-DICHLOROB... ----------ISTD----------
81) T,M BROMOBENZENE 1.203 1.274 1.306 1.307 1.424 1.387 1.403 1.446 1.344
6.27
82) P,T,M1,1,2,2-TETRAC... 0.782 1.135 0.946 0.951 0.911 0.964 0.905 0.912 0.944 0.939
9.73
83) T,M 1,2,3-TRICHLOR... 0.357 0.314 0.307 0.285 0.302 0.282 0.279 0.288 0.302
8.50
84) T,M TRANS-1,4-DICH... 0.288 0.335 0.209 0.284 0.268 0.291 0.289 0.306 0.284#
12.64
85) T,M N-PROPYLBENZENE 3.096 3.560 3.429 4.034 3.794 4.034 4.300 4.161 4.187 4.208 3.880
10.29
86) T,M 4-ETHYLTOLUENE 2.706 2.755 3.267 3.141 3.336 3.617 3.445 3.502 3.530 3.256
10.16
87) T,M 2-CHLOROTOLUENE 3.081 2.516 2.521 2.363 2.496 2.693 2.604 2.623 2.708 2.623
7.72
88) T,M 4-CHLOROTOLUENE 1.807 2.088 2.089 2.269 2.514 2.403 2.434 2.498 2.263
11.03
89) T,M 1,3,5-TRIMETHY... 2.696 3.016 2.562 2.896 2.676 2.899 3.017 2.860 2.889 2.943 2.845
5.33
90) T,M TERT-BUTYLBENZENE 3.041 2.909 2.493 2.437 2.403 2.421 2.528 2.417 2.392 2.450 2.549
9.03
91) T,M 1,2,4-TRIMETHY... 3.100 2.608 2.608 2.734 2.676 2.684 2.933 2.843 2.827 2.858 2.787
5.59
92) T,M SEC-BUTYLBENZENE 3.954 3.761 3.130 3.603 3.401 3.416 3.626 3.469 3.489 3.490 3.534
6.28
93) T,M 1,3-DICHLOROBE... 1.193 1.472 1.220 1.351 1.323 1.432 1.603 1.543 1.552 1.570 1.426

10.37

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94) T,M	P-ISOPROPYLTOL...	4.052	3.375	2.888	3.125	3.081	3.034	3.252	3.124	3.104	3.106		3.214
9.98													
95) T,M	DICYCLOPENTADIENE	3.464	3.891	3.488	3.546	3.474	3.443	3.622	3.537	3.524	3.631		3.562
3.70													
96) T,M	1,4-DICHLOROBE...		1.878	1.669	1.816	1.361	1.565	1.637	1.563	1.575	1.557		1.624
9.40													
97) M,T	1,2,3-TRIMETHY...	2.655	2.356	2.394	2.264	2.100	2.226	2.333	2.215	2.228	2.217		2.299
6.57													
98) T,M	1,2-DICHLOROBE...	1.113	1.275	1.216	1.350	1.331	1.392	1.470	1.397	1.421	1.455		1.342
8.38													
99) T,M	N-BUTYLBENZENE			2.731	2.353	2.162	2.318	2.642	2.523	2.546	2.590		2.483
7.62													
100) T,M	1,2-DIBROMO-3-...					0.276	0.253	0.273	0.279	0.276	0.271		0.271#
3.53													
101) T,M	1,2,4-TRICHLOR...		0.594	0.580	0.694	0.661	0.684	0.757	0.733	0.735	0.726		0.685
9.16													
102) T,M	HEXACHLORO-1,3...		0.391	0.333	0.375	0.380	0.380	0.397	0.384	0.386	0.374		0.378
4.85													
103) T,M	NAPHTHALENE				2.113	1.988	2.199	2.312	2.348	2.350	2.284		2.228
6.11													
104) T,M	1,2,3-TRICHLOR...		0.495	0.470	0.596	0.577	0.571	0.610	0.594	0.604	0.574		0.566
8.75													
105) T,M	1-METHYLNAPHTH...				0.418	0.449	0.446	0.501	0.536	0.542	0.485		0.482
9.77													
106) T,M	2-METHYLNAPHTH...			0.457	0.460	0.334	0.329	0.388	0.419	0.423	0.372		0.398
12.72													
107) I	AP9-FLUOROBENZENE	----------ISTD----------											
108) T	BROMOETHANE										0.230	0.223	0.214 0.206 0.221 0.219#
4.10													
109) T	2-PROPANOL										0.037	0.042	0.039 0.042 0.043 0.040#
6.45													
110) T	ACETONITRILE										0.072	0.075	0.075 0.073 0.075 0.074#
1.97													
111) T	CHLOROPRENE										0.559	0.592	0.569 0.540 0.572 0.566
3.32													
112) T	PROPIONITRILE										0.089	0.094	0.093 0.094 0.099 0.094#
3.93													
113) T	ETHYL ACETATE										0.517	0.521	0.510 0.493 0.509 0.510
2.11													
114) T	METHACRYLONITRILE										0.213	0.214	0.208 0.220 0.229 0.217#
3.79													
115)	TERT-BUTYL FOR...										0.257	0.257	0.304 0.256 0.282 0.271#
7.80													
116) T	ISOBUTANOL										0.047	0.045	0.044 0.043 0.045 0.045#
3.22													
117) T	N-BUTANOL										0.022	0.024	0.023 0.024 0.024 0.023#
3.84													

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118) T	METHYL METHACR...					0.451	0.481	0.487	0.483	0.498	0.480
3.70											
119) T	1,4-DIOXANE					0.008	0.009	0.008	0.008	0.008	0.008#
2.83											
120) T	N-OCTANE					0.144	0.144	0.143	0.133	0.150	0.143#
4.31											
121) I	AP9-CHLOROBENZENE-D5	----------ISTD----------									
122) T	2-NITROPROPANE					0.538	0.486	0.477	0.471	0.482	0.491
5.54											
123)	3,3-DIMETHYL-1...					0.149	0.159	0.158	0.157	0.156	0.156#
2.41											
124) T	ETHYL METHACRY...					1.181	1.136	1.137	1.121	1.152	1.145
1.98											
125) I	AP9-1,4-DICHLOROBE...	----------ISTD----------									
126) T	CIS-1,4-DICHLO...					0.275	0.326	0.313	0.329	0.334	0.315
7.64											
127) T	CYCLOHEXANONE					0.232	0.229	0.202	0.216	0.218	0.220#
5.53											
128) T	PENTACHLOROETHANE										0.000#
-1.00											
129) T	HEXACHLOROETHANE					0.480	0.529	0.510	0.527	0.559	0.521
5.57											

(#) = Out of Range

Chester LabNet
Draper Aden Associates, Inc.
SDG: L1116144
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_18.D
Acq On : 25 Jun 2019 11:36 pm
Operator : 605
Sample : STD VMS 0.5 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 18 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:43:28 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.318	96	230133	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	108064	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.943	152	122024	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	74687	14.2250252	ppb		0.00
Spiked Amount 16.000			Recovery = 88.91%				
60) TOLUENE-D8	5.230	98	255207	16.3930203	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 102.46%				
79) 4-BROMOFLUOROBENZENE	7.098	95	105604	16.2298967	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 101.44%				
Target Compounds						Qvalue	
4) PROPENE	1.556	41	3001	0.8216813	ppb	#	88
5) DICHLORODIFLUOROMETHANE	1.586	85	3508	0.5437033	ppb	#	85
6) CHLOROMETHANE	1.750	50	4446	0.6498164	ppb		97
7) VINYL CHLORIDE	1.805	62	3320	0.4902008	ppb	#	71
8) 1,3-BUTADIENE	1.817	39	4939	0.8596698	ppb	#	69
9) BROMOMETHANE	2.042	94	2894	1.0719646	ppb	#	75
10) CHLOROETHANE	2.128	64	2522	0.6433355	ppb	#	74
11) TRICHLOROFLUOROMETHANE	2.219	101	4368	0.4483066	ppb	#	81
12) DICHLOROFLUOROMETHANE	2.255	67	5220	0.4902517	ppb	#	64
13) ETHYL ETHER	2.407	59	2103	0.4918377	ppb	#	87
14) ACROLEIN	2.778	56	1234	2.0487345	ppb	#	59
15) ETHANOL	2.523	45	1744	18.6486258	ppb	#	94
16) 1,1-DICHLOROETHENE	2.547	96	2819	0.6023163	ppb	#	75
17) 1,1,2-TRICHLOROTRIFLUO...	2.559	101	2137	0.3847022	ppb	#	82
18) ACETONE	2.924	43	6731	2.6528105	ppb		92
19) IODOMETHANE	2.645	142	17070	1.9834430	ppb		99
20) CARBON DISULFIDE	2.584	76	7430	0.5213378	ppb	#	74
21) ALLYL CHLORIDE	2.827	76	7045	2.4347750	ppb		98
22) METHYLENE CHLORIDE	2.888	84	3629	0.6656039	ppb		83
23) METHYL ACETATE	2.985	43	6855	1.1868217	ppb	#	77
24) ACRYLONITRILE	3.399	53	5314	1.7802771	ppb	#	70
25) n-HEXANE	3.022	56	2300	0.5165345	ppb	#	1
26) TRANS-1,2-DICHLOROETHENE	2.985	96	3662	0.7009654	ppb	#	70
27) METHYL TERT-BUTYL ETHER	3.028	73	8306	0.5232938	ppb	#	81
28) TERT-BUTYL ALCOHOL	3.064	59	2677	2.3547518	ppb	#	100
29) 1,1-DICHLOROETHANE	3.326	63	5215	0.5200381	ppb		90
30) VINYL ACETATE	3.423	43	831	0.0643324	ppb	#	78
31) DI-ISOPROPYL ETHER	3.223	45	8803	0.4630580	ppb	#	80
32) ETHYL TERT-BUTYL ETHER	3.417	59	8542	0.4796890	ppb		97
33) 2,2-DICHLOROPROPANE	3.673	77	5242	0.6053728	ppb	#	84
34) CIS-1,2-DICHLOROETHENE	3.636	96	3395	0.5605562	ppb		93
35) 2-BUTANONE (MEK)	3.886	43	982	0.2452216	ppb	#	1
36) BROMOCHLOROMETHANE	3.746	130	1722	0.4524749	ppb		93
37) TETRAHYDROFURAN	3.874	42	1976	0.7310570	ppb	#	35
38) CHLOROFORM	3.764	83	4929	0.4751638	ppb	#	82
39) CYCLOHEXANE	3.746	84	3824	0.4981385	ppb		96
40) 1,1,1-TRICHLOROETHANE	3.886	97	4135	0.4455378	ppb		97

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_18.D
Acq On : 25 Jun 2019 11:36 pm
Operator : 605
Sample : STD VMS 0.5 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 18 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:43:28 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) CARBON TETRACHLORIDE	3.849	117	3765	0.4232800	ppb		81
42) 1,1-DICHLOROPROPENE	3.965	75	3595	0.4827754	ppb		94
43) 2,2,4-TRIMETHYLPENTANE	3.995	57	6060	0.4215729	ppb		98
44) n-Heptane	4.044	71	1579	0.4730349	ppb	#	81
45) BENZENE	4.099	78	11573	0.5237085	ppb		95
46) TERT-AMYL METHYL ETHER	4.123	73	8496	0.5305710	ppb		91
48) 1,2-DICHLOROETHANE	4.214	62	3958	0.5300321	ppb	#	73
49) T-AMYL ALCOHOL	4.220	59	2769	2.3940901	ppb	#	77
50) TRICHLOROETHENE	4.421	130	3173	0.5201896	ppb	#	50
51) METHYL CYCLOHEXANE	4.409	83	3904	0.4356827	ppb	#	64
52) TERT-AMYL ETHYL ETHER	4.506	59	6639	0.4966342	ppb		91
53) 1,2-DICHLOROPROPANE	4.731	62	1897	0.4849917	ppb	#	81
54) DIBROMOMETHANE	4.683	93	1887	0.5445448	ppb	#	80
55) BROMODICHLOROMETHANE	4.756	83	3760	0.4970731	ppb		97
56) 2-CHLOROETHYL VINYL ETHER	5.084	63	5945	1.3665866	ppb	#	90
57) CIS-1,3-DICHLOROPROPENE	5.139	75	3772	0.4263745	ppb	#	45
59) 4-METHYL-2-PENTANONE (...	5.486	43	17931	1.8932830	ppb		98
61) TOLUENE	5.273	91	10989	0.4372385	ppb	#	81
62) TRANS-1,3-DICHLOROPROPENE	5.565	75	2566	0.3096867	ppb	#	56
63) 1,1,2-TRICHLOROETHANE	5.632	97	2984	0.5884837	ppb	#	73
64) TETRACHLOROETHENE	5.528	164	2280	0.4052311	ppb		91
65) 1,3-DICHLOROPROPANE	5.826	76	3414	0.4289806	ppb	#	87
66) 2-HEXANONE	6.045	58	6114	1.6445441	ppb		100
67) CHLORODIBROMOMETHANE	5.766	129	2879	0.4568395	ppb		91
68) 1,2-DIBROMOETHANE	5.954	107	2704	0.4627915	ppb		97
69) CHLOROBENZENE	6.264	112	7377	0.4595872	ppb	#	60
70) 1,1,1,2-TETRACHLOROETHANE	6.289	133	2877	0.4987780	ppb	#	14
71) ETHYLBENZENE	6.264	106	4280	0.4698402	ppb		93
72) M&P-XYLENE	6.368	106	10655	0.9532004	ppb		79
73) O-XYLENE	6.672	106	4901	0.4578069	ppb		98
76) STYRENE	6.733	104	5630	0.3225216	ppb		88
77) BROMOFORM	6.757	173	2056	0.4082974	ppb		95
78) ISOPROPYLBENZENE	6.879	105	12575	0.4429611	ppb		97
81) BROMOBENZENE	7.195	77	4587	0.4225018	ppb		96
82) 1,1,2,2-TETRACHLOROETHANE	7.238	83	4328	0.5887293	ppb	#	90
83) 1,2,3-TRICHLOROPROPANE	7.353	110	1361	0.5917659	ppb	#	24
84) TRANS-1,4-DICHLORO-2-B...	7.317	53	1100	0.5375604	ppb	#	5
85) N-PROPYLBENZENE	7.189	91	13075	0.3986781	ppb	#	96
86) 4-ETHYLTOLUENE	7.262	105	10504	0.3808167	ppb	#	82
87) 2-CHLOROTOLUENE	7.323	91	9596	0.4671746	ppb	#	93
88) 4-CHLOROTOLUENE	7.457	91	6890	0.3593152	ppb		97
89) 1,3,5-TRIMETHYLBENZENE	7.317	105	9768	0.4245690	ppb		97
90) TERT-BUTYLBENZENE	7.554	119	9506	0.4929887	ppb		97
91) 1,2,4-TRIMETHYLBENZENE	7.621	105	9944	0.4445882	ppb		99
92) SEC-BUTYLBENZENE	7.700	105	11937	0.4316363	ppb		94
93) 1,3-DICHLOROBENZENE	7.901	146	4653	0.3805859	ppb		95
94) P-ISOPROPYLTOLUENE	7.797	119	11011	0.4439459	ppb		95
95) DICYCLOPENTADIENE	7.791	66	13299	0.4814506	ppb		97
96) 1,4-DICHLOROBENZENE	7.956	146	6364	0.5098615	ppb	#	1
97) 1,2,3-TRIMETHYLBENZENE	7.956	105	9129	0.5131610	ppb		100
98) 1,2-DICHLOROBENZENE	8.308	146	4638	0.4137172	ppb		91
99) N-BUTYLBENZENE	8.144	91	10414m	0.5168494	ppb		
100) 1,2-DIBROMO-3-CHLOROPR...	8.947	157	634	0.3049146	ppb	#	83
101) 1,2,4-TRICHLOROBENZENE	9.525	180	2213	0.3829002	ppb		91

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_18.D
Acq On : 25 Jun 2019 11:36 pm
Operator : 605
Sample : STD VMS 0.5 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 18 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:43:28 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.446	225	1270	0.4195747 ppb		92
103) NAPHTHALENE	9.793	128	4679	0.2653964 ppb		96
104) 1,2,3-TRICHLOROBENZENE	9.927	180	1791	0.3846962 ppb		88
105) 1-METHYLNAPHTHALENE	10.651	142	659	0.1724812 ppb	#	37
106) 2-METHYLNAPHTHALENE	10.748	142	1742	0.5880184 ppb	#	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_18.D
Acq On : 25 Jun 2019 11:36 pm
Operator : 605
Sample : STD VMS 0.5 ppb 19F25726
Misc : water IS/SURR 19E01967
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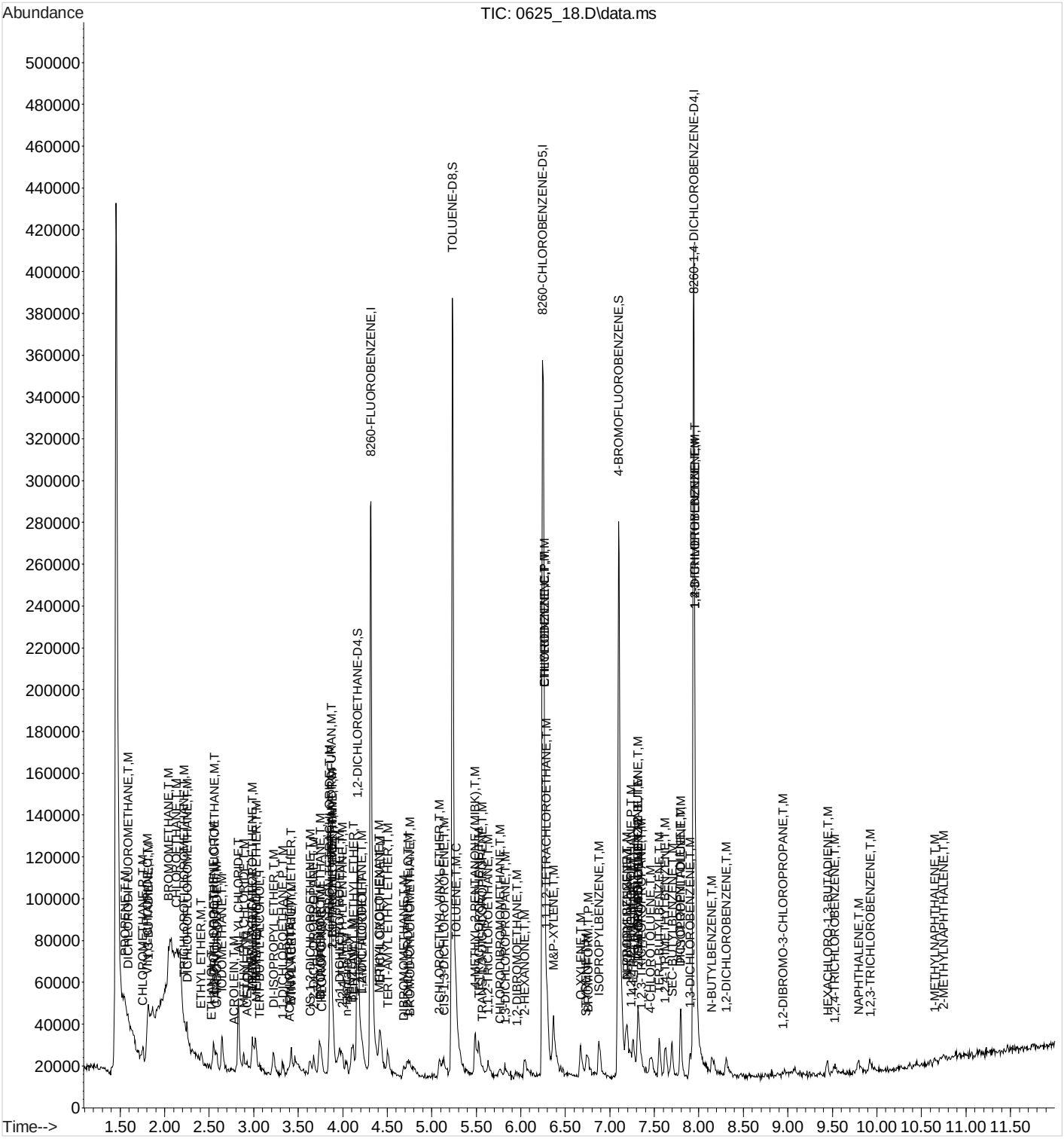
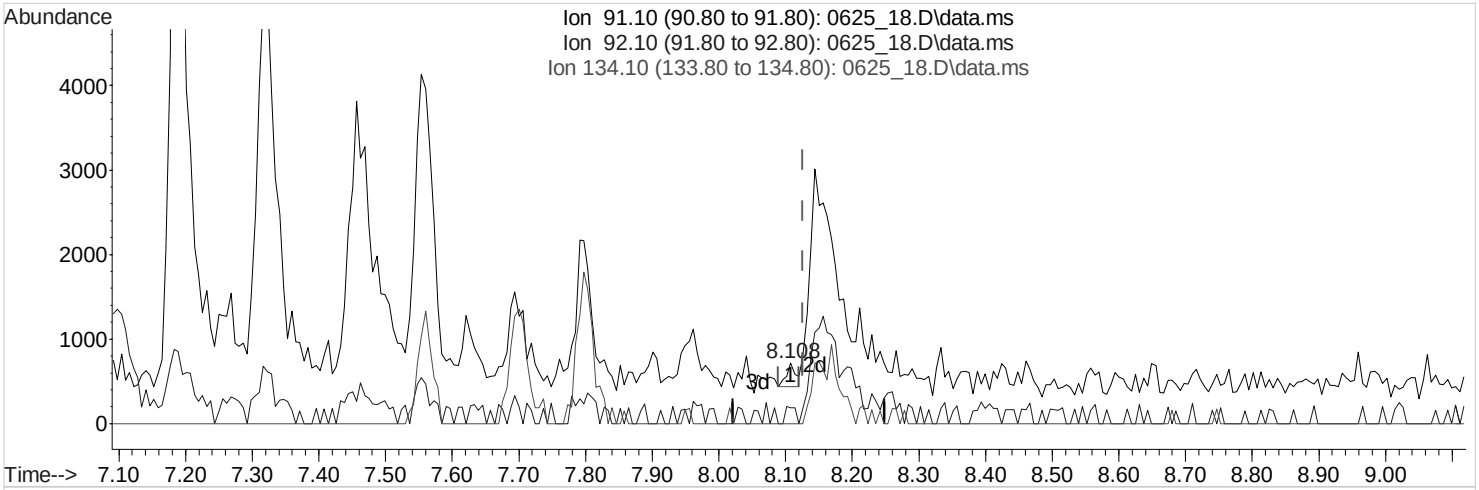
Quant Time: Jun 26 11:43:28 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

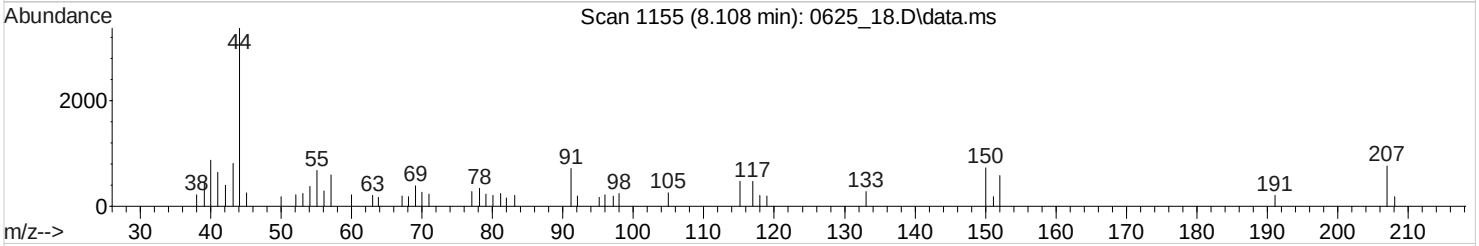


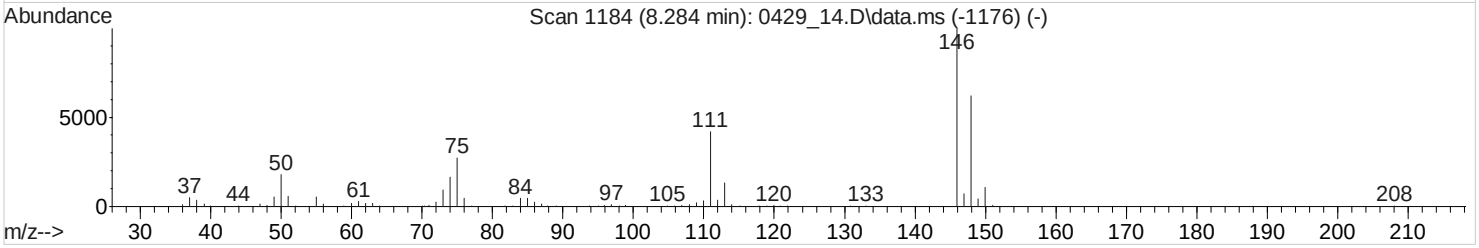
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_18.D
Acq On : 25 Jun 2019 11:36 pm
Operator : 605
Sample : STD VMS 0.5 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 18 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:24:40 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration







TIC: 0625_18.D\data.ms

(99) N-BUTYLBENZENE (T,M)

8.108min (-0.018) 0.0135491 ppb

Qvalue = 60

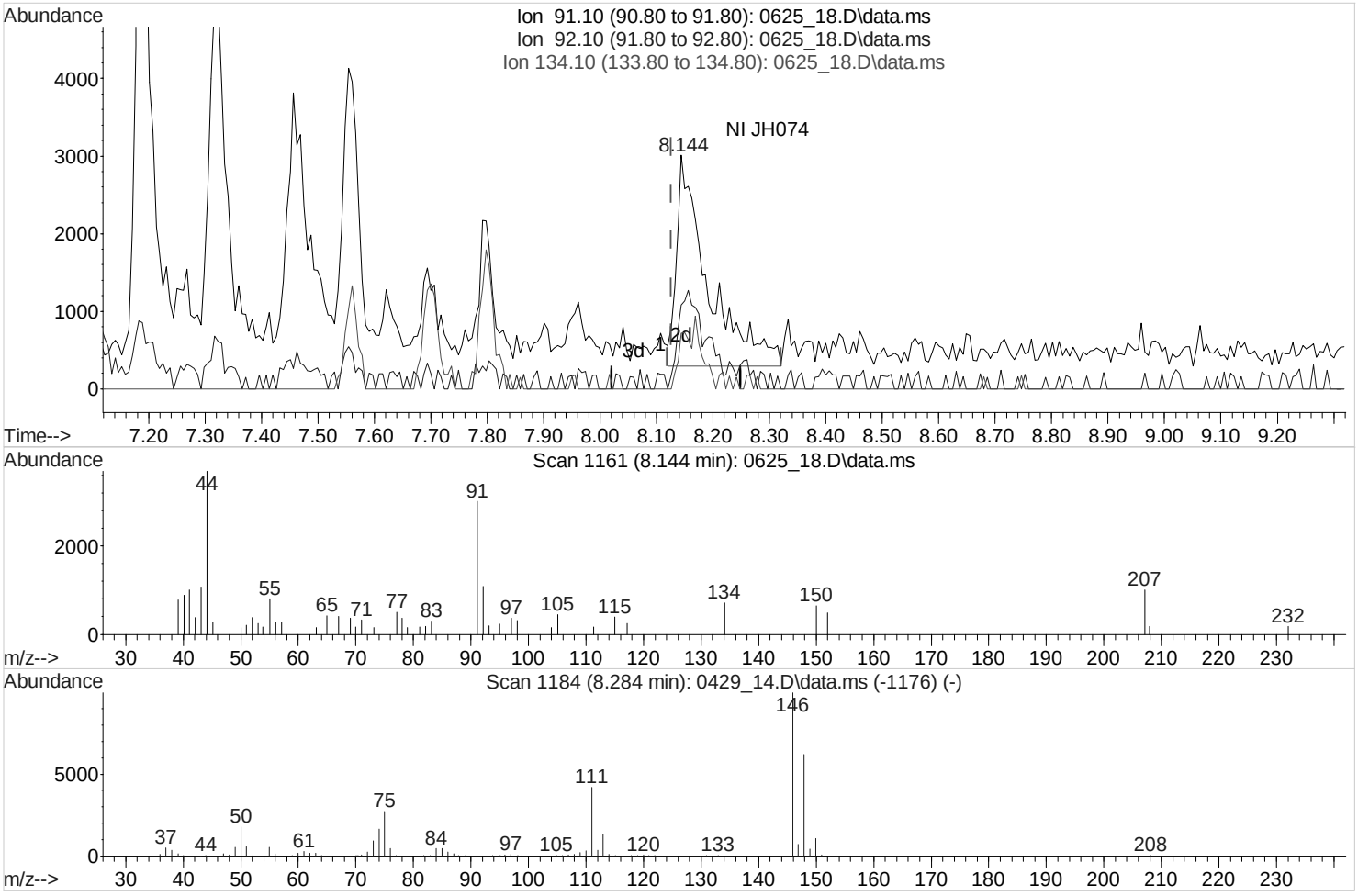
response 273

Ion	Exp%	Act%
91.10	100	100
92.10	52.80	76.56#
134.10	26.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_18.D
Acq On : 25 Jun 2019 11:36 pm
Operator : 605
Sample : STD VMS 0.5 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 18 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:24:40 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration



TIC: 0625_18.D\data.ms

(99) N-BUTYLBENZENE (T,M)

8.144min (+0.018) 0.5168494 ppb m

response 10414

Ion	Exp%	Act%
91.10	100	100
92.10	52.80	2.01#
134.10	26.60	0.00#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_19.D
Acq On : 25 Jun 2019 11:56 pm
Operator : 605
Sample : STD VMS 1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 19 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:25:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.318	96	229577	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	107895	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.944	152	120822	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	79478	15.1741887	ppb		0.00
Spiked Amount 16.000			Recovery = 94.84%				
60) TOLUENE-D8	5.230	98	264805	17.0361830	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 106.48%				
79) 4-BROMOFLUOROBENZENE	7.098	95	110552	17.0169495	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 106.36%				
Target Compounds							Qvalue
4) PROPENE	1.544	41	5184	1.4228297	ppb	#	83
5) DICHLORODIFLUOROMETHANE	1.580	85	6838	1.0623851	ppb		98
6) CHLOROMETHANE	1.751	50	7856	1.1509945	ppb		96
7) VINYL CHLORIDE	1.805	62	6736	0.9969848	ppb	#	88
8) 1,3-BUTADIENE	1.817	39	8518	1.4862121	ppb	#	79
9) BROMOMETHANE	2.043	94	4188	1.5550311	ppb		84
10) CHLOROETHANE	2.128	64	4356	1.1138606	ppb	#	91
11) TRICHLOROFLUOROMETHANE	2.219	101	10151	1.0443639	ppb	#	96
12) DICHLOROFLUOROMETHANE	2.255	67	11336	1.0672322	ppb		94
13) ETHYL ETHER	2.414	59	4254	0.9973109	ppb		97
14) ACROLEIN	2.766	56	2412	4.0141940	ppb		94
15) ETHANOL	2.511	45	2530	27.1188581	ppb	#	97
16) 1,1-DICHLOROETHENE	2.547	96	5798	1.2418188	ppb		84
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	5790	1.0448386	ppb	#	91
18) ACETONE	2.925	43	12184	4.8135674	ppb		90
19) IODOMETHANE	2.645	142	36360	4.2350702	ppb		99
20) CARBON DISULFIDE	2.584	76	14658	1.0309928	ppb	#	84
21) ALLYL CHLORIDE	2.827	76	14836	5.1397877	ppb		91
22) METHYLENE CHLORIDE	2.888	84	7891	1.4508130	ppb		89
23) METHYL ACETATE	2.979	43	34297	5.9522983	ppb	#	98
24) ACRYLONITRILE	3.393	53	16759m	5.6281372	ppb		
25) n-HEXANE	3.016	56	4409	0.9925723	ppb	#	1
26) TRANS-1,2-DICHLOROETHENE	2.985	96	6218	1.1931073	ppb		85
27) METHYL TERT-BUTYL ETHER	3.022	73	16402	1.0358599	ppb		100
28) TERT-BUTYL ALCOHOL	3.071	59	4839	4.2668062	ppb	#	100
29) 1,1-DICHLOROETHANE	3.326	63	10136	1.0132064	ppb		94
30) VINYL ACETATE	3.454	43	54366	4.2189695	ppb	#	91
31) DI-ISOPROPYL ETHER	3.223	45	18570	0.9791904	ppb		93
32) ETHYL TERT-BUTYL ETHER	3.417	59	17560	0.9884968	ppb		97
33) 2,2-DICHLOROPROPANE	3.679	77	10254	1.1870519	ppb		92
34) CIS-1,2-DICHLOROETHENE	3.630	96	7268	1.2029424	ppb	#	80
35) 2-BUTANONE (MEK)	3.941	43	10772	2.6964608	ppb	#	86
36) BROMOCHLOROMETHANE	3.740	130	3619	0.9532360	ppb		96
37) TETRAHYDROFURAN	3.868	42	3504	1.2995079	ppb	#	79
38) CHLOROFORM	3.764	83	9944	0.9609397	ppb		92
39) CYCLOHEXANE	3.740	84	8484	1.1078563	ppb		96
40) 1,1,1-TRICHLOROETHANE	3.880	97	10103	1.0912140	ppb		95

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_19.D
Acq On : 25 Jun 2019 11:56 pm
Operator : 605
Sample : STD VMS 1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 19 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:25:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) CARBON TETRACHLORIDE	3.849	117	9051	1.0200226	ppb		95
42) 1,1-DICHLOROPROPENE	3.953	75	7012	0.9439275	ppb	#	76
43) 2,2,4-TRIMETHYLPENTANE	3.989	57	13711	0.9561361	ppb		96
44) n-Heptane	4.044	71	3705	1.1126274	ppb		93
45) BENZENE	4.099	78	21486	0.9746525	ppb		94
46) TERT-AMYL METHYL ETHER	4.123	73	16575	1.0376074	ppb		95
48) 1,2-DICHLOROETHANE	4.208	62	7352	0.9869210	ppb	#	79
49) T-AMYL ALCOHOL	4.220	59	4751	4.1176846	ppb		98
50) TRICHLOROETHENE	4.421	130	6216	1.0215346	ppb	#	50
51) METHYL CYCLOHEXANE	4.415	83	8505	0.9514487	ppb	#	90
52) TERT-AMYL ETHYL ETHER	4.506	59	12953	0.9713032	ppb		91
53) 1,2-DICHLOROPROPANE	4.725	62	3719	0.9531115	ppb	#	91
54) DIBROMOMETHANE	4.683	93	3697	1.0694530	ppb		86
55) BROMODICHLOROMETHANE	4.750	83	6935	0.9190293	ppb		87
56) 2-CHLOROETHYL VINYL ETHER	5.078	63	16803	3.8718869	ppb		96
57) CIS-1,3-DICHLOROPROPENE	5.127	75	8377	0.9492018	ppb	#	96
59) 4-METHYL-2-PENTANONE (...	5.480	43	40123	4.2431085	ppb		97
61) TOLUENE	5.267	91	24623	0.9812529	ppb		95
62) TRANS-1,3-DICHLOROPROPENE	5.547	75	6870	0.8304287	ppb	#	91
63) 1,1,2-TRICHLOROETHANE	5.638	97	6293	1.2430056	ppb	#	79
64) TETRACHLOROETHENE	5.522	164	5477	0.9749680	ppb		98
65) 1,3-DICHLOROPROPANE	5.814	76	7518	0.9461416	ppb		97
66) 2-HEXANONE	6.039	58	15135	4.0773897	ppb		97
67) CHLORODIBROMOMETHANE	5.766	129	5990	0.9519816	ppb		97
68) 1,2-DIBROMOETHANE	5.948	107	5305	0.9093766	ppb		99
69) CHLOROBENZENE	6.258	112	15493	0.9667260	ppb		90
70) 1,1,1,2-TETRACHLOROETHANE	6.295	133	6240	1.0835070	ppb	#	14
71) ETHYLBENZENE	6.265	106	8388	0.9222413	ppb		91
72) M&P-XYLENE	6.362	106	22415	2.0083953	ppb		82
73) O-XYLENE	6.666	106	10628	0.9943262	ppb		96
76) STYRENE	6.727	104	13103	0.7517975	ppb		94
77) BROMOFORM	6.745	173	4657	0.9262739	ppb		94
78) ISOPROPYLBENZENE	6.879	105	26536	0.9362089	ppb		98
81) BROMOBENZENE	7.195	77	9620	0.8948992	ppb		90
82) 1,1,2,2-TETRACHLOROETHANE	7.232	83	7146	0.9817267	ppb		86
83) 1,2,3-TRICHLOROPROPANE	7.341	110	2368	1.0398550	ppb	#	58
84) TRANS-1,4-DICHLORO-2-B...	7.390	53	2532	1.2496763	ppb	#	68
85) N-PROPYLBENZENE	7.183	91	30463	0.9381075	ppb		98
86) 4-ETHYLTOLUENE	7.256	105	24674	0.9034415	ppb		97
87) 2-CHLOROTOLUENE	7.317	91	19040	0.9361709	ppb	#	93
88) 4-CHLOROTOLUENE	7.451	91	15765	0.8303279	ppb		95
89) 1,3,5-TRIMETHYLBENZENE	7.311	105	21870	0.9600428	ppb		100
90) TERT-BUTYLBENZENE	7.554	119	18400	0.9637319	ppb		97
91) 1,2,4-TRIMETHYLBENZENE	7.621	105	20642	0.9320685	ppb		100
92) SEC-BUTYLBENZENE	7.694	105	27206	0.9935431	ppb		99
93) 1,3-DICHLOROBENZENE	7.901	146	10201	0.8426779	ppb		98
94) P-ISOPROPYLTOLUENE	7.798	119	23600	0.9609804	ppb		98
95) DICYCLOPENTADIENE	7.798	66	26777	0.9790254	ppb		99
96) 1,4-DICHLOROBENZENE	7.956	146	13713	1.1095677	ppb	#	1
97) 1,2,3-TRIMETHYLBENZENE	7.956	105	17099	0.9707343	ppb		95
98) 1,2-DICHLOROBENZENE	8.296	146	10193	0.9182778	ppb		97
99) N-BUTYLBENZENE	8.144	91	17766	0.8905030	ppb		95
100) 1,2-DIBROMO-3-CHLOROPR...	8.935	157	1453	0.7057547	ppb	#	75
101) 1,2,4-TRICHLOROBENZENE	9.501	180	5241	0.9158357	ppb	#	94

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_19.D
Acq On : 25 Jun 2019 11:56 pm
Operator : 605
Sample : STD VMS 1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 19 Sample Multiplier: 1
InstName : VOCMS28

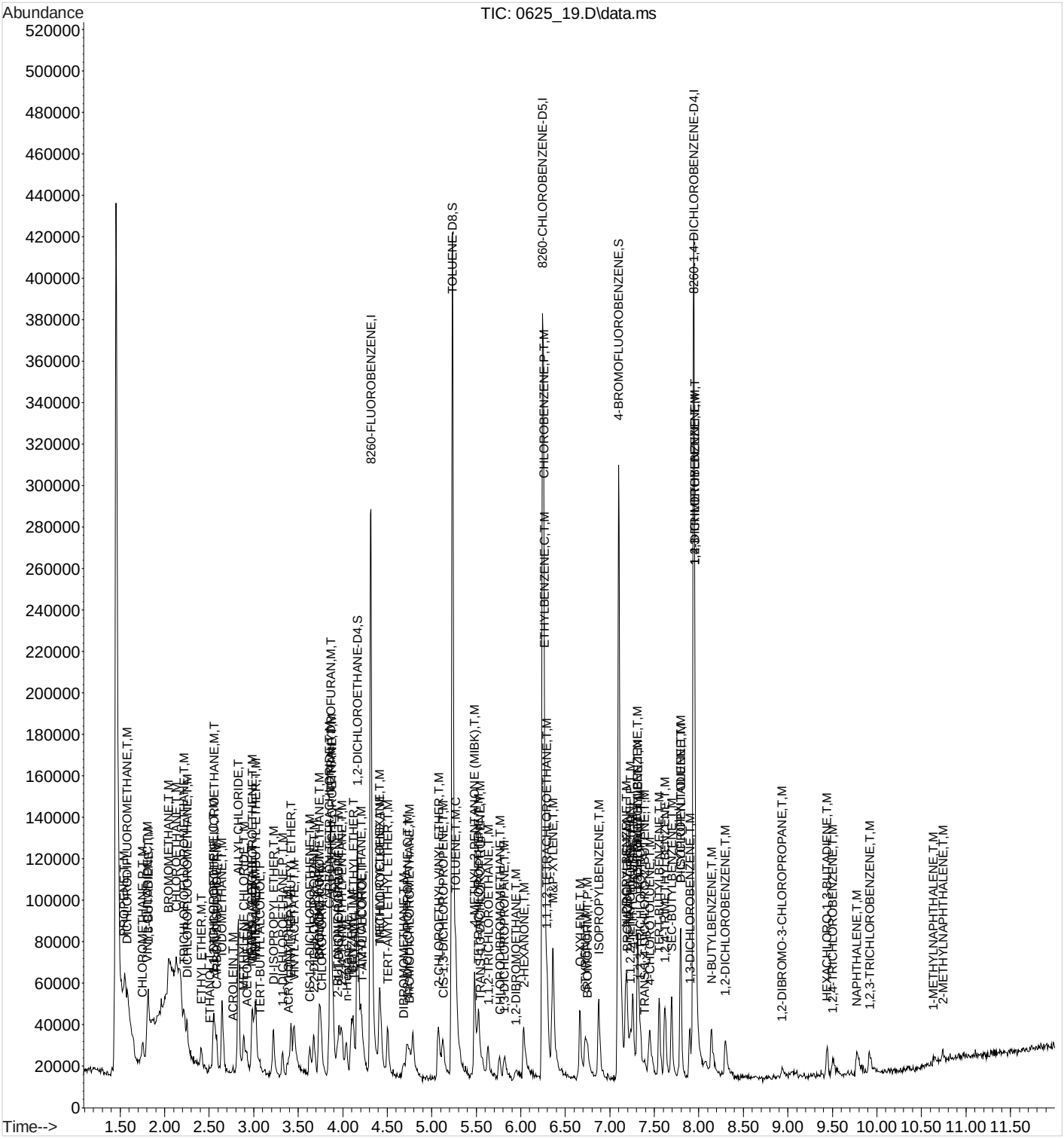
Quant Time: Jun 26 11:25:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	2833	0.9452602	ppb		93
103) NAPHTHALENE	9.775	128	15953	0.9138684	ppb	#	93
104) 1,2,3-TRICHLOROBENZENE	9.921	180	4502	0.9766231	ppb		95
105) 1-METHYLNAPHTHALENE	10.633	142	3158	0.8347717	ppb		90
106) 2-METHYLNAPHTHALENE	10.742	142	3476	1.1850092	ppb	#	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_19.D
Acq On : 25 Jun 2019 11:56 pm
Operator : 605
Sample : STD VMS 1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 19 Sample Multiplier: 1
InstName : VOCMS28

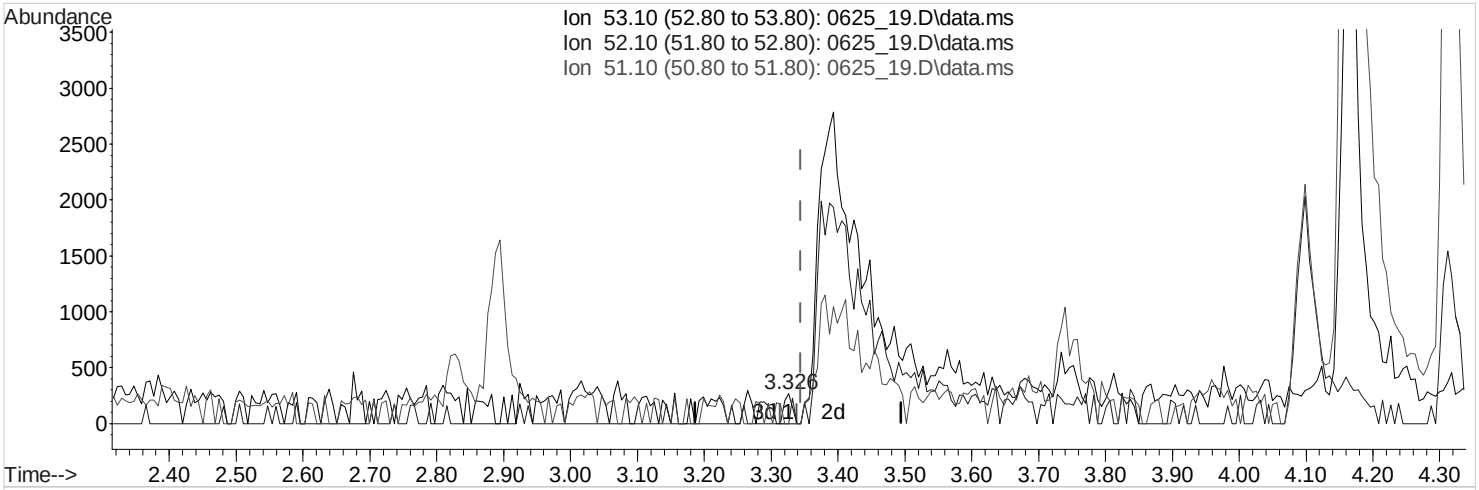
Quant Time: Jun 26 11:25:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

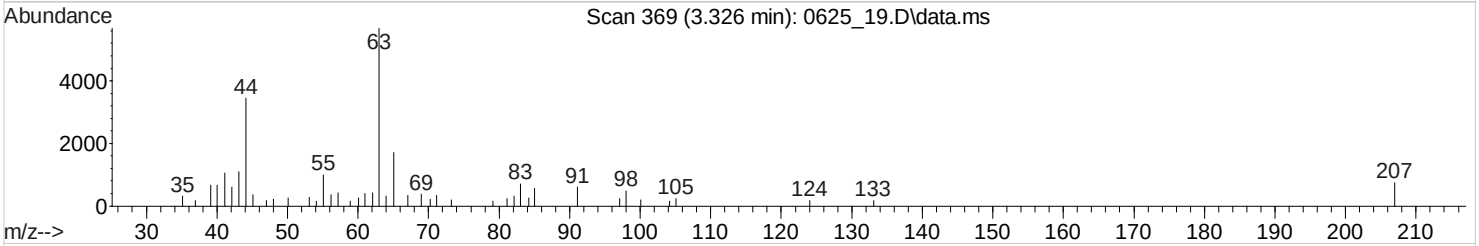


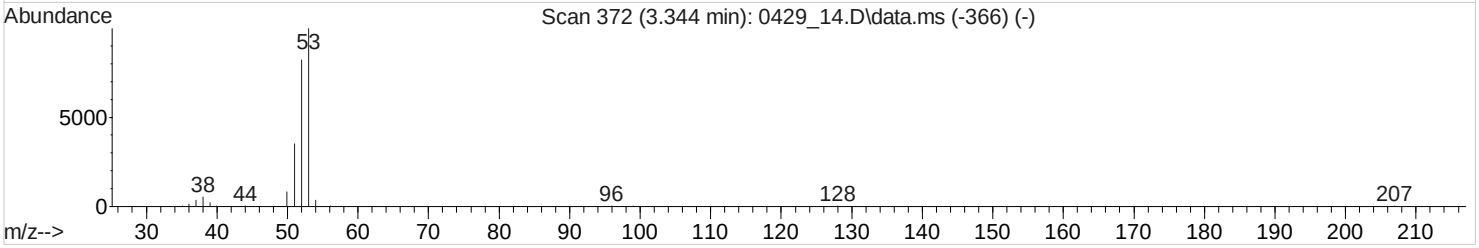
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_19.D
Acq On : 25 Jun 2019 11:56 pm
Operator : 605
Sample : STD VMS 1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 19 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:21:33 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration







TIC: 0625_19.D\data.ms

(24) ACRYLONITRILE (T,M)

3.326min (-0.018) 0.0765687 ppb

Qvalue = 10

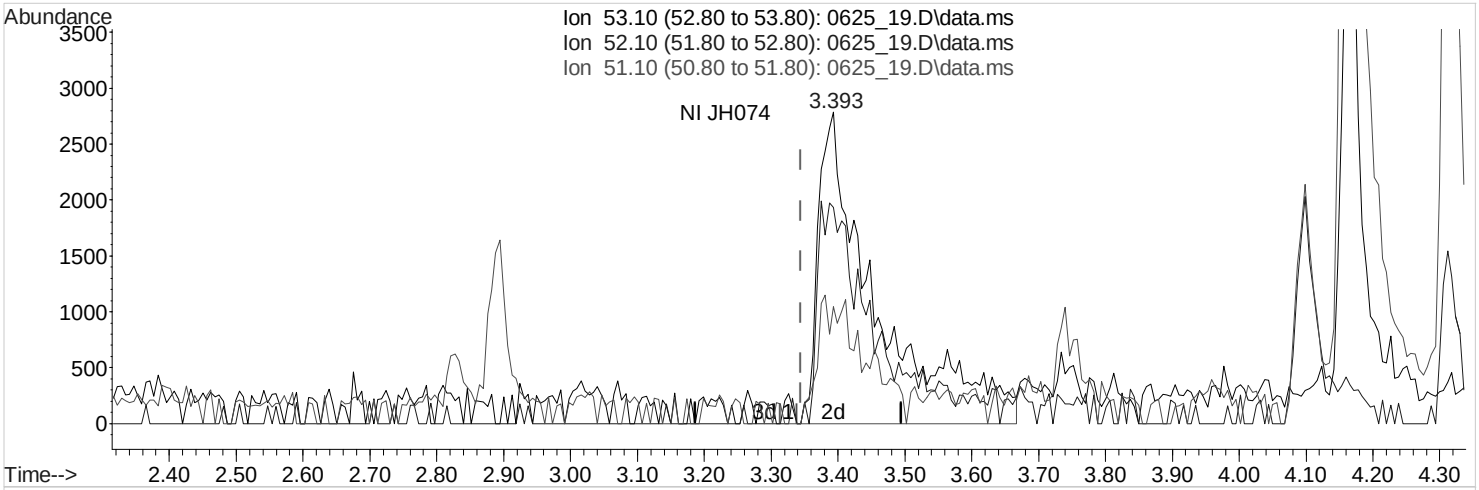
response 228

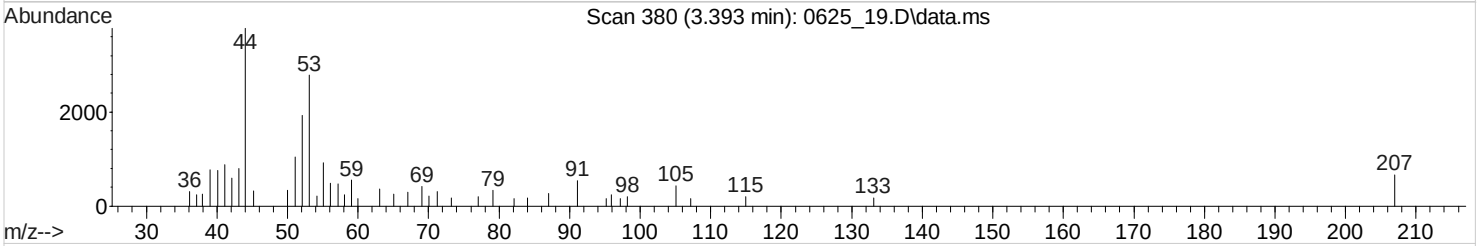
Ion	Exp%	Act%
53.10	100	100
52.10	81.40	0.00#
51.10	36.30	86.84#
0.00	0.00	0.00

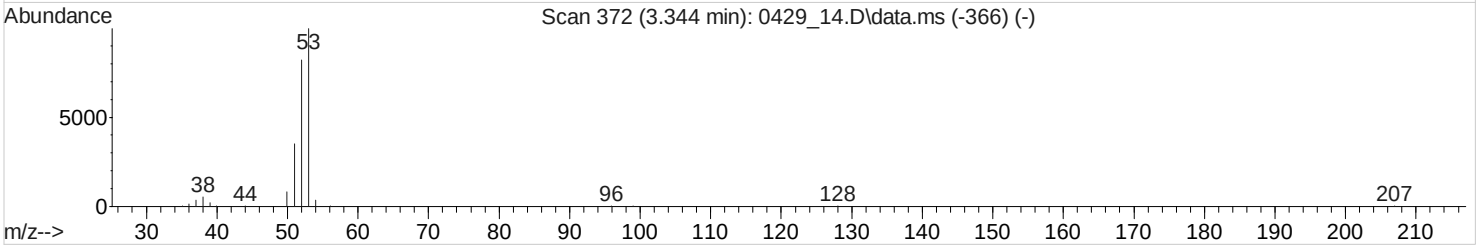
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_19.D
Acq On : 25 Jun 2019 11:56 pm
Operator : 605
Sample : STD VMS 1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 19 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:21:33 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration







TIC: 0625_19.D\data.ms

(24) ACRYLONITRILE (T,M)

3.393min (+0.049) 5.6281372 ppb m

response 16759

Ion	Exp%	Act%
53.10	100	100
52.10	81.40	0.00#
51.10	36.30	1.18#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_20.D
Acq On : 26 Jun 2019 12:17 am
Operator : 605
Sample : STD VMS 2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 20 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:03 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.318	96	233980	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	109449	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.943	152	121968	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	88704	16.6169531	ppb		0.00
Spiked Amount 16.000			Recovery = 103.86%				
60) TOLUENE-D8	5.230	98	284596	18.0494689	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 112.81%				
79) 4-BROMOFLUOROBENZENE	7.098	95	118048	17.9127911	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 111.95%				
Target Compounds							Qvalue
4) PROPENE	1.550	41	7082	1.9071880	ppb		93
5) DICHLORODIFLUOROMETHANE	1.580	85	12256	1.8683200	ppb		98
6) CHLOROMETHANE	1.750	50	15132	2.1752929	ppb		97
7) VINYL CHLORIDE	1.805	62	13723	1.9928984	ppb	#	88
8) 1,3-BUTADIENE	1.817	39	14000	2.3967395	ppb		91
9) BROMOMETHANE	2.042	94	7890	2.8744785	ppb	#	96
10) CHLOROETHANE	2.128	64	8714	2.1863021	ppb		95
11) TRICHLOROFLUOROMETHANE	2.219	101	17932	1.8101785	ppb	#	95
12) DICHLOROFLUOROMETHANE	2.249	67	20985	1.9384639	ppb	#	87
13) ETHYL ETHER	2.413	59	8288	1.9064810	ppb		95
14) ACROLEIN	2.766	56	5667	9.2538809	ppb		97
15) ETHANOL	2.511	45	6371	67.0051405	ppb	#	82
16) 1,1-DICHLOROETHENE	2.547	96	9998	2.1010811	ppb		90
17) 1,1,2-TRICHLOROTRIFLUO...	2.559	101	10128	1.7932630	ppb	#	95
18) ACETONE	2.912	43	20791	8.0593902	ppb		90
19) IODOMETHANE	2.645	142	72991	8.3417215	ppb		98
20) CARBON DISULFIDE	2.584	76	28437	1.9625210	ppb		96
21) ALLYL CHLORIDE	2.827	76	28926	9.8325548	ppb		91
22) METHYLENE CHLORIDE	2.894	84	12702	2.2914012	ppb		97
23) METHYL ACETATE	2.973	43	70356	11.9806212	ppb	#	83
24) ACRYLONITRILE	3.369	53	29708m	9.7890294	ppb		
25) n-HEXANE	3.016	56	8410	1.8576663	ppb	#	1
26) TRANS-1,2-DICHLOROETHENE	2.985	96	10406	1.9591254	ppb		94
27) METHYL TERT-BUTYL ETHER	3.022	73	29075	1.8016631	ppb		92
28) TERT-BUTYL ALCOHOL	3.064	59	10043	8.6888119	ppb	#	100
29) 1,1-DICHLOROETHANE	3.326	63	19633	1.9256069	ppb		95
30) VINYL ACETATE	3.442	43	111897	8.5201469	ppb		98
31) DI-ISOPROPYL ETHER	3.223	45	39035	2.0195706	ppb		95
32) ETHYL TERT-BUTYL ETHER	3.417	59	34618	1.9120637	ppb		98
33) 2,2-DICHLOROPROPANE	3.679	77	17672	2.0072975	ppb		95
34) CIS-1,2-DICHLOROETHENE	3.624	96	12072	1.9604636	ppb		96
35) 2-BUTANONE (MEK)	3.928	43	34722	8.5280972	ppb		94
36) BROMOCHLOROMETHANE	3.740	130	6801	1.7576575	ppb		77
37) TETRAHYDROFURAN	3.874	42	5909	2.1501981	ppb	#	77
38) CHLOROFORM	3.758	83	19739	1.8715861	ppb		94
39) CYCLOHEXANE	3.740	84	14081	1.8041221	ppb		94
40) 1,1,1-TRICHLOROETHANE	3.886	97	19341	2.0496898	ppb		96

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_20.D
Acq On : 26 Jun 2019 12:17 am
Operator : 605
Sample : STD VMS 2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 20 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:03 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) CARBON TETRACHLORIDE	3.849	117	16058	1.7756376	ppb		96
42) 1,1-DICHLOROPROPENE	3.959	75	13495	1.7824578	ppb	#	92
43) 2,2,4-TRIMETHYLPENTANE	3.989	57	24121	1.6504239	ppb		97
44) n-Heptane	4.038	71	6123	1.8041617	ppb		94
45) BENZENE	4.093	78	44620	1.9859735	ppb		97
46) TERT-AMYL METHYL ETHER	4.123	73	31735	1.9492505	ppb		96
48) 1,2-DICHLOROETHANE	4.208	62	14701	1.9363034	ppb	#	87
49) T-AMYL ALCOHOL	4.220	59	9329	7.9332800	ppb		95
50) TRICHLOROETHENE	4.421	130	12102	1.9514115	ppb	#	98
51) METHYL CYCLOHEXANE	4.409	83	15989	1.7550198	ppb		94
52) TERT-AMYL ETHYL ETHER	4.506	59	24878	1.8304150	ppb		97
53) 1,2-DICHLOROPROPANE	4.719	62	7468	1.8778957	ppb	#	95
54) DIBROMOMETHANE	4.677	93	6741	1.9133138	ppb		93
55) BROMODICHLOROMETHANE	4.756	83	16154	2.1004513	ppb		98
56) 2-CHLOROETHYL VINYL ETHER	5.066	63	34607	7.8243709	ppb		98
57) CIS-1,3-DICHLOROPROPENE	5.127	75	15758	1.7519462	ppb		95
59) 4-METHYL-2-PENTANONE (...	5.473	43	83702	8.7260178	ppb		98
61) TOLUENE	5.267	91	49319	1.9375091	ppb		100
62) TRANS-1,3-DICHLOROPROPENE	5.547	75	13771	1.6409698	ppb	#	93
63) 1,1,2-TRICHLOROETHANE	5.632	97	10882	2.1189153	ppb		89
64) TETRACHLOROETHENE	5.522	164	10793	1.8939971	ppb		98
65) 1,3-DICHLOROPROPANE	5.814	76	14498	1.7986698	ppb		96
66) 2-HEXANONE	6.027	58	30318	8.0517424	ppb		94
67) CHLORODIBROMOMETHANE	5.759	129	11974	1.8759899	ppb		94
68) 1,2-DIBROMOETHANE	5.936	107	10113	1.7089444	ppb		97
69) CHLOROBENZENE	6.258	112	30617	1.8833022	ppb		94
70) 1,1,1,2-TETRACHLOROETHANE	6.295	133	11735	2.0087215	ppb	#	14
71) ETHYLBENZENE	6.258	106	17132	1.8568796	ppb		96
72) M&P-XYLENE	6.356	106	43592	3.8504082	ppb		96
73) O-XYLENE	6.660	106	21955	2.0248847	ppb		88
76) STYRENE	6.715	104	25998	1.4704816	ppb		100
77) BROMOFORM	6.745	173	9151	1.7942844	ppb		96
78) ISOPROPYLBENZENE	6.873	105	52308	1.8192608	ppb		97
81) BROMOBENZENE	7.189	77	19914	1.8350912	ppb		96
82) 1,1,2,2-TETRACHLOROETHANE	7.232	83	14494	1.9724953	ppb		97
83) 1,2,3-TRICHLOROPROPANE	7.341	110	4673	2.0327641	ppb		72
84) TRANS-1,4-DICHLORO-2-B...	7.396	53	3194	1.5615966	ppb	#	84
85) N-PROPYLBENZENE	7.177	91	57838	1.7643848	ppb		97
86) 4-ETHYLTOLUENE	7.256	105	47891	1.7370588	ppb		97
87) 2-CHLOROTOLUENE	7.311	91	36026	1.7547060	ppb		95
88) 4-CHLOROTOLUENE	7.438	91	31846	1.6615394	ppb		98
89) 1,3,5-TRIMETHYLBENZENE	7.311	105	40795	1.7739807	ppb		96
90) TERT-BUTYLBENZENE	7.554	119	36636	1.9008445	ppb		96
91) 1,2,4-TRIMETHYLBENZENE	7.615	105	40795	1.8247489	ppb		95
92) SEC-BUTYLBENZENE	7.694	105	51858	1.8760219	ppb		100
93) 1,3-DICHLOROBENZENE	7.895	146	20166	1.6502081	ppb		97
94) P-ISOPROPYLTOLUENE	7.791	119	46971	1.8946651	ppb		100
95) DICYCLOPENTADIENE	7.797	66	52963	1.9182479	ppb		98
96) 1,4-DICHLOROBENZENE	7.956	146	20748	1.6630208	ppb	#	1
97) 1,2,3-TRIMETHYLBENZENE	7.956	105	32017	1.8005716	ppb		95
98) 1,2-DICHLOROBENZENE	8.290	146	20292	1.8109106	ppb		97
99) N-BUTYLBENZENE	8.138	91	32966	1.6368621	ppb		95
100) 1,2-DIBROMO-3-CHLOROPR...	8.935	157	4210	2.0256779	ppb		92
101) 1,2,4-TRICHLOROBENZENE	9.495	180	10081	1.7450470	ppb		97

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_20.D
Acq On : 26 Jun 2019 12:17 am
Operator : 605
Sample : STD VMS 2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 20 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:03 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

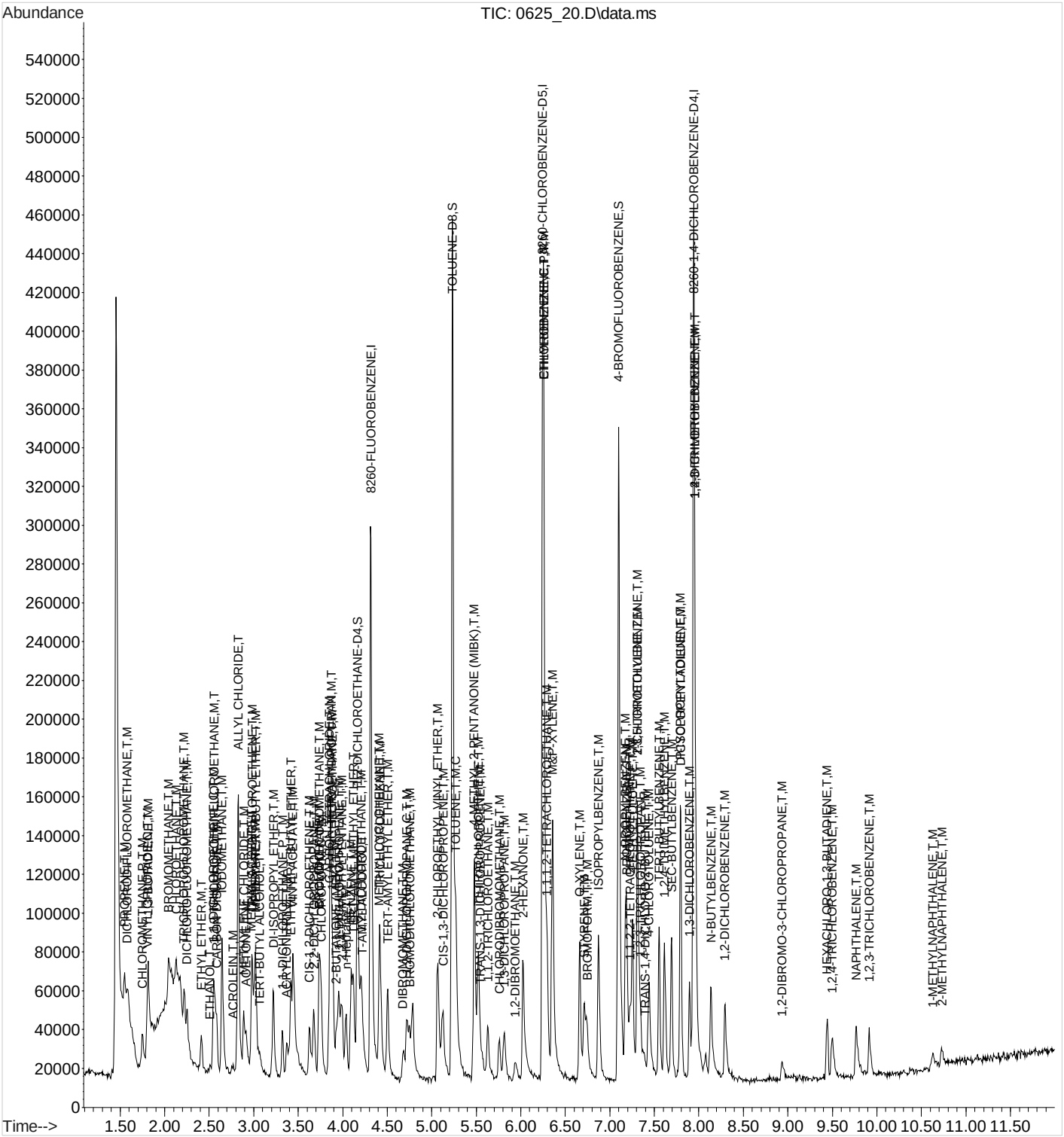
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	5801	1.9173781	ppb		97
103) NAPHTHALENE	9.768	128	30311	1.7200524	ppb		100
104) 1,2,3-TRICHLOROBENZENE	9.915	180	8801	1.8912704	ppb		98
105) 1-METHYLNAPHTHALENE	10.626	142	6845	1.7923761	ppb	#	73
106) 2-METHYLNAPHTHALENE	10.730	142	5098	1.7216383	ppb	#	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_20.D
Acq On : 26 Jun 2019 12:17 am
Operator : 605
Sample : STD VMS 2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 20 Sample Multiplier: 1
InstName : VOCMS28

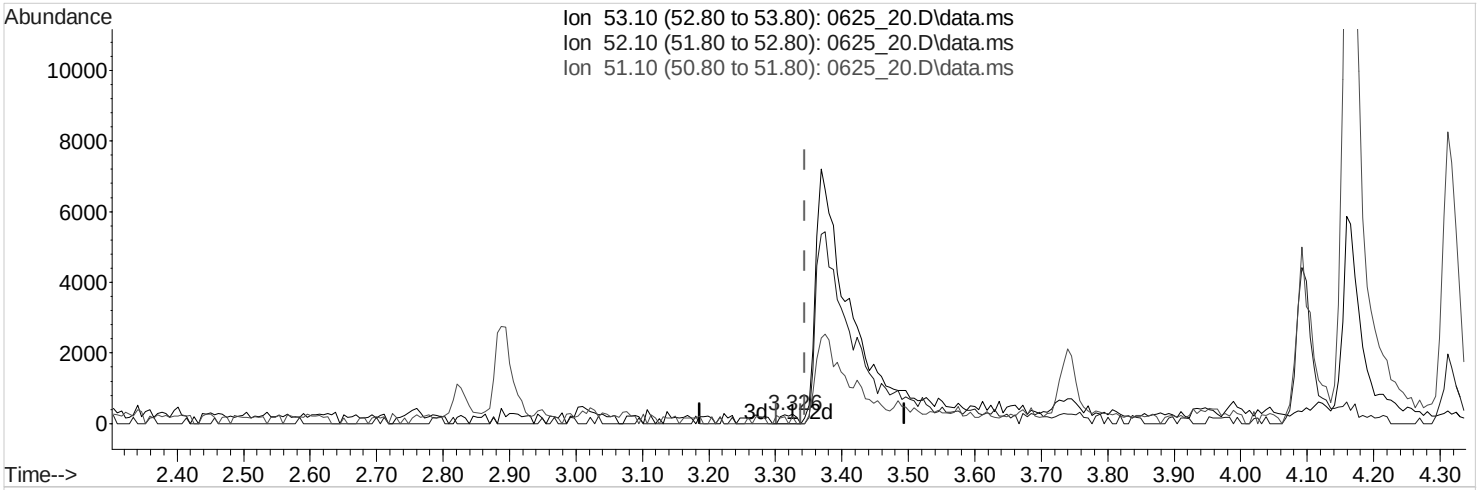
Quant Time: Jun 26 11:27:03 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

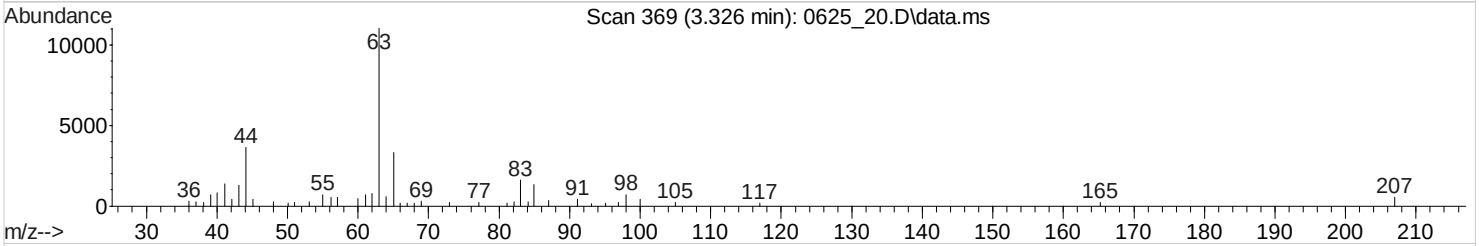


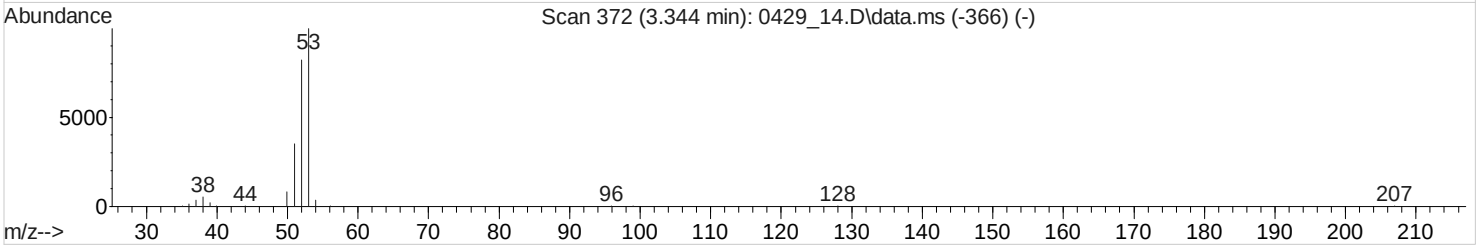
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_20.D
Acq On : 26 Jun 2019 12:17 am
Operator : 605
Sample : STD VMS 2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 20 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:21:38 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration







TIC: 0625_20.D\data.ms

(24) ACRYLONITRILE (T,M)

3.326min (-0.018) 0.1331213 ppb

Qvalue = 18

response 404

Ion	Exp%	Act%
53.10	100	100
52.10	81.40	0.00#
51.10	36.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_20.D
Acq On : 26 Jun 2019 12:17 am
Operator : 605
Sample : STD VMS 2 ppb 19F25726
Misc : water IS/SURR 19E01967
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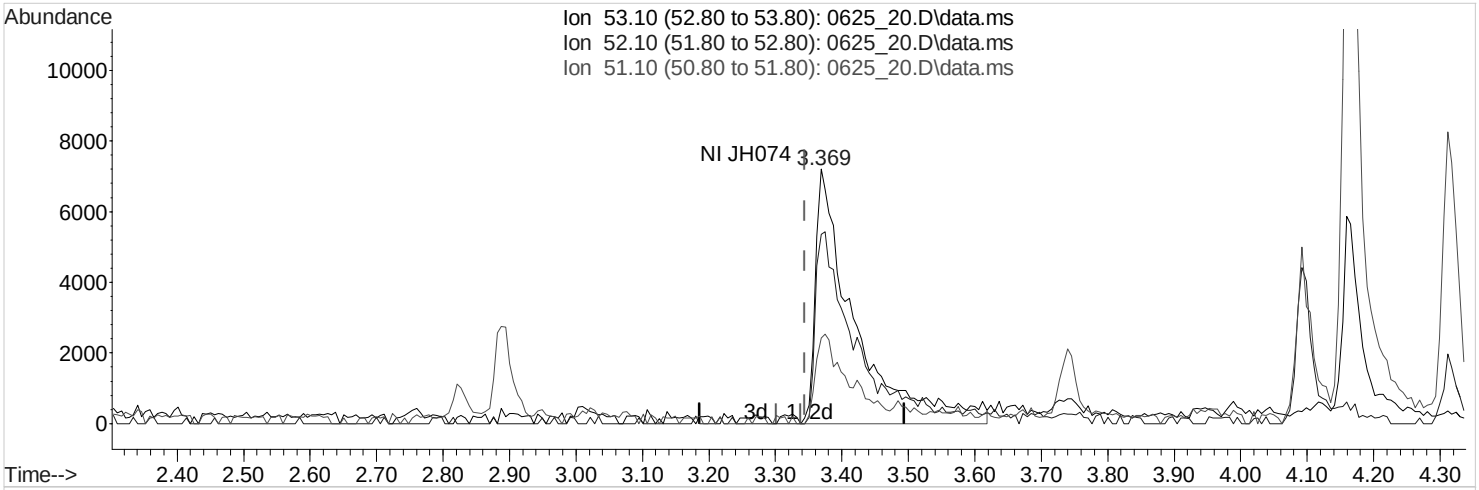
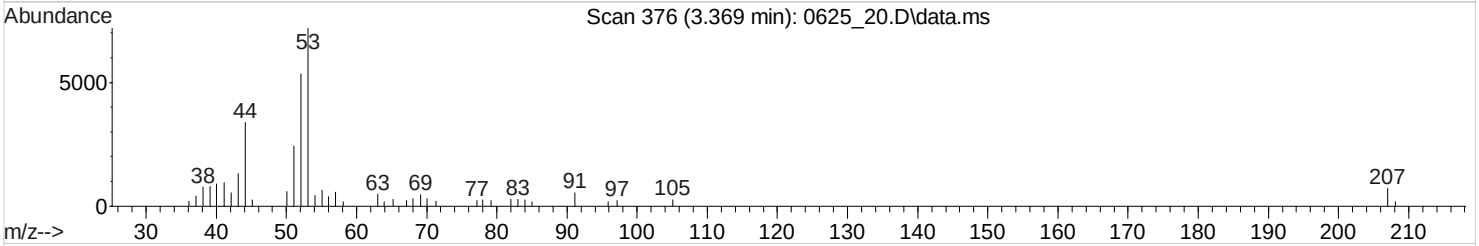
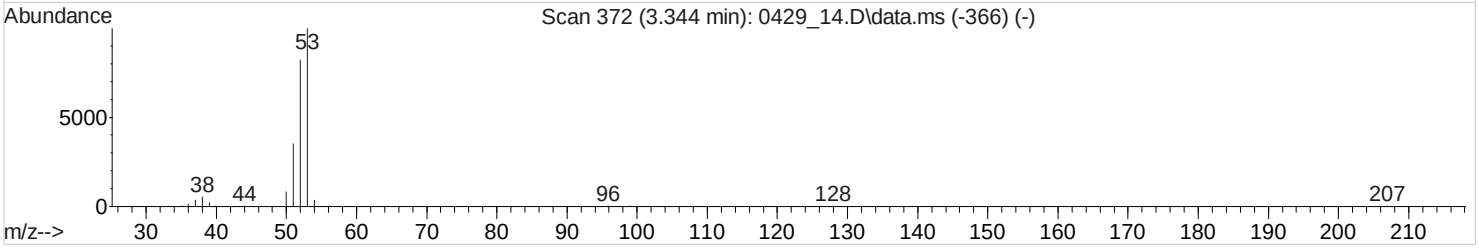
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration







TIC: 0625_20.D\data.ms

(24) ACRYLONITRILE (T,M)

3.369min (+0.024) 9.7890294 ppb m

response 29708

Ion	Exp%	Act%
53.10	100	100
52.10	81.40	0.00#
51.10	36.30	0.00#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_21.D
Acq On : 26 Jun 2019 12:38 am
Operator : 605
Sample : STD VMS 5.0 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 21 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:34 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	234524	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	113249	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	121880	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	91009	17.0092035	ppb		0.00
Spiked Amount 16.000			Recovery = 106.31%				
60) TOLUENE-D8	5.230	98	298426	18.2915166	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 114.32%				
79) 4-BROMOFLUOROBENZENE	7.098	95	124630	18.2769887	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 114.23%				
Target Compounds							Qvalue
4) PROPENE	1.550	41	19026	5.1118314	ppb		97
5) DICHLORODIFLUOROMETHANE	1.586	85	32880	5.0006420	ppb		97
6) CHLOROMETHANE	1.745	50	36239	5.1974348	ppb		98
7) VINYL CHLORIDE	1.805	62	33370	4.8348582	ppb		96
8) 1,3-BUTADIENE	1.818	39	30711	5.2453950	ppb		98
9) BROMOMETHANE	2.043	94	17007	6.1816045	ppb		98
10) CHLOROETHANE	2.128	64	20464	5.1224130	ppb		97
11) TRICHLOROFLUOROMETHANE	2.219	101	47941	4.8282663	ppb	#	99
12) DICHLOROFLUOROMETHANE	2.249	67	52924	4.8774502	ppb		97
13) ETHYL ETHER	2.414	59	20810	4.7758014	ppb		97
14) ACROLEIN	2.760	56	15411	25.1068921	ppb		92
15) ETHANOL	2.511	45	19656	206.2467456	ppb	#	98
16) 1,1-DICHLOROETHENE	2.548	96	23965	5.0245660	ppb		95
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	26363	4.6570036	ppb		96
18) ACETONE	2.913	43	57568	22.2638051	ppb		96
19) IODOMETHANE	2.645	142	194942	22.2271222	ppb		100
20) CARBON DISULFIDE	2.584	76	70764	4.8723037	ppb		98
21) ALLYL CHLORIDE	2.821	76	70599	23.9424168	ppb		99
22) METHYLENE CHLORIDE	2.888	84	29279	5.2695886	ppb		98
23) METHYL ACETATE	2.973	43	110344	18.7464209	ppb	#	93
24) ACRYLONITRILE	3.357	53	64626	21.2454013	ppb		97
25) n-HEXANE	3.010	56	21685	4.7788409	ppb	#	1
26) TRANS-1,2-DICHLOROETHENE	2.979	96	26129	4.9078655	ppb		96
27) METHYL TERT-BUTYL ETHER	3.022	73	74869	4.6285752	ppb		97
28) TERT-BUTYL ALCOHOL	3.065	59	26661	23.0125535	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	48725	4.7678685	ppb		99
30) VINYL ACETATE	3.436	43	278091	21.1255010	ppb		99
31) DI-ISOPROPYL ETHER	3.217	45	92374	4.7681077	ppb		97
32) ETHYL TERT-BUTYL ETHER	3.418	59	85336	4.7024491	ppb		99
33) 2,2-DICHLOROPROPANE	3.673	77	42850	4.8558840	ppb		98
34) CIS-1,2-DICHLOROETHENE	3.624	96	31107	5.0399837	ppb		89
35) 2-BUTANONE (MEK)	3.922	43	76940	18.8534588	ppb		97
36) BROMOCHLOROMETHANE	3.740	130	18400	4.7442847	ppb		100
37) TETRAHYDROFURAN	3.862	42	14488	5.2597410	ppb		96
38) CHLOROFORM	3.758	83	51260	4.8490283	ppb		95
39) CYCLOHEXANE	3.740	84	37569	4.8023466	ppb		95
40) 1,1,1-TRICHLOROETHANE	3.886	97	45313	4.7909703	ppb		97

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_21.D
Acq On : 26 Jun 2019 12:38 am
Operator : 605
Sample : STD VMS 5.0 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 21 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:34 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) CARBON TETRACHLORIDE	3.849	117	42663	4.7065830	ppb		98
42) 1,1-DICHLOROPROPENE	3.953	75	36063	4.7522541	ppb		98
43) 2,2,4-TRIMETHYLPENTANE	3.989	57	64546	4.4061673	ppb		98
44) n-Heptane	4.032	71	15388	4.5236065	ppb		92
45) BENZENE	4.093	78	106339	4.7220207	ppb		96
46) TERT-AMYL METHYL ETHER	4.123	73	76107	4.6638567	ppb		97
48) 1,2-DICHLOROETHANE	4.202	62	36472	4.7926703	ppb	#	91
49) T-AMYL ALCOHOL	4.214	59	24977	21.1909004	ppb		100
50) TRICHLOROETHENE	4.421	130	27125	4.3636801	ppb	#	50
51) METHYL CYCLOHEXANE	4.415	83	43316	4.7435174	ppb		99
52) TERT-AMYL ETHYL ETHER	4.506	59	64917	4.7652313	ppb		97
53) 1,2-DICHLOROPROPANE	4.719	62	18805	4.7177176	ppb		99
54) DIBROMOMETHANE	4.677	93	15642	4.4294072	ppb		94
55) BROMODICHLOROMETHANE	4.744	83	37386	4.8499023	ppb		98
56) 2-CHLOROETHYL VINYL ETHER	5.054	63	95569	21.5572799	ppb		97
57) CIS-1,3-DICHLOROPROPENE	5.121	75	41318	4.5830058	ppb		100
59) 4-METHYL-2-PENTANONE (...	5.474	43	216706	21.8337643	ppb		99
61) TOLUENE	5.267	91	127115	4.8261823	ppb		98
62) TRANS-1,3-DICHLOROPROPENE	5.529	75	37088	4.2711612	ppb		95
63) 1,1,2-TRICHLOROETHANE	5.626	97	24679	4.6441887	ppb		100
64) TETRACHLOROETHENE	5.522	164	26863	4.5558463	ppb		100
65) 1,3-DICHLOROPROPANE	5.808	76	35928	4.3077829	ppb		96
66) 2-HEXANONE	6.015	58	84733	21.7480001	ppb		97
67) CHLORODIBROMOMETHANE	5.754	129	29920	4.5303343	ppb		99
68) 1,2-DIBROMOETHANE	5.930	107	27588	4.5055266	ppb		98
69) CHLOROBENZENE	6.259	112	73987	4.3983544	ppb		96
70) 1,1,1,2-TETRACHLOROETHANE	6.289	133	27632	4.5711595	ppb	#	14
71) ETHYLBENZENE	6.259	106	41688	4.3668086	ppb		98
72) M&P-XYLENE	6.350	106	103547	8.8392400	ppb		99
73) O-XYLENE	6.660	106	52421	4.6725029	ppb		98
76) STYRENE	6.703	104	72687	3.9733226	ppb		97
77) BROMOFORM	6.739	173	23899	4.5287660	ppb		97
78) ISOPROPYLBENZENE	6.873	105	133167	4.4761113	ppb		99
81) BROMOBENZENE	7.189	77	49779	4.5904871	ppb		98
82) 1,1,2,2-TETRACHLOROETHANE	7.226	83	34699	4.7256128	ppb		96
83) 1,2,3-TRICHLOROPROPANE	7.341	110	10845	4.7210023	ppb		92
84) TRANS-1,4-DICHLORO-2-B...	7.366	53	10806	5.2870372	ppb	#	78
85) N-PROPYLBENZENE	7.171	91	153654	4.6906970	ppb		100
86) 4-ETHYLTOLUENE	7.250	105	127075	4.6124768	ppb		99
87) 2-CHLOROTOLUENE	7.311	91	95082	4.6344702	ppb		99
88) 4-CHLOROTOLUENE	7.433	91	86427	4.5125150	ppb		97
89) 1,3,5-TRIMETHYLBENZENE	7.311	105	110414	4.8048469	ppb		99
90) TERT-BUTYLBENZENE	7.554	119	92205	4.7874745	ppb		96
91) 1,2,4-TRIMETHYLBENZENE	7.609	105	102228	4.5759312	ppb		100
92) SEC-BUTYLBENZENE	7.688	105	130100	4.7099131	ppb		100
93) 1,3-DICHLOROBENZENE	7.889	146	54535	4.4658870	ppb		100
94) P-ISOPROPYLTOLUENE	7.792	119	115549	4.6642552	ppb		98
95) DICYCLOPENTADIENE	7.798	66	131131	4.7528157	ppb		99
96) 1,4-DICHLOROBENZENE	7.956	146	59619	4.7821102	ppb	#	1
97) 1,2,3-TRIMETHYLBENZENE	7.950	105	84784	4.7715241	ppb		99
98) 1,2-DICHLOROBENZENE	8.290	146	53017	4.7347905	ppb		97
99) N-BUTYLBENZENE	8.132	91	88284	4.3867340	ppb		98
100) 1,2-DIBROMO-3-CHLOROPR...	8.935	157	9623	4.6335327	ppb		91
101) 1,2,4-TRICHLOROBENZENE	9.489	180	26044	4.5115384	ppb		96

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_21.D
Acq On : 26 Jun 2019 12:38 am
Operator : 605
Sample : STD VMS 5.0 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 21 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:34 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	14484	4.7907872 ppb	99
103) NAPHTHALENE	9.757	128	83746	4.7557492 ppb	97
104) 1,2,3-TRICHLOROBENZENE	9.909	180	21739	4.6749248 ppb	96
105) 1-METHYLNAPHTHALENE	10.614	142	16983	4.4502414 ppb	99
106) 2-METHYLNAPHTHALENE	10.724	142	12545	4.2396129 ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_21.D
Acq On : 26 Jun 2019 12:38 am
Operator : 605
Sample : STD VMS 5.0 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 21 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:27:34 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
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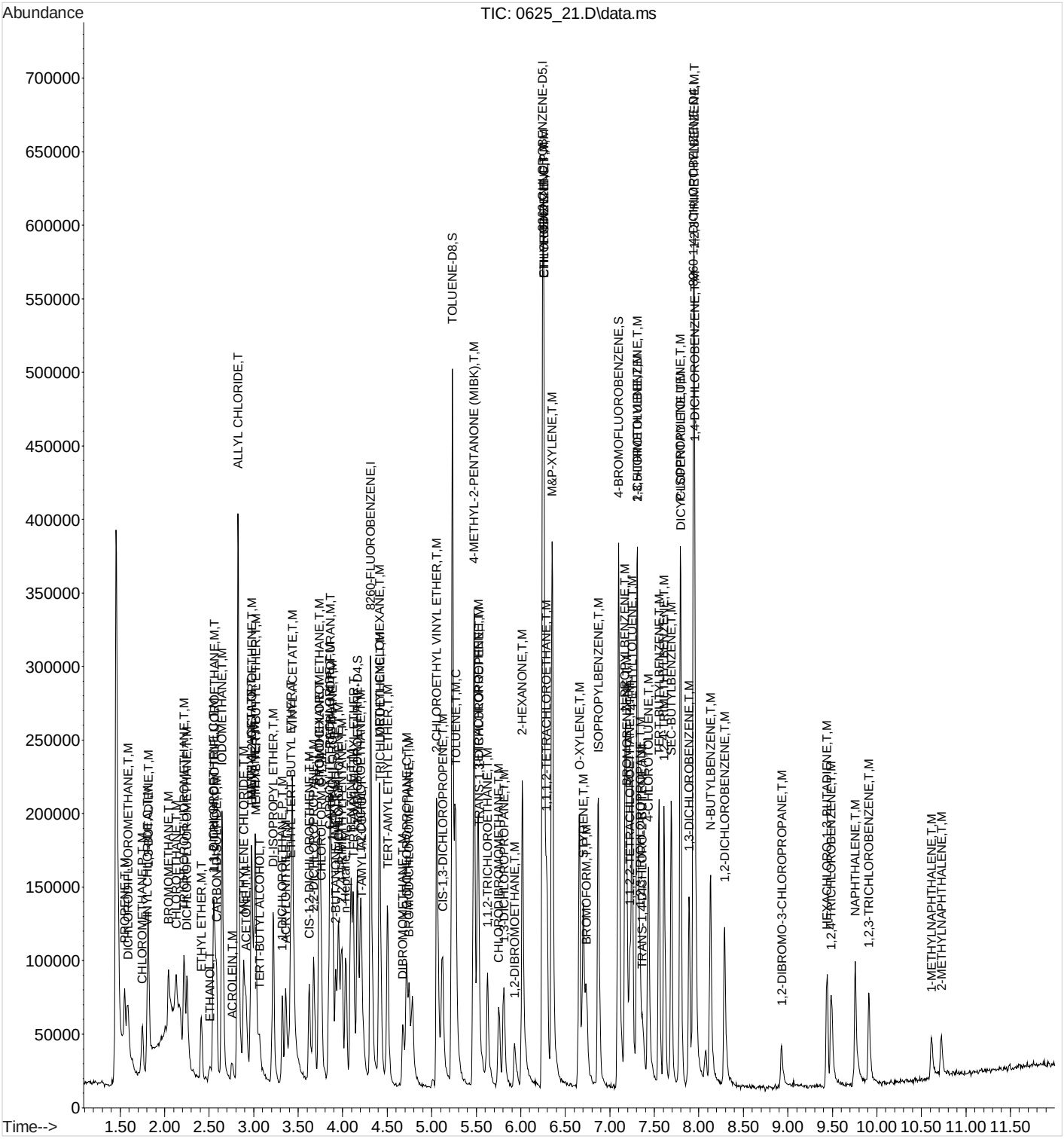

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_22.D
Acq On : 26 Jun 2019 12:59 am
Operator : 605
Sample : MSTD VMS 25 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 22 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:28:09 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.311	96	243046	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	112886	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.937	152	128426	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.159	65	110900	20.0000000	ppb		0.00
Spiked Amount 16.000			Recovery = 125.00%				
60) TOLUENE-D8	5.230	98	325254	20.0000000	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 125.00%#				
79) 4-BROMOFLUOROBENZENE	7.098	95	135942	20.0000000	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 125.00%#				
Target Compounds							Qvalue
4) PROPENE	1.550	41	96430	25.0000000	ppb		100
5) DICHLORODIFLUOROMETHANE	1.586	85	170352	25.0000000	ppb		100
6) CHLOROMETHANE	1.744	50	180646	25.0000000	ppb		100
7) VINYL CHLORIDE	1.805	62	178819	25.0000000	ppb		100
8) 1,3-BUTADIENE	1.811	39	151690	25.0000000	ppb		100
9) BROMOMETHANE	2.042	94	71280	25.0000000	ppb		100
10) CHLOROETHANE	2.121	64	103504	25.0000000	ppb		100
11) TRICHLOROFLUOROMETHANE	2.219	101	257251	25.0000000	ppb		100
12) DICHLOROFLUOROMETHANE	2.249	67	281126	25.0000000	ppb		100
13) ETHYL ETHER	2.407	59	112893	25.0000000	ppb		100
14) ACROLEIN	2.748	56	79515	125.0000000	ppb		100
15) ETHANOL	2.505	45	123589	1251.3263620	ppb		100
16) 1,1-DICHLOROETHENE	2.547	96	123572	25.0000000	ppb		100
17) 1,1,2-TRICHLOROTRIFLUO...	2.559	101	146666	25.0000000	ppb		100
18) ACETONE	2.906	43	334960	125.0000000	ppb		100
19) IODOMETHANE	2.645	142	1136144	125.0000000	ppb		100
20) CARBON DISULFIDE	2.584	76	376287	25.0000000	ppb		100
21) ALLYL CHLORIDE	2.821	76	381981	125.0000000	ppb		100
22) METHYLENE CHLORIDE	2.888	84	143953	25.0000000	ppb		100
23) METHYL ACETATE	2.967	43	762503	125.0000000	ppb	#	100
24) ACRYLONITRILE	3.344	53	394052	125.0000000	ppb		100
25) n-HEXANE	3.010	56	117565	25.0000000	ppb		100
26) TRANS-1,2-DICHLOROETHENE	2.979	96	137934	25.0000000	ppb		100
27) METHYL TERT-BUTYL ETHER	3.022	73	419079	25.0000000	ppb		100
28) TERT-BUTYL ALCOHOL	3.058	59	150080	125.0000000	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	264770	25.0000000	ppb		100
30) VINYL ACETATE	3.429	43	1705262	125.0000000	ppb		100
31) DI-ISOPROPYL ETHER	3.216	45	501932	25.0000000	ppb		100
32) ETHYL TERT-BUTYL ETHER	3.417	59	470164	25.0000000	ppb		100
33) 2,2-DICHLOROPROPANE	3.673	77	228625	25.0000000	ppb		100
34) CIS-1,2-DICHLOROETHENE	3.618	96	159908	25.0000000	ppb		100
35) 2-BUTANONE (MEK)	3.910	43	536782	126.9216219	ppb		99
36) BROMOCHLOROMETHANE	3.734	130	100482	25.0000000	ppb		100
37) TETRAHYDROFURAN	3.855	42	71365	25.0000000	ppb		100
38) CHLOROFORM	3.752	83	273883	25.0000000	ppb		100
39) CYCLOHEXANE	3.740	84	202683	25.0000000	ppb		100
40) 1,1,1-TRICHLOROETHANE	3.880	97	245042	25.0000000	ppb		100

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_22.D
Acq On : 26 Jun 2019 12:59 am
Operator : 605
Sample : MSTD VMS 25 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 22 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:28:09 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.849	117	234848	25.0000000	ppb		100
42)	1,1-DICHLOROPROPENE	3.946	75	196609	25.0000000	ppb		100
43)	2,2,4-TRIMETHYLPENTANE	3.989	57	379533	25.0000000	ppb		100
44)	n-Heptane	4.032	71	88133	25.0000000	ppb		100
45)	BENZENE	4.086	78	583453	25.0000000	ppb		100
46)	TERT-AMYL METHYL ETHER	4.117	73	422786	25.0000000	ppb		100
48)	1,2-DICHLOROETHANE	4.196	62	197162	25.0000000	ppb		100
49)	T-AMYL ALCOHOL	4.208	59	152687	125.0000000	ppb		100
50)	TRICHLOROETHENE	4.415	130	161049	25.0000000	ppb	#	100
51)	METHYL CYCLOHEXANE	4.409	83	236586	25.0000000	ppb		100
52)	TERT-AMYL ETHYL ETHER	4.500	59	352952	25.0000000	ppb		100
53)	1,2-DICHLOROPROPANE	4.713	62	103272	25.0000000	ppb		100
54)	DIBROMOMETHANE	4.670	93	91493	25.0000000	ppb		100
55)	BROMODICHLOROMETHANE	4.743	83	199718	25.0000000	ppb		100
56)	2-CHLOROETHYL VINYL ETHER	5.048	63	574294	125.0000000	ppb		100
57)	CIS-1,3-DICHLOROPROPENE	5.115	75	233577	25.0000000	ppb		100
59)	4-METHYL-2-PENTANONE (...	5.467	43	1234710	124.8006763	ppb		100
61)	TOLUENE	5.261	91	656355	25.0000000	ppb		100
62)	TRANS-1,3-DICHLOROPROPENE	5.516	75	216388	25.0000000	ppb		100
63)	1,1,2-TRICHLOROETHANE	5.619	97	132423	25.0000000	ppb		100
64)	TETRACHLOROETHENE	5.516	164	146937	25.0000000	ppb		100
65)	1,3-DICHLOROPROPANE	5.802	76	207838	25.0000000	ppb		100
66)	2-HEXANONE	6.009	58	485455	125.0000000	ppb		100
67)	CHLORODIBROMOMETHANE	5.747	129	164580	25.0000000	ppb		100
68)	1,2-DIBROMOETHANE	5.924	107	152588	25.0000000	ppb		100
69)	CHLOROBENZENE	6.258	112	419190	25.0000000	ppb		100
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	150637	25.0000000	ppb	#	100
71)	ETHYLBENZENE	6.252	106	237899	25.0000000	ppb		100
72)	M&P-XYLENE	6.349	106	583846	50.0000000	ppb		100
73)	O-XYLENE	6.654	106	279577	25.0000000	ppb		100
76)	STYRENE	6.690	104	455878	25.0000000	ppb		100
77)	BROMOFORM	6.733	173	131506	25.0000000	ppb		100
78)	ISOPROPYLBENZENE	6.867	105	741381	25.0000000	ppb		100
81)	BROMOBENZENE	7.183	77	285659	25.0000000	ppb		100
82)	1,1,2,2-TETRACHLOROETHANE	7.226	83	193428	25.0000000	ppb		100
83)	1,2,3-TRICHLOROPROPANE	7.335	110	60514	25.0000000	ppb		100
84)	TRANS-1,4-DICHLORO-2-B...	7.359	53	53841	25.0000000	ppb		100
85)	N-PROPYLBENZENE	7.171	91	862913	25.0000000	ppb		100
86)	4-ETHYLTOLUENE	7.244	105	725749	25.0000000	ppb		100
87)	2-CHLOROTOLUENE	7.305	91	540454	25.0000000	ppb		100
88)	4-CHLOROTOLUENE	7.426	91	504535	25.0000000	ppb		100
89)	1,3,5-TRIMETHYLBENZENE	7.305	105	605348	25.0000000	ppb		100
90)	TERT-BUTYLBENZENE	7.554	119	507351	25.0000000	ppb		100
91)	1,2,4-TRIMETHYLBENZENE	7.609	105	588506	25.0000000	ppb		100
92)	SEC-BUTYLBENZENE	7.688	105	727654	25.0000000	ppb		100
93)	1,3-DICHLOROBENZENE	7.883	146	321683	25.0000000	ppb		100
94)	P-ISOPROPYLTOLUENE	7.791	119	652596	25.0000000	ppb		100
95)	DICYCLOPENTADIENE	7.791	66	726800	25.0000000	ppb		100
96)	1,4-DICHLOROBENZENE	7.949	146	328417	25.0000000	ppb		100
97)	1,2,3-TRIMETHYLBENZENE	7.949	105	468077	25.0000000	ppb		100
98)	1,2-DICHLOROBENZENE	8.284	146	294968	25.0000000	ppb		100
99)	N-BUTYLBENZENE	8.126	91	530153	25.0000000	ppb		100
100)	1,2-DIBROMO-3-CHLOROPR...	8.923	157	54709	25.0000000	ppb		100
101)	1,2,4-TRICHLOROBENZENE	9.476	180	151825	24.9597225	ppb		100

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_22.D
Acq On : 26 Jun 2019 12:59 am
Operator : 605
Sample : MSTD VMS 25 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 22 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:28:09 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	79642	25.0000000	ppb	100
103) NAPHTHALENE	9.750	128	463880	25.0000000	ppb	100
104) 1,2,3-TRICHLOROBENZENE	9.902	180	122497	25.0000000	ppb	100
105) 1-METHYLNAPHTHALENE	10.602	142	100529	25.0000000	ppb	100
106) 2-METHYLNAPHTHALENE	10.717	142	77948	25.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_22.D
Acq On : 26 Jun 2019 12:59 am
Operator : 605
Sample : MSTD VMS 25 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 22 Sample Multiplier: 1
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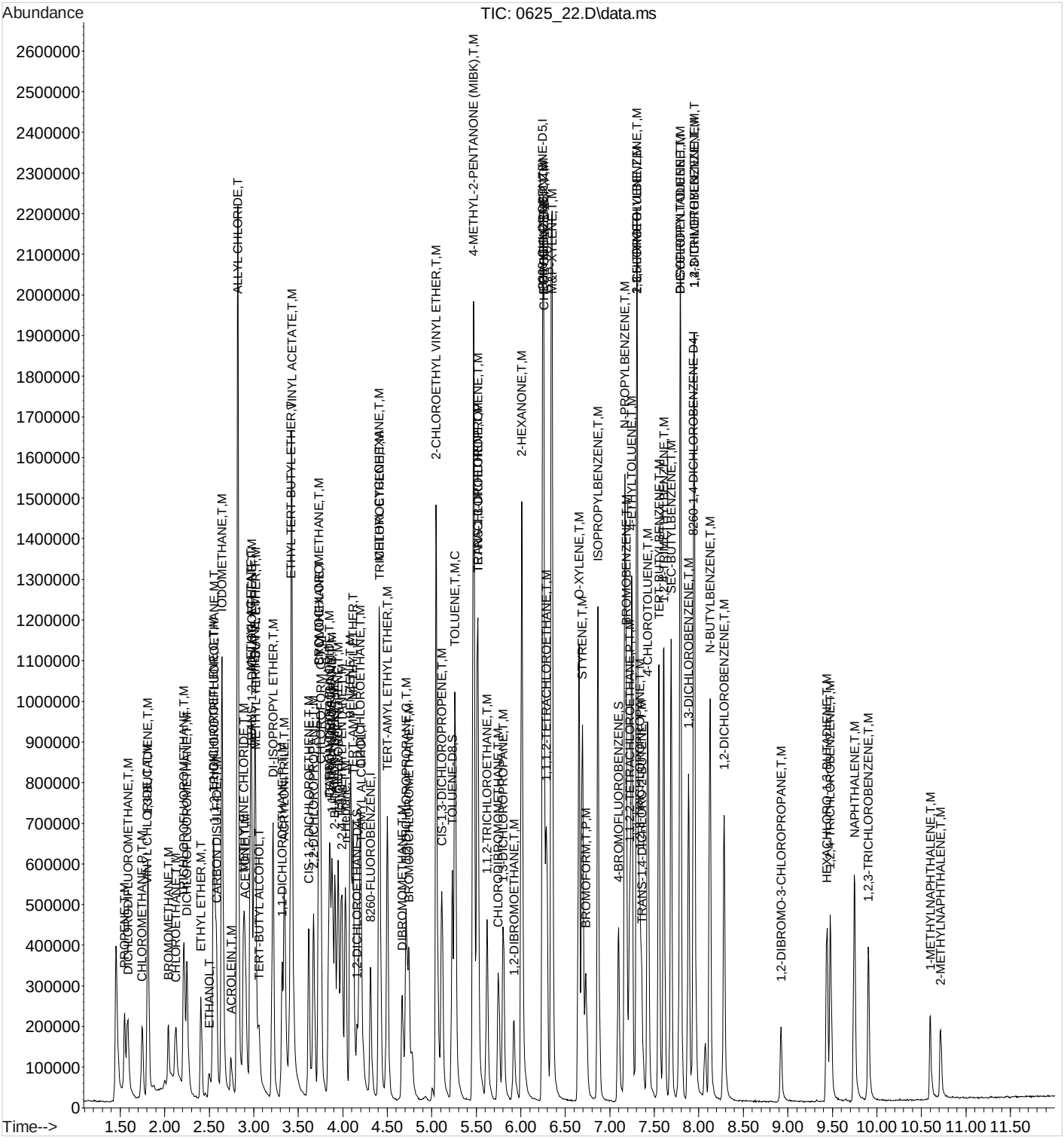
Quant Time: Jun 26 11:28:09 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_23.D
Acq On : 26 Jun 2019 1:20 am
Operator : 605
Sample : STD VMS 75 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 23 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:28:49 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	246872	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.240	82	119018	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	137844	16.0000000	ppb	#	0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.160	65	134037	23.7979633	ppb		0.00
Spiked Amount 16.000			Recovery = 148.74%				
60) TOLUENE-D8	5.230	98	344982	20.1201503	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 125.75%#				
79) 4-BROMOFLUOROBENZENE	7.098	95	149922	20.9203596	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 130.75%#				
Target Compounds							Qvalue
4) PROPENE	1.550	41	278430	71.0657775	ppb		99
5) DICHLORODIFLUOROMETHANE	1.586	85	506544	73.1857605	ppb		99
6) CHLOROMETHANE	1.744	50	553232	75.3764352	ppb		100
7) VINYL CHLORIDE	1.805	62	537664	74.0037876	ppb		99
8) 1,3-BUTADIENE	1.811	39	472487	76.6636626	ppb		95
9) BROMOMETHANE	2.036	94	220680	76.1994673	ppb		98
10) CHLOROETHANE	2.116	64	282374	67.1466304	ppb		100
11) TRICHLOROFLUOROMETHANE	2.213	101	766470	73.3322044	ppb		98
12) DICHLOROFLUOROMETHANE	2.249	67	838996	73.4540131	ppb		99
13) ETHYL ETHER	2.408	59	321907	70.1810817	ppb		99
14) ACROLEIN	2.742	56	260053	402.4755110	ppb		98
15) ETHANOL	2.499	45	406227	4049.2650393	ppb	#	97
16) 1,1-DICHLOROETHENE	2.541	96	369992	73.6934535	ppb		99
17) 1,1,2-TRICHLOROTRIFLUO...	2.554	101	436085	73.1810021	ppb		100
18) ACETONE	2.900	43	1009629	370.9330445	ppb		98
19) IODOMETHANE	2.645	142	3465660	375.3870013	ppb		100
20) CARBON DISULFIDE	2.578	76	1126346	73.6731532	ppb		99
21) ALLYL CHLORIDE	2.815	76	1122076	361.4990560	ppb		98
22) METHYLENE CHLORIDE	2.882	84	421165	72.0092361	ppb		99
23) METHYL ACETATE	2.961	43	2449931	395.4020821	ppb	#	98
24) ACRYLONITRILE	3.338	53	1256088	392.2773078	ppb		99
25) n-HEXANE	3.010	56	344601	72.1431559	ppb		94
26) TRANS-1,2-DICHLOROETHENE	2.973	96	409275	73.0298717	ppb		99
27) METHYL TERT-BUTYL ETHER	3.022	73	1216336	71.4355369	ppb		98
28) TERT-BUTYL ALCOHOL	3.059	59	479243	392.9701952	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	800433	74.4068400	ppb		99
30) VINYL ACETATE	3.424	43	4634428	334.4503698	ppb		100
31) DI-ISOPROPYL ETHER	3.217	45	1483782	72.7581864	ppb		98
32) ETHYL TERT-BUTYL ETHER	3.417	59	1370362	71.7368968	ppb		99
33) 2,2-DICHLOROPROPANE	3.673	77	691074	74.3973535	ppb		99
34) CIS-1,2-DICHLOROETHENE	3.618	96	473659	72.9041504	ppb		98
35) 2-BUTANONE (MEK)	3.910	43	1700287	395.8006889	ppb		99
36) BROMOCHLOROMETHANE	3.728	130	270904	66.3565500	ppb		95
37) TETRAHYDROFURAN	3.855	42	217925	75.1585574	ppb		95
38) CHLOROFORM	3.752	83	817157	73.4339823	ppb		98
39) CYCLOHEXANE	3.734	84	606728	73.6772428	ppb		99
40) 1,1,1-TRICHLOROETHANE	3.880	97	735934	73.9188140	ppb		99

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_23.D
Acq On : 26 Jun 2019 1:20 am
Operator : 605
Sample : STD VMS 75 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 23 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:28:49 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) CARBON TETRACHLORIDE	3.849	117	708214	74.2222803	ppb		100
42) 1,1-DICHLOROPROPENE	3.947	75	588100	73.6214618	ppb		99
43) 2,2,4-TRIMETHYLPENTANE	3.989	57	1120122	72.6394312	ppb		97
44) n-Heptane	4.032	71	264485	73.8616736	ppb		97
45) BENZENE	4.087	78	1758972	74.2009901	ppb		100
46) TERT-AMYL METHYL ETHER	4.117	73	1235331	71.9149849	ppb		99
48) 1,2-DICHLOROETHANE	4.196	62	579591	72.3527545	ppb		99
49) T-AMYL ALCOHOL	4.208	59	489801	394.7701083	ppb		91
50) TRICHLOROETHENE	4.409	130	493543	75.4264409	ppb	#	100
51) METHYL CYCLOHEXANE	4.409	83	701644	72.9935398	ppb		99
52) TERT-AMYL ETHYL ETHER	4.500	59	1045987	72.9402573	ppb		99
53) 1,2-DICHLOROPROPANE	4.713	62	307483	73.2816388	ppb		99
54) DIBROMOMETHANE	4.665	93	282315	75.9456209	ppb		97
55) BROMODICHLOROMETHANE	4.738	83	600031	73.9457352	ppb		98
56) 2-CHLOROETHYL VINYL ETHER	5.048	63	1742177	373.3229186	ppb		99
57) CIS-1,3-DICHLOROPROPENE	5.115	75	710346	74.8508117	ppb		100
59) 4-METHYL-2-PENTANONE (...	5.468	43	3806477	364.9241624	ppb		100
61) TOLUENE	5.261	91	1996085	72.1120228	ppb		100
62) TRANS-1,3-DICHLOROPROPENE	5.510	75	662085	72.5517715	ppb		99
63) 1,1,2-TRICHLOROETHANE	5.620	97	386833	69.2671850	ppb		98
64) TETRACHLOROETHENE	5.516	164	439397	70.9076943	ppb		99
65) 1,3-DICHLOROPROPANE	5.802	76	624430	71.2403838	ppb		99
66) 2-HEXANONE	6.009	58	1514965	369.9909237	ppb		99
67) CHLORODIBROMOMETHANE	5.747	129	491339	70.7899531	ppb		100
68) 1,2-DIBROMOETHANE	5.918	107	459594	71.4202580	ppb		98
69) CHLOROBENZENE	6.252	112	1272889	72.0024153	ppb		99
70) 1,1,1,2-TETRACHLOROETHANE	6.289	133	453842	71.4398397	ppb	#	100
71) ETHYLBENZENE	6.252	106	729584	72.7193737	ppb		100
72) M&P-XYLENE	6.344	106	1778432	144.4562697	ppb		99
73) O-XYLENE	6.654	106	858355	72.8002626	ppb		99
76) STYRENE	6.690	104	1412841	73.4872677	ppb		100
77) BROMOFORM	6.733	173	396586	71.5087615	ppb		99
78) ISOPROPYLBENZENE	6.867	105	2281265	72.9628401	ppb		100
81) BROMOBENZENE	7.177	77	896038	73.0606639	ppb		98
82) 1,1,2,2-TETRACHLOROETHANE	7.226	83	585018	70.4457805	ppb		100
83) 1,2,3-TRICHLOROPROPANE	7.335	110	182241	70.1447750	ppb		95
84) TRANS-1,4-DICHLORO-2-B...	7.354	53	188061	81.3562124	ppb	#	91
85) N-PROPYLBENZENE	7.171	91	2688909	72.5795365	ppb		99
86) 4-ETHYLTOLUENE	7.244	105	2226112	71.4439836	ppb		100
87) 2-CHLOROTOLUENE	7.305	91	1682881	72.5270093	ppb		98
88) 4-CHLOROTOLUENE	7.427	91	1552946	71.6919104	ppb		100
89) 1,3,5-TRIMETHYLBENZENE	7.305	105	1848254	71.1150698	ppb		100
90) TERT-BUTYLBENZENE	7.548	119	1561895	71.7048302	ppb		100
91) 1,2,4-TRIMETHYLBENZENE	7.603	105	1837140	72.7103869	ppb		100
92) SEC-BUTYLBENZENE	7.688	105	2241356	71.7448974	ppb		99
93) 1,3-DICHLOROBENZENE	7.883	146	996836	72.1773115	ppb		99
94) P-ISOPROPYLTOLUENE	7.792	119	2018854	72.0552456	ppb		100
95) DICYCLOPENTADIENE	7.792	66	2285300	73.2374810	ppb		99
96) 1,4-DICHLOROBENZENE	7.950	146	1010069	71.6358652	ppb	#	75
97) 1,2,3-TRIMETHYLBENZENE	7.950	105	1430916	71.2035974	ppb		99
98) 1,2-DICHLOROBENZENE	8.284	146	902617	71.2744218	ppb		100
99) N-BUTYLBENZENE	8.126	91	1630346	71.6281372	ppb		100
100) 1,2-DIBROMO-3-CHLOROPR...	8.923	157	180263	76.7454992	ppb		97
101) 1,2,4-TRICHLOROBENZENE	9.477	180	473746	72.5616430	ppb		98

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_23.D
Acq On : 26 Jun 2019 1:20 am
Operator : 605
Sample : STD VMS 75 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 23 Sample Multiplier: 1
InstName : VOCMS28

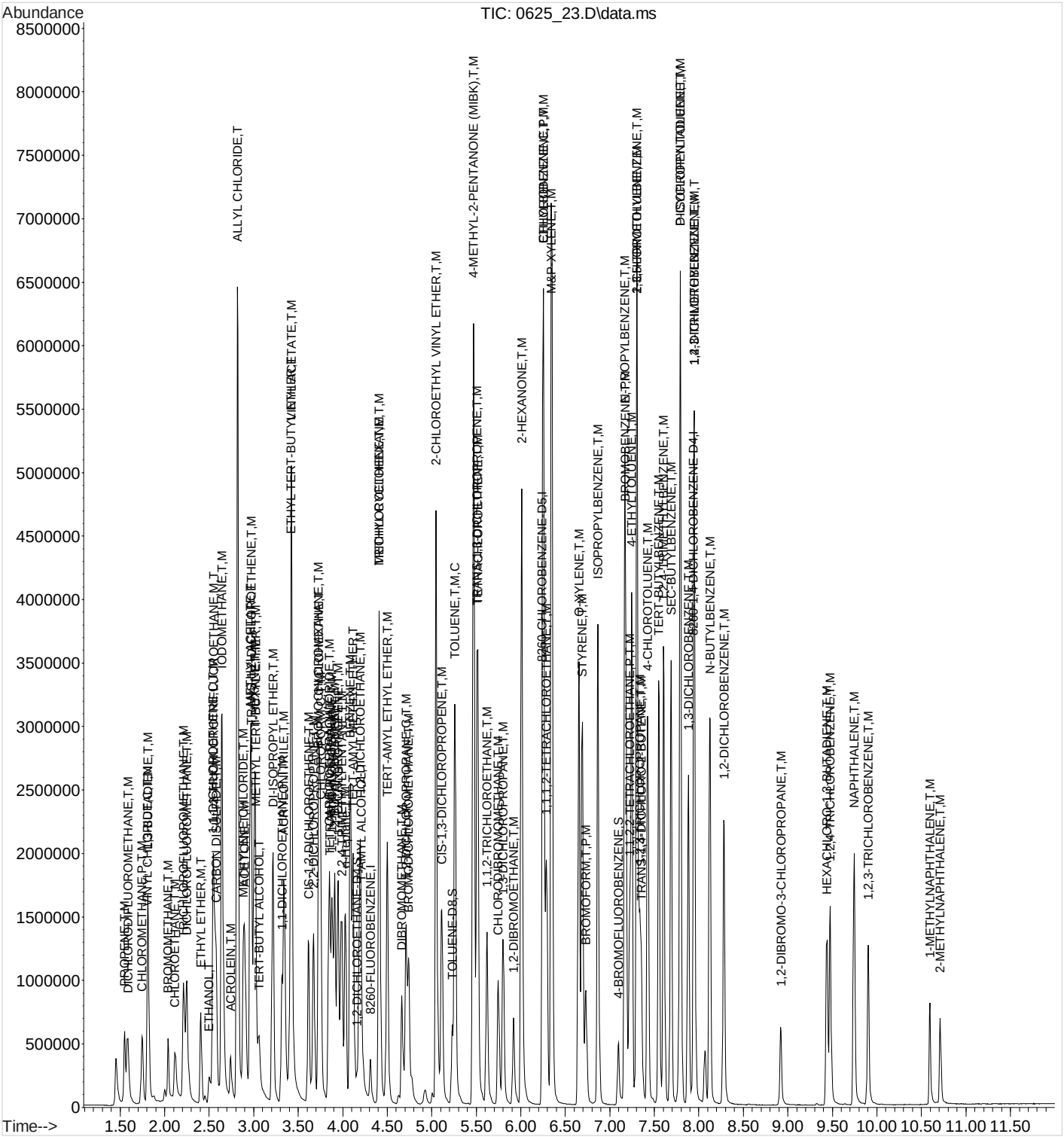
Quant Time: Jun 26 11:28:49 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	248437	72.6572935 ppb	100
103) NAPHTHALENE	9.744	128	1517084	76.1744062 ppb	99
104) 1,2,3-TRICHLOROBENZENE	9.903	180	383661	72.9503365 ppb	99
105) 1-METHYLNAPHTHALENE	10.596	142	346087	80.1860871 ppb	98
106) 2-METHYLNAPHTHALENE	10.712	142	270520	80.8350107 ppb	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_23.D
Acq On : 26 Jun 2019 1:20 am
Operator : 605
Sample : STD VMS 75 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 23 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:28:49 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_24.D
Acq On : 26 Jun 2019 1:41 am
Operator : 605
Sample : STD VMS 100 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 24 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:29:24 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	251727	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.240	82	119309	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	138034	16.0000000	ppb	#	0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.160	65	108509	18.8939555	ppb		0.00
Spiked Amount 16.000				Recovery = 118.09%			
60) TOLUENE-D8	5.230	98	360365	20.9660604	ppb		0.00
Spiked Amount 16.000	Range 90 - 115			Recovery = 131.04%#			
79) 4-BROMOFLUOROBENZENE	7.092	95	159699	22.2303047	ppb		0.00
Spiked Amount 16.000	Range 80 - 120			Recovery = 138.94%#			
Target Compounds							Qvalue
4) PROPENE	1.550	41	340453	85.2204229	ppb		99
5) DICHLORODIFLUOROMETHANE	1.580	85	611068	86.5846671	ppb		99
6) CHLOROMETHANE	1.744	50	755450	100.9429663	ppb		100
7) VINYL CHLORIDE	1.799	62	698581	94.2978507	ppb		100
8) 1,3-BUTADIENE	1.811	39	603967	96.1069833	ppb		95
9) BROMOMETHANE	2.037	94	326709	110.6348863	ppb		99
10) CHLOROETHANE	2.116	64	338994	79.0557684	ppb		100
11) TRICHLOROFLUOROMETHANE	2.213	101	985716	92.4897107	ppb		98
12) DICHLOROFLUOROMETHANE	2.249	67	1109439	95.2579217	ppb		100
13) ETHYL ETHER	2.408	59	432110	92.3902175	ppb		99
14) ACROLEIN	2.742	56	350263	531.6353989	ppb		98
15) ETHANOL	2.505	45	507260	4958.8397183	ppb		98
16) 1,1-DICHLOROETHENE	2.541	96	489517	95.6194826	ppb		99
17) 1,1,2-TRICHLOROTRIFLUO...	2.554	101	565104	93.0031419	ppb		99
18) ACETONE	2.900	43	1349409	486.2049157	ppb		98
19) IODOMETHANE	2.639	142	4484659	476.3923049	ppb		100
20) CARBON DISULFIDE	2.578	76	1482152	95.0762878	ppb		99
21) ALLYL CHLORIDE	2.815	76	1440405	455.1049402	ppb		98
22) METHYLENE CHLORIDE	2.882	84	558385	93.6292856	ppb		99
23) METHYL ACETATE	2.961	43	3295350	521.5893102	ppb	#	98
24) ACRYLONITRILE	3.338	53	1647450	504.5769386	ppb		99
25) n-HEXANE	3.004	56	450787	92.5533242	ppb		92
26) TRANS-1,2-DICHLOROETHENE	2.973	96	545315	95.4277754	ppb		99
27) METHYL TERT-BUTYL ETHER	3.016	73	1618295	93.2095647	ppb		100
28) TERT-BUTYL ALCOHOL	3.059	59	582333	468.2925746	ppb	#	100
29) 1,1-DICHLOROETHANE	3.314	63	1058032	96.4558815	ppb		99
30) VINYL ACETATE	3.424	43	6219936	440.2136375	ppb		100
31) DI-ISOPROPYL ETHER	3.217	45	1998030	96.0850470	ppb		98
32) ETHYL TERT-BUTYL ETHER	3.411	59	1849074	94.9300273	ppb		100
33) 2,2-DICHLOROPROPANE	3.673	77	903931	95.4355649	ppb		99
34) CIS-1,2-DICHLOROETHENE	3.612	96	634919	95.8400030	ppb		99
35) 2-BUTANONE (MEK)	3.910	43	2259236	515.7722195	ppb		99
36) BROMOCHLOROMETHANE	3.728	130	339036	81.4434629	ppb		93
37) TETRAHYDROFURAN	3.849	42	276778	93.6149012	ppb		96
38) CHLOROFORM	3.752	83	1080475	95.2244193	ppb		98
39) CYCLOHEXANE	3.734	84	789653	94.0410896	ppb		99
40) 1,1,1-TRICHLOROETHANE	3.880	97	971417	95.6894057	ppb		99

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_24.D
Acq On : 26 Jun 2019 1:41 am
Operator : 605
Sample : STD VMS 100 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 24 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:29:24 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) CARBON TETRACHLORIDE	3.849	117	937245	96.3307525 ppb		100
42) 1,1-DICHLOROPROPENE	3.947	75	778239	95.5450700 ppb		100
43) 2,2,4-TRIMETHYLPENTANE	3.983	57	1464127	93.1167678 ppb		97
44) n-Heptane	4.032	71	343045	93.9531243 ppb		97
45) BENZENE	4.087	78	2335727	96.6306477 ppb		100
46) TERT-AMYL METHYL ETHER	4.117	73	1666771	95.1599104 ppb		99
48) 1,2-DICHLOROETHANE	4.196	62	776869	95.1093609 ppb		100
49) T-AMYL ALCOHOL	4.208	59	614146	485.4430149 ppb		92
50) TRICHLOROETHENE	4.409	130	662203	99.2502931 ppb	#	100
51) METHYL CYCLOHEXANE	4.409	83	928746	94.7559742 ppb		99
52) TERT-AMYL ETHYL ETHER	4.500	59	1402031	95.8827885 ppb		99
53) 1,2-DICHLOROPROPANE	4.713	62	410852	96.0288005 ppb		99
54) DIBROMOMETHANE	4.665	93	379746	100.1853054 ppb		97
55) BROMODICHLOROMETHANE	4.738	83	797255	96.3559927 ppb		98
56) 2-CHLOROETHYL VINYL ETHER	5.048	63	2365001	497.0107023 ppb		100
57) CIS-1,3-DICHLOROPROPENE	5.115	75	944523	97.6070412 ppb		100
59) 4-METHYL-2-PENTANONE (...	5.468	43	5044284	482.4123109 ppb		100
61) TOLUENE	5.261	91	2642959	95.2485813 ppb		100
62) TRANS-1,3-DICHLOROPROPENE	5.510	75	892073	97.5156028 ppb		99
63) 1,1,2-TRICHLOROETHANE	5.620	97	522698	93.3671932 ppb		99
64) TETRACHLOROETHENE	5.516	164	584068	94.0240884 ppb		99
65) 1,3-DICHLOROPROPANE	5.802	76	839072	95.4951163 ppb		99
66) 2-HEXANONE	6.009	58	1987253	484.1512692 ppb		99
67) CHLORODIBROMOMETHANE	5.747	129	659112	94.7303296 ppb		100
68) 1,2-DIBROMOETHANE	5.918	107	617742	95.7620946 ppb		98
69) CHLOROBENZENE	6.252	112	1702475	96.0675504 ppb		100
70) 1,1,1,2-TETRACHLOROETHANE	6.289	133	602969	94.6826085 ppb	#	100
71) ETHYLBENZENE	6.252	106	983521	97.7907796 ppb		99
72) M&P-XYLENE	6.344	106	2380519	192.8902279 ppb		100
73) O-XYLENE	6.654	106	1147117	97.0539383 ppb		98
76) STYRENE	6.690	104	1907697	98.9846040 ppb		100
77) BROMOFORM	6.733	173	538172	96.8015738 ppb		99
78) ISOPROPYLBENZENE	6.867	105	3069397	97.9306191 ppb		100
81) BROMOBENZENE	7.177	77	1210034	98.5272936 ppb		97
82) 1,1,2,2-TETRACHLOROETHANE	7.226	83	786618	94.5913514 ppb		100
83) 1,2,3-TRICHLOROPROPANE	7.335	110	240752	92.5381758 ppb		92
84) TRANS-1,4-DICHLORO-2-B...	7.354	53	249492	107.7830325 ppb	#	91
85) N-PROPYLBENZENE	7.165	91	3612338	97.3706926 ppb		99
86) 4-ETHYLTOLUENE	7.244	105	3021041	96.8226722 ppb		100
87) 2-CHLOROTOLUENE	7.305	91	2263155	97.4007846 ppb		98
88) 4-CHLOROTOLUENE	7.427	91	2100055	96.8158051 ppb		100
89) 1,3,5-TRIMETHYLBENZENE	7.305	105	2492507	95.7719139 ppb		100
90) TERT-BUTYLBENZENE	7.548	119	2063784	94.6155704 ppb		99
91) 1,2,4-TRIMETHYLBENZENE	7.603	105	2439065	96.4005187 ppb		100
92) SEC-BUTYLBENZENE	7.688	105	3009646	96.2049430 ppb		99
93) 1,3-DICHLOROBENZENE	7.883	146	1338502	96.7827160 ppb		100
94) P-ISOPROPYLTOLUENE	7.792	119	2677770	95.4411702 ppb		99
95) DICYCLOPENTADIENE	7.792	66	3040317	97.2995520 ppb		98
96) 1,4-DICHLOROBENZENE	7.950	146	1358463	96.2119631 ppb	#	71
97) 1,2,3-TRIMETHYLBENZENE	7.950	105	1922527	95.5348965 ppb		99
98) 1,2-DICHLOROBENZENE	8.284	146	1226022	96.6785774 ppb		100
99) N-BUTYLBENZENE	8.126	91	2196630	96.3745978 ppb		99
100) 1,2-DIBROMO-3-CHLOROPR...	8.917	157	238487	101.3941328 ppb		97
101) 1,2,4-TRICHLOROBENZENE	9.477	180	634399	97.0344247 ppb		99

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_24.D
Acq On : 26 Jun 2019 1:41 am
Operator : 605
Sample : STD VMS 100 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 24 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:29:24 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	332778	97.1894985 ppb	99
103) NAPHTHALENE	9.744	128	2027386	101.6570929 ppb	99
104) 1,2,3-TRICHLOROBENZENE	9.903	180	521287	98.9824805 ppb	99
105) 1-METHYLNAPHTHALENE	10.596	142	467780	108.2323725 ppb	98
106) 2-METHYLNAPHTHALENE	10.712	142	365068	108.9370678 ppb	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\062519\
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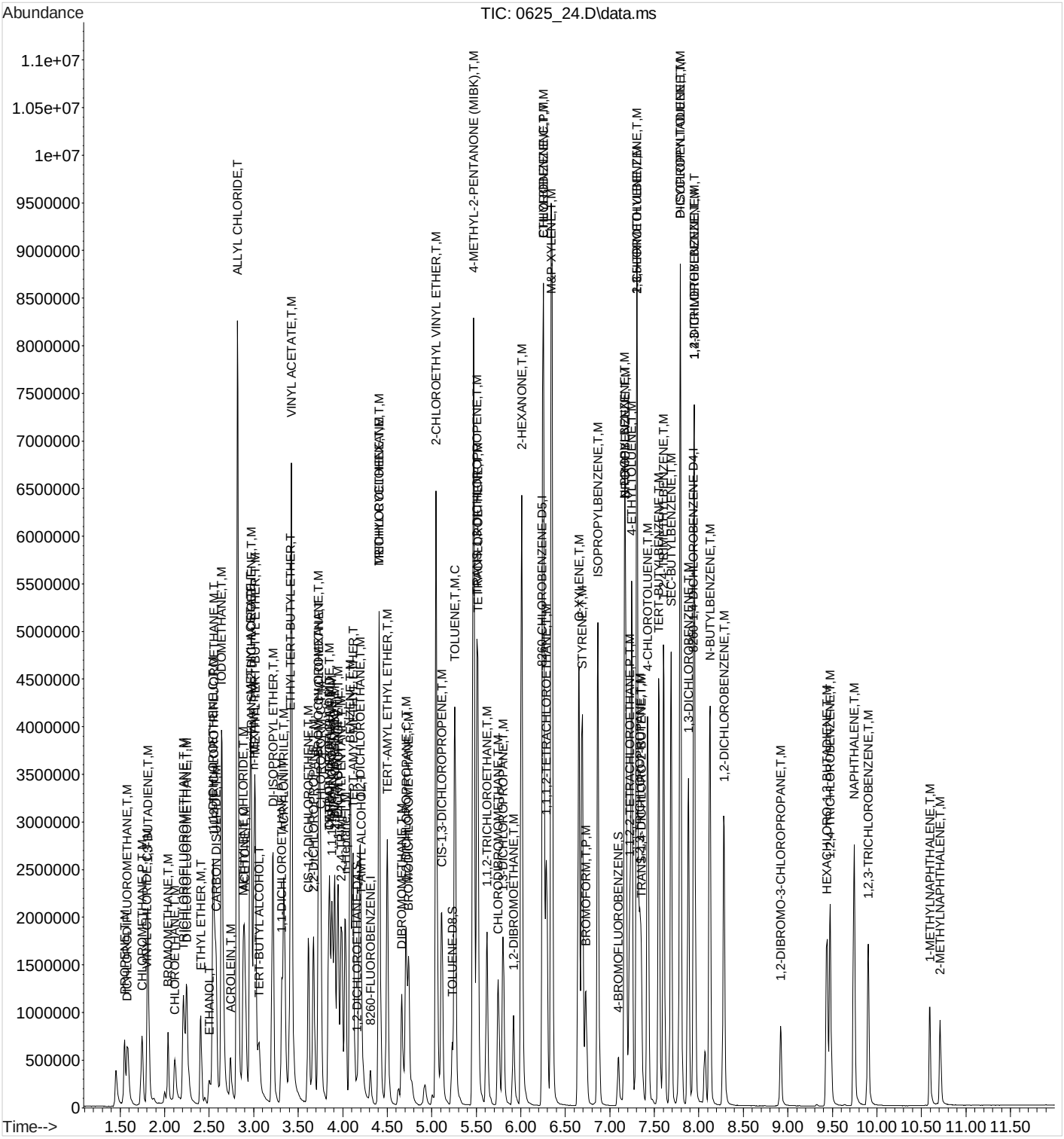

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_25.D
Acq On : 26 Jun 2019 2:02 am
Operator : 605
Sample : STD VMS 200 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 25 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:29:55 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 8260-FLUOROBENZENE	4.312	96	263108	16.0000000	ppb	0.00
58) 8260-CHLOROBENZENE-D5	6.240	82	127856	16.0000000	ppb	0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	142811	16.0000000	ppb	# 0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb	-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb	-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb	-7.94
System Monitoring Compounds						
47) 1,2-DICHLOROETHANE-D4	4.160	65	113121	18.8449986	ppb	0.00
Spiked Amount 16.000			Recovery = 117.78%			
60) TOLUENE-D8	5.230	98	392732	21.3217384	ppb	0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 133.26%#			
79) 4-BROMOFLUOROBENZENE	7.092	95	176370	22.9097329	ppb	0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 143.19%#			
Target Compounds						Qvalue
4) PROPENE	1.550	41	761052	182.2621958	ppb	100
5) DICHLORODIFLUOROMETHANE	1.580	85	1346797	182.5783748	ppb	99
6) CHLOROMETHANE	1.738	50	2063773	263.8323283	ppb	99
7) VINYL CHLORIDE	1.799	62	1519933	196.2931822	ppb	100
8) 1,3-BUTADIENE	1.811	39	1301548	198.1516400	ppb	97
9) BROMOMETHANE	2.036	94	668358	216.5388834	ppb	98
10) CHLOROETHANE	2.109	64	325108	72.5378962	ppb	98
11) TRICHLOROFLUOROMETHANE	2.201	101	1823934	163.7368687	ppb	98
12) DICHLOROFLUOROMETHANE	2.237	67	2268775	186.3737947	ppb	99
13) ETHYL ETHER	2.401	59	898325	183.7641987	ppb	98
14) ACROLEIN	2.736	56	739039	1073.2051093	ppb	97
15) ETHANOL	2.511	45	1079363	10095.1488534	ppb #	68
16) 1,1-DICHLOROETHENE	2.535	96	1001607	187.1852865	ppb	100
17) 1,1,2-TRICHLOROTRIFLUO...	2.547	101	1156537	182.1061098	ppb	99
18) ACETONE	2.900	43	2832245	976.3427563	ppb	98
19) IODOMETHANE	2.639	142	7676550	780.1841827	ppb	100
20) CARBON DISULFIDE	2.572	76	3038167	186.4605071	ppb	99
21) ALLYL CHLORIDE	2.815	76	2590863	783.1899848	ppb	99
22) METHYLENE CHLORIDE	2.882	84	1140133	182.9065379	ppb	98
23) METHYL ACETATE	2.961	43	6715593	1016.9679088	ppb #	98
24) ACRYLONITRILE	3.338	53	3472922	1017.6675602	ppb	99
25) n-HEXANE	3.004	56	918479	180.4203895	ppb	83
26) TRANS-1,2-DICHLOROETHENE	2.973	96	1094700	183.2813270	ppb	100
27) METHYL TERT-BUTYL ETHER	3.016	73	3334204	183.7344961	ppb	96
28) TERT-BUTYL ALCOHOL	3.065	59	1246036	958.6767757	ppb #	100
29) 1,1-DICHLOROETHANE	3.314	63	2171553	189.4070287	ppb	99
30) VINYL ACETATE	3.424	43	12328211	834.7825883	ppb	99
31) DI-ISOPROPYL ETHER	3.211	45	4130285	190.0332382	ppb	98
32) ETHYL TERT-BUTYL ETHER	3.411	59	3861200	189.6563369	ppb	98
33) 2,2-DICHLOROPROPANE	3.667	77	1808775	182.7070315	ppb	99
34) CIS-1,2-DICHLOROETHENE	3.612	96	1307352	188.8064286	ppb	98
35) 2-BUTANONE (MEK)	3.910	43	4792310	1046.7356048	ppb	99
36) BROMOCHLOROMETHANE	3.728	130	632268	145.3139689	ppb	90
37) TETRAHYDROFURAN	3.849	42	571214	184.8451271	ppb	95
38) CHLOROFORM	3.752	83	2199182	185.4344964	ppb	98
39) CYCLOHEXANE	3.734	84	1638182	186.6548414	ppb	98
40) 1,1,1-TRICHLOROETHANE	3.880	97	1989320	187.4815579	ppb	99

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_25.D
Acq On : 26 Jun 2019 2:02 am
Operator : 605
Sample : STD VMS 200 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 25 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:29:55 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.843	117	1927699	189.5600390	ppb		100
42)	1,1-DICHLOROPROPENE	3.941	75	1603482	188.3454478	ppb		99
43)	2,2,4-TRIMETHYLPENTANE	3.983	57	3086803	187.8251756	ppb		97
44)	n-Heptane	4.026	71	723719	189.6382130	ppb		97
45)	BENZENE	4.081	78	4871571	192.8224481	ppb		100
46)	TERT-AMYL METHYL ETHER	4.117	73	3465515	189.2960791	ppb		99
48)	1,2-DICHLOROETHANE	4.196	62	1633340	191.3144688	ppb		100
49)	T-AMYL ALCOHOL	4.214	59	1284930	971.7215728	ppb		92
50)	TRICHLOROETHENE	4.409	130	1332534	191.0797656	ppb	#	100
51)	METHYL CYCLOHEXANE	4.409	83	1944579	189.8151983	ppb		99
52)	TERT-AMYL ETHYL ETHER	4.500	59	2914052	190.6672415	ppb		100
53)	1,2-DICHLOROPROPANE	4.707	62	855970	191.4125413	ppb		99
54)	DIBROMOMETHANE	4.658	93	787758	198.8380006	ppb		98
55)	BROMODICHLOROMETHANE	4.738	83	1662157	192.1981787	ppb		98
56)	2-CHLOROETHYL VINYL ETHER	5.048	63	5027800	1010.8998970	ppb		99
57)	CIS-1,3-DICHLOROPROPENE	5.115	75	1978915	195.6552463	ppb		100
59)	4-METHYL-2-PENTANONE (...	5.468	43	10234921	913.3882898	ppb		97
61)	TOLUENE	5.261	91	5504552	185.1152341	ppb		99
62)	TRANS-1,3-DICHLOROPROPENE	5.510	75	1877249	191.4907008	ppb		99
63)	1,1,2-TRICHLOROETHANE	5.620	97	1097711	182.9715528	ppb		98
64)	TETRACHLOROETHENE	5.516	164	1189366	178.6665826	ppb		99
65)	1,3-DICHLOROPROPANE	5.802	76	1764177	187.3596995	ppb		99
66)	2-HEXANONE	6.009	58	4188668	952.2608827	ppb		98
67)	CHLORODIBROMOMETHANE	5.747	129	1397286	187.3989830	ppb		99
68)	1,2-DIBROMOETHANE	5.918	107	1300762	188.1639582	ppb		97
69)	CHLOROBENZENE	6.252	112	3477826	183.1284907	ppb		98
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	1257820	184.3086924	ppb	#	99
71)	ETHYLBENZENE	6.252	106	2017638	187.2016241	ppb		98
72)	M&P-XYLENE	6.344	106	4944077	373.8314991	ppb		97
73)	O-XYLENE	6.654	106	2377550	187.7099087	ppb		97
76)	STYRENE	6.690	104	3995567	193.4589219	ppb		100
77)	BROMOFORM	6.733	173	1147342	192.5778366	ppb		99
78)	ISOPROPYLBENZENE	6.867	105	6367352	189.5729583	ppb		100
81)	BROMOBENZENE	7.177	77	2581994	203.2069801	ppb		95
82)	1,1,2,2-TETRACHLOROETHANE	7.226	83	1685105	195.8569244	ppb		100
83)	1,2,3-TRICHLOROPROPANE	7.335	110	513626	190.8193637	ppb		92
84)	TRANS-1,4-DICHLORO-2-B...	7.354	53	546796	228.3197688	ppb	#	92
85)	N-PROPYLBENZENE	7.171	91	7511718	195.7057421	ppb		99
86)	4-ETHYLTOLUENE	7.244	105	6301615	195.2076012	ppb		100
87)	2-CHLOROTOLUENE	7.305	91	4834602	201.1098289	ppb		97
88)	4-CHLOROTOLUENE	7.426	91	4458397	198.6638023	ppb		100
89)	1,3,5-TRIMETHYLBENZENE	7.305	105	5254410	195.1417298	ppb		99
90)	TERT-BUTYLBENZENE	7.554	119	4373903	193.8170287	ppb		99
91)	1,2,4-TRIMETHYLBENZENE	7.603	105	5101275	194.8763540	ppb		99
92)	SEC-BUTYLBENZENE	7.688	105	6229778	192.4770502	ppb		99
93)	1,3-DICHLOROBENZENE	7.883	146	2803280	195.9158951	ppb		100
94)	P-ISOPROPYLTOLUENE	7.792	119	5545337	191.0358351	ppb		99
95)	DICYCLOPENTADIENE	7.798	66	6481896	200.5018779	ppb		98
96)	1,4-DICHLOROBENZENE	7.950	146	2779352	190.2607603	ppb	#	66
97)	1,2,3-TRIMETHYLBENZENE	7.950	105	3957088	190.0595564	ppb		98
98)	1,2-DICHLOROBENZENE	8.278	146	2597657	197.9876981	ppb		99
99)	N-BUTYLBENZENE	8.126	91	4622705	196.0316796	ppb		99
100)	1,2-DIBROMO-3-CHLOROPR...	8.917	157	484502	199.0985523	ppb		98
101)	1,2,4-TRICHLOROBENZENE	9.477	180	1295772	191.5650820	ppb		99

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_25.D
Acq On : 26 Jun 2019 2:02 am
Operator : 605
Sample : STD VMS 200 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 25 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:29:55 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	668316	188.6561666 ppb	100
103) NAPHTHALENE	9.744	128	4078125	197.6451626 ppb	99
104) 1,2,3-TRICHLOROBENZENE	9.903	180	1025001	188.1179082 ppb	99
105) 1-METHYLNAPHTHALENE	10.590	142	865745	193.6109581 ppb	98
106) 2-METHYLNAPHTHALENE	10.712	142	664254	191.5845602 ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_25.D
Acq On : 26 Jun 2019 2:02 am
Operator : 605
Sample : STD VMS 200 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 25 Sample Multiplier: 1
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Quant Time: Jun 26 11:29:55 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
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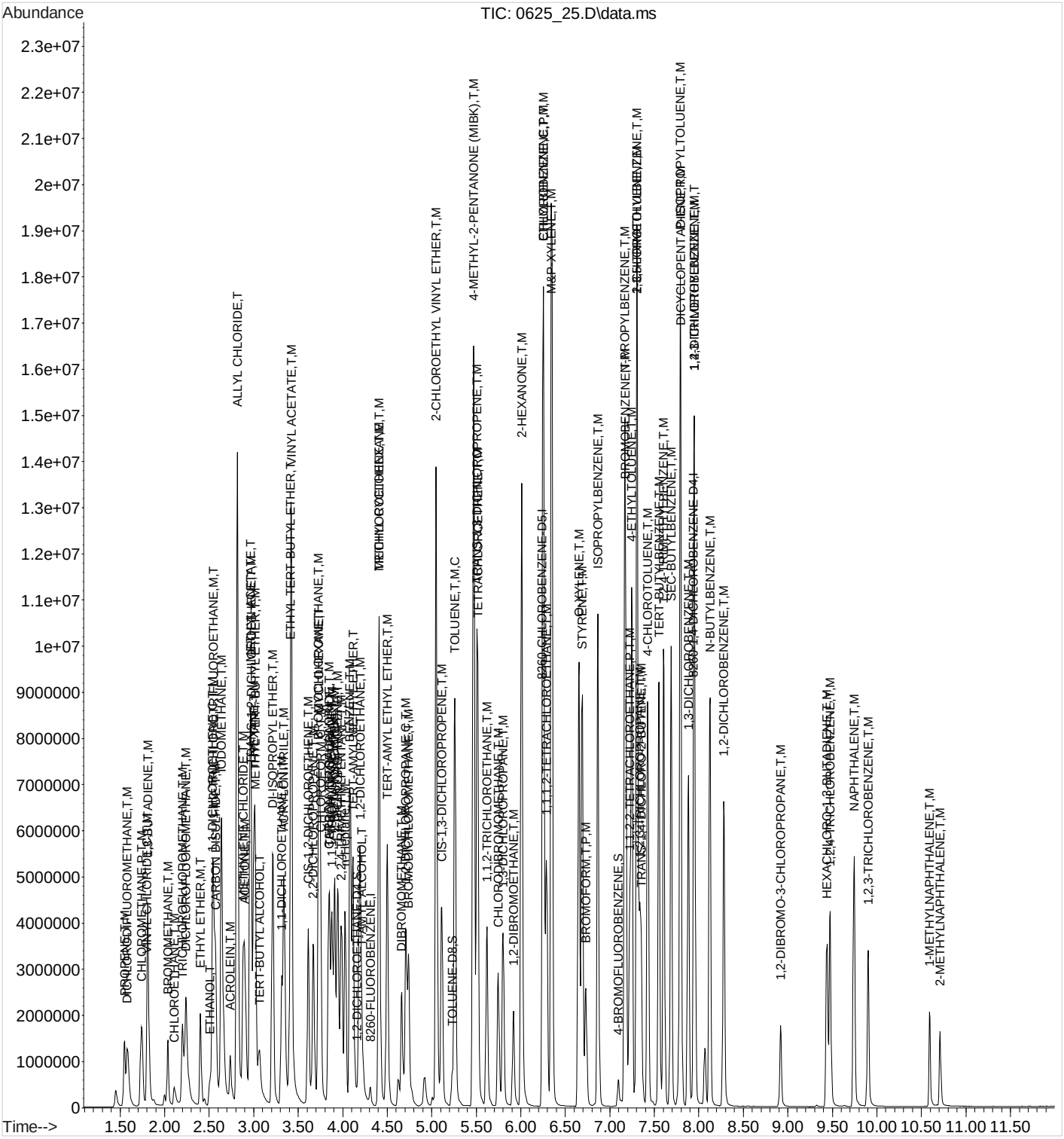


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_15.D
Acq On : 25 Jun 2019 10:33 pm
Operator : 605
Sample : STD VMS 0.04 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 15 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:23:08 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

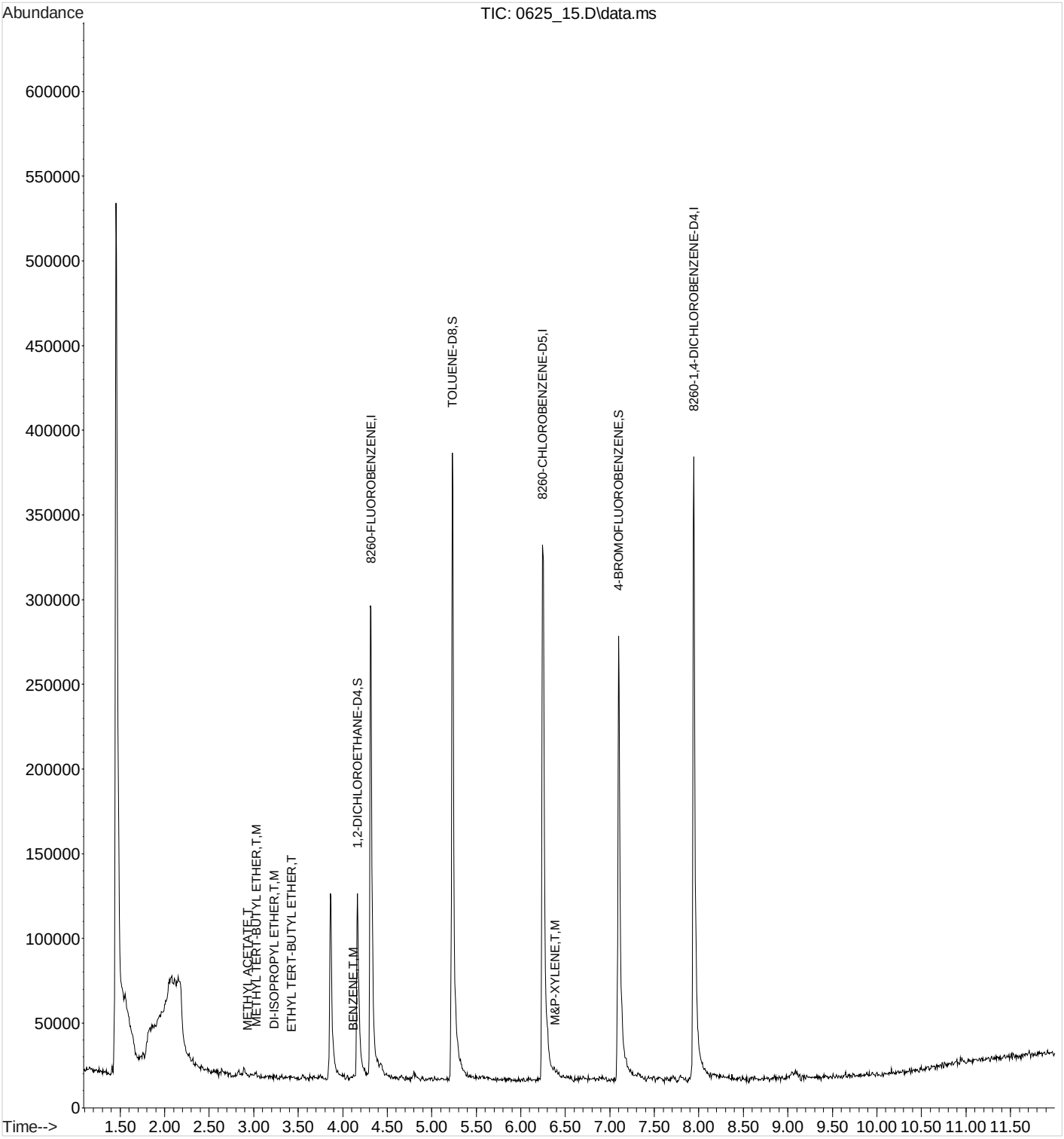
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 8260-FLUOROBENZENE	4.318	96	232785	16.0000000	ppb	0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	109033	16.0000000	ppb	0.00
80) 8260-1,4-DICHLOROBENZE...	7.944	152	119819	16.0000000	ppb	0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb	-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb	-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb	-7.94
System Monitoring Compounds						
47) 1,2-DICHLOROETHANE-D4	4.166	65	76482	14.4009510	ppb	0.00
Spiked Amount 16.000			Recovery = 90.01%			
60) TOLUENE-D8	5.230	98	255890	16.2908141	ppb	0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 101.82%			
79) 4-BROMOFLUOROBENZENE	7.098	95	109116	16.6206078	ppb	0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 103.88%			
Target Compounds						Qvalue
23) METHYL ACETATE	2.931	43	2281	0.3904157	ppb	# 57
27) METHYL TERT-BUTYL ETHER	3.028	73	1364	0.0849556	ppb	# 77
31) DI-ISOPROPYL ETHER	3.229	45	833	0.0433185	ppb	92
32) ETHYL TERT-BUTYL ETHER	3.423	59	668	0.0370852	ppb	# 61
45) BENZENE	4.117	78	1460	0.0653161	ppb	# 60
72) M&P-XYLENE	6.386	106	930	0.0824588	ppb	# 6

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_15.D
Acq On : 25 Jun 2019 10:33 pm
Operator : 605
Sample : STD VMS 0.04 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 15 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:23:08 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_16.D
Acq On : 25 Jun 2019 10:54 pm
Operator : 605
Sample : STD VMS 0.1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 16 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:23:39 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 8260-FLUOROBENZENE	4.318	96	231329	16.0000000	ppb	0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	109418	16.0000000	ppb	0.00
80) 8260-1,4-DICHLOROBENZE...	7.944	152	120470	16.0000000	ppb	# 0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb	-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb	-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb	-7.94
System Monitoring Compounds						
47) 1,2-DICHLOROETHANE-D4	4.166	65	74973	14.2056705	ppb	0.00
Spiked Amount 16.000			Recovery = 88.79%			
60) TOLUENE-D8	5.230	98	257210	16.3172329	ppb	0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 101.98%			
79) 4-BROMOFLUOROBENZENE	7.098	95	107170	16.2667534	ppb	0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 101.67%			
Target Compounds						Qvalue
4) PROPENE	1.544	41	1544	0.4205654	ppb	# 79
5) DICHLORODIFLUOROMETHANE	1.586	85	1684	0.2596529	ppb	# 60
6) CHLOROMETHANE	1.738	50	1551	0.2255183	ppb	# 93
7) VINYL CHLORIDE	1.799	62	901	0.1323456	ppb	# 62
8) 1,3-BUTADIENE	1.817	39	2235	0.3870071	ppb	89
9) BROMOMETHANE	2.043	94	497	0.1831416	ppb	# 1
10) CHLOROETHANE	2.128	64	707	0.1794158	ppb	# 30
11) TRICHLOROFLUOROMETHANE	2.225	101	990	0.1010826	ppb	# 67
12) DICHLOROFLUOROMETHANE	2.243	67	1453	0.1357572	ppb	# 42
13) ETHYL ETHER	2.408	59	575	0.1337825	ppb	# 75
14) ACROLEIN	2.760	56	169	0.2791297	ppb	# 1
15) ETHANOL	2.511	45	430	4.5742261	ppb	# 39
16) 1,1-DICHLOROETHENE	2.541	96	442	0.0939508	ppb	# 77
17) 1,1,2-TRICHLOROTRIFLUO...	2.572	101	291	0.0521149	ppb	# 30
18) ACETONE	2.931	43	3028	1.1872204	ppb	92
19) IODOMETHANE	2.645	142	4062	0.4695425	ppb	94
20) CARBON DISULFIDE	2.584	76	2248	0.1569190	ppb	# 68
21) ALLYL CHLORIDE	2.833	76	1428	0.4909699	ppb	95
22) METHYLENE CHLORIDE	2.894	84	2181	0.3979544	ppb	95
23) METHYL ACETATE	2.998	43	722	0.1243552	ppb	# 11
24) ACRYLONITRILE	3.357	53	289	0.0963192	ppb	# 18
25) n-HEXANE	3.016	56	666	0.1487971	ppb	# 1
26) TRANS-1,2-DICHLOROETHENE	3.004	96	1220	0.2323202	ppb	# 31
27) METHYL TERT-BUTYL ETHER	3.028	73	1327	0.0831713	ppb	87
28) TERT-BUTYL ALCOHOL	3.065	59	1063	0.9302054	ppb	# 100
29) 1,1-DICHLOROETHANE	3.332	63	990	0.0982121	ppb	# 29
30) VINYL ACETATE	3.423	43	903	0.0695449	ppb	# 78
31) DI-ISOPROPYL ETHER	3.217	45	2052	0.1073818	ppb	# 84
32) ETHYL TERT-BUTYL ETHER	3.423	59	1620	0.0905032	ppb	# 88
33) 2,2-DICHLOROPROPANE	3.673	77	856	0.0983441	ppb	# 56
34) CIS-1,2-DICHLOROETHENE	3.636	96	722	0.1185947	ppb	# 16
35) 2-BUTANONE (MEK)	3.904	43	639	0.1587439	ppb	# 74
37) TETRAHYDROFURAN	3.874	42	1148	0.4225275	ppb	# 75
38) CHLOROFORM	3.764	83	2487	0.2385114	ppb	# 71
39) CYCLOHEXANE	3.734	84	1398	0.1811708	ppb	# 74
40) 1,1,1-TRICHLOROETHANE	3.880	97	1223	0.1310945	ppb	# 85
41) CARBON TETRACHLORIDE	3.849	117	1323	0.1479692	ppb	# 71

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_16.D
Acq On : 25 Jun 2019 10:54 pm
Operator : 605
Sample : STD VMS 0.1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 16 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:23:39 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 1,1-DICHLOROPROPENE	3.965	75	511	0.0682678	ppb	#	70
43) 2,2,4-TRIMETHYLPENTANE	3.983	57	2106	0.1457496	ppb	#	75
44) n-Heptane	4.050	71	975	0.2905792	ppb	#	77
45) BENZENE	4.105	78	2435	0.1096204	ppb	#	79
46) TERT-AMYL METHYL ETHER	4.123	73	2350	0.1459976	ppb	#	57
48) 1,2-DICHLOROETHANE	4.214	62	849	0.1131053	ppb	#	1
49) T-AMYL ALCOHOL	4.220	59	337	0.2898653	ppb	#	1
50) TRICHLOROETHENE	4.421	130	549	0.0895391	ppb	#	50
51) METHYL CYCLOHEXANE	4.409	83	1109	0.1231235	ppb		94
52) TERT-AMYL ETHYL ETHER	4.512	59	1526	0.1135631	ppb		84
53) 1,2-DICHLOROPROPANE	4.738	62	229	0.0582440	ppb	#	1
54) DIBROMOMETHANE	4.658	93	160	0.0459336	ppb	#	1
55) BROMODICHLOROMETHANE	4.756	83	1426	0.1875429	ppb	#	76
56) 2-CHLOROETHYL VINYL ETHER	5.109	63	461	0.1054229	ppb	#	23
57) CIS-1,3-DICHLOROPROPENE	5.139	75	612	0.0688208	ppb	#	75
59) 4-METHYL-2-PENTANONE (...	5.407	43	405	0.0422336	ppb		100
61) TOLUENE	5.267	91	2861	0.1124269	ppb	#	78
62) TRANS-1,3-DICHLOROPROPENE	5.583	75	155	0.0184752	ppb	#	1
63) 1,1,2-TRICHLOROETHANE	5.644	97	228	0.0444082	ppb	#	31
64) TETRACHLOROETHENE	5.528	164	324	0.0568729	ppb	#	60
65) 1,3-DICHLOROPROPANE	5.857	76	344	0.0426899	ppb	#	80
66) 2-HEXANONE	6.088	58	631	0.1676261	ppb		77
67) CHLORODIBROMOMETHANE	5.766	129	546	0.0855671	ppb	#	90
69) CHLOROBENZENE	6.258	112	1586	0.0975851	ppb	#	1
70) 1,1,1,2-TETRACHLOROETHANE	6.295	133	962	0.1647156	ppb	#	14
71) ETHYLBENZENE	6.271	106	934	0.1012618	ppb	#	66
72) M&P-XYLENE	6.386	106	2330	0.2058633	ppb		92
73) O-XYLENE	6.684	106	1161	0.1071080	ppb	#	73
77) BROMOFORM	6.763	173	405	0.0794330	ppb	#	27
78) ISOPROPYLBENZENE	6.885	105	3207	0.1115704	ppb	#	91
81) BROMOBENZENE	7.201	77	1018	0.0949760	ppb	#	67
82) 1,1,2,2-TETRACHLOROETHANE	7.232	83	993	0.1368182	ppb	#	93
83) 1,2,3-TRICHLOROPROPANE	7.366	110	309	0.1360870	ppb	#	1
84) TRANS-1,4-DICHLORO-2-B...	7.366	53	545	0.2697724	ppb	#	23
85) N-PROPYLBENZENE	7.201	91	2331	0.0719928	ppb	#	90
86) 4-ETHYLTOLUENE	7.226	105	164	0.0060224	ppb	#	45
87) 2-CHLOROTOLUENE	7.287	91	337	0.0166182	ppb	#	48
88) 4-CHLOROTOLUENE	7.384	91	225	0.0118852	ppb	#	48
89) 1,3,5-TRIMETHYLBENZENE	7.293	105	2030	0.0893727	ppb		88
90) TERT-BUTYLBENZENE	7.560	119	2290	0.1202932	ppb		97
91) 1,2,4-TRIMETHYLBENZENE	7.639	105	2334	0.1056973	ppb		100
92) SEC-BUTYLBENZENE	7.706	105	2977	0.1090355	ppb	#	89
93) 1,3-DICHLOROBENZENE	7.901	146	898	0.0743982	ppb		84
94) P-ISOPROPYLTOLUENE	7.798	119	3051	0.1245982	ppb	#	83
95) DICYCLOPENTADIENE	7.798	66	2608	0.0956328	ppb		100
96) 1,4-DICHLOROBENZENE	7.950	146	1486	0.1205889	ppb	#	1
97) 1,2,3-TRIMETHYLBENZENE	7.968	105	1999	0.1138176	ppb		98
98) 1,2-DICHLOROBENZENE	8.327	146	838	0.0757152	ppb	#	91
99) N-BUTYLBENZENE	8.175	91	2242	0.1127064	ppb	#	54
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	167	0.0558841	ppb	#	19
103) NAPHTHALENE	9.817	128	459	0.0263707	ppb	#	71
104) 1,2,3-TRICHLOROBENZENE	9.945	180	299	0.0650519	ppb	#	12
106) 2-METHYLNAPHTHALENE	10.772	142	349	0.1193258	ppb	#	74

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_16.D
Acq On : 25 Jun 2019 10:54 pm
Operator : 605
Sample : STD VMS 0.1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 16 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:23:39 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

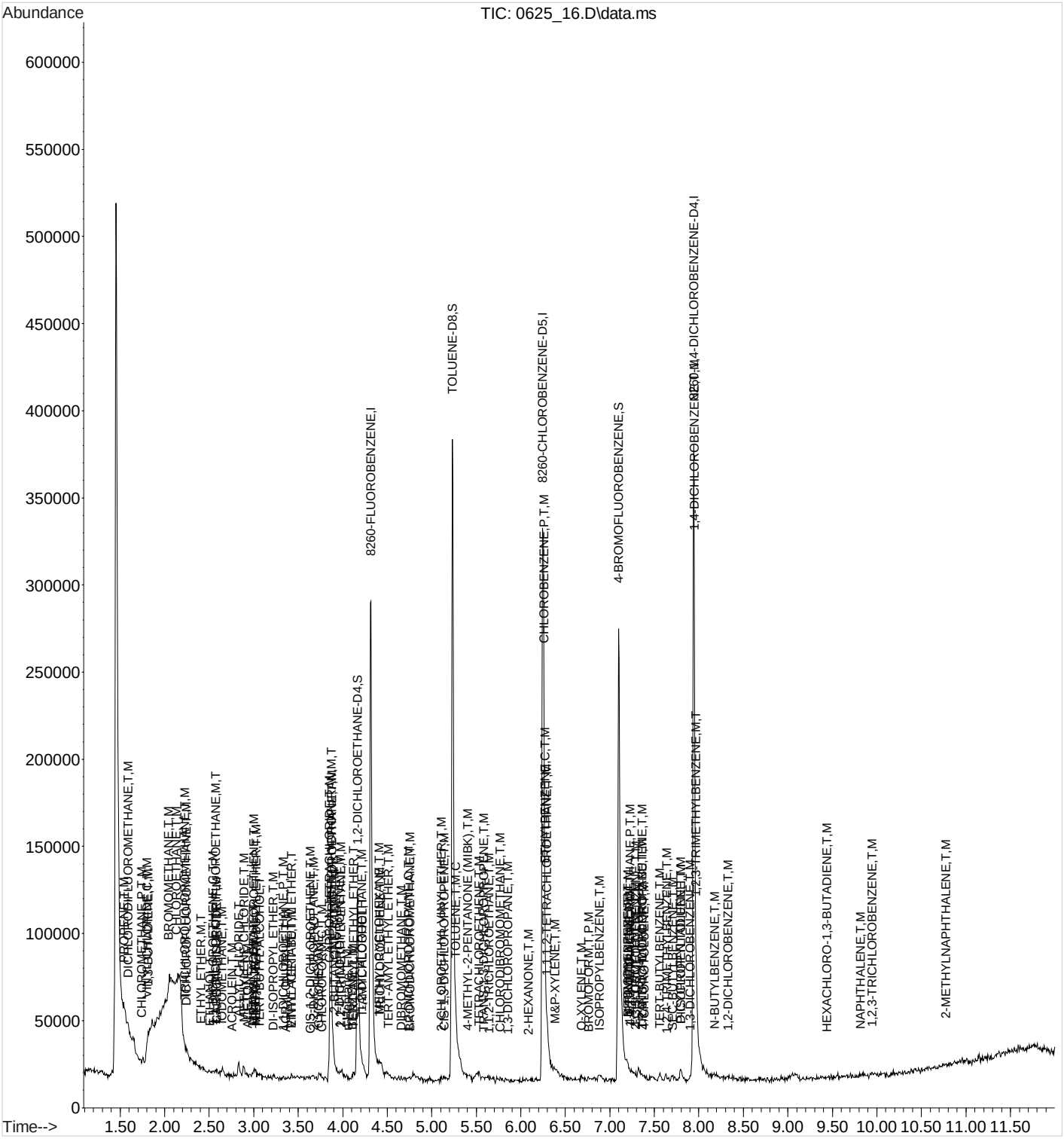
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_16.D
Acq On : 25 Jun 2019 10:54 pm
Operator : 605
Sample : STD VMS 0.1 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 16 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:23:39 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_17.D
Acq On : 25 Jun 2019 11:15 pm
Operator : 605
Sample : STD VMS 0.2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 17 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:24:16 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	230279	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	106629	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.944	152	120996	16.0000000	ppb	#	0.00
107) AP9-FLUOROBENZENE	0.000	96	0m	16.0000000	ppb		-4.31
121) AP9-CHLOROBENZENE-D5	0.000	82	0m	16.0000000	ppb		-6.25
125) AP9-1,4-DICHLOROBENZEN...	0.000	152	0m	16.0000000	ppb		-7.94
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	77845	14.8171035	ppb		0.00
Spiked Amount 16.000			Recovery = 92.61%				
60) TOLUENE-D8	5.230	98	248310	16.1646501	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 101.03%				
79) 4-BROMOFLUOROBENZENE	7.098	95	105094	16.3688817	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 102.31%				
Target Compounds							Qvalue
4) PROPENE	1.544	41	2019	0.5524568	ppb	#	76
5) DICHLORODIFLUOROMETHANE	1.580	85	2150	0.3330162	ppb	#	76
6) CHLOROMETHANE	1.751	50	2180	0.3184214	ppb	#	85
7) VINYL CHLORIDE	1.805	62	1799	0.2654555	ppb	#	85
8) 1,3-BUTADIENE	1.811	39	2732	0.4752235	ppb		83
9) BROMOMETHANE	2.043	94	1810	0.6700158	ppb		85
10) CHLOROETHANE	2.122	64	1143	0.2913824	ppb	#	51
11) TRICHLOROFLUOROMETHANE	2.219	101	2298	0.2357041	ppb	#	73
12) DICHLOROFLUOROMETHANE	2.256	67	2709	0.2542624	ppb		98
13) ETHYL ETHER	2.408	59	993	0.2320900	ppb		93
14) ACROLEIN	2.779	56	685	1.1365425	ppb		99
15) ETHANOL	2.505	45	693	7.4055642	ppb	#	55
16) 1,1-DICHLOROETHENE	2.554	96	1943	0.4148842	ppb	#	52
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	1157	0.2081508	ppb	#	76
18) ACETONE	2.925	43	3151	1.2410795	ppb		99
19) IODOMETHANE	2.645	142	7557	0.8775264	ppb		99
20) CARBON DISULFIDE	2.584	76	3230	0.2264944	ppb	#	78
21) ALLYL CHLORIDE	2.827	76	3270	1.1294061	ppb		92
22) METHYLENE CHLORIDE	2.888	84	4366	0.8002712	ppb	#	64
23) METHYL ACETATE	2.998	43	2680	0.4637003	ppb	#	89
24) ACRYLONITRILE	3.326	53	358	0.1198598	ppb	#	23
25) n-HEXANE	3.016	56	1634	0.3667315	ppb	#	53
26) TRANS-1,2-DICHLOROETHENE	2.986	96	1822	0.3485388	ppb	#	55
27) METHYL TERT-BUTYL ETHER	3.028	73	3765	0.2370518	ppb	#	77
28) TERT-BUTYL ALCOHOL	3.059	59	1443	1.2684918	ppb	#	100
29) 1,1-DICHLOROETHANE	3.326	63	2265	0.2257218	ppb	#	78
30) VINYL ACETATE	3.418	43	681	0.0526866	ppb	#	78
31) DI-ISOPROPYL ETHER	3.229	45	3599	0.1891956	ppb	#	44
32) ETHYL TERT-BUTYL ETHER	3.430	59	3729	0.2092749	ppb	#	90
33) 2,2-DICHLOROPROPANE	3.673	77	3506	0.4046340	ppb	#	85
34) CIS-1,2-DICHLOROETHENE	3.643	96	1560	0.2574119	ppb	#	72
35) 2-BUTANONE (MEK)	3.880	43	169	0.0421753	ppb	#	1
36) BROMOCHLOROMETHANE	3.752	130	611	0.1604453	ppb	#	69
37) TETRAHYDROFURAN	3.880	42	1157	0.4277817	ppb	#	80
38) CHLOROFORM	3.758	83	2485	0.2394062	ppb	#	59
39) CYCLOHEXANE	3.746	84	2302	0.2996830	ppb		93
40) 1,1,1-TRICHLOROETHANE	3.886	97	2461	0.2649996	ppb		87

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_17.D
Acq On : 25 Jun 2019 11:15 pm
Operator : 605
Sample : STD VMS 0.2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 17 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:24:16 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.849	117	1984	0.2229097	ppb		99
42)	1,1-DICHLOROPROPENE	3.965	75	1432	0.1921825	ppb	#	83
43)	2,2,4-TRIMETHYLPENTANE	3.995	57	3694	0.2568157	ppb		96
44)	n-Heptane	4.044	71	822	0.2460976	ppb	#	49
45)	BENZENE	4.099	78	4592	0.2076683	ppb		95
46)	TERT-AMYL METHYL ETHER	4.123	73	4119	0.2570664	ppb	#	88
48)	1,2-DICHLOROETHANE	4.202	62	1594	0.2133238	ppb	#	70
49)	T-AMYL ALCOHOL	4.214	59	520	0.4493093	ppb	#	58
50)	TRICHLOROETHENE	4.421	130	1364	0.2234758	ppb	#	50
51)	METHYL CYCLOHEXANE	4.415	83	3038	0.3388230	ppb		92
52)	TERT-AMYL ETHYL ETHER	4.500	59	2574	0.1924275	ppb		86
53)	1,2-DICHLOROPROPANE	4.719	62	638	0.1630092	ppb	#	49
54)	DIBROMOMETHANE	4.689	93	790	0.2278313	ppb	#	78
55)	BROMODICHLOROMETHANE	4.756	83	1620	0.2140287	ppb	#	66
56)	2-CHLOROETHYL VINYL ETHER	5.097	63	1485	0.3411429	ppb	#	50
57)	CIS-1,3-DICHLOROPROPENE	5.139	75	1436	0.1622178	ppb	#	81
59)	4-METHYL-2-PENTANONE (...	5.492	43	6330	0.6773614	ppb		91
61)	TOLUENE	5.261	91	6493	0.2618252	ppb		87
62)	TRANS-1,3-DICHLOROPROPENE	5.571	75	356	0.0435433	ppb	#	26
63)	1,1,2-TRICHLOROETHANE	5.650	97	1040	0.2078618	ppb	#	60
64)	TETRACHLOROETHENE	5.535	164	1072	0.1930938	ppb		98
65)	1,3-DICHLOROPROPANE	5.833	76	658	0.0837926	ppb	#	1
66)	2-HEXANONE	6.058	58	2112	0.5757311	ppb	#	1
67)	CHLORODIBROMOMETHANE	5.766	129	976	0.1569559	ppb	#	86
68)	1,2-DIBROMOETHANE	5.967	107	1202	0.2084917	ppb	#	17
69)	CHLOROBENZENE	6.265	112	3287	0.2075361	ppb	#	21
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	1798	0.3159096	ppb	#	14
71)	ETHYLBENZENE	6.265	106	1689	0.1879065	ppb		99
72)	M&P-XYLENE	6.374	106	3823	0.3466097	ppb		91
73)	O-XYLENE	6.678	106	2304	0.2181151	ppb		93
76)	STYRENE	6.690	104	154	0.0089408	ppb	#	35
77)	BROMOFORM	6.757	173	848	0.1706692	ppb	#	44
78)	ISOPROPYLBENZENE	6.879	105	5258	0.1877085	ppb	#	84
81)	BROMOBENZENE	7.195	77	3522	0.3271624	ppb	#	66
82)	1,1,2,2-TETRACHLOROETHANE	7.244	83	1182	0.1621512	ppb	#	25
83)	1,2,3-TRICHLOROPROPANE	7.360	110	711	0.3117710	ppb	#	1
84)	TRANS-1,4-DICHLORO-2-B...	7.354	53	152	0.0749122	ppb	#	23
85)	N-PROPYLBENZENE	7.195	91	5384	0.1655617	ppb	#	91
86)	4-ETHYLTOLUENE	7.268	105	4093	0.1496502	ppb	#	85
87)	2-CHLOROTOLUENE	7.323	91	4660	0.2287964	ppb		96
88)	4-CHLOROTOLUENE	7.421	91	407	0.0214055	ppb	#	48
89)	1,3,5-TRIMETHYLBENZENE	7.323	105	4561	0.1999295	ppb		94
90)	TERT-BUTYLBENZENE	7.560	119	4399	0.2300739	ppb		88
91)	1,2,4-TRIMETHYLBENZENE	7.633	105	3945	0.1778763	ppb		90
92)	SEC-BUTYLBENZENE	7.700	105	5688	0.2074229	ppb		94
93)	1,3-DICHLOROBENZENE	7.901	146	2227	0.1837021	ppb		93
94)	P-ISOPROPYLTOLUENE	7.798	119	5105	0.2075742	ppb	#	92
95)	DICYCLOPENTADIENE	7.798	66	5885	0.2148590	ppb		98
96)	1,4-DICHLOROBENZENE	7.956	146	2840	0.2294641	ppb	#	1
97)	1,2,3-TRIMETHYLBENZENE	7.956	105	3563	0.2019856	ppb		91
98)	1,2-DICHLOROBENZENE	8.321	146	1929	0.1735319	ppb	#	72
99)	N-BUTYLBENZENE	8.090	91	550	0.0275286	ppb	#	33
100)	1,2-DIBROMO-3-CHLOROPR...	8.941	157	276	0.1338666	ppb	#	7
101)	1,2,4-TRICHLOROBENZENE	9.525	180	899	0.1568694	ppb	#	65

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_17.D
Acq On : 25 Jun 2019 11:15 pm
Operator : 605
Sample : STD VMS 0.2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 17 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:24:16 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration

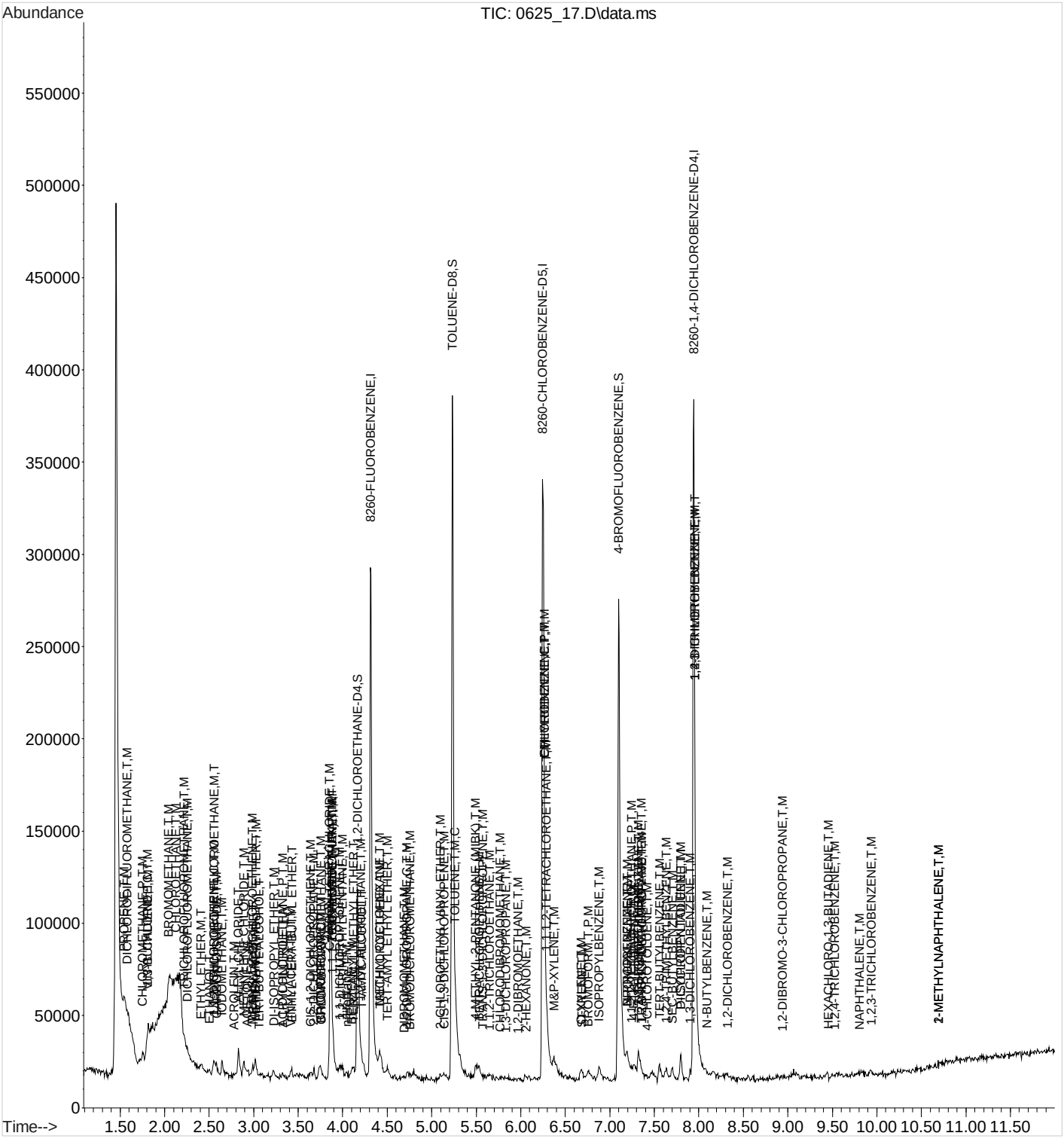
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.452	225	592	0.1972430 ppb	#	65
103) NAPHTHALENE	9.805	128	1053	0.0602344 ppb	#	71
104) 1,2,3-TRICHLOROBENZENE	9.933	180	749	0.1622476 ppb	#	79
105) 1-METHYLNAPHTHALENE	10.693	142	382	0.1008310 ppb	#	59
106) 2-METHYLNAPHTHALENE	10.693	142	382	0.1300410 ppb	#	56

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_17.D
Acq On : 25 Jun 2019 11:15 pm
Operator : 605
Sample : STD VMS 0.2 ppb 19F25726
Misc : water IS/SURR 19E01967
ALS Vial : 17 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:24:16 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:20:59 2019
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1116144	**Calibration (begin) date/time:**	06/25/19 22:33
Instrument ID:	VOCMS28	**Calibration (end) date/time:**	06/27/19 09:57
Lab File ID:	0625_33-1	**Analysis date/time:**	06/26/19 11:42
Analytical Method:	8260C	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
VINYL CHLORIDE	0.462161	0.44167750		4.43	20.49	0.0250	0.02389194	95.60	70 - 130
1,2-DICHLOROETHANE-D4	0.336011	0.33855230		0.7560	40	0.0160	0.016121	101	70 - 130
4-BROMOFLUOROBENZENE	0.968099	0.87073950		10.10	40	0.0160	0.01439091	89.90	70 - 130
TOLUENE-D8	2.279566	2.100232		7.87	40	0.0160	0.01474128	92.10	70 - 130

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_33.D
Acq On : 26 Jun 2019 11:42 am
Operator : 605
Sample : SSCV VMS 25 ppb 19F26889
Misc : water IS/SURR 19E01967
ALS Vial : 33 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:58:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:58:38 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	251453	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	126187	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	129795	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	4.312	96	251453	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.246	82	126187	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.938	152	129795	16.0000000	ppb		0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.160	65	85130	16.1209961	ppb		0.00
Spiked Amount 16.000			Recovery = 100.76%				
60) TOLUENE-D8	5.230	98	265022	14.7412773	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 92.13%				
79) 4-BROMOFLUOROBENZENE	7.098	95	109876	14.3909124	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 89.94%				
Target Compounds							Qvalue
4) PROPENE	1.550	41	65973	17.4418396	ppb		99
5) DICHLORODIFLUOROMETHANE	1.580	85	210304	30.4454120	ppb		99
6) CHLOROMETHANE	1.745	50	201943	24.9058847	ppb		100
7) VINYL CHLORIDE	1.805	62	173533	23.8919447	ppb		99
8) 1,3-BUTADIENE	1.818	39	139081	21.3669005	ppb		97
9) BROMOMETHANE	2.037	94	100951	29.8514909	ppb		98
10) CHLOROETHANE	2.122	64	101835	24.1066188	ppb		99
11) TRICHLOROFLUOROMETHANE	2.219	101	249764	24.1307310	ppb		100
12) DICHLOROFLUOROMETHANE	2.249	67	262296	22.2304376	ppb		99
13) ETHYL ETHER	2.408	59	108693	23.7176284	ppb		99
14) ACROLEIN	2.748	56	27294	41.8174748	ppb		97
15) ETHANOL	2.499	45	129282	1251.8364336	ppb	#	99
16) 1,1-DICHLOROETHENE	2.548	96	126221	23.5724715	ppb		100
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	139253	24.2942890	ppb		95
18) ACETONE	2.900	43	461664	173.9546155	ppb		99
19) IODOMETHANE	2.645	142	1094705	130.5930503	ppb		100
20) CARBON DISULFIDE	2.584	76	421272	26.9713557	ppb		99
21) ALLYL CHLORIDE	2.821	76	380627	123.9682216	ppb		97
22) METHYLENE CHLORIDE	2.888	84	141173	23.6558411	ppb		99
23) METHYL ACETATE	2.961	43	771524	117.9869744	ppb	#	99
24) ACRYLONITRILE	3.345	53	379678	115.9622884	ppb		98
25) n-HEXANE	3.010	56	129525	27.6604035	ppb		91
26) TRANS-1,2-DICHLOROETHENE	2.980	96	142191	26.2749111	ppb		97
27) METHYL TERT-BUTYL ETHER	3.022	73	407161	24.1303963	ppb		93
28) TERT-BUTYL ALCOHOL	3.059	59	144383	123.5251028	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	261277	23.8834054	ppb		100
30) VINYL ACETATE	3.430	43	1812436	146.2123464	ppb		99
31) DI-ISOPROPYL ETHER	3.217	45	478683	23.3578962	ppb		98
32) ETHYL TERT-BUTYL ETHER	3.418	59	447983	23.9449380	ppb		100
33) 2,2-DICHLOROPROPANE	3.673	77	236326	24.2727417	ppb		100
34) CIS-1,2-DICHLOROETHENE	3.618	96	160963	23.7686700	ppb		97
35) 2-BUTANONE (MEK)	3.910	43	628123	139.9077137	ppb		94
36) BROMOCHLOROMETHANE	3.734	130	90152	24.6554592	ppb		98
37) TETRAHYDROFURAN	3.856	42	103650	35.1571590	ppb	#	68
38) CHLOROFORM	3.752	83	271308	24.2811324	ppb		98
39) CYCLOHEXANE	3.740	84	210804	25.7019353	ppb		99
40) 1,1,1-TRICHLOROETHANE	3.880	97	240286	24.1626610	ppb		99

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_33.D
Acq On : 26 Jun 2019 11:42 am
Operator : 605
Sample : SSCV VMS 25 ppb 19F26889
Misc : water IS/SURR 19E01967
ALS Vial : 33 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:58:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:58:38 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.849	117	229837	24.4331248	ppb		99
42)	1,1-DICHLOROPROPENE	3.947	75	194489	25.7761173	ppb		99
43)	2,2,4-TRIMETHYLPENTANE	3.989	57	405939	28.1519121	ppb		97
44)	n-Heptane	4.032	71	100633	28.5254382	ppb		92
45)	BENZENE	4.087	78	579228	23.9561853	ppb		99
46)	TERT-AMYL METHYL ETHER	4.117	73	393529	22.8836051	ppb		100
48)	1,2-DICHLOROETHANE	4.196	62	192768	23.5228068	ppb		99
49)	T-AMYL ALCOHOL	4.208	59	192710	164.4668399	ppb		90
50)	TRICHLOROETHENE	4.415	130	155746	23.6601828	ppb	#	100
51)	METHYL CYCLOHEXANE	4.409	83	245708	26.7015820	ppb		98
52)	TERT-AMYL ETHYL ETHER	4.500	59	354655	24.7376684	ppb		99
53)	1,2-DICHLOROPROPANE	4.713	62	103051	25.4856365	ppb		99
54)	DIBROMOMETHANE	4.665	93	88595	23.0179781	ppb		98
55)	BROMODICHLOROMETHANE	4.744	83	199553	24.3770798	ppb		98
56)	2-CHLOROETHYL VINYL ETHER	5.048	63	494748	110.6280090	ppb		99
57)	CIS-1,3-DICHLOROPROPENE	5.115	75	232222	25.8694130	ppb		100
59)	4-METHYL-2-PENTANONE (...	5.468	43	1117517	112.2510369	ppb		100
61)	TOLUENE	5.261	91	648266	23.1625597	ppb		99
62)	TRANS-1,3-DICHLOROPROPENE	5.516	75	208739	24.5703509	ppb		98
63)	1,1,2-TRICHLOROETHANE	5.620	97	129013	21.2697646	ppb		100
64)	TETRACHLOROETHENE	5.516	164	141877	23.1700207	ppb		98
65)	1,3-DICHLOROPROPANE	5.802	76	196226	22.8069523	ppb		100
66)	2-HEXANONE	6.009	58	427632	107.7768705	ppb		100
67)	CHLORODIBROMOMETHANE	5.748	129	163300	24.1774559	ppb		99
68)	1,2-DIBROMOETHANE	5.924	107	145765	22.6649739	ppb		99
69)	CHLOROBENZENE	6.259	112	407962	22.7744536	ppb		99
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	149127	22.6486563	ppb	#	100
71)	ETHYLBENZENE	6.252	106	231366	22.8969209	ppb		100
72)	M&P-XYLENE	6.350	106	572609	45.5561103	ppb		99
73)	O-XYLENE	6.654	106	275595	22.2728013	ppb		99
76)	STYRENE	6.691	104	443770	22.5224696	ppb		99
77)	BROMOFORM	6.733	173	127082	23.8080375	ppb		100
78)	ISOPROPYLBENZENE	6.867	105	721357	22.7118557	ppb		100
81)	BROMOBENZENE	7.177	77	277469	25.4558334	ppb		99
82)	1,1,2,2-TETRACHLOROETHANE	7.226	83	193114	25.3560173	ppb		99
83)	1,2,3-TRICHLOROPROPANE	7.335	110	57232	23.3984996	ppb		94
84)	TRANS-1,4-DICHLORO-2-B...	7.354	53	55709	24.1823423	ppb		98
85)	N-PROPYLBENZENE	7.171	91	834058	26.4965566	ppb		100
86)	4-ETHYLTOLUENE	7.244	105	700058	26.5079193	ppb		100
87)	2-CHLOROTOLUENE	7.305	91	516917	24.2924424	ppb		100
88)	4-CHLOROTOLUENE	7.427	91	475964	25.9298146	ppb		98
89)	1,3,5-TRIMETHYLBENZENE	7.305	105	579072	25.0871908	ppb		98
90)	TERT-BUTYLBENZENE	7.548	119	488609	23.6282308	ppb		99
91)	1,2,4-TRIMETHYLBENZENE	7.609	105	567316	25.0927083	ppb		99
92)	SEC-BUTYLBENZENE	7.688	105	688986	24.0339265	ppb		99
93)	1,3-DICHLOROBENZENE	7.883	146	311125	26.8983377	ppb		99
94)	P-ISOPROPYLTOLUENE	7.792	119	619527	23.7602852	ppb		99
95)	DICYCLOPENTADIENE	7.792	66	588997	20.3841367	ppb		100
96)	1,4-DICHLOROBENZENE	7.950	146	318726	24.1861426	ppb		98
97)	1,2,3-TRIMETHYLBENZENE	7.950	105	540698	28.9951634	ppb		99
98)	1,2-DICHLOROBENZENE	8.284	146	280231	25.7398563	ppb		99
99)	N-BUTYLBENZENE	8.126	91	510070	25.3219846	ppb		99
100)	1,2-DIBROMO-3-CHLOROPR...	8.923	157	55268	25.1051625	ppb		94
101)	1,2,4-TRICHLOROBENZENE	9.483	180	146409	26.3482392	ppb		100

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_33.D
Acq On : 26 Jun 2019 11:42 am
Operator : 605
Sample : SSCV VMS 25 ppb 19F26889
Misc : water IS/SURR 19E01967
ALS Vial : 33 Sample Multiplier: 1
InstName : VOCMS28

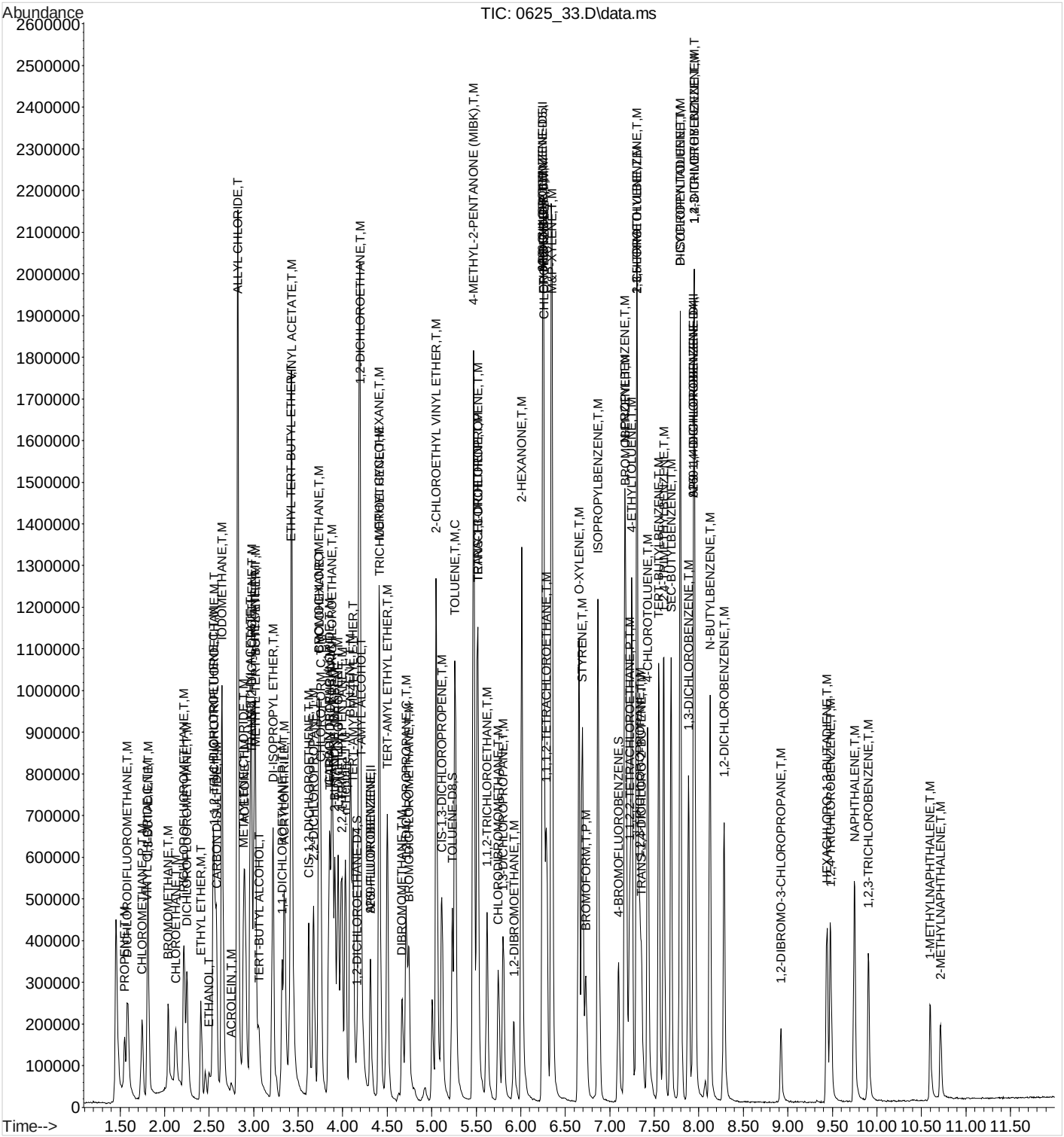
Quant Time: Jun 26 11:58:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:58:38 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	79231	25.8391483 ppb	99
103) NAPHTHALENE	9.751	128	447160	24.7443585 ppb	99
104) 1,2,3-TRICHLOROBENZENE	9.903	180	117360	25.5714978 ppb	100
105) 1-METHYLNAPHTHALENE	10.596	142	113064	28.8916070 ppb	99
106) 2-METHYLNAPHTHALENE	10.718	142	85205	26.3962617 ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\062519\
Data File : 0625_33.D
Acq On : 26 Jun 2019 11:42 am
Operator : 605
Sample : SSCV VMS 25 ppb 19F26889
Misc : water IS/SURR 19E01967
ALS Vial : 33 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jun 26 11:58:46 2019
Quant Method : C:\msdchem\1\methods\V828F25S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Wed Jun 26 11:58:38 2019
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1116144	**Calibration (begin) date/time:**	06/25/19 22:33
Instrument ID:	VOCMS28	**Calibration (end) date/time:**	06/27/19 09:57
Lab File ID:	0708_30-1	**Analysis date/time:**	07/08/19 20:59
Analytical Method:	8260C	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
VINYL CHLORIDE	0.462161	0.44622970	0.10	3.45	20	0.0250	0.02413819	96.60	
1,2-DICHLOROETHANE-D4	0.336011	0.35573050		5.87	20	0.0160	0.01693898	106	0 - 0
4-BROMOFLUOROBENZENE	0.968099	0.86795460		10.30	20	0.0160	0.01434489	89.70	80 - 120
TOLUENE-D8	2.279566	2.156959		5.38	20	0.0160	0.01513944	94.60	90 - 115

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:47:53 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	201796	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	100988	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	113512	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	4.312	96	201796	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.246	82	100988	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.938	152	113512	16.0000000	ppb	#	0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	71785	16.9389783	ppb		0.00
Spiked Amount 16.000				Recovery = 105.87%			
60) TOLUENE-D8	5.230	98	217827	15.1394376	ppb		0.00
Spiked Amount 16.000	Range 90 - 115			Recovery = 94.62%			
79) 4-BROMOFLUOROBENZENE	7.098	95	87653	14.3448865	ppb		0.00
Spiked Amount 16.000	Range 80 - 120			Recovery = 89.66%			
Target Compounds							Qvalue
4) PROPENE	1.550	41	82873	27.3013036	ppb		98
5) DICHLORODIFLUOROMETHANE	1.580	85	197161	35.5663749	ppb		100
6) CHLOROMETHANE	1.744	50	114752	17.6350909	ppb		99
7) VINYL CHLORIDE	1.799	62	140699	24.1381902	ppb		99
8) 1,3-BUTADIENE	1.811	39	119509	22.8780289	ppb		97
9) BROMOMETHANE	2.036	94	62791	23.1364685	ppb		93
10) CHLOROETHANE	2.122	64	95023	28.0292991	ppb		98
11) TRICHLOROFLUOROMETHANE	2.219	101	216441	26.0570014	ppb		97
12) DICHLOROFLUOROMETHANE	2.249	67	217352	22.9543106	ppb		100
13) ETHYL ETHER	2.408	59	86032	23.3923564	ppb		97
14) ACROLEIN	2.742	56	73631	140.5709510	ppb		95
15) ETHANOL	2.499	45	90988	1098.3607635	ppb	#	95
16) 1,1-DICHLOROETHENE	2.547	96	106531	24.7909845	ppb		97
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	120501	26.1959741	ppb		95
18) ACETONE	2.906	43	300739	141.2030135	ppb		98
19) IODOMETHANE	2.645	142	323416	48.0760451	ppb		99
20) CARBON DISULFIDE	2.578	76	342097	27.2918965	ppb		100
21) ALLYL CHLORIDE	2.821	76	312264	126.7292795	ppb		82
22) METHYLENE CHLORIDE	2.888	84	117937	24.6252754	ppb		94
23) METHYL ACETATE	2.967	43	562214	107.1347963	ppb	#	97
24) ACRYLONITRILE	3.344	53	293725	111.7857705	ppb		100
25) n-HEXANE	3.010	56	98263	26.1480435	ppb		90
26) TRANS-1,2-DICHLOROETHENE	2.979	96	118581	27.3139701	ppb		94
27) METHYL TERT-BUTYL ETHER	3.022	73	327931	24.2172611	ppb		96
28) TERT-BUTYL ALCOHOL	3.059	59	107191	114.2725064	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	208016	23.6938742	ppb		99
30) VINYL ACETATE	3.430	43	1224898	123.1304766	ppb		98
31) DI-ISOPROPYL ETHER	3.217	45	359999	21.8892702	ppb		96
32) ETHYL TERT-BUTYL ETHER	3.417	59	349437	23.2736950	ppb		98
33) 2,2-DICHLOROPROPANE	3.673	77	177684	22.7404953	ppb		97
34) CIS-1,2-DICHLOROETHENE	3.618	96	131906	24.2709984	ppb		94
35) 2-BUTANONE (MEK)	3.910	43	394872	110.2012781	ppb		96
36) BROMOCHLOROMETHANE	3.734	130	81983	27.9386749	ppb		92
37) TETRAHYDROFURAN	3.855	42	49086	20.7465734	ppb		98
38) CHLOROFORM	3.752	83	220610	24.6023051	ppb		97
39) CYCLOHEXANE	3.740	84	180576	27.4341353	ppb		93
40) 1,1,1-TRICHLOROETHANE	3.880	97	202431	25.3651585	ppb		98

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:47:53 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.849	117	192174	25.4564574	ppb		99
42)	1,1-DICHLOROPROPENE	3.947	75	162947	26.9099626	ppb		99
43)	2,2,4-TRIMETHYLPENTANE	3.989	57	304161	26.2842092	ppb		99
44)	n-Heptane	4.032	71	77336	27.3160488	ppb		88
45)	BENZENE	4.087	78	473041	24.3787351	ppb		98
46)	TERT-AMYL METHYL ETHER	4.117	73	320525	23.2249015	ppb		98
48)	1,2-DICHLOROETHANE	4.202	62	155436	23.6346992	ppb		99
49)	T-AMYL ALCOHOL	4.208	59	115489	122.8171415	ppb		97
50)	TRICHLOROETHENE	4.415	130	132962	25.1694080	ppb	#	100
51)	METHYL CYCLOHEXANE	4.409	83	206079	27.9058787	ppb		95
52)	TERT-AMYL ETHYL ETHER	4.500	59	280132	24.3477967	ppb		97
53)	1,2-DICHLOROPROPANE	4.713	62	80735	24.8799436	ppb		100
54)	DIBROMOMETHANE	4.671	93	71922	23.2843428	ppb		98
55)	BROMODICHLOROMETHANE	4.744	83	159048	24.2100618	ppb		98
56)	2-CHLOROETHYL VINYL ETHER	5.048	63	403207	112.3449047	ppb		100
57)	CIS-1,3-DICHLOROPROPENE	5.115	75	183045	25.4088700	ppb		100
59)	4-METHYL-2-PENTANONE (...	5.468	43	855062	107.3195080	ppb		97
61)	TOLUENE	5.261	91	535419	23.9040743	ppb		99
62)	TRANS-1,3-DICHLOROPROPENE	5.516	75	162000	23.8269042	ppb		100
63)	1,1,2-TRICHLOROETHANE	5.620	97	109060	22.4667135	ppb		99
64)	TETRACHLOROETHENE	5.516	164	125284	25.5655347	ppb		99
65)	1,3-DICHLOROPROPANE	5.802	76	160655	23.3318832	ppb		100
66)	2-HEXANONE	6.009	58	352612	111.0445644	ppb		96
67)	CHLORODIBROMOMETHANE	5.747	129	130274	24.1005530	ppb		99
68)	1,2-DIBROMOETHANE	5.924	107	119731	23.2623411	ppb		98
69)	CHLOROBENZENE	6.258	112	338793	23.6323836	ppb		97
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	126390	23.9852206	ppb	#	98
71)	ETHYLBENZENE	6.252	106	191146	23.6367414	ppb		99
72)	M&P-XYLENE	6.350	106	477852	47.5036213	ppb		99
73)	O-XYLENE	6.654	106	234754	23.7061678	ppb		95
76)	STYRENE	6.690	104	337467	21.4139758	ppb		99
77)	BROMOFORM	6.733	173	100321	23.4842262	ppb		99
78)	ISOPROPYLBENZENE	6.867	105	607088	23.8835490	ppb		99
81)	BROMOBENZENE	7.183	77	217493	22.8157275	ppb		93
82)	1,1,2,2-TETRACHLOROETHANE	7.226	83	155621	23.3642406	ppb		99
83)	1,2,3-TRICHLOROPROPANE	7.335	110	50996	23.8397330	ppb		82
84)	TRANS-1,4-DICHLORO-2-B...	7.360	53	32395	16.0793013	ppb	#	93
85)	N-PROPYLBENZENE	7.171	91	697500	25.3369063	ppb		99
86)	4-ETHYLTOLUENE	7.244	105	592500	25.6534724	ppb		100
87)	2-CHLOROTOLUENE	7.305	91	443785	23.8472976	ppb		98
88)	4-CHLOROTOLUENE	7.427	91	398698	24.8362229	ppb		98
89)	1,3,5-TRIMETHYLBENZENE	7.305	105	485210	24.0361772	ppb		100
90)	TERT-BUTYLBENZENE	7.554	119	418352	23.1327774	ppb		98
91)	1,2,4-TRIMETHYLBENZENE	7.609	105	465583	23.5470121	ppb		99
92)	SEC-BUTYLBENZENE	7.688	105	595700	23.7606391	ppb		100
93)	1,3-DICHLOROBENZENE	7.883	146	269231	26.6153256	ppb		99
94)	P-ISOPROPYLTOLUENE	7.792	119	519677	22.7898305	ppb		98
95)	DICYCLOPENTADIENE	7.792	66	493627	19.5341417	ppb		99
96)	1,4-DICHLOROBENZENE	7.950	146	273670	23.7461111	ppb		98
97)	1,2,3-TRIMETHYLBENZENE	7.950	105	454605	27.8754054	ppb		100
98)	1,2-DICHLOROBENZENE	8.284	146	243247	25.5478067	ppb		98
99)	N-BUTYLBENZENE	8.126	91	415557	23.5892834	ppb		99
100)	1,2-DIBROMO-3-CHLOROPR...	8.923	157	39995	20.7735718	ppb		95
101)	1,2,4-TRICHLOROBENZENE	9.483	180	115257	23.7174133	ppb		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

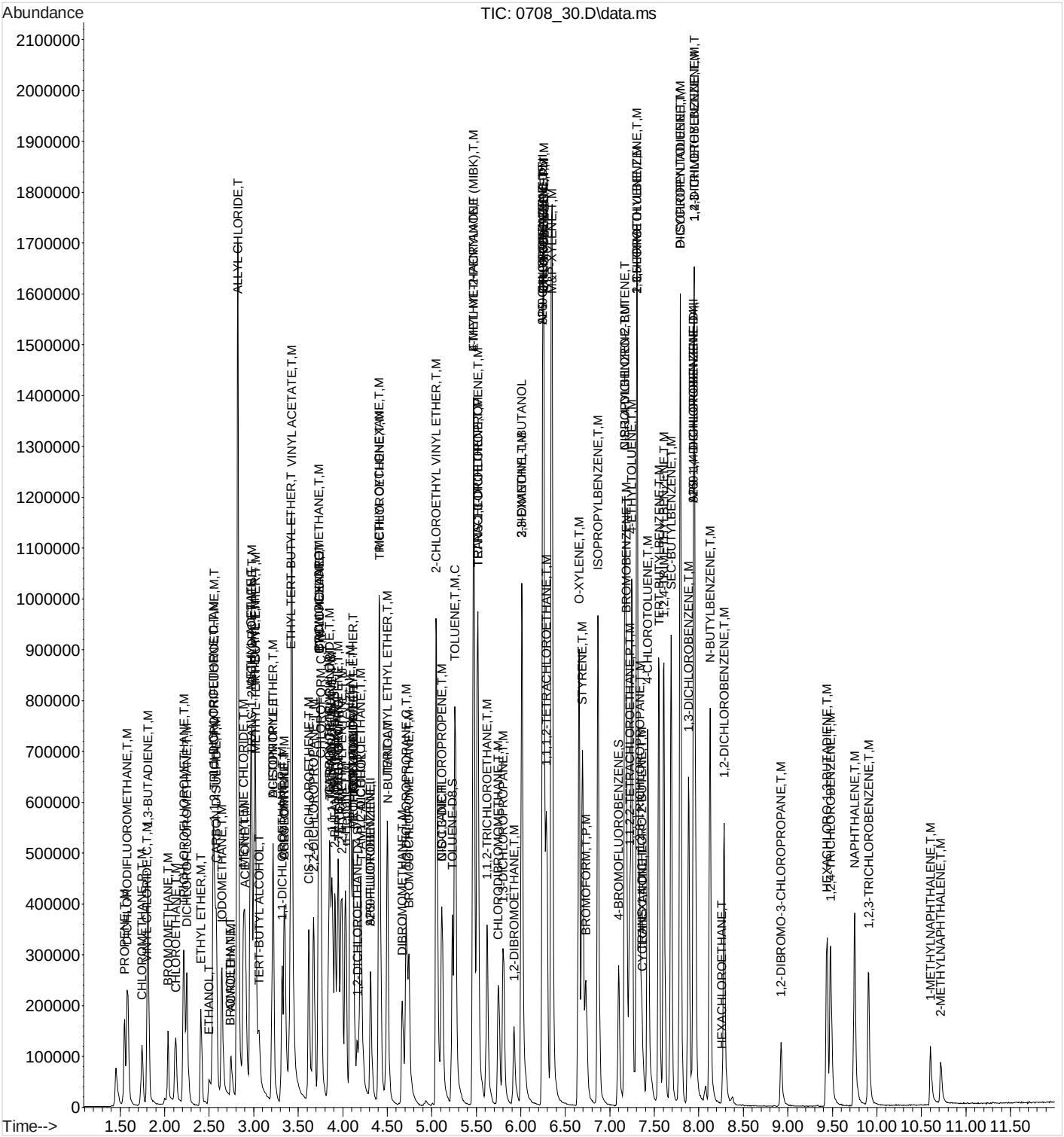
Quant Time: Jul 09 08:47:53 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	61474	22.9240167	ppb		99
103) NAPHTHALENE	9.750	128	339878	21.5056460	ppb		98
104) 1,2,3-TRICHLOROBENZENE	9.909	180	91445	22.7830686	ppb		98
105) 1-METHYLNAPHTHALENE	10.602	142	59737	17.4544813	ppb		98
106) 2-METHYLNAPHTHALENE	10.718	142	42175	14.9399321	ppb		99
108) BROMOETHANE	2.736	108	667	0.2415414	ppb	#	100
110) ACETONITRILE	3.217	41	67613	72.4889143	ppb	#	1
111) CHLOROPRENE	3.344	53	303329	42.4635028	ppb	#	100
112) PROPIONITRILE	4.123	54	1818	1.5378436	ppb	#	1
113) ETHYL ACETATE	3.740	43	25077	3.8987388	ppb	#	97
114) METHACRYLONITRILE	4.123	67	750	0.2742067	ppb	#	1
115) TERT-BUTYL FORMATE	3.953	59	1517	0.4437000	ppb	#	100
116) ISOBUTANOL	4.117	43	109293	194.0854804	ppb	#	16
117) N-BUTANOL	4.506	56	4802	16.2187748	ppb	#	1
120) N-OCTANE	5.115	85	2666	1.4833146	ppb	#	100
123) 3,3-DIMETHYL-1-BUTANOL	6.009	57	118195	120.1722766	ppb	#	1
124) ETHYL METHACRYLATE	5.468	69	6154	0.8513802	ppb	#	1
126) CIS-1,4-DICHLORO-2-BUTENE	7.171	53	5245	2.3437560	ppb	#	1
127) CYCLOHEXANONE	7.366	55	770	0.4944491	ppb	#	87
129) HEXACHLOROETHANE	8.260	117	813	0.2199624	ppb	#	11

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:47:53 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration



7E-OR

REPORTING LEVEL VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1116144	**Calibration (begin) date/time:**	06/25/19 22:33
Instrument ID:	VOCMS28	**Calibration (end) date/time:**	06/27/19 09:57
Lab File ID:	0708_35-1	**Analysis date/time:**	07/08/19 23:46
Analytical Method:	8260C	**Sample ID:**	RL

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
VINYL CHLORIDE	0.0010	0.0005811175	58.10	50 - 150

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_35.D
Acq On : 8 Jul 2019 11:46 pm
Operator : 605
Sample : RL VMS 1 ppb
Misc : water
ALS Vial : 35 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:48:16 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.318	96	194452	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.252	82	89467	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.949	152	95234	16.0000000	ppb	#	0.01
107) AP9-FLUOROBENZENE	4.318	96	194452	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.252	82	88189	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.949	152	95234	16.0000000	ppb		0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	61780	15.1286979	ppb		0.00
Spiked Amount 16.000			Recovery = 94.55%				
60) TOLUENE-D8	5.236	98	213532	16.7520475	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 104.70%				
79) 4-BROMOFLUOROBENZENE	7.104	95	79710	14.7248215	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 92.03%				
Target Compounds							Qvalue
4) PROPENE	1.550	41	4369	1.4936626	ppb	#	78
5) DICHLORODIFLUOROMETHANE	1.580	85	3892	0.7286040	ppb		94
6) CHLOROMETHANE	1.744	50	3868	0.6168848	ppb	#	92
7) VINYL CHLORIDE	1.805	62	3264	0.5811175	ppb	#	81
8) 1,3-BUTADIENE	1.817	39	2831	0.5624164	ppb		98
9) BROMOMETHANE	2.042	94	3724	1.4239983	ppb	#	77
10) CHLOROETHANE	2.128	64	3061	0.9370159	ppb		92
11) TRICHLOROFLUOROMETHANE	2.219	101	4446	0.5554622	ppb	#	95
12) DICHLOROFLUOROMETHANE	2.255	67	5934	0.6503517	ppb		99
13) ETHYL ETHER	2.413	59	3244	0.9153663	ppb		95
14) ACROLEIN	2.778	56	2786	5.5197084	ppb		99
15) ETHANOL	2.517	45	2242	32.2341854	ppb	#	80
16) 1,1-DICHLOROETHENE	2.547	96	2424	0.5853970	ppb		98
17) 1,1,2-TRICHLOROTRIFLUO...	2.559	101	2321	0.5236236	ppb		95
18) ACETONE	2.924	43	14845	7.2332680	ppb		91
19) IODOMETHANE	2.645	142	2667	0.4114247	ppb	#	95
20) CARBON DISULFIDE	2.584	76	9556	0.7911535	ppb		100
21) ALLYL CHLORIDE	2.827	76	8081	3.4034572	ppb		84
22) METHYLENE CHLORIDE	2.888	84	4520	0.9794214	ppb		98
23) METHYL ACETATE	2.985	43	29285	5.7912760	ppb	#	97
24) ACRYLONITRILE	3.411	53	7277	2.8740752	ppb	#	64
25) n-HEXANE	3.016	56	2625	0.7249009	ppb	#	1
26) TRANS-1,2-DICHLOROETHENE	2.991	96	3059	0.4870237	ppb		88
27) METHYL TERT-BUTYL ETHER	3.022	73	12881	0.9871707	ppb	#	76
28) TERT-BUTYL ALCOHOL	3.070	59	5174	5.7241367	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	6036	0.7134913	ppb		99
30) VINYL ACETATE	3.460	43	35224	3.6745524	ppb		98
31) DI-ISOPROPYL ETHER	3.223	45	11916	0.7519009	ppb		98
32) ETHYL TERT-BUTYL ETHER	3.423	59	11420	0.7893374	ppb		96
33) 2,2-DICHLOROPROPANE	3.679	77	4342	0.5766889	ppb	#	89
34) CIS-1,2-DICHLOROETHENE	3.636	96	4109	0.7846200	ppb		89
35) 2-BUTANONE (MEK)	3.892	43	1290	3.1546190	ppb	#	1
36) BROMOCHLOROMETHANE	3.752	130	2748	0.9718492	ppb		97
37) TETRAHYDROFURAN	3.867	42	3548	1.5562253	ppb	#	91
38) CHLOROFORM	3.764	83	6224	0.7203115	ppb		91
39) CYCLOHEXANE	3.740	84	3559	0.5611247	ppb		85
40) 1,1,1-TRICHLOROETHANE	3.886	97	4351	0.5657829	ppb		96

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_35.D
Acq On : 8 Jul 2019 11:46 pm
Operator : 605
Sample : RL VMS 1 ppb
Misc : water
ALS Vial : 35 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:48:16 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.855	117	4066	0.5589473	ppb		98
42)	1,1-DICHLOROPROPENE	3.965	75	3689	0.6322306	ppb	#	90
43)	2,2,4-TRIMETHYLPENTANE	3.989	57	10947	0.9817178	ppb	#	85
44)	n-Heptane	4.044	71	2344	0.8591993	ppb		94
45)	BENZENE	4.105	78	12130	0.6487440	ppb		99
46)	TERT-AMYL METHYL ETHER	4.129	73	11575	0.8703884	ppb		95
48)	1,2-DICHLOROETHANE	4.214	62	6306	0.9950676	ppb		98
49)	T-AMYL ALCOHOL	4.226	59	3746	4.1341504	ppb	#	71
50)	TRICHLOROETHENE	4.421	130	3455	0.6787247	ppb	#	50
51)	METHYL CYCLOHEXANE	4.415	83	5119	0.7193616	ppb		93
52)	TERT-AMYL ETHYL ETHER	4.506	59	8550	0.7711932	ppb		97
53)	1,2-DICHLOROPROPANE	4.731	62	2299	0.7352358	ppb		95
54)	DIBROMOMETHANE	4.683	93	2702	0.9077948	ppb		91
55)	BROMODICHLOROMETHANE	4.762	83	4998	0.7895217	ppb		93
56)	2-CHLOROETHYL VINYL ETHER	5.084	63	10457	3.0236573	ppb	#	96
57)	CIS-1,3-DICHLOROPROPENE	5.133	75	5314	0.7655070	ppb	#	98
59)	4-METHYL-2-PENTANONE (...	5.486	43	30176	4.2751330	ppb		99
61)	TOLUENE	5.273	91	15054	0.7586421	ppb		97
62)	TRANS-1,3-DICHLOROPROPENE	5.559	75	4199	0.6971165	ppb	#	83
63)	1,1,2-TRICHLOROETHANE	5.644	97	3562	0.8282756	ppb		98
64)	TETRACHLOROETHENE	5.528	164	2876	0.6624530	ppb		96
65)	1,3-DICHLOROPROPANE	5.820	76	5175	0.8483456	ppb	#	84
66)	2-HEXANONE	6.045	58	8207	2.9173702	ppb	#	65
67)	CHLORODIBROMOMETHANE	5.766	129	4022	0.8398819	ppb		97
68)	1,2-DIBROMOETHANE	5.960	107	3208	0.7035388	ppb	#	75
69)	CHLOROBENZENE	6.264	112	10236	0.8059540	ppb		89
70)	1,1,1,2-TETRACHLOROETHANE	6.295	133	3657	0.7833626	ppb	#	14
71)	ETHYLBENZENE	6.264	106	4527	0.6318875	ppb		94
72)	M&P-XYLENE	6.368	106	12648	1.4192603	ppb		77
73)	O-XYLENE	6.672	106	6002	0.6841499	ppb		94
76)	STYRENE	6.745	104	5681	0.6623987	ppb		93
77)	BROMOFORM	6.751	173	2821	0.7454086	ppb		91
78)	ISOPROPYLBENZENE	6.885	105	15602	0.6928423	ppb		96
81)	BROMOBENZENE	7.195	77	6033	0.7543486	ppb		87
82)	1,1,2,2-TETRACHLOROETHANE	7.238	83	5794	1.0368399	ppb		99
83)	1,2,3-TRICHLOROPROPANE	7.347	110	1615	0.8998861	ppb		81
84)	TRANS-1,4-DICHLORO-2-B...	7.311	53	386	0.2283633	ppb	#	1
85)	N-PROPYLBENZENE	7.195	91	15869	0.6870822	ppb		97
86)	4-ETHYLTOLUENE	7.268	105	11622	0.5997751	ppb	#	83
87)	2-CHLOROTOLUENE	7.323	91	11242	0.7200454	ppb		97
88)	4-CHLOROTOLUENE	7.463	91	7426	0.5513739	ppb	#	79
89)	1,3,5-TRIMETHYLBENZENE	7.317	105	11856	0.7000412	ppb		98
90)	TERT-BUTYLBENZENE	7.560	119	10663	0.7027730	ppb		99
91)	1,2,4-TRIMETHYLBENZENE	7.633	105	12403	0.7476790	ppb		99
92)	SEC-BUTYLBENZENE	7.706	105	14992	0.7127543	ppb		99
93)	1,3-DICHLOROBENZENE	7.907	146	6523	0.7686061	ppb		95
94)	P-ISOPROPYLTOLUENE	7.803	119	14015	0.7325722	ppb		97
95)	DICYCLOPENTADIENE	7.797	66	12329	0.5815312	ppb		98
96)	1,4-DICHLOROBENZENE	7.968	146	7629	0.7890103	ppb	#	1
97)	1,2,3-TRIMETHYLBENZENE	7.962	105	12445	0.9095606	ppb		98
98)	1,2-DICHLOROBENZENE	8.315	146	6828	0.8547702	ppb		97
99)	N-BUTYLBENZENE	8.156	91	8357	0.5654371	ppb	#	92
100)	1,2-DIBROMO-3-CHLOROPR...	8.947	157	1375	0.8512516	ppb	#	77
101)	1,2,4-TRICHLOROBENZENE	9.525	180	3158	0.7745722	ppb		89

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_35.D
Acq On : 8 Jul 2019 11:46 pm
Operator : 605
Sample : RL VMS 1 ppb
Misc : water
ALS Vial : 35 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:48:16 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

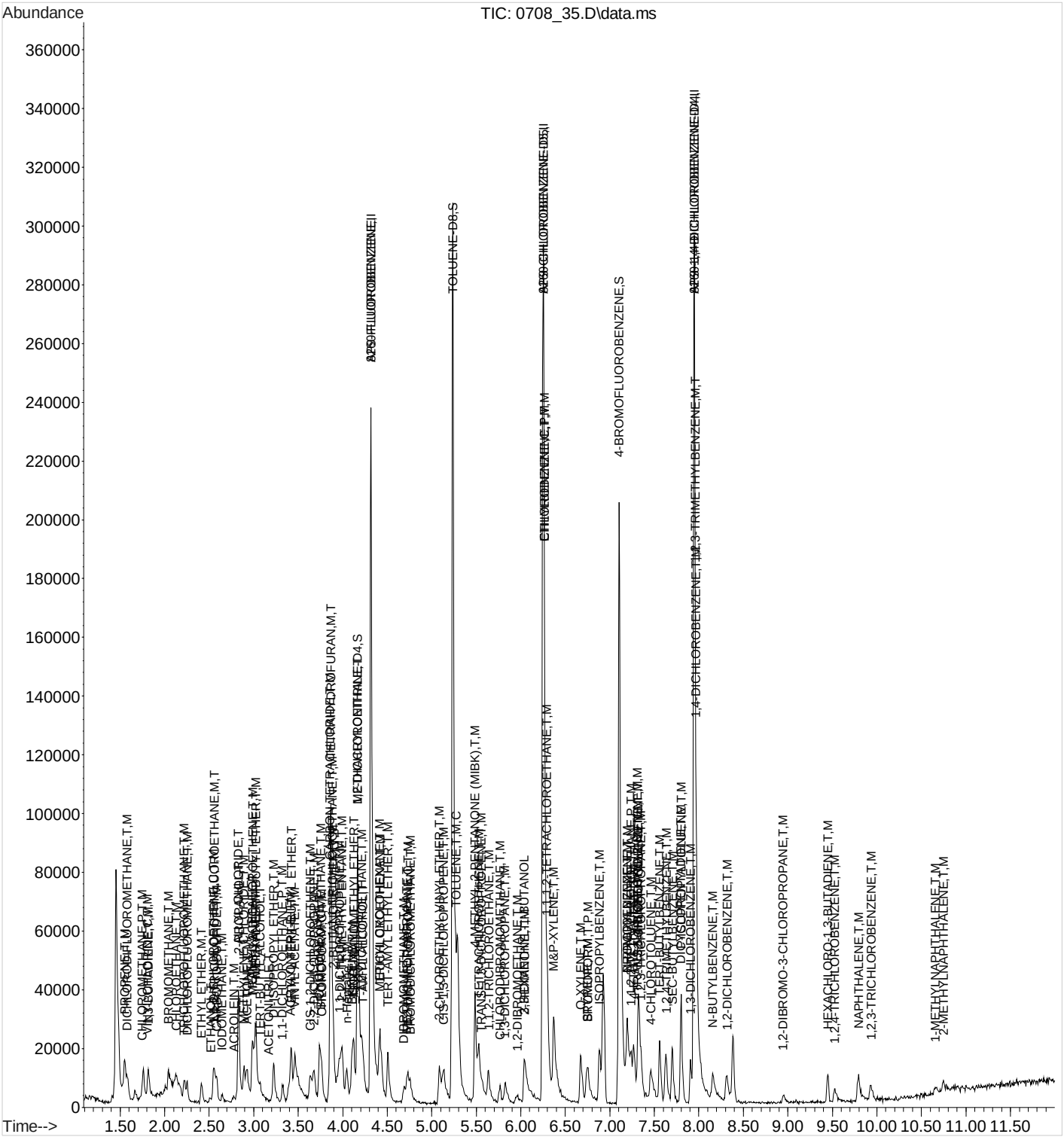
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.446	225	2199	0.9774043	ppb		91
103) NAPHTHALENE	9.793	128	10684	0.8057737	ppb	#	93
104) 1,2,3-TRICHLOROBENZENE	9.933	180	3196	0.9490930	ppb	#	93
105) 1-METHYLNAPHTHALENE	10.657	142	2484	0.8650971	ppb	#	80
106) 2-METHYLNAPHTHALENE	10.748	142	2443	1.0314941	ppb	#	20
109) 2-PROPANOL	2.833	45	381	0.7765721	ppb	#	100
110) ACETONITRILE	3.168	41	303	0.3371197	ppb	#	1
114) METHACRYLONITRILE	4.166	67	31479	11.9436720	ppb	#	95
116) ISOBUTANOL	4.129	43	4613	8.5012795	ppb	#	3
118) METHYL METHACRYLATE	4.719	41	2019	0.3461398	ppb	#	100
123) 3,3-DIMETHYL-1-BUTANOL	6.039	57	2003	2.3320695	ppb	#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_35.D
Acq On : 8 Jul 2019 11:46 pm
Operator : 605
Sample : RL VMS 1 ppb
Misc : water
ALS Vial : 35 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:48:16 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration



1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3429314-4

Lab Sample ID:	R3429314-4	**SDG:**	L1116144
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0708_34	**Received Date/Time:**	
Instrument ID:	VOCMS28	**Preparation Date/Time:**	07/08/19 22:24
Analytical Batch:	WG1308028	**Analysis Date/Time:**	07/08/19 22:24
Dilution Factor:	1	**Prep Method:**	8260B/8260C
Analytical Method:	8260C	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Vinyl chloride	75-01-4	0	U		0.118	0.500

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_34.D
Acq On : 8 Jul 2019 10:24 pm
Operator : 605
Sample : BLANK 1x WG1308028
Misc : water
ALS Vial : 34 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:54:36 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

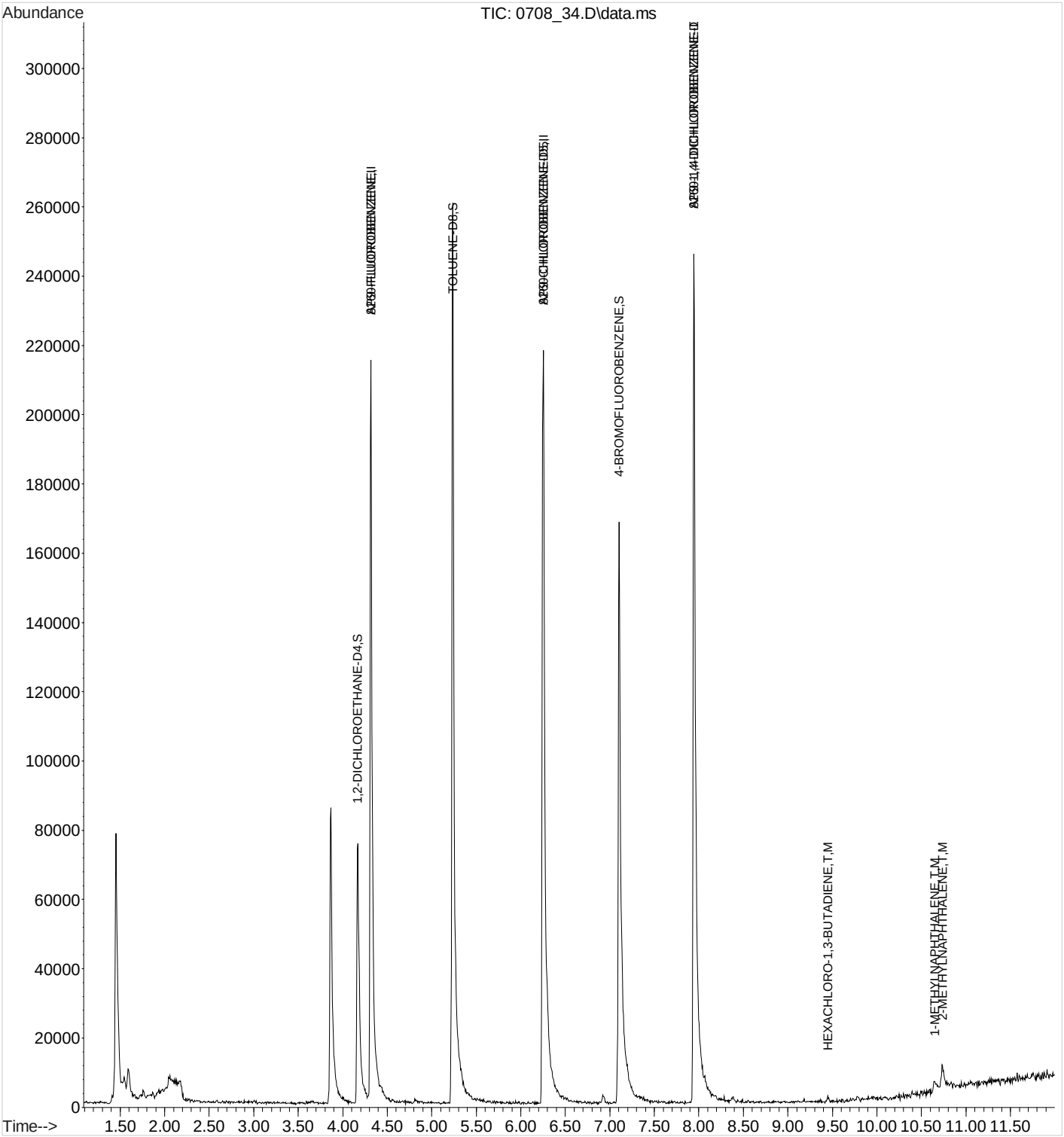
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.318	96	178602	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.252	82	79209	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.944	152	95672	16.0000000	ppb	#	0.00
107) AP9-FLUOROBENZENE	4.318	96	178602	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.252	82	77261	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.944	152	95672	16.0000000	ppb		0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	58676	15.6437275	ppb		0.00
Spiked Amount 16.000			Recovery = 97.77%				
60) TOLUENE-D8	5.236	98	203926	18.0703212	ppb		0.00
Spiked Amount 16.000	Range 90 - 115		Recovery = 112.94%				
79) 4-BROMOFLUOROBENZENE	7.104	95	80614	16.8203893	ppb		0.00
Spiked Amount 16.000	Range 80 - 120		Recovery = 105.13%				
Target Compounds							Qvalue
102) HEXACHLORO-1,3-BUTADIENE	9.446	225	555	0.2455552	ppb	#	77
105) 1-METHYLNAPHTHALENE	10.651	142	2722	0.9436449	ppb	#	92
106) 2-METHYLNAPHTHALENE	10.736	142	5170	2.1729063	ppb	#	82

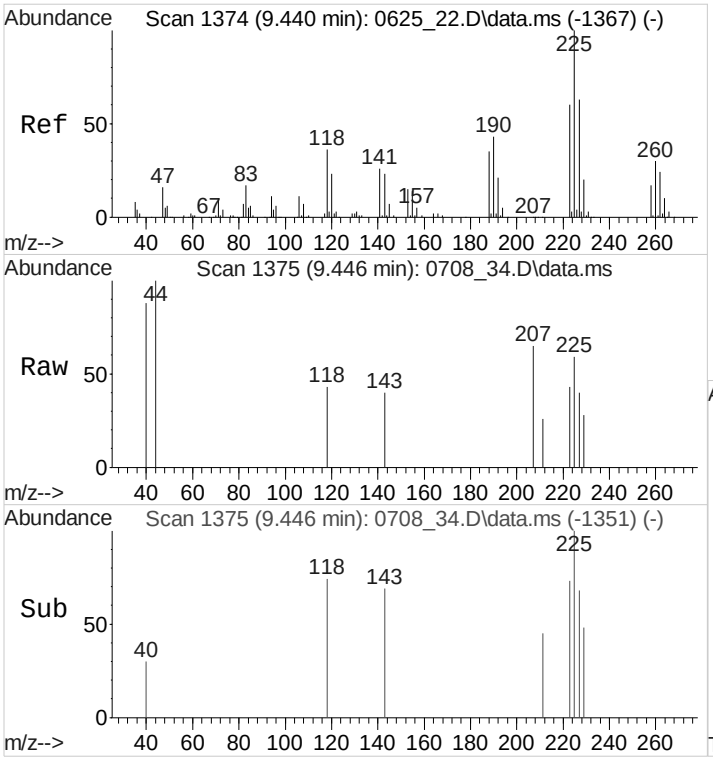
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_34.D
Acq On : 8 Jul 2019 10:24 pm
Operator : 605
Sample : BLANK 1x WG1308028
Misc : water
ALS Vial : 34 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 09 08:54:36 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

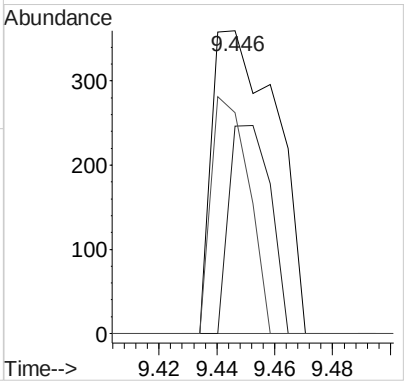


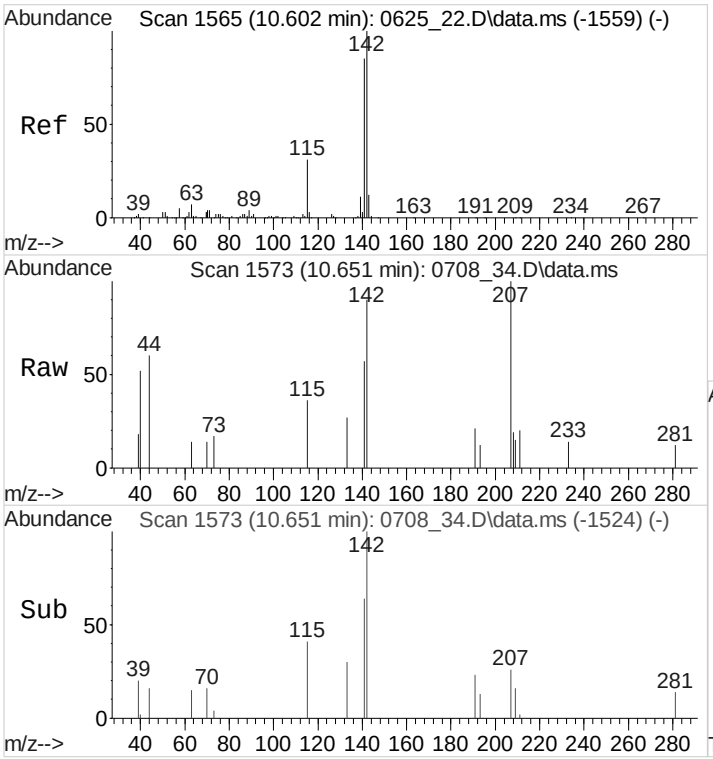


#102
HEXACHLORO-1,3-BUTADIENE
Concen: 0.2455552 ppb
RT: 9.446 min Scan# 1375
Delta R.T. 0.007 min
Lab File: 0708_34.D
Acq: 8 Jul 2019 10:24 pm

Tgt Ion:225 Resp: 555

Ion	Ratio	Lower	Upper
225	100		
227	44.1	50.8	76.2#
223	45.9	50.4	75.6#

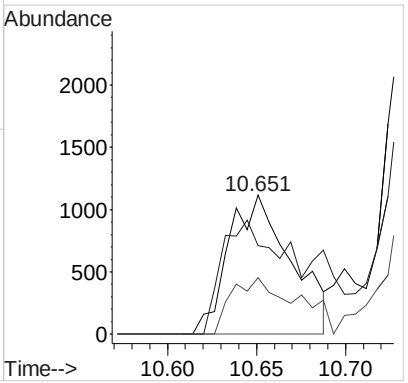


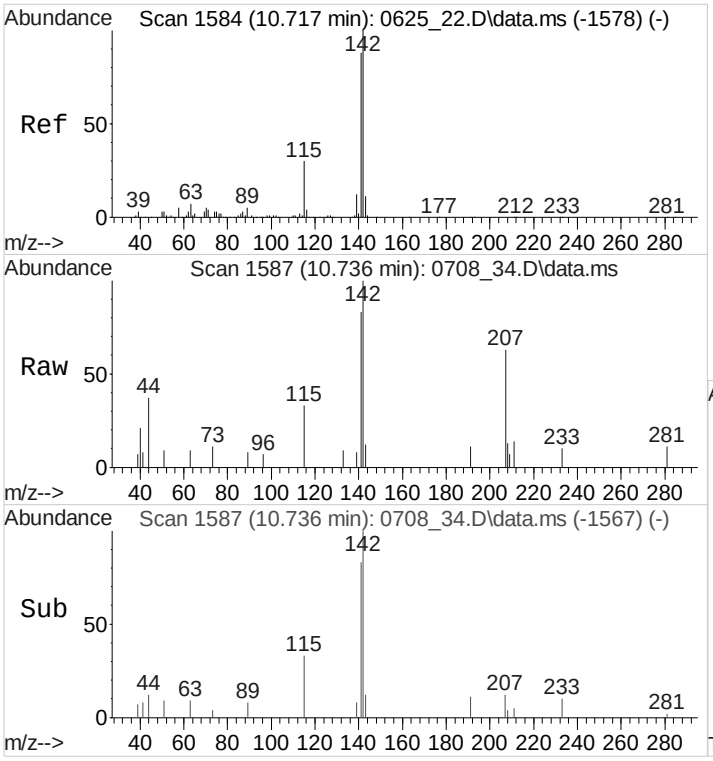


#105
1-METHYLNAPHTHALENE
Concen: 0.9436449 ppb
RT: 10.651 min Scan# 1573
Delta R.T. 0.050 min
Lab File: 0708_34.D
Acq: 8 Jul 2019 10:24 pm

Tgt Ion:142 Resp: 2722

Ion	Ratio	Lower	Upper
142	100		
141	81.5	69.8	104.8
115	42.1	27.2	40.8#

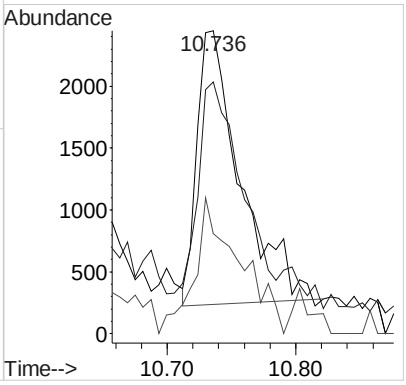




#106
2-METHYLNAPHTHALENE
Concen: 2.1729063 ppb
RT: 10.736 min Scan# 1587
Delta R.T. 0.019 min
Lab File: 0708_34.D
Acq: 8 Jul 2019 10:24 pm

Tgt Ion:142 Resp: 5170

Ion	Ratio	Lower	Upper
142	100		
141	74.7	68.2	102.4
115	51.7	26.4	39.6#



1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3429314-1

Lab Sample ID:	R3429314-1	**SDG:**	L1116144
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0708_30LCS	**Received Date/Time:**	
Instrument ID:	VOCMS28	**Preparation Date/Time:**	07/08/19 20:59
Analytical Batch:	WG1308028	**Analysis Date/Time:**	07/08/19 20:59
Dilution Factor:	1	**Prep Method:**	8260B/8260C
Analytical Method:	8260C	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Vinyl chloride	75-01-4	1.80	24.1		0.118	0.500

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:30:29 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	201796	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	100988	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.938	152	113512	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	4.312	96	201796	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.246	82	100988	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.938	152	113512	16.0000000	ppb	#	0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	71785	16.9389783	ppb		0.00
Spiked Amount 16.000				Recovery = 105.87%			
60) TOLUENE-D8	5.230	98	217827	15.1394376	ppb		0.00
Spiked Amount 16.000	Range 90 - 115			Recovery = 94.62%			
79) 4-BROMOFLUOROBENZENE	7.098	95	87653	14.3448865	ppb		0.00
Spiked Amount 16.000	Range 80 - 120			Recovery = 89.66%			
Target Compounds							Qvalue
4) PROPENE	1.550	41	82873	27.3013036	ppb		98
5) DICHLORODIFLUOROMETHANE	1.580	85	197161	35.5663749	ppb		100
6) CHLOROMETHANE	1.744	50	114752	17.6350909	ppb		99
7) VINYL CHLORIDE	1.799	62	140699	24.1381902	ppb		99
8) 1,3-BUTADIENE	1.811	39	119509	22.8780289	ppb		97
9) BROMOMETHANE	2.036	94	62791	23.1364685	ppb		93
10) CHLOROETHANE	2.122	64	95023	28.0292991	ppb		98
11) TRICHLOROFLUOROMETHANE	2.219	101	216441	26.0570014	ppb		97
12) DICHLOROFLUOROMETHANE	2.249	67	217352	22.9543106	ppb		100
13) ETHYL ETHER	2.408	59	86032	23.3923564	ppb		97
14) ACROLEIN	2.742	56	73631	140.5709510	ppb		95
15) ETHANOL	2.499	45	90988	1098.3607635	ppb	#	95
16) 1,1-DICHLOROETHENE	2.547	96	106531	24.7909845	ppb		97
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	120501	26.1959741	ppb		95
18) ACETONE	2.906	43	300739	141.2030135	ppb		98
19) IODOMETHANE	2.645	142	323416	48.0760451	ppb		99
20) CARBON DISULFIDE	2.578	76	342097	27.2918965	ppb		100
21) ALLYL CHLORIDE	2.821	76	312264	126.7292795	ppb		82
22) METHYLENE CHLORIDE	2.888	84	117937	24.6252754	ppb		94
23) METHYL ACETATE	2.967	43	562214	107.1347963	ppb	#	97
24) ACRYLONITRILE	3.344	53	293725	111.7857705	ppb		100
25) n-HEXANE	3.010	56	98263	26.1480435	ppb		90
26) TRANS-1,2-DICHLOROETHENE	2.979	96	118581	27.3139701	ppb		94
27) METHYL TERT-BUTYL ETHER	3.022	73	327931	24.2172611	ppb		96
28) TERT-BUTYL ALCOHOL	3.059	59	107191	114.2725064	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	208016	23.6938742	ppb		99
30) VINYL ACETATE	3.430	43	1224898	123.1304766	ppb		98
31) DI-ISOPROPYL ETHER	3.217	45	359999	21.8892702	ppb		96
32) ETHYL TERT-BUTYL ETHER	3.417	59	349437	23.2736950	ppb		98
33) 2,2-DICHLOROPROPANE	3.673	77	177684	22.7404953	ppb		97
34) CIS-1,2-DICHLOROETHENE	3.618	96	131906	24.2709984	ppb		94
35) 2-BUTANONE (MEK)	3.910	43	394872	110.2012781	ppb		96
36) BROMOCHLOROMETHANE	3.734	130	81983	27.9386749	ppb		92
37) TETRAHYDROFURAN	3.855	42	49086	20.7465734	ppb		98
38) CHLOROFORM	3.752	83	220610	24.6023051	ppb		97
39) CYCLOHEXANE	3.740	84	180576	27.4341353	ppb		93
40) 1,1,1-TRICHLOROETHANE	3.880	97	202431	25.3651585	ppb		98

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:30:29 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.849	117	192174	25.4564574	ppb		99
42)	1,1-DICHLOROPROPENE	3.947	75	162947	26.9099626	ppb		99
43)	2,2,4-TRIMETHYLPENTANE	3.989	57	304161	26.2842092	ppb		99
44)	n-Heptane	4.032	71	77336	27.3160488	ppb		88
45)	BENZENE	4.087	78	473041	24.3787351	ppb		98
46)	TERT-AMYL METHYL ETHER	4.117	73	320525	23.2249015	ppb		98
48)	1,2-DICHLOROETHANE	4.202	62	155436	23.6346992	ppb		99
49)	T-AMYL ALCOHOL	4.208	59	115489	122.8171415	ppb		97
50)	TRICHLOROETHENE	4.415	130	132962	25.1694080	ppb	#	100
51)	METHYL CYCLOHEXANE	4.409	83	206079	27.9058787	ppb		95
52)	TERT-AMYL ETHYL ETHER	4.500	59	280132	24.3477967	ppb		97
53)	1,2-DICHLOROPROPANE	4.713	62	80735	24.8799436	ppb		100
54)	DIBROMOMETHANE	4.671	93	71922	23.2843428	ppb		98
55)	BROMODICHLOROMETHANE	4.744	83	159048	24.2100618	ppb		98
56)	2-CHLOROETHYL VINYL ETHER	5.048	63	403207	112.3449047	ppb		100
57)	CIS-1,3-DICHLOROPROPENE	5.115	75	183045	25.4088700	ppb		100
59)	4-METHYL-2-PENTANONE (...	5.468	43	855062	107.3195080	ppb		97
61)	TOLUENE	5.261	91	535419	23.9040743	ppb		99
62)	TRANS-1,3-DICHLOROPROPENE	5.516	75	162000	23.8269042	ppb		100
63)	1,1,2-TRICHLOROETHANE	5.620	97	109060	22.4667135	ppb		99
64)	TETRACHLOROETHENE	5.516	164	125284	25.5655347	ppb		99
65)	1,3-DICHLOROPROPANE	5.802	76	160655	23.3318832	ppb		100
66)	2-HEXANONE	6.009	58	352612	111.0445644	ppb		96
67)	CHLORODIBROMOMETHANE	5.747	129	130274	24.1005530	ppb		99
68)	1,2-DIBROMOETHANE	5.924	107	119731	23.2623411	ppb		98
69)	CHLOROBENZENE	6.258	112	338793	23.6323836	ppb		97
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	126390	23.9852206	ppb	#	98
71)	ETHYLBENZENE	6.252	106	191146	23.6367414	ppb		99
72)	M&P-XYLENE	6.350	106	477852	47.5036213	ppb		99
73)	O-XYLENE	6.654	106	234754	23.7061678	ppb		95
76)	STYRENE	6.690	104	337467	21.4139758	ppb		99
77)	BROMOFORM	6.733	173	100321	23.4842262	ppb		99
78)	ISOPROPYLBENZENE	6.867	105	607088	23.8835490	ppb		99
81)	BROMOBENZENE	7.183	77	217493	22.8157275	ppb		93
82)	1,1,2,2-TETRACHLOROETHANE	7.226	83	155621	23.3642406	ppb		99
83)	1,2,3-TRICHLOROPROPANE	7.335	110	50996	23.8397330	ppb		82
84)	TRANS-1,4-DICHLORO-2-B...	7.360	53	32395	16.0793013	ppb	#	93
85)	N-PROPYLBENZENE	7.171	91	697500	25.3369063	ppb		99
86)	4-ETHYLTOLUENE	7.244	105	592500	25.6534724	ppb		100
87)	2-CHLOROTOLUENE	7.305	91	443785	23.8472976	ppb		98
88)	4-CHLOROTOLUENE	7.427	91	398698	24.8362229	ppb		98
89)	1,3,5-TRIMETHYLBENZENE	7.305	105	485210	24.0361772	ppb		100
90)	TERT-BUTYLBENZENE	7.554	119	418352	23.1327774	ppb		98
91)	1,2,4-TRIMETHYLBENZENE	7.609	105	465583	23.5470121	ppb		99
92)	SEC-BUTYLBENZENE	7.688	105	595700	23.7606391	ppb		100
93)	1,3-DICHLOROBENZENE	7.883	146	269231	26.6153256	ppb		99
94)	P-ISOPROPYLTOLUENE	7.792	119	519677	22.7898305	ppb		98
95)	DICYCLOPENTADIENE	7.792	66	493627	19.5341417	ppb		99
96)	1,4-DICHLOROBENZENE	7.950	146	273670	23.7461111	ppb		98
97)	1,2,3-TRIMETHYLBENZENE	7.950	105	454605	27.8754054	ppb		100
98)	1,2-DICHLOROBENZENE	8.284	146	243247	25.5478067	ppb		98
99)	N-BUTYLBENZENE	8.126	91	415557	23.5892834	ppb		99
100)	1,2-DIBROMO-3-CHLOROPR...	8.923	157	39995	20.7735718	ppb		95
101)	1,2,4-TRICHLOROBENZENE	9.483	180	115257	23.7174133	ppb		98

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_30.D
Acq On : 8 Jul 2019 8:59 pm
Operator : 605
Sample : ICVLCS VMS 25 ppb
Misc : water
ALS Vial : 30 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:30:29 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	61474	22.9240167 ppb	99
103) NAPHTHALENE	9.750	128	339878	21.5056460 ppb	98
104) 1,2,3-TRICHLOROBENZENE	9.909	180	91445	22.7830686 ppb	98
105) 1-METHYLNAPHTHALENE	10.602	142	59737	17.4544813 ppb	98
106) 2-METHYLNAPHTHALENE	10.718	142	42175	14.9399321 ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
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Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
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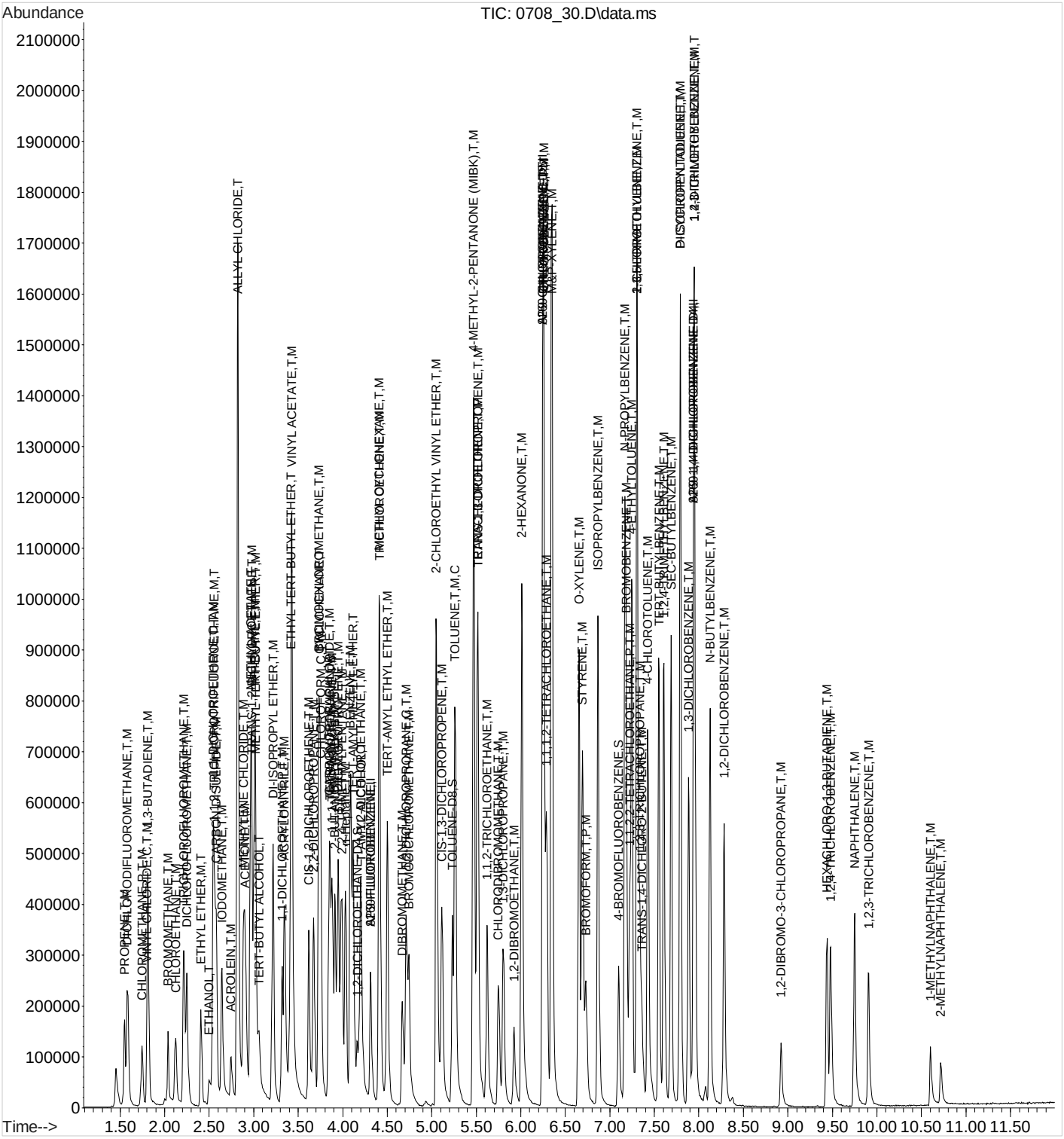

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3429314-2

Lab Sample ID:	R3429314-2	**SDG:**	L1116144
Client Sample ID:	LCSD	**Collected Date/Time:**	
Lab File ID:	0708_31	**Received Date/Time:**	
Instrument ID:	VOCMS28	**Preparation Date/Time:**	07/08/19 21:20
Analytical Batch:	WG1308028	**Analysis Date/Time:**	07/08/19 21:20
Dilution Factor:	1	**Prep Method:**	8260B/8260C
Analytical Method:	8260C	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Vinyl chloride	75-01-4	1.81	22.3		0.118	0.500

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_31.D
Acq On : 8 Jul 2019 9:20 pm
Operator : 605
Sample : LCSD 1x WG1308028
Misc : water
ALS Vial : 31 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:30:48 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 8260-FLUOROBENZENE	4.312	96	203728	16.0000000	ppb		0.00
58) 8260-CHLOROBENZENE-D5	6.246	82	101451	16.0000000	ppb		0.00
80) 8260-1,4-DICHLOROBENZE...	7.937	152	112024	16.0000000	ppb		0.00
107) AP9-FLUOROBENZENE	4.312	96	203728	16.0000000	ppb		0.00
121) AP9-CHLOROBENZENE-D5	6.246	82	101451	16.0000000	ppb		0.00
125) AP9-1,4-DICHLOROBENZEN...	7.937	152	112024	16.0000000	ppb	#	0.00
System Monitoring Compounds							
47) 1,2-DICHLOROETHANE-D4	4.166	65	69055	16.1402578	ppb		0.00
Spiked Amount 16.000				Recovery = 100.88%			
60) TOLUENE-D8	5.230	98	220795	15.2756854	ppb		0.00
Spiked Amount 16.000	Range 90 - 115			Recovery = 95.47%			
79) 4-BROMOFLUOROBENZENE	7.098	95	88166	14.3629917	ppb		0.00
Spiked Amount 16.000	Range 80 - 120			Recovery = 89.77%			
Target Compounds							Qvalue
4) PROPENE	1.550	41	79450	25.9254353	ppb		99
5) DICHLORODIFLUOROMETHANE	1.580	85	192964	34.4791630	ppb		100
6) CHLOROMETHANE	1.744	50	115651	17.6047014	ppb		99
7) VINYL CHLORIDE	1.805	62	131120	22.2815022	ppb		96
8) 1,3-BUTADIENE	1.817	39	113545	21.5301888	ppb		99
9) BROMOMETHANE	2.036	94	49701	18.1395550	ppb		96
10) CHLOROETHANE	2.122	64	90909	26.5614765	ppb		99
11) TRICHLOROFLUOROMETHANE	2.219	101	208351	24.8451902	ppb		99
12) DICHLOROFLUOROMETHANE	2.249	67	210106	21.9786442	ppb		98
13) ETHYL ETHER	2.408	59	84749	22.8249779	ppb		97
14) ACROLEIN	2.748	56	74574	141.0211183	ppb		99
15) ETHANOL	2.499	45	92186	1102.2541082	ppb	#	98
16) 1,1-DICHLOROETHENE	2.547	96	102342	23.5903021	ppb		97
17) 1,1,2-TRICHLOROTRIFLUO...	2.560	101	116051	24.9893304	ppb		94
18) ACETONE	2.906	43	315421	146.6920744	ppb		98
19) IODOMETHANE	2.645	142	421458	62.0559411	ppb		98
20) CARBON DISULFIDE	2.584	76	333202	26.3301832	ppb		99
21) ALLYL CHLORIDE	2.821	76	304855	122.5491212	ppb		84
22) METHYLENE CHLORIDE	2.888	84	114345	23.6488502	ppb		94
23) METHYL ACETATE	2.967	43	564216	106.4966929	ppb	#	96
24) ACRYLONITRILE	3.344	53	289195	109.0180034	ppb		98
25) n-HEXANE	3.010	56	93867	24.7413817	ppb		94
26) TRANS-1,2-DICHLOROETHENE	2.979	96	113030	25.7744385	ppb		95
27) METHYL TERT-BUTYL ETHER	3.022	73	325274	23.7932480	ppb		97
28) TERT-BUTYL ALCOHOL	3.058	59	111067	117.2817139	ppb	#	100
29) 1,1-DICHLOROETHANE	3.320	63	203572	22.9677902	ppb		99
30) VINYL ACETATE	3.430	43	1318978	131.3303248	ppb		98
31) DI-ISOPROPYL ETHER	3.217	45	354687	21.3617629	ppb		97
32) ETHYL TERT-BUTYL ETHER	3.417	59	348328	22.9798224	ppb		98
33) 2,2-DICHLOROPROPANE	3.673	77	172679	21.8903625	ppb		97
34) CIS-1,2-DICHLOROETHENE	3.618	96	127354	23.2111957	ppb		97
35) 2-BUTANONE (MEK)	3.910	43	401378	110.9356184	ppb		97
36) BROMOCHLOROMETHANE	3.734	130	79754	26.9213171	ppb		90
37) TETRAHYDROFURAN	3.855	42	49893	20.8876790	ppb		98
38) CHLOROFORM	3.758	83	220544	24.3617052	ppb		97
39) CYCLOHEXANE	3.740	84	173382	26.0913822	ppb		93
40) 1,1,1-TRICHLOROETHANE	3.880	97	196457	24.3831550	ppb		99

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_31.D
Acq On : 8 Jul 2019 9:20 pm
Operator : 605
Sample : LCSD 1x WG1308028
Misc : water
ALS Vial : 31 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:30:48 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	CARBON TETRACHLORIDE	3.849	117	186911	24.5244925	ppb		99
42)	1,1-DICHLOROPROPENE	3.947	75	158044	25.8527394	ppb		99
43)	2,2,4-TRIMETHYLPENTANE	3.989	57	298884	25.5832601	ppb		100
44)	n-Heptane	4.032	71	72571	25.3899072	ppb		87
45)	BENZENE	4.087	78	459150	23.4384455	ppb		97
46)	TERT-AMYL METHYL ETHER	4.117	73	311290	22.3418418	ppb		99
48)	1,2-DICHLOROETHANE	4.202	62	153163	23.0682242	ppb		99
49)	T-AMYL ALCOHOL	4.208	59	118280	124.5923886	ppb		99
50)	TRICHLOROETHENE	4.415	130	128495	24.0931466	ppb	#	99
51)	METHYL CYCLOHEXANE	4.409	83	198854	26.6721563	ppb		94
52)	TERT-AMYL ETHYL ETHER	4.500	59	272696	23.4767267	ppb		95
53)	1,2-DICHLOROPROPANE	4.713	62	78602	23.9929125	ppb		99
54)	DIBROMOMETHANE	4.671	93	73099	23.4409655	ppb		99
55)	BROMODICHLOROMETHANE	4.744	83	155248	23.4075269	ppb		98
56)	2-CHLOROETHYL VINYL ETHER	5.048	63	392310	108.2720918	ppb		99
57)	CIS-1,3-DICHLOROPROPENE	5.115	75	178694	24.5696677	ppb		99
59)	4-METHYL-2-PENTANONE (...	5.468	43	842383	105.2456367	ppb		96
61)	TOLUENE	5.261	91	527367	23.4371360	ppb		99
62)	TRANS-1,3-DICHLOROPROPENE	5.516	75	159014	23.2809879	ppb		99
63)	1,1,2-TRICHLOROETHANE	5.620	97	104633	21.4563661	ppb		99
64)	TETRACHLOROETHENE	5.516	164	119102	24.1931135	ppb		98
65)	1,3-DICHLOROPROPANE	5.802	76	157716	22.8005194	ppb		99
66)	2-HEXANONE	6.009	58	356555	111.7738440	ppb		95
67)	CHLORODIBROMOMETHANE	5.753	129	130054	23.9500494	ppb		99
68)	1,2-DIBROMOETHANE	5.924	107	117595	22.7430709	ppb		97
69)	CHLOROBENZENE	6.258	112	338396	23.4969644	ppb		97
70)	1,1,1,2-TETRACHLOROETHANE	6.289	133	119255	22.5279171	ppb	#	98
71)	ETHYLBENZENE	6.252	106	189042	23.2698793	ppb		99
72)	M&P-XYLENE	6.350	106	469636	46.4737941	ppb		98
73)	O-XYLENE	6.654	106	224030	22.5199785	ppb		97
76)	STYRENE	6.690	104	332122	20.9839226	ppb		100
77)	BROMOFORM	6.733	173	98731	23.0065436	ppb		99
78)	ISOPROPYLBENZENE	6.867	105	590752	23.1348055	ppb		100
81)	BROMOBENZENE	7.183	77	218063	23.1793749	ppb		95
82)	1,1,2,2-TETRACHLOROETHANE	7.226	83	158756	24.1515115	ppb		99
83)	1,2,3-TRICHLOROPROPANE	7.335	110	49438	23.4183810	ppb		86
84)	TRANS-1,4-DICHLORO-2-B...	7.360	53	35559	17.8841963	ppb	#	94
85)	N-PROPYLBENZENE	7.171	91	683132	25.1445984	ppb		99
86)	4-ETHYLTOLUENE	7.250	105	575139	25.2325604	ppb		99
87)	2-CHLOROTOLUENE	7.305	91	426696	23.2335634	ppb		98
88)	4-CHLOROTOLUENE	7.426	91	390595	24.6546517	ppb		98
89)	1,3,5-TRIMETHYLBENZENE	7.305	105	482449	24.2168563	ppb		99
90)	TERT-BUTYLBENZENE	7.554	119	405178	22.7019146	ppb		97
91)	1,2,4-TRIMETHYLBENZENE	7.609	105	460699	23.6094931	ppb		99
92)	SEC-BUTYLBENZENE	7.688	105	579300	23.4134141	ppb		99
93)	1,3-DICHLOROBENZENE	7.883	146	261214	26.1657910	ppb		98
94)	P-ISOPROPYLTOLUENE	7.791	119	515838	22.9219537	ppb		98
95)	DICYCLOPENTADIENE	7.791	66	475794	19.0785378	ppb		98
96)	1,4-DICHLOROBENZENE	7.950	146	271129	23.8381186	ppb		97
97)	1,2,3-TRIMETHYLBENZENE	7.950	105	440175	27.3491011	ppb		98
98)	1,2-DICHLOROBENZENE	8.284	146	238867	25.4210206	ppb		99
99)	N-BUTYLBENZENE	8.126	91	416892	23.9794053	ppb		100
100)	1,2-DIBROMO-3-CHLOROPR...	8.923	157	40479	21.3042353	ppb		98
101)	1,2,4-TRICHLOROBENZENE	9.483	180	122663	25.5766872	ppb		98

Data Path : C:\msdchem\1\data\070819\
Data File : 0708_31.D
Acq On : 8 Jul 2019 9:20 pm
Operator : 605
Sample : LCSD 1x WG1308028
Misc : water
ALS Vial : 31 Sample Multiplier: 1
InstName : VOCMS28

Quant Time: Jul 10 13:30:48 2019
Quant Method : C:\msdchem\1\methods\V828F26S.M
Quant Title : Volatile Organics by GC/MS
QLast Update : Thu Jun 27 11:32:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) HEXACHLORO-1,3-BUTADIENE	9.440	225	66133	24.9889592 ppb	99
103) NAPHTHALENE	9.750	128	369305	23.6780169 ppb	99
104) 1,2,3-TRICHLOROBENZENE	9.909	180	103459	26.1186803 ppb	99
105) 1-METHYLNAPHTHALENE	10.602	142	92153	27.2837284 ppb	98
106) 2-METHYLNAPHTHALENE	10.718	142	71772	25.7619825 ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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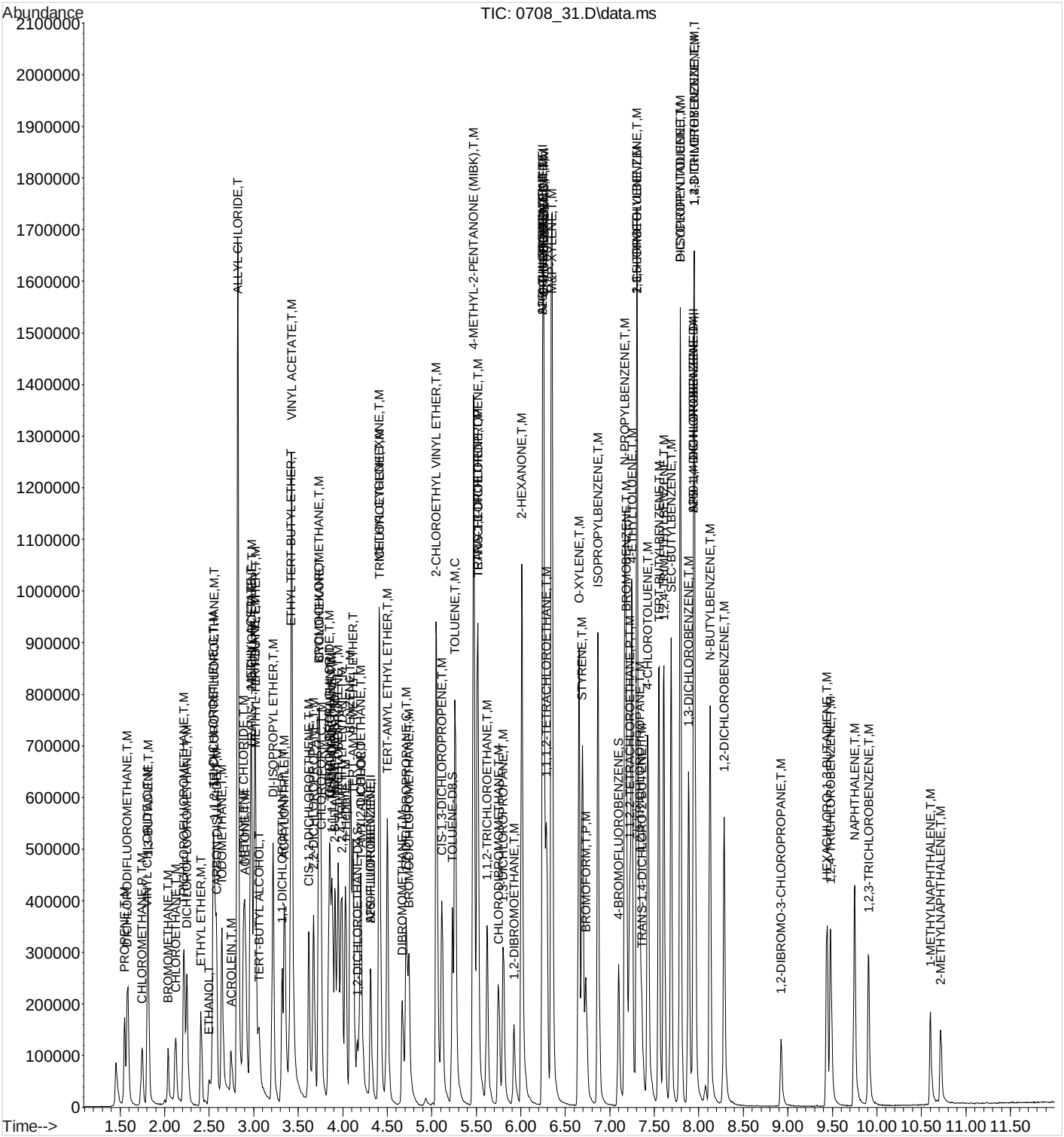


8260 Water VOCs Benchsheet

Batch: WG1308028

Analyst: JBE634 **40mLVOAVial Lot#:** 40107 **Batch Date/Time:** 07/08/19 23:42 **Prep End Date/Time:** 07/10/19 13:29 **SOP:** ENV-SOP-MTJL-0100 **Method:** 8260

ICV Standard: 19G08119 Amt. Used: 2.50 µL Exp. Date:07/15/19 **LCS/D/MS/D Standard:** 19G08119 Amt. Used: 2.50 µL Exp. Date:07/15/19
Internal Standard/Surrogate: 19F25785 Amt. Used: 1 µL Exp. Date:10/10/19

Sample Number	Dilution Factor	Sample Vol Used (mL)	Final Volume (mL)	pH	Collection Date	Review Analyst	Review Date	Sample Comments
BLANK	1	5	5	7		DWR077	07/10/19 14:03:55	
LCS	1	5	5	7		DWR077	07/10/19 14:03:55	
LCSD	1	5	5	7		DWR077	07/10/19 14:03:55	
LCSAP9	1	5	5	7		DWR077	07/10/19 14:03:55	
1. L1114670-09	1	5	5	<2	07/01/19 12:46	DWR077	07/10/19 14:03:55	
2. L1114670-10	1	5	5	<2	07/01/19 13:21	DWR077	07/10/19 14:03:55	
3. L1114670-11	1	5	5	<2	07/01/19 13:55	DWR077	07/10/19 14:03:55	
4. L1114670-12	1	5	5	<2	07/01/19 00:00	DWR077	07/10/19 14:03:55	
5. L1115083-08	1	5	5	<2	07/01/19 08:10	DWR077	07/10/19 14:03:55	
6. L1115083-09	1	5	5	<2	07/01/19 00:00	DWR077	07/10/19 14:03:55	
7. L1115099-42	1	5	5	<2	06/27/19 22:19	DWR077	07/10/19 14:03:55	
8. L1115099-43	1	5	5	<2	06/27/19 17:16	DWR077	07/10/19 14:03:55	
9. L1115099-44	1	5	5	<2	06/27/19 20:21	DWR077	07/10/19 14:03:55	
10. L1115099-45	1	5	5	<2	06/27/19 22:31	DWR077	07/10/19 14:03:55	
11. L1115099-46	1	5	5	<2	06/27/19 17:40	DWR077	07/10/19 14:03:55	
12. L1115099-47	1	5	5	<2	06/27/19 18:52	DWR077	07/10/19 14:03:55	
13. L1115099-48	1	5	5	<2	06/27/19 13:36	DWR077	07/10/19 14:03:55	
14. L1115099-49	1	5	5	<2	06/27/19 16:59	DWR077	07/10/19 14:03:55	
15. L1115099-50	1	5	5	<2	06/28/19 09:10	DWR077	07/10/19 14:03:55	
16. L1115099-51	1	5	5	<2	06/28/19 17:00	DWR077	07/10/19 14:03:55	
17. L1115099-52	1	5	5	<2	06/28/19 17:50	DWR077	07/10/19 14:03:55	
18. L1115278-11	1	5	5	<2	07/01/19 13:40	DWR077	07/10/19 14:03:55	
19. L1116144-01	1	5	5	<2	06/25/19 10:25	DWR077	07/10/19 14:03:55	
20. L1116144-02	1	5	5	<2	06/25/19 00:00	DWR077	07/10/19 14:03:55	

Comments:

Reviewed By:DWR077 on 07/10/19 14:03:55

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

COD	Coefficient of Determination.
Mass	Mass of parameter.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

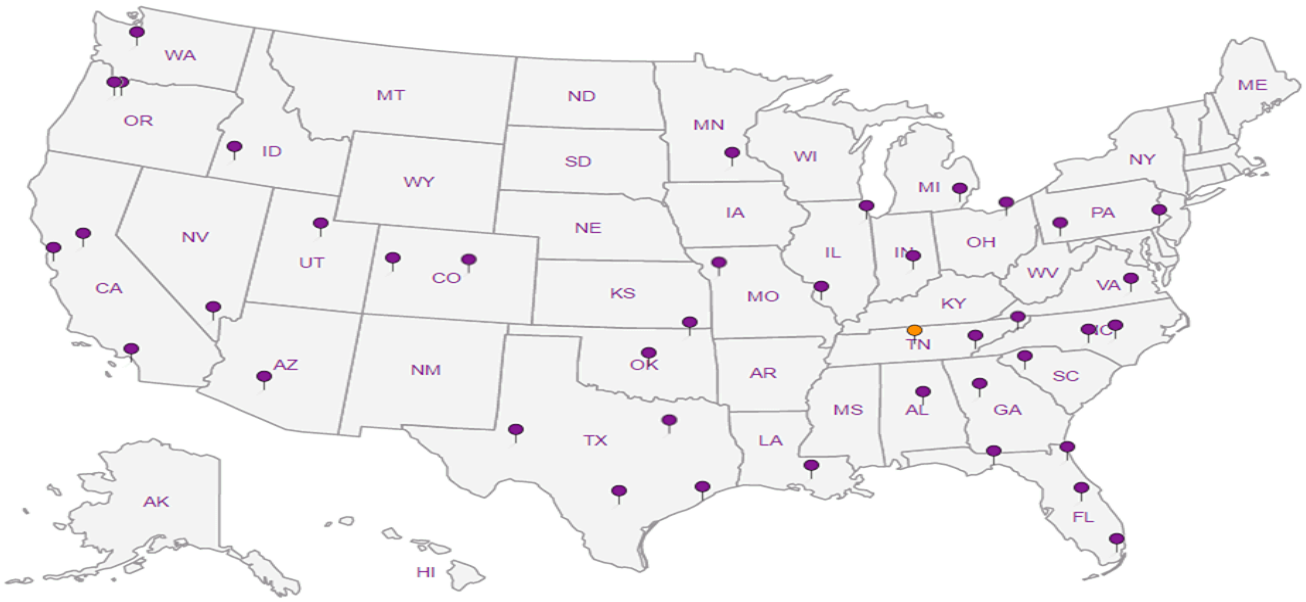
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



2.6/2.7

CHAIN OF CUSTODY RECORD

Laboratory: ELLE TestAmerica Laboratories NORTH CANTON, 4101 Shuffel Drive NW, North Canton, OH 44720. Opal Johnson, Project Manager. 330-497-9396

JC 6 20-19

Client: 0 Attn: 0 Addres 0 0 Phone: 0 Fax: 0 Fax: 0	Consultant: Draper Aden Associates Attn: Janet C. Frazier Address: 2206 South Main Street Blacksburg, Virginia 24060 Phone: (540) 552-0444 Fax: (540) 552-0291	Sample Site: RFAAP, Radford, Virginia Location: HWMU16 Event: 2Q 2019 Annual Groundwater Monitoring Event DAA JN: B03204-19A Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES WPS: 1Z237-301-01-9918-4089 Carrier: Tracking Number:

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type				G	G									
Box 3 - Filtered/Unfiltered				U	U									
Required pH of Sample				<2	<2									
Box 2 - Preservative				A	B									
Box 5 - Sample Container Type				3-40mL V	1-500 mL P									
Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles	8260C/5030C - Analyze for Vinyl Chloride ONLY Low level	ICP/MS 6020A/3005A (Metals-Cobalt & Silver ONLY)								
16WC1A	6/25	1025	GW	3	X									
16MW8	6/25	0920	GW	1		X								
Trip Blank 1	6/25	—	T	2	X									

GENERAL NOTES:
1. Report results to detection limit, with J flags, for italicized wells. Report to at or above QL for other locations
2. VELAP accreditation required.
3. Full Deliverable with EDD.
4. Metals - analyze for Cobalt & Silver ONLY.
5. 8260C - analyze for Vinyl Chloride ONLY.

QL = 1 ug/L
DL = 0.153 ug/L > VC

QL = 5 ug/L
DL = 1 ug/L > Cobalt

QL = 2 ug/L
DL = 0.3 ug/L > Silver

JW 6/24/19

240-115014 Chain of Custody

Clients Special Instructions:
Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on Ice ____ Yes ____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 6-25-19	#1 Relinquished by (Signature):	6/25/19	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Ian McGregor	Date: 6-25-19	#1 Received by (Signature):	6/26/19	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0700	Company Name: ETA	Time: 1030	Company Name:	Time:	

JW 6/27/19

JW 6-20-19

7/1

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: DRAPERBVA	SDG	1116144
Cooler Received/Opened On: 7/6 /19	3.9	
Received By: Jonathan Rochelle		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable		✓	
VOA Zero headspace?		✓	
Preservation Correct / Checked?			

RE: Moving two samples to PACE !!

Johnson, Opal
Today, 08:14 AM
Canton - Sample Receiving; Robison, Rick; Cordell, William; +4 more

Reply all |

Terry,

Could you please send the following:

1. Copy of the original COC
2. Copy of this email (if you could use the original email I sent to everyone without all of the back and forth emails that would be great!)

Shipping (Brent?)

Along with the shipping costs, could you please forward the FedEx tracking number also.

Thanks everyone!

Opal Johnson

Phone: 330-966-9279

E-mail: Opal.Johnson@testamericainc.com

From: Canton - Sample Receiving
Sent: Thursday, July 04, 2019 9:04 AM
To: Robison, Rick; Cordell, William; Johnson, Opal; Canton - Shipping; Canton - Sample Receiving; Canton - MS VOA; Maddux, Ann; Hershman, Lance
Subject: Re: Moving two samples to PACE !!

I pulled these samples and they are on the out cart. Opal, do you need an original COC sent with these samples or just the email. Let me know. I am working Friday.

Thank You,
Terry
Eurofins TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4101 Shuffel Street, NW

Moving two samples to PACE !!

Johnson, Opal
Today, 05:15 PM
Canton - Shipping; Canton - Sample Receiving; **Canton - MS VOA**; +2 more

Reply all |

This message was sent with high importance.

All,

The client would like us ship two samples **ON FRIDAY, 07/05/19** for delivery on SATURDAY, 07/06/19 to another laboratory

Samples:

1. 240-115014-1 (16WC1A) → 3x40
2. 240-115014 -3 (Trip Blank 1) — 2x40

Send them to PACE Labs. This is NOT a subcontract, so no need for an inter-lab report.

Original COC?

The address:

Pace National
Heather Wagner, Project Manager
hwagner@pacenational.com
Direct: 615-289-9801

12065 Lebanon Rd.
Mt. Juliet, TN. 37122

Please let me know if there are any question.

I am assuming someone will be here to ship these.

Opal Johnson

Phone: 330-966-9279

E-mail: Opal.Johnson@testamericainc.com

From: Janet Frazier [mailto:jfrazier@daa.com]
Sent: Wednesday, July 03, 2019 3:50 PM
To: 'hwagner@pacenational.com'; Johnson, Opal
Cc: 'Haynes D. Campbell'; Will Mason-Deese
Subject: RE: Rush project - DAA- for RAAP - HWMU 16 -

-External Email-

All – Please move forward with plan to ship out and analyze samples. Thanks. Janet

---

From: Janet Frazier
Sent: Wednesday, July 03, 2019 11:48 AM
To: 'hwagner@pacenational.com' <hwagner@pacenational.com>; Johnson, Opal <Opal.Johnson@testamericainc.com>
Cc: Haynes D. Campbell <HCampbell@pacenational.com>; Will Mason-Deese <WMason-Deese@daa.com>
Subject: RE: Rush project - DAA- for RAAP - HWMU 16 - take 2

I forgot to add two things:

1. Sample would ship out Friday for Saturday delivery
2. The primary lab is currently re-analyzing this sample and we should have preliminary results back by EOD. If the reanalysis comes back as not detected, we will not need the effort below.

I will continue to keep everyone updated and thanks in advance once again. Janet

---

From: Janet Frazier
Sent: Wednesday, July 03, 2019 11:40 AM
To: hwagner@pacenational.com; Johnson, Opal <Opal.Johnson@testamericainc.com>
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Copied on this email is Opal Johnson at ELLE – Test America – North Canton. Opal will ship overnight for Saturday delivery the project samples noted on the attached COC. Cooler to be sent to

PM contact at Pace National:
Heather Wagner
hwagner@pacenational.com

Direct: 615-289-9801

12065 Lebanon Rd.
Mt. Juliet, TN. 37122

Heather. The sample and dup were collected on 6-25 and 14 day holding time is 7-10. Haynes confirmed that lab could analyzed within hold. We need analysis of **vinyl chloride** only by 8260C. The reporting limit (per permit) should be reported at 1 ug/l and the detection limit per permit should be reported as 0.153 ug/l. If the value is < 0.153 report as ND. If value greater than 0.153 and less than 1 ug/l, result should be reported as a J (estimated value). Also needed is a full deliverable package to come at a later date. However, we have to report to our regulatory agency by 7-15, so if we could just get results and summary QC report as soon as practical, that would be great.

Opal. Thank you! Please invoice your time and shipping costs for this effort. Please continue to hold the sample aliquot for silver as noted on COC and we will get back to you if needed.

Janet C. Frazier
Senior Associate
Program Manager – II - Environmental

Draper Aden Associates
Engineering • Surveying • Environmental Services
Lasting Positive Impact™

Phone: 540.552.0444 • Direct Line: 540.557.1320 • Mobile 540.557.7421

Web • Blog • Facebook • Twitter • LinkedIn

FW: Rush project - DAA- for RAAP - HWMU 16 -

Johnson, Opal
Today, 09:06 AM
Burns, Terry; Canton - Sample Receiving

Reply all |

Inbox

Here you go

Opal Johnson

Phone: 330-966-9279

E-mail: Opal.Johnson@testamericainc.com

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Sent: Wednesday, July 03, 2019 3:50 PM
To: 'hwagner@pacenational.com'; Johnson, Opal
Cc: 'Haynes D. Campbell'; Will Mason-Deese
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PM contact at Pace National:
Heather Wagner
hwagner@pacenational.com
Direct: 615-289-9801

12065 Lebanon Rd.
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Janet C. Frazier
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Program Manager – II - Environmental

Draper Aden Associates

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SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Draper Aden Associates
2206 South Main Street
Blacksburg, VA 24060
Attention: Janet Frazier

Project Name: RAAP HWMU16

Project Number: B03204-19A

Lot Number:**UD13009**

Date Completed:05/15/2019

Revision Date: 07/10/2019

07/10/2019
Approved and released by:
Project Manager: Cathy S. Dover

The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Draper Aden Associates
Lot Number: UD13009

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

Mercury forms updated to remove prep method 245.1 on 7/10/19. The mercury samples were prepared and analyzed by method 7470A.

Metals 6020B
Per client request, Metals sample 16MW8 (UD13009-002) was re-digested and re-analyzed for silver (Ag). The Ag for this sample is reported from Run2. This is the only revision to the pdf report and EDD files.

Cyanide 9012B
The Low Check Standard that is associated with Analytical Batch 14048 and 14049 did not pass acceptance criteria as outlined in the SOP. The Low Check Standard recovered high at 111% of the true spiking value. Due to this, sample UD13009-006 (16WC1B) that was affected was re-prepped and re-analyzed. The re-analysis (Run 2) has been reported.

During sample pretreatment, the wrong reagent ID and expiration date were listed on the bench sheet. This expired reagent that was inadvertently listed was consumed or disposed of before the date of pretreatment for these samples. The spreadsheet has since been updated to reflect the correct reagent ID and expiration date.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
Draper Aden Associates
Lot Number: UD13009
Project Name: RAAP HWMU16
Project Number: B03204-19A

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	16C1	Aqueous	04/11/2019 1320	04/12/2019
002	16MW8	Aqueous	04/10/2019 1245	04/12/2019
003	16MW9	Aqueous	04/11/2019 1225	04/12/2019
004	16WC1A	Aqueous	04/11/2019 1100	04/12/2019
005	16WDUP	Aqueous	04/11/2019 1115	04/12/2019
006	16WC1B	Aqueous	04/11/2019 1015	04/12/2019

(6 samples)

Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-001**

Description: **16C1** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1320** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1751	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13009-001
Description: 16C1
Matrix: Aqueous
Date Sampled: 04/11/2019 1320
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0250	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
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P = The RPD between two GC columns exceeds 40%
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D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-001**

Description: **16C1** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1320** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1634	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**140**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	1.3	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**4.3**	**J**	**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	7.3	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-002**

Description: **16MW8** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1245** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1752	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13009-002
Description: 16MW8
Matrix: Aqueous
Date Sampled: 04/10/2019 1245
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0252	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-002**

Description: **16MW8** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1245** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1640	BNW	04/23/2019 1602	14282
2	3005A	6020B	1	05/08/2019 1246	BNW	05/07/2019 1828	15923

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**110**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	**7440-43-9**	**6020B**	**0.23**	**J**	**1.0**	**0.20**	**ug/L**	**1**
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**6.8**		**5.0**	**1.3**	**ug/L**	**1**
Copper	**7440-50-8**	**6020B**	**6.6**		**5.0**	**1.3**	**ug/L**	**1**
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**7.2**	**J**	**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	**7440-22-4**	**6020B**	**1.1**	**J**	**2.0**	**0.30**	**ug/L**	**2**
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	**7440-66-6**	**6020B**	**33**		**30**	**7.3**	**ug/L**	**1**

LOQ = Limit of Quantitation
U = Not detected at or above the DL
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-003**

Description: **16MW9** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1225** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1753	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13009-003
Description: 16MW9
Matrix: Aqueous
Date Sampled: 04/11/2019 1225
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0255	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-003**

Description: **16MW9** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1225** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1646	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**600**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**6.2**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**16**		**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	7.3	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-004**

Description: **16WC1A** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1100** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1754	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13009-004
Description: 16WC1A
Matrix: Aqueous
Date Sampled: 04/11/2019 1100
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0258	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-004**

Description: **16WC1A** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1100** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1652	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**340**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**13**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**15**		**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	**7440-66-6**	**6020B**	**16**	**J**	**30**	**7.3**	**ug/L**	**1**

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-005**

Description: **16WDUP** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1801	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13009-005
Description: 16WDUP
Matrix: Aqueous
Date Sampled: 04/11/2019 1115
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0305	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-005**

Description: **16WDUP** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1723	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**350**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**14**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**16**		**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	**7440-66-6**	**6020B**	**16**	**J**	**30**	**7.3**	**ug/L**	**1**

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-006**

Description: **16WC1B** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1015** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	9012B	(Cyanide - To) 9012B	1	04/24/2019 1253	MSG	04/23/2019 1807	14360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	2

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13009-006
Description: 16WC1B
Matrix: Aqueous
Date Sampled: 04/11/2019 1015
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0313	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-006**

Description: **16WC1B** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1015** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1729	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**130**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**18**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**4.9**	**J**	**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	7.3	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ13741-001
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Cyanide - Total	20	U	1	20	5.0	ug/L	04/18/2019 1744

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ13741-002
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyanide - Total	100	100		1	100	90-110	04/18/2019 1747

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UD13009-004MS
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyanide - Total	0.0	100	84	N	1	84	90-110	04/18/2019 1755

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UD13009-004MD
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Cyanide - Total	0.0	100	77	N	1	77	9.1	90-110	20	04/18/2019 1757

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: UQ14360-001
Batch: 14360
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/23/2019 1807

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Cyanide - Total	20	U	1	20	5.0	ug/L	04/24/2019 1248

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ14360-002
Batch: 14360
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/23/2019 1807

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyanide - Total	100	110		1	106	90-110	04/24/2019 1249

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MB

Sample ID: UQ14282-001
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Antimony	2.0	U	1	2.0	0.50	ug/L	04/30/2019 1609
Arsenic	10	U	1	10	2.0	ug/L	04/30/2019 1609
Barium	10	U	1	10	1.3	ug/L	04/30/2019 1609
Beryllium	1.0	U	1	1.0	0.20	ug/L	04/30/2019 1609
Cadmium	1.0	U	1	1.0	0.20	ug/L	04/30/2019 1609
Chromium	5.0	U	1	5.0	1.3	ug/L	04/30/2019 1609
Cobalt	5.0	U	1	5.0	1.3	ug/L	04/30/2019 1609
Copper	5.0	U	1	5.0	1.3	ug/L	04/30/2019 1609
Lead	3.0	U	1	3.0	1.0	ug/L	04/30/2019 1609
Nickel	10	U	1	10	2.0	ug/L	04/30/2019 1609
Selenium	10	U	1	10	3.0	ug/L	04/30/2019 1609
Silver	2.0	U	1	2.0	0.30	ug/L	04/30/2019 1609
Thallium	1.0	U	1	1.0	0.20	ug/L	04/30/2019 1609
Vanadium	10	U	1	10	2.5	ug/L	04/30/2019 1609
Zinc	30	U	1	30	7.3	ug/L	04/30/2019 1609

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ14282-002
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Antimony	100	99		1	99	80-120	04/30/2019 1615
Arsenic	100	100		1	102	80-120	04/30/2019 1615
Barium	100	100		1	100	80-120	04/30/2019 1615
Beryllium	100	99		1	99	80-120	04/30/2019 1615
Cadmium	100	100		1	100	80-120	04/30/2019 1615
Chromium	100	98		1	98	80-120	04/30/2019 1615
Cobalt	100	98		1	98	80-120	04/30/2019 1615
Copper	100	99		1	99	80-120	04/30/2019 1615
Lead	100	100		1	104	80-120	04/30/2019 1615
Nickel	100	99		1	99	80-120	04/30/2019 1615
Selenium	100	100		1	104	80-120	04/30/2019 1615
Silver	100	99		1	99	80-120	04/30/2019 1615
Thallium	100	100		1	103	80-120	04/30/2019 1615
Vanadium	100	99		1	99	80-120	04/30/2019 1615
Zinc	100	99		1	99	80-120	04/30/2019 1615

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MS

Sample ID: UD13009-004MS
Batch: 14282
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Antimony	0.0	100	100		1	100	70-130	04/30/2019 1658
Arsenic	0.0	100	100		1	100	70-130	04/30/2019 1658
Barium	340	100	440		1	102	70-130	04/30/2019 1658
Beryllium	0.0	100	45	N	1	45	70-130	04/30/2019 1658
Cadmium	0.0	100	99		1	99	70-130	04/30/2019 1658
Chromium	0.0	100	98		1	98	70-130	04/30/2019 1658
Cobalt	13	100	110		1	95	70-130	04/30/2019 1658
Copper	0.0	100	97		1	97	70-130	04/30/2019 1658
Lead	0.0	100	100		1	101	70-130	04/30/2019 1658
Nickel	15	100	110		1	95	70-130	04/30/2019 1658
Selenium	0.0	100	100		1	101	70-130	04/30/2019 1658
Silver	0.0	100	97		1	97	70-130	04/30/2019 1658
Thallium	0.0	100	100		1	102	70-130	04/30/2019 1658
Vanadium	0.0	100	100		1	102	70-130	04/30/2019 1658
Zinc	16	100	110		1	95	70-130	04/30/2019 1658

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MSD

Sample ID: UD13009-004MD
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Antimony	0.0	100	100		1	100	0.33	70-130	20	04/30/2019 1704
Arsenic	0.0	100	100		1	101	1.1	70-130	20	04/30/2019 1704
Barium	340	100	450		1	109	1.5	70-130	20	04/30/2019 1704
Beryllium	0.0	100	45	N	1	45	0.88	70-130	20	04/30/2019 1704
Cadmium	0.0	100	100		1	100	0.51	70-130	20	04/30/2019 1704
Chromium	0.0	100	98		1	98	0.54	70-130	20	04/30/2019 1704
Cobalt	13	100	110		1	96	0.64	70-130	20	04/30/2019 1704
Copper	0.0	100	97		1	97	0.58	70-130	20	04/30/2019 1704
Lead	0.0	100	100		1	103	1.9	70-130	20	04/30/2019 1704
Nickel	15	100	110		1	95	0.64	70-130	20	04/30/2019 1704
Selenium	0.0	100	100		1	101	0.20	70-130	20	04/30/2019 1704
Silver	0.0	100	98		1	98	0.75	70-130	20	04/30/2019 1704
Thallium	0.0	100	100		1	104	1.6	70-130	20	04/30/2019 1704
Vanadium	0.0	100	100		1	101	0.59	70-130	20	04/30/2019 1704
Zinc	16	100	110		1	97	1.6	70-130	20	04/30/2019 1704

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MB

Sample ID: UQ13499-001
Batch: 13499
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Mercury	2.0	U	1	2.0	0.20	ug/L	04/18/2019 0220

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - LCS

Sample ID: UQ13499-002
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	2.0	1.9		1	96	80-120	04/18/2019 0222

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MS

Sample ID: UD13009-004MS
Batch: 13499
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.0	2.0	1.8		1	92	85-115	04/18/2019 0300

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MSD

Sample ID: UD13009-004MD
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	0.0	2.0	1.8		1	91	1.2	85-115	20	04/18/2019 0303

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MB

Sample ID: UQ15923-001
Batch: 15923
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/07/2019 1828

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Silver	2.0	U	1	2.0	0.30	ug/L	05/08/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ15923-002
Batch: 15923
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/07/2019 1828

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Silver	100	100		1	102	80-120	05/08/2019 1241

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

CHAIN OF CUSTODY RECORD

Laboratory: Shealy Environmental – 106 Vantage Point Dr. West Columbia, SC 29172 803-227-3180 PM: Cathy Dover cell 919-915-1180

GK 3/26/19

Client: 0 Attn: 0 Address: 0 0 Phone: 0 Fax: 0 0	Consultant: Draper Aden Associates Attn: Janet G. Frazier Address: 2206 South Main Street Blacksburg, Virginia 24060 Phone: (540) 552-0444 Fax: (540) 552-0291	Sample Site: RRAAP, Radford, Virginia Location: PWM-16 Event: 2Q 2019 Annual Groundwater Monitoring Event DAA JN: 6025204-19A Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES WPS Carrier: 12-237-301-01-9827-5714 Tracking Number: 12-237-301-01

Box 1: Matrix
GW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservation
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Copy to Consultant: YES
Bill: CLIENT Other
Preserved and shipped on ice: YES

GENERAL NOTES:
1. Report results to detection limit, with J flags, for italicized wells. Report to at or above QL for other locations
2. VELAP accreditation required.
3. Full Deliverable with EDD.
4. Metals -see attached list

+ ERIS - GK JLF 3/26/19

UD13009
CSD

Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles		ICP/MS 6020/6020A (Metals-Total)	7470A (Mercury-Total)	9012B (Cyanide)	metals pH	cyanide pH				
Box 4 - Sample Type						G	G	G						
Box 3 - Filtered/Unfiltered						U	U	U						
Required pH of Sample						<2	<2	>12						
Box 2 - Preservative						B	B	E						
Box 5 - Sample Container Type						1-500 mL P		1-500 mL P						
19C1	4/11	1320	GW	2		X	X	X	<2	>12				
16MW8	4/10	1245	GW	2		X	X	X	<2	>12				
16MW9	4/11	1225	GW	2		X	X	X	<2	>12				
16WC1A	4/11	1100	GW	2		X	X	X	<2	>12				USE FOR QC
16WDUP	4/11	1115	GW	2		X	X	X	<2	>12				
16WC1B	4/11	1015	GW	2		X	X	X	<2	>12				
16-2	4/10	1205	GW	1		X	X		<2					
16-3	4/10	1335	GW	1		X	X		<2					
16-5	4/10	0910	GW	1		X	X		<2					
15WC2B	4/10	1115	GW	1		X	X		<2					
16SPRING	4/10	0920	GW	1		X	X		<2					

UD13010
CSD

Clients Special Instructions:
Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 4.4 °C Received on Ice ✓ Yes ____ No
Descr be problems, if any:

Sample Name (Print): Ken Coddington	Date: 4/10/19	#1 Relinquished by (Signature):	Date: 4/11/19	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sample Signature:	Time: 0700	Company Name:	Time: 1700	Company Name:	Time:	
Sample Name (Print): Graham Snyder	Date: 4/10/19	#1 Received by (Signature):	Date: 4/12/19	#2 Received by (Signature):	Date:	30 CVS ORG/6 MTHS INORG
Sample Signature:	Time: 0700	Company Name: Shealy Env. Services	Time: 0924	Company Name:	Time:	

1/5 JLF 3/27

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

INORGANICS

(*)

THIS APPLIES TO WELLS 16C1, 16MW8, 16MW9,16WC1A, 16WDUP, 16WC1B & QC

Listed

(*) Report to QL, DL and "J" flag. JLK 3/26/19

HWMU 16

Analyte	Method Ref	LOQ	LOD	CAS#	Units
ANTIMONY	6020A	2	0.5 0.4	7440-36-0	UG/L
ARSENIC	6020A	10	2	7440-38-2	UG/L
BARIUM	6020A	10	1	7440-39-3	UG/L
BERYLLIUM	6020A	1	0.2	7440-41-7	UG/L
CADMIUM	6020A	1	0.2	7440-43-9	UG/L
CHROMIUM	6020A	5	1	7440-47-3	UG/L
COBALT	6020A	5	1	7440-48-4	UG/L
COPPER	6020A	5	1	7440-50-8	UG/L
LEAD	6020A	3 2	1 0.2	7439-92-1	UG/L
NICKEL	6020A	10	2	7440-02-0	UG/L
SELENIUM	6020A	10	3	7782-49-2	UG/L
SILVER	6020A	2	0.3 0.2	7440-22-4	UG/L
THALLIUM	6020A	1	0.2	7440-28-0	UG/L
VANADIUM	6020A	10	2.5 1	7440-62-2	UG/L
ZINC	6020A	30	7.3	7440-66-6	UG/L

proposed 3.26.2019 JLK

15 analytes

These are Appendix IX wells. Report estimated results.

Rev 12/2016 per class 1 permit mod

C:\environmental\blg\databases\raap\sample event set up\semi-annual events\hwmu-16\hwmu16-target analtye list-annual rev 10 - 2014.doc

5/16

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: 7470A

THIS APPLIES TO ALL WELLS AND QC

	Method SW 7470A/CVAA	CAS#	Required LOQ
1	Mercury	7439-97-6	2 / 0.2 ug/l

* reps. ito permit DL for
16C1, 16MW8, 16MW9
16WC1A, 16WDUP, 16WC1B, QC
(Appendix IX Wells)

JC/2
7/24/19

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: 9012B
TYPE METHOD: CLO
CLASS: CYANIDE

THIS APPLIES TO 16C1, 16MW8, 16MW9,16WC1A, 16WDUP, 16WC1B AND QC

No.	PARAMETER	CAS RN	Required LOQ/DL (µg/l)
1	Cyanide	57-12-5	20 / 5

These are Appendix IX wells. Report estimated results.

LOD revised 4Q2016 class 1 permit mod

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: SEE BELOW
TYPE METHOD: SEE BELOW
CLASS: TOTAL

Method SW 846-6020A/3005A (ICP/MS)

(*)

THIS APPLIES TO WELLS 16-2, 16-3,16-5, 16WC2B, 16SPRING

No.	PARAMETER	CAS RN	Required QL/ LOQ (µg/l)
1.	Arsenic	7440-38-2	10
2.	Barium	7440-39-3	10
3.	Beryllium	7440-41-7	1
4.	Cadmium	7440-43-9	1
5.	Chromium	7440-47-3	5
6.	Cobalt	7440-48-4	5
7.	Copper	7440-50-8	5
8.	Lead	7440-92-1	~~2~~ 3
9.	Nickel	7440-02-0	10
10.	Vanadium	7440-62-2	10
11.	Zinc	7440-66-6	30

Report to at or above the QL.

Updated 4/8/2013 jcf
Zinc QL updated 10 2016 - JCF

DLC
JVR
3.26.2019

(*) Report to at or above QL only.
JVR
3.26.2019

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5/2

INORGANIC NONMETAL

Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-001**

Description: **16C1** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1320** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1751	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-002**

Description: **16MW8** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1245** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1752	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-003**

Description: **16MW9** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1225** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1753	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-004**

Description: **16WC1A** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1100** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1754	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-005**

Description: **16WDUP** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	9012B	(Cyanide - To) 9012B	1	04/18/2019 1801	MSG	04/17/2019 2052	13741

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: **Draper Aden Associates** Laboratory ID: **UD13009-006**

Description: **16WC1B** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1015** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	9012B	(Cyanide - To) 9012B	1	04/24/2019 1253	MSG	04/23/2019 1807	14360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cyanide - Total	57-12-5	9012B	20	U	20	5.0	ug/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ13741-001
Batch: 13741
Analytical Method: 9012B

Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Cyanide - Total	20	U	1	20	5.0	ug/L	04/18/2019 1744

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ13741-002
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyanide - Total	100	100		1	100	90-110	04/18/2019 1747

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UD13009-004MS
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyanide - Total	0.0	100	84	N	1	84	90-110	04/18/2019 1755

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UD13009-004MD
Batch: 13741
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/17/2019 2052

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Cyanide - Total	0.0	100	77	N	1	77	9.1	90-110	20	04/18/2019 1757

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: UQ14360-001
Batch: 14360
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/23/2019 1807

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Cyanide - Total	20	U	1	20	5.0	ug/L	04/24/2019 1248

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ14360-002
Batch: 14360
Analytical Method: 9012B
Matrix: Aqueous
Prep Method: 9012B
Prep Date: 04/23/2019 1807

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyanide - Total	100	110		1	106	90-110	04/24/2019 1249

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Cyanide Cover Sheet

Prep Method 335.4 / 9012B-A / SM4500-CN C-2011 / SM4500-CN B-2011 / 10-204-00-1-X / SW-846 Reactives
Analysis Method: 335.4 / 9012B-A / SM4500-CN E-2011 / SM4500-CN G-2011

Instrument ID: AA2, Lachate Quickchem Automated Flow-Injection Ion Analyzer, SN A83000-1090

Analytical Batch(es): 14045, 14046, 14047

Prep Information

Analyst:	KFE
Prep Batch(es):	13722, 13741, 13742
Prep Date(s):	4/17/2019
Prep Start Time:	1719, 2052
Prep End Time:	1849, 2222
Pipette ID(s):	270, 242

Analysis Information

Analyst:	MSG
Analysis Date(s):	4/18/2019
Analysis Start Time:	1721
Analysis End Time:	1815

Reagents and Consumables

Chloramine T:	CNR19-103	Expires:	4/19/2019
Potassium Phosphate Buffer:	CNR19-95	Expires:	5/12/2019
Pyridine-Barituric Acid:	CNR19-88	Expires:	10/4/2019
0.25 N Sodium Hydroxide:	CNR19-100	Expires:	10/17/2019

Instrument Information

Filter Wavelength:	580 nm
Sample Loop Length:	150 cm
Pump Speed:	35
Cycle Period:	45 s
Inject to Peak Start:	24.0 s

Calibration Information

Standard	Concentration (mg/L)	Reference ID
ICAL	0.2	CNC101-07
ICAL	0.1	CNC101-06
ICAL	0.08	CNC101-05
ICAL	0.05	CNC101-04
ICAL	0.02	CNC101-03
ICAL	0.01	CNC101-02
ICAL	0.005	CNC101-01
ICV	0.08	CNC101-08
CCV	0.1	CNC101-06

Standards Expire:	4/19/2019
LCR Expires:	10/17/2019
ICV Expires:	4/19/2019
CCV Expires:	4/19/2019

Comments

Analyst: MSG
Status: Open

Cyanide Analytical Batch: 14047

9012B - Cyanide - Total

Printed: 4/20/2019 4:11:15 PM

Start Date: 04/20/2019 1609 **End Date:** 04/20/2019 1609

Sample ID	Method	QC Code	Run	Matrix	Cup	%S	Dil	Instrument Reading	Final Result (ug/L)	Reported Result (ug/L)	%Rec	RPD / PD	PQL	Qualifiers	Analysis Date	Initial Weight (g)	Initial Volume (mL)	Final Volume (mL)
UQ13741-001	9012B	MB	1	Aqueous	9	100	1	4.71	4.71	4.7			20		04/18/2019 1744	0	50	50
UQ13741-002	9012B	LCS	1	Aqueous	10	100	1	100	100	100	100	0.00	20		04/18/2019 1747	0	50	50
UQ13741-004	9012B	Standard	1	Aqueous	11	100	1	47.1	47.1	47	94.20				04/18/2019 1748	0	50	50
UQ13741-104	9012B	Standard	1	Aqueous	12	100	1	183	183	180	91.50				04/18/2019 1750	0	50	50
UD13009-001	9012B	Sample	1	Aqueous	13	100	1	4.91	4.91	ND			20		04/18/2019 1751	0	50	50
UD13009-002	9012B	Sample	1	Aqueous	14	100	1	4.86	4.86	ND			20		04/18/2019 1752	0	50	50
UD13009-003	9012B	Sample	1	Aqueous	15	100	1	3.93	3.93	ND			20		04/18/2019 1753	0	50	50
UD13009-004	9012B	Sample	1	Aqueous	18	100	1	4.88	4.88	ND			20	S	04/18/2019 1754	0	50	50
UD13009-004MS	9012B	MS	1	Aqueous	19	100	1	84.3	84.3	84	84	9.1	20		04/18/2019 1755	0	50	50
UD13009-004MD	9012B	MSD	1	Aqueous	20	100	1	77	77	77	77	9.1	20		04/18/2019 1757	0	50	50
UD13009-005	9012B	Sample	1	Aqueous	21	100	1	4.64	4.64	ND			20		04/18/2019 1801	0	50	50

Total Items: 11 (5 samples)

(end of report)

Analyst: KFE **Level 2 Analyst:** MSG

Status: Level 2 review released

Matrix: Aqueous

Prep Batch: 13741
9012B-Draper - Cyanide distillation

Printed: 04/20/19 1634

Start Date: 04/17/2019 2052

End Date: 04/17/2019 2222

Ext Solvent: NaOH/N-H2SO3H/H2SO4/MgCl2.6H20/Ca(OCl)2/NaAsO2

Reagents Vol. (mL): 50mL/0.2g/5mL/2mL/NA/NA

Chem ID: CNR19-100/18-720/CNR19-97/18-2090/NA/NA

Hot Block ID: Hot Block #3

Thermometer ID: 326364

Start Temperature (°C): 128

End Temperature (°C): 125

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ13741-001	MB		1	9012B	50		0.0	50.0			Boiling stones: 19-953
UQ13741-002	LCS		1	9012B	50	CNC100-10	0.5	50.0			pip. 270
UQ13741-004	Standard	Conc = 0.0 mg/L	1	9012B	50	CNC100-13	0.5	50.0			pip. 270
UQ13741-104	Standard	Conc = 0.0 mg/L	1	9012B	50	CNC100-09	1.0	50.0			pip. 242
UD13009-001	Sample	16C1	1	9012B	50		0.0	50.0	04/25/2019 2359	04/23/2019	
UD13009-002	Sample	16MW8	1	9012B	50		0.0	50.0	04/24/2019 2359	04/23/2019	
UD13009-003	Sample	16MW9	1	9012B	50		0.0	50.0	04/25/2019 2359	04/23/2019	
UD13009-004	Sample	16WC1A	1	9012B	50		0.0	50.0	04/25/2019 2359	04/23/2019	
UD13009-004MS	MS		1	9012B	50	CNC100-10	0.5	50.0			pip. 270
UD13009-004MD	MSD		1	9012B	50	CNC100-10	0.5	50.0			pip. 270
UD13009-005	Sample	16WDUP	1	9012B	50		0.0	50.0	04/25/2019 2359	04/23/2019	

(end of report) **Total Samples: 5**

Original Run Filename: OM_4-18-2019_17-20-46.OMN created 4/18/2019 17:20:46
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_4-18-2019_17-20-46.OMN last modified 4/18/2019 18:17:44
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Cup No.	Channel 2 Cyanide Conc.	Channel 2 Cyanide Area (V.s)	Detection Time	MDF	Description	
ICAL 0.20 MG/L	S1	0.200	4.16	4/18/2019@17:21:55			
ICAL 0.10 MG/L	S2	0.100	1.98	4/18/2019@17:23:05			
ICAL 0.08 MG/L	S3	0.0800	1.53	4/18/2019@17:24:14			
ICAL 0.05 MG/L	88	0.0500	0.901	4/18/2019@17:25:25			
ICAL 0.02 MG/L	89	0.0200	0.312	4/18/2019@17:26:35			
ICAL 0.01 MG/L	S9	0.0100	0.117	4/18/2019@17:27:45			
ICAL 0.005MG/L	90	5.00e-3	0.0990	4/18/2019@17:28:55			
ICAL 0 MG/L	S11	0.00	5.03e-3	4/18/2019@17:30:05			
ICV 0.08 MG/L	S10	0.0850	1.70	4/18/2019@17:31:15			ICV 106%
Known Conc:		0.0800					
Calibration:		Table/Fig. 1					
ICB	S11	3.69e-3	4.46e-5	4/18/2019@17:32:25			ICB PASS
Known Conc:		0.00					
LOQ 0.01 MG/L	S9	9.30e-3	0.117	4/18/2019@17:33:35			LOQ 93%
Known Conc:		0.0100					
UQ13722-001	1	4.16e-3	9.96e-3	4/18/2019@17:34:46			
UQ13722-002	2	0.100	2.02	4/18/2019@17:35:57			LCS 100%
UQ13722-004	3	0.0486	0.939	4/18/2019@17:37:08			STD 97%
UQ13722-104	4	0.179	3.66	4/18/2019@17:38:19			STD 90%
UD12100-001 S-1 Sur	5	0.0117	0.168	4/18/2019@17:39:29			MS/MD RPD 0.26%
UD12100-001MS	6	0.105	2.11	4/18/2019@17:40:40			%REC MS 92%
UD12100-001MD	7	0.104	2.10	4/18/2019@17:41:50			%REC MD 92%
UD12100-002 S-1 Sub	8	0.0114	0.161	4/18/2019@17:43:00			
UQ13741-001	9	4.71e-3	0.0214	4/18/2019@17:44:10			
CCV 0.1MG/L	S2	0.102	2.05	4/18/2019@17:45:20			CCV 102%
Known Conc:		0.100					
CCB	S11	3.89e-3	4.14e-3	4/18/2019@17:46:30			CCB PASS
Known Conc:		0.00					
UQ13741-002	10	0.100	2.02	4/18/2019@17:47:40			LCS 100%
UQ13741-004	11	0.0471	0.907	4/18/2019@17:48:50			STD 94%
UQ13741-104	12	0.183	3.76	4/18/2019@17:50:00			STD 92%

UD13009-001 16C1	13	4.91e-3	0.0256	4/18/2019@17:51:08			
UD13009-002 16MW8	14	4.86e-3	0.0244	4/18/2019@17:52:18			
UD13009-003 16MW9	15	3.93e-3	4.97e-3	4/18/2019@17:53:27			
UD13009-004 16WC1A	18	4.88e-3	0.0249	4/18/2019@17:54:38			
UD13009-004MS	19	0.0843	1.68	4/18/2019@17:55:49			
UD13009-004MD	20	0.0770	1.53	4/18/2019@17:57:00			
UD13009-005 16WDUP	21	-1.04e-3	-0.0990	4/18/2019@17:58:11			
CCV 0.1MG/L	S2	0.102	2.06	4/18/2019@17:59:21			
Known Conc:		0.100					
CCB	S11	3.79e-3	2.11e-3	4/18/2019@18:00:31			
Known Conc:		0.00					
UD13009-005 16WDUP	21	4.64e-3	0.0200	4/18/2019@18:01:42			
UD11082-013 EB041019	22	4.34e-3	0.0136	4/18/2019@18:02:52			
UD12083-002 Dis. 001	23	4.83e-3	0.0239	4/18/2019@18:04:02			
UD12090-001 Dis. 001	24	0.230	4.73	4/18/2019@18:05:13			
UD12090-001MS	25	0.294	6.07	4/18/2019@18:06:23			
UD12090-001MD	26	0.297	6.13	4/18/2019@18:07:32			
UD12091-001 Dis. 001	27	4.96e-3	0.0267	4/18/2019@18:08:42			
UD12090-001 Dis. 001	50	0.259	2.63	4/18/2019@18:09:54	2.00		
UD12090-001MS	51	0.331	3.38	4/18/2019@18:11:04	2.00		
UD12090-001MD	52	0.336	3.43	4/18/2019@18:12:15	2.00		
CCV 0.1MG/L	S2	0.102	2.07	4/18/2019@18:14:49			
Known Conc:		0.100					
CCB	S11	4.38e-3	0.0146	4/18/2019@18:15:59			
Known Conc:		0.00					

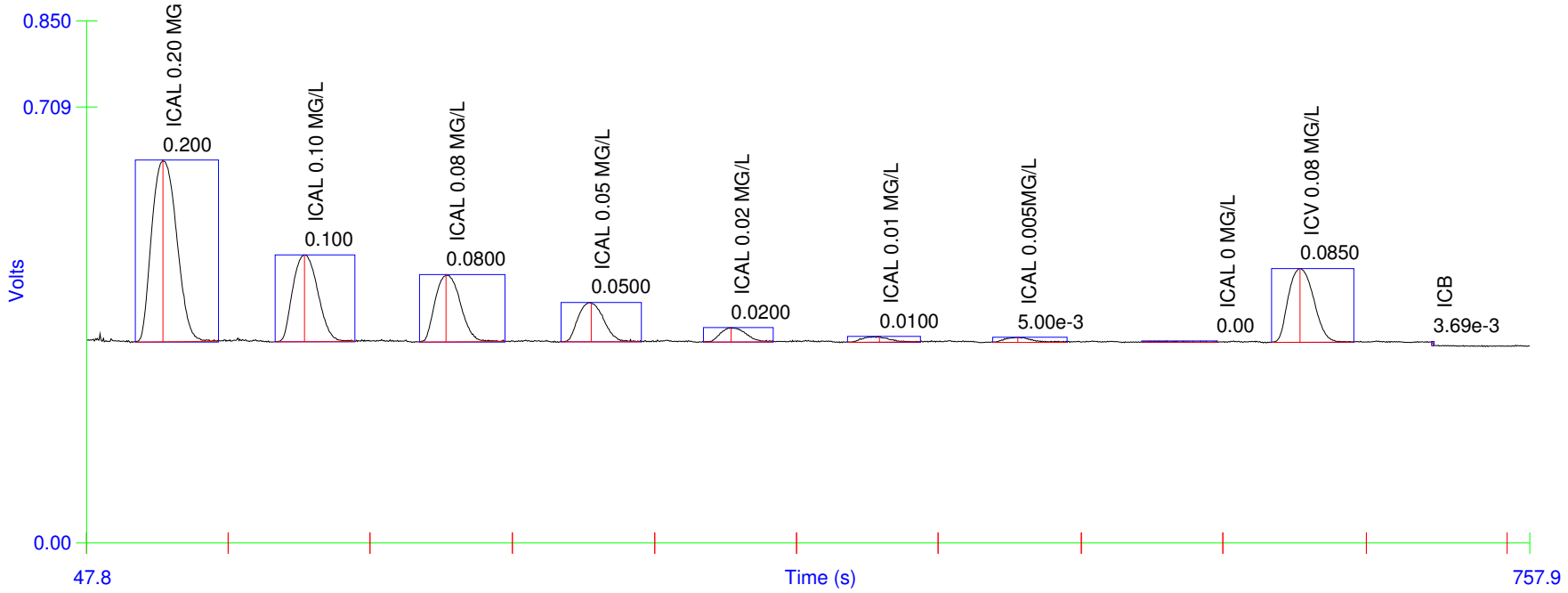
MS/MD RPD 9.1%
%REC MS 84%
%REC MD 77%
CCV 102%
CCB PASS
MS/MD RPD 1.8%
%REC MS 70%
%REC MD 76%
CCV 102%
CCB PASS

Analyte Properties Table for OM_4-18-2019_17-20-46.OMN

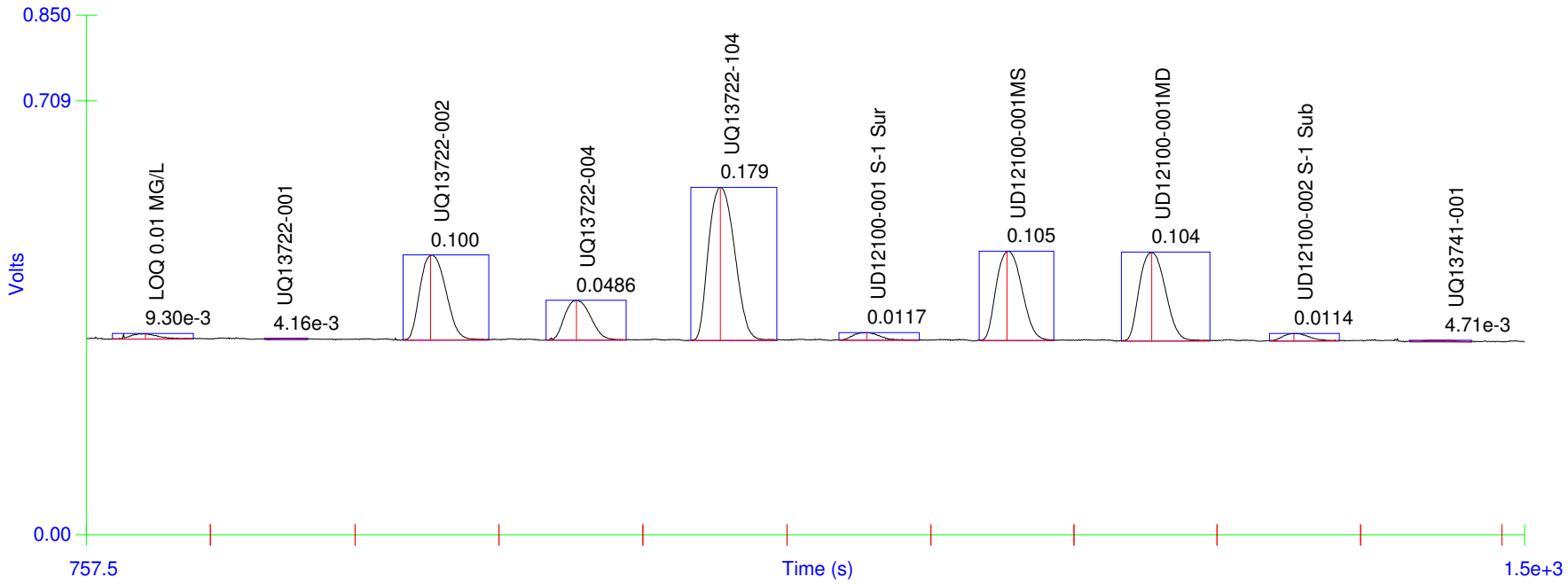
Property	Channel 2
	Cyanide
Concentration Units	
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	False
% of High Standard	110
Quik Chem Method	
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	23

Peak Base Width	45

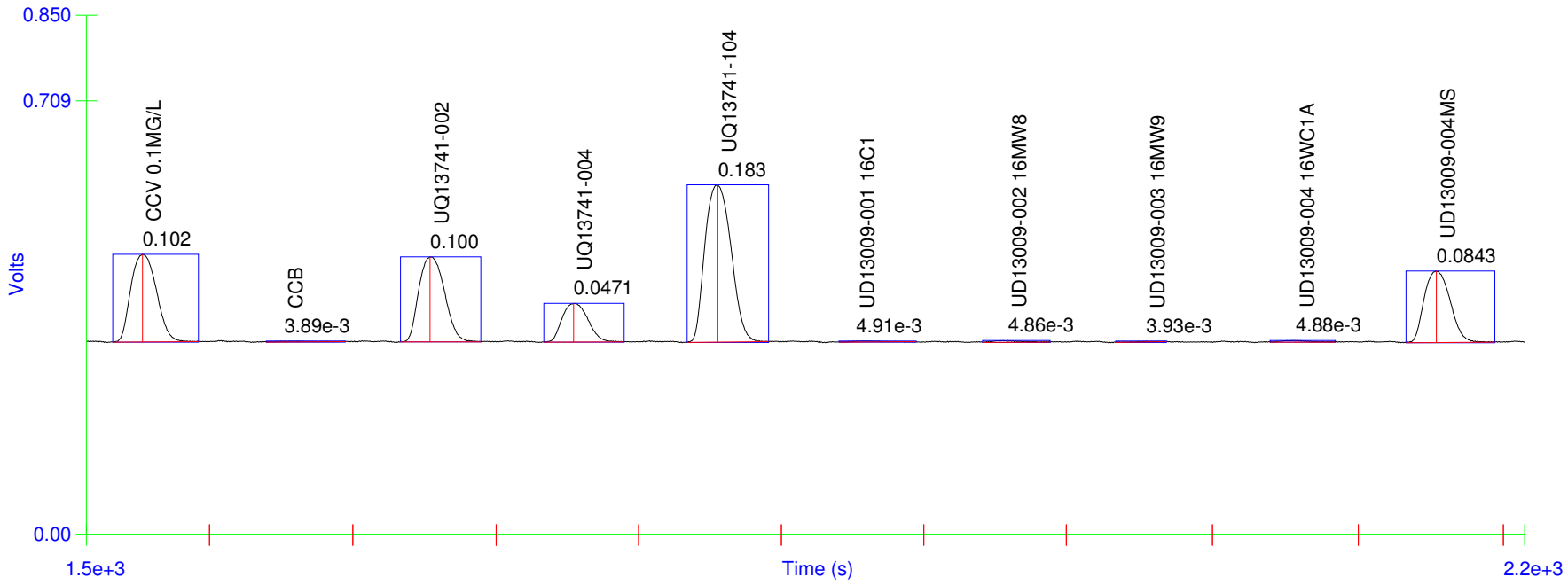
Channel 2: Set 1 of 5



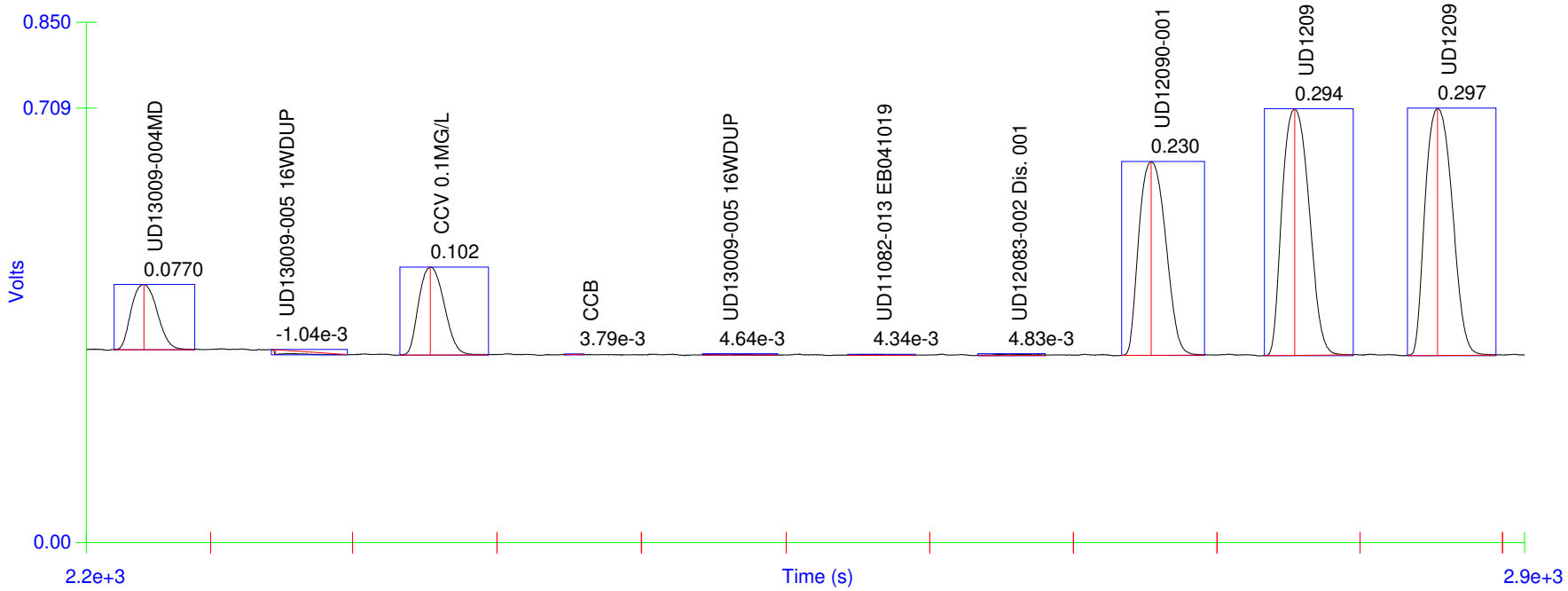
Channel 2: Set 2 of 5



Channel 2: Set 3 of 5



Channel 2: Set 4 of 5



Channel 2: Set 5 of 5

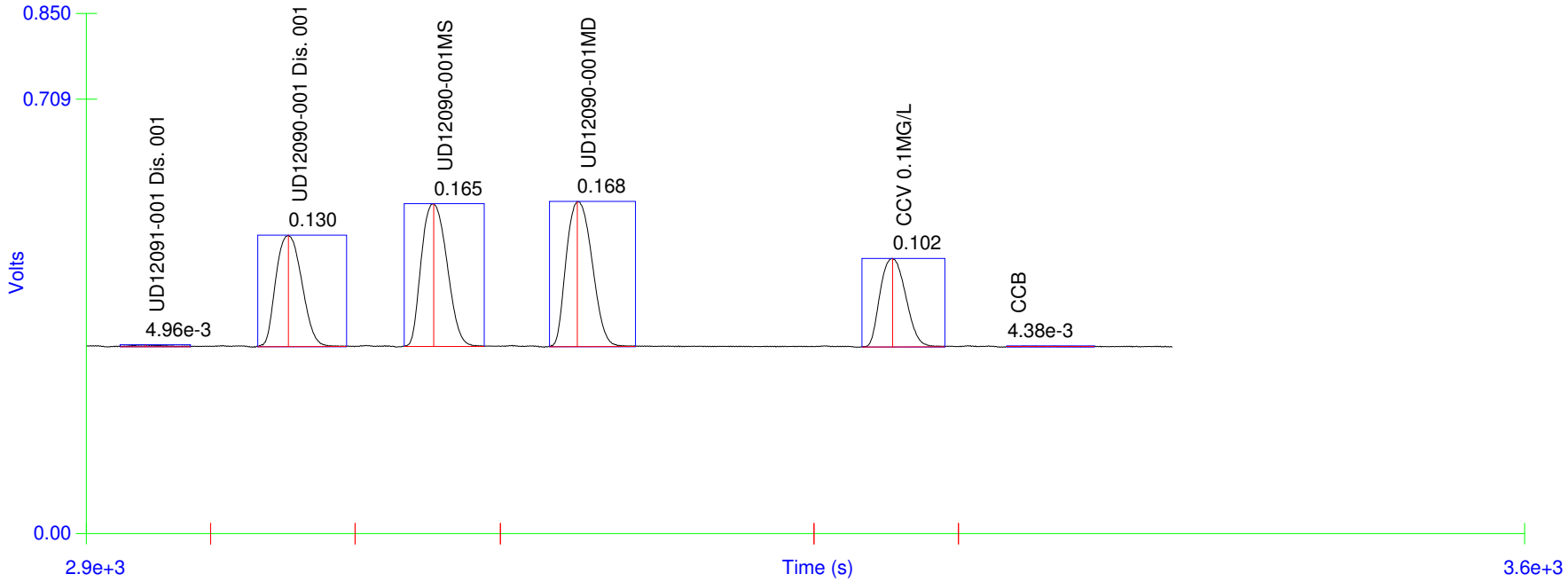
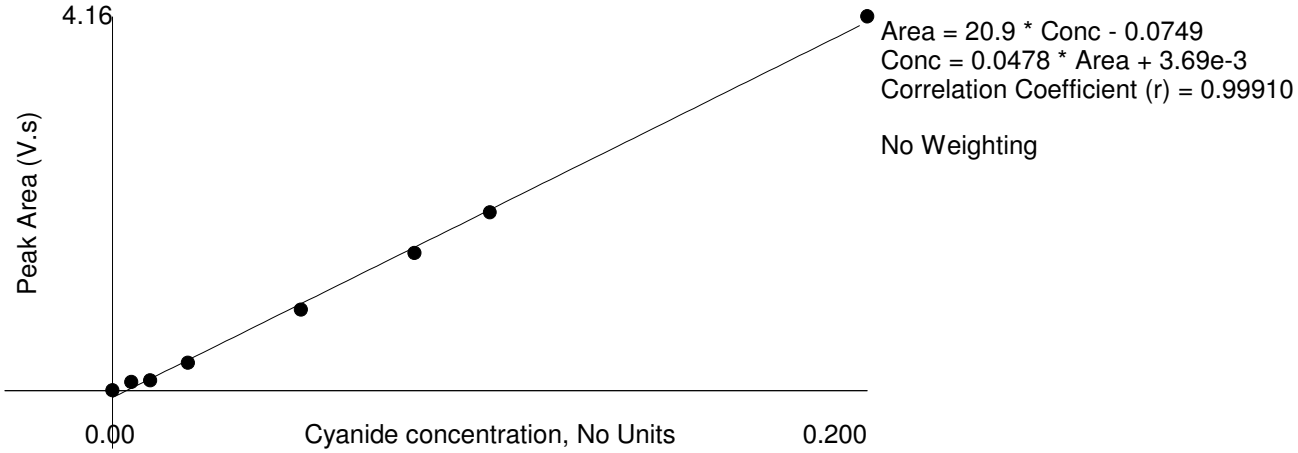


Table 1: Cyanide

	Known Conc. ()	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. ()	Detection Date	Detection Time
1	0.200	1	4.16	0.296	0.0	-1.4	0.203	4/18/2019	17:21:55
2	0.100	1	1.98	0.142	0.0	1.4	0.0985	4/18/2019	17:23:05
3	0.0800	1	1.53	0.110	0.0	4.0	0.0769	4/18/2019	17:24:14
4	0.0500	1	0.901	0.0642	0.0	7.0	0.0468	4/18/2019	17:25:25
5	0.0200	1	0.312	0.0235	0.0	8.9	0.0186	4/18/2019	17:26:35
6	0.0100	1	0.117	9.21e-3	0.0	12.8	9.27e-3	4/18/2019	17:27:45
7	5.00e-3	1	0.0990	8.10e-3	0.0	-236.0	8.42e-3	4/18/2019	17:28:55
8	0.00	1	5.03e-3	1.81e-3			3.93e-3	4/18/2019	17:30:05

Figure 1: Cyanide



Cyanide Sample Preparation Log

Date: 04/17/2019 Analyst: KFE Prep Batch: 13741 / 13742

pH Strip ID: 19-215
Potassium Iodide Strip ID: 18-438
Lead Acetate Paper ID: 18-2364
Acetate Buffer ID: 18-2175A (NCM22033/22034)
Acetate Buffer Expiry Date: 08/30/2020

Snap-Cup ID: NA
Micro-dist Tube ID: NA
Nitrate Strip ID: NA
Sulfamic Acid ID: 18-720
Sulfamic Acid Expiry Date: 10/31/2022

Sample ID	pH > 12 SU? (Y/N)	Chlorine Present? (Y/N)	Sulfide Present? (Y/N)	Nitrate Present? (Y/N)	Comments
UD11082-013	Y	N	N	NA	
UD12083-002	Y	N	N	NA	
UD12090-001	Y	N	N	NA	
UD12091-001	Y	N	N	NA	
UD13009-001	Y	N	N	NA	
UD13009-002	Y	N	N	NA	
UD13009-003	Y	N	N	NA	
UD13009-004	Y	N	N	NA	
UD13009-005	Y	N	N	NA	

Y = Yes N = No

CLP Samples only: If samples test positive for pH, Chlorine, or Sulfide contact the PM immediately and wait for further instruction. Document in the comment section.
If sample test positive for nitrate/nitrite add 0.2 g of sulfamic acid (applicable to aqueous Midi-distillation method only).

Level 2 Reviewed by: MSG
Date: 04/23/2019

Cyanide Cover Sheet

Prep Method 335.4 / 9012B-A / SM4500-CN C-2011 / SM4500-CN B-2011 / 10-204-00-1-X / SW-846 Reactives
Analysis Method: 335.4 / 9012B-A / SM4500-CN E-2011 / SM4500-CN G-2011

Instrument ID: AA2, Lachate Quickchem Automated Flow-Injection Ion Analyzer, SN A83000-1090

Analytical Batch(es): 14488, 14489

Prep Information

Analyst:	KFE
Prep Batch(es):	14360, 14361
Prep Date(s):	4/23/2019
Prep Start Time:	1807
Prep End Time:	1937
Pipette ID(s):	237, 17

Analysis Information

Analyst:	MSG
Analysis Date(s):	4/24/2019
Analysis Start Time:	1235
Analysis End Time:	1314

Reagents and Consumables

Chloramine T:	CNR19-104	Expires:	4/24/2019
Potassium Phosphate Buffer:	CNR19-95	Expires:	5/12/2019
Pyridine-Barituric Acid:	CNR19-88	Expires:	10/4/2019
0.25 N Sodium Hydroxide:	CNR19-102B	Expires:	10/18/2019

Instrument Information

Filter Wavelength:	580 nm
Sample Loop Length:	150 cm
Pump Speed:	35
Cycle Period:	45 s
Inject to Peak Start:	24.0 s

Calibration Information

Standard	Concentration (mg/L)	Reference ID
ICAL	0.2	CNC102-07
ICAL	0.1	CNC102-06
ICAL	0.08	CNC102-05
ICAL	0.05	CNC102-04
ICAL	0.02	CNC102-03
ICAL	0.01	CNC102-02
ICAL	0.005	CNC102-01
ICV	0.08	CNC102-08
CCV	0.1	CNC102-06

Standards Expire:	4/24/2019
LCR Expires:	10/24/2019
ICV Expires:	4/24/2019
CCV Expires:	4/24/2019

Comments

Analyst: MSG
Status: Open

Cyanide Analytical Batch: 14488

9012B - Cyanide - Total

Printed: 4/24/2019 2:56:06 PM

Start Date: 04/24/2019 1453 **End Date:** 04/24/2019 1453

Sample ID	Method	QC Code	Run	Matrix	Cup	%S	Dil	Instrument Reading	Final Result (ug/L)	Reported Result (ug/L)	%Rec	RPD / PD	PQL	Qualifiers	Analysis Date	Initial Weight (g)	Initial Volume (mL)	Final Volume (mL)
UQ14360-001	9012B	MB	1	Aqueous	1	100	1	-0.31	0	0.00			20		04/24/2019 1248	0	50	50
UQ14360-002	9012B	LCS	1	Aqueous	2	100	1	106	106	110	106	0.00	20		04/24/2019 1249	0	50	50
UQ14360-004	9012B	Standard	1	Aqueous	3	100	1	49.3	49.3	49	98.60				04/24/2019 1251	0	50	50
UQ14360-104	9012B	Standard	1	Aqueous	4	100	1	200	200	200	100.00				04/24/2019 1252	0	50	50
UD13009-006	9012B	Sample	2	Aqueous	5	100	1	1.9	1.9	ND			20		04/24/2019 1253	0	50	50
UD17008-001	9012B	Sample	2	Aqueous	6	100	1	0.733	0.733	ND			20	S	04/24/2019 1254	0	50	50
UD17008-001MS	9012B	MS	2	Aqueous	7	100	1	83.3	83.3	83	83	3.2	20		04/24/2019 1255	0	50	50
UD17008-001MD	9012B	MSD	2	Aqueous	8	100	1	86	86	86	86	3.2	20		04/24/2019 1256	0	50	50

Total Items: 8 (2 samples)

(end of report)

Analyst: KFE **Level 2 Analyst:** MSG

Status: Level 2 review released

Matrix: Aqueous

Printed: 04/24/19 1504

Prep Batch: 14361

9012B-A - Cyanide distillation Linked: 335.4,SM 4500-CN G,SM 4500-CN

Start Date: 04/23/2019 1807

End Date: 04/23/2019 1937

Ext Solvent: NaOH/NH2SO3H/H2SO4/MgCl2.6H20/Ca(OCl)2/NaAsO2

Reagents Vol. (mL): 50mL/0.2g/2mL/5mL/NA/NA

Hot Block ID: Hot Block #4

Chem ID: CNR19-102/18-720/CNR19-97/18-2090/NA/NA

Thermometer ID: 1079

Start Temperature (°C): 122

End Temperature (°C): 121

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ14361-001	MB		1	SM 4500-CN E-2011	50		0.0	50.0			QC shared w / PB 14360
UQ14361-002	LCS		1	SM 4500-CN E-2011	50	CNC102-10	0.5	50.0			QC shared w / PB 14360, pip. 237
UQ14361-004	Standard	Conc = 0.050 mg/L	1	SM 4500-CN E-2011	50	CNC102-13	0.5	50.0			QC shared w / PB 14360, pip. 237
UQ14361-104	Standard	Conc = 0.20 mg/L	1	SM 4500-CN E-2011	50	CNC102-09	1.0	50.0			QC shared w / PB 14360, pip. 17
UD12086-001	Sample	MW1-14(04112019)	2	SM 4500-CN E-2011	50		0.0	50.0	04/25/2019 2359	04/24/2019	Boiling stones:19-593
UD12086-001MS	MS		2	SM 4500-CN E-2011	50	CNC102-10	0.5	50.0			pip. 237
UD12086-001MD	MSD		2	SM 4500-CN E-2011	50	CNC102-10	0.5	50.0			pip. 237
UD12086-003	Sample	Heise Pond(04112019)	2	SM 4500-CN E-2011	50		0.0	50.0	04/25/2019 2359	04/24/2019	
UD12086-005	Sample	MW1-3(04-11-2019	2	SM 4500-CN E-2011	50		0.0	50.0	04/25/2019 2359	04/24/2019	
UD12086-006	Sample	MW1-5(04-11-2019)	2	SM 4500-CN E-2011	50		0.0	50.0	04/25/2019 2359	04/24/2019	
UD12086-007	Sample	MW1-20(04-11-2019)	2	SM 4500-CN E-2011	50		0.0	50.0	04/25/2019 2359	04/24/2019	
UD15020-001	Sample	1904010-03 (041019-1-1)	2	9012B	50		0.0	50.0	04/24/2019 2359	04/23/2019	
UD15020-002	Sample	1904011-01 (041119-2-1)	2	9012B	50		0.0	50.0	04/25/2019 2359	04/23/2019	
UD16022-001	Sample	4257782(1)	2	335.4	50		0.0	50.0	04/25/2019 2359	04/25/2019	

(end of report)

Total Samples: 8

Original Run Filename: OM_4-24-2019_12-34-43.OMN created 4/24/2019 12:34:43
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_4-24-2019_12-34-43.OMN last modified 4/24/2019 13:16:27
Current Run Author's Signature: [Omnion User]
Description: Default New Run

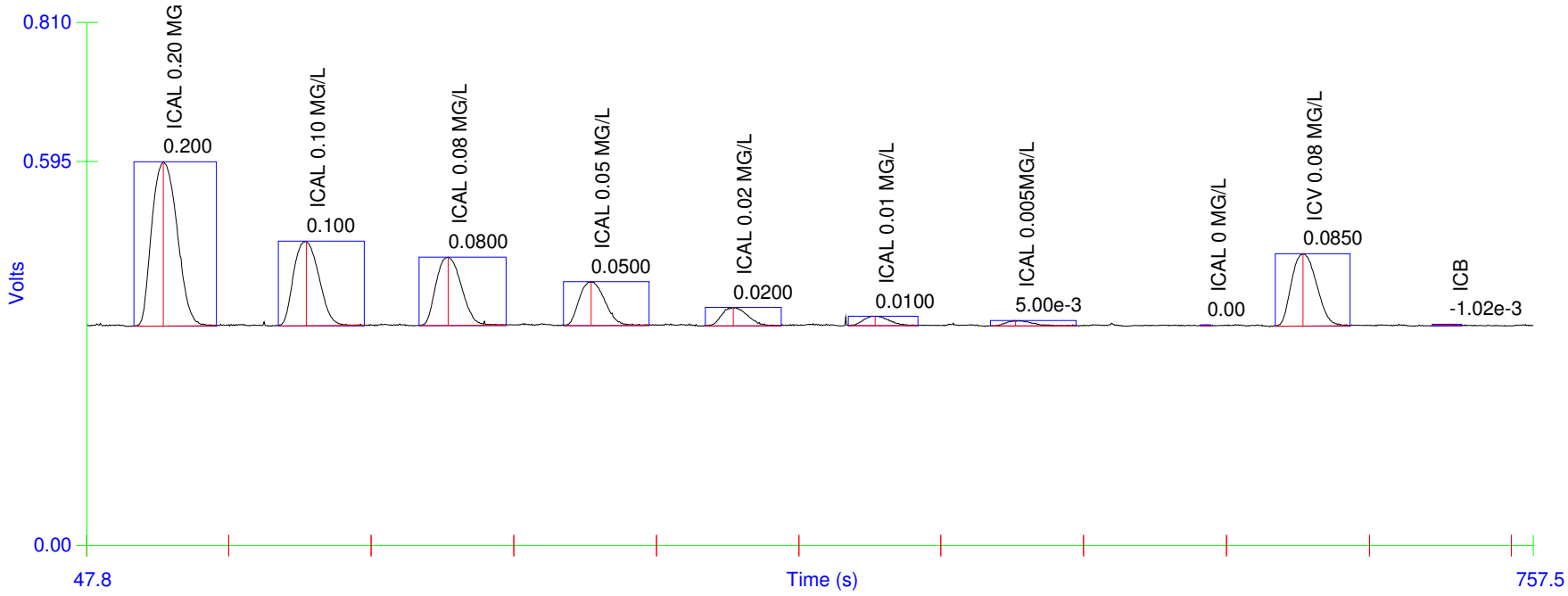
Sample	Cup No.	Channel 2 Cyanide Conc.	Channel 2 Cyanide Area (V.s)	Detection Time	MDF	Description	
ICAL 0.20 MG/L	S1	0.200	3.62	4/24/2019@12:35:52			LCR ESTABLSIHED 4/24/2019
ICAL 0.10 MG/L	S2	0.100	1.84	4/24/2019@12:37:02			
ICAL 0.08 MG/L	S3	0.0800	1.50	4/24/2019@12:38:12			
ICAL 0.05 MG/L	88	0.0500	0.944	4/24/2019@12:39:22			
ICAL 0.02 MG/L	89	0.0200	0.392	4/24/2019@12:40:33			
ICAL 0.01 MG/L	S9	0.0100	0.193	4/24/2019@12:41:42			
ICAL 0.005MG/L	90	5.00e-3	0.107	4/24/2019@12:42:52			
ICAL 0 MG/L	S11	0.00	1.64e-4	4/24/2019@12:44:02			
ICV 0.08 MG/L	S10	0.0850	1.56	4/24/2019@12:45:12			ICV 106%
Known Conc:		0.0800					
Calibration:		Table/Fig. 1					
ICB	S11	-1.02e-3	4.13e-3	4/24/2019@12:46:23			ICB PASS
Known Conc:		0.00					
LOQ 0.01 MG/L	S9	9.57e-3	0.196	4/24/2019@12:47:32			LOQ 96%
Known Conc:		0.0100					
UQ14360-001	1	-3.10e-4	0.0169	4/24/2019@12:48:43			
UQ14360-002	2	0.106	1.94	4/24/2019@12:49:54			LCS 106%
UQ14360-004	3	0.0493	0.915	4/24/2019@12:51:05			STD 99%
UQ14360-104	4	0.200	3.64	4/24/2019@12:52:16			STD 100%
UD13009-006 16WC1B	5	1.90e-3	0.0569	4/24/2019@12:53:27			
UD17008-001 MW-4	6	7.33e-4	0.0358	4/24/2019@12:54:37			MS/MD RPD 3.2%
UD17008-001MS	7	0.0833	1.53	4/24/2019@12:55:48			%REC MS 83%
UD17008-001MD	8	0.0860	1.58	4/24/2019@12:56:58			%REC MD 86%
UD12086-001 MW1-14(04112019)	9	-1.35e-4	0.0201	4/24/2019@12:58:08			
CCV 0.1MG/L	S2	0.106	1.95	4/24/2019@12:59:18			CCV 106%
Known Conc:		0.100					
CCB	S11	-8.42e-4	7.30e-3	4/24/2019@13:00:28			CCB PASS
Known Conc:		0.00					MS/MD RPD 1.9%
UD12086-001MS	10	0.104	1.90	4/24/2019@13:01:37			%REC MS 104%
UD12086-001MD	11	0.106	1.94	4/24/2019@13:02:47			%REC MD 106%
UD12086-003 Heise Pond(04112019)	12	3.32e-4	0.0286	4/24/2019@13:03:57			

UD12086-005 MW1-3(04-11-2019	13	1.44e-3	0.0486	4/24/2019@13:05:06			
UD12086-006 MW1-5(04-11-2019)	14	-2.72e-4	0.0176	4/24/2019@13:06:16			
UD12086-007 MW1-20(04-11-2019)	15	-9.13e-4	6.03e-3	4/24/2019@13:07:24			
UD15020-001 1904010-03 (041019-1-1)	18	1.66e-3	0.0527	4/24/2019@13:08:36			
UD15020-002 1904011-01 (041119-2-1)	19	1.84e-3	0.0558	4/24/2019@13:09:47			
UD16022-001 4257782(1)	20	-8.00e-4	8.06e-3	4/24/2019@13:10:58			
CCV 0.1MG/L	S2	0.107	1.96	4/24/2019@13:13:31			CCV 107%
Known Conc:		0.100					
CCB	S11	-7.93e-4	8.20e-3	4/24/2019@13:14:41			CCB PASS
Known Conc:		0.00					

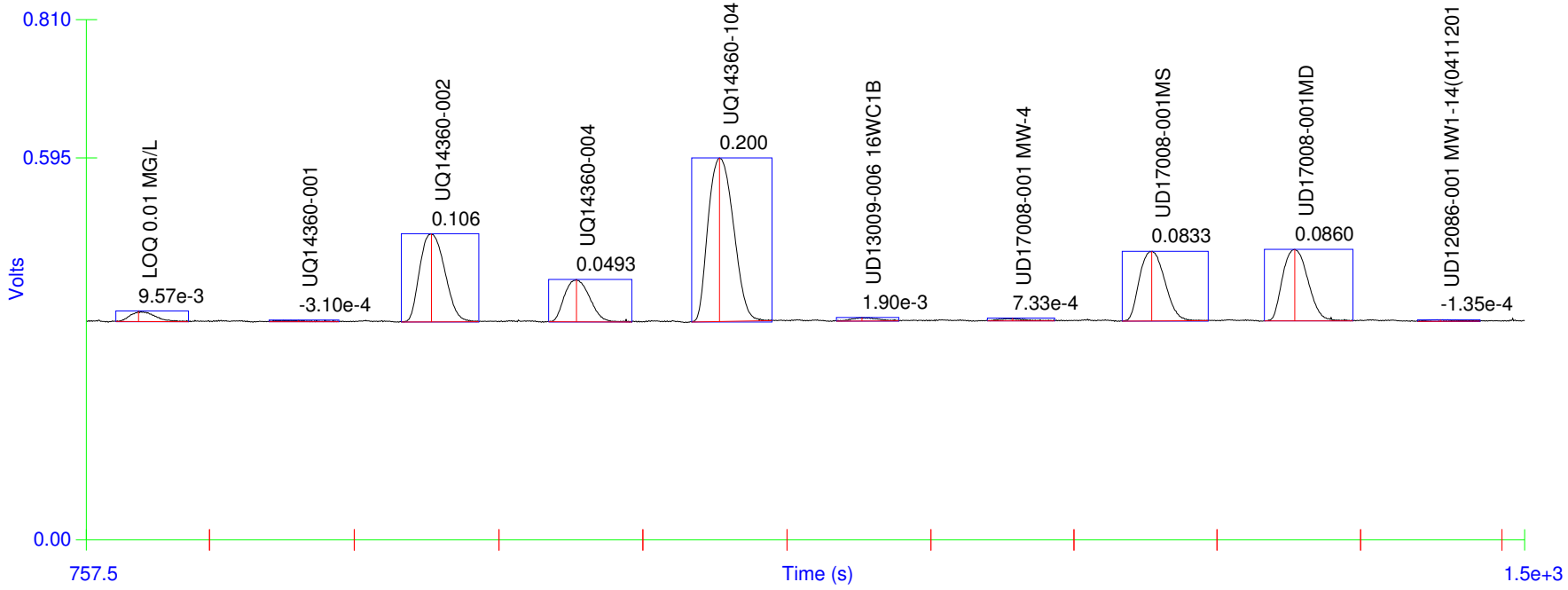
Analyte Properties Table for OM_4-24-2019_12-34-43.OMN

Property	Channel 2
	Cyanide
Concentration Units	
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	False
% of High Standard	110
Quik Chem Method	
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	23
Peak Base Width	45

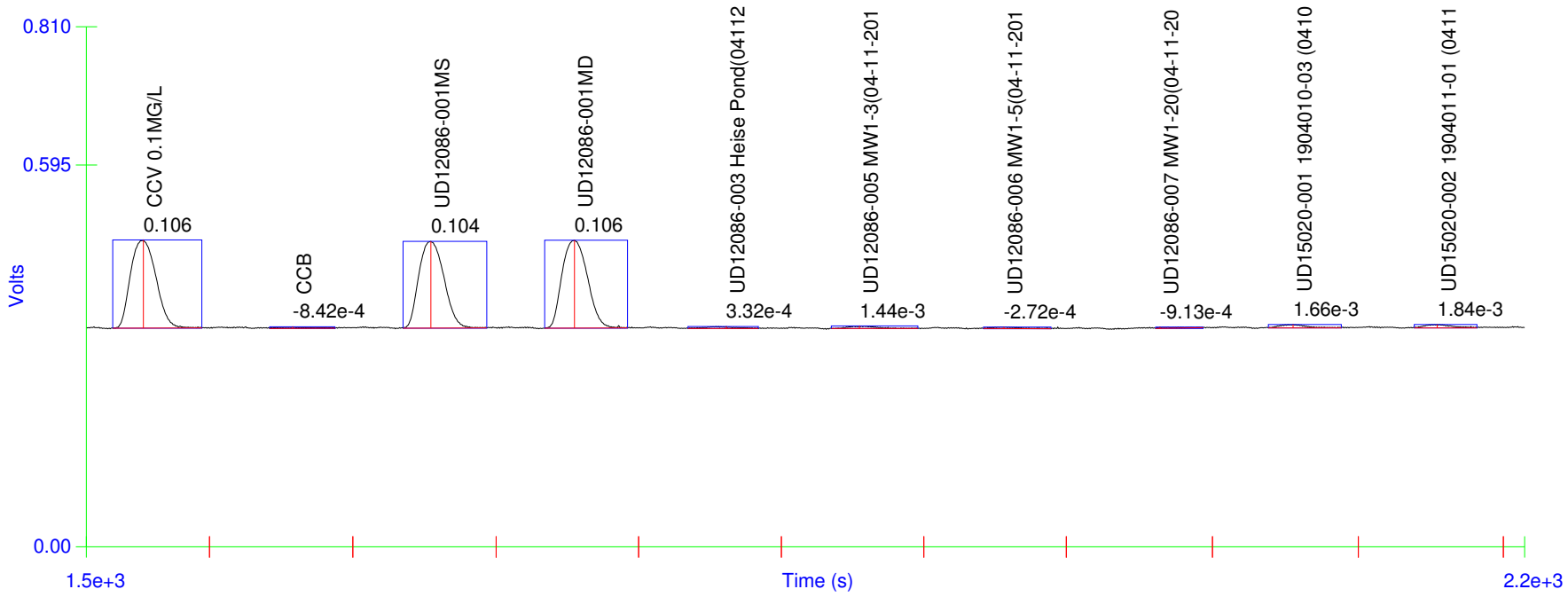
Channel 2: Set 1 of 4



Channel 2: Set 2 of 4



Channel 2: Set 3 of 4



Channel 2: Set 4 of 4

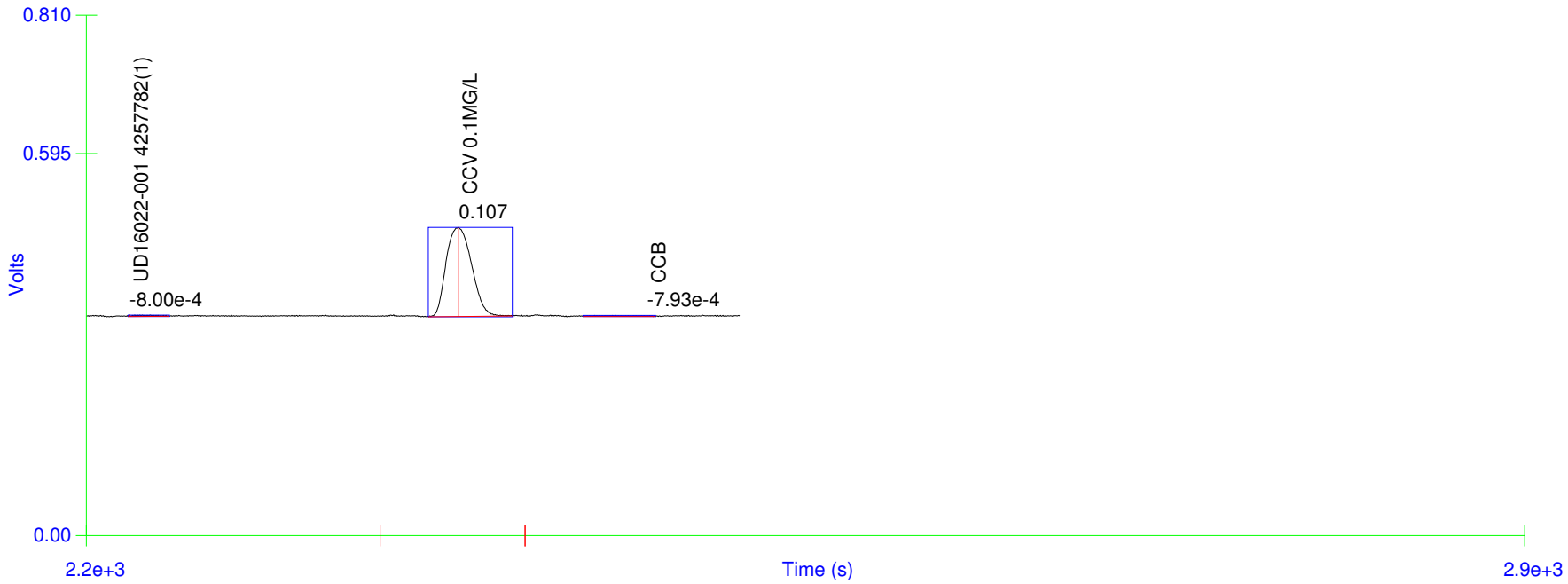
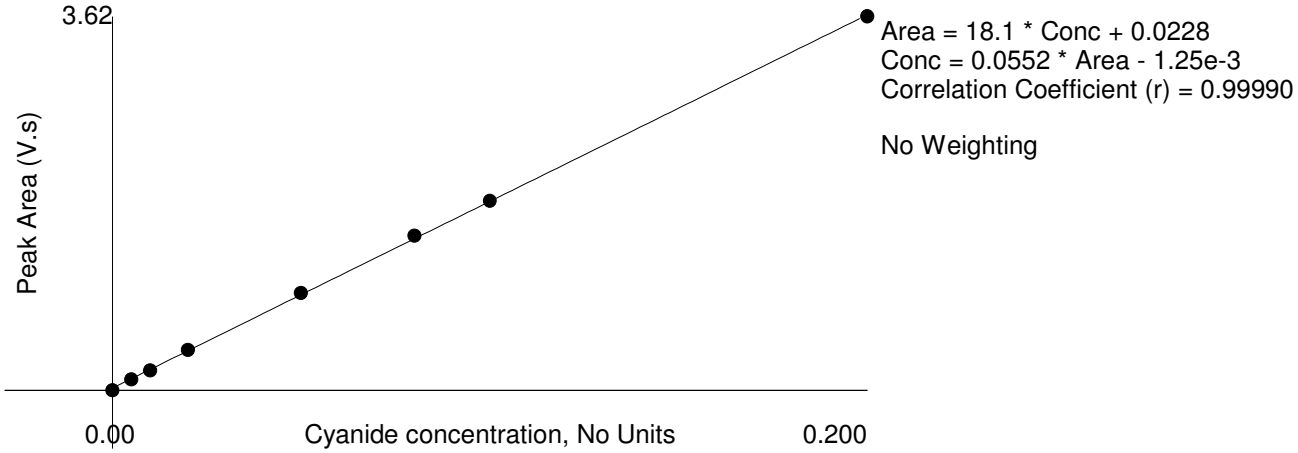


Table 1: Cyanide

LCR ESTABLISHED 04/24/2019

	Known Conc. ()	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. ()	Detection Date	Detection Time	
1	0.200	1	3.62	0.255	0.0	0.5	0.199	4/24/2019	12:35:52	100%
2	0.100	1	1.84	0.131	0.0	-0.2	0.100	4/24/2019	12:37:02	100%
3	0.0800	1	1.50	0.106	0.0	-2.0	0.0816	4/24/2019	12:38:12	102%
4	0.0500	1	0.944	0.0679	0.0	-1.8	0.0509	4/24/2019	12:39:22	102%
5	0.0200	1	0.392	0.0287	0.0	-1.9	0.0204	4/24/2019	12:40:33	102%
6	0.0100	1	0.193	0.0149	0.0	5.1	9.44e-3	4/24/2019	12:41:42	94%
7	5.00e-3	1	0.107	8.68e-3	0.0	5.4	4.67e-3	4/24/2019	12:42:52	93%
8	0.00	1	1.64e-4	1.93e-3			-1.24e-3	4/24/2019	12:44:02	

Figure 1: Cyanide



Cyanide Sample Preparation Log

Date: 4/18/2019 Analyst: KFE Prep Batch: 13887 / 13890

pH Strip ID: 19-215
Potassium Iodide Strip ID: 18-438
Lead Acetate Paper ID: 18-2364
Acetate Buffer ID: 18-2175A, NCM 22130/22131
Acetate Buffer Expiry Date: 8/30/2020

Snap-Cup ID: NA
Micro-dist Tube ID: NA
Nitrate Strip ID: NA
Sulfamic Acid ID: 18-720
Sulfamic Acid Expiry Date: 10/31/2022

Sample ID	pH > 12 SU? (Y/N)	Chlorine Present? (Y/N)	Sulfide Present? (Y/N)	Nitrate Present? (Y/N)	Comments
UD13009-006	Y	N	N	NA	
UD17008-001	Y	N	N	NA	
UD15020-001	Y	N	N	NA	
UD15020-002	Y	N	N	NA	
UD16022-001	Y	N	N	NA	
UD12086-001	Y	N	N	NA	
UD12086-003	Y	N	N	NA	
UD12086-005	Y	N	N	NA	
UD12086-006	Y	N	N	NA	
UD12086-007	Y	N	N	NA	

Y = Yes N = No

CLP Samples only: If samples test positive for pH, Chlorine, or Sulfide contact the PM immediately and wait for further instruction. Document in the comment section.
If sample test positive for nitrate/nitrite add 0.2 g of sulfamic acid (applicable to aqueous Midi-distillation method only).

Level 2 Reviewed by: MSG
Date: 4/25/2019

Metals

Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13009-001**

Description: **16C1** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1320** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0250	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-001**

Description: **16C1** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1320** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1634	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**140**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	1.3	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**4.3**	**J**	**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	7.3	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13009-002**

Description: **16MW8** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1245** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0252	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-002**

Description: **16MW8** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1245** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1640	BNW	04/23/2019 1602	14282
2	3005A	6020B	1	05/08/2019 1246	BNW	05/07/2019 1828	15923

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**110**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	**7440-43-9**	**6020B**	**0.23**	**J**	**1.0**	**0.20**	**ug/L**	**1**
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**6.8**		**5.0**	**1.3**	**ug/L**	**1**
Copper	**7440-50-8**	**6020B**	**6.6**		**5.0**	**1.3**	**ug/L**	**1**
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**7.2**	**J**	**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	**7440-22-4**	**6020B**	**1.1**	**J**	**2.0**	**0.30**	**ug/L**	**2**
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	**7440-66-6**	**6020B**	**33**		**30**	**7.3**	**ug/L**	**1**

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13009-003**

Description: **16MW9** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1225** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0255	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-003**

Description: **16MW9** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1225** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1646	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**600**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**6.2**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**16**		**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	7.3	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13009-004**

Description: **16WC1A** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1100** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0258	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-004**

Description: **16WC1A** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1100** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1652	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**340**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**13**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**15**		**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	**7440-66-6**	**6020B**	**16**	**J**	**30**	**7.3**	**ug/L**	**1**

LOQ = Limit of Quantitation
U = Not detected at or above the DL
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B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13009-005**

Description: **16WDUP** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0305	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-005**

Description: **16WDUP** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1723	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**350**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**14**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**16**		**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	**7440-66-6**	**6020B**	**16**	**J**	**30**	**7.3**	**ug/L**	**1**

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13009-006**

Description: **16WC1B** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1015** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0313	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	0.20	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13009-006**

Description: **16WC1B** Matrix: **Aqueous**

Date Sampled: **04/11/2019 1015** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1729	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Antimony	7440-36-0	6020B	2.0	U	2.0	0.50	ug/L	1
Arsenic	7440-38-2	6020B	10	U	10	2.0	ug/L	1
Barium	**7440-39-3**	**6020B**	**130**		**10**	**1.3**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	0.20	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	0.20	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	1.3	ug/L	1
Cobalt	**7440-48-4**	**6020B**	**18**		**5.0**	**1.3**	**ug/L**	**1**
Copper	7440-50-8	6020B	5.0	U	5.0	1.3	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	1.0	ug/L	1
Nickel	**7440-02-0**	**6020B**	**4.9**	**J**	**10**	**2.0**	**ug/L**	**1**
Selenium	7782-49-2	6020B	10	U	10	3.0	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1
Thallium	7440-28-0	6020B	1.0	U	1.0	0.20	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	2.5	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	7.3	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

ICP-MS - MB

Sample ID: UQ14282-001
Batch: 14282
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Antimony	2.0	U	1	2.0	0.50	ug/L	04/30/2019 1609
Arsenic	10	U	1	10	2.0	ug/L	04/30/2019 1609
Barium	10	U	1	10	1.3	ug/L	04/30/2019 1609
Beryllium	1.0	U	1	1.0	0.20	ug/L	04/30/2019 1609
Cadmium	1.0	U	1	1.0	0.20	ug/L	04/30/2019 1609
Chromium	5.0	U	1	5.0	1.3	ug/L	04/30/2019 1609
Cobalt	5.0	U	1	5.0	1.3	ug/L	04/30/2019 1609
Copper	5.0	U	1	5.0	1.3	ug/L	04/30/2019 1609
Lead	3.0	U	1	3.0	1.0	ug/L	04/30/2019 1609
Nickel	10	U	1	10	2.0	ug/L	04/30/2019 1609
Selenium	10	U	1	10	3.0	ug/L	04/30/2019 1609
Silver	2.0	U	1	2.0	0.30	ug/L	04/30/2019 1609
Thallium	1.0	U	1	1.0	0.20	ug/L	04/30/2019 1609
Vanadium	10	U	1	10	2.5	ug/L	04/30/2019 1609
Zinc	30	U	1	30	7.3	ug/L	04/30/2019 1609

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ14282-002
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Antimony	100	99		1	99	80-120	04/30/2019 1615
Arsenic	100	100		1	102	80-120	04/30/2019 1615
Barium	100	100		1	100	80-120	04/30/2019 1615
Beryllium	100	99		1	99	80-120	04/30/2019 1615
Cadmium	100	100		1	100	80-120	04/30/2019 1615
Chromium	100	98		1	98	80-120	04/30/2019 1615
Cobalt	100	98		1	98	80-120	04/30/2019 1615
Copper	100	99		1	99	80-120	04/30/2019 1615
Lead	100	100		1	104	80-120	04/30/2019 1615
Nickel	100	99		1	99	80-120	04/30/2019 1615
Selenium	100	100		1	104	80-120	04/30/2019 1615
Silver	100	99		1	99	80-120	04/30/2019 1615
Thallium	100	100		1	103	80-120	04/30/2019 1615
Vanadium	100	99		1	99	80-120	04/30/2019 1615
Zinc	100	99		1	99	80-120	04/30/2019 1615

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MS

Sample ID: UD13009-004MS
Batch: 14282
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Antimony	0.0	100	100		1	100	70-130	04/30/2019 1658
Arsenic	0.0	100	100		1	100	70-130	04/30/2019 1658
Barium	340	100	440		1	102	70-130	04/30/2019 1658
Beryllium	0.0	100	45	N	1	45	70-130	04/30/2019 1658
Cadmium	0.0	100	99		1	99	70-130	04/30/2019 1658
Chromium	0.0	100	98		1	98	70-130	04/30/2019 1658
Cobalt	13	100	110		1	95	70-130	04/30/2019 1658
Copper	0.0	100	97		1	97	70-130	04/30/2019 1658
Lead	0.0	100	100		1	101	70-130	04/30/2019 1658
Nickel	15	100	110		1	95	70-130	04/30/2019 1658
Selenium	0.0	100	100		1	101	70-130	04/30/2019 1658
Silver	0.0	100	97		1	97	70-130	04/30/2019 1658
Thallium	0.0	100	100		1	102	70-130	04/30/2019 1658
Vanadium	0.0	100	100		1	102	70-130	04/30/2019 1658
Zinc	16	100	110		1	95	70-130	04/30/2019 1658

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MSD

Sample ID: UD13009-004MD
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Antimony	0.0	100	100		1	100	0.33	70-130	20	04/30/2019 1704
Arsenic	0.0	100	100		1	101	1.1	70-130	20	04/30/2019 1704
Barium	340	100	450		1	109	1.5	70-130	20	04/30/2019 1704
Beryllium	0.0	100	45	N	1	45	0.88	70-130	20	04/30/2019 1704
Cadmium	0.0	100	100		1	100	0.51	70-130	20	04/30/2019 1704
Chromium	0.0	100	98		1	98	0.54	70-130	20	04/30/2019 1704
Cobalt	13	100	110		1	96	0.64	70-130	20	04/30/2019 1704
Copper	0.0	100	97		1	97	0.58	70-130	20	04/30/2019 1704
Lead	0.0	100	100		1	103	1.9	70-130	20	04/30/2019 1704
Nickel	15	100	110		1	95	0.64	70-130	20	04/30/2019 1704
Selenium	0.0	100	100		1	101	0.20	70-130	20	04/30/2019 1704
Silver	0.0	100	98		1	98	0.75	70-130	20	04/30/2019 1704
Thallium	0.0	100	100		1	104	1.6	70-130	20	04/30/2019 1704
Vanadium	0.0	100	100		1	101	0.59	70-130	20	04/30/2019 1704
Zinc	16	100	110		1	97	1.6	70-130	20	04/30/2019 1704

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MB

Sample ID: UQ13499-001
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Mercury	2.0	U	1	2.0	0.20	ug/L	04/18/2019 0220

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - LCS

Sample ID: UQ13499-002
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	2.0	1.9		1	96	80-120	04/18/2019 0222

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MS

Sample ID: UD13009-004MS
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.0	2.0	1.8		1	92	85-115	04/18/2019 0300

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MSD

Sample ID: UD13009-004MD
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	0.0	2.0	1.8		1	91	1.2	85-115	20	04/18/2019 0303

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MB

Sample ID: UQ15923-001
Batch: 15923
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/07/2019 1828

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Silver	2.0	U	1	2.0	0.30	ug/L	05/08/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ15923-002
Batch: 15923
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/07/2019 1828

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Silver	100	100		1	102	80-120	05/08/2019 1241

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS Metals

- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: Draper Aden Associates

SDG No.: UD13009 **Method Type:** ICP-MS **SOW No.:**

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Lab Sample ID	Client Sample ID	QC Description
UD13009-001	16C1	
UD13009-002	16MW8	
UD13009-003	16MW9	
UD13009-004	16WC1A	
UD13009-004S	16WC1AS	Matrix Spike
UD13009-004SD	16WC1ASD	Matrix Spike Duplicate
UD13009-005	16WDUP	
UD13009-006	16WC1B	

Were ICP interelement corrections applied?	Yes/No	Yes	
Were ICP background corrections applied?	Yes/No	Yes	
If yes - were raw data generated before applications of background corrections?	Yes/No	No	

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Antimony	199.27	200.0	100	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Arsenic	199.97	200.0	100	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Barium	199.67	200.0	100	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Beryllium	202.73	200.0	101	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Cadmium	198.33	200.0	99	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Chromium	197.57	200.0	99	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Cobalt	193.53	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Copper	193.73	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Lead	194.77	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Nickel	193.63	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Selenium	203.40	200.0	102	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Silver	195.67	200.0	98	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Thallium	195.53	200.0	98	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Vanadium	205.43	200.0	103	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Zinc	198.50	200.0	99	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
CCV1									
	Antimony	304.83	300.0	102	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Arsenic	298.40	300.0	99	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Barium	300.77	300.0	100	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Beryllium	308.30	300.0	103	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Cadmium	300.73	300.0	100	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Chromium	301.87	300.0	101	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Cobalt	297.17	300.0	99	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Copper	282.73	300.0	94	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Lead	297.20	300.0	99	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Nickel	286.97	300.0	96	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Selenium	294.83	300.0	98	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Silver	289.47	300.0	96	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Thallium	302.73	300.0	101	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Vanadium	314.03	300.0	105	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Zinc	294.00	300.0	98	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Antimony	307.00	300.0	102	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Arsenic	298.27	300.0	99	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Barium	303.60	300.0	101	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Beryllium	305.80	300.0	102	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Cadmium	301.50	300.0	101	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Chromium	303.07	300.0	101	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Cobalt	298.00	300.0	99	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Copper	291.77	300.0	97	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Lead	305.33	300.0	102	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Nickel	289.00	300.0	96	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Selenium	299.33	300.0	100	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Silver	293.17	300.0	98	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Thallium	311.23	300.0	104	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Vanadium	315.23	300.0	105	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Zinc	296.83	300.0	99	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
CCV3									
	Antimony	306.83	300.0	102	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Arsenic	297.30	300.0	99	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Barium	308.50	300.0	103	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Beryllium	300.83	300.0	100	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Cadmium	300.13	300.0	100	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Chromium	304.27	300.0	101	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Cobalt	300.80	300.0	100	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Copper	293.30	300.0	98	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Lead	305.20	300.0	102	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Nickel	292.23	300.0	97	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Selenium	297.93	300.0	99	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Silver	293.53	300.0	98	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Thallium	311.97	300.0	104	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Vanadium	317.63	300.0	106	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Zinc	297.77	300.0	99	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4									
	Antimony	307.30	300.0	102	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Arsenic	296.77	300.0	99	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Barium	308.27	300.0	103	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Beryllium	302.63	300.0	101	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Cadmium	299.50	300.0	100	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Chromium	304.63	300.0	102	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Cobalt	301.33	300.0	100	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Copper	303.33	300.0	101	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Lead	300.83	300.0	100	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Nickel	294.43	300.0	98	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Selenium	308.93	300.0	103	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Silver	294.00	300.0	98	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Thallium	306.83	300.0	102	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Vanadium	319.33	300.0	106	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Zinc	303.20	300.0	101	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Antimony	208.90	200.0	104	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Arsenic	205.70	200.0	103	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Barium	207.00	200.0	104	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Beryllium	208.87	200.0	104	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Cadmium	205.43	200.0	103	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Chromium	205.93	200.0	103	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Cobalt	200.37	200.0	100	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Copper	196.13	200.0	98	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Lead	210.43	200.0	105	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Nickel	198.57	200.0	99	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Selenium	206.60	200.0	103	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Silver	205.53	200.0	103	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Thallium	204.67	200.0	102	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Vanadium	211.03	200.0	106	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
	Zinc	197.37	200.0	99	90.0 - 110.0	MS	5/8/2019	10:24	MS2050819A 6020B 200.8, g
CCV1									
	Antimony	307.40	300.0	102	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Arsenic	291.93	300.0	97	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Barium	302.30	300.0	101	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Beryllium	303.07	300.0	101	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Cadmium	298.47	300.0	99	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Chromium	295.53	300.0	99	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Cobalt	292.60	300.0	98	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Copper	277.87	300.0	93	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Lead	309.83	300.0	103	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Nickel	282.10	300.0	94	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Selenium	289.57	300.0	97	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Silver	296.00	300.0	99	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Thallium	294.93	300.0	98	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Vanadium	306.87	300.0	102	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g
	Zinc	284.27	300.0	95	90.0 - 110.0	MS	5/8/2019	10:42	MS2050819A 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Antimony	308.03	300.0	103	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Arsenic	296.67	300.0	99	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Barium	302.20	300.0	101	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Beryllium	303.30	300.0	101	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Cadmium	297.77	300.0	99	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Chromium	301.03	300.0	100	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Cobalt	298.33	300.0	99	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Copper	286.40	300.0	95	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Lead	308.53	300.0	103	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Nickel	293.63	300.0	98	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Selenium	291.63	300.0	97	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Silver	299.87	300.0	100	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Thallium	306.67	300.0	102	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Vanadium	309.73	300.0	103	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
	Zinc	286.93	300.0	96	90.0 - 110.0	MS	5/8/2019	11:47	MS2050819A 6020B 200.8, g
CCV3									
	Antimony	304.47	300.0	101	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Arsenic	290.57	300.0	97	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Barium	302.73	300.0	101	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Beryllium	302.90	300.0	101	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Cadmium	298.87	300.0	100	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Chromium	297.03	300.0	99	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Cobalt	294.37	300.0	98	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Copper	283.17	300.0	94	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Lead	300.93	300.0	100	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Nickel	289.33	300.0	96	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Selenium	295.23	300.0	98	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Silver	300.00	300.0	100	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Thallium	296.40	300.0	99	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Vanadium	305.90	300.0	102	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g
	Zinc	283.23	300.0	94	90.0 - 110.0	MS	5/8/2019	12:58	MS2050819A 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	DL	½ LOQ	M	Analysis Date	Analysis Time	Run
ICB1										
	Antimony	0.039	+/-1.000	U	0.500	1.000	MS	4/30/2019	11:10	MS2043019B 6
	Arsenic	0.013	+/-1.000	U	1.250	1.000	MS	4/30/2019	11:10	MS2043019B 6
	Barium	0.015	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Beryllium	0.051	+/-0.200	U	0.150	0.200	MS	4/30/2019	11:10	MS2043019B 6
	Cadmium	0.029	+/-0.250	U	0.125	0.250	MS	4/30/2019	11:10	MS2043019B 6
	Chromium	0.024	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Cobalt	0.038	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Copper	0.012	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Lead	0.027	+/-0.500	U	0.250	0.500	MS	4/30/2019	11:10	MS2043019B 6
	Nickel	0.025	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Selenium	0.049	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Silver	0.019	+/-0.500	U	0.250	0.500	MS	4/30/2019	11:10	MS2043019B 6
	Thallium	0.017	+/-0.250	U	0.150	0.250	MS	4/30/2019	11:10	MS2043019B 6
	Vanadium	0.014	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Zinc	0.029	+/-5.000	U	2.500	5.000	MS	4/30/2019	11:10	MS2043019B 6
CCB1										
	Antimony	0.102	+/-1.000	U	0.500	1.000	MS	4/30/2019	11:28	MS2043019B 6
	Arsenic	0.089	+/-1.000	U	1.250	1.000	MS	4/30/2019	11:28	MS2043019B 6
	Barium	0.033	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Beryllium	0.030	+/-0.200	U	0.150	0.200	MS	4/30/2019	11:28	MS2043019B 6
	Cadmium	0.031	+/-0.250	U	0.125	0.250	MS	4/30/2019	11:28	MS2043019B 6
	Chromium	0.039	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Cobalt	0.049	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Copper	0.039	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Lead	0.039	+/-0.500	U	0.250	0.500	MS	4/30/2019	11:28	MS2043019B 6
	Nickel	0.018	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Selenium	0.353	+/-2.500	U	1.250	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Silver	0.033	+/-0.500	U	0.250	0.500	MS	4/30/2019	11:28	MS2043019B 6
	Thallium	0.027	+/-0.250	U	0.150	0.250	MS	4/30/2019	11:28	MS2043019B 6
	Vanadium	0.032	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Zinc	0.033	+/-5.000	U	2.500	5.000	MS	4/30/2019	11:28	MS2043019B 6

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	DL	½ LOQ	M	Analysis Date	Analysis Time	Run
CCB2										
	Antimony	0.129	+/-1.000	U	0.500	1.000	MS	4/30/2019	15:14	MS2043019B 6
	Arsenic	-0.021	+/-1.000	U	1.250	1.000	MS	4/30/2019	15:14	MS2043019B 6
	Barium	0.016	+/-2.500	U	1.250	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Beryllium	0.039	+/-0.200	U	0.150	0.200	MS	4/30/2019	15:14	MS2043019B 6
	Cadmium	0.032	+/-0.250	U	0.125	0.250	MS	4/30/2019	15:14	MS2043019B 6
	Chromium	0.051	+/-2.500	U	1.250	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Cobalt	0.040	+/-2.500	U	1.250	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Copper	0.029	+/-2.500	U	1.250	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Lead	0.034	+/-0.500	U	0.250	0.500	MS	4/30/2019	15:14	MS2043019B 6
	Nickel	0.030	+/-2.500	U	1.250	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Selenium	-0.205	+/-2.500	U	1.250	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Silver	0.031	+/-0.500	U	0.250	0.500	MS	4/30/2019	15:14	MS2043019B 6
	Thallium	0.019	+/-0.250	U	0.150	0.250	MS	4/30/2019	15:14	MS2043019B 6
	Vanadium	0.035	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Zinc	0.025	+/-5.000	U	2.500	5.000	MS	4/30/2019	15:14	MS2043019B 6
CCB3										
	Antimony	0.121	+/-1.000	U	0.500	1.000	MS	4/30/2019	16:28	MS2043019B 6
	Arsenic	0.007	+/-1.000	U	1.250	1.000	MS	4/30/2019	16:28	MS2043019B 6
	Barium	0.046	+/-2.500	U	1.250	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Beryllium	0.044	+/-0.200	U	0.150	0.200	MS	4/30/2019	16:28	MS2043019B 6
	Cadmium	0.029	+/-0.250	U	0.125	0.250	MS	4/30/2019	16:28	MS2043019B 6
	Chromium	0.053	+/-2.500	U	1.250	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Cobalt	0.055	+/-2.500	U	1.250	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Copper	0.037	+/-2.500	U	1.250	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Lead	0.038	+/-0.500	U	0.250	0.500	MS	4/30/2019	16:28	MS2043019B 6
	Nickel	0.028	+/-2.500	U	1.250	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Selenium	-0.131	+/-2.500	U	1.250	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Silver	0.031	+/-0.500	U	0.250	0.500	MS	4/30/2019	16:28	MS2043019B 6
	Thallium	0.031	+/-0.250	U	0.150	0.250	MS	4/30/2019	16:28	MS2043019B 6
	Vanadium	0.011	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Zinc	0.004	+/-5.000	U	2.500	5.000	MS	4/30/2019	16:28	MS2043019B 6

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	DL	½ LOQ	M	Analysis Date	Analysis Time	Run
CCB4										
	Antimony	0.144	+/-1.000	U	0.500	1.000	MS	4/30/2019	17:41	MS2043019B 6
	Arsenic	-0.022	+/-1.000	U	1.250	1.000	MS	4/30/2019	17:41	MS2043019B 6
	Barium	0.033	+/-2.500	U	1.250	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Beryllium	0.029	+/-0.200	U	0.150	0.200	MS	4/30/2019	17:41	MS2043019B 6
	Cadmium	0.035	+/-0.250	U	0.125	0.250	MS	4/30/2019	17:41	MS2043019B 6
	Chromium	0.065	+/-2.500	U	1.250	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Cobalt	0.048	+/-2.500	U	1.250	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Copper	0.042	+/-2.500	U	1.250	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Lead	0.036	+/-0.500	U	0.250	0.500	MS	4/30/2019	17:41	MS2043019B 6
	Nickel	0.027	+/-2.500	U	1.250	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Selenium	-0.142	+/-2.500	U	1.250	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Silver	0.031	+/-0.500	U	0.250	0.500	MS	4/30/2019	17:41	MS2043019B 6
	Thallium	0.025	+/-0.250	U	0.150	0.250	MS	4/30/2019	17:41	MS2043019B 6
	Vanadium	0.037	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Zinc	0.033	+/-5.000	U	2.500	5.000	MS	4/30/2019	17:41	MS2043019B 6

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	DL	½ LOQ	M	Analysis Date	Analysis Time	Run
ICB1										
	Antimony	0.002	+/-1.000	U	0.500	1.000	MS	5/8/2019	10:30	MS2050819A 6
	Arsenic	-0.015	+/-1.000	U	1.250	1.000	MS	5/8/2019	10:30	MS2050819A 6
	Barium	0.004	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Beryllium	0.015	+/-0.200	U	0.150	0.200	MS	5/8/2019	10:30	MS2050819A 6
	Cadmium	0.003	+/-0.250	U	0.125	0.250	MS	5/8/2019	10:30	MS2050819A 6
	Chromium	0.018	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Cobalt	-0.007	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Copper	0.000	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Lead	-0.002	+/-0.500	U	0.250	0.500	MS	5/8/2019	10:30	MS2050819A 6
	Nickel	-0.017	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Selenium	0.124	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Silver	0.238	+/-0.500	U	0.250	0.500	MS	5/8/2019	10:30	MS2050819A 6
	Thallium	0.003	+/-0.250	U	0.150	0.250	MS	5/8/2019	10:30	MS2050819A 6
	Vanadium	-0.006	+/-2.500	U	2.500	2.500	MS	5/8/2019	10:30	MS2050819A 6
	Zinc	-0.011	+/-5.000	U	2.500	5.000	MS	5/8/2019	10:30	MS2050819A 6
CCB1										
	Antimony	0.088	+/-1.000	U	0.500	1.000	MS	5/8/2019	10:48	MS2050819A 6
	Arsenic	-0.048	+/-1.000	U	1.250	1.000	MS	5/8/2019	10:48	MS2050819A 6
	Barium	0.001	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Beryllium	0.006	+/-0.200	U	0.150	0.200	MS	5/8/2019	10:48	MS2050819A 6
	Cadmium	0.000	+/-0.250	U	0.125	0.250	MS	5/8/2019	10:48	MS2050819A 6
	Chromium	0.014	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Cobalt	-0.011	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Copper	0.024	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Lead	0.007	+/-0.500	U	0.250	0.500	MS	5/8/2019	10:48	MS2050819A 6
	Nickel	-0.020	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Selenium	-0.129	+/-2.500	U	1.250	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Silver	0.059	+/-0.500	U	0.250	0.500	MS	5/8/2019	10:48	MS2050819A 6
	Thallium	-0.004	+/-0.250	U	0.150	0.250	MS	5/8/2019	10:48	MS2050819A 6
	Vanadium	-0.006	+/-2.500	U	2.500	2.500	MS	5/8/2019	10:48	MS2050819A 6
	Zinc	0.010	+/-5.000	U	2.500	5.000	MS	5/8/2019	10:48	MS2050819A 6

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	DL	½ LOQ	M	Analysis Date	Analysis Time	Run
CCB2										
	Antimony	0.145	+/-1.000	U	0.500	1.000	MS	5/8/2019	11:53	MS2050819A 6
	Arsenic	0.000	+/-1.000	U	1.250	1.000	MS	5/8/2019	11:53	MS2050819A 6
	Barium	0.005	+/-2.500	U	1.250	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Beryllium	0.028	+/-0.200	U	0.150	0.200	MS	5/8/2019	11:53	MS2050819A 6
	Cadmium	0.009	+/-0.250	U	0.125	0.250	MS	5/8/2019	11:53	MS2050819A 6
	Chromium	0.020	+/-2.500	U	1.250	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Cobalt	-0.026	+/-2.500	U	1.250	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Copper	0.008	+/-2.500	U	1.250	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Lead	0.013	+/-0.500	U	0.250	0.500	MS	5/8/2019	11:53	MS2050819A 6
	Nickel	0.008	+/-2.500	U	1.250	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Selenium	0.221	+/-2.500	U	1.250	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Silver	0.003	+/-0.500	U	0.250	0.500	MS	5/8/2019	11:53	MS2050819A 6
	Thallium	-0.011	+/-0.250	U	0.150	0.250	MS	5/8/2019	11:53	MS2050819A 6
	Vanadium	-0.006	+/-2.500	U	2.500	2.500	MS	5/8/2019	11:53	MS2050819A 6
	Zinc	0.011	+/-5.000	U	2.500	5.000	MS	5/8/2019	11:53	MS2050819A 6
CCB3										
	Antimony	0.112	+/-1.000	U	0.500	1.000	MS	5/8/2019	13:04	MS2050819A 6
	Arsenic	-0.083	+/-1.000	U	1.250	1.000	MS	5/8/2019	13:04	MS2050819A 6
	Barium	0.005	+/-2.500	U	1.250	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Beryllium	0.031	+/-0.200	U	0.150	0.200	MS	5/8/2019	13:04	MS2050819A 6
	Cadmium	0.001	+/-0.250	U	0.125	0.250	MS	5/8/2019	13:04	MS2050819A 6
	Chromium	0.029	+/-2.500	U	1.250	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Cobalt	-0.022	+/-2.500	U	1.250	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Copper	0.010	+/-2.500	U	1.250	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Lead	0.018	+/-0.500	U	0.250	0.500	MS	5/8/2019	13:04	MS2050819A 6
	Nickel	-0.007	+/-2.500	U	1.250	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Selenium	-0.243	+/-2.500	U	1.250	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Silver	0.004	+/-0.500	U	0.250	0.500	MS	5/8/2019	13:04	MS2050819A 6
	Thallium	-0.015	+/-0.250	U	0.150	0.250	MS	5/8/2019	13:04	MS2050819A 6
	Vanadium	-0.007	+/-2.500	U	2.500	2.500	MS	5/8/2019	13:04	MS2050819A 6
	Zinc	0.019	+/-5.000	U	2.500	5.000	MS	5/8/2019	13:04	MS2050819A 6

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INTERFERENCE CHECK SAMPLE

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

ICS Source: Inorganic Ventures **Instrument ID:** ICPMS2

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA								
	Antimony	0.20			-4.00 to 4.00	4/30/2019	11:16	MS2043019B 6
	Arsenic	0.034			-4.000 to 4.000	4/30/2019	11:16	MS2043019B 6
	Barium	0.17			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Beryllium	0.016			-0.800 to 0.800	4/30/2019	11:16	MS2043019B 6
	Cadmium	0.23			-1.00 to 1.00	4/30/2019	11:16	MS2043019B 6
	Chromium	-1.8			-10.0 to 10.0	4/30/2019	11:16	MS2043019B 6
	Cobalt	0.51			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Copper	0.99			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Lead	0.078			-2.000 to 2.000	4/30/2019	11:16	MS2043019B 6
	Nickel	1.4			-10.0 to 10.0	4/30/2019	11:16	MS2043019B 6
	Selenium	-0.29			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Silver	0.017			-2.000 to 2.000	4/30/2019	11:16	MS2043019B 6
	Thallium	-0.013			-1.000 to 1.000	4/30/2019	11:16	MS2043019B 6
	Vanadium	-0.88			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Zinc	2.1			-20.0 to 20.0	4/30/2019	11:16	MS2043019B 6

- 4 -

INTERFERENCE CHECK SAMPLE

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

ICS Source: Inorganic Ventures **Instrument ID:** ICPMS2

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA								
	Antimony	0.17			-4.00 to 4.00	5/8/2019	10:36	MS2050819A 6
	Arsenic	0.023			-4.000 to 4.000	5/8/2019	10:36	MS2050819A 6
	Barium	0.17			-10.00 to 10.00	5/8/2019	10:36	MS2050819A 6
	Beryllium	0.014			-0.800 to 0.800	5/8/2019	10:36	MS2050819A 6
	Cadmium	0.069			-1.000 to 1.000	5/8/2019	10:36	MS2050819A 6
	Chromium	-1.7			-10.0 to 10.0	5/8/2019	10:36	MS2050819A 6
	Cobalt	0.43			-10.00 to 10.00	5/8/2019	10:36	MS2050819A 6
	Copper	0.59			-10.00 to 10.00	5/8/2019	10:36	MS2050819A 6
	Lead	0.054			-2.000 to 2.000	5/8/2019	10:36	MS2050819A 6
	Nickel	1.3			-10.0 to 10.0	5/8/2019	10:36	MS2050819A 6
	Selenium	-0.080			-10.000 to 10.000	5/8/2019	10:36	MS2050819A 6
	Silver	0.037			-2.000 to 2.000	5/8/2019	10:36	MS2050819A 6
	Thallium	-0.023			-1.000 to 1.000	5/8/2019	10:36	MS2050819A 6
	Vanadium	-0.66			-10.00 to 10.00	5/8/2019	10:36	MS2050819A 6
	Zinc	1.8			-20.0 to 20.0	5/8/2019	10:36	MS2050819A 6

- 5b -

POST DIGEST SPIKE SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Matrix: WATER **Level:** **Client ID:** 16WC1AA

Sample ID: UD13009-004 **Spiked ID:** UD13009-004A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	80 - 120	50.07		0.15	U	100.0	50.1		MS

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SERIAL DILUTION SAMPLE SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Matrix: WATER **Level:** **Client ID:** 16WC1AL

Sample ID: **UD13009-004** **Serial Dilution ID:** **UD13009-004L**

Batch Number: 14282

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Antimony	0.50	U	2.50	U			10.00 %	MS
Arsenic	1.25	U	6.25	U			10.00 %	MS
Barium	342.50		348.15		1.6		10.00 %	MS
Beryllium	0.15	U	0.75	U			10.00 %	MS
Cadmium	0.13	U	0.63	U			10.00 %	MS
Chromium	1.25	U	6.25	U			10.00 %	MS
Cobalt	13.32		14.03		5.3		10.00 %	MS
Copper	1.25	U	6.25	U			10.00 %	MS
Lead	0.25	U	1.25	U			10.00 %	MS
Nickel	14.90		15.99		7.3		10.00 %	MS
Selenium	1.25	U	6.25	U			10.00 %	MS
Silver	0.25	U	1.25	U			10.00 %	MS
Thallium	0.15	U	0.75	U			10.00 %	MS
Vanadium	2.50	U	12.50	U			10.00 %	MS
Zinc	16.01		16.26	J	1.6		10.00 %	MS

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Shealy Environmental Services, I Contract: RAAP HWMU16

Lab Code: Shealy Case No.: Mod. Ref. No.: SDG No.: UD13009

Instrument Type: MS Instrument ID: ICPMS2

Preparation Method: 3005A

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Antimony	123.00	0.500
Arsenic	75.00	1.25
Barium	135.00	1.3
Beryllium	9.00	0.150
Cadmium	114.00	0.13
Chromium	52.00	1.25
Cobalt	59.00	1.250
Copper	65.00	1.25
Lead	208.00	0.25
Nickel	60.00	1.250
Selenium	82.00	1.25
Silver	107.00	0.250
Thallium	205.00	0.150
Vanadium	51.00	2.500
Zinc	66.00	2.50

Comments:

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1002																										
BLANK	1.00	1008			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
MW10971	1.00	1014																										
MW10956	1.00	1021																										
CAL1	1.00	1027			X	X	X	X			X	X	X		X				X		X	X		X	X	X	
CAL2	1.00	1033			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CAL3	1.00	1039			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CAL4	1.00	1045			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CAL5	1.00	1051																										
CAL6	1.00	1058																										
ICV1	1.00	1104			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICB1	1.00	1110			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICSA	1.00	1116			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV1	1.00	1122			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB1	1.00	1128			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1134																										
ZZZZZZ	1.00	1141																										
ZZZZZZ	1.00	1147																										
ZZZZZZ	1.00	1153																										
ZZZZZZ	1.00	1159																										
ZZZZZZ	1.00	1205																										
ZZZZZZ	1.00	1211																										
ZZZZZZ	1.00	1217																										
ZZZZZZ	1.00	1223																										
ZZZZZZ	1.00	1229																										
ZZZZZZ	5.00	1236																										
ZZZZZZ	1.00	1242																										
ZZZZZZ	1.00	1248																										
ZZZZZZ	1.00	1254																										
ZZZZZZ	1.00	1300																										
ZZZZZZ	1.00	1306																										
ZZZZZZ	1.00	1312																										
ZZZZZZ	1.00	1318																										
ZZZZZZ	1.00	1324																										
ZZZZZZ	1.00	1330																										
ZZZZZZ	1.00	1337																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1343																								
ZZZZZZ	1.00	1349																								
ZZZZZZ	1.00	1355																								
ZZZZZZ	1.00	1401																								
ZZZZZZ	5.00	1407																								
ZZZZZZ	1.00	1413																								
ZZZZZZ	1.00	1419																								
ZZZZZZ	1.00	1425																								
ZZZZZZ	1.00	1432																								
ZZZZZZ	1.00	1438																								
ZZZZZZ	1.00	1444																								
ZZZZZZ	1.00	1450																								
ZZZZZZ	1.00	1456																								
ZZZZZZ	1.00	1502																								
CCV2	1.00	1508			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB2	1.00	1514			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1520																								
ZZZZZZ	1.00	1527																								
ZZZZZZ	1.00	1533																								
ZZZZZZ	1.00	1539																								
ZZZZZZ	1.00	1545																								
ZZZZZZ	5.00	1551																								
ZZZZZZ	1.00	1557																								
ZZZZZZ	1.00	1603																								
UO14282-001	1.00	1609			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UO14282-002	1.00	1615			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV3	1.00	1622			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB3	1.00	1628			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-001	1.00	1634			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-002	1.00	1640			X	X	X	X	X		X	X	X		X				X		X			X	X	X	
UD13009-003	1.00	1646			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-004	1.00	1652			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-004S	1.00	1658			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-004SD	1.00	1704			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-004L	5.00	1710			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-004A	1.00	1716						X																		

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
UD13009-005	1.00	1723			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
UD13009-006	1.00	1729			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV4	1.00	1735			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB4	1.00	1741			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1747																										
ZZZZZZ	1.00	1753																										
ZZZZZZ	1.00	1759																										
ZZZZZZ	1.00	1805																										
ZZZZZZ	1.00	1811																										
ZZZZZZ	1.00	1818																										
ZZZZZZ	1.00	1824																										
ZZZZZZ	1.00	1830																										
ZZZZZZ	1.00	1836																										
ZZZZZZ	1.00	1842																										
ZZZZZZ	1.00	1848																										
ZZZZZZ	1.00	1854																										
ZZZZZZ	1.00	1900																										
ZZZZZZ	1.00	1906																										
ZZZZZZ	1.00	1913																										
ZZZZZZ	1.00	1919																										
ZZZZZZ	1.00	1925																										
ZZZZZZ	1.00	1931																										
ZZZZZZ	1.00	1937																										
ZZZZZZ	1.00	1943																										
ZZZZZZ	1.00	1949																										
ZZZZZZ	1.00	1955																										
ZZZZZZ	1.00	2001																										
ZZZZZZ	1.00	2007																										
ZZZZZZ	1.00	2013																										
ZZZZZZ	1.00	2019																										
ZZZZZZ	1.00	2025																										
ZZZZZZ	1.00	2032																										
ZZZZZZ	1.00	2038																										
ZZZZZZ	1.00	2044																										
ZZZZZZ	1.00	2050																										
ZZZZZZ	1.00	2056																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2102																								
ZZZZZZ	5.00	2108																								
ZZZZZZ	1.00	2114																								
ZZZZZZ	1.00	2120																								
ZZZZZZ	1.00	2126																								
ZZZZZZ	5.00	2132																								
ZZZZZZ	5.00	2138																								
ZZZZZZ	5.00	2145																								
ZZZZZZ	1.00	2151																								
ZZZZZZ	1.00	2157																								
ZZZZZZ	1.00	2203																								
ZZZZZZ	1.00	2209																								
ZZZZZZ	1.00	2215																								
ZZZZZZ	1.00	2221																								
ZZZZZZ	1.00	2227																								
ZZZZZZ	1.00	2233																								
ZZZZZZ	1.00	2239																								
ZZZZZZ	1.00	2245																								
ZZZZZZ	1.00	2252																								
ZZZZZZ	5.00	2258																								
ZZZZZZ	1.00	2304																								
ZZZZZZ	1.00	2310																								
ZZZZZZ	1.00	2316																								
ZZZZZZ	1.00	2322																								
ZZZZZZ	1.00	2328																								
ZZZZZZ	1.00	2334																								
ZZZZZZ	1.00	2340																								
ZZZZZZ	1.00	2346																								
ZZZZZZ	1.00	2353																								
ZZZZZZ	1.00	2359																								
ZZZZZZ	1.00	0005																								
ZZZZZZ	1.00	0011																								
ZZZZZZ	1.00	0017																								
ZZZZZZ	1.00	0023																								
ZZZZZZ	1.00	0029																								
ZZZZZZ	1.00	0035																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0041																								
ZZZZZZ	1.00	0048																								
ZZZZZZ	1.00	0054																								
ZZZZZZ	1.00	0100																								
ZZZZZZ	1.00	0106																								
ZZZZZZ	1.00	0112																								
ZZZZZZ	1.00	0118																								
ZZZZZZ	1.00	0124																								
ZZZZZZ	1.00	0130																								
ZZZZZZ	1.00	0137																								
ZZZZZZ	1.00	0143																								
ZZZZZZ	1.00	0149																								
ZZZZZZ	1.00	0155																								
ZZZZZZ	5.00	0201																								
ZZZZZZ	1.00	0207																								
ZZZZZZ	1.00	0213																								
ZZZZZZ	1.00	0219																								
ZZZZZZ	5.00	0225																								
ZZZZZZ	5.00	0231																								
ZZZZZZ	5.00	0238																								
ZZZZZZ	25.00	0244																								
ZZZZZZ	5.00	0250																								
ZZZZZZ	5.00	0256																								
ZZZZZZ	20.00	0302																								
ZZZZZZ	200.00	0308																								
ZZZZZZ	1.00	0314																								
ZZZZZZ	1.00	0320																								
ZZZZZZ	1.00	0326																								
ZZZZZZ	20.00	0333																								
ZZZZZZ	1.00	0339																								
ZZZZZZ	1.00	0345																								
ZZZZZZ	1.00	0351																								
ZZZZZZ	1.00	0357																								
ZZZZZZ	1.00	0403																								
ZZZZZZ	1.00	0409																								
ZZZZZZ	1.00	0415																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0421																								
ZZZZZZ	1.00	0428																								
ZZZZZZ	1.00	0434																								
ZZZZZZ	1.00	0440																								
ZZZZZZ	1.00	0446																								
ZZZZZZ	1.00	0452																								
ZZZZZZ	1.00	0458																								
ZZZZZZ	1.00	0504																								
ZZZZZZ	1.00	0510																								
ZZZZZZ	1.00	0517																								
ZZZZZZ	1.00	0523																								
ZZZZZZ	1.00	0529																								
ZZZZZZ	1.00	0535																								
ZZZZZZ	1.00	0541																								
ZZZZZZ	1.00	0547																								
ZZZZZZ	1.00	0553																								
ZZZZZZ	1.00	0559																								
ZZZZZZ	1.00	0606																								
ZZZZZZ	1.00	0612																								
ZZZZZZ	5.00	0618																								
ZZZZZZ	5.00	0624																								
ZZZZZZ	5.00	0630																								
ZZZZZZ	5.00	0636																								
ZZZZZZ	5.00	0642																								
ZZZZZZ	1.00	0648																								
ZZZZZZ	1.00	0655																								
ZZZZZZ	1.00	0701																								
ZZZZZZ	1.00	0707																								
ZZZZZZ	5.00	0713																								
ZZZZZZ	1.00	0719																								
ZZZZZZ	1.00	0725																								
ZZZZZZ	1.00	0731																								
ZZZZZZ	1.00	0738																								
ZZZZZZ	1.00	0744																								
ZZZZZZ	1.00	0750																								
ZZZZZZ	1.00	0756																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0802																										
ZZZZZZ	5.00	0808																										
ZZZZZZ	1.00	0814																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0923																										
BLANK	1.00	0930			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
MW10971	1.00	0936																										
MW10956	1.00	0942																										
CAL1	1.00	0948			X	X	X	X			X	X	X		X				X		X	X		X	X	X	
CAL2	1.00	0954			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CAL3	1.00	1000			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CAL4	1.00	1006			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CAL5	1.00	1012																										
CAL6	1.00	1018																										
ICV1	1.00	1024			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICB1	1.00	1030			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICSA	1.00	1036			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV1	1.00	1042			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB1	1.00	1048			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1054																										
ZZZZZZ	1.00	1100																										
ZZZZZZ	50.00	1106																										
ZZZZZZ	50.00	1112																										
ZZZZZZ	50.00	1118																										
ZZZZZZ	250.00	1124																										
ZZZZZZ	50.00	1129																										
ZZZZZZ	1.00	1135																										
ZZZZZZ	1.00	1141																										
CCV2	1.00	1147			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB2	1.00	1153			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1159																										
ZZZZZZ	1.00	1205																										
ZZZZZZ	1.00	1211																										
ZZZZZZ	5.00	1217																										
ZZZZZZ	1.00	1223																										
ZZZZZZ	1.00	1229																										
UO15923-001	1.00	1235																				X						
UO15923-002	1.00	1241																				X						
UD13009-002	1.00	1246																				X						
ZZZZZZ	10.00	1252																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV3	1.00	1258			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB3	1.00	1304			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1310																										
ZZZZZZ	1.00	1316																										
ZZZZZZ	1.00	1322																										
ZZZZZZ	1.00	1328																										
ZZZZZZ	1.00	1334																										
ZZZZZZ	1.00	1340																										
ZZZZZZ	1.00	1346																										
ZZZZZZ	1.00	1352																										
ZZZZZZ	1.00	1358																										
ZZZZZZ	1.00	1404																										
ZZZZZZ	1.00	1409																										
ZZZZZZ	1.00	1415																										
ZZZZZZ	5.00	1421																										
ZZZZZZ	1.00	1427																										
ZZZZZZ	1.00	1433																										
ZZZZZZ	1.00	1439																										
ZZZZZZ	1.00	1445																										
ZZZZZZ	1.00	1451																										
ZZZZZZ	1.00	1457																										
ZZZZZZ	1.00	1503																										
ZZZZZZ	1.00	1509																										
ZZZZZZ	1.00	1515																										
ZZZZZZ	1.00	1521																										
ZZZZZZ	1.00	1526																										
ZZZZZZ	1.00	1532																										
ZZZZZZ	1.00	1538																										
ZZZZZZ	1.00	1544																										
ZZZZZZ	5.00	1550																										
ZZZZZZ	1.00	1556																										
ZZZZZZ	1.00	1602																										
ZZZZZZ	1.00	1608																										
ZZZZZZ	1.00	1614																										
ZZZZZZ	1.00	1620																										
ZZZZZZ	1.00	1626																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1632																								
ZZZZZZ	1.00	1638																								
ZZZZZZ	1.00	1644																								
ZZZZZZ	1.00	1650																								
ZZZZZZ	1.00	1655																								
ZZZZZZ	1.00	1701																								
ZZZZZZ	1.00	1707																								
ZZZZZZ	1.00	1713																								
ZZZZZZ	1.00	1719																								
ZZZZZZ	1.00	1725																								
ZZZZZZ	1.00	1731																								
ZZZZZZ	1.00	1737																								
ZZZZZZ	1.00	1743																								
ZZZZZZ	1.00	1749																								
ZZZZZZ	1.00	1755																								
ZZZZZZ	1.00	1801																								
ZZZZZZ	1.00	1807																								
ZZZZZZ	1.00	1813																								
ZZZZZZ	1.00	1819																								
ZZZZZZ	1.00	1825																								
ZZZZZZ	1.00	1831																								
ZZZZZZ	5.00	1836																								
ZZZZZZ	1.00	1842																								
ZZZZZZ	1.00	1848																								
ZZZZZZ	1.00	1854																								
ZZZZZZ	1.00	1900																								
ZZZZZZ	1.00	1906																								
ZZZZZZ	1.00	1912																								
ZZZZZZ	1.00	1918																								
ZZZZZZ	1.00	1924																								
ZZZZZZ	1.00	1930																								
ZZZZZZ	1.00	1936																								
ZZZZZZ	1.00	1942																								
ZZZZZZ	1.00	1948																								
ZZZZZZ	1.00	1954																								
ZZZZZZ	5.00	2000																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2005																								
ZZZZZZ	1.00	2011																								
ZZZZZZ	1.00	2017																								
ZZZZZZ	1.00	2023																								
ZZZZZZ	1.00	2029																								
ZZZZZZ	1.00	2035																								
ZZZZZZ	1.00	2041																								
ZZZZZZ	1.00	2047																								
ZZZZZZ	1.00	2053																								
ZZZZZZ	1.00	2059																								
ZZZZZZ	1.00	2105																								
ZZZZZZ	1.00	2111																								
ZZZZZZ	1.00	2117																								
ZZZZZZ	1.00	2123																								
ZZZZZZ	1.00	2129																								
ZZZZZZ	1.00	2135																								
ZZZZZZ	1.00	2141																								
ZZZZZZ	1.00	2147																								
ZZZZZZ	1.00	2152																								
ZZZZZZ	1.00	2158																								
ZZZZZZ	1.00	2204																								
ZZZZZZ	1.00	2210																								
ZZZZZZ	1.00	2216																								
ZZZZZZ	1.00	2222																								
ZZZZZZ	1.00	2228																								
ZZZZZZ	1.00	2234																								
ZZZZZZ	1.00	2240																								
ZZZZZZ	1.00	2246																								
ZZZZZZ	1.00	2252																								
ZZZZZZ	1.00	2258																								
ZZZZZZ	1.00	2304																								
ZZZZZZ	5.00	2310																								
ZZZZZZ	1.00	2316																								
ZZZZZZ	10.00	2322																								
ZZZZZZ	5.00	2328																								
ZZZZZZ	50.00	2334																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	10.00	2339																								
ZZZZZZ	1.00	2345																								
ZZZZZZ	1.00	2351																								
ZZZZZZ	1.00	2357																								
ZZZZZZ	1.00	0003																								
ZZZZZZ	1.00	0009																								
ZZZZZZ	1.00	0015																								
ZZZZZZ	1.00	0021																								
ZZZZZZ	1.00	0027																								
ZZZZZZ	1.00	0033																								
ZZZZZZ	5.00	0039																								
ZZZZZZ	1.00	0045																								
ZZZZZZ	1.00	0051																								
ZZZZZZ	1.00	0057																								
ZZZZZZ	1.00	0103																								
ZZZZZZ	1.00	0109																								
ZZZZZZ	1.00	0115																								
ZZZZZZ	5.00	0121																								
ZZZZZZ	1.00	0127																								
ZZZZZZ	1.00	0133																								
ZZZZZZ	1.00	0139																								
ZZZZZZ	1.00	0145																								
ZZZZZZ	1.00	0150																								
ZZZZZZ	5.00	0156																								
ZZZZZZ	1.00	0202																								
ZZZZZZ	1.00	0208																								
ZZZZZZ	1.00	0214																								
ZZZZZZ	1.00	0220																								
ZZZZZZ	1.00	0226																								
ZZZZZZ	1.00	0232																								
ZZZZZZ	1.00	0238																								
ZZZZZZ	1.00	0244																								
ZZZZZZ	1.00	0250																								
ZZZZZZ	1.00	0256																								
ZZZZZZ	1.00	0302																								
ZZZZZZ	1.00	0308																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0314																								
ZZZZZZ	1.00	0320																								
ZZZZZZ	1.00	0326																								
ZZZZZZ	1.00	0331																								
ZZZZZZ	20.00	0337																								
ZZZZZZ	200.00	0343																								
ZZZZZZ	1.00	0349																								
ZZZZZZ	1.00	0355																								
ZZZZZZ	1.00	0401																								
ZZZZZZ	1.00	0407																								
ZZZZZZ	1.00	0413																								
ZZZZZZ	1.00	0419																								
ZZZZZZ	1.00	0425																								
ZZZZZZ	1.00	0431																								
ZZZZZZ	1.00	0437																								
ZZZZZZ	1.00	0443																								
ZZZZZZ	5.00	0449																								
ZZZZZZ	1.00	0455																								
ZZZZZZ	1.00	0501																								
ZZZZZZ	1.00	0507																								
ZZZZZZ	1.00	0513																								
ZZZZZZ	1.00	0519																								
ZZZZZZ	1.00	0524																								
ZZZZZZ	1.00	0530																								
ZZZZZZ	1.00	0536																								
ZZZZZZ	1.00	0542																								
ZZZZZZ	1.00	0548																								
ZZZZZZ	1.00	0554																								
ZZZZZZ	1.00	0600																								
ZZZZZZ	1.00	0606																								
ZZZZZZ	1.00	0612																								
ZZZZZZ	1.00	0618																								
ZZZZZZ	1.00	0624																								
ZZZZZZ	5.00	0630																								
ZZZZZZ	5.00	0636																								
ZZZZZZ	5.00	0642																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: ICPMS2 Run Number: MS2050819A 6020B 200.8, generate

Start Date: 5/8/2019 End Date: 5/9/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	5.00	0648																								
ZZZZZZ	1.00	0654																								
ZZZZZZ	1.00	0700																								
ZZZZZZ	1.00	0706																								
ZZZZZZ	1.00	0712																								
ZZZZZZ	1.00	0718																								
ZZZZZZ	1.00	0724																								
ZZZZZZ	1.00	0730																								
ZZZZZZ	1.00	0736																								
ZZZZZZ	1.00	0742																								
ZZZZZZ	1.00	0748																								

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
TUNE	ZZZZZZ	1002	0											
BLANK	BLANK IM9353-01	1008	100		100		100		100		100		100	
MW10971	MW10971	1014	103		103		99		103		102		102	
MW10956	MW10956	1021	101		101		99		101		101		102	
CAL1	CAL1 MW-10957	1027	100		101		100		101		100		100	
CAL2	CAL2 MW-10958	1033	101		101		98		101		101		101	
CAL3	CAL3 MW-10931	1039	101		100		98		100		101		100	
CAL4	CAL4 MW-10932	1045	101		99		97		99		101		100	
CAL5	CAL5 MW-10933	1051	94		96		92		97		99		97	
CAL6	CAL6 MW-10934	1058	88		91		90		96		95		94	
ICV1	ICV1	1104	94		94		93		97		98		96	
ICB1	ICB1	1110	103		103		98		101		103		102	
ICSA	ICSA	1116	94		96		93		95		98		94	
CCV1	CCV1	1122	96		97		93		99		102		98	
CCB1	CCB1	1128	107		106		97		102		106		106	
LR	ZZZZZZ	1134	0											
UQ13877-001	ZZZZZZ	1141	0											
UQ13877-002	ZZZZZZ	1147	0											
UD12100-011	ZZZZZZ	1153	0											
UD12100-012	ZZZZZZ	1159	0											
UD11087-001	ZZZZZZ	1205	0											
UD11087-002	ZZZZZZ	1211	0											
UD11087-004	ZZZZZZ	1217	0											
UD11087-004	ZZZZZZ	1223	0											
UD11087-004	ZZZZZZ	1229	0											
UD11087-004	ZZZZZZ	1236	0											
CCV	ZZZZZZ	1242	0											
CCB	ZZZZZZ	1248	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD11087-004	ZZZZZZ	1254	0											
UD11087-005	ZZZZZZ	1300	0											
UD11087-006	ZZZZZZ	1306	0											
UD11087-007	ZZZZZZ	1312	0											
UD11087-008	ZZZZZZ	1318	0											
UQ14281-001	ZZZZZZ	1324	0											
UQ14281-002	ZZZZZZ	1330	0											
UD12086-001	ZZZZZZ	1337	0											
UD12086-001	ZZZZZZ	1343	0											
UD12086-001	ZZZZZZ	1349	0											
CCV	ZZZZZZ	1355	0											
CCB	ZZZZZZ	1401	0											
UD12086-001	ZZZZZZ	1407	0											
UD12086-001	ZZZZZZ	1413	0											
UD12086-003	ZZZZZZ	1419	0											
UD12086-005	ZZZZZZ	1425	0											
UD12086-006	ZZZZZZ	1432	0											
UD12086-007	ZZZZZZ	1438	0											
UD18014-014	ZZZZZZ	1444	0											
UD18014-017	ZZZZZZ	1450	0											
UD18014-019	ZZZZZZ	1456	0											
UD19038-008	ZZZZZZ	1502	0											
CCV2	CCV2	1508	98		97		97		101		101		99	
CCB2	CCB2	1514	110		107		107		105		106		105	
UD19038-009	ZZZZZZ	1520	0											
UD19038-010	ZZZZZZ	1527	0											
UQ14094-001	ZZZZZZ	1533	0											
UQ14094-002	ZZZZZZ	1539	0											
UD16054-002	ZZZZZZ	1545	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD16054-002	ZZZZZZ	1551	0											
UQ14280-001	ZZZZZZ	1557	0											
UQ14280-002	ZZZZZZ	1603	0											
UQ14282-001	UQ14282-001MB	1609	109		106		108		105		106		105	
UQ14282-002	LCS	1615	111		108		107		106		109		108	
CCV3	CCV3	1622	95		96		100		100		98		98	
CCB3	CCB3	1628	100		102		106		105		101		103	
UD13009-001	16C1	1634	105		104		105		104		105		105	
UD13009-002	16MW8	1640	108		106		108		105		106		108	
UD13009-003	16MW9	1646	99		101		106		106		103		103	
UD13009-004	16WC1A	1652	95		99		106		105		100		101	
UD13009-004	16WC1AS	1658	102		102		106		105		104		103	
UD13009-004	16WC1ASD	1704	104		103		108		106		106		104	
UD13009-004	16WC1AL	1710	101		102		106		106		101		104	
UD13009-004	16WC1AA	1716	94		98		106		105		99		101	
UD13009-005	16WDUP	1723	103		102		108		106		104		104	
UD13009-006	16WC1B	1729	106		105		109		107		106		108	
CCV4	CCV4	1735	91		94		98		101		96		97	
CCB4	CCB4	1741	100		101		106		104		100		102	
UD13010-001	ZZZZZZ	1747	0											
UD13010-002	ZZZZZZ	1753	0											
UD13010-003	ZZZZZZ	1759	0											
UD13010-004	ZZZZZZ	1805	0											
UD13010-005	ZZZZZZ	1811	0											
UQ14140-001	ZZZZZZ	1818	0											
UQ14140-002	ZZZZZZ	1824	0											
UD12037-001	ZZZZZZ	1830	0											
UD16015-001	ZZZZZZ	1836	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD16015-002	ZZZZZZ	1842	0											
CCV	ZZZZZZ	1848	0											
CCB	ZZZZZZ	1854	0											
UD18099-001	ZZZZZZ	1900	0											
UD18099-002	ZZZZZZ	1906	0											
UD18099-003	ZZZZZZ	1913	0											
UD18099-004	ZZZZZZ	1919	0											
UD18099-005	ZZZZZZ	1925	0											
UD18099-006	ZZZZZZ	1931	0											
UD18099-007	ZZZZZZ	1937	0											
UD18099-008	ZZZZZZ	1943	0											
UD18099-010	ZZZZZZ	1949	0											
UD18099-011	ZZZZZZ	1955	0											
CCV	ZZZZZZ	2001	0											
CCB	ZZZZZZ	2007	0											
UD18099-012	ZZZZZZ	2013	0											
UD18099-013	ZZZZZZ	2019	0											
UD18099-014	ZZZZZZ	2025	0											
UD20023-003	ZZZZZZ	2032	0											
UD20023-004	ZZZZZZ	2038	0											
UD20023-006	ZZZZZZ	2044	0											
UD20023-008	ZZZZZZ	2050	0											
UD20023-008	ZZZZZZ	2056	0											
UD20023-008	ZZZZZZ	2102	0											
UD20023-008	ZZZZZZ	2108	0											
CCV	ZZZZZZ	2114	0											
CCB	ZZZZZZ	2120	0											
UD20023-008	ZZZZZZ	2126	0											
UD12037-001	ZZZZZZ	2132	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD16015-001	ZZZZZZ	2138	0											
UD16015-002	ZZZZZZ	2145	0											
ICSA	ZZZZZZ	2151	0											
UQ14720-001	ZZZZZZ	2157	0											
UQ14720-002	ZZZZZZ	2203	0											
UD25032-037	ZZZZZZ	2209	0											
UD25032-040	ZZZZZZ	2215	0											
UD25032-041	ZZZZZZ	2221	0											
CCV	ZZZZZZ	2227	0											
CCB	ZZZZZZ	2233	0											
UD25032-044	ZZZZZZ	2239	0											
UD25032-044	ZZZZZZ	2245	0											
UD25032-044	ZZZZZZ	2252	0											
UD25032-044	ZZZZZZ	2258	0											
UD25032-044	ZZZZZZ	2304	0											
UD25032-045	ZZZZZZ	2310	0											
UD25032-047	ZZZZZZ	2316	0											
UD25032-048	ZZZZZZ	2322	0											
UD25032-051	ZZZZZZ	2328	0											
UD25032-052	ZZZZZZ	2334	0											
CCV	ZZZZZZ	2340	0											
CCB	ZZZZZZ	2346	0											
UD25032-055	ZZZZZZ	2353	0											
UD25032-056	ZZZZZZ	2359	0											
UD25032-058	ZZZZZZ	0005	0											
UD25032-059	ZZZZZZ	0011	0											
UD25032-062	ZZZZZZ	0017	0											
UD25032-063	ZZZZZZ	0023	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD25032-066	ZZZZZZ	0029	0											
UD25032-067	ZZZZZZ	0035	0											
UD25032-068	ZZZZZZ	0041	0											
UD25032-069	ZZZZZZ	0048	0											
CCV	ZZZZZZ	0054	0											
CCB	ZZZZZZ	0100	0											
UD25032-070	ZZZZZZ	0106	0											
UQ14724-001	ZZZZZZ	0112	0											
UQ14724-002	ZZZZZZ	0118	0											
UD25032-071	ZZZZZZ	0124	0											
UD25032-072	ZZZZZZ	0130	0											
UD25032-073	ZZZZZZ	0137	0											
UD25032-074	ZZZZZZ	0143	0											
UD25032-074	ZZZZZZ	0149	0											
UD25032-074	ZZZZZZ	0155	0											
UD25032-074	ZZZZZZ	0201	0											
CCV	ZZZZZZ	0207	0											
CCB	ZZZZZZ	0213	0											
UD25032-074	ZZZZZZ	0219	0											
UD18066-001	ZZZZZZ	0225	0											
UD18066-001	ZZZZZZ	0231	0											
UD18066-001	ZZZZZZ	0238	0											
UD18066-001	ZZZZZZ	0244	0											
UD18068-001	ZZZZZZ	0250	0											
UD18068-001	ZZZZZZ	0256	0											
UD18084-001	ZZZZZZ	0302	0											
UD18084-001	ZZZZZZ	0308	0											
UD18091-001	ZZZZZZ	0314	0											
CCV	ZZZZZZ	0320	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
CCB	ZZZZZZ	0326	0											
UD18097-001	ZZZZZZ	0333	0											
UD19027-003	ZZZZZZ	0339	0											
UD19053-001	ZZZZZZ	0345	0											
UD17082-002	ZZZZZZ	0351	0											
UD18051-001	ZZZZZZ	0357	0											
UD18089-001	ZZZZZZ	0403	0											
UQ14763-001	ZZZZZZ	0409	0											
UQ14763-002	ZZZZZZ	0415	0											
UD18070-004	ZZZZZZ	0421	0											
UD18070-005	ZZZZZZ	0428	0											
CCV	ZZZZZZ	0434	0											
CCB	ZZZZZZ	0440	0											
UD18070-006	ZZZZZZ	0446	0											
UD18070-007	ZZZZZZ	0452	0											
UD18090-001	ZZZZZZ	0458	0											
UD19057-001	ZZZZZZ	0504	0											
UD22037-001	ZZZZZZ	0510	0											
UD18035-001	ZZZZZZ	0517	0											
UD18035-002	ZZZZZZ	0523	0											
UD18035-003	ZZZZZZ	0529	0											
UD18035-004	ZZZZZZ	0535	0											
UD18035-005	ZZZZZZ	0541	0											
CCV	ZZZZZZ	0547	0											
CCB	ZZZZZZ	0553	0											
UD18035-006	ZZZZZZ	0559	0											
UD18035-007	ZZZZZZ	0606	0											
UD18035-008	ZZZZZZ	0612	0											

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For: Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD18052-001	ZZZZZZ	0618	0											
UD19049-001	ZZZZZZ	0624	0											
UD19049-001	ZZZZZZ	0630	0											
UD19049-001	ZZZZZZ	0636	0											
UD19049-001	ZZZZZZ	0642	0											
UD23063-001	ZZZZZZ	0648	0											
UD23063-001	ZZZZZZ	0655	0											
CCV	ZZZZZZ	0701	0											
CCB	ZZZZZZ	0707	0											
UD24009-001	ZZZZZZ	0713	0											
UQ14857-001	ZZZZZZ	0719	0											
UQ14857-002	ZZZZZZ	0725	0											
UD19046-001	ZZZZZZ	0731	0											
UD19046-002	ZZZZZZ	0738	0											
UD19046-003	ZZZZZZ	0744	0											
UD19046-004	ZZZZZZ	0750	0											
UD19046-004	ZZZZZZ	0756	0											
UD19046-004	ZZZZZZ	0802	0											
UD19046-004	ZZZZZZ	0808	0											
CCV	ZZZZZZ	0814	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
TUNE	ZZZZZZ	0923	0											
BLANK	BLANK IM9353-01	0930	100		100		100		100		100		100	
MW10971	MW10971	0936	99		99		99		99		101		100	
MW10956	MW10956	0942	101		99		100		100		101		99	
CAL1	CAL1 MW-10957	0948	100		98		98		99		100		98	
CAL2	CAL2 MW-10958	0954	100		99		99		99		101		99	
CAL3	CAL3 MW-10931	1000	102		99		97		97		101		98	
CAL4	CAL4 MW-10932	1006	102		99		96		95		101		98	
CAL5	CAL5 MW-10933	1012	92		91		89		92		96		92	
CAL6	CAL6 MW-10934	1018	89		89		87		92		94		91	
ICV1	ICV1	1024	95		95		92		94		99		96	
ICB1	ICB1	1030	103		101		98		99		102		101	
ICSA	ICSA	1036	99		101		99		98		105		99	
CCV1	CCV1	1042	101		101		96		100		107		101	
CCB1	CCB1	1048	111		110		108		107		111		110	
LR	ZZZZZZ	1054	0											
1	ZZZZZZ	1100	0											
UE06020-001	ZZZZZZ	1106	0											
UE06020-001	ZZZZZZ	1112	0											
UE06020-001	ZZZZZZ	1118	0											
UE06020-001	ZZZZZZ	1124	0											
UE06020-001	ZZZZZZ	1129	0											
UQ15760-001	ZZZZZZ	1135	0											
UQ15760-002	ZZZZZZ	1141	0											
CCV2	CCV2	1147	85		81		83		79		87		81	
CCB2	CCB2	1153	96		92		97		89		95		91	
UD30051-010	ZZZZZZ	1159	0											
UD30051-010	ZZZZZZ	1205	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD30051-010	ZZZZZZ	1211	0											
UD30051-010	ZZZZZZ	1217	0											
UD30051-010	ZZZZZZ	1223	0											
UE04019-003	ZZZZZZ	1229	0											
UQ15923-001	UQ15923-001MB	1235	92		94		106		94		93		94	
UQ15923-002	LCS	1241	93		94		107		95		95		95	
UD13009-002	16MW8	1246	93		95		108		98		96		99	
UE04019-003	ZZZZZZ	1252	0											
CCV3	CCV3	1258	84		82		84		82		86		82	
CCB3	CCB3	1304	93		91		96		90		91		90	
UQ14917-001	ZZZZZZ	1310	0											
UQ14917-002	ZZZZZZ	1316	0											
UD12059-019	ZZZZZZ	1322	0											
UD12059-020	ZZZZZZ	1328	0											
UQ14505-001	ZZZZZZ	1334	0											
UQ14505-002	ZZZZZZ	1340	0											
UD05037-001	ZZZZZZ	1346	0											
UD05037-002	ZZZZZZ	1352	0											
UD05037-002	ZZZZZZ	1358	0											
UD05037-002	ZZZZZZ	1404	0											
CCV	ZZZZZZ	1409	0											
CCB	ZZZZZZ	1415	0											
UD05037-002	ZZZZZZ	1421	0											
UD05037-002	ZZZZZZ	1427	0											
UQ15809-001	ZZZZZZ	1433	0											
UQ15809-002	ZZZZZZ	1439	0											
UE03091-001	ZZZZZZ	1445	0											
UQ15483-001	ZZZZZZ	1451	0											
UQ15483-002	ZZZZZZ	1457	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD30018-001	ZZZZZZ	1503	0											
UD30018-002	ZZZZZZ	1509	0											
UD30018-003	ZZZZZZ	1515	0											
CCV	ZZZZZZ	1521	0											
CCB	ZZZZZZ	1526	0											
ICSA	ZZZZZZ	1532	0											
UD30018-003	ZZZZZZ	1538	0											
UD30018-003	ZZZZZZ	1544	0											
UD30018-003	ZZZZZZ	1550	0											
UD30018-003	ZZZZZZ	1556	0											
UD30018-004	ZZZZZZ	1602	0											
UD30018-005	ZZZZZZ	1608	0											
UD30018-009	ZZZZZZ	1614	0											
UD30018-011	ZZZZZZ	1620	0											
UD30018-013	ZZZZZZ	1626	0											
UD30018-014	ZZZZZZ	1632	0											
CCV	ZZZZZZ	1638	0											
CCB	ZZZZZZ	1644	0											
UD30018-015	ZZZZZZ	1650	0											
UD30018-016	ZZZZZZ	1655	0											
UD30018-017	ZZZZZZ	1701	0											
UD30018-018	ZZZZZZ	1707	0											
UD30018-019	ZZZZZZ	1713	0											
UD30018-020	ZZZZZZ	1719	0											
UD30018-021	ZZZZZZ	1725	0											
UD30018-022	ZZZZZZ	1731	0											
UD30018-023	ZZZZZZ	1737	0											
UD30018-024	ZZZZZZ	1743	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
CCV	ZZZZZZ	1749	0											
CCB	ZZZZZZ	1755	0											
UD30018-025	ZZZZZZ	1801	0											
UD30018-026	ZZZZZZ	1807	0											
UD30018-027	ZZZZZZ	1813	0											
UD30018-028	ZZZZZZ	1819	0											
UD30018-028	ZZZZZZ	1825	0											
UD30018-028	ZZZZZZ	1831	0											
UD30018-028	ZZZZZZ	1836	0											
UD30018-028	ZZZZZZ	1842	0											
UQ15810-001	ZZZZZZ	1848	0											
UQ15810-002	ZZZZZZ	1854	0											
CCV	ZZZZZZ	1900	0											
CCB	ZZZZZZ	1906	0											
UD30018-030	ZZZZZZ	1912	0											
UD30018-031	ZZZZZZ	1918	0											
UD30018-032	ZZZZZZ	1924	0											
UD30018-033	ZZZZZZ	1930	0											
UD30018-034	ZZZZZZ	1936	0											
UD30018-035	ZZZZZZ	1942	0											
UD30018-035	ZZZZZZ	1948	0											
UD30018-035	ZZZZZZ	1954	0											
UD30018-035	ZZZZZZ	2000	0											
UD30018-035	ZZZZZZ	2005	0											
CCV	ZZZZZZ	2011	0											
CCB	ZZZZZZ	2017	0											
UE04019-001	ZZZZZZ	2023	0											
UE04019-001	ZZZZZZ	2029	0											
UD12001-021	ZZZZZZ	2035	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD12001-022	ZZZZZZ	2041	0											
UD12001-023	ZZZZZZ	2047	0											
UD12001-024	ZZZZZZ	2053	0											
UD12001-025	ZZZZZZ	2059	0											
UD12001-026	ZZZZZZ	2105	0											
UD12001-027	ZZZZZZ	2111	0											
UD12001-028	ZZZZZZ	2117	0											
CCV	ZZZZZZ	2123	0											
CCB	ZZZZZZ	2129	0											
UD12001-029	ZZZZZZ	2135	0											
UD12001-030	ZZZZZZ	2141	0											
UD12057-014	ZZZZZZ	2147	0											
UD12057-015	ZZZZZZ	2152	0											
UD12057-016	ZZZZZZ	2158	0											
UD12057-017	ZZZZZZ	2204	0											
UD12057-018	ZZZZZZ	2210	0											
UD12057-019	ZZZZZZ	2216	0											
UD12057-020	ZZZZZZ	2222	0											
UD12057-021	ZZZZZZ	2228	0											
CCV	ZZZZZZ	2234	0											
CCB	ZZZZZZ	2240	0											
UD12057-022	ZZZZZZ	2246	0											
UD12057-023	ZZZZZZ	2252	0											
UD12057-023	ZZZZZZ	2258	0											
UD12057-023	ZZZZZZ	2304	0											
UD12057-023	ZZZZZZ	2310	0											
UD12057-023	ZZZZZZ	2316	0											
UD24089-010	ZZZZZZ	2322	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD26065-001	ZZZZZZ	2328	0											
UD26065-001	ZZZZZZ	2334	0											
UD26026-001	ZZZZZZ	2339	0											
CCV	ZZZZZZ	2345	0											
CCB	ZZZZZZ	2351	0											
UD26026-001	ZZZZZZ	2357	0											
UD30036-002	ZZZZZZ	0003	0											
UD30036-004	ZZZZZZ	0009	0											
UD30056-001	ZZZZZZ	0015	0											
UD30059-001	ZZZZZZ	0021	0											
UD30059-001	ZZZZZZ	0027	0											
UD30059-001	ZZZZZZ	0033	0											
UD30059-001	ZZZZZZ	0039	0											
UQ15481-001	ZZZZZZ	0045	0											
UQ15481-002	ZZZZZZ	0051	0											
CCV	ZZZZZZ	0057	0											
CCB	ZZZZZZ	0103	0											
UE01065-001	ZZZZZZ	0109	0											
UE01070-001	ZZZZZZ	0115	0											
UE01099-001	ZZZZZZ	0121	0											
UE01061-004	ZZZZZZ	0127	0											
UE01073-001	ZZZZZZ	0133	0											
UE01074-001	ZZZZZZ	0139	0											
UE01074-001	ZZZZZZ	0145	0											
UE01074-001	ZZZZZZ	0150	0											
UE01074-001	ZZZZZZ	0156	0											
UE01093-001	ZZZZZZ	0202	0											
CCV	ZZZZZZ	0208	0											
CCB	ZZZZZZ	0214	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UE01092-001	ZZZZZZ	0220	0											
UQ15605-001	ZZZZZZ	0226	0											
UQ15605-002	ZZZZZZ	0232	0											
UE02056-001	ZZZZZZ	0238	0											
UE02055-001	ZZZZZZ	0244	0											
UE02055-003	ZZZZZZ	0250	0											
UE02058-001	ZZZZZZ	0256	0											
UE02017-001	ZZZZZZ	0302	0											
UE02066-001	ZZZZZZ	0308	0											
UE02067-001	ZZZZZZ	0314	0											
CCV	ZZZZZZ	0320	0											
CCB	ZZZZZZ	0326	0											
UE02068-001	ZZZZZZ	0331	0											
UE02074-001	ZZZZZZ	0337	0											
UE02074-001	ZZZZZZ	0343	0											
UE02076-001	ZZZZZZ	0349	0											
UE02029-001	ZZZZZZ	0355	0											
UE02073-001	ZZZZZZ	0401	0											
UE02073-001	ZZZZZZ	0407	0											
UE03012-001	ZZZZZZ	0413	0											
UE02030-001	ZZZZZZ	0419	0											
UE02030-001	ZZZZZZ	0425	0											
CCV	ZZZZZZ	0431	0											
CCB	ZZZZZZ	0437	0											
UE02030-001	ZZZZZZ	0443	0											
UE02030-001	ZZZZZZ	0449	0											
UE02030-002	ZZZZZZ	0455	0											
UE02030-003	ZZZZZZ	0501	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13009

ICP-MS Instrument ID: ICPMS2 Start Date: 05/08/2019 End Date: 05/08/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UE02030-004	ZZZZZZ	0507	0											
UE02030-005	ZZZZZZ	0513	0											
UE01046-001	ZZZZZZ	0519	0											
UQ15741-001	ZZZZZZ	0524	0											
UQ15741-002	ZZZZZZ	0530	0											
UE03020-001	ZZZZZZ	0536	0											
CCV	ZZZZZZ	0542	0											
CCB	ZZZZZZ	0548	0											
UE03020-002	ZZZZZZ	0554	0											
UE03021-001	ZZZZZZ	0600	0											
UE03046-001	ZZZZZZ	0606	0											
UE03047-003	ZZZZZZ	0612	0											
UE03047-003	ZZZZZZ	0618	0											
UE03047-003	ZZZZZZ	0624	0											
UE03047-003	ZZZZZZ	0630	0											
UE03050-001	ZZZZZZ	0636	0											
UE03050-001	ZZZZZZ	0642	0											
UE03054-001	ZZZZZZ	0648	0											
CCV	ZZZZZZ	0654	0											
CCB	ZZZZZZ	0700	0											
UE03056-001	ZZZZZZ	0706	0											
UE02078-001	ZZZZZZ	0712	0											
UE02078-001	ZZZZZZ	0718	0											
UE02078-002	ZZZZZZ	0724	0											
UE02078-002	ZZZZZZ	0730	0											
UE02078-003	ZZZZZZ	0736	0											
UE02078-003	ZZZZZZ	0742	0											
UE02078-004	ZZZZZZ	0748	0											

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INITIAL CALIBRATION

Lab Name: Shealy Environmental Services, Inc. **Contract:** RAAP HWMU16

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:** UD13009

Instrument ID: ICPMS2 **Start Date:** 4/30/2019

Analytical Method: ICP-MS **Run Batch:** MS2043019B 6020B 200.8, generated 0

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.00	0	0	2.00	1.9	-4	10.0	10	2
Arsenic	0.00	0	0	2.00	1.9	-7	10.0	9.6	-4
Barium	0.00	0	0	5.00	5.0	-1	25.0	25	1
Beryllium	0.00	0	0	0.400	0.41	3	2.00	2.1	5
Cadmium	0.00	0	0			0	0.500	0.52	3
Chromium	0.00	0	0	5.00	5.1	1	25.0	24	-2
Cobalt	0.00	0	0	1.00	0.99	-1	5.00	5.0	-1
Copper	0.00	0	0	5.00	5.0	0	25.0	24	-2
Lead	0.00	0	0	1.00	0.97	-3	5.00	4.9	-1
Nickel	0.00	0	0	5.00	5.0	1	25.0	24	-2
Selenium	0.00	0	0	5.00	4.8	-3	25.0	25	-1
Silver	0.00	0	0	1.00	0.94	-6	5.00	4.8	-5
Thallium	0.00	0	0	0.500	0.48	-5	2.50	2.4	-3
Vanadium	0.00	0	0	5.00	5.0	1	25.0	25	-2
Zinc	0.00	0	0	10.0	10	1	50.0	49	-2

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INITIAL CALIBRATION

Lab Name: Shealy Environmental Services, Inc. **Contract:** RAAP HWMU16

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:** UD13009

Instrument ID: ICPMS2 **Start Date:** 5/8/2019

Analytical Method: ICP-MS **Run Batch:** MS2050819A 6020B 200.8, generated 0

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.00	0	0	2.00	2.0	1	10.0	9.9	-1
Arsenic	0.00	0	0	2.00	1.8	-8	10.0	9.6	-4
Barium	0.00	0	0	5.00	5.0	0	25.0	25	-1
Beryllium	0.00	0	0	0.400	0.42	5	2.00	2.1	3
Cadmium	0.00	0	0			0	0.500	0.54	7
Chromium	0.00	0	0	5.00	4.9	-3	25.0	24	-2
Cobalt	0.00	0	0	1.00	0.97	-3	5.00	4.8	-3
Copper	0.00	0	0	5.00	5.0	1	25.0	25	-1
Lead	0.00	0	0	1.00	0.98	-2	5.00	4.9	-2
Nickel	0.00	0	0	5.00	4.9	-2	25.0	24	-3
Selenium	0.00	0	0	5.00	5.3	6	25.0	26	3
Silver	0.00	0	0	1.00	0.96	-4	5.00	4.9	-2
Thallium	0.00	0	0	0.500	0.47	-5	2.50	2.4	-3
Vanadium	0.00	0	0	5.00	4.9	-2	25.0	24	-3
Zinc	0.00	0	0	10.0	9.7	-3	50.0	49	-3

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Shealy Environmental Services, **Contract:** RAAP HWMU16

Lab Code: Shealy **Case No.:** _____ **MA No.:** _____ **SDG No.:** UD13009

Instrument ID: ICPMS2 **Start Date:** 4/30/2019

Analytical Method: ICP-MS **Run Batch:** MS2043019B 6020B 200.8, generat

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	250	246	-1	500	502	0			
Arsenic	250	249	-1	500	503	1			
Barium	250	250	0	500	498	0			
Beryllium	250	250	0	500	496	-1			
Cadmium	250	246	-2	500	500	0			
Chromium	250	250	0	500	503	1			
Cobalt	250	251	0	500	502	0			
Copper	250	245	-2	500	499	0			
Lead	250	248	-1	500	501	0			
Nickel	250	250	0	500	501	0			
Selenium	250	250	0	500	500	0			
Silver	250	244	-3	500	503	1			
Thallium	250	250	0	500	498	0			
Vanadium	250	249	-1	500	502	0			
Zinc	250	249	0	500	501	0			

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Shealy Environmental Services, **Contract:** RAAP HWMU16

Lab Code: Shealy **Case No.:** _____ **MA No.:** _____ **SDG No.:** UD13009

Instrument ID: ICPMS2 **Start Date:** 5/8/2019

Analytical Method: ICP-MS **Run Batch:** MS2050819A 6020B 200.8, generat

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	250	247	-1	500	501	0			
Arsenic	250	246	-2	500	502	0			
Barium	250	251	0	500	502	0			
Beryllium	250	248	-1	500	501	0			
Cadmium	250	247	-1	500	502	0			
Chromium	250	251	1	500	499	0			
Cobalt	250	250	0	500	500	0			
Copper	250	251	0	500	504	1			
Lead	250	248	-1	500	501	0			
Nickel	250	251	0	500	503	1			
Selenium	250	246	-1	500	500	0			
Silver	250	255	2	500	510	2			
Thallium	250	250	0	500	502	0			
Vanadium	250	251	0	500	500	0			
Zinc	250	247	-1	500	502	0			

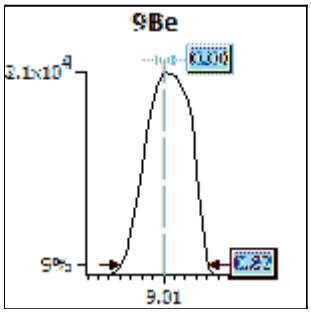
Raw Sample Data

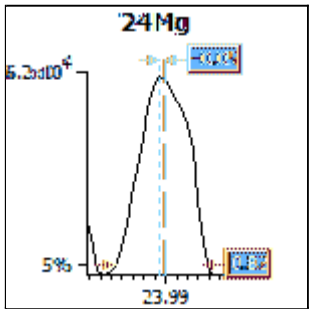
Performance Report

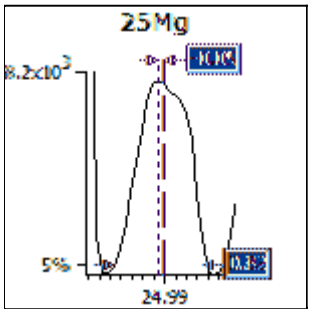
Sample details
Acquired at : 04/30/2019 08:14:04
Report name : Shealy Performance Report ICPMS2 [04/04/2019 12:35:02]

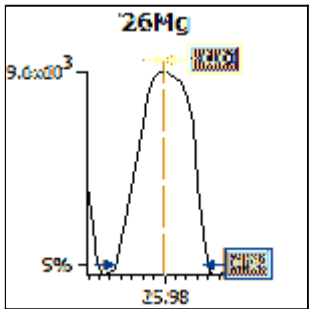
Mass Calibration verification

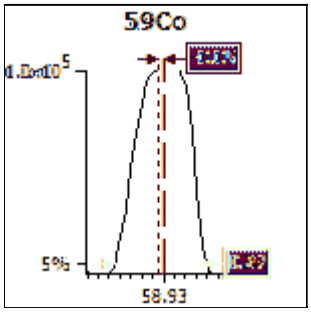
Acquisition parameters
Sweeps : 25
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum

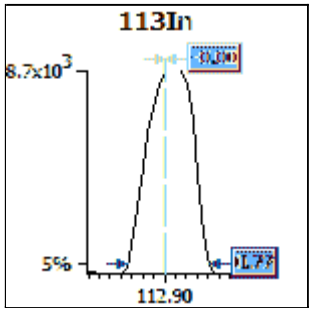


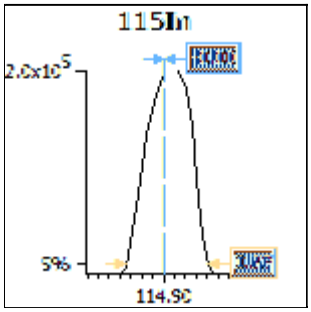


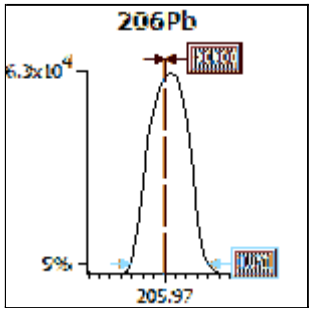


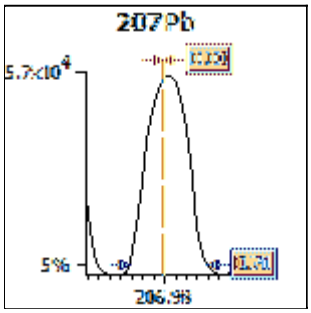


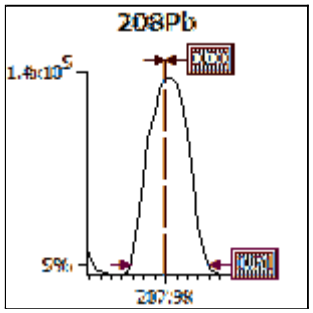












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.10	0.82	0.00
24Mg	0.85	0.65	0.10	0.82	-0.05
25Mg	0.85	0.65	0.10	0.82	-0.05
26Mg	0.85	0.65	0.10	0.82	-0.00
59Co	0.85	0.65	0.10	0.82	-0.05
113In	0.85	0.65	0.10	0.77	-0.00
115In	0.85	0.65	0.10	0.77	-0.00
206Pb	0.85	0.65	0.10	0.71	-0.00
207Pb	0.85	0.65	0.10	0.71	0.00
208Pb	0.85	0.65	0.10	0.71	0.00

Sample details
Acquired at : 04/30/2019 08:14:04
Report name : Shealy Performance Report ICPMS2 [04/04/2019 12:35:02]

Tune conditions

Major	
Extraction	-98.0
Lens 1	-1004
Lens 2	-83.1
Focus	16.9
D1	-40.0
D2	-146
Pole Bias	-1.0
Hexapole Bias	-4.0
Nebuliser	0.78

Minor	
Lens 3	-196.1
Forward power	1404
Horizontal	61
Vertical	641
DA	-58.0
Cool	13.0
Auxiliary	1.00
Sampling Depth	60

Global	
Standard resolution	110
High resolution	105
Analogue Detector	2188
PC Detector	3450

Add. Gases

Sensitivity and stability results

Acquisition parameters
Sweeps : 130

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	136Ba++	101Bkg
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-	-
	Countrate	-	>5000	>1000	>1000	>1000	-	>10000	-	-
1	08:15:27	0.769	19184.837	57068.565	8025.849	9593.521	192230.36	115139.16	2185.647	0.769
2	08:15:59	0.000	19192.546	57441.673	7908.053	9488.796	194091.59	116240.74	2114.092	0.769
3	08:16:31	0.000	19063.814	57504.375	7992.743	9571.960	195494.24	116554.72	2104.090	0.000
4	08:17:03	0.769	18594.381	57269.050	7868.789	9328.630	198984.92	114669.44	2237.198	1.538
5	08:17:35	0.000	18935.854	57634.425	8121.318	9367.131	199823.79	115799.00	2069.466	1.538
x		0.308	18994.287	57383.618	7983.350	9470.007	196124.98	115680.61	2142.099	0.923
σ		0.42	246.87	219.80	99.65	118.93	3223.39	775.80	67.91	0.64
%RSD		136.931	1.300	0.383	1.248	1.256	1.644	0.671	3.170	69.722

Run	Time	113In	115In	138Ba	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	5.0%	5.0%	-	-	-	5.0%	5.0%	5.0%	-
	Countrate	>1000	>10000	-	-	-	>10000	>10000	>10000	<2
1	08:15:27	9134.587	209117.82	168674.27	226508.66	3972.406	65606.651	56703.986	139367.07	0.000
2	08:15:59	9027.557	210029.24	168327.15	226289.45	3958.554	65354.847	56944.715	139234.29	0.000
3	08:16:31	9132.277	208413.45	167241.23	224916.78	3929.311	64906.266	56601.814	137918.30	0.000
4	08:17:03	8907.439	201417.62	162138.49	217408.16	3878.519	62621.865	54577.183	132935.67	0.000
5	08:17:35	8882.799	204206.50	164313.96	221613.27	3918.537	63441.364	55149.854	134740.41	0.000
x		9016.932	206636.93	166139.02	223347.26	3931.465	64386.199	55995.510	136839.15	0.000
σ		119.62	3673.10	2818.04	3853.37	36.69	1294.59	1060.34	2869.39	0.00
%RSD		1.327	1.778	1.696	1.725	0.933	2.011	1.894	2.097	0.000

Ratio results

Run	Time	56Ar O/59Co	136Ba++/138Ba	115In/101Bkg	156Ce O/140Ce
Ratio limits		-	-	-	-
1	08:15:27	1.670	0.013	271853.15	0.018
2	08:15:59	1.670	0.013	273038.00	0.017
3	08:16:31	1.677	0.013	INF	0.017
4	08:17:03	1.735	0.014	130921.44	0.018
5	08:17:35	1.726	0.013	132734.22	0.018
x		1.6955	0.0129	202136.70	0.0176
σ		0.03	0.00	114524.12	0.00
%RSD		1.9019	4.1039	56.6568	0.8812

Result : The performance report passed.

FORM 11-IN

ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Shealy Environmental Services, I **Contract:**

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:**

Instrument ID: ICPMS2

Run Batch: MS2043019B 6020B 200.8, gen **Date:** 4/30/2019

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	45Sc	
Antimony	159Tb	
Arsenic	45Sc	
Barium	159Tb	
Beryllium	6Li	45Sc
Boron	6Li	45Sc
Cadmium	115In	
Calcium	6Li	45Sc
Chromium	45Sc	
Cobalt	45Sc	
Copper	115In	
Iron	45Sc	
Lead	159Tb	
Magnesium	6Li	45Sc
Manganese	45Sc	
Molybdenum	89Y	
Nickel	45Sc	
Potassium	6Li	45Sc
Selenium	115In	
Silicon	45Sc	
Silver	115In	
Sodium	6Li	45Sc
Strontium	45Sc	89Y
Thallium	159Tb	
Tin	115In	159Tb
Titanium	45Sc	
Vanadium	45Sc	
Zinc	115In	

Experiment Details

Description	PlasmaLab Template BlankExperiment
Template Filename	C:\Program Files\Thermo Fisher\PlasmaLab\data\MS2042319C 6020B 200.8.tee
Created By User	DemoX
Analyte Database	200_8.tea
Creation Timestamp	12/01/2004 11:33:01
Last Edited By	eqi.im
Last Edit Timestamp	05/01/2019 09:06:34
Instrument Detector	Simultaneous
Database Version	3.51
Acquisition Mode	Unknown

Numerical Results report key (text indicates meaning)

Blue text indicates that cell is a statistic.
Underlining indicates that a data warning flag is set.

Column headings
- No flag
- Semi Quant
- Standard Addition
- Multi Element

Result cells
- Internal Standard
- Excluded
- QC Warning
- QC Failure

Transient TRA only:
- Peak Not Found
- Manually Edited
- Merged Peak

Data warning flags
I - Invalid calibration
T - Tripped
F - Interference correction failed
M - Result over max
V - Valley integration failed
D - Different method used

Fully Quantitative Concentrations

Id	Label	9Be	10B	11B	23Na	24Mg	25Mg	26Mg	27Al	28Si	39K
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956			25.000				50.000			200.000
5	cal1 MW-10957	0.400	50.000	50.000	400.000	400.000	400.000	400.000	40.000	100.000	400.000
6	cal2 MW-10958	2.000			2000.000	2000.000	2000.000	2000.000	200.000		2000.000
7	cal3 MW-10931	250.000	250.000	250.000					250.000	250.000	
8	cal4 MW-10932	500.000	500.000	500.000					500.000	500.000	
9	cal5 MW-10933				50000.000	50000.000	50000.000	50000.000		5000.000	50000.000
10	cal6 MW-10934				100000.000	100000.000	100000.000	100000.000		10000.000	100000.000

Id	Label	43Ca	44Ca	47Ti	51V	52Cr	55Mn	54Fe	56Fe	57Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956									20.000	
5	cal1 MW-10957	400.000	400.000	5.000	5.000	5.000	5.000	50.000	50.000	50.000	1.000
6	cal2 MW-10958	2000.000	2000.000	25.000	25.000	25.000	25.000				5.000
7	cal3 MW-10931			250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932			500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933	50000.000	50000.000					50000.000	50000.000	50000.000	
10	cal6 MW-10934	100000.000	100000.000					100000.000	100000.000	100000.000	

Id	Label	60Ni	62Ni	63Cu	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971	2.000									
4	MW10956				1.000						
5	cal1 MW-10957	5.000	5.000	5.000	5.000	10.000	10.000	10.000	2.000	5.000	5.000
6	cal2 MW-10958	25.000	25.000	25.000	25.000	50.000	50.000	50.000	10.000	25.000	25.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	88Sr	95Mo	97Mo	98Mo	107Ag	109Ag	106Cd	111Cd	114Cd	116Sn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956										
5	cal1 MW-10957	10.000	10.000	10.000	10.000	1.000	1.000	0.100	0.100	0.100	20.000
6	cal2 MW-10958	50.000	50.000	50.000	50.000	5.000	5.000	0.500	0.500	0.500	100.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	118Sn	121Sb	123Sb	135Ba	137Ba	203Tl	205Tl	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956	5.000									
5	cal1 MW-10957	20.000	2.000	2.000	5.000	5.000	0.500	0.500	1.000	1.000	1.000
6	cal2 MW-10958	100.000	10.000	10.000	25.000	25.000	2.500	2.500	5.000	5.000	5.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000

8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933									
10	cal6 MW-10934									

Id	Label	232Th	238U
		ppb	ppb
3	MW10971		
4	MW10956		
5	cal1 MW-10957		50.000
6	cal2 MW-10958		250.000
7	cal3 MW-10931		
8	cal4 MW-10932		500.000
9	cal5 MW-10933		
10	cal6 MW-10934		

Sample List

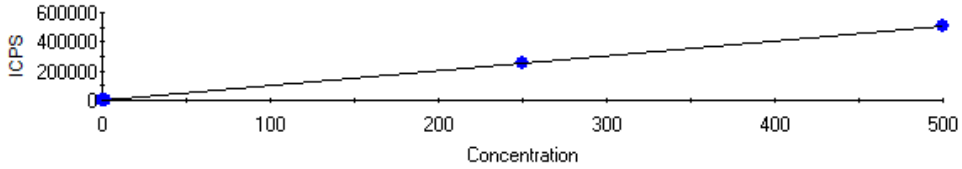
No	Label	Type	Weight	Rack	Row	Col	Height		
1	TUNE MW10939	Unknown	1.000	0	1	6	144		
2	BLANK IM9353-01	Blank	1.000	0	1	1	144		
3	MW10971	Fully Quant Standard	1.000	4	5	1	144		
4	MW10956	Fully Quant Standard	1.000	4	5	2	144		
5	cal1 MW-10957	Fully Quant Standard	1.000	4	5	3	144		
6	cal2 MW-10958	Fully Quant Standard	1.000	4	5	4	144		
7	cal3 MW-10931	Fully Quant Standard	1.000	4	5	5	144		
8	cal4 MW-10932	Fully Quant Standard	1.000	4	5	6	144		
9	cal5 MW-10933	Fully Quant Standard	1.000	4	5	7	144		
10	cal6 MW-10934	Fully Quant Standard	1.000	4	5	8	144		
11	ICV MW11020 PREP 4/30/19	QC Sample	1.000	4	5	11	144		
12	ICB IM9390-01	QC Sample	1.000	0	1	1	144		
13	ICSA MW10984	QC Sample	1.000	4	5	12	144		
14	CCV MW10994	QC Sample	1.000	0	1	8	144		
15	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
16	LR ~~MW10763~~	QC Sample	1.000	4	5	10	144	MW10963	njt 5-7-19
17	UQ13877-001	Unknown	1.000	1	1	1	144		
18	UQ13877-002	Unknown	1.000	1	1	2	144		
19	UD12100-011	Unknown	1.000	1	1	3	144		
20	UD12100-012	Unknown	1.000	1	1	4	144		
21	UD11087-001	Unknown	1.000	1	1	5	144		
22	UD11087-002	Unknown	1.000	1	1	6	144		
23	UD11087-004	Unknown	1.000	1	1	7	144		
24	UD11087-004S	Unknown	1.000	1	1	8	144		
25	UD11087-004SD	Unknown	1.000	1	1	9	144		
26	UD11087-004L(5)	Unknown	1.000	1	1	10	144		
27	CCV MW10994	QC Sample	1.000	0	1	8	144		
28	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
29	UD11087-004A	Unknown	1.000	1	2	1	144		
30	UD11087-005	Unknown	1.000	1	2	2	144		
31	UD11087-006	Unknown	1.000	1	2	3	144		
32	UD11087-007	Unknown	1.000	1	2	4	144		
33	UD11087-008	Unknown	1.000	1	2	5	144		
34	UQ14281-001	QC Sample	1.000	1	2	6	144		
35	UQ14281-002	QC Sample	1.000	1	2	7	144		
36	UD12086-001DIS	Unknown	1.000	1	2	8	144		
37	UD12086-001SDIS	Unknown	1.000	1	2	9	144		
38	UD12086-001SDDIS	Unknown	1.000	1	2	10	144		
39	CCV MW10994	QC Sample	1.000	0	1	8	144		
40	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
41	UD12086-001L(5)DIS	Unknown	1.000	1	3	1	144		
42	UD12086-001ADIS	Unknown	1.000	1	3	2	144		
43	UD12086-003DIS	Unknown	1.000	1	3	3	144		
44	UD12086-005DIS	Unknown	1.000	1	3	4	144		
45	UD12086-006DIS	Unknown	1.000	1	3	5	144		
46	UD12086-007DIS	Unknown	1.000	1	3	6	144		
47	UD18014-014	Unknown	1.000	1	3	7	144		
48	UD18014-017	Unknown	1.000	1	3	8	144		
49	UD18014-019	Unknown	1.000	1	3	9	144		
50	UD19038-008	Unknown	1.000	1	3	10	144		
51	CCV MW10994	QC Sample	1.000	0	1	8	144		
52	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
53	UD19038-009	Unknown	1.000	1	4	1	144		
54	UD19038-010	Unknown	1.000	1	4	2	144		
55	UQ14094-001	Unknown	1.000	1	4	3	144		
56	UQ14094-002	Unknown	1.000	1	4	4	144		
57	UD16054-002	Unknown	1.000	1	4	5	144		
58	UD16054-002(5)	Unknown	1.000	1	4	6	144		
59	UQ14280-001	QC Sample	1.000	1	4	7	144		
60	UQ14280-002	Unknown	1.000	1	4	8	144		
61	UQ14282-001	QC Sample	1.000	1	4	9	144		
62	UQ14282-002	Unknown	1.000	1	4	10	144		
63	CCV MW10994	QC Sample	1.000	0	1	8	144		
64	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
65	UD13009-001	Unknown	1.000	1	5	1	144		
66	UD13009-002	Unknown	1.000	1	5	2	144		

67	UD13009-003	Unknown	1.000	1	5	3	144
68	UD13009-004	Unknown	1.000	1	5	4	144
69	UD13009-004S	Unknown	1.000	1	5	5	144
70	UD13009-004SD	Unknown	1.000	1	5	6	144
71	UD13009-004L(5)	Unknown	1.000	1	5	7	144
72	UD13009-004A	Unknown	1.000	1	5	8	144
73	UD13009-005	Unknown	1.000	1	5	9	144
74	UD13009-006	Unknown	1.000	1	5	10	144
75	CCV MW10994	QC Sample	1.000	0	1	8	144
76	CCB IM9390-01	QC Sample	1.000	0	1	1	144
77	UD13010-001	Unknown	1.000	2	1	1	144
78	UD13010-002	Unknown	1.000	2	1	2	144
79	UD13010-003	Unknown	1.000	2	1	3	144
80	UD13010-004	Unknown	1.000	2	1	4	144
81	UD13010-005	Unknown	1.000	2	1	5	144
82	UQ14140-001	QC Sample	1.000	2	1	6	144
83	UQ14140-002	Unknown	1.000	2	1	7	144
84	UD12037-001	Unknown	1.000	2	1	8	144
85	UD16015-001	Unknown	1.000	2	1	9	144
86	UD16015-002	Unknown	1.000	2	1	10	144
87	CCV MW10994	QC Sample	1.000	0	1	8	144
88	CCB IM9390-01	QC Sample	1.000	0	1	1	144
89	UD18099-001	Unknown	1.000	2	2	1	144
90	UD18099-002	Unknown	1.000	2	2	2	144
91	UD18099-003	Unknown	1.000	2	2	3	144
92	UD18099-004	Unknown	1.000	2	2	4	144
93	UD18099-005	Unknown	1.000	2	2	5	144
94	UD18099-006	Unknown	1.000	2	2	6	144
95	UD18099-007	Unknown	1.000	2	2	7	144
96	UD18099-008	Unknown	1.000	2	2	8	144
97	UD18099-010	Unknown	1.000	2	2	9	144
98	UD18099-011	Unknown	1.000	2	2	10	144
99	CCV MW10994	QC Sample	1.000	0	1	8	144
100	CCB IM9390-01	QC Sample	1.000	0	1	1	144
101	UD18099-012	Unknown	1.000	2	3	1	144
102	UD18099-013	Unknown	1.000	2	3	2	144
103	UD18099-014	Unknown	1.000	2	3	3	144
104	UD20023-003	Unknown	1.000	2	3	4	144
105	UD20023-004	Unknown	1.000	2	3	5	144
106	UD20023-006	Unknown	1.000	2	3	6	144
107	UD20023-008	Unknown	1.000	2	3	7	144
108	UD20023-008S	Unknown	1.000	2	3	8	144
109	UD20023-008SD	Unknown	1.000	2	3	9	144
110	UD20023-008L(5)	Unknown	1.000	2	3	10	144
111	CCV MW10994	QC Sample	1.000	0	1	8	144
112	CCB IM9390-01	QC Sample	1.000	0	1	1	144
113	UD20023-008A	Unknown	1.000	2	4	1	144
114	UD12037-001(5)	Unknown	1.000	2	4	2	144
115	UD16015-001(5)	Unknown	1.000	2	4	3	144
116	UD16015-002(5)	Unknown	1.000	2	4	4	144
117	ICSA MW10984	Unknown	1.000	2	4	5	144
118	UQ14720-001	QC Sample	1.000	2	4	6	144
119	UQ14720-002	Unknown	1.000	2	4	7	144
120	UD25032-037	Unknown	1.000	2	4	8	144
121	UD25032-040	Unknown	1.000	2	4	9	144
122	UD25032-041	Unknown	1.000	2	4	10	144
123	CCV MW10994	QC Sample	1.000	0	1	8	144
124	CCB IM9390-01	QC Sample	1.000	0	1	1	144
125	UD25032-044	Unknown	1.000	2	5	1	144
126	UD25032-044S	Unknown	1.000	2	5	2	144
127	UD25032-044SD	Unknown	1.000	2	5	3	144
128	UD25032-044L(5)	Unknown	1.000	2	5	4	144
129	UD25032-044A	Unknown	1.000	2	5	5	144
130	UD25032-045	Unknown	1.000	2	5	6	144
131	UD25032-047	Unknown	1.000	2	5	7	144
132	UD25032-048	Unknown	1.000	2	5	8	144
133	UD25032-051	Unknown	1.000	2	5	9	144
134	UD25032-052	Unknown	1.000	2	5	10	144
135	CCV MW10994	QC Sample	1.000	0	1	8	144
136	CCB IM9390-01	QC Sample	1.000	0	1	1	144
137	UD25032-055	Unknown	1.000	3	1	1	144
138	UD25032-056	Unknown	1.000	3	1	2	144
139	UD25032-058	Unknown	1.000	3	1	3	144
140	UD25032-059	Unknown	1.000	3	1	4	144
141	UD25032-062	Unknown	1.000	3	1	5	144
142	UD25032-063	Unknown	1.000	3	1	6	144
143	UD25032-066	Unknown	1.000	3	1	7	144
144	UD25032-067	Unknown	1.000	3	1	8	144
145	UD25032-068	Unknown	1.000	3	1	9	144
146	UD25032-069	Unknown	1.000	3	1	10	144
147	CCV MW10994	QC Sample	1.000	0	1	8	144
148	CCB IM9390-01	QC Sample	1.000	0	1	1	144
149	UD25032-070	Unknown	1.000	3	2	1	144
150	UQ14724-001	QC Sample	1.000	3	2	2	144

	UQ14724-002	Unknown	1.000	3	2	3	144
152	UD25032-071	Unknown	1.000	3	2	4	144
153	UD25032-072	Unknown	1.000	3	2	5	144
154	UD25032-073	Unknown	1.000	3	2	6	144
155	UD25032-074	Unknown	1.000	3	2	7	144
156	UD25032-074S	Unknown	1.000	3	2	8	144
157	UD25032-074SD	Unknown	1.000	3	2	9	144
158	UD25032-074L(5)	Unknown	1.000	3	2	10	144
159	CCV MW10994	QC Sample	1.000	0	1	8	144
160	CCB IM9390-01	QC Sample	1.000	0	1	1	144
161	UD25032-074A	Unknown	1.000	3	3	1	144
162	UD18066-001(5)	Unknown	1.000	3	3	2	144
163	UD18066-001S(5)	Unknown	1.000	3	3	3	144
164	UD18066-001SD(5)	Unknown	1.000	3	3	4	144
165	UD18066-001L(25)	Unknown	1.000	3	3	5	144
166	UD18068-001(5)	Unknown	1.000	3	3	6	144
167	UD18068-001S(5)	Unknown	1.000	3	3	7	144
168	UD18084-001(20)	Unknown	1.000	3	3	8	144
169	UD18084-001(200)	Unknown	1.000	3	3	9	144
170	UD18091-001	Unknown	1.000	3	3	10	144
171	CCV MW10994	QC Sample	1.000	0	1	8	144
172	CCB IM9390-01	QC Sample	1.000	0	1	1	144
173	UD18097-001(20)	Unknown	1.000	3	4	1	144
174	UD19027-003	Unknown	1.000	3	4	2	144
175	UD19053-001	Unknown	1.000	3	4	3	144
176	UD17082-002	Unknown	1.000	3	4	4	144
177	UD18051-001	Unknown	1.000	3	4	5	144
178	UD18089-001	Unknown	1.000	3	4	6	144
179	UQ14763-001	QC Sample	1.000	3	4	7	144
180	UQ14763-002	Unknown	1.000	3	4	8	144
181	UD18070-004	Unknown	1.000	3	4	9	144
182	UD18070-005	Unknown	1.000	3	4	10	144
183	CCV MW10994	QC Sample	1.000	0	1	8	144
184	CCB IM9390-01	QC Sample	1.000	0	1	1	144
185	UD18070-006	Unknown	1.000	3	5	1	144
186	UD18070-007	Unknown	1.000	3	5	2	144
187	UD18090-001	Unknown	1.000	3	5	3	144
188	UD19057-001	Unknown	1.000	3	5	4	144
189	UD22037-001	Unknown	1.000	3	5	5	144
190	UD18035-001	Unknown	1.000	3	5	6	144
191	UD18035-002	Unknown	1.000	3	5	7	144
192	UD18035-003	Unknown	1.000	3	5	8	144
193	UD18035-004	Unknown	1.000	3	5	9	144
194	UD18035-005	Unknown	1.000	3	5	10	144
195	CCV MW10994	QC Sample	1.000	0	1	7	144
196	CCB IM9390-01	QC Sample	1.000	0	1	2	144
197	UD18035-006	Unknown	1.000	4	1	1	144
198	UD18035-007	Unknown	1.000	4	1	2	144
199	UD18035-008	Unknown	1.000	4	1	3	144
200	UD18052-001(5)	Unknown	1.000	4	1	4	144
201	UD19049-001(5)	Unknown	1.000	4	1	5	144
202	UD19049-001S(5)	Unknown	1.000	4	1	6	144
203	UD19049-001SD(5)	Unknown	1.000	4	1	7	144
204	UD19049-001L(5)	Unknown	1.000	4	1	8	144
205	UD23063-001	Unknown	1.000	4	1	9	144
206	UD23063-001S	Unknown	1.000	4	1	10	144
207	CCV MW10994	QC Sample	1.000	0	1	7	144
208	CCB IM9390-01	QC Sample	1.000	0	1	2	144
209	UD24009-001(5)	Unknown	1.000	4	2	1	144
210	UQ14857-001	Unknown	1.000	4	2	2	144
211	UQ14857-002	Unknown	1.000	4	2	3	144
212	UD19046-001	Unknown	1.000	4	2	4	144
213	UD19046-002	Unknown	1.000	4	2	5	144
214	UD19046-003	Unknown	1.000	4	2	6	144
215	UD19046-004	Unknown	1.000	4	2	7	144
216	UD19046-004S	Unknown	1.000	4	2	8	144
217	UD19046-004SD	Unknown	1.000	4	2	9	144
218	UD19046-004L(5)	Unknown	1.000	4	2	10	144
219	CCV MW10994	QC Sample	1.000	0	1	7	144
220	CCB IM9390-01	QC Sample	1.000	0	1	2	144
221	UQ14140-001	Unknown	1.000	4	3	4	144
222	UD12037-001(50)	Unknown	1.000	4	3	6	144
223	UD23075-001	Unknown	1.000	4	3	1	144
224	UD19046-005	Unknown	1.000	4	3	2	144
225	UD19046-005S	Unknown	1.000	4	3	3	144
226	CCV MW10994	QC Sample	1.000	0	1	7	144
227	CCB IM9390-01	QC Sample	1.000	0	1	2	144
228	IS MW11021	Unknown	1.000	0	1	5	144
229	RINSE	Unknown	1.000	0	1	6	144
230	RINSE	Unknown	1.000	0	1	5	144
231	RINSE	Unknown	1.000	0	1	6	144

Fully Quant Calibration

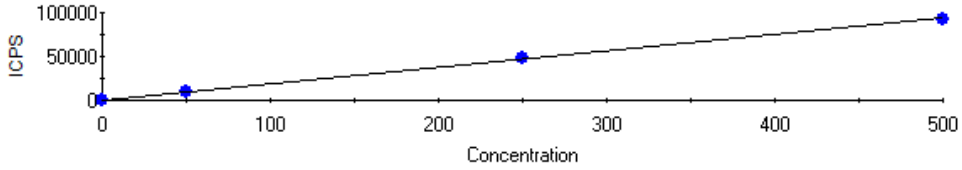
9Be FQ Block 1



Intercept CPS=52.152200 Intercept Conc=0.051140
Sensitivity=1019.801668 Correlation Coeff=0.999993

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	52.15	0.00
cal1 MW-10957	0.400	0.413	0.013	473.03	3.18
cal2 MW-10958	2.000	2.107	0.107	2201.06	5.36
cal3 MW-10931	250.000	250.149	0.149	255154.10	0.06
cal4 MW-10932	500.000	496.405	3.595	506286.61	0.72

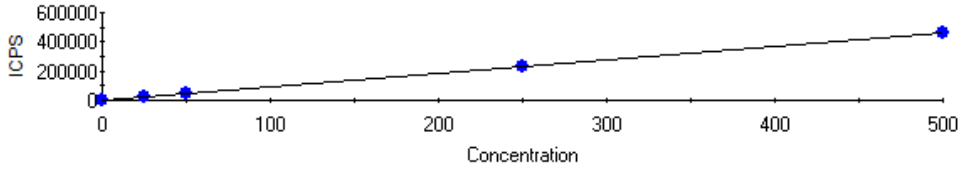
10B FQ Block 1



Intercept CPS=296.979698 Intercept Conc=1.595387
Sensitivity=186.149054 Correlation Coeff=0.999947

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	296.98	0.00
cal1 MW-10957	50.000	52.546	2.546	10078.30	5.09
cal3 MW-10931	250.000	253.730	3.730	47528.52	1.49
cal4 MW-10932	500.000	497.881	2.119	92976.98	0.42

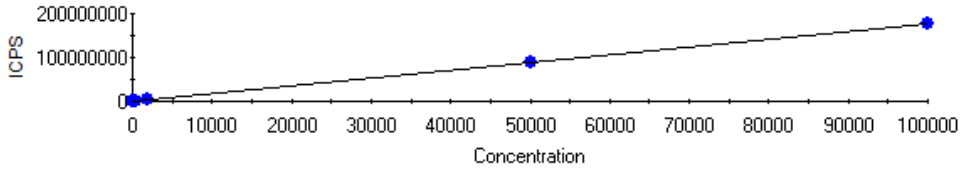
11B FQ Block 1



Intercept CPS=1594.745994 Intercept Conc=1.745341
Sensitivity=913.716223 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	1594.75	0.00
MW10956	25.000	24.865	0.135	24314.58	0.54
cal1 MW-10957	50.000	50.723	0.723	47941.41	1.45
cal3 MW-10931	250.000	250.783	0.783	230738.97	0.31
cal4 MW-10932	500.000	499.543	0.457	458035.34	0.09

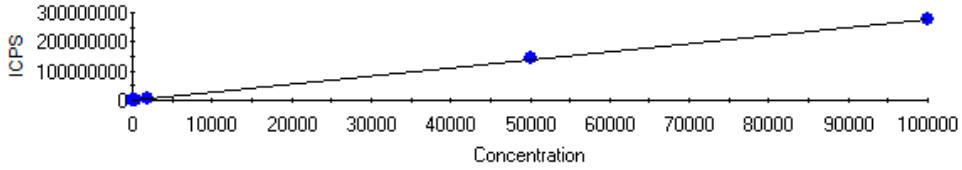
23Na FQ Block 1



Intercept CPS=10248.339795 Intercept Conc=5.747303
Sensitivity=1783.156352 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	10248.34	0.00
cal1 MW-10957	400.000	409.211	9.211	739935.98	2.30
cal2 MW-10958	2000.000	1993.982	6.018	3565830.06	0.30
cal5 MW-10933	50000.000	50445.927	445.927	89963222.88	0.89
cal6 MW-10934	100000.000	99957.092	42.908	178249371.32	0.04

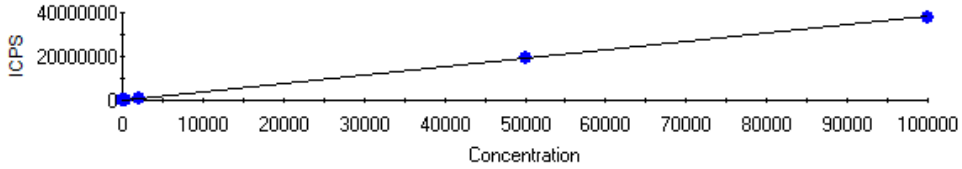
24Mg FQ Block 1



Intercept CPS=1314.463386 Intercept Conc=0.470330
Sensitivity=2794.770147 Correlation Coeff=0.999970

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	1314.46	0.00
cal1 MW-10957	400.000	421.527	21.527	1179384.59	5.38
cal2 MW-10958	2000.000	2033.364	33.364	5684099.39	1.67
cal5 MW-10933	50000.000	50637.587	637.587	141521731.61	1.28
cal6 MW-10934	100000.000	99680.453	319.547	278585268.75	0.32

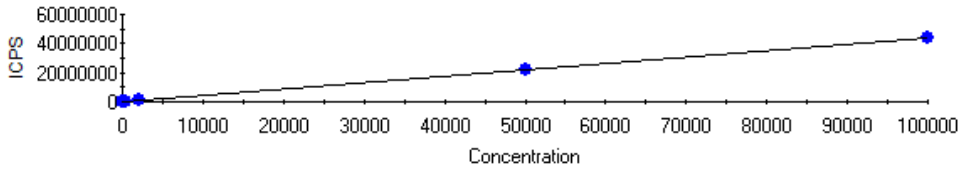
25Mg FQ Block 1



Intercept CPS=187.990801 Intercept Conc=0.493259
Sensitivity=381.119739 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	187.99	0.00
cal1 MW-10957	400.000	411.841	11.841	157148.62	2.96
cal2 MW-10958	2000.000	2055.591	55.591	783614.38	2.78
cal5 MW-10933	50000.000	50276.678	276.678	19161622.25	0.55
cal6 MW-10934	100000.000	99860.502	139.498	38058996.44	0.14

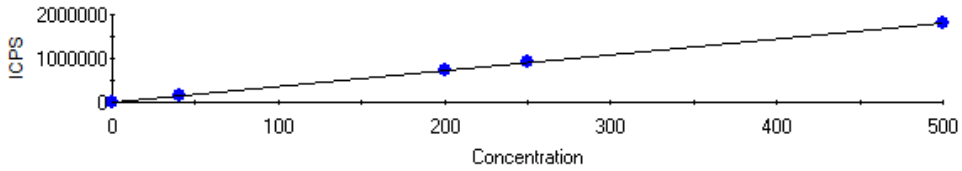
26Mg FQ Block 1



Intercept CPS=229.334767 Intercept Conc=0.517617
Sensitivity=443.058424 Correlation Coeff=0.999991

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	229.33	0.00
MW10956	50.000	53.254	3.254	23823.87	6.51
cal1 MW-10957	400.000	416.433	16.433	184733.40	4.11
cal2 MW-10958	2000.000	2063.271	63.271	914378.89	3.16
cal5 MW-10933	50000.000	50358.006	358.006	22311768.10	0.72
cal6 MW-10934	100000.000	99819.664	180.336	44226172.49	0.18

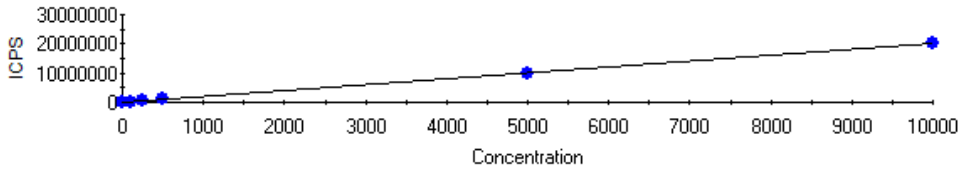
27Al FQ Block 1



Intercept CPS=2660.096109 Intercept Conc=0.732813
Sensitivity=3629.977077 Correlation Coeff=0.999991

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	2660.10	0.00
cal1 MW-10957	40.000	40.050	0.050	148040.41	0.12
cal2 MW-10958	200.000	198.050	1.950	721575.94	0.98
cal3 MW-10931	250.000	249.655	0.345	908901.86	0.14
cal4 MW-10932	500.000	500.009	0.009	1817682.80	0.00

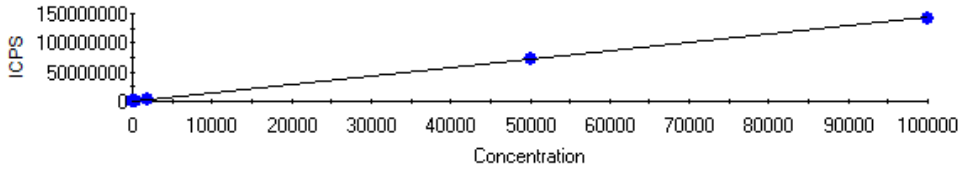
28Si FQ Block 1



Intercept CPS=0.000000 Intercept Conc=0.000000
Sensitivity=1996.360051 Correlation Coeff=0.999937

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	13.349	13.349	26649.07	0.00
cal1 MW-10957	100.000	110.972	10.972	221539.46	10.97
cal3 MW-10931	250.000	262.158	12.158	523361.24	4.86
cal4 MW-10932	500.000	515.979	15.979	1030079.29	3.20
cal5 MW-10933	5000.000	4910.736	89.264	9803597.76	1.79
cal6 MW-10934	10000.000	10043.419	43.419	20050280.98	0.43

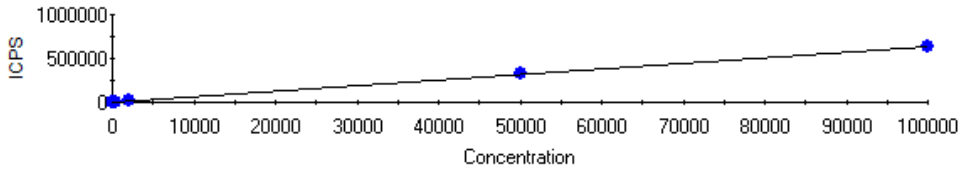
39K FQ Block 1



Intercept CPS=146137.840315 Intercept Conc=102.428092
Sensitivity=1426.735945 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	146137.84	0.00
MW10956	200.000	206.060	6.060	440131.76	3.03
cal1 MW-10957	400.000	418.195	18.195	742791.62	4.55
cal2 MW-10958	2000.000	2018.347	18.347	3025786.70	0.92
cal5 MW-10933	50000.000	49959.572	40.428	71425255.64	0.08
cal6 MW-10934	100000.000	99885.026	114.974	142655694.32	0.11

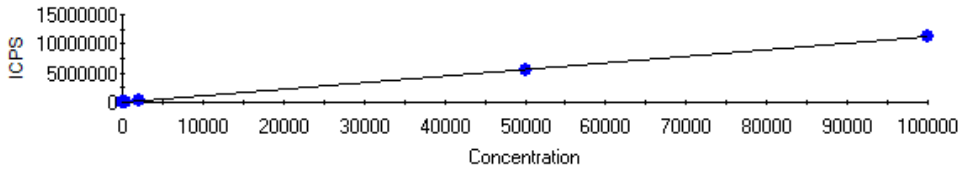
43Ca FQ Block 1



Intercept CPS=21.320145 Intercept Conc=3.346641
Sensitivity=6.370611 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	21.32	0.00
cal1 MW-10957	400.000	414.185	14.185	2659.93	3.55
cal2 MW-10958	2000.000	2116.592	116.592	13505.30	5.83
cal5 MW-10933	50000.000	50099.982	99.982	319188.81	0.20
cal6 MW-10934	100000.000	99947.620	52.380	636748.73	0.05

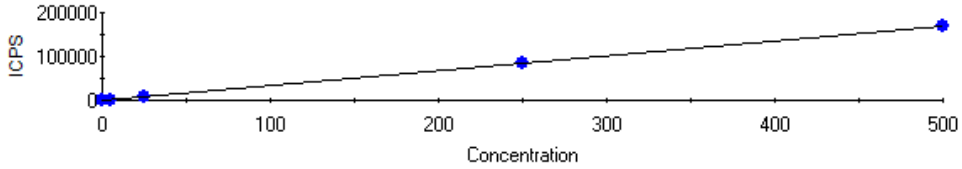
44Ca FQ Block 1



Intercept CPS=347.941743 Intercept Conc=3.120540
Sensitivity=111.500492 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	347.94	0.00
cal1 MW-10957	400.000	392.414	7.586	44102.25	1.90
cal2 MW-10958	2000.000	1956.337	43.663	218480.43	2.18
cal5 MW-10933	50000.000	50071.013	71.013	5583290.49	0.14
cal6 MW-10934	100000.000	99942.400	57.600	11143974.73	0.06

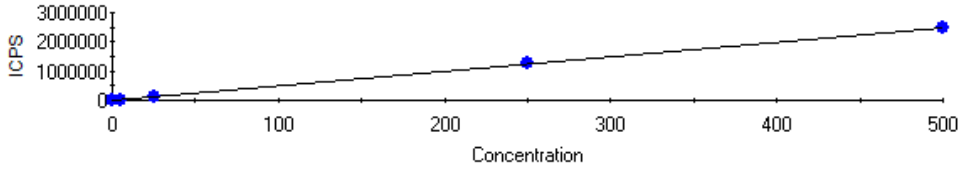
47Ti FQ Block 1



Intercept CPS=38.678252 Intercept Conc=0.115552
Sensitivity=334.725425 Correlation Coeff=0.999977

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	38.68	0.00
cal1 MW-10957	5.000	5.136	0.136	1757.96	2.73
cal2 MW-10958	25.000	24.783	0.217	8334.03	0.87
cal3 MW-10931	250.000	248.247	1.753	83133.24	0.70
cal4 MW-10932	500.000	503.393	3.393	168537.08	0.68

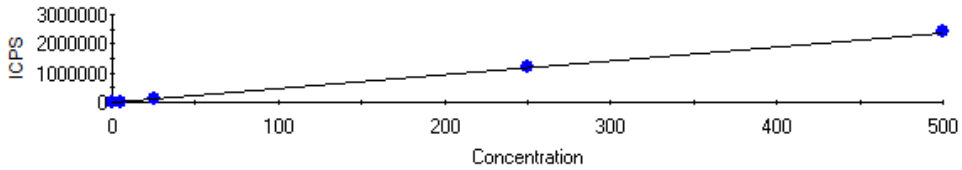
51V FQ Block 1



Intercept CPS=126.448617 Intercept Conc=0.025338
Sensitivity=4990.464518 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	126.45	0.00
cal1 MW-10957	5.000	5.049	0.049	25323.35	0.98
cal2 MW-10958	25.000	24.612	0.388	122951.34	1.55
cal3 MW-10931	250.000	248.740	1.260	1241455.58	0.50
cal4 MW-10932	500.000	501.949	1.949	2505084.35	0.39

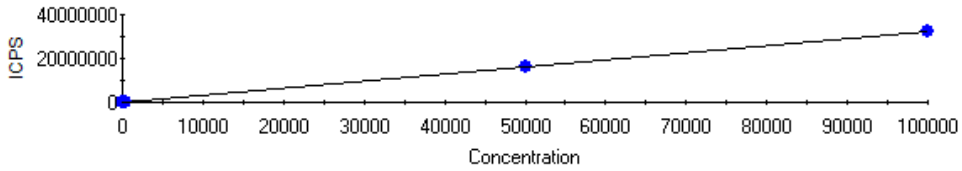
52Cr FQ Block 1



Intercept CPS=770.649812 Intercept Conc=0.161241
Sensitivity=4779.493685 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	770.65	0.00
cal1 MW-10957	5.000	5.061	0.061	24957.55	1.21
cal2 MW-10958	25.000	24.380	0.620	117296.91	2.48
cal3 MW-10931	250.000	249.967	0.033	1195487.81	0.01
cal4 MW-10932	500.000	502.856	2.856	2404168.61	0.57

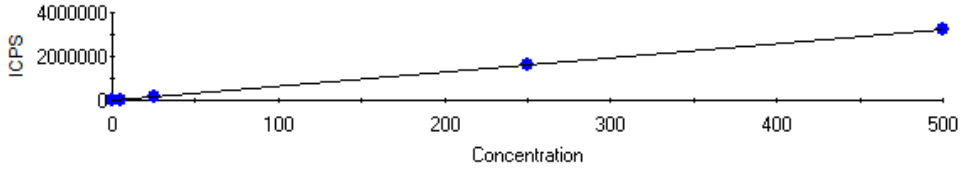
54Fe FQ Block 1



Intercept CPS=7044.785637 Intercept Conc=22.041111
Sensitivity=319.620267 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	7044.79	0.00
cal1 MW-10957	50.000	54.670	4.670	24518.44	9.34
cal3 MW-10931	250.000	369.758	119.758	125227.09	47.90
cal4 MW-10932	500.000	757.205	257.205	249063.00	51.44
cal5 MW-10933	50000.000	50019.706	19.706	15994356.59	0.04
cal6 MW-10934	100000.000	99988.559	11.441	31965414.76	0.01

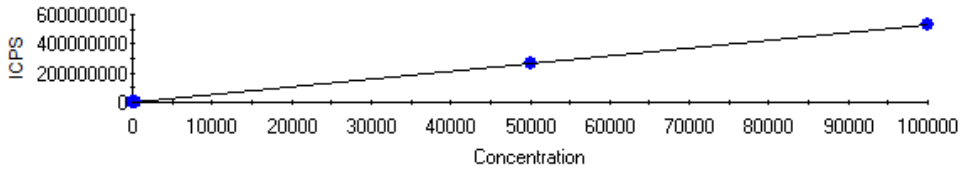
55Mn FQ Block 1



Intercept CPS=615.981938 Intercept Conc=0.095828
Sensitivity=6427.969735 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	615.98	0.00
cal1 MW-10957	5.000	4.804	0.196	31493.56	3.93
cal2 MW-10958	25.000	24.220	0.780	156299.47	3.12
cal3 MW-10931	250.000	248.696	1.304	1599227.43	0.52
cal4 MW-10932	500.000	500.037	0.037	3214841.08	0.01

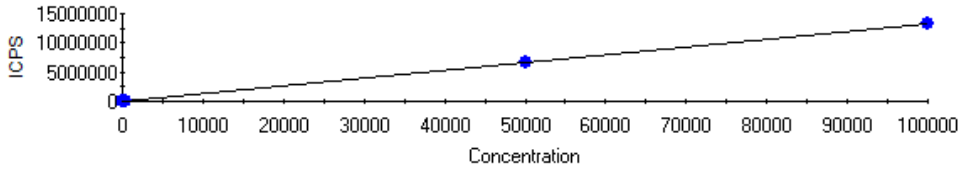
56Fe FQ Block 1



Intercept CPS=201251.455055 Intercept Conc=37.556371
Sensitivity=5358.650207 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	201251.46	0.00
cal1 MW-10957	50.000	52.707	2.707	483688.00	5.41
cal3 MW-10931	250.000	268.338	18.338	1639183.39	7.34
cal4 MW-10932	500.000	530.928	30.928	3046306.82	6.19
cal5 MW-10933	50000.000	50346.804	346.804	269992165.30	0.69
cal6 MW-10934	100000.000	99826.396	173.604	535135988.81	0.17

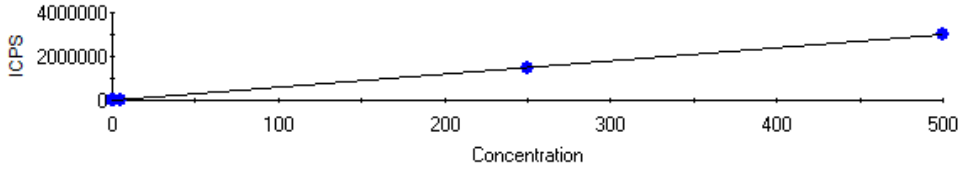
57Fe FQ Block 1



Intercept CPS=13655.960228 Intercept Conc=102.149525
Sensitivity=133.685989 Correlation Coeff=0.999986

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	13655.96	0.00
MW10956	20.000	19.921	0.079	16319.16	0.39
cal1 MW-10957	50.000	53.454	3.454	20802.00	6.91
cal3 MW-10931	250.000	254.971	4.971	47742.02	1.99
cal4 MW-10932	500.000	519.873	19.873	83155.66	3.97
cal5 MW-10933	50000.000	49950.971	49.029	6691400.92	0.10
cal6 MW-10934	100000.000	98754.775	1245.225	13215785.65	1.25

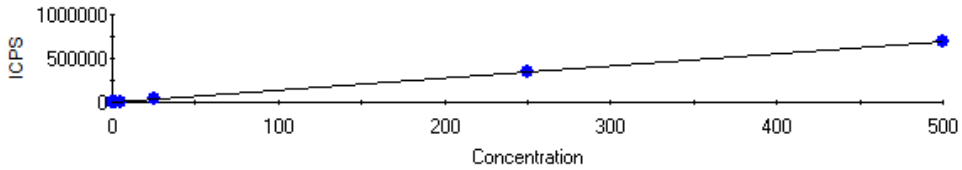
59Co FQ Block 1



Intercept CPS=94.721699 Intercept Conc=0.015843
Sensitivity=5978.866212 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	94.72	0.00
cal1 MW-10957	1.000	0.993	0.007	6034.07	0.66
cal2 MW-10958	5.000	4.974	0.026	29831.70	0.53
cal3 MW-10931	250.000	250.794	0.794	1499556.10	0.32
cal4 MW-10932	500.000	501.737	1.737	2999915.67	0.35

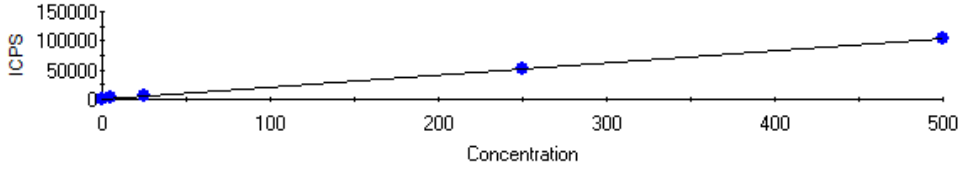
60Ni FQ Block 1



Intercept CPS=56.014032 Intercept Conc=0.040798
Sensitivity=1372.972515 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	56.01	0.00
MW10971	2.000	1.955	0.045	2740.04	2.26
cal1 MW-10957	5.000	5.029	0.029	6961.35	0.59
cal2 MW-10958	25.000	24.478	0.522	33663.62	2.09
cal3 MW-10931	250.000	250.241	0.241	343629.51	0.10
cal4 MW-10932	500.000	501.148	1.148	688118.70	0.23

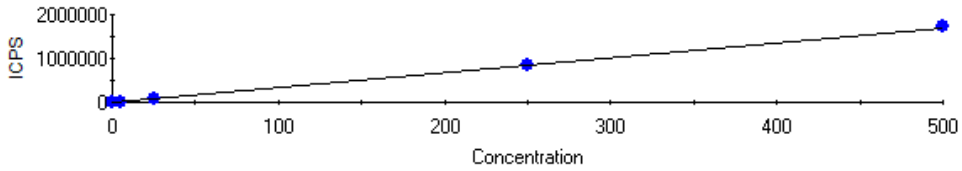
62Ni FQ Block 1



Intercept CPS=486.898954 Intercept Conc=2.375103
Sensitivity=205.001153 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	486.90	0.00
cal1 MW-10957	5.000	4.841	0.159	1479.38	3.17
cal2 MW-10958	25.000	24.940	0.060	5599.73	0.24
cal3 MW-10931	250.000	248.635	1.365	51457.39	0.55
cal4 MW-10932	500.000	500.687	0.687	103128.31	0.14

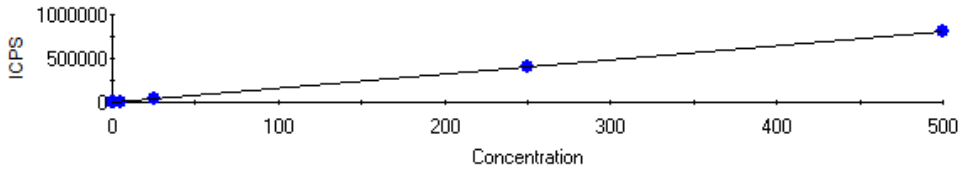
63Cu FQ Block 1



Intercept CPS=330.222080 Intercept Conc=0.098309
Sensitivity=3359.011337 Correlation Coeff=0.999946

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	330.22	0.00
cal1 MW-10957	5.000	4.998	0.002	17117.34	0.05
cal2 MW-10958	25.000	24.701	0.299	83302.35	1.19
cal3 MW-10931	250.000	250.721	0.721	842503.86	0.29
cal4 MW-10932	500.000	512.426	12.426	1721574.02	2.49

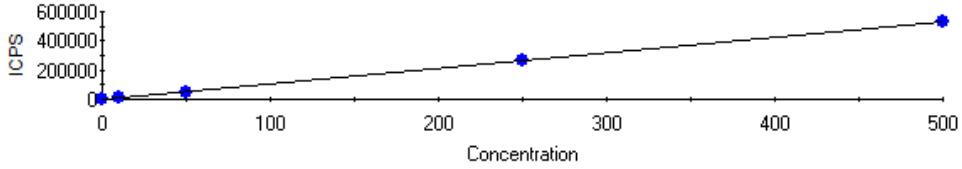
65Cu FQ Block 1



Intercept CPS=120.228876 Intercept Conc=0.074481
Sensitivity=1614.226225 Correlation Coeff=0.999956

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	120.23	0.00
MW10956	1.000	0.983	0.017	1707.55	1.67
cal1 MW-10957	5.000	5.005	0.005	8199.78	0.10
cal2 MW-10958	25.000	24.462	0.538	39606.81	2.15
cal3 MW-10931	250.000	244.692	5.308	395108.71	2.12
cal4 MW-10932	500.000	499.296	0.704	806097.67	0.14

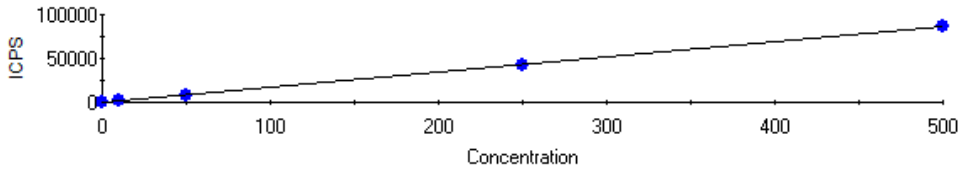
66Zn FQ Block 1



Intercept CPS=100.604835 Intercept Conc=0.095608
Sensitivity=1052.268325 Correlation Coeff=0.999996

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	100.60	0.00
cal1 MW-10957	10.000	10.129	0.129	10759.45	1.29
cal2 MW-10958	50.000	48.947	1.053	51606.34	2.11
cal3 MW-10931	250.000	249.175	0.825	262299.35	0.33
cal4 MW-10932	500.000	500.515	0.515	526776.98	0.10

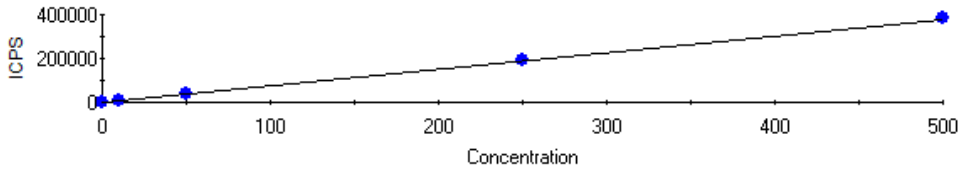
67Zn FQ Block 1



Intercept CPS=26.687351 Intercept Conc=0.154894
Sensitivity=172.294360 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	26.69	0.00
cal1 MW-10957	10.000	9.627	0.373	1685.31	3.73
cal2 MW-10958	50.000	49.018	0.982	8472.23	1.96
cal3 MW-10931	250.000	249.135	0.865	42951.27	0.35
cal4 MW-10932	500.000	500.538	0.538	86266.58	0.11

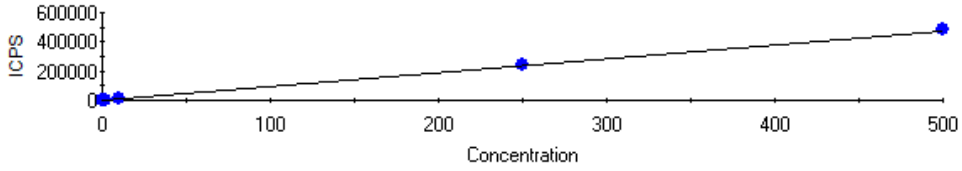
68Zn FQ Block 1



Intercept CPS=50.369704 Intercept Conc=0.066541
Sensitivity=756.973261 Correlation Coeff=0.999986

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	50.37	0.00
cal1 MW-10957	10.000	9.932	0.068	7568.65	0.68
cal2 MW-10958	50.000	49.145	0.855	37251.59	1.71
cal3 MW-10931	250.000	254.056	4.056	192363.74	1.62
cal4 MW-10932	500.000	512.800	12.800	388226.36	2.56

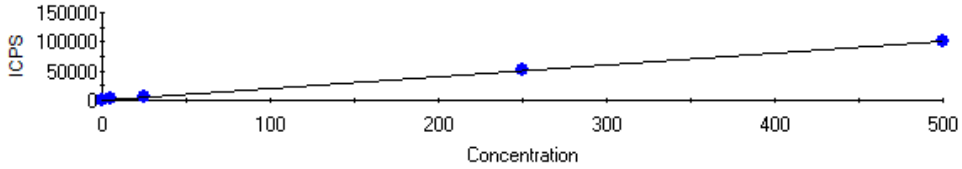
75As FQ Block 1



Intercept CPS=258.310265 Intercept Conc=0.270004
Sensitivity=956.691920 Correlation Coeff=0.999981

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	258.31	0.00
cal1 MW-10957	2.000	1.856	0.144	2033.87	7.20
cal2 MW-10958	10.000	9.604	0.396	9446.51	3.96
cal3 MW-10931	250.000	248.469	1.531	237966.29	0.61
cal4 MW-10932	500.000	503.442	3.442	481897.23	0.69

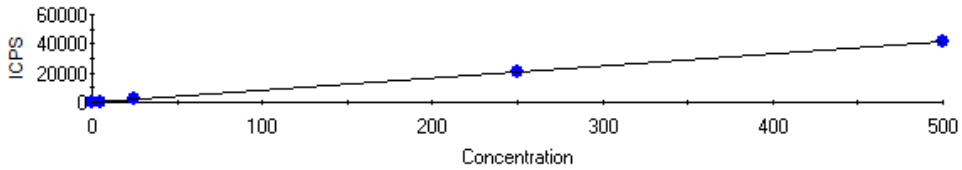
78Se FQ Block 1



Intercept CPS=577.973073 Intercept Conc=2.891348
Sensitivity=199.897440 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	577.97	0.00
cal1 MW-10957	5.000	5.087	0.087	1594.81	1.74
cal2 MW-10958	25.000	24.544	0.456	5484.23	1.82
cal3 MW-10931	250.000	250.579	0.579	50668.02	0.23
cal4 MW-10932	500.000	499.463	0.537	100419.36	0.11

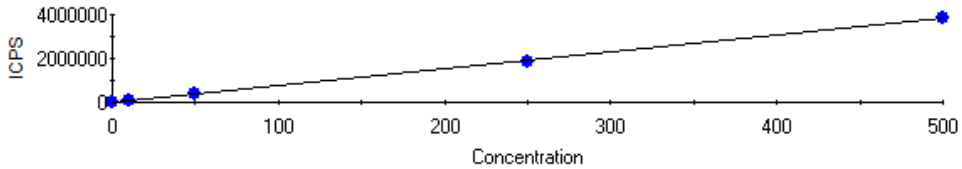
82Se FQ Block 1



Intercept CPS=110.468228 Intercept Conc=1.329878
Sensitivity=83.066430 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	110.47	0.00
cal1 MW-10957	5.000	4.839	0.161	512.44	3.22
cal2 MW-10958	25.000	24.757	0.243	2166.91	0.97
cal3 MW-10931	250.000	250.068	0.068	20882.73	0.03
cal4 MW-10932	500.000	499.980	0.020	41642.00	0.00

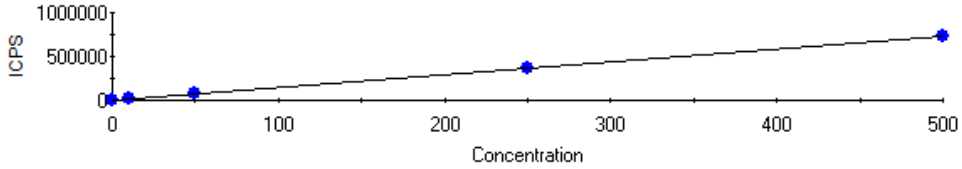
88Sr FQ Block 1



Intercept CPS=47.915420 Intercept Conc=0.006282
Sensitivity=7626.894569 Correlation Coeff=0.999855

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	47.92	0.00
cal1 MW-10957	10.000	9.493	0.507	72447.28	5.07
cal2 MW-10958	50.000	48.046	1.954	366486.48	3.91
cal3 MW-10931	250.000	243.112	6.888	1854236.17	2.76
cal4 MW-10932	500.000	503.650	3.650	3841330.90	0.73

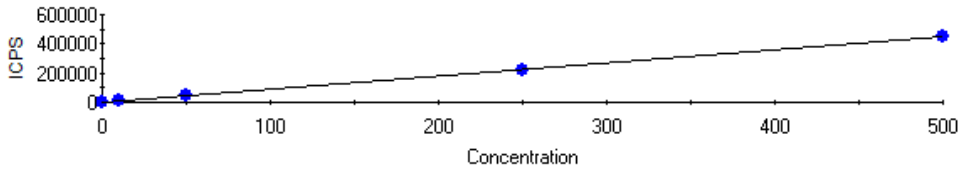
95Mo FQ Block 1



Intercept CPS=33.253721 Intercept Conc=0.022940
Sensitivity=1449.564934 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	33.25	0.00
cal1 MW-10957	10.000	9.796	0.204	14232.94	2.04
cal2 MW-10958	50.000	49.747	0.253	72145.16	0.51
cal3 MW-10931	250.000	248.361	1.639	360048.28	0.66
cal4 MW-10932	500.000	500.849	0.849	726046.38	0.17

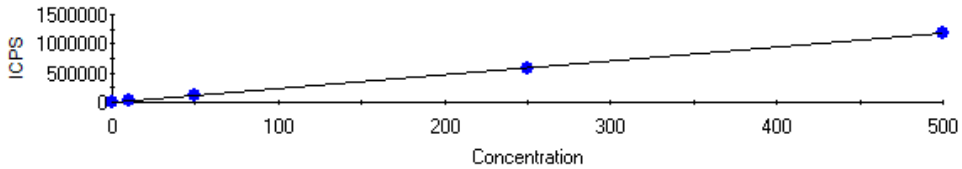
97Mo FQ Block 1



Intercept CPS=26.607665 Intercept Conc=0.029639
Sensitivity=897.733641 Correlation Coeff=0.999987

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	26.61	0.00
cal1 MW-10957	10.000	9.718	0.282	8750.75	2.82
cal2 MW-10958	50.000	50.880	0.880	45703.27	1.76
cal3 MW-10931	250.000	249.355	0.645	223880.76	0.26
cal4 MW-10932	500.000	503.512	3.512	452046.32	0.70

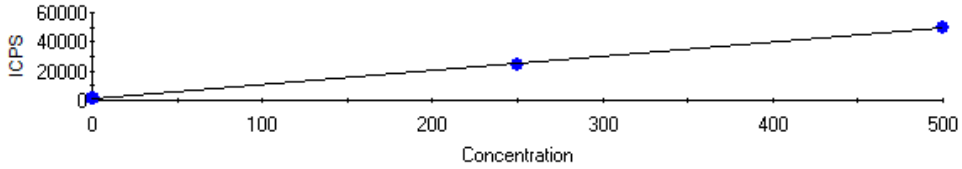
98Mo FQ Block 1



Intercept CPS=65.095613 Intercept Conc=0.027630
Sensitivity=2355.943634 Correlation Coeff=0.999973

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	65.10	0.00
cal1 MW-10957	10.000	9.798	0.202	23148.90	2.02
cal2 MW-10958	50.000	49.281	0.719	116169.06	1.44
cal3 MW-10931	250.000	247.007	2.993	582000.20	1.20
cal4 MW-10932	500.000	501.572	1.572	1181741.15	0.31

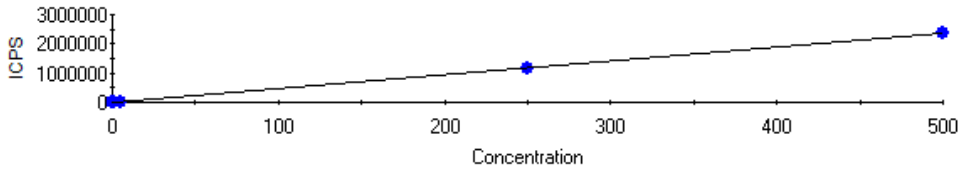
106Cd FQ Block 1



Intercept CPS=641.797994 Intercept Conc=6.601003
Sensitivity=97.227341 Correlation Coeff=0.999852

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	641.80	0.00
cal1 MW-10957	0.100	-0.101	0.201	632.02	200.55
cal2 MW-10958	0.500	1.421	0.921	779.96	184.21
cal3 MW-10931	250.000	243.023	6.977	24270.28	2.79
cal4 MW-10932	500.000	503.488	3.488	49594.56	0.70

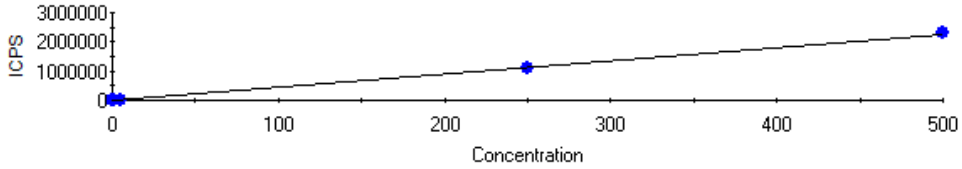
107Ag FQ Block 1



Intercept CPS=28.180923 Intercept Conc=0.005945
Sensitivity=4740.665105 Correlation Coeff=0.999881

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	28.18	0.00
cal1 MW-10957	1.000	0.943	0.057	4500.83	5.65
cal2 MW-10958	5.000	4.753	0.247	22558.47	4.95
cal3 MW-10931	250.000	243.601	6.399	1154860.66	2.56
cal4 MW-10932	500.000	503.202	3.202	2385539.90	0.64

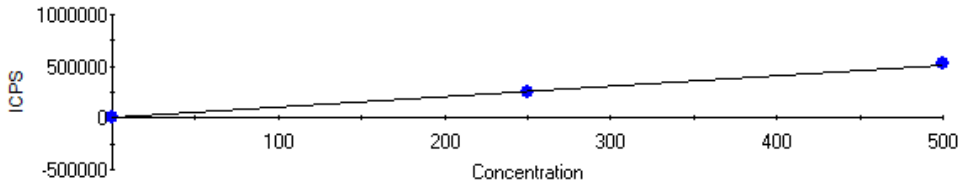
109Ag FQ Block 1



Intercept CPS=9.407969 Intercept Conc=0.002068
Sensitivity=4549.393520 Correlation Coeff=0.999958

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	9.41	0.00
cal1 MW-10957	1.000	0.960	0.040	4376.26	4.01
cal2 MW-10958	5.000	4.774	0.226	21726.79	4.53
cal3 MW-10931	250.000	246.174	3.826	1119954.03	1.53
cal4 MW-10932	500.000	501.915	1.915	2283418.71	0.38

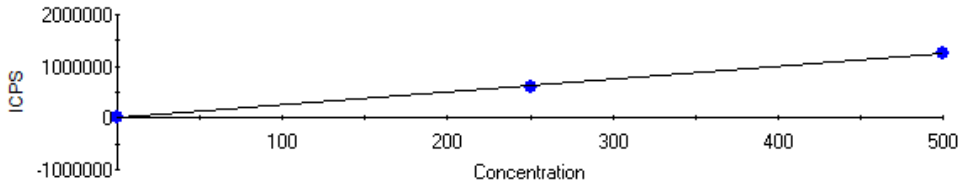
111Cd FQ Block 1



Intercept CPS=2.575436 Intercept Conc=0.002485
Sensitivity=1036.315800 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	2.58	0.00
cal1 MW-10957	0.100	0.096	0.004	101.65	4.40
cal2 MW-10958	0.500	0.464	0.036	483.35	7.22
cal3 MW-10931	250.000	248.181	1.819	257196.23	0.73
cal4 MW-10932	500.000	500.910	0.910	519103.16	0.18

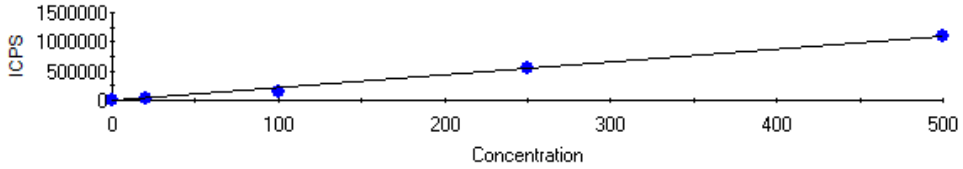
114Cd FQ Block 1



Intercept CPS=2.435600 Intercept Conc=0.000981
Sensitivity=2481.740878 Correlation Coeff=0.999971

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	2.44	0.00
cal1 MW-10957	0.100	0.120	0.020	299.91	19.86
cal2 MW-10958	0.500	0.517	0.017	1284.59	3.33
cal3 MW-10931	250.000	246.185	3.815	610970.24	1.53
cal4 MW-10932	500.000	500.248	0.248	1241487.58	0.05

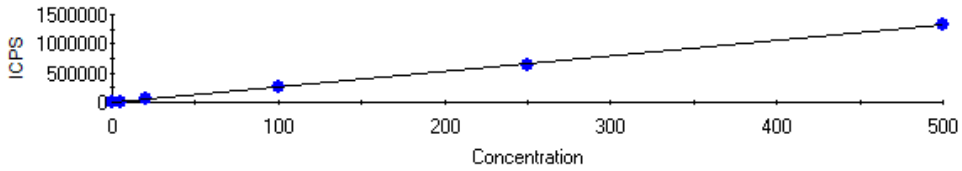
116Sn FQ Block 1



Intercept CPS=83.806700 Intercept Conc=0.038719
Sensitivity=2164.489428 Correlation Coeff=0.998225

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	83.81	0.00
cal1 MW-10957	20.000	13.692	6.308	29720.33	31.54
cal2 MW-10958	100.000	69.705	30.295	150959.53	30.30
cal3 MW-10931	250.000	249.319	0.681	539732.92	0.27
cal4 MW-10932	500.000	506.652	6.652	1096725.92	1.33

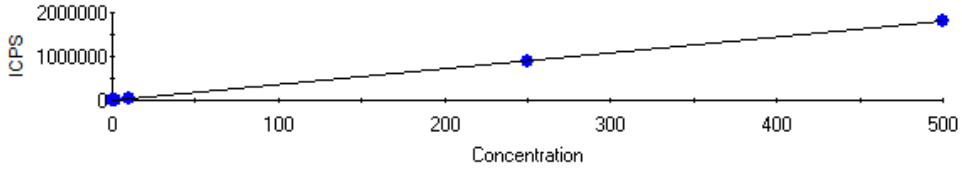
118Sn FQ Block 1



Intercept CPS=108.950595 Intercept Conc=0.041351
Sensitivity=2634.766563 Correlation Coeff=0.999955

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	108.95	0.00
MW10956	5.000	5.003	0.003	13290.09	0.06
cal1 MW-10957	20.000	19.254	0.746	50838.25	3.73
cal2 MW-10958	100.000	98.495	1.505	259620.69	1.50
cal3 MW-10931	250.000	246.266	3.734	648963.44	1.49
cal4 MW-10932	500.000	502.198	2.198	1323282.36	0.44

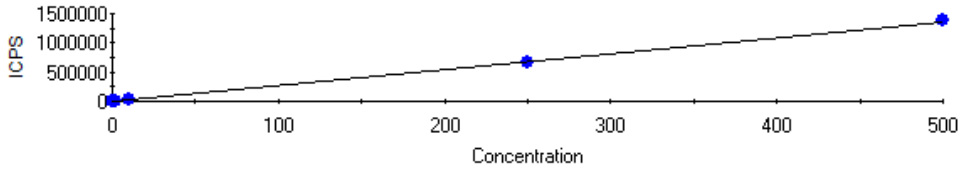
121Sb FQ Block 1



Intercept CPS=85.161412 Intercept Conc=0.023712
Sensitivity=3591.511958 Correlation Coeff=0.999908

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	85.16	0.00
cal1 MW-10957	2.000	2.025	0.025	7357.36	1.24
cal2 MW-10958	10.000	9.917	0.083	35702.26	0.83
cal3 MW-10931	250.000	244.431	5.569	877963.18	2.23
cal4 MW-10932	500.000	502.786	2.786	1805846.73	0.56

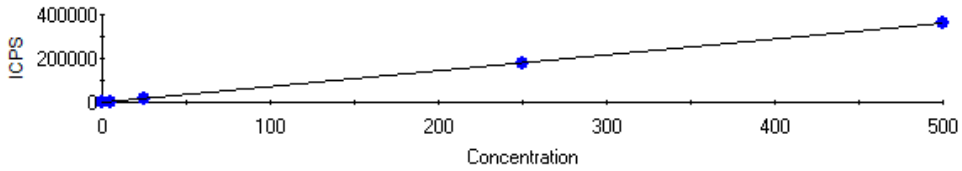
123Sb FQ Block 1



Intercept CPS=58.157779 Intercept Conc=0.021258
Sensitivity=2735.849062 Correlation Coeff=0.999959

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	58.16	0.00
cal1 MW-10957	2.000	1.924	0.076	5321.14	3.81
cal2 MW-10958	10.000	10.241	0.241	28075.53	2.41
cal3 MW-10931	250.000	246.329	3.671	673977.32	1.47
cal4 MW-10932	500.000	501.831	1.831	1372991.90	0.37

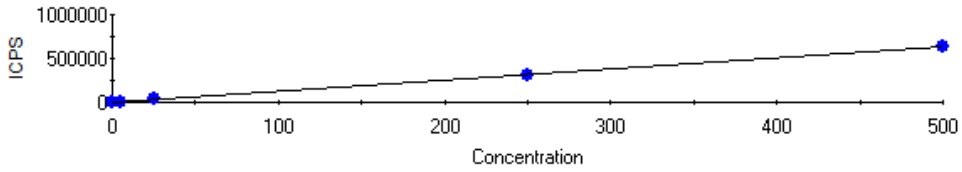
135Ba FQ Block 1



Intercept CPS=22.529234 Intercept Conc=0.031178
Sensitivity=722.604033 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	22.53	0.00
cal1 MW-10957	5.000	4.971	0.029	3614.75	0.58
cal2 MW-10958	25.000	25.188	0.188	18223.57	0.75
cal3 MW-10931	250.000	249.860	0.140	180572.09	0.06
cal4 MW-10932	500.000	497.881	2.119	359793.12	0.42

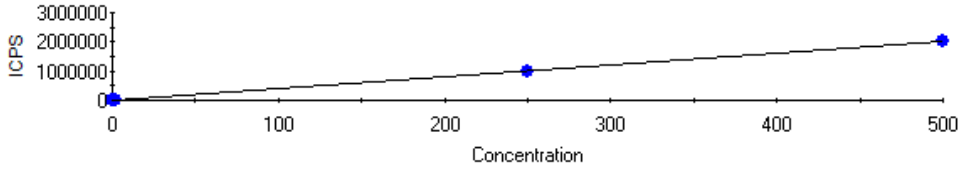
137Ba FQ Block 1



Intercept CPS=28.122298 Intercept Conc=0.022241
Sensitivity=1264.444516 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	28.12	0.00
cal1 MW-10957	5.000	5.062	0.062	6428.12	1.23
cal2 MW-10958	25.000	25.371	0.371	32108.94	1.49
cal3 MW-10931	250.000	248.844	1.156	314677.58	0.46
cal4 MW-10932	500.000	500.559	0.559	632956.95	0.11

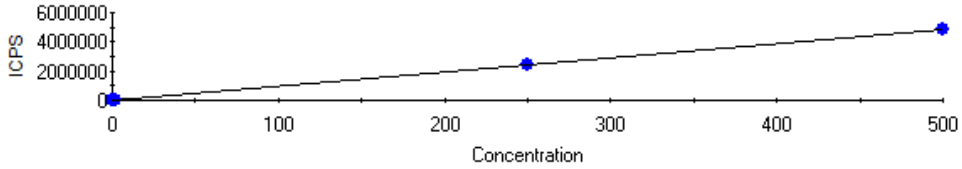
203Tl FQ Block 1



Intercept CPS=85.186991 Intercept Conc=0.021176
Sensitivity=4022.777497 Correlation Coeff=0.999971

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	85.19	0.00
cal1 MW-10957	0.500	0.483	0.017	2030.17	3.30
cal2 MW-10958	2.500	2.507	0.007	10169.64	0.27
cal3 MW-10931	250.000	247.494	2.506	995696.57	1.00
cal4 MW-10932	500.000	502.821	2.821	2022821.67	0.56

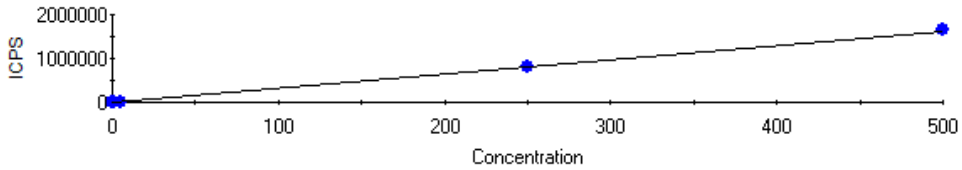
205Tl FQ Block 1



Intercept CPS=222.254098 Intercept Conc=0.022869
Sensitivity=9718.635326 Correlation Coeff=0.999996

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	222.25	0.00
cal1 MW-10957	0.500	0.476	0.024	4847.85	4.81
cal2 MW-10958	2.500	2.420	0.080	23739.20	3.21
cal3 MW-10931	250.000	250.411	0.411	2433878.76	0.16
cal4 MW-10932	500.000	497.967	2.033	4839780.92	0.41

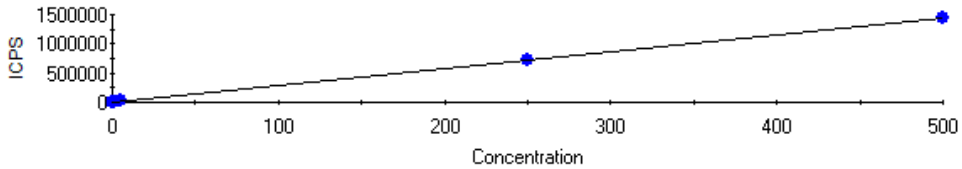
206Pb FQ Block 1



Intercept CPS=83.013015 Intercept Conc=0.025464
Sensitivity=3260.067391 Correlation Coeff=0.999961

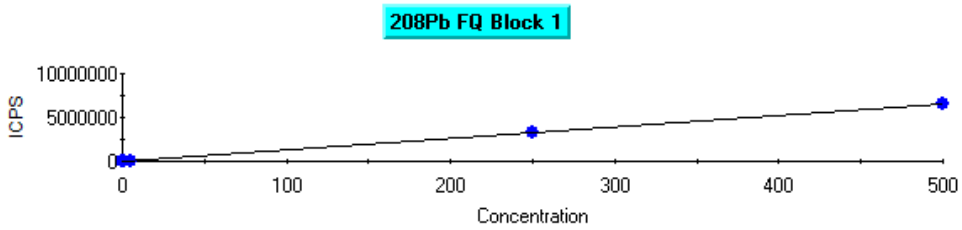
Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	83.01	0.00
cal1 MW-10957	1.000	0.966	0.034	3233.57	3.36
cal2 MW-10958	5.000	4.900	0.100	16056.61	2.00
cal3 MW-10931	250.000	246.339	3.661	803164.12	1.46
cal4 MW-10932	500.000	501.832	1.832	1636088.07	0.37

207Pb FQ Block 1



Intercept CPS=70.999164 Intercept Conc=0.024707
Sensitivity=2873.648989 Correlation Coeff=0.999969

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	71.00	0.00
cal1 MW-10957	1.000	0.995	0.005	2930.73	0.48
cal2 MW-10958	5.000	5.057	0.057	14601.80	1.13
cal3 MW-10931	250.000	246.743	3.257	709124.87	1.30
cal4 MW-10932	500.000	501.628	1.628	1441573.08	0.33



Intercept CPS=320.621844 Intercept Conc=0.024369
Sensitivity=13157.205586 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	320.62	0.00
cal1 MW-10957	1.000	0.972	0.028	13109.40	2.80
cal2 MW-10958	5.000	4.948	0.052	65418.34	1.05
cal3 MW-10931	250.000	248.312	1.688	3267410.09	0.68
cal4 MW-10932	500.000	500.845	0.845	6590037.00	0.17

Dilution Corrected Concentrations

TUNE MW10939 04/30/2019 10:02:41

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	98.8%	0.033	1.202	0.915	224.600	2.704	1.401	1.400	1.480	1.073
2	10:03:35	101.3%	0.007	1.020	0.851	228.700	3.394	1.155	1.174	1.314	1.090
3	10:04:02	100.0%	0.011	0.755	1.068	223.100	3.306	1.086	0.997	1.469	1.054
x		100.0%	0.017	0.992	0.945	225.500	3.135	1.214	1.190	1.421	1.072
σ		1.3%	0.014	0.225	0.111	2.868	0.376	0.166	0.202	0.093	0.018
%RSD		1.3	81.070	22.680	11.780	1.272	11.990	13.640	16.990	6.510	1.689

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	15.630	1103.000	-0.763	7.776	8.060	101.8%	0.014	-0.017	0.127	33.460
2	10:03:35	15.860	1096.000	0.927	7.437	8.014	98.9%	0.042	0.001	0.123	15.890
3	10:04:02	15.950	1087.000	0.392	2.339	7.207	99.3%	0.041	0.018	0.177	15.180
x		15.810	1095.000	0.186	5.851	7.760	100.0%	0.032	0.001	0.142	21.510
σ		0.162	8.397	0.864	3.046	0.480	1.6%	0.016	0.018	0.030	10.360
%RSD		1.023	0.767	465.200	52.060	6.185	1.6	49.950	1901.000	20.920	48.150

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	4.481	0.064	3.879	0.251	0.015	0.111	-0.222	0.045	0.077	0.299
2	10:03:35	5.608	0.042	5.712	5.712	0.025	0.110	-0.034	0.038	0.047	0.307
3	10:04:02	6.842	0.060	4.639	5.061	0.009	0.144	-0.175	0.057	0.036	0.263
x		5.644	0.056	4.743	3.675	0.016	0.122	-0.144	0.047	0.053	0.289
σ		1.181	0.012	0.921	2.983	0.008	0.020	0.097	0.010	0.021	0.023
%RSD		20.930	21.350	19.420	81.180	48.580	16.090	67.910	20.690	40.130	8.031

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	0.234	0.272	-0.086	-0.084	0.982	2.546	3.791	-0.586	4.809	0.005
2	10:03:35	0.593	0.349	-0.004	-0.534	0.919	2.249	6.200	-0.121	8.062	0.013
3	10:04:02	0.383	0.221	-0.120	-0.314	0.948	2.359	4.717	-0.434	7.661	0.011
x		0.404	0.281	-0.070	-0.311	0.950	2.385	4.903	-0.380	6.844	0.009
σ		0.180	0.064	0.060	0.225	0.031	0.150	1.215	0.237	1.773	0.004
%RSD		44.700	22.900	84.910	72.380	3.316	6.295	24.780	62.350	25.910	45.030

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	101.0%	0.032	0.010	0.011	0.433	0.003	0.006	0.001	0.006	101.2%
2	10:03:35	99.7%	0.024	0.024	0.017	-0.023	0.011	0.010	0.005	0.007	100.2%
3	10:04:02	99.3%	0.027	0.042	0.020	0.178	0.011	0.011	0.005	0.008	98.6%
x		100.0%	0.028	0.025	0.016	0.196	0.008	0.009	0.004	0.007	100.0%
σ		0.9%	0.004	0.016	0.005	0.229	0.005	0.003	0.002	0.001	1.3%
%RSD		0.9	13.920	63.300	28.730	116.900	53.520	32.410	59.950	13.620	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	0.007	0.043	0.027	0.019	-0.015	-0.000	101.0%	0.000	-0.000	0.006
2	10:03:35	0.017	0.031	0.014	0.017	-0.009	0.019	99.2%	-0.001	-0.004	0.001
3	10:04:02	0.004	0.045	0.009	0.018	-0.020	0.028	99.8%	0.016	-0.001	0.002
x		0.009	0.040	0.017	0.018	-0.015	0.016	100.0%	0.005	-0.002	0.003
σ		0.006	0.007	0.009	0.001	0.006	0.015	0.9%	0.009	0.002	0.003
%RSD		69.440	18.110	55.310	7.227	38.530	93.080	0.9	185.100	108.200	109.000

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:03:08	-0.004	0.001	101.2%
2	10:03:35	0.003	0.000	99.4%
3	10:04:02	-0.002	0.001	99.3%
x		-0.001	0.001	100.0%
σ		0.004	0.000	1.1%
%RSD		378.300	46.510	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	100.0%	-0.016	0.225	0.011	-4.287	0.328	0.044	0.019	0.031	-0.012
2	10:09:42	99.4%	0.016	-0.249	-0.038	4.479	-0.545	0.034	0.032	-0.012	0.010
3	10:10:09	100.6%	0.000	0.024	0.027	-0.192	0.218	-0.078	-0.051	-0.019	0.001
x		100.0%	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
σ		0.6%	0.016	0.238	0.034	4.386	0.475	0.068	0.044	0.027	0.011
%RSD		0.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	13.730	11.010	0.735	-0.181	-0.043	99.0%	-0.007	0.015	0.016	-1.971
2	10:09:42	12.940	-7.948	0.173	0.378	0.105	101.3%	-0.009	-0.017	-0.014	0.329
3	10:10:09	13.380	-3.066	-0.908	-0.197	-0.062	99.7%	0.016	0.002	-0.002	1.642
x		13.350	-0.000	-0.000	-0.000	0.000	100.0%	-0.000	-0.000	0.000	-0.000
σ		0.400	9.846	0.835	0.328	0.091	1.2%	0.014	0.016	0.015	1.829
%RSD		2.995	0.000	0.000	0.000	0.000	1.2	0.000	0.000	0.000	0.000

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	0.605	0.005	0.737	3.559	0.006	0.003	-0.069	0.001	0.021	0.024
2	10:09:42	-0.935	0.003	-1.135	-4.706	0.001	-0.001	-0.219	0.005	-0.014	-0.040
3	10:10:09	0.329	-0.008	0.398	1.147	-0.006	-0.003	0.288	-0.006	-0.007	0.016
x		-0.000	0.000	-0.000	0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
σ		0.821	0.007	0.997	4.250	0.006	0.003	0.260	0.006	0.019	0.035
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	0.009	-0.040	0.035	-0.108	-0.107	-0.374	1.137	0.282	-0.781	-0.001
2	10:09:42	-0.017	0.053	-0.026	-0.226	-0.018	0.269	-0.940	-0.213	-0.728	0.001
3	10:10:09	0.008	-0.014	-0.009	0.334	0.125	0.105	-0.198	-0.068	1.509	-0.000
x		0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000
σ		0.015	0.048	0.031	0.295	0.117	0.334	1.053	0.254	1.307	0.001
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	98.9%	-0.001	-0.003	-0.000	0.864	0.002	-0.001	-0.003	-0.002	98.5%
2	10:09:42	101.4%	0.007	0.010	0.000	-0.706	-0.003	-0.001	-0.003	0.002	102.8%
3	10:10:09	99.6%	-0.006	-0.007	-0.000	-0.159	0.001	0.002	0.005	-0.000	98.6%
x		100.0%	0.000	-0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000	100.0%
σ		1.3%	0.007	0.009	0.000	0.797	0.002	0.002	0.005	0.002	2.5%
%RSD		1.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	-0.005	-0.001	-0.001	-0.011	-0.009	-0.003	98.1%	-0.004	-0.005	0.006
2	10:09:42	0.006	0.010	0.003	0.007	0.012	-0.007	103.1%	0.002	0.002	-0.006
3	10:10:09	-0.001	-0.009	-0.002	0.004	-0.003	0.010	98.7%	0.002	0.003	0.001
x		-0.000	-0.000	-0.000	0.000	-0.000	0.000	100.0%	-0.000	-0.000	-0.000
σ		0.006	0.010	0.003	0.010	0.011	0.009	2.7%	0.003	0.004	0.006
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	2.7	0.000	0.000	0.000

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:09:15	0.005	0.003	98.7%
2	10:09:42	-0.007	-0.003	102.8%
3	10:10:09	0.002	0.000	98.5%
x		-0.000	-0.000	100.0%
σ		0.006	0.003	2.4%
%RSD		0.000	0.000	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	97.7%	0.160	19.930	20.010	54.250	159.000	164.700	167.300	167.200	15.840
2	10:15:52	98.5%	0.225	22.130	19.640	52.970	166.000	169.600	163.500	158.500	15.710
3	10:16:19	99.8%	0.159	20.680	19.760	59.600	162.400	170.000	165.300	166.700	16.280
x		98.7%	0.181	20.910	19.810	55.610	162.500	168.100	165.300	164.100	15.940
σ		1.0%	0.038	1.118	0.189	3.518	3.500	2.958	1.913	4.870	0.299
%RSD		1.0	20.730	5.345	0.955	6.326	2.154	1.760	1.157	2.967	1.875

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	52.890	-17.730	163.300	164.600	154.300	101.4%	1.877	2.014	2.007	-6.184
2	10:15:52	53.050	-24.600	162.900	154.400	153.200	103.0%	2.055	2.040	1.993	1.826
3	10:16:19	52.370	-25.550	161.400	144.800	153.700	103.3%	1.910	1.928	2.006	10.180
x		52.770	-22.630	162.600	154.600	153.700	102.5%	1.947	1.994	2.002	1.939
σ		0.354	4.265	0.996	9.925	0.546	1.0%	0.095	0.059	0.008	8.180
%RSD		0.670	18.850	0.613	6.420	0.355	1.0	4.863	2.934	0.378	421.900

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	22.790	1.969	21.810	17.290	0.403	1.954	1.930	1.973	1.977	3.888
2	10:15:52	20.340	1.991	20.460	12.520	0.422	1.892	1.690	2.048	1.984	4.122
3	10:16:19	22.550	1.898	19.250	13.180	0.406	2.019	1.544	2.001	1.876	4.107
x		21.890	1.953	20.500	14.330	0.410	1.955	1.721	2.007	1.945	4.039
σ		1.348	0.049	1.280	2.583	0.010	0.064	0.195	0.038	0.060	0.131
%RSD		6.157	2.488	6.241	18.030	2.483	3.251	11.340	1.886	3.109	3.241

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	3.868	4.237	0.709	1.781	-0.096	-0.169	9.723	2.164	1.124	3.876
2	10:15:52	3.781	4.229	0.610	1.799	0.180	-0.258	7.323	1.640	0.656	3.745
3	10:16:19	4.037	3.951	0.707	1.882	-0.001	-0.417	9.955	2.259	-0.817	3.771
x		3.896	4.139	0.675	1.821	0.027	-0.281	9.000	2.021	0.321	3.797
σ		0.130	0.163	0.057	0.054	0.140	0.126	1.457	0.333	1.013	0.069
%RSD		3.339	3.931	8.420	2.954	513.200	44.660	16.190	16.490	315.500	1.826

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	101.8%	3.925	4.030	3.895	-0.264	0.334	0.372	0.056	0.004	101.9%
2	10:15:52	102.3%	4.129	4.122	3.820	-0.421	0.410	0.367	0.034	0.040	102.4%
3	10:16:19	102.8%	3.855	4.195	3.968	-0.739	0.361	0.378	0.018	0.018	103.1%
x		102.3%	3.970	4.116	3.894	-0.475	0.369	0.373	0.036	0.021	102.5%
σ		0.5%	0.142	0.082	0.074	0.242	0.038	0.006	0.019	0.018	0.6%
%RSD		0.5	3.582	1.999	1.896	51.040	10.430	1.482	54.010	85.490	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	5.634	7.871	0.779	0.851	2.159	1.871	101.1%	0.174	0.185	0.426
2	10:15:52	5.466	7.504	0.800	0.834	1.985	2.000	103.2%	0.178	0.200	0.377
3	10:16:19	5.582	7.883	0.796	0.859	1.982	2.029	102.5%	0.170	0.204	0.421
x		5.561	7.753	0.792	0.848	2.042	1.967	102.3%	0.174	0.196	0.408
σ		0.086	0.215	0.011	0.012	0.101	0.084	1.1%	0.004	0.010	0.027
%RSD		1.544	2.777	1.371	1.465	4.950	4.296	1.1	2.406	5.240	6.533

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:15:24	0.375	0.403	102.0%
2	10:15:52	0.358	0.375	102.8%
3	10:16:19	0.417	0.417	102.8%
x		0.383	0.399	102.5%
σ		0.030	0.022	0.5%
%RSD		7.845	5.421	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	97.9%	0.452	25.270	25.400	59.740	206.800	53.120	53.970	53.800	40.860
2	10:22:02	98.7%	0.401	26.070	24.300	47.830	198.700	51.780	51.540	52.800	41.220
3	10:22:29	101.0%	0.434	26.940	24.900	63.840	206.300	54.090	52.760	53.160	40.320
x		99.2%	0.429	26.090	24.870	57.140	204.000	53.000	52.750	53.250	40.800
σ		1.6%	0.026	0.834	0.552	8.321	4.554	1.161	1.216	0.504	0.453
%RSD		1.6	6.014	3.196	2.222	14.560	2.233	2.191	2.305	0.947	1.110

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	113.100	-0.546	210.300	200.700	188.100	99.4%	5.112	5.035	0.993	-4.406
2	10:22:02	113.200	-27.760	207.100	199.400	200.300	99.9%	5.065	5.259	1.125	-66.960
3	10:22:29	110.200	-35.460	200.700	224.100	196.600	102.1%	5.154	4.964	0.966	32.610
x		112.200	-21.260	206.100	208.100	195.000	100.5%	5.110	5.086	1.028	-12.920
σ		1.718	18.350	4.902	13.900	6.215	1.4%	0.045	0.154	0.085	50.330
%RSD		1.532	86.300	2.379	6.678	3.187	1.4	0.873	3.028	8.260	389.500

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	23.850	4.853	21.780	26.350	5.133	4.853	4.765	1.023	1.024	9.907
2	10:22:02	21.800	5.021	21.470	17.710	4.889	5.135	5.034	0.999	0.889	9.685
3	10:22:29	20.280	4.888	20.660	15.700	4.853	4.714	4.397	1.067	1.037	9.844
x		21.980	4.921	21.300	19.920	4.958	4.901	4.732	1.030	0.983	9.812
σ		1.791	0.088	0.578	5.660	0.152	0.215	0.320	0.034	0.082	0.114
%RSD		8.149	1.796	2.714	28.410	3.065	4.378	6.757	3.332	8.316	1.164

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	9.517	9.559	0.958	1.576	-0.002	0.173	5.659	1.382	-3.556	0.010
2	10:22:02	9.805	9.780	0.955	0.853	-0.066	-0.280	3.311	0.762	-0.277	0.005
3	10:22:29	9.830	10.110	1.039	0.256	0.065	-0.270	3.174	0.746	-1.124	0.011
x		9.717	9.816	0.984	0.895	-0.001	-0.126	4.048	0.964	-1.652	0.008
σ		0.174	0.276	0.047	0.661	0.065	0.259	1.397	0.363	1.702	0.003
%RSD		1.785	2.815	4.825	73.860	7742.000	205.900	34.510	37.620	103.000	39.110

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	98.8%	10.080	9.799	9.738	0.050	0.963	0.928	0.069	0.108	98.1%
2	10:22:02	101.1%	9.947	10.150	10.080	1.364	0.975	0.932	0.092	0.115	100.5%
3	10:22:29	105.0%	10.140	9.489	9.636	-0.893	0.964	0.970	0.052	0.094	104.3%
x		101.6%	10.060	9.811	9.818	0.174	0.967	0.944	0.071	0.105	101.0%
σ		3.1%	0.098	0.328	0.234	1.133	0.007	0.023	0.020	0.011	3.1%
%RSD		3.0	0.977	3.347	2.381	652.600	0.711	2.471	28.350	10.080	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	3.536	4.960	0.912	0.948	5.101	4.949	98.0%	0.514	0.502	0.999
2	10:22:02	3.742	5.063	0.931	0.919	5.098	4.929	101.4%	0.465	0.493	0.949
3	10:22:29	3.633	4.986	0.907	0.934	4.871	4.896	104.2%	0.521	0.480	1.018
x		3.637	5.003	0.917	0.934	5.023	4.925	101.2%	0.500	0.492	0.989
σ		0.103	0.054	0.013	0.014	0.132	0.027	3.1%	0.031	0.011	0.035
%RSD		2.825	1.078	1.375	1.506	2.624	0.550	3.1	6.135	2.231	3.580

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:21:35	1.001	0.983	97.4%
2	10:22:02	0.934	0.947	100.1%
3	10:22:29	1.018	1.005	104.0%
x		0.985	0.978	100.5%
σ		0.045	0.029	3.3%
%RSD		4.529	2.990	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	101.4%	0.358	50.940	49.570	58.910	403.300	411.000	406.900	414.100	39.560
2	10:28:13	100.0%	0.385	54.790	51.880	63.580	415.000	424.500	419.000	420.900	41.020
3	10:28:40	98.4%	0.495	51.910	50.730	65.000	409.300	429.200	409.600	414.200	39.570
x		99.9%	0.413	52.550	50.720	62.490	409.200	421.500	411.800	416.400	40.050
σ		1.5%	0.073	2.000	1.155	3.186	5.861	9.456	6.332	3.885	0.841
%RSD		1.5	17.600	3.807	2.276	5.098	1.432	2.243	1.537	0.933	2.100

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	108.300	-42.330	418.800	413.400	388.700	101.8%	4.487	5.005	4.924	5.719
2	10:28:13	113.200	-23.420	424.400	399.200	388.900	100.5%	5.343	5.044	5.053	14.260
3	10:28:40	111.500	-27.890	411.400	430.000	399.600	99.5%	5.579	5.098	5.205	-32.960
x		111.000	-31.210	418.200	414.200	392.400	100.6%	5.136	5.049	5.061	-4.325
σ		2.510	9.883	6.514	15.410	6.219	1.2%	0.575	0.047	0.141	25.160
%RSD		2.262	31.660	1.558	3.720	1.585	1.1	11.190	0.928	2.776	581.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	53.760	4.726	52.660	54.920	1.005	5.122	5.526	4.997	4.999	10.060
2	10:28:13	54.490	4.769	52.620	53.080	0.994	4.927	4.365	4.996	5.000	9.808
3	10:28:40	55.760	4.916	52.840	52.360	0.981	5.040	4.633	5.000	5.016	10.520
x		54.670	4.804	52.710	53.450	0.993	5.029	4.841	4.998	5.005	10.130
σ		1.012	0.099	0.117	1.323	0.012	0.098	0.608	0.002	0.009	0.361
%RSD		1.851	2.069	0.222	2.475	1.212	1.948	12.560	0.046	0.190	3.559

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	8.910	9.960	1.681	5.539	-0.214	0.039	20.480	4.642	-0.356	9.493
2	10:28:13	10.360	9.880	1.929	4.542	0.171	-0.015	20.740	4.654	0.178	9.477
3	10:28:40	9.608	9.956	1.959	5.180	-0.148	0.059	23.100	5.222	-0.340	9.508
x		9.627	9.932	1.856	5.087	-0.064	0.027	21.440	4.839	-0.173	9.493
σ		0.726	0.045	0.153	0.505	0.206	0.038	1.443	0.331	0.304	0.016
%RSD		7.541	0.455	8.225	9.934	323.200	139.700	6.729	6.849	175.800	0.167

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	98.6%	9.727	9.695	9.684	0.257	0.953	0.928	0.084	0.095	99.0%
2	10:28:13	100.4%	9.646	10.030	9.806	-0.722	0.972	0.937	0.066	0.153	101.0%
3	10:28:40	102.2%	10.010	9.433	9.904	0.164	0.905	1.015	0.136	0.112	101.9%
x		100.4%	9.796	9.718	9.798	-0.101	0.944	0.960	0.096	0.120	100.6%
σ		1.8%	0.194	0.298	0.110	0.540	0.035	0.048	0.036	0.030	1.5%
%RSD		1.8	1.978	3.064	1.126	537.100	3.667	4.953	38.060	24.660	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	13.550	19.610	2.038	1.943	4.965	5.044	98.1%	0.441	0.458	0.963
2	10:28:13	13.830	19.130	1.996	1.846	4.755	5.323	100.4%	0.537	0.471	0.957
3	10:28:40	13.700	19.020	2.041	1.982	5.193	4.817	102.3%	0.472	0.499	0.979
x		13.690	19.250	2.025	1.924	4.971	5.062	100.2%	0.484	0.476	0.966
σ		0.138	0.316	0.025	0.070	0.219	0.253	2.1%	0.049	0.021	0.011
%RSD		1.010	1.639	1.225	3.643	4.407	5.007	2.1	10.170	4.456	1.161

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:27:45	1.020	0.968	97.1%
2	10:28:13	0.949	0.959	101.4%
3	10:28:40	1.017	0.989	102.1%
x		0.995	0.972	100.2%
σ		0.040	0.016	2.7%
%RSD		4.051	1.606	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	98.4%	2.112	251.600	245.200	60.390	T 1957.000	T 2014.000	2047.000	2062.000	203.500
2	10:34:21	97.0%	2.213	258.800	256.700	69.520	T 2009.000	T 2037.000	2055.000	2082.000	200.500
3	10:34:48	98.5%	1.997	254.300	256.000	60.480	T 2016.000	T 2049.000	2065.000	2045.000	190.200
x		98.0%	2.107	254.900	252.600	63.470	T 1994.000	T 2033.000	2056.000	2063.000	198.000
σ		0.9%	0.108	3.631	6.457	5.241	T 32.200	T 17.730	9.236	18.590	6.978
%RSD		0.9	5.118	1.424	2.556	8.259	T 1.615	T 0.872	0.449	0.901	3.524

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	512.900	-35.150	T 2008.000	2115.000	1957.000	99.9%	25.470	24.770	24.360	87.610
2	10:34:21	520.900	-38.470	T 2042.000	2114.000	1966.000	100.0%	25.390	24.760	24.360	184.000
3	10:34:48	502.400	-50.010	T 2005.000	2121.000	1946.000	102.6%	23.490	24.310	24.420	76.900
x		512.000	-41.210	T 2018.000	2117.000	1956.000	100.8%	24.780	24.610	24.380	116.200
σ		9.285	7.802	T 20.290	3.769	10.280	1.5%	1.122	0.263	0.036	58.970
%RSD		1.813	18.930	T 1.005	0.178	0.526	1.5	4.527	1.069	0.146	50.770

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	272.300	23.970	265.900	274.300	5.153	24.560	24.820	24.410	24.150	48.670
2	10:34:21	277.400	24.550	272.300	281.400	4.914	24.760	25.030	25.160	24.800	49.280
3	10:34:48	270.800	24.140	260.000	255.300	4.854	24.110	24.970	24.540	24.440	48.880
x		273.500	24.220	266.100	270.300	4.974	24.480	24.940	24.700	24.460	48.950
σ		3.429	0.296	6.145	13.490	0.159	0.332	0.105	0.399	0.323	0.310
%RSD		1.254	1.221	2.309	4.991	3.188	1.356	0.422	1.615	1.319	0.633

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	49.720	50.270	9.040	24.350	0.093	-0.245	101.000	22.550	2.496	48.080
2	10:34:21	50.680	48.260	9.949	24.920	-0.036	0.170	118.200	26.540	1.672	47.850
3	10:34:48	46.650	48.910	9.824	24.360	-0.120	-0.261	112.600	25.180	-0.500	48.210
x		49.020	49.140	9.604	24.540	-0.021	-0.112	110.600	24.760	1.223	48.050
σ		2.103	1.028	0.493	0.324	0.108	0.244	8.777	2.031	1.548	0.185
%RSD		4.290	2.091	5.130	1.320	518.000	218.400	7.938	8.205	126.600	0.385

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	100.5%	49.670	51.260	49.050	0.848	4.782	4.776	0.469	0.366	101.3%
2	10:34:21	100.2%	49.190	49.560	49.400	0.952	4.741	4.833	0.471	0.598	100.7%
3	10:34:48	100.9%	50.380	51.820	49.400	2.463	4.734	4.712	0.451	0.586	102.2%
x		100.5%	49.750	50.880	49.280	1.421	4.753	4.774	0.464	0.517	101.4%
σ		0.3%	0.601	1.178	0.205	0.904	0.026	0.061	0.011	0.131	0.8%
%RSD		0.3	1.208	2.316	0.415	63.620	0.546	1.273	2.362	25.290	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	70.160	98.130	9.697	10.170	24.940	25.010	101.0%	2.448	2.422	4.884
2	10:34:21	69.120	97.920	10.020	10.130	25.250	25.890	99.9%	2.530	2.458	4.965
3	10:34:48	69.840	99.440	10.030	10.420	25.370	25.220	103.0%	2.543	2.379	4.850
x		69.700	98.500	9.917	10.240	25.190	25.370	101.3%	2.507	2.420	4.900
σ		0.533	0.825	0.191	0.155	0.222	0.459	1.6%	0.052	0.040	0.059
%RSD		0.765	0.838	1.924	1.510	0.880	1.809	1.5	2.062	1.638	1.204

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:33:54	5.059	4.914	100.6%
2	10:34:21	5.102	4.946	98.7%
3	10:34:48	5.008	4.983	103.3%
x		5.057	4.948	100.9%
σ		0.047	0.034	2.3%
%RSD		0.931	0.694	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	97.8%	248.100	252.800	248.500	71.220	254.400	260.800	252.600	255.200	244.900
2	10:40:29	98.3%	243.900	254.700	249.400	68.610	258.400	265.000	256.400	258.000	253.900
3	10:40:56	96.8%	258.500	253.600	254.500	67.490	257.400	262.200	259.700	261.300	250.200
x		97.6%	250.100	253.700	250.800	69.110	256.700	262.700	256.200	258.200	249.700
σ		0.8%	7.510	0.946	3.249	1.913	2.100	2.110	3.528	3.036	4.486
%RSD		0.8	3.002	0.373	1.296	2.768	0.818	0.803	1.377	1.176	1.797

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	256.700	-66.140	261.800	603.100	410.900	100.1%	246.400	244.300	247.400	1511.000
2	10:40:29	264.000	-62.530	264.100	610.300	410.000	98.4%	250.900	249.500	251.600	1354.000
3	10:40:56	265.800	-59.200	257.500	560.200	406.000	100.1%	247.400	252.400	250.900	1252.000
x		262.200	-62.620	261.100	591.200	409.000	99.5%	248.200	248.700	250.000	1373.000
σ		4.843	3.470	3.319	27.110	2.646	1.0%	2.359	4.080	2.254	130.500
%RSD		1.847	5.540	1.271	4.586	0.647	1.0	0.950	1.640	0.902	9.506

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	373.600	247.900	267.600	251.400	247.400	249.200	251.600	252.100	246.800	250.600
2	10:40:29	369.000	250.500	272.900	260.800	249.200	249.700	250.800	251.200	246.800	246.700
3	10:40:56	366.700	247.700	264.500	252.800	255.800	251.900	243.500	248.900	240.500	250.200
x		369.800	248.700	268.300	255.000	250.800	250.200	248.600	250.700	244.700	249.200
σ		3.489	1.565	4.232	5.058	4.407	1.439	4.449	1.649	3.617	2.136
%RSD		0.944	0.629	1.577	1.984	1.757	0.575	1.789	0.658	1.478	0.857

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	250.200	254.900	243.900	251.700	0.054	-0.260	1123.000	252.100	9.571	242.300
2	10:40:29	246.400	250.800	245.900	249.600	0.127	0.396	1114.000	252.200	8.327	242.800
3	10:40:56	250.800	256.500	255.600	250.500	0.205	-0.012	1087.000	245.900	12.750	244.100
x		249.100	254.100	248.500	250.600	0.129	0.041	1108.000	250.100	10.220	243.100
σ		2.408	2.922	6.268	1.083	0.075	0.331	18.340	3.611	2.283	0.923
%RSD		0.967	1.150	2.523	0.432	58.550	798.900	1.655	1.444	22.350	0.380

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	98.1%	247.300	249.500	246.100	241.600	241.900	244.600	247.500	244.900	99.0%
2	10:40:29	99.6%	248.100	247.900	245.900	241.600	243.000	244.900	244.100	244.200	99.2%
3	10:40:56	103.2%	249.700	250.600	248.900	245.800	245.900	249.000	252.900	249.500	102.6%
x		100.3%	248.400	249.400	247.000	243.000	243.600	246.200	248.200	246.200	100.3%
σ		2.7%	1.194	1.363	1.674	2.409	2.045	2.447	4.454	2.848	2.0%
%RSD		2.6	0.481	0.546	0.678	0.991	0.840	0.994	1.795	1.157	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	247.700	245.600	242.400	244.500	249.000	247.200	99.6%	246.500	250.200	244.400
2	10:40:29	248.600	245.600	241.900	247.000	250.500	251.200	98.5%	247.200	249.800	247.200
3	10:40:56	251.600	247.600	249.000	247.400	250.100	248.200	103.5%	248.700	251.200	247.400
x		249.300	246.300	244.400	246.300	249.900	248.800	100.6%	247.500	250.400	246.300
σ		2.063	1.118	3.944	1.565	0.792	2.085	2.6%	1.123	0.712	1.719
%RSD		0.827	0.454	1.614	0.635	0.317	0.838	2.6	0.454	0.284	0.698

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:40:02	245.100	246.700	98.9%
2	10:40:29	247.100	248.800	99.2%
3	10:40:56	248.000	249.500	104.0%
x		246.700	248.300	100.7%
σ		1.509	1.464	2.9%
%RSD		0.612	0.590	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	96.9%	497.500	M 506.000	M 504.200	68.380	503.900	522.300	513.400	525.800	T 498.600
2	10:46:40	97.1%	M 505.300	493.700	493.700	55.660	502.400	528.600	516.300	524.100	500.000
3	10:47:07	97.7%	486.500	493.900	M 500.700	59.630	495.300	512.200	505.900	504.300	TM 501.500
x		97.2%	M 496.400	M 497.900	M 499.500	61.220	500.500	521.000	511.900	518.100	TM 500.000
σ		0.4%	M 9.468	M 7.050	M 5.360	6.508	4.569	8.260	5.387	11.930	TM 1.426
%RSD		0.4	M 1.907	M 1.416	M 1.073	10.630	0.913	1.585	1.052	2.303	TM 0.285

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	518.900	-89.920	506.500	1113.000	808.500	99.1%	498.300	TM 507.100	499.300	2366.000
2	10:46:40	506.700	-90.780	507.200	1114.000	802.000	98.8%	M 504.800	T 498.800	M 510.900	876.800
3	10:47:07	522.400	-63.010	521.700	1136.000	807.800	98.2%	M 507.100	T 499.900	T 498.400	4334.000
x		516.000	-81.230	511.800	1121.000	806.100	98.7%	M 503.400	TM 501.900	TM 502.900	2526.000
σ		8.268	15.790	8.621	13.130	3.574	0.5%	M 4.576	TM 4.527	TM 6.954	1734.000
%RSD		1.602	19.440	1.684	1.172	0.443	0.5	M 0.909	TM 0.902	TM 1.383	68.660

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	758.200	TM 500.700	T 527.200	513.000	TM 501.300	498.900	493.300	M 510.700	497.500	495.200
2	10:46:40	754.900	TM 500.200	T 530.500	517.400	TM 506.600	M 500.800	498.600	M 514.100	498.200	M 505.900
3	10:47:07	758.500	T 499.200	T 535.000	529.300	T 497.400	M 503.800	M 510.100	M 512.400	M 502.200	M 500.400
x		757.200	TM 500.000	T 530.900	519.900	TM 501.700	M 501.100	M 500.700	M 512.400	M 499.300	M 500.500
σ		2.003	TM 0.747	T 3.896	8.441	TM 4.627	M 2.440	M 8.549	M 1.682	M 2.515	M 5.386
%RSD		0.265	TM 0.149	T 0.734	1.624	TM 0.922	M 0.487	M 1.708	M 0.328	M 0.504	M 1.076

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	497.600	M 510.200	M 503.300	496.300	0.149	-0.236	2226.000	M 505.000	18.190	TM 502.200
2	10:46:40	M 503.500	M 518.600	M 510.200	M 504.000	-0.010	0.321	2206.000	498.200	16.600	TM 504.000
3	10:47:07	M 500.500	M 509.600	496.800	498.100	0.111	0.195	2205.000	496.700	20.620	TM 504.800
x		M 500.500	M 512.800	M 503.400	M 499.500	0.084	0.093	2212.000	M 500.000	18.470	TM 503.600
σ		M 2.958	M 5.018	M 6.693	M 4.036	0.083	0.292	12.030	M 4.423	2.027	TM 1.328
%RSD		M 0.591	M 0.979	M 1.330	M 0.808	99.720	312.800	0.544	M 0.885	10.970	TM 0.264

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	100.1%	499.400	M 501.200	M 501.800	M 506.300	M 505.400	M 502.400	M 501.500	M 501.100	99.5%
2	10:46:40	100.6%	M 501.900	M 500.700	498.800	M 503.400	M 502.000	M 502.400	499.800	499.100	100.4%
3	10:47:07	98.0%	M 501.300	M 508.700	M 504.200	M 500.800	M 502.200	M 500.900	M 501.300	M 500.500	98.3%
x		99.6%	M 500.800	M 503.500	M 501.600	M 503.500	M 503.200	M 501.900	M 500.900	M 500.200	99.4%
σ		1.4%	M 1.312	M 4.493	M 2.720	M 2.790	M 1.878	M 0.865	M 0.927	M 1.039	1.0%
%RSD		1.4	M 0.262	M 0.892	M 0.542	M 0.554	M 0.373	M 0.172	M 0.185	M 0.208	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	M 506.100	M 503.200	M 505.000	M 508.100	M 504.100	M 504.700	99.7%	M 506.600	TM 502.900	M 504.800
2	10:46:40	M 506.400	M 502.100	M 505.700	M 500.900	495.000	494.900	102.8%	M 502.000	T 497.300	M 501.900
3	10:47:07	M 507.500	M 501.200	497.600	496.500	494.600	M 502.100	99.6%	499.900	T 493.800	498.800
x		M 506.700	M 502.200	M 502.800	M 501.800	M 497.900	M 500.600	100.7%	M 502.800	TM 498.000	M 501.800
σ		M 0.719	M 0.979	M 4.495	M 5.875	M 5.366	M 5.088	1.8%	M 3.423	TM 4.578	M 2.970
%RSD		M 0.142	M 0.195	M 0.894	M 1.171	M 1.078	M 1.016	1.8	M 0.681	TM 0.919	M 0.592

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:46:13	M 507.500	TM 504.400	T 100.7%
2	10:46:40	M 500.600	TM 500.100	102.6%
3	10:47:07	496.800	T 498.000	99.3%
x		M 501.600	TM 500.800	T 100.9%
σ		M 5.388	TM 3.290	T 1.6%
%RSD		M 1.074	TM 0.657	T 1.6

cal5 MW-10933 04/30/2019 10:51:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	91.8%	0.016	3.476	3.277	66.990	┬49870.000	┬50670.000	┬50450.000	┬50500.000	0.771
2	10:52:51	92.9%	0.062	2.836	2.831	79.000	┬50110.000	┬50220.000	┬49950.000	┬49980.000	0.683
3	10:53:19	91.8%	0.051	2.883	2.958	70.690	┬51350.000	┬51020.000	┬50440.000	┬50600.000	0.728
x		92.2%	0.043	3.065	3.022	72.220	┬50450.000	┬50640.000	┬50280.000	┬50360.000	0.727
σ		0.6%	0.024	0.357	0.229	6.153	┬794.800	┬401.400	┬284.700	┬332.600	0.044
%RSD		0.7	55.390	11.640	7.591	8.519	┬1.576	┬0.793	┬0.566	┬0.661	6.000
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	┬4929.000	-70.680	┬48440.000	49660.000	┬49750.000	99.3%	1.004	-0.009	0.218	10.650
2	10:52:51	┬4797.000	-44.300	┬49830.000	50520.000	┬50430.000	96.4%	1.311	-0.051	0.173	31.960
3	10:53:19	┬5007.000	-18.510	┬51610.000	50120.000	┬50030.000	96.7%	1.207	-0.106	0.216	69.280
x		┬4911.000	-44.490	┬49960.000	50100.000	┬50070.000	97.4%	1.174	-0.055	0.202	37.300
σ		┬106.200	26.080	┬1586.000	431.800	┬344.100	1.6%	0.156	0.049	0.025	29.680
%RSD		┬2.163	58.620	┬3.175	0.862	┬0.687	1.6	13.290	88.700	12.400	79.570
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	┬49670.000	0.783	┬50360.000	┬49130.000	2.437	2.254	1.504	0.237	0.252	0.991
2	10:52:51	┬50660.000	0.768	┬50690.000	┬50880.000	2.419	2.327	1.597	0.175	0.279	1.006
3	10:53:19	┬49740.000	0.772	┬50000.000	┬49840.000	2.361	2.386	1.160	0.149	0.313	1.040
x		┬50020.000	0.774	┬50350.000	┬49950.000	2.406	2.322	1.420	0.187	0.281	1.012
σ		┬551.700	0.007	┬345.800	┬883.700	0.040	0.066	0.230	0.045	0.031	0.025
%RSD		┬1.103	0.944	┬0.687	┬1.769	1.658	2.840	16.220	24.120	10.990	2.508
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	1.436	1.232	0.333	-0.211	0.228	-0.068	0.654	0.160	0.244	0.364
2	10:52:51	1.115	1.111	0.293	0.090	0.279	-0.051	0.834	0.172	0.631	0.381
3	10:53:19	1.480	1.121	0.075	0.098	0.692	-0.009	-3.080	-0.654	-1.278	0.429
x		1.344	1.154	0.234	-0.008	0.400	-0.043	-0.531	-0.107	-0.134	0.392
σ		0.199	0.067	0.139	0.176	0.254	0.030	2.210	0.473	1.009	0.033
%RSD		14.830	5.808	59.280	2290.000	63.640	71.340	416.100	440.600	752.200	8.542
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	96.3%	0.172	0.183	0.179	0.607	0.004	0.017	0.001	0.017	95.6%
2	10:52:51	97.4%	0.175	0.181	0.139	-0.484	0.011	0.003	0.009	0.001	97.3%
3	10:53:19	96.5%	0.149	0.210	0.153	-0.420	0.006	0.007	0.025	0.006	94.4%
x		96.8%	0.166	0.191	0.157	-0.099	0.007	0.009	0.012	0.008	95.8%
σ		0.6%	0.014	0.016	0.020	0.612	0.004	0.007	0.013	0.008	1.5%
%RSD		0.6	8.530	8.599	12.760	617.700	57.140	77.240	108.800	100.600	1.5
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	0.118	0.144	0.435	0.438	0.003	0.016	98.3%	0.015	0.004	0.042
2	10:52:51	0.144	0.188	0.462	0.436	-0.020	-0.013	100.4%	-0.000	0.005	0.048
3	10:53:19	0.126	0.183	0.392	0.396	-0.008	0.007	97.1%	0.007	0.005	0.029
x		0.129	0.172	0.430	0.423	-0.009	0.004	98.6%	0.007	0.005	0.040
σ		0.013	0.024	0.035	0.024	0.011	0.015	1.7%	0.008	0.001	0.010
%RSD		10.180	13.930	8.147	5.634	131.600	419.800	1.7	104.900	21.940	24.590
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	10:52:24	0.033	0.040	95.0%							
2	10:52:51	0.029	0.040	95.1%							
3	10:53:19	0.024	0.033	93.0%							
x		0.029	0.038	94.4%							
σ		0.005	0.004	1.2%							
%RSD		16.190	10.730	1.3							

cal6 MW-10934 04/30/2019 10:58:08

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	90.5%	-0.017	1.846	1.537	81.570	T 99280.000	T 98600.000	T 99240.000	T 99660.000	0.956
2	10:59:02	89.8%	0.039	1.968	1.665	85.610	TM 100700.000	T 99570.000	T 98880.000	T 99680.000	0.869
3	10:59:30	90.2%	0.050	1.919	1.539	77.040	T 99940.000	TM 100900.000	TM 101500.000	TM 100100.000	0.814
x		90.2%	0.024	1.911	1.581	81.410	TM 99960.000	TM 99680.000	TM 99860.000	TM 99820.000	0.880
σ		0.4%	0.036	0.062	0.073	4.285	TM 690.900	TM 1139.000	TM 1396.000	TM 259.800	0.072
%RSD		0.4	149.400	3.228	4.628	5.263	TM 0.691	TM 1.143	TM 1.398	TM 0.260	8.152
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	T 9752.000	-28.290	T 99820.000	99850.000	T 99610.000	95.3%	2.355	-0.120	0.492	81.040
2	10:59:02	TM 10260.000	-27.770	TM 100100.000	99710.000	T 99260.000	96.8%	2.131	-0.054	0.457	36.060
3	10:59:30	TM 10110.000	-36.150	T 99730.000	M 100300.000	TM 101000.000	96.6%	2.261	-0.077	0.473	49.900
x		TM 10040.000	-30.740	TM 99890.000	M 99950.000	TM 99940.000	96.2%	2.249	-0.084	0.474	55.670
σ		TM 263.400	4.696	TM 192.500	M 300.100	TM 893.900	0.8%	0.112	0.033	0.017	23.040
%RSD		TM 2.623	15.280	TM 0.193	M 0.300	TM 0.894	0.8	4.998	39.820	3.616	41.380
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	T 99200.000	1.568	T 98100.000	T 98000.000	4.679	4.942	3.853	0.430	0.643	3.077
2	10:59:02	TM 100200.000	1.573	TM 100000.000	T 99220.000	4.634	4.614	3.714	0.413	0.524	3.287
3	10:59:30	TM 100600.000	1.481	TM 101300.000	T 99040.000	4.770	4.532	3.499	0.367	0.588	3.182
x		TM 99990.000	1.541	TM 99830.000	T 98750.000	4.694	4.696	3.689	0.403	0.585	3.182
σ		TM 710.400	0.052	TM 1634.000	T 662.700	0.069	0.217	0.178	0.033	0.060	0.105
%RSD		TM 0.711	3.351	TM 1.636	T 0.671	1.475	4.623	4.827	8.092	10.220	3.305
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	2.981	2.436	0.456	0.277	1.326	0.482	-1.811	-0.385	-0.154	0.716
2	10:59:02	2.688	2.945	0.422	0.518	1.129	0.304	-2.786	-0.580	-1.382	0.773
3	10:59:30	3.439	3.124	0.418	0.330	1.254	-0.169	-1.168	-0.223	-0.208	0.769
x		3.036	2.835	0.432	0.375	1.236	0.206	-1.922	-0.396	-0.581	0.753
σ		0.378	0.357	0.021	0.127	0.100	0.337	0.815	0.179	0.694	0.032
%RSD		12.450	12.590	4.902	33.810	8.055	163.800	42.400	45.220	119.400	4.260
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	92.8%	0.183	0.201	0.164	0.130	0.013	0.015	0.035	0.010	91.0%
2	10:59:02	94.3%	0.157	0.164	0.156	0.571	0.010	0.007	0.009	0.006	92.2%
3	10:59:30	93.4%	0.153	0.152	0.161	-0.008	0.017	0.012	0.022	0.014	90.7%
x		93.5%	0.164	0.172	0.160	0.231	0.013	0.011	0.022	0.010	91.3%
σ		0.8%	0.017	0.026	0.004	0.302	0.004	0.004	0.013	0.004	0.8%
%RSD		0.8	10.160	14.870	2.632	131.000	29.410	39.300	57.920	42.030	0.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	0.055	0.052	0.516	0.542	0.034	0.032	93.1%	0.012	0.010	0.075
2	10:59:02	0.051	0.031	0.484	0.444	0.015	0.014	96.1%	0.024	-0.002	0.083
3	10:59:30	0.022	0.054	0.487	0.482	0.003	0.011	95.9%	0.001	0.007	0.081
x		0.043	0.046	0.496	0.489	0.018	0.019	95.0%	0.012	0.005	0.080
σ		0.018	0.013	0.018	0.049	0.016	0.012	1.6%	0.012	0.006	0.004
%RSD		41.620	27.840	3.580	10.060	88.580	60.710	1.7	96.630	130.100	5.489
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:58:34	0.068	0.083	86.2%							
2	10:59:02	0.065	0.077	89.1%							
3	10:59:30	0.103	0.082	90.0%							
x		0.079	0.081	88.4%							
σ		0.021	0.003	2.0%							
%RSD		26.870	3.889	2.3							

ICV MW11020 PREP 4/30/19 04/30/2019 11:04:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	93.1%	201.600	210.800	204.400	52.380	┬40670.000	┬40150.000	┬40150.000	┬40600.000	202.600
2	11:05:13	93.3%	202.100	215.100	206.900	49.500	┬41350.000	┬40840.000	┬40060.000	┬40200.000	198.800
3	11:05:40	92.4%	204.500	211.200	203.900	50.350	┬40860.000	┬40310.000	┬40110.000	┬39690.000	194.400
x		93.0%	101.368%	212.300	102.526%	50.740	┬102.402%	┬40430.000	┬40110.000	┬100.406%	99.302%
σ		0.5%	n/a	2.346	n/a	1.481	┬n/a	┬365.000	┬45.810	┬n/a	n/a
%RSD		0.5	0.766	1.105	0.783	2.918	┬0.866	┬0.903	┬0.114	┬1.145	2.070

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	┬2103.000	-39.880	┬40970.000	40870.000	┬40570.000	95.5%	203.500	207.300	199.200	972.500
2	11:05:13	┬2094.000	-46.260	┬40930.000	40380.000	┬39980.000	96.2%	201.600	207.700	196.000	1214.000
3	11:05:40	┬2088.000	-67.080	┬40620.000	40300.000	┬40140.000	98.2%	199.500	201.300	197.500	1556.000
x		┬104.745%	-51.070	┬102.093%	40520.000	┬100.574%	96.6%	100.766%	102.714%	98.776%	1247.000
σ		┬n/a	14.220	┬n/a	305.200	┬n/a	1.4%	n/a	n/a	n/a	293.000
%RSD		┬0.363	27.850	┬0.471	0.753	┬0.767	1.5	0.993	1.733	0.798	23.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	┬41030.000	195.500	┬40930.000	┬40270.000	194.000	195.000	195.700	195.900	198.300	200.900
2	11:05:13	┬40330.000	195.600	┬41040.000	┬40380.000	192.800	194.800	189.400	192.700	192.700	196.900
3	11:05:40	┬40730.000	195.300	┬40940.000	┬40070.000	193.800	191.100	189.100	191.400	190.200	197.700
x		┬40700.000	97.723%	┬102.422%	┬100.606%	96.764%	96.819%	191.400	193.400	96.862%	99.251%
σ		┬348.000	n/a	┬n/a	┬n/a	n/a	n/a	3.712	2.322	n/a	n/a
%RSD		┬0.855	0.068	┬0.140	┬0.397	0.329	1.143	1.939	1.201	2.136	1.088

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	192.900	196.100	196.900	203.400	0.564	0.303	886.100	206.200	4.321	195.900
2	11:05:13	194.200	195.400	201.400	201.200	0.558	0.556	876.000	200.900	2.896	194.200
3	11:05:40	197.700	199.600	201.600	198.700	0.873	0.176	879.500	203.100	1.578	194.900
x		194.900	197.000	99.991%	201.100	0.665	0.345	880.500	101.686%	2.932	97.500%
σ		2.450	2.271	n/a	2.339	0.180	0.193	5.167	n/a	1.372	n/a
%RSD		1.257	1.153	1.329	1.163	27.070	56.010	0.587	1.317	46.800	0.436

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	93.4%	205.900	206.800	205.600	199.300	199.500	198.400	199.400	199.100	91.0%
2	11:05:13	96.4%	204.100	206.000	200.700	193.000	192.600	194.900	199.500	196.600	95.1%
3	11:05:40	99.0%	203.600	203.300	203.600	201.600	194.900	195.100	201.800	199.300	96.8%
x		96.3%	102.263%	102.694%	101.642%	198.000	97.832%	196.100	100.108%	99.169%	94.3%
σ		2.8%	n/a	n/a	n/a	4.439	n/a	1.985	n/a	n/a	2.9%
%RSD		2.9	0.601	0.887	1.215	2.242	1.796	1.012	0.670	0.782	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	203.800	203.000	202.100	196.300	199.300	198.700	94.3%	193.000	195.500	194.300
2	11:05:13	202.500	200.600	201.400	199.400	199.700	200.300	98.0%	194.400	196.500	196.000
3	11:05:40	202.900	202.100	205.200	202.100	200.000	198.100	100.9%	192.400	194.600	193.500
x		101.547%	100.962%	202.900	99.637%	99.831%	99.523%	97.7%	193.300	97.764%	194.600
σ		n/a	n/a	2.023	n/a	n/a	n/a	3.3%	1.017	n/a	1.317
%RSD		0.330	0.604	0.997	1.474	0.170	0.577	3.4	0.526	0.476	0.677

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:04:46	193.700	194.900	90.1%
2	11:05:13	193.800	195.200	94.2%
3	11:05:40	192.900	194.200	96.8%
x		193.500	97.398%	93.7%
σ		0.496	n/a	3.4%
%RSD		0.257	0.255	3.6

ICB IM9390-01 04/30/2019 11:10:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	98.8%	0.074	0.613	0.400	-2.260	9.902	8.458	9.273	8.978	-0.032
2	11:11:21	97.2%	0.053	1.439	0.366	9.677	7.423	6.119	5.771	6.163	-0.057
3	11:11:49	99.0%	0.025	0.602	0.218	2.670	6.312	5.170	4.887	5.305	-0.079
x		98.4%	0.051	0.885	0.328	3.362	7.879	6.582	6.644	6.815	-0.056
σ		1.0%	0.024	0.480	0.097	5.998	1.838	1.693	2.319	1.921	0.023
%RSD		1.0	48.420	54.260	29.570	178.400	23.330	25.710	34.910	28.190	41.480

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	17.050	-80.410	18.910	7.365	7.034	99.6%	-0.008	0.030	0.008	1.023
2	11:11:21	16.690	-83.910	18.720	4.208	6.012	99.8%	-0.056	-0.007	0.037	15.490
3	11:11:49	15.780	-101.200	13.520	4.614	4.810	102.8%	-0.057	0.019	0.028	-4.916
x		16.510	-88.500	17.050	5.395	5.952	100.8%	-0.040	0.014	0.024	3.864
σ		0.653	11.130	3.054	1.718	1.113	1.8%	0.028	0.019	0.015	10.490
%RSD		3.953	12.580	17.910	31.840	18.700	1.8	70.310	136.200	60.460	271.500

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	9.044	0.034	10.430	16.660	0.040	0.026	-0.149	-0.002	0.007	0.014
2	11:11:21	8.010	0.046	6.509	15.060	0.040	0.026	-0.554	-0.010	0.030	0.065
3	11:11:49	5.968	0.020	5.306	7.157	0.036	0.022	-0.480	0.010	-0.002	0.009
x		7.674	0.033	7.416	12.960	0.038	0.025	-0.394	-0.000	0.012	0.029
σ		1.565	0.013	2.680	5.088	0.002	0.003	0.216	0.010	0.017	0.031
%RSD		20.400	39.830	36.140	39.260	6.458	11.370	54.700	2368.000	143.400	107.300

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	0.031	0.023	-0.009	-0.491	-0.010	0.194	-0.452	-0.101	-0.446	0.039
2	11:11:21	0.098	0.038	-0.060	0.258	-0.122	0.033	-1.170	-0.309	1.943	0.021
3	11:11:49	0.183	0.010	0.108	0.363	0.073	-0.296	2.684	0.558	-0.015	0.016
x		0.104	0.024	0.013	0.043	-0.020	-0.023	0.354	0.049	0.494	0.025
σ		0.076	0.014	0.086	0.466	0.098	0.250	2.050	0.453	1.273	0.012
%RSD		73.430	57.870	657.000	1074.000	500.600	1077.000	578.600	918.000	257.600	49.010

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	100.4%	0.048	0.037	0.055	0.139	0.028	0.028	0.024	0.035	100.9%
2	11:11:21	102.2%	0.055	0.097	0.032	0.954	0.016	0.022	0.031	0.033	101.7%
3	11:11:49	103.2%	0.044	0.039	0.041	-0.204	0.012	0.019	0.019	0.018	105.8%
x		101.9%	0.049	0.058	0.043	0.296	0.019	0.023	0.025	0.029	102.8%
σ		1.4%	0.006	0.034	0.012	0.595	0.008	0.004	0.006	0.009	2.6%
%RSD		1.4	12.190	58.670	26.900	201.000	44.830	19.550	24.730	31.560	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	0.031	0.052	0.045	0.044	0.007	0.021	101.3%	0.032	0.023	0.029
2	11:11:21	0.025	0.041	0.050	0.037	0.034	0.015	102.5%	0.021	0.018	0.020
3	11:11:49	0.008	0.032	0.033	0.036	0.006	0.020	105.1%	0.016	0.011	0.029
x		0.021	0.042	0.043	0.039	0.015	0.019	103.0%	0.023	0.017	0.026
σ		0.012	0.010	0.008	0.004	0.016	0.003	1.9%	0.008	0.006	0.005
%RSD		54.180	24.170	19.810	10.570	101.900	18.640	1.9	36.420	34.720	20.300

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:10:53	0.029	0.036	101.3%
2	11:11:21	0.027	0.028	102.9%
3	11:11:49	0.026	0.019	105.6%
x		0.027	0.027	103.3%
σ		0.002	0.008	2.2%
%RSD		6.045	30.340	2.1

ICSA MW10984 04/30/2019 11:16:35 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	90.6%	0.011	0.305	0.556	1467.000	TM 102300.000	T 99830.000	T 99550.000	T 99070.000	TM 98080.000
2	11:17:29	93.1%	0.041	1.120	0.501	1475.000	TM 102700.000	T 99510.000	T 98990.000	T 97850.000	TM 98120.000
3	11:17:56	94.2%	-0.003	0.866	0.374	1405.000	TM 102100.000	T 97250.000	T 95370.000	T 95630.000	TM 94970.000
x		92.7%	1.#IO%	0.764	1.#IO%	1449.000	TM 102.369%	T 98860.000	T 97970.000	T 97.516%	TM 97.060%
σ		1.8%	n/a	0.417	n/a	38.070	TM n/a	T 1404.000	T 2268.000	T n/a	TM n/a
%RSD		2.0	141.200	54.610	19.630	2.627	TM 0.309	T 1.420	T 2.315	T 1.788	TM 1.864

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	39.620	T 41310.000	TM 102400.000	M 104200.000	TM 102600.000	93.5%	M 2281.000	-0.877	-1.767	1384.000
2	11:17:29	39.910	T 41250.000	TM 102400.000	M 104400.000	TM 104000.000	94.2%	M 2277.000	-0.948	-1.793	1438.000
3	11:17:56	35.820	T 39800.000	TM 100500.000	M 103100.000	TM 101700.000	95.8%	M 2258.000	-0.817	-1.783	1251.000
x		1.#IO%	T 40790.000	TM 101.780%	M 103900.000	TM 102.778%	94.5%	M 113.608%	-1.#IO%	-1.#IO%	1358.000
σ		n/a	T 853.200	TM n/a	M 714.400	TM n/a	1.2%	M n/a	n/a	n/a	95.950
%RSD		5.934	T 2.092	TM 1.078	M 0.687	TM 1.123	1.2	M 0.547	7.448	0.727	7.067

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	TM 102000.000	0.563	TM 103500.000	TM 102900.000	0.517	1.455	7.148	-1.071	0.873	2.106
2	11:17:29	TM 101700.000	0.571	TM 102300.000	T 99370.000	0.505	1.434	7.657	-1.012	1.285	2.157
3	11:17:56	TM 100300.000	0.507	TM 101800.000	TM 100900.000	0.502	1.267	6.728	-1.027	0.818	2.067
x		TM 101300.000	1.#IO%	TM 102500.000	TM 101.023%	1.#IO%	1.#IO%	7.178	-1.037	1.#IO%	1.#IO%
σ		TM 942.000	n/a	TM 863.600	TM n/a	n/a	n/a	0.465	0.030	n/a	n/a
%RSD		TM 0.930	6.415	TM 0.842	TM 1.733	1.634	7.423	6.484	2.936	25.720	2.144

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	1.764	0.399	-0.064	0.822	1.362	0.684	-0.653	-0.424	11.690	0.791
2	11:17:29	2.170	0.366	0.013	0.184	2.062	1.245	-0.588	-0.532	16.500	0.830
3	11:17:56	1.439	0.379	0.153	-0.021	2.025	0.717	1.567	0.078	10.350	0.812
x		1.791	0.381	1.#IO%	0.328	1.816	0.882	0.109	-1.#IO%	12.850	0.811
σ		0.366	0.016	n/a	0.440	0.394	0.315	1.263	n/a	3.235	0.019
%RSD		20.450	4.289	323.900	133.900	21.690	35.700	1161.000	111.200	25.180	2.354

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	92.9%	TM 2346.000	M 2181.000	TM 2096.000	-1.379	0.017	0.020	-5.121	0.302	93.8%
2	11:17:29	91.5%	TM 2359.000	M 2190.000	TM 2093.000	-2.910	0.018	0.022	-4.756	0.367	94.4%
3	11:17:56	96.5%	TM 2358.000	M 2209.000	TM 2094.000	-1.824	0.015	0.017	-5.062	0.020	99.0%
x		93.6%	TM 2354.000	M 109.689%	TM 2094.000	-2.038	1.#IO%	0.020	-4.980	1.#IO%	95.7%
σ		2.6%	TM 7.119	M n/a	TM 1.126	0.788	n/a	0.002	0.196	n/a	2.9%
%RSD		2.7	TM 0.302	M 0.651	TM 0.054	38.650	8.528	11.930	3.938	80.260	3.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	1.372	0.030	0.207	0.188	0.181	0.158	96.4%	-0.007	-0.012	0.089
2	11:17:29	1.391	0.055	0.226	0.200	0.187	0.155	96.6%	-0.008	-0.015	0.067
3	11:17:56	1.154	0.028	0.186	0.208	0.149	0.130	101.6%	-0.011	-0.012	0.068
x		1.#IO%	1.#IO%	0.206	1.#IO%	0.172	1.#IO%	98.2%	-0.009	-1.#IO%	0.075
σ		n/a	n/a	0.020	n/a	0.021	n/a	3.0%	0.002	n/a	0.013
%RSD		10.090	40.800	9.656	5.297	11.950	10.280	3.0	28.240	12.320	16.800

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:17:02	0.091	0.084	92.9%
2	11:17:29	0.089	0.074	91.5%
3	11:17:56	0.067	0.075	97.0%
x		0.082	1.#IO%	93.8%
σ		0.013	n/a	2.9%
%RSD		16.090	7.648	3.1

CCV MW10994 04/30/2019 11:22:44 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	92.9%	305.100	308.200	305.100	84.330	T63330.000	T63120.000	T63050.000	T63000.000	309.800
2	11:23:39	92.1%	314.600	318.500	314.300	73.650	T63740.000	T63220.000	T63290.000	T62680.000	305.800
3	11:24:06	92.7%	305.200	306.900	306.600	69.180	T62800.000	T62060.000	T60810.000	T61310.000	306.500
x		92.6%	102.773%	103.721%	102.880%	75.720	T105.484%	T62800.000	T62380.000	T103.884%	102.454%
σ		0.4%	n/a	n/a	n/a	7.785	Tn/a	T644.000	T1368.000	Tn/a	n/a
%RSD		0.4	1.771	2.040	1.601	10.280	T0.744	T1.025	T2.193	T1.442	0.701
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	T3280.000	124.900	T62560.000	62720.000	T62070.000	98.9%	310.000	313.000	300.400	399.600
2	11:23:39	T3274.000	113.200	T62550.000	62240.000	T62330.000	98.1%	308.300	311.800	300.600	1908.000
3	11:24:06	T3303.000	92.330	T62020.000	62620.000	T62140.000	99.6%	311.200	317.300	304.600	1432.000
x		T109.524%	110.100	T103.959%	62530.000	T103.632%	98.9%	103.281%	104.690%	100.616%	1247.000
σ		Tn/a	16.480	Tn/a	253.600	Tn/a	0.8%	n/a	n/a	n/a	771.100
%RSD		T0.467	14.960	T0.500	0.406	T0.213	0.8	0.482	0.924	0.795	61.860
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	T61920.000	296.100	T62290.000	T61560.000	297.300	286.100	286.100	283.500	285.700	294.900
2	11:23:39	T62360.000	298.900	T62810.000	T61820.000	295.900	286.900	286.500	284.600	286.300	294.200
3	11:24:06	T61310.000	298.000	T62650.000	T61400.000	298.300	287.900	280.700	283.500	276.200	292.900
x		T61870.000	99.225%	T62580.000	T102.661%	99.046%	95.663%	284.400	283.900	94.250%	97.996%
σ		T525.500	n/a	T262.400	Tn/a	n/a	n/a	3.231	0.608	n/a	n/a
%RSD		T0.850	0.472	T0.419	T0.341	0.398	0.318	1.136	0.214	2.013	0.349
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	297.900	295.100	297.000	296.300	0.626	0.318	1304.000	298.600	3.244	301.600
2	11:23:39	299.500	294.400	295.400	290.900	0.856	-0.351	1301.000	295.900	4.233	300.900
3	11:24:06	292.100	298.000	302.800	290.300	1.259	0.540	1273.000	290.000	6.855	299.300
x		296.500	295.800	99.470%	292.500	0.914	0.169	1293.000	98.278%	4.777	100.210%
σ		3.870	1.888	n/a	3.277	0.320	0.464	17.240	n/a	1.866	n/a
%RSD		1.305	0.638	1.294	1.120	35.060	274.800	1.333	1.487	39.060	0.394
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	97.0%	314.600	319.200	315.700	299.500	290.800	290.400	300.400	300.700	96.1%
2	11:23:39	95.9%	316.700	320.700	316.600	299.600	288.200	289.400	299.000	298.400	95.7%
3	11:24:06	101.0%	316.100	316.600	315.400	303.100	289.400	292.800	304.000	303.100	100.0%
x		98.0%	105.264%	106.285%	315.900	300.700	96.493%	290.900	301.100	100.243%	97.3%
σ		2.7%	n/a	n/a	0.616	2.030	n/a	1.759	2.565	n/a	2.4%
%RSD		2.7	0.345	0.644	0.195	0.675	0.455	0.605	0.852	0.778	2.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	312.300	307.900	311.000	303.600	301.300	304.200	99.9%	297.000	302.400	295.500
2	11:23:39	309.000	309.000	314.500	303.500	300.100	301.000	100.4%	297.500	302.700	295.800
3	11:24:06	312.000	309.000	315.000	307.400	300.900	303.700	104.6%	296.800	303.100	295.700
x		103.688%	102.883%	313.500	101.606%	100.252%	100.989%	101.6%	297.100	100.917%	98.558%
σ		n/a	n/a	2.159	n/a	n/a	n/a	2.6%	0.390	n/a	n/a
%RSD		0.584	0.198	0.689	0.729	0.201	0.571	2.5	0.131	0.121	0.055
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	11:23:11	293.100	297.400	94.5%							
2	11:23:39	296.100	297.500	94.8%							
3	11:24:06	294.000	296.700	99.2%							
x		98.129%	99.069%	96.2%							
σ		n/a	n/a	2.6%							
%RSD		0.525	0.155	2.7							

CCB IM9390-01 04/30/2019 11:28:53 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	95.8%	0.027	1.856	1.207	2.430	14.290	9.649	10.070	10.430	2.237
2	11:29:46	97.5%	0.021	1.416	1.300	5.740	12.300	8.368	8.183	8.257	1.909
3	11:30:13	97.9%	0.041	1.243	1.174	2.889	11.210	6.942	6.958	7.105	1.552
x		97.1%	0.030	1.505	1.227	3.687	12.600	8.320	8.403	8.599	1.899
σ		1.2%	0.010	0.316	0.065	1.793	1.560	1.354	1.567	1.691	0.343
%RSD		1.2	33.600	21.020	5.336	48.640	12.380	16.280	18.640	19.660	18.050

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	15.820	-28.780	44.270	12.850	10.120	100.8%	0.133	0.032	0.046	11.120
2	11:29:46	15.120	-35.490	37.150	4.649	7.197	102.4%	0.153	0.049	0.044	-9.849
3	11:30:13	14.990	-31.540	36.740	4.064	5.869	101.9%	0.107	0.014	0.028	4.784
x		15.310	-31.940	39.390	7.188	7.728	101.7%	0.131	0.032	0.039	2.020
σ		0.446	3.375	4.232	4.912	2.174	0.8%	0.023	0.017	0.010	10.760
%RSD		2.916	10.570	10.740	68.340	28.130	0.8	17.440	55.280	24.460	532.600

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	11.050	0.047	10.970	13.090	0.064	0.023	0.173	0.067	0.056	0.073
2	11:29:46	10.190	0.051	8.697	9.806	0.050	0.008	-0.036	0.037	0.023	0.019
3	11:30:13	7.660	0.051	7.038	12.940	0.032	0.025	-0.343	0.020	0.037	0.007
x		9.632	0.050	8.900	11.940	0.049	0.018	-0.068	0.041	0.039	0.033
σ		1.762	0.002	1.972	1.853	0.016	0.009	0.260	0.024	0.017	0.035
%RSD		18.290	5.025	22.160	15.510	33.250	51.340	379.900	58.180	42.900	105.700

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	0.048	0.087	0.078	-0.131	0.239	-0.078	1.521	0.337	-0.538	0.042
2	11:29:46	0.024	0.076	0.065	0.294	-0.062	-0.250	1.323	0.310	-1.539	0.028
3	11:30:13	0.224	0.009	0.125	-0.010	0.403	-0.344	1.834	0.410	-0.611	0.023
x		0.099	0.057	0.089	0.051	0.193	-0.224	1.559	0.353	-0.896	0.031
σ		0.109	0.042	0.032	0.219	0.236	0.135	0.258	0.052	0.558	0.010
%RSD		110.700	73.040	35.360	432.300	121.800	60.310	16.530	14.730	62.300	31.210

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	105.5%	0.155	0.169	0.147	-1.516	0.036	0.033	0.066	0.042	105.9%
2	11:29:46	105.1%	0.155	0.136	0.156	-1.235	0.037	0.032	0.026	0.023	106.2%
3	11:30:13	106.7%	0.140	0.087	0.135	-0.407	0.026	0.024	0.029	0.028	107.0%
x		105.8%	0.150	0.131	0.146	-1.053	0.033	0.030	0.040	0.031	106.3%
σ		0.8%	0.009	0.041	0.011	0.577	0.006	0.005	0.022	0.010	0.6%
%RSD		0.8	5.798	31.400	7.347	54.790	18.900	15.880	55.160	32.190	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	0.066	0.052	0.118	0.120	0.026	0.041	105.7%	0.037	0.030	0.038
2	11:29:46	0.064	0.080	0.114	0.102	0.053	0.056	105.6%	0.027	0.033	0.034
3	11:30:13	0.042	0.062	0.133	0.083	0.021	0.037	106.8%	0.018	0.018	0.030
x		0.058	0.065	0.122	0.102	0.033	0.044	106.1%	0.027	0.027	0.034
σ		0.013	0.014	0.010	0.019	0.017	0.010	0.7%	0.010	0.008	0.004
%RSD		22.690	22.140	8.024	18.240	51.350	22.260	0.6	35.220	29.480	12.800

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:29:19	0.020	0.041	106.5%
2	11:29:46	0.036	0.037	106.1%
3	11:30:13	0.046	0.037	107.0%
x		0.034	0.039	106.5%
σ		0.013	0.002	0.4%
%RSD		38.160	6.475	0.4

MW10963 njt 5-7-19

LR ~~MW10763~~ 04/30/2019 11:34:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	88.7%	M 961.200	M 1913.000	TM 2034.000	90.450	TM 122000.000	TM 120700.000	TM 122000.000	TM 122800.000	TM 120800.000
2	11:35:53	87.3%	M 995.100	M 1955.000	TM 2049.000	83.300	TM 123500.000	TM 124600.000	TM 123000.000	TM 121000.000	TM 117200.000
3	11:36:20	87.1%	M 1024.000	M 2069.000	TM 2137.000	85.460	TM 124300.000	TM 121100.000	TM 121600.000	TM 123600.000	TM 118500.000
x		87.7%	M 99.340%	M 98.945%	TM 103.668%	86.400	TM 102.743%	TM 122100.000	TM 122200.000	TM 102.081%	TM 98.997%
σ		0.9%	M n/a	M n/a	TM n/a	3.666	TM n/a	TM 2115.000	TM 692.000	TM n/a	TM n/a
%RSD		1.0	M 3.158	M 4.086	TM 2.680	4.243	TM 0.955	TM 1.732	TM 0.566	TM 1.087	TM 1.535
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	28.350	41.180	TM 126100.000	M 130600.000	TM 127800.000	90.5%	M 2077.000	TM 2060.000	TM 1988.000	21520.000
2	11:35:53	28.450	21.270	TM 122700.000	M 128600.000	TM 126000.000	93.8%	M 2093.000	TM 2095.000	TM 2010.000	9501.000
3	11:36:20	28.950	34.590	TM 123200.000	M 127100.000	TM 124600.000	93.6%	M 2096.000	TM 2103.000	TM 2012.000	10890.000
x		28.590	32.350	TM 103.321%	M 128700.000	TM 105.125%	92.6%	M 104.431%	TM 104.301%	TM 100.177%	13970.000
σ		0.323	10.140	TM n/a	M 1752.000	TM n/a	1.8%	M n/a	TM n/a	TM n/a	6577.000
%RSD		1.129	31.350	TM 1.460	M 1.361	TM 1.250	2.0	M 0.503	TM 1.108	TM 0.668	47.070
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	TM 124200.000	TM 1975.000	TM 123000.000	TM 120900.000	TM 1957.000	M 1922.000	M 1898.000	TM 1886.000	M 1893.000	M 1876.000
2	11:35:53	TM 123200.000	TM 1982.000	TM 122600.000	TM 122000.000	TM 1968.000	M 1942.000	M 1852.000	TM 1842.000	M 1851.000	M 1902.000
3	11:36:20	TM 124000.000	TM 1985.000	TM 123500.000	TM 122000.000	TM 1956.000	M 1921.000	M 1865.000	TM 1853.000	M 1901.000	M 1945.000
x		TM 123800.000	TM 99.035%	TM 123100.000	TM 101.372%	TM 98.022%	M 96.415%	M 1872.000	TM 1860.000	M 94.072%	M 95.386%
σ		TM 569.300	TM n/a	TM 438.100	TM n/a	TM n/a	M n/a	M 23.490	TM 22.800	M n/a	M n/a
%RSD		TM 0.460	TM 0.261	TM 0.356	TM 0.511	TM 0.330	M 0.611	M 1.255	TM 1.225	M 1.418	M 1.838
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	M 2354.000	M 2282.000	M 2000.000	M 1862.000	2.540	0.930	8414.000	M 1867.000	45.170	TM 2114.000
2	11:35:53	M 2318.000	M 2278.000	M 2020.000	M 1837.000	1.597	0.386	8212.000	M 1845.000	41.740	TM 2089.000
3	11:36:20	M 2326.000	M 2295.000	M 2030.000	M 1893.000	2.029	1.300	8172.000	M 1876.000	34.270	TM 2062.000
x		M 2333.000	M 2285.000	M 100.830%	M 1864.000	2.055	0.872	8266.000	M 93.145%	40.390	TM 104.409%
σ		M 19.110	M 8.751	M n/a	M 28.110	0.472	0.460	129.900	M n/a	5.574	TM n/a
%RSD		M 0.819	M 0.383	M 0.765	M 1.508	22.980	52.750	1.572	M 0.871	13.800	TM 1.248
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	88.5%	TM 2365.000	M 2209.000	TM 2112.000	M 1979.000	272.000	275.000	M 2002.000	TM 1943.000	90.5%
2	11:35:53	93.7%	TM 2352.000	M 2177.000	TM 2097.000	M 1993.000	274.000	275.100	M 2019.000	TM 1955.000	94.3%
3	11:36:20	94.4%	TM 2355.000	M 2172.000	TM 2104.000	M 1990.000	277.800	279.800	M 2037.000	TM 1979.000	92.8%
x		92.2%	TM 2357.000	M 109.307%	TM 2104.000	M 1988.000	274.600	276.700	M 2019.000	TM 97.930%	92.5%
σ		3.2%	TM 6.539	M n/a	TM 7.583	M 7.373	2.930	2.721	M 17.350	TM n/a	1.9%
%RSD		3.5	TM 0.277	M 0.897	TM 0.360	M 0.371	1.067	0.983	M 0.860	TM 0.933	2.1
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	TM 2049.000	TM 2053.000	TM 1040.000	TM 1017.000	TM 10690.000	TM 10740.000	93.2%	TM 990.900	TM 995.000	TM 1931.000
2	11:35:53	TM 2050.000	TM 2046.000	TM 1052.000	TM 1022.000	TM 10570.000	TM 10570.000	98.0%	TM 989.600	TM 991.100	TM 1929.000
3	11:36:20	TM 2075.000	TM 2070.000	TM 1065.000	M 1030.000	TM 10580.000	TM 10600.000	98.1%	TM 985.700	TM 992.600	TM 1932.000
x		TM 2058.000	TM 102.828%	TM 1052.000	TM 102.303%	TM 106.137%	TM 10640.000	96.4%	TM 988.700	TM 99.289%	TM 1931.000
σ		TM 14.800	TM n/a	TM 12.420	TM n/a	TM n/a	TM 92.510	2.8%	TM 2.706	TM n/a	TM 1.568
%RSD		TM 0.719	TM 0.608	TM 1.180	TM 0.641	TM 0.660	TM 0.870	2.9	TM 0.274	TM 0.195	TM 0.081
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	11:35:26	TM 2002.000	TM 1972.000	88.8%							
2	11:35:53	TM 2001.000	TM 1973.000	94.6%							
3	11:36:20	TM 1996.000	TM 1963.000	94.2%							
x		TM 2000.000	TM 98.478%	92.5%							
σ		TM 3.199	TM n/a	3.3%							
%RSD		TM 0.160	TM 0.272	3.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	100.0%	0.143	8.126	8.580	74.760	29.680	17.920	17.350	17.770	15.980
2	11:41:58	98.8%	0.175	8.895	8.562	77.730	26.200	14.790	13.920	15.150	12.940
3	11:42:26	97.1%	0.124	8.644	7.975	79.980	23.930	13.180	12.690	13.010	11.330
x		98.6%	0.147	8.555	8.372	77.490	26.610	15.300	14.650	15.310	13.420
σ		1.5%	0.026	0.392	0.344	2.615	2.895	2.414	2.415	2.385	2.358
%RSD		1.5	17.730	4.584	4.107	3.374	10.880	15.780	16.480	15.580	17.580

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	17.340	T 96720.000	135.200	19.500	19.420	101.7%	0.366	0.087	0.742	2109.000
2	11:41:58	17.250	T 96150.000	131.000	18.450	17.680	101.0%	0.216	0.032	0.632	1963.000
3	11:42:26	16.990	T 95260.000	119.200	19.500	18.160	102.0%	0.166	-0.149	0.557	1833.000
x		17.190	T 96040.000	128.500	19.150	18.420	101.6%	0.249	-0.010	0.644	1968.000
σ		0.182	T 733.800	8.274	0.606	0.898	0.5%	0.104	0.124	0.093	137.800
%RSD		1.056	T 0.764	6.441	3.164	4.876	0.5	41.870	1197.000	14.420	7.002

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	20.990	0.389	19.300	24.240	0.359	0.397	1.108	0.350	0.334	1.803
2	11:41:58	17.630	0.358	15.240	17.930	0.311	0.363	0.231	0.281	0.243	1.831
3	11:42:26	15.460	0.299	12.310	8.071	0.274	0.316	-0.223	0.280	0.249	1.768
x		18.020	0.349	15.620	16.750	0.315	0.359	0.372	0.303	0.275	1.800
σ		2.787	0.046	3.511	8.149	0.043	0.041	0.677	0.040	0.051	0.032
%RSD		15.460	13.070	22.480	48.660	13.550	11.360	182.000	13.190	18.500	1.759

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	2.394	1.777	0.387	0.601	2.792	1.938	-0.151	-0.046	-0.159	0.258
2	11:41:58	1.467	1.865	0.073	0.181	2.698	1.331	-1.722	-0.404	-0.121	0.201
3	11:42:26	2.507	1.923	0.174	-0.206	2.731	1.683	-0.729	-0.257	2.867	0.181
x		2.123	1.855	0.211	0.192	2.740	1.651	-0.867	-0.236	0.862	0.213
σ		0.571	0.073	0.160	0.404	0.048	0.305	0.794	0.180	1.736	0.040
%RSD		26.890	3.950	75.800	210.600	1.743	18.460	91.620	76.430	201.300	18.810

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	102.3%	0.486	0.524	0.439	-0.001	0.042	0.058	0.277	0.261	103.1%
2	11:41:58	105.3%	0.380	0.377	0.348	-0.472	0.025	0.026	0.193	0.197	106.2%
3	11:42:26	105.6%	0.347	0.325	0.319	-0.018	0.029	0.035	0.202	0.179	107.3%
x		104.4%	0.404	0.408	0.369	-0.164	0.032	0.040	0.224	0.212	105.5%
σ		1.8%	0.073	0.103	0.063	0.267	0.009	0.017	0.046	0.043	2.2%
%RSD		1.7	17.980	25.240	16.980	163.300	27.820	42.100	20.640	20.160	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	1.653	2.265	0.501	0.519	1.304	1.253	103.7%	0.097	0.121	0.243
2	11:41:58	1.469	2.080	0.532	0.461	0.915	1.080	106.4%	0.088	0.078	0.218
3	11:42:26	1.416	1.869	0.444	0.457	1.035	0.975	108.5%	0.059	0.067	0.161
x		1.513	2.071	0.492	0.479	1.085	1.103	106.2%	0.081	0.089	0.207
σ		0.124	0.198	0.045	0.035	0.199	0.141	2.4%	0.020	0.028	0.042
%RSD		8.211	9.571	9.114	7.235	18.340	12.750	2.3	23.990	31.870	20.270

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:41:31	0.229	0.236	103.2%
2	11:41:58	0.213	0.200	106.2%
3	11:42:26	0.202	0.173	107.8%
x		0.215	0.203	105.7%
σ		0.013	0.032	2.3%
%RSD		6.250	15.760	2.2

UQ13877-002 04/30/2019 11:47:10

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	100.0%	103.000	108.300	104.700	97.190	T1047.000	T1050.000	1059.000	1075.000	105.300
2	11:48:04	97.0%	104.400	112.100	109.300	102.700	T1075.000	T1070.000	1076.000	1069.000	105.300
3	11:48:31	97.7%	103.400	112.000	105.300	100.700	T1043.000	T1033.000	1035.000	1031.000	102.400
x		98.2%	103.600	110.800	106.400	100.200	T1055.000	T1051.000	1056.000	1058.000	104.300
σ		1.6%	0.720	2.163	2.487	2.795	T17.630	T18.730	20.540	24.110	1.682
%RSD		1.6	0.695	1.951	2.336	2.789	T1.671	T1.782	1.944	2.278	1.612
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	T964.500	T98370.000	T1147.000	1171.000	1071.000	102.0%	101.000	101.900	99.410	3265.000
2	11:48:04	T982.500	T102100.000	T1157.000	1242.000	1078.000	100.1%	101.900	102.600	103.500	3178.000
3	11:48:31	T987.900	T99870.000	1149.000	1200.000	1063.000	102.6%	102.700	102.800	102.500	2483.000
x		T978.300	T100100.000	T1151.000	1205.000	1071.000	101.5%	101.800	102.400	101.800	2975.000
σ		T12.270	T1888.000	T5.179	35.560	7.387	1.3%	0.859	0.512	2.139	428.500
%RSD		T1.254	T1.886	T0.450	2.952	0.690	1.3	0.843	0.500	2.102	14.400
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	1118.000	101.100	T1065.000	1046.000	101.100	100.800	102.300	103.300	101.000	100.700
2	11:48:04	1120.000	101.500	T1058.000	1044.000	102.400	103.700	102.300	103.600	101.000	99.590
3	11:48:31	1105.000	101.300	T1061.000	1033.000	100.400	101.000	103.100	103.700	99.170	102.000
x		1114.000	101.300	T1061.000	1041.000	101.300	101.800	102.500	103.500	100.400	100.800
σ		7.951	0.172	T3.366	6.942	1.021	1.620	0.471	0.174	1.048	1.189
%RSD		0.714	0.170	T0.317	0.667	1.008	1.591	0.459	0.168	1.044	1.180
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	96.490	104.900	102.200	101.200	3.025	2.421	460.600	103.000	6.473	99.190
2	11:48:04	103.400	104.300	103.900	101.600	2.792	2.386	459.800	102.000	4.573	99.040
3	11:48:31	103.200	105.400	104.500	102.600	3.035	1.984	453.900	101.300	2.483	98.300
x		101.000	104.900	103.600	101.800	2.951	2.264	458.100	102.100	4.509	98.840
σ		3.947	0.541	1.202	0.721	0.138	0.243	3.656	0.884	1.996	0.479
%RSD		3.906	0.516	1.160	0.708	4.665	10.720	0.798	0.866	44.260	0.485
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	102.1%	99.280	100.100	99.090	100.700	99.450	99.410	101.500	99.170	103.1%
2	11:48:04	102.8%	100.900	101.200	98.540	100.600	98.340	99.040	99.900	99.670	104.3%
3	11:48:31	105.3%	100.400	102.400	100.400	104.200	98.820	99.430	101.100	100.600	106.2%
x		103.4%	100.200	101.200	99.350	101.900	98.870	99.290	100.800	99.800	104.5%
σ		1.7%	0.849	1.149	0.968	2.058	0.560	0.215	0.844	0.705	1.6%
%RSD		1.6	0.847	1.135	0.974	2.020	0.567	0.217	0.837	0.706	1.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	101.900	101.100	99.230	99.060	101.900	101.700	104.0%	100.200	101.100	101.700
2	11:48:04	102.300	100.000	98.850	98.860	101.700	101.100	104.8%	100.600	100.500	101.600
3	11:48:31	102.400	101.500	99.900	101.200	101.000	101.800	107.5%	101.100	101.600	103.400
x		102.200	100.900	99.330	99.720	101.500	101.500	105.4%	100.600	101.100	102.200
σ		0.265	0.757	0.529	1.316	0.499	0.387	1.8%	0.406	0.559	1.049
%RSD		0.260	0.750	0.533	1.319	0.492	0.381	1.7	0.403	0.553	1.026
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	11:47:36	101.400	101.200	102.0%							
2	11:48:04	101.000	101.300	103.8%							
3	11:48:31	102.300	102.700	108.5%							
x		101.600	101.700	104.8%							
σ		0.642	0.859	3.4%							
%RSD		0.632	0.845	3.2							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	94.7%	0.219	M 746.600	M 731.100	97.850	T 12950.000	T 22140.000	T 22140.000	T 22450.000	TM 16580.000
2	11:54:08	92.6%	0.166	M 726.900	M 712.100	87.930	T 13090.000	T 21880.000	T 22190.000	T 22050.000	TM 16070.000
3	11:54:36	95.5%	0.169	M 737.900	M 728.400	90.930	T 13150.000	T 21580.000	T 21510.000	T 21340.000	TM 16040.000
x		94.3%	0.185	M 737.100	M 723.900	92.240	T 13060.000	T 21870.000	T 21950.000	T 21950.000	TM 16230.000
σ		1.5%	0.030	M 9.866	M 10.310	5.090	T 103.900	T 281.000	T 382.500	T 559.100	TM 305.500
%RSD		1.6	16.020	M 1.338	M 1.425	5.518	T 0.795	T 1.285	T 1.743	T 2.548	TM 1.882

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	T 6706.000	T 93750.000	T 28360.000	74350.000	T 72860.000	98.8%	212.100	9.892	35.060	2198.000
2	11:54:08	T 6630.000	T 90920.000	T 27380.000	74130.000	T 73710.000	100.1%	211.800	9.548	34.530	2295.000
3	11:54:36	T 6531.000	T 94830.000	T 28370.000	74230.000	T 73370.000	99.2%	206.200	9.576	35.330	2507.000
x		T 6622.000	T 93160.000	T 28040.000	74230.000	T 73310.000	99.4%	210.000	9.672	34.970	2333.000
σ		T 87.450	T 2021.000	T 567.600	108.800	T 430.200	0.7%	3.347	0.191	0.403	158.100
%RSD		T 1.321	T 2.169	T 2.024	0.147	T 0.587	0.7	1.594	1.971	1.152	6.776

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	T 16730.000	TM 546.100	T 16690.000	17600.000	4.912	48.720	49.460	M 527.500	M 518.100	M 567.100
2	11:54:08	T 16630.000	TM 547.800	T 16860.000	17880.000	4.719	49.240	46.250	M 514.300	M 506.600	M 575.700
3	11:54:36	T 16660.000	TM 545.600	T 16600.000	17600.000	4.854	49.270	49.130	M 522.500	M 511.000	M 559.700
x		T 16670.000	TM 546.500	T 16720.000	17690.000	4.828	49.080	48.280	M 521.400	M 511.900	M 567.500
σ		T 56.350	TM 1.135	T 136.500	158.300	0.099	0.309	1.766	M 6.662	M 5.810	M 7.992
%RSD		T 0.338	TM 0.208	T 0.816	0.895	2.048	0.629	3.657	M 1.278	M 1.135	M 1.408

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	M 521.100	M 558.800	1.851	12.150	8.608	8.317	52.030	11.880	1.665	219.200
2	11:54:08	M 541.200	M 571.200	1.994	12.320	9.512	7.815	49.040	11.210	-0.986	219.800
3	11:54:36	M 522.400	M 559.600	2.692	12.050	9.843	8.941	54.270	12.190	0.599	220.500
x		M 528.200	M 563.200	2.179	12.170	9.321	8.358	51.780	11.760	0.426	219.800
σ		M 11.210	M 6.960	0.450	0.134	0.639	0.564	2.627	0.502	1.334	0.655
%RSD		M 2.123	M 1.236	20.650	1.099	6.859	6.745	5.073	4.269	313.400	0.298

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	100.5%	1.906	1.873	1.885	30.470	0.690	0.695	13.130	12.610	99.0%
2	11:54:08	102.6%	2.003	1.964	1.970	26.410	0.661	0.705	13.160	12.860	101.3%
3	11:54:36	100.6%	1.945	2.185	1.950	28.460	0.690	0.733	13.250	12.800	100.9%
x		101.2%	1.952	2.007	1.935	28.450	0.680	0.711	13.180	12.760	100.4%
σ		1.2%	0.049	0.160	0.044	2.026	0.017	0.020	0.066	0.132	1.2%
%RSD		1.2	2.504	7.992	2.288	7.123	2.452	2.794	0.504	1.031	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	23.600	28.040	8.430	8.376	211.200	212.300	102.0%	0.045	0.034	340.500
2	11:54:08	24.000	27.940	8.461	8.412	209.700	210.100	104.2%	0.026	0.030	346.700
3	11:54:36	23.860	27.710	8.103	8.180	211.300	209.700	103.0%	0.026	0.027	339.000
x		23.820	27.890	8.331	8.323	210.800	210.700	103.1%	0.032	0.030	342.100
σ		0.200	0.169	0.198	0.125	0.881	1.370	1.1%	0.011	0.003	4.044
%RSD		0.841	0.607	2.379	1.501	0.418	0.650	1.1	34.460	10.910	1.182

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:53:42	326.800	334.500	103.6%
2	11:54:08	333.600	341.500	109.1%
3	11:54:36	326.100	333.700	105.7%
x		328.800	336.500	106.1%
σ		4.138	4.279	2.7%
%RSD		1.258	1.271	2.6

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	96.1%	0.026	32.930	33.670	112.500	T 4155.000	T 2348.000	2314.000	2257.000	T 222.300
2	12:00:16	96.5%	0.034	37.310	35.090	114.400	T 4192.000	T 2300.000	2273.000	2310.000	T 224.700
3	12:00:44	97.7%	0.022	33.110	31.930	118.600	T 4046.000	T 2236.000	2225.000	2265.000	T 222.700
x		96.8%	0.027	34.450	33.570	115.200	T 4131.000	T 2295.000	2271.000	2277.000	T 223.300
σ		0.8%	0.006	2.479	1.584	3.167	T 76.130	T 56.130	44.620	28.270	T 1.252
%RSD		0.9	21.240	7.195	4.719	2.750	T 1.843	T 2.446	1.965	1.242	T 0.561

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	T 4912.000	T 95280.000	T 1760.000	5628.000	5458.000	101.0%	5.150	0.728	0.673	2076.000
2	12:00:16	T 4886.000	T 100300.000	T 1838.000	5840.000	5545.000	98.7%	5.080	0.864	0.755	2207.000
3	12:00:44	T 4881.000	T 98550.000	T 1781.000	5648.000	5486.000	100.9%	5.157	0.978	0.779	2300.000
x		T 4893.000	T 98040.000	T 1793.000	5705.000	5496.000	100.2%	5.129	0.857	0.736	2194.000
σ		T 16.820	T 2538.000	T 40.500	116.800	44.280	1.3%	0.042	0.126	0.056	112.900
%RSD		T 0.344	T 2.589	T 2.259	2.046	0.806	1.3	0.828	14.650	7.579	5.145

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	1753.000	241.700	T 1727.000	1748.000	0.891	0.403	0.009	0.706	0.676	3.249
2	12:00:16	1766.000	241.300	T 1736.000	1783.000	0.915	0.470	0.474	0.710	0.623	3.400
3	12:00:44	1740.000	239.200	T 1722.000	1770.000	0.897	0.462	0.216	0.673	0.630	3.149
x		1753.000	240.700	T 1729.000	1767.000	0.901	0.445	0.233	0.696	0.643	3.266
σ		12.900	1.359	T 7.030	17.560	0.013	0.036	0.233	0.020	0.029	0.126
%RSD		0.736	0.565	T 0.407	0.994	1.393	8.154	100.100	2.904	4.497	3.866

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	5.767	5.168	0.130	-0.262	8.290	7.874	0.153	0.016	-1.092	29.580
2	12:00:16	5.827	5.588	0.092	-0.396	8.571	7.527	0.615	0.076	1.201	29.170
3	12:00:44	5.997	4.988	-0.204	-0.054	8.344	8.124	-1.836	-0.432	-0.395	29.540
x		5.864	5.248	0.006	-0.237	8.401	7.841	-0.356	-0.113	-0.095	29.430
σ		0.119	0.308	0.183	0.172	0.149	0.300	1.303	0.278	1.175	0.226
%RSD		2.032	5.865	3140.000	72.550	1.774	3.823	365.800	245.000	1236.000	0.767

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	104.5%	0.137	0.145	0.127	0.482	-0.001	0.005	0.062	0.049	106.5%
2	12:00:16	104.1%	0.154	0.077	0.146	1.191	0.003	0.001	0.074	0.057	105.1%
3	12:00:44	102.9%	0.164	0.182	0.136	0.363	0.001	0.002	0.038	0.056	104.4%
x		103.8%	0.152	0.135	0.136	0.679	0.001	0.003	0.058	0.054	105.3%
σ		0.8%	0.013	0.053	0.010	0.448	0.002	0.002	0.019	0.004	1.1%
%RSD		0.8	8.872	39.440	7.002	65.940	204.100	73.460	32.110	7.765	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	0.634	0.854	0.138	0.132	38.280	38.390	107.8%	0.009	0.001	0.219
2	12:00:16	0.554	0.827	0.145	0.182	38.350	37.520	105.6%	0.008	-0.002	0.225
3	12:00:44	0.570	0.788	0.137	0.165	38.280	37.660	104.2%	-0.002	0.004	0.195
x		0.586	0.823	0.140	0.160	38.300	37.860	105.9%	0.005	0.001	0.213
σ		0.042	0.033	0.004	0.026	0.045	0.465	1.8%	0.006	0.003	0.016
%RSD		7.233	4.068	2.886	16.040	0.117	1.229	1.7	122.900	332.400	7.443

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:59:48	0.188	0.191	105.7%
2	12:00:16	0.196	0.205	105.9%
3	12:00:44	0.196	0.206	102.7%
x		0.193	0.201	104.8%
σ		0.004	0.008	1.8%
%RSD		2.201	4.095	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	102.9%	1.611	3.125	2.947	4.735	T 1333.000	T 5814.000	T 5809.000	T 5955.000	TM 34490.000
2	12:06:23	99.8%	1.615	2.704	2.944	8.639	T 1341.000	T 5754.000	T 5789.000	T 5856.000	TM 32830.000
3	12:06:50	102.9%	1.664	2.778	2.756	4.427	T 1368.000	T 5963.000	T 5948.000	T 5882.000	TM 32890.000
x		101.9%	1.630	2.869	2.882	5.934	T 1347.000	T 5844.000	T 5849.000	T 5897.000	TM 33400.000
σ		1.8%	0.029	0.225	0.109	2.348	T 18.250	T 107.200	T 86.580	T 51.230	TM 937.800
%RSD		1.7	1.800	7.849	3.789	39.570	T 1.355	T 1.835	T 1.480	T 0.869	TM 2.808
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	TM 47630.000	T 77810.000	T 6042.000	2545.000	2683.000	115.5%	M 1052.000	85.980	70.530	2517.000
2	12:06:23	TM 47860.000	T 74320.000	T 5792.000	2423.000	2637.000	117.8%	M 1050.000	86.250	70.390	2563.000
3	12:06:50	TM 47030.000	T 75710.000	T 5896.000	2436.000	2652.000	119.4%	M 1050.000	87.030	70.880	2486.000
x		TM 47510.000	T 75940.000	T 5910.000	2468.000	2658.000	117.5%	M 1051.000	86.420	70.600	2522.000
σ		TM 428.200	T 1756.000	T 125.800	67.090	23.540	1.9%	M 0.866	0.548	0.255	38.730
%RSD		TM 0.901	T 2.313	T 2.128	2.718	0.886	1.7	M 0.082	0.634	0.362	1.536
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	T 29690.000	TM 1508.000	T 30020.000	T 29720.000	19.110	27.450	27.740	20.390	24.510	46.800
2	12:06:23	T 30100.000	TM 1521.000	T 29800.000	T 29930.000	19.340	27.580	26.380	19.610	22.880	45.580
3	12:06:50	T 30060.000	TM 1553.000	T 30520.000	T 30790.000	19.720	27.290	27.460	20.240	23.350	46.790
x		T 29950.000	TM 1527.000	T 30110.000	T 30150.000	19.390	27.440	27.190	20.080	23.580	46.390
σ		T 229.800	TM 22.850	T 366.100	T 566.500	0.309	0.147	0.721	0.417	0.838	0.703
%RSD		T 0.767	TM 1.496	T 1.216	T 1.879	1.596	0.534	2.653	2.075	3.556	1.515
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	57.310	51.950	-0.045	-0.393	3.998	3.177	1.163	0.486	3.351	17.380
2	12:06:23	56.930	52.410	-0.017	0.113	3.898	3.409	-0.156	0.096	3.825	17.220
3	12:06:50	57.660	54.070	0.285	-0.239	3.844	3.451	0.586	0.366	1.627	17.280
x		57.300	52.810	0.074	-0.173	3.913	3.345	0.531	0.316	2.934	17.290
σ		0.363	1.115	0.183	0.259	0.078	0.148	0.661	0.200	1.156	0.079
%RSD		0.633	2.112	247.300	149.700	1.999	4.414	124.500	63.210	39.410	0.459
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	128.2%	0.086	0.026	0.068	1.948	0.012	0.017	0.036	0.071	104.9%
2	12:06:23	135.1%	0.050	0.043	0.049	1.628	0.013	0.018	0.068	0.062	111.2%
3	12:06:50	139.9%	0.077	0.082	0.057	2.239	0.013	0.026	0.040	0.059	113.9%
x		134.4%	0.071	0.050	0.058	1.938	0.012	0.020	0.048	0.064	110.0%
σ		5.8%	0.019	0.029	0.009	0.306	0.001	0.005	0.017	0.006	4.6%
%RSD		4.3	26.250	57.040	15.820	15.770	5.163	25.530	36.050	10.010	4.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	2.454	1.411	0.111	0.109	368.800	368.800	105.6%	0.547	0.529	28.660
2	12:06:23	2.282	1.401	0.089	0.089	369.400	368.500	113.3%	0.532	0.512	29.380
3	12:06:50	2.252	1.442	0.112	0.125	369.700	372.400	114.4%	0.601	0.533	29.490
x		2.329	1.418	0.104	0.108	369.300	369.900	111.1%	0.560	0.525	29.180
σ		0.109	0.021	0.013	0.018	0.431	2.188	4.8%	0.036	0.011	0.454
%RSD		4.685	1.498	12.440	16.520	0.117	0.591	4.3	6.415	2.130	1.556
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	12:05:55	26.980	27.730	102.9%							
2	12:06:23	26.720	27.610	111.2%							
3	12:06:50	26.900	27.950	112.7%							
x		26.870	27.770	108.9%							
σ		0.133	0.171	5.3%							
%RSD		0.496	0.616	4.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	99.9%	0.712	1.943	2.312	-24.890	T 28000.000	T 6553.000	T 6537.000	T 6675.000	TM 25850.000
2	12:12:28	98.0%	0.776	1.996	2.066	-16.980	T 28040.000	T 6482.000	T 6604.000	T 6680.000	TM 24910.000
3	12:12:55	99.1%	0.687	2.245	2.044	-24.270	T 28010.000	T 6531.000	T 6507.000	T 6454.000	TM 24440.000
x		99.0%	0.725	2.061	2.140	-22.050	T 28020.000	T 6522.000	T 6549.000	T 6603.000	TM 25070.000
σ		0.9%	0.046	0.161	0.149	4.401	T 19.470	T 36.020	T 49.500	T 129.000	TM 718.500
%RSD		0.9	6.354	7.828	6.952	19.960	T 0.069	T 0.552	T 0.756	T 1.953	TM 2.866

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	TM 37820.000	T 74750.000	T 7270.000	1751.000	1988.000	115.8%	M 897.600	66.430	23.910	2258.000
2	12:12:28	TM 37260.000	T 71800.000	T 7032.000	1762.000	1925.000	118.5%	M 883.200	64.230	23.250	1787.000
3	12:12:55	TM 37230.000	T 71720.000	T 7003.000	1711.000	1963.000	118.6%	M 872.300	65.480	22.910	1747.000
x		TM 37440.000	T 72760.000	T 7102.000	1742.000	1958.000	117.6%	M 884.400	65.380	23.360	1930.000
σ		TM 334.100	T 1727.000	T 146.600	26.960	31.630	1.6%	M 12.700	1.102	0.507	284.400
%RSD		TM 0.892	T 2.374	T 2.064	1.548	1.615	1.3	M 1.436	1.686	2.169	14.730

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	T 24460.000	TM 1364.000	T 24470.000	T 25500.000	27.330	18.030	17.600	52.900	66.730	80.180
2	12:12:28	T 24170.000	TM 1357.000	T 23850.000	T 24870.000	26.420	17.100	16.300	51.420	64.240	79.260
3	12:12:55	T 24000.000	TM 1346.000	T 24120.000	T 25160.000	26.790	17.710	18.150	51.090	63.450	79.130
x		T 24210.000	TM 1356.000	T 24150.000	T 25180.000	26.850	17.610	17.350	51.800	64.800	79.530
σ		T 232.400	TM 8.833	T 310.600	T 313.000	0.460	0.470	0.951	0.963	1.712	0.569
%RSD		T 0.960	TM 0.652	T 1.286	T 1.243	1.712	2.666	5.483	1.859	2.643	0.716

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	81.260	78.250	-0.020	0.268	4.038	3.194	0.582	0.671	3.083	17.620
2	12:12:28	80.430	77.610	-0.051	-0.051	3.412	2.909	1.036	0.890	0.603	17.550
3	12:12:55	79.310	76.940	-0.311	0.305	3.701	3.228	-0.168	0.465	1.174	17.440
x		80.330	77.600	-0.127	0.174	3.717	3.110	0.483	0.675	1.620	17.540
σ		0.977	0.654	0.160	0.196	0.314	0.175	0.608	0.213	1.299	0.090
%RSD		1.216	0.843	125.500	112.600	8.434	5.637	125.900	31.470	80.160	0.513

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	160.2%	0.039	0.020	0.022	3.546	0.001	0.011	0.071	0.126	104.5%
2	12:12:28	165.9%	0.033	0.019	0.023	2.408	0.007	0.007	0.112	0.087	108.5%
3	12:12:55	165.1%	0.024	0.003	0.012	3.377	0.003	0.008	0.078	0.105	108.9%
x		163.7%	0.032	0.014	0.019	3.110	0.004	0.008	0.087	0.106	107.3%
σ		3.1%	0.008	0.010	0.006	0.614	0.003	0.002	0.022	0.020	2.4%
%RSD		1.9	23.880	69.810	30.370	19.750	91.460	23.440	25.290	18.480	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	1.850	1.219	0.091	0.069	M 525.700	M 530.000	109.0%	0.401	0.394	23.800
2	12:12:28	1.859	1.181	0.091	0.089	M 521.000	M 518.500	113.3%	0.392	0.395	24.320
3	12:12:55	1.753	1.208	0.088	0.086	M 518.800	M 516.100	114.1%	0.403	0.389	24.010
x		1.821	1.203	0.090	0.082	M 521.800	M 521.500	112.1%	0.398	0.393	24.040
σ		0.059	0.020	0.002	0.011	M 3.507	M 7.417	2.8%	0.006	0.003	0.266
%RSD		3.236	1.622	1.683	13.080	M 0.672	M 1.422	2.5	1.468	0.779	1.105

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:12:02	22.850	23.190	102.3%
2	12:12:28	22.550	23.270	109.3%
3	12:12:55	22.570	23.230	109.6%
x		22.660	23.230	107.1%
σ		0.166	0.037	4.1%
%RSD		0.732	0.159	3.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	104.0%	0.280	3.140	3.045	76.660	T 3175.000	T 2878.000	2941.000	2983.000	TM 1621.000
2	12:18:36	101.7%	0.278	2.697	2.919	68.110	T 3200.000	T 2848.000	2873.000	2883.000	TM 1533.000
3	12:19:03	99.8%	0.255	3.382	2.900	78.070	T 3249.000	T 2919.000	2955.000	3000.000	TM 1588.000
x		101.9%	0.271	3.073	2.955	74.280	T 3208.000	T 2882.000	2923.000	2955.000	TM 1581.000
σ		2.1%	0.014	0.347	0.079	5.390	T 37.390	T 35.500	44.160	63.420	TM 44.210
%RSD		2.0	5.230	11.300	2.667	7.256	T 1.165	T 1.232	1.511	2.146	TM 2.797

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	T 4230.000	T 91530.000	T 2751.000	403.900	388.800	105.1%	98.920	9.681	2.087	2192.000
2	12:18:36	T 4311.000	T 87530.000	T 2624.000	369.600	391.100	108.3%	98.580	9.394	1.903	2032.000
3	12:19:03	T 4572.000	T 93900.000	T 2720.000	384.300	386.000	105.9%	99.430	9.121	1.982	2415.000
x		T 4371.000	T 90990.000	T 2698.000	385.900	388.600	106.5%	98.980	9.398	1.991	2213.000
σ		T 178.600	T 3221.000	T 66.540	17.230	2.591	1.6%	0.428	0.280	0.092	192.700
%RSD		T 4.086	T 3.540	T 2.466	4.464	0.667	1.5	0.432	2.980	4.632	8.706

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	2721.000	120.400	T 2699.000	2709.000	3.210	1.636	1.440	3.332	3.672	13.690
2	12:18:36	2677.000	119.000	T 2632.000	2569.000	3.202	1.641	1.619	3.304	3.554	13.860
3	12:19:03	2741.000	120.400	T 2708.000	2678.000	3.251	1.535	1.310	3.416	3.794	13.250
x		2713.000	119.900	T 2679.000	2652.000	3.221	1.604	1.456	3.350	3.673	13.600
σ		32.810	0.818	T 41.570	73.540	0.026	0.060	0.155	0.058	0.120	0.317
%RSD		1.209	0.682	T 1.551	2.773	0.822	3.712	10.620	1.745	3.266	2.331

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	18.510	19.350	-0.336	-0.105	17.650	16.180	-1.113	-0.121	-1.386	4.851
2	12:18:36	19.930	19.240	0.098	-0.353	17.810	17.320	-0.041	0.163	-2.796	4.729
3	12:19:03	21.310	18.920	-0.083	0.063	16.670	16.710	-1.263	-0.216	-0.618	4.807
x		19.920	19.170	-0.107	-0.132	17.370	16.740	-0.806	-0.058	-1.600	4.796
σ		1.400	0.222	0.218	0.210	0.618	0.567	0.667	0.197	1.105	0.062
%RSD		7.027	1.157	203.800	159.200	3.555	3.388	82.720	342.100	69.040	1.287

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	118.6%	0.006	-0.011	0.034	0.614	-0.002	0.003	0.008	0.005	104.8%
2	12:18:36	122.4%	0.005	0.003	0.001	0.197	-0.004	0.001	0.015	0.023	109.6%
3	12:19:03	117.5%	0.018	0.020	0.012	0.018	0.000	0.011	0.004	0.004	107.7%
x		119.5%	0.009	0.004	0.016	0.276	-0.002	0.005	0.009	0.011	107.4%
σ		2.6%	0.007	0.015	0.017	0.306	0.002	0.005	0.005	0.011	2.4%
%RSD		2.2	76.130	384.900	104.800	110.800	118.200	104.200	57.570	97.780	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	0.500	0.815	0.051	0.053	158.600	158.800	107.5%	0.046	0.052	1.513
2	12:18:36	0.573	0.718	0.075	0.098	161.400	159.900	111.6%	0.049	0.060	1.529
3	12:19:03	0.565	0.782	0.071	0.076	159.500	158.200	109.9%	0.058	0.046	1.445
x		0.546	0.772	0.066	0.076	159.800	159.000	109.7%	0.051	0.053	1.496
σ		0.040	0.049	0.013	0.022	1.465	0.878	2.0%	0.006	0.007	0.045
%RSD		7.308	6.344	19.020	29.530	0.917	0.552	1.9	11.430	13.040	2.996

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:18:09	1.344	1.425	104.9%
2	12:18:36	1.296	1.395	109.6%
3	12:19:03	1.377	1.416	107.4%
x		1.339	1.412	107.3%
σ		0.041	0.015	2.3%
%RSD		3.055	1.092	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	101.8%	78.430	86.740	82.620	54.130	T 4043.000	T 4055.000	T 3919.000	T 4001.000	TM 9101.000
2	12:24:43	101.9%	79.230	83.650	81.770	53.520	T 4023.000	T 3991.000	3988.000	T 3894.000	TM 8613.000
3	12:25:10	102.3%	79.960	89.720	85.030	64.020	T 4030.000	T 4018.000	T 3980.000	T 3970.000	TM 8965.000
x		102.0%	79.210	86.700	83.140	57.230	T 4032.000	T 4021.000	T 3962.000	T 3955.000	TM 8893.000
σ		0.2%	0.768	3.033	1.689	5.893	T 9.772	T 32.330	T 37.560	T 55.370	TM 251.900
%RSD		0.2	0.970	3.498	2.032	10.300	T 0.242	T 0.804	T 0.948	T 1.400	TM 2.833

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	TM 13690.000	T 89660.000	T 3986.000	1535.000	1482.000	107.7%	285.600	115.500	99.470	2981.000
2	12:24:43	TM 13180.000	T 86980.000	T 3837.000	1488.000	1499.000	110.2%	282.000	113.900	98.770	2677.000
3	12:25:10	TM 13350.000	T 90350.000	T 3923.000	1525.000	1508.000	108.2%	280.200	113.700	99.010	2684.000
x		TM 13400.000	T 89000.000	T 3915.000	1516.000	1496.000	108.7%	282.600	114.400	99.080	2781.000
σ		TM 259.400	T 1783.000	T 74.570	24.580	13.030	1.3%	2.747	0.980	0.352	173.600
%RSD		TM 1.935	T 2.003	T 1.905	1.621	0.871	1.2	0.972	0.857	0.356	6.243

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	6773.000	241.900	T 6410.000	6396.000	100.800	100.700	94.750	101.900	107.700	115.300
2	12:24:43	6610.000	239.500	T 6476.000	6488.000	101.000	98.440	92.750	100.400	104.800	116.200
3	12:25:10	6800.000	238.100	T 6445.000	6497.000	101.500	98.650	95.740	102.700	105.100	113.300
x		6728.000	239.900	T 6444.000	6460.000	101.100	99.270	94.410	101.700	105.900	114.900
σ		102.900	1.898	T 33.220	55.800	0.395	1.255	1.524	1.212	1.594	1.484
%RSD		1.530	0.791	T 0.516	0.864	0.391	1.264	1.614	1.192	1.506	1.291

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	112.900	115.900	94.960	99.460	13.720	13.550	383.500	95.200	3.048	92.990
2	12:24:43	115.900	118.600	96.220	97.570	13.510	13.460	390.600	96.250	1.378	93.050
3	12:25:10	119.200	115.900	96.320	97.790	11.800	12.810	391.400	96.110	2.624	92.750
x		116.000	116.800	95.830	98.270	13.010	13.270	388.500	95.850	2.350	92.930
σ		3.150	1.561	0.762	1.032	1.054	0.403	4.381	0.567	0.868	0.160
%RSD		2.715	1.337	0.795	1.050	8.101	3.035	1.128	0.591	36.950	0.172

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	117.0%	90.820	88.530	91.370	100.200	98.580	98.980	98.540	99.720	105.2%
2	12:24:43	119.8%	91.340	90.850	91.760	94.360	97.810	98.220	100.700	100.800	108.6%
3	12:25:10	117.7%	90.550	89.280	91.970	96.470	97.960	98.570	99.650	98.910	107.0%
x		118.2%	90.900	89.550	91.700	97.020	98.120	98.590	99.620	99.810	106.9%
σ		1.5%	0.398	1.181	0.307	2.970	0.409	0.378	1.061	0.938	1.7%
%RSD		1.3	0.438	1.319	0.335	3.061	0.417	0.383	1.065	0.940	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	102.400	101.300	98.480	97.330	264.400	265.400	107.4%	99.570	99.640	102.300
2	12:24:43	103.000	102.000	101.200	98.480	262.500	262.100	112.0%	100.800	100.500	102.400
3	12:25:10	102.400	102.200	97.900	96.330	263.700	263.200	109.0%	98.880	99.430	101.500
x		102.600	101.800	99.200	97.380	263.500	263.600	109.4%	99.770	99.850	102.100
σ		0.369	0.458	1.776	1.076	0.939	1.673	2.4%	0.995	0.548	0.503
%RSD		0.359	0.450	1.790	1.105	0.356	0.635	2.2	0.998	0.549	0.493

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:24:16	102.200	102.500	105.5%
2	12:24:43	101.700	101.900	110.5%
3	12:25:10	101.200	101.300	105.5%
x		101.700	101.900	107.2%
σ		0.511	0.587	2.9%
%RSD		0.502	0.576	2.7

UD11087-004SD 04/30/2019 12:29:56

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	101.2%	80.290	86.020	85.540	60.020	T 4032.000	T 3835.000	T 3861.000	T 3868.000	TM 6835.000
2	12:30:51	102.3%	81.080	87.710	87.700	69.710	T 4124.000	T 3880.000	T 3758.000	T 3838.000	TM 6948.000
3	12:31:18	102.8%	81.390	88.480	85.600	65.720	T 4111.000	T 3883.000	T 3812.000	T 3870.000	TM 6932.000
x		102.1%	80.920	87.400	86.280	65.150	T 4089.000	T 3866.000	T 3810.000	T 3858.000	TM 6905.000
σ		0.8%	0.566	1.256	1.229	4.871	T 50.060	T 26.610	T 51.520	T 18.070	TM 61.050
%RSD		0.8	0.699	1.437	1.425	7.476	T 1.224	T 0.688	T 1.352	T 0.468	TM 0.884
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	TM 11050.000	T 89610.000	T 3760.000	1526.000	1483.000	106.3%	229.400	110.300	99.560	2949.000
2	12:30:51	TM 11010.000	T 90500.000	T 3822.000	1572.000	1465.000	106.4%	235.100	111.800	100.200	2296.000
3	12:31:18	TM 10940.000	T 90590.000	T 3720.000	1577.000	1472.000	106.2%	232.800	108.700	98.300	3231.000
x		TM 11000.000	T 90230.000	T 3767.000	1559.000	1473.000	106.3%	232.400	110.300	99.350	2825.000
σ		TM 54.330	T 542.700	T 51.480	28.080	8.905	0.1%	2.877	1.512	0.965	479.700
%RSD		TM 0.494	T 0.602	T 1.366	1.802	0.605	0.1	1.238	1.371	0.971	16.980
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	5445.000	225.300	T 5176.000	5198.000	100.700	100.200	95.860	100.500	105.100	112.900
2	12:30:51	5463.000	230.300	T 5254.000	5255.000	100.300	101.000	95.210	103.000	105.300	111.200
3	12:31:18	5415.000	225.400	T 5147.000	5199.000	100.200	99.200	95.030	99.510	103.600	112.300
x		5441.000	227.000	T 5192.000	5217.000	100.400	100.100	95.370	101.000	104.700	112.100
σ		24.100	2.853	T 55.380	32.560	0.228	0.908	0.436	1.780	0.918	0.894
%RSD		0.443	1.257	T 1.067	0.624	0.227	0.907	0.457	1.763	0.877	0.797
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	112.400	112.600	95.790	96.610	15.940	17.500	405.400	100.800	4.425	92.890
2	12:30:51	116.100	114.200	97.500	101.900	15.960	17.260	407.500	100.200	2.676	92.000
3	12:31:18	113.700	115.400	97.490	96.860	18.170	16.630	400.200	99.540	-0.597	92.010
x		114.100	114.100	96.920	98.440	16.690	17.130	404.400	100.200	2.168	92.300
σ		1.872	1.405	0.985	2.958	1.283	0.447	3.808	0.610	2.549	0.508
%RSD		1.642	1.231	1.016	3.005	7.684	2.607	0.942	0.609	117.600	0.550
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	116.1%	91.100	87.770	90.520	98.910	98.570	98.920	98.330	98.850	104.1%
2	12:30:51	117.3%	89.270	89.260	90.560	94.850	96.840	97.910	97.230	97.650	106.2%
3	12:31:18	117.0%	90.640	89.070	91.890	94.650	97.480	97.950	98.340	98.180	104.8%
x		116.8%	90.340	88.700	90.990	96.140	97.630	98.260	97.970	98.230	105.1%
σ		0.6%	0.952	0.810	0.778	2.404	0.875	0.574	0.637	0.600	1.1%
%RSD		0.5	1.054	0.914	0.855	2.500	0.896	0.584	0.650	0.611	1.0
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	102.300	100.800	98.790	97.630	264.400	263.500	105.5%	98.330	98.770	101.400
2	12:30:51	99.830	99.380	96.140	97.330	263.700	264.400	105.8%	98.400	98.910	100.600
3	12:31:18	101.000	100.400	98.220	97.530	262.100	261.900	107.2%	98.770	99.220	100.800
x		101.000	100.200	97.720	97.500	263.400	263.300	106.2%	98.500	98.970	100.900
σ		1.234	0.715	1.394	0.155	1.178	1.262	0.9%	0.236	0.231	0.420
%RSD		1.221	0.714	1.427	0.159	0.447	0.479	0.9	0.239	0.233	0.416
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	12:30:24	99.940	100.700	102.8%							
2	12:30:51	99.920	100.700	104.1%							
3	12:31:18	100.900	101.000	104.9%							
x		100.200	100.800	103.9%							
σ		0.546	0.182	1.0%							
%RSD		0.545	0.180	1.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	100.4%	0.095	1.705	1.559	47.880	┬717.400	┬663.300	669.100	661.400	┬369.400
2	12:36:58	101.4%	0.097	1.704	1.635	52.200	┬730.400	┬658.900	655.900	672.100	┬395.000
3	12:37:24	102.9%	0.088	1.476	1.436	43.050	┬720.400	664.900	649.300	646.800	┬364.500
x		101.6%	0.093	1.628	1.543	47.710	┬722.700	┬662.300	658.100	660.100	┬376.300
σ		1.3%	0.005	0.132	0.100	4.580	┬6.786	┬3.101	10.080	12.730	┬16.390
%RSD		1.3	5.247	8.102	6.499	9.600	┬0.939	┬0.468	1.532	1.929	┬4.354

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	┬985.800	┬19650.000	580.500	69.040	83.340	104.1%	21.610	1.899	0.427	453.100
2	12:36:58	┬961.900	┬20690.000	604.000	77.220	88.160	102.7%	20.670	2.099	0.541	484.400
3	12:37:24	┬946.000	┬19520.000	579.300	66.050	84.320	102.9%	21.020	1.878	0.484	496.200
x		┬964.600	┬19950.000	587.900	70.770	85.270	103.2%	21.100	1.959	0.484	477.900
σ		┬20.020	┬640.500	13.940	5.783	2.543	0.7%	0.475	0.122	0.057	22.300
%RSD		┬2.075	┬3.210	2.371	8.172	2.983	0.7	2.252	6.214	11.700	4.666

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	584.600	25.160	┬595.200	562.400	0.723	0.351	0.310	0.739	0.820	3.050
2	12:36:58	589.600	25.290	┬597.400	579.700	0.725	0.339	0.287	0.823	0.861	2.903
3	12:37:24	598.000	25.280	┬581.500	575.100	0.765	0.358	-0.135	0.795	0.771	2.666
x		590.700	25.250	┬591.400	572.400	0.738	0.350	0.154	0.786	0.817	2.873
σ		6.754	0.070	┬8.632	8.950	0.024	0.010	0.251	0.043	0.045	0.194
%RSD		1.143	0.279	┬1.460	1.564	3.243	2.756	163.000	5.439	5.513	6.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	4.827	4.123	-0.191	0.166	4.603	3.194	-2.297	-0.524	0.390	1.114
2	12:36:58	4.755	3.948	0.092	-0.519	3.515	4.719	-0.860	-0.127	-1.882	1.118
3	12:37:24	5.378	4.203	-0.001	-0.225	4.081	4.580	-1.311	-0.286	-0.576	1.097
x		4.986	4.091	-0.033	-0.193	4.066	4.164	-1.489	-0.312	-0.689	1.109
σ		0.341	0.131	0.144	0.344	0.544	0.843	0.735	0.200	1.140	0.011
%RSD		6.834	3.192	432.600	178.500	13.380	20.250	49.350	64.040	165.400	1.025

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	109.5%	0.050	0.027	0.027	-0.631	0.006	0.026	0.008	0.036	107.3%
2	12:36:58	108.3%	0.085	0.040	0.034	0.161	0.032	0.033	0.034	0.044	104.6%
3	12:37:24	109.6%	0.030	0.044	0.017	-1.721	0.016	0.010	0.012	0.022	108.1%
x		109.2%	0.055	0.037	0.026	-0.730	0.018	0.023	0.018	0.034	106.7%
σ		0.7%	0.028	0.009	0.009	0.945	0.013	0.012	0.014	0.011	1.8%
%RSD		0.7	50.240	23.160	32.700	129.400	73.560	51.150	78.720	32.110	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	0.130	0.243	0.008	0.018	33.030	33.530	107.2%	0.029	0.025	0.294
2	12:36:58	0.182	0.173	0.049	0.040	33.210	33.370	105.9%	0.052	0.041	0.306
3	12:37:24	0.153	0.200	0.014	0.015	34.130	32.710	108.2%	0.019	0.033	0.302
x		0.155	0.206	0.024	0.024	33.460	33.200	107.1%	0.033	0.033	0.301
σ		0.026	0.035	0.022	0.013	0.588	0.434	1.2%	0.017	0.008	0.006
%RSD		16.840	17.110	90.900	54.630	1.757	1.306	1.1	50.500	24.090	2.086

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:36:31	0.314	0.315	107.3%
2	12:36:58	0.308	0.316	104.3%
3	12:37:24	0.296	0.305	108.4%
x		0.306	0.312	106.6%
σ		0.009	0.006	2.1%
%RSD		3.072	1.975	2.0

CCV MW10994 04/30/2019 12:42:13 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	94.2%	303.400	318.300	316.200	86.040	T64550.000	T63550.000	T62400.000	T61540.000	292.700
2	12:43:07	94.6%	304.200	301.400	299.700	74.630	T62350.000	T62520.000	T61950.000	T62190.000	294.400
3	12:43:34	93.9%	306.300	321.600	318.100	78.690	T63500.000	T62930.000	T62980.000	T62540.000	302.400
x		94.2%	101.558%	104.586%	103.782%	79.790	T105.778%	T63000.000	T62450.000	T103.483%	98.833%
σ		0.3%	n/a	n/a	n/a	5.786	Tn/a	T515.300	T514.100	Tn/a	n/a
%RSD		0.3	0.490	3.457	3.260	7.252	T1.730	T0.818	T0.823	T0.822	1.741

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	T3327.000	692.500	T63320.000	62780.000	T61880.000	99.9%	305.300	310.100	303.000	757.800
2	12:43:07	T3215.000	627.500	T60340.000	61240.000	T61930.000	101.3%	302.300	309.900	297.800	231.900
3	12:43:34	T3364.000	695.700	T64290.000	62370.000	T62580.000	99.4%	310.400	317.200	300.700	1364.000
x		T110.070%	671.900	T104.413%	62130.000	T103.550%	100.2%	101.993%	104.140%	100.171%	784.500
σ		Tn/a	38.500	Tn/a	795.100	Tn/a	1.0%	n/a	n/a	n/a	566.400
%RSD		T2.352	5.731	T3.288	1.280	T0.627	1.0	1.348	1.333	0.873	72.200

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	T62750.000	293.000	T61900.000	T60400.000	296.800	288.800	296.300	290.100	294.800	294.600
2	12:43:07	T61930.000	295.800	T61840.000	T60270.000	292.900	286.000	278.100	282.200	281.400	290.300
3	12:43:34	T63250.000	297.900	T63400.000	T61900.000	297.400	289.800	293.300	291.500	289.400	291.600
x		T62640.000	98.533%	T62380.000	T101.429%	98.566%	96.066%	289.200	287.900	96.181%	97.376%
σ		T668.100	n/a	T885.000	Tn/a	n/a	n/a	9.730	5.026	n/a	n/a
%RSD		T1.066	0.835	T1.419	T1.491	0.827	0.687	3.364	1.746	2.350	0.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	289.900	290.900	290.900	299.900	1.148	0.390	1310.000	300.900	1.360	301.100
2	12:43:07	294.400	298.500	298.400	293.700	0.920	0.540	1277.000	289.700	4.353	302.100
3	12:43:34	293.100	290.700	293.000	296.800	0.930	0.891	1272.000	293.400	7.418	297.400
x		292.500	293.400	98.030%	296.800	0.999	0.607	1286.000	98.217%	4.377	100.071%
σ		2.330	4.485	n/a	3.094	0.129	0.257	20.740	n/a	3.029	n/a
%RSD		0.797	1.529	1.324	1.042	12.870	42.360	1.612	1.941	69.200	0.841

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	95.9%	314.500	318.700	317.400	300.200	289.300	290.300	298.800	297.200	95.0%
2	12:43:07	100.6%	315.600	317.800	318.000	297.800	291.700	293.500	305.000	303.300	100.4%
3	12:43:34	98.2%	314.600	315.100	316.600	301.300	290.100	290.800	297.800	297.200	96.4%
x		98.2%	104.965%	105.729%	317.300	299.800	96.792%	291.500	300.500	99.743%	97.3%
σ		2.4%	n/a	n/a	0.679	1.810	n/a	1.730	3.879	n/a	2.8%
%RSD		2.4	0.184	0.592	0.214	0.604	0.433	0.594	1.291	1.182	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	310.900	309.400	305.900	300.300	303.500	304.900	98.9%	297.700	302.800	297.300
2	12:43:07	314.100	311.300	316.200	310.700	307.600	305.000	104.1%	301.200	306.100	295.700
3	12:43:34	309.300	306.000	307.600	299.500	305.800	303.800	99.1%	299.200	305.500	296.000
x		103.813%	102.980%	309.900	101.164%	101.877%	101.519%	100.7%	299.400	101.606%	98.783%
σ		n/a	n/a	5.550	n/a	n/a	n/a	2.9%	1.718	n/a	n/a
%RSD		0.777	0.866	1.791	2.066	0.662	0.229	2.9	0.574	0.569	0.288

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:42:40	296.200	298.600	94.7%
2	12:43:07	297.200	299.300	100.0%
3	12:43:34	297.800	299.200	93.9%
x		99.016%	99.674%	96.2%
σ		n/a	n/a	3.3%
%RSD		0.275	0.130	3.4

CCB IM9390-01 04/30/2019 12:48:20 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	100.6%	0.072	2.304	2.064	9.216	9.550	7.905	8.211	7.908	0.098
2	12:49:15	103.2%	0.062	2.599	2.139	7.714	7.412	6.031	6.374	6.012	0.077
3	12:49:42	100.6%	0.037	2.128	1.630	12.170	7.442	6.247	6.012	5.904	0.065
x		101.5%	0.057	2.344	1.944	9.701	8.135	6.728	6.866	6.608	0.080
σ		1.5%	0.018	0.238	0.275	2.269	1.226	1.025	1.179	1.127	0.017
%RSD		1.5	31.320	10.150	14.130	23.390	15.070	15.240	17.180	17.050	20.740

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	15.380	399.100	16.370	4.031	7.839	102.1%	0.037	0.042	0.056	28.770
2	12:49:15	14.420	389.200	13.970	11.200	5.048	103.7%	-0.000	0.026	0.035	22.620
3	12:49:42	14.910	369.600	11.510	8.653	6.266	104.8%	-0.036	0.032	0.070	15.420
x		14.900	386.000	13.950	7.962	6.384	103.6%	0.000	0.034	0.054	22.270
σ		0.483	15.000	2.431	3.635	1.399	1.3%	0.036	0.008	0.018	6.681
%RSD		3.237	3.886	17.430	45.660	21.920	1.3	24280.000	24.280	33.400	30.000

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	9.702	0.102	11.140	12.960	0.065	0.045	-0.170	0.015	0.049	0.017
2	12:49:15	6.985	0.087	6.928	4.307	0.046	0.027	-0.447	0.004	0.029	0.032
3	12:49:42	6.585	0.075	6.845	-0.665	0.051	0.031	0.207	0.006	0.021	0.078
x		7.757	0.088	8.305	5.533	0.054	0.034	-0.137	0.009	0.033	0.042
σ		1.696	0.014	2.457	6.893	0.010	0.009	0.328	0.006	0.014	0.032
%RSD		21.860	15.350	29.580	124.600	18.450	27.430	240.000	67.400	43.220	75.630

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	0.003	0.052	-0.028	0.205	0.098	0.251	-1.247	-0.252	-2.072	0.037
2	12:49:15	0.023	0.106	0.042	-0.170	-0.013	-0.179	0.499	0.067	0.469	0.028
3	12:49:42	0.239	0.088	-0.033	-0.198	0.121	-0.147	-1.236	-0.353	2.287	0.021
x		0.088	0.082	-0.006	-0.054	0.069	-0.025	-0.661	-0.179	0.228	0.029
σ		0.131	0.027	0.042	0.225	0.072	0.239	1.005	0.219	2.190	0.008
%RSD		147.900	33.610	692.900	415.000	104.700	957.700	152.000	122.500	959.900	27.720

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	103.5%	0.113	0.044	0.062	0.226	0.032	0.040	0.030	0.050	104.7%
2	12:49:15	105.1%	0.074	0.034	0.062	-0.468	0.031	0.037	0.066	0.024	107.4%
3	12:49:42	107.4%	0.079	0.070	0.075	-0.766	0.041	0.032	0.022	0.035	109.2%
x		105.3%	0.089	0.049	0.066	-0.336	0.035	0.036	0.039	0.036	107.1%
σ		2.0%	0.021	0.019	0.007	0.509	0.006	0.004	0.023	0.013	2.3%
%RSD		1.9	23.750	37.850	10.840	151.400	16.230	11.480	59.070	36.100	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	0.073	0.113	0.127	0.106	0.092	0.073	103.5%	0.026	0.028	0.023
2	12:49:15	0.061	0.080	0.133	0.144	0.026	0.049	106.2%	0.007	0.029	0.036
3	12:49:42	0.073	0.117	0.126	0.108	0.051	0.062	108.4%	0.030	0.022	0.030
x		0.069	0.103	0.129	0.119	0.056	0.061	106.0%	0.021	0.026	0.030
σ		0.007	0.020	0.004	0.021	0.033	0.012	2.5%	0.012	0.004	0.006
%RSD		9.745	19.410	3.009	17.950	59.140	19.040	2.3	59.010	13.610	21.280

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:48:48	0.049	0.035	102.6%
2	12:49:15	0.037	0.035	107.6%
3	12:49:42	0.031	0.033	108.6%
x		0.039	0.034	106.3%
σ		0.010	0.001	3.2%
%RSD		24.550	3.097	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	99.1%	92.950	102.100	98.270	78.240	T 4283.000	T 4037.000	4016.000	T 3965.000	TM 1923.000
2	12:55:20	101.1%	92.160	97.710	95.940	75.740	T 4208.000	T 3928.000	3980.000	T 3960.000	TM 1925.000
3	12:55:47	101.8%	92.610	103.400	99.940	81.700	T 4204.000	T 3938.000	3974.000	T 3899.000	TM 1921.000
x		100.7%	92.570	101.100	98.050	78.560	T 4231.000	T 3968.000	3990.000	T 3941.000	TM 1923.000
σ		1.4%	0.399	2.985	2.010	2.992	T 44.450	T 60.410	22.900	T 36.400	TM 1.846
%RSD		1.4	0.431	2.953	2.050	3.809	T 1.050	T 1.522	0.574	T 0.923	TM 0.096
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	T 5800.000	T 90540.000	T 3725.000	1640.000	1520.000	106.3%	213.900	118.800	108.500	2746.000
2	12:55:20	T 5662.000	T 90570.000	T 3768.000	1566.000	1491.000	106.9%	T 206.300	117.700	107.200	2981.000
3	12:55:47	T 5517.000	T 93320.000	T 3870.000	1568.000	1519.000	104.5%	208.400	117.300	108.500	2789.000
x		T 5660.000	T 91480.000	T 3787.000	1591.000	1510.000	105.9%	T 209.500	117.900	108.100	2839.000
σ		T 141.400	T 1599.000	T 74.380	42.260	16.380	1.2%	T 3.942	0.793	0.728	125.200
%RSD		T 2.499	T 1.748	T 1.964	2.656	1.085	1.2	T 1.881	0.672	0.673	4.409
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	3992.000	229.100	T 3926.000	T 3918.000	110.900	108.900	103.000	107.400	110.900	120.300
2	12:55:20	T 3848.000	228.600	T 3897.000	3883.000	109.300	107.800	104.300	106.100	110.200	119.200
3	12:55:47	T 3881.000	229.000	T 3895.000	3886.000	109.600	108.200	101.100	105.300	109.700	118.800
x		T 3907.000	228.900	T 3906.000	T 3896.000	110.000	108.300	102.800	106.300	110.300	119.400
σ		T 75.570	0.281	T 17.170	T 19.760	0.858	0.535	1.627	1.105	0.618	0.777
%RSD		T 1.934	0.123	T 0.440	T 0.507	0.780	0.494	1.582	1.040	0.560	0.651
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	122.500	121.000	108.300	110.600	17.520	16.390	433.400	108.100	0.930	100.400
2	12:55:20	120.400	121.400	106.100	102.000	17.230	16.140	446.000	109.900	1.214	100.500
3	12:55:47	120.800	119.400	106.000	107.800	16.640	17.070	424.600	105.400	7.432	99.780
x		121.200	120.600	106.800	106.800	17.130	16.530	434.700	107.800	3.192	100.200
σ		1.104	1.087	1.298	4.416	0.446	0.480	10.780	2.283	3.675	0.397
%RSD		0.911	0.901	1.215	4.135	2.603	2.903	2.479	2.118	115.100	0.396
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	119.1%	99.630	97.270	98.640	106.400	105.500	106.000	106.000	106.800	106.1%
2	12:55:20	117.2%	99.880	97.620	99.640	106.200	105.400	106.000	106.500	107.000	106.0%
3	12:55:47	117.6%	100.200	98.010	100.100	104.600	106.200	107.600	106.500	107.400	105.0%
x		118.0%	99.900	97.640	99.450	105.800	105.700	106.500	106.300	107.000	105.7%
σ		1.0%	0.286	0.372	0.737	0.978	0.403	0.937	0.301	0.306	0.6%
%RSD		0.8	0.286	0.381	0.741	0.925	0.382	0.880	0.284	0.286	0.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	110.700	108.900	105.300	104.900	272.300	271.200	106.9%	107.300	107.700	110.400
2	12:55:20	110.500	109.300	103.000	103.800	268.500	269.500	107.2%	107.400	107.200	109.100
3	12:55:47	110.500	109.400	104.700	102.800	266.800	270.400	106.9%	107.000	107.600	108.600
x		110.600	109.200	104.400	103.800	269.200	270.300	107.0%	107.200	107.500	109.300
σ		0.118	0.268	1.169	1.053	2.830	0.848	0.2%	0.181	0.246	0.944
%RSD		0.107	0.246	1.120	1.014	1.051	0.314	0.2	0.168	0.229	0.863
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	12:54:53	109.800	110.200	106.1%							
2	12:55:20	108.600	108.600	103.7%							
3	12:55:47	108.800	108.900	103.8%							
x		109.100	109.200	104.5%							
σ		0.662	0.851	1.3%							
%RSD		0.607	0.779	1.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	99.6%	0.112	9.549	9.194	82.710	T 1334.000	T 1132.000	1113.000	1121.000	131.400
2	13:01:24	105.2%	0.060	9.167	8.938	83.070	T 1320.000	T 1111.000	1122.000	1144.000	137.700
3	13:01:51	100.5%	0.155	9.615	9.097	82.160	T 1373.000	T 1158.000	1122.000	1119.000	T 129.300
x		101.8%	0.109	9.444	9.076	82.650	T 1342.000	T 1134.000	1119.000	1128.000	T 132.800
σ		3.0%	0.048	0.242	0.129	0.456	T 27.130	T 23.120	5.267	13.740	T 4.356
%RSD		3.0	43.770	2.560	1.423	0.552	T 2.021	T 2.039	0.471	1.218	T 3.281

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	T 2447.000	T 92560.000	T 1433.000	1845.000	1743.000	104.6%	6.669	0.201	1.097	2158.000
2	13:01:24	T 2412.000	T 96030.000	T 1476.000	1855.000	1740.000	101.7%	6.300	0.175	1.196	2554.000
3	13:01:51	T 2410.000	T 94660.000	T 1460.000	1831.000	1763.000	105.7%	6.818	0.453	1.031	2050.000
x		T 2423.000	T 94410.000	T 1456.000	1844.000	1748.000	104.0%	6.596	0.276	1.108	2254.000
σ		T 20.870	T 1747.000	T 21.720	11.650	12.440	2.0%	0.267	0.154	0.083	265.400
%RSD		T 0.861	T 1.851	T 1.491	0.632	0.712	2.0	4.048	55.700	7.482	11.780

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	142.700	TM 747.000	137.600	136.400	4.786	2.594	2.368	0.340	0.376	42.020
2	13:01:24	145.600	TM 748.600	142.100	149.000	4.835	2.678	2.231	0.418	0.382	42.660
3	13:01:51	140.300	TM 748.700	141.800	138.200	4.713	2.618	1.862	0.346	0.411	43.400
x		142.900	TM 748.100	140.500	141.200	4.778	2.630	2.154	0.368	0.390	42.690
σ		2.643	TM 0.975	2.538	6.801	0.061	0.043	0.262	0.044	0.019	0.691
%RSD		1.850	TM 0.130	1.806	4.817	1.285	1.648	12.150	11.880	4.862	1.617

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	40.170	44.520	-0.140	-0.066	3.702	4.286	-1.192	-0.247	-1.615	9.995
2	13:01:24	40.850	43.580	-0.171	0.021	4.305	4.542	-1.104	-0.318	2.721	9.988
3	13:01:51	42.510	43.610	0.043	-0.173	4.606	4.618	-0.997	-0.232	-0.226	10.010
x		41.170	43.900	-0.089	-0.073	4.204	4.482	-1.098	-0.266	0.293	9.999
σ		1.203	0.534	0.116	0.097	0.460	0.174	0.098	0.046	2.214	0.014
%RSD		2.922	1.217	129.600	133.500	10.950	3.881	8.928	17.290	755.300	0.141

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	106.4%	0.070	0.050	0.051	-0.663	0.022	0.010	0.033	0.035	107.0%
2	13:01:24	105.0%	0.056	0.064	0.033	-1.547	0.013	0.011	0.005	0.021	104.4%
3	13:01:51	106.3%	0.021	0.050	0.033	-0.433	0.008	0.016	0.015	0.023	106.8%
x		105.9%	0.049	0.055	0.039	-0.881	0.014	0.013	0.018	0.026	106.1%
σ		0.8%	0.025	0.008	0.010	0.588	0.007	0.003	0.014	0.008	1.4%
%RSD		0.8	51.460	14.620	26.540	66.740	50.210	24.390	81.540	29.230	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	0.556	0.749	0.236	0.229	41.410	40.750	107.1%	0.027	0.024	0.088
2	13:01:24	0.487	0.745	0.245	0.211	41.220	40.930	104.0%	0.030	0.025	0.105
3	13:01:51	0.577	0.662	0.223	0.255	39.550	40.740	108.6%	0.026	0.028	0.107
x		0.540	0.719	0.235	0.231	40.730	40.810	106.6%	0.028	0.026	0.100
σ		0.047	0.049	0.011	0.022	1.026	0.104	2.3%	0.002	0.002	0.011
%RSD		8.748	6.868	4.742	9.607	2.518	0.255	2.2	7.643	6.916	10.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:00:57	0.121	0.102	106.0%
2	13:01:24	0.101	0.111	102.6%
3	13:01:51	0.104	0.101	107.5%
x		0.109	0.105	105.4%
σ		0.011	0.005	2.5%
%RSD		9.944	5.206	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	102.2%	0.254	3.088	2.889	74.940	T 1434.000	T 2046.000	2036.000	2074.000	TM 6304.000
2	13:07:27	103.4%	0.190	3.145	2.841	85.510	T 1419.000	T 2002.000	2010.000	1985.000	TM 5983.000
3	13:07:54	102.6%	0.187	2.751	3.013	62.590	T 1424.000	T 2043.000	2070.000	2032.000	TM 6178.000
x		102.8%	0.210	2.995	2.914	74.340	T 1426.000	T 2030.000	2039.000	2030.000	TM 6155.000
σ		0.6%	0.038	0.213	0.089	11.470	T 7.659	T 24.500	30.360	44.710	TM 161.400
%RSD		0.6	18.180	7.126	3.055	15.430	T 0.537	T 1.207	1.489	2.202	TM 2.623

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	TM 12530.000	T 90220.000	T 2745.000	1012.000	1017.000	106.1%	192.800	10.690	4.607	2126.000
2	13:07:27	TM 12180.000	T 87700.000	T 2689.000	935.400	1017.000	108.1%	194.400	11.070	4.333	2004.000
3	13:07:54	TM 12460.000	T 87310.000	T 2665.000	987.700	1019.000	108.5%	197.100	11.230	4.343	1988.000
x		TM 12390.000	T 88410.000	T 2700.000	978.500	1018.000	107.6%	194.800	11.000	4.428	2040.000
σ		TM 184.200	T 1577.000	T 41.120	39.300	1.063	1.3%	2.180	0.279	0.155	75.590
%RSD		TM 1.486	T 1.783	T 1.523	4.017	0.105	1.2	1.119	2.539	3.501	3.706

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	5392.000	175.200	T 5210.000	5224.000	2.382	2.332	2.516	6.547	6.834	10.660
2	13:07:27	5377.000	177.200	T 5203.000	5144.000	2.538	2.350	2.322	6.452	6.934	10.880
3	13:07:54	5412.000	178.200	T 5263.000	5237.000	2.496	2.473	2.342	6.468	6.586	10.960
x		5393.000	176.900	T 5225.000	5202.000	2.472	2.385	2.394	6.489	6.785	10.830
σ		17.410	1.504	T 32.970	50.630	0.081	0.077	0.107	0.051	0.179	0.153
%RSD		0.323	0.850	T 0.631	0.973	3.273	3.211	4.459	0.783	2.637	1.409

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	16.870	14.850	-0.043	-0.347	4.011	4.690	-1.874	-0.412	1.445	9.444
2	13:07:27	17.130	14.680	-0.001	0.135	4.480	3.713	1.765	0.520	-0.365	9.593
3	13:07:54	16.420	14.760	0.032	0.277	5.358	4.498	1.122	0.387	-1.535	9.604
x		16.810	14.760	-0.004	0.022	4.616	4.300	0.338	0.165	-0.152	9.547
σ		0.361	0.086	0.038	0.327	0.684	0.517	1.942	0.504	1.502	0.090
%RSD		2.150	0.585	873.100	1503.000	14.820	12.030	575.500	305.800	989.900	0.939

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	113.7%	0.115	0.060	0.118	0.843	0.009	0.017	0.015	0.016	106.2%
2	13:07:27	115.7%	0.120	0.082	0.117	-0.297	0.006	0.004	0.032	0.019	107.1%
3	13:07:54	117.2%	0.123	0.168	0.133	0.038	-0.001	0.011	0.028	0.020	108.6%
x		115.5%	0.120	0.104	0.123	0.195	0.005	0.011	0.025	0.018	107.3%
σ		1.7%	0.004	0.057	0.009	0.586	0.005	0.007	0.009	0.002	1.2%
%RSD		1.5	3.446	55.000	7.464	300.700	101.500	63.350	36.540	10.340	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	0.558	0.735	0.141	0.130	114.900	116.600	107.0%	0.037	0.044	3.078
2	13:07:27	0.644	0.728	0.142	0.137	118.400	117.000	108.6%	0.040	0.037	3.050
3	13:07:54	0.635	0.734	0.142	0.149	116.400	117.100	110.4%	0.053	0.047	2.937
x		0.612	0.732	0.142	0.139	116.600	116.900	108.7%	0.043	0.043	3.022
σ		0.047	0.004	0.001	0.010	1.735	0.243	1.7%	0.008	0.005	0.075
%RSD		7.688	0.538	0.554	6.920	1.488	0.208	1.6	18.800	12.530	2.467

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:07:00	2.845	2.940	105.4%
2	13:07:27	2.895	2.997	108.3%
3	13:07:54	2.882	2.931	110.2%
x		2.874	2.956	108.0%
σ		0.026	0.036	2.4%
%RSD		0.905	1.215	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	101.5%	0.193	3.837	3.537	86.700	┬1764.000	┬2096.000	2071.000	2087.000	78.280
2	13:13:34	102.5%	0.246	3.471	3.117	85.660	┬1754.000	┬2112.000	2102.000	2140.000	┬80.470
3	13:14:02	100.8%	0.219	3.767	3.864	92.950	┬1825.000	┬2155.000	2105.000	2084.000	74.780
x		101.6%	0.219	3.691	3.506	88.440	┬1781.000	┬2121.000	2093.000	2104.000	┬77.840
σ		0.8%	0.026	0.194	0.374	3.940	┬38.750	┬30.340	18.600	31.540	┬2.869
%RSD		0.8	12.080	5.261	10.680	4.455	┬2.176	┬1.430	0.889	1.499	┬3.686

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	┬5485.000	┬98620.000	┬2342.000	4551.000	4368.000	103.6%	3.263	0.317	2.569	2678.000
2	13:13:34	┬5477.000	┬98560.000	┬2318.000	4577.000	4348.000	103.9%	3.716	0.350	2.616	2730.000
3	13:14:02	┬5427.000	┬97690.000	┬2270.000	4483.000	4346.000	107.6%	3.539	0.285	2.397	2522.000
x		┬5463.000	┬98290.000	┬2310.000	4537.000	4354.000	105.0%	3.506	0.317	2.527	2644.000
σ		┬31.170	┬519.700	┬36.360	48.320	12.400	2.2%	0.228	0.033	0.116	108.200
%RSD		┬0.571	┬0.529	┬1.574	1.065	0.285	2.1	6.508	10.290	4.569	4.093

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	92.540	20.180	89.090	122.600	0.453	0.387	-0.120	0.261	0.303	3.783
2	13:13:34	93.770	20.470	93.040	121.600	0.411	0.363	0.237	0.261	0.330	4.084
3	13:14:02	94.750	20.570	89.230	104.600	0.409	0.319	-0.055	0.327	0.302	3.713
x		93.690	20.400	90.450	116.300	0.424	0.356	0.021	0.283	0.312	3.860
σ		1.106	0.202	2.237	10.120	0.025	0.034	0.190	0.038	0.016	0.197
%RSD		1.180	0.990	2.473	8.704	5.875	9.569	924.900	13.500	5.022	5.108

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	10.040	8.098	-0.118	-0.069	6.554	6.388	-0.983	-0.216	-0.811	28.470
2	13:13:34	9.328	7.860	0.001	-0.226	6.215	6.089	1.874	0.423	1.027	28.430
3	13:14:02	8.642	8.357	-0.100	-0.091	6.132	6.745	-1.075	-0.236	-1.108	28.640
x		9.336	8.105	-0.072	-0.129	6.300	6.407	-0.062	-0.010	-0.297	28.510
σ		0.698	0.249	0.064	0.085	0.223	0.329	1.677	0.374	1.156	0.110
%RSD		7.473	3.067	88.180	66.040	3.546	5.128	2717.000	3867.000	389.300	0.387

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	106.4%	-0.007	-0.000	0.022	0.128	-0.004	-0.000	0.012	0.036	106.4%
2	13:13:34	105.7%	0.043	-0.013	0.009	-1.018	-0.001	-0.001	0.038	0.031	103.6%
3	13:14:02	107.8%	0.010	0.008	0.009	0.329	-0.003	0.001	0.004	0.023	108.6%
x		106.6%	0.015	-0.002	0.013	-0.187	-0.003	-0.000	0.018	0.030	106.2%
σ		1.0%	0.025	0.010	0.007	0.727	0.002	0.001	0.018	0.007	2.5%
%RSD		1.0	167.100	555.100	55.820	388.700	60.020	785.400	97.650	21.770	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	0.502	0.674	0.129	0.106	102.400	101.700	106.0%	0.029	0.020	0.060
2	13:13:34	0.559	0.671	0.107	0.104	101.100	100.300	104.1%	0.022	0.025	0.058
3	13:14:02	0.495	0.671	0.120	0.115	102.200	101.300	109.2%	0.025	0.030	0.064
x		0.519	0.672	0.119	0.108	101.900	101.100	106.4%	0.025	0.025	0.061
σ		0.035	0.002	0.011	0.006	0.729	0.735	2.6%	0.003	0.005	0.003
%RSD		6.723	0.274	9.246	5.715	0.715	0.727	2.4	13.290	19.520	5.173

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:13:06	0.061	0.060	103.9%
2	13:13:34	0.058	0.055	103.4%
3	13:14:02	0.059	0.066	107.7%
x		0.059	0.060	105.0%
σ		0.001	0.006	2.4%
%RSD		2.010	9.576	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	102.1%	0.332	3.958	3.251	88.920	T 3146.000	T 2237.000	2220.000	2237.000	TM 1700.000
2	13:19:40	102.3%	0.359	4.065	3.157	78.600	T 3145.000	T 2205.000	2207.000	2247.000	TM 1676.000
3	13:20:08	102.2%	0.220	3.188	2.838	80.080	T 3124.000	T 2185.000	2147.000	2189.000	TM 1662.000
x		102.2%	0.304	3.737	3.082	82.540	T 3138.000	T 2209.000	2191.000	2224.000	TM 1679.000
σ		0.1%	0.074	0.479	0.217	5.579	T 12.520	T 26.020	38.890	31.210	TM 19.240
%RSD		0.1	24.350	12.810	7.038	6.759	T 0.399	T 1.178	1.775	1.403	TM 1.145

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	T 9263.000	T 96980.000	T 2027.000	5852.000	5600.000	103.4%	76.180	3.399	5.970	2777.000
2	13:19:40	T 9125.000	T 96030.000	T 1950.000	5718.000	5506.000	106.2%	73.970	3.200	5.634	2605.000
3	13:20:08	T 9135.000	T 97870.000	T 2033.000	5758.000	5505.000	105.9%	74.540	3.189	5.694	2933.000
x		T 9174.000	T 96960.000	T 2003.000	5776.000	5537.000	105.2%	74.900	3.263	5.766	2772.000
σ		T 76.840	T 923.100	T 46.470	68.950	54.800	1.5%	1.148	0.118	0.179	163.700
%RSD		T 0.838	T 0.952	T 2.319	1.194	0.990	1.4	1.533	3.620	3.107	5.906

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	1174.000	40.890	T 1177.000	1194.000	0.680	1.069	1.380	1.169	1.223	4.915
2	13:19:40	1146.000	40.260	T 1149.000	1169.000	0.659	1.031	0.651	1.079	1.143	4.790
3	13:20:08	1160.000	40.190	T 1158.000	1143.000	0.662	1.085	1.390	1.143	1.269	4.700
x		1160.000	40.440	T 1161.000	1168.000	0.667	1.062	1.140	1.130	1.212	4.802
σ		13.700	0.386	T 14.460	25.640	0.012	0.027	0.424	0.046	0.064	0.108
%RSD		1.181	0.954	T 1.245	2.194	1.749	2.568	37.160	4.062	5.241	2.251

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	7.840	7.489	0.293	0.073	5.498	5.045	-0.827	-0.168	0.522	43.020
2	13:19:40	7.662	7.252	-0.001	-0.033	5.469	5.626	0.202	0.056	1.689	42.710
3	13:20:08	7.574	7.179	-0.135	0.206	5.543	5.148	-0.419	-0.028	-1.838	42.580
x		7.692	7.307	0.052	0.082	5.503	5.273	-0.348	-0.047	0.124	42.770
σ		0.136	0.162	0.219	0.119	0.038	0.310	0.518	0.113	1.797	0.231
%RSD		1.761	2.212	417.900	145.500	0.683	5.876	148.800	242.100	1446.000	0.540

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	107.5%	0.013	-0.001	0.010	3.310	0.003	0.003	0.038	0.019	103.3%
2	13:19:40	110.0%	-0.003	0.011	-0.003	0.917	0.000	0.002	0.016	0.015	105.0%
3	13:20:08	106.8%	0.016	0.012	-0.005	1.102	-0.000	0.000	0.012	0.019	104.0%
x		108.1%	0.009	0.007	0.001	1.776	0.001	0.002	0.022	0.018	104.1%
σ		1.7%	0.010	0.007	0.008	1.331	0.002	0.001	0.014	0.002	0.9%
%RSD		1.6	113.400	94.130	1088.000	74.950	159.700	69.490	64.150	12.950	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	0.657	0.841	0.100	0.086	60.830	62.510	103.6%	-0.000	-0.004	0.796
2	13:19:40	0.679	0.847	0.095	0.102	62.020	61.880	106.0%	-0.001	0.004	0.864
3	13:20:08	0.695	0.883	0.091	0.118	62.450	62.780	104.1%	0.011	0.007	0.802
x		0.677	0.857	0.095	0.102	61.760	62.390	104.6%	0.003	0.002	0.821
σ		0.019	0.023	0.005	0.016	0.841	0.461	1.3%	0.007	0.006	0.037
%RSD		2.795	2.628	4.946	15.750	1.361	0.739	1.2	215.600	268.000	4.533

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:19:13	0.760	0.767	101.8%
2	13:19:40	0.722	0.743	105.4%
3	13:20:08	0.748	0.748	102.4%
x		0.744	0.753	103.2%
σ		0.019	0.013	1.9%
%RSD		2.573	1.674	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	104.0%	0.016	1.030	0.391	63.890	7.488	2.354	2.052	2.479	1.533
2	13:25:47	105.3%	-0.021	0.524	0.549	74.390	8.931	2.532	2.838	2.452	1.430
3	13:26:14	103.2%	0.020	0.955	0.616	62.240	8.103	2.556	2.942	2.515	1.502
x		104.2%	0.005	0.836	0.518	66.840	8.174	2.481	2.610	2.482	1.488
σ		1.0%	0.022	0.273	0.116	6.591	0.724	0.110	0.487	0.032	0.053
%RSD		1.0	460.600	32.670	22.320	9.862	8.858	4.446	18.640	1.269	3.541

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	18.520	T 81110.000	18.400	10.450	6.788	104.6%	-0.047	-0.118	0.664	2607.000
2	13:25:47	17.920	T 82330.000	17.110	8.734	6.404	104.0%	-0.081	0.071	0.783	2711.000
3	13:26:14	18.470	T 82340.000	15.260	4.437	6.699	104.8%	-0.024	-0.142	0.731	2655.000
x		18.300	T 81930.000	16.920	7.874	6.630	104.5%	-0.051	-0.063	0.726	2658.000
σ		0.332	T 706.600	1.582	3.098	0.201	0.4%	0.029	0.116	0.060	51.890
%RSD		1.816	T 0.863	9.347	39.340	3.030	0.4	56.170	184.800	8.249	1.952

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	112.800	0.831	115.400	95.180	0.024	0.179	-0.005	0.289	0.237	0.207
2	13:25:47	106.200	0.799	107.400	88.190	0.021	0.167	0.230	0.214	0.228	0.251
3	13:26:14	100.200	0.806	100.200	79.410	0.025	0.129	-0.066	0.247	0.231	0.241
x		106.400	0.812	107.700	87.600	0.023	0.158	0.053	0.250	0.232	0.233
σ		6.298	0.017	7.607	7.902	0.002	0.026	0.156	0.038	0.004	0.023
%RSD		5.919	2.036	7.066	9.021	7.644	16.610	293.700	15.070	1.916	10.010

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	0.356	0.201	-0.035	-0.092	1.515	1.824	1.545	0.378	-1.320	0.011
2	13:25:47	0.514	0.223	-0.152	0.317	0.868	0.696	-0.279	-0.048	-0.703	0.007
3	13:26:14	0.350	0.318	-0.144	-0.024	1.180	1.409	-1.014	-0.235	0.345	0.013
x		0.407	0.247	-0.110	0.067	1.188	1.309	0.084	0.032	-0.559	0.010
σ		0.093	0.062	0.065	0.219	0.324	0.571	1.317	0.314	0.842	0.003
%RSD		22.890	25.040	59.100	327.400	27.260	43.590	1563.000	993.700	150.600	30.430

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	104.4%	0.006	0.026	0.005	-0.423	-0.004	-0.002	0.001	0.007	104.4%
2	13:25:47	104.3%	0.006	0.005	-0.001	-0.260	-0.006	0.000	0.001	0.006	104.1%
3	13:26:14	106.9%	0.000	0.029	0.001	-1.302	-0.004	-0.001	0.001	-0.008	106.1%
x		105.2%	0.004	0.020	0.002	-0.662	-0.004	-0.001	0.001	0.002	104.9%
σ		1.4%	0.003	0.013	0.003	0.560	0.001	0.001	0.000	0.008	1.1%
%RSD		1.4	79.720	67.090	153.500	84.700	32.000	136.300	3.702	459.700	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	0.248	0.427	0.049	0.030	0.026	0.016	106.4%	-0.017	-0.021	-0.015
2	13:25:47	0.329	0.439	0.048	0.055	0.001	-0.004	103.1%	-0.017	-0.020	-0.009
3	13:26:14	0.303	0.438	0.055	0.058	-0.010	0.035	105.4%	-0.019	-0.017	-0.010
x		0.293	0.434	0.051	0.048	0.006	0.016	105.0%	-0.018	-0.020	-0.011
σ		0.041	0.007	0.004	0.016	0.019	0.019	1.7%	0.001	0.002	0.003
%RSD		14.050	1.588	7.719	32.830	329.000	122.400	1.6	8.091	11.650	28.690

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:25:20	-0.019	-0.016	105.5%
2	13:25:47	-0.017	-0.013	101.7%
3	13:26:14	-0.017	-0.013	105.5%
x		-0.018	-0.014	104.2%
σ		0.002	0.002	2.2%
%RSD		9.112	15.890	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	103.9%	98.140	101.600	96.300	70.170	T1028.000	T1012.000	1019.000	1027.000	100.900
2	13:31:54	105.2%	101.300	106.700	101.000	69.670	T1036.000	T1030.000	1033.000	1019.000	97.860
3	13:32:22	103.8%	99.420	107.100	100.200	76.170	T1057.000	T1046.000	1032.000	1055.000	103.400
x		104.3%	99.631%	105.100	99.142%	72.000	T104.004%	T1029.000	1028.000	103.374%	100.728%
σ		0.8%	n/a	3.083	n/a	3.616	Tn/a	T16.590	7.976	n/a	n/a
%RSD		0.7	1.610	2.933	2.515	5.023	T1.464	T1.612	0.776	1.864	2.741
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	T937.300	T80410.000	1056.000	1158.000	1032.000	104.1%	99.870	98.690	99.520	2982.000
2	13:31:54	956.600	T79570.000	1038.000	1160.000	1031.000	103.7%	100.700	102.600	100.300	1990.000
3	13:32:22	T936.400	T82710.000	1079.000	1146.000	1029.000	101.9%	102.200	100.100	101.200	2906.000
x		T94.344%	T80900.000	105.744%	1155.000	103.074%	103.3%	100.940%	100.487%	100.317%	2626.000
σ		Tn/a	T1627.000	n/a	7.437	n/a	1.2%	n/a	n/a	n/a	552.200
%RSD		T1.211	T2.011	1.949	0.644	0.146	1.1	1.188	1.988	0.829	21.030
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	1084.000	98.460	T1067.000	1028.000	100.200	99.670	96.880	102.500	102.700	101.100
2	13:31:54	1081.000	99.460	T1062.000	1001.000	99.950	99.300	95.350	99.560	101.000	101.000
3	13:32:22	1108.000	99.050	T1065.000	1032.000	101.700	101.000	98.510	102.400	99.570	99.160
x		1091.000	98.989%	T1064.000	102.054%	100.609%	99.986%	96.910	101.500	101.065%	100.396%
σ		14.720	n/a	T2.308	n/a	n/a	n/a	1.579	1.682	n/a	n/a
%RSD		1.349	0.510	T0.217	1.663	0.942	0.887	1.630	1.657	1.544	1.068
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	104.800	100.800	100.400	104.400	1.123	0.853	445.200	102.000	0.336	96.630
2	13:31:54	100.400	100.800	102.900	103.300	0.906	1.309	456.300	103.100	0.848	95.820
3	13:32:22	101.100	102.700	99.320	101.400	1.071	1.168	425.300	96.410	2.488	96.620
x		102.100	101.500	100.880%	103.100	1.033	1.110	442.300	100.504%	1.224	96.360
σ		2.352	1.109	n/a	1.524	0.114	0.233	15.690	n/a	1.124	0.461
%RSD		2.305	1.093	1.846	1.479	10.990	21.020	3.549	3.573	91.850	0.478
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	103.9%	98.600	99.370	97.920	101.900	99.190	99.680	99.930	99.040	102.6%
2	13:31:54	105.4%	98.210	100.200	98.220	101.700	99.040	98.090	99.920	99.170	105.2%
3	13:32:22	102.8%	98.820	100.400	98.340	99.100	98.230	97.540	100.200	97.790	102.3%
x		104.0%	98.550	99.987%	98.160	100.900	98.821%	98.440	100.000	98.665%	103.4%
σ		1.3%	0.308	n/a	0.218	1.564	n/a	1.110	0.156	n/a	1.6%
%RSD		1.3	0.313	0.541	0.223	1.550	0.520	1.127	0.156	0.775	1.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	100.200	99.530	97.720	99.140	100.900	99.690	102.9%	98.450	98.500	100.100
2	13:31:54	101.100	100.200	99.060	99.130	100.400	98.890	106.0%	99.130	99.530	100.800
3	13:32:22	100.600	99.410	96.740	97.880	100.200	100.900	102.5%	99.720	100.400	99.780
x		100.600	99.701%	97.840	98.716%	100.523%	99.840	103.8%	99.100	99.490%	100.200
σ		0.441	n/a	1.165	n/a	n/a	1.037	1.9%	0.636	n/a	0.499
%RSD		0.438	0.403	1.191	0.735	0.366	1.038	1.9	0.642	0.977	0.498
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	13:31:26	100.200	100.200	101.8%							
2	13:31:54	99.590	100.100	105.9%							
3	13:32:22	100.300	100.200	101.2%							
x		100.000	100.183%	103.0%							
σ		0.396	n/a	2.5%							
%RSD		0.396	0.051	2.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	104.4%	0.102	5.571	5.644	65.070	T 772.700	625.900	613.100	613.000	21.310
2	13:38:00	105.4%	0.112	5.450	5.495	52.080	T 743.000	T 605.400	594.700	614.600	22.450
3	13:38:27	104.6%	0.045	6.123	5.310	55.830	T 752.000	T 607.700	591.200	595.200	21.150
x		104.8%	0.086	5.715	5.483	57.660	T 755.900	T 613.000	599.700	607.600	21.640
σ		0.5%	0.036	0.359	0.167	6.684	T 15.240	T 11.230	11.780	10.730	0.711
%RSD		0.5	42.000	6.274	3.045	11.590	T 2.016	T 1.831	1.964	1.766	3.284

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	T 2189.000	T 81880.000	338.500	333.600	336.900	101.4%	0.403	-0.138	0.896	2365.000
2	13:38:00	T 2237.000	T 82680.000	338.300	322.900	342.000	101.7%	0.566	-0.020	0.932	2433.000
3	13:38:27	T 2252.000	T 81640.000	326.400	360.900	337.000	104.9%	0.454	-0.125	0.854	2327.000
x		T 2226.000	T 82070.000	334.400	339.100	338.600	102.7%	0.474	-0.094	0.894	2375.000
σ		T 33.030	T 543.000	6.957	19.630	2.928	2.0%	0.083	0.065	0.039	53.750
%RSD		T 1.484	T 0.662	2.080	5.789	0.865	1.9	17.580	68.370	4.381	2.264

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	5.187	7.003	1.987	-3.175	0.319	0.376	-0.007	0.243	0.169	0.914
2	13:38:00	5.963	6.799	2.494	-0.101	0.306	0.220	0.156	0.237	0.204	0.934
3	13:38:27	5.096	6.697	2.014	-10.210	0.292	0.384	0.040	0.261	0.230	0.960
x		5.415	6.833	2.165	-4.496	0.306	0.327	0.063	0.247	0.201	0.936
σ		0.476	0.156	0.285	5.184	0.014	0.093	0.084	0.012	0.031	0.023
%RSD		8.798	2.280	13.170	115.300	4.556	28.320	133.000	4.969	15.380	2.466

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	3.009	2.163	-0.141	0.171	2.110	1.833	-2.146	-0.528	2.065	4.130
2	13:38:00	2.377	2.529	-0.124	0.397	2.341	2.204	-1.801	-0.361	-1.587	4.173
3	13:38:27	2.629	2.156	-0.099	-0.142	2.197	2.140	-2.155	-0.492	0.447	4.223
x		2.672	2.283	-0.121	0.142	2.216	2.059	-2.034	-0.460	0.308	4.175
σ		0.318	0.213	0.021	0.270	0.116	0.198	0.202	0.088	1.830	0.047
%RSD		11.900	9.345	17.540	190.400	5.255	9.620	9.913	19.080	593.700	1.115

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	105.7%	0.066	0.021	0.042	0.124	0.014	0.009	0.019	0.034	103.9%
2	13:38:00	101.9%	0.031	0.005	0.063	-0.093	0.011	0.013	0.024	0.044	100.4%
3	13:38:27	105.2%	0.085	0.051	0.057	0.248	0.001	0.011	0.030	0.017	104.1%
x		104.3%	0.061	0.026	0.054	0.093	0.009	0.011	0.025	0.031	102.8%
σ		2.1%	0.027	0.023	0.011	0.173	0.007	0.002	0.006	0.014	2.1%
%RSD		2.0	44.610	89.880	20.010	185.400	83.650	17.810	22.520	43.620	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	0.342	0.394	0.210	0.225	28.690	28.720	105.5%	0.031	0.031	0.048
2	13:38:00	0.293	0.386	0.205	0.194	28.750	28.400	101.0%	0.013	0.025	0.060
3	13:38:27	0.324	0.458	0.214	0.222	28.360	28.570	104.0%	0.020	0.024	0.063
x		0.319	0.413	0.209	0.214	28.600	28.560	103.5%	0.021	0.027	0.057
σ		0.025	0.039	0.005	0.017	0.209	0.161	2.3%	0.009	0.004	0.008
%RSD		7.797	9.508	2.226	7.907	0.731	0.563	2.2	41.220	14.220	14.030

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:37:33	0.057	0.051	104.7%
2	13:38:00	0.070	0.057	100.7%
3	13:38:27	0.034	0.050	104.4%
x		0.054	0.053	103.3%
σ		0.018	0.003	2.3%
%RSD		33.980	6.518	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	104.2%	100.000	107.400	100.700	72.140	T1789.000	T1677.000	1642.000	1632.000	119.400
2	13:44:04	104.2%	98.310	100.900	102.300	76.670	T1739.000	T1629.000	1653.000	1645.000	119.700
3	13:44:31	105.4%	101.100	105.300	97.730	68.060	T1796.000	T1653.000	1636.000	1636.000	120.200
x		104.6%	99.800	104.500	100.200	72.290	T1774.000	T1653.000	1644.000	1638.000	119.800
σ		0.7%	1.392	3.360	2.333	4.307	T30.990	T24.310	8.389	6.223	0.408
%RSD		0.7	1.395	3.215	2.327	5.958	T1.746	T1.471	0.510	0.380	0.341

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	T3172.000	T79750.000	T1370.000	1494.000	1368.000	103.5%	100.000	99.630	98.710	3257.000
2	13:44:04	T3140.000	T80130.000	T1333.000	1503.000	1352.000	104.1%	101.700	101.000	97.810	2594.000
3	13:44:31	T3142.000	T80790.000	T1349.000	1457.000	1358.000	105.0%	100.600	101.600	99.070	2147.000
x		T3151.000	T80220.000	T1350.000	1485.000	1359.000	104.2%	100.800	100.700	98.530	2666.000
σ		T17.790	T529.100	T18.520	24.530	8.439	0.8%	0.861	1.001	0.649	558.300
%RSD		T0.565	T0.660	T1.371	1.652	0.621	0.8	0.854	0.994	0.659	20.940

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	1085.000	104.800	T1028.000	1004.000	98.710	98.850	98.760	100.500	101.000	100.500
2	13:44:04	1105.000	107.000	T1060.000	1013.000	99.470	99.280	101.100	101.100	103.000	102.100
3	13:44:31	1094.000	104.000	T1036.000	993.400	98.700	97.220	96.380	99.520	98.120	100.200
x		1095.000	105.300	T1041.000	1003.000	98.960	98.450	98.740	100.400	100.700	100.900
σ		10.200	1.586	T17.030	9.955	0.440	1.087	2.344	0.810	2.474	1.011
%RSD		0.932	1.506	T1.635	0.992	0.445	1.104	2.374	0.807	2.456	1.002

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	98.700	100.800	98.690	100.500	2.168	2.178	419.700	96.500	0.034	100.100
2	13:44:04	100.700	103.700	99.590	101.000	1.723	2.431	426.900	98.300	2.961	100.800
3	13:44:31	104.100	102.200	98.530	99.790	2.195	1.868	411.400	93.250	6.265	100.700
x		101.200	102.200	98.940	100.400	2.029	2.159	419.300	96.010	3.087	100.500
σ		2.728	1.452	0.573	0.601	0.265	0.282	7.796	2.556	3.117	0.371
%RSD		2.696	1.420	0.579	0.599	13.060	13.060	1.859	2.662	101.000	0.369

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	102.3%	97.860	98.820	97.880	99.320	98.350	98.470	99.200	98.730	100.8%
2	13:44:04	104.1%	98.420	99.050	99.690	100.300	99.380	99.510	99.900	99.660	102.2%
3	13:44:31	105.3%	97.910	99.130	97.880	101.200	98.050	98.490	100.700	98.890	104.8%
x		103.9%	98.070	99.000	98.480	100.300	98.590	98.820	99.920	99.090	102.6%
σ		1.5%	0.307	0.163	1.045	0.957	0.696	0.595	0.731	0.496	2.1%
%RSD		1.5	0.313	0.165	1.061	0.954	0.706	0.603	0.732	0.501	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	101.900	99.710	98.210	98.430	129.700	129.200	101.5%	99.310	98.810	99.470
2	13:44:04	101.500	100.900	98.710	99.810	129.300	129.200	102.5%	99.250	99.320	100.700
3	13:44:31	101.400	99.800	99.910	99.710	129.300	129.400	106.1%	100.500	101.400	101.900
x		101.600	100.100	98.940	99.320	129.400	129.300	103.4%	99.670	99.840	100.700
σ		0.268	0.685	0.875	0.769	0.261	0.117	2.4%	0.683	1.368	1.228
%RSD		0.264	0.684	0.884	0.775	0.202	0.090	2.3	0.685	1.370	1.219

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:43:38	99.730	99.930	100.2%
2	13:44:04	99.780	100.300	101.5%
3	13:44:31	102.200	102.000	105.7%
x		100.600	100.800	102.5%
σ		1.413	1.115	2.8%
%RSD		1.405	1.107	2.8

UD12086-001SDDIS 04/30/2019 13:49:17

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	103.6%	100.700	105.600	103.200	81.350	T1750.000	T1608.000	1593.000	1601.000	116.200
2	13:50:11	106.0%	91.940	103.300	100.100	63.760	T1711.000	T1572.000	1545.000	1568.000	122.100
3	13:50:38	107.3%	93.330	102.700	96.010	61.740	T1710.000	T1568.000	1535.000	1536.000	116.700
x		105.6%	95.320	103.900	99.760	68.950	T1724.000	T1582.000	1558.000	1568.000	118.400
σ		1.9%	4.691	1.514	3.597	10.790	T22.570	T22.130	31.280	32.300	3.269
%RSD		1.8	4.922	1.457	3.605	15.640	T1.309	T1.399	2.008	2.060	2.762

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	T3077.000	T79440.000	T1296.000	1401.000	1308.000	103.5%	101.100	97.270	96.120	2543.000
2	13:50:11	T3070.000	T79280.000	T1314.000	1413.000	1332.000	105.1%	99.260	96.290	95.900	3134.000
3	13:50:38	T2896.000	T77310.000	T1301.000	1411.000	1329.000	104.0%	96.380	95.290	95.050	3119.000
x		T3014.000	T78680.000	T1304.000	1408.000	1323.000	104.2%	98.920	96.280	95.690	2932.000
σ		T102.600	T1186.000	T9.004	6.408	13.350	0.8%	2.389	0.990	0.567	336.900
%RSD		T3.403	T1.508	T0.691	0.455	1.009	0.8	2.415	1.028	0.593	11.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	1061.000	103.400	T1005.000	966.900	96.870	95.510	97.830	97.690	94.180	94.140
2	13:50:11	1040.000	102.100	T1001.000	986.200	97.000	97.720	93.630	96.710	94.710	91.570
3	13:50:38	1051.000	102.200	T997.900	975.400	96.760	97.920	93.200	97.210	92.800	92.730
x		1050.000	102.600	T1001.000	976.200	96.880	97.050	94.890	97.200	93.890	92.810
σ		10.490	0.741	T3.611	9.686	0.123	1.338	2.557	0.490	0.987	1.288
%RSD		0.998	0.722	T0.361	0.992	0.127	1.378	2.695	0.504	1.051	1.388

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	99.760	101.300	99.340	94.690	1.779	2.123	431.900	95.960	6.128	97.550
2	13:50:11	94.220	97.780	94.140	95.540	2.054	1.915	414.300	92.990	0.591	96.740
3	13:50:38	99.360	99.370	100.200	91.700	1.555	2.071	440.200	96.980	3.142	97.120
x		97.780	99.490	97.880	93.980	1.796	2.037	428.800	95.310	3.287	97.130
σ		3.089	1.779	3.265	2.016	0.250	0.108	13.230	2.074	2.772	0.404
%RSD		3.159	1.788	3.336	2.146	13.930	5.318	3.086	2.177	84.320	0.416

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	106.8%	96.790	97.190	95.870	96.790	95.390	95.740	98.190	96.870	108.0%
2	13:50:11	106.1%	96.450	96.150	95.460	94.450	95.120	95.760	96.560	96.050	106.7%
3	13:50:38	106.8%	95.510	97.510	95.760	95.630	94.710	95.810	98.440	96.010	109.0%
x		106.6%	96.250	96.950	95.700	95.620	95.070	95.770	97.730	96.310	107.9%
σ		0.4%	0.660	0.710	0.211	1.168	0.342	0.035	1.018	0.486	1.2%
%RSD		0.4	0.685	0.732	0.220	1.221	0.360	0.037	1.042	0.505	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	98.810	97.750	96.520	97.390	126.300	124.900	108.4%	98.820	99.730	100.700
2	13:50:11	98.020	97.200	93.940	95.830	126.100	124.100	106.6%	98.630	99.450	101.000
3	13:50:38	99.430	97.060	96.090	96.190	124.300	123.700	110.3%	99.080	99.010	99.610
x		98.750	97.340	95.520	96.470	125.600	124.300	108.5%	98.840	99.390	100.500
σ		0.710	0.364	1.380	0.813	1.078	0.570	1.8%	0.228	0.364	0.750
%RSD		0.719	0.374	1.445	0.842	0.858	0.458	1.7	0.231	0.366	0.746

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:49:44	101.400	100.900	111.2%
2	13:50:11	99.580	100.200	108.1%
3	13:50:38	99.420	99.560	112.1%
x		100.100	100.200	110.5%
σ		1.091	0.672	2.1%
%RSD		1.090	0.670	1.9

CCV MW10994 04/30/2019 13:55:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	93.9%	310.200	307.600	311.200	67.640	T 63380.000	T 62550.000	T 62180.000	T 61890.000	298.000
2	13:56:19	95.9%	296.200	300.600	301.700	69.140	T 63480.000	T 61740.000	T 61500.000	T 61430.000	296.900
3	13:56:47	98.6%	294.600	310.200	302.400	61.370	T 63180.000	T 61040.000	T 60260.000	T 60520.000	292.400
x		96.2%	100.115%	102.043%	101.692%	66.050	T 105.583%	T 61780.000	T 61310.000	T 102.136%	98.583%
σ		2.4%	n/a	n/a	n/a	4.120	T n/a	T 755.900	T 976.700	T n/a	n/a
%RSD		2.5	2.843	1.621	1.733	6.237	T 0.244	T 1.224	T 1.593	T 1.138	1.008

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	T 3351.000	942.000	T 63280.000	62030.000	T 62540.000	100.8%	307.100	316.000	304.100	1180.000
2	13:56:19	T 3270.000	926.800	T 62770.000	61920.000	T 61930.000	100.2%	312.300	311.200	296.800	1599.000
3	13:56:47	T 3145.000	903.800	T 63880.000	62790.000	T 63270.000	100.2%	309.500	314.600	301.900	823.900
x		T 108.513%	924.200	T 105.515%	62250.000	T 104.298%	100.4%	103.208%	104.643%	100.311%	1201.000
σ		T n/a	19.220	T n/a	474.200	T n/a	0.3%	n/a	n/a	n/a	388.000
%RSD		T 3.181	2.079	T 0.876	0.762	T 1.073	0.3	0.850	0.789	1.255	32.310

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	T 62470.000	295.000	T 62420.000	T 61980.000	301.700	290.800	291.000	290.900	285.600	293.900
2	13:56:19	T 62080.000	297.300	T 62700.000	T 60660.000	295.600	285.900	285.900	286.700	290.400	296.800
3	13:56:47	T 63070.000	296.200	T 62320.000	T 61930.000	299.200	291.500	289.400	287.200	293.500	294.400
x		T 62540.000	98.730%	T 62480.000	T 102.531%	99.602%	96.459%	288.700	288.300	96.610%	98.336%
σ		T 497.600	n/a	T 198.300	T n/a	n/a	n/a	2.590	2.335	n/a	n/a
%RSD		T 0.796	0.397	T 0.317	T 1.216	1.027	1.042	0.897	0.810	1.370	0.533

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	294.700	299.300	302.900	292.700	0.485	-0.011	1294.000	295.000	5.255	303.100
2	13:56:19	289.100	289.800	288.700	296.000	0.762	0.057	1268.000	291.500	5.667	300.800
3	13:56:47	294.100	291.100	295.900	301.500	0.454	0.059	1286.000	297.200	5.089	302.400
x		292.600	293.400	98.616%	296.700	0.567	0.035	1283.000	98.184%	5.337	100.692%
σ		3.082	5.141	n/a	4.474	0.169	0.040	13.120	n/a	0.298	n/a
%RSD		1.053	1.752	2.395	1.508	29.840	114.700	1.023	0.984	5.582	0.393

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	100.1%	317.800	319.800	317.800	300.900	292.100	293.400	301.500	300.600	99.4%
2	13:56:19	96.5%	320.100	321.100	319.600	304.400	295.000	294.500	300.200	300.000	95.5%
3	13:56:47	97.8%	316.200	319.700	317.500	305.500	293.300	293.000	302.600	297.200	96.1%
x		98.1%	106.002%	106.732%	318.300	303.600	97.820%	293.600	301.500	99.750%	97.0%
σ		1.8%	n/a	n/a	1.163	2.398	n/a	0.798	1.197	n/a	2.1%
%RSD		1.9	0.622	0.247	0.365	0.790	0.509	0.272	0.397	0.599	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	311.300	307.300	311.400	307.500	303.400	305.100	102.4%	300.900	307.900	299.100
2	13:56:19	314.300	311.500	311.600	301.300	307.000	304.000	99.4%	305.100	309.800	300.400
3	13:56:47	309.100	305.600	307.500	302.500	306.800	303.600	99.1%	301.300	307.600	299.000
x		103.843%	102.707%	310.100	101.259%	101.912%	101.417%	100.3%	302.400	102.813%	99.838%
σ		n/a	n/a	2.310	n/a	n/a	n/a	1.8%	2.370	n/a	n/a
%RSD		0.838	0.997	0.745	1.093	0.660	0.250	1.8	0.784	0.398	0.254

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:55:52	299.800	302.100	99.1%
2	13:56:19	300.100	302.700	95.6%
3	13:56:47	297.600	300.900	94.2%
x		99.727%	100.629%	96.3%
σ		n/a	n/a	2.5%
%RSD		0.449	0.314	2.6

CCB IM9390-01 04/30/2019 14:01:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	103.2%	0.090	1.891	1.793	12.690	8.159	7.568	7.820	8.285	-0.025
2	14:02:29	103.1%	0.037	1.803	1.571	12.260	7.878	6.376	6.402	6.196	-0.044
3	14:02:56	103.2%	0.012	1.842	1.407	13.090	5.568	5.362	5.169	5.115	-0.087
x		103.2%	0.046	1.846	1.591	12.680	7.202	6.435	6.464	6.532	-0.052
σ		0.0%	0.040	0.044	0.194	0.417	1.421	1.104	1.327	1.611	0.032
%RSD		0.0	85.430	2.383	12.170	3.284	19.740	17.160	20.520	24.670	60.770

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	15.090	491.200	4.117	5.735	6.529	103.8%	-0.012	0.042	0.056	7.137
2	14:02:29	15.320	540.100	7.181	2.150	7.591	102.8%	0.001	0.020	0.053	36.590
3	14:02:56	14.430	460.900	3.309	6.314	5.334	103.9%	-0.047	0.025	0.076	21.230
x		14.950	497.400	4.869	4.733	6.485	103.5%	-0.019	0.029	0.062	21.650
σ		0.460	39.940	2.043	2.256	1.129	0.6%	0.024	0.012	0.013	14.730
%RSD		3.078	8.029	41.950	47.660	17.410	0.6	126.900	40.000	20.340	68.030

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	7.853	0.058	8.758	1.456	0.058	0.049	-0.383	0.032	0.077	0.006
2	14:02:29	7.884	0.056	9.533	6.055	0.073	0.047	-0.138	0.014	0.036	0.018
3	14:02:56	5.661	0.042	6.654	-1.221	0.040	0.032	-0.455	0.002	0.073	-0.012
x		7.132	0.052	8.315	2.097	0.057	0.043	-0.325	0.016	0.062	0.004
σ		1.275	0.009	1.490	3.680	0.017	0.009	0.166	0.015	0.023	0.015
%RSD		17.870	16.370	17.910	175.500	29.660	21.690	50.970	97.300	36.730	359.300

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	0.225	0.056	-0.041	0.159	-0.008	0.012	-2.306	-0.548	0.744	0.039
2	14:02:29	0.025	0.113	-0.024	-0.492	-0.129	0.105	-0.411	-0.122	1.014	0.035
3	14:02:56	0.002	0.061	-0.031	0.417	0.046	0.622	-1.457	-0.329	-0.437	0.025
x		0.084	0.077	-0.032	0.028	-0.030	0.246	-1.391	-0.333	0.440	0.033
σ		0.123	0.032	0.009	0.469	0.090	0.329	0.949	0.213	0.771	0.007
%RSD		145.600	41.440	26.780	1689.000	295.300	133.600	68.220	64.010	175.200	21.660

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	103.9%	0.067	0.099	0.098	-0.426	0.041	0.034	0.052	0.051	105.0%
2	14:02:29	103.1%	0.087	0.087	0.078	-1.106	0.045	0.029	0.034	0.034	103.4%
3	14:02:56	103.2%	0.070	0.078	0.069	-0.296	0.030	0.030	0.019	0.031	104.1%
x		103.4%	0.075	0.088	0.082	-0.609	0.039	0.031	0.035	0.039	104.1%
σ		0.5%	0.010	0.010	0.015	0.435	0.008	0.002	0.016	0.011	0.8%
%RSD		0.4	14.010	11.780	18.000	71.360	20.860	7.933	46.520	27.220	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	0.108	0.093	0.137	0.130	0.070	0.063	103.6%	0.027	0.037	0.044
2	14:02:29	0.072	0.097	0.123	0.112	0.039	0.046	102.2%	0.037	0.030	0.033
3	14:02:56	0.052	0.091	0.094	0.091	0.016	0.047	104.5%	0.031	0.026	0.034
x		0.077	0.094	0.118	0.111	0.042	0.052	103.4%	0.032	0.031	0.037
σ		0.028	0.003	0.022	0.019	0.027	0.010	1.2%	0.005	0.005	0.006
%RSD		36.490	2.893	18.540	17.600	64.330	18.470	1.1	16.460	17.420	16.300

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:02:02	0.037	0.050	103.5%
2	14:02:29	0.050	0.035	101.2%
3	14:02:56	0.022	0.029	104.1%
x		0.036	0.038	102.9%
σ		0.014	0.011	1.5%
%RSD		38.910	27.850	1.5

UD12086-001L(5)DIS 04/30/2019 14:07:39

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	102.5%	0.040	2.142	1.843	39.610	156.400	132.100	128.500	131.600	5.169
2	14:08:33	106.0%	-0.006	1.669	1.894	41.680	162.800	134.200	131.200	131.300	5.135
3	14:09:00	103.8%	0.035	1.427	1.789	44.080	159.200	130.400	126.700	126.700	4.835
x		104.1%	0.023	1.746	1.842	41.790	159.500	132.200	128.800	129.900	5.046
σ		1.8%	0.025	0.364	0.053	2.235	3.202	1.897	2.280	2.749	0.184
%RSD		1.7	109.300	20.830	2.861	5.348	2.008	1.435	1.770	2.117	3.647
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	506.700	T 16900.000	73.020	82.900	78.330	102.6%	0.106	0.096	0.153	265.300
2	14:08:33	497.900	T 17460.000	74.570	67.890	72.920	102.1%	0.025	-0.035	0.171	384.400
3	14:09:00	496.400	T 16610.000	68.220	64.190	68.370	106.1%	0.008	-0.009	0.130	342.500
x		500.300	T 16990.000	71.940	71.660	73.210	103.6%	0.046	0.017	0.151	330.800
σ		5.526	T 432.200	3.309	9.904	4.985	2.2%	0.052	0.069	0.020	60.390
%RSD		1.104	T 2.544	4.599	13.820	6.810	2.1	112.500	394.900	13.520	18.260
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	3.493	1.344	3.395	-4.711	0.070	0.101	0.274	0.046	0.070	0.199
2	14:08:33	2.757	1.486	5.015	4.747	0.088	0.062	0.187	0.056	0.062	0.261
3	14:09:00	1.985	1.403	2.258	-8.546	0.087	0.064	-0.050	0.053	0.054	0.266
x		2.745	1.411	3.556	-2.837	0.082	0.076	0.137	0.051	0.062	0.242
σ		0.754	0.071	1.385	6.842	0.010	0.022	0.168	0.005	0.008	0.037
%RSD		27.470	5.057	38.960	241.200	12.810	29.400	122.200	9.773	13.360	15.240
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	0.565	0.542	-0.050	-0.073	0.448	1.059	-0.450	-0.143	1.367	0.874
2	14:08:33	0.687	0.597	-0.061	-0.147	0.338	0.230	-2.223	-0.492	-0.347	0.844
3	14:09:00	0.329	0.479	-0.113	0.082	0.256	-0.091	0.467	0.090	0.037	0.869
x		0.527	0.539	-0.075	-0.046	0.347	0.399	-0.735	-0.182	0.353	0.862
σ		0.182	0.059	0.034	0.117	0.096	0.594	1.367	0.293	0.900	0.016
%RSD		34.590	10.920	45.150	254.100	27.780	148.700	185.900	161.200	255.100	1.900
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	103.9%	0.004	0.022	0.011	0.176	0.005	0.015	0.023	0.007	104.4%
2	14:08:33	101.9%	0.010	0.001	0.024	-0.240	0.007	0.004	0.024	0.017	101.4%
3	14:09:00	105.2%	0.027	0.004	0.016	0.811	0.000	0.004	0.005	0.015	106.3%
x		103.7%	0.013	0.009	0.017	0.249	0.004	0.008	0.017	0.013	104.0%
σ		1.7%	0.012	0.011	0.007	0.529	0.003	0.006	0.011	0.005	2.5%
%RSD		1.6	90.380	124.400	38.690	212.800	81.660	84.040	63.540	40.150	2.4
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	0.082	0.122	0.091	0.068	5.880	5.701	103.4%	-0.000	0.004	0.036
2	14:08:33	0.063	0.125	0.062	0.093	6.080	6.266	100.8%	0.016	0.005	0.009
3	14:09:00	0.079	0.116	0.065	0.062	6.046	5.757	105.4%	0.006	-0.002	-0.003
x		0.075	0.121	0.073	0.074	6.002	5.908	103.2%	0.007	0.002	0.014
σ		0.010	0.005	0.016	0.017	0.107	0.312	2.3%	0.008	0.004	0.020
%RSD		13.340	3.843	21.450	22.670	1.783	5.272	2.3	110.100	175.000	146.700
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	14:08:06	0.009	0.017	104.1%							
2	14:08:33	0.029	0.015	99.9%							
3	14:09:00	0.018	0.006	105.8%							
x		0.019	0.013	103.3%							
σ		0.010	0.006	3.0%							
%RSD		54.710	44.140	2.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	104.3%	105.300	116.700	111.000	68.500	┬1845.000	┬1724.000	1699.000	1716.000	127.500
2	14:14:37	103.5%	108.500	117.800	109.700	64.220	┬1850.000	┬1737.000	1737.000	1742.000	132.000
3	14:15:04	102.9%	107.700	118.700	115.100	75.470	┬1875.000	┬1732.000	1670.000	1723.000	133.100
x		103.6%	107.200	117.700	111.900	69.400	┬1857.000	┬1731.000	1702.000	1727.000	130.900
σ		0.7%	1.670	1.012	2.815	5.679	┬16.110	┬6.400	33.860	13.480	2.922
%RSD		0.7	1.558	0.860	2.515	8.184	┬0.868	┬0.370	1.990	0.781	2.233

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	┬3208.000	┬80130.000	┬1461.000	1576.000	1445.000	102.8%	111.300	106.200	107.300	3126.000
2	14:14:37	┬3248.000	┬80050.000	┬1453.000	1664.000	1478.000	101.8%	109.800	109.800	111.100	2917.000
3	14:15:04	┬3281.000	┬80690.000	┬1455.000	1538.000	1444.000	102.2%	108.600	109.600	106.400	2354.000
x		┬3246.000	┬80290.000	┬1456.000	1593.000	1455.000	102.3%	109.900	108.500	108.200	2799.000
σ		┬36.860	┬350.500	┬4.373	64.650	19.490	0.5%	1.334	2.006	2.476	398.900
%RSD		┬1.136	┬0.437	┬0.300	4.059	1.339	0.5	1.214	1.848	2.287	14.250

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	1172.000	110.800	┬1125.000	1099.000	107.400	106.300	106.600	108.900	110.300	107.200
2	14:14:37	1194.000	114.200	┬1159.000	1135.000	110.800	108.600	108.700	108.800	107.900	108.200
3	14:15:04	1174.000	112.200	┬1127.000	1083.000	109.400	107.200	104.600	108.700	108.500	109.400
x		1180.000	112.400	┬1137.000	1106.000	109.200	107.400	106.600	108.800	108.900	108.300
σ		12.280	1.696	┬18.900	26.660	1.722	1.156	2.048	0.111	1.210	1.066
%RSD		1.041	1.509	┬1.662	2.411	1.577	1.076	1.921	0.102	1.111	0.985

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	108.100	109.500	105.800	108.200	2.112	2.343	473.900	109.100	1.659	107.800
2	14:14:37	111.100	113.200	109.800	109.300	1.872	3.113	472.800	107.800	3.737	107.700
3	14:15:04	110.600	114.200	109.100	109.300	1.622	1.729	476.200	108.500	1.831	108.800
x		109.900	112.300	108.200	108.900	1.869	2.395	474.300	108.500	2.409	108.100
σ		1.590	2.456	2.144	0.640	0.245	0.694	1.739	0.628	1.153	0.606
%RSD		1.446	2.187	1.981	0.587	13.100	28.970	0.367	0.579	47.870	0.561

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	102.7%	106.400	105.200	104.500	108.300	106.000	105.400	106.700	105.400	100.9%
2	14:14:37	104.9%	105.800	105.900	106.900	105.200	106.800	106.900	109.900	108.600	103.4%
3	14:15:04	103.2%	107.600	106.400	107.000	108.300	105.700	107.000	109.100	107.400	102.3%
x		103.6%	106.600	105.900	106.100	107.300	106.200	106.400	108.600	107.100	102.2%
σ		1.1%	0.924	0.594	1.431	1.802	0.571	0.929	1.673	1.621	1.3%
%RSD		1.1	0.867	0.562	1.349	1.680	0.537	0.873	1.541	1.514	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	109.100	108.600	103.900	104.400	137.900	138.500	101.0%	107.900	108.900	108.900
2	14:14:37	110.400	109.200	106.200	105.300	139.700	138.800	104.8%	107.000	108.100	107.600
3	14:15:04	108.800	108.800	105.500	105.400	136.400	136.800	102.9%	108.200	108.100	109.200
x		109.400	108.900	105.200	105.000	138.000	138.000	102.9%	107.700	108.400	108.600
σ		0.874	0.279	1.217	0.555	1.689	1.083	1.9%	0.592	0.415	0.822
%RSD		0.799	0.257	1.157	0.528	1.224	0.785	1.9	0.550	0.383	0.757

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:14:10	108.500	108.700	100.6%
2	14:14:37	108.400	108.300	103.1%
3	14:15:04	108.800	109.600	103.1%
x		108.600	108.900	102.3%
σ		0.197	0.623	1.4%
%RSD		0.182	0.572	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	106.4%	0.032	10.210	9.691	84.280	T 2944.000	T 792.400	777.900	776.700	24.260
2	14:20:43	104.2%	0.032	10.910	9.982	96.170	T 2944.000	T 772.000	794.400	777.100	24.240
3	14:21:10	109.7%	0.010	9.982	9.677	78.260	T 2885.000	T 772.600	778.700	787.800	25.030
x		106.7%	0.024	10.370	9.783	86.240	T 2924.000	T 779.000	783.700	780.500	24.510
σ		2.8%	0.012	0.483	0.172	9.116	T 34.010	T 11.650	9.322	6.327	0.449
%RSD		2.6	50.190	4.660	1.762	10.570	T 1.163	T 1.496	1.189	0.811	1.833
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	T 1409.000	T 79060.000	840.100	2072.000	1914.000	105.7%	0.212	0.061	0.569	1884.000
2	14:20:43	T 1454.000	T 81100.000	869.100	1917.000	1947.000	106.1%	0.594	-0.006	0.547	1898.000
3	14:21:10	T 1410.000	T 81790.000	T 837.100	2025.000	1941.000	103.6%	0.449	0.136	0.606	2064.000
x		T 1425.000	T 80650.000	T 848.800	2005.000	1934.000	105.2%	0.419	0.064	0.574	1949.000
σ		T 25.730	T 1423.000	T 17.670	79.790	17.390	1.3%	0.193	0.071	0.030	100.400
%RSD		T 1.806	T 1.764	T 2.082	3.980	0.899	1.3	46.000	111.200	5.216	5.153
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	828.200	12.560	T 819.600	813.300	0.042	0.282	0.009	0.257	0.266	1.084
2	14:20:43	828.300	12.740	T 819.000	796.100	0.057	0.357	-0.273	0.261	0.257	0.989
3	14:21:10	842.500	12.700	T 838.000	825.600	0.064	0.283	-0.072	0.250	0.222	1.113
x		833.000	12.670	T 825.500	811.700	0.054	0.307	-0.112	0.256	0.248	1.062
σ		8.212	0.093	T 10.780	14.850	0.011	0.043	0.145	0.006	0.023	0.065
%RSD		0.986	0.737	T 1.305	1.829	20.610	14.110	129.500	2.296	9.334	6.118
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	1.803	1.611	0.407	-0.144	7.937	8.670	0.659	0.139	-0.575	9.804
2	14:20:43	1.451	1.717	0.215	0.064	7.614	8.420	-1.063	-0.261	-0.507	9.651
3	14:21:10	1.980	1.639	0.254	0.141	6.546	8.412	-0.114	-0.044	-0.744	9.630
x		1.745	1.655	0.292	0.020	7.366	8.501	-0.173	-0.055	-0.609	9.695
σ		0.269	0.055	0.102	0.147	0.728	0.146	0.863	0.200	0.122	0.095
%RSD		15.420	3.312	34.740	738.400	9.884	1.722	498.800	362.700	20.060	0.979
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	105.4%	0.053	0.030	0.067	-0.370	0.007	-0.000	0.008	0.003	106.4%
2	14:20:43	107.8%	0.033	0.053	0.058	-1.346	0.004	0.004	0.008	0.014	109.7%
3	14:21:10	105.2%	0.050	0.076	0.049	0.929	-0.000	0.009	0.008	0.003	106.9%
x		106.1%	0.045	0.053	0.058	-0.262	0.003	0.004	0.008	0.007	107.7%
σ		1.4%	0.011	0.023	0.009	1.141	0.004	0.005	0.000	0.007	1.8%
%RSD		1.4	23.530	44.160	15.000	435.500	104.600	110.600	2.145	98.230	1.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	0.330	0.390	0.867	0.895	11.760	12.030	107.3%	-0.002	-0.009	3.502
2	14:20:43	0.270	0.380	0.859	0.900	11.760	11.780	109.3%	-0.002	-0.005	3.527
3	14:21:10	0.264	0.367	0.853	0.769	12.130	11.970	107.6%	0.000	-0.005	3.469
x		0.288	0.379	0.860	0.855	11.880	11.930	108.0%	-0.001	-0.006	3.499
σ		0.036	0.011	0.007	0.074	0.213	0.130	1.1%	0.001	0.003	0.029
%RSD		12.670	2.919	0.805	8.646	1.788	1.087	1.0	92.980	41.630	0.830
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	14:20:16	3.271	3.368	110.1%							
2	14:20:43	3.422	3.401	110.9%							
3	14:21:10	3.203	3.358	109.1%							
x		3.299	3.376	110.0%							
σ		0.112	0.022	0.9%							
%RSD		3.407	0.657	0.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	104.1%	0.017	18.970	19.860	149.300	T54940.000	T9112.000	T8820.000	T8702.000	2.403
2	14:26:48	101.4%	0.033	18.220	19.830	148.500	T54210.000	T8806.000	T8745.000	T8862.000	2.498
3	14:27:15	100.4%	0.039	20.270	21.200	140.800	T56270.000	T9174.000	T8956.000	T8763.000	2.441
x		102.0%	0.030	19.150	20.300	146.200	T55140.000	T9031.000	T8840.000	T8776.000	2.447
σ		1.9%	0.011	1.040	0.783	4.706	T1045.000	T197.000	T107.300	T80.910	0.048
%RSD		1.9	37.970	5.427	3.858	3.218	T1.896	T2.181	T1.213	T0.922	1.944
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	884.200	T88170.000	T11710.000	21870.000	T21950.000	100.7%	0.205	-0.028	0.504	1962.000
2	14:26:48	T859.900	T86360.000	T11170.000	21560.000	T21570.000	102.5%	0.176	0.006	0.472	1647.000
3	14:27:15	920.200	T89080.000	T11580.000	21920.000	T21980.000	101.4%	0.097	-0.033	0.379	1632.000
x		T888.100	T87870.000	T11480.000	21780.000	T21830.000	101.5%	0.159	-0.018	0.451	1747.000
σ		T30.340	T1385.000	T283.400	197.700	T229.800	0.9%	0.056	0.021	0.065	186.600
%RSD		T3.416	T1.576	T2.468	0.907	T1.053	0.9	35.210	117.000	14.400	10.680
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	T12780.000	86.430	T12860.000	13120.000	0.164	0.628	0.497	0.196	0.195	0.497
2	14:26:48	T12670.000	86.410	T12900.000	12970.000	0.146	0.567	0.024	0.241	0.176	0.437
3	14:27:15	T12800.000	87.200	T13000.000	13030.000	0.190	0.566	-0.175	0.270	0.170	0.470
x		T12750.000	86.680	T12920.000	13040.000	0.167	0.587	0.115	0.236	0.180	0.468
σ		T70.320	0.451	T74.600	71.430	0.022	0.035	0.345	0.037	0.013	0.030
%RSD		T0.551	0.521	T0.578	0.548	13.340	6.031	299.200	15.800	7.064	6.417
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	4.396	3.441	2.055	0.874	85.090	89.150	2.934	0.597	-0.452	71.830
2	14:26:48	4.127	3.518	2.401	0.752	88.660	86.680	3.783	0.723	1.476	70.890
3	14:27:15	4.458	3.408	1.988	0.736	87.460	87.570	2.096	0.391	-1.636	72.710
x		4.327	3.456	2.148	0.787	87.070	87.800	2.938	0.570	-0.204	71.810
σ		0.176	0.056	0.222	0.076	1.817	1.249	0.844	0.168	1.571	0.909
%RSD		4.067	1.626	10.330	9.629	2.087	1.423	28.720	29.390	770.300	1.266
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	100.4%	0.010	0.028	0.018	4.604	-0.003	0.001	0.005	0.018	99.4%
2	14:26:48	102.4%	0.015	0.027	0.023	1.696	-0.003	0.003	0.009	0.017	102.7%
3	14:27:15	103.0%	0.009	0.005	0.004	3.844	-0.004	0.000	0.009	-0.003	104.3%
x		101.9%	0.011	0.020	0.015	3.381	-0.003	0.001	0.007	0.011	102.1%
σ		1.4%	0.003	0.013	0.010	1.508	0.001	0.001	0.002	0.012	2.5%
%RSD		1.4	26.500	65.140	68.530	44.600	25.760	107.100	27.100	107.000	2.5
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	0.885	1.202	0.268	0.253	68.250	67.620	101.4%	-0.009	-0.012	-0.013
2	14:26:48	0.891	1.151	0.264	0.232	67.390	67.840	105.5%	-0.006	-0.010	-0.021
3	14:27:15	0.792	1.239	0.290	0.297	69.900	68.010	105.5%	-0.013	-0.011	-0.013
x		0.856	1.197	0.274	0.261	68.510	67.820	104.1%	-0.009	-0.011	-0.016
σ		0.055	0.044	0.014	0.033	1.274	0.198	2.4%	0.003	0.001	0.005
%RSD		6.465	3.698	5.114	12.770	1.859	0.293	2.3	35.140	10.730	28.890
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	14:26:21	-0.012	-0.013	97.6%							
2	14:26:48	-0.012	-0.014	102.3%							
3	14:27:15	-0.010	-0.011	103.3%							
x		-0.011	-0.013	101.1%							
σ		0.001	0.002	3.1%							
%RSD		9.562	13.870	3.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	106.6%	0.030	5.877	5.947	86.990	T1482.000	T2191.000	2185.000	2240.000	1.820
2	14:32:55	104.6%	0.028	6.653	6.922	96.410	T1492.000	T2219.000	2191.000	2203.000	1.844
3	14:33:22	106.7%	0.016	6.425	6.931	88.560	T1518.000	T2236.000	2219.000	2222.000	1.823
x		106.0%	0.024	6.318	6.600	90.650	T1497.000	T2215.000	2199.000	2222.000	1.829
σ		1.2%	0.008	0.399	0.566	5.046	T18.630	T22.920	18.340	18.630	0.013
%RSD		1.1	30.800	6.310	8.571	5.567	T1.245	T1.035	0.834	0.839	0.698
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	T1024.000	T79840.000	575.000	1638.000	1584.000	104.5%	0.228	-0.166	0.387	1575.000
2	14:32:55	T1051.000	T81390.000	581.100	1686.000	1626.000	103.2%	0.139	-0.191	0.345	1676.000
3	14:33:22	T1030.000	T83000.000	587.200	1711.000	1645.000	103.4%	0.335	-0.153	0.384	1834.000
x		T1035.000	T81410.000	581.100	1679.000	1618.000	103.7%	0.234	-0.170	0.372	1695.000
σ		T14.050	T1583.000	6.073	37.250	31.410	0.7%	0.098	0.019	0.023	130.800
%RSD		T1.357	T1.944	1.045	2.219	1.941	0.7	41.920	11.430	6.293	7.716
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	T17680.000	16.520	T17780.000	17750.000	0.602	0.534	0.607	0.110	0.153	1.632
2	14:32:55	T17930.000	16.690	T17550.000	17680.000	0.624	0.468	0.423	0.112	0.121	1.629
3	14:33:22	T17670.000	16.360	T17630.000	17770.000	0.590	0.461	0.707	0.118	0.136	1.749
x		T17760.000	16.520	T17650.000	17730.000	0.605	0.487	0.579	0.113	0.137	1.670
σ		T146.600	0.163	T118.300	44.250	0.017	0.040	0.144	0.004	0.016	0.069
%RSD		T0.826	0.989	T0.670	0.250	2.823	8.281	24.920	3.843	11.650	4.117
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	6.370	5.017	7.508	2.874	5.116	4.868	7.995	1.828	-1.062	17.010
2	14:32:55	5.597	4.925	7.329	2.987	4.682	5.449	12.890	2.938	0.470	16.700
3	14:33:22	6.306	5.299	6.874	3.075	6.673	5.833	9.729	2.258	0.202	16.570
x		6.091	5.080	7.237	2.978	5.491	5.383	10.210	2.341	-0.130	16.760
σ		0.429	0.195	0.327	0.101	1.047	0.486	2.483	0.560	0.818	0.229
%RSD		7.046	3.842	4.521	3.374	19.070	9.021	24.330	23.900	630.400	1.365
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	103.3%	0.033	0.035	0.045	1.481	-0.003	0.001	0.016	0.005	103.4%
2	14:32:55	105.1%	0.051	0.042	0.053	1.079	-0.004	0.000	0.019	0.020	103.8%
3	14:33:22	102.9%	0.071	0.083	0.062	1.381	-0.004	-0.001	0.012	0.012	101.0%
x		103.8%	0.052	0.053	0.053	1.314	-0.003	0.000	0.016	0.012	102.7%
σ		1.2%	0.019	0.026	0.009	0.210	0.001	0.001	0.004	0.007	1.6%
%RSD		1.2	36.980	48.280	16.330	15.950	22.830	635.200	22.200	60.330	1.5
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	0.290	0.430	0.208	0.226	70.420	70.360	104.0%	-0.017	-0.015	-0.012
2	14:32:55	0.255	0.453	0.199	0.192	70.020	70.280	104.3%	-0.010	-0.013	-0.013
3	14:33:22	0.262	0.434	0.201	0.214	70.940	70.570	101.0%	-0.012	-0.016	-0.017
x		0.269	0.439	0.203	0.211	70.460	70.400	103.1%	-0.013	-0.015	-0.014
σ		0.019	0.012	0.004	0.017	0.462	0.149	1.8%	0.004	0.001	0.003
%RSD		6.938	2.803	2.150	8.175	0.655	0.212	1.8	29.480	8.933	18.390
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	14:32:28	-0.014	-0.014	102.6%							
2	14:32:55	-0.006	-0.011	104.3%							
3	14:33:22	-0.016	-0.017	100.5%							
x		-0.012	-0.014	102.5%							
σ		0.005	0.003	1.9%							
%RSD		44.810	20.660	1.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	103.1%	-0.006	5.651	5.659	96.580	T 22430.000	T 2595.000	2536.000	2591.000	1.790
2	14:39:01	102.1%	0.029	5.940	5.458	91.310	T 22380.000	T 2574.000	2575.000	2572.000	1.825
3	14:39:28	104.8%	0.014	5.541	5.265	72.280	T 21770.000	T 2564.000	2556.000	2524.000	1.667
x		103.3%	0.012	5.711	5.461	86.720	T 22190.000	T 2578.000	2556.000	2563.000	1.761
σ		1.4%	0.017	0.206	0.197	12.780	T 364.400	T 16.000	19.180	34.500	0.083
%RSD		1.3	141.300	3.606	3.609	14.740	T 1.642	T 0.621	0.750	1.346	4.715

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	T 2460.000	T 83920.000	T 1638.000	4097.000	3855.000	102.7%	0.676	-0.149	0.364	1860.000
2	14:39:01	T 2462.000	T 81900.000	T 1592.000	3961.000	3846.000	105.1%	0.442	-0.120	0.314	1718.000
3	14:39:28	T 2430.000	T 82050.000	T 1585.000	4061.000	3897.000	105.4%	0.463	0.073	0.361	1695.000
x		T 2451.000	T 82620.000	T 1605.000	4040.000	3866.000	104.4%	0.527	-0.066	0.346	1758.000
σ		T 17.850	T 1127.000	T 29.010	70.580	27.370	1.5%	0.130	0.121	0.028	89.290
%RSD		T 0.728	T 1.364	T 1.807	1.747	0.708	1.4	24.590	184.000	8.154	5.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	T 14440.000	10.330	T 14820.000	14450.000	0.511	0.566	0.314	0.193	0.158	1.616
2	14:39:01	T 14550.000	10.300	T 14440.000	14390.000	0.500	0.589	0.095	0.176	0.172	1.547
3	14:39:28	T 14410.000	10.330	T 14750.000	14630.000	0.505	0.592	0.335	0.197	0.166	1.818
x		T 14470.000	10.320	T 14670.000	14490.000	0.506	0.582	0.248	0.189	0.165	1.660
σ		T 75.820	0.016	T 199.500	125.400	0.006	0.014	0.133	0.011	0.007	0.141
%RSD		T 0.524	0.151	T 1.360	0.865	1.121	2.397	53.550	6.075	4.377	8.477

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	3.875	2.782	0.570	0.286	25.770	26.520	1.008	0.254	-0.243	20.200
2	14:39:01	3.194	2.932	0.612	-0.419	27.200	28.430	0.970	0.201	0.925	20.020
3	14:39:28	3.264	2.906	0.501	0.097	27.570	28.050	2.004	0.500	-1.027	19.930
x		3.444	2.873	0.561	-0.012	26.840	27.660	1.327	0.318	-0.115	20.050
σ		0.375	0.080	0.056	0.365	0.950	1.012	0.586	0.160	0.982	0.139
%RSD		10.870	2.783	10.040	3072.000	3.539	3.659	44.170	50.200	855.700	0.692

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	103.6%	0.015	0.026	0.007	0.932	-0.003	-0.001	0.013	0.015	100.1%
2	14:39:01	107.1%	-0.005	0.012	-0.001	0.069	-0.004	0.001	0.008	0.029	104.4%
3	14:39:28	106.5%	0.006	-0.005	0.003	0.288	-0.003	-0.002	0.012	0.005	103.1%
x		105.7%	0.005	0.011	0.003	0.430	-0.003	-0.001	0.011	0.016	102.6%
σ		1.9%	0.010	0.015	0.004	0.448	0.001	0.002	0.002	0.012	2.2%
%RSD		1.8	186.700	137.200	125.000	104.400	25.320	267.900	21.040	73.390	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	0.448	0.697	0.154	0.172	31.860	31.540	100.7%	0.003	-0.006	-0.004
2	14:39:01	0.473	0.573	0.162	0.205	30.760	31.090	103.9%	-0.000	-0.005	-0.008
3	14:39:28	0.572	0.666	0.152	0.158	31.630	30.900	105.1%	-0.000	-0.005	-0.010
x		0.498	0.645	0.156	0.178	31.420	31.180	103.2%	0.001	-0.005	-0.007
σ		0.066	0.065	0.005	0.024	0.577	0.329	2.3%	0.002	0.001	0.003
%RSD		13.160	10.020	3.420	13.510	1.837	1.056	2.2	236.200	11.440	47.550

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:38:34	-0.008	-0.005	99.4%
2	14:39:01	-0.013	-0.010	102.7%
3	14:39:28	-0.017	-0.006	102.5%
x		-0.013	-0.007	101.5%
σ		0.004	0.003	1.8%
%RSD		34.580	39.390	1.8

UD18014-014 04/30/2019 14:44:12

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	107.3%	0.020	0.503	0.316	70.210	8.751	2.293	2.224	2.087	1.428
2	14:45:06	107.4%	0.012	0.370	0.268	54.210	7.370	2.206	2.318	2.196	1.422
3	14:45:34	104.2%	0.027	0.565	0.164	65.580	7.213	2.023	1.882	2.303	1.242
x		106.3%	0.020	0.479	0.250	63.330	7.778	2.174	2.141	2.196	1.364
σ		1.8%	0.007	0.099	0.078	8.235	0.846	0.138	0.229	0.108	0.105
%RSD		1.7	36.610	20.720	31.070	13.000	10.880	6.343	10.710	4.923	7.724

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	19.950	T 82680.000	5.613	3.238	4.095	104.9%	-0.036	-0.149	0.365	1860.000
2	14:45:06	18.870	T 80360.000	4.329	4.838	5.224	107.6%	-0.016	0.111	0.338	1586.000
3	14:45:34	20.030	T 82710.000	2.107	6.742	3.965	105.8%	-0.014	-0.381	0.359	1812.000
x		19.610	T 81920.000	4.016	4.939	4.428	106.1%	-0.022	-0.140	0.354	1753.000
σ		0.650	T 1344.000	1.774	1.754	0.692	1.3%	0.012	0.246	0.014	146.400
%RSD		3.315	T 1.641	44.160	35.510	15.630	1.3	56.040	176.200	3.991	8.355

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	3.140	0.043	3.859	-7.769	0.002	0.068	0.010	0.108	0.014	2.167
2	14:45:06	2.322	0.029	1.042	-11.620	0.007	0.038	-0.097	0.030	0.030	2.087
3	14:45:34	2.657	0.012	1.342	-11.750	0.007	0.094	-0.084	0.073	0.073	2.201
x		2.706	0.028	2.081	-10.380	0.005	0.066	-0.057	0.070	0.039	2.151
σ		0.411	0.016	1.547	2.262	0.003	0.028	0.059	0.039	0.030	0.059
%RSD		15.190	56.200	74.350	21.790	52.950	42.420	103.100	56.120	77.630	2.728

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	2.176	2.343	0.104	0.178	1.244	1.489	-0.181	0.003	-2.246	0.009
2	14:45:06	2.081	2.296	-0.042	-0.043	1.177	0.272	-0.812	-0.219	1.346	0.005
3	14:45:34	2.088	2.257	-0.035	0.070	1.388	0.666	-0.054	0.003	-0.881	0.001
x		2.115	2.299	0.009	0.068	1.270	0.809	-0.349	-0.071	-0.594	0.005
σ		0.053	0.043	0.082	0.110	0.108	0.621	0.406	0.128	1.813	0.004
%RSD		2.507	1.874	901.900	161.800	8.512	76.780	116.300	180.400	305.200	77.080

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	102.3%	-0.007	0.010	0.010	-0.525	-0.002	-0.001	0.005	0.026	103.0%
2	14:45:06	106.3%	-0.007	-0.000	-0.001	-0.698	-0.003	-0.002	0.015	0.005	106.8%
3	14:45:34	107.5%	-0.013	-0.009	-0.004	-0.283	-0.002	-0.002	0.001	0.011	107.4%
x		105.4%	-0.009	0.000	0.002	-0.502	-0.002	-0.002	0.007	0.014	105.7%
σ		2.7%	0.003	0.009	0.007	0.209	0.000	0.000	0.007	0.011	2.4%
%RSD		2.6	36.220	7780.000	386.200	41.530	22.470	27.630	105.400	77.950	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	0.277	0.368	0.036	0.041	0.022	-0.004	104.2%	-0.018	-0.017	-0.010
2	14:45:06	0.266	0.365	0.053	0.080	-0.005	0.010	106.6%	-0.017	-0.019	-0.017
3	14:45:34	0.240	0.360	0.047	0.062	-0.005	0.010	107.5%	-0.013	-0.020	-0.009
x		0.261	0.364	0.045	0.061	0.004	0.006	106.1%	-0.016	-0.019	-0.012
σ		0.019	0.004	0.009	0.020	0.016	0.008	1.7%	0.003	0.001	0.004
%RSD		7.273	1.123	19.870	32.690	417.700	149.900	1.6	18.110	6.642	35.590

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:44:40	-0.010	-0.013	105.6%
2	14:45:06	-0.019	-0.014	108.9%
3	14:45:34	-0.014	-0.012	109.5%
x		-0.015	-0.013	108.0%
σ		0.005	0.001	2.1%
%RSD		32.460	9.432	1.9

UD18014-017 04/30/2019 14:50:18

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	108.7%	0.033	49.350	49.810	81.510	T 4263.000	T 1438.000	1424.000	1446.000	TM 633.100
2	14:51:13	106.0%	0.019	50.030	50.630	90.990	T 4237.000	T 1439.000	1414.000	1433.000	TM 619.100
3	14:51:41	105.4%	0.022	48.780	49.050	91.660	T 4205.000	T 1438.000	1453.000	1438.000	TM 617.300
x		106.7%	0.025	49.390	49.830	88.050	T 4235.000	T 1438.000	1430.000	1439.000	TM 623.200
σ		1.8%	0.007	0.628	0.791	5.677	T 29.190	T 0.958	20.360	6.317	TM 8.644
%RSD		1.6	29.820	1.271	1.588	6.447	T 0.689	T 0.067	1.424	0.439	TM 1.387

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	T 1685.000	T 78700.000	750.000	7063.000	6821.000	106.0%	9.708	1.280	1.465	1820.000
2	14:51:13	T 1777.000	T 80250.000	744.100	7103.000	6835.000	107.3%	9.396	1.412	1.518	1640.000
3	14:51:41	T 1714.000	T 78890.000	734.700	7156.000	6753.000	106.1%	8.927	1.513	1.515	1654.000
x		T 1725.000	T 79280.000	742.900	7108.000	6803.000	106.5%	9.344	1.401	1.499	1705.000
σ		T 46.800	T 844.000	7.687	46.610	43.960	0.7%	0.393	0.117	0.030	100.200
%RSD		T 2.713	T 1.065	1.035	0.656	0.646	0.7	4.210	8.319	1.998	5.879

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	824.700	19.060	T 822.700	852.100	0.117	0.526	-0.071	1.811	1.778	7.845
2	14:51:13	824.500	19.360	T 828.000	838.000	0.092	0.540	0.337	1.635	1.639	8.515
3	14:51:41	809.100	19.200	T 823.200	848.600	0.104	0.508	0.137	1.746	1.633	7.862
x		819.400	19.200	T 824.600	846.200	0.104	0.525	0.135	1.731	1.683	8.074
σ		8.956	0.149	T 2.927	7.364	0.012	0.016	0.204	0.089	0.082	0.382
%RSD		1.093	0.774	T 0.355	0.870	11.860	3.056	151.500	5.141	4.889	4.727

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	8.467	8.504	0.228	0.162	10.820	11.460	-3.243	-0.749	0.079	32.900
2	14:51:13	7.767	8.354	0.046	0.284	11.650	12.440	-0.814	-0.171	-0.674	33.030
3	14:51:41	7.535	8.300	0.363	0.255	12.360	11.330	1.837	0.434	-0.759	33.080
x		7.923	8.386	0.212	0.234	11.610	11.740	-0.740	-0.162	-0.451	33.000
σ		0.485	0.106	0.159	0.064	0.768	0.608	2.541	0.591	0.461	0.094
%RSD		6.122	1.263	74.890	27.220	6.611	5.178	343.300	365.800	102.300	0.286

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	107.9%	0.377	0.272	0.354	1.146	-0.003	0.001	0.032	0.009	107.5%
2	14:51:13	110.8%	0.350	0.336	0.419	-0.084	0.001	0.002	0.017	-0.003	109.0%
3	14:51:41	108.9%	0.363	0.302	0.359	1.379	0.000	0.001	0.014	0.011	107.5%
x		109.2%	0.363	0.303	0.377	0.814	-0.000	0.001	0.021	0.006	108.0%
σ		1.5%	0.013	0.032	0.036	0.786	0.002	0.000	0.010	0.008	0.9%
%RSD		1.4	3.714	10.620	9.583	96.610	422.700	30.110	46.460	135.700	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	0.259	0.346	0.154	0.142	2.522	2.664	107.6%	-0.005	-0.015	0.351
2	14:51:13	0.233	0.410	0.140	0.143	2.686	2.478	108.8%	-0.009	-0.010	0.331
3	14:51:41	0.286	0.349	0.140	0.171	2.737	2.699	107.2%	-0.009	-0.011	0.352
x		0.259	0.368	0.144	0.152	2.648	2.614	107.9%	-0.008	-0.012	0.345
σ		0.027	0.036	0.008	0.017	0.113	0.119	0.9%	0.003	0.003	0.012
%RSD		10.370	9.857	5.418	10.990	4.247	4.538	0.8	35.270	22.200	3.487

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:50:45	0.296	0.332	108.1%
2	14:51:13	0.357	0.346	111.2%
3	14:51:41	0.321	0.340	108.1%
x		0.325	0.340	109.2%
σ		0.030	0.007	1.8%
%RSD		9.339	2.114	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	108.1%	0.022	9.238	8.699	93.440	T 2639.000	333.500	318.800	323.400	TM 3178.000
2	14:57:20	101.5%	0.081	9.367	9.183	123.100	T 2680.000	331.300	323.300	321.400	TM 3076.000
3	14:57:47	102.5%	0.071	8.882	8.634	114.100	T 2743.000	338.300	330.000	328.200	TM 3018.000
x		104.1%	0.058	9.162	8.839	110.200	T 2687.000	334.400	324.000	324.300	TM 3091.000
σ		3.6%	0.031	0.251	0.300	15.190	T 52.510	3.584	5.639	3.485	TM 80.950
%RSD		3.4	54.140	2.744	3.395	13.790	T 1.954	1.072	1.740	1.074	TM 2.619

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	T 2797.000	T 81110.000	673.000	14530.000	14200.000	103.1%	41.270	6.244	7.099	2063.000
2	14:57:20	T 2993.000	T 79790.000	653.700	14400.000	14030.000	106.3%	40.850	5.736	6.738	2013.000
3	14:57:47	T 2978.000	T 80060.000	659.500	14710.000	14190.000	106.4%	37.080	5.941	7.008	1902.000
x		T 2923.000	T 80320.000	662.100	14550.000	14140.000	105.3%	39.730	5.974	6.948	1993.000
σ		T 108.700	T 695.600	9.919	153.200	97.160	1.9%	2.311	0.256	0.188	82.390
%RSD		T 3.720	T 0.866	1.498	1.053	0.687	1.8	5.815	4.279	2.703	4.135

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	5121.000	10.520	T 5127.000	5114.000	0.417	1.629	1.091	5.545	5.498	314.800
2	14:57:20	5116.000	10.520	T 5034.000	4931.000	0.388	1.637	1.400	5.362	5.743	315.300
3	14:57:47	5178.000	10.650	T 5087.000	4992.000	0.410	1.613	1.444	5.324	5.551	319.300
x		5138.000	10.560	T 5083.000	5012.000	0.405	1.626	1.312	5.410	5.597	316.500
σ		34.280	0.076	T 46.520	93.300	0.015	0.012	0.193	0.118	0.129	2.471
%RSD		0.667	0.723	T 0.915	1.861	3.795	0.753	14.670	2.187	2.302	0.781

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	291.600	309.700	8.909	0.309	5.941	6.837	3.943	0.869	0.410	56.890
2	14:57:20	284.800	308.700	8.736	0.227	5.427	5.660	2.671	0.593	0.422	56.460
3	14:57:47	289.300	304.500	8.144	-0.143	6.333	6.323	-0.388	-0.030	-2.208	56.570
x		288.600	307.600	8.596	0.131	5.900	6.273	2.075	0.477	-0.459	56.640
σ		3.454	2.769	0.402	0.241	0.454	0.590	2.226	0.460	1.515	0.225
%RSD		1.197	0.900	4.672	183.400	7.700	9.409	107.300	96.460	330.300	0.397

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	102.9%	0.543	0.538	0.487	4.996	0.006	0.006	0.007	0.007	103.2%
2	14:57:20	105.4%	0.462	0.575	0.470	4.189	0.007	0.005	0.021	0.013	105.2%
3	14:57:47	106.1%	0.543	0.466	0.440	2.511	0.011	0.005	0.032	0.005	104.8%
x		104.8%	0.516	0.526	0.466	3.899	0.008	0.006	0.020	0.009	104.4%
σ		1.7%	0.047	0.055	0.024	1.268	0.003	0.001	0.013	0.004	1.1%
%RSD		1.6	9.115	10.500	5.077	32.510	36.430	9.860	64.680	49.540	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	0.379	0.459	0.284	0.282	4.160	4.229	103.2%	0.014	0.005	2.985
2	14:57:20	0.355	0.437	0.287	0.275	3.928	3.713	105.7%	0.000	0.005	3.038
3	14:57:47	0.339	0.455	0.291	0.282	3.904	4.021	105.5%	0.017	0.007	2.986
x		0.357	0.451	0.287	0.280	3.997	3.988	104.8%	0.010	0.006	3.003
σ		0.020	0.012	0.003	0.004	0.141	0.260	1.4%	0.009	0.001	0.030
%RSD		5.663	2.561	1.135	1.574	3.538	6.512	1.4	83.410	19.610	1.003

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:56:53	2.847	2.888	102.8%
2	14:57:20	2.967	2.944	105.4%
3	14:57:47	2.804	2.911	105.6%
x		2.872	2.914	104.6%
σ		0.084	0.028	1.5%
%RSD		2.940	0.958	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	104.5%	0.005	11.920	12.550	88.160	T1207.000	402.700	391.600	390.900	49.630
2	15:03:27	104.9%	0.027	12.270	11.960	97.480	T1201.000	393.700	380.300	385.400	48.940
3	15:03:54	107.1%	0.011	12.080	11.950	91.100	T1198.000	390.000	381.200	381.400	49.040
x		105.5%	0.014	12.090	12.150	92.250	T1202.000	395.500	384.400	385.900	49.210
σ		1.4%	0.011	0.173	0.342	4.766	T4.362	6.554	6.275	4.781	0.370
%RSD		1.4	77.570	1.434	2.815	5.166	T0.363	1.657	1.633	1.239	0.753

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	T1177.000	T83590.000	273.900	3652.000	3559.000	103.4%	0.844	0.139	1.052	1793.000
2	15:03:27	T1161.000	T82240.000	268.200	3724.000	3545.000	103.5%	0.854	-0.123	1.088	1924.000
3	15:03:54	T1154.000	T82630.000	272.200	3669.000	3541.000	104.8%	0.705	0.159	1.045	2032.000
x		T1164.000	T82820.000	271.400	3681.000	3548.000	103.9%	0.801	0.058	1.061	1916.000
σ		T11.670	T693.700	2.937	37.800	9.423	0.8%	0.083	0.157	0.023	119.900
%RSD		T1.003	T0.838	1.082	1.027	0.266	0.8	10.390	270.800	2.194	6.257

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	142.800	2.614	144.000	153.700	0.823	0.633	0.325	0.935	0.953	12.150
2	15:03:27	137.700	2.609	144.900	152.500	0.823	0.688	0.390	0.925	0.978	13.180
3	15:03:54	147.200	2.542	142.200	158.100	0.812	0.626	0.796	0.940	0.911	12.540
x		142.500	2.589	143.700	154.800	0.819	0.649	0.504	0.933	0.948	12.620
σ		4.742	0.040	1.362	2.923	0.006	0.034	0.255	0.008	0.034	0.520
%RSD		3.327	1.549	0.948	1.888	0.759	5.240	50.670	0.825	3.584	4.117

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	12.380	13.270	0.356	-0.649	3.337	3.938	-1.661	-0.345	-2.072	21.130
2	15:03:27	12.660	12.830	0.525	-0.056	3.487	3.303	-0.467	-0.096	-0.483	20.510
3	15:03:54	12.110	12.380	0.286	-0.204	3.645	4.028	-2.213	-0.505	0.090	20.850
x		12.390	12.830	0.389	-0.303	3.490	3.756	-1.447	-0.315	-0.822	20.830
σ		0.274	0.447	0.123	0.308	0.155	0.395	0.892	0.206	1.120	0.310
%RSD		2.210	3.481	31.520	101.800	4.426	10.530	61.670	65.240	136.400	1.488

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	103.3%	0.169	0.087	0.123	0.384	0.005	0.000	0.115	0.130	104.4%
2	15:03:27	104.1%	0.144	0.112	0.082	0.545	-0.004	-0.000	0.124	0.120	103.7%
3	15:03:54	101.1%	0.092	0.103	0.192	0.070	-0.003	-0.000	0.115	0.125	101.3%
x		102.8%	0.135	0.100	0.132	0.333	-0.001	-0.000	0.118	0.125	103.1%
σ		1.5%	0.040	0.013	0.056	0.241	0.005	0.000	0.005	0.005	1.6%
%RSD		1.5	29.280	12.480	42.200	72.550	597.400	572.200	4.128	4.008	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	0.289	0.365	0.069	0.107	9.192	9.654	103.9%	-0.011	-0.014	0.651
2	15:03:27	0.280	0.309	0.090	0.096	9.686	9.637	103.3%	-0.009	-0.016	0.734
3	15:03:54	0.290	0.365	0.091	0.079	9.445	9.714	100.3%	-0.016	-0.015	0.767
x		0.286	0.346	0.083	0.094	9.441	9.669	102.5%	-0.012	-0.015	0.717
σ		0.005	0.033	0.012	0.014	0.247	0.040	1.9%	0.004	0.001	0.060
%RSD		1.852	9.400	14.760	14.950	2.619	0.417	1.9	33.090	9.058	8.330

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:03:00	0.662	0.691	103.8%
2	15:03:27	0.737	0.706	103.7%
3	15:03:54	0.636	0.682	99.7%
x		0.678	0.693	102.4%
σ		0.052	0.012	2.3%
%RSD		7.737	1.723	2.3

CCV MW10994 04/30/2019 15:08:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	98.0%	302.000	311.000	301.900	75.720	┬63730.000	┬62230.000	┬62610.000	┬61780.000	299.500
2	15:09:36	95.3%	309.100	308.000	291.600	63.900	┬64610.000	┬62700.000	┬61900.000	┬61800.000	290.700
3	15:10:03	98.9%	306.300	298.900	300.300	58.100	┬63640.000	┬62170.000	┬62050.000	┬62090.000	300.900
x		97.4%	101.931%	101.996%	99.314%	65.910	┬106.660%	┬62370.000	┬62190.000	┬103.152%	98.999%
σ		1.9%	n/a	n/a	n/a	8.983	┬n/a	┬291.500	┬376.600	┬n/a	n/a
%RSD		1.9	1.164	2.065	1.875	13.630	┬0.837	┬0.467	┬0.606	┬0.283	1.862

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	┬3279.000	1078.000	┬65220.000	62500.000	┬63490.000	98.8%	315.500	316.100	301.800	1500.000
2	15:09:36	┬3307.000	963.400	┬63470.000	61870.000	┬62760.000	102.3%	305.900	310.400	302.600	1566.000
3	15:10:03	┬3198.000	934.400	┬63180.000	62300.000	┬63170.000	100.4%	310.600	319.200	304.800	697.000
x		┬108.718%	991.800	┬106.597%	62220.000	┬105.229%	100.5%	103.559%	105.084%	101.031%	1254.000
σ		┬n/a	75.820	┬n/a	317.900	┬n/a	1.7%	n/a	n/a	n/a	483.800
%RSD		┬1.728	7.644	┬1.728	0.511	┬0.581	1.7	1.543	1.424	0.508	38.570

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	┬63470.000	297.200	┬63630.000	┬61670.000	300.000	290.300	301.600	292.600	296.000	293.400
2	15:09:36	┬62510.000	295.500	┬62540.000	┬61190.000	296.200	285.400	288.600	287.500	285.600	296.400
3	15:10:03	┬62840.000	298.600	┬63890.000	┬62330.000	297.800	291.300	283.000	288.500	293.700	300.700
x		┬62940.000	99.032%	┬63350.000	┬102.879%	99.336%	96.341%	291.100	289.500	97.260%	98.946%
σ		┬483.800	n/a	┬715.900	┬n/a	n/a	n/a	9.538	2.702	n/a	n/a
%RSD		┬0.769	0.520	┬1.130	┬0.925	0.648	1.086	3.277	0.933	1.864	1.238

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	296.800	294.700	292.100	302.500	1.125	0.626	1332.000	302.200	7.324	305.600
2	15:09:36	297.300	297.200	301.300	299.600	0.952	0.455	1265.000	291.700	3.996	302.200
3	15:10:03	297.000	298.300	301.400	296.800	1.014	0.282	1315.000	304.100	2.557	304.200
x		297.000	296.700	99.420%	299.600	1.030	0.455	1304.000	99.781%	4.625	101.338%
σ		0.284	1.833	n/a	2.864	0.088	0.172	34.880	n/a	2.445	n/a
%RSD		0.096	0.618	1.791	0.956	8.536	37.890	2.674	2.223	52.860	0.570

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	94.0%	317.300	324.300	321.300	302.000	290.700	292.300	299.000	298.500	94.4%
2	15:09:36	102.0%	315.600	318.800	318.000	298.500	292.600	293.600	301.700	302.500	100.1%
3	15:10:03	99.7%	318.900	320.300	316.800	304.900	296.200	297.500	303.300	303.500	97.6%
x		98.6%	105.759%	107.048%	318.700	301.800	97.725%	294.500	301.300	100.510%	97.4%
σ		4.1%	n/a	n/a	2.295	3.192	n/a	2.722	2.181	n/a	2.8%
%RSD		4.2	0.522	0.880	0.720	1.058	0.947	0.925	0.724	0.873	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	311.300	311.500	310.200	304.900	305.300	304.700	97.9%	302.000	307.500	297.600
2	15:09:36	┬304.900	309.000	314.100	307.700	301.600	304.300	103.4%	307.300	312.900	303.900
3	15:10:03	313.500	313.300	317.000	308.400	303.900	304.200	101.5%	305.800	313.300	305.500
x		┬103.294%	103.757%	313.800	102.335%	101.197%	101.465%	100.9%	305.000	103.744%	100.782%
σ		┬n/a	n/a	3.428	n/a	n/a	n/a	2.8%	2.731	n/a	n/a
%RSD		┬1.437	0.684	1.093	0.597	0.606	0.091	2.8	0.895	1.031	1.371

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:09:09	299.400	301.600	93.3%
2	15:09:36	303.600	307.200	101.1%
3	15:10:03	304.100	307.200	99.4%
x		100.788%	101.778%	98.0%
σ		n/a	n/a	4.1%
%RSD		0.845	1.062	4.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	107.8%	0.015	0.770	1.363	15.520	8.648	6.311	6.195	6.812	-0.005
2	15:15:46	106.3%	0.060	1.581	1.012	15.390	7.602	6.537	6.427	6.475	-0.120
3	15:16:13	107.7%	0.041	1.039	0.674	10.800	5.143	5.177	5.132	5.466	-0.044
x		107.3%	0.039	1.130	1.016	13.900	7.131	6.008	5.918	6.251	-0.056
σ		0.8%	0.023	0.413	0.345	2.685	1.799	0.729	0.691	0.700	0.059
%RSD		0.8	58.680	36.570	33.910	19.320	25.230	12.130	11.670	11.200	103.900

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	14.600	558.600	5.885	4.008	6.523	102.2%	-0.057	0.061	0.058	14.020
2	15:15:46	14.170	503.100	3.766	9.823	6.520	105.0%	-0.059	0.025	0.049	26.200
3	15:16:13	14.230	462.600	2.573	4.300	6.120	106.8%	-0.037	0.019	0.046	23.740
x		14.330	508.100	4.075	6.044	6.388	104.7%	-0.051	0.035	0.051	21.320
σ		0.233	48.180	1.678	3.276	0.232	2.3%	0.012	0.023	0.006	6.443
%RSD		1.624	9.484	41.170	54.210	3.631	2.2	23.420	65.070	12.150	30.220

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	6.562	0.034	10.450	6.241	0.040	0.053	-0.162	0.013	0.026	0.036
2	15:15:46	8.287	0.040	8.376	-3.832	0.048	0.040	-0.168	0.033	0.037	0.016
3	15:16:13	5.864	0.025	7.538	-5.247	0.032	-0.003	-0.157	0.016	0.025	0.022
x		6.904	0.033	8.787	-0.946	0.040	0.030	-0.162	0.021	0.029	0.025
σ		1.247	0.007	1.498	6.265	0.008	0.029	0.006	0.011	0.007	0.010
%RSD		18.060	22.050	17.050	662.100	19.230	96.780	3.600	51.150	23.360	41.170

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	-0.041	0.052	0.031	0.005	-0.049	0.145	-0.161	-0.059	0.243	0.031
2	15:15:46	0.132	0.094	-0.046	0.185	-0.141	0.566	-0.955	-0.247	-0.175	0.030
3	15:16:13	0.083	0.071	-0.048	0.175	0.162	-0.116	-1.479	-0.309	-1.902	0.021
x		0.058	0.072	-0.021	0.122	-0.009	0.198	-0.865	-0.205	-0.611	0.027
σ		0.089	0.021	0.045	0.101	0.156	0.344	0.663	0.130	1.137	0.005
%RSD		154.700	28.870	212.900	83.020	1652.000	173.700	76.690	63.450	186.100	20.020

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	102.4%	0.060	0.075	0.088	0.495	0.036	0.030	0.012	0.034	103.6%
2	15:15:46	105.5%	0.128	0.063	0.045	-0.256	0.029	0.027	0.044	0.032	108.6%
3	15:16:13	108.1%	0.084	0.028	0.074	-1.023	0.027	0.024	0.032	0.031	109.6%
x		105.4%	0.091	0.055	0.069	-0.261	0.031	0.027	0.029	0.032	107.3%
σ		2.9%	0.034	0.024	0.022	0.759	0.004	0.003	0.016	0.002	3.2%
%RSD		2.7	37.700	43.970	31.410	290.500	14.480	12.210	54.770	5.138	3.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	0.059	0.091	0.120	0.121	0.060	0.036	103.5%	0.025	0.024	0.042
2	15:15:46	0.067	0.073	0.105	0.110	-0.016	0.066	107.1%	0.030	0.021	0.039
3	15:16:13	0.037	0.068	0.098	0.156	0.005	0.025	108.1%	0.020	0.011	0.026
x		0.054	0.077	0.108	0.129	0.016	0.042	106.2%	0.025	0.019	0.035
σ		0.015	0.012	0.011	0.024	0.039	0.022	2.4%	0.005	0.007	0.009
%RSD		28.320	15.120	10.460	18.580	240.200	51.190	2.3	19.370	35.960	24.600

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:15:19	0.048	0.040	107.0%
2	15:15:46	0.035	0.037	110.3%
3	15:16:13	0.033	0.025	112.5%
x		0.039	0.034	109.9%
σ		0.008	0.008	2.8%
%RSD		20.690	23.820	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	109.8%	0.004	12.770	12.330	83.560	T 1219.000	405.300	396.900	401.900	57.630
2	15:21:52	105.3%	0.030	13.330	12.460	101.000	T 1266.000	409.200	398.300	392.700	55.230
3	15:22:19	106.8%	-0.008	12.550	11.990	97.130	T 1229.000	398.100	390.500	393.800	54.510
x		107.3%	0.009	12.880	12.260	93.880	T 1238.000	404.200	395.200	396.100	55.790
σ		2.3%	0.019	0.403	0.242	9.144	T 24.440	5.602	4.171	5.007	1.632
%RSD		2.1	219.700	3.129	1.974	9.739	T 1.974	1.386	1.055	1.264	2.926

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	T 1162.000	T 79110.000	312.300	3786.000	3669.000	106.3%	0.885	0.125	0.924	1559.000
2	15:21:52	T 1172.000	T 79750.000	313.000	3859.000	3628.000	105.8%	1.105	0.072	0.976	1570.000
3	15:22:19	T 1141.000	T 79550.000	308.700	3842.000	3670.000	107.2%	0.866	-0.050	0.961	1573.000
x		T 1158.000	T 79470.000	311.300	3829.000	3656.000	106.4%	0.952	0.049	0.954	1567.000
σ		T 15.950	T 326.700	2.287	37.910	23.670	0.7%	0.133	0.090	0.026	7.333
%RSD		T 1.377	T 0.411	0.735	0.990	0.648	0.7	13.960	182.200	2.769	0.468

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	160.900	2.300	171.500	183.800	0.782	0.677	0.289	1.967	2.043	13.470
2	15:21:52	163.700	2.279	165.500	178.300	0.768	0.813	0.300	1.966	1.972	13.630
3	15:22:19	161.000	2.291	162.400	172.700	0.797	0.786	0.235	1.950	1.925	13.470
x		161.900	2.290	166.500	178.300	0.782	0.759	0.274	1.961	1.980	13.530
σ		1.606	0.010	4.610	5.535	0.015	0.072	0.035	0.009	0.059	0.094
%RSD		0.992	0.452	2.770	3.105	1.895	9.471	12.630	0.478	2.996	0.693

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	14.280	13.630	0.807	-0.272	4.707	4.335	0.705	0.122	1.834	20.720
2	15:21:52	12.730	14.140	0.824	0.198	4.725	4.548	-0.462	-0.112	0.288	20.910
3	15:22:19	12.320	13.560	0.663	0.357	4.143	3.555	-1.615	-0.371	-0.445	21.290
x		13.110	13.780	0.765	0.094	4.525	4.146	-0.457	-0.120	0.559	20.970
σ		1.033	0.315	0.089	0.327	0.331	0.523	1.160	0.247	1.163	0.286
%RSD		7.881	2.288	11.590	346.500	7.313	12.600	253.700	205.100	208.200	1.362

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	108.0%	0.200	0.313	0.245	-0.493	0.006	0.009	0.169	0.154	106.9%
2	15:21:52	107.7%	0.308	0.206	0.236	0.834	0.007	0.009	0.184	0.158	106.9%
3	15:22:19	106.5%	0.238	0.247	0.201	0.825	0.009	0.009	0.101	0.122	107.8%
x		107.4%	0.249	0.255	0.227	0.389	0.007	0.009	0.151	0.145	107.2%
σ		0.8%	0.055	0.054	0.024	0.763	0.002	0.000	0.045	0.020	0.5%
%RSD		0.7	22.090	21.090	10.410	196.500	21.970	4.741	29.430	13.680	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	0.307	0.407	0.146	0.154	9.320	9.267	107.7%	0.001	-0.008	0.700
2	15:21:52	0.271	0.366	0.160	0.154	9.479	9.363	106.6%	-0.013	-0.011	0.743
3	15:22:19	0.294	0.383	0.148	0.180	9.521	9.248	107.0%	-0.001	-0.008	0.716
x		0.291	0.385	0.151	0.163	9.440	9.293	107.1%	-0.004	-0.009	0.720
σ		0.018	0.020	0.007	0.015	0.106	0.061	0.5%	0.008	0.002	0.022
%RSD		6.283	5.306	4.945	9.047	1.122	0.662	0.5	179.700	23.160	3.074

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:21:25	0.671	0.700	108.8%
2	15:21:52	0.704	0.714	109.5%
3	15:22:19	0.709	0.696	109.2%
x		0.695	0.703	109.2%
σ		0.021	0.009	0.4%
%RSD		2.968	1.336	0.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	111.1%	0.002	0.897	0.331	46.220	6.618	1.689	1.614	1.841	1.520
2	15:27:56	108.0%	0.042	0.555	0.375	70.030	6.041	1.785	1.596	1.470	1.456
3	15:28:23	106.5%	-0.010	0.551	0.378	74.830	3.288	1.689	1.760	1.838	1.447
x		108.6%	0.011	0.668	0.361	63.690	5.316	1.721	1.657	1.716	1.474
σ		2.3%	0.028	0.199	0.027	15.320	1.779	0.055	0.090	0.213	0.040
%RSD		2.2	243.800	29.730	7.366	24.050	33.470	3.213	5.416	12.410	2.695
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	19.130	T 17930.000	3.129	4.618	5.301	102.0%	-0.034	0.040	0.187	394.900
2	15:27:56	19.810	T 18380.000	-0.768	3.296	5.163	103.9%	-0.024	-0.081	0.165	459.600
3	15:28:23	19.780	T 17530.000	-1.845	2.549	5.399	106.6%	-0.015	0.057	0.110	347.200
x		19.570	T 17950.000	0.172	3.488	5.288	104.2%	-0.024	0.005	0.154	400.600
σ		0.388	T 423.500	2.617	1.047	0.119	2.3%	0.009	0.075	0.039	56.430
%RSD		1.981	T 2.360	1522.000	30.030	2.243	2.2	39.550	1437.000	25.510	14.090
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	2.640	0.037	4.279	0.865	0.015	0.016	-0.089	0.028	0.042	0.842
2	15:27:56	2.948	0.027	3.644	-6.396	0.005	0.026	-0.185	0.028	0.019	0.801
3	15:28:23	0.777	0.024	0.870	-10.250	0.010	0.003	-0.216	0.015	0.020	1.030
x		2.122	0.029	2.931	-5.260	0.010	0.015	-0.163	0.024	0.027	0.891
σ		1.175	0.006	1.813	5.644	0.005	0.012	0.066	0.007	0.013	0.122
%RSD		55.370	21.810	61.860	107.300	47.490	77.440	40.710	30.840	47.850	13.700
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	1.173	0.929	0.064	0.438	0.010	-0.003	0.135	-0.010	2.436	0.012
2	15:27:56	0.835	1.009	-0.061	0.546	-0.026	0.588	-1.840	-0.398	-1.013	0.007
3	15:28:23	0.955	1.023	0.035	-0.063	0.465	0.316	1.172	0.309	-0.654	0.005
x		0.988	0.987	0.013	0.307	0.149	0.300	-0.178	-0.033	0.257	0.008
σ		0.171	0.051	0.066	0.325	0.274	0.296	1.530	0.354	1.896	0.004
%RSD		17.330	5.163	518.800	106.000	183.000	98.590	861.000	1072.000	738.600	47.030
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	100.9%	-0.004	-0.021	0.002	-0.651	-0.003	-0.000	0.005	-0.000	99.8%
2	15:27:56	102.5%	0.015	-0.004	-0.008	-0.453	-0.004	0.000	-0.003	0.007	103.0%
3	15:28:23	106.8%	0.016	-0.009	-0.008	-1.342	-0.001	-0.001	-0.003	-0.002	104.7%
x		103.4%	0.009	-0.011	-0.005	-0.815	-0.003	-0.000	-0.000	0.002	102.5%
σ		3.0%	0.011	0.009	0.006	0.467	0.002	0.001	0.004	0.005	2.5%
%RSD		2.9	122.800	80.140	131.900	57.280	56.040	247.800	45680.000	283.900	2.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	0.082	0.105	0.031	0.025	0.003	0.004	98.3%	-0.014	-0.017	-0.009
2	15:27:56	0.058	0.128	0.011	0.032	-0.009	0.009	102.1%	-0.017	-0.018	-0.015
3	15:28:23	0.085	0.111	0.022	0.016	-0.026	0.011	104.8%	-0.009	-0.019	-0.004
x		0.075	0.115	0.021	0.024	-0.011	0.008	101.7%	-0.013	-0.018	-0.009
σ		0.015	0.012	0.010	0.008	0.014	0.004	3.3%	0.004	0.001	0.005
%RSD		19.470	10.560	47.350	31.530	131.000	49.430	3.2	31.790	6.652	54.460
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:27:30	0.006	-0.001	98.1%							
2	15:27:56	-0.012	-0.010	100.6%							
3	15:28:23	-0.006	-0.003	106.0%							
x		-0.004	-0.005	101.6%							
σ		0.010	0.005	4.1%							
%RSD		238.500	95.660	4.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	107.4%	0.018	0.168	0.068	74.730	7.256	1.456	1.535	1.526	0.841
2	15:34:01	111.1%	-0.008	0.586	0.050	77.730	8.227	1.343	1.383	1.428	0.750
3	15:34:28	106.7%	0.015	0.263	0.279	73.740	6.185	1.466	1.228	1.242	0.792
x		108.4%	0.009	0.339	0.132	75.400	7.222	1.422	1.382	1.399	0.794
σ		2.4%	0.014	0.219	0.127	2.076	1.021	0.068	0.153	0.144	0.046
%RSD		2.2	165.700	64.760	96.030	2.753	14.140	4.801	11.080	10.310	5.731

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	16.010	T 82740.000	7.817	1.449	2.398	104.6%	-0.058	-0.007	0.401	1649.000
2	15:34:01	15.980	T 83990.000	7.910	4.420	3.816	104.9%	-0.036	-0.134	0.428	1884.000
3	15:34:28	15.980	T 82940.000	6.664	1.346	2.576	107.1%	-0.037	0.070	0.304	1508.000
x		15.990	T 83220.000	7.463	2.405	2.930	105.5%	-0.044	-0.024	0.378	1680.000
σ		0.012	T 668.700	0.694	1.746	0.772	1.4%	0.013	0.103	0.065	190.100
%RSD		0.077	T 0.803	9.300	72.600	26.360	1.3	28.730	437.800	17.330	11.310

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	1.647	0.034	3.225	-6.238	0.001	0.149	0.273	1.367	1.362	2.026
2	15:34:01	2.798	0.028	3.919	-9.011	0.009	0.145	0.171	1.328	1.441	1.969
3	15:34:28	2.327	0.042	1.612	-13.320	0.009	0.150	0.074	1.293	1.250	1.810
x		2.257	0.035	2.919	-9.524	0.007	0.148	0.172	1.330	1.351	1.935
σ		0.579	0.007	1.183	3.570	0.004	0.002	0.099	0.037	0.096	0.112
%RSD		25.650	20.680	40.550	37.480	67.670	1.542	57.650	2.788	7.120	5.776

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	2.218	1.850	0.044	-0.282	1.338	1.849	-0.829	-0.149	-1.244	0.002
2	15:34:01	1.787	1.941	-0.019	0.790	1.408	2.086	-1.257	-0.232	-1.874	0.004
3	15:34:28	2.021	1.930	0.072	0.017	1.523	1.702	-0.806	-0.240	1.354	0.001
x		2.009	1.907	0.032	0.175	1.423	1.879	-0.964	-0.207	-0.588	0.002
σ		0.216	0.050	0.047	0.553	0.094	0.194	0.254	0.050	1.711	0.002
%RSD		10.740	2.607	144.600	315.800	6.579	10.310	26.370	24.320	291.000	70.980

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	102.9%	-0.010	-0.012	-0.004	-0.085	0.002	0.002	0.001	0.012	102.0%
2	15:34:01	103.2%	0.007	-0.012	-0.001	-1.069	-0.003	0.001	-0.003	0.000	102.2%
3	15:34:28	106.3%	-0.018	0.004	0.009	-0.584	0.000	-0.000	-0.003	-0.003	108.7%
x		104.1%	-0.007	-0.007	0.001	-0.579	-0.000	0.001	-0.001	0.003	104.3%
σ		1.9%	0.012	0.009	0.007	0.492	0.002	0.001	0.002	0.008	3.8%
%RSD		1.8	179.000	135.400	786.200	84.960	728.800	177.600	163.300	246.500	3.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	0.251	0.364	0.034	0.046	-0.015	-0.007	100.7%	-0.013	-0.020	0.020
2	15:34:01	0.229	0.381	0.040	0.033	-0.020	-0.003	100.1%	-0.018	-0.018	0.016
3	15:34:28	0.245	0.364	0.057	0.040	-0.000	-0.019	106.9%	-0.018	-0.015	0.009
x		0.242	0.370	0.044	0.040	-0.012	-0.010	102.6%	-0.017	-0.017	0.015
σ		0.012	0.010	0.012	0.006	0.010	0.008	3.8%	0.003	0.003	0.005
%RSD		4.754	2.684	27.630	16.220	88.860	87.140	3.7	17.420	14.980	36.430

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:33:33	0.018	0.016	100.3%
2	15:34:01	0.004	0.011	100.1%
3	15:34:28	0.030	0.018	107.8%
x		0.018	0.015	102.7%
σ		0.013	0.004	4.4%
%RSD		72.760	25.460	4.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	105.2%	98.990	100.400	96.190	77.510	┬1033.000	┬980.100	973.500	992.900	97.040
2	15:40:07	107.1%	98.540	101.400	99.480	81.550	┬1042.000	┬1017.000	1004.000	1010.000	98.970
3	15:40:34	108.6%	96.920	102.300	101.400	79.340	┬1029.000	┬1014.000	1000.000	998.600	104.000
x		107.0%	98.150	101.400	99.040	79.470	┬1035.000	┬1004.000	992.600	1001.000	100.000
σ		1.7%	1.091	0.924	2.653	2.019	┬6.808	┬20.540	16.700	8.918	3.589
%RSD		1.6	1.112	0.911	2.678	2.540	┬0.658	┬2.046	1.683	0.891	3.589

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	┬922.400	┬82990.000	1065.000	1155.000	1041.000	105.1%	100.200	100.600	99.710	2455.000
2	15:40:07	┬911.900	┬83220.000	1059.000	1166.000	1035.000	107.6%	97.450	98.980	98.830	2376.000
3	15:40:34	┬931.400	┬86110.000	┬1071.000	1184.000	1051.000	105.3%	101.800	100.700	100.500	2373.000
x		┬921.900	┬84110.000	┬1065.000	1168.000	1043.000	106.0%	99.810	100.100	99.670	2402.000
σ		┬9.745	┬1740.000	┬6.032	14.630	8.254	1.4%	2.190	0.955	0.831	46.580
%RSD		┬1.057	┬2.069	┬0.566	1.252	0.792	1.3	2.194	0.954	0.833	1.939

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	1083.000	98.020	┬1035.000	1015.000	100.200	99.520	100.700	101.100	98.770	98.300
2	15:40:07	1081.000	98.100	┬1041.000	982.500	98.010	98.480	99.330	98.250	98.590	100.200
3	15:40:34	1093.000	97.120	┬1042.000	985.900	99.790	101.700	101.200	102.700	100.800	99.920
x		1086.000	97.740	┬1039.000	994.600	99.320	99.890	100.400	100.700	99.380	99.480
σ		6.474	0.544	┬3.278	18.070	1.152	1.626	0.990	2.257	1.225	1.034
%RSD		0.596	0.557	┬0.315	1.816	1.160	1.628	0.986	2.242	1.232	1.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	101.000	103.200	102.100	99.980	1.273	1.399	433.000	96.630	0.720	98.090
2	15:40:07	102.000	104.200	99.790	95.170	2.074	1.393	440.000	98.100	3.089	97.480
3	15:40:34	101.500	103.200	101.900	103.300	1.158	1.515	452.700	101.400	1.683	97.100
x		101.500	103.500	101.300	99.500	1.502	1.436	441.900	98.720	1.831	97.560
σ		0.498	0.592	1.288	4.105	0.499	0.069	9.963	2.460	1.191	0.495
%RSD		0.491	0.572	1.272	4.126	33.240	4.773	2.255	2.492	65.060	0.507

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	107.2%	98.880	101.200	98.430	99.430	99.010	98.530	98.600	98.130	108.2%
2	15:40:07	106.8%	99.070	99.210	98.950	95.910	98.150	99.140	99.850	98.980	108.4%
3	15:40:34	104.7%	99.540	101.600	98.640	100.700	97.570	98.010	99.160	97.570	105.7%
x		106.2%	99.160	100.700	98.670	98.670	98.240	98.560	99.200	98.230	107.5%
σ		1.3%	0.342	1.295	0.258	2.465	0.728	0.566	0.628	0.712	1.5%
%RSD		1.2	0.345	1.286	0.262	2.499	0.741	0.574	0.633	0.725	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	101.000	99.750	99.800	100.200	99.640	100.500	109.3%	101.000	101.800	102.200
2	15:40:07	100.400	99.980	98.780	100.400	100.900	101.500	107.7%	103.000	104.100	103.400
3	15:40:34	99.850	98.760	97.090	98.910	101.500	100.200	104.7%	102.300	103.800	103.100
x		100.400	99.490	98.560	99.830	100.700	100.700	107.2%	102.100	103.200	102.900
σ		0.558	0.650	1.366	0.798	0.933	0.662	2.4%	1.029	1.262	0.624
%RSD		0.555	0.653	1.386	0.800	0.926	0.657	2.2	1.008	1.222	0.606

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:39:40	102.800	102.700	111.7%
2	15:40:07	103.700	104.200	112.6%
3	15:40:34	104.500	103.800	107.3%
x		103.700	103.500	110.5%
σ		0.891	0.787	2.8%
%RSD		0.859	0.761	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	98.8%	0.001	253.100	261.400	86.120	TM 249600.000	T 1799.000	1801.000	1798.000	TM 1817.000
2	15:46:13	97.8%	0.002	257.800	253.700	79.480	TM 249000.000	T 1800.000	1807.000	1837.000	TM 1717.000
3	15:46:40	97.0%	-0.024	269.200	265.400	78.560	TM 258200.000	T 1829.000	1840.000	1889.000	TM 1777.000
x		97.9%	-0.007	260.100	260.200	81.390	TM 252300.000	T 1809.000	1816.000	1841.000	TM 1770.000
σ		0.9%	0.014	8.270	5.969	4.126	TM 5169.000	T 16.880	20.770	45.820	TM 50.070
%RSD		0.9	206.400	3.180	2.294	5.069	TM 2.049	T 0.933	1.143	2.488	TM 2.828

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	T 2605.000	T 84280.000	T 38950.000	47040.000	T 48240.000	100.2%	5.014	2.792	2.408	1876.000
2	15:46:13	T 2559.000	T 81010.000	T 37420.000	46410.000	T 47770.000	104.9%	4.622	2.608	2.256	1689.000
3	15:46:40	T 2688.000	T 83680.000	T 38330.000	48330.000	T 49160.000	104.3%	4.915	2.492	2.343	1809.000
x		T 2617.000	T 82990.000	T 38240.000	47260.000	T 48390.000	103.1%	4.850	2.631	2.336	1791.000
σ		T 65.390	T 1739.000	T 772.500	980.400	T 709.100	2.6%	0.204	0.151	0.076	94.900
%RSD		T 2.499	T 2.095	T 2.020	2.074	T 1.465	2.5	4.200	5.744	3.268	5.297

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	2779.000	17.460	T 2742.000	3147.000	41.360	15.090	13.340	10.690	11.450	52.930
2	15:46:13	2708.000	17.370	T 2719.000	2983.000	40.550	14.490	14.520	10.340	10.940	52.780
3	15:46:40	2780.000	18.130	T 2831.000	3145.000	42.240	15.750	15.340	10.820	11.160	55.080
x		2756.000	17.660	T 2764.000	3092.000	41.380	15.110	14.400	10.620	11.180	53.600
σ		41.140	0.415	T 59.360	94.000	0.845	0.630	1.007	0.246	0.259	1.288
%RSD		1.493	2.352	T 2.148	3.040	2.042	4.170	6.995	2.319	2.318	2.403

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	46.250	50.170	0.685	0.599	8.492	8.714	-1.104	-0.179	-0.884	70.140
2	15:46:13	49.170	50.030	0.425	0.510	9.668	9.226	0.468	0.128	1.039	69.810
3	15:46:40	49.300	51.200	0.572	-0.130	9.407	9.811	0.109	0.094	-0.723	70.810
x		48.240	50.470	0.561	0.326	9.189	9.250	-0.176	0.014	-0.189	70.250
σ		1.725	0.641	0.131	0.397	0.618	0.549	0.823	0.168	1.067	0.510
%RSD		3.576	1.270	23.280	121.700	6.724	5.934	468.600	1173.000	564.200	0.725

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	100.6%	5.406	5.631	5.391	3.392	0.012	0.006	0.158	0.131	95.2%
2	15:46:13	105.4%	5.563	5.414	5.237	4.402	0.001	0.009	0.099	0.111	101.2%
3	15:46:40	108.5%	5.523	5.571	5.374	2.392	0.004	0.011	0.108	0.113	102.9%
x		104.8%	5.497	5.539	5.334	3.395	0.005	0.009	0.122	0.118	99.8%
σ		3.9%	0.082	0.112	0.085	1.005	0.006	0.002	0.032	0.011	4.1%
%RSD		3.8	1.488	2.025	1.588	29.600	104.100	26.210	26.270	9.228	4.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	0.359	0.495	2.004	1.834	4.003	4.062	99.6%	0.020	0.012	0.138
2	15:46:13	0.370	0.428	1.882	1.876	4.142	4.202	107.1%	0.012	0.007	0.149
3	15:46:40	0.352	0.440	1.950	1.914	4.096	4.130	108.0%	0.007	0.001	0.125
x		0.360	0.454	1.945	1.875	4.080	4.131	104.9%	0.013	0.007	0.137
σ		0.009	0.036	0.061	0.040	0.071	0.070	4.6%	0.006	0.006	0.012
%RSD		2.438	7.834	3.146	2.128	1.743	1.696	4.4	47.490	87.300	8.868

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:45:44	0.177	0.152	93.5%
2	15:46:13	0.139	0.135	102.1%
3	15:46:40	0.130	0.124	101.8%
x		0.149	0.137	99.1%
σ		0.025	0.014	4.9%
%RSD		16.590	10.410	4.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	104.5%	0.003	79.870	81.550	51.220	T 63510.000	456.400	457.600	455.500	355.800
2	15:52:18	102.9%	0.012	83.580	81.570	49.480	T 64010.000	457.300	440.900	441.600	359.500
3	15:52:46	104.5%	-0.020	83.540	83.210	48.110	T 62990.000	447.900	445.700	446.600	356.800
x		104.0%	-0.001	82.330	82.110	49.600	T 63500.000	453.900	448.100	447.900	357.400
σ		0.9%	0.016	2.131	0.955	1.555	T 511.000	5.150	8.616	7.069	1.919
%RSD		0.9	1152.000	2.589	1.163	3.134	T 0.805	1.135	1.923	1.578	0.537
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	533.400	T 17710.000	T 8061.000	9637.000	9262.000	106.2%	0.762	0.577	0.498	341.800
2	15:52:18	546.300	T 17840.000	T 8158.000	9735.000	9252.000	105.3%	0.804	0.563	0.459	339.700
3	15:52:46	536.600	T 17980.000	T 8153.000	9608.000	9268.000	106.6%	0.916	0.598	0.479	345.200
x		538.800	T 17840.000	T 8124.000	9660.000	9261.000	106.0%	0.827	0.580	0.479	342.200
σ		6.751	T 136.100	T 54.290	66.760	8.093	0.7%	0.080	0.018	0.020	2.773
%RSD		1.253	T 0.763	T 0.668	0.691	0.087	0.6	9.613	3.024	4.136	0.810
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	563.500	3.630	T 579.300	617.800	8.495	3.011	2.634	2.327	2.200	11.480
2	15:52:18	558.300	3.680	T 579.900	630.300	8.447	3.154	2.538	2.341	2.350	11.360
3	15:52:46	560.300	3.574	T 568.100	631.700	8.595	3.218	3.078	2.351	2.401	11.010
x		560.700	3.628	T 575.800	626.600	8.512	3.128	2.750	2.340	2.317	11.280
σ		2.585	0.053	T 6.641	7.636	0.075	0.106	0.288	0.012	0.104	0.241
%RSD		0.461	1.462	T 1.153	1.219	0.884	3.399	10.470	0.524	4.505	2.135
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	9.899	10.850	0.094	-0.251	1.663	2.294	-1.656	-0.348	-0.629	14.480
2	15:52:18	10.140	10.990	0.186	0.225	1.976	1.570	-0.788	-0.129	-1.611	14.260
3	15:52:46	9.969	10.500	-0.046	0.434	1.513	1.578	-1.510	-0.353	1.724	14.050
x		10.000	10.780	0.078	0.136	1.717	1.814	-1.318	-0.277	-0.172	14.260
σ		0.125	0.255	0.117	0.351	0.237	0.416	0.465	0.128	1.714	0.213
%RSD		1.252	2.365	149.900	257.800	13.770	22.940	35.270	46.380	997.200	1.490
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	102.6%	1.082	1.125	1.076	1.268	0.003	0.001	0.008	0.024	101.5%
2	15:52:18	106.2%	1.137	1.199	1.065	-0.432	-0.004	0.003	0.007	0.032	104.7%
3	15:52:46	104.0%	1.099	1.170	1.125	0.467	-0.003	0.005	0.027	0.015	101.1%
x		104.3%	1.106	1.165	1.089	0.434	-0.002	0.003	0.014	0.023	102.4%
σ		1.8%	0.028	0.037	0.032	0.850	0.004	0.002	0.011	0.009	1.9%
%RSD		1.7	2.539	3.202	2.933	195.800	269.600	78.110	78.210	36.990	1.9
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	0.063	0.114	0.391	0.362	0.678	0.879	104.6%	-0.009	-0.012	0.009
2	15:52:18	0.088	0.067	0.400	0.392	0.914	0.742	107.2%	-0.011	-0.008	0.007
3	15:52:46	0.075	0.103	0.383	0.404	0.709	0.747	103.3%	-0.003	-0.014	0.043
x		0.075	0.095	0.391	0.386	0.767	0.789	105.0%	-0.008	-0.012	0.020
σ		0.013	0.024	0.008	0.022	0.128	0.078	2.0%	0.004	0.003	0.021
%RSD		16.760	25.700	2.150	5.605	16.720	9.843	1.9	55.440	25.750	106.300
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:51:52	0.023	0.023	101.8%							
2	15:52:18	0.025	0.020	103.7%							
3	15:52:46	0.020	0.028	99.6%							
x		0.023	0.024	101.7%							
σ		0.002	0.004	2.1%							
%RSD		11.060	17.290	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	103.7%	-0.002	1.602	1.356	74.780	29.200	1.885	1.840	1.983	1.677
2	15:58:25	105.6%	0.009	1.109	1.075	81.600	24.280	1.839	1.893	1.815	1.630
3	15:58:53	110.1%	0.002	1.325	1.348	73.400	23.810	1.860	1.976	1.994	1.736
x		106.5%	0.003	1.345	1.260	76.590	25.760	1.861	1.903	1.931	1.681
σ		3.3%	0.006	0.247	0.160	4.390	2.981	0.023	0.069	0.100	0.053
%RSD		3.1	191.400	18.370	12.720	5.732	11.570	1.223	3.624	5.192	3.158

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	18.990	T 82940.000	14.700	9.584	6.110	107.0%	0.019	-0.098	0.404	1734.000
2	15:58:25	18.070	T 81970.000	14.610	4.839	5.557	107.6%	0.095	-0.177	0.382	1631.000
3	15:58:53	17.900	T 82050.000	13.860	8.504	5.691	105.8%	0.054	-0.246	0.411	1880.000
x		18.320	T 82320.000	14.390	7.642	5.786	106.8%	0.056	-0.173	0.399	1749.000
σ		0.590	T 539.900	0.459	2.487	0.288	0.9%	0.039	0.074	0.015	125.000
%RSD		3.222	T 0.656	3.188	32.550	4.983	0.9	68.790	42.710	3.835	7.151

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	4.263	0.068	5.158	-11.950	0.008	0.123	0.033	0.228	0.238	0.498
2	15:58:25	3.615	0.062	2.541	-16.890	0.010	0.160	-0.481	0.207	0.271	0.555
3	15:58:53	4.731	0.060	5.642	-8.401	0.013	0.105	-0.111	0.227	0.243	0.619
x		4.203	0.063	4.447	-12.410	0.010	0.129	-0.186	0.221	0.251	0.557
σ		0.561	0.004	1.669	4.263	0.003	0.028	0.265	0.012	0.018	0.061
%RSD		13.340	6.611	37.520	34.350	26.470	21.490	142.300	5.266	7.061	10.930

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	0.605	0.674	-0.009	0.120	0.804	0.695	-0.241	-0.050	-0.275	0.018
2	15:58:25	0.452	0.605	-0.140	0.309	1.297	1.910	-2.616	-0.573	-1.242	0.016
3	15:58:53	0.398	0.624	-0.245	0.226	1.264	2.269	-2.121	-0.452	-1.720	0.017
x		0.485	0.634	-0.131	0.218	1.122	1.625	-1.659	-0.358	-1.079	0.017
σ		0.107	0.036	0.118	0.095	0.276	0.825	1.253	0.274	0.736	0.001
%RSD		22.070	5.660	89.940	43.470	24.590	50.790	75.520	76.340	68.230	6.931

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	107.0%	-0.013	-0.013	-0.001	-0.257	-0.003	0.000	0.005	0.005	107.0%
2	15:58:25	106.5%	0.003	0.008	-0.009	-0.651	-0.003	-0.000	0.008	0.000	107.6%
3	15:58:53	104.1%	0.009	-0.017	-0.003	0.735	-0.003	0.000	-0.003	0.006	105.3%
x		105.9%	-0.000	-0.007	-0.004	-0.058	-0.003	0.000	0.003	0.004	106.6%
σ		1.5%	0.011	0.013	0.004	0.714	0.000	0.000	0.006	0.003	1.2%
%RSD		1.4	3567.000	184.300	96.810	1239.000	1.281	366.900	161.200	83.960	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	0.260	0.399	0.023	0.046	0.084	0.088	106.1%	-0.016	-0.017	0.010
2	15:58:25	0.267	0.368	0.035	0.017	0.087	0.131	107.3%	-0.015	-0.016	0.005
3	15:58:53	0.274	0.397	0.041	0.027	0.089	0.119	105.5%	-0.018	-0.017	-0.008
x		0.267	0.388	0.033	0.030	0.087	0.113	106.3%	-0.017	-0.017	0.003
σ		0.007	0.017	0.009	0.015	0.003	0.022	0.9%	0.002	0.001	0.010
%RSD		2.551	4.443	27.240	50.150	3.432	19.640	0.9	11.080	5.067	367.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:57:58	0.004	0.003	106.7%
2	15:58:25	0.003	-0.001	107.5%
3	15:58:53	-0.010	-0.003	106.7%
x		-0.001	-0.000	107.0%
σ		0.008	0.003	0.5%
%RSD		672.600	1237.000	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	110.7%	96.040	100.100	95.720	94.600	┬1028.000	┬1003.000	1000.000	1021.000	104.000
2	16:04:30	107.6%	98.140	101.100	97.360	102.700	┬1075.000	┬1043.000	1006.000	1008.000	97.220
3	16:04:57	107.7%	100.100	106.300	103.000	124.200	┬1096.000	┬1052.000	1022.000	1050.000	102.900
x		108.7%	98.090	102.500	98.680	107.200	┬1067.000	┬1033.000	1009.000	1026.000	101.400
σ		1.7%	2.022	3.328	3.804	15.310	┬34.890	┬26.150	11.010	21.480	3.648
%RSD		1.6	2.062	3.247	3.855	14.290	┬3.272	┬2.532	1.091	2.093	3.598

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	┬916.800	┬81490.000	┬1037.000	1126.000	1032.000	104.6%	98.000	100.800	98.180	2800.000
2	16:04:30	┬923.500	┬80410.000	┬1050.000	1143.000	1041.000	106.6%	100.200	98.600	99.380	2432.000
3	16:04:57	┬932.700	┬85470.000	┬1087.000	1179.000	1068.000	103.0%	103.300	101.300	100.700	2646.000
x		┬924.300	┬82450.000	┬1058.000	1149.000	1047.000	104.7%	100.500	100.200	99.400	2626.000
σ		┬7.959	┬2665.000	┬26.270	26.930	18.260	1.8%	2.690	1.421	1.242	185.200
%RSD		┬0.861	┬3.232	┬2.483	2.343	1.744	1.7	2.676	1.418	1.249	7.052

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	1079.000	97.760	┬1058.000	1025.000	100.300	99.960	102.000	101.400	101.800	99.420
2	16:04:30	1093.000	99.280	┬1041.000	1004.000	99.530	98.580	100.200	101.600	102.100	102.500
3	16:04:57	1093.000	98.470	┬1069.000	1042.000	101.200	103.800	102.300	104.200	103.500	100.900
x		1088.000	98.500	┬1056.000	1024.000	100.400	100.800	101.500	102.400	102.500	100.900
σ		8.008	0.762	┬13.780	19.060	0.846	2.696	1.145	1.556	0.895	1.536
%RSD		0.736	0.774	┬1.305	1.862	0.842	2.675	1.128	1.520	0.873	1.522

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	100.100	101.200	99.250	104.600	1.817	2.270	422.300	96.790	0.596	98.240
2	16:04:30	101.700	102.600	100.600	100.900	1.465	2.125	461.300	104.500	0.316	98.320
3	16:04:57	99.360	101.500	102.600	106.500	2.305	1.544	461.200	105.500	3.777	97.670
x		100.400	101.800	100.800	104.000	1.862	1.980	448.300	102.300	1.563	98.080
σ		1.185	0.769	1.676	2.830	0.422	0.384	22.510	4.776	1.923	0.356
%RSD		1.180	0.755	1.663	2.721	22.650	19.410	5.021	4.670	123.000	0.363

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	103.0%	98.500	99.090	98.150	99.040	99.720	99.330	101.600	99.000	101.8%
2	16:04:30	103.8%	99.960	101.600	99.900	101.200	98.000	98.980	101.100	100.200	104.1%
3	16:04:57	104.3%	100.100	98.960	98.900	103.300	97.920	98.970	99.390	99.150	102.8%
x		103.7%	99.520	99.870	98.990	101.200	98.550	99.090	100.700	99.450	102.9%
σ		0.7%	0.893	1.466	0.878	2.153	1.013	0.204	1.169	0.657	1.1%
%RSD		0.6	0.897	1.468	0.887	2.128	1.028	0.206	1.161	0.660	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	101.800	101.000	99.050	100.700	103.200	102.900	101.0%	101.800	102.100	101.900
2	16:04:30	103.100	101.600	100.100	100.200	100.700	102.200	105.4%	100.500	100.900	101.300
3	16:04:57	101.700	100.800	98.170	98.910	101.200	101.600	102.7%	100.200	99.800	100.600
x		102.200	101.100	99.110	99.930	101.700	102.300	103.0%	100.800	100.900	101.300
σ		0.783	0.434	0.975	0.913	1.317	0.653	2.2%	0.838	1.137	0.624
%RSD		0.766	0.429	0.983	0.914	1.295	0.639	2.2	0.831	1.127	0.616

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:04:03	101.500	102.000	101.4%
2	16:04:30	101.000	101.600	105.3%
3	16:04:57	100.900	101.200	101.8%
x		101.100	101.600	102.9%
σ		0.306	0.402	2.1%
%RSD		0.302	0.396	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	105.7%	0.026	1.057	0.717	69.020	9.361	1.164	1.262	1.221	0.852
2	16:10:37	110.1%	0.015	0.830	0.730	67.010	10.220	1.248	1.208	1.032	1.043
3	16:11:04	108.8%	-0.007	1.098	0.553	66.660	7.827	1.139	1.194	1.088	0.970
x		108.2%	0.011	0.995	0.667	67.570	9.135	1.184	1.222	1.114	0.955
σ		2.3%	0.017	0.144	0.099	1.275	1.211	0.057	0.036	0.097	0.096
%RSD		2.1	150.800	14.520	14.800	1.888	13.260	4.791	2.948	8.722	10.050

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	16.450	T 81790.000	7.843	1.358	4.069	106.8%	0.052	0.067	0.379	1625.000
2	16:10:37	16.370	T 85330.000	6.423	7.412	4.132	104.7%	-0.047	-0.135	0.464	1924.000
3	16:11:04	15.980	T 81730.000	10.520	5.639	3.628	104.6%	0.010	0.015	0.337	1667.000
x		16.270	T 82950.000	8.263	4.803	3.943	105.4%	0.005	-0.017	0.393	1739.000
σ		0.249	T 2061.000	2.082	3.112	0.275	1.2%	0.050	0.105	0.065	161.600
%RSD		1.528	T 2.485	25.200	64.800	6.964	1.2	978.500	599.800	16.440	9.292

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	2.738	0.063	2.800	-17.300	0.026	0.112	-0.235	0.047	0.053	0.388
2	16:10:37	4.541	0.049	4.043	-10.390	0.012	0.104	-0.147	0.063	0.049	0.303
3	16:11:04	1.985	0.055	1.595	-11.870	0.019	0.084	-0.101	0.067	0.040	0.351
x		3.088	0.056	2.812	-13.190	0.019	0.100	-0.161	0.059	0.047	0.347
σ		1.314	0.007	1.224	3.637	0.007	0.014	0.068	0.011	0.007	0.042
%RSD		42.540	12.170	43.530	27.580	38.080	14.100	42.470	18.270	14.010	12.230

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	0.527	0.385	0.115	-0.029	1.359	1.153	-0.501	-0.082	-2.740	0.019
2	16:10:37	0.157	0.543	0.074	0.382	0.850	1.333	-0.446	-0.069	-1.681	0.011
3	16:11:04	0.635	0.403	0.115	-0.134	0.787	1.166	1.181	0.225	0.738	0.012
x		0.440	0.443	0.101	0.073	0.999	1.217	0.078	0.025	-1.228	0.014
σ		0.251	0.087	0.023	0.273	0.314	0.100	0.956	0.174	1.783	0.004
%RSD		56.940	19.550	23.140	373.500	31.410	8.250	1225.000	696.200	145.200	31.190

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	104.2%	0.077	0.017	0.042	0.698	0.005	0.007	0.004	0.011	107.0%
2	16:10:37	103.5%	0.028	0.009	0.010	-0.538	-0.000	0.011	-0.003	0.014	103.9%
3	16:11:04	107.0%	0.044	-0.005	0.023	-0.497	0.003	0.011	0.001	0.007	108.1%
x		104.9%	0.050	0.007	0.025	-0.112	0.002	0.010	0.001	0.011	106.3%
σ		1.9%	0.025	0.011	0.016	0.702	0.003	0.002	0.004	0.004	2.2%
%RSD		1.8	50.800	152.700	64.330	624.100	107.700	23.160	396.300	35.320	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	0.271	0.352	0.027	0.042	-0.005	0.019	106.7%	0.014	0.003	-0.007
2	16:10:37	0.281	0.391	0.038	0.039	0.017	0.017	103.5%	0.006	0.010	-0.010
3	16:11:04	0.260	0.404	0.034	0.032	0.015	-0.002	108.7%	0.004	0.003	-0.004
x		0.271	0.382	0.033	0.038	0.009	0.012	106.3%	0.008	0.005	-0.007
σ		0.011	0.027	0.006	0.005	0.012	0.012	2.6%	0.005	0.004	0.003
%RSD		3.889	7.053	16.860	12.930	138.800	100.800	2.5	65.470	75.950	42.870

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:10:10	0.005	-0.000	109.2%
2	16:10:37	-0.010	-0.006	105.3%
3	16:11:04	-0.005	-0.006	111.5%
x		-0.003	-0.004	108.7%
σ		0.008	0.003	3.1%
%RSD		232.200	83.360	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	107.0%	101.200	103.900	100.800	69.960	T1061.000	T1025.000	1033.000	1042.000	99.240
2	16:16:45	108.0%	96.790	100.300	96.910	62.840	T1031.000	T1010.000	1015.000	999.000	99.180
3	16:17:13	105.6%	99.050	101.400	94.850	63.180	T1043.000	T1000.000	997.200	1008.000	98.860
x		106.9%	99.010	101.900	97.530	65.320	T1045.000	T1012.000	1015.000	1016.000	99.090
σ		1.2%	2.205	1.842	3.046	4.016	T15.090	T12.330	17.820	22.680	0.202
%RSD		1.2	2.227	1.808	3.123	6.148	T1.444	T1.219	1.756	2.232	0.204

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	T901.800	T82580.000	1084.000	1115.000	1044.000	105.6%	102.100	99.790	98.940	2494.000
2	16:16:45	T881.200	T81290.000	T1045.000	1090.000	1044.000	105.6%	101.200	99.210	98.290	2633.000
3	16:17:13	T915.400	T80820.000	1056.000	1164.000	1027.000	107.0%	98.570	99.410	97.500	2431.000
x		T899.400	T81560.000	T1062.000	1123.000	1038.000	106.1%	100.600	99.470	98.250	2519.000
σ		T17.220	T913.100	T20.090	37.400	9.779	0.8%	1.846	0.293	0.721	103.700
%RSD		T1.915	T1.119	T1.892	3.330	0.942	0.8	1.834	0.295	0.734	4.116

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	1082.000	97.740	T1021.000	1003.000	98.180	99.850	100.700	99.850	99.030	99.480
2	16:16:45	1084.000	99.280	T1039.000	990.100	98.740	99.190	98.370	101.200	98.840	99.500
3	16:17:13	1069.000	96.310	T1026.000	1001.000	98.440	98.950	97.830	100.100	97.970	98.120
x		1079.000	97.780	T1029.000	997.900	98.450	99.330	98.960	100.400	98.610	99.030
σ		8.324	1.488	T8.821	6.862	0.280	0.463	1.522	0.726	0.566	0.790
%RSD		0.772	1.522	T0.857	0.688	0.284	0.466	1.538	0.723	0.574	0.798

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	101.600	101.800	101.600	103.600	1.025	0.839	468.200	105.200	3.077	97.110
2	16:16:45	104.900	102.200	103.200	100.700	1.098	1.224	461.000	103.800	3.668	97.320
3	16:17:13	102.200	103.600	101.000	103.000	1.687	1.694	457.500	102.600	2.201	97.600
x		102.900	102.500	102.000	102.500	1.270	1.252	462.200	103.900	2.982	97.340
σ		1.756	0.960	1.139	1.510	0.363	0.428	5.435	1.271	0.738	0.246
%RSD		1.706	0.937	1.117	1.474	28.580	34.160	1.176	1.224	24.750	0.253

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	107.3%	98.530	100.300	98.360	97.860	98.740	99.350	101.700	99.150	107.6%
2	16:16:45	107.3%	98.700	99.080	98.630	100.700	99.600	99.140	100.700	99.370	107.4%
3	16:17:13	108.2%	99.390	100.100	97.840	97.690	98.790	99.110	100.900	100.100	108.8%
x		107.6%	98.870	99.840	98.270	98.740	99.050	99.200	101.100	99.550	107.9%
σ		0.5%	0.456	0.668	0.403	1.679	0.482	0.130	0.567	0.516	0.8%
%RSD		0.5	0.461	0.669	0.410	1.701	0.487	0.131	0.561	0.519	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	101.900	100.200	100.200	99.340	99.060	100.500	108.8%	101.900	102.600	103.500
2	16:16:45	101.200	99.940	98.460	98.810	101.100	99.930	107.8%	100.900	102.300	102.900
3	16:17:13	101.600	99.700	99.300	99.170	99.900	100.100	110.1%	101.400	102.700	103.400
x		101.600	99.960	99.310	99.110	100.000	100.200	108.9%	101.400	102.500	103.300
σ		0.350	0.270	0.867	0.271	1.042	0.270	1.1%	0.500	0.242	0.308
%RSD		0.344	0.270	0.873	0.273	1.041	0.270	1.1	0.493	0.236	0.298

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:16:18	103.800	104.100	111.4%
2	16:16:45	103.400	103.100	110.0%
3	16:17:13	104.000	103.600	112.7%
x		103.700	103.600	111.4%
σ		0.294	0.512	1.4%
%RSD		0.284	0.494	1.2

CCV MW10994 04/30/2019 16:22:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	99.4%	301.500	304.000	297.500	66.480	┬64430.000	┬62590.000	┬61820.000	┬61930.000	299.200
2	16:22:55	100.3%	297.500	305.400	298.100	57.320	┬63580.000	┬62360.000	┬61260.000	┬61000.000	309.200
3	16:23:22	100.4%	303.500	316.000	306.200	65.760	┬63670.000	┬61790.000	┬62080.000	┬62040.000	306.300
x		100.0%	100.272%	102.813%	100.200%	63.180	┬106.489%	┬62250.000	┬61720.000	┬102.758%	101.629%
σ		0.6%	n/a	n/a	n/a	5.093	┬n/a	┬415.200	┬420.000	┬n/a	n/a
%RSD		0.6	1.019	2.124	1.629	8.061	┬0.729	┬0.667	┬0.680	┬0.921	1.694
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	┬3189.000	803.700	┬62890.000	62790.000	┬63540.000	101.4%	310.400	320.000	301.000	708.900
2	16:22:55	┬3187.000	809.600	┬66070.000	64180.000	┬64440.000	98.3%	313.100	321.300	307.500	1870.000
3	16:23:22	┬3245.000	796.100	┬65390.000	63440.000	┬63430.000	99.5%	314.900	311.600	304.300	2426.000
x		┬106.901%	803.100	┬107.975%	63470.000	┬106.341%	99.7%	104.260%	105.873%	101.413%	1668.000
σ		┬n/a	6.762	┬n/a	694.700	┬n/a	1.5%	n/a	n/a	n/a	876.200
%RSD		┬1.014	0.842	┬2.585	1.095	┬0.867	1.5	0.716	1.664	1.066	52.520
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	┬63800.000	300.500	┬63710.000	┬61410.000	295.200	283.200	286.600	289.700	294.000	301.600
2	16:22:55	┬64560.000	302.200	┬64790.000	┬63980.000	306.300	296.600	297.500	291.500	292.400	295.900
3	16:23:22	┬63600.000	299.100	┬63530.000	┬62080.000	300.900	296.900	296.800	289.600	293.500	295.800
x		┬63990.000	100.204%	┬64010.000	┬104.155%	100.261%	97.413%	293.600	290.300	97.769%	99.252%
σ		┬506.800	n/a	┬680.000	┬n/a	n/a	n/a	6.103	1.029	n/a	n/a
%RSD		┬0.792	0.512	┬1.062	┬2.131	1.843	2.679	2.078	0.355	0.284	1.126
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	293.500	299.800	301.200	301.700	0.845	0.466	1298.000	299.200	3.318	303.000
2	16:22:55	296.500	295.900	295.000	304.100	0.734	-0.132	1267.000	291.400	8.022	304.400
3	16:23:22	296.500	292.800	295.700	306.500	1.257	0.537	1307.000	303.200	4.252	305.400
x		295.500	296.200	99.091%	304.100	0.945	0.290	1291.000	99.308%	5.197	101.418%
σ		1.729	3.524	n/a	2.365	0.276	0.367	20.830	n/a	2.491	n/a
%RSD		0.585	1.190	1.144	0.778	29.140	126.500	1.613	2.019	47.920	0.381
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	98.1%	318.500	320.200	320.000	304.800	293.000	297.000	302.600	301.600	96.8%
2	16:22:55	97.1%	320.300	319.500	317.600	305.100	292.600	295.200	299.200	297.600	95.6%
3	16:23:22	97.7%	319.700	320.800	319.700	303.600	295.000	298.400	305.400	301.200	95.5%
x		97.6%	106.510%	106.726%	319.100	304.500	97.843%	296.900	302.400	100.043%	96.0%
σ		0.5%	n/a	n/a	1.318	0.769	n/a	1.639	3.114	n/a	0.7%
%RSD		0.5	0.280	0.208	0.413	0.253	0.441	0.552	1.030	0.736	0.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	314.500	312.800	314.400	310.300	309.500	310.400	99.8%	307.000	313.500	304.500
2	16:22:55	311.400	308.200	306.900	303.500	308.900	306.500	97.1%	305.600	311.700	304.100
3	16:23:22	313.800	311.600	310.200	306.700	307.100	309.500	98.2%	303.500	310.700	299.900
x		104.396%	103.612%	310.500	102.268%	102.832%	102.931%	98.4%	305.300	103.988%	100.944%
σ		n/a	n/a	3.751	n/a	n/a	n/a	1.4%	1.746	n/a	n/a
%RSD		0.519	0.766	1.208	1.104	0.416	0.664	1.4	0.572	0.463	0.842
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:22:28	304.900	307.400	97.9%							
2	16:22:55	302.900	304.700	92.7%							
3	16:23:22	300.900	303.500	93.2%							
x		100.965%	101.726%	94.6%							
σ		n/a	n/a	2.9%							
%RSD		0.651	0.653	3.0							

CCB IM9390-01 04/30/2019 16:28:08 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	106.7%	0.024	2.193	1.457	25.480	9.460	7.704	8.175	7.874	-0.035
2	16:29:01	104.4%	0.079	1.299	1.270	27.180	8.178	5.967	5.925	6.633	-0.068
3	16:29:28	105.9%	0.029	1.129	1.278	16.190	5.374	5.359	6.036	5.231	-0.087
x		105.7%	0.044	1.540	1.335	22.950	7.671	6.344	6.712	6.579	-0.063
σ		1.1%	0.031	0.571	0.106	5.916	2.090	1.217	1.269	1.322	0.026
%RSD		1.1	69.550	37.090	7.908	25.780	27.240	19.190	18.900	20.100	41.680

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	14.970	413.100	8.827	13.710	7.186	103.0%	0.058	0.056	0.073	24.420
2	16:29:01	15.170	423.800	4.106	6.202	5.780	105.2%	-0.036	-0.015	0.048	46.730
3	16:29:28	14.520	386.800	0.551	2.538	5.580	106.9%	-0.082	-0.008	0.040	34.590
x		14.890	407.900	4.495	7.483	6.182	105.0%	-0.020	0.011	0.053	35.240
σ		0.331	19.070	4.152	5.695	0.876	2.0%	0.072	0.039	0.017	11.170
%RSD		2.222	4.675	92.370	76.110	14.160	1.9	360.800	359.200	31.870	31.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	9.176	0.059	11.560	8.570	0.056	0.019	-0.154	0.021	0.024	-0.016
2	16:29:01	6.497	0.034	8.670	4.909	0.061	0.034	-0.009	0.028	0.043	0.002
3	16:29:28	5.897	0.039	7.029	-8.127	0.049	0.033	-0.358	0.018	0.045	0.025
x		7.190	0.044	9.085	1.784	0.055	0.028	-0.174	0.022	0.037	0.004
σ		1.746	0.013	2.292	8.776	0.006	0.009	0.175	0.005	0.011	0.021
%RSD		24.280	30.070	25.230	491.900	11.360	30.050	100.900	22.440	30.060	553.700

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	0.116	0.072	0.014	1.008	0.051	-0.060	-0.381	-0.023	-1.418	0.036
2	16:29:01	0.069	0.061	-0.080	0.812	-0.127	0.242	-2.451	-0.565	0.658	0.029
3	16:29:28	0.243	0.110	0.086	0.158	0.343	0.509	0.778	0.195	-0.870	0.030
x		0.143	0.081	0.007	0.659	0.089	0.230	-0.685	-0.131	-0.543	0.031
σ		0.090	0.025	0.083	0.445	0.238	0.285	1.636	0.391	1.076	0.004
%RSD		62.880	31.370	1221.000	67.490	266.700	123.700	238.900	298.800	198.000	12.000

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	102.5%	0.126	0.088	0.084	1.106	0.049	0.038	0.039	0.045	100.1%
2	16:29:01	101.9%	0.102	0.053	0.091	0.357	0.018	0.044	0.046	0.021	101.6%
3	16:29:28	103.2%	0.097	0.048	0.056	0.152	0.026	0.033	0.027	0.021	103.7%
x		102.5%	0.108	0.063	0.077	0.538	0.031	0.038	0.038	0.029	101.8%
σ		0.6%	0.015	0.022	0.018	0.502	0.016	0.006	0.010	0.014	1.8%
%RSD		0.6	14.270	34.130	23.890	93.270	51.690	14.500	26.170	46.860	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	0.096	0.112	0.159	0.112	0.091	0.044	99.6%	0.042	0.030	0.044
2	16:29:01	0.060	0.065	0.103	0.110	0.035	0.040	101.0%	0.022	0.029	0.047
3	16:29:28	0.056	0.067	0.142	0.140	0.012	0.012	102.4%	0.037	0.032	0.033
x		0.070	0.081	0.135	0.121	0.046	0.032	101.0%	0.034	0.031	0.041
σ		0.022	0.027	0.029	0.017	0.041	0.018	1.4%	0.010	0.001	0.007
%RSD		31.610	32.690	21.550	13.660	88.670	55.360	1.4	30.440	4.154	17.650

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:28:34	0.038	0.040	97.7%
2	16:29:01	0.039	0.040	100.0%
3	16:29:28	0.031	0.033	102.2%
x		0.036	0.038	100.0%
σ		0.004	0.004	2.2%
%RSD		11.880	10.790	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	105.1%	-0.012	1.470	1.228	-18.880	┬2525.000	┬16150.000	┬16460.000	┬16730.000	2.740
2	16:35:07	103.9%	0.003	1.283	1.165	-25.500	┬2546.000	┬16160.000	┬16360.000	┬16870.000	2.613
3	16:35:34	107.2%	-0.028	1.211	0.890	-31.090	┬2480.000	┬16100.000	┬16330.000	┬16530.000	2.581
x		105.4%	-0.012	1.321	1.094	-25.160	┬2517.000	┬16140.000	┬16380.000	┬16710.000	2.645
σ		1.7%	0.015	0.134	0.180	6.116	┬33.780	┬28.150	┬69.800	┬167.900	0.084
%RSD		1.6	126.200	10.110	16.420	24.310	┬1.342	┬0.174	┬0.426	┬1.005	3.182

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	┬7986.000	┬73220.000	┬3503.000	63380.000	┬64300.000	103.2%	1.749	0.092	0.637	1867.000
2	16:35:07	┬7947.000	┬71750.000	┬3404.000	63870.000	┬64610.000	103.6%	1.546	0.099	0.593	1832.000
3	16:35:34	┬7771.000	┬71360.000	┬3346.000	62830.000	┬64010.000	105.4%	1.811	0.187	0.574	1797.000
x		┬7901.000	┬72110.000	┬3417.000	63360.000	┬64310.000	104.1%	1.702	0.126	0.601	1832.000
σ		┬114.700	┬979.800	┬79.220	520.000	┬301.800	1.2%	0.139	0.053	0.033	34.700
%RSD		┬1.451	┬1.359	┬2.318	0.821	┬0.469	1.1	8.162	42.380	5.451	1.894

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	19.710	66.740	25.680	703.700	0.837	4.254	3.374	0.180	0.370	0.758
2	16:35:07	18.490	67.870	23.830	646.600	0.861	4.227	3.353	0.173	0.285	0.533
3	16:35:34	19.020	67.540	23.390	618.100	0.823	4.352	3.303	0.140	0.366	0.711
x		19.080	67.380	24.300	656.100	0.840	4.278	3.343	0.164	0.340	0.667
σ		0.610	0.582	1.211	43.630	0.019	0.066	0.037	0.022	0.048	0.119
%RSD		3.196	0.863	4.983	6.649	2.261	1.531	1.093	13.130	14.080	17.750

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	9.246	6.798	0.151	0.254	4.669	4.893	0.459	0.101	-0.171	36.200
2	16:35:07	7.981	6.672	-0.043	0.190	4.371	4.697	-1.744	-0.384	-0.551	36.090
3	16:35:34	8.288	6.586	0.064	0.256	4.299	3.915	0.150	0.087	-1.666	36.050
x		8.505	6.685	0.057	0.233	4.446	4.502	-0.378	-0.065	-0.796	36.110
σ		0.660	0.107	0.097	0.037	0.196	0.518	1.193	0.276	0.777	0.080
%RSD		7.760	1.596	170.100	16.050	4.414	11.490	315.400	423.500	97.600	0.221

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	102.3%	0.069	0.018	0.032	1.590	0.006	0.017	0.046	0.057	102.4%
2	16:35:07	105.3%	0.043	0.042	0.039	1.474	0.005	0.010	0.082	0.035	104.6%
3	16:35:34	107.4%	0.029	0.074	0.021	1.641	0.012	0.018	0.030	0.045	105.5%
x		105.0%	0.047	0.045	0.031	1.568	0.008	0.015	0.053	0.046	104.2%
σ		2.6%	0.020	0.028	0.009	0.086	0.004	0.004	0.027	0.011	1.6%
%RSD		2.5	43.600	62.340	28.370	5.463	47.380	30.100	50.320	24.200	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	0.319	0.426	0.094	0.095	142.800	141.800	102.3%	0.015	0.004	0.021
2	16:35:07	0.288	0.448	0.099	0.089	142.100	141.900	106.4%	0.012	0.000	0.022
3	16:35:34	0.301	0.420	0.091	0.099	140.900	141.700	106.7%	0.006	0.008	0.006
x		0.302	0.431	0.094	0.094	141.900	141.800	105.1%	0.011	0.004	0.016
σ		0.015	0.014	0.004	0.005	0.951	0.105	2.5%	0.005	0.004	0.009
%RSD		5.045	3.361	3.958	5.549	0.670	0.074	2.4	42.090	90.330	56.890

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:34:40	0.019	0.016	101.5%
2	16:35:07	0.015	0.011	107.4%
3	16:35:34	0.014	0.007	107.1%
x		0.016	0.011	105.4%
σ		0.003	0.005	3.3%
%RSD		15.790	40.580	3.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	106.6%	0.113	3.661	3.757	38.970	T 4003.000	T 4670.000	T 4598.000	T 4695.000	13.350
2	16:41:13	107.3%	0.110	3.407	3.508	31.600	T 3988.000	T 4763.000	T 4658.000	T 4669.000	13.560
3	16:41:40	110.5%	0.114	3.838	3.548	27.990	T 3936.000	T 4698.000	T 4680.000	T 4740.000	13.480
x		108.1%	0.112	3.635	3.604	32.850	T 3976.000	T 4710.000	T 4645.000	T 4701.000	13.460
σ		2.1%	0.002	0.216	0.133	5.595	T 35.130	T 47.450	T 42.520	T 35.550	0.105
%RSD		1.9	2.148	5.951	3.702	17.030	T 0.883	T 1.007	T 0.915	T 0.756	0.780
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	T 5681.000	T 76640.000	T 3407.000	9760.000	9495.000	105.5%	1.154	0.050	0.616	1596.000
2	16:41:13	T 5655.000	T 76220.000	T 3391.000	9753.000	9500.000	104.5%	1.200	0.149	0.546	1691.000
3	16:41:40	T 5484.000	T 76060.000	T 3360.000	9560.000	9473.000	104.9%	1.468	0.133	0.580	1847.000
x		T 5606.000	T 76310.000	T 3386.000	9691.000	9489.000	104.9%	1.274	0.111	0.581	1712.000
σ		T 107.100	T 298.600	T 23.740	113.300	14.200	0.5%	0.170	0.053	0.035	126.800
%RSD		T 1.910	T 0.391	T 0.701	1.169	0.150	0.5	13.340	48.000	6.015	7.406
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	1478.000	TM 2954.000	T 1469.000	1503.000	6.865	7.320	6.831	6.356	6.607	32.140
2	16:41:13	1492.000	TM 2998.000	T 1498.000	1543.000	6.837	7.301	7.208	6.431	6.650	33.050
3	16:41:40	1477.000	TM 2948.000	T 1496.000	1535.000	6.770	7.099	6.905	6.383	6.659	32.960
x		1482.000	TM 2967.000	T 1487.000	1527.000	6.824	7.240	6.982	6.390	6.639	32.720
σ		8.233	TM 27.360	T 16.270	21.070	0.049	0.123	0.200	0.038	0.028	0.502
%RSD		0.555	TM 0.922	T 1.094	1.380	0.712	1.692	2.864	0.599	0.418	1.533
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	35.110	36.410	0.184	0.105	2.964	3.153	-1.961	-0.417	-0.276	43.140
2	16:41:13	35.410	37.100	0.321	-0.052	4.094	3.915	0.488	0.097	0.827	42.770
3	16:41:40	34.410	35.750	0.316	-0.268	3.654	3.888	-0.348	-0.037	-0.775	43.230
x		34.980	36.420	0.274	-0.072	3.571	3.652	-0.607	-0.119	-0.075	43.040
σ		0.512	0.674	0.078	0.187	0.570	0.432	1.245	0.267	0.819	0.244
%RSD		1.464	1.850	28.340	260.200	15.950	11.840	205.000	224.800	1097.000	0.568
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	110.8%	0.055	0.051	0.059	1.382	2.186	2.237	0.231	0.226	106.9%
2	16:41:13	108.7%	0.076	0.069	0.058	2.319	2.140	2.120	0.238	0.238	107.1%
3	16:41:40	105.5%	0.072	0.063	0.032	2.786	2.181	2.135	0.225	0.226	103.0%
x		108.4%	0.068	0.061	0.050	2.162	2.169	2.164	0.231	0.230	105.7%
σ		2.7%	0.011	0.009	0.015	0.715	0.026	0.064	0.006	0.007	2.3%
%RSD		2.5	16.700	15.120	30.520	33.050	1.181	2.935	2.806	2.944	2.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	0.318	0.382	0.073	0.083	109.500	109.500	107.5%	0.112	0.092	0.324
2	16:41:13	0.306	0.364	0.066	0.091	109.200	108.900	106.9%	0.087	0.080	0.256
3	16:41:40	0.284	0.355	0.069	0.065	110.200	109.100	103.7%	0.079	0.110	0.311
x		0.303	0.367	0.069	0.080	109.600	109.200	106.0%	0.093	0.094	0.297
σ		0.017	0.014	0.004	0.014	0.520	0.313	2.0%	0.017	0.015	0.036
%RSD		5.584	3.717	5.347	17.050	0.474	0.287	1.9	18.380	15.970	12.120
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:40:46	0.286	0.312	109.6%							
2	16:41:13	0.339	0.295	108.2%							
3	16:41:40	0.320	0.302	105.2%							
x		0.315	0.303	107.7%							
σ		0.027	0.009	2.2%							
%RSD		8.503	2.801	2.1							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	107.5%	-0.014	1.763	1.729	-52.200	T 3368.000	T 28840.000	T 29200.000	T 30060.000	1.802
2	16:47:20	105.4%	-0.036	1.883	1.800	-50.760	T 3423.000	T 28250.000	T 28760.000	T 29610.000	1.755
3	16:47:48	104.0%	-0.021	1.817	1.765	-51.940	T 3471.000	T 28720.000	T 28700.000	T 29550.000	1.760
x		105.6%	-0.024	1.821	1.765	-51.630	T 3420.000	T 28600.000	T 28890.000	T 29740.000	1.772
σ		1.8%	0.011	0.060	0.036	0.770	T 51.690	T 311.000	T 274.400	T 279.400	0.025
%RSD		1.7	47.990	3.319	2.026	1.492	T 1.511	T 1.087	T 0.950	T 0.939	1.428

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	T 9368.000	T 67560.000	T 3404.000	M 131500.000	TM 134000.000	104.4%	1.923	-0.024	0.454	1912.000
2	16:47:20	T 9687.000	T 68040.000	T 3408.000	M 131700.000	TM 133000.000	106.5%	2.039	0.100	0.384	1772.000
3	16:47:48	T 9588.000	T 66940.000	T 3431.000	M 132200.000	TM 135600.000	106.6%	2.092	-0.180	0.384	1936.000
x		T 9548.000	T 67510.000	T 3414.000	M 131800.000	TM 134200.000	105.8%	2.018	-0.035	0.408	1873.000
σ		T 163.200	T 552.100	T 14.440	M 383.100	TM 1299.000	1.3%	0.087	0.140	0.040	88.350
%RSD		T 1.709	T 0.818	T 0.423	M 0.291	TM 0.968	1.2	4.304	405.800	9.881	4.717

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	2044.000	T 404.000	T 2027.000	3351.000	6.183	16.390	14.460	0.172	0.577	0.971
2	16:47:20	1995.000	T 404.100	T 2062.000	3220.000	6.285	15.980	13.980	0.165	0.660	0.940
3	16:47:48	2020.000	T 413.500	T 2091.000	3212.000	6.247	16.160	15.360	0.155	0.576	1.057
x		2020.000	T 407.200	T 2060.000	3261.000	6.238	16.170	14.600	0.164	0.604	0.990
σ		24.440	T 5.467	T 31.920	78.120	0.052	0.207	0.702	0.008	0.048	0.061
%RSD		1.210	T 1.343	T 1.550	2.395	0.831	1.280	4.806	5.126	7.941	6.150

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	33.660	25.850	1.674	0.220	18.270	18.650	-0.712	-0.098	-2.585	83.460
2	16:47:20	33.030	25.120	1.698	-0.009	17.480	17.980	-0.952	-0.163	-1.572	82.770
3	16:47:48	34.080	27.220	1.599	0.202	16.440	17.760	0.303	0.114	-1.334	82.890
x		33.590	26.070	1.657	0.137	17.400	18.130	-0.454	-0.049	-1.830	83.040
σ		0.529	1.065	0.052	0.127	0.921	0.463	0.666	0.145	0.664	0.370
%RSD		1.576	4.086	3.132	92.620	5.292	2.552	146.900	293.400	36.300	0.446

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	100.5%	0.051	0.050	0.038	3.952	0.004	0.004	0.013	0.008	99.1%
2	16:47:20	105.2%	0.085	0.059	0.045	4.366	-0.002	0.010	0.001	0.009	102.1%
3	16:47:48	104.4%	0.067	0.056	0.056	3.309	0.003	0.002	0.008	0.024	102.2%
x		103.4%	0.068	0.055	0.046	3.876	0.002	0.005	0.007	0.013	101.1%
σ		2.5%	0.017	0.005	0.009	0.532	0.003	0.004	0.006	0.009	1.8%
%RSD		2.4	24.940	8.372	18.760	13.730	173.300	74.080	80.870	66.550	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	0.237	0.303	0.053	0.054	M 598.000	M 602.200	100.1%	0.026	0.035	-0.005
2	16:47:20	0.249	0.359	0.054	0.075	M 599.600	M 600.700	103.2%	0.020	0.017	-0.020
3	16:47:48	0.232	0.332	0.039	0.057	M 593.900	M 597.200	104.4%	0.036	0.025	-0.008
x		0.240	0.331	0.049	0.062	M 597.200	M 600.000	102.6%	0.027	0.026	-0.011
σ		0.009	0.028	0.008	0.011	M 2.959	M 2.562	2.2%	0.008	0.009	0.008
%RSD		3.590	8.339	16.490	17.900	M 0.495	M 0.427	2.2	29.390	33.850	73.590

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:46:52	-0.007	-0.006	96.7%
2	16:47:20	-0.007	-0.012	99.6%
3	16:47:48	-0.005	-0.010	100.6%
x		-0.006	-0.009	98.9%
σ		0.001	0.003	2.0%
%RSD		21.050	28.630	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	104.7%	-0.020	2.761	2.630	-23.400	T 5452.000	T 26130.000	T 25910.000	T 25930.000	2.427
2	16:53:27	108.4%	-0.007	2.849	2.807	-33.270	T 5436.000	T 26210.000	T 26280.000	T 26520.000	2.522
3	16:53:55	105.2%	-0.001	3.006	2.789	-34.930	T 5353.000	T 25670.000	T 26140.000	T 26840.000	2.457
x		106.1%	-0.009	2.872	2.742	-30.540	T 5413.000	T 26000.000	T 26110.000	T 26430.000	2.469
σ		2.0%	0.010	0.124	0.097	6.236	T 52.900	T 290.600	T 183.800	T 459.100	0.049
%RSD		1.9	102.700	4.306	3.546	20.420	T 0.977	T 1.118	T 0.704	T 1.737	1.973

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	T 7321.000	T 69310.000	T 2816.000	M 101100.000	TM 101600.000	105.1%	1.590	-0.028	0.488	1667.000
2	16:53:27	T 7256.000	T 70870.000	T 2876.000	M 101900.000	TM 102600.000	102.3%	2.444	-0.039	0.524	1974.000
3	16:53:55	T 7385.000	T 67820.000	T 2740.000	98580.000	TM 100800.000	107.2%	1.323	-0.191	0.426	1825.000
x		T 7321.000	T 69330.000	T 2811.000	M 100500.000	TM 101700.000	104.8%	1.786	-0.086	0.479	1822.000
σ		T 64.450	T 1523.000	T 68.150	M 1726.000	TM 870.200	2.5%	0.585	0.091	0.050	153.100
%RSD		T 0.880	T 2.196	T 2.424	M 1.718	TM 0.856	2.3	32.780	105.800	10.350	8.404

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	1626.000	TM 6232.000	T 1635.000	2550.000	13.320	14.540	14.780	0.150	0.516	16.180
2	16:53:27	1644.000	TM 6195.000	T 1649.000	2736.000	13.500	15.120	14.360	0.113	0.518	15.950
3	16:53:55	1603.000	TM 6159.000	T 1637.000	2504.000	13.150	15.050	13.180	0.135	0.532	15.900
x		1624.000	TM 6195.000	T 1641.000	2597.000	13.320	14.900	14.110	0.133	0.522	16.010
σ		20.590	TM 36.630	T 7.576	122.700	0.177	0.316	0.831	0.019	0.009	0.148
%RSD		1.268	TM 0.591	T 0.462	4.726	1.331	2.121	5.886	13.950	1.689	0.922

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	33.070	29.640	1.165	0.052	9.310	9.726	-0.731	-0.135	-0.723	98.100
2	16:53:27	34.250	29.870	1.067	0.539	8.817	9.495	-1.664	-0.358	-0.353	97.740
3	16:53:55	32.800	29.280	1.296	0.340	10.330	9.417	-0.067	0.028	-0.893	98.930
x		33.370	29.600	1.176	0.310	9.486	9.546	-0.821	-0.155	-0.656	98.260
σ		0.768	0.301	0.114	0.244	0.773	0.161	0.802	0.194	0.276	0.612
%RSD		2.302	1.018	9.730	78.780	8.146	1.683	97.770	124.900	42.050	0.623

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	100.8%	0.282	0.262	0.304	5.271	-0.004	0.001	0.008	0.016	99.2%
2	16:53:27	98.4%	0.284	0.256	0.281	4.833	0.003	0.005	0.008	0.003	96.8%
3	16:53:55	103.6%	0.296	0.233	0.293	4.368	0.001	0.001	0.015	0.005	101.6%
x		100.9%	0.287	0.250	0.293	4.824	-0.000	0.002	0.010	0.008	99.2%
σ		2.6%	0.007	0.015	0.012	0.452	0.004	0.003	0.004	0.007	2.4%
%RSD		2.6	2.537	6.185	3.978	9.368	1395.000	127.200	40.190	85.560	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	0.270	0.392	0.073	0.083	345.200	343.400	99.4%	0.063	0.065	-0.012
2	16:53:27	0.225	0.354	0.041	0.103	342.900	342.400	97.7%	0.062	0.049	-0.018
3	16:53:55	0.249	0.304	0.066	0.062	339.400	340.700	102.2%	0.050	0.061	-0.016
x		0.248	0.350	0.060	0.083	342.500	342.200	99.7%	0.058	0.058	-0.015
σ		0.023	0.044	0.017	0.021	2.959	1.370	2.3%	0.007	0.008	0.003
%RSD		9.245	12.590	28.380	24.970	0.864	0.400	2.3	12.610	13.960	20.190

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:52:59	-0.015	-0.014	95.7%
2	16:53:27	-0.012	-0.012	92.0%
3	16:53:55	-0.008	-0.015	97.8%
x		-0.012	-0.014	95.2%
σ		0.003	0.001	2.9%
%RSD		27.940	9.738	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	106.2%	44.270	49.400	49.950	-30.170	T 6220.000	T 26800.000	T 26990.000	T 27530.000	101.800
2	16:59:32	107.7%	44.470	51.630	50.020	-35.130	T 6244.000	T 27070.000	T 27120.000	T 27490.000	100.500
3	16:59:59	103.1%	46.290	52.070	50.210	-34.010	T 6310.000	T 26650.000	T 26300.000	T 26950.000	99.750
x		105.7%	45.010	51.030	50.060	-33.100	T 6258.000	T 26840.000	T 26800.000	T 27320.000	100.700
σ		2.4%	1.116	1.433	0.134	2.600	T 46.290	T 212.100	T 439.600	T 324.000	1.020
%RSD		2.3	2.479	2.807	0.268	7.855	T 0.740	T 0.790	T 1.640	T 1.186	1.014
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	T 8264.000	T 71730.000	T 3943.000	M 104100.000	TM 104300.000	104.0%	101.800	104.200	99.030	2552.000
2	16:59:32	T 8111.000	T 71090.000	T 3891.000	M 103100.000	TM 104000.000	104.6%	102.700	98.890	95.640	3347.000
3	16:59:59	T 8466.000	T 69890.000	T 3856.000	M 102000.000	TM 103600.000	106.6%	101.300	102.200	98.430	1817.000
x		T 8280.000	T 70900.000	T 3897.000	M 103100.000	TM 104000.000	105.1%	101.900	101.700	97.700	2572.000
σ		T 177.900	T 934.500	T 43.640	M 1064.000	TM 377.900	1.4%	0.682	2.664	1.809	765.100
%RSD		T 2.148	T 1.318	T 1.120	M 1.033	TM 0.363	1.3	0.669	2.619	1.852	29.750
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	2717.000	TM 6329.000	T 2708.000	3722.000	109.000	111.800	112.500	96.190	96.950	110.500
2	16:59:32	2703.000	TM 6326.000	T 2673.000	3693.000	109.400	108.200	107.100	96.130	98.900	110.000
3	16:59:59	2651.000	TM 6315.000	T 2694.000	3535.000	107.400	108.600	106.600	94.060	94.950	111.700
x		2691.000	TM 6323.000	T 2692.000	3650.000	108.600	109.500	108.700	95.460	96.930	110.800
σ		34.770	TM 7.549	T 17.500	100.300	1.069	1.986	3.295	1.213	1.972	0.894
%RSD		1.292	TM 0.119	T 0.650	2.748	0.985	1.813	3.031	1.270	2.034	0.807
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	127.200	125.400	99.820	99.080	8.214	8.045	453.500	104.200	2.758	197.800
2	16:59:32	125.800	123.900	98.040	98.280	7.973	8.068	422.400	96.530	1.443	198.900
3	16:59:59	125.900	125.000	102.500	100.700	6.839	7.949	440.900	101.400	2.255	197.300
x		126.300	124.800	100.100	99.360	7.675	8.021	438.900	100.700	2.152	198.000
σ		0.774	0.764	2.234	1.254	0.734	0.063	15.640	3.861	0.664	0.794
%RSD		0.613	0.612	2.232	1.262	9.565	0.785	3.563	3.834	30.840	0.401
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	101.7%	102.100	101.500	100.900	106.200	96.850	97.210	99.060	99.450	100.4%
2	16:59:32	99.8%	102.100	104.100	102.000	104.700	97.190	96.730	100.300	98.460	99.4%
3	16:59:59	107.6%	103.000	102.600	102.000	101.500	98.410	97.830	100.900	99.470	105.6%
x		103.0%	102.400	102.800	101.600	104.100	97.480	97.260	100.100	99.130	101.8%
σ		4.1%	0.527	1.288	0.669	2.375	0.821	0.550	0.950	0.573	3.3%
%RSD		3.9	0.514	1.253	0.659	2.282	0.843	0.566	0.949	0.578	3.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	101.700	100.900	99.430	99.420	443.600	446.800	102.2%	100.200	101.200	100.700
2	16:59:32	102.000	101.900	98.320	99.120	444.800	448.000	100.3%	101.700	102.900	101.600
3	16:59:59	102.800	102.000	102.300	100.300	445.200	446.200	108.2%	101.400	101.900	101.500
x		102.200	101.600	100.000	99.620	444.500	447.000	103.6%	101.100	102.000	101.200
σ		0.592	0.584	2.036	0.619	0.834	0.891	4.1%	0.801	0.891	0.472
%RSD		0.580	0.575	2.035	0.621	0.188	0.199	4.0	0.792	0.874	0.466
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:59:05	100.700	100.500	100.0%							
2	16:59:32	101.000	101.600	99.5%							
3	16:59:59	101.100	101.000	105.9%							
x		101.000	101.000	101.8%							
σ		0.222	0.535	3.6%							
%RSD		0.220	0.530	3.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	109.1%	44.140	52.740	49.810	-34.340	T 6252.000	T 27170.000	T 27830.000	T 28340.000	102.100
2	17:05:37	105.5%	45.560	49.700	50.450	-35.810	T 6341.000	T 26690.000	T 26980.000	T 27660.000	99.950
3	17:06:04	108.3%	46.530	50.870	50.180	-28.000	T 6342.000	T 27470.000	T 27510.000	T 27450.000	99.350
x		107.6%	45.410	51.100	50.150	-32.720	T 6312.000	T 27110.000	T 27440.000	T 27810.000	100.500
σ		1.9%	1.199	1.534	0.318	4.148	T 51.700	T 393.100	T 431.400	T 464.600	1.457
%RSD		1.7	2.641	3.002	0.635	12.680	T 0.819	T 1.450	T 1.572	T 1.671	1.450

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	T 8283.000	T 72490.000	T 3960.000	M 106300.000	TM 106800.000	104.7%	105.600	100.600	97.490	2839.000
2	17:05:37	T 8458.000	T 72260.000	T 3925.000	M 103900.000	TM 105700.000	107.2%	101.600	101.000	99.290	2620.000
3	17:06:04	T 8286.000	T 71490.000	T 3802.000	M 104100.000	TM 106400.000	106.5%	101.100	101.600	97.920	2737.000
x		T 8342.000	T 72080.000	T 3895.000	M 104800.000	TM 106300.000	106.1%	102.800	101.100	98.230	2732.000
σ		T 100.500	T 524.100	T 83.090	M 1344.000	TM 544.200	1.3%	2.457	0.464	0.939	109.600
%RSD		T 1.205	T 0.727	T 2.133	M 1.283	TM 0.512	1.2	2.390	0.459	0.956	4.011

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	2753.000	TM 6350.000	T 2743.000	3810.000	109.400	109.700	110.800	97.800	97.880	110.800
2	17:05:37	2733.000	TM 6472.000	T 2721.000	3587.000	109.400	110.800	109.600	95.130	97.340	114.100
3	17:06:04	2744.000	TM 6496.000	T 2716.000	3601.000	109.200	110.200	108.600	96.280	97.260	112.800
x		2743.000	TM 6439.000	T 2727.000	3666.000	109.300	110.200	109.700	96.410	97.490	112.600
σ		10.230	TM 78.450	T 14.620	124.800	0.115	0.581	1.089	1.339	0.338	1.640
%RSD		0.373	TM 1.218	T 0.536	3.404	0.105	0.527	0.993	1.389	0.346	1.457

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	128.800	126.700	100.200	102.800	9.056	9.091	456.300	103.900	-0.225	203.100
2	17:05:37	129.100	127.800	102.400	100.300	9.562	8.611	453.700	104.400	0.588	200.900
3	17:06:04	128.000	128.000	101.000	99.040	8.761	9.059	412.700	94.480	-0.803	201.100
x		128.700	127.500	101.200	100.700	9.126	8.920	440.900	100.900	-0.147	201.700
σ		0.603	0.675	1.128	1.941	0.405	0.268	24.490	5.588	0.699	1.252
%RSD		0.469	0.530	1.115	1.928	4.440	3.009	5.554	5.536	477.200	0.621

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	99.5%	102.700	102.800	102.900	112.400	98.540	97.810	100.400	98.280	99.6%
2	17:05:37	105.8%	103.000	105.200	102.700	106.200	97.660	97.890	100.300	100.000	104.2%
3	17:06:04	105.8%	103.100	104.600	103.000	109.000	98.420	97.960	99.790	100.600	104.7%
x		103.7%	102.900	104.200	102.900	109.200	98.210	97.890	100.200	99.640	102.8%
σ		3.7%	0.195	1.223	0.153	3.084	0.477	0.072	0.334	1.206	2.8%
%RSD		3.5	0.189	1.174	0.149	2.824	0.485	0.073	0.333	1.210	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	102.800	102.800	99.850	99.060	451.000	449.700	102.3%	102.800	104.000	102.500
2	17:05:37	103.000	101.900	101.300	100.200	449.500	451.100	106.3%	102.800	103.500	102.800
3	17:06:04	104.000	103.100	101.500	100.600	453.500	448.600	107.8%	102.700	103.400	103.200
x		103.300	102.600	100.900	99.950	451.300	449.800	105.5%	102.800	103.600	102.900
σ		0.655	0.621	0.912	0.793	2.029	1.255	2.9%	0.054	0.315	0.367
%RSD		0.634	0.605	0.904	0.793	0.450	0.279	2.7	0.052	0.303	0.357

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:05:10	103.200	102.800	100.6%
2	17:05:37	103.100	103.100	105.1%
3	17:06:04	102.800	102.800	106.7%
x		103.000	102.900	104.1%
σ		0.187	0.156	3.1%
%RSD		0.181	0.152	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	108.3%	-0.005	1.287	1.104	5.662	T 1437.000	T 6791.000	T 6779.000	T 6834.000	1.126
2	17:11:43	105.4%	-0.006	1.334	0.978	8.623	T 1418.000	T 6750.000	T 6697.000	T 6924.000	1.088
3	17:12:10	105.1%	0.033	1.276	1.221	18.590	T 1416.000	T 6729.000	T 6737.000	T 6662.000	1.001
x		106.3%	0.007	1.299	1.101	10.960	T 1424.000	T 6756.000	T 6738.000	T 6807.000	1.072
σ		1.7%	0.022	0.031	0.122	6.774	T 11.690	T 31.570	T 40.800	T 133.100	0.064
%RSD		1.6	304.800	2.392	11.060	61.810	T 0.821	T 0.467	T 0.606	T 1.956	5.939

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	T 1514.000	T 16310.000	625.300	21020.000	T 21310.000	103.3%	0.231	-0.043	0.141	445.200
2	17:11:43	T 1524.000	T 15850.000	596.100	20470.000	T 20910.000	107.1%	0.253	-0.021	0.135	395.300
3	17:12:10	T 1514.000	T 15670.000	594.100	20600.000	T 20960.000	106.7%	0.220	0.080	0.112	302.100
x		T 1517.000	T 15940.000	605.200	20700.000	T 21060.000	105.7%	0.235	0.005	0.129	380.900
σ		T 5.855	T 330.000	17.450	287.900	T 215.500	2.1%	0.016	0.066	0.015	72.670
%RSD		T 0.386	T 2.070	2.884	1.391	T 1.023	2.0	6.972	1259.000	11.690	19.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	344.000	TM 1309.000	357.200	564.900	2.876	3.442	3.014	0.018	0.191	3.364
2	17:11:43	328.400	TM 1290.000	358.100	518.200	2.797	3.167	2.923	0.037	0.108	3.148
3	17:12:10	321.400	TM 1262.000	349.000	513.400	2.746	2.982	1.865	0.009	0.133	3.239
x		331.300	TM 1287.000	354.700	532.200	2.806	3.197	2.601	0.021	0.144	3.251
σ		11.550	TM 23.520	5.036	28.460	0.066	0.232	0.639	0.014	0.043	0.109
%RSD		3.485	TM 1.827	1.420	5.347	2.338	7.247	24.570	65.930	29.740	3.346

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	7.046	6.484	0.189	0.358	1.936	2.143	-1.572	-0.306	-1.561	20.040
2	17:11:43	6.969	6.543	0.279	0.515	1.883	2.045	1.049	0.241	0.415	19.830
3	17:12:10	6.727	6.409	0.201	0.106	2.326	2.077	-0.720	-0.145	0.072	19.790
x		6.914	6.478	0.223	0.326	2.048	2.088	-0.414	-0.070	-0.358	19.890
σ		0.167	0.067	0.049	0.207	0.242	0.050	1.337	0.281	1.056	0.136
%RSD		2.408	1.036	21.850	63.360	11.790	2.387	322.700	399.700	294.900	0.682

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	101.1%	0.125	0.107	0.106	0.341	0.004	0.016	0.020	0.003	99.8%
2	17:11:43	105.4%	0.108	0.055	0.113	0.889	0.014	0.008	0.004	0.013	104.6%
3	17:12:10	104.5%	0.107	0.056	0.072	0.895	0.006	0.008	0.016	0.015	102.8%
x		103.7%	0.113	0.073	0.097	0.709	0.008	0.011	0.013	0.010	102.4%
σ		2.3%	0.010	0.030	0.022	0.318	0.005	0.004	0.008	0.006	2.4%
%RSD		2.2	8.835	41.160	22.510	44.870	68.110	40.620	61.080	64.040	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	0.085	0.119	0.024	0.018	71.260	71.380	97.7%	0.070	0.064	0.006
2	17:11:43	0.087	0.127	0.017	0.023	68.730	69.040	102.8%	0.066	0.059	0.013
3	17:12:10	0.042	0.133	0.027	0.021	68.900	68.940	103.7%	0.049	0.056	0.004
x		0.071	0.126	0.023	0.020	69.630	69.790	101.4%	0.062	0.059	0.008
σ		0.025	0.007	0.005	0.003	1.414	1.384	3.2%	0.011	0.004	0.005
%RSD		35.550	5.635	23.350	12.470	2.031	1.983	3.2	18.470	6.298	59.800

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:11:16	-0.010	0.005	96.6%
2	17:11:43	0.005	0.006	103.5%
3	17:12:10	0.012	0.004	103.7%
x		0.002	0.005	101.3%
σ		0.011	0.001	4.1%
%RSD		550.600	23.310	4.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	105.6%	50.840	56.110	57.480	-23.710	T 6151.000	T 26390.000	T 26960.000	T 27140.000	108.200
2	17:17:50	105.3%	50.270	54.150	56.890	-29.900	T 6108.000	T 26480.000	T 26840.000	T 26770.000	107.200
3	17:18:16	108.2%	49.090	55.720	55.910	-29.820	T 6057.000	T 26530.000	T 27080.000	T 27140.000	107.700
x		106.4%	50.070	55.330	56.760	-27.810	T 6105.000	T 26470.000	T 26960.000	T 27020.000	107.700
σ		1.6%	0.892	1.036	0.792	3.549	T 47.280	T 71.450	T 120.100	T 217.100	0.540
%RSD		1.5	1.781	1.873	1.395	12.760	T 0.774	T 0.270	T 0.445	T 0.803	0.502

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	T 8153.000	T 67680.000	T 3739.000	M 100200.000	TM 101500.000	104.1%	111.600	109.200	106.200	2393.000
2	17:17:50	T 8408.000	T 68850.000	T 3835.000	M 101900.000	TM 103000.000	104.4%	112.800	110.600	108.200	2234.000
3	17:18:16	T 8031.000	T 69160.000	T 3836.000	M 101100.000	TM 102800.000	105.4%	112.300	107.800	106.500	3092.000
x		T 8197.000	T 68560.000	T 3803.000	M 101100.000	TM 102400.000	104.6%	112.200	109.200	107.000	2573.000
σ		T 192.200	T 778.000	T 55.830	M 820.400	TM 821.900	0.7%	0.615	1.369	1.091	456.400
%RSD		T 2.345	T 1.135	T 1.468	M 0.812	TM 0.802	0.7	0.548	1.253	1.020	17.740

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	2764.000	TM 6273.000	T 2770.000	3550.000	115.200	117.800	119.500	103.400	108.000	124.500
2	17:17:50	2768.000	TM 6174.000	T 2748.000	3598.000	116.800	118.200	113.600	104.000	107.400	124.700
3	17:18:16	2833.000	TM 6269.000	T 2751.000	3640.000	116.700	118.500	119.200	105.800	111.600	125.400
x		2788.000	TM 6239.000	T 2756.000	3596.000	116.200	118.200	117.400	104.400	109.000	124.900
σ		38.920	TM 56.040	T 11.450	45.100	0.912	0.384	3.329	1.232	2.257	0.450
%RSD		1.396	TM 0.898	T 0.415	1.254	0.784	0.325	2.835	1.180	2.071	0.361

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	138.500	135.800	108.900	109.400	8.918	8.621	454.500	105.300	-0.735	205.000
2	17:17:50	137.300	133.900	107.800	110.800	9.197	9.644	459.600	108.500	0.677	204.900
3	17:18:16	137.400	133.400	108.100	112.500	9.409	8.932	470.000	111.800	-0.950	207.700
x		137.700	134.400	108.300	110.900	9.175	9.066	461.400	108.500	-0.336	205.900
σ		0.657	1.306	0.540	1.553	0.246	0.524	7.897	3.266	0.884	1.629
%RSD		0.477	0.972	0.499	1.401	2.681	5.782	1.712	3.009	263.000	0.791

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	101.1%	109.500	109.700	109.600	118.600	102.900	104.100	107.800	107.100	99.2%
2	17:17:50	101.8%	111.000	110.800	111.400	117.200	105.300	105.400	108.500	108.400	97.9%
3	17:18:16	101.1%	111.100	111.200	111.200	113.500	104.600	105.100	107.200	105.700	96.8%
x		101.3%	110.500	110.600	110.700	116.400	104.300	104.800	107.800	107.100	98.0%
σ		0.4%	0.921	0.754	0.961	2.624	1.256	0.697	0.654	1.319	1.2%
%RSD		0.4	0.833	0.682	0.868	2.254	1.205	0.664	0.606	1.232	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	111.300	109.800	105.600	106.400	449.500	454.200	100.2%	106.900	107.400	106.300
2	17:17:50	111.300	111.500	107.500	106.600	456.600	450.400	99.6%	108.100	108.100	107.700
3	17:18:16	110.000	110.600	104.800	105.300	453.200	452.500	97.1%	107.100	106.600	105.200
x		110.900	110.600	106.000	106.100	453.100	452.400	99.0%	107.400	107.400	106.400
σ		0.774	0.890	1.427	0.729	3.559	1.901	1.7%	0.628	0.759	1.272
%RSD		0.699	0.805	1.347	0.687	0.785	0.420	1.7	0.585	0.707	1.195

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:17:23	106.100	106.100	95.7%
2	17:17:50	107.600	107.500	95.8%
3	17:18:16	104.900	105.100	91.1%
x		106.200	106.200	94.2%
σ		1.346	1.195	2.7%
%RSD		1.268	1.124	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	107.6%	0.002	2.418	2.510	-28.770	T 5639.000	T 26340.000	T 26320.000	T 26970.000	1.446
2	17:23:55	107.6%	0.004	2.108	1.970	-34.510	T 5567.000	T 26080.000	T 26110.000	T 26480.000	1.295
3	17:24:22	109.0%	-0.016	1.958	2.150	-31.980	T 5622.000	T 26310.000	T 26450.000	T 26810.000	1.493
x		108.1%	-0.003	2.161	2.210	-31.750	T 5609.000	T 26240.000	T 26290.000	T 26750.000	1.411
σ		0.8%	0.011	0.234	0.275	2.876	T 37.310	T 142.500	T 172.300	T 250.100	0.103
%RSD		0.7	338.500	10.840	12.440	9.057	T 0.665	T 0.543	T 0.655	T 0.935	7.316

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	T 7482.000	T 75500.000	T 3003.000	M 104100.000	TM 103900.000	103.8%	1.900	-0.262	0.589	2154.000
2	17:23:55	T 7153.000	T 70700.000	T 2824.000	M 101300.000	TM 103600.000	108.1%	1.609	-0.138	0.537	1787.000
3	17:24:22	T 7314.000	T 74180.000	T 2970.000	M 102100.000	TM 103900.000	106.3%	1.616	0.067	0.516	1885.000
x		T 7316.000	T 73460.000	T 2932.000	M 102500.000	TM 103800.000	106.1%	1.708	-0.111	0.547	1942.000
σ		T 164.300	T 2480.000	T 94.880	M 1444.000	TM 209.800	2.2%	0.166	0.166	0.038	190.200
%RSD		T 2.246	T 3.376	T 3.236	M 1.408	TM 0.202	2.1	9.729	150.000	6.927	9.793

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	1651.000	TM 6286.000	T 1646.000	2684.000	13.910	16.060	14.450	0.171	0.534	15.850
2	17:23:55	1612.000	TM 6128.000	T 1605.000	2472.000	13.280	14.940	14.740	0.143	0.575	16.090
3	17:24:22	1649.000	TM 6294.000	T 1656.000	2658.000	13.350	15.520	13.600	0.163	0.552	16.000
x		1637.000	TM 6236.000	T 1636.000	2605.000	13.510	15.510	14.260	0.159	0.554	15.980
σ		22.370	TM 93.410	T 27.210	115.400	0.343	0.561	0.592	0.015	0.020	0.119
%RSD		1.366	TM 1.498	T 1.664	4.433	2.536	3.617	4.152	9.192	3.690	0.746

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	32.700	30.300	1.469	0.394	8.727	10.730	-0.992	-0.187	-1.611	99.900
2	17:23:55	32.820	29.450	1.168	-0.060	9.761	9.912	0.849	0.197	0.819	99.260
3	17:24:22	32.450	29.270	1.153	0.433	10.590	9.922	-0.651	-0.082	-2.699	99.990
x		32.660	29.670	1.263	0.255	9.693	10.190	-0.265	-0.024	-1.164	99.720
σ		0.188	0.551	0.178	0.274	0.934	0.470	0.979	0.198	1.801	0.398
%RSD		0.574	1.857	14.110	107.300	9.636	4.613	369.900	829.400	154.800	0.399

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	102.1%	0.373	0.285	0.236	3.976	0.018	0.016	0.015	0.016	101.1%
2	17:23:55	105.2%	0.304	0.275	0.282	5.544	0.008	0.011	0.026	0.013	103.2%
3	17:24:22	103.1%	0.312	0.251	0.240	6.974	0.007	0.015	0.026	0.011	102.3%
x		103.5%	0.330	0.270	0.253	5.498	0.011	0.014	0.023	0.013	102.2%
σ		1.6%	0.038	0.017	0.026	1.499	0.006	0.003	0.006	0.003	1.0%
%RSD		1.5	11.390	6.388	10.150	27.270	55.240	20.730	27.610	19.940	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	0.270	0.398	0.168	0.225	347.200	346.800	102.7%	0.079	0.083	0.010
2	17:23:55	0.267	0.375	0.214	0.173	346.300	349.300	104.6%	0.066	0.075	-0.002
3	17:24:22	0.257	0.400	0.187	0.213	348.100	345.500	103.5%	0.090	0.088	-0.003
x		0.265	0.391	0.190	0.204	347.200	347.200	103.6%	0.078	0.082	0.002
σ		0.007	0.014	0.024	0.027	0.892	1.952	1.0%	0.012	0.006	0.007
%RSD		2.525	3.652	12.400	13.470	0.257	0.562	0.9	15.330	7.779	410.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:23:28	0.006	0.008	100.4%
2	17:23:55	0.003	0.004	104.9%
3	17:24:22	-0.005	0.001	102.8%
x		0.002	0.004	102.7%
σ		0.006	0.004	2.2%
%RSD		328.200	86.260	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	107.0%	0.001	4.329	4.423	40.740	T 2373.000	T 16990.000	T 16620.000	T 16520.000	8.529
2	17:30:02	110.7%	-0.011	4.268	4.285	34.640	T 2278.000	T 16610.000	T 16380.000	T 16380.000	8.912
3	17:30:29	108.1%	-0.012	5.444	4.504	39.760	T 2389.000	T 16900.000	T 16480.000	T 16410.000	8.614
x		108.6%	-0.007	4.680	4.404	38.380	T 2347.000	T 16830.000	T 16490.000	T 16440.000	8.685
σ		1.9%	0.007	0.662	0.111	3.272	T 59.690	T 200.000	T 120.700	T 70.630	0.201
%RSD		1.7	94.410	14.150	2.517	8.525	T 2.544	T 1.188	T 0.732	T 0.430	2.317

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	T 3116.000	T 78970.000	T 3468.000	46110.000	T 46240.000	106.5%	0.883	-0.068	0.638	1775.000
2	17:30:02	T 3110.000	T 80390.000	T 3494.000	45360.000	T 45740.000	108.0%	0.991	0.129	0.680	1895.000
3	17:30:29	T 3062.000	T 78600.000	T 3500.000	45820.000	T 46290.000	106.2%	0.998	-0.062	0.652	1800.000
x		T 3096.000	T 79320.000	T 3487.000	45770.000	T 46090.000	106.9%	0.957	-0.001	0.657	1823.000
σ		T 29.550	T 945.400	T 16.550	378.500	T 303.300	1.0%	0.065	0.112	0.021	63.240
%RSD		T 0.955	T 1.192	T 0.475	0.827	T 0.658	0.9	6.753	14330.000	3.232	3.469

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	1285.000	TM 9186.000	T 1291.000	1661.000	18.080	4.755	4.032	0.576	0.757	4.538
2	17:30:02	1252.000	TM 9063.000	T 1313.000	1694.000	18.210	5.059	3.673	0.575	0.689	4.682
3	17:30:29	1280.000	TM 9215.000	T 1306.000	1714.000	18.450	4.947	4.365	0.544	0.703	4.483
x		1273.000	TM 9155.000	T 1303.000	1690.000	18.250	4.920	4.023	0.565	0.716	4.568
σ		17.720	TM 80.470	T 11.040	26.620	0.189	0.154	0.346	0.018	0.036	0.102
%RSD		1.392	TM 0.879	T 0.847	1.575	1.034	3.132	8.604	3.148	4.971	2.243

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	11.450	10.230	0.238	-0.110	4.358	3.709	-1.055	-0.194	-1.479	158.400
2	17:30:02	10.800	10.160	0.031	0.352	4.332	4.089	-0.588	-0.027	-2.604	158.700
3	17:30:29	11.760	9.772	0.073	-0.702	4.007	3.654	0.042	0.081	-1.755	157.600
x		11.340	10.050	0.114	-0.154	4.232	3.817	-0.533	-0.047	-1.946	158.200
σ		0.493	0.245	0.109	0.528	0.196	0.237	0.550	0.138	0.586	0.604
%RSD		4.344	2.438	95.520	344.100	4.629	6.206	103.200	296.900	30.130	0.382

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	107.5%	0.103	0.095	0.091	8.023	0.166	0.144	0.190	0.204	105.8%
2	17:30:02	105.7%	0.088	0.038	0.080	9.295	0.163	0.178	0.197	0.183	101.8%
3	17:30:29	109.4%	0.089	0.060	0.076	6.535	0.170	0.192	0.196	0.186	106.0%
x		107.5%	0.093	0.064	0.082	7.951	0.167	0.172	0.194	0.191	104.5%
σ		1.8%	0.009	0.029	0.008	1.381	0.003	0.025	0.004	0.012	2.4%
%RSD		1.7	9.341	44.720	9.801	17.370	2.032	14.340	1.983	6.029	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	0.342	0.388	0.097	0.090	131.600	132.500	106.1%	0.031	0.019	-0.000
2	17:30:02	0.304	0.379	0.094	0.115	131.500	132.200	103.8%	0.025	0.024	-0.008
3	17:30:29	0.303	0.359	0.111	0.089	131.900	132.200	106.8%	0.017	0.028	-0.005
x		0.316	0.375	0.101	0.098	131.700	132.300	105.6%	0.024	0.024	-0.004
σ		0.022	0.015	0.009	0.015	0.199	0.141	1.6%	0.007	0.004	0.004
%RSD		7.049	3.865	8.666	15.100	0.151	0.106	1.5	29.440	18.130	93.020

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:29:35	0.008	0.004	106.6%
2	17:30:02	0.006	0.002	103.5%
3	17:30:29	0.000	-0.002	106.6%
x		0.005	0.001	105.5%
σ		0.004	0.003	1.8%
%RSD		88.190	233.900	1.7

CCV MW10994 04/30/2019 17:35:16 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	100.0%	296.000	301.900	293.500	63.610	T 63700.000	T 61670.000	T 62890.000	T 62440.000	305.400
2	17:36:11	96.7%	302.300	316.100	309.500	70.350	T 64640.000	T 62300.000	T 62680.000	T 62290.000	304.100
3	17:36:38	97.1%	309.600	306.000	303.500	59.110	T 63930.000	T 61680.000	T 61080.000	T 61750.000	302.000
x		97.9%	100.880%	102.672%	100.725%	64.360	T 106.818%	T 61880.000	T 62220.000	T 103.600%	101.270%
σ		1.8%	n/a	n/a	n/a	5.659	T n/a	T 359.900	T 990.500	T n/a	n/a
%RSD		1.8	2.245	2.381	2.684	8.793	T 0.766	T 0.582	T 1.592	T 0.578	0.568

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	T 3246.000	760.100	T 64990.000	62520.000	T 63360.000	99.9%	307.500	313.800	299.400	1942.000
2	17:36:11	T 3386.000	752.400	T 65650.000	62900.000	T 63060.000	99.7%	307.700	320.100	307.200	1009.000
3	17:36:38	T 3413.000	704.000	T 64120.000	63450.000	T 64460.000	102.0%	309.500	324.100	307.300	1102.000
x		T 111.611%	738.900	T 108.195%	62960.000	T 106.042%	100.5%	102.754%	106.453%	101.536%	1351.000
σ		T n/a	30.400	T n/a	470.200	T n/a	1.3%	n/a	n/a	n/a	514.200
%RSD		T 2.679	4.114	T 1.181	0.747	T 1.155	1.3	0.354	1.622	1.490	38.060

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	T 62960.000	294.500	T 63330.000	T 61790.000	295.700	291.800	291.900	293.300	306.200	300.800
2	17:36:11	T 64200.000	302.500	T 64920.000	T 62200.000	307.700	295.900	302.000	297.300	303.800	304.100
3	17:36:38	T 64030.000	302.500	T 63420.000	T 62380.000	300.600	295.600	294.600	290.100	300.000	304.700
x		T 63730.000	99.949%	T 63890.000	T 103.544%	100.436%	98.144%	296.200	293.600	101.115%	101.072%
σ		T 671.900	n/a	T 892.400	T n/a	n/a	n/a	5.223	3.597	n/a	n/a
%RSD		T 1.054	1.551	T 1.397	T 0.487	1.999	0.773	1.763	1.225	1.017	0.682

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	287.000	293.300	290.500	307.300	0.867	0.527	1326.000	310.100	1.908	304.500
2	17:36:11	287.400	297.900	297.000	310.200	0.865	0.712	1346.000	311.900	4.329	304.300
3	17:36:38	291.200	296.200	302.800	310.900	0.958	0.313	1284.000	304.800	1.753	301.800
x		288.500	295.800	98.912%	309.500	0.897	0.517	1319.000	102.972%	2.663	101.180%
σ		2.328	2.361	n/a	1.916	0.053	0.200	31.640	n/a	1.445	n/a
%RSD		0.807	0.798	2.072	0.619	5.887	38.560	2.400	1.192	54.250	0.497

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	94.6%	316.700	319.700	316.900	298.300	292.700	295.400	300.000	296.300	92.3%
2	17:36:11	94.8%	318.700	321.800	320.000	310.100	292.400	293.800	299.200	298.900	93.2%
3	17:36:38	101.6%	319.900	315.300	317.600	302.700	296.900	296.400	302.600	303.300	96.8%
x		97.0%	106.148%	106.311%	318.100	303.700	98.014%	295.200	300.600	99.825%	94.1%
σ		4.0%	n/a	n/a	1.599	5.946	n/a	1.326	1.778	n/a	2.4%
%RSD		4.1	0.523	1.037	0.503	1.958	0.855	0.449	0.591	1.180	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	310.600	309.300	305.900	304.500	309.300	311.400	94.2%	300.500	305.900	297.400
2	17:36:11	310.600	306.900	306.800	305.900	308.800	313.600	94.2%	305.400	308.500	299.600
3	17:36:38	314.000	311.800	315.300	311.500	306.700	309.300	99.3%	301.100	306.100	298.400
x		103.918%	103.115%	309.300	102.431%	102.752%	103.811%	95.9%	302.300	102.287%	99.489%
σ		n/a	n/a	5.231	n/a	n/a	n/a	3.0%	2.668	n/a	n/a
%RSD		0.638	0.782	1.691	1.195	0.444	0.697	3.1	0.883	0.473	0.364

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:35:43	296.100	299.100	89.2%
2	17:36:11	299.400	301.900	89.8%
3	17:36:38	299.400	301.500	94.5%
x		99.435%	100.284%	91.2%
σ		n/a	n/a	2.9%
%RSD		0.640	0.507	3.2

CCB IM9390-01 04/30/2019 17:41:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	107.5%	0.062	1.335	1.080	16.870	9.485	8.750	8.308	8.893	-0.076
2	17:42:20	104.8%	0.005	1.422	0.781	17.820	6.399	7.087	6.786	7.218	-0.008
3	17:42:47	104.9%	0.019	1.051	0.955	7.756	4.676	5.901	5.327	5.705	0.023
x		105.7%	0.029	1.269	0.939	14.150	6.853	7.246	6.807	7.272	-0.020
σ		1.5%	0.030	0.194	0.150	5.557	2.437	1.431	1.490	1.595	0.050
%RSD		1.5	103.900	15.280	15.970	39.270	35.560	19.750	21.890	21.930	250.800

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	15.300	407.000	9.858	8.231	9.742	102.8%	0.036	0.042	0.093	15.480
2	17:42:20	15.260	388.700	7.362	6.269	6.944	104.4%	0.010	0.011	0.057	32.990
3	17:42:47	14.900	364.400	6.642	10.350	6.918	105.4%	-0.036	0.058	0.044	7.209
x		15.150	386.700	7.954	8.284	7.868	104.2%	0.003	0.037	0.065	18.560
σ		0.218	21.390	1.688	2.041	1.623	1.3%	0.036	0.024	0.026	13.160
%RSD		1.440	5.530	21.220	24.640	20.630	1.3	1128.000	64.200	40.110	70.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	8.790	0.720	13.460	11.190	0.054	0.013	0.211	0.018	0.051	0.024
2	17:42:20	7.160	0.704	9.837	1.402	0.046	0.018	-0.006	0.018	0.059	0.050
3	17:42:47	4.766	0.588	8.623	2.803	0.044	0.050	0.081	-0.012	0.017	0.027
x		6.905	0.671	10.640	5.132	0.048	0.027	0.095	0.008	0.042	0.033
σ		2.024	0.072	2.517	5.294	0.005	0.020	0.109	0.017	0.022	0.014
%RSD		29.310	10.760	23.660	103.200	10.590	75.090	114.400	218.900	51.920	42.380

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	0.007	0.039	-0.059	0.288	-0.005	1.021	-2.530	-0.568	-0.150	0.044
2	17:42:20	0.204	0.081	-0.043	0.303	-0.206	0.230	0.007	0.012	-0.003	0.041
3	17:42:47	0.022	0.100	0.036	0.332	-0.086	0.324	0.539	0.130	0.719	0.016
x		0.078	0.073	-0.022	0.308	-0.099	0.525	-0.661	-0.142	0.189	0.033
σ		0.110	0.032	0.051	0.023	0.101	0.432	1.640	0.374	0.465	0.015
%RSD		141.100	42.940	231.900	7.376	102.100	82.250	247.900	262.400	246.400	45.660

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	98.5%	0.086	0.070	0.098	0.150	0.035	0.042	0.036	0.032	98.8%
2	17:42:20	102.7%	0.087	0.070	0.044	-0.010	0.028	0.031	0.016	0.033	102.1%
3	17:42:47	104.0%	0.092	0.047	0.056	-0.694	0.030	0.024	0.042	0.041	102.4%
x		101.8%	0.088	0.062	0.066	-0.185	0.031	0.032	0.031	0.035	101.1%
σ		2.9%	0.003	0.013	0.029	0.449	0.004	0.009	0.014	0.005	2.0%
%RSD		2.8	3.161	20.840	43.430	242.900	11.630	29.350	43.460	14.270	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	0.040	0.111	0.126	0.125	0.015	0.077	95.8%	0.047	0.026	0.037
2	17:42:20	0.036	0.110	0.131	0.180	0.029	0.059	101.5%	0.035	0.023	0.028
3	17:42:47	0.068	0.080	0.104	0.127	0.056	0.028	101.6%	0.023	0.025	0.023
x		0.048	0.101	0.120	0.144	0.033	0.054	99.6%	0.035	0.025	0.029
σ		0.018	0.018	0.015	0.031	0.021	0.025	3.4%	0.012	0.001	0.007
%RSD		36.680	17.490	12.160	21.740	62.550	45.850	3.4	35.060	5.077	25.180

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:41:54	0.036	0.037	95.6%
2	17:42:20	0.064	0.045	101.9%
3	17:42:47	0.019	0.026	103.3%
x		0.040	0.036	100.3%
σ		0.023	0.009	4.1%
%RSD		57.230	25.150	4.1

UD13010-001 04/30/2019 17:47:32

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	110.8%	-0.019	4.875	4.922	-23.610	┬3096.000	┬13960.000	┬14100.000	┬14430.000	66.720
2	17:48:26	106.2%	-0.013	4.737	4.614	-29.230	┬3117.000	┬13960.000	┬13850.000	┬14150.000	65.290
3	17:48:53	106.9%	-0.010	4.485	4.674	-24.570	┬3082.000	┬13920.000	┬14060.000	┬14370.000	66.450
x		108.0%	-0.014	4.699	4.737	-25.800	┬3098.000	┬13950.000	┬14000.000	┬14320.000	66.150
σ		2.5%	0.005	0.198	0.164	3.003	┬17.730	┬23.800	┬131.600	┬150.400	0.763
%RSD		2.3	33.730	4.207	3.454	11.640	┬0.572	┬0.171	┬0.940	┬1.051	1.153
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	┬6248.000	┬74760.000	┬3252.000	68630.000	┬69900.000	105.3%	2.688	0.427	1.395	1956.000
2	17:48:26	┬6412.000	┬71810.000	┬3128.000	67500.000	┬69090.000	107.0%	2.474	0.670	1.332	1594.000
3	17:48:53	┬6458.000	┬73330.000	┬3234.000	68820.000	┬70280.000	106.4%	2.860	0.308	1.353	1973.000
x		┬6373.000	┬73300.000	┬3204.000	68320.000	┬69760.000	106.3%	2.674	0.468	1.360	1841.000
σ		┬110.600	┬1477.000	┬67.020	712.300	┬608.100	0.9%	0.193	0.185	0.032	214.200
%RSD		┬1.736	┬2.015	┬2.092	1.043	┬0.872	0.8	7.224	39.390	2.353	11.640
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	140.400	8.331	153.300	868.600	0.332	1.135	0.156	0.406	0.781	1.595
2	17:48:26	136.500	8.027	148.600	769.000	0.259	1.059	-0.140	0.408	0.610	1.564
3	17:48:53	139.800	8.010	150.000	824.100	0.280	1.172	0.240	0.403	0.612	1.475
x		138.900	8.123	150.600	820.600	0.291	1.122	0.086	0.406	0.667	1.545
σ		2.095	0.181	2.441	49.880	0.038	0.058	0.200	0.003	0.098	0.062
%RSD		1.508	2.225	1.621	6.079	12.970	5.145	232.900	0.657	14.680	4.020
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	11.310	9.283	0.159	0.500	2.743	2.543	-0.801	-0.137	-1.831	36.140
2	17:48:26	11.860	9.428	-0.087	-0.189	2.324	2.403	0.433	0.108	-0.197	36.380
3	17:48:53	11.760	9.258	0.072	0.054	2.329	2.691	0.162	0.012	1.575	36.100
x		11.640	9.323	0.048	0.122	2.466	2.546	-0.069	-0.006	-0.151	36.210
σ		0.293	0.092	0.125	0.349	0.241	0.144	0.648	0.123	1.704	0.150
%RSD		2.514	0.982	258.500	287.300	9.761	5.643	945.900	2162.000	1128.000	0.414
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	102.2%	0.215	0.284	0.278	1.639	0.016	0.019	0.030	0.022	102.1%
2	17:48:26	105.6%	0.320	0.308	0.288	0.933	0.020	0.011	0.029	0.015	105.1%
3	17:48:53	103.3%	0.309	0.363	0.274	2.309	0.015	0.016	0.023	0.013	102.6%
x		103.7%	0.281	0.318	0.280	1.627	0.017	0.016	0.027	0.017	103.3%
σ		1.8%	0.058	0.040	0.007	0.688	0.002	0.004	0.004	0.005	1.6%
%RSD		1.7	20.530	12.660	2.524	42.290	14.510	26.250	15.300	29.500	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	0.356	0.501	0.169	0.160	184.200	185.200	102.3%	-0.004	-0.005	0.200
2	17:48:26	0.336	0.498	0.157	0.209	182.500	184.700	106.5%	0.011	-0.006	0.213
3	17:48:53	0.311	0.492	0.164	0.160	184.000	182.400	104.2%	-0.009	-0.001	0.201
x		0.334	0.497	0.163	0.176	183.500	184.100	104.4%	-0.001	-0.004	0.205
σ		0.023	0.005	0.006	0.029	0.906	1.497	2.1%	0.010	0.002	0.007
%RSD		6.793	0.930	3.735	16.170	0.493	0.813	2.0	1586.000	62.890	3.595
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	17:47:59	0.182	0.190	102.1%							
2	17:48:26	0.173	0.190	107.3%							
3	17:48:53	0.196	0.193	104.0%							
x		0.184	0.191	104.5%							
σ		0.012	0.002	2.6%							
%RSD		6.321	1.020	2.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	108.8%	-0.017	1.684	1.435	-10.390	T 419.200	T 14370.000	T 14140.000	T 14520.000	18.510
2	17:54:31	110.9%	-0.022	1.417	1.260	-12.810	T 411.600	T 14060.000	T 14090.000	T 14670.000	18.350
3	17:54:59	108.5%	-0.018	1.330	1.233	-2.574	T 435.500	T 14530.000	T 14210.000	T 14380.000	17.510
x		109.4%	-0.019	1.477	1.309	-8.594	T 422.100	T 14320.000	T 14150.000	T 14520.000	18.120
σ		1.3%	0.003	0.184	0.110	5.352	T 12.200	T 234.600	T 62.710	T 145.500	0.540
%RSD		1.2	13.980	12.480	8.400	62.280	T 2.891	T 1.639	T 0.443	T 1.002	2.981

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	T 4293.000	T 74250.000	T 1057.000	20230.000	T 20560.000	105.9%	1.160	0.089	2.167	2034.000
2	17:54:31	T 4214.000	T 72960.000	T 1048.000	20260.000	T 20180.000	108.2%	1.232	0.134	2.151	2003.000
3	17:54:59	T 4249.000	T 72650.000	1058.000	20220.000	T 20310.000	110.3%	1.195	0.267	2.135	1729.000
x		T 4252.000	T 73290.000	T 1054.000	20240.000	T 20350.000	108.1%	1.196	0.163	2.151	1922.000
σ		T 39.700	T 851.300	T 5.862	21.240	T 192.200	2.2%	0.036	0.093	0.016	167.800
%RSD		T 0.934	T 1.162	T 0.556	0.105	T 0.944	2.1	2.996	56.830	0.758	8.732

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	41.730	1.311	47.800	263.000	0.078	0.389	-0.305	0.447	0.737	2.716
2	17:54:31	43.190	1.246	47.020	250.400	0.081	0.444	-0.226	0.418	0.730	2.969
3	17:54:59	43.510	1.239	44.710	209.800	0.085	0.345	-0.352	0.437	0.626	2.662
x		42.810	1.265	46.510	241.100	0.081	0.392	-0.294	0.434	0.698	2.783
σ		0.951	0.040	1.606	27.780	0.004	0.050	0.064	0.015	0.062	0.164
%RSD		2.221	3.154	3.454	11.520	4.374	12.660	21.750	3.449	8.881	5.895

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	46.720	37.200	0.050	0.272	1.714	1.720	-2.689	-0.592	-0.631	26.310
2	17:54:31	48.110	37.640	0.003	0.061	2.050	2.401	-1.781	-0.388	0.004	26.020
3	17:54:59	44.540	36.370	0.080	-0.022	1.843	2.062	-0.387	-0.077	-0.240	26.150
x		46.460	37.070	0.044	0.104	1.869	2.061	-1.619	-0.352	-0.289	26.160
σ		1.796	0.645	0.039	0.151	0.169	0.340	1.159	0.259	0.320	0.144
%RSD		3.866	1.741	87.860	145.800	9.059	16.520	71.610	73.570	110.800	0.550

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	102.7%	0.203	0.209	0.213	0.799	0.011	0.006	0.030	0.029	102.5%
2	17:54:31	105.4%	0.193	0.165	0.201	1.971	-0.001	0.004	0.041	0.035	103.7%
3	17:54:59	109.4%	0.210	0.227	0.176	1.951	0.010	0.006	0.050	0.043	108.8%
x		105.8%	0.202	0.200	0.197	1.574	0.007	0.005	0.040	0.036	105.0%
σ		3.3%	0.009	0.032	0.019	0.671	0.007	0.001	0.010	0.007	3.3%
%RSD		3.2	4.240	15.990	9.605	42.640	100.600	22.210	24.120	20.540	3.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	0.257	0.308	0.145	0.148	M 799.300	M 799.900	105.2%	-0.010	-0.015	0.064
2	17:54:31	0.311	0.415	0.117	0.140	M 803.600	M 808.000	104.1%	-0.007	-0.015	0.071
3	17:54:59	0.255	0.345	0.135	0.127	M 797.200	M 803.300	109.8%	-0.015	-0.014	0.070
x		0.274	0.356	0.132	0.138	M 800.100	M 803.700	106.4%	-0.011	-0.015	0.068
σ		0.032	0.055	0.014	0.011	M 3.272	M 4.042	3.0%	0.004	0.001	0.004
%RSD		11.490	15.360	10.820	7.918	M 0.409	M 0.503	2.8	38.390	6.708	5.238

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:54:04	0.077	0.070	106.0%
2	17:54:31	0.074	0.075	103.8%
3	17:54:59	0.062	0.083	110.4%
x		0.071	0.076	106.8%
σ		0.008	0.007	3.3%
%RSD		11.710	8.777	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	110.6%	-0.019	14.580	14.300	13.460	┬2253.000	┬22540.000	┬22810.000	┬22700.000	12.520
2	18:00:38	109.9%	0.000	15.210	14.130	6.759	┬2247.000	┬22630.000	┬22440.000	┬23110.000	12.650
3	18:01:05	107.6%	-0.016	14.020	14.220	9.983	┬2322.000	┬22750.000	┬22740.000	┬22880.000	12.300
x		109.4%	-0.012	14.610	14.220	10.070	┬2274.000	┬22640.000	┬22660.000	┬22900.000	12.490
σ		1.6%	0.010	0.593	0.086	3.349	┬41.770	┬105.900	┬194.300	┬204.600	0.178
%RSD		1.4	88.110	4.063	0.605	33.270	┬1.837	┬0.468	┬0.858	┬0.894	1.425
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	┬4920.000	┬77340.000	┬1843.000	64570.000	┬65270.000	104.6%	1.336	0.580	1.739	2009.000
2	18:00:38	┬5038.000	┬77260.000	┬1843.000	64880.000	┬65840.000	106.5%	1.320	0.254	1.548	2213.000
3	18:01:05	┬4985.000	┬75370.000	┬1794.000	63770.000	┬64770.000	109.6%	1.193	0.422	1.482	1863.000
x		┬4981.000	┬76650.000	┬1827.000	64410.000	┬65300.000	106.9%	1.283	0.419	1.589	2028.000
σ		┬59.260	┬1116.000	┬28.010	575.800	┬536.400	2.5%	0.078	0.163	0.134	176.000
%RSD		┬1.190	┬1.456	┬1.533	0.894	┬0.822	2.4	6.111	38.990	8.410	8.678
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	39.450	2.360	48.530	777.400	0.293	1.692	0.639	0.764	1.108	2.260
2	18:00:38	38.150	2.359	46.740	715.300	0.259	1.652	1.030	0.700	0.993	2.012
3	18:01:05	36.690	2.282	43.410	616.600	0.230	1.557	1.187	0.711	0.908	1.981
x		38.100	2.334	46.230	703.100	0.261	1.634	0.952	0.725	1.003	2.084
σ		1.383	0.045	2.595	81.100	0.032	0.069	0.283	0.034	0.100	0.153
%RSD		3.631	1.934	5.614	11.530	12.210	4.252	29.690	4.743	10.000	7.330
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	10.920	9.676	0.141	1.316	4.882	4.726	4.132	0.991	-0.075	57.990
2	18:00:38	11.380	9.223	0.074	1.393	5.480	4.275	3.434	0.773	1.544	58.310
3	18:01:05	10.720	9.431	0.240	0.848	5.351	5.558	2.124	0.476	-0.125	58.840
x		11.010	9.443	0.152	1.186	5.238	4.853	3.230	0.747	0.448	58.380
σ		0.338	0.227	0.083	0.295	0.315	0.651	1.019	0.259	0.949	0.433
%RSD		3.067	2.404	54.990	24.850	6.010	13.410	31.560	34.650	211.700	0.742
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	100.5%	1.699	1.616	1.474	2.623	0.009	0.009	0.018	0.008	98.5%
2	18:00:38	100.9%	1.613	1.697	1.683	2.415	0.003	0.004	-0.006	0.007	100.0%
3	18:01:05	104.0%	1.569	1.710	1.540	0.882	0.006	0.007	-0.002	0.009	104.9%
x		101.8%	1.627	1.674	1.566	1.973	0.006	0.007	0.003	0.008	101.1%
σ		1.9%	0.066	0.051	0.107	0.951	0.003	0.002	0.013	0.001	3.4%
%RSD		1.9	4.070	3.049	6.846	48.190	48.690	35.050	375.700	9.982	3.3
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	0.228	0.366	0.085	0.100	172.500	169.900	98.0%	0.008	0.004	0.110
2	18:00:38	0.207	0.357	0.081	0.071	169.300	170.200	100.4%	0.009	0.007	0.132
3	18:01:05	0.321	0.328	0.094	0.101	170.600	168.000	105.2%	0.011	0.001	0.133
x		0.252	0.350	0.087	0.090	170.800	169.400	101.2%	0.009	0.004	0.125
σ		0.060	0.020	0.007	0.017	1.606	1.179	3.7%	0.001	0.003	0.013
%RSD		24.010	5.680	7.777	18.990	0.940	0.696	3.6	16.120	68.820	10.630
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	18:00:11	0.132	0.120	96.4%							
2	18:00:38	0.108	0.123	97.9%							
3	18:01:05	0.105	0.117	103.4%							
x		0.115	0.120	99.2%							
σ		0.014	0.003	3.7%							
%RSD		12.530	2.835	3.7							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	110.2%	-0.007	5.133	4.838	17.710	┬508.700	┬20540.000	┬20530.000	┬20390.000	2.689
2	18:06:44	106.2%	0.007	5.305	4.818	22.160	┬522.900	┬20530.000	┬20000.000	┬20310.000	2.538
3	18:07:12	108.4%	-0.003	5.323	4.922	13.440	┬507.300	┬19820.000	┬19680.000	┬19970.000	2.504
x		108.3%	-0.001	5.254	4.859	17.770	┬513.000	┬20300.000	┬20070.000	┬20220.000	2.577
σ		2.0%	0.008	0.105	0.055	4.365	┬8.613	┬409.200	┬426.900	┬219.600	0.099
%RSD		1.8	868.900	2.000	1.140	24.560	┬1.679	┬2.016	┬2.127	┬1.086	3.823

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	┬3802.000	┬76100.000	┬1235.000	26420.000	┬26660.000	105.8%	0.844	0.060	0.469	1990.000
2	18:06:44	┬3839.000	┬76530.000	┬1251.000	26100.000	┬26550.000	106.2%	0.920	0.055	0.425	1851.000
3	18:07:12	┬3721.000	┬75030.000	┬1224.000	25790.000	┬26660.000	106.4%	0.884	-0.231	0.439	2118.000
x		┬3787.000	┬75890.000	┬1237.000	26100.000	┬26620.000	106.1%	0.883	-0.039	0.445	1986.000
σ		┬60.310	┬771.100	┬13.390	316.600	┬63.060	0.3%	0.038	0.166	0.022	133.600
%RSD		┬1.593	┬1.016	┬1.083	1.213	┬0.237	0.3	4.277	429.400	5.049	6.724

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	19.770	1.566	25.260	272.500	0.096	0.502	0.050	0.089	0.236	1.209
2	18:06:44	19.280	1.594	23.550	250.400	0.120	0.500	-0.027	0.078	0.211	1.066
3	18:07:12	19.920	1.575	23.560	259.100	0.098	0.583	0.024	0.080	0.215	1.135
x		19.660	1.578	24.120	260.700	0.105	0.528	0.016	0.082	0.221	1.137
σ		0.332	0.014	0.984	11.150	0.013	0.048	0.039	0.006	0.013	0.072
%RSD		1.691	0.902	4.077	4.278	12.520	9.047	252.900	6.868	5.967	6.312

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	7.640	5.885	-0.189	0.553	2.144	2.045	-1.657	-0.338	-0.631	43.210
2	18:06:44	7.792	5.908	0.081	-0.011	1.641	2.300	-1.237	-0.269	-0.210	43.870
3	18:07:12	6.996	6.362	0.035	-0.238	1.503	1.780	-2.347	-0.489	-1.143	43.590
x		7.476	6.052	-0.024	0.101	1.763	2.041	-1.747	-0.365	-0.661	43.560
σ		0.423	0.269	0.145	0.408	0.337	0.260	0.561	0.113	0.467	0.328
%RSD		5.655	4.450	598.000	402.100	19.140	12.720	32.090	30.840	70.670	0.752

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	102.7%	2.186	2.252	2.266	2.410	-0.004	-0.001	0.030	0.062	100.5%
2	18:06:44	102.5%	2.217	2.188	2.192	2.635	-0.004	-0.000	0.048	0.040	102.1%
3	18:07:12	104.6%	2.195	2.087	2.192	2.253	0.001	0.001	0.037	0.063	102.6%
x		103.3%	2.199	2.176	2.217	2.433	-0.003	-0.000	0.038	0.055	101.7%
σ		1.2%	0.016	0.083	0.043	0.192	0.003	0.001	0.009	0.013	1.1%
%RSD		1.1	0.720	3.835	1.931	7.906	107.400	2184.000	24.810	23.290	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	0.298	0.425	0.074	0.061	116.700	117.100	100.9%	-0.010	-0.015	-0.007
2	18:06:44	0.296	0.437	0.059	0.081	116.300	116.700	103.3%	-0.017	-0.014	-0.011
3	18:07:12	0.239	0.400	0.079	0.087	117.100	115.500	102.9%	-0.013	-0.017	0.003
x		0.278	0.421	0.071	0.076	116.700	116.400	102.4%	-0.014	-0.016	-0.005
σ		0.034	0.019	0.011	0.013	0.385	0.827	1.3%	0.004	0.002	0.007
%RSD		12.110	4.551	14.850	17.350	0.330	0.711	1.3	25.580	10.430	145.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:06:16	0.002	-0.003	97.4%
2	18:06:44	-0.010	-0.011	100.7%
3	18:07:12	-0.015	-0.007	101.0%
x		-0.008	-0.007	99.7%
σ		0.009	0.004	2.0%
%RSD		108.700	58.700	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	108.4%	-0.007	12.940	13.240	-0.165	┬3682.000	┬17660.000	┬17670.000	┬17870.000	85.290
2	18:12:51	110.4%	-0.014	13.220	12.720	-9.027	┬3652.000	┬17920.000	┬17830.000	┬17880.000	84.280
3	18:13:18	107.2%	-0.005	13.670	13.320	-0.678	┬3687.000	┬18040.000	┬18030.000	┬17880.000	84.910
x		108.7%	-0.009	13.280	13.100	-3.290	┬3674.000	┬17870.000	┬17840.000	┬17880.000	84.820
σ		1.6%	0.005	0.369	0.325	4.975	┬19.270	┬194.100	┬181.600	┬7.461	0.510
%RSD		1.4	53.670	2.776	2.479	151.200	┬0.525	┬1.086	┬1.018	┬0.042	0.601
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	┬5476.000	┬73210.000	┬2325.000	69330.000	┬70160.000	105.8%	2.606	0.452	1.062	1798.000
2	18:12:51	┬5354.000	┬72970.000	┬2296.000	69450.000	┬70080.000	108.2%	2.846	0.334	1.025	1877.000
3	18:13:18	┬5414.000	┬73300.000	┬2308.000	70370.000	┬71500.000	107.0%	3.214	0.581	1.040	1864.000
x		┬5415.000	┬73160.000	┬2310.000	69720.000	┬70580.000	107.0%	2.889	0.456	1.042	1847.000
σ		┬60.830	┬169.200	┬14.560	570.800	┬797.300	1.2%	0.306	0.124	0.019	42.270
%RSD		┬1.123	┬0.231	┬0.630	0.819	┬1.130	1.1	10.590	27.150	1.775	2.289
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	147.000	10.610	161.100	792.600	0.227	0.909	-0.175	0.172	0.369	0.801
2	18:12:51	144.600	10.290	155.600	756.900	0.201	0.864	-0.124	0.148	0.406	0.858
3	18:13:18	148.500	10.620	158.500	776.700	0.187	0.934	0.160	0.161	0.386	0.837
x		146.700	10.510	158.400	775.400	0.205	0.903	-0.046	0.161	0.387	0.832
σ		1.991	0.186	2.712	17.920	0.020	0.035	0.180	0.012	0.019	0.029
%RSD		1.357	1.765	1.712	2.311	9.819	3.921	391.300	7.464	4.850	3.446
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	11.740	8.332	0.087	0.702	5.449	3.729	1.690	0.430	-1.964	58.440
2	18:12:51	11.560	8.202	-0.313	-0.059	4.430	4.226	-0.420	-0.047	-1.638	58.610
3	18:13:18	10.410	8.278	0.344	0.059	4.688	5.001	-1.435	-0.367	1.502	59.080
x		11.240	8.271	0.039	0.234	4.856	4.319	-0.055	0.005	-0.700	58.710
σ		0.718	0.066	0.331	0.409	0.529	0.641	1.595	0.401	1.914	0.332
%RSD		6.387	0.794	841.100	175.000	10.900	14.850	2898.000	7361.000	273.400	0.566
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	105.1%	0.379	0.314	0.395	2.022	-0.004	0.002	0.014	0.021	104.7%
2	18:12:51	106.4%	0.359	0.410	0.384	2.707	-0.004	-0.000	0.014	0.006	105.3%
3	18:13:18	107.0%	0.436	0.362	0.399	1.689	-0.002	-0.000	0.003	0.011	107.2%
x		106.2%	0.392	0.362	0.393	2.139	-0.003	0.000	0.010	0.013	105.7%
σ		1.0%	0.040	0.048	0.008	0.519	0.001	0.001	0.006	0.008	1.3%
%RSD		0.9	10.150	13.310	1.989	24.260	35.970	337.200	62.500	61.200	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	0.217	0.275	0.060	0.055	181.400	180.700	105.3%	-0.005	-0.009	0.065
2	18:12:51	0.235	0.326	0.056	0.059	180.100	180.700	107.5%	-0.008	-0.011	0.074
3	18:13:18	0.187	0.324	0.066	0.069	179.000	180.100	108.3%	-0.003	-0.011	0.095
x		0.213	0.308	0.061	0.061	180.100	180.500	107.0%	-0.005	-0.010	0.078
σ		0.024	0.029	0.005	0.007	1.183	0.325	1.6%	0.003	0.001	0.015
%RSD		11.370	9.424	7.476	11.730	0.657	0.180	1.5	50.290	13.680	19.240
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:12:24	0.047	0.062	106.2%							
2	18:12:51	0.070	0.066	107.6%							
3	18:13:18	0.061	0.071	107.2%							
x		0.059	0.066	107.0%							
σ		0.012	0.005	0.7%							
%RSD		19.780	7.261	0.7							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	115.2%	-0.007	-0.025	-0.451	49.650	16.030	3.944	4.070	3.836	1.080
2	18:18:57	115.8%	-0.006	0.053	-0.263	68.740	15.770	3.754	4.019	3.585	1.116
3	18:19:24	112.8%	0.002	-0.303	-0.290	59.300	15.690	4.052	3.967	3.999	1.003
x		114.6%	-0.004	-0.091	-0.334	59.230	15.830	3.917	4.019	3.807	1.067
σ		1.6%	0.005	0.187	0.102	9.547	0.177	0.151	0.051	0.209	0.058
%RSD		1.4	125.200	204.700	30.440	16.120	1.117	3.857	1.281	5.490	5.401

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	17.230	T 446000.000	38.980	9.474	7.459	107.3%	0.107	-1.611	1.883	10450.000
2	18:18:57	17.200	T 435100.000	39.880	5.483	6.008	106.4%	0.210	-0.617	1.590	9405.000
3	18:19:24	17.030	T 444500.000	37.470	4.820	6.088	107.4%	0.140	-0.368	1.412	8973.000
x		17.150	T 441900.000	38.780	6.592	6.518	107.0%	0.153	-0.865	1.628	9610.000
σ		0.105	T 5908.000	1.218	2.518	0.816	0.6%	0.053	0.657	0.238	759.600
%RSD		0.609	T 1.337	3.141	38.190	12.510	0.5	34.470	75.990	14.600	7.905

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	18.280	14.880	6.375	-17.630	0.009	0.274	-0.184	0.145	0.089	0.724
2	18:18:57	17.670	15.000	4.357	-16.450	0.005	0.252	0.026	0.159	0.088	0.696
3	18:19:24	17.400	14.450	4.163	-21.160	0.003	0.263	-0.255	0.147	0.056	0.706
x		17.780	14.770	4.965	-18.410	0.006	0.263	-0.138	0.150	0.078	0.708
σ		0.448	0.286	1.225	2.447	0.003	0.011	0.146	0.008	0.019	0.014
%RSD		2.518	1.935	24.680	13.290	56.770	4.172	105.900	5.032	24.170	2.008

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	0.802	0.780	0.275	0.085	41.910	41.070	-0.804	-0.216	-0.431	0.009
2	18:18:57	0.804	0.683	0.117	-0.133	42.190	38.900	1.379	0.249	-0.053	0.005
3	18:19:24	0.707	0.576	-0.087	-0.339	42.030	41.970	-0.302	-0.122	0.245	0.004
x		0.771	0.679	0.102	-0.129	42.050	40.640	0.091	-0.030	-0.080	0.006
σ		0.056	0.102	0.181	0.212	0.140	1.579	1.143	0.246	0.339	0.002
%RSD		7.225	15.070	177.900	164.400	0.332	3.884	1252.000	832.300	424.500	41.460

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	106.2%	0.117	0.054	0.083	-0.357	-0.003	0.001	0.004	0.003	106.2%
2	18:18:57	106.7%	0.054	0.091	0.066	-0.642	-0.001	0.001	0.004	0.008	108.1%
3	18:19:24	108.1%	0.084	0.106	0.112	-1.054	0.005	0.004	-0.003	0.002	108.2%
x		107.0%	0.085	0.084	0.087	-0.684	0.000	0.002	0.002	0.004	107.5%
σ		1.0%	0.031	0.027	0.023	0.350	0.004	0.001	0.004	0.003	1.1%
%RSD		0.9	36.890	31.910	26.700	51.190	1301.000	68.910	232.800	65.420	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	4.382	6.372	0.062	0.089	0.083	0.046	106.3%	-0.020	-0.018	-0.007
2	18:18:57	4.281	6.318	0.059	0.048	0.046	0.042	107.9%	-0.012	-0.017	-0.012
3	18:19:24	4.462	6.445	0.067	0.084	0.055	0.073	109.8%	-0.014	-0.019	-0.012
x		4.375	6.378	0.063	0.074	0.061	0.054	108.0%	-0.015	-0.018	-0.010
σ		0.090	0.063	0.004	0.023	0.020	0.017	1.7%	0.004	0.001	0.003
%RSD		2.064	0.995	6.364	30.730	32.090	30.910	1.6	28.140	4.528	27.690

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:18:30	-0.006	-0.007	109.7%
2	18:18:57	-0.012	-0.009	110.8%
3	18:19:24	-0.006	-0.010	113.3%
x		-0.008	-0.008	111.3%
σ		0.003	0.001	1.9%
%RSD		42.020	16.570	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	108.9%	203.700	206.300	203.600	77.710	T 2223.000	T 2081.000	2025.000	1988.000	195.300
2	18:25:02	115.9%	193.200	203.300	195.600	71.060	T 2141.000	T 2048.000	2009.000	2017.000	203.500
3	18:25:30	110.5%	204.400	208.000	198.800	70.280	T 2189.000	T 2031.000	1991.000	1987.000	193.400
x		111.8%	200.400	205.800	199.400	73.020	T 2185.000	T 2053.000	2009.000	1997.000	197.400
σ		3.6%	6.289	2.381	4.054	4.087	T 41.070	T 25.530	17.140	16.970	5.365
%RSD		3.3	3.137	1.157	2.034	5.597	T 1.880	T 1.244	0.853	0.849	2.718

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	232.900	T 478000.000	T 2167.000	2308.000	2102.000	105.5%	204.700	206.500	202.100	10990.000
2	18:25:02	225.600	T 487900.000	T 2206.000	2319.000	2107.000	104.7%	203.500	204.800	208.600	12350.000
3	18:25:30	232.100	T 478100.000	T 2164.000	2344.000	2076.000	105.9%	204.500	209.300	206.800	8728.000
x		230.200	T 481300.000	T 2179.000	2324.000	2095.000	105.4%	204.200	206.900	205.800	10690.000
σ		4.016	T 5679.000	T 23.310	18.590	16.710	0.6%	0.636	2.273	3.335	1829.000
%RSD		1.745	T 1.180	T 1.070	0.800	0.798	0.6	0.311	1.099	1.620	17.120

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	2250.000	204.700	T 2136.000	2025.000	204.200	202.400	201.400	202.900	202.600	193.800
2	18:25:02	2271.000	204.400	T 2126.000	2025.000	204.300	203.000	200.900	204.900	213.400	196.300
3	18:25:30	2222.000	199.200	T 2125.000	2047.000	201.300	198.100	199.000	207.200	204.000	194.700
x		2248.000	202.800	T 2129.000	2033.000	203.200	201.100	200.500	205.000	206.700	194.900
σ		24.980	3.095	T 6.348	12.370	1.693	2.672	1.290	2.140	5.870	1.307
%RSD		1.111	1.526	T 0.298	0.609	0.833	1.329	0.643	1.044	2.840	0.670

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	198.700	197.800	199.300	187.900	41.050	42.850	839.800	191.400	4.790	201.400
2	18:25:02	192.700	194.600	192.000	197.900	41.360	42.950	822.800	192.100	3.599	200.700
3	18:25:30	192.000	197.900	199.800	189.300	40.970	40.900	837.100	190.500	3.832	199.600
x		194.500	196.800	197.000	191.700	41.130	42.230	833.300	191.300	4.074	200.600
σ		3.696	1.860	4.326	5.398	0.204	1.159	9.144	0.818	0.631	0.952
%RSD		1.901	0.945	2.196	2.816	0.497	2.744	1.097	0.427	15.490	0.475

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	105.9%	206.900	207.000	206.500	201.800	204.800	206.300	203.000	201.600	105.0%
2	18:25:02	103.7%	205.100	204.500	204.900	202.500	206.600	207.700	199.600	199.200	100.5%
3	18:25:30	105.4%	205.700	205.700	205.000	201.100	202.600	203.900	201.400	199.000	104.8%
x		105.0%	205.900	205.700	205.500	201.800	204.600	206.000	201.300	199.900	103.4%
σ		1.2%	0.931	1.217	0.896	0.709	2.000	1.924	1.719	1.423	2.5%
%RSD		1.1	0.452	0.591	0.436	0.351	0.977	0.934	0.854	0.712	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	213.900	212.500	201.200	201.800	204.300	208.200	105.5%	206.400	210.300	210.400
2	18:25:02	210.000	211.500	199.600	199.600	208.000	207.500	100.3%	208.800	210.600	209.600
3	18:25:30	208.900	209.100	201.200	201.900	204.500	202.200	105.7%	205.200	209.800	209.400
x		210.900	211.000	200.700	201.100	205.600	206.000	103.8%	206.800	210.300	209.800
σ		2.662	1.772	0.958	1.335	2.063	3.275	3.1%	1.837	0.394	0.555
%RSD		1.262	0.840	0.477	0.664	1.004	1.590	2.9	0.888	0.187	0.265

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:24:35	209.400	210.900	105.1%
2	18:25:02	209.300	210.300	99.5%
3	18:25:30	208.600	209.800	105.6%
x		209.100	210.300	103.4%
σ		0.434	0.555	3.4%
%RSD		0.208	0.264	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	105.9%	0.572	5.084	4.842	-49.200	T 1074.000	T 11530.000	T 11790.000	T 12120.000	TM 41190.000
2	18:31:10	103.7%	0.658	4.748	5.182	-51.620	T 1092.000	T 11400.000	T 11370.000	T 11930.000	TM 41050.000
3	18:31:37	102.6%	0.643	4.991	5.084	-54.220	T 1076.000	T 11380.000	T 11360.000	T 11570.000	TM 39090.000
x		104.1%	0.624	4.941	5.036	-51.680	T 1081.000	T 11440.000	T 11500.000	T 11870.000	TM 40440.000
σ		1.7%	0.046	0.173	0.175	2.507	T 9.854	T 81.850	T 245.000	T 278.400	TM 1172.000
%RSD		1.6	7.386	3.503	3.473	4.851	T 0.912	T 0.716	T 2.130	T 2.345	TM 2.898

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	T 2312.000	T 314100.000	T 5478.000	TM 532600.000	TM 512900.000	105.2%	M 1843.000	331.900	72.220	8020.000
2	18:31:10	T 2351.000	T 307400.000	T 5382.000	TM 526200.000	TM 507000.000	107.0%	M 1842.000	335.600	71.500	7294.000
3	18:31:37	T 2379.000	T 304100.000	T 5227.000	TM 521500.000	TM 503900.000	108.7%	M 1826.000	327.200	70.630	7325.000
x		T 2347.000	T 308500.000	T 5363.000	TM 526800.000	TM 507900.000	107.0%	M 1837.000	331.600	71.450	7546.000
σ		T 34.060	T 5097.000	T 126.800	TM 5592.000	TM 4607.000	1.7%	M 9.573	4.199	0.796	410.600
%RSD		T 1.451	T 1.652	T 2.365	TM 1.062	TM 0.907	1.6	M 0.521	1.266	1.115	5.441

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	T 98430.000	TM 16140.000	T 93670.000	TM 113700.000	41.270	74.730	61.270	21.510	35.320	260.500
2	18:31:10	T 98060.000	TM 16140.000	T 93780.000	TM 112300.000	40.640	73.370	56.710	21.440	33.880	258.100
3	18:31:37	T 96650.000	TM 15950.000	T 92980.000	TM 110500.000	38.750	70.370	57.590	20.990	33.780	254.500
x		T 97710.000	TM 16080.000	T 93470.000	TM 112200.000	40.220	72.820	58.520	21.310	34.320	257.700
σ		T 937.700	TM 108.500	T 431.700	TM 1615.000	1.314	2.229	2.417	0.280	0.865	3.053
%RSD		T 0.960	TM 0.675	T 0.462	TM 1.440	3.267	3.060	4.131	1.312	2.519	1.185

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	170.600	163.000	10.930	1.295	10.200	8.719	1.095	1.673	7.865	T 216.200
2	18:31:10	172.200	166.000	11.250	0.302	11.250	8.170	-0.395	1.010	5.795	T 213.200
3	18:31:37	168.700	166.300	10.000	0.614	11.070	7.667	-0.531	0.883	6.569	T 214.000
x		170.500	165.100	10.730	0.737	10.840	8.186	0.056	1.188	6.743	T 214.500
σ		1.729	1.847	0.650	0.508	0.559	0.526	0.902	0.424	1.046	T 1.525
%RSD		1.014	1.119	6.059	68.870	5.159	6.429	1607.000	35.710	15.510	T 0.711

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	229.9%	0.758	0.600	0.860	31.560	0.177	0.139	0.833	0.809	88.9%
2	18:31:10	237.2%	0.763	0.566	0.799	26.140	0.188	0.126	0.773	0.801	92.7%
3	18:31:37	237.2%	0.701	0.562	0.907	28.670	0.157	0.119	0.765	0.881	94.2%
x		234.8%	0.741	0.576	0.855	28.790	0.174	0.128	0.790	0.830	91.9%
σ		4.2%	0.034	0.021	0.054	2.711	0.016	0.010	0.037	0.044	2.7%
%RSD		1.8	4.616	3.651	6.368	9.418	8.971	7.966	4.715	5.355	3.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	6.112	7.826	0.400	0.394	464.900	465.100	92.3%	0.506	0.503	15.040
2	18:31:10	6.234	7.588	0.449	0.410	462.500	465.900	95.9%	0.506	0.487	15.130
3	18:31:37	6.259	7.765	0.419	0.442	452.700	460.000	97.7%	0.536	0.534	14.660
x		6.201	7.726	0.423	0.415	460.000	463.700	95.3%	0.516	0.508	14.950
σ		0.079	0.124	0.024	0.025	6.461	3.194	2.7%	0.017	0.024	0.248
%RSD		1.267	1.606	5.792	5.985	1.405	0.689	2.9	3.356	4.713	1.658

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:30:43	13.720	14.260	86.2%
2	18:31:10	13.790	14.290	90.5%
3	18:31:37	13.430	14.060	91.2%
x		13.650	14.200	89.3%
σ		0.188	0.126	2.7%
%RSD		1.375	0.890	3.0

UD16015-001 04/30/2019 18:36:22

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	108.9%	0.435	2.483	2.326	-66.270	T 1059.000	T 14310.000	T 14750.000	T 14730.000	TM 52060.000
2	18:37:16	110.9%	0.427	2.300	2.546	-67.410	T 1043.000	T 14200.000	T 14320.000	T 14720.000	TM 55030.000
3	18:37:43	110.9%	0.413	2.369	2.450	-65.370	T 1003.000	T 13710.000	T 14040.000	T 14570.000	TM 53760.000
x		110.2%	0.425	2.384	2.441	-66.350	T 1035.000	T 14070.000	T 14370.000	T 14680.000	TM 53610.000
σ		1.1%	0.011	0.092	0.110	1.026	T 28.670	T 322.900	T 359.900	T 88.240	TM 1490.000
%RSD		1.0	2.550	3.876	4.510	1.547	T 2.770	T 2.294	T 2.504	T 0.601	TM 2.779

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	T 2912.000	T 289800.000	T 5186.000	22010.000	T 22180.000	117.6%	M 741.800	317.300	102.400	7283.000
2	18:37:16	T 2971.000	T 302800.000	T 5310.000	22260.000	T 22130.000	116.1%	M 752.100	313.300	103.400	8643.000
3	18:37:43	T 2901.000	T 291300.000	T 5035.000	21340.000	T 21640.000	117.0%	M 726.400	308.900	100.600	7626.000
x		T 2928.000	T 294700.000	T 5177.000	21870.000	T 21990.000	116.9%	M 740.100	313.100	102.200	7851.000
σ		T 37.630	T 7105.000	T 137.600	474.500	T 298.300	0.8%	M 12.930	4.219	1.412	707.400
%RSD		T 1.285	T 2.411	T 2.659	2.169	T 1.357	0.6	M 1.747	1.347	1.382	9.011

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	T 92540.000	TM 1378.000	T 91700.000	T 97780.000	42.170	78.480	68.500	41.060	57.610	348.500
2	18:37:16	T 93700.000	TM 1390.000	T 91550.000	T 98190.000	42.660	79.210	72.560	41.810	57.700	335.700
3	18:37:43	T 91770.000	TM 1335.000	T 90320.000	T 96620.000	41.660	77.630	67.080	40.080	54.530	330.700
x		T 92670.000	TM 1368.000	T 91190.000	T 97530.000	42.170	78.440	69.380	40.980	56.610	338.300
σ		T 969.600	TM 28.740	T 754.900	T 812.300	0.502	0.791	2.846	0.868	1.802	9.213
%RSD		T 1.046	TM 2.101	T 0.828	T 0.833	1.190	1.009	4.102	2.117	3.183	2.723

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	251.000	249.000	11.030	1.031	13.810	13.450	1.728	1.480	0.488	96.350
2	18:37:16	245.100	244.000	12.490	0.845	13.640	13.490	1.112	1.138	2.620	95.650
3	18:37:43	239.700	241.400	11.720	0.307	13.640	12.830	1.180	1.164	2.497	93.920
x		245.300	244.800	11.750	0.728	13.700	13.260	1.340	1.261	1.868	95.310
σ		5.696	3.860	0.732	0.376	0.098	0.372	0.338	0.190	1.197	1.250
%RSD		2.323	1.577	6.227	51.730	0.714	2.808	25.230	15.080	64.070	1.311

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	176.5%	1.875	1.518	1.924	15.290	0.118	0.076	0.516	0.545	98.5%
2	18:37:16	172.3%	1.806	1.510	2.088	15.240	0.096	0.084	0.562	0.575	97.5%
3	18:37:43	177.5%	1.672	1.567	1.852	15.700	0.117	0.088	0.537	0.565	100.1%
x		175.4%	1.784	1.532	1.955	15.410	0.111	0.082	0.538	0.562	98.7%
σ		2.8%	0.104	0.031	0.121	0.252	0.012	0.006	0.023	0.015	1.3%
%RSD		1.6	5.800	2.015	6.199	1.636	11.250	7.364	4.257	2.710	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	7.074	8.726	0.266	0.225	467.500	471.200	103.1%	0.252	0.259	22.310
2	18:37:16	7.032	8.694	0.263	0.257	465.700	466.800	102.9%	0.274	0.239	22.060
3	18:37:43	7.005	8.629	0.259	0.241	454.200	453.300	105.3%	0.262	0.254	21.690
x		7.037	8.683	0.263	0.241	462.500	463.800	103.8%	0.263	0.251	22.020
σ		0.035	0.049	0.004	0.016	7.202	9.332	1.4%	0.011	0.010	0.314
%RSD		0.496	0.570	1.377	6.508	1.557	2.012	1.3	4.148	4.166	1.424

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:36:49	20.880	21.630	99.7%
2	18:37:16	20.640	21.050	97.6%
3	18:37:43	20.270	20.760	101.6%
x		20.600	21.150	99.6%
σ		0.305	0.440	2.0%
%RSD		1.481	2.078	2.0

UD16015-002 04/30/2019 18:42:30

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	103.9%	0.602	13.060	13.460	-11.510	T 1406.000	T 20820.000	T 21570.000	T 21740.000	TM 65100.000
2	18:43:25	106.6%	0.655	13.420	13.510	-11.970	T 1383.000	T 20820.000	T 21770.000	T 21910.000	TM 65340.000
3	18:43:53	109.1%	0.632	13.300	14.010	-13.960	T 1375.000	T 20920.000	T 20970.000	T 21540.000	TM 64600.000
x		106.5%	0.630	13.260	13.660	-12.480	T 1388.000	T 20860.000	T 21440.000	T 21730.000	TM 65010.000
σ		2.6%	0.027	0.181	0.303	1.301	T 16.200	T 57.060	T 417.500	T 186.900	TM 377.100
%RSD		2.5	4.223	1.366	2.218	10.430	T 1.167	T 0.274	T 1.947	T 0.860	TM 0.580
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	T 1575.000	T 330000.000	T 14530.000	M 115800.000	TM 118800.000	105.1%	M 965.700	172.500	84.080	7963.000
2	18:43:25	T 1569.000	T 327300.000	T 14140.000	M 113000.000	TM 116000.000	106.7%	M 973.300	177.700	83.130	7483.000
3	18:43:53	T 1505.000	T 318600.000	T 14080.000	M 113000.000	TM 115400.000	106.4%	M 965.300	171.900	82.340	7926.000
x		T 1550.000	T 325300.000	T 14250.000	M 113900.000	TM 116800.000	106.1%	M 968.100	174.000	83.180	7791.000
σ		T 38.650	T 5996.000	T 245.600	M 1603.000	TM 1834.000	0.9%	M 4.517	3.220	0.870	267.000
%RSD		T 2.494	T 1.843	T 1.723	M 1.407	TM 1.571	0.8	M 0.467	1.850	1.045	3.427
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	T 68940.000	TM 1260.000	T 65890.000	T 72500.000	26.040	62.410	53.710	86.560	109.000	328.900
2	18:43:25	T 67930.000	TM 1259.000	T 66800.000	T 74440.000	26.760	62.790	53.330	84.390	109.100	332.100
3	18:43:53	T 66800.000	TM 1239.000	T 65260.000	T 71960.000	25.310	61.530	52.270	83.820	107.100	326.100
x		T 67890.000	TM 1253.000	T 65980.000	T 72970.000	26.030	62.240	53.100	84.920	108.400	329.000
σ		T 1073.000	TM 11.890	T 774.100	T 1300.000	0.725	0.647	0.746	1.448	1.091	3.016
%RSD		T 1.581	TM 0.949	T 1.173	T 1.782	2.785	1.039	1.404	1.705	1.006	0.917
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	259.700	260.400	41.530	0.876	18.920	16.280	2.433	1.685	1.395	161.100
2	18:43:25	259.400	262.100	41.050	0.970	18.570	15.880	1.149	1.234	1.263	160.200
3	18:43:53	254.500	255.900	40.970	1.281	18.100	16.740	3.088	1.944	0.917	159.800
x		257.900	259.500	41.180	1.042	18.530	16.300	2.223	1.621	1.192	160.400
σ		2.907	3.165	0.302	0.212	0.408	0.430	0.987	0.359	0.247	0.696
%RSD		1.127	1.220	0.734	20.350	2.199	2.636	44.380	22.160	20.730	0.434
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	184.7%	1.709	1.398	1.785	29.700	0.620	0.572	1.489	1.484	99.9%
2	18:43:25	187.6%	1.689	1.469	1.660	28.020	0.602	0.525	1.378	1.436	100.5%
3	18:43:53	187.0%	1.565	1.372	1.784	24.170	0.614	0.526	1.341	1.345	101.2%
x		186.5%	1.654	1.413	1.743	27.300	0.612	0.541	1.403	1.422	100.5%
σ		1.5%	0.078	0.050	0.072	2.834	0.009	0.027	0.077	0.071	0.7%
%RSD		0.8	4.700	3.560	4.116	10.380	1.545	4.936	5.463	4.961	0.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	8.590	9.855	0.675	0.679	M 784.600	M 784.400	104.1%	0.786	0.774	82.710
2	18:43:25	8.622	10.030	0.683	0.756	M 773.800	M 775.200	105.1%	0.868	0.824	82.730
3	18:43:53	8.506	9.605	0.695	0.709	M 768.600	M 772.200	104.4%	0.832	0.824	82.130
x		8.573	9.831	0.685	0.714	M 775.700	M 777.200	104.5%	0.829	0.807	82.520
σ		0.060	0.215	0.010	0.039	M 8.163	M 6.353	0.5%	0.041	0.029	0.338
%RSD		0.699	2.184	1.490	5.411	M 1.052	M 0.817	0.5	4.987	3.581	0.410
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:42:57	79.740	81.360	102.9%							
2	18:43:25	79.860	81.470	104.4%							
3	18:43:53	78.380	79.950	102.4%							
x		79.330	80.920	103.2%							
σ		0.825	0.847	1.0%							
%RSD		1.039	1.047	1.0							

CCV MW10994 04/30/2019 18:48:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	97.1%	305.900	305.500	293.800	65.360	T63400.000	T60070.000	T60540.000	T61140.000	302.800
2	18:49:34	94.8%	304.800	311.300	300.600	69.440	T64760.000	T61650.000	T61270.000	T61770.000	297.400
3	18:50:01	97.5%	301.100	312.700	306.300	59.490	T64420.000	T61410.000	T61360.000	T60820.000	298.700
x		96.5%	101.302%	103.269%	100.072%	64.760	T106.990%	T61040.000	T61060.000	T102.073%	99.880%
σ		1.5%	n/a	n/a	n/a	5.000	Tn/a	T849.600	T446.300	Tn/a	n/a
%RSD		1.5	0.824	1.226	2.077	7.720	T1.102	T1.392	T0.731	T0.790	0.950

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	T3198.000	2957.000	T63990.000	63520.000	T63560.000	97.7%	318.200	318.700	302.800	1148.000
2	18:49:34	T3145.000	2847.000	T63720.000	62940.000	T63650.000	98.1%	312.600	315.500	301.000	1629.000
3	18:50:01	T3205.000	2913.000	T67040.000	64580.000	T64120.000	97.6%	308.200	312.400	302.700	1149.000
x		T106.089%	2906.000	T108.191%	63680.000	T106.298%	97.8%	104.329%	105.181%	100.717%	1309.000
σ		Tn/a	54.990	Tn/a	834.500	Tn/a	0.3%	n/a	n/a	n/a	277.600
%RSD		T1.028	1.893	T2.838	1.311	T0.473	0.3	1.588	0.990	0.337	21.210

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	T62460.000	298.600	T63570.000	T60930.000	299.900	288.500	285.000	293.300	300.800	303.300
2	18:49:34	T64200.000	299.600	T63340.000	T60620.000	296.800	291.500	290.100	294.900	303.400	308.500
3	18:50:01	T63170.000	293.400	T63010.000	T61670.000	301.900	291.200	294.100	296.800	307.700	306.600
x		T63280.000	99.068%	T63310.000	T101.785%	99.835%	96.795%	289.700	295.000	101.331%	102.042%
σ		T878.900	n/a	T285.900	Tn/a	n/a	n/a	4.558	1.719	n/a	n/a
%RSD		T1.389	1.125	T0.452	T0.881	0.858	0.567	1.573	0.583	1.145	0.872

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	292.900	299.700	299.900	308.500	2.221	1.623	1311.000	304.200	-0.062	302.900
2	18:49:34	295.400	300.400	302.500	311.300	2.305	1.751	1305.000	305.500	2.079	306.000
3	18:50:01	290.500	294.900	293.800	319.100	1.755	1.944	1291.000	305.500	0.255	307.200
x		293.000	298.300	99.577%	313.000	2.094	1.773	1303.000	101.693%	0.757	101.796%
σ		2.436	3.002	n/a	5.502	0.297	0.162	10.060	n/a	1.156	n/a
%RSD		0.832	1.006	1.503	1.758	14.160	9.108	0.772	0.239	152.600	0.737

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	94.5%	323.300	321.100	320.900	305.100	298.400	300.700	305.600	303.900	92.6%
2	18:49:34	95.4%	319.900	320.600	320.900	302.200	298.600	298.500	303.500	304.700	92.6%
3	18:50:01	93.1%	323.900	320.600	321.800	298.900	301.300	301.000	302.400	304.100	89.7%
x		94.3%	107.466%	106.919%	321.200	302.100	99.805%	300.100	303.800	101.408%	91.6%
σ		1.2%	n/a	n/a	0.528	3.098	n/a	1.375	1.660	n/a	1.7%
%RSD		1.2	0.674	0.086	0.164	1.026	0.536	0.458	0.546	0.124	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	315.700	313.200	314.500	309.800	306.600	309.700	95.2%	311.900	316.400	308.400
2	18:49:34	314.700	311.700	314.600	306.500	305.400	308.000	96.2%	308.600	313.500	303.900
3	18:50:01	314.900	313.300	312.600	304.700	306.300	310.700	92.9%	307.900	316.000	305.900
x		105.031%	104.246%	313.900	102.339%	102.038%	103.156%	94.8%	309.500	105.101%	102.027%
σ		n/a	n/a	1.143	n/a	n/a	n/a	1.6%	2.103	n/a	n/a
%RSD		0.181	0.288	0.364	0.845	0.208	0.439	1.7	0.679	0.498	0.745

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:49:07	309.600	311.500	93.4%
2	18:49:34	304.900	306.600	93.0%
3	18:50:01	306.700	307.600	89.9%
x		102.363%	102.866%	92.1%
σ		n/a	n/a	1.9%
%RSD		0.773	0.837	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	106.1%	0.053	0.861	0.949	21.490	9.892	7.860	8.054	8.308	1.195
2	18:55:42	102.9%	0.046	1.035	1.087	19.470	6.613	7.467	7.454	6.712	1.131
3	18:56:10	103.2%	0.047	0.764	0.662	9.234	5.917	6.876	6.624	6.703	1.140
x		104.1%	0.049	0.887	0.899	16.730	7.474	7.401	7.378	7.241	1.156
σ		1.8%	0.004	0.138	0.217	6.571	2.123	0.495	0.718	0.924	0.035
%RSD		1.7	7.766	15.520	24.070	39.270	28.400	6.694	9.731	12.760	2.997

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	14.790	1681.000	9.786	6.066	9.627	99.8%	-0.008	0.032	0.060	79.520
2	18:55:42	14.650	1708.000	8.264	5.965	9.008	101.2%	0.026	0.024	0.059	59.750
3	18:56:10	14.990	1649.000	5.329	7.575	9.015	103.5%	-0.012	0.044	0.067	66.330
x		14.810	1679.000	7.793	6.535	9.216	101.5%	0.002	0.033	0.062	68.530
σ		0.171	29.770	2.265	0.902	0.355	1.9%	0.021	0.010	0.004	10.070
%RSD		1.155	1.772	29.070	13.800	3.855	1.8	916.100	30.830	7.018	14.690

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	10.550	0.299	16.210	3.312	0.065	0.041	-0.033	0.053	0.007	0.062
2	18:55:42	7.675	0.299	12.440	-6.158	0.054	0.002	-0.319	0.006	0.041	0.046
3	18:56:10	8.700	0.310	11.990	-5.025	0.042	0.049	-0.261	0.004	0.034	0.047
x		8.974	0.303	13.550	-2.623	0.054	0.031	-0.204	0.021	0.027	0.052
σ		1.455	0.006	2.318	5.172	0.011	0.025	0.151	0.028	0.018	0.009
%RSD		16.210	2.132	17.110	197.100	21.260	81.040	74.100	133.200	65.960	16.760

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	0.011	0.085	-0.074	0.141	0.579	0.600	-1.760	-0.338	-1.715	0.042
2	18:55:42	0.099	0.018	0.006	-0.574	0.331	0.768	0.637	0.185	0.218	0.033
3	18:56:10	0.072	0.078	0.144	0.301	0.549	0.346	2.429	0.683	-3.431	0.040
x		0.061	0.060	0.026	-0.044	0.486	0.571	0.435	0.177	-1.643	0.038
σ		0.045	0.037	0.110	0.466	0.135	0.213	2.102	0.511	1.826	0.005
%RSD		74.160	61.430	431.400	1057.000	27.820	37.220	482.900	288.600	111.100	12.640

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	96.0%	0.118	0.086	0.098	-0.974	0.031	0.036	0.087	0.038	94.4%
2	18:55:42	99.7%	0.069	0.073	0.062	-0.707	0.022	0.026	0.041	0.036	96.7%
3	18:56:10	100.9%	0.082	0.072	0.075	-0.936	0.033	0.028	0.040	0.022	98.4%
x		98.9%	0.090	0.077	0.079	-0.872	0.029	0.030	0.056	0.032	96.5%
σ		2.5%	0.026	0.008	0.018	0.144	0.006	0.005	0.027	0.009	2.0%
%RSD		2.6	28.610	10.360	23.490	16.540	20.930	17.460	47.850	28.410	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	0.059	0.083	0.117	0.137	0.023	0.056	92.5%	0.034	0.017	0.058
2	18:55:42	0.064	0.062	0.129	0.176	0.089	0.063	97.0%	0.020	0.022	0.033
3	18:56:10	0.021	0.091	0.133	0.133	0.054	0.069	97.0%	0.028	0.023	0.050
x		0.048	0.079	0.126	0.148	0.055	0.063	95.5%	0.027	0.021	0.047
σ		0.024	0.015	0.008	0.024	0.033	0.006	2.6%	0.007	0.003	0.013
%RSD		48.600	19.040	6.505	16.150	59.720	10.100	2.7	25.580	14.450	27.650

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:55:15	0.039	0.046	93.8%
2	18:55:42	0.027	0.034	100.1%
3	18:56:10	0.040	0.041	99.2%
x		0.035	0.040	97.7%
σ		0.007	0.006	3.4%
%RSD		20.210	15.470	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	114.0%	0.212	0.789	0.774	77.890	28.040	T 618.000	626.600	627.000	TM 23520.000
2	19:01:47	108.3%	0.191	1.077	0.876	87.440	25.160	T 621.800	598.800	616.600	TM 22970.000
3	19:02:13	112.7%	0.189	0.977	0.778	93.790	26.090	T 617.900	603.000	625.400	TM 23330.000
x		111.6%	0.197	0.948	0.809	86.370	26.430	T 619.300	609.400	623.000	TM 23270.000
σ		3.0%	0.012	0.146	0.058	8.002	1.472	T 2.238	14.980	5.618	TM 280.200
%RSD		2.7	6.248	15.440	7.153	9.265	5.571	T 0.361	2.458	0.902	TM 1.204

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	T 1776.000	T 396100.000	474.800	375.900	191.700	101.2%	376.700	35.940	28.450	10740.000
2	19:01:47	T 1875.000	T 394600.000	457.100	273.700	177.100	103.6%	369.200	36.090	28.770	9426.000
3	19:02:13	T 1737.000	T 388500.000	457.900	318.800	176.300	102.7%	369.700	34.670	27.720	10620.000
x		T 1796.000	T 393100.000	463.300	322.800	181.700	102.5%	371.900	35.560	28.310	10260.000
σ		T 70.930	T 4023.000	9.996	51.220	8.631	1.2%	4.189	0.781	0.536	724.800
%RSD		T 3.950	T 1.023	2.158	15.870	4.750	1.2	1.126	2.196	1.894	7.064

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	T 14960.000	53.430	T 15300.000	15360.000	5.790	9.350	9.695	8.391	9.128	30.440
2	19:01:47	T 15330.000	53.970	T 15330.000	15340.000	5.764	9.394	10.020	8.123	9.330	32.080
3	19:02:13	T 15030.000	53.260	T 15110.000	14970.000	5.912	9.201	9.105	8.258	9.405	31.570
x		T 15110.000	53.550	T 15240.000	15220.000	5.822	9.315	9.606	8.258	9.288	31.360
σ		T 194.800	0.370	T 117.800	215.100	0.079	0.101	0.463	0.134	0.143	0.836
%RSD		T 1.290	0.692	T 0.773	1.413	1.361	1.084	4.821	1.621	1.544	2.665

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	32.440	29.910	3.692	1.860	29.920	31.520	8.654	2.366	0.275	5.121
2	19:01:47	30.510	30.640	4.460	2.342	29.540	31.800	9.714	2.650	-1.604	5.143
3	19:02:13	31.160	29.820	3.812	1.724	29.300	29.370	7.199	2.024	-2.300	5.058
x		31.370	30.120	3.988	1.975	29.590	30.890	8.522	2.347	-1.210	5.107
σ		0.984	0.448	0.413	0.325	0.309	1.331	1.263	0.314	1.332	0.044
%RSD		3.137	1.488	10.350	16.440	1.043	4.310	14.810	13.360	110.100	0.857

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	108.7%	1.657	1.639	1.552	1.835	0.087	0.097	0.034	0.017	94.3%
2	19:01:47	110.8%	1.597	1.567	1.646	2.594	0.089	0.095	0.013	0.070	97.1%
3	19:02:13	109.0%	1.531	1.524	1.598	4.112	0.082	0.097	0.010	0.034	95.8%
x		109.5%	1.595	1.577	1.599	2.847	0.086	0.096	0.019	0.040	95.8%
σ		1.1%	0.063	0.058	0.047	1.160	0.003	0.001	0.013	0.027	1.4%
%RSD		1.0	3.925	3.685	2.926	40.730	4.019	1.258	69.490	67.480	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	6.719	8.413	1.358	1.363	47.980	47.950	95.5%	0.208	0.214	15.180
2	19:01:47	6.721	8.379	1.347	1.411	48.500	46.850	99.5%	0.181	0.180	15.210
3	19:02:13	6.530	8.179	1.300	1.305	48.110	47.530	97.3%	0.198	0.197	14.890
x		6.657	8.323	1.335	1.360	48.200	47.440	97.4%	0.195	0.197	15.100
σ		0.110	0.127	0.031	0.053	0.271	0.554	2.0%	0.014	0.017	0.178
%RSD		1.646	1.522	2.309	3.869	0.561	1.168	2.0	6.981	8.561	1.178

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:01:19	14.270	14.660	93.7%
2	19:01:47	14.360	14.740	98.5%
3	19:02:13	13.900	14.420	94.4%
x		14.180	14.610	95.5%
σ		0.240	0.166	2.6%
%RSD		1.695	1.137	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	107.6%	0.250	0.771	0.621	63.330	20.960	T 470.900	467.400	479.800	TM 17990.000
2	19:07:52	105.5%	0.195	0.500	0.578	74.020	18.980	482.600	453.100	467.300	TM 17390.000
3	19:08:19	112.8%	0.270	0.489	0.490	59.670	20.420	T 458.700	472.100	476.100	TM 17810.000
x		108.6%	0.238	0.587	0.563	65.670	20.120	T 470.700	464.200	474.400	TM 17730.000
σ		3.8%	0.039	0.160	0.067	7.456	1.024	T 11.940	9.890	6.408	TM 310.700
%RSD		3.5	16.230	27.190	11.850	11.350	5.090	T 2.536	2.131	1.351	TM 1.752

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	T 1749.000	T 398700.000	409.700	243.600	113.600	102.2%	306.900	28.570	23.610	10050.000
2	19:07:52	T 1725.000	T 386400.000	399.100	168.300	98.560	103.2%	300.900	26.980	23.590	8934.000
3	19:08:19	T 1652.000	T 389100.000	401.500	212.100	108.400	103.5%	299.700	27.660	23.610	9506.000
x		T 1709.000	T 391400.000	403.500	208.000	106.900	103.0%	302.500	27.740	23.600	9495.000
σ		T 50.580	T 6477.000	5.565	37.810	7.640	0.7%	3.890	0.795	0.013	555.800
%RSD		T 2.960	T 1.655	1.379	18.180	7.150	0.6	1.286	2.868	0.055	5.853

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	T 12580.000	45.330	T 12450.000	12590.000	2.473	7.301	8.186	5.734	6.558	21.580
2	19:07:52	T 12240.000	45.840	T 12580.000	12610.000	2.392	7.013	7.611	5.900	6.503	21.630
3	19:08:19	T 12350.000	45.210	T 12480.000	12550.000	2.444	7.035	6.603	5.968	6.481	20.930
x		T 12390.000	45.460	T 12510.000	12580.000	2.437	7.116	7.467	5.867	6.514	21.380
σ		T 174.800	0.335	T 66.680	31.870	0.041	0.160	0.802	0.121	0.039	0.394
%RSD		T 1.411	0.736	T 0.533	0.253	1.681	2.249	10.740	2.054	0.604	1.842

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	19.620	19.670	3.029	0.830	22.800	22.070	2.131	0.745	-0.646	4.121
2	19:07:52	20.700	20.370	3.557	0.462	21.020	21.970	3.803	1.100	-0.066	4.110
3	19:08:19	21.090	20.100	3.154	0.682	21.390	22.500	3.291	0.958	0.920	4.192
x		20.470	20.050	3.247	0.658	21.730	22.180	3.075	0.935	0.069	4.141
σ		0.765	0.354	0.276	0.185	0.940	0.279	0.856	0.179	0.792	0.045
%RSD		3.734	1.766	8.499	28.170	4.327	1.258	27.850	19.130	1144.000	1.079

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	111.1%	0.859	0.872	0.879	3.864	0.039	0.031	0.045	0.055	95.2%
2	19:07:52	114.4%	0.869	0.788	0.846	3.097	0.032	0.026	0.009	0.024	100.3%
3	19:08:19	113.6%	0.889	0.818	0.831	4.252	0.049	0.022	0.013	0.017	99.1%
x		113.0%	0.872	0.826	0.852	3.738	0.040	0.026	0.022	0.032	98.2%
σ		1.7%	0.015	0.043	0.025	0.588	0.008	0.005	0.020	0.020	2.7%
%RSD		1.5	1.737	5.173	2.889	15.720	20.860	17.690	90.190	62.240	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	6.230	7.182	0.186	0.202	31.560	31.920	97.4%	0.108	0.119	8.121
2	19:07:52	5.831	7.372	0.181	0.225	31.120	31.070	102.6%	0.129	0.126	8.024
3	19:08:19	5.911	7.314	0.194	0.165	30.620	31.180	100.3%	0.114	0.125	7.844
x		5.991	7.289	0.187	0.197	31.100	31.390	100.1%	0.117	0.123	7.996
σ		0.211	0.097	0.006	0.031	0.469	0.460	2.6%	0.011	0.004	0.140
%RSD		3.523	1.336	3.430	15.560	1.508	1.466	2.6	9.181	2.886	1.756

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:07:25	7.254	7.709	97.6%
2	19:07:52	7.395	7.705	103.9%
3	19:08:19	7.197	7.645	100.8%
x		7.282	7.686	100.8%
σ		0.102	0.036	3.2%
%RSD		1.403	0.466	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	110.1%	0.224	0.621	0.476	329.500	24.920	461.200	457.900	460.900	T 28430.000
2	19:13:56	109.5%	0.196	0.858	0.486	331.300	24.510	457.300	438.300	446.300	T 28570.000
3	19:14:23	T 118.3%	0.260	0.493	0.479	335.200	25.340	T 430.500	427.500	447.400	T 29390.000
x		T 112.6%	0.226	0.657	0.481	332.000	24.920	T 449.700	441.200	451.500	T 28800.000
σ		T 4.9%	0.032	0.186	0.005	2.906	0.416	T 16.710	15.420	8.155	T 517.600
%RSD		T 4.4	14.200	28.220	1.094	0.875	1.669	T 3.716	3.495	1.806	T 1.797

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	T 2083.000	T 360800.000	T 510.900	411.900	296.900	106.0%	393.700	55.860	59.500	8092.000
2	19:13:56	T 2079.000	T 359300.000	522.000	400.600	289.100	106.4%	383.900	55.220	58.400	7892.000
3	19:14:23	T 1897.000	T 355900.000	T 501.600	460.700	289.500	104.9%	381.200	53.490	58.840	8846.000
x		T 2020.000	T 358700.000	T 511.500	424.400	291.800	105.8%	386.200	54.860	58.910	8277.000
σ		T 106.500	T 2506.000	T 10.200	31.960	4.396	0.8%	6.560	1.225	0.556	503.500
%RSD		T 5.272	T 0.699	T 1.995	7.530	1.506	0.7	1.699	2.232	0.943	6.083

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	T 22210.000	137.500	T 22710.000	T 22340.000	76.980	10.820	11.850	44.420	50.380	47.010
2	19:13:56	T 21550.000	133.500	T 21740.000	T 21560.000	75.480	10.790	10.140	43.050	49.150	45.470
3	19:14:23	T 21840.000	133.500	T 21720.000	T 21630.000	76.500	10.550	11.760	43.170	47.950	43.970
x		T 21870.000	134.800	T 22060.000	T 21840.000	76.320	10.720	11.250	43.550	49.160	45.480
σ		T 329.000	2.296	T 566.600	T 427.000	0.764	0.145	0.961	0.757	1.219	1.519
%RSD		T 1.505	1.703	T 2.569	T 1.955	1.001	1.353	8.538	1.739	2.480	3.341

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	44.340	43.710	7.073	0.401	23.090	21.890	3.751	1.223	0.233	9.515
2	19:13:56	42.410	42.860	6.730	0.637	21.680	22.580	6.299	1.959	-1.242	9.226
3	19:14:23	41.780	41.830	6.250	0.134	22.590	23.270	3.431	1.100	0.968	9.264
x		42.840	42.800	6.684	0.391	22.450	22.580	4.494	1.427	-0.014	9.335
σ		1.335	0.943	0.413	0.252	0.715	0.689	1.572	0.465	1.126	0.157
%RSD		3.115	2.203	6.183	64.470	3.186	3.052	34.970	32.540	8215.000	1.685

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	122.1%	10.230	10.230	10.370	4.776	0.677	0.650	0.236	0.344	100.3%
2	19:13:56	123.5%	10.450	10.090	10.480	3.787	0.634	0.674	0.293	0.362	100.9%
3	19:14:23	121.8%	10.110	9.951	10.400	4.461	0.659	0.619	0.254	0.306	100.5%
x		122.5%	10.260	10.090	10.420	4.341	0.657	0.648	0.261	0.337	100.6%
σ		0.9%	0.168	0.139	0.054	0.505	0.022	0.028	0.029	0.028	0.3%
%RSD		0.7	1.636	1.380	0.519	11.640	3.350	4.261	11.100	8.426	0.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	24.930	33.280	21.530	21.910	62.480	62.260	102.3%	0.143	0.132	42.730
2	19:13:56	24.780	33.070	21.790	21.080	61.180	62.160	102.9%	0.159	0.151	42.030
3	19:14:23	24.170	32.590	20.940	20.900	59.390	60.570	101.8%	0.143	0.139	41.360
x		24.630	32.980	21.420	21.300	61.010	61.660	102.4%	0.148	0.141	42.040
σ		0.402	0.351	0.435	0.540	1.552	0.947	0.5%	0.009	0.010	0.683
%RSD		1.633	1.065	2.033	2.536	2.543	1.536	0.5	6.096	6.885	1.624

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:13:29	41.000	41.600	102.1%
2	19:13:56	40.870	41.300	103.4%
3	19:14:23	40.020	40.500	101.3%
x		40.630	41.140	102.3%
σ		0.535	0.570	1.1%
%RSD		1.317	1.385	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	111.1%	0.239	0.628	0.407	39.360	28.680	337.900	334.000	347.200	™36340.000
2	19:20:00	108.2%	0.238	0.411	0.392	48.230	26.750	333.300	334.100	333.800	™33970.000
3	19:20:27	108.8%	0.256	0.669	0.338	47.480	25.870	331.200	327.000	328.900	™33360.000
x		109.4%	0.244	0.569	0.379	45.020	27.100	334.100	331.700	336.600	™34560.000
σ		1.6%	0.010	0.139	0.036	4.919	1.442	3.426	4.029	9.488	™1572.000
%RSD		1.4	4.149	24.410	9.586	10.930	5.322	1.026	1.215	2.818	™4.550

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	₸1978.000	₸376900.000	678.900	772.200	548.000	103.8%	312.400	90.280	64.290	9922.000
2	19:20:00	₸1963.000	₸366300.000	650.100	722.400	542.600	105.6%	305.200	87.570	62.740	8705.000
3	19:20:27	₸1915.000	₸352500.000	630.400	656.500	525.500	106.4%	297.200	88.500	61.750	8411.000
x		₸1952.000	₸365300.000	653.100	717.000	538.700	105.3%	304.900	88.780	62.930	9013.000
σ		₸32.940	₸12210.000	24.410	58.050	11.770	1.3%	7.610	1.377	1.278	801.200
%RSD		₸1.688	₸3.342	3.737	8.097	2.185	1.2	2.495	1.551	2.030	8.889

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	₸23830.000	35.410	₸23810.000	₸23390.000	27.680	9.322	8.893	11.470	13.240	33.300
2	19:20:00	₸23730.000	35.340	₸23550.000	₸23660.000	27.430	9.151	9.123	11.340	12.880	33.520
3	19:20:27	₸22930.000	34.270	₸23160.000	₸23230.000	26.910	8.874	8.108	11.230	12.820	33.220
x		₸23500.000	35.010	₸23510.000	₸23430.000	27.340	9.116	8.708	11.350	12.980	33.350
σ		₸491.400	0.643	₸328.000	₸216.500	0.393	0.227	0.532	0.118	0.230	0.155
%RSD		₸2.092	1.835	₸1.395	₸0.924	1.438	2.484	6.112	1.041	1.770	0.463

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	29.780	29.820	13.150	0.898	21.160	21.160	2.665	0.953	0.338	12.950
2	19:20:00	31.800	29.950	13.610	0.776	20.040	22.000	1.925	0.799	-0.683	12.810
3	19:20:27	31.000	29.600	13.050	0.472	21.800	23.820	3.852	1.278	0.703	12.750
x		30.860	29.790	13.270	0.716	21.000	22.330	2.814	1.010	0.119	12.840
σ		1.016	0.173	0.299	0.219	0.892	1.363	0.972	0.245	0.718	0.105
%RSD		3.292	0.580	2.258	30.670	4.248	6.106	34.550	24.220	601.800	0.816

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	117.2%	3.584	3.444	3.557	7.438	0.096	0.048	0.039	0.071	95.6%
2	19:20:00	122.9%	3.501	3.347	3.645	8.199	0.063	0.042	0.029	0.043	98.8%
3	19:20:27	123.1%	3.446	3.482	3.690	8.470	0.076	0.044	0.070	0.062	99.4%
x		121.0%	3.510	3.424	3.631	8.036	0.078	0.044	0.046	0.058	97.9%
σ		3.4%	0.070	0.070	0.068	0.535	0.016	0.003	0.021	0.014	2.0%
%RSD		2.8	1.984	2.034	1.861	6.661	20.720	6.870	46.260	24.590	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	8.373	8.258	0.380	0.496	45.260	43.110	95.4%	0.184	0.201	22.340
2	19:20:00	8.015	8.260	0.348	0.447	44.480	43.900	101.1%	0.183	0.211	21.990
3	19:20:27	8.040	7.965	0.481	0.463	42.850	42.580	101.1%	0.201	0.180	21.760
x		8.143	8.161	0.403	0.469	44.200	43.200	99.2%	0.190	0.197	22.030
σ		0.200	0.169	0.069	0.025	1.231	0.664	3.3%	0.010	0.016	0.290
%RSD		2.455	2.076	17.160	5.279	2.786	1.536	3.3	5.269	8.237	1.316

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:19:33	20.440	21.480	94.2%
2	19:20:00	20.220	21.160	100.5%
3	19:20:27	19.880	20.970	100.2%
x		20.180	21.210	98.3%
σ		0.278	0.257	3.6%
%RSD		1.379	1.210	3.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	110.1%	0.155	0.345	0.218	101.800	19.130	261.100	262.000	261.400	TM 18360.000
2	19:26:04	107.2%	0.117	0.027	0.159	103.500	16.930	256.300	252.400	258.900	TM 17900.000
3	19:26:31	108.6%	0.165	0.284	-0.004	95.480	16.220	260.200	257.000	249.300	TM 16910.000
x		108.6%	0.146	0.219	0.124	100.300	17.430	259.200	257.100	256.500	TM 17720.000
σ		1.4%	0.026	0.169	0.115	4.244	1.520	2.588	4.819	6.375	TM 738.700
%RSD		1.3	17.650	77.170	92.560	4.232	8.722	0.999	1.874	2.485	TM 4.168

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	T 1782.000	T 405700.000	T 317.100	247.700	131.800	103.5%	284.100	33.790	27.740	10040.000
2	19:26:04	T 1782.000	T 393600.000	306.300	198.900	125.500	104.6%	279.000	32.840	27.170	8889.000
3	19:26:31	T 1707.000	T 376300.000	289.600	174.500	122.700	105.0%	277.600	33.330	26.040	8319.000
x		T 1757.000	T 391900.000	T 304.300	207.100	126.700	104.3%	280.200	33.320	26.980	9082.000
σ		T 43.560	T 14780.000	T 13.820	37.270	4.658	0.8%	3.427	0.478	0.864	875.300
%RSD		T 2.479	T 3.772	T 4.540	18.000	3.677	0.7	1.223	1.433	3.202	9.638

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	T 13540.000	49.900	T 13670.000	13310.000	14.360	5.373	6.708	13.430	15.360	23.530
2	19:26:04	T 13500.000	49.910	T 13410.000	13130.000	14.140	5.347	5.325	13.020	14.470	23.090
3	19:26:31	T 13140.000	49.660	T 13410.000	13090.000	13.720	5.424	4.865	12.860	14.010	22.190
x		T 13400.000	49.820	T 13490.000	13170.000	14.070	5.381	5.632	13.100	14.610	22.940
σ		T 220.600	0.139	T 149.100	120.000	0.326	0.039	0.960	0.295	0.688	0.683
%RSD		T 1.647	0.280	T 1.105	0.911	2.315	0.724	17.040	2.255	4.709	2.978

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	22.230	21.650	3.316	0.830	26.690	26.850	1.128	0.442	-0.925	5.878
2	19:26:04	22.510	21.580	3.441	-0.026	25.930	25.240	0.282	0.215	-0.941	5.590
3	19:26:31	20.000	21.410	3.085	0.082	23.480	25.160	1.899	0.685	-2.397	5.522
x		21.580	21.540	3.281	0.295	25.370	25.750	1.103	0.447	-1.421	5.663
σ		1.378	0.121	0.181	0.466	1.674	0.953	0.809	0.235	0.845	0.189
%RSD		6.384	0.563	5.502	157.900	6.600	3.701	73.350	52.590	59.460	3.340

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	104.8%	2.856	2.747	2.941	2.998	0.295	0.269	0.139	0.181	93.0%
2	19:26:04	108.9%	2.954	2.819	2.865	4.510	0.294	0.328	0.192	0.208	97.1%
3	19:26:31	111.2%	2.714	2.933	2.794	3.126	0.288	0.284	0.151	0.140	97.6%
x		108.3%	2.841	2.833	2.867	3.545	0.292	0.294	0.161	0.176	95.9%
σ		3.2%	0.120	0.094	0.074	0.839	0.004	0.030	0.028	0.034	2.5%
%RSD		3.0	4.238	3.307	2.569	23.650	1.299	10.370	17.120	19.430	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	12.650	17.040	3.054	2.930	26.810	26.180	94.0%	0.074	0.075	13.100
2	19:26:04	12.650	16.520	3.091	3.131	26.760	25.330	99.1%	0.091	0.081	12.520
3	19:26:31	12.540	16.400	3.097	2.846	24.850	24.350	99.6%	0.072	0.071	12.400
x		12.620	16.650	3.081	2.969	26.140	25.290	97.6%	0.079	0.076	12.670
σ		0.063	0.342	0.023	0.146	1.116	0.917	3.1%	0.011	0.005	0.376
%RSD		0.500	2.052	0.754	4.930	4.269	3.627	3.2	13.520	6.397	2.970

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:25:37	11.940	12.320	93.2%
2	19:26:04	11.720	12.070	98.3%
3	19:26:31	11.560	11.880	98.9%
x		11.740	12.090	96.8%
σ		0.191	0.222	3.1%
%RSD		1.627	1.839	3.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	108.2%	0.173	-0.018	-0.244	71.040	12.320	161.800	156.700	158.500	™15970.000
2	19:32:08	108.7%	0.135	-0.187	-0.176	80.810	12.680	156.700	153.100	155.300	™16050.000
3	19:32:35	110.5%	0.161	0.024	-0.285	82.000	13.810	159.200	161.300	159.600	™16090.000
x		109.1%	0.156	-0.060	-0.235	77.950	12.940	159.200	157.000	157.800	™16040.000
σ		1.2%	0.020	0.112	0.055	6.012	0.776	2.510	4.110	2.226	™57.290
%RSD		1.1	12.580	185.100	23.370	7.713	5.998	1.576	2.617	1.411	™0.357
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	┬1562.000	┬343400.000	201.800	104.000	47.410	102.3%	183.300	36.310	27.340	7877.000
2	19:32:08	┬1526.000	┬344100.000	203.000	123.900	47.760	103.3%	184.000	36.440	27.790	8049.000
3	19:32:35	┬1508.000	┬350300.000	205.300	149.000	45.380	103.4%	184.600	35.680	26.990	8754.000
x		┬1532.000	┬346000.000	203.300	125.600	46.850	103.0%	184.000	36.140	27.370	8227.000
σ		┬27.390	┬3801.000	1.794	22.540	1.284	0.6%	0.653	0.408	0.403	464.600
%RSD		┬1.788	┬1.099	0.882	17.950	2.741	0.6	0.355	1.129	1.471	5.647
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	┬14810.000	10.000	┬14670.000	14590.000	1.134	3.692	3.507	5.795	6.159	9.733
2	19:32:08	┬14500.000	9.770	┬14590.000	14250.000	1.040	3.589	3.169	5.801	6.069	9.844
3	19:32:35	┬14810.000	9.730	┬14800.000	14430.000	1.075	3.297	3.950	5.837	6.111	9.883
x		┬14700.000	9.835	┬14690.000	14430.000	1.083	3.526	3.542	5.811	6.113	9.820
σ		┬180.700	0.148	┬101.500	170.900	0.048	0.205	0.391	0.023	0.045	0.078
%RSD		┬1.229	1.509	┬0.691	1.185	4.386	5.810	11.050	0.395	0.736	0.790
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	10.260	9.829	5.724	0.462	15.090	17.160	3.402	0.907	-0.905	4.248
2	19:32:08	10.270	9.383	4.312	0.144	16.830	16.550	0.733	0.268	-0.308	4.200
3	19:32:35	9.588	9.594	4.739	0.369	14.330	16.790	0.028	0.106	-0.599	4.255
x		10.040	9.602	4.925	0.325	15.420	16.840	1.388	0.427	-0.604	4.234
σ		0.393	0.223	0.725	0.164	1.282	0.306	1.780	0.423	0.299	0.030
%RSD		3.909	2.324	14.710	50.430	8.319	1.816	128.200	99.140	49.440	0.710
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	104.6%	1.770	1.764	1.882	3.532	0.035	0.021	0.020	0.013	97.9%
2	19:32:08	104.6%	1.801	1.632	1.839	3.937	0.030	0.020	-0.003	0.006	96.9%
3	19:32:35	102.5%	1.728	1.835	1.780	3.631	0.034	0.023	-0.003	0.007	95.1%
x		103.9%	1.766	1.743	1.834	3.700	0.033	0.021	0.005	0.009	96.6%
σ		1.2%	0.037	0.103	0.051	0.211	0.003	0.002	0.013	0.004	1.4%
%RSD		1.2	2.079	5.919	2.773	5.708	8.030	7.472	271.500	44.850	1.4
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	5.107	6.736	0.179	0.195	17.000	17.090	97.3%	0.056	0.060	6.062
2	19:32:08	5.213	6.638	0.175	0.195	16.840	16.730	97.4%	0.057	0.054	5.778
3	19:32:35	4.957	6.652	0.178	0.296	16.940	16.780	95.7%	0.048	0.052	5.944
x		5.092	6.675	0.177	0.229	16.930	16.870	96.8%	0.054	0.055	5.928
σ		0.128	0.053	0.002	0.059	0.080	0.193	0.9%	0.005	0.004	0.142
%RSD		2.518	0.798	1.168	25.590	0.471	1.143	1.0	8.793	7.612	2.402
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	19:31:41	5.631	5.903	98.1%							
2	19:32:08	5.426	5.699	96.9%							
3	19:32:35	5.656	5.724	94.5%							
x		5.571	5.775	96.5%							
σ		0.126	0.111	1.9%							
%RSD		2.267	1.929	1.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	109.1%	0.215	0.973	0.617	128.400	21.020	456.700	446.600	446.800	™26680.000
2	19:38:11	109.2%	0.167	0.724	0.440	123.400	20.880	457.600	445.500	450.500	™26590.000
3	19:38:38	112.2%	0.189	0.837	0.433	128.100	21.030	┬455.500	452.400	452.000	™26830.000
x		110.2%	0.190	0.845	0.497	126.600	20.980	┬456.600	448.100	449.800	™26700.000
σ		1.8%	0.024	0.125	0.104	2.807	0.082	┬1.055	3.697	2.668	™123.600
%RSD		1.6	12.730	14.780	20.950	2.217	0.393	┬0.231	0.825	0.593	™0.463

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	┬2020.000	┬382600.000	538.500	283.300	131.000	105.2%	┬372.900	47.550	36.810	9235.000
2	19:38:11	┬1996.000	┬390000.000	551.400	246.400	134.400	105.0%	360.900	47.410	38.280	8973.000
3	19:38:38	┬1923.000	┬384500.000	543.200	249.400	131.000	105.3%	360.000	47.440	37.180	9288.000
x		┬1980.000	┬385700.000	544.400	259.700	132.100	105.2%	┬364.600	47.470	37.430	9165.000
σ		┬50.690	┬3874.000	6.520	20.510	1.947	0.2%	┬7.207	0.072	0.764	168.800
%RSD		┬2.560	┬1.004	1.198	7.897	1.474	0.1	┬1.977	0.151	2.042	1.841

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	┬17950.000	37.910	┬17810.000	17840.000	7.174	10.370	10.830	15.710	17.530	29.530
2	19:38:11	┬17620.000	37.680	┬17710.000	17750.000	7.338	10.360	11.740	15.160	17.460	30.360
3	19:38:38	┬17650.000	37.350	┬17590.000	┬17590.000	7.194	10.370	9.191	15.460	17.210	29.730
x		┬17740.000	37.650	┬17700.000	┬17730.000	7.235	10.370	10.580	15.450	17.400	29.870
σ		┬181.000	0.280	┬110.500	┬128.600	0.089	0.008	1.290	0.277	0.167	0.434
%RSD		┬1.020	0.745	┬0.624	┬0.726	1.236	0.074	12.190	1.794	0.961	1.454

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	29.860	28.220	4.849	0.701	30.270	32.800	0.730	0.376	-1.062	6.896
2	19:38:11	28.650	28.210	5.188	0.485	31.500	32.110	3.270	1.026	-0.977	6.704
3	19:38:38	28.690	27.770	4.706	0.612	30.450	33.340	1.014	0.412	-0.012	6.713
x		29.060	28.070	4.914	0.599	30.740	32.750	1.671	0.605	-0.684	6.771
σ		0.692	0.255	0.247	0.109	0.664	0.618	1.392	0.365	0.583	0.108
%RSD		2.380	0.909	5.031	18.120	2.160	1.887	83.270	60.460	85.250	1.594

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	111.3%	5.392	4.974	5.825	2.984	0.544	0.530	0.018	-0.018	95.8%
2	19:38:11	113.5%	5.155	5.223	5.541	3.731	0.533	0.530	0.072	0.119	97.8%
3	19:38:38	113.0%	5.540	5.321	5.516	2.216	0.484	0.501	0.057	0.016	97.7%
x		112.6%	5.362	5.173	5.628	2.977	0.520	0.521	0.049	0.039	97.1%
σ		1.2%	0.195	0.179	0.172	0.757	0.032	0.017	0.028	0.071	1.1%
%RSD		1.1	3.627	3.457	3.049	25.440	6.134	3.220	57.510	182.100	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	22.610	30.060	5.471	5.382	44.380	45.170	97.8%	0.140	0.130	21.810
2	19:38:11	22.230	29.980	5.337	5.425	44.960	44.400	99.2%	0.134	0.136	21.540
3	19:38:38	22.140	29.660	5.420	5.139	44.260	43.780	98.9%	0.132	0.126	21.940
x		22.330	29.900	5.410	5.315	44.530	44.450	98.6%	0.135	0.131	21.760
σ		0.248	0.213	0.068	0.154	0.374	0.693	0.7%	0.004	0.005	0.201
%RSD		1.112	0.712	1.250	2.905	0.840	1.559	0.8	2.952	4.003	0.922

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:37:44	20.030	21.040	95.2%
2	19:38:11	20.210	21.140	97.8%
3	19:38:38	20.010	21.020	98.4%
x		20.080	21.070	97.1%
σ		0.107	0.062	1.7%
%RSD		0.533	0.297	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	111.4%	0.125	0.107	-0.124	60.780	16.450	190.800	186.300	193.500	™25130.000
2	19:44:14	111.4%	0.151	-0.026	-0.082	59.350	14.480	187.100	186.700	193.600	™24050.000
3	19:44:41	109.6%	0.144	0.050	-0.086	56.310	12.820	185.500	184.000	192.700	™23520.000
x		110.8%	0.140	0.044	-0.097	58.820	14.580	187.800	185.700	193.300	™24230.000
σ		1.1%	0.013	0.067	0.023	2.283	1.818	2.744	1.497	0.495	™820.700
%RSD		1.0	9.499	152.600	23.880	3.881	12.470	1.461	0.806	0.256	™3.387

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	┬1688.000	┬400500.000	254.000	236.200	63.530	101.3%	265.200	51.490	39.870	10510.000
2	19:44:14	┬1679.000	┬390400.000	243.400	172.200	58.660	103.4%	258.800	52.350	38.550	8697.000
3	19:44:41	┬1658.000	┬372100.000	236.600	131.700	54.720	106.6%	257.600	51.060	37.670	8290.000
x		┬1675.000	┬387700.000	244.600	180.000	58.970	103.8%	260.500	51.630	38.700	9166.000
σ		┬15.370	┬14430.000	8.755	52.680	4.412	2.6%	4.076	0.658	1.107	1182.000
%RSD		┬0.918	┬3.722	3.579	29.270	7.481	2.5	1.565	1.274	2.860	12.900

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	┬14470.000	25.030	┬14460.000	14230.000	7.830	5.726	6.512	7.587	8.243	14.610
2	19:44:14	┬13990.000	24.840	┬14230.000	14350.000	7.565	5.265	4.972	7.139	8.077	14.620
3	19:44:41	┬14010.000	25.110	┬14310.000	14220.000	7.543	5.289	5.929	7.000	7.924	14.300
x		┬14160.000	24.990	┬14330.000	14270.000	7.646	5.427	5.804	7.242	8.081	14.510
σ		┬272.500	0.140	┬121.200	76.000	0.160	0.259	0.778	0.307	0.160	0.178
%RSD		┬1.924	0.562	┬0.846	0.533	2.091	4.778	13.400	4.238	1.974	1.229

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	15.130	13.480	4.961	0.351	21.390	21.570	-1.944	-0.352	-0.351	5.298
2	19:44:14	14.490	13.520	4.727	0.725	20.430	20.630	0.292	0.233	-0.934	5.331
3	19:44:41	15.430	13.760	4.667	0.539	22.250	19.380	-1.928	-0.339	-0.324	5.257
x		15.010	13.590	4.785	0.538	21.360	20.530	-1.193	-0.153	-0.536	5.295
σ		0.479	0.151	0.155	0.187	0.910	1.098	1.286	0.334	0.344	0.037
%RSD		3.192	1.109	3.247	34.740	4.262	5.348	107.800	218.800	64.250	0.700

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	105.7%	2.506	2.441	2.587	5.123	0.053	0.026	0.018	0.018	93.8%
2	19:44:14	108.9%	2.752	2.626	2.660	5.515	0.056	0.027	0.025	-0.013	96.3%
3	19:44:41	115.2%	2.476	2.501	2.679	5.944	0.062	0.025	0.019	0.015	100.9%
x		109.9%	2.578	2.522	2.642	5.527	0.057	0.026	0.020	0.007	97.0%
σ		4.8%	0.152	0.094	0.049	0.411	0.004	0.001	0.004	0.017	3.6%
%RSD		4.4	5.879	3.743	1.849	7.431	7.434	4.248	17.700	256.400	3.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	6.128	7.209	0.447	0.420	19.860	19.970	94.5%	0.049	0.051	8.122
2	19:44:14	6.171	7.206	0.414	0.405	19.610	19.350	97.5%	0.049	0.049	8.147
3	19:44:41	6.284	7.354	0.429	0.372	19.650	19.340	102.1%	0.049	0.051	8.328
x		6.194	7.256	0.430	0.399	19.710	19.550	98.0%	0.049	0.050	8.199
σ		0.080	0.085	0.017	0.025	0.137	0.360	3.8%	0.000	0.001	0.113
%RSD		1.296	1.168	3.870	6.163	0.694	1.842	3.9	0.420	1.911	1.372

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:43:47	7.579	7.935	93.6%
2	19:44:14	7.651	8.018	98.4%
3	19:44:41	7.474	7.954	102.4%
x		7.568	7.969	98.1%
σ		0.089	0.043	4.4%
%RSD		1.173	0.544	4.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	110.2%	0.173	0.479	0.293	78.330	20.590	207.600	201.700	206.900	TM 21270.000
2	19:50:20	107.8%	0.243	0.327	0.349	74.090	18.980	200.300	198.100	198.100	TM 20580.000
3	19:50:48	109.3%	0.226	0.445	0.280	70.430	18.410	198.200	196.300	199.800	TM 20030.000
x		109.1%	0.214	0.417	0.307	74.290	19.330	202.000	198.700	201.600	TM 20630.000
σ		1.2%	0.036	0.080	0.037	3.955	1.131	4.911	2.758	4.628	TM 621.400
%RSD		1.1	17.010	19.220	12.030	5.324	5.849	2.431	1.388	2.296	TM 3.013

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	T 1656.000	T 391800.000	484.900	590.600	435.200	104.9%	236.100	62.570	46.150	8500.000
2	19:50:20	T 1704.000	T 387700.000	469.400	493.900	421.900	106.6%	236.300	62.510	44.160	8404.000
3	19:50:48	T 1662.000	T 373200.000	450.400	486.800	413.800	108.3%	233.200	59.230	42.860	8451.000
x		T 1674.000	T 384300.000	468.200	523.800	423.600	106.6%	235.200	61.440	44.390	8452.000
σ		T 25.880	T 9755.000	17.270	57.940	10.810	1.7%	1.717	1.909	1.659	47.940
%RSD		T 1.546	T 2.539	3.687	11.060	2.551	1.6	0.730	3.107	3.738	0.567

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	T 17200.000	23.180	T 17460.000	17730.000	6.333	5.208	4.462	10.500	12.140	14.280
2	19:50:20	T 16910.000	22.750	T 16950.000	17360.000	5.937	4.937	4.130	10.180	11.280	13.770
3	19:50:48	T 16840.000	22.450	T 17020.000	17290.000	6.107	4.825	4.669	10.090	11.470	13.800
x		T 16980.000	22.790	T 17150.000	17460.000	6.126	4.990	4.421	10.260	11.630	13.950
σ		T 193.300	0.366	T 277.600	236.800	0.199	0.197	0.272	0.212	0.452	0.287
%RSD		T 1.138	1.605	T 1.619	1.356	3.244	3.947	6.153	2.065	3.888	2.054

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	14.200	13.590	8.966	0.045	23.260	22.390	3.094	0.988	1.508	9.730
2	19:50:20	15.640	13.560	10.620	0.968	22.020	21.610	5.327	1.606	0.566	9.721
3	19:50:48	14.160	13.840	9.017	1.278	22.960	23.160	3.521	1.175	-0.328	9.456
x		14.670	13.660	9.534	0.763	22.750	22.390	3.981	1.256	0.582	9.636
σ		0.842	0.155	0.940	0.641	0.645	0.776	1.185	0.317	0.918	0.155
%RSD		5.743	1.135	9.855	84.000	2.836	3.465	29.780	25.230	157.800	1.613

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	118.7%	2.570	2.526	2.653	4.756	0.073	0.025	0.038	0.000	98.8%
2	19:50:20	122.3%	2.647	2.459	2.772	6.768	0.049	0.046	0.043	-0.004	101.6%
3	19:50:48	122.3%	2.608	2.503	2.547	7.174	0.064	0.034	0.011	0.015	100.8%
x		121.1%	2.608	2.496	2.657	6.233	0.062	0.035	0.031	0.004	100.4%
σ		2.1%	0.038	0.034	0.113	1.295	0.012	0.010	0.017	0.010	1.5%
%RSD		1.7	1.462	1.378	4.247	20.780	19.480	30.260	55.480	279.300	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	7.245	6.952	0.299	0.323	29.670	29.180	100.3%	0.074	0.091	15.970
2	19:50:20	6.975	6.935	0.300	0.324	29.630	29.000	102.7%	0.099	0.089	15.910
3	19:50:48	6.689	6.757	0.264	0.293	28.520	28.570	104.0%	0.076	0.090	15.930
x		6.970	6.881	0.288	0.313	29.280	28.920	102.3%	0.083	0.090	15.940
σ		0.278	0.108	0.021	0.017	0.651	0.311	1.9%	0.014	0.001	0.028
%RSD		3.995	1.564	7.262	5.579	2.225	1.074	1.8	16.520	1.038	0.175

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:49:53	14.530	15.500	99.9%
2	19:50:20	14.450	15.470	104.0%
3	19:50:48	14.110	15.160	105.0%
x		14.360	15.380	103.0%
σ		0.224	0.185	2.7%
%RSD		1.560	1.203	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	109.0%	0.176	1.597	1.207	313.400	18.930	506.200	491.800	491.800	™20140.000
2	19:56:27	108.8%	0.185	1.497	1.150	325.900	18.380	485.800	483.100	490.800	™19740.000
3	19:56:54	111.3%	0.203	1.295	1.176	314.900	18.590	┬490.500	495.500	497.500	™20110.000
x		109.7%	0.188	1.463	1.178	318.100	18.630	┬494.200	490.100	493.400	™20000.000
σ		1.4%	0.014	0.154	0.029	6.805	0.277	┬10.670	6.337	3.616	™225.000
%RSD		1.3	7.202	10.530	2.445	2.139	1.486	┬2.159	1.293	0.733	™1.125

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	┬1479.000	┬351600.000	381.600	487.100	396.300	105.6%	339.000	27.780	20.020	8220.000
2	19:56:27	┬1460.000	┬348400.000	377.400	493.400	382.300	105.2%	325.200	28.610	19.860	7813.000
3	19:56:54	┬1454.000	┬356300.000	383.100	505.400	373.800	104.4%	331.100	29.650	19.930	7718.000
x		┬1464.000	┬352100.000	380.700	495.300	384.200	105.1%	331.800	28.680	19.940	7917.000
σ		┬12.830	┬4005.000	2.942	9.259	11.360	0.6%	6.933	0.937	0.081	267.100
%RSD		┬0.876	┬1.137	0.773	1.869	2.957	0.6	2.089	3.266	0.404	3.373

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	┬11710.000	35.510	┬11780.000	11680.000	14.810	8.258	9.083	10.090	11.520	33.750
2	19:56:27	┬11800.000	35.530	┬11740.000	11480.000	14.610	8.103	8.391	10.110	11.360	33.540
3	19:56:54	┬11690.000	35.280	┬11910.000	11700.000	14.940	8.277	8.509	9.831	11.180	34.160
x		┬11730.000	35.440	┬11810.000	11620.000	14.790	8.213	8.661	10.010	11.350	33.810
σ		┬55.580	0.140	┬89.320	120.900	0.168	0.095	0.370	0.157	0.171	0.317
%RSD		┬0.474	0.396	┬0.756	1.041	1.135	1.163	4.272	1.566	1.509	0.938

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	31.680	32.610	2.390	0.273	25.580	27.260	0.853	0.388	-0.930	7.047
2	19:56:27	33.130	32.960	2.850	0.461	26.050	27.200	0.996	0.454	-1.913	6.990
3	19:56:54	33.580	32.970	2.407	0.024	28.500	27.860	2.107	0.728	-1.621	7.093
x		32.790	32.850	2.549	0.253	26.710	27.440	1.319	0.523	-1.488	7.044
σ		0.992	0.210	0.261	0.220	1.571	0.362	0.686	0.180	0.505	0.052
%RSD		3.025	0.638	10.240	86.910	5.882	1.321	52.030	34.480	33.920	0.733

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	112.4%	1.736	1.548	1.758	1.438	0.074	0.072	0.032	0.036	98.0%
2	19:56:27	113.4%	1.778	1.810	1.646	1.750	0.065	0.064	0.013	0.039	98.5%
3	19:56:54	111.1%	1.873	1.676	1.702	2.080	0.076	0.060	0.033	0.042	96.8%
x		112.3%	1.796	1.678	1.702	1.756	0.072	0.065	0.026	0.039	97.8%
σ		1.2%	0.070	0.131	0.056	0.321	0.006	0.006	0.011	0.003	0.9%
%RSD		1.0	3.919	7.807	3.285	18.300	8.063	9.866	43.450	7.264	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	5.521	6.899	4.112	4.138	64.310	64.150	99.3%	0.167	0.170	16.300
2	19:56:27	5.305	7.048	4.218	4.180	63.950	63.920	100.0%	0.167	0.166	15.840
3	19:56:54	5.504	6.610	4.227	4.049	63.550	63.810	97.9%	0.188	0.163	15.950
x		5.443	6.852	4.185	4.122	63.940	63.960	99.0%	0.174	0.166	16.030
σ		0.120	0.223	0.064	0.067	0.379	0.174	1.0%	0.012	0.004	0.239
%RSD		2.206	3.252	1.531	1.628	0.592	0.271	1.1	6.983	2.233	1.492

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:55:59	14.920	15.650	98.5%
2	19:56:27	15.090	15.570	99.0%
3	19:56:54	15.230	15.620	98.0%
x		15.080	15.610	98.5%
σ		0.152	0.044	0.5%
%RSD		1.009	0.284	0.5

CCV MW10994 04/30/2019 20:01:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	95.1%	306.500	305.900	302.900	62.230	T64640.000	T62470.000	T62010.000	T60840.000	296.900
2	20:02:34	96.9%	295.600	302.800	295.200	63.600	T64780.000	T61190.000	T60230.000	T61500.000	304.100
3	20:03:01	94.2%	309.400	309.800	301.300	70.740	T66280.000	T63260.000	T61900.000	T61790.000	293.600
x		95.4%	101.276%	102.050%	99.941%	65.520	T108.718%	T62310.000	T61380.000	T102.290%	99.403%
σ		1.4%	n/a	n/a	n/a	4.570	Tn/a	T1046.000	T997.500	Tn/a	n/a
%RSD		1.4	2.389	1.135	1.349	6.974	T1.392	T1.678	T1.625	T0.794	1.794

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	T3211.000	3610.000	T64100.000	63040.000	T64110.000	95.6%	310.600	318.900	299.000	880.700
2	20:02:34	T3224.000	3710.000	T67120.000	64630.000	T65340.000	95.0%	312.100	320.200	305.100	2730.000
3	20:03:01	T3224.000	3435.000	T65730.000	63610.000	T64570.000	97.0%	309.500	314.000	301.300	1542.000
x		T107.326%	3585.000	T109.414%	63760.000	T107.789%	95.9%	103.576%	105.888%	100.595%	1718.000
σ		Tn/a	139.300	Tn/a	804.500	Tn/a	1.0%	n/a	n/a	n/a	937.200
%RSD		T0.244	3.886	T2.304	1.262	T0.963	1.0	0.425	1.028	1.023	54.560

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	T65060.000	299.000	T64250.000	T62510.000	295.600	290.600	295.000	296.700	313.300	314.200
2	20:02:34	T64970.000	299.000	T65200.000	T63080.000	302.800	296.600	294.900	299.000	322.200	317.900
3	20:03:01	T63450.000	295.000	T64410.000	T62850.000	295.900	288.700	290.600	296.000	306.500	313.600
x		T64490.000	99.225%	T64620.000	T104.693%	99.357%	97.330%	293.500	297.200	104.658%	105.072%
σ		T903.400	n/a	T505.200	Tn/a	n/a	n/a	2.500	1.568	n/a	n/a
%RSD		T1.401	0.779	T0.782	T0.455	1.362	1.420	0.852	0.528	2.518	0.736

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	298.700	301.100	295.400	309.900	2.063	1.641	1342.000	314.900	-0.347	305.300
2	20:02:34	296.600	297.800	290.500	321.500	2.365	1.368	1301.000	312.100	0.390	304.700
3	20:03:01	295.600	302.500	297.300	316.500	1.752	1.590	1308.000	306.400	2.051	T318.800
x		296.900	300.500	98.122%	315.900	2.060	1.533	1317.000	103.714%	0.698	T103.198%
σ		1.573	2.418	n/a	5.803	0.306	0.145	22.080	n/a	1.228	Tn/a
%RSD		0.530	0.805	1.191	1.837	14.880	9.468	1.676	1.395	176.000	T2.573

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	88.7%	320.800	317.900	318.800	312.100	296.400	297.100	303.600	302.000	86.5%
2	20:02:34	88.4%	321.900	322.700	324.700	309.200	297.600	298.500	303.300	300.700	84.3%
3	20:03:01	90.7%	320.300	319.900	321.700	305.500	296.400	298.100	303.300	302.500	88.5%
x		89.3%	106.999%	106.715%	321.700	308.900	98.930%	297.900	303.400	100.571%	86.4%
σ		1.2%	n/a	n/a	2.993	3.287	n/a	0.727	0.204	n/a	2.1%
%RSD		1.4	0.251	0.754	0.930	1.064	0.245	0.244	0.067	0.319	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	312.500	310.400	310.800	309.100	312.000	312.300	87.4%	308.000	313.100	304.400
2	20:02:34	312.800	309.700	309.000	303.000	309.900	308.800	86.1%	305.000	309.200	301.000
3	20:03:01	312.000	309.600	312.400	313.600	308.900	311.700	89.0%	307.800	313.300	305.800
x		104.135%	103.297%	310.700	102.866%	103.430%	103.655%	87.5%	307.000	103.962%	101.234%
σ		n/a	n/a	1.692	n/a	n/a	n/a	1.4%	1.679	n/a	n/a
%RSD		0.125	0.151	0.544	1.721	0.506	0.600	1.6	0.547	0.748	0.819

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:02:07	304.900	306.400	84.6%
2	20:02:34	300.700	303.500	82.1%
3	20:03:01	306.100	307.700	86.4%
x		101.300%	101.955%	84.4%
σ		n/a	n/a	2.2%
%RSD		0.940	0.695	2.6

CCB IM9390-01 04/30/2019 20:07:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	102.6%	0.035	1.182	0.439	23.200	8.914	8.575	8.439	8.303	0.924
2	20:08:40	101.9%	0.019	1.027	0.588	19.550	9.071	6.614	6.261	6.712	0.703
3	20:09:07	106.8%	0.047	0.900	0.434	17.940	8.865	5.455	5.241	5.726	0.660
x		103.7%	0.033	1.036	0.487	20.230	8.950	6.881	6.647	6.914	0.762
σ		2.7%	0.014	0.142	0.088	2.697	0.107	1.577	1.634	1.300	0.141
%RSD		2.6	41.630	13.660	18.000	13.330	1.199	22.920	24.580	18.800	18.540

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	14.640	2181.000	10.120	7.098	7.091	102.3%	-0.045	0.072	0.086	61.150
2	20:08:40	15.000	2306.000	11.480	6.143	8.597	99.2%	-0.067	0.066	0.088	69.610
3	20:09:07	14.240	2239.000	10.930	7.395	7.545	99.1%	-0.091	0.055	0.074	49.740
x		14.630	2242.000	10.840	6.879	7.744	100.2%	-0.068	0.064	0.083	60.170
σ		0.382	62.590	0.687	0.654	0.773	1.8%	0.023	0.009	0.007	9.972
%RSD		2.610	2.792	6.333	9.512	9.978	1.8	33.780	13.350	8.712	16.570

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	10.490	0.171	13.610	-10.770	0.052	0.045	-0.413	0.019	0.030	0.093
2	20:08:40	8.010	0.153	12.850	-3.736	0.043	0.021	0.097	0.016	0.017	0.024
3	20:09:07	6.788	0.171	12.000	-4.425	0.048	0.042	0.174	0.012	0.066	0.040
x		8.429	0.165	12.820	-6.309	0.048	0.036	-0.047	0.016	0.038	0.052
σ		1.886	0.010	0.807	3.876	0.005	0.013	0.319	0.004	0.025	0.036
%RSD		22.370	6.134	6.292	61.430	9.797	36.140	673.200	23.900	67.240	69.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	-0.014	0.046	0.056	0.283	0.445	1.247	1.128	0.311	-1.255	0.038
2	20:08:40	0.110	0.065	-0.033	-0.107	0.603	1.061	-0.765	-0.103	-1.604	0.033
3	20:09:07	0.039	0.044	0.039	0.363	0.340	0.855	0.221	0.131	-1.078	0.042
x		0.045	0.052	0.021	0.180	0.463	1.054	0.195	0.113	-1.312	0.037
σ		0.062	0.012	0.047	0.252	0.132	0.196	0.947	0.208	0.268	0.005
%RSD		137.400	22.380	229.600	140.000	28.630	18.620	486.800	183.900	20.410	12.130

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	95.3%	0.108	0.120	0.090	0.206	0.039	0.039	0.017	0.054	94.6%
2	20:08:40	93.9%	0.069	0.089	0.102	0.503	0.038	0.037	0.039	0.044	92.0%
3	20:09:07	92.5%	0.082	0.076	0.061	-0.583	0.024	0.030	0.044	0.047	89.8%
x		93.9%	0.086	0.095	0.084	0.042	0.034	0.035	0.033	0.048	92.1%
σ		1.4%	0.020	0.023	0.021	0.561	0.008	0.005	0.014	0.005	2.4%
%RSD		1.5	23.030	23.670	24.810	1342.000	24.470	12.830	42.370	10.570	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	0.084	0.123	0.147	0.136	0.059	0.095	92.1%	0.030	0.028	0.037
2	20:08:40	0.070	0.093	0.129	0.172	0.049	0.041	89.5%	0.017	0.023	0.027
3	20:09:07	0.044	0.050	0.126	0.136	0.051	0.025	87.4%	0.019	0.018	0.029
x		0.066	0.088	0.134	0.148	0.053	0.054	89.7%	0.022	0.023	0.031
σ		0.021	0.036	0.011	0.021	0.005	0.036	2.3%	0.007	0.005	0.005
%RSD		31.320	41.210	8.289	14.040	9.688	67.980	2.6	32.250	20.930	17.590

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:08:13	0.043	0.041	93.7%
2	20:08:40	0.024	0.037	90.7%
3	20:09:07	0.028	0.028	89.1%
x		0.032	0.035	91.1%
σ		0.010	0.007	2.3%
%RSD		32.950	19.510	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	108.2%	0.214	0.654	0.596	56.630	17.480	T 514.800	517.600	514.500	TM 16740.000
2	20:14:44	107.2%	0.215	0.952	0.681	49.200	16.430	T 498.800	505.600	504.500	TM 16810.000
3	20:15:11	106.7%	0.283	0.513	0.509	56.180	16.370	T 494.900	506.700	500.700	TM 16600.000
x		107.3%	0.237	0.706	0.596	54.000	16.760	T 502.900	510.000	506.500	TM 16720.000
σ		0.8%	0.040	0.224	0.086	4.166	0.621	T 10.530	6.668	7.158	TM 103.900
%RSD		0.7	16.710	31.690	14.490	7.715	3.704	T 2.094	1.307	1.413	TM 0.621

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	T 1543.000	T 371400.000	479.100	303.500	226.800	101.8%	339.000	27.500	21.700	8275.000
2	20:14:44	T 1527.000	T 369800.000	463.500	285.700	218.700	102.8%	335.300	27.080	21.360	8321.000
3	20:15:11	T 1532.000	T 363700.000	461.600	296.900	219.200	104.2%	329.600	26.930	20.680	7672.000
x		T 1534.000	T 368300.000	468.100	295.400	221.600	103.0%	334.600	27.170	21.250	8089.000
σ		T 8.311	T 4043.000	9.586	8.964	4.574	1.2%	4.725	0.296	0.517	362.100
%RSD		T 0.542	T 1.098	2.048	3.035	2.064	1.2	1.412	1.091	2.434	4.477

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	T 12260.000	48.560	T 12320.000	12360.000	5.578	8.028	8.045	5.814	6.698	25.690
2	20:14:44	T 12070.000	47.840	T 12110.000	12330.000	5.518	7.720	9.150	5.888	6.539	24.800
3	20:15:11	T 11780.000	47.550	T 12210.000	12330.000	5.530	7.676	7.956	5.660	6.094	24.320
x		T 12040.000	47.990	T 12210.000	12340.000	5.542	7.808	8.384	5.787	6.444	24.940
σ		T 240.000	0.520	T 107.300	16.650	0.032	0.192	0.665	0.117	0.313	0.695
%RSD		T 1.994	1.083	T 0.879	0.135	0.575	2.457	7.936	2.014	4.860	2.786

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	23.020	24.050	2.249	0.469	20.680	22.810	2.837	0.959	0.478	4.462
2	20:14:44	25.180	23.690	3.141	0.641	21.970	21.160	1.389	0.616	-2.035	4.404
3	20:15:11	23.270	23.610	2.116	0.611	22.770	23.270	1.062	0.479	0.040	4.346
x		23.820	23.780	2.502	0.574	21.810	22.410	1.763	0.685	-0.506	4.404
σ		1.183	0.231	0.557	0.092	1.058	1.109	0.945	0.247	1.342	0.058
%RSD		4.967	0.971	22.270	15.950	4.850	4.949	53.600	36.100	265.500	1.319

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	115.0%	0.653	0.691	0.717	4.383	0.044	0.039	0.014	0.062	95.3%
2	20:14:44	117.0%	0.771	0.724	0.674	3.132	0.041	0.034	0.025	0.026	98.0%
3	20:15:11	119.3%	0.766	0.733	0.735	4.024	0.027	0.042	0.013	-0.023	99.4%
x		117.1%	0.730	0.716	0.709	3.846	0.037	0.038	0.017	0.021	97.6%
σ		2.1%	0.066	0.022	0.031	0.644	0.009	0.004	0.007	0.043	2.1%
%RSD		1.8	9.103	3.088	4.404	16.750	23.620	10.950	39.320	200.600	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	6.034	6.604	0.516	0.480	47.370	46.440	97.3%	0.140	0.144	9.705
2	20:14:44	6.141	6.721	0.479	0.509	45.970	46.210	100.6%	0.144	0.148	10.300
3	20:15:11	5.873	6.622	0.446	0.454	46.260	46.490	100.6%	0.158	0.145	9.704
x		6.016	6.649	0.480	0.481	46.530	46.380	99.5%	0.147	0.146	9.904
σ		0.135	0.063	0.035	0.028	0.740	0.151	1.9%	0.009	0.002	0.346
%RSD		2.246	0.947	7.287	5.735	1.590	0.327	1.9	6.299	1.583	3.495

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:14:17	8.594	9.209	98.1%
2	20:14:44	8.654	9.345	100.3%
3	20:15:11	8.540	9.230	101.3%
x		8.596	9.261	99.9%
σ		0.057	0.073	1.7%
%RSD		0.660	0.789	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	111.5%	0.126	1.278	1.047	203.400	18.070	T 443.000	444.200	458.100	TM 18900.000
2	20:20:49	108.4%	0.138	1.307	0.977	209.300	16.730	T 443.700	439.200	444.900	TM 18140.000
3	20:21:16	110.5%	0.129	1.465	1.075	211.700	14.780	448.900	435.800	436.000	TM 17690.000
x		110.1%	0.131	1.350	1.033	208.100	16.530	T 445.200	439.800	446.300	TM 18240.000
σ		1.6%	0.006	0.101	0.051	4.271	1.651	T 3.226	4.225	11.090	TM 611.100
%RSD		1.5	4.373	7.462	4.928	2.052	9.991	T 0.725	0.961	2.485	TM 3.350

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	T 1598.000	T 391500.000	399.500	261.800	126.400	98.8%	315.100	27.990	21.580	10210.000
2	20:20:49	T 1586.000	T 382800.000	383.000	226.800	126.600	101.1%	293.300	28.120	21.130	9243.000
3	20:21:16	T 1493.000	T 373400.000	T 372.200	202.600	119.500	101.4%	298.600	27.400	20.870	8783.000
x		T 1559.000	T 382600.000	T 384.900	230.400	124.200	100.4%	302.300	27.840	21.190	9412.000
σ		T 57.380	T 9064.000	T 13.740	29.780	4.064	1.4%	11.370	0.386	0.357	727.600
%RSD		T 3.681	T 2.369	T 3.571	12.920	3.272	1.4	3.762	1.385	1.686	7.731

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	T 11400.000	35.540	T 11630.000	11460.000	9.164	7.027	7.734	16.010	17.360	26.730
2	20:20:49	T 11340.000	35.340	T 11600.000	11310.000	8.896	6.641	8.450	15.570	16.830	26.290
3	20:21:16	T 11190.000	34.880	T 11520.000	11530.000	8.982	7.088	7.596	15.810	16.810	26.110
x		T 11310.000	35.260	T 11580.000	11430.000	9.014	6.919	7.927	15.800	17.000	26.370
σ		T 105.800	0.339	T 54.910	111.400	0.137	0.242	0.459	0.219	0.311	0.316
%RSD		T 0.936	0.962	T 0.474	0.974	1.518	3.502	5.789	1.388	1.831	1.198

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	24.990	24.560	3.137	0.785	28.500	28.740	0.549	0.271	0.311	3.923
2	20:20:49	25.250	25.030	2.207	0.456	29.500	29.610	0.938	0.361	-0.513	3.828
3	20:21:16	25.030	24.910	2.911	-0.018	27.710	27.850	1.908	0.649	-1.692	3.831
x		25.090	24.830	2.751	0.408	28.570	28.730	1.132	0.427	-0.631	3.861
σ		0.142	0.245	0.485	0.403	0.896	0.881	0.700	0.197	1.007	0.054
%RSD		0.565	0.987	17.630	98.990	3.135	3.065	61.840	46.170	159.500	1.399

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	105.2%	4.526	4.165	4.526	1.469	0.184	0.200	0.046	0.047	92.0%
2	20:20:49	105.0%	4.287	4.366	4.479	2.911	0.179	0.178	0.025	0.076	93.9%
3	20:21:16	108.7%	4.330	4.590	4.443	1.824	0.182	0.208	0.028	0.061	96.1%
x		106.3%	4.381	4.373	4.482	2.068	0.182	0.195	0.033	0.062	94.0%
σ		2.1%	0.128	0.213	0.041	0.751	0.002	0.016	0.011	0.014	2.1%
%RSD		2.0	2.917	4.860	0.922	36.320	1.290	8.065	34.100	23.490	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	11.230	14.930	5.350	5.480	39.040	39.550	93.5%	0.149	0.154	22.190
2	20:20:49	11.160	14.990	5.306	5.368	38.410	38.190	95.7%	0.169	0.144	21.830
3	20:21:16	10.980	14.640	5.503	5.383	38.220	38.090	97.6%	0.162	0.138	21.950
x		11.130	14.860	5.386	5.410	38.560	38.610	95.6%	0.160	0.145	21.990
σ		0.130	0.188	0.103	0.061	0.430	0.812	2.1%	0.010	0.008	0.184
%RSD		1.169	1.268	1.920	1.122	1.115	2.102	2.2	6.352	5.682	0.837

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:20:22	21.260	21.620	93.9%
2	20:20:49	20.930	21.290	95.2%
3	20:21:16	20.840	21.350	98.0%
x		21.010	21.420	95.7%
σ		0.217	0.177	2.1%
%RSD		1.032	0.827	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	T 121.7%	0.166	0.128	0.203	56.700	13.220	T 438.700	428.800	427.400	TM 13610.000
2	20:26:52	110.4%	0.200	0.439	0.197	61.850	12.300	441.900	435.500	440.800	TM 13170.000
3	20:27:19	109.6%	0.171	0.835	0.305	64.870	11.970	424.100	412.300	418.900	TM 13130.000
x		T 113.9%	0.179	0.467	0.235	61.140	12.490	T 434.900	425.500	429.000	TM 13300.000
σ		T 6.8%	0.019	0.354	0.061	4.132	0.647	T 9.494	11.950	11.020	TM 264.800
%RSD		T 5.9	10.370	75.780	25.860	6.759	5.181	T 2.183	2.808	2.568	TM 1.990

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	T 1312.000	T 388700.000	402.200	157.800	96.210	99.5%	279.100	20.710	17.950	10300.000
2	20:26:52	T 1407.000	T 379900.000	389.200	152.400	97.230	100.0%	270.800	22.670	17.470	8367.000
3	20:27:19	T 1457.000	T 374600.000	381.000	141.000	90.110	103.8%	T 273.400	21.240	16.870	8920.000
x		T 1392.000	T 381100.000	390.800	150.400	94.520	101.1%	T 274.400	21.540	17.430	9197.000
σ		T 74.040	T 7128.000	10.710	8.572	3.851	2.3%	T 4.267	1.014	0.542	997.400
%RSD		T 5.319	T 1.870	2.741	5.700	4.074	2.3	T 1.555	4.706	3.107	10.850

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	T 10120.000	56.750	T 9975.000	9767.000	5.532	6.823	7.617	4.911	5.555	19.320
2	20:26:52	T 10010.000	57.010	T 10000.000	10010.000	5.571	6.280	6.355	4.851	5.532	19.320
3	20:27:19	T 9806.000	54.910	T 9776.000	9595.000	5.392	6.561	6.960	4.771	5.527	20.240
x		T 9979.000	56.220	T 9917.000	9792.000	5.498	6.555	6.977	4.845	5.538	19.620
σ		T 158.800	1.144	T 122.800	210.200	0.094	0.272	0.631	0.070	0.015	0.530
%RSD		T 1.592	2.034	T 1.239	2.147	1.710	4.144	9.043	1.447	0.274	2.702

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	19.980	18.330	2.207	0.190	29.320	28.750	1.095	0.397	0.452	3.386
2	20:26:52	18.200	19.030	1.918	0.484	28.440	27.960	-0.169	0.140	-1.803	3.248
3	20:27:19	17.740	17.970	2.387	-0.025	29.020	30.160	0.864	0.323	0.627	3.242
x		18.640	18.450	2.171	0.217	28.920	28.960	0.597	0.287	-0.242	3.292
σ		1.185	0.539	0.237	0.256	0.447	1.116	0.673	0.132	1.355	0.081
%RSD		6.358	2.923	10.900	118.000	1.547	3.852	112.800	46.080	561.400	2.474

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	102.8%	0.898	0.885	0.855	3.300	0.033	0.019	0.010	-0.002	90.9%
2	20:26:52	107.0%	0.928	0.916	0.928	2.016	0.035	0.016	0.017	0.013	93.7%
3	20:27:19	105.7%	0.887	0.931	0.908	3.675	0.035	0.030	0.009	0.022	94.2%
x		105.2%	0.904	0.911	0.897	2.997	0.034	0.022	0.012	0.011	92.9%
σ		2.1%	0.021	0.024	0.038	0.870	0.001	0.007	0.004	0.013	1.8%
%RSD		2.0	2.375	2.587	4.240	29.030	3.308	33.570	35.920	114.800	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	5.343	6.577	0.297	0.292	27.980	27.860	92.3%	0.100	0.106	6.953
2	20:26:52	5.583	6.653	0.308	0.316	28.340	28.090	94.1%	0.110	0.109	7.204
3	20:27:19	5.153	6.508	0.294	0.285	27.360	26.910	94.6%	0.103	0.106	6.971
x		5.360	6.579	0.299	0.298	27.890	27.620	93.7%	0.104	0.107	7.043
σ		0.216	0.073	0.007	0.016	0.495	0.625	1.2%	0.005	0.002	0.140
%RSD		4.026	1.103	2.446	5.464	1.774	2.264	1.3	5.043	1.967	1.990

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:26:25	6.527	6.836	89.0%
2	20:26:52	6.559	6.869	92.2%
3	20:27:19	6.332	6.794	92.2%
x		6.472	6.833	91.1%
σ		0.123	0.037	1.9%
%RSD		1.899	0.545	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	109.8%	0.120	0.323	-0.018	115.200	18.130	350.200	346.400	359.300	™14130.000
2	20:32:57	106.7%	0.129	0.256	0.052	113.300	16.450	348.200	341.400	347.000	™13360.000
3	20:33:24	106.9%	0.161	0.131	-0.061	113.300	15.920	342.000	333.900	347.900	™13350.000
x		107.8%	0.137	0.237	-0.009	113.900	16.840	346.800	340.600	351.400	™13610.000
σ		1.7%	0.022	0.097	0.057	1.084	1.151	4.236	6.303	6.861	™447.200
%RSD		1.6	15.870	41.120	649.100	0.952	6.837	1.221	1.851	1.953	™3.285

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	₸1647.000	₸354900.000	333.000	192.400	117.100	99.9%	220.000	16.110	13.470	8772.000
2	20:32:57	₸1635.000	₸338900.000	317.600	148.600	107.200	102.5%	213.400	16.490	13.260	7491.000
3	20:33:24	₸1593.000	₸335500.000	314.400	148.800	110.300	103.7%	₸237.200	16.260	12.620	8002.000
x		₸1625.000	₸343100.000	321.700	163.300	111.500	102.0%	₸223.500	16.290	13.120	8088.000
σ		₸28.000	₸10370.000	9.976	25.230	5.098	2.0%	₸12.260	0.192	0.445	644.700
%RSD		₸1.723	₸3.022	3.101	15.450	4.570	1.9	₸5.486	1.177	3.389	7.971

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	2203.000	16.320	₸2215.000	2127.000	0.853	4.512	5.152	5.539	6.298	24.290
2	20:32:57	2169.000	16.140	₸2194.000	2078.000	0.766	4.578	4.392	5.090	6.086	24.770
3	20:33:24	2154.000	16.000	₸2162.000	2067.000	0.776	4.217	4.652	5.245	6.181	23.690
x		2175.000	16.150	₸2190.000	2091.000	0.798	4.436	4.732	5.291	6.189	24.250
σ		25.210	0.158	₸26.590	31.700	0.048	0.192	0.386	0.228	0.106	0.538
%RSD		1.159	0.980	₸1.214	1.516	5.985	4.335	8.158	4.311	1.718	2.220

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	21.910	22.160	1.156	0.943	17.120	17.470	1.168	0.592	-1.854	3.651
2	20:32:57	23.060	22.170	1.042	0.235	17.750	17.420	1.910	0.708	-0.092	3.507
3	20:33:24	21.300	21.800	0.644	0.059	16.880	18.550	0.069	0.240	-0.952	3.455
x		22.090	22.040	0.947	0.412	17.250	17.810	1.049	0.514	-0.966	3.538
σ		0.895	0.210	0.269	0.468	0.452	0.636	0.926	0.244	0.881	0.102
%RSD		4.052	0.952	28.370	113.500	2.621	3.572	88.290	47.440	91.210	2.868

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	108.2%	0.437	0.489	0.476	1.555	0.023	0.029	0.091	0.106	89.8%
2	20:32:57	111.5%	0.421	0.426	0.481	2.606	0.023	0.029	0.119	0.083	94.1%
3	20:33:24	113.2%	0.478	0.470	0.476	2.044	0.010	0.019	0.078	0.132	95.6%
x		111.0%	0.445	0.462	0.478	2.068	0.019	0.026	0.096	0.107	93.2%
σ		2.6%	0.029	0.033	0.003	0.526	0.008	0.006	0.021	0.024	3.0%
%RSD		2.3	6.575	7.041	0.583	25.430	40.430	22.360	21.930	22.800	3.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	6.043	6.931	0.180	0.140	33.810	33.260	91.6%	0.137	0.107	31.990
2	20:32:57	5.842	6.947	0.163	0.160	33.510	32.470	95.7%	0.120	0.111	32.020
3	20:33:24	5.989	7.045	0.160	0.158	32.880	32.860	96.2%	0.106	0.110	31.330
x		5.958	6.975	0.168	0.153	33.400	32.860	94.5%	0.121	0.109	31.780
σ		0.104	0.062	0.011	0.011	0.478	0.397	2.5%	0.016	0.002	0.392
%RSD		1.751	0.888	6.557	7.419	1.431	1.209	2.6	12.930	1.472	1.232

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:32:30	29.950	30.770	88.7%
2	20:32:57	30.040	30.770	93.4%
3	20:33:24	29.350	30.310	93.4%
x		29.780	30.620	91.8%
σ		0.375	0.267	2.7%
%RSD		1.258	0.872	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	109.3%	0.168	0.292	-0.037	123.600	17.410	363.000	354.200	357.100	™14220.000
2	20:39:00	106.1%	0.157	0.120	-0.213	120.300	15.110	351.500	352.100	357.000	™13830.000
3	20:39:27	107.1%	0.167	0.128	-0.122	121.500	15.760	354.400	347.500	353.600	™13690.000
x		107.5%	0.164	0.180	-0.124	121.800	16.090	356.300	351.300	355.900	™13910.000
σ		1.7%	0.006	0.097	0.088	1.702	1.185	5.997	3.429	2.011	™274.600
%RSD		1.5	3.820	53.960	70.900	1.397	7.362	1.683	0.976	0.565	™1.974

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	₸1751.000	₸351000.000	₸359.400	205.000	114.000	98.5%	₸233.200	16.760	13.730	9134.000
2	20:39:00	₸1752.000	₸333300.000	318.000	159.000	110.000	101.2%	230.500	17.470	13.250	7661.000
3	20:39:27	₸1747.000	₸340300.000	₸341.200	168.200	109.500	100.8%	231.600	16.480	13.240	8201.000
x		₸1750.000	₸341500.000	₸339.500	177.400	111.200	100.2%	₸231.800	16.900	13.410	8332.000
σ		₸2.738	₸8924.000	₸20.740	24.370	2.481	1.5%	₸1.367	0.510	0.279	744.900
%RSD		₸0.156	₸2.613	₸6.107	13.740	2.232	1.5	₸0.590	3.018	2.078	8.940

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	2393.000	16.870	₸2378.000	2263.000	0.801	4.641	5.300	5.393	6.187	29.830
2	20:39:00	2386.000	16.970	₸2355.000	2278.000	0.793	4.859	4.291	5.305	5.717	30.100
3	20:39:27	2373.000	16.580	₸2308.000	2250.000	0.859	4.475	4.519	5.153	5.639	29.610
x		2384.000	16.810	₸2347.000	2264.000	0.818	4.658	4.703	5.284	5.848	29.840
σ		10.110	0.203	₸35.670	14.360	0.036	0.192	0.529	0.121	0.296	0.243
%RSD		0.424	1.210	₸1.520	0.634	4.373	4.130	11.250	2.296	5.064	0.816

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	27.000	26.350	1.241	0.190	13.210	13.090	1.085	0.505	-0.168	3.652
2	20:39:00	28.610	27.310	0.232	0.256	13.100	12.760	0.246	0.187	2.512	3.567
3	20:39:27	28.460	26.740	0.498	-0.266	12.220	11.930	0.910	0.419	-0.508	3.418
x		28.020	26.800	0.657	0.060	12.840	12.590	0.747	0.370	0.612	3.546
σ		0.887	0.482	0.523	0.284	0.544	0.599	0.442	0.165	1.654	0.118
%RSD		3.164	1.800	79.660	475.800	4.235	4.758	59.220	44.440	270.300	3.339

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	106.5%	0.437	0.384	0.517	1.414	0.022	0.019	0.125	0.130	89.6%
2	20:39:00	110.3%	0.406	0.492	0.467	4.067	0.020	0.018	0.095	0.148	94.1%
3	20:39:27	112.5%	0.481	0.497	0.502	1.912	0.032	0.022	0.108	0.124	96.8%
x		109.8%	0.441	0.458	0.495	2.464	0.025	0.020	0.110	0.134	93.5%
σ		3.0%	0.038	0.064	0.026	1.410	0.006	0.002	0.015	0.013	3.6%
%RSD		2.7	8.504	13.890	5.241	57.210	24.690	8.971	13.630	9.537	3.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	6.050	6.931	0.119	0.154	34.220	32.760	90.0%	0.103	0.108	27.890
2	20:39:00	5.915	7.086	0.120	0.167	32.540	32.790	96.0%	0.109	0.110	27.980
3	20:39:27	5.767	6.969	0.123	0.129	31.830	32.340	97.3%	0.099	0.106	27.410
x		5.911	6.995	0.121	0.150	32.860	32.630	94.4%	0.104	0.108	27.760
σ		0.141	0.081	0.002	0.019	1.226	0.248	3.9%	0.005	0.002	0.310
%RSD		2.393	1.159	1.843	12.980	3.732	0.759	4.1	4.879	1.804	1.116

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:38:33	26.440	26.930	87.7%
2	20:39:00	26.000	26.970	94.4%
3	20:39:27	25.690	26.530	95.0%
x		26.050	26.810	92.4%
σ		0.379	0.247	4.0%
%RSD		1.455	0.922	4.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	T 116.8%	0.469	0.938	0.733	704.500	28.120	T 496.900	497.500	501.800	TM 7454.000
2	20:45:05	104.4%	0.469	1.053	0.683	743.400	27.430	508.500	494.400	496.200	TM 7128.000
3	20:45:32	109.0%	0.428	0.820	0.580	695.900	25.460	493.100	487.600	499.000	TM 7375.000
x		T 110.1%	0.455	0.937	0.666	714.600	27.010	T 499.500	493.200	499.000	TM 7319.000
σ		T 6.3%	0.024	0.116	0.078	25.280	1.381	T 8.004	5.024	2.816	TM 169.700
%RSD		T 5.7	5.206	12.430	11.690	3.538	5.114	T 1.602	1.019	0.565	TM 2.318

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	T 1156.000	T 394000.000	249.200	1659.000	1554.000	100.0%	84.440	9.772	10.890	8950.000
2	20:45:05	T 1266.000	T 388800.000	247.600	1604.000	1559.000	99.9%	86.440	9.772	10.400	8148.000
3	20:45:32	T 1243.000	T 383200.000	239.400	1647.000	1521.000	101.6%	85.810	10.060	10.350	8455.000
x		T 1222.000	T 388700.000	245.400	1637.000	1545.000	100.5%	85.560	9.867	10.550	8517.000
σ		T 58.090	T 5377.000	5.269	28.850	20.490	0.9%	1.020	0.165	0.295	404.700
%RSD		T 4.755	T 1.383	2.147	1.762	1.326	0.9	1.193	1.673	2.801	4.751

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	2907.000	88.880	T 2956.000	2837.000	3.987	4.330	3.843	8.636	9.395	28.330
2	20:45:05	2923.000	91.320	T 2916.000	2838.000	3.917	4.265	4.023	8.858	9.015	28.310
3	20:45:32	2917.000	90.960	T 2943.000	2830.000	3.907	4.531	4.323	8.411	8.944	28.490
x		2916.000	90.380	T 2939.000	2835.000	3.937	4.375	4.063	8.635	9.118	28.380
σ		8.211	1.318	T 20.320	4.299	0.044	0.139	0.243	0.223	0.242	0.096
%RSD		0.282	1.459	T 0.691	0.152	1.107	3.167	5.977	2.588	2.659	0.337

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	33.200	33.240	1.245	2.799	31.380	31.810	4.958	1.333	-0.428	15.230
2	20:45:05	34.840	33.550	0.664	1.726	31.820	34.330	9.413	2.362	-0.354	15.200
3	20:45:32	32.260	34.050	0.592	3.100	33.590	33.830	7.117	1.899	-2.654	15.230
x		33.430	33.620	0.834	2.542	32.260	33.320	7.163	1.865	-1.145	15.220
σ		1.306	0.409	0.358	0.722	1.169	1.335	2.228	0.515	1.307	0.019
%RSD		3.907	1.218	42.940	28.420	3.624	4.005	31.100	27.630	114.100	0.126

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	103.7%	0.536	0.537	0.543	1.892	0.045	0.052	0.230	0.188	93.9%
2	20:45:05	106.0%	0.474	0.454	0.462	1.753	0.060	0.053	0.160	0.229	97.5%
3	20:45:32	108.1%	0.481	0.543	0.442	2.971	0.052	0.060	0.162	0.205	98.2%
x		106.0%	0.497	0.511	0.483	2.205	0.052	0.055	0.184	0.207	96.5%
σ		2.2%	0.034	0.050	0.054	0.667	0.007	0.004	0.040	0.021	2.3%
%RSD		2.1	6.827	9.789	11.150	30.230	13.960	7.516	21.720	10.040	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	4.643	6.344	0.362	0.384	170.600	170.400	93.1%	0.049	0.054	43.500
2	20:45:05	4.798	6.396	0.337	0.384	169.100	167.200	98.1%	0.053	0.045	42.840
3	20:45:32	4.760	6.455	0.330	0.323	166.900	166.100	97.9%	0.047	0.056	43.260
x		4.733	6.398	0.343	0.364	168.900	167.900	96.4%	0.050	0.052	43.200
σ		0.081	0.055	0.017	0.035	1.862	2.240	2.8%	0.003	0.006	0.336
%RSD		1.708	0.863	4.910	9.636	1.103	1.334	3.0	6.035	11.480	0.777

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:44:38	41.410	42.320	94.3%
2	20:45:05	41.040	41.830	99.3%
3	20:45:32	41.700	42.190	99.6%
x		41.380	42.110	97.7%
σ		0.330	0.254	3.0%
%RSD		0.796	0.604	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	106.6%	0.046	-0.050	-0.452	132.300	6.956	64.430	61.920	63.100	TM 1469.000
2	20:51:10	110.7%	0.066	-0.515	-0.440	115.300	8.384	61.210	59.830	60.750	TM 1474.000
3	20:51:37	109.5%	0.039	-0.333	-0.290	129.000	7.468	60.990	61.530	62.270	TM 1497.000
x		108.9%	0.051	-0.299	-0.394	125.500	7.603	62.210	61.090	62.040	TM 1480.000
σ		2.1%	0.014	0.234	0.090	9.041	0.723	1.925	1.112	1.194	TM 15.110
%RSD		1.9	27.450	78.240	22.860	7.203	9.515	3.095	1.821	1.924	TM 1.021
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	T 756.900	T 422900.000	96.490	64.410	55.660	102.5%	194.600	4.873	4.940	8536.000
2	20:51:10	T 715.100	T 411400.000	96.970	53.840	56.260	102.6%	190.900	4.482	4.938	9020.000
3	20:51:37	T 722.400	T 407200.000	96.070	64.050	57.920	100.0%	188.800	4.466	4.936	9831.000
x		T 731.500	T 413800.000	96.510	60.770	56.610	101.7%	191.400	4.607	4.938	9129.000
σ		T 22.360	T 8099.000	0.453	5.998	1.169	1.5%	2.929	0.231	0.002	654.400
%RSD		T 3.057	T 1.957	0.470	9.871	2.065	1.5	1.530	5.004	0.035	7.169
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	905.400	6.214	T 891.900	828.900	0.189	0.695	0.969	0.547	0.685	2.509
2	20:51:10	884.900	6.129	T 884.400	820.300	0.156	0.677	0.723	0.499	0.742	2.527
3	20:51:37	882.300	6.107	T 868.600	825.000	0.156	0.577	1.135	0.540	0.820	2.425
x		890.900	6.150	T 881.600	824.700	0.167	0.650	0.942	0.529	0.749	2.487
σ		12.640	0.057	T 11.890	4.331	0.019	0.064	0.208	0.026	0.068	0.054
%RSD		1.419	0.924	T 1.349	0.525	11.350	9.812	22.020	4.862	9.060	2.174
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	2.630	2.432	-0.255	0.473	14.300	14.340	-2.422	-0.404	-2.839	1.760
2	20:51:10	2.429	2.308	0.058	0.326	14.620	14.730	-2.228	-0.398	-0.672	1.685
3	20:51:37	2.348	2.542	-0.078	-0.285	15.800	15.200	-0.532	0.012	-0.161	1.669
x		2.469	2.427	-0.091	0.172	14.900	14.760	-1.727	-0.263	-1.224	1.705
σ		0.146	0.117	0.157	0.402	0.789	0.429	1.040	0.238	1.422	0.049
%RSD		5.898	4.818	171.500	234.100	5.291	2.907	60.180	90.550	116.100	2.860
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	107.6%	0.143	0.095	0.122	0.912	0.003	0.009	0.009	-0.029	95.8%
2	20:51:10	107.8%	0.157	0.140	0.154	0.966	0.003	0.003	-0.003	0.032	94.5%
3	20:51:37	106.1%	0.103	0.113	0.198	0.142	-0.001	0.002	0.001	0.034	93.7%
x		107.2%	0.134	0.116	0.158	0.673	0.002	0.004	0.002	0.012	94.6%
σ		0.9%	0.028	0.023	0.038	0.461	0.002	0.004	0.006	0.036	1.1%
%RSD		0.8	20.820	19.680	24.220	68.510	113.000	89.860	311.600	288.900	1.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	5.845	7.081	0.064	0.066	4.507	4.681	97.3%	-0.008	-0.014	4.186
2	20:51:10	5.792	7.109	0.023	0.063	4.930	4.920	95.5%	-0.015	-0.015	4.187
3	20:51:37	5.998	6.678	0.045	0.044	4.926	4.656	94.8%	-0.010	-0.015	3.961
x		5.878	6.956	0.044	0.057	4.788	4.753	95.9%	-0.011	-0.014	4.111
σ		0.107	0.241	0.021	0.012	0.243	0.146	1.3%	0.004	0.000	0.130
%RSD		1.822	3.462	46.420	21.020	5.072	3.066	1.4	33.840	2.658	3.164
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	20:50:43	3.652	3.961	98.4%							
2	20:51:10	3.700	4.054	96.1%							
3	20:51:37	3.465	3.862	94.2%							
x		3.606	3.959	96.2%							
σ		0.125	0.096	2.1%							
%RSD		3.453	2.425	2.2							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	109.6%	193.700	202.600	192.900	113.100	T 2256.000	T 2142.000	2145.000	2137.000	TM 4422.000
2	20:57:14	109.2%	202.300	206.900	197.600	122.000	T 2333.000	T 2193.000	2129.000	2135.000	TM 4297.000
3	20:57:40	T 125.0%	185.000	196.000	186.000	107.300	T 2235.000	T 2072.000	2036.000	2072.000	TM 4390.000
x		T 114.6%	193.700	201.800	192.200	114.100	T 2275.000	T 2136.000	2103.000	2115.000	TM 4370.000
σ		T 9.0%	8.607	5.495	5.804	7.382	T 51.870	T 60.730	58.820	37.020	TM 64.660
%RSD		T 7.9	4.444	2.722	3.020	6.468	T 2.280	T 2.843	2.797	1.751	TM 1.480

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	T 1771.000	T 485100.000	T 2704.000	2597.000	2382.000	99.1%	M 570.600	229.200	221.300	12820.000
2	20:57:14	T 1699.000	T 468600.000	T 2672.000	2650.000	2365.000	100.3%	M 570.600	228.800	221.500	10840.000
3	20:57:40	T 1531.000	T 473300.000	T 2721.000	2620.000	2348.000	100.0%	M 574.800	224.200	224.000	11140.000
x		T 1667.000	T 475600.000	T 2699.000	2622.000	2365.000	99.8%	M 572.000	227.400	222.300	11600.000
σ		T 122.800	T 8492.000	T 24.820	26.900	16.950	0.6%	M 2.410	2.769	1.512	1070.000
%RSD		T 7.367	T 1.785	T 0.920	1.026	0.717	0.6	M 0.421	1.218	0.680	9.221

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	3395.000	224.000	T 3307.000	3223.000	217.000	215.200	209.000	201.100	232.600	220.800
2	20:57:14	3360.000	225.200	T 3306.000	3261.000	213.900	211.000	198.700	203.200	232.100	220.300
3	20:57:40	3373.000	222.600	T 3298.000	3209.000	217.100	212.600	208.500	209.600	242.900	220.800
x		3376.000	223.900	T 3304.000	3231.000	216.000	212.900	205.400	204.600	235.900	220.600
σ		17.650	1.294	T 4.682	26.570	1.829	2.128	5.809	4.469	6.073	0.300
%RSD		0.523	0.578	T 0.142	0.823	0.847	1.000	2.828	2.184	2.574	0.136

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	189.000	190.000	196.100	214.300	29.870	28.690	739.800	208.100	0.605	183.500
2	20:57:14	194.100	195.000	202.300	206.800	30.680	30.060	776.800	213.300	0.631	184.800
3	20:57:40	190.900	191.000	193.600	211.900	30.260	30.560	753.400	210.100	-1.055	186.200
x		191.300	192.000	197.300	211.000	30.270	29.770	756.700	210.500	0.060	184.800
σ		2.590	2.636	4.476	3.837	0.404	0.968	18.680	2.631	0.966	1.336
%RSD		1.353	1.372	2.268	1.819	1.335	3.253	2.469	1.250	1603.000	0.723

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	113.4%	189.200	178.700	192.800	213.200	223.400	222.200	208.200	212.400	89.2%
2	20:57:14	115.9%	191.100	180.500	194.800	206.200	221.000	221.100	210.300	215.200	93.3%
3	20:57:40	112.1%	189.900	180.800	192.900	209.600	220.100	220.200	207.900	212.200	89.3%
x		113.8%	190.100	180.000	193.500	209.700	221.500	221.200	208.800	213.300	90.6%
σ		2.0%	0.946	1.132	1.128	3.481	1.710	0.995	1.289	1.676	2.3%
%RSD		1.7	0.498	0.629	0.583	1.660	0.772	0.450	0.617	0.786	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	229.200	227.000	210.000	206.100	233.000	232.400	91.7%	215.500	218.300	225.000
2	20:57:14	227.100	227.000	212.400	207.300	229.700	230.900	96.5%	214.000	216.200	223.500
3	20:57:40	228.400	223.600	209.200	204.200	229.600	233.100	91.9%	214.200	216.800	225.300
x		228.200	225.900	210.600	205.900	230.800	232.100	93.4%	214.600	217.100	224.600
σ		1.027	1.982	1.662	1.607	1.963	1.149	2.7%	0.856	1.122	0.962
%RSD		0.450	0.878	0.789	0.781	0.850	0.495	2.9	0.399	0.517	0.428

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:56:47	223.700	225.500	87.6%
2	20:57:14	223.800	224.400	93.0%
3	20:57:40	225.400	226.200	89.2%
x		224.300	225.400	90.0%
σ		0.924	0.890	2.7%
%RSD		0.412	0.395	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	104.4%	200.800	208.000	195.700	120.100	T 2263.000	T 2124.000	2097.000	2108.000	TM 3643.000
2	21:03:16	T 120.2%	192.100	199.300	189.300	118.500	T 2267.000	T 2073.000	2026.000	2029.000	TM 3586.000
3	21:03:43	110.5%	186.300	196.300	186.800	122.400	T 2209.000	T 2095.000	2018.000	2033.000	TM 3673.000
x		T 111.7%	193.100	201.200	190.600	120.300	T 2246.000	T 2097.000	2047.000	2057.000	TM 3634.000
σ		T 8.0%	7.320	6.064	4.604	1.975	T 32.290	T 25.450	43.700	44.220	TM 43.850
%RSD		T 7.1	3.791	3.014	2.415	1.642	T 1.437	T 1.214	2.135	2.150	TM 1.207

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	T 1768.000	T 487700.000	T 2519.000	2412.000	2220.000	100.6%	382.100	220.300	216.600	10480.000
2	21:03:16	T 1492.000	T 481200.000	T 2544.000	2575.000	2256.000	101.2%	389.200	214.400	213.600	11880.000
3	21:03:43	T 1668.000	T 486800.000	T 2515.000	2476.000	2237.000	100.3%	384.800	210.000	210.200	12770.000
x		T 1643.000	T 485300.000	T 2526.000	2487.000	2238.000	100.7%	385.400	214.900	213.500	11710.000
σ		T 140.000	T 3523.000	T 15.680	82.070	18.220	0.4%	3.582	5.164	3.214	1157.000
%RSD		T 8.523	T 0.726	T 0.621	3.299	0.814	0.4	0.929	2.403	1.506	9.879

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	3023.000	212.400	T 2986.000	2896.000	209.200	207.000	203.600	205.500	226.300	216.100
2	21:03:16	3038.000	210.200	T 2898.000	2858.000	210.700	207.100	206.900	203.900	224.200	210.800
3	21:03:43	3017.000	206.900	T 2922.000	2760.000	205.500	203.500	203.200	202.200	229.400	213.000
x		3026.000	209.800	T 2936.000	2838.000	208.500	205.900	204.600	203.900	226.700	213.300
σ		11.000	2.741	T 45.220	69.980	2.660	2.044	2.008	1.618	2.630	2.632
%RSD		0.363	1.306	T 1.540	2.466	1.276	0.993	0.982	0.794	1.160	1.234

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	195.900	197.100	201.000	208.300	34.270	36.070	791.700	204.500	0.800	191.900
2	21:03:16	190.800	192.900	197.000	203.800	36.520	36.150	800.800	206.500	-0.039	191.300
3	21:03:43	186.000	189.800	190.400	207.800	37.290	36.540	794.900	208.600	1.994	190.800
x		190.900	193.300	196.200	206.600	36.020	36.250	795.800	206.600	0.918	191.300
σ		4.951	3.700	5.356	2.457	1.569	0.251	4.590	2.055	1.021	0.532
%RSD		2.594	1.915	2.730	1.189	4.357	0.691	0.577	0.995	111.200	0.278

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	106.7%	195.800	191.600	198.800	215.000	216.000	216.200	207.300	210.000	92.6%
2	21:03:16	107.3%	194.500	191.700	198.700	205.400	213.300	212.500	202.700	207.400	93.2%
3	21:03:43	104.1%	195.500	190.700	197.300	210.900	212.600	213.800	202.100	204.900	89.2%
x		106.0%	195.300	191.400	198.200	210.400	214.000	214.200	204.000	207.500	91.7%
σ		1.7%	0.667	0.541	0.811	4.823	1.795	1.833	2.852	2.555	2.2%
%RSD		1.6	0.342	0.283	0.409	2.292	0.839	0.856	1.398	1.231	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	221.400	223.200	209.900	207.500	226.100	224.800	94.3%	212.000	214.700	219.900
2	21:03:16	220.700	219.700	206.500	206.400	221.500	222.700	95.0%	209.300	211.400	216.800
3	21:03:43	220.400	217.300	203.700	202.800	216.700	220.000	91.3%	209.800	211.800	217.000
x		220.900	220.100	206.700	205.600	221.400	222.500	93.5%	210.400	212.600	217.900
σ		0.499	2.965	3.123	2.444	4.712	2.364	2.0%	1.425	1.767	1.761
%RSD		0.226	1.347	1.511	1.188	2.128	1.063	2.1	0.677	0.831	0.808

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:02:49	219.200	221.400	91.8%
2	21:03:16	215.600	216.500	91.5%
3	21:03:43	214.900	216.400	88.3%
x		216.600	218.100	90.5%
σ		2.281	2.847	1.9%
%RSD		1.053	1.305	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	102.9%	0.026	0.781	0.383	36.480	0.916	10.990	11.490	10.570	T 238.000
2	21:09:22	101.8%	0.080	0.491	0.076	36.730	-0.109	10.980	10.620	10.180	T 227.900
3	21:09:49	101.9%	0.026	0.582	0.044	43.320	-0.171	10.880	10.640	11.220	T 230.100
x		102.2%	0.044	0.618	0.168	38.850	0.212	10.950	10.920	10.660	T 232.000
σ		0.6%	0.031	0.149	0.187	3.879	0.610	0.063	0.496	0.523	T 5.318
%RSD		0.6	71.150	24.020	111.700	9.985	287.400	0.579	4.541	4.906	T 2.292

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	134.600	T 69870.000	17.720	12.640	10.160	97.9%	30.770	0.789	0.817	1563.000
2	21:09:22	128.300	T 67970.000	15.030	7.283	9.605	100.3%	31.850	0.924	0.864	1471.000
3	21:09:49	127.500	T 68010.000	17.260	13.220	7.993	98.4%	31.790	0.734	0.777	1420.000
x		130.100	T 68620.000	16.670	11.050	9.253	98.9%	31.470	0.816	0.819	1484.000
σ		3.877	T 1088.000	1.440	3.273	1.126	1.3%	0.607	0.098	0.044	72.580
%RSD		2.979	T 1.586	8.637	29.630	12.170	1.3	1.928	12.000	5.319	4.890

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	140.000	1.075	152.300	115.600	0.070	0.176	-0.573	0.133	0.128	0.548
2	21:09:22	137.700	1.082	146.200	105.700	0.071	0.142	-0.512	0.088	0.145	0.402
3	21:09:49	135.600	1.062	144.500	110.900	0.081	0.116	-0.493	0.115	0.158	0.491
x		137.800	1.073	147.700	110.700	0.074	0.145	-0.526	0.112	0.144	0.480
σ		2.192	0.010	4.084	4.966	0.007	0.030	0.042	0.023	0.015	0.074
%RSD		1.591	0.962	2.766	4.486	8.803	20.830	7.932	20.440	10.760	15.370

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	0.668	0.419	-0.095	0.139	3.638	3.271	0.596	0.290	-2.938	0.343
2	21:09:22	0.438	0.441	0.104	0.010	3.827	4.130	0.905	0.312	-1.479	0.320
3	21:09:49	0.586	0.467	-0.207	0.285	3.697	3.944	-1.528	-0.264	-1.704	0.300
x		0.564	0.442	-0.066	0.145	3.721	3.782	-0.009	0.113	-2.040	0.321
σ		0.117	0.024	0.157	0.137	0.097	0.452	1.325	0.326	0.785	0.021
%RSD		20.700	5.412	237.800	95.010	2.598	11.950	14330.000	289.400	38.490	6.682

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	94.0%	0.037	0.027	0.051	-0.171	0.040	0.028	0.040	0.051	89.2%
2	21:09:22	95.6%	0.062	0.050	0.068	-1.339	0.026	0.019	0.026	0.032	91.7%
3	21:09:49	96.0%	0.050	0.054	0.072	-0.360	0.022	0.027	0.010	0.030	92.0%
x		95.2%	0.049	0.044	0.064	-0.623	0.030	0.024	0.025	0.038	91.0%
σ		1.1%	0.013	0.014	0.011	0.627	0.009	0.005	0.015	0.012	1.6%
%RSD		1.2	25.430	32.780	17.420	100.600	31.820	19.130	60.310	30.760	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	0.909	1.062	0.048	0.046	0.754	0.793	88.9%	0.091	0.092	0.705
2	21:09:22	0.870	1.149	0.042	0.027	0.737	0.756	91.5%	0.069	0.072	0.632
3	21:09:49	0.908	1.109	0.018	0.038	0.977	0.746	90.6%	0.056	0.068	0.650
x		0.896	1.107	0.036	0.037	0.822	0.765	90.3%	0.072	0.077	0.662
σ		0.022	0.043	0.016	0.010	0.134	0.025	1.3%	0.018	0.012	0.038
%RSD		2.465	3.920	44.690	26.490	16.270	3.253	1.5	24.660	15.920	5.757

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:08:55	0.635	0.647	89.7%
2	21:09:22	0.611	0.633	92.7%
3	21:09:49	0.525	0.638	91.7%
x		0.590	0.639	91.4%
σ		0.058	0.007	1.6%
%RSD		9.764	1.087	1.7

CCV MW10994 04/30/2019 21:14:34 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	90.2%	312.000	306.100	302.900	61.120	T64920.000	T61540.000	T61250.000	T61370.000	299.800
2	21:15:27	92.5%	312.700	309.200	299.500	71.860	T65090.000	T62720.000	T62280.000	T61500.000	295.100
3	21:15:54	93.2%	293.800	311.000	300.300	62.090	T64080.000	T60890.000	T61140.000	T61220.000	300.400
x		92.0%	102.058%	102.921%	100.296%	65.030	T107.829%	T61720.000	T61560.000	T102.271%	99.466%
σ		1.6%	n/a	n/a	n/a	5.939	Tn/a	T927.100	T633.500	Tn/a	n/a
%RSD		1.7	3.511	0.795	0.606	9.133	T0.839	T1.502	T1.029	T0.223	0.967

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	T3370.000	3060.000	T65490.000	62940.000	T64620.000	93.9%	310.500	317.300	301.600	2195.000
2	21:15:27	T3212.000	2988.000	T65370.000	62520.000	T64510.000	93.7%	312.600	317.900	302.900	307.700
3	21:15:54	T3232.000	2964.000	T67230.000	64360.000	T64920.000	92.3%	315.300	315.100	300.800	1819.000
x		T109.040%	3004.000	T110.046%	63270.000	T107.809%	93.3%	104.277%	105.592%	100.590%	1441.000
σ		Tn/a	49.700	Tn/a	965.400	Tn/a	0.9%	n/a	n/a	n/a	999.100
%RSD		T2.643	1.655	T1.580	1.526	T0.331	0.9	0.768	0.472	0.346	69.350

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	T63520.000	292.900	T64100.000	T60980.000	293.000	292.100	292.700	289.300	309.300	313.900
2	21:15:27	T64730.000	297.200	T64460.000	T62010.000	294.400	287.700	285.700	295.300	315.300	320.800
3	21:15:54	T64600.000	291.700	T63700.000	T61860.000	298.100	288.500	299.100	295.500	318.900	316.300
x		T64290.000	97.979%	T64090.000	T102.697%	98.395%	96.481%	292.500	293.400	104.837%	105.674%
σ		T663.300	n/a	T383.500	Tn/a	n/a	n/a	6.749	3.543	n/a	n/a
%RSD		T1.032	0.988	T0.598	T0.902	0.889	0.801	2.307	1.207	1.532	1.105

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	297.900	300.600	291.900	316.400	1.935	1.913	1298.000	306.200	1.217	307.800
2	21:15:27	296.500	303.600	293.800	320.100	2.223	2.251	1329.000	319.100	2.389	304.600
3	21:15:54	297.700	295.200	290.800	319.900	1.585	1.207	1305.000	314.200	-0.117	304.800
x		297.400	299.800	97.389%	318.800	1.914	1.790	1311.000	104.391%	1.163	101.915%
σ		0.770	4.282	n/a	2.067	0.319	0.533	16.320	n/a	1.254	n/a
%RSD		0.259	1.428	0.511	0.648	16.670	29.770	1.245	2.075	107.800	0.582

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	87.1%	326.800	323.500	322.200	309.700	301.000	301.500	307.800	304.400	84.5%
2	21:15:27	87.5%	322.300	323.800	323.500	304.400	301.600	304.500	308.000	307.200	83.3%
3	21:15:54	85.8%	318.700	317.200	320.800	300.700	298.300	300.600	302.700	302.100	81.6%
x		86.8%	107.538%	107.173%	322.200	304.900	100.094%	302.200	306.200	101.532%	83.1%
σ		0.9%	n/a	n/a	1.355	4.534	n/a	2.086	3.025	n/a	1.5%
%RSD		1.0	1.264	1.159	0.421	1.487	0.591	0.690	0.988	0.842	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	315.000	311.500	316.200	312.600	312.000	314.700	85.8%	308.400	315.200	307.100
2	21:15:27	317.600	314.800	320.200	313.200	311.800	312.300	85.8%	306.600	311.100	305.200
3	21:15:54	314.600	313.500	309.600	307.800	311.100	311.700	83.7%	307.600	312.100	304.400
x		105.234%	104.416%	315.300	103.733%	103.882%	104.300%	85.1%	307.600	104.265%	101.850%
σ		n/a	n/a	5.395	n/a	n/a	n/a	1.2%	0.879	n/a	n/a
%RSD		0.519	0.538	1.711	0.952	0.147	0.499	1.4	0.286	0.671	0.450

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:15:00	307.700	309.600	83.7%
2	21:15:27	304.600	306.800	83.1%
3	21:15:54	304.400	306.600	80.3%
x		101.857%	102.558%	82.4%
σ		n/a	n/a	1.8%
%RSD		0.601	0.538	2.2

CCB IM9390-01 04/30/2019 21:20:41 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	99.1%	0.037	0.939	0.959	24.780	7.428	7.398	7.375	8.186	0.003
2	21:21:35	T 111.5%	0.031	1.308	0.869	26.990	9.330	6.141	5.826	6.095	0.050
3	21:22:02	101.3%	0.033	1.307	0.740	27.300	6.217	5.660	5.852	5.911	-0.031
x		T 103.9%	0.033	1.185	0.856	26.360	7.658	6.400	6.351	6.731	0.008
σ		T 6.6%	0.003	0.213	0.110	1.375	1.569	0.898	0.887	1.264	0.041
%RSD		T 6.3	9.104	17.990	12.860	5.218	20.490	14.020	13.960	18.780	536.800
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	15.380	2015.000	17.240	6.528	8.174	95.2%	-0.028	0.087	0.116	29.600
2	21:21:35	13.540	2077.000	14.740	13.060	7.957	95.4%	-0.003	0.015	0.077	99.870
3	21:22:02	14.640	1944.000	9.760	6.190	5.343	98.8%	-0.019	0.048	0.084	71.210
x		14.520	2012.000	13.910	8.592	7.158	96.5%	-0.016	0.050	0.092	66.890
σ		0.927	66.670	3.809	3.871	1.575	2.0%	0.013	0.036	0.020	35.330
%RSD		6.385	3.313	27.380	45.060	22.010	2.1	76.720	72.800	22.050	52.820
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	8.089	0.147	12.090	-1.732	0.066	0.030	-0.214	0.022	0.024	0.098
2	21:21:35	7.798	0.143	11.930	0.826	0.054	0.026	-0.012	-0.005	0.001	0.059
3	21:22:02	4.575	0.120	11.160	-7.753	0.049	0.033	-0.546	0.023	0.013	0.026
x		6.821	0.137	11.730	-2.886	0.056	0.030	-0.257	0.013	0.013	0.061
σ		1.951	0.015	0.495	4.404	0.009	0.003	0.269	0.016	0.012	0.036
%RSD		28.600	10.880	4.223	152.600	15.210	11.060	104.700	119.700	89.490	58.790
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	-0.006	0.160	0.073	-0.426	0.919	0.923	0.077	0.046	0.140	0.042
2	21:21:35	-0.130	0.025	0.023	0.283	0.998	0.601	-0.056	0.042	-0.676	0.035
3	21:22:02	0.016	0.072	-0.021	0.030	1.074	0.736	-1.339	-0.268	-0.354	0.035
x		-0.040	0.086	0.025	-0.038	0.997	0.753	-0.439	-0.060	-0.297	0.037
σ		0.079	0.068	0.047	0.360	0.077	0.162	0.782	0.180	0.411	0.004
%RSD		196.500	79.920	187.900	958.500	7.759	21.470	177.900	299.900	138.600	10.090
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	91.8%	0.074	0.063	0.108	0.426	0.029	0.051	0.010	0.051	90.1%
2	21:21:35	90.2%	0.039	0.094	0.062	-0.778	0.032	0.028	0.019	0.015	88.2%
3	21:22:02	91.9%	0.113	0.067	0.074	-0.046	0.034	0.024	0.014	0.031	90.4%
x		91.3%	0.075	0.075	0.081	-0.133	0.032	0.034	0.014	0.033	89.6%
σ		1.0%	0.037	0.017	0.024	0.607	0.003	0.014	0.005	0.018	1.2%
%RSD		1.1	49.470	22.620	29.690	456.600	8.780	41.880	32.240	54.900	1.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	0.060	0.080	0.181	0.146	0.043	0.059	89.1%	0.045	0.028	0.025
2	21:21:35	0.047	0.097	0.114	0.109	0.033	0.044	86.3%	0.023	0.019	0.031
3	21:22:02	0.070	0.078	0.154	0.138	0.037	0.060	88.8%	0.031	0.034	0.033
x		0.059	0.085	0.150	0.131	0.038	0.054	88.1%	0.033	0.027	0.030
σ		0.011	0.010	0.033	0.020	0.005	0.009	1.6%	0.011	0.007	0.004
%RSD		19.130	11.940	22.290	14.880	13.750	16.800	1.8	33.710	27.280	12.760
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	21:21:08	0.039	0.037	91.0%							
2	21:21:35	0.037	0.031	86.9%							
3	21:22:02	0.027	0.036	90.7%							
x		0.034	0.035	89.5%							
σ		0.006	0.003	2.3%							
%RSD		18.840	8.596	2.5							

UD20023-008A 04/30/2019 21:26:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	102.5%	348.600	364.300	347.400	141.000	T 3786.000	T 3756.000	3711.000	3669.000	TM 1792.000
2	21:27:40	104.0%	322.600	331.000	315.100	141.800	T 3490.000	T 3361.000	3283.000	3345.000	TM 1710.000
3	21:28:07	105.6%	289.500	299.000	287.600	124.900	T 3110.000	T 3078.000	2996.000	3050.000	TM 1759.000
x		104.1%	320.200	331.400	316.700	135.900	T 3462.000	T 3398.000	3330.000	3355.000	TM 1754.000
σ		1.6%	29.600	32.650	29.940	9.540	T 338.900	T 340.800	360.000	309.500	TM 41.100
%RSD		1.5	9.244	9.851	9.454	7.020	T 9.791	T 10.030	10.810	9.225	TM 2.344

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	T 4208.000	T 362100.000	T 3812.000	4299.000	3917.000	96.2%	M 530.800	379.300	377.100	8305.000
2	21:27:40	T 3711.000	T 354400.000	T 3561.000	3891.000	3578.000	96.1%	M 504.100	353.600	349.500	9065.000
3	21:28:07	T 3445.000	T 357100.000	T 3283.000	3464.000	3232.000	95.2%	479.600	319.800	313.600	7911.000
x		T 3788.000	T 357900.000	T 3552.000	3885.000	3576.000	95.8%	M 504.800	350.900	346.700	8427.000
σ		T 386.900	T 3894.000	T 264.800	417.800	342.500	0.5%	M 25.570	29.860	31.830	586.300
%RSD		T 10.220	T 1.088	T 7.456	10.760	9.577	0.5	M 5.065	8.511	9.180	6.958

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	4810.000	371.300	T 4651.000	4527.000	367.100	361.100	362.300	370.300	390.100	370.500
2	21:27:40	4419.000	340.900	T 4223.000	4088.000	336.000	332.500	322.900	331.000	352.900	342.800
3	21:28:07	4129.000	310.700	T 4081.000	3967.000	310.800	300.800	291.700	300.100	325.400	309.700
x		4452.000	341.000	T 4318.000	4194.000	338.000	331.500	325.600	333.800	356.100	341.000
σ		341.700	30.300	T 296.900	294.800	28.190	30.170	35.380	35.180	32.480	30.470
%RSD		7.675	8.888	T 6.875	7.029	8.339	9.102	10.860	10.540	9.120	8.933

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	338.000	341.300	351.700	355.900	10.550	11.330	1419.000	358.400	3.196	T 347.300
2	21:27:40	317.300	319.900	330.200	332.100	10.790	11.060	1295.000	326.200	4.147	309.300
3	21:28:07	280.800	288.300	297.300	307.300	11.540	10.940	1201.000	304.500	4.554	282.400
x		312.000	316.500	326.400	331.800	10.960	11.110	1305.000	329.700	3.966	T 313.000
σ		28.930	26.680	27.390	24.310	0.514	0.202	109.200	27.100	0.697	T 32.600
%RSD		9.271	8.429	8.391	7.329	4.694	1.814	8.368	8.220	17.580	T 10.420

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	100.3%	350.400	340.600	352.700	357.700	370.600	370.300	362.900	364.800	89.2%
2	21:27:40	101.5%	322.300	315.200	324.800	334.400	340.000	342.300	335.400	336.900	90.3%
3	21:28:07	99.6%	294.000	285.000	296.700	296.500	311.000	310.800	303.100	303.300	88.2%
x		100.5%	322.200	313.600	324.800	329.500	340.500	341.100	333.800	335.000	89.3%
σ		0.9%	28.230	27.810	27.970	30.870	29.800	29.810	29.930	30.770	1.0%
%RSD		0.9	8.760	8.867	8.613	9.368	8.752	8.737	8.966	9.185	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	381.100	380.100	352.300	353.500	376.000	374.500	89.9%	361.100	371.100	374.200
2	21:27:40	350.000	348.100	328.200	322.800	339.600	343.900	92.4%	330.700	339.200	344.800
3	21:28:07	322.200	321.600	295.500	289.400	311.100	311.700	90.7%	306.400	312.100	313.200
x		351.100	349.900	325.300	321.900	342.300	343.400	91.0%	332.800	340.800	344.100
σ		29.440	29.280	28.510	32.040	32.520	31.400	1.3%	27.430	29.550	30.520
%RSD		8.384	8.366	8.764	9.952	9.501	9.143	1.4	8.244	8.669	8.869

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:27:13	372.700	376.300	88.4%
2	21:27:40	343.200	346.400	90.7%
3	21:28:07	312.000	314.500	87.8%
x		342.700	345.700	89.0%
σ		30.360	30.900	1.5%
%RSD		8.860	8.937	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	100.2%	0.314	2.784	2.514	-8.782	293.800	T 3283.000	3244.000	3283.000	TM 8823.000
2	21:33:47	98.4%	0.312	2.292	2.427	-11.580	288.800	T 3160.000	3147.000	3218.000	TM 8617.000
3	21:34:14	102.0%	0.333	2.548	2.380	-13.010	287.000	T 3190.000	3167.000	3254.000	TM 8691.000
x		100.2%	0.320	2.542	2.441	-11.120	289.900	T 3211.000	3186.000	3251.000	TM 8710.000
σ		1.8%	0.012	0.246	0.068	2.149	3.539	T 64.300	51.190	32.910	TM 104.500
%RSD		1.8	3.697	9.677	2.792	19.320	1.221	T 2.003	1.607	1.012	TM 1.200

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	T 476.900	T 71600.000	T 1220.000	M 108100.000	TM 109300.000	92.9%	383.400	69.220	15.860	1692.000
2	21:33:47	T 479.900	T 70820.000	T 1204.000	M 103800.000	TM 106300.000	95.5%	383.100	68.660	15.290	1559.000
3	21:34:14	T 464.800	T 73990.000	T 1252.000	M 107500.000	TM 108100.000	93.6%	386.500	69.050	15.240	1867.000
x		T 473.900	T 72130.000	T 1225.000	M 106500.000	TM 107900.000	94.0%	384.300	68.980	15.460	1706.000
σ		T 8.011	T 1651.000	T 24.180	M 2320.000	TM 1500.000	1.4%	1.899	0.286	0.341	154.700
%RSD		T 1.691	T 2.289	T 1.973	M 2.179	TM 1.390	1.5	0.494	0.415	2.203	9.066

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	T 23170.000	TM 3513.000	T 23120.000	T 24630.000	8.970	16.510	14.690	5.756	7.351	56.750
2	21:33:47	T 22710.000	TM 3477.000	T 22800.000	T 24160.000	8.988	16.440	15.050	5.746	7.517	56.110
3	21:34:14	T 22560.000	TM 3429.000	T 22880.000	T 24600.000	8.896	16.370	16.070	5.626	7.332	56.260
x		T 22810.000	TM 3473.000	T 22930.000	T 24460.000	8.952	16.440	15.270	5.709	7.400	56.370
σ		T 318.600	TM 41.760	T 168.900	T 264.300	0.049	0.070	0.718	0.072	0.102	0.338
%RSD		T 1.397	TM 1.202	T 0.737	T 1.080	0.543	0.426	4.699	1.265	1.378	0.599

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	48.180	47.990	2.415	-0.082	2.408	2.437	-1.223	0.095	-2.250	74.880
2	21:33:47	49.400	48.640	2.173	0.254	3.081	2.224	-0.329	0.339	-1.736	74.480
3	21:34:14	46.770	46.930	2.641	-0.217	2.802	2.900	0.538	0.565	-0.320	73.940
x		48.120	47.850	2.410	-0.015	2.763	2.520	-0.338	0.333	-1.435	74.430
σ		1.316	0.865	0.234	0.243	0.338	0.346	0.881	0.235	1.000	0.471
%RSD		2.735	1.808	9.712	1617.000	12.240	13.730	260.500	70.600	69.660	0.633

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	114.9%	0.330	0.250	0.271	7.867	0.076	0.063	0.217	0.255	85.5%
2	21:33:47	115.6%	0.252	0.256	0.249	6.841	0.060	0.066	0.185	0.251	86.5%
3	21:34:14	114.1%	0.259	0.298	0.254	9.533	0.054	0.049	0.246	0.179	84.6%
x		114.9%	0.280	0.268	0.258	8.080	0.063	0.059	0.216	0.228	85.5%
σ		0.8%	0.043	0.027	0.011	1.358	0.011	0.009	0.031	0.043	1.0%
%RSD		0.7	15.270	9.962	4.390	16.810	17.890	15.370	14.150	18.780	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	1.330	1.608	0.367	0.315	92.220	92.280	86.5%	0.120	0.139	3.005
2	21:33:47	1.296	1.529	0.349	0.354	90.510	90.930	88.0%	0.116	0.133	3.145
3	21:34:14	1.174	1.501	0.305	0.301	91.530	92.470	84.7%	0.123	0.114	3.052
x		1.267	1.546	0.340	0.323	91.420	91.890	86.4%	0.120	0.129	3.067
σ		0.082	0.055	0.031	0.027	0.863	0.842	1.6%	0.004	0.013	0.071
%RSD		6.457	3.579	9.232	8.466	0.944	0.916	1.9	3.216	10.150	2.327

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:33:19	2.858	2.946	84.8%
2	21:33:47	2.828	2.961	86.6%
3	21:34:14	2.925	2.961	84.0%
x		2.870	2.956	85.2%
σ		0.050	0.009	1.4%
%RSD		1.738	0.302	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	105.9%	0.246	0.756	0.744	-34.900	285.900	T 4019.000	T 4016.000	T 4086.000	TM 11940.000
2	21:39:52	T 116.4%	0.215	0.937	0.872	-37.010	273.000	T 3865.000	T 3905.000	T 3989.000	TM 11710.000
3	21:40:19	102.3%	0.248	0.753	0.909	-33.140	275.100	T 3928.000	T 3964.000	T 3942.000	TM 11290.000
x		T 108.2%	0.236	0.815	0.842	-35.020	278.000	T 3937.000	T 3962.000	T 4005.000	TM 11650.000
σ		T 7.3%	0.019	0.105	0.086	1.938	6.902	T 77.060	T 55.860	T 73.580	TM 326.000
%RSD		T 6.8	7.903	12.910	10.260	5.535	2.483	T 1.957	T 1.410	T 1.837	TM 2.799

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	T 578.000	T 69910.000	T 1184.000	4643.000	4401.000	97.0%	152.900	65.220	21.630	2009.000
2	21:39:52	T 528.500	T 68520.000	T 1154.000	4553.000	4352.000	99.3%	153.700	65.170	21.250	2183.000
3	21:40:19	573.800	T 67220.000	1133.000	4631.000	4353.000	98.7%	153.100	63.980	21.540	1743.000
x		T 560.100	T 68550.000	T 1157.000	4609.000	4369.000	98.3%	153.200	64.790	21.470	1978.000
σ		T 27.480	T 1348.000	T 25.720	49.150	28.030	1.2%	0.415	0.697	0.200	221.700
%RSD		T 4.906	T 1.966	T 2.223	1.066	0.642	1.2	0.271	1.076	0.931	11.210

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	T 20990.000	291.100	T 21200.000	T 20840.000	9.192	16.700	18.360	10.300	11.660	66.700
2	21:39:52	T 21270.000	291.400	T 21250.000	T 20910.000	8.858	17.090	15.620	10.140	11.570	69.700
3	21:40:19	T 20910.000	292.900	T 21150.000	T 20910.000	8.754	16.210	15.670	9.985	11.280	66.090
x		T 21060.000	291.800	T 21200.000	T 20880.000	8.935	16.670	16.550	10.140	11.500	67.500
σ		T 187.400	0.986	T 47.830	T 43.010	0.229	0.443	1.567	0.160	0.202	1.935
%RSD		T 0.890	0.338	T 0.226	T 0.206	2.558	2.661	9.468	1.574	1.757	2.867

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	61.670	62.970	2.415	-0.027	3.861	3.426	-1.754	-0.243	-0.910	26.920
2	21:39:52	64.380	61.190	2.569	-0.427	3.099	4.275	0.200	0.278	-0.437	27.010
3	21:40:19	60.910	63.050	2.812	-0.280	3.086	3.938	3.110	1.025	-1.370	26.540
x		62.320	62.410	2.599	-0.244	3.349	3.880	0.518	0.354	-0.906	26.830
σ		1.824	1.051	0.200	0.202	0.444	0.427	2.448	0.637	0.467	0.249
%RSD		2.927	1.683	7.695	82.740	13.260	11.010	472.200	180.200	51.490	0.926

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	101.7%	0.455	0.396	0.506	3.467	0.040	0.019	0.154	0.100	88.0%
2	21:39:52	104.0%	0.469	0.378	0.440	3.139	0.017	0.020	0.127	0.128	88.5%
3	21:40:19	106.5%	0.538	0.468	0.471	1.660	0.023	0.009	0.073	0.118	91.9%
x		104.0%	0.487	0.414	0.472	2.755	0.027	0.016	0.118	0.115	89.5%
σ		2.4%	0.045	0.048	0.033	0.963	0.012	0.006	0.041	0.014	2.1%
%RSD		2.3	9.190	11.620	6.952	34.940	45.550	35.900	34.770	12.250	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	1.261	1.440	0.180	0.190	89.460	89.850	87.3%	0.065	0.032	4.126
2	21:39:52	1.327	1.459	0.177	0.186	88.300	89.220	89.4%	0.039	0.043	4.084
3	21:40:19	1.338	1.472	0.187	0.158	87.720	86.520	91.8%	0.046	0.047	4.226
x		1.309	1.457	0.182	0.178	88.490	88.530	89.5%	0.050	0.041	4.145
σ		0.042	0.016	0.005	0.017	0.890	1.768	2.2%	0.014	0.007	0.073
%RSD		3.179	1.110	2.760	9.822	1.005	1.997	2.5	27.370	18.360	1.753

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:39:25	3.931	4.005	85.6%
2	21:39:52	3.759	3.969	87.9%
3	21:40:19	3.869	4.019	90.9%
x		3.853	3.998	88.1%
σ		0.087	0.026	2.6%
%RSD		2.270	0.648	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	100.5%	0.355	5.464	5.452	-5.324	361.800	T 5754.000	T 5743.000	T 5932.000	TM 14050.000
2	21:45:56	98.5%	0.339	7.110	5.539	-0.176	371.600	T 5792.000	T 5699.000	T 5884.000	TM 13820.000
3	21:46:24	102.0%	0.355	5.846	5.903	-4.740	369.600	T 5791.000	T 5844.000	T 5891.000	TM 13940.000
x		100.3%	0.349	6.140	5.631	-3.413	367.700	T 5779.000	T 5762.000	T 5902.000	TM 13940.000
σ		1.8%	0.009	0.861	0.240	2.819	5.221	T 21.640	T 74.210	T 25.990	TM 115.000
%RSD		1.8	2.614	14.030	4.257	82.580	1.420	T 0.375	T 1.288	T 0.440	TM 0.825

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	T 332.100	T 72840.000	T 3004.000	23500.000	T 24340.000	95.9%	200.000	35.990	16.990	1948.000
2	21:45:56	T 333.000	T 73310.000	T 3038.000	23550.000	T 24480.000	95.9%	198.200	35.320	17.010	1847.000
3	21:46:24	T 322.600	T 74420.000	T 3116.000	23880.000	T 24370.000	97.2%	200.400	34.790	17.440	2210.000
x		T 329.200	T 73520.000	T 3053.000	23650.000	T 24400.000	96.3%	199.600	35.370	17.150	2002.000
σ		T 5.788	T 811.100	T 57.690	207.100	T 71.940	0.7%	1.199	0.602	0.251	187.100
%RSD		T 1.758	T 1.103	T 1.890	0.876	T 0.295	0.7	0.601	1.701	1.466	9.348

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	T 14790.000	258.300	T 15600.000	15780.000	5.668	13.640	13.500	20.720	23.590	72.810
2	21:45:56	T 15440.000	261.600	T 15260.000	15500.000	5.501	13.760	13.730	21.430	23.590	73.740
3	21:46:24	T 15370.000	262.500	T 15450.000	15550.000	5.449	13.180	11.570	21.230	24.640	72.460
x		T 15200.000	260.800	T 15440.000	15610.000	5.540	13.530	12.930	21.130	23.940	73.000
σ		T 357.000	2.231	T 171.600	149.300	0.114	0.307	1.185	0.363	0.607	0.661
%RSD		T 2.349	0.855	T 1.111	0.957	2.063	2.266	9.164	1.718	2.536	0.905

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	66.900	68.810	9.079	0.161	5.114	4.772	1.106	0.546	-0.957	48.010
2	21:45:56	68.260	69.020	8.850	0.022	4.222	4.089	-0.131	0.177	0.227	48.070
3	21:46:24	67.430	67.510	8.521	1.133	4.356	3.820	1.024	0.540	-0.626	48.390
x		67.530	68.450	8.817	0.439	4.564	4.227	0.666	0.421	-0.452	48.160
σ		0.686	0.815	0.281	0.605	0.481	0.490	0.692	0.212	0.611	0.204
%RSD		1.016	1.191	3.185	137.900	10.540	11.600	103.800	50.210	135.100	0.423

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	106.8%	0.410	0.413	0.446	5.816	0.135	0.100	0.286	0.331	89.2%
2	21:45:56	107.1%	0.410	0.370	0.462	5.476	0.127	0.106	0.343	0.337	90.0%
3	21:46:24	107.9%	0.420	0.404	0.379	6.150	0.125	0.119	0.287	0.269	89.0%
x		107.3%	0.413	0.396	0.429	5.814	0.129	0.109	0.305	0.313	89.4%
σ		0.6%	0.006	0.023	0.044	0.337	0.005	0.010	0.032	0.038	0.5%
%RSD		0.5	1.411	5.773	10.270	5.793	4.133	9.335	10.570	12.070	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	1.738	1.850	0.230	0.239	157.800	158.300	89.6%	0.140	0.166	16.630
2	21:45:56	1.608	1.900	0.210	0.228	154.200	155.700	91.1%	0.131	0.155	15.990
3	21:46:24	1.562	1.903	0.234	0.239	154.700	154.700	89.8%	0.158	0.162	16.150
x		1.636	1.884	0.224	0.235	155.600	156.200	90.2%	0.143	0.161	16.260
σ		0.091	0.029	0.013	0.006	1.945	1.878	0.8%	0.014	0.006	0.335
%RSD		5.565	1.558	5.702	2.727	1.250	1.202	0.9	9.864	3.561	2.063

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:45:30	15.770	16.190	89.7%
2	21:45:56	15.750	15.930	91.0%
3	21:46:24	15.850	15.840	88.6%
x		15.790	15.990	89.8%
σ		0.057	0.183	1.2%
%RSD		0.360	1.145	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	92.3%	0.064	0.259	0.008	1514.000	TM 107500.000	TM 100500.000	T 98720.000	TM 100000.000	TM 100600.000
2	21:52:03	94.9%	0.021	0.049	0.057	1469.000	TM 107800.000	TM 100400.000	TM 101600.000	T 99140.000	TM 97360.000
3	21:52:31	95.9%	-0.015	0.017	0.172	1515.000	TM 109300.000	TM 101000.000	T 99900.000	TM 100500.000	TM 103900.000
x		94.4%	0.023	0.109	0.079	1499.000	TM 108200.000	TM 100600.000	TM 100100.000	TM 99880.000	TM 100600.000
σ		1.8%	0.040	0.132	0.084	26.060	TM 981.200	TM 312.100	TM 1438.000	TM 677.100	TM 3262.000
%RSD		1.9	169.600	121.200	106.700	1.738	TM 0.907	TM 0.310	TM 1.437	TM 0.678	TM 3.243

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	38.090	T 44120.000	TM 106000.000	M 106100.000	TM 107500.000	91.2%	M 2329.000	-1.044	-1.788	1505.000
2	21:52:03	35.700	T 43490.000	TM 103600.000	M 103800.000	TM 107300.000	94.1%	M 2283.000	-0.702	-1.766	1301.000
3	21:52:31	39.170	T 47210.000	TM 112400.000	M 108300.000	TM 108800.000	89.9%	M 2334.000	-0.766	-1.730	1583.000
x		37.650	T 44940.000	TM 107300.000	M 106100.000	TM 107900.000	91.7%	M 2315.000	-0.837	-1.761	1463.000
σ		1.772	T 1991.000	TM 4590.000	M 2241.000	TM 829.800	2.1%	M 28.180	0.182	0.029	145.500
%RSD		4.706	T 4.429	TM 4.276	M 2.112	TM 0.769	2.3	M 1.217	21.710	1.647	9.946

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	TM 105300.000	0.751	TM 107000.000	TM 101500.000	0.507	1.358	6.832	-1.395	0.895	2.113
2	21:52:03	TM 105200.000	0.714	TM 104500.000	TM 101900.000	0.440	1.201	7.132	-1.466	0.760	1.907
3	21:52:31	TM 106600.000	0.744	TM 107400.000	TM 104900.000	0.544	1.291	6.740	-1.463	0.872	2.182
x		TM 105700.000	0.736	TM 106300.000	TM 102800.000	0.497	1.283	6.901	-1.441	0.842	2.067
σ		TM 780.700	0.020	TM 1574.000	TM 1887.000	0.052	0.078	0.205	0.040	0.072	0.143
%RSD		TM 0.739	2.697	TM 1.480	TM 1.836	10.550	6.111	2.970	2.783	8.604	6.924

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	1.809	0.351	0.020	-0.339	1.943	1.172	-0.978	-0.496	12.280	0.869
2	21:52:03	2.094	0.347	0.156	-0.053	2.035	1.393	-1.571	-0.662	13.320	0.816
3	21:52:31	1.707	0.250	-0.077	0.146	2.495	0.269	-0.531	-0.426	13.340	0.805
x		1.870	0.316	0.033	-0.082	2.158	0.945	-1.027	-0.528	12.980	0.830
σ		0.201	0.057	0.117	0.244	0.296	0.596	0.522	0.121	0.607	0.034
%RSD		10.730	18.120	351.700	296.500	13.710	63.020	50.830	22.950	4.677	4.135

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	86.2%	TM 2465.000	M 2248.000	TM 2210.000	-2.349	0.005	0.007	-5.396	0.026	86.2%
2	21:52:03	87.8%	TM 2448.000	M 2220.000	TM 2187.000	-1.853	0.010	0.021	-5.808	-0.069	88.8%
3	21:52:31	87.1%	TM 2459.000	M 2234.000	TM 2196.000	0.100	0.017	0.013	-5.724	0.164	87.6%
x		87.1%	TM 2457.000	M 2234.000	TM 2198.000	-1.367	0.011	0.014	-5.643	0.041	87.6%
σ		0.8%	TM 8.672	M 13.710	TM 11.430	1.294	0.006	0.007	0.218	0.117	1.3%
%RSD		0.9	TM 0.353	M 0.614	TM 0.520	94.660	57.700	50.110	3.865	287.700	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	1.266	0.038	0.206	0.217	0.223	0.185	87.1%	-0.009	-0.015	0.060
2	21:52:03	1.242	0.015	0.201	0.249	0.116	0.180	90.5%	-0.009	-0.014	0.034
3	21:52:31	1.313	0.026	0.227	0.195	0.171	0.147	87.6%	-0.012	-0.012	0.078
x		1.274	0.026	0.211	0.221	0.170	0.171	88.4%	-0.010	-0.014	0.058
σ		0.036	0.011	0.014	0.027	0.054	0.020	1.9%	0.002	0.002	0.022
%RSD		2.837	43.400	6.387	12.290	31.660	11.970	2.1	19.000	11.810	38.420

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:51:36	0.042	0.050	84.7%
2	21:52:03	0.058	0.052	86.9%
3	21:52:31	0.071	0.067	84.4%
x		0.057	0.056	85.3%
σ		0.014	0.009	1.3%
%RSD		24.720	16.370	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	T 119.4%	-0.010	-0.116	-0.491	50.520	19.580	14.340	14.140	13.860	13.870
2	21:58:08	105.0%	-0.006	-0.273	-0.486	42.720	16.750	13.390	13.630	13.450	13.410
3	21:58:35	106.5%	0.031	-0.052	-0.443	48.730	15.050	11.690	11.740	11.720	11.760
x		T 110.3%	0.005	-0.147	-0.473	47.320	17.120	13.140	13.170	13.010	13.020
σ		T 7.9%	0.023	0.114	0.026	4.088	2.291	1.342	1.264	1.136	1.108
%RSD		T 7.1	443.900	77.280	5.519	8.638	13.380	10.210	9.597	8.733	8.509

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	14.960	T 363700.000	49.090	14.210	14.900	96.1%	0.382	0.081	1.627	8461.000
2	21:58:08	17.180	T 347200.000	37.750	12.900	15.320	100.3%	0.337	-0.002	1.385	7795.000
3	21:58:35	16.710	T 348200.000	37.570	10.100	10.770	97.7%	0.398	-0.397	1.304	8111.000
x		16.280	T 353100.000	41.470	12.400	13.670	98.0%	0.372	-0.106	1.439	8122.000
σ		1.171	T 9208.000	6.599	2.098	2.515	2.1%	0.032	0.255	0.168	333.200
%RSD		7.192	T 2.608	15.910	16.910	18.400	2.1	8.457	240.800	11.700	4.102

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	29.480	0.227	18.610	-4.717	0.010	0.111	0.102	0.055	0.075	0.188
2	21:58:08	28.900	0.213	16.950	-11.580	0.008	0.099	-0.448	0.105	0.078	0.171
3	21:58:35	26.730	0.207	13.390	-12.650	0.005	0.081	-0.614	0.082	0.135	0.139
x		28.370	0.216	16.320	-9.649	0.008	0.097	-0.320	0.081	0.096	0.166
σ		1.452	0.010	2.665	4.305	0.002	0.015	0.375	0.025	0.034	0.025
%RSD		5.117	4.552	16.330	44.620	29.140	15.160	117.100	31.250	35.040	15.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	0.334	0.173	-0.337	-0.234	7.995	8.929	-1.645	-0.349	-0.691	0.004
2	21:58:08	0.197	0.190	-0.571	-0.422	7.645	6.705	-1.612	-0.327	-0.931	0.009
3	21:58:35	0.274	0.194	0.144	-0.343	6.594	7.151	-0.696	-0.144	-0.232	0.002
x		0.268	0.186	-0.255	-0.333	7.411	7.595	-1.318	-0.273	-0.618	0.005
σ		0.068	0.011	0.364	0.094	0.729	1.177	0.538	0.113	0.355	0.004
%RSD		25.470	6.123	143.100	28.240	9.837	15.500	40.860	41.320	57.460	70.910

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	94.1%	0.619	0.695	0.597	0.641	0.000	-0.001	-0.005	0.004	92.6%
2	21:58:08	97.6%	0.540	0.600	0.612	-0.790	-0.002	0.001	-0.005	0.024	95.6%
3	21:58:35	97.2%	0.504	0.530	0.511	-0.338	-0.002	0.004	0.007	-0.010	95.8%
x		96.3%	0.554	0.609	0.573	-0.162	-0.001	0.001	-0.001	0.006	94.7%
σ		1.9%	0.059	0.083	0.055	0.731	0.001	0.003	0.007	0.017	1.8%
%RSD		2.0	10.600	13.630	9.530	450.500	124.300	213.000	666.300	281.100	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	4.138	5.786	0.169	0.188	-0.007	-0.002	92.7%	-0.014	-0.014	-0.019
2	21:58:08	4.072	5.718	0.166	0.168	-0.008	0.027	96.3%	-0.013	-0.018	-0.015
3	21:58:35	3.955	5.776	0.174	0.145	-0.008	0.001	95.7%	-0.012	-0.019	-0.004
x		4.055	5.760	0.170	0.167	-0.008	0.009	94.9%	-0.013	-0.017	-0.013
σ		0.093	0.037	0.004	0.022	0.000	0.016	2.0%	0.001	0.002	0.008
%RSD		2.292	0.637	2.406	12.900	6.203	182.300	2.1	7.235	14.150	63.030

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:57:41	-0.007	-0.012	92.8%
2	21:58:08	-0.007	-0.012	96.2%
3	21:58:35	-0.007	-0.008	94.4%
x		-0.007	-0.011	94.4%
σ		0.000	0.003	1.7%
%RSD		5.166	25.140	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	109.9%	197.000	203.700	196.600	31.270	T 2182.000	T 2071.000	2027.000	2086.000	216.000
2	22:04:13	111.7%	201.000	206.300	193.900	30.610	T 2166.000	T 2085.000	2013.000	2044.000	207.900
3	22:04:40	105.4%	210.200	214.900	199.100	42.360	T 2252.000	T 2124.000	2018.000	2003.000	199.100
x		109.0%	202.700	208.300	196.600	34.750	T 2200.000	T 2093.000	2019.000	2044.000	207.700
σ		3.2%	6.758	5.851	2.615	6.599	T 46.060	T 27.330	7.497	41.800	8.479
%RSD		3.0	3.334	2.809	1.331	18.990	T 2.093	T 1.306	0.371	2.045	4.083
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	81.650	T 392500.000	T 2256.000	2309.000	2165.000	96.7%	209.200	207.600	205.100	11370.000
2	22:04:13	79.080	T 385200.000	T 2231.000	2362.000	2128.000	99.0%	207.000	206.000	205.400	10680.000
3	22:04:40	83.520	T 383600.000	T 2185.000	2347.000	2104.000	100.0%	205.200	206.700	203.000	9032.000
x		81.420	T 387100.000	T 2224.000	2339.000	2132.000	98.6%	207.100	206.700	204.500	10360.000
σ		2.226	T 4729.000	T 35.680	27.380	30.700	1.7%	2.029	0.800	1.325	1201.000
%RSD		2.734	T 1.222	T 1.605	1.170	1.440	1.7	0.980	0.387	0.648	11.590
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	2267.000	202.200	T 2201.000	2066.000	208.300	205.600	204.700	209.700	218.400	205.900
2	22:04:13	2246.000	198.900	T 2178.000	2019.000	201.500	200.200	204.500	208.200	221.200	204.900
3	22:04:40	2243.000	199.100	T 2150.000	2045.000	201.900	198.000	202.700	208.500	216.200	209.200
x		2252.000	200.000	T 2176.000	2043.000	203.900	201.300	204.000	208.800	218.600	206.700
σ		13.220	1.861	T 25.210	23.650	3.855	3.883	1.071	0.757	2.509	2.234
%RSD		0.587	0.930	T 1.159	1.157	1.891	1.930	0.525	0.362	1.148	1.081
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	199.300	198.700	194.500	200.800	11.320	11.270	837.700	195.900	-0.778	202.900
2	22:04:13	197.800	195.800	194.500	204.400	12.640	12.960	859.800	201.600	3.679	204.800
3	22:04:40	197.800	201.200	199.200	204.100	11.450	12.030	854.700	201.800	0.216	204.100
x		198.300	198.600	196.100	203.100	11.800	12.090	850.700	199.700	1.039	203.900
σ		0.849	2.701	2.740	1.986	0.731	0.844	11.590	3.371	2.340	0.943
%RSD		0.428	1.360	1.397	0.978	6.193	6.986	1.362	1.688	225.200	0.463
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	91.7%	208.100	208.500	206.000	202.700	208.200	211.000	203.000	202.000	89.4%
2	22:04:13	92.5%	208.000	209.500	210.000	209.600	208.800	209.300	204.700	200.600	90.1%
3	22:04:40	96.6%	212.800	211.100	211.500	209.400	211.700	210.500	207.000	204.400	93.1%
x		93.6%	209.600	209.700	209.200	207.200	209.600	210.200	204.900	202.300	90.9%
σ		2.6%	2.770	1.288	2.872	3.961	1.849	0.884	1.996	1.923	1.9%
%RSD		2.8	1.321	0.614	1.373	1.911	0.882	0.420	0.974	0.951	2.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	214.500	211.600	200.700	203.600	211.500	211.100	88.9%	209.600	211.900	209.300
2	22:04:13	212.800	214.100	199.900	202.100	210.300	211.100	89.8%	210.400	210.500	210.200
3	22:04:40	214.300	215.300	205.000	204.200	208.900	211.200	94.0%	209.600	211.200	211.300
x		213.800	213.700	201.900	203.300	210.200	211.100	90.9%	209.900	211.200	210.300
σ		0.898	1.874	2.719	1.084	1.295	0.067	2.7%	0.445	0.713	1.028
%RSD		0.420	0.877	1.347	0.533	0.616	0.032	3.0	0.212	0.338	0.489
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	22:03:46	209.300	210.200	87.2%							
2	22:04:13	210.500	210.700	88.8%							
3	22:04:40	210.100	211.900	93.4%							
x		210.000	210.900	89.8%							
σ		0.608	0.878	3.2%							
%RSD		0.290	0.416	3.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	108.8%	0.093	1.242	1.052	26.070	25.240	T 597.500	603.000	608.400	TM 36580.000
2	22:10:17	107.8%	0.102	1.015	1.001	19.380	25.230	T 595.000	585.600	614.600	TM 36650.000
3	22:10:44	105.5%	0.098	1.064	0.827	21.030	25.160	T 577.600	582.900	598.400	TM 35910.000
x		107.4%	0.098	1.107	0.960	22.160	25.210	T 590.000	590.500	607.100	TM 36380.000
σ		1.7%	0.004	0.119	0.118	3.483	0.044	T 10.820	10.910	8.167	TM 410.400
%RSD		1.6	4.528	10.770	12.300	15.720	0.176	T 1.834	1.847	1.345	TM 1.128

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	T 1682.000	T 276600.000	531.800	1675.000	1460.000	101.2%	443.000	20.290	68.570	7642.000
2	22:10:17	T 1638.000	T 271400.000	528.800	1660.000	1448.000	102.4%	440.500	20.750	69.950	7262.000
3	22:10:44	T 1707.000	T 275400.000	530.900	1595.000	1436.000	102.7%	436.800	21.030	70.260	6988.000
x		T 1676.000	T 274500.000	530.500	1643.000	1448.000	102.1%	440.100	20.690	69.590	7297.000
σ		T 35.030	T 2748.000	1.519	42.640	12.080	0.8%	3.107	0.374	0.902	328.100
%RSD		T 2.090	T 1.001	0.286	2.594	0.834	0.8	0.706	1.807	1.296	4.497

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	4565.000	20.570	T 4497.000	4397.000	2.061	10.180	9.806	0.627	1.000	10.330
2	22:10:17	4548.000	20.730	T 4536.000	4491.000	2.025	10.260	10.400	0.551	0.981	10.050
3	22:10:44	4528.000	20.540	T 4495.000	4397.000	2.145	10.070	10.200	0.586	0.947	9.537
x		4547.000	20.610	T 4509.000	4428.000	2.077	10.170	10.140	0.588	0.976	9.973
σ		18.570	0.100	T 23.230	54.660	0.062	0.097	0.303	0.038	0.027	0.402
%RSD		0.408	0.483	T 0.515	1.234	2.962	0.958	2.990	6.388	2.746	4.034

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	12.450	10.410	0.871	0.518	5.175	6.018	1.145	0.479	-1.080	27.500
2	22:10:17	11.230	10.790	0.892	0.039	5.502	6.373	3.021	0.902	0.251	27.700
3	22:10:44	13.000	10.520	0.717	0.717	5.692	5.910	0.607	0.291	-0.618	27.790
x		12.230	10.570	0.827	0.425	5.456	6.101	1.591	0.557	-0.482	27.660
σ		0.907	0.193	0.096	0.348	0.261	0.242	1.267	0.313	0.676	0.147
%RSD		7.422	1.828	11.560	81.980	4.789	3.969	79.630	56.240	140.100	0.532

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	108.3%	0.519	0.550	0.444	6.132	0.055	0.039	0.035	0.031	95.1%
2	22:10:17	112.2%	0.481	0.538	0.488	3.888	0.041	0.042	0.030	0.052	99.0%
3	22:10:44	110.5%	0.454	0.458	0.448	5.258	0.040	0.030	0.060	0.023	99.3%
x		110.3%	0.485	0.516	0.460	5.092	0.045	0.037	0.042	0.035	97.8%
σ		2.0%	0.033	0.050	0.024	1.131	0.009	0.006	0.016	0.015	2.3%
%RSD		1.8	6.748	9.707	5.310	22.210	18.910	17.410	39.350	42.630	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	5.274	6.265	0.286	0.313	38.350	37.830	97.1%	0.152	0.157	16.290
2	22:10:17	5.045	6.223	0.292	0.339	38.280	37.630	99.1%	0.167	0.154	16.510
3	22:10:44	5.234	6.069	0.306	0.294	37.530	38.030	100.4%	0.143	0.141	16.380
x		5.184	6.186	0.295	0.315	38.050	37.830	98.9%	0.154	0.150	16.390
σ		0.122	0.104	0.010	0.022	0.456	0.201	1.7%	0.012	0.008	0.111
%RSD		2.356	1.672	3.424	7.046	1.199	0.532	1.7	7.666	5.624	0.674

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:09:50	15.330	15.760	96.6%
2	22:10:17	15.420	15.970	100.2%
3	22:10:44	15.540	15.940	100.5%
x		15.430	15.890	99.1%
σ		0.103	0.113	2.2%
%RSD		0.666	0.709	2.2

UD25032-040 04/30/2019 22:15:28

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	107.9%	0.117	0.421	0.432	96.050	16.430	T 484.200	489.300	489.200	TM 31080.000
2	22:16:21	107.6%	0.129	1.259	0.718	101.400	16.840	T 483.200	484.000	496.500	TM 31610.000
3	22:16:48	T 118.8%	0.093	0.956	0.630	83.560	18.060	T 487.500	481.100	501.500	TM 33490.000
x		T 111.5%	0.113	0.879	0.594	93.670	17.110	T 485.000	484.800	495.700	TM 32060.000
σ		T 6.4%	0.018	0.425	0.146	9.160	0.850	T 2.243	4.157	6.198	TM 1267.000
%RSD		T 5.7	16.170	48.320	24.660	9.779	4.967	T 0.462	0.857	1.250	TM 3.953

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	T 1427.000	T 278200.000	412.300	351.000	201.300	103.9%	394.500	70.950	37.430	7031.000
2	22:16:21	T 1495.000	T 282800.000	414.800	315.400	202.900	106.4%	395.800	71.170	36.590	6664.000
3	22:16:48	T 1368.000	T 288900.000	423.300	425.900	209.200	103.7%	397.100	71.870	37.260	7022.000
x		T 1430.000	T 283300.000	416.800	364.100	204.400	104.7%	395.800	71.330	37.090	6906.000
σ		T 63.410	T 5390.000	5.781	56.400	4.200	1.5%	1.276	0.480	0.447	209.500
%RSD		T 4.434	T 1.903	1.387	15.490	2.055	1.4	0.323	0.673	1.206	3.033

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	T 21820.000	18.260	T 21930.000	T 20850.000	1.708	8.233	9.121	0.369	0.742	7.844
2	22:16:21	T 21880.000	17.910	T 22180.000	T 21340.000	1.720	8.673	8.526	0.327	0.591	7.795
3	22:16:48	T 21670.000	18.050	T 22020.000	T 21670.000	1.668	8.404	9.259	0.373	0.570	7.402
x		T 21790.000	18.070	T 22040.000	T 21290.000	1.698	8.437	8.969	0.356	0.634	7.681
σ		T 109.900	0.174	T 127.200	T 409.200	0.027	0.222	0.389	0.025	0.094	0.242
%RSD		T 0.504	0.964	T 0.577	T 1.923	1.608	2.631	4.341	7.133	14.780	3.156

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	9.941	8.231	8.372	0.901	6.127	5.031	6.663	1.907	-1.090	14.200
2	22:16:21	9.719	7.657	9.083	1.547	5.616	5.884	6.796	1.956	-1.287	14.410
3	22:16:48	10.330	7.652	8.230	1.387	5.579	5.865	5.886	1.645	1.763	14.230
x		9.998	7.847	8.562	1.279	5.774	5.593	6.448	1.836	-0.205	14.280
σ		0.312	0.333	0.457	0.337	0.306	0.488	0.492	0.167	1.707	0.115
%RSD		3.117	4.243	5.338	26.320	5.309	8.715	7.622	9.100	834.200	0.802

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	112.1%	0.983	0.937	1.009	4.603	0.031	0.022	0.031	0.021	97.6%
2	22:16:21	116.0%	1.019	0.923	1.046	5.102	0.030	0.019	0.023	-0.003	100.5%
3	22:16:48	112.2%	1.047	0.943	0.973	4.860	0.033	0.009	0.001	0.015	97.3%
x		113.4%	1.016	0.934	1.009	4.855	0.031	0.017	0.018	0.011	98.5%
σ		2.2%	0.032	0.010	0.037	0.250	0.001	0.007	0.016	0.013	1.8%
%RSD		2.0	3.143	1.112	3.639	5.146	4.727	42.150	86.970	118.400	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	5.418	6.117	0.253	0.180	25.760	26.310	98.6%	0.085	0.098	15.620
2	22:16:21	5.529	6.213	0.175	0.183	25.270	25.730	102.2%	0.102	0.073	15.310
3	22:16:48	5.260	6.251	0.205	0.207	26.040	25.700	97.9%	0.100	0.089	15.470
x		5.402	6.194	0.211	0.190	25.690	25.920	99.6%	0.096	0.087	15.460
σ		0.135	0.069	0.039	0.015	0.389	0.342	2.3%	0.010	0.013	0.156
%RSD		2.501	1.113	18.620	7.938	1.516	1.319	2.3	9.985	14.490	1.006

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:15:54	14.400	14.900	99.0%
2	22:16:21	14.340	14.770	102.3%
3	22:16:48	14.280	14.790	97.7%
x		14.340	14.820	99.6%
σ		0.060	0.074	2.4%
%RSD		0.422	0.498	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	105.3%	0.105	0.925	0.694	192.900	16.730	422.200	404.400	405.300	TM 23120.000
2	22:22:26	109.6%	0.113	0.915	0.560	173.100	15.390	406.200	390.800	396.400	TM 22470.000
3	22:22:53	106.5%	0.109	0.785	0.665	187.500	15.710	401.000	394.700	401.300	TM 23240.000
x		107.1%	0.109	0.875	0.640	184.500	15.940	409.800	396.600	401.000	TM 22950.000
σ		2.2%	0.004	0.078	0.070	10.190	0.702	11.070	7.019	4.453	TM 413.300
%RSD		2.1	3.610	8.902	11.010	5.522	4.402	2.702	1.770	1.110	TM 1.801

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	T 1531.000	T 312900.000	351.500	380.900	307.600	102.1%	253.000	50.170	44.010	6997.000
2	22:22:26	T 1531.000	T 310000.000	346.900	404.700	302.700	103.6%	245.500	49.960	43.370	7334.000
3	22:22:53	T 1529.000	T 304300.000	341.700	420.100	294.800	101.8%	240.000	48.660	42.160	6731.000
x		T 1530.000	T 309100.000	346.700	401.900	301.700	102.5%	246.100	49.600	43.180	7021.000
σ		T 1.174	T 4383.000	4.940	19.770	6.450	0.9%	6.528	0.817	0.939	302.000
%RSD		T 0.077	T 1.418	1.425	4.918	2.138	0.9	2.652	1.647	2.175	4.301

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	T 16800.000	11.100	T 16630.000	16550.000	1.142	4.960	5.356	0.322	0.478	4.948
2	22:22:26	T 16080.000	10.720	T 16470.000	16240.000	1.145	5.136	4.987	0.257	0.499	5.202
3	22:22:53	T 16110.000	10.470	T 16040.000	15860.000	1.094	4.919	5.128	0.281	0.479	4.836
x		T 16330.000	10.770	T 16380.000	16220.000	1.127	5.005	5.157	0.287	0.485	4.996
σ		T 411.100	0.318	T 302.200	349.700	0.028	0.115	0.186	0.033	0.012	0.187
%RSD		T 2.518	2.953	T 1.845	2.156	2.526	2.306	3.608	11.430	2.425	3.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	7.109	5.495	4.998	1.647	5.881	7.042	3.625	1.013	-1.503	15.840
2	22:22:26	7.140	5.551	4.309	1.036	6.155	6.335	4.636	1.289	-2.010	15.680
3	22:22:53	6.967	5.206	4.599	1.028	5.455	5.245	3.128	0.859	-0.147	15.230
x		7.072	5.417	4.635	1.237	5.830	6.207	3.796	1.054	-1.220	15.580
σ		0.092	0.185	0.346	0.355	0.353	0.906	0.769	0.218	0.963	0.317
%RSD		1.305	3.422	7.461	28.710	6.054	14.590	20.240	20.670	78.930	2.033

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	104.4%	1.138	1.281	1.250	2.977	0.025	0.002	0.008	0.050	96.6%
2	22:22:26	106.5%	1.061	1.175	1.093	2.601	0.022	0.011	0.008	-0.014	97.8%
3	22:22:53	105.6%	1.085	1.085	1.145	3.874	0.010	0.007	0.016	0.016	97.5%
x		105.5%	1.095	1.180	1.163	3.151	0.019	0.006	0.010	0.018	97.3%
σ		1.1%	0.039	0.098	0.080	0.654	0.008	0.004	0.005	0.032	0.7%
%RSD		1.0	3.577	8.316	6.868	20.770	42.630	70.930	43.680	182.200	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	5.678	7.216	0.131	0.165	24.810	24.660	96.4%	0.062	0.066	11.260
2	22:22:26	5.591	7.091	0.129	0.192	24.500	24.470	98.6%	0.047	0.051	11.110
3	22:22:53	5.286	6.965	0.155	0.170	24.730	24.130	98.4%	0.050	0.055	10.860
x		5.518	7.091	0.138	0.176	24.680	24.420	97.8%	0.053	0.057	11.080
σ		0.206	0.126	0.015	0.014	0.160	0.270	1.2%	0.008	0.008	0.201
%RSD		3.727	1.772	10.710	8.085	0.649	1.105	1.2	15.240	13.360	1.812

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:21:59	10.670	10.920	96.9%
2	22:22:26	10.630	10.740	97.2%
3	22:22:53	10.190	10.460	97.9%
x		10.500	10.710	97.3%
σ		0.264	0.232	0.5%
%RSD		2.511	2.164	0.5

CCV MW10994 04/30/2019 22:27:38 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	94.1%	300.200	304.300	296.600	51.280	T65100.000	T62060.000	T60930.000	T61500.000	315.000
2	22:28:34	94.5%	307.000	309.300	298.800	58.320	T65770.000	T62080.000	T61410.000	T60900.000	302.900
3	22:29:01	97.4%	292.900	297.600	293.000	56.150	T64020.000	T60910.000	T60670.000	T60650.000	295.700
x		95.3%	100.002%	101.238%	98.705%	55.250	T108.276%	T61680.000	T61000.000	T101.694%	101.512%
σ		1.8%	n/a	n/a	n/a	3.604	Tn/a	T673.400	T375.700	Tn/a	n/a
%RSD		1.9	2.346	1.930	0.985	6.524	T1.358	T1.092	T0.616	T0.723	3.207

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	T3260.000	2992.000	T67100.000	65610.000	T64860.000	92.9%	318.300	324.600	309.200	984.100
2	22:28:34	T3214.000	2747.000	T65280.000	64130.000	T65740.000	94.6%	312.000	323.500	306.200	1015.000
3	22:29:01	T3090.000	2678.000	T64920.000	64310.000	T65610.000	94.0%	312.300	309.900	301.200	3110.000
x		T106.270%	2806.000	T109.613%	64680.000	T109.006%	93.8%	104.728%	106.446%	101.847%	1703.000
σ		Tn/a	165.100	Tn/a	805.600	Tn/a	0.9%	n/a	n/a	n/a	1218.000
%RSD		T2.762	5.882	T1.782	1.245	T0.731	0.9	1.128	2.558	1.317	71.550

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	T64590.000	299.000	T64460.000	T62400.000	302.100	295.800	303.200	297.100	317.700	320.500
2	22:28:34	T63770.000	299.800	T64890.000	T63620.000	303.400	291.500	291.600	293.500	309.600	318.700
3	22:29:01	T64950.000	294.300	T63750.000	T61840.000	297.800	295.200	295.000	297.800	314.700	315.700
x		T64440.000	99.231%	T64360.000	T104.366%	100.369%	98.047%	296.600	296.100	104.662%	106.101%
σ		T604.100	n/a	T574.600	Tn/a	n/a	n/a	5.954	2.342	n/a	n/a
%RSD		T0.938	0.996	T0.893	T1.458	0.979	0.788	2.008	0.791	1.310	0.756

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	301.000	305.500	297.800	318.800	1.073	1.315	1300.000	311.200	2.130	308.000
2	22:28:34	300.000	301.300	302.900	306.600	1.519	0.318	1330.000	316.700	-1.217	307.000
3	22:29:01	302.000	297.100	298.200	318.300	1.400	0.626	1391.000	329.800	0.005	304.900
x		301.000	301.300	99.879%	314.600	1.331	0.753	1340.000	106.399%	0.306	102.209%
σ		0.997	4.240	n/a	6.942	0.231	0.511	45.870	n/a	1.694	n/a
%RSD		0.331	1.407	0.941	2.207	17.360	67.850	3.422	2.996	553.600	0.505

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	87.8%	323.500	322.800	324.300	303.000	301.700	301.200	304.100	307.300	83.7%
2	22:28:34	91.6%	319.400	317.900	320.500	299.900	300.600	300.700	306.200	306.700	87.5%
3	22:29:01	87.3%	319.200	319.900	323.500	313.000	299.800	302.400	305.600	305.000	84.2%
x		88.9%	106.901%	106.736%	322.800	305.300	100.229%	301.400	305.300	102.117%	85.2%
σ		2.4%	n/a	n/a	1.987	6.831	n/a	0.886	1.075	n/a	2.1%
%RSD		2.7	0.768	0.772	0.616	2.237	0.323	0.294	0.352	0.391	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	317.300	314.000	315.000	308.300	308.500	311.800	86.0%	308.100	312.100	305.500
2	22:28:34	316.700	316.100	318.700	314.300	314.100	312.800	89.2%	309.700	314.600	305.900
3	22:29:01	315.900	311.400	312.900	312.100	313.600	313.200	85.4%	309.100	316.000	308.000
x		105.540%	104.618%	315.500	103.851%	104.016%	104.197%	86.8%	309.000	104.742%	102.150%
σ		n/a	n/a	2.966	n/a	n/a	n/a	2.0%	0.826	n/a	n/a
%RSD		0.229	0.752	0.940	0.979	0.987	0.217	2.4	0.267	0.625	0.432

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:28:06	304.800	307.800	83.3%
2	22:28:34	307.500	308.800	86.5%
3	22:29:01	308.000	309.900	82.1%
x		102.261%	102.950%	84.0%
σ		n/a	n/a	2.3%
%RSD		0.565	0.353	2.7

CCB IM9390-01 04/30/2019 22:33:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	100.5%	0.070	1.109	0.684	27.640	7.369	7.234	6.688	7.195	0.913
2	22:34:41	102.5%	0.029	0.786	0.614	30.200	5.504	5.663	5.664	6.193	0.752
3	22:35:08	106.8%	0.012	0.991	0.514	14.410	6.956	5.094	5.450	5.380	0.690
x		103.3%	0.037	0.962	0.604	24.080	6.610	5.997	5.934	6.256	0.785
σ		3.2%	0.030	0.164	0.086	8.475	0.980	1.108	0.662	0.909	0.115
%RSD		3.1	80.400	16.990	14.190	35.190	14.820	18.480	11.150	14.530	14.620

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	14.670	1719.000	14.450	10.870	7.177	97.2%	-0.066	0.074	0.107	32.590
2	22:34:41	14.200	1664.000	12.690	6.228	6.618	98.4%	-0.055	0.062	0.082	40.130
3	22:35:08	14.530	1731.000	14.320	3.697	5.274	97.7%	0.019	0.051	0.086	58.500
x		14.470	1705.000	13.820	6.930	6.356	97.8%	-0.034	0.062	0.092	43.740
σ		0.240	35.700	0.983	3.635	0.978	0.6%	0.046	0.012	0.014	13.320
%RSD		1.657	2.094	7.112	52.460	15.380	0.6	136.000	18.890	14.750	30.460

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	6.697	0.119	12.210	-8.055	0.065	0.061	0.173	0.022	0.051	0.391
2	22:34:41	5.704	0.095	9.917	-5.931	0.056	0.027	-0.269	0.011	0.070	0.143
3	22:35:08	8.070	0.099	11.650	-5.038	0.042	0.034	-0.041	0.016	0.013	0.005
x		6.824	0.104	11.260	-6.341	0.054	0.041	-0.046	0.016	0.044	0.179
σ		1.188	0.013	1.196	1.550	0.012	0.018	0.221	0.006	0.029	0.196
%RSD		17.410	12.260	10.620	24.440	21.450	44.030	484.300	36.420	65.400	109.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	0.600	0.455	-0.018	-0.331	0.281	0.129	-0.948	-0.230	1.135	0.036
2	22:34:41	0.085	0.173	0.049	-0.233	-0.010	0.269	0.928	0.305	-1.684	0.030
3	22:35:08	-0.058	0.050	0.006	0.173	0.526	0.939	-0.290	-0.002	-0.687	0.024
x		0.209	0.226	0.013	-0.131	0.265	0.446	-0.103	0.025	-0.412	0.030
σ		0.346	0.208	0.034	0.268	0.268	0.433	0.952	0.269	1.429	0.006
%RSD		165.700	91.970	270.300	204.900	101.100	97.170	920.900	1087.000	347.000	19.660

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	93.5%	0.069	0.085	0.103	-0.558	0.023	0.040	0.026	0.040	93.0%
2	22:34:41	95.6%	0.108	0.068	0.048	-0.361	0.020	0.026	0.035	0.029	92.6%
3	22:35:08	93.7%	0.060	0.118	0.068	-0.191	0.023	0.031	0.039	0.048	90.8%
x		94.3%	0.079	0.090	0.073	-0.370	0.022	0.033	0.033	0.039	92.1%
σ		1.2%	0.025	0.025	0.028	0.184	0.002	0.007	0.007	0.009	1.2%
%RSD		1.3	32.290	27.920	38.460	49.720	9.023	22.040	20.420	24.250	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	0.079	0.099	0.171	0.161	0.029	0.047	91.5%	0.019	0.025	0.027
2	22:34:41	0.071	0.078	0.130	0.149	0.047	0.060	92.1%	0.018	0.016	0.028
3	22:35:08	0.059	0.068	0.128	0.125	0.082	0.050	88.1%	0.009	0.008	0.016
x		0.070	0.082	0.143	0.145	0.053	0.052	90.6%	0.015	0.017	0.024
σ		0.010	0.016	0.024	0.018	0.027	0.007	2.2%	0.005	0.008	0.006
%RSD		14.120	19.640	16.820	12.640	50.770	13.470	2.4	34.430	50.920	26.980

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:34:14	0.042	0.044	92.9%
2	22:34:41	0.021	0.030	93.3%
3	22:35:08	0.029	0.024	88.8%
x		0.031	0.032	91.7%
σ		0.011	0.010	2.5%
%RSD		35.570	31.350	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	106.6%	0.093	1.065	0.946	-0.735	41.210	T 1178.000	1197.000	1234.000	TM 72790.000
2	22:40:48	103.7%	0.096	1.222	1.094	-0.456	40.170	T 1164.000	1195.000	1220.000	TM 71300.000
3	22:41:15	108.2%	0.091	1.125	0.894	-2.623	40.470	T 1178.000	1187.000	1230.000	TM 73390.000
x		106.1%	0.093	1.137	0.978	-1.271	40.620	T 1173.000	1193.000	1228.000	TM 72490.000
σ		2.3%	0.003	0.079	0.104	1.179	0.533	T 8.232	4.867	7.310	TM 1079.000
%RSD		2.1	2.868	6.972	10.600	92.730	1.313	T 0.702	0.408	0.595	TM 1.488

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	T 1265.000	T 292900.000	999.500	2235.000	1881.000	102.5%	M 682.600	44.700	109.000	8704.000
2	22:40:48	T 1261.000	T 284100.000	979.500	2253.000	1832.000	103.7%	M 671.300	45.030	108.400	7599.000
3	22:41:15	T 1224.000	T 286800.000	T 988.800	2392.000	1831.000	101.7%	M 686.200	46.100	109.800	8803.000
x		T 1250.000	T 288000.000	T 989.300	2293.000	1848.000	102.7%	M 680.000	45.280	109.100	8368.000
σ		T 22.300	T 4514.000	T 9.995	85.680	28.100	1.0%	M 7.745	0.734	0.665	668.400
%RSD		T 1.784	T 1.568	T 1.010	3.737	1.520	1.0	M 1.139	1.620	0.610	7.987

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	T 9549.000	35.940	T 9602.000	9547.000	4.366	22.470	21.860	1.009	1.756	19.260
2	22:40:48	T 9429.000	35.280	T 9402.000	9374.000	4.415	23.000	24.030	0.989	1.571	18.950
3	22:41:15	T 9505.000	35.510	T 9558.000	9429.000	4.382	22.890	23.770	0.931	1.628	18.600
x		T 9494.000	35.570	T 9521.000	9450.000	4.388	22.790	23.220	0.976	1.652	18.940
σ		T 61.050	0.334	T 105.400	88.610	0.025	0.282	1.188	0.040	0.095	0.330
%RSD		T 0.643	0.939	T 1.108	0.938	0.569	1.236	5.116	4.145	5.734	1.741

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	19.820	19.800	1.702	1.030	8.630	7.734	3.765	1.228	1.400	25.130
2	22:40:48	20.800	19.020	0.898	0.791	8.798	7.651	4.641	1.431	2.484	24.870
3	22:41:15	20.320	18.890	0.823	0.732	8.285	8.319	2.116	0.786	0.321	24.940
x		20.310	19.240	1.141	0.851	8.571	7.901	3.507	1.148	1.402	24.980
σ		0.488	0.491	0.487	0.158	0.262	0.364	1.282	0.330	1.081	0.133
%RSD		2.402	2.551	42.720	18.520	3.053	4.609	36.550	28.700	77.140	0.532

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	115.1%	1.277	1.295	1.350	10.460	0.066	0.030	0.019	0.030	94.4%
2	22:40:48	118.0%	1.324	1.421	1.411	11.840	0.076	0.024	0.061	0.042	96.7%
3	22:41:15	114.5%	1.219	1.422	1.289	10.150	0.059	0.030	0.019	0.007	95.0%
x		115.9%	1.273	1.379	1.350	10.820	0.067	0.028	0.033	0.027	95.4%
σ		1.9%	0.052	0.073	0.061	0.902	0.009	0.003	0.024	0.018	1.2%
%RSD		1.6	4.121	5.309	4.525	8.336	12.800	11.740	73.360	66.340	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	6.647	7.386	0.427	0.449	71.930	71.820	95.5%	0.164	0.193	31.850
2	22:40:48	6.751	7.288	0.444	0.431	72.520	71.170	97.7%	0.186	0.180	31.760
3	22:41:15	6.549	7.179	0.368	0.445	70.750	71.140	95.6%	0.196	0.168	31.810
x		6.649	7.284	0.413	0.442	71.730	71.380	96.3%	0.182	0.180	31.810
σ		0.101	0.104	0.040	0.010	0.901	0.386	1.2%	0.016	0.012	0.049
%RSD		1.521	1.424	9.761	2.165	1.256	0.540	1.3	8.972	6.743	0.153

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:40:21	29.550	30.830	95.6%
2	22:40:48	29.860	30.790	97.0%
3	22:41:15	29.290	30.570	95.4%
x		29.570	30.730	96.0%
σ		0.285	0.140	0.9%
%RSD		0.963	0.455	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	106.7%	74.860	83.420	83.740	-24.280	T 1544.000	T 2624.000	T 2609.000	T 2724.000	TM 72170.000
2	22:46:54	109.6%	73.460	81.750	81.490	-26.140	T 1516.000	T 2489.000	2501.000	T 2564.000	TM 67430.000
3	22:47:21	107.0%	75.890	81.090	78.920	-27.980	T 1493.000	T 2439.000	2461.000	2508.000	TM 62470.000
x		107.8%	74.740	82.090	81.380	-26.130	T 1518.000	T 2517.000	T 2524.000	T 2599.000	TM 67360.000
σ		1.6%	1.221	1.205	2.409	1.849	T 25.300	T 95.770	T 76.570	T 112.000	TM 4849.000
%RSD		1.5	1.634	1.467	2.960	7.076	T 1.667	T 3.804	T 3.034	T 4.311	TM 7.199

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	T 4371.000	T 353500.000	T 3925.000	4865.000	4228.000	99.8%	M 1173.000	277.400	321.700	10440.000
2	22:46:54	T 4136.000	T 334000.000	T 3787.000	4506.000	3948.000	104.7%	M 1116.000	266.600	293.500	10260.000
3	22:47:21	T 4036.000	T 325700.000	T 3587.000	4295.000	3961.000	105.2%	M 1069.000	259.600	296.000	8023.000
x		T 4181.000	T 337700.000	T 3767.000	4555.000	4046.000	103.2%	M 1120.000	267.900	303.700	9576.000
σ		T 171.900	T 14260.000	T 170.300	288.400	158.000	3.0%	M 52.060	8.966	15.590	1348.000
%RSD		T 4.111	T 4.223	T 4.520	6.331	3.907	2.9	M 4.650	3.347	5.134	14.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	T 11920.000	274.100	T 12000.000	11860.000	232.600	248.500	236.000	213.400	241.500	249.500
2	22:46:54	T 11270.000	250.400	T 11210.000	10980.000	210.400	228.600	221.400	202.700	225.000	232.300
3	22:47:21	T 10960.000	246.800	T 11080.000	11070.000	209.900	222.400	220.100	198.600	216.800	231.300
x		T 11380.000	257.100	T 11430.000	11300.000	217.600	233.200	225.800	204.900	227.800	237.700
σ		T 491.400	14.810	T 497.300	483.300	12.950	13.600	8.827	7.607	12.610	10.230
%RSD		T 4.318	5.762	T 4.349	4.276	5.950	5.834	3.909	3.712	5.534	4.305

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	220.200	223.200	203.500	222.200	13.240	12.730	814.200	218.100	3.544	T 234.800
2	22:46:54	210.200	211.200	189.900	202.300	12.760	14.150	800.800	209.500	3.652	218.800
3	22:47:21	208.300	213.200	195.500	200.600	12.560	11.910	758.700	199.200	2.512	214.900
x		212.900	215.900	196.300	208.400	12.860	12.930	791.300	208.900	3.236	T 222.800
σ		6.366	6.404	6.824	12.010	0.352	1.135	28.940	9.488	0.629	T 10.540
%RSD		2.990	2.967	3.476	5.761	2.737	8.777	3.658	4.541	19.450	T 4.729

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	109.8%	200.300	193.700	203.900	245.200	234.100	234.200	226.400	230.500	91.3%
2	22:46:54	112.2%	192.100	187.600	197.800	225.600	218.600	218.300	214.100	216.900	96.0%
3	22:47:21	117.3%	186.900	181.900	191.800	219.600	214.400	216.600	212.200	215.800	99.3%
x		113.1%	193.100	187.700	197.800	230.200	222.400	223.000	217.600	221.000	95.5%
σ		3.8%	6.756	5.876	6.089	13.390	10.340	9.712	7.698	8.184	4.0%
%RSD		3.4	3.499	3.130	3.078	5.817	4.652	4.355	3.538	3.703	4.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	239.400	237.000	192.400	191.100	325.400	327.000	92.9%	237.500	240.800	267.400
2	22:46:54	224.400	222.300	181.300	182.500	308.200	309.900	96.4%	226.000	228.300	255.700
3	22:47:21	221.700	219.400	184.100	183.000	306.000	300.000	100.5%	221.300	226.700	254.100
x		228.500	226.200	185.900	185.600	313.200	312.300	96.6%	228.300	231.900	259.100
σ		9.562	9.396	5.769	4.855	10.630	13.690	3.8%	8.316	7.729	7.264
%RSD		4.185	4.153	3.103	2.616	3.393	4.384	4.0	3.643	3.333	2.804

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:46:26	266.000	269.400	90.3%
2	22:46:54	253.200	254.600	95.5%
3	22:47:21	253.200	254.500	99.9%
x		257.500	259.500	95.2%
σ		7.353	8.585	4.8%
%RSD		2.856	3.309	5.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	112.0%	66.650	75.220	76.420	-17.130	T 1433.000	T 2536.000	2545.000	T 2591.000	TM 72660.000
2	22:52:59	111.0%	66.890	75.650	75.030	-23.150	T 1428.000	T 2553.000	2527.000	T 2605.000	TM 71930.000
3	22:53:26	108.2%	66.950	73.670	70.000	-25.180	T 1353.000	T 2387.000	2480.000	T 2536.000	TM 70430.000
x		110.4%	66.830	74.840	73.810	-21.820	T 1405.000	T 2492.000	2517.000	T 2577.000	TM 71670.000
σ		1.9%	0.157	1.044	3.378	4.187	T 44.680	T 91.170	33.580	T 36.420	TM 1140.000
%RSD		1.8	0.235	1.394	4.576	19.190	T 3.180	T 3.659	1.334	T 1.413	TM 1.591

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	T 3354.000	T 277800.000	T 3710.000	4857.000	4110.000	102.3%	M 1078.000	250.700	307.800	9430.000
2	22:52:59	T 3318.000	T 272900.000	T 3662.000	4713.000	3989.000	102.9%	M 1087.000	254.800	306.500	8510.000
3	22:53:26	T 3350.000	T 258600.000	T 3482.000	4478.000	4036.000	104.2%	M 1095.000	257.000	301.800	7438.000
x		T 3341.000	T 269800.000	T 3618.000	4683.000	4045.000	103.1%	M 1086.000	254.200	305.400	8459.000
σ		T 19.300	T 9997.000	T 120.300	191.500	60.990	1.0%	M 8.356	3.206	3.144	997.000
%RSD		T 0.578	T 3.706	T 3.326	4.089	1.508	0.9	M 0.769	1.262	1.029	11.790

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	T 11680.000	237.200	T 11400.000	11440.000	205.000	218.700	209.000	188.900	216.600	224.000
2	22:52:59	T 11560.000	237.200	T 11540.000	11540.000	200.700	215.700	206.000	188.400	218.100	225.500
3	22:53:26	T 11380.000	236.100	T 11570.000	11500.000	199.100	216.000	203.100	186.800	215.300	228.700
x		T 11540.000	236.900	T 11500.000	11500.000	201.600	216.800	206.000	188.100	216.700	226.100
σ		T 150.000	0.627	T 86.130	53.680	3.018	1.672	2.994	1.119	1.407	2.413
%RSD		T 1.300	0.265	T 0.749	0.467	1.497	0.771	1.453	0.595	0.650	1.067

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	197.000	200.600	175.200	197.400	7.681	6.933	714.400	192.600	2.042	202.300
2	22:52:59	198.200	201.800	179.000	192.400	6.639	8.526	732.200	197.900	6.305	202.800
3	22:53:26	201.900	204.300	182.500	204.200	7.782	7.104	708.400	193.200	3.551	203.200
x		199.000	202.200	178.900	198.000	7.367	7.521	718.300	194.600	3.966	202.800
σ		2.575	1.891	3.644	5.881	0.632	0.875	12.360	2.933	2.161	0.458
%RSD		1.294	0.935	2.037	2.970	8.584	11.630	1.721	1.508	54.500	0.226

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	111.2%	174.800	168.300	177.600	211.700	205.200	205.400	199.200	202.500	92.1%
2	22:52:59	112.6%	175.400	170.300	178.900	214.100	208.800	207.800	202.000	202.500	92.9%
3	22:53:26	115.9%	175.900	166.800	178.900	209.600	207.500	207.200	202.300	205.000	94.5%
x		113.2%	175.400	168.500	178.500	211.800	207.100	206.800	201.100	203.300	93.2%
σ		2.4%	0.545	1.745	0.783	2.241	1.795	1.245	1.710	1.464	1.2%
%RSD		2.1	0.311	1.036	0.439	1.058	0.866	0.602	0.850	0.720	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	211.000	206.300	161.100	163.000	298.900	300.900	91.9%	210.100	213.000	238.800
2	22:52:59	211.100	206.900	161.800	163.600	296.000	296.700	93.4%	209.200	211.300	237.900
3	22:53:26	212.400	208.900	165.900	166.300	295.600	295.900	95.5%	209.000	212.900	239.200
x		211.500	207.400	162.900	164.300	296.900	297.800	93.6%	209.400	212.400	238.600
σ		0.791	1.337	2.557	1.726	1.814	2.721	1.8%	0.565	0.988	0.637
%RSD		0.374	0.645	1.569	1.050	0.611	0.914	1.9	0.270	0.465	0.267

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:52:32	236.100	238.000	89.4%
2	22:52:59	235.100	237.200	90.9%
3	22:53:26	237.600	239.800	93.8%
x		236.300	238.400	91.4%
σ		1.259	1.327	2.2%
%RSD		0.533	0.557	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	104.8%	0.097	0.552	0.548	20.460	8.152	264.000	259.500	264.900	TM 11970.000
2	22:59:04	102.1%	0.086	0.827	0.432	19.760	7.266	260.600	258.600	263.100	TM 12060.000
3	22:59:31	104.9%	0.077	0.926	0.430	18.570	7.253	261.200	260.000	265.700	TM 11800.000
x		103.9%	0.087	0.768	0.470	19.600	7.557	262.000	259.400	264.500	TM 11940.000
σ		1.6%	0.010	0.194	0.067	0.954	0.516	1.809	0.675	1.333	TM 132.300
%RSD		1.5	11.940	25.270	14.320	4.868	6.823	0.691	0.260	0.504	TM 1.108

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	T 213.900	T 54910.000	170.200	408.200	300.400	101.8%	106.700	7.161	17.550	1534.000
2	22:59:04	T 217.300	T 54380.000	168.700	382.700	306.500	100.7%	109.000	7.876	17.660	1190.000
3	22:59:31	T 211.100	T 54720.000	168.600	367.000	304.900	101.8%	107.000	7.398	18.000	1441.000
x		T 214.100	T 54670.000	169.200	386.000	303.900	101.5%	107.600	7.478	17.740	1389.000
σ		T 3.103	T 264.500	0.876	20.790	3.153	0.6%	1.262	0.364	0.234	177.700
%RSD		T 1.450	T 0.484	0.518	5.386	1.037	0.6	1.173	4.872	1.317	12.800

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	1586.000	5.850	T 1616.000	1488.000	0.777	3.746	3.927	0.242	0.329	3.370
2	22:59:04	1574.000	5.863	T 1612.000	1519.000	0.799	3.648	3.589	0.196	0.279	3.338
3	22:59:31	1589.000	5.992	T 1638.000	1514.000	0.752	3.731	3.894	0.237	0.327	3.126
x		1583.000	5.901	T 1622.000	1507.000	0.776	3.709	3.803	0.225	0.312	3.278
σ		7.948	0.078	T 14.270	16.590	0.024	0.053	0.186	0.025	0.029	0.132
%RSD		0.502	1.329	T 0.880	1.100	3.078	1.417	4.901	11.120	9.170	4.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	3.425	3.572	0.392	0.103	1.903	1.953	0.301	0.132	-0.110	4.679
2	22:59:04	4.143	3.779	0.104	0.103	1.938	1.481	2.814	0.741	0.042	4.602
3	22:59:31	3.518	3.771	0.374	0.068	1.882	1.880	1.135	0.373	-0.540	4.629
x		3.695	3.707	0.290	0.091	1.908	1.772	1.417	0.415	-0.203	4.637
σ		0.391	0.118	0.161	0.020	0.029	0.254	1.280	0.307	0.302	0.039
%RSD		10.570	3.173	55.600	22.160	1.498	14.340	90.350	73.880	149.000	0.847

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	98.0%	0.307	0.202	0.280	1.869	0.056	0.029	0.037	0.048	94.2%
2	22:59:04	99.2%	0.222	0.249	0.322	-0.050	0.031	0.020	0.028	0.021	94.2%
3	22:59:31	101.7%	0.209	0.277	0.235	0.825	0.030	0.032	0.044	0.065	95.3%
x		99.6%	0.246	0.243	0.279	0.882	0.039	0.027	0.037	0.045	94.6%
σ		1.9%	0.053	0.038	0.044	0.961	0.015	0.006	0.008	0.022	0.6%
%RSD		1.9	21.650	15.580	15.590	109.000	37.440	22.350	21.820	49.130	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	1.072	1.181	0.080	0.078	12.430	11.810	91.2%	0.129	0.118	5.058
2	22:59:04	1.082	1.165	0.067	0.071	11.680	11.580	93.2%	0.113	0.120	5.002
3	22:59:31	1.000	1.152	0.071	0.095	11.390	11.420	94.7%	0.112	0.119	5.041
x		1.051	1.166	0.073	0.081	11.830	11.600	93.0%	0.118	0.119	5.034
σ		0.044	0.015	0.006	0.012	0.536	0.194	1.8%	0.010	0.001	0.029
%RSD		4.222	1.249	8.578	14.710	4.534	1.674	1.9	8.092	0.825	0.568

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:58:37	4.662	4.856	91.7%
2	22:59:04	4.870	4.932	94.2%
3	22:59:31	4.788	4.874	95.8%
x		4.773	4.887	93.9%
σ		0.105	0.040	2.1%
%RSD		2.192	0.809	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	104.9%	76.760	85.950	84.420	6.949	T 1508.000	T 2479.000	2530.000	T 2673.000	TM 65030.000
2	23:05:10	104.1%	80.330	89.930	86.510	17.380	T 1540.000	T 2505.000	2518.000	2629.000	TM 66580.000
3	23:05:37	T 121.5%	77.680	85.650	86.240	12.520	T 1558.000	T 2553.000	T 2621.000	T 2724.000	TM 67800.000
x		T 110.2%	78.260	87.170	85.720	12.280	T 1535.000	T 2512.000	T 2556.000	T 2676.000	TM 66470.000
σ		T 9.8%	1.856	2.388	1.135	5.221	T 25.450	T 37.420	T 56.310	T 47.640	TM 1387.000
%RSD		T 8.9	2.372	2.739	1.324	42.500	T 1.657	T 1.489	T 2.203	T 1.781	TM 2.086

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	T 3239.000	T 272500.000	T 2995.000	4399.000	3966.000	102.6%	M 832.800	275.800	321.100	6885.000
2	23:05:10	T 3320.000	T 270600.000	T 3072.000	4471.000	3943.000	101.8%	M 853.100	280.400	334.900	6906.000
3	23:05:37	T 2835.000	T 274100.000	T 3180.000	4782.000	4149.000	101.2%	M 856.100	278.900	329.600	8658.000
x		T 3131.000	T 272400.000	T 3082.000	4551.000	4020.000	101.9%	M 847.300	278.300	328.500	7483.000
σ		T 259.600	T 1742.000	T 93.030	203.500	112.900	0.7%	M 12.680	2.367	6.968	1018.000
%RSD		T 8.291	T 0.640	T 3.018	4.471	2.808	0.7	M 1.497	0.851	2.121	13.600

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	T 11020.000	249.200	T 10910.000	10870.000	223.900	235.000	226.800	214.500	243.600	255.500
2	23:05:10	T 11070.000	256.300	T 11020.000	11040.000	228.600	246.900	231.300	213.600	243.000	260.100
3	23:05:37	T 11120.000	257.100	T 11030.000	10890.000	230.600	244.100	240.000	216.800	241.800	256.300
x		T 11070.000	254.200	T 10980.000	10930.000	227.700	242.000	232.700	215.000	242.800	257.300
σ		T 51.860	4.375	T 66.320	92.590	3.473	6.208	6.668	1.636	0.919	2.431
%RSD		T 0.469	1.721	T 0.604	0.847	1.525	2.565	2.866	0.761	0.379	0.945

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	222.000	223.400	220.200	234.000	8.424	8.229	872.400	236.000	5.893	220.500
2	23:05:10	234.800	227.600	228.500	234.100	8.534	8.061	880.400	238.000	1.840	222.500
3	23:05:37	226.800	224.500	223.600	235.700	7.585	7.623	866.400	232.700	6.345	225.000
x		227.800	225.100	224.100	234.600	8.181	7.971	873.000	235.500	4.693	222.700
σ		6.438	2.145	4.164	0.997	0.519	0.313	7.005	2.684	2.481	2.212
%RSD		2.826	0.953	1.858	0.425	6.342	3.921	0.802	1.139	52.870	0.993

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	111.1%	210.300	203.600	215.600	233.000	235.300	234.000	228.500	231.700	91.7%
2	23:05:10	114.2%	215.100	206.200	216.900	237.200	236.000	234.000	231.000	235.700	93.8%
3	23:05:37	110.7%	210.600	203.400	216.500	229.000	235.900	234.500	229.700	233.500	91.9%
x		112.0%	212.000	204.400	216.300	233.100	235.700	234.200	229.700	233.700	92.5%
σ		1.9%	2.673	1.581	0.670	4.106	0.375	0.265	1.271	1.959	1.2%
%RSD		1.7	1.261	0.774	0.310	1.762	0.159	0.113	0.553	0.839	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	242.400	242.300	229.200	226.000	302.700	298.500	93.3%	234.300	238.300	262.200
2	23:05:10	247.200	245.800	232.300	232.300	301.000	305.100	94.5%	236.200	238.400	262.500
3	23:05:37	245.500	243.200	227.100	230.000	306.700	307.200	91.8%	237.300	240.700	266.900
x		245.000	243.800	229.600	229.400	303.400	303.600	93.2%	235.900	239.100	263.800
σ		2.448	1.776	2.636	3.206	2.942	4.559	1.3%	1.505	1.391	2.655
%RSD		0.999	0.729	1.148	1.397	0.970	1.502	1.4	0.638	0.582	1.006

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:04:43	261.000	262.800	90.3%
2	23:05:10	261.100	264.400	92.0%
3	23:05:37	264.000	266.700	89.2%
x		262.000	264.600	90.5%
σ		1.739	1.931	1.4%
%RSD		0.664	0.730	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	107.3%	0.067	1.161	0.973	44.410	20.210	T 491.900	490.200	492.500	TM 25080.000
2	23:11:15	107.8%	0.055	1.274	0.877	41.620	19.200	471.300	468.500	475.300	TM 23860.000
3	23:11:42	110.6%	0.072	1.287	0.939	36.160	21.690	T 469.600	459.000	476.200	TM 24370.000
x		108.6%	0.064	1.241	0.930	40.730	20.370	T 477.600	472.600	481.400	TM 24440.000
σ		1.8%	0.009	0.069	0.049	4.196	1.251	T 12.430	15.970	9.687	TM 612.800
%RSD		1.6	13.630	5.558	5.257	10.300	6.140	T 2.603	3.379	2.012	TM 2.507

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	T 1616.000	T 318700.000	365.600	797.400	655.100	99.9%	412.400	16.980	34.180	7609.000
2	23:11:15	T 1628.000	T 311000.000	355.200	783.100	650.200	102.0%	393.200	15.430	33.760	7456.000
3	23:11:42	T 1529.000	T 312800.000	358.500	820.900	647.400	102.5%	390.300	14.680	32.270	8824.000
x		T 1591.000	T 314200.000	359.700	800.500	650.900	101.5%	398.600	15.700	33.400	7963.000
σ		T 54.470	T 4009.000	5.307	19.120	3.882	1.4%	12.000	1.171	1.001	749.600
%RSD		T 3.423	T 1.276	1.475	2.389	0.597	1.4	3.011	7.462	2.997	9.414

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	3220.000	18.950	T 3204.000	3114.000	1.623	8.002	8.006	0.463	0.875	6.431
2	23:11:15	3073.000	18.210	T 3042.000	2934.000	1.533	8.018	8.285	0.465	0.897	6.776
3	23:11:42	3126.000	17.850	T 3074.000	2920.000	1.503	7.768	8.349	0.431	0.813	6.596
x		3140.000	18.340	T 3107.000	2989.000	1.553	7.930	8.214	0.453	0.862	6.601
σ		74.610	0.559	T 86.000	107.900	0.062	0.140	0.183	0.019	0.043	0.172
%RSD		2.376	3.049	T 2.768	3.610	4.006	1.763	2.222	4.255	5.032	2.612

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	8.288	6.802	0.348	0.420	6.168	5.708	-0.663	0.019	-0.514	14.920
2	23:11:15	8.211	7.265	0.224	0.576	5.853	5.598	-0.354	0.140	-1.185	14.700
3	23:11:42	7.662	6.772	1.091	0.028	5.248	5.465	1.225	0.480	1.377	14.750
x		8.054	6.946	0.554	0.342	5.757	5.590	0.069	0.213	-0.107	14.790
σ		0.341	0.276	0.469	0.282	0.467	0.121	1.013	0.239	1.329	0.116
%RSD		4.239	3.976	84.610	82.610	8.120	2.171	1461.000	112.100	1240.000	0.783

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	109.0%	0.515	0.494	0.534	3.006	0.042	0.043	0.023	0.035	94.3%
2	23:11:15	110.4%	0.656	0.560	0.581	5.354	0.034	0.043	0.023	0.035	94.1%
3	23:11:42	106.7%	0.554	0.484	0.496	4.684	0.044	0.040	0.053	0.027	91.8%
x		108.7%	0.575	0.513	0.537	4.348	0.040	0.042	0.033	0.032	93.4%
σ		1.9%	0.073	0.041	0.042	1.209	0.005	0.002	0.017	0.005	1.3%
%RSD		1.7	12.670	8.057	7.859	27.820	12.490	3.714	52.470	15.340	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	5.739	7.205	0.402	0.456	27.680	27.690	93.7%	0.115	0.102	13.220
2	23:11:15	5.670	6.822	0.430	0.380	27.000	27.500	95.1%	0.092	0.086	12.550
3	23:11:42	5.536	6.760	0.346	0.354	26.780	26.390	92.3%	0.080	0.090	12.770
x		5.648	6.929	0.393	0.397	27.160	27.200	93.7%	0.096	0.093	12.850
σ		0.103	0.241	0.043	0.053	0.468	0.701	1.4%	0.018	0.009	0.340
%RSD		1.830	3.478	10.930	13.410	1.722	2.577	1.5	18.410	9.377	2.645

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:10:48	12.330	12.800	90.7%
2	23:11:15	12.060	12.320	92.4%
3	23:11:42	11.600	12.250	88.5%
x		12.000	12.460	90.6%
σ		0.369	0.296	1.9%
%RSD		3.077	2.375	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	110.8%	0.109	1.125	1.057	71.780	37.810	T 933.200	946.800	976.300	TM 64200.000
2	23:17:20	106.2%	0.121	1.297	0.868	68.020	34.930	T 907.900	915.200	960.800	TM 61890.000
3	23:17:48	110.1%	0.101	0.945	0.946	67.530	33.340	T 892.000	888.000	919.000	TM 57830.000
x		109.0%	0.111	1.122	0.957	69.110	35.360	T 911.000	916.700	952.000	TM 61310.000
σ		2.5%	0.010	0.176	0.095	2.322	2.266	T 20.760	29.470	29.600	TM 3227.000
%RSD		2.3	8.991	15.690	9.938	3.360	6.409	T 2.279	3.214	3.110	TM 5.263

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	T 1611.000	T 305400.000	T 862.800	1931.000	1406.000	99.9%	M 629.300	63.660	65.750	8613.000
2	23:17:20	T 1640.000	T 294600.000	820.000	1807.000	1411.000	101.5%	M 624.200	64.550	64.520	7742.000
3	23:17:48	T 1533.000	T 283600.000	798.400	1671.000	1370.000	103.9%	M 598.000	59.710	61.460	7392.000
x		T 1595.000	T 294600.000	T 827.100	1803.000	1396.000	101.8%	M 617.200	62.640	63.910	7916.000
σ		T 55.020	T 10920.000	T 32.760	130.300	22.230	2.0%	M 16.780	2.579	2.207	628.800
%RSD		T 3.450	T 3.709	T 3.962	7.226	1.593	2.0	M 2.718	4.117	3.454	7.944

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	T 34180.000	30.150	T 34530.000	T 34430.000	3.461	17.270	19.110	0.734	1.489	15.130
2	23:17:20	T 34280.000	30.330	T 34100.000	T 33820.000	3.447	17.800	17.700	0.761	1.360	14.830
3	23:17:48	T 33610.000	29.080	T 33360.000	T 32550.000	3.140	16.150	17.880	0.847	1.224	14.760
x		T 34030.000	29.850	T 34000.000	T 33600.000	3.350	17.070	18.230	0.781	1.358	14.910
σ		T 361.100	0.677	T 592.800	T 960.500	0.182	0.845	0.767	0.059	0.133	0.196
%RSD		T 1.061	2.269	T 1.744	T 2.859	5.418	4.946	4.208	7.541	9.757	1.313

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	17.440	14.470	15.000	0.900	6.927	5.765	7.612	2.256	-0.044	34.080
2	23:17:20	16.740	14.280	14.680	1.332	6.169	6.333	3.360	1.069	1.138	33.670
3	23:17:48	16.910	14.380	14.750	1.423	5.922	5.997	3.214	1.066	-0.509	33.140
x		17.030	14.380	14.810	1.218	6.339	6.032	4.729	1.464	0.195	33.630
σ		0.362	0.095	0.167	0.280	0.523	0.286	2.498	0.687	0.849	0.469
%RSD		2.127	0.663	1.127	22.940	8.255	4.739	52.830	46.910	435.100	1.395

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	107.6%	0.767	0.807	0.819	11.270	0.063	0.022	0.039	0.027	90.3%
2	23:17:20	110.5%	0.810	0.858	0.808	10.770	0.071	0.023	0.014	0.014	93.4%
3	23:17:48	111.9%	0.888	0.791	0.821	8.153	0.065	0.016	0.025	0.042	95.1%
x		110.0%	0.822	0.818	0.816	10.070	0.066	0.021	0.026	0.028	92.9%
σ		2.2%	0.061	0.035	0.007	1.675	0.004	0.004	0.013	0.014	2.4%
%RSD		2.0	7.470	4.291	0.841	16.640	6.018	18.040	49.090	50.590	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	6.609	7.549	0.286	0.309	52.680	51.930	89.7%	0.136	0.150	23.150
2	23:17:20	6.855	7.414	0.241	0.257	50.910	51.050	92.8%	0.169	0.148	22.390
3	23:17:48	6.330	7.224	0.229	0.286	50.330	49.230	95.9%	0.191	0.128	22.240
x		6.598	7.396	0.252	0.284	51.310	50.740	92.8%	0.165	0.142	22.590
σ		0.262	0.163	0.030	0.026	1.223	1.376	3.1%	0.028	0.012	0.492
%RSD		3.976	2.209	11.950	9.267	2.383	2.711	3.4	16.720	8.513	2.175

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:16:53	20.990	22.100	87.6%
2	23:17:20	21.050	21.700	90.7%
3	23:17:48	20.750	21.530	94.7%
x		20.930	21.780	91.0%
σ		0.162	0.293	3.6%
%RSD		0.776	1.344	3.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	107.7%	0.106	0.676	0.532	67.970	27.700	T 734.200	741.600	760.900	TM 45630.000
2	23:23:26	109.0%	0.098	0.806	0.929	74.830	28.850	T 738.900	733.200	753.100	TM 47080.000
3	23:23:53	112.8%	0.080	0.746	0.449	75.810	28.090	T 714.600	725.700	730.000	TM 44980.000
x		109.8%	0.095	0.743	0.637	72.870	28.210	T 729.200	733.500	748.000	TM 45890.000
σ		2.7%	0.013	0.065	0.257	4.274	0.583	T 12.910	7.947	16.070	TM 1074.000
%RSD		2.4	13.910	8.725	40.340	5.866	2.066	T 1.770	1.083	2.148	TM 2.341

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	T 1273.000	T 294700.000	628.500	1223.000	999.300	103.8%	M 528.900	55.240	41.700	7490.000
2	23:23:26	T 1323.000	T 313900.000	658.600	1311.000	992.400	101.4%	M 532.800	55.940	43.220	8399.000
3	23:23:53	T 1221.000	T 299100.000	629.200	1256.000	988.100	104.6%	M 520.100	53.280	41.330	7966.000
x		T 1272.000	T 302600.000	638.700	1263.000	993.200	103.3%	M 527.300	54.820	42.090	7952.000
σ		T 50.920	T 10060.000	17.170	44.580	5.646	1.7%	M 6.515	1.381	1.002	454.700
%RSD		T 4.001	T 3.325	2.687	3.529	0.568	1.6	M 1.236	2.519	2.380	5.718

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	T 13730.000	25.260	T 13900.000	13580.000	2.684	13.180	13.080	0.493	1.119	11.220
2	23:23:26	T 13620.000	25.270	T 13870.000	13690.000	2.870	13.760	14.830	0.586	0.928	11.360
3	23:23:53	T 13450.000	24.790	T 13530.000	13500.000	2.844	13.070	14.990	0.561	1.011	10.930
x		T 13600.000	25.110	T 13770.000	13590.000	2.799	13.340	14.300	0.547	1.019	11.170
σ		T 141.000	0.276	T 205.600	96.260	0.101	0.367	1.058	0.048	0.096	0.219
%RSD		T 1.037	1.098	T 1.493	0.708	3.599	2.756	7.395	8.842	9.390	1.964

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	11.420	10.990	4.558	0.948	8.307	7.423	2.780	0.782	3.863	26.600
2	23:23:26	12.510	11.370	4.403	1.832	7.486	8.168	1.274	0.449	1.989	26.880
3	23:23:53	13.010	11.000	3.968	1.058	7.442	7.641	3.156	0.987	0.780	26.360
x		12.310	11.120	4.310	1.279	7.745	7.744	2.403	0.739	2.211	26.620
σ		0.815	0.217	0.306	0.482	0.487	0.383	0.996	0.272	1.554	0.261
%RSD		6.619	1.950	7.095	37.670	6.291	4.945	41.440	36.740	70.290	0.982

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	109.9%	0.642	0.660	0.629	5.774	0.021	0.017	0.018	0.016	95.9%
2	23:23:26	109.4%	0.648	0.712	0.598	7.862	0.032	0.017	0.019	0.024	94.9%
3	23:23:53	112.6%	0.649	0.699	0.621	7.054	0.039	0.015	0.034	0.013	96.8%
x		110.6%	0.646	0.690	0.616	6.897	0.031	0.017	0.023	0.018	95.9%
σ		1.7%	0.004	0.027	0.016	1.053	0.009	0.001	0.009	0.005	0.9%
%RSD		1.5	0.612	3.916	2.605	15.260	29.360	7.305	37.470	30.630	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	5.974	6.739	0.193	0.206	41.740	42.090	96.3%	0.128	0.099	20.350
2	23:23:26	5.849	6.675	0.196	0.195	41.870	40.760	94.4%	0.101	0.094	20.100
3	23:23:53	5.887	6.609	0.167	0.187	42.080	41.310	96.9%	0.112	0.106	19.920
x		5.903	6.675	0.186	0.196	41.900	41.390	95.9%	0.114	0.100	20.120
σ		0.064	0.065	0.016	0.009	0.172	0.669	1.3%	0.013	0.006	0.218
%RSD		1.092	0.974	8.534	4.807	0.409	1.617	1.4	11.690	6.154	1.083

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:22:59	18.890	19.760	95.0%
2	23:23:26	18.680	19.370	93.8%
3	23:23:53	18.640	19.340	96.6%
x		18.730	19.490	95.1%
σ		0.137	0.238	1.4%
%RSD		0.728	1.220	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	111.3%	0.087	1.336	0.857	16.110	45.240	T 1250.000	1235.000	1270.000	TM 67070.000
2	23:29:32	109.3%	0.090	1.318	1.058	20.060	47.220	T 1277.000	1286.000	1345.000	TM 73160.000
3	23:29:59	112.6%	0.113	1.253	1.079	25.540	47.720	T 1291.000	1317.000	1362.000	TM 75950.000
x		111.1%	0.097	1.302	0.998	20.570	46.730	T 1272.000	1279.000	1326.000	TM 72060.000
σ		1.7%	0.014	0.044	0.123	4.737	1.309	T 20.910	41.540	49.410	TM 4539.000
%RSD		1.5	14.780	3.350	12.270	23.030	2.801	T 1.643	3.247	3.727	TM 6.298
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	T 1093.000	T 263700.000	T 1035.000	2337.000	1938.000	108.7%	M 634.300	93.870	71.550	7599.000
2	23:29:32	T 1142.000	T 275600.000	1086.000	2452.000	2041.000	104.3%	M 678.000	101.600	79.010	7660.000
3	23:29:59	T 1139.000	T 280800.000	T 1128.000	2540.000	2024.000	103.8%	M 671.700	102.100	79.300	7908.000
x		T 1125.000	T 273400.000	T 1083.000	2443.000	2001.000	105.6%	M 661.400	99.190	76.620	7722.000
σ		T 27.330	T 8735.000	T 46.490	101.700	55.360	2.7%	M 23.620	4.618	4.392	163.600
%RSD		T 2.430	T 3.195	T 4.293	4.162	2.766	2.6	M 3.571	4.656	5.732	2.118
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	T 20940.000	40.120	T 20620.000	T 20220.000	3.881	20.840	22.290	1.497	2.049	20.010
2	23:29:32	T 22410.000	43.640	T 22290.000	T 21850.000	4.345	21.550	22.980	1.529	2.238	21.570
3	23:29:59	T 21960.000	42.740	T 22450.000	T 22020.000	4.318	22.450	22.020	1.556	2.294	21.330
x		T 21770.000	42.170	T 21780.000	T 21370.000	4.181	21.610	22.430	1.527	2.194	20.970
σ		T 754.600	1.828	T 1014.000	T 994.800	0.260	0.809	0.496	0.030	0.129	0.840
%RSD		T 3.466	4.336	T 4.655	T 4.656	6.226	3.743	2.210	1.950	5.869	4.008
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	22.760	19.610	3.882	0.791	5.812	6.117	5.677	1.650	1.714	18.110
2	23:29:32	24.420	20.620	3.679	1.711	6.280	6.404	5.119	1.466	4.052	18.920
3	23:29:59	22.960	19.280	3.904	2.009	6.587	6.852	5.029	1.440	4.345	18.960
x		23.380	19.840	3.822	1.504	6.226	6.458	5.275	1.519	3.370	18.660
σ		0.907	0.697	0.124	0.635	0.390	0.370	0.351	0.115	1.442	0.478
%RSD		3.878	3.511	3.242	42.250	6.267	5.733	6.656	7.553	42.790	2.560
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	117.6%	1.711	1.535	1.676	13.710	0.075	0.021	0.016	0.051	100.0%
2	23:29:32	114.3%	1.691	1.729	1.687	13.450	0.088	0.036	0.044	0.019	96.1%
3	23:29:59	111.0%	1.715	1.589	1.764	12.700	0.066	0.025	0.054	0.048	93.5%
x		114.3%	1.706	1.617	1.709	13.290	0.076	0.027	0.038	0.039	96.5%
σ		3.3%	0.013	0.100	0.048	0.523	0.011	0.008	0.020	0.018	3.3%
%RSD		2.9	0.755	6.190	2.829	3.937	14.330	29.240	51.660	44.450	3.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	6.374	7.022	0.255	0.271	55.720	54.920	99.4%	0.225	0.219	27.300
2	23:29:32	6.689	7.700	0.284	0.283	58.110	57.660	97.3%	0.260	0.239	28.040
3	23:29:59	6.682	7.390	0.287	0.279	57.290	57.810	93.0%	0.210	0.243	28.190
x		6.581	7.370	0.276	0.278	57.040	56.790	96.5%	0.232	0.234	27.840
σ		0.180	0.339	0.018	0.006	1.216	1.625	3.3%	0.026	0.013	0.476
%RSD		2.735	4.605	6.487	2.172	2.131	2.862	3.4	11.110	5.612	1.708
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	23:29:05	25.660	26.560	99.7%							
2	23:29:32	26.670	27.350	96.8%							
3	23:29:59	26.110	27.190	91.3%							
x		26.140	27.030	95.9%							
σ		0.505	0.420	4.2%							
%RSD		1.929	1.555	4.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	109.9%	0.073	1.141	1.039	30.450	38.380	T 1060.000	1057.000	1107.000	TM 63920.000
2	23:35:38	111.8%	0.088	1.509	1.154	25.800	40.000	T 1096.000	1087.000	1104.000	TM 64290.000
3	23:36:06	110.1%	0.087	1.124	1.110	23.590	37.060	T 1061.000	1059.000	1072.000	TM 60780.000
x		110.6%	0.082	1.258	1.101	26.610	38.480	T 1072.000	1067.000	1094.000	TM 62990.000
σ		1.0%	0.008	0.218	0.058	3.501	1.470	T 20.540	16.760	19.570	TM 1929.000
%RSD		0.9	9.671	17.330	5.245	13.160	3.820	T 1.916	1.570	1.788	TM 3.063

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	T 1212.000	T 290500.000	T 917.600	1886.000	1501.000	105.2%	M 574.900	62.460	57.600	7489.000
2	23:35:38	T 1190.000	T 297000.000	T 951.800	2032.000	1515.000	103.9%	M 563.600	62.170	58.540	8664.000
3	23:36:06	T 1163.000	T 278600.000	863.900	1792.000	1444.000	107.0%	M 551.400	58.690	55.820	7187.000
x		T 1188.000	T 288700.000	T 911.100	1903.000	1486.000	105.4%	M 563.300	61.110	57.320	7780.000
σ		T 24.790	T 9352.000	T 44.340	121.100	37.760	1.5%	M 11.780	2.098	1.381	780.300
%RSD		T 2.086	T 3.239	T 4.867	6.364	2.540	1.5	M 2.092	3.434	2.410	10.030

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	T 15540.000	30.110	T 15660.000	15420.000	3.804	18.490	18.350	1.153	1.827	15.720
2	23:35:38	T 15800.000	30.480	T 16010.000	15850.000	3.882	18.630	19.750	1.228	1.611	15.890
3	23:36:06	T 15080.000	29.190	T 15460.000	15050.000	3.699	18.050	18.940	1.139	1.824	15.420
x		T 15470.000	29.930	T 15710.000	15440.000	3.795	18.390	19.020	1.174	1.754	15.670
σ		T 362.800	0.664	T 277.000	401.000	0.092	0.300	0.701	0.048	0.124	0.238
%RSD		T 2.345	2.219	T 1.763	2.597	2.422	1.632	3.685	4.076	7.042	1.521

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	17.330	14.740	2.440	1.427	7.851	7.231	2.515	0.891	-0.260	19.700
2	23:35:38	16.580	15.000	3.332	1.683	7.432	8.036	7.566	2.172	3.011	19.780
3	23:36:06	17.000	14.520	2.791	1.209	8.392	7.629	6.154	1.795	3.970	19.570
x		16.970	14.750	2.854	1.440	7.892	7.632	5.411	1.619	2.240	19.680
σ		0.375	0.243	0.449	0.237	0.481	0.403	2.606	0.659	2.218	0.105
%RSD		2.210	1.646	15.740	16.480	6.099	5.278	48.160	40.670	99.000	0.531

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	110.6%	1.353	1.203	1.324	9.775	0.061	0.019	0.044	0.004	93.6%
2	23:35:38	110.8%	1.398	1.333	1.371	9.108	0.052	0.018	0.015	0.012	92.7%
3	23:36:06	114.8%	1.352	1.349	1.315	8.013	0.050	0.029	0.015	0.049	95.2%
x		112.1%	1.368	1.295	1.337	8.965	0.054	0.022	0.025	0.022	93.8%
σ		2.4%	0.026	0.080	0.030	0.890	0.006	0.006	0.016	0.024	1.2%
%RSD		2.1	1.919	6.163	2.235	9.927	10.490	29.350	66.930	110.900	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	6.176	6.597	0.234	0.223	42.260	41.560	91.4%	0.133	0.133	26.260
2	23:35:38	6.318	6.469	0.270	0.212	42.230	41.170	91.8%	0.128	0.140	26.150
3	23:36:06	5.952	6.687	0.228	0.254	40.920	40.580	95.3%	0.118	0.130	26.230
x		6.148	6.584	0.244	0.230	41.800	41.100	92.8%	0.126	0.134	26.210
σ		0.184	0.110	0.023	0.022	0.767	0.492	2.1%	0.008	0.005	0.056
%RSD		2.996	1.663	9.252	9.594	1.835	1.197	2.3	6.341	3.973	0.213

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:35:11	24.500	25.440	89.2%
2	23:35:38	24.570	25.190	88.1%
3	23:36:06	24.540	25.400	93.8%
x		24.540	25.340	90.4%
σ		0.037	0.138	3.0%
%RSD		0.150	0.544	3.3

CCV MW10994 04/30/2019 23:40:52 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	97.1%	298.300	308.100	294.900	59.090	┬64130.000	┬62030.000	┬62370.000	┬61700.000	316.100
2	23:41:45	97.5%	301.400	304.700	292.600	61.810	┬65440.000	┬62080.000	┬61630.000	┬61250.000	308.800
3	23:42:12	95.6%	309.200	300.900	290.500	53.620	┬65680.000	┬62380.000	┬62160.000	┬62410.000	298.500
x		96.7%	100.998%	101.528%	97.559%	58.170	┬108.471%	┬62170.000	┬62050.000	┬102.976%	102.600%
σ		1.0%	n/a	n/a	n/a	4.169	┬n/a	┬190.900	┬383.500	┬n/a	n/a
%RSD		1.0	1.856	1.185	0.753	7.167	┬1.277	┬0.307	┬0.618	┬0.950	2.868

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	┬3254.000	3153.000	┬64980.000	63250.000	┬65600.000	95.2%	319.700	321.100	301.400	716.600
2	23:41:45	┬3207.000	3155.000	┬66570.000	64780.000	┬65720.000	94.8%	314.100	316.200	302.500	2613.000
3	23:42:12	┬3217.000	2915.000	┬64700.000	63260.000	┬65120.000	97.4%	312.400	316.300	298.700	805.300
x		┬107.534%	3074.000	┬109.024%	63760.000	┬109.138%	95.8%	105.138%	105.958%	100.291%	1378.000
σ		┬n/a	137.600	┬n/a	881.400	┬n/a	1.4%	n/a	n/a	n/a	1070.000
%RSD		┬0.766	4.476	┬1.543	1.382	┬0.484	1.5	1.218	0.889	0.654	77.660

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	┬64990.000	298.100	┬64860.000	┬62490.000	300.800	293.600	300.000	296.300	321.000	320.900
2	23:41:45	┬64210.000	293.900	┬64620.000	┬62790.000	296.900	294.600	301.600	297.700	321.400	319.200
3	23:42:12	┬64030.000	297.000	┬64740.000	┬62880.000	298.200	293.300	294.300	290.200	311.900	317.900
x		┬64410.000	98.774%	┬64740.000	┬104.533%	99.542%	97.947%	298.700	294.800	106.036%	106.451%
σ		┬506.500	n/a	┬115.300	┬n/a	n/a	n/a	3.859	3.996	n/a	n/a
%RSD		┬0.786	0.732	┬0.178	┬0.332	0.664	0.228	1.292	1.356	1.700	0.464

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	291.600	296.500	288.600	322.100	1.104	0.538	1309.000	316.700	2.886	309.300
2	23:41:45	294.200	297.200	287.200	323.500	1.674	1.545	1317.000	317.100	-1.645	308.300
3	23:42:12	295.800	306.200	299.900	317.300	1.347	0.878	1311.000	311.500	-0.055	311.300
x		293.900	300.000	97.296%	320.900	1.375	0.987	1312.000	105.026%	0.396	103.220%
σ		2.089	5.392	n/a	3.253	0.286	0.512	4.364	n/a	2.299	n/a
%RSD		0.711	1.798	2.389	1.013	20.810	51.910	0.333	0.996	581.100	0.498

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	87.1%	325.600	325.200	327.000	309.700	305.700	305.600	303.900	304.700	82.5%
2	23:41:45	86.7%	322.600	321.000	325.200	315.600	304.000	303.300	307.500	303.700	82.6%
3	23:42:12	91.0%	328.500	328.600	326.800	309.200	302.500	305.900	311.000	307.000	87.6%
x		88.3%	108.516%	108.307%	326.300	311.500	101.355%	304.900	307.500	101.713%	84.2%
σ		2.4%	n/a	n/a	0.974	3.568	n/a	1.452	3.533	n/a	2.9%
%RSD		2.7	0.909	1.176	0.298	1.146	0.512	0.476	1.149	0.563	3.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	317.600	314.200	315.300	313.100	315.300	319.100	83.2%	306.600	311.900	300.200
2	23:41:45	316.700	318.100	312.000	314.000	316.300	317.500	83.4%	308.300	314.800	305.200
3	23:42:12	319.200	318.300	320.300	318.400	317.200	314.700	88.6%	309.300	314.300	306.200
x		105.938%	105.617%	315.900	105.058%	105.427%	105.712%	85.0%	308.100	104.546%	101.290%
σ		n/a	n/a	4.199	n/a	n/a	n/a	3.0%	1.367	n/a	n/a
%RSD		0.399	0.726	1.329	0.901	0.309	0.704	3.6	0.444	0.497	1.047

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:41:18	301.400	303.200	78.0%
2	23:41:45	304.700	307.500	79.8%
3	23:42:12	305.000	308.500	85.3%
x		101.238%	102.126%	81.0%
σ		n/a	n/a	3.8%
%RSD		0.672	0.923	4.7

CCB IM9390-01 04/30/2019 23:46:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	102.4%	0.043	1.062	0.671	20.750	9.784	7.188	7.254	7.826	2.017
2	23:47:54	T 115.4%	0.022	0.725	0.675	31.550	7.418	6.302	6.124	5.927	1.668
3	23:48:20	103.1%	0.059	0.779	0.349	22.980	5.169	4.951	4.932	5.086	1.252
x		T 107.0%	0.041	0.855	0.565	25.090	7.457	6.147	6.103	6.280	1.646
σ		T 7.3%	0.019	0.181	0.187	5.704	2.308	1.127	1.161	1.404	0.383
%RSD		T 6.8	45.030	21.130	33.140	22.730	30.950	18.330	19.020	22.350	23.290

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	15.060	2013.000	16.890	8.690	7.827	98.8%	-0.031	0.032	0.078	80.890
2	23:47:54	13.110	1971.000	13.980	5.408	6.245	100.3%	-0.044	0.058	0.090	41.600
3	23:48:20	14.520	1901.000	11.780	4.176	5.878	100.0%	-0.008	0.068	0.076	38.240
x		14.230	1961.000	14.220	6.091	6.650	99.7%	-0.028	0.053	0.081	53.580
σ		1.006	56.590	2.567	2.333	1.036	0.8%	0.018	0.018	0.008	23.720
%RSD		7.070	2.885	18.060	38.300	15.580	0.8	66.060	34.920	9.546	44.270

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	10.700	0.064	15.620	-8.554	0.044	0.024	0.078	0.033	0.031	-0.008
2	23:47:54	6.986	0.057	13.700	-15.120	0.029	0.035	-0.094	0.021	0.028	0.008
3	23:48:20	5.910	0.056	10.200	-14.230	0.038	0.017	-0.633	0.001	0.029	0.051
x		7.867	0.059	13.170	-12.630	0.037	0.025	-0.216	0.018	0.029	0.017
σ		2.515	0.004	2.750	3.562	0.008	0.009	0.371	0.016	0.002	0.031
%RSD		31.980	7.584	20.880	28.190	21.100	34.200	171.400	88.760	5.762	182.800

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	-0.033	0.011	0.060	0.282	0.007	0.942	-0.452	-0.075	-0.161	0.037
2	23:47:54	0.013	0.120	-0.033	0.109	0.330	0.988	1.056	0.310	-1.361	0.026
3	23:48:20	0.011	0.079	0.061	0.181	0.010	-0.258	0.201	0.100	0.013	0.026
x		-0.003	0.070	0.029	0.191	0.116	0.558	0.269	0.112	-0.503	0.029
σ		0.026	0.055	0.054	0.087	0.185	0.707	0.756	0.192	0.748	0.006
%RSD		819.700	78.470	185.100	45.560	160.300	126.700	281.700	172.300	148.700	21.690

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	92.4%	0.088	0.081	0.072	-0.011	0.033	0.041	0.039	0.039	91.4%
2	23:47:54	93.4%	0.084	0.085	0.080	0.812	0.033	0.034	0.039	0.033	92.0%
3	23:48:20	96.4%	0.052	0.063	0.058	-1.150	0.025	0.032	0.005	0.018	93.1%
x		94.1%	0.075	0.076	0.070	-0.116	0.030	0.036	0.028	0.030	92.2%
σ		2.1%	0.020	0.012	0.011	0.986	0.005	0.005	0.019	0.011	0.9%
%RSD		2.2	26.230	15.480	15.950	846.900	15.790	13.510	69.850	37.000	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	0.054	0.095	0.152	0.179	0.001	0.094	87.1%	0.036	0.023	0.045
2	23:47:54	0.050	0.076	0.129	0.157	0.043	0.034	89.4%	0.014	0.027	0.012
3	23:48:20	0.051	0.097	0.124	0.130	0.030	0.033	90.9%	0.009	0.012	0.050
x		0.052	0.090	0.135	0.155	0.024	0.054	89.1%	0.020	0.020	0.036
σ		0.002	0.012	0.015	0.024	0.022	0.035	1.9%	0.014	0.008	0.021
%RSD		4.792	13.170	10.900	15.700	88.810	64.340	2.2	70.600	38.940	58.820

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:47:27	0.010	0.041	87.2%
2	23:47:54	0.034	0.027	89.6%
3	23:48:20	0.014	0.028	91.6%
x		0.019	0.032	89.5%
σ		0.013	0.008	2.2%
%RSD		66.960	24.600	2.5

UD25032-055 04/30/2019 23:53:06

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	107.7%	0.045	0.551	0.284	72.340	12.670	147.500	143.800	146.900	TM 5864.000
2	23:54:01	108.2%	0.019	0.390	0.192	73.840	12.450	148.900	147.800	144.300	TM 5743.000
3	23:54:28	110.5%	0.042	0.129	0.079	70.750	13.140	144.400	140.800	143.800	TM 5709.000
x		108.8%	0.035	0.356	0.185	72.310	12.750	146.900	144.100	145.000	TM 5772.000
σ		1.5%	0.014	0.213	0.103	1.546	0.356	2.293	3.495	1.657	TM 81.450
%RSD		1.4	39.930	59.780	55.520	2.138	2.789	1.561	2.425	1.143	TM 1.411

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	T 821.000	T 338300.000	132.400	239.100	213.000	101.3%	291.800	6.069	9.394	7252.000
2	23:54:01	T 803.600	T 341400.000	130.800	259.800	215.500	101.9%	285.800	4.981	9.420	7895.000
3	23:54:28	T 827.700	T 347300.000	134.300	268.100	220.100	101.1%	283.400	4.498	9.568	8999.000
x		T 817.400	T 342300.000	132.500	255.700	216.200	101.4%	287.000	5.183	9.461	8049.000
σ		T 12.430	T 4567.000	1.724	14.920	3.594	0.4%	4.325	0.805	0.094	883.300
%RSD		T 1.521	T 1.334	1.302	5.835	1.662	0.4	1.507	15.530	0.989	10.970

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	1167.000	14.190	T 1228.000	1106.000	0.374	1.883	2.152	0.095	0.277	1.915
2	23:54:01	1184.000	14.050	T 1186.000	1093.000	0.382	1.881	2.436	0.043	0.411	1.961
3	23:54:28	1144.000	13.700	T 1188.000	1101.000	0.392	2.083	2.720	0.075	0.304	1.828
x		1165.000	13.980	T 1201.000	1100.000	0.382	1.949	2.436	0.071	0.331	1.901
σ		20.070	0.253	T 23.400	6.515	0.009	0.116	0.284	0.026	0.071	0.067
%RSD		1.723	1.812	T 1.949	0.592	2.355	5.944	11.650	37.280	21.530	3.531

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	2.475	1.961	0.131	0.192	4.997	5.822	0.409	0.292	-3.298	7.949
2	23:54:01	1.742	2.009	-0.219	0.056	6.192	5.173	-0.231	0.059	0.977	8.118
3	23:54:28	2.371	2.134	-0.098	-0.217	5.258	4.732	-1.976	-0.336	-0.918	7.984
x		2.196	2.034	-0.062	0.010	5.483	5.242	-0.599	0.005	-1.080	8.017
σ		0.397	0.089	0.178	0.209	0.628	0.548	1.234	0.318	2.142	0.089
%RSD		18.070	4.393	287.100	1992.000	11.460	10.460	206.000	6001.000	198.400	1.111

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	103.5%	0.301	0.341	0.292	0.259	0.021	0.020	0.024	0.026	94.7%
2	23:54:01	103.8%	0.258	0.292	0.266	0.212	0.023	0.019	0.017	0.012	93.0%
3	23:54:28	101.1%	0.223	0.182	0.242	0.389	0.010	0.010	0.009	-0.001	91.3%
x		102.8%	0.261	0.272	0.267	0.287	0.018	0.016	0.017	0.012	93.0%
σ		1.5%	0.039	0.081	0.025	0.092	0.007	0.005	0.008	0.014	1.7%
%RSD		1.4	14.950	29.950	9.365	32.010	39.810	31.930	46.680	110.700	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	4.973	6.355	0.291	0.297	7.095	7.458	94.6%	0.008	0.012	7.978
2	23:54:01	4.948	6.386	0.321	0.257	7.265	7.454	93.0%	0.000	0.009	7.875
3	23:54:28	4.931	6.465	0.239	0.314	7.450	6.968	91.6%	0.009	0.010	7.846
x		4.951	6.402	0.284	0.290	7.270	7.293	93.0%	0.006	0.010	7.900
σ		0.021	0.057	0.042	0.029	0.178	0.282	1.5%	0.005	0.002	0.069
%RSD		0.426	0.887	14.770	10.110	2.447	3.867	1.6	83.830	18.270	0.874

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:53:34	7.361	7.689	91.7%
2	23:54:01	7.208	7.643	91.8%
3	23:54:28	7.258	7.616	89.4%
x		7.276	7.650	91.0%
σ		0.078	0.037	1.4%
%RSD		1.071	0.479	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	105.7%	0.048	0.442	0.033	46.860	11.720	202.900	202.400	203.100	TM 9102.000
2	00:00:06	109.9%	0.028	0.148	0.116	59.520	11.210	198.000	197.700	199.800	TM 8818.000
3	00:00:33	104.6%	0.053	0.712	0.119	67.790	11.170	201.900	194.300	197.700	TM 8702.000
x		106.8%	0.043	0.434	0.089	58.060	11.370	200.900	198.100	200.200	TM 8874.000
σ		2.8%	0.014	0.282	0.049	10.540	0.311	2.597	4.060	2.716	TM 206.000
%RSD		2.6	31.460	65.020	54.600	18.160	2.734	1.293	2.050	1.357	TM 2.321

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	T 994.400	T 311900.000	171.300	374.600	315.000	101.0%	271.100	7.282	12.270	7210.000
2	00:00:06	T 952.800	T 306800.000	168.400	336.300	313.200	102.0%	268.900	6.989	11.690	6805.000
3	00:00:33	T 957.800	T 309600.000	169.900	368.800	318.500	101.8%	T 193.200	7.045	11.870	6896.000
x		T 968.300	T 309500.000	169.900	359.900	315.600	101.6%	T 244.400	7.105	11.950	6970.000
σ		T 22.730	T 2556.000	1.466	20.610	2.665	0.5%	T 44.330	0.155	0.298	212.200
%RSD		T 2.347	T 0.826	0.863	5.728	0.845	0.5	T 18.140	2.182	2.496	3.044

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	1858.000	13.280	T 1857.000	1758.000	0.517	2.979	3.360	0.361	0.607	3.022
2	00:00:06	1856.000	13.350	T 1842.000	1764.000	0.547	2.751	2.969	0.361	0.709	3.049
3	00:00:33	1843.000	13.170	T 1830.000	1773.000	0.566	2.816	2.367	0.464	0.697	2.619
x		1852.000	13.270	T 1843.000	1765.000	0.543	2.849	2.899	0.395	0.671	2.897
σ		7.970	0.095	T 13.610	7.845	0.025	0.117	0.500	0.060	0.056	0.241
%RSD		0.430	0.715	T 0.738	0.445	4.529	4.109	17.250	15.160	8.317	8.316

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	3.284	2.831	0.689	0.064	4.409	4.362	-0.929	-0.122	0.655	8.936
2	00:00:06	2.229	2.758	0.472	0.269	4.395	4.548	-0.270	0.118	-1.494	8.877
3	00:00:33	2.909	2.814	0.080	0.261	4.841	5.337	-0.688	0.011	-2.103	8.868
x		2.807	2.801	0.414	0.198	4.548	4.749	-0.629	0.002	-0.981	8.894
σ		0.534	0.038	0.308	0.116	0.253	0.518	0.334	0.120	1.449	0.037
%RSD		19.040	1.354	74.550	58.720	5.572	10.900	53.090	5311.000	147.800	0.411

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	105.8%	0.271	0.206	0.265	0.786	0.012	0.014	0.012	0.012	95.5%
2	00:00:06	108.6%	0.218	0.204	0.281	1.135	0.018	0.003	0.004	-0.016	96.3%
3	00:00:33	109.1%	0.265	0.293	0.234	1.759	0.005	0.014	-0.004	0.028	97.8%
x		107.8%	0.251	0.235	0.260	1.227	0.012	0.010	0.004	0.008	96.5%
σ		1.8%	0.029	0.051	0.024	0.493	0.006	0.006	0.008	0.022	1.2%
%RSD		1.7	11.650	21.600	9.125	40.170	53.780	58.170	190.900	274.100	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	4.785	5.881	0.168	0.154	9.959	9.555	95.9%	0.017	0.008	8.668
2	00:00:06	4.844	5.803	0.142	0.190	9.965	9.576	96.6%	0.013	0.021	8.383
3	00:00:33	4.793	5.853	0.153	0.171	9.315	9.645	98.2%	0.011	0.019	8.508
x		4.807	5.846	0.154	0.172	9.746	9.592	96.9%	0.014	0.016	8.520
σ		0.032	0.040	0.013	0.018	0.374	0.047	1.2%	0.003	0.007	0.143
%RSD		0.668	0.681	8.401	10.720	3.835	0.487	1.2	22.460	41.260	1.675

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:59:39	7.934	8.265	96.0%
2	00:00:06	7.541	8.080	96.4%
3	00:00:33	7.722	8.119	97.9%
x		7.732	8.155	96.8%
σ		0.197	0.098	1.0%
%RSD		2.544	1.196	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	104.2%	0.086	0.991	0.323	177.500	14.700	T 690.200	684.400	696.700	TM 15480.000
2	00:06:11	106.4%	0.072	0.549	0.401	174.500	14.690	T 688.500	690.100	679.800	TM 15360.000
3	00:06:39	T 117.2%	0.074	0.402	0.371	155.300	15.780	T 681.800	667.000	677.600	TM 15720.000
x		T 109.3%	0.077	0.647	0.365	169.100	15.060	T 686.900	680.500	684.700	TM 15520.000
σ		T 6.9%	0.008	0.306	0.040	12.060	0.628	T 4.436	12.010	10.440	TM 186.200
%RSD		T 6.3	10.330	47.340	10.890	7.129	4.167	T 0.646	1.765	1.525	TM 1.200

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	T 989.100	T 301800.000	149.800	7960.000	7621.000	101.5%	282.100	13.640	149.800	7642.000
2	00:06:11	T 941.500	T 301500.000	146.900	7967.000	7507.000	102.8%	278.900	14.850	149.200	6879.000
3	00:06:39	T 877.400	T 308000.000	150.700	7906.000	7477.000	101.4%	277.900	12.000	144.900	9441.000
x		T 936.000	T 303800.000	149.100	7944.000	7535.000	101.9%	279.600	13.500	148.000	7987.000
σ		T 56.040	T 3686.000	1.990	33.870	76.400	0.8%	2.237	1.432	2.705	1316.000
%RSD		T 5.987	T 1.213	1.335	0.426	1.014	0.8	0.800	10.610	1.828	16.470

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	4483.000	T 431.700	T 4374.000	4349.000	0.537	4.215	4.412	16.930	18.810	10.640
2	00:06:11	4492.000	T 428.900	T 4426.000	4354.000	0.562	3.977	3.863	17.320	18.160	10.580
3	00:06:39	4395.000	T 422.600	T 4338.000	4245.000	0.523	4.199	4.397	16.440	18.810	10.360
x		4457.000	T 427.700	T 4379.000	4316.000	0.540	4.130	4.224	16.900	18.590	10.530
σ		53.400	T 4.674	T 44.620	61.730	0.020	0.133	0.313	0.445	0.377	0.151
%RSD		1.198	T 1.093	T 1.019	1.430	3.638	3.225	7.404	2.634	2.026	1.432

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	11.340	10.380	15.020	1.091	7.444	7.256	3.189	0.953	0.189	16.220
2	00:06:11	10.950	10.380	14.480	0.595	7.597	8.136	2.090	0.738	-1.252	16.350
3	00:06:39	10.300	10.140	14.500	1.322	7.588	9.272	-0.854	-0.064	0.678	16.150
x		10.860	10.300	14.670	1.003	7.543	8.221	1.475	0.542	-0.128	16.240
σ		0.526	0.142	0.309	0.372	0.086	1.011	2.090	0.536	1.003	0.100
%RSD		4.843	1.380	2.105	37.060	1.139	12.290	141.700	98.780	781.400	0.615

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	110.1%	0.866	0.893	0.876	3.596	33.430	33.560	0.044	0.062	97.0%
2	00:06:11	111.7%	0.854	0.804	0.947	3.583	32.970	33.220	0.032	0.040	97.0%
3	00:06:39	108.5%	0.933	0.903	0.910	3.379	32.900	33.230	0.025	0.042	94.0%
x		110.1%	0.885	0.867	0.911	3.519	33.100	33.340	0.034	0.048	96.0%
σ		1.6%	0.043	0.054	0.035	0.122	0.289	0.195	0.010	0.012	1.7%
%RSD		1.4	4.814	6.251	3.873	3.459	0.874	0.586	28.210	25.410	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	5.293	5.821	0.167	0.191	19.710	20.330	98.0%	0.033	0.026	14.830
2	00:06:11	5.102	5.950	0.184	0.197	19.990	20.540	96.9%	0.028	0.024	15.110
3	00:06:39	4.911	5.800	0.206	0.199	19.940	19.860	94.7%	0.025	0.020	14.940
x		5.102	5.857	0.186	0.196	19.880	20.250	96.5%	0.029	0.024	14.960
σ		0.191	0.081	0.020	0.004	0.149	0.347	1.7%	0.004	0.003	0.142
%RSD		3.743	1.390	10.570	2.263	0.752	1.713	1.7	13.370	13.240	0.951

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:05:44	13.960	14.610	98.0%
2	00:06:11	13.820	14.430	97.0%
3	00:06:39	14.040	14.500	93.8%
x		13.940	14.510	96.3%
σ		0.112	0.093	2.2%
%RSD		0.800	0.638	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	112.6%	0.048	-0.103	-0.322	82.010	11.970	286.600	287.100	289.700	TM 12990.000
2	00:12:19	110.3%	0.033	-0.036	-0.307	92.550	11.400	279.100	274.200	282.300	TM 12410.000
3	00:12:46	105.6%	0.042	-0.063	-0.353	91.810	9.940	280.000	267.800	274.800	TM 12260.000
x		109.5%	0.041	-0.067	-0.327	88.790	11.100	281.900	276.400	282.300	TM 12550.000
σ		3.6%	0.008	0.034	0.024	5.883	1.048	4.117	9.852	7.417	TM 382.200
%RSD		3.2	18.440	50.740	7.198	6.626	9.441	1.460	3.565	2.628	TM 3.045

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	T 912.600	T 321000.000	182.100	1207.000	1030.000	100.1%	401.500	11.730	84.680	9357.000
2	00:12:19	T 894.100	T 307800.000	172.500	1131.000	1020.000	101.4%	395.400	12.470	80.640	8126.000
3	00:12:46	T 956.900	T 301300.000	163.700	1131.000	983.000	102.4%	T 400.800	11.380	81.750	7865.000
x		T 921.200	T 310000.000	172.800	1156.000	1011.000	101.3%	T 399.200	11.860	82.360	8450.000
σ		T 32.260	T 10030.000	9.204	44.020	24.920	1.2%	T 3.348	0.556	2.088	797.000
%RSD		T 3.503	T 3.235	5.327	3.807	2.464	1.2	T 0.839	4.691	2.535	9.432

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	2352.000	26.990	T 2347.000	2238.000	0.721	5.121	5.883	0.526	1.004	4.132
2	00:12:19	2278.000	26.410	T 2273.000	2159.000	0.617	4.881	6.263	0.540	0.986	3.759
3	00:12:46	2252.000	26.040	T 2222.000	2111.000	0.633	4.811	5.137	0.478	0.802	4.057
x		2294.000	26.480	T 2281.000	2169.000	0.657	4.938	5.761	0.515	0.930	3.983
σ		52.190	0.479	T 62.950	64.050	0.056	0.163	0.573	0.032	0.111	0.197
%RSD		2.275	1.809	T 2.760	2.953	8.478	3.291	9.942	6.273	11.970	4.949

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	4.827	3.987	1.230	1.077	6.655	6.392	-0.531	0.092	-0.562	7.757
2	00:12:19	4.871	3.695	1.139	0.263	5.940	5.913	0.985	0.528	-0.652	7.439
3	00:12:46	4.457	3.528	1.692	0.933	5.509	6.133	1.468	0.639	-2.307	7.484
x		4.718	3.737	1.354	0.758	6.035	6.146	0.640	0.420	-1.174	7.560
σ		0.227	0.232	0.297	0.435	0.579	0.240	1.043	0.289	0.983	0.172
%RSD		4.817	6.218	21.920	57.370	9.594	3.902	162.900	68.950	83.720	2.276

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	106.1%	0.403	0.323	0.316	3.262	0.016	0.019	0.029	0.013	89.8%
2	00:12:19	107.6%	0.412	0.318	0.363	2.782	0.014	0.006	0.008	-0.017	89.5%
3	00:12:46	109.2%	0.313	0.321	0.359	1.778	0.013	0.007	0.008	-0.002	93.7%
x		107.6%	0.376	0.321	0.346	2.607	0.014	0.011	0.015	-0.002	91.0%
σ		1.6%	0.055	0.002	0.026	0.757	0.001	0.008	0.012	0.015	2.3%
%RSD		1.4	14.560	0.758	7.475	29.030	9.716	69.030	81.520	684.500	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	5.788	6.465	0.142	0.132	12.320	12.200	90.5%	0.030	0.028	11.410
2	00:12:19	5.469	6.385	0.150	0.110	11.950	11.780	90.0%	0.041	0.038	11.050
3	00:12:46	5.328	6.387	0.125	0.138	11.970	11.620	94.6%	0.044	0.028	11.100
x		5.528	6.412	0.139	0.127	12.080	11.860	91.7%	0.038	0.031	11.190
σ		0.236	0.046	0.013	0.015	0.209	0.300	2.5%	0.007	0.006	0.193
%RSD		4.262	0.715	9.444	11.850	1.733	2.527	2.7	18.410	19.480	1.728

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:11:51	10.510	10.990	86.9%
2	00:12:19	10.370	10.880	87.9%
3	00:12:46	10.560	10.900	92.7%
x		10.480	10.920	89.2%
σ		0.101	0.060	3.1%
%RSD		0.968	0.553	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	105.1%	0.047	0.213	-0.245	61.400	8.920	204.600	205.700	204.500	TM 9155.000
2	00:18:26	109.1%	0.006	-0.333	-0.352	63.470	10.570	201.300	203.900	200.500	TM 9117.000
3	00:18:54	105.2%	0.025	-0.370	-0.448	67.520	8.666	201.700	197.500	200.000	TM 8827.000
x		106.5%	0.026	-0.163	-0.348	64.130	9.387	202.500	202.400	201.700	TM 9033.000
σ		2.3%	0.020	0.326	0.102	3.111	1.036	1.800	4.318	2.416	TM 179.300
%RSD		2.2	77.530	199.600	29.200	4.851	11.040	0.889	2.134	1.198	TM 1.985

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	T 834.100	T 307400.000	137.000	1001.000	903.200	100.2%	378.800	13.890	16.880	7126.000
2	00:18:26	T 749.600	T 318200.000	T 156.500	1065.000	935.000	100.2%	375.600	13.100	16.730	8042.000
3	00:18:54	T 809.100	T 295100.000	132.600	1008.000	898.900	102.8%	370.400	13.100	16.040	7161.000
x		T 797.600	T 306900.000	T 142.000	1025.000	912.300	101.1%	374.900	13.360	16.550	7443.000
σ		T 43.390	T 11560.000	T 12.750	35.020	19.720	1.5%	4.237	0.458	0.451	518.900
%RSD		T 5.441	T 3.765	T 8.979	3.417	2.161	1.5	1.130	3.426	2.726	6.971

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	2319.000	25.450	T 2384.000	2284.000	0.490	3.705	4.235	0.320	0.630	3.029
2	00:18:26	2368.000	25.470	T 2358.000	2257.000	0.473	3.662	4.841	0.246	0.657	3.076
3	00:18:54	2350.000	24.910	T 2309.000	2208.000	0.465	3.773	3.751	0.367	0.613	2.946
x		2346.000	25.280	T 2350.000	2250.000	0.476	3.713	4.275	0.311	0.634	3.017
σ		24.770	0.321	T 38.470	38.350	0.013	0.056	0.546	0.061	0.022	0.066
%RSD		1.056	1.271	T 1.637	1.704	2.697	1.503	12.770	19.610	3.474	2.183

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	3.571	2.770	0.689	0.692	5.989	6.290	-0.693	0.024	1.016	6.045
2	00:18:26	3.265	3.104	-0.077	0.634	6.863	6.471	0.667	0.444	-0.377	6.098
3	00:18:54	3.336	3.106	0.853	0.599	6.184	6.326	1.311	0.544	2.570	5.896
x		3.391	2.993	0.489	0.642	6.346	6.362	0.429	0.337	1.070	6.013
σ		0.160	0.193	0.497	0.047	0.459	0.095	1.023	0.275	1.474	0.105
%RSD		4.730	6.461	101.700	7.373	7.232	1.499	238.700	81.690	137.800	1.749

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	109.6%	0.328	0.259	0.282	1.296	-0.000	0.005	0.017	-0.016	91.0%
2	00:18:26	106.4%	0.293	0.276	0.274	2.660	0.007	0.011	0.005	0.067	88.0%
3	00:18:54	111.8%	0.293	0.289	0.300	1.945	0.016	0.008	0.000	0.021	91.7%
x		109.2%	0.305	0.275	0.285	1.967	0.007	0.008	0.007	0.024	90.2%
σ		2.7%	0.020	0.015	0.014	0.682	0.008	0.003	0.009	0.042	2.0%
%RSD		2.5	6.596	5.515	4.756	34.690	111.700	39.080	120.800	172.800	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	5.313	5.835	0.101	0.124	11.050	10.830	90.9%	0.032	0.042	8.792
2	00:18:26	5.190	5.797	0.113	0.133	10.610	11.230	88.1%	0.049	0.023	8.471
3	00:18:54	5.119	5.551	0.123	0.100	10.250	10.290	91.5%	0.036	0.041	8.553
x		5.207	5.727	0.113	0.119	10.640	10.780	90.1%	0.039	0.035	8.605
σ		0.098	0.154	0.011	0.017	0.398	0.475	1.8%	0.009	0.011	0.167
%RSD		1.878	2.695	9.844	14.200	3.743	4.404	2.0	21.750	30.640	1.936

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:17:59	7.922	8.495	87.6%
2	00:18:26	8.051	8.377	84.3%
3	00:18:54	7.797	8.331	88.1%
x		7.923	8.401	86.7%
σ		0.127	0.084	2.1%
%RSD		1.601	1.004	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	104.1%	0.054	-0.177	-0.399	74.300	10.390	208.800	198.800	205.200	TM 8112.000
2	00:24:34	108.0%	0.043	-0.381	-0.438	67.830	10.290	199.000	193.700	198.300	TM 7863.000
3	00:25:01	107.2%	0.027	-0.089	-0.379	76.200	11.950	202.000	197.600	200.400	TM 8066.000
x		106.4%	0.041	-0.216	-0.405	72.780	10.870	203.300	196.700	201.300	TM 8014.000
σ		2.1%	0.013	0.149	0.030	4.387	0.932	5.012	2.684	3.550	TM 132.500
%RSD		1.9	32.160	69.340	7.419	6.028	8.575	2.466	1.365	1.764	TM 1.654
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	T 750.200	T 294200.000	142.100	949.400	903.200	100.1%	339.000	13.080	27.320	6901.000
2	00:24:34	T 708.200	T 287900.000	139.100	1021.000	881.500	102.8%	338.600	13.390	26.800	7001.000
3	00:25:01	T 707.300	T 302700.000	152.200	979.500	884.700	98.4%	341.000	12.260	26.900	8267.000
x		T 721.900	T 294900.000	144.500	983.200	889.800	100.4%	339.500	12.910	27.010	7389.000
σ		T 24.540	T 7428.000	6.845	35.790	11.700	2.2%	1.329	0.583	0.274	761.300
%RSD		T 3.399	T 2.518	4.738	3.640	1.315	2.2	0.392	4.512	1.016	10.300
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	2596.000	23.540	T 2576.000	2456.000	0.521	3.433	4.008	0.426	0.769	3.486
2	00:24:34	2513.000	22.970	T 2524.000	2425.000	0.444	3.618	3.696	0.416	0.755	3.320
3	00:25:01	2591.000	23.320	T 2551.000	2466.000	0.542	3.624	4.735	0.414	0.814	3.555
x		2567.000	23.280	T 2551.000	2449.000	0.502	3.558	4.146	0.419	0.779	3.454
σ		46.560	0.290	T 26.090	21.320	0.052	0.108	0.533	0.006	0.031	0.121
%RSD		1.814	1.247	T 1.023	0.871	10.290	3.048	12.850	1.488	3.938	3.503
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	3.361	3.291	0.796	0.616	5.481	6.355	1.516	0.632	-0.121	6.269
2	00:24:34	4.339	3.444	0.409	0.189	5.647	6.073	-2.243	-0.329	-1.482	6.162
3	00:25:01	4.057	3.236	0.632	-0.335	5.191	5.674	0.651	0.336	1.601	6.220
x		3.919	3.324	0.612	0.157	5.440	6.034	-0.025	0.213	-0.001	6.217
σ		0.503	0.108	0.195	0.476	0.231	0.342	1.969	0.492	1.545	0.053
%RSD		12.840	3.248	31.770	304.400	4.247	5.673	7821.000	231.000	198500.000	0.859
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	109.0%	0.178	0.212	0.240	2.147	0.001	0.006	0.009	0.019	91.3%
2	00:24:34	108.2%	0.238	0.197	0.248	1.645	0.008	0.008	0.033	0.021	90.9%
3	00:25:01	107.1%	0.197	0.233	0.250	2.177	0.020	0.006	0.005	0.051	90.8%
x		108.1%	0.204	0.214	0.246	1.989	0.010	0.006	0.016	0.030	91.0%
σ		0.9%	0.031	0.018	0.005	0.299	0.010	0.001	0.016	0.018	0.2%
%RSD		0.9	14.960	8.379	2.151	15.030	103.600	17.790	100.800	57.910	0.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	5.196	5.830	0.066	0.098	10.000	10.160	92.0%	0.030	0.034	8.395
2	00:24:34	5.383	5.649	0.085	0.101	10.070	10.490	91.1%	0.024	0.039	8.467
3	00:25:01	5.154	5.620	0.087	0.071	10.320	10.080	90.5%	0.028	0.036	8.534
x		5.244	5.700	0.079	0.090	10.130	10.240	91.2%	0.027	0.037	8.465
σ		0.122	0.114	0.011	0.016	0.168	0.217	0.8%	0.003	0.003	0.070
%RSD		2.330	2.001	14.210	18.360	1.654	2.117	0.8	11.690	7.596	0.824
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	00:24:06	7.532	8.113	90.1%							
2	00:24:34	7.663	8.245	90.0%							
3	00:25:01	7.555	8.223	89.5%							
x		7.583	8.194	89.9%							
σ		0.070	0.071	0.3%							
%RSD		0.926	0.867	0.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	107.0%	0.056	1.263	0.721	42.930	30.950	T 1010.000	1024.000	1067.000	TM 58560.000
2	00:30:40	109.9%	0.088	0.848	0.753	45.540	30.770	T 998.400	1004.000	1038.000	TM 56810.000
3	00:31:07	110.9%	0.077	0.829	0.749	46.220	30.640	T 996.800	995.500	1008.000	TM 55510.000
x		109.3%	0.074	0.980	0.741	44.900	30.790	T 1002.000	1008.000	1038.000	TM 56960.000
σ		2.0%	0.016	0.245	0.017	1.738	0.152	T 7.071	14.840	29.210	TM 1529.000
%RSD		1.9	21.710	25.030	2.351	3.872	0.492	T 0.706	1.472	2.815	TM 2.684

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	T 1332.000	T 306800.000	T 868.300	1437.000	1041.000	101.7%	M 644.400	65.050	41.290	8214.000
2	00:30:40	T 1302.000	T 300300.000	T 855.000	1424.000	1018.000	102.7%	M 638.200	61.470	40.190	8566.000
3	00:31:07	T 1264.000	T 299800.000	847.400	1384.000	1005.000	104.3%	M 629.500	62.880	39.260	7920.000
x		T 1300.000	T 302300.000	T 856.900	1415.000	1021.000	102.9%	M 637.400	63.130	40.240	8233.000
σ		T 34.120	T 3929.000	T 10.590	28.040	18.540	1.3%	M 7.489	1.803	1.015	323.500
%RSD		T 2.625	T 1.300	T 1.236	1.982	1.816	1.2	M 1.175	2.856	2.522	3.929

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	T 17920.000	35.970	T 18310.000	T 17630.000	3.207	18.590	19.950	1.115	1.634	18.260
2	00:30:40	T 17750.000	36.140	T 18010.000	18010.000	3.089	18.750	20.040	1.221	1.835	17.960
3	00:31:07	T 17770.000	35.800	T 18020.000	T 17340.000	3.179	18.090	18.700	1.190	1.941	18.250
x		T 17810.000	35.970	T 18110.000	T 17660.000	3.158	18.480	19.560	1.175	1.803	18.160
σ		T 96.530	0.168	T 173.000	T 337.000	0.062	0.345	0.747	0.054	0.156	0.174
%RSD		T 0.542	0.466	T 0.955	T 1.908	1.962	1.869	3.817	4.635	8.657	0.957

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	19.330	18.060	5.904	1.800	6.799	7.933	6.041	1.815	-0.725	18.800
2	00:30:40	20.680	16.920	5.877	1.475	7.961	7.336	6.470	1.846	0.936	18.790
3	00:31:07	19.130	17.350	5.768	1.571	8.515	7.012	3.722	1.072	4.018	18.690
x		19.720	17.440	5.850	1.615	7.758	7.427	5.411	1.578	1.410	18.760
σ		0.845	0.574	0.072	0.167	0.876	0.467	1.478	0.438	2.407	0.063
%RSD		4.287	3.288	1.234	10.330	11.290	6.294	27.320	27.760	170.700	0.337

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	108.9%	1.319	1.300	1.309	8.356	0.047	0.025	0.032	0.011	92.6%
2	00:30:40	110.4%	1.272	1.238	1.355	8.380	0.047	0.025	0.015	0.020	94.9%
3	00:31:07	110.2%	1.265	1.191	1.282	8.894	0.059	0.015	0.027	0.019	94.2%
x		109.9%	1.285	1.243	1.316	8.543	0.051	0.022	0.025	0.017	93.9%
σ		0.8%	0.029	0.054	0.037	0.304	0.007	0.006	0.009	0.005	1.2%
%RSD		0.7	2.288	4.377	2.810	3.562	13.500	27.760	35.560	31.300	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	7.317	8.241	0.154	0.167	46.660	46.330	93.1%	0.151	0.178	25.290
2	00:30:40	7.140	8.117	0.136	0.155	46.530	46.180	93.4%	0.168	0.178	25.580
3	00:31:07	7.172	8.244	0.148	0.183	46.050	45.600	95.0%	0.185	0.189	25.670
x		7.210	8.200	0.146	0.168	46.410	46.040	93.8%	0.168	0.182	25.510
σ		0.094	0.072	0.009	0.014	0.319	0.386	1.0%	0.017	0.006	0.197
%RSD		1.310	0.881	6.208	8.457	0.688	0.838	1.1	10.230	3.416	0.773

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:30:13	23.750	24.600	92.2%
2	00:30:40	23.520	24.680	93.2%
3	00:31:07	23.880	24.690	95.4%
x		23.720	24.660	93.6%
σ		0.184	0.050	1.6%
%RSD		0.775	0.203	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	103.2%	0.046	-0.036	-0.167	47.270	17.150	392.200	384.800	398.500	™13650.000
2	00:36:47	103.3%	0.065	0.232	-0.166	50.960	17.410	390.300	383.600	390.400	™13720.000
3	00:37:14	110.0%	0.005	1.269	-0.061	53.710	19.310	388.600	386.400	393.400	™13860.000
x		105.5%	0.039	0.488	-0.132	50.650	17.950	390.300	385.000	394.100	™13740.000
σ		3.9%	0.031	0.689	0.061	3.232	1.177	1.796	1.403	4.112	™106.400
%RSD		3.7	78.680	141.200	46.370	6.382	6.556	0.460	0.364	1.043	™0.774

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	ᵀ1521.000	ᵀ242000.000	283.000	853.100	764.200	104.3%	461.300	10.870	84.100	5959.000
2	00:36:47	ᵀ1542.000	ᵀ244600.000	276.300	858.800	765.800	104.2%	ᵀ450.700	11.650	83.360	5863.000
3	00:37:14	ᵀ1464.000	ᵀ252700.000	298.900	940.500	761.000	102.4%	455.700	9.745	83.220	7416.000
x		ᵀ1509.000	ᵀ246400.000	286.100	884.200	763.700	103.6%	ᵀ455.900	10.750	83.560	6413.000
σ		ᵀ39.950	ᵀ5592.000	11.590	48.910	2.406	1.0%	ᵀ5.307	0.956	0.470	870.500
%RSD		ᵀ2.647	ᵀ2.269	4.050	5.531	0.315	1.0	ᵀ1.164	8.890	0.563	13.570

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	2465.000	30.040	ᵀ2504.000	2360.000	0.796	4.851	5.577	4.992	6.029	7.664
2	00:36:47	2501.000	30.180	ᵀ2486.000	2380.000	0.810	4.701	5.199	4.989	5.748	7.839
3	00:37:14	2467.000	29.500	ᵀ2451.000	2377.000	0.836	4.857	5.291	4.863	5.957	7.362
x		2478.000	29.910	ᵀ2480.000	2373.000	0.814	4.803	5.356	4.948	5.911	7.622
σ		19.820	0.362	ᵀ27.200	10.810	0.020	0.088	0.198	0.074	0.146	0.241
%RSD		0.800	1.211	ᵀ1.097	0.456	2.501	1.833	3.687	1.492	2.470	3.165

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	8.258	7.654	4.203	0.554	2.874	3.336	-0.308	0.178	-0.757	8.303
2	00:36:47	7.465	7.756	4.647	0.248	2.598	3.490	2.314	0.780	1.650	8.360
3	00:37:14	7.909	7.275	4.439	0.582	3.017	3.131	1.632	0.680	-0.577	8.517
x		7.877	7.562	4.430	0.461	2.830	3.319	1.213	0.546	0.105	8.393
σ		0.398	0.253	0.222	0.185	0.213	0.180	1.360	0.322	1.340	0.111
%RSD		5.046	3.349	5.016	40.090	7.537	5.430	112.200	59.070	1274.000	1.317

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	113.0%	0.274	0.242	0.208	2.156	0.018	0.013	0.008	0.038	94.1%
2	00:36:47	113.8%	0.255	0.241	0.245	2.372	0.020	0.006	0.012	-0.005	96.2%
3	00:37:14	109.7%	0.229	0.271	0.230	2.705	0.006	0.015	0.004	0.061	92.2%
x		112.2%	0.253	0.251	0.228	2.411	0.015	0.011	0.008	0.031	94.2%
σ		2.1%	0.022	0.017	0.019	0.276	0.008	0.005	0.004	0.033	2.0%
%RSD		1.9	8.837	6.751	8.126	11.460	52.380	40.940	45.010	107.100	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	6.004	6.683	0.236	0.236	26.750	26.200	95.9%	0.076	0.081	10.410
2	00:36:47	5.934	6.461	0.205	0.259	25.920	26.120	97.5%	0.081	0.076	10.430
3	00:37:14	5.770	6.365	0.212	0.208	26.830	26.250	92.6%	0.071	0.074	10.610
x		5.902	6.503	0.218	0.234	26.500	26.190	95.3%	0.076	0.077	10.480
σ		0.120	0.163	0.016	0.026	0.500	0.066	2.5%	0.005	0.004	0.109
%RSD		2.039	2.507	7.495	11.030	1.888	0.252	2.6	6.371	5.153	1.038

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:36:19	9.840	10.310	94.9%
2	00:36:47	9.561	10.210	96.3%
3	00:37:14	9.454	10.040	90.3%
x		9.618	10.190	93.8%
σ		0.199	0.137	3.1%
%RSD		2.070	1.340	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	107.7%	0.093	1.057	0.944	10.850	45.990	T 1418.000	1432.000	1471.000	TM 88560.000
2	00:42:54	107.4%	0.108	0.998	0.734	9.550	45.790	T 1408.000	1427.000	1478.000	TM 92420.000
3	00:43:22	T 122.3%	0.115	0.816	0.922	16.690	45.920	T 1414.000	1392.000	1476.000	TM 91040.000
x		T 112.5%	0.106	0.957	0.867	12.360	45.900	T 1414.000	1417.000	1475.000	TM 90670.000
σ		T 8.5%	0.011	0.126	0.116	3.805	0.099	T 4.643	22.010	3.631	TM 1955.000
%RSD		T 7.5	10.520	13.130	13.340	30.770	0.215	T 0.328	1.554	0.246	TM 2.156

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	T 2050.000	T 266600.000	T 1165.000	2739.000	2300.000	104.1%	M 791.300	85.550	122.400	7752.000
2	00:42:54	T 2064.000	T 268400.000	T 1202.000	2915.000	2320.000	102.2%	M 781.400	87.250	124.100	7889.000
3	00:43:22	T 1778.000	T 263100.000	T 1192.000	2888.000	2297.000	102.0%	M 777.400	88.000	123.600	8019.000
x		T 1964.000	T 266000.000	T 1187.000	2848.000	2306.000	102.7%	M 783.300	86.930	123.400	7886.000
σ		T 161.600	T 2697.000	T 19.180	94.580	12.190	1.2%	M 7.139	1.252	0.872	133.400
%RSD		T 8.227	T 1.014	T 1.616	3.322	0.529	1.1	M 0.911	1.440	0.707	1.692

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	T 19240.000	41.040	T 19260.000	19190.000	5.147	28.530	28.620	1.256	1.974	25.450
2	00:42:54	T 19460.000	41.560	T 19520.000	T 19000.000	5.245	28.450	29.370	1.206	2.016	24.130
3	00:43:22	T 19210.000	41.800	T 19610.000	T 19120.000	5.436	27.990	29.380	1.267	2.204	23.830
x		T 19300.000	41.460	T 19460.000	T 19100.000	5.276	28.320	29.120	1.243	2.065	24.470
σ		T 132.100	0.390	T 184.000	T 98.510	0.147	0.289	0.434	0.032	0.122	0.863
%RSD		T 0.684	0.940	T 0.945	T 0.516	2.788	1.021	1.490	2.583	5.915	3.525

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	28.370	24.020	4.027	1.135	6.169	6.352	3.962	1.222	3.856	29.080
2	00:42:54	25.990	23.420	3.422	1.151	5.356	6.001	3.711	1.089	5.204	29.250
3	00:43:22	25.090	23.220	3.692	0.588	6.143	6.088	4.684	1.398	4.384	28.460
x		26.480	23.560	3.714	0.958	5.889	6.147	4.119	1.236	4.482	28.930
σ		1.693	0.418	0.303	0.321	0.462	0.183	0.505	0.155	0.679	0.420
%RSD		6.393	1.774	8.171	33.470	7.845	2.971	12.270	12.520	15.160	1.453

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	112.2%	1.823	1.798	1.969	13.290	0.080	0.034	0.057	-0.026	92.4%
2	00:42:54	108.3%	1.764	1.743	1.917	10.560	0.091	0.018	0.022	0.015	90.6%
3	00:43:22	110.9%	1.912	1.606	1.878	13.070	0.076	0.015	0.030	-0.008	91.5%
x		110.5%	1.833	1.716	1.921	12.310	0.082	0.023	0.036	-0.006	91.5%
σ		2.0%	0.075	0.099	0.045	1.518	0.008	0.010	0.019	0.021	0.9%
%RSD		1.8	4.065	5.762	2.366	12.330	9.329	44.830	51.680	343.400	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	7.195	7.751	0.348	0.360	86.610	85.830	92.8%	0.217	0.229	34.690
2	00:42:54	7.007	7.696	0.327	0.347	86.700	85.860	90.2%	0.219	0.191	34.380
3	00:43:22	6.845	7.556	0.355	0.337	85.160	85.400	90.0%	0.210	0.193	34.220
x		7.016	7.667	0.343	0.348	86.150	85.700	91.0%	0.215	0.204	34.430
σ		0.175	0.101	0.015	0.011	0.866	0.260	1.5%	0.005	0.021	0.240
%RSD		2.493	1.310	4.243	3.217	1.005	0.303	1.7	2.284	10.390	0.696

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:42:27	32.280	33.760	89.2%
2	00:42:54	32.060	33.270	85.7%
3	00:43:22	32.340	33.420	87.1%
x		32.230	33.480	87.4%
σ		0.145	0.250	1.7%
%RSD		0.451	0.746	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	103.5%	0.038	0.302	0.017	31.520	16.370	308.600	301.100	307.000	TM 8111.000
2	00:49:01	104.5%	0.077	0.351	0.039	35.790	15.760	302.900	301.800	305.900	TM 7951.000
3	00:49:28	107.5%	0.055	-0.236	-0.084	32.370	17.570	302.600	296.300	305.600	TM 8119.000
x		105.2%	0.057	0.139	-0.009	33.230	16.560	304.700	299.700	306.200	TM 8061.000
σ		2.0%	0.019	0.326	0.066	2.259	0.922	3.416	2.997	0.734	TM 94.770
%RSD		1.9	33.800	234.400	711.800	6.798	5.568	1.121	1.000	0.240	TM 1.176
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	T 1091.000	T 303300.000	175.900	4009.000	3821.000	101.1%	295.100	9.613	80.430	7655.000
2	00:49:01	T 1107.000	T 302100.000	172.800	4038.000	3864.000	102.1%	304.300	9.540	77.070	7889.000
3	00:49:28	T 1033.000	T 303000.000	174.300	4019.000	3797.000	101.3%	T 337.300	9.188	75.170	8954.000
x		T 1077.000	T 302800.000	174.300	4022.000	3827.000	101.5%	T 312.300	9.447	77.560	8166.000
σ		T 39.070	T 608.100	1.554	14.780	33.900	0.5%	T 22.180	0.227	2.662	692.400
%RSD		T 3.628	T 0.201	0.891	0.367	0.886	0.5	T 7.103	2.402	3.432	8.478
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	2485.000	33.000	T 2493.000	2386.000	0.899	3.811	4.049	36.750	40.140	33.130
2	00:49:01	2508.000	33.030	T 2488.000	2371.000	0.874	3.947	3.721	36.080	40.500	32.120
3	00:49:28	2453.000	32.030	T 2466.000	2369.000	0.820	3.649	4.300	36.020	40.580	32.560
x		2482.000	32.690	T 2483.000	2375.000	0.864	3.803	4.024	36.280	40.410	32.600
σ		27.890	0.571	T 14.560	9.622	0.040	0.149	0.290	0.404	0.235	0.503
%RSD		1.124	1.748	T 0.587	0.405	4.631	3.929	7.211	1.113	0.581	1.544
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	27.430	29.670	29.010	0.528	4.495	4.392	1.480	0.558	0.030	12.660
2	00:49:01	26.530	28.980	28.140	0.050	4.392	4.662	-0.606	0.114	-3.419	12.520
3	00:49:28	27.630	28.690	28.390	1.303	5.011	5.053	2.930	1.007	-1.956	12.590
x		27.200	29.120	28.510	0.627	4.632	4.703	1.268	0.560	-1.782	12.590
σ		0.587	0.503	0.449	0.632	0.332	0.333	1.777	0.447	1.731	0.072
%RSD		2.157	1.727	1.576	100.800	7.162	7.071	140.100	79.830	97.150	0.572
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	106.1%	0.278	0.264	0.267	2.390	0.013	0.012	0.090	0.114	92.5%
2	00:49:01	107.3%	0.360	0.236	0.305	1.519	0.022	0.012	0.097	0.095	93.2%
3	00:49:28	105.6%	0.248	0.211	0.276	1.708	0.008	0.013	0.062	0.099	91.1%
x		106.3%	0.296	0.237	0.283	1.872	0.014	0.013	0.083	0.103	92.3%
σ		0.8%	0.058	0.027	0.020	0.458	0.007	0.001	0.018	0.010	1.0%
%RSD		0.8	19.700	11.280	7.117	24.480	49.660	5.674	22.170	10.150	1.1
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	5.427	6.766	0.263	0.279	18.390	18.770	92.8%	0.029	0.033	14.250
2	00:49:01	5.421	6.767	0.231	0.278	17.710	18.440	93.6%	0.035	0.035	14.480
3	00:49:28	5.568	6.850	0.266	0.259	18.370	18.400	91.3%	0.043	0.033	14.380
x		5.472	6.794	0.253	0.272	18.160	18.540	92.6%	0.036	0.034	14.370
σ		0.083	0.048	0.020	0.011	0.388	0.205	1.2%	0.007	0.001	0.117
%RSD		1.518	0.707	7.705	4.178	2.137	1.105	1.3	19.530	2.912	0.816
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	00:48:33	13.630	14.010	90.5%							
2	00:49:01	13.530	13.940	91.3%							
3	00:49:28	13.410	13.880	88.6%							
x		13.520	13.940	90.1%							
σ		0.111	0.065	1.4%							
%RSD		0.823	0.469	1.6							

CCV MW10994 05/01/2019 00:54:14 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	91.3%	322.400	318.300	310.900	72.860	T67830.000	T64350.000	T64970.000	T63930.000	303.500
2	00:55:09	94.5%	306.700	307.100	297.100	50.660	T65760.000	T62910.000	T62300.000	T62050.000	296.200
3	00:55:36	95.1%	301.600	300.100	295.700	53.370	T65560.000	T62370.000	T61830.000	T62110.000	310.900
x		93.6%	103.412%	102.830%	100.412%	58.960	T110.637%	T63210.000	T63030.000	T104.491%	101.187%
σ		2.0%	n/a	n/a	n/a	12.110	Tn/a	T1023.000	T1691.000	Tn/a	n/a
%RSD		2.2	3.508	2.977	2.799	20.540	T1.890	T1.619	T2.683	T1.700	2.425

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	T3374.000	3357.000	T66620.000	64450.000	T66670.000	92.7%	314.400	323.000	309.500	1688.000
2	00:55:09	T3305.000	3131.000	T65270.000	63610.000	T65470.000	97.7%	310.300	314.900	303.400	2091.000
3	00:55:36	T3321.000	3222.000	T68080.000	64010.000	T65610.000	93.9%	315.600	T329.300	305.600	1044.000
x		T111.117%	3237.000	T111.094%	64020.000	T109.859%	94.7%	104.488%	T107.465%	102.049%	1608.000
σ		Tn/a	113.600	Tn/a	418.100	Tn/a	2.6%	n/a	Tn/a	n/a	528.500
%RSD		T1.087	3.509	T2.114	0.653	T0.997	2.7	0.891	T2.246	1.010	32.870

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	T65530.000	302.900	T66660.000	T64300.000	307.900	297.800	303.000	302.600	319.600	327.500
2	00:55:09	T65170.000	297.200	T65330.000	T63550.000	298.500	291.700	298.200	292.900	325.800	328.600
3	00:55:36	T64770.000	296.400	T65660.000	T63110.000	300.800	293.100	299.400	296.400	317.500	315.300
x		T65160.000	99.607%	T65880.000	T106.090%	100.799%	98.059%	300.200	297.300	106.979%	107.937%
σ		T381.300	n/a	T689.400	Tn/a	n/a	n/a	2.466	4.935	n/a	n/a
%RSD		T0.585	1.176	T1.046	T0.943	1.616	1.099	0.821	1.660	1.348	2.276

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	301.200	309.400	306.800	323.700	1.550	0.715	1387.000	331.900	0.003	314.600
2	00:55:09	296.600	300.200	298.800	324.700	1.265	0.156	1314.000	321.400	0.655	309.400
3	00:55:36	295.600	297.000	294.300	321.600	1.378	0.958	1313.000	312.200	2.921	308.800
x		297.800	302.200	99.984%	323.400	1.398	0.610	1338.000	107.271%	1.193	103.637%
σ		2.983	6.447	n/a	1.579	0.143	0.411	42.530	n/a	1.531	n/a
%RSD		1.002	2.133	2.113	0.488	10.260	67.460	3.179	3.063	128.400	1.035

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	87.5%	327.400	323.700	327.900	313.700	307.100	305.400	307.600	309.300	83.5%
2	00:55:09	90.7%	322.600	322.500	329.500	314.600	309.300	307.100	313.000	309.900	84.9%
3	00:55:36	86.9%	322.700	323.100	324.700	310.700	300.000	300.800	305.000	302.600	83.6%
x		88.4%	108.077%	107.701%	327.400	313.000	101.828%	304.400	308.500	102.429%	84.0%
σ		2.1%	n/a	n/a	2.468	2.073	n/a	3.226	4.102	n/a	0.8%
%RSD		2.3	0.834	0.184	0.754	0.662	1.591	1.060	1.330	1.314	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	319.600	318.200	320.600	320.400	323.100	320.500	83.9%	309.700	312.700	307.500
2	00:55:09	321.600	317.300	321.300	318.000	319.500	315.600	86.2%	306.300	312.500	303.800
3	00:55:36	314.600	312.400	313.300	313.700	317.300	321.200	84.1%	306.400	312.000	303.700
x		106.194%	105.329%	318.400	105.783%	106.659%	106.368%	84.7%	307.500	104.140%	101.663%
σ		n/a	n/a	4.464	n/a	n/a	n/a	1.3%	1.943	n/a	n/a
%RSD		1.140	0.983	1.402	1.070	0.917	0.956	1.5	0.632	0.116	0.717

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:54:41	304.600	307.800	80.0%
2	00:55:09	303.500	305.200	82.5%
3	00:55:36	303.800	305.400	79.6%
x		101.322%	102.047%	80.7%
σ		n/a	n/a	1.6%
%RSD		0.200	0.464	2.0

CCB IM9390-01 05/01/2019 01:00:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	99.7%	0.048	0.552	0.674	41.750	11.360	7.915	7.823	7.991	0.929
2	01:01:19	103.2%	0.031	0.878	0.637	29.990	9.005	5.676	5.659	5.822	0.630
3	01:01:46	106.4%	0.033	0.289	0.382	38.180	8.136	5.488	5.474	5.514	0.596
x		103.1%	0.037	0.573	0.564	36.640	9.501	6.360	6.319	6.442	0.718
σ		3.4%	0.009	0.295	0.159	6.027	1.669	1.350	1.306	1.350	0.184
%RSD		3.3	25.280	51.520	28.200	16.450	17.560	21.230	20.670	20.960	25.580

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	16.240	2164.000	22.000	14.900	7.572	96.2%	0.009	0.059	0.112	70.180
2	01:01:19	14.880	2078.000	18.910	2.403	6.231	98.1%	-0.103	0.046	0.065	64.760
3	01:01:46	14.280	2010.000	16.670	4.348	5.611	97.7%	-0.042	0.009	0.084	99.820
x		15.130	2084.000	19.190	7.215	6.471	97.3%	-0.046	0.038	0.087	78.250
σ		1.005	77.150	2.674	6.722	1.002	1.0%	0.056	0.026	0.024	18.870
%RSD		6.640	3.702	13.930	93.160	15.490	1.0	123.000	68.870	27.260	24.120

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	9.606	0.059	16.110	-3.128	0.059	0.044	-0.185	0.005	0.048	0.092
2	01:01:19	7.601	0.073	13.590	-9.468	0.041	0.016	0.097	0.040	0.020	0.049
3	01:01:46	7.909	0.047	13.550	-8.145	0.048	0.052	0.356	0.013	0.031	-0.006
x		8.372	0.060	14.420	-6.913	0.049	0.037	0.089	0.020	0.033	0.045
σ		1.080	0.013	1.467	3.344	0.009	0.019	0.271	0.018	0.014	0.049
%RSD		12.900	21.810	10.180	48.370	18.280	51.230	303.300	94.120	43.590	110.300

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	0.068	0.091	0.001	-0.261	-0.098	1.142	-1.312	-0.241	-0.781	0.038
2	01:01:19	0.090	0.084	-0.033	-0.388	0.040	0.885	0.060	0.044	0.584	0.030
3	01:01:46	-0.032	0.018	0.037	0.685	0.129	0.539	0.097	-0.004	2.696	0.039
x		0.042	0.064	0.002	0.012	0.024	0.855	-0.385	-0.067	0.833	0.036
σ		0.065	0.041	0.035	0.586	0.115	0.302	0.803	0.152	1.752	0.005
%RSD		154.500	63.040	2184.000	4927.000	483.200	35.350	208.600	226.800	210.200	13.550

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	91.8%	0.107	0.077	0.096	0.123	0.036	0.027	0.044	0.041	89.0%
2	01:01:19	91.6%	0.095	0.068	0.073	0.740	0.026	0.038	0.036	0.033	89.5%
3	01:01:46	91.1%	0.093	0.054	0.057	-0.389	0.031	0.029	0.006	0.028	89.5%
x		91.5%	0.098	0.066	0.075	0.158	0.031	0.031	0.029	0.034	89.4%
σ		0.4%	0.008	0.012	0.020	0.565	0.005	0.006	0.020	0.006	0.3%
%RSD		0.4	7.961	18.010	26.040	358.000	15.640	19.340	70.880	18.920	0.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	0.082	0.085	0.145	0.168	0.065	0.073	86.6%	0.027	0.020	0.038
2	01:01:19	0.073	0.096	0.130	0.162	0.026	0.069	87.0%	0.007	0.020	0.011
3	01:01:46	0.032	0.083	0.159	0.122	0.020	0.051	86.7%	0.013	-0.002	0.027
x		0.062	0.088	0.144	0.150	0.037	0.064	86.8%	0.016	0.013	0.025
σ		0.027	0.007	0.014	0.025	0.024	0.012	0.2%	0.010	0.013	0.014
%RSD		43.220	8.233	9.974	16.580	65.790	18.240	0.3	63.500	100.100	53.420

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:00:51	0.032	0.040	86.2%
2	01:01:19	0.015	0.022	86.4%
3	01:01:46	0.054	0.032	86.4%
x		0.034	0.031	86.3%
σ		0.019	0.009	0.1%
%RSD		57.840	28.920	0.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	106.5%	0.026	0.166	0.021	69.470	18.110	195.300	193.100	193.700	TM 6960.000
2	01:07:25	110.8%	0.029	0.159	-0.048	61.640	17.800	187.300	188.700	190.500	TM 7047.000
3	01:07:52	111.4%	0.028	0.307	-0.102	63.950	17.600	187.800	184.400	186.900	TM 6859.000
x		109.6%	0.027	0.210	-0.043	65.020	17.840	190.100	188.800	190.400	TM 6955.000
σ		2.7%	0.002	0.083	0.061	4.020	0.255	4.463	4.351	3.409	TM 94.250
%RSD		2.5	5.917	39.640	142.800	6.183	1.428	2.347	2.305	1.791	TM 1.355

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	T 999.100	T 353800.000	147.900	816.000	764.700	101.5%	411.100	10.820	31.550	8505.000
2	01:07:25	T 949.300	T 354300.000	147.700	781.700	754.300	101.0%	409.700	11.490	31.350	8724.000
3	01:07:52	T 969.100	T 352500.000	145.800	818.800	752.800	101.3%	399.700	10.370	30.380	9070.000
x		T 972.500	T 353500.000	147.200	805.500	757.300	101.3%	406.900	10.900	31.090	8766.000
σ		T 25.080	T 941.100	1.141	20.680	6.489	0.3%	6.222	0.563	0.626	285.100
%RSD		T 2.579	T 0.266	0.775	2.568	0.857	0.3	1.529	5.171	2.012	3.253

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	1928.000	28.170	T 1926.000	1838.000	0.526	2.769	3.246	1.619	2.305	2.986
2	01:07:25	1902.000	28.090	T 1912.000	1848.000	0.530	2.666	3.085	1.618	2.107	2.843
3	01:07:52	1867.000	27.690	T 1872.000	1775.000	0.531	2.408	2.415	1.674	2.296	2.753
x		1899.000	27.980	T 1903.000	1820.000	0.529	2.614	2.915	1.637	2.236	2.861
σ		30.810	0.261	T 28.020	39.340	0.003	0.186	0.441	0.032	0.112	0.117
%RSD		1.622	0.933	T 1.472	2.161	0.535	7.114	15.120	1.973	5.006	4.103

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	3.354	2.933	9.134	0.440	5.826	5.071	0.421	0.407	-1.579	5.088
2	01:07:25	3.474	2.558	9.289	0.793	5.775	5.823	0.107	0.284	-0.144	5.080
3	01:07:52	3.017	2.822	9.003	0.857	5.711	6.471	1.141	0.554	0.098	4.948
x		3.281	2.771	9.142	0.697	5.770	5.788	0.556	0.415	-0.542	5.039
σ		0.237	0.193	0.144	0.225	0.058	0.701	0.530	0.136	0.906	0.079
%RSD		7.226	6.953	1.571	32.240	0.997	12.100	95.370	32.690	167.300	1.558

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	110.6%	0.312	0.248	0.330	0.865	0.018	0.011	0.012	-0.003	91.3%
2	01:07:25	109.2%	0.295	0.227	0.269	1.620	0.011	0.014	0.004	0.056	90.2%
3	01:07:52	108.3%	0.284	0.262	0.250	0.976	0.011	0.009	0.026	-0.009	89.7%
x		109.4%	0.297	0.246	0.283	1.154	0.013	0.011	0.014	0.015	90.4%
σ		1.1%	0.014	0.018	0.042	0.408	0.004	0.002	0.011	0.036	0.8%
%RSD		1.0	4.749	7.144	14.740	35.350	30.930	21.520	75.710	241.100	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	5.819	6.927	0.371	0.378	10.870	11.530	92.2%	0.011	0.023	7.235
2	01:07:25	5.580	6.610	0.308	0.339	11.460	11.290	90.5%	0.033	0.025	7.230
3	01:07:52	5.601	6.389	0.279	0.334	11.060	10.680	90.4%	0.009	0.020	7.136
x		5.667	6.642	0.320	0.350	11.130	11.160	91.0%	0.017	0.023	7.200
σ		0.132	0.270	0.047	0.024	0.299	0.439	1.1%	0.013	0.002	0.056
%RSD		2.335	4.068	14.710	6.821	2.685	3.932	1.2	75.860	10.870	0.774

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:06:58	6.450	6.986	89.7%
2	01:07:25	6.395	6.940	86.9%
3	01:07:52	6.393	6.853	86.5%
x		6.413	6.926	87.7%
σ		0.032	0.067	1.7%
%RSD		0.502	0.973	2.0

UQ14724-001 05/01/2019 01:12:37 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	109.3%	0.009	-0.428	-0.613	63.290	2.409	1.496	1.319	1.503	1.648
2	01:13:31	106.6%	-0.002	-0.330	-0.312	62.060	0.993	1.542	1.306	1.630	1.590
3	01:13:58	112.3%	0.002	-0.348	-0.479	62.300	3.099	1.619	1.344	1.529	1.645
x		109.4%	0.003	-0.369	-0.468	62.550	2.167	1.553	1.323	1.554	1.628
σ		2.9%	0.005	0.052	0.151	0.650	1.074	0.062	0.019	0.067	0.032
%RSD		2.6	183.600	14.160	32.230	1.039	49.560	4.000	1.431	4.310	1.985

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	31.610	T 358100.000	22.850	-1.457	1.781	99.4%	0.197	0.486	1.654	8344.000
2	01:13:31	31.390	T 347600.000	20.360	3.456	2.607	101.4%	0.273	-0.121	1.258	7654.000
3	01:13:58	30.780	T 354700.000	20.450	2.888	3.879	100.2%	0.183	0.101	1.496	8666.000
x		31.260	T 353500.000	21.220	1.629	2.756	100.3%	0.218	0.155	1.470	8221.000
σ		0.432	T 5344.000	1.413	2.688	1.057	1.0%	0.049	0.307	0.199	517.000
%RSD		1.383	T 1.512	6.660	165.000	38.360	1.0	22.390	197.600	13.550	6.289

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	18.110	0.113	7.240	-16.480	0.002	0.065	0.007	0.019	0.049	0.257
2	01:13:31	13.180	0.109	6.627	-23.230	0.012	0.094	0.239	0.032	0.073	0.256
3	01:13:58	16.770	0.098	7.572	-18.570	0.016	0.076	-0.121	0.043	0.053	0.258
x		16.020	0.107	7.146	-19.430	0.010	0.078	0.041	0.031	0.058	0.257
σ		2.547	0.008	0.480	3.460	0.007	0.015	0.182	0.012	0.013	0.001
%RSD		15.900	7.427	6.714	17.810	70.030	19.100	439.600	38.970	22.740	0.394

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	0.354	0.237	0.481	-0.425	6.203	6.125	2.262	0.626	-0.630	0.002
2	01:13:31	0.249	0.253	-0.295	-0.368	6.457	5.620	0.535	0.185	-0.752	0.006
3	01:13:58	0.546	0.297	-0.429	0.178	5.237	5.368	-0.684	-0.125	0.743	0.001
x		0.383	0.262	-0.081	-0.205	5.966	5.704	0.705	0.229	-0.213	0.003
σ		0.151	0.031	0.491	0.333	0.644	0.385	1.480	0.378	0.830	0.003
%RSD		39.350	11.870	607.600	162.500	10.790	6.753	210.100	165.200	389.900	105.800

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	92.6%	0.037	0.038	0.079	0.177	-0.000	0.009	-0.003	0.004	88.4%
2	01:13:31	94.3%	0.030	0.051	0.032	-1.024	0.000	-0.000	-0.003	0.004	92.0%
3	01:13:58	92.3%	0.031	0.019	0.013	-0.861	-0.002	0.001	0.002	0.015	89.3%
x		93.1%	0.033	0.036	0.041	-0.570	-0.001	0.003	-0.001	0.008	89.9%
σ		1.1%	0.004	0.016	0.034	0.652	0.001	0.005	0.003	0.007	1.8%
%RSD		1.2	11.820	45.120	81.400	114.400	215.100	154.300	191.300	83.210	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	4.108	6.210	0.086	0.112	-0.018	0.003	86.7%	-0.013	-0.014	-0.016
2	01:13:31	4.438	5.927	0.089	0.125	-0.013	0.006	89.9%	-0.016	-0.018	-0.017
3	01:13:58	4.207	6.078	0.078	0.103	0.001	0.014	87.2%	-0.013	-0.016	-0.016
x		4.251	6.072	0.084	0.113	-0.010	0.008	87.9%	-0.014	-0.016	-0.016
σ		0.169	0.142	0.006	0.011	0.010	0.006	1.7%	0.001	0.002	0.001
%RSD		3.976	2.330	7.125	9.799	95.710	72.270	2.0	10.230	12.450	6.062

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:13:03	-0.017	-0.016	86.0%
2	01:13:31	-0.011	-0.012	90.0%
3	01:13:58	-0.014	-0.015	86.0%
x		-0.014	-0.015	87.3%
σ		0.003	0.002	2.3%
%RSD		21.620	14.660	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	105.2%	201.800	198.100	194.600	42.950	T 2225.000	T 2120.000	2059.000	2058.000	207.500
2	01:19:38	107.6%	200.100	203.100	198.800	47.200	T 2255.000	T 2105.000	2061.000	2013.000	204.900
3	01:20:05	107.1%	207.000	210.000	193.400	48.930	T 2296.000	T 2105.000	2051.000	2080.000	203.000
x		106.6%	203.000	203.700	195.600	46.360	T 2259.000	T 2110.000	2057.000	2050.000	205.100
σ		1.3%	3.592	5.939	2.854	3.076	T 35.680	T 8.635	5.236	34.380	2.261
%RSD		1.2	1.769	2.915	1.459	6.636	T 1.580	T 0.409	0.255	1.677	1.102

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	99.380	T 384900.000	T 2278.000	2519.000	2174.000	99.7%	215.000	211.700	212.700	9487.000
2	01:19:38	97.790	T 392700.000	T 2323.000	2453.000	2178.000	98.4%	208.500	213.000	208.500	9717.000
3	01:20:05	96.880	T 384900.000	T 2258.000	2389.000	2157.000	100.8%	211.900	214.900	206.100	9343.000
x		98.020	T 387500.000	T 2286.000	2454.000	2170.000	99.6%	211.800	213.200	209.100	9516.000
σ		1.267	T 4495.000	T 33.250	64.810	11.470	1.2%	3.261	1.606	3.331	188.700
%RSD		1.293	T 1.160	T 1.454	2.641	0.529	1.2	1.539	0.753	1.593	1.983

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	2282.000	207.300	T 2253.000	2082.000	208.900	208.800	212.300	215.700	228.300	217.000
2	01:19:38	2288.000	202.100	T 2241.000	2083.000	207.400	205.800	211.200	211.300	223.700	208.600
3	01:20:05	2272.000	203.800	T 2183.000	2058.000	205.800	202.800	207.100	210.600	219.700	208.400
x		2281.000	204.400	T 2226.000	2074.000	207.400	205.800	210.200	212.600	223.900	211.400
σ		8.524	2.680	T 37.390	14.320	1.548	3.011	2.709	2.768	4.306	4.897
%RSD		0.374	1.311	T 1.680	0.690	0.747	1.463	1.289	1.302	1.923	2.317

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	200.500	204.000	203.400	212.000	8.317	8.724	881.300	209.100	3.042	207.400
2	01:19:38	196.400	198.400	197.400	204.500	8.914	8.332	835.900	197.500	0.278	206.300
3	01:20:05	197.100	202.700	199.400	204.500	7.793	8.925	872.100	205.700	1.369	204.100
x		198.000	201.700	200.100	207.000	8.341	8.660	863.100	204.100	1.563	206.000
σ		2.218	2.955	3.063	4.340	0.561	0.301	23.990	5.991	1.392	1.687
%RSD		1.121	1.465	1.531	2.096	6.722	3.481	2.779	2.935	89.060	0.819

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	94.3%	214.300	213.800	213.000	207.200	213.400	213.900	207.400	207.200	90.7%
2	01:19:38	92.7%	210.300	213.100	210.800	202.900	210.900	211.700	202.700	202.100	89.6%
3	01:20:05	95.6%	209.600	208.800	208.400	199.300	211.400	211.200	206.700	204.100	92.5%
x		94.2%	211.400	211.900	210.700	203.100	211.900	212.300	205.600	204.500	90.9%
σ		1.5%	2.530	2.710	2.281	3.910	1.296	1.432	2.543	2.584	1.5%
%RSD		1.6	1.197	1.279	1.082	1.925	0.612	0.675	1.237	1.264	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	217.000	217.300	207.100	210.100	215.600	214.500	89.8%	209.700	213.000	211.100
2	01:19:38	214.600	215.400	205.100	207.300	214.300	215.400	88.5%	208.300	211.700	210.500
3	01:20:05	214.700	214.600	205.200	208.500	212.100	213.200	91.4%	207.600	211.900	208.300
x		215.500	215.800	205.800	208.600	214.000	214.400	89.9%	208.500	212.200	210.000
σ		1.381	1.416	1.104	1.447	1.774	1.105	1.4%	1.053	0.717	1.470
%RSD		0.641	0.656	0.536	0.694	0.829	0.515	1.6	0.505	0.338	0.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:19:10	212.300	212.900	88.3%
2	01:19:38	210.500	211.200	86.1%
3	01:20:05	210.600	210.600	90.0%
x		211.100	211.600	88.1%
σ		1.004	1.144	2.0%
%RSD		0.475	0.541	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	106.0%	0.065	0.802	0.286	67.760	20.720	277.400	273.300	274.500	™13000.000
2	01:25:45	103.4%	0.062	0.706	0.250	59.920	21.010	274.000	269.700	272.200	™12820.000
3	01:26:12	111.4%	0.046	0.079	0.093	60.340	22.480	270.500	263.900	265.100	™13110.000
x		106.9%	0.058	0.529	0.210	62.670	21.400	274.000	269.000	270.600	™12980.000
σ		4.1%	0.010	0.393	0.102	4.410	0.944	3.438	4.730	4.899	™143.700
%RSD		3.8	18.000	74.270	48.840	7.037	4.409	1.255	1.758	1.810	™1.107

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	₸1208.000	₸314800.000	197.800	1557.000	1392.000	98.8%	377.000	12.560	103.400	7589.000
2	01:25:45	₸1263.000	₸303100.000	189.400	1477.000	1352.000	101.7%	361.200	11.530	98.000	7487.000
3	01:26:12	₸1138.000	₸315000.000	197.500	1487.000	1346.000	99.0%	367.300	10.270	99.620	9238.000
x		₸1203.000	₸311000.000	194.900	1507.000	1363.000	99.8%	368.500	11.450	100.300	8105.000
σ		₸62.800	₸6817.000	4.758	43.690	25.020	1.6%	7.989	1.146	2.755	982.600
%RSD		₸5.220	₸2.192	2.441	2.899	1.835	1.6	2.168	10.010	2.746	12.120

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	2380.000	27.480	₸2358.000	2247.000	0.741	4.699	5.888	8.181	9.502	9.190
2	01:25:45	2309.000	27.040	₸2311.000	2205.000	0.693	4.549	5.470	8.108	9.460	9.767
3	01:26:12	2338.000	26.330	₸2340.000	2207.000	0.702	4.491	5.309	8.011	9.512	8.729
x		2343.000	26.950	₸2336.000	2220.000	0.712	4.580	5.556	8.100	9.492	9.229
σ		35.570	0.583	₸23.420	23.710	0.026	0.107	0.299	0.086	0.027	0.520
%RSD		1.518	2.163	₸1.003	1.068	3.626	2.340	5.384	1.057	0.290	5.635

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	9.018	8.137	10.260	0.238	6.622	6.411	-0.591	0.061	-0.830	9.628
2	01:25:45	8.582	8.742	8.971	0.436	6.228	6.479	0.720	0.467	-1.938	9.511
3	01:26:12	8.704	8.318	10.530	0.620	5.594	7.113	1.613	0.630	0.147	9.470
x		8.768	8.399	9.918	0.431	6.148	6.668	0.581	0.386	-0.874	9.536
σ		0.225	0.311	0.831	0.191	0.519	0.388	1.109	0.293	1.043	0.082
%RSD		2.566	3.697	8.383	44.240	8.435	5.814	190.900	75.890	119.400	0.861

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	107.7%	0.257	0.318	0.262	2.039	0.041	0.032	0.033	0.051	92.1%
2	01:25:45	105.2%	0.289	0.242	0.304	2.429	0.035	0.026	0.043	0.017	89.0%
3	01:26:12	104.5%	0.329	0.231	0.264	2.241	0.026	0.023	0.022	-0.005	88.9%
x		105.8%	0.291	0.263	0.277	2.237	0.034	0.027	0.032	0.021	90.0%
σ		1.7%	0.036	0.048	0.023	0.195	0.007	0.005	0.010	0.028	1.8%
%RSD		1.6	12.390	18.100	8.487	8.719	21.400	18.430	32.360	133.400	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	5.659	6.575	0.251	0.256	15.760	15.310	92.3%	0.114	0.119	11.080
2	01:25:45	5.668	6.626	0.240	0.267	14.750	15.530	90.6%	0.147	0.133	11.280
3	01:26:12	5.427	6.715	0.238	0.234	14.870	15.590	88.9%	0.123	0.120	10.820
x		5.585	6.639	0.243	0.253	15.120	15.480	90.6%	0.128	0.124	11.060
σ		0.137	0.071	0.007	0.017	0.551	0.147	1.7%	0.017	0.008	0.233
%RSD		2.445	1.064	2.843	6.827	3.642	0.951	1.9	13.390	6.461	2.106

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:25:19	10.380	10.760	89.1%
2	01:25:45	10.440	10.990	89.1%
3	01:26:12	10.080	10.620	85.2%
x		10.300	10.790	87.8%
σ		0.194	0.188	2.2%
%RSD		1.879	1.739	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	103.9%	0.027	-0.113	-0.283	48.140	15.640	187.500	188.000	189.900	TM 7347.000
2	01:31:51	105.2%	0.027	-0.147	-0.490	37.790	14.590	184.700	183.400	183.400	TM 7367.000
3	01:32:19	106.8%	0.032	-0.135	-0.469	41.870	14.400	185.300	184.900	182.700	TM 7150.000
x		105.3%	0.029	-0.132	-0.414	42.600	14.880	185.800	185.400	185.300	TM 7288.000
σ		1.4%	0.003	0.017	0.114	5.213	0.664	1.514	2.373	3.951	TM 120.300
%RSD		1.4	10.790	13.210	27.520	12.240	4.462	0.815	1.280	2.132	TM 1.651

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	T 917.500	T 325800.000	140.100	785.200	754.500	99.6%	338.100	9.159	68.110	8306.000
2	01:31:51	T 841.200	T 315300.000	136.100	804.000	741.400	101.4%	332.700	8.924	68.020	7482.000
3	01:32:19	T 833.800	T 314500.000	136.200	784.400	725.900	101.8%	T 328.200	9.399	67.060	7807.000
x		T 864.200	T 318500.000	137.500	791.200	740.600	100.9%	T 333.000	9.161	67.730	7865.000
σ		T 46.370	T 6299.000	2.313	11.070	14.320	1.2%	T 4.948	0.238	0.583	415.000
%RSD		T 5.366	T 1.977	1.683	1.400	1.933	1.2	T 1.486	2.593	0.861	5.277

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	2198.000	30.530	T 2185.000	2124.000	0.498	2.734	2.713	27.480	30.740	5.603
2	01:31:51	2182.000	29.860	T 2135.000	2064.000	0.481	2.468	3.110	27.300	30.900	5.435
3	01:32:19	2172.000	30.070	T 2175.000	2056.000	0.429	2.680	2.905	27.550	30.800	5.462
x		2184.000	30.150	T 2165.000	2081.000	0.469	2.627	2.909	27.440	30.820	5.500
σ		13.200	0.340	T 26.780	37.300	0.036	0.140	0.198	0.126	0.081	0.090
%RSD		0.604	1.129	T 1.237	1.792	7.727	5.337	6.820	0.459	0.264	1.638

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	5.238	5.125	15.270	0.429	6.255	6.308	1.364	0.550	0.315	5.613
2	01:31:51	5.592	5.013	15.250	0.209	6.334	6.027	2.348	0.898	-2.454	5.476
3	01:32:19	5.521	5.042	14.860	0.513	5.537	6.090	0.619	0.350	0.939	5.537
x		5.450	5.060	15.130	0.384	6.042	6.142	1.444	0.599	-0.400	5.542
σ		0.187	0.058	0.229	0.157	0.439	0.147	0.868	0.278	1.806	0.068
%RSD		3.438	1.145	1.516	40.900	7.267	2.400	60.090	46.290	451.600	1.236

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	108.3%	0.234	0.258	0.242	2.226	0.020	0.014	0.017	0.019	92.2%
2	01:31:51	108.1%	0.222	0.313	0.299	0.749	0.012	0.012	0.017	0.008	91.6%
3	01:32:19	110.5%	0.250	0.245	0.226	1.359	0.013	0.018	0.016	0.052	93.5%
x		109.0%	0.235	0.272	0.256	1.444	0.015	0.015	0.017	0.027	92.4%
σ		1.3%	0.014	0.036	0.039	0.742	0.004	0.003	0.000	0.023	0.9%
%RSD		1.2	6.112	13.210	15.180	51.370	26.650	18.550	0.676	85.250	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	5.643	6.817	0.185	0.179	12.760	12.410	91.9%	0.045	0.054	7.930
2	01:31:51	5.455	6.413	0.205	0.133	12.540	11.770	91.6%	0.068	0.055	8.174
3	01:32:19	5.662	6.587	0.159	0.208	11.820	12.190	93.6%	0.066	0.049	7.734
x		5.587	6.606	0.183	0.174	12.380	12.120	92.4%	0.060	0.053	7.946
σ		0.114	0.202	0.023	0.038	0.492	0.326	1.1%	0.013	0.003	0.220
%RSD		2.040	3.064	12.680	21.790	3.974	2.690	1.2	21.460	6.564	2.773

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:31:24	7.308	7.668	89.5%
2	01:31:51	7.068	7.768	89.7%
3	01:32:19	7.258	7.560	90.5%
x		7.212	7.665	89.9%
σ		0.127	0.104	0.5%
%RSD		1.755	1.352	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	105.1%	0.043	-0.081	-0.225	98.320	14.590	228.200	222.900	230.200	TM 8711.000
2	01:37:58	102.7%	0.044	0.182	-0.185	101.800	14.360	217.200	216.400	224.100	TM 8263.000
3	01:38:25	105.8%	0.052	-0.295	-0.152	89.900	13.720	212.400	206.500	211.600	TM 7872.000
x		104.6%	0.046	-0.065	-0.188	96.680	14.220	219.300	215.300	222.000	TM 8282.000
σ		1.6%	0.005	0.239	0.037	6.128	0.451	8.126	8.240	9.455	TM 419.600
%RSD		1.5	10.270	369.900	19.550	6.339	3.168	3.706	3.828	4.260	TM 5.067

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	T 934.400	T 343100.000	152.300	1709.000	1672.000	100.1%	379.300	8.025	89.240	8037.000
2	01:37:58	T 946.900	T 340600.000	143.400	1680.000	1608.000	104.0%	359.000	8.571	85.290	7509.000
3	01:38:25	T 887.800	T 323900.000	141.300	1613.000	1553.000	102.8%	352.600	8.064	81.230	7722.000
x		T 923.000	T 335800.000	145.700	1667.000	1611.000	102.3%	363.700	8.220	85.250	7756.000
σ		T 31.140	T 10450.000	5.809	49.530	59.160	2.0%	13.940	0.305	4.007	265.600
%RSD		T 3.373	T 3.112	3.989	2.971	3.672	2.0	3.833	3.706	4.700	3.425

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	1722.000	22.610	T 1696.000	1604.000	0.386	2.606	3.074	2.945	3.572	3.463
2	01:37:58	1658.000	21.510	T 1621.000	1538.000	0.413	2.402	2.743	2.690	3.477	3.259
3	01:38:25	1586.000	21.020	T 1597.000	1514.000	0.379	2.247	1.838	2.745	3.350	3.225
x		1655.000	21.710	T 1638.000	1552.000	0.393	2.418	2.552	2.793	3.466	3.316
σ		67.810	0.815	T 51.940	46.470	0.018	0.180	0.639	0.134	0.111	0.129
%RSD		4.096	3.756	T 3.171	2.994	4.469	7.455	25.060	4.802	3.208	3.875

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	3.402	3.224	5.867	0.664	7.337	6.715	-0.546	0.052	0.424	10.110
2	01:37:58	3.395	3.252	5.623	0.588	7.468	7.104	0.462	0.333	0.991	9.756
3	01:38:25	3.000	3.129	6.148	0.556	6.670	7.326	-0.239	0.172	-1.267	9.526
x		3.266	3.202	5.879	0.603	7.158	7.048	-0.108	0.185	0.049	9.799
σ		0.230	0.064	0.262	0.056	0.428	0.309	0.517	0.141	1.175	0.297
%RSD		7.044	2.004	4.463	9.215	5.983	4.387	480.300	76.140	2402.000	3.027

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	106.4%	0.268	0.205	0.280	1.288	0.012	0.011	0.017	-0.011	90.6%
2	01:37:58	109.3%	0.215	0.178	0.254	0.933	0.005	0.010	-0.004	-0.000	91.5%
3	01:38:25	107.8%	0.262	0.202	0.241	1.186	0.007	0.005	0.021	0.020	92.3%
x		107.8%	0.248	0.195	0.258	1.136	0.008	0.009	0.011	0.003	91.4%
σ		1.4%	0.029	0.015	0.020	0.183	0.003	0.003	0.013	0.016	0.8%
%RSD		1.3	11.810	7.447	7.718	16.110	43.420	39.870	117.100	546.400	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	5.792	6.888	0.233	0.252	10.640	10.280	90.3%	0.028	0.035	8.592
2	01:37:58	5.737	6.621	0.256	0.213	10.480	10.310	91.8%	0.031	0.041	8.507
3	01:38:25	5.357	6.476	0.175	0.224	10.100	10.280	91.1%	0.046	0.043	8.152
x		5.629	6.662	0.221	0.229	10.410	10.290	91.1%	0.035	0.040	8.417
σ		0.237	0.209	0.042	0.020	0.279	0.017	0.8%	0.010	0.004	0.234
%RSD		4.214	3.137	19.030	8.826	2.683	0.161	0.8	27.860	10.190	2.775

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:37:31	7.876	8.388	87.4%
2	01:37:58	7.619	8.269	90.2%
3	01:38:25	7.460	7.986	88.8%
x		7.651	8.215	88.8%
σ		0.210	0.206	1.4%
%RSD		2.743	2.511	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	104.4%	0.085	0.372	-0.129	108.800	13.190	90.210	88.120	90.980	TM 5840.000
2	01:44:04	104.9%	0.064	-0.125	0.062	109.100	12.430	87.890	88.280	89.030	TM 5706.000
3	01:44:31	108.1%	0.043	0.433	-0.104	106.800	13.680	85.290	85.960	87.320	TM 5862.000
x		105.8%	0.064	0.226	-0.057	108.200	13.100	87.800	87.450	89.110	TM 5803.000
σ		2.0%	0.021	0.306	0.104	1.236	0.630	2.462	1.297	1.834	TM 84.330
%RSD		1.9	33.370	135.300	182.300	1.142	4.810	2.804	1.483	2.058	TM 1.453
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	T 961.900	T 313000.000	91.980	2696.000	2570.000	99.8%	283.600	5.053	128.000	7546.000
2	01:44:04	T 974.300	T 309400.000	91.030	2645.000	2521.000	100.3%	283.900	4.472	127.500	7843.000
3	01:44:31	T 917.100	T 313900.000	97.710	2693.000	2500.000	97.5%	277.500	3.547	127.200	9140.000
x		T 951.100	T 312100.000	93.580	2678.000	2530.000	99.2%	281.700	4.358	127.600	8176.000
σ		T 30.100	T 2372.000	3.616	28.330	36.160	1.5%	3.633	0.759	0.401	847.800
%RSD		T 3.165	T 0.760	3.864	1.058	1.429	1.5	1.290	17.430	0.314	10.370
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	1594.000	73.600	T 1560.000	1492.000	0.363	4.028	4.154	23.600	26.670	280.900
2	01:44:04	1583.000	73.330	T 1564.000	1459.000	0.349	4.108	3.760	23.490	26.430	275.500
3	01:44:31	1573.000	72.460	T 1546.000	1487.000	0.376	4.128	3.979	23.840	26.880	269.700
x		1583.000	73.130	T 1557.000	1479.000	0.363	4.088	3.964	23.640	26.660	275.400
σ		10.160	0.599	T 9.271	17.860	0.013	0.053	0.197	0.178	0.227	5.614
%RSD		0.642	0.819	T 0.596	1.207	3.662	1.296	4.978	0.751	0.853	2.039
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	222.700	239.800	51.390	0.376	6.133	6.715	1.668	0.672	0.813	9.155
2	01:44:04	224.300	239.300	50.460	0.246	6.914	6.781	0.342	0.285	1.075	9.011
3	01:44:31	218.400	232.000	49.080	0.318	7.792	7.068	2.998	0.991	1.114	8.890
x		221.800	237.000	50.310	0.313	6.946	6.855	1.669	0.650	1.001	9.019
σ		3.093	4.352	1.162	0.065	0.830	0.187	1.328	0.354	0.164	0.133
%RSD		1.395	1.836	2.310	20.800	11.950	2.734	79.570	54.470	16.360	1.472
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	109.8%	0.185	0.161	0.165	2.486	0.019	0.038	1.132	1.167	90.6%
2	01:44:04	108.6%	0.192	0.163	0.225	4.109	0.021	0.021	1.032	1.092	91.2%
3	01:44:31	105.5%	0.206	0.241	0.221	2.633	0.013	0.021	1.259	1.125	88.6%
x		108.0%	0.195	0.188	0.204	3.076	0.018	0.027	1.141	1.128	90.1%
σ		2.2%	0.011	0.045	0.034	0.897	0.004	0.010	0.114	0.037	1.4%
%RSD		2.0	5.545	24.050	16.560	29.170	23.050	36.550	9.952	3.313	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	7.193	8.350	0.200	0.173	46.920	47.290	90.1%	0.016	0.012	49.500
2	01:44:04	6.624	8.224	0.164	0.178	47.330	46.840	92.5%	0.010	0.002	48.570
3	01:44:31	6.977	7.996	0.163	0.155	47.430	46.570	87.9%	0.012	0.010	47.790
x		6.931	8.190	0.176	0.169	47.220	46.900	90.2%	0.013	0.008	48.620
σ		0.288	0.180	0.021	0.012	0.269	0.366	2.3%	0.003	0.005	0.858
%RSD		4.147	2.194	12.110	7.282	0.569	0.781	2.5	26.000	66.240	1.764
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	01:43:37	48.640	49.000	88.3%							
2	01:44:04	47.110	47.980	89.9%							
3	01:44:31	46.720	47.240	85.1%							
x		47.490	48.070	87.8%							
σ		1.016	0.884	2.4%							
%RSD		2.139	1.838	2.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	108.0%	134.500	140.600	138.800	60.590	T 1996.000	T 1859.000	1840.000	1859.000	TM 8960.000
2	01:50:10	103.4%	141.300	144.100	136.800	64.910	T 2013.000	T 1828.000	1825.000	1813.000	TM 8552.000
3	01:50:37	104.0%	140.100	143.600	136.100	66.450	T 2011.000	T 1823.000	1792.000	1802.000	TM 8323.000
x		105.1%	138.600	142.800	137.200	63.990	T 2007.000	T 1836.000	1819.000	1824.000	TM 8612.000
σ		2.5%	3.610	1.903	1.391	3.037	T 9.273	T 19.330	24.740	29.960	TM 322.700
%RSD		2.3	2.604	1.333	1.014	4.747	T 0.462	T 1.052	1.360	1.642	TM 3.747

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	T 1552.000	T 336900.000	T 3746.000	4962.000	4495.000	96.6%	M 870.700	222.200	318.800	9229.000
2	01:50:10	T 1624.000	T 327300.000	T 3583.000	4767.000	4413.000	100.2%	M 860.800	220.000	313.600	8215.000
3	01:50:37	T 1611.000	T 322300.000	T 3546.000	4560.000	4429.000	101.6%	M 841.600	219.500	305.500	8520.000
x		T 1596.000	T 328900.000	T 3625.000	4763.000	4446.000	99.5%	M 857.700	220.600	312.700	8654.000
σ		T 38.350	T 7440.000	T 106.000	200.700	43.710	2.6%	M 14.800	1.470	6.713	520.200
%RSD		T 2.403	T 2.262	T 2.925	4.214	0.983	2.6	M 1.725	0.666	2.147	6.011

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	4011.000	306.800	T 3874.000	3779.000	208.200	213.200	203.700	220.000	255.500	477.000
2	01:50:10	3894.000	300.800	T 3844.000	3687.000	205.300	207.300	201.000	219.100	248.200	479.000
3	01:50:37	3984.000	294.300	T 3754.000	3634.000	205.200	206.200	196.000	212.700	246.500	478.100
x		3963.000	300.600	T 3824.000	3700.000	206.200	208.900	200.200	217.300	250.100	478.000
σ		61.570	6.239	T 62.350	73.550	1.680	3.783	3.884	3.953	4.762	1.013
%RSD		1.554	2.075	T 1.630	1.988	0.815	1.811	1.940	1.820	1.904	0.212

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	394.800	406.400	241.100	211.500	8.765	9.342	736.700	203.500	1.594	194.000
2	01:50:10	394.800	411.100	243.600	204.600	8.158	9.290	764.100	208.800	0.864	192.500
3	01:50:37	386.600	405.400	234.400	209.100	8.524	9.894	739.900	203.500	2.287	192.500
x		392.100	407.600	239.700	208.400	8.482	9.509	746.900	205.200	1.582	193.000
σ		4.720	3.046	4.763	3.514	0.306	0.335	14.990	3.055	0.711	0.902
%RSD		1.204	0.747	1.987	1.686	3.604	3.519	2.007	1.488	44.970	0.468

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	107.5%	179.100	173.400	184.900	207.100	214.300	214.600	208.000	210.000	86.6%
2	01:50:10	112.0%	181.400	172.500	186.400	203.300	212.900	214.100	210.200	210.600	91.1%
3	01:50:37	110.6%	181.500	173.600	185.600	205.000	214.400	213.900	209.400	209.000	89.8%
x		110.0%	180.700	173.200	185.600	205.100	213.900	214.200	209.200	209.900	89.2%
σ		2.3%	1.362	0.578	0.758	1.904	0.840	0.377	1.151	0.849	2.3%
%RSD		2.1	0.754	0.334	0.408	0.928	0.393	0.176	0.550	0.405	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	216.800	214.400	192.800	192.700	301.100	302.900	87.4%	207.900	210.500	237.500
2	01:50:10	216.800	212.700	193.200	195.600	298.800	300.700	91.4%	209.200	210.100	238.700
3	01:50:37	215.600	213.800	194.600	191.800	294.900	295.900	92.0%	207.500	209.100	236.700
x		216.400	213.600	193.500	193.300	298.300	299.900	90.3%	208.200	209.900	237.600
σ		0.682	0.874	0.982	2.015	3.120	3.546	2.5%	0.879	0.759	1.041
%RSD		0.315	0.409	0.507	1.042	1.046	1.182	2.8	0.422	0.362	0.438

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:49:43	236.300	237.900	82.7%
2	01:50:10	236.400	238.000	87.6%
3	01:50:37	236.700	237.000	88.9%
x		236.500	237.600	86.4%
σ		0.225	0.545	3.3%
%RSD		0.095	0.229	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	106.0%	142.700	148.800	147.400	72.610	T 2190.000	T 1994.000	1962.000	2001.000	TM 9738.000
2	01:56:16	104.4%	145.300	150.300	144.000	73.230	T 2144.000	T 1929.000	1918.000	2002.000	TM 9028.000
3	01:56:43	106.5%	142.500	150.000	148.000	83.230	T 2168.000	T 1933.000	1882.000	1903.000	TM 9181.000
x		105.6%	143.500	149.700	146.500	76.360	T 2167.000	T 1952.000	1921.000	1968.000	TM 9316.000
σ		1.1%	1.543	0.769	2.120	5.962	T 22.810	T 36.130	40.280	57.010	TM 373.400
%RSD		1.0	1.075	0.514	1.448	7.809	T 1.052	T 1.851	2.097	2.896	TM 4.008

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	T 2461.000	T 335900.000	T 4196.000	5653.000	5047.000	97.6%	M 958.800	236.900	348.600	9982.000
2	01:56:16	T 2438.000	T 322400.000	T 3899.000	5295.000	4996.000	100.9%	M 946.600	232.900	342.500	9007.000
3	01:56:43	T 2410.000	T 328100.000	T 4027.000	5440.000	5027.000	97.4%	M 931.900	233.800	341.500	10120.000
x		T 2436.000	T 328800.000	T 4041.000	5463.000	5024.000	98.6%	M 945.700	234.500	344.200	9704.000
σ		T 25.690	T 6763.000	T 149.300	180.100	25.610	2.0%	M 13.490	2.089	3.816	608.400
%RSD		T 1.055	T 2.057	T 3.696	3.297	0.510	2.0	M 1.426	0.891	1.109	6.269

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	4621.000	327.000	T 4479.000	4318.000	219.800	223.700	220.000	238.800	271.000	M 520.100
2	01:56:16	4580.000	323.100	T 4368.000	4232.000	216.100	219.000	209.100	233.400	260.500	M 527.700
3	01:56:43	4584.000	327.200	T 4437.000	4343.000	221.500	224.400	222.900	237.600	267.000	M 515.100
x		4595.000	325.800	T 4428.000	4297.000	219.200	222.300	217.300	236.600	266.200	M 520.900
σ		22.240	2.329	T 56.190	58.220	2.791	2.931	7.304	2.865	5.270	M 6.325
%RSD		0.484	0.715	T 1.269	1.355	1.274	1.318	3.361	1.211	1.980	M 1.214

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	424.400	440.100	256.300	218.500	9.296	9.517	824.100	223.100	2.869	213.100
2	01:56:16	431.800	453.000	264.900	222.800	10.070	9.745	814.000	221.600	0.925	210.600
3	01:56:43	429.000	442.400	260.200	217.500	10.360	9.577	808.300	218.200	-0.560	209.500
x		428.400	445.200	260.500	219.600	9.908	9.613	815.500	221.000	1.078	211.000
σ		3.764	6.880	4.320	2.819	0.550	0.118	8.027	2.524	1.720	1.855
%RSD		0.879	1.545	1.658	1.284	5.553	1.230	0.984	1.142	159.500	0.879

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	103.9%	195.700	189.600	201.900	221.400	232.300	231.200	221.800	224.000	86.0%
2	01:56:16	110.9%	195.900	186.700	200.900	225.600	228.500	230.000	221.200	224.300	90.8%
3	01:56:43	106.6%	193.600	185.600	197.000	218.500	222.200	225.000	217.700	220.300	88.1%
x		107.1%	195.100	187.300	199.900	221.900	227.600	228.700	220.300	222.900	88.3%
σ		3.5%	1.273	2.041	2.586	3.570	5.102	3.254	2.231	2.223	2.4%
%RSD		3.3	0.652	1.089	1.294	1.609	2.241	1.423	1.013	0.998	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	238.100	236.500	206.200	204.300	329.300	330.000	87.9%	221.500	226.700	264.700
2	01:56:16	237.200	236.300	209.100	206.500	323.500	326.400	92.5%	223.700	225.800	263.100
3	01:56:43	232.300	231.200	202.400	202.800	322.800	321.000	89.0%	221.600	224.200	260.900
x		235.900	234.700	205.900	204.600	325.200	325.800	89.8%	222.300	225.600	262.900
σ		3.095	3.010	3.379	1.876	3.549	4.501	2.4%	1.213	1.293	1.890
%RSD		1.312	1.283	1.641	0.917	1.091	1.382	2.7	0.546	0.573	0.719

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:55:49	263.200	264.400	83.8%
2	01:56:16	260.600	263.300	88.8%
3	01:56:43	257.900	260.300	85.1%
x		260.600	262.700	85.9%
σ		2.630	2.127	2.6%
%RSD		1.009	0.810	3.0

UD25032-074L(5) 05/01/2019 02:01:28

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	106.5%	0.061	0.413	0.389	52.960	4.086	22.980	23.150	22.380	TM 1319.000
2	02:02:22	101.4%	0.083	0.566	0.246	60.570	3.044	23.820	23.220	23.030	TM 1299.000
3	02:02:49	100.2%	0.045	0.712	0.123	63.880	1.997	23.000	23.430	22.830	TM 1262.000
x		102.7%	0.063	0.564	0.253	59.140	3.042	23.270	23.260	22.750	TM 1293.000
σ		3.3%	0.019	0.149	0.133	5.600	1.044	0.480	0.145	0.333	TM 28.650
%RSD		3.2	30.570	26.530	52.710	9.469	34.330	2.063	0.624	1.465	TM 2.216

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	T 217.200	T 75760.000	28.670	619.100	573.800	96.3%	62.750	0.894	28.680	2211.000
2	02:02:22	T 218.400	T 75240.000	25.840	608.500	571.700	96.5%	61.320	1.377	29.340	1708.000
3	02:02:49	T 227.900	T 73200.000	26.760	600.000	567.800	96.4%	58.740	0.797	27.620	1942.000
x		T 221.200	T 74730.000	27.090	609.200	571.100	96.4%	60.940	1.023	28.550	1954.000
σ		T 5.861	T 1352.000	1.444	9.600	3.058	0.1%	2.031	0.311	0.869	251.600
%RSD		T 2.650	T 1.809	5.331	1.576	0.535	0.1	3.333	30.380	3.044	12.880

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	365.400	16.410	T 375.700	322.700	0.134	0.994	0.562	5.835	6.389	64.600
2	02:02:22	348.400	16.420	T 369.200	315.900	0.112	1.125	0.732	5.485	6.137	65.240
3	02:02:49	352.400	16.180	354.300	316.800	0.107	0.947	1.016	5.463	6.084	62.130
x		355.400	16.340	T 366.400	318.500	0.118	1.022	0.770	5.594	6.203	63.990
σ		8.920	0.138	T 10.980	3.718	0.015	0.092	0.229	0.209	0.163	1.641
%RSD		2.510	0.841	T 2.996	1.168	12.400	8.994	29.780	3.733	2.629	2.565

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	52.760	58.440	11.650	0.569	1.819	2.094	-0.463	-0.008	-0.179	2.300
2	02:02:22	54.390	59.290	11.500	0.564	1.770	2.733	-0.593	-0.045	-0.331	2.233
3	02:02:49	57.000	58.560	11.490	0.618	1.631	2.082	-1.713	-0.362	1.207	2.245
x		54.720	58.760	11.550	0.583	1.740	2.303	-0.923	-0.138	0.232	2.259
σ		2.139	0.462	0.092	0.030	0.098	0.373	0.687	0.195	0.847	0.036
%RSD		3.909	0.787	0.796	5.085	5.604	16.180	74.440	140.600	365.000	1.583

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	93.0%	0.113	0.104	0.101	1.219	0.040	0.046	0.292	0.302	86.7%
2	02:02:22	95.4%	0.080	0.120	0.094	0.162	0.023	0.026	0.284	0.263	89.2%
3	02:02:49	95.5%	0.065	0.073	0.094	0.941	0.022	0.022	0.256	0.278	90.1%
x		94.7%	0.086	0.099	0.097	0.774	0.028	0.031	0.277	0.281	88.7%
σ		1.4%	0.024	0.024	0.004	0.548	0.010	0.013	0.019	0.020	1.7%
%RSD		1.5	28.490	24.120	4.448	70.760	34.610	40.450	6.815	7.105	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	1.539	1.822	0.077	0.071	10.740	10.620	85.2%	0.082	0.106	11.300
2	02:02:22	1.416	1.785	0.048	0.063	10.810	10.670	88.4%	0.089	0.087	11.070
3	02:02:49	1.488	1.793	0.080	0.073	10.490	10.590	88.2%	0.079	0.084	10.940
x		1.481	1.800	0.068	0.069	10.680	10.630	87.3%	0.083	0.093	11.110
σ		0.062	0.019	0.018	0.005	0.171	0.044	1.8%	0.005	0.011	0.185
%RSD		4.158	1.081	26.380	7.773	1.602	0.413	2.1	6.241	12.390	1.666

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:01:55	11.010	11.130	85.4%
2	02:02:22	10.820	11.050	88.7%
3	02:02:49	10.940	10.900	89.1%
x		10.920	11.030	87.7%
σ		0.094	0.118	2.0%
%RSD		0.864	1.073	2.3

CCV MW10994 05/01/2019 02:07:34 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	93.0%	305.100	318.500	316.500	76.230	T 67230.000	T 64760.000	T 64660.000	T 63010.000	303.000
2	02:08:28	94.2%	302.900	307.100	291.400	55.420	T 65940.000	T 63530.000	T 62870.000	T 63530.000	300.500
3	02:08:54	90.5%	315.300	315.700	311.000	64.180	T 67610.000	T 64380.000	T 63890.000	T 63220.000	299.700
x		92.6%	102.588%	104.584%	102.101%	65.280	T 111.545%	T 64220.000	T 63800.000	T 105.425%	100.358%
σ		1.8%	n/a	n/a	n/a	10.450	T n/a	T 626.600	T 897.500	T n/a	n/a
%RSD		2.0	2.146	1.883	4.319	16.010	T 1.313	T 0.976	T 1.407	T 0.410	0.583

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	T 3324.000	2696.000	T 69400.000	64990.000	T 65660.000	91.8%	312.200	314.800	301.100	1584.000
2	02:08:28	T 3196.000	2535.000	T 68350.000	64070.000	T 66030.000	93.2%	317.700	316.100	302.000	936.400
3	02:08:54	T 3453.000	2489.000	T 67400.000	64970.000	T 66320.000	94.8%	313.100	320.800	303.800	622.500
x		T 110.814%	2573.000	T 113.972%	64680.000	T 110.003%	93.3%	104.776%	105.749%	100.763%	1048.000
σ		T n/a	108.600	T n/a	525.800	T n/a	1.5%	n/a	n/a	n/a	490.400
%RSD		T 3.874	4.219	T 1.460	0.813	T 0.499	1.6	0.950	1.000	0.448	46.810

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	T 64600.000	296.000	T 65270.000	T 62600.000	300.700	295.300	303.900	299.300	329.400	323.300
2	02:08:28	T 65140.000	295.000	T 65000.000	T 63610.000	301.300	293.400	303.100	295.000	319.200	320.000
3	02:08:54	T 65120.000	299.100	T 65030.000	T 63300.000	295.600	288.600	298.700	296.700	314.000	317.800
x		T 64950.000	98.900%	T 65100.000	T 105.283%	99.738%	97.465%	301.900	297.000	106.964%	106.780%
σ		T 304.600	n/a	T 146.900	T n/a	n/a	n/a	2.794	2.141	n/a	n/a
%RSD		T 0.469	0.716	T 0.226	T 0.821	1.059	1.181	0.925	0.721	2.432	0.863

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	297.500	299.700	287.000	327.600	0.758	0.153	1320.000	317.900	0.620	309.100
2	02:08:28	292.000	302.000	295.100	319.100	1.274	0.776	1351.000	323.800	1.786	308.400
3	02:08:54	298.600	300.600	298.300	314.000	1.514	1.156	1345.000	318.900	3.903	306.900
x		296.000	300.800	97.835%	320.200	1.182	0.695	1339.000	106.737%	2.103	102.708%
σ		3.492	1.176	n/a	6.854	0.387	0.507	16.600	n/a	1.665	n/a
%RSD		1.180	0.391	1.985	2.140	32.700	72.930	1.240	0.993	79.150	0.369

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	82.8%	324.200	324.900	326.400	312.000	302.900	300.800	303.400	306.400	79.0%
2	02:08:28	86.2%	325.300	325.600	325.900	323.400	303.300	303.000	306.200	305.000	82.3%
3	02:08:54	88.8%	322.600	326.400	326.600	313.700	303.500	303.000	306.800	310.300	85.5%
x		85.9%	108.013%	108.542%	326.300	316.400	101.071%	302.300	305.500	102.410%	82.3%
σ		3.0%	n/a	n/a	0.357	6.141	n/a	1.243	1.779	n/a	3.3%
%RSD		3.5	0.412	0.229	0.109	1.941	0.094	0.411	0.582	0.901	4.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	315.400	316.800	313.600	312.300	317.100	321.100	80.1%	309.300	315.100	308.200
2	02:08:28	319.600	316.100	316.300	317.400	320.300	320.900	82.8%	310.100	315.600	307.200
3	02:08:54	319.200	318.200	321.300	320.600	316.800	319.500	86.5%	311.500	317.100	308.400
x		106.021%	105.682%	317.100	105.594%	106.023%	106.834%	83.2%	310.300	105.309%	102.634%
σ		n/a	n/a	3.917	n/a	n/a	n/a	3.2%	1.140	n/a	n/a
%RSD		0.736	0.338	1.235	1.321	0.620	0.262	3.9	0.367	0.322	0.203

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:08:01	308.500	310.100	76.8%
2	02:08:28	308.600	309.100	78.7%
3	02:08:54	307.800	310.200	83.3%
x		102.756%	103.267%	79.6%
σ		n/a	n/a	3.3%
%RSD		0.143	0.205	4.2

CCB IM9390-01 05/01/2019 02:13:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	99.1%	0.060	0.988	0.941	43.230	9.273	7.363	7.032	7.695	0.181
2	02:14:36	101.1%	0.004	1.016	0.913	40.050	7.307	5.632	5.050	6.122	0.021
3	02:15:03	100.3%	0.020	1.001	0.520	36.930	4.874	5.002	4.915	5.108	0.099
x		100.2%	0.028	1.002	0.792	40.070	7.151	5.999	5.666	6.308	0.100
σ		1.0%	0.028	0.014	0.236	3.153	2.204	1.222	1.185	1.304	0.080
%RSD		1.0	100.700	1.408	29.770	7.868	30.810	20.380	20.920	20.670	80.090

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	16.010	1820.000	21.570	9.815	8.048	95.4%	-0.053	0.014	0.097	68.410
2	02:14:36	15.490	1727.000	20.900	3.871	5.999	95.5%	-0.028	0.048	0.095	54.730
3	02:15:03	14.850	1668.000	17.800	6.530	5.578	95.2%	-0.003	0.011	0.070	67.160
x		15.450	1738.000	20.090	6.739	6.542	95.4%	-0.028	0.024	0.087	63.430
σ		0.579	76.890	2.013	2.977	1.321	0.2%	0.025	0.020	0.015	7.560
%RSD		3.745	4.423	10.020	44.180	20.200	0.2	90.540	82.120	17.280	11.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	8.987	0.091	15.900	-3.317	0.059	0.042	0.153	0.018	0.055	0.041
2	02:14:36	7.250	0.067	13.440	-0.262	0.063	0.039	0.044	0.022	0.034	0.053
3	02:15:03	5.633	0.036	11.010	-7.400	0.050	0.036	-0.028	0.002	0.031	0.040
x		7.290	0.065	13.450	-3.660	0.057	0.039	0.056	0.014	0.040	0.045
σ		1.678	0.027	2.447	3.581	0.006	0.003	0.091	0.011	0.013	0.007
%RSD		23.010	42.240	18.190	97.860	11.040	7.680	161.700	77.370	33.110	16.200

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	-0.054	0.066	0.078	0.010	0.064	0.530	1.239	0.332	0.378	0.038
2	02:14:36	0.072	0.060	-0.033	0.126	0.381	1.010	0.509	0.152	0.360	0.029
3	02:15:03	0.193	0.052	-0.063	0.325	-0.042	0.835	-1.775	-0.403	1.271	0.026
x		0.070	0.059	-0.006	0.154	0.135	0.792	-0.009	0.027	0.670	0.031
σ		0.123	0.007	0.074	0.159	0.220	0.243	1.572	0.383	0.521	0.007
%RSD		175.100	11.730	1285.000	103.500	163.600	30.720	17320.000	1426.000	77.830	21.220

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	88.5%	0.055	0.066	0.091	-0.238	0.047	0.046	0.064	0.068	86.2%
2	02:14:36	88.7%	0.096	0.031	0.092	-1.194	0.030	0.028	0.024	0.027	86.9%
3	02:15:03	92.0%	0.080	0.053	0.060	0.039	0.025	0.029	0.044	0.039	89.6%
x		89.8%	0.077	0.050	0.081	-0.465	0.034	0.035	0.044	0.045	87.6%
σ		2.0%	0.020	0.018	0.018	0.647	0.011	0.010	0.020	0.021	1.8%
%RSD		2.2	26.370	35.920	22.600	139.200	33.600	28.570	45.900	46.530	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	0.079	0.112	0.173	0.142	0.014	0.052	85.0%	0.034	0.035	0.040
2	02:14:36	0.025	0.083	0.121	0.098	0.067	0.056	84.4%	0.011	0.038	0.025
3	02:15:03	0.050	0.061	0.165	0.133	0.026	0.054	87.4%	0.017	0.014	0.015
x		0.051	0.085	0.153	0.124	0.036	0.054	85.6%	0.021	0.029	0.027
σ		0.027	0.026	0.028	0.023	0.028	0.002	1.6%	0.012	0.013	0.012
%RSD		52.590	30.320	18.500	18.550	77.600	4.010	1.9	57.650	44.300	45.600

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:14:09	0.039	0.037	86.0%
2	02:14:36	0.033	0.035	85.8%
3	02:15:03	0.047	0.031	89.7%
x		0.040	0.034	87.2%
σ		0.007	0.003	2.2%
%RSD		17.550	8.151	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	105.9%	139.300	148.600	144.200	131.000	T 1788.000	T 1811.000	1786.000	1816.000	TM 5891.000
2	02:20:41	103.1%	147.000	151.000	143.400	125.600	T 1840.000	T 1857.000	1809.000	1843.000	TM 5547.000
3	02:21:08	106.2%	148.000	156.800	150.900	122.200	T 1907.000	T 1914.000	1882.000	1878.000	TM 5715.000
x		105.1%	144.800	152.100	146.200	126.300	T 1845.000	T 1861.000	1826.000	1846.000	TM 5718.000
σ		1.7%	4.786	4.188	4.114	4.439	T 59.520	T 51.400	50.330	31.140	TM 172.300
%RSD		1.6	3.306	2.753	2.815	3.516	T 3.226	T 2.763	2.757	1.687	TM 3.014

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	T 2910.000	T 311700.000	T 2234.000	5014.000	4525.000	96.3%	467.500	210.700	324.200	8850.000
2	02:20:41	T 2918.000	T 289500.000	T 2140.000	4782.000	4531.000	100.1%	T 487.300	216.500	324.300	5996.000
3	02:21:08	T 2911.000	T 307900.000	T 2335.000	5081.000	4677.000	96.9%	470.600	222.100	335.900	7748.000
x		T 2913.000	T 303100.000	T 2236.000	4959.000	4578.000	97.8%	T 475.100	216.500	328.100	7532.000
σ		T 4.175	T 11860.000	T 97.580	156.800	86.080	2.0%	T 10.640	5.679	6.747	1439.000
%RSD		T 0.143	T 3.914	T 4.363	3.161	1.880	2.1	T 2.240	2.624	2.056	19.110

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	3700.000	270.200	T 3575.000	3486.000	201.200	204.400	199.600	220.200	252.300	475.900
2	02:20:41	3667.000	273.400	T 3595.000	3467.000	205.000	205.700	196.500	219.500	251.600	471.200
3	02:21:08	3755.000	275.900	T 3663.000	3564.000	210.800	211.000	209.200	229.500	253.300	464.400
x		3707.000	273.200	T 3611.000	3506.000	205.700	207.000	201.800	223.100	252.400	470.500
σ		44.720	2.827	T 45.930	51.750	4.816	3.522	6.597	5.593	0.855	5.768
%RSD		1.206	1.035	T 1.272	1.476	2.342	1.701	3.270	2.507	0.339	1.226

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	392.500	406.300	242.600	203.700	5.765	6.435	794.800	213.200	-0.521	184.000
2	02:20:41	392.100	413.000	247.400	209.400	6.386	6.061	794.100	211.800	-0.633	189.400
3	02:21:08	400.000	410.300	251.900	214.900	5.918	7.169	812.800	214.400	2.437	194.400
x		394.900	409.900	247.300	209.300	6.023	6.555	800.500	213.100	0.428	189.300
σ		4.436	3.382	4.662	5.613	0.324	0.563	10.590	1.321	1.741	5.210
%RSD		1.124	0.825	1.885	2.682	5.375	8.596	1.323	0.620	407.200	2.753

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	102.3%	184.500	178.100	188.800	193.700	205.000	204.700	197.800	200.600	85.5%
2	02:20:41	107.5%	190.200	183.400	194.000	200.800	209.400	208.700	205.700	208.800	90.2%
3	02:21:08	104.3%	197.000	187.300	198.700	217.100	211.700	214.000	209.600	211.300	88.4%
x		104.7%	190.500	183.000	193.800	203.900	208.700	209.100	204.400	206.900	88.0%
σ		2.6%	6.245	4.613	4.952	12.000	3.383	4.694	6.018	5.591	2.4%
%RSD		2.5	3.277	2.521	2.555	5.887	1.621	2.245	2.945	2.702	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	214.800	211.700	195.800	192.600	247.400	251.200	87.1%	201.500	204.400	252.200
2	02:20:41	218.700	217.500	202.800	202.100	252.400	253.700	92.2%	207.000	208.400	255.100
3	02:21:08	223.500	223.000	204.200	204.000	262.100	259.400	89.7%	211.100	212.600	259.200
x		219.000	217.400	200.900	199.600	253.900	254.800	89.6%	206.500	208.500	255.500
σ		4.364	5.619	4.523	6.092	7.472	4.199	2.6%	4.830	4.101	3.528
%RSD		1.993	2.584	2.251	3.052	2.942	1.648	2.9	2.339	1.967	1.381

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:20:14	249.300	251.100	84.8%
2	02:20:41	252.200	254.700	90.5%
3	02:21:08	256.300	258.900	86.6%
x		252.600	254.900	87.3%
σ		3.537	3.923	2.9%
%RSD		1.400	1.539	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	86.3%	-0.017	M 1335.000	TM 1547.000	-66.920	TM 741100.000	76.390	78.610	80.250	1.884
2	02:26:47	84.0%	-0.017	M 1371.000	TM 1532.000	-68.300	TM 761600.000	75.650	76.310	79.640	1.623
3	02:27:14	87.0%	-0.015	M 1389.000	TM 1505.000	-69.640	TM 760200.000	77.150	79.110	79.010	1.457
x		85.8%	-0.016	M 1365.000	TM 1528.000	-68.290	TM 754300.000	76.400	78.010	79.630	1.655
σ		1.6%	0.001	M 27.350	TM 21.340	1.362	TM 11490.000	0.750	1.496	0.623	0.215
%RSD		1.8	6.660	M 2.003	TM 1.397	1.995	TM 1.523	0.981	1.918	0.783	13.020

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	175.800	T 60330.000	T 52830.000	29870.000	T 31720.000	89.5%	0.606	0.162	0.302	1257.000
2	02:26:47	174.900	T 60550.000	T 53100.000	30750.000	T 32120.000	90.1%	0.680	0.056	0.287	1154.000
3	02:27:14	172.800	T 60060.000	T 52220.000	30580.000	T 31950.000	91.5%	0.903	0.177	0.279	1098.000
x		174.500	T 60310.000	T 52710.000	30400.000	T 31930.000	90.4%	0.730	0.132	0.289	1169.000
σ		1.560	T 244.000	T 448.600	465.500	T 196.900	1.0%	0.155	0.066	0.012	80.630
%RSD		0.894	T 0.405	T 0.851	1.531	T 0.617	1.2	21.200	50.000	4.102	6.895

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	283.600	38.020	311.200	549.000	0.122	0.845	5.461	3.650	3.311	6.373
2	02:26:47	286.900	38.190	307.200	524.800	0.123	0.764	5.215	3.865	3.068	5.865
3	02:27:14	288.100	37.880	301.400	504.200	0.086	0.755	5.782	3.800	2.971	6.032
x		286.200	38.030	306.600	526.000	0.110	0.788	5.486	3.772	3.117	6.090
σ		2.366	0.156	4.929	22.420	0.021	0.049	0.284	0.110	0.175	0.259
%RSD		0.827	0.411	1.608	4.263	19.190	6.276	5.181	2.920	5.613	4.252

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	5.307	3.801	5.309	0.750	266.800	280.200	5.081	0.971	0.968	T 499.300
2	02:26:47	4.690	4.105	5.751	1.075	276.000	274.900	6.512	1.253	3.706	TM 500.600
3	02:27:14	3.785	3.828	5.152	0.391	272.200	274.000	5.997	1.119	3.008	T 496.900
x		4.594	3.911	5.404	0.739	271.700	276.400	5.863	1.114	2.561	TM 498.900
σ		0.766	0.168	0.311	0.342	4.624	3.321	0.725	0.141	1.423	TM 1.921
%RSD		16.670	4.292	5.751	46.300	1.702	1.202	12.360	12.640	55.580	TM 0.385

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	84.9%	5.252	4.967	5.410	17.730	0.026	0.019	0.026	0.060	80.2%
2	02:26:47	89.1%	5.262	5.593	5.202	18.320	0.016	0.019	0.024	0.031	83.8%
3	02:27:14	91.2%	5.470	5.246	5.387	14.440	0.012	0.018	0.009	0.018	86.6%
x		88.4%	5.328	5.269	5.333	16.830	0.018	0.019	0.020	0.036	83.5%
σ		3.2%	0.124	0.314	0.114	2.089	0.007	0.000	0.009	0.021	3.2%
%RSD		3.6	2.318	5.956	2.136	12.410	40.070	1.902	47.600	58.410	3.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	0.129	0.149	1.467	1.576	0.642	0.570	83.9%	0.053	0.044	0.018
2	02:26:47	0.105	0.185	1.547	1.444	0.547	0.603	88.0%	0.033	0.038	0.022
3	02:27:14	0.089	0.104	1.448	1.569	0.566	0.535	90.9%	0.028	0.038	0.031
x		0.108	0.146	1.487	1.529	0.585	0.569	87.6%	0.038	0.040	0.024
σ		0.020	0.040	0.053	0.075	0.050	0.034	3.5%	0.013	0.003	0.007
%RSD		18.750	27.760	3.547	4.871	8.549	5.983	4.0	35.250	8.643	27.840

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:26:19	0.042	0.033	76.8%
2	02:26:47	0.004	0.023	80.4%
3	02:27:14	0.034	0.022	82.4%
x		0.026	0.026	79.9%
σ		0.020	0.006	2.8%
%RSD		75.840	23.270	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	84.9%	6.143	M 1375.000	TM 1561.000	-66.900	TM 749400.000	195.000	197.300	201.700	19.210
2	02:32:53	86.7%	6.167	M 1369.000	TM 1541.000	-69.810	TM 744900.000	193.400	196.300	204.700	20.110
3	02:33:20	84.8%	6.293	M 1374.000	TM 1522.000	-70.080	TM 755400.000	191.400	192.100	195.900	19.220
x		85.4%	6.201	M 1373.000	TM 1541.000	-68.930	TM 749900.000	193.300	195.200	200.800	19.520
σ		1.1%	0.080	M 3.072	TM 19.170	1.764	TM 5284.000	1.804	2.788	4.515	0.517
%RSD		1.3	1.297	M 0.224	TM 1.244	2.559	TM 0.705	0.933	1.428	2.249	2.647

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	369.800	T 59070.000	T 51940.000	30550.000	T 31790.000	90.4%	21.360	19.700	18.870	1289.000
2	02:32:53	369.400	T 59090.000	T 52830.000	30440.000	T 31400.000	91.6%	19.910	20.260	18.630	1139.000
3	02:33:20	370.000	T 58370.000	T 51810.000	29620.000	T 31540.000	93.1%	20.790	19.620	18.670	1132.000
x		369.700	T 58840.000	T 52190.000	30200.000	T 31580.000	91.7%	20.690	19.860	18.720	1187.000
σ		0.325	T 410.000	T 555.600	506.500	T 200.600	1.3%	0.730	0.351	0.125	88.830
%RSD		0.088	T 0.697	T 1.064	1.677	T 0.635	1.5	3.528	1.768	0.666	7.487

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	480.600	55.250	503.100	696.900	17.630	17.720	27.250	21.330	20.930	24.230
2	02:32:53	471.200	55.040	T 513.300	730.400	17.880	18.260	26.370	21.240	21.530	24.040
3	02:33:20	475.400	54.570	T 502.300	685.400	17.720	17.340	27.300	21.090	20.920	23.110
x		475.700	54.960	T 506.200	704.200	17.750	17.770	26.970	21.220	21.130	23.790
σ		4.702	0.349	T 6.133	23.430	0.124	0.464	0.524	0.122	0.347	0.599
%RSD		0.988	0.635	T 1.212	3.327	0.697	2.608	1.944	0.573	1.640	2.519

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	21.540	22.110	24.860	19.480	399.300	404.200	90.490	20.890	2.215	TM 510.000
2	02:32:53	22.860	21.360	23.780	20.520	407.800	399.800	85.150	19.990	-1.333	TM 507.100
3	02:33:20	21.160	22.230	24.770	20.140	397.600	409.700	82.160	18.650	0.345	TM 508.700
x		21.850	21.900	24.470	20.040	401.600	404.600	85.940	19.840	0.409	TM 508.600
σ		0.890	0.474	0.601	0.524	5.476	4.958	4.223	1.128	1.775	TM 1.438
%RSD		4.073	2.164	2.455	2.616	1.364	1.226	4.914	5.683	434.000	TM 0.283

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	89.8%	24.540	25.350	24.950	36.760	17.330	17.770	19.110	18.980	86.2%
2	02:32:53	90.0%	25.060	25.010	24.500	39.260	17.870	17.650	19.140	18.660	85.5%
3	02:33:20	92.5%	24.320	25.390	24.770	30.990	17.480	17.620	18.650	18.910	90.2%
x		90.8%	24.640	25.250	24.740	35.670	17.560	17.680	18.970	18.850	87.3%
σ		1.5%	0.381	0.210	0.227	4.244	0.278	0.078	0.273	0.167	2.5%
%RSD		1.6	1.545	0.830	0.918	11.900	1.584	0.439	1.441	0.883	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	20.000	19.300	21.240	21.070	20.180	19.820	90.1%	18.290	18.010	18.910
2	02:32:53	19.370	19.910	21.200	20.600	20.440	20.230	89.3%	18.120	17.960	18.700
3	02:33:20	19.890	19.610	21.230	21.100	20.690	19.330	94.2%	18.160	18.190	18.540
x		19.760	19.610	21.220	20.930	20.440	19.790	91.2%	18.190	18.050	18.720
σ		0.335	0.304	0.021	0.278	0.256	0.452	2.6%	0.090	0.124	0.182
%RSD		1.698	1.550	0.100	1.329	1.253	2.284	2.9	0.493	0.688	0.975

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:32:25	18.390	18.510	81.2%
2	02:32:53	18.780	18.680	79.9%
3	02:33:20	18.610	18.540	85.4%
x		18.590	18.580	82.2%
σ		0.194	0.092	2.9%
%RSD		1.041	0.495	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	84.4%	6.186	M 1378.000	TM 1531.000	-68.830	TM 756600.000	194.300	197.600	200.300	19.080
2	02:38:59	85.8%	5.904	M 1391.000	TM 1560.000	-69.920	TM 758900.000	197.900	195.300	201.400	20.030
3	02:39:26	86.4%	6.099	M 1370.000	TM 1510.000	-71.220	TM 740300.000	195.800	197.200	199.900	T 16.010
x		85.5%	6.063	M 1380.000	TM 1534.000	-69.990	TM 751900.000	196.000	196.700	200.500	T 18.380
σ		1.0%	0.145	M 10.430	TM 25.520	1.199	TM 10140.000	1.821	1.209	0.779	T 2.099
%RSD		1.2	2.386	M 0.756	TM 1.664	1.713	TM 1.348	0.929	0.615	0.388	T 11.430
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	378.000	T 59390.000	T 53110.000	30570.000	T 31970.000	91.5%	20.040	19.730	18.760	1233.000
2	02:38:59	383.900	T 60780.000	T 53730.000	30760.000	T 32030.000	91.6%	20.660	19.300	18.750	1392.000
3	02:39:26	372.000	T 58670.000	T 51790.000	30010.000	T 31730.000	93.3%	20.200	19.310	18.250	1328.000
x		378.000	T 59610.000	T 52870.000	30440.000	T 31910.000	92.1%	20.300	19.450	18.580	1318.000
σ		5.965	T 1074.000	T 990.200	387.500	T 158.900	1.0%	0.325	0.245	0.290	79.690
%RSD		1.578	T 1.802	T 1.873	1.273	T 0.498	1.1	1.600	1.260	1.559	6.048
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	491.000	55.370	T 505.700	715.300	18.110	18.060	25.320	21.420	20.910	23.940
2	02:38:59	481.300	56.200	505.300	719.700	17.600	17.860	25.600	21.190	21.060	24.240
3	02:39:26	470.600	55.070	T 505.200	691.400	17.590	18.080	23.980	21.000	21.560	23.810
x		481.000	55.550	T 505.400	708.800	17.760	18.000	24.970	21.200	21.180	24.000
σ		10.220	0.584	T 0.228	15.230	0.297	0.121	0.869	0.212	0.340	0.218
%RSD		2.124	1.050	T 0.045	2.149	1.675	0.672	3.479	0.998	1.603	0.910
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	22.340	21.920	25.770	19.410	492.400	491.900	86.790	19.710	0.285	TM 517.200
2	02:38:59	22.680	20.730	24.770	19.620	485.300	491.100	86.600	19.990	-0.123	TM 512.300
3	02:39:26	22.040	21.500	23.990	21.200	485.600	498.900	86.520	19.880	2.753	TM 514.000
x		22.350	21.380	24.840	20.080	487.800	494.000	86.630	19.860	0.972	TM 514.500
σ		0.321	0.605	0.895	0.981	3.987	4.271	0.138	0.138	1.556	TM 2.521
%RSD		1.437	2.829	3.603	4.887	0.818	0.865	0.159	0.695	160.100	TM 0.490
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	90.3%	25.850	25.030	25.420	37.310	18.100	18.010	19.710	19.010	87.9%
2	02:38:59	89.5%	25.240	25.170	25.590	33.400	17.760	18.220	18.570	18.700	85.9%
3	02:39:26	91.1%	25.060	25.310	25.200	35.700	17.740	17.970	18.830	19.430	87.5%
x		90.3%	25.380	25.170	25.400	35.470	17.870	18.070	19.030	19.050	87.1%
σ		0.8%	0.410	0.137	0.194	1.968	0.201	0.135	0.596	0.366	1.1%
%RSD		0.9	1.614	0.545	0.762	5.547	1.124	0.745	3.128	1.923	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	19.540	20.110	21.540	21.180	20.550	20.210	90.8%	18.670	18.340	18.780
2	02:38:59	20.370	20.070	21.490	20.980	20.320	20.500	90.1%	18.420	18.210	18.850
3	02:39:26	20.110	19.770	21.690	21.040	19.950	19.510	91.9%	18.770	18.390	18.860
x		20.010	19.980	21.570	21.070	20.280	20.070	90.9%	18.620	18.310	18.830
σ		0.425	0.186	0.105	0.104	0.304	0.507	0.9%	0.180	0.098	0.042
%RSD		2.125	0.930	0.488	0.494	1.502	2.525	1.0	0.969	0.532	0.225
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	02:38:32	18.730	18.820	82.6%							
2	02:38:59	18.570	18.660	81.1%							
3	02:39:26	19.080	18.990	83.8%							
x		18.790	18.830	82.5%							
σ		0.261	0.168	1.3%							
%RSD		1.391	0.891	1.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	94.8%	0.015	M 575.700	M 562.900	-19.790	TM 194700.000	19.860	20.410	19.920	0.477
2	02:45:06	96.7%	-0.004	M 565.600	M 561.100	-17.830	TM 196100.000	19.930	20.210	19.940	0.422
3	02:45:33	96.7%	-0.012	M 529.500	M 527.600	-17.480	TM 192200.000	18.500	18.970	18.870	0.415
x		96.1%	-0.000	M 556.900	M 550.500	-18.370	TM 194300.000	19.430	19.860	19.580	0.438
σ		1.1%	0.014	M 24.270	M 19.910	1.245	TM 1994.000	0.805	0.784	0.616	0.034
%RSD		1.1	8620.000	M 4.358	M 3.616	6.779	TM 1.026	4.141	3.945	3.144	7.697

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	46.130	T 12070.000	T 10100.000	5600.000	5400.000	100.9%	0.133	0.013	0.075	270.200
2	02:45:06	44.340	T 12200.000	T 10120.000	5581.000	5382.000	99.4%	0.017	0.046	0.066	262.800
3	02:45:33	42.930	T 11800.000	T 9709.000	5217.000	5003.000	104.1%	0.080	0.063	0.039	213.500
x		44.470	T 12030.000	T 9978.000	5466.000	5262.000	101.5%	0.076	0.041	0.060	248.800
σ		1.607	T 200.400	T 233.100	215.800	224.300	2.4%	0.058	0.025	0.019	30.810
%RSD		3.614	T 1.666	T 2.336	3.948	4.263	2.4	76.240	61.990	31.510	12.380

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	46.070	7.087	58.710	86.520	0.025	0.106	1.116	0.763	0.535	1.231
2	02:45:06	45.920	6.857	58.430	94.270	0.026	0.065	1.194	0.724	0.603	1.360
3	02:45:33	43.630	6.498	52.490	70.620	0.015	0.108	0.773	0.654	0.507	1.097
x		45.210	6.814	56.540	83.800	0.022	0.093	1.028	0.714	0.548	1.230
σ		1.367	0.297	3.514	12.060	0.006	0.024	0.224	0.055	0.049	0.132
%RSD		3.024	4.359	6.215	14.390	27.260	26.260	21.790	7.735	8.996	10.720

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	0.815	0.817	0.779	0.274	56.580	56.670	-2.998	-0.716	-0.440	85.430
2	02:45:06	1.020	0.811	0.909	0.910	57.390	58.330	-0.550	-0.125	-1.388	84.170
3	02:45:33	0.924	0.762	0.785	0.168	53.720	54.160	-1.843	-0.431	-1.427	80.470
x		0.920	0.797	0.824	0.451	55.900	56.390	-1.797	-0.424	-1.085	83.360
σ		0.102	0.030	0.074	0.401	1.927	2.100	1.224	0.296	0.559	2.578
%RSD		11.140	3.747	8.921	88.960	3.448	3.724	68.140	69.730	51.540	3.093

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	100.1%	0.908	0.950	0.895	3.511	0.000	-0.002	0.005	0.002	98.0%
2	02:45:06	98.2%	0.898	0.973	0.907	3.692	-0.001	0.002	0.013	-0.002	95.8%
3	02:45:33	102.5%	0.892	1.001	0.802	2.667	-0.005	-0.000	0.002	-0.001	101.4%
x		100.3%	0.900	0.975	0.868	3.290	-0.002	-0.000	0.007	-0.000	98.4%
σ		2.1%	0.008	0.026	0.057	0.547	0.003	0.002	0.006	0.002	2.8%
%RSD		2.1	0.890	2.621	6.617	16.630	148.200	689.400	90.690	1134.000	2.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	0.008	0.045	0.275	0.221	0.104	0.084	98.6%	0.015	0.013	-0.013
2	02:45:06	0.004	0.028	0.286	0.197	0.098	0.093	98.5%	0.017	0.016	-0.007
3	02:45:33	0.003	0.023	0.219	0.210	0.092	0.113	103.0%	0.021	0.015	-0.008
x		0.005	0.032	0.260	0.209	0.098	0.097	100.0%	0.018	0.014	-0.009
σ		0.003	0.012	0.036	0.012	0.006	0.015	2.6%	0.003	0.001	0.003
%RSD		56.690	36.400	13.860	5.638	5.676	15.420	2.6	17.590	8.938	37.150

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:44:39	-0.012	-0.012	90.7%
2	02:45:06	-0.013	-0.007	90.5%
3	02:45:33	-0.008	-0.010	96.7%
x		-0.011	-0.010	92.6%
σ		0.003	0.003	3.6%
%RSD		22.410	26.920	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	102.9%	0.007	M 537.800	M 548.800	33.140	T 21890.000	250.200	244.300	251.200	8.686
2	02:51:13	98.4%	0.010	M 565.900	M 548.300	40.030	T 22050.000	253.400	246.000	252.300	8.329
3	02:51:41	103.2%	0.001	M 543.900	M 559.100	46.530	T 22020.000	255.300	250.600	247.100	8.604
x		101.5%	0.006	M 549.200	M 552.100	39.900	T 21990.000	253.000	247.000	250.200	8.540
σ		2.7%	0.005	M 14.780	M 6.144	6.693	T 87.610	2.596	3.236	2.723	0.187
%RSD		2.7	78.560	M 2.690	M 1.113	16.770	T 0.398	1.026	1.310	1.088	2.191

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	T 969.200	T 18330.000	588.200	3320.000	3151.000	107.0%	0.354	0.055	0.388	364.500
2	02:51:13	T 980.200	T 17940.000	579.800	3326.000	3139.000	106.3%	0.492	0.066	0.363	316.600
3	02:51:41	T 942.800	T 19230.000	609.900	3525.000	3274.000	102.0%	0.259	-0.038	0.419	438.200
x		T 964.100	T 18500.000	592.600	3390.000	3188.000	105.1%	0.368	0.027	0.390	373.100
σ		T 19.220	T 663.000	15.530	116.600	74.590	2.7%	0.117	0.057	0.028	61.290
%RSD		T 1.994	T 3.584	2.620	3.439	2.340	2.5	31.760	208.200	7.161	16.430

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	250.300	2.036	273.000	270.200	0.025	0.305	-0.060	52.560	53.600	32.110
2	02:51:13	246.800	2.011	266.000	250.900	0.025	0.283	0.022	51.030	50.050	31.430
3	02:51:41	258.000	2.086	275.700	279.700	0.036	0.316	0.459	53.200	51.900	32.710
x		251.700	2.044	271.500	267.000	0.029	0.301	0.140	52.270	51.850	32.080
σ		5.717	0.038	5.023	14.650	0.006	0.017	0.279	1.114	1.778	0.638
%RSD		2.271	1.874	1.850	5.488	21.450	5.650	198.700	2.132	3.429	1.990

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	29.130	31.310	-0.013	-0.258	14.390	15.650	-1.585	-0.413	1.549	32.250
2	02:51:13	30.720	32.190	-0.030	-0.087	16.740	16.140	-1.835	-0.387	-2.056	31.710
3	02:51:41	30.680	31.940	0.043	0.166	14.290	15.600	-0.008	-0.052	0.589	32.240
x		30.180	31.810	-0.000	-0.060	15.140	15.800	-1.143	-0.284	0.027	32.070
σ		0.904	0.453	0.038	0.213	1.383	0.298	0.991	0.201	1.867	0.306
%RSD		2.997	1.424	133300.000	356.900	9.137	1.888	86.670	70.880	6846.000	0.956

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	100.8%	0.400	0.390	0.437	2.382	-0.003	0.003	0.015	-0.001	101.8%
2	02:51:13	107.2%	0.502	0.386	0.406	1.443	-0.004	-0.000	0.003	0.027	107.0%
3	02:51:41	103.5%	0.464	0.436	0.394	1.491	-0.001	-0.000	-0.001	0.007	104.7%
x		103.8%	0.456	0.404	0.413	1.772	-0.003	0.001	0.006	0.011	104.5%
σ		3.2%	0.051	0.027	0.022	0.528	0.002	0.002	0.008	0.014	2.6%
%RSD		3.1	11.300	6.787	5.445	29.830	60.290	265.200	141.700	129.800	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	1.385	1.962	0.055	0.090	3.429	3.503	100.2%	-0.003	0.001	9.956
2	02:51:13	1.381	1.904	0.064	0.082	3.681	3.224	106.6%	-0.003	-0.002	9.441
3	02:51:41	1.393	1.905	0.063	0.053	3.279	3.205	102.9%	-0.004	-0.006	9.731
x		1.386	1.924	0.061	0.075	3.463	3.310	103.2%	-0.003	-0.003	9.709
σ		0.006	0.033	0.005	0.019	0.203	0.167	3.3%	0.001	0.004	0.258
%RSD		0.445	1.720	7.662	26.070	5.861	5.047	3.2	19.650	126.900	2.660

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:50:45	9.213	9.451	97.0%
2	02:51:13	9.094	9.309	105.0%
3	02:51:41	8.939	9.220	99.3%
x		9.082	9.327	100.4%
σ		0.138	0.116	4.1%
%RSD		1.514	1.248	4.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	98.9%	20.160	M 543.300	M 529.600	23.810	T 20790.000	456.100	435.000	437.500	27.130
2	02:57:19	100.1%	18.830	M 536.800	M 520.600	26.160	T 19740.000	432.000	423.800	425.400	27.330
3	02:57:47	99.5%	18.620	M 530.100	M 504.600	32.190	T 20050.000	422.900	414.900	412.100	25.740
x		99.5%	19.200	M 536.700	M 518.200	27.390	T 20190.000	437.000	424.600	425.000	26.730
σ		0.6%	0.835	M 6.620	M 12.660	4.320	T 538.700	17.170	10.080	12.710	0.863
%RSD		0.6	4.348	M 1.233	M 2.444	15.770	T 2.668	3.930	2.374	2.991	3.228

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	T 1122.000	T 16890.000	749.200	3461.000	3225.000	106.1%	20.250	20.270	20.050	485.000
2	02:57:19	T 1112.000	T 17130.000	759.500	3368.000	3120.000	106.4%	19.860	19.800	19.670	544.400
3	02:57:47	T 1075.000	T 17080.000	733.400	3276.000	3038.000	107.5%	20.830	19.230	19.340	355.300
x		T 1103.000	T 17030.000	747.300	3368.000	3128.000	106.6%	20.310	19.770	19.690	461.600
σ		T 24.840	T 128.800	13.140	92.500	93.390	0.7%	0.492	0.521	0.356	96.720
%RSD		T 2.251	T 0.756	1.758	2.746	2.986	0.7	2.422	2.636	1.810	20.950

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	452.900	21.450	T 475.200	449.200	19.400	20.420	19.580	68.010	67.320	51.750
2	02:57:19	441.500	20.900	T 464.000	449.300	19.220	19.780	20.070	68.340	69.080	50.980
3	02:57:47	428.900	19.640	T 437.200	408.000	18.620	18.330	18.460	64.550	64.140	48.390
x		441.100	20.660	T 458.800	435.500	19.080	19.510	19.370	66.970	66.840	50.370
σ		12.010	0.929	T 19.550	23.810	0.405	1.072	0.826	2.097	2.503	1.759
%RSD		2.722	4.497	T 4.262	5.466	2.122	5.492	4.263	3.132	3.744	3.493

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	49.100	51.870	20.920	21.160	12.090	12.390	94.700	21.420	0.592	50.160
2	02:57:19	47.840	49.480	20.040	21.740	13.510	12.740	96.000	21.860	-0.518	49.640
3	02:57:47	44.640	47.220	19.970	19.510	12.450	12.320	84.520	19.160	-2.240	47.240
x		47.190	49.520	20.310	20.810	12.690	12.480	91.740	20.810	-0.722	49.010
σ		2.297	2.330	0.529	1.156	0.739	0.227	6.287	1.449	1.427	1.559
%RSD		4.867	4.704	2.607	5.554	5.825	1.816	6.854	6.964	197.700	3.180

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	105.9%	20.300	20.330	20.070	22.980	19.090	19.200	20.990	20.580	105.8%
2	02:57:19	104.3%	19.820	20.390	19.690	20.940	18.770	19.000	19.990	20.040	103.9%
3	02:57:47	106.7%	19.240	19.170	18.570	20.480	18.620	18.680	19.210	19.010	106.8%
x		105.6%	19.790	19.960	19.440	21.470	18.830	18.960	20.060	19.880	105.5%
σ		1.2%	0.535	0.691	0.780	1.330	0.241	0.259	0.892	0.799	1.4%
%RSD		1.2	2.703	3.462	4.012	6.197	1.282	1.364	4.445	4.020	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	21.710	22.050	20.640	20.270	24.110	23.910	105.3%	19.450	19.710	29.340
2	02:57:19	21.060	21.030	19.610	20.170	23.120	22.890	101.6%	19.360	19.280	28.610
3	02:57:47	20.670	21.040	19.120	19.720	22.280	22.270	105.2%	18.860	19.110	27.840
x		21.150	21.380	19.790	20.050	23.170	23.030	104.0%	19.220	19.370	28.590
σ		0.529	0.587	0.777	0.292	0.917	0.831	2.1%	0.316	0.309	0.751
%RSD		2.501	2.746	3.926	1.455	3.959	3.609	2.0	1.643	1.594	2.627

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:56:53	29.090	29.070	103.0%
2	02:57:19	27.980	28.100	98.6%
3	02:57:47	27.150	27.430	103.9%
x		28.070	28.200	101.8%
σ		0.974	0.823	2.8%
%RSD		3.469	2.918	2.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	96.7%	-0.024	54.040	56.440	-79.040	T 99890.000	230.000	230.400	236.600	3.246
2	03:03:26	99.0%	-0.037	56.470	56.640	-78.850	TM 103300.000	229.000	239.000	250.100	3.513
3	03:03:53	99.1%	-0.035	57.680	60.240	-77.050	TM 103400.000	233.700	235.400	240.600	3.195
x		98.3%	-0.032	56.070	57.770	-78.320	TM 102200.000	230.900	234.900	242.400	3.318
σ		1.3%	0.007	1.853	2.140	1.097	TM 2006.000	2.513	4.348	6.968	0.171
%RSD		1.4	22.600	3.306	3.704	1.401	TM 1.963	1.088	1.851	2.874	5.150

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	60.680	6616.000	T 8504.000	23510.000	T 24760.000	105.3%	0.157	22.330	0.108	148.600
2	03:03:26	59.380	T 7665.000	T 8889.000	24110.000	T 24920.000	103.9%	0.114	22.490	0.111	215.500
3	03:03:53	59.870	T 7737.000	T 8867.000	23950.000	T 24880.000	104.0%	0.149	22.420	0.107	241.300
x		59.980	T 7339.000	T 8753.000	23850.000	T 24850.000	104.4%	0.140	22.410	0.109	201.800
σ		0.653	T 627.700	T 216.500	311.000	T 80.910	0.7%	0.023	0.079	0.002	47.830
%RSD		1.089	T 8.553	T 2.473	1.304	T 0.326	0.7	16.110	0.353	1.664	23.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	13.280	0.168	18.960	197.800	0.069	0.294	0.132	0.520	0.579	1.011
2	03:03:26	14.000	0.188	22.730	250.800	0.056	0.310	0.899	0.508	0.639	1.106
3	03:03:53	14.350	0.162	19.790	235.900	0.059	0.318	0.902	0.540	0.682	0.925
x		13.880	0.173	20.500	228.200	0.061	0.307	0.644	0.523	0.633	1.014
σ		0.545	0.014	1.981	27.370	0.007	0.012	0.444	0.016	0.052	0.090
%RSD		3.925	7.816	9.665	11.990	11.190	3.905	68.860	3.058	8.167	8.912

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	1.570	0.658	1.500	0.725	4.024	4.314	0.093	0.074	-1.140	56.160
2	03:03:26	1.245	0.591	1.230	0.321	4.476	5.114	-1.813	-0.421	0.887	56.890
3	03:03:53	1.201	0.742	1.232	0.631	4.282	3.918	-1.175	-0.245	-0.546	56.780
x		1.338	0.664	1.321	0.559	4.261	4.449	-0.965	-0.197	-0.267	56.610
σ		0.201	0.075	0.156	0.212	0.227	0.609	0.971	0.251	1.042	0.392
%RSD		15.050	11.330	11.790	37.890	5.320	13.690	100.600	127.400	390.900	0.692

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	104.8%	338.000	341.300	339.400	1.640	-0.003	0.001	-0.854	-0.023	102.4%
2	03:03:26	101.8%	339.100	342.600	339.500	3.054	-0.002	0.001	-0.815	0.006	100.3%
3	03:03:53	101.5%	337.900	341.600	341.000	1.182	-0.001	0.005	-0.796	-0.032	100.6%
x		102.7%	338.300	341.800	340.000	1.959	-0.002	0.003	-0.822	-0.016	101.1%
σ		1.8%	0.672	0.687	0.917	0.976	0.001	0.002	0.030	0.020	1.1%
%RSD		1.8	0.199	0.201	0.270	49.830	64.070	78.940	3.606	124.100	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	0.225	0.039	0.040	0.035	2.621	2.539	104.2%	0.878	0.726	-0.003
2	03:03:26	0.208	0.036	0.024	0.020	2.618	2.795	102.0%	0.880	0.723	0.008
3	03:03:53	0.246	0.028	0.022	0.037	2.609	2.538	102.3%	0.874	0.715	0.009
x		0.226	0.034	0.029	0.031	2.616	2.624	102.8%	0.877	0.721	0.005
σ		0.019	0.005	0.010	0.009	0.006	0.148	1.2%	0.003	0.006	0.007
%RSD		8.409	16.090	35.690	29.670	0.243	5.648	1.1	0.354	0.782	142.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:02:59	-0.009	-0.001	96.4%
2	03:03:26	0.005	0.009	93.7%
3	03:03:53	0.004	0.003	95.2%
x		0.000	0.004	95.1%
σ		0.008	0.005	1.3%
%RSD		4546.000	134.700	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	101.5%	-0.013	19.900	18.340	11.270	T 15460.000	35.450	35.540	34.160	0.792
2	03:09:32	100.3%	-0.009	19.670	18.890	1.837	T 15170.000	34.010	34.760	34.670	0.758
3	03:09:59	103.4%	0.003	19.860	19.470	5.513	T 15170.000	34.910	34.560	33.790	0.882
x		101.8%	-0.007	19.810	18.900	6.205	T 15270.000	34.790	34.950	34.200	0.811
σ		1.6%	0.008	0.123	0.565	4.752	T 168.400	0.732	0.515	0.441	0.064
%RSD		1.5	127.000	0.621	2.987	76.590	T 1.103	2.104	1.474	1.290	7.926

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	20.260	1193.000	904.500	2298.000	2196.000	107.0%	-0.037	2.026	0.054	25.060
2	03:09:32	20.700	1165.000	914.900	2369.000	2227.000	109.2%	-0.061	2.090	0.043	21.040
3	03:09:59	20.910	1155.000	T 907.800	2333.000	2223.000	109.8%	-0.061	2.175	0.029	13.580
x		20.620	1171.000	T 909.100	2333.000	2215.000	108.7%	-0.053	2.097	0.042	19.890
σ		0.330	19.770	T 5.322	35.330	16.930	1.5%	0.014	0.075	0.012	5.821
%RSD		1.600	1.689	T 0.585	1.514	0.764	1.4	25.670	3.555	29.270	29.260

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	1.628	0.094	5.452	8.004	0.017	0.052	0.178	0.032	0.082	0.623
2	03:09:32	0.876	0.071	4.026	4.781	0.015	0.026	-0.435	0.048	0.087	0.556
3	03:09:59	2.139	0.081	5.820	13.470	0.007	0.020	-0.220	0.054	0.096	0.563
x		1.548	0.082	5.099	8.752	0.013	0.033	-0.159	0.045	0.088	0.581
σ		0.635	0.011	0.948	4.393	0.005	0.017	0.311	0.012	0.007	0.037
%RSD		41.050	13.860	18.580	50.190	39.790	51.570	195.300	25.820	8.390	6.314

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	0.474	0.551	0.036	-0.132	1.634	1.921	-1.436	-0.279	-3.239	5.300
2	03:09:32	0.353	0.608	0.036	-0.186	1.334	1.574	-1.387	-0.289	-1.238	5.278
3	03:09:59	0.531	0.485	0.145	0.036	1.599	1.644	0.931	0.210	-0.094	5.263
x		0.453	0.548	0.072	-0.094	1.522	1.713	-0.631	-0.119	-1.524	5.280
σ		0.091	0.061	0.063	0.116	0.164	0.184	1.353	0.285	1.592	0.019
%RSD		20.100	11.190	87.240	123.800	10.780	10.720	214.500	238.800	104.500	0.357

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	107.0%	30.740	30.660	30.730	-1.343	-0.005	0.001	-0.049	0.008	109.5%
2	03:09:32	110.2%	30.750	31.330	30.840	-0.052	-0.003	-0.002	-0.066	0.011	110.2%
3	03:09:59	106.8%	31.400	31.420	30.770	0.071	-0.001	-0.001	-0.074	0.004	107.3%
x		108.0%	30.960	31.140	30.780	-0.441	-0.003	-0.001	-0.063	0.008	109.0%
σ		1.9%	0.376	0.417	0.056	0.783	0.002	0.002	0.013	0.004	1.5%
%RSD		1.8	1.216	1.340	0.182	177.500	64.060	230.500	20.340	51.560	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	0.019	-0.012	-0.011	-0.004	0.257	0.245	107.5%	0.064	0.076	0.004
2	03:09:32	0.012	-0.014	-0.001	0.003	0.251	0.253	108.1%	0.068	0.062	-0.002
3	03:09:59	-0.006	-0.000	-0.005	0.004	0.215	0.274	105.7%	0.066	0.074	-0.001
x		0.008	-0.009	-0.006	0.001	0.241	0.257	107.1%	0.066	0.071	0.000
σ		0.013	0.007	0.005	0.004	0.023	0.015	1.2%	0.002	0.008	0.003
%RSD		156.700	84.300	85.540	383.500	9.436	5.737	1.1	3.185	11.050	649.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:09:05	0.008	0.001	105.5%
2	03:09:32	-0.004	-0.006	106.9%
3	03:09:59	-0.004	-0.001	103.4%
x		-0.000	-0.002	105.3%
σ		0.007	0.004	1.7%
%RSD		22390.000	225.100	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	92.7%	0.012	45.560	45.850	56.690	TM 612100.000	T 3676.000	3584.000	T 3639.000	167.100
2	03:15:38	91.5%	-0.021	47.120	46.440	57.500	TM 630300.000	T 3757.000	3617.000	T 3734.000	167.900
3	03:16:05	91.3%	-0.008	47.900	46.040	56.640	TM 619400.000	T 3761.000	3585.000	3575.000	164.700
x		91.8%	-0.006	46.860	46.110	56.940	TM 620600.000	T 3731.000	3596.000	T 3649.000	166.600
σ		0.7%	0.017	1.194	0.301	0.484	TM 9153.000	T 48.020	18.710	T 80.200	1.693
%RSD		0.8	291.600	2.549	0.653	0.850	TM 1.475	T 1.287	0.520	T 2.198	1.016
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	T 9416.000	T 124600.000	T 4361.000	13660.000	13520.000	102.0%	7.481	0.309	4.402	2530.000
2	03:15:38	T 9409.000	T 123300.000	T 4360.000	13950.000	13450.000	101.5%	7.963	0.704	4.522	2162.000
3	03:16:05	T 9351.000	T 121900.000	T 4295.000	13580.000	13460.000	103.4%	6.891	0.544	4.278	2071.000
x		T 9392.000	T 123300.000	T 4339.000	13730.000	13480.000	102.3%	7.445	0.519	4.401	2254.000
σ		T 35.780	T 1342.000	T 38.030	195.400	36.850	1.0%	0.537	0.199	0.122	242.800
%RSD		T 0.381	T 1.088	T 0.877	1.423	0.273	1.0	7.208	38.320	2.779	10.770
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	428.500	6.252	T 449.000	547.200	0.167	1.094	4.530	9.514	8.204	397.600
2	03:15:38	426.400	6.430	T 453.800	531.800	0.148	1.148	3.764	9.372	7.839	400.500
3	03:16:05	422.200	6.392	T 453.100	514.500	0.157	1.090	3.256	9.045	8.030	391.000
x		425.700	6.358	T 452.000	531.200	0.157	1.110	3.850	9.310	8.024	396.400
σ		3.206	0.094	T 2.539	16.330	0.009	0.032	0.642	0.240	0.183	4.869
%RSD		0.753	1.471	T 0.562	3.074	6.030	2.923	16.660	2.582	2.274	1.228
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	348.200	369.500	0.305	0.167	35.100	34.630	2.094	0.429	3.188	79.080
2	03:15:38	355.700	377.800	0.761	0.290	36.900	37.550	-0.259	-0.055	-0.254	79.910
3	03:16:05	351.700	377.100	0.455	0.201	37.300	36.700	-0.872	-0.213	0.336	78.770
x		351.900	374.800	0.507	0.219	36.430	36.290	0.321	0.053	1.090	79.250
σ		3.745	4.595	0.232	0.063	1.170	1.502	1.565	0.334	1.841	0.589
%RSD		1.064	1.226	45.800	28.750	3.212	4.140	487.900	626.300	168.900	0.743
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	97.1%	0.335	0.305	0.335	4.543	0.003	0.007	0.143	0.128	94.2%
2	03:15:38	100.4%	0.309	0.281	0.260	3.198	0.010	0.010	0.166	0.167	97.5%
3	03:16:05	104.0%	0.311	0.275	0.302	0.558	0.008	0.011	0.148	0.139	100.9%
x		100.5%	0.318	0.287	0.299	2.766	0.007	0.009	0.152	0.145	97.6%
σ		3.4%	0.014	0.016	0.038	2.027	0.003	0.002	0.012	0.021	3.4%
%RSD		3.4	4.492	5.652	12.550	73.280	50.140	20.310	7.865	14.190	3.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	0.348	0.514	0.293	0.335	50.170	50.690	97.2%	0.009	-0.001	2.311
2	03:15:38	0.346	0.453	0.354	0.362	50.760	50.110	101.1%	-0.002	-0.000	2.288
3	03:16:05	0.358	0.450	0.362	0.353	50.480	51.220	103.5%	0.009	0.003	2.247
x		0.351	0.472	0.336	0.350	50.470	50.680	100.6%	0.006	0.000	2.282
σ		0.007	0.036	0.038	0.014	0.297	0.555	3.2%	0.006	0.002	0.032
%RSD		1.950	7.637	11.230	3.892	0.588	1.095	3.2	110.400	559.000	1.418
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:15:11	2.265	2.208	88.1%							
2	03:15:38	2.258	2.236	91.7%							
3	03:16:05	2.233	2.223	95.2%							
x		2.252	2.222	91.7%							
σ		0.017	0.014	3.6%							
%RSD		0.741	0.625	3.9							

CCV MW10994 05/01/2019 03:20:51 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	94.8%	329.700	337.800	322.500	78.210	T 71390.000	T 66620.000	T 65330.000	T 65710.000	305.100
2	03:21:45	92.1%	332.700	328.200	321.600	71.120	T 73130.000	T 68950.000	T 68160.000	T 66660.000	304.600
3	03:22:12	93.8%	321.500	328.000	319.600	68.670	T 70890.000	T 65590.000	T 65510.000	T 65050.000	300.200
x		93.6%	109.326%	110.446%	107.077%	72.670	T 119.673%	T 67050.000	T 66330.000	T 109.678%	101.103%
σ		1.4%	n/a	n/a	n/a	4.957	T n/a	T 1721.000	T 1588.000	T n/a	n/a
%RSD		1.5	1.772	1.689	0.475	6.822	T 1.639	T 2.567	T 2.394	T 1.234	0.880

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	T 3526.000	1004.000	T 66950.000	65320.000	T 65660.000	102.6%	318.600	321.600	307.300	1502.000
2	03:21:45	T 3594.000	995.400	T 69240.000	67550.000	T 68370.000	101.9%	321.900	326.900	315.100	973.900
3	03:22:12	T 3429.000	966.500	T 67630.000	65610.000	T 66910.000	101.0%	323.000	323.400	304.300	1558.000
x		T 117.206%	988.700	T 113.234%	66160.000	T 111.630%	101.8%	107.056%	107.989%	102.959%	1345.000
σ		T n/a	19.700	T n/a	1210.000	T n/a	0.8%	n/a	n/a	n/a	322.300
%RSD		T 2.363	1.993	T 1.730	1.828	T 2.022	0.8	0.711	0.841	1.809	23.970

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	T 64120.000	300.700	T 64000.000	T 62300.000	301.100	291.300	289.100	293.100	295.800	300.100
2	03:21:45	T 65920.000	310.100	T 66200.000	T 65000.000	311.600	296.100	296.400	299.400	300.700	309.500
3	03:22:12	T 65090.000	301.600	T 64990.000	T 64000.000	299.300	290.300	288.400	293.000	295.100	299.700
x		T 65050.000	101.368%	T 65060.000	T 106.278%	101.334%	97.530%	291.300	295.200	99.058%	101.037%
σ		T 900.500	n/a	T 1103.000	T n/a	n/a	n/a	4.397	3.673	n/a	n/a
%RSD		T 1.384	1.703	T 1.695	T 2.136	2.183	1.049	1.509	1.244	1.032	1.813

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	299.800	297.800	304.000	298.900	2.179	1.625	1339.000	308.800	-1.540	309.600
2	03:21:45	304.000	310.500	317.700	313.600	2.129	2.211	1378.000	313.100	-0.078	319.100
3	03:22:12	294.900	298.200	305.100	308.700	2.503	1.511	1324.000	306.100	2.882	311.900
x		299.600	302.200	102.979%	307.100	2.271	1.783	1347.000	103.098%	0.422	104.508%
σ		4.563	7.221	n/a	7.483	0.203	0.376	28.020	n/a	2.253	n/a
%RSD		1.523	2.390	2.463	2.437	8.936	21.080	2.080	1.142	534.500	1.584

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	100.8%	326.300	326.200	326.700	311.600	302.600	304.400	314.000	309.800	99.2%
2	03:21:45	100.9%	333.400	340.100	337.600	325.600	307.600	307.700	318.700	318.500	100.6%
3	03:22:12	100.7%	328.000	325.700	331.000	316.700	304.800	304.700	313.100	312.700	98.6%
x		100.8%	109.745%	110.223%	331.800	318.000	101.664%	305.600	315.300	104.557%	99.4%
σ		0.1%	n/a	n/a	5.449	7.094	n/a	1.818	3.015	n/a	1.1%
%RSD		0.1	1.121	2.465	1.643	2.231	0.825	0.595	0.957	1.412	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	321.500	321.500	325.000	318.900	319.200	318.200	101.7%	307.700	313.800	304.400
2	03:21:45	329.600	330.300	334.100	333.000	324.700	325.300	101.9%	316.800	322.800	313.900
3	03:22:12	322.700	322.000	323.100	320.900	319.300	317.600	100.5%	310.100	317.300	307.400
x		108.214%	108.190%	327.400	108.090%	107.024%	106.786%	101.4%	311.600	105.995%	102.860%
σ		n/a	n/a	5.854	n/a	n/a	n/a	0.7%	4.704	n/a	n/a
%RSD		1.345	1.527	1.788	2.354	0.975	1.345	0.7	1.510	1.418	1.570

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:21:18	304.200	307.100	97.1%
2	03:21:45	315.400	317.400	96.8%
3	03:22:12	307.000	309.600	94.7%
x		102.958%	103.795%	96.2%
σ		n/a	n/a	1.3%
%RSD		1.874	1.728	1.4

CCB IM9390-01 05/01/2019 03:26:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	101.1%	0.049	4.847	4.718	48.590	39.020	8.137	8.231	8.392	-0.026
2	03:27:52	101.1%	0.070	5.500	4.650	49.050	31.630	6.212	6.544	6.311	-0.085
3	03:28:19	102.9%	0.036	4.851	4.621	39.260	28.570	5.605	5.712	5.677	-0.028
x		101.7%	0.052	5.066	4.663	45.630	33.070	6.652	6.829	6.793	-0.046
σ		1.0%	0.017	0.376	0.050	5.525	5.373	1.322	1.283	1.420	0.033
%RSD		1.0	33.390	7.418	1.066	12.110	16.250	19.870	18.790	20.910	72.060

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	16.940	585.000	25.020	9.073	7.816	106.4%	-0.059	0.066	0.094	25.930
2	03:27:52	16.240	507.500	22.440	4.309	7.560	107.0%	0.018	0.057	0.032	19.380
3	03:28:19	15.350	518.600	19.690	3.636	5.912	108.2%	-0.005	0.023	0.061	30.060
x		16.180	537.000	22.380	5.673	7.096	107.2%	-0.015	0.048	0.062	25.130
σ		0.799	41.940	2.664	2.964	1.033	0.9%	0.040	0.023	0.031	5.386
%RSD		4.939	7.809	11.900	52.250	14.560	0.8	260.300	46.790	50.250	21.430

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	8.912	0.037	13.200	7.075	0.046	0.039	-0.079	0.016	0.060	0.093
2	03:27:52	5.383	0.034	9.191	-4.185	0.052	0.022	-0.177	0.015	0.049	0.026
3	03:28:19	5.342	0.054	8.565	-8.975	0.040	0.016	-0.065	-0.005	0.002	0.036
x		6.546	0.042	10.320	-2.028	0.046	0.025	-0.107	0.009	0.037	0.052
σ		2.049	0.011	2.512	8.239	0.006	0.012	0.061	0.012	0.031	0.036
%RSD		31.300	25.190	24.350	406.200	13.520	46.600	56.760	135.500	82.740	69.900

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	-0.022	0.069	-0.094	-0.047	0.640	1.016	-2.319	-0.479	-2.319	0.034
2	03:27:52	-0.002	0.068	-0.022	-0.124	0.546	1.039	-0.780	-0.110	-3.197	0.032
3	03:28:19	-0.048	0.046	-0.052	-0.575	1.055	0.881	-1.485	-0.341	-0.538	0.027
x		-0.024	0.061	-0.056	-0.249	0.747	0.978	-1.528	-0.310	-2.018	0.031
σ		0.023	0.013	0.036	0.285	0.271	0.085	0.771	0.186	1.355	0.004
%RSD		94.790	21.420	64.490	114.800	36.290	8.700	50.430	60.090	67.140	11.320

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	103.8%	0.136	0.108	0.088	1.465	0.042	0.052	0.045	0.043	104.8%
2	03:27:52	105.7%	0.100	0.042	0.104	0.414	0.028	0.034	0.011	0.028	106.3%
3	03:28:19	108.0%	0.092	0.069	0.074	-1.285	0.023	0.040	0.032	0.018	109.7%
x		105.9%	0.109	0.073	0.089	0.198	0.031	0.042	0.030	0.030	106.9%
σ		2.1%	0.024	0.033	0.015	1.388	0.010	0.010	0.017	0.012	2.5%
%RSD		2.0	21.780	45.180	16.830	699.800	31.780	23.120	57.120	41.850	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	0.060	0.095	0.139	0.191	0.034	0.064	102.4%	0.033	0.023	0.040
2	03:27:52	0.066	0.059	0.140	0.137	0.016	0.050	105.1%	0.022	0.023	0.031
3	03:28:19	0.030	0.061	0.149	0.150	0.056	0.022	108.3%	0.021	0.015	0.030
x		0.052	0.072	0.143	0.160	0.035	0.045	105.3%	0.026	0.020	0.034
σ		0.019	0.020	0.005	0.028	0.020	0.022	3.0%	0.007	0.005	0.006
%RSD		36.440	28.350	3.841	17.710	56.190	48.040	2.8	26.200	22.650	17.440

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:27:26	0.049	0.046	102.3%
2	03:27:52	0.043	0.035	105.8%
3	03:28:19	0.042	0.035	108.3%
x		0.045	0.039	105.4%
σ		0.004	0.006	3.0%
%RSD		8.153	16.180	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	95.9%	-0.033	52.050	53.620	-71.080	T 92880.000	209.200	207.100	214.300	3.007
2	03:33:59	97.3%	-0.035	49.630	51.170	-72.980	T 92830.000	207.800	213.800	214.800	2.959
3	03:34:26	97.7%	-0.031	50.590	53.350	-71.330	T 95290.000	212.900	210.700	215.000	2.922
x		96.9%	-0.033	50.750	52.710	-71.790	T 93660.000	210.000	210.500	214.700	2.963
σ		1.0%	0.002	1.219	1.343	1.033	T 1405.000	2.598	3.311	0.345	0.042
%RSD		1.0	5.006	2.401	2.548	1.438	T 1.500	1.237	1.573	0.161	1.432
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	56.050	5933.000	T 7785.000	31010.000	T 32260.000	103.0%	0.151	19.300	0.066	157.700
2	03:33:59	55.240	5853.000	T 7590.000	30930.000	T 32430.000	104.2%	0.091	19.630	0.106	125.900
3	03:34:26	56.990	T 6891.000	T 8001.000	31220.000	T 32210.000	102.9%	0.186	19.960	0.096	212.000
x		56.090	T 6226.000	T 7792.000	31050.000	T 32300.000	103.4%	0.143	19.630	0.089	165.200
σ		0.878	T 577.200	T 205.500	150.900	T 117.200	0.7%	0.048	0.332	0.021	43.510
%RSD		1.564	T 9.272	T 2.637	0.486	T 0.363	0.7	33.850	1.691	23.370	26.340
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	13.980	0.175	19.350	301.800	0.093	0.415	0.647	0.360	0.690	1.137
2	03:33:59	13.920	0.191	18.290	284.800	0.100	0.404	1.221	0.439	0.549	1.155
3	03:34:26	14.420	0.186	22.650	341.100	0.095	0.410	1.517	0.461	0.728	1.109
x		14.110	0.184	20.100	309.200	0.096	0.409	1.128	0.420	0.656	1.134
σ		0.271	0.008	2.273	28.870	0.004	0.005	0.442	0.053	0.094	0.023
%RSD		1.922	4.610	11.310	9.337	3.815	1.319	39.190	12.580	14.390	2.062
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	1.619	0.736	1.030	0.030	2.746	4.293	0.173	0.050	0.154	56.720
2	03:33:59	1.837	0.734	1.106	0.535	2.964	2.965	-0.343	-0.037	-1.572	57.270
3	03:34:26	1.460	0.803	0.939	0.170	3.247	3.128	-0.738	-0.190	0.931	57.830
x		1.639	0.758	1.025	0.245	2.986	3.462	-0.302	-0.059	-0.162	57.270
σ		0.190	0.039	0.084	0.261	0.251	0.724	0.457	0.122	1.282	0.552
%RSD		11.560	5.204	8.180	106.300	8.413	20.920	151.100	207.200	790.200	0.963
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	103.7%	310.900	313.000	312.100	1.629	0.004	0.011	-0.777	0.015	102.1%
2	03:33:59	105.6%	308.100	310.300	309.900	0.573	-0.000	0.010	-0.813	0.011	104.5%
3	03:34:26	101.3%	310.500	313.500	313.800	2.490	0.012	0.008	-0.695	0.026	101.3%
x		103.5%	309.800	312.300	311.900	1.564	0.005	0.010	-0.762	0.017	102.6%
σ		2.1%	1.528	1.726	1.976	0.960	0.006	0.001	0.060	0.008	1.7%
%RSD		2.1	0.493	0.553	0.633	61.410	120.400	13.030	7.924	45.010	1.7
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	0.206	0.018	0.050	0.059	2.410	2.392	104.1%	0.592	0.470	0.003
2	03:33:59	0.233	0.018	0.069	0.084	2.385	2.278	106.8%	0.554	0.475	0.003
3	03:34:26	0.211	0.004	0.075	0.054	2.382	2.381	102.5%	0.589	0.463	0.025
x		0.217	0.013	0.065	0.066	2.393	2.350	104.5%	0.579	0.469	0.010
σ		0.015	0.008	0.013	0.016	0.016	0.063	2.1%	0.021	0.006	0.013
%RSD		6.779	63.290	19.880	24.970	0.648	2.684	2.0	3.610	1.301	121.900
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	03:33:32	0.010	0.006	98.9%							
2	03:33:59	-0.003	0.004	100.9%							
3	03:34:26	-0.000	0.004	96.9%							
x		0.002	0.005	98.9%							
σ		0.007	0.001	2.0%							
%RSD		278.000	18.960	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	93.3%	0.044	97.340	92.760	2851.000	T 8484.000	T 11270.000	T 11120.000	T 11160.000	238.500
2	03:40:05	93.2%	0.057	97.360	94.370	2956.000	T 8824.000	T 11740.000	T 11270.000	T 11210.000	224.500
3	03:40:32	94.1%	0.020	101.700	96.230	2966.000	T 8735.000	T 11560.000	T 11240.000	T 11330.000	223.700
x		93.5%	0.040	98.810	94.460	2924.000	T 8681.000	T 11520.000	T 11210.000	T 11230.000	228.900
σ		0.5%	0.019	2.531	1.740	63.890	T 176.500	T 233.600	T 80.470	T 90.200	8.339
%RSD		0.5	45.970	2.562	1.842	2.185	T 2.034	T 2.027	T 0.718	T 0.803	3.644
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	T 5874.000	T 82320.000	TM 260400.000	TM 187700.000	TM 179500.000	97.6%	43.890	1.637	6.135	1474.000
2	03:40:05	T 5694.000	T 82360.000	TM 260600.000	M 178200.000	TM 178900.000	98.6%	40.710	1.789	6.174	1216.000
3	03:40:32	T 5732.000	T 81920.000	TM 257800.000	TM 187500.000	TM 182800.000	99.3%	41.010	1.451	5.919	1541.000
x		T 5767.000	T 82200.000	TM 259600.000	TM 184500.000	TM 180400.000	98.5%	41.870	1.626	6.076	1410.000
σ		T 95.110	T 241.300	TM 1556.000	TM 5406.000	TM 2126.000	0.9%	1.759	0.169	0.137	171.400
%RSD		T 1.649	T 0.294	TM 0.599	TM 2.931	TM 1.179	0.9	4.202	10.420	2.262	12.150
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	415.000	67.340	T 450.600	2008.000	0.587	9.900	7.863	26.460	26.730	99.890
2	03:40:05	417.100	67.960	T 446.500	1795.000	0.520	9.057	7.769	26.250	26.970	103.500
3	03:40:32	421.000	66.380	T 448.300	1895.000	0.528	9.283	7.925	26.600	26.870	102.000
x		417.700	67.230	T 448.500	1899.000	0.545	9.413	7.852	26.440	26.860	101.800
σ		3.082	0.794	T 2.067	106.700	0.037	0.436	0.079	0.180	0.120	1.807
%RSD		0.738	1.182	T 0.461	5.615	6.710	4.634	1.001	0.681	0.446	1.775
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	94.380	99.470	-0.077	-0.061	72.880	70.630	0.891	0.214	-2.232	133.700
2	03:40:05	94.840	102.000	0.411	0.361	75.000	71.940	2.479	0.500	-0.022	134.200
3	03:40:32	94.370	100.100	0.047	0.855	74.340	70.730	-0.146	-0.073	-0.985	134.500
x		94.530	100.500	0.127	0.385	74.070	71.100	1.074	0.214	-1.080	134.100
σ		0.265	1.337	0.253	0.459	1.083	0.725	1.322	0.286	1.108	0.392
%RSD		0.281	1.330	199.500	119.100	1.462	1.020	123.000	134.100	102.600	0.292
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	103.1%	3.007	3.056	3.044	8.163	0.025	0.046	0.389	0.427	99.7%
2	03:40:05	104.0%	2.887	2.966	3.182	4.494	0.039	0.047	0.391	0.438	102.1%
3	03:40:32	102.7%	2.927	2.939	2.954	6.730	0.038	0.046	0.435	0.403	100.9%
x		103.3%	2.940	2.987	3.060	6.462	0.034	0.046	0.405	0.423	100.9%
σ		0.7%	0.061	0.061	0.115	1.849	0.008	0.001	0.026	0.018	1.2%
%RSD		0.6	2.065	2.046	3.747	28.610	22.800	1.248	6.434	4.292	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	0.384	0.269	0.285	0.335	11.880	11.510	102.3%	0.031	0.032	0.379
2	03:40:05	0.276	0.272	0.330	0.281	11.520	11.440	104.5%	0.032	0.033	0.380
3	03:40:32	0.351	0.257	0.258	0.329	11.190	11.410	103.6%	0.034	0.033	0.350
x		0.337	0.266	0.291	0.315	11.530	11.450	103.5%	0.032	0.033	0.370
σ		0.055	0.008	0.036	0.029	0.343	0.053	1.1%	0.001	0.001	0.017
%RSD		16.410	2.850	12.490	9.352	2.978	0.461	1.0	3.494	1.549	4.571
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:39:38	0.356	0.360	95.7%							
2	03:40:05	0.370	0.368	99.4%							
3	03:40:32	0.307	0.341	98.0%							
x		0.344	0.356	97.7%							
σ		0.033	0.014	1.8%							
%RSD		9.560	3.921	1.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	97.9%	0.033	M 716.500	M 693.700	282.900	TM 158500.000	T 2984.000	2910.000	2895.000	188.900
2	03:46:12	96.4%	0.027	M 678.600	M 663.100	250.100	TM 153100.000	T 2891.000	2835.000	2897.000	190.000
3	03:46:39	98.6%	0.018	M 674.600	M 675.100	266.100	TM 154000.000	T 2899.000	2786.000	2785.000	183.400
x		97.6%	0.026	M 689.900	M 677.300	266.400	TM 155200.000	T 2925.000	2844.000	2859.000	187.400
σ		1.1%	0.007	M 23.140	M 15.450	16.430	TM 2908.000	T 51.480	62.920	64.310	3.565
%RSD		1.1	27.680	M 3.354	M 2.281	6.168	TM 1.873	T 1.760	2.213	2.250	1.902

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	T 8866.000	T 94430.000	T 20530.000	12310.000	12070.000	102.6%	9.542	1.105	6.810	2021.000
2	03:46:12	T 9004.000	T 91320.000	T 20060.000	12120.000	11740.000	105.2%	11.270	1.356	6.585	1848.000
3	03:46:39	T 8537.000	T 91480.000	T 19950.000	12190.000	11830.000	103.1%	8.020	1.325	6.615	1627.000
x		T 8802.000	T 92410.000	T 20180.000	12210.000	11880.000	103.6%	9.610	1.262	6.670	1832.000
σ		T 239.800	T 1752.000	T 308.000	96.710	166.700	1.4%	1.626	0.137	0.122	197.400
%RSD		T 2.725	T 1.896	T 1.526	0.792	1.404	1.3	16.920	10.830	1.832	10.770

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	591.900	18.000	T 609.500	681.500	1.752	20.290	21.170	42.500	43.640	110.000
2	03:46:12	582.300	17.860	T 607.200	659.900	1.821	20.530	19.840	41.780	41.890	110.800
3	03:46:39	583.500	18.120	T 606.200	661.400	1.807	20.720	20.650	41.840	40.710	111.200
x		585.900	17.990	T 607.600	667.600	1.794	20.510	20.550	42.040	42.080	110.700
σ		5.231	0.132	T 1.681	12.070	0.036	0.213	0.671	0.404	1.472	0.581
%RSD		0.893	0.733	T 0.277	1.808	2.030	1.036	3.267	0.962	3.498	0.525

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	104.600	109.800	12.120	1.211	4864.000	4933.000	48.920	5.989	-2.803	70.880
2	03:46:12	104.400	109.700	11.400	0.518	4882.000	4954.000	38.870	3.576	-0.709	70.770
3	03:46:39	104.000	111.500	12.600	0.420	4939.000	5024.000	43.410	4.461	-0.387	71.300
x		104.300	110.300	12.040	0.716	4895.000	4970.000	43.730	4.675	-1.299	70.980
σ		0.313	0.996	0.603	0.431	39.170	47.640	5.032	1.221	1.312	0.282
%RSD		0.300	0.903	5.010	60.190	0.800	0.958	11.510	26.120	100.900	0.398

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	101.0%	M 801.500	M 803.800	M 811.100	3.773	0.019	0.031	-2.026	0.138	99.5%
2	03:46:12	104.3%	M 791.200	M 799.500	M 802.900	3.921	0.019	0.027	-2.151	0.123	103.3%
3	03:46:39	106.1%	M 800.700	M 803.400	M 812.800	3.808	0.033	0.024	-2.128	0.038	105.8%
x		103.8%	M 797.800	M 802.200	M 809.000	3.834	0.024	0.027	-2.102	0.100	102.9%
σ		2.6%	M 5.726	M 2.361	M 5.276	0.077	0.008	0.003	0.066	0.054	3.1%
%RSD		2.5	M 0.718	M 0.294	M 0.652	2.010	34.440	12.800	3.158	54.010	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	1.047	0.763	0.755	0.749	66.680	65.860	102.0%	-0.001	-0.012	1.029
2	03:46:12	0.943	0.798	0.762	0.868	66.680	65.480	105.3%	-0.013	-0.012	1.119
3	03:46:39	0.948	0.839	0.833	0.741	65.720	65.650	107.2%	-0.010	-0.006	1.115
x		0.980	0.800	0.783	0.786	66.360	65.660	104.8%	-0.008	-0.010	1.088
σ		0.059	0.038	0.043	0.071	0.554	0.189	2.7%	0.006	0.003	0.051
%RSD		5.985	4.776	5.530	9.028	0.836	0.288	2.5	80.640	30.480	4.695

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:45:45	1.014	1.047	97.5%
2	03:46:12	1.018	1.051	100.6%
3	03:46:39	1.026	1.059	102.8%
x		1.019	1.052	100.3%
σ		0.006	0.006	2.7%
%RSD		0.558	0.603	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	95.5%	-0.002	120.700	117.200	124.800	T 58380.000	T 4302.000	4156.000	T 4201.000	448.100
2	03:52:20	96.6%	0.013	118.800	115.300	106.900	T 57660.000	T 4243.000	4156.000	4100.000	441.800
3	03:52:47	102.0%	0.008	116.200	110.500	108.500	T 56990.000	T 4168.000	T 4077.000	T 4142.000	T 452.600
x		98.0%	0.006	118.600	114.300	113.400	T 57680.000	T 4237.000	T 4130.000	T 4148.000	T 447.500
σ		3.4%	0.008	2.282	3.462	9.894	T 692.900	T 66.920	T 45.350	T 50.620	T 5.411
%RSD		3.5	128.100	1.924	3.027	8.727	T 1.201	T 1.579	T 1.098	T 1.221	T 1.209

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	T 6522.000	T 85040.000	T 10760.000	16160.000	15560.000	106.6%	8.043	2.589	1.675	1746.000
2	03:52:20	T 6375.000	T 84680.000	T 10840.000	16350.000	15910.000	105.6%	7.601	2.914	1.666	1704.000
3	03:52:47	T 6154.000	T 84850.000	T 10640.000	15990.000	T 16220.000	107.7%	7.765	2.880	1.647	1841.000
x		T 6350.000	T 84860.000	T 10750.000	16160.000	T 15900.000	106.7%	7.803	2.794	1.662	1764.000
σ		T 185.300	T 182.700	T 99.700	180.400	T 327.300	1.0%	0.223	0.179	0.014	70.400
%RSD		T 2.918	T 0.215	T 0.928	1.116	T 2.059	1.0	2.863	6.387	0.845	3.992

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	326.700	23.360	346.800	445.900	0.373	4.750	3.768	13.100	13.400	60.320
2	03:52:20	326.800	23.330	352.700	437.300	0.362	4.675	3.780	12.960	12.780	61.570
3	03:52:47	326.500	23.230	T 351.600	441.300	0.397	4.487	3.853	13.240	12.870	62.030
x		326.700	23.310	T 350.400	441.500	0.377	4.637	3.800	13.100	13.020	61.310
σ		0.166	0.067	T 3.135	4.263	0.018	0.135	0.046	0.140	0.333	0.887
%RSD		0.051	0.286	T 0.895	0.966	4.829	2.915	1.214	1.065	2.557	1.447

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	60.120	60.000	0.370	0.032	50.680	48.370	0.368	0.068	-1.649	65.780
2	03:52:20	58.060	61.590	0.027	0.377	48.390	48.270	-2.255	-0.517	-1.887	65.310
3	03:52:47	55.640	60.080	0.436	0.429	46.700	44.750	-0.013	-0.014	-1.433	66.530
x		57.940	60.560	0.278	0.279	48.590	47.130	-0.634	-0.154	-1.657	65.870
σ		2.243	0.895	0.220	0.216	2.000	2.065	1.417	0.317	0.227	0.615
%RSD		3.871	1.478	79.100	77.310	4.116	4.383	223.700	205.500	13.710	0.934

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	106.9%	4.855	5.226	5.056	2.839	0.098	0.073	0.008	0.036	106.8%
2	03:52:20	108.0%	4.928	4.994	4.844	3.363	0.075	0.078	-0.009	0.022	107.2%
3	03:52:47	106.3%	4.944	4.896	5.021	3.798	0.079	0.069	0.016	0.026	106.1%
x		107.0%	4.909	5.038	4.974	3.333	0.084	0.073	0.005	0.028	106.7%
σ		0.8%	0.047	0.169	0.114	0.480	0.012	0.005	0.013	0.008	0.5%
%RSD		0.8	0.964	3.362	2.288	14.400	14.720	6.257	263.200	27.090	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	0.629	0.880	0.518	0.547	13.430	12.870	109.0%	-0.016	-0.013	0.327
2	03:52:20	0.649	0.918	0.579	0.564	12.520	12.870	109.7%	-0.008	-0.010	0.349
3	03:52:47	0.712	0.908	0.529	0.544	12.730	13.280	107.4%	-0.004	-0.010	0.320
x		0.663	0.902	0.542	0.552	12.890	13.010	108.7%	-0.009	-0.011	0.332
σ		0.043	0.020	0.033	0.011	0.476	0.236	1.2%	0.006	0.002	0.016
%RSD		6.525	2.176	6.037	1.943	3.691	1.811	1.1	69.030	18.080	4.676

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:51:53	0.302	0.313	106.0%
2	03:52:20	0.284	0.321	107.1%
3	03:52:47	0.364	0.335	105.3%
x		0.317	0.323	106.1%
σ		0.042	0.011	0.9%
%RSD		13.330	3.382	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	94.2%	0.086	43.510	41.250	281.000	TM 139800.000	T 2794.000	2772.000	2786.000	TM 26460.000
2	03:58:27	97.4%	0.054	43.260	41.890	286.400	TM 138700.000	T 2830.000	2742.000	2764.000	TM 25820.000
3	03:58:54	98.6%	0.053	45.990	43.460	285.500	TM 140900.000	T 2883.000	T 2844.000	2829.000	TM 27830.000
x		96.7%	0.064	44.250	42.200	284.300	TM 139800.000	T 2836.000	T 2786.000	2793.000	TM 26700.000
σ		2.2%	0.019	1.509	1.137	2.909	TM 1126.000	T 44.500	T 52.920	32.650	TM 1030.000
%RSD		2.3	28.890	3.410	2.694	1.023	TM 0.805	T 1.569	T 1.899	1.169	TM 3.857

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	T 4776.000	T 83330.000	T 11660.000	15760.000	15420.000	106.7%	2.627	1.184	20.590	1957.000
2	03:58:27	T 4437.000	T 81050.000	T 11600.000	15980.000	15450.000	107.4%	2.632	1.475	20.420	1668.000
3	03:58:54	T 4626.000	T 86220.000	T 12200.000	16390.000	T 16720.000	105.1%	2.523	1.500	20.950	2145.000
x		T 4613.000	T 83530.000	T 11820.000	16040.000	T 15860.000	106.4%	2.594	1.386	20.650	1923.000
σ		T 169.700	T 2588.000	T 332.900	316.700	T 742.000	1.2%	0.062	0.176	0.266	240.300
%RSD		T 3.679	T 3.098	T 2.817	1.974	T 4.677	1.1	2.385	12.670	1.290	12.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	1250.000	60.310	T 1298.000	1321.000	46.440	5.696	4.776	24.150	24.870	337.600
2	03:58:27	1251.000	58.580	T 1258.000	1310.000	45.710	5.839	5.049	24.360	24.910	337.500
3	03:58:54	1273.000	60.140	T 1320.000	1351.000	46.980	5.759	4.950	25.390	26.250	338.500
x		1258.000	59.680	T 1292.000	1327.000	46.370	5.765	4.925	24.630	25.340	337.800
σ		13.280	0.955	T 31.680	21.380	0.638	0.072	0.138	0.660	0.784	0.529
%RSD		1.056	1.601	T 2.452	1.611	1.375	1.240	2.806	2.681	3.093	0.157

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	304.100	326.600	0.686	0.196	230.000	237.000	1.093	-0.049	3.001	87.910
2	03:58:27	307.800	326.700	0.217	0.126	233.000	232.300	1.616	0.143	0.390	87.700
3	03:58:54	294.800	323.800	0.261	0.080	232.900	235.600	3.548	0.607	-0.534	88.210
x		302.200	325.700	0.388	0.134	232.000	235.000	2.086	0.234	0.952	87.940
σ		6.719	1.639	0.259	0.059	1.713	2.404	1.293	0.338	1.834	0.257
%RSD		2.223	0.503	66.690	43.820	0.739	1.023	62.020	144.500	192.500	0.292

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	108.0%	0.989	1.043	0.999	5.547	3.391	3.374	2.517	2.389	105.6%
2	03:58:27	109.0%	0.963	1.042	1.007	4.194	3.401	3.508	2.417	2.495	106.1%
3	03:58:54	104.8%	0.907	0.847	0.959	5.233	3.347	3.297	2.311	2.413	102.4%
x		107.3%	0.953	0.977	0.988	4.991	3.380	3.393	2.415	2.432	104.7%
σ		2.2%	0.042	0.113	0.025	0.708	0.028	0.107	0.103	0.055	2.0%
%RSD		2.1	4.413	11.560	2.574	14.190	0.843	3.150	4.250	2.274	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	1.349	0.774	54.780	54.220	38.240	38.060	110.1%	-0.004	-0.004	0.760
2	03:58:27	1.260	0.751	55.540	53.850	37.930	38.480	110.5%	-0.009	-0.002	0.721
3	03:58:54	1.287	0.743	54.590	54.080	38.230	38.900	105.2%	-0.001	-0.009	0.695
x		1.299	0.756	54.970	54.050	38.140	38.480	108.6%	-0.005	-0.005	0.725
σ		0.046	0.016	0.502	0.188	0.175	0.421	2.9%	0.004	0.003	0.032
%RSD		3.531	2.139	0.912	0.348	0.460	1.095	2.7	84.050	67.510	4.458

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:57:59	0.670	0.703	103.7%
2	03:58:27	0.711	0.716	104.2%
3	03:58:54	0.662	0.695	99.1%
x		0.681	0.705	102.3%
σ		0.026	0.011	2.8%
%RSD		3.889	1.528	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	88.4%	-0.011	34.480	31.690	615.400	TM 910600.000	T 7040.000	T 6962.000	T 6982.000	59.550
2	04:04:33	88.8%	-0.014	33.870	33.270	636.100	TM 917300.000	T 7133.000	T 7065.000	T 7111.000	62.520
3	04:05:00	90.2%	0.002	34.620	32.050	632.200	TM 924900.000	T 7057.000	T 7037.000	T 7017.000	62.140
x		89.1%	-0.008	34.320	32.340	627.900	TM 917600.000	T 7077.000	T 7021.000	T 7037.000	61.400
σ		1.0%	0.009	0.402	0.827	11.030	TM 7183.000	T 49.700	T 53.440	T 66.960	1.617
%RSD		1.1	114.700	1.172	2.556	1.756	TM 0.783	T 0.702	T 0.761	T 0.952	2.634

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	TM 21500.000	T 143900.000	T 13070.000	26710.000	T 27610.000	102.0%	10.090	0.465	4.800	2403.000
2	04:04:33	TM 22490.000	T 150700.000	T 13370.000	26340.000	T 27160.000	101.0%	10.130	0.588	4.905	2766.000
3	04:05:00	TM 21900.000	T 150500.000	T 13510.000	26570.000	T 27820.000	102.7%	9.612	0.582	4.881	2678.000
x		TM 21960.000	T 148400.000	T 13310.000	26540.000	T 27530.000	101.9%	9.945	0.545	4.862	2616.000
σ		TM 496.500	T 3881.000	T 221.900	186.800	T 335.300	0.9%	0.290	0.070	0.055	189.300
%RSD		TM 2.261	T 2.616	T 1.667	0.704	T 1.218	0.8	2.911	12.760	1.127	7.237

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	586.900	31.360	T 619.700	765.400	2.199	11.200	13.470	11.470	9.350	117.700
2	04:04:33	594.300	30.630	T 630.300	805.200	2.364	11.140	14.310	11.610	9.753	119.400
3	04:05:00	588.300	31.090	T 633.700	781.100	2.260	11.370	15.350	11.530	9.376	118.100
x		589.800	31.030	T 627.900	783.900	2.274	11.230	14.380	11.540	9.493	118.400
σ		3.918	0.372	T 7.278	20.080	0.083	0.123	0.940	0.070	0.226	0.896
%RSD		0.664	1.198	T 1.159	2.561	3.660	1.098	6.536	0.604	2.380	0.757

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	115.400	117.400	0.992	0.680	1240.000	1247.000	15.130	2.083	3.710	180.100
2	04:04:33	109.100	112.900	0.053	0.196	1259.000	1261.000	8.794	0.598	5.525	179.800
3	04:05:00	108.900	113.600	0.864	1.118	1259.000	1263.000	10.050	1.025	-0.399	181.700
x		111.100	114.600	0.637	0.665	1252.000	1257.000	11.330	1.235	2.946	180.500
σ		3.719	2.455	0.509	0.461	10.690	8.689	3.357	0.765	3.035	1.043
%RSD		3.346	2.141	79.970	69.400	0.854	0.691	29.640	61.900	103.000	0.578

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	100.7%	1.704	1.896	1.747	7.144	20.230	20.490	0.216	0.216	98.6%
2	04:04:33	97.6%	1.976	1.828	1.818	6.817	20.560	20.230	0.222	0.230	94.0%
3	04:05:00	99.1%	1.824	1.696	1.747	9.663	20.510	20.720	0.282	0.293	95.8%
x		99.1%	1.835	1.807	1.771	7.875	20.440	20.480	0.240	0.247	96.1%
σ		1.5%	0.136	0.102	0.041	1.557	0.176	0.244	0.037	0.041	2.3%
%RSD		1.5	7.434	5.616	2.295	19.770	0.859	1.190	15.230	16.590	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	0.701	0.862	M 548.000	M 531.600	94.640	94.940	102.0%	-0.007	-0.010	1.478
2	04:04:33	0.629	0.862	M 544.000	M 522.900	94.520	95.110	98.3%	-0.002	-0.006	1.393
3	04:05:00	0.784	0.902	M 543.000	M 527.400	95.740	94.850	99.6%	0.007	-0.001	1.375
x		0.705	0.875	M 545.000	M 527.300	94.970	94.970	100.0%	-0.001	-0.006	1.415
σ		0.078	0.023	M 2.638	M 4.361	0.669	0.132	1.9%	0.007	0.004	0.055
%RSD		11.000	2.642	M 0.484	M 0.827	0.704	0.139	1.9	1163.000	75.430	3.884

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:04:06	1.359	1.404	92.4%
2	04:04:33	1.311	1.357	88.2%
3	04:05:00	1.406	1.390	89.5%
x		1.359	1.384	90.0%
σ		0.047	0.024	2.1%
%RSD		3.493	1.751	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	103.1%	0.018	2.896	2.394	82.660	164.300	4.470	4.691	4.247	3.859
2	04:10:39	105.0%	0.001	2.678	2.288	75.880	165.800	4.669	4.410	4.327	2.862
3	04:11:06	T 118.8%	-0.008	2.731	2.446	71.760	141.700	4.264	4.227	3.841	2.756
x		T 109.0%	0.004	2.769	2.376	76.770	157.300	4.468	4.443	4.138	3.159
σ		T 8.5%	0.014	0.114	0.081	5.507	13.530	0.203	0.234	0.261	0.608
%RSD		T 7.8	385.900	4.098	3.400	7.173	8.600	4.535	5.265	6.300	19.250

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	32.160	T 88480.000	33.690	54.450	58.160	109.9%	0.004	0.152	0.419	1722.000
2	04:10:39	32.340	T 91460.000	32.880	62.240	56.770	109.3%	0.005	-0.019	0.406	1894.000
3	04:11:06	27.760	T 92510.000	31.630	47.390	60.480	108.8%	-0.006	0.083	0.461	2025.000
x		30.750	T 90820.000	32.730	54.690	58.470	109.3%	0.001	0.072	0.429	1880.000
σ		2.595	T 2093.000	1.036	7.427	1.870	0.5%	0.006	0.086	0.029	151.700
%RSD		8.438	T 2.305	3.164	13.580	3.198	0.5	580.500	119.300	6.699	8.069

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	19.140	0.206	24.370	1.434	0.007	0.352	0.169	0.198	0.159	0.963
2	04:10:39	18.610	0.229	23.220	-2.587	0.006	0.271	-0.064	0.157	0.193	1.013
3	04:11:06	19.890	0.218	25.500	4.599	0.013	0.326	0.476	0.159	0.134	0.990
x		19.210	0.218	24.360	1.149	0.009	0.316	0.194	0.171	0.162	0.989
σ		0.644	0.011	1.140	3.601	0.004	0.041	0.271	0.023	0.029	0.025
%RSD		3.351	5.199	4.682	313.500	45.330	13.030	139.800	13.550	18.060	2.499

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	0.862	0.883	-0.149	0.202	13.600	14.560	1.371	0.254	0.540	0.068
2	04:10:39	0.838	0.962	-0.143	0.515	13.430	14.370	-0.623	-0.122	-1.631	0.067
3	04:11:06	1.071	1.026	-0.251	0.131	11.820	13.250	0.534	0.078	0.101	0.061
x		0.924	0.957	-0.181	0.283	12.950	14.060	0.427	0.070	-0.330	0.065
σ		0.128	0.071	0.060	0.205	0.982	0.707	1.001	0.188	1.148	0.004
%RSD		13.890	7.451	33.420	72.350	7.581	5.028	234.300	269.700	347.700	5.957

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	109.3%	0.032	0.015	0.019	0.384	0.001	0.003	0.001	-0.006	111.3%
2	04:10:39	110.5%	0.027	-0.001	0.000	-0.939	-0.001	0.005	-0.003	-0.002	110.4%
3	04:11:06	107.0%	0.023	0.029	0.008	-0.696	-0.001	0.000	-0.003	-0.009	109.2%
x		108.9%	0.028	0.014	0.009	-0.417	-0.000	0.003	-0.001	-0.006	110.3%
σ		1.7%	0.005	0.015	0.009	0.704	0.001	0.002	0.002	0.004	1.0%
%RSD		1.6	16.640	106.400	104.800	168.800	984.300	87.800	133.000	66.860	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	0.315	0.492	0.146	0.113	0.035	0.013	109.0%	-0.017	-0.019	-0.009
2	04:10:39	0.313	0.420	0.133	0.137	0.035	0.042	109.1%	-0.014	-0.016	-0.005
3	04:11:06	0.300	0.485	0.128	0.112	0.036	0.034	106.6%	-0.016	-0.019	-0.012
x		0.309	0.465	0.136	0.121	0.035	0.029	108.2%	-0.015	-0.018	-0.008
σ		0.008	0.040	0.009	0.014	0.001	0.015	1.4%	0.001	0.001	0.003
%RSD		2.677	8.546	6.940	11.780	2.476	51.080	1.3	8.958	7.725	37.880

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:10:12	-0.012	-0.007	108.4%
2	04:10:39	-0.006	-0.006	108.3%
3	04:11:06	-0.003	-0.006	105.9%
x		-0.007	-0.006	107.5%
σ		0.005	0.001	1.4%
%RSD		72.020	12.140	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	103.4%	104.300	107.000	102.100	82.270	T 1208.000	T 1070.000	1066.000	1070.000	103.500
2	04:16:45	101.4%	107.200	112.900	105.000	88.880	T 1242.000	T 1081.000	1049.000	1057.000	103.300
3	04:17:12	100.0%	109.600	113.000	108.700	97.570	T 1252.000	T 1082.000	1063.000	1059.000	102.600
x		101.6%	107.100	111.000	105.200	89.570	T 1234.000	T 1078.000	1059.000	1062.000	103.100
σ		1.7%	2.635	3.448	3.297	7.676	T 22.890	T 6.702	9.204	7.271	0.495
%RSD		1.7	2.461	3.108	3.133	8.570	T 1.855	T 0.622	0.869	0.685	0.481

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	T 1025.000	T 86420.000	T 1131.000	1281.000	1156.000	108.2%	102.000	101.800	98.570	2889.000
2	04:16:45	T 1047.000	T 86810.000	1153.000	1282.000	1166.000	106.4%	101.500	104.000	101.600	2266.000
3	04:17:12	T 1077.000	T 88020.000	T 1161.000	1225.000	1153.000	107.6%	104.200	102.600	101.500	2333.000
x		T 1049.000	T 87090.000	T 1148.000	1263.000	1158.000	107.4%	102.500	102.800	100.500	2496.000
σ		T 26.040	T 834.000	T 15.200	32.430	6.805	0.9%	1.424	1.126	1.715	342.100
%RSD		T 2.481	T 0.958	T 1.324	2.568	0.588	0.8	1.389	1.095	1.706	13.710

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	1089.000	99.550	T 1100.000	1023.000	100.900	101.700	99.330	103.200	101.600	104.400
2	04:16:45	1102.000	100.900	T 1075.000	1025.000	100.500	100.400	103.700	102.600	99.530	103.500
3	04:17:12	1095.000	98.570	T 1095.000	1013.000	101.000	100.700	100.800	103.400	100.300	101.300
x		1095.000	99.680	T 1090.000	1020.000	100.800	100.900	101.300	103.100	100.500	103.100
σ		6.389	1.180	T 13.120	6.349	0.256	0.702	2.210	0.403	1.030	1.611
%RSD		0.584	1.184	T 1.204	0.622	0.254	0.696	2.182	0.390	1.026	1.563

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	101.600	104.700	103.900	106.100	7.669	8.371	468.100	105.600	0.376	101.400
2	04:16:45	104.500	105.500	107.700	104.400	7.984	7.232	474.300	107.300	-1.573	100.200
3	04:17:12	103.700	106.400	105.600	105.100	7.252	8.468	474.900	105.200	2.494	102.000
x		103.300	105.500	105.700	105.200	7.635	8.024	472.500	106.000	0.433	101.200
σ		1.500	0.834	1.901	0.893	0.367	0.687	3.750	1.105	2.034	0.907
%RSD		1.453	0.790	1.798	0.849	4.808	8.561	0.794	1.042	470.300	0.896

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	105.9%	102.400	103.700	101.100	99.970	103.000	103.600	104.000	102.500	106.5%
2	04:16:45	109.6%	103.000	104.700	103.400	101.900	102.000	103.200	103.300	103.200	109.1%
3	04:17:12	106.9%	103.600	106.100	104.200	109.000	101.700	103.100	104.400	102.000	109.1%
x		107.4%	103.000	104.800	102.900	103.600	102.200	103.300	103.900	102.600	108.2%
σ		1.9%	0.584	1.195	1.578	4.776	0.663	0.300	0.539	0.600	1.5%
%RSD		1.8	0.567	1.140	1.534	4.608	0.648	0.290	0.519	0.584	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	104.700	104.000	102.900	104.500	105.600	106.100	105.3%	102.600	103.800	104.100
2	04:16:45	105.000	103.600	102.900	104.600	105.900	106.100	107.9%	103.200	103.800	104.300
3	04:17:12	105.900	103.700	102.300	104.700	106.400	106.300	107.7%	103.800	104.200	105.700
x		105.200	103.800	102.700	104.600	106.000	106.200	107.0%	103.200	103.900	104.700
σ		0.608	0.199	0.320	0.087	0.397	0.123	1.4%	0.587	0.270	0.891
%RSD		0.578	0.192	0.312	0.083	0.375	0.116	1.4	0.569	0.260	0.851

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:16:18	103.200	103.600	102.9%
2	04:16:45	104.800	104.900	107.3%
3	04:17:12	104.600	105.500	108.1%
x		104.200	104.700	106.1%
σ		0.880	0.946	2.8%
%RSD		0.844	0.904	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	99.5%	0.034	10.520	10.470	88.090	┬10930.000	┬1045.000	1016.000	1005.000	6.674
2	04:22:52	99.9%	0.012	10.460	10.110	86.800	┬10790.000	┬1050.000	1005.000	996.900	6.772
3	04:23:18	102.5%	0.004	10.940	9.968	77.200	┬11030.000	┬1044.000	999.300	1010.000	6.684
x		100.6%	0.017	10.640	10.180	84.030	┬10920.000	┬1046.000	1007.000	1004.000	6.710
σ		1.6%	0.016	0.263	0.261	5.948	┬123.200	┬3.112	8.275	6.772	0.054
%RSD		1.6	93.290	2.475	2.565	7.078	┬1.128	┬0.297	0.822	0.674	0.805

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	┬5604.000	┬89350.000	┬1522.000	3517.000	3367.000	105.4%	1.448	0.006	0.431	1901.000
2	04:22:52	┬5393.000	┬87130.000	┬1500.000	3526.000	3348.000	105.0%	1.489	0.186	0.436	1827.000
3	04:23:18	┬5450.000	┬87300.000	┬1523.000	3500.000	3295.000	106.3%	1.324	-0.011	0.463	2197.000
x		┬5482.000	┬87930.000	┬1515.000	3514.000	3337.000	105.6%	1.420	0.060	0.443	1975.000
σ		┬109.000	┬1237.000	┬13.050	13.520	37.100	0.6%	0.086	0.109	0.017	195.600
%RSD		┬1.989	┬1.407	┬0.861	0.385	1.112	0.6	6.066	180.900	3.857	9.903

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	341.900	2.919	355.700	337.100	0.053	0.960	0.599	142.700	138.300	2.557
2	04:22:52	340.400	2.942	359.200	340.100	0.066	0.991	0.017	141.100	141.100	2.615
3	04:23:18	335.400	2.835	┬352.800	328.900	0.057	0.957	0.811	140.800	139.500	2.423
x		339.200	2.899	┬355.900	335.400	0.059	0.969	0.476	141.500	139.600	2.532
σ		3.373	0.056	┬3.222	5.775	0.006	0.019	0.411	1.002	1.376	0.098
%RSD		0.994	1.939	┬0.905	1.722	10.790	1.973	86.410	0.708	0.986	3.890

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	3.360	3.108	-0.078	0.006	11.540	11.990	-0.172	-0.050	-0.401	20.650
2	04:22:52	2.727	3.157	-0.030	-0.090	12.130	10.940	-0.455	-0.167	2.264	20.300
3	04:23:18	2.850	2.775	-0.112	0.423	11.120	11.560	-1.364	-0.287	-1.581	20.770
x		2.979	3.013	-0.073	0.113	11.600	11.500	-0.664	-0.168	0.094	20.570
σ		0.336	0.208	0.042	0.273	0.508	0.525	0.623	0.119	1.969	0.241
%RSD		11.260	6.903	56.680	241.400	4.379	4.563	93.790	70.680	2100.000	1.173

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	105.9%	0.235	0.227	0.201	0.342	0.014	0.017	0.011	0.021	106.4%
2	04:22:52	107.7%	0.239	0.181	0.244	1.105	0.011	0.007	0.011	0.007	107.2%
3	04:23:18	105.4%	0.241	0.258	0.238	0.143	0.004	0.005	0.007	0.015	105.7%
x		106.4%	0.238	0.222	0.227	0.530	0.009	0.010	0.010	0.015	106.4%
σ		1.2%	0.003	0.038	0.023	0.508	0.005	0.006	0.002	0.007	0.7%
%RSD		1.1	1.393	17.320	10.170	95.780	55.840	64.020	21.250	48.000	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	0.418	0.481	0.500	0.461	10.410	10.520	106.2%	0.014	0.009	6.841
2	04:22:52	0.377	0.543	0.498	0.501	10.920	10.140	106.1%	0.019	0.011	6.670
3	04:23:18	0.371	0.481	0.491	0.474	9.983	10.230	104.0%	0.003	0.012	6.728
x		0.389	0.502	0.496	0.479	10.440	10.300	105.4%	0.012	0.011	6.746
σ		0.026	0.036	0.005	0.021	0.471	0.201	1.2%	0.008	0.002	0.087
%RSD		6.656	7.111	0.976	4.303	4.509	1.948	1.2	69.800	18.210	1.292

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:22:25	6.496	6.611	104.0%
2	04:22:52	6.599	6.621	103.9%
3	04:23:18	6.379	6.507	102.0%
x		6.491	6.580	103.3%
σ		0.110	0.063	1.1%
%RSD		1.697	0.962	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	98.3%	0.035	9.681	9.081	80.240	T10480.000	T1007.000	954.800	958.500	8.089
2	04:28:57	100.9%	0.021	9.852	9.429	84.080	T10750.000	T986.800	955.600	962.000	8.061
3	04:29:24	99.2%	0.013	10.190	9.042	78.360	T10530.000	T987.600	944.800	952.500	7.993
x		99.4%	0.023	9.908	9.184	80.900	T10590.000	T993.700	951.800	957.700	8.047
σ		1.3%	0.011	0.260	0.213	2.916	T145.600	T11.210	6.019	4.778	0.050
%RSD		1.3	48.640	2.622	2.323	3.604	T1.375	T1.128	0.632	0.499	0.615

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	T5224.000	T87720.000	T1478.000	3165.000	3121.000	104.1%	1.136	0.166	0.547	1953.000
2	04:28:57	T5160.000	T89070.000	T1483.000	3322.000	3127.000	104.4%	1.509	0.247	0.512	1752.000
3	04:29:24	T5135.000	T88470.000	T1500.000	3270.000	3156.000	104.8%	1.139	0.000	0.509	1969.000
x		T5173.000	T88420.000	T1487.000	3252.000	3135.000	104.4%	1.261	0.138	0.523	1891.000
σ		T45.480	T673.700	T11.560	79.830	18.720	0.3%	0.215	0.126	0.021	120.900
%RSD		T0.879	T0.762	T0.777	2.454	0.597	0.3	17.040	91.150	4.064	6.395

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	46.000	0.651	49.030	50.310	0.052	0.788	0.432	117.200	116.100	89.230
2	04:28:57	43.310	0.637	48.340	50.320	0.046	0.955	0.412	118.200	115.600	89.850
3	04:29:24	44.810	0.667	48.470	51.710	0.049	0.766	0.627	116.400	113.900	90.130
x		44.710	0.652	48.610	50.780	0.049	0.836	0.490	117.300	115.200	89.740
σ		1.349	0.015	0.365	0.808	0.003	0.104	0.119	0.869	1.136	0.462
%RSD		3.018	2.363	0.751	1.592	6.774	12.410	24.170	0.741	0.986	0.515

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	83.880	88.100	0.027	0.356	10.550	10.030	-1.851	-0.399	-1.643	19.610
2	04:28:57	85.150	89.930	0.060	0.077	10.830	10.170	-0.680	-0.159	-0.492	19.530
3	04:29:24	84.400	90.280	0.037	-0.075	8.817	9.288	-0.292	-0.037	-1.727	19.480
x		84.480	89.440	0.041	0.119	10.070	9.829	-0.941	-0.198	-1.287	19.540
σ		0.640	1.169	0.017	0.219	1.091	0.474	0.812	0.184	0.690	0.064
%RSD		0.757	1.307	40.400	183.200	10.840	4.817	86.220	92.760	53.610	0.327

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	102.7%	0.162	0.166	0.137	3.225	0.014	0.011	0.045	0.038	103.5%
2	04:28:57	104.1%	0.184	0.167	0.137	1.688	0.017	0.017	0.026	0.063	104.5%
3	04:29:24	104.4%	0.181	0.158	0.156	2.585	0.025	0.022	0.048	0.017	104.4%
x		103.8%	0.175	0.164	0.143	2.499	0.019	0.016	0.040	0.040	104.2%
σ		0.9%	0.012	0.005	0.011	0.772	0.006	0.005	0.012	0.023	0.6%
%RSD		0.9	6.631	2.984	7.613	30.890	30.390	33.120	29.850	57.700	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	11.650	16.600	0.496	0.416	10.750	10.420	103.4%	-0.009	-0.010	135.200
2	04:28:57	11.980	16.540	0.472	0.522	10.480	10.550	104.7%	-0.006	-0.008	138.000
3	04:29:24	11.610	16.710	0.484	0.520	10.900	10.680	103.7%	-0.003	-0.008	136.900
x		11.740	16.620	0.484	0.486	10.710	10.550	103.9%	-0.006	-0.009	136.700
σ		0.206	0.086	0.012	0.061	0.210	0.131	0.6%	0.003	0.001	1.458
%RSD		1.751	0.519	2.506	12.550	1.964	1.238	0.6	48.710	15.720	1.066

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:28:30	133.200	135.200	102.0%
2	04:28:57	135.900	137.600	103.9%
3	04:29:24	134.600	136.500	102.0%
x		134.600	136.400	102.6%
σ		1.351	1.207	1.1%
%RSD		1.004	0.885	1.1

CCV MW10994 05/01/2019 04:34:10 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	92.3%	327.000	326.600	315.200	71.740	┬71060.000	┬67060.000	┬65090.000	┬65070.000	302.900
2	04:35:04	91.3%	322.300	326.900	323.800	81.860	┬72120.000	┬65420.000	┬64950.000	┬65570.000	298.600
3	04:35:31	93.1%	312.200	322.600	322.500	74.810	┬70750.000	┬66310.000	┬65400.000	┬65530.000	305.600
x		92.3%	106.831%	108.453%	106.832%	76.140	┬118.853%	┬66260.000	┬65150.000	┬108.986%	100.783%
σ		0.9%	n/a	n/a	n/a	5.190	┬n/a	┬824.200	┬231.100	┬n/a	n/a
%RSD		1.0	2.363	0.733	1.432	6.816	┬1.009	┬1.244	┬0.355	┬0.433	1.161

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	┬3616.000	934.300	┬68060.000	65260.000	┬66210.000	100.0%	313.600	325.000	307.700	2265.000
2	04:35:04	┬3578.000	893.400	┬68640.000	65270.000	┬66900.000	100.3%	317.300	323.700	307.700	1602.000
3	04:35:31	┬3593.000	889.900	┬68910.000	64920.000	┬66860.000	101.0%	316.000	320.100	306.000	468.700
x		┬119.859%	905.900	┬114.228%	65150.000	┬111.095%	100.4%	105.210%	107.642%	102.372%	1445.000
σ		┬n/a	24.700	┬n/a	198.300	┬n/a	0.5%	n/a	n/a	n/a	908.100
%RSD		┬0.542	2.727	┬0.632	0.304	┬0.586	0.5	0.590	0.782	0.321	62.840

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	┬64460.000	303.300	┬64720.000	┬63500.000	306.700	296.500	299.500	292.600	298.600	306.900
2	04:35:04	┬65830.000	302.800	┬65490.000	┬64150.000	298.900	291.200	296.800	297.100	300.900	303.400
3	04:35:31	┬64710.000	297.000	┬65430.000	┬63680.000	299.900	289.800	286.000	289.400	299.300	300.500
x		┬65000.000	100.342%	┬65210.000	┬106.297%	100.610%	97.500%	294.100	293.000	99.858%	101.200%
σ		┬732.500	n/a	┬425.500	┬n/a	n/a	n/a	7.160	3.857	n/a	n/a
%RSD		┬1.127	1.163	┬0.653	┬0.520	1.416	1.205	2.434	1.316	0.387	1.066

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	300.100	302.000	309.000	312.100	3.579	3.501	1328.000	308.400	1.184	314.200
2	04:35:04	298.700	303.800	304.700	310.700	3.957	3.598	1332.000	306.100	1.469	315.500
3	04:35:31	292.200	301.200	299.400	300.800	5.175	4.411	1337.000	306.900	0.636	315.100
x		297.000	302.300	101.463%	307.900	4.237	3.837	1332.000	102.371%	1.096	104.970%
σ		4.229	1.355	n/a	6.196	0.834	0.500	4.905	n/a	0.424	n/a
%RSD		1.424	0.448	1.579	2.013	19.680	13.020	0.368	0.383	38.640	0.215

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	98.2%	329.400	331.100	328.600	315.300	304.000	305.500	312.100	311.900	95.9%
2	04:35:04	97.2%	329.000	330.600	328.800	316.100	302.300	302.700	310.600	307.700	96.2%
3	04:35:31	96.7%	332.200	333.400	331.100	305.000	303.300	305.700	314.300	312.600	95.9%
x		97.4%	110.066%	110.560%	329.500	312.100	101.063%	304.600	312.300	103.577%	96.0%
σ		0.8%	n/a	n/a	1.378	6.184	n/a	1.693	1.899	n/a	0.2%
%RSD		0.8	0.518	0.453	0.418	1.981	0.281	0.556	0.608	0.865	0.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	322.800	320.100	325.100	321.200	320.700	321.600	97.5%	310.900	315.200	307.400
2	04:35:04	320.900	318.900	321.200	320.400	318.100	321.600	97.7%	311.900	318.000	308.600
3	04:35:31	323.300	322.300	322.900	318.400	320.800	321.000	97.8%	309.700	315.800	306.900
x		107.441%	106.815%	323.100	106.662%	106.616%	107.137%	97.7%	310.800	105.442%	102.547%
σ		n/a	n/a	1.972	n/a	n/a	n/a	0.2%	1.059	n/a	n/a
%RSD		0.385	0.534	0.610	0.440	0.471	0.111	0.2	0.341	0.471	0.285

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:34:37	306.000	308.900	91.6%
2	04:35:04	307.700	310.200	92.4%
3	04:35:31	305.800	308.600	91.9%
x		102.160%	103.081%	92.0%
σ		n/a	n/a	0.4%
%RSD		0.336	0.275	0.4

CCB IM9390-01 05/01/2019 04:40:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	97.2%	0.048	2.730	2.705	48.690	10.210	6.381	6.065	7.012	-0.030
2	04:41:12	97.7%	0.042	2.364	2.348	58.290	9.771	6.339	6.029	6.165	-0.093
3	04:41:39	99.8%	0.044	2.944	2.449	54.010	10.280	5.123	4.529	4.981	-0.044
x		98.2%	0.045	2.679	2.501	53.660	10.090	5.948	5.541	6.053	-0.056
σ		1.3%	0.003	0.294	0.184	4.811	0.275	0.715	0.877	1.020	0.033
%RSD		1.4	7.246	10.960	7.359	8.965	2.721	12.010	15.820	16.850	59.080

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	19.520	491.300	15.500	5.838	7.050	102.8%	-0.046	-0.010	0.070	53.530
2	04:41:12	19.720	503.100	14.240	8.181	6.152	103.9%	-0.058	0.062	0.074	6.129
3	04:41:39	19.350	515.100	14.260	5.239	4.476	102.6%	-0.022	0.053	0.101	24.720
x		19.530	503.200	14.660	6.419	5.893	103.1%	-0.042	0.035	0.082	28.120
σ		0.182	11.900	0.720	1.555	1.306	0.7%	0.018	0.039	0.017	23.880
%RSD		0.933	2.365	4.907	24.220	22.160	0.7	43.120	111.800	20.940	84.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	7.332	0.042	11.780	2.161	0.049	0.044	-0.325	0.031	0.029	0.033
2	04:41:12	5.445	0.044	11.210	-2.404	0.052	0.004	-0.422	0.008	0.079	0.072
3	04:41:39	5.736	0.047	11.780	2.510	0.026	0.016	-0.245	0.003	0.033	0.058
x		6.171	0.044	11.590	0.756	0.043	0.021	-0.331	0.014	0.047	0.054
σ		1.016	0.003	0.334	2.742	0.014	0.021	0.089	0.015	0.028	0.019
%RSD		16.470	6.449	2.877	362.900	34.050	96.230	26.780	108.700	59.930	35.640

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	0.003	0.021	0.005	0.019	1.779	2.239	-0.602	-0.139	-0.198	0.030
2	04:41:12	0.069	0.066	-0.079	-0.117	1.954	2.612	-1.897	-0.488	2.165	0.023
3	04:41:39	0.026	0.052	-0.045	-0.331	2.470	2.295	-2.046	-0.515	2.486	0.026
x		0.033	0.046	-0.040	-0.143	2.068	2.382	-1.515	-0.381	1.484	0.027
σ		0.033	0.023	0.042	0.176	0.359	0.201	0.794	0.209	1.466	0.003
%RSD		101.600	49.750	105.900	123.400	17.370	8.436	52.430	55.030	98.750	12.150

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	102.8%	0.114	0.109	0.108	0.345	0.037	0.045	0.038	0.042	103.1%
2	04:41:12	103.9%	0.080	0.078	0.091	-1.325	0.047	0.044	0.027	0.030	104.6%
3	04:41:39	102.7%	0.106	0.053	0.060	0.336	0.021	0.017	0.016	0.021	101.6%
x		103.1%	0.100	0.080	0.086	-0.215	0.035	0.035	0.027	0.031	103.1%
σ		0.7%	0.018	0.028	0.024	0.961	0.013	0.016	0.011	0.011	1.5%
%RSD		0.7	17.490	35.340	27.810	447.600	36.960	45.000	40.910	34.390	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	0.085	0.100	0.162	0.127	0.013	0.044	100.9%	0.016	0.019	0.037
2	04:41:12	0.057	0.114	0.138	0.170	0.034	0.034	101.5%	0.024	0.014	0.028
3	04:41:39	0.058	0.093	0.144	0.140	0.019	0.061	99.3%	0.022	0.016	0.021
x		0.067	0.103	0.148	0.146	0.022	0.046	100.6%	0.021	0.016	0.029
σ		0.016	0.011	0.012	0.022	0.011	0.014	1.1%	0.004	0.003	0.008
%RSD		24.090	10.400	8.411	15.310	50.370	29.380	1.1	19.020	15.760	26.560

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:40:45	0.035	0.037	102.5%
2	04:41:12	0.025	0.031	102.1%
3	04:41:39	0.029	0.033	99.4%
x		0.029	0.034	101.3%
σ		0.005	0.003	1.7%
%RSD		17.200	9.075	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	96.0%	0.040	13.400	12.880	87.970	T 11300.000	T 993.000	949.400	949.500	82.110
2	04:47:19	97.5%	0.031	14.010	12.360	82.980	T 11120.000	T 998.300	950.900	937.200	81.010
3	04:47:46	100.4%	-0.018	12.760	11.940	83.550	T 10890.000	T 952.900	916.900	940.600	81.840
x		98.0%	0.018	13.390	12.390	84.830	T 11100.000	T 981.400	939.100	942.400	81.650
σ		2.2%	0.031	0.628	0.472	2.731	T 207.200	T 24.830	19.230	6.374	0.574
%RSD		2.3	173.700	4.688	3.804	3.219	T 1.866	T 2.530	2.048	0.676	0.703

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	T 9687.000	T 89280.000	T 1542.000	3155.000	3145.000	103.2%	2.188	1.169	1.256	1653.000
2	04:47:19	T 9482.000	T 90780.000	T 1549.000	3148.000	3102.000	102.6%	2.121	1.244	1.226	1797.000
3	04:47:46	T 9446.000	T 90230.000	T 1540.000	3178.000	3127.000	103.3%	2.396	1.121	1.259	2022.000
x		T 9538.000	T 90100.000	T 1544.000	3160.000	3125.000	103.0%	2.235	1.178	1.247	1824.000
σ		T 129.800	T 757.300	T 4.450	15.830	21.460	0.4%	0.143	0.062	0.019	185.700
%RSD		T 1.361	T 0.841	T 0.288	0.501	0.687	0.4	6.406	5.286	1.490	10.180

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	2251.000	107.200	T 2289.000	2176.000	0.261	6.732	6.179	TM 2841.000	TM 2516.000	293.700
2	04:47:19	2245.000	105.600	T 2316.000	2206.000	0.259	6.742	6.752	TM 2841.000	TM 2545.000	296.600
3	04:47:46	2241.000	105.400	T 2260.000	2159.000	0.251	6.771	7.650	TM 2879.000	TM 2643.000	297.300
x		2246.000	106.100	T 2288.000	2180.000	0.257	6.748	6.860	TM 2854.000	TM 2568.000	295.900
σ		4.978	0.972	T 27.960	24.070	0.006	0.020	0.742	TM 21.480	TM 66.510	1.893
%RSD		0.222	0.916	T 1.222	1.104	2.196	0.294	10.810	TM 0.753	TM 2.590	0.640

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	269.000	286.200	0.122	-0.016	8.007	8.683	2.035	0.456	-0.447	18.520
2	04:47:19	269.800	287.700	0.357	0.227	9.080	8.813	0.058	0.002	0.463	18.390
3	04:47:46	259.700	280.300	0.299	0.798	8.742	9.290	-0.984	-0.188	-0.570	18.530
x		266.200	284.700	0.259	0.336	8.610	8.929	0.370	0.090	-0.185	18.480
σ		5.609	3.917	0.123	0.418	0.549	0.320	1.534	0.331	0.564	0.077
%RSD		2.107	1.376	47.280	124.100	6.375	3.579	415.000	367.100	305.700	0.416

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	103.5%	0.476	0.517	0.544	0.086	0.119	0.119	0.222	0.217	103.7%
2	04:47:19	102.1%	0.505	0.511	0.587	1.398	0.105	0.124	0.234	0.241	101.4%
3	04:47:46	102.0%	0.568	0.564	0.608	2.140	0.123	0.118	0.281	0.212	99.3%
x		102.6%	0.516	0.531	0.580	1.208	0.116	0.120	0.246	0.223	101.4%
σ		0.8%	0.047	0.029	0.032	1.040	0.010	0.003	0.031	0.016	2.2%
%RSD		0.8	9.144	5.483	5.567	86.090	8.335	2.361	12.680	7.139	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	0.771	0.863	0.925	0.943	17.150	16.900	102.8%	0.039	0.031	26.820
2	04:47:19	0.696	0.921	0.963	0.928	16.970	17.020	101.7%	0.048	0.033	27.190
3	04:47:46	0.699	0.857	0.944	0.977	16.850	17.190	98.7%	0.029	0.038	27.270
x		0.722	0.880	0.944	0.949	16.990	17.040	101.1%	0.039	0.034	27.090
σ		0.042	0.036	0.019	0.025	0.150	0.147	2.1%	0.010	0.004	0.241
%RSD		5.884	4.053	1.986	2.656	0.885	0.863	2.1	24.620	11.770	0.888

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:46:52	26.060	26.350	100.8%
2	04:47:19	26.220	26.570	100.7%
3	04:47:46	26.260	26.620	97.6%
x		26.180	26.510	99.7%
σ		0.106	0.145	1.8%
%RSD		0.403	0.549	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	101.1%	0.042	9.317	9.651	73.160	T10770.000	T1057.000	1024.000	1019.000	5.484
2	04:53:28	96.7%	0.015	10.470	9.295	74.780	T10770.000	T1044.000	998.800	1002.000	5.497
3	04:53:55	97.0%	0.003	8.905	9.528	71.250	T10810.000	T1050.000	986.600	1003.000	5.011
x		98.3%	0.020	9.564	9.492	73.060	T10780.000	T1050.000	1003.000	1008.000	5.330
σ		2.5%	0.020	0.812	0.181	1.768	T21.860	T6.690	19.290	9.591	0.277
%RSD		2.5	98.460	8.485	1.906	2.420	T0.203	T0.637	1.923	0.951	5.191

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	T5300.000	T88530.000	T1535.000	3367.000	3217.000	102.9%	1.719	0.146	0.531	1970.000
2	04:53:28	T5301.000	T89380.000	T1542.000	3381.000	3246.000	100.3%	1.517	0.064	0.466	1896.000
3	04:53:55	T5324.000	T88710.000	T1514.000	3256.000	3216.000	102.6%	1.947	0.043	0.497	1799.000
x		T5308.000	T88870.000	T1530.000	3335.000	3226.000	101.9%	1.727	0.084	0.498	1888.000
σ		T13.760	T448.900	T14.620	68.690	17.190	1.4%	0.215	0.055	0.032	85.860
%RSD		T0.259	T0.505	T0.955	2.060	0.533	1.4	12.450	64.830	6.523	4.547

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	72.760	0.796	76.090	95.180	0.053	1.114	0.648	189.700	191.400	23.230
2	04:53:28	70.450	0.772	76.240	87.700	0.056	1.069	0.761	188.000	188.300	23.030
3	04:53:55	68.020	0.801	73.560	80.490	0.040	1.084	0.404	186.900	183.600	22.950
x		70.410	0.790	75.300	87.790	0.050	1.089	0.604	188.200	187.800	23.070
σ		2.372	0.015	1.505	7.347	0.009	0.023	0.182	1.395	3.928	0.147
%RSD		3.369	1.915	1.999	8.369	17.770	2.106	30.190	0.742	2.092	0.637

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	22.180	23.390	0.224	0.016	9.217	10.660	-0.189	-0.022	-1.235	20.230
2	04:53:28	21.730	23.330	0.019	0.125	10.020	10.050	0.840	0.167	0.417	20.390
3	04:53:55	21.680	23.460	0.207	-0.384	9.467	9.291	2.328	0.543	-1.618	20.350
x		21.860	23.390	0.150	-0.081	9.569	10.000	0.993	0.229	-0.812	20.320
σ		0.271	0.065	0.114	0.268	0.413	0.684	1.265	0.288	1.082	0.085
%RSD		1.240	0.277	75.700	331.600	4.312	6.839	127.400	125.500	133.200	0.419

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	98.9%	0.164	0.182	0.182	0.482	0.009	0.022	0.012	0.009	99.1%
2	04:53:28	100.0%	0.214	0.149	0.191	0.659	0.014	0.011	0.008	0.021	100.2%
3	04:53:55	102.4%	0.168	0.184	0.176	0.114	0.015	0.018	0.027	0.031	103.0%
x		100.4%	0.182	0.171	0.183	0.418	0.013	0.017	0.016	0.021	100.7%
σ		1.8%	0.028	0.020	0.008	0.278	0.003	0.005	0.010	0.011	2.0%
%RSD		1.8	15.340	11.540	4.161	66.430	22.830	32.210	62.150	53.920	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	0.866	1.164	0.550	0.518	13.150	13.300	98.1%	-0.014	-0.012	7.857
2	04:53:28	0.814	1.165	0.540	0.562	13.260	12.810	100.5%	-0.010	-0.011	7.962
3	04:53:55	0.852	1.212	0.538	0.527	13.130	12.990	103.2%	-0.006	-0.013	7.695
x		0.844	1.180	0.543	0.536	13.180	13.030	100.6%	-0.010	-0.012	7.838
σ		0.027	0.028	0.007	0.023	0.070	0.247	2.5%	0.004	0.001	0.135
%RSD		3.197	2.335	1.240	4.356	0.533	1.898	2.5	41.530	7.669	1.721

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:53:00	7.322	7.587	96.7%
2	04:53:28	7.386	7.636	98.8%
3	04:53:55	7.371	7.586	101.6%
x		7.360	7.603	99.0%
σ		0.033	0.029	2.5%
%RSD		0.449	0.379	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	96.4%	0.013	36.930	34.890	790.400	™ 113500.000	T 5357.000	T 5246.000	T 5248.000	384.800
2	04:59:35	94.8%	0.002	34.480	34.500	797.700	™ 112900.000	T 5203.000	T 5176.000	T 5296.000	T 378.400
3	05:00:02	92.5%	0.008	37.460	36.110	787.800	™ 115300.000	T 5347.000	T 5203.000	T 5220.000	359.900
x		94.6%	0.008	36.290	35.160	792.000	™ 113900.000	T 5302.000	T 5208.000	T 5255.000	T 374.400
σ		2.0%	0.005	1.590	0.840	5.106	™ 1236.000	T 86.580	T 35.460	T 38.320	T 12.920
%RSD		2.1	67.820	4.382	2.390	0.645	™ 1.086	T 1.633	T 0.681	T 0.729	T 3.452

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	T 4881.000	T 97410.000	T 42690.000	20670.000	T 21480.000	96.8%	51.930	0.765	2.005	1965.000
2	04:59:35	T 4739.000	T 94860.000	T 42930.000	20500.000	T 21330.000	97.8%	47.150	0.439	1.951	2019.000
3	05:00:02	T 4890.000	T 95360.000	T 42360.000	21050.000	T 21810.000	98.0%	46.370	0.813	1.879	1732.000
x		T 4837.000	T 95880.000	T 42660.000	20740.000	T 21540.000	97.5%	48.480	0.672	1.945	1905.000
σ		T 84.980	T 1354.000	T 289.300	281.900	T 244.200	0.6%	3.013	0.204	0.063	152.300
%RSD		T 1.757	T 1.412	T 0.678	1.359	T 1.134	0.7	6.214	30.270	3.244	7.991

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	464.000	17.520	T 493.500	646.200	0.369	5.115	5.397	41.530	43.450	274.600
2	04:59:35	461.200	17.620	T 480.700	589.700	0.359	5.011	4.226	41.650	42.000	274.000
3	05:00:02	449.700	17.020	T 472.500	582.000	0.335	4.599	2.986	39.700	39.680	266.800
x		458.300	17.390	T 482.200	606.000	0.354	4.909	4.203	40.960	41.710	271.800
σ		7.587	0.322	T 10.600	35.020	0.018	0.273	1.205	1.093	1.904	4.340
%RSD		1.655	1.850	T 2.198	5.779	5.051	5.558	28.680	2.670	4.565	1.597

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	243.500	258.200	0.904	0.854	88.140	89.950	8.524	1.946	0.212	119.300
2	04:59:35	244.100	262.900	0.739	1.021	87.840	86.060	3.827	0.900	-3.304	122.800
3	05:00:02	240.200	261.100	0.619	0.682	86.190	88.820	3.507	0.702	0.963	119.500
x		242.600	260.700	0.754	0.852	87.390	88.280	5.286	1.183	-0.710	120.500
σ		2.084	2.373	0.143	0.169	1.051	1.999	2.809	0.669	2.278	1.935
%RSD		0.859	0.910	18.930	19.890	1.203	2.264	53.140	56.530	320.900	1.605

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	97.1%	2.944	2.704	2.749	7.177	0.022	0.027	0.071	0.068	93.5%
2	04:59:35	98.0%	2.759	2.722	2.760	4.465	0.025	0.034	0.110	0.100	95.7%
3	05:00:02	101.6%	2.637	2.693	2.835	4.448	0.019	0.022	0.109	0.052	99.7%
x		98.9%	2.780	2.707	2.781	5.363	0.022	0.028	0.097	0.074	96.3%
σ		2.4%	0.155	0.015	0.047	1.571	0.003	0.006	0.022	0.024	3.1%
%RSD		2.4	5.565	0.542	1.688	29.290	12.390	21.900	22.580	33.100	3.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	0.726	0.865	0.364	0.349	30.950	30.780	95.2%	-0.004	-0.003	0.519
2	04:59:35	0.664	0.906	0.396	0.397	30.430	30.230	98.6%	-0.007	-0.010	0.594
3	05:00:02	0.675	0.799	0.386	0.425	29.860	30.240	102.3%	-0.010	-0.006	0.512
x		0.688	0.857	0.382	0.390	30.410	30.420	98.7%	-0.007	-0.007	0.541
σ		0.033	0.054	0.017	0.038	0.546	0.315	3.6%	0.003	0.004	0.046
%RSD		4.800	6.268	4.345	9.815	1.796	1.034	3.6	36.010	56.180	8.431

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:59:08	0.581	0.527	89.7%
2	04:59:35	0.523	0.540	93.6%
3	05:00:02	0.524	0.520	96.7%
x		0.542	0.529	93.3%
σ		0.033	0.010	3.5%
%RSD		6.118	1.965	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	93.9%	0.066	36.180	33.490	1650.000	TM 104000.000	T 5072.000	T 5081.000	T 5072.000	TM 3122.000
2	05:05:43	97.9%	0.033	36.460	36.120	1705.000	TM 107600.000	T 5227.000	T 5115.000	T 5098.000	TM 3228.000
3	05:06:10	99.2%	0.014	34.070	35.140	1642.000	TM 103700.000	T 5041.000	T 5089.000	T 5129.000	TM 3309.000
x		97.0%	0.037	35.570	34.910	1665.000	TM 105100.000	T 5113.000	T 5095.000	T 5099.000	TM 3220.000
σ		2.8%	0.027	1.305	1.331	34.170	TM 2189.000	T 99.340	T 17.970	T 28.520	TM 93.770
%RSD		2.9	70.930	3.669	3.811	2.052	TM 2.083	T 1.943	T 0.353	T 0.559	TM 2.913
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	T 9418.000	T 84530.000	T 26240.000	23290.000	T 24320.000	101.9%	54.670	3.537	9.491	1650.000
2	05:05:43	T 9204.000	T 88930.000	T 27440.000	23940.000	T 25000.000	101.7%	55.970	3.364	9.735	2007.000
3	05:06:10	T 9226.000	T 89850.000	T 27310.000	23800.000	T 24710.000	99.7%	55.300	3.667	9.630	2031.000
x		T 9283.000	T 87770.000	T 27000.000	23680.000	T 24680.000	101.1%	55.320	3.523	9.619	1896.000
σ		T 117.600	T 2844.000	T 663.000	344.600	T 340.800	1.2%	0.649	0.152	0.122	213.800
%RSD		T 1.267	T 3.241	T 2.456	1.456	T 1.381	1.2	1.174	4.323	1.272	11.280
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	4446.000	97.840	T 4587.000	4489.000	1.016	9.695	8.932	80.670	83.640	M 1402.000
2	05:05:43	4556.000	97.670	T 4638.000	4544.000	0.987	9.997	9.664	83.320	86.080	M 1397.000
3	05:06:10	4559.000	98.930	T 4624.000	4577.000	1.024	10.100	9.394	83.330	85.020	M 1403.000
x		4520.000	98.150	T 4616.000	4537.000	1.009	9.930	9.330	82.440	84.910	M 1401.000
σ		64.490	0.681	T 26.500	44.730	0.020	0.210	0.370	1.531	1.220	M 3.041
%RSD		1.427	0.694	T 0.574	0.986	1.964	2.112	3.965	1.857	1.437	M 0.217
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	M 1223.000	M 1316.000	1.409	1.284	46.410	49.670	1.945	0.475	-0.976	91.500
2	05:05:43	M 1204.000	M 1301.000	1.392	1.044	45.450	47.070	2.596	0.585	0.677	91.670
3	05:06:10	M 1207.000	M 1305.000	1.580	1.459	47.120	49.240	6.921	1.702	-1.105	88.830
x		M 1211.000	M 1308.000	1.461	1.262	46.330	48.660	3.820	0.921	-0.468	90.670
σ		M 10.500	M 7.756	0.104	0.208	0.842	1.391	2.705	0.679	0.994	1.590
%RSD		M 0.867	M 0.593	7.100	16.470	1.818	2.858	70.790	73.730	212.400	1.754
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	102.1%	10.420	9.914	10.490	7.232	0.170	0.174	1.189	1.232	98.3%
2	05:05:43	99.1%	10.500	10.250	10.670	7.492	0.169	0.203	1.182	1.304	96.1%
3	05:06:10	100.9%	10.170	10.430	10.160	3.922	0.183	0.184	1.069	1.172	95.2%
x		100.7%	10.370	10.200	10.440	6.215	0.174	0.187	1.147	1.236	96.5%
σ		1.5%	0.173	0.262	0.257	1.990	0.008	0.015	0.067	0.066	1.6%
%RSD		1.5	1.668	2.568	2.462	32.020	4.447	7.764	5.869	5.361	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	1.915	2.152	3.944	3.966	86.050	87.130	99.9%	0.014	0.000	17.110
2	05:05:43	1.795	2.063	3.854	3.960	87.510	87.090	98.4%	-0.005	0.007	17.220
3	05:06:10	1.905	2.114	3.929	3.728	85.810	85.200	97.6%	0.004	0.007	17.430
x		1.872	2.110	3.909	3.885	86.460	86.470	98.7%	0.004	0.005	17.250
σ		0.066	0.045	0.048	0.136	0.922	1.101	1.2%	0.009	0.004	0.163
%RSD		3.550	2.114	1.238	3.497	1.067	1.274	1.2	216.600	82.910	0.947
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:05:16	16.460	16.590	96.7%							
2	05:05:43	16.120	16.650	95.3%							
3	05:06:10	16.250	16.620	94.6%							
x		16.280	16.620	95.6%							
σ		0.169	0.029	1.1%							
%RSD		1.038	0.177	1.1							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	99.9%	0.033	12.900	12.000	70.700	T 33780.000	T 658.100	637.100	631.400	94.560
2	05:11:50	100.4%	-0.005	12.600	12.270	87.440	T 34220.000	T 654.800	626.800	640.300	94.790
3	05:12:17	98.4%	0.017	11.980	11.930	75.900	T 34350.000	T 653.900	629.700	617.800	89.530
x		99.6%	0.015	12.490	12.070	78.020	T 34120.000	T 655.600	631.200	629.800	92.960
σ		1.1%	0.019	0.469	0.179	8.568	T 296.000	T 2.215	5.287	11.280	2.974
%RSD		1.1	128.700	3.755	1.479	10.980	T 0.868	T 0.338	0.838	1.791	3.199
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	T 4901.000	T 87060.000	T 1597.000	27410.000	T 28330.000	103.4%	4.425	0.440	4.394	1809.000
2	05:11:50	T 4979.000	T 88200.000	T 1584.000	27220.000	T 28000.000	103.6%	4.370	0.420	4.338	1873.000
3	05:12:17	T 4821.000	T 84950.000	T 1547.000	27040.000	T 28220.000	105.2%	4.611	0.145	4.271	1716.000
x		T 4900.000	T 86730.000	T 1576.000	27220.000	T 28180.000	104.1%	4.469	0.335	4.334	1799.000
σ		T 79.210	T 1648.000	T 26.020	181.500	T 169.000	0.9%	0.127	0.165	0.062	79.260
%RSD		T 1.616	T 1.900	T 1.651	0.667	T 0.600	0.9	2.831	49.120	1.422	4.405
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	211.100	5.317	214.900	468.500	0.292	2.089	1.633	5.315	5.313	53.080
2	05:11:50	207.300	5.182	215.300	460.800	0.268	2.104	1.938	5.330	5.372	53.640
3	05:12:17	204.100	5.503	211.700	404.400	0.258	2.106	1.214	5.226	5.142	54.160
x		207.500	5.334	214.000	444.600	0.272	2.100	1.595	5.290	5.276	53.630
σ		3.484	0.161	1.969	34.970	0.018	0.010	0.364	0.056	0.119	0.544
%RSD		1.679	3.020	0.920	7.867	6.487	0.461	22.800	1.066	2.257	1.015
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	48.710	52.000	0.075	0.224	6.781	7.882	-1.062	-0.204	-1.254	39.020
2	05:11:50	48.110	52.360	0.312	0.347	6.412	6.803	-1.955	-0.411	-1.514	39.200
3	05:12:17	50.330	53.260	-0.106	-0.125	6.754	6.540	-2.539	-0.566	-0.119	38.510
x		49.050	52.540	0.093	0.149	6.649	7.075	-1.852	-0.394	-0.962	38.910
σ		1.149	0.649	0.209	0.245	0.206	0.711	0.744	0.182	0.742	0.361
%RSD		2.343	1.236	224.300	165.100	3.094	10.050	40.170	46.100	77.120	0.928
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	99.2%	0.443	0.505	0.530	1.296	0.006	0.009	0.015	0.025	98.3%
2	05:11:50	100.1%	0.534	0.567	0.386	1.843	0.008	0.006	0.038	0.022	100.1%
3	05:12:17	104.5%	0.518	0.550	0.499	0.498	0.010	0.008	0.021	0.026	102.7%
x		101.3%	0.498	0.541	0.472	1.213	0.008	0.008	0.025	0.024	100.4%
σ		2.9%	0.049	0.032	0.076	0.676	0.002	0.002	0.012	0.002	2.2%
%RSD		2.8	9.761	5.898	16.040	55.780	22.610	20.050	48.720	9.309	2.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	0.621	0.810	0.456	0.412	34.090	34.750	98.1%	-0.013	-0.015	1.099
2	05:11:50	0.569	0.843	0.417	0.441	34.180	34.120	99.6%	-0.009	-0.015	1.114
3	05:12:17	0.607	0.864	0.433	0.406	34.280	34.430	104.0%	-0.008	-0.014	1.079
x		0.599	0.839	0.435	0.420	34.190	34.430	100.6%	-0.010	-0.015	1.097
σ		0.027	0.027	0.019	0.019	0.097	0.318	3.1%	0.003	0.001	0.018
%RSD		4.529	3.247	4.445	4.477	0.285	0.922	3.0	27.290	4.045	1.620
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:11:23	1.000	1.022	94.0%							
2	05:11:50	1.066	1.078	96.1%							
3	05:12:17	1.085	1.057	101.3%							
x		1.050	1.052	97.2%							
σ		0.045	0.028	3.7%							
%RSD		4.271	2.659	3.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	102.2%	0.090	10.880	10.230	54.510	T 1372.000	T 1427.000	1401.000	1412.000	TM 10270.000
2	05:17:59	101.2%	0.112	11.040	10.570	59.280	T 1408.000	T 1436.000	1367.000	1395.000	TM 9955.000
3	05:18:26	102.9%	0.108	10.530	10.350	62.050	T 1372.000	T 1446.000	1387.000	1378.000	TM 9710.000
x		102.1%	0.103	10.810	10.380	58.620	T 1384.000	T 1436.000	1385.000	1395.000	TM 9979.000
σ		0.8%	0.012	0.257	0.174	3.816	T 20.750	T 9.463	17.420	17.060	TM 282.200
%RSD		0.8	11.370	2.374	1.679	6.510	T 1.500	T 0.659	1.258	1.223	TM 2.828

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	T 9392.000	T 84950.000	T 2503.000	3474.000	3414.000	104.7%	28.000	6.116	5.819	2110.000
2	05:17:59	T 9222.000	T 83770.000	T 2554.000	3497.000	3368.000	104.6%	28.470	6.118	6.045	1904.000
3	05:18:26	T 8992.000	T 83470.000	T 2458.000	3486.000	3380.000	105.5%	25.930	6.210	5.901	1891.000
x		T 9202.000	T 84060.000	T 2505.000	3485.000	3387.000	104.9%	27.470	6.148	5.922	1968.000
σ		T 200.900	T 786.000	T 48.280	11.710	23.830	0.5%	1.352	0.054	0.115	123.100
%RSD		T 2.184	T 0.935	T 1.927	0.336	0.704	0.5	4.923	0.872	1.937	6.254

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	2053.000	10.160	T 2101.000	2007.000	0.877	2.278	2.837	1.176	1.250	3.070
2	05:17:59	2038.000	10.230	T 2090.000	1984.000	0.862	2.447	2.231	1.146	1.205	3.001
3	05:18:26	2020.000	9.983	T 2084.000	1983.000	0.851	2.522	2.095	1.138	1.297	3.042
x		2037.000	10.120	T 2091.000	1991.000	0.863	2.416	2.388	1.153	1.251	3.038
σ		16.440	0.125	T 8.536	13.390	0.013	0.125	0.395	0.020	0.046	0.035
%RSD		0.807	1.239	T 0.408	0.672	1.466	5.189	16.520	1.753	3.664	1.142

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	6.695	5.463	0.537	0.373	10.270	9.642	0.340	0.185	-2.522	24.460
2	05:17:59	6.256	5.274	0.449	-0.336	8.405	9.968	0.186	0.064	0.345	24.300
3	05:18:26	6.598	5.589	0.653	0.248	8.556	10.960	0.373	0.153	-1.448	24.290
x		6.517	5.442	0.546	0.095	9.078	10.190	0.299	0.134	-1.208	24.350
σ		0.231	0.158	0.102	0.379	1.038	0.685	0.100	0.063	1.449	0.097
%RSD		3.537	2.911	18.700	397.600	11.430	6.726	33.390	46.930	119.900	0.399

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	104.1%	0.272	0.180	0.200	2.480	0.006	0.008	0.020	0.021	99.9%
2	05:17:59	106.9%	0.164	0.245	0.210	0.218	0.001	0.003	0.026	0.017	103.4%
3	05:18:26	107.0%	0.232	0.208	0.223	0.652	0.004	0.003	0.019	0.023	103.3%
x		106.0%	0.223	0.211	0.211	1.117	0.004	0.005	0.021	0.020	102.2%
σ		1.6%	0.054	0.033	0.011	1.201	0.002	0.003	0.004	0.003	2.0%
%RSD		1.6	24.340	15.520	5.306	107.500	60.370	57.870	19.050	15.940	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	0.481	0.535	0.104	0.089	58.700	60.180	98.9%	0.035	0.037	5.159
2	05:17:59	0.398	0.518	0.071	0.096	60.080	58.660	103.1%	0.031	0.026	5.003
3	05:18:26	0.445	0.398	0.086	0.082	59.010	59.460	103.2%	0.046	0.035	5.150
x		0.441	0.484	0.087	0.089	59.270	59.440	101.7%	0.037	0.033	5.104
σ		0.042	0.075	0.016	0.007	0.721	0.760	2.4%	0.008	0.006	0.088
%RSD		9.505	15.410	18.640	7.871	1.216	1.278	2.4	21.250	18.880	1.719

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:17:31	4.833	4.951	96.1%
2	05:17:59	4.772	4.922	100.4%
3	05:18:26	4.829	4.948	101.4%
x		4.812	4.940	99.3%
σ		0.034	0.016	2.8%
%RSD		0.708	0.325	2.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	98.3%	0.089	17.230	17.060	106.500	T 15890.000	T 2482.000	2404.000	2372.000	TM 776.400
2	05:24:06	102.4%	0.109	17.550	16.810	91.610	T 15500.000	T 2447.000	2375.000	2350.000	TM 759.800
3	05:24:33	101.4%	0.095	17.480	17.430	97.910	T 15680.000	T 2453.000	2356.000	2395.000	TM 786.500
x		100.7%	0.098	17.420	17.100	98.670	T 15690.000	T 2461.000	2378.000	2372.000	TM 774.300
σ		2.1%	0.010	0.165	0.309	7.472	T 197.400	T 19.190	24.290	22.330	TM 13.480
%RSD		2.1	10.290	0.944	1.805	7.572	T 1.258	T 0.780	1.021	0.941	TM 1.740
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	T 3001.000	T 88080.000	T 2258.000	8592.000	8277.000	102.0%	1.735	0.222	0.743	1916.000
2	05:24:06	T 2954.000	T 85800.000	T 2212.000	8577.000	8178.000	105.1%	2.341	0.416	0.627	1690.000
3	05:24:33	T 3040.000	T 90530.000	T 2317.000	8595.000	8238.000	103.6%	1.845	0.335	0.708	2044.000
x		T 2998.000	T 88140.000	T 2262.000	8588.000	8231.000	103.6%	1.974	0.324	0.692	1883.000
σ		T 43.220	T 2366.000	T 52.600	9.657	50.070	1.5%	0.323	0.098	0.060	179.500
%RSD		T 1.441	T 2.685	T 2.325	0.113	0.608	1.5	16.370	30.070	8.597	9.530
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	1438.000	10.960	T 1496.000	1470.000	1.033	0.559	0.344	0.286	0.384	1.231
2	05:24:06	1427.000	11.020	T 1496.000	1455.000	0.929	0.580	-0.209	0.323	0.346	1.193
3	05:24:33	1428.000	11.100	T 1501.000	1460.000	1.030	0.583	0.805	0.301	0.348	1.277
x		1431.000	11.020	T 1498.000	1462.000	0.997	0.574	0.313	0.303	0.359	1.233
σ		5.872	0.072	T 2.810	7.425	0.059	0.013	0.508	0.018	0.021	0.042
%RSD		0.410	0.653	T 0.188	0.508	5.959	2.331	162.200	6.092	5.932	3.407
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	5.040	4.529	0.679	1.021	25.510	28.370	0.192	0.109	-2.076	25.890
2	05:24:06	4.840	4.210	0.509	0.716	24.110	26.650	0.231	-0.013	3.593	26.110
3	05:24:33	5.262	3.821	0.528	0.488	26.620	27.010	-1.275	-0.291	0.956	26.030
x		5.047	4.187	0.572	0.742	25.410	27.340	-0.284	-0.065	0.824	26.010
σ		0.211	0.354	0.093	0.267	1.261	0.911	0.859	0.205	2.837	0.111
%RSD		4.187	8.462	16.310	36.050	4.964	3.332	302.400	315.700	344.200	0.428
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	103.6%	0.017	0.022	0.007	0.076	0.001	0.001	0.005	0.009	99.7%
2	05:24:06	106.0%	0.009	0.004	0.010	1.299	-0.003	0.002	0.024	0.011	102.1%
3	05:24:33	103.8%	0.020	0.005	0.012	0.928	0.004	0.002	0.013	0.007	98.9%
x		104.5%	0.015	0.010	0.010	0.768	0.001	0.002	0.014	0.009	100.2%
σ		1.3%	0.006	0.010	0.003	0.627	0.003	0.000	0.009	0.002	1.7%
%RSD		1.3	39.180	99.680	26.410	81.640	419.500	24.480	67.460	23.660	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	0.313	0.370	0.077	0.098	67.640	68.140	99.1%	0.006	0.013	1.496
2	05:24:06	0.313	0.399	0.086	0.119	68.330	68.400	100.8%	0.009	0.012	1.497
3	05:24:33	0.270	0.402	0.078	0.082	68.610	68.040	98.6%	0.014	0.015	1.490
x		0.298	0.391	0.080	0.100	68.200	68.190	99.5%	0.010	0.013	1.494
σ		0.025	0.018	0.005	0.019	0.498	0.184	1.2%	0.004	0.001	0.003
%RSD		8.379	4.607	6.007	18.530	0.730	0.269	1.2	41.880	9.595	0.226
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:23:39	1.360	1.415	96.1%							
2	05:24:06	1.399	1.439	97.6%							
3	05:24:33	1.391	1.442	94.8%							
x		1.383	1.432	96.2%							
σ		0.021	0.015	1.4%							
%RSD		1.519	1.020	1.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	96.7%	0.069	10.890	10.400	109.300	T 15820.000	T 7608.000	T 7203.000	T 7132.000	TM 3253.000
2	05:30:13	98.1%	0.074	9.422	10.270	106.000	T 15810.000	T 7255.000	T 7092.000	T 7139.000	TM 3370.000
3	05:30:40	100.9%	0.065	9.772	10.130	99.490	T 15360.000	T 7269.000	T 7304.000	T 7283.000	TM 3435.000
x		98.6%	0.069	10.030	10.260	104.900	T 15660.000	T 7377.000	T 7200.000	T 7185.000	TM 3353.000
σ		2.1%	0.005	0.764	0.133	4.973	T 262.100	T 200.200	T 106.000	T 85.190	TM 92.170
%RSD		2.2	7.055	7.624	1.299	4.740	T 1.673	T 2.714	T 1.472	T 1.186	TM 2.749
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	T 4386.000	T 87400.000	T 3202.000	16460.000	15900.000	103.0%	11.250	2.655	2.469	1894.000
2	05:30:13	T 4333.000	T 87760.000	T 3240.000	16400.000	15770.000	102.4%	10.210	3.060	2.522	1652.000
3	05:30:40	T 4317.000	T 89040.000	T 3260.000	16080.000	15690.000	101.5%	10.760	2.880	2.428	2083.000
x		T 4345.000	T 88070.000	T 3234.000	16310.000	15790.000	102.3%	10.740	2.865	2.473	1877.000
σ		T 36.370	T 861.000	T 29.270	205.600	105.800	0.7%	0.518	0.203	0.047	215.900
%RSD		T 0.837	T 0.978	T 0.905	1.260	0.670	0.7	4.824	7.090	1.904	11.500
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	1478.000	28.410	T 1513.000	1555.000	1.097	1.015	0.486	0.520	0.455	1.214
2	05:30:13	1480.000	28.590	T 1527.000	1552.000	1.140	1.055	0.482	0.471	0.553	1.283
3	05:30:40	1492.000	29.190	T 1552.000	1597.000	1.163	1.059	0.920	0.429	0.573	1.284
x		1483.000	28.730	T 1530.000	1568.000	1.133	1.043	0.629	0.474	0.527	1.260
σ		7.636	0.412	T 19.910	25.440	0.034	0.024	0.252	0.046	0.063	0.040
%RSD		0.515	1.433	T 1.301	1.622	2.957	2.326	40.010	9.620	11.950	3.199
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	5.769	3.972	1.452	1.903	13.090	12.900	7.250	1.831	-3.346	62.490
2	05:30:13	5.635	4.599	1.461	2.031	12.770	13.460	5.697	1.367	-0.186	61.660
3	05:30:40	5.495	4.422	1.613	1.270	12.480	13.250	5.519	1.311	0.561	63.090
x		5.633	4.331	1.509	1.735	12.780	13.200	6.155	1.503	-0.991	62.410
σ		0.137	0.323	0.091	0.408	0.304	0.284	0.952	0.286	2.074	0.720
%RSD		2.433	7.457	5.998	23.480	2.381	2.150	15.470	19.000	209.400	1.153
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	104.8%	0.134	0.200	0.126	3.155	0.002	0.007	0.031	0.036	100.2%
2	05:30:13	106.2%	0.092	0.134	0.116	3.083	0.006	0.006	0.042	0.036	102.0%
3	05:30:40	104.0%	0.114	0.112	0.141	2.967	0.001	0.007	0.024	0.041	100.0%
x		105.0%	0.113	0.149	0.128	3.068	0.003	0.006	0.032	0.038	100.7%
σ		1.1%	0.021	0.046	0.012	0.095	0.003	0.001	0.009	0.003	1.1%
%RSD		1.1	18.350	30.890	9.595	3.090	95.900	9.321	28.570	7.495	1.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	0.332	0.436	0.055	0.056	74.740	74.180	100.8%	0.026	0.020	3.921
2	05:30:13	0.345	0.411	0.063	0.053	75.470	73.970	102.2%	0.026	0.020	3.888
3	05:30:40	0.299	0.442	0.059	0.066	74.970	75.200	99.4%	0.037	0.033	3.970
x		0.326	0.429	0.059	0.058	75.060	74.450	100.8%	0.030	0.024	3.926
σ		0.024	0.016	0.004	0.007	0.376	0.658	1.4%	0.006	0.008	0.041
%RSD		7.237	3.795	6.234	11.270	0.500	0.884	1.4	20.310	31.990	1.052
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:29:46	3.623	3.795	97.5%							
2	05:30:13	3.779	3.849	98.9%							
3	05:30:40	3.691	3.821	96.0%							
x		3.698	3.822	97.5%							
σ		0.078	0.027	1.4%							
%RSD		2.107	0.698	1.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	102.0%	0.041	12.950	12.370	91.760	T 6720.000	454.800	449.200	450.300	TM 1368.000
2	05:36:20	101.6%	0.047	11.820	12.620	101.500	T 6648.000	448.200	446.100	438.000	TM 1328.000
3	05:36:47	102.3%	0.024	12.610	12.840	103.400	T 7001.000	462.600	444.500	447.400	TM 1346.000
x		102.0%	0.037	12.460	12.610	98.880	T 6789.000	455.200	446.600	445.200	TM 1347.000
σ		0.4%	0.012	0.580	0.234	6.234	T 186.500	7.249	2.373	6.405	TM 20.130
%RSD		0.4	31.380	4.655	1.853	6.305	T 2.747	1.592	0.531	1.439	TM 1.494

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	T 3166.000	T 91370.000	T 998.900	1182.000	1134.000	102.9%	5.378	1.543	1.513	2087.000
2	05:36:20	T 3097.000	T 90570.000	T 990.700	1152.000	1138.000	102.4%	5.800	1.286	1.504	2148.000
3	05:36:47	T 3124.000	T 90390.000	962.200	1170.000	1156.000	101.4%	5.261	1.548	1.536	2021.000
x		T 3129.000	T 90780.000	T 984.000	1168.000	1143.000	102.2%	5.479	1.459	1.518	2085.000
σ		T 35.130	T 521.900	T 19.250	15.340	12.170	0.8%	0.284	0.150	0.017	63.360
%RSD		T 1.123	T 0.575	T 1.956	1.314	1.065	0.8	5.175	10.270	1.094	3.038

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	T 7072.000	5.387	T 7151.000	6703.000	0.420	0.517	0.524	1.298	1.348	2.637
2	05:36:20	T 7118.000	5.374	T 7024.000	6753.000	0.463	0.588	0.955	1.267	1.349	2.455
3	05:36:47	T 7076.000	5.677	T 7257.000	6891.000	0.445	0.557	0.485	1.383	1.332	2.623
x		T 7089.000	5.479	T 7144.000	6782.000	0.443	0.554	0.655	1.316	1.343	2.572
σ		T 25.680	0.172	T 116.500	97.760	0.022	0.036	0.261	0.060	0.010	0.101
%RSD		T 0.362	3.130	T 1.630	1.441	4.898	6.412	39.840	4.570	0.715	3.935

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	3.308	3.287	1.906	0.486	31.150	30.820	0.620	0.147	-0.642	7.987
2	05:36:20	3.314	3.371	1.873	0.085	32.410	31.390	2.745	0.549	2.735	7.965
3	05:36:47	3.528	3.151	1.896	0.459	32.990	32.100	-0.679	-0.124	-2.142	7.755
x		3.383	3.270	1.892	0.343	32.180	31.440	0.896	0.191	-0.016	7.902
σ		0.125	0.111	0.017	0.224	0.944	0.637	1.729	0.338	2.498	0.128
%RSD		3.702	3.397	0.884	65.160	2.933	2.025	193.000	177.400	15570.000	1.624

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	99.6%	0.144	0.082	0.128	0.141	-0.003	-0.001	0.005	0.014	98.4%
2	05:36:20	99.7%	0.119	0.171	0.162	0.308	0.003	0.001	0.008	0.002	98.8%
3	05:36:47	100.4%	0.137	0.108	0.135	-0.163	-0.004	0.001	0.005	0.021	99.2%
x		99.9%	0.133	0.121	0.142	0.096	-0.002	0.000	0.006	0.012	98.8%
σ		0.4%	0.013	0.046	0.018	0.239	0.004	0.001	0.002	0.010	0.4%
%RSD		0.4	9.825	38.110	12.540	249.500	222.400	447.400	37.020	80.710	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	0.337	0.442	0.127	0.164	15.810	16.110	96.9%	-0.008	-0.009	0.562
2	05:36:20	0.233	0.470	0.133	0.172	15.960	15.410	98.4%	-0.013	-0.009	0.588
3	05:36:47	0.373	0.423	0.163	0.175	15.970	15.550	98.9%	-0.004	-0.005	0.510
x		0.314	0.445	0.141	0.170	15.920	15.690	98.1%	-0.008	-0.008	0.553
σ		0.073	0.024	0.019	0.006	0.089	0.368	1.0%	0.005	0.003	0.040
%RSD		23.260	5.391	13.550	3.324	0.562	2.347	1.0	54.290	32.240	7.242

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:35:53	0.554	0.543	94.7%
2	05:36:20	0.502	0.550	96.1%
3	05:36:47	0.530	0.531	97.6%
x		0.529	0.541	96.1%
σ		0.026	0.009	1.4%
%RSD		4.966	1.730	1.5

UD18035-005 05/01/2019 05:41:33

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	105.3%	0.124	14.130	14.890	92.420	T 22610.000	T 1542.000	1483.000	1492.000	225.200
2	05:42:27	100.8%	0.106	14.800	15.130	103.800	T 22910.000	T 1552.000	1489.000	1493.000	217.600
3	05:42:54	97.7%	0.095	15.630	15.950	105.300	T 23370.000	T 1532.000	1466.000	1504.000	219.300
x		101.3%	0.108	14.850	15.320	100.500	T 22960.000	T 1542.000	1479.000	1496.000	220.700
σ		3.8%	0.015	0.751	0.555	7.040	T 385.500	T 9.989	12.330	6.858	3.993
%RSD		3.8	13.700	5.060	3.620	7.005	T 1.679	T 0.648	0.833	0.458	1.809

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	T 2340.000	T 87810.000	T 1987.000	7663.000	7314.000	101.8%	0.530	0.238	0.544	1921.000
2	05:42:27	T 2335.000	T 85890.000	T 1968.000	7467.000	7320.000	101.8%	0.530	0.377	0.500	1662.000
3	05:42:54	T 2461.000	T 86520.000	T 1996.000	7580.000	7196.000	103.5%	0.519	0.431	0.531	1658.000
x		T 2379.000	T 86740.000	T 1983.000	7570.000	7277.000	102.4%	0.527	0.349	0.525	1747.000
σ		T 71.170	T 978.800	T 14.440	98.730	70.120	1.0%	0.006	0.100	0.023	150.600
%RSD		T 2.992	T 1.128	T 0.728	1.304	0.964	1.0	1.181	28.670	4.343	8.620

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	3132.000	24.520	T 3167.000	3097.000	0.871	0.437	0.516	0.374	0.454	1.624
2	05:42:27	3140.000	24.500	T 3171.000	3078.000	0.859	0.386	-0.326	0.391	0.372	1.569
3	05:42:54	3092.000	24.420	T 3185.000	3045.000	0.872	0.384	-0.285	0.394	0.324	1.460
x		3121.000	24.480	T 3174.000	3073.000	0.867	0.402	-0.032	0.386	0.383	1.551
σ		26.030	0.056	T 9.630	26.050	0.007	0.030	0.475	0.011	0.066	0.084
%RSD		0.834	0.229	T 0.303	0.848	0.860	7.506	1490.000	2.737	17.270	5.389

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	6.995	5.957	0.065	0.451	30.750	32.930	-1.394	-0.364	1.921	19.480
2	05:42:27	6.997	5.600	-0.104	-0.282	32.100	32.720	-2.226	-0.519	-0.353	19.440
3	05:42:54	6.332	5.474	0.231	0.150	28.770	32.370	-0.370	-0.078	-0.201	19.220
x		6.775	5.677	0.064	0.106	30.540	32.670	-1.330	-0.320	0.456	19.380
σ		0.383	0.250	0.167	0.368	1.671	0.283	0.930	0.224	1.271	0.137
%RSD		5.659	4.405	260.400	346.800	5.472	0.867	69.900	69.950	278.900	0.708

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	102.1%	0.010	0.023	0.001	0.003	-0.001	-0.002	0.009	0.015	98.8%
2	05:42:27	102.1%	0.007	0.018	0.011	1.058	-0.002	-0.001	0.024	0.022	100.5%
3	05:42:54	106.2%	0.014	0.016	0.011	1.133	-0.004	-0.000	0.016	0.012	102.6%
x		103.5%	0.010	0.019	0.008	0.731	-0.002	-0.001	0.016	0.016	100.6%
σ		2.4%	0.003	0.003	0.006	0.632	0.002	0.001	0.008	0.005	1.9%
%RSD		2.3	33.800	16.620	75.780	86.410	78.750	71.090	46.080	31.370	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	0.264	0.395	0.065	0.065	100.700	101.700	98.2%	0.007	0.007	1.046
2	05:42:27	0.237	0.415	0.069	0.084	101.400	102.500	100.5%	0.009	0.019	1.120
3	05:42:54	0.251	0.411	0.077	0.068	102.800	102.200	102.5%	0.002	0.007	1.023
x		0.251	0.407	0.071	0.072	101.600	102.100	100.4%	0.006	0.011	1.063
σ		0.014	0.011	0.006	0.010	1.071	0.411	2.2%	0.003	0.007	0.051
%RSD		5.414	2.580	8.495	14.500	1.054	0.403	2.2	57.110	62.090	4.794

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:42:00	1.051	1.046	93.8%
2	05:42:27	1.076	1.070	98.4%
3	05:42:54	1.063	1.050	99.5%
x		1.063	1.055	97.2%
σ		0.012	0.013	3.0%
%RSD		1.134	1.205	3.1

CCV MW10994 05/01/2019 05:47:41 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	91.8%	323.300	324.300	309.100	74.260	T 70380.000	T 66530.000	T 65960.000	T 65720.000	300.800
2	05:48:34	91.8%	325.200	322.600	314.200	74.890	T 71020.000	T 67350.000	T 65570.000	T 65390.000	301.900
3	05:49:01	93.1%	325.000	330.900	317.900	74.660	T 71440.000	T 67530.000	T 67180.000	T 66350.000	308.300
x		92.2%	108.157%	108.649%	104.570%	74.600	T 118.240%	T 67140.000	T 66230.000	T 109.697%	101.229%
σ		0.8%	n/a	n/a	n/a	0.317	T n/a	T 531.200	T 843.200	T n/a	n/a
%RSD		0.8	0.325	1.343	1.414	0.425	T 0.753	T 0.791	T 1.273	T 0.739	1.332

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	T 3494.000	965.600	T 67900.000	65290.000	T 66500.000	99.4%	314.400	320.800	303.900	1208.000
2	05:48:34	T 3539.000	956.500	T 68150.000	65360.000	T 67850.000	97.1%	321.000	329.000	308.500	1354.000
3	05:49:01	T 3557.000	926.800	T 69250.000	64980.000	T 67070.000	97.9%	319.900	324.900	308.800	286.200
x		T 117.663%	949.600	T 114.057%	65210.000	T 111.902%	98.2%	106.147%	108.299%	102.346%	949.500
σ		T n/a	20.320	T n/a	203.700	T n/a	1.2%	n/a	n/a	n/a	579.100
%RSD		T 0.907	2.140	T 1.049	0.312	T 1.005	1.2	1.105	1.270	0.898	60.990

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	T 64830.000	296.900	T 64690.000	T 62460.000	299.400	289.600	292.400	296.900	302.900	312.400
2	05:48:34	T 65400.000	300.200	T 66600.000	T 65090.000	301.500	299.000	302.200	298.600	301.500	308.400
3	05:49:01	T 65150.000	299.400	T 65410.000	T 64520.000	304.100	293.400	298.100	295.700	304.400	311.200
x		T 65130.000	99.609%	T 65570.000	T 106.708%	100.556%	98.004%	297.600	297.100	100.978%	103.554%
σ		T 282.700	n/a	T 966.800	T n/a	n/a	n/a	4.908	1.470	n/a	n/a
%RSD		T 0.434	0.577	T 1.475	T 2.161	0.791	1.612	1.650	0.495	0.488	0.651

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	294.900	299.700	298.600	314.800	2.431	1.560	1302.000	303.600	-0.296	309.200
2	05:48:34	300.300	307.800	308.900	306.800	2.021	1.908	1349.000	310.800	1.241	313.300
3	05:49:01	298.700	299.600	304.300	317.200	2.116	2.880	1347.000	315.700	1.199	311.800
x		298.000	302.400	101.311%	312.900	2.190	2.116	1333.000	103.341%	0.715	103.802%
σ		2.748	4.682	n/a	5.460	0.214	0.684	26.360	n/a	0.876	n/a
%RSD		0.922	1.548	1.708	1.745	9.794	32.340	1.978	1.964	122.500	0.670

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	94.4%	327.900	326.800	326.200	314.600	303.500	303.600	311.000	312.700	92.4%
2	05:48:34	95.0%	329.800	330.500	329.100	312.500	304.900	305.100	314.300	313.900	93.6%
3	05:49:01	95.4%	326.000	325.400	326.500	321.600	306.500	305.000	313.900	311.400	92.5%
x		94.9%	109.295%	109.192%	327.300	316.200	101.654%	304.600	313.100	104.220%	92.8%
σ		0.5%	n/a	n/a	1.619	4.767	n/a	0.830	1.820	n/a	0.7%
%RSD		0.5	0.576	0.810	0.495	1.507	0.489	0.273	0.581	0.404	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	325.200	321.300	326.600	319.200	318.300	319.100	95.2%	307.100	313.300	305.000
2	05:48:34	322.700	321.500	330.200	325.300	320.500	319.900	96.2%	308.500	313.600	305.100
3	05:49:01	323.400	321.700	323.700	322.100	319.000	322.300	94.1%	312.900	317.200	309.400
x		107.918%	107.164%	326.900	107.396%	106.429%	106.813%	95.2%	309.500	104.901%	102.161%
σ		n/a	n/a	3.249	n/a	n/a	n/a	1.0%	3.013	n/a	n/a
%RSD		0.399	0.068	0.994	0.946	0.341	0.524	1.1	0.974	0.695	0.811

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:48:07	304.700	307.200	90.6%
2	05:48:34	305.200	307.600	90.8%
3	05:49:01	309.300	311.500	90.1%
x		102.126%	102.919%	90.5%
σ		n/a	n/a	0.4%
%RSD		0.823	0.786	0.4

CCB IM9390-01 05/01/2019 05:53:49 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	102.9%	0.011	1.765	1.826	52.650	5.661	1.803	1.608	1.738	0.000
2	05:54:43	100.0%	-0.008	1.854	1.661	59.290	3.052	1.341	1.395	1.565	0.012
3	05:55:10	98.7%	0.012	1.767	1.621	46.650	1.814	1.041	0.777	0.950	-0.062
x		100.5%	0.005	1.796	1.702	52.860	3.509	1.395	1.260	1.418	-0.017
σ		2.1%	0.011	0.051	0.109	6.324	1.964	0.384	0.432	0.414	0.040
%RSD		2.1	215.100	2.832	6.393	11.960	55.960	27.490	34.280	29.220	237.300

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	16.580	553.600	11.330	5.381	2.472	100.7%	-0.032	-0.023	0.046	55.130
2	05:54:43	16.340	517.100	8.444	2.852	1.198	101.4%	-0.057	-0.002	0.010	38.070
3	05:55:10	16.700	494.900	8.608	1.567	0.421	102.4%	-0.046	0.035	0.143	-3.194
x		16.540	521.900	9.461	3.267	1.364	101.5%	-0.045	0.003	0.067	30.000
σ		0.185	29.640	1.622	1.940	1.036	0.8%	0.012	0.029	0.068	29.990
%RSD		1.121	5.679	17.140	59.400	75.940	0.8	26.940	893.700	102.900	99.950

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	2.323	0.038	10.850	-1.408	0.025	0.017	-0.378	-0.014	-0.011	-0.033
2	05:54:43	1.481	0.025	7.924	-5.173	0.013	0.028	-0.191	0.002	0.029	0.014
3	05:55:10	0.454	0.007	6.960	-11.030	0.021	0.002	-0.483	0.005	-0.019	-0.010
x		1.420	0.023	8.579	-5.870	0.020	0.016	-0.351	-0.002	-0.000	-0.010
σ		0.936	0.016	2.028	4.847	0.006	0.013	0.148	0.010	0.026	0.024
%RSD		65.940	67.330	23.640	82.580	31.100	83.980	42.130	490.900	17180.000	243.800

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	-0.038	0.077	0.008	0.284	1.034	2.011	0.310	0.109	-0.961	0.008
2	05:54:43	0.144	0.049	-0.081	0.138	0.768	1.317	-2.157	-0.418	-3.189	0.003
3	05:55:10	-0.018	0.053	-0.063	-0.254	0.929	1.246	-3.052	-0.642	-2.411	0.007
x		0.029	0.060	-0.045	0.056	0.911	1.525	-1.633	-0.317	-2.187	0.006
σ		0.100	0.015	0.047	0.278	0.134	0.423	1.741	0.386	1.131	0.003
%RSD		341.500	25.850	103.500	497.000	14.680	27.760	106.600	121.800	51.690	43.090

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	98.1%	0.070	0.034	0.045	0.157	0.010	0.011	0.005	0.016	97.1%
2	05:54:43	100.2%	0.040	0.068	0.045	0.533	-0.002	0.011	0.009	0.009	100.4%
3	05:55:10	101.7%	0.031	0.045	0.077	-0.080	0.006	0.007	0.008	0.001	102.4%
x		100.0%	0.047	0.049	0.056	0.203	0.005	0.009	0.007	0.009	100.0%
σ		1.8%	0.020	0.017	0.019	0.309	0.006	0.003	0.002	0.008	2.7%
%RSD		1.8	43.050	35.640	33.090	152.300	123.000	26.670	26.720	90.820	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	0.051	0.056	0.105	0.129	0.021	0.021	95.4%	-0.008	-0.004	0.023
2	05:54:43	0.031	0.051	0.141	0.122	0.031	0.023	98.2%	-0.017	0.000	-0.002
3	05:55:10	0.006	0.076	0.106	0.144	0.002	0.006	100.6%	-0.008	0.002	0.011
x		0.029	0.061	0.117	0.132	0.018	0.017	98.1%	-0.011	-0.001	0.011
σ		0.022	0.013	0.020	0.011	0.015	0.009	2.6%	0.005	0.003	0.013
%RSD		75.460	21.690	17.420	8.684	82.400	55.310	2.6	48.000	564.500	114.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:54:16	0.018	0.016	96.0%
2	05:54:43	0.009	0.006	99.1%
3	05:55:10	0.017	0.008	100.6%
x		0.015	0.010	98.6%
σ		0.005	0.006	2.3%
%RSD		31.380	55.470	2.4

UD18035-006 05/01/2019 05:59:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	103.2%	0.178	15.240	16.250	83.600	T 12150.000	T 4605.000	T 4529.000	T 4503.000	TM 6014.000
2	06:00:51	100.6%	0.147	15.340	14.840	79.530	T 12140.000	T 4647.000	T 4542.000	T 4436.000	TM 5960.000
3	06:01:18	99.8%	0.180	14.640	15.550	77.300	T 12290.000	T 4542.000	4494.000	T 4441.000	TM 5614.000
x		101.2%	0.168	15.070	15.550	80.140	T 12190.000	T 4598.000	T 4522.000	T 4460.000	TM 5863.000
σ		1.8%	0.018	0.375	0.701	3.190	T 80.920	T 52.980	T 24.790	T 37.320	TM 216.800
%RSD		1.7	10.860	2.489	4.509	3.980	T 0.664	T 1.152	T 0.548	T 0.837	TM 3.697

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	T 6293.000	T 86270.000	T 3336.000	18020.000	T 17990.000	102.2%	13.830	2.941	2.926	1976.000
2	06:00:51	T 6346.000	T 84730.000	T 3280.000	18020.000	17410.000	101.4%	13.680	2.922	2.962	1904.000
3	06:01:18	T 6137.000	T 83420.000	T 3238.000	17590.000	17060.000	102.9%	13.000	3.040	2.839	1660.000
x		T 6258.000	T 84810.000	T 3285.000	17880.000	T 17490.000	102.2%	13.510	2.968	2.909	1846.000
σ		T 108.500	T 1424.000	T 49.050	248.500	T 469.700	0.8%	0.441	0.064	0.063	165.300
%RSD		T 1.734	T 1.680	T 1.493	1.390	T 2.686	0.7	3.263	2.142	2.180	8.953

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	957.300	17.160	T 979.600	1114.000	1.799	1.916	1.440	0.723	0.939	2.112
2	06:00:51	976.200	17.440	T 986.400	1095.000	1.806	1.901	1.256	0.709	0.926	1.761
3	06:01:18	952.900	17.380	T 992.700	1084.000	1.828	1.694	1.014	0.727	0.863	1.902
x		962.100	17.320	T 986.200	1098.000	1.811	1.837	1.237	0.720	0.909	1.925
σ		12.390	0.150	T 6.508	14.980	0.015	0.124	0.214	0.009	0.041	0.177
%RSD		1.287	0.863	T 0.660	1.365	0.818	6.743	17.270	1.292	4.495	9.182

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	10.880	8.054	0.479	0.429	19.960	20.600	2.942	0.835	0.898	44.370
2	06:00:51	10.420	8.149	0.239	0.821	19.050	20.760	1.983	0.633	-1.772	44.160
3	06:01:18	10.480	8.778	0.598	0.146	19.740	19.330	0.295	0.197	-0.920	44.220
x		10.590	8.327	0.438	0.465	19.580	20.230	1.740	0.555	-0.598	44.250
σ		0.249	0.393	0.183	0.339	0.479	0.784	1.340	0.326	1.364	0.108
%RSD		2.354	4.722	41.720	72.830	2.444	3.874	77.010	58.750	228.100	0.245

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	108.0%	0.108	0.090	0.121	3.315	0.005	0.006	0.036	0.016	96.4%
2	06:00:51	110.6%	0.133	0.115	0.111	2.601	0.005	0.008	0.035	0.034	99.7%
3	06:01:18	112.7%	0.108	0.097	0.130	3.074	0.002	0.011	0.034	0.024	101.5%
x		110.4%	0.116	0.101	0.121	2.997	0.004	0.008	0.035	0.024	99.2%
σ		2.4%	0.014	0.013	0.010	0.363	0.001	0.002	0.001	0.009	2.5%
%RSD		2.1	12.450	13.020	8.034	12.110	35.710	29.800	2.788	36.800	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	0.343	0.461	0.157	0.177	172.500	171.100	95.8%	0.036	0.029	3.543
2	06:00:51	0.393	0.476	0.135	0.159	171.000	169.800	99.7%	0.037	0.031	3.411
3	06:01:18	0.320	0.438	0.169	0.163	168.700	171.300	100.4%	0.032	0.031	3.429
x		0.352	0.458	0.153	0.167	170.700	170.700	98.6%	0.035	0.030	3.461
σ		0.037	0.019	0.017	0.009	1.877	0.831	2.5%	0.002	0.001	0.072
%RSD		10.600	4.218	11.170	5.600	1.099	0.487	2.5	6.663	3.247	2.073

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:00:24	3.283	3.325	92.2%
2	06:00:51	3.407	3.315	95.0%
3	06:01:18	3.296	3.325	96.8%
x		3.328	3.322	94.7%
σ		0.068	0.006	2.3%
%RSD		2.044	0.186	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	102.1%	0.186	9.260	9.996	67.190	T 9525.000	T 8567.000	T 8585.000	T 8662.000	TM 9480.000
2	06:06:57	97.8%	0.188	9.302	10.100	75.860	T 10010.000	T 8788.000	T 8608.000	T 8691.000	TM 9518.000
3	06:07:24	102.5%	0.271	9.355	9.826	69.650	T 9833.000	T 8727.000	T 8746.000	T 8653.000	TM 9448.000
x		100.8%	0.215	9.306	9.973	70.900	T 9789.000	T 8694.000	T 8647.000	T 8668.000	TM 9482.000
σ		2.6%	0.048	0.048	0.137	4.471	T 244.900	T 114.000	T 87.140	T 19.700	TM 35.240
%RSD		2.6	22.510	0.512	1.368	6.306	T 2.502	T 1.312	T 1.008	T 0.227	TM 0.372
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	T 9096.000	T 87380.000	T 4171.000	16840.000	T 17150.000	103.3%	20.510	3.428	4.437	2266.000
2	06:06:57	T 9326.000	T 86820.000	T 4113.000	16930.000	16410.000	102.5%	20.690	3.961	4.580	1825.000
3	06:07:24	T 9005.000	T 88430.000	T 4101.000	16820.000	16440.000	102.1%	20.560	3.855	4.560	2035.000
x		T 9142.000	T 87540.000	T 4128.000	16860.000	T 16670.000	102.6%	20.590	3.748	4.525	2042.000
σ		T 165.200	T 819.200	T 37.170	53.910	T 422.300	0.6%	0.094	0.282	0.077	220.700
%RSD		T 1.807	T 0.936	T 0.900	0.320	T 2.534	0.6	0.457	7.522	1.711	10.810
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	1142.000	53.480	T 1172.000	1258.000	2.200	2.444	2.029	1.448	1.680	4.774
2	06:06:57	1136.000	53.330	T 1178.000	1223.000	2.234	2.331	1.539	1.418	1.505	4.966
3	06:07:24	1144.000	52.710	T 1186.000	1277.000	2.194	2.383	1.900	1.494	1.673	5.073
x		1141.000	53.170	T 1179.000	1253.000	2.210	2.386	1.822	1.453	1.619	4.938
σ		4.086	0.410	T 7.279	27.080	0.022	0.057	0.254	0.039	0.099	0.151
%RSD		0.358	0.770	T 0.618	2.161	0.974	2.372	13.930	2.656	6.114	3.066
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	11.440	10.020	0.420	0.698	10.720	10.510	2.021	0.676	-1.217	97.170
2	06:06:57	12.570	10.100	0.342	0.960	10.200	10.230	0.253	0.162	0.194	96.020
3	06:07:24	11.070	10.190	0.369	0.478	10.420	9.685	-0.015	0.105	0.141	96.520
x		11.690	10.100	0.377	0.712	10.450	10.140	0.753	0.314	-0.294	96.570
σ		0.782	0.083	0.040	0.241	0.263	0.418	1.106	0.314	0.800	0.577
%RSD		6.685	0.826	10.490	33.900	2.521	4.127	147.000	100.100	272.100	0.598
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	106.6%	0.147	0.096	0.163	6.451	0.006	0.016	0.056	0.056	95.3%
2	06:06:57	109.9%	0.142	0.185	0.147	4.423	0.014	0.011	0.077	0.062	99.8%
3	06:07:24	107.5%	0.140	0.145	0.149	4.676	0.018	0.020	0.090	0.059	97.4%
x		108.0%	0.143	0.142	0.153	5.183	0.013	0.016	0.075	0.059	97.5%
σ		1.7%	0.004	0.045	0.009	1.105	0.006	0.004	0.017	0.003	2.2%
%RSD		1.6	2.631	31.630	5.739	21.330	46.790	27.130	23.000	5.483	2.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	0.440	0.495	0.137	0.098	149.500	147.900	96.8%	0.036	0.040	5.650
2	06:06:57	0.369	0.501	0.114	0.140	149.800	149.300	99.5%	0.040	0.035	5.652
3	06:07:24	0.381	0.512	0.118	0.124	151.500	149.900	96.9%	0.026	0.028	5.757
x		0.397	0.503	0.123	0.121	150.300	149.000	97.7%	0.034	0.034	5.686
σ		0.038	0.009	0.012	0.022	1.089	1.021	1.5%	0.007	0.006	0.061
%RSD		9.607	1.763	10.150	17.840	0.725	0.685	1.6	21.070	17.720	1.071
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:06:30	5.528	5.544	92.3%							
2	06:06:57	5.446	5.549	96.0%							
3	06:07:24	5.462	5.588	93.4%							
x		5.479	5.560	93.9%							
σ		0.044	0.024	1.9%							
%RSD		0.798	0.435	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	103.0%	0.114	11.210	11.290	75.920	T 4229.000	T 718.800	691.000	702.300	TM 1839.000
2	06:13:04	103.1%	0.082	11.140	11.780	79.400	T 4309.000	T 728.100	693.200	687.600	TM 1840.000
3	06:13:31	100.3%	0.045	11.590	12.080	81.660	T 4272.000	T 703.300	689.600	691.900	TM 1772.000
x		102.1%	0.081	11.310	11.720	78.990	T 4270.000	T 716.700	691.200	693.900	TM 1817.000
σ		1.6%	0.035	0.245	0.400	2.889	T 39.900	T 12.540	1.826	7.585	TM 39.180
%RSD		1.5	42.880	2.167	3.413	3.657	T 0.935	T 1.749	0.264	1.093	TM 2.156

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	T 4035.000	T 86340.000	452.500	443.900	468.500	102.7%	4.922	2.810	1.532	1894.000
2	06:13:04	T 4085.000	T 88750.000	459.300	454.500	455.100	100.4%	4.361	2.861	1.482	2107.000
3	06:13:31	T 4166.000	T 87190.000	438.600	400.500	444.500	103.1%	4.428	3.096	1.463	1703.000
x		T 4095.000	T 87430.000	450.100	433.000	456.000	102.1%	4.570	2.922	1.492	1901.000
σ		T 65.880	T 1220.000	10.540	28.570	12.020	1.5%	0.306	0.153	0.036	202.200
%RSD		T 1.609	T 1.396	2.341	6.598	2.635	1.4	6.695	5.228	2.382	10.640

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	578.000	6.488	T 598.100	538.800	0.277	1.000	1.387	0.620	0.585	6.304
2	06:13:04	578.300	6.844	T 612.200	551.700	0.299	1.068	1.159	0.611	0.649	6.141
3	06:13:31	557.100	6.503	T 596.500	527.700	0.277	1.087	0.945	0.582	0.708	6.132
x		571.100	6.612	T 602.300	539.400	0.284	1.052	1.164	0.604	0.647	6.192
σ		12.160	0.201	T 8.632	12.000	0.013	0.046	0.221	0.020	0.062	0.097
%RSD		2.129	3.042	T 1.433	2.225	4.417	4.340	19.000	3.288	9.518	1.568

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	9.018	8.035	0.434	0.546	12.070	12.990	-0.527	-0.050	-1.982	5.958
2	06:13:04	7.929	8.147	0.532	0.463	13.480	13.390	2.279	0.524	-0.257	5.996
3	06:13:31	8.249	8.010	0.211	-0.098	12.430	11.790	-0.380	-0.115	1.468	6.031
x		8.399	8.064	0.392	0.303	12.660	12.720	0.457	0.120	-0.257	5.995
σ		0.560	0.073	0.165	0.350	0.728	0.834	1.579	0.352	1.725	0.036
%RSD		6.661	0.905	41.990	115.300	5.750	6.558	345.300	293.600	671.000	0.605

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	101.3%	0.136	0.151	0.152	-0.109	0.002	0.009	0.008	0.022	98.4%
2	06:13:04	100.7%	0.205	0.218	0.189	-0.401	0.004	0.001	0.000	0.008	99.6%
3	06:13:31	102.5%	0.131	0.201	0.191	-0.403	-0.000	0.004	0.012	0.009	101.0%
x		101.5%	0.158	0.190	0.177	-0.304	0.002	0.005	0.007	0.013	99.7%
σ		0.9%	0.041	0.035	0.022	0.169	0.002	0.004	0.006	0.008	1.3%
%RSD		0.9	26.270	18.460	12.330	55.670	110.100	77.330	84.650	62.250	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	0.314	0.497	0.126	0.113	44.260	44.730	99.1%	0.001	-0.010	1.339
2	06:13:04	0.317	0.466	0.105	0.105	45.330	45.750	99.3%	-0.002	-0.010	1.341
3	06:13:31	0.331	0.490	0.108	0.084	43.750	44.640	100.2%	-0.008	-0.001	1.365
x		0.321	0.484	0.113	0.101	44.450	45.040	99.5%	-0.003	-0.007	1.348
σ		0.009	0.016	0.011	0.015	0.806	0.617	0.6%	0.005	0.005	0.015
%RSD		2.756	3.308	9.945	14.940	1.813	1.370	0.6	147.000	73.490	1.092

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:12:38	1.322	1.318	96.8%
2	06:13:04	1.299	1.323	96.7%
3	06:13:31	1.344	1.324	99.3%
x		1.322	1.322	97.6%
σ		0.023	0.004	1.5%
%RSD		1.711	0.265	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	87.5%	-0.005	M 1222.000	TM 1390.000	762.500	TM 313200.000	T 9072.000	T 9278.000	T 9243.000	338.000
2	06:19:13	88.7%	0.007	M 1223.000	TM 1400.000	760.900	TM 318100.000	T 9157.000	T 9167.000	T 9332.000	336.300
3	06:19:40	91.0%	-0.002	M 1257.000	TM 1421.000	752.200	TM 320600.000	T 9171.000	T 9225.000	T 9419.000	348.400
x		89.1%	-0.000	M 1234.000	TM 1404.000	758.500	TM 317300.000	T 9134.000	T 9224.000	T 9331.000	340.900
σ		1.8%	0.006	M 19.700	TM 15.550	5.540	TM 3729.000	T 53.620	T 55.420	T 88.210	6.589
%RSD		2.0	4312.000	M 1.597	TM 1.108	0.730	TM 1.175	T 0.587	T 0.601	T 0.945	1.933
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	T 5204.000	T 29490.000	TM 113800.000	18530.000	18480.000	96.5%	101.900	19.750	81.120	818.000
2	06:19:13	T 5257.000	T 30580.000	TM 118100.000	18850.000	18670.000	96.7%	101.000	19.530	80.610	1089.000
3	06:19:40	T 5152.000	T 30510.000	TM 117700.000	19160.000	T 20350.000	96.2%	98.990	20.010	82.140	1001.000
x		T 5204.000	T 30190.000	TM 116500.000	18850.000	T 19170.000	96.5%	100.600	19.760	81.290	969.400
σ		T 52.530	T 610.400	TM 2392.000	315.300	T 1025.000	0.3%	1.497	0.240	0.780	138.300
%RSD		T 1.009	T 2.022	TM 2.053	1.673	T 5.350	0.3	1.487	1.214	0.959	14.270
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	1617.000	160.600	T 1642.000	1664.000	13.300	155.100	155.900	6.544	6.153	45.300
2	06:19:13	1614.000	161.100	T 1648.000	1680.000	13.280	152.300	156.700	6.622	6.296	44.770
3	06:19:40	1627.000	162.200	T 1660.000	1717.000	13.700	156.400	157.900	6.578	6.147	44.210
x		1619.000	161.300	T 1650.000	1687.000	13.430	154.600	156.800	6.581	6.199	44.760
σ		6.494	0.835	T 8.983	27.260	0.238	2.115	0.967	0.039	0.084	0.544
%RSD		0.401	0.517	T 0.544	1.615	1.771	1.368	0.617	0.591	1.363	1.217
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	42.540	44.940	21.640	0.982	14670.000	14850.000	119.300	12.020	0.441	195.600
2	06:19:13	43.200	45.100	21.160	1.472	14660.000	14950.000	128.100	14.150	0.262	195.200
3	06:19:40	43.310	43.960	21.060	1.287	14800.000	15040.000	118.800	11.730	-0.123	194.100
x		43.020	44.670	21.290	1.247	14710.000	14950.000	122.100	12.630	0.194	195.000
σ		0.415	0.621	0.311	0.247	76.220	94.300	5.222	1.319	0.288	0.763
%RSD		0.965	1.389	1.462	19.850	0.518	0.631	4.279	10.440	149.000	0.391
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	97.0%	6.270	6.163	6.085	20.790	0.109	0.039	0.148	0.128	90.4%
2	06:19:13	96.4%	6.239	6.151	6.062	21.350	0.099	0.033	0.222	0.126	89.4%
3	06:19:40	99.1%	6.325	5.914	5.867	24.530	0.107	0.039	0.199	0.097	92.0%
x		97.5%	6.278	6.076	6.005	22.220	0.105	0.037	0.190	0.117	90.6%
σ		1.4%	0.044	0.140	0.120	2.018	0.005	0.003	0.038	0.017	1.3%
%RSD		1.5	0.696	2.309	1.990	9.078	5.095	8.714	20.120	14.810	1.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	23.080	31.690	6.281	6.186	85.430	85.100	93.8%	-0.012	-0.012	4.854
2	06:19:13	22.220	31.790	6.128	5.962	84.690	84.730	93.2%	-0.011	-0.016	4.859
3	06:19:40	22.850	32.000	6.248	5.964	82.870	84.800	96.9%	-0.006	-0.007	4.678
x		22.720	31.830	6.219	6.038	84.330	84.880	94.7%	-0.009	-0.011	4.797
σ		0.447	0.159	0.081	0.129	1.314	0.196	2.0%	0.003	0.005	0.103
%RSD		1.966	0.501	1.297	2.133	1.559	0.231	2.1	33.390	39.680	2.149
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:18:45	4.505	4.628	85.8%							
2	06:19:13	4.395	4.552	84.3%							
3	06:19:40	4.601	4.616	87.4%							
x		4.500	4.599	85.8%							
σ		0.103	0.041	1.6%							
%RSD		2.280	0.882	1.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	93.1%	0.004	M 577.100	M 574.300	430.400	TM 217400.000	T 10170.000	T 9804.000	T 9816.000	TM 586.100
2	06:25:21	95.0%	-0.020	M 559.200	M 548.500	419.300	TM 214200.000	T 10030.000	T 9954.000	T 9941.000	TM 578.600
3	06:25:48	97.9%	0.008	M 560.900	M 540.700	396.900	TM 211000.000	T 9999.000	T 10010.000	T 10150.000	TM 604.600
x		95.3%	-0.003	M 565.800	M 554.500	415.500	TM 214200.000	T 10070.000	T 9922.000	T 9968.000	TM 589.800
σ		2.4%	0.015	M 9.866	M 17.580	17.040	TM 3189.000	T 91.620	T 106.200	T 168.000	TM 13.380
%RSD		2.6	527.900	M 1.744	M 3.170	4.101	TM 1.489	T 0.910	T 1.070	T 1.686	TM 2.268

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	T 1904.000	T 26220.000	T 57520.000	16910.000	16260.000	102.3%	2.865	0.530	13.130	512.800
2	06:25:21	T 1833.000	T 25990.000	T 56370.000	16530.000	16290.000	102.1%	2.096	0.606	12.880	446.000
3	06:25:48	T 1839.000	T 26910.000	T 57820.000	16930.000	16400.000	100.7%	2.710	0.603	12.970	584.400
x		T 1859.000	T 26380.000	T 57240.000	16790.000	16320.000	101.7%	2.557	0.580	12.990	514.400
σ		T 39.350	T 477.700	T 763.200	225.900	70.610	0.9%	0.407	0.043	0.130	69.250
%RSD		T 2.117	T 1.811	T 1.333	1.345	0.433	0.9	15.900	7.400	0.999	13.460

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	583.300	109.400	T 617.000	702.700	6.561	19.230	18.680	0.843	0.359	132.300
2	06:25:21	581.200	110.100	T 613.500	707.600	6.624	18.490	18.570	0.794	0.382	131.000
3	06:25:48	582.400	110.100	T 622.900	743.700	6.814	19.440	18.570	0.780	0.416	129.500
x		582.300	109.900	T 617.800	718.000	6.666	19.050	18.610	0.806	0.386	130.900
σ		1.021	0.391	T 4.774	22.400	0.132	0.498	0.062	0.033	0.028	1.405
%RSD		0.175	0.356	T 0.773	3.120	1.978	2.615	0.332	4.092	7.372	1.073

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	117.000	123.500	7.065	0.627	788.000	798.500	6.481	0.737	-0.690	50.580
2	06:25:21	117.400	123.500	6.906	0.419	794.300	790.100	5.666	0.538	-0.374	49.990
3	06:25:48	116.600	124.300	6.537	0.305	787.800	790.400	7.450	0.965	-0.633	50.410
x		117.000	123.800	6.836	0.450	790.000	793.000	6.532	0.747	-0.566	50.320
σ		0.363	0.490	0.271	0.163	3.673	4.764	0.893	0.214	0.168	0.303
%RSD		0.311	0.396	3.964	36.270	0.465	0.601	13.670	28.630	29.750	0.603

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	100.6%	1.690	1.689	1.542	2.356	0.013	-0.000	0.015	0.018	95.6%
2	06:25:21	102.4%	1.797	1.672	1.605	1.303	0.016	0.005	0.010	0.006	97.3%
3	06:25:48	99.8%	1.766	1.528	1.503	3.570	0.008	0.003	0.015	0.021	95.2%
x		100.9%	1.751	1.630	1.550	2.410	0.012	0.002	0.013	0.015	96.0%
σ		1.3%	0.055	0.088	0.051	1.135	0.004	0.003	0.003	0.008	1.1%
%RSD		1.3	3.125	5.424	3.314	47.080	30.850	108.000	21.060	52.690	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	1.637	2.215	3.441	3.392	60.870	61.980	97.9%	-0.011	-0.018	0.023
2	06:25:21	1.662	2.238	3.413	3.319	62.320	61.140	99.9%	-0.015	-0.016	0.014
3	06:25:48	1.664	2.192	3.324	3.233	61.030	61.290	97.4%	-0.015	-0.019	0.022
x		1.654	2.215	3.393	3.315	61.410	61.470	98.4%	-0.014	-0.017	0.020
σ		0.015	0.023	0.061	0.079	0.797	0.451	1.3%	0.002	0.001	0.005
%RSD		0.889	1.018	1.790	2.388	1.298	0.734	1.4	17.250	8.181	26.470

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:24:54	0.018	0.017	91.5%
2	06:25:21	0.018	0.018	92.8%
3	06:25:48	0.021	0.024	89.4%
x		0.019	0.020	91.2%
σ		0.002	0.004	1.7%
%RSD		8.598	19.250	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	94.5%	17.300	M 603.800	M 585.000	438.700	TM 215000.000	T 10460.000	T 10380.000	T 10330.000	TM 625.900
2	06:31:29	95.8%	17.570	M 588.100	M 567.800	427.000	TM 212000.000	T 10320.000	T 10200.000	T 10200.000	TM 620.600
3	06:31:56	96.3%	17.930	M 597.600	M 588.400	422.300	TM 215900.000	T 10430.000	T 10140.000	T 9993.000	TM 609.800
x		95.5%	17.600	M 596.500	M 580.400	429.300	TM 214300.000	T 10400.000	T 10240.000	T 10170.000	TM 618.700
σ		0.9%	0.317	M 7.879	M 11.010	8.429	TM 2019.000	T 76.070	T 125.500	T 169.700	TM 8.201
%RSD		1.0	1.801	M 1.321	M 1.897	1.963	TM 0.942	T 0.731	T 1.226	T 1.668	TM 1.325

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	T 1180.000	T 26820.000	T 58300.000	17030.000	16540.000	100.7%	22.890	21.980	32.940	669.900
2	06:31:29	T 1133.000	T 26160.000	T 57090.000	16850.000	T 17500.000	101.6%	23.020	20.500	32.110	786.400
3	06:31:56	T 1141.000	T 25940.000	T 57910.000	17120.000	16540.000	103.1%	23.590	21.090	32.700	744.300
x		T 1151.000	T 26310.000	T 57770.000	17000.000	T 16860.000	101.8%	23.170	21.190	32.580	733.500
σ		T 25.140	T 456.900	T 618.200	133.400	T 553.100	1.2%	0.372	0.744	0.426	59.010
%RSD		T 2.184	T 1.737	T 1.070	0.785	T 3.280	1.2	1.606	3.510	1.306	8.044

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	797.700	129.200	T 822.500	933.600	26.260	39.740	39.520	19.950	20.970	145.000
2	06:31:29	794.000	128.600	T 836.800	940.300	25.780	37.710	38.330	20.030	20.300	146.700
3	06:31:56	802.300	127.000	T 828.100	917.800	25.650	37.890	37.720	20.140	21.030	149.200
x		798.000	128.300	T 829.200	930.600	25.900	38.450	38.530	20.040	20.770	147.000
σ		4.137	1.099	T 7.204	11.580	0.319	1.122	0.917	0.095	0.401	2.113
%RSD		0.518	0.857	T 0.869	1.244	1.233	2.919	2.380	0.476	1.932	1.437

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	132.900	137.800	27.240	22.420	790.300	798.800	95.580	22.050	-1.882	69.320
2	06:31:29	133.500	141.000	27.710	23.030	788.000	807.800	98.920	22.890	-1.473	69.880
3	06:31:56	136.500	137.700	27.100	21.260	810.300	819.700	102.800	23.760	-0.046	69.650
x		134.300	138.900	27.350	22.240	796.200	808.700	99.080	22.900	-1.134	69.620
σ		1.932	1.892	0.321	0.902	12.280	10.460	3.594	0.859	0.964	0.279
%RSD		1.439	1.363	1.174	4.053	1.542	1.293	3.627	3.750	85.050	0.401

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	99.4%	22.270	22.210	22.180	23.770	18.930	19.260	19.860	19.990	94.3%
2	06:31:29	99.6%	22.150	22.480	21.660	24.680	19.290	19.300	20.270	20.020	94.3%
3	06:31:56	100.2%	22.040	22.140	22.330	25.440	19.090	19.330	19.980	19.860	95.1%
x		99.7%	22.150	22.270	22.060	24.630	19.110	19.300	20.040	19.950	94.6%
σ		0.4%	0.117	0.181	0.354	0.837	0.182	0.032	0.208	0.084	0.4%
%RSD		0.4	0.527	0.812	1.606	3.396	0.954	0.168	1.038	0.420	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	22.030	21.850	24.010	23.990	83.260	82.240	95.9%	19.160	19.540	19.590
2	06:31:29	21.560	21.870	23.960	23.950	82.410	82.600	96.2%	19.470	19.550	19.550
3	06:31:56	21.380	21.690	24.240	23.810	81.420	81.440	97.5%	19.310	19.370	19.460
x		21.660	21.800	24.070	23.920	82.360	82.090	96.5%	19.310	19.490	19.540
σ		0.337	0.099	0.148	0.099	0.921	0.597	0.9%	0.159	0.098	0.065
%RSD		1.556	0.456	0.613	0.413	1.118	0.727	0.9	0.821	0.503	0.335

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:31:02	19.380	19.470	88.3%
2	06:31:29	19.440	19.550	89.0%
3	06:31:56	19.470	19.490	89.5%
x		19.430	19.500	88.9%
σ		0.045	0.045	0.6%
%RSD		0.232	0.230	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	94.2%	17.730	M 598.500	M 596.700	427.300	TM 214600.000	T 10340.000	T 10270.000	T 10260.000	TM 631.700
2	06:37:36	95.8%	18.450	M 586.700	M 594.500	427.500	TM 219600.000	T 10440.000	T 10180.000	T 10280.000	TM 639.000
3	06:38:03	93.8%	18.280	M 603.900	M 582.000	437.600	TM 222600.000	T 10470.000	T 10370.000	T 10320.000	TM 600.400
x		94.6%	18.150	M 596.400	M 591.100	430.800	TM 218900.000	T 10420.000	T 10280.000	T 10290.000	TM 623.700
σ		1.1%	0.375	M 8.769	M 7.936	5.875	TM 4047.000	T 71.580	T 96.150	T 26.780	TM 20.500
%RSD		1.1	2.066	M 1.470	M 1.343	1.364	TM 1.848	T 0.687	T 0.936	T 0.260	TM 3.287

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	T 1172.000	T 27000.000	T 58360.000	17080.000	16480.000	100.9%	24.110	21.570	33.260	906.900
2	06:37:36	T 1135.000	T 26730.000	T 59220.000	17190.000	16410.000	100.9%	22.920	21.470	33.670	977.700
3	06:38:03	T 1147.000	T 26560.000	T 58070.000	17460.000	16790.000	104.4%	22.940	20.970	33.510	844.300
x		T 1151.000	T 26770.000	T 58550.000	17240.000	16560.000	102.1%	23.320	21.340	33.480	909.600
σ		T 18.520	T 220.300	T 602.600	191.400	204.100	2.0%	0.683	0.323	0.209	66.750
%RSD		T 1.608	T 0.823	T 1.029	1.110	1.233	2.0	2.927	1.512	0.623	7.338

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	808.400	131.400	T 842.400	942.800	27.160	39.930	39.700	20.360	21.110	150.100
2	06:37:36	803.600	130.600	T 834.700	943.500	26.560	39.250	39.530	20.050	20.840	150.500
3	06:38:03	805.500	131.100	T 828.600	894.800	26.330	38.500	37.840	20.330	20.450	149.400
x		805.900	131.000	T 835.200	927.000	26.680	39.230	39.020	20.250	20.800	150.000
σ		2.440	0.404	T 6.904	27.930	0.428	0.714	1.028	0.172	0.327	0.575
%RSD		0.303	0.308	T 0.827	3.013	1.606	1.820	2.633	0.851	1.572	0.383

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	134.300	141.000	27.170	22.270	784.000	781.200	96.700	22.460	-1.656	71.100
2	06:37:36	133.100	141.000	27.390	20.550	770.800	787.900	87.800	20.220	-0.434	71.590
3	06:38:03	138.900	144.800	28.120	19.680	780.500	795.100	89.520	20.340	0.459	70.950
x		135.400	142.300	27.560	20.830	778.400	788.100	91.340	21.010	-0.543	71.220
σ		3.048	2.220	0.497	1.317	6.821	6.949	4.717	1.262	1.061	0.335
%RSD		2.250	1.560	1.802	6.321	0.876	0.882	5.165	6.008	195.300	0.470

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	99.1%	22.470	22.430	22.590	23.830	19.710	19.850	20.060	20.400	93.6%
2	06:37:36	100.0%	23.020	22.250	22.530	23.310	19.750	19.970	20.690	20.510	94.6%
3	06:38:03	105.1%	23.060	22.280	22.360	23.580	19.850	19.580	20.720	20.720	100.4%
x		101.4%	22.850	22.320	22.490	23.580	19.770	19.800	20.490	20.540	96.2%
σ		3.3%	0.327	0.096	0.119	0.264	0.072	0.198	0.371	0.165	3.7%
%RSD		3.2	1.431	0.431	0.527	1.118	0.365	1.002	1.811	0.805	3.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	22.020	22.060	24.550	24.080	84.340	83.420	95.9%	19.880	19.510	19.790
2	06:37:36	22.200	22.200	24.640	23.680	83.760	83.250	97.3%	19.900	19.710	19.910
3	06:38:03	22.270	22.630	25.120	24.850	83.270	84.720	102.5%	19.960	20.020	20.030
x		22.160	22.300	24.770	24.200	83.790	83.800	98.5%	19.910	19.750	19.910
σ		0.131	0.296	0.307	0.592	0.533	0.804	3.5%	0.041	0.253	0.118
%RSD		0.589	1.326	1.240	2.448	0.636	0.960	3.5	0.207	1.279	0.593

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:37:09	20.010	19.810	87.5%
2	06:37:36	20.070	19.880	89.2%
3	06:38:03	20.570	20.120	95.0%
x		20.220	19.940	90.6%
σ		0.307	0.165	3.9%
%RSD		1.519	0.828	4.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	104.3%	-0.022	136.500	132.200	138.500	T45850.000	T2213.000	2129.000	2091.000	117.300
2	06:43:43	100.7%	0.007	132.700	132.300	142.100	T45020.000	T2121.000	2088.000	2143.000	117.600
3	06:44:11	99.9%	-0.006	138.200	138.400	140.100	T46080.000	T2196.000	2104.000	2099.000	116.100
x		101.6%	-0.007	135.800	134.300	140.300	T45650.000	T2177.000	2107.000	2111.000	117.000
σ		2.3%	0.015	2.827	3.564	1.760	T553.900	T48.960	20.500	28.100	0.760
%RSD		2.3	207.300	2.082	2.653	1.255	T1.213	T2.249	0.973	1.331	0.649

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	T372.900	4986.000	T11940.000	3371.000	3193.000	103.8%	0.563	0.109	2.671	129.500
2	06:43:43	389.400	5102.000	T11850.000	3321.000	3171.000	105.5%	0.473	0.080	2.715	167.900
3	06:44:11	386.300	5140.000	T12020.000	3400.000	3162.000	104.9%	0.534	0.122	2.695	135.700
x		T382.800	5076.000	T11940.000	3364.000	3175.000	104.7%	0.524	0.104	2.694	144.400
σ		T8.788	80.330	T87.190	39.870	15.730	0.8%	0.046	0.021	0.022	20.650
%RSD		T2.295	1.583	T0.731	1.185	0.496	0.8	8.772	20.550	0.819	14.300

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	121.800	22.260	130.200	154.200	1.355	3.958	3.790	0.172	0.083	26.900
2	06:43:43	118.200	21.860	129.800	148.900	1.336	4.014	3.701	0.107	0.048	25.950
3	06:44:11	118.700	21.840	126.600	145.800	1.395	3.864	3.955	0.143	0.058	26.200
x		119.600	21.990	128.900	149.600	1.362	3.945	3.815	0.141	0.063	26.350
σ		1.937	0.235	1.984	4.248	0.030	0.075	0.129	0.032	0.018	0.494
%RSD		1.620	1.069	1.540	2.839	2.213	1.912	3.379	23.060	28.210	1.873

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	24.540	25.160	1.268	0.562	153.800	153.500	-1.586	-0.494	-0.330	10.160
2	06:43:43	24.490	24.970	1.255	0.246	154.000	158.600	-0.994	-0.353	-1.197	10.170
3	06:44:11	25.610	25.410	1.351	0.253	160.600	155.900	1.314	0.185	-1.390	10.240
x		24.880	25.180	1.292	0.354	156.100	156.000	-0.422	-0.221	-0.972	10.190
σ		0.629	0.218	0.052	0.180	3.884	2.566	1.532	0.358	0.565	0.045
%RSD		2.530	0.865	4.000	50.990	2.487	1.644	363.000	162.300	58.080	0.439

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	101.4%	0.278	0.357	0.334	1.467	-0.003	0.006	0.011	0.010	99.1%
2	06:43:43	101.8%	0.317	0.342	0.312	0.911	-0.000	0.002	-0.000	0.005	100.8%
3	06:44:11	101.6%	0.306	0.326	0.293	-0.696	-0.000	0.002	0.004	0.011	100.5%
x		101.6%	0.300	0.342	0.313	0.561	-0.001	0.004	0.005	0.009	100.1%
σ		0.2%	0.020	0.016	0.021	1.124	0.001	0.002	0.006	0.004	0.9%
%RSD		0.2	6.643	4.645	6.565	200.400	158.400	59.600	117.100	41.760	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	0.327	0.436	0.611	0.620	12.610	12.350	98.2%	-0.015	-0.012	-0.003
2	06:43:43	0.319	0.458	0.675	0.664	12.270	12.410	99.2%	-0.014	-0.013	-0.009
3	06:44:11	0.336	0.447	0.661	0.601	12.740	12.240	100.0%	-0.014	-0.012	0.000
x		0.327	0.447	0.649	0.629	12.540	12.330	99.2%	-0.014	-0.012	-0.004
σ		0.009	0.011	0.034	0.032	0.241	0.090	0.9%	0.001	0.001	0.005
%RSD		2.649	2.505	5.203	5.122	1.921	0.728	0.9	3.645	7.926	122.200

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:43:17	-0.001	0.002	94.4%
2	06:43:43	0.002	-0.003	94.7%
3	06:44:11	-0.005	-0.003	95.7%
x		-0.001	-0.001	95.0%
σ		0.004	0.003	0.7%
%RSD		280.000	219.900	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	92.8%	-0.038	37.440	40.870	141.700	TM 210800.000	T 805.200	801.400	853.200	TM 523.500
2	06:49:51	95.6%	-0.034	37.090	39.940	139.700	TM 208100.000	T 797.500	805.000	835.700	TM 518.500
3	06:50:19	94.8%	-0.040	37.790	41.710	150.200	TM 211400.000	T 797.700	793.400	828.000	TM 510.200
x		94.4%	-0.037	37.440	40.840	143.900	TM 210100.000	T 800.100	799.900	839.000	TM 517.400
σ		1.5%	0.003	0.349	0.890	5.564	TM 1750.000	T 4.400	5.935	12.900	TM 6.734
%RSD		1.6	7.768	0.932	2.180	3.867	TM 0.833	T 0.550	0.742	1.538	TM 1.301
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	T 4235.000	T 76210.000	T 65200.000	61680.000	T 63920.000	98.2%	27.640	2.747	21.570	2016.000
2	06:49:51	T 4149.000	T 75080.000	T 64720.000	60630.000	T 63940.000	100.4%	26.220	3.340	21.430	1667.000
3	06:50:19	T 4126.000	T 76520.000	T 65080.000	61270.000	T 63960.000	100.1%	25.800	2.254	21.130	2378.000
x		T 4170.000	T 75940.000	T 65000.000	61190.000	T 63940.000	99.6%	26.550	2.780	21.380	2020.000
σ		T 57.320	T 755.400	T 247.200	531.500	T 17.610	1.2%	0.964	0.543	0.221	356.000
%RSD		T 1.374	T 0.995	T 0.380	0.869	T 0.028	1.2	3.629	19.550	1.035	17.620
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	T 29020.000	347.900	T 29380.000	T 28970.000	2.982	36.670	36.870	94.410	98.290	M 1039.000
2	06:49:51	T 28930.000	344.300	T 29320.000	T 29010.000	2.951	36.950	37.440	93.160	98.190	M 1044.000
3	06:50:19	T 28880.000	347.500	T 29110.000	T 28910.000	2.992	37.420	40.030	95.070	98.480	M 1054.000
x		T 28950.000	346.600	T 29270.000	T 28960.000	2.975	37.010	38.110	94.210	98.320	M 1045.000
σ		T 71.900	1.958	T 143.500	T 46.770	0.021	0.378	1.685	0.969	0.150	M 7.531
%RSD		T 0.248	0.565	T 0.490	T 0.162	0.712	1.022	4.420	1.028	0.153	M 0.720
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	M 934.500	M 1000.000	9.504	0.933	158.400	160.400	-0.448	-0.219	-0.853	TM 1728.000
2	06:49:51	M 939.700	M 997.000	9.498	0.662	158.400	166.100	2.294	0.388	0.576	TM 1745.000
3	06:50:19	M 943.200	M 998.700	9.379	0.785	159.900	162.600	2.058	0.363	-0.088	TM 1739.000
x		M 939.100	M 998.700	9.460	0.793	158.900	163.000	1.301	0.178	-0.122	TM 1737.000
σ		M 4.364	M 1.670	0.071	0.136	0.849	2.866	1.520	0.343	0.715	TM 8.376
%RSD		M 0.465	M 0.167	0.746	17.110	0.534	1.758	116.800	193.300	588.000	TM 0.482
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	96.5%	12.810	12.720	12.310	M 795.200	4.541	0.529	2.475	0.280	93.7%
2	06:49:51	97.6%	12.250	12.260	12.260	M 778.800	4.591	0.495	2.279	0.310	94.6%
3	06:50:19	97.9%	12.420	12.480	12.340	M 785.700	4.478	0.503	2.323	0.344	94.2%
x		97.4%	12.490	12.480	12.300	M 786.600	4.537	0.509	2.359	0.311	94.1%
σ		0.7%	0.291	0.228	0.042	M 8.244	0.057	0.018	0.103	0.032	0.5%
%RSD		0.8	2.331	1.824	0.344	M 1.048	1.249	3.512	4.367	10.200	0.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	7.929	11.720	6.790	6.814	M 646.500	M 648.000	97.6%	0.156	0.152	3.896
2	06:49:51	8.208	11.410	6.598	6.624	M 649.100	M 650.600	97.8%	0.170	0.147	4.029
3	06:50:19	8.357	11.460	6.697	6.638	M 645.100	M 649.500	98.0%	0.178	0.183	4.005
x		8.165	11.530	6.695	6.692	M 646.900	M 649.400	97.8%	0.168	0.161	3.977
σ		0.217	0.167	0.096	0.106	M 2.027	M 1.266	0.2%	0.011	0.020	0.071
%RSD		2.663	1.451	1.437	1.581	M 0.313	M 0.195	0.2	6.487	12.180	1.779
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:49:23	3.743	3.862	108.3%							
2	06:49:51	3.961	3.932	109.0%							
3	06:50:19	4.070	3.918	109.3%							
x		3.925	3.904	108.9%							
σ		0.166	0.037	0.5%							
%RSD		4.239	0.948	0.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	94.9%	16.040	56.400	62.770	158.300	TM 209800.000	T 1341.000	1318.000	1432.000	TM 708.700
2	06:56:00	95.9%	15.840	54.550	61.170	159.600	TM 213600.000	T 1368.000	1343.000	1378.000	TM 677.400
3	06:56:27	92.2%	16.070	55.550	59.120	140.900	TM 209700.000	T 1311.000	1312.000	1373.000	TM 657.800
x		94.3%	15.990	55.500	61.020	152.900	TM 211000.000	T 1340.000	1324.000	1395.000	TM 681.300
σ		1.9%	0.126	0.926	1.832	10.470	TM 2209.000	T 28.520	16.300	32.720	TM 25.630
%RSD		2.0	0.790	1.668	3.003	6.844	TM 1.047	T 2.129	1.231	2.346	TM 3.762
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	T 5329.000	T 75370.000	T 65370.000	61640.000	T 64740.000	98.7%	132.000	108.500	118.700	2564.000
2	06:56:00	T 5226.000	T 75500.000	T 66450.000	62220.000	T 65260.000	100.1%	127.300	103.800	119.000	2786.000
3	06:56:27	T 5402.000	T 74420.000	T 64950.000	61320.000	T 64320.000	102.2%	T 133.800	107.200	120.400	2110.000
x		T 5319.000	T 75100.000	T 65590.000	61720.000	T 64770.000	100.3%	T 131.000	106.500	119.400	2487.000
σ		T 88.040	T 589.600	T 773.200	455.100	T 472.200	1.7%	T 3.400	2.439	0.890	344.400
%RSD		T 1.655	T 0.785	T 1.179	0.737	T 0.729	1.7	T 2.594	2.291	0.745	13.850
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	T 29710.000	T 456.800	T 29850.000	T 29370.000	99.120	129.000	130.700	188.600	197.700	M 1130.000
2	06:56:00	T 29840.000	T 458.600	T 29830.000	T 29280.000	99.290	130.800	136.500	191.000	200.100	M 1136.000
3	06:56:27	T 29860.000	T 455.200	T 29780.000	T 29660.000	99.730	131.000	132.500	188.700	190.000	M 1145.000
x		T 29800.000	T 456.900	T 29820.000	T 29440.000	99.380	130.200	133.200	189.400	195.900	M 1137.000
σ		T 83.390	T 1.696	T 37.550	T 203.000	0.313	1.107	2.984	1.344	5.295	M 7.396
%RSD		T 0.280	T 0.371	T 0.126	T 0.690	0.315	0.850	2.240	0.710	2.703	M 0.651
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	M 1017.000	M 1084.000	111.800	106.800	150.200	153.400	452.800	106.000	1.329	TM 1845.000
2	06:56:00	M 1026.000	M 1098.000	112.900	106.200	151.800	150.700	452.400	105.200	1.847	TM 1841.000
3	06:56:27	M 1061.000	M 1126.000	119.000	108.300	148.500	153.900	459.000	105.700	2.463	TM 1853.000
x		M 1034.000	M 1103.000	114.500	107.100	150.200	152.600	454.700	105.600	1.880	TM 1847.000
σ		M 23.710	M 21.330	3.881	1.105	1.667	1.726	3.708	0.427	0.568	TM 6.230
%RSD		M 2.292	M 1.934	3.388	1.032	1.110	1.131	0.815	0.404	30.210	TM 0.337
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	96.5%	119.800	120.000	119.400	M 997.900	103.600	99.700	104.100	101.800	93.4%
2	06:56:00	98.0%	119.900	120.200	120.500	M 988.400	103.200	98.700	105.500	102.300	95.5%
3	06:56:27	103.0%	119.800	122.300	121.100	M 952.500	103.400	99.800	106.900	102.900	100.9%
x		99.2%	119.800	120.800	120.300	M 979.600	103.400	99.400	105.500	102.300	96.6%
σ		3.4%	0.064	1.271	0.834	M 23.970	0.203	0.610	1.402	0.552	3.9%
%RSD		3.5	0.053	1.052	0.693	M 2.446	0.196	0.614	1.329	0.540	4.0
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	115.600	117.600	112.800	111.200	M 727.900	M 730.500	97.0%	100.100	100.200	103.300
2	06:56:00	114.300	116.000	114.100	109.700	M 731.700	M 731.400	99.4%	100.100	100.200	103.700
3	06:56:27	115.800	117.900	115.100	113.500	M 728.500	M 730.800	104.7%	99.880	100.900	105.400
x		115.200	117.200	114.000	111.400	M 729.400	M 730.900	100.4%	100.000	100.400	104.100
σ		0.814	0.997	1.168	1.899	M 2.046	M 0.458	3.9%	0.136	0.394	1.104
%RSD		0.707	0.851	1.025	1.704	M 0.281	M 0.063	3.9	0.136	0.392	1.061
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	06:55:32	103.700	103.600	105.5%							
2	06:56:00	104.600	104.200	109.9%							
3	06:56:27	105.700	105.800	118.0%							
x		104.700	104.500	111.2%							
σ		0.976	1.119	6.4%							
%RSD		0.933	1.070	5.7							

CCV MW10994 05/01/2019 07:01:14 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	93.3%	334.000	335.800	327.400	83.060	T73180.000	T69860.000	T68290.000	T68460.000	312.200
2	07:02:08	93.7%	326.300	328.300	317.400	75.160	T71690.000	T67250.000	T66940.000	T65810.000	311.400
3	07:02:35	94.8%	320.300	324.700	321.200	77.080	T72680.000	T68240.000	T66800.000	T66390.000	311.900
x		93.9%	108.957%	109.863%	107.328%	78.430	T120.860%	T68450.000	T67340.000	T111.477%	103.945%
σ		0.8%	n/a	n/a	n/a	4.124	Tn/a	T1322.000	T819.500	Tn/a	n/a
%RSD		0.9	2.104	1.713	1.567	5.258	T1.046	T1.931	T1.217	T2.078	0.124

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	T3653.000	710.400	T68770.000	66580.000	T68100.000	102.0%	324.100	328.100	312.100	734.700
2	07:02:08	T3637.000	684.200	T69660.000	66370.000	T67340.000	101.4%	317.600	318.900	307.600	2744.000
3	07:02:35	T3645.000	686.000	T70240.000	66430.000	T67900.000	101.6%	320.300	322.600	311.600	1597.000
x		T121.503%	693.500	T115.930%	66460.000	T112.969%	101.7%	106.893%	107.732%	103.474%	1692.000
σ		Tn/a	14.610	Tn/a	108.300	Tn/a	0.3%	n/a	n/a	n/a	1008.000
%RSD		T0.215	2.107	T1.062	0.163	T0.587	0.3	1.022	1.430	0.781	59.590

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	T65780.000	306.300	T65690.000	T64280.000	304.700	296.500	293.100	291.700	300.500	307.300
2	07:02:08	T65530.000	298.100	T65810.000	T64330.000	301.900	295.400	296.700	294.900	298.000	304.000
3	07:02:35	T66610.000	306.600	T66430.000	T64280.000	302.400	294.100	296.100	301.600	300.000	304.400
x		T65970.000	101.227%	T65970.000	T107.158%	100.991%	98.440%	295.300	296.100	99.831%	101.741%
σ		T564.400	n/a	T396.300	Tn/a	n/a	n/a	1.934	5.018	n/a	n/a
%RSD		T0.856	1.600	T0.601	T0.048	0.496	0.397	0.655	1.695	0.454	0.581

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	299.100	303.300	306.700	309.900	4.408	3.733	1325.000	306.900	-0.199	315.200
2	07:02:08	299.600	306.100	308.000	311.000	4.585	3.426	1373.000	315.800	-0.310	315.800
3	07:02:35	304.800	306.000	309.700	308.200	4.528	3.563	1347.000	307.400	0.203	314.000
x		301.200	305.100	102.703%	309.700	4.507	3.574	1349.000	103.349%	-0.102	105.002%
σ		3.165	1.579	n/a	1.394	0.090	0.154	24.210	n/a	0.270	n/a
%RSD		1.051	0.517	0.486	0.450	2.001	4.303	1.795	1.617	264.600	0.290

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	99.4%	330.200	331.300	330.300	324.800	305.100	307.000	316.900	313.600	97.5%
2	07:02:08	97.8%	332.300	334.200	332.700	323.200	302.700	305.500	314.900	315.300	96.8%
3	07:02:35	99.8%	330.600	332.400	331.200	310.800	304.000	305.300	314.000	310.000	99.2%
x		99.0%	110.341%	110.870%	331.400	319.600	101.323%	306.000	315.300	104.330%	97.8%
σ		1.1%	n/a	n/a	1.219	7.638	n/a	0.953	1.504	n/a	1.3%
%RSD		1.1	0.336	0.437	0.368	2.390	0.393	0.312	0.477	0.859	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	326.500	325.100	327.200	322.700	323.000	322.700	99.4%	308.700	315.600	306.300
2	07:02:08	325.600	323.800	328.000	321.400	323.500	320.000	99.9%	310.400	317.300	308.100
3	07:02:35	323.100	322.700	324.900	323.800	321.500	324.100	100.4%	309.500	316.400	308.100
x		108.358%	107.945%	326.700	107.543%	107.552%	107.427%	99.9%	309.600	105.478%	102.500%
σ		n/a	n/a	1.602	n/a	n/a	n/a	0.5%	0.851	n/a	n/a
%RSD		0.552	0.378	0.490	0.359	0.331	0.646	0.5	0.275	0.269	0.342

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:01:41	305.500	308.500	93.5%
2	07:02:08	308.400	309.900	93.6%
3	07:02:35	305.600	309.100	93.4%
x		102.165%	103.054%	93.5%
σ		n/a	n/a	0.1%
%RSD		0.529	0.222	0.1

CCB IM9390-01 05/01/2019 07:07:23 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	97.2%	0.023	4.592	3.552	63.340	12.380	1.089	1.059	1.316	0.031
2	07:08:17	102.2%	-0.004	4.106	3.590	66.430	13.080	0.923	0.932	1.038	0.033
3	07:08:44	101.4%	0.015	4.043	3.529	52.930	11.350	0.834	0.794	1.150	-0.012
x		100.3%	0.011	4.247	3.557	60.900	12.270	0.949	0.928	1.168	0.017
σ		2.7%	0.014	0.301	0.031	7.073	0.870	0.129	0.133	0.140	0.025
%RSD		2.7	125.000	7.080	0.862	11.610	7.086	13.620	14.300	11.960	144.300

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	20.060	276.700	21.730	3.185	2.333	106.1%	-0.071	-0.009	0.054	27.370
2	07:08:17	19.900	344.100	21.460	1.380	1.766	106.6%	-0.082	0.036	0.067	7.344
3	07:08:44	18.880	304.200	19.550	0.245	1.970	105.1%	-0.036	0.054	0.070	-9.341
x		19.610	308.300	20.920	1.603	2.023	106.0%	-0.063	0.027	0.064	8.457
σ		0.637	33.850	1.189	1.482	0.287	0.8%	0.024	0.032	0.009	18.380
%RSD		3.245	10.980	5.686	92.460	14.190	0.7	38.090	118.700	13.490	217.300

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	1.482	0.043	7.699	-1.330	0.026	0.009	0.099	0.006	0.014	0.012
2	07:08:17	2.335	0.024	8.739	4.165	0.021	-0.008	0.028	-0.009	-0.001	0.003
3	07:08:44	1.182	0.034	7.031	0.935	0.029	0.017	0.204	0.011	-0.008	0.035
x		1.666	0.034	7.823	1.257	0.025	0.006	0.110	0.003	0.002	0.017
σ		0.598	0.009	0.861	2.761	0.004	0.013	0.088	0.011	0.011	0.017
%RSD		35.910	27.830	11.000	219.800	15.060	214.900	80.090	377.500	645.500	99.630

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	-0.023	0.024	-0.092	0.108	2.343	3.020	-2.762	-0.636	0.048	0.015
2	07:08:17	-0.045	0.054	-0.034	0.108	2.165	2.912	-0.486	-0.091	-0.904	0.016
3	07:08:44	-0.088	0.035	-0.005	-0.080	1.959	3.072	-0.649	-0.134	-1.270	0.013
x		-0.052	0.038	-0.044	0.045	2.156	3.002	-1.299	-0.287	-0.709	0.015
σ		0.033	0.015	0.044	0.108	0.193	0.082	1.270	0.303	0.681	0.001
%RSD		63.980	41.000	101.300	241.100	8.930	2.718	97.760	105.600	96.030	10.080

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	105.0%	0.085	0.081	0.072	-1.311	0.002	0.005	0.001	0.010	106.1%
2	07:08:17	103.9%	0.038	0.082	0.062	0.031	0.006	0.004	0.005	0.014	104.1%
3	07:08:44	103.3%	0.068	0.018	0.049	-0.283	0.001	0.005	0.008	0.005	104.6%
x		104.1%	0.063	0.060	0.061	-0.521	0.003	0.005	0.005	0.010	104.9%
σ		0.8%	0.024	0.037	0.012	0.702	0.003	0.001	0.004	0.005	1.0%
%RSD		0.8	37.050	60.980	18.840	134.700	101.700	18.820	83.510	49.420	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	0.041	0.118	0.110	0.108	0.016	0.044	104.5%	0.001	-0.005	0.006
2	07:08:17	0.036	0.081	0.088	0.073	0.018	0.030	102.3%	0.003	-0.005	0.006
3	07:08:44	0.044	0.088	0.110	0.115	-0.020	0.033	103.3%	0.005	-0.002	0.011
x		0.041	0.096	0.102	0.098	0.005	0.036	103.4%	0.003	-0.004	0.008
σ		0.004	0.019	0.013	0.022	0.022	0.007	1.1%	0.002	0.002	0.003
%RSD		10.580	20.250	12.350	22.540	478.700	20.820	1.1	71.700	38.880	40.190

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:07:50	0.009	0.007	101.7%
2	07:08:17	0.003	0.006	99.6%
3	07:08:44	0.010	0.009	101.7%
x		0.007	0.007	101.0%
σ		0.004	0.001	1.2%
%RSD		57.560	20.650	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	99.4%	0.262	23.390	22.450	2838.000	T 7471.000	T 2355.000	2275.000	2324.000	TM 13800.000
2	07:14:25	96.0%	0.283	23.010	22.330	2856.000	T 7554.000	T 2372.000	2263.000	2259.000	TM 12940.000
3	07:14:52	97.9%	0.258	23.540	22.080	2794.000	T 7537.000	T 2353.000	2281.000	2295.000	TM 13140.000
x		97.8%	0.268	23.310	22.290	2829.000	T 7521.000	T 2360.000	2273.000	2292.000	TM 13290.000
σ		1.7%	0.014	0.272	0.187	31.710	T 44.230	T 10.630	9.122	32.580	TM 451.300
%RSD		1.7	5.064	1.167	0.840	1.121	T 0.588	T 0.451	0.401	1.421	TM 3.394

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	T 8449.000	T 15630.000	T 7698.000	37460.000	T 38280.000	104.9%	118.600	27.130	20.670	393.400
2	07:14:25	T 8345.000	T 15140.000	T 7477.000	36220.000	T 37760.000	107.4%	112.600	26.100	20.730	440.800
3	07:14:52	T 8349.000	T 15440.000	T 7531.000	36750.000	T 37290.000	107.0%	116.200	27.010	20.540	489.200
x		T 8381.000	T 15400.000	T 7569.000	36810.000	T 37780.000	106.4%	115.800	26.750	20.650	441.100
σ		T 58.800	T 246.500	T 115.300	621.500	T 491.900	1.3%	3.042	0.564	0.094	47.910
%RSD		T 0.702	T 1.601	T 1.523	1.688	T 1.302	1.3	2.628	2.109	0.455	10.860

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	T 6978.000	T 395.700	T 7017.000	7256.000	T 472.800	11.070	10.670	27.460	28.510	M 568.400
2	07:14:25	6946.000	T 390.900	T 6845.000	6944.000	T 462.500	10.490	10.570	27.420	29.680	M 585.100
3	07:14:52	6891.000	T 397.800	T 6955.000	7003.000	T 467.100	10.490	9.070	27.460	29.010	M 575.100
x		T 6938.000	T 394.800	T 6939.000	7068.000	T 467.500	10.680	10.100	27.440	29.070	M 576.200
σ		T 43.890	T 3.546	T 86.670	165.500	T 5.150	0.334	0.897	0.022	0.588	M 8.413
%RSD		T 0.633	T 0.898	T 1.249	2.342	T 1.102	3.125	8.879	0.082	2.023	M 1.460

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	496.200	M 527.600	4.018	1.511	1992.000	2009.000	25.440	4.084	-1.365	33.000
2	07:14:25	487.600	M 527.000	3.462	1.484	1992.000	2038.000	20.060	2.762	1.191	32.540
3	07:14:52	498.800	M 528.800	4.079	1.539	2002.000	2039.000	25.240	4.013	0.020	32.600
x		494.200	M 527.800	3.853	1.511	1995.000	2028.000	23.580	3.620	-0.051	32.710
σ		5.839	M 0.923	0.340	0.028	5.895	17.030	3.051	0.744	1.280	0.250
%RSD		1.182	M 0.175	8.822	1.846	0.296	0.840	12.940	20.550	2492.000	0.765

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	113.8%	5.828	6.099	5.826	2.167	0.240	0.242	0.351	0.372	103.2%
2	07:14:25	117.5%	5.993	5.937	6.034	3.063	0.274	0.232	0.342	0.420	103.8%
3	07:14:52	119.1%	6.082	6.142	5.978	1.548	0.242	0.260	0.376	0.409	106.6%
x		116.8%	5.968	6.059	5.946	2.259	0.252	0.245	0.356	0.401	104.5%
σ		2.7%	0.129	0.108	0.108	0.762	0.019	0.015	0.018	0.025	1.8%
%RSD		2.3	2.160	1.788	1.808	33.730	7.475	5.936	4.988	6.287	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	0.196	0.154	266.200	267.200	57.040	56.940	103.0%	0.105	0.104	9.135
2	07:14:25	0.200	0.106	272.500	269.500	55.140	56.430	106.1%	0.120	0.096	9.305
3	07:14:52	0.188	0.110	269.100	270.200	55.570	56.620	107.0%	0.113	0.119	9.198
x		0.195	0.123	269.200	268.900	55.920	56.660	105.4%	0.113	0.106	9.213
σ		0.006	0.027	3.152	1.557	0.998	0.256	2.1%	0.008	0.012	0.086
%RSD		2.952	21.820	1.171	0.579	1.784	0.452	2.0	6.669	11.310	0.934

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:13:57	8.843	8.843	99.2%
2	07:14:25	8.794	8.878	103.5%
3	07:14:52	8.610	8.871	103.2%
x		8.749	8.864	102.0%
σ		0.123	0.019	2.4%
%RSD		1.406	0.212	2.4

UQ14857-001 05/01/2019 07:19:39

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	99.3%	0.003	2.411	2.398	96.340	22.440	1.788	1.747	1.938	2.161
2	07:20:33	99.3%	0.037	2.312	2.059	106.000	22.710	1.796	1.720	1.765	2.056
3	07:21:00	T 116.9%	-0.003	2.697	2.041	88.840	22.200	1.790	2.003	1.757	2.104
x		T 105.2%	0.012	2.473	2.166	97.060	22.450	1.792	1.823	1.820	2.107
σ		T 10.2%	0.021	0.200	0.201	8.616	0.252	0.004	0.156	0.102	0.052
%RSD		T 9.7	175.200	8.075	9.272	8.876	1.123	0.230	8.550	5.616	2.473

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	21.810	T 88280.000	44.570	11.780	14.050	103.9%	0.022	-0.267	0.333	1827.000
2	07:20:33	21.790	T 88420.000	41.350	14.530	14.890	105.8%	0.065	-0.179	0.343	1699.000
3	07:21:00	19.050	T 88480.000	37.180	16.770	12.470	106.1%	-0.025	0.055	0.337	1804.000
x		20.880	T 88390.000	41.030	14.360	13.800	105.3%	0.021	-0.130	0.338	1777.000
σ		1.585	T 105.600	3.702	2.499	1.228	1.2%	0.045	0.167	0.005	68.390
%RSD		7.590	T 0.120	9.023	17.400	8.894	1.1	218.600	127.900	1.514	3.849

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	3.002	0.671	7.472	-0.894	0.054	0.136	-0.386	0.146	0.166	0.991
2	07:20:33	2.443	0.638	6.196	-4.043	0.047	0.144	-0.027	0.133	0.092	1.016
3	07:21:00	3.393	0.640	6.643	-3.255	0.043	0.108	0.245	0.125	0.088	1.104
x		2.946	0.650	6.770	-2.731	0.048	0.129	-0.056	0.135	0.115	1.037
σ		0.477	0.019	0.648	1.639	0.006	0.019	0.316	0.011	0.044	0.059
%RSD		16.200	2.901	9.567	60.010	12.200	14.740	567.500	7.815	37.770	5.730

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	1.207	0.991	-0.032	0.929	14.920	14.340	1.170	0.222	0.330	0.014
2	07:20:33	1.174	1.208	0.033	0.137	13.250	13.760	1.548	0.378	-2.845	0.008
3	07:21:00	1.230	1.194	-0.200	0.724	14.100	13.930	0.869	0.214	-1.370	0.016
x		1.204	1.131	-0.066	0.597	14.090	14.010	1.196	0.271	-1.295	0.013
σ		0.028	0.122	0.120	0.411	0.837	0.299	0.340	0.092	1.589	0.004
%RSD		2.307	10.760	181.700	68.900	5.940	2.131	28.430	33.990	122.700	31.140

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	104.0%	-0.004	0.009	0.005	-0.742	-0.004	-0.002	0.001	0.005	105.3%
2	07:20:33	107.3%	0.016	0.020	0.011	-0.977	-0.003	-0.001	0.008	0.002	108.4%
3	07:21:00	105.2%	0.014	0.008	0.029	-0.421	-0.006	0.005	-0.003	0.023	105.2%
x		105.5%	0.008	0.013	0.015	-0.714	-0.004	0.000	0.002	0.010	106.3%
σ		1.6%	0.011	0.007	0.012	0.279	0.002	0.004	0.005	0.011	1.8%
%RSD		1.6	133.200	53.100	80.570	39.130	39.760	845.100	257.700	108.600	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	0.246	0.412	0.073	0.088	0.038	0.038	104.8%	-0.016	-0.016	0.000
2	07:20:33	0.320	0.444	0.078	0.078	0.046	0.022	107.5%	-0.016	-0.018	-0.008
3	07:21:00	0.250	0.434	0.070	0.107	0.043	0.051	103.9%	-0.016	-0.020	-0.007
x		0.272	0.430	0.073	0.091	0.042	0.037	105.4%	-0.016	-0.018	-0.005
σ		0.042	0.016	0.004	0.015	0.004	0.015	1.9%	0.000	0.002	0.005
%RSD		15.290	3.822	5.876	16.220	10.310	39.240	1.8	2.803	10.980	93.760

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:20:07	-0.001	-0.002	103.0%
2	07:20:33	-0.012	-0.008	105.4%
3	07:21:00	-0.003	-0.003	101.8%
x		-0.005	-0.004	103.4%
σ		0.006	0.003	1.8%
%RSD		109.000	72.730	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	103.3%	106.400	115.600	107.500	104.000	T 1194.000	T 1141.000	1101.000	1101.000	108.100
2	07:26:41	104.9%	106.800	113.800	109.700	102.200	T 1213.000	T 1159.000	1121.000	1124.000	108.100
3	07:27:08	99.8%	110.400	112.800	111.900	113.700	T 1239.000	T 1163.000	1100.000	1081.000	103.800
x		102.7%	107.900	114.100	109.700	106.600	T 1215.000	T 1154.000	1107.000	1102.000	106.700
σ		2.6%	2.172	1.416	2.219	6.194	T 22.650	T 11.970	11.880	21.720	2.496
%RSD		2.5	2.014	1.241	2.023	5.808	T 1.864	T 1.037	1.073	1.971	2.340

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	T 1056.000	T 89940.000	T 1225.000	1229.000	1112.000	104.0%	106.100	105.200	102.500	2466.000
2	07:26:41	T 1053.000	T 90800.000	T 1196.000	1197.000	1117.000	106.7%	109.200	105.500	101.300	2405.000
3	07:27:08	T 1057.000	T 88800.000	1167.000	1192.000	1100.000	104.7%	106.700	105.800	103.000	2752.000
x		T 1055.000	T 89850.000	T 1196.000	1206.000	1110.000	105.1%	107.300	105.500	102.300	2541.000
σ		T 2.035	T 1004.000	T 28.970	19.670	8.868	1.4%	1.620	0.291	0.913	185.200
%RSD		T 0.193	T 1.117	T 2.422	1.631	0.799	1.3	1.509	0.276	0.892	7.288

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	1142.000	101.800	T 1122.000	1046.000	101.300	103.800	100.800	106.000	104.700	103.100
2	07:26:41	1126.000	102.400	T 1130.000	1039.000	101.800	101.700	103.800	104.700	105.400	103.800
3	07:27:08	1120.000	102.700	T 1113.000	1050.000	101.700	102.600	101.300	103.700	101.400	102.400
x		1129.000	102.300	T 1122.000	1045.000	101.600	102.700	102.000	104.800	103.800	103.100
σ		11.700	0.499	T 8.294	5.991	0.249	1.062	1.600	1.178	2.111	0.676
%RSD		1.036	0.488	T 0.739	0.573	0.245	1.033	1.569	1.124	2.033	0.655

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	103.000	104.400	104.200	105.800	10.070	9.862	486.800	109.200	-0.111	102.100
2	07:26:41	102.900	103.800	103.000	108.300	9.780	10.340	463.800	105.400	-0.307	102.900
3	07:27:08	104.700	107.200	108.600	106.600	8.443	9.922	470.400	104.700	-1.978	102.600
x		103.500	105.100	105.300	106.900	9.432	10.040	473.700	106.400	-0.798	102.500
σ		1.018	1.829	2.956	1.288	0.869	0.263	11.830	2.443	1.026	0.388
%RSD		0.983	1.740	2.808	1.204	9.215	2.616	2.497	2.295	128.500	0.379

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	101.2%	103.000	104.800	102.800	106.100	101.900	103.200	103.700	102.900	102.4%
2	07:26:41	104.1%	104.200	105.400	104.300	104.800	104.600	105.000	105.300	103.500	104.0%
3	07:27:08	105.6%	104.200	107.100	104.500	107.300	103.000	104.100	106.300	103.700	107.2%
x		103.6%	103.800	105.800	103.900	106.100	103.200	104.100	105.100	103.400	104.5%
σ		2.2%	0.677	1.224	0.935	1.265	1.339	0.897	1.320	0.383	2.4%
%RSD		2.2	0.653	1.157	0.901	1.193	1.298	0.862	1.255	0.371	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	104.700	104.200	102.200	104.300	108.300	109.500	100.2%	104.200	104.600	105.700
2	07:26:41	106.200	105.800	103.400	105.000	106.900	109.200	103.3%	102.400	103.300	103.900
3	07:27:08	106.800	105.500	105.500	107.700	107.000	108.300	106.2%	103.800	103.900	104.500
x		105.900	105.200	103.700	105.700	107.400	109.000	103.2%	103.400	104.000	104.700
σ		1.072	0.859	1.692	1.783	0.768	0.610	3.0%	0.964	0.612	0.895
%RSD		1.013	0.817	1.632	1.687	0.715	0.559	2.9	0.932	0.589	0.855

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:26:14	104.700	105.400	98.5%
2	07:26:41	104.500	104.500	101.2%
3	07:27:08	104.500	104.600	104.0%
x		104.600	104.800	101.2%
σ		0.129	0.507	2.8%
%RSD		0.123	0.484	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	101.3%	0.072	7.741	6.778	98.250	T 1656.000	T 523.500	494.600	498.600	23.440
2	07:32:49	100.9%	0.054	6.936	6.198	83.850	T 1631.000	516.600	501.000	497.000	22.870
3	07:33:16	100.4%	0.060	6.253	6.145	88.950	T 1645.000	512.100	492.200	490.200	21.330
x		100.9%	0.062	6.977	6.374	90.350	T 1644.000	T 517.400	495.900	495.200	22.540
σ		0.5%	0.009	0.745	0.351	7.301	T 12.150	T 5.763	4.547	4.448	1.092
%RSD		0.4	14.780	10.670	5.511	8.081	T 0.739	T 1.114	0.917	0.898	4.844

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	T 2229.000	T 81140.000	579.600	263.600	278.300	104.1%	0.447	0.060	0.420	1741.000
2	07:32:49	T 2142.000	T 77450.000	549.000	243.400	279.600	104.5%	0.410	0.122	0.327	1537.000
3	07:33:16	T 2166.000	T 77410.000	549.200	264.100	264.900	107.1%	0.375	-0.204	0.300	1585.000
x		T 2179.000	T 78670.000	559.300	257.000	274.300	105.2%	0.411	-0.007	0.349	1621.000
σ		T 45.260	T 2140.000	17.610	11.770	8.172	1.6%	0.036	0.173	0.063	106.700
%RSD		T 2.077	T 2.720	3.149	4.580	2.980	1.6	8.726	2345.000	18.110	6.580

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	10.050	2.403	13.030	7.358	0.201	0.315	0.220	0.259	0.272	1.340
2	07:32:49	9.380	2.366	10.350	4.251	0.195	0.338	0.201	0.264	0.265	1.443
3	07:33:16	6.824	2.388	10.080	-4.526	0.205	0.329	-0.047	0.282	0.260	1.336
x		8.752	2.385	11.150	2.361	0.200	0.327	0.125	0.268	0.266	1.373
σ		1.703	0.019	1.629	6.163	0.005	0.012	0.149	0.012	0.006	0.061
%RSD		19.460	0.780	14.610	261.100	2.498	3.629	119.300	4.498	2.257	4.410

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	2.062	2.009	0.005	0.731	8.513	8.316	-1.665	-0.375	-0.031	3.191
2	07:32:49	2.399	1.996	-0.303	0.085	7.640	7.633	-1.314	-0.341	1.908	3.217
3	07:33:16	2.030	2.090	0.003	0.626	8.123	9.118	-0.070	-0.059	1.072	3.218
x		2.164	2.032	-0.098	0.481	8.092	8.356	-1.016	-0.258	0.983	3.209
σ		0.204	0.051	0.178	0.347	0.438	0.743	0.838	0.174	0.973	0.015
%RSD		9.442	2.516	180.500	72.140	5.407	8.897	82.500	67.210	98.950	0.472

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	103.2%	0.023	0.018	0.022	0.135	0.003	0.003	0.020	0.017	102.2%
2	07:32:49	104.6%	0.022	0.017	0.021	-1.344	-0.004	0.001	0.008	0.006	103.5%
3	07:33:16	107.5%	0.010	0.008	0.021	-0.389	-0.004	0.002	0.001	0.011	108.1%
x		105.1%	0.018	0.014	0.021	-0.533	-0.002	0.002	0.010	0.011	104.6%
σ		2.2%	0.007	0.006	0.000	0.750	0.004	0.001	0.010	0.006	3.1%
%RSD		2.1	37.600	40.100	2.193	140.700	258.000	41.620	98.260	50.980	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	0.296	0.412	0.054	0.069	17.200	17.620	100.1%	0.018	0.022	0.027
2	07:32:49	0.268	0.415	0.045	0.063	17.470	17.350	102.9%	0.018	0.005	0.048
3	07:33:16	0.285	0.348	0.060	0.043	18.080	17.380	106.8%	0.010	0.001	0.034
x		0.283	0.392	0.053	0.058	17.590	17.450	103.3%	0.015	0.009	0.037
σ		0.014	0.038	0.007	0.014	0.452	0.145	3.4%	0.004	0.011	0.011
%RSD		4.907	9.670	13.940	23.530	2.569	0.828	3.3	28.210	121.600	29.540

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:32:22	0.046	0.037	97.5%
2	07:32:49	0.032	0.040	101.6%
3	07:33:16	0.035	0.035	105.3%
x		0.038	0.037	101.5%
σ		0.007	0.003	3.9%
%RSD		19.520	7.384	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	103.3%	0.028	11.800	10.680	91.690	T 1756.000	560.500	539.000	544.400	31.840
2	07:38:57	99.3%	0.046	10.390	11.110	95.200	T 1740.000	T 565.200	542.500	532.900	31.030
3	07:39:24	98.1%	0.072	11.810	10.790	82.570	T 1703.000	539.600	529.400	530.300	30.600
x		100.3%	0.049	11.330	10.860	89.820	T 1733.000	T 555.100	537.000	535.900	31.160
σ		2.7%	0.022	0.817	0.223	6.522	T 27.230	T 13.620	6.771	7.514	0.628
%RSD		2.7	45.810	7.211	2.054	7.261	T 1.572	T 2.453	1.261	1.402	2.014

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	T 2194.000	T 84090.000	602.900	329.400	334.500	103.6%	0.335	-0.304	0.468	1979.000
2	07:38:57	T 2217.000	T 81880.000	588.400	309.800	328.600	106.4%	0.424	0.122	0.367	1690.000
3	07:39:24	T 2226.000	T 81600.000	588.600	301.100	318.700	103.6%	0.334	-0.030	0.395	1632.000
x		T 2212.000	T 82520.000	593.300	313.400	327.300	104.5%	0.364	-0.070	0.410	1767.000
σ		T 16.290	T 1361.000	8.334	14.480	7.977	1.6%	0.052	0.216	0.052	185.900
%RSD		T 0.736	T 1.649	1.405	4.620	2.438	1.5	14.150	306.800	12.730	10.520

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	7.586	3.051	7.374	4.756	0.221	0.269	0.039	0.299	0.350	2.619
2	07:38:57	5.316	3.084	7.325	-8.321	0.225	0.307	-0.021	0.316	0.380	2.473
3	07:39:24	4.673	3.090	5.748	-9.976	0.211	0.215	-0.111	0.344	0.296	2.394
x		5.858	3.075	6.816	-4.514	0.219	0.264	-0.031	0.320	0.342	2.496
σ		1.530	0.021	0.925	8.070	0.007	0.046	0.075	0.022	0.042	0.114
%RSD		26.120	0.691	13.570	178.800	3.366	17.520	242.800	7.032	12.360	4.572

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	3.473	3.259	-0.319	0.339	6.940	7.656	-2.419	-0.468	-3.651	3.990
2	07:38:57	3.350	3.489	-0.080	-0.222	7.073	7.400	-0.970	-0.222	0.409	3.841
3	07:39:24	2.615	3.058	-0.011	0.485	8.034	6.525	-1.037	-0.210	-0.479	3.969
x		3.146	3.269	-0.137	0.201	7.349	7.194	-1.475	-0.300	-1.240	3.933
σ		0.464	0.216	0.162	0.373	0.597	0.593	0.818	0.146	2.134	0.081
%RSD		14.740	6.592	118.300	185.700	8.121	8.242	55.430	48.530	172.100	2.056

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	101.3%	0.018	0.032	0.007	0.842	-0.003	-0.000	0.009	0.007	101.0%
2	07:38:57	105.6%	0.003	-0.004	0.008	0.235	-0.003	-0.000	0.020	-0.001	104.2%
3	07:39:24	107.7%	0.031	-0.001	-0.001	-0.550	0.003	-0.002	0.008	0.014	104.9%
x		104.8%	0.017	0.009	0.005	0.176	-0.001	-0.001	0.012	0.007	103.3%
σ		3.3%	0.014	0.020	0.005	0.698	0.003	0.001	0.006	0.007	2.1%
%RSD		3.1	79.950	222.200	102.200	397.000	400.600	107.100	51.540	108.700	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	0.238	0.438	0.023	0.050	20.300	20.910	98.1%	-0.001	-0.003	-0.008
2	07:38:57	0.251	0.412	0.033	0.043	20.050	19.900	102.3%	-0.002	-0.002	-0.000
3	07:39:24	0.257	0.367	0.048	0.049	20.250	21.060	103.3%	-0.004	-0.001	-0.016
x		0.249	0.406	0.034	0.048	20.200	20.620	101.2%	-0.002	-0.002	-0.008
σ		0.010	0.036	0.012	0.004	0.131	0.634	2.7%	0.002	0.001	0.008
%RSD		3.985	8.804	36.090	8.112	0.651	3.076	2.7	70.300	47.670	97.370

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:38:30	-0.001	-0.005	96.7%
2	07:38:57	-0.006	-0.007	99.5%
3	07:39:24	-0.019	-0.013	101.6%
x		-0.009	-0.008	99.3%
σ		0.010	0.004	2.5%
%RSD		113.800	46.920	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	102.7%	0.024	59.670	59.180	97.670	T 1780.000	T 615.300	592.800	583.900	39.230
2	07:45:04	102.4%	0.020	57.040	55.770	86.000	T 1754.000	T 610.000	575.700	577.300	38.720
3	07:45:32	99.0%	0.026	55.210	57.560	91.570	T 1807.000	609.100	591.300	590.800	37.760
x		101.4%	0.023	57.310	57.500	91.750	T 1780.000	T 611.500	586.600	584.000	38.570
σ		2.1%	0.003	2.242	1.704	5.834	T 26.540	T 3.312	9.479	6.763	0.749
%RSD		2.0	13.080	3.913	2.963	6.359	T 1.491	T 0.542	1.616	1.158	1.941

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	T 2354.000	T 86540.000	643.800	400.400	431.300	102.9%	0.465	-0.040	0.414	1916.000
2	07:45:04	T 2256.000	T 83230.000	632.700	429.300	428.400	103.3%	0.579	-0.250	0.386	1879.000
3	07:45:32	T 2321.000	T 83830.000	633.200	381.600	434.200	105.1%	0.465	-0.110	0.326	1654.000
x		T 2310.000	T 84530.000	636.500	403.800	431.300	103.7%	0.503	-0.133	0.375	1816.000
σ		T 49.890	T 1761.000	6.272	23.990	2.863	1.2%	0.066	0.106	0.045	141.800
%RSD		T 2.159	T 2.083	0.985	5.941	0.664	1.1	13.090	79.830	12.020	7.805

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	7.111	3.821	8.711	6.218	0.263	0.288	0.613	0.202	0.194	2.814
2	07:45:04	5.206	3.842	7.020	0.966	0.238	0.253	0.063	0.237	0.206	2.832
3	07:45:32	4.820	3.785	6.367	-10.490	0.298	0.323	0.172	0.178	0.183	2.697
x		5.712	3.816	7.366	-1.102	0.266	0.288	0.283	0.206	0.195	2.781
σ		1.227	0.029	1.210	8.543	0.030	0.035	0.292	0.029	0.012	0.073
%RSD		21.480	0.755	16.420	775.300	11.440	12.150	103.200	14.280	5.929	2.641

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	4.130	3.960	0.146	0.096	12.500	14.030	-0.767	-0.178	0.269	5.343
2	07:45:04	3.825	3.706	-0.053	-0.096	14.350	14.190	-1.247	-0.292	-0.228	5.338
3	07:45:32	4.318	3.820	-0.139	0.015	13.600	14.690	-1.888	-0.433	-0.946	5.271
x		4.091	3.829	-0.015	0.005	13.480	14.300	-1.300	-0.301	-0.302	5.317
σ		0.249	0.127	0.147	0.097	0.934	0.344	0.563	0.128	0.611	0.040
%RSD		6.079	3.327	963.700	1936.000	6.928	2.402	43.260	42.390	202.400	0.753

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	101.9%	0.002	-0.012	-0.008	1.094	-0.003	-0.001	0.013	0.011	100.5%
2	07:45:04	103.2%	-0.002	-0.004	0.005	-0.625	-0.005	0.000	0.016	0.020	103.1%
3	07:45:32	108.9%	0.023	-0.005	-0.001	-0.736	-0.004	-0.002	0.019	0.010	109.5%
x		104.7%	0.008	-0.007	-0.001	-0.089	-0.004	-0.001	0.016	0.013	104.3%
σ		3.7%	0.013	0.005	0.006	1.026	0.001	0.001	0.003	0.006	4.6%
%RSD		3.5	174.800	64.580	560.500	1150.000	32.410	140.800	18.460	41.210	4.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	0.298	0.352	0.030	0.029	23.740	23.700	99.4%	0.007	0.003	-0.007
2	07:45:04	0.277	0.354	0.025	0.042	24.710	23.380	101.3%	0.004	0.005	-0.018
3	07:45:32	0.299	0.395	0.022	0.040	24.150	23.920	107.1%	0.001	0.007	-0.020
x		0.291	0.367	0.026	0.037	24.200	23.660	102.6%	0.004	0.005	-0.015
σ		0.013	0.024	0.004	0.007	0.488	0.272	4.0%	0.003	0.002	0.007
%RSD		4.294	6.625	14.500	19.840	2.017	1.148	3.9	69.910	37.790	46.640

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:44:37	-0.014	-0.012	97.5%
2	07:45:04	-0.019	-0.016	101.1%
3	07:45:32	-0.018	-0.017	106.4%
x		-0.017	-0.015	101.7%
σ		0.003	0.002	4.5%
%RSD		17.930	15.540	4.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	98.7%	-0.013	60.580	60.840	94.790	T 2010.000	T 2216.000	2144.000	2098.000	24.210
2	07:51:13	99.0%	0.018	61.580	63.850	97.790	T 2032.000	T 2253.000	2147.000	2123.000	24.690
3	07:51:40	103.2%	0.009	62.930	63.170	96.890	T 1982.000	T 2198.000	2084.000	2106.000	25.080
x		100.3%	0.005	61.700	62.620	96.490	T 2008.000	T 2222.000	2125.000	2109.000	24.660
σ		2.5%	0.016	1.176	1.579	1.540	T 25.000	T 27.810	35.680	12.310	0.434
%RSD		2.5	322.300	1.906	2.522	1.596	T 1.245	T 1.251	1.679	0.584	1.761

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	T 2603.000	T 88880.000	732.000	33860.000	T 35000.000	105.5%	0.598	-0.089	0.351	1882.000
2	07:51:13	T 2675.000	T 90930.000	762.300	34180.000	T 34800.000	105.6%	0.439	0.147	0.379	1934.000
3	07:51:40	T 2546.000	T 91120.000	745.500	34280.000	T 34570.000	105.8%	0.449	0.068	0.336	1955.000
x		T 2608.000	T 90310.000	746.600	34100.000	T 34790.000	105.6%	0.495	0.042	0.356	1924.000
σ		T 64.740	T 1240.000	15.210	221.900	T 213.400	0.2%	0.089	0.120	0.022	37.490
%RSD		T 2.482	T 1.373	2.037	0.651	T 0.613	0.2	17.940	285.000	6.080	1.949

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	4.535	8.777	7.711	291.400	0.175	0.498	0.187	0.076	0.125	1.944
2	07:51:13	5.574	8.739	9.412	327.100	0.190	0.624	-0.147	0.077	0.194	2.021
3	07:51:40	6.342	8.740	10.100	328.800	0.173	0.614	0.410	0.110	0.139	1.988
x		5.484	8.752	9.076	315.800	0.179	0.579	0.150	0.088	0.153	1.984
σ		0.907	0.022	1.231	21.130	0.009	0.071	0.280	0.020	0.037	0.039
%RSD		16.540	0.247	13.570	6.692	5.199	12.190	186.500	22.380	23.960	1.967

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	3.716	3.061	0.083	0.091	19.780	19.180	-0.296	-0.045	-2.336	29.610
2	07:51:13	3.960	3.153	-0.071	0.506	20.560	19.340	0.859	0.166	0.023	29.740
3	07:51:40	3.562	2.998	-0.073	0.508	20.820	21.250	-0.932	-0.187	-2.383	30.060
x		3.746	3.071	-0.021	0.368	20.380	19.920	-0.123	-0.022	-1.565	29.800
σ		0.201	0.078	0.089	0.240	0.542	1.151	0.908	0.177	1.376	0.234
%RSD		5.366	2.544	435.400	65.160	2.659	5.777	736.700	802.800	87.890	0.786

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	104.4%	0.001	-0.013	-0.011	0.301	-0.004	0.000	0.005	0.015	105.3%
2	07:51:13	102.1%	0.012	-0.025	0.007	0.526	-0.003	-0.002	0.009	0.002	103.1%
3	07:51:40	100.5%	-0.007	0.001	0.019	0.323	-0.002	-0.001	-0.003	0.005	101.8%
x		102.3%	0.002	-0.012	0.005	0.383	-0.003	-0.001	0.004	0.008	103.4%
σ		2.0%	0.009	0.013	0.016	0.124	0.001	0.001	0.006	0.007	1.8%
%RSD		1.9	439.500	109.900	311.900	32.410	33.610	134.500	161.000	86.400	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	0.267	0.381	0.028	0.025	26.660	26.570	104.5%	-0.004	0.000	-0.020
2	07:51:13	0.277	0.416	0.030	0.042	26.620	26.240	101.6%	0.008	0.001	-0.012
3	07:51:40	0.219	0.429	0.051	0.037	25.840	26.440	101.2%	-0.004	0.008	-0.011
x		0.254	0.409	0.036	0.034	26.370	26.420	102.4%	-0.000	0.003	-0.014
σ		0.031	0.024	0.012	0.009	0.462	0.166	1.8%	0.007	0.004	0.005
%RSD		12.150	5.986	34.110	25.770	1.750	0.628	1.7	6131.000	143.300	32.910

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:50:47	-0.009	-0.013	102.0%
2	07:51:13	-0.011	-0.012	99.0%
3	07:51:40	-0.011	-0.012	97.5%
x		-0.010	-0.013	99.5%
σ		0.001	0.000	2.3%
%RSD		12.810	1.611	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	98.8%	104.200	160.100	155.200	103.700	┬3081.000	┬3192.000	3058.000	3027.000	120.300
2	07:57:24	98.1%	107.000	161.400	161.200	103.800	┬3119.000	┬3241.000	3122.000	3056.000	122.200
3	07:57:52	103.7%	100.500	161.800	156.400	90.660	┬2995.000	┬3147.000	3076.000	┬3176.000	125.700
x		100.2%	103.900	161.100	157.600	99.370	┬3065.000	┬3194.000	3085.000	┬3086.000	122.700
σ		3.0%	3.285	0.903	3.209	7.545	┬63.340	┬46.610	33.130	┬79.510	2.779
%RSD		3.0	3.162	0.560	2.036	7.593	┬2.066	┬1.459	1.074	┬2.576	2.264

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	┬3425.000	┬84110.000	┬1854.000	33730.000	┬33920.000	104.0%	104.700	103.100	100.600	2007.000
2	07:57:24	┬3513.000	┬84470.000	┬1825.000	33730.000	┬34740.000	103.8%	106.600	102.900	100.300	2455.000
3	07:57:52	┬3437.000	┬85520.000	┬1847.000	33500.000	┬34640.000	105.0%	103.500	101.400	97.670	2893.000
x		┬3458.000	┬84700.000	┬1842.000	33660.000	┬34430.000	104.3%	104.900	102.500	99.530	2452.000
σ		┬47.630	┬729.300	┬14.970	132.300	┬445.900	0.6%	1.563	0.958	1.621	442.900
%RSD		┬1.377	┬0.861	┬0.813	0.393	┬1.295	0.6	1.489	0.935	1.629	18.060

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	1110.000	108.400	┬1089.000	1276.000	96.960	95.140	97.590	100.300	102.200	102.200
2	07:57:24	1112.000	109.200	┬1115.000	1299.000	98.810	98.950	100.300	100.600	100.800	102.400
3	07:57:52	1096.000	105.400	┬1104.000	1340.000	98.690	100.200	99.490	101.000	104.600	100.300
x		1106.000	107.700	┬1103.000	1305.000	98.160	98.080	99.110	100.600	102.500	101.600
σ		8.430	2.001	┬13.170	32.370	1.034	2.622	1.376	0.355	1.917	1.168
%RSD		0.762	1.859	┬1.195	2.480	1.053	2.673	1.388	0.353	1.870	1.149

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	102.000	105.100	102.200	103.200	18.520	18.380	444.000	100.300	-0.973	129.300
2	07:57:24	106.400	104.800	103.400	104.100	18.990	19.940	461.300	104.600	1.055	128.500
3	07:57:52	99.850	104.400	101.600	100.600	18.810	19.250	447.500	101.800	-0.880	130.500
x		102.700	104.800	102.400	102.600	18.780	19.190	450.900	102.200	-0.266	129.400
σ		3.329	0.327	0.922	1.790	0.239	0.780	9.114	2.164	1.145	1.027
%RSD		3.240	0.312	0.900	1.744	1.272	4.062	2.021	2.117	430.800	0.793

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	101.7%	103.500	103.700	103.000	106.300	100.200	100.500	102.900	101.100	102.2%
2	07:57:24	102.4%	103.300	104.600	104.400	105.100	100.600	101.300	103.800	101.200	102.3%
3	07:57:52	99.8%	102.700	105.000	103.200	105.200	99.860	100.000	100.900	99.620	100.0%
x		101.3%	103.200	104.400	103.600	105.500	100.200	100.600	102.500	100.700	101.5%
σ		1.3%	0.369	0.685	0.780	0.653	0.385	0.651	1.482	0.905	1.3%
%RSD		1.3	0.358	0.656	0.754	0.619	0.384	0.647	1.446	0.899	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	104.200	102.200	102.900	105.000	130.400	130.100	101.0%	100.800	99.640	100.600
2	07:57:24	105.200	103.100	102.800	105.600	130.900	131.600	101.3%	99.960	100.000	100.600
3	07:57:52	103.600	102.600	101.200	103.400	131.800	131.900	98.4%	99.290	100.000	99.440
x		104.300	102.600	102.300	104.700	131.000	131.200	100.2%	100.000	99.900	100.200
σ		0.824	0.435	0.952	1.137	0.690	0.986	1.6%	0.774	0.221	0.664
%RSD		0.790	0.424	0.930	1.086	0.527	0.752	1.6	0.774	0.221	0.662

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:56:57	99.590	100.300	97.2%
2	07:57:24	100.100	100.300	96.2%
3	07:57:52	100.500	99.860	93.8%
x		100.100	100.100	95.7%
σ		0.474	0.249	1.8%
%RSD		0.473	0.249	1.9

UD19046-004SD 05/01/2019 08:02:38

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	99.9%	111.400	170.700	162.900	109.900	┬3177.000	┬3353.000	3268.000	3271.000	130.600
2	08:03:32	100.3%	110.400	175.400	167.000	108.000	┬3194.000	┬3352.000	3226.000	3234.000	126.900
3	08:03:59	103.6%	104.500	170.300	165.000	101.700	┬3147.000	┬3305.000	3211.000	3199.000	133.700
x		101.3%	108.800	172.100	165.000	106.500	┬3172.000	┬3337.000	3235.000	3235.000	130.400
σ		2.0%	3.722	2.831	2.015	4.301	┬23.490	┬27.370	29.900	35.910	3.416
%RSD		2.0	3.422	1.645	1.221	4.038	┬0.741	┬0.820	0.924	1.110	2.620

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	┬3605.000	┬88930.000	┬1890.000	35090.000	┬35690.000	102.5%	110.800	107.800	103.900	2616.000
2	08:03:32	┬3532.000	┬89640.000	┬1883.000	34680.000	┬35970.000	102.8%	105.500	106.000	103.000	2501.000
3	08:03:59	┬3557.000	┬93170.000	┬1980.000	35520.000	┬36570.000	101.2%	105.400	107.200	103.600	2717.000
x		┬3564.000	┬90580.000	┬1918.000	35100.000	┬36080.000	102.2%	107.200	107.000	103.500	2611.000
σ		┬37.050	┬2272.000	┬53.770	416.700	┬447.800	0.8%	3.069	0.932	0.461	108.000
%RSD		┬1.040	┬2.508	┬2.804	1.187	┬1.241	0.8	2.862	0.871	0.446	4.136

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	1129.000	108.600	┬1127.000	1373.000	103.200	102.700	102.900	101.500	102.900	107.700
2	08:03:32	1138.000	110.900	┬1142.000	1345.000	100.700	99.560	103.500	105.100	107.400	107.600
3	08:03:59	1146.000	111.500	┬1154.000	1443.000	104.200	103.200	103.700	106.100	106.000	106.700
x		1138.000	110.400	┬1141.000	1387.000	102.700	101.800	103.400	104.300	105.400	107.300
σ		8.609	1.539	┬13.520	50.340	1.803	1.972	0.423	2.410	2.281	0.564
%RSD		0.756	1.394	┬1.184	3.629	1.756	1.937	0.409	2.311	2.163	0.526

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	105.900	107.200	105.700	112.500	13.640	15.530	464.200	107.900	-0.473	132.900
2	08:03:32	109.000	108.700	109.000	110.500	13.310	13.500	482.300	110.600	-0.679	133.500
3	08:03:59	102.900	107.700	105.100	112.000	13.750	13.560	493.200	113.300	-0.812	134.100
x		105.900	107.900	106.600	111.700	13.560	14.200	479.900	110.600	-0.655	133.500
σ		3.078	0.755	2.136	1.023	0.229	1.157	14.640	2.690	0.171	0.583
%RSD		2.906	0.700	2.004	0.916	1.686	8.153	3.050	2.432	26.060	0.437

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	100.4%	106.100	106.400	105.900	105.300	103.900	104.700	105.800	105.600	98.1%
2	08:03:32	100.3%	107.300	108.200	108.200	102.600	103.100	104.000	105.700	105.400	99.3%
3	08:03:59	99.2%	108.000	107.200	106.800	110.200	104.100	105.200	106.100	105.000	98.0%
x		100.0%	107.100	107.300	107.000	106.000	103.700	104.600	105.900	105.300	98.4%
σ		0.7%	0.991	0.882	1.171	3.840	0.507	0.620	0.223	0.330	0.7%
%RSD		0.7	0.925	0.822	1.095	3.621	0.489	0.593	0.211	0.313	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	109.200	107.100	107.400	108.100	134.900	137.100	97.6%	103.400	103.100	103.000
2	08:03:32	107.800	107.700	106.100	108.400	137.100	136.300	98.9%	103.100	103.000	104.200
3	08:03:59	108.300	106.400	104.900	106.100	135.600	136.100	97.2%	102.700	103.200	102.200
x		108.400	107.100	106.100	107.500	135.900	136.500	97.9%	103.100	103.100	103.100
σ		0.674	0.628	1.224	1.249	1.129	0.542	0.9%	0.352	0.131	1.026
%RSD		0.622	0.587	1.154	1.161	0.831	0.397	0.9	0.341	0.128	0.994

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:03:05	103.100	102.800	92.6%
2	08:03:32	103.100	103.200	93.9%
3	08:03:59	101.900	102.200	91.8%
x		102.700	102.700	92.8%
σ		0.695	0.524	1.1%
%RSD		0.676	0.510	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	100.6%	-0.001	13.230	13.520	68.170	386.200	453.500	436.100	431.500	5.574
2	08:09:40	101.3%	-0.020	13.020	13.280	64.550	385.200	436.800	425.300	418.600	5.546
3	08:10:07	102.3%	0.018	13.470	14.060	74.840	389.800	439.900	436.800	436.600	5.524
x		101.4%	-0.001	13.240	13.620	69.190	387.100	443.400	432.700	428.900	5.548
σ		0.8%	0.019	0.224	0.400	5.223	2.447	8.881	6.428	9.276	0.025
%RSD		0.8	1528.000	1.694	2.937	7.549	0.632	2.003	1.486	2.163	0.447

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	534.200	T 18760.000	153.400	6890.000	6608.000	102.7%	0.152	0.103	0.156	324.700
2	08:09:40	539.200	T 18730.000	154.600	6795.000	6577.000	102.9%	0.035	0.032	0.122	379.900
3	08:10:07	526.600	T 19320.000	162.000	6862.000	6564.000	99.7%	0.040	0.010	0.110	464.400
x		533.400	T 18940.000	156.600	6849.000	6583.000	101.8%	0.076	0.048	0.129	389.700
σ		6.325	T 334.600	4.663	48.720	22.580	1.8%	0.066	0.048	0.024	70.400
%RSD		1.186	T 1.766	2.977	0.711	0.343	1.8	86.970	100.700	18.290	18.070

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	0.936	1.834	7.458	68.360	0.054	0.098	-0.231	-0.006	0.030	0.444
2	08:09:40	2.012	1.769	6.775	71.950	0.054	0.072	-0.256	0.010	0.063	0.441
3	08:10:07	2.211	1.831	8.382	80.900	0.057	0.178	0.246	-0.005	0.061	0.436
x		1.720	1.811	7.539	73.740	0.055	0.116	-0.080	-0.000	0.051	0.440
σ		0.686	0.037	0.807	6.456	0.002	0.055	0.283	0.009	0.018	0.004
%RSD		39.900	2.016	10.700	8.755	3.704	47.500	353.500	3205.000	35.990	0.862

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	0.781	0.698	-0.036	0.611	4.715	6.164	-2.814	-0.627	-0.279	5.944
2	08:09:40	0.984	0.711	-0.227	0.399	3.822	4.740	-1.565	-0.274	-2.806	5.963
3	08:10:07	0.809	0.651	0.001	1.185	4.868	4.043	0.547	0.196	-3.743	6.035
x		0.858	0.687	-0.087	0.732	4.468	4.982	-1.277	-0.235	-2.276	5.981
σ		0.110	0.032	0.122	0.407	0.565	1.081	1.699	0.413	1.792	0.048
%RSD		12.790	4.645	140.200	55.610	12.650	21.700	133.000	175.800	78.720	0.800

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	100.7%	0.002	0.006	0.025	-0.267	-0.004	-0.000	0.001	0.010	99.4%
2	08:09:40	101.0%	0.029	0.001	0.021	0.320	-0.002	0.001	-0.003	0.009	99.1%
3	08:10:07	97.9%	0.022	0.011	0.018	0.319	-0.003	-0.000	0.001	0.001	98.7%
x		99.9%	0.018	0.006	0.021	0.124	-0.003	0.000	-0.000	0.006	99.1%
σ		1.7%	0.014	0.005	0.003	0.338	0.001	0.001	0.002	0.005	0.4%
%RSD		1.7	80.350	82.650	14.990	272.800	41.900	343.200	2222.000	79.140	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	0.060	0.095	-0.006	0.013	5.672	5.554	96.3%	0.033	0.024	-0.019
2	08:09:40	0.045	0.083	0.004	0.002	5.209	5.629	96.4%	0.036	0.012	-0.015
3	08:10:07	0.055	0.082	0.003	0.011	5.475	5.483	95.5%	0.026	0.023	-0.015
x		0.053	0.087	0.001	0.009	5.452	5.556	96.1%	0.031	0.020	-0.017
σ		0.007	0.007	0.006	0.006	0.232	0.073	0.5%	0.005	0.007	0.002
%RSD		13.970	8.259	741.900	72.780	4.263	1.316	0.5	16.240	33.340	13.490

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:09:13	-0.016	-0.015	93.0%
2	08:09:40	-0.017	-0.016	92.9%
3	08:10:07	-0.019	-0.019	92.1%
x		-0.017	-0.016	92.7%
σ		0.001	0.002	0.5%
%RSD		8.141	13.260	0.5

CCV MW10994 05/01/2019 08:14:54 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	94.0%	319.000	314.500	311.400	87.580	T 71430.000	T 69060.000	T 69470.000	T 68380.000	323.600
2	08:15:49	92.9%	318.100	323.000	317.800	73.440	T 69920.000	T 67870.000	T 67610.000	T 68240.000	315.200
3	08:16:16	93.2%	325.300	334.500	313.900	79.250	T 72720.000	T 69660.000	T 68320.000	T 68010.000	319.200
x		93.4%	106.935%	108.001%	104.785%	80.090	T 118.929%	T 68860.000	T 68470.000	T 113.680%	106.443%
σ		0.6%	n/a	n/a	n/a	7.109	T n/a	T 913.500	T 937.900	T n/a	n/a
%RSD		0.6	1.234	3.102	1.031	8.877	T 1.969	T 1.327	T 1.370	T 0.275	1.322

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	T 3596.000	715.500	T 69460.000	67460.000	T 69170.000	95.7%	321.100	330.900	312.100	1711.000
2	08:15:49	T 3730.000	697.200	T 68080.000	65630.000	T 67710.000	98.4%	323.000	323.300	306.500	2095.000
3	08:16:16	T 3658.000	708.400	T 68820.000	66190.000	T 69380.000	97.6%	325.500	327.700	310.900	2202.000
x		T 122.045%	707.000	T 114.642%	66430.000	T 114.585%	97.2%	107.726%	109.108%	103.276%	2003.000
σ		T n/a	9.198	T n/a	936.000	T n/a	1.4%	n/a	n/a	n/a	258.200
%RSD		T 1.839	1.301	T 1.004	1.409	T 1.326	1.4	0.677	1.168	0.958	12.890

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	T 66020.000	302.100	T 66890.000	T 66000.000	311.200	300.300	300.200	299.800	314.500	313.500
2	08:15:49	T 66370.000	306.400	T 66430.000	T 64660.000	303.400	296.900	298.800	297.200	313.000	312.800
3	08:16:16	T 68030.000	301.700	T 66670.000	T 64780.000	301.900	295.000	301.700	298.100	306.300	310.800
x		T 66810.000	101.129%	T 66660.000	T 108.577%	101.836%	99.140%	300.200	298.400	103.758%	104.122%
σ		T 1074.000	n/a	T 227.800	T n/a	n/a	n/a	1.465	1.328	n/a	n/a
%RSD		T 1.608	0.849	T 0.342	T 1.137	1.639	0.903	0.488	0.445	1.416	0.449

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	302.000	303.300	309.600	321.600	2.733	2.232	1386.000	326.300	1.232	314.300
2	08:15:49	296.500	302.300	305.700	324.600	2.359	2.059	1384.000	326.500	-0.057	313.600
3	08:16:16	298.300	307.700	304.700	312.100	2.700	2.083	1341.000	310.600	3.191	317.500
x		299.000	304.500	102.216%	319.500	2.598	2.125	1371.000	107.050%	1.456	105.044%
σ		2.803	2.899	n/a	6.524	0.208	0.094	25.280	n/a	1.635	n/a
%RSD		0.938	0.952	0.853	2.042	7.987	4.434	1.845	2.852	112.400	0.653

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	92.4%	330.800	330.500	327.600	314.800	305.100	306.500	312.800	312.300	89.3%
2	08:15:49	94.3%	329.200	329.900	330.000	311.400	304.500	307.300	313.700	315.400	91.0%
3	08:16:16	93.1%	331.300	330.200	329.600	314.000	306.200	306.300	318.700	313.100	91.6%
x		93.3%	110.141%	110.072%	329.100	313.400	101.744%	306.700	315.100	104.544%	90.6%
σ		0.9%	n/a	n/a	1.272	1.811	n/a	0.568	3.199	n/a	1.2%
%RSD		1.0	0.332	0.090	0.386	0.578	0.283	0.185	1.015	0.514	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	324.300	321.200	327.300	325.000	329.100	328.800	90.1%	301.200	306.600	299.300
2	08:15:49	328.500	325.800	329.800	326.300	330.400	330.200	91.8%	303.700	308.400	301.200
3	08:16:16	325.300	324.000	330.800	327.400	324.400	327.100	93.3%	302.900	307.600	298.200
x		108.678%	107.876%	329.300	108.752%	109.321%	109.562%	91.7%	302.600	102.509%	99.863%
σ		n/a	n/a	1.817	n/a	n/a	n/a	1.6%	1.266	n/a	n/a
%RSD		0.669	0.715	0.552	0.369	0.958	0.477	1.7	0.418	0.308	0.504

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:15:22	296.000	298.900	82.0%
2	08:15:49	300.500	301.200	83.7%
3	08:16:16	298.500	300.600	85.4%
x		99.442%	100.080%	83.7%
σ		n/a	n/a	1.7%
%RSD		0.747	0.391	2.1

CCB IM9390-01 05/01/2019 08:21:03 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	101.6%	0.012	3.586	2.997	67.310	2.938	0.203	0.295	0.196	-0.007
2	08:21:57	96.8%	0.056	2.541	2.602	65.120	1.426	0.133	-0.001	0.310	-0.037
3	08:22:25	98.7%	0.033	2.604	2.322	66.980	1.170	0.062	0.065	0.315	-0.016
x		99.0%	0.034	2.910	2.640	66.470	1.845	0.132	0.120	0.274	-0.020
σ		2.4%	0.022	0.586	0.340	1.183	0.956	0.070	0.156	0.067	0.016
%RSD		2.5	64.410	20.130	12.860	1.780	51.810	53.130	129.900	24.560	78.380
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	16.850	506.900	11.970	0.374	0.880	101.4%	-0.068	-0.010	0.056	29.900
2	08:21:57	17.990	488.700	13.150	0.343	-0.032	102.3%	-0.104	0.009	0.050	23.870
3	08:22:25	17.450	461.700	13.310	2.190	0.250	102.3%	-0.069	-0.025	0.050	44.590
x		17.430	485.800	12.810	0.969	0.366	102.0%	-0.080	-0.009	0.052	32.790
σ		0.568	22.780	0.730	1.058	0.467	0.5%	0.020	0.017	0.003	10.660
%RSD		3.258	4.689	5.701	109.100	127.600	0.5	25.320	195.500	6.708	32.510
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	2.616	0.006	8.721	11.540	0.024	0.011	-0.263	0.006	-0.007	-0.022
2	08:21:57	1.565	0.023	6.863	4.502	0.029	0.013	-0.162	-0.016	0.005	0.008
3	08:22:25	1.623	0.012	6.727	6.620	0.025	0.008	0.073	-0.022	0.021	0.012
x		1.935	0.014	7.437	7.555	0.026	0.011	-0.117	-0.011	0.006	-0.001
σ		0.591	0.008	1.114	3.613	0.002	0.003	0.173	0.014	0.014	0.019
%RSD		30.530	61.460	14.980	47.820	8.480	27.010	146.900	134.100	211.300	2161.000
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	0.032	0.019	-0.008	0.078	0.775	2.533	-1.608	-0.337	-1.572	0.003
2	08:21:57	0.098	0.116	-0.042	0.446	1.678	1.523	-0.881	-0.231	1.661	0.002
3	08:22:25	-0.017	0.049	0.026	0.349	1.139	1.925	-0.430	-0.135	2.122	-0.002
x		0.038	0.061	-0.008	0.291	1.198	1.994	-0.973	-0.234	0.737	0.001
σ		0.057	0.050	0.034	0.191	0.454	0.508	0.594	0.101	2.013	0.003
%RSD		152.600	81.690	429.000	65.580	37.940	25.490	61.070	42.950	273.200	193.800
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	97.3%	0.082	0.057	0.056	0.067	0.003	0.003	0.001	0.007	98.4%
2	08:21:57	100.0%	0.057	0.086	0.034	0.043	-0.000	0.003	0.001	0.002	99.5%
3	08:22:25	99.5%	0.052	0.051	0.075	1.748	0.000	0.001	0.013	0.002	98.8%
x		98.9%	0.064	0.065	0.055	0.619	0.001	0.003	0.005	0.004	98.9%
σ		1.4%	0.016	0.019	0.021	0.978	0.002	0.001	0.007	0.003	0.6%
%RSD		1.5	24.910	28.950	37.880	157.900	171.000	38.280	134.600	83.720	0.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	0.048	0.086	0.086	0.109	0.010	0.028	94.5%	-0.004	-0.012	-0.007
2	08:21:57	0.050	0.093	0.110	0.134	0.009	0.020	97.3%	-0.002	-0.006	0.004
3	08:22:25	0.036	0.094	0.120	0.112	-0.014	0.024	96.5%	-0.009	-0.004	0.003
x		0.045	0.091	0.105	0.118	0.002	0.024	96.1%	-0.005	-0.007	-0.000
σ		0.008	0.005	0.018	0.014	0.013	0.004	1.4%	0.004	0.004	0.006
%RSD		16.980	5.151	16.810	11.450	892.300	16.580	1.5	71.890	61.800	1458.000
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	08:21:30	0.000	0.001	91.7%							
2	08:21:57	-0.003	-0.000	96.0%							
3	08:22:25	0.017	0.005	94.4%							
x		0.005	0.002	94.0%							
σ		0.011	0.003	2.2%							
%RSD		229.500	133.700	2.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	106.4%	0.018	1.945	1.664	67.000	31.940	1.219	1.267	1.302	1.407
2	08:28:06	103.2%	0.013	2.304	1.843	74.480	29.380	1.490	1.212	1.509	0.867
3	08:28:33	108.0%	-0.008	2.246	1.709	61.520	28.390	2.266	2.087	2.208	1.102
x		105.9%	0.008	2.165	1.738	67.670	29.910	1.659	1.522	1.673	1.125
σ		2.5%	0.014	0.193	0.093	6.505	1.832	0.544	0.490	0.475	0.271
%RSD		2.3	181.600	8.917	5.346	9.614	6.127	32.770	32.220	28.380	24.070

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	20.260	T 493900.000	68.780	-0.858	3.006	100.5%	0.170	-0.468	2.317	11000.000
2	08:28:06	19.940	T 476400.000	63.170	2.774	2.478	102.5%	0.234	0.533	1.700	9081.000
3	08:28:33	19.590	T 476700.000	53.780	2.147	3.657	102.5%	0.246	-0.334	1.748	10870.000
x		19.930	T 482300.000	61.910	1.354	3.047	101.8%	0.217	-0.090	1.922	10320.000
σ		0.335	T 10010.000	7.578	1.941	0.591	1.1%	0.041	0.543	0.343	1071.000
%RSD		1.682	T 2.076	12.240	143.300	19.380	1.1	18.930	605.500	17.850	10.380

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	24.880	15.790	13.320	3.710	0.031	0.475	0.382	0.147	0.105	0.754
2	08:28:06	21.630	15.830	9.221	-4.449	0.038	0.448	0.229	0.150	0.076	0.711
3	08:28:33	22.660	15.110	9.936	0.870	0.029	0.391	0.077	0.189	0.074	0.685
x		23.060	15.580	10.830	0.043	0.033	0.438	0.229	0.162	0.085	0.716
σ		1.658	0.405	2.189	4.142	0.005	0.043	0.152	0.024	0.017	0.035
%RSD		7.191	2.597	20.220	9545.000	14.950	9.776	66.460	14.570	20.420	4.865

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	0.739	0.732	-0.077	0.508	127.300	127.700	0.165	-0.123	2.145	0.010
2	08:28:06	1.112	0.579	0.272	0.283	100.200	102.000	1.725	0.334	-1.882	0.003
3	08:28:33	0.964	0.677	-0.464	0.099	89.520	87.010	0.799	0.077	2.122	-0.001
x		0.938	0.663	-0.090	0.297	105.700	105.600	0.896	0.096	0.795	0.004
σ		0.188	0.078	0.368	0.205	19.490	20.590	0.785	0.229	2.318	0.006
%RSD		20.010	11.710	410.800	69.100	18.440	19.510	87.550	238.600	291.500	141.500

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	96.9%	0.189	0.173	0.148	-0.785	-0.001	0.003	-0.003	-0.023	95.4%
2	08:28:06	99.1%	0.116	0.123	0.135	-0.088	0.000	0.001	-0.003	0.004	99.0%
3	08:28:33	96.9%	0.117	0.122	0.157	0.938	0.002	0.001	-0.003	0.027	95.0%
x		97.6%	0.141	0.139	0.146	0.021	0.000	0.001	-0.003	0.003	96.5%
σ		1.3%	0.041	0.029	0.011	0.867	0.001	0.001	0.000	0.025	2.2%
%RSD		1.3	29.470	20.740	7.492	4035.000	292.200	85.190	1.575	984.800	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	4.749	7.039	0.208	0.170	0.004	0.015	93.6%	-0.013	-0.015	-0.006
2	08:28:06	4.837	6.827	0.206	0.200	0.048	0.052	98.0%	-0.011	-0.012	-0.018
3	08:28:33	4.845	6.696	0.194	0.177	0.016	0.031	94.9%	-0.006	-0.012	-0.016
x		4.810	6.854	0.203	0.183	0.023	0.033	95.5%	-0.010	-0.013	-0.013
σ		0.053	0.173	0.007	0.016	0.023	0.019	2.3%	0.003	0.002	0.007
%RSD		1.110	2.520	3.677	8.556	100.300	56.860	2.4	31.780	15.450	49.380

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:27:40	-0.017	-0.007	89.8%
2	08:28:06	-0.002	-0.009	95.2%
3	08:28:33	-0.019	-0.010	91.2%
x		-0.013	-0.009	92.1%
σ		0.009	0.001	2.8%
%RSD		73.300	14.580	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	99.7%	0.065	1.754	1.341	21.430	40.250	433.500	421.800	419.100	TM 981.600
2	08:34:16	98.7%	0.024	1.073	1.295	15.390	37.440	415.100	405.000	407.000	TM 940.000
3	08:34:42	100.6%	0.045	1.644	1.174	16.610	40.240	414.200	413.100	417.900	TM 952.400
x		99.6%	0.045	1.490	1.270	17.810	39.310	420.900	413.300	414.700	TM 958.000
σ		1.0%	0.021	0.365	0.086	3.196	1.618	10.900	8.430	6.635	TM 21.380
%RSD		1.0	46.200	24.530	6.792	17.940	4.115	2.590	2.040	1.600	TM 2.231

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	66.730	T 10310.000	140.800	11570.000	11230.000	98.6%	42.920	7.288	1.661	302.900
2	08:34:16	64.350	T 10010.000	138.700	11460.000	10940.000	99.8%	41.650	7.060	1.689	316.900
3	08:34:42	T 76.200	T 10140.000	141.500	11360.000	10870.000	98.7%	38.870	6.845	1.640	347.200
x		T 69.090	T 10150.000	140.300	11470.000	11010.000	99.0%	41.150	7.064	1.663	322.300
σ		T 6.265	T 149.900	1.447	105.700	188.200	0.6%	2.073	0.222	0.025	22.670
%RSD		T 9.068	T 1.477	1.031	0.922	1.709	0.6	5.037	3.137	1.480	7.035

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	2563.000	T 379.900	T 2650.000	2561.000	0.975	1.820	1.642	0.697	0.674	5.833
2	08:34:16	2493.000	363.800	T 2560.000	2506.000	0.974	1.691	1.963	0.642	0.619	5.655
3	08:34:42	2532.000	366.100	T 2579.000	2523.000	0.919	1.733	1.637	0.612	0.756	6.255
x		2529.000	T 369.900	T 2596.000	2530.000	0.956	1.748	1.747	0.650	0.683	5.914
σ		35.370	T 8.726	T 47.350	28.300	0.032	0.066	0.187	0.043	0.069	0.308
%RSD		1.398	T 2.359	T 1.824	1.119	3.346	3.759	10.700	6.676	10.090	5.211

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	6.339	5.967	0.151	0.186	2.472	3.639	-0.494	-0.059	-0.684	9.937
2	08:34:16	5.285	5.691	0.171	0.064	2.712	3.292	-0.005	0.081	-1.480	9.653
3	08:34:42	5.490	5.516	0.199	0.646	2.551	2.969	0.220	0.140	-1.938	9.745
x		5.704	5.725	0.174	0.299	2.578	3.300	-0.093	0.054	-1.367	9.778
σ		0.559	0.228	0.025	0.307	0.123	0.335	0.365	0.102	0.635	0.145
%RSD		9.800	3.978	14.130	102.700	4.751	10.150	391.500	189.700	46.430	1.480

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	97.3%	0.023	0.021	0.024	1.461	-0.001	-0.000	0.026	0.027	94.3%
2	08:34:16	100.0%	0.041	0.019	0.031	1.983	0.005	0.001	0.001	0.017	96.1%
3	08:34:42	96.3%	0.041	0.049	0.012	2.119	-0.002	-0.001	0.010	0.031	93.4%
x		97.9%	0.035	0.030	0.022	1.854	0.001	-0.000	0.012	0.025	94.6%
σ		1.9%	0.010	0.017	0.010	0.347	0.004	0.001	0.012	0.007	1.4%
%RSD		2.0	29.970	56.340	44.290	18.730	479.000	413.600	101.900	28.370	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	0.112	0.138	0.020	0.021	9.527	9.724	91.9%	0.002	-0.005	0.282
2	08:34:16	0.071	0.166	0.012	0.029	10.020	9.720	93.7%	0.006	0.003	0.294
3	08:34:42	0.072	0.136	0.005	0.028	9.642	9.473	92.1%	-0.004	-0.003	0.274
x		0.085	0.147	0.012	0.026	9.731	9.639	92.6%	0.001	-0.002	0.283
σ		0.024	0.017	0.008	0.004	0.260	0.144	1.0%	0.005	0.004	0.010
%RSD		27.660	11.430	60.790	15.230	2.674	1.490	1.0	382.200	236.800	3.549

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:33:49	0.258	0.284	89.8%
2	08:34:16	0.244	0.271	92.0%
3	08:34:42	0.294	0.283	89.7%
x		0.266	0.279	90.5%
σ		0.026	0.007	1.3%
%RSD		9.688	2.634	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	96.9%	-0.038	72.940	83.690	-10.010	TM 156600.000	T 4436.000	T 4581.000	T 4769.000	TM 1357.000
2	08:40:24	96.9%	-0.033	73.460	84.980	-4.732	TM 158100.000	T 4498.000	T 4565.000	T 4744.000	TM 1346.000
3	08:40:51	96.1%	-0.040	72.100	80.690	-10.910	TM 158800.000	T 4351.000	T 4479.000	T 4610.000	TM 1263.000
x		96.6%	-0.037	72.830	83.120	-8.552	TM 157800.000	T 4428.000	T 4542.000	T 4708.000	TM 1322.000
σ		0.5%	0.004	0.685	2.200	3.339	TM 1155.000	T 73.980	T 54.940	T 85.640	TM 51.540
%RSD		0.5	9.561	0.941	2.647	39.040	TM 0.732	T 1.671	T 1.210	T 1.819	TM 3.899

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	T 8125.000	T 74160.000	T 21960.000	60750.000	T 64140.000	95.9%	18.040	24.740	3.654	2126.000
2	08:40:24	T 8176.000	T 77250.000	T 22730.000	61810.000	T 64700.000	96.7%	18.300	24.750	3.754	2152.000
3	08:40:51	T 7992.000	T 73930.000	T 21780.000	61570.000	T 65330.000	99.1%	16.990	24.660	3.595	1843.000
x		T 8098.000	T 75110.000	T 22160.000	61380.000	T 64720.000	97.2%	17.780	24.720	3.668	2040.000
σ		T 94.990	T 1855.000	T 504.500	557.500	T 597.000	1.7%	0.693	0.047	0.081	171.300
%RSD		T 1.173	T 2.469	T 2.277	0.908	T 0.922	1.7	3.897	0.189	2.198	8.398

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	1447.000	79.350	T 1545.000	2061.000	0.878	11.870	12.050	21.010	22.550	103.500
2	08:40:24	1481.000	79.550	T 1591.000	2071.000	0.879	12.200	12.420	21.040	23.620	106.000
3	08:40:51	1480.000	78.760	T 1532.000	1945.000	0.861	11.770	10.850	20.960	22.060	103.700
x		1469.000	79.220	T 1556.000	2026.000	0.873	11.950	11.770	21.000	22.740	104.400
σ		19.570	0.410	T 31.140	69.940	0.010	0.222	0.818	0.043	0.799	1.380
%RSD		1.332	0.517	T 2.001	3.452	1.176	1.862	6.949	0.206	3.513	1.322

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	92.080	95.390	19.830	1.119	84.470	82.270	6.949	1.653	-1.354	144.500
2	08:40:24	95.580	99.280	20.090	1.424	83.730	85.400	4.446	1.072	-2.034	145.800
3	08:40:51	97.630	100.100	19.640	1.750	80.400	81.640	2.526	0.485	1.665	143.900
x		95.100	98.250	19.850	1.431	82.870	83.100	4.640	1.070	-0.575	144.700
σ		2.804	2.509	0.228	0.315	2.166	2.012	2.218	0.584	1.969	0.961
%RSD		2.949	2.554	1.147	22.040	2.614	2.421	47.800	54.560	342.800	0.664

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	93.9%	M 793.200	M 786.600	M 797.000	9.058	2.406	2.419	-1.832	0.144	89.8%
2	08:40:24	93.9%	M 796.600	M 792.500	M 799.600	9.213	2.421	2.433	-1.933	0.138	90.0%
3	08:40:51	97.7%	M 784.700	M 790.400	M 798.300	4.842	2.360	2.492	-2.038	0.095	95.7%
x		95.2%	M 791.500	M 789.800	M 798.300	7.705	2.396	2.448	-1.935	0.126	91.8%
σ		2.2%	M 6.124	M 2.993	M 1.349	2.480	0.032	0.039	0.103	0.027	3.4%
%RSD		2.3	M 0.774	M 0.379	M 0.169	32.190	1.336	1.589	5.331	21.310	3.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	2.688	3.042	1.998	1.892	56.160	54.420	93.1%	3.114	2.589	1.357
2	08:40:24	2.737	3.027	2.001	1.906	55.550	55.540	93.4%	3.108	2.561	1.312
3	08:40:51	2.666	2.933	2.039	1.982	55.010	56.530	99.8%	3.094	2.566	1.279
x		2.697	3.001	2.013	1.927	55.570	55.500	95.4%	3.106	2.572	1.316
σ		0.036	0.059	0.023	0.049	0.576	1.055	3.8%	0.010	0.015	0.039
%RSD		1.346	1.967	1.127	2.519	1.036	1.900	4.0	0.326	0.581	2.989

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:39:57	1.188	1.256	89.1%
2	08:40:24	1.217	1.242	89.3%
3	08:40:51	1.251	1.245	97.1%
x		1.219	1.248	91.8%
σ		0.032	0.007	4.5%
%RSD		2.604	0.591	4.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	T 118.0%	0.055	13.570	12.420	90.750	T 1918.000	T 631.300	585.500	594.000	35.680
2	08:46:31	103.7%	0.015	12.000	11.670	78.800	T 1879.000	T 595.000	578.600	580.200	33.270
3	08:46:58	102.7%	0.012	12.630	11.960	87.250	T 1907.000	594.900	567.600	575.200	33.430
x		T 108.2%	0.027	12.730	12.020	85.600	T 1901.000	T 607.000	577.300	583.100	34.130
σ		T 8.6%	0.024	0.789	0.379	6.142	T 20.440	T 20.990	9.017	9.745	1.347
%RSD		T 7.9	86.580	6.195	3.155	7.175	T 1.075	T 3.458	1.562	1.671	3.948
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	T 2120.000	T 91190.000	638.900	316.600	354.900	103.2%	0.718	0.020	0.466	2083.000
2	08:46:31	T 2358.000	T 88260.000	621.300	329.500	345.600	105.2%	0.589	-0.012	0.383	1823.000
3	08:46:58	T 2358.000	T 87940.000	617.700	317.700	341.100	106.7%	0.389	-0.090	0.388	1840.000
x		T 2279.000	T 89130.000	626.000	321.300	347.200	105.0%	0.565	-0.027	0.412	1915.000
σ		T 137.700	T 1790.000	11.330	7.170	7.033	1.7%	0.166	0.056	0.046	145.400
%RSD		T 6.043	T 2.008	1.810	2.232	2.025	1.7	29.390	206.600	11.230	7.594
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	7.542	3.220	7.956	0.770	0.230	0.290	0.576	0.332	0.343	2.217
2	08:46:31	5.066	3.172	5.346	-6.278	0.207	0.222	0.497	0.327	0.305	2.015
3	08:46:58	4.122	3.126	5.461	-13.060	0.230	0.292	0.426	0.288	0.205	2.089
x		5.577	3.173	6.254	-6.190	0.222	0.268	0.500	0.316	0.284	2.107
σ		1.767	0.047	1.475	6.917	0.013	0.040	0.075	0.024	0.071	0.102
%RSD		31.680	1.483	23.580	111.700	6.038	14.810	15.000	7.644	24.970	4.839
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	3.530	3.083	-0.096	0.583	3.864	4.169	-1.300	-0.261	-0.860	4.214
2	08:46:31	2.798	2.873	-0.031	0.137	4.943	4.694	-1.761	-0.423	1.432	4.213
3	08:46:58	3.397	3.182	0.161	0.578	4.591	4.554	-0.409	-0.101	1.149	4.219
x		3.242	3.046	0.011	0.433	4.466	4.472	-1.157	-0.262	0.574	4.215
σ		0.390	0.158	0.134	0.256	0.550	0.272	0.687	0.161	1.250	0.003
%RSD		12.020	5.180	1202.000	59.210	12.320	6.083	59.420	61.470	217.800	0.075
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	99.7%	0.188	0.194	0.167	-0.577	-0.005	-0.002	0.008	0.013	98.5%
2	08:46:31	105.5%	0.148	0.135	0.149	0.099	-0.006	0.001	0.023	0.017	103.8%
3	08:46:58	106.4%	0.118	0.150	0.131	-0.402	-0.003	-0.001	0.023	0.018	104.4%
x		103.9%	0.151	0.160	0.149	-0.293	-0.005	-0.001	0.018	0.016	102.2%
σ		3.6%	0.035	0.030	0.018	0.351	0.002	0.002	0.008	0.003	3.2%
%RSD		3.5	23.320	19.030	12.260	119.700	36.550	268.500	45.990	18.540	3.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	0.322	0.420	0.010	0.045	22.100	22.490	97.1%	-0.001	-0.007	-0.017
2	08:46:31	0.321	0.426	0.031	0.031	21.720	21.670	102.9%	0.001	-0.008	-0.010
3	08:46:58	0.253	0.390	0.031	0.041	21.500	21.870	103.0%	-0.003	-0.008	-0.014
x		0.299	0.412	0.024	0.039	21.770	22.010	101.0%	-0.001	-0.008	-0.013
σ		0.039	0.020	0.012	0.007	0.300	0.425	3.4%	0.002	0.001	0.003
%RSD		13.140	4.737	49.600	18.570	1.376	1.932	3.4	235.700	9.950	24.910
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	08:46:04	-0.013	-0.014	94.5%							
2	08:46:31	-0.010	-0.009	100.7%							
3	08:46:58	-0.014	-0.014	101.2%							
x		-0.012	-0.013	98.8%							
σ		0.002	0.003	3.7%							
%RSD		17.750	22.540	3.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	100.4%	107.300	119.500	111.300	98.110	T3091.000	T1771.000	1712.000	1717.000	143.400
2	08:52:39	102.4%	105.300	122.000	118.100	99.420	T3153.000	T1806.000	1708.000	1707.000	148.800
3	08:53:06	104.8%	104.800	121.100	120.300	107.000	T3146.000	T1770.000	1651.000	1708.000	147.900
x		102.5%	105.800	120.900	116.600	101.500	T3130.000	T1782.000	1690.000	1710.000	146.700
σ		2.2%	1.278	1.271	4.675	4.805	T34.170	T20.460	34.330	5.442	2.874
%RSD		2.2	1.208	1.051	4.011	4.733	T1.092	T1.148	2.031	0.318	1.960

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	T3541.000	T87710.000	T1812.000	1612.000	1471.000	102.9%	109.900	106.000	103.600	2397.000
2	08:52:39	T3478.000	T92210.000	T1925.000	1609.000	1527.000	99.3%	109.600	106.800	107.300	2783.000
3	08:53:06	T3448.000	T90740.000	T1874.000	1660.000	1502.000	100.9%	110.300	107.900	104.300	3073.000
x		T3489.000	T90220.000	T1870.000	1627.000	1500.000	101.0%	110.000	106.900	105.100	2751.000
σ		T47.490	T2293.000	T56.410	28.850	27.900	1.8%	0.351	0.926	1.937	339.300
%RSD		T1.361	T2.542	T3.016	1.773	1.860	1.8	0.319	0.866	1.844	12.330

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	1152.000	107.900	T1144.000	1053.000	104.300	105.100	103.400	106.500	108.200	108.500
2	08:52:39	1192.000	108.500	T1170.000	1086.000	106.500	109.300	107.400	108.800	111.200	107.200
3	08:53:06	1157.000	108.100	T1168.000	1108.000	104.800	104.900	106.600	108.900	110.200	108.100
x		1167.000	108.200	T1160.000	1082.000	105.200	106.500	105.800	108.100	109.900	107.900
σ		22.180	0.270	T14.470	27.770	1.151	2.503	2.105	1.345	1.502	0.636
%RSD		1.900	0.250	T1.247	2.566	1.094	2.351	1.991	1.245	1.367	0.590

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	105.200	109.700	105.300	110.700	3.300	4.128	475.700	110.200	1.705	108.800
2	08:52:39	108.300	108.400	105.200	108.900	3.605	4.395	450.900	104.500	-0.160	109.100
3	08:53:06	105.100	108.100	106.000	106.000	3.825	4.051	467.300	107.200	-0.645	108.500
x		106.200	108.700	105.500	108.500	3.577	4.191	464.600	107.300	0.300	108.800
σ		1.786	0.889	0.437	2.381	0.263	0.181	12.630	2.821	1.241	0.267
%RSD		1.682	0.818	0.414	2.194	7.365	4.315	2.719	2.629	413.700	0.245

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	102.1%	106.500	107.500	105.200	109.700	106.200	107.700	106.900	106.700	99.8%
2	08:52:39	99.2%	105.600	106.800	104.600	105.900	105.900	107.100	106.000	106.100	96.8%
3	08:53:06	100.0%	105.200	106.700	106.400	106.000	106.800	107.000	105.700	105.200	98.8%
x		100.4%	105.700	107.000	105.400	107.200	106.300	107.200	106.200	106.000	98.5%
σ		1.5%	0.663	0.413	0.938	2.187	0.419	0.422	0.648	0.758	1.5%
%RSD		1.5	0.627	0.386	0.890	2.040	0.394	0.394	0.610	0.715	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	110.100	109.500	106.800	108.600	133.700	133.400	99.4%	106.000	106.500	107.500
2	08:52:39	108.300	106.800	104.900	106.700	134.700	133.300	95.6%	106.800	107.200	107.400
3	08:53:06	108.200	107.500	105.100	107.000	134.400	134.500	97.2%	106.800	106.000	106.600
x		108.900	107.900	105.600	107.400	134.300	133.700	97.4%	106.500	106.600	107.200
σ		1.076	1.364	1.041	1.050	0.510	0.642	1.9%	0.461	0.612	0.509
%RSD		0.989	1.264	0.986	0.977	0.380	0.480	1.9	0.433	0.574	0.475

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:52:12	107.200	107.200	98.1%
2	08:52:39	107.700	107.700	94.5%
3	08:53:06	106.100	106.600	93.8%
x		107.000	107.200	95.5%
σ		0.824	0.544	2.3%
%RSD		0.771	0.508	2.4

CCV MW10994 05/01/2019 08:57:54 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	90.1%	330.300	322.800	320.700	81.000	T 72810.000	T 68680.000	T 66750.000	T 66710.000	308.200
2	08:58:48	93.4%	319.800	319.900	321.200	83.420	T 71780.000	T 67880.000	T 66570.000	T 66080.000	320.500
3	08:59:15	93.2%	329.000	332.300	321.100	85.570	T 71670.000	T 68800.000	T 68090.000	T 67500.000	312.400
x		92.2%	108.789%	108.337%	106.997%	83.330	T 120.140%	T 68450.000	T 67140.000	T 111.278%	104.569%
σ		1.9%	n/a	n/a	n/a	2.287	T n/a	T 503.500	T 832.600	T n/a	n/a
%RSD		2.0	1.752	1.999	0.088	2.744	T 0.875	T 0.736	T 1.240	T 1.066	1.986

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	T 3615.000	1063.000	T 69490.000	65690.000	T 68490.000	96.7%	319.200	322.000	314.300	34.120
2	08:58:48	T 3646.000	1030.000	T 70580.000	66700.000	T 68590.000	96.4%	328.400	322.900	312.900	1404.000
3	08:59:15	T 3574.000	965.900	T 68250.000	65110.000	T 68560.000	97.3%	321.400	322.900	307.100	1435.000
x		T 120.389%	1020.000	T 115.736%	65840.000	T 114.242%	96.8%	107.673%	107.539%	103.813%	957.700
σ		T n/a	49.270	T n/a	805.000	T n/a	0.5%	n/a	n/a	n/a	800.000
%RSD		T 1.006	4.832	T 1.682	1.223	T 0.076	0.5	1.484	0.169	1.215	83.530

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	T 66460.000	302.700	T 65820.000	T 65000.000	307.900	296.100	300.100	302.700	305.500	311.200
2	08:58:48	T 67820.000	303.800	T 67100.000	T 65730.000	308.200	298.800	296.900	301.800	309.300	307.700
3	08:59:15	T 66830.000	304.900	T 67560.000	T 65340.000	305.900	297.700	304.500	297.600	307.000	310.100
x		T 67040.000	101.267%	T 66830.000	T 108.925%	102.436%	99.177%	300.500	300.700	102.429%	103.222%
σ		T 700.900	n/a	T 902.200	T n/a	n/a	n/a	3.789	2.709	n/a	n/a
%RSD		T 1.046	0.348	T 1.350	T 0.560	0.396	0.463	1.261	0.901	0.630	0.587

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	306.900	308.900	309.900	313.300	2.667	1.614	1358.000	310.800	-0.149	314.900
2	08:58:48	296.200	300.300	301.500	318.300	2.076	1.761	1338.000	310.700	1.525	T 340.700
3	08:59:15	296.000	305.200	304.700	320.800	2.201	1.973	1360.000	314.700	-0.646	315.200
x		299.700	304.800	101.788%	317.400	2.315	1.782	1352.000	104.031%	0.243	T 107.874%
σ		6.230	4.337	n/a	3.825	0.312	0.181	12.480	n/a	1.137	T n/a
%RSD		2.079	1.423	1.382	1.205	13.460	10.130	0.923	0.730	467.400	T 4.584

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	92.5%	330.800	335.900	332.800	316.800	303.200	305.800	314.800	312.300	92.0%
2	08:58:48	91.5%	333.400	333.500	331.900	312.300	304.400	305.400	314.700	310.100	89.8%
3	08:59:15	93.1%	328.900	331.700	330.900	316.100	304.100	304.100	312.100	311.800	91.7%
x		92.4%	110.348%	111.232%	331.900	315.100	101.303%	305.100	313.900	103.800%	91.2%
σ		0.8%	n/a	n/a	0.937	2.426	n/a	0.872	1.570	n/a	1.2%
%RSD		0.9	0.680	0.642	0.282	0.770	0.199	0.286	0.500	0.380	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	323.300	322.100	329.100	328.700	325.300	326.000	92.7%	311.600	317.400	309.800
2	08:58:48	325.000	325.500	322.200	319.900	323.900	328.100	91.0%	310.100	314.200	304.300
3	08:59:15	324.700	323.000	327.300	324.900	325.300	324.600	93.1%	311.000	315.600	307.000
x		108.113%	107.840%	326.200	108.163%	108.278%	108.751%	92.3%	310.900	105.245%	102.348%
σ		n/a	n/a	3.592	n/a	n/a	n/a	1.1%	0.736	n/a	n/a
%RSD		0.280	0.533	1.101	1.364	0.243	0.541	1.2	0.237	0.497	0.896

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:58:21	308.700	311.800	88.3%
2	08:58:48	303.600	306.400	84.2%
3	08:59:15	306.100	307.400	87.0%
x		102.037%	102.847%	86.5%
σ		n/a	n/a	2.1%
%RSD		0.838	0.919	2.4

CCB IM9390-01 05/01/2019 09:04:04 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	100.0%	0.039	2.704	2.394	61.060	3.952	0.623	0.640	0.882	-0.003
2	09:04:58	98.9%	0.014	2.542	2.596	60.620	2.042	0.584	0.551	0.618	0.008
3	09:05:25	100.3%	0.004	2.540	2.209	55.860	1.651	0.412	0.610	0.547	0.010
x		99.7%	0.019	2.595	2.400	59.180	2.548	0.540	0.600	0.682	0.005
σ		0.7%	0.018	0.094	0.194	2.887	1.231	0.113	0.045	0.176	0.007
%RSD		0.7	97.570	3.628	8.071	4.878	48.320	20.890	7.544	25.820	131.500

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	16.510	574.200	11.740	1.673	1.504	100.1%	-0.044	0.029	0.054	23.290
2	09:04:58	17.270	567.600	12.380	0.414	1.030	100.4%	-0.092	-0.006	0.071	41.860
3	09:05:25	16.380	490.700	11.350	0.982	0.588	101.6%	-0.069	0.005	0.035	35.730
x		16.720	544.200	11.820	1.023	1.041	100.7%	-0.068	0.009	0.053	33.630
σ		0.478	46.440	0.519	0.630	0.458	0.8%	0.024	0.018	0.018	9.465
%RSD		2.861	8.534	4.386	61.610	44.020	0.8	35.150	196.100	33.700	28.150

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	2.984	0.032	7.979	5.418	0.032	0.017	-0.257	0.009	0.002	0.010
2	09:04:58	1.970	0.040	8.013	-3.782	0.033	-0.003	-0.465	-0.015	0.005	-0.016
3	09:05:25	0.403	0.029	7.215	1.817	0.027	0.034	0.058	-0.004	0.002	-0.035
x		1.785	0.033	7.736	1.151	0.031	0.016	-0.221	-0.003	0.003	-0.013
σ		1.300	0.006	0.451	4.636	0.003	0.018	0.263	0.012	0.001	0.022
%RSD		72.840	17.760	5.832	402.700	11.250	115.000	119.200	372.500	48.260	166.600

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	0.034	0.095	-0.072	0.384	0.738	0.674	-1.550	-0.352	-0.196	0.006
2	09:04:58	-0.155	0.023	-0.158	0.950	1.145	0.849	-2.555	-0.529	-2.316	0.006
3	09:05:25	-0.017	0.038	-0.073	0.198	0.847	1.165	-1.517	-0.300	-1.711	0.001
x		-0.046	0.052	-0.101	0.511	0.910	0.896	-1.874	-0.394	-1.408	0.004
σ		0.098	0.038	0.049	0.392	0.210	0.249	0.590	0.120	1.092	0.003
%RSD		214.000	72.600	48.740	76.780	23.110	27.760	31.480	30.470	77.570	76.130

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	96.2%	0.106	0.031	0.069	0.580	0.002	0.005	0.001	0.012	97.2%
2	09:04:58	99.7%	0.041	0.087	0.069	-0.056	0.004	0.004	0.005	0.018	100.0%
3	09:05:25	100.1%	0.057	0.046	0.039	-1.209	-0.000	0.002	0.001	0.006	99.8%
x		98.7%	0.068	0.054	0.059	-0.228	0.002	0.004	0.002	0.012	99.0%
σ		2.1%	0.034	0.029	0.018	0.907	0.002	0.001	0.002	0.006	1.6%
%RSD		2.2	49.950	53.190	29.970	397.000	104.800	36.980	92.460	51.500	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	0.093	0.101	0.111	0.112	0.004	0.021	94.3%	0.001	-0.006	0.011
2	09:04:58	0.065	0.083	0.110	0.115	0.025	0.013	97.8%	0.001	-0.006	0.012
3	09:05:25	0.045	0.062	0.132	0.086	0.025	0.039	98.4%	-0.008	-0.007	0.008
x		0.067	0.082	0.118	0.104	0.018	0.025	96.9%	-0.002	-0.006	0.010
σ		0.024	0.019	0.012	0.016	0.012	0.013	2.2%	0.005	0.000	0.002
%RSD		35.740	23.690	10.360	15.400	67.410	53.220	2.3	267.400	7.854	19.470

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	09:04:31	0.018	0.013	93.7%
2	09:04:58	0.012	0.005	96.7%
3	09:05:25	0.013	0.009	96.8%
x		0.015	0.009	95.7%
σ		0.003	0.004	1.7%
%RSD		20.940	44.000	1.8

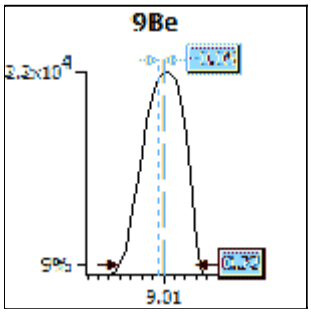
Performance Report

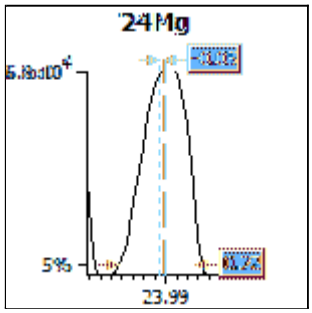
Performance Report

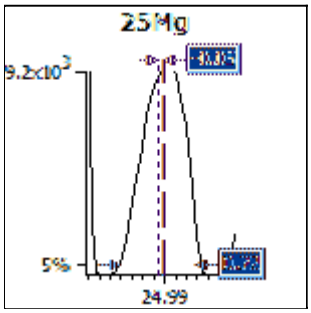
Sample details
Acquired at : 05/08/2019 09:06:54
Report name : Shealy Performance Report ICPMS2 [04/04/2019 12:35:02]

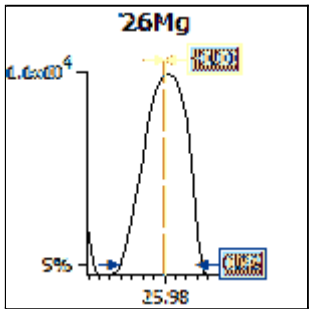
Mass Calibration verification

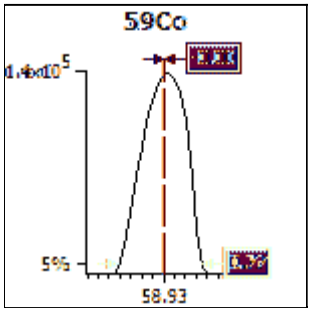
Acquisition parameters
Sweeps : 25
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum

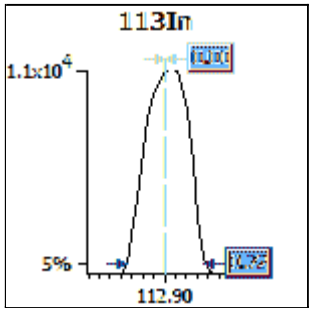


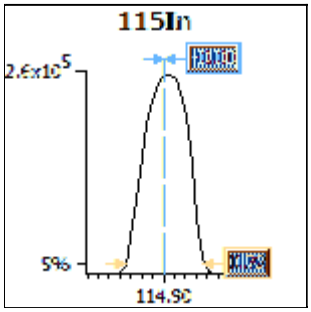


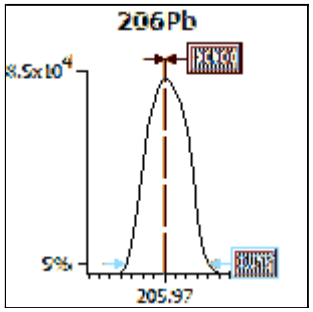


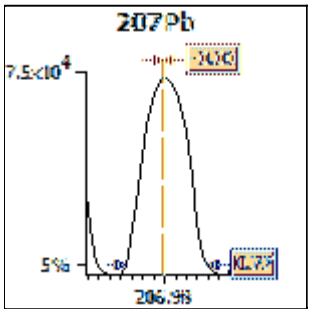


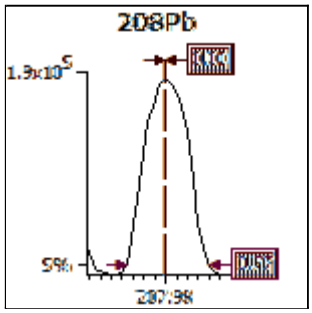












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.10	0.72	-0.05
24Mg	0.85	0.65	0.10	0.72	-0.05
25Mg	0.85	0.65	0.10	0.72	-0.05
26Mg	0.85	0.65	0.10	0.72	-0.00
59Co	0.85	0.65	0.10	0.77	-0.00
113In	0.85	0.65	0.10	0.72	0.00
115In	0.85	0.65	0.10	0.72	-0.00
206Pb	0.85	0.65	0.10	0.77	-0.00
207Pb	0.85	0.65	0.10	0.77	-0.00
208Pb	0.85	0.65	0.10	0.77	0.00

Sample details
Acquired at : 05/08/2019 09:06:54
Report name : Shealy Performance Report ICPMS2 [04/04/2019 12:35:02]

Tune conditions

Major	
Extraction	-94.1
Lens 1	-1004
Lens 2	-83.1
Focus	16.9
D1	-40.0
D2	-146
Pole Bias	-1.0
Hexapole Bias	-4.0
Nebuliser	0.78

Minor	
Lens 3	-196.1
Forward power	1404
Horizontal	91
Vertical	641
DA	-58.0
Cool	13.0
Auxiliary	1.00
Sampling Depth	60

Global	
Standard resolution	110
High resolution	105
Analogue Detector	2225
PC Detector	3450

Add. Gases

Sensitivity and stability results

Acquisition parameters
Sweeps : 130

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	136Ba++	101Bkg
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-	-
	Countrate	-	>5000	>1000	>1000	>1000	-	>10000	-	-
1	09:08:16	0.000	21061.292	68863.683	9382.532	10967.381	334907.39	142827.08	2349.534	0.769
2	09:08:47	2.308	20935.617	69351.215	9565.029	10985.865	329611.31	141778.55	2279.517	1.538
3	09:09:19	0.769	21231.687	71221.747	9664.365	11301.636	340834.77	145173.03	2326.451	1.538
4	09:09:51	0.000	20611.031	68998.546	9519.597	10922.712	335489.82	142269.20	2340.301	0.769
5	09:10:23	0.000	20905.548	69200.845	9550.399	11007.429	337744.90	143162.29	2399.547	2.308
x		0.615	20949.035	69527.207	9536.384	11037.004	335717.64	143042.03	2339.070	1.385
σ		1.00	228.48	965.49	101.67	151.19	4131.90	1303.41	43.23	0.64
%RSD		162.980	1.091	1.389	1.066	1.370	1.231	0.911	1.848	46.481

Run	Time	113In	115In	138Ba	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	5.0%	5.0%	-	-	-	5.0%	5.0%	5.0%	-
	Countrate	>1000	>10000	-	-	-	>10000	>10000	>10000	<2
1	09:08:16	11326.282	260332.59	205937.20	279421.51	4814.351	85683.435	74079.836	182180.40	0.000
2	09:08:47	11189.189	258628.04	203262.62	277542.16	4735.079	85011.013	74238.042	180855.88	0.769
3	09:09:19	11456.445	263604.89	208231.67	281950.12	5045.246	85407.783	75058.585	183340.30	0.769
4	09:09:51	11135.277	258431.01	203473.42	274474.96	4671.200	83731.528	73629.275	179613.93	0.000
5	09:10:23	11092.918	258182.56	204684.77	276495.60	4759.707	84609.602	74005.387	179715.92	0.000
x		11240.022	259835.82	205117.94	277976.87	4805.117	84888.672	74202.225	181141.29	0.308
σ		149.56	2270.36	2043.33	2851.32	143.74	763.70	528.35	1609.45	0.42
%RSD		1.331	0.874	0.996	1.026	2.991	0.900	0.712	0.889	136.931

Ratio results

Run	Time	56Ar O/59Co	136Ba++/138Ba	115In/101Bkg	156Ce O/140Ce
Ratio limits		-	-	-	-
1	09:08:16	2.345	0.011	338432.36	0.017
2	09:08:47	2.325	0.011	168108.21	0.017
3	09:09:19	2.348	0.011	171343.16	0.018
4	09:09:51	2.358	0.012	335960.30	0.017
5	09:10:23	2.359	0.012	111879.10	0.017
x		2.3470	0.0114	225144.63	0.0173
σ		0.01	0.00	104989.35	0.00
%RSD		0.5907	1.9652	46.6320	2.0461

Result : The performance report passed.

FORM 11-IN

ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Shealy Environmental Services, I **Contract:**

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:**

Instrument ID: ICPMS2

Run Batch: MS2050819A 6020B 200.8, gen **Date:** 5/8/2019

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	6Li	45Sc
Antimony	115In	159Tb
Arsenic	45Sc	
Barium	115In	159Tb
Beryllium	6Li	45Sc
Boron	6Li	45Sc
Cadmium	115In	
Calcium	6Li	45Sc
Chromium	45Sc	
Cobalt	45Sc	
Copper	45Sc	
Iron	45Sc	
Lead	209Bi	
Magnesium	6Li	45Sc
Manganese	45Sc	
Molybdenum	89Y	115In
Nickel	45Sc	
Potassium	6Li	45Sc
Selenium	115In	
Silicon	6Li	45Sc
Silver	115In	
Sodium	6Li	
Strontium	45Sc	89Y
Thallium	159Tb	
Tin	115In	159Tb
Titanium	45Sc	89Y
Vanadium	45Sc	
Zinc	45Sc	

Experiment Details

Description	PlasmaLab Template BlankExperiment
Template Filename	C:\Program Files\Thermo Fisher\PlasmaLab\data\MS2050219 6020B 200.8.tee
Created By User	DemoX
Analyte Database	200_8.tea
Creation Timestamp	12/01/2004 11:33:01
Last Edited By	eqi.im
Last Edit Timestamp	05/09/2019 07:59:45
Instrument Detector	Simultaneous
Database Version	3.51
Acquisition Mode	Unknown

Numerical Results report key (text indicates meaning)

Blue text indicates that cell is a statistic.
Underlining indicates that a data warning flag is set.

Column headings
- No flag
- Semi Quant
- Standard Addition
- Multi Element

Result cells
- Internal Standard
- Excluded
- QC Warning
- QC Failure

Transient TRA only:
- Peak Not Found
- Manually Edited
- Merged Peak

Data warning flags
I - Invalid calibration
T - Tripped
F - Interference correction failed
M - Result over max
V - Valley integration failed
D - Different method used

Fully Quantitative Concentrations

Id	Label	9Be	10B	11B	23Na	24Mg	25Mg	26Mg	27Al	28Si	39K
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956			25.000				50.000			200.000
5	cal1 MW-10957	0.400	50.000	50.000	400.000	400.000	400.000	400.000	40.000	100.000	400.000
6	cal2 MW-10958	2.000			2000.000	2000.000	2000.000	2000.000	200.000		2000.000
7	cal3 MW-10931	250.000	250.000	250.000					250.000	250.000	
8	cal4 MW-10932	500.000	500.000	500.000					500.000	500.000	
9	cal5 MW-10933				50000.000	50000.000	50000.000	50000.000		5000.000	50000.000
10	cal6 MW-10934				100000.000	100000.000	100000.000	100000.000		10000.000	100000.000

Id	Label	43Ca	44Ca	47Ti	51V	52Cr	55Mn	54Fe	56Fe	57Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956									20.000	
5	cal1 MW-10957	400.000	400.000	5.000	5.000	5.000	5.000	50.000	50.000	50.000	1.000
6	cal2 MW-10958	2000.000	2000.000	25.000	25.000	25.000	25.000				5.000
7	cal3 MW-10931			250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932			500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933	50000.000	50000.000					50000.000	50000.000	50000.000	
10	cal6 MW-10934	100000.000	100000.000					100000.000	100000.000	100000.000	

Id	Label	60Ni	62Ni	63Cu	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971	2.000									
4	MW10956				1.000						
5	cal1 MW-10957	5.000	5.000	5.000	5.000	10.000	10.000	10.000	2.000	5.000	5.000
6	cal2 MW-10958	25.000	25.000	25.000	25.000	50.000	50.000	50.000	10.000	25.000	25.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	88Sr	95Mo	97Mo	98Mo	107Ag	109Ag	106Cd	111Cd	114Cd	116Sn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956										
5	cal1 MW-10957	10.000	10.000	10.000	10.000	1.000	1.000	0.100	0.100	0.100	20.000
6	cal2 MW-10958	50.000	50.000	50.000	50.000	5.000	5.000	0.500	0.500	0.500	100.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	118Sn	121Sb	123Sb	135Ba	137Ba	203Tl	205Tl	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956	5.000									
5	cal1 MW-10957	20.000	2.000	2.000	5.000	5.000	0.500	0.500	1.000	1.000	1.000
6	cal2 MW-10958	100.000	10.000	10.000	25.000	25.000	2.500	2.500	5.000	5.000	5.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000

8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	232Th	238U
		ppb	ppb
3	MW10971		
4	MW10956		
5	cal1 MW-10957		50.000
6	cal2 MW-10958		250.000
7	cal3 MW-10931		
8	cal4 MW-10932		500.000
9	cal5 MW-10933		
10	cal6 MW-10934		

Sample List

No	Label	Type	Weight	Rack	Row	Col	Height
1	TUNE MW10939	Unknown	1.000	0	1	6	144
2	BLANK IM9353-01	Blank	1.000	0	1	1	144
3	MW10971	Fully Quant Standard	1.000	4	5	1	144
4	MW10956	Fully Quant Standard	1.000	4	5	2	144
5	cal1 MW-10957	Fully Quant Standard	1.000	4	5	3	144
6	cal2 MW-10958	Fully Quant Standard	1.000	4	5	4	144
7	cal3 MW-10931	Fully Quant Standard	1.000	4	5	5	144
8	cal4 MW-10932	Fully Quant Standard	1.000	4	5	6	144
9	cal5 MW-10933	Fully Quant Standard	1.000	4	5	7	144
10	cal6 MW-10934	Fully Quant Standard	1.000	4	5	8	144
11	ICV MW11054 PREP 5/8/19	QC Sample	1.000	4	5	11	144
12	ICB IM9409-01	QC Sample	1.000	0	1	1	144
13	ICSA MW10984	QC Sample	1.000	4	5	12	144
14	CCV MW11050	QC Sample	1.000	0	1	8	144
15	CCB IM9409-01	QC Sample	1.000	0	1	1	144
16	LR MW11033	QC Sample	1.000	4	5	10	144
17	1/2 LR MW11033	Unknown	1.000	4	5	9	144
18	UE06020-001(50)	Unknown	1.000	1	1	1	144
19	UE06020-001S(50)	Unknown	1.000	1	1	2	144
20	UE06020-001SD(50)	Unknown	1.000	1	1	3	144
21	UE06020-001L(250)	Unknown	1.000	1	1	4	144
22	UE06020-001A(50)	Unknown	1.000	1	1	5	144
23	UQ15760-001	QC Sample	1.000	1	1	6	144
24	UQ15760-002	Unknown	1.000	1	1	7	144
25	CCV MW11050	QC Sample	1.000	0	1	8	144
26	CCB IM9409-01	QC Sample	1.000	0	1	1	144
27	UD30051-010	Unknown	1.000	1	2	1	144
28	UD30051-010S	Unknown	1.000	1	2	2	144
29	UD30051-010SD	Unknown	1.000	1	2	3	144
30	UD30051-010L(5)	Unknown	1.000	1	2	4	144
31	UD30051-010A	Unknown	1.000	1	2	5	144
32	UE04019-003	Unknown	1.000	1	2	6	144
33	UQ15923-001	QC Sample	1.000	1	2	7	144
34	UQ15923-002	Unknown	1.000	1	2	8	144
35	UD13009-002	Unknown	1.000	1	2	9	144
36	UE04019-003(10)	Unknown	1.000	1	2	10	144
37	CCV MW11050	QC Sample	1.000	0	1	8	144
38	CCB IM9409-01	QC Sample	1.000	0	1	1	144
39	UQ14917-001	Unknown	1.000	1	3	1	144
40	UQ14917-002	Unknown	1.000	1	3	2	144
41	UD12059-019	Unknown	1.000	1	3	3	144
42	UD12059-020	Unknown	1.000	1	3	4	144
43	UQ14505-001	QC Sample	1.000	1	3	5	144
44	UQ14505-002	Unknown	1.000	1	3	6	144
45	UD05037-001	Unknown	1.000	1	3	7	144
46	UD05037-002	Unknown	1.000	1	3	8	144
47	UD05037-002S	Unknown	1.000	1	3	9	144
48	UD05037-002SD	Unknown	1.000	1	3	10	144
49	CCV MW11050	QC Sample	1.000	0	1	8	144
50	CCB IM9409-01	QC Sample	1.000	0	1	1	144
51	UD05037-002L(5)	Unknown	1.000	1	4	1	144
52	UD05037-002A	Unknown	1.000	1	4	2	144
53	UQ15809-001	QC Sample	1.000	1	4	3	144
54	UQ15809-002	Unknown	1.000	1	4	4	144
55	UE03091-001	Unknown	1.000	1	4	5	144
56	UQ15483-001	QC Sample	1.000	1	4	6	144
57	UQ15483-002	Unknown	1.000	1	4	7	144
58	UD30018-001	Unknown	1.000	1	4	8	144
59	UD30018-002	Unknown	1.000	1	4	9	144
60	UD30018-003	Unknown	1.000	1	4	10	144
61	CCV MW11050	QC Sample	1.000	0	1	8	144
62	CCB IM9409-01	QC Sample	1.000	0	1	1	144
63	ICSA MW10984	Unknown	1.000	4	5	12	144
64	UD30018-003S	Unknown	1.000	1	5	1	144
65	UD30018-003SD	Unknown	1.000	1	5	2	144
66	UD30018-003L(5)	Unknown	1.000	1	5	3	144

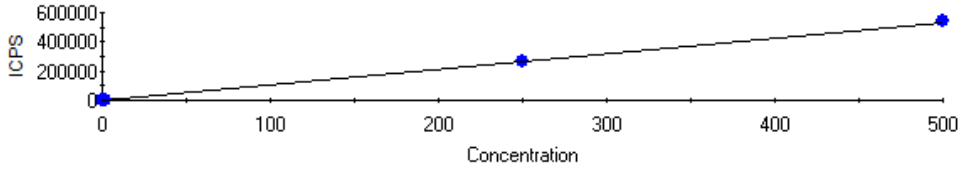
67	UD30018-003A	Unknown	1.000	1	5	4	144
68	UD30018-004	Unknown	1.000	1	5	5	144
69	UD30018-005	Unknown	1.000	1	5	6	144
70	UD30018-009	Unknown	1.000	1	5	7	144
71	UD30018-011	Unknown	1.000	1	5	8	144
72	UD30018-013	Unknown	1.000	1	5	9	144
73	UD30018-014	Unknown	1.000	1	5	10	144
74	CCV MW11050	QC Sample	1.000	0	1	8	144
75	CCB IM9409-01	QC Sample	1.000	0	1	1	144
76	UD30018-015	Unknown	1.000	2	1	1	144
77	UD30018-016	Unknown	1.000	2	1	2	144
78	UD30018-017	Unknown	1.000	2	1	3	144
79	UD30018-018	Unknown	1.000	2	1	4	144
80	UD30018-019	Unknown	1.000	2	1	5	144
81	UD30018-020	Unknown	1.000	2	1	6	144
82	UD30018-021	Unknown	1.000	2	1	7	144
83	UD30018-022	Unknown	1.000	2	1	8	144
84	UD30018-023	Unknown	1.000	2	1	9	144
85	UD30018-024	Unknown	1.000	2	1	10	144
86	CCV MW11050	QC Sample	1.000	0	1	8	144
87	CCB IM9409-01	QC Sample	1.000	0	1	1	144
88	UD30018-025	Unknown	1.000	2	2	1	144
89	UD30018-026	Unknown	1.000	2	2	2	144
90	UD30018-027	Unknown	1.000	2	2	3	144
91	UD30018-028	Unknown	1.000	2	2	4	144
92	UD30018-028S	Unknown	1.000	2	2	5	144
93	UD30018-028SD	Unknown	1.000	2	2	6	144
94	UD30018-028L(5)	Unknown	1.000	2	2	7	144
95	UD30018-028A	Unknown	1.000	2	2	8	144
96	UQ15810-001	Unknown	1.000	2	2	9	144
97	UQ15810-002	Unknown	1.000	2	2	10	144
98	CCV MW11050	QC Sample	1.000	0	1	8	144
99	CCB IM9409-01	QC Sample	1.000	0	1	1	144
100	UD30018-030	Unknown	1.000	2	3	1	144
101	UD30018-031	Unknown	1.000	2	3	2	144
102	UD30018-032	Unknown	1.000	2	3	3	144
103	UD30018-033	Unknown	1.000	2	3	4	144
104	UD30018-034	Unknown	1.000	2	3	5	144
105	UD30018-035	Unknown	1.000	2	3	6	144
106	UD30018-035S	Unknown	1.000	2	3	7	144
107	UD30018-035SD	Unknown	1.000	2	3	8	144
108	UD30018-035L(5)	Unknown	1.000	2	3	9	144
109	UD30018-035A	Unknown	1.000	2	3	10	144
110	CCV MW11050	QC Sample	1.000	0	1	8	144
111	CCB IM9409-01	QC Sample	1.000	0	1	1	144
112	UE04019-001	Unknown	1.000	2	4	1	144
113	UE04019-001dis	Unknown	1.000	2	4	2	144
114	UD12001-021	Unknown	1.000	2	4	3	144
115	UD12001-022	Unknown	1.000	2	4	4	144
116	UD12001-023	Unknown	1.000	2	4	5	144
117	UD12001-024	Unknown	1.000	2	4	6	144
118	UD12001-025	Unknown	1.000	2	4	7	144
119	UD12001-026	Unknown	1.000	2	4	8	144
120	UD12001-027	Unknown	1.000	2	4	9	144
121	UD12001-028	Unknown	1.000	2	4	10	144
122	CCV MW11050	QC Sample	1.000	0	1	8	144
123	CCB IM9409-01	QC Sample	1.000	0	1	1	144
124	UD12001-029	Unknown	1.000	2	5	1	144
125	UD12001-030	Unknown	1.000	2	5	2	144
126	UD12057-014	Unknown	1.000	2	5	3	144
127	UD12057-015	Unknown	1.000	2	5	4	144
128	UD12057-016	Unknown	1.000	2	5	5	144
129	UD12057-017	Unknown	1.000	2	5	6	144
130	UD12057-018	Unknown	1.000	2	5	7	144
131	UD12057-019	Unknown	1.000	2	5	8	144
132	UD12057-020	Unknown	1.000	2	5	9	144
133	UD12057-021	Unknown	1.000	2	5	10	144
134	CCV MW11050	QC Sample	1.000	0	1	8	144
135	CCB IM9409-01	QC Sample	1.000	0	1	1	144
136	UD12057-022	Unknown	1.000	3	1	1	144
137	UD12057-023	Unknown	1.000	3	1	2	144
138	UD12057-023S	Unknown	1.000	3	1	3	144
139	UD12057-023SD	Unknown	1.000	3	1	4	144
140	UD12057-023L(5)	Unknown	1.000	3	1	5	144
141	UD12057-023A	Unknown	1.000	3	1	6	144
142	UD24089-010(10)	Unknown	1.000	3	1	7	144
143	UD26065-001(5)	Unknown	1.000	3	1	8	144
144	UD26065-001(50)	Unknown	1.000	3	1	9	144
145	UD26026-001(10)	Unknown	1.000	3	1	10	144
146	CCV MW11050	QC Sample	1.000	0	1	8	144
147	CCB IM9409-01	QC Sample	1.000	0	1	1	144
148	UD26026-001	Unknown	1.000	3	2	1	144
149	UD30036-002	Unknown	1.000	3	2	2	144
150	UD30036-004	Unknown	1.000	3	2	3	144

	UD30056-001	Unknown	1.000	3	2	4	144
152	UD30059-001	Unknown	1.000	3	2	5	144
153	UD30059-001S	Unknown	1.000	3	2	6	144
154	UD30059-001SD	Unknown	1.000	3	2	7	144
155	UD30059-001L(5)	Unknown	1.000	3	2	8	144
156	UQ15481-001	Unknown	1.000	3	2	9	144
157	UQ15481-002	Unknown	1.000	3	2	10	144
158	CCV MW11050	QC Sample	1.000	0	1	8	144
159	CCB IM9409-01	QC Sample	1.000	0	1	1	144
160	UE01065-001	Unknown	1.000	3	3	1	144
161	UE01070-001	Unknown	1.000	3	3	2	144
162	UE01099-001(5)	Unknown	1.000	3	3	3	144
163	UE01061-004	Unknown	1.000	3	3	4	144
164	UE01073-001	Unknown	1.000	3	3	5	144
165	UE01074-001	Unknown	1.000	3	3	6	144
166	UE01074-001S	Unknown	1.000	3	3	7	144
167	UE01074-001SD	Unknown	1.000	3	3	8	144
168	UE01074-001L(5)	Unknown	1.000	3	3	9	144
169	UE01093-001	Unknown	1.000	3	3	10	144
170	CCV MW11050	QC Sample	1.000	0	1	8	144
171	CCB IM9409-01	QC Sample	1.000	0	1	1	144
172	UE01092-001	Unknown	1.000	3	4	1	144
173	UQ15605-001	Unknown	1.000	3	4	2	144
174	UQ15605-002	Unknown	1.000	3	4	3	144
175	UE02056-001	Unknown	1.000	3	4	4	144
176	UE02055-001	Unknown	1.000	3	4	5	144
177	UE02055-003	Unknown	1.000	3	4	6	144
178	UE02058-001	Unknown	1.000	3	4	7	144
179	UE02017-001	Unknown	1.000	3	4	8	144
180	UE02066-001	Unknown	1.000	3	4	9	144
181	UE02067-001	Unknown	1.000	3	4	10	144
182	CCV MW11050	QC Sample	1.000	0	1	8	144
183	CCB IM9409-01	QC Sample	1.000	0	1	1	144
184	UE02068-001	Unknown	1.000	3	5	1	144
185	UE02074-001(20)	Unknown	1.000	3	5	2	144
186	UE02074-001(200)	Unknown	1.000	3	5	3	144
187	UE02076-001	Unknown	1.000	3	5	4	144
188	UE02029-001	Unknown	1.000	3	5	5	144
189	UE02073-001	Unknown	1.000	3	5	6	144
190	UE02073-001S	Unknown	1.000	3	5	7	144
191	UE03012-001	Unknown	1.000	3	5	8	144
192	UE02030-001	Unknown	1.000	3	5	9	144
193	UE02030-001S	Unknown	1.000	3	5	10	144
194	CCV MW11050	QC Sample	1.000	0	1	8	144
195	CCB IM9409-01	QC Sample	1.000	0	1	1	144
196	UE02030-001SD	Unknown	1.000	4	1	1	144
197	UE02030-001L(5)	Unknown	1.000	4	1	2	144
198	UE02030-002	Unknown	1.000	4	1	3	144
199	UE02030-003	Unknown	1.000	4	1	4	144
200	UE02030-004	Unknown	1.000	4	1	5	144
201	UE02030-005	Unknown	1.000	4	1	6	144
202	UE01046-001	Unknown	1.000	4	1	7	144
203	UQ15741-001	Unknown	1.000	4	1	8	144
204	UQ15741-002	Unknown	1.000	4	1	9	144
205	UE03020-001	Unknown	1.000	4	1	10	144
206	CCV MW11050	QC Sample	1.000	0	1	7	144
207	CCB IM9409-01	QC Sample	1.000	0	1	2	144
208	UE03020-002	Unknown	1.000	4	2	1	144
209	UE03021-001	Unknown	1.000	4	2	2	144
210	UE03046-001	Unknown	1.000	4	2	3	144
211	UE03047-003	Unknown	1.000	4	2	4	144
212	UE03047-003S	Unknown	1.000	4	2	5	144
213	UE03047-003SD	Unknown	1.000	4	2	6	144
214	UE03047-003L(5)	Unknown	1.000	4	2	7	144
215	UE03050-001(5)	Unknown	1.000	4	2	8	144
216	UE03050-001S(5)	Unknown	1.000	4	2	9	144
217	UE03054-001(5)	Unknown	1.000	4	2	10	144
218	CCV MW11050	QC Sample	1.000	0	1	7	144
219	CCB IM9409-01	QC Sample	1.000	0	1	2	144
220	UE03056-001	Unknown	1.000	4	3	1	144
221	UE02078-001	Unknown	1.000	4	3	2	144
222	UE02078-001dis	Unknown	1.000	4	3	3	144
223	UE02078-002	Unknown	1.000	4	3	4	144
224	UE02078-002dis	Unknown	1.000	4	3	5	144
225	UE02078-003	Unknown	1.000	4	3	6	144
226	UE02078-003dis	Unknown	1.000	4	3	7	144
227	UE02078-004	Unknown	1.000	4	3	8	144
228	UE02078-004dis	Unknown	1.000	4	3	9	144
229	UE04007-001	Unknown	1.000	4	3	10	144
230	CCV MW11050	QC Sample	1.000	0	1	7	144
231	CCB IM9409-01	QC Sample	1.000	0	1	2	144
232	UE04008-001	Unknown	1.000	4	4	1	144
233	UE04009-001	Unknown	1.000	4	4	2	144
234	UE04010-001	Unknown	1.000	4	4	3	144

	CCV MW11024	QC Sample	1.000	0	1	7	144
236	CCB IM9384-01	QC Sample	1.000	0	1	2	144
237	IS MW11051	Unknown	1.000	0	1	5	144
238	RINSE	Unknown	1.000	0	1	6	144
239	RINSE	Unknown	1.000	0	1	5	144
240	rinse	Unknown	1.000	0	1	6	144

Fully Quant Calibration

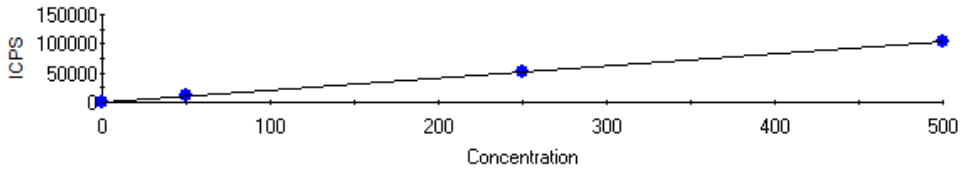
9Be FQ Block 1



Intercept CPS=74.731607 Intercept Conc=0.069685
Sensitivity=1072.427718 Correlation Coeff=0.999989

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	74.73	0.00
cal1 MW-10957	0.400	0.422	0.022	527.39	5.52
cal2 MW-10958	2.000	2.061	0.061	2284.57	3.03
cal3 MW-10931	250.000	248.064	1.936	266105.89	0.77
cal4 MW-10932	500.000	500.968	0.968	537326.20	0.19

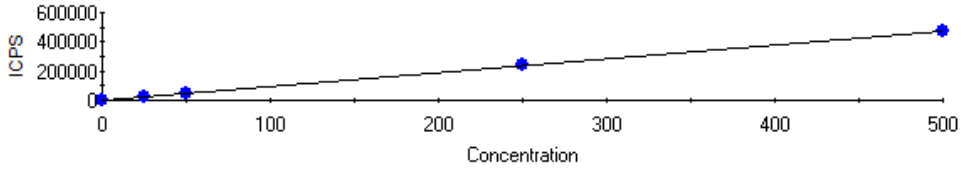
10B FQ Block 1



Intercept CPS=248.370863 Intercept Conc=1.211683
Sensitivity=204.980144 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	248.37	0.00
cal1 MW-10957	50.000	50.304	0.304	10559.62	0.61
cal3 MW-10931	250.000	250.168	0.168	51527.79	0.07
cal4 MW-10932	500.000	499.886	0.114	102715.03	0.02

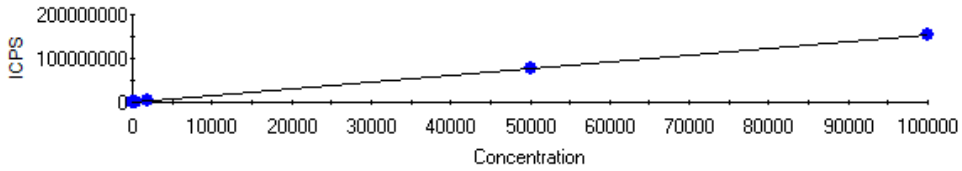
11B FQ Block 1



Intercept CPS=1253.523481 Intercept Conc=1.335988
Sensitivity=938.274585 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	1253.52	0.00
MW10956	25.000	25.328	0.328	25017.84	1.31
cal1 MW-10957	50.000	50.668	0.668	48793.68	1.34
cal3 MW-10931	250.000	250.937	0.937	236701.36	0.37
cal4 MW-10932	500.000	499.448	0.552	469873.20	0.11

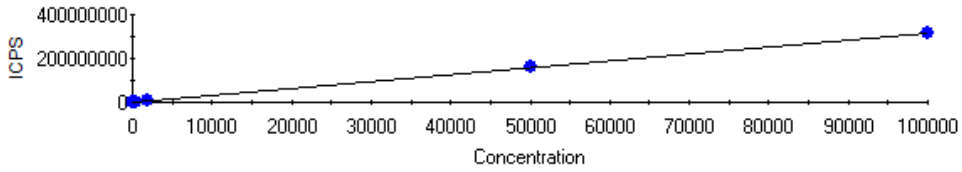
23Na FQ Block 1



Intercept CPS=40891.649012 Intercept Conc=26.459241
Sensitivity=1545.458154 Correlation Coeff=0.999946

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	40891.65	0.00
cal1 MW-10957	400.000	387.644	12.356	639979.50	3.09
cal2 MW-10958	2000.000	1930.913	69.087	3025037.43	3.45
cal5 MW-10933	50000.000	49135.165	864.835	75977233.00	1.73
cal6 MW-10934	100000.000	100433.849	433.849	155257201.98	0.43

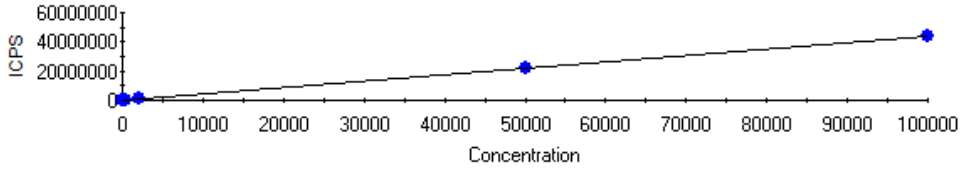
24Mg FQ Block 1



Intercept CPS=1149.287713 Intercept Conc=0.361648
Sensitivity=3177.915418 Correlation Coeff=0.999932

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	1149.29	0.00
cal1 MW-10957	400.000	415.726	15.726	1322291.13	3.93
cal2 MW-10958	2000.000	2046.934	46.934	6506133.57	2.35
cal5 MW-10933	50000.000	50959.816	959.816	161947135.69	1.92
cal6 MW-10934	100000.000	99519.090	480.910	316264400.33	0.48

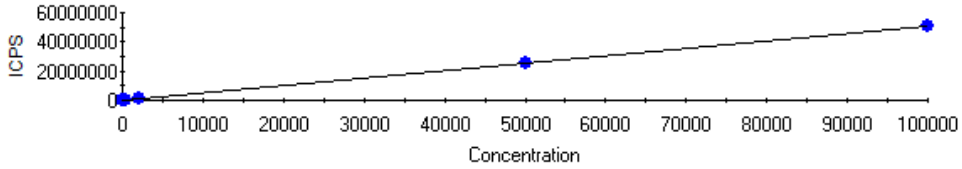
25Mg FQ Block 1



Intercept CPS=121.315320 Intercept Conc=0.273888
Sensitivity=442.936921 Correlation Coeff=0.999985

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	121.32	0.00
cal1 MW-10957	400.000	394.001	5.999	174638.68	1.50
cal2 MW-10958	2000.000	1959.425	40.575	868023.07	2.03
cal5 MW-10933	50000.000	50442.337	442.337	22342894.71	0.88
cal6 MW-10934	100000.000	99779.667	220.333	44196219.80	0.22

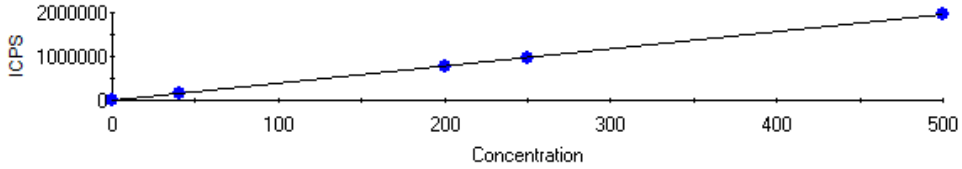
26Mg FQ Block 1



Intercept CPS=174.639482 Intercept Conc=0.340475
Sensitivity=512.928970 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	174.64	0.00
MW10956	50.000	50.381	0.381	26016.35	0.76
cal1 MW-10957	400.000	395.761	4.239	203172.02	1.06
cal2 MW-10958	2000.000	1973.441	26.559	1012409.48	1.33
cal5 MW-10933	50000.000	50343.359	343.359	25822741.82	0.69
cal6 MW-10934	100000.000	99828.869	171.131	51205293.38	0.17

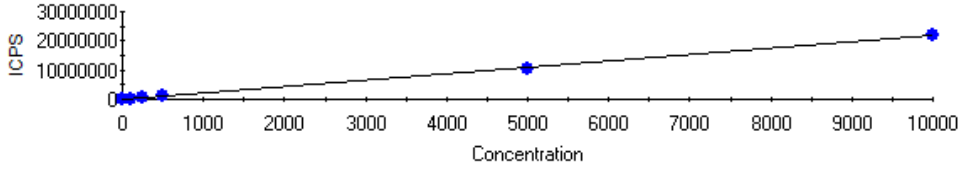
27Al FQ Block 1



Intercept CPS=268.355168 Intercept Conc=0.068562
Sensitivity=3914.057861 Correlation Coeff=0.999987

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	268.36	0.00
cal1 MW-10957	40.000	40.463	0.463	158644.10	1.16
cal2 MW-10958	200.000	199.904	0.096	782704.64	0.05
cal3 MW-10931	250.000	248.203	1.797	971749.90	0.72
cal4 MW-10932	500.000	500.900	0.900	1960818.79	0.18

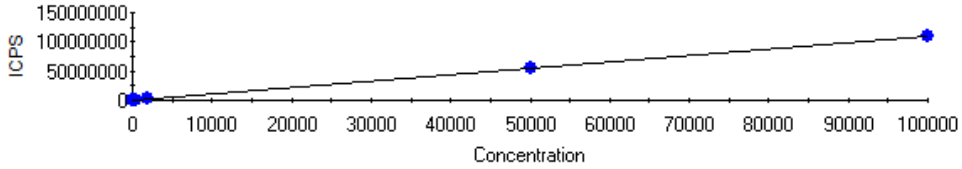
28Si FQ Block 1



Intercept CPS=0.000000 Intercept Conc=0.000000
Sensitivity=2178.294637 Correlation Coeff=0.999849

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	10.358	10.358	22562.63	0.00
cal1 MW-10957	100.000	107.664	7.664	234523.91	7.66
cal3 MW-10931	250.000	250.311	0.311	545250.30	0.12
cal4 MW-10932	500.000	492.312	7.688	1072400.42	1.54
cal5 MW-10933	5000.000	4799.629	200.371	10455005.89	4.01
cal6 MW-10934	10000.000	9954.249	45.751	21683286.16	0.46

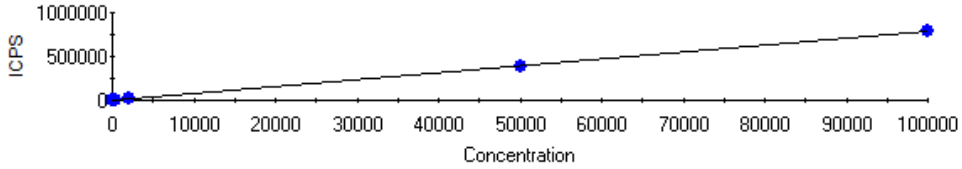
39K FQ Block 1



Intercept CPS=160884.755689 Intercept Conc=145.093867
Sensitivity=1108.832228 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	160884.76	0.00
MW10956	200.000	199.208	0.792	381773.11	0.40
cal1 MW-10957	400.000	404.533	4.533	609444.11	1.13
cal2 MW-10958	2000.000	1994.260	5.740	2372184.93	0.29
cal5 MW-10933	50000.000	50100.558	100.558	55713997.93	0.20
cal6 MW-10934	100000.000	99949.819	50.181	110988465.67	0.05

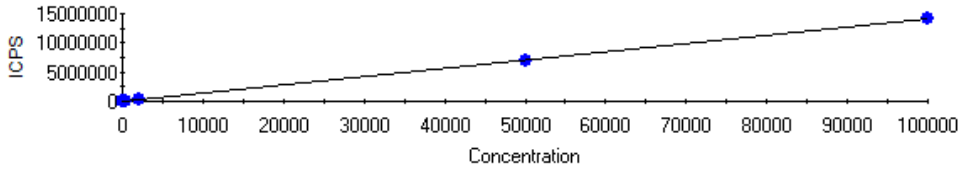
43Ca FQ Block 1



Intercept CPS=25.320372 Intercept Conc=3.224984
Sensitivity=7.851316 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	25.32	0.00
cal1 MW-10957	400.000	428.890	28.890	3392.67	7.22
cal2 MW-10958	2000.000	2081.154	81.154	16365.12	4.06
cal5 MW-10933	50000.000	50131.288	131.288	393621.91	0.26
cal6 MW-10934	100000.000	99932.617	67.383	784627.89	0.07

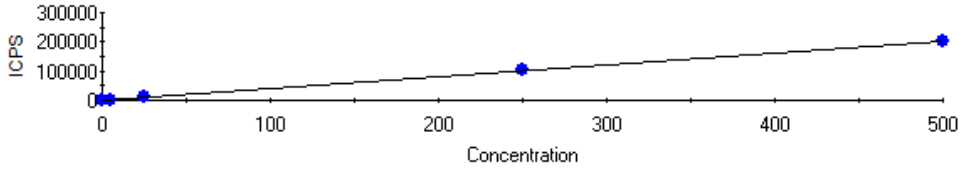
44Ca FQ Block 1



Intercept CPS=582.878875 Intercept Conc=4.146519
Sensitivity=140.570641 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	582.88	0.00
cal1 MW-10957	400.000	380.365	19.635	54051.01	4.91
cal2 MW-10958	2000.000	1885.135	114.865	265577.48	5.74
cal5 MW-10933	50000.000	50071.244	71.244	7039129.72	0.14
cal6 MW-10934	100000.000	99966.754	33.246	14052973.60	0.03

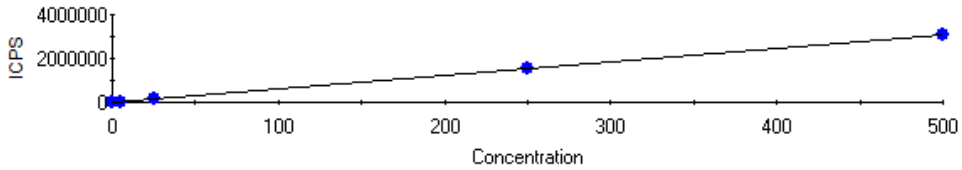
47Ti FQ Block 1



Intercept CPS=6.674677 Intercept Conc=0.016376
Sensitivity=407.591850 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	6.67	0.00
cal1 MW-10957	5.000	5.113	0.113	2090.56	2.25
cal2 MW-10958	25.000	24.598	0.402	10032.45	1.61
cal3 MW-10931	250.000	250.298	0.298	102026.08	0.12
cal4 MW-10932	500.000	499.870	0.130	203749.62	0.03

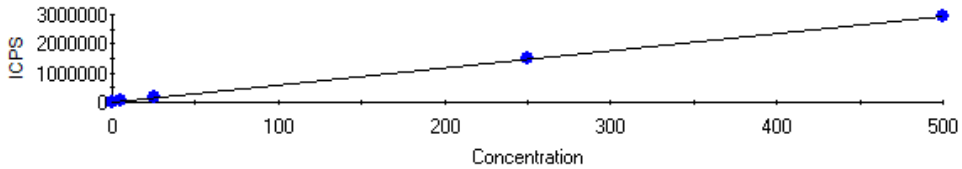
51V FQ Block 1



Intercept CPS=269.342202 Intercept Conc=0.043821
Sensitivity=6146.379219 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	269.34	0.00
cal1 MW-10957	5.000	4.882	0.118	30274.68	2.36
cal2 MW-10958	25.000	24.269	0.731	149433.09	2.93
cal3 MW-10931	250.000	250.495	0.495	1539909.61	0.20
cal4 MW-10932	500.000	499.790	0.210	3072168.27	0.04

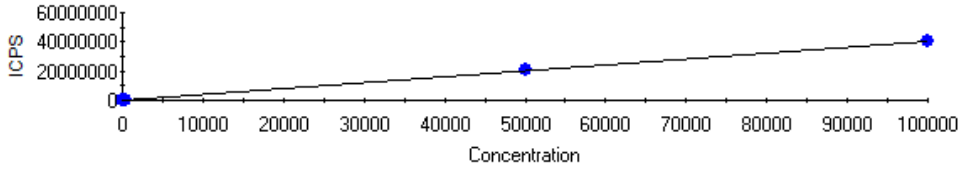
52Cr FQ Block 1



Intercept CPS=1242.881466 Intercept Conc=0.211690
Sensitivity=5871.238750 Correlation Coeff=0.999994

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	1242.88	0.00
cal1 MW-10957	5.000	4.874	0.126	29862.01	2.51
cal2 MW-10958	25.000	24.471	0.529	144918.01	2.12
cal3 MW-10931	250.000	251.285	1.285	1476598.75	0.51
cal4 MW-10932	500.000	499.385	0.615	2933251.83	0.12

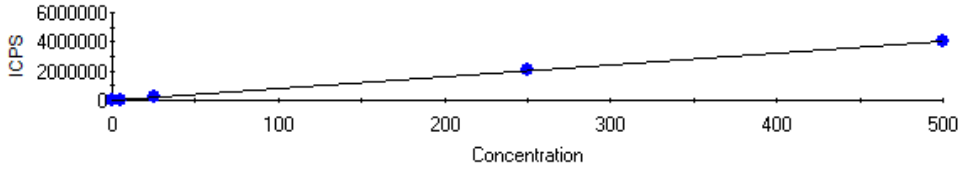
54Fe FQ Block 1



Intercept CPS=9649.311730 Intercept Conc=23.566028
Sensitivity=409.458555 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	9649.31	0.00
cal1 MW-10957	50.000	55.202	5.202	32252.06	10.40
cal3 MW-10931	250.000	363.087	113.087	158318.47	45.23
cal4 MW-10932	500.000	721.403	221.403	305033.99	44.28
cal5 MW-10933	50000.000	49995.498	4.502	20480733.63	0.01
cal6 MW-10934	100000.000	100000.859	0.859	40955856.38	0.00

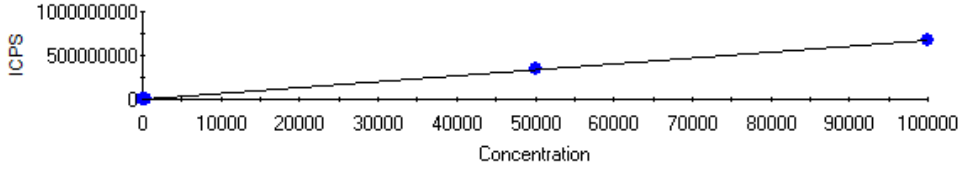
55Mn FQ Block 1



Intercept CPS=648.004503 Intercept Conc=0.080251
Sensitivity=8074.678061 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	648.00	0.00
cal1 MW-10957	5.000	4.837	0.163	39704.67	3.26
cal2 MW-10958	25.000	24.196	0.804	196025.40	3.21
cal3 MW-10931	250.000	251.731	1.731	2033292.76	0.69
cal4 MW-10932	500.000	503.295	3.295	4064591.47	0.66

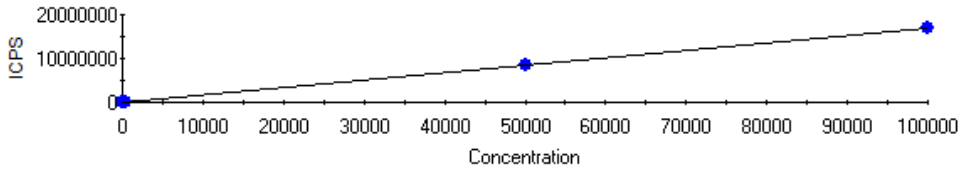
56Fe FQ Block 1



Intercept CPS=304338.127464 Intercept Conc=44.845845
Sensitivity=6786.317150 Correlation Coeff=0.999994

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	304338.13	0.00
cal1 MW-10957	50.000	54.778	4.778	676080.18	9.56
cal3 MW-10931	250.000	269.153	19.153	2130893.49	7.66
cal4 MW-10932	500.000	519.358	19.358	3828869.17	3.87
cal5 MW-10933	50000.000	50304.614	304.614	341687401.33	0.61
cal6 MW-10934	100000.000	99847.546	152.454	677901452.31	0.15

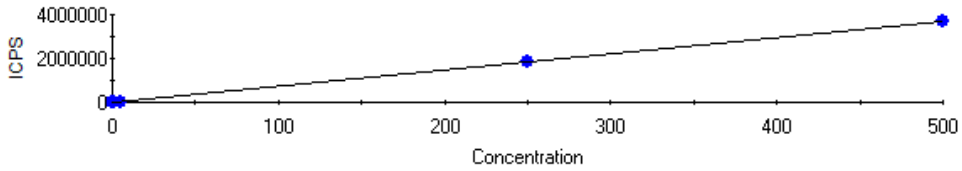
57Fe FQ Block 1



Intercept CPS=17201.204440 Intercept Conc=102.168525
Sensitivity=168.361092 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	17201.20	0.00
MW10956	20.000	20.051	0.051	20576.97	0.25
cal1 MW-10957	50.000	52.861	2.861	26100.93	5.72
cal3 MW-10931	250.000	247.311	2.689	58838.81	1.08
cal4 MW-10932	500.000	504.142	4.142	102079.10	0.83
cal5 MW-10933	50000.000	49976.197	23.803	8431248.30	0.05
cal6 MW-10934	100000.000	100265.488	265.488	16898008.28	0.27

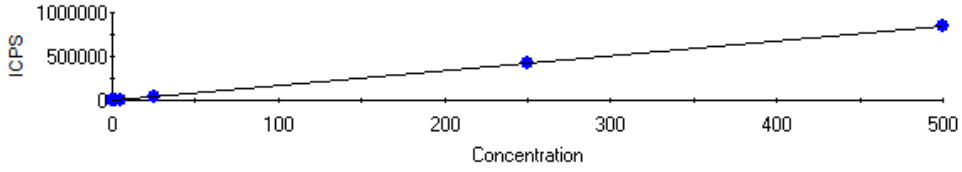
59Co FQ Block 1



Intercept CPS=274.786897 Intercept Conc=0.036940
Sensitivity=7438.816814 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	274.79	0.00
cal1 MW-10957	1.000	0.969	0.031	7482.05	3.11
cal2 MW-10958	5.000	4.835	0.165	36239.82	3.30
cal3 MW-10931	250.000	250.004	0.004	1860010.75	0.00
cal4 MW-10932	500.000	500.441	0.441	3722964.13	0.09

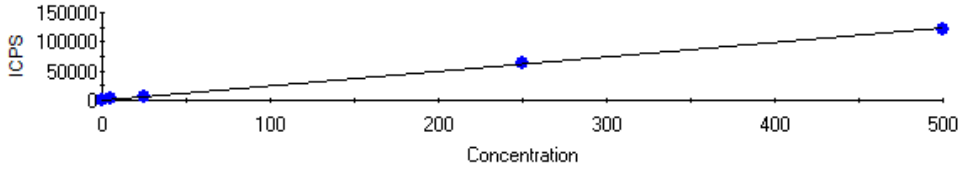
60Ni FQ Block 1



Intercept CPS=51.922433 Intercept Conc=0.030962
Sensitivity=1676.996739 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	51.92	0.00
MW10971	2.000	1.937	0.063	3300.14	3.15
cal1 MW-10957	5.000	4.884	0.116	8243.19	2.31
cal2 MW-10958	25.000	24.312	0.688	40823.70	2.75
cal3 MW-10931	250.000	251.025	1.025	421020.41	0.41
cal4 MW-10932	500.000	502.499	2.499	842741.00	0.50

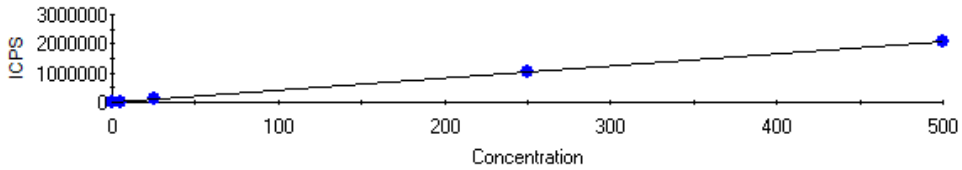
62Ni FQ Block 1



Intercept CPS=573.343551 Intercept Conc=2.343362
Sensitivity=244.667093 Correlation Coeff=0.999969

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	573.34	0.00
cal1 MW-10957	5.000	4.853	0.147	1760.66	2.94
cal2 MW-10958	25.000	25.022	0.022	6695.41	0.09
cal3 MW-10931	250.000	253.151	3.151	62511.10	1.26
cal4 MW-10932	500.000	498.425	1.575	122521.49	0.32

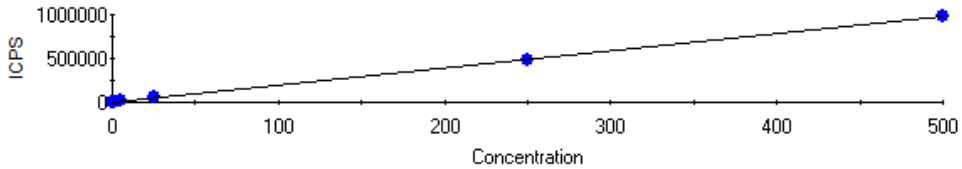
63Cu FQ Block 1



Intercept CPS=486.628326 Intercept Conc=0.117952
Sensitivity=4125.657739 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	486.63	0.00
cal1 MW-10957	5.000	4.935	0.065	20845.98	1.30
cal2 MW-10958	25.000	24.285	0.715	100679.78	2.86
cal3 MW-10931	250.000	249.128	0.872	1028301.66	0.35
cal4 MW-10932	500.000	500.473	0.473	2065265.31	0.09

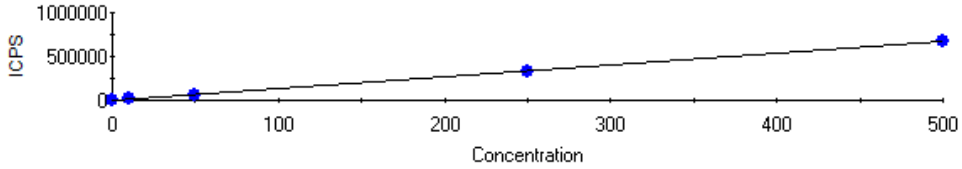
65Cu FQ Block 1



Intercept CPS=194.657223 Intercept Conc=0.099518
Sensitivity=1956.007679 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	194.66	0.00
MW10956	1.000	1.031	0.031	2211.11	3.09
cal1 MW-10957	5.000	5.029	0.029	10031.06	0.58
cal2 MW-10958	25.000	24.724	0.276	48554.18	1.11
cal3 MW-10931	250.000	250.539	0.539	490251.09	0.22
cal4 MW-10932	500.000	503.500	3.500	985044.29	0.70

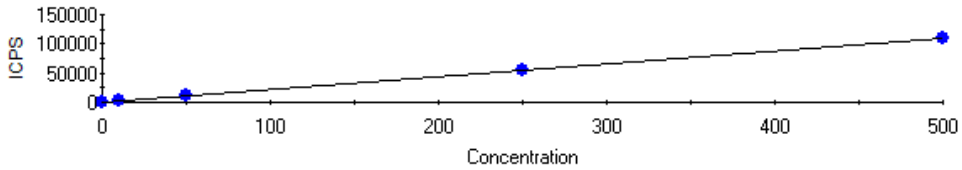
66Zn FQ Block 1



Intercept CPS=235.999069 Intercept Conc=0.174851
Sensitivity=1349.716920 Correlation Coeff=0.999973

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	236.00	0.00
cal1 MW-10957	10.000	9.696	0.304	13323.38	3.04
cal2 MW-10958	50.000	48.533	1.467	65741.20	2.93
cal3 MW-10931	250.000	247.131	2.869	333793.12	1.15
cal4 MW-10932	500.000	501.587	1.587	677236.77	0.32

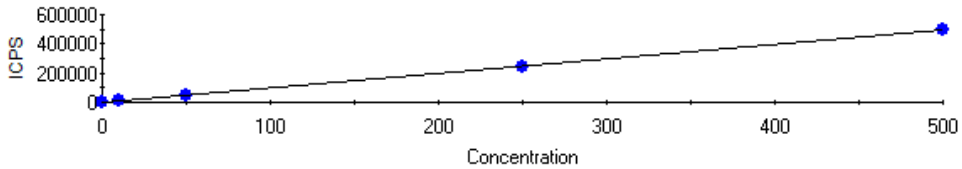
67Zn FQ Block 1



Intercept CPS=38.681676 Intercept Conc=0.175752
Sensitivity=220.092810 Correlation Coeff=0.999981

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	38.68	0.00
cal1 MW-10957	10.000	9.930	0.070	2224.18	0.70
cal2 MW-10958	50.000	47.163	2.837	10418.82	5.67
cal3 MW-10931	250.000	248.663	1.337	54767.65	0.53
cal4 MW-10932	500.000	500.954	0.954	110294.96	0.19

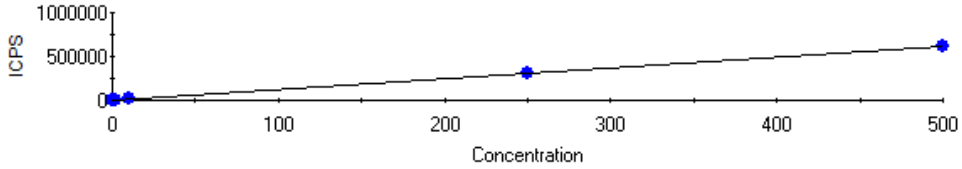
68Zn FQ Block 1



Intercept CPS=161.395952 Intercept Conc=0.163498
Sensitivity=987.145745 Correlation Coeff=0.999989

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	161.40	0.00
cal1 MW-10957	10.000	9.505	0.495	9543.73	4.95
cal2 MW-10958	50.000	47.682	2.318	47230.49	4.64
cal3 MW-10931	250.000	248.842	1.158	245804.52	0.46
cal4 MW-10932	500.000	500.821	0.821	494544.53	0.16

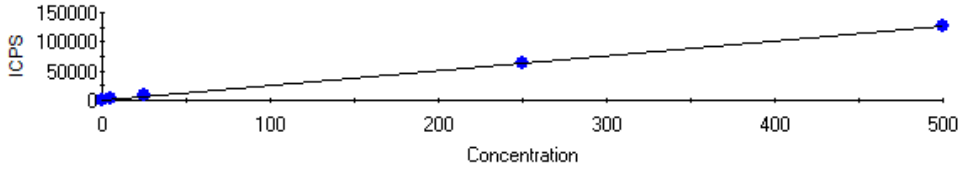
75As FQ Block 1



Intercept CPS=467.586488 Intercept Conc=0.383513
Sensitivity=1219.218459 Correlation Coeff=0.999948

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	467.59	0.00
cal1 MW-10957	2.000	1.836	0.164	2705.78	8.21
cal2 MW-10958	10.000	9.641	0.359	12221.84	3.59
cal3 MW-10931	250.000	245.750	4.250	300090.15	1.70
cal4 MW-10932	500.000	502.133	2.133	612677.40	0.43

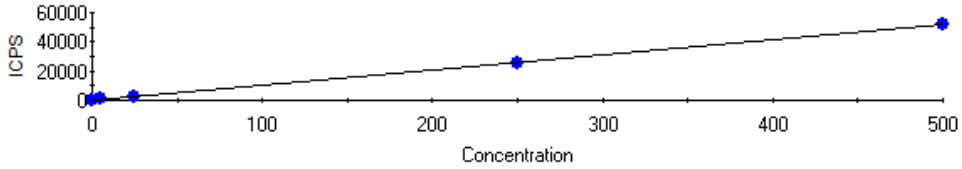
78Se FQ Block 1



Intercept CPS=929.120598 Intercept Conc=3.651736
Sensitivity=254.432561 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	929.12	0.00
cal1 MW-10957	5.000	5.024	0.024	2207.36	0.48
cal2 MW-10958	25.000	24.962	0.038	7280.19	0.15
cal3 MW-10931	250.000	249.509	0.491	64412.26	0.20
cal4 MW-10932	500.000	500.247	0.247	128208.33	0.05

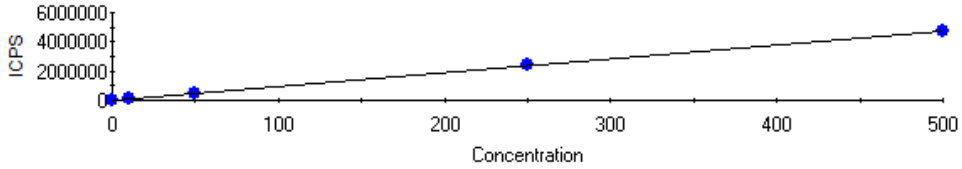
82Se FQ Block 1



Intercept CPS=200.554462 Intercept Conc=1.938167
Sensitivity=103.476355 Correlation Coeff=0.999967

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	200.55	0.00
cal1 MW-10957	5.000	5.280	0.280	746.94	5.61
cal2 MW-10958	25.000	25.873	0.873	2877.79	3.49
cal3 MW-10931	250.000	246.371	3.629	25694.10	1.45
cal4 MW-10932	500.000	500.328	0.328	51972.63	0.07

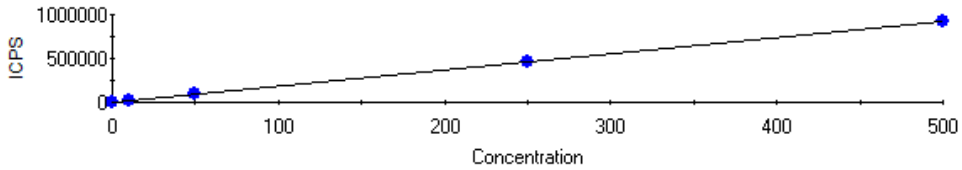
88Sr FQ Block 1



Intercept CPS=8.000115 Intercept Conc=0.000841
Sensitivity=9507.217519 Correlation Coeff=0.999996

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	8.00	0.00
cal1 MW-10957	10.000	9.652	0.348	91767.27	3.48
cal2 MW-10958	50.000	48.682	1.318	462834.47	2.64
cal3 MW-10931	250.000	249.191	0.809	2369118.05	0.32
cal4 MW-10932	500.000	500.543	0.543	4758783.62	0.11

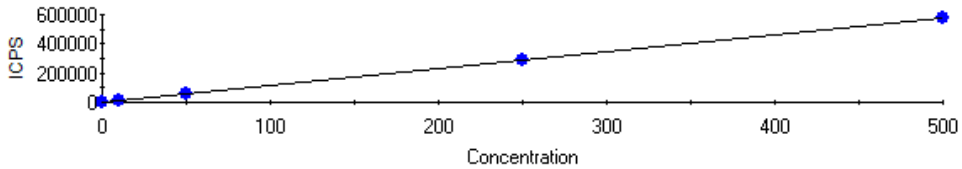
95Mo FQ Block 1



Intercept CPS=89.382061 Intercept Conc=0.048273
Sensitivity=1851.604167 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	89.38	0.00
cal1 MW-10957	10.000	9.865	0.135	18356.18	1.35
cal2 MW-10958	50.000	49.417	0.583	91589.83	1.17
cal3 MW-10931	250.000	248.970	1.030	461083.63	0.41
cal4 MW-10932	500.000	500.576	0.576	926957.82	0.12

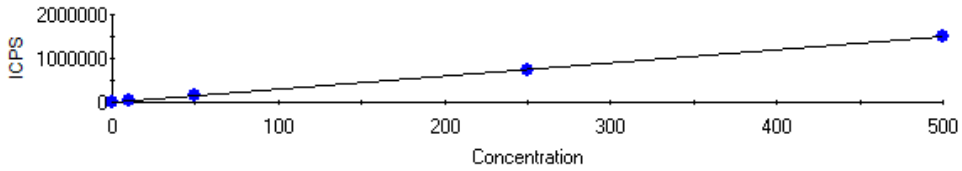
97Mo FQ Block 1



Intercept CPS=45.340052 Intercept Conc=0.039320
Sensitivity=1153.108463 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	45.34	0.00
cal1 MW-10957	10.000	9.835	0.165	11385.91	1.65
cal2 MW-10958	50.000	49.573	0.427	57208.44	0.85
cal3 MW-10931	250.000	249.700	0.300	287976.12	0.12
cal4 MW-10932	500.000	500.196	0.196	576825.78	0.04

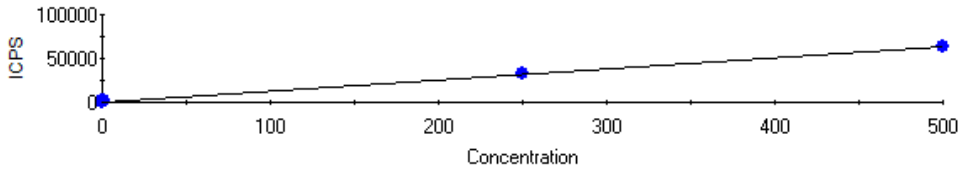
98Mo FQ Block 1



Intercept CPS=129.973195 Intercept Conc=0.043217
Sensitivity=3007.460181 Correlation Coeff=0.999994

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	129.97	0.00
cal1 MW-10957	10.000	9.817	0.183	29655.31	1.83
cal2 MW-10958	50.000	49.626	0.374	149377.89	0.75
cal3 MW-10931	250.000	248.577	1.423	747715.87	0.57
cal4 MW-10932	500.000	500.752	0.752	1506123.13	0.15

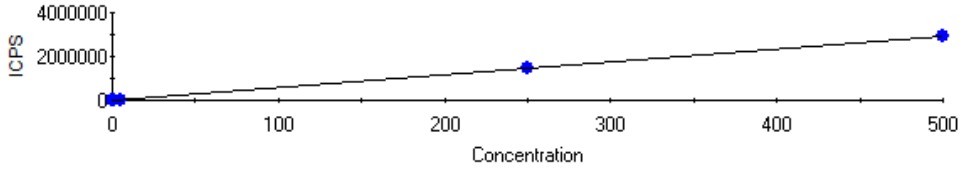
106Cd FQ Block 1



Intercept CPS=854.112292 Intercept Conc=6.897422
Sensitivity=123.830655 Correlation Coeff=0.999982

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	854.11	0.00
cal1 MW-10957	0.100	1.145	1.045	995.89	1044.89
cal2 MW-10958	0.500	3.309	2.809	1263.82	561.72
cal3 MW-10931	250.000	252.137	2.137	32076.36	0.85
cal4 MW-10932	500.000	498.929	1.071	62636.78	0.21

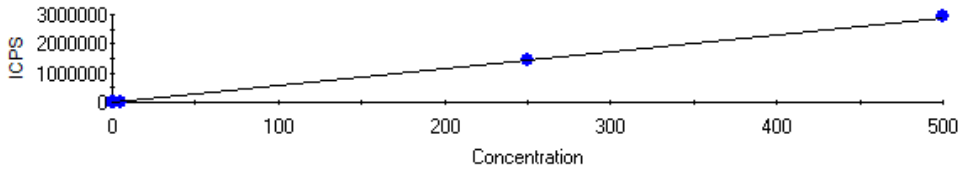
107Ag FQ Block 1



Intercept CPS=9.325988 Intercept Conc=0.001606
Sensitivity=5806.499551 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	9.33	0.00
cal1 MW-10957	1.000	0.959	0.041	5575.68	4.14
cal2 MW-10958	5.000	4.899	0.101	28456.34	2.02
cal3 MW-10931	250.000	254.585	4.585	1478259.65	1.83
cal4 MW-10932	500.000	509.519	9.519	2958533.48	1.90

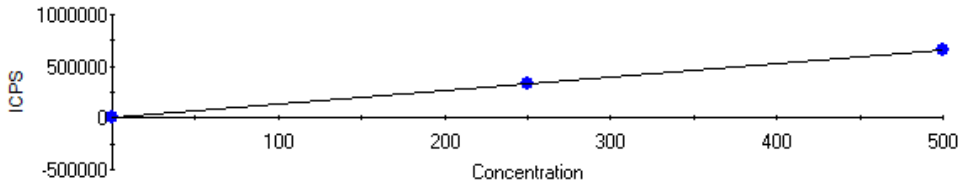
109Ag FQ Block 1



Intercept CPS=9.352377 Intercept Conc=0.001611
Sensitivity=5805.193265 Correlation Coeff=0.999958

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	9.35	0.00
cal1 MW-10957	1.000	0.943	0.057	5484.10	5.69
cal2 MW-10958	5.000	4.738	0.262	27515.37	5.24
cal3 MW-10931	250.000	246.168	3.832	1429060.35	1.53
cal4 MW-10932	500.000	501.919	1.919	2913745.50	0.38

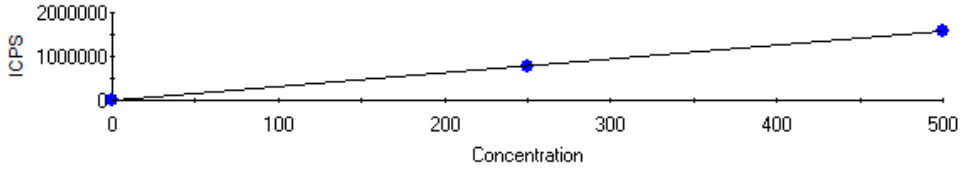
111Cd FQ Block 1



Intercept CPS=5.084090 Intercept Conc=0.003856
Sensitivity=1318.467508 Correlation Coeff=0.999971

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	5.08	0.00
cal1 MW-10957	0.100	0.072	0.028	99.86	28.12
cal2 MW-10958	0.500	0.360	0.140	479.93	27.97
cal3 MW-10931	250.000	246.837	3.163	325451.26	1.27
cal4 MW-10932	500.000	501.582	1.582	661324.38	0.32

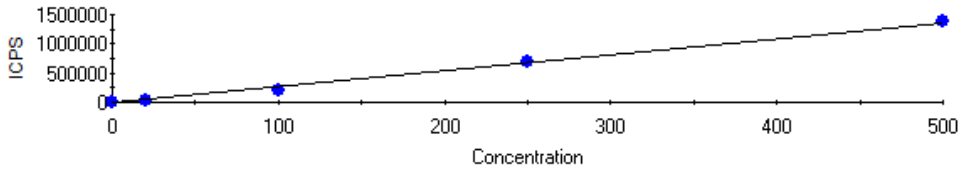
114Cd FQ Block 1



Intercept CPS=3.189464 Intercept Conc=0.001014
Sensitivity=3144.084589 Correlation Coeff=0.999974

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	3.19	0.00
cal1 MW-10957	0.100	0.105	0.005	333.56	5.08
cal2 MW-10958	0.500	0.536	0.036	1687.13	7.12
cal3 MW-10931	250.000	247.044	2.956	776729.61	1.18
cal4 MW-10932	500.000	501.478	1.478	1576692.73	0.30

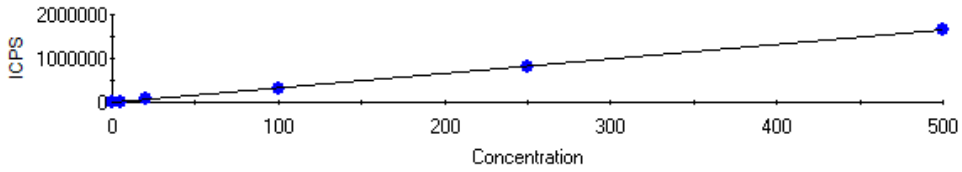
116Sn FQ Block 1



Intercept CPS=60.020148 Intercept Conc=0.021936
Sensitivity=2736.201428 Correlation Coeff=0.998098

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	60.02	0.00
cal1 MW-10957	20.000	13.692	6.308	37525.13	31.54
cal2 MW-10958	100.000	68.748	31.252	188169.74	31.25
cal3 MW-10931	250.000	250.126	0.126	684455.40	0.05
cal4 MW-10932	500.000	506.440	6.440	1385780.66	1.29

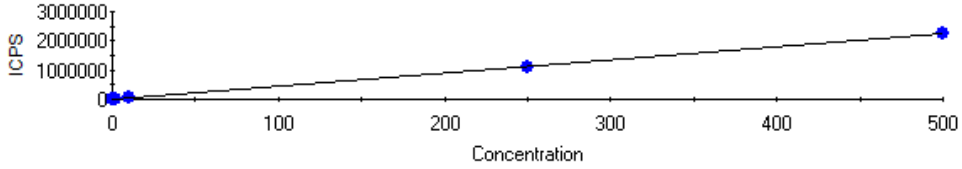
118Sn FQ Block 1



Intercept CPS=132.003002 Intercept Conc=0.040004
Sensitivity=3299.750160 Correlation Coeff=0.999977

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	132.00	0.00
MW10956	5.000	5.222	0.222	17362.07	4.43
cal1 MW-10957	20.000	19.372	0.628	64053.36	3.14
cal2 MW-10958	100.000	98.249	1.751	324327.84	1.75
cal3 MW-10931	250.000	247.675	2.325	817396.89	0.93
cal4 MW-10932	500.000	501.536	1.536	1655074.88	0.31

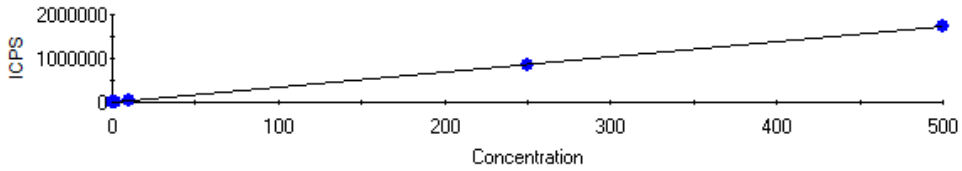
121Sb FQ Block 1



Intercept CPS=160.010329 Intercept Conc=0.035364
Sensitivity=4524.667484 Correlation Coeff=0.999960

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	160.01	0.00
cal1 MW-10957	2.000	1.952	0.048	8992.53	2.40
cal2 MW-10958	10.000	9.914	0.086	45017.08	0.86
cal3 MW-10931	250.000	246.318	3.682	1114669.23	1.47
cal4 MW-10932	500.000	501.843	1.843	2270831.24	0.37

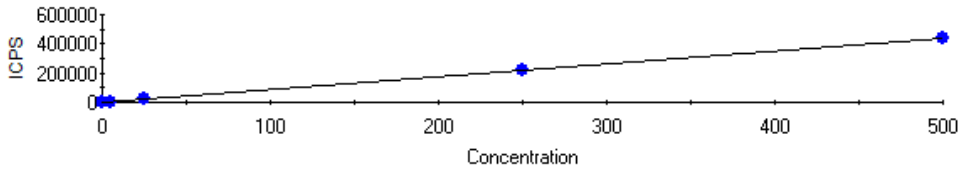
123Sb FQ Block 1



Intercept CPS=146.464439 Intercept Conc=0.042537
Sensitivity=3443.246631 Correlation Coeff=0.999977

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	146.46	0.00
cal1 MW-10957	2.000	2.029	0.029	7132.07	1.44
cal2 MW-10958	10.000	9.938	0.062	34364.37	0.62
cal3 MW-10931	250.000	247.185	2.815	851266.28	1.13
cal4 MW-10932	500.000	501.409	1.409	1726619.60	0.28

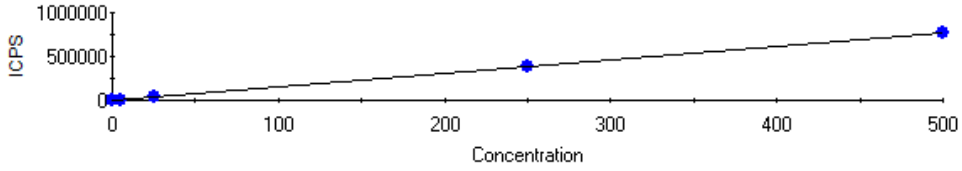
135Ba FQ Block 1



Intercept CPS=1.331463 Intercept Conc=0.001510
Sensitivity=881.805311 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	1.33	0.00
cal1 MW-10957	5.000	4.979	0.021	4391.52	0.43
cal2 MW-10958	25.000	24.662	0.338	21748.75	1.35
cal3 MW-10931	250.000	250.872	0.872	221221.94	0.35
cal4 MW-10932	500.000	501.885	1.885	442565.99	0.38

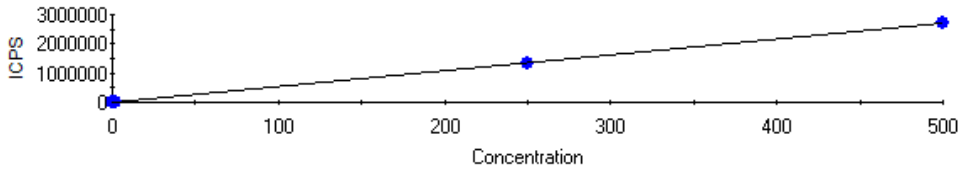
137Ba FQ Block 1



Intercept CPS=4.021088 Intercept Conc=0.002598
Sensitivity=1547.496584 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	4.02	0.00
cal1 MW-10957	5.000	5.180	0.180	8020.40	3.60
cal2 MW-10958	25.000	24.811	0.189	38398.96	0.76
cal3 MW-10931	250.000	249.460	0.540	386041.97	0.22
cal4 MW-10932	500.000	500.398	0.398	774367.59	0.08

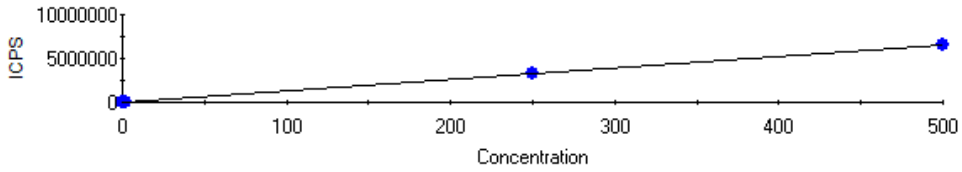
203Tl FQ Block 1



Intercept CPS=187.877419 Intercept Conc=0.034826
Sensitivity=5394.744550 Correlation Coeff=0.999921

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	187.88	0.00
cal1 MW-10957	0.500	0.508	0.008	2930.43	1.67
cal2 MW-10958	2.500	2.393	0.107	13097.03	4.28
cal3 MW-10931	250.000	244.631	5.369	1319910.79	2.15
cal4 MW-10932	500.000	502.254	2.254	2709722.50	0.45

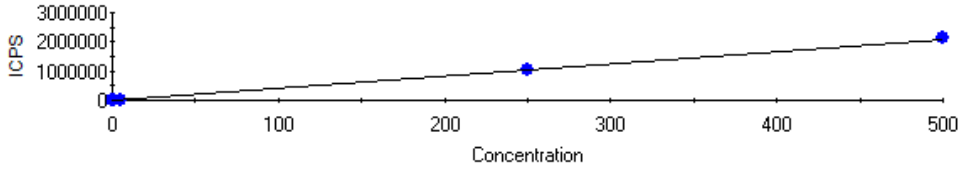
205Tl FQ Block 1



Intercept CPS=484.582681 Intercept Conc=0.037549
Sensitivity=12905.288439 Correlation Coeff=0.999998

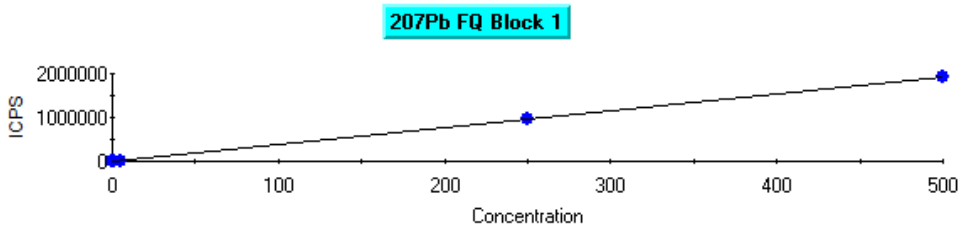
Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	484.58	0.00
cal1 MW-10957	0.500	0.475	0.025	6609.53	5.08
cal2 MW-10958	2.500	2.417	0.083	31670.99	3.34
cal3 MW-10931	250.000	249.778	0.222	3223935.77	0.09
cal4 MW-10932	500.000	501.513	1.513	6472651.10	0.30

206Pb FQ Block 1



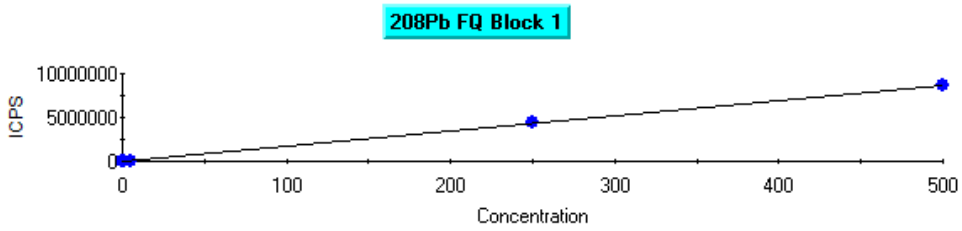
Intercept CPS=181.237460 Intercept Conc=0.043366
Sensitivity=4179.241016 Correlation Coeff=0.999848

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	181.24	0.00
cal1 MW-10957	1.000	0.997	0.003	4349.83	0.25
cal2 MW-10958	5.000	4.938	0.062	20819.25	1.24
cal3 MW-10931	250.000	246.849	3.151	1031823.84	1.26
cal4 MW-10932	500.000	512.042	12.042	2140129.29	2.41



Intercept CPS=106.728910 Intercept Conc=0.027559
Sensitivity=3872.730378 Correlation Coeff=0.999975

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	106.73	0.00
cal1 MW-10957	1.000	0.987	0.013	3929.83	1.28
cal2 MW-10958	5.000	4.881	0.119	19009.45	2.38
cal3 MW-10931	250.000	247.055	2.945	956885.93	1.18
cal4 MW-10932	500.000	501.473	1.473	1942178.33	0.29



Intercept CPS=597.389115 Intercept Conc=0.034204
Sensitivity=17465.314456 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	597.39	0.00
cal1 MW-10957	1.000	0.979	0.021	17690.30	2.13
cal2 MW-10958	5.000	4.875	0.125	85746.61	2.49
cal3 MW-10931	250.000	248.133	1.867	4334314.97	0.75
cal4 MW-10932	500.000	500.935	0.935	8749582.65	0.19

Dilution Corrected Concentrations

TUNE MW10939 05/08/2019 09:23:13

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:41	98.1%	0.007	1.420	1.222	224.500	7.719	0.510	0.663	0.540	1.140
2	09:24:07	99.4%	-0.001	0.997	1.064	226.800	5.675	0.465	0.627	0.493	1.119
3	09:24:35	100.1%	-0.010	1.417	0.876	221.500	6.654	0.460	0.523	0.541	1.120
4	09:25:02	100.8%	0.030	0.949	1.050	225.300	5.684	0.483	0.379	0.540	1.083
5	09:25:29	100.4%	-0.000	1.384	0.947	223.300	4.662	0.395	0.386	0.692	1.120
6	09:25:56	101.2%	0.022	1.257	1.002	223.200	3.874	0.462	0.546	0.444	1.157
x		100.0%	0.008	1.237	1.027	224.100	5.712	0.462	0.521	0.542	1.123
σ		1.1%	0.015	0.214	0.118	1.869	1.371	0.038	0.119	0.083	0.025
%RSD		1.1	192.500	17.270	11.520	0.834	24.010	8.229	22.780	15.300	2.194
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:41	15.210	292.600	8.026	7.728	7.098	97.7%	0.044	0.010	0.060	7.626
2	09:24:07	15.140	292.100	7.832	11.280	7.859	98.4%	0.063	-0.014	0.046	25.410
3	09:24:35	15.390	288.300	5.820	3.797	7.392	101.7%	0.042	-0.006	0.078	11.620
4	09:25:02	15.020	287.400	1.358	5.886	7.249	100.6%	0.052	-0.011	0.067	14.950
5	09:25:29	14.990	283.000	2.626	5.928	7.336	100.1%	0.013	0.030	0.061	-4.830
6	09:25:56	14.940	283.600	1.502	3.800	6.951	101.6%	0.032	0.002	0.067	3.434
x		15.110	287.900	4.527	6.403	7.314	100.0%	0.041	0.002	0.063	9.701
σ		0.169	4.071	3.087	2.813	0.312	1.6%	0.017	0.016	0.011	10.320
%RSD		1.120	1.414	68.190	43.940	4.263	1.6	42.180	945.300	16.750	106.400
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:41	4.500	0.160	4.012	5.313	0.002	0.033	0.254	0.083	0.110	0.426
2	09:24:07	4.469	0.163	2.215	6.100	0.005	0.047	0.503	0.092	0.085	0.437
3	09:24:35	4.194	0.162	2.832	0.603	0.013	0.065	0.353	0.096	0.110	0.417
4	09:25:02	5.456	0.195	2.403	4.352	0.002	0.045	0.524	0.087	0.104	0.385
5	09:25:29	4.394	0.198	2.050	5.871	0.002	0.048	0.225	0.089	0.091	0.394
6	09:25:56	3.901	0.143	2.943	-1.526	-0.006	0.032	0.171	0.075	0.088	0.371
x		4.486	0.170	2.743	3.452	0.003	0.045	0.338	0.087	0.098	0.405
σ		0.525	0.022	0.712	3.163	0.006	0.012	0.148	0.007	0.011	0.026
%RSD		11.700	12.750	25.950	91.640	209.500	26.970	43.810	8.099	11.440	6.324
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:41	0.457	0.421	-0.030	0.709	1.151	3.811	9.860	0.102	8.230	0.009
2	09:24:07	0.378	0.442	-0.040	-0.024	1.166	4.063	8.262	-0.278	8.532	0.008
3	09:24:35	0.575	0.415	0.054	-0.002	1.293	3.651	10.680	0.249	10.760	0.013
4	09:25:02	0.240	0.404	-0.120	-0.168	0.820	3.867	6.494	-0.657	7.965	0.013
5	09:25:29	0.387	0.501	0.028	0.245	1.166	4.130	9.627	0.036	7.869	0.015
6	09:25:56	0.379	0.391	-0.052	0.095	1.305	3.851	9.070	-0.087	9.167	0.011
x		0.403	0.429	-0.026	0.143	1.150	3.896	8.999	-0.106	8.754	0.011
σ		0.110	0.039	0.062	0.309	0.175	0.175	1.469	0.323	1.089	0.003
%RSD		27.340	9.095	233.700	217.100	15.240	4.489	16.320	305.100	12.440	22.320
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:41	99.0%	0.037	0.031	0.039	1.014	0.006	0.003	0.002	-0.001	98.7%
2	09:24:07	99.5%	-0.003	0.023	0.025	-0.258	0.000	0.002	0.011	0.002	99.9%
3	09:24:35	100.7%	0.033	0.037	0.001	0.199	0.005	0.009	-0.001	0.003	99.9%
4	09:25:02	99.9%	0.021	0.013	0.035	0.361	0.005	0.005	-0.001	0.007	100.2%
5	09:25:29	101.4%	0.003	0.043	0.018	-0.246	0.009	0.001	-0.001	0.007	102.2%
6	09:25:56	99.6%	0.021	0.003	0.032	-0.587	0.006	0.005	0.005	-0.002	99.2%
x		100.0%	0.019	0.025	0.025	0.080	0.005	0.004	0.002	0.003	100.0%
σ		0.9%	0.016	0.015	0.014	0.571	0.003	0.003	0.005	0.004	1.2%
%RSD		0.9	85.040	60.840	56.520	709.700	50.040	73.700	199.500	132.400	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:41	0.140	0.200	0.049	0.036	0.067	0.079	98.5%	0.004	-0.000	0.008
2	09:24:07	0.163	0.176	0.056	0.041	0.071	0.070	99.2%	0.003	-0.001	0.002
3	09:24:35	0.165	0.181	0.045	0.035	0.080	0.093	100.0%	-0.003	0.001	0.003
4	09:25:02	0.153	0.180	0.039	0.059	0.066	0.057	100.9%	-0.000	-0.003	0.014
5	09:25:29	0.111	0.182	0.049	0.052	0.070	0.081	101.7%	0.005	0.006	0.002
6	09:25:56	0.114	0.175	0.047	0.050	0.094	0.073	99.7%	-0.004	-0.004	0.011
x		0.141	0.182	0.047	0.046	0.075	0.075	100.0%	0.001	-0.000	0.007
σ		0.024	0.009	0.006	0.010	0.011	0.012	1.1%	0.004	0.003	0.005
%RSD		16.950	4.870	11.910	20.960	14.320	16.210	1.1	422.300	2951.000	81.360
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	09:23:41	0.015	0.015	100.3%							
2	09:24:07	0.024	0.013	100.1%							

3	09:24:35	0.009	0.013	101.2%
4	09:25:02	0.019	0.016	99.4%
5	09:25:29	0.016	0.009	100.0%
6	09:25:56	0.031	0.023	99.1%
x		0.019	0.015	100.0%
σ		0.008	0.005	0.7%
%RSD		40.180	29.880	0.7

BLANK IM9353-01 05/08/2019 09:30:31

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:59	99.2%	0.018	0.178	-0.044	0.047	0.527	-0.008	0.000	0.006	0.011
2	09:31:27	100.1%	0.003	-0.121	-0.039	-5.793	0.034	0.014	0.030	0.062	-0.022
3	09:31:54	100.6%	-0.021	-0.057	0.083	5.746	-0.561	-0.006	-0.031	-0.068	0.011
x		100.0%	0.000	0.000	-0.000	0.000	-0.000	-0.000	0.000	0.000	-0.000
σ		0.7%	0.020	0.158	0.072	5.770	0.544	0.012	0.031	0.065	0.019
%RSD		0.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:59	10.290	-1.269	-1.313	-1.690	-0.232	99.6%	0.023	-0.009	0.006	0.162
2	09:31:27	10.570	-2.044	2.833	1.377	0.541	99.5%	-0.016	0.026	0.003	-17.830
3	09:31:54	10.220	3.313	-1.520	0.313	-0.309	100.9%	-0.007	-0.018	-0.009	17.670
x		10.360	0.000	0.000	-0.000	-0.000	100.0%	-0.000	0.000	0.000	0.000
σ		0.185	2.895	2.456	1.557	0.470	0.8%	0.021	0.023	0.008	17.750
%RSD		1.781	0.000	0.000	0.000	0.000	0.8	0.000	0.000	0.000	0.000

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:59	-0.133	0.002	-0.287	1.167	-0.000	-0.017	-0.214	0.005	-0.007	-0.008
2	09:31:27	0.156	-0.003	0.539	1.876	0.004	0.005	0.163	-0.005	0.007	0.007
3	09:31:54	-0.023	0.000	-0.251	-3.044	-0.003	0.012	0.052	-0.000	-0.000	0.001
x		-0.000	-0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	-0.000	0.000
σ		0.146	0.002	0.467	2.660	0.003	0.015	0.194	0.005	0.007	0.008
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:59	-0.012	0.015	-0.019	-0.243	0.056	-0.140	-0.806	-0.150	-1.758	-0.000
2	09:31:27	0.025	-0.001	-0.022	-0.002	-0.093	0.124	-0.819	-0.191	0.767	-0.000
3	09:31:54	-0.014	-0.015	0.042	0.245	0.037	0.016	1.625	0.341	0.992	0.000
x		0.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.000	-0.000
σ		0.022	0.015	0.036	0.244	0.081	0.133	1.407	0.296	1.527	0.000
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:59	100.2%	-0.007	-0.012	0.007	-0.046	0.000	-0.002	0.002	0.002	100.6%
2	09:31:27	100.4%	-0.005	0.013	-0.010	-0.300	-0.000	-0.000	0.002	-0.001	99.5%
3	09:31:54	99.5%	0.012	-0.001	0.003	0.346	-0.000	0.002	-0.004	-0.001	99.9%
x		100.0%	0.000	0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000	100.0%
σ		0.4%	0.011	0.012	0.009	0.325	0.000	0.002	0.004	0.001	0.5%
%RSD		0.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:30:59	-0.006	0.003	0.002	0.005	-0.002	-0.003	100.8%	0.003	-0.003	0.008
2	09:31:27	-0.004	0.005	0.004	-0.001	-0.002	0.003	98.7%	-0.003	0.007	-0.006
3	09:31:54	0.010	-0.008	-0.006	-0.004	0.003	-0.000	100.4%	-0.000	-0.004	-0.002
x		-0.000	0.000	-0.000	-0.000	0.000	-0.000	100.0%	0.000	0.000	-0.000
σ		0.009	0.007	0.005	0.005	0.003	0.003	1.1%	0.003	0.006	0.007
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.1	0.000	0.000	0.000

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	09:30:59	-0.003	-0.000	100.5%
2	09:31:27	0.008	0.002	99.5%
3	09:31:54	-0.005	-0.001	99.9%
x		-0.000	-0.000	100.0%
σ		0.007	0.002	0.5%
%RSD		0.000	0.000	0.5

MW10971 05/08/2019 09:36:33

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:00	97.1%	0.185	19.930	20.440	53.420	152.000	166.400	163.600	162.000	16.780
2	09:37:27	99.5%	0.124	19.520	20.730	54.620	153.000	165.500	158.900	158.700	16.480
3	09:37:54	100.5%	0.173	19.400	19.370	47.940	151.000	164.100	156.800	157.500	16.300
x		99.1%	0.160	19.620	20.180	51.990	152.000	165.300	159.800	159.400	16.520
σ		1.7%	0.032	0.279	0.717	3.561	0.976	1.178	3.493	2.317	0.239
%RSD		1.7	20.090	1.421	3.553	6.848	0.642	0.713	2.186	1.454	1.445
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:00	51.110	6.163	161.800	157.400	151.000	98.8%	2.099	1.915	2.003	37.630
2	09:37:27	49.700	12.690	162.500	153.000	151.600	98.5%	2.243	1.886	1.930	39.010
3	09:37:54	49.380	5.699	161.800	176.200	149.500	99.9%	1.919	1.957	2.005	40.470
x		50.060	8.183	162.000	162.200	150.700	99.0%	2.087	1.919	1.979	39.040
σ		0.916	3.907	0.441	12.310	1.091	0.7%	0.162	0.036	0.043	1.422
%RSD		1.830	47.750	0.272	7.591	0.724	0.7	7.780	1.857	2.164	3.644
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:00	22.000	1.875	20.950	23.030	0.394	1.950	2.015	2.008	2.090	3.745
2	09:37:27	21.780	1.981	21.300	24.270	0.394	1.943	2.488	1.954	2.036	4.030
3	09:37:54	22.910	1.932	21.770	22.960	0.386	1.918	2.259	1.906	2.169	3.853
x		22.230	1.929	21.340	23.420	0.391	1.937	2.254	1.956	2.098	3.876
σ		0.596	0.053	0.413	0.738	0.004	0.017	0.237	0.051	0.067	0.144
%RSD		2.683	2.754	1.936	3.152	1.107	0.856	10.510	2.597	3.177	3.709
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:00	4.057	3.722	0.737	2.365	-0.043	-0.532	7.166	1.697	-0.854	3.862
2	09:37:27	3.773	3.906	0.476	1.951	0.176	-0.755	4.742	1.132	-0.294	3.892
3	09:37:54	3.591	3.878	0.653	1.606	0.093	-0.280	5.781	1.305	-0.952	3.789
x		3.807	3.836	0.622	1.974	0.075	-0.522	5.896	1.378	-0.700	3.848
σ		0.235	0.099	0.133	0.380	0.111	0.238	1.216	0.289	0.355	0.053
%RSD		6.160	2.581	21.380	19.260	146.600	45.570	20.630	20.990	50.740	1.371
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:00	99.5%	3.831	4.157	3.818	0.121	0.377	0.381	0.051	0.040	97.9%
2	09:37:27	101.1%	3.930	4.040	4.090	-0.075	0.415	0.378	0.058	0.064	99.0%
3	09:37:54	100.7%	3.932	3.926	3.864	0.537	0.413	0.389	0.033	0.031	101.3%
x		100.4%	3.898	4.041	3.924	0.194	0.402	0.383	0.047	0.045	99.4%
σ		0.8%	0.058	0.115	0.146	0.312	0.022	0.006	0.013	0.017	1.8%
%RSD		0.8	1.479	2.850	3.709	160.800	5.438	1.487	26.730	38.470	1.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:00	5.501	7.611	0.745	0.794	2.106	2.054	100.0%	0.198	0.198	0.371
2	09:37:27	5.317	7.813	0.790	0.759	1.888	2.041	99.9%	0.215	0.194	0.371
3	09:37:54	5.467	7.621	0.752	0.762	2.115	2.126	102.5%	0.169	0.189	0.385
x		5.429	7.682	0.762	0.772	2.036	2.074	100.8%	0.194	0.194	0.376
σ		0.098	0.114	0.024	0.019	0.128	0.046	1.5%	0.024	0.004	0.008
%RSD		1.805	1.478	3.167	2.487	6.295	2.208	1.5	12.220	2.181	2.079
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	09:37:00	0.385	0.376	98.3%							
2	09:37:27	0.375	0.387	98.9%							
3	09:37:54	0.421	0.407	100.2%							
x		0.394	0.390	99.2%							
σ		0.024	0.015	1.0%							
%RSD		6.061	3.970	1.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:59	96.9%	0.378	25.450	25.920	55.060	196.200	52.980	51.110	51.130	42.170
2	09:43:26	99.6%	0.419	27.220	25.330	48.920	187.400	52.060	48.710	49.720	40.910
3	09:43:54	102.8%	0.469	25.650	24.730	45.860	185.400	52.030	50.810	50.290	40.370
x		99.8%	0.422	26.110	25.330	49.940	189.700	52.360	50.210	50.380	41.150
σ		2.9%	0.046	0.967	0.594	4.684	5.729	0.542	1.304	0.710	0.921
%RSD		2.9	10.820	3.704	2.344	9.379	3.020	1.035	2.596	1.410	2.238

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:59	109.600	17.540	202.200	207.500	200.600	99.3%	5.222	5.204	1.023	3.193
2	09:43:26	105.400	16.410	198.100	190.800	186.800	99.8%	4.796	4.820	0.941	12.100
3	09:43:54	102.200	15.020	197.300	192.900	190.100	101.0%	4.969	4.893	1.017	15.700
x		105.700	16.320	199.200	197.100	192.500	100.0%	4.996	4.972	0.994	10.330
σ		3.720	1.259	2.652	9.063	7.199	0.9%	0.214	0.204	0.046	6.439
%RSD		3.519	7.714	1.331	4.599	3.740	0.9	4.286	4.097	4.582	62.320

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:59	22.870	4.906	24.100	21.850	4.905	5.111	5.051	0.958	1.112	9.794
2	09:43:26	21.880	4.805	21.580	21.110	4.962	4.987	4.874	1.006	0.961	9.486
3	09:43:54	20.920	4.751	22.350	17.190	4.964	4.801	4.029	0.974	1.019	10.010
x		21.890	4.821	22.680	20.050	4.944	4.966	4.651	0.979	1.031	9.763
σ		0.974	0.078	1.291	2.505	0.034	0.156	0.546	0.024	0.076	0.263
%RSD		4.450	1.628	5.694	12.490	0.684	3.144	11.750	2.458	7.412	2.693

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:59	9.927	9.585	1.096	0.892	0.128	0.159	5.636	1.294	1.206	0.015
2	09:43:26	9.037	8.934	1.024	1.294	-0.117	-0.008	3.733	0.868	-2.464	0.022
3	09:43:54	9.327	9.503	1.160	1.003	-0.040	-0.506	4.667	1.123	-2.010	0.019
x		9.431	9.341	1.093	1.063	-0.010	-0.118	4.679	1.095	-1.089	0.019
σ		0.454	0.355	0.068	0.208	0.125	0.346	0.952	0.214	2.001	0.003
%RSD		4.813	3.801	6.240	19.520	1271.000	291.900	20.340	19.580	183.700	16.970

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:59	99.2%	10.240	9.973	10.080	-1.218	0.966	1.019	0.085	0.111	97.8%
2	09:43:26	97.7%	9.678	10.000	9.778	-0.025	1.014	0.942	0.061	0.122	99.2%
3	09:43:54	101.3%	10.020	9.751	9.844	0.728	1.024	1.012	0.086	0.126	100.5%
x		99.4%	9.979	9.909	9.899	-0.172	1.001	0.991	0.077	0.120	99.2%
σ		1.8%	0.284	0.138	0.156	0.982	0.031	0.042	0.014	0.008	1.4%
%RSD		1.8	2.846	1.388	1.578	570.900	3.081	4.277	18.290	6.589	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:59	3.678	5.229	0.915	0.911	5.202	5.139	99.8%	0.489	0.491	1.084
2	09:43:26	3.582	5.223	0.961	0.905	5.098	4.983	100.6%	0.456	0.484	0.980
3	09:43:54	3.558	5.213	0.935	0.940	4.999	5.000	102.5%	0.475	0.476	0.998
x		3.606	5.222	0.937	0.919	5.100	5.041	101.0%	0.473	0.483	1.021
σ		0.063	0.008	0.023	0.019	0.102	0.085	1.4%	0.016	0.007	0.056
%RSD		1.759	0.157	2.482	2.020	1.993	1.693	1.4	3.438	1.519	5.466

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	09:42:59	1.044	1.016	99.3%
2	09:43:26	0.959	0.974	100.4%
3	09:43:54	1.015	0.973	103.0%
x		1.006	0.988	100.9%
σ		0.043	0.025	1.9%
%RSD		4.316	2.485	1.9

cal1 MW-10957 05/08/2019 09:48:32

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:59	96.8%	0.470	49.100	51.000	46.760	385.400	412.200	388.800	390.700	40.590
2	09:49:27	97.8%	0.370	50.290	51.110	51.790	386.000	418.200	398.600	401.200	40.910
3	09:49:54	100.1%	0.427	51.520	49.890	49.950	391.600	416.800	394.500	395.400	39.890
x		98.2%	0.422	50.300	50.670	49.500	387.600	415.700	394.000	395.800	40.460
σ		1.7%	0.050	1.214	0.673	2.545	3.401	3.156	4.920	5.260	0.521
%RSD		1.7	11.890	2.414	1.327	5.142	0.877	0.759	1.249	1.329	1.288

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:59	107.200	23.250	406.000	431.800	380.500	97.4%	5.328	4.932	4.954	77.850
2	09:49:27	108.400	21.750	406.400	423.900	380.200	99.9%	5.342	4.877	4.784	66.010
3	09:49:54	107.400	22.020	401.200	431.000	380.400	100.9%	4.668	4.837	4.885	48.240
x		107.700	22.340	404.500	428.900	380.400	99.4%	5.113	4.882	4.874	64.030
σ		0.648	0.797	2.907	4.362	0.149	1.8%	0.385	0.048	0.086	14.910
%RSD		0.602	3.569	0.719	1.017	0.039	1.8	7.537	0.976	1.760	23.280

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:59	54.850	4.829	55.550	54.170	0.930	4.978	5.256	4.813	4.951	9.831
2	09:49:27	54.970	4.812	54.830	52.330	0.971	4.870	5.050	4.966	5.116	9.640
3	09:49:54	55.790	4.870	53.960	52.090	1.005	4.805	4.253	5.025	5.020	9.618
x		55.200	4.837	54.780	52.860	0.969	4.884	4.853	4.935	5.029	9.696
σ		0.511	0.030	0.796	1.137	0.038	0.088	0.530	0.109	0.083	0.117
%RSD		0.925	0.618	1.453	2.150	3.900	1.792	10.910	2.216	1.644	1.206

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:59	10.950	9.388	1.940	5.052	0.157	-0.406	26.030	5.876	-0.440	9.656
2	09:49:27	9.252	9.409	1.832	5.023	0.086	0.643	21.350	4.813	0.026	9.717
3	09:49:54	9.587	9.717	1.736	4.996	-0.017	-0.075	22.510	5.151	-1.308	9.582
x		9.930	9.505	1.836	5.024	0.075	0.054	23.300	5.280	-0.574	9.652
σ		0.899	0.184	0.102	0.028	0.088	0.536	2.436	0.543	0.677	0.068
%RSD		9.058	1.935	5.566	0.554	116.600	988.800	10.460	10.280	117.900	0.702

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:59	96.5%	10.030	9.996	9.946	1.731	0.963	0.924	0.066	0.086	96.9%
2	09:49:27	99.0%	9.699	9.825	9.801	0.418	0.975	0.955	0.076	0.074	99.3%
3	09:49:54	98.3%	9.869	9.683	9.705	1.287	0.938	0.950	0.074	0.155	98.3%
x		97.9%	9.865	9.835	9.817	1.145	0.959	0.943	0.072	0.105	98.2%
σ		1.3%	0.165	0.157	0.122	0.668	0.019	0.016	0.005	0.044	1.2%
%RSD		1.3	1.675	1.593	1.239	58.330	2.003	1.739	7.572	41.820	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:59	13.620	19.400	2.003	2.027	5.004	5.156	97.9%	0.515	0.463	0.957
2	09:49:27	13.580	19.150	1.913	1.967	4.912	5.182	99.8%	0.502	0.456	0.970
3	09:49:54	13.880	19.560	1.939	2.093	5.020	5.203	100.9%	0.507	0.505	1.065
x		13.690	19.370	1.952	2.029	4.979	5.180	99.5%	0.508	0.475	0.998
σ		0.163	0.207	0.046	0.063	0.058	0.023	1.5%	0.006	0.027	0.059
%RSD		1.187	1.070	2.372	3.105	1.168	0.452	1.5	1.267	5.600	5.937

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	09:48:59	0.929	0.960	98.6%
2	09:49:27	1.037	0.983	99.8%
3	09:49:54	0.996	0.994	100.5%
x		0.987	0.979	99.6%
σ		0.054	0.017	0.9%
%RSD		5.518	1.745	0.9

cal2 MW-10958 05/08/2019 09:54:31

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:54:58	97.7%	1.908	247.600	249.200	52.420	T1921.000	T2044.000	1962.000	1980.000	198.700
2	09:55:25	98.6%	2.082	256.100	255.200	57.630	T1931.000	T2077.000	1989.000	1990.000	201.600
3	09:55:52	100.7%	2.191	247.700	247.800	45.580	T1941.000	T2020.000	1927.000	1951.000	199.500
x		99.0%	2.061	250.500	250.800	51.880	T1931.000	T2047.000	1959.000	1973.000	199.900
σ		1.6%	0.143	4.855	3.904	6.047	T9.820	T28.410	31.020	20.210	1.512
%RSD		1.6	6.924	1.938	1.557	11.660	T0.509	T1.388	1.583	1.024	0.756

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:54:58	490.000	20.540	T2012.000	2064.000	1890.000	98.1%	24.560	24.410	24.450	298.900
2	09:55:25	484.100	28.490	T2000.000	2124.000	1879.000	97.5%	24.350	24.310	24.570	260.400
3	09:55:52	485.700	27.980	T1971.000	2055.000	1886.000	102.1%	24.890	24.080	24.400	139.700
x		486.600	25.670	T1994.000	2081.000	1885.000	99.2%	24.600	24.270	24.470	233.000
σ		3.025	4.454	T21.370	37.820	5.635	2.5%	0.272	0.169	0.087	83.090
%RSD		0.622	17.350	T1.072	1.817	0.299	2.5	1.107	0.695	0.356	35.660

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:54:58	265.200	24.240	275.300	272.000	4.786	24.100	25.210	24.580	24.880	48.460
2	09:55:25	263.300	24.360	271.700	267.100	4.979	24.510	25.170	24.490	24.670	48.660
3	09:55:52	262.100	23.990	269.200	254.200	4.739	24.320	24.690	23.790	24.620	48.480
x		263.500	24.200	272.000	264.500	4.835	24.310	25.020	24.290	24.720	48.530
σ		1.564	0.187	3.043	9.226	0.127	0.202	0.287	0.435	0.135	0.112
%RSD		0.594	0.775	1.119	3.489	2.635	0.832	1.147	1.791	0.548	0.230

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:54:58	46.040	47.070	9.568	24.010	0.069	-0.343	117.400	26.110	-0.792	48.630
2	09:55:25	48.070	47.440	9.745	26.080	-0.099	-0.004	112.200	25.450	-0.617	48.790
3	09:55:52	47.380	48.540	9.609	24.790	0.358	0.259	112.700	26.060	-1.614	48.630
x		47.160	47.680	9.641	24.960	0.109	-0.029	114.100	25.870	-1.007	48.680
σ		1.034	0.762	0.092	1.043	0.231	0.302	2.881	0.370	0.533	0.092
%RSD		2.193	1.599	0.959	4.177	211.200	1028.000	2.524	1.430	52.880	0.189

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:54:58	96.4%	49.300	49.550	50.190	2.640	4.830	4.654	0.349	0.553	98.3%
2	09:55:25	98.8%	49.650	49.680	49.210	3.146	4.899	4.770	0.374	0.458	98.4%
3	09:55:52	102.7%	49.310	49.490	49.480	4.140	4.969	4.791	0.357	0.596	100.7%
x		99.3%	49.420	49.570	49.630	3.309	4.899	4.738	0.360	0.536	99.1%
σ		3.2%	0.199	0.096	0.504	0.763	0.069	0.074	0.013	0.071	1.4%
%RSD		3.2	0.403	0.194	1.015	23.070	1.416	1.554	3.550	13.230	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:54:58	68.820	97.540	10.070	9.623	24.630	25.080	99.9%	2.395	2.482	4.974
2	09:55:25	68.990	98.990	10.010	10.100	25.060	24.830	100.2%	2.438	2.407	4.939
3	09:55:52	68.430	98.210	9.668	10.090	24.300	24.520	102.8%	2.346	2.361	4.901
x		68.750	98.250	9.914	9.938	24.660	24.810	101.0%	2.393	2.417	4.938
σ		0.289	0.725	0.215	0.273	0.385	0.283	1.6%	0.046	0.061	0.037
%RSD		0.420	0.738	2.166	2.747	1.559	1.142	1.6	1.931	2.519	0.743

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	09:54:58	4.864	4.839	99.5%
2	09:55:25	4.928	4.915	99.7%
3	09:55:52	4.851	4.872	101.2%
x		4.881	4.875	100.1%
σ		0.041	0.038	0.9%
%RSD		0.838	0.779	0.9

cal3 MW-10931 05/08/2019 10:00:30

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:57	95.8%	248.700	253.800	251.000	23.620	238.000	256.800	244.200	245.400	250.100
2	10:01:25	97.9%	245.700	247.400	249.300	17.340	235.100	253.700	242.700	242.800	247.400
3	10:01:51	96.7%	249.800	249.400	252.500	16.340	245.000	255.700	242.900	245.400	247.200
x		96.8%	248.100	250.200	250.900	19.100	239.300	255.400	243.300	244.500	248.200
σ		1.1%	2.163	3.290	1.585	3.946	5.070	1.562	0.827	1.485	1.652
%RSD		1.1	0.872	1.315	0.632	20.660	2.118	0.612	0.340	0.607	0.665

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:57	251.400	16.100	247.000	553.800	385.700	95.4%	249.500	249.400	250.500	2144.000
2	10:01:25	245.700	19.660	246.500	549.400	380.100	97.3%	248.800	253.400	253.000	1538.000
3	10:01:51	253.800	15.000	245.600	566.500	376.400	98.1%	252.700	248.700	250.300	1668.000
x		250.300	16.920	246.300	556.600	380.700	96.9%	250.300	250.500	251.300	1783.000
σ		4.188	2.436	0.706	8.856	4.668	1.4%	2.077	2.504	1.504	318.600
%RSD		1.673	14.400	0.286	1.591	1.226	1.5	0.830	1.000	0.598	17.860

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:57	361.200	250.000	266.600	254.600	250.100	251.600	257.100	248.700	251.100	245.000
2	10:01:25	367.300	255.300	273.300	248.800	250.100	250.900	255.600	251.900	253.000	251.500
3	10:01:51	360.800	249.800	267.500	238.500	249.900	250.600	246.700	246.800	247.500	245.000
x		363.100	251.700	269.200	247.300	250.000	251.000	253.200	249.100	250.500	247.100
σ		3.623	3.120	3.636	8.123	0.132	0.530	5.598	2.608	2.768	3.774
%RSD		0.998	1.239	1.351	3.284	0.053	0.211	2.211	1.047	1.105	1.527

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:57	249.600	250.600	248.100	252.900	-0.002	-0.391	1107.000	247.900	-1.053	247.200
2	10:01:25	251.100	247.800	247.900	251.600	0.012	-0.580	1116.000	248.900	-1.962	249.000
3	10:01:51	245.300	248.200	241.200	244.100	-0.183	-0.249	1088.000	242.300	0.096	T 251.400
x		248.700	248.800	245.700	249.500	-0.058	-0.407	1104.000	246.400	-0.973	T 249.200
σ		3.009	1.522	3.958	4.759	0.109	0.166	14.420	3.520	1.031	T 2.125
%RSD		1.210	0.612	1.611	1.907	187.700	40.900	1.307	1.429	106.000	T 0.853

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:57	98.0%	247.700	248.800	247.800	257.900	257.000	249.100	248.400	248.200	98.6%
2	10:01:25	98.4%	249.200	250.500	249.900	253.100	254.600	246.800	247.300	249.000	99.6%
3	10:01:51	98.4%	250.000	249.800	248.000	245.400	252.200	242.600	244.800	244.000	99.9%
x		98.3%	249.000	249.700	248.600	252.100	254.600	246.200	246.800	247.000	99.4%
σ		0.2%	1.170	0.856	1.172	6.325	2.384	3.310	1.877	2.659	0.7%
%RSD		0.2	0.470	0.343	0.472	2.508	0.936	1.344	0.760	1.076	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:57	249.600	246.800	244.900	246.200	248.800	251.400	100.4%	243.600	T 249.100	251.000
2	10:01:25	251.900	249.600	247.600	247.800	254.000	248.500	102.1%	246.300	T 249.800	T 244.300
3	10:01:51	248.900	246.700	246.500	247.600	249.900	248.500	101.6%	244.000	T 250.400	T 245.200
x		250.100	247.700	246.300	247.200	250.900	249.500	101.4%	244.600	T 249.800	T 246.800
σ		1.583	1.636	1.337	0.894	2.735	1.654	0.9%	1.474	T 0.641	T 3.632
%RSD		0.633	0.660	0.543	0.361	1.090	0.663	0.8	0.603	T 0.257	T 1.471

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:00:57	246.900	249.600	100.9%
2	10:01:25	247.500	246.500	102.6%
3	10:01:51	246.800	248.300	102.2%
x		247.100	248.100	101.9%
σ		0.359	1.569	0.9%
%RSD		0.145	0.632	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:56	98.3%	M 503.300	495.600	494.000	23.490	477.300	517.400	485.700	488.800	M 500.100
2	10:07:23	94.4%	499.600	499.800	M 502.900	19.600	483.400	517.400	490.300	486.800	M 502.700
3	10:07:50	95.9%	M 500.100	M 504.300	M 501.500	20.320	478.300	516.400	487.400	484.900	499.900
x		96.2%	M 501.000	M 499.900	M 499.400	21.140	479.700	517.100	487.800	486.800	M 500.900
σ		2.0%	M 2.010	M 4.369	M 4.799	2.070	3.244	0.559	2.336	1.956	M 1.532
%RSD		2.1	M 0.401	M 0.874	M 0.961	9.794	0.676	0.108	0.479	0.402	M 0.306

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:56	488.900	8.906	495.900	1069.000	746.200	97.5%	M 501.000	T 498.200	T 499.200	3878.000
2	10:07:23	495.500	15.050	504.800	1089.000	744.100	93.2%	M 502.900	TM 500.200	T 499.500	4639.000
3	10:07:50	492.500	14.590	502.400	1089.000	748.500	94.6%	495.700	TM 501.000	T 499.400	3310.000
x		492.300	12.850	501.100	1082.000	746.300	95.1%	M 499.900	TM 499.800	T 499.400	3942.000
σ		3.299	3.424	4.625	11.510	2.225	2.2%	M 3.701	TM 1.465	T 0.157	666.700
%RSD		0.670	26.640	0.923	1.063	0.298	2.3	M 0.741	TM 0.293	T 0.031	16.910

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:56	718.100	TM 502.100	T 523.600	503.700	T 495.300	498.400	496.100	499.100	M 500.900	M 503.700
2	10:07:23	725.500	TM 503.700	T 514.900	506.100	TM 503.400	M 508.600	M 500.200	M 501.400	M 505.100	498.500
3	10:07:50	720.600	TM 504.100	T 519.600	502.600	TM 502.700	M 500.500	499.000	M 500.900	M 504.500	M 502.600
x		721.400	TM 503.300	T 519.400	504.100	TM 500.400	M 502.500	M 498.400	M 500.500	M 503.500	M 501.600
σ		3.767	TM 1.070	T 4.352	1.759	TM 4.463	M 5.365	M 2.082	M 1.232	M 2.293	M 2.764
%RSD		0.522	TM 0.213	T 0.838	0.349	TM 0.892	M 1.068	M 0.418	M 0.246	M 0.455	M 0.551

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:56	498.200	497.000	499.000	495.200	0.434	-0.090	2228.000	496.800	-3.027	TM 502.300
2	10:07:23	498.800	M 504.000	M 500.600	M 505.900	0.423	-0.210	2246.000	M 502.600	0.597	T 496.300
3	10:07:50	M 505.900	M 501.500	M 506.900	499.600	0.025	0.055	2250.000	M 501.500	-0.481	TM 503.000
x		M 501.000	M 500.800	M 502.100	M 500.200	0.294	-0.082	2242.000	M 500.300	-0.970	TM 500.500
σ		M 4.314	M 3.515	M 4.192	M 5.406	0.233	0.133	11.630	M 3.067	1.861	TM 3.677
%RSD		M 0.861	M 0.702	M 0.835	M 1.081	79.150	161.900	0.519	M 0.613	191.800	TM 0.735

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:56	98.9%	M 502.400	M 501.800	M 502.200	490.700	M 519.400	499.800	M 501.800	M 503.100	100.1%
2	10:07:23	97.4%	497.700	M 500.400	M 500.500	M 508.800	T 489.100	M 507.300	M 503.600	M 500.000	97.7%
3	10:07:50	97.5%	M 501.600	498.500	499.600	497.300	M 520.000	498.600	499.300	M 501.300	98.5%
x		97.9%	M 500.600	M 500.200	M 500.800	M 498.900	TM 509.500	M 501.900	M 501.600	M 501.500	98.8%
σ		0.8%	M 2.484	M 1.656	M 1.331	M 9.142	TM 17.650	M 4.739	M 2.165	M 1.545	1.2%
%RSD		0.9	M 0.496	M 0.331	M 0.266	M 1.832	TM 3.463	M 0.944	M 0.432	M 0.308	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:56	M 505.200	M 502.200	M 506.000	M 508.300	497.500	499.400	102.1%	M 504.900	T 499.600	M 509.400
2	10:07:23	M 507.000	M 502.600	M 502.500	497.500	M 502.800	M 504.800	100.1%	499.400	TM 501.500	M 517.300
3	10:07:50	M 507.100	499.800	497.000	498.500	M 505.300	497.000	101.1%	M 502.500	TM 503.400	M 509.400
x		M 506.400	M 501.500	M 501.800	M 501.400	M 501.900	M 500.400	101.1%	M 502.300	TM 501.500	M 512.000
σ		M 1.084	M 1.522	M 4.520	M 5.990	M 3.979	M 4.030	1.0%	M 2.774	TM 1.899	M 4.558
%RSD		M 0.214	M 0.303	M 0.901	M 1.195	M 0.793	M 0.805	1.0	M 0.552	TM 0.379	M 0.890

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:06:56	497.300	T 499.000	103.4%
2	10:07:23	M 507.200	TM 505.700	100.8%
3	10:07:50	500.000	T 498.100	103.0%
x		M 501.500	TM 500.900	102.4%
σ		M 5.112	TM 4.138	1.4%
%RSD		M 1.019	TM 0.826	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:55	88.0%	-0.010	4.608	3.988	57.170	T49490.000	T51050.000	T50350.000	T50200.000	0.940
2	10:13:22	88.8%	0.063	3.816	3.998	58.260	T48750.000	T51090.000	T50510.000	T50530.000	1.067
3	10:13:49	89.9%	0.062	3.662	3.541	62.350	T49160.000	T50750.000	T50460.000	T50300.000	0.955
x		88.9%	0.038	4.029	3.842	59.260	T49140.000	T50960.000	T50440.000	T50340.000	0.987
σ		1.0%	0.042	0.507	0.261	2.731	T370.500	T185.600	T82.100	T166.700	0.070
%RSD		1.1	109.000	12.590	6.790	4.609	T0.754	T0.364	T0.163	T0.331	7.050
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:55	T4788.000	31.490	T49970.000	50330.000	T50040.000	91.3%	1.198	-0.019	0.187	15.130
2	10:13:22	T4781.000	32.040	T50090.000	49650.000	T49630.000	91.8%	1.234	-0.026	0.184	7.882
3	10:13:49	T4830.000	23.360	T50240.000	50420.000	T50540.000	93.7%	1.209	-0.043	0.230	15.370
x		T4800.000	28.960	T50100.000	50130.000	T50070.000	92.3%	1.214	-0.029	0.201	12.790
σ		T26.560	4.857	T135.900	418.200	T456.900	1.3%	0.019	0.012	0.026	4.255
%RSD		T0.553	16.770	T0.271	0.834	T0.912	1.4	1.551	42.190	12.960	33.260
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:55	T50130.000	0.712	T50610.000	T49960.000	2.353	2.409	2.013	0.241	0.236	0.916
2	10:13:22	T50110.000	0.769	T50210.000	T50020.000	2.310	2.216	1.583	0.266	0.198	1.061
3	10:13:49	T49740.000	0.766	T50090.000	T49960.000	2.297	2.290	2.081	0.253	0.262	0.951
x		T50000.000	0.749	T50300.000	T49980.000	2.320	2.305	1.892	0.253	0.232	0.976
σ		T217.600	0.032	T269.100	T34.880	0.029	0.097	0.270	0.013	0.032	0.076
%RSD		T0.435	4.295	T0.535	T0.070	1.263	4.216	14.260	5.002	13.810	7.797
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:55	0.839	0.977	0.161	0.411	0.883	-0.082	-2.818	-0.589	-1.461	0.415
2	10:13:22	0.814	0.927	0.093	0.012	1.030	-0.631	-2.220	-0.484	-0.118	0.396
3	10:13:49	0.813	1.030	0.245	0.256	0.732	-0.352	-0.640	-0.103	-1.321	0.402
x		0.822	0.978	0.167	0.227	0.882	-0.355	-1.893	-0.392	-0.967	0.405
σ		0.015	0.052	0.076	0.201	0.149	0.274	1.125	0.255	0.739	0.010
%RSD		1.811	5.269	45.650	88.760	16.880	77.220	59.450	65.150	76.400	2.416
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:55	92.0%	0.095	0.142	0.156	1.099	0.012	0.011	-0.005	0.016	90.8%
2	10:13:22	91.3%	0.134	0.144	0.118	1.645	0.005	0.008	0.002	0.009	90.4%
3	10:13:49	92.2%	0.165	0.145	0.098	-0.196	0.008	0.007	0.015	0.002	91.9%
x		91.8%	0.132	0.144	0.124	0.850	0.008	0.009	0.004	0.009	91.1%
σ		0.5%	0.035	0.001	0.029	0.946	0.003	0.002	0.010	0.007	0.8%
%RSD		0.5	26.540	0.984	23.700	111.300	40.220	25.300	239.600	79.800	0.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:55	0.171	0.197	0.449	0.491	0.013	0.028	94.8%	0.008	-0.004	0.034
2	10:13:22	0.144	0.178	0.415	0.446	0.033	0.033	96.0%	-0.001	0.001	0.035
3	10:13:49	0.161	0.206	0.422	0.400	0.008	0.008	96.3%	-0.004	0.002	0.061
x		0.159	0.194	0.428	0.445	0.018	0.023	95.7%	0.001	-0.000	0.043
σ		0.013	0.014	0.018	0.045	0.013	0.013	0.8%	0.006	0.003	0.015
%RSD		8.475	7.467	4.172	10.160	71.920	56.620	0.8	568.900	1486.000	34.940
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:12:55	0.060	0.043	92.5%							
2	10:13:22	0.051	0.048	91.8%							
3	10:13:49	0.066	0.053	92.0%							
x		0.059	0.048	92.1%							
σ		0.007	0.005	0.3%							
%RSD		12.380	10.540	0.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:54	84.9%	0.004	2.543	2.301	69.820	TM 100200.000	TM 100300.000	TM 100800.000	TM 100700.000	1.347
2	10:19:21	87.3%	0.001	1.876	2.095	63.150	TM 101000.000	T 99240.000	T 99140.000	T 99210.000	1.344
3	10:19:48	87.4%	-0.016	2.512	2.128	60.890	TM 100100.000	T 98990.000	T 99410.000	T 99600.000	1.287
x		86.5%	-0.004	2.310	2.175	64.620	TM 100400.000	TM 99520.000	TM 99780.000	TM 99830.000	1.326
σ		1.4%	0.011	0.377	0.111	4.640	TM 497.100	TM 706.600	TM 882.000	TM 762.900	0.034
%RSD		1.6	290.500	16.290	5.091	7.181	TM 0.495	TM 0.710	TM 0.884	TM 0.764	2.539

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:54	TM 10060.000	35.130	TM 100800.000	M 100200.000	TM 100100.000	90.5%	2.588	-0.073	0.459	44.270
2	10:19:21	T 9889.000	31.170	T 98340.000	98290.000	T 99540.000	93.7%	2.319	-0.053	0.425	24.700
3	10:19:48	T 9914.000	34.640	TM 100800.000	M 101300.000	TM 100300.000	92.8%	2.120	-0.064	0.498	24.590
x		TM 9954.000	33.650	TM 99950.000	M 99930.000	TM 99970.000	92.3%	2.343	-0.063	0.461	31.190
σ		TM 92.210	2.158	TM 1396.000	M 1513.000	TM 384.800	1.7%	0.235	0.010	0.036	11.330
%RSD		TM 0.926	6.413	TM 1.397	M 1.514	TM 0.385	1.8	10.020	15.430	7.913	36.330

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:54	T 99520.000	1.534	T 99310.000	T 99850.000	4.611	4.566	4.479	0.561	0.547	2.769
2	10:19:21	T 99470.000	1.571	T 99820.000	TM 100400.000	4.525	4.434	4.241	0.589	0.584	2.782
3	10:19:48	TM 101000.000	1.571	TM 100400.000	TM 100500.000	4.576	4.464	4.093	0.538	0.558	2.841
x		TM 100000.000	1.559	TM 99850.000	TM 100300.000	4.570	4.488	4.271	0.563	0.563	2.797
σ		TM 869.200	0.021	TM 551.000	TM 357.400	0.043	0.069	0.195	0.026	0.019	0.038
%RSD		TM 0.869	1.371	TM 0.552	TM 0.357	0.948	1.548	4.560	4.580	3.355	1.368

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:54	2.856	2.948	0.449	0.899	2.329	-0.581	1.032	0.320	-1.408	0.791
2	10:19:21	2.597	2.906	0.457	0.877	2.489	-0.436	0.782	0.260	-0.271	0.763
3	10:19:48	3.193	2.623	0.382	0.872	3.161	-0.469	-2.320	-0.449	-1.158	0.754
x		2.882	2.826	0.429	0.883	2.660	-0.495	-0.169	0.044	-0.946	0.769
σ		0.299	0.177	0.041	0.014	0.441	0.076	1.868	0.427	0.598	0.020
%RSD		10.380	6.258	9.603	1.620	16.590	15.370	1108.000	981.800	63.160	2.543

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:54	88.9%	0.155	0.114	0.113	1.647	0.008	0.006	0.002	0.009	87.0%
2	10:19:21	92.8%	0.182	0.176	0.102	0.002	0.005	0.007	0.002	0.002	89.7%
3	10:19:48	92.6%	0.163	0.139	0.112	0.010	0.007	0.002	-0.005	0.000	89.6%
x		91.4%	0.167	0.143	0.109	0.553	0.006	0.005	0.000	0.004	88.8%
σ		2.2%	0.014	0.031	0.006	0.948	0.002	0.002	0.004	0.004	1.5%
%RSD		2.4	8.333	21.890	5.909	171.400	26.730	48.740	7956.000	124.600	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:54	0.057	0.029	0.479	0.489	0.014	0.026	92.0%	0.006	0.002	0.088
2	10:19:21	0.081	0.064	0.483	0.461	0.038	0.034	94.9%	0.013	-0.004	0.073
3	10:19:48	0.042	0.064	0.500	0.439	0.023	0.045	94.2%	0.005	0.008	0.094
x		0.060	0.052	0.487	0.463	0.025	0.035	93.7%	0.008	0.002	0.085
σ		0.020	0.020	0.011	0.025	0.012	0.010	1.5%	0.004	0.006	0.011
%RSD		32.880	37.930	2.267	5.410	48.820	27.140	1.6	50.440	270.300	12.750

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:18:54	0.090	0.084	87.7%
2	10:19:21	0.058	0.079	89.5%
3	10:19:48	0.072	0.082	88.9%
x		0.073	0.081	88.7%
σ		0.016	0.003	0.9%
%RSD		22.090	3.238	1.0

ICV MW11054 PREP 5/8/19 05/08/2019 10:24:26 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:53	89.8%	208.000	217.100	215.400	20.880	┬41150.000	┬41630.000	┬41470.000	┬41550.000	208.300
2	10:25:20	94.2%	208.900	213.000	211.000	23.140	┬40680.000	┬42000.000	┬41500.000	┬41690.000	207.300
3	10:25:47	91.9%	209.700	220.100	211.800	22.940	┬41160.000	┬41580.000	┬41200.000	┬41360.000	205.400
x		92.0%	104.430%	216.700	106.358%	22.320	┬102.497%	┬41740.000	┬41390.000	┬103.833%	103.498%
σ		2.2%	n/a	3.568	n/a	1.254	┬n/a	┬230.500	┬164.200	┬n/a	n/a
%RSD		2.4	0.399	1.647	1.111	5.618	┬0.665	┬0.552	┬0.397	┬0.401	0.725
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:53	┬2217.000	19.280	┬41820.000	41800.000	┬42080.000	93.5%	210.300	212.300	206.400	1332.000
2	10:25:20	┬2157.000	18.790	┬41550.000	41900.000	┬42030.000	95.7%	207.700	210.200	206.300	1924.000
3	10:25:47	┬2172.000	20.540	┬41480.000	41640.000	┬41890.000	94.1%	204.600	210.600	205.100	1242.000
x		┬109.118%	19.540	┬104.046%	41780.000	┬104.999%	94.4%	103.747%	105.521%	102.957%	1499.000
σ		┬n/a	0.900	┬n/a	131.300	┬n/a	1.1%	n/a	n/a	n/a	370.600
%RSD		┬1.428	4.604	┬0.434	0.314	┬0.231	1.2	1.376	0.522	0.339	24.720
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:53	┬41760.000	204.900	┬42410.000	┬41970.000	202.000	201.200	197.700	196.600	197.200	196.300
2	10:25:20	┬41810.000	203.700	┬42220.000	┬42400.000	199.900	198.000	200.100	195.100	195.400	201.300
3	10:25:47	┬41280.000	202.200	┬42300.000	┬42020.000	199.200	196.500	199.800	195.800	195.800	194.500
x		┬41620.000	101.804%	┬105.773%	┬105.321%	100.184%	99.282%	199.200	195.900	98.059%	98.678%
σ		┬289.300	n/a	┬n/a	┬n/a	n/a	n/a	1.322	0.766	n/a	n/a
%RSD		┬0.695	0.649	┬0.221	┬0.560	0.744	1.191	0.664	0.391	0.478	1.798
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:53	198.900	195.800	205.800	197.100	0.970	0.050	921.900	210.300	-0.579	205.600
2	10:25:20	201.700	198.700	207.600	206.500	1.307	0.210	909.000	206.700	0.127	204.800
3	10:25:47	200.700	196.000	203.700	206.800	1.394	0.146	887.500	202.800	0.227	204.000
x		200.400	196.800	102.847%	203.500	1.224	0.135	906.100	103.303%	-0.075	102.394%
σ		1.415	1.607	n/a	5.477	0.224	0.081	17.360	n/a	0.439	n/a
%RSD		0.706	0.816	0.962	2.692	18.300	59.780	1.916	1.829	584.500	0.379
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:53	94.4%	211.000	210.500	212.700	206.200	206.900	198.000	203.500	205.400	93.4%
2	10:25:20	98.4%	210.400	211.100	209.700	200.300	204.200	197.600	203.600	205.700	97.4%
3	10:25:47	95.4%	211.100	211.700	209.400	210.700	205.500	198.200	205.400	205.200	94.2%
x		96.1%	105.413%	105.546%	105.301%	205.700	102.762%	197.900	102.077%	102.703%	95.0%
σ		2.1%	n/a	n/a	n/a	5.196	n/a	0.268	n/a	n/a	2.1%
%RSD		2.2	0.191	0.279	0.879	2.525	0.655	0.135	0.509	0.112	2.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:53	208.800	206.800	207.600	206.300	208.700	209.100	97.3%	197.900	204.600	218.300
2	10:25:20	208.800	207.300	209.300	210.400	204.800	207.600	100.4%	200.100	205.100	217.600
3	10:25:47	207.700	204.800	206.100	210.000	207.500	207.800	97.9%	198.400	204.300	215.600
x		104.216%	103.141%	207.700	104.458%	103.492%	104.079%	98.5%	198.800	102.340%	217.200
σ		n/a	n/a	1.614	n/a	n/a	n/a	1.7%	1.113	n/a	1.400
%RSD		0.287	0.644	0.777	1.071	0.967	0.383	1.7	0.560	0.187	0.645
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:24:53	205.300	210.400	93.4%							
2	10:25:20	205.900	210.900	97.7%							
3	10:25:47	205.000	210.000	95.1%							
x		205.400	105.208%	95.4%							
σ		0.442	n/a	2.2%							
%RSD		0.215	0.234	2.3							

ICB IM9409-01 05/08/2019 10:30:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:51	96.7%	0.038	0.680	0.936	3.779	9.841	0.208	0.300	0.243	-0.014
2	10:31:18	98.5%	-0.001	0.832	0.995	7.938	8.942	0.153	0.272	0.139	-0.005
3	10:31:45	99.4%	0.008	1.014	0.803	7.374	8.218	0.116	0.201	0.110	0.005
x		98.2%	0.015	0.842	0.911	6.363	9.000	0.159	0.258	0.164	-0.005
σ		1.4%	0.021	0.167	0.098	2.256	0.813	0.046	0.051	0.070	0.010
%RSD		1.4	139.700	19.890	10.810	35.460	9.030	29.030	19.860	42.790	210.000

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:51	12.890	13.060	26.030	-0.632	0.603	98.3%	0.004	-0.011	0.025	2.201
2	10:31:18	12.640	11.580	29.820	-0.683	-0.003	100.3%	0.013	0.010	0.015	-8.923
3	10:31:45	12.080	20.300	29.720	0.426	0.134	97.8%	0.014	-0.017	0.015	6.239
x		12.540	14.980	28.520	-0.296	0.245	98.8%	0.010	-0.006	0.018	-0.161
σ		0.417	4.663	2.162	0.626	0.318	1.4%	0.006	0.014	0.006	7.852
%RSD		3.329	31.130	7.578	211.200	129.900	1.4	55.910	220.700	32.590	4873.000

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:51	1.874	0.017	2.080	10.450	-0.007	-0.007	0.495	0.008	-0.014	0.024
2	10:31:18	0.892	0.001	2.510	6.449	-0.006	-0.021	0.298	0.014	0.035	-0.015
3	10:31:45	0.667	0.012	0.990	10.730	-0.007	-0.024	0.069	0.002	-0.020	-0.041
x		1.144	0.010	1.860	9.211	-0.007	-0.017	0.288	0.008	0.000	-0.011
σ		0.642	0.008	0.784	2.397	0.001	0.009	0.213	0.006	0.030	0.033
%RSD		56.110	84.160	42.140	26.020	7.754	53.380	74.140	69.230	12740.000	303.200

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:51	-0.065	0.063	-0.022	0.219	0.113	-0.260	0.873	0.127	1.779	-0.000
2	10:31:18	-0.049	0.047	-0.109	0.627	0.248	-0.211	-1.946	-0.422	-1.038	-0.000
3	10:31:45	-0.064	0.035	0.084	0.465	-0.092	-0.560	2.918	0.665	-0.602	-0.000
x		-0.059	0.048	-0.015	0.437	0.089	-0.344	0.615	0.124	0.046	-0.000
σ		0.009	0.014	0.097	0.205	0.171	0.189	2.442	0.543	1.516	0.000
%RSD		15.160	28.870	627.500	47.020	191.600	54.970	397.200	439.400	3262.000	1.531

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:51	98.8%	0.015	0.017	0.011	-0.032	0.228	0.212	0.005	0.000	100.2%
2	10:31:18	101.8%	0.022	0.012	0.013	0.730	0.252	0.220	-0.004	0.005	102.0%
3	10:31:45	100.8%	-0.008	0.023	0.011	0.414	0.232	0.222	-0.001	0.003	100.7%
x		100.5%	0.010	0.017	0.012	0.371	0.238	0.218	-0.000	0.003	100.9%
σ		1.6%	0.015	0.005	0.001	0.383	0.013	0.005	0.005	0.002	0.9%
%RSD		1.6	157.900	32.030	8.859	103.200	5.457	2.251	7696.000	88.260	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:51	0.012	0.001	0.005	-0.003	0.008	0.003	101.3%	0.002	0.003	-0.016
2	10:31:18	0.023	0.008	0.020	0.007	0.003	-0.000	103.1%	0.004	-0.000	-0.020
3	10:31:45	0.010	0.013	0.021	0.002	0.003	-0.000	102.7%	0.004	0.007	-0.013
x		0.015	0.007	0.015	0.002	0.004	0.001	102.4%	0.004	0.003	-0.017
σ		0.007	0.006	0.009	0.005	0.003	0.002	0.9%	0.001	0.004	0.003
%RSD		46.220	82.210	57.340	247.600	59.130	187.700	0.9	25.910	106.300	20.640

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:30:51	-0.000	-0.004	102.3%
2	10:31:18	0.010	-0.005	103.5%
3	10:31:45	0.018	0.003	102.3%
x		0.009	-0.002	102.7%
σ		0.009	0.004	0.7%
%RSD		97.970	222.300	0.7

ICSA MW10984 05/08/2019 10:36:21 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:36:48	96.6%	-0.014	0.758	0.793	1113.000	TM 103000.000	T 97310.000	T 97420.000	T 97520.000	TM 97460.000
2	10:37:15	98.4%	0.040	0.944	1.006	1109.000	TM 102400.000	T 97960.000	T 97610.000	T 97470.000	TM 97450.000
3	10:37:42	101.6%	0.015	0.718	0.783	1088.000	TM 105600.000	T 97280.000	T 96520.000	T 96550.000	TM 96200.000
x		98.9%	1.#IO%	0.807	1.#IO%	1104.000	TM 103.629%	T 97520.000	T 97190.000	T 97.181%	TM 97.036%
σ		2.6%	n/a	0.121	n/a	13.490	TM n/a	T 382.400	T 581.900	T n/a	TM n/a
%RSD		2.6	195.600	14.930	14.640	1.222	TM 1.647	T 0.392	T 0.599	T 0.563	TM 0.748

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:36:48	36.330	T 25130.000	T 99850.000	M 103100.000	TM 104100.000	95.7%	M 2233.000	-0.626	-1.625	1313.000
2	10:37:15	35.070	T 25450.000	TM 101300.000	M 104500.000	TM 105000.000	96.6%	M 2232.000	-0.679	-1.655	1353.000
3	10:37:42	34.710	T 25220.000	TM 101800.000	M 105400.000	TM 104600.000	100.4%	M 2229.000	-0.659	-1.671	1396.000
x		1.#IO%	T 25260.000	TM 100.986%	M 104300.000	TM 104.561%	97.6%	M 111.556%	-1.#IO%	-1.#IO%	1354.000
σ		n/a	T 165.000	TM n/a	M 1173.000	TM n/a	2.5%	M n/a	n/a	n/a	41.570
%RSD		2.402	T 0.653	TM 0.998	M 1.125	TM 0.428	2.5	M 0.100	4.105	1.419	3.070

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:36:48	TM 101100.000	0.474	TM 101800.000	TM 102400.000	0.446	1.397	7.049	-1.392	0.673	1.826
2	10:37:15	TM 101900.000	0.469	TM 101500.000	TM 103200.000	0.423	1.221	7.659	-1.291	0.545	1.798
3	10:37:42	TM 101900.000	0.487	TM 101500.000	TM 102000.000	0.412	1.224	7.440	-1.369	0.560	1.629
x		TM 101600.000	1.#IO%	TM 101600.000	TM 102.542%	1.#IO%	1.#IO%	7.383	-1.351	1.#IO%	1.#IO%
σ		TM 452.500	n/a	TM 126.800	TM n/a	n/a	n/a	0.309	0.053	n/a	n/a
%RSD		TM 0.445	1.929	TM 0.125	TM 0.582	4.079	7.871	4.186	3.919	11.820	6.070

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:36:48	1.704	0.387	0.040	0.668	3.645	0.816	0.080	-0.034	-0.223	0.801
2	10:37:15	1.781	0.302	-0.024	0.808	3.293	0.869	1.554	0.304	0.047	0.798
3	10:37:42	1.725	0.281	0.052	0.781	3.039	0.944	-1.752	-0.510	3.508	0.821
x		1.737	0.323	1.#IO%	0.753	3.325	0.877	-0.039	-1.#IO%	1.111	0.807
σ		0.040	0.056	n/a	0.074	0.304	0.065	1.656	n/a	2.080	0.012
%RSD		2.291	17.380	180.800	9.862	9.152	7.364	4210.000	509.500	187.300	1.533

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:36:48	96.3%	TM 2146.000	M 2173.000	TM 2132.000	-1.016	0.039	0.030	-5.505	0.165	99.0%
2	10:37:15	99.2%	TM 2129.000	M 2162.000	TM 2128.000	-2.671	0.037	0.033	-5.433	0.096	100.8%
3	10:37:42	101.4%	TM 2131.000	TM 2343.000	TM 2129.000	-3.132	0.034	0.026	-5.443	-0.055	103.6%
x		99.0%	TM 2135.000	TM 111.292%	TM 2130.000	-2.273	1.#IO%	0.030	-5.460	1.#IO%	101.2%
σ		2.6%	TM 9.146	TM n/a	TM 1.704	1.113	n/a	0.003	0.039	n/a	2.3%
%RSD		2.6	TM 0.428	TM 4.559	TM 0.080	48.950	6.991	11.600	0.709	164.500	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:36:48	1.389	0.092	0.184	0.195	0.160	0.148	103.7%	-0.023	-0.022	0.038
2	10:37:15	1.290	0.075	0.174	0.166	0.168	0.182	103.4%	-0.018	-0.023	0.064
3	10:37:42	1.240	0.060	0.205	0.141	0.171	0.184	106.9%	-0.021	-0.024	0.055
x		1.#IO%	1.#IO%	0.187	1.#IO%	0.166	1.#IO%	104.7%	-0.021	-1.#IO%	0.052
σ		n/a	n/a	0.016	n/a	0.006	n/a	1.9%	0.003	n/a	0.013
%RSD		5.827	20.720	8.601	16.000	3.404	11.860	1.9	14.000	5.096	25.600

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:36:48	0.060	0.052	97.7%
2	10:37:15	0.060	0.057	98.6%
3	10:37:42	0.058	0.053	100.6%
x		0.059	1.#IO%	99.0%
σ		0.002	n/a	1.5%
%RSD		2.584	4.820	1.5

CCV MW11050 05/08/2019 10:42:23 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:51	93.9%	303.100	307.900	306.700	5.442	┬62390.000	┬60610.000	┬60510.000	┬60350.000	298.600
2	10:43:18	99.1%	300.800	300.200	298.400	-1.258	┬61750.000	┬60490.000	┬59640.000	┬59330.000	290.700
3	10:43:45	95.5%	305.300	309.500	307.000	2.080	┬62310.000	┬61400.000	┬61420.000	┬60760.000	301.300
x		96.2%	101.020%	101.945%	101.341%	2.088	┬103.588%	┬60830.000	┬60520.000	┬100.244%	98.960%
σ		2.7%	n/a	n/a	n/a	3.350	┬n/a	┬494.100	┬888.800	┬n/a	n/a
%RSD		2.8	0.744	1.628	1.596	160.400	┬0.558	┬0.812	┬1.469	┬1.218	1.857

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:51	┬3168.000	163.600	┬60270.000	61520.000	┬61470.000	99.4%	305.000	307.200	295.200	1869.000
2	10:43:18	┬2976.000	149.000	┬59670.000	61740.000	┬61560.000	100.1%	298.500	┬308.200	295.000	1835.000
3	10:43:45	┬3099.000	140.300	┬60540.000	62000.000	┬61680.000	99.5%	301.600	305.200	296.400	1348.000
x		┬102.702%	151.000	┬100.270%	61760.000	┬102.614%	99.7%	100.555%	┬102.289%	98.515%	1684.000
σ		┬n/a	11.820	┬n/a	238.300	┬n/a	0.4%	n/a	┬n/a	n/a	291.200
%RSD		┬3.165	7.832	┬0.743	0.386	┬0.168	0.4	1.084	┬0.501	0.255	17.290

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:51	┬61120.000	296.400	┬61390.000	┬61070.000	292.700	282.600	287.300	275.200	275.900	278.700
2	10:43:18	┬61090.000	298.700	┬61500.000	┬61680.000	294.200	283.300	286.800	278.000	282.400	291.900
3	10:43:45	┬61140.000	297.400	┬61170.000	┬60860.000	290.900	280.400	280.300	275.400	275.300	282.200
x		┬61120.000	99.164%	┬61350.000	┬102.005%	97.527%	94.041%	284.800	276.200	92.625%	94.752%
σ		┬21.270	n/a	┬172.100	┬n/a	n/a	n/a	3.896	1.578	n/a	n/a
%RSD		┬0.035	0.394	┬0.281	┬0.696	0.575	0.545	1.368	0.571	1.416	2.404

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:51	285.600	279.500	287.400	281.300	0.800	0.188	1273.000	288.200	0.660	┬306.800
2	10:43:18	294.700	294.100	297.800	288.000	1.752	-0.447	1312.000	297.000	-0.408	┬306.300
3	10:43:45	286.100	282.800	290.600	286.700	1.656	0.111	1260.000	283.500	0.787	┬306.200
x		288.800	285.400	97.316%	285.400	1.403	-0.050	1282.000	96.527%	0.346	┬102.149%
σ		5.122	7.663	n/a	3.547	0.524	0.346	27.300	n/a	0.657	┬n/a
%RSD		1.774	2.685	1.831	1.243	37.360	699.300	2.130	2.367	189.500	┬0.111

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:51	99.6%	311.100	308.200	309.500	293.300	294.000	283.100	294.300	293.700	99.5%
2	10:43:18	102.4%	305.000	309.600	311.000	299.800	298.100	289.800	300.800	302.000	101.9%
3	10:43:45	100.1%	308.100	311.700	308.600	289.500	295.900	286.300	298.300	299.700	100.5%
x		100.7%	102.692%	103.274%	309.700	294.200	98.664%	286.400	297.800	99.487%	100.6%
σ		1.5%	n/a	n/a	1.187	5.181	n/a	3.347	3.316	n/a	1.2%
%RSD		1.5	0.987	0.556	0.383	1.761	0.690	1.168	1.113	1.431	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:51	304.400	302.400	304.700	301.200	298.000	300.400	105.3%	289.500	┬295.900	310.400
2	10:43:18	307.000	307.900	311.500	309.800	303.600	301.000	108.4%	285.400	┬293.100	313.500
3	10:43:45	308.500	306.000	309.300	311.200	305.300	304.400	105.9%	286.600	┬295.800	314.700
x		102.212%	101.811%	308.500	102.462%	100.771%	100.649%	106.5%	287.100	┬98.310%	104.289%
σ		n/a	n/a	3.503	n/a	n/a	n/a	1.7%	2.133	┬n/a	n/a
%RSD		0.672	0.909	1.135	1.768	1.262	0.721	1.6	0.743	┬0.533	0.701

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:42:51	305.900	307.900	99.6%
2	10:43:18	306.600	309.400	103.0%
3	10:43:45	309.000	312.200	99.8%
x		102.389%	103.278%	100.8%
σ		n/a	n/a	1.9%
%RSD		0.530	0.702	1.9

CCB IM9409-01 05/08/2019 10:48:21 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:47	104.2%	0.017	0.913	0.885	5.825	15.160	0.155	0.215	0.119	0.055
2	10:49:14	109.1%	-0.018	1.116	0.624	2.551	13.140	0.243	0.084	0.314	0.107
3	10:49:41	109.3%	0.020	0.962	0.749	9.292	12.550	0.067	0.160	0.099	0.034
x		107.6%	0.006	0.997	0.753	5.889	13.620	0.155	0.153	0.178	0.065
σ		2.9%	0.022	0.106	0.130	3.371	1.367	0.088	0.066	0.119	0.037
%RSD		2.7	334.100	10.600	17.310	57.230	10.030	56.910	42.900	66.840	57.150

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:47	11.240	60.280	30.340	-1.267	-0.019	104.1%	0.021	0.013	0.014	-6.758
2	10:49:14	10.430	46.210	33.800	1.030	0.266	107.7%	0.020	-0.012	0.017	3.187
3	10:49:41	10.980	54.770	29.490	-1.818	0.278	108.7%	0.002	-0.021	0.011	15.060
x		10.880	53.750	31.210	-0.685	0.175	106.8%	0.014	-0.006	0.014	3.829
σ		0.414	7.092	2.280	1.511	0.168	2.4%	0.011	0.018	0.003	10.920
%RSD		3.807	13.190	7.306	220.600	96.240	2.2	76.690	270.500	21.450	285.200

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:47	0.741	0.013	0.659	2.370	-0.011	-0.022	0.380	0.034	0.034	0.027
2	10:49:14	1.297	0.015	-0.455	-8.569	-0.009	-0.015	-0.213	0.029	0.011	0.001
3	10:49:41	0.782	0.020	-1.272	-7.273	-0.014	-0.022	0.505	0.022	0.027	0.002
x		0.940	0.016	-0.356	-4.491	-0.011	-0.020	0.224	0.028	0.024	0.010
σ		0.310	0.003	0.970	5.977	0.003	0.004	0.383	0.006	0.012	0.015
%RSD		32.940	21.210	272.200	133.100	22.930	19.080	171.000	22.260	50.340	142.500

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:47	0.086	0.043	-0.065	-0.165	0.008	-0.196	-1.527	-0.338	-1.935	0.002
2	10:49:14	0.010	0.021	0.003	-0.118	-0.037	-0.082	0.992	0.244	-0.008	0.001
3	10:49:41	-0.075	0.012	-0.081	-0.007	0.051	-0.075	-1.182	-0.293	1.040	0.001
x		0.007	0.025	-0.048	-0.097	0.007	-0.117	-0.572	-0.129	-0.301	0.001
σ		0.081	0.016	0.045	0.081	0.044	0.068	1.365	0.324	1.509	0.000
%RSD		1184.000	63.460	93.820	83.610	588.300	57.830	238.500	251.500	501.400	42.200

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:47	105.0%	0.048	0.066	0.045	-0.347	0.065	0.047	0.010	-0.002	107.2%
2	10:49:14	113.1%	0.069	0.029	0.021	0.206	0.057	0.057	0.007	0.002	111.2%
3	10:49:41	111.1%	0.033	0.017	0.032	-0.028	0.056	0.064	0.001	0.001	110.9%
x		109.7%	0.050	0.037	0.033	-0.056	0.059	0.056	0.006	0.000	109.8%
σ		4.3%	0.018	0.026	0.012	0.278	0.005	0.008	0.004	0.002	2.2%
%RSD		3.9	35.410	68.890	36.880	493.600	8.104	14.750	72.860	602.900	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:47	0.046	0.071	0.109	0.098	0.003	0.002	108.3%	-0.001	-0.008	0.008
2	10:49:14	0.052	0.062	0.093	0.076	-0.002	0.004	111.9%	-0.001	0.003	0.000
3	10:49:41	0.036	0.069	0.077	0.091	0.003	-0.003	113.3%	0.006	-0.006	0.000
x		0.045	0.067	0.093	0.088	0.001	0.001	111.2%	0.001	-0.004	0.003
σ		0.008	0.004	0.016	0.011	0.002	0.004	2.6%	0.004	0.006	0.005
%RSD		17.770	6.526	16.790	12.460	191.800	270.100	2.3	320.400	145.000	156.200

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:48:47	0.013	0.008	109.1%
2	10:49:14	0.016	0.008	112.1%
3	10:49:41	0.014	0.006	111.5%
x		0.014	0.007	110.9%
σ		0.001	0.001	1.6%
%RSD		9.144	17.440	1.4

LR MW11033 05/08/2019 10:54:18 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:46	85.6%	M 956.700	M 1883.000	M 1885.000	58.430	TM 120500.000	TM 117700.000	TM 118100.000	TM 117800.000	TM 117700.000
2	10:55:13	87.3%	M 967.200	M 1892.000	M 1889.000	48.670	TM 120800.000	TM 118800.000	TM 118600.000	TM 118200.000	TM 118300.000
3	10:55:40	88.1%	M 972.100	M 1914.000	M 1903.000	44.020	TM 121200.000	TM 117700.000	TM 118600.000	TM 118100.000	TM 118500.000
x		87.0%	M 96.530%	M 94.801%	M 94.599%	50.370	TM 100.671%	TM 118100.000	TM 118400.000	TM 98.357%	TM 98.455%
σ		1.3%	M n/a	M n/a	M n/a	7.354	TM n/a	TM 632.500	TM 313.100	TM n/a	TM n/a
%RSD		1.5	M 0.812	M 0.837	M 0.502	14.600	TM 0.307	TM 0.536	TM 0.264	TM 0.144	TM 0.347

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:46	19.040	50.180	TM 120200.000	M 124800.000	TM 125000.000	87.3%	M 2008.000	TM 2070.000	TM 2001.000	7402.000
2	10:55:13	18.550	49.910	TM 120500.000	M 126100.000	TM 125000.000	89.2%	M 2011.000	TM 2074.000	TM 1993.000	11110.000
3	10:55:40	18.410	58.960	TM 120100.000	M 124000.000	TM 124800.000	89.9%	M 2018.000	TM 2086.000	TM 1984.000	7239.000
x		18.670	53.020	TM 100.200%	M 125000.000	TM 104.099%	88.8%	M 100.615%	TM 103.826%	TM 99.642%	8584.000
σ		0.329	5.150	TM n/a	M 1049.000	TM n/a	1.4%	M n/a	TM n/a	TM n/a	2190.000
%RSD		1.761	9.714	TM 0.181	M 0.839	TM 0.088	1.5	M 0.263	TM 0.389	TM 0.410	25.510

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:46	TM 120400.000	TM 1984.000	TM 119300.000	TM 121500.000	TM 1910.000	TM 1849.000	M 1855.000	TM 1810.000	TM 1832.000	M 1869.000
2	10:55:13	TM 122300.000	TM 2012.000	TM 121000.000	TM 122000.000	TM 1911.000	M 1874.000	M 1860.000	TM 1815.000	TM 1825.000	M 1860.000
3	10:55:40	TM 120300.000	TM 1970.000	TM 119200.000	TM 121500.000	TM 1902.000	M 1864.000	M 1837.000	TM 1792.000	TM 1803.000	M 1866.000
x		TM 121000.000	TM 99.430%	TM 119900.000	TM 101.418%	TM 95.399%	TM 93.102%	M 1851.000	TM 1806.000	TM 91.006%	M 93.257%
σ		TM 1094.000	TM n/a	TM 1015.000	TM n/a	TM n/a	TM n/a	M 12.080	TM 12.430	TM n/a	M n/a
%RSD		TM 0.904	TM 1.068	TM 0.847	TM 0.245	TM 0.261	TM 0.680	M 0.653	TM 0.688	TM 0.813	M 0.253

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:46	M 2226.000	M 2168.000	M 1962.000	M 1865.000	4.142	1.192	8276.000	M 1834.000	5.137	TM 2077.000
2	10:55:13	M 2223.000	M 2165.000	M 1940.000	M 1827.000	4.435	0.882	8301.000	M 1841.000	4.483	TM 2088.000
3	10:55:40	M 2196.000	M 2136.000	M 1938.000	M 1816.000	4.622	0.942	8165.000	M 1821.000	1.250	TM 2089.000
x		M 2215.000	M 2156.000	M 97.329%	M 1836.000	4.399	1.005	8247.000	M 91.599%	3.623	TM 104.232%
σ		M 16.640	M 17.840	M n/a	M 25.800	0.242	0.164	72.190	M n/a	2.081	TM n/a
%RSD		M 0.751	M 0.827	M 0.696	M 1.406	5.491	16.350	0.875	M 0.540	57.440	TM 0.327

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:46	88.8%	TM 2084.000	M 2090.000	TM 2068.000	M 1922.000	284.200	276.200	M 1946.000	TM 1923.000	90.4%
2	10:55:13	89.1%	TM 2079.000	M 2119.000	TM 2093.000	M 1893.000	285.700	277.500	M 1983.000	TM 1953.000	90.9%
3	10:55:40	90.9%	TM 2078.000	M 2104.000	TM 2082.000	M 1923.000	287.300	277.200	M 1966.000	TM 1931.000	92.0%
x		89.6%	TM 2080.000	M 105.218%	TM 2081.000	M 1913.000	285.800	276.900	M 1965.000	TM 96.772%	91.1%
σ		1.1%	TM 3.567	M n/a	TM 12.390	M 17.230	1.535	0.668	M 18.190	TM n/a	0.8%
%RSD		1.2	TM 0.172	M 0.671	TM 0.595	M 0.901	0.537	0.241	M 0.926	TM 0.806	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:46	TM 1961.000	TM 1958.000	TM 1011.000	TM 1016.000	TM 10390.000	TM 10390.000	95.2%	TM 970.400	TM 993.600	TM 2086.000
2	10:55:13	TM 1961.000	TM 1975.000	TM 1013.000	TM 1039.000	TM 10560.000	TM 10470.000	96.4%	TM 968.500	TM 995.700	TM 2075.000
3	10:55:40	TM 1960.000	TM 1983.000	TM 1003.000	TM 1025.000	TM 10550.000	TM 10520.000	97.4%	TM 971.400	TM 998.500	TM 2072.000
x		TM 1961.000	TM 98.593%	TM 1009.000	TM 102.679%	TM 104.993%	TM 10460.000	96.3%	TM 970.100	TM 99.593%	TM 2077.000
σ		TM 0.787	TM n/a	TM 4.953	TM n/a	TM n/a	TM 65.080	1.1%	TM 1.504	TM n/a	TM 7.577
%RSD		TM 0.040	TM 0.644	TM 0.491	TM 1.139	TM 0.897	TM 0.622	1.1	TM 0.155	TM 0.248	TM 0.365

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:54:46	TM 1987.000	TM 2032.000	92.2%
2	10:55:13	TM 1977.000	TM 2025.000	93.5%
3	10:55:40	TM 1979.000	TM 2021.000	94.1%
x		TM 1981.000	TM 101.303%	93.3%
σ		TM 5.409	TM n/a	1.0%
%RSD		TM 0.273	TM 0.264	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:46	91.4%	493.900	M 985.700	M 978.700	24.750	T 60180.000	T 59750.000	T 59620.000	T 59190.000	TM 59160.000
2	11:01:13	91.9%	495.000	M 986.800	M 980.200	26.770	T 59150.000	T 59380.000	T 58990.000	T 59170.000	TM 59100.000
3	11:01:40	93.4%	489.200	M 991.600	M 973.300	26.400	T 57950.000	T 58510.000	T 58180.000	T 58350.000	TM 57810.000
x		92.2%	492.700	M 988.000	M 977.400	25.970	T 59090.000	T 59210.000	T 58930.000	T 58900.000	TM 58690.000
σ		1.0%	3.098	M 3.138	M 3.647	1.074	T 1118.000	T 639.100	T 724.500	T 478.300	TM 764.500
%RSD		1.1	0.629	M 0.318	M 0.373	4.134	T 1.892	T 1.079	T 1.229	T 0.812	TM 1.303

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:46	14.830	34.290	T 59830.000	61060.000	T 61250.000	92.6%	M 990.600	TM 1023.000	TM 990.200	4618.000
2	11:01:13	14.440	34.330	T 60190.000	61790.000	T 61650.000	93.3%	M 995.100	TM 1036.000	TM 1001.000	1823.000
3	11:01:40	14.230	31.540	T 59250.000	61090.000	T 60870.000	92.8%	M 971.100	TM 1017.000	TM 987.200	1860.000
x		14.500	33.390	T 59760.000	61310.000	T 61260.000	92.9%	M 985.600	TM 1025.000	TM 992.900	2767.000
σ		0.304	1.600	T 476.000	417.400	T 391.800	0.3%	M 12.750	TM 9.760	TM 7.351	1603.000
%RSD		2.094	4.791	T 0.797	0.681	T 0.640	0.4	M 1.294	TM 0.952	TM 0.740	57.930

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:46	T 60580.000	TM 984.300	T 60310.000	T 60250.000	TM 950.700	M 927.100	M 930.900	TM 917.300	M 923.700	M 934.600
2	11:01:13	T 61740.000	TM 1011.000	T 61330.000	T 61550.000	TM 978.600	M 948.100	M 952.900	TM 929.600	M 951.100	M 958.500
3	11:01:40	T 59350.000	TM 978.500	T 59380.000	T 59970.000	TM 960.000	M 931.100	M 917.000	TM 909.400	M 927.000	M 942.400
x		T 60560.000	TM 991.200	T 60340.000	T 60590.000	TM 963.100	M 935.500	M 933.600	TM 918.700	M 933.900	M 945.200
σ		T 1197.000	TM 17.260	T 973.500	T 842.600	TM 14.180	M 11.170	M 18.100	TM 10.190	M 14.930	M 12.220
%RSD		T 1.977	TM 1.741	T 1.613	T 1.391	TM 1.472	M 1.194	M 1.939	TM 1.109	M 1.598	M 1.293

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:46	M 1122.000	M 1095.000	M 977.500	M 952.000	2.323	-0.070	4267.000	M 946.600	-1.093	TM 1012.000
2	11:01:13	M 1150.000	M 1114.000	M 998.200	M 965.800	2.236	0.818	4194.000	M 954.400	4.131	TM 1027.000
3	11:01:40	M 1134.000	M 1104.000	M 982.700	M 960.300	2.427	0.001	4164.000	M 940.400	4.522	TM 1009.000
x		M 1135.000	M 1105.000	M 986.100	M 959.400	2.329	0.250	4208.000	M 947.200	2.520	TM 1016.000
σ		M 13.710	M 9.566	M 10.780	M 6.951	0.096	0.493	53.000	M 7.022	3.135	TM 9.489
%RSD		M 1.208	M 0.866	M 1.093	M 0.725	4.122	197.700	1.260	M 0.741	124.400	TM 0.934

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:46	94.2%	M 1035.000	M 1034.000	TM 1029.000	M 988.800	144.400	140.000	M 988.000	TM 984.900	95.8%
2	11:01:13	95.6%	M 1025.000	M 1024.000	TM 1022.000	M 996.400	147.500	141.900	M 996.600	TM 997.600	T 94.6%
3	11:01:40	96.8%	M 1016.000	M 1019.000	TM 1004.000	M 975.800	144.200	138.500	M 978.300	TM 970.900	96.3%
x		95.5%	M 1025.000	M 1026.000	TM 1018.000	M 987.000	145.400	140.200	M 987.600	TM 984.500	T 95.6%
σ		1.3%	M 9.292	M 7.743	TM 12.890	M 10.430	1.829	1.728	M 9.174	TM 13.340	T 0.8%
%RSD		1.4	M 0.906	M 0.755	TM 1.266	M 1.057	1.258	1.233	M 0.929	TM 1.355	T 0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:46	M 1027.000	TM 993.800	M 511.400	M 512.100	TM 5223.000	TM 5162.000	101.3%	491.800	T 495.800	TM 1028.000
2	11:01:13	M 1027.000	TM 994.400	M 508.800	M 513.100	TM 5192.000	TM 5215.000	102.5%	486.600	T 490.000	TM 1021.000
3	11:01:40	M 1010.000	TM 980.700	M 504.700	M 507.400	TM 5131.000	TM 5130.000	103.2%	486.800	T 485.200	TM 1028.000
x		M 1021.000	TM 989.600	M 508.300	M 510.900	TM 5182.000	TM 5169.000	102.3%	488.400	T 490.300	TM 1026.000
σ		M 9.902	TM 7.700	M 3.388	M 3.049	TM 46.440	TM 42.760	0.9%	2.942	T 5.310	TM 4.486
%RSD		M 0.970	TM 0.778	M 0.667	M 0.597	TM 0.896	TM 0.827	0.9	0.602	T 1.083	TM 0.437

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:00:46	TM 982.500	TM 1007.000	98.7%
2	11:01:13	TM 981.200	TM 1001.000	100.1%
3	11:01:40	TM 981.300	TM 1001.000	100.2%
x		TM 981.700	TM 1003.000	99.7%
σ		TM 0.706	TM 3.535	0.9%
%RSD		TM 0.072	TM 0.353	0.9

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:43	106.4%	0.040	9.860	9.853	16.120	15.220	5.251	5.337	5.092	T 130.400
2	11:07:10	108.5%	0.090	9.926	9.263	15.240	12.980	5.511	5.028	4.876	128.700
3	11:07:37	109.0%	0.021	8.896	8.740	15.210	11.830	5.414	4.841	5.397	T 128.200
x		108.0%	0.050	9.561	9.285	15.520	13.340	5.392	5.069	5.122	T 129.100
σ		1.3%	0.035	0.576	0.557	0.517	1.726	0.132	0.251	0.262	T 1.117
%RSD		1.2	70.270	6.028	5.998	3.328	12.930	2.438	4.945	5.117	T 0.865
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:43	24.590	4212.000	38.570	2.711	1.770	102.9%	1.908	0.292	0.163	198.600
2	11:07:10	24.630	4226.000	36.590	1.105	1.903	105.8%	1.651	0.175	0.211	270.500
3	11:07:37	30.340	4257.000	33.190	0.104	2.255	107.2%	1.702	0.200	0.152	260.100
x		26.520	4231.000	36.120	1.307	1.976	105.3%	1.754	0.222	0.175	243.100
σ		3.308	23.100	2.720	1.315	0.250	2.2%	0.136	0.061	0.032	38.850
%RSD		12.470	0.546	7.531	100.600	12.670	2.1	7.774	27.630	18.000	15.980
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:43	73.910	0.189	75.980	70.360	-0.019	0.064	0.450	25.960	26.360	0.727
2	11:07:10	74.280	0.145	75.890	63.920	-0.013	0.068	0.365	25.190	25.440	0.576
3	11:07:37	73.630	0.179	74.130	62.300	-0.016	0.051	0.132	25.420	26.270	0.683
x		73.940	0.171	75.340	65.530	-0.016	0.061	0.316	25.520	26.030	0.662
σ		0.328	0.023	1.044	4.264	0.003	0.009	0.165	0.393	0.505	0.078
%RSD		0.443	13.660	1.386	6.508	17.640	14.340	52.230	1.539	1.942	11.730
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:43	0.672	0.711	0.125	-0.090	0.679	0.421	0.015	-0.093	0.235	0.033
2	11:07:10	0.632	0.752	0.145	0.391	0.373	0.534	-0.462	-0.038	-2.404	0.032
3	11:07:37	0.672	0.650	0.115	0.104	0.693	0.116	-1.681	-0.361	-0.534	0.027
x		0.659	0.704	0.128	0.135	0.581	0.357	-0.709	-0.164	-0.901	0.030
σ		0.023	0.052	0.015	0.242	0.181	0.216	0.875	0.173	1.357	0.003
%RSD		3.558	7.326	11.750	179.300	31.130	60.550	123.400	105.300	150.700	10.870
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:43	106.4%	0.127	0.170	0.103	3.635	0.024	0.022	-0.002	0.023	111.0%
2	11:07:10	110.2%	0.109	0.090	0.122	4.087	0.023	0.027	0.021	0.022	108.8%
3	11:07:37	112.0%	0.116	0.110	0.104	2.495	0.023	0.016	0.006	0.019	110.7%
x		109.5%	0.117	0.123	0.110	3.406	0.024	0.022	0.008	0.021	110.2%
σ		2.9%	0.009	0.042	0.010	0.820	0.001	0.006	0.011	0.002	1.2%
%RSD		2.6	7.605	33.670	9.458	24.090	3.158	25.730	133.800	9.511	1.1
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:43	1.700	2.318	11.580	11.390	0.195	0.167	111.0%	-0.017	-0.009	201.400
2	11:07:10	1.639	2.329	11.440	11.410	0.188	0.159	112.2%	-0.012	-0.014	201.000
3	11:07:37	1.583	2.165	11.350	11.870	0.153	0.192	112.9%	-0.018	-0.017	204.000
x		1.641	2.271	11.450	11.560	0.178	0.173	112.1%	-0.015	-0.013	202.100
σ		0.058	0.092	0.114	0.275	0.022	0.017	1.0%	0.003	0.004	1.632
%RSD		3.561	4.036	0.991	2.382	12.570	9.848	0.9	21.080	29.160	0.807
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	11:06:43	187.200	192.800	113.1%							
2	11:07:10	188.300	193.000	113.5%							
3	11:07:37	188.400	195.300	113.1%							
x		188.000	193.700	113.2%							
σ		0.636	1.374	0.2%							
%RSD		0.338	0.709	0.2							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:37	107.8%	3.767	9.150	8.969	7.992	40.840	45.540	43.830	45.730	295.200
2	11:13:04	108.8%	3.711	8.727	8.545	7.198	41.090	46.210	42.650	43.760	296.300
3	11:13:32	111.3%	3.840	8.748	8.564	12.050	41.660	46.480	44.280	44.740	298.000
x		109.3%	3.773	8.875	8.693	9.078	41.200	46.080	43.590	44.740	296.500
σ		1.8%	0.064	0.239	0.239	2.600	0.417	0.482	0.841	0.981	1.429
%RSD		1.6	1.705	2.689	2.753	28.640	1.013	1.046	1.928	2.193	0.482

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:37	82.860	4452.000	71.640	41.750	40.190	104.1%	8.485	4.259	4.101	363.900
2	11:13:04	81.780	4506.000	68.210	41.680	38.890	104.1%	10.060	4.162	4.131	355.700
3	11:13:32	81.300	4428.000	66.960	40.770	41.270	107.5%	8.332	4.156	4.135	369.300
x		81.980	4462.000	68.930	41.400	40.110	105.2%	8.958	4.192	4.123	363.000
σ		0.800	39.860	2.425	0.550	1.193	2.0%	0.955	0.058	0.019	6.838
%RSD		0.976	0.893	3.518	1.328	2.973	1.9	10.660	1.378	0.458	1.884

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:37	124.900	4.154	126.900	110.600	3.917	4.266	4.151	404.000	411.700	43.420
2	11:13:04	121.600	4.145	122.900	112.100	3.926	4.241	4.620	397.600	405.400	43.650
3	11:13:32	120.500	4.112	123.900	103.700	3.774	3.799	3.719	392.300	398.000	42.650
x		122.300	4.137	124.600	108.800	3.872	4.102	4.163	397.900	405.000	43.240
σ		2.264	0.022	2.095	4.502	0.085	0.263	0.451	5.864	6.860	0.521
%RSD		1.851	0.536	1.681	4.137	2.207	6.409	10.820	1.474	1.694	1.205

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:37	40.540	42.580	4.189	3.465	0.727	0.445	17.920	3.990	-0.884	3.869
2	11:13:04	41.160	43.100	3.947	4.050	0.462	0.053	15.350	3.449	-0.481	3.857
3	11:13:32	41.370	41.870	4.009	3.863	0.452	0.059	12.880	2.794	0.277	3.901
x		41.020	42.510	4.048	3.793	0.547	0.186	15.380	3.411	-0.362	3.876
σ		0.432	0.618	0.126	0.299	0.156	0.225	2.521	0.599	0.589	0.023
%RSD		1.054	1.454	3.111	7.877	28.480	121.000	16.390	17.560	162.700	0.593

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:37	108.5%	3.632	3.866	3.657	7.602	3.958	3.846	3.907	3.907	109.3%
2	11:13:04	109.5%	3.672	3.819	3.782	7.610	4.018	3.927	4.020	3.955	109.3%
3	11:13:32	111.3%	3.737	3.762	3.713	5.346	3.959	3.906	3.942	3.913	113.3%
x		109.8%	3.680	3.816	3.717	6.853	3.978	3.893	3.956	3.925	110.6%
σ		1.4%	0.053	0.052	0.063	1.305	0.034	0.042	0.058	0.026	2.3%
%RSD		1.3	1.432	1.362	1.692	19.040	0.866	1.088	1.459	0.665	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:37	5.190	5.328	27.250	27.450	4.382	4.325	110.3%	3.730	3.820	271.900
2	11:13:04	5.106	5.523	27.900	28.420	4.286	4.632	111.2%	3.828	3.823	270.100
3	11:13:32	5.058	5.469	27.230	27.050	4.432	4.169	113.1%	3.792	3.830	270.500
x		5.118	5.440	27.460	27.640	4.366	4.375	111.5%	3.783	3.824	270.800
σ		0.067	0.101	0.381	0.704	0.074	0.236	1.4%	0.049	0.005	0.951
%RSD		1.305	1.849	1.387	2.547	1.695	5.386	1.3	1.305	0.133	0.351

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:12:37	249.000	259.200	111.5%
2	11:13:04	250.500	260.200	113.1%
3	11:13:32	249.300	260.300	114.4%
x		249.600	259.900	113.0%
σ		0.807	0.587	1.5%
%RSD		0.323	0.226	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:18:32	108.7%	3.928	7.741	7.326	6.672	37.260	47.920	47.020	46.650	338.900
2	11:18:59	113.0%	4.245	7.206	7.209	7.124	38.900	47.030	46.920	45.900	332.600
3	11:19:26	112.5%	3.872	7.426	7.160	3.016	38.020	46.940	44.600	45.260	328.600
x		111.4%	4.015	7.457	7.232	5.604	38.060	47.300	46.180	45.940	333.400
σ		2.3%	0.201	0.269	0.085	2.253	0.821	0.545	1.368	0.694	5.195
%RSD		2.1	5.009	3.608	1.177	40.200	2.156	1.152	2.963	1.510	1.558

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:18:32	T 86.280	4534.000	63.670	46.460	42.830	105.5%	10.920	4.295	4.382	446.300
2	11:18:59	83.980	4434.000	61.880	48.410	40.770	109.4%	9.922	4.197	4.122	530.800
3	11:19:26	81.660	4459.000	61.430	51.710	42.550	105.5%	10.720	4.325	4.230	431.700
x		T 83.970	4475.000	62.330	48.860	42.050	106.8%	10.520	4.272	4.245	469.600
σ		T 2.311	52.110	1.184	2.654	1.117	2.3%	0.528	0.067	0.130	53.520
%RSD		T 2.752	1.164	1.900	5.432	2.657	2.1	5.021	1.570	3.072	11.400

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:18:32	134.400	4.342	T 150.800	123.100	4.013	4.109	4.494	13.110	13.600	4.651
2	11:18:59	128.800	4.306	134.500	114.500	3.832	4.077	3.267	12.780	12.670	4.639
3	11:19:26	130.600	4.231	136.800	116.200	4.067	4.087	4.165	12.710	13.040	4.340
x		131.300	4.293	T 140.700	117.900	3.971	4.091	3.975	12.860	13.110	4.543
σ		2.888	0.057	T 8.797	4.542	0.123	0.016	0.635	0.213	0.471	0.176
%RSD		2.200	1.318	T 6.253	3.851	3.107	0.393	15.980	1.659	3.592	3.876

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:18:32	4.390	4.613	3.968	4.040	0.721	0.031	16.110	3.675	-1.530	4.028
2	11:18:59	4.544	4.565	3.968	3.838	0.561	0.776	19.370	4.369	1.938	3.981
3	11:19:26	4.443	4.576	3.645	4.534	0.728	0.554	12.130	2.716	0.583	3.958
x		4.459	4.585	3.860	4.137	0.670	0.454	15.870	3.587	0.330	3.989
σ		0.078	0.025	0.187	0.358	0.094	0.383	3.624	0.830	1.748	0.036
%RSD		1.747	0.544	4.835	8.658	14.080	84.340	22.840	23.150	529.100	0.893

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:18:32	108.6%	3.746	3.935	3.808	4.290	3.939	3.839	4.184	3.991	108.1%
2	11:18:59	113.0%	3.991	3.814	3.868	5.386	3.983	3.864	4.088	4.048	111.8%
3	11:19:26	109.6%	3.809	3.829	3.837	6.641	3.967	3.857	4.136	4.031	109.3%
x		110.4%	3.848	3.859	3.838	5.439	3.963	3.854	4.136	4.023	109.7%
σ		2.3%	0.128	0.066	0.030	1.176	0.022	0.013	0.048	0.029	1.9%
%RSD		2.1	3.312	1.711	0.784	21.630	0.558	0.338	1.163	0.726	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:18:32	4.606	4.528	13.190	13.560	4.217	4.447	109.0%	3.885	3.852	127.900
2	11:18:59	4.438	4.452	13.490	13.570	4.323	4.708	113.5%	3.812	3.887	128.500
3	11:19:26	4.424	4.617	13.240	13.370	4.436	4.389	110.7%	3.916	3.891	127.200
x		4.489	4.532	13.300	13.500	4.325	4.515	111.1%	3.871	3.877	127.900
σ		0.102	0.083	0.158	0.114	0.110	0.170	2.3%	0.053	0.021	0.643
%RSD		2.261	1.822	1.185	0.847	2.532	3.760	2.0	1.381	0.546	0.503

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:18:32	117.600	121.300	110.3%
2	11:18:59	117.000	121.300	113.7%
3	11:19:26	117.500	120.700	111.0%
x		117.400	121.100	111.7%
σ		0.338	0.332	1.8%
%RSD		0.288	0.274	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:27	106.8%	0.011	3.330	2.450	10.610	-2.980	1.984	1.875	1.986	29.530
2	11:24:54	109.3%	0.033	2.752	2.504	5.117	-3.248	1.837	2.201	1.654	29.040
3	11:25:21	110.2%	0.030	2.802	2.656	7.760	-3.696	1.859	1.829	2.218	T 24.490
x		108.8%	0.025	2.961	2.537	7.829	-3.308	1.893	1.968	1.953	T 27.690
σ		1.8%	0.012	0.320	0.107	2.747	0.361	0.079	0.203	0.283	T 2.778
%RSD		1.6	46.910	10.810	4.211	35.080	10.920	4.193	10.310	14.510	T 10.030

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:27	T 6.224	944.400	6.221	-0.762	0.313	103.3%	0.363	0.088	0.060	70.180
2	11:24:54	16.280	927.700	3.779	-0.779	0.669	103.9%	0.550	0.074	0.083	83.810
3	11:25:21	15.440	939.200	7.997	-2.236	0.390	102.7%	0.441	0.007	0.039	131.300
x		T 12.650	937.100	5.999	-1.259	0.458	103.3%	0.452	0.056	0.061	95.080
σ		T 5.579	8.531	2.118	0.846	0.187	0.6%	0.094	0.043	0.022	32.070
%RSD		T 44.110	0.910	35.300	67.190	40.910	0.5	20.790	76.200	35.970	33.730

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:27	16.740	0.027	19.400	8.143	-0.020	0.008	0.193	5.684	5.762	0.118
2	11:24:54	16.180	0.047	17.380	4.203	-0.025	0.008	-0.345	5.567	5.746	0.091
3	11:25:21	16.570	0.040	18.120	6.481	-0.016	0.011	0.203	5.475	5.478	0.099
x		16.500	0.038	18.300	6.276	-0.020	0.009	0.017	5.575	5.662	0.103
σ		0.288	0.010	1.024	1.978	0.005	0.002	0.314	0.105	0.160	0.014
%RSD		1.748	26.900	5.593	31.520	22.100	16.870	1848.000	1.884	2.825	13.580

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:27	0.123	0.158	-0.026	0.443	0.160	-0.265	-0.310	-0.113	0.555	0.007
2	11:24:54	0.192	0.156	-0.086	0.360	0.120	-0.361	-2.567	-0.609	-0.079	0.008
3	11:25:21	0.125	0.140	0.052	0.236	0.168	-0.551	0.865	0.183	0.440	0.010
x		0.147	0.152	-0.020	0.346	0.149	-0.392	-0.671	-0.180	0.305	0.008
σ		0.039	0.010	0.069	0.104	0.026	0.146	1.744	0.400	0.338	0.001
%RSD		26.600	6.530	351.500	30.100	17.250	37.210	260.100	222.600	110.600	13.280

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:27	106.3%	-0.026	0.013	-0.011	1.043	0.003	0.005	0.007	0.001	107.6%
2	11:24:54	106.1%	-0.014	0.003	-0.011	-0.222	0.005	0.005	-0.001	0.005	108.2%
3	11:25:21	107.9%	-0.004	0.019	-0.011	1.071	0.004	0.005	-0.004	0.010	107.2%
x		106.8%	-0.015	0.011	-0.011	0.631	0.004	0.005	0.001	0.005	107.7%
σ		1.0%	0.011	0.008	0.000	0.739	0.001	0.000	0.006	0.005	0.5%
%RSD		0.9	74.680	69.600	1.128	117.100	33.200	7.936	840.700	91.530	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:27	0.290	0.436	2.517	2.552	0.045	0.050	109.4%	-0.011	-0.007	43.780
2	11:24:54	0.305	0.419	2.532	2.516	0.040	0.035	110.2%	-0.015	-0.016	43.920
3	11:25:21	0.312	0.367	2.497	2.548	0.028	0.041	108.3%	-0.015	-0.010	43.940
x		0.302	0.407	2.515	2.539	0.038	0.042	109.3%	-0.014	-0.011	43.880
σ		0.011	0.036	0.017	0.019	0.009	0.007	1.0%	0.002	0.005	0.085
%RSD		3.652	8.833	0.686	0.764	22.810	17.580	0.9	16.970	40.860	0.195

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:24:27	40.700	41.640	110.1%
2	11:24:54	40.640	41.690	109.9%
3	11:25:21	40.320	41.440	109.7%
x		40.550	41.590	109.9%
σ		0.204	0.131	0.2%
%RSD		0.504	0.314	0.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:23	107.6%	6.185	7.725	7.762	10.300	56.130	68.950	67.470	65.370	135.200
2	11:30:51	109.9%	6.290	8.245	8.216	5.271	54.000	67.470	64.920	64.290	131.200
3	11:31:18	111.5%	6.115	7.780	7.961	10.760	53.160	68.080	64.050	66.700	133.500
x		109.7%	6.196	7.917	7.979	8.776	54.430	68.170	65.480	65.450	133.300
σ		2.0%	0.088	0.286	0.228	3.044	1.529	0.740	1.775	1.210	2.003
%RSD		1.8	1.417	3.607	2.853	34.690	2.809	1.086	2.711	1.848	1.502

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:23	83.660	3977.000	72.300	75.520	63.500	103.3%	8.251	6.618	6.469	487.800
2	11:30:51	81.240	3899.000	68.070	67.930	61.310	105.0%	8.000	6.464	6.384	423.200
3	11:31:18	T 74.800	3922.000	69.510	72.050	62.680	106.8%	8.376	6.400	6.311	460.900
x		T 79.900	3932.000	69.960	71.830	62.500	105.0%	8.209	6.494	6.388	457.300
σ		T 4.583	40.120	2.153	3.802	1.110	1.7%	0.191	0.112	0.079	32.450
%RSD		T 5.735	1.020	3.078	5.293	1.775	1.7	2.329	1.723	1.237	7.096

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:23	143.000	6.541	148.900	132.700	6.237	6.395	6.180	31.820	32.010	6.999
2	11:30:51	139.800	6.344	145.500	122.000	6.002	6.281	5.926	30.750	31.590	6.890
3	11:31:18	138.600	6.321	142.700	125.800	6.178	6.344	5.867	30.360	31.850	6.907
x		140.500	6.402	145.700	126.800	6.139	6.340	5.991	30.980	31.820	6.932
σ		2.293	0.121	3.134	5.440	0.122	0.057	0.167	0.755	0.216	0.059
%RSD		1.632	1.887	2.151	4.290	1.994	0.903	2.779	2.437	0.679	0.846

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:23	6.370	7.242	6.443	6.487	0.102	-0.044	25.920	5.854	-1.193	6.167
2	11:30:51	6.938	6.669	6.423	6.126	0.019	-0.013	27.140	6.029	0.717	6.179
3	11:31:18	6.804	6.705	6.218	5.641	0.461	0.624	26.470	6.024	-1.474	6.004
x		6.704	6.872	6.361	6.085	0.194	0.189	26.510	5.969	-0.650	6.117
σ		0.297	0.321	0.124	0.425	0.235	0.377	0.615	0.100	1.192	0.098
%RSD		4.428	4.672	1.953	6.976	121.400	199.200	2.318	1.669	183.400	1.596

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:23	106.1%	5.891	6.378	6.294	9.179	6.396	6.063	6.444	6.260	106.1%
2	11:30:51	106.0%	6.093	6.267	6.272	9.413	6.136	5.852	6.199	6.342	107.1%
3	11:31:18	112.6%	6.052	6.085	5.987	9.634	6.326	5.930	6.072	6.275	111.6%
x		108.2%	6.012	6.243	6.184	9.409	6.286	5.948	6.239	6.292	108.3%
σ		3.8%	0.107	0.148	0.172	0.228	0.135	0.107	0.189	0.043	2.9%
%RSD		3.5	1.777	2.370	2.773	2.418	2.145	1.794	3.032	0.688	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:23	7.298	7.144	16.610	16.920	6.545	6.672	108.4%	5.983	6.049	204.500
2	11:30:51	6.979	7.230	16.790	16.920	6.715	6.466	110.6%	6.088	5.983	201.500
3	11:31:18	6.809	6.959	16.720	16.750	6.556	6.490	113.4%	5.866	5.918	201.300
x		7.029	7.111	16.710	16.860	6.605	6.543	110.8%	5.979	5.983	202.500
σ		0.248	0.139	0.091	0.097	0.095	0.113	2.5%	0.111	0.065	1.761
%RSD		3.532	1.950	0.547	0.576	1.438	1.722	2.2	1.854	1.094	0.870

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:30:23	190.200	196.200	110.3%
2	11:30:51	188.100	194.200	111.6%
3	11:31:18	186.800	192.900	113.5%
x		188.400	194.500	111.8%
σ		1.722	1.664	1.6%
%RSD		0.914	0.856	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:20	120.8%	0.022	1.983	1.928	24.490	97.880	1.374	1.351	1.171	1.139
2	11:36:46	122.4%	0.014	1.767	1.730	17.330	91.500	1.284	1.299	1.268	1.193
3	11:37:13	122.0%	0.034	1.599	1.771	23.140	92.370	1.296	1.316	1.188	1.176
x		121.7%	0.024	1.783	1.810	21.650	93.920	1.318	1.322	1.209	1.169
σ		0.8%	0.010	0.193	0.105	3.806	3.461	0.049	0.027	0.052	0.028
%RSD		0.7	42.500	10.810	5.775	17.580	3.686	3.717	2.023	4.267	2.383

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:20	12.490	T 247400.000	55.100	2.993	2.610	105.8%	0.179	-1.154	4.611	21650.000
2	11:36:46	12.240	T 244800.000	39.520	2.501	2.250	105.9%	0.243	-1.058	4.196	21140.000
3	11:37:13	12.230	T 242300.000	37.530	3.884	1.857	106.7%	0.195	-0.241	4.067	20290.000
x		12.320	T 244800.000	44.050	3.126	2.239	106.1%	0.206	-0.818	4.291	21030.000
σ		0.150	T 2548.000	9.620	0.701	0.377	0.5%	0.034	0.502	0.284	687.600
%RSD		1.214	T 1.041	21.840	22.440	16.820	0.5	16.330	61.350	6.620	3.270

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:20	32.610	0.042	4.111	-16.160	-0.029	1.674	-0.241	0.603	0.254	0.389
2	11:36:46	30.650	0.052	3.004	-22.050	-0.031	1.510	-0.279	0.530	0.294	0.360
3	11:37:13	29.850	0.041	3.202	-25.790	-0.029	1.410	-0.257	0.463	0.218	0.355
x		31.040	0.045	3.439	-21.340	-0.030	1.532	-0.259	0.532	0.256	0.368
σ		1.418	0.006	0.590	4.854	0.001	0.133	0.019	0.070	0.038	0.018
%RSD		4.568	13.170	17.170	22.750	4.888	8.704	7.217	13.150	14.860	4.880

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:20	1.371	0.350	0.022	-0.426	16.230	16.120	-0.633	-0.229	2.482	0.003
2	11:36:46	1.317	0.380	0.612	-0.875	15.080	15.690	2.215	0.344	4.174	0.004
3	11:37:13	1.288	0.376	0.325	-0.942	14.950	14.800	2.029	0.384	1.451	0.004
x		1.326	0.368	0.320	-0.748	15.420	15.530	1.203	0.166	2.703	0.003
σ		0.042	0.016	0.295	0.281	0.704	0.675	1.593	0.343	1.375	0.001
%RSD		3.157	4.390	92.300	37.560	4.567	4.345	132.400	206.400	50.880	18.670

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:20	105.8%	0.105	0.154	0.114	-0.572	0.013	0.005	-0.002	0.020	106.6%
2	11:36:46	106.4%	0.101	0.077	0.113	-0.427	0.012	0.014	0.004	-0.007	108.5%
3	11:37:13	108.3%	0.097	0.034	0.108	-1.625	0.005	0.006	-0.002	0.026	109.3%
x		106.9%	0.101	0.088	0.112	-0.875	0.010	0.009	0.000	0.013	108.1%
σ		1.3%	0.004	0.061	0.003	0.654	0.005	0.005	0.003	0.018	1.4%
%RSD		1.2	3.752	68.480	2.694	74.730	45.500	57.600	2172.000	137.400	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:20	5.005	7.145	0.224	0.227	0.007	0.005	111.8%	-0.028	-0.034	0.082
2	11:36:46	5.027	7.149	0.173	0.217	0.015	-0.000	111.7%	-0.032	-0.032	0.047
3	11:37:13	4.944	6.941	0.206	0.215	0.011	0.004	112.3%	-0.030	-0.034	0.087
x		4.992	7.078	0.201	0.220	0.011	0.003	111.9%	-0.030	-0.033	0.072
σ		0.043	0.119	0.026	0.007	0.004	0.003	0.3%	0.002	0.001	0.022
%RSD		0.860	1.682	12.820	3.066	37.630	94.120	0.2	6.745	4.128	30.450

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:36:20	0.082	0.084	110.0%
2	11:36:46	0.083	0.072	111.7%
3	11:37:13	0.085	0.079	111.3%
x		0.084	0.078	111.0%
σ		0.001	0.006	0.9%
%RSD		1.469	7.992	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:15	113.6%	193.500	196.500	188.000	26.050	T1933.000	T1952.000	1843.000	1862.000	186.900
2	11:42:42	113.6%	187.600	188.000	182.900	20.320	T1946.000	T1905.000	1802.000	1815.000	184.700
3	11:43:09	112.3%	187.900	193.400	186.200	19.290	T1915.000	T1919.000	1817.000	1835.000	185.100
x		113.2%	189.700	192.600	185.700	21.890	T1931.000	T1925.000	1821.000	1837.000	185.600
σ		0.7%	3.319	4.289	2.578	3.642	T15.790	T24.510	20.570	23.310	1.207
%RSD		0.7	1.750	2.226	1.388	16.640	T0.817	T1.273	1.130	1.269	0.651
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:15	187.200	T260100.000	T2011.000	2247.000	1989.000	98.6%	199.500	199.400	200.600	17030.000
2	11:42:42	186.000	T256900.000	T1976.000	2187.000	1971.000	98.9%	194.300	199.200	198.900	15750.000
3	11:43:09	185.500	T261500.000	T1982.000	2117.000	1983.000	97.1%	196.900	197.200	200.500	16000.000
x		186.200	T259500.000	T1990.000	2183.000	1981.000	98.2%	196.900	198.600	200.000	16260.000
σ		0.837	T2392.000	T18.990	64.950	9.566	1.0%	2.580	1.194	0.983	676.900
%RSD		0.449	T0.922	T0.955	2.975	0.483	1.0	1.311	0.601	0.492	4.163
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:15	2158.000	197.800	T2079.000	1997.000	199.200	198.900	200.000	197.900	200.000	189.200
2	11:42:42	2116.000	195.900	T2062.000	1983.000	196.700	195.600	193.100	194.600	199.300	189.300
3	11:43:09	2128.000	196.700	T2037.000	1964.000	193.300	191.400	193.900	193.700	194.000	181.700
x		2134.000	196.800	T2060.000	1981.000	196.400	195.300	195.700	195.400	197.800	186.700
σ		21.990	0.951	T21.300	16.760	2.985	3.788	3.779	2.247	3.275	4.345
%RSD		1.031	0.483	T1.034	0.846	1.520	1.940	1.931	1.150	1.656	2.327
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:15	193.100	190.700	194.300	182.500	13.990	14.540	848.300	189.700	3.088	195.800
2	11:42:42	188.900	189.500	193.600	182.300	14.630	15.650	801.100	180.900	2.218	194.000
3	11:43:09	183.300	185.200	184.400	177.000	14.580	14.790	796.000	176.400	2.250	195.200
x		188.400	188.500	190.800	180.600	14.400	14.990	815.100	182.300	2.519	195.000
σ		4.945	2.892	5.565	3.120	0.354	0.581	28.820	6.768	0.493	0.893
%RSD		2.624	1.534	2.917	1.728	2.458	3.873	3.536	3.712	19.590	0.458
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:15	100.9%	198.800	198.900	198.100	200.700	207.000	198.800	196.700	197.800	101.6%
2	11:42:42	102.9%	197.100	198.300	196.800	193.100	206.400	197.900	196.800	196.000	102.4%
3	11:43:09	97.7%	197.000	197.500	198.000	199.800	204.900	198.100	197.900	196.900	99.6%
x		100.5%	197.600	198.200	197.600	197.900	206.100	198.300	197.200	196.900	101.2%
σ		2.6%	1.007	0.739	0.746	4.129	1.061	0.440	0.680	0.900	1.5%
%RSD		2.6	0.510	0.373	0.377	2.087	0.515	0.222	0.345	0.457	1.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:15	204.000	205.200	193.100	194.900	197.500	195.700	105.8%	194.000	200.800	210.200
2	11:42:42	202.500	203.000	193.100	196.700	193.300	195.100	106.5%	194.100	199.200	210.200
3	11:43:09	204.400	206.400	191.800	195.600	197.500	197.600	105.0%	194.300	200.400	207.700
x		203.600	204.900	192.700	195.800	196.100	196.200	105.8%	194.100	200.100	209.400
σ		1.025	1.711	0.732	0.943	2.419	1.310	0.7%	0.133	0.814	1.423
%RSD		0.503	0.835	0.380	0.482	1.234	0.668	0.7	0.068	0.407	0.680
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	11:42:15	199.700	204.900	104.5%							
2	11:42:42	199.800	204.400	104.5%							
3	11:43:09	197.700	202.400	104.2%							
x		199.100	203.900	104.4%							
σ		1.176	1.329	0.2%							
%RSD		0.591	0.652	0.2							

CCV MW11050 05/08/2019 11:47:45 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:12	82.0%	302.400	308.000	306.100	20.660	┬57640.000	┬60320.000	┬60230.000	┬60260.000	296.700
2	11:48:39	83.1%	305.000	314.700	311.900	18.690	┬58220.000	┬60760.000	┬60350.000	┬60260.000	298.100
3	11:49:06	83.9%	302.500	297.200	302.100	17.970	┬57340.000	┬60110.000	┬60010.000	┬60120.000	293.400
x		83.0%	101.105%	102.208%	102.233%	19.110	┬96.222%	┬60400.000	┬60190.000	┬100.358%	98.682%
σ		0.9%	n/a	n/a	n/a	1.393	┬n/a	┬327.800	┬173.100	┬n/a	n/a
%RSD		1.1	0.496	2.872	1.610	7.289	┬0.769	┬0.543	┬0.288	┬0.130	0.814

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:12	┬3008.000	1588.000	┬61070.000	61290.000	┬62180.000	78.6%	306.700	309.500	301.000	2188.000
2	11:48:39	┬2984.000	1547.000	┬60120.000	61070.000	┬61970.000	79.9%	302.600	308.800	300.700	1993.000
3	11:49:06	┬2965.000	1451.000	┬60970.000	61930.000	┬63160.000	78.7%	308.300	310.900	301.400	1936.000
x		┬99.526%	1529.000	┬101.202%	61430.000	┬104.065%	79.1%	101.956%	103.250%	100.340%	2039.000
σ		┬n/a	70.740	┬n/a	445.800	┬n/a	0.7%	n/a	n/a	n/a	132.000
%RSD		┬0.729	4.628	┬0.856	0.726	┬1.019	0.9	0.963	0.348	0.126	6.476

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:12	┬62290.000	298.800	┬62220.000	┬62190.000	295.300	293.800	296.000	284.500	284.900	283.800
2	11:48:39	┬61960.000	298.600	┬62730.000	┬63170.000	299.900	292.800	294.400	284.600	288.600	292.000
3	11:49:06	┬62930.000	299.900	┬62530.000	┬62980.000	299.800	294.300	296.800	284.500	285.700	285.000
x		┬62390.000	99.702%	┬62500.000	┬104.630%	99.449%	97.878%	295.700	284.500	95.468%	95.648%
σ		┬491.600	n/a	┬254.700	┬n/a	n/a	n/a	1.248	0.029	n/a	n/a
%RSD		┬0.788	0.232	┬0.408	┬0.827	0.871	0.250	0.422	0.010	0.681	1.551

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:12	283.500	283.400	290.200	292.800	1.466	0.658	1270.000	284.600	0.704	298.000
2	11:48:39	293.700	288.500	300.900	293.500	1.327	0.149	1324.000	298.900	0.745	298.100
3	11:49:06	288.700	283.400	298.900	293.100	1.194	-0.352	1304.000	291.400	2.723	300.600
x		288.600	285.100	98.891%	293.100	1.329	0.151	1299.000	97.210%	1.391	99.629%
σ		5.122	2.976	n/a	0.311	0.136	0.505	27.760	n/a	1.154	n/a
%RSD		1.774	1.044	1.926	0.106	10.230	333.500	2.136	2.454	82.980	0.486

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:12	78.6%	308.700	309.300	310.900	293.600	299.100	287.300	295.600	298.100	79.3%
2	11:48:39	82.0%	312.300	314.800	314.000	304.800	298.500	289.800	296.100	297.200	81.8%
3	11:49:06	81.3%	312.200	312.800	313.100	302.200	302.000	291.300	297.900	298.000	81.9%
x		80.7%	103.693%	104.095%	312.600	300.200	99.958%	289.500	296.600	99.256%	81.0%
σ		1.8%	n/a	n/a	1.588	5.854	n/a	2.016	1.197	n/a	1.5%
%RSD		2.2	0.651	0.893	0.508	1.950	0.631	0.696	0.404	0.176	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:12	308.100	304.200	307.200	305.600	298.200	297.900	85.0%	296.900	┬307.800	┬305.300
2	11:48:39	307.800	305.300	305.100	307.000	304.300	303.100	88.1%	295.600	┬304.900	┬306.400
3	11:49:06	307.800	307.800	309.900	311.500	304.100	300.900	87.8%	294.400	┬307.300	┬315.300
x		102.624%	101.919%	307.400	102.676%	100.729%	100.219%	87.0%	295.600	┬102.225%	┬103.000%
σ		n/a	n/a	2.411	n/a	n/a	n/a	1.7%	1.208	┬n/a	┬n/a
%RSD		0.052	0.599	0.784	0.990	1.148	0.861	1.9	0.409	┬0.499	┬1.783

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:48:12	306.500	306.400	83.4%
2	11:48:39	303.600	306.000	85.8%
3	11:49:06	310.600	313.200	84.2%
x		102.300%	102.847%	84.5%
σ		n/a	n/a	1.2%
%RSD		1.138	1.313	1.4

CCB IM9409-01 05/08/2019 11:53:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:10	95.0%	0.039	2.305	1.956	12.690	-10.900	0.058	0.159	0.155	0.014
2	11:54:37	96.3%	0.041	2.091	1.960	8.546	-11.580	0.101	0.061	0.178	0.011
3	11:55:04	98.7%	0.004	1.984	1.922	5.713	-11.830	0.032	0.153	0.071	-0.009
x		96.7%	0.028	2.127	1.946	8.982	-11.440	0.064	0.124	0.135	0.005
σ		1.9%	0.021	0.163	0.021	3.507	0.485	0.035	0.055	0.057	0.012
%RSD		1.9	74.140	7.667	1.069	39.040	4.245	54.240	44.390	41.980	241.900

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:10	10.280	704.200	0.585	-2.056	0.005	86.9%	-0.016	-0.006	0.020	85.900
2	11:54:37	10.450	704.900	-1.764	-1.515	-0.385	89.1%	0.017	0.002	0.010	69.920
3	11:55:04	10.110	680.500	3.422	-3.225	-0.216	89.6%	-0.016	-0.014	0.029	67.450
x		10.280	696.500	0.748	-2.266	-0.199	88.6%	-0.005	-0.006	0.020	74.420
σ		0.170	13.890	2.597	0.874	0.195	1.4%	0.019	0.008	0.009	10.010
%RSD		1.650	1.994	347.300	38.570	98.360	1.6	355.200	137.700	47.550	13.460

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:10	0.781	-0.013	0.012	5.136	-0.026	0.002	0.033	-0.008	0.006	0.030
2	11:54:37	1.224	-0.005	0.194	-0.072	-0.030	0.009	-0.055	0.011	0.031	0.005
3	11:55:04	0.762	-0.014	-1.497	0.447	-0.024	0.014	-0.084	-0.009	-0.013	-0.003
x		0.922	-0.011	-0.431	1.837	-0.026	0.008	-0.035	-0.002	0.008	0.011
σ		0.262	0.005	0.928	2.869	0.003	0.006	0.061	0.011	0.022	0.017
%RSD		28.360	44.600	215.600	156.200	11.460	72.980	173.500	639.400	267.000	162.200

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:10	0.075	0.107	0.042	-0.233	0.042	-0.333	1.759	0.411	-2.771	0.001
2	11:54:37	-0.033	0.114	-0.005	-0.371	-0.102	0.055	1.941	0.430	-0.311	0.000
3	11:55:04	0.068	0.035	-0.038	-0.178	0.092	-0.415	-0.706	-0.177	-1.209	-0.001
x		0.037	0.085	-0.000	-0.261	0.010	-0.231	0.998	0.221	-1.430	0.000
σ		0.060	0.043	0.040	0.099	0.101	0.251	1.479	0.345	1.245	0.001
%RSD		165.100	50.790	11970.000	38.190	967.600	108.500	148.200	156.100	87.030	975.300

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:10	89.9%	0.019	0.014	0.027	1.057	0.005	0.002	-0.004	0.004	91.4%
2	11:54:37	89.6%	0.014	0.038	0.032	0.568	0.001	-0.000	-0.004	0.013	90.1%
3	11:55:04	93.8%	0.021	0.005	0.020	-0.160	0.002	-0.000	-0.001	0.008	95.5%
x		91.1%	0.018	0.019	0.026	0.489	0.003	0.001	-0.003	0.009	92.3%
σ		2.4%	0.003	0.017	0.006	0.612	0.002	0.001	0.002	0.005	2.8%
%RSD		2.6	17.810	89.510	22.590	125.300	88.100	207.400	59.990	55.900	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:10	0.090	0.089	0.137	0.117	-0.002	0.000	93.3%	-0.009	-0.013	0.008
2	11:54:37	0.059	0.104	0.117	0.171	0.018	0.006	93.7%	-0.012	-0.008	0.020
3	11:55:04	0.085	0.106	0.135	0.147	-0.002	-0.003	97.4%	-0.004	-0.012	0.001
x		0.078	0.099	0.130	0.145	0.005	0.001	94.8%	-0.009	-0.011	0.010
σ		0.017	0.009	0.011	0.027	0.011	0.004	2.3%	0.004	0.002	0.010
%RSD		21.280	9.453	8.557	18.680	224.600	374.400	2.4	44.720	21.860	98.570

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:54:10	0.021	0.012	95.0%
2	11:54:37	0.021	0.017	95.2%
3	11:55:04	0.018	0.012	99.1%
x		0.020	0.013	96.4%
σ		0.002	0.003	2.3%
%RSD		8.509	20.410	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:05	114.1%	0.117	2.120	2.088	-70.030	107.400	T 1153.000	1125.000	1162.000	TM 49930.000
2	12:00:32	115.5%	0.127	1.931	2.067	-73.460	95.790	T 1137.000	1093.000	1144.000	TM 48790.000
3	12:00:59	118.2%	0.156	2.067	2.026	-71.350	93.040	T 1131.000	1091.000	1132.000	TM 48070.000
x		115.9%	0.133	2.039	2.060	-71.610	98.740	T 1140.000	1103.000	1146.000	TM 48930.000
σ		2.1%	0.021	0.098	0.031	1.730	7.619	T 11.110	19.080	15.220	TM 936.500
%RSD		1.8	15.480	4.799	1.511	2.416	7.716	T 0.974	1.730	1.328	TM 1.914

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:05	T 732.500	T 171100.000	918.000	2219.000	1904.000	98.8%	M 584.900	86.180	161.700	12470.000
2	12:00:32	T 721.800	T 170400.000	897.000	2197.000	1883.000	99.0%	M 585.700	84.630	162.000	13080.000
3	12:00:59	T 746.000	T 166600.000	876.300	2185.000	1876.000	102.3%	M 574.900	84.510	160.200	12340.000
x		T 733.400	T 169400.000	897.100	2201.000	1888.000	100.0%	M 581.800	85.110	161.300	12630.000
σ		T 12.120	T 2447.000	20.850	17.060	14.540	2.0%	M 5.986	0.929	0.984	391.400
%RSD		T 1.653	T 1.445	2.324	0.775	0.770	2.0	M 1.029	1.092	0.610	3.098

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:05	T 22590.000	32.190	T 22630.000	T 22910.000	4.845	23.830	24.940	1.367	1.752	18.670
2	12:00:32	T 22530.000	32.100	T 22720.000	T 22780.000	4.921	24.010	22.520	1.351	1.708	18.380
3	12:00:59	T 22490.000	31.850	T 22510.000	T 22500.000	4.848	23.380	22.900	1.330	1.645	18.610
x		T 22540.000	32.050	T 22620.000	T 22730.000	4.871	23.740	23.450	1.349	1.701	18.550
σ		T 53.110	0.173	T 106.500	T 209.500	0.043	0.323	1.305	0.018	0.054	0.153
%RSD		T 0.236	0.541	T 0.471	T 0.922	0.885	1.362	5.565	1.364	3.166	0.826

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:05	25.140	21.310	6.330	1.169	9.728	9.914	5.749	1.647	1.685	24.000
2	12:00:32	23.950	20.950	7.191	1.636	9.335	9.286	5.344	1.539	1.196	24.110
3	12:00:59	23.970	20.460	6.380	1.174	9.328	8.592	6.450	1.829	1.318	23.810
x		24.350	20.910	6.634	1.326	9.464	9.264	5.848	1.672	1.399	23.970
σ		0.679	0.431	0.483	0.269	0.229	0.661	0.560	0.147	0.255	0.150
%RSD		2.788	2.061	7.279	20.240	2.417	7.136	9.574	8.767	18.190	0.628

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:05	110.7%	2.670	2.735	2.688	10.020	0.084	0.026	0.018	0.017	96.6%
2	12:00:32	112.9%	2.663	2.705	2.644	9.724	0.085	0.017	0.014	0.042	98.7%
3	12:00:59	114.5%	2.698	2.649	2.713	10.300	0.076	0.018	0.007	0.029	100.2%
x		112.7%	2.677	2.696	2.681	10.020	0.082	0.020	0.013	0.029	98.5%
σ		1.9%	0.018	0.043	0.035	0.289	0.005	0.005	0.005	0.012	1.8%
%RSD		1.7	0.690	1.611	1.299	2.880	5.921	26.280	40.360	41.610	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:05	5.717	6.593	0.699	0.632	79.880	79.180	99.1%	0.172	0.165	27.170
2	12:00:32	5.697	6.684	0.612	0.687	80.090	79.130	101.4%	0.181	0.150	27.280
3	12:00:59	5.800	6.760	0.599	0.632	78.910	78.020	101.3%	0.157	0.153	27.350
x		5.738	6.679	0.637	0.650	79.630	78.770	100.6%	0.170	0.156	27.260
σ		0.055	0.084	0.054	0.032	0.629	0.655	1.3%	0.012	0.008	0.089
%RSD		0.954	1.259	8.531	4.852	0.790	0.831	1.3	7.165	4.891	0.325

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:00:05	24.270	25.420	97.6%
2	12:00:32	24.590	25.560	97.4%
3	12:00:59	24.150	25.500	98.9%
x		24.340	25.490	98.0%
σ		0.223	0.072	0.8%
%RSD		0.918	0.281	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:58	113.3%	62.480	69.940	71.920	-79.250	T 2325.000	T 2912.000	T 2950.000	T 3020.000	TM 65300.000
2	12:06:25	115.8%	62.150	69.430	71.980	-75.900	T 2251.000	T 2868.000	T 2918.000	T 2996.000	TM 64080.000
3	12:06:52	116.6%	62.020	69.530	70.550	-77.560	T 2276.000	T 2834.000	2773.000	T 2954.000	TM 63900.000
x		115.2%	62.220	69.630	71.480	-77.570	T 2284.000	T 2871.000	T 2880.000	T 2990.000	TM 64430.000
σ		1.8%	0.235	0.267	0.809	1.677	T 37.860	T 38.890	T 94.180	T 33.350	TM 763.300
%RSD		1.5	0.377	0.384	1.132	2.162	T 1.658	T 1.354	T 3.270	T 1.115	TM 1.185

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:58	T 2989.000	T 220900.000	T 3842.000	5437.000	4733.000	95.8%	TM 1406.000	T 365.400	384.000	15740.000
2	12:06:25	T 2860.000	T 215000.000	T 3773.000	5299.000	4618.000	95.1%	M 1274.000	T 356.700	369.800	16600.000
3	12:06:52	T 2869.000	T 214200.000	T 3783.000	5208.000	4556.000	97.2%	M 1243.000	T 354.700	366.000	15370.000
x		T 2906.000	T 216700.000	T 3799.000	5315.000	4636.000	96.1%	TM 1308.000	T 358.900	373.300	15900.000
σ		T 71.890	T 3653.000	T 37.380	115.500	89.610	1.1%	TM 86.340	T 5.685	9.501	629.600
%RSD		T 2.474	T 1.686	T 0.984	2.173	1.933	1.1	TM 6.603	T 1.584	2.545	3.959

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:58	T 32300.000	272.400	T 32250.000	T 33270.000	230.100	251.200	242.500	205.500	223.200	237.100
2	12:06:25	T 31930.000	271.700	T 31930.000	T 32980.000	225.200	247.000	236.100	202.800	219.200	230.800
3	12:06:52	T 31330.000	264.000	T 31320.000	T 32130.000	220.700	242.700	234.400	200.600	215.600	230.600
x		T 31850.000	269.400	T 31830.000	T 32790.000	225.300	246.900	237.700	202.900	219.300	232.800
σ		T 487.400	4.688	T 474.500	T 594.300	4.679	4.257	4.303	2.462	3.818	3.700
%RSD		T 1.530	1.740	T 1.491	T 1.812	2.077	1.724	1.810	1.213	1.741	1.589

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:58	242.100	240.800	208.600	195.800	12.680	12.900	754.400	200.500	1.819	T 231.600
2	12:06:25	243.700	237.900	207.100	196.000	12.840	13.670	751.900	201.600	4.408	221.400
3	12:06:52	233.500	232.500	205.100	194.500	12.960	12.560	766.700	205.900	4.334	T 224.100
x		239.800	237.100	206.900	195.400	12.830	13.040	757.700	202.700	3.520	T 225.700
σ		5.452	4.193	1.731	0.798	0.143	0.570	7.918	2.858	1.474	T 5.298
%RSD		2.274	1.769	0.837	0.408	1.117	4.373	1.045	1.410	41.860	T 2.347

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:58	115.3%	191.800	198.800	198.200	233.100	237.500	227.900	229.900	226.500	95.1%
2	12:06:25	115.2%	189.600	195.500	197.300	235.100	234.800	226.200	226.300	224.600	94.1%
3	12:06:52	117.0%	187.200	192.500	192.300	221.900	228.800	220.700	219.100	218.300	95.6%
x		115.9%	189.600	195.600	195.900	230.000	233.700	224.900	225.100	223.100	95.0%
σ		1.0%	2.291	3.137	3.185	7.117	4.462	3.759	5.483	4.287	0.7%
%RSD		0.9	1.209	1.604	1.626	3.094	1.909	1.671	2.436	1.921	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:58	233.700	229.500	176.300	175.600	357.600	354.800	99.8%	225.400	232.400	281.600
2	12:06:25	230.900	225.000	170.600	173.200	343.400	344.700	99.9%	220.000	229.300	275.500
3	12:06:52	225.500	220.000	168.900	169.800	336.800	342.000	102.0%	215.400	222.900	272.000
x		230.100	224.900	171.900	172.900	345.900	347.200	100.6%	220.300	228.200	276.400
σ		4.177	4.710	3.889	2.890	10.630	6.772	1.2%	4.973	4.828	4.821
%RSD		1.816	2.095	2.262	1.672	3.074	1.951	1.2	2.258	2.115	1.744

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:05:58	268.000	274.000	96.6%
2	12:06:25	261.500	268.700	97.0%
3	12:06:52	258.400	265.500	98.1%
x		262.700	269.400	97.2%
σ		4.913	4.272	0.8%
%RSD		1.871	1.586	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:53	115.4%	55.940	62.960	65.410	-77.800	T 2108.000	T 2814.000	2761.000	T 2924.000	TM 65610.000
2	12:12:20	117.7%	56.670	63.910	65.910	-74.800	T 2111.000	T 2835.000	T 2858.000	T 2948.000	TM 65840.000
3	12:12:47	117.8%	56.430	63.530	67.050	-75.800	T 2160.000	T 2840.000	T 2866.000	T 2970.000	TM 66700.000
x		117.0%	56.350	63.470	66.120	-76.130	T 2127.000	T 2830.000	T 2828.000	T 2947.000	TM 66050.000
σ		1.4%	0.373	0.478	0.838	1.528	T 29.160	T 13.790	T 58.550	T 22.620	TM 574.200
%RSD		1.2	0.661	0.753	1.267	2.007	T 1.371	T 0.487	T 2.070	T 0.768	TM 0.869

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:53	T 2855.000	T 227500.000	T 3650.000	5329.000	4584.000	96.6%	M 1232.000	T 344.700	383.800	17200.000
2	12:12:20	T 2791.000	T 225700.000	T 3681.000	5180.000	4565.000	94.9%	M 1215.000	T 350.800	387.700	16960.000
3	12:12:47	T 2765.000	T 226200.000	T 3640.000	5095.000	4531.000	96.2%	TM 1294.000	T 341.300	382.800	16520.000
x		T 2804.000	T 226500.000	T 3657.000	5201.000	4560.000	95.9%	TM 1247.000	T 345.600	384.700	16890.000
σ		T 46.010	T 951.400	T 21.310	118.600	26.700	0.9%	TM 41.460	T 4.800	2.576	346.400
%RSD		T 1.641	T 0.420	T 0.583	2.280	0.586	0.9	TM 3.324	T 1.389	0.669	2.051

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:53	T 28990.000	252.800	T 29050.000	T 29820.000	212.200	232.600	227.400	191.500	204.500	222.800
2	12:12:20	T 29160.000	253.200	T 29150.000	T 29890.000	212.100	236.300	226.400	190.200	205.000	224.200
3	12:12:47	T 28780.000	251.100	T 28930.000	T 29340.000	208.300	232.300	221.000	186.500	202.600	224.000
x		T 28980.000	252.400	T 29040.000	T 29680.000	210.900	233.700	224.900	189.400	204.000	223.700
σ		T 190.800	1.107	T 108.300	T 299.400	2.225	2.222	3.419	2.601	1.277	0.742
%RSD		T 0.658	0.439	T 0.373	T 1.009	1.055	0.951	1.520	1.373	0.626	0.332

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:53	232.900	226.500	195.000	186.000	21.610	19.840	717.100	191.500	3.250	208.600
2	12:12:20	225.000	227.200	195.300	185.800	19.400	18.980	722.500	187.000	1.463	207.900
3	12:12:47	227.100	223.100	191.500	179.300	20.270	20.230	717.200	190.400	3.179	206.400
x		228.300	225.600	193.900	183.700	20.430	19.690	718.900	189.600	2.631	207.600
σ		4.123	2.176	2.079	3.782	1.117	0.639	3.102	2.300	1.012	1.096
%RSD		1.806	0.965	1.072	2.058	5.467	3.245	0.431	1.213	38.470	0.528

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:53	114.3%	178.400	182.700	181.600	218.100	222.500	215.300	211.700	212.600	94.2%
2	12:12:20	114.3%	176.500	176.900	179.600	217.800	215.900	206.700	208.200	207.000	96.8%
3	12:12:47	116.9%	174.700	177.800	179.900	211.600	217.100	208.100	207.300	206.200	96.4%
x		115.2%	176.500	179.100	180.400	215.900	218.500	210.000	209.000	208.600	95.8%
σ		1.5%	1.844	3.127	1.075	3.658	3.504	4.615	2.318	3.466	1.4%
%RSD		1.3	1.044	1.746	0.596	1.694	1.604	2.198	1.109	1.662	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:53	217.300	211.000	154.700	157.900	332.100	332.900	98.3%	207.400	214.400	263.500
2	12:12:20	212.700	208.200	153.300	153.900	325.700	325.700	100.5%	206.500	215.000	264.000
3	12:12:47	210.400	207.400	154.000	154.200	328.200	325.600	100.1%	209.400	215.400	264.200
x		213.500	208.800	154.000	155.400	328.600	328.100	99.6%	207.800	215.000	263.900
σ		3.527	1.895	0.711	2.240	3.205	4.205	1.2%	1.500	0.491	0.367
%RSD		1.652	0.908	0.461	1.442	0.975	1.282	1.2	0.722	0.229	0.139

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:11:53	250.000	255.400	95.4%
2	12:12:20	247.500	255.200	95.9%
3	12:12:47	247.300	254.300	96.9%
x		248.300	255.000	96.1%
σ		1.471	0.565	0.8%
%RSD		0.593	0.222	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	108.9%	0.052	2.172	1.968	-56.420	3.663	347.300	333.100	334.500	™14280.000
2	12:18:13	111.5%	0.064	2.007	1.787	-52.500	3.633	340.200	325.900	324.800	™14000.000
3	12:18:40	113.9%	0.115	1.874	1.682	-52.650	3.083	335.100	320.300	322.000	™13780.000
x		111.4%	0.077	2.018	1.812	-53.850	3.460	340.900	326.400	327.100	™14020.000
σ		2.5%	0.034	0.149	0.145	2.220	0.327	6.106	6.427	6.567	™248.300
%RSD		2.2	43.780	7.392	8.002	4.122	9.445	1.791	1.969	2.008	™1.771

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	₸204.900	₸44260.000	198.900	516.300	452.100	94.2%	134.600	19.690	37.290	3072.000
2	12:18:13	₸158.400	₸43650.000	196.800	543.100	443.000	95.8%	134.600	19.830	36.740	3013.000
3	12:18:40	₸165.600	₸42520.000	190.300	505.600	430.200	99.2%	132.200	19.080	35.470	2935.000
x		₸176.300	₸43480.000	195.300	521.600	441.800	96.4%	133.800	19.530	36.500	3007.000
σ		₸25.000	₸884.200	4.494	19.310	11.010	2.6%	1.393	0.397	0.933	68.350
%RSD		₸14.180	₸2.034	2.300	3.701	2.492	2.7	1.041	2.031	2.555	2.273

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	5403.000	7.576	₸5468.000	5298.000	1.120	5.774	5.126	0.328	0.498	4.523
2	12:18:13	5349.000	7.439	₸5402.000	5188.000	1.141	5.558	5.114	0.302	0.474	4.417
3	12:18:40	5161.000	7.184	₸5206.000	4973.000	1.081	5.271	5.440	0.311	0.495	4.372
x		5304.000	7.400	₸5359.000	5153.000	1.114	5.535	5.227	0.314	0.489	4.437
σ		126.800	0.199	₸136.700	165.400	0.031	0.252	0.185	0.013	0.013	0.077
%RSD		2.390	2.685	₸2.551	3.211	2.744	4.557	3.537	4.166	2.641	1.746

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	6.209	4.943	1.780	0.286	2.940	2.610	3.955	0.981	0.101	6.219
2	12:18:13	5.762	5.006	1.526	-0.403	2.713	3.162	3.074	0.720	1.709	5.971
3	12:18:40	5.758	5.077	1.636	-0.071	2.283	2.270	3.022	0.720	0.668	5.816
x		5.910	5.008	1.647	-0.063	2.645	2.681	3.350	0.807	0.826	6.002
σ		0.260	0.067	0.127	0.345	0.334	0.450	0.525	0.151	0.816	0.203
%RSD		4.390	1.339	7.720	550.200	12.620	16.790	15.650	18.670	98.750	3.388

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	96.8%	0.690	0.631	0.673	1.261	0.019	0.007	0.003	-0.007	93.4%
2	12:18:13	98.1%	0.677	0.642	0.663	1.479	0.020	0.002	0.012	0.016	95.3%
3	12:18:40	99.6%	0.589	0.701	0.627	1.357	0.014	0.003	0.009	0.010	97.5%
x		98.2%	0.652	0.658	0.655	1.366	0.018	0.004	0.008	0.006	95.4%
σ		1.4%	0.055	0.037	0.024	0.109	0.003	0.002	0.005	0.012	2.0%
%RSD		1.4	8.448	5.699	3.702	7.991	18.590	58.530	60.660	195.500	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	1.288	1.515	0.133	0.120	18.170	18.180	94.8%	0.090	0.082	5.995
2	12:18:13	1.207	1.457	0.141	0.127	17.550	17.820	95.5%	0.081	0.077	5.823
3	12:18:40	1.202	1.458	0.127	0.142	17.450	17.780	98.5%	0.077	0.067	5.900
x		1.232	1.477	0.134	0.130	17.720	17.930	96.3%	0.083	0.075	5.906
σ		0.048	0.033	0.007	0.011	0.393	0.219	1.9%	0.007	0.008	0.086
%RSD		3.915	2.236	5.307	8.582	2.215	1.221	2.0	8.455	10.420	1.457

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:17:46	5.648	5.802	93.7%
2	12:18:13	5.337	5.587	96.0%
3	12:18:40	5.430	5.579	96.2%
x		5.471	5.656	95.3%
σ		0.160	0.126	1.4%
%RSD		2.918	2.235	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:42	114.7%	65.070	72.900	73.240	-63.530	T 1980.000	T 2317.000	2264.000	2338.000	TM 47430.000
2	12:24:09	117.8%	64.850	72.700	72.230	-62.100	T 1970.000	T 2353.000	2271.000	2364.000	TM 47400.000
3	12:24:36	117.9%	66.200	72.770	73.620	-64.530	T 1967.000	T 2342.000	2272.000	2340.000	TM 47460.000
x		116.8%	65.370	72.790	73.030	-63.390	T 1972.000	T 2337.000	2269.000	2348.000	TM 47430.000
σ		1.8%	0.726	0.101	0.716	1.224	T 6.860	T 18.740	4.422	14.710	TM 30.860
%RSD		1.6	1.110	0.139	0.981	1.930	T 0.348	T 0.802	0.195	0.627	TM 0.065

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:42	T 2311.000	T 165700.000	T 2615.000	4189.000	3767.000	99.6%	M 758.500	280.100	348.900	11380.000
2	12:24:09	T 2259.000	T 166600.000	T 2635.000	4388.000	3751.000	97.0%	M 754.300	279.500	352.900	11920.000
3	12:24:36	T 2244.000	T 167500.000	T 2632.000	4232.000	3744.000	97.9%	TM 762.400	279.100	354.200	11480.000
x		T 2271.000	T 166600.000	T 2627.000	4269.000	3754.000	98.2%	TM 758.400	279.600	352.000	11600.000
σ		T 35.080	T 873.500	T 10.920	104.800	11.940	1.3%	TM 4.043	0.474	2.786	287.400
%RSD		T 1.545	T 0.524	T 0.416	2.455	0.318	1.4	TM 0.533	0.170	0.792	2.478

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:42	T 23780.000	220.500	T 23850.000	T 23710.000	191.700	207.300	204.400	181.300	189.700	196.600
2	12:24:09	T 23880.000	223.500	T 23850.000	T 24100.000	194.900	212.200	205.900	181.600	192.300	204.800
3	12:24:36	T 23890.000	223.100	T 24150.000	T 24310.000	195.900	209.600	206.100	180.300	190.500	204.400
x		T 23850.000	222.300	T 23950.000	T 24040.000	194.200	209.700	205.500	181.100	190.900	201.900
σ		T 63.740	1.637	T 176.000	T 302.900	2.217	2.469	0.919	0.636	1.332	4.588
%RSD		T 0.267	0.736	T 0.735	T 1.260	1.142	1.177	0.447	0.351	0.698	2.272

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:42	202.900	201.400	191.300	177.000	10.030	8.955	763.500	192.200	5.118	197.400
2	12:24:09	205.400	205.400	192.400	180.700	9.235	8.094	753.000	189.000	0.631	194.600
3	12:24:36	202.300	204.200	194.200	183.300	9.331	8.267	732.900	185.700	1.834	193.300
x		203.500	203.700	192.600	180.300	9.531	8.439	749.800	189.000	2.527	195.100
σ		1.614	2.092	1.490	3.152	0.431	0.456	15.520	3.287	2.323	2.122
%RSD		0.793	1.027	0.773	1.748	4.526	5.399	2.070	1.739	91.890	1.088

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:42	109.0%	183.800	185.600	185.400	197.900	204.000	195.400	198.800	197.600	96.5%
2	12:24:09	110.6%	181.200	183.200	185.300	198.200	205.900	198.300	198.700	197.000	97.6%
3	12:24:36	112.8%	181.500	185.900	186.700	201.300	203.600	194.400	195.300	196.900	98.4%
x		110.8%	182.200	184.900	185.800	199.100	204.500	196.100	197.600	197.200	97.5%
σ		1.9%	1.430	1.478	0.735	1.849	1.240	2.043	2.033	0.332	0.9%
%RSD		1.7	0.785	0.799	0.396	0.929	0.606	1.042	1.029	0.168	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:42	207.200	206.200	185.800	188.000	276.400	272.500	100.6%	192.800	197.700	233.900
2	12:24:09	206.200	205.300	188.900	189.400	275.400	273.700	100.7%	194.300	200.400	237.600
3	12:24:36	204.300	204.000	186.300	188.200	271.700	270.400	101.5%	192.800	198.900	236.200
x		205.900	205.200	187.000	188.500	274.500	272.200	100.9%	193.300	199.000	235.900
σ		1.463	1.101	1.680	0.760	2.482	1.652	0.5%	0.880	1.370	1.854
%RSD		0.710	0.537	0.899	0.403	0.904	0.607	0.5	0.455	0.689	0.786

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:23:42	222.200	227.600	98.2%
2	12:24:09	224.700	230.100	98.3%
3	12:24:36	222.800	228.600	98.5%
x		223.200	228.800	98.3%
σ		1.325	1.250	0.2%
%RSD		0.594	0.546	0.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:36	111.4%	0.435	5.709	5.805	39.130	T 802.400	T 2255.000	2187.000	2236.000	TM 16010.000
2	12:30:05	111.9%	0.467	6.144	5.689	47.640	T 791.800	T 2267.000	2202.000	2270.000	TM 16340.000
3	12:30:32	113.4%	0.479	5.831	5.723	43.600	T 805.300	T 2265.000	2186.000	2252.000	TM 16210.000
x		112.2%	0.460	5.894	5.739	43.460	T 799.800	T 2262.000	2191.000	2253.000	TM 16190.000
σ		1.0%	0.023	0.224	0.060	4.254	T 7.100	T 6.699	9.030	17.100	TM 169.800
%RSD		0.9	5.006	3.805	1.041	9.789	T 0.888	T 0.296	0.412	0.759	TM 1.049

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:36	T 797.800	T 192200.000	1071.000	66700.000	T 68180.000	98.0%	M 540.000	46.510	84.680	11260.000
2	12:30:05	T 884.600	T 197400.000	T 1076.000	66690.000	T 68320.000	96.1%	M 542.100	47.810	84.520	11220.000
3	12:30:32	T 822.200	T 195900.000	1075.000	66440.000	T 67760.000	100.8%	TM 506.900	45.430	T 81.310	11220.000
x		T 834.900	T 195200.000	T 1074.000	66610.000	T 68090.000	98.3%	TM 529.700	46.580	T 83.500	11230.000
σ		T 44.750	T 2713.000	T 3.117	148.700	T 288.600	2.4%	TM 19.770	1.195	T 1.902	23.560
%RSD		T 5.360	T 1.390	T 0.290	0.223	T 0.424	2.4	TM 3.732	2.565	T 2.278	0.210

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:36	T 46650.000	266.100	T 46360.000	T 49650.000	9.899	28.880	26.860	390.500	438.000	M 1675.000
2	12:30:05	T 46770.000	269.000	T 46800.000	T 49930.000	10.040	29.570	27.390	388.400	436.400	M 1660.000
3	12:30:32	T 47080.000	268.000	T 46890.000	T 49770.000	10.030	28.620	27.910	389.500	436.500	M 1669.000
x		T 46830.000	267.700	T 46690.000	T 49780.000	9.991	29.020	27.390	389.500	437.000	M 1668.000
σ		T 220.200	1.503	T 283.000	T 137.300	0.080	0.492	0.524	1.036	0.894	M 7.740
%RSD		T 0.470	0.561	T 0.606	T 0.276	0.799	1.695	1.914	0.266	0.205	M 0.464

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:36	M 1550.000	M 1634.000	34.380	1.210	10.900	8.659	3.585	1.702	-0.307	206.100
2	12:30:05	M 1539.000	M 1626.000	34.240	1.192	10.350	10.640	4.468	1.903	-0.309	T 212.300
3	12:30:32	M 1531.000	M 1635.000	33.840	1.136	9.929	9.194	5.053	2.110	1.218	T 211.000
x		M 1540.000	M 1631.000	34.150	1.179	10.390	9.496	4.369	1.905	0.201	T 209.800
σ		M 9.888	M 4.847	0.283	0.038	0.489	1.022	0.739	0.204	0.881	T 3.266
%RSD		M 0.642	M 0.297	0.827	3.261	4.708	10.770	16.920	10.710	438.400	T 1.556

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:36	133.9%	2.312	2.343	2.371	84.080	4.497	4.337	3.525	3.466	95.4%
2	12:30:05	132.1%	2.348	2.468	2.426	82.400	4.428	4.310	3.363	3.331	95.5%
3	12:30:32	136.3%	2.218	2.194	2.330	85.720	4.443	4.300	3.345	3.288	97.0%
x		134.1%	2.293	2.335	2.375	84.070	4.456	4.316	3.411	3.362	96.0%
σ		2.1%	0.067	0.137	0.048	1.664	0.036	0.019	0.100	0.093	0.9%
%RSD		1.6	2.921	5.865	2.019	1.979	0.817	0.444	2.920	2.769	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:36	134.600	190.400	5.760	5.362	M 871.900	M 873.100	98.9%	0.497	0.482	TM 4248.000
2	12:30:05	133.500	190.100	5.373	5.548	M 878.100	M 880.800	97.7%	0.472	0.473	TM 4269.000
3	12:30:32	135.300	189.500	5.393	5.501	M 879.100	M 872.400	100.5%	0.476	0.473	TM 4253.000
x		134.500	190.000	5.509	5.471	M 876.400	M 875.400	99.0%	0.482	0.476	TM 4257.000
σ		0.908	0.457	0.218	0.097	M 3.882	M 4.636	1.4%	0.013	0.005	TM 10.790
%RSD		0.675	0.241	3.956	1.769	M 0.443	M 0.530	1.4	2.756	1.112	TM 0.254

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:29:36	TM 3889.000	TM 4044.000	104.5%
2	12:30:05	TM 3890.000	TM 4042.000	103.8%
3	12:30:32	TM 3908.000	TM 4053.000	106.3%
x		TM 3896.000	TM 4046.000	104.8%
σ		TM 10.920	TM 5.843	1.3%
%RSD		TM 0.280	TM 0.144	1.2

UQ15923-001 05/08/2019 12:35:07 QC Status: FAIL (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:34	103.2%	0.052	1.424	0.983	52.940	-11.460	0.617	0.764	0.728	1.356
2	12:36:01	104.3%	0.002	1.345	1.237	48.330	-11.270	0.678	0.722	0.633	1.211
3	12:36:28	109.0%	0.030	1.178	1.006	34.760	-12.310	0.946	0.921	0.946	1.285
x		105.5%	0.028	1.316	1.075	45.340	-11.680	0.747	0.802	0.769	1.284
σ		3.1%	0.025	0.125	0.141	9.447	0.552	0.175	0.105	0.160	0.072
%RSD		2.9	87.880	9.532	13.070	20.830	4.724	23.460	13.060	20.850	5.633

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:34	11.070	T 50820.000	-10.940	3.408	4.210	91.7%	0.059	-0.160	0.450	2823.000
2	12:36:01	11.120	T 50000.000	-10.710	4.350	3.399	93.7%	0.078	0.127	0.430	2682.000
3	12:36:28	10.730	T 48710.000	-12.420	7.237	2.974	96.8%	0.095	-0.040	0.437	2642.000
x		10.970	T 49840.000	-11.360	4.998	3.528	94.1%	0.077	-0.024	0.439	2716.000
σ		0.211	T 1059.000	0.928	1.995	0.628	2.6%	0.018	0.144	0.010	95.070
%RSD		1.919	T 2.125	8.167	39.920	17.800	2.7	23.690	602.500	2.270	3.501

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:34	3.225	0.213	0.466	-23.460	-0.032	0.083	-0.089	0.079	0.106	1.344
2	12:36:01	2.426	0.208	1.363	-24.170	-0.029	0.058	-0.440	0.094	0.082	1.290
3	12:36:28	1.798	0.238	-1.360	-26.720	-0.033	0.090	-0.232	0.143	0.116	1.310
x		2.483	0.219	0.156	-24.780	-0.032	0.077	-0.254	0.106	0.101	1.315
σ		0.715	0.016	1.387	1.711	0.002	0.017	0.176	0.034	0.018	0.027
%RSD		28.800	7.457	888.700	6.906	5.938	21.680	69.480	31.720	17.380	2.078

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:34	1.430	1.224	0.007	-0.309	1.476	1.606	-0.880	-0.226	0.661	0.009
2	12:36:01	1.454	1.294	0.018	-0.563	1.860	1.733	0.531	0.093	-0.151	0.007
3	12:36:28	1.363	1.276	-0.034	-0.502	1.266	1.624	-0.859	-0.165	0.252	0.009
x		1.416	1.265	-0.003	-0.458	1.534	1.655	-0.402	-0.100	0.254	0.008
σ		0.047	0.037	0.027	0.133	0.301	0.069	0.809	0.169	0.406	0.001
%RSD		3.315	2.891	1041.000	29.020	19.640	4.156	201.100	170.000	159.800	10.820

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:34	90.9%	-0.034	0.006	0.004	-0.512	0.002	0.001	-0.004	-0.015	91.6%
2	12:36:01	93.5%	-0.030	-0.013	-0.008	-0.569	0.001	0.001	0.006	-0.013	94.9%
3	12:36:28	96.7%	-0.028	0.004	-0.007	-0.164	0.001	0.002	-0.004	0.002	94.8%
x		93.7%	-0.031	-0.001	-0.004	-0.415	0.001	0.001	-0.001	-0.009	93.8%
σ		2.9%	0.003	0.011	0.007	0.219	0.001	0.001	0.006	0.009	1.9%
%RSD		3.1	9.988	1043.000	195.300	52.740	82.970	52.230	668.100	102.600	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:35:34	1.252	1.670	0.038	0.040	0.023	0.009	90.8%	-0.018	-0.020	0.011
2	12:36:01	1.206	1.740	0.041	0.037	0.037	0.025	93.5%	-0.013	-0.017	0.001
3	12:36:28	1.155	1.754	0.043	0.056	0.022	0.011	94.3%	-0.023	-0.024	0.013
x		1.205	1.721	0.041	0.044	0.028	0.015	92.9%	-0.018	-0.021	0.008
σ		0.048	0.045	0.003	0.010	0.008	0.009	1.8%	0.005	0.003	0.007
%RSD		4.010	2.637	6.180	22.360	29.490	58.480	2.0	26.710	16.520	81.860

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:35:34	0.023	0.020	90.8%
2	12:36:01	0.023	0.010	91.6%
3	12:36:28	0.021	0.015	92.9%
x		0.022	0.015	91.8%
σ		0.001	0.005	1.1%
%RSD		4.186	32.140	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:29	105.5%	98.440	97.610	95.490	60.330	T 952.600	T 995.300	939.100	940.500	94.930
2	12:41:56	107.7%	96.970	96.350	94.190	48.450	T 932.700	T 972.400	914.900	913.600	93.180
3	12:42:23	109.2%	100.200	100.700	94.650	55.210	T 963.800	T 998.700	939.400	941.700	95.530
x		107.4%	98.530	98.220	94.780	54.670	T 949.700	T 988.800	931.100	931.900	94.550
σ		1.9%	1.609	2.235	0.659	5.957	T 15.740	T 14.270	14.020	15.900	1.221
%RSD		1.7	1.633	2.276	0.695	10.900	T 1.657	T 1.443	1.505	1.706	1.292

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:29	838.300	T 52020.000	978.100	1068.000	974.700	93.6%	98.300	96.600	98.160	5170.000
2	12:41:56	818.100	T 51790.000	982.600	1090.000	981.400	95.0%	98.760	96.130	96.940	5063.000
3	12:42:23	843.500	T 52700.000	981.900	1104.000	995.400	97.6%	97.230	96.190	97.300	4667.000
x		833.300	T 52170.000	980.900	1087.000	983.800	95.4%	98.090	96.310	97.470	4967.000
σ		13.420	T 474.300	2.401	18.140	10.570	2.0%	0.783	0.257	0.629	264.700
%RSD		1.611	T 0.909	0.245	1.669	1.074	2.1	0.799	0.267	0.646	5.330

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:29	1023.000	95.480	T 1041.000	974.900	96.990	97.310	99.810	98.220	98.810	94.820
2	12:41:56	1024.000	94.990	T 1038.000	950.300	95.170	96.480	98.550	97.780	98.170	95.280
3	12:42:23	1032.000	94.800	T 1027.000	943.900	94.990	95.330	96.130	99.310	98.620	98.410
x		1026.000	95.090	T 1035.000	956.400	95.720	96.370	98.160	98.430	98.530	96.170
σ		5.258	0.351	T 7.641	16.350	1.110	0.996	1.870	0.788	0.328	1.952
%RSD		0.512	0.370	T 0.738	1.710	1.159	1.034	1.905	0.800	0.333	2.030

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:29	91.950	94.850	97.350	97.700	1.283	1.462	443.800	102.200	-0.120	94.200
2	12:41:56	93.030	94.200	94.890	93.270	1.452	1.197	436.600	99.890	-1.498	94.290
3	12:42:23	97.200	96.120	98.020	97.690	1.231	2.013	430.300	97.120	0.830	95.590
x		94.060	95.050	96.750	96.220	1.322	1.557	436.900	99.750	-0.263	94.690
σ		2.773	0.978	1.650	2.554	0.115	0.416	6.768	2.567	1.170	0.778
%RSD		2.948	1.028	1.705	2.654	8.727	26.710	1.549	2.573	445.100	0.821

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:29	93.2%	95.520	97.450	96.930	99.260	102.700	98.810	99.680	95.600	91.6%
2	12:41:56	94.4%	95.850	94.920	95.030	98.500	101.300	96.840	96.880	96.540	93.5%
3	12:42:23	96.0%	97.520	96.700	96.510	99.230	102.600	97.530	97.930	96.840	96.4%
x		94.5%	96.300	96.360	96.160	99.000	102.200	97.730	98.160	96.330	93.8%
σ		1.4%	1.070	1.299	0.997	0.431	0.784	0.998	1.411	0.648	2.5%
%RSD		1.5	1.111	1.348	1.037	0.435	0.767	1.021	1.438	0.673	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:29	99.500	99.350	95.470	95.280	98.030	98.580	92.6%	93.780	95.340	102.100
2	12:41:56	99.580	98.130	94.230	97.060	98.200	97.140	94.9%	93.720	95.760	102.900
3	12:42:23	98.690	99.130	95.420	96.490	97.390	97.180	96.7%	93.990	95.760	102.400
x		99.260	98.870	95.040	96.280	97.870	97.630	94.7%	93.830	95.620	102.500
σ		0.494	0.653	0.703	0.907	0.428	0.820	2.1%	0.142	0.243	0.446
%RSD		0.497	0.661	0.739	0.942	0.437	0.840	2.2	0.151	0.254	0.435

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:41:29	96.560	98.340	91.3%
2	12:41:56	97.430	99.100	92.4%
3	12:42:23	97.760	99.310	94.0%
x		97.250	98.920	92.5%
σ		0.617	0.510	1.4%
%RSD		0.635	0.515	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:23	105.2%	0.136	4.324	4.386	18.650	T 4029.000	T 4570.000	T 4491.000	T 4490.000	12.620
2	12:47:50	108.2%	0.121	4.172	4.101	15.550	T 4189.000	T 4545.000	T 4508.000	T 4493.000	12.880
3	12:48:17	109.1%	0.081	4.506	3.861	11.150	T 4212.000	T 4573.000	T 4509.000	T 4540.000	12.640
x		107.5%	0.112	4.334	4.116	15.110	T 4143.000	T 4563.000	T 4503.000	T 4508.000	12.710
σ		2.0%	0.029	0.168	0.263	3.769	T 99.350	T 15.110	T 10.010	T 28.190	0.144
%RSD		1.9	25.480	3.865	6.388	24.940	T 2.398	T 0.331	T 0.222	T 0.626	1.133

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:23	T 5156.000	T 47880.000	T 3073.000	9371.000	8828.000	97.0%	1.227	0.067	1.438	7236.000
2	12:47:50	T 5156.000	T 47690.000	T 3081.000	9536.000	8925.000	98.3%	1.262	0.040	1.450	7979.000
3	12:48:17	T 5137.000	T 48620.000	T 3102.000	9367.000	8836.000	99.0%	1.203	-0.082	1.388	8615.000
x		T 5150.000	T 48060.000	T 3085.000	9425.000	8863.000	98.1%	1.231	0.009	1.425	7943.000
σ		T 10.780	T 492.700	T 15.220	96.340	53.490	1.0%	0.030	0.079	0.033	690.400
%RSD		T 0.209	T 1.025	T 0.493	1.022	0.604	1.0	2.414	931.500	2.312	8.692

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:23	1407.000	TM 2934.000	T 1463.000	1432.000	6.297	6.788	6.474	4.852	5.046	30.440
2	12:47:50	1404.000	TM 2905.000	T 1456.000	1428.000	6.228	6.728	6.631	4.852	4.930	31.100
3	12:48:17	1423.000	TM 2949.000	T 1476.000	1427.000	6.432	6.622	5.769	4.897	4.981	31.390
x		1411.000	TM 2930.000	T 1465.000	1429.000	6.319	6.713	6.291	4.867	4.985	30.980
σ		10.110	TM 22.880	T 9.954	2.812	0.103	0.084	0.459	0.026	0.058	0.484
%RSD		0.716	TM 0.781	T 0.679	0.197	1.636	1.255	7.299	0.535	1.165	1.564

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:23	34.380	33.950	0.344	-0.816	6.026	7.116	-3.048	-0.568	-3.316	41.970
2	12:47:50	34.830	34.400	0.448	-0.292	7.614	7.117	0.719	0.201	1.112	42.240
3	12:48:17	35.720	35.480	0.151	-0.143	6.971	7.340	-2.635	-0.499	-2.386	42.250
x		34.980	34.610	0.314	-0.417	6.870	7.191	-1.655	-0.289	-1.530	42.150
σ		0.684	0.788	0.151	0.354	0.799	0.129	2.066	0.426	2.335	0.160
%RSD		1.954	2.276	47.980	84.790	11.630	1.799	124.900	147.400	152.600	0.380

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:23	97.9%	0.021	0.047	0.062	1.053	1.120	1.127	0.209	0.221	94.0%
2	12:47:50	98.6%	0.038	0.039	0.031	0.653	1.150	1.074	0.232	0.218	95.2%
3	12:48:17	99.4%	0.048	0.035	0.054	1.034	1.144	1.049	0.249	0.211	95.9%
x		98.6%	0.036	0.040	0.049	0.913	1.138	1.083	0.230	0.217	95.1%
σ		0.8%	0.014	0.006	0.016	0.226	0.016	0.040	0.020	0.005	1.0%
%RSD		0.8	38.830	15.190	32.010	24.740	1.382	3.696	8.764	2.285	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:23	1.385	1.858	0.076	0.071	107.600	106.500	94.6%	0.059	0.079	0.251
2	12:47:50	1.392	1.759	0.088	0.060	106.400	105.000	95.4%	0.090	0.080	0.274
3	12:48:17	1.252	1.773	0.071	0.083	107.100	105.900	97.4%	0.061	0.084	0.241
x		1.343	1.796	0.079	0.071	107.000	105.800	95.8%	0.070	0.081	0.256
σ		0.079	0.054	0.009	0.012	0.629	0.734	1.4%	0.017	0.003	0.017
%RSD		5.871	2.988	10.900	16.270	0.588	0.694	1.5	24.820	3.525	6.713

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:47:23	0.245	0.255	90.9%
2	12:47:50	0.257	0.260	92.8%
3	12:48:17	0.237	0.247	94.7%
x		0.246	0.254	92.8%
σ		0.011	0.006	1.9%
%RSD		4.261	2.527	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:19	104.1%	0.071	1.597	1.375	14.800	66.870	340.500	323.400	325.100	TM 2321.000
2	12:53:46	106.0%	0.094	1.887	1.621	14.090	64.220	329.900	317.200	316.500	TM 2277.000
3	12:54:13	106.3%	0.080	1.625	1.547	11.840	64.140	327.200	310.300	312.300	TM 2256.000
x		105.5%	0.082	1.703	1.514	13.580	65.080	332.600	317.000	318.000	TM 2285.000
σ		1.2%	0.011	0.160	0.126	1.550	1.551	7.030	6.524	6.512	TM 33.200
%RSD		1.2	13.910	9.391	8.328	11.410	2.383	2.114	2.058	2.048	TM 1.453

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:19	T 73.030	T 24460.000	T 71.710	7295.000	6861.000	95.7%	56.910	4.506	T 7.181	2821.000
2	12:53:46	T 70.030	T 23990.000	108.000	7022.000	6708.000	98.1%	56.190	4.811	8.775	2266.000
3	12:54:13	T 60.760	T 24050.000	111.200	7058.000	6590.000	97.8%	56.530	4.758	8.762	2118.000
x		T 67.940	T 24160.000	T 96.950	7125.000	6720.000	97.2%	56.540	4.692	T 8.239	2402.000
σ		T 6.396	T 258.300	T 21.920	148.200	136.000	1.3%	0.359	0.163	T 0.917	370.900
%RSD		T 9.413	T 1.069	T 22.610	2.080	2.024	1.3	0.635	3.471	T 11.130	15.440

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:19	5396.000	28.320	T 5501.000	5302.000	1.115	3.453	2.645	47.690	48.750	184.300
2	12:53:46	5231.000	27.410	T 5302.000	5104.000	1.048	3.176	2.666	46.480	46.480	180.300
3	12:54:13	5127.000	27.190	T 5179.000	5035.000	1.024	2.949	3.360	45.510	47.260	179.700
x		5251.000	27.640	T 5327.000	5147.000	1.063	3.193	2.890	46.560	47.490	181.400
σ		135.300	0.602	T 162.600	138.500	0.047	0.253	0.407	1.094	1.155	2.542
%RSD		2.577	2.176	T 3.051	2.690	4.433	7.916	14.070	2.350	2.432	1.401

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:19	177.500	184.100	3.891	0.013	1.416	1.396	1.655	0.421	0.824	28.040
2	12:53:46	167.400	176.500	3.487	-0.156	1.255	1.373	1.167	0.270	1.894	27.640
3	12:54:13	172.900	175.800	3.676	-0.259	1.103	1.465	1.927	0.589	-1.874	27.020
x		172.600	178.800	3.684	-0.134	1.258	1.411	1.583	0.427	0.281	27.560
σ		5.042	4.598	0.202	0.137	0.156	0.048	0.385	0.160	1.942	0.511
%RSD		2.922	2.572	5.487	102.500	12.420	3.398	24.320	37.390	690.900	1.852

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:19	98.3%	0.277	0.239	0.284	9.561	0.478	0.466	0.400	0.289	95.2%
2	12:53:46	99.4%	0.278	0.312	0.267	8.664	0.482	0.428	0.305	0.397	96.9%
3	12:54:13	102.3%	0.247	0.250	0.253	11.200	0.449	0.464	0.423	0.354	97.1%
x		100.0%	0.267	0.267	0.268	9.807	0.470	0.453	0.376	0.347	96.4%
σ		2.1%	0.018	0.040	0.015	1.284	0.018	0.021	0.063	0.055	1.1%
%RSD		2.1	6.603	14.850	5.706	13.090	3.795	4.717	16.680	15.780	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:19	13.460	19.380	0.515	0.562	92.010	91.400	95.0%	0.025	0.025	477.400
2	12:53:46	13.320	19.290	0.529	0.544	89.600	89.390	96.4%	0.027	0.026	473.700
3	12:54:13	13.440	18.930	0.519	0.546	89.900	89.250	97.4%	0.031	0.027	458.700
x		13.410	19.200	0.521	0.551	90.500	90.010	96.2%	0.028	0.026	469.900
σ		0.073	0.239	0.007	0.010	1.315	1.204	1.2%	0.004	0.001	9.887
%RSD		0.544	1.244	1.379	1.762	1.453	1.338	1.2	12.860	4.115	2.104

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:53:19	432.800	T 451.700	95.6%
2	12:53:46	430.300	T 446.700	96.7%
3	12:54:13	421.000	T 436.300	98.8%
x		428.000	T 444.900	97.1%
σ		6.224	T 7.864	1.6%
%RSD		1.454	T 1.768	1.7

CCV MW11050 05/08/2019 12:58:50 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:17	83.3%	304.300	305.700	299.700	30.800	┬61210.000	┬61140.000	┬60460.000	┬60330.000	295.100
2	12:59:44	84.3%	305.500	311.900	305.200	25.810	┬61840.000	┬61880.000	┬60680.000	┬60540.000	295.900
3	13:00:11	85.3%	298.900	298.500	298.900	15.240	┬61930.000	┬60470.000	┬59910.000	┬59730.000	288.800
x		84.3%	100.965%	101.791%	100.423%	23.950	┬102.773%	┬61160.000	┬60350.000	┬100.334%	97.755%
σ		1.0%	n/a	n/a	n/a	7.943	┬n/a	┬702.500	┬400.900	┬n/a	n/a
%RSD		1.2	1.157	2.205	1.147	33.170	┬0.636	┬1.149	┬0.664	┬0.695	1.332

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:17	┬3026.000	785.800	┬62880.000	61810.000	┬61500.000	81.8%	305.800	306.600	297.700	2043.000
2	12:59:44	┬3019.000	778.400	┬63100.000	61330.000	┬61560.000	82.0%	304.700	304.500	296.000	1899.000
3	13:00:11	┬2970.000	758.100	┬63040.000	61290.000	┬62190.000	83.0%	304.400	306.600	297.400	1744.000
x		┬100.171%	774.100	┬105.008%	61480.000	┬102.918%	82.3%	101.652%	101.963%	99.010%	1895.000
σ		┬n/a	14.380	┬n/a	287.200	┬n/a	0.7%	n/a	n/a	n/a	149.300
%RSD		┬1.018	1.858	┬0.175	0.467	┬0.622	0.8	0.235	0.398	0.295	7.880

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:17	┬61760.000	296.000	┬62850.000	┬61530.000	296.700	290.000	293.800	284.800	284.900	282.700
2	12:59:44	┬61470.000	293.200	┬62650.000	┬61850.000	293.900	287.700	298.100	282.900	281.000	283.500
3	13:00:11	┬62080.000	292.400	┬62630.000	┬61630.000	292.500	290.300	294.300	284.700	283.600	283.500
x		┬61770.000	97.960%	┬62710.000	┬102.783%	98.125%	96.435%	295.400	284.200	94.389%	94.423%
σ		┬304.900	n/a	┬123.900	┬n/a	n/a	n/a	2.338	1.060	n/a	n/a
%RSD		┬0.494	0.651	┬0.198	┬0.269	0.736	0.490	0.792	0.373	0.686	0.161

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:17	281.000	284.900	292.100	282.900	1.099	-0.016	1333.000	304.200	3.089	299.200
2	12:59:44	286.200	279.800	289.900	291.000	0.681	0.203	1293.000	293.200	-0.062	299.800
3	13:00:11	283.700	281.200	289.700	286.000	0.712	-0.266	1298.000	288.300	1.066	302.300
x		283.600	282.000	96.849%	286.600	0.831	-0.026	1308.000	98.415%	1.364	100.142%
σ		2.609	2.672	n/a	4.085	0.233	0.235	21.470	n/a	1.596	n/a
%RSD		0.920	0.948	0.463	1.425	28.040	898.200	1.642	2.750	117.000	0.548

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:17	81.2%	308.600	310.900	312.100	302.700	300.500	290.800	299.400	299.700	80.6%
2	12:59:44	81.4%	310.500	314.300	312.100	302.600	301.700	289.600	292.000	298.500	81.3%
3	13:00:11	82.4%	311.500	315.700	316.000	301.000	297.800	289.800	301.300	298.400	84.0%
x		81.7%	103.400%	104.546%	313.400	302.100	99.994%	290.100	297.500	99.626%	82.0%
σ		0.6%	n/a	n/a	2.268	0.946	n/a	0.612	4.930	n/a	1.8%
%RSD		0.7	0.476	0.784	0.724	0.313	0.660	0.211	1.657	0.246	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:17	306.500	305.500	305.700	303.800	304.100	302.600	84.2%	297.200	┬298.500	┬266.100
2	12:59:44	308.100	304.400	304.700	303.300	301.300	302.800	85.8%	293.700	┬293.700	310.500
3	13:00:11	308.700	306.300	307.500	306.300	302.800	301.800	87.0%	297.000	┬297.000	┬269.800
x		102.600%	101.807%	306.000	101.484%	100.910%	100.796%	85.7%	296.000	┬98.806%	┬94.040%
σ		n/a	n/a	1.421	n/a	n/a	n/a	1.4%	1.975	┬n/a	┬n/a
%RSD		0.369	0.302	0.465	0.533	0.465	0.181	1.6	0.667	┬0.826	┬8.723

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:59:17	302.500	294.300	83.7%
2	12:59:44	308.000	308.900	83.9%
3	13:00:11	307.300	299.600	85.0%
x		101.969%	100.299%	84.2%
σ		n/a	n/a	0.7%
%RSD		0.985	2.460	0.8

CCB IM9409-01 05/08/2019 13:04:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:14	94.3%	0.035	0.892	0.814	15.290	-14.630	0.038	0.055	0.031	0.008
2	13:05:41	97.9%	0.016	1.462	0.802	11.510	-15.760	0.045	0.061	0.024	0.016
3	13:06:08	96.1%	0.043	0.932	0.922	15.250	-15.980	-0.020	0.003	-0.015	0.002
x		96.1%	0.031	1.096	0.846	14.020	-15.460	0.021	0.040	0.013	0.009
σ		1.8%	0.014	0.318	0.066	2.172	0.723	0.036	0.032	0.025	0.007
%RSD		1.9	43.830	29.050	7.789	15.490	4.674	168.000	79.480	188.900	77.810
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:14	10.340	466.600	2.430	-1.488	0.195	87.7%	0.040	0.020	0.042	28.230
2	13:05:41	10.190	452.100	-2.294	-2.128	-0.590	92.7%	0.005	-0.011	0.019	46.830
3	13:06:08	10.290	472.900	1.758	1.341	-0.349	89.1%	-0.016	-0.028	0.026	57.230
x		10.270	463.900	0.632	-0.758	-0.248	89.8%	0.009	-0.007	0.029	44.100
σ		0.080	10.640	2.556	1.846	0.402	2.6%	0.028	0.025	0.012	14.690
%RSD		0.776	2.294	404.700	243.500	162.200	2.9	302.700	379.300	39.780	33.320
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:14	-0.305	-0.011	2.115	-3.366	-0.024	-0.006	-0.100	-0.018	0.038	0.041
2	13:05:41	0.255	-0.015	1.204	-9.374	-0.024	-0.000	-0.654	-0.033	-0.020	-0.005
3	13:06:08	0.738	0.000	1.376	-0.893	-0.017	-0.015	0.327	-0.014	0.013	0.021
x		0.229	-0.008	1.565	-4.544	-0.022	-0.007	-0.142	-0.022	0.010	0.019
σ		0.522	0.008	0.484	4.362	0.004	0.007	0.491	0.010	0.029	0.024
%RSD		227.600	93.670	30.930	95.990	18.870	103.700	345.600	47.060	283.300	122.900
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:14	0.011	0.044	-0.112	-0.012	-0.320	0.364	-1.672	-0.423	1.099	0.000
2	13:05:41	-0.039	0.081	-0.087	-0.583	-0.159	-0.416	-0.700	-0.183	0.079	0.000
3	13:06:08	0.110	0.100	-0.050	-0.103	0.012	0.066	-0.382	-0.123	0.790	-0.000
x		0.027	0.075	-0.083	-0.233	-0.156	0.005	-0.918	-0.243	0.656	-0.000
σ		0.076	0.028	0.031	0.307	0.166	0.394	0.672	0.159	0.523	0.000
%RSD		276.200	37.750	37.330	131.700	106.700	8357.000	73.210	65.320	79.760	437.300
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:14	87.1%	0.001	0.036	0.027	-0.279	0.003	0.001	-0.001	-0.003	88.3%
2	13:05:41	93.1%	0.012	0.027	0.044	-0.016	0.004	0.004	-0.004	0.005	94.3%
3	13:06:08	90.0%	0.016	0.030	0.038	0.172	0.005	0.001	0.002	0.001	90.8%
x		90.0%	0.010	0.031	0.036	-0.041	0.004	0.002	-0.001	0.001	91.1%
σ		3.0%	0.008	0.004	0.009	0.227	0.001	0.002	0.003	0.004	3.0%
%RSD		3.4	79.500	14.210	23.730	552.700	25.750	99.170	407.800	315.500	3.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:05:14	0.076	0.073	0.130	0.103	0.004	0.009	89.2%	-0.016	-0.014	-0.003
2	13:05:41	0.051	0.074	0.112	0.109	-0.002	-0.003	93.6%	-0.012	-0.011	0.015
3	13:06:08	0.044	0.037	0.119	0.125	0.013	-0.003	91.2%	-0.016	-0.019	0.014
x		0.057	0.061	0.120	0.112	0.005	0.001	91.3%	-0.015	-0.015	0.009
σ		0.017	0.021	0.009	0.011	0.008	0.007	2.2%	0.002	0.004	0.010
%RSD		29.240	33.890	7.431	10.070	146.800	523.600	2.4	16.210	26.900	117.500
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	13:05:14	0.018	0.009	92.7%							
2	13:05:41	0.032	0.023	93.7%							
3	13:06:08	0.028	0.023	92.9%							
x		0.026	0.018	93.1%							
σ		0.007	0.008	0.5%							
%RSD		27.400	42.220	0.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:07	111.6%	0.002	0.549	0.760	76.670	11.950	1.072	1.142	1.176	2.163
2	13:11:34	111.6%	0.018	0.899	0.717	86.790	9.380	1.222	1.070	1.251	2.191
3	13:12:00	112.8%	0.048	0.745	0.628	70.930	5.877	1.183	1.213	1.283	2.130
x		112.0%	0.023	0.731	0.702	78.130	9.070	1.159	1.142	1.237	2.162
σ		0.7%	0.023	0.176	0.068	8.033	3.049	0.077	0.072	0.055	0.031
%RSD		0.6	102.900	24.020	9.642	10.280	33.620	6.683	6.274	4.445	1.424

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:07	15.290	T 260600.000	43.970	5.230	3.524	95.8%	0.189	-0.456	2.842	12670.000
2	13:11:34	15.700	T 270400.000	36.620	6.437	3.734	94.3%	0.285	-0.098	2.743	13150.000
3	13:12:00	15.280	T 265600.000	24.330	7.580	3.984	98.4%	0.253	-0.226	2.437	12680.000
x		15.430	T 265500.000	34.980	6.416	3.748	96.1%	0.242	-0.260	2.674	12830.000
σ		0.239	T 4908.000	9.923	1.175	0.230	2.1%	0.049	0.181	0.212	272.800
%RSD		1.546	T 1.848	28.370	18.320	6.138	2.2	20.330	69.610	7.910	2.126

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:07	23.590	0.138	1.602	-16.900	-0.030	0.455	0.160	0.361	0.357	0.262
2	13:11:34	24.650	0.156	2.772	-15.710	-0.029	0.333	-0.083	0.327	0.236	0.212
3	13:12:00	23.600	0.101	2.006	-22.640	-0.031	0.282	-0.647	0.318	0.164	0.111
x		23.950	0.131	2.127	-18.420	-0.030	0.357	-0.190	0.335	0.253	0.195
σ		0.609	0.028	0.594	3.706	0.001	0.089	0.414	0.022	0.098	0.077
%RSD		2.543	21.180	27.940	20.120	3.355	24.910	218.000	6.712	38.610	39.270

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:07	0.754	0.150	0.276	-0.220	20.520	22.320	-0.821	-0.152	-2.875	0.004
2	13:11:34	0.711	0.193	0.251	0.416	21.200	23.340	2.503	0.535	-0.495	0.006
3	13:12:00	0.360	0.203	-0.749	-0.472	22.710	22.110	-0.813	-0.140	-2.132	0.007
x		0.608	0.182	-0.074	-0.092	21.480	22.590	0.290	0.081	-1.834	0.006
σ		0.216	0.028	0.585	0.458	1.121	0.658	1.917	0.393	1.218	0.001
%RSD		35.540	15.610	787.000	498.200	5.219	2.912	661.300	485.400	66.390	21.860

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:07	96.4%	0.077	0.072	0.089	-0.885	0.009	0.004	-0.004	-0.020	96.8%
2	13:11:34	95.5%	0.053	0.033	0.078	-0.812	0.003	0.003	-0.001	0.004	96.0%
3	13:12:00	98.1%	0.055	0.042	0.066	-0.712	0.006	0.002	-0.001	-0.013	97.2%
x		96.7%	0.062	0.049	0.078	-0.803	0.006	0.003	-0.002	-0.010	96.6%
σ		1.4%	0.013	0.020	0.011	0.087	0.003	0.001	0.002	0.013	0.6%
%RSD		1.4	21.170	41.350	14.480	10.780	53.260	34.980	81.090	129.800	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:07	4.460	6.192	0.294	0.261	0.022	0.008	98.9%	-0.028	-0.029	0.034
2	13:11:34	4.246	5.963	0.257	0.249	0.013	0.019	98.3%	-0.021	-0.027	0.014
3	13:12:00	4.221	5.935	0.244	0.262	0.022	0.024	99.3%	-0.021	-0.029	0.010
x		4.309	6.030	0.265	0.258	0.019	0.017	98.9%	-0.024	-0.028	0.019
σ		0.132	0.141	0.026	0.007	0.005	0.008	0.5%	0.004	0.001	0.013
%RSD		3.051	2.343	9.872	2.811	28.340	47.900	0.5	16.560	4.775	67.540

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:11:07	0.032	0.031	97.7%
2	13:11:34	0.025	0.017	96.9%
3	13:12:00	0.027	0.019	97.3%
x		0.028	0.022	97.3%
σ		0.004	0.007	0.4%
%RSD		13.070	33.090	0.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:02	109.6%	200.200	203.200	195.000	76.040	T 1999.000	T 2033.000	1914.000	1922.000	196.200
2	13:17:28	112.1%	200.500	200.900	194.400	81.450	T 2008.000	T 2029.000	1914.000	1908.000	193.800
3	13:17:55	111.3%	194.200	193.900	187.700	61.560	T 2093.000	T 2018.000	1896.000	1902.000	196.000
x		111.0%	198.300	199.300	192.400	73.020	T 2033.000	T 2026.000	1908.000	1910.000	195.300
σ		1.3%	3.560	4.870	4.038	10.280	T 51.810	T 7.781	10.210	10.260	1.312
%RSD		1.1	1.795	2.443	2.099	14.080	T 2.548	T 0.384	0.535	0.537	0.672

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:02	248.600	T 273200.000	T 2115.000	2337.000	2067.000	92.4%	206.500	205.900	203.800	16170.000
2	13:17:28	246.800	T 271900.000	T 2116.000	2352.000	2073.000	93.9%	205.100	206.400	206.600	14980.000
3	13:17:55	251.300	T 272900.000	T 2130.000	2352.000	2054.000	95.2%	206.100	208.600	208.500	15120.000
x		248.900	T 272700.000	T 2120.000	2347.000	2065.000	93.8%	205.900	207.000	206.300	15420.000
σ		2.276	T 671.100	T 8.559	8.443	9.694	1.4%	0.690	1.463	2.328	646.800
%RSD		0.915	T 0.246	T 0.404	0.360	0.470	1.5	0.335	0.707	1.128	4.194

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:02	2200.000	203.500	T 2158.000	2063.000	202.900	202.500	208.200	203.300	205.300	187.700
2	13:17:28	2214.000	204.600	T 2196.000	2084.000	207.100	201.700	211.500	205.800	208.300	196.600
3	13:17:55	2227.000	203.800	T 2157.000	2063.000	204.000	201.400	204.100	205.000	205.500	191.000
x		2214.000	204.000	T 2170.000	2070.000	204.700	201.800	208.000	204.700	206.400	191.800
σ		13.160	0.556	T 22.150	12.480	2.209	0.562	3.672	1.275	1.665	4.502
%RSD		0.594	0.273	T 1.021	0.603	1.079	0.278	1.766	0.623	0.807	2.347

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:02	190.200	189.000	193.200	182.500	22.990	22.310	839.300	185.100	-0.526	202.500
2	13:17:28	193.700	194.400	197.200	188.700	22.560	22.920	837.100	189.600	0.864	205.600
3	13:17:55	191.600	194.000	197.900	190.300	21.230	23.490	838.400	187.000	0.292	203.900
x		191.800	192.500	196.100	187.200	22.260	22.900	838.300	187.200	0.210	204.000
σ		1.798	3.007	2.539	4.108	0.915	0.589	1.083	2.278	0.699	1.531
%RSD		0.938	1.562	1.295	2.195	4.110	2.572	0.129	1.217	332.200	0.751

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:02	91.6%	205.600	206.200	206.200	202.700	211.500	203.600	201.100	199.900	94.1%
2	13:17:28	94.3%	207.500	208.900	209.300	198.600	218.000	208.500	204.500	205.000	94.1%
3	13:17:55	96.5%	207.000	206.200	205.400	202.200	214.000	207.300	203.900	204.000	97.6%
x		94.1%	206.700	207.100	207.000	201.200	214.500	206.500	203.200	202.900	95.2%
σ		2.4%	0.951	1.548	2.025	2.210	3.277	2.587	1.794	2.707	2.0%
%RSD		2.6	0.460	0.748	0.978	1.098	1.528	1.253	0.883	1.334	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:02	211.600	212.000	200.500	202.500	204.200	206.300	96.2%	200.300	208.100	219.600
2	13:17:28	212.900	214.200	202.600	205.700	209.300	205.600	98.2%	200.400	206.700	219.700
3	13:17:55	212.700	214.000	200.700	202.900	207.900	203.500	99.5%	200.500	205.200	221.000
x		212.400	213.400	201.300	203.700	207.100	205.100	98.0%	200.400	206.700	220.100
σ		0.670	1.222	1.163	1.744	2.662	1.458	1.7%	0.111	1.450	0.791
%RSD		0.315	0.573	0.578	0.856	1.285	0.711	1.7	0.055	0.702	0.360

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:17:02	209.700	214.000	93.6%
2	13:17:28	210.000	213.200	95.0%
3	13:17:55	208.200	214.200	96.1%
x		209.300	213.800	94.9%
σ		0.945	0.559	1.3%
%RSD		0.452	0.261	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:56	111.0%	0.610	1.548	1.866	12.250	94.460	T 1963.000	1883.000	1937.000	TM 91050.000
2	13:23:23	112.6%	0.565	1.924	1.824	13.180	91.510	T 1966.000	1881.000	1938.000	TM 90660.000
3	13:23:50	115.3%	0.599	1.757	1.853	8.410	94.130	T 1956.000	1890.000	1949.000	TM 91480.000
x		113.0%	0.592	1.743	1.848	11.280	93.370	T 1962.000	1885.000	1941.000	TM 91070.000
σ		2.2%	0.023	0.189	0.022	2.527	1.613	T 5.473	5.060	6.555	TM 408.100
%RSD		1.9	3.926	10.820	1.168	22.410	1.728	T 0.279	0.269	0.338	TM 0.448

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:56	T 1081.000	T 174200.000	T 2816.000	2558.000	1992.000	111.7%	M 1130.000	T 383.500	108.400	10480.000
2	13:23:23	T 1068.000	T 175900.000	T 2826.000	2529.000	1992.000	111.7%	M 1127.000	T 390.300	108.100	10320.000
3	13:23:50	T 1067.000	T 176000.000	T 2867.000	2519.000	2023.000	113.2%	M 1138.000	T 391.100	108.300	9289.000
x		T 1072.000	T 175300.000	T 2837.000	2535.000	2002.000	112.2%	M 1132.000	T 388.300	108.300	10030.000
σ		T 7.948	T 1029.000	T 27.110	20.560	18.150	0.9%	M 5.745	T 4.217	0.154	646.500
%RSD		T 0.741	T 0.587	T 0.956	0.811	0.906	0.8	M 0.508	T 1.086	0.142	6.446

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:56	TM 149300.000	T 482.400	TM 145800.000	TM 155100.000	16.960	23.670	24.280	50.050	56.310	81.790
2	13:23:23	TM 151400.000	T 489.900	TM 146200.000	TM 157000.000	17.040	23.120	24.600	50.960	57.400	84.120
3	13:23:50	TM 148700.000	T 484.800	TM 147000.000	TM 157300.000	16.810	23.580	24.740	49.980	56.580	84.150
x		TM 149800.000	T 485.700	TM 146300.000	TM 156500.000	16.940	23.460	24.540	50.330	56.760	83.350
σ		TM 1387.000	T 3.836	TM 599.800	TM 1191.000	0.113	0.300	0.237	0.547	0.565	1.351
%RSD		TM 0.926	T 0.790	TM 0.410	TM 0.761	0.669	1.277	0.964	1.086	0.995	1.621

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:56	92.320	84.060	10.320	1.681	8.770	7.936	9.298	4.064	0.000	11.780
2	13:23:23	97.310	87.900	10.730	1.530	9.707	7.685	5.807	2.858	2.167	11.590
3	13:23:50	95.830	85.410	10.940	1.598	8.185	6.936	6.490	3.175	-1.269	11.770
x		95.150	85.790	10.660	1.603	8.887	7.519	7.199	3.366	0.300	11.710
σ		2.560	1.948	0.317	0.075	0.768	0.520	1.850	0.625	1.737	0.106
%RSD		2.690	2.270	2.971	4.709	8.638	6.919	25.700	18.570	579.900	0.904

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:56	143.3%	1.789	1.953	1.917	11.440	0.117	0.066	0.067	0.075	92.1%
2	13:23:23	147.8%	1.809	2.019	1.980	9.659	0.121	0.055	0.062	0.056	93.5%
3	13:23:50	149.2%	1.891	1.753	1.963	10.750	0.114	0.060	0.055	0.043	95.2%
x		146.8%	1.829	1.908	1.953	10.620	0.117	0.060	0.062	0.058	93.6%
σ		3.1%	0.054	0.139	0.033	0.899	0.003	0.005	0.006	0.016	1.5%
%RSD		2.1	2.974	7.274	1.679	8.465	2.780	8.797	10.220	28.280	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:56	8.072	8.889	0.396	0.405	144.100	142.500	92.1%	0.809	0.832	47.420
2	13:23:23	8.331	8.977	0.421	0.423	143.600	142.600	94.4%	0.802	0.812	48.300
3	13:23:50	8.188	8.982	0.394	0.422	143.800	143.600	94.6%	0.759	0.798	48.080
x		8.197	8.949	0.404	0.417	143.800	142.900	93.7%	0.790	0.814	47.930
σ		0.130	0.052	0.015	0.010	0.244	0.601	1.3%	0.027	0.017	0.457
%RSD		1.583	0.585	3.622	2.353	0.170	0.420	1.4	3.418	2.119	0.954

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:22:56	42.250	44.490	90.2%
2	13:23:23	42.970	45.160	90.9%
3	13:23:50	42.890	45.260	91.7%
x		42.700	44.970	90.9%
σ		0.394	0.419	0.8%
%RSD		0.922	0.931	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:50	113.8%	0.735	2.146	1.714	25.890	76.310	T 1950.000	1865.000	1895.000	TM 81780.000
2	13:29:17	115.8%	0.654	1.982	1.741	21.820	79.040	T 1945.000	1844.000	1888.000	TM 81900.000
3	13:29:44	117.1%	0.668	1.893	1.661	23.420	79.030	T 1958.000	1842.000	1870.000	TM 80560.000
x		115.6%	0.686	2.007	1.705	23.710	78.130	T 1951.000	1850.000	1884.000	TM 81410.000
σ		1.6%	0.043	0.128	0.041	2.052	1.571	T 6.378	12.690	13.300	TM 741.700
%RSD		1.4	6.297	6.383	2.412	8.653	2.011	T 0.327	0.686	0.706	TM 0.911

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:50	T 1096.000	T 188200.000	T 1341.000	1110.000	740.200	122.1%	M 1362.000	T 351.200	29.960	9171.000
2	13:29:17	T 1092.000	T 185700.000	T 1332.000	1070.000	728.500	125.0%	M 1354.000	T 352.800	29.470	9074.000
3	13:29:44	T 1117.000	T 185600.000	T 1330.000	1083.000	735.600	126.9%	M 1365.000	T 350.600	29.120	8896.000
x		T 1102.000	T 186500.000	T 1335.000	1088.000	734.800	124.7%	M 1360.000	T 351.500	29.520	9047.000
σ		T 13.600	T 1461.000	T 6.071	20.420	5.926	2.4%	M 5.628	T 1.151	0.419	139.400
%RSD		T 1.235	T 0.783	T 0.455	1.877	0.806	1.9	M 0.414	T 0.327	1.419	1.540

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:50	TM 132100.000	TM 527.100	TM 131500.000	TM 134600.000	11.710	12.440	16.320	59.860	62.690	47.740
2	13:29:17	TM 131600.000	TM 531.400	TM 130200.000	TM 132900.000	11.680	12.230	16.170	60.260	63.160	49.260
3	13:29:44	TM 131900.000	TM 531.800	TM 131100.000	TM 133400.000	11.830	12.310	15.680	59.950	63.460	48.530
x		TM 131800.000	TM 530.100	TM 131000.000	TM 133600.000	11.740	12.320	16.060	60.020	63.100	48.510
σ		TM 268.400	TM 2.587	TM 675.800	TM 883.300	0.079	0.109	0.331	0.210	0.384	0.760
%RSD		TM 0.204	TM 0.488	TM 0.516	TM 0.661	0.674	0.882	2.059	0.350	0.609	1.567

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:50	58.940	48.660	4.815	-0.020	11.720	10.580	6.758	2.861	1.270	5.012
2	13:29:17	58.610	49.190	4.990	0.952	11.770	11.060	4.821	2.245	-1.153	4.996
3	13:29:44	58.970	49.050	4.703	0.178	11.780	11.610	6.082	2.557	2.058	4.963
x		58.840	48.960	4.836	0.370	11.760	11.080	5.887	2.554	0.725	4.990
σ		0.197	0.274	0.145	0.514	0.031	0.514	0.983	0.308	1.673	0.025
%RSD		0.335	0.559	2.991	139.000	0.266	4.634	16.700	12.070	230.800	0.506

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:50	130.6%	1.020	0.950	1.068	6.441	0.049	0.022	0.033	0.037	92.2%
2	13:29:17	133.8%	1.015	1.195	1.094	4.909	0.060	0.018	0.015	0.033	96.3%
3	13:29:44	135.0%	1.052	1.131	1.042	5.840	0.054	0.020	0.025	0.017	96.8%
x		133.2%	1.029	1.092	1.068	5.730	0.054	0.020	0.024	0.029	95.1%
σ		2.3%	0.020	0.127	0.026	0.772	0.005	0.002	0.009	0.010	2.5%
%RSD		1.7	1.944	11.650	2.448	13.470	9.911	9.486	36.200	35.840	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:50	6.845	7.876	0.164	0.151	92.870	90.650	92.1%	0.284	0.288	48.370
2	13:29:17	6.963	7.993	0.172	0.158	93.210	91.790	95.2%	0.285	0.277	47.270
3	13:29:44	6.794	7.682	0.170	0.141	92.530	91.810	95.9%	0.296	0.285	48.160
x		6.867	7.850	0.168	0.150	92.870	91.420	94.4%	0.288	0.283	47.930
σ		0.087	0.157	0.004	0.008	0.338	0.666	2.0%	0.006	0.006	0.587
%RSD		1.263	2.003	2.305	5.517	0.364	0.729	2.1	2.171	2.006	1.225

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:28:50	42.410	44.260	88.4%
2	13:29:17	42.160	44.220	91.0%
3	13:29:44	42.420	44.660	91.5%
x		42.330	44.380	90.3%
σ		0.149	0.244	1.7%
%RSD		0.352	0.551	1.9

UQ14505-001 05/08/2019 13:34:17 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:45	114.9%	0.034	0.701	0.453	78.800	-3.475	1.306	1.315	1.215	2.012
2	13:35:11	117.3%	0.027	0.349	0.287	72.180	-4.033	1.333	1.190	1.335	1.874
3	13:35:38	116.2%	-0.001	0.638	0.634	72.230	-4.835	1.364	1.381	1.148	1.866
x		116.1%	0.020	0.563	0.458	74.400	-4.114	1.334	1.295	1.232	1.918
σ		1.2%	0.018	0.188	0.173	3.808	0.684	0.029	0.097	0.095	0.082
%RSD		1.0	90.890	33.360	37.870	5.119	16.620	2.200	7.515	7.693	4.279

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:45	14.590	T 242500.000	13.040	9.160	4.010	98.1%	0.204	-0.485	1.945	10990.000
2	13:35:11	14.630	T 241500.000	11.150	6.400	4.119	99.8%	0.338	-0.187	1.736	10710.000
3	13:35:38	14.140	T 248500.000	11.660	1.482	3.949	96.6%	0.339	-0.842	1.732	11700.000
x		14.450	T 244200.000	11.950	5.681	4.026	98.2%	0.294	-0.504	1.804	11130.000
σ		0.270	T 3773.000	0.980	3.889	0.086	1.6%	0.078	0.328	0.122	508.300
%RSD		1.871	T 1.545	8.203	68.470	2.138	1.6	26.440	65.040	6.750	4.565

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:45	20.060	0.065	-1.749	-15.820	-0.029	0.159	0.458	0.284	0.282	0.197
2	13:35:11	18.980	0.070	0.010	-21.630	-0.031	0.129	-0.197	0.268	0.222	0.182
3	13:35:38	20.020	0.081	-1.088	-19.090	-0.025	0.127	0.244	0.271	0.275	0.055
x		19.680	0.072	-0.942	-18.850	-0.028	0.138	0.168	0.274	0.260	0.145
σ		0.614	0.008	0.889	2.911	0.003	0.018	0.334	0.009	0.033	0.078
%RSD		3.117	11.690	94.280	15.450	10.240	12.830	198.500	3.105	12.640	53.790

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:45	0.380	0.084	0.237	-0.253	18.030	18.350	-1.218	-0.308	-0.452	0.010
2	13:35:11	0.371	0.129	0.229	-0.218	17.490	16.710	1.285	0.389	-4.197	0.007
3	13:35:38	0.501	0.139	0.076	-0.137	16.650	17.020	-2.379	-0.528	-0.237	0.006
x		0.417	0.117	0.181	-0.202	17.390	17.360	-0.771	-0.149	-1.629	0.008
σ		0.073	0.029	0.091	0.059	0.697	0.871	1.873	0.479	2.227	0.002
%RSD		17.470	24.570	50.130	29.350	4.010	5.018	243.100	321.500	136.700	23.910

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:45	96.6%	0.001	0.018	0.016	0.314	0.001	0.001	-0.004	0.011	98.2%
2	13:35:11	97.8%	0.016	0.003	0.026	0.095	0.001	0.001	-0.004	-0.019	97.2%
3	13:35:38	98.5%	-0.002	0.010	0.021	1.037	0.005	-0.000	0.002	-0.010	96.6%
x		97.6%	0.005	0.010	0.021	0.482	0.002	0.001	-0.002	-0.006	97.4%
σ		1.0%	0.010	0.007	0.005	0.493	0.002	0.001	0.004	0.015	0.8%
%RSD		1.0	197.400	69.300	25.450	102.100	86.120	135.700	177.600	244.900	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:45	4.216	5.883	0.054	0.071	0.031	0.018	98.0%	-0.020	-0.024	-0.010
2	13:35:11	4.020	5.927	0.065	0.063	0.036	0.035	96.6%	-0.020	-0.024	-0.023
3	13:35:38	4.287	6.079	0.062	0.079	0.017	0.035	97.6%	-0.021	-0.020	-0.014
x		4.174	5.963	0.060	0.071	0.028	0.029	97.4%	-0.020	-0.023	-0.016
σ		0.138	0.103	0.006	0.008	0.010	0.009	0.7%	0.001	0.002	0.007
%RSD		3.307	1.719	9.591	11.180	34.640	31.980	0.8	3.630	8.391	44.840

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:34:45	-0.004	-0.010	96.3%
2	13:35:11	0.000	-0.011	96.1%
3	13:35:38	-0.004	-0.009	95.3%
x		-0.002	-0.010	95.9%
σ		0.002	0.001	0.6%
%RSD		100.400	9.215	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:40	111.4%	195.900	195.000	190.000	79.740	T2017.000	T1986.000	1887.000	1894.000	190.900
2	13:41:08	113.3%	195.800	197.900	189.600	72.960	T1990.000	T1982.000	1862.000	1889.000	191.200
3	13:41:36	114.4%	195.900	198.300	188.500	78.150	T2010.000	T2001.000	1900.000	1887.000	187.500
x		113.0%	195.800	197.100	189.400	76.950	T2005.000	T1990.000	1883.000	1890.000	189.900
σ		1.5%	0.063	1.821	0.798	3.542	T14.230	T9.791	19.610	3.745	2.050
%RSD		1.4	0.032	0.924	0.422	4.603	T0.710	T0.492	1.041	0.198	1.080

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:40	235.400	T291000.000	T2104.000	2419.000	2054.000	92.3%	206.400	205.100	205.400	16130.000
2	13:41:08	231.500	T284400.000	T2085.000	2299.000	2023.000	94.2%	203.000	202.700	205.000	15370.000
3	13:41:36	231.700	T288400.000	T2116.000	2297.000	2061.000	93.8%	203.300	201.800	204.000	15250.000
x		232.900	T287900.000	T2102.000	2338.000	2046.000	93.5%	204.200	203.200	204.800	15580.000
σ		2.186	T3326.000	T15.570	69.480	20.120	1.0%	1.895	1.744	0.704	477.600
%RSD		0.939	T1.155	T0.741	2.971	0.983	1.1	0.928	0.858	0.344	3.065

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:40	2196.000	203.600	T2149.000	2055.000	204.100	202.600	211.400	202.500	203.000	189.800
2	13:41:08	2160.000	202.600	T2142.000	2039.000	203.100	200.900	203.000	201.900	200.500	190.300
3	13:41:36	2151.000	198.300	T2122.000	2046.000	202.500	199.800	203.100	198.200	198.800	190.600
x		2169.000	201.500	T2138.000	2047.000	203.200	201.100	205.900	200.900	200.800	190.200
σ		23.690	2.790	T13.710	8.311	0.796	1.400	4.834	2.302	2.119	0.412
%RSD		1.092	1.384	T0.642	0.406	0.392	0.696	2.348	1.146	1.055	0.217

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:40	196.600	192.400	194.200	182.500	31.870	35.790	835.500	188.900	1.320	201.000
2	13:41:08	188.600	190.700	196.000	184.700	32.160	33.600	828.100	190.600	-0.042	200.400
3	13:41:36	185.900	190.600	194.400	186.100	32.330	34.110	831.000	185.400	-0.116	201.300
x		190.400	191.200	194.900	184.400	32.120	34.500	831.500	188.300	0.387	200.900
σ		5.539	0.969	1.002	1.830	0.235	1.147	3.729	2.657	0.808	0.488
%RSD		2.910	0.507	0.514	0.992	0.731	3.323	0.448	1.411	208.700	0.243

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:40	93.5%	204.000	205.000	203.900	204.500	211.600	203.300	202.000	199.400	93.3%
2	13:41:08	96.4%	203.600	203.200	203.800	200.200	212.900	205.500	200.800	201.900	94.4%
3	13:41:36	95.3%	204.300	207.700	204.100	205.100	215.400	204.000	203.000	203.400	96.3%
x		95.1%	204.000	205.300	203.900	203.300	213.300	204.300	201.900	201.600	94.7%
σ		1.5%	0.381	2.265	0.183	2.683	1.923	1.103	1.082	2.025	1.5%
%RSD		1.5	0.187	1.103	0.090	1.320	0.902	0.540	0.536	1.005	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:40	207.800	210.700	199.200	200.900	204.600	202.800	96.4%	198.300	204.800	217.000
2	13:41:08	209.600	209.300	197.900	199.000	202.300	203.300	97.7%	195.700	202.900	215.600
3	13:41:36	211.000	212.000	198.300	201.500	204.500	203.600	98.2%	198.900	205.400	217.400
x		209.500	210.600	198.500	200.500	203.800	203.200	97.4%	197.700	204.400	216.600
σ		1.599	1.345	0.635	1.346	1.273	0.435	0.9%	1.683	1.314	0.916
%RSD		0.764	0.639	0.320	0.671	0.625	0.214	1.0	0.851	0.643	0.423

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:40:40	206.200	210.800	93.7%
2	13:41:08	205.200	209.700	95.3%
3	13:41:36	206.100	211.500	95.6%
x		205.800	210.700	94.8%
σ		0.562	0.906	1.0%
%RSD		0.273	0.430	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:37	114.5%	0.878	1.626	1.587	83.930	188.300	T 4480.000	T 4375.000	T 4399.000	TM 51590.000
2	13:47:04	117.8%	0.884	2.139	1.585	84.070	192.400	T 4458.000	T 4323.000	T 4401.000	TM 50790.000
3	13:47:32	118.5%	0.901	1.692	1.535	79.070	195.300	T 4513.000	T 4391.000	T 4450.000	TM 52150.000
x		117.0%	0.888	1.819	1.569	82.350	192.000	T 4484.000	T 4363.000	T 4417.000	TM 51510.000
σ		2.1%	0.012	0.279	0.029	2.847	3.504	T 27.840	T 35.640	T 29.150	TM 684.000
%RSD		1.8	1.331	15.330	1.868	3.457	1.825	T 0.621	T 0.817	T 0.660	TM 1.328

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:37	T 1499.000	T 201600.000	T 3120.000	3130.000	2666.000	99.7%	M 2037.000	56.920	46.040	10820.000
2	13:47:04	T 1505.000	T 201700.000	T 3144.000	3070.000	2662.000	104.7%	M 2052.000	56.820	45.290	10170.000
3	13:47:32	T 1537.000	T 205600.000	T 3200.000	3079.000	2692.000	104.6%	M 2066.000	57.340	44.840	10540.000
x		T 1513.000	T 203000.000	T 3155.000	3093.000	2673.000	103.0%	M 2051.000	57.030	45.390	10510.000
σ		T 20.720	T 2252.000	T 41.270	32.440	16.130	2.8%	M 14.450	0.275	0.606	326.700
%RSD		T 1.369	T 1.110	T 1.308	1.049	0.603	2.7	M 0.704	0.482	1.334	3.108

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:37	T 39310.000	T 390.100	T 39550.000	T 41190.000	8.565	16.050	20.020	11.520	14.250	69.070
2	13:47:04	T 39020.000	T 386.900	T 39280.000	T 41010.000	8.859	15.960	20.570	11.450	13.950	68.760
3	13:47:32	T 39310.000	T 390.000	T 39460.000	T 41030.000	8.799	16.550	19.670	11.310	14.300	70.280
x		T 39210.000	T 389.000	T 39430.000	T 41080.000	8.741	16.190	20.080	11.430	14.160	69.370
σ		T 168.700	T 1.802	T 141.000	T 97.610	0.155	0.315	0.454	0.105	0.188	0.804
%RSD		T 0.430	T 0.463	T 0.358	T 0.238	1.774	1.944	2.263	0.918	1.327	1.159

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:37	73.860	71.330	1.988	-0.152	10.170	10.140	-1.025	0.328	-1.386	26.330
2	13:47:04	72.640	70.790	1.581	-0.647	9.924	9.238	0.320	0.635	0.615	26.830
3	13:47:32	72.530	70.750	0.941	0.256	10.090	9.675	-3.293	-0.382	-1.120	26.490
x		73.010	70.960	1.503	-0.181	10.060	9.683	-1.333	0.193	-0.630	26.550
σ		0.737	0.328	0.528	0.452	0.126	0.448	1.826	0.522	1.087	0.252
%RSD		1.010	0.462	35.090	249.800	1.253	4.631	137.000	269.800	172.400	0.951

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:37	131.0%	0.479	0.487	0.574	24.540	0.147	0.045	0.108	0.025	95.1%
2	13:47:04	134.4%	0.472	0.442	0.535	21.160	0.149	0.039	0.085	0.022	99.2%
3	13:47:32	135.0%	0.477	0.581	0.542	22.940	0.136	0.039	0.057	0.016	100.2%
x		133.5%	0.476	0.503	0.550	22.880	0.144	0.041	0.083	0.021	98.2%
σ		2.2%	0.004	0.071	0.021	1.692	0.007	0.003	0.026	0.005	2.7%
%RSD		1.6	0.776	14.090	3.816	7.395	4.912	7.908	30.790	21.910	2.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:37	6.591	7.205	0.104	0.079	138.600	138.400	96.0%	0.259	0.238	16.350
2	13:47:04	6.724	7.468	0.109	0.105	138.800	137.900	99.9%	0.273	0.223	16.180
3	13:47:32	6.636	7.421	0.109	0.102	137.100	137.400	99.9%	0.220	0.238	16.580
x		6.650	7.365	0.107	0.095	138.200	137.900	98.6%	0.251	0.233	16.370
σ		0.068	0.140	0.003	0.014	0.908	0.504	2.2%	0.028	0.009	0.200
%RSD		1.022	1.901	2.572	14.870	0.657	0.365	2.3	11.060	3.742	1.224

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:46:37	13.300	14.450	92.6%
2	13:47:04	13.290	14.480	94.3%
3	13:47:32	13.350	14.710	95.7%
x		13.320	14.540	94.2%
σ		0.032	0.142	1.5%
%RSD		0.241	0.975	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:33	119.6%	0.764	0.792	0.624	61.620	283.600	T 5098.000	T 4929.000	T 4959.000	TM 34970.000
2	13:53:01	119.4%	0.778	0.918	0.565	58.870	272.700	T 5112.000	T 4919.000	T 4988.000	TM 35420.000
3	13:53:28	121.6%	0.765	0.518	0.599	60.620	275.400	T 5082.000	T 4904.000	T 4935.000	TM 35290.000
x		120.2%	0.769	0.742	0.596	60.370	277.300	T 5097.000	T 4917.000	T 4961.000	TM 35230.000
σ		1.2%	0.008	0.205	0.030	1.396	5.681	T 15.250	T 12.610	T 26.880	TM 233.500
%RSD		1.0	1.027	27.580	4.998	2.313	2.049	T 0.299	T 0.257	T 0.542	TM 0.663

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:33	T 1096.000	T 211500.000	T 2830.000	3853.000	3517.000	109.9%	M 1863.000	46.210	36.040	9935.000
2	13:53:01	T 1086.000	T 220000.000	T 2926.000	3996.000	3519.000	106.5%	M 1859.000	46.910	37.040	10620.000
3	13:53:28	T 1077.000	T 218600.000	T 2877.000	3886.000	3516.000	107.1%	M 1862.000	46.700	36.100	10640.000
x		T 1086.000	T 216700.000	T 2878.000	3911.000	3517.000	107.8%	M 1861.000	46.610	36.400	10400.000
σ		T 9.647	T 4543.000	T 47.870	74.730	1.640	1.8%	M 2.035	0.362	0.561	399.800
%RSD		T 0.888	T 2.097	T 1.663	1.911	0.047	1.7	M 0.109	0.776	1.541	3.845

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:33	T 39930.000	TM 935.700	T 40070.000	T 42390.000	8.171	11.350	14.950	8.032	10.980	90.200
2	13:53:01	T 40510.000	TM 932.200	T 40210.000	T 43180.000	8.130	11.590	14.170	8.137	10.990	90.180
3	13:53:28	T 40510.000	TM 937.800	T 40350.000	T 42900.000	8.103	11.180	14.610	8.250	10.760	89.200
x		T 40320.000	TM 935.300	T 40210.000	T 42820.000	8.135	11.370	14.570	8.140	10.910	89.860
σ		T 334.900	TM 2.836	T 143.000	T 398.600	0.034	0.208	0.392	0.109	0.130	0.571
%RSD		T 0.831	TM 0.303	T 0.356	T 0.931	0.423	1.827	2.691	1.342	1.189	0.636

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:33	89.260	90.100	1.362	0.081	10.990	9.662	2.440	1.809	-0.068	30.190
2	13:53:01	89.630	91.520	1.006	0.527	10.730	9.829	-0.739	0.761	-1.047	30.500
3	13:53:28	89.160	90.540	1.779	0.313	11.520	9.892	0.343	1.102	-1.522	29.910
x		89.350	90.720	1.382	0.307	11.080	9.794	0.681	1.224	-0.879	30.200
σ		0.250	0.724	0.387	0.223	0.403	0.119	1.616	0.534	0.741	0.299
%RSD		0.280	0.797	28.010	72.580	3.633	1.213	237.200	43.660	84.350	0.990

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:33	169.2%	0.447	0.528	0.537	24.080	0.178	0.040	0.108	0.021	103.1%
2	13:53:01	165.2%	0.431	0.550	0.584	27.230	0.185	0.027	0.104	0.006	100.3%
3	13:53:28	165.9%	0.565	0.554	0.541	26.370	0.181	0.032	0.109	0.024	102.3%
x		166.7%	0.481	0.544	0.554	25.890	0.181	0.033	0.107	0.017	101.9%
σ		2.1%	0.073	0.014	0.026	1.629	0.004	0.007	0.002	0.010	1.4%
%RSD		1.3	15.230	2.573	4.708	6.290	2.136	20.320	1.999	57.340	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:33	6.819	7.483	0.080	0.101	131.900	132.600	103.9%	0.154	0.133	16.990
2	13:53:01	7.048	7.533	0.084	0.068	132.500	129.600	101.7%	0.158	0.159	16.930
3	13:53:28	6.983	7.513	0.102	0.068	132.300	130.700	103.8%	0.135	0.147	17.220
x		6.950	7.510	0.089	0.079	132.200	131.000	103.1%	0.149	0.146	17.040
σ		0.118	0.026	0.011	0.019	0.274	1.513	1.2%	0.012	0.013	0.152
%RSD		1.695	0.340	12.910	23.950	0.208	1.155	1.2	8.111	8.835	0.889

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:52:33	13.370	15.070	98.3%
2	13:53:01	13.590	15.090	96.2%
3	13:53:28	13.470	15.190	97.0%
x		13.480	15.120	97.2%
σ		0.111	0.065	1.1%
%RSD		0.824	0.430	1.1

UD05037-002S 05/08/2019 13:58:04

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:31	113.1%	131.400	132.900	127.400	30.370	T 6243.000	T 6888.000	T 6676.000	T 6791.000	TM 58290.000
2	13:58:58	115.0%	129.000	130.500	124.400	30.010	T 6087.000	T 6823.000	T 6602.000	T 6675.000	TM 58040.000
3	13:59:25	115.1%	129.700	128.300	125.400	28.110	T 6184.000	T 6834.000	T 6664.000	T 6714.000	TM 57470.000
x		114.4%	130.000	130.600	125.800	29.500	T 6171.000	T 6848.000	T 6647.000	T 6727.000	TM 57930.000
σ		1.2%	1.213	2.306	1.539	1.214	T 79.180	T 34.800	T 39.430	T 59.150	TM 422.500
%RSD		1.0	0.933	1.766	1.224	4.116	T 1.283	T 0.508	T 0.593	T 0.879	TM 0.729

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:31	T 3657.000	T 213000.000	T 9799.000	13220.000	12310.000	105.1%	M 3328.000	250.800	231.100	11390.000
2	13:58:58	T 3590.000	T 214500.000	T 9796.000	13220.000	12180.000	103.8%	M 3324.000	248.700	227.500	11400.000
3	13:59:25	T 3553.000	T 214100.000	T 9817.000	13240.000	12160.000	105.0%	M 3304.000	250.600	230.300	11180.000
x		T 3600.000	T 213900.000	T 9804.000	13230.000	12210.000	104.6%	M 3319.000	250.000	229.600	11320.000
σ		T 52.460	T 777.000	T 11.850	11.110	82.250	0.8%	M 13.230	1.197	1.897	125.500
%RSD		T 1.457	T 0.363	T 0.121	0.084	0.673	0.7	M 0.399	0.479	0.826	1.108

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:31	T 45830.000	TM 1552.000	T 45200.000	T 49020.000	196.000	197.400	175.100	158.500	193.400	267.800
2	13:58:58	T 45280.000	TM 1549.000	T 45370.000	T 49410.000	197.300	197.200	173.700	159.200	194.200	267.000
3	13:59:25	T 46540.000	TM 1554.000	T 45520.000	T 49820.000	195.600	197.400	178.000	161.000	195.600	266.900
x		T 45880.000	TM 1552.000	T 45360.000	T 49420.000	196.300	197.300	175.600	159.600	194.400	267.200
σ		T 635.700	TM 2.490	T 164.100	T 400.300	0.858	0.114	2.185	1.271	1.129	0.484
%RSD		T 1.385	TM 0.161	T 0.362	T 0.810	0.437	0.058	1.244	0.797	0.581	0.181

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:31	276.900	272.600	175.200	171.700	9.167	7.573	497.200	182.700	-2.836	T 195.200
2	13:58:58	280.300	274.200	177.500	170.500	9.148	7.788	507.800	184.600	1.640	T 195.400
3	13:59:25	279.500	275.700	174.500	171.200	8.716	7.681	511.600	188.700	0.676	T 195.700
x		278.900	274.200	175.700	171.200	9.010	7.681	505.500	185.300	-0.173	T 195.400
σ		1.768	1.578	1.598	0.606	0.255	0.107	7.423	3.073	2.356	T 0.253
%RSD		0.634	0.576	0.910	0.354	2.833	1.397	1.468	1.658	1359.000	T 0.129

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:31	177.4%	121.400	129.400	131.400	220.000	207.200	198.800	202.300	202.800	99.1%
2	13:58:58	176.2%	121.200	128.800	129.800	212.600	202.200	194.700	197.100	196.700	99.3%
3	13:59:25	176.0%	121.700	128.200	130.200	218.100	204.800	198.500	200.600	199.700	98.0%
x		176.6%	121.400	128.800	130.500	216.900	204.700	197.300	200.000	199.700	98.8%
σ		0.8%	0.273	0.582	0.825	3.860	2.519	2.299	2.673	3.055	0.7%
%RSD		0.4	0.225	0.452	0.632	1.780	1.231	1.165	1.337	1.530	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:31	208.600	207.600	133.600	134.000	M 514.800	M 515.400	102.3%	196.200	202.600	237.000
2	13:58:58	206.300	204.600	132.400	133.600	M 509.900	M 511.800	103.0%	192.700	201.000	234.600
3	13:59:25	208.200	206.000	133.600	134.600	M 513.000	M 515.800	102.9%	193.500	200.800	235.400
x		207.700	206.100	133.200	134.100	M 512.600	M 514.300	102.7%	194.200	201.500	235.600
σ		1.225	1.503	0.670	0.462	M 2.478	M 2.181	0.4%	1.851	0.987	1.243
%RSD		0.590	0.730	0.503	0.345	M 0.484	M 0.424	0.4	0.953	0.490	0.528

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:58:31	223.200	228.900	97.0%
2	13:58:58	220.000	227.000	97.7%
3	13:59:25	220.300	227.300	97.3%
x		221.200	227.700	97.3%
σ		1.746	1.053	0.3%
%RSD		0.790	0.463	0.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:27	112.6%	132.800	133.700	129.900	36.060	T 6116.000	T 6849.000	T 6655.000	T 6697.000	TM 55470.000
2	14:04:54	115.6%	133.600	134.000	131.500	30.270	T 6172.000	T 6821.000	T 6636.000	T 6719.000	TM 54890.000
3	14:05:21	116.4%	133.400	133.400	131.200	30.310	T 6255.000	T 6809.000	T 6645.000	T 6759.000	TM 55750.000
x		114.9%	133.200	133.700	130.900	32.220	T 6181.000	T 6826.000	T 6645.000	T 6725.000	TM 55370.000
σ		2.0%	0.413	0.315	0.833	3.331	T 69.930	T 20.480	T 9.100	T 31.500	TM 439.200
%RSD		1.7	0.310	0.235	0.637	10.340	T 1.131	T 0.300	T 0.137	T 0.469	TM 0.793

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:27	T 3271.000	T 218000.000	T 9455.000	13600.000	12620.000	103.5%	M 3532.000	249.300	226.800	12020.000
2	14:04:54	T 3182.000	T 218800.000	T 9553.000	13600.000	12640.000	104.1%	M 3537.000	252.700	230.400	11450.000
3	14:05:21	T 3240.000	T 220200.000	T 9627.000	13560.000	12600.000	107.4%	M 3553.000	252.500	228.500	11270.000
x		T 3231.000	T 219000.000	T 9545.000	13590.000	12620.000	105.0%	M 3541.000	251.500	228.500	11580.000
σ		T 45.000	T 1111.000	T 86.120	25.100	19.970	2.1%	M 10.880	1.916	1.787	389.700
%RSD		T 1.393	T 0.507	T 0.902	0.185	0.158	2.0	M 0.307	0.762	0.782	3.365

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:27	T 46200.000	TM 1355.000	T 44910.000	T 49060.000	196.900	199.000	179.700	160.600	197.600	268.600
2	14:04:54	T 46530.000	TM 1374.000	T 45890.000	T 49750.000	199.800	199.300	178.500	163.100	197.000	272.600
3	14:05:21	T 46390.000	TM 1366.000	T 45980.000	T 50090.000	197.300	197.900	175.300	162.700	193.700	273.700
x		T 46370.000	TM 1365.000	T 45590.000	T 49640.000	198.000	198.700	177.800	162.200	196.100	271.600
σ		T 163.700	TM 9.350	T 592.800	T 524.900	1.548	0.736	2.308	1.342	2.096	2.694
%RSD		T 0.353	TM 0.685	T 1.300	T 1.058	0.782	0.370	1.298	0.828	1.069	0.992

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:27	276.200	275.800	175.200	174.300	9.914	8.349	533.900	197.000	0.030	T 201.900
2	14:04:54	280.700	280.400	178.200	173.100	10.340	8.823	530.000	190.500	0.600	T 204.200
3	14:05:21	275.300	279.400	178.000	174.100	10.470	8.429	534.900	197.200	0.895	T 202.900
x		277.400	278.500	177.100	173.800	10.240	8.534	532.900	194.900	0.509	T 203.000
σ		2.892	2.386	1.659	0.667	0.290	0.254	2.618	3.794	0.440	T 1.139
%RSD		1.042	0.857	0.936	0.384	2.830	2.972	0.491	1.947	86.440	T 0.561

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:27	172.0%	125.300	132.000	135.900	220.400	208.900	200.300	202.400	200.500	96.0%
2	14:04:54	173.4%	124.200	130.000	132.900	220.700	205.700	198.300	202.700	201.100	99.2%
3	14:05:21	179.4%	123.900	131.700	134.700	221.800	209.500	201.800	204.800	201.700	100.1%
x		174.9%	124.500	131.200	134.500	220.900	208.000	200.200	203.300	201.100	98.4%
σ		4.0%	0.707	1.062	1.500	0.723	2.034	1.762	1.308	0.566	2.2%
%RSD		2.3	0.568	0.809	1.115	0.327	0.978	0.880	0.643	0.282	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:04:27	209.300	205.800	132.100	132.900	492.900	491.800	99.3%	196.100	200.600	236.800
2	14:04:54	207.600	206.000	132.700	132.600	490.300	485.400	100.8%	197.100	203.400	236.000
3	14:05:21	211.000	206.500	132.800	132.800	492.000	484.100	102.9%	196.200	202.700	239.900
x		209.300	206.100	132.500	132.800	491.700	487.100	101.0%	196.500	202.200	237.600
σ		1.699	0.375	0.373	0.139	1.295	4.148	1.8%	0.574	1.458	2.026
%RSD		0.812	0.182	0.281	0.105	0.263	0.851	1.8	0.292	0.721	0.853

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:04:27	223.100	228.800	94.2%
2	14:04:54	221.500	228.100	95.7%
3	14:05:21	225.700	231.000	96.5%
x		223.400	229.300	95.4%
σ		2.101	1.495	1.1%
%RSD		0.940	0.652	1.2

CCV MW11050 05/08/2019 14:09:56 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:24	81.3%	305.700	308.300	310.000	40.110	┬64380.000	┬62340.000	┬61980.000	┬62110.000	304.000
2	14:10:50	83.0%	304.400	301.800	304.800	39.010	┬63510.000	┬62110.000	┬61130.000	┬60600.000	296.000
3	14:11:17	84.7%	309.500	309.000	304.700	39.120	┬62860.000	┬62430.000	┬61290.000	┬61140.000	297.200
x		83.0%	102.182%	102.129%	102.161%	39.420	┬105.970%	┬62290.000	┬61470.000	┬102.134%	99.695%
σ		1.7%	n/a	n/a	n/a	0.606	┬n/a	┬164.800	┬453.700	┬n/a	n/a
%RSD		2.0	0.857	1.292	0.991	1.536	┬1.200	┬0.265	┬0.738	┬1.246	1.442

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:24	┬3186.000	2329.000	┬64220.000	62460.000	┬62960.000	81.8%	308.700	308.900	300.000	1804.000
2	14:10:50	┬3084.000	2238.000	┬62900.000	61020.000	┬62160.000	81.6%	305.800	308.100	296.100	1641.000
3	14:11:17	┬3031.000	2224.000	┬64230.000	61630.000	┬62600.000	82.1%	304.800	304.200	295.400	1615.000
x		┬103.340%	2264.000	┬106.303%	61700.000	┬104.291%	81.8%	102.152%	102.358%	99.064%	1686.000
σ		┬n/a	57.240	┬n/a	722.700	┬n/a	0.2%	n/a	n/a	n/a	102.200
%RSD		┬2.540	2.528	┬1.197	1.171	┬0.642	0.3	0.654	0.823	0.827	6.063

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:24	┬62460.000	292.800	┬62780.000	┬61790.000	294.300	291.100	288.700	286.300	280.800	270.300
2	14:10:50	┬62350.000	295.200	┬63400.000	┬61790.000	294.000	288.700	295.400	286.700	283.000	275.800
3	14:11:17	┬62370.000	294.200	┬62940.000	┬61530.000	291.600	283.600	289.500	281.100	280.700	275.500
x		┬62390.000	98.008%	┬63040.000	┬102.837%	97.767%	95.938%	291.200	284.700	93.832%	91.286%
σ		┬59.540	n/a	┬319.600	┬n/a	n/a	n/a	3.671	3.146	n/a	n/a
%RSD		┬0.095	0.409	┬0.507	┬0.239	0.504	1.347	1.261	1.105	0.463	1.111

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:24	276.300	272.100	288.300	283.300	1.695	0.124	1309.000	300.700	2.172	301.700
2	14:10:50	277.900	276.400	290.400	283.100	1.351	0.991	1308.000	300.500	-1.970	300.100
3	14:11:17	282.700	273.600	286.800	285.600	1.893	1.135	1292.000	292.800	-1.021	┬307.000
x		279.000	274.000	96.170%	284.000	1.646	0.750	1303.000	99.331%	-0.273	┬100.977%
σ		3.309	2.200	n/a	1.383	0.274	0.546	9.174	n/a	2.170	┬n/a
%RSD		1.186	0.803	0.621	0.487	16.670	72.870	0.704	1.518	795.400	┬1.200

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:24	80.2%	315.800	315.500	316.700	307.700	302.300	293.000	296.100	297.500	79.2%
2	14:10:50	79.3%	312.400	312.900	313.800	297.900	299.700	288.400	294.900	296.000	78.4%
3	14:11:17	80.5%	313.100	314.200	315.200	297.500	302.100	291.500	296.100	297.800	80.6%
x		80.0%	104.586%	104.740%	315.200	301.000	100.456%	291.000	295.700	99.041%	79.4%
σ		0.6%	n/a	n/a	1.480	5.763	n/a	2.316	0.680	n/a	1.1%
%RSD		0.8	0.567	0.407	0.470	1.915	0.495	0.796	0.230	0.330	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:24	307.500	306.900	301.800	301.700	308.100	306.500	81.3%	294.700	┬299.600	┬287.100
2	14:10:50	304.300	305.000	303.200	309.900	308.900	307.500	80.7%	296.300	┬305.200	┬284.600
3	14:11:17	306.700	308.100	303.900	305.700	307.400	308.300	82.3%	296.500	┬301.900	313.900
x		102.056%	102.222%	303.000	101.913%	102.713%	102.474%	81.4%	295.800	┬100.736%	┬98.394%
σ		n/a	n/a	1.071	n/a	n/a	n/a	0.8%	0.978	┬n/a	┬n/a
%RSD		0.539	0.506	0.353	1.341	0.248	0.286	1.0	0.331	┬0.940	┬5.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:10:24	308.500	303.500	78.1%
2	14:10:50	306.900	301.100	79.4%
3	14:11:17	307.000	309.200	80.1%
x		102.482%	101.534%	79.2%
σ		n/a	n/a	1.0%
%RSD		0.300	1.357	1.3

CCB IM9409-01 05/08/2019 14:15:54 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:21	95.9%	0.009	2.122	1.269	17.050	-16.350	0.122	0.304	0.001	0.160
2	14:16:49	96.6%	0.044	1.257	1.196	19.470	-17.160	0.030	0.102	0.026	0.123
3	14:17:16	97.9%	0.001	1.757	1.219	12.820	-17.210	0.000	0.126	-0.003	0.147
x		96.8%	0.018	1.712	1.228	16.450	-16.910	0.051	0.177	0.008	0.143
σ		1.0%	0.023	0.434	0.037	3.366	0.486	0.063	0.111	0.016	0.019
%RSD		1.1	128.800	25.370	3.035	20.460	2.874	124.500	62.370	201.700	13.210

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:21	10.930	1220.000	6.644	-2.122	0.661	92.3%	0.101	-0.018	0.053	111.800
2	14:16:49	10.820	1214.000	8.496	-2.123	-0.079	92.3%	0.090	0.013	0.041	98.390
3	14:17:16	10.810	1222.000	7.312	-1.065	-0.556	94.3%	0.036	0.013	0.039	102.300
x		10.860	1219.000	7.484	-1.770	0.009	92.9%	0.076	0.003	0.044	104.200
σ		0.065	4.086	0.938	0.611	0.613	1.2%	0.035	0.018	0.007	6.893
%RSD		0.599	0.335	12.540	34.500	6897.000	1.2	46.190	630.700	16.270	6.617

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:21	1.017	-0.011	4.651	-6.214	-0.031	-0.005	0.387	-0.008	-0.022	0.018
2	14:16:49	0.300	-0.014	3.390	-2.521	-0.025	0.013	0.255	0.006	0.009	-0.027
3	14:17:16	1.807	-0.013	3.883	-7.205	-0.031	-0.008	0.240	-0.025	-0.002	0.001
x		1.041	-0.013	3.975	-5.313	-0.029	-0.000	0.294	-0.009	-0.005	-0.003
σ		0.753	0.002	0.635	2.468	0.003	0.011	0.081	0.016	0.016	0.023
%RSD		72.340	12.830	15.980	46.450	11.890	10810.000	27.580	177.000	316.100	849.800

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:21	-0.077	0.012	-0.170	-0.107	0.091	0.430	-2.371	-0.538	0.118	-0.000
2	14:16:49	0.080	0.021	-0.053	0.335	0.613	0.236	-0.599	-0.120	0.204	0.001
3	14:17:16	-0.002	0.039	-0.092	0.101	0.360	0.252	-1.062	-0.197	-1.734	0.002
x		0.000	0.024	-0.105	0.110	0.355	0.306	-1.344	-0.285	-0.471	0.001
σ		0.079	0.013	0.060	0.221	0.261	0.108	0.919	0.222	1.095	0.001
%RSD		30180.000	56.160	56.780	202.000	73.630	35.330	68.400	77.990	232.600	136.000

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:21	90.6%	0.038	0.010	0.036	0.435	0.001	0.001	-0.001	0.006	90.8%
2	14:16:49	89.7%	0.019	0.050	0.028	-0.097	0.005	0.001	-0.001	-0.003	89.1%
3	14:17:16	92.7%	0.038	0.017	0.012	-0.427	0.004	0.001	0.002	-0.000	92.8%
x		91.0%	0.032	0.026	0.026	-0.029	0.003	0.001	0.000	0.001	90.9%
σ		1.6%	0.011	0.021	0.012	0.435	0.002	0.000	0.002	0.005	1.8%
%RSD		1.7	33.700	82.450	46.930	1476.000	56.850	37.680	685.900	516.700	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:21	0.071	0.063	0.122	0.105	-0.002	0.006	89.5%	-0.012	-0.016	-0.002
2	14:16:49	0.047	0.087	0.130	0.125	0.009	0.000	88.6%	-0.015	-0.006	0.012
3	14:17:16	0.052	0.036	0.113	0.096	-0.002	0.003	90.1%	-0.001	-0.014	-0.017
x		0.057	0.062	0.121	0.108	0.002	0.003	89.4%	-0.009	-0.012	-0.002
σ		0.013	0.025	0.008	0.015	0.006	0.003	0.8%	0.007	0.005	0.014
%RSD		22.700	41.010	6.825	13.500	311.400	91.160	0.8	77.590	45.910	583.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:16:21	0.015	0.004	90.0%
2	14:16:49	0.014	0.007	88.9%
3	14:17:16	0.017	0.002	90.8%
x		0.015	0.004	89.9%
σ		0.001	0.002	1.0%
%RSD		8.624	58.510	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:15	108.3%	0.231	0.925	0.870	26.530	55.690	T 1406.000	1347.000	1341.000	TM 9683.000
2	14:22:43	111.2%	0.294	1.200	0.746	20.470	51.440	T 1379.000	1316.000	1324.000	TM 9546.000
3	14:23:10	112.3%	0.246	0.981	0.594	24.970	51.710	T 1387.000	1302.000	1321.000	TM 9499.000
x		110.6%	0.257	1.035	0.736	23.990	52.950	T 1391.000	1321.000	1329.000	TM 9576.000
σ		2.1%	0.033	0.146	0.138	3.144	2.380	T 14.050	23.100	11.020	TM 95.410
%RSD		1.9	12.770	14.070	18.740	13.100	4.495	T 1.010	1.749	0.829	TM 0.996

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:15	T 271.800	T 54660.000	712.300	964.800	822.100	106.3%	442.700	11.250	8.791	3110.000
2	14:22:43	T 272.000	T 54340.000	696.600	947.200	826.600	109.3%	436.900	10.780	8.816	3121.000
3	14:23:10	T 264.000	T 54150.000	T 652.600	947.200	813.300	107.5%	440.700	11.110	8.625	2996.000
x		T 269.300	T 54380.000	T 687.200	953.100	820.700	107.7%	440.100	11.050	8.744	3075.000
σ		T 4.564	T 255.600	T 30.920	10.170	6.786	1.6%	2.915	0.244	0.104	68.950
%RSD		T 1.695	T 0.470	T 4.499	1.067	0.827	1.4	0.662	2.210	1.188	2.242

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:15	T 9965.000	215.100	T 10270.000	10140.000	1.923	2.814	3.974	2.371	2.763	21.210
2	14:22:43	T 9898.000	215.100	T 10190.000	10060.000	1.927	2.655	3.935	2.346	2.803	21.090
3	14:23:10	T 9834.000	213.900	T 10080.000	9930.000	1.814	2.682	3.815	2.377	2.826	20.990
x		T 9899.000	214.700	T 10180.000	10040.000	1.888	2.717	3.908	2.365	2.797	21.100
σ		T 65.890	0.690	T 93.870	105.800	0.064	0.085	0.083	0.016	0.032	0.113
%RSD		T 0.666	0.321	T 0.922	1.053	3.396	3.127	2.112	0.696	1.145	0.533

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:15	21.960	20.870	0.336	0.240	3.480	2.852	-1.799	-0.209	0.527	9.729
2	14:22:43	21.240	20.420	0.120	0.317	2.819	3.748	1.755	0.709	-0.545	9.570
3	14:23:10	21.700	21.320	0.082	0.065	2.801	2.950	0.257	0.371	-1.003	9.495
x		21.630	20.870	0.179	0.207	3.033	3.183	0.071	0.290	-0.340	9.598
σ		0.367	0.447	0.137	0.129	0.387	0.491	1.785	0.465	0.785	0.120
%RSD		1.695	2.143	76.460	62.430	12.750	15.440	2509.000	160.000	231.000	1.247

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:15	114.3%	0.095	0.142	0.157	6.025	0.039	0.010	0.026	0.016	99.1%
2	14:22:43	116.4%	0.145	0.129	0.153	7.178	0.033	0.011	0.016	0.006	102.0%
3	14:23:10	117.1%	0.155	0.144	0.149	6.900	0.039	0.011	0.013	-0.005	100.8%
x		115.9%	0.132	0.138	0.153	6.701	0.037	0.011	0.018	0.006	100.6%
σ		1.4%	0.032	0.008	0.004	0.602	0.004	0.001	0.007	0.011	1.5%
%RSD		1.2	24.570	6.105	2.637	8.984	9.793	5.607	35.830	182.900	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:15	1.604	1.745	0.165	0.146	29.930	30.590	96.4%	0.034	0.034	3.742
2	14:22:43	1.625	1.668	0.156	0.138	30.290	30.230	99.3%	0.010	0.021	3.810
3	14:23:10	1.630	1.647	0.114	0.129	30.200	30.410	100.2%	0.036	0.025	3.828
x		1.620	1.686	0.145	0.138	30.140	30.410	98.6%	0.027	0.027	3.794
σ		0.013	0.052	0.027	0.008	0.189	0.177	2.0%	0.014	0.007	0.045
%RSD		0.822	3.060	18.890	6.038	0.627	0.581	2.0	54.310	24.990	1.190

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:22:15	3.009	3.335	94.4%
2	14:22:43	2.977	3.411	95.3%
3	14:23:10	2.993	3.359	96.7%
x		2.993	3.369	95.4%
σ		0.016	0.039	1.2%
%RSD		0.524	1.154	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:11	116.9%	136.500	141.700	136.800	56.020	T 2377.000	T 6629.000	T 6516.000	T 6494.000	TM 34660.000
2	14:28:38	121.9%	136.900	136.800	132.500	55.550	T 2378.000	T 6601.000	T 6404.000	T 6474.000	TM 34180.000
3	14:29:05	119.1%	136.700	138.300	135.400	47.060	T 2302.000	T 6557.000	T 6403.000	T 6522.000	TM 34700.000
x		119.3%	136.700	138.900	134.900	52.880	T 2352.000	T 6596.000	T 6441.000	T 6497.000	TM 34510.000
σ		2.5%	0.202	2.513	2.217	5.040	T 43.300	T 36.090	T 65.100	T 23.970	TM 289.900
%RSD		2.1	0.148	1.809	1.644	9.532	T 1.841	T 0.547	T 1.011	T 0.369	TM 0.840

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:11	T 2829.000	T 207800.000	T 4697.000	5918.000	5344.000	110.4%	M 2007.000	235.000	221.100	11100.000
2	14:28:38	T 2731.000	T 204900.000	T 4708.000	5871.000	5365.000	111.3%	M 1993.000	234.700	220.600	10490.000
3	14:29:05	T 2721.000	T 210600.000	T 4716.000	6006.000	5342.000	107.3%	M 2028.000	236.600	224.600	11730.000
x		T 2760.000	T 207800.000	T 4707.000	5931.000	5350.000	109.6%	M 2009.000	235.400	222.100	11110.000
σ		T 60.010	T 2828.000	T 9.633	68.310	12.830	2.1%	M 17.520	1.036	2.164	618.900
%RSD		T 2.174	T 1.361	T 0.205	1.152	0.240	1.9	M 0.872	0.440	0.974	5.573

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:11	T 41370.000	TM 1107.000	T 40860.000	T 43570.000	190.100	191.300	173.200	166.000	191.000	256.200
2	14:28:38	T 41190.000	TM 1110.000	T 40930.000	T 43850.000	190.200	190.900	173.900	164.800	192.600	264.300
3	14:29:05	T 41750.000	TM 1121.000	T 41600.000	T 44190.000	192.100	193.400	174.500	166.600	194.700	259.800
x		T 41430.000	TM 1113.000	T 41130.000	T 43870.000	190.800	191.800	173.900	165.800	192.800	260.100
σ		T 285.000	TM 7.186	T 411.000	T 307.500	1.162	1.355	0.682	0.937	1.858	4.061
%RSD		T 0.688	TM 0.646	T 0.999	T 0.701	0.609	0.706	0.392	0.565	0.964	1.561

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:11	257.600	257.300	178.900	170.500	10.310	8.738	556.600	189.900	-1.781	153.600
2	14:28:38	262.600	266.600	186.100	174.400	10.700	8.625	561.500	190.800	-0.569	154.700
3	14:29:05	261.000	262.100	182.800	175.000	10.450	8.997	568.700	193.400	0.215	153.800
x		260.400	262.000	182.600	173.300	10.490	8.787	562.300	191.400	-0.712	154.000
σ		2.544	4.639	3.617	2.472	0.199	0.191	6.102	1.816	1.006	0.573
%RSD		0.977	1.771	1.981	1.426	1.898	2.172	1.085	0.949	141.300	0.372

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:11	162.8%	141.400	147.900	150.200	192.800	205.100	197.400	193.900	193.400	100.9%
2	14:28:38	167.8%	143.100	147.400	150.800	193.900	203.500	196.100	194.500	194.500	103.8%
3	14:29:05	161.5%	141.100	149.600	152.300	197.100	205.100	197.000	195.500	194.500	99.9%
x		164.0%	141.900	148.300	151.100	194.600	204.500	196.800	194.600	194.200	101.5%
σ		3.3%	1.116	1.169	1.107	2.229	0.940	0.703	0.773	0.646	2.1%
%RSD		2.0	0.787	0.789	0.733	1.145	0.460	0.357	0.397	0.333	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:11	206.900	206.000	184.800	188.500	331.500	330.000	103.1%	186.300	192.700	225.000
2	14:28:38	205.300	206.100	187.100	188.000	327.600	326.100	106.0%	186.100	191.400	225.800
3	14:29:05	205.900	206.300	185.800	189.200	329.300	327.900	101.8%	186.900	192.700	226.600
x		206.000	206.100	185.900	188.600	329.500	328.000	103.7%	186.400	192.200	225.800
σ		0.818	0.153	1.177	0.564	1.951	1.950	2.2%	0.434	0.767	0.808
%RSD		0.397	0.074	0.633	0.299	0.592	0.594	2.1	0.233	0.399	0.358

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:28:11	212.200	218.200	97.5%
2	14:28:38	211.800	217.900	99.9%
3	14:29:05	213.800	219.200	96.2%
x		212.600	218.400	97.9%
σ		1.075	0.648	1.9%
%RSD		0.506	0.297	1.9

UQ15809-001 05/08/2019 14:33:38 QC Status: FAIL (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:06	111.4%	0.044	1.276	1.084	49.980	-15.230	2.447	2.708	2.225	7.211
2	14:34:33	114.1%	0.028	1.188	0.836	43.340	-15.980	2.396	2.560	2.347	6.761
3	14:35:00	114.8%	0.058	1.008	0.871	45.180	-16.330	2.240	2.254	2.272	6.632
x		113.5%	0.043	1.157	0.930	46.170	-15.850	2.361	2.507	2.281	6.868
σ		1.8%	0.015	0.137	0.134	3.425	0.565	0.108	0.232	0.061	0.304
%RSD		1.6	34.830	11.820	14.430	7.419	3.563	4.571	9.245	2.689	4.423

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:06	12.260	T 57990.000	-6.231	5.305	5.373	101.2%	0.450	0.018	0.703	3408.000
2	14:34:33	11.540	T 57080.000	-7.037	8.209	5.510	102.0%	0.301	-0.042	0.684	3424.000
3	14:35:00	11.160	T 58000.000	-6.130	3.737	6.823	102.0%	0.359	-0.120	0.689	3524.000
x		11.660	T 57690.000	-6.466	5.750	5.902	101.7%	0.370	-0.048	0.692	3452.000
σ		0.556	T 528.900	0.497	2.269	0.800	0.5%	0.075	0.069	0.010	62.970
%RSD		4.772	T 0.917	7.688	39.460	13.560	0.5	20.180	144.100	1.428	1.824

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:06	10.980	0.302	12.270	-20.510	-0.008	0.238	-0.240	0.103	0.119	2.641
2	14:34:33	10.630	0.293	10.680	-22.120	-0.007	0.294	0.011	0.086	0.079	2.527
3	14:35:00	10.280	0.291	10.430	-23.510	-0.015	0.243	0.182	0.106	0.143	2.554
x		10.630	0.295	11.130	-22.050	-0.010	0.258	-0.016	0.099	0.113	2.574
σ		0.349	0.006	0.998	1.501	0.004	0.031	0.212	0.011	0.032	0.060
%RSD		3.283	1.979	8.971	6.806	39.810	12.050	1334.000	11.090	28.600	2.318

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:06	2.645	2.361	-0.319	-0.030	2.178	2.842	-2.803	-0.619	0.354	0.040
2	14:34:33	2.354	2.557	-0.159	-0.770	1.990	2.183	-2.104	-0.431	-0.826	0.038
3	14:35:00	2.765	2.427	0.063	-0.646	2.137	2.223	-0.620	-0.149	0.636	0.030
x		2.588	2.448	-0.139	-0.482	2.102	2.416	-1.842	-0.400	0.055	0.036
σ		0.211	0.100	0.192	0.396	0.099	0.370	1.115	0.236	0.776	0.005
%RSD		8.170	4.087	138.500	82.180	4.715	15.300	60.510	59.100	1421.000	14.200

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:06	98.9%	0.066	0.042	0.073	-0.495	0.031	0.023	0.017	0.024	97.3%
2	14:34:33	98.6%	0.077	0.024	0.048	-1.577	0.030	0.027	0.024	0.032	97.3%
3	14:35:00	99.5%	0.034	0.034	0.032	-0.826	0.028	0.024	0.020	0.014	99.5%
x		99.0%	0.059	0.033	0.051	-0.966	0.030	0.025	0.020	0.023	98.0%
σ		0.5%	0.022	0.009	0.021	0.555	0.001	0.002	0.003	0.009	1.3%
%RSD		0.5	37.580	26.280	41.160	57.390	4.862	7.517	15.540	39.130	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:06	1.398	1.892	0.475	0.470	0.055	0.073	95.2%	0.050	0.045	0.013
2	14:34:33	1.310	2.023	0.408	0.442	0.045	0.038	96.0%	0.032	0.041	0.000
3	14:35:00	1.395	1.969	0.365	0.354	0.049	0.034	97.2%	0.024	0.020	-0.005
x		1.368	1.961	0.416	0.422	0.050	0.048	96.1%	0.035	0.035	0.003
σ		0.050	0.066	0.055	0.061	0.005	0.021	1.0%	0.013	0.014	0.009
%RSD		3.684	3.370	13.330	14.430	9.696	44.230	1.1	37.700	38.430	353.300

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:34:06	0.025	0.014	93.6%
2	14:34:33	0.028	0.018	92.4%
3	14:35:00	0.002	0.005	95.2%
x		0.018	0.012	93.7%
σ		0.015	0.007	1.4%
%RSD		78.800	55.690	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:01	109.6%	102.700	103.400	100.500	46.010	┬1013.000	┬1038.000	984.000	988.200	102.300
2	14:40:28	110.8%	103.600	105.700	99.560	44.740	┬1032.000	┬1034.000	977.400	984.500	100.800
3	14:40:55	112.4%	103.400	101.300	98.700	43.750	┬1058.000	┬1033.000	978.500	990.700	101.100
x		110.9%	103.300	103.400	99.570	44.830	┬1034.000	┬1035.000	980.000	987.800	101.400
σ		1.4%	0.493	2.204	0.877	1.136	┬22.910	┬2.785	3.528	3.109	0.794
%RSD		1.2	0.477	2.131	0.881	2.534	┬2.215	┬0.269	0.360	0.315	0.783

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:01	┬892.700	┬55110.000	1066.000	1217.000	1060.000	97.4%	104.600	103.000	102.500	3951.000
2	14:40:28	888.700	┬54980.000	1062.000	1174.000	1045.000	100.2%	103.800	101.600	101.700	3861.000
3	14:40:55	889.400	┬54630.000	1065.000	1187.000	1054.000	101.2%	101.600	101.200	102.300	3895.000
x		┬890.300	┬54910.000	1064.000	1193.000	1053.000	99.6%	103.300	102.000	102.200	3902.000
σ		┬2.123	┬249.500	2.383	22.120	7.420	2.0%	1.522	0.908	0.435	45.310
%RSD		┬0.238	┬0.454	0.224	1.854	0.705	2.0	1.473	0.890	0.426	1.161

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:01	1100.000	101.000	┬1096.000	1012.000	101.800	102.800	103.000	103.200	103.700	103.500
2	14:40:28	1066.000	99.790	┬1084.000	996.300	100.100	101.700	102.500	101.500	102.100	101.000
3	14:40:55	1088.000	101.400	┬1102.000	1009.000	101.400	101.800	102.600	103.200	104.200	103.400
x		1085.000	100.700	┬1094.000	1006.000	101.100	102.100	102.700	102.600	103.300	102.600
σ		17.340	0.818	┬9.183	8.226	0.893	0.589	0.285	0.980	1.074	1.391
%RSD		1.598	0.812	┬0.839	0.818	0.883	0.577	0.277	0.954	1.040	1.356

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:01	100.300	103.600	100.300	100.800	2.087	2.276	455.700	103.500	-0.113	100.400
2	14:40:28	99.980	102.700	101.400	102.300	2.094	2.340	455.200	104.400	-1.189	100.800
3	14:40:55	101.300	105.400	101.800	106.200	1.650	2.542	472.000	108.800	-0.236	101.400
x		100.500	103.900	101.200	103.100	1.944	2.386	461.000	105.500	-0.513	100.900
σ		0.678	1.399	0.778	2.785	0.255	0.139	9.512	2.867	0.589	0.502
%RSD		0.674	1.347	0.769	2.701	13.090	5.803	2.063	2.716	114.900	0.498

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:01	96.8%	101.000	101.600	101.500	103.400	105.500	102.100	102.400	101.500	96.5%
2	14:40:28	99.2%	100.800	101.800	102.300	105.500	107.700	103.500	102.100	102.000	98.1%
3	14:40:55	99.9%	101.400	101.400	101.500	103.300	107.800	103.800	104.200	103.300	98.3%
x		98.6%	101.100	101.600	101.700	104.100	107.000	103.100	102.900	102.300	97.6%
σ		1.6%	0.294	0.193	0.465	1.213	1.326	0.885	1.123	0.908	0.9%
%RSD		1.7	0.291	0.190	0.457	1.165	1.240	0.858	1.091	0.888	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:01	105.000	104.500	101.100	101.600	105.900	103.900	94.8%	100.200	102.600	106.600
2	14:40:28	104.700	103.900	100.700	101.200	104.000	103.800	97.1%	99.590	100.800	108.600
3	14:40:55	105.000	104.200	101.700	102.400	103.800	103.800	97.8%	99.970	102.300	109.100
x		104.900	104.200	101.200	101.700	104.600	103.800	96.6%	99.910	101.900	108.100
σ		0.172	0.336	0.508	0.615	1.153	0.046	1.6%	0.287	0.956	1.323
%RSD		0.164	0.322	0.503	0.605	1.102	0.045	1.6	0.288	0.938	1.223

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:40:01	102.000	103.400	95.0%
2	14:40:28	102.400	104.500	94.4%
3	14:40:55	102.800	105.100	96.1%
x		102.400	104.300	95.2%
σ		0.431	0.854	0.8%
%RSD		0.421	0.819	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:54	117.0%	0.182	2.607	2.337	-13.050	T 4597.000	T 3572.000	3427.000	T 3508.000	TM 3902.000
2	14:46:21	116.5%	0.139	3.048	2.356	-15.980	T 4568.000	T 3541.000	3386.000	T 3488.000	TM 3878.000
3	14:46:48	116.4%	0.150	2.289	2.422	-11.900	T 4610.000	T 3544.000	3389.000	T 3509.000	TM 3914.000
x		116.7%	0.157	2.648	2.372	-13.640	T 4592.000	T 3552.000	3401.000	T 3502.000	TM 3898.000
σ		0.3%	0.023	0.381	0.045	2.106	T 21.340	T 17.380	22.960	T 12.220	TM 18.560
%RSD		0.3	14.350	14.390	1.885	15.440	T 0.465	T 0.489	0.675	T 0.349	TM 0.476

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:54	TM 11290.000	T 47590.000	T 3098.000	9039.000	8637.000	104.8%	330.900	3.554	1.352	3139.000
2	14:46:21	TM 11380.000	T 48540.000	T 3116.000	8925.000	8608.000	103.6%	338.100	3.779	1.479	3507.000
3	14:46:48	TM 11300.000	T 49230.000	T 3196.000	9130.000	8701.000	103.3%	337.600	3.720	1.513	3756.000
x		TM 11320.000	T 48450.000	T 3136.000	9031.000	8649.000	103.9%	335.500	3.684	1.448	3467.000
σ		TM 49.750	T 820.900	T 52.260	102.800	47.840	0.8%	4.007	0.117	0.085	310.300
%RSD		TM 0.439	T 1.694	T 1.666	1.138	0.553	0.7	1.194	3.169	5.840	8.950

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:54	3386.000	193.800	T 3448.000	3447.000	2.731	1.171	1.023	0.696	1.040	13.290
2	14:46:21	3397.000	195.300	T 3476.000	3491.000	2.763	1.251	0.903	0.666	0.976	13.360
3	14:46:48	3414.000	197.900	T 3496.000	3544.000	2.804	1.322	0.705	0.688	0.879	13.340
x		3399.000	195.700	T 3473.000	3494.000	2.766	1.248	0.877	0.683	0.965	13.330
σ		14.120	2.107	T 24.160	48.440	0.036	0.076	0.160	0.015	0.081	0.037
%RSD		0.415	1.077	T 0.696	1.386	1.315	6.050	18.270	2.256	8.424	0.281

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:54	15.980	15.330	1.310	0.085	3.506	3.957	-0.631	0.276	-1.689	25.810
2	14:46:21	15.930	15.640	1.005	-0.572	3.388	4.493	0.827	0.696	-2.915	25.920
3	14:46:48	15.930	16.200	0.475	-0.166	3.354	2.991	0.314	0.557	-1.725	25.550
x		15.940	15.720	0.930	-0.218	3.416	3.814	0.170	0.510	-2.110	25.760
σ		0.030	0.446	0.422	0.331	0.080	0.762	0.740	0.214	0.697	0.190
%RSD		0.187	2.833	45.410	152.200	2.331	19.970	435.200	42.000	33.050	0.737

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:54	124.9%	0.317	0.346	0.319	1.712	0.049	0.037	0.067	0.044	100.1%
2	14:46:21	124.5%	0.315	0.317	0.348	0.542	0.051	0.038	0.067	0.064	100.2%
3	14:46:48	125.9%	0.310	0.306	0.305	-0.451	0.043	0.041	0.037	0.026	99.7%
x		125.1%	0.314	0.323	0.324	0.601	0.048	0.039	0.057	0.044	100.0%
σ		0.7%	0.004	0.021	0.022	1.082	0.004	0.002	0.017	0.019	0.2%
%RSD		0.6	1.168	6.430	6.835	180.100	8.587	4.727	30.390	42.700	0.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:45:54	1.407	2.108	0.229	0.226	82.280	82.150	101.8%	0.302	0.274	2.918
2	14:46:21	1.576	2.078	0.220	0.240	81.570	81.630	101.6%	0.254	0.282	2.879
3	14:46:48	1.403	2.083	0.233	0.231	82.380	81.310	100.7%	0.250	0.243	3.016
x		1.462	2.090	0.227	0.232	82.080	81.690	101.4%	0.269	0.266	2.937
σ		0.099	0.016	0.007	0.007	0.440	0.423	0.6%	0.029	0.020	0.070
%RSD		6.768	0.775	2.866	3.024	0.536	0.518	0.6	10.720	7.657	2.399

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:45:54	2.662	2.704	99.4%
2	14:46:21	2.743	2.776	96.7%
3	14:46:48	2.710	2.789	96.5%
x		2.705	2.756	97.5%
σ		0.041	0.045	1.6%
%RSD		1.509	1.649	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:48	117.0%	0.040	0.791	0.681	33.600	-14.540	2.877	3.010	2.950	3.388
2	14:52:15	118.4%	0.017	0.786	0.697	43.000	-15.010	2.825	2.832	2.526	3.288
3	14:52:42	118.8%	0.008	0.890	0.747	38.220	-15.590	2.447	2.697	2.190	2.848
x		118.1%	0.022	0.822	0.709	38.280	-15.040	2.717	2.846	2.555	3.175
σ		0.9%	0.017	0.058	0.035	4.703	0.529	0.235	0.157	0.381	0.287
%RSD		0.8	76.290	7.093	4.894	12.290	3.515	8.636	5.524	14.900	9.053

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:48	18.190	T 55010.000	-12.680	5.685	5.505	102.3%	0.272	-0.015	0.797	5616.000
2	14:52:15	17.580	T 55740.000	-10.750	9.356	5.826	104.7%	0.303	-0.211	0.805	5637.000
3	14:52:42	16.510	T 55140.000	-13.220	4.577	5.004	103.9%	0.267	0.039	0.790	5588.000
x		17.430	T 55290.000	-12.220	6.539	5.445	103.6%	0.281	-0.062	0.797	5614.000
σ		0.850	T 389.100	1.300	2.502	0.414	1.2%	0.019	0.132	0.007	24.160
%RSD		4.880	T 0.704	10.640	38.250	7.611	1.2	6.883	211.500	0.921	0.430

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:48	6.076	0.132	7.884	-33.740	-0.031	0.048	-0.622	0.054	0.100	1.367
2	14:52:15	6.871	0.126	5.919	-35.370	-0.029	0.026	-0.084	0.033	0.092	1.305
3	14:52:42	5.418	0.104	6.235	-36.650	-0.029	0.031	-0.413	0.039	0.068	1.263
x		6.122	0.121	6.679	-35.250	-0.030	0.035	-0.373	0.042	0.087	1.312
σ		0.728	0.015	1.055	1.462	0.001	0.012	0.271	0.011	0.017	0.052
%RSD		11.880	12.180	15.800	4.146	2.771	33.390	72.760	25.830	19.550	3.981

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:48	1.548	1.275	-0.071	-0.362	23.570	23.630	-0.877	-0.178	-1.815	0.023
2	14:52:15	1.698	1.272	-0.215	-0.364	22.140	22.690	0.367	0.075	-0.067	0.021
3	14:52:42	1.119	1.241	-0.249	-0.459	22.360	23.820	-1.022	-0.212	-2.105	0.013
x		1.455	1.262	-0.178	-0.395	22.690	23.380	-0.511	-0.105	-1.329	0.019
σ		0.301	0.019	0.094	0.055	0.771	0.606	0.763	0.157	1.102	0.005
%RSD		20.670	1.496	52.940	13.950	3.395	2.590	149.500	149.400	82.960	26.580

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:48	100.6%	0.005	0.023	0.019	-1.828	0.005	0.002	0.005	0.007	100.7%
2	14:52:15	101.5%	0.005	0.002	0.000	-0.557	0.005	0.001	-0.001	-0.005	101.3%
3	14:52:42	102.4%	-0.004	0.039	0.010	-2.183	0.002	0.003	-0.001	0.008	102.8%
x		101.5%	0.002	0.021	0.010	-1.523	0.004	0.002	0.001	0.003	101.6%
σ		0.9%	0.005	0.018	0.009	0.855	0.002	0.001	0.003	0.007	1.1%
%RSD		0.9	251.100	88.010	98.580	56.160	49.400	45.400	381.200	206.900	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:48	1.279	2.016	0.082	0.082	0.035	0.044	99.6%	0.020	-0.002	-0.028
2	14:52:15	1.361	1.922	0.090	0.086	0.057	0.033	100.5%	-0.002	0.001	-0.029
3	14:52:42	1.352	2.010	0.092	0.079	0.034	0.035	100.8%	-0.011	-0.008	-0.024
x		1.331	1.983	0.088	0.082	0.042	0.038	100.3%	0.002	-0.003	-0.027
σ		0.045	0.053	0.005	0.004	0.013	0.006	0.6%	0.016	0.005	0.003
%RSD		3.370	2.657	5.732	4.615	31.020	14.890	0.6	734.000	162.300	9.348

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:51:48	-0.004	-0.014	98.5%
2	14:52:15	-0.011	-0.017	99.4%
3	14:52:42	-0.013	-0.018	99.4%
x		-0.009	-0.016	99.1%
σ		0.004	0.002	0.5%
%RSD		46.810	11.290	0.5

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:44	113.9%	102.000	101.000	97.460	56.260	┬982.300	┬1003.000	948.400	950.000	97.230
2	14:58:11	114.4%	99.850	98.090	94.090	48.640	┬1000.000	┬1009.000	947.700	962.100	97.870
3	14:58:38	115.8%	99.340	100.600	96.780	45.860	┬1000.000	┬1009.000	951.500	955.300	96.530
x		114.7%	100.400	99.900	96.110	50.250	┬994.200	┬1007.000	949.200	955.800	97.210
σ		1.0%	1.432	1.571	1.783	5.385	┬10.330	┬3.212	2.062	6.081	0.673
%RSD		0.9	1.426	1.573	1.855	10.720	┬1.039	┬0.319	0.217	0.636	0.693

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:44	┬854.600	┬53870.000	1033.000	1142.000	1025.000	101.0%	100.300	98.320	99.660	5109.000
2	14:58:11	865.600	┬54100.000	1043.000	1179.000	1017.000	101.9%	101.700	99.120	98.780	4920.000
3	14:58:38	849.800	┬53980.000	1038.000	1098.000	1018.000	101.9%	100.700	98.480	98.190	4752.000
x		┬856.700	┬53980.000	1038.000	1140.000	1020.000	101.6%	100.900	98.640	98.880	4927.000
σ		┬8.089	┬115.400	4.725	40.740	3.954	0.5%	0.747	0.423	0.741	178.600
%RSD		┬0.944	┬0.214	0.455	3.575	0.388	0.5	0.740	0.429	0.749	3.625

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:44	1074.000	97.950	┬1075.000	974.100	97.700	100.500	102.900	103.000	101.500	99.190
2	14:58:11	1052.000	97.470	┬1062.000	968.500	97.540	99.180	102.300	99.220	98.820	97.750
3	14:58:38	1047.000	97.570	┬1064.000	968.100	97.310	99.270	99.830	100.400	101.400	97.920
x		1058.000	97.660	┬1067.000	970.200	97.520	99.640	101.700	100.900	100.600	98.290
σ		14.100	0.256	┬7.116	3.325	0.196	0.714	1.607	1.924	1.522	0.787
%RSD		1.333	0.262	┬0.667	0.343	0.201	0.717	1.581	1.907	1.514	0.801

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:44	101.000	98.540	98.540	99.140	15.020	14.120	454.900	103.700	-1.178	97.940
2	14:58:11	93.040	96.750	97.950	98.120	14.070	14.950	441.100	99.370	-0.783	98.390
3	14:58:38	96.870	99.780	98.570	99.890	14.120	13.240	437.700	99.650	-1.548	97.710
x		96.970	98.360	98.360	99.050	14.400	14.100	444.600	100.900	-1.169	98.010
σ		3.984	1.523	0.351	0.888	0.531	0.856	9.144	2.397	0.383	0.348
%RSD		4.108	1.549	0.357	0.897	3.689	6.067	2.057	2.375	32.730	0.355

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:44	98.9%	99.590	97.870	99.320	98.720	103.200	101.300	102.100	101.000	98.5%
2	14:58:11	100.3%	100.000	98.810	99.570	98.160	104.800	100.900	101.800	101.200	101.0%
3	14:58:38	101.7%	99.940	100.600	99.400	99.250	104.900	101.500	102.700	101.200	101.1%
x		100.3%	99.860	99.080	99.430	98.710	104.300	101.200	102.200	101.100	100.2%
σ		1.4%	0.234	1.360	0.127	0.545	0.955	0.289	0.435	0.138	1.5%
%RSD		1.4	0.235	1.373	0.128	0.552	0.915	0.286	0.426	0.137	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:57:44	103.000	101.900	98.490	99.920	102.200	102.400	99.1%	97.370	98.880	104.200
2	14:58:11	102.900	101.100	98.520	99.180	100.500	101.000	100.3%	97.690	100.500	105.800
3	14:58:38	103.600	102.800	97.770	98.350	102.500	102.100	101.6%	97.020	99.190	106.000
x		103.100	101.900	98.260	99.150	101.700	101.800	100.3%	97.360	99.520	105.300
σ		0.373	0.884	0.425	0.781	1.074	0.760	1.3%	0.335	0.857	0.958
%RSD		0.362	0.868	0.433	0.788	1.056	0.747	1.3	0.344	0.861	0.909

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:57:44	98.840	101.500	97.2%
2	14:58:11	101.200	102.700	98.0%
3	14:58:38	101.700	102.500	98.1%
x		100.600	102.200	97.8%
σ		1.544	0.678	0.5%
%RSD		1.535	0.663	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:39	108.5%	0.066	14.270	14.210	21.480	T 23880.000	T 17930.000	T 17740.000	T 17860.000	9.134
2	15:04:06	109.0%	0.056	13.570	14.250	22.400	T 25330.000	T 18150.000	T 17870.000	T 17960.000	9.454
3	15:04:34	110.7%	0.054	15.080	13.990	23.230	T 24670.000	T 18150.000	T 17960.000	T 18080.000	9.030
x		109.4%	0.059	14.310	14.150	22.370	T 24620.000	T 18080.000	T 17850.000	T 17970.000	9.206
σ		1.1%	0.007	0.756	0.141	0.877	T 726.000	T 125.600	T 107.700	T 105.900	0.221
%RSD		1.0	11.180	5.281	0.996	3.918	T 2.949	T 0.695	T 0.603	T 0.589	2.403
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:39	TM 14670.000	T 49780.000	T 1448.000	37810.000	T 38690.000	101.3%	3.427	1.450	1.160	10150.000
2	15:04:06	TM 14790.000	T 49830.000	T 1487.000	38060.000	T 39020.000	101.8%	2.945	1.848	1.182	9936.000
3	15:04:34	TM 14440.000	T 50190.000	T 1478.000	38150.000	T 39360.000	100.5%	3.208	1.765	1.146	9958.000
x		TM 14640.000	T 49930.000	T 1471.000	38010.000	T 39020.000	101.2%	3.193	1.688	1.163	10010.000
σ		TM 175.300	T 224.900	T 20.550	173.600	T 333.600	0.6%	0.241	0.210	0.018	115.700
%RSD		TM 1.198	T 0.451	T 1.397	0.457	T 0.855	0.6	7.554	12.440	1.574	1.156
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:39	229.800	TM 2761.000	245.900	480.900	7.205	25.450	26.760	5.640	5.560	32.990
2	15:04:06	228.300	TM 2730.000	240.500	463.500	7.181	25.480	26.100	5.315	5.728	32.920
3	15:04:34	232.300	TM 2782.000	244.700	477.800	7.542	25.860	25.880	5.534	5.755	33.940
x		230.100	TM 2758.000	243.700	474.000	7.309	25.600	26.250	5.496	5.681	33.280
σ		2.057	TM 26.070	2.810	9.276	0.202	0.226	0.460	0.166	0.105	0.573
%RSD		0.894	TM 0.945	1.153	1.957	2.767	0.881	1.752	3.016	1.854	1.722
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:39	52.680	48.820	1.151	-0.842	394.400	401.500	3.298	0.425	-1.243	114.800
2	15:04:06	51.970	48.630	1.689	-0.206	395.600	403.500	4.458	0.692	-1.195	114.400
3	15:04:34	55.290	48.750	1.058	-0.351	407.000	408.200	4.916	0.761	-2.222	116.300
x		53.310	48.730	1.300	-0.466	399.000	404.400	4.224	0.626	-1.553	115.200
σ		1.749	0.095	0.341	0.333	6.935	3.403	0.834	0.178	0.579	1.009
%RSD		3.281	0.195	26.210	71.410	1.738	0.842	19.740	28.380	37.300	0.876
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:39	99.8%	0.137	0.185	0.171	6.196	0.055	0.064	0.187	0.199	96.7%
2	15:04:06	101.5%	0.132	0.196	0.180	4.939	0.044	0.048	0.199	0.191	98.2%
3	15:04:34	99.3%	0.107	0.150	0.132	4.634	0.047	0.034	0.205	0.187	98.3%
x		100.2%	0.125	0.177	0.161	5.256	0.049	0.049	0.197	0.192	97.7%
σ		1.1%	0.016	0.024	0.026	0.828	0.006	0.015	0.010	0.006	0.9%
%RSD		1.1	13.040	13.520	15.930	15.750	12.170	30.730	4.866	3.063	0.9
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:39	1.508	1.967	0.168	0.139	447.300	449.000	96.9%	0.109	0.102	0.050
2	15:04:06	1.471	1.851	0.140	0.148	447.200	444.100	99.0%	0.071	0.071	0.065
3	15:04:34	1.451	1.918	0.132	0.114	451.200	448.200	98.7%	0.067	0.057	0.044
x		1.477	1.912	0.147	0.134	448.600	447.100	98.2%	0.082	0.077	0.053
σ		0.029	0.058	0.019	0.017	2.228	2.592	1.1%	0.023	0.023	0.011
%RSD		1.943	3.043	13.060	12.870	0.497	0.580	1.1	28.440	29.750	21.040
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:03:39	0.077	0.064	94.1%							
2	15:04:06	0.061	0.062	95.0%							
3	15:04:34	0.056	0.052	96.8%							
x		0.064	0.059	95.3%							
σ		0.011	0.006	1.4%							
%RSD		17.120	10.280	1.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:35	104.7%	0.072	6.429	6.237	46.000	T 21120.000	T 23820.000	T 23480.000	T 23630.000	T 458.300
2	15:10:02	106.7%	0.060	7.037	6.494	38.410	T 21180.000	T 23670.000	T 23350.000	T 23480.000	T 450.700
3	15:10:30	107.6%	0.012	6.860	6.414	41.490	T 21720.000	T 23800.000	T 23620.000	T 23580.000	T 450.900
x		106.3%	0.048	6.775	6.382	41.970	T 21340.000	T 23760.000	T 23480.000	T 23560.000	T 453.300
σ		1.5%	0.032	0.313	0.132	3.819	T 330.000	T 83.170	T 136.900	T 76.170	T 4.319
%RSD		1.4	65.840	4.618	2.063	9.099	T 1.547	T 0.350	T 0.583	T 0.323	T 0.953

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:35	TM 27170.000	T 52550.000	T 1457.000	88440.000	T 90160.000	100.1%	20.190	5.439	4.778	6285.000
2	15:10:02	TM 26450.000	T 52490.000	1481.000	88680.000	T 89690.000	99.0%	20.790	5.756	4.885	6188.000
3	15:10:30	TM 26650.000	T 52560.000	T 1482.000	88790.000	T 90350.000	100.3%	19.450	5.533	4.779	6232.000
x		TM 26760.000	T 52540.000	T 1473.000	88640.000	T 90070.000	99.8%	20.140	5.576	4.814	6235.000
σ		TM 368.700	T 37.200	T 14.450	182.000	T 343.800	0.7%	0.671	0.163	0.062	48.640
%RSD		TM 1.378	T 0.071	T 0.981	0.205	T 0.382	0.7	3.332	2.917	1.287	0.780

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:35	807.700	T 479.300	T 857.100	1458.000	2.110	21.080	21.340	4.356	4.498	5.475
2	15:10:02	798.300	T 481.900	T 858.600	1433.000	2.132	21.480	19.860	4.268	4.533	5.613
3	15:10:30	793.100	T 475.800	T 844.400	1403.000	2.047	20.360	18.800	4.313	4.417	5.486
x		799.700	T 479.000	T 853.400	1431.000	2.096	20.980	20.000	4.312	4.483	5.524
σ		7.437	T 3.076	T 7.771	27.590	0.044	0.572	1.274	0.044	0.059	0.077
%RSD		0.930	T 0.642	T 0.911	1.928	2.108	2.725	6.370	1.025	1.318	1.388

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:35	17.540	14.450	0.578	-0.276	823.700	841.700	8.919	1.155	0.548	198.400
2	15:10:02	17.170	14.650	0.750	-0.270	836.600	847.900	7.542	0.813	-0.835	197.700
3	15:10:30	17.580	14.100	0.097	0.159	820.300	836.600	2.682	-0.235	-2.120	197.500
x		17.430	14.400	0.475	-0.129	826.900	842.100	6.381	0.578	-0.802	197.800
σ		0.225	0.278	0.338	0.250	8.639	5.669	3.276	0.724	1.334	0.498
%RSD		1.289	1.931	71.170	193.500	1.045	0.673	51.350	125.400	166.300	0.252

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:35	96.8%	0.345	0.291	0.330	7.640	0.038	0.036	0.270	0.372	95.9%
2	15:10:02	96.8%	0.319	0.368	0.298	8.881	0.036	0.044	0.331	0.303	97.5%
3	15:10:30	97.7%	0.341	0.347	0.308	8.498	0.033	0.025	0.348	0.339	98.0%
x		97.1%	0.335	0.336	0.312	8.340	0.036	0.035	0.316	0.338	97.1%
σ		0.5%	0.014	0.040	0.017	0.635	0.003	0.009	0.041	0.035	1.1%
%RSD		0.5	4.151	11.860	5.321	7.617	7.190	26.690	12.940	10.260	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:35	1.397	1.755	0.810	0.816	252.600	253.300	97.6%	0.015	0.008	0.226
2	15:10:02	1.396	1.796	0.867	0.817	254.700	252.000	100.6%	0.002	0.008	0.262
3	15:10:30	1.448	1.861	0.817	0.808	252.400	253.400	100.0%	0.004	0.006	0.246
x		1.414	1.804	0.831	0.814	253.300	252.900	99.4%	0.007	0.007	0.245
σ		0.030	0.054	0.031	0.005	1.298	0.777	1.6%	0.007	0.001	0.018
%RSD		2.109	2.975	3.744	0.621	0.513	0.307	1.6	94.440	18.630	7.403

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:09:35	0.204	0.216	96.3%
2	15:10:02	0.213	0.238	97.1%
3	15:10:30	0.199	0.224	99.1%
x		0.205	0.226	97.5%
σ		0.007	0.011	1.4%
%RSD		3.493	4.956	1.5

UD30018-003 05/08/2019 15:15:04

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:31	103.6%	0.018	3.641	3.198	7.414	T 17060.000	T 32160.000	T 32010.000	T 32130.000	T 71.150
2	15:15:59	106.3%	-0.018	3.541	3.261	7.939	T 17120.000	T 32080.000	T 31720.000	T 31660.000	86.750
3	15:16:26	106.3%	-0.024	3.493	3.106	7.921	T 17690.000	T 31990.000	T 31840.000	T 32170.000	87.400
x		105.4%	-0.008	3.558	3.188	7.758	T 17290.000	T 32080.000	T 31860.000	T 31980.000	T 81.770
σ		1.5%	0.023	0.075	0.078	0.298	T 348.600	T 87.570	T 147.800	T 284.400	T 9.203
%RSD		1.4	275.300	2.115	2.443	3.843	T 2.016	T 0.273	T 0.464	T 0.889	T 11.250

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:31	TM 27430.000	T 50950.000	T 1286.000	90950.000	T 93390.000	97.8%	6.629	1.489	1.405	8129.000
2	15:15:59	TM 26880.000	T 50710.000	1354.000	90860.000	T 93290.000	98.8%	6.380	1.204	1.473	8387.000
3	15:16:26	TM 27230.000	T 50840.000	T 1305.000	91350.000	T 93690.000	100.0%	6.252	1.691	1.468	8235.000
x		TM 27180.000	T 50830.000	T 1315.000	91050.000	T 93460.000	98.9%	6.420	1.461	1.448	8250.000
σ		TM 279.800	T 121.400	T 34.700	260.800	T 209.700	1.1%	0.192	0.245	0.038	129.700
%RSD		TM 1.030	T 0.239	T 2.638	0.286	T 0.224	1.1	2.989	16.730	2.625	1.572

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:31	182.000	T 474.000	202.900	868.900	2.844	26.950	26.660	0.765	0.900	2.795
2	15:15:59	186.600	T 475.600	202.500	834.900	2.897	26.710	25.290	0.783	0.843	3.262
3	15:16:26	186.600	T 476.100	200.800	821.700	2.816	26.240	25.330	0.744	0.930	3.098
x		185.100	T 475.200	202.100	841.800	2.853	26.630	25.760	0.764	0.891	3.052
σ		2.669	T 1.120	1.084	24.360	0.041	0.359	0.784	0.019	0.044	0.237
%RSD		1.442	T 0.236	0.536	2.894	1.440	1.349	3.042	2.540	4.941	7.761

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:31	15.290	11.280	0.330	-0.871	709.700	719.500	8.193	1.150	-1.677	179.700
2	15:15:59	13.110	10.800	-0.545	-0.229	704.200	704.500	3.308	0.042	-1.367	181.300
3	15:16:26	13.680	10.840	0.110	-0.601	706.400	717.600	4.037	0.207	-1.969	181.200
x		14.030	10.970	-0.035	-0.567	706.800	713.900	5.179	0.466	-1.671	180.700
σ		1.128	0.269	0.455	0.322	2.742	8.158	2.635	0.598	0.301	0.885
%RSD		8.042	2.449	1291.000	56.850	0.388	1.143	50.880	128.200	18.020	0.490

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:31	94.0%	0.048	0.079	0.042	9.549	0.006	0.006	0.248	0.342	93.8%
2	15:15:59	97.0%	0.054	0.061	0.023	7.166	0.012	0.004	0.319	0.298	96.7%
3	15:16:26	98.1%	0.027	0.046	0.057	8.143	0.004	0.005	0.319	0.323	97.8%
x		96.4%	0.043	0.062	0.040	8.286	0.007	0.005	0.295	0.321	96.1%
σ		2.1%	0.015	0.017	0.017	1.198	0.004	0.001	0.041	0.022	2.0%
%RSD		2.2	33.670	26.880	42.790	14.450	54.110	24.120	13.840	6.883	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:31	1.411	1.825	0.089	0.090	224.000	223.600	97.0%	-0.002	-0.014	0.036
2	15:15:59	1.340	1.859	0.111	0.059	223.600	222.000	99.2%	-0.011	-0.010	0.039
3	15:16:26	1.336	1.726	0.072	0.079	220.900	223.000	99.4%	-0.003	-0.008	0.042
x		1.362	1.803	0.091	0.076	222.800	222.800	98.5%	-0.005	-0.011	0.039
σ		0.042	0.069	0.019	0.016	1.678	0.832	1.3%	0.005	0.003	0.003
%RSD		3.099	3.834	21.250	20.620	0.753	0.373	1.4	95.090	29.260	7.855

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:15:31	0.055	0.043	95.4%
2	15:15:59	0.046	0.043	96.4%
3	15:16:26	0.038	0.044	97.5%
x		0.046	0.043	96.4%
σ		0.008	0.001	1.1%
%RSD		17.910	1.657	1.1

CCV MW11050 05/08/2019 15:21:02 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:28	84.7%	307.900	308.400	308.600	24.690	┬60790.000	┬62420.000	┬61860.000	┬61830.000	300.900
2	15:21:56	85.2%	304.400	306.800	305.500	27.380	┬62200.000	┬62220.000	┬61910.000	┬62060.000	298.800
3	15:22:23	85.5%	304.600	306.900	304.300	25.370	┬62690.000	┬62040.000	┬61290.000	┬61530.000	294.800
x		85.2%	101.876%	102.455%	102.047%	25.810	┬103.157%	┬62230.000	┬61680.000	┬103.011%	99.395%
σ		0.4%	n/a	n/a	n/a	1.398	┬n/a	┬190.600	┬341.400	┬n/a	n/a
%RSD		0.5	0.632	0.286	0.728	5.414	┬1.593	┬0.306	┬0.553	┬0.430	1.036
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:28	┬3063.000	961.600	┬64960.000	61500.000	┬62110.000	81.9%	306.600	309.300	299.700	991.200
2	15:21:56	┬3059.000	936.100	┬64910.000	61400.000	┬62610.000	83.2%	303.200	305.800	298.000	1356.000
3	15:22:23	┬3054.000	921.800	┬64370.000	61830.000	┬62930.000	82.5%	304.400	305.900	298.900	2577.000
x		┬101.960%	939.800	┬107.912%	61580.000	┬104.248%	82.5%	101.574%	102.337%	99.630%	1641.000
σ		┬n/a	20.150	┬n/a	226.800	┬n/a	0.6%	n/a	n/a	n/a	830.500
%RSD		┬0.146	2.144	┬0.508	0.368	┬0.665	0.8	0.562	0.656	0.289	50.600
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:28	┬61900.000	291.500	┬62730.000	┬62230.000	297.400	293.000	301.100	284.600	286.100	278.700
2	15:21:56	┬62650.000	297.500	┬63190.000	┬62290.000	295.800	288.700	296.700	284.000	286.700	283.500
3	15:22:23	┬63040.000	295.000	┬63660.000	┬62640.000	294.100	288.700	292.100	286.000	285.900	284.500
x		┬62530.000	98.227%	┬63190.000	┬103.978%	98.585%	96.711%	296.600	284.900	95.405%	94.071%
σ		┬580.700	n/a	┬469.800	┬n/a	n/a	n/a	4.509	1.036	n/a	n/a
%RSD		┬0.929	1.024	┬0.744	┬0.349	0.560	0.860	1.520	0.364	0.152	1.098
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:28	283.900	278.900	296.600	286.600	15.560	14.680	1336.000	305.200	0.867	298.100
2	15:21:56	281.700	282.900	295.600	287.800	14.260	15.150	1303.000	297.200	0.568	298.200
3	15:22:23	286.600	283.100	296.500	290.600	13.780	14.360	1321.000	300.300	2.047	301.800
x		284.100	281.700	98.747%	288.400	14.530	14.730	1320.000	100.305%	1.160	99.792%
σ		2.434	2.397	n/a	2.066	0.924	0.394	16.360	n/a	0.782	n/a
%RSD		0.857	0.851	0.198	0.716	6.359	2.675	1.240	1.344	67.390	0.712
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:28	82.5%	308.200	312.900	312.000	301.900	304.300	291.200	297.400	297.300	81.5%
2	15:21:56	83.2%	310.800	311.500	309.200	299.100	302.000	291.200	297.000	297.200	82.5%
3	15:22:23	82.9%	313.900	315.300	313.100	302.700	302.900	291.700	300.400	297.100	82.4%
x		82.9%	103.656%	104.408%	311.400	301.200	101.018%	291.400	298.300	99.070%	82.1%
σ		0.4%	n/a	n/a	2.035	1.880	n/a	0.318	1.877	n/a	0.5%
%RSD		0.4	0.916	0.606	0.654	0.624	0.382	0.109	0.629	0.037	0.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:28	307.400	310.300	307.100	307.300	310.100	306.300	86.1%	292.600	┬295.000	┬269.200
2	15:21:56	310.100	309.000	307.500	309.800	309.400	310.100	87.4%	298.000	┬301.600	┬272.700
3	15:22:23	308.800	308.900	311.000	310.600	310.300	306.700	86.3%	299.800	┬302.000	┬272.200
x		102.924%	103.121%	308.500	103.086%	103.306%	102.575%	86.6%	296.800	┬99.834%	┬90.455%
σ		n/a	n/a	2.160	n/a	n/a	n/a	0.7%	3.742	┬n/a	┬n/a
%RSD		0.438	0.256	0.700	0.553	0.160	0.675	0.8	1.261	┬1.315	┬0.692
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:21:28	306.000	297.400	83.3%							
2	15:21:56	307.900	298.600	84.7%							
3	15:22:23	306.400	299.400	84.6%							
x		102.259%	99.478%	84.2%							
σ		n/a	n/a	0.8%							
%RSD		0.312	0.336	0.9							

CCB IM9409-01 05/08/2019 15:26:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:27	93.0%	0.012	0.952	0.693	14.150	-19.010	0.030	0.209	0.094	0.002
2	15:27:54	92.2%	0.021	0.981	0.815	13.550	-19.200	-0.035	0.125	0.039	0.013
3	15:28:20	93.8%	0.028	0.805	0.745	14.040	-19.290	-0.044	0.047	-0.020	0.020
x		93.0%	0.020	0.913	0.751	13.910	-19.160	-0.016	0.127	0.038	0.012
σ		0.8%	0.008	0.094	0.061	0.316	0.141	0.040	0.081	0.057	0.009
%RSD		0.9	38.080	10.330	8.144	2.268	0.734	252.900	63.910	150.700	78.160

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:27	10.900	552.000	3.074	-1.496	0.622	88.2%	0.006	0.009	0.057	42.410
2	15:27:54	11.040	572.500	6.118	-0.874	0.126	86.5%	0.063	0.002	0.034	71.760
3	15:28:20	10.690	555.400	-1.543	-2.068	0.029	87.8%	0.017	-0.013	0.007	72.420
x		10.870	560.000	2.550	-1.479	0.259	87.5%	0.029	-0.001	0.033	62.200
σ		0.177	11.020	3.857	0.597	0.318	0.9%	0.030	0.011	0.025	17.140
%RSD		1.623	1.968	151.300	40.360	123.000	1.0	105.600	1364.000	76.410	27.550

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:27	0.993	-0.022	3.527	4.357	-0.020	0.004	-0.008	-0.020	0.000	0.030
2	15:27:54	1.601	-0.020	4.073	9.093	-0.021	-0.009	-0.033	-0.028	-0.019	-0.017
3	15:28:20	-0.143	-0.010	2.565	7.861	-0.019	0.002	-0.009	-0.036	-0.009	0.004
x		0.817	-0.017	3.389	7.104	-0.020	-0.001	-0.017	-0.028	-0.009	0.006
σ		0.885	0.007	0.764	2.457	0.001	0.007	0.014	0.008	0.010	0.024
%RSD		108.400	38.050	22.530	34.590	6.015	673.900	83.310	27.610	104.400	422.400

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:27	0.010	0.039	-0.042	-0.694	6.901	6.393	-0.215	-0.024	-2.484	0.000
2	15:27:54	0.055	0.038	-0.161	0.093	6.965	5.837	-2.176	-0.600	2.595	-0.000
3	15:28:20	-0.093	0.026	-0.135	0.144	6.667	7.194	-2.201	-0.502	-1.194	0.001
x		-0.009	0.034	-0.113	-0.153	6.844	6.474	-1.531	-0.375	-0.361	0.000
σ		0.076	0.007	0.063	0.470	0.157	0.682	1.139	0.308	2.640	0.001
%RSD		814.700	21.280	55.770	308.100	2.290	10.540	74.430	82.150	731.600	264.600

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:27	88.2%	0.010	0.035	0.029	0.038	0.005	-0.000	-0.001	0.006	89.4%
2	15:27:54	86.1%	0.012	0.040	0.025	0.852	0.006	0.001	-0.001	0.009	88.9%
3	15:28:20	89.0%	0.027	0.027	0.012	0.693	0.001	0.002	-0.001	-0.001	90.2%
x		87.7%	0.016	0.034	0.022	0.528	0.004	0.001	-0.001	0.005	89.5%
σ		1.5%	0.009	0.007	0.009	0.431	0.003	0.001	0.000	0.005	0.7%
%RSD		1.7	56.510	20.430	40.830	81.720	72.690	96.220	3.027	105.900	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:27	0.076	0.071	0.150	0.093	0.004	0.000	89.6%	-0.014	-0.016	0.008
2	15:27:54	0.032	0.061	0.137	0.112	0.004	0.003	89.0%	-0.017	-0.012	0.000
3	15:28:20	0.051	0.055	0.096	0.093	-0.002	-0.003	90.2%	-0.011	-0.016	0.004
x		0.053	0.063	0.128	0.099	0.002	0.000	89.6%	-0.014	-0.015	0.004
σ		0.022	0.008	0.028	0.011	0.003	0.003	0.6%	0.003	0.002	0.004
%RSD		41.400	12.850	22.230	11.120	156.200	963.300	0.7	22.400	15.790	103.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:27:27	0.014	0.011	92.8%
2	15:27:54	0.016	0.012	90.4%
3	15:28:20	0.013	0.013	91.8%
x		0.014	0.012	91.7%
σ		0.002	0.001	1.2%
%RSD		10.740	6.301	1.3

ICSA MW10984 05/08/2019 15:32:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:24	93.3%	0.015	0.799	0.666	1168.000	TM 104900.000	T 98730.000	T 98360.000	T 98230.000	TM 98590.000
2	15:33:51	98.2%	-0.020	0.548	0.617	1171.000	TM 104200.000	T 99140.000	T 98950.000	T 98480.000	TM 98610.000
3	15:34:18	100.5%	-0.008	0.747	0.434	1136.000	TM 106000.000	T 97420.000	T 96750.000	T 97400.000	TM 97090.000
x		97.3%	-0.004	0.698	0.572	1158.000	TM 105000.000	T 98430.000	T 98020.000	T 98040.000	TM 98100.000
σ		3.6%	0.018	0.132	0.122	19.150	TM 905.900	T 900.800	T 1137.000	T 563.500	TM 873.000
%RSD		3.7	429.000	18.960	21.310	1.653	TM 0.863	T 0.915	T 1.160	T 0.575	TM 0.890

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:24	35.210	T 26480.000	TM 104400.000	M 103600.000	TM 105800.000	87.8%	M 2232.000	-0.605	-1.652	1747.000
2	15:33:51	33.730	T 26860.000	TM 105700.000	M 103500.000	TM 106500.000	91.2%	M 2226.000	-0.803	-1.601	1871.000
3	15:34:18	34.040	T 26330.000	TM 104300.000	M 103300.000	TM 106500.000	94.2%	M 2206.000	-0.581	-1.588	1850.000
x		34.330	T 26560.000	TM 104800.000	M 103400.000	TM 106300.000	91.1%	M 2221.000	-0.663	-1.614	1822.000
σ		0.779	T 273.200	TM 750.200	M 154.400	TM 436.500	3.2%	M 13.410	0.122	0.034	66.360
%RSD		2.269	T 1.029	TM 0.716	M 0.149	TM 0.411	3.5	M 0.604	18.410	2.099	3.641

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:24	TM 104100.000	0.406	TM 104300.000	TM 104000.000	0.409	1.327	6.789	-1.419	0.766	1.698
2	15:33:51	TM 103900.000	0.428	TM 104200.000	TM 104800.000	0.414	1.303	7.174	-1.344	0.643	1.648
3	15:34:18	TM 103700.000	0.438	TM 103600.000	TM 104500.000	0.415	1.354	8.127	-1.342	0.699	1.694
x		TM 103900.000	0.424	TM 104100.000	TM 104500.000	0.413	1.328	7.363	-1.368	0.702	1.680
σ		TM 164.700	0.016	TM 372.600	TM 405.600	0.003	0.026	0.689	0.044	0.061	0.028
%RSD		TM 0.159	3.878	TM 0.358	TM 0.388	0.774	1.930	9.352	3.202	8.754	1.651

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:24	1.769	0.201	-0.138	0.018	8.110	5.722	-0.381	-0.153	0.446	0.811
2	15:33:51	1.777	0.156	-0.079	0.468	7.461	6.816	-1.680	-0.448	1.335	0.811
3	15:34:18	1.715	0.150	0.219	0.737	8.632	5.430	1.884	0.303	3.530	0.794
x		1.754	0.169	0.001	0.407	8.068	5.989	-0.059	-0.099	1.770	0.805
σ		0.034	0.028	0.191	0.363	0.587	0.731	1.804	0.379	1.588	0.010
%RSD		1.935	16.320	26310.000	89.200	7.270	12.200	3060.000	380.400	89.680	1.200

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:24	85.7%	TM 2151.000	M 2144.000	TM 2150.000	-1.106	0.018	0.019	-5.181	-0.014	88.5%
2	15:33:51	91.7%	TM 2169.000	M 2158.000	TM 2176.000	-2.255	0.015	0.016	-5.833	-0.179	93.5%
3	15:34:18	94.5%	TM 2157.000	M 2157.000	TM 2172.000	-1.820	0.016	0.020	-5.825	0.010	96.0%
x		90.6%	TM 2159.000	M 2153.000	TM 2166.000	-1.727	0.016	0.018	-5.613	-0.061	92.7%
σ		4.5%	TM 9.443	M 7.930	TM 14.060	0.580	0.002	0.002	0.374	0.103	3.8%
%RSD		4.9	TM 0.437	M 0.368	TM 0.649	33.610	9.978	10.740	6.665	169.800	4.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:24	1.394	0.069	0.237	0.265	0.140	0.158	91.7%	-0.019	-0.026	0.056
2	15:33:51	1.338	0.061	0.243	0.273	0.157	0.216	95.7%	-0.021	-0.022	0.043
3	15:34:18	1.190	0.076	0.237	0.235	0.148	0.149	97.9%	-0.020	-0.023	0.036
x		1.307	0.069	0.239	0.258	0.148	0.175	95.1%	-0.020	-0.024	0.045
σ		0.106	0.008	0.003	0.020	0.009	0.036	3.2%	0.001	0.002	0.010
%RSD		8.073	10.950	1.456	7.844	5.810	20.780	3.3	5.636	9.691	21.610

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:33:24	0.095	0.060	89.1%
2	15:33:51	0.066	0.053	91.8%
3	15:34:18	0.055	0.044	94.9%
x		0.072	0.052	91.9%
σ		0.021	0.008	2.9%
%RSD		28.880	15.230	3.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:20	111.4%	70.680	74.470	72.490	7.389	T 18740.000	T 32610.000	T 32330.000	T 32750.000	T 240.000
2	15:39:48	113.6%	71.620	73.670	70.780	1.138	T 18700.000	T 32110.000	T 31730.000	T 32120.000	233.600
3	15:40:14	111.2%	71.330	75.190	73.710	10.450	T 18690.000	T 32660.000	T 32640.000	T 32710.000	239.300
x		112.1%	71.210	74.440	72.330	6.326	T 18710.000	T 32460.000	T 32230.000	T 32530.000	T 237.600
σ		1.3%	0.483	0.759	1.475	4.747	T 30.520	T 306.900	T 458.200	T 350.600	T 3.519
%RSD		1.2	0.678	1.020	2.039	75.040	T 0.163	T 0.945	T 1.421	T 1.078	T 1.481
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:20	TM 28220.000	T 47490.000	T 2320.000	92610.000	T 94500.000	106.9%	102.300	97.720	94.270	6089.000
2	15:39:48	TM 27090.000	T 46920.000	T 2308.000	91720.000	T 93930.000	106.6%	100.700	96.380	93.810	6254.000
3	15:40:14	TM 27820.000	T 48750.000	T 2320.000	91410.000	T 93030.000	104.4%	100.500	95.260	94.310	6670.000
x		TM 27710.000	T 47720.000	T 2316.000	91910.000	T 93820.000	106.0%	101.100	96.450	94.130	6338.000
σ		TM 573.200	T 935.600	T 6.727	626.900	T 744.600	1.4%	1.026	1.231	0.278	299.100
%RSD		TM 2.068	T 1.961	T 0.290	0.682	T 0.794	1.3	1.015	1.277	0.295	4.719
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:20	1201.000	TM 575.700	T 1245.000	1760.000	92.500	115.800	114.800	90.530	91.320	92.780
2	15:39:48	1192.000	TM 575.600	T 1226.000	1745.000	93.250	116.400	115.300	90.040	90.980	94.130
3	15:40:14	1203.000	TM 572.700	T 1230.000	1779.000	93.280	116.700	118.000	90.810	92.320	95.170
x		1199.000	TM 574.700	T 1234.000	1761.000	93.010	116.300	116.000	90.460	91.540	94.030
σ		5.728	TM 1.707	T 9.960	17.150	0.440	0.456	1.698	0.386	0.698	1.196
%RSD		0.478	TM 0.297	T 0.808	0.974	0.473	0.392	1.464	0.427	0.763	1.272
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:20	103.900	101.100	95.380	90.070	776.000	783.200	442.700	98.180	-0.836	T 290.000
2	15:39:48	104.700	103.100	96.640	93.010	781.700	783.600	449.200	101.200	-2.494	T 288.500
3	15:40:14	105.600	101.300	95.430	93.250	777.000	777.600	430.100	95.180	-0.144	T 287.500
x		104.700	101.800	95.820	92.110	778.200	781.500	440.700	98.180	-1.158	T 288.700
σ		0.866	1.113	0.711	1.770	3.068	3.336	9.742	3.001	1.208	T 1.263
%RSD		0.827	1.093	0.742	1.921	0.394	0.427	2.211	3.056	104.300	T 0.438
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:20	105.0%	100.400	99.980	100.200	104.800	99.620	96.010	99.070	98.320	106.5%
2	15:39:48	105.9%	99.410	99.890	100.300	111.600	100.100	97.460	100.500	99.630	105.7%
3	15:40:14	104.7%	99.210	100.100	99.460	108.900	99.580	95.290	97.570	97.400	106.1%
x		105.2%	99.690	99.980	99.980	108.400	99.760	96.250	99.060	98.450	106.1%
σ		0.6%	0.662	0.084	0.456	3.454	0.271	1.103	1.488	1.123	0.4%
%RSD		0.6	0.664	0.084	0.456	3.186	0.271	1.146	1.502	1.140	0.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:20	101.200	101.800	99.420	99.770	321.400	321.300	111.1%	96.480	98.280	104.700
2	15:39:48	102.900	102.100	101.000	101.800	320.000	320.200	109.9%	97.500	100.500	105.400
3	15:40:14	101.800	101.200	98.530	99.000	317.800	316.600	109.4%	97.020	99.670	104.400
x		101.900	101.700	99.670	100.200	319.700	319.300	110.1%	97.000	99.480	104.800
σ		0.863	0.434	1.274	1.470	1.772	2.457	0.9%	0.510	1.120	0.544
%RSD		0.847	0.426	1.279	1.467	0.554	0.769	0.8	0.526	1.126	0.519
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:39:20	99.460	101.300	107.4%							
2	15:39:48	99.710	101.300	107.7%							
3	15:40:14	99.080	101.000	107.1%							
x		99.420	101.200	107.4%							
σ		0.319	0.191	0.3%							
%RSD		0.321	0.189	0.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:14	110.5%	70.100	71.810	71.050	10.200	T 18970.000	T 32370.000	T 31760.000	T 32120.000	232.700
2	15:45:41	109.3%	71.030	75.380	73.340	20.460	T 18660.000	T 32550.000	T 32310.000	T 32630.000	236.400
3	15:46:08	110.1%	70.730	73.630	72.620	12.750	T 18740.000	T 32420.000	T 32310.000	T 32270.000	T 217.100
x		110.0%	70.620	73.610	72.330	14.470	T 18790.000	T 32450.000	T 32130.000	T 32340.000	T 228.800
σ		0.6%	0.477	1.786	1.172	5.342	T 164.500	T 94.470	T 316.300	T 260.800	T 10.270
%RSD		0.5	0.676	2.426	1.621	36.920	T 0.876	T 0.291	T 0.984	T 0.806	T 4.488

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:14	TM 27810.000	T 47890.000	T 2314.000	92630.000	T 94100.000	104.8%	102.500	94.950	93.490	7210.000
2	15:45:41	TM 27980.000	T 49070.000	T 2320.000	92980.000	T 94860.000	103.7%	103.500	96.010	94.340	6852.000
3	15:46:08	TM 27090.000	T 48820.000	T 2341.000	91980.000	T 94130.000	101.7%	102.200	96.020	93.950	6918.000
x		TM 27630.000	T 48590.000	T 2325.000	92530.000	T 94360.000	103.4%	102.700	95.660	93.930	6993.000
σ		TM 475.800	T 622.800	T 14.030	511.900	T 432.700	1.6%	0.704	0.617	0.423	190.500
%RSD		TM 1.722	T 1.282	T 0.604	0.553	T 0.459	1.5	0.685	0.645	0.451	2.724

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:14	1178.000	TM 572.600	T 1202.000	1740.000	93.520	116.600	118.000	91.360	92.920	95.450
2	15:45:41	1190.000	TM 571.800	T 1215.000	1785.000	93.340	117.800	118.300	91.840	92.930	93.810
3	15:46:08	1210.000	TM 578.300	T 1213.000	1764.000	92.730	117.400	118.100	90.500	92.900	94.390
x		1193.000	TM 574.300	T 1210.000	1763.000	93.200	117.200	118.100	91.230	92.920	94.550
σ		16.190	TM 3.540	T 6.795	22.140	0.411	0.591	0.153	0.678	0.016	0.831
%RSD		1.358	TM 0.616	T 0.562	1.256	0.441	0.504	0.129	0.743	0.018	0.879

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:14	104.400	103.600	98.310	93.090	1007.000	1026.000	436.200	97.100	-2.345	283.600
2	15:45:41	106.700	102.600	96.370	95.240	1013.000	1039.000	440.300	97.530	-1.851	T 283.800
3	15:46:08	102.900	103.200	96.950	93.780	1009.000	1024.000	438.500	96.440	-2.666	T 280.800
x		104.700	103.200	97.210	94.040	1010.000	1029.000	438.300	97.020	-2.287	T 282.700
σ		1.881	0.516	0.996	1.093	3.307	8.451	2.056	0.547	0.410	T 1.691
%RSD		1.797	0.500	1.024	1.162	0.328	0.821	0.469	0.564	17.940	T 0.598

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:14	106.4%	99.180	101.200	99.200	109.700	100.400	96.660	100.800	98.740	106.7%
2	15:45:41	103.6%	99.070	98.590	99.400	108.900	100.100	96.880	99.360	98.810	104.7%
3	15:46:08	103.9%	99.510	99.170	98.970	103.900	98.880	95.370	98.900	98.720	105.4%
x		104.6%	99.250	99.670	99.190	107.500	99.800	96.300	99.700	98.760	105.6%
σ		1.5%	0.231	1.384	0.214	3.149	0.804	0.815	1.009	0.048	1.0%
%RSD		1.5	0.232	1.389	0.216	2.929	0.806	0.846	1.012	0.049	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:14	103.200	102.500	100.100	100.800	323.000	321.100	110.3%	96.020	99.030	103.900
2	15:45:41	102.300	101.200	99.380	98.280	320.500	319.100	107.6%	97.970	100.000	104.700
3	15:46:08	101.900	101.500	99.230	100.100	317.800	321.400	109.2%	95.950	98.480	103.400
x		102.500	101.700	99.550	99.720	320.400	320.600	109.0%	96.650	99.170	104.000
σ		0.677	0.648	0.439	1.294	2.594	1.253	1.4%	1.146	0.775	0.683
%RSD		0.661	0.637	0.441	1.298	0.809	0.391	1.3	1.186	0.782	0.657

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:45:14	97.820	100.000	108.8%
2	15:45:41	99.630	100.800	105.6%
3	15:46:08	99.800	100.500	106.4%
x		99.080	100.400	106.9%
σ		1.096	0.395	1.7%
%RSD		1.106	0.394	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:09	108.1%	0.038	1.553	1.496	-0.046	┬3587.000	┬7972.000	┬7627.000	┬7707.000	22.490
2	15:51:38	108.7%	-0.025	1.860	1.382	-5.785	┬3585.000	┬7875.000	┬7548.000	┬7569.000	21.780
3	15:52:05	110.1%	-0.010	1.510	1.495	-3.811	┬3563.000	┬7843.000	┬7525.000	┬7632.000	21.300
x		109.0%	0.001	1.641	1.458	-3.214	┬3578.000	┬7897.000	┬7567.000	┬7636.000	21.860
σ		1.0%	0.033	0.190	0.066	2.915	┬13.040	┬66.700	┬53.740	┬69.170	0.595
%RSD		0.9	2597.000	11.600	4.509	90.710	┬0.364	┬0.845	┬0.710	┬0.906	2.721

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:09	┬5703.000	┬11120.000	291.900	19690.000	┬19790.000	100.2%	1.520	0.223	0.326	2264.000
2	15:51:38	┬5701.000	┬11090.000	287.000	19600.000	┬19630.000	100.5%	1.604	0.311	0.337	2257.000
3	15:52:05	┬5591.000	┬11050.000	283.100	19270.000	┬19330.000	101.0%	1.614	0.348	0.341	2207.000
x		┬5665.000	┬11090.000	287.300	19520.000	┬19580.000	100.6%	1.579	0.294	0.335	2243.000
σ		┬64.100	┬31.500	4.405	221.600	┬231.800	0.4%	0.052	0.064	0.008	31.580
%RSD		┬1.131	┬0.284	1.533	1.135	┬1.184	0.4	3.275	21.800	2.344	1.408

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:09	40.720	102.100	48.540	155.300	0.608	6.339	5.238	0.166	0.224	0.724
2	15:51:38	40.930	101.900	47.930	163.900	0.627	6.183	5.488	0.158	0.233	0.763
3	15:52:05	39.140	100.000	46.680	156.900	0.602	5.893	5.688	0.180	0.203	0.758
x		40.260	101.300	47.720	158.700	0.612	6.139	5.471	0.168	0.220	0.748
σ		0.978	1.141	0.946	4.595	0.013	0.226	0.225	0.011	0.015	0.021
%RSD		2.429	1.126	1.983	2.895	2.164	3.688	4.116	6.678	7.003	2.814

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:09	3.197	2.429	0.111	0.176	158.000	161.500	0.895	-0.006	-0.887	37.960
2	15:51:38	3.622	2.401	0.052	-0.367	155.600	160.700	-0.738	-0.367	-1.845	37.290
3	15:52:05	3.080	2.456	0.109	-0.010	152.700	154.600	0.967	0.004	-0.468	36.700
x		3.300	2.428	0.091	-0.067	155.400	159.000	0.374	-0.123	-1.067	37.320
σ		0.285	0.027	0.034	0.276	2.671	3.786	0.964	0.211	0.706	0.632
%RSD		8.632	1.130	37.150	411.500	1.719	2.382	257.500	172.100	66.170	1.693

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:09	102.1%	0.015	0.031	0.029	1.373	0.004	0.004	0.080	0.077	104.8%
2	15:51:38	101.4%	0.019	0.042	0.017	2.080	0.003	-0.000	0.105	0.091	105.8%
3	15:52:05	103.0%	0.023	0.017	0.051	0.504	0.002	-0.000	0.113	0.057	105.9%
x		102.2%	0.019	0.030	0.032	1.319	0.003	0.001	0.099	0.075	105.5%
σ		0.8%	0.004	0.012	0.017	0.790	0.001	0.003	0.017	0.017	0.7%
%RSD		0.8	20.520	40.380	53.250	59.860	37.080	216.800	17.480	22.430	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:09	0.288	0.357	0.000	0.011	45.510	45.570	105.4%	0.031	0.033	-0.012
2	15:51:38	0.290	0.362	-0.000	-0.005	46.260	45.980	105.9%	0.023	0.027	0.011
3	15:52:05	0.304	0.348	0.001	-0.013	45.950	45.100	106.3%	0.020	0.019	-0.008
x		0.294	0.356	0.000	-0.003	45.910	45.550	105.9%	0.025	0.026	-0.003
σ		0.009	0.007	0.000	0.012	0.376	0.439	0.4%	0.006	0.007	0.012
%RSD		2.910	2.023	432.300	464.900	0.818	0.964	0.4	24.120	26.590	402.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:51:09	0.002	-0.003	104.9%
2	15:51:38	0.003	0.003	106.0%
3	15:52:05	0.000	-0.003	107.0%
x		0.002	-0.001	106.0%
σ		0.001	0.003	1.1%
%RSD		67.730	367.900	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:04	107.4%	73.340	78.810	78.590	9.114	T 17870.000	T 32130.000	T 32230.000	T 32390.000	169.000
2	15:57:31	108.8%	73.140	79.000	78.000	7.569	T 17660.000	T 32210.000	T 32060.000	T 32090.000	167.200
3	15:57:57	111.2%	71.930	76.310	74.890	5.711	T 17930.000	T 31760.000	T 32070.000	T 32190.000	166.100
x		109.2%	72.800	78.040	77.160	7.465	T 17820.000	T 32030.000	T 32120.000	T 32220.000	167.400
σ		1.9%	0.760	1.502	1.984	1.704	T 142.100	T 238.600	T 96.070	T 153.300	1.464
%RSD		1.8	1.044	1.924	2.572	22.830	T 0.797	T 0.745	T 0.299	T 0.476	0.875

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:04	TM 27600.000	T 48120.000	T 2262.000	90770.000	T 93050.000	101.5%	105.800	99.310	97.510	7881.000
2	15:57:31	TM 26920.000	T 48220.000	T 2286.000	89990.000	T 92630.000	100.4%	104.500	98.640	96.940	7400.000
3	15:57:57	TM 26500.000	T 47870.000	T 2290.000	90130.000	T 92880.000	100.6%	105.100	98.110	96.170	8056.000
x		TM 27000.000	T 48070.000	T 2279.000	90300.000	T 92850.000	100.8%	105.100	98.690	96.870	7779.000
σ		TM 555.500	T 182.400	T 15.140	412.500	T 215.200	0.5%	0.644	0.603	0.673	340.000
%RSD		TM 2.057	T 0.379	T 0.664	0.457	T 0.232	0.5	0.613	0.611	0.695	4.371

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:04	1206.000	TM 571.700	T 1234.000	1796.000	95.340	119.900	120.800	94.670	95.530	96.020
2	15:57:31	1206.000	TM 579.600	T 1236.000	1816.000	95.340	118.200	122.800	94.430	94.440	95.640
3	15:57:57	1193.000	TM 576.800	T 1236.000	1835.000	97.210	119.400	120.300	93.270	95.740	97.920
x		1201.000	TM 576.000	T 1235.000	1816.000	95.970	119.100	121.300	94.120	95.230	96.530
σ		7.153	TM 3.980	T 0.820	19.580	1.081	0.874	1.307	0.747	0.699	1.219
%RSD		0.595	TM 0.691	T 0.066	1.078	1.127	0.734	1.077	0.794	0.734	1.263

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:04	108.000	105.200	94.860	95.870	679.400	690.600	434.400	98.240	-2.735	T 286.700
2	15:57:31	108.800	104.500	98.700	94.720	688.600	697.600	430.700	96.520	0.561	T 289.200
3	15:57:57	107.400	104.200	97.490	94.990	685.300	703.200	443.700	98.890	-0.578	T 285.900
x		108.000	104.600	97.020	95.190	684.400	697.100	436.300	97.880	-0.917	T 287.300
σ		0.680	0.511	1.960	0.604	4.689	6.297	6.673	1.225	1.674	T 1.716
%RSD		0.630	0.489	2.021	0.634	0.685	0.903	1.529	1.252	182.500	T 0.597

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:04	102.2%	101.100	102.100	101.000	113.000	102.800	98.010	101.700	100.700	101.4%
2	15:57:31	100.6%	101.300	102.800	102.200	106.700	100.900	97.240	100.900	100.200	100.8%
3	15:57:57	102.3%	100.600	102.000	100.900	111.100	101.000	98.180	100.900	101.800	102.8%
x		101.7%	101.000	102.300	101.400	110.300	101.600	97.810	101.200	100.900	101.7%
σ		1.0%	0.399	0.424	0.697	3.220	1.093	0.501	0.470	0.846	1.0%
%RSD		0.9	0.395	0.414	0.688	2.919	1.076	0.512	0.465	0.839	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:04	104.000	102.800	96.740	98.400	318.200	315.000	104.6%	98.430	100.500	105.900
2	15:57:31	103.500	103.500	97.900	99.560	317.500	317.700	104.7%	98.380	101.100	107.700
3	15:57:57	104.700	104.100	98.600	98.920	319.000	317.600	107.5%	98.050	99.870	106.700
x		104.100	103.500	97.750	98.960	318.300	316.800	105.6%	98.280	100.500	106.800
σ		0.615	0.686	0.938	0.581	0.734	1.520	1.7%	0.209	0.627	0.887
%RSD		0.591	0.663	0.959	0.587	0.231	0.480	1.6	0.212	0.624	0.831

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:57:04	101.000	102.500	101.8%
2	15:57:31	102.800	104.300	101.2%
3	15:57:57	101.000	103.200	103.3%
x		101.600	103.400	102.1%
σ		1.018	0.926	1.1%
%RSD		1.002	0.896	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:57	106.8%	0.066	14.450	15.370	18.470	T 25180.000	T 19290.000	T 19120.000	T 19250.000	8.089
2	16:03:24	110.2%	0.034	14.000	14.470	16.590	T 25690.000	T 19290.000	T 18820.000	T 18980.000	7.849
3	16:03:52	110.6%	0.023	14.790	15.250	18.370	T 25380.000	T 19330.000	T 19030.000	T 19100.000	7.679
x		109.2%	0.041	14.420	15.030	17.810	T 25410.000	T 19310.000	T 18990.000	T 19110.000	7.873
σ		2.1%	0.023	0.398	0.489	1.058	T 257.200	T 23.020	T 156.000	T 135.300	0.206
%RSD		1.9	55.480	2.762	3.253	5.942	T 1.012	T 0.119	T 0.821	T 0.708	2.614
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:57	TM 15600.000	T 49390.000	T 1570.000	41540.000	T 42280.000	98.6%	3.601	1.882	0.982	7492.000
2	16:03:24	TM 15190.000	T 48350.000	T 1541.000	40860.000	T 41760.000	101.5%	3.433	1.804	0.945	7329.000
3	16:03:52	TM 15100.000	T 49120.000	T 1556.000	41420.000	T 42080.000	99.4%	3.504	2.106	0.810	7034.000
x		TM 15300.000	T 48950.000	T 1556.000	41270.000	T 42040.000	99.8%	3.513	1.931	0.912	7285.000
σ		TM 267.300	T 537.400	T 14.670	366.500	T 263.000	1.5%	0.084	0.157	0.090	232.000
%RSD		TM 1.747	T 1.098	T 0.943	0.888	T 0.625	1.5	2.397	8.124	9.919	3.185
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:57	245.600	TM 3092.000	256.900	519.900	7.999	27.450	27.420	5.559	5.982	35.080
2	16:03:24	239.000	TM 3044.000	251.600	505.300	7.867	27.450	27.650	5.307	5.550	35.740
3	16:03:52	243.000	TM 3060.000	253.800	526.000	7.888	27.010	28.420	5.414	5.794	36.150
x		242.500	TM 3065.000	254.100	517.100	7.918	27.300	27.830	5.427	5.775	35.660
σ		3.340	TM 24.290	2.695	10.650	0.071	0.255	0.526	0.126	0.216	0.539
%RSD		1.377	TM 0.792	1.061	2.060	0.891	0.936	1.889	2.323	3.746	1.512
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:57	55.000	51.870	1.361	-0.687	472.400	473.900	2.485	0.113	-1.169	123.200
2	16:03:24	56.630	50.800	1.446	-0.212	475.900	482.400	2.596	0.039	0.988	124.000
3	16:03:52	56.200	52.730	1.309	-0.361	475.500	483.100	6.300	0.937	-2.611	123.000
x		55.940	51.800	1.372	-0.420	474.600	479.800	3.794	0.363	-0.931	123.400
σ		0.848	0.968	0.069	0.243	1.932	5.105	2.171	0.499	1.811	0.533
%RSD		1.516	1.869	5.021	57.780	0.407	1.064	57.230	137.400	194.600	0.432
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:57	101.6%	0.112	0.108	0.071	5.846	0.010	0.014	0.200	0.137	99.7%
2	16:03:24	103.3%	0.094	0.078	0.087	4.579	0.016	0.016	0.186	0.176	103.6%
3	16:03:52	103.3%	0.079	0.055	0.066	2.669	0.014	0.010	0.162	0.194	103.9%
x		102.7%	0.095	0.080	0.075	4.365	0.013	0.013	0.183	0.169	102.4%
σ		1.0%	0.016	0.027	0.011	1.599	0.003	0.003	0.019	0.029	2.3%
%RSD		1.0	17.280	33.570	14.340	36.640	21.580	20.640	10.340	17.350	2.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:57	1.444	1.710	0.219	0.242	490.600	489.400	103.8%	-0.013	-0.010	0.011
2	16:03:24	1.394	1.872	0.218	0.231	487.800	485.200	107.1%	-0.006	-0.016	-0.005
3	16:03:52	1.305	1.912	0.276	0.206	487.600	489.300	107.8%	-0.012	-0.014	-0.003
x		1.381	1.831	0.237	0.226	488.700	488.000	106.2%	-0.010	-0.013	0.001
σ		0.071	0.107	0.033	0.018	1.698	2.419	2.1%	0.003	0.003	0.008
%RSD		5.123	5.852	13.960	8.015	0.348	0.496	2.0	33.170	25.090	959.500
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:02:57	0.005	0.006	101.2%							
2	16:03:24	-0.004	0.002	103.3%							
3	16:03:52	0.016	0.010	103.1%							
x		0.006	0.006	102.5%							
σ		0.010	0.004	1.2%							
%RSD		167.900	69.880	1.1							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:08:52	107.2%	-0.009	4.967	4.676	30.090	T 21380.000	T 30990.000	T 30760.000	T 30910.000	TM 990.900
2	16:09:20	110.1%	0.011	4.622	4.437	30.350	T 21360.000	T 30910.000	T 30440.000	T 30350.000	TM 974.700
3	16:09:47	111.0%	-0.014	4.608	4.431	25.450	T 20720.000	T 30220.000	T 29740.000	T 29910.000	TM 963.200
x		109.4%	-0.004	4.732	4.515	28.630	T 21150.000	T 30710.000	T 30310.000	T 30390.000	TM 976.300
σ		2.0%	0.013	0.203	0.140	2.756	T 375.400	T 423.900	T 519.500	T 504.400	TM 13.920
%RSD		1.8	310.900	4.299	3.089	9.627	T 1.775	T 1.380	T 1.714	T 1.660	TM 1.426

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:08:52	TM 27200.000	T 49770.000	1154.000	48290.000	T 49360.000	101.5%	12.860	4.847	12.910	5520.000
2	16:09:20	TM 26530.000	T 49400.000	1166.000	48740.000	T 49450.000	102.9%	11.720	4.856	12.950	5398.000
3	16:09:47	TM 25960.000	T 49880.000	1155.000	48070.000	T 48820.000	100.5%	12.960	5.196	13.190	5433.000
x		TM 26560.000	T 49680.000	1158.000	48370.000	T 49210.000	101.6%	12.510	4.967	13.020	5451.000
σ		TM 615.700	T 252.800	6.777	337.700	T 340.400	1.2%	0.687	0.199	0.149	62.670
%RSD		TM 2.318	T 0.509	0.585	0.698	T 0.692	1.2	5.491	4.007	1.142	1.150

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:08:52	2958.000	TM 4157.000	T 3079.000	3227.000	18.860	84.360	84.550	5.784	6.316	4.358
2	16:09:20	2969.000	TM 4225.000	T 3145.000	3247.000	18.930	84.120	86.080	5.826	6.185	4.211
3	16:09:47	2984.000	TM 4240.000	T 3116.000	3296.000	19.120	84.780	85.720	6.020	6.405	4.310
x		2970.000	TM 4207.000	T 3114.000	3257.000	18.970	84.420	85.450	5.877	6.302	4.293
σ		12.810	TM 44.240	T 33.150	35.470	0.134	0.331	0.800	0.126	0.111	0.075
%RSD		0.431	TM 1.052	T 1.065	1.089	0.704	0.392	0.937	2.143	1.754	1.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:08:52	13.990	11.910	1.040	-0.507	26.530	26.730	-1.444	-0.371	0.963	111.000
2	16:09:20	13.620	11.890	0.777	-0.657	26.360	25.350	-3.110	-0.719	-0.253	110.000
3	16:09:47	14.860	11.520	1.141	-0.851	26.110	26.180	-0.889	-0.213	-1.482	109.600
x		14.160	11.770	0.986	-0.671	26.340	26.080	-1.814	-0.434	-0.257	110.200
σ		0.635	0.223	0.188	0.172	0.211	0.691	1.156	0.259	1.223	0.709
%RSD		4.485	1.890	19.070	25.640	0.802	2.650	63.720	59.540	475.100	0.644

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:08:52	101.6%	0.594	0.586	0.559	4.121	0.017	0.011	0.044	0.050	101.2%
2	16:09:20	104.3%	0.502	0.531	0.611	3.347	0.012	0.014	0.037	0.037	103.6%
3	16:09:47	103.5%	0.544	0.720	0.557	3.477	0.022	0.016	0.069	0.072	104.1%
x		103.1%	0.546	0.612	0.576	3.648	0.017	0.014	0.050	0.053	103.0%
σ		1.3%	0.046	0.097	0.031	0.414	0.005	0.003	0.017	0.018	1.5%
%RSD		1.3	8.479	15.900	5.326	11.360	29.560	20.780	33.420	33.070	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:08:52	1.073	1.417	0.355	0.376	212.500	210.200	104.7%	-0.014	-0.018	0.405
2	16:09:20	1.056	1.413	0.409	0.414	211.300	209.600	107.7%	-0.017	-0.021	0.368
3	16:09:47	1.051	1.512	0.377	0.370	210.400	206.900	107.6%	-0.022	-0.027	0.411
x		1.060	1.447	0.380	0.387	211.400	208.900	106.7%	-0.017	-0.022	0.395
σ		0.012	0.056	0.027	0.024	1.021	1.783	1.7%	0.004	0.004	0.023
%RSD		1.097	3.902	7.109	6.166	0.483	0.854	1.6	23.560	20.070	5.816

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:08:52	0.384	0.378	103.6%
2	16:09:20	0.405	0.377	105.8%
3	16:09:47	0.397	0.383	104.5%
x		0.396	0.380	104.6%
σ		0.010	0.003	1.1%
%RSD		2.645	0.833	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:49	110.5%	0.027	7.599	7.158	-10.480	T 31070.000	T 9410.000	T 9229.000	T 9364.000	TM 1130.000
2	16:15:16	112.8%	0.038	7.675	7.269	-14.460	T 31700.000	T 9326.000	T 9194.000	T 9228.000	TM 1111.000
3	16:15:43	114.5%	0.023	8.126	7.557	-15.660	T 32140.000	T 9475.000	T 9204.000	T 9377.000	TM 1124.000
x		112.6%	0.030	7.800	7.328	-13.530	T 31640.000	T 9403.000	T 9209.000	T 9323.000	TM 1122.000
σ		2.0%	0.007	0.285	0.206	2.709	T 540.100	T 74.740	T 18.130	T 82.590	TM 9.707
%RSD		1.8	25.070	3.650	2.814	20.010	T 1.707	T 0.795	T 0.197	T 0.886	TM 0.866

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:49	TM 18820.000	T 47890.000	T 1858.000	28210.000	T 28490.000	102.1%	15.840	7.251	4.287	8435.000
2	16:15:16	TM 19000.000	T 48080.000	T 1889.000	28260.000	T 28680.000	106.0%	15.640	7.536	4.239	8298.000
3	16:15:43	TM 18810.000	T 48310.000	T 1899.000	28830.000	T 28800.000	105.7%	15.810	6.634	4.398	8937.000
x		TM 18870.000	T 48090.000	T 1882.000	28430.000	T 28660.000	104.6%	15.760	7.140	4.308	8557.000
σ		TM 110.600	T 210.500	T 21.070	343.300	T 153.500	2.2%	0.109	0.461	0.082	336.400
%RSD		TM 0.586	T 0.438	T 1.120	1.207	T 0.536	2.1	0.691	6.456	1.901	3.931

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:49	1397.000	T 484.000	T 1461.000	1572.000	1.938	7.829	7.288	2.242	2.461	6.543
2	16:15:16	1380.000	T 483.500	T 1440.000	1545.000	1.918	7.915	7.617	2.142	2.327	6.351
3	16:15:43	1387.000	T 484.900	T 1456.000	1537.000	1.852	7.875	7.094	2.159	2.229	6.254
x		1388.000	T 484.100	T 1453.000	1551.000	1.903	7.873	7.333	2.181	2.339	6.383
σ		8.665	T 0.697	T 10.940	18.550	0.045	0.043	0.265	0.053	0.117	0.147
%RSD		0.624	T 0.144	T 0.753	1.196	2.371	0.543	3.607	2.446	4.998	2.299

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:49	17.430	13.950	1.318	-0.387	22.900	22.150	-0.855	-0.195	-1.597	178.900
2	16:15:16	17.220	14.660	1.546	-0.138	23.110	23.110	-0.635	-0.137	-2.572	177.300
3	16:15:43	17.280	13.650	1.819	-0.469	23.850	24.850	-2.710	-0.606	-1.208	178.500
x		17.310	14.090	1.561	-0.331	23.290	23.370	-1.400	-0.313	-1.792	178.200
σ		0.109	0.517	0.251	0.172	0.495	1.369	1.140	0.256	0.702	0.815
%RSD		0.630	3.668	16.070	51.990	2.126	5.860	81.410	81.840	39.180	0.457

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:49	105.1%	0.270	0.294	0.335	6.618	0.013	0.004	0.029	0.023	105.5%
2	16:15:16	110.4%	0.286	0.277	0.304	6.774	0.006	0.003	0.025	0.037	111.4%
3	16:15:43	108.4%	0.277	0.282	0.294	6.460	0.007	0.007	0.037	0.036	107.6%
x		108.0%	0.278	0.284	0.311	6.617	0.009	0.005	0.030	0.032	108.1%
σ		2.7%	0.008	0.009	0.021	0.157	0.004	0.002	0.006	0.008	3.0%
%RSD		2.5	2.790	3.037	6.896	2.370	41.820	47.050	20.760	24.700	2.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:49	0.983	1.288	0.190	0.180	214.800	214.300	108.4%	-0.018	-0.020	1.217
2	16:15:16	0.890	1.336	0.181	0.174	215.300	212.900	111.3%	-0.020	-0.022	1.181
3	16:15:43	0.930	1.192	0.185	0.162	214.400	212.400	111.7%	-0.019	-0.023	1.188
x		0.934	1.272	0.185	0.172	214.800	213.200	110.5%	-0.019	-0.022	1.195
σ		0.046	0.073	0.004	0.009	0.450	0.973	1.8%	0.001	0.001	0.019
%RSD		4.950	5.750	2.399	5.262	0.210	0.457	1.6	6.458	6.448	1.579

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:14:49	1.107	1.131	106.7%
2	16:15:16	1.130	1.160	108.6%
3	16:15:43	1.067	1.138	109.3%
x		1.101	1.143	108.2%
σ		0.032	0.015	1.4%
%RSD		2.881	1.297	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:44	113.5%	0.008	2.595	1.984	36.830	44.860	6.762	6.182	6.195	2.149
2	16:21:11	114.8%	-0.017	2.375	1.890	33.790	46.710	6.798	6.628	6.771	2.087
3	16:21:38	116.7%	-0.012	1.952	1.985	33.380	46.230	6.316	5.980	6.277	1.969
x		115.0%	-0.007	2.307	1.953	34.670	45.930	6.625	6.263	6.414	2.068
σ		1.6%	0.013	0.327	0.055	1.884	0.963	0.269	0.332	0.312	0.092
%RSD		1.4	180.900	14.180	2.809	5.434	2.097	4.054	5.293	4.860	4.434
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:44	40.830	T 48180.000	-9.240	34.720	32.870	101.6%	0.148	0.336	0.861	7768.000
2	16:21:11	41.320	T 48200.000	-11.000	25.140	32.970	103.7%	0.069	-0.322	0.814	8195.000
3	16:21:38	41.660	T 47500.000	-8.129	38.590	35.520	104.2%	0.116	-0.158	0.839	8093.000
x		41.270	T 47960.000	-9.456	32.820	33.790	103.1%	0.111	-0.048	0.838	8019.000
σ		0.416	T 397.700	1.447	6.920	1.503	1.4%	0.040	0.343	0.023	222.700
%RSD		1.008	T 0.829	15.300	21.090	4.449	1.3	35.880	710.300	2.801	2.777
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:44	8.079	0.231	8.945	-24.070	-0.028	0.284	0.130	0.135	0.192	2.289
2	16:21:11	8.114	0.242	8.503	-27.710	-0.024	0.259	-0.194	0.163	0.177	2.335
3	16:21:38	6.862	0.273	7.605	-30.810	-0.032	0.219	0.003	0.161	0.158	2.318
x		7.685	0.249	8.351	-27.530	-0.028	0.254	-0.021	0.153	0.176	2.314
σ		0.713	0.022	0.683	3.376	0.004	0.033	0.163	0.015	0.017	0.024
%RSD		9.278	8.812	8.180	12.260	12.980	12.950	793.600	10.060	9.914	1.020
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:44	3.099	2.418	-0.548	-0.618	6.514	7.101	-0.440	-0.115	-1.359	0.103
2	16:21:11	2.419	2.115	0.016	0.018	7.442	7.008	0.427	0.059	-1.129	0.105
3	16:21:38	3.122	2.517	0.068	-0.452	6.848	6.935	-1.701	-0.408	-0.816	0.111
x		2.880	2.350	-0.155	-0.351	6.934	7.015	-0.571	-0.154	-1.101	0.107
σ		0.400	0.210	0.342	0.330	0.470	0.083	1.070	0.236	0.273	0.004
%RSD		13.880	8.916	220.800	94.020	6.780	1.180	187.300	152.800	24.770	3.699
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:44	104.0%	-0.026	-0.009	-0.020	-0.721	0.001	-0.001	0.005	0.023	105.8%
2	16:21:11	105.1%	-0.032	-0.007	-0.007	-0.004	0.000	0.000	0.010	0.006	107.8%
3	16:21:38	105.1%	-0.028	-0.016	-0.008	-1.352	0.000	0.002	-0.001	0.006	107.3%
x		104.7%	-0.028	-0.011	-0.012	-0.692	0.001	0.000	0.005	0.012	107.0%
σ		0.7%	0.003	0.005	0.007	0.675	0.000	0.001	0.006	0.010	1.1%
%RSD		0.6	11.430	46.700	63.630	97.450	72.710	405.800	124.600	82.650	1.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:44	1.169	1.603	0.033	0.016	0.135	0.141	107.3%	-0.026	-0.026	-0.023
2	16:21:11	1.179	1.667	0.029	0.055	0.137	0.148	109.0%	-0.025	-0.028	-0.020
3	16:21:38	1.165	1.617	0.033	0.032	0.107	0.116	110.0%	-0.022	-0.026	-0.021
x		1.171	1.629	0.031	0.034	0.126	0.135	108.8%	-0.024	-0.027	-0.021
σ		0.007	0.034	0.003	0.020	0.017	0.016	1.4%	0.002	0.002	0.002
%RSD		0.622	2.090	8.104	58.460	13.080	12.150	1.2	8.497	5.642	7.328
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:20:44	-0.005	-0.012	107.4%							
2	16:21:11	-0.008	-0.014	110.0%							
3	16:21:38	-0.015	-0.015	109.8%							
x		-0.010	-0.014	109.1%							
σ		0.005	0.002	1.4%							
%RSD		54.030	12.870	1.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:41	106.1%	-0.041	16.710	18.390	-68.860	TM 368700.000	T 19550.000	T 20180.000	T 20890.000	TM 1299.000
2	16:27:09	109.1%	-0.041	16.550	18.260	-69.690	TM 371400.000	T 19620.000	T 20070.000	T 20670.000	TM 1299.000
3	16:27:36	109.4%	-0.035	16.690	18.200	-70.060	TM 385200.000	T 19730.000	T 20280.000	T 20910.000	TM 1304.000
x		108.2%	-0.039	16.650	18.280	-69.540	TM 375100.000	T 19640.000	T 20180.000	T 20820.000	TM 1301.000
σ		1.8%	0.004	0.086	0.097	0.613	TM 8857.000	T 89.550	T 102.000	T 131.400	TM 2.909
%RSD		1.7	9.440	0.518	0.528	0.881	TM 2.361	T 0.456	T 0.506	T 0.631	TM 0.224
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:41	T 7552.000	T 56080.000	T 3992.000	63830.000	T 66690.000	100.1%	160.100	13.360	2.503	6055.000
2	16:27:09	T 7536.000	T 56120.000	T 4016.000	63750.000	T 66350.000	103.6%	160.700	13.340	2.476	5979.000
3	16:27:36	T 7658.000	T 56650.000	T 4042.000	64390.000	T 67130.000	105.5%	161.500	12.710	2.449	6197.000
x		T 7582.000	T 56290.000	T 4016.000	63990.000	T 66730.000	103.1%	160.800	13.140	2.476	6077.000
σ		T 65.970	T 317.400	T 24.880	349.200	T 391.500	2.7%	0.722	0.370	0.027	110.800
%RSD		T 0.870	T 0.564	T 0.620	0.546	T 0.587	2.7	0.449	2.812	1.072	1.824
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:41	1594.000	87.040	T 1695.000	2117.000	1.300	2.326	1.826	2.070	1.825	14.170
2	16:27:09	1580.000	87.000	T 1690.000	2042.000	1.266	2.398	1.687	1.972	1.684	14.210
3	16:27:36	1587.000	86.120	T 1685.000	2028.000	1.244	2.543	1.541	2.136	1.676	14.820
x		1587.000	86.720	T 1690.000	2062.000	1.270	2.422	1.685	2.059	1.728	14.400
σ		6.875	0.521	T 5.049	47.940	0.028	0.110	0.142	0.082	0.084	0.363
%RSD		0.433	0.601	T 0.299	2.325	2.231	4.556	8.437	3.999	4.841	2.522
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:41	22.350	19.270	0.909	0.212	1506.000	1521.000	12.810	1.525	-1.838	TM 703.400
2	16:27:09	20.700	19.540	0.590	-0.633	1484.000	1514.000	12.730	1.477	-0.171	TM 697.400
3	16:27:36	21.230	19.840	0.718	-0.239	1511.000	1528.000	13.260	1.606	-1.328	TM 697.000
x		21.420	19.550	0.739	-0.220	1500.000	1521.000	12.930	1.536	-1.112	TM 699.300
σ		0.841	0.285	0.160	0.423	14.400	6.973	0.287	0.065	0.854	TM 3.569
%RSD		3.926	1.457	21.710	192.500	0.960	0.458	2.217	4.228	76.790	TM 0.510
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:41	104.0%	4.280	4.166	4.195	31.710	0.207	0.181	0.114	0.111	97.2%
2	16:27:09	107.4%	4.322	4.126	4.213	30.450	0.178	0.209	0.125	0.069	100.4%
3	16:27:36	110.4%	4.201	4.455	4.156	31.880	0.219	0.201	0.080	0.138	103.3%
x		107.3%	4.268	4.249	4.188	31.350	0.201	0.197	0.106	0.106	100.3%
σ		3.2%	0.061	0.180	0.029	0.783	0.021	0.014	0.024	0.034	3.0%
%RSD		3.0	1.439	4.228	0.698	2.499	10.410	7.287	22.120	32.470	3.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:41	1.413	1.884	0.302	0.345	170.500	171.400	103.3%	-0.020	-0.021	4.657
2	16:27:09	1.398	1.943	0.320	0.322	172.000	169.700	105.7%	-0.019	-0.020	4.660
3	16:27:36	1.449	1.926	0.352	0.341	171.900	171.800	108.2%	-0.018	-0.019	4.681
x		1.420	1.918	0.325	0.336	171.500	171.000	105.7%	-0.019	-0.020	4.666
σ		0.026	0.030	0.025	0.012	0.815	1.088	2.4%	0.001	0.001	0.013
%RSD		1.824	1.576	7.745	3.680	0.475	0.637	2.3	3.714	3.891	0.277
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:26:41	4.412	4.472	95.3%							
2	16:27:09	4.578	4.593	96.5%							
3	16:27:36	4.683	4.541	100.2%							
x		4.558	4.535	97.3%							
σ		0.136	0.061	2.5%							
%RSD		2.989	1.341	2.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:36	112.7%	-0.032	19.270	19.740	-22.050	T 34980.000	T 8582.000	T 8526.000	T 8607.000	T 427.600
2	16:33:04	114.2%	-0.037	19.800	19.610	-23.950	T 35100.000	T 8561.000	T 8460.000	T 8536.000	T 425.000
3	16:33:31	115.9%	-0.011	18.740	20.320	-23.350	T 34670.000	T 8492.000	T 8386.000	T 8469.000	T 422.400
x		114.3%	-0.027	19.270	19.890	-23.120	T 34920.000	T 8545.000	T 8457.000	T 8537.000	T 425.000
σ		1.6%	0.014	0.532	0.374	0.976	T 221.700	T 46.750	T 69.930	T 69.180	T 2.590
%RSD		1.4	51.880	2.763	1.882	4.220	T 0.635	T 0.547	T 0.827	T 0.810	T 0.610
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:36	TM 11350.000	T 47060.000	T 1103.000	15490.000	T 15860.000	104.7%	T -143.800	3.710	2.380	7945.000
2	16:33:04	TM 11120.000	T 46790.000	T 1110.000	15570.000	T 15860.000	103.9%	11.650	3.480	2.217	8281.000
3	16:33:31	TM 11170.000	T 46710.000	1108.000	15280.000	T 15700.000	105.9%	13.310	3.326	2.219	8593.000
x		TM 11210.000	T 46860.000	T 1107.000	15440.000	T 15810.000	104.8%	T -39.600	3.505	2.272	8273.000
σ		TM 122.700	T 184.800	T 3.715	150.400	T 95.120	1.0%	T 90.210	0.193	0.094	323.800
%RSD		TM 1.094	T 0.394	T 0.336	0.974	T 0.602	1.0	T 227.800	5.508	4.118	3.914
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:36	452.500	11.990	T 484.600	538.500	0.242	1.142	0.714	0.986	0.845	4.041
2	16:33:04	464.300	12.090	T 486.000	528.700	0.216	1.184	0.693	0.829	0.795	4.056
3	16:33:31	447.300	12.250	T 483.500	535.800	0.253	1.161	0.381	0.867	0.818	3.993
x		454.700	12.110	T 484.700	534.300	0.237	1.162	0.596	0.894	0.819	4.030
σ		8.709	0.129	T 1.254	5.062	0.019	0.021	0.186	0.082	0.025	0.032
%RSD		1.915	1.064	T 0.259	0.947	7.951	1.806	31.260	9.180	3.024	0.805
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:36	6.177	5.271	1.510	-0.169	32.330	32.380	3.047	0.644	-0.268	137.700
2	16:33:04	6.422	5.433	0.858	0.224	31.530	31.880	-0.582	-0.155	-0.997	136.500
3	16:33:31	5.883	5.161	1.384	-0.163	29.320	31.080	1.887	0.386	-0.105	137.500
x		6.161	5.288	1.251	-0.036	31.060	31.780	1.451	0.292	-0.457	137.200
σ		0.270	0.137	0.346	0.225	1.557	0.659	1.854	0.408	0.475	0.603
%RSD		4.384	2.594	27.640	626.400	5.012	2.075	127.800	139.900	104.000	0.439
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:36	106.4%	1.421	1.475	1.493	5.605	0.002	0.002	0.018	0.028	106.8%
2	16:33:04	105.5%	1.501	1.468	1.435	5.558	0.008	0.004	0.010	0.044	106.0%
3	16:33:31	108.3%	1.458	1.517	1.430	5.161	0.004	-0.001	0.040	0.040	108.4%
x		106.7%	1.460	1.487	1.453	5.441	0.005	0.002	0.023	0.037	107.1%
σ		1.4%	0.040	0.026	0.035	0.244	0.003	0.003	0.016	0.008	1.2%
%RSD		1.4	2.738	1.776	2.386	4.478	62.120	160.300	69.470	22.360	1.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:36	1.161	1.598	0.132	0.127	38.980	38.290	109.9%	-0.018	-0.025	0.599
2	16:33:04	1.165	1.603	0.121	0.085	39.690	39.480	111.0%	-0.023	-0.026	0.591
3	16:33:31	1.256	1.741	0.119	0.134	40.330	39.410	112.5%	-0.025	-0.025	0.602
x		1.194	1.647	0.124	0.115	39.670	39.060	111.2%	-0.022	-0.025	0.597
σ		0.054	0.081	0.007	0.027	0.674	0.667	1.3%	0.004	0.001	0.006
%RSD		4.491	4.931	5.635	23.330	1.699	1.708	1.2	16.320	4.092	0.974
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:32:36	0.479	0.537	107.1%							
2	16:33:04	0.509	0.530	108.6%							
3	16:33:31	0.540	0.550	107.8%							
x		0.509	0.539	107.8%							
σ		0.030	0.010	0.8%							
%RSD		5.984	1.910	0.7							

CCV MW11050 05/08/2019 16:38:07 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:36	93.8%	298.000	300.200	299.800	22.340	┬61730.000	┬60440.000	┬60080.000	┬60520.000	287.900
2	16:39:03	94.6%	290.800	287.900	287.000	11.780	┬62690.000	┬59390.000	┬59320.000	┬59250.000	284.300
3	16:39:30	95.1%	299.700	293.900	293.500	19.640	┬63680.000	┬60330.000	┬59670.000	┬59310.000	284.800
x		94.5%	98.726%	98.001%	97.821%	17.920	┬104.499%	┬60050.000	┬59690.000	┬99.492%	95.228%
σ		0.7%	n/a	n/a	n/a	5.484	┬n/a	┬575.900	┬378.800	┬n/a	n/a
%RSD		0.7	1.597	2.104	2.184	30.600	┬1.559	┬0.959	┬0.635	┬1.199	0.676

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:36	┬3006.000	755.600	┬62580.000	60690.000	┬61990.000	91.3%	295.600	302.900	292.900	1728.000
2	16:39:03	┬3051.000	717.700	┬61400.000	60170.000	┬61780.000	94.7%	297.200	299.200	290.400	1895.000
3	16:39:30	┬2994.000	708.100	┬61870.000	59670.000	┬61810.000	94.3%	296.800	297.100	289.400	1275.000
x		┬100.564%	727.100	┬103.249%	60180.000	┬103.100%	93.4%	98.849%	99.909%	96.963%	1633.000
σ		┬n/a	25.080	┬n/a	514.000	┬n/a	1.8%	n/a	n/a	n/a	320.700
%RSD		┬0.994	3.450	┬0.952	0.854	┬0.182	2.0	0.295	0.992	0.609	19.640

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:36	┬62450.000	290.500	┬62470.000	┬61930.000	290.600	287.000	290.300	280.700	279.500	276.300
2	16:39:03	┬61460.000	285.600	┬61700.000	┬61150.000	284.200	278.800	289.600	274.600	273.000	275.300
3	16:39:30	┬61490.000	287.000	┬61410.000	┬61150.000	288.000	277.900	280.000	272.100	271.400	277.900
x		┬61800.000	95.898%	┬61860.000	┬102.353%	95.855%	93.745%	286.600	275.800	91.537%	92.165%
σ		┬561.300	n/a	┬548.500	┬n/a	n/a	n/a	5.764	4.400	n/a	n/a
%RSD		┬0.908	0.870	┬0.887	┬0.734	1.119	1.786	2.011	1.595	1.557	0.489

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:36	281.300	279.700	293.400	280.900	12.240	11.410	1306.000	300.400	1.474	290.500
2	16:39:03	276.200	270.500	281.900	272.900	12.340	10.710	1276.000	292.500	-0.551	294.200
3	16:39:30	279.200	273.300	286.500	279.100	12.370	11.170	1243.000	282.500	0.081	┬305.400
x		278.900	274.500	95.755%	277.600	12.320	11.100	1275.000	97.270%	0.335	┬98.893%
σ		2.564	4.705	n/a	4.191	0.071	0.354	31.300	n/a	1.036	┬n/a
%RSD		0.919	1.714	2.019	1.510	0.573	3.192	2.455	3.074	309.400	┬2.612

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:36	92.1%	303.700	307.100	306.400	296.400	295.400	284.600	295.000	293.200	90.4%
2	16:39:03	93.8%	304.400	308.400	303.600	296.400	294.800	283.400	288.800	290.600	92.7%
3	16:39:30	94.9%	304.500	303.300	306.100	287.100	294.800	282.400	292.500	291.200	94.4%
x		93.6%	101.400%	102.094%	305.400	293.300	98.333%	283.500	292.100	97.214%	92.5%
σ		1.4%	n/a	n/a	1.518	5.386	n/a	1.123	3.143	n/a	2.0%
%RSD		1.5	0.134	0.854	0.497	1.836	0.130	0.396	1.076	0.475	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:38:36	301.900	300.500	300.300	300.000	298.600	298.700	95.2%	286.700	┬297.400	┬294.700
2	16:39:03	303.600	299.500	303.200	301.300	296.700	299.800	96.9%	287.500	┬301.200	307.000
3	16:39:30	299.200	297.900	297.800	301.600	297.100	300.000	97.9%	285.500	┬298.500	304.400
x		100.522%	99.760%	300.400	100.321%	99.154%	99.826%	96.7%	286.600	┬99.686%	┬100.681%
σ		n/a	n/a	2.685	n/a	n/a	n/a	1.4%	0.971	┬n/a	┬n/a
%RSD		0.725	0.444	0.894	0.283	0.342	0.235	1.4	0.339	┬0.657	┬2.155

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:38:36	299.000	301.100	91.4%
2	16:39:03	301.400	305.000	93.7%
3	16:39:30	302.700	304.400	94.3%
x		100.341%	101.167%	93.1%
σ		n/a	n/a	1.5%
%RSD		0.632	0.702	1.6

CCB IM9409-01 05/08/2019 16:44:07 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:34	102.4%	0.006	1.237	0.670	14.210	-11.620	2.253	2.474	2.265	0.100
2	16:45:01	104.1%	0.001	0.614	0.685	14.810	-16.090	0.021	0.170	-0.027	0.021
3	16:45:28	105.0%	-0.022	0.551	0.604	13.420	-16.490	-0.029	0.120	0.077	0.015
x		103.8%	-0.005	0.801	0.653	14.150	-14.730	0.748	0.922	0.772	0.045
σ		1.3%	0.015	0.379	0.043	0.701	2.706	1.303	1.345	1.294	0.048
%RSD		1.2	304.200	47.320	6.622	4.953	18.370	174.100	145.900	167.700	105.400
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:34	10.840	425.800	3.528	4.645	3.035	97.1%	0.044	0.023	0.011	54.740
2	16:45:01	10.240	411.200	3.518	-1.674	-0.247	98.5%	0.004	-0.016	0.001	59.200
3	16:45:28	9.992	413.500	2.354	-0.158	-0.432	99.5%	0.013	0.036	0.027	21.130
x		10.360	416.800	3.133	0.938	0.786	98.3%	0.020	0.014	0.013	45.020
σ		0.434	7.821	0.675	3.299	1.950	1.2%	0.021	0.027	0.013	20.810
%RSD		4.189	1.876	21.550	351.800	248.300	1.3	104.700	189.800	99.220	46.230
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:34	1.359	0.002	4.881	1.847	-0.009	0.013	0.371	-0.008	0.006	0.008
2	16:45:01	-0.335	-0.005	2.093	-3.452	-0.016	-0.002	-0.037	-0.015	-0.023	0.030
3	16:45:28	-0.337	-0.006	1.401	-8.581	-0.019	0.003	-0.079	-0.031	0.003	-0.011
x		0.229	-0.003	2.791	-3.395	-0.015	0.005	0.085	-0.018	-0.005	0.009
σ		0.979	0.004	1.842	5.214	0.005	0.008	0.249	0.012	0.016	0.020
%RSD		427.300	144.400	66.000	153.600	36.690	167.200	293.400	65.720	345.500	226.200
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:34	-0.026	-0.009	-0.141	-0.217	6.961	6.921	-2.382	-0.519	-1.964	0.017
2	16:45:01	-0.047	0.009	-0.124	-0.282	6.491	5.888	-2.353	-0.523	-2.109	0.000
3	16:45:28	0.080	0.056	-0.126	-0.366	6.840	7.185	-2.438	-0.544	-1.692	0.001
x		0.002	0.019	-0.130	-0.289	6.764	6.664	-2.391	-0.529	-1.922	0.006
σ		0.068	0.034	0.009	0.074	0.244	0.685	0.043	0.014	0.212	0.009
%RSD		2739.000	178.300	7.170	25.800	3.606	10.280	1.807	2.578	11.010	150.100
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:34	98.4%	0.035	0.066	0.016	0.236	0.015	0.012	0.020	0.008	99.5%
2	16:45:01	100.5%	0.003	0.026	0.026	0.398	0.005	0.001	-0.004	-0.003	102.6%
3	16:45:28	101.8%	0.024	0.012	0.013	0.495	0.003	0.002	-0.004	0.000	103.2%
x		100.3%	0.021	0.035	0.018	0.376	0.008	0.005	0.004	0.002	101.7%
σ		1.7%	0.016	0.028	0.007	0.131	0.006	0.006	0.014	0.006	2.0%
%RSD		1.7	78.620	81.880	39.280	34.890	82.650	122.600	351.300	351.900	2.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:34	0.053	0.054	0.134	0.126	0.044	0.008	100.9%	0.000	-0.007	0.017
2	16:45:01	0.049	0.049	0.101	0.111	-0.002	0.005	101.6%	-0.006	-0.016	0.002
3	16:45:28	0.038	0.045	0.098	0.108	-0.002	0.002	103.4%	-0.007	-0.008	0.007
x		0.047	0.049	0.111	0.115	0.014	0.005	102.0%	-0.004	-0.010	0.008
σ		0.008	0.005	0.020	0.010	0.026	0.003	1.3%	0.004	0.005	0.008
%RSD		17.290	9.367	17.930	8.569	192.400	52.700	1.3	97.280	46.180	90.890
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:44:34	0.038	0.028	105.2%							
2	16:45:01	0.015	0.013	106.1%							
3	16:45:28	0.014	0.013	105.2%							
x		0.022	0.018	105.5%							
σ		0.014	0.009	0.5%							
%RSD		61.320	48.000	0.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:31	101.2%	-0.027	54.600	57.960	34.470	T 95140.000	T 50050.000	T 50200.000	T 50730.000	80.090
2	16:50:57	102.7%	-0.032	54.690	56.230	37.670	T 97360.000	T 50210.000	T 50170.000	T 50890.000	79.840
3	16:51:24	102.9%	-0.024	53.850	55.670	34.990	T 95200.000	T 49980.000	T 50250.000	T 50920.000	79.290
x		102.3%	-0.028	54.380	56.620	35.710	T 95900.000	T 50080.000	T 50210.000	T 50850.000	79.740
σ		1.0%	0.004	0.463	1.197	1.720	T 1266.000	T 118.300	T 38.710	T 100.300	0.407
%RSD		0.9	15.400	0.851	2.114	4.817	T 1.321	T 0.236	T 0.077	T 0.197	0.511

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:31	T 7554.000	T 53370.000	T 1967.000	M 108600.000	TM 111500.000	96.8%	4.176	1.033	0.655	2598.000
2	16:50:57	T 7666.000	T 53600.000	T 1980.000	M 108500.000	TM 111900.000	99.1%	4.581	1.370	0.718	2398.000
3	16:51:24	T 7592.000	T 53530.000	T 1986.000	M 108100.000	TM 112400.000	98.4%	3.840	1.111	0.677	2454.000
x		T 7604.000	T 53500.000	T 1978.000	M 108400.000	TM 111900.000	98.1%	4.199	1.171	0.683	2483.000
σ		T 56.770	T 117.900	T 9.491	M 280.900	TM 452.500	1.2%	0.371	0.176	0.032	103.600
%RSD		T 0.747	T 0.220	T 0.480	M 0.259	TM 0.404	1.2	8.837	15.040	4.642	4.173

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:31	815.200	TM 8930.000	T 882.200	1741.000	12.820	23.120	21.510	1.881	2.135	11.010
2	16:50:57	818.200	TM 9081.000	T 881.600	1703.000	13.280	23.410	22.220	1.850	2.180	11.280
3	16:51:24	823.900	TM 9015.000	T 895.600	1725.000	13.220	22.440	21.600	1.919	2.045	11.290
x		819.100	TM 9009.000	T 886.400	1723.000	13.110	22.990	21.780	1.883	2.120	11.190
σ		4.414	TM 75.940	T 7.920	19.030	0.246	0.498	0.387	0.035	0.068	0.158
%RSD		0.539	TM 0.843	T 0.893	1.104	1.876	2.165	1.778	1.857	3.229	1.415

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:31	48.930	39.820	1.433	0.148	935.200	956.200	8.550	1.041	-0.428	TM 957.500
2	16:50:57	48.960	40.580	1.262	0.107	951.600	960.500	5.140	0.169	0.306	TM 968.000
3	16:51:24	51.010	39.060	1.087	-0.073	929.900	948.300	5.894	0.453	-2.760	TM 973.900
x		49.630	39.820	1.261	0.060	938.900	955.000	6.528	0.554	-0.960	TM 966.400
σ		1.191	0.761	0.173	0.117	11.340	6.191	1.791	0.445	1.601	TM 8.318
%RSD		2.399	1.910	13.720	195.000	1.208	0.648	27.440	80.220	166.700	TM 0.861

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:31	98.7%	0.757	0.812	0.745	44.430	0.014	-0.000	0.227	0.266	94.6%
2	16:50:57	101.9%	0.785	0.725	0.704	46.540	0.009	0.009	0.221	0.275	99.7%
3	16:51:24	100.1%	0.743	0.780	0.744	44.950	0.008	0.013	0.255	0.306	97.1%
x		100.2%	0.762	0.772	0.731	45.310	0.010	0.007	0.234	0.282	97.1%
σ		1.6%	0.021	0.044	0.023	1.102	0.004	0.007	0.018	0.021	2.6%
%RSD		1.6	2.799	5.701	3.190	2.432	35.480	91.020	7.811	7.471	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:31	1.580	2.059	0.200	0.217	M 789.000	M 787.400	99.3%	-0.021	-0.028	0.058
2	16:50:57	1.559	2.053	0.203	0.251	M 803.500	M 800.700	104.2%	-0.026	-0.026	0.048
3	16:51:24	1.611	2.060	0.213	0.246	M 794.000	M 794.500	102.3%	-0.022	-0.022	0.060
x		1.583	2.057	0.205	0.238	M 795.500	M 794.200	101.9%	-0.023	-0.025	0.055
σ		0.026	0.004	0.007	0.018	M 7.397	M 6.661	2.5%	0.002	0.003	0.007
%RSD		1.657	0.196	3.286	7.732	M 0.930	M 0.839	2.4	10.110	11.630	12.060

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:50:31	0.076	0.063	95.1%
2	16:50:57	0.060	0.049	97.9%
3	16:51:24	0.061	0.058	96.6%
x		0.066	0.057	96.5%
σ		0.009	0.007	1.4%
%RSD		13.300	12.240	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:27	104.7%	0.001	7.550	8.171	-29.030	T 31900.000	T 27900.000	T 28140.000	T 28480.000	TM 780.500
2	16:56:54	106.5%	0.006	7.747	8.043	-37.020	T 32360.000	T 27450.000	T 27640.000	T 28080.000	TM 777.600
3	16:57:21	108.1%	0.021	8.034	7.997	-36.510	T 32530.000	T 27610.000	T 27690.000	T 28240.000	TM 778.300
x		106.5%	0.009	7.777	8.070	-34.190	T 32270.000	T 27650.000	T 27820.000	T 28270.000	TM 778.800
σ		1.7%	0.010	0.243	0.090	4.472	T 326.400	T 228.800	T 274.400	T 201.200	TM 1.519
%RSD		1.6	113.700	3.124	1.116	13.080	T 1.012	T 0.827	T 0.986	T 0.712	TM 0.195

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:27	TM 18830.000	T 47480.000	T 1555.000	56790.000	T 58940.000	100.7%	12.330	4.483	1.410	2768.000
2	16:56:54	TM 18590.000	T 46900.000	T 1562.000	56940.000	T 59400.000	102.2%	12.830	4.098	1.470	2848.000
3	16:57:21	TM 18570.000	T 47070.000	T 1567.000	57260.000	T 59150.000	103.7%	13.120	4.541	1.569	2602.000
x		TM 18670.000	T 47150.000	T 1561.000	57000.000	T 59160.000	102.2%	12.760	4.374	1.483	2739.000
σ		TM 146.600	T 300.800	T 5.690	240.200	T 227.600	1.5%	0.400	0.241	0.080	125.600
%RSD		TM 0.785	T 0.638	T 0.364	0.421	T 0.385	1.5	3.135	5.501	5.402	4.587

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:27	T 7093.000	TM 1839.000	T 7414.000	7565.000	6.021	6.649	6.727	2.150	2.432	14.950
2	16:56:54	T 7168.000	TM 1866.000	T 7507.000	7707.000	6.130	7.058	6.455	2.165	2.412	14.830
3	16:57:21	T 7143.000	TM 1853.000	T 7477.000	7610.000	5.954	6.868	6.266	2.269	2.477	14.900
x		T 7135.000	TM 1853.000	T 7466.000	7627.000	6.035	6.858	6.483	2.195	2.440	14.900
σ		T 38.040	TM 13.530	T 47.670	72.690	0.089	0.205	0.232	0.065	0.033	0.060
%RSD		T 0.533	TM 0.730	T 0.639	0.953	1.476	2.988	3.571	2.948	1.368	0.405

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:27	21.740	19.970	3.033	-0.420	172.500	180.300	2.309	0.451	-0.586	T 319.600
2	16:56:54	22.090	20.400	3.031	-0.173	176.500	181.700	-0.154	-0.076	-1.981	T 322.600
3	16:57:21	21.780	20.640	2.780	-0.664	175.900	176.900	0.457	0.068	-1.341	T 324.000
x		21.870	20.340	2.948	-0.419	175.000	179.600	0.871	0.148	-1.302	T 322.100
σ		0.190	0.337	0.146	0.246	2.174	2.504	1.282	0.272	0.699	T 2.239
%RSD		0.870	1.659	4.935	58.580	1.243	1.394	147.200	184.100	53.640	T 0.695

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:27	104.7%	0.100	0.082	0.089	12.370	0.016	0.008	0.212	0.167	99.4%
2	16:56:54	108.8%	0.111	0.075	0.072	13.620	0.020	0.015	0.130	0.177	101.5%
3	16:57:21	110.9%	0.102	0.098	0.093	13.210	0.012	0.014	0.169	0.191	103.0%
x		108.1%	0.105	0.085	0.085	13.070	0.016	0.012	0.171	0.178	101.3%
σ		3.1%	0.006	0.012	0.011	0.634	0.004	0.004	0.041	0.012	1.8%
%RSD		2.9	5.623	14.260	13.070	4.850	23.920	29.300	24.090	6.644	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:56:27	1.098	1.452	0.176	0.191	168.100	166.700	103.5%	-0.011	-0.022	1.294
2	16:56:54	0.991	1.417	0.191	0.200	165.900	165.600	105.2%	-0.014	-0.023	1.292
3	16:57:21	1.084	1.451	0.199	0.224	166.100	165.600	107.6%	-0.022	-0.021	1.315
x		1.058	1.440	0.189	0.205	166.700	166.000	105.4%	-0.016	-0.022	1.301
σ		0.058	0.020	0.011	0.017	1.213	0.623	2.0%	0.006	0.001	0.013
%RSD		5.490	1.357	6.047	8.420	0.728	0.375	1.9	36.140	3.898	0.997

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:56:27	1.139	1.205	100.7%
2	16:56:54	1.142	1.213	101.7%
3	16:57:21	1.172	1.193	103.1%
x		1.151	1.203	101.8%
σ		0.018	0.010	1.2%
%RSD		1.596	0.837	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:23	106.5%	-0.047	2.067	1.939	-75.550	T 22600.000	T 8109.000	T 8231.000	T 8491.000	T 120.600
2	17:02:50	108.7%	-0.045	1.788	2.115	-77.050	T 22110.000	T 8092.000	T 8214.000	T 8479.000	T 120.700
3	17:03:17	110.6%	-0.047	2.133	2.002	-76.150	T 22280.000	T 8067.000	T 8189.000	T 8444.000	124.000
x		108.6%	-0.047	1.996	2.019	-76.250	T 22330.000	T 8089.000	T 8211.000	T 8471.000	T 121.800
σ		2.1%	0.001	0.183	0.089	0.755	T 248.300	T 21.130	T 21.080	T 24.710	T 1.915
%RSD		1.9	2.675	9.169	4.414	0.990	T 1.112	T 0.261	T 0.257	T 0.292	T 1.573

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:23	TM 17120.000	T 37860.000	753.000	16610.000	16070.000	100.1%	8.314	0.990	1.051	3156.000
2	17:02:50	TM 16670.000	T 38300.000	750.900	16810.000	T 17120.000	100.5%	8.717	1.196	1.110	3157.000
3	17:03:17	TM 16470.000	T 38220.000	751.800	16450.000	T 16960.000	100.5%	8.745	1.081	1.024	3350.000
x		TM 16750.000	T 38130.000	751.900	16620.000	T 16720.000	100.4%	8.592	1.089	1.062	3221.000
σ		TM 336.800	T 230.700	1.061	178.600	T 566.800	0.2%	0.241	0.103	0.044	111.900
%RSD		TM 2.011	T 0.605	0.141	1.075	T 3.391	0.2	2.804	9.484	4.108	3.475

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:23	2092.000	TM 3609.000	T 2199.000	2134.000	3.730	6.255	5.899	3.897	3.997	5.709
2	17:02:50	2103.000	TM 3705.000	T 2239.000	2216.000	3.913	6.411	6.790	3.984	4.210	5.910
3	17:03:17	2085.000	TM 3607.000	T 2202.000	2174.000	3.847	6.264	5.598	3.928	4.036	5.841
x		2093.000	TM 3640.000	T 2213.000	2175.000	3.830	6.310	6.096	3.936	4.081	5.820
σ		9.342	TM 56.280	T 22.420	41.300	0.092	0.087	0.620	0.044	0.114	0.102
%RSD		0.446	TM 1.546	T 1.013	1.899	2.415	1.385	10.170	1.130	2.786	1.755

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:23	15.780	13.250	12.030	-0.605	27.450	26.950	-1.537	-0.361	-0.793	159.300
2	17:02:50	15.230	13.800	12.160	0.071	25.950	26.900	-1.802	-0.461	0.433	159.200
3	17:03:17	16.200	13.300	12.000	-0.368	26.610	26.900	-1.958	-0.430	-2.715	159.900
x		15.740	13.450	12.060	-0.301	26.670	26.920	-1.766	-0.417	-1.025	159.500
σ		0.488	0.300	0.086	0.343	0.754	0.032	0.213	0.052	1.587	0.371
%RSD		3.099	2.231	0.716	114.000	2.829	0.120	12.040	12.360	154.800	0.233

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:23	100.8%	0.835	0.883	0.801	6.431	0.020	0.014	0.149	0.114	100.8%
2	17:02:50	102.2%	0.794	0.814	0.759	5.032	0.016	0.008	0.102	0.150	103.0%
3	17:03:17	102.0%	0.833	0.757	0.817	5.936	0.012	0.009	0.134	0.112	103.2%
x		101.6%	0.821	0.818	0.792	5.800	0.016	0.010	0.128	0.125	102.3%
σ		0.8%	0.023	0.063	0.030	0.710	0.004	0.003	0.024	0.021	1.3%
%RSD		0.7	2.814	7.700	3.780	12.230	22.220	32.490	18.820	17.120	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:23	1.153	1.649	0.115	0.079	208.400	207.500	105.6%	-0.014	-0.020	0.573
2	17:02:50	1.207	1.646	0.094	0.107	208.300	205.100	105.8%	-0.016	-0.019	0.476
3	17:03:17	1.151	1.665	0.093	0.108	206.300	205.300	106.5%	-0.020	-0.022	0.498
x		1.170	1.654	0.101	0.098	207.700	206.000	106.0%	-0.017	-0.020	0.516
σ		0.032	0.010	0.013	0.016	1.137	1.315	0.5%	0.003	0.002	0.051
%RSD		2.721	0.614	12.450	16.850	0.548	0.638	0.5	15.660	8.564	9.897

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:02:23	0.473	0.501	103.5%
2	17:02:50	0.498	0.486	104.9%
3	17:03:17	0.446	0.489	105.0%
x		0.472	0.492	104.5%
σ		0.026	0.008	0.8%
%RSD		5.539	1.606	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:19	105.4%	0.093	6.400	7.044	-19.110	T 78090.000	T 11680.000	T 11680.000	T 11890.000	TM 6510.000
2	17:08:46	108.7%	0.111	6.521	6.954	-21.660	T 77980.000	T 11730.000	T 11660.000	T 11800.000	TM 6427.000
3	17:09:14	110.0%	0.085	6.678	6.792	-20.480	T 81540.000	T 11800.000	T 11820.000	T 12060.000	TM 6574.000
x		108.0%	0.096	6.533	6.930	-20.420	T 79200.000	T 11740.000	T 11720.000	T 11910.000	TM 6504.000
σ		2.4%	0.013	0.139	0.127	1.275	T 2026.000	T 60.000	T 86.810	T 129.900	TM 73.840
%RSD		2.2	13.800	2.130	1.837	6.244	T 2.558	T 0.511	T 0.741	T 1.090	TM 1.135
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:19	TM 25700.000	T 45650.000	T 1804.000	44230.000	T 46260.000	101.9%	108.400	15.330	7.779	3705.000
2	17:08:46	TM 25360.000	T 46310.000	T 1831.000	44450.000	T 46120.000	103.0%	106.000	15.520	7.750	3754.000
3	17:09:14	TM 25890.000	T 46460.000	T 1839.000	45530.000	T 46800.000	106.2%	109.600	15.830	7.742	3764.000
x		TM 25650.000	T 46140.000	T 1825.000	44740.000	T 46390.000	103.7%	108.000	15.560	7.757	3741.000
σ		TM 268.900	T 431.500	T 18.320	691.800	T 357.400	2.3%	1.792	0.252	0.019	31.480
%RSD		TM 1.048	T 0.935	T 1.004	1.546	T 0.770	2.2	1.659	1.616	0.250	0.842
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:19	T 8049.000	TM 904.500	T 8403.000	8463.000	5.529	12.670	12.010	10.600	11.340	30.290
2	17:08:46	T 7952.000	TM 894.700	T 8278.000	8410.000	5.419	12.880	12.300	10.270	11.070	30.230
3	17:09:14	T 8046.000	TM 900.000	T 8304.000	8448.000	5.491	12.870	12.300	10.400	11.020	29.780
x		T 8016.000	TM 899.700	T 8328.000	8440.000	5.480	12.810	12.200	10.420	11.150	30.100
σ		T 55.140	TM 4.921	T 65.820	27.030	0.056	0.120	0.168	0.162	0.174	0.279
%RSD		T 0.688	TM 0.547	T 0.790	0.320	1.016	0.936	1.377	1.558	1.558	0.925
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:19	35.600	35.290	10.080	-0.736	167.200	168.300	0.247	0.102	-2.194	227.300
2	17:08:46	36.730	35.360	10.700	-0.386	164.600	172.400	-0.131	0.007	-1.274	T 230.100
3	17:09:14	37.250	34.250	10.130	-0.470	172.600	175.200	0.431	0.199	-3.186	T 231.500
x		36.530	34.970	10.310	-0.531	168.100	172.000	0.183	0.103	-2.218	T 229.600
σ		0.846	0.620	0.343	0.183	4.088	3.495	0.286	0.096	0.957	T 2.109
%RSD		2.316	1.773	3.326	34.420	2.432	2.032	156.800	93.530	43.120	T 0.919
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:19	109.9%	0.582	0.584	0.618	14.580	0.016	0.012	0.372	0.300	99.3%
2	17:08:46	115.0%	0.598	0.629	0.637	9.932	0.018	0.017	0.371	0.298	101.8%
3	17:09:14	117.0%	0.597	0.615	0.650	8.541	0.028	0.010	0.306	0.305	103.5%
x		113.9%	0.592	0.609	0.635	11.020	0.020	0.013	0.350	0.301	101.5%
σ		3.7%	0.009	0.023	0.016	3.165	0.006	0.004	0.038	0.004	2.2%
%RSD		3.2	1.466	3.805	2.490	28.720	30.920	27.030	10.770	1.261	2.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:19	1.113	1.191	0.291	0.290	157.100	157.200	104.1%	0.009	-0.001	6.021
2	17:08:46	1.076	1.209	0.273	0.253	156.000	158.000	106.4%	-0.008	0.003	5.935
3	17:09:14	1.197	1.180	0.266	0.273	157.800	159.000	109.6%	0.004	0.003	6.084
x		1.128	1.193	0.277	0.272	157.000	158.100	106.7%	0.002	0.002	6.013
σ		0.062	0.015	0.013	0.019	0.920	0.930	2.8%	0.009	0.002	0.075
%RSD		5.502	1.218	4.667	6.892	0.586	0.588	2.6	430.900	113.900	1.247
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	17:08:19	5.456	5.721	100.5%							
2	17:08:46	5.396	5.626	103.8%							
3	17:09:14	5.391	5.687	104.2%							
x		5.414	5.678	102.8%							
σ		0.036	0.048	2.0%							
%RSD		0.667	0.841	1.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:16	106.6%	-0.042	7.321	7.889	-42.120	TM 109600.000	T 22940.000	T 23200.000	T 23840.000	TM 692.200
2	17:14:43	109.6%	-0.030	7.011	7.597	-49.840	TM 109300.000	T 22900.000	T 23170.000	T 23870.000	TM 693.900
3	17:15:10	112.0%	-0.040	7.384	7.351	-49.070	TM 110100.000	T 22810.000	T 23100.000	T 23650.000	TM 681.300
x		109.4%	-0.037	7.238	7.612	-47.010	TM 109700.000	T 22880.000	T 23160.000	T 23790.000	TM 689.200
σ		2.7%	0.007	0.200	0.269	4.252	TM 400.300	T 70.140	T 50.040	T 116.200	TM 6.838
%RSD		2.5	17.900	2.760	3.534	9.046	TM 0.365	T 0.306	T 0.216	T 0.489	TM 0.992

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:16	TM 14630.000	T 47330.000	T 2152.000	65630.000	T 68170.000	101.2%	17.800	2.745	1.570	5165.000
2	17:14:43	TM 14440.000	T 47320.000	T 2151.000	66310.000	T 68970.000	102.2%	18.900	2.480	1.517	5589.000
3	17:15:10	TM 14040.000	T 46700.000	T 2152.000	65760.000	T 68950.000	103.7%	18.010	2.883	1.534	5597.000
x		TM 14370.000	T 47120.000	T 2152.000	65900.000	T 68690.000	102.4%	18.240	2.703	1.540	5450.000
σ		TM 301.900	T 360.900	T 0.762	357.100	T 457.400	1.3%	0.586	0.205	0.027	247.000
%RSD		TM 2.101	T 0.766	T 0.035	0.542	T 0.666	1.3	3.213	7.572	1.755	4.532

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:16	867.400	114.100	T 941.700	1363.000	1.090	7.574	7.924	1.879	1.964	5.098
2	17:14:43	873.400	115.400	T 939.200	1358.000	1.145	7.845	6.823	1.954	2.033	5.282
3	17:15:10	867.900	114.200	T 941.500	1315.000	1.131	7.837	6.815	1.953	2.033	5.528
x		869.500	114.600	T 940.800	1345.000	1.122	7.752	7.187	1.929	2.010	5.303
σ		3.327	0.740	T 1.384	26.570	0.029	0.154	0.638	0.043	0.040	0.216
%RSD		0.383	0.646	T 0.147	1.975	2.557	1.989	8.879	2.221	1.969	4.067

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:16	9.438	8.862	1.549	-0.497	743.900	742.900	6.995	0.883	-2.527	TM 521.200
2	17:14:43	10.280	8.620	1.653	0.056	740.000	746.600	5.795	0.593	-2.029	TM 525.900
3	17:15:10	11.160	8.776	2.078	-0.590	732.700	744.700	6.531	0.715	-0.623	TM 519.300
x		10.290	8.753	1.760	-0.344	738.900	744.700	6.440	0.731	-1.726	TM 522.100
σ		0.863	0.123	0.280	0.349	5.710	1.876	0.605	0.146	0.988	TM 3.403
%RSD		8.378	1.405	15.900	101.600	0.773	0.252	9.394	19.920	57.210	TM 0.652

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:16	101.5%	0.238	0.259	0.269	24.510	0.006	0.007	0.101	0.071	100.2%
2	17:14:43	104.1%	0.191	0.299	0.264	22.910	0.003	0.006	0.069	0.098	102.5%
3	17:15:10	107.0%	0.257	0.260	0.265	22.940	0.006	0.003	0.058	0.059	105.8%
x		104.2%	0.229	0.273	0.266	23.450	0.005	0.005	0.076	0.076	102.9%
σ		2.8%	0.034	0.023	0.003	0.912	0.002	0.002	0.022	0.020	2.8%
%RSD		2.7	14.850	8.311	1.023	3.890	31.790	38.920	29.410	26.410	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:16	1.080	1.464	0.096	0.070	102.500	102.800	104.1%	-0.017	-0.020	0.399
2	17:14:43	0.979	1.363	0.089	0.131	103.200	101.400	107.0%	-0.013	-0.020	0.378
3	17:15:10	0.992	1.454	0.098	0.098	102.400	102.000	110.8%	-0.012	-0.015	0.363
x		1.017	1.427	0.095	0.099	102.700	102.100	107.3%	-0.014	-0.018	0.380
σ		0.055	0.056	0.005	0.030	0.445	0.689	3.4%	0.003	0.003	0.018
%RSD		5.385	3.891	5.219	30.420	0.433	0.675	3.1	18.160	13.660	4.858

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:14:16	0.339	0.355	99.7%
2	17:14:43	0.381	0.361	101.2%
3	17:15:10	0.347	0.356	105.6%
x		0.356	0.357	102.2%
σ		0.022	0.003	3.1%
%RSD		6.165	0.887	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:11	108.1%	-0.022	17.310	16.990	-10.710	T 36740.000	T 7586.000	T 7478.000	T 7644.000	T 452.600
2	17:20:39	109.8%	-0.018	16.590	17.290	-10.680	T 37010.000	T 7507.000	T 7334.000	T 7493.000	T 438.800
3	17:21:07	111.0%	-0.022	16.800	16.790	-18.150	T 37010.000	T 7588.000	T 7397.000	T 7538.000	T 447.900
x		109.6%	-0.021	16.900	17.020	-13.180	T 36920.000	T 7560.000	T 7403.000	T 7558.000	T 446.400
σ		1.5%	0.002	0.371	0.254	4.307	T 155.800	T 46.470	T 72.350	T 77.410	T 6.981
%RSD		1.3	11.120	2.193	1.493	32.680	T 0.422	T 0.615	T 0.977	T 1.024	T 1.564

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:11	TM 11000.000	T 47670.000	T 3084.000	37260.000	T 38260.000	99.7%	16.670	4.608	1.880	6777.000
2	17:20:39	TM 10970.000	T 47210.000	T 3134.000	37810.000	T 38360.000	101.5%	12.450	4.421	1.921	6533.000
3	17:21:07	TM 10920.000	T 47570.000	T 3132.000	38110.000	T 38710.000	100.6%	13.830	4.331	1.903	6624.000
x		TM 10960.000	T 47480.000	T 3117.000	37730.000	T 38440.000	100.6%	14.320	4.454	1.901	6645.000
σ		TM 38.180	T 240.200	T 28.590	430.200	T 235.000	0.9%	2.150	0.141	0.021	123.300
%RSD		TM 0.348	T 0.506	T 0.918	1.140	T 0.611	0.9	15.020	3.173	1.087	1.856

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:11	591.500	14.130	T 623.700	853.300	0.341	3.979	3.715	0.683	0.814	5.084
2	17:20:39	608.600	14.460	T 629.900	849.100	0.395	3.777	3.691	0.730	0.854	5.295
3	17:21:07	598.300	14.570	T 639.500	857.000	0.365	3.990	3.694	0.735	0.756	5.099
x		599.500	14.380	T 631.000	853.100	0.367	3.915	3.700	0.716	0.808	5.159
σ		8.595	0.228	T 7.945	3.931	0.027	0.120	0.013	0.029	0.049	0.118
%RSD		1.434	1.587	T 1.259	0.461	7.372	3.073	0.357	3.988	6.067	2.282

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:11	11.090	9.611	2.203	-0.402	25.770	26.960	-0.792	-0.196	-0.230	T 262.200
2	17:20:39	11.950	9.469	2.213	-0.477	26.280	26.330	0.556	0.141	-2.663	262.700
3	17:21:07	10.510	10.010	2.435	-0.932	25.540	25.100	-1.366	-0.357	-0.638	T 266.300
x		11.180	9.697	2.283	-0.604	25.860	26.130	-0.534	-0.137	-1.177	T 263.700
σ		0.724	0.281	0.131	0.287	0.378	0.944	0.987	0.254	1.303	T 2.242
%RSD		6.476	2.901	5.740	47.470	1.462	3.614	184.700	184.900	110.700	T 0.850

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:11	102.3%	0.728	0.668	0.663	10.450	0.003	0.002	0.008	0.016	101.5%
2	17:20:39	103.9%	0.639	0.701	0.662	8.486	0.002	0.000	0.011	0.014	104.4%
3	17:21:07	103.2%	0.669	0.680	0.624	10.800	0.003	0.002	0.008	0.039	105.1%
x		103.1%	0.679	0.683	0.650	9.910	0.003	0.002	0.009	0.023	103.7%
σ		0.8%	0.045	0.017	0.022	1.245	0.000	0.001	0.002	0.014	1.9%
%RSD		0.8	6.674	2.453	3.434	12.570	14.810	70.480	17.640	60.820	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:11	1.315	1.864	0.114	0.095	128.000	126.900	105.7%	-0.026	-0.028	0.280
2	17:20:39	1.179	1.812	0.110	0.090	127.100	125.900	108.4%	-0.023	-0.027	0.275
3	17:21:07	1.274	1.771	0.109	0.124	126.600	126.600	110.0%	-0.023	-0.028	0.276
x		1.256	1.816	0.111	0.103	127.200	126.500	108.1%	-0.024	-0.028	0.277
σ		0.070	0.047	0.003	0.018	0.738	0.491	2.2%	0.002	0.001	0.003
%RSD		5.577	2.570	2.362	17.810	0.580	0.388	2.0	9.202	1.805	0.922

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:20:11	0.222	0.250	104.9%
2	17:20:39	0.266	0.266	107.0%
3	17:21:07	0.264	0.258	107.4%
x		0.250	0.258	106.4%
σ		0.025	0.008	1.4%
%RSD		9.968	3.135	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:08	108.9%	0.035	6.735	6.228	-10.020	T 14640.000	T 3236.000	3123.000	T 3148.000	TM 4229.000
2	17:26:35	111.6%	0.030	6.174	6.403	-9.767	T 14820.000	T 3258.000	3130.000	T 3199.000	TM 4258.000
3	17:27:02	112.7%	0.004	6.565	6.366	-15.440	T 15260.000	T 3316.000	3157.000	T 3207.000	TM 4287.000
x		111.1%	0.023	6.491	6.333	-11.740	T 14910.000	T 3270.000	3137.000	T 3185.000	TM 4258.000
σ		2.0%	0.017	0.288	0.092	3.204	T 315.900	T 41.100	17.870	T 32.210	TM 29.000
%RSD		1.8	74.020	4.436	1.457	27.290	T 2.119	T 1.257	0.570	T 1.011	TM 0.681

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:08	TM 13410.000	T 47570.000	T 4653.000	8984.000	8685.000	101.3%	64.840	9.164	5.439	5786.000
2	17:26:35	TM 13370.000	T 48070.000	T 4741.000	9094.000	8608.000	101.6%	62.370	8.993	5.443	5925.000
3	17:27:02	TM 13320.000	T 48520.000	T 4771.000	9010.000	8678.000	102.0%	63.520	9.301	5.528	5881.000
x		TM 13370.000	T 48050.000	T 4722.000	9030.000	8657.000	101.6%	63.570	9.153	5.470	5864.000
σ		TM 46.960	T 476.600	T 61.430	57.730	42.570	0.4%	1.236	0.155	0.050	71.050
%RSD		TM 0.351	T 0.992	T 1.301	0.639	0.492	0.4	1.945	1.689	0.915	1.212

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:08	6238.000	126.000	T 6436.000	6273.000	1.704	3.758	3.379	4.856	5.323	12.940
2	17:26:35	T 5967.000	125.300	T 6337.000	6158.000	1.702	3.992	4.051	5.077	4.980	12.630
3	17:27:02	T 5946.000	124.600	T 6297.000	6174.000	1.660	3.819	3.726	4.832	5.124	12.500
x		T 6050.000	125.300	T 6357.000	6202.000	1.689	3.856	3.719	4.922	5.143	12.690
σ		T 162.800	0.725	T 71.570	62.340	0.025	0.122	0.336	0.135	0.172	0.229
%RSD		T 2.690	0.579	T 1.126	1.005	1.459	3.151	9.046	2.749	3.350	1.806

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:08	14.810	14.630	3.326	-0.019	14.120	13.080	0.633	0.309	-2.411	55.220
2	17:26:35	15.500	14.620	2.796	0.263	14.220	13.400	-0.155	0.090	-3.397	55.200
3	17:27:02	14.470	14.330	2.744	-0.077	11.900	13.130	-2.336	-0.531	0.831	55.300
x		14.930	14.530	2.955	0.056	13.410	13.200	-0.619	-0.044	-1.659	55.240
σ		0.523	0.170	0.322	0.182	1.312	0.171	1.538	0.436	2.212	0.056
%RSD		3.505	1.167	10.900	324.400	9.780	1.298	248.500	990.200	133.400	0.101

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:08	111.2%	0.250	0.203	0.218	3.693	0.024	0.019	0.104	0.106	103.4%
2	17:26:35	109.0%	0.232	0.238	0.181	2.548	0.025	0.013	0.097	0.101	104.5%
3	17:27:02	111.0%	0.205	0.204	0.211	2.152	0.027	0.014	0.114	0.113	107.1%
x		110.4%	0.229	0.215	0.204	2.797	0.025	0.015	0.105	0.107	105.0%
σ		1.2%	0.023	0.020	0.020	0.800	0.001	0.003	0.009	0.006	1.9%
%RSD		1.1	9.990	9.254	9.792	28.610	4.885	21.730	8.254	5.453	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:08	1.073	1.260	0.180	0.131	55.570	54.940	107.2%	-0.003	-0.001	4.168
2	17:26:35	1.075	1.306	0.141	0.163	54.820	54.570	108.4%	-0.008	-0.006	4.280
3	17:27:02	1.068	1.366	0.172	0.180	55.800	55.290	110.8%	-0.000	-0.004	4.213
x		1.072	1.310	0.164	0.158	55.400	54.930	108.8%	-0.004	-0.004	4.220
σ		0.004	0.053	0.021	0.025	0.513	0.361	1.8%	0.004	0.003	0.057
%RSD		0.334	4.065	12.620	15.970	0.926	0.657	1.7	110.000	65.800	1.342

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:26:08	3.898	3.953	106.6%
2	17:26:35	3.875	3.974	107.7%
3	17:27:02	3.820	3.942	109.7%
x		3.864	3.956	108.0%
σ		0.040	0.016	1.6%
%RSD		1.044	0.414	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:32:05	106.6%	-0.034	6.026	6.922	3.686	T 73630.000	T 35500.000	T 36350.000	T 37340.000	T 446.500
2	17:32:32	108.0%	-0.034	6.254	6.520	-1.974	T 74460.000	T 35740.000	T 36430.000	T 37370.000	T 444.000
3	17:32:59	110.0%	-0.049	6.488	6.774	1.758	T 73600.000	T 35810.000	T 36470.000	T 37360.000	T 447.300
x		108.2%	-0.039	6.256	6.739	1.157	T 73900.000	T 35680.000	T 36420.000	T 37350.000	T 445.900
σ		1.7%	0.009	0.231	0.204	2.877	T 487.000	T 161.300	T 60.010	T 14.860	T 1.738
%RSD		1.6	22.510	3.691	3.019	248.700	T 0.659	T 0.452	T 0.165	T 0.040	T 0.390
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:32:05	TM 14090.000	T 45700.000	T 2162.000	67050.000	T 69370.000	100.1%	15.660	2.465	1.393	3188.000
2	17:32:32	TM 13810.000	T 45510.000	T 2161.000	66920.000	T 70200.000	99.6%	15.160	2.306	1.387	3279.000
3	17:32:59	TM 13870.000	T 45580.000	T 2169.000	67380.000	T 69610.000	101.7%	15.610	2.400	1.401	3192.000
x		TM 13920.000	T 45600.000	T 2164.000	67120.000	T 69730.000	100.4%	15.480	2.391	1.393	3220.000
σ		TM 145.100	T 96.840	T 4.348	240.500	T 430.300	1.1%	0.276	0.080	0.007	51.910
%RSD		TM 1.042	T 0.212	T 0.201	0.358	T 0.617	1.1	1.780	3.352	0.502	1.612
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:32:05	5310.000	TM 3265.000	T 5548.000	5707.000	7.989	4.937	4.077	1.230	1.588	6.665
2	17:32:32	5321.000	TM 3267.000	T 5555.000	5767.000	8.097	4.921	3.880	1.269	1.394	6.547
3	17:32:59	5324.000	TM 3308.000	T 5588.000	5792.000	8.089	4.854	3.592	1.275	1.585	6.875
x		5318.000	TM 3280.000	T 5564.000	5756.000	8.058	4.904	3.850	1.258	1.522	6.696
σ		7.456	TM 24.680	T 21.470	43.620	0.060	0.044	0.244	0.025	0.111	0.166
%RSD		0.140	TM 0.753	T 0.386	0.758	0.747	0.896	6.328	1.966	7.281	2.485
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:32:05	27.410	22.270	18.460	0.921	1057.000	1070.000	9.685	1.165	-1.102	TM 681.100
2	17:32:32	27.750	22.470	18.040	0.342	1054.000	1074.000	6.776	0.447	-1.638	TM 682.700
3	17:32:59	29.570	22.780	19.130	0.091	1068.000	1078.000	11.630	1.612	-1.021	TM 691.000
x		28.240	22.500	18.550	0.451	1060.000	1074.000	9.364	1.075	-1.254	TM 684.900
σ		1.161	0.257	0.548	0.426	7.234	3.808	2.444	0.588	0.335	TM 5.302
%RSD		4.111	1.144	2.957	94.300	0.683	0.355	26.100	54.660	26.750	TM 0.774
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:32:05	102.8%	0.579	0.585	0.599	30.700	0.012	0.003	0.015	0.026	99.4%
2	17:32:32	100.9%	0.574	0.675	0.567	27.280	0.009	0.007	0.024	0.041	99.8%
3	17:32:59	103.8%	0.566	0.629	0.600	29.990	0.011	0.010	0.033	0.041	100.4%
x		102.5%	0.573	0.630	0.589	29.320	0.011	0.007	0.024	0.036	99.9%
σ		1.5%	0.006	0.045	0.019	1.807	0.001	0.003	0.009	0.009	0.5%
%RSD		1.4	1.077	7.149	3.218	6.161	13.130	51.220	37.820	25.040	0.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:32:05	1.308	1.737	0.076	0.073	443.100	440.900	103.3%	-0.021	-0.026	0.453
2	17:32:32	1.243	1.718	0.083	0.066	436.000	438.200	102.6%	-0.020	-0.025	0.444
3	17:32:59	1.244	1.834	0.084	0.075	439.300	439.400	104.7%	-0.019	-0.028	0.434
x		1.265	1.763	0.081	0.071	439.500	439.500	103.5%	-0.020	-0.027	0.444
σ		0.037	0.062	0.004	0.004	3.557	1.342	1.1%	0.001	0.002	0.009
%RSD		2.942	3.541	5.170	6.286	0.810	0.305	1.0	4.824	5.943	2.107
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	17:32:05	0.402	0.419	98.4%							
2	17:32:32	0.408	0.424	99.8%							
3	17:32:59	0.426	0.431	100.2%							
x		0.412	0.425	99.5%							
σ		0.013	0.006	1.0%							
%RSD		3.036	1.390	1.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:02	108.1%	-0.050	2.649	2.769	-54.190	TM 122000.000	T 43190.000	T 44150.000	T 45260.000	103.400
2	17:38:29	109.9%	-0.053	2.496	2.798	-54.570	TM 123800.000	T 43490.000	T 44430.000	T 45750.000	T 102.900
3	17:38:56	111.0%	-0.044	2.496	2.762	-52.690	TM 122700.000	T 43370.000	T 44470.000	T 45440.000	T 99.500
x		109.7%	-0.049	2.547	2.776	-53.810	TM 122900.000	T 43350.000	T 44350.000	T 45480.000	T 101.900
σ		1.5%	0.005	0.088	0.019	0.991	TM 901.200	T 149.700	T 174.100	T 246.000	T 2.123
%RSD		1.3	10.080	3.462	0.691	1.842	TM 0.734	T 0.345	T 0.393	T 0.541	T 2.083

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:02	TM 14080.000	T 44400.000	T 2027.000	85490.000	T 89810.000	102.9%	5.474	3.087	0.970	5158.000
2	17:38:29	TM 14100.000	T 46050.000	T 2078.000	87190.000	T 92080.000	101.9%	5.589	3.149	0.992	5385.000
3	17:38:56	TM 13700.000	T 46270.000	T 2083.000	86810.000	T 91190.000	100.9%	5.477	3.192	1.001	5530.000
x		TM 13960.000	T 45570.000	T 2063.000	86500.000	T 91030.000	101.9%	5.513	3.143	0.988	5358.000
σ		TM 228.600	T 1026.000	T 30.970	893.400	T 1143.000	1.0%	0.066	0.053	0.016	187.700
%RSD		TM 1.638	T 2.250	T 1.501	1.033	T 1.256	1.0	1.190	1.683	1.602	3.503

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:02	412.200	TM 722.600	T 458.400	1070.000	2.071	2.852	1.934	0.927	0.966	2.071
2	17:38:29	408.700	TM 735.900	T 458.300	1073.000	2.152	2.951	1.261	0.949	0.912	2.099
3	17:38:56	411.300	TM 737.500	T 450.600	1062.000	2.133	2.809	1.577	0.920	0.984	2.037
x		410.800	TM 732.000	T 455.800	1068.000	2.119	2.871	1.591	0.932	0.954	2.069
σ		1.810	TM 8.178	T 4.492	5.552	0.043	0.073	0.337	0.015	0.037	0.031
%RSD		0.441	TM 1.117	T 0.986	0.520	2.011	2.528	21.170	1.632	3.902	1.489

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:02	16.020	11.910	1.104	0.151	666.800	684.400	5.151	0.482	-0.916	TM 890.000
2	17:38:29	15.520	12.140	1.306	-0.244	690.600	687.800	5.007	0.381	2.348	TM 887.800
3	17:38:56	14.720	12.050	1.376	-0.083	676.000	685.600	7.259	0.941	-0.894	TM 878.000
x		15.420	12.040	1.262	-0.059	677.800	685.900	5.806	0.601	0.179	TM 885.300
σ		0.652	0.114	0.142	0.199	12.000	1.726	1.261	0.298	1.878	TM 6.390
%RSD		4.228	0.947	11.210	339.200	1.770	0.252	21.720	49.620	1049.000	TM 0.722

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:02	99.7%	1.713	1.637	1.776	42.690	0.003	0.009	0.065	0.053	99.2%
2	17:38:29	101.1%	1.745	1.788	1.734	41.880	0.005	0.002	0.064	0.065	99.7%
3	17:38:56	102.1%	1.725	1.683	1.713	34.770	0.005	0.002	0.069	0.053	101.6%
x		100.9%	1.728	1.703	1.741	39.780	0.004	0.004	0.066	0.057	100.2%
σ		1.2%	0.016	0.077	0.032	4.353	0.001	0.004	0.003	0.007	1.3%
%RSD		1.2	0.913	4.538	1.841	10.940	22.700	88.220	3.991	11.730	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:02	1.315	1.866	0.155	0.135	283.500	281.900	104.7%	0.002	-0.011	0.129
2	17:38:29	1.386	1.894	0.153	0.159	280.100	281.000	105.3%	-0.006	-0.009	0.134
3	17:38:56	1.286	1.872	0.160	0.136	281.800	278.300	106.7%	-0.006	-0.011	0.121
x		1.329	1.878	0.156	0.144	281.800	280.400	105.5%	-0.003	-0.011	0.128
σ		0.051	0.015	0.004	0.014	1.679	1.887	1.0%	0.005	0.001	0.006
%RSD		3.856	0.789	2.317	9.546	0.596	0.673	1.0	137.700	11.650	4.945

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:38:02	0.149	0.136	97.1%
2	17:38:29	0.104	0.129	97.4%
3	17:38:56	0.151	0.130	99.0%
x		0.135	0.132	97.8%
σ		0.027	0.004	1.0%
%RSD		19.760	3.098	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:58	107.3%	-0.015	44.130	45.290	-12.870	TM 109300.000	T 21910.000	T 22150.000	T 22690.000	TM 1810.000
2	17:44:25	108.2%	-0.018	43.600	45.640	-12.420	TM 112400.000	T 21800.000	T 21990.000	T 22480.000	TM 1779.000
3	17:44:52	109.8%	-0.026	44.510	45.170	-18.020	TM 111300.000	T 21930.000	T 21940.000	T 22470.000	TM 1781.000
x		108.4%	-0.020	44.080	45.360	-14.430	TM 111000.000	T 21880.000	T 22030.000	T 22550.000	TM 1790.000
σ		1.3%	0.005	0.457	0.242	3.113	TM 1584.000	T 72.440	T 108.900	T 126.900	TM 17.250
%RSD		1.2	27.300	1.038	0.533	21.560	TM 1.427	T 0.331	T 0.495	T 0.563	TM 0.964
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:58	TM 11760.000	T 48530.000	T 1827.000	40970.000	T 41850.000	99.7%	42.620	7.851	3.267	4754.000
2	17:44:25	TM 11820.000	T 48000.000	T 1818.000	40310.000	T 41780.000	103.0%	41.950	7.692	3.095	4460.000
3	17:44:52	TM 11660.000	T 48410.000	T 1822.000	40330.000	T 41380.000	102.7%	41.060	7.624	3.148	4458.000
x		TM 11750.000	T 48310.000	T 1822.000	40540.000	T 41670.000	101.8%	41.880	7.722	3.170	4557.000
σ		TM 77.240	T 274.800	T 4.198	375.800	T 253.000	1.8%	0.780	0.117	0.088	170.300
%RSD		TM 0.658	T 0.569	T 0.230	0.927	T 0.607	1.8	1.862	1.513	2.783	3.738
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:58	4095.000	TM 1207.000	T 4271.000	4399.000	3.804	10.570	9.803	3.245	3.079	20.080
2	17:44:25	4058.000	TM 1211.000	T 4300.000	4387.000	3.833	10.620	9.995	3.155	3.115	20.380
3	17:44:52	4018.000	TM 1189.000	T 4177.000	4286.000	3.761	10.550	10.330	3.180	3.131	20.300
x		4057.000	TM 1202.000	T 4249.000	4358.000	3.799	10.580	10.040	3.193	3.108	20.260
σ		38.770	TM 11.830	T 64.630	62.420	0.036	0.036	0.269	0.046	0.027	0.157
%RSD		0.956	TM 0.984	T 1.521	1.433	0.956	0.337	2.677	1.452	0.867	0.774
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:58	26.090	24.370	6.439	0.132	373.500	379.000	4.454	0.708	-1.070	251.700
2	17:44:25	26.710	24.590	6.657	-0.387	375.200	378.800	1.222	-0.045	-2.172	T 250.700
3	17:44:52	25.610	24.670	6.580	-0.038	374.400	378.700	0.868	-0.113	-1.139	T 249.000
x		26.140	24.540	6.558	-0.097	374.400	378.800	2.181	0.183	-1.460	T 250.400
σ		0.555	0.156	0.111	0.264	0.855	0.183	1.976	0.456	0.617	T 1.351
%RSD		2.123	0.635	1.691	271.300	0.228	0.048	90.600	248.900	42.280	T 0.539
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:58	104.8%	0.278	0.292	0.301	10.530	0.034	0.019	0.124	0.160	100.9%
2	17:44:25	109.3%	0.302	0.374	0.313	10.540	0.028	0.020	0.146	0.137	106.4%
3	17:44:52	107.8%	0.326	0.375	0.304	12.090	0.028	0.026	0.142	0.148	103.0%
x		107.3%	0.302	0.347	0.306	11.050	0.030	0.022	0.137	0.148	103.5%
σ		2.3%	0.024	0.047	0.006	0.896	0.003	0.004	0.012	0.012	2.8%
%RSD		2.1	7.969	13.670	2.055	8.109	11.480	19.160	8.457	7.801	2.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:58	1.160	1.556	0.303	0.282	134.000	135.200	105.5%	-0.015	-0.014	1.799
2	17:44:25	1.177	1.579	0.308	0.328	135.200	134.900	109.4%	-0.017	-0.014	1.839
3	17:44:52	1.209	1.538	0.284	0.282	134.900	135.500	107.9%	-0.013	-0.011	1.836
x		1.182	1.558	0.298	0.297	134.700	135.200	107.6%	-0.015	-0.013	1.825
σ		0.025	0.021	0.013	0.027	0.638	0.326	1.9%	0.002	0.002	0.022
%RSD		2.112	1.328	4.315	8.923	0.474	0.241	1.8	12.530	12.350	1.223
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	17:43:58	1.706	1.703	100.7%							
2	17:44:25	1.697	1.717	104.8%							
3	17:44:52	1.586	1.690	103.0%							
x		1.663	1.703	102.9%							
σ		0.067	0.013	2.1%							
%RSD		4.028	0.785	2.0							

CCV MW11050 05/08/2019 17:49:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:56	94.4%	300.800	302.600	303.500	28.880	┬63400.000	┬61910.000	┬60730.000	┬60990.000	294.200
2	17:50:23	95.4%	294.200	299.700	296.200	15.770	┬64690.000	┬60900.000	┬59940.000	┬59890.000	288.200
3	17:50:50	96.4%	300.900	309.100	302.500	20.760	┬63800.000	┬61930.000	┬61150.000	┬61580.000	296.100
x		95.4%	99.547%	101.268%	100.235%	21.800	┬106.604%	┬61580.000	┬60610.000	┬101.368%	97.617%
σ		1.0%	n/a	n/a	n/a	6.616	┬n/a	┬589.300	┬617.700	┬n/a	n/a
%RSD		1.0	1.298	1.592	1.321	30.340	┬1.033	┬0.957	┬1.019	┬1.404	1.402

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:56	┬3062.000	667.400	┬65960.000	60440.000	┬62140.000	93.3%	301.100	┬292.300	290.800	2208.000
2	17:50:23	┬3041.000	647.800	┬65360.000	60740.000	┬62160.000	94.6%	299.600	304.500	292.100	1312.000
3	17:50:50	┬3029.000	629.700	┬65560.000	61400.000	┬62210.000	94.9%	296.700	302.000	290.700	1828.000
x		┬101.461%	648.300	┬109.377%	60860.000	┬103.614%	94.2%	99.719%	┬99.867%	97.071%	1783.000
σ		┬n/a	18.820	┬n/a	493.000	┬n/a	0.9%	n/a	┬n/a	n/a	449.600
%RSD		┬0.564	2.902	┬0.470	0.810	┬0.053	0.9	0.754	┬2.139	0.268	25.220

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:56	┬61610.000	288.000	┬62350.000	┬61550.000	290.600	281.900	293.700	278.200	277.300	276.500
2	17:50:23	┬61500.000	291.700	┬62260.000	┬61760.000	289.700	282.500	288.400	276.700	281.500	270.200
3	17:50:50	┬61400.000	289.700	┬62300.000	┬61160.000	287.100	282.900	284.200	276.500	275.600	278.100
x		┬61500.000	96.595%	┬62300.000	┬102.480%	96.375%	94.145%	288.800	277.100	92.702%	91.650%
σ		┬104.100	n/a	┬47.840	┬n/a	n/a	n/a	4.720	0.923	n/a	n/a
%RSD		┬0.169	0.647	┬0.077	┬0.496	0.632	0.187	1.635	0.333	1.086	1.510

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:56	279.500	275.200	285.500	284.800	10.660	9.938	1289.000	293.400	-2.449	┬296.500
2	17:50:23	276.200	276.000	291.300	279.400	10.150	10.550	1256.000	283.600	3.578	293.600
3	17:50:50	283.200	278.600	286.100	279.400	11.780	10.080	1312.000	297.800	-0.350	┬297.000
x		279.700	276.600	95.875%	281.200	10.860	10.190	1286.000	97.206%	0.260	┬98.567%
σ		3.521	1.786	n/a	3.126	0.831	0.319	27.860	n/a	3.059	┬n/a
%RSD		1.259	0.646	1.105	1.112	7.650	3.130	2.168	2.504	1177.000	┬0.621

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:56	92.7%	305.900	308.500	309.900	301.300	301.000	289.000	294.000	292.400	92.2%
2	17:50:23	95.6%	304.100	303.500	304.400	296.000	296.700	289.700	294.900	294.200	95.6%
3	17:50:50	95.8%	307.400	310.200	311.000	299.600	300.800	287.300	293.100	294.800	95.3%
x		94.7%	101.936%	102.462%	308.500	298.900	99.836%	288.700	294.000	97.923%	94.3%
σ		1.7%	n/a	n/a	3.541	2.721	n/a	1.244	0.879	n/a	1.9%
%RSD		1.8	0.529	1.125	1.148	0.910	0.806	0.431	0.299	0.420	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:56	302.900	303.000	301.400	300.700	301.800	298.600	96.2%	288.600	┬296.700	303.300
2	17:50:23	300.600	301.500	299.900	298.900	298.100	298.400	98.4%	291.900	┬296.800	┬268.600
3	17:50:50	300.500	299.000	302.500	300.300	298.400	298.400	98.4%	292.900	┬298.300	309.600
x		100.439%	100.387%	301.300	99.996%	99.800%	99.493%	97.7%	291.200	┬99.084%	┬97.947%
σ		n/a	n/a	1.318	n/a	n/a	n/a	1.3%	2.224	┬n/a	┬n/a
%RSD		0.461	0.675	0.437	0.316	0.682	0.029	1.3	0.764	┬0.315	┬7.522

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:49:56	298.600	300.400	95.2%
2	17:50:23	302.200	294.500	96.4%
3	17:50:50	302.200	305.400	96.1%
x		100.325%	100.035%	95.9%
σ		n/a	n/a	0.6%
%RSD		0.683	1.820	0.6

CCB IM9409-01 05/08/2019 17:55:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:53	100.7%	-0.008	0.881	0.840	15.120	-16.490	0.196	0.192	0.223	0.014
2	17:56:20	102.8%	0.039	0.797	0.593	7.332	-17.350	0.079	0.085	0.136	0.007
3	17:56:47	101.7%	0.016	0.553	0.370	14.480	-17.360	-0.011	0.010	-0.056	0.030
x		101.7%	0.016	0.743	0.601	12.310	-17.070	0.088	0.096	0.101	0.017
σ		1.0%	0.024	0.170	0.235	4.323	0.500	0.104	0.091	0.143	0.012
%RSD		1.0	149.700	22.920	39.150	35.120	2.927	117.800	95.770	140.900	68.300

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:53	10.930	341.900	0.882	-1.647	-0.120	96.8%	0.004	-0.005	0.026	54.600
2	17:56:20	10.700	341.700	-3.635	-2.177	0.099	97.1%	0.014	0.010	0.033	42.850
3	17:56:47	11.080	342.700	-3.225	-1.658	0.117	97.4%	0.034	-0.016	0.035	43.460
x		10.900	342.100	-1.993	-1.827	0.032	97.1%	0.017	-0.004	0.031	46.970
σ		0.192	0.508	2.498	0.303	0.132	0.3%	0.015	0.013	0.005	6.615
%RSD		1.759	0.149	125.300	16.600	415.900	0.3	88.700	341.200	15.040	14.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:53	0.396	0.014	6.099	-0.682	-0.024	-0.014	0.044	-0.028	-0.009	0.009
2	17:56:20	-0.134	-0.002	3.355	3.541	-0.020	0.001	0.299	-0.022	-0.003	0.030
3	17:56:47	0.927	0.002	3.441	3.068	-0.020	-0.009	0.207	-0.022	-0.039	-0.023
x		0.396	0.005	4.298	1.976	-0.021	-0.007	0.184	-0.024	-0.017	0.005
σ		0.531	0.009	1.560	2.313	0.002	0.007	0.129	0.003	0.019	0.026
%RSD		134.000	188.900	36.290	117.100	11.090	103.600	70.190	12.610	115.400	504.300

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:53	-0.119	-0.025	-0.146	-0.307	5.846	5.950	-1.879	-0.486	1.536	0.004
2	17:56:20	0.049	0.045	-0.119	-0.204	6.216	6.050	-1.074	-0.284	0.732	0.001
3	17:56:47	-0.082	-0.018	-0.110	-0.165	5.677	6.065	-2.151	-0.502	-0.514	0.001
x		-0.051	0.001	-0.125	-0.225	5.913	6.021	-1.701	-0.424	0.585	0.002
σ		0.088	0.039	0.019	0.073	0.276	0.063	0.560	0.122	1.033	0.001
%RSD		173.200	6429.000	15.110	32.440	4.663	1.039	32.910	28.720	176.800	74.190

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:53	96.1%	0.001	0.054	0.034	0.020	0.003	0.002	-0.004	0.012	97.6%
2	17:56:20	97.2%	0.036	0.043	0.017	0.725	0.003	0.003	-0.004	0.001	98.2%
3	17:56:47	97.5%	-0.004	0.024	0.011	0.721	0.002	0.001	0.002	0.001	98.9%
x		96.9%	0.011	0.040	0.021	0.488	0.002	0.002	-0.002	0.005	98.2%
σ		0.7%	0.022	0.015	0.012	0.406	0.000	0.001	0.004	0.006	0.6%
%RSD		0.7	198.900	37.000	57.160	83.120	17.990	37.450	171.700	135.800	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:53	0.039	0.063	0.139	0.104	0.003	0.000	98.7%	-0.007	-0.021	0.012
2	17:56:20	0.046	0.067	0.134	0.114	0.008	0.005	100.5%	-0.016	-0.017	0.015
3	17:56:47	0.030	0.038	0.132	0.102	-0.002	0.005	99.7%	-0.006	-0.016	0.009
x		0.039	0.056	0.135	0.107	0.003	0.003	99.6%	-0.009	-0.018	0.012
σ		0.008	0.016	0.004	0.007	0.005	0.003	0.9%	0.005	0.002	0.003
%RSD		21.710	27.660	2.847	6.264	148.500	85.730	0.9	56.340	13.620	24.380

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:55:53	0.033	0.016	102.3%
2	17:56:20	0.020	0.013	103.3%
3	17:56:47	0.018	0.013	102.1%
x		0.024	0.014	102.6%
σ		0.008	0.002	0.7%
%RSD		33.880	14.770	0.7

UD30018-025 05/08/2019 18:01:21

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:48	102.0%	-0.037	4.849	4.877	-29.350	TM 152800.000	T 47080.000	T 47900.000	T 49100.000	T 21.120
2	18:02:15	103.5%	-0.050	4.787	4.796	-31.760	TM 154000.000	T 47820.000	T 48390.000	T 49880.000	38.940
3	18:02:42	106.4%	-0.044	4.412	4.569	-30.520	TM 154800.000	T 47440.000	T 48100.000	T 49530.000	T 18.020
x		104.0%	-0.044	4.683	4.747	-30.540	TM 153900.000	T 47450.000	T 48130.000	T 49500.000	T 26.030
σ		2.2%	0.006	0.237	0.160	1.206	TM 1024.000	T 371.300	T 248.100	T 391.000	T 11.290
%RSD		2.1	14.560	5.054	3.368	3.949	TM 0.666	T 0.783	T 0.516	T 0.790	T 43.380

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:48	TM 11560.000	T 53000.000	T 1697.000	M 184700.000	TM 191900.000	99.3%	4.285	1.616	1.014	4342.000
2	18:02:15	TM 11530.000	T 54040.000	T 1743.000	M 190400.000	TM 195300.000	99.5%	3.652	1.934	1.077	4436.000
3	18:02:42	TM 11290.000	T 53520.000	T 1729.000	M 186800.000	TM 193700.000	102.1%	3.483	1.572	1.015	4711.000
x		TM 11460.000	T 53520.000	T 1723.000	M 187300.000	TM 193700.000	100.3%	3.807	1.707	1.035	4496.000
σ		TM 144.800	T 520.100	T 23.710	M 2916.000	TM 1689.000	1.6%	0.423	0.198	0.036	191.800
%RSD		TM 1.264	T 0.972	T 1.376	M 1.557	TM 0.872	1.6	11.110	11.600	3.445	4.265

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:48	65.980	TM 862.900	T 88.740	1690.000	0.601	12.390	10.390	1.041	1.282	3.109
2	18:02:15	64.820	TM 882.300	84.890	1581.000	0.613	12.390	10.280	1.047	1.279	3.286
3	18:02:42	59.510	TM 870.600	82.140	1553.000	0.572	12.500	10.110	0.946	1.324	3.154
x		63.440	TM 872.000	T 85.260	1608.000	0.596	12.430	10.260	1.011	1.295	3.183
σ		3.448	TM 9.780	T 3.316	72.060	0.021	0.063	0.143	0.057	0.025	0.092
%RSD		5.435	TM 1.122	T 3.890	4.481	3.522	0.506	1.397	5.597	1.944	2.887

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:48	44.910	34.060	1.706	-0.137	2052.000	2055.000	23.330	3.238	-1.281	TM 1041.000
2	18:02:15	44.890	34.740	2.028	-0.335	2071.000	2097.000	19.290	2.203	-2.709	TM 1046.000
3	18:02:42	45.910	34.080	1.395	-0.035	2059.000	2087.000	18.480	2.030	0.157	TM 1045.000
x		45.240	34.290	1.710	-0.169	2061.000	2080.000	20.360	2.490	-1.278	TM 1044.000
σ		0.586	0.387	0.317	0.153	9.658	21.900	2.598	0.653	1.433	TM 2.655
%RSD		1.296	1.129	18.530	90.400	0.469	1.053	12.760	26.230	112.200	TM 0.254

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:48	98.2%	0.710	0.751	0.683	50.790	0.016	0.016	0.517	0.449	96.0%
2	18:02:15	99.0%	0.762	0.841	0.675	49.230	0.021	0.010	0.475	0.473	98.8%
3	18:02:42	101.2%	0.702	0.798	0.689	50.780	0.020	0.014	0.439	0.396	99.4%
x		99.5%	0.725	0.796	0.682	50.270	0.019	0.013	0.477	0.439	98.1%
σ		1.6%	0.032	0.045	0.007	0.897	0.003	0.003	0.039	0.039	1.8%
%RSD		1.6	4.455	5.668	1.073	1.784	14.610	23.900	8.258	8.854	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:48	1.484	1.968	0.225	0.178	M 901.600	M 905.400	100.1%	-0.024	-0.025	0.014
2	18:02:15	1.535	2.050	0.197	0.202	M 904.300	M 898.100	102.8%	-0.031	-0.024	0.018
3	18:02:42	1.467	1.897	0.200	0.183	M 908.100	M 910.700	104.5%	-0.026	-0.029	0.019
x		1.495	1.972	0.207	0.188	M 904.700	M 904.700	102.4%	-0.027	-0.026	0.017
σ		0.036	0.076	0.015	0.013	M 3.290	M 6.335	2.2%	0.004	0.003	0.002
%RSD		2.381	3.870	7.365	6.800	M 0.364	M 0.700	2.2	13.370	9.965	14.230

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:01:48	0.030	0.018	94.9%
2	18:02:15	0.019	0.016	95.7%
3	18:02:42	0.017	0.015	97.1%
x		0.022	0.016	95.9%
σ		0.007	0.002	1.1%
%RSD		32.110	11.020	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:43	104.2%	0.788	287.400	305.000	56.870	TM 160700.000	T 9959.000	T 9789.000	T 10010.000	TM 629.500
2	18:08:10	106.1%	0.794	289.200	306.800	63.800	TM 161600.000	T 10070.000	T 9849.000	T 9959.000	TM 624.300
3	18:08:37	108.0%	0.791	286.000	303.500	59.940	TM 167400.000	T 10060.000	T 9772.000	T 9962.000	TM 615.800
x		106.1%	0.791	287.500	305.100	60.200	TM 163200.000	T 10030.000	T 9803.000	T 9976.000	TM 623.200
σ		1.9%	0.003	1.641	1.644	3.474	TM 3669.000	T 59.600	T 40.640	T 27.970	TM 6.880
%RSD		1.8	0.419	0.571	0.539	5.771	TM 2.248	T 0.594	T 0.415	T 0.280	TM 1.104
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:43	TM 11910.000	T 56320.000	444.600	9501.000	9109.000	101.5%	9.396	0.400	0.982	3904.000
2	18:08:10	TM 11740.000	T 56750.000	446.400	9618.000	9083.000	103.0%	8.192	0.520	1.084	3643.000
3	18:08:37	TM 11810.000	T 56000.000	447.400	9664.000	9129.000	106.3%	9.359	0.449	1.029	3552.000
x		TM 11820.000	T 56360.000	446.100	9594.000	9107.000	103.6%	8.982	0.456	1.032	3700.000
σ		TM 81.670	T 375.500	1.450	84.010	23.280	2.4%	0.685	0.060	0.051	182.800
%RSD		TM 0.691	T 0.666	0.325	0.876	0.256	2.4	7.623	13.240	4.986	4.940
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:43	T 5008.000	TM 997.500	T 5364.000	5191.000	33.710	13.400	12.600	2.802	2.670	24.600
2	18:08:10	5170.000	TM 984.700	T 5375.000	5154.000	33.410	12.950	12.700	2.808	2.731	24.780
3	18:08:37	5155.000	TM 990.100	T 5382.000	5187.000	33.440	13.330	12.940	2.756	2.670	25.000
x		T 5111.000	TM 990.800	T 5374.000	5177.000	33.520	13.220	12.750	2.789	2.690	24.800
σ		T 89.940	TM 6.436	T 9.166	20.480	0.163	0.245	0.172	0.028	0.035	0.202
%RSD		T 1.760	TM 0.650	T 0.171	0.396	0.485	1.850	1.350	1.020	1.311	0.813
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:43	33.080	31.800	0.751	0.329	1652.000	1681.000	14.150	1.608	-4.196	138.000
2	18:08:10	33.060	31.970	0.771	0.393	1656.000	1677.000	18.120	2.444	-0.455	138.500
3	18:08:37	31.830	31.890	0.792	-0.087	1646.000	1689.000	19.220	2.803	-3.823	139.100
x		32.660	31.890	0.771	0.212	1651.000	1682.000	17.160	2.285	-2.825	138.500
σ		0.715	0.082	0.020	0.260	4.740	5.866	2.665	0.614	2.061	0.544
%RSD		2.190	0.257	2.607	123.000	0.287	0.349	15.530	26.850	72.950	0.393
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:43	105.3%	0.037	0.027	-0.005	6.895	0.017	0.011	0.267	0.232	101.8%
2	18:08:10	107.0%	-0.004	0.036	0.020	7.051	0.017	0.016	0.233	0.260	103.4%
3	18:08:37	110.8%	0.044	0.027	0.008	6.117	0.022	0.014	0.256	0.237	106.2%
x		107.7%	0.026	0.030	0.008	6.688	0.019	0.014	0.252	0.243	103.8%
σ		2.8%	0.026	0.005	0.012	0.501	0.003	0.003	0.017	0.015	2.2%
%RSD		2.6	99.580	16.680	163.300	7.486	15.890	18.470	6.837	6.210	2.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:43	1.746	2.529	0.136	0.134	218.800	214.400	105.3%	0.006	-0.010	0.289
2	18:08:10	1.817	2.513	0.120	0.133	215.900	216.700	108.5%	0.000	-0.006	0.269
3	18:08:37	1.826	2.370	0.127	0.100	218.000	216.700	111.6%	-0.007	-0.006	0.280
x		1.796	2.471	0.128	0.123	217.600	215.900	108.5%	-0.000	-0.007	0.279
σ		0.044	0.088	0.008	0.019	1.526	1.326	3.1%	0.006	0.003	0.010
%RSD		2.435	3.542	6.234	15.770	0.701	0.614	2.9	2214.000	39.150	3.591
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:07:43	0.249	0.278	102.3%							
2	18:08:10	0.263	0.267	103.7%							
3	18:08:37	0.271	0.262	106.5%							
x		0.261	0.269	104.2%							
σ		0.011	0.008	2.1%							
%RSD		4.302	3.079	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:39	107.1%	0.016	4.147	4.069	-62.440	T 65000.000	T 22180.000	T 22560.000	T 23370.000	TM 5823.000
2	18:14:06	109.4%	0.011	3.972	4.303	-59.560	T 66540.000	T 22490.000	T 22980.000	T 23510.000	TM 5877.000
3	18:14:33	110.0%	0.009	3.791	4.019	-62.010	T 67610.000	T 22050.000	T 22410.000	T 23120.000	TM 5812.000
x		108.8%	0.012	3.970	4.130	-61.340	T 66380.000	T 22240.000	T 22650.000	T 23340.000	TM 5837.000
σ		1.5%	0.004	0.178	0.152	1.552	T 1312.000	T 225.200	T 298.300	T 198.600	TM 34.570
%RSD		1.4	31.440	4.474	3.670	2.530	T 1.977	T 1.013	T 1.317	T 0.851	TM 0.592

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:39	TM 34440.000	T 44190.000	T 3593.000	67000.000	T 70150.000	104.5%	53.360	11.160	8.981	3229.000
2	18:14:06	TM 34530.000	T 44940.000	T 3673.000	68140.000	T 70350.000	105.0%	50.140	11.080	9.291	3414.000
3	18:14:33	TM 34900.000	T 44770.000	T 3635.000	67490.000	T 70990.000	109.1%	49.730	11.370	9.207	3168.000
x		TM 34620.000	T 44630.000	T 3634.000	67550.000	T 70500.000	106.2%	51.080	11.200	9.160	3271.000
σ		TM 242.800	T 391.400	T 40.000	572.400	T 441.500	2.5%	1.988	0.150	0.160	128.000
%RSD		TM 0.701	T 0.877	T 1.101	0.847	T 0.626	2.4	3.892	1.341	1.751	3.914

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:39	T 13720.000	TM 1034.000	T 14070.000	14690.000	10.350	15.580	12.860	14.510	15.590	37.110
2	18:14:06	T 13750.000	TM 1037.000	T 14130.000	T 14510.000	10.120	15.680	14.050	14.300	15.670	38.690
3	18:14:33	T 13880.000	TM 1038.000	T 14180.000	T 14350.000	9.973	15.470	12.740	14.380	15.400	36.910
x		T 13790.000	TM 1036.000	T 14130.000	T 14520.000	10.150	15.580	13.220	14.400	15.550	37.570
σ		T 85.480	TM 2.410	T 54.350	T 168.000	0.191	0.105	0.721	0.109	0.137	0.977
%RSD		T 0.620	TM 0.233	T 0.385	T 1.157	1.880	0.675	5.455	0.757	0.879	2.601

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:39	46.410	43.640	13.220	-0.554	143.900	143.700	1.288	0.517	-2.377	T 430.200
2	18:14:06	45.840	44.650	13.580	-0.583	145.100	147.300	1.415	0.548	-2.479	T 431.200
3	18:14:33	44.100	44.370	12.800	-0.900	145.500	146.200	-0.932	-0.067	-2.531	T 431.500
x		45.450	44.220	13.200	-0.679	144.800	145.700	0.590	0.333	-2.462	T 431.000
σ		1.203	0.521	0.392	0.192	0.833	1.878	1.320	0.346	0.078	T 0.721
%RSD		2.646	1.178	2.967	28.320	0.575	1.289	223.600	104.000	3.180	T 0.167

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:39	121.7%	0.218	0.292	0.271	22.250	0.024	0.022	0.136	0.132	103.0%
2	18:14:06	123.8%	0.188	0.257	0.232	17.230	0.028	0.017	0.131	0.117	104.5%
3	18:14:33	124.1%	0.229	0.252	0.266	17.420	0.023	0.021	0.109	0.130	105.8%
x		123.2%	0.212	0.267	0.257	18.970	0.025	0.020	0.126	0.126	104.4%
σ		1.3%	0.021	0.022	0.021	2.841	0.003	0.003	0.014	0.008	1.4%
%RSD		1.0	9.918	8.097	8.253	14.980	11.720	13.050	11.310	6.526	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:39	0.628	0.585	0.147	0.132	224.500	221.000	106.9%	-0.004	-0.010	6.602
2	18:14:06	0.656	0.610	0.141	0.147	222.600	220.500	108.6%	-0.008	-0.009	6.582
3	18:14:33	0.709	0.633	0.138	0.119	222.400	220.700	110.1%	-0.013	-0.006	6.663
x		0.664	0.610	0.142	0.133	223.200	220.700	108.5%	-0.008	-0.008	6.616
σ		0.041	0.024	0.004	0.014	1.127	0.254	1.6%	0.005	0.002	0.042
%RSD		6.184	3.988	2.916	10.600	0.505	0.115	1.5	59.750	28.090	0.640

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:13:39	6.061	6.297	103.9%
2	18:14:06	5.951	6.199	106.2%
3	18:14:33	6.074	6.318	106.3%
x		6.029	6.271	105.4%
σ		0.068	0.064	1.4%
%RSD		1.121	1.014	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:35	106.5%	-0.022	11.970	11.570	-2.573	T 44870.000	T 18800.000	T 18640.000	T 18780.000	TM 625.200
2	18:20:02	109.6%	-0.040	11.150	10.670	-8.803	T 45100.000	T 18700.000	T 18400.000	T 18550.000	TM 610.100
3	18:20:28	109.8%	-0.030	11.040	11.400	-9.200	T 46010.000	T 18900.000	T 18470.000	T 18740.000	TM 621.500
x		108.6%	-0.031	11.390	11.220	-6.859	T 45330.000	T 18800.000	T 18500.000	T 18690.000	TM 618.900
σ		1.9%	0.009	0.509	0.482	3.717	T 602.200	T 99.890	T 122.800	T 124.000	TM 7.834
%RSD		1.7	29.950	4.469	4.296	54.190	T 1.328	T 0.531	T 0.663	T 0.663	TM 1.266
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:35	TM 13080.000	T 49690.000	T 4740.000	66360.000	T 68490.000	100.1%	T -306.000	2.640	1.412	4720.000
2	18:20:02	TM 12900.000	T 49550.000	T 4778.000	66150.000	T 68020.000	102.7%	19.300	2.750	1.060	5053.000
3	18:20:28	TM 13040.000	T 49990.000	T 4804.000	66470.000	T 68230.000	103.1%	19.850	2.533	1.042	5496.000
x		TM 13010.000	T 49740.000	T 4774.000	66330.000	T 68250.000	102.0%	T -88.950	2.641	1.171	5089.000
σ		TM 94.710	T 225.900	T 32.100	162.600	T 234.300	1.6%	T 188.000	0.108	0.209	389.300
%RSD		TM 0.728	T 0.454	T 0.672	0.245	T 0.343	1.6	T 211.300	4.103	17.840	7.650
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:35	508.400	31.940	T 544.400	1024.000	0.469	1.519	0.521	1.205	1.291	3.845
2	18:20:02	513.400	32.250	T 562.400	980.100	0.419	1.456	0.547	0.901	1.068	3.995
3	18:20:28	513.600	31.910	T 553.700	986.600	0.447	1.590	0.787	0.850	1.029	3.910
x		511.800	32.040	T 553.500	996.900	0.445	1.522	0.618	0.986	1.129	3.917
σ		2.943	0.187	T 9.008	23.700	0.025	0.067	0.147	0.192	0.142	0.075
%RSD		0.575	0.584	T 1.627	2.377	5.563	4.410	23.720	19.490	12.540	1.923
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:35	15.570	12.560	0.678	-0.321	31.040	31.940	-0.654	-0.166	-1.586	TM 564.300
2	18:20:02	16.040	13.360	0.604	0.269	33.370	32.320	-1.602	-0.346	-1.528	TM 569.900
3	18:20:28	16.320	13.370	0.623	-0.435	31.790	33.130	-0.883	-0.199	-2.266	TM 574.400
x		15.980	13.100	0.635	-0.162	32.070	32.460	-1.046	-0.237	-1.794	TM 569.500
σ		0.378	0.468	0.039	0.378	1.185	0.609	0.495	0.096	0.411	TM 5.028
%RSD		2.366	3.572	6.073	232.800	3.696	1.877	47.290	40.460	22.890	TM 0.883
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:35	102.6%	0.681	0.575	0.713	23.360	0.006	0.006	0.134	0.138	103.4%
2	18:20:02	106.4%	0.706	0.603	0.715	27.690	0.005	0.004	0.184	0.142	104.7%
3	18:20:28	105.3%	0.663	0.586	0.619	21.240	0.009	0.006	0.128	0.126	105.9%
x		104.8%	0.683	0.588	0.682	24.100	0.007	0.005	0.149	0.135	104.7%
σ		2.0%	0.021	0.014	0.055	3.287	0.002	0.001	0.031	0.008	1.3%
%RSD		1.9	3.127	2.410	8.040	13.640	35.740	23.080	20.740	6.096	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:35	1.303	1.768	0.085	0.075	244.800	243.900	105.9%	-0.031	-0.028	0.144
2	18:20:02	1.304	1.678	0.089	0.093	248.200	245.200	108.8%	-0.026	-0.025	0.118
3	18:20:28	1.293	1.806	0.099	0.090	244.300	241.600	108.7%	-0.029	-0.033	0.105
x		1.300	1.751	0.091	0.086	245.800	243.600	107.8%	-0.029	-0.029	0.122
σ		0.006	0.066	0.007	0.010	2.135	1.781	1.6%	0.003	0.004	0.020
%RSD		0.464	3.757	7.780	11.290	0.869	0.731	1.5	9.385	13.610	16.130
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:19:35	0.163	0.144	104.0%							
2	18:20:02	0.137	0.126	106.9%							
3	18:20:28	0.133	0.123	105.9%							
x		0.144	0.131	105.6%							
σ		0.016	0.011	1.5%							
%RSD		11.320	8.378	1.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:30	106.7%	66.190	79.750	77.930	-0.760	T 46020.000	T 19780.000	T 19570.000	T 19860.000	TM 1217.000
2	18:25:58	108.0%	65.750	77.260	76.880	-4.989	T 46400.000	T 19600.000	T 19420.000	T 19770.000	TM 1222.000
3	18:26:25	109.2%	65.300	78.240	77.040	-3.551	T 46680.000	T 19820.000	T 19400.000	T 19680.000	TM 1215.000
x		108.0%	65.750	78.420	77.290	-3.100	T 46370.000	T 19730.000	T 19460.000	T 19770.000	TM 1218.000
σ		1.3%	0.444	1.254	0.567	2.151	T 330.000	T 115.500	T 95.140	T 90.780	TM 3.956
%RSD		1.2	0.675	1.599	0.734	69.370	T 0.712	T 0.585	T 0.489	T 0.459	TM 0.325

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:30	TM 14680.000	T 50490.000	T 6017.000	67960.000	T 69710.000	98.5%	121.500	100.300	96.300	6184.000
2	18:25:58	TM 14740.000	T 50970.000	T 6001.000	68100.000	T 69860.000	100.1%	124.200	99.790	96.430	5886.000
3	18:26:25	TM 14710.000	T 50970.000	T 6026.000	67810.000	T 69570.000	100.7%	123.300	100.700	96.980	5639.000
x		TM 14710.000	T 50810.000	T 6015.000	67950.000	T 69710.000	99.8%	123.000	100.300	96.570	5903.000
σ		TM 25.570	T 275.900	T 12.600	142.700	T 148.300	1.2%	1.348	0.450	0.363	272.700
%RSD		TM 0.174	T 0.543	T 0.210	0.210	T 0.213	1.2	1.096	0.449	0.376	4.619

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:30	1656.000	131.400	T 1707.000	2129.000	94.470	95.110	96.100	93.840	95.960	97.250
2	18:25:58	1644.000	T 124.500	T 1690.000	2052.000	92.490	93.800	93.290	93.550	94.090	97.190
3	18:26:25	1619.000	131.600	T 1702.000	2067.000	94.340	94.920	95.230	93.740	95.580	98.000
x		1640.000	T 129.200	T 1700.000	2083.000	93.770	94.610	94.870	93.710	95.210	97.480
σ		18.820	T 4.087	T 8.483	41.050	1.110	0.708	1.440	0.149	0.990	0.453
%RSD		1.148	T 3.163	T 0.499	1.971	1.183	0.749	1.517	0.159	1.039	0.465

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:30	110.300	106.100	97.100	96.160	27.630	26.280	427.000	94.120	1.077	TM 678.600
2	18:25:58	110.100	104.900	97.930	94.740	27.960	27.630	431.700	95.180	-0.153	TM 678.300
3	18:26:25	110.100	106.000	97.000	95.690	27.870	28.270	423.900	94.520	-1.939	TM 678.700
x		110.200	105.700	97.340	95.530	27.820	27.390	427.500	94.610	-0.338	TM 678.500
σ		0.118	0.670	0.507	0.724	0.170	1.016	3.971	0.535	1.516	TM 0.224
%RSD		0.107	0.634	0.521	0.758	0.611	3.708	0.929	0.566	448.400	TM 0.033

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:30	98.9%	99.410	100.800	100.600	122.000	98.730	95.310	98.760	98.340	101.3%
2	18:25:58	101.2%	98.760	99.670	100.000	122.600	98.570	96.260	99.670	98.310	103.6%
3	18:26:25	102.9%	98.230	101.100	98.560	127.800	98.140	95.140	99.220	98.640	104.0%
x		101.0%	98.800	100.500	99.720	124.100	98.480	95.570	99.220	98.430	103.0%
σ		2.0%	0.589	0.739	1.040	3.199	0.307	0.607	0.453	0.179	1.4%
%RSD		2.0	0.596	0.735	1.043	2.578	0.312	0.635	0.456	0.182	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:30	102.300	100.400	97.900	97.610	350.100	347.700	105.5%	97.760	100.900	104.700
2	18:25:58	102.000	101.700	98.810	99.560	346.700	349.500	107.4%	97.330	99.690	106.400
3	18:26:25	101.700	101.200	98.250	98.700	347.300	347.100	109.3%	97.530	101.200	106.900
x		102.000	101.100	98.320	98.620	348.000	348.100	107.4%	97.540	100.600	106.000
σ		0.333	0.638	0.459	0.974	1.839	1.210	1.9%	0.217	0.801	1.131
%RSD		0.326	0.631	0.466	0.988	0.528	0.348	1.8	0.223	0.796	1.067

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:25:30	100.200	101.400	103.7%
2	18:25:58	101.800	102.800	104.2%
3	18:26:25	101.700	102.800	106.3%
x		101.200	102.300	104.7%
σ		0.871	0.822	1.4%
%RSD		0.860	0.804	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:27	105.6%	65.360	78.810	77.610	2.383	T 45600.000	T 19660.000	T 19560.000	T 19570.000	TM 1188.000
2	18:31:54	106.9%	62.970	76.360	75.260	-6.567	T 45900.000	T 19320.000	T 19060.000	T 19330.000	TM 1166.000
3	18:32:21	108.3%	63.090	75.470	74.240	-2.420	T 45560.000	T 19340.000	T 19180.000	T 19430.000	TM 1167.000
x		106.9%	63.810	76.880	75.700	-2.202	T 45680.000	T 19440.000	T 19260.000	T 19440.000	TM 1174.000
σ		1.3%	1.344	1.730	1.727	4.479	T 184.800	T 188.100	T 259.800	T 117.600	TM 12.570
%RSD		1.2	2.107	2.250	2.282	203.400	T 0.405	T 0.968	T 1.349	T 0.605	TM 1.071

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:27	TM 14730.000	T 48470.000	T 5798.000	66610.000	T 68830.000	99.1%	123.300	97.620	94.090	5622.000
2	18:31:54	TM 14670.000	T 47960.000	T 5782.000	66590.000	T 68270.000	101.1%	117.700	96.390	92.190	5701.000
3	18:32:21	TM 14520.000	T 48180.000	T 5865.000	66550.000	T 69120.000	100.4%	117.600	96.940	92.690	5534.000
x		TM 14640.000	T 48200.000	T 5815.000	66580.000	T 68740.000	100.2%	119.500	96.980	92.990	5619.000
σ		TM 107.400	T 254.900	T 44.130	28.380	T 433.300	1.0%	3.265	0.618	0.984	83.740
%RSD		TM 0.734	T 0.529	T 0.759	0.043	T 0.630	1.0	2.732	0.637	1.058	1.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:27	1615.000	128.000	T 1644.000	2042.000	91.630	93.400	93.640	91.640	92.070	96.710
2	18:31:54	1573.000	126.000	T 1630.000	2009.000	91.340	92.570	92.880	91.040	91.250	96.870
3	18:32:21	1591.000	127.100	T 1649.000	2050.000	90.230	92.130	91.850	89.670	91.250	95.090
x		1593.000	127.000	T 1641.000	2034.000	91.070	92.700	92.790	90.780	91.520	96.220
σ		21.310	1.027	T 10.010	21.480	0.741	0.646	0.898	1.007	0.477	0.987
%RSD		1.337	0.808	T 0.610	1.056	0.813	0.697	0.968	1.109	0.522	1.026

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:27	108.800	108.000	94.690	92.730	27.690	27.930	413.500	91.660	-1.474	TM 657.400
2	18:31:54	105.900	104.000	94.150	92.220	28.710	29.650	426.000	95.130	-1.601	TM 659.400
3	18:32:21	108.400	106.700	94.650	92.120	28.820	29.980	424.400	96.130	-0.297	TM 660.800
x		107.700	106.300	94.500	92.360	28.410	29.190	421.300	94.310	-1.124	TM 659.200
σ		1.551	2.062	0.298	0.328	0.623	1.101	6.825	2.345	0.719	TM 1.692
%RSD		1.440	1.941	0.315	0.355	2.195	3.773	1.620	2.486	63.990	TM 0.257

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:27	101.1%	95.050	95.810	94.870	125.200	94.850	92.140	95.590	94.200	102.7%
2	18:31:54	102.7%	95.770	96.460	96.050	119.100	94.810	92.260	96.520	95.200	103.7%
3	18:32:21	103.1%	96.940	98.560	96.310	118.700	96.270	93.300	95.880	96.020	102.5%
x		102.3%	95.920	96.940	95.740	121.000	95.310	92.570	96.000	95.140	103.0%
σ		1.1%	0.955	1.435	0.773	3.651	0.832	0.639	0.471	0.910	0.7%
%RSD		1.0	0.995	1.480	0.807	3.017	0.873	0.690	0.491	0.956	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:27	98.290	97.430	92.500	93.730	334.800	336.900	105.5%	94.850	97.670	102.200
2	18:31:54	97.990	98.210	92.290	93.020	339.300	339.400	107.3%	95.070	97.170	100.900
3	18:32:21	98.140	98.500	94.410	94.320	339.800	339.400	108.1%	94.630	96.670	101.900
x		98.140	98.050	93.070	93.690	338.000	338.600	107.0%	94.850	97.170	101.700
σ		0.149	0.554	1.166	0.653	2.758	1.435	1.3%	0.217	0.497	0.649
%RSD		0.152	0.565	1.252	0.697	0.816	0.424	1.3	0.229	0.512	0.639

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:31:27	96.950	99.210	103.2%
2	18:31:54	95.400	97.460	106.5%
3	18:32:21	96.570	98.140	105.6%
x		96.310	98.270	105.1%
σ		0.805	0.885	1.7%
%RSD		0.836	0.901	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:21	103.4%	-0.013	4.139	3.624	-3.247	┬8788.000	┬4501.000	┬4257.000	┬4283.000	┬130.900
2	18:37:48	105.5%	-0.000	3.071	3.514	-4.189	┬8974.000	┬4556.000	4280.000	┬4326.000	┬128.500
3	18:38:15	107.1%	-0.028	4.099	3.220	-5.023	┬9054.000	┬4461.000	4198.000	┬4263.000	139.500
x		105.3%	-0.014	3.770	3.452	-4.153	┬8939.000	┬4506.000	┬4245.000	┬4291.000	┬133.000
σ		1.9%	0.014	0.605	0.209	0.888	┬136.100	┬48.000	┬42.070	┬32.010	┬5.806
%RSD		1.8	99.400	16.060	6.051	21.390	┬1.523	┬1.065	┬0.991	┬0.746	┬4.367

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:21	┬2627.000	┬10690.000	┬948.400	13600.000	12760.000	96.2%	4.037	0.515	0.274	1538.000
2	18:37:48	┬2589.000	┬10710.000	989.500	13600.000	12790.000	98.7%	4.476	0.549	0.275	1479.000
3	18:38:15	┬2594.000	┬10560.000	976.500	13550.000	12720.000	100.4%	8.430	0.524	0.249	1496.000
x		┬2603.000	┬10660.000	┬971.400	13580.000	12760.000	98.4%	5.648	0.529	0.266	1504.000
σ		┬20.910	┬81.990	┬21.010	33.650	34.750	2.1%	2.419	0.018	0.015	30.030
%RSD		┬0.803	┬0.769	┬2.162	0.248	0.272	2.1	42.840	3.392	5.605	1.996

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:21	103.200	6.608	┬120.600	200.800	0.069	0.334	-0.421	0.148	0.196	1.258
2	18:37:48	107.100	6.622	┬120.000	195.200	0.063	0.334	-0.628	0.162	0.219	1.312
3	18:38:15	103.200	6.480	116.600	188.500	0.073	0.283	0.026	0.163	0.209	1.367
x		104.500	6.570	┬119.100	194.800	0.069	0.317	-0.341	0.157	0.208	1.312
σ		2.243	0.078	┬2.127	6.125	0.005	0.029	0.334	0.008	0.012	0.054
%RSD		2.147	1.192	┬1.787	3.143	7.409	9.303	98.050	5.298	5.608	4.137

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:21	4.511	2.988	0.119	-0.105	9.036	8.222	-1.119	-0.243	-2.758	108.600
2	18:37:48	4.152	3.273	-0.020	-0.386	8.266	7.917	-0.593	-0.187	-0.193	109.000
3	18:38:15	4.098	3.035	-0.032	-1.208	7.974	8.882	-3.436	-0.787	-0.837	106.900
x		4.253	3.099	0.022	-0.566	8.425	8.340	-1.716	-0.406	-1.262	108.200
σ		0.224	0.153	0.084	0.573	0.549	0.493	1.513	0.332	1.335	1.120
%RSD		5.276	4.938	378.700	101.200	6.517	5.910	88.150	81.750	105.700	1.035

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:21	100.4%	0.091	0.160	0.111	5.085	0.001	-0.000	0.004	0.035	102.3%
2	18:37:48	99.8%	0.102	0.182	0.118	5.774	0.002	-0.000	0.016	0.017	102.4%
3	18:38:15	101.3%	0.117	0.131	0.122	6.084	0.004	0.001	0.013	0.030	102.9%
x		100.5%	0.104	0.158	0.117	5.647	0.003	0.000	0.011	0.027	102.5%
σ		0.8%	0.013	0.025	0.006	0.511	0.002	0.001	0.006	0.009	0.3%
%RSD		0.8	12.810	16.080	5.010	9.054	63.350	429.100	54.590	33.390	0.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:21	0.298	0.352	0.005	-0.008	48.670	48.110	103.5%	-0.021	-0.022	0.017
2	18:37:48	0.242	0.354	0.004	0.000	49.040	48.580	105.3%	-0.024	-0.026	0.013
3	18:38:15	0.273	0.326	0.002	-0.004	47.880	47.890	104.6%	-0.026	-0.023	0.016
x		0.271	0.344	0.004	-0.004	48.530	48.190	104.5%	-0.024	-0.024	0.015
σ		0.028	0.016	0.001	0.004	0.590	0.353	0.9%	0.003	0.002	0.002
%RSD		10.340	4.509	36.840	110.400	1.216	0.732	0.9	10.790	9.534	13.630

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:37:21	0.021	0.018	104.4%
2	18:37:48	0.029	0.017	106.9%
3	18:38:15	0.016	0.012	107.1%
x		0.022	0.015	106.1%
σ		0.007	0.003	1.5%
%RSD		31.160	19.410	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:43:19	104.0%	66.550	79.640	80.120	-5.414	T 46680.000	T 19730.000	T 19440.000	T 19760.000	TM 720.200
2	18:43:46	106.1%	66.360	78.550	77.270	-2.443	T 46060.000	T 19400.000	T 19220.000	T 19490.000	TM 706.900
3	18:44:13	107.0%	66.040	79.040	76.490	0.513	T 45660.000	T 19370.000	T 19350.000	T 19370.000	TM 700.400
x		105.7%	66.320	79.080	77.960	-2.448	T 46130.000	T 19500.000	T 19340.000	T 19540.000	TM 709.100
σ		1.6%	0.259	0.548	1.910	2.963	T 518.200	T 196.600	T 114.800	T 200.900	TM 10.090
%RSD		1.5	0.390	0.693	2.450	121.000	T 1.123	T 1.008	T 0.594	T 1.028	TM 1.423
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:43:19	TM 14170.000	T 49630.000	T 5797.000	67840.000	T 69450.000	98.5%	119.800	101.100	97.570	5648.000
2	18:43:46	TM 13780.000	T 49370.000	T 5746.000	66590.000	T 69020.000	99.3%	122.200	99.830	96.640	5813.000
3	18:44:13	TM 13440.000	T 48650.000	T 5737.000	66690.000	T 68680.000	98.0%	120.100	98.900	96.340	5872.000
x		TM 13800.000	T 49220.000	T 5760.000	67040.000	T 69050.000	98.6%	120.700	99.940	96.850	5777.000
σ		TM 364.300	T 506.800	T 32.310	692.500	T 383.400	0.7%	1.306	1.095	0.643	115.900
%RSD		TM 2.640	T 1.030	T 0.561	1.033	T 0.555	0.7	1.082	1.095	0.663	2.006
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:43:19	1538.000	127.100	T 1589.000	1999.000	93.230	93.730	94.960	92.930	95.170	94.860
2	18:43:46	T 1303.000	128.400	T 1604.000	1995.000	94.430	94.430	91.050	93.320	94.580	97.870
3	18:44:13	1521.000	126.400	T 1582.000	1974.000	93.110	94.340	92.420	92.380	94.700	96.750
x		T 1454.000	127.300	T 1592.000	1989.000	93.590	94.160	92.810	92.880	94.810	96.490
σ		T 131.100	0.995	T 11.570	13.240	0.730	0.381	1.986	0.469	0.312	1.521
%RSD		T 9.020	0.781	T 0.727	0.665	0.780	0.404	2.140	0.505	0.329	1.577
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:43:19	107.300	101.900	96.360	94.570	21.610	21.550	430.600	96.350	-0.525	TM 666.400
2	18:43:46	109.200	104.900	98.890	93.120	23.060	22.730	427.700	96.530	-1.685	TM 665.800
3	18:44:13	105.600	105.100	99.180	96.410	23.850	22.690	429.100	94.500	-0.271	TM 664.400
x		107.400	104.000	98.150	94.700	22.840	22.330	429.200	95.790	-0.827	TM 665.500
σ		1.790	1.770	1.553	1.647	1.134	0.669	1.461	1.122	0.754	TM 1.036
%RSD		1.667	1.702	1.582	1.740	4.964	2.996	0.341	1.171	91.190	TM 0.156
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:43:19	99.7%	98.740	100.500	98.200	124.900	97.460	95.420	100.000	97.900	100.5%
2	18:43:46	101.7%	98.260	100.200	100.700	126.400	99.410	95.200	98.030	99.160	101.5%
3	18:44:13	100.9%	99.080	101.700	99.760	120.200	97.830	93.550	97.380	97.460	103.1%
x		100.8%	98.690	100.800	99.550	123.800	98.240	94.720	98.470	98.170	101.7%
σ		1.0%	0.410	0.801	1.249	3.208	1.036	1.024	1.365	0.883	1.3%
%RSD		1.0	0.416	0.794	1.254	2.591	1.054	1.081	1.386	0.900	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:43:19	102.300	101.800	96.800	96.730	344.200	342.300	104.4%	97.400	101.200	106.200
2	18:43:46	102.400	102.700	96.470	97.240	343.700	340.700	105.2%	98.500	100.700	105.600
3	18:44:13	101.300	100.100	94.610	93.800	340.800	338.300	105.6%	98.130	100.800	104.000
x		102.000	101.500	95.960	95.930	342.900	340.400	105.1%	98.010	100.900	105.300
σ		0.587	1.328	1.178	1.856	1.846	2.021	0.6%	0.565	0.295	1.146
%RSD		0.575	1.308	1.228	1.935	0.538	0.594	0.6	0.576	0.292	1.089
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:43:19	100.900	102.000	103.2%							
2	18:43:46	100.500	102.100	104.0%							
3	18:44:13	99.110	101.000	104.3%							
x		100.200	101.700	103.8%							
σ		0.963	0.623	0.6%							
%RSD		0.962	0.612	0.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	110.5%	-0.021	0.356	0.324	42.160	-14.110	1.337	1.470	1.469	1.320
2	18:49:40	113.5%	-0.022	0.446	0.178	42.600	-15.090	1.278	1.166	1.267	1.312
3	18:50:07	114.2%	-0.002	0.287	0.468	36.850	-15.630	1.227	1.496	1.331	1.356
x		112.7%	-0.015	0.363	0.323	40.540	-14.950	1.281	1.378	1.356	1.329
σ		2.0%	0.011	0.079	0.145	3.202	0.770	0.055	0.184	0.103	0.024
%RSD		1.8	72.800	21.850	44.850	7.899	5.151	4.293	13.340	7.608	1.784

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	12.380	T 55490.000	0.101	-0.696	1.882	100.4%	0.052	-0.185	0.680	5777.000
2	18:49:40	12.280	T 55240.000	3.556	0.269	1.915	101.7%	0.090	-0.198	0.689	5787.000
3	18:50:07	11.730	T 54270.000	-4.138	2.261	2.889	101.7%	0.070	-0.196	0.661	5878.000
x		12.130	T 55000.000	-0.160	0.611	2.229	101.2%	0.071	-0.193	0.677	5814.000
σ		0.347	T 642.500	3.854	1.508	0.572	0.8%	0.019	0.007	0.014	55.690
%RSD		2.862	T 1.168	2404.000	246.700	25.680	0.7	26.660	3.624	2.135	0.958

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	3.305	-0.004	11.470	-15.790	-0.029	0.066	-0.245	0.012	-0.030	1.009
2	18:49:40	3.259	-0.011	11.210	-17.500	-0.030	0.030	0.429	0.017	-0.001	1.169
3	18:50:07	2.403	-0.010	10.510	-20.940	-0.031	0.058	-0.020	0.029	0.039	1.020
x		2.989	-0.008	11.070	-18.080	-0.030	0.052	0.055	0.019	0.003	1.066
σ		0.508	0.004	0.497	2.621	0.001	0.019	0.343	0.009	0.035	0.089
%RSD		17.000	47.850	4.489	14.500	2.147	37.030	624.200	45.000	1326.000	8.379

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	1.581	0.987	-0.223	-0.535	6.072	6.109	0.332	0.035	-1.128	0.004
2	18:49:40	1.558	0.849	-0.533	-0.404	5.130	6.428	-3.676	-0.824	-1.931	0.007
3	18:50:07	1.165	1.040	0.047	-0.281	5.838	5.727	-3.762	-0.814	-2.529	0.005
x		1.435	0.959	-0.236	-0.407	5.680	6.088	-2.369	-0.534	-1.862	0.005
σ		0.234	0.099	0.290	0.127	0.491	0.351	2.340	0.493	0.703	0.001
%RSD		16.310	10.290	122.900	31.160	8.637	5.761	98.760	92.230	37.760	23.730

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	100.7%	-0.010	-0.002	-0.008	0.089	0.002	0.000	-0.001	0.012	103.7%
2	18:49:40	102.6%	0.004	0.011	-0.006	-0.764	0.000	-0.001	-0.004	-0.001	105.2%
3	18:50:07	104.4%	-0.013	-0.016	-0.013	-0.506	0.006	0.000	-0.004	-0.009	105.3%
x		102.6%	-0.006	-0.002	-0.009	-0.394	0.003	-0.000	-0.003	0.001	104.7%
σ		1.8%	0.009	0.014	0.004	0.437	0.003	0.001	0.002	0.011	0.9%
%RSD		1.8	144.600	592.500	40.470	111.100	95.040	1031.000	55.680	2102.000	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:14	1.303	1.890	0.141	0.175	0.003	0.010	104.2%	-0.028	-0.031	-0.034
2	18:49:40	1.293	1.857	0.164	0.138	-0.002	0.005	105.6%	-0.029	-0.030	-0.031
3	18:50:07	1.380	1.976	0.145	0.148	0.003	0.005	106.4%	-0.024	-0.033	-0.036
x		1.325	1.907	0.150	0.154	0.001	0.006	105.4%	-0.027	-0.031	-0.034
σ		0.048	0.062	0.012	0.019	0.002	0.003	1.1%	0.003	0.002	0.003
%RSD		3.596	3.225	8.107	12.260	181.800	45.670	1.1	9.716	5.353	7.890

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:49:14	-0.018	-0.022	107.4%
2	18:49:40	-0.019	-0.023	108.6%
3	18:50:07	-0.025	-0.027	109.0%
x		-0.021	-0.024	108.3%
σ		0.004	0.002	0.8%
%RSD		17.720	10.370	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:09	107.1%	99.330	101.200	99.380	51.690	┬968.600	┬1010.000	958.500	960.800	98.880
2	18:55:36	109.3%	102.100	102.400	96.940	50.070	┬995.100	┬1013.000	953.300	955.800	97.080
3	18:56:03	108.4%	100.500	100.800	95.990	46.230	┬983.900	┬1002.000	945.900	956.400	96.680
x		108.3%	100.600	101.500	97.440	49.330	┬982.500	┬1008.000	952.600	957.700	97.550
σ		1.1%	1.412	0.831	1.745	2.806	┬13.320	┬5.658	6.312	2.732	1.173
%RSD		1.0	1.403	0.818	1.791	5.688	┬1.356	┬0.561	0.663	0.285	1.203

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:09	867.500	┬55030.000	1090.000	1119.000	1012.000	96.1%	101.200	98.170	99.320	5825.000
2	18:55:36	847.400	┬54650.000	1095.000	1137.000	1012.000	96.6%	97.700	99.130	99.890	5240.000
3	18:56:03	845.700	┬55050.000	1088.000	1095.000	1008.000	96.9%	98.390	98.600	98.450	5421.000
x		853.500	┬54910.000	1091.000	1117.000	1011.000	96.5%	99.110	98.630	99.220	5495.000
σ		12.090	┬222.000	3.410	21.210	2.365	0.4%	1.881	0.477	0.724	299.200
%RSD		1.416	┬0.404	0.313	1.900	0.234	0.4	1.898	0.484	0.730	5.445

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:09	1052.000	98.230	┬1075.000	1004.000	99.200	101.400	100.500	99.790	100.700	99.560
2	18:55:36	1050.000	99.090	┬1068.000	998.400	99.480	100.700	100.800	98.890	101.200	100.600
3	18:56:03	1059.000	98.990	┬1082.000	999.600	100.000	100.100	99.490	100.100	101.400	100.700
x		1054.000	98.770	┬1075.000	1001.000	99.570	100.700	100.300	99.590	101.100	100.300
σ		4.920	0.469	┬6.931	2.768	0.424	0.669	0.686	0.624	0.359	0.638
%RSD		0.467	0.475	┬0.645	0.277	0.426	0.664	0.684	0.626	0.355	0.636

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:09	102.100	99.400	98.990	100.600	5.275	4.901	485.500	106.300	0.605	98.470
2	18:55:36	102.100	99.910	101.100	101.800	5.209	4.857	453.600	99.600	0.104	97.650
3	18:56:03	100.800	100.200	99.950	102.500	5.430	5.767	462.900	102.800	-1.516	97.600
x		101.700	99.830	100.000	101.600	5.305	5.175	467.400	102.900	-0.269	97.910
σ		0.750	0.404	1.050	0.972	0.114	0.513	16.410	3.366	1.109	0.488
%RSD		0.738	0.404	1.050	0.957	2.139	9.919	3.510	3.271	412.000	0.498

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:09	96.8%	97.890	99.160	98.900	101.300	102.900	99.210	99.560	99.690	99.8%
2	18:55:36	100.7%	97.780	99.710	97.810	100.100	102.200	98.910	100.400	100.600	102.9%
3	18:56:03	99.5%	96.960	99.570	98.330	99.450	102.700	98.710	100.600	99.410	100.9%
x		99.0%	97.540	99.480	98.350	100.300	102.600	98.940	100.200	99.910	101.2%
σ		2.0%	0.510	0.285	0.548	0.957	0.376	0.251	0.560	0.638	1.6%
%RSD		2.0	0.523	0.286	0.557	0.954	0.366	0.253	0.559	0.639	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:09	102.900	102.100	97.140	97.800	101.200	100.300	102.6%	100.000	103.400	105.300
2	18:55:36	101.800	102.100	98.440	99.500	100.200	99.000	105.9%	99.900	102.500	104.900
3	18:56:03	102.900	102.000	97.820	99.350	99.250	98.750	104.5%	100.400	103.000	104.900
x		102.500	102.100	97.800	98.880	100.200	99.340	104.3%	100.100	103.000	105.100
σ		0.616	0.063	0.652	0.942	0.951	0.816	1.7%	0.269	0.434	0.200
%RSD		0.601	0.062	0.667	0.952	0.950	0.821	1.6	0.269	0.421	0.190

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:55:09	99.520	101.200	104.6%
2	18:55:36	99.320	101.500	107.7%
3	18:56:03	100.000	101.600	106.1%
x		99.630	101.400	106.1%
σ		0.369	0.239	1.5%
%RSD		0.371	0.236	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:07	91.1%	294.300	295.100	290.900	16.810	┬61950.000	┬60700.000	┬60130.000	┬60490.000	290.200
2	19:01:33	91.6%	293.500	300.600	299.700	22.120	┬62890.000	┬60770.000	┬60120.000	┬60680.000	291.800
3	19:02:00	91.7%	298.300	297.100	302.300	23.290	┬63360.000	┬61780.000	┬61150.000	┬61170.000	291.000
x		91.5%	98.455%	99.207%	99.217%	20.740	┬104.556%	┬61090.000	┬60470.000	┬101.302%	97.003%
σ		0.3%	n/a	n/a	n/a	3.455	┬n/a	┬606.700	┬592.700	┬n/a	n/a
%RSD		0.4	0.866	0.934	2.015	16.660	┬1.150	┬0.993	┬0.980	┬0.571	0.277

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:07	┬2966.000	603.900	┬65360.000	60590.000	┬61800.000	87.4%	298.400	303.000	291.800	1055.000
2	19:01:33	┬3024.000	607.500	┬65460.000	60880.000	┬62040.000	89.2%	295.300	299.700	289.000	1915.000
3	19:02:00	┬3038.000	597.200	┬65860.000	60450.000	┬62230.000	89.5%	298.800	304.400	290.300	1594.000
x		┬100.309%	602.900	┬109.263%	60640.000	┬103.368%	88.7%	99.169%	100.791%	96.790%	1521.000
σ		┬n/a	5.193	┬n/a	220.100	┬n/a	1.1%	n/a	n/a	n/a	434.400
%RSD		┬1.262	0.861	┬0.406	0.363	┬0.345	1.3	0.636	0.809	0.494	28.550

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:07	┬62090.000	290.500	┬62380.000	┬61870.000	287.600	282.300	292.700	278.200	279.600	272.400
2	19:01:33	┬61010.000	284.900	┬61790.000	┬61450.000	288.700	282.100	285.900	275.300	275.700	275.800
3	19:02:00	┬62380.000	291.100	┬63230.000	┬61820.000	289.000	284.200	291.200	279.900	277.700	274.000
x		┬61830.000	96.281%	┬62470.000	┬102.855%	96.147%	94.294%	290.000	277.800	92.553%	91.351%
σ		┬724.500	n/a	┬724.600	┬n/a	n/a	n/a	3.576	2.327	n/a	n/a
%RSD		┬1.172	1.173	┬1.160	┬0.369	0.250	0.418	1.233	0.838	0.694	0.631

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:07	275.000	271.700	286.800	282.600	3.108	2.430	1278.000	289.800	-2.403	┬293.900
2	19:01:33	279.200	275.600	288.100	281.300	3.746	2.604	1293.000	288.100	-0.994	296.800
3	19:02:00	276.100	277.900	289.400	285.900	3.688	2.590	1304.000	293.900	-3.489	297.300
x		276.800	275.100	96.040%	283.300	3.514	2.541	1292.000	96.862%	-2.295	┬98.667%
σ		2.166	3.158	n/a	2.400	0.353	0.097	13.220	n/a	1.251	┬n/a
%RSD		0.783	1.148	0.458	0.847	10.050	3.812	1.024	1.020	54.520	┬0.609

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:07	87.1%	305.000	301.400	303.300	291.800	292.100	282.300	292.600	289.700	86.9%
2	19:01:33	88.6%	302.100	307.400	305.600	292.300	291.300	279.800	287.200	289.900	90.1%
3	19:02:00	88.8%	306.400	307.700	306.700	293.200	297.300	283.600	293.400	292.400	89.2%
x		88.2%	101.500%	101.836%	305.200	292.400	97.855%	281.900	291.100	96.885%	88.7%
σ		0.9%	n/a	n/a	1.764	0.690	n/a	1.933	3.368	n/a	1.6%
%RSD		1.1	0.726	1.159	0.578	0.236	1.108	0.686	1.157	0.510	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:07	301.400	300.100	294.600	297.300	300.100	297.100	90.7%	293.600	┬302.200	305.300
2	19:01:33	299.800	298.200	297.000	299.200	300.500	299.000	93.6%	291.700	┬301.400	307.100
3	19:02:00	301.100	300.100	299.700	301.600	300.700	298.300	94.2%	292.100	┬301.800	310.000
x		100.258%	99.822%	297.100	99.791%	100.142%	99.383%	92.9%	292.500	┬100.596%	102.487%
σ		n/a	n/a	2.524	n/a	n/a	n/a	1.9%	0.979	┬n/a	n/a
%RSD		0.275	0.369	0.849	0.705	0.091	0.336	2.0	0.335	┬0.126	0.766

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:01:07	298.000	301.300	90.3%
2	19:01:33	300.500	304.200	92.0%
3	19:02:00	304.000	305.500	91.8%
x		100.276%	101.228%	91.4%
σ		n/a	n/a	0.9%
%RSD		1.010	0.706	1.0

CCB IM9409-01 05/08/2019 19:06:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:05	97.2%	0.022	0.959	0.834	13.960	-19.020	0.130	0.140	0.159	0.018
2	19:07:32	99.0%	-0.000	1.123	0.759	10.490	-19.560	0.092	0.168	0.074	0.014
3	19:07:59	99.5%	-0.011	1.197	0.877	11.070	-19.680	0.066	0.147	-0.010	0.005
x		98.6%	0.004	1.093	0.823	11.840	-19.420	0.096	0.152	0.074	0.012
σ		1.2%	0.017	0.122	0.060	1.858	0.352	0.032	0.015	0.084	0.006
%RSD		1.2	460.600	11.130	7.277	15.690	1.812	33.550	9.594	113.700	52.990

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:05	10.780	316.900	0.398	-2.683	-0.484	94.0%	0.004	-0.008	0.006	44.060
2	19:07:32	10.430	313.500	-3.039	-2.151	-0.335	94.8%	0.025	-0.016	0.015	49.550
3	19:07:59	10.490	318.700	0.492	-0.516	-0.363	94.0%	0.046	0.012	0.017	25.810
x		10.570	316.400	-0.716	-1.783	-0.394	94.3%	0.025	-0.004	0.013	39.810
σ		0.186	2.640	2.012	1.129	0.079	0.4%	0.021	0.015	0.006	12.430
%RSD		1.760	0.834	280.900	63.330	20.070	0.5	82.630	362.800	47.720	31.220

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:05	-0.211	-0.003	3.236	-0.092	-0.022	0.007	0.073	-0.039	-0.015	-0.024
2	19:07:32	-0.203	-0.002	2.684	-1.343	-0.012	-0.011	-0.171	-0.041	-0.011	-0.012
3	19:07:59	0.586	-0.013	2.835	-2.958	-0.012	-0.003	0.046	-0.035	0.001	-0.011
x		0.058	-0.006	2.918	-1.465	-0.015	-0.002	-0.017	-0.038	-0.008	-0.016
σ		0.458	0.006	0.286	1.437	0.006	0.009	0.134	0.003	0.008	0.007
%RSD		796.500	99.230	9.784	98.100	36.880	397.700	778.600	8.478	94.680	44.780

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:05	0.056	0.039	-0.107	-0.040	2.673	2.431	-1.885	-0.448	-0.921	0.002
2	19:07:32	-0.118	0.003	-0.108	-0.085	2.485	2.486	-1.773	-0.413	-0.460	0.002
3	19:07:59	-0.060	0.061	-0.045	-0.256	2.509	2.268	0.025	-0.026	-0.821	0.001
x		-0.041	0.034	-0.086	-0.127	2.556	2.395	-1.211	-0.296	-0.734	0.002
σ		0.089	0.029	0.036	0.114	0.102	0.113	1.072	0.234	0.243	0.001
%RSD		218.800	84.460	42.010	89.850	3.997	4.730	88.530	79.150	33.070	26.460

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:05	94.1%	0.016	0.045	0.021	1.202	0.007	0.001	0.002	0.004	96.6%
2	19:07:32	94.9%	0.033	0.059	0.040	0.790	0.003	-0.002	-0.004	0.003	96.2%
3	19:07:59	95.1%	0.006	0.029	0.022	0.396	0.005	0.003	-0.004	0.005	97.3%
x		94.7%	0.018	0.044	0.028	0.796	0.005	0.001	-0.002	0.004	96.7%
σ		0.6%	0.014	0.015	0.011	0.404	0.002	0.002	0.004	0.001	0.6%
%RSD		0.6	75.960	33.170	38.670	50.690	33.720	329.700	176.700	26.610	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:05	0.064	0.058	0.136	0.131	-0.002	0.003	96.2%	-0.016	-0.012	0.012
2	19:07:32	0.043	0.056	0.134	0.144	0.003	0.003	97.6%	-0.016	-0.012	-0.002
3	19:07:59	0.032	0.070	0.125	0.128	0.008	-0.003	97.7%	-0.010	-0.015	0.014
x		0.047	0.061	0.132	0.134	0.003	0.001	97.1%	-0.014	-0.013	0.008
σ		0.016	0.007	0.006	0.009	0.005	0.003	0.8%	0.004	0.002	0.008
%RSD		35.050	12.200	4.328	6.493	147.500	319.100	0.8	26.110	12.080	103.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:07:05	0.021	0.011	100.2%
2	19:07:32	0.016	0.012	100.7%
3	19:07:59	0.018	0.012	101.7%
x		0.018	0.012	100.9%
σ		0.003	0.001	0.8%
%RSD		14.830	6.792	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:00	99.5%	0.006	65.160	63.910	71.290	T10020.000	T2163.000	2037.000	2037.000	T44.650
2	19:13:27	100.9%	-0.011	65.120	62.680	67.020	T9974.000	T2156.000	2016.000	2031.000	T40.920
3	19:13:54	102.0%	-0.001	60.160	62.800	64.680	T10210.000	T2147.000	1989.000	2022.000	T42.880
x		100.8%	-0.002	63.480	63.130	67.660	T10070.000	T2155.000	2014.000	2030.000	T42.820
σ		1.3%	0.008	2.877	0.680	3.354	T126.900	T8.204	23.720	7.519	T1.865
%RSD		1.2	451.500	4.532	1.077	4.957	T1.260	T0.381	1.178	0.370	T4.356

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:00	T4076.000	T55060.000	T2310.000	7658.000	7295.000	93.2%	1.899	0.650	0.767	3295.000
2	19:13:27	T4008.000	T54430.000	T2306.000	7845.000	7322.000	92.7%	1.739	0.452	0.785	3481.000
3	19:13:54	T4012.000	T54590.000	T2309.000	8003.000	7366.000	94.1%	1.993	0.397	0.821	3677.000
x		T4032.000	T54700.000	T2308.000	7835.000	7328.000	93.3%	1.877	0.500	0.791	3484.000
σ		T38.140	T327.500	T2.400	172.700	36.010	0.7%	0.129	0.133	0.027	190.900
%RSD		T0.946	T0.599	T0.104	2.205	0.491	0.8	6.868	26.630	3.461	5.480

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:00	436.700	75.760	T455.700	484.400	0.238	0.689	0.618	1.443	1.535	2.297
2	19:13:27	442.900	76.700	T457.000	491.100	0.240	0.749	0.746	1.503	1.648	2.452
3	19:13:54	441.400	77.440	T456.800	478.500	0.224	0.666	0.542	1.461	1.534	2.376
x		440.300	76.630	T456.500	484.700	0.234	0.701	0.635	1.469	1.572	2.375
σ		3.244	0.844	T0.730	6.297	0.009	0.043	0.103	0.031	0.066	0.077
%RSD		0.737	1.102	T0.160	1.299	3.708	6.128	16.210	2.103	4.168	3.246

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:00	4.702	4.057	0.532	0.061	26.230	24.190	-0.130	-0.028	-2.589	51.320
2	19:13:27	4.650	4.215	0.651	-0.614	25.960	23.900	0.264	0.060	-3.396	50.960
3	19:13:54	5.116	4.156	0.105	-0.428	25.620	25.030	-2.078	-0.494	-1.136	51.380
x		4.822	4.143	0.429	-0.327	25.940	24.370	-0.648	-0.154	-2.374	51.220
σ		0.255	0.080	0.287	0.349	0.302	0.584	1.254	0.298	1.145	0.227
%RSD		5.292	1.933	66.950	106.700	1.165	2.394	193.600	193.200	48.240	0.444

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:00	95.0%	0.131	0.172	0.114	2.398	0.003	0.003	0.002	0.000	96.3%
2	19:13:27	96.8%	0.107	0.178	0.137	2.206	0.004	0.001	0.011	0.025	98.6%
3	19:13:54	97.0%	0.125	0.135	0.154	0.900	0.002	0.001	-0.002	0.010	98.1%
x		96.2%	0.121	0.162	0.135	1.835	0.003	0.002	0.004	0.012	97.7%
σ		1.1%	0.012	0.023	0.020	0.815	0.001	0.001	0.006	0.012	1.2%
%RSD		1.1	10.140	14.240	14.600	44.440	34.600	66.110	175.600	104.700	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:00	1.336	1.966	0.178	0.192	42.250	41.490	98.9%	-0.027	-0.025	0.109
2	19:13:27	1.396	1.759	0.199	0.182	42.280	42.740	100.7%	-0.022	-0.025	0.115
3	19:13:54	1.250	1.785	0.194	0.194	42.140	42.400	101.3%	-0.021	-0.027	0.125
x		1.328	1.837	0.190	0.189	42.220	42.210	100.3%	-0.023	-0.026	0.116
σ		0.073	0.113	0.011	0.007	0.073	0.646	1.2%	0.003	0.001	0.008
%RSD		5.527	6.155	5.834	3.507	0.173	1.531	1.2	12.690	5.646	7.005

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:13:00	0.108	0.122	100.8%
2	19:13:27	0.135	0.124	102.3%
3	19:13:54	0.115	0.118	103.6%
x		0.119	0.121	102.2%
σ		0.014	0.003	1.4%
%RSD		11.810	2.651	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:57	100.0%	0.164	73.560	74.130	194.200	T 33150.000	T 8042.000	T 7785.000	T 7765.000	TM 6254.000
2	19:19:24	101.5%	0.200	72.380	73.790	184.700	T 33440.000	T 7956.000	T 7746.000	T 7821.000	TM 6246.000
3	19:19:51	104.2%	0.157	72.900	74.860	182.100	T 33400.000	T 8046.000	T 7845.000	T 7907.000	TM 6193.000
x		101.9%	0.174	72.940	74.260	187.000	T 33330.000	T 8014.000	T 7792.000	T 7831.000	TM 6231.000
σ		2.1%	0.023	0.592	0.549	6.358	T 155.100	T 50.990	T 49.920	T 71.370	TM 33.320
%RSD		2.1	13.200	0.811	0.739	3.400	T 0.465	T 0.636	T 0.641	T 0.911	TM 0.535

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:57	TM 12230.000	T 50470.000	T 12480.000	25580.000	T 26230.000	95.7%	69.700	17.240	7.366	2932.000
2	19:19:24	TM 12300.000	T 50560.000	T 12570.000	25770.000	T 26450.000	97.6%	70.150	16.860	7.599	3212.000
3	19:19:51	TM 12020.000	T 50910.000	T 12510.000	25750.000	T 26330.000	98.7%	68.880	17.000	7.429	3082.000
x		TM 12180.000	T 50650.000	T 12520.000	25700.000	T 26330.000	97.3%	69.580	17.040	7.465	3075.000
σ		TM 146.900	T 228.500	T 43.760	107.800	T 110.900	1.6%	0.645	0.189	0.121	140.000
%RSD		TM 1.206	T 0.451	T 0.350	0.420	T 0.421	1.6	0.927	1.111	1.619	4.552

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:57	T 14860.000	TM 1770.000	T 15280.000	15510.000	6.400	6.870	6.827	6.308	6.841	38.520
2	19:19:24	T 14990.000	TM 1777.000	T 15400.000	15610.000	6.436	6.967	6.575	6.148	6.809	37.820
3	19:19:51	T 15010.000	TM 1782.000	T 15410.000	15510.000	6.494	6.997	6.670	6.285	6.851	38.530
x		T 14950.000	TM 1776.000	T 15370.000	15540.000	6.443	6.945	6.691	6.247	6.834	38.290
σ		T 80.450	TM 5.811	T 71.320	56.950	0.048	0.066	0.128	0.087	0.022	0.408
%RSD		T 0.538	TM 0.327	T 0.464	0.366	0.740	0.957	1.906	1.387	0.315	1.067

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:57	45.620	43.650	6.012	-0.299	98.860	99.020	-0.367	0.102	-2.818	124.800
2	19:19:24	43.940	42.310	6.175	0.019	99.100	101.100	-0.329	0.035	-0.745	123.200
3	19:19:51	43.610	43.220	6.008	-0.260	100.800	99.490	-2.482	-0.460	-2.107	124.600
x		44.390	43.060	6.065	-0.180	99.600	99.870	-1.059	-0.108	-1.890	124.200
σ		1.077	0.683	0.095	0.174	1.078	1.084	1.232	0.307	1.054	0.873
%RSD		2.426	1.586	1.565	96.490	1.082	1.086	116.400	284.300	55.750	0.703

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:57	111.1%	0.209	0.255	0.260	6.328	0.026	0.016	0.118	0.123	96.4%
2	19:19:24	112.4%	0.255	0.234	0.267	6.126	0.022	0.021	0.145	0.108	98.6%
3	19:19:51	114.6%	0.231	0.220	0.292	8.120	0.028	0.015	0.110	0.129	99.8%
x		112.7%	0.232	0.237	0.273	6.858	0.026	0.018	0.124	0.120	98.3%
σ		1.8%	0.023	0.017	0.017	1.097	0.003	0.003	0.019	0.011	1.7%
%RSD		1.6	9.919	7.371	6.222	16.000	11.960	19.500	14.960	8.759	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:57	0.986	1.319	1.550	1.467	168.500	168.700	100.7%	0.013	0.010	7.019
2	19:19:24	1.032	1.282	1.664	1.484	169.300	167.600	102.4%	0.014	0.009	6.776
3	19:19:51	1.080	1.216	1.498	1.564	170.300	168.200	104.8%	0.009	0.010	6.866
x		1.033	1.272	1.571	1.505	169.400	168.200	102.7%	0.012	0.010	6.887
σ		0.047	0.052	0.085	0.052	0.908	0.574	2.1%	0.003	0.001	0.123
%RSD		4.570	4.079	5.408	3.462	0.536	0.341	2.0	21.190	8.823	1.785

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:18:57	6.166	6.516	99.0%
2	19:19:24	6.374	6.533	102.0%
3	19:19:51	6.231	6.447	103.4%
x		6.257	6.499	101.5%
σ		0.106	0.045	2.2%
%RSD		1.696	0.695	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:53	98.6%	0.012	51.400	55.470	13.880	T 31870.000	T 37660.000	T 37670.000	T 38220.000	T 157.500
2	19:25:20	100.4%	0.011	52.160	54.650	16.930	T 32030.000	T 37750.000	T 38010.000	T 38700.000	T 167.200
3	19:25:48	102.1%	-0.007	51.360	54.940	10.550	T 31810.000	T 37910.000	T 38010.000	T 38860.000	T 155.800
x		100.4%	0.005	51.640	55.020	13.790	T 31900.000	T 37770.000	T 37900.000	T 38600.000	T 160.200
σ		1.7%	0.010	0.453	0.415	3.189	T 115.400	T 123.000	T 196.900	T 333.300	T 6.154
%RSD		1.7	192.900	0.877	0.754	23.130	T 0.362	T 0.326	T 0.520	T 0.864	T 3.842

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:53	TM 12340.000	T 50060.000	T 2437.000	M 102800.000	TM 107200.000	93.9%	4.352	4.586	1.012	2488.000
2	19:25:20	TM 12300.000	T 50270.000	T 2443.000	M 103400.000	TM 107800.000	94.5%	4.804	4.746	1.017	2488.000
3	19:25:48	TM 12190.000	T 50570.000	T 2457.000	M 103700.000	TM 108500.000	94.5%	7.361	4.648	1.059	2518.000
x		TM 12280.000	T 50300.000	T 2446.000	M 103300.000	TM 107800.000	94.3%	5.506	4.660	1.030	2498.000
σ		TM 76.980	T 254.400	T 10.400	M 478.100	TM 641.000	0.3%	1.622	0.080	0.026	17.580
%RSD		TM 0.627	T 0.506	T 0.425	M 0.463	TM 0.595	0.3	29.470	1.722	2.502	0.704

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:53	3519.000	TM 12960.000	T 3712.000	4346.000	24.950	56.690	56.290	6.560	7.028	9.567
2	19:25:20	3574.000	TM 13180.000	T 3795.000	4365.000	25.450	57.680	56.890	6.544	7.266	9.728
3	19:25:48	3575.000	TM 13180.000	T 3775.000	4392.000	25.360	58.100	56.010	6.549	7.323	9.894
x		3556.000	TM 13110.000	T 3760.000	4368.000	25.260	57.490	56.400	6.551	7.205	9.729
σ		32.350	TM 130.300	T 43.310	23.100	0.266	0.720	0.451	0.008	0.157	0.164
%RSD		0.910	TM 0.994	T 1.152	0.529	1.055	1.252	0.799	0.123	2.173	1.681

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:53	76.400	58.820	4.162	-0.288	243.800	239.900	1.291	0.019	-0.489	T 291.100
2	19:25:20	78.950	61.560	4.958	-0.291	244.800	252.200	1.559	0.055	-0.026	T 295.000
3	19:25:48	76.820	60.840	4.577	0.224	238.100	247.200	1.346	0.095	-1.620	T 289.800
x		77.390	60.410	4.565	-0.118	242.200	246.400	1.399	0.056	-0.712	T 292.000
σ		1.366	1.422	0.398	0.296	3.626	6.165	0.142	0.038	0.820	T 2.673
%RSD		1.765	2.354	8.727	250.700	1.497	2.502	10.140	67.410	115.200	T 0.916

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:53	93.2%	1.927	1.932	1.881	16.040	0.022	0.018	0.132	0.138	94.7%
2	19:25:20	94.1%	1.897	1.899	1.861	13.110	0.021	0.018	0.134	0.141	95.6%
3	19:25:48	96.3%	2.042	1.964	1.937	12.700	0.022	0.018	0.163	0.154	95.2%
x		94.5%	1.956	1.932	1.893	13.950	0.022	0.018	0.143	0.144	95.1%
σ		1.6%	0.077	0.033	0.039	1.821	0.000	0.000	0.017	0.008	0.5%
%RSD		1.7	3.925	1.700	2.073	13.050	0.512	0.519	12.030	5.732	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:53	1.423	1.893	0.142	0.150	M 1408.000	M 1415.000	98.3%	-0.018	-0.023	5.011
2	19:25:20	1.407	1.874	0.162	0.123	M 1402.000	M 1415.000	99.0%	-0.024	-0.029	4.797
3	19:25:48	1.430	1.972	0.142	0.169	M 1431.000	M 1432.000	99.6%	-0.027	-0.029	4.862
x		1.420	1.913	0.149	0.148	M 1414.000	M 1421.000	99.0%	-0.023	-0.027	4.890
σ		0.011	0.052	0.011	0.023	M 15.400	M 9.593	0.7%	0.005	0.003	0.109
%RSD		0.804	2.713	7.646	15.760	M 1.089	M 0.675	0.7	19.990	11.660	2.236

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:24:53	4.385	4.646	96.5%
2	19:25:20	4.545	4.604	96.6%
3	19:25:48	4.459	4.562	98.0%
x		4.463	4.604	97.0%
σ		0.080	0.042	0.9%
%RSD		1.801	0.905	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:50	98.5%	0.039	370.100	384.400	163.500	TM 109100.000	T 62610.000	T 62580.000	T 62890.000	T 12.280
2	19:31:17	100.8%	0.039	369.400	383.400	158.300	TM 111600.000	T 62870.000	T 62570.000	T 62930.000	32.280
3	19:31:44	104.4%	0.042	369.100	378.700	158.400	TM 111700.000	T 62590.000	T 62300.000	T 62660.000	32.030
x		101.2%	0.040	369.500	382.200	160.100	TM 110800.000	T 62690.000	T 62480.000	T 62830.000	T 25.530
σ		3.0%	0.002	0.475	3.034	2.994	TM 1491.000	T 157.800	T 157.200	T 145.600	T 11.480
%RSD		2.9	4.751	0.129	0.794	1.871	TM 1.346	T 0.252	T 0.252	T 0.232	T 44.970

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:50	T 4639.000	T 59490.000	T 4807.000	96900.000	TM 100700.000	95.0%	4.280	4.644	1.503	2312.000
2	19:31:17	T 4699.000	T 59350.000	T 4798.000	96160.000	TM 100300.000	98.8%	4.009	4.516	1.445	2322.000
3	19:31:44	T 4574.000	T 58000.000	T 4721.000	96320.000	TM 100000.000	101.6%	4.048	4.522	1.343	2081.000
x		T 4637.000	T 58940.000	T 4775.000	96460.000	TM 100300.000	98.4%	4.112	4.561	1.430	2238.000
σ		T 62.370	T 825.300	T 47.140	392.600	TM 325.100	3.3%	0.146	0.072	0.081	136.500
%RSD		T 1.345	T 1.400	T 0.987	0.407	TM 0.324	3.4	3.561	1.587	5.679	6.097

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:50	T 12660.000	TM 20490.000	T 13120.000	13640.000	44.290	61.730	60.650	1.245	1.638	7.143
2	19:31:17	T 12580.000	TM 20390.000	T 13080.000	13330.000	43.610	60.580	61.240	1.170	1.515	6.799
3	19:31:44	T 12590.000	TM 20380.000	T 13000.000	13340.000	43.130	61.630	59.470	1.184	1.557	6.809
x		T 12610.000	TM 20420.000	T 13070.000	13440.000	43.680	61.310	60.450	1.200	1.570	6.917
σ		T 44.580	TM 60.630	T 62.540	177.400	0.586	0.634	0.900	0.040	0.063	0.196
%RSD		T 0.354	TM 0.297	T 0.479	1.321	1.341	1.034	1.489	3.338	3.987	2.833

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:50	60.170	45.770	25.950	0.454	976.700	986.300	9.146	1.205	1.708	T 337.900
2	19:31:17	58.380	44.430	25.690	-0.263	974.200	986.800	6.159	0.596	-1.280	T 335.900
3	19:31:44	57.610	44.870	26.700	-0.602	971.400	982.700	12.740	2.185	-1.083	T 338.500
x		58.720	45.030	26.110	-0.137	974.100	985.300	9.349	1.329	-0.219	T 337.400
σ		1.310	0.683	0.524	0.539	2.630	2.268	3.297	0.801	1.671	T 1.358
%RSD		2.232	1.516	2.006	393.700	0.270	0.230	35.260	60.300	764.900	T 0.403

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:50	101.9%	0.175	0.125	0.142	14.020	0.012	0.006	0.034	0.029	93.5%
2	19:31:17	103.2%	0.162	0.158	0.184	17.300	0.013	0.002	0.018	0.011	93.4%
3	19:31:44	109.6%	0.175	0.176	0.153	15.390	0.007	0.010	0.017	0.018	99.8%
x		104.9%	0.171	0.153	0.160	15.570	0.010	0.006	0.023	0.019	95.6%
σ		4.1%	0.008	0.026	0.022	1.646	0.003	0.004	0.010	0.009	3.6%
%RSD		3.9	4.478	16.850	13.570	10.570	32.260	64.690	43.140	47.710	3.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:50	1.907	2.643	0.178	0.156	M 1065.000	M 1063.000	96.9%	-0.029	-0.030	0.104
2	19:31:17	1.868	2.554	0.152	0.159	M 1070.000	M 1075.000	99.0%	-0.027	-0.034	0.141
3	19:31:44	1.805	2.578	0.154	0.174	M 1068.000	M 1070.000	102.9%	-0.026	-0.031	0.126
x		1.860	2.592	0.161	0.163	M 1068.000	M 1069.000	99.6%	-0.027	-0.032	0.124
σ		0.051	0.046	0.015	0.010	M 2.807	M 5.911	3.1%	0.002	0.002	0.018
%RSD		2.759	1.773	9.091	5.923	M 0.263	M 0.553	3.1	6.534	7.417	14.780

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:30:50	0.168	0.136	91.4%
2	19:31:17	0.149	0.137	94.2%
3	19:31:44	0.124	0.133	97.0%
x		0.147	0.135	94.2%
σ		0.022	0.002	2.8%
%RSD		15.160	1.538	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:46	102.6%	-0.049	14.950	15.070	-31.160	TM 426900.000	T 16860.000	T 17020.000	T 17440.000	T 468.800
2	19:37:13	103.4%	-0.046	13.820	15.260	-27.790	TM 421900.000	T 16840.000	T 16950.000	T 17310.000	T 473.000
3	19:37:39	106.0%	-0.047	14.270	14.950	-28.820	TM 416600.000	T 16720.000	T 16770.000	T 17100.000	T 468.900
x		104.0%	-0.047	14.350	15.090	-29.260	TM 421800.000	T 16810.000	T 16910.000	T 17280.000	T 470.300
σ		1.8%	0.001	0.567	0.153	1.725	TM 5110.000	T 77.440	T 129.300	T 169.300	T 2.416
%RSD		1.7	3.156	3.949	1.016	5.896	TM 1.212	T 0.461	T 0.764	T 0.979	T 0.514

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:46	TM 10080.000	T 97120.000	T 1906.000	45290.000	T 47240.000	101.6%	11.610	1.285	1.670	5571.000
2	19:37:13	TM 10150.000	T 98410.000	T 1903.000	45240.000	T 47080.000	102.6%	11.920	1.182	1.763	6156.000
3	19:37:39	T 9799.000	T 98250.000	T 1914.000	45100.000	T 46990.000	103.0%	10.320	1.186	1.842	6579.000
x		TM 10010.000	T 97930.000	T 1907.000	45210.000	T 47100.000	102.4%	11.280	1.218	1.758	6102.000
σ		TM 187.500	T 703.300	T 5.710	97.570	T 122.400	0.7%	0.848	0.059	0.086	506.000
%RSD		TM 1.873	T 0.718	T 0.299	0.216	T 0.260	0.7	7.516	4.819	4.914	8.293

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:46	1852.000	TM 1075.000	T 1993.000	2184.000	1.350	4.228	3.854	1.958	1.238	7.700
2	19:37:13	1844.000	TM 1068.000	T 1975.000	2140.000	1.336	4.251	4.244	1.943	1.171	7.724
3	19:37:39	1833.000	TM 1082.000	T 1974.000	2180.000	1.327	4.345	3.229	1.864	1.171	8.099
x		1843.000	TM 1075.000	T 1980.000	2168.000	1.338	4.275	3.775	1.921	1.193	7.841
σ		9.757	TM 6.830	T 10.880	24.690	0.012	0.062	0.512	0.050	0.039	0.224
%RSD		0.529	TM 0.635	T 0.549	1.139	0.875	1.445	13.560	2.625	3.244	2.850

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:46	21.220	17.280	5.417	-0.094	2136.000	2164.000	18.770	2.071	-1.695	T 481.400
2	19:37:13	22.020	17.640	5.344	-0.741	2128.000	2141.000	19.640	2.107	4.156	T 479.700
3	19:37:39	22.130	17.540	4.853	0.179	2102.000	2143.000	18.360	1.968	-0.051	T 477.400
x		21.790	17.490	5.205	-0.219	2122.000	2149.000	18.920	2.049	0.803	T 479.500
σ		0.498	0.187	0.306	0.473	17.740	12.840	0.654	0.072	3.018	T 2.008
%RSD		2.285	1.071	5.886	216.300	0.836	0.597	3.454	3.505	375.700	T 0.419

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:46	101.5%	1.791	1.958	1.810	21.400	0.009	0.003	-0.006	0.016	99.2%
2	19:37:13	99.8%	1.825	1.677	1.618	18.050	0.011	0.007	-0.005	0.019	99.2%
3	19:37:39	103.7%	1.773	1.555	1.684	19.800	0.003	0.002	0.001	0.022	101.1%
x		101.7%	1.796	1.730	1.704	19.750	0.008	0.004	-0.003	0.019	99.8%
σ		2.0%	0.026	0.206	0.097	1.678	0.004	0.002	0.003	0.003	1.1%
%RSD		1.9	1.472	11.920	5.704	8.497	52.440	54.430	101.000	14.800	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:46	2.524	3.740	0.156	0.108	290.500	294.700	105.0%	-0.027	-0.028	0.343
2	19:37:13	2.532	3.702	0.127	0.135	290.200	289.400	104.2%	-0.027	-0.028	0.358
3	19:37:39	2.506	3.543	0.151	0.139	291.200	290.300	106.7%	-0.027	-0.028	0.356
x		2.521	3.662	0.145	0.127	290.700	291.500	105.3%	-0.027	-0.028	0.352
σ		0.013	0.104	0.016	0.017	0.500	2.858	1.3%	0.000	0.000	0.008
%RSD		0.532	2.853	10.850	13.420	0.172	0.981	1.2	0.339	0.267	2.296

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:36:46	0.367	0.338	98.9%
2	19:37:13	0.343	0.343	98.1%
3	19:37:39	0.279	0.337	99.7%
x		0.330	0.339	98.9%
σ		0.046	0.003	0.8%
%RSD		13.860	0.992	0.9

UD30018-035 05/08/2019 19:42:15

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:42	105.6%	0.091	20.360	21.130	34.230	T 12670.000	T 11430.000	T 11240.000	T 11490.000	TM 1411.000
2	19:43:09	107.7%	0.096	21.370	20.600	30.290	T 12600.000	T 11330.000	T 11140.000	T 11380.000	TM 1398.000
3	19:43:36	109.0%	0.087	20.760	20.980	27.360	T 12540.000	T 11330.000	T 11090.000	T 11190.000	TM 1383.000
x		107.4%	0.091	20.830	20.900	30.630	T 12600.000	T 11360.000	T 11160.000	T 11350.000	TM 1397.000
σ		1.7%	0.005	0.513	0.275	3.444	T 66.630	T 58.840	T 77.940	T 150.500	TM 14.180
%RSD		1.6	4.977	2.461	1.315	11.250	T 0.529	T 0.518	T 0.699	T 1.326	TM 1.015

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:42	T 8734.000	T 50300.000	T 1820.000	20880.000	T 21030.000	99.0%	18.320	5.334	5.407	3703.000
2	19:43:09	T 8613.000	T 50620.000	T 1822.000	20810.000	T 21070.000	99.1%	18.140	5.690	5.369	3426.000
3	19:43:36	T 8442.000	T 49760.000	T 1798.000	20600.000	T 21010.000	100.1%	17.300	5.270	5.255	3589.000
x		T 8596.000	T 50230.000	T 1813.000	20760.000	T 21030.000	99.4%	17.920	5.431	5.344	3572.000
σ		T 147.000	T 435.700	T 13.220	145.100	T 31.640	0.6%	0.545	0.226	0.079	139.400
%RSD		T 1.710	T 0.868	T 0.729	0.699	T 0.150	0.6	3.041	4.164	1.483	3.902

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:42	1553.000	TM 1771.000	T 1641.000	1663.000	10.430	13.880	14.490	4.118	4.166	12.790
2	19:43:09	1509.000	TM 1795.000	T 1596.000	1659.000	10.730	13.900	13.540	3.956	4.114	13.410
3	19:43:36	1498.000	TM 1776.000	T 1597.000	1636.000	10.380	13.800	14.060	3.896	3.901	13.340
x		1520.000	TM 1781.000	T 1611.000	1653.000	10.510	13.860	14.030	3.990	4.060	13.180
σ		29.430	TM 12.790	T 26.090	14.110	0.193	0.053	0.476	0.115	0.140	0.340
%RSD		1.936	TM 0.718	T 1.619	0.854	1.836	0.384	3.393	2.875	3.454	2.582

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:42	19.480	17.480	2.977	-0.731	84.770	86.070	-2.196	-0.706	-0.303	102.600
2	19:43:09	19.190	18.180	3.469	-0.353	74.470	75.670	-0.801	-0.166	-3.139	91.230
3	19:43:36	19.120	18.230	3.560	-0.119	74.700	76.010	0.907	0.216	-2.701	90.150
x		19.260	17.970	3.335	-0.401	77.980	79.250	-0.697	-0.219	-2.048	94.650
σ		0.191	0.419	0.314	0.309	5.883	5.908	1.554	0.463	1.527	6.871
%RSD		0.991	2.334	9.415	77.070	7.544	7.454	223.000	211.600	74.550	7.260

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:42	T 92.4%	0.116	0.186	0.103	3.369	0.070	0.047	0.117	0.216	102.9%
2	19:43:09	107.3%	0.114	0.124	0.108	4.988	0.057	0.048	0.109	0.137	104.5%
3	19:43:36	107.9%	0.103	0.107	0.110	2.935	0.057	0.043	0.143	0.127	105.1%
x		T 102.5%	0.111	0.139	0.107	3.764	0.061	0.046	0.123	0.160	104.2%
σ		T 8.8%	0.007	0.042	0.003	1.082	0.008	0.003	0.018	0.049	1.2%
%RSD		T 8.6	6.414	30.200	3.190	28.750	12.390	5.548	14.510	30.370	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:42	1.167	1.503	0.117	0.121	126.200	127.200	105.5%	-0.019	-0.022	2.015
2	19:43:09	1.111	1.579	0.131	0.120	128.700	127.600	106.0%	-0.015	-0.021	2.029
3	19:43:36	1.168	1.521	0.127	0.133	128.400	125.800	107.2%	-0.020	-0.020	2.066
x		1.149	1.534	0.125	0.124	127.800	126.800	106.2%	-0.018	-0.021	2.037
σ		0.033	0.040	0.007	0.007	1.389	0.929	0.9%	0.003	0.001	0.027
%RSD		2.834	2.584	5.769	5.708	1.087	0.733	0.8	16.660	6.438	1.306

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:42:42	1.811	1.919	106.1%
2	19:43:09	1.892	1.939	107.2%
3	19:43:36	1.913	1.940	107.0%
x		1.872	1.933	106.8%
σ		0.054	0.012	0.6%
%RSD		2.888	0.633	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:38	104.8%	64.820	83.630	86.240	17.320	T 14010.000	T 12140.000	T 12000.000	T 12100.000	TM 3883.000
2	19:49:05	107.3%	64.720	86.070	85.330	19.550	T 14130.000	T 12040.000	T 11820.000	T 12010.000	TM 3854.000
3	19:49:32	107.7%	63.410	84.260	82.960	12.530	T 14580.000	T 11960.000	T 11810.000	T 12000.000	TM 3866.000
x		106.6%	64.320	84.660	84.850	16.470	T 14240.000	T 12050.000	T 11880.000	T 12040.000	TM 3867.000
σ		1.6%	0.787	1.266	1.695	3.587	T 299.500	T 92.010	T 103.600	T 52.590	TM 14.520
%RSD		1.5	1.223	1.495	1.998	21.780	T 2.103	T 0.764	T 0.872	T 0.437	TM 0.375

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:38	TM 13270.000	T 50260.000	T 3092.000	22270.000	T 22740.000	98.4%	132.400	104.400	103.100	4682.000
2	19:49:05	TM 13160.000	T 50060.000	T 3084.000	22060.000	T 22750.000	101.9%	135.000	103.900	102.500	4293.000
3	19:49:32	TM 13230.000	T 49740.000	T 3083.000	22310.000	T 22660.000	103.1%	133.400	103.700	101.000	4328.000
x		TM 13220.000	T 50020.000	T 3086.000	22210.000	T 22710.000	101.1%	133.600	104.000	102.200	4434.000
σ		TM 53.230	T 260.100	T 4.935	133.300	T 50.130	2.4%	1.285	0.352	1.069	215.000
%RSD		TM 0.403	T 0.520	T 0.160	0.600	T 0.221	2.4	0.961	0.338	1.046	4.849

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:38	2949.000	TM 1919.000	T 3032.000	3051.000	106.500	109.700	111.100	97.790	101.000	108.400
2	19:49:05	2927.000	TM 1912.000	T 3038.000	3000.000	104.400	108.700	110.200	98.610	100.500	108.300
3	19:49:32	2885.000	TM 1903.000	T 3019.000	2975.000	104.200	107.200	110.900	97.740	100.500	109.500
x		2920.000	TM 1912.000	T 3030.000	3009.000	105.000	108.500	110.800	98.050	100.700	108.700
σ		32.360	TM 8.011	T 9.720	38.500	1.240	1.270	0.482	0.488	0.319	0.664
%RSD		1.108	TM 0.419	T 0.321	1.280	1.181	1.170	0.435	0.498	0.317	0.611

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:38	111.600	112.700	101.000	97.720	62.410	65.260	427.800	97.270	-0.336	190.600
2	19:49:05	117.700	114.800	98.890	93.430	66.600	65.840	408.900	95.210	-2.059	189.200
3	19:49:32	114.300	112.700	98.140	93.550	64.550	65.940	411.900	94.760	0.605	190.500
x		114.500	113.400	99.360	94.900	64.520	65.680	416.200	95.750	-0.597	190.100
σ		3.083	1.178	1.506	2.444	2.096	0.367	10.120	1.336	1.351	0.807
%RSD		2.692	1.039	1.516	2.575	3.249	0.559	2.431	1.395	226.300	0.425

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:38	103.9%	94.320	95.320	95.870	107.100	100.400	97.010	98.570	98.390	102.4%
2	19:49:05	107.5%	94.330	95.550	94.980	104.400	100.200	95.470	98.480	98.160	103.5%
3	19:49:32	107.7%	95.630	95.930	95.770	101.700	100.800	97.640	100.300	98.620	105.1%
x		106.4%	94.760	95.600	95.540	104.400	100.500	96.710	99.110	98.390	103.7%
σ		2.1%	0.751	0.304	0.485	2.705	0.322	1.116	1.017	0.231	1.4%
%RSD		2.0	0.793	0.318	0.508	2.590	0.320	1.154	1.026	0.235	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:38	101.400	99.540	95.940	96.570	240.100	239.300	105.4%	98.810	101.400	107.600
2	19:49:05	100.400	100.100	95.950	96.810	238.500	237.600	107.2%	98.720	101.800	108.100
3	19:49:32	101.000	100.400	96.230	95.980	235.100	239.300	108.2%	98.610	101.800	107.000
x		100.900	100.000	96.040	96.450	237.900	238.800	107.0%	98.710	101.600	107.600
σ		0.513	0.431	0.167	0.429	2.570	0.995	1.4%	0.099	0.249	0.532
%RSD		0.508	0.431	0.173	0.445	1.080	0.417	1.3	0.100	0.245	0.495

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:48:38	102.100	103.400	104.4%
2	19:49:05	102.700	104.400	106.2%
3	19:49:32	102.000	103.500	107.5%
x		102.200	103.800	106.0%
σ		0.381	0.511	1.5%
%RSD		0.373	0.492	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:34	105.0%	64.940	82.320	85.420	21.900	T 13910.000	T 12070.000	T 11790.000	T 11920.000	TM 3796.000
2	19:55:01	107.2%	63.550	83.050	84.270	20.890	T 14330.000	T 12170.000	T 11900.000	T 12040.000	TM 3763.000
3	19:55:28	110.0%	65.500	84.380	81.600	15.400	T 14970.000	T 12180.000	T 11950.000	T 12050.000	TM 3761.000
x		107.4%	64.660	83.250	83.770	19.400	T 14400.000	T 12140.000	T 11880.000	T 12000.000	TM 3773.000
σ		2.5%	1.006	1.043	1.960	3.500	T 535.800	T 58.520	T 83.260	T 68.320	TM 19.860
%RSD		2.3	1.555	1.253	2.339	18.040	T 3.720	T 0.482	T 0.701	T 0.569	TM 0.526
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:34	TM 12690.000	T 49110.000	T 3058.000	22290.000	T 22450.000	96.4%	126.600	103.700	103.000	4433.000
2	19:55:01	TM 12720.000	T 49910.000	T 3099.000	22270.000	T 22590.000	98.9%	128.900	102.800	102.000	4634.000
3	19:55:28	TM 12760.000	T 48280.000	T 3093.000	22200.000	T 22560.000	104.0%	127.400	101.100	99.550	4350.000
x		TM 12720.000	T 49100.000	T 3083.000	22250.000	T 22530.000	99.7%	127.600	102.500	101.500	4473.000
σ		TM 38.340	T 812.900	T 22.320	47.160	T 73.600	3.9%	1.178	1.286	1.781	146.200
%RSD		TM 0.301	T 1.656	T 0.724	0.212	T 0.327	3.9	0.923	1.254	1.754	3.269
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:34	2932.000	TM 1937.000	T 3072.000	3040.000	106.300	111.000	110.600	97.460	101.500	109.500
2	19:55:01	2902.000	TM 1915.000	T 3002.000	3004.000	105.600	109.100	112.100	97.380	101.400	108.000
3	19:55:28	2824.000	TM 1886.000	T 2945.000	2922.000	101.800	106.200	106.000	94.910	98.480	108.200
x		2886.000	TM 1913.000	T 3006.000	2989.000	104.600	108.800	109.600	96.580	100.500	108.500
σ		55.540	TM 25.930	T 63.550	60.580	2.418	2.417	3.220	1.445	1.722	0.828
%RSD		1.925	TM 1.356	T 2.114	2.027	2.312	2.222	2.938	1.496	1.714	0.763
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:34	114.900	115.600	101.100	97.330	66.280	62.330	422.700	95.470	-1.822	190.000
2	19:55:01	117.200	113.300	99.680	96.730	63.070	63.680	409.500	94.580	-1.990	188.700
3	19:55:28	117.600	113.500	100.300	93.930	65.500	65.340	428.400	98.290	-0.659	189.600
x		116.600	114.100	100.300	95.990	64.950	63.780	420.200	96.110	-1.490	189.400
σ		1.448	1.282	0.695	1.815	1.675	1.506	9.696	1.937	0.725	0.651
%RSD		1.242	1.123	0.693	1.891	2.579	2.361	2.308	2.015	48.620	0.343
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:34	101.7%	93.930	95.440	93.670	102.800	98.160	95.090	97.300	97.440	100.9%
2	19:55:01	104.0%	93.420	95.810	94.460	104.600	100.300	96.850	99.300	98.990	101.1%
3	19:55:28	109.9%	94.310	95.240	94.910	102.500	100.200	96.720	100.500	98.280	107.3%
x		105.2%	93.890	95.500	94.350	103.300	99.550	96.220	99.040	98.240	103.1%
σ		4.2%	0.447	0.290	0.623	1.134	1.210	0.982	1.627	0.773	3.6%
%RSD		4.0	0.476	0.303	0.660	1.098	1.215	1.020	1.643	0.787	3.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:34	99.320	97.920	94.500	95.410	236.600	236.600	104.4%	97.590	99.870	108.000
2	19:55:01	100.700	100.300	96.740	97.660	245.200	238.000	106.5%	97.670	100.700	107.000
3	19:55:28	100.700	99.390	96.840	97.140	238.800	237.300	112.0%	96.430	98.900	105.800
x		100.300	99.210	96.020	96.730	240.200	237.300	107.6%	97.230	99.830	106.900
σ		0.813	1.210	1.321	1.180	4.501	0.668	3.9%	0.691	0.902	1.110
%RSD		0.811	1.220	1.375	1.219	1.874	0.282	3.6	0.711	0.904	1.038
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	19:54:34	101.800	103.900	102.9%							
2	19:55:01	101.700	103.700	105.4%							
3	19:55:28	100.100	102.200	111.2%							
x		101.200	103.300	106.5%							
σ		0.973	0.934	4.3%							
%RSD		0.962	0.905	4.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:30	103.4%	0.027	6.917	6.656	6.574	T 2671.000	T 2888.000	2706.000	2749.000	T 336.500
2	20:00:57	104.2%	0.005	6.830	6.424	1.481	T 2705.000	T 2846.000	2657.000	2695.000	T 329.100
3	20:01:24	105.6%	-0.009	6.078	6.285	5.277	T 2665.000	T 2839.000	2673.000	2681.000	T 327.000
x		104.4%	0.008	6.608	6.455	4.444	T 2681.000	T 2857.000	2678.000	2708.000	T 330.900
σ		1.1%	0.018	0.461	0.188	2.647	T 21.540	T 26.720	24.750	36.050	T 5.026
%RSD		1.1	236.000	6.983	2.907	59.560	T 0.804	T 0.935	0.924	1.331	T 1.519
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:30	T 1907.000	T 11560.000	408.500	4647.000	4319.000	96.9%	4.034	1.151	1.235	1007.000
2	20:00:57	T 1848.000	T 11300.000	409.400	4602.000	4238.000	96.3%	3.983	1.111	1.224	1036.000
3	20:01:24	T 1828.000	T 11400.000	403.200	4579.000	4231.000	97.3%	3.957	1.187	1.184	976.600
x		T 1861.000	T 11420.000	407.000	4609.000	4262.000	96.8%	3.991	1.150	1.214	1007.000
σ		T 41.300	T 130.000	3.389	34.670	48.760	0.5%	0.039	0.038	0.027	29.890
%RSD		T 2.220	T 1.138	0.833	0.752	1.144	0.6	0.977	3.290	2.227	2.969
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:30	332.700	T 380.300	T 360.000	358.200	2.264	3.100	2.989	0.865	0.855	2.990
2	20:00:57	336.200	T 377.500	T 352.500	350.000	2.280	3.037	2.687	0.874	0.844	2.858
3	20:01:24	323.100	T 372.600	T 354.300	344.200	2.370	3.074	3.061	0.809	0.883	3.010
x		330.700	T 376.800	T 355.600	350.800	2.305	3.070	2.912	0.849	0.861	2.953
σ		6.799	T 3.895	T 3.900	7.059	0.057	0.031	0.198	0.035	0.021	0.083
%RSD		2.056	T 1.034	T 1.097	2.012	2.479	1.025	6.808	4.152	2.397	2.796
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:30	4.065	3.837	0.632	-0.227	15.970	17.070	-1.515	-0.411	0.274	20.150
2	20:00:57	4.204	3.996	0.562	-0.369	16.760	18.090	-3.861	-0.859	-2.249	20.110
3	20:01:24	4.174	4.046	0.718	0.047	15.680	16.330	-0.598	-0.075	-3.376	20.070
x		4.148	3.960	0.638	-0.183	16.140	17.160	-1.991	-0.448	-1.784	20.110
σ		0.073	0.109	0.078	0.211	0.559	0.880	1.683	0.393	1.869	0.044
%RSD		1.768	2.757	12.240	115.500	3.465	5.126	84.520	87.710	104.800	0.220
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:30	98.5%	0.039	0.027	0.014	1.225	0.020	0.012	0.029	0.039	101.1%
2	20:00:57	100.4%	-0.003	0.023	0.021	0.431	0.012	0.011	0.029	0.023	101.4%
3	20:01:24	102.4%	-0.006	0.018	0.024	1.621	0.012	0.010	0.047	0.033	101.5%
x		100.4%	0.010	0.023	0.020	1.093	0.015	0.011	0.035	0.032	101.3%
σ		1.9%	0.025	0.004	0.005	0.606	0.005	0.001	0.010	0.008	0.2%
%RSD		1.9	253.900	19.000	25.680	55.450	32.260	9.816	29.540	25.010	0.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:30	0.243	0.363	-0.009	-0.008	28.090	27.570	101.6%	-0.017	-0.016	0.420
2	20:00:57	0.242	0.331	-0.002	0.004	28.230	27.350	101.9%	-0.014	-0.019	0.454
3	20:01:24	0.228	0.338	0.009	0.012	26.520	27.460	105.0%	-0.013	-0.021	0.428
x		0.238	0.344	-0.001	0.003	27.610	27.460	102.8%	-0.015	-0.019	0.434
σ		0.008	0.017	0.009	0.010	0.951	0.107	1.9%	0.002	0.003	0.018
%RSD		3.382	4.915	1062.000	375.400	3.446	0.390	1.9	14.860	13.910	4.105
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	20:00:30	0.386	0.397	104.6%							
2	20:00:57	0.388	0.408	104.5%							
3	20:01:24	0.395	0.397	106.8%							
x		0.390	0.400	105.3%							
σ		0.005	0.006	1.3%							
%RSD		1.237	1.546	1.2							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:25	104.7%	68.280	89.850	90.800	26.140	T 14400.000	T 12710.000	T 12460.000	T 12640.000	TM 1569.000
2	20:06:52	104.7%	69.310	91.740	92.500	31.560	T 14860.000	T 12830.000	T 12650.000	T 12760.000	TM 1603.000
3	20:07:20	105.8%	68.750	91.080	91.770	37.520	T 14760.000	T 12900.000	T 12700.000	T 12710.000	TM 1578.000
x		105.1%	68.780	90.890	91.690	31.740	T 14670.000	T 12810.000	T 12600.000	T 12700.000	TM 1584.000
σ		0.6%	0.514	0.959	0.856	5.692	T 240.800	T 92.050	T 127.100	T 62.750	TM 17.450
%RSD		0.6	0.747	1.055	0.933	17.930	T 1.641	T 0.719	T 1.009	T 0.494	TM 1.102

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:25	TM 10190.000	T 50210.000	T 2912.000	23010.000	T 23090.000	99.1%	116.100	100.900	99.290	4517.000
2	20:06:52	TM 10140.000	T 50780.000	T 2937.000	23010.000	T 23260.000	98.1%	116.800	101.300	99.320	4244.000
3	20:07:20	TM 10060.000	T 51030.000	T 2952.000	22990.000	T 23190.000	98.5%	117.100	101.000	98.570	4114.000
x		TM 10130.000	T 50670.000	T 2933.000	23000.000	T 23180.000	98.6%	116.700	101.100	99.060	4291.000
σ		TM 63.580	T 421.100	T 20.170	12.660	T 84.280	0.5%	0.505	0.203	0.423	205.600
%RSD		TM 0.628	T 0.831	T 0.687	0.055	T 0.364	0.5	0.432	0.201	0.427	4.791

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:25	2582.000	TM 1949.000	T 2706.000	2686.000	104.500	107.600	107.700	96.080	98.830	103.800
2	20:06:52	2590.000	TM 1931.000	T 2671.000	2682.000	103.300	106.800	107.800	95.370	98.110	106.500
3	20:07:20	2570.000	TM 1943.000	T 2710.000	2699.000	103.900	106.800	107.600	94.750	99.610	106.900
x		2581.000	TM 1941.000	T 2696.000	2689.000	103.900	107.100	107.700	95.400	98.850	105.700
σ		10.230	TM 9.292	T 21.470	9.036	0.599	0.474	0.145	0.667	0.748	1.667
%RSD		0.396	TM 0.479	T 0.796	0.336	0.577	0.443	0.134	0.699	0.757	1.576

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:25	111.200	109.300	100.000	94.290	59.780	59.660	410.100	95.330	-0.065	187.200
2	20:06:52	110.700	110.400	98.990	92.870	61.260	60.260	419.800	96.190	0.889	189.500
3	20:07:20	114.100	113.200	99.430	94.590	59.580	60.590	423.600	95.900	-3.490	190.300
x		112.000	111.000	99.480	93.920	60.210	60.170	417.800	95.810	-0.889	189.000
σ		1.856	2.054	0.514	0.918	0.918	0.471	6.923	0.434	2.303	1.623
%RSD		1.657	1.851	0.517	0.977	1.525	0.782	1.657	0.453	259.200	0.859

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:25	104.6%	93.820	94.240	93.890	101.200	99.040	94.860	97.640	97.420	100.9%
2	20:06:52	103.1%	93.850	94.230	94.310	100.500	98.740	94.980	97.880	96.790	100.9%
3	20:07:20	104.6%	93.800	95.170	94.280	101.100	97.280	93.790	97.480	96.810	103.5%
x		104.1%	93.820	94.550	94.160	100.900	98.360	94.540	97.670	97.010	101.7%
σ		0.9%	0.028	0.538	0.236	0.375	0.940	0.660	0.202	0.359	1.5%
%RSD		0.8	0.029	0.569	0.251	0.371	0.955	0.698	0.207	0.370	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:25	99.240	99.290	92.820	93.470	233.300	233.000	103.5%	98.070	100.000	103.900
2	20:06:52	100.400	101.000	95.210	95.470	234.100	232.700	106.1%	95.130	97.660	104.300
3	20:07:20	100.300	99.960	93.100	94.250	233.300	230.900	106.5%	97.040	99.420	103.600
x		99.990	100.100	93.710	94.400	233.600	232.200	105.3%	96.750	99.040	103.900
σ		0.645	0.842	1.306	1.008	0.491	1.153	1.6%	1.491	1.239	0.341
%RSD		0.645	0.841	1.393	1.068	0.210	0.497	1.5	1.541	1.251	0.328

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:06:25	98.830	101.000	105.1%
2	20:06:52	99.570	101.200	104.9%
3	20:07:20	99.140	100.800	106.4%
x		99.180	101.000	105.5%
σ		0.370	0.192	0.8%
%RSD		0.373	0.190	0.8

CCV MW11050 05/08/2019 20:11:56 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:23	92.1%	295.000	294.800	294.400	20.430	┬64740.000	┬61320.000	┬60700.000	┬60310.000	291.000
2	20:12:50	93.3%	291.700	293.100	293.300	18.590	┬65410.000	┬61560.000	┬60820.000	┬60870.000	289.500
3	20:13:17	94.9%	301.700	306.200	298.000	27.840	┬67480.000	┬62430.000	┬61750.000	┬61550.000	295.500
x		93.4%	98.712%	99.334%	98.418%	22.290	┬109.793%	┬61770.000	┬61090.000	┬101.513%	97.328%
σ		1.4%	n/a	n/a	n/a	4.896	┬n/a	┬588.300	┬576.300	┬n/a	n/a
%RSD		1.5	1.731	2.390	0.842	21.970	┬2.167	┬0.952	┬0.943	┬1.017	1.062

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:23	┬3088.000	572.800	┬66490.000	60260.000	┬62240.000	91.9%	297.300	300.700	291.500	1930.000
2	20:12:50	┬3131.000	547.000	┬66870.000	60270.000	┬62470.000	94.8%	302.800	300.600	290.000	1535.000
3	20:13:17	┬3139.000	544.100	┬66850.000	61120.000	┬63020.000	96.2%	296.200	303.400	287.400	1829.000
x		┬103.964%	554.600	┬111.225%	60550.000	┬104.293%	94.3%	99.582%	100.532%	96.546%	1764.000
σ		┬n/a	15.810	┬n/a	495.800	┬n/a	2.2%	n/a	n/a	n/a	205.000
%RSD		┬0.879	2.850	┬0.318	0.819	┬0.648	2.3	1.182	0.525	0.725	11.620

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:23	┬62040.000	288.300	┬62430.000	┬61670.000	288.800	285.100	285.500	277.600	274.300	273.100
2	20:12:50	┬61970.000	288.900	┬62790.000	┬61000.000	281.300	278.100	279.300	274.600	271.400	267.200
3	20:13:17	┬61400.000	285.500	┬62310.000	┬61220.000	284.900	279.400	284.900	272.400	270.600	274.800
x		┬61800.000	95.860%	┬62510.000	┬102.162%	95.007%	93.624%	283.200	274.900	90.708%	90.560%
σ		┬347.200	n/a	┬245.500	┬n/a	n/a	n/a	3.386	2.632	n/a	n/a
%RSD		┬0.562	0.620	┬0.393	┬0.559	1.316	1.322	1.195	0.958	0.711	1.479

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:23	279.400	276.500	285.000	274.700	4.570	4.581	1268.000	288.900	1.590	299.100
2	20:12:50	269.600	269.800	281.700	277.600	4.962	3.844	1248.000	282.000	-0.286	┬296.900
3	20:13:17	272.200	271.300	285.200	275.500	4.158	3.575	1267.000	288.600	-0.688	┬299.700
x		273.700	272.500	94.667%	275.900	4.564	4.000	1261.000	95.506%	0.206	┬99.519%
σ		5.063	3.512	n/a	1.492	0.402	0.521	11.200	n/a	1.216	┬n/a
%RSD		1.850	1.289	0.696	0.541	8.810	13.020	0.888	1.353	591.500	┬0.505

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:23	90.9%	305.800	309.200	307.100	292.400	298.600	290.400	296.500	294.000	90.4%
2	20:12:50	92.8%	303.700	306.400	305.000	294.500	294.300	283.900	291.800	292.900	93.2%
3	20:13:17	95.3%	304.700	306.700	306.000	297.800	297.400	286.700	294.700	292.300	94.8%
x		93.0%	101.585%	102.481%	306.000	294.900	98.932%	287.000	294.300	97.680%	92.8%
σ		2.2%	n/a	n/a	1.060	2.704	n/a	3.227	2.366	n/a	2.2%
%RSD		2.4	0.355	0.494	0.346	0.917	0.747	1.124	0.804	0.302	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:23	301.600	302.500	304.900	302.300	304.200	304.400	93.4%	296.600	┬303.800	308.000
2	20:12:50	298.400	301.000	301.400	301.400	300.700	297.900	96.1%	293.300	┬299.700	307.500
3	20:13:17	303.600	300.100	304.400	303.600	300.200	298.400	97.6%	293.500	┬301.200	304.700
x		100.398%	100.402%	303.600	100.808%	100.574%	100.074%	95.7%	294.500	┬100.524%	102.250%
σ		n/a	n/a	1.936	n/a	n/a	n/a	2.1%	1.891	┬n/a	n/a
%RSD		0.878	0.395	0.638	0.359	0.722	1.216	2.2	0.642	┬0.681	0.579

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:12:23	301.800	305.300	92.6%
2	20:12:50	303.900	306.600	94.4%
3	20:13:17	298.100	302.000	96.7%
x		100.419%	101.541%	94.6%
σ		n/a	n/a	2.1%
%RSD		0.985	0.784	2.2

CCB IM9409-01 05/08/2019 20:17:55 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:18:22	100.3%	-0.006	0.898	1.137	20.670	-17.490	0.158	0.156	0.189	0.034
2	20:18:49	103.0%	0.012	0.663	0.995	10.990	-18.160	0.103	0.163	0.124	0.017
3	20:19:16	102.1%	-0.005	0.872	1.043	15.330	-18.610	0.010	0.009	0.156	0.042
x		101.8%	0.001	0.811	1.058	15.660	-18.090	0.090	0.110	0.156	0.031
σ		1.4%	0.010	0.128	0.072	4.847	0.564	0.075	0.087	0.033	0.013
%RSD		1.3	1956.000	15.830	6.791	30.950	3.116	82.740	79.470	20.970	40.980

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:18:22	12.130	280.000	1.621	-1.670	0.429	98.2%	0.064	0.015	0.020	28.190
2	20:18:49	11.460	278.500	0.946	-0.634	0.225	98.2%	0.034	-0.019	0.016	46.790
3	20:19:16	11.710	289.100	-0.174	-2.714	0.164	99.7%	0.013	-0.023	0.049	40.440
x		11.770	282.500	0.798	-1.673	0.273	98.7%	0.037	-0.009	0.028	38.470
σ		0.340	5.732	0.907	1.040	0.139	0.9%	0.025	0.021	0.018	9.459
%RSD		2.891	2.029	113.600	62.160	50.840	0.9	68.990	238.500	64.610	24.590

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:18:22	0.282	0.010	4.930	0.548	-0.013	-0.014	0.273	-0.037	-0.027	-0.033
2	20:18:49	0.718	0.004	4.189	-5.004	-0.019	-0.012	0.110	-0.033	-0.006	0.003
3	20:19:16	-0.109	0.012	4.598	-8.714	-0.019	-0.005	0.184	-0.036	-0.026	-0.047
x		0.297	0.009	4.572	-4.390	-0.017	-0.010	0.189	-0.035	-0.019	-0.026
σ		0.414	0.004	0.371	4.661	0.003	0.005	0.082	0.002	0.012	0.026
%RSD		139.400	43.230	8.114	106.200	18.910	48.080	43.380	6.793	60.490	101.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:18:22	-0.120	-0.032	-0.072	-0.067	2.140	2.468	-0.791	-0.197	-0.556	0.001
2	20:18:49	0.028	0.001	-0.083	-0.051	2.955	2.795	-0.896	-0.255	0.363	0.001
3	20:19:16	0.061	-0.017	-0.076	0.038	2.767	2.226	-1.102	-0.303	0.497	0.002
x		-0.010	-0.016	-0.077	-0.027	2.621	2.496	-0.930	-0.252	0.101	0.001
σ		0.097	0.017	0.006	0.056	0.427	0.285	0.158	0.053	0.573	0.000
%RSD		925.100	105.100	7.323	211.500	16.290	11.420	17.040	21.170	566.800	31.860

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:18:22	97.9%	0.035	0.059	0.043	0.928	0.006	0.000	-0.001	0.000	99.5%
2	20:18:49	99.3%	0.006	0.030	0.024	0.214	0.002	0.002	0.002	0.005	101.6%
3	20:19:16	99.5%	0.021	0.006	0.010	1.591	0.008	0.001	-0.004	0.000	102.0%
x		98.9%	0.021	0.032	0.026	0.911	0.005	0.001	-0.001	0.002	101.0%
σ		0.9%	0.015	0.027	0.017	0.689	0.003	0.001	0.003	0.003	1.3%
%RSD		0.9	71.300	84.860	65.020	75.560	59.620	76.190	258.400	157.900	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:18:22	0.047	0.056	0.133	0.141	0.008	0.005	99.2%	-0.008	-0.012	-0.001
2	20:18:49	0.047	0.070	0.144	0.141	0.007	-0.000	100.6%	-0.011	-0.013	0.002
3	20:19:16	0.048	0.058	0.141	0.123	0.012	-0.000	101.0%	-0.011	-0.014	-0.002
x		0.048	0.061	0.139	0.135	0.009	0.002	100.3%	-0.010	-0.013	-0.000
σ		0.001	0.008	0.006	0.010	0.003	0.003	1.0%	0.002	0.001	0.002
%RSD		1.419	12.320	4.285	7.679	27.960	178.000	1.0	18.050	10.320	1150.000

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:18:22	0.014	0.004	103.2%
2	20:18:49	0.013	0.007	103.3%
3	20:19:16	0.020	0.011	103.8%
x		0.016	0.007	103.4%
σ		0.004	0.004	0.3%
%RSD		22.790	50.570	0.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:19	100.8%	0.278	50.380	52.210	-1.135	TM 143200.000	T 8152.000	T 8029.000	T 8183.000	TM 12180.000
2	20:24:46	104.7%	0.321	50.930	51.580	-0.829	TM 140200.000	T 8124.000	T 8037.000	T 8230.000	TM 12250.000
3	20:25:12	104.1%	0.287	51.180	52.190	-5.393	TM 144900.000	T 8152.000	T 8059.000	T 8245.000	TM 12280.000
x		103.2%	0.296	50.830	51.990	-2.453	TM 142800.000	T 8142.000	T 8042.000	T 8219.000	TM 12230.000
σ		2.1%	0.023	0.410	0.360	2.551	TM 2367.000	T 16.190	T 15.810	T 32.090	TM 51.240
%RSD		2.0	7.706	0.806	0.693	104.000	TM 1.658	T 0.199	T 0.197	T 0.390	TM 0.419

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:19	TM 30760.000	T 49900.000	T 8051.000	78230.000	T 82800.000	104.6%	181.600	27.880	31.170	2866.000
2	20:24:46	TM 30010.000	T 49710.000	T 8140.000	78580.000	T 82400.000	106.7%	177.500	26.900	30.210	2740.000
3	20:25:12	TM 30610.000	T 49980.000	T 8220.000	78530.000	T 82290.000	108.9%	175.200	27.860	30.270	2473.000
x		TM 30460.000	T 49870.000	T 8137.000	78450.000	T 82500.000	106.7%	178.100	27.550	30.550	2693.000
σ		TM 398.300	T 135.600	T 84.620	186.900	T 271.100	2.1%	3.237	0.559	0.536	201.000
%RSD		TM 1.308	T 0.272	T 1.040	0.238	T 0.329	2.0	1.818	2.028	1.756	7.463

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:19	T 26420.000	T 348.600	T 27130.000	T 27350.000	4.811	16.060	15.470	169.900	179.500	M 1499.000
2	20:24:46	T 26090.000	T 340.500	T 26580.000	T 26950.000	4.787	15.840	16.080	167.700	177.100	M 1496.000
3	20:25:12	T 26050.000	T 339.500	T 26350.000	T 26830.000	4.787	15.280	15.850	166.200	174.200	M 1473.000
x		T 26180.000	T 342.900	T 26690.000	T 27040.000	4.795	15.730	15.800	167.900	177.000	M 1489.000
σ		T 200.400	T 4.975	T 400.300	T 272.700	0.014	0.403	0.307	1.855	2.684	M 14.460
%RSD		T 0.766	T 1.451	T 1.500	T 1.009	0.283	2.564	1.943	1.105	1.517	M 0.971

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:19	M 1375.000	M 1443.000	19.240	0.090	255.900	248.500	2.944	0.825	-0.804	T 305.000
2	20:24:46	M 1380.000	M 1462.000	19.110	0.178	246.800	253.100	5.360	1.452	-1.927	T 305.000
3	20:25:12	M 1347.000	M 1435.000	18.570	0.189	249.700	252.900	0.784	0.195	0.277	T 305.400
x		M 1367.000	M 1446.000	18.970	0.153	250.800	251.500	3.029	0.824	-0.818	T 305.100
σ		M 17.900	M 13.720	0.356	0.054	4.666	2.615	2.289	0.628	1.102	T 0.218
%RSD		M 1.309	M 0.949	1.875	35.610	1.861	1.040	75.550	76.220	134.700	T 0.072

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:19	119.2%	1.766	1.993	1.791	48.840	3.389	3.162	2.412	2.501	99.5%
2	20:24:46	120.8%	1.818	1.823	1.841	53.110	3.382	3.299	2.418	2.279	102.1%
3	20:25:12	123.8%	1.872	1.800	1.862	47.440	3.345	3.277	2.432	2.327	104.5%
x		121.2%	1.819	1.872	1.831	49.800	3.372	3.246	2.421	2.369	102.0%
σ		2.3%	0.053	0.105	0.037	2.955	0.024	0.073	0.011	0.117	2.5%
%RSD		1.9	2.915	5.621	1.996	5.934	0.701	2.258	0.438	4.935	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:19	16.950	24.870	4.343	4.398	M 624.500	M 619.200	103.5%	0.169	0.169	TM 2287.000
2	20:24:46	16.820	22.450	4.316	4.278	M 615.400	M 614.600	106.5%	0.155	0.164	TM 2258.000
3	20:25:12	16.680	22.880	4.146	4.262	M 611.100	M 608.000	108.7%	0.159	0.140	TM 2270.000
x		16.820	23.400	4.268	4.312	M 617.000	M 613.900	106.3%	0.161	0.158	TM 2272.000
σ		0.133	1.291	0.107	0.074	M 6.816	M 5.639	2.6%	0.007	0.015	TM 14.540
%RSD		0.791	5.518	2.502	1.721	M 1.105	M 0.918	2.5	4.320	9.718	TM 0.640

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:24:19	TM 2047.000	TM 2157.000	106.4%
2	20:24:46	TM 2015.000	TM 2137.000	109.5%
3	20:25:12	TM 2037.000	TM 2154.000	110.9%
x		TM 2033.000	TM 2149.000	108.9%
σ		TM 16.660	TM 10.910	2.4%
%RSD		TM 0.820	TM 0.508	2.2

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:14	104.6%	0.291	50.120	51.510	0.223	TM 139900.000	T 8025.000	T 7911.000	T 8101.000	TM 12590.000
2	20:30:40	106.2%	0.316	49.310	50.560	-5.154	TM 142200.000	T 7989.000	T 7880.000	T 8094.000	TM 12550.000
3	20:31:07	108.4%	0.286	49.270	49.900	-9.045	TM 147100.000	T 7966.000	T 7878.000	T 8046.000	TM 12400.000
x		106.4%	0.298	49.570	50.660	-4.659	TM 143100.000	T 7993.000	T 7890.000	T 8080.000	TM 12510.000
σ		1.9%	0.016	0.477	0.806	4.654	TM 3651.000	T 29.680	T 18.130	T 30.110	TM 102.000
%RSD		1.8	5.332	0.962	1.591	99.900	TM 2.552	T 0.371	T 0.230	T 0.373	TM 0.815

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:14	TM 30520.000	T 49480.000	T 8019.000	77160.000	T 81290.000	106.8%	183.400	27.740	31.130	3171.000
2	20:30:40	TM 30720.000	T 49200.000	T 8115.000	77610.000	T 81500.000	109.2%	179.100	27.970	31.210	3021.000
3	20:31:07	TM 30940.000	T 48320.000	T 7995.000	77320.000	T 80800.000	114.8%	180.800	27.450	31.340	2862.000
x		TM 30730.000	T 49000.000	T 8043.000	77370.000	T 81200.000	110.3%	181.100	27.720	31.230	3018.000
σ		TM 205.200	T 608.100	T 63.580	228.800	T 361.100	4.1%	2.140	0.263	0.106	154.400
%RSD		TM 0.668	T 1.241	T 0.791	0.296	T 0.445	3.7	1.182	0.949	0.339	5.116

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:14	T 26310.000	T 337.500	T 27190.000	T 27440.000	4.853	16.190	15.910	165.100	175.000	M 1468.000
2	20:30:40	T 26450.000	T 337.700	T 26900.000	T 27460.000	4.908	16.400	16.640	166.100	175.300	M 1492.000
3	20:31:07	T 26440.000	T 337.600	T 26730.000	T 27200.000	4.857	15.530	17.180	165.300	175.700	M 1509.000
x		T 26400.000	T 337.600	T 26940.000	T 27370.000	4.873	16.040	16.580	165.500	175.300	M 1489.000
σ		T 78.440	T 0.090	T 233.100	T 143.400	0.030	0.452	0.637	0.539	0.335	M 20.480
%RSD		T 0.297	T 0.027	T 0.865	T 0.524	0.621	2.820	3.843	0.326	0.191	M 1.375

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:14	M 1360.000	M 1436.000	19.140	0.248	200.400	206.200	2.966	0.926	-1.834	T 300.400
2	20:30:40	M 1378.000	M 1458.000	19.360	0.524	204.100	202.900	3.204	0.962	-1.610	T 301.700
3	20:31:07	M 1372.000	M 1462.000	19.040	-0.076	203.700	202.500	2.302	0.724	-1.728	T 299.500
x		M 1370.000	M 1452.000	19.180	0.232	202.700	203.900	2.824	0.871	-1.724	T 300.500
σ		M 9.042	M 13.970	0.167	0.300	2.045	2.016	0.468	0.128	0.112	T 1.106
%RSD		M 0.660	M 0.962	0.872	129.300	1.009	0.989	16.560	14.710	6.507	T 0.368

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:14	121.8%	1.908	1.883	1.970	53.970	3.488	3.455	2.414	2.329	101.1%
2	20:30:40	125.1%	1.914	2.127	2.074	53.360	3.470	3.378	2.255	2.259	104.7%
3	20:31:07	131.7%	1.915	2.168	2.056	51.260	3.526	3.359	2.312	2.218	110.4%
x		126.2%	1.912	2.059	2.033	52.860	3.495	3.397	2.327	2.269	105.4%
σ		5.1%	0.004	0.154	0.055	1.421	0.029	0.051	0.081	0.056	4.7%
%RSD		4.0	0.197	7.469	2.727	2.688	0.827	1.501	3.465	2.473	4.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:14	20.410	27.420	4.054	4.114	M 616.700	M 610.100	105.3%	0.165	0.177	TM 2222.000
2	20:30:40	19.920	27.910	4.073	4.239	M 599.800	M 602.200	107.9%	0.205	0.165	TM 2226.000
3	20:31:07	20.350	27.690	4.145	4.166	M 603.700	M 603.700	113.0%	0.158	0.157	TM 2234.000
x		20.230	27.670	4.090	4.173	M 606.700	M 605.300	108.7%	0.176	0.166	TM 2227.000
σ		0.265	0.249	0.048	0.062	M 8.863	M 4.181	3.9%	0.025	0.010	TM 5.818
%RSD		1.312	0.899	1.170	1.496	M 1.461	M 0.691	3.6	14.390	5.781	TM 0.261

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:30:14	TM 2005.000	TM 2107.000	109.0%
2	20:30:40	TM 2002.000	TM 2112.000	111.4%
3	20:31:07	TM 2000.000	TM 2118.000	114.7%
x		TM 2002.000	TM 2113.000	111.7%
σ		TM 2.556	TM 5.539	2.8%
%RSD		TM 0.128	TM 0.262	2.5

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:09	122.5%	0.632	2.439	2.244	69.710	112.400	T 3774.000	T 3604.000	T 3709.000	TM 26610.000
2	20:36:36	122.2%	0.498	2.574	2.277	71.480	108.200	T 3776.000	T 3598.000	T 3650.000	TM 26650.000
3	20:37:03	124.7%	0.546	2.566	2.101	63.300	108.900	T 3795.000	T 3645.000	T 3684.000	TM 26930.000
x		123.2%	0.559	2.526	2.207	68.160	109.900	T 3782.000	T 3616.000	T 3681.000	TM 26730.000
σ		1.4%	0.068	0.076	0.093	4.304	2.273	T 11.660	T 25.260	T 29.800	TM 173.300
%RSD		1.1	12.190	2.991	4.224	6.314	2.069	T 0.308	T 0.699	T 0.810	TM 0.648

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:09	T 978.500	T 196400.000	T 3207.000	1943.000	1722.000	113.4%	M 1424.000	55.790	45.050	9518.000
2	20:36:36	T 975.000	T 201700.000	T 3267.000	1915.000	1729.000	111.1%	M 1448.000	56.150	46.140	9822.000
3	20:37:03	T 968.300	T 204500.000	T 3288.000	1922.000	1738.000	111.4%	M 1460.000	56.220	46.400	9838.000
x		T 974.000	T 200800.000	T 3254.000	1926.000	1730.000	112.0%	M 1444.000	56.050	45.860	9726.000
σ		T 5.188	T 4090.000	T 41.860	14.760	8.208	1.2%	M 18.530	0.229	0.719	180.400
%RSD		T 0.533	T 2.036	T 1.286	0.766	0.475	1.1	M 1.283	0.408	1.568	1.855

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:09	T 24970.000	TM 647.700	T 25230.000	T 25770.000	14.690	13.690	19.210	17.700	20.710	55.560
2	20:36:36	T 25230.000	TM 656.800	T 25660.000	T 26050.000	15.130	14.330	20.420	17.900	20.710	55.060
3	20:37:03	T 25370.000	TM 657.200	T 25510.000	T 26300.000	15.030	13.740	19.650	17.920	20.820	56.000
x		T 25190.000	TM 653.900	T 25460.000	T 26040.000	14.950	13.920	19.760	17.840	20.750	55.540
σ		T 203.600	TM 5.348	T 217.500	T 267.900	0.233	0.355	0.608	0.123	0.065	0.469
%RSD		T 0.808	TM 0.818	T 0.854	T 1.029	1.557	2.547	3.079	0.691	0.314	0.845

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:09	60.890	58.470	2.088	0.328	15.540	13.870	0.520	0.743	-2.659	22.870
2	20:36:36	59.950	57.350	2.063	-0.554	14.330	13.660	0.133	0.548	-1.392	22.610
3	20:37:03	59.670	58.430	1.811	0.357	12.810	13.150	1.959	1.132	-1.837	22.840
x		60.170	58.090	1.987	0.043	14.230	13.560	0.871	0.808	-1.962	22.770
σ		0.641	0.637	0.154	0.518	1.372	0.367	0.962	0.297	0.643	0.140
%RSD		1.065	1.097	7.726	1191.000	9.642	2.710	110.500	36.810	32.750	0.617

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:09	148.3%	0.525	0.601	0.673	4.734	0.051	0.038	0.069	0.090	110.8%
2	20:36:36	147.1%	0.615	0.636	0.597	5.464	0.048	0.041	0.063	0.096	111.7%
3	20:37:03	149.1%	0.671	0.593	0.638	5.032	0.059	0.037	0.096	0.057	111.0%
x		148.2%	0.604	0.610	0.636	5.077	0.053	0.039	0.076	0.081	111.2%
σ		1.0%	0.074	0.023	0.038	0.367	0.006	0.002	0.018	0.021	0.5%
%RSD		0.7	12.190	3.714	6.016	7.229	10.860	5.089	23.110	25.920	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:09	4.855	5.929	0.232	0.231	149.400	146.600	113.4%	0.192	0.164	18.600
2	20:36:36	4.691	5.892	0.218	0.240	148.500	147.100	113.1%	0.166	0.178	18.380
3	20:37:03	4.691	6.036	0.184	0.202	148.200	147.400	114.3%	0.173	0.172	18.360
x		4.746	5.952	0.211	0.224	148.700	147.100	113.6%	0.177	0.171	18.450
σ		0.095	0.075	0.025	0.020	0.640	0.431	0.6%	0.014	0.007	0.135
%RSD		1.999	1.254	11.810	8.914	0.430	0.293	0.5	7.733	4.073	0.733

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:36:09	16.230	16.930	112.9%
2	20:36:36	16.020	16.870	112.0%
3	20:37:03	15.910	16.900	112.2%
x		16.060	16.900	112.4%
σ		0.162	0.032	0.5%
%RSD		1.009	0.188	0.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:42:06	118.7%	1.115	1.295	1.526	23.390	121.800	T 8808.000	T 8571.000	T 8740.000	TM 44270.000
2	20:42:33	121.8%	1.048	1.568	1.448	24.300	125.200	T 8881.000	T 8714.000	T 8787.000	TM 44420.000
3	20:43:00	123.2%	1.131	1.438	1.406	22.210	124.400	T 8994.000	T 8723.000	T 8811.000	TM 44090.000
x		121.2%	1.098	1.434	1.460	23.300	123.800	T 8894.000	T 8669.000	T 8780.000	TM 44260.000
σ		2.3%	0.044	0.136	0.061	1.049	1.737	T 93.790	T 85.070	T 36.280	TM 167.700
%RSD		1.9	3.984	9.511	4.169	4.500	1.403	T 1.055	T 0.981	T 0.413	TM 0.379

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:42:06	T 962.700	T 205900.000	T 7961.000	2698.000	2316.000	110.2%	M 2092.000	86.580	36.980	9265.000
2	20:42:33	T 970.600	T 209100.000	T 8115.000	2801.000	2302.000	113.0%	M 2090.000	86.200	37.290	9264.000
3	20:43:00	T 940.600	T 207900.000	T 8136.000	2675.000	2317.000	111.8%	M 2098.000	85.900	37.170	9314.000
x		T 958.000	T 207600.000	T 8071.000	2725.000	2312.000	111.6%	M 2093.000	86.230	37.150	9281.000
σ		T 15.550	T 1603.000	T 95.590	67.020	8.212	1.4%	M 4.140	0.345	0.153	28.660
%RSD		T 1.624	T 0.772	T 1.184	2.460	0.355	1.3	M 0.198	0.400	0.412	0.309

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:42:06	T 43220.000	TM 1453.000	T 42530.000	T 47900.000	26.210	22.000	23.810	36.300	48.760	85.870
2	20:42:33	T 43120.000	TM 1451.000	T 42520.000	T 47660.000	26.290	22.140	25.110	36.220	47.840	86.350
3	20:43:00	T 42820.000	TM 1444.000	T 42300.000	T 47670.000	26.150	21.720	24.430	36.100	48.170	85.320
x		T 43050.000	TM 1449.000	T 42450.000	T 47740.000	26.220	21.950	24.450	36.210	48.260	85.850
σ		T 209.800	TM 4.792	T 129.900	T 132.900	0.071	0.213	0.648	0.104	0.466	0.515
%RSD		T 0.487	TM 0.331	T 0.306	T 0.278	0.271	0.968	2.650	0.287	0.965	0.600

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:42:06	95.070	91.080	0.720	0.601	7.745	6.486	-0.518	1.717	-3.098	19.630
2	20:42:33	92.480	90.780	1.119	0.315	7.389	6.134	0.483	2.049	-1.840	19.590
3	20:43:00	94.880	92.020	1.098	0.047	7.546	6.710	-0.147	1.806	-2.682	19.500
x		94.140	91.290	0.979	0.321	7.560	6.443	-0.061	1.857	-2.540	19.570
σ		1.445	0.643	0.225	0.277	0.179	0.290	0.506	0.171	0.641	0.067
%RSD		1.535	0.704	22.960	86.240	2.361	4.505	829.100	9.228	25.230	0.341

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:42:06	241.9%	0.737	0.865	0.832	11.390	0.067	0.030	0.112	0.099	104.6%
2	20:42:33	245.4%	0.768	0.799	0.839	10.340	0.057	0.028	0.145	0.117	107.9%
3	20:43:00	248.4%	0.704	0.828	0.838	9.925	0.068	0.038	0.107	0.061	108.6%
x		245.2%	0.736	0.831	0.836	10.550	0.064	0.032	0.121	0.092	107.1%
σ		3.3%	0.032	0.033	0.004	0.754	0.006	0.006	0.020	0.029	2.1%
%RSD		1.3	4.307	3.946	0.451	7.144	9.102	17.410	16.820	31.130	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:42:06	5.763	6.394	0.138	0.122	247.400	244.400	110.4%	0.235	0.242	18.230
2	20:42:33	5.822	6.566	0.115	0.123	244.400	245.000	113.9%	0.218	0.250	18.080
3	20:43:00	5.883	6.357	0.126	0.117	246.100	245.700	114.8%	0.247	0.236	18.060
x		5.823	6.439	0.126	0.121	245.900	245.000	113.0%	0.233	0.242	18.120
σ		0.060	0.112	0.011	0.003	1.514	0.656	2.3%	0.015	0.007	0.092
%RSD		1.029	1.736	8.832	2.576	0.616	0.268	2.1	6.282	2.965	0.507

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:42:06	14.850	16.200	103.3%
2	20:42:33	14.970	16.160	106.3%
3	20:43:00	14.750	16.190	107.6%
x		14.860	16.180	105.8%
σ		0.107	0.021	2.2%
%RSD		0.721	0.131	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:48:02	120.1%	0.939	1.797	1.618	11.330	143.000	T 6465.000	T 6280.000	T 6406.000	TM 66760.000
2	20:48:29	123.0%	0.927	1.823	1.648	12.740	142.300	T 6417.000	T 6269.000	T 6391.000	TM 66990.000
3	20:48:57	124.1%	0.986	1.640	1.534	9.687	148.600	T 6503.000	T 6376.000	T 6461.000	TM 67070.000
x		122.4%	0.951	1.753	1.600	11.250	144.600	T 6462.000	T 6308.000	T 6419.000	TM 66940.000
σ		2.1%	0.031	0.099	0.059	1.529	3.431	T 43.320	T 59.080	T 36.910	TM 160.000
%RSD		1.7	3.244	5.642	3.685	13.580	2.372	T 0.670	T 0.937	T 0.575	TM 0.239

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:48:02	T 979.000	T 208900.000	T 6453.000	2982.000	2497.000	111.4%	M 2072.000	120.500	63.030	10260.000
2	20:48:29	T 984.400	T 209000.000	T 6492.000	2913.000	2496.000	112.4%	M 2062.000	119.000	63.060	10280.000
3	20:48:57	T 990.500	T 210400.000	T 6594.000	2990.000	2532.000	114.4%	M 2083.000	119.600	62.490	10230.000
x		T 984.600	T 209500.000	T 6513.000	2962.000	2508.000	112.7%	M 2073.000	119.700	62.860	10260.000
σ		T 5.744	T 822.700	T 72.410	42.260	20.790	1.5%	M 10.250	0.772	0.322	29.070
%RSD		T 0.583	T 0.393	T 1.112	1.427	0.829	1.3	M 0.495	0.645	0.512	0.283

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:48:02	T 60380.000	TM 1346.000	T 60080.000	T 64040.000	21.800	20.740	25.300	27.560	32.280	55.230
2	20:48:29	T 60760.000	TM 1355.000	T 60870.000	T 64660.000	21.600	21.260	25.890	27.640	33.020	57.070
3	20:48:57	T 60750.000	TM 1368.000	T 60470.000	T 63780.000	21.610	21.090	26.600	26.950	32.910	56.740
x		T 60630.000	TM 1356.000	T 60470.000	T 64160.000	21.670	21.030	25.930	27.380	32.740	56.350
σ		T 218.900	TM 11.280	T 395.000	T 450.600	0.113	0.268	0.653	0.380	0.400	0.981
%RSD		T 0.361	TM 0.832	T 0.653	T 0.702	0.522	1.275	2.518	1.388	1.222	1.741

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:48:02	64.120	61.530	3.600	0.512	10.190	9.793	0.277	0.934	-2.385	33.860
2	20:48:29	67.660	61.690	3.537	0.251	10.390	10.790	0.877	1.048	0.113	34.130
3	20:48:57	67.460	61.400	3.605	0.335	10.130	9.560	-1.167	0.420	-1.444	33.970
x		66.410	61.540	3.581	0.366	10.240	10.050	-0.004	0.801	-1.239	33.990
σ		1.991	0.144	0.038	0.133	0.133	0.654	1.051	0.335	1.262	0.137
%RSD		2.999	0.234	1.053	36.360	1.299	6.507	26450.000	41.760	101.900	0.403

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:48:02	160.6%	0.620	0.712	0.667	8.995	0.064	0.024	0.029	0.006	106.8%
2	20:48:29	161.9%	0.567	0.630	0.706	8.308	0.060	0.024	0.063	0.014	107.4%
3	20:48:57	164.2%	0.638	0.631	0.647	9.338	0.058	0.017	0.056	0.038	110.4%
x		162.2%	0.609	0.658	0.673	8.880	0.061	0.022	0.049	0.019	108.2%
σ		1.8%	0.037	0.047	0.030	0.524	0.003	0.004	0.018	0.017	1.9%
%RSD		1.1	6.051	7.121	4.446	5.904	4.985	17.920	35.940	85.820	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:48:02	6.288	6.964	0.137	0.123	236.500	238.400	108.0%	0.276	0.302	17.890
2	20:48:29	6.186	7.037	0.139	0.157	236.600	236.900	108.7%	0.301	0.288	18.010
3	20:48:57	6.194	6.910	0.144	0.129	234.300	235.200	111.2%	0.288	0.298	18.090
x		6.223	6.970	0.140	0.136	235.800	236.800	109.3%	0.288	0.296	18.000
σ		0.057	0.064	0.004	0.018	1.272	1.587	1.7%	0.012	0.007	0.100
%RSD		0.912	0.918	2.685	13.170	0.539	0.670	1.5	4.291	2.404	0.555

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:48:02	14.660	16.020	104.7%
2	20:48:29	14.840	16.050	106.2%
3	20:48:57	14.910	16.090	108.0%
x		14.800	16.050	106.3%
σ		0.128	0.040	1.7%
%RSD		0.862	0.247	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:53:59	121.6%	1.136	1.163	1.232	17.780	100.900	T 5000.000	T 4808.000	T 4894.000	TM 47200.000
2	20:54:26	124.0%	1.022	1.492	1.161	15.680	103.200	T 4941.000	T 4816.000	T 4878.000	TM 46820.000
3	20:54:53	126.0%	1.066	1.515	1.212	12.420	102.600	T 4988.000	T 4814.000	T 4920.000	TM 47400.000
x		123.9%	1.074	1.390	1.202	15.290	102.300	T 4976.000	T 4813.000	T 4897.000	TM 47140.000
σ		2.2%	0.057	0.197	0.037	2.700	1.209	T 31.110	T 4.505	T 21.030	TM 294.300
%RSD		1.8	5.322	14.140	3.040	17.660	1.183	T 0.625	T 0.094	T 0.429	TM 0.624

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:53:59	T 876.500	T 213900.000	T 5701.000	2179.000	1872.000	109.7%	M 1834.000	81.010	31.610	10120.000
2	20:54:26	T 902.400	T 213100.000	T 5758.000	2223.000	1870.000	114.9%	M 1818.000	79.590	31.380	9882.000
3	20:54:53	T 881.000	T 214500.000	T 5824.000	2195.000	1878.000	113.3%	TM 1886.000	80.210	31.110	9897.000
x		T 886.700	T 213800.000	T 5761.000	2199.000	1873.000	112.6%	TM 1846.000	80.270	31.370	9966.000
σ		T 13.840	T 703.200	T 61.480	22.300	4.174	2.6%	TM 35.310	0.714	0.249	133.000
%RSD		T 1.561	T 0.329	T 1.067	1.014	0.223	2.3	TM 1.913	0.890	0.793	1.334

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:53:59	T 42830.000	TM 2258.000	T 42290.000	T 45330.000	43.190	11.050	15.120	14.310	18.070	63.240
2	20:54:26	T 42470.000	TM 2257.000	T 42340.000	T 45380.000	42.650	11.460	14.710	14.380	18.160	63.410
3	20:54:53	T 42950.000	TM 2285.000	T 42770.000	T 46100.000	43.750	11.420	17.050	14.290	18.120	65.450
x		T 42750.000	TM 2267.000	T 42470.000	T 45600.000	43.200	11.310	15.630	14.330	18.120	64.030
σ		T 250.100	TM 15.560	T 263.500	T 431.500	0.549	0.225	1.248	0.049	0.045	1.229
%RSD		T 0.585	TM 0.687	T 0.621	T 0.946	1.271	1.989	7.986	0.339	0.248	1.919

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:53:59	73.920	71.410	4.604	0.332	11.600	10.110	-0.899	0.670	-2.152	24.420
2	20:54:26	73.660	70.800	4.856	0.236	10.960	10.050	1.432	1.530	-2.873	24.230
3	20:54:53	77.180	71.410	4.565	0.583	11.530	11.180	-1.110	0.533	-0.061	24.120
x		74.920	71.210	4.675	0.383	11.360	10.450	-0.192	0.911	-1.695	24.260
σ		1.957	0.349	0.158	0.179	0.349	0.634	1.411	0.540	1.461	0.150
%RSD		2.613	0.490	3.385	46.730	3.072	6.066	734.600	59.290	86.160	0.617

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:53:59	170.5%	0.551	0.561	0.563	7.065	0.069	0.042	0.078	0.064	106.5%
2	20:54:26	178.3%	0.543	0.555	0.580	8.729	0.075	0.036	0.073	0.062	109.5%
3	20:54:53	180.2%	0.620	0.538	0.527	7.627	0.071	0.022	0.091	0.062	111.6%
x		176.3%	0.571	0.551	0.556	7.807	0.071	0.033	0.081	0.063	109.2%
σ		5.1%	0.042	0.012	0.027	0.847	0.003	0.010	0.009	0.001	2.6%
%RSD		2.9	7.436	2.207	4.797	10.840	4.034	30.250	11.370	1.197	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:53:59	5.673	6.278	0.113	0.124	275.800	272.300	110.4%	0.269	0.297	18.210
2	20:54:26	5.651	6.313	0.136	0.133	271.100	271.900	110.6%	0.292	0.288	18.080
3	20:54:53	5.845	6.286	0.104	0.121	269.400	268.000	112.4%	0.288	0.285	18.240
x		5.723	6.292	0.118	0.126	272.100	270.700	111.1%	0.283	0.290	18.180
σ		0.106	0.019	0.016	0.006	3.332	2.355	1.1%	0.012	0.006	0.083
%RSD		1.850	0.297	13.820	5.092	1.224	0.870	1.0	4.342	2.165	0.456

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:53:59	15.150	16.360	104.8%
2	20:54:26	15.120	16.230	106.2%
3	20:54:53	15.110	16.480	107.0%
x		15.130	16.360	106.0%
σ		0.017	0.125	1.1%
%RSD		0.113	0.765	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:59:54	124.9%	0.560	0.992	0.887	8.615	160.000	T 2158.000	2036.000	2084.000	TM 48830.000
2	21:00:22	126.5%	0.504	1.170	0.865	1.797	162.900	T 2138.000	2023.000	2092.000	TM 48980.000
3	21:00:49	128.0%	0.584	0.886	0.841	4.554	162.300	T 2141.000	1999.000	2069.000	TM 48910.000
x		126.5%	0.549	1.016	0.864	4.989	161.700	T 2146.000	2019.000	2082.000	TM 48900.000
σ		1.6%	0.041	0.144	0.023	3.430	1.529	T 10.970	18.680	11.800	TM 71.420
%RSD		1.2	7.450	14.160	2.648	68.750	0.946	T 0.511	0.925	0.567	TM 0.146

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:59:54	T 921.000	T 207500.000	T 3254.000	2142.000	1792.000	113.8%	M 1047.000	108.200	46.970	10550.000
2	21:00:22	T 897.700	T 208000.000	T 3287.000	2114.000	1781.000	112.8%	M 1042.000	105.900	47.260	11160.000
3	21:00:49	T 901.100	T 207100.000	T 3279.000	2107.000	1789.000	114.1%	M 1048.000	106.900	46.570	10620.000
x		T 906.600	T 207500.000	T 3274.000	2121.000	1787.000	113.6%	M 1046.000	107.000	46.930	10780.000
σ		T 12.560	T 449.300	T 17.160	18.410	5.811	0.7%	M 3.469	1.150	0.347	333.400
%RSD		T 1.386	T 0.217	T 0.524	0.868	0.325	0.6	M 0.332	1.075	0.739	3.094

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:59:54	T 46660.000	T 413.500	T 46300.000	T 47600.000	10.260	13.080	16.860	15.400	17.570	40.590
2	21:00:22	T 46830.000	T 410.000	T 46850.000	T 48080.000	10.480	13.620	16.580	15.600	17.270	41.810
3	21:00:49	T 46620.000	T 410.500	T 46180.000	T 47720.000	10.340	13.030	18.380	15.570	17.460	41.130
x		T 46700.000	T 411.300	T 46440.000	T 47800.000	10.360	13.240	17.270	15.520	17.430	41.180
σ		T 111.500	T 1.883	T 355.800	T 250.800	0.113	0.330	0.967	0.106	0.153	0.615
%RSD		T 0.239	T 0.458	T 0.766	T 0.525	1.090	2.492	5.599	0.683	0.876	1.493

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:59:54	53.620	49.060	5.129	0.882	12.800	11.090	1.127	0.820	-0.708	36.690
2	21:00:22	54.740	50.060	4.620	0.208	11.860	11.680	0.190	0.433	0.367	37.130
3	21:00:49	53.090	48.660	5.249	0.550	12.060	12.170	1.705	0.863	-0.377	37.000
x		53.820	49.260	5.000	0.547	12.240	11.650	1.007	0.705	-0.240	36.940
σ		0.845	0.724	0.334	0.337	0.497	0.540	0.765	0.237	0.551	0.229
%RSD		1.570	1.471	6.680	61.620	4.065	4.639	75.920	33.620	229.900	0.620

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:59:54	139.8%	1.236	1.392	1.199	10.450	0.095	0.057	0.018	0.028	107.4%
2	21:00:22	138.7%	1.193	1.290	1.285	10.860	0.097	0.056	0.039	0.052	110.6%
3	21:00:49	140.5%	1.196	1.206	1.199	8.458	0.097	0.055	0.036	-0.010	112.2%
x		139.7%	1.209	1.296	1.228	9.923	0.096	0.056	0.031	0.024	110.1%
σ		0.9%	0.024	0.094	0.050	1.286	0.001	0.001	0.011	0.031	2.4%
%RSD		0.7	1.973	7.217	4.059	12.960	1.100	1.681	36.430	133.100	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:59:54	5.807	6.589	0.141	0.159	253.200	252.900	108.0%	0.396	0.342	21.280
2	21:00:22	5.716	6.671	0.146	0.163	256.200	252.400	109.5%	0.395	0.364	20.730
3	21:00:49	5.836	6.801	0.160	0.136	255.600	252.700	111.7%	0.367	0.359	21.000
x		5.786	6.687	0.149	0.153	255.000	252.700	109.7%	0.386	0.355	21.000
σ		0.062	0.107	0.010	0.015	1.567	0.272	1.9%	0.017	0.012	0.274
%RSD		1.080	1.596	6.603	9.764	0.615	0.108	1.7	4.285	3.351	1.305

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:59:54	18.700	19.370	105.6%
2	21:00:22	17.990	19.150	107.0%
3	21:00:49	18.470	19.330	107.5%
x		18.390	19.280	106.7%
σ		0.361	0.116	1.0%
%RSD		1.961	0.604	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:52	120.4%	1.330	0.407	0.110	-7.774	T 736.900	T 18900.000	T 18690.000	T 18860.000	TM 71970.000
2	21:06:19	122.0%	1.289	0.095	0.127	-10.360	T 762.200	T 18600.000	T 18760.000	T 19000.000	TM 71740.000
3	21:06:46	124.2%	1.290	0.147	0.088	-13.020	T 762.500	T 18790.000	T 18730.000	T 18970.000	TM 72230.000
x		122.2%	1.303	0.216	0.109	-10.380	T 753.900	T 18760.000	T 18730.000	T 18940.000	TM 71980.000
σ		1.9%	0.024	0.168	0.020	2.624	T 14.700	T 152.000	T 34.320	T 71.960	TM 247.600
%RSD		1.6	1.820	77.420	18.000	25.270	T 1.950	T 0.810	T 0.183	T 0.380	TM 0.344

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:52	T 1100.000	T 204700.000	T 14850.000	8619.000	7761.000	114.3%	M 3922.000	132.600	108.600	11270.000
2	21:06:19	T 1097.000	T 204200.000	T 14920.000	8466.000	7707.000	117.2%	M 3887.000	131.700	108.000	11080.000
3	21:06:46	T 1107.000	T 206900.000	T 15040.000	8443.000	7697.000	119.8%	M 3917.000	131.500	106.900	11000.000
x		T 1101.000	T 205200.000	T 14930.000	8510.000	7722.000	117.1%	M 3908.000	132.000	107.800	11120.000
σ		T 4.841	T 1430.000	T 97.650	95.480	34.470	2.7%	M 19.150	0.605	0.816	137.600
%RSD		T 0.440	T 0.697	T 0.654	1.122	0.446	2.3	M 0.490	0.459	0.757	1.237

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:52	T 70530.000	TM 1673.000	T 68170.000	T 78590.000	38.000	61.130	59.630	78.240	103.800	164.100
2	21:06:19	T 70190.000	TM 1674.000	T 68490.000	T 79290.000	37.520	61.640	60.730	77.610	102.300	164.400
3	21:06:46	T 69750.000	TM 1680.000	T 69070.000	T 78930.000	37.630	61.430	60.270	77.770	102.200	164.500
x		T 70160.000	TM 1676.000	T 68580.000	T 78930.000	37.720	61.400	60.210	77.880	102.700	164.300
σ		T 390.900	TM 4.128	T 457.400	T 350.300	0.247	0.258	0.550	0.329	0.880	0.239
%RSD		T 0.557	TM 0.246	T 0.667	T 0.444	0.656	0.420	0.914	0.422	0.856	0.145

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:52	175.500	171.700	1.330	0.421	7.432	5.531	0.335	2.055	0.828	50.690
2	21:06:19	172.300	172.100	1.703	0.092	7.209	5.519	-1.174	1.383	-0.887	50.810
3	21:06:46	177.000	172.700	0.768	0.261	7.549	5.591	-2.202	0.975	-0.030	50.790
x		174.900	172.200	1.267	0.258	7.397	5.547	-1.014	1.471	-0.030	50.760
σ		2.362	0.477	0.471	0.164	0.173	0.038	1.276	0.545	0.857	0.060
%RSD		1.351	0.277	37.160	63.730	2.336	0.692	125.900	37.070	2881.000	0.119

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:52	243.6%	0.779	0.846	0.888	16.920	0.084	0.040	0.155	0.124	102.6%
2	21:06:19	252.1%	0.738	0.869	0.918	15.420	0.087	0.025	0.127	0.154	108.0%
3	21:06:46	253.1%	0.743	0.831	0.859	16.040	0.097	0.031	0.214	0.156	105.6%
x		249.6%	0.753	0.849	0.889	16.130	0.089	0.032	0.165	0.145	105.4%
σ		5.2%	0.022	0.019	0.030	0.753	0.007	0.008	0.044	0.018	2.7%
%RSD		2.1	2.966	2.263	3.351	4.669	7.719	24.390	26.780	12.330	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:52	6.783	7.856	0.066	0.057	419.600	418.300	107.6%	0.395	0.400	17.400
2	21:06:19	6.559	7.697	0.064	0.088	418.100	413.000	112.8%	0.377	0.370	17.210
3	21:06:46	6.854	7.897	0.091	0.088	423.400	419.900	110.3%	0.373	0.408	17.310
x		6.732	7.817	0.074	0.078	420.300	417.100	110.2%	0.382	0.393	17.310
σ		0.154	0.105	0.015	0.018	2.729	3.588	2.6%	0.012	0.020	0.095
%RSD		2.281	1.349	20.720	23.170	0.649	0.860	2.4	3.069	5.106	0.548

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:05:52	14.510	15.550	98.7%
2	21:06:19	14.150	15.350	102.7%
3	21:06:46	14.020	15.400	102.6%
x		14.230	15.430	101.3%
σ		0.258	0.107	2.3%
%RSD		1.812	0.695	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:49	120.4%	1.122	3.797	3.325	-2.041	428.200	T 9380.000	T 9364.000	T 9433.000	TM 93270.000
2	21:12:16	121.8%	1.031	3.530	3.375	1.059	413.300	T 9473.000	T 9373.000	T 9484.000	TM 93930.000
3	21:12:43	124.7%	1.065	4.127	3.431	-3.125	416.500	T 9363.000	T 9326.000	T 9442.000	TM 92720.000
x		122.3%	1.073	3.818	3.377	-1.369	419.300	T 9405.000	T 9354.000	T 9453.000	TM 93310.000
σ		2.2%	0.046	0.299	0.053	2.171	7.852	T 59.130	T 24.480	T 26.990	TM 607.800
%RSD		1.8	4.272	7.844	1.563	158.600	1.872	T 0.629	T 0.262	T 0.286	TM 0.651

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:49	T 1137.000	T 185100.000	T 13360.000	1734.000	1332.000	117.2%	M 2795.000	123.200	25.020	8992.000
2	21:12:16	T 1127.000	T 189100.000	T 13490.000	1790.000	1328.000	115.1%	M 2803.000	124.000	25.280	9307.000
3	21:12:43	T 1103.000	T 189300.000	T 13560.000	1816.000	1335.000	115.3%	M 2807.000	123.000	24.720	9329.000
x		T 1123.000	T 187800.000	T 13470.000	1780.000	1332.000	115.9%	M 2802.000	123.400	25.010	9209.000
σ		T 17.690	T 2372.000	T 98.190	41.730	3.599	1.1%	M 6.001	0.549	0.283	188.100
%RSD		T 1.576	T 1.262	T 0.729	2.344	0.270	1.0	M 0.214	0.445	1.131	2.043

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:49	T 74560.000	TM 1045.000	T 73690.000	T 81150.000	15.230	11.520	18.110	154.400	185.300	208.100
2	21:12:16	T 75580.000	TM 1058.000	T 73980.000	T 81940.000	15.420	11.390	17.860	155.500	188.100	207.600
3	21:12:43	T 75170.000	TM 1052.000	T 73590.000	T 81460.000	15.260	11.580	17.420	155.000	188.300	208.500
x		T 75100.000	TM 1052.000	T 73750.000	T 81510.000	15.300	11.500	17.800	155.000	187.200	208.100
σ		T 515.900	TM 6.102	T 201.200	T 399.600	0.106	0.095	0.351	0.524	1.659	0.482
%RSD		T 0.687	TM 0.580	T 0.273	T 0.490	0.691	0.829	1.971	0.338	0.886	0.232

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:49	204.700	205.400	2.743	0.803	6.531	5.640	1.805	1.805	0.708	31.470
2	21:12:16	209.400	207.800	3.208	1.059	6.301	5.832	1.000	1.620	-2.385	31.600
3	21:12:43	205.800	206.700	2.684	0.903	6.748	5.437	2.300	2.035	-1.049	31.610
x		206.700	206.600	2.878	0.922	6.527	5.636	1.702	1.820	-0.909	31.560
σ		2.468	1.173	0.287	0.129	0.223	0.198	0.656	0.208	1.551	0.079
%RSD		1.194	0.568	9.977	14.000	3.423	3.505	38.550	11.420	170.800	0.251

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:49	188.8%	1.325	1.274	1.496	11.540	0.062	0.028	0.027	0.042	106.8%
2	21:12:16	192.5%	1.307	1.474	1.489	11.580	0.060	0.021	0.037	0.007	108.0%
3	21:12:43	189.8%	1.283	1.428	1.377	11.780	0.082	0.025	0.053	0.046	107.2%
x		190.4%	1.305	1.392	1.454	11.630	0.068	0.025	0.039	0.032	107.3%
σ		1.9%	0.021	0.105	0.067	0.127	0.012	0.003	0.013	0.022	0.7%
%RSD		1.0	1.596	7.547	4.613	1.091	17.580	13.610	33.650	68.280	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:49	6.712	7.316	0.084	0.102	238.300	233.400	106.7%	0.568	0.581	28.090
2	21:12:16	6.799	7.197	0.086	0.084	233.500	233.100	107.4%	0.558	0.585	28.040
3	21:12:43	6.775	7.255	0.098	0.078	233.000	234.700	107.1%	0.566	0.593	28.110
x		6.762	7.256	0.089	0.088	234.900	233.800	107.0%	0.564	0.587	28.080
σ		0.045	0.060	0.008	0.012	2.917	0.856	0.4%	0.005	0.006	0.034
%RSD		0.668	0.825	8.729	13.700	1.242	0.366	0.3	0.900	1.035	0.122

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:11:49	23.440	25.230	102.8%
2	21:12:16	23.390	25.100	102.6%
3	21:12:43	23.490	25.260	102.3%
x		23.440	25.190	102.6%
σ		0.053	0.085	0.2%
%RSD		0.225	0.339	0.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:17:44	121.4%	1.061	1.011	0.857	16.970	160.600	T 10430.000	T 10320.000	T 10400.000	TM 58580.000
2	21:18:11	123.0%	1.082	1.371	0.975	15.700	161.100	T 10410.000	T 10270.000	T 10410.000	TM 58680.000
3	21:18:38	123.8%	1.041	0.829	0.925	17.420	160.500	T 10470.000	T 10270.000	T 10400.000	TM 58200.000
x		122.8%	1.061	1.070	0.919	16.700	160.700	T 10440.000	T 10290.000	T 10400.000	TM 58490.000
σ		1.2%	0.021	0.276	0.059	0.893	0.350	T 27.590	T 29.360	T 5.860	TM 251.500
%RSD		1.0	1.952	25.780	6.434	5.349	0.218	T 0.264	T 0.285	T 0.056	TM 0.430

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:17:44	T 1170.000	T 199000.000	T 11760.000	2662.000	2274.000	114.0%	M 2641.000	97.130	24.030	9475.000
2	21:18:11	T 1181.000	T 200000.000	T 11820.000	2632.000	2254.000	114.5%	M 2657.000	97.530	23.810	9666.000
3	21:18:38	T 1146.000	T 200900.000	T 11880.000	2659.000	2286.000	114.9%	M 2655.000	97.860	23.840	9461.000
x		T 1166.000	T 200000.000	T 11820.000	2651.000	2271.000	114.5%	M 2651.000	97.510	23.890	9534.000
σ		T 18.200	T 954.000	T 62.120	16.440	16.530	0.5%	M 8.447	0.366	0.118	114.300
%RSD		T 1.561	T 0.477	T 0.526	0.620	0.728	0.4	M 0.319	0.375	0.494	1.198

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:17:44	T 48300.000	TM 858.100	T 47710.000	T 53430.000	21.630	14.110	19.770	28.530	38.100	86.120
2	21:18:11	T 48960.000	TM 862.800	T 48250.000	T 54240.000	21.850	14.270	18.910	29.020	38.120	85.940
3	21:18:38	T 48800.000	TM 860.700	T 47650.000	T 53460.000	21.280	14.130	18.530	28.650	37.030	87.620
x		T 48690.000	TM 860.500	T 47870.000	T 53710.000	21.590	14.170	19.070	28.730	37.750	86.560
σ		T 343.900	TM 2.351	T 327.300	T 461.900	0.285	0.087	0.631	0.254	0.627	0.921
%RSD		T 0.706	TM 0.273	T 0.684	T 0.860	1.320	0.614	3.311	0.883	1.660	1.064

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:17:44	94.560	92.780	1.838	0.486	5.160	4.456	1.877	2.318	0.768	26.660
2	21:18:11	96.010	92.980	2.123	0.591	5.385	4.635	-0.646	1.367	-0.838	26.990
3	21:18:38	98.680	93.610	1.846	0.329	6.388	4.175	-2.176	0.693	-1.233	26.730
x		96.420	93.130	1.935	0.469	5.645	4.422	-0.315	1.459	-0.435	26.800
σ		2.091	0.433	0.162	0.132	0.654	0.232	2.047	0.816	1.060	0.174
%RSD		2.169	0.465	8.388	28.190	11.580	5.242	650.000	55.940	243.900	0.651

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:17:44	227.7%	0.804	0.907	0.931	10.760	0.064	0.021	0.074	0.089	107.9%
2	21:18:11	230.4%	0.822	0.847	0.918	9.803	0.065	0.033	0.079	0.067	108.3%
3	21:18:38	229.2%	0.798	0.807	0.854	11.280	0.058	0.030	0.081	0.023	110.3%
x		229.1%	0.808	0.854	0.901	10.610	0.062	0.028	0.078	0.060	108.8%
σ		1.3%	0.012	0.050	0.041	0.751	0.003	0.006	0.004	0.034	1.3%
%RSD		0.6	1.512	5.892	4.567	7.070	5.358	21.830	4.659	56.410	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:17:44	5.604	6.297	0.077	0.074	294.400	289.600	110.0%	0.405	0.430	16.040
2	21:18:11	5.458	6.101	0.071	0.080	289.300	288.300	110.9%	0.401	0.426	16.250
3	21:18:38	5.504	6.055	0.069	0.070	285.600	284.900	112.8%	0.438	0.410	16.020
x		5.522	6.151	0.072	0.075	289.800	287.600	111.3%	0.415	0.422	16.100
σ		0.075	0.129	0.005	0.005	4.417	2.439	1.4%	0.020	0.011	0.126
%RSD		1.357	2.089	6.309	6.867	1.524	0.848	1.3	4.931	2.515	0.781

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:17:44	13.040	14.290	103.6%
2	21:18:11	13.430	14.460	103.4%
3	21:18:38	13.150	14.370	104.7%
x		13.210	14.380	103.9%
σ		0.201	0.084	0.7%
%RSD		1.519	0.582	0.7

CCV MW11050 05/08/2019 21:23:14 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:23:41	89.1%	301.100	299.500	297.100	37.440	┬69200.000	┬62770.000	┬61740.000	┬61630.000	297.600
2	21:24:08	90.9%	297.400	295.800	293.500	28.030	┬69000.000	┬62330.000	┬61690.000	┬61840.000	295.200
3	21:24:35	91.3%	297.400	289.000	291.100	21.080	┬67080.000	┬61040.000	┬60930.000	┬60800.000	292.300
x		90.4%	99.541%	98.255%	97.967%	28.850	┬114.043%	┬62040.000	┬61450.000	┬102.372%	98.348%
σ		1.2%	n/a	n/a	n/a	8.209	┬n/a	┬898.400	┬451.500	┬n/a	n/a
%RSD		1.3	0.733	1.817	1.032	28.450	┬1.710	┬1.448	┬0.735	┬0.895	0.898

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:23:41	┬3258.000	1999.000	┬67580.000	60700.000	┬62520.000	94.6%	296.700	298.500	290.200	1978.000
2	21:24:08	┬3233.000	1952.000	┬67730.000	61130.000	┬62910.000	93.8%	299.600	302.500	290.100	711.500
3	21:24:35	┬3151.000	1874.000	┬66850.000	60880.000	┬62590.000	94.4%	300.900	300.900	286.800	2217.000
x		┬107.127%	1942.000	┬112.317%	60910.000	┬104.455%	94.3%	99.678%	100.204%	96.345%	1636.000
σ		┬n/a	63.240	┬n/a	217.500	┬n/a	0.4%	n/a	n/a	n/a	809.100
%RSD		┬1.737	3.257	┬0.698	0.357	┬0.328	0.5	0.720	0.678	0.667	49.470

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:23:41	┬61180.000	285.000	┬61950.000	┬60790.000	287.500	283.300	288.900	280.800	277.000	267.100
2	21:24:08	┬61410.000	282.800	┬62320.000	┬60760.000	284.200	280.800	283.900	275.800	275.900	268.200
3	21:24:35	┬62100.000	284.400	┬62440.000	┬61770.000	287.100	278.200	288.400	278.800	276.400	271.000
x		┬61560.000	94.692%	┬62240.000	┬101.845%	95.418%	93.587%	287.000	278.500	92.146%	89.584%
σ		┬477.600	n/a	┬254.000	┬n/a	n/a	n/a	2.721	2.526	n/a	n/a
%RSD		┬0.776	0.387	┬0.408	┬0.947	0.614	0.907	0.948	0.907	0.196	0.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:23:41	271.800	268.900	286.700	276.900	2.754	1.428	1293.000	299.000	0.269	296.500
2	21:24:08	271.700	269.700	286.700	274.200	2.396	1.885	1290.000	295.400	-2.548	┬297.000
3	21:24:35	269.000	268.700	284.400	274.000	2.482	2.447	1276.000	296.700	-0.101	┬300.500
x		270.800	269.100	95.308%	275.000	2.544	1.920	1287.000	99.013%	-0.794	┬99.333%
σ		1.561	0.491	n/a	1.653	0.187	0.511	9.135	n/a	1.531	┬n/a
%RSD		0.577	0.182	0.449	0.601	7.351	26.600	0.710	0.613	192.800	┬0.743

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:23:41	92.7%	303.700	307.500	305.600	292.200	297.200	287.500	289.200	289.100	91.0%
2	21:24:08	91.3%	306.500	309.500	305.800	288.700	297.100	283.800	288.800	286.900	90.6%
3	21:24:35	92.8%	302.200	307.100	304.400	290.400	296.000	282.900	287.800	289.900	90.6%
x		92.3%	101.383%	102.675%	305.300	290.400	98.931%	284.800	288.600	96.210%	90.7%
σ		0.9%	n/a	n/a	0.748	1.784	n/a	2.414	0.752	n/a	0.3%
%RSD		0.9	0.720	0.412	0.245	0.614	0.221	0.848	0.261	0.548	0.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:23:41	301.800	299.600	296.100	299.400	304.200	301.800	92.1%	286.500	┬296.000	┬265.000
2	21:24:08	300.900	299.100	296.600	296.100	304.100	302.300	92.4%	290.200	┬293.300	┬266.700
3	21:24:35	299.500	300.700	299.900	299.100	306.700	302.100	92.5%	291.700	┬298.300	┬271.900
x		100.240%	99.923%	297.500	99.407%	101.672%	100.695%	92.3%	289.500	┬98.617%	┬89.290%
σ		n/a	n/a	2.075	n/a	n/a	n/a	0.2%	2.675	┬n/a	┬n/a
%RSD		0.397	0.279	0.698	0.606	0.482	0.081	0.2	0.924	┬0.850	┬1.352

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:23:41	301.600	293.400	88.7%
2	21:24:08	304.500	295.400	89.2%
3	21:24:35	302.000	295.600	89.6%
x		100.908%	98.260%	89.2%
σ		n/a	n/a	0.5%
%RSD		0.519	0.410	0.5

CCB IM9409-01 05/08/2019 21:29:12 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:29:38	99.3%	-0.011	0.462	0.597	25.820	-17.100	0.212	0.201	0.190	0.367
2	21:30:05	100.2%	-0.008	0.394	0.444	20.460	-17.560	0.107	0.280	0.121	0.335
3	21:30:32	102.3%	-0.020	0.495	0.562	25.060	-17.710	0.051	0.035	0.098	0.236
x		100.6%	-0.013	0.450	0.534	23.780	-17.460	0.123	0.172	0.137	0.313
σ		1.6%	0.006	0.051	0.080	2.902	0.320	0.081	0.125	0.048	0.068
%RSD		1.6	47.590	11.420	15.030	12.200	1.833	66.080	72.720	34.930	21.830

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:29:38	10.340	1017.000	6.020	-1.157	-0.223	98.7%	0.033	0.026	0.063	86.460
2	21:30:05	10.630	1042.000	4.402	0.389	0.724	98.8%	0.063	-0.008	0.027	106.900
3	21:30:32	10.620	1044.000	2.227	-1.709	-0.058	101.0%	0.013	-0.006	0.020	97.810
x		10.530	1034.000	4.216	-0.826	0.148	99.5%	0.036	0.004	0.037	97.060
σ		0.162	15.190	1.903	1.088	0.506	1.3%	0.025	0.019	0.023	10.250
%RSD		1.537	1.469	45.130	131.700	341.800	1.3	69.510	477.100	62.480	10.560

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:29:38	1.658	-0.024	7.322	-4.608	-0.023	0.008	0.471	-0.025	-0.027	-0.031
2	21:30:05	0.564	-0.024	6.356	-5.030	-0.023	-0.019	0.341	-0.019	-0.000	0.017
3	21:30:32	0.590	-0.013	5.034	-10.460	-0.026	0.002	0.244	-0.017	0.002	-0.005
x		0.937	-0.020	6.237	-6.701	-0.024	-0.003	0.352	-0.020	-0.009	-0.006
σ		0.624	0.006	1.148	3.266	0.002	0.014	0.114	0.004	0.016	0.024
%RSD		66.600	32.400	18.410	48.750	8.461	462.700	32.330	21.600	189.000	394.700

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:29:38	0.027	0.042	-0.015	0.489	1.051	1.473	0.822	0.193	-0.345	-0.000
2	21:30:05	-0.102	0.009	-0.084	0.025	1.771	1.660	-1.077	-0.158	-3.104	0.003
3	21:30:32	-0.122	0.017	-0.175	-0.009	1.404	1.813	-1.985	-0.465	1.318	0.001
x		-0.066	0.023	-0.091	0.168	1.409	1.649	-0.747	-0.143	-0.711	0.001
σ		0.081	0.017	0.080	0.278	0.360	0.170	1.432	0.329	2.234	0.002
%RSD		122.800	76.090	88.010	165.300	25.550	10.320	191.800	229.700	314.400	130.900

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:29:38	97.3%	0.014	0.046	0.023	-0.406	0.003	0.004	0.005	0.003	97.5%
2	21:30:05	96.9%	0.012	0.058	0.020	2.037	0.003	0.006	-0.001	-0.001	96.3%
3	21:30:32	99.6%	0.004	-0.008	-0.000	0.667	0.005	0.002	-0.004	0.002	98.8%
x		98.0%	0.010	0.032	0.014	0.766	0.004	0.004	0.000	0.001	97.5%
σ		1.5%	0.005	0.035	0.013	1.224	0.001	0.002	0.005	0.002	1.2%
%RSD		1.5	53.590	109.500	89.630	159.900	37.120	54.000	8671.000	170.400	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:29:38	0.046	0.060	0.152	0.135	0.003	0.003	94.2%	-0.026	-0.023	-0.005
2	21:30:05	0.042	0.060	0.150	0.111	0.013	-0.003	95.0%	-0.019	-0.026	-0.008
3	21:30:32	0.030	0.048	0.114	0.137	0.003	0.003	96.4%	-0.024	-0.025	-0.001
x		0.039	0.056	0.139	0.128	0.006	0.001	95.2%	-0.023	-0.025	-0.005
σ		0.008	0.006	0.022	0.014	0.006	0.003	1.1%	0.004	0.001	0.004
%RSD		20.950	11.470	15.680	11.330	86.660	319.800	1.2	15.400	5.125	80.300

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:29:38	0.013	0.000	96.0%
2	21:30:05	0.009	0.003	97.1%
3	21:30:32	0.004	-0.001	98.4%
x		0.009	0.001	97.2%
σ		0.005	0.002	1.2%
%RSD		54.340	234.800	1.2

UD12001-029 05/08/2019 21:35:08

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:35:36	123.0%	0.644	0.929	0.866	34.090	126.500	T 1796.000	1672.000	1696.000	TM 36160.000
2	21:36:03	122.7%	0.600	0.995	0.752	30.680	118.000	T 1779.000	1653.000	1684.000	TM 36190.000
3	21:36:30	123.6%	0.625	1.159	0.868	28.330	121.000	T 1806.000	1657.000	1703.000	TM 36280.000
x		123.1%	0.623	1.028	0.829	31.030	121.800	T 1794.000	1661.000	1694.000	TM 36210.000
σ		0.5%	0.022	0.119	0.066	2.895	4.309	T 13.500	10.130	9.514	TM 60.600
%RSD		0.4	3.543	11.540	8.017	9.329	3.537	T 0.753	0.610	0.562	TM 0.167

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:35:36	T 979.500	T 197900.000	T 4710.000	497.200	371.000	116.9%	M 1257.000	28.990	31.560	10310.000
2	21:36:03	T 956.000	T 204800.000	T 4782.000	505.700	373.900	113.6%	M 1270.000	29.890	31.430	10410.000
3	21:36:30	T 958.000	T 206100.000	T 4846.000	515.600	373.200	115.3%	M 1285.000	28.930	31.700	10770.000
x		T 964.500	T 202900.000	T 4779.000	506.200	372.700	115.3%	M 1271.000	29.270	31.560	10500.000
σ		T 13.030	T 4390.000	T 67.740	9.236	1.516	1.7%	M 13.990	0.541	0.132	243.300
%RSD		T 1.351	T 2.164	T 1.417	1.825	0.407	1.4	M 1.101	1.847	0.419	2.317

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:35:36	T 21230.000	92.950	T 21410.000	T 21350.000	7.546	16.090	19.890	69.400	74.480	37.920
2	21:36:03	T 21580.000	94.120	T 21730.000	T 21660.000	7.619	15.800	20.660	69.740	75.650	37.880
3	21:36:30	T 21660.000	95.040	T 21900.000	T 21790.000	7.729	16.260	19.830	71.010	76.590	39.100
x		T 21490.000	94.040	T 21680.000	T 21600.000	7.631	16.050	20.130	70.050	75.570	38.300
σ		T 225.700	1.045	T 250.900	T 227.600	0.092	0.231	0.464	0.845	1.061	0.692
%RSD		T 1.050	1.111	T 1.158	T 1.054	1.211	1.441	2.305	1.206	1.404	1.806

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:35:36	46.900	44.300	2.360	-0.183	9.551	8.537	1.872	0.943	-2.304	9.190
2	21:36:03	46.800	44.280	2.379	0.057	9.071	9.066	0.710	0.572	1.026	9.063
3	21:36:30	47.560	46.340	2.664	0.043	9.155	7.869	2.054	0.911	-1.119	9.124
x		47.090	44.970	2.468	-0.028	9.259	8.491	1.545	0.809	-0.799	9.126
σ		0.414	1.184	0.170	0.135	0.257	0.600	0.729	0.205	1.688	0.063
%RSD		0.880	2.634	6.897	486.400	2.772	7.064	47.170	25.410	211.400	0.692

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:35:36	135.4%	2.175	2.064	2.187	19.200	0.153	0.035	0.079	0.055	110.3%
2	21:36:03	132.0%	2.141	2.104	2.133	18.720	0.143	0.035	0.066	0.016	105.9%
3	21:36:30	135.0%	2.245	2.138	2.170	17.890	0.136	0.034	0.056	0.034	111.6%
x		134.1%	2.187	2.102	2.163	18.600	0.144	0.034	0.067	0.035	109.3%
σ		1.9%	0.053	0.037	0.028	0.661	0.009	0.001	0.011	0.019	3.0%
%RSD		1.4	2.435	1.747	1.280	3.554	6.068	1.981	17.090	55.040	2.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:35:36	6.484	6.504	0.341	0.325	228.200	227.200	108.9%	0.201	0.210	33.000
2	21:36:03	6.645	6.645	0.315	0.307	232.500	230.300	106.3%	0.201	0.219	33.100
3	21:36:30	6.462	6.461	0.306	0.292	229.300	231.000	109.7%	0.223	0.213	33.140
x		6.530	6.537	0.321	0.308	230.000	229.500	108.3%	0.209	0.214	33.080
σ		0.100	0.097	0.018	0.016	2.233	2.056	1.8%	0.013	0.004	0.075
%RSD		1.534	1.477	5.589	5.288	0.971	0.896	1.7	6.104	2.073	0.227

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:35:36	28.350	29.980	106.5%
2	21:36:03	28.220	29.930	104.9%
3	21:36:30	28.150	29.890	107.2%
x		28.240	29.940	106.2%
σ		0.102	0.045	1.2%
%RSD		0.361	0.151	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:41:32	121.9%	0.481	0.810	0.808	-61.670	141.600	T 6717.000	T 6833.000	T 7057.000	TM 52230.000
2	21:41:59	124.6%	0.493	0.978	0.967	-62.870	142.700	T 6686.000	T 6782.000	T 7055.000	TM 52110.000
3	21:42:26	124.9%	0.472	1.105	0.873	-66.070	141.400	T 6684.000	T 6771.000	T 7029.000	TM 51460.000
x		123.8%	0.482	0.964	0.883	-63.540	141.900	T 6696.000	T 6795.000	T 7047.000	TM 51940.000
σ		1.7%	0.011	0.148	0.080	2.275	0.670	T 18.190	T 33.240	T 15.540	TM 414.200
%RSD		1.3	2.197	15.370	9.077	3.580	0.472	T 0.272	T 0.489	T 0.221	TM 0.797

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:41:32	T 1094.000	T 175600.000	T 6591.000	2500.000	2082.000	113.9%	M 2315.000	166.400	79.830	9843.000
2	21:41:59	T 1089.000	T 176900.000	T 6577.000	2479.000	2080.000	116.6%	M 2325.000	166.800	79.120	9694.000
3	21:42:26	T 1091.000	T 177000.000	T 6626.000	2452.000	2069.000	118.5%	M 2317.000	165.700	78.390	9823.000
x		T 1092.000	T 176500.000	T 6598.000	2477.000	2077.000	116.3%	M 2319.000	166.300	79.110	9787.000
σ		T 2.747	T 784.500	T 25.230	23.980	6.916	2.3%	M 5.219	0.563	0.720	81.170
%RSD		T 0.252	T 0.444	T 0.382	0.968	0.333	2.0	M 0.225	0.339	0.910	0.829

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:41:32	T 54140.000	T 416.900	T 52980.000	T 59640.000	27.920	43.620	42.890	55.170	69.860	83.630
2	21:41:59	T 54310.000	T 419.600	T 53520.000	T 59340.000	27.830	43.710	43.320	54.010	68.510	83.540
3	21:42:26	T 54010.000	T 419.300	T 53490.000	T 59490.000	27.540	43.280	43.990	54.320	68.670	83.650
x		T 54150.000	T 418.600	T 53330.000	T 59490.000	27.760	43.540	43.400	54.500	69.010	83.610
σ		T 149.400	T 1.488	T 302.500	T 149.800	0.198	0.229	0.551	0.601	0.740	0.057
%RSD		T 0.276	T 0.355	T 0.567	T 0.252	0.714	0.526	1.270	1.103	1.072	0.068

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:41:32	97.230	92.090	11.240	4.356	6.729	6.586	8.906	4.981	-0.231	22.120
2	21:41:59	97.190	91.890	10.930	4.523	6.862	6.249	9.464	5.293	-1.056	22.080
3	21:42:26	96.350	92.340	11.700	4.560	6.702	6.546	12.360	6.336	-1.374	22.110
x		96.920	92.110	11.290	4.480	6.764	6.460	10.240	5.537	-0.887	22.100
σ		0.499	0.227	0.391	0.109	0.086	0.184	1.853	0.709	0.590	0.022
%RSD		0.514	0.246	3.467	2.421	1.267	2.851	18.090	12.810	66.520	0.098

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:41:32	210.6%	8.840	9.434	9.591	10.700	0.076	0.031	0.281	0.332	105.9%
2	21:41:59	215.7%	8.747	9.623	9.538	11.650	0.079	0.034	0.335	0.293	107.6%
3	21:42:26	216.6%	8.701	9.386	9.437	8.973	0.063	0.023	0.228	0.300	110.0%
x		214.3%	8.762	9.481	9.522	10.440	0.073	0.029	0.281	0.308	107.8%
σ		3.2%	0.071	0.125	0.078	1.357	0.009	0.006	0.054	0.021	2.1%
%RSD		1.5	0.811	1.318	0.822	13.000	11.810	20.070	19.030	6.821	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:41:32	5.833	6.580	0.497	0.485	325.000	318.600	107.2%	1.005	1.049	23.580
2	21:41:59	5.880	6.599	0.471	0.464	325.000	322.900	109.1%	1.021	1.013	23.580
3	21:42:26	5.848	6.628	0.511	0.513	323.100	318.700	111.0%	0.999	1.041	23.310
x		5.854	6.602	0.493	0.487	324.400	320.000	109.1%	1.009	1.034	23.490
σ		0.024	0.024	0.021	0.024	1.102	2.451	1.9%	0.011	0.019	0.158
%RSD		0.417	0.361	4.168	4.998	0.340	0.766	1.7	1.102	1.806	0.673

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:41:32	19.610	21.070	101.1%
2	21:41:59	19.830	21.080	102.6%
3	21:42:26	19.550	21.100	104.2%
x		19.670	21.080	102.6%
σ		0.148	0.013	1.6%
%RSD		0.753	0.064	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:28	121.2%	0.745	2.335	2.305	6.713	349.800	T 4950.000	T 4744.000	T 4881.000	TM 92360.000
2	21:47:55	123.3%	0.747	2.332	2.139	-3.152	346.100	T 4925.000	T 4794.000	T 4874.000	TM 91310.000
3	21:48:22	125.8%	0.772	2.317	2.109	-0.078	350.600	T 4933.000	T 4790.000	T 4862.000	TM 90910.000
x		123.4%	0.755	2.328	2.184	1.161	348.900	T 4936.000	T 4776.000	T 4873.000	TM 91530.000
σ		2.3%	0.015	0.010	0.105	5.048	2.389	T 12.990	T 28.050	T 9.775	TM 747.900
%RSD		1.9	2.009	0.413	4.827	434.800	0.685	T 0.263	T 0.587	T 0.201	TM 0.817

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:28	T 793.100	T 228400.000	T 7119.000	2229.000	1714.000	117.1%	M 2399.000	118.000	92.870	12190.000
2	21:47:55	T 789.200	T 232000.000	T 7192.000	2206.000	1707.000	117.4%	M 2378.000	115.700	91.800	12910.000
3	21:48:22	T 792.700	T 232900.000	T 7277.000	2176.000	1703.000	117.9%	M 2387.000	117.400	92.620	11830.000
x		T 791.700	T 231100.000	T 7196.000	2204.000	1708.000	117.4%	M 2388.000	117.000	92.430	12310.000
σ		T 2.124	T 2365.000	T 79.160	26.680	5.583	0.4%	M 10.710	1.212	0.559	548.800
%RSD		T 0.268	T 1.023	T 1.100	1.210	0.327	0.4	M 0.448	1.036	0.604	4.458

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:28	T 68690.000	T 310.200	T 68490.000	T 69130.000	24.690	63.190	69.630	38.770	41.370	67.100
2	21:47:55	T 68140.000	T 306.400	T 68110.000	T 68310.000	24.480	61.770	68.750	37.950	41.290	67.310
3	21:48:22	T 67590.000	T 307.900	T 68020.000	T 69300.000	24.650	62.420	68.480	38.200	41.890	67.620
x		T 68140.000	T 308.200	T 68210.000	T 68910.000	24.610	62.460	68.950	38.310	41.510	67.340
σ		T 548.000	T 1.906	T 252.200	T 527.700	0.112	0.711	0.600	0.421	0.326	0.258
%RSD		T 0.804	T 0.619	T 0.370	T 0.766	0.453	1.139	0.871	1.098	0.785	0.383

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:28	76.730	72.030	4.324	0.647	14.640	14.930	3.387	1.136	1.162	28.800
2	21:47:55	76.730	72.580	4.299	0.849	15.530	15.140	2.302	0.986	-0.410	28.560
3	21:48:22	76.650	73.450	3.873	0.496	15.260	14.780	3.225	1.156	1.972	28.560
x		76.700	72.690	4.165	0.664	15.140	14.950	2.971	1.093	0.908	28.640
σ		0.047	0.717	0.253	0.177	0.460	0.185	0.585	0.093	1.211	0.137
%RSD		0.061	0.986	6.079	26.700	3.034	1.234	19.690	8.505	133.400	0.477

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:28	129.3%	1.047	1.295	1.216	17.970	0.139	0.040	0.078	0.029	110.1%
2	21:47:55	131.1%	1.147	1.256	1.269	17.410	0.149	0.041	0.032	-0.014	107.9%
3	21:48:22	134.4%	1.143	1.254	1.175	15.440	0.121	0.046	0.048	0.010	110.7%
x		131.6%	1.112	1.268	1.220	16.940	0.136	0.042	0.053	0.008	109.6%
σ		2.6%	0.057	0.023	0.047	1.329	0.014	0.004	0.024	0.022	1.5%
%RSD		2.0	5.085	1.848	3.882	7.843	10.420	8.535	44.820	263.000	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:28	6.741	7.495	0.186	0.170	235.200	234.400	104.5%	0.536	0.529	19.460
2	21:47:55	6.655	7.545	0.153	0.158	235.200	233.800	105.4%	0.518	0.523	19.510
3	21:48:22	6.849	7.615	0.161	0.159	240.100	237.800	107.1%	0.492	0.520	19.460
x		6.748	7.552	0.167	0.163	236.800	235.300	105.7%	0.515	0.524	19.480
σ		0.097	0.061	0.017	0.007	2.832	2.151	1.4%	0.022	0.005	0.030
%RSD		1.437	0.803	10.180	4.175	1.196	0.914	1.3	4.296	0.901	0.154

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:47:28	16.820	17.880	102.7%
2	21:47:55	16.540	17.730	103.1%
3	21:48:22	16.990	17.840	105.0%
x		16.780	17.820	103.6%
σ		0.225	0.080	1.2%
%RSD		1.340	0.448	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:53:24	123.7%	1.741	0.973	0.804	30.210	105.900	T 1494.000	1416.000	1453.000	TM 35360.000
2	21:53:51	125.3%	1.724	1.150	0.679	32.110	104.300	T 1491.000	1409.000	1434.000	TM 35240.000
3	21:54:18	126.7%	1.611	0.797	0.840	27.700	107.100	T 1505.000	1408.000	1444.000	TM 35620.000
x		125.2%	1.692	0.974	0.774	30.010	105.800	T 1496.000	1411.000	1444.000	TM 35410.000
σ		1.5%	0.071	0.176	0.084	2.210	1.381	T 7.058	4.429	9.571	TM 190.900
%RSD		1.2	4.190	18.120	10.870	7.366	1.305	T 0.472	0.314	0.663	TM 0.539
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:53:24	T 1033.000	T 215300.000	T 1518.000	1255.000	1061.000	118.6%	M 705.000	82.570	109.100	9634.000
2	21:53:51	T 1031.000	T 213600.000	T 1526.000	1306.000	1065.000	120.9%	M 707.700	81.330	109.300	9722.000
3	21:54:18	T 1016.000	T 215800.000	T 1539.000	1304.000	1064.000	120.1%	TM 531.800	81.690	109.000	9418.000
x		T 1027.000	T 214900.000	T 1527.000	1288.000	1063.000	119.8%	TM 648.200	81.860	109.100	9591.000
σ		T 9.483	T 1139.000	T 10.930	29.050	2.468	1.2%	TM 100.800	0.639	0.148	156.500
%RSD		T 0.924	T 0.530	T 0.716	2.256	0.232	1.0	TM 15.550	0.781	0.135	1.632
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:53:24	T 38770.000	TM 2067.000	T 38080.000	T 43050.000	22.510	28.860	25.830	11.800	15.790	39.710
2	21:53:51	T 38600.000	TM 2049.000	T 38210.000	T 42850.000	22.580	28.850	25.660	11.810	15.490	39.120
3	21:54:18	T 38460.000	TM 2043.000	T 38010.000	T 42940.000	22.230	28.950	25.200	11.920	15.890	39.750
x		T 38610.000	TM 2053.000	T 38100.000	T 42950.000	22.440	28.890	25.560	11.840	15.730	39.530
σ		T 152.600	TM 12.010	T 101.000	T 103.600	0.183	0.056	0.327	0.066	0.208	0.356
%RSD		T 0.395	TM 0.585	T 0.265	T 0.241	0.815	0.193	1.280	0.559	1.320	0.900
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:53:24	56.910	51.450	3.211	0.817	8.880	7.123	0.790	2.319	-1.747	7.602
2	21:53:51	56.740	50.630	3.592	1.004	8.053	7.557	1.445	2.637	-1.890	7.501
3	21:54:18	56.620	52.140	3.629	1.233	8.363	6.894	0.718	2.300	-2.627	7.566
x		56.760	51.410	3.477	1.018	8.432	7.191	0.984	2.419	-2.088	7.557
σ		0.141	0.757	0.232	0.209	0.418	0.337	0.401	0.189	0.472	0.051
%RSD		0.248	1.472	6.664	20.490	4.957	4.685	40.730	7.828	22.600	0.678
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:53:24	269.1%	0.424	0.459	0.468	7.997	0.100	0.081	0.017	0.055	112.8%
2	21:53:51	270.6%	0.394	0.449	0.506	10.120	0.093	0.083	0.046	0.019	113.5%
3	21:54:18	267.5%	0.437	0.514	0.485	8.481	0.108	0.088	0.043	0.056	113.5%
x		269.1%	0.419	0.474	0.486	8.867	0.100	0.084	0.035	0.043	113.3%
σ		1.6%	0.022	0.035	0.019	1.114	0.008	0.004	0.016	0.021	0.4%
%RSD		0.6	5.297	7.402	3.879	12.570	7.564	4.267	45.560	49.430	0.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:53:24	4.832	5.853	0.099	0.097	340.500	340.300	113.6%	0.363	0.341	22.370
2	21:53:51	4.795	5.873	0.112	0.090	340.000	340.100	115.1%	0.352	0.368	22.510
3	21:54:18	4.683	5.760	0.110	0.092	346.200	341.500	116.4%	0.337	0.339	22.450
x		4.770	5.829	0.107	0.093	342.200	340.600	115.0%	0.351	0.349	22.440
σ		0.078	0.060	0.007	0.004	3.450	0.737	1.4%	0.013	0.016	0.071
%RSD		1.625	1.032	6.896	3.794	1.008	0.216	1.3	3.691	4.592	0.316
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	21:53:24	19.310	20.480	104.4%							
2	21:53:51	19.670	20.650	106.1%							
3	21:54:18	19.680	20.780	107.5%							
x		19.560	20.640	106.0%							
σ		0.210	0.147	1.6%							
%RSD		1.073	0.711	1.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:18	124.0%	0.819	1.141	0.570	-6.794	179.100	T 5074.000	T 4955.000	T 5044.000	TM 103100.000
2	21:59:45	126.0%	0.750	0.966	0.518	-11.090	175.400	T 5010.000	T 4924.000	T 5039.000	TM 102100.000
3	22:00:12	126.8%	0.691	0.825	0.536	-9.885	179.900	T 4980.000	T 4936.000	T 5070.000	TM 102700.000
x		125.6%	0.753	0.977	0.541	-9.258	178.100	T 5021.000	T 4938.000	T 5051.000	TM 102600.000
σ		1.5%	0.064	0.158	0.027	2.217	2.403	T 47.740	T 15.580	T 16.780	TM 464.500
%RSD		1.2	8.516	16.210	4.951	23.950	1.349	T 0.951	T 0.315	T 0.332	TM 0.453

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:18	T 914.100	T 211700.000	T 2942.000	1320.000	852.500	122.6%	M 2478.000	181.500	180.300	10580.000
2	21:59:45	T 892.400	T 213500.000	T 2924.000	1276.000	852.000	121.7%	M 2471.000	181.600	178.700	11000.000
3	22:00:12	T 893.000	T 213700.000	T 2923.000	1300.000	841.900	122.5%	M 2477.000	179.600	179.300	11520.000
x		T 899.900	T 213000.000	T 2930.000	1299.000	848.800	122.3%	M 2475.000	180.900	179.500	11030.000
σ		T 12.370	T 1088.000	T 11.130	22.180	5.969	0.5%	M 3.451	1.098	0.799	473.500
%RSD		T 1.375	T 0.511	T 0.380	1.708	0.703	0.4	M 0.139	0.607	0.445	4.292

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:18	T 78380.000	249.600	T 78600.000	T 80650.000	10.730	39.450	45.400	42.610	47.100	63.580
2	21:59:45	T 78160.000	248.900	T 77500.000	T 80130.000	10.800	38.660	46.230	43.040	47.000	63.240
3	22:00:12	T 78540.000	251.500	T 78220.000	T 80480.000	10.910	39.200	45.220	42.690	46.880	64.660
x		T 78360.000	250.000	T 78110.000	T 80420.000	10.810	39.110	45.620	42.780	46.990	63.830
σ		T 190.100	1.363	T 556.700	T 266.300	0.093	0.402	0.540	0.232	0.109	0.743
%RSD		T 0.243	0.545	T 0.713	T 0.331	0.857	1.027	1.183	0.541	0.232	1.165

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:18	75.280	67.540	2.730	0.964	14.030	12.650	1.783	0.976	2.449	13.990
2	21:59:45	73.490	67.970	3.004	0.458	13.040	12.860	3.574	1.508	1.283	13.650
3	22:00:12	74.860	68.060	3.602	0.058	13.250	12.200	4.973	1.949	0.329	13.680
x		74.540	67.860	3.112	0.493	13.440	12.570	3.443	1.478	1.353	13.770
σ		0.936	0.277	0.446	0.454	0.521	0.340	1.599	0.487	1.062	0.186
%RSD		1.256	0.409	14.330	92.020	3.873	2.701	46.440	32.980	78.460	1.350

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:18	140.9%	2.177	2.301	2.310	13.930	0.102	0.032	0.007	0.061	107.3%
2	21:59:45	142.1%	2.107	2.298	2.247	11.890	0.099	0.028	0.032	0.037	108.6%
3	22:00:12	145.8%	2.186	2.190	2.269	12.680	0.106	0.026	0.058	0.053	110.8%
x		143.0%	2.156	2.263	2.275	12.830	0.102	0.029	0.032	0.051	108.9%
σ		2.6%	0.043	0.063	0.032	1.028	0.003	0.003	0.026	0.012	1.8%
%RSD		1.8	1.992	2.787	1.406	8.011	3.308	10.680	79.850	23.850	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:18	6.521	7.289	0.104	0.100	197.000	196.100	104.0%	0.560	0.563	22.730
2	21:59:45	6.582	7.373	0.102	0.124	196.800	195.200	103.9%	0.581	0.559	22.680
3	22:00:12	6.467	7.246	0.108	0.098	193.600	194.000	106.0%	0.576	0.555	22.910
x		6.523	7.302	0.105	0.107	195.800	195.100	104.7%	0.572	0.559	22.780
σ		0.057	0.065	0.004	0.015	1.900	1.043	1.2%	0.011	0.004	0.124
%RSD		0.878	0.885	3.375	13.660	0.970	0.535	1.2	1.906	0.762	0.542

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:59:18	20.020	21.090	102.1%
2	21:59:45	20.080	21.100	102.6%
3	22:00:12	19.800	20.960	104.1%
x		19.970	21.050	102.9%
σ		0.145	0.080	1.0%
%RSD		0.725	0.379	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:05:15	120.1%	0.958	1.871	2.156	9.786	264.800	T 6527.000	T 6416.000	T 6517.000	TM 67080.000
2	22:05:42	123.0%	0.926	2.120	2.003	13.640	262.600	T 6608.000	T 6526.000	T 6578.000	TM 67100.000
3	22:06:09	123.6%	0.814	2.337	2.047	9.531	261.900	T 6551.000	T 6478.000	T 6598.000	TM 68150.000
x		122.2%	0.899	2.109	2.068	10.980	263.100	T 6562.000	T 6473.000	T 6564.000	TM 67440.000
σ		1.9%	0.075	0.233	0.079	2.300	1.490	T 41.690	T 55.320	T 42.280	TM 614.000
%RSD		1.5	8.358	11.060	3.806	20.940	0.566	T 0.635	T 0.855	T 0.644	TM 0.910

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:05:15	T 777.300	T 211300.000	T 4683.000	3465.000	2955.000	117.7%	M 2461.000	116.800	63.180	10500.000
2	22:05:42	T 766.300	T 212500.000	T 4742.000	3495.000	2954.000	118.4%	M 2481.000	115.700	63.060	10460.000
3	22:06:09	T 777.000	T 214000.000	T 4813.000	3452.000	2981.000	117.1%	M 2489.000	115.700	62.970	10770.000
x		T 773.500	T 212600.000	T 4746.000	3471.000	2964.000	117.8%	M 2477.000	116.100	63.070	10580.000
σ		T 6.303	T 1354.000	T 65.000	21.620	15.580	0.7%	M 14.190	0.613	0.105	165.100
%RSD		T 0.815	T 0.637	T 1.370	0.623	0.526	0.6	M 0.573	0.528	0.167	1.561

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:05:15	T 69980.000	TM 589.400	T 69830.000	T 73420.000	31.340	28.520	34.660	38.690	45.030	75.550
2	22:05:42	T 70120.000	TM 593.300	T 69970.000	T 74030.000	31.310	28.550	34.160	38.650	44.900	76.920
3	22:06:09	T 71000.000	TM 597.800	T 70140.000	T 73980.000	31.500	28.870	33.650	38.670	43.980	75.500
x		T 70370.000	TM 593.500	T 69980.000	T 73810.000	31.380	28.650	34.160	38.670	44.640	75.990
σ		T 552.700	TM 4.220	T 153.400	T 336.000	0.099	0.195	0.504	0.019	0.570	0.807
%RSD		T 0.785	TM 0.711	T 0.219	T 0.455	0.316	0.680	1.475	0.049	1.277	1.062

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:05:15	82.230	80.980	2.707	0.315	11.130	9.647	0.188	0.818	0.006	24.870
2	22:05:42	85.680	80.760	2.836	0.636	10.950	10.800	0.232	0.788	1.154	24.510
3	22:06:09	86.640	80.600	2.847	0.470	9.679	9.260	-0.665	0.470	2.219	24.960
x		84.850	80.780	2.797	0.474	10.590	9.903	-0.081	0.692	1.127	24.780
σ		2.319	0.191	0.078	0.160	0.792	0.802	0.506	0.193	1.107	0.238
%RSD		2.733	0.236	2.785	33.860	7.477	8.103	620.800	27.910	98.250	0.959

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:05:15	157.8%	1.113	1.193	1.241	17.410	0.118	0.044	0.057	0.020	107.0%
2	22:05:42	161.3%	1.112	1.194	1.197	16.990	0.139	0.039	0.039	0.028	109.2%
3	22:06:09	156.7%	1.196	1.264	1.193	18.190	0.119	0.032	0.055	0.059	106.6%
x		158.6%	1.140	1.217	1.211	17.530	0.125	0.039	0.050	0.036	107.6%
σ		2.4%	0.049	0.040	0.027	0.608	0.012	0.006	0.010	0.021	1.4%
%RSD		1.5	4.256	3.322	2.225	3.470	9.529	15.860	19.210	58.030	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:05:15	6.306	6.910	0.085	0.105	235.500	236.400	105.1%	0.356	0.358	17.960
2	22:05:42	6.293	6.947	0.083	0.056	236.300	235.600	107.7%	0.326	0.355	17.640
3	22:06:09	6.193	6.934	0.092	0.080	239.500	239.200	106.5%	0.342	0.341	17.830
x		6.264	6.930	0.086	0.081	237.100	237.100	106.4%	0.341	0.352	17.810
σ		0.062	0.019	0.004	0.025	2.145	1.901	1.3%	0.015	0.009	0.161
%RSD		0.987	0.275	5.198	30.590	0.905	0.802	1.2	4.418	2.598	0.905

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:05:15	15.360	16.390	100.3%
2	22:05:42	15.270	16.280	101.0%
3	22:06:09	15.370	16.420	101.5%
x		15.330	16.360	101.0%
σ		0.051	0.075	0.6%
%RSD		0.336	0.457	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:09	115.5%	0.745	2.262	2.118	-0.506	572.100	T 8494.000	T 8358.000	T 8478.000	TM 71860.000
2	22:11:36	116.8%	0.735	2.199	2.039	-4.999	575.700	T 8336.000	T 8296.000	T 8418.000	TM 71120.000
3	22:12:04	118.5%	0.719	2.234	2.069	-3.837	570.700	T 8385.000	T 8343.000	T 8483.000	TM 71660.000
x		116.9%	0.733	2.232	2.075	-3.114	572.800	T 8405.000	T 8332.000	T 8460.000	TM 71550.000
σ		1.5%	0.013	0.032	0.040	2.332	2.600	T 80.910	T 32.140	T 36.350	TM 383.500
%RSD		1.3	1.763	1.421	1.918	74.900	0.454	T 0.963	T 0.386	T 0.430	TM 0.536

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:09	T 1009.000	T 185000.000	T 1498.000	8948.000	8144.000	118.0%	M 2994.000	T 313.600	154.200	9993.000
2	22:11:36	T 1014.000	T 183700.000	T 1499.000	8921.000	8019.000	120.2%	M 2944.000	T 311.100	152.900	9668.000
3	22:12:04	T 999.800	T 184500.000	T 1506.000	8915.000	8169.000	119.5%	M 2994.000	T 314.200	154.700	10250.000
x		T 1008.000	T 184400.000	T 1501.000	8928.000	8111.000	119.3%	M 2977.000	T 313.000	153.900	9970.000
σ		T 7.395	T 657.500	T 4.489	17.680	80.550	1.1%	M 28.980	T 1.639	0.910	290.900
%RSD		T 0.734	T 0.357	T 0.299	0.198	0.993	0.9	M 0.973	T 0.524	0.591	2.917

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:09	T 97970.000	TM 1670.000	T 96920.000	TM 101100.000	79.900	57.840	65.800	101.900	110.800	77.380
2	22:11:36	T 96560.000	TM 1677.000	T 96460.000	TM 101900.000	79.280	57.520	63.250	101.100	111.100	78.360
3	22:12:04	T 98630.000	TM 1696.000	T 97770.000	TM 102000.000	80.310	57.380	66.770	100.900	111.100	77.540
x		T 97720.000	TM 1681.000	T 97050.000	TM 101700.000	79.830	57.580	65.270	101.300	111.000	77.760
σ		T 1059.000	TM 13.720	T 664.500	TM 458.700	0.518	0.238	1.819	0.529	0.196	0.522
%RSD		T 1.084	TM 0.816	T 0.685	TM 0.451	0.649	0.413	2.787	0.523	0.176	0.671

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:09	92.380	83.910	4.215	1.170	9.262	9.453	3.151	1.437	4.909	54.100
2	22:11:36	91.540	83.320	4.220	1.513	10.050	9.647	2.994	1.480	1.592	53.960
3	22:12:04	94.290	83.570	4.091	0.782	9.942	9.655	3.419	1.636	0.453	54.200
x		92.730	83.600	4.175	1.155	9.752	9.585	3.188	1.518	2.318	54.080
σ		1.411	0.300	0.073	0.366	0.428	0.115	0.215	0.105	2.315	0.122
%RSD		1.521	0.359	1.753	31.660	4.386	1.196	6.747	6.903	99.880	0.225

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:09	140.4%	1.146	1.182	1.212	10.360	0.094	0.039	0.150	0.048	102.1%
2	22:11:36	147.1%	1.178	1.095	1.218	9.939	0.096	0.040	0.126	0.076	106.8%
3	22:12:04	146.4%	1.209	1.187	1.184	9.465	0.077	0.062	0.078	0.121	106.4%
x		144.7%	1.178	1.155	1.205	9.921	0.089	0.047	0.118	0.082	105.1%
σ		3.7%	0.031	0.052	0.018	0.448	0.010	0.013	0.037	0.037	2.6%
%RSD		2.6	2.675	4.472	1.519	4.513	11.690	27.990	31.050	45.480	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:09	5.028	6.490	0.142	0.118	271.600	274.700	101.6%	0.257	0.275	16.970
2	22:11:36	5.157	6.464	0.105	0.109	277.200	273.800	104.6%	0.275	0.288	16.790
3	22:12:04	5.052	6.445	0.116	0.150	276.300	275.800	104.9%	0.301	0.270	16.660
x		5.079	6.466	0.121	0.126	275.000	274.800	103.7%	0.278	0.278	16.810
σ		0.069	0.023	0.019	0.022	3.008	1.000	1.8%	0.022	0.009	0.154
%RSD		1.352	0.350	15.810	17.390	1.094	0.364	1.7	7.984	3.224	0.914

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:11:09	15.000	15.610	97.8%
2	22:11:36	14.810	15.570	99.7%
3	22:12:04	14.950	15.540	100.2%
x		14.920	15.570	99.2%
σ		0.099	0.038	1.2%
%RSD		0.662	0.243	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:17:06	117.8%	0.464	3.532	3.248	36.330	139.300	T 2061.000	1926.000	1963.000	TM 35070.000
2	22:17:33	120.7%	0.503	3.174	3.244	34.330	143.600	T 2058.000	1909.000	1948.000	TM 34490.000
3	22:18:00	119.1%	0.574	2.903	3.296	37.820	144.200	T 2079.000	1936.000	1969.000	TM 34740.000
x		119.2%	0.514	3.203	3.263	36.160	142.400	T 2066.000	1924.000	1960.000	TM 34770.000
σ		1.4%	0.056	0.316	0.029	1.752	2.642	T 11.660	13.420	11.070	TM 290.900
%RSD		1.2	10.800	9.852	0.897	4.845	1.856	T 0.564	0.698	0.565	TM 0.837
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:17:06	T 1085.000	T 192600.000	804.800	4066.000	3675.000	113.5%	M 1322.000	119.100	104.700	9833.000
2	22:17:33	T 1094.000	T 188600.000	805.700	4091.000	3642.000	117.7%	M 1311.000	118.200	103.400	9223.000
3	22:18:00	T 1077.000	T 193100.000	815.400	4056.000	3724.000	115.3%	M 1304.000	119.600	103.600	9260.000
x		T 1085.000	T 191400.000	808.700	4071.000	3680.000	115.5%	M 1312.000	118.900	103.900	9439.000
σ		T 8.501	T 2446.000	5.891	18.130	41.260	2.1%	M 8.753	0.708	0.739	341.800
%RSD		T 0.783	T 1.278	0.729	0.445	1.121	1.8	M 0.667	0.596	0.712	3.621
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:17:06	T 42190.000	TM 1247.000	T 42290.000	T 44710.000	52.250	34.620	38.340	19.110	22.380	40.790
2	22:17:33	T 42350.000	TM 1232.000	T 41910.000	T 44340.000	51.860	33.440	35.220	19.080	22.170	40.630
3	22:18:00	T 42370.000	TM 1241.000	T 42450.000	T 44720.000	51.560	33.610	36.410	19.090	22.480	40.630
x		T 42300.000	TM 1240.000	T 42220.000	T 44590.000	51.890	33.890	36.660	19.090	22.340	40.680
σ		T 99.270	TM 7.881	T 279.500	T 214.200	0.342	0.638	1.574	0.014	0.161	0.089
%RSD		T 0.235	TM 0.636	T 0.662	T 0.480	0.659	1.882	4.294	0.072	0.720	0.220
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:17:06	46.890	45.040	2.240	0.808	7.336	6.665	1.284	1.152	-0.642	25.700
2	22:17:33	49.380	45.200	2.044	0.063	7.997	6.920	2.605	1.495	-0.542	25.780
3	22:18:00	48.350	43.890	2.252	0.438	7.494	6.986	3.160	1.739	-1.769	26.050
x		48.200	44.710	2.179	0.436	7.609	6.857	2.349	1.462	-0.984	25.840
σ		1.251	0.713	0.117	0.372	0.345	0.169	0.964	0.295	0.681	0.183
%RSD		2.594	1.595	5.364	85.390	4.537	2.470	41.030	20.170	69.230	0.708
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:17:06	155.9%	0.621	0.482	0.488	7.980	0.079	0.039	0.056	0.044	106.4%
2	22:17:33	157.5%	0.603	0.542	0.542	6.259	0.060	0.025	0.062	0.051	110.2%
3	22:18:00	155.0%	0.528	0.564	0.593	7.622	0.059	0.031	0.078	0.058	107.3%
x		156.1%	0.584	0.529	0.541	7.287	0.066	0.031	0.065	0.051	108.0%
σ		1.3%	0.049	0.042	0.053	0.908	0.011	0.007	0.011	0.007	2.0%
%RSD		0.8	8.424	7.980	9.739	12.460	16.960	22.090	17.130	14.500	1.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:17:06	4.765	6.057	0.089	0.073	161.400	160.300	107.6%	0.286	0.312	18.900
2	22:17:33	4.511	6.133	0.079	0.098	161.000	159.300	110.1%	0.294	0.296	18.760
3	22:18:00	4.587	6.234	0.106	0.067	162.400	160.900	109.4%	0.285	0.279	18.620
x		4.621	6.141	0.091	0.079	161.600	160.200	109.0%	0.289	0.295	18.760
σ		0.131	0.089	0.013	0.017	0.728	0.833	1.3%	0.005	0.016	0.140
%RSD		2.824	1.445	14.730	21.050	0.450	0.520	1.2	1.639	5.495	0.744
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	22:17:06	16.430	17.390	101.0%							
2	22:17:33	16.320	17.270	105.9%							
3	22:18:00	16.660	17.440	103.0%							
x		16.470	17.370	103.3%							
σ		0.171	0.087	2.5%							
%RSD		1.038	0.501	2.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:23:03	114.3%	1.055	0.937	0.713	-19.830	194.600	T 6410.000	T 6406.000	T 6475.000	TM 91270.000
2	22:23:30	117.7%	0.991	0.847	0.665	-22.990	190.900	T 6371.000	T 6238.000	T 6363.000	TM 90290.000
3	22:23:57	117.9%	1.057	0.773	0.767	-22.130	192.700	T 6419.000	T 6266.000	T 6438.000	TM 90910.000
x		116.7%	1.035	0.853	0.715	-21.650	192.700	T 6400.000	T 6303.000	T 6425.000	TM 90820.000
σ		2.0%	0.038	0.082	0.051	1.635	1.828	T 25.330	T 89.760	T 56.640	TM 496.400
%RSD		1.7	3.644	9.640	7.172	7.554	0.949	T 0.396	T 1.424	T 0.882	TM 0.547

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:23:03	T 811.300	T 197500.000	T 2247.000	3166.000	2621.000	113.2%	M 3342.000	256.200	178.200	10450.000
2	22:23:30	T 806.200	T 195000.000	T 2229.000	3053.000	2599.000	118.0%	M 3338.000	254.500	173.600	10190.000
3	22:23:57	T 812.900	T 197400.000	T 2258.000	3146.000	2612.000	117.8%	TM 3604.000	254.000	174.500	10240.000
x		T 810.100	T 196600.000	T 2244.000	3122.000	2611.000	116.3%	TM 3428.000	254.900	175.400	10300.000
σ		T 3.505	T 1406.000	T 14.340	60.350	10.910	2.7%	TM 152.300	1.154	2.436	136.300
%RSD		T 0.433	T 0.715	T 0.639	1.933	0.418	2.3	TM 4.443	0.453	1.389	1.323

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:23:03	TM 106600.000	TM 1428.000	TM 105400.000	TM 109800.000	92.620	148.400	149.300	77.530	85.930	85.020
2	22:23:30	TM 105300.000	TM 1405.000	TM 104900.000	TM 109200.000	91.930	147.900	151.400	76.600	84.370	86.610
3	22:23:57	TM 105500.000	TM 1411.000	TM 105200.000	TM 109000.000	91.630	147.300	151.000	75.400	84.290	83.760
x		TM 105800.000	TM 1415.000	TM 105200.000	TM 109300.000	92.060	147.900	150.500	76.510	84.860	85.130
σ		TM 711.500	TM 11.780	TM 262.500	TM 384.100	0.509	0.561	1.110	1.067	0.926	1.427
%RSD		TM 0.672	TM 0.833	TM 0.250	TM 0.351	0.553	0.379	0.738	1.395	1.091	1.676

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:23:03	105.100	92.590	5.068	0.807	9.039	8.845	4.032	1.515	5.947	30.170
2	22:23:30	102.300	92.430	5.037	0.973	9.766	8.546	6.840	2.509	2.748	30.090
3	22:23:57	101.300	92.940	5.270	0.953	9.360	8.370	6.014	2.265	1.302	30.100
x		102.900	92.660	5.125	0.911	9.388	8.587	5.629	2.096	3.332	30.120
σ		1.955	0.258	0.127	0.091	0.364	0.240	1.443	0.518	2.377	0.046
%RSD		1.900	0.279	2.469	9.956	3.878	2.794	25.630	24.720	71.340	0.154

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:23:03	136.9%	1.443	1.406	1.414	17.150	0.124	0.037	0.097	0.038	103.7%
2	22:23:30	141.2%	1.348	1.349	1.411	17.410	0.127	0.041	0.116	0.068	105.0%
3	22:23:57	140.7%	1.358	1.368	1.399	16.680	0.112	0.036	0.069	0.084	105.8%
x		139.6%	1.383	1.374	1.408	17.080	0.121	0.038	0.094	0.064	104.9%
σ		2.4%	0.053	0.029	0.008	0.370	0.008	0.003	0.024	0.023	1.1%
%RSD		1.7	3.799	2.088	0.569	2.169	6.694	7.591	25.040	36.260	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:23:03	6.036	7.551	0.123	0.112	347.400	349.200	101.3%	0.512	0.523	26.420
2	22:23:30	5.952	7.172	0.139	0.138	352.400	352.500	102.6%	0.530	0.547	25.880
3	22:23:57	6.023	7.247	0.145	0.137	356.300	353.700	103.3%	0.517	0.540	25.820
x		6.003	7.323	0.135	0.129	352.000	351.800	102.4%	0.520	0.537	26.040
σ		0.045	0.201	0.011	0.015	4.455	2.302	1.0%	0.009	0.012	0.331
%RSD		0.752	2.739	8.382	11.560	1.266	0.654	1.0	1.753	2.239	1.269

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:23:03	23.040	24.220	98.1%
2	22:23:30	22.570	23.920	101.6%
3	22:23:57	22.770	24.070	102.1%
x		22.790	24.070	100.6%
σ		0.237	0.152	2.2%
%RSD		1.039	0.630	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:00	112.4%	0.996	1.798	1.729	-55.720	277.300	T 13300.000	T 13450.000	T 13750.000	TM 138800.000
2	22:29:27	114.8%	1.113	1.711	1.756	-56.500	281.200	T 13340.000	T 13540.000	T 13750.000	TM 138900.000
3	22:29:54	116.6%	1.103	1.566	1.745	-56.730	276.900	T 13220.000	T 13300.000	T 13630.000	TM 138100.000
x		114.6%	1.071	1.691	1.744	-56.310	278.500	T 13290.000	T 13430.000	T 13710.000	TM 138600.000
σ		2.1%	0.065	0.117	0.014	0.528	2.366	T 57.340	T 122.000	T 69.890	TM 443.000
%RSD		1.8	6.059	6.926	0.798	0.938	0.850	T 0.432	T 0.909	T 0.510	TM 0.320
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:00	T 936.700	T 186700.000	T 3124.000	5682.000	4821.000	115.6%	TM 5184.000	TM 519.300	262.300	10220.000
2	22:29:27	T 945.300	T 187000.000	T 3124.000	5832.000	4805.000	116.5%	TM 5179.000	TM 519.100	259.200	9594.000
3	22:29:54	T 929.900	T 185900.000	T 3102.000	5778.000	4856.000	119.4%	TM 5175.000	TM 516.100	260.200	9336.000
x		T 937.300	T 186600.000	T 3116.000	5764.000	4827.000	117.2%	TM 5179.000	TM 518.200	260.600	9717.000
σ		T 7.728	T 569.200	T 12.580	76.040	25.680	2.0%	TM 4.705	TM 1.762	1.604	453.700
%RSD		T 0.825	T 0.305	T 0.404	1.319	0.532	1.7	TM 0.091	TM 0.340	0.616	4.669
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:00	TM 177200.000	TM 3056.000	TM 173200.000	TM 187900.000	124.000	105.400	112.900	216.600	243.100	207.300
2	22:29:27	TM 176700.000	TM 3051.000	TM 173900.000	TM 188300.000	123.300	103.500	110.600	212.400	241.000	204.000
3	22:29:54	TM 175500.000	TM 3045.000	TM 172600.000	TM 185000.000	122.000	104.700	115.500	214.000	240.700	201.500
x		TM 176500.000	TM 3051.000	TM 173200.000	TM 187100.000	123.100	104.500	113.000	214.300	241.600	204.200
σ		TM 879.700	TM 5.377	TM 684.000	TM 1782.000	1.031	0.938	2.425	2.119	1.286	2.926
%RSD		TM 0.499	TM 0.176	TM 0.395	TM 0.953	0.838	0.898	2.145	0.989	0.532	1.432
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:00	227.600	213.100	5.904	1.529	8.043	8.452	5.476	2.475	5.434	43.810
2	22:29:27	224.000	213.000	6.456	1.343	9.028	7.566	5.027	2.361	5.214	43.700
3	22:29:54	226.100	212.600	5.990	1.365	9.173	8.707	8.459	3.427	5.802	44.690
x		225.900	212.900	6.116	1.412	8.748	8.242	6.321	2.754	5.483	44.070
σ		1.793	0.297	0.297	0.102	0.615	0.599	1.866	0.585	0.297	0.545
%RSD		0.794	0.140	4.856	7.185	7.027	7.267	29.510	21.240	5.414	1.238
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:00	155.0%	1.630	1.595	1.590	11.700	0.094	0.039	0.059	0.033	101.4%
2	22:29:27	157.6%	1.546	1.573	1.627	10.700	0.079	0.047	0.088	0.039	102.3%
3	22:29:54	157.9%	1.573	1.681	1.622	9.603	0.095	0.060	0.075	0.069	103.8%
x		156.9%	1.583	1.616	1.613	10.670	0.089	0.049	0.074	0.047	102.5%
σ		1.6%	0.043	0.057	0.020	1.047	0.009	0.011	0.014	0.020	1.3%
%RSD		1.0	2.709	3.538	1.249	9.819	9.862	22.460	19.550	41.770	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:00	6.612	8.033	0.199	0.200	M 563.400	M 566.800	96.1%	0.652	0.685	31.470
2	22:29:27	6.427	7.939	0.157	0.168	M 568.100	M 565.000	98.5%	0.675	0.650	31.130
3	22:29:54	6.504	8.044	0.184	0.176	M 565.000	M 565.800	98.5%	0.671	0.693	30.710
x		6.515	8.006	0.180	0.182	M 565.500	M 565.900	97.7%	0.666	0.676	31.100
σ		0.093	0.058	0.022	0.017	M 2.408	M 0.865	1.4%	0.012	0.022	0.381
%RSD		1.422	0.722	12.000	9.254	M 0.426	M 0.153	1.4	1.840	3.322	1.226
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	22:29:00	27.080	28.740	96.3%							
2	22:29:27	27.470	28.810	98.0%							
3	22:29:54	27.910	28.860	98.7%							
x		27.490	28.800	97.7%							
σ		0.414	0.063	1.3%							
%RSD		1.507	0.217	1.3							

CCV MW11050 05/08/2019 22:34:31 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:58	85.4%	293.200	288.800	291.000	39.790	┬64110.000	┬61060.000	┬61030.000	┬61020.000	295.300
2	22:35:25	86.0%	299.000	289.500	289.800	23.770	┬65970.000	┬61250.000	┬60540.000	┬60490.000	290.800
3	22:35:52	86.7%	307.000	313.400	299.900	37.090	┬66430.000	┬62890.000	┬61990.000	┬61420.000	297.200
x		86.0%	99.906%	99.076%	97.858%	33.550	┬109.168%	┬61730.000	┬61190.000	┬101.632%	98.145%
σ		0.6%	n/a	n/a	n/a	8.578	┬n/a	┬1005.000	┬736.700	┬n/a	n/a
%RSD		0.7	2.319	4.702	1.882	25.570	┬1.877	┬1.627	┬1.204	┬0.769	1.127

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:58	┬3134.000	2171.000	┬65510.000	61050.000	┬62880.000	84.1%	300.000	304.900	293.100	1489.000
2	22:35:25	┬3167.000	2118.000	┬65890.000	60770.000	┬62970.000	87.1%	301.200	300.200	294.200	1100.000
3	22:35:52	┬3179.000	2129.000	┬66380.000	61480.000	┬63690.000	88.3%	298.000	307.800	295.700	647.800
x		┬105.344%	2139.000	┬109.877%	61100.000	┬105.297%	86.5%	99.917%	101.426%	98.110%	1079.000
σ		┬n/a	27.810	┬n/a	353.700	┬n/a	2.2%	n/a	n/a	n/a	420.800
%RSD		┬0.736	1.300	┬0.667	0.579	┬0.697	2.5	0.553	1.262	0.441	39.010

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:58	┬62090.000	290.800	┬62840.000	┬62670.000	290.600	287.500	286.100	279.500	281.300	275.700
2	22:35:25	┬62900.000	289.900	┬62750.000	┬61750.000	287.400	285.600	289.300	277.400	276.300	272.000
3	22:35:52	┬62570.000	289.900	┬62920.000	┬62190.000	288.400	283.900	290.800	276.500	276.300	272.100
x		┬62520.000	96.734%	┬62840.000	┬103.671%	96.275%	95.222%	288.700	277.800	92.652%	91.092%
σ		┬405.100	n/a	┬83.320	┬n/a	n/a	n/a	2.411	1.547	n/a	n/a
%RSD		┬0.648	0.171	┬0.133	┬0.740	0.560	0.632	0.835	0.557	1.044	0.777

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:58	278.800	278.700	294.000	287.800	1.366	1.324	1299.000	295.700	-0.412	294.800
2	22:35:25	276.700	276.100	288.400	281.500	2.045	1.715	1276.000	291.700	-1.436	296.800
3	22:35:52	276.100	275.300	290.800	282.700	1.548	1.566	1264.000	287.600	1.509	295.100
x		277.200	276.700	97.021%	284.000	1.653	1.535	1280.000	97.226%	-0.113	98.516%
σ		1.379	1.792	n/a	3.367	0.351	0.197	17.530	n/a	1.495	n/a
%RSD		0.498	0.648	0.972	1.185	21.250	12.840	1.370	1.397	1322.000	0.374

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:58	87.1%	305.200	304.500	306.100	297.300	295.900	282.700	291.900	291.500	86.0%
2	22:35:25	87.2%	303.100	306.000	304.200	292.300	295.500	284.800	291.400	290.000	86.3%
3	22:35:52	88.6%	302.400	305.800	306.800	290.000	293.000	284.000	293.300	290.600	88.0%
x		87.6%	101.197%	101.806%	305.700	293.200	98.264%	283.800	292.200	96.895%	86.8%
σ		0.8%	n/a	n/a	1.336	3.720	n/a	1.047	0.999	n/a	1.1%
%RSD		0.9	0.480	0.256	0.437	1.269	0.540	0.369	0.342	0.259	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:58	299.900	300.500	296.300	296.600	300.300	299.400	88.2%	289.700	┬298.800	305.000
2	22:35:25	302.700	302.300	298.100	299.700	303.800	304.600	90.2%	289.600	┬299.200	┬286.500
3	22:35:52	299.300	300.000	298.900	300.700	302.000	304.400	91.0%	287.700	┬301.000	┬282.800
x		100.213%	100.318%	297.800	99.666%	100.679%	100.933%	89.8%	289.000	┬99.895%	┬97.147%
σ		n/a	n/a	1.341	n/a	n/a	n/a	1.5%	1.150	┬n/a	┬n/a
%RSD		0.601	0.405	0.450	0.720	0.584	0.959	1.6	0.398	┬0.399	┬4.082

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:34:58	301.300	303.200	85.8%
2	22:35:25	304.000	300.800	87.2%
3	22:35:52	299.400	297.900	87.9%
x		100.529%	100.213%	87.0%
σ		n/a	n/a	1.1%
%RSD		0.760	0.882	1.2

CCB IM9409-01 05/08/2019 22:40:30 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:56	95.7%	-0.021	0.830	0.448	20.160	-16.080	0.138	0.200	0.135	0.367
2	22:41:23	96.2%	-0.018	0.572	0.385	21.690	-16.790	0.059	0.032	-0.011	0.196
3	22:41:51	98.1%	-0.038	0.493	0.341	18.090	-17.520	-0.002	0.055	0.097	0.133
x		96.7%	-0.026	0.632	0.391	19.980	-16.800	0.065	0.095	0.074	0.232
σ		1.3%	0.011	0.177	0.054	1.804	0.722	0.071	0.091	0.076	0.121
%RSD		1.3	41.670	27.980	13.750	9.028	4.297	108.600	95.350	102.400	52.200

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:56	10.100	1206.000	6.830	0.555	-0.107	94.4%	0.046	0.005	0.037	109.100
2	22:41:23	10.890	1212.000	0.991	-0.548	-0.081	95.2%	0.025	0.015	0.020	90.510
3	22:41:51	10.340	1206.000	-2.799	-1.656	-0.176	97.5%	0.014	-0.003	0.026	103.600
x		10.440	1208.000	1.674	-0.549	-0.121	95.7%	0.028	0.005	0.028	101.100
σ		0.404	3.203	4.851	1.105	0.049	1.6%	0.016	0.009	0.009	9.560
%RSD		3.868	0.265	289.800	201.200	40.450	1.7	57.880	165.300	31.330	9.459

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:56	1.376	-0.009	4.560	-1.935	-0.028	-0.001	0.319	-0.023	0.011	0.010
2	22:41:23	0.716	-0.009	2.409	-0.076	-0.025	-0.006	0.616	-0.025	-0.016	0.112
3	22:41:51	0.336	-0.017	3.137	-6.403	-0.032	0.006	0.312	-0.001	0.001	-0.044
x		0.809	-0.012	3.368	-2.805	-0.028	-0.000	0.415	-0.016	-0.001	0.026
σ		0.526	0.005	1.094	3.252	0.004	0.006	0.174	0.013	0.013	0.079
%RSD		65.000	41.010	32.480	115.900	13.300	2066.000	41.810	79.750	1064.000	305.500

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:56	0.094	-0.022	-0.131	0.277	0.648	1.710	-3.023	-0.645	-1.877	0.001
2	22:41:23	0.091	0.083	-0.070	0.080	1.156	0.572	-0.863	-0.206	-0.091	-0.001
3	22:41:51	-0.064	-0.026	-0.101	0.249	0.565	1.502	-2.116	-0.503	0.751	0.001
x		0.040	0.012	-0.101	0.202	0.790	1.262	-2.001	-0.451	-0.406	0.000
σ		0.090	0.062	0.030	0.107	0.320	0.606	1.085	0.224	1.342	0.001
%RSD		223.700	532.000	30.010	52.820	40.540	48.020	54.220	49.620	330.800	244.700

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:56	94.8%	0.029	0.034	0.045	0.763	0.005	0.005	0.009	-0.000	94.9%
2	22:41:23	94.7%	0.020	0.045	0.045	0.701	0.008	0.003	-0.001	0.003	95.5%
3	22:41:51	96.9%	-0.006	0.025	0.009	1.105	0.008	0.003	-0.004	0.000	97.4%
x		95.5%	0.014	0.035	0.033	0.856	0.007	0.004	0.001	0.001	95.9%
σ		1.2%	0.018	0.010	0.021	0.217	0.002	0.001	0.007	0.002	1.3%
%RSD		1.3	126.500	28.570	63.940	25.370	23.550	31.680	580.500	197.200	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:56	0.035	0.038	0.156	0.154	0.008	0.003	93.9%	-0.021	-0.024	-0.011
2	22:41:23	0.032	0.054	0.157	0.162	0.003	-0.003	94.6%	-0.025	-0.027	-0.017
3	22:41:51	0.044	0.058	0.128	0.122	-0.002	0.003	96.3%	-0.023	-0.026	-0.009
x		0.037	0.050	0.147	0.146	0.003	0.001	94.9%	-0.023	-0.026	-0.012
σ		0.006	0.011	0.016	0.021	0.005	0.003	1.2%	0.002	0.001	0.005
%RSD		17.440	21.460	11.140	14.340	146.300	310.200	1.3	10.620	5.687	36.440

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:40:56	0.012	0.001	94.7%
2	22:41:23	0.000	-0.004	95.8%
3	22:41:51	0.003	-0.001	96.6%
x		0.005	-0.001	95.7%
σ		0.006	0.002	0.9%
%RSD		111.500	171.500	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:55	112.7%	0.579	1.310	1.182	-33.290	T 1063.000	T 14960.000	T 15070.000	T 15480.000	TM 76300.000
2	22:47:22	114.2%	0.660	1.285	1.265	-30.050	T 1060.000	T 14930.000	T 15130.000	T 15400.000	TM 76190.000
3	22:47:49	114.8%	0.647	1.380	1.304	-34.740	T 1081.000	T 15140.000	T 15180.000	T 15510.000	TM 75800.000
x		113.9%	0.628	1.325	1.251	-32.700	T 1068.000	T 15010.000	T 15130.000	T 15460.000	TM 76100.000
σ		1.1%	0.043	0.049	0.062	2.402	T 11.260	T 115.400	T 51.050	T 61.320	TM 261.300
%RSD		0.9	6.898	3.717	4.987	7.348	T 1.055	T 0.768	T 0.338	T 0.397	TM 0.343

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:55	T 938.400	T 187700.000	T 1986.000	12810.000	11840.000	120.2%	M 3599.000	T 380.200	206.500	10570.000
2	22:47:22	T 883.600	T 190400.000	T 2007.000	12730.000	11880.000	120.1%	M 3555.000	T 385.100	208.500	10580.000
3	22:47:49	T 868.300	T 188800.000	T 1991.000	12680.000	11780.000	121.2%	M 3534.000	T 378.000	205.800	10580.000
x		T 896.800	T 189000.000	T 1995.000	12740.000	11830.000	120.5%	M 3563.000	T 381.100	206.900	10570.000
σ		T 36.840	T 1321.000	T 11.000	65.060	52.760	0.6%	M 33.170	T 3.620	1.422	8.530
%RSD		T 4.108	T 0.699	T 0.551	0.511	0.446	0.5	M 0.931	T 0.950	0.687	0.081

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:55	TM 119100.000	TM 2674.000	TM 117600.000	TM 120900.000	104.900	88.480	96.890	191.700	203.500	113.500
2	22:47:22	TM 120300.000	TM 2698.000	TM 118300.000	TM 125000.000	107.700	89.910	99.530	191.600	204.400	114.800
3	22:47:49	TM 118700.000	TM 2664.000	TM 116700.000	TM 121500.000	105.300	87.250	95.950	189.400	202.300	113.800
x		TM 119400.000	TM 2679.000	TM 117600.000	TM 122500.000	106.000	88.550	97.460	190.900	203.400	114.000
σ		TM 845.900	TM 17.550	TM 803.500	TM 2230.000	1.507	1.327	1.856	1.319	1.084	0.656
%RSD		TM 0.709	TM 0.655	TM 0.684	TM 1.821	1.422	1.499	1.905	0.691	0.533	0.575

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:55	130.900	119.100	2.576	0.899	13.890	12.610	2.014	1.127	3.837	71.870
2	22:47:22	132.700	120.200	3.118	0.735	14.020	13.630	4.998	2.019	4.140	71.950
3	22:47:49	130.600	119.600	3.218	0.929	13.400	12.550	3.960	1.691	2.750	71.200
x		131.400	119.600	2.971	0.854	13.770	12.930	3.657	1.612	3.576	71.670
σ		1.157	0.556	0.345	0.104	0.328	0.607	1.515	0.451	0.731	0.410
%RSD		0.880	0.465	11.620	12.210	2.383	4.693	41.410	27.980	20.440	0.572

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:55	136.2%	1.126	1.247	1.179	8.942	0.094	0.061	0.102	0.072	99.8%
2	22:47:22	140.3%	1.151	1.229	1.199	9.130	0.100	0.067	0.097	0.102	102.1%
3	22:47:49	140.4%	1.200	1.208	1.269	10.130	0.100	0.060	0.097	0.106	104.1%
x		139.0%	1.159	1.228	1.216	9.400	0.098	0.063	0.099	0.093	102.0%
σ		2.4%	0.038	0.019	0.047	0.638	0.003	0.003	0.003	0.019	2.2%
%RSD		1.7	3.244	1.575	3.898	6.785	3.511	5.557	3.173	20.220	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:55	5.031	6.553	0.342	0.338	335.300	331.500	99.8%	0.262	0.281	11.740
2	22:47:22	5.012	6.311	0.315	0.298	333.900	330.600	102.8%	0.276	0.270	11.910
3	22:47:49	5.073	6.388	0.248	0.319	336.500	331.000	102.6%	0.296	0.276	11.910
x		5.039	6.417	0.302	0.318	335.200	331.000	101.7%	0.278	0.276	11.850
σ		0.031	0.124	0.048	0.020	1.279	0.478	1.7%	0.017	0.006	0.099
%RSD		0.620	1.930	16.040	6.266	0.381	0.145	1.6	6.119	2.036	0.834

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:46:55	10.740	11.030	96.8%
2	22:47:22	10.310	10.960	98.6%
3	22:47:49	10.340	11.010	98.4%
x		10.460	11.000	97.9%
σ		0.242	0.037	1.0%
%RSD		2.313	0.337	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:52	114.6%	0.812	2.496	2.232	14.240	412.700	T 4845.000	T 4774.000	T 4917.000	TM 30610.000
2	22:53:19	115.7%	0.736	2.019	2.147	12.380	414.100	T 4840.000	T 4823.000	T 4884.000	TM 30210.000
3	22:53:46	117.3%	0.746	2.382	2.022	9.360	416.200	T 4820.000	T 4754.000	T 4899.000	TM 30400.000
x		115.9%	0.765	2.299	2.134	11.990	414.400	T 4835.000	T 4784.000	T 4900.000	TM 30410.000
σ		1.3%	0.041	0.249	0.106	2.462	1.752	T 13.240	T 35.270	T 16.670	TM 199.200
%RSD		1.2	5.408	10.840	4.966	20.530	0.423	T 0.274	T 0.737	T 0.340	TM 0.655

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:52	T 1122.000	T 180600.000	T 1484.000	6048.000	5602.000	110.8%	M 1823.000	276.500	125.600	10130.000
2	22:53:19	T 1104.000	T 182000.000	T 1491.000	6028.000	5631.000	110.3%	M 1802.000	T 284.500	123.700	9805.000
3	22:53:46	T 1113.000	T 181900.000	T 1506.000	6064.000	5615.000	112.4%	M 1794.000	T 284.100	125.300	9895.000
x		T 1113.000	T 181500.000	T 1494.000	6047.000	5616.000	111.1%	M 1806.000	T 281.700	124.900	9944.000
σ		T 8.714	T 789.800	T 11.560	17.800	14.420	1.1%	M 14.700	T 4.529	1.030	169.000
%RSD		T 0.783	T 0.435	T 0.774	0.294	0.257	1.0	M 0.814	T 1.608	0.825	1.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:52	T 50490.000	TM 991.700	T 50530.000	T 52120.000	66.910	50.690	54.180	77.280	86.470	72.420
2	22:53:19	T 51170.000	TM 1012.000	T 50980.000	T 53110.000	67.560	52.020	55.350	78.240	89.260	73.510
3	22:53:46	T 50380.000	TM 998.100	T 50710.000	T 52280.000	67.370	51.920	55.380	78.050	86.280	73.030
x		T 50680.000	TM 1000.000	T 50740.000	T 52500.000	67.280	51.540	54.970	77.860	87.330	72.990
σ		T 425.700	TM 10.140	T 226.000	T 530.500	0.338	0.741	0.688	0.511	1.669	0.548
%RSD		T 0.840	TM 1.013	T 0.446	T 1.010	0.502	1.438	1.251	0.657	1.912	0.750

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:52	86.300	78.120	23.170	33.050	7.901	8.288	126.800	37.710	2.637	40.250
2	22:53:19	87.000	79.670	23.320	33.680	8.131	7.927	128.000	37.990	-0.296	40.700
3	22:53:46	87.360	78.750	23.070	33.940	7.952	7.322	128.400	37.870	-0.401	40.280
x		86.890	78.850	23.190	33.560	7.995	7.846	127.700	37.860	0.647	40.410
σ		0.540	0.781	0.126	0.461	0.121	0.488	0.852	0.142	1.725	0.251
%RSD		0.622	0.990	0.543	1.373	1.508	6.219	0.667	0.375	266.700	0.622

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:52	139.2%	17.680	18.630	18.500	8.829	0.102	0.075	0.512	0.504	103.0%
2	22:53:19	142.3%	17.920	18.560	18.500	7.890	0.094	0.068	0.522	0.489	105.2%
3	22:53:46	141.4%	18.110	18.380	18.720	8.277	0.103	0.088	0.567	0.488	105.7%
x		141.0%	17.900	18.520	18.570	8.332	0.100	0.077	0.534	0.494	104.6%
σ		1.6%	0.213	0.132	0.127	0.472	0.005	0.010	0.029	0.009	1.4%
%RSD		1.2	1.187	0.712	0.684	5.663	4.853	13.450	5.524	1.786	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:52	5.242	6.678	1.344	1.387	243.300	242.200	103.4%	2.293	2.320	23.480
2	22:53:19	5.220	6.755	1.406	1.300	244.100	244.100	105.3%	2.231	2.211	23.230
3	22:53:46	5.079	6.770	1.374	1.393	244.600	243.500	106.8%	2.204	2.210	23.310
x		5.180	6.735	1.375	1.360	244.000	243.300	105.2%	2.243	2.247	23.340
σ		0.088	0.049	0.031	0.052	0.621	0.973	1.7%	0.046	0.063	0.127
%RSD		1.703	0.733	2.247	3.825	0.254	0.400	1.6	2.032	2.802	0.544

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:52:52	20.700	21.830	100.8%
2	22:53:19	20.460	21.560	102.1%
3	22:53:46	20.650	21.640	103.7%
x		20.600	21.680	102.2%
σ		0.125	0.142	1.5%
%RSD		0.606	0.654	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:50	111.5%	56.530	61.950	62.340	-14.190	T 4433.000	T 10620.000	T 10670.000	T 10960.000	TM 52150.000
2	22:59:16	113.5%	56.440	61.640	62.450	-15.430	T 4395.000	T 10620.000	T 10670.000	T 11020.000	TM 52620.000
3	22:59:44	114.1%	57.180	60.450	62.310	-16.900	T 4489.000	T 10550.000	T 10640.000	T 10950.000	TM 51750.000
x		113.0%	56.720	61.350	62.370	-15.510	T 4439.000	T 10600.000	T 10660.000	T 10980.000	TM 52180.000
σ		1.3%	0.399	0.794	0.077	1.356	T 46.900	T 39.200	T 18.020	T 36.390	TM 435.100
%RSD		1.2	0.704	1.295	0.123	8.741	T 1.057	T 0.370	T 0.169	T 0.332	TM 0.834
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:50	T 3023.000	T 191500.000	T 5199.000	26630.000	T 27760.000	114.7%	TM 3187.000	TM 627.900	T 389.100	8668.000
2	22:59:16	T 2993.000	T 190700.000	T 5186.000	26310.000	T 27550.000	113.5%	M 2895.000	TM 633.600	T 385.700	8388.000
3	22:59:44	T 2978.000	T 189200.000	T 5138.000	26340.000	T 27360.000	116.6%	M 2910.000	TM 621.300	T 382.200	9080.000
x		T 2998.000	T 190400.000	T 5174.000	26430.000	T 27560.000	114.9%	TM 2997.000	TM 627.600	T 385.700	8712.000
σ		T 22.840	T 1166.000	T 32.010	177.500	T 196.000	1.6%	TM 164.300	TM 6.167	T 3.462	348.400
%RSD		T 0.762	T 0.612	T 0.619	0.671	T 0.711	1.4	TM 5.483	TM 0.983	T 0.898	3.999
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:50	T 75800.000	TM 1452.000	T 74620.000	T 80220.000	233.300	236.000	218.000	227.500	264.300	252.800
2	22:59:16	T 74700.000	TM 1450.000	T 73810.000	T 80180.000	233.900	233.400	215.100	225.200	264.300	258.600
3	22:59:44	T 75180.000	TM 1438.000	T 73700.000	T 80170.000	229.800	230.400	214.400	226.200	264.100	255.400
x		T 75220.000	TM 1447.000	T 74040.000	T 80190.000	232.300	233.300	215.800	226.300	264.200	255.600
σ		T 551.400	TM 7.118	T 502.800	T 29.930	2.200	2.775	1.930	1.169	0.115	2.943
%RSD		T 0.733	TM 0.492	T 0.679	T 0.037	0.947	1.190	0.894	0.517	0.043	1.152
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:50	276.000	263.500	196.100	193.300	9.682	8.381	644.300	231.500	-1.178	T 240.200
2	22:59:16	271.600	262.900	192.300	195.600	9.063	9.682	628.500	221.700	1.091	T 237.800
3	22:59:44	271.400	262.600	194.000	195.200	10.180	9.275	638.400	228.400	-0.713	T 238.200
x		273.000	263.000	194.100	194.700	9.641	9.113	637.100	227.200	-0.267	T 238.700
σ		2.605	0.470	1.898	1.255	0.558	0.665	7.992	5.000	1.198	T 1.296
%RSD		0.954	0.179	0.978	0.645	5.788	7.302	1.254	2.200	449.200	T 0.543
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:50	171.1%	150.900	158.200	161.700	180.800	195.100	189.300	188.500	188.700	100.4%
2	22:59:16	172.7%	149.900	158.500	164.000	184.800	196.500	188.100	189.800	189.500	102.7%
3	22:59:44	174.7%	150.300	158.100	160.400	178.500	195.200	187.800	189.800	186.600	102.8%
x		172.8%	150.400	158.300	162.000	181.400	195.600	188.400	189.300	188.300	102.0%
σ		1.8%	0.525	0.189	1.802	3.198	0.802	0.810	0.728	1.471	1.4%
%RSD		1.0	0.349	0.119	1.112	1.763	0.410	0.430	0.385	0.782	1.3
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:50	193.200	193.100	126.300	127.200	M 547.700	M 551.500	102.7%	189.500	196.300	237.600
2	22:59:16	193.800	194.000	126.600	126.700	M 553.200	M 549.300	105.3%	189.500	194.100	236.100
3	22:59:44	192.900	194.300	124.600	126.200	M 550.400	M 549.500	104.7%	189.100	195.700	236.500
x		193.300	193.800	125.800	126.700	M 550.400	M 550.100	104.2%	189.400	195.400	236.700
σ		0.467	0.609	1.104	0.452	M 2.767	M 1.196	1.4%	0.206	1.167	0.778
%RSD		0.241	0.314	0.878	0.357	M 0.503	M 0.217	1.3	0.109	0.597	0.329
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	22:58:50	224.000	229.500	98.8%							
2	22:59:16	221.400	227.700	101.4%							
3	22:59:44	220.900	227.800	101.2%							
x		222.100	228.400	100.5%							
σ		1.635	1.015	1.5%							
%RSD		0.736	0.444	1.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:45	112.3%	71.310	74.630	77.180	73.630	T 5113.000	T 11450.000	T 11390.000	T 11660.000	TM 49280.000
2	23:05:12	113.7%	70.130	77.210	75.550	72.610	T 5005.000	T 11380.000	T 11370.000	T 11550.000	TM 48670.000
3	23:05:39	115.3%	70.500	76.740	77.160	71.000	T 5123.000	T 11330.000	T 11410.000	T 11610.000	TM 48650.000
x		113.7%	70.650	76.190	76.630	72.410	T 5080.000	T 11390.000	T 11390.000	T 11610.000	TM 48870.000
σ		1.5%	0.602	1.374	0.937	1.325	T 65.340	T 62.360	T 21.950	T 51.870	TM 359.400
%RSD		1.3	0.853	1.804	1.222	1.830	T 1.286	T 0.548	T 0.193	T 0.447	TM 0.735
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:45	T 3469.000	T 200700.000	T 5447.000	28180.000	T 28690.000	114.4%	M 2770.000	TM 515.600	338.200	10930.000
2	23:05:12	T 3314.000	T 201000.000	T 5394.000	28010.000	T 28690.000	112.1%	M 2749.000	TM 513.100	T 338.900	11710.000
3	23:05:39	T 3331.000	T 201400.000	T 5473.000	27950.000	T 28650.000	114.6%	M 2713.000	T 498.100	332.800	11560.000
x		T 3371.000	T 201100.000	T 5438.000	28040.000	T 28680.000	113.7%	M 2744.000	TM 508.900	T 336.600	11400.000
σ		T 84.680	T 343.400	T 40.260	120.700	T 21.320	1.4%	M 28.820	TM 9.443	T 3.338	416.700
%RSD		T 2.512	T 0.171	T 0.740	0.430	T 0.074	1.2	M 1.050	TM 1.855	T 0.992	3.655
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:45	T 72110.000	TM 1847.000	T 71750.000	T 77260.000	241.000	224.100	209.300	215.700	247.900	239.500
2	23:05:12	T 72910.000	TM 1853.000	T 71750.000	T 76860.000	239.800	224.400	211.900	215.400	249.600	245.500
3	23:05:39	T 71440.000	TM 1827.000	T 70470.000	T 75870.000	234.600	222.000	204.400	208.900	244.200	240.200
x		T 72150.000	TM 1842.000	T 71320.000	T 76660.000	238.500	223.500	208.500	213.300	247.300	241.700
σ		T 736.400	TM 13.640	T 735.900	T 719.500	3.437	1.286	3.823	3.848	2.751	3.306
%RSD		T 1.021	TM 0.740	T 1.032	T 0.939	1.441	0.575	1.833	1.804	1.113	1.367
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:45	259.000	252.200	192.600	179.800	10.800	9.647	598.000	204.000	1.828	T 249.500
2	23:05:12	263.500	255.400	194.600	182.900	10.560	9.432	611.400	206.400	0.178	T 250.100
3	23:05:39	256.600	250.900	192.100	182.200	11.110	9.413	614.600	212.000	1.264	T 249.500
x		259.700	252.800	193.100	181.600	10.820	9.497	608.000	207.400	1.090	T 249.700
σ		3.498	2.334	1.332	1.668	0.280	0.130	8.805	4.131	0.839	T 0.330
%RSD		1.347	0.923	0.690	0.918	2.589	1.370	1.448	1.992	76.940	T 0.132
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:45	168.3%	153.400	159.700	161.800	184.700	201.900	192.900	193.600	191.800	104.3%
2	23:05:12	165.3%	152.400	159.900	162.000	187.200	198.800	193.600	193.000	192.300	103.5%
3	23:05:39	168.8%	151.400	159.100	163.500	188.200	201.900	194.400	195.000	193.400	103.4%
x		167.5%	152.400	159.500	162.400	186.700	200.900	193.600	193.900	192.500	103.7%
σ		1.9%	1.029	0.394	0.963	1.797	1.807	0.776	1.061	0.851	0.5%
%RSD		1.1	0.675	0.247	0.593	0.963	0.899	0.401	0.547	0.442	0.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:45	202.300	201.300	138.600	139.700	M 525.000	M 527.000	105.5%	193.200	198.300	230.300
2	23:05:12	199.500	197.000	138.700	139.900	M 530.000	M 525.800	105.3%	193.000	199.600	231.200
3	23:05:39	201.700	200.500	139.200	140.700	M 529.400	M 526.200	106.3%	192.600	200.200	229.800
x		201.200	199.600	138.800	140.100	M 528.100	M 526.300	105.7%	192.900	199.400	230.400
σ		1.480	2.316	0.338	0.532	M 2.763	M 0.653	0.5%	0.303	0.950	0.678
%RSD		0.736	1.160	0.244	0.380	M 0.523	M 0.124	0.5	0.157	0.477	0.294
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	23:04:45	219.600	223.900	100.6%							
2	23:05:12	217.600	223.700	101.1%							
3	23:05:39	217.800	223.000	102.6%							
x		218.300	223.500	101.4%							
σ		1.103	0.485	1.0%							
%RSD		0.505	0.217	1.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:42	111.8%	0.234	1.188	1.343	39.850	80.230	T 1369.000	1286.000	1305.000	TM 8347.000
2	23:11:09	114.2%	0.280	0.993	1.213	30.860	78.590	T 1341.000	1243.000	1272.000	TM 8180.000
3	23:11:36	115.6%	0.271	1.359	1.271	37.450	80.330	T 1339.000	1241.000	1261.000	TM 8036.000
x		113.9%	0.261	1.180	1.276	36.050	79.720	T 1350.000	1257.000	1279.000	TM 8188.000
σ		1.9%	0.024	0.183	0.065	4.657	0.975	T 16.840	25.810	22.730	TM 156.000
%RSD		1.7	9.321	15.510	5.094	12.920	1.223	T 1.248	2.054	1.777	TM 1.905

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:42	T 216.000	T 45000.000	343.800	1359.000	1220.000	107.1%	393.800	58.850	27.310	2470.000
2	23:11:09	T 202.000	T 44200.000	333.500	1316.000	1191.000	109.2%	385.800	56.520	26.220	2596.000
3	23:11:36	T 199.900	T 44210.000	332.300	1322.000	1218.000	110.7%	380.600	57.060	25.940	2413.000
x		T 206.000	T 44470.000	336.500	1332.000	1210.000	109.0%	386.700	57.470	26.490	2493.000
σ		T 8.739	T 458.000	6.296	23.090	16.200	1.8%	6.679	1.221	0.724	93.750
%RSD		T 4.243	T 1.030	1.871	1.733	1.339	1.7	1.727	2.124	2.733	3.761

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:42	T 11220.000	208.200	T 11690.000	11110.000	14.510	11.250	14.410	18.420	19.320	16.600
2	23:11:09	T 10970.000	205.100	T 11360.000	10840.000	14.110	10.780	14.380	17.860	18.650	16.400
3	23:11:36	T 10850.000	202.900	T 11300.000	10710.000	14.070	10.660	12.890	17.950	18.740	16.050
x		T 11010.000	205.400	T 11450.000	10890.000	14.230	10.900	13.900	18.080	18.900	16.350
σ		T 191.800	2.681	T 212.000	201.500	0.240	0.311	0.869	0.298	0.360	0.280
%RSD		T 1.741	1.305	T 1.851	1.851	1.689	2.856	6.251	1.648	1.907	1.715

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:42	20.770	18.020	5.183	7.551	3.136	2.964	39.310	9.654	-1.224	10.560
2	23:11:09	19.510	17.410	4.988	7.058	3.099	2.301	31.730	7.774	-0.296	10.180
3	23:11:36	19.150	17.030	4.953	7.144	2.441	3.286	31.500	7.662	0.283	10.310
x		19.810	17.490	5.042	7.251	2.892	2.850	34.180	8.363	-0.412	10.350
σ		0.849	0.498	0.124	0.263	0.391	0.502	4.442	1.119	0.760	0.192
%RSD		4.287	2.846	2.459	3.632	13.520	17.620	13.000	13.380	184.400	1.857

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:42	110.9%	4.372	4.208	4.421	0.359	0.018	0.015	0.099	0.124	103.2%
2	23:11:09	114.9%	4.234	4.433	4.145	1.865	0.022	0.016	0.108	0.101	107.0%
3	23:11:36	114.8%	4.108	4.413	4.298	1.197	0.017	0.014	0.123	0.111	107.7%
x		113.5%	4.238	4.351	4.288	1.140	0.019	0.015	0.110	0.112	106.0%
σ		2.3%	0.132	0.125	0.138	0.755	0.002	0.001	0.012	0.012	2.4%
%RSD		2.0	3.123	2.870	3.221	66.210	12.450	4.604	10.960	10.400	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:42	1.089	1.419	0.275	0.249	51.080	50.790	101.5%	0.501	0.524	4.793
2	23:11:09	1.105	1.409	0.226	0.296	50.950	49.540	105.0%	0.542	0.516	4.692
3	23:11:36	1.053	1.359	0.286	0.302	50.300	50.420	105.9%	0.502	0.527	4.813
x		1.082	1.396	0.263	0.282	50.780	50.250	104.1%	0.515	0.522	4.766
σ		0.027	0.032	0.032	0.029	0.419	0.641	2.3%	0.024	0.006	0.065
%RSD		2.460	2.301	12.340	10.390	0.825	1.277	2.2	4.636	1.155	1.356

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:10:42	4.210	4.408	101.2%
2	23:11:09	4.191	4.369	103.2%
3	23:11:36	4.261	4.396	104.8%
x		4.221	4.391	103.1%
σ		0.036	0.020	1.8%
%RSD		0.854	0.447	1.8

UD12057-023A 05/08/2019 23:16:11

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:38	117.5%	69.260	73.970	73.310	-4.705	T 2596.000	T 5960.000	T 5872.000	T 6047.000	TM 29880.000
2	23:17:05	117.0%	68.700	73.210	74.930	-3.389	T 2516.000	T 5999.000	T 5939.000	T 6016.000	TM 29990.000
3	23:17:32	117.5%	68.270	74.190	74.390	-6.517	T 2530.000	T 5962.000	T 5897.000	T 6064.000	TM 29800.000
x		117.4%	68.740	73.790	74.210	-4.870	T 2547.000	T 5974.000	T 5903.000	T 6042.000	TM 29890.000
σ		0.3%	0.498	0.513	0.828	1.570	T 42.430	T 22.170	T 33.810	T 24.230	TM 97.500
%RSD		0.2	0.725	0.695	1.115	32.250	T 1.666	T 0.371	T 0.573	T 0.401	TM 0.326

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:38	T 2753.000	T 173500.000	T 3323.000	7926.000	7324.000	114.4%	M 1952.000	T 464.800	298.400	8867.000
2	23:17:05	T 2685.000	T 179400.000	T 3346.000	7989.000	7316.000	109.4%	M 1946.000	T 473.200	304.900	9627.000
3	23:17:32	T 2687.000	T 179700.000	T 3356.000	7955.000	7391.000	110.2%	M 1981.000	T 471.400	305.000	10280.000
x		T 2708.000	T 177500.000	T 3342.000	7956.000	7344.000	111.3%	M 1960.000	T 469.800	302.700	9591.000
σ		T 38.970	T 3508.000	T 17.120	31.450	41.050	2.7%	M 18.870	T 4.436	3.760	706.900
%RSD		T 1.439	T 1.976	T 0.512	0.395	0.559	2.4	M 0.963	T 0.944	1.242	7.371

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:38	T 51070.000	TM 1147.000	T 50730.000	T 52690.000	240.700	220.600	214.600	235.200	256.900	238.000
2	23:17:05	T 51750.000	TM 1178.000	T 52150.000	T 54260.000	248.500	229.500	218.500	239.900	266.800	243.300
3	23:17:32	T 51710.000	TM 1186.000	T 52000.000	T 54190.000	247.500	229.700	213.700	239.800	266.400	241.900
x		T 51510.000	TM 1170.000	T 51620.000	T 53710.000	245.600	226.600	215.600	238.300	263.400	241.000
σ		T 381.100	TM 20.350	T 779.900	T 884.400	4.260	5.209	2.554	2.675	5.612	2.751
%RSD		T 0.740	TM 1.739	T 1.511	T 1.646	1.735	2.299	1.185	1.122	2.131	1.141

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:38	248.100	243.500	194.200	194.200	7.394	7.036	739.900	217.900	1.129	181.400
2	23:17:05	251.500	247.900	199.800	203.000	8.228	6.314	733.400	213.400	1.778	T 189.100
3	23:17:32	261.000	252.300	199.800	207.900	8.247	7.415	750.800	217.400	-0.517	T 188.300
x		253.500	247.900	197.900	201.700	7.956	6.922	741.400	216.200	0.797	T 186.300
σ		6.649	4.400	3.197	6.932	0.487	0.559	8.810	2.448	1.183	T 4.208
%RSD		2.623	1.775	1.615	3.437	6.126	8.081	1.188	1.132	148.400	T 2.259

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:38	144.3%	171.200	175.900	178.100	178.600	195.800	186.800	188.100	187.700	106.7%
2	23:17:05	143.0%	173.100	176.700	178.200	179.700	199.400	189.900	188.900	187.200	106.2%
3	23:17:32	144.3%	171.500	176.900	178.700	177.000	195.500	189.700	189.600	187.300	107.7%
x		143.9%	171.900	176.500	178.300	178.400	196.900	188.800	188.900	187.400	106.9%
σ		0.7%	1.003	0.554	0.351	1.344	2.136	1.766	0.765	0.266	0.7%
%RSD		0.5	0.583	0.314	0.197	0.753	1.085	0.935	0.405	0.142	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:38	196.000	197.600	181.900	182.900	432.000	433.100	107.6%	188.600	196.500	226.600
2	23:17:05	197.300	198.700	183.300	185.000	434.800	435.300	107.8%	188.000	194.500	221.800
3	23:17:32	196.300	198.700	184.300	183.800	435.200	434.200	110.0%	184.500	192.400	225.200
x		196.500	198.300	183.200	183.900	434.000	434.200	108.5%	187.000	194.400	224.500
σ		0.721	0.644	1.205	1.016	1.752	1.076	1.3%	2.244	2.052	2.499
%RSD		0.367	0.325	0.658	0.553	0.404	0.248	1.2	1.200	1.055	1.113

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:16:38	213.300	218.100	105.1%
2	23:17:05	211.300	216.100	105.6%
3	23:17:32	212.000	216.800	105.8%
x		212.200	217.000	105.5%
σ		0.985	1.007	0.3%
%RSD		0.464	0.464	0.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:36	101.9%	0.045	2.215	1.906	10.630	535.600	T 1005.000	926.300	939.700	220.800
2	23:23:03	103.0%	0.036	2.191	1.798	7.692	541.400	T 986.500	916.200	933.600	220.200
3	23:23:30	104.3%	0.028	2.182	1.852	9.307	533.900	T 986.100	906.500	917.700	215.300
x		103.1%	0.036	2.196	1.852	9.210	537.000	T 992.600	916.300	930.300	218.800
σ		1.2%	0.008	0.017	0.054	1.472	3.949	T 10.970	9.944	11.390	3.012
%RSD		1.1	23.150	0.769	2.920	15.980	0.736	T 1.105	1.085	1.225	1.377

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:36	T 1424.000	T 7195.000	367.200	8571.000	7909.000	98.6%	0.839	0.071	0.161	582.900
2	23:23:03	T 1435.000	T 7190.000	365.800	8509.000	7874.000	100.8%	0.733	-0.055	0.162	598.300
3	23:23:30	T 1397.000	T 7117.000	366.900	8438.000	7801.000	100.2%	0.619	0.009	0.150	533.200
x		T 1419.000	T 7167.000	366.600	8506.000	7861.000	99.9%	0.730	0.008	0.158	571.500
σ		T 19.340	T 44.170	0.740	66.230	55.260	1.1%	0.110	0.063	0.007	33.990
%RSD		T 1.363	T 0.616	0.202	0.779	0.703	1.1	15.040	768.100	4.172	5.947

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:36	1265.000	58.180	T 1359.000	1311.000	0.509	4.824	4.789	0.117	0.234	4.804
2	23:23:03	1241.000	57.010	T 1334.000	1285.000	0.492	4.868	4.984	0.080	0.178	4.587
3	23:23:30	1247.000	57.110	T 1318.000	1260.000	0.504	4.926	4.521	0.122	0.188	4.892
x		1251.000	57.430	T 1337.000	1286.000	0.502	4.873	4.765	0.106	0.200	4.761
σ		12.390	0.647	T 21.080	25.580	0.008	0.051	0.232	0.023	0.030	0.157
%RSD		0.990	1.126	T 1.577	1.990	1.656	1.054	4.876	21.510	14.930	3.297

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:36	4.193	4.827	0.209	-0.574	2.373	3.006	0.221	0.134	-2.436	29.540
2	23:23:03	4.873	4.686	0.096	-0.111	2.933	3.218	-1.006	-0.156	-1.105	29.100
3	23:23:30	4.775	4.439	0.259	-0.044	1.988	2.450	-1.675	-0.330	-1.273	29.010
x		4.614	4.651	0.188	-0.243	2.432	2.891	-0.820	-0.117	-1.604	29.220
σ		0.368	0.197	0.083	0.289	0.475	0.397	0.962	0.234	0.725	0.281
%RSD		7.972	4.227	44.290	118.900	19.550	13.720	117.300	199.800	45.170	0.962

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:36	100.3%	0.112	0.142	0.113	1.391	0.002	0.002	0.039	0.059	98.5%
2	23:23:03	102.7%	0.072	0.060	0.092	0.166	0.000	0.001	0.047	0.063	99.6%
3	23:23:30	102.9%	0.059	0.100	0.093	0.668	0.005	-0.000	0.053	0.041	101.0%
x		102.0%	0.081	0.100	0.099	0.742	0.003	0.001	0.046	0.055	99.7%
σ		1.4%	0.027	0.041	0.012	0.616	0.002	0.001	0.007	0.012	1.2%
%RSD		1.4	33.620	40.860	11.750	83.050	96.480	116.300	15.370	21.800	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:36	0.039	0.063	0.064	0.052	3.338	3.560	97.3%	0.012	0.010	-0.012
2	23:23:03	0.040	0.029	0.065	0.061	3.453	3.483	98.6%	0.007	0.008	-0.017
3	23:23:30	0.033	0.030	0.072	0.063	3.600	3.381	100.0%	0.001	0.006	-0.012
x		0.037	0.041	0.067	0.059	3.464	3.475	98.6%	0.007	0.008	-0.014
σ		0.004	0.020	0.005	0.006	0.131	0.090	1.4%	0.006	0.002	0.003
%RSD		9.748	47.900	7.122	10.390	3.789	2.589	1.4	85.610	26.540	22.610

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:22:36	-0.000	-0.006	98.0%
2	23:23:03	0.003	-0.006	98.5%
3	23:23:30	-0.006	-0.010	99.2%
x		-0.001	-0.007	98.6%
σ		0.004	0.002	0.6%
%RSD		431.700	30.030	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:28:32	100.2%	0.104	27.180	29.270	337.600	T 58220.000	T 2211.000	2124.000	T 2287.000	TM 20540.000
2	23:28:59	103.2%	0.101	27.020	29.050	328.000	T 56560.000	T 2194.000	2095.000	T 2246.000	TM 19870.000
3	23:29:26	104.8%	0.073	26.790	28.420	323.700	T 57390.000	T 2166.000	2039.000	2145.000	TM 19570.000
x		102.7%	0.093	27.000	28.920	329.700	T 57390.000	T 2190.000	2086.000	T 2226.000	TM 19990.000
σ		2.3%	0.017	0.196	0.439	7.143	T 830.200	T 23.020	43.450	T 73.030	TM 498.700
%RSD		2.2	18.730	0.725	1.517	2.166	T 1.447	T 1.051	2.083	T 3.281	TM 2.495

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:28:32	T 5535.000	T 9655.000	T 7126.000	38300.000	T 40560.000	96.6%	95.430	184.500	157.800	1537.000
2	23:28:59	T 5297.000	T 9482.000	T 6985.000	37920.000	T 39980.000	97.6%	93.850	179.500	153.600	2178.000
3	23:29:26	T 5319.000	T 9378.000	T 6927.000	37260.000	T 39460.000	101.1%	91.690	174.300	151.400	1844.000
x		T 5383.000	T 9505.000	T 7013.000	37830.000	T 40000.000	98.4%	93.660	179.400	154.300	1853.000
σ		T 131.300	T 140.100	T 102.000	526.700	T 552.300	2.3%	1.880	5.095	3.242	320.800
%RSD		T 2.439	T 1.473	T 1.455	1.392	T 1.381	2.4	2.007	2.839	2.102	17.310

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:28:32	T 25600.000	TM 729.100	T 25990.000	T 26080.000	6.326	243.900	237.600	383.200	399.300	TM 2136.000
2	23:28:59	T 25330.000	TM 735.200	T 25690.000	T 26040.000	6.220	242.800	235.600	382.300	405.000	TM 2169.000
3	23:29:26	T 24470.000	TM 710.200	T 25230.000	T 25130.000	6.063	229.300	227.200	366.800	389.400	TM 2103.000
x		T 25130.000	TM 724.800	T 25630.000	T 25750.000	6.203	238.600	233.500	377.400	397.900	TM 2136.000
σ		T 590.800	TM 13.030	T 383.600	T 536.600	0.132	8.129	5.519	9.248	7.889	TM 32.790
%RSD		T 2.351	TM 1.798	T 1.496	T 2.084	2.130	3.406	2.364	2.450	1.983	TM 1.535

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:28:32	M 2083.000	M 2218.000	175.600	4.663	209.900	216.300	22.190	5.564	-0.362	T 312.900
2	23:28:59	M 2126.000	M 2238.000	179.300	5.112	206.600	212.700	18.370	4.599	-1.466	T 306.700
3	23:29:26	M 2050.000	M 2175.000	175.800	4.405	204.300	205.000	23.180	5.843	-1.353	T 304.500
x		M 2087.000	M 2211.000	176.900	4.727	206.900	211.300	21.250	5.335	-1.060	T 308.000
σ		M 38.120	M 32.210	2.061	0.358	2.803	5.731	2.539	0.653	0.607	T 4.384
%RSD		M 1.827	M 1.457	1.165	7.572	1.355	2.712	11.950	12.230	57.250	T 1.423

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:28:32	106.9%	304.000	306.900	311.500	15.410	30.080	28.640	0.949	1.784	94.4%
2	23:28:59	111.6%	292.300	300.700	301.300	14.080	29.130	27.790	0.939	1.701	98.5%
3	23:29:26	114.2%	294.500	299.200	300.000	15.030	29.110	27.890	0.901	1.609	100.6%
x		110.9%	296.900	302.300	304.300	14.840	29.440	28.100	0.929	1.698	97.8%
σ		3.7%	6.242	4.106	6.305	0.684	0.554	0.464	0.025	0.088	3.1%
%RSD		3.3	2.102	1.358	2.072	4.611	1.884	1.652	2.722	5.156	3.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:28:32	6.415	7.769	4.523	4.584	M 699.900	M 698.700	96.9%	18.400	18.310	18.920
2	23:28:59	6.093	7.771	4.572	4.413	M 676.200	M 678.800	100.1%	17.630	17.820	18.590
3	23:29:26	5.867	7.690	4.387	4.476	M 664.900	M 664.000	103.9%	17.170	17.020	18.240
x		6.125	7.743	4.494	4.491	M 680.400	M 680.500	100.3%	17.730	17.720	18.580
σ		0.275	0.046	0.096	0.087	M 17.850	M 17.420	3.5%	0.623	0.652	0.338
%RSD		4.493	0.594	2.140	1.929	M 2.624	M 2.560	3.5	3.512	3.682	1.819

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:28:32	16.710	17.380	184.1%
2	23:28:59	16.250	16.990	187.3%
3	23:29:26	16.390	16.960	190.7%
x		16.450	17.110	187.4%
σ		0.239	0.232	3.3%
%RSD		1.455	1.357	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:34:29	109.1%	0.016	7.661	7.919	44.650	T 5130.000	284.700	269.600	274.400	TM 2471.000
2	23:34:56	109.6%	0.010	7.687	7.529	48.460	T 5103.000	286.500	273.000	278.200	TM 2506.000
3	23:35:23	109.9%	0.044	8.180	7.864	48.120	T 5209.000	284.500	272.800	274.700	TM 2501.000
x		109.6%	0.023	7.843	7.771	47.080	T 5148.000	285.300	271.800	275.800	TM 2493.000
σ		0.4%	0.018	0.292	0.211	2.111	T 55.210	1.122	1.940	2.125	TM 18.820
%RSD		0.4	79.620	3.724	2.714	4.483	T 1.073	0.393	0.714	0.771	TM 0.755

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:34:29	464.800	1461.000	633.200	3318.000	3165.000	107.2%	7.826	15.260	13.220	454.200
2	23:34:56	463.800	1506.000	642.100	3373.000	3179.000	105.9%	7.957	15.140	13.410	401.800
3	23:35:23	T 477.600	1474.000	634.800	3409.000	3163.000	108.8%	8.533	15.430	13.500	261.100
x		T 468.700	1481.000	636.700	3367.000	3169.000	107.3%	8.105	15.280	13.380	372.300
σ		T 7.700	23.190	4.734	45.700	8.672	1.4%	0.376	0.150	0.140	99.870
%RSD		T 1.643	1.566	0.744	1.357	0.274	1.3	4.639	0.981	1.043	26.820

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:34:29	2174.000	59.770	T 2344.000	2136.000	0.535	21.440	21.250	35.380	35.160	196.900
2	23:34:56	2192.000	60.940	T 2331.000	2155.000	0.524	21.760	21.820	35.780	35.820	200.800
3	23:35:23	2171.000	59.700	T 2322.000	2116.000	0.501	21.760	21.710	35.290	35.710	198.700
x		2179.000	60.130	T 2332.000	2136.000	0.520	21.650	21.600	35.480	35.560	198.800
σ		11.320	0.695	T 11.140	19.820	0.017	0.187	0.302	0.256	0.353	1.946
%RSD		0.519	1.156	T 0.477	0.928	3.350	0.865	1.400	0.721	0.994	0.979

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:34:29	182.800	192.000	14.680	0.104	20.780	19.150	-1.964	-0.406	-1.400	27.430
2	23:34:56	189.600	196.100	15.460	0.103	21.860	21.870	2.599	0.508	2.801	27.630
3	23:35:23	186.200	194.300	14.940	0.076	19.600	20.630	-1.255	-0.242	-1.173	27.480
x		186.200	194.100	15.030	0.094	20.740	20.550	-0.206	-0.046	0.076	27.510
σ		3.390	2.040	0.397	0.016	1.132	1.366	2.456	0.488	2.362	0.102
%RSD		1.820	1.051	2.642	16.460	5.457	6.647	1190.000	1050.000	3103.000	0.372

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:34:29	106.2%	26.960	26.960	27.200	-0.285	2.568	2.565	0.147	0.140	104.5%
2	23:34:56	107.5%	27.110	27.700	27.500	0.331	2.721	2.630	0.098	0.150	106.9%
3	23:35:23	109.8%	27.420	27.410	27.720	-0.390	2.662	2.482	0.052	0.158	107.3%
x		107.8%	27.160	27.360	27.470	-0.115	2.650	2.559	0.099	0.149	106.2%
σ		1.8%	0.235	0.372	0.260	0.390	0.077	0.074	0.047	0.009	1.5%
%RSD		1.7	0.864	1.359	0.946	339.700	2.906	2.891	47.840	6.018	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:34:29	0.510	0.671	0.375	0.373	59.950	59.140	104.5%	1.588	1.564	2.889
2	23:34:56	0.490	0.622	0.372	0.394	59.170	57.680	105.2%	1.607	1.595	2.802
3	23:35:23	0.530	0.632	0.360	0.376	59.360	58.400	106.5%	1.598	1.586	2.827
x		0.510	0.642	0.369	0.381	59.490	58.410	105.4%	1.598	1.582	2.839
σ		0.020	0.026	0.008	0.011	0.407	0.727	1.1%	0.010	0.016	0.045
%RSD		3.958	4.041	2.150	2.958	0.684	1.245	1.0	0.597	0.996	1.581

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:34:29	2.524	2.667	111.3%
2	23:34:56	2.672	2.687	111.4%
3	23:35:23	2.675	2.706	113.8%
x		2.624	2.687	112.2%
σ		0.086	0.019	1.4%
%RSD		3.288	0.718	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:26	105.3%	-0.024	8.691	8.167	26.990	T 77450.000	178.800	171.900	168.000	1.464
2	23:40:53	107.9%	-0.031	8.216	7.806	24.810	T 75940.000	171.900	163.800	162.800	1.513
3	23:41:20	109.5%	0.005	7.414	7.378	20.960	T 73030.000	163.600	157.700	155.300	1.429
x		107.6%	-0.017	8.107	7.784	24.250	T 75470.000	171.400	164.500	162.000	1.468
σ		2.1%	0.019	0.646	0.395	3.051	T 2248.000	7.617	7.107	6.417	0.042
%RSD		1.9	116.500	7.963	5.078	12.580	T 2.979	4.444	4.321	3.960	2.869
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:26	282.200	5389.000	339.400	769.600	728.300	107.1%	0.497	1.714	0.679	392.400
2	23:40:53	274.600	5255.000	330.200	732.000	701.000	111.1%	0.497	1.660	0.648	381.200
3	23:41:20	261.100	5131.000	320.300	741.600	684.400	110.8%	0.427	1.729	0.618	312.500
x		272.600	5258.000	330.000	747.700	704.600	109.7%	0.473	1.701	0.648	362.000
σ		10.690	129.000	9.506	19.520	22.150	2.2%	0.040	0.037	0.031	43.220
%RSD		3.921	2.453	2.881	2.611	3.143	2.0	8.524	2.147	4.768	11.940
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:26	1062.000	212.800	T 1156.000	1029.000	0.275	14.330	13.490	0.826	0.862	294.900
2	23:40:53	1022.000	202.100	T 1112.000	980.300	0.269	13.750	13.500	0.802	0.791	282.600
3	23:41:20	993.500	197.600	T 1073.000	953.200	0.264	12.760	13.670	0.736	0.816	278.800
x		1026.000	204.200	T 1114.000	987.500	0.270	13.620	13.550	0.788	0.823	285.400
σ		34.540	7.812	T 41.600	38.360	0.006	0.795	0.098	0.047	0.036	8.440
%RSD		3.367	3.826	T 3.736	3.885	2.081	5.837	0.725	5.965	4.396	2.957
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:26	268.200	284.600	-0.107	-0.101	2.190	2.617	-2.008	-0.470	1.404	2.086
2	23:40:53	258.300	272.700	-0.044	-0.228	2.028	1.487	-0.839	-0.187	0.498	2.068
3	23:41:20	249.500	260.100	0.139	-0.019	1.924	1.648	1.185	0.328	-1.057	1.946
x		258.700	272.500	-0.004	-0.116	2.047	1.917	-0.554	-0.110	0.282	2.033
σ		9.348	12.240	0.128	0.106	0.134	0.611	1.615	0.405	1.245	0.076
%RSD		3.613	4.494	3295.000	91.210	6.537	31.870	291.600	369.100	442.100	3.739
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:26	107.0%	16.830	17.440	17.080	-0.554	0.001	-0.001	-0.041	-0.010	105.6%
2	23:40:53	107.8%	16.260	16.980	16.470	-1.466	0.000	-0.001	-0.067	0.003	107.4%
3	23:41:20	110.1%	15.350	16.070	15.580	-0.884	0.001	-0.001	-0.041	-0.006	108.4%
x		108.3%	16.150	16.830	16.380	-0.968	0.001	-0.001	-0.050	-0.004	107.1%
σ		1.6%	0.745	0.697	0.754	0.462	0.000	0.000	0.015	0.007	1.4%
%RSD		1.5	4.613	4.142	4.606	47.710	50.190	0.865	29.730	157.400	1.3
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:26	0.686	1.062	0.264	0.238	0.102	0.066	104.3%	-0.011	-0.023	-0.025
2	23:40:53	0.708	0.901	0.255	0.231	0.075	0.082	106.3%	-0.018	-0.020	-0.025
3	23:41:20	0.626	0.995	0.225	0.232	0.083	0.070	106.6%	-0.024	-0.022	-0.027
x		0.673	0.986	0.248	0.233	0.087	0.073	105.7%	-0.018	-0.022	-0.026
σ		0.042	0.081	0.021	0.004	0.014	0.008	1.2%	0.007	0.001	0.001
%RSD		6.297	8.190	8.300	1.604	16.190	11.440	1.2	36.300	6.745	4.757
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	23:40:26	-0.004	-0.013	99.7%							
2	23:40:53	-0.005	-0.014	101.3%							
3	23:41:20	-0.007	-0.013	101.9%							
x		-0.005	-0.013	100.9%							
σ		0.002	0.001	1.1%							
%RSD		33.250	3.917	1.1							

CCV MW11050 05/08/2019 23:45:57 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:46:23	90.5%	297.000	298.700	296.400	43.540	┬68440.000	┬62520.000	┬61770.000	┬62040.000	293.600
2	23:46:50	92.5%	298.100	298.700	297.300	37.630	┬67150.000	┬63150.000	┬62510.000	┬61590.000	291.400
3	23:47:17	93.2%	296.700	291.300	295.500	31.900	┬66760.000	┬62400.000	┬61590.000	┬61390.000	289.500
x		92.0%	99.082%	98.751%	98.798%	37.690	┬112.413%	┬62690.000	┬61960.000	┬102.787%	97.166%
σ		1.4%	n/a	n/a	n/a	5.818	┬n/a	┬400.700	┬486.500	┬n/a	n/a
%RSD		1.5	0.243	1.436	0.312	15.440	┬1.302	┬0.639	┬0.785	┬0.539	0.710
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:46:23	┬3288.000	580.900	┬65380.000	60370.000	┬63060.000	95.6%	292.400	295.600	286.200	1932.000
2	23:46:50	┬3193.000	584.600	┬65250.000	60030.000	┬62590.000	94.9%	294.600	296.400	285.700	1561.000
3	23:47:17	┬3170.000	577.500	┬65120.000	60290.000	┬62700.000	94.9%	295.800	┬304.300	285.000	2120.000
x		┬107.237%	581.000	┬108.749%	60230.000	┬104.639%	95.1%	98.098%	┬99.596%	95.206%	1871.000
σ		┬n/a	3.557	┬n/a	177.600	┬n/a	0.4%	n/a	┬n/a	n/a	284.400
%RSD		┬1.945	0.612	┬0.196	0.295	┬0.390	0.4	0.584	┬1.601	0.206	15.200
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:46:23	┬61690.000	283.800	┬62180.000	┬61490.000	283.200	276.700	285.800	269.900	270.100	267.100
2	23:46:50	┬61450.000	284.900	┬61930.000	┬61530.000	280.200	276.900	279.400	271.900	274.300	268.400
3	23:47:17	┬61960.000	287.700	┬62770.000	┬62400.000	285.700	281.100	285.400	274.400	273.900	270.200
x		┬61700.000	95.165%	┬62290.000	┬103.013%	94.351%	92.738%	283.600	272.100	90.915%	89.525%
σ		┬256.900	n/a	┬432.400	┬n/a	n/a	n/a	3.567	2.259	n/a	n/a
%RSD		┬0.416	0.705	┬0.694	┬0.834	0.976	0.885	1.258	0.830	0.854	0.577
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:46:23	274.400	267.700	281.300	279.600	1.613	1.210	1263.000	290.000	-2.083	295.300
2	23:46:50	270.200	271.200	288.000	279.300	2.024	0.834	1288.000	298.600	-1.114	┬303.500
3	23:47:17	274.900	273.500	284.800	280.900	1.875	1.376	1228.000	273.200	-2.098	┬309.200
x		273.200	270.800	94.887%	279.900	1.837	1.140	1260.000	95.746%	-1.765	┬100.893%
σ		2.601	2.891	n/a	0.843	0.208	0.277	30.290	n/a	0.564	┬n/a
%RSD		0.952	1.067	1.174	0.301	11.330	24.330	2.405	4.495	31.950	┬2.297
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:46:23	95.0%	301.100	306.300	305.700	293.500	297.300	283.700	288.400	286.900	93.7%
2	23:46:50	96.5%	301.500	305.100	306.000	295.600	296.100	283.300	289.700	292.000	94.0%
3	23:47:17	95.4%	301.400	304.200	303.600	285.500	289.000	278.600	286.700	285.100	96.9%
x		95.7%	100.438%	101.735%	305.100	291.500	98.048%	281.900	288.300	95.999%	94.9%
σ		0.8%	n/a	n/a	1.296	5.361	n/a	2.854	1.521	n/a	1.8%
%RSD		0.8	0.064	0.350	0.425	1.839	1.525	1.012	0.528	1.245	1.9
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:46:23	299.100	299.000	296.500	296.900	298.900	297.600	95.7%	281.700	┬299.000	┬288.600
2	23:46:50	295.200	295.700	294.700	294.800	299.700	300.100	96.1%	286.000	┬303.000	┬287.900
3	23:47:17	295.500	293.700	292.000	293.600	299.000	295.400	98.3%	284.700	┬301.300	┬291.700
x		98.873%	98.709%	294.400	98.372%	99.729%	99.241%	96.7%	284.100	┬100.367%	┬96.467%
σ		n/a	n/a	2.266	n/a	n/a	n/a	1.4%	2.225	┬n/a	┬n/a
%RSD		0.733	0.898	0.770	0.556	0.145	0.793	1.4	0.783	┬0.659	┬0.697
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	23:46:23	299.100	297.500	91.1%							
2	23:46:50	301.100	299.200	92.6%							
3	23:47:17	299.800	298.100	93.4%							
x		99.991%	99.423%	92.4%							
σ		n/a	n/a	1.2%							
%RSD		0.333	0.289	1.3							

CCB IM9409-01 05/08/2019 23:51:54 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:52:22	104.0%	-0.015	0.933	0.835	31.060	-12.460	-0.024	0.062	-0.050	0.036
2	23:52:50	105.6%	-0.034	1.057	0.732	26.550	-13.130	-0.063	0.029	-0.042	0.037
3	23:53:17	105.1%	-0.014	1.046	0.834	34.740	-13.570	-0.060	-0.027	-0.058	0.038
x		104.9%	-0.021	1.012	0.800	30.780	-13.060	-0.049	0.021	-0.050	0.037
σ		0.8%	0.011	0.068	0.059	4.101	0.563	0.022	0.045	0.008	0.001
%RSD		0.8	53.140	6.746	7.413	13.320	4.309	44.160	208.900	16.420	2.488

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:52:22	10.220	409.100	3.179	-2.231	0.018	102.5%	0.022	0.027	0.045	31.840
2	23:52:50	10.580	432.600	4.306	-2.253	0.194	104.9%	0.021	-0.014	0.021	50.170
3	23:53:17	10.740	446.200	4.227	-2.241	0.055	103.7%	0.003	-0.014	0.048	44.200
x		10.510	429.300	3.904	-2.242	0.089	103.7%	0.015	-0.001	0.038	42.070
σ		0.270	18.770	0.629	0.011	0.093	1.2%	0.011	0.024	0.015	9.347
%RSD		2.569	4.372	16.120	0.505	104.600	1.2	72.070	3561.000	38.390	22.220

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:52:22	0.071	0.004	4.116	-7.229	-0.019	-0.003	-0.286	-0.025	-0.016	-0.010
2	23:52:50	0.205	0.011	3.929	-13.500	-0.025	0.017	-0.164	-0.026	-0.027	-0.014
3	23:53:17	0.790	-0.001	4.489	-13.500	-0.024	-0.001	0.169	-0.024	-0.015	-0.001
x		0.355	0.004	4.178	-11.410	-0.023	0.004	-0.094	-0.025	-0.019	-0.008
σ		0.382	0.006	0.286	3.622	0.004	0.011	0.236	0.001	0.007	0.007
%RSD		107.600	139.600	6.833	31.740	15.520	258.400	251.400	2.953	36.500	84.200

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:52:22	-0.034	0.030	0.037	0.014	0.318	0.869	1.824	0.471	-2.098	-0.001
2	23:52:50	-0.003	-0.013	-0.031	-0.250	0.485	0.638	-0.417	0.022	-5.020	0.002
3	23:53:17	0.017	0.008	-0.125	-0.119	0.940	0.738	-2.063	-0.427	-3.296	0.000
x		-0.006	0.009	-0.039	-0.119	0.581	0.749	-0.219	0.022	-3.471	0.001
σ		0.026	0.022	0.082	0.132	0.322	0.116	1.951	0.449	1.469	0.002
%RSD		396.800	250.900	207.000	111.100	55.450	15.460	891.400	2066.000	42.310	255.000

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:52:22	102.5%	0.032	0.028	0.045	0.561	0.011	0.003	0.002	-0.002	102.0%
2	23:52:50	105.2%	0.024	0.020	0.001	0.354	0.006	0.001	-0.004	0.004	105.1%
3	23:53:17	103.1%	0.014	0.007	0.018	0.999	0.001	0.002	-0.004	0.003	105.6%
x		103.6%	0.023	0.019	0.021	0.638	0.006	0.002	-0.002	0.002	104.2%
σ		1.4%	0.009	0.011	0.022	0.329	0.005	0.001	0.003	0.003	1.9%
%RSD		1.4	38.020	56.750	103.600	51.620	83.470	49.510	155.300	225.700	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:52:22	0.067	0.055	0.131	0.119	0.007	0.008	100.6%	-0.008	-0.018	-0.001
2	23:52:50	0.052	0.045	0.141	0.138	-0.002	-0.003	103.9%	-0.010	-0.017	-0.005
3	23:53:17	0.035	0.037	0.132	0.092	0.003	0.002	103.3%	-0.017	-0.017	-0.004
x		0.051	0.046	0.135	0.117	0.003	0.002	102.6%	-0.011	-0.017	-0.004
σ		0.016	0.009	0.005	0.023	0.004	0.005	1.8%	0.005	0.001	0.002
%RSD		31.350	19.780	3.955	19.840	153.300	208.000	1.7	42.540	6.192	61.960

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:52:22	0.021	0.008	101.9%
2	23:52:50	0.008	0.008	103.5%
3	23:53:17	0.003	0.001	103.2%
x		0.011	0.006	102.9%
σ		0.009	0.004	0.9%
%RSD		82.990	77.040	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:21	94.3%	-0.026	67.090	66.890	88.230	TM 721500.000	T 1619.000	1462.000	1499.000	4.822
2	23:58:48	97.8%	-0.021	70.530	65.870	79.310	TM 727800.000	T 1623.000	1462.000	1471.000	4.860
3	23:59:15	103.4%	-0.027	66.390	65.180	76.200	TM 753000.000	T 1613.000	1451.000	1452.000	4.634
x		98.5%	-0.025	68.000	65.980	81.240	TM 734100.000	T 1618.000	1458.000	1474.000	4.772
σ		4.5%	0.003	2.216	0.861	6.244	TM 16640.000	T 5.330	6.195	23.540	0.121
%RSD		4.6	12.850	3.259	1.304	7.685	TM 2.266	T 0.329	0.425	1.598	2.535

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:21	T 2644.000	T 52230.000	T 3558.000	7536.000	7058.000	94.9%	3.636	16.700	5.519	1549.000
2	23:58:48	T 2634.000	T 52310.000	T 3580.000	7528.000	7051.000	97.7%	3.710	16.030	5.566	1667.000
3	23:59:15	T 2558.000	T 51450.000	T 3609.000	7452.000	6964.000	102.3%	3.858	16.240	5.437	1541.000
x		T 2612.000	T 52000.000	T 3582.000	7505.000	7024.000	98.3%	3.735	16.320	5.507	1586.000
σ		T 47.310	T 475.600	T 25.310	46.270	52.610	3.7%	0.113	0.346	0.065	70.160
%RSD		T 1.811	T 0.915	T 0.707	0.617	0.749	3.8	3.028	2.121	1.186	4.424

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:21	T 10280.000	TM 2142.000	T 10720.000	10150.000	2.762	127.600	136.500	7.109	8.349	TM 2661.000
2	23:58:48	T 10330.000	TM 2151.000	T 10630.000	10060.000	2.770	126.100	142.100	7.554	8.256	TM 2665.000
3	23:59:15	T 10150.000	TM 2124.000	T 10570.000	10070.000	2.629	124.400	143.900	7.899	8.186	TM 2693.000
x		T 10250.000	TM 2139.000	T 10640.000	10090.000	2.721	126.100	140.800	7.521	8.264	TM 2673.000
σ		T 92.730	TM 13.870	T 75.960	51.550	0.079	1.603	3.851	0.396	0.082	TM 17.320
%RSD		T 0.905	TM 0.648	T 0.714	0.511	2.909	1.271	2.734	5.263	0.990	TM 0.648

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:21	M 2501.000	M 2714.000	1.047	0.472	12.080	9.509	2.961	0.711	-1.313	19.380
2	23:58:48	M 2538.000	TM 2558.000	1.045	1.209	11.180	10.250	2.082	0.439	1.618	19.630
3	23:59:15	M 2537.000	M 2731.000	1.190	0.789	11.140	10.690	1.754	0.306	1.008	19.680
x		M 2525.000	TM 2668.000	1.094	0.823	11.470	10.150	2.266	0.485	0.438	19.570
σ		M 21.280	TM 95.560	0.083	0.370	0.535	0.596	0.624	0.207	1.547	0.158
%RSD		M 0.843	TM 3.582	7.590	44.930	4.668	5.868	27.540	42.590	353.300	0.810

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:21	99.4%	165.500	165.600	165.500	1.112	0.003	0.007	-0.372	0.049	97.8%
2	23:58:48	104.3%	164.900	166.500	167.100	0.441	0.005	0.002	-0.446	0.039	102.5%
3	23:59:15	108.7%	163.900	166.200	164.900	0.264	0.003	0.003	-0.415	-0.021	110.4%
x		104.1%	164.800	166.100	165.800	0.606	0.004	0.004	-0.411	0.022	103.6%
σ		4.7%	0.810	0.445	1.127	0.447	0.001	0.003	0.037	0.038	6.4%
%RSD		4.5	0.491	0.268	0.679	73.790	32.940	71.240	9.047	168.400	6.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:21	7.214	9.867	2.757	2.589	0.860	0.754	105.3%	-0.010	-0.022	-0.008
2	23:58:48	6.949	9.797	2.636	2.784	0.752	0.753	109.1%	-0.019	-0.025	0.003
3	23:59:15	6.957	9.752	2.615	2.666	0.738	0.875	117.3%	-0.020	-0.024	-0.008
x		7.040	9.805	2.669	2.680	0.783	0.794	110.6%	-0.016	-0.024	-0.004
σ		0.151	0.058	0.077	0.098	0.067	0.070	6.2%	0.005	0.002	0.006
%RSD		2.141	0.591	2.872	3.670	8.528	8.783	5.6	32.700	7.901	143.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:58:21	0.028	0.010	97.8%
2	23:58:48	0.002	0.003	101.4%
3	23:59:15	0.004	-0.002	108.2%
x		0.011	0.003	102.4%
σ		0.015	0.006	5.3%
%RSD		128.600	183.800	5.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:18	114.4%	-0.012	254.400	248.400	390.000	TM 135400.000	T 3268.000	3010.000	3048.000	332.600
2	00:04:45	116.7%	-0.007	254.100	242.200	397.100	TM 134500.000	T 3302.000	3004.000	3031.000	327.600
3	00:05:13	117.9%	-0.017	243.200	235.600	374.200	TM 134900.000	T 3259.000	2986.000	3029.000	326.000
x		116.3%	-0.012	250.600	242.100	387.100	TM 134900.000	T 3276.000	3000.000	3036.000	328.700
σ		1.8%	0.005	6.381	6.422	11.750	TM 470.000	T 22.690	12.410	10.220	3.444
%RSD		1.6	42.040	2.546	2.653	3.034	TM 0.348	T 0.693	0.414	0.337	1.048

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:18	T 7277.000	T 51240.000	T 18740.000	66420.000	T 67980.000	109.5%	18.530	2.283	9.276	3074.000
2	00:04:45	T 7098.000	T 51670.000	T 18660.000	64980.000	T 67830.000	110.1%	18.600	2.321	8.979	3155.000
3	00:05:13	T 7089.000	T 51390.000	T 18780.000	65550.000	T 67490.000	111.8%	19.650	2.225	8.932	3383.000
x		T 7155.000	T 51430.000	T 18730.000	65650.000	T 67770.000	110.5%	18.920	2.276	9.062	3204.000
σ		T 105.700	T 215.100	T 60.750	723.100	T 251.500	1.2%	0.629	0.048	0.187	160.200
%RSD		T 1.478	T 0.418	T 0.324	1.101	T 0.371	1.1	3.322	2.124	2.063	4.998

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:18	1779.000	53.860	T 1912.000	2195.000	5.092	8.367	12.290	213.500	221.700	M 601.300
2	00:04:45	1758.000	53.710	T 1914.000	2170.000	5.127	8.392	13.890	214.400	222.100	M 609.400
3	00:05:13	1758.000	53.050	T 1890.000	2124.000	4.880	8.334	13.140	211.500	218.800	M 596.400
x		1765.000	53.540	T 1905.000	2163.000	5.033	8.365	13.110	213.100	220.900	M 602.400
σ		12.030	0.430	T 13.680	35.970	0.134	0.029	0.800	1.518	1.798	M 6.545
%RSD		0.682	0.803	T 0.718	1.663	2.662	0.349	6.103	0.712	0.814	M 1.087

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:18	M 551.900	M 573.400	0.674	0.584	79.050	77.710	1.651	0.193	3.767	62.480
2	00:04:45	M 557.000	M 584.500	1.021	1.003	77.830	80.670	1.007	0.140	-2.119	63.110
3	00:05:13	M 548.900	M 584.500	0.925	0.776	77.540	79.010	2.002	0.347	-0.657	62.940
x		M 552.600	M 580.800	0.873	0.788	78.140	79.130	1.554	0.227	0.330	62.840
σ		M 4.098	M 6.408	0.180	0.210	0.800	1.483	0.505	0.108	3.065	0.328
%RSD		M 0.742	M 1.103	20.550	26.630	1.024	1.874	32.480	47.450	927.700	0.522

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:18	115.8%	12.580	12.800	12.490	1.485	0.110	0.080	0.184	0.229	115.4%
2	00:04:45	118.3%	12.330	12.740	12.700	0.709	0.096	0.092	0.144	0.253	119.8%
3	00:05:13	120.1%	12.710	12.580	12.660	2.244	0.094	0.084	0.180	0.254	120.6%
x		118.1%	12.540	12.710	12.620	1.479	0.100	0.085	0.169	0.245	118.6%
σ		2.1%	0.194	0.112	0.112	0.768	0.009	0.006	0.022	0.014	2.8%
%RSD		1.8	1.547	0.880	0.891	51.890	8.778	7.138	12.970	5.793	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:18	1.016	1.384	10.720	10.870	47.460	48.840	121.5%	0.037	0.049	15.200
2	00:04:45	1.102	1.285	10.550	10.930	47.890	47.100	125.7%	0.049	0.044	14.990
3	00:05:13	1.019	1.364	10.580	10.600	48.080	46.310	127.5%	0.036	0.049	14.880
x		1.046	1.344	10.610	10.800	47.810	47.420	124.9%	0.041	0.047	15.020
σ		0.049	0.053	0.093	0.175	0.321	1.294	3.1%	0.007	0.003	0.160
%RSD		4.681	3.907	0.874	1.617	0.671	2.728	2.5	18.060	6.698	1.068

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:04:18	13.560	14.220	117.4%
2	00:04:45	13.650	14.150	118.5%
3	00:05:13	13.620	14.140	121.2%
x		13.610	14.170	119.0%
σ		0.045	0.042	1.9%
%RSD		0.331	0.294	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:10:17	115.8%	-0.023	15.020	14.030	282.700	T 16720.000	T 932.700	863.200	865.900	TM 1612.000
2	00:10:44	118.6%	-0.030	15.190	13.900	273.900	T 16570.000	T 924.000	864.400	866.600	TM 1591.000
3	00:11:11	119.7%	-0.036	14.440	14.420	280.200	T 16470.000	T 939.300	866.400	873.600	TM 1593.000
x		118.0%	-0.030	14.880	14.120	278.900	T 16590.000	T 932.000	864.700	868.700	TM 1599.000
σ		2.0%	0.006	0.394	0.272	4.537	T 124.300	T 7.648	1.634	4.231	TM 11.680
%RSD		1.7	21.950	2.648	1.924	1.627	T 0.749	T 0.821	0.189	0.487	TM 0.730
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:10:17	T 1401.000	T 50230.000	T 31310.000	21540.000	T 21940.000	108.1%	8.101	5.950	3.431	2848.000
2	00:10:44	T 1368.000	T 49890.000	T 31100.000	21700.000	T 21940.000	109.9%	8.765	5.895	3.417	2698.000
3	00:11:11	T 1360.000	T 50740.000	T 31420.000	21780.000	T 22220.000	109.7%	8.141	5.772	3.442	2773.000
x		T 1377.000	T 50290.000	T 31270.000	21670.000	T 22030.000	109.2%	8.336	5.872	3.430	2773.000
σ		T 21.580	T 427.100	T 163.800	125.500	T 159.700	1.0%	0.372	0.091	0.013	74.740
%RSD		T 1.568	T 0.849	T 0.524	0.579	T 0.725	0.9	4.466	1.548	0.369	2.695
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:10:17	1869.000	20.020	T 2012.000	2005.000	0.433	3.729	6.669	109.600	112.100	37.390
2	00:10:44	1842.000	19.980	T 1997.000	1988.000	0.456	3.829	6.517	108.100	112.400	37.450
3	00:11:11	1874.000	20.130	T 2018.000	1990.000	0.450	3.945	6.729	109.300	113.200	37.160
x		1862.000	20.040	T 2009.000	1994.000	0.446	3.834	6.639	109.000	112.600	37.340
σ		17.030	0.080	T 10.960	9.121	0.012	0.108	0.110	0.804	0.560	0.155
%RSD		0.915	0.397	T 0.545	0.457	2.699	2.819	1.649	0.737	0.497	0.414
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:10:17	32.780	36.960	0.157	-0.046	12.300	12.100	-0.125	-0.095	0.088	19.140
2	00:10:44	36.380	36.280	0.306	-0.060	12.370	12.210	-1.175	-0.294	-2.400	18.920
3	00:11:11	36.870	37.410	0.288	-0.571	11.810	11.310	-1.375	-0.391	0.574	18.980
x		35.340	36.880	0.250	-0.225	12.160	11.870	-0.892	-0.260	-0.579	19.010
σ		2.233	0.571	0.081	0.299	0.309	0.489	0.671	0.151	1.596	0.118
%RSD		6.319	1.547	32.490	132.700	2.538	4.115	75.300	57.970	275.400	0.622
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:10:17	116.0%	0.690	0.684	0.705	-0.445	0.019	0.024	0.044	0.063	117.9%
2	00:10:44	118.2%	0.671	0.662	0.700	-0.882	0.022	0.014	0.053	0.040	121.8%
3	00:11:11	119.2%	0.612	0.730	0.679	0.017	0.031	0.017	0.073	0.044	121.7%
x		117.8%	0.658	0.692	0.694	-0.437	0.024	0.018	0.057	0.049	120.5%
σ		1.6%	0.041	0.035	0.014	0.449	0.006	0.005	0.015	0.012	2.2%
%RSD		1.4	6.200	5.036	1.968	102.900	25.490	26.770	25.750	25.070	1.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:10:17	0.557	0.708	0.121	0.136	16.510	15.930	122.3%	-0.015	-0.010	0.677
2	00:10:44	0.530	0.689	0.151	0.129	16.110	15.770	124.9%	-0.010	-0.015	0.672
3	00:11:11	0.538	0.718	0.157	0.155	16.040	16.570	126.1%	-0.015	-0.016	0.694
x		0.542	0.705	0.143	0.140	16.220	16.090	124.4%	-0.013	-0.014	0.681
σ		0.014	0.015	0.019	0.013	0.257	0.425	1.9%	0.003	0.003	0.012
%RSD		2.516	2.124	13.360	9.436	1.585	2.640	1.5	22.730	24.910	1.691
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	00:10:17	0.626	0.644	122.0%							
2	00:10:44	0.604	0.632	123.8%							
3	00:11:11	0.657	0.660	125.2%							
x		0.629	0.645	123.7%							
σ		0.026	0.014	1.6%							
%RSD		4.193	2.148	1.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:14	121.8%	0.080	4.741	5.249	-48.190	T 16570.000	T 1348.000	1294.000	1366.000	26.030
2	00:16:41	124.2%	0.079	4.860	5.212	-48.730	T 16680.000	T 1332.000	1285.000	1347.000	25.940
3	00:17:09	124.1%	0.088	4.883	5.382	-47.230	T 16690.000	T 1352.000	1291.000	1352.000	25.990
x		123.3%	0.082	4.828	5.281	-48.050	T 16650.000	T 1344.000	1290.000	1355.000	25.990
σ		1.4%	0.005	0.076	0.089	0.758	T 65.690	T 10.690	4.552	10.130	0.046
%RSD		1.1	5.751	1.582	1.692	1.578	T 0.395	T 0.795	0.353	0.748	0.177

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:14	TM 17760.000	T 39010.000	T 7216.000	44800.000	T 46940.000	112.7%	7.694	0.401	1.841	6543.000
2	00:16:41	TM 17710.000	T 39120.000	T 7291.000	44830.000	T 47230.000	115.4%	7.364	-0.028	1.807	6837.000
3	00:17:09	TM 17560.000	T 39520.000	T 7280.000	45080.000	T 47410.000	113.0%	7.783	0.336	1.890	6936.000
x		TM 17680.000	T 39220.000	T 7262.000	44900.000	T 47190.000	113.7%	7.614	0.237	1.846	6772.000
σ		TM 101.000	T 271.000	T 40.860	156.500	T 237.100	1.5%	0.221	0.231	0.042	204.100
%RSD		TM 0.571	T 0.691	T 0.563	0.349	T 0.502	1.3	2.901	97.820	2.256	3.014

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:14	776.600	31.160	T 847.600	1061.000	0.175	2.160	8.471	4.221	4.159	419.700
2	00:16:41	786.900	31.180	T 849.100	1063.000	0.184	2.241	8.582	4.314	4.070	425.400
3	00:17:09	776.600	31.100	T 838.300	1047.000	0.201	2.255	8.755	4.408	4.037	422.600
x		780.100	31.150	T 845.000	1057.000	0.187	2.219	8.603	4.314	4.089	422.600
σ		5.949	0.043	T 5.847	8.542	0.013	0.051	0.143	0.094	0.063	2.847
%RSD		0.763	0.139	T 0.692	0.808	6.954	2.305	1.659	2.170	1.542	0.674

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:14	396.300	414.900	1.375	-0.066	8441.000	8599.000	72.670	6.914	-1.993	83.580
2	00:16:41	391.100	416.400	1.042	-0.382	8582.000	8755.000	72.320	6.829	-2.240	83.350
3	00:17:09	392.800	415.800	1.005	-0.063	8557.000	8685.000	67.240	5.506	-0.714	82.790
x		393.400	415.700	1.140	-0.170	8527.000	8680.000	70.750	6.417	-1.649	83.240
σ		2.646	0.723	0.204	0.183	75.030	77.790	3.037	0.789	0.819	0.407
%RSD		0.673	0.174	17.880	107.600	0.880	0.896	4.293	12.300	49.680	0.489

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:14	118.2%	0.649	0.782	0.635	3.318	0.003	0.006	0.057	0.076	122.8%
2	00:16:41	119.8%	0.637	0.752	0.596	3.188	0.002	0.001	0.065	0.083	122.6%
3	00:17:09	118.5%	0.625	0.816	0.565	1.792	0.007	0.003	0.049	0.053	125.1%
x		118.8%	0.637	0.783	0.599	2.766	0.004	0.003	0.057	0.071	123.5%
σ		0.8%	0.012	0.032	0.035	0.846	0.002	0.003	0.008	0.016	1.4%
%RSD		0.7	1.870	4.129	5.894	30.580	62.830	82.250	13.780	21.980	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:14	0.379	0.509	0.306	0.265	165.600	164.800	125.8%	-0.023	-0.026	0.284
2	00:16:41	0.371	0.498	0.282	0.288	166.600	164.300	128.3%	-0.024	-0.028	0.260
3	00:17:09	0.382	0.545	0.301	0.305	165.500	163.800	129.8%	-0.026	-0.027	0.250
x		0.377	0.517	0.296	0.286	165.900	164.300	127.9%	-0.024	-0.027	0.265
σ		0.006	0.024	0.013	0.020	0.588	0.518	2.0%	0.001	0.001	0.018
%RSD		1.487	4.718	4.252	7.161	0.354	0.315	1.6	5.611	2.751	6.652

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:16:14	0.258	0.261	121.9%
2	00:16:41	0.267	0.261	124.2%
3	00:17:09	0.232	0.245	124.0%
x		0.252	0.255	123.4%
σ		0.018	0.009	1.3%
%RSD		7.119	3.691	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:22:13	117.4%	-0.002	246.200	234.300	898.000	TM 337900.000	T 2955.000	2718.000	2736.000	TM 686.400
2	00:22:39	121.2%	0.008	233.400	225.800	855.800	TM 349500.000	T 2963.000	2689.000	T 2823.000	TM 678.100
3	00:23:06	123.9%	0.004	239.000	234.200	889.300	TM 343800.000	T 2960.000	2695.000	2729.000	TM 680.000
x		120.8%	0.003	239.500	231.400	881.000	TM 343700.000	T 2959.000	2700.000	T 2763.000	TM 681.500
σ		3.2%	0.005	6.391	4.836	22.280	TM 5826.000	T 3.807	15.290	T 52.270	TM 4.323
%RSD		2.7	152.800	2.668	2.090	2.529	TM 1.695	T 0.129	0.566	T 1.892	TM 0.634
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:22:13	TM 16780.000	T 50310.000	T 27930.000	10350.000	9722.000	112.7%	138.800	0.930	21.600	4169.000
2	00:22:39	TM 16780.000	T 50460.000	T 28610.000	10420.000	9883.000	116.2%	134.900	-3.363	T 10.340	6869.000
3	00:23:06	TM 16440.000	T 50600.000	T 28430.000	10430.000	9855.000	117.4%	131.700	0.373	21.590	4178.000
x		TM 16670.000	T 50460.000	T 28320.000	10400.000	9820.000	115.4%	135.100	-0.687	T 17.840	5072.000
σ		TM 200.500	T 145.100	T 355.000	41.360	86.000	2.5%	3.549	2.335	T 6.496	1556.000
%RSD		TM 1.203	T 0.288	T 1.253	0.398	0.876	2.1	2.626	340.000	T 36.410	30.680
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:22:13	T 6891.000	95.830	T 7282.000	6922.000	1.890	105.400	105.100	268.100	278.200	410.600
2	00:22:39	T 7053.000	98.200	T 7326.000	6928.000	1.814	103.000	107.500	270.900	278.700	406.600
3	00:23:06	T 6969.000	97.950	T 7317.000	6944.000	1.896	105.100	107.200	271.900	281.100	418.300
x		T 6971.000	97.320	T 7309.000	6931.000	1.867	104.500	106.600	270.300	279.300	411.800
σ		T 81.120	1.303	T 23.100	11.120	0.046	1.279	1.287	1.964	1.515	5.957
%RSD		T 1.164	1.339	T 0.316	0.161	2.444	1.224	1.208	0.727	0.542	1.446
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:22:13	375.000	395.800	8.520	0.645	119.100	123.200	2.762	0.524	-0.871	43.420
2	00:22:39	370.900	397.200	7.932	0.680	111.100	114.500	0.635	0.040	-1.775	43.450
3	00:23:06	385.500	401.800	8.311	0.512	106.200	108.200	1.109	0.148	-0.580	44.240
x		377.100	398.300	8.254	0.612	112.100	115.300	1.502	0.237	-1.075	43.700
σ		7.520	3.148	0.298	0.089	6.552	7.560	1.117	0.254	0.623	0.469
%RSD		1.994	0.791	3.612	14.510	5.842	6.556	74.360	107.200	57.950	1.072
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:22:13	121.1%	TM 1596.000	M 1587.000	TM 1614.000	5.287	4.180	4.002	-2.370	1.918	119.2%
2	00:22:39	124.3%	TM 1600.000	M 1595.000	TM 1632.000	3.446	4.199	3.997	-2.325	2.019	124.3%
3	00:23:06	127.1%	TM 1619.000	M 1594.000	TM 1631.000	2.543	4.220	3.937	-2.681	1.871	125.5%
x		124.2%	TM 1605.000	M 1592.000	TM 1626.000	3.758	4.200	3.979	-2.458	1.936	123.0%
σ		3.0%	TM 12.060	M 4.247	TM 9.622	1.398	0.020	0.037	0.194	0.076	3.4%
%RSD		2.4	TM 0.752	M 0.267	TM 0.592	37.210	0.480	0.919	7.881	3.902	2.7
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:22:13	4.497	4.635	5.244	5.449	36.010	35.440	127.1%	0.005	-0.011	21.940
2	00:22:39	4.838	4.615	5.361	5.505	36.220	34.780	132.4%	0.003	-0.019	21.910
3	00:23:06	4.631	4.518	5.286	5.428	35.950	34.660	134.0%	-0.005	-0.016	21.890
x		4.655	4.589	5.297	5.461	36.060	34.960	131.1%	0.001	-0.015	21.910
σ		0.172	0.062	0.059	0.040	0.142	0.421	3.6%	0.005	0.004	0.026
%RSD		3.690	1.358	1.121	0.726	0.394	1.204	2.8	436.800	24.530	0.119
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	00:22:13	19.880	20.690	117.3%							
2	00:22:39	20.050	20.620	121.9%							
3	00:23:06	19.780	20.740	123.4%							
x		19.900	20.680	120.9%							
σ		0.136	0.063	3.2%							
%RSD		0.683	0.305	2.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:09	127.2%	76.080	310.800	301.600	847.600	TM 337000.000	T 3760.000	T 3605.000	T 3650.000	TM 790.300
2	00:28:36	130.0%	73.480	294.600	291.300	825.000	TM 338400.000	T 3730.000	T 3589.000	T 3624.000	TM 786.300
3	00:29:04	133.8%	73.350	294.000	284.700	808.400	TM 347600.000	T 3704.000	T 3576.000	T 3612.000	TM 778.500
x		130.3%	74.300	299.800	292.500	827.000	TM 341000.000	T 3731.000	T 3590.000	T 3629.000	TM 785.000
σ		3.3%	1.542	9.561	8.497	19.670	TM 5772.000	T 28.170	T 14.750	T 19.730	TM 6.023
%RSD		2.5	2.075	3.189	2.904	2.378	TM 1.693	T 0.755	T 0.411	T 0.544	TM 0.767
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:09	TM 17390.000	T 49140.000	T 28490.000	11030.000	10410.000	121.4%	213.400	94.680	111.600	3888.000
2	00:28:36	TM 17210.000	T 48990.000	T 28730.000	11170.000	10440.000	123.5%	204.100	93.430	111.600	3533.000
3	00:29:04	TM 17240.000	T 49370.000	T 29320.000	11270.000	10560.000	127.4%	200.900	92.730	110.200	3324.000
x		TM 17280.000	T 49170.000	T 28850.000	11160.000	10470.000	124.1%	206.200	93.610	111.100	3582.000
σ		TM 92.620	T 194.300	T 426.300	124.000	77.640	3.0%	6.478	0.988	0.818	284.700
%RSD		TM 0.536	T 0.395	T 1.478	1.111	0.742	2.5	3.142	1.055	0.736	7.949
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:09	T 7765.000	188.100	T 7972.000	7622.000	92.260	189.400	197.700	354.200	361.500	483.200
2	00:28:36	T 7693.000	188.100	T 8001.000	7590.000	91.320	186.100	195.500	346.900	354.300	484.700
3	00:29:04	T 7708.000	189.800	T 7919.000	7586.000	90.710	185.700	198.000	346.000	358.200	489.600
x		T 7722.000	188.700	T 7964.000	7599.000	91.430	187.100	197.100	349.000	358.000	485.800
σ		T 37.760	0.995	T 41.310	20.020	0.780	2.050	1.348	4.496	3.600	3.371
%RSD		T 0.489	0.527	T 0.519	0.263	0.853	1.096	0.684	1.288	1.006	0.694
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:09	455.000	477.000	105.500	92.980	60.970	61.150	409.500	91.750	0.945	139.100
2	00:28:36	449.600	475.400	105.100	94.630	61.230	60.920	408.000	90.310	1.488	140.300
3	00:29:04	459.600	483.800	107.400	94.290	61.530	58.980	398.200	89.130	0.384	138.100
x		454.700	478.800	106.000	93.970	61.250	60.350	405.200	90.400	0.939	139.200
σ		5.030	4.465	1.225	0.869	0.281	1.193	6.127	1.311	0.552	1.136
%RSD		1.106	0.933	1.155	0.925	0.460	1.978	1.512	1.451	58.770	0.817
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:09	129.7%	TM 1654.000	M 1643.000	TM 1667.000	97.630	99.240	95.780	94.340	97.910	129.4%
2	00:28:36	131.0%	TM 1661.000	TM 1825.000	TM 1692.000	99.610	98.570	94.470	94.750	99.370	132.4%
3	00:29:04	139.6%	TM 1645.000	M 1647.000	TM 1669.000	97.020	97.940	95.110	96.170	99.680	138.8%
x		133.4%	TM 1653.000	TM 1705.000	TM 1676.000	98.090	98.580	95.120	95.090	98.990	133.5%
σ		5.4%	TM 7.921	TM 103.900	TM 14.160	1.358	0.649	0.657	0.962	0.948	4.8%
%RSD		4.0	TM 0.479	TM 6.094	TM 0.845	1.384	0.659	0.691	1.012	0.957	3.6
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:09	90.210	83.930	104.700	104.500	132.600	132.200	137.9%	91.290	93.280	127.900
2	00:28:36	91.050	84.370	105.700	105.700	135.200	132.000	140.5%	92.000	94.310	129.400
3	00:29:04	90.600	84.370	105.800	104.900	131.200	132.200	146.5%	90.640	93.030	125.200
x		90.620	84.220	105.400	105.000	133.000	132.200	141.6%	91.310	93.540	127.500
σ		0.420	0.255	0.609	0.608	2.043	0.115	4.4%	0.685	0.675	2.168
%RSD		0.464	0.303	0.578	0.579	1.536	0.087	3.1	0.750	0.722	1.700
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	00:28:09	120.200	122.300	125.2%							
2	00:28:36	120.700	123.800	128.3%							
3	00:29:04	118.600	121.300	134.9%							
x		119.800	122.500	129.5%							
σ		1.129	1.235	5.0%							
%RSD		0.942	1.009	3.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:34:07	131.7%	75.040	303.700	298.200	821.000	TM 345400.000	T 3758.000	T 3634.000	T 3642.000	TM 787.000
2	00:34:34	135.1%	74.440	304.000	298.800	825.300	TM 341000.000	T 3737.000	T 3641.000	T 3638.000	TM 783.500
3	00:35:01	139.4%	74.470	299.600	288.400	794.300	TM 346900.000	T 3723.000	T 3599.000	T 3606.000	TM 773.000
x		135.4%	74.650	302.400	295.200	813.500	TM 344500.000	T 3739.000	T 3625.000	T 3629.000	TM 781.200
σ		3.9%	0.336	2.469	5.847	16.820	TM 3076.000	T 17.460	T 22.810	T 19.640	TM 7.318
%RSD		2.9	0.451	0.817	1.981	2.068	TM 0.893	T 0.467	T 0.629	T 0.541	TM 0.937
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:34:07	TM 17490.000	T 49470.000	T 29320.000	11170.000	10660.000	126.7%	T 76.200	94.520	111.900	3437.000
2	00:34:34	TM 16980.000	T 49570.000	T 29030.000	11050.000	10520.000	125.4%	205.400	94.100	112.300	3174.000
3	00:35:01	TM 16810.000	T 49520.000	T 29530.000	11150.000	10520.000	129.5%	200.400	93.130	110.800	3236.000
x		TM 17090.000	T 49520.000	T 29290.000	11120.000	10570.000	127.2%	T 160.700	93.920	111.700	3282.000
σ		TM 354.800	T 49.790	T 251.800	64.750	78.670	2.1%	T 73.200	0.709	0.750	137.700
%RSD		TM 2.075	T 0.101	T 0.860	0.582	0.745	1.7	T 45.560	0.755	0.672	4.195
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:34:07	T 7644.000	189.900	T 7958.000	7741.000	92.720	188.500	198.800	348.000	364.300	496.500
2	00:34:34	T 7627.000	190.100	T 7969.000	7673.000	92.500	189.700	200.100	351.600	363.400	499.100
3	00:35:01	T 7698.000	188.300	T 7891.000	7585.000	90.660	184.600	201.900	344.900	361.300	497.800
x		T 7657.000	189.400	T 7939.000	7666.000	91.960	187.600	200.300	348.200	363.000	497.800
σ		T 37.210	0.979	T 41.760	78.110	1.132	2.693	1.557	3.342	1.548	1.310
%RSD		T 0.486	0.517	T 0.526	1.019	1.231	1.435	0.777	0.960	0.427	0.263
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:34:07	463.700	483.800	106.800	96.580	45.480	47.480	397.700	89.520	-0.078	139.000
2	00:34:34	465.500	492.300	107.900	94.870	46.140	45.740	419.000	93.180	-0.871	140.900
3	00:35:01	465.900	493.700	107.900	96.770	47.220	47.800	407.700	91.980	-1.421	140.000
x		465.100	489.900	107.500	96.070	46.280	47.010	408.100	91.560	-0.790	140.000
σ		1.174	5.371	0.618	1.048	0.879	1.110	10.640	1.870	0.675	0.931
%RSD		0.253	1.096	0.575	1.091	1.900	2.361	2.606	2.042	85.490	0.665
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:34:07	141.4%	TM 1648.000	M 1651.000	TM 1659.000	97.400	99.560	95.460	95.250	99.930	139.4%
2	00:34:34	138.1%	TM 1663.000	M 1657.000	TM 1693.000	102.300	100.400	96.950	96.260	99.940	138.1%
3	00:35:01	143.5%	TM 1659.000	TM 1830.000	TM 1686.000	101.100	99.390	95.790	96.770	99.440	141.4%
x		141.0%	TM 1657.000	TM 1713.000	TM 1679.000	100.300	99.790	96.070	96.090	99.770	139.7%
σ		2.8%	TM 7.632	TM 101.500	TM 18.200	2.561	0.545	0.785	0.771	0.285	1.7%
%RSD		2.0	TM 0.461	TM 5.928	TM 1.084	2.554	0.546	0.817	0.803	0.286	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:34:07	90.530	84.220	105.500	105.900	131.800	131.500	147.2%	91.120	92.480	126.600
2	00:34:34	92.040	84.130	107.400	105.500	132.500	132.200	145.6%	91.950	94.520	127.300
3	00:35:01	90.750	84.070	106.900	108.100	132.400	130.800	150.4%	91.770	94.000	126.800
x		91.110	84.140	106.600	106.500	132.200	131.500	147.7%	91.610	93.670	126.900
σ		0.818	0.074	0.975	1.360	0.344	0.717	2.4%	0.435	1.058	0.347
%RSD		0.898	0.088	0.915	1.276	0.260	0.545	1.6	0.475	1.130	0.274
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	00:34:07	120.400	122.500	133.7%							
2	00:34:34	121.100	123.600	133.4%							
3	00:35:01	120.300	122.500	138.7%							
x		120.600	122.900	135.3%							
σ		0.432	0.602	3.0%							
%RSD		0.358	0.490	2.2							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:04	136.0%	-0.023	59.440	56.300	193.000	T 68600.000	T 627.800	581.700	586.500	140.100
2	00:40:31	137.7%	-0.039	60.030	56.720	198.600	T 67740.000	T 624.000	578.300	584.000	140.300
3	00:40:58	138.2%	-0.032	55.890	55.330	189.200	T 68320.000	T 621.100	570.000	579.600	137.900
x		137.3%	-0.031	58.450	56.120	193.600	T 68220.000	T 624.300	576.700	583.400	139.400
σ		1.2%	0.008	2.237	0.712	4.739	T 438.200	T 3.407	6.028	3.497	1.304
%RSD		0.9	25.930	3.828	1.269	2.448	T 0.642	T 0.546	1.045	0.599	0.935

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:04	T 3131.000	T 9871.000	T 5726.000	2043.000	1948.000	125.9%	28.080	0.225	4.269	722.000
2	00:40:31	T 3107.000	T 10070.000	T 5819.000	2064.000	1914.000	126.1%	27.640	0.175	4.257	755.700
3	00:40:58	T 3067.000	T 9957.000	T 5731.000	2083.000	1927.000	126.2%	27.230	0.203	4.185	750.000
x		T 3101.000	T 9965.000	T 5759.000	2063.000	1930.000	126.0%	27.650	0.201	4.237	742.600
σ		T 32.370	T 97.420	T 52.030	19.660	16.770	0.1%	0.427	0.025	0.046	17.990
%RSD		T 1.044	T 0.978	T 0.904	0.953	0.869	0.1	1.545	12.410	1.081	2.423

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:04	1320.000	19.200	T 1437.000	1311.000	0.357	20.640	43.160	55.040	56.080	85.070
2	00:40:31	1331.000	19.210	T 1447.000	1341.000	0.369	21.000	43.020	55.780	57.270	86.470
3	00:40:58	1340.000	19.070	T 1444.000	1322.000	0.347	21.160	43.810	55.480	56.120	86.030
x		1330.000	19.160	T 1443.000	1325.000	0.358	20.930	43.330	55.430	56.490	85.860
σ		10.410	0.082	T 5.058	15.090	0.011	0.267	0.424	0.372	0.677	0.718
%RSD		0.782	0.430	T 0.351	1.140	3.088	1.277	0.979	0.670	1.199	0.837

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:04	76.890	81.620	1.522	0.007	11.930	12.320	-1.739	-0.409	-1.763	8.654
2	00:40:31	80.030	84.460	1.644	0.103	12.450	12.560	0.264	0.016	-2.352	8.590
3	00:40:58	79.980	82.540	1.503	0.062	12.090	11.910	-2.138	-0.544	-0.053	8.681
x		78.960	82.870	1.556	0.057	12.150	12.260	-1.204	-0.312	-1.389	8.642
σ		1.798	1.450	0.077	0.048	0.267	0.327	1.287	0.293	1.194	0.047
%RSD		2.277	1.750	4.919	84.180	2.194	2.667	106.900	93.640	85.970	0.543

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:04	138.4%	296.100	295.700	296.400	-0.507	0.845	0.802	-0.330	0.457	140.1%
2	00:40:31	140.6%	299.200	299.600	300.300	-1.138	0.814	0.813	-0.375	0.368	144.0%
3	00:40:58	138.8%	296.000	297.600	297.200	-0.235	0.793	0.816	-0.361	0.402	141.5%
x		139.3%	297.100	297.600	298.000	-0.627	0.817	0.811	-0.355	0.409	141.9%
σ		1.1%	1.831	1.945	2.079	0.463	0.026	0.007	0.023	0.045	2.0%
%RSD		0.8	0.616	0.653	0.698	73.880	3.202	0.894	6.511	10.880	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:04	0.858	0.826	0.985	0.996	7.041	6.994	146.1%	-0.018	-0.024	4.222
2	00:40:31	0.939	0.901	1.006	1.033	6.943	6.884	147.4%	-0.023	-0.026	4.237
3	00:40:58	0.882	0.918	1.047	0.962	6.937	6.899	147.6%	-0.020	-0.026	4.213
x		0.893	0.882	1.012	0.997	6.974	6.925	147.1%	-0.020	-0.025	4.224
σ		0.042	0.049	0.031	0.036	0.058	0.060	0.8%	0.002	0.001	0.012
%RSD		4.660	5.558	3.103	3.564	0.833	0.863	0.6	11.730	5.035	0.277

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:40:04	3.712	3.908	140.2%
2	00:40:31	3.708	3.925	140.8%
3	00:40:58	3.925	3.970	141.2%
x		3.781	3.935	140.8%
σ		0.124	0.032	0.5%
%RSD		3.279	0.808	0.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:46:01	137.8%	-0.029	2.037	1.468	27.660	139.400	1.532	1.658	1.461	1.610
2	00:46:28	140.0%	-0.027	1.747	1.483	25.620	134.500	1.388	1.478	1.531	1.607
3	00:46:55	139.9%	-0.038	1.417	1.482	20.830	138.400	1.420	1.430	1.282	1.712
x		139.2%	-0.031	1.734	1.478	24.710	137.400	1.447	1.522	1.425	1.643
σ		1.2%	0.006	0.310	0.009	3.504	2.562	0.076	0.120	0.129	0.060
%RSD		0.9	18.630	17.880	0.591	14.180	1.864	5.223	7.890	9.037	3.632

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:46:01	13.420	T 50900.000	7.473	8.019	8.199	126.2%	0.363	0.025	0.556	3611.000
2	00:46:28	13.090	T 50350.000	8.268	7.751	7.105	124.6%	0.281	0.115	0.527	3704.000
3	00:46:55	13.070	T 50360.000	4.308	7.236	7.892	125.8%	0.310	-0.026	0.503	3740.000
x		13.190	T 50530.000	6.683	7.669	7.732	125.6%	0.318	0.038	0.528	3685.000
σ		0.196	T 312.100	2.095	0.398	0.564	0.9%	0.041	0.071	0.026	66.480
%RSD		1.485	T 0.618	31.350	5.191	7.299	0.7	13.020	186.900	4.954	1.804

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:46:01	1.648	0.084	6.725	-41.540	-0.032	0.332	27.040	1.534	0.020	1.671
2	00:46:28	2.083	0.090	5.495	-40.980	-0.031	0.327	25.270	1.477	0.019	1.605
3	00:46:55	1.444	0.084	6.361	-38.270	-0.031	0.413	24.360	1.529	0.014	1.662
x		1.725	0.086	6.194	-40.270	-0.031	0.357	25.560	1.513	0.018	1.646
σ		0.327	0.003	0.632	1.749	0.001	0.048	1.362	0.032	0.003	0.036
%RSD		18.930	3.990	10.210	4.344	2.096	13.450	5.330	2.094	17.970	2.174

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:46:01	1.825	1.599	-0.324	-0.239	10.200	10.780	-2.795	-0.650	-2.437	0.009
2	00:46:28	1.896	1.710	0.093	-0.017	8.986	10.440	-0.122	-0.134	-0.777	0.008
3	00:46:55	1.601	1.695	-0.028	0.259	10.080	9.921	-1.197	-0.396	0.985	0.006
x		1.774	1.668	-0.086	0.001	9.754	10.380	-1.371	-0.393	-0.743	0.008
σ		0.154	0.060	0.215	0.249	0.668	0.433	1.345	0.258	1.711	0.002
%RSD		8.695	3.616	249.000	32120.000	6.848	4.175	98.090	65.630	230.300	19.150

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:46:01	139.6%	0.078	0.089	0.085	-1.951	0.001	-0.001	-0.004	0.020	143.9%
2	00:46:28	141.2%	0.082	0.089	0.062	-1.814	0.000	-0.000	-0.000	0.003	146.9%
3	00:46:55	140.1%	0.068	0.076	0.066	-1.665	0.001	-0.002	-0.002	0.002	145.8%
x		140.3%	0.076	0.085	0.071	-1.810	0.001	-0.001	-0.002	0.008	145.5%
σ		0.8%	0.007	0.008	0.012	0.143	0.000	0.001	0.002	0.010	1.5%
%RSD		0.6	9.639	9.143	17.320	7.906	62.980	87.360	93.250	121.700	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:46:01	1.311	1.727	-0.002	0.009	0.011	0.008	148.0%	-0.026	-0.032	-0.035
2	00:46:28	1.271	1.784	0.009	-0.007	0.023	0.011	147.2%	-0.027	-0.033	-0.038
3	00:46:55	1.306	1.738	0.006	0.010	0.008	0.019	146.7%	-0.029	-0.032	-0.029
x		1.296	1.750	0.004	0.004	0.014	0.013	147.3%	-0.028	-0.032	-0.034
σ		0.022	0.031	0.006	0.010	0.008	0.005	0.7%	0.002	0.001	0.004
%RSD		1.661	1.743	136.300	244.000	58.140	42.490	0.5	5.460	2.263	12.780

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:46:01	-0.013	-0.023	146.8%
2	00:46:28	-0.011	-0.025	146.8%
3	00:46:55	-0.016	-0.023	147.2%
x		-0.013	-0.023	146.9%
σ		0.002	0.001	0.2%
%RSD		16.320	5.265	0.1

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:51:58	134.3%	95.550	92.200	89.340	28.570	T1308.000	T1009.000	926.000	931.200	94.570
2	00:52:24	135.4%	94.110	97.600	90.020	34.770	T1308.000	T997.300	914.400	913.700	94.360
3	00:52:51	137.0%	95.090	94.380	90.700	29.900	T1275.000	T994.900	920.600	918.600	93.430
x		135.6%	94.920	94.730	90.020	31.080	T1297.000	T1000.000	920.300	921.100	94.120
σ		1.4%	0.734	2.717	0.679	3.265	T19.020	T7.408	5.789	9.041	0.607
%RSD		1.0	0.774	2.868	0.754	10.510	T1.467	T0.741	0.629	0.982	0.645

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:51:58	T842.800	T51090.000	1132.000	1103.000	1007.000	122.9%	96.900	97.100	97.030	2860.000
2	00:52:24	T838.300	T50690.000	1112.000	1105.000	991.000	125.4%	96.800	94.110	93.900	3663.000
3	00:52:51	T825.500	T50900.000	1126.000	1185.000	1001.000	122.8%	96.390	94.880	95.520	3750.000
x		T835.600	T50890.000	1123.000	1131.000	999.700	123.7%	96.690	95.360	95.490	3424.000
σ		T8.995	T199.700	10.300	46.410	7.977	1.5%	0.269	1.551	1.564	490.800
%RSD		T1.077	T0.392	0.917	4.103	0.798	1.2	0.278	1.627	1.638	14.330

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:51:58	1015.000	99.310	T1063.000	987.800	97.070	95.450	117.700	94.680	99.980	103.400
2	00:52:24	1006.000	98.040	T1055.000	959.900	95.540	95.100	112.700	93.430	97.720	103.000
3	00:52:51	1029.000	99.760	T1069.000	972.400	97.090	98.130	117.600	95.380	99.360	106.100
x		1017.000	99.040	T1062.000	973.400	96.570	96.230	116.000	94.490	99.020	104.200
σ		11.700	0.892	T7.014	13.980	0.889	1.655	2.888	0.986	1.164	1.656
%RSD		1.151	0.901	T0.660	1.437	0.921	1.720	2.489	1.043	1.175	1.590

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:51:58	104.000	104.100	101.700	106.000	7.056	7.909	447.200	94.540	-1.117	98.010
2	00:52:24	102.500	103.000	100.000	103.700	7.267	7.229	446.800	96.040	-2.256	97.500
3	00:52:51	104.600	104.600	102.300	104.700	7.054	7.447	451.600	95.830	-0.049	99.330
x		103.700	103.900	101.400	104.800	7.126	7.528	448.500	95.470	-1.141	98.280
σ		1.121	0.826	1.188	1.194	0.123	0.347	2.645	0.815	1.104	0.945
%RSD		1.081	0.795	1.172	1.139	1.723	4.609	0.590	0.854	96.760	0.962

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:51:58	136.0%	97.110	96.940	96.240	101.100	100.400	96.660	99.040	99.720	142.9%
2	00:52:24	138.4%	95.430	96.800	96.380	104.100	100.900	97.370	100.800	100.400	143.2%
3	00:52:51	135.0%	97.080	98.070	97.280	103.900	101.400	97.960	100.900	100.200	141.5%
x		136.5%	96.540	97.270	96.640	103.000	100.900	97.330	100.300	100.100	142.5%
σ		1.8%	0.960	0.695	0.562	1.699	0.544	0.650	1.056	0.365	0.9%
%RSD		1.3	0.994	0.715	0.582	1.649	0.539	0.668	1.054	0.365	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:51:58	102.500	100.700	96.290	97.240	99.030	96.570	146.3%	97.560	100.400	102.600
2	00:52:24	102.300	101.600	97.850	98.450	98.250	98.860	146.2%	97.660	100.700	105.100
3	00:52:51	103.700	101.800	98.770	98.830	97.650	97.790	146.7%	97.320	100.100	103.200
x		102.800	101.400	97.640	98.170	98.310	97.740	146.4%	97.510	100.400	103.600
σ		0.752	0.582	1.255	0.834	0.695	1.150	0.3%	0.178	0.289	1.268
%RSD		0.731	0.574	1.285	0.850	0.706	1.177	0.2	0.182	0.287	1.223

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:51:58	98.060	100.100	147.2%
2	00:52:24	98.390	101.000	145.4%
3	00:52:51	98.170	100.100	147.5%
x		98.210	100.400	146.7%
σ		0.171	0.531	1.1%
%RSD		0.174	0.529	0.8

CCV MW11050 05/09/2019 00:57:28 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:57:55	114.0%	290.300	293.200	284.400	9.576	┬70950.000	┬60510.000	┬59790.000	┬59280.000	279.400
2	00:58:22	114.6%	284.600	277.900	274.100	9.612	┬72440.000	┬60240.000	┬59510.000	┬59000.000	278.100
3	00:58:49	114.5%	289.800	291.700	278.600	13.850	┬71630.000	┬60290.000	┬59550.000	┬59480.000	277.900
x		114.4%	96.091%	95.866%	93.005%	11.010	┬119.457%	┬60350.000	┬59620.000	┬98.755%	92.827%
σ		0.3%	n/a	n/a	n/a	2.460	┬n/a	┬142.700	┬151.500	┬n/a	n/a
%RSD		0.3	1.096	2.930	1.857	22.330	┬1.037	┬0.236	┬0.254	┬0.410	0.296

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:57:55	┬2924.000	583.600	┬66840.000	61310.000	┬63890.000	111.6%	288.700	┬302.800	284.900	1233.000
2	00:58:22	┬2953.000	576.800	┬67370.000	61210.000	┬63710.000	114.5%	288.600	┬300.500	282.800	1430.000
3	00:58:49	┬2929.000	573.000	┬67350.000	61200.000	┬63640.000	113.0%	291.100	┬302.000	283.400	1061.000
x		┬97.849%	577.800	┬111.974%	61240.000	┬106.239%	113.1%	96.488%	┬100.596%	94.579%	1241.000
σ		┬n/a	5.371	┬n/a	60.640	┬n/a	1.5%	n/a	┬n/a	n/a	185.000
%RSD		┬0.537	0.929	┬0.450	0.099	┬0.201	1.3	0.483	┬0.384	0.385	14.910

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:57:55	┬61000.000	┬299.500	┬61510.000	┬62570.000	286.200	277.000	282.200	265.600	272.500	286.700
2	00:58:22	┬61380.000	┬300.400	┬61510.000	┬62200.000	280.700	268.700	275.600	263.500	272.800	281.600
3	00:58:49	┬60910.000	┬296.900	┬61830.000	┬62410.000	281.300	269.900	276.600	260.700	269.100	281.100
x		┬61100.000	┬99.646%	┬61620.000	┬103.989%	94.244%	90.610%	278.100	263.300	90.491%	94.376%
σ		┬250.400	┬n/a	┬182.900	┬n/a	n/a	n/a	3.548	2.468	n/a	n/a
%RSD		┬0.410	┬0.619	┬0.297	┬0.297	1.056	1.649	1.276	0.937	0.746	1.101

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:57:55	281.900	285.200	291.600	293.300	4.654	4.002	1244.000	276.800	-1.822	┬306.200
2	00:58:22	284.800	285.500	290.600	287.300	4.783	3.372	1267.000	284.400	-4.003	┬313.200
3	00:58:49	281.500	281.500	285.000	289.700	5.040	3.573	1229.000	273.100	-0.031	┬309.700
x		282.700	284.100	96.348%	290.100	4.826	3.649	1247.000	92.701%	-1.952	┬103.232%
σ		1.799	2.201	n/a	3.004	0.196	0.322	19.060	n/a	1.989	┬n/a
%RSD		0.636	0.775	1.226	1.035	4.064	8.824	1.529	2.060	101.900	┬1.131

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:57:55	120.6%	298.200	302.800	303.300	295.400	294.300	284.200	297.200	294.100	121.0%
2	00:58:22	121.4%	302.400	306.400	306.700	292.500	296.700	287.500	297.000	297.300	121.3%
3	00:58:49	121.2%	301.700	301.400	301.900	291.900	292.800	281.100	292.000	294.200	122.0%
x		121.1%	100.252%	101.183%	304.000	293.300	98.200%	284.300	295.400	98.400%	121.4%
σ		0.4%	n/a	n/a	2.475	1.878	n/a	3.172	2.946	n/a	0.5%
%RSD		0.4	0.735	0.857	0.814	0.640	0.660	1.116	0.997	0.622	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:57:55	304.100	302.800	302.100	304.100	295.700	294.800	128.3%	287.500	┬304.000	343.300
2	00:58:22	303.900	303.400	303.000	302.300	294.600	294.600	128.3%	289.400	┬304.200	307.200
3	00:58:49	304.300	302.100	299.700	302.800	292.300	293.200	130.7%	286.400	┬303.400	307.300
x		101.367%	100.930%	301.600	101.026%	98.068%	98.072%	129.1%	287.800	┬101.288%	106.418%
σ		n/a	n/a	1.715	n/a	n/a	n/a	1.4%	1.522	┬n/a	n/a
%RSD		0.059	0.209	0.569	0.296	0.589	0.291	1.1	0.529	┬0.150	6.517

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:57:55	337.800	┬341.500	┬111.4%
2	00:58:22	299.400	┬306.800	125.6%
3	00:58:49	301.500	┬305.900	126.4%
x		104.302%	┬106.022%	┬121.1%
σ		n/a	┬n/a	┬8.5%
%RSD		6.910	┬6.388	┬7.0

CCB IM9409-01 05/09/2019 01:03:26 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:03:53	121.9%	0.001	1.801	1.495	10.190	30.880	0.160	0.260	0.167	0.006
2	01:04:20	122.2%	0.023	1.479	1.412	4.753	29.540	0.115	0.101	0.143	0.028
3	01:04:47	123.5%	-0.013	1.496	1.183	5.501	30.680	0.066	-0.020	0.061	0.023
x		122.5%	0.004	1.592	1.363	6.814	30.370	0.114	0.114	0.124	0.019
σ		0.8%	0.018	0.181	0.162	2.946	0.726	0.047	0.140	0.056	0.012
%RSD		0.7	452.100	11.380	11.850	43.230	2.391	41.270	123.100	45.180	61.120
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:03:53	9.349	300.000	-1.401	0.729	0.251	115.7%	0.060	0.027	-0.002	14.210
2	01:04:20	9.541	297.300	0.406	-1.456	0.603	114.9%	0.052	0.017	0.016	19.960
3	01:04:47	9.395	289.100	-2.388	-1.049	0.260	116.7%	-0.008	-0.006	0.018	43.130
x		9.428	295.500	-1.128	-0.592	0.371	115.8%	0.034	0.013	0.011	25.770
σ		0.100	5.705	1.417	1.162	0.201	0.9%	0.037	0.017	0.011	15.310
%RSD		1.064	1.931	125.600	196.300	54.020	0.8	107.300	130.800	104.300	59.410
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:03:53	-1.727	0.003	-1.414	-23.640	-0.018	-0.012	2.911	0.214	0.017	-0.021
2	01:04:20	-1.331	-0.004	-3.146	-23.460	-0.021	-0.019	3.315	0.201	0.002	0.013
3	01:04:47	-1.694	0.010	-3.559	-26.770	-0.017	-0.015	2.767	0.186	-0.010	-0.017
x		-1.584	0.003	-2.707	-24.620	-0.019	-0.015	2.998	0.200	0.003	-0.008
σ		0.220	0.007	1.138	1.865	0.002	0.003	0.284	0.014	0.014	0.019
%RSD		13.860	245.300	42.050	7.576	13.020	20.350	9.472	6.989	462.500	227.200
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:03:53	0.028	0.019	-0.050	0.017	2.479	2.354	-1.402	-0.345	-2.132	0.002
2	01:04:20	-0.002	-0.008	0.005	-0.395	1.929	2.413	-0.208	-0.143	-1.234	0.001
3	01:04:47	0.058	0.031	-0.101	-0.135	1.954	2.571	-2.305	-0.598	-0.593	0.001
x		0.028	0.014	-0.049	-0.171	2.120	2.446	-1.305	-0.362	-1.319	0.001
σ		0.030	0.020	0.053	0.208	0.311	0.112	1.052	0.228	0.773	0.000
%RSD		105.700	145.900	109.100	122.000	14.660	4.597	80.610	62.900	58.600	35.980
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:03:53	126.0%	0.037	0.048	0.054	1.011	0.004	0.003	0.000	0.002	130.1%
2	01:04:20	124.7%	0.042	0.021	0.021	-0.563	0.006	0.002	0.003	0.006	131.4%
3	01:04:47	127.5%	0.019	0.028	0.031	-0.290	0.004	0.004	-0.002	0.002	133.8%
x		126.1%	0.033	0.032	0.035	0.053	0.004	0.003	0.000	0.003	131.7%
σ		1.4%	0.012	0.014	0.017	0.841	0.001	0.001	0.002	0.002	1.9%
%RSD		1.1	37.850	43.610	48.500	1599.000	24.940	35.260	541.400	72.530	1.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:03:53	0.066	0.046	0.145	0.111	0.002	0.005	132.8%	-0.012	-0.017	-0.008
2	01:04:20	0.076	0.072	0.139	0.134	-0.002	0.001	133.4%	-0.011	-0.014	-0.000
3	01:04:47	0.040	0.055	0.120	0.095	0.002	0.005	135.2%	-0.015	-0.015	-0.001
x		0.061	0.057	0.135	0.113	0.001	0.004	133.8%	-0.012	-0.016	-0.003
σ		0.018	0.013	0.013	0.019	0.002	0.002	1.3%	0.002	0.002	0.004
%RSD		30.230	22.830	9.832	17.060	257.200	57.560	0.9	14.920	10.520	127.200
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	01:03:53	0.019	0.012	136.3%							
2	01:04:20	0.009	0.003	136.2%							
3	01:04:47	0.007	0.004	138.8%							
x		0.012	0.007	137.1%							
σ		0.007	0.005	1.5%							
%RSD		55.130	70.650	1.1							

UE01065-001 05/09/2019 01:09:22

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:09:50	114.1%	-0.061	265.300	285.100	-29.140	TM 281200.000	T 2901.000	T 2904.000	T 2995.000	79.690
2	01:10:17	116.5%	-0.061	265.800	283.200	-29.410	TM 286300.000	T 2960.000	T 2915.000	T 3069.000	81.180
3	01:10:44	118.4%	-0.060	266.800	283.800	-28.110	TM 276700.000	T 2941.000	T 2929.000	T 3036.000	79.170
x		116.3%	-0.061	266.000	284.100	-28.890	TM 281400.000	T 2934.000	T 2916.000	T 3034.000	80.010
σ		2.1%	0.001	0.762	0.980	0.684	TM 4814.000	T 30.070	T 12.830	T 37.090	1.044
%RSD		1.8	1.105	0.287	0.345	2.369	TM 1.711	T 1.025	T 0.440	T 1.223	1.304
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:09:50	T 2609.000	T 51390.000	T 10640.000	98210.000	TM 102900.000	112.3%	53.710	31.410	8.095	2204.000
2	01:10:17	T 2591.000	T 52570.000	T 10860.000	98210.000	TM 103900.000	112.0%	53.080	31.490	8.334	2331.000
3	01:10:44	T 2527.000	T 52890.000	T 10870.000	98710.000	TM 103700.000	111.6%	53.460	31.630	8.188	2389.000
x		T 2575.000	T 52280.000	T 10790.000	98380.000	TM 103500.000	112.0%	53.420	31.510	8.205	2308.000
σ		T 43.020	T 791.100	T 130.400	286.200	TM 519.800	0.4%	0.316	0.110	0.121	94.610
%RSD		T 1.670	T 1.513	T 1.208	0.291	TM 0.502	0.3	0.591	0.350	1.469	4.099
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:09:50	1881.000	7.263	T 2046.000	2591.000	13.730	17.590	16.830	3.461	3.357	8.817
2	01:10:17	1893.000	7.244	T 2085.000	2636.000	13.790	17.800	17.440	3.345	3.253	9.278
3	01:10:44	1897.000	7.382	T 2079.000	2604.000	14.140	18.070	16.620	3.470	3.432	9.397
x		1890.000	7.296	T 2070.000	2610.000	13.890	17.820	16.960	3.425	3.347	9.164
σ		8.272	0.075	T 21.260	23.400	0.224	0.242	0.428	0.070	0.090	0.306
%RSD		0.438	1.024	T 1.027	0.897	1.612	1.356	2.522	2.045	2.685	3.342
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:09:50	9.516	8.993	0.394	-0.195	79.370	80.090	-2.090	-0.590	0.403	210.500
2	01:10:17	9.545	8.632	1.044	-0.199	77.320	79.810	1.855	0.304	-1.050	209.600
3	01:10:44	10.080	8.889	0.885	-0.341	77.480	82.690	1.450	0.208	-0.330	T 220.600
x		9.715	8.838	0.774	-0.245	78.060	80.860	0.405	-0.026	-0.326	T 213.600
σ		0.320	0.186	0.339	0.083	1.140	1.588	2.170	0.491	0.727	T 6.130
%RSD		3.296	2.103	43.730	34.060	1.460	1.963	536.000	1901.000	223.100	T 2.870
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:09:50	121.2%	291.700	291.000	290.800	8.469	0.035	0.044	-0.700	0.057	121.7%
2	01:10:17	121.9%	289.000	293.200	290.900	6.258	0.033	0.040	-0.680	0.024	123.1%
3	01:10:44	121.7%	288.900	292.400	291.600	6.417	0.029	0.034	-0.756	0.071	122.2%
x		121.6%	289.900	292.200	291.100	7.048	0.032	0.040	-0.712	0.051	122.4%
σ		0.4%	1.566	1.140	0.465	1.233	0.003	0.005	0.039	0.024	0.7%
%RSD		0.3	0.540	0.390	0.160	17.500	8.143	11.780	5.525	47.350	0.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:09:50	2.727	3.526	0.442	0.448	7.970	7.997	129.0%	-0.005	-0.003	-0.008
2	01:10:17	2.641	3.531	0.479	0.415	7.963	7.932	130.0%	0.001	-0.011	0.002
3	01:10:44	2.723	3.422	0.459	0.486	7.846	7.805	130.0%	0.001	-0.004	-0.000
x		2.697	3.493	0.460	0.450	7.926	7.912	129.7%	-0.001	-0.006	-0.002
σ		0.048	0.062	0.018	0.035	0.070	0.097	0.5%	0.003	0.004	0.006
%RSD		1.787	1.774	4.014	7.854	0.884	1.229	0.4	304.900	67.180	247.300
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	01:09:50	0.013	0.006	120.8%							
2	01:10:17	0.015	0.007	122.3%							
3	01:10:44	0.006	0.003	122.1%							
x		0.011	0.005	121.7%							
σ		0.005	0.002	0.8%							
%RSD		39.550	39.380	0.7							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:48	119.2%	-0.047	149.100	147.500	38.310	TM 115600.000	T 3749.000	T 3636.000	T 3728.000	101.900
2	01:16:15	119.7%	-0.047	147.100	145.900	32.810	TM 117400.000	T 3695.000	T 3627.000	T 3704.000	100.800
3	01:16:42	120.6%	-0.042	147.200	147.100	30.660	TM 118400.000	T 3688.000	T 3576.000	T 3646.000	100.200
x		119.9%	-0.046	147.800	146.800	33.930	TM 117200.000	T 3711.000	T 3613.000	T 3693.000	101.000
σ		0.7%	0.003	1.136	0.849	3.949	TM 1444.000	T 33.160	T 32.340	T 42.170	0.860
%RSD		0.6	6.322	0.768	0.578	11.640	TM 1.232	T 0.894	T 0.895	T 1.142	0.852

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:48	T 2250.000	T 49570.000	T 12030.000	35010.000	T 36540.000	112.1%	22.130	40.000	7.843	2842.000
2	01:16:15	T 2278.000	T 49820.000	T 12020.000	35350.000	T 36660.000	115.2%	22.830	39.750	7.767	2971.000
3	01:16:42	T 2265.000	T 49360.000	T 11910.000	34500.000	T 36310.000	114.8%	24.400	40.030	7.849	2948.000
x		T 2265.000	T 49580.000	T 11990.000	34950.000	T 36500.000	114.0%	23.120	39.930	7.820	2920.000
σ		T 14.070	T 233.000	T 66.110	429.400	T 180.800	1.7%	1.163	0.151	0.046	68.980
%RSD		T 0.621	T 0.470	T 0.551	1.228	T 0.495	1.5	5.030	0.379	0.587	2.362

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:48	717.300	27.220	T 789.000	954.500	6.331	30.350	28.980	16.710	17.470	107.700
2	01:16:15	717.500	26.490	T 780.200	941.800	6.310	30.340	30.150	16.460	17.170	107.800
3	01:16:42	719.500	26.720	T 778.600	932.000	6.242	30.560	28.800	16.730	16.970	109.400
x		718.100	26.810	T 782.600	942.800	6.294	30.420	29.310	16.630	17.200	108.300
σ		1.254	0.374	T 5.622	11.260	0.046	0.121	0.730	0.153	0.251	0.945
%RSD		0.175	1.397	T 0.718	1.194	0.739	0.398	2.492	0.922	1.460	0.873

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:48	102.200	106.100	0.488	-0.245	188.600	194.000	0.648	-0.118	-0.689	120.300
2	01:16:15	100.700	104.500	0.633	0.593	189.000	193.800	1.523	0.061	0.623	121.100
3	01:16:42	105.300	105.500	0.891	-0.145	191.400	190.700	0.978	-0.034	-0.055	121.000
x		102.800	105.400	0.670	0.068	189.600	192.900	1.050	-0.030	-0.040	120.800
σ		2.367	0.825	0.204	0.458	1.555	1.841	0.442	0.090	0.656	0.421
%RSD		2.303	0.783	30.460	676.400	0.820	0.955	42.140	294.600	1635.000	0.348

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:48	122.9%	111.800	114.700	113.600	3.690	0.056	0.050	-0.146	0.116	126.0%
2	01:16:15	125.6%	112.000	112.500	112.600	2.951	0.051	0.038	-0.211	0.114	127.8%
3	01:16:42	125.6%	112.400	113.600	112.600	2.797	0.056	0.047	-0.238	0.084	127.2%
x		124.7%	112.100	113.600	112.900	3.146	0.055	0.045	-0.198	0.105	127.0%
σ		1.6%	0.328	1.133	0.563	0.477	0.003	0.006	0.047	0.018	0.9%
%RSD		1.3	0.293	0.997	0.499	15.170	5.399	13.220	23.660	17.000	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:48	1.468	1.931	0.455	0.401	12.240	11.990	132.8%	-0.002	0.000	0.817
2	01:16:15	1.485	1.869	0.447	0.399	12.350	12.190	134.8%	-0.001	-0.005	0.802
3	01:16:42	1.405	1.935	0.462	0.423	12.630	11.920	134.0%	-0.012	-0.004	0.828
x		1.452	1.912	0.455	0.408	12.410	12.040	133.9%	-0.005	-0.003	0.816
σ		0.042	0.037	0.007	0.014	0.199	0.141	1.0%	0.006	0.003	0.013
%RSD		2.886	1.920	1.611	3.387	1.604	1.170	0.7	112.900	95.490	1.608

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:15:48	0.797	0.783	130.0%
2	01:16:15	0.817	0.796	131.6%
3	01:16:42	0.785	0.787	131.7%
x		0.800	0.789	131.1%
σ		0.016	0.007	0.9%
%RSD		2.028	0.837	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:21:45	112.8%	-0.038	14.380	13.880	-8.068	TM 640300.000	143.200	136.800	138.600	184.400
2	01:22:12	115.5%	-0.046	14.430	13.010	-15.680	TM 646900.000	140.600	137.600	138.200	178.300
3	01:22:39	117.7%	-0.049	13.900	12.910	-14.910	TM 644100.000	138.400	134.500	134.800	176.800
x		115.4%	-0.044	14.230	13.270	-12.880	TM 643800.000	140.700	136.300	137.200	179.800
σ		2.4%	0.005	0.295	0.534	4.189	TM 3309.000	2.381	1.632	2.117	4.071
%RSD		2.1	11.790	2.070	4.024	32.510	TM 0.514	1.692	1.197	1.543	2.264

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:21:45	196.900	T 14050.000	T 57790.000	5534.000	5082.000	109.4%	0.118	0.158	0.404	540.600
2	01:22:12	194.100	T 14000.000	T 57700.000	5440.000	5088.000	112.8%	0.122	0.165	0.402	510.500
3	01:22:39	191.700	T 13910.000	T 57750.000	5415.000	5023.000	114.6%	0.163	-0.003	0.425	589.400
x		194.200	T 13990.000	T 57750.000	5463.000	5064.000	112.3%	0.134	0.107	0.410	546.800
σ		2.587	T 69.880	T 43.340	62.560	35.830	2.7%	0.025	0.095	0.013	39.800
%RSD		1.332	T 0.500	T 0.075	1.145	0.708	2.4	18.480	89.080	3.073	7.278

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:21:45	1.469	5.391	7.170	12.510	-0.007	1.201	10.090	119.500	125.700	2.766
2	01:22:12	2.126	5.190	7.345	6.319	-0.008	1.136	10.870	118.900	124.700	2.660
3	01:22:39	1.400	5.247	7.095	5.784	-0.019	1.111	11.380	117.200	121.500	2.732
x		1.665	5.276	7.204	8.205	-0.011	1.150	10.780	118.600	124.000	2.719
σ		0.401	0.104	0.128	3.740	0.006	0.047	0.648	1.189	2.199	0.054
%RSD		24.080	1.970	1.779	45.590	56.460	4.047	6.015	1.003	1.774	1.998

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:21:45	2.550	1.500	0.087	1.998	27.360	29.520	5.735	1.168	-0.811	T 239.800
2	01:22:12	1.934	1.435	-0.136	1.921	28.600	28.050	2.879	0.637	-1.081	T 236.900
3	01:22:39	2.218	1.537	0.127	1.999	27.800	27.530	6.900	1.438	0.072	T 235.800
x		2.234	1.491	0.026	1.973	27.920	28.370	5.171	1.081	-0.607	T 237.500
σ		0.308	0.052	0.142	0.044	0.627	1.030	2.069	0.407	0.603	T 2.059
%RSD		13.790	3.476	539.200	2.254	2.246	3.630	40.010	37.680	99.430	T 0.867

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:21:45	120.8%	1.405	1.465	1.569	8.757	0.391	0.370	-0.003	0.012	123.2%
2	01:22:12	124.8%	1.511	1.563	1.512	8.507	0.393	0.404	0.016	-0.001	123.1%
3	01:22:39	125.8%	1.492	1.587	1.476	7.908	0.386	0.391	0.009	-0.010	127.3%
x		123.8%	1.469	1.539	1.519	8.391	0.390	0.388	0.007	0.000	124.5%
σ		2.7%	0.057	0.065	0.047	0.436	0.004	0.017	0.010	0.011	2.4%
%RSD		2.2	3.855	4.202	3.096	5.196	1.001	4.423	137.600	3145.000	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:21:45	1.202	1.692	182.700	183.000	5.167	5.415	129.8%	-0.022	-0.025	0.709
2	01:22:12	1.271	1.727	184.100	186.000	4.917	5.311	134.0%	-0.021	-0.026	0.777
3	01:22:39	1.232	1.725	178.300	179.300	4.944	5.306	136.3%	-0.021	-0.024	0.734
x		1.235	1.715	181.700	182.700	5.010	5.344	133.4%	-0.021	-0.025	0.740
σ		0.035	0.020	3.024	3.389	0.137	0.062	3.3%	0.001	0.001	0.034
%RSD		2.807	1.166	1.665	1.855	2.736	1.156	2.4	2.453	4.275	4.641

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:21:45	0.641	0.675	120.2%
2	01:22:12	0.665	0.711	123.2%
3	01:22:39	0.722	0.706	126.1%
x		0.676	0.697	123.1%
σ		0.042	0.019	2.9%
%RSD		6.154	2.769	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:27:41	125.1%	-0.045	246.600	241.800	50.470	T 71840.000	T 1554.000	1441.000	1445.000	36.360
2	01:28:08	125.7%	-0.009	250.500	241.100	50.170	T 73620.000	T 1548.000	1430.000	1441.000	36.100
3	01:28:35	127.1%	-0.036	246.400	242.400	53.480	T 73380.000	T 1545.000	1426.000	1445.000	36.360
x		125.9%	-0.030	247.800	241.800	51.370	T 72950.000	T 1549.000	1432.000	1444.000	36.270
σ		1.0%	0.019	2.337	0.683	1.833	T 965.700	T 4.311	7.558	2.584	0.154
%RSD		0.8	62.390	0.943	0.283	3.567	T 1.324	T 0.278	0.528	0.179	0.424

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:27:41	TM 11380.000	T 49920.000	T 2662.000	59030.000	T 61000.000	117.3%	3.231	1.130	1.066	4724.000
2	01:28:08	TM 11570.000	T 50170.000	T 2667.000	58060.000	T 60430.000	119.7%	2.916	1.135	1.135	4832.000
3	01:28:35	TM 11350.000	T 49670.000	T 2663.000	58500.000	T 61150.000	119.2%	2.941	1.024	1.136	4969.000
x		TM 11430.000	T 49920.000	T 2664.000	58530.000	T 60860.000	118.7%	3.030	1.096	1.112	4842.000
σ		TM 119.200	T 249.900	T 2.390	486.100	T 378.000	1.2%	0.175	0.063	0.040	122.500
%RSD		TM 1.043	T 0.501	T 0.090	0.830	T 0.621	1.1	5.783	5.720	3.618	2.529

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:27:41	406.300	45.770	T 436.000	753.300	1.338	2.823	2.130	9.282	9.987	112.500
2	01:28:08	394.900	45.330	T 430.200	736.900	1.276	2.974	2.485	9.284	9.887	111.000
3	01:28:35	403.600	45.830	T 433.800	756.100	1.310	2.863	2.568	9.256	9.990	113.100
x		401.600	45.640	T 433.300	748.800	1.308	2.886	2.395	9.274	9.955	112.200
σ		5.978	0.277	T 2.932	10.340	0.031	0.078	0.233	0.016	0.059	1.093
%RSD		1.488	0.606	T 0.676	1.380	2.379	2.717	9.726	0.173	0.591	0.974

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:27:41	107.000	110.500	0.658	-0.301	1270.000	1293.000	10.080	0.856	-2.616	94.290
2	01:28:08	104.500	109.600	0.600	-0.328	1256.000	1260.000	9.377	0.733	-0.189	94.460
3	01:28:35	106.800	110.200	0.734	-0.619	1271.000	1290.000	9.339	0.655	-1.827	93.970
x		106.100	110.100	0.664	-0.416	1266.000	1281.000	9.599	0.748	-1.544	94.240
σ		1.375	0.445	0.067	0.176	8.202	18.150	0.417	0.101	1.238	0.249
%RSD		1.296	0.404	10.160	42.370	0.648	1.417	4.345	13.550	80.170	0.265

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:27:41	130.5%	2.787	2.867	2.742	1.903	0.009	0.006	0.089	0.082	133.2%
2	01:28:08	131.4%	2.953	2.831	2.832	1.824	0.006	0.009	0.094	0.138	131.9%
3	01:28:35	132.9%	2.928	2.982	2.803	3.213	0.004	0.009	0.086	0.120	137.0%
x		131.6%	2.889	2.893	2.792	2.313	0.006	0.008	0.090	0.113	134.0%
σ		1.2%	0.090	0.079	0.046	0.780	0.002	0.002	0.004	0.029	2.6%
%RSD		0.9	3.102	2.733	1.633	33.710	39.730	19.890	4.605	25.180	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:27:41	15.120	21.980	0.198	0.210	38.890	38.780	141.4%	-0.028	-0.029	1.877
2	01:28:08	15.580	22.350	0.232	0.232	39.180	38.760	142.1%	-0.031	-0.030	1.778
3	01:28:35	15.850	21.840	0.210	0.256	38.200	37.920	145.5%	-0.025	-0.032	1.708
x		15.520	22.060	0.213	0.233	38.760	38.490	143.0%	-0.028	-0.031	1.788
σ		0.371	0.262	0.017	0.023	0.505	0.490	2.2%	0.003	0.001	0.085
%RSD		2.391	1.188	8.028	9.854	1.303	1.274	1.5	9.857	4.263	4.730

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:27:41	1.620	1.657	140.2%
2	01:28:08	1.604	1.636	139.3%
3	01:28:35	1.620	1.636	143.5%
x		1.615	1.643	141.0%
σ		0.009	0.012	2.2%
%RSD		0.586	0.753	1.6

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:33:37	126.8%	-0.050	8.510	8.019	314.900	T 35810.000	T 1543.000	1440.000	1477.000	TM 3622.000
2	01:34:04	125.4%	-0.035	7.636	8.391	324.100	T 35310.000	T 1537.000	1453.000	1484.000	TM 3668.000
3	01:34:31	125.7%	-0.034	8.403	7.803	314.000	T 35250.000	T 1532.000	1430.000	1474.000	TM 3625.000
x		126.0%	-0.040	8.183	8.071	317.700	T 35460.000	T 1538.000	1441.000	1478.000	TM 3638.000
σ		0.7%	0.009	0.477	0.297	5.580	T 305.600	T 5.505	11.650	5.340	TM 25.730
%RSD		0.6	22.920	5.830	3.686	1.757	T 0.862	T 0.358	0.809	0.361	TM 0.707
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:33:37	T 7844.000	T 43690.000	T 6090.000	M 138400.000	TM 142200.000	116.5%	86.970	1.980	74.320	3412.000
2	01:34:04	T 7944.000	T 44740.000	T 6135.000	M 136600.000	TM 142900.000	115.1%	86.070	1.739	75.180	3477.000
3	01:34:31	T 7829.000	T 44590.000	T 6085.000	M 136400.000	TM 143000.000	114.0%	85.910	1.491	73.630	3561.000
x		T 7872.000	T 44340.000	T 6103.000	M 137100.000	TM 142700.000	115.2%	86.320	1.737	74.380	3483.000
σ		T 62.540	T 566.500	T 27.530	M 1084.000	TM 467.300	1.2%	0.572	0.245	0.777	74.590
%RSD		T 0.794	T 1.278	T 0.451	M 0.790	TM 0.328	1.1	0.662	14.080	1.045	2.141
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:33:37	880.200	47.160	T 939.500	1679.000	3.369	28.760	28.670	TM 846.200	M 896.500	263.600
2	01:34:04	892.200	46.790	T 937.100	1703.000	3.373	29.320	28.060	TM 848.300	M 896.900	261.900
3	01:34:31	876.000	46.620	T 919.800	1684.000	3.385	28.990	29.840	TM 845.300	M 893.700	263.100
x		882.800	46.860	T 932.100	1689.000	3.376	29.020	28.860	TM 846.600	M 895.700	262.800
σ		8.374	0.276	T 10.770	12.710	0.008	0.283	0.906	TM 1.504	M 1.721	0.861
%RSD		0.949	0.589	T 1.155	0.752	0.247	0.976	3.140	TM 0.178	M 0.192	0.327
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:33:37	247.400	262.000	0.435	-0.074	60.430	61.660	0.024	-0.091	-3.052	TM 1003.000
2	01:34:04	244.600	258.200	0.766	-0.510	58.920	59.580	-2.012	-0.505	-2.982	TM 988.800
3	01:34:31	247.100	260.700	0.558	-0.190	60.070	59.290	-2.130	-0.561	-1.642	TM 1005.000
x		246.400	260.300	0.586	-0.258	59.810	60.180	-1.373	-0.386	-2.559	TM 998.900
σ		1.509	1.914	0.167	0.226	0.791	1.290	1.211	0.257	0.794	TM 8.808
%RSD		0.612	0.735	28.510	87.470	1.322	2.144	88.200	66.560	31.040	TM 0.882
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:33:37	131.7%	165.400	167.700	168.500	70.340	0.297	0.037	-0.065	0.253	136.0%
2	01:34:04	130.2%	164.600	164.700	164.300	72.160	0.306	0.042	-0.062	0.286	132.4%
3	01:34:31	130.1%	163.800	165.400	164.800	75.100	0.298	0.046	-0.080	0.236	132.3%
x		130.7%	164.600	165.900	165.900	72.530	0.300	0.042	-0.069	0.258	133.6%
σ		0.9%	0.802	1.546	2.291	2.402	0.005	0.004	0.010	0.025	2.1%
%RSD		0.7	0.487	0.932	1.382	3.312	1.713	10.080	13.950	9.761	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:33:37	1.785	2.346	0.333	0.374	114.300	113.200	145.1%	0.045	-0.028	2.370
2	01:34:04	1.889	2.233	0.328	0.326	112.800	112.000	140.4%	0.044	-0.029	2.410
3	01:34:31	1.810	2.352	0.347	0.295	113.000	112.700	140.3%	0.035	-0.030	2.465
x		1.828	2.310	0.336	0.332	113.400	112.600	142.0%	0.041	-0.029	2.415
σ		0.055	0.067	0.010	0.039	0.813	0.630	2.8%	0.006	0.001	0.048
%RSD		2.981	2.905	2.862	11.860	0.716	0.560	1.9	13.500	2.255	1.980
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	01:33:37	2.236	2.231	140.6%							
2	01:34:04	2.074	2.204	136.5%							
3	01:34:31	2.158	2.235	137.3%							
x		2.156	2.223	138.1%							
σ		0.081	0.017	2.2%							
%RSD		3.762	0.747	1.6							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:39:32	122.9%	-0.037	46.940	44.340	1015.000	T 56310.000	T 3321.000	3036.000	3101.000	54.630
2	01:39:58	127.5%	-0.003	45.420	44.290	999.800	T 55970.000	T 3309.000	3026.000	3077.000	54.060
3	01:40:26	127.0%	-0.030	44.190	41.990	990.400	T 56910.000	T 3322.000	3066.000	3110.000	54.080
x		125.8%	-0.023	45.520	43.540	1002.000	T 56390.000	T 3317.000	3043.000	3096.000	54.260
σ		2.5%	0.018	1.375	1.344	12.320	T 475.800	T 7.634	20.630	17.120	0.324
%RSD		2.0	75.610	3.021	3.088	1.230	T 0.844	T 0.230	0.678	0.553	0.597

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:39:32	T 4760.000	T 52380.000	T 38430.000	15720.000	T 16170.000	112.7%	16.190	0.390	1.267	4748.000
2	01:39:58	T 4636.000	T 51920.000	T 38260.000	15950.000	T 16220.000	114.1%	16.820	0.288	1.300	4892.000
3	01:40:26	T 4581.000	T 52550.000	T 38580.000	15820.000	T 16230.000	113.1%	15.570	0.442	1.267	4993.000
x		T 4659.000	T 52280.000	T 38420.000	15830.000	T 16210.000	113.3%	16.200	0.373	1.278	4878.000
σ		T 91.810	T 325.300	T 157.300	113.000	T 35.920	0.7%	0.628	0.078	0.019	123.000
%RSD		T 1.971	T 0.622	T 0.409	0.714	T 0.222	0.6	3.877	20.900	1.498	2.522

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:39:32	188.400	18.970	200.100	251.600	0.098	4.337	4.931	45.410	48.440	146.400
2	01:39:58	190.900	19.260	198.700	249.400	0.100	4.161	4.511	45.140	47.290	144.900
3	01:40:26	192.200	19.300	201.300	254.100	0.105	4.115	4.226	44.770	46.760	146.300
x		190.500	19.180	200.100	251.700	0.101	4.205	4.556	45.110	47.500	145.800
σ		1.919	0.183	1.289	2.364	0.003	0.117	0.355	0.319	0.860	0.858
%RSD		1.007	0.955	0.644	0.939	3.471	2.789	7.789	0.708	1.811	0.588

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:39:32	132.800	142.900	0.325	0.239	57.020	57.150	1.484	0.223	-0.643	61.230
2	01:39:58	133.000	141.800	0.324	0.564	55.910	55.230	-1.201	-0.423	0.362	61.300
3	01:40:26	139.100	141.300	0.569	0.297	56.320	57.170	-0.991	-0.327	-2.274	61.500
x		135.000	142.000	0.406	0.366	56.410	56.520	-0.236	-0.176	-0.852	61.340
σ		3.582	0.828	0.141	0.174	0.562	1.114	1.493	0.348	1.330	0.140
%RSD		2.654	0.583	34.720	47.350	0.997	1.970	632.200	198.200	156.200	0.228

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:39:32	126.8%	0.960	1.044	0.960	0.541	0.061	0.077	0.087	0.067	128.1%
2	01:39:58	127.8%	1.007	1.011	1.024	1.342	0.072	0.067	0.056	0.070	132.3%
3	01:40:26	126.7%	0.946	0.960	1.004	1.397	0.075	0.069	0.070	0.089	131.6%
x		127.1%	0.971	1.005	0.996	1.093	0.069	0.071	0.071	0.075	130.7%
σ		0.6%	0.032	0.042	0.033	0.479	0.007	0.005	0.015	0.012	2.2%
%RSD		0.5	3.284	4.210	3.298	43.840	10.720	7.689	21.700	16.090	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:39:32	1.328	1.739	0.357	0.304	21.350	20.850	137.1%	-0.017	-0.026	0.403
2	01:39:58	1.207	1.822	0.350	0.318	21.630	21.120	139.7%	-0.022	-0.025	0.458
3	01:40:26	1.302	1.879	0.347	0.347	21.530	21.230	141.2%	-0.029	-0.025	0.458
x		1.279	1.813	0.351	0.323	21.500	21.070	139.3%	-0.023	-0.026	0.440
σ		0.064	0.070	0.005	0.022	0.139	0.198	2.1%	0.006	0.001	0.032
%RSD		4.967	3.878	1.508	6.839	0.646	0.939	1.5	26.690	3.220	7.256

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:39:32	0.437	0.426	132.6%
2	01:39:58	0.412	0.432	137.6%
3	01:40:26	0.457	0.442	137.5%
x		0.435	0.434	135.9%
σ		0.023	0.008	2.9%
%RSD		5.216	1.855	2.1

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:45:29	122.8%	84.220	131.000	123.900	989.300	┬57320.000	┬4148.000	┬4031.000	┬4069.000	147.500
2	01:45:57	124.5%	82.610	126.700	123.000	956.900	┬56720.000	┬4139.000	┬3977.000	┬4016.000	146.000
3	01:46:24	125.3%	83.120	130.400	123.100	961.000	┬56750.000	┬4189.000	┬3982.000	┬4017.000	145.900
x		124.2%	83.320	129.400	123.300	969.100	┬56930.000	┬4158.000	┬3997.000	┬4034.000	146.500
σ		1.3%	0.824	2.321	0.493	17.680	┬334.700	┬26.720	┬29.400	┬30.770	0.894
%RSD		1.0	0.989	1.793	0.400	1.825	┬0.588	┬0.643	┬0.736	┬0.763	0.610

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:45:29	┬5520.000	┬51700.000	┬38900.000	16360.000	┬16890.000	115.0%	100.900	91.810	91.070	4881.000
2	01:45:57	┬5461.000	┬51830.000	┬38960.000	16530.000	┬16860.000	114.2%	100.900	92.210	91.270	4939.000
3	01:46:24	┬5335.000	┬52140.000	┬39240.000	16480.000	┬16960.000	112.3%	101.500	92.270	91.810	5250.000
x		┬5439.000	┬51890.000	┬39040.000	16460.000	┬16910.000	113.9%	101.100	92.100	91.390	5023.000
σ		┬94.200	┬224.300	┬183.200	85.550	┬52.790	1.4%	0.372	0.245	0.381	198.500
%RSD		┬1.732	┬0.432	┬0.469	0.520	┬0.312	1.2	0.368	0.266	0.417	3.952

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:45:29	1124.000	112.600	┬1176.000	1164.000	90.690	94.110	94.120	131.400	136.100	235.500
2	01:45:57	1141.000	113.100	┬1172.000	1164.000	90.140	94.520	94.330	132.100	137.900	233.300
3	01:46:24	1125.000	113.400	┬1172.000	1172.000	91.600	94.530	94.870	132.900	140.900	242.200
x		1130.000	113.100	┬1173.000	1167.000	90.810	94.390	94.440	132.100	138.300	237.000
σ		9.491	0.400	┬2.686	4.514	0.736	0.239	0.389	0.726	2.448	4.656
%RSD		0.840	0.354	┬0.229	0.387	0.810	0.253	0.412	0.549	1.770	1.965

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:45:29	226.100	234.400	99.950	100.800	49.660	51.830	412.700	88.540	-1.718	155.500
2	01:45:57	223.500	230.100	97.970	101.300	47.510	51.750	422.200	89.750	-3.023	155.400
3	01:46:24	229.100	239.900	101.900	101.200	50.600	48.870	417.000	90.280	-1.880	154.300
x		226.200	234.800	99.930	101.100	49.260	50.820	417.300	89.520	-2.207	155.000
σ		2.790	4.875	1.952	0.266	1.587	1.686	4.748	0.889	0.711	0.670
%RSD		1.233	2.076	1.953	0.263	3.221	3.318	1.138	0.993	32.230	0.432

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:45:29	126.0%	95.400	96.320	95.060	99.550	96.320	93.550	96.590	96.260	130.7%
2	01:45:57	124.8%	95.020	96.680	95.690	98.110	96.720	93.180	97.970	96.000	130.7%
3	01:46:24	127.1%	95.130	94.790	93.920	97.930	96.980	93.100	95.490	96.430	129.9%
x		126.0%	95.180	95.930	94.890	98.530	96.670	93.280	96.680	96.230	130.5%
σ		1.1%	0.195	1.002	0.897	0.886	0.330	0.241	1.242	0.216	0.4%
%RSD		0.9	0.205	1.045	0.945	0.899	0.341	0.258	1.285	0.224	0.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:45:29	71.880	60.690	96.250	96.610	114.000	114.200	139.7%	93.370	96.040	101.500
2	01:45:57	72.000	60.410	97.150	99.290	114.500	114.700	140.2%	93.980	97.040	102.800
3	01:46:24	71.740	61.260	96.600	97.010	113.400	114.400	140.2%	93.590	96.070	99.780
x		71.880	60.790	96.670	97.640	114.000	114.400	140.0%	93.640	96.380	101.400
σ		0.129	0.433	0.451	1.446	0.548	0.268	0.2%	0.306	0.571	1.523
%RSD		0.179	0.712	0.466	1.481	0.481	0.234	0.2	0.327	0.592	1.503

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:45:29	96.900	98.470	135.9%
2	01:45:57	97.440	99.040	135.9%
3	01:46:24	96.150	97.720	137.7%
x		96.830	98.410	136.5%
σ		0.650	0.660	1.0%
%RSD		0.672	0.670	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:51:26	122.6%	87.110	136.400	131.600	1023.000	┬58900.000	┬4354.000	┬4185.000	┬4237.000	152.700
2	01:51:53	123.6%	88.380	136.200	129.200	1018.000	┬59830.000	┬4349.000	┬4228.000	┬4218.000	153.400
3	01:52:21	123.7%	87.380	136.000	128.300	1018.000	┬58890.000	┬4344.000	┬4158.000	┬4202.000	153.600
x		123.3%	87.620	136.200	129.700	1020.000	┬59210.000	┬4349.000	┬4190.000	┬4219.000	153.200
σ		0.6%	0.670	0.186	1.657	3.346	┬535.500	┬5.268	┬35.090	┬17.740	0.439
%RSD		0.5	0.765	0.136	1.277	0.328	┬0.905	┬0.121	┬0.837	┬0.421	0.286

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:51:26	┬5696.000	┬52300.000	┬40130.000	17150.000	┬17660.000	114.1%	105.200	97.300	96.890	4454.000
2	01:51:53	┬5691.000	┬52500.000	┬40090.000	17120.000	┬17550.000	115.7%	105.200	96.400	95.680	4453.000
3	01:52:21	┬5651.000	┬52400.000	┬39980.000	17000.000	┬17730.000	112.8%	104.200	96.350	95.460	4953.000
x		┬5679.000	┬52400.000	┬40070.000	17090.000	┬17650.000	114.2%	104.800	96.680	96.010	4620.000
σ		┬24.550	┬103.100	┬76.840	78.730	┬94.790	1.5%	0.569	0.531	0.769	288.000
%RSD		┬0.432	┬0.197	┬0.192	0.461	┬0.537	1.3	0.543	0.549	0.801	6.234

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:51:26	1171.000	118.100	┬1235.000	1236.000	96.410	98.360	96.400	137.900	144.100	247.700
2	01:51:53	1156.000	116.900	┬1226.000	1198.000	93.460	97.430	95.990	137.400	140.500	242.300
3	01:52:21	1177.000	118.100	┬1223.000	1236.000	94.540	97.160	94.840	138.600	146.500	246.600
x		1168.000	117.700	┬1228.000	1223.000	94.810	97.650	95.740	138.000	143.700	245.500
σ		11.210	0.673	┬6.182	22.010	1.490	0.630	0.809	0.582	3.035	2.878
%RSD		0.959	0.572	┬0.504	1.800	1.572	0.645	0.845	0.422	2.112	1.172

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:51:26	235.900	244.900	103.700	101.300	51.270	50.080	434.900	93.280	0.519	164.300
2	01:51:53	233.700	240.800	101.900	101.500	50.820	50.470	440.300	95.660	-2.521	162.800
3	01:52:21	236.500	248.400	104.800	103.500	51.370	50.990	444.300	96.630	-1.203	163.300
x		235.400	244.700	103.500	102.100	51.150	50.510	439.800	95.190	-1.068	163.500
σ		1.477	3.796	1.479	1.207	0.293	0.454	4.710	1.725	1.524	0.785
%RSD		0.628	1.551	1.430	1.183	0.572	0.899	1.071	1.812	142.700	0.480

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:51:26	125.4%	98.670	99.170	98.640	101.900	97.550	94.780	100.200	100.800	129.9%
2	01:51:53	125.6%	98.810	98.960	99.070	103.700	99.130	96.050	100.800	100.200	128.9%
3	01:52:21	124.5%	99.090	100.200	100.800	105.300	100.200	97.410	101.600	102.000	127.2%
x		125.2%	98.860	99.430	99.510	103.700	98.940	96.080	100.900	101.000	128.7%
σ		0.6%	0.214	0.640	1.150	1.694	1.311	1.317	0.726	0.943	1.4%
%RSD		0.5	0.217	0.644	1.155	1.634	1.325	1.371	0.719	0.934	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:51:26	73.570	61.450	99.030	101.400	121.100	118.800	138.8%	96.830	98.930	105.600
2	01:51:53	74.160	61.440	99.560	100.300	119.400	120.500	138.5%	96.940	100.000	106.800
3	01:52:21	75.980	62.550	102.000	103.000	122.400	120.800	140.1%	97.070	100.200	106.800
x		74.570	61.810	100.200	101.600	121.000	120.000	139.1%	96.950	99.740	106.400
σ		1.260	0.638	1.573	1.358	1.488	1.033	0.8%	0.118	0.708	0.674
%RSD		1.690	1.033	1.570	1.337	1.231	0.861	0.6	0.121	0.710	0.633

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:51:26	100.300	102.400	134.2%
2	01:51:53	102.100	103.400	134.9%
3	01:52:21	100.500	102.700	137.2%
x		100.900	102.800	135.4%
σ		0.980	0.497	1.6%
%RSD		0.970	0.484	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:57:23	124.8%	-0.035	11.000	10.610	224.700	T 11190.000	T 690.600	639.000	633.200	11.880
2	01:57:50	126.5%	-0.027	10.970	10.330	216.500	T 11130.000	T 697.100	635.600	643.000	11.860
3	01:58:17	126.8%	-0.018	10.840	10.500	220.300	T 11160.000	T 689.200	626.200	634.300	12.040
x		126.0%	-0.027	10.940	10.480	220.500	T 11160.000	T 692.300	633.600	636.800	11.930
σ		1.1%	0.008	0.086	0.143	4.088	T 30.180	T 4.239	6.609	5.366	0.102
%RSD		0.9	31.350	0.790	1.367	1.854	T 0.271	T 0.612	1.043	0.843	0.852
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:57:23	T 939.500	T 10600.000	T 7663.000	3156.000	2926.000	114.1%	3.262	0.113	0.286	943.600
2	01:57:50	T 915.700	T 10640.000	T 7755.000	3173.000	2944.000	112.8%	3.246	0.080	0.237	990.700
3	01:58:17	T 930.500	T 10720.000	T 7742.000	3187.000	2966.000	115.2%	3.444	0.080	0.259	1005.000
x		T 928.600	T 10650.000	T 7720.000	3172.000	2945.000	114.0%	3.317	0.091	0.260	979.600
σ		T 12.010	T 63.770	T 49.900	15.650	19.790	1.2%	0.110	0.019	0.025	31.990
%RSD		T 1.293	T 0.599	T 0.646	0.493	0.672	1.0	3.317	21.000	9.435	3.266
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:57:23	37.230	3.895	42.220	28.280	-0.006	0.788	3.776	9.504	10.100	29.390
2	01:57:50	36.670	3.863	40.160	28.260	-0.006	0.887	3.211	9.461	10.000	29.440
3	01:58:17	38.050	3.916	41.360	26.150	-0.004	0.949	3.370	9.647	10.230	30.320
x		37.320	3.891	41.250	27.560	-0.006	0.875	3.452	9.537	10.110	29.720
σ		0.692	0.027	1.037	1.224	0.001	0.081	0.291	0.098	0.116	0.524
%RSD		1.855	0.688	2.513	4.441	20.450	9.256	8.440	1.023	1.145	1.762
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:57:23	25.740	28.510	-0.183	-0.056	13.460	13.570	-1.725	-0.492	-0.422	12.180
2	01:57:50	28.880	28.140	-0.009	0.098	12.790	13.240	-0.398	-0.189	-1.137	12.180
3	01:58:17	27.260	28.600	0.051	0.075	12.880	13.240	0.059	-0.078	-2.007	12.210
x		27.300	28.420	-0.047	0.039	13.040	13.350	-0.688	-0.253	-1.189	12.190
σ		1.572	0.244	0.122	0.083	0.361	0.189	0.927	0.214	0.794	0.019
%RSD		5.760	0.860	259.700	214.400	2.768	1.415	134.700	84.580	66.800	0.153
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:57:23	127.3%	0.185	0.216	0.175	-0.851	0.015	0.012	0.009	0.023	133.4%
2	01:57:50	128.3%	0.145	0.153	0.208	-0.483	0.017	0.011	0.027	0.022	133.5%
3	01:58:17	129.2%	0.172	0.191	0.207	-0.352	0.015	0.011	0.011	0.009	135.1%
x		128.3%	0.167	0.187	0.197	-0.562	0.016	0.011	0.016	0.018	134.0%
σ		0.9%	0.020	0.032	0.019	0.259	0.001	0.001	0.010	0.007	1.0%
%RSD		0.7	12.120	16.970	9.677	46.010	6.004	7.155	63.720	41.770	0.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:57:23	0.207	0.321	0.038	0.035	4.199	4.249	138.7%	-0.024	-0.029	0.057
2	01:57:50	0.245	0.348	0.049	0.049	4.322	3.962	139.1%	-0.019	-0.026	0.068
3	01:58:17	0.266	0.309	0.042	0.043	4.277	4.156	141.8%	-0.026	-0.026	0.059
x		0.239	0.326	0.043	0.042	4.266	4.122	139.9%	-0.023	-0.027	0.061
σ		0.030	0.020	0.006	0.007	0.062	0.146	1.7%	0.004	0.002	0.006
%RSD		12.440	6.090	13.080	16.220	1.458	3.550	1.2	16.770	6.474	10.060
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	01:57:23	0.058	0.059	138.7%							
2	01:57:50	0.067	0.073	139.6%							
3	01:58:17	0.062	0.064	140.0%							
x		0.062	0.066	139.5%							
σ		0.005	0.007	0.7%							
%RSD		7.346	10.710	0.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:03:19	116.4%	-0.057	8.186	7.901	-6.469	TM 1370000.000	T 827.000	758.200	788.900	TM 2049.000
2	02:03:46	119.1%	-0.050	7.887	8.233	-12.540	TM 1387000.000	T 831.000	762.300	790.300	TM 2039.000
3	02:04:12	120.8%	-0.056	7.841	7.983	-16.300	TM 1377000.000	T 820.400	755.800	791.200	TM 2037.000
x		118.8%	-0.054	7.971	8.039	-11.770	TM 1378000.000	T 826.100	758.800	790.200	TM 2042.000
σ		2.2%	0.004	0.187	0.173	4.959	TM 8675.000	T 5.335	3.313	1.160	TM 6.842
%RSD		1.9	6.831	2.350	2.152	42.140	TM 0.629	T 0.646	0.437	0.147	TM 0.335

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:03:19	T 2830.000	T 46340.000	T 6191.000	12640.000	11920.000	109.3%	1.405	1.876	1.853	1916.000
2	02:03:46	T 2784.000	T 45960.000	T 6234.000	12300.000	T 13020.000	111.3%	1.572	1.851	1.773	1894.000
3	02:04:12	T 2767.000	T 46030.000	T 6250.000	12500.000	11860.000	112.3%	1.522	2.018	1.802	1801.000
x		T 2794.000	T 46110.000	T 6225.000	12480.000	T 12270.000	111.0%	1.500	1.915	1.810	1870.000
σ		T 32.770	T 203.100	T 30.610	171.000	T 654.800	1.6%	0.085	0.090	0.040	61.280
%RSD		T 1.173	T 0.441	T 0.492	1.370	T 5.338	1.4	5.697	4.710	2.216	3.276

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:03:19	164.600	23.020	175.200	206.500	1.842	4.075	29.090	6.107	7.216	154.200
2	02:03:46	166.800	23.030	176.100	196.100	1.880	4.176	37.460	6.594	7.494	158.100
3	02:04:12	164.300	22.590	173.500	199.500	1.802	4.260	40.250	6.697	7.168	157.200
x		165.200	22.880	174.900	200.700	1.841	4.170	35.600	6.466	7.293	156.500
σ		1.332	0.256	1.291	5.303	0.039	0.093	5.811	0.316	0.176	2.043
%RSD		0.806	1.117	0.738	2.642	2.099	2.230	16.320	4.880	2.413	1.305

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:03:19	142.800	147.500	1.247	0.737	1158.000	1182.000	17.700	2.538	1.135	22.170
2	02:03:46	144.000	149.200	1.073	0.996	1142.000	1167.000	17.150	2.454	1.364	21.760
3	02:04:12	143.900	148.900	1.036	0.813	1154.000	1171.000	15.900	2.130	0.708	21.820
x		143.600	148.500	1.119	0.849	1151.000	1173.000	16.920	2.374	1.069	21.920
σ		0.669	0.937	0.113	0.133	8.126	7.484	0.922	0.216	0.333	0.222
%RSD		0.466	0.631	10.090	15.720	0.706	0.638	5.447	9.083	31.140	1.012

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:03:19	121.4%	2.408	2.441	2.555	0.120	0.004	0.009	-0.003	0.018	124.2%
2	02:03:46	125.6%	2.418	2.508	2.438	-0.173	0.007	0.001	0.002	0.015	127.4%
3	02:04:12	127.0%	2.371	2.477	2.478	0.109	0.005	0.005	-0.003	0.004	130.7%
x		124.7%	2.399	2.475	2.490	0.019	0.005	0.005	-0.001	0.013	127.4%
σ		2.9%	0.025	0.034	0.059	0.166	0.001	0.004	0.003	0.008	3.3%
%RSD		2.3	1.027	1.354	2.375	889.600	26.090	87.720	245.000	60.960	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:03:19	1.356	1.937	9.793	9.685	13.200	13.490	137.4%	-0.021	-0.029	0.204
2	02:03:46	1.347	1.914	9.726	9.746	13.600	13.560	140.6%	-0.022	-0.027	0.184
3	02:04:12	1.320	1.874	9.647	9.821	13.340	13.290	142.8%	-0.025	-0.028	0.191
x		1.341	1.908	9.722	9.751	13.380	13.450	140.2%	-0.023	-0.028	0.193
σ		0.019	0.032	0.073	0.068	0.204	0.139	2.7%	0.002	0.001	0.010
%RSD		1.393	1.668	0.752	0.699	1.528	1.031	1.9	8.315	3.816	5.112

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:03:19	0.164	0.188	123.3%
2	02:03:46	0.210	0.193	126.3%
3	02:04:12	0.180	0.185	127.7%
x		0.185	0.189	125.8%
σ		0.023	0.004	2.3%
%RSD		12.680	2.271	1.8

CCV MW11050 05/09/2019 02:08:48 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:09:15	118.4%	279.000	283.100	276.200	9.744	┬72640.000	┬58660.000	┬58250.000	┬58130.000	274.200
2	02:09:42	117.7%	280.900	280.900	274.400	7.822	┬74480.000	┬59560.000	┬59060.000	┬58740.000	273.500
3	02:10:09	120.0%	286.000	284.800	270.700	4.646	┬74670.000	┬59740.000	┬58640.000	┬58740.000	272.700
x		118.7%	94.001%	94.306%	91.261%	7.404	┬123.212%	┬59320.000	┬58650.000	┬97.558%	91.153%
σ		1.2%	n/a	n/a	n/a	2.574	┬n/a	┬579.300	┬405.900	┬n/a	n/a
%RSD		1.0	1.285	0.692	1.029	34.770	┬1.514	┬0.977	┬0.692	┬0.598	0.278

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:09:15	┬2878.000	492.900	┬67410.000	61390.000	┬63890.000	115.5%	287.700	┬298.600	282.300	1238.000
2	02:09:42	┬2916.000	491.300	┬67850.000	61320.000	┬63740.000	116.9%	287.100	┬299.300	284.400	1600.000
3	02:10:09	┬2866.000	472.400	┬68280.000	61480.000	┬63940.000	117.5%	284.600	┬298.300	282.000	1629.000
x		┬96.223%	485.500	┬113.075%	61400.000	┬106.431%	116.6%	95.492%	┬99.576%	94.296%	1489.000
σ		┬n/a	11.400	┬n/a	78.450	┬n/a	1.0%	n/a	┬n/a	n/a	217.600
%RSD		┬0.907	2.348	┬0.647	0.128	┬0.161	0.9	0.590	┬0.169	0.458	14.610

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:09:15	┬60890.000	┬300.300	┬61270.000	┬63020.000	285.100	274.600	270.300	261.500	272.500	289.000
2	02:09:42	┬60820.000	┬297.400	┬61280.000	┬62160.000	282.200	271.600	270.600	262.600	269.600	286.200
3	02:10:09	┬60930.000	┬301.900	┬61100.000	┬62600.000	280.000	269.800	267.000	259.600	270.600	294.700
x		┬60880.000	┬99.947%	┬61220.000	┬104.319%	94.143%	90.669%	269.300	261.200	90.301%	96.656%
σ		┬59.990	┬n/a	┬99.580	┬n/a	n/a	n/a	1.980	1.526	n/a	n/a
%RSD		┬0.099	┬0.757	┬0.163	┬0.685	0.903	0.890	0.735	0.584	0.540	1.493

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:09:15	291.400	290.100	294.100	297.200	11.280	10.900	1244.000	270.800	-1.371	┬308.800
2	02:09:42	290.900	289.300	291.800	289.100	10.540	9.559	1256.000	278.400	-3.656	┬309.200
3	02:10:09	291.100	295.200	297.500	297.500	9.851	9.184	1217.000	267.700	-0.311	┬306.500
x		291.100	291.600	98.155%	294.600	10.560	9.881	1239.000	90.769%	-1.779	┬102.719%
σ		0.234	3.193	n/a	4.772	0.715	0.902	20.240	n/a	1.709	┬n/a
%RSD		0.080	1.095	0.967	1.620	6.775	9.129	1.634	2.026	96.070	┬0.464

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:09:15	127.1%	298.000	302.600	302.800	295.200	292.600	281.700	297.900	297.200	130.0%
2	02:09:42	126.5%	299.300	299.300	302.600	295.000	294.700	283.800	297.600	296.500	127.5%
3	02:10:09	133.9%	298.000	299.800	302.200	289.600	292.500	281.700	294.000	298.100	134.6%
x		129.2%	99.486%	100.191%	302.500	293.300	97.759%	282.400	296.500	99.087%	130.7%
σ		4.1%	n/a	n/a	0.342	3.182	n/a	1.180	2.150	n/a	3.6%
%RSD		3.2	0.243	0.592	0.113	1.085	0.423	0.418	0.725	0.270	2.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:09:15	303.600	302.300	303.500	301.200	289.600	289.300	136.7%	289.400	┬303.800	310.300
2	02:09:42	304.300	305.600	305.900	305.500	292.400	292.600	137.7%	290.300	┬305.200	310.600
3	02:10:09	304.200	302.100	307.600	310.100	292.900	290.600	142.0%	289.400	┬305.000	308.400
x		101.338%	101.111%	305.700	101.872%	97.210%	96.948%	138.8%	289.700	┬101.548%	103.265%
σ		n/a	n/a	2.073	n/a	n/a	n/a	2.8%	0.517	┬n/a	n/a
%RSD		0.118	0.661	0.678	1.457	0.596	0.568	2.0	0.178	┬0.241	0.382

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:09:15	302.800	┬307.000	132.4%
2	02:09:42	305.000	┬310.100	132.8%
3	02:10:09	304.100	┬307.300	138.3%
x		101.321%	┬102.708%	134.5%
σ		n/a	┬n/a	3.3%
%RSD		0.373	┬0.553	2.4

CCB IM9409-01 05/09/2019 02:14:45 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:15:12	122.9%	-0.015	1.656	1.399	2.938	37.160	0.077	0.198	0.153	0.011
2	02:15:39	124.9%	-0.004	1.151	1.453	2.691	34.970	0.039	0.151	0.060	0.031
3	02:16:06	125.6%	-0.025	1.104	1.299	7.861	32.790	-0.027	0.133	-0.008	0.004
x		124.5%	-0.015	1.304	1.384	4.496	34.970	0.030	0.161	0.068	0.015
σ		1.4%	0.010	0.306	0.078	2.916	2.187	0.053	0.033	0.081	0.014
%RSD		1.2	70.850	23.490	5.644	64.860	6.255	177.800	20.800	118.800	89.420

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:15:12	9.507	247.400	4.076	-0.558	0.554	114.2%	0.009	-0.001	-0.016	29.650
2	02:15:39	9.962	248.400	4.982	-1.047	-0.148	116.5%	0.051	0.005	-0.012	16.950
3	02:16:06	9.649	241.200	2.723	-1.953	-0.023	120.0%	0.049	-0.002	-0.002	28.300
x		9.706	245.700	3.927	-1.186	0.128	116.9%	0.036	0.001	-0.010	24.970
σ		0.233	3.868	1.137	0.708	0.375	2.9%	0.023	0.004	0.007	6.971
%RSD		2.396	1.574	28.940	59.670	293.800	2.5	64.500	453.600	70.270	27.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:15:12	-1.384	-0.001	-2.646	-21.290	-0.016	0.005	0.234	0.028	0.074	0.004
2	02:15:39	-1.458	-0.000	-2.732	-26.350	-0.024	-0.010	0.180	0.029	0.055	0.024
3	02:16:06	-3.306	-0.004	-3.619	-26.280	-0.020	-0.013	-0.014	0.029	0.030	0.094
x		-2.049	-0.002	-2.999	-24.640	-0.020	-0.006	0.134	0.028	0.053	0.041
σ		1.089	0.002	0.539	2.900	0.004	0.010	0.130	0.000	0.022	0.047
%RSD		53.140	118.200	17.970	11.770	21.780	150.100	97.510	1.561	41.780	116.600

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:15:12	-0.064	-0.025	-0.039	-0.031	4.198	4.164	-1.502	-0.423	-1.821	0.001
2	02:15:39	-0.035	-0.031	-0.104	-0.521	4.711	3.527	-1.813	-0.444	-2.248	0.001
3	02:16:06	-0.085	-0.008	0.002	0.044	4.676	3.721	-0.701	-0.225	-2.202	0.001
x		-0.062	-0.022	-0.047	-0.169	4.528	3.804	-1.338	-0.364	-2.090	0.001
σ		0.025	0.012	0.054	0.307	0.287	0.327	0.574	0.121	0.234	0.000
%RSD		40.430	55.790	113.300	181.300	6.328	8.594	42.870	33.180	11.200	15.720

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:15:12	128.3%	0.032	0.048	0.026	-0.467	0.007	0.004	0.003	-0.002	135.8%
2	02:15:39	131.3%	0.006	-0.000	0.018	0.233	0.004	0.003	0.000	0.003	135.7%
3	02:16:06	129.6%	0.019	0.029	0.020	-0.458	0.004	0.003	-0.002	0.002	136.4%
x		129.7%	0.019	0.026	0.021	-0.231	0.005	0.003	0.000	0.001	136.0%
σ		1.5%	0.013	0.024	0.004	0.401	0.001	0.001	0.002	0.002	0.4%
%RSD		1.1	68.840	94.450	19.260	173.900	26.990	25.530	657.700	225.800	0.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:15:12	0.048	0.054	0.134	0.120	0.005	0.005	137.6%	-0.013	-0.013	-0.003
2	02:15:39	0.039	0.067	0.117	0.109	0.008	0.001	140.4%	-0.012	-0.019	-0.003
3	02:16:06	0.049	0.049	0.101	0.096	0.008	0.001	140.1%	-0.017	-0.014	-0.013
x		0.045	0.056	0.117	0.109	0.007	0.002	139.4%	-0.014	-0.016	-0.006
σ		0.005	0.009	0.016	0.012	0.002	0.002	1.5%	0.003	0.003	0.006
%RSD		11.410	16.740	13.940	11.030	25.590	91.200	1.1	20.120	21.810	94.660

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:15:12	0.004	-0.000	142.4%
2	02:15:39	0.012	0.006	143.9%
3	02:16:06	0.005	-0.001	143.9%
x		0.007	0.002	143.4%
σ		0.004	0.004	0.9%
%RSD		60.690	258.500	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:21:09	114.9%	-0.006	145.100	143.800	47.900	TM 255100.000	T 3046.000	2789.000	T 2910.000	TM 1521.000
2	02:21:36	116.1%	-0.028	147.300	143.000	48.080	TM 260600.000	T 2976.000	2746.000	2782.000	TM 1501.000
3	02:22:03	117.9%	-0.034	148.700	145.600	50.090	TM 263000.000	T 3028.000	2777.000	T 2905.000	TM 1519.000
x		116.3%	-0.023	147.000	144.100	48.690	TM 259600.000	T 3016.000	2771.000	T 2866.000	TM 1514.000
σ		1.5%	0.014	1.844	1.319	1.218	TM 4045.000	T 36.620	21.940	T 72.170	TM 11.030
%RSD		1.3	64.010	1.254	0.916	2.501	TM 1.558	T 1.214	0.792	T 2.518	TM 0.728

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:21:09	T 4326.000	T 50140.000	T 15290.000	11870.000	11240.000	111.1%	7.991	4.577	0.888	2147.000
2	02:21:36	T 4317.000	T 49500.000	T 15080.000	11580.000	11110.000	114.0%	7.546	4.682	0.876	2256.000
3	02:22:03	T 4342.000	T 50420.000	T 15270.000	11690.000	11130.000	115.6%	7.546	4.470	0.833	2415.000
x		T 4328.000	T 50020.000	T 15210.000	11710.000	11160.000	113.6%	7.695	4.576	0.866	2273.000
σ		T 13.090	T 473.300	T 119.800	144.300	71.140	2.3%	0.257	0.106	0.029	134.700
%RSD		T 0.302	T 0.946	T 0.787	1.232	0.637	2.0	3.341	2.323	3.344	5.927

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:21:09	257.500	15.070	273.200	320.900	0.626	4.993	5.219	17.240	17.520	85.520
2	02:21:36	251.700	14.820	268.600	306.400	0.596	4.707	3.630	16.750	17.650	85.160
3	02:22:03	253.300	14.560	263.500	306.000	0.606	4.546	3.866	16.640	17.060	84.640
x		254.200	14.820	268.400	311.100	0.610	4.749	4.238	16.880	17.410	85.110
σ		3.007	0.254	4.869	8.477	0.015	0.227	0.858	0.317	0.308	0.443
%RSD		1.183	1.715	1.814	2.725	2.514	4.769	20.230	1.878	1.767	0.520

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:21:09	80.230	84.890	0.699	0.353	109.800	111.300	-0.118	-0.184	-1.742	46.950
2	02:21:36	78.940	83.520	0.886	0.362	107.900	108.000	1.813	0.300	-2.511	46.880
3	02:22:03	77.540	83.290	0.686	0.048	107.600	108.600	1.734	0.292	-2.421	46.470
x		78.900	83.900	0.757	0.254	108.400	109.300	1.143	0.136	-2.225	46.770
σ		1.348	0.868	0.112	0.179	1.205	1.755	1.093	0.277	0.421	0.259
%RSD		1.708	1.035	14.770	70.200	1.112	1.605	95.620	203.800	18.910	0.555

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:21:09	121.9%	4.253	4.223	4.304	1.741	0.091	0.070	0.070	0.081	125.4%
2	02:21:36	125.7%	4.109	4.152	4.110	1.398	0.091	0.078	0.064	0.091	126.6%
3	02:22:03	126.4%	3.946	3.948	4.056	0.880	0.078	0.088	0.067	0.091	126.8%
x		124.7%	4.102	4.107	4.157	1.340	0.087	0.079	0.067	0.088	126.3%
σ		2.5%	0.154	0.143	0.130	0.434	0.008	0.009	0.003	0.006	0.8%
%RSD		2.0	3.741	3.478	3.130	32.360	8.672	10.940	3.808	6.877	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:21:09	1.456	2.095	0.563	0.595	11.180	11.360	135.7%	-0.029	-0.029	0.303
2	02:21:36	1.385	1.888	0.565	0.549	10.820	11.140	135.6%	-0.029	-0.029	0.285
3	02:22:03	1.340	1.987	0.603	0.596	11.430	11.390	136.2%	-0.027	-0.030	0.280
x		1.394	1.990	0.577	0.580	11.140	11.300	135.8%	-0.028	-0.029	0.289
σ		0.059	0.104	0.023	0.027	0.306	0.136	0.3%	0.001	0.000	0.012
%RSD		4.202	5.203	3.903	4.603	2.744	1.199	0.3	4.422	0.516	4.123

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:21:09	0.281	0.291	129.7%
2	02:21:36	0.274	0.288	131.5%
3	02:22:03	0.288	0.291	130.8%
x		0.281	0.290	130.7%
σ		0.007	0.001	0.9%
%RSD		2.496	0.506	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:27:05	127.0%	0.004	1.872	1.338	27.460	51.120	1.867	1.745	2.076	2.312
2	02:27:33	128.6%	-0.043	1.722	1.197	31.650	48.910	1.938	2.057	1.986	2.270
3	02:28:00	128.4%	-0.023	1.633	1.285	23.390	44.800	1.877	1.783	1.939	2.204
x		128.0%	-0.021	1.742	1.273	27.500	48.280	1.894	1.861	2.000	2.262
σ		0.9%	0.024	0.121	0.071	4.128	3.207	0.038	0.170	0.069	0.054
%RSD		0.7	113.600	6.931	5.592	15.010	6.642	2.018	9.147	3.468	2.396

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:27:05	14.010	┬51400.000	8.378	11.870	11.300	117.7%	0.033	-0.140	0.401	2702.000
2	02:27:33	14.170	┬51190.000	4.640	11.330	11.470	118.6%	0.124	-0.045	0.339	2649.000
3	02:28:00	14.090	┬51570.000	3.257	13.140	11.620	121.1%	0.137	-0.221	0.354	2747.000
x		14.090	┬51390.000	5.425	12.110	11.470	119.1%	0.098	-0.135	0.365	2699.000
σ		0.079	┬189.200	2.649	0.929	0.162	1.8%	0.056	0.088	0.032	48.900
%RSD		0.560	┬0.368	48.830	7.671	1.411	1.5	57.450	64.860	8.835	1.812

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:27:05	2.569	0.412	5.300	-25.120	-0.022	0.401	1.518	0.192	0.076	1.263
2	02:27:33	2.172	0.401	5.284	-29.020	-0.023	0.353	1.723	0.199	0.054	1.230
3	02:28:00	1.020	0.407	4.979	-31.120	-0.025	0.359	2.259	0.206	0.100	1.274
x		1.921	0.407	5.188	-28.420	-0.024	0.371	1.834	0.199	0.077	1.256
σ		0.805	0.006	0.181	3.048	0.002	0.026	0.383	0.007	0.023	0.023
%RSD		41.900	1.428	3.487	10.730	6.964	6.984	20.860	3.439	29.900	1.827

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:27:05	1.431	1.255	-0.243	0.009	4.982	4.526	-4.457	-1.075	0.799	0.011
2	02:27:33	1.066	1.166	-0.164	-0.138	4.693	5.451	-1.874	-0.488	-1.911	0.012
3	02:28:00	1.220	1.225	-0.469	-0.704	4.506	5.240	-3.071	-0.698	-2.579	0.012
x		1.239	1.216	-0.292	-0.278	4.727	5.072	-3.134	-0.754	-1.230	0.012
σ		0.183	0.045	0.158	0.377	0.240	0.485	1.293	0.297	1.789	0.000
%RSD		14.770	3.734	54.220	135.800	5.071	9.557	41.240	39.440	145.400	3.619

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:27:05	130.6%	-0.011	0.011	-0.011	-0.477	0.004	-0.001	-0.004	-0.006	134.8%
2	02:27:33	132.1%	-0.014	-0.008	-0.015	-0.243	0.002	0.000	0.000	-0.012	138.8%
3	02:28:00	135.0%	-0.021	0.009	-0.001	-0.713	0.005	0.002	0.000	0.002	138.7%
x		132.6%	-0.015	0.004	-0.009	-0.478	0.004	0.001	-0.001	-0.005	137.4%
σ		2.2%	0.005	0.011	0.007	0.235	0.002	0.002	0.003	0.007	2.3%
%RSD		1.7	35.440	274.500	78.830	49.220	48.740	318.300	232.200	133.200	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:27:05	1.351	1.925	0.051	0.030	0.005	0.009	139.3%	-0.028	-0.032	-0.024
2	02:27:33	1.347	1.923	0.041	0.022	0.008	0.016	141.4%	-0.025	-0.030	-0.027
3	02:28:00	1.423	1.976	0.045	0.045	0.018	0.012	144.0%	-0.031	-0.031	-0.030
x		1.374	1.941	0.046	0.033	0.010	0.012	141.6%	-0.028	-0.031	-0.027
σ		0.043	0.030	0.005	0.011	0.007	0.004	2.4%	0.003	0.001	0.003
%RSD		3.097	1.551	11.640	35.000	63.670	29.230	1.7	10.290	2.091	11.200

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:27:05	-0.015	-0.019	140.9%
2	02:27:33	-0.011	-0.015	143.7%
3	02:28:00	-0.013	-0.022	146.5%
x		-0.013	-0.019	143.7%
σ		0.002	0.003	2.8%
%RSD		15.510	16.890	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:33:01	124.1%	95.290	98.790	92.710	37.600	T 1154.000	T 983.900	909.000	909.300	93.960
2	02:33:28	125.4%	94.920	99.360	90.290	29.820	T 1164.000	T 977.400	908.100	912.300	92.820
3	02:33:55	125.3%	93.970	97.260	90.080	24.310	T 1149.000	T 964.500	895.100	889.600	92.150
x		124.9%	94.730	98.470	91.030	30.580	T 1156.000	T 975.300	904.000	903.700	92.980
σ		0.7%	0.685	1.084	1.462	6.677	T 7.397	T 9.911	7.769	12.290	0.916
%RSD		0.6	0.723	1.101	1.606	21.840	T 0.640	T 1.016	0.859	1.360	0.985

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:33:01	T 836.100	T 50070.000	1076.000	1135.000	973.600	115.9%	93.910	94.980	95.330	3017.000
2	02:33:28	T 822.400	T 50170.000	1085.000	1120.000	998.900	115.2%	93.890	94.020	95.120	3058.000
3	02:33:55	T 826.100	T 50290.000	T 1071.000	1086.000	980.500	115.9%	93.740	93.890	94.770	2861.000
x		T 828.200	T 50170.000	T 1077.000	1114.000	984.300	115.7%	93.850	94.300	95.070	2978.000
σ		T 7.071	T 112.000	T 6.866	25.230	13.070	0.4%	0.091	0.595	0.280	103.800
%RSD		T 0.854	T 0.223	T 0.637	2.266	1.328	0.3	0.097	0.631	0.295	3.484

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:33:01	1002.000	96.110	T 1043.000	964.500	94.980	95.320	97.390	93.810	97.740	100.600
2	02:33:28	1014.000	99.250	T 1061.000	976.600	96.650	97.850	98.840	93.440	97.580	103.300
3	02:33:55	1007.000	98.010	T 1038.000	967.500	96.010	95.350	97.380	95.060	97.980	102.700
x		1008.000	97.790	T 1047.000	969.500	95.880	96.170	97.870	94.100	97.770	102.200
σ		5.803	1.584	T 11.720	6.303	0.843	1.451	0.838	0.846	0.203	1.415
%RSD		0.576	1.620	T 1.119	0.650	0.879	1.508	0.856	0.899	0.207	1.385

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:33:01	100.300	101.500	98.760	103.200	4.906	4.618	436.300	92.760	-0.756	96.680
2	02:33:28	100.800	102.300	100.800	104.000	4.644	4.808	439.000	92.220	-2.205	96.140
3	02:33:55	103.600	103.000	99.860	103.700	4.147	4.626	440.800	93.380	-0.526	96.220
x		101.600	102.300	99.810	103.600	4.566	4.684	438.700	92.790	-1.162	96.350
σ		1.768	0.741	1.033	0.385	0.386	0.108	2.272	0.581	0.910	0.292
%RSD		1.741	0.724	1.035	0.371	8.443	2.295	0.518	0.626	78.320	0.303

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:33:01	125.7%	96.260	96.060	95.200	100.800	99.250	95.780	98.640	97.610	131.8%
2	02:33:28	127.7%	94.960	96.110	94.410	98.810	98.840	94.330	95.920	97.010	135.0%
3	02:33:55	128.8%	94.010	95.070	95.370	97.260	98.160	94.680	97.920	98.070	135.0%
x		127.4%	95.080	95.740	95.000	98.960	98.750	94.930	97.490	97.560	133.9%
σ		1.5%	1.131	0.588	0.514	1.791	0.551	0.757	1.412	0.531	1.8%
%RSD		1.2	1.190	0.614	0.541	1.810	0.558	0.797	1.448	0.544	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:33:01	100.500	100.200	95.080	95.640	95.130	94.770	137.4%	97.620	100.200	102.700
2	02:33:28	99.230	97.690	93.410	95.070	95.930	95.930	140.5%	96.610	99.710	102.800
3	02:33:55	99.490	99.060	94.420	95.490	95.900	94.340	140.2%	96.510	99.430	103.700
x		99.750	98.990	94.300	95.400	95.650	95.010	139.4%	96.920	99.770	103.100
σ		0.688	1.277	0.844	0.298	0.452	0.822	1.7%	0.614	0.379	0.564
%RSD		0.689	1.290	0.895	0.312	0.473	0.865	1.2	0.634	0.380	0.547

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:33:01	97.120	98.870	139.9%
2	02:33:28	97.530	99.380	140.7%
3	02:33:55	98.270	100.100	140.2%
x		97.640	99.430	140.3%
σ		0.583	0.591	0.4%
%RSD		0.597	0.595	0.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:56	117.3%	-0.033	109.000	104.200	421.000	TM 138600.000	T 6419.000	T 6230.000	T 6304.000	111.400
2	02:39:24	119.6%	-0.029	107.100	105.100	411.500	TM 136500.000	T 6394.000	T 6149.000	T 6214.000	109.000
3	02:39:50	120.7%	-0.030	107.400	104.800	407.000	TM 140200.000	T 6427.000	T 6139.000	T 6279.000	109.200
x		119.2%	-0.030	107.900	104.700	413.200	TM 138500.000	T 6413.000	T 6173.000	T 6266.000	109.900
σ		1.7%	0.002	1.035	0.438	7.135	TM 1874.000	T 17.080	T 49.730	T 46.580	1.369
%RSD		1.5	7.631	0.959	0.418	1.727	TM 1.354	T 0.266	T 0.806	T 0.743	1.246
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:56	T 8661.000	T 54170.000	T 31000.000	20560.000	T 21070.000	110.2%	22.500	0.237	1.689	3872.000
2	02:39:24	T 8617.000	T 53740.000	T 30890.000	20450.000	T 21100.000	112.8%	22.750	-0.012	1.648	4313.000
3	02:39:50	T 8652.000	T 54550.000	T 30750.000	20380.000	T 20790.000	113.5%	21.340	-0.039	1.731	4607.000
x		T 8643.000	T 54150.000	T 30880.000	20460.000	T 20990.000	112.2%	22.200	0.062	1.690	4264.000
σ		T 23.130	T 408.500	T 122.300	86.720	T 174.300	1.7%	0.750	0.152	0.042	370.000
%RSD		T 0.268	T 0.754	T 0.396	0.424	T 0.831	1.5	3.378	245.400	2.457	8.677
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:56	237.100	22.290	T 258.400	333.800	0.247	5.285	4.022	61.210	64.840	179.900
2	02:39:24	235.600	21.940	T 258.000	328.500	0.230	4.947	4.412	61.340	64.710	176.600
3	02:39:50	233.800	22.340	249.300	320.100	0.270	4.913	4.166	61.150	65.630	182.400
x		235.500	22.190	T 255.200	327.500	0.249	5.048	4.200	61.230	65.060	179.600
σ		1.635	0.216	T 5.163	6.946	0.020	0.206	0.197	0.095	0.498	2.930
%RSD		0.694	0.975	T 2.023	2.121	7.945	4.081	4.692	0.155	0.766	1.631
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:56	165.300	175.000	0.291	0.798	162.700	165.200	1.670	0.106	-0.106	108.800
2	02:39:24	164.600	173.500	0.059	0.071	166.200	166.800	-0.467	-0.287	-1.772	110.100
3	02:39:50	168.800	179.300	0.633	0.738	164.800	167.800	0.986	0.062	-2.954	108.800
x		166.200	176.000	0.328	0.536	164.600	166.600	0.730	-0.040	-1.611	109.200
σ		2.267	3.017	0.288	0.404	1.763	1.331	1.092	0.215	1.431	0.774
%RSD		1.364	1.714	87.990	75.330	1.071	0.799	149.600	538.700	88.850	0.708
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:56	122.9%	23.810	24.230	24.200	3.291	0.032	0.031	0.150	0.172	126.6%
2	02:39:24	124.9%	24.450	24.500	24.520	3.820	0.031	0.030	0.148	0.183	126.1%
3	02:39:50	129.8%	24.350	24.170	24.150	2.273	0.034	0.023	0.139	0.185	130.1%
x		125.9%	24.200	24.300	24.290	3.128	0.032	0.028	0.145	0.180	127.6%
σ		3.6%	0.343	0.176	0.200	0.786	0.002	0.004	0.006	0.007	2.2%
%RSD		2.8	1.417	0.722	0.821	25.130	5.853	14.750	4.064	4.062	1.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:56	1.814	2.553	0.602	0.647	36.300	36.230	136.6%	-0.008	0.000	0.605
2	02:39:24	1.798	2.478	0.587	0.626	36.250	36.340	137.9%	0.002	-0.007	0.542
3	02:39:50	1.929	2.443	0.617	0.605	36.600	35.390	138.1%	-0.004	-0.001	0.581
x		1.847	2.491	0.602	0.626	36.380	35.990	137.5%	-0.003	-0.002	0.576
σ		0.072	0.056	0.015	0.021	0.188	0.522	0.8%	0.005	0.004	0.032
%RSD		3.877	2.261	2.508	3.325	0.517	1.450	0.6	140.800	144.500	5.506
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	02:38:56	0.570	0.576	143.7%							
2	02:39:24	0.577	0.567	143.9%							
3	02:39:50	0.546	0.561	146.2%							
x		0.564	0.568	144.6%							
σ		0.016	0.008	1.4%							
%RSD		2.831	1.349	0.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:53	121.5%	-0.028	41.010	38.010	55.200	T 62950.000	T 3369.000	3098.000	T 3269.000	14.410
2	02:45:20	123.7%	-0.054	38.880	38.100	51.770	T 61970.000	T 3350.000	3071.000	T 3196.000	14.210
3	02:45:47	123.1%	-0.026	39.920	38.830	58.240	T 62900.000	T 3359.000	3068.000	T 3186.000	14.070
x		122.8%	-0.036	39.940	38.310	55.070	T 62610.000	T 3360.000	3079.000	T 3217.000	14.230
σ		1.1%	0.016	1.062	0.447	3.237	T 550.100	T 9.578	16.200	T 45.310	0.167
%RSD		0.9	44.180	2.660	1.166	5.877	T 0.879	T 0.285	0.526	T 1.409	1.173

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:53	T 4925.000	T 51150.000	T 3710.000	9806.000	9312.000	115.4%	1.981	0.038	1.862	3439.000
2	02:45:20	T 4872.000	T 51390.000	T 3749.000	10050.000	9371.000	115.4%	1.872	-0.074	1.863	3413.000
3	02:45:47	T 4918.000	T 51790.000	T 3766.000	9846.000	9276.000	116.4%	1.982	0.057	1.691	3219.000
x		T 4905.000	T 51440.000	T 3742.000	9899.000	9320.000	115.7%	1.945	0.007	1.805	3357.000
σ		T 28.800	T 323.800	T 28.790	128.700	47.850	0.6%	0.063	0.071	0.099	120.100
%RSD		T 0.587	T 0.629	T 0.769	1.300	0.514	0.5	3.239	1055.000	5.475	3.578

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:53	2530.000	244.600	T 2751.000	2622.000	0.491	6.145	7.395	41.840	44.270	M 912.200
2	02:45:20	2564.000	T 251.400	T 2765.000	2606.000	0.489	6.128	6.047	42.750	44.870	M 923.800
3	02:45:47	2548.000	241.500	T 2728.000	2597.000	0.501	5.701	6.861	41.930	44.080	M 923.100
x		2547.000	T 245.800	T 2748.000	2608.000	0.494	5.992	6.768	42.170	44.410	M 919.700
σ		16.810	T 5.072	T 18.860	12.840	0.006	0.252	0.678	0.501	0.413	M 6.471
%RSD		0.660	T 2.063	T 0.686	0.492	1.242	4.202	10.030	1.189	0.931	M 0.704

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:53	M 820.800	M 884.800	0.038	-0.397	260.200	260.300	0.657	-0.160	-2.098	65.500
2	02:45:20	M 837.600	M 889.100	0.335	-0.081	260.400	269.800	-0.127	-0.354	-3.151	65.470
3	02:45:47	M 833.000	M 891.100	0.016	-0.410	266.300	272.300	1.566	0.040	-2.658	66.330
x		M 830.500	M 888.300	0.130	-0.296	262.300	267.500	0.699	-0.158	-2.636	65.770
σ		M 8.665	M 3.220	0.178	0.186	3.464	6.300	0.847	0.197	0.527	0.490
%RSD		M 1.043	M 0.363	137.300	62.900	1.321	2.355	121.300	125.100	19.990	0.746

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:53	128.2%	0.560	0.613	0.550	1.821	0.004	0.005	0.003	-0.011	131.6%
2	02:45:20	127.7%	0.582	0.554	0.556	0.530	0.005	0.001	0.007	0.011	134.3%
3	02:45:47	128.6%	0.540	0.568	0.543	1.688	0.004	0.005	0.005	-0.001	131.9%
x		128.2%	0.561	0.579	0.550	1.346	0.004	0.004	0.005	-0.000	132.6%
σ		0.4%	0.021	0.031	0.007	0.710	0.000	0.002	0.002	0.011	1.5%
%RSD		0.3	3.781	5.274	1.187	52.760	5.432	64.110	43.000	4628.000	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:53	1.325	1.929	0.135	0.108	12.890	12.530	139.4%	-0.020	-0.017	0.236
2	02:45:20	1.323	1.838	0.126	0.113	12.580	12.730	140.6%	-0.017	-0.024	0.240
3	02:45:47	1.385	1.875	0.141	0.119	12.670	12.450	141.1%	-0.014	-0.020	0.230
x		1.344	1.881	0.134	0.113	12.710	12.570	140.4%	-0.017	-0.020	0.235
σ		0.035	0.046	0.007	0.006	0.162	0.145	0.9%	0.003	0.004	0.005
%RSD		2.619	2.421	5.431	5.140	1.277	1.157	0.6	19.330	18.710	2.078

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:44:53	0.198	0.229	138.6%
2	02:45:20	0.257	0.238	138.4%
3	02:45:47	0.241	0.225	138.0%
x		0.232	0.231	138.3%
σ		0.031	0.007	0.3%
%RSD		13.250	2.880	0.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:49	123.3%	-0.001	51.560	49.500	60.900	T 73660.000	T 1928.000	1782.000	1798.000	29.100
2	02:51:16	122.9%	-0.030	50.570	50.410	56.450	T 74910.000	T 1958.000	1809.000	1816.000	T 12.400
3	02:51:43	124.3%	-0.022	52.320	50.390	63.850	T 73130.000	T 1944.000	1779.000	1792.000	T 13.080
x		123.5%	-0.018	51.480	50.100	60.400	T 73900.000	T 1943.000	1790.000	1802.000	T 18.190
σ		0.7%	0.015	0.876	0.516	3.721	T 918.300	T 15.030	16.620	12.410	T 9.454
%RSD		0.6	84.560	1.701	1.031	6.161	T 1.243	T 0.774	0.928	0.689	T 51.970

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:49	T 5446.000	T 50960.000	T 4081.000	5732.000	5325.000	116.6%	3.126	-0.222	1.183	4242.000
2	02:51:16	T 5441.000	T 52160.000	T 4093.000	5804.000	5405.000	114.7%	2.888	-0.104	1.217	4370.000
3	02:51:43	T 5398.000	T 52170.000	T 4082.000	5794.000	5357.000	116.6%	2.893	-0.299	1.177	4600.000
x		T 5428.000	T 51760.000	T 4085.000	5777.000	5362.000	116.0%	2.969	-0.208	1.192	4404.000
σ		T 26.660	T 694.500	T 6.503	38.910	40.340	1.1%	0.136	0.099	0.021	181.400
%RSD		T 0.491	T 1.342	T 0.159	0.674	0.752	0.9	4.579	47.380	1.791	4.118

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:49	473.500	32.400	T 519.700	478.200	0.218	2.765	3.757	12.640	13.090	355.300
2	02:51:16	475.000	32.620	T 514.100	484.800	0.199	2.561	4.415	13.000	13.390	359.900
3	02:51:43	469.900	32.070	T 501.900	465.900	0.204	2.710	4.532	12.780	13.320	358.000
x		472.800	32.360	T 511.900	476.300	0.207	2.679	4.235	12.810	13.260	357.700
σ		2.621	0.272	T 9.105	9.626	0.010	0.106	0.418	0.182	0.158	2.320
%RSD		0.554	0.842	T 1.779	2.021	4.708	3.958	9.861	1.419	1.190	0.649

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:49	326.100	343.700	-0.107	-0.187	40.710	43.070	-0.178	-0.131	-1.443	36.940
2	02:51:16	330.400	352.100	-0.224	-0.157	41.610	44.160	-1.046	-0.347	-2.047	37.420
3	02:51:43	329.500	348.100	0.176	-0.064	42.270	41.480	-0.582	-0.194	-3.048	37.390
x		328.700	348.000	-0.052	-0.136	41.530	42.900	-0.602	-0.224	-2.179	37.250
σ		2.239	4.162	0.206	0.065	0.780	1.348	0.435	0.111	0.811	0.269
%RSD		0.681	1.196	399.400	47.460	1.878	3.141	72.200	49.720	37.220	0.723

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:49	128.3%	0.666	0.696	0.660	-0.413	0.002	0.006	0.000	0.016	131.7%
2	02:51:16	127.3%	0.618	0.707	0.706	-0.577	0.010	0.004	0.004	0.012	133.8%
3	02:51:43	128.3%	0.716	0.697	0.710	0.643	0.004	0.003	0.002	-0.004	132.6%
x		128.0%	0.667	0.700	0.692	-0.116	0.005	0.004	0.002	0.008	132.7%
σ		0.6%	0.049	0.006	0.028	0.662	0.004	0.002	0.002	0.010	1.0%
%RSD		0.4	7.323	0.888	4.059	573.000	74.950	46.480	98.800	127.400	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:49	1.476	1.893	0.194	0.173	12.480	12.130	137.9%	-0.028	-0.029	0.308
2	02:51:16	1.411	1.976	0.206	0.204	12.150	12.490	140.6%	-0.028	-0.026	0.289
3	02:51:43	1.332	1.916	0.210	0.201	12.080	12.350	139.7%	-0.026	-0.028	0.310
x		1.406	1.928	0.203	0.193	12.240	12.320	139.4%	-0.027	-0.028	0.302
σ		0.072	0.043	0.009	0.017	0.213	0.178	1.4%	0.001	0.002	0.011
%RSD		5.138	2.213	4.206	8.740	1.736	1.444	1.0	3.321	7.095	3.799

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:50:49	0.300	0.290	135.8%
2	02:51:16	0.310	0.287	137.0%
3	02:51:43	0.321	0.303	137.5%
x		0.311	0.293	136.8%
σ		0.010	0.009	0.8%
%RSD		3.363	2.972	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:45	116.2%	-0.014	54.350	53.080	506.000	TM 447100.000	T 3188.000	2904.000	2942.000	53.360
2	02:57:12	117.9%	-0.019	54.270	51.310	492.200	TM 451600.000	T 3154.000	2877.000	2918.000	52.790
3	02:57:39	119.2%	-0.036	55.440	51.990	510.300	TM 449400.000	T 3194.000	2871.000	2920.000	52.610
x		117.8%	-0.023	54.690	52.130	502.900	TM 449400.000	T 3179.000	2884.000	2927.000	52.920
σ		1.5%	0.012	0.655	0.891	9.451	TM 2227.000	T 21.640	17.730	13.020	0.389
%RSD		1.3	49.560	1.198	1.710	1.879	TM 0.496	T 0.681	0.615	0.445	0.736

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:45	TM 13660.000	T 61240.000	T 8490.000	41290.000	T 43340.000	114.4%	12.730	0.484	2.903	5318.000
2	02:57:12	TM 13840.000	T 61910.000	T 8632.000	41320.000	T 43410.000	115.9%	12.280	0.359	2.872	5497.000
3	02:57:39	TM 13610.000	T 61680.000	T 8592.000	41440.000	T 43830.000	116.0%	13.030	0.629	2.971	5413.000
x		TM 13700.000	T 61610.000	T 8571.000	41350.000	T 43530.000	115.4%	12.680	0.490	2.915	5409.000
σ		TM 120.600	T 340.100	T 73.040	79.490	T 268.000	0.9%	0.374	0.135	0.050	89.370
%RSD		TM 0.880	T 0.552	T 0.852	0.192	T 0.616	0.8	2.952	27.580	1.724	1.652

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:45	609.200	20.290	T 667.600	845.700	1.187	5.324	3.846	43.670	45.770	227.000
2	02:57:12	616.600	20.190	T 669.400	847.900	1.191	5.060	4.141	43.120	44.470	228.600
3	02:57:39	605.500	20.100	T 666.700	837.000	1.186	5.194	4.576	44.110	45.930	230.000
x		610.400	20.190	T 667.900	843.500	1.188	5.193	4.187	43.630	45.390	228.500
σ		5.655	0.098	T 1.379	5.727	0.002	0.132	0.367	0.498	0.800	1.517
%RSD		0.926	0.483	T 0.207	0.679	0.192	2.542	8.777	1.141	1.763	0.664

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:45	208.200	222.700	0.225	-0.477	269.200	269.400	1.454	0.077	-2.109	84.740
2	02:57:12	212.200	220.300	0.187	0.390	263.900	273.700	-2.596	-0.833	-2.770	83.540
3	02:57:39	210.900	226.700	0.521	0.197	266.800	274.200	1.321	0.036	-2.421	83.610
x		210.500	223.200	0.311	0.037	266.600	272.400	0.060	-0.240	-2.433	83.960
σ		2.032	3.225	0.183	0.455	2.657	2.617	2.301	0.514	0.331	0.672
%RSD		0.965	1.445	58.700	1242.000	0.996	0.961	3864.000	214.500	13.600	0.800

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:45	123.0%	4.200	4.446	4.452	2.344	0.003	0.000	0.036	0.065	122.3%
2	02:57:12	125.0%	4.241	4.466	4.243	2.369	0.004	0.002	0.033	0.065	125.5%
3	02:57:39	126.3%	4.144	4.340	4.426	1.373	0.005	-0.001	0.051	0.045	126.2%
x		124.8%	4.195	4.417	4.374	2.029	0.004	0.000	0.040	0.058	124.7%
σ		1.7%	0.049	0.068	0.114	0.568	0.001	0.002	0.010	0.012	2.1%
%RSD		1.4	1.161	1.539	2.604	27.990	26.130	402.900	24.090	20.390	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:45	1.647	2.219	0.848	0.816	23.710	23.610	133.9%	-0.025	-0.028	1.255
2	02:57:12	1.608	2.283	0.829	0.810	22.850	23.770	135.3%	-0.027	-0.030	1.216
3	02:57:39	1.595	2.228	0.797	0.868	23.560	23.670	138.0%	-0.028	-0.029	1.177
x		1.617	2.244	0.824	0.831	23.370	23.680	135.7%	-0.027	-0.029	1.216
σ		0.027	0.034	0.026	0.032	0.458	0.083	2.1%	0.002	0.001	0.039
%RSD		1.673	1.537	3.118	3.850	1.961	0.352	1.5	5.863	3.372	3.222

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:56:45	1.149	1.186	125.7%
2	02:57:12	1.153	1.167	127.4%
3	02:57:39	1.135	1.156	128.2%
x		1.146	1.170	127.1%
σ		0.009	0.015	1.3%
%RSD		0.815	1.273	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:40	107.6%	-0.043	68.910	67.220	317.600	TM 549200.000	T 5388.000	T 5226.000	T 5286.000	TM 3188.000
2	03:03:07	110.9%	-0.039	69.470	65.880	318.200	TM 557200.000	T 5352.000	T 5180.000	T 5214.000	TM 3152.000
3	03:03:34	112.9%	-0.020	67.600	67.030	322.900	TM 559800.000	T 5347.000	T 5193.000	T 5244.000	TM 3163.000
x		110.4%	-0.034	68.660	66.710	319.600	TM 555400.000	T 5362.000	T 5200.000	T 5248.000	TM 3168.000
σ		2.7%	0.012	0.959	0.724	2.932	TM 5486.000	T 22.340	T 23.540	T 36.230	TM 18.830
%RSD		2.4	36.590	1.397	1.086	0.918	TM 0.988	T 0.417	T 0.453	T 0.690	TM 0.595

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:40	T 3385.000	T 53460.000	TM 911400.000	TM 621000.000	TM 578400.000	109.8%	24.440	3.603	23.310	2363.000
2	03:03:07	T 3384.000	T 53520.000	TM 915100.000	TM 611400.000	TM 571800.000	114.0%	24.950	3.648	22.560	2340.000
3	03:03:34	T 3355.000	T 53670.000	TM 916700.000	TM 615000.000	TM 570200.000	116.0%	24.410	3.469	23.160	2486.000
x		T 3375.000	T 53550.000	TM 914400.000	TM 615800.000	TM 573500.000	113.3%	24.600	3.573	23.010	2397.000
σ		T 17.310	T 109.200	TM 2709.000	TM 4815.000	TM 4315.000	3.2%	0.305	0.093	0.400	78.640
%RSD		T 0.513	T 0.204	TM 0.296	TM 0.782	TM 0.752	2.8	1.241	2.607	1.737	3.281

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:40	39.740	9.724	65.820	3227.000	0.799	396.800	393.100	2.358	6.929	174.500
2	03:03:07	37.470	9.606	62.840	3101.000	0.750	388.300	395.100	2.481	7.015	172.300
3	03:03:34	38.400	9.497	62.210	3079.000	0.756	392.400	393.400	2.574	6.928	175.500
x		38.540	9.609	63.620	3136.000	0.769	392.500	393.900	2.471	6.957	174.100
σ		1.146	0.113	1.932	79.860	0.027	4.221	1.050	0.108	0.050	1.662
%RSD		2.973	1.180	3.036	2.547	3.498	1.075	0.267	4.388	0.720	0.955

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:40	160.600	168.400	1.847	11.860	148.200	135.400	3.849	0.691	2.165	TM 521.300
2	03:03:07	158.100	163.800	1.856	13.660	148.400	135.000	4.389	0.778	0.344	TM 519.700
3	03:03:34	163.300	166.000	2.204	13.450	151.500	137.200	4.388	0.799	1.009	TM 523.500
x		160.700	166.100	1.969	12.990	149.400	135.900	4.208	0.756	1.173	TM 521.500
σ		2.565	2.310	0.204	0.982	1.836	1.182	0.312	0.058	0.922	TM 1.896
%RSD		1.597	1.391	10.350	7.564	1.229	0.869	7.402	7.605	78.600	TM 0.364

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:40	120.8%	10.090	9.631	9.714	17.440	0.002	0.001	-0.013	0.032	118.3%
2	03:03:07	121.8%	9.947	10.190	9.631	13.170	0.003	0.001	0.001	0.026	123.3%
3	03:03:34	125.8%	10.070	9.694	9.764	16.460	0.004	-0.001	-0.022	0.032	125.2%
x		122.8%	10.040	9.840	9.703	15.690	0.003	0.000	-0.011	0.030	122.3%
σ		2.7%	0.078	0.308	0.067	2.232	0.001	0.001	0.012	0.003	3.6%
%RSD		2.2	0.778	3.127	0.695	14.230	34.810	188.700	104.100	10.290	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:40	3.337	4.674	97.890	98.860	24.710	24.380	129.9%	4.170	4.144	0.707
2	03:03:07	3.284	4.481	97.150	98.050	24.010	24.430	133.1%	4.114	4.201	0.743
3	03:03:34	3.161	4.597	97.250	96.820	24.590	24.500	135.7%	3.996	4.116	0.678
x		3.261	4.584	97.430	97.910	24.440	24.440	132.9%	4.094	4.154	0.709
σ		0.090	0.097	0.402	1.031	0.371	0.059	2.9%	0.089	0.043	0.032
%RSD		2.768	2.122	0.413	1.053	1.519	0.241	2.2	2.171	1.042	4.545

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:02:40	0.671	0.673	116.6%
2	03:03:07	0.663	0.671	121.3%
3	03:03:34	0.657	0.657	121.9%
x		0.664	0.667	119.9%
σ		0.007	0.009	2.9%
%RSD		1.060	1.278	2.4

UE02066-001 05/09/2019 03:08:09

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:08:37	128.0%	-0.023	473.100	462.500	222.200	TM 170200.000	T 2873.000	2629.000	2672.000	157.200
2	03:09:04	129.2%	-0.023	471.700	454.200	214.200	TM 168600.000	T 2846.000	2604.000	2647.000	T 153.700
3	03:09:30	128.2%	-0.031	468.000	457.700	213.000	TM 167800.000	T 2844.000	2608.000	2637.000	156.500
x		128.5%	-0.026	471.000	458.100	216.500	TM 168900.000	T 2854.000	2614.000	2652.000	T 155.800
σ		0.7%	0.005	2.624	4.170	4.993	TM 1227.000	T 16.360	13.390	18.120	T 1.846
%RSD		0.5	17.690	0.557	0.910	2.306	TM 0.727	T 0.573	0.512	0.683	T 1.185

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:08:37	T 7161.000	T 53770.000	T 22620.000	12380.000	11770.000	125.3%	8.754	0.975	7.944	4117.000
2	03:09:04	T 7043.000	T 53890.000	T 22470.000	12490.000	11820.000	122.5%	8.783	0.991	8.060	4184.000
3	03:09:30	T 7085.000	T 54200.000	T 22700.000	12650.000	11820.000	121.4%	9.322	0.767	8.196	4362.000
x		T 7097.000	T 53950.000	T 22600.000	12510.000	11800.000	123.1%	8.953	0.911	8.067	4221.000
σ		T 59.840	T 224.900	T 119.200	133.900	26.970	2.0%	0.320	0.125	0.126	126.500
%RSD		T 0.843	T 0.417	T 0.527	1.071	0.229	1.6	3.576	13.740	1.560	2.997

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:08:37	637.400	19.420	T 691.700	688.300	2.031	27.520	26.640	48.380	51.610	132.800
2	03:09:04	640.200	19.890	T 707.200	711.600	2.056	28.440	26.780	48.600	51.950	136.400
3	03:09:30	647.300	19.530	T 699.600	705.100	2.044	27.530	26.470	48.960	51.970	133.800
x		641.700	19.610	T 699.500	701.700	2.043	27.830	26.630	48.650	51.840	134.300
σ		5.118	0.245	T 7.722	12.050	0.012	0.526	0.155	0.292	0.200	1.853
%RSD		0.798	1.247	T 1.104	1.717	0.611	1.889	0.580	0.599	0.386	1.380

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:08:37	124.900	130.100	11.570	0.414	T 12260.000	T 12360.000	99.910	9.178	-3.076	71.270
2	03:09:04	126.700	132.400	11.330	0.340	T 12280.000	T 12540.000	92.930	7.472	-2.267	71.630
3	03:09:30	128.700	133.200	11.840	0.403	T 12320.000	T 12470.000	98.330	8.558	-0.843	71.350
x		126.700	131.900	11.580	0.385	T 12290.000	T 12460.000	97.050	8.403	-2.062	71.420
σ		1.908	1.564	0.258	0.040	T 33.410	T 90.560	3.659	0.864	1.130	0.188
%RSD		1.506	1.186	2.225	10.310	T 0.272	T 0.727	3.770	10.280	54.810	0.264

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:08:37	140.4%	M 747.000	M 748.100	TM 752.400	1.773	0.041	0.043	-1.828	0.097	142.2%
2	03:09:04	142.2%	M 741.900	M 743.300	TM 759.100	0.732	0.054	0.051	-1.971	0.068	142.9%
3	03:09:30	140.8%	M 742.300	M 743.100	TM 758.800	0.997	0.058	0.040	-1.924	0.030	143.3%
x		141.1%	M 743.700	M 744.800	TM 756.700	1.167	0.051	0.045	-1.908	0.065	142.8%
σ		0.9%	M 2.834	M 2.820	TM 3.787	0.541	0.009	0.006	0.073	0.034	0.6%
%RSD		0.7	M 0.381	M 0.379	TM 0.500	46.390	17.960	12.270	3.838	51.980	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:08:37	1.090	0.908	0.768	0.692	32.240	31.980	152.3%	-0.018	-0.027	1.004
2	03:09:04	1.063	0.861	0.774	0.749	32.260	32.390	154.2%	-0.018	-0.025	0.941
3	03:09:30	1.065	0.850	0.777	0.774	32.310	32.070	155.3%	-0.020	-0.024	0.983
x		1.073	0.873	0.773	0.738	32.270	32.140	153.9%	-0.019	-0.025	0.976
σ		0.015	0.031	0.004	0.042	0.039	0.217	1.6%	0.001	0.002	0.032
%RSD		1.405	3.557	0.559	5.710	0.120	0.674	1.0	4.462	6.674	3.258

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:08:37	0.915	0.963	148.1%
2	03:09:04	0.952	0.957	151.1%
3	03:09:30	0.934	0.958	151.8%
x		0.934	0.959	150.3%
σ		0.018	0.003	2.0%
%RSD		1.971	0.341	1.3

UE02067-001 05/09/2019 03:14:05

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:14:32	127.0%	-0.026	37.940	35.500	475.000	┬66400.000	┬2381.000	2186.000	2208.000	82.510
2	03:14:59	126.7%	-0.045	37.480	36.230	489.800	┬65900.000	┬2390.000	2181.000	2186.000	81.750
3	03:15:26	127.4%	-0.024	35.990	34.700	480.000	┬66890.000	┬2381.000	2169.000	2187.000	82.250
x		127.0%	-0.031	37.140	35.480	481.600	┬66400.000	┬2384.000	2179.000	2194.000	82.170
σ		0.4%	0.012	1.021	0.764	7.539	┬496.600	┬5.677	9.051	12.290	0.383
%RSD		0.3	36.960	2.748	2.154	1.565	┬0.748	┬0.238	0.416	0.560	0.466

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:14:32	┬3644.000	┬53430.000	┬35440.000	14510.000	┬14730.000	118.2%	24.930	-0.094	0.973	4575.000
2	03:14:59	┬3604.000	┬53850.000	┬35530.000	14500.000	┬14880.000	115.3%	23.230	0.103	1.026	4547.000
3	03:15:26	┬3658.000	┬53900.000	┬35660.000	14730.000	┬14950.000	116.3%	21.740	0.388	1.046	4485.000
x		┬3635.000	┬53730.000	┬35540.000	14580.000	┬14850.000	116.6%	23.300	0.132	1.015	4536.000
σ		┬28.000	┬255.700	┬109.600	126.400	┬108.700	1.5%	1.597	0.242	0.038	45.780
%RSD		┬0.770	┬0.476	┬0.308	0.867	┬0.732	1.3	6.855	183.300	3.730	1.009

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:14:32	210.100	18.210	225.300	267.300	0.167	2.411	1.545	16.590	17.790	86.410
2	03:14:59	214.200	18.700	227.700	269.000	0.154	2.462	1.532	16.940	18.420	91.040
3	03:15:26	215.800	18.800	227.800	270.400	0.161	2.569	1.566	16.980	18.500	90.590
x		213.400	18.570	227.000	268.900	0.161	2.481	1.548	16.840	18.240	89.340
σ		2.922	0.318	1.414	1.555	0.007	0.081	0.017	0.214	0.389	2.552
%RSD		1.369	1.710	0.623	0.578	4.056	3.264	1.109	1.269	2.135	2.856

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:14:32	81.770	84.160	0.172	0.843	93.210	93.560	1.689	0.218	-2.299	50.350
2	03:14:59	85.800	90.330	0.296	0.956	95.040	93.510	2.225	0.323	-1.901	50.020
3	03:15:26	85.660	88.890	0.426	1.267	87.690	90.220	2.229	0.373	-3.031	49.990
x		84.410	87.790	0.298	1.022	91.980	92.430	2.048	0.305	-2.410	50.120
σ		2.283	3.232	0.127	0.220	3.829	1.916	0.311	0.079	0.573	0.198
%RSD		2.705	3.681	42.530	21.500	4.162	2.073	15.180	25.850	23.780	0.395

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:14:32	132.1%	1.257	1.141	1.245	0.806	0.017	0.017	0.113	0.139	136.7%
2	03:14:59	138.1%	1.229	1.275	1.120	0.649	0.024	0.023	0.146	0.144	141.3%
3	03:15:26	137.8%	1.189	1.148	1.135	0.331	0.024	0.020	0.141	0.144	139.9%
x		136.0%	1.225	1.188	1.167	0.595	0.022	0.020	0.133	0.142	139.3%
σ		3.4%	0.034	0.075	0.068	0.242	0.004	0.003	0.018	0.003	2.4%
%RSD		2.5	2.782	6.353	5.871	40.700	20.260	14.370	13.350	2.241	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:14:32	1.329	1.775	0.224	0.199	16.180	16.470	145.9%	-0.027	-0.030	0.988
2	03:14:59	1.335	1.722	0.211	0.227	16.640	16.350	151.0%	-0.019	-0.029	1.095
3	03:15:26	1.323	1.807	0.221	0.223	16.350	16.210	149.5%	-0.023	-0.029	1.056
x		1.329	1.768	0.219	0.216	16.390	16.340	148.8%	-0.023	-0.029	1.046
σ		0.006	0.043	0.007	0.015	0.230	0.131	2.6%	0.004	0.001	0.054
%RSD		0.461	2.449	3.071	6.886	1.402	0.802	1.7	17.730	1.818	5.175

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:14:32	0.981	0.971	148.6%
2	03:14:59	0.986	1.041	147.7%
3	03:15:26	1.005	1.024	149.3%
x		0.991	1.012	148.5%
σ		0.013	0.037	0.8%
%RSD		1.265	3.609	0.5

CCV MW11050 05/09/2019 03:20:02 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:20:29	113.3%	297.100	297.500	291.900	17.900	┬72770.000	┬61760.000	┬60660.000	┬60450.000	285.300
2	03:20:56	114.5%	288.700	286.300	279.200	16.210	┬71960.000	┬60600.000	┬59910.000	┬59440.000	275.600
3	03:21:24	113.9%	287.800	291.300	282.400	12.740	┬73110.000	┬60710.000	┬59800.000	┬59900.000	278.300
x		113.9%	97.060%	97.228%	94.835%	15.620	┬121.020%	┬61020.000	┬60120.000	┬99.888%	93.244%
σ		0.6%	n/a	n/a	n/a	2.634	┬n/a	┬639.700	┬468.900	┬n/a	n/a
%RSD		0.5	1.757	1.920	2.318	16.860	┬0.812	┬1.048	┬0.780	┬0.846	1.800

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:20:29	┬2998.000	566.900	┬67640.000	61490.000	┬64410.000	113.4%	290.900	┬304.400	287.600	555.800
2	03:20:56	┬2923.000	549.900	┬66870.000	61360.000	┬63900.000	113.4%	286.700	292.500	284.800	1284.000
3	03:21:24	┬2996.000	545.700	┬68070.000	61840.000	┬64380.000	114.6%	286.600	┬303.600	283.000	1473.000
x		┬99.083%	554.200	┬112.546%	61560.000	┬107.051%	113.8%	96.018%	┬100.055%	95.038%	1104.000
σ		┬n/a	11.230	┬n/a	245.800	┬n/a	0.7%	n/a	┬n/a	n/a	484.200
%RSD		┬1.439	2.026	┬0.904	0.399	┬0.450	0.6	0.847	┬2.220	0.809	43.850

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:20:29	┬61870.000	┬302.500	┬61940.000	┬62820.000	285.800	273.900	273.900	264.600	272.800	286.000
2	03:20:56	┬60980.000	┬298.200	┬60570.000	┬61930.000	279.500	268.600	267.900	260.000	271.000	282.000
3	03:21:24	┬61370.000	┬301.700	┬61580.000	┬62970.000	┬292.600	276.100	272.200	265.500	273.800	290.900
x		┬61410.000	┬100.274%	┬61360.000	┬104.285%	┬95.324%	90.959%	271.300	263.400	90.842%	95.432%
σ		┬449.000	┬n/a	┬712.100	┬n/a	┬n/a	n/a	3.097	2.973	n/a	n/a
%RSD		┬0.731	┬0.759	┬1.161	┬0.896	┬2.289	1.405	1.141	1.129	0.517	1.568

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:20:29	286.400	289.400	290.800	294.200	20.920	18.590	1256.000	272.400	-2.334	┬311.600
2	03:20:56	282.300	285.500	288.400	292.800	18.530	18.450	1243.000	270.900	-0.470	┬309.200
3	03:21:24	288.500	290.900	295.000	292.100	19.220	18.940	1270.000	277.700	-1.681	┬312.800
x		285.700	288.600	97.126%	293.000	19.550	18.660	1256.000	91.227%	-1.495	┬103.732%
σ		3.178	2.831	n/a	1.095	1.231	0.249	13.320	n/a	0.946	┬n/a
%RSD		1.112	0.981	1.143	0.374	6.296	1.335	1.061	1.301	63.290	┬0.574

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:20:29	122.0%	302.300	303.000	302.100	296.600	291.400	280.300	293.600	293.300	125.7%
2	03:20:56	123.7%	297.900	302.600	300.100	289.600	291.200	283.100	294.200	296.600	126.5%
3	03:21:24	125.4%	300.200	304.800	305.700	291.200	292.100	282.200	296.600	295.600	127.8%
x		123.7%	100.039%	101.155%	302.600	292.500	97.186%	281.900	294.800	98.394%	126.7%
σ		1.7%	n/a	n/a	2.850	3.654	n/a	1.409	1.587	n/a	1.0%
%RSD		1.4	0.732	0.387	0.942	1.249	0.160	0.500	0.538	0.587	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:20:29	301.300	302.900	304.700	304.400	295.800	294.000	133.5%	293.100	┬309.700	309.800
2	03:20:56	302.100	302.100	301.700	304.100	292.900	290.100	136.1%	288.200	┬303.700	308.000
3	03:21:24	305.600	302.500	306.500	306.400	296.500	294.300	137.8%	291.600	┬306.200	313.500
x		101.002%	100.828%	304.300	101.654%	98.357%	97.600%	135.8%	291.000	┬102.173%	103.478%
σ		n/a	n/a	2.424	n/a	n/a	n/a	2.1%	2.515	┬n/a	n/a
%RSD		0.766	0.125	0.796	0.408	0.655	0.793	1.6	0.865	┬0.994	0.911

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:20:29	305.300	┬310.100	130.6%
2	03:20:56	302.000	┬307.500	131.9%
3	03:21:24	303.200	┬310.600	132.6%
x		101.170%	┬103.132%	131.7%
σ		n/a	┬n/a	1.0%
%RSD		0.544	┬0.544	0.8

CCB IM9409-01 05/09/2019 03:26:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:26:28	121.2%	-0.011	1.894	1.391	6.489	3.476	0.083	-0.001	0.092	0.001
2	03:26:55	121.5%	0.006	1.754	1.491	4.831	3.440	-0.046	0.081	-0.001	-0.001
3	03:27:22	122.8%	-0.033	1.887	1.308	6.535	0.435	-0.049	0.013	-0.034	0.016
x		121.8%	-0.013	1.845	1.397	5.952	2.450	-0.004	0.031	0.019	0.005
σ		0.9%	0.020	0.079	0.091	0.970	1.746	0.075	0.044	0.066	0.009
%RSD		0.7	157.400	4.270	6.537	16.300	71.240	1953.000	141.500	340.900	168.900
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:26:28	9.665	276.500	8.461	-1.920	0.865	116.9%	0.017	0.018	0.014	15.590
2	03:26:55	9.292	271.300	6.703	-1.472	-0.052	115.9%	0.034	-0.010	-0.001	37.700
3	03:27:22	9.210	267.700	7.567	0.671	1.251	117.5%	0.000	0.016	0.007	17.930
x		9.389	271.800	7.577	-0.907	0.688	116.7%	0.017	0.008	0.007	23.740
σ		0.243	4.448	0.879	1.385	0.669	0.8%	0.017	0.016	0.007	12.150
%RSD		2.584	1.636	11.600	152.700	97.270	0.7	98.710	189.900	108.000	51.170
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:26:28	-1.215	0.029	0.503	-18.850	-0.025	0.002	-0.355	0.007	0.023	0.018
2	03:26:55	-1.575	0.013	-0.429	-17.460	-0.014	-0.000	0.172	-0.014	0.028	0.043
3	03:27:22	-1.918	0.002	-0.390	-21.180	-0.020	-0.003	-0.153	-0.012	0.024	0.027
x		-1.569	0.015	-0.105	-19.160	-0.020	-0.000	-0.112	-0.007	0.025	0.029
σ		0.352	0.013	0.527	1.883	0.006	0.002	0.266	0.012	0.002	0.012
%RSD		22.400	89.640	499.900	9.827	28.100	687.100	238.100	178.800	9.568	42.810
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:26:28	0.011	-0.004	-0.069	-0.020	11.700	11.120	-1.509	-0.384	-3.031	0.001
2	03:26:55	-0.019	-0.013	-0.148	0.595	11.220	11.910	-2.180	-0.549	-2.757	0.001
3	03:27:22	0.010	0.033	-0.198	-0.104	10.480	10.780	-3.238	-0.762	-3.265	0.001
x		0.001	0.005	-0.138	0.157	11.130	11.270	-2.309	-0.565	-3.018	0.001
σ		0.017	0.025	0.065	0.382	0.616	0.580	0.872	0.190	0.254	0.000
%RSD		2725.000	459.600	47.260	243.200	5.537	5.145	37.750	33.530	8.416	36.580
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:26:28	127.8%	0.022	0.033	0.040	-1.041	0.006	0.005	-0.002	0.006	134.1%
2	03:26:55	127.9%	0.032	0.038	0.037	0.014	0.007	0.002	-0.004	0.005	135.4%
3	03:27:22	126.8%	0.007	0.036	0.019	0.046	0.003	0.003	0.005	0.001	135.1%
x		127.5%	0.020	0.036	0.032	-0.327	0.005	0.004	-0.000	0.004	134.9%
σ		0.6%	0.012	0.003	0.011	0.619	0.002	0.002	0.005	0.003	0.7%
%RSD		0.5	61.100	7.186	34.550	189.400	36.530	44.520	1115.000	62.800	0.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:26:28	0.064	0.069	0.096	0.145	0.002	-0.001	138.0%	-0.008	-0.022	-0.012
2	03:26:55	0.058	0.069	0.117	0.112	-0.002	-0.001	138.1%	-0.012	-0.019	-0.003
3	03:27:22	0.021	0.056	0.106	0.090	-0.002	-0.001	139.4%	-0.013	-0.019	-0.010
x		0.048	0.065	0.106	0.116	-0.000	-0.001	138.5%	-0.011	-0.020	-0.009
σ		0.023	0.008	0.011	0.028	0.002	0.000	0.8%	0.002	0.001	0.005
%RSD		48.430	11.910	9.870	24.080	486.300	1.225	0.6	21.060	6.475	55.730
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:26:28	0.006	-0.001	143.8%							
2	03:26:55	0.004	-0.002	142.7%							
3	03:27:22	0.004	0.001	142.4%							
x		0.004	-0.000	143.0%							
σ		0.002	0.002	0.7%							
%RSD		33.850	341.800	0.5							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:32:25	116.7%	-0.039	32.350	32.980	641.800	T 120800.000	T 3661.000	T 3547.000	T 3642.000	T 1038.000
2	03:32:52	120.6%	-0.030	32.950	32.620	633.900	T 122700.000	T 3703.000	T 3631.000	T 3626.000	T 1037.000
3	03:33:19	119.3%	-0.029	33.300	32.510	629.600	T 120200.000	T 3675.000	T 3557.000	T 3598.000	T 1015.000
x		118.9%	-0.033	32.870	32.700	635.100	T 121200.000	T 3680.000	T 3578.000	T 3622.000	T 1030.000
σ		2.0%	0.005	0.479	0.248	6.197	T 1285.000	T 21.620	T 45.870	T 22.140	T 13.110
%RSD		1.7	16.670	1.456	0.759	0.976	T 1.060	T 0.587	T 1.282	T 0.611	T 1.273
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:32:25	T 6365.000	T 49510.000	T 24590.000	24440.000	T 25330.000	114.5%	26.100	1.587	4.323	2097.000
2	03:32:52	T 6291.000	T 50190.000	T 25210.000	24830.000	T 25750.000	114.8%	25.940	1.780	4.429	1869.000
3	03:33:19	T 6267.000	T 50320.000	T 24820.000	24510.000	T 25420.000	115.4%	25.120	1.510	4.241	2156.000
x		T 6308.000	T 50010.000	T 24870.000	24590.000	T 25500.000	114.9%	25.720	1.625	4.331	2041.000
σ		T 51.030	T 434.800	T 314.800	210.700	T 220.000	0.5%	0.526	0.139	0.094	151.100
%RSD		T 0.809	T 0.870	T 1.266	0.857	T 0.863	0.4	2.047	8.559	2.182	7.407
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:32:25	3451.000	76.950	T 3639.000	3604.000	0.751	6.115	5.960	41.070	42.990	M 1372.000
2	03:32:52	3460.000	77.710	T 3707.000	3616.000	0.773	5.777	5.562	40.910	42.710	M 1408.000
3	03:33:19	3469.000	78.230	T 3756.000	3631.000	0.787	5.721	5.594	41.420	43.230	M 1384.000
x		3460.000	77.630	T 3700.000	3617.000	0.770	5.871	5.705	41.130	42.980	M 1388.000
σ		9.233	0.641	T 58.870	13.830	0.019	0.213	0.221	0.263	0.261	M 18.630
%RSD		0.267	0.826	T 1.591	0.382	2.401	3.630	3.880	0.640	0.608	M 1.342
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:32:25	M 1239.000	M 1318.000	1.001	-0.041	94.700	99.920	2.602	0.519	-3.896	106.600
2	03:32:52	M 1265.000	M 1349.000	0.826	0.730	97.360	98.780	1.194	0.098	-0.871	106.000
3	03:33:19	M 1251.000	M 1338.000	1.090	0.802	97.000	97.430	2.548	0.462	-1.969	105.700
x		M 1252.000	M 1335.000	0.972	0.497	96.350	98.710	2.114	0.360	-2.245	106.100
σ		M 13.180	M 15.540	0.134	0.468	1.448	1.245	0.798	0.228	1.531	0.456
%RSD		M 1.053	M 1.164	13.790	94.090	1.502	1.261	37.730	63.520	68.190	0.430
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:32:25	126.1%	5.306	5.514	5.557	3.727	0.071	0.052	0.652	0.632	126.8%
2	03:32:52	130.4%	5.474	5.437	5.346	3.080	0.050	0.048	0.509	0.567	133.1%
3	03:33:19	128.3%	5.309	5.625	5.477	3.410	0.067	0.047	0.619	0.570	129.0%
x		128.3%	5.363	5.525	5.460	3.406	0.063	0.049	0.593	0.590	129.6%
σ		2.2%	0.096	0.094	0.107	0.323	0.011	0.003	0.075	0.037	3.2%
%RSD		1.7	1.793	1.710	1.950	9.490	18.070	5.849	12.630	6.238	2.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:32:25	1.706	2.074	2.547	2.473	54.230	54.630	137.3%	-0.015	-0.019	6.869
2	03:32:52	1.715	2.114	2.549	2.563	54.360	54.560	141.3%	-0.015	-0.020	6.768
3	03:33:19	1.652	2.165	2.511	2.616	54.080	54.490	138.6%	-0.017	-0.024	6.740
x		1.691	2.118	2.535	2.551	54.220	54.560	139.1%	-0.016	-0.021	6.792
σ		0.034	0.046	0.021	0.072	0.140	0.071	2.0%	0.001	0.003	0.068
%RSD		2.017	2.160	0.825	2.828	0.259	0.131	1.4	5.856	13.820	0.999
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:32:25	6.162	6.453	141.8%							
2	03:32:52	6.191	6.414	147.1%							
3	03:33:19	6.246	6.350	143.2%							
x		6.200	6.406	144.0%							
σ		0.043	0.052	2.8%							
%RSD		0.690	0.811	1.9							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:38:21	118.8%	-0.054	51.950	53.420	-84.220	TM 174200.000	74.540	72.840	75.270	3.601
2	03:38:48	121.8%	-0.057	52.270	52.770	-86.290	TM 173100.000	74.990	73.560	75.170	3.532
3	03:39:15	124.4%	-0.054	52.620	53.920	-84.260	TM 172700.000	75.250	74.140	75.390	3.533
x		121.7%	-0.055	52.280	53.370	-84.920	TM 173300.000	74.930	73.510	75.280	3.555
σ		2.8%	0.002	0.338	0.579	1.185	TM 769.200	0.360	0.650	0.110	0.039
%RSD		2.3	3.596	0.647	1.084	1.395	TM 0.444	0.480	0.884	0.146	1.108

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:38:21	46.940	3515.000	T 8576.000	31520.000	T 32960.000	117.1%	0.109	13.040	0.084	258.700
2	03:38:48	46.650	3563.000	T 8752.000	31880.000	T 33570.000	116.6%	0.202	13.310	0.071	204.400
3	03:39:15	46.140	3582.000	T 8793.000	31750.000	T 33650.000	119.5%	0.090	13.010	0.090	232.200
x		46.570	3553.000	T 8707.000	31720.000	T 33390.000	117.7%	0.134	13.120	0.082	231.800
σ		0.405	34.610	T 115.600	184.000	T 379.300	1.5%	0.060	0.167	0.009	27.180
%RSD		0.869	0.974	T 1.327	0.580	T 1.136	1.3	44.730	1.270	11.600	11.730

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:38:21	6.115	0.081	16.030	219.800	0.032	0.383	0.823	0.376	0.699	0.556
2	03:38:48	6.786	0.092	16.970	212.000	0.024	0.394	1.175	0.366	0.581	0.542
3	03:39:15	6.295	0.084	17.910	203.600	0.017	0.424	1.225	0.449	0.686	0.433
x		6.399	0.085	16.970	211.800	0.025	0.400	1.075	0.397	0.655	0.510
σ		0.347	0.006	0.940	8.116	0.008	0.022	0.219	0.045	0.065	0.067
%RSD		5.428	6.624	5.541	3.832	31.130	5.376	20.400	11.430	9.887	13.220

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:38:21	0.755	0.196	5.407	0.712	9.808	8.602	0.521	0.082	-0.498	61.490
2	03:38:48	0.712	0.187	5.651	0.001	9.416	10.520	-1.178	-0.269	-2.175	61.570
3	03:39:15	0.752	0.250	5.596	0.560	9.095	8.574	-0.647	-0.220	0.484	61.180
x		0.740	0.211	5.551	0.424	9.440	9.233	-0.435	-0.136	-0.730	61.410
σ		0.024	0.034	0.128	0.374	0.357	1.118	0.869	0.190	1.344	0.208
%RSD		3.238	16.110	2.304	88.170	3.784	12.110	199.900	140.100	184.300	0.339

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:38:21	125.8%	358.600	360.200	359.900	3.027	-0.001	0.000	-0.869	0.092	126.6%
2	03:38:48	126.8%	358.300	359.100	361.200	1.341	0.000	0.001	-0.867	0.127	128.1%
3	03:39:15	131.1%	359.500	360.300	363.200	2.494	-0.000	0.001	-0.858	0.078	133.1%
x		127.9%	358.800	359.900	361.400	2.287	-0.000	0.001	-0.865	0.099	129.3%
σ		2.8%	0.669	0.699	1.672	0.862	0.000	0.001	0.006	0.025	3.4%
%RSD		2.2	0.186	0.194	0.463	37.680	152.600	87.850	0.674	25.370	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:38:21	0.314	0.071	0.017	0.025	1.842	1.982	135.8%	1.272	1.134	-0.022
2	03:38:48	0.328	0.082	0.021	0.005	1.879	1.851	136.3%	1.307	1.184	-0.021
3	03:39:15	0.279	0.078	0.023	0.025	1.919	1.818	140.3%	1.274	1.159	-0.021
x		0.307	0.077	0.020	0.018	1.880	1.884	137.5%	1.284	1.159	-0.021
σ		0.025	0.006	0.003	0.011	0.038	0.087	2.5%	0.020	0.025	0.001
%RSD		8.268	7.345	15.060	61.920	2.038	4.607	1.8	1.547	2.146	3.159

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:38:21	-0.004	-0.013	130.8%
2	03:38:48	-0.013	-0.014	131.7%
3	03:39:15	-0.004	-0.014	133.9%
x		-0.007	-0.014	132.2%
σ		0.005	0.001	1.6%
%RSD		74.170	5.001	1.2

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:44:18	124.8%	-0.062	13.910	12.110	-21.510	T 15470.000	11.450	11.370	10.770	1.097
2	03:44:45	126.7%	-0.036	12.800	12.160	-18.200	T 15590.000	11.360	11.820	10.830	1.096
3	03:45:12	125.8%	-0.020	13.420	12.220	-20.780	T 15690.000	11.480	11.250	11.010	1.100
x		125.8%	-0.039	13.380	12.160	-20.160	T 15580.000	11.430	11.480	10.870	1.098
σ		1.0%	0.022	0.558	0.060	1.741	T 112.100	0.065	0.301	0.129	0.002
%RSD		0.8	54.800	4.170	0.491	8.633	T 0.720	0.569	2.621	1.184	0.210

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:44:18	12.590	539.000	827.900	2896.000	2711.000	120.9%	0.040	1.243	0.031	42.290
2	03:44:45	12.770	545.100	829.800	2935.000	2737.000	120.2%	0.008	1.260	0.075	49.680
3	03:45:12	12.730	542.100	824.300	2955.000	2721.000	121.3%	0.008	1.276	0.025	43.060
x		12.700	542.100	827.300	2929.000	2723.000	120.8%	0.019	1.259	0.044	45.010
σ		0.099	3.043	2.784	30.130	13.180	0.6%	0.019	0.017	0.027	4.065
%RSD		0.777	0.561	0.337	1.029	0.484	0.5	99.920	1.314	62.730	9.032

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:44:18	-0.518	0.005	9.815	0.585	-0.016	0.014	-0.143	0.026	0.066	0.171
2	03:44:45	-0.788	0.009	8.858	2.204	-0.021	0.029	0.185	0.040	0.079	0.141
3	03:45:12	-0.389	0.005	8.434	1.770	-0.020	0.050	-0.122	0.043	0.115	0.148
x		-0.565	0.006	9.036	1.520	-0.019	0.031	-0.026	0.036	0.087	0.153
σ		0.204	0.002	0.707	0.838	0.002	0.018	0.183	0.009	0.025	0.016
%RSD		36.030	37.070	7.827	55.130	12.200	57.390	696.900	24.600	28.860	10.320

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:44:18	0.381	0.058	0.365	-0.478	5.593	5.090	-1.508	-0.359	-2.470	5.616
2	03:44:45	0.096	0.093	0.530	-0.212	5.963	5.069	-1.081	-0.321	-0.328	5.494
3	03:45:12	0.154	0.124	0.417	0.223	6.120	6.138	-2.244	-0.541	-1.886	5.513
x		0.210	0.091	0.437	-0.155	5.892	5.432	-1.611	-0.407	-1.561	5.541
σ		0.150	0.033	0.084	0.354	0.271	0.612	0.588	0.118	1.107	0.065
%RSD		71.460	36.100	19.310	227.900	4.597	11.260	36.520	28.940	70.900	1.182

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:44:18	129.5%	31.390	31.330	30.900	0.208	0.000	-0.001	-0.056	0.006	133.7%
2	03:44:45	129.2%	31.770	31.310	31.360	-0.411	-0.001	0.001	-0.055	0.008	133.8%
3	03:45:12	133.8%	31.320	30.780	31.070	0.206	0.000	0.000	-0.070	0.018	138.2%
x		130.8%	31.490	31.140	31.110	0.001	-0.000	0.000	-0.060	0.011	135.2%
σ		2.6%	0.242	0.312	0.235	0.356	0.001	0.001	0.008	0.006	2.6%
%RSD		2.0	0.768	1.001	0.756	41090.000	1057.000	305.000	13.870	58.100	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:44:18	0.019	0.008	-0.012	-0.015	0.154	0.173	134.8%	0.087	0.087	-0.002
2	03:44:45	0.029	0.001	-0.012	-0.011	0.172	0.163	137.8%	0.105	0.090	-0.010
3	03:45:12	0.030	0.006	-0.015	-0.020	0.168	0.140	140.7%	0.098	0.090	-0.004
x		0.026	0.005	-0.013	-0.015	0.165	0.159	137.8%	0.097	0.089	-0.005
σ		0.006	0.004	0.002	0.005	0.010	0.017	3.0%	0.009	0.002	0.004
%RSD		24.740	76.590	11.650	30.150	5.813	10.540	2.2	9.348	1.729	77.030

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:44:18	0.010	0.001	136.3%
2	03:44:45	0.010	0.003	137.2%
3	03:45:12	0.004	-0.003	139.1%
x		0.008	0.000	137.6%
σ		0.003	0.003	1.5%
%RSD		40.900	662.500	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:50:14	117.2%	-0.055	6.961	7.022	140.500	T 25180.000	T 893.500	830.400	857.000	31.800
2	03:50:41	118.1%	-0.043	6.796	6.850	148.700	T 24220.000	T 887.600	827.000	842.500	31.290
3	03:51:08	119.4%	-0.045	6.763	6.711	135.400	T 24310.000	T 878.100	819.500	838.300	31.000
x		118.2%	-0.048	6.840	6.861	141.500	T 24570.000	T 886.400	825.700	845.900	31.360
σ		1.1%	0.006	0.106	0.156	6.709	T 530.600	T 7.784	5.571	9.843	0.406
%RSD		0.9	12.360	1.554	2.275	4.740	T 2.159	T 0.878	0.675	1.164	1.295

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:50:14	T 6736.000	T 43330.000	T 5587.000	14540.000	T 15190.000	113.2%	19.080	0.009	1.398	2254.000
2	03:50:41	T 6521.000	T 43030.000	T 5536.000	14450.000	T 14990.000	111.6%	19.540	0.043	1.423	2324.000
3	03:51:08	T 6419.000	T 42830.000	T 5605.000	14610.000	T 15190.000	111.3%	18.750	-0.100	1.415	2397.000
x		T 6559.000	T 43060.000	T 5576.000	14530.000	T 15120.000	112.0%	19.120	-0.016	1.412	2325.000
σ		T 161.800	T 249.500	T 35.590	80.190	T 117.100	1.0%	0.395	0.074	0.013	71.080
%RSD		T 2.467	T 0.579	T 0.638	0.552	T 0.774	0.9	2.068	462.400	0.913	3.057

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:50:14	1869.000	225.200	T 2006.000	1969.000	1.288	48.600	48.050	26.470	27.890	48.830
2	03:50:41	1862.000	224.500	T 2012.000	1953.000	1.320	48.030	50.390	26.550	27.460	47.280
3	03:51:08	1860.000	226.400	T 2014.000	1971.000	1.295	48.450	48.960	26.380	27.510	49.270
x		1864.000	225.300	T 2011.000	1964.000	1.301	48.360	49.140	26.470	27.620	48.460
σ		4.644	0.960	T 3.797	9.680	0.017	0.295	1.182	0.088	0.236	1.044
%RSD		0.249	0.426	T 0.189	0.493	1.301	0.610	2.405	0.334	0.854	2.154

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:50:14	46.640	48.350	8.089	-0.208	20.670	21.020	-1.539	-0.393	-1.869	42.910
2	03:50:41	47.120	47.860	7.924	0.109	20.680	21.660	-2.078	-0.505	-3.100	42.150
3	03:51:08	47.260	48.140	7.630	-0.713	21.760	22.400	-3.764	-0.862	-3.242	42.210
x		47.010	48.110	7.881	-0.271	21.040	21.690	-2.460	-0.587	-2.737	42.420
σ		0.325	0.246	0.232	0.415	0.626	0.692	1.161	0.245	0.755	0.426
%RSD		0.692	0.510	2.949	153.100	2.978	3.190	47.190	41.740	27.590	1.005

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:50:14	124.0%	TM 2706.000	TM 2954.000	TM 2720.000	M 1715.000	11.020	1.060	-1.975	-0.019	127.3%
2	03:50:41	123.9%	TM 2691.000	TM 2942.000	TM 2703.000	M 1723.000	10.910	1.044	-2.115	-0.068	128.8%
3	03:51:08	124.0%	TM 2719.000	TM 2955.000	TM 2731.000	M 1662.000	10.480	1.047	-2.463	-0.062	128.7%
x		124.0%	TM 2705.000	TM 2950.000	TM 2718.000	M 1700.000	10.800	1.050	-2.184	-0.050	128.3%
σ		0.1%	TM 13.930	TM 7.540	TM 13.930	M 33.250	0.286	0.008	0.251	0.027	0.9%
%RSD		0.1	TM 0.515	TM 0.256	TM 0.512	M 1.956	2.652	0.799	11.490	53.570	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:50:14	2.947	1.983	4.595	4.740	23.970	23.230	136.0%	-0.031	-0.031	0.054
2	03:50:41	3.033	2.014	4.673	4.764	23.450	23.390	136.6%	-0.032	-0.031	0.040
3	03:51:08	3.062	2.028	4.775	4.745	23.570	23.420	136.6%	-0.029	-0.032	0.043
x		3.014	2.008	4.681	4.750	23.670	23.350	136.4%	-0.031	-0.032	0.046
σ		0.060	0.023	0.090	0.013	0.273	0.105	0.3%	0.001	0.001	0.007
%RSD		1.979	1.149	1.927	0.266	1.155	0.449	0.2	4.425	2.102	15.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:50:14	0.050	0.049	137.8%
2	03:50:41	0.050	0.047	138.7%
3	03:51:08	0.044	0.044	136.8%
x		0.048	0.047	137.8%
σ		0.003	0.002	1.0%
%RSD		7.178	5.332	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:56:09	119.9%	0.020	31.520	29.960	108.300	M 151200.000	T 2232.000	2049.000	2095.000	M 27440.000
2	03:56:36	124.3%	0.022	31.340	29.580	98.500	M 154100.000	T 2217.000	2046.000	2108.000	M 27910.000
3	03:57:03	125.4%	-0.002	30.890	29.670	98.380	M 154500.000	T 2219.000	2052.000	2120.000	M 27880.000
x		123.2%	0.013	31.250	29.740	101.700	M 153300.000	T 2223.000	2049.000	2108.000	M 27740.000
σ		2.9%	0.014	0.326	0.197	5.714	M 1776.000	T 7.981	3.054	12.230	M 261.900
%RSD		2.3	102.700	1.044	0.661	5.616	M 1.159	T 0.359	0.149	0.580	M 0.944

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:56:09	T 4681.000	T 45390.000	T 12170.000	12330.000	11620.000	112.2%	3.021	2.135	25.690	2933.000
2	03:56:36	T 4684.000	T 46290.000	T 12310.000	12320.000	11570.000	116.1%	3.023	1.537	25.460	3212.000
3	03:57:03	T 4663.000	T 46660.000	T 12440.000	12440.000	11720.000	115.3%	2.949	1.824	25.890	3074.000
x		T 4676.000	T 46110.000	T 12310.000	12360.000	11640.000	114.5%	2.998	1.832	25.680	3073.000
σ		T 11.620	T 653.500	T 133.700	67.150	74.620	2.1%	0.042	0.299	0.218	139.200
%RSD		T 0.248	T 1.417	T 1.086	0.543	0.641	1.8	1.405	16.330	0.847	4.531

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:56:09	1640.000	51.230	T 1773.000	1719.000	60.670	6.701	7.162	44.530	47.710	381.900
2	03:56:36	1631.000	50.810	T 1792.000	1702.000	60.330	6.299	7.555	43.900	46.600	378.100
3	03:57:03	1627.000	51.890	T 1799.000	1719.000	61.480	6.385	8.159	44.480	48.170	389.200
x		1633.000	51.310	T 1788.000	1713.000	60.830	6.462	7.625	44.300	47.490	383.000
σ		6.563	0.543	T 13.100	9.670	0.589	0.212	0.502	0.355	0.808	5.628
%RSD		0.402	1.058	T 0.733	0.564	0.968	3.274	6.588	0.801	1.700	1.469

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:56:09	360.700	375.400	0.122	-0.357	313.700	309.600	3.483	0.423	-1.364	70.100
2	03:56:36	348.400	368.700	0.238	-0.184	309.400	314.100	0.927	-0.140	-1.695	70.380
3	03:57:03	359.400	376.800	0.051	-0.160	314.400	320.500	-0.094	-0.389	-1.888	71.200
x		356.200	373.700	0.137	-0.234	312.500	314.700	1.439	-0.035	-1.649	70.560
σ		6.781	4.331	0.094	0.108	2.734	5.490	1.842	0.416	0.265	0.569
%RSD		1.904	1.159	68.710	46.180	0.875	1.744	128.100	1174.000	16.080	0.807

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:56:09	127.7%	1.640	1.643	1.651	3.141	0.051	0.039	0.204	0.217	128.4%
2	03:56:36	128.1%	1.581	1.595	1.545	2.369	0.042	0.036	0.181	0.201	129.9%
3	03:57:03	129.5%	1.678	1.562	1.603	1.745	0.055	0.040	0.188	0.192	132.7%
x		128.4%	1.633	1.600	1.600	2.418	0.050	0.038	0.191	0.203	130.3%
σ		0.9%	0.049	0.041	0.053	0.700	0.007	0.002	0.012	0.012	2.2%
%RSD		0.7	2.980	2.539	3.336	28.930	13.360	6.492	6.136	6.085	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:56:09	1.559	2.149	67.620	68.840	36.150	34.850	138.5%	-0.014	-0.018	0.925
2	03:56:36	1.574	2.170	68.990	68.770	35.830	35.750	143.3%	-0.022	-0.022	0.934
3	03:57:03	1.581	2.050	68.910	69.170	34.830	34.650	143.8%	-0.018	-0.016	0.914
x		1.571	2.123	68.510	68.920	35.600	35.080	141.9%	-0.018	-0.019	0.924
σ		0.011	0.065	0.768	0.213	0.685	0.585	2.9%	0.004	0.003	0.010
%RSD		0.723	3.041	1.122	0.309	1.924	1.668	2.1	21.550	17.600	1.063

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:56:09	0.892	0.891	134.8%
2	03:56:36	0.890	0.895	141.0%
3	03:57:03	0.915	0.894	139.2%
x		0.899	0.893	138.4%
σ		0.014	0.002	3.2%
%RSD		1.531	0.229	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:02:07	124.2%	-0.051	5.282	5.130	122.500	┬6545.000	┬856.100	792.600	815.900	23.430
2	04:02:34	127.8%	-0.050	5.333	5.218	121.500	┬6398.000	┬845.400	782.900	816.100	22.730
3	04:03:01	127.1%	-0.050	5.370	5.125	125.300	┬6507.000	┬840.600	792.000	813.300	23.300
x		126.4%	-0.050	5.328	5.158	123.100	┬6484.000	┬847.400	789.200	815.100	23.160
σ		1.9%	0.001	0.044	0.053	2.002	┬76.070	┬7.973	5.447	1.560	0.370
%RSD		1.5	1.121	0.827	1.022	1.626	┬1.173	┬0.941	0.690	0.191	1.599

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:02:07	┬7593.000	┬43490.000	┬5254.000	16560.000	┬17100.000	115.3%	2.915	-0.085	0.760	4278.000
2	04:02:34	┬7228.000	┬43010.000	┬5251.000	16300.000	┬17070.000	115.9%	2.419	-0.051	0.742	4447.000
3	04:03:01	┬7382.000	┬43370.000	┬5275.000	16470.000	┬17070.000	115.5%	2.786	-0.150	0.725	4661.000
x		┬7401.000	┬43290.000	┬5260.000	16440.000	┬17080.000	115.6%	2.707	-0.095	0.743	4462.000
σ		┬183.200	┬250.500	┬13.090	128.400	┬19.090	0.3%	0.258	0.050	0.018	191.900
%RSD		┬2.475	┬0.579	┬0.249	0.781	┬0.112	0.3	9.512	52.660	2.365	4.300

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:02:07	93.470	18.110	100.100	171.300	0.087	0.747	1.926	2.989	3.106	87.440
2	04:02:34	97.210	18.320	99.220	160.600	0.084	0.661	1.804	2.935	3.190	88.280
3	04:03:01	96.510	17.930	97.430	168.000	0.081	0.713	1.730	2.991	3.121	88.450
x		95.730	18.120	98.910	166.600	0.084	0.707	1.820	2.971	3.139	88.060
σ		1.987	0.198	1.349	5.497	0.003	0.043	0.099	0.032	0.045	0.540
%RSD		2.075	1.091	1.364	3.299	3.170	6.139	5.431	1.065	1.421	0.613

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:02:07	86.230	87.840	-0.018	0.125	35.390	34.410	-0.271	-0.166	-2.485	53.400
2	04:02:34	86.480	87.830	-0.443	-0.287	34.270	35.130	-1.886	-0.497	-2.325	53.720
3	04:03:01	85.460	87.320	-0.380	-0.507	35.740	35.220	-3.722	-0.891	-2.519	53.560
x		86.060	87.660	-0.280	-0.223	35.130	34.920	-1.960	-0.518	-2.443	53.560
σ		0.533	0.295	0.230	0.321	0.770	0.446	1.727	0.363	0.103	0.159
%RSD		0.620	0.336	81.970	143.800	2.193	1.277	88.110	70.070	4.220	0.297

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:02:07	127.9%	3.682	3.659	3.749	0.958	-0.000	0.002	0.010	0.015	134.6%
2	04:02:34	130.2%	3.755	3.659	3.629	0.594	0.007	0.001	0.023	0.018	135.3%
3	04:03:01	125.6%	3.690	3.634	3.774	2.428	0.001	0.003	0.012	0.036	132.1%
x		127.9%	3.709	3.651	3.717	1.327	0.003	0.002	0.015	0.023	134.0%
σ		2.3%	0.040	0.014	0.078	0.971	0.004	0.001	0.007	0.011	1.7%
%RSD		1.8	1.080	0.394	2.088	73.170	144.300	28.070	48.110	48.220	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:02:07	1.264	1.834	0.158	0.150	60.130	60.650	141.3%	-0.031	-0.031	0.069
2	04:02:34	1.311	1.882	0.179	0.147	59.520	59.540	143.1%	-0.032	-0.032	0.073
3	04:03:01	1.285	1.825	0.166	0.151	60.770	60.190	141.4%	-0.028	-0.031	0.070
x		1.287	1.847	0.168	0.149	60.140	60.130	142.0%	-0.030	-0.031	0.071
σ		0.023	0.031	0.010	0.002	0.623	0.555	1.0%	0.002	0.001	0.002
%RSD		1.815	1.676	6.237	1.466	1.036	0.923	0.7	7.206	2.653	2.463

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:02:07	0.080	0.074	141.1%
2	04:02:34	0.064	0.070	141.9%
3	04:03:01	0.079	0.075	143.3%
x		0.074	0.073	142.1%
σ		0.009	0.003	1.1%
%RSD		12.000	3.733	0.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:08:03	123.8%	43.950	49.870	49.390	130.100	┬7599.000	┬1546.000	1440.000	1487.000	94.270
2	04:08:30	125.6%	43.580	50.110	48.640	123.700	┬7783.000	┬1565.000	1457.000	1499.000	95.540
3	04:08:56	126.4%	42.840	49.970	49.200	124.500	┬7686.000	┬1541.000	1428.000	1488.000	95.760
x		125.3%	43.460	49.980	49.080	126.100	┬7689.000	┬1551.000	1442.000	1491.000	95.190
σ		1.3%	0.564	0.121	0.392	3.455	┬92.270	┬12.920	14.610	6.646	0.803
%RSD		1.1	1.299	0.243	0.798	2.740	┬1.200	┬0.833	1.013	0.446	0.843

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:08:03	┬7894.000	┬43590.000	┬6315.000	17510.000	┬18310.000	113.8%	98.130	95.400	95.420	5048.000
2	04:08:30	┬7783.000	┬43500.000	┬6329.000	17240.000	┬18250.000	115.8%	98.390	95.470	94.200	4876.000
3	04:08:56	┬7885.000	┬43850.000	┬6360.000	17330.000	┬18220.000	115.8%	97.460	94.550	94.420	4722.000
x		┬7854.000	┬43640.000	┬6335.000	17360.000	┬18260.000	115.1%	97.990	95.140	94.680	4882.000
σ		┬61.710	┬183.400	┬22.920	135.700	┬43.690	1.1%	0.483	0.514	0.649	163.000
%RSD		┬0.786	┬0.420	┬0.362	0.782	┬0.239	1.0	0.493	0.540	0.686	3.338

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:08:03	1122.000	116.200	┬1169.000	1185.000	96.650	95.520	99.130	97.670	101.300	188.700
2	04:08:30	1109.000	116.600	┬1170.000	1167.000	95.150	93.670	93.750	94.960	100.700	187.500
3	04:08:56	1101.000	115.400	┬1160.000	1160.000	95.480	93.730	94.890	95.030	100.100	189.200
x		1111.000	116.000	┬1166.000	1171.000	95.760	94.310	95.920	95.890	100.700	188.500
σ		10.850	0.616	┬5.545	13.120	0.791	1.051	2.836	1.547	0.572	0.860
%RSD		0.977	0.530	┬0.475	1.121	0.826	1.114	2.957	1.613	0.568	0.457

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:08:03	185.000	189.800	100.100	102.000	33.460	33.520	432.900	92.170	-4.104	153.100
2	04:08:30	181.500	185.100	99.260	102.600	33.910	34.270	442.300	93.690	-2.050	154.700
3	04:08:56	181.200	189.000	99.970	99.940	34.260	34.260	427.700	90.330	-1.611	155.700
x		182.600	188.000	99.770	101.500	33.880	34.020	434.300	92.070	-2.588	154.500
σ		2.116	2.533	0.450	1.399	0.400	0.433	7.381	1.679	1.331	1.279
%RSD		1.159	1.347	0.451	1.378	1.180	1.272	1.699	1.823	51.410	0.828

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:08:03	124.4%	100.900	101.600	101.100	99.100	98.170	94.990	100.100	98.100	130.1%
2	04:08:30	127.1%	101.800	101.800	103.500	103.000	100.500	95.970	99.950	100.000	133.5%
3	04:08:56	126.5%	101.600	104.200	102.300	104.600	98.860	95.630	101.000	100.900	133.3%
x		126.0%	101.400	102.500	102.300	102.200	99.160	95.530	100.300	99.670	132.3%
σ		1.4%	0.489	1.454	1.193	2.838	1.171	0.499	0.573	1.427	1.9%
%RSD		1.1	0.482	1.418	1.166	2.776	1.181	0.523	0.571	1.432	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:08:03	101.600	101.500	99.380	99.510	160.100	158.900	138.6%	98.060	101.400	104.700
2	04:08:30	101.400	100.400	98.750	98.670	157.500	158.200	139.3%	99.600	102.300	103.400
3	04:08:56	101.700	100.700	99.710	99.770	159.200	157.800	141.2%	98.890	102.400	103.000
x		101.600	100.900	99.280	99.320	158.900	158.300	139.7%	98.850	102.000	103.700
σ		0.160	0.581	0.488	0.576	1.319	0.548	1.3%	0.772	0.577	0.901
%RSD		0.158	0.576	0.492	0.580	0.830	0.346	1.0	0.781	0.566	0.869

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:08:03	100.000	102.100	139.4%
2	04:08:30	98.010	100.600	143.4%
3	04:08:56	98.920	100.600	143.0%
x		98.980	101.100	141.9%
σ		0.997	0.889	2.2%
%RSD		1.007	0.879	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:13:59	119.2%	-0.036	23.190	23.640	334.400	T 57860.000	T 2182.000	1968.000	1991.000	TM 684.600
2	04:14:26	120.3%	-0.021	23.930	22.820	338.100	T 58010.000	T 2161.000	1938.000	1971.000	TM 680.900
3	04:14:53	121.2%	-0.052	23.920	23.410	339.700	T 58150.000	T 2158.000	1958.000	1979.000	TM 678.900
x		120.2%	-0.036	23.680	23.290	337.400	T 58010.000	T 2167.000	1955.000	1980.000	TM 681.500
σ		1.0%	0.015	0.426	0.422	2.707	T 146.900	T 13.190	15.190	10.420	TM 2.918
%RSD		0.8	42.670	1.800	1.811	0.802	T 0.253	T 0.609	0.777	0.526	TM 0.428

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:13:59	T 2496.000	T 52890.000	T 36090.000	10380.000	9834.000	110.1%	4.411	0.533	1.170	3923.000
2	04:14:26	T 2503.000	T 53180.000	T 36040.000	10520.000	9771.000	112.3%	4.605	0.358	1.154	4051.000
3	04:14:53	T 2474.000	T 53630.000	T 36390.000	10600.000	9837.000	112.0%	4.175	0.354	1.266	4045.000
x		T 2491.000	T 53230.000	T 36170.000	10500.000	9814.000	111.5%	4.397	0.415	1.197	4006.000
σ		T 15.500	T 371.400	T 191.200	110.500	37.020	1.2%	0.215	0.102	0.061	72.270
%RSD		T 0.622	T 0.698	T 0.529	1.052	0.377	1.1	4.897	24.580	5.061	1.804

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:13:59	132.800	128.500	140.100	180.400	0.213	3.692	4.100	7.471	7.838	48.810
2	04:14:26	137.900	129.100	T 152.100	176.200	0.222	3.518	3.098	7.334	7.509	48.400
3	04:14:53	136.300	128.800	141.100	169.500	0.237	3.399	3.270	7.239	7.589	47.550
x		135.700	128.800	T 144.400	175.300	0.224	3.537	3.489	7.348	7.645	48.260
σ		2.619	0.303	T 6.684	5.513	0.012	0.147	0.536	0.117	0.172	0.644
%RSD		1.930	0.236	T 4.627	3.144	5.433	4.165	15.360	1.592	2.245	1.335

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:13:59	46.070	47.940	0.390	0.932	62.030	63.040	1.250	0.147	-0.943	26.360
2	04:14:26	44.600	47.120	0.106	0.505	65.600	64.370	4.288	0.861	-3.495	26.640
3	04:14:53	44.610	47.260	0.151	0.602	63.200	62.170	3.133	0.594	-1.755	26.280
x		45.090	47.440	0.216	0.680	63.610	63.190	2.890	0.534	-2.064	26.430
σ		0.846	0.437	0.153	0.224	1.818	1.107	1.533	0.361	1.304	0.190
%RSD		1.876	0.922	70.950	32.920	2.859	1.752	53.050	67.540	63.170	0.717

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:13:59	122.9%	1.353	1.256	1.344	0.012	0.054	0.039	0.067	0.072	125.9%
2	04:14:26	123.2%	1.378	1.352	1.304	-0.573	0.055	0.059	0.043	0.068	126.6%
3	04:14:53	122.0%	1.280	1.368	1.300	1.014	0.049	0.054	0.051	0.055	124.5%
x		122.7%	1.337	1.325	1.316	0.151	0.053	0.051	0.054	0.065	125.6%
σ		0.6%	0.051	0.061	0.025	0.803	0.003	0.010	0.012	0.009	1.1%
%RSD		0.5	3.810	4.593	1.873	530.300	6.466	20.280	22.840	14.110	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:13:59	1.372	1.883	0.110	0.096	19.060	19.300	132.7%	-0.002	-0.004	0.046
2	04:14:26	1.427	1.976	0.114	0.093	18.300	18.520	134.5%	-0.006	-0.000	0.057
3	04:14:53	1.242	2.017	0.105	0.085	19.130	18.950	134.0%	-0.006	-0.009	0.046
x		1.347	1.959	0.110	0.091	18.830	18.920	133.8%	-0.005	-0.005	0.050
σ		0.095	0.069	0.005	0.006	0.459	0.387	0.9%	0.002	0.005	0.007
%RSD		7.046	3.504	4.174	6.259	2.439	2.047	0.7	40.010	98.370	13.310

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:13:59	0.067	0.055	130.9%
2	04:14:26	0.057	0.049	131.3%
3	04:14:53	0.055	0.046	133.1%
x		0.060	0.050	131.8%
σ		0.006	0.004	1.2%
%RSD		10.730	8.600	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:19:55	118.1%	-0.014	40.660	40.020	47.450	┬73090.000	┬23130.000	┬22730.000	┬22910.000	┬33.130
2	04:20:21	119.5%	-0.036	39.410	38.870	52.280	┬75150.000	┬23370.000	┬23010.000	┬22880.000	┬33.310
3	04:20:48	120.1%	-0.048	40.120	39.490	48.050	┬73660.000	┬23320.000	┬22870.000	┬22990.000	┬33.650
x		119.2%	-0.033	40.060	39.460	49.260	┬73970.000	┬23270.000	┬22870.000	┬22930.000	┬33.370
σ		1.0%	0.017	0.627	0.580	2.630	┬1062.000	┬124.600	┬138.900	┬54.130	┬0.264
%RSD		0.9	52.600	1.565	1.470	5.339	┬1.436	┬0.535	┬0.607	┬0.236	┬0.792

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:19:55	┬3238.000	┬54440.000	┬2901.000	69200.000	┬71830.000	109.3%	2.184	0.079	0.894	4162.000
2	04:20:21	┬3283.000	┬55090.000	┬2953.000	70060.000	┬72820.000	111.2%	2.022	0.333	0.847	4021.000
3	04:20:48	┬3197.000	┬55000.000	┬2920.000	68180.000	┬72280.000	111.3%	2.217	0.422	0.775	3937.000
x		┬3239.000	┬54840.000	┬2925.000	69150.000	┬72310.000	110.6%	2.141	0.278	0.839	4040.000
σ		┬42.530	┬351.200	┬26.220	938.100	┬497.100	1.1%	0.104	0.178	0.060	113.900
%RSD		┬1.313	┬0.640	┬0.896	1.357	┬0.688	1.0	4.857	64.020	7.125	2.820

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:19:55	72.130	1.742	82.300	532.700	0.198	2.223	1.199	0.849	0.896	1.718
2	04:20:21	73.600	1.782	83.240	509.600	0.179	2.070	0.862	0.902	0.926	1.521
3	04:20:48	73.760	1.816	82.400	523.200	0.178	1.985	0.524	0.839	0.833	1.565
x		73.170	1.780	82.650	521.800	0.185	2.093	0.862	0.863	0.885	1.601
σ		0.898	0.037	0.521	11.630	0.011	0.121	0.337	0.034	0.047	0.103
%RSD		1.227	2.079	0.631	2.228	6.021	5.781	39.130	3.935	5.362	6.452

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:19:55	2.850	2.450	0.261	-0.114	21.360	22.980	-2.701	-0.655	-1.460	92.170
2	04:20:21	3.225	2.491	0.117	-0.272	23.410	22.110	-0.672	-0.186	-1.850	92.210
3	04:20:48	2.536	2.528	0.076	-0.924	23.590	22.100	-1.890	-0.485	-1.803	92.730
x		2.870	2.490	0.151	-0.437	22.790	22.400	-1.754	-0.442	-1.705	92.370
σ		0.345	0.039	0.097	0.430	1.240	0.504	1.021	0.237	0.213	0.315
%RSD		12.020	1.573	64.280	98.440	5.439	2.251	58.220	53.650	12.480	0.341

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:19:55	119.6%	0.307	0.283	0.281	2.954	0.001	0.001	0.007	0.015	122.7%
2	04:20:21	124.0%	0.280	0.309	0.275	2.146	0.003	0.000	0.009	-0.006	125.4%
3	04:20:48	120.3%	0.340	0.311	0.343	4.476	0.005	-0.001	0.004	0.008	124.9%
x		121.3%	0.309	0.301	0.300	3.192	0.003	-0.000	0.007	0.006	124.3%
σ		2.3%	0.030	0.016	0.038	1.183	0.002	0.001	0.003	0.011	1.5%
%RSD		1.9	9.656	5.241	12.610	37.060	77.710	666.100	36.930	199.100	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:19:55	1.265	1.843	0.070	0.054	31.840	31.060	129.7%	-0.019	-0.025	0.027
2	04:20:21	1.336	1.884	0.084	0.046	31.580	31.640	132.9%	-0.024	-0.023	0.012
3	04:20:48	1.323	1.818	0.081	0.072	31.500	30.830	130.9%	-0.021	-0.024	0.019
x		1.308	1.848	0.078	0.057	31.640	31.180	131.2%	-0.021	-0.024	0.020
σ		0.038	0.033	0.007	0.013	0.176	0.420	1.6%	0.003	0.001	0.008
%RSD		2.889	1.789	8.772	22.830	0.557	1.347	1.2	11.680	5.396	38.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:19:55	0.026	0.025	124.6%
2	04:20:21	0.024	0.021	127.2%
3	04:20:48	0.032	0.027	126.0%
x		0.028	0.024	126.0%
σ		0.004	0.003	1.3%
%RSD		14.820	12.790	1.0

UE02030-001S 05/09/2019 04:25:25

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:25:52	116.3%	96.470	132.600	131.200	64.330	┬75000.000	┬24500.000	┬24140.000	┬24200.000	┬168.200
2	04:26:19	116.9%	96.690	134.200	128.900	50.890	┬77200.000	┬24690.000	┬24310.000	┬24320.000	┬171.100
3	04:26:46	117.8%	97.720	138.500	133.200	57.410	┬76330.000	┬24920.000	┬24320.000	┬24180.000	175.100
x		117.0%	96.960	135.100	131.100	57.540	┬76180.000	┬24700.000	┬24260.000	┬24230.000	┬171.500
σ		0.7%	0.668	3.065	2.127	6.721	┬1107.000	┬209.700	┬104.700	┬78.300	┬3.439
%RSD		0.6	0.689	2.269	1.622	11.680	┬1.454	┬0.849	┬0.432	┬0.323	┬2.005

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:25:52	┬4256.000	┬55460.000	┬4112.000	69840.000	┬73300.000	110.2%	100.700	97.700	95.640	4289.000
2	04:26:19	┬4291.000	┬55700.000	┬4110.000	70320.000	┬73710.000	112.4%	99.160	96.240	94.800	4028.000
3	04:26:46	┬4230.000	┬55850.000	┬4128.000	70570.000	┬74050.000	110.2%	98.990	97.870	95.200	3661.000
x		┬4259.000	┬55670.000	┬4116.000	70240.000	┬73690.000	110.9%	99.630	97.270	95.210	3993.000
σ		┬30.910	┬193.000	┬9.931	369.500	┬376.800	1.2%	0.960	0.894	0.420	315.400
%RSD		┬0.726	┬0.347	┬0.241	0.526	┬0.511	1.1	0.963	0.919	0.441	7.900

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:25:52	1081.000	98.120	┬1163.000	1543.000	94.360	93.920	92.150	91.560	95.300	98.680
2	04:26:19	1071.000	95.310	┬1145.000	1513.000	92.820	92.810	94.320	89.750	91.510	95.700
3	04:26:46	1098.000	97.970	┬1153.000	1513.000	94.130	95.260	91.520	90.580	95.850	96.790
x		1083.000	97.140	┬1154.000	1523.000	93.770	94.000	92.660	90.630	94.220	97.060
σ		13.850	1.581	┬9.298	17.850	0.826	1.230	1.468	0.910	2.362	1.510
%RSD		1.279	1.627	┬0.806	1.172	0.881	1.308	1.584	1.004	2.507	1.556

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:25:52	101.500	97.120	99.620	99.020	25.320	25.640	415.500	91.300	-0.777	192.700
2	04:26:19	94.850	96.370	97.490	98.250	24.960	24.170	426.600	92.750	-1.842	193.000
3	04:26:46	99.130	98.270	99.510	101.400	24.070	24.530	414.700	91.890	-2.105	192.300
x		98.490	97.250	98.870	99.560	24.780	24.780	418.900	91.980	-1.574	192.700
σ		3.369	0.960	1.201	1.654	0.647	0.764	6.635	0.729	0.703	0.365
%RSD		3.420	0.987	1.214	1.661	2.611	3.085	1.584	0.792	44.660	0.189

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:25:52	120.0%	98.710	100.100	99.300	102.200	97.810	94.310	98.340	97.140	121.7%
2	04:26:19	118.1%	99.290	100.300	99.960	106.000	97.320	94.150	98.180	98.760	121.8%
3	04:26:46	120.8%	99.310	99.790	99.280	102.600	98.220	95.670	99.120	98.170	121.4%
x		119.7%	99.100	100.100	99.510	103.600	97.780	94.710	98.550	98.020	121.7%
σ		1.4%	0.344	0.240	0.388	2.105	0.450	0.835	0.500	0.822	0.2%
%RSD		1.2	0.347	0.240	0.390	2.032	0.460	0.882	0.507	0.839	0.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:25:52	101.600	101.300	99.350	99.710	131.200	129.500	129.1%	96.710	99.550	106.200
2	04:26:19	102.600	102.200	97.800	98.900	127.900	129.200	130.0%	95.610	99.640	105.600
3	04:26:46	101.300	101.800	98.780	100.400	130.200	129.100	130.9%	96.360	99.060	105.800
x		101.800	101.700	98.650	99.660	129.800	129.300	130.0%	96.230	99.420	105.800
σ		0.668	0.449	0.784	0.737	1.684	0.228	0.9%	0.561	0.309	0.304
%RSD		0.656	0.441	0.795	0.739	1.298	0.176	0.7	0.583	0.311	0.287

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:25:52	99.870	102.400	124.8%
2	04:26:19	99.590	101.700	126.1%
3	04:26:46	101.100	102.700	125.9%
x		100.200	102.300	125.6%
σ		0.796	0.505	0.7%
%RSD		0.795	0.494	0.6

CCV MW11050 05/09/2019 04:31:21 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:31:48	105.3%	296.100	294.900	292.900	27.500	┬68960.000	┬62150.000	┬60890.000	┬60620.000	285.400
2	04:32:15	105.1%	295.600	302.400	287.900	24.520	┬69310.000	┬61140.000	┬60580.000	┬60410.000	282.300
3	04:32:42	106.2%	288.600	294.600	290.900	23.140	┬71240.000	┬61270.000	┬60660.000	┬60430.000	281.500
x		105.5%	97.819%	99.095%	96.851%	25.050	┬116.394%	┬61520.000	┬60710.000	┬100.809%	94.360%
σ		0.6%	n/a	n/a	n/a	2.231	┬n/a	┬545.300	┬160.600	┬n/a	n/a
%RSD		0.5	1.434	1.482	0.866	8.907	┬1.757	┬0.886	┬0.265	┬0.194	0.735
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:31:48	┬3022.000	547.200	┬67440.000	61280.000	┬63950.000	103.8%	287.900	┬302.000	289.400	1313.000
2	04:32:15	┬3041.000	523.500	┬67910.000	61020.000	┬64410.000	104.3%	294.800	299.000	288.300	1533.000
3	04:32:42	┬3067.000	521.600	┬68380.000	62190.000	┬65460.000	106.6%	294.800	┬306.500	291.100	846.600
x		┬101.451%	530.800	┬113.185%	61500.000	┬107.674%	104.9%	97.497%	┬100.835%	96.530%	1231.000
σ		┬n/a	14.220	┬n/a	615.100	┬n/a	1.5%	n/a	┬n/a	n/a	350.600
%RSD		┬0.750	2.679	┬0.695	1.000	┬1.200	1.5	1.355	┬1.254	0.474	28.480
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:31:48	┬62410.000	┬299.100	┬62720.000	┬63220.000	┬289.700	276.600	274.300	267.700	277.300	281.700
2	04:32:15	┬62030.000	┬301.300	┬63170.000	┬64020.000	289.100	280.600	283.600	273.400	279.900	284.000
3	04:32:42	┬62660.000	┬303.400	┬63150.000	┬63980.000	289.600	279.200	285.800	269.900	280.900	286.900
x		┬62370.000	┬100.433%	┬63010.000	┬106.233%	┬96.490%	92.942%	281.200	270.300	93.122%	94.732%
σ		┬318.300	┬n/a	┬257.000	┬n/a	┬n/a	n/a	6.075	2.850	n/a	n/a
%RSD		┬0.510	┬0.717	┬0.408	┬0.707	┬0.100	0.723	2.160	1.054	0.653	0.916
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:31:48	283.400	287.900	296.100	289.400	3.202	2.828	1247.000	275.500	0.347	┬311.300
2	04:32:15	287.000	287.200	293.600	288.200	3.814	2.555	1278.000	278.500	-1.902	┬316.000
3	04:32:42	287.500	286.000	293.800	296.500	3.241	1.935	1253.000	280.200	-2.340	┬314.500
x		286.000	287.000	98.163%	291.400	3.419	2.439	1260.000	92.689%	-1.299	┬104.649%
σ		2.208	0.978	n/a	4.506	0.343	0.457	16.410	n/a	1.442	┬n/a
%RSD		0.772	0.341	0.469	1.546	10.020	18.750	1.303	0.853	111.000	┬0.761
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:31:48	111.0%	302.500	300.200	298.900	288.200	291.700	283.300	294.900	295.800	112.4%
2	04:32:15	109.8%	302.500	306.800	308.000	294.400	292.600	283.800	297.800	293.600	113.0%
3	04:32:42	114.7%	300.200	307.900	306.800	293.600	297.500	286.300	296.500	296.100	114.7%
x		111.8%	100.570%	101.667%	304.600	292.100	97.971%	284.500	296.400	98.383%	113.4%
σ		2.5%	n/a	n/a	4.953	3.341	n/a	1.622	1.470	n/a	1.2%
%RSD		2.3	0.437	1.371	1.626	1.144	1.073	0.570	0.496	0.455	1.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:31:48	303.600	306.100	304.800	303.400	296.900	295.700	119.8%	294.800	┬312.700	312.000
2	04:32:15	305.300	304.000	305.400	303.600	298.700	296.400	120.7%	295.700	┬314.300	355.500
3	04:32:42	304.500	301.000	303.100	303.600	296.100	296.500	121.9%	294.400	┬312.500	352.200
x		101.483%	101.238%	304.400	101.176%	99.077%	98.729%	120.8%	294.900	┬104.398%	113.294%
σ		n/a	n/a	1.228	n/a	n/a	n/a	1.0%	0.678	┬n/a	n/a
%RSD		0.270	0.839	0.403	0.046	0.454	0.157	0.9	0.230	┬0.319	7.124
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	04:31:48	304.000	┬308.600	118.3%							
2	04:32:15	350.100	┬356.400	┬103.3%							
3	04:32:42	348.300	┬352.400	┬104.9%							
x		111.387%	┬113.047%	┬108.8%							
σ		n/a	┬n/a	┬8.3%							
%RSD		7.812	┬7.809	┬7.6							

CCB IM9409-01 05/09/2019 04:37:20 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:37:47	111.6%	0.002	1.512	1.131	22.850	-9.705	0.220	0.224	0.176	0.033
2	04:38:13	115.7%	-0.034	1.344	1.071	15.880	-10.850	0.123	0.198	0.095	0.010
3	04:38:41	115.9%	-0.020	1.142	1.041	16.470	-10.450	0.081	0.206	0.096	0.029
x		114.4%	-0.017	1.332	1.081	18.400	-10.340	0.142	0.210	0.122	0.024
σ		2.4%	0.018	0.185	0.046	3.866	0.582	0.071	0.013	0.046	0.012
%RSD		2.1	103.100	13.900	4.241	21.010	5.626	50.220	6.303	37.890	50.000

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:37:47	10.510	263.800	-3.760	-3.225	0.924	107.7%	-0.007	-0.017	-0.013	39.380
2	04:38:13	10.100	245.300	-5.278	-0.466	-0.316	110.6%	0.001	-0.001	-0.006	25.710
3	04:38:41	9.633	254.200	-3.918	-2.289	0.302	108.6%	0.011	-0.011	0.005	33.080
x		10.080	254.400	-4.319	-1.993	0.303	109.0%	0.002	-0.010	-0.005	32.720
σ		0.437	9.266	0.835	1.403	0.620	1.5%	0.009	0.008	0.009	6.845
%RSD		4.331	3.642	19.330	70.380	204.400	1.4	578.200	80.930	203.000	20.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:37:47	-0.480	-0.004	1.437	-16.960	-0.014	-0.009	0.259	0.002	0.001	0.015
2	04:38:13	-2.224	0.004	-0.566	-18.220	-0.015	0.004	0.266	-0.008	0.010	-0.009
3	04:38:41	-1.243	0.001	0.983	-15.770	-0.012	-0.007	0.171	0.003	0.025	-0.017
x		-1.316	0.000	0.618	-16.980	-0.013	-0.004	0.232	-0.001	0.012	-0.003
σ		0.874	0.004	1.050	1.226	0.002	0.007	0.053	0.006	0.012	0.016
%RSD		66.450	2026.000	170.000	7.221	11.320	164.900	22.910	704.000	101.300	481.100

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:37:47	-0.041	0.059	-0.081	-0.294	1.783	1.713	-1.881	-0.404	-3.132	0.001
2	04:38:13	-0.011	-0.039	-0.087	0.244	1.788	1.621	-1.333	-0.321	-2.699	0.001
3	04:38:41	0.025	-0.003	-0.236	-0.106	1.980	1.621	-3.987	-0.899	-2.730	0.001
x		-0.009	0.005	-0.135	-0.052	1.850	1.652	-2.400	-0.542	-2.854	0.001
σ		0.033	0.049	0.087	0.273	0.112	0.053	1.401	0.313	0.242	0.000
%RSD		364.300	896.100	64.740	525.400	6.074	3.206	58.370	57.700	8.462	47.380

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:37:47	115.5%	0.017	0.032	0.038	-0.131	0.005	0.004	-0.002	0.000	117.8%
2	04:38:13	118.3%	0.002	0.024	0.035	0.889	0.010	0.003	-0.002	0.001	122.7%
3	04:38:41	119.3%	0.038	0.050	0.018	-0.164	0.004	0.003	-0.004	0.009	124.0%
x		117.7%	0.019	0.036	0.030	0.198	0.006	0.003	-0.002	0.003	121.5%
σ		2.0%	0.018	0.013	0.010	0.599	0.003	0.000	0.001	0.005	3.3%
%RSD		1.7	93.370	36.400	34.520	302.400	49.780	4.015	56.840	142.700	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:37:47	0.067	0.079	0.115	0.121	0.002	-0.000	122.5%	-0.012	-0.012	0.001
2	04:38:13	0.077	0.072	0.118	0.128	0.002	0.002	125.0%	-0.019	-0.017	-0.010
3	04:38:41	0.045	0.055	0.119	0.094	-0.002	0.006	127.1%	-0.016	-0.015	-0.015
x		0.063	0.069	0.117	0.114	0.001	0.002	124.8%	-0.016	-0.015	-0.008
σ		0.016	0.013	0.002	0.018	0.002	0.003	2.3%	0.003	0.003	0.008
%RSD		25.730	18.380	1.806	15.980	221.000	137.300	1.8	20.460	17.490	97.430

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:37:47	0.011	0.004	126.4%
2	04:38:13	0.008	0.005	129.6%
3	04:38:41	0.004	0.001	129.3%
x		0.008	0.003	128.4%
σ		0.004	0.002	1.8%
%RSD		48.450	58.500	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:43:43	112.2%	94.220	132.100	128.600	63.670	┬75780.000	┬24330.000	┬24020.000	┬23930.000	172.400
2	04:44:10	113.9%	92.430	135.000	131.200	55.410	┬73820.000	┬24030.000	┬23710.000	┬23800.000	172.000
3	04:44:37	113.6%	93.800	136.500	129.700	55.760	┬75700.000	┬24200.000	┬23660.000	┬23610.000	170.000
x		113.2%	93.480	134.500	129.900	58.280	┬75100.000	┬24190.000	┬23800.000	┬23780.000	171.500
σ		0.9%	0.933	2.235	1.291	4.670	┬1112.000	┬154.100	┬192.400	┬157.500	1.251
%RSD		0.8	0.998	1.661	0.994	8.014	┬1.481	┬0.637	┬0.809	┬0.662	0.730
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:43:43	┬4334.000	┬54860.000	┬4025.000	69460.000	┬72320.000	109.8%	97.720	95.610	93.100	3482.000
2	04:44:10	┬4266.000	┬55220.000	┬4063.000	69410.000	┬72300.000	109.2%	98.330	95.100	94.000	3318.000
3	04:44:37	┬4262.000	┬54820.000	┬4029.000	68670.000	┬71990.000	111.1%	97.460	95.680	93.410	3304.000
x		┬4287.000	┬54970.000	┬4039.000	69180.000	┬72210.000	110.1%	97.840	95.470	93.500	3368.000
σ		┬40.650	┬219.300	┬20.530	443.700	┬183.900	1.0%	0.447	0.318	0.458	98.710
%RSD		┬0.948	┬0.399	┬0.508	0.641	┬0.255	0.9	0.457	0.334	0.490	2.931
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:43:43	1071.000	94.330	┬1119.000	1530.000	91.500	91.230	92.400	88.620	91.650	93.660
2	04:44:10	1040.000	94.850	┬1122.000	1520.000	91.880	92.320	91.890	88.860	93.580	94.410
3	04:44:37	1051.000	95.300	┬1116.000	1491.000	90.980	91.120	91.720	88.250	91.680	93.990
x		1054.000	94.830	┬1119.000	1513.000	91.450	91.560	92.000	88.580	92.300	94.020
σ		15.760	0.485	┬2.975	20.270	0.454	0.661	0.353	0.305	1.107	0.376
%RSD		1.495	0.511	┬0.266	1.339	0.496	0.722	0.384	0.345	1.200	0.399
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:43:43	93.520	93.960	94.830	94.060	26.210	25.900	408.200	89.440	-2.532	188.300
2	04:44:10	95.420	96.050	98.660	100.100	24.280	25.890	419.900	92.470	-0.804	190.000
3	04:44:37	96.940	95.740	97.710	96.480	25.750	27.240	417.200	93.050	-1.485	187.000
x		95.290	95.250	97.070	96.870	25.410	26.340	415.100	91.650	-1.607	188.400
σ		1.711	1.131	1.995	3.029	1.008	0.778	6.110	1.938	0.870	1.510
%RSD		1.795	1.188	2.055	3.126	3.965	2.953	1.472	2.115	54.170	0.802
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:43:43	114.9%	95.790	98.030	96.730	98.870	94.130	91.340	95.040	94.760	117.7%
2	04:44:10	118.3%	96.410	98.050	97.220	104.300	96.280	92.220	95.230	95.190	119.8%
3	04:44:37	119.7%	97.020	98.250	98.280	98.130	95.290	92.120	96.480	94.960	119.9%
x		117.6%	96.410	98.110	97.410	100.400	95.230	91.900	95.580	94.970	119.2%
σ		2.5%	0.614	0.121	0.795	3.342	1.075	0.480	0.783	0.217	1.2%
%RSD		2.1	0.637	0.124	0.816	3.329	1.129	0.522	0.819	0.228	1.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:43:43	98.220	99.300	95.690	97.160	128.200	127.600	123.3%	95.230	97.750	102.000
2	04:44:10	99.800	99.500	97.730	97.380	126.800	126.600	124.2%	95.000	98.080	102.800
3	04:44:37	99.510	99.600	97.160	98.080	128.300	126.700	124.8%	95.060	98.030	101.000
x		99.180	99.470	96.860	97.540	127.800	127.000	124.1%	95.100	97.960	101.900
σ		0.839	0.149	1.057	0.481	0.816	0.509	0.8%	0.124	0.176	0.883
%RSD		0.846	0.150	1.091	0.493	0.639	0.401	0.6	0.131	0.179	0.866
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	04:43:43	97.820	99.600	121.7%							
2	04:44:10	97.340	99.240	121.4%							
3	04:44:37	96.930	98.330	123.9%							
x		97.360	99.060	122.3%							
σ		0.444	0.658	1.4%							
%RSD		0.456	0.664	1.1							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:49:41	115.5%	-0.015	10.580	9.399	5.990	T 16520.000	T 5454.000	T 5210.000	T 5229.000	11.960
2	04:50:08	115.8%	-0.021	9.500	9.807	6.833	T 16520.000	T 5439.000	T 5206.000	T 5157.000	11.830
3	04:50:35	117.0%	-0.009	10.200	9.250	1.862	T 16020.000	T 5252.000	T 5027.000	T 5036.000	11.500
x		116.1%	-0.015	10.090	9.486	4.895	T 16360.000	T 5382.000	T 5148.000	T 5141.000	11.760
σ		0.8%	0.006	0.547	0.289	2.660	T 289.200	T 113.000	T 104.400	T 97.630	0.238
%RSD		0.7	39.180	5.416	3.042	54.350	T 1.768	T 2.099	T 2.028	T 1.899	2.019
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:49:41	729.100	T 11960.000	632.600	15530.000	T 15710.000	111.5%	0.493	0.083	0.180	697.300
2	04:50:08	712.400	T 12120.000	643.700	15720.000	T 15750.000	109.8%	0.447	0.156	0.206	704.000
3	04:50:35	693.500	T 11590.000	613.000	14910.000	T 15240.000	112.1%	0.324	0.088	0.168	744.700
x		711.600	T 11890.000	629.800	15390.000	T 15570.000	111.1%	0.421	0.109	0.185	715.300
σ		17.840	T 270.200	15.530	421.300	T 284.600	1.2%	0.087	0.041	0.020	25.670
%RSD		2.506	T 2.272	2.467	2.738	T 1.828	1.1	20.690	37.300	10.610	3.588
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:49:41	14.820	0.389	24.280	111.000	0.021	0.513	0.308	0.172	0.221	0.344
2	04:50:08	16.950	0.362	24.250	105.900	0.019	0.512	0.145	0.189	0.219	0.416
3	04:50:35	15.650	0.388	23.280	107.000	0.036	0.503	0.497	0.183	0.198	0.410
x		15.810	0.380	23.940	108.000	0.025	0.509	0.317	0.181	0.213	0.390
σ		1.073	0.016	0.570	2.677	0.010	0.005	0.176	0.009	0.013	0.040
%RSD		6.788	4.102	2.379	2.478	37.770	1.034	55.580	4.794	6.076	10.310
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:49:41	0.803	0.625	0.062	-0.140	5.275	4.786	-0.190	-0.147	-1.273	20.870
2	04:50:08	0.553	0.579	0.000	-0.114	5.546	5.512	-1.780	-0.414	-2.851	20.760
3	04:50:35	0.684	0.675	-0.051	-0.088	5.451	5.851	-1.962	-0.472	-1.009	20.430
x		0.680	0.627	0.004	-0.114	5.424	5.383	-1.311	-0.344	-1.711	20.680
σ		0.125	0.048	0.056	0.026	0.138	0.544	0.975	0.174	0.996	0.229
%RSD		18.390	7.740	1503.000	22.590	2.538	10.110	74.380	50.430	58.220	1.105
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:49:41	118.5%	0.101	0.070	0.062	1.366	0.000	0.003	0.003	0.007	125.6%
2	04:50:08	118.6%	0.058	0.065	0.081	0.225	0.001	0.001	-0.002	0.006	122.5%
3	04:50:35	118.8%	0.048	0.048	0.079	0.112	0.002	0.002	0.003	-0.004	121.3%
x		118.6%	0.069	0.061	0.074	0.568	0.001	0.002	0.001	0.003	123.1%
σ		0.2%	0.028	0.012	0.010	0.694	0.001	0.001	0.003	0.006	2.3%
%RSD		0.1	40.920	19.160	13.690	122.200	96.770	61.590	205.500	185.200	1.8
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:49:41	0.307	0.459	0.023	-0.002	7.249	7.207	127.7%	-0.012	-0.010	-0.017
2	04:50:08	0.308	0.440	0.012	-0.002	7.064	7.392	127.5%	-0.012	-0.018	-0.017
3	04:50:35	0.312	0.410	0.016	0.001	6.910	6.818	126.2%	-0.010	-0.018	-0.012
x		0.309	0.436	0.017	-0.001	7.074	7.139	127.1%	-0.011	-0.015	-0.015
σ		0.002	0.025	0.006	0.002	0.170	0.293	0.8%	0.001	0.005	0.003
%RSD		0.761	5.723	32.360	195.300	2.400	4.105	0.6	12.350	32.350	17.120
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	04:49:41	-0.001	-0.011	128.9%							
2	04:50:08	0.005	-0.007	128.2%							
3	04:50:35	-0.005	-0.010	126.7%							
x		-0.000	-0.009	127.9%							
σ		0.005	0.002	1.1%							
%RSD		4197.000	21.320	0.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:55:37	115.2%	-0.032	17.740	17.290	14.790	T 7687.000	T 16180.000	T 15740.000	T 15890.000	19.180
2	04:56:04	115.9%	-0.030	16.580	17.020	3.540	T 7744.000	T 15820.000	T 15500.000	T 15520.000	18.570
3	04:56:31	116.8%	-0.020	16.570	17.050	8.383	T 7767.000	T 15970.000	T 15630.000	T 15640.000	18.410
x		116.0%	-0.027	16.960	17.120	8.906	T 7732.000	T 15990.000	T 15630.000	T 15680.000	18.720
σ		0.8%	0.007	0.671	0.151	5.645	T 41.130	T 179.800	T 120.200	T 188.300	0.406
%RSD		0.7	24.120	3.959	0.880	63.390	T 0.532	T 1.124	T 0.769	T 1.201	2.169

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:55:37	T 7069.000	T 49740.000	1015.000	47050.000	T 49370.000	109.3%	2.124	-0.195	0.525	3867.000
2	04:56:04	T 6979.000	T 49470.000	992.400	47480.000	T 49440.000	109.5%	1.924	-0.044	0.525	3817.000
3	04:56:31	T 6909.000	T 49640.000	1004.000	47300.000	T 49240.000	110.1%	2.052	0.066	0.475	3892.000
x		T 6986.000	T 49620.000	1004.000	47280.000	T 49350.000	109.6%	2.033	-0.058	0.508	3859.000
σ		T 80.140	T 139.400	11.230	215.000	T 99.960	0.5%	0.102	0.131	0.029	38.310
%RSD		T 1.147	T 0.281	1.119	0.455	T 0.203	0.4	4.999	227.900	5.698	0.993

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:55:37	400.100	14.910	T 443.700	723.500	0.080	0.810	1.423	0.214	0.313	1.754
2	04:56:04	398.600	14.890	T 441.600	720.100	0.072	0.852	0.895	0.167	0.284	1.845
3	04:56:31	403.700	14.960	T 444.300	724.700	0.069	0.764	0.792	0.196	0.256	1.822
x		400.800	14.920	T 443.200	722.800	0.074	0.808	1.037	0.192	0.284	1.807
σ		2.643	0.034	T 1.389	2.351	0.006	0.044	0.339	0.024	0.029	0.047
%RSD		0.660	0.228	T 0.314	0.325	7.840	5.426	32.660	12.260	10.050	2.615

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:55:37	9.224	7.599	0.191	-0.702	5.781	6.484	-2.260	-0.526	-1.585	T 324.400
2	04:56:04	9.039	7.324	-0.070	-0.478	6.499	6.490	-2.255	-0.527	-2.313	T 325.600
3	04:56:31	9.115	7.591	0.160	-0.369	6.207	6.467	-0.692	-0.191	-1.764	T 323.000
x		9.126	7.505	0.094	-0.516	6.162	6.480	-1.736	-0.415	-1.887	T 324.300
σ		0.093	0.157	0.143	0.170	0.361	0.012	0.904	0.194	0.379	T 1.300
%RSD		1.019	2.086	152.600	32.880	5.857	0.183	52.090	46.790	20.090	T 0.401

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:55:37	116.7%	1.471	1.441	1.494	12.760	0.006	0.001	-0.000	-0.005	119.0%
2	04:56:04	116.5%	1.558	1.496	1.555	11.850	0.002	0.001	-0.006	0.019	120.5%
3	04:56:31	119.8%	1.383	1.470	1.546	11.340	0.001	0.000	-0.011	-0.005	122.7%
x		117.7%	1.471	1.469	1.532	11.980	0.003	0.000	-0.005	0.003	120.7%
σ		1.8%	0.088	0.027	0.033	0.718	0.003	0.000	0.005	0.014	1.8%
%RSD		1.6	5.954	1.868	2.173	5.990	103.700	73.530	94.760	485.500	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:55:37	1.339	1.878	0.071	0.056	160.200	157.800	124.9%	-0.021	-0.025	0.004
2	04:56:04	1.392	1.935	0.037	0.075	155.700	154.800	127.2%	-0.013	-0.026	0.007
3	04:56:31	1.332	1.936	0.045	0.049	156.500	156.000	130.2%	-0.022	-0.028	-0.005
x		1.354	1.916	0.051	0.060	157.500	156.200	127.4%	-0.019	-0.026	0.002
σ		0.032	0.033	0.018	0.013	2.401	1.525	2.6%	0.005	0.002	0.006
%RSD		2.398	1.723	34.450	22.080	1.525	0.976	2.1	27.370	6.260	311.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:55:37	0.017	0.005	126.3%
2	04:56:04	0.012	0.011	128.5%
3	04:56:31	0.008	0.006	129.3%
x		0.012	0.007	128.1%
σ		0.005	0.003	1.6%
%RSD		37.580	39.840	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:01:35	110.9%	-0.042	29.040	28.450	18.880	TM 309400.000	T 50740.000	T 50120.000	T 50290.000	34.270
2	05:02:02	112.6%	-0.018	29.140	28.410	19.570	TM 309100.000	T 50030.000	T 49910.000	T 49920.000	34.060
3	05:02:28	113.6%	-0.035	29.430	27.720	28.210	TM 311900.000	T 49920.000	T 49840.000	T 50220.000	34.480
x		112.4%	-0.032	29.200	28.190	22.220	TM 310100.000	T 50230.000	T 49960.000	T 50150.000	34.270
σ		1.4%	0.012	0.204	0.407	5.201	TM 1534.000	T 447.500	T 147.500	T 198.500	0.209
%RSD		1.2	38.470	0.699	1.444	23.410	TM 0.495	T 0.891	T 0.295	T 0.396	0.609

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:01:35	T 5518.000	T 67940.000	T 2182.000	M 153200.000	TM 160400.000	107.7%	1.981	0.299	4.434	3801.000
2	05:02:02	T 5447.000	T 67380.000	T 2153.000	M 151800.000	TM 158800.000	109.4%	2.069	0.364	4.389	3869.000
3	05:02:28	T 5472.000	T 68500.000	T 2192.000	M 152900.000	TM 161200.000	110.5%	2.154	0.834	4.442	3550.000
x		T 5479.000	T 67940.000	T 2176.000	M 152700.000	TM 160100.000	109.2%	2.068	0.499	4.422	3740.000
σ		T 36.070	T 562.200	T 20.070	M 718.800	TM 1191.000	1.4%	0.086	0.292	0.029	167.600
%RSD		T 0.658	T 0.828	T 0.923	M 0.471	TM 0.744	1.3	4.170	58.490	0.647	4.482

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:01:35	72.350	3.309	T 102.600	1147.000	0.364	4.919	2.249	1.432	1.317	2.970
2	05:02:02	72.650	3.293	91.300	1112.000	0.371	5.060	2.616	1.352	1.419	2.966
3	05:02:28	74.000	3.296	91.970	1058.000	0.363	4.674	2.781	1.344	1.352	2.998
x		73.000	3.300	T 95.280	1106.000	0.366	4.884	2.549	1.376	1.363	2.978
σ		0.878	0.008	T 6.312	44.840	0.004	0.196	0.273	0.048	0.052	0.018
%RSD		1.203	0.256	T 6.625	4.056	1.151	4.005	10.690	3.522	3.801	0.593

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:01:35	6.977	5.845	0.132	0.595	26.410	24.930	-1.155	-0.267	-1.818	T 343.800
2	05:02:02	6.221	5.609	-0.175	0.272	26.570	24.580	1.662	0.303	0.828	T 346.000
3	05:02:28	7.142	5.517	0.139	0.545	25.310	26.920	-1.114	-0.298	-0.304	T 345.300
x		6.780	5.657	0.032	0.470	26.100	25.480	-0.202	-0.087	-0.431	T 345.000
σ		0.492	0.169	0.180	0.174	0.690	1.261	1.615	0.339	1.328	T 1.130
%RSD		7.249	2.984	559.000	36.980	2.643	4.949	799.500	388.400	307.800	T 0.327

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:01:35	115.8%	0.343	0.299	0.319	15.250	0.008	0.002	0.021	0.007	115.9%
2	05:02:02	115.7%	0.291	0.380	0.329	14.390	0.003	-0.001	0.005	0.018	116.1%
3	05:02:28	117.0%	0.328	0.325	0.357	14.180	0.010	0.001	0.010	0.011	117.7%
x		116.2%	0.321	0.335	0.335	14.610	0.007	0.001	0.012	0.012	116.6%
σ		0.7%	0.027	0.041	0.020	0.567	0.003	0.001	0.008	0.006	1.0%
%RSD		0.6	8.338	12.360	5.859	3.878	48.560	268.500	67.930	47.160	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:01:35	2.051	2.681	0.122	0.150	88.390	88.540	122.0%	-0.015	-0.019	0.100
2	05:02:02	1.970	2.743	0.142	0.140	88.220	87.040	122.3%	-0.017	-0.017	0.092
3	05:02:28	1.890	2.803	0.124	0.131	88.840	88.420	125.3%	-0.012	-0.017	0.097
x		1.971	2.743	0.130	0.140	88.480	88.000	123.2%	-0.015	-0.018	0.096
σ		0.081	0.061	0.011	0.009	0.323	0.837	1.8%	0.002	0.001	0.004
%RSD		4.088	2.224	8.605	6.714	0.365	0.951	1.5	14.920	6.141	3.951

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:01:35	0.104	0.091	116.2%
2	05:02:02	0.089	0.087	116.3%
3	05:02:28	0.084	0.089	117.5%
x		0.092	0.089	116.7%
σ		0.010	0.002	0.7%
%RSD		11.310	2.215	0.6

UE02030-004 05/09/2019 05:07:05

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:07:32	114.9%	-0.045	20.010	17.780	39.030	TM 131800.000	T 31680.000	T 31140.000	T 31330.000	5.763
2	05:07:59	116.3%	0.003	19.140	18.070	31.780	TM 130900.000	T 31710.000	T 31160.000	T 31160.000	5.806
3	05:08:26	116.1%	-0.009	20.270	18.360	31.620	TM 135900.000	T 31690.000	T 31450.000	T 31630.000	5.810
x		115.8%	-0.017	19.810	18.070	34.140	TM 132900.000	T 31690.000	T 31250.000	T 31380.000	5.793
σ		0.7%	0.025	0.592	0.288	4.234	TM 2670.000	T 13.700	T 175.100	T 236.900	0.026
%RSD		0.6	145.900	2.986	1.592	12.400	TM 2.009	T 0.043	T 0.560	T 0.755	0.448

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:07:32	T 4377.000	T 59860.000	T 1786.000	M 102700.000	TM 108000.000	109.2%	1.023	0.020	1.993	4060.000
2	05:07:59	T 4345.000	T 60040.000	T 1817.000	M 104400.000	TM 108900.000	110.6%	0.896	0.100	1.922	4011.000
3	05:08:26	T 4433.000	T 60330.000	T 1812.000	M 103000.000	TM 109100.000	113.1%	0.970	0.037	1.957	4106.000
x		T 4385.000	T 60080.000	T 1805.000	M 103400.000	TM 108700.000	111.0%	0.963	0.052	1.958	4059.000
σ		T 44.630	T 236.100	T 16.780	M 914.800	TM 626.600	2.0%	0.064	0.043	0.036	47.500
%RSD		T 1.018	T 0.393	T 0.930	M 0.885	TM 0.577	1.8	6.630	81.620	1.814	1.170

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:07:32	13.890	0.422	26.460	721.800	0.189	2.419	0.603	0.515	0.531	1.446
2	05:07:59	13.440	0.431	27.210	708.100	0.193	2.446	0.843	0.518	0.581	1.508
3	05:08:26	13.190	0.423	26.370	703.700	0.188	2.310	0.314	0.554	0.504	1.308
x		13.510	0.425	26.680	711.200	0.190	2.391	0.587	0.529	0.538	1.421
σ		0.357	0.005	0.464	9.448	0.003	0.072	0.264	0.021	0.039	0.103
%RSD		2.640	1.107	1.737	1.328	1.393	3.010	45.070	4.047	7.235	7.218

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:07:32	2.454	2.086	-0.450	0.121	13.510	14.300	-1.543	-0.330	-2.631	88.580
2	05:07:59	2.536	2.134	0.037	-0.083	13.450	13.000	-1.015	-0.249	-1.379	88.780
3	05:08:26	2.025	2.082	0.146	0.489	13.470	13.650	1.278	0.275	-2.510	87.730
x		2.338	2.101	-0.089	0.176	13.480	13.650	-0.427	-0.102	-2.173	88.370
σ		0.275	0.029	0.317	0.290	0.034	0.648	1.500	0.329	0.691	0.556
%RSD		11.740	1.381	356.200	165.100	0.250	4.749	351.500	323.700	31.790	0.629

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:07:32	117.1%	0.081	0.126	0.102	3.893	0.001	0.000	0.006	0.003	117.6%
2	05:07:59	115.4%	0.095	0.095	0.109	3.016	0.002	0.001	-0.005	0.001	117.1%
3	05:08:26	119.9%	0.094	0.110	0.096	4.217	0.001	-0.002	0.001	0.003	121.8%
x		117.4%	0.090	0.111	0.102	3.709	0.001	-0.000	0.001	0.002	118.9%
σ		2.3%	0.008	0.016	0.007	0.621	0.001	0.001	0.005	0.001	2.6%
%RSD		1.9	8.876	14.010	6.601	16.750	46.090	507.500	837.000	48.530	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:07:32	1.340	1.852	0.047	0.050	19.800	20.340	124.5%	-0.021	-0.028	-0.021
2	05:07:59	1.348	1.894	0.078	0.052	20.490	20.320	124.3%	-0.028	-0.029	-0.018
3	05:08:26	1.351	1.859	0.040	0.056	19.980	20.610	128.3%	-0.024	-0.028	-0.019
x		1.346	1.868	0.055	0.053	20.090	20.420	125.7%	-0.024	-0.028	-0.019
σ		0.006	0.023	0.020	0.003	0.356	0.162	2.3%	0.003	0.000	0.002
%RSD		0.425	1.222	36.600	5.388	1.773	0.795	1.8	13.390	0.853	8.138

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:07:32	-0.004	-0.011	120.3%
2	05:07:59	-0.015	-0.015	120.6%
3	05:08:26	-0.006	-0.012	122.1%
x		-0.008	-0.013	121.0%
σ		0.006	0.002	1.0%
%RSD		70.790	15.520	0.8

UE02030-005 05/09/2019 05:13:03

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:13:30	114.2%	-0.010	17.700	18.570	43.970	TM 126200.000	T 31180.000	T 30630.000	T 30670.000	5.312
2	05:13:57	116.5%	-0.024	18.590	18.270	33.510	TM 130700.000	T 31370.000	T 30870.000	T 30690.000	5.048
3	05:14:24	114.2%	-0.029	19.110	18.310	39.370	TM 130700.000	T 31500.000	T 30750.000	T 30760.000	4.921
x		114.9%	-0.021	18.470	18.380	38.950	TM 129200.000	T 31350.000	T 30750.000	T 30710.000	5.094
σ		1.3%	0.010	0.711	0.168	5.241	TM 2566.000	T 161.400	T 121.600	T 49.820	0.199
%RSD		1.1	46.540	3.851	0.911	13.460	TM 1.986	T 0.515	T 0.395	T 0.162	3.909
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:13:30	T 4261.000	T 59140.000	T 1747.000	M 101300.000	TM 106300.000	108.9%	1.027	0.325	2.021	4116.000
2	05:13:57	T 4251.000	T 59090.000	T 1752.000	M 101300.000	TM 106500.000	112.7%	0.792	0.187	1.977	4069.000
3	05:14:24	T 4334.000	T 60720.000	T 1783.000	M 101800.000	TM 107500.000	110.2%	1.068	0.185	2.009	4169.000
x		T 4282.000	T 59650.000	T 1761.000	M 101400.000	TM 106800.000	110.6%	0.962	0.232	2.002	4118.000
σ		T 45.770	T 928.300	T 19.700	M 289.800	TM 609.200	1.9%	0.149	0.080	0.023	49.810
%RSD		T 1.069	T 1.556	T 1.119	M 0.286	TM 0.571	1.8	15.480	34.590	1.147	1.210
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:13:30	11.850	0.319	25.580	712.800	0.196	2.622	1.206	0.540	0.531	37.100
2	05:13:57	10.990	0.315	23.060	636.000	0.162	2.448	0.393	0.553	0.490	36.630
3	05:14:24	12.290	0.297	24.590	680.600	0.172	2.588	0.792	0.532	0.486	36.980
x		11.710	0.311	24.410	676.500	0.177	2.553	0.797	0.542	0.502	36.900
σ		0.661	0.012	1.271	38.590	0.018	0.093	0.407	0.011	0.025	0.245
%RSD		5.645	3.840	5.207	5.705	9.897	3.626	51.000	1.972	4.948	0.663
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:13:30	34.330	36.330	0.351	0.232	12.450	13.100	0.414	0.106	-2.950	86.900
2	05:13:57	34.230	36.210	-0.077	0.365	12.290	13.230	-1.054	-0.225	-3.283	86.020
3	05:14:24	35.080	36.530	0.068	0.371	13.040	14.380	-2.797	-0.643	-1.518	86.750
x		34.550	36.360	0.114	0.323	12.590	13.570	-1.146	-0.254	-2.584	86.560
σ		0.462	0.160	0.218	0.079	0.397	0.706	1.608	0.376	0.938	0.469
%RSD		1.337	0.439	191.300	24.400	3.150	5.203	140.300	148.000	36.310	0.541
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:13:30	114.5%	0.080	0.109	0.114	4.184	0.003	0.001	0.001	-0.006	115.9%
2	05:13:57	118.0%	0.132	0.095	0.111	3.627	0.002	-0.002	0.013	0.003	120.4%
3	05:14:24	115.3%	0.077	0.110	0.099	3.136	0.000	-0.001	0.003	0.001	117.1%
x		115.9%	0.096	0.105	0.108	3.649	0.002	-0.001	0.006	-0.001	117.8%
σ		1.8%	0.031	0.008	0.008	0.524	0.001	0.001	0.007	0.005	2.3%
%RSD		1.6	32.380	7.990	7.297	14.370	87.570	199.200	114.700	654.700	2.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:13:30	1.325	1.817	0.043	0.038	19.330	19.380	123.8%	-0.021	-0.031	-0.021
2	05:13:57	1.244	1.858	0.059	0.048	19.890	19.600	127.0%	-0.027	-0.028	-0.022
3	05:14:24	1.283	1.885	0.051	0.059	19.570	19.680	126.0%	-0.024	-0.029	-0.024
x		1.284	1.853	0.051	0.048	19.600	19.550	125.6%	-0.024	-0.029	-0.022
σ		0.041	0.034	0.008	0.011	0.278	0.153	1.7%	0.003	0.002	0.002
%RSD		3.178	1.847	15.710	22.040	1.419	0.780	1.3	11.800	5.519	6.944
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:13:30	-0.007	-0.014	117.9%							
2	05:13:57	-0.007	-0.014	122.9%							
3	05:14:24	-0.012	-0.017	119.8%							
x		-0.009	-0.015	120.2%							
σ		0.003	0.002	2.5%							
%RSD		34.260	10.560	2.1							

UE01046-001 05/09/2019 05:19:01

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:19:28	113.8%	-0.036	154.300	148.300	39.750	┬65640.000	┬12710.000	┬12430.000	┬12480.000	22.880
2	05:19:55	115.8%	-0.022	151.700	150.200	40.130	┬64390.000	┬12560.000	┬12230.000	┬12260.000	22.750
3	05:20:22	117.3%	-0.012	149.000	145.700	38.180	┬64430.000	┬12550.000	┬12310.000	┬12330.000	22.540
x		115.6%	-0.023	151.700	148.100	39.350	┬64820.000	┬12610.000	┬12320.000	┬12360.000	22.730
σ		1.7%	0.012	2.633	2.240	1.034	┬709.200	┬88.910	┬104.600	┬109.300	0.171
%RSD		1.5	50.780	1.736	1.513	2.629	┬1.094	┬0.705	┬0.849	┬0.885	0.751

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:19:28	┬9958.000	┬52370.000	┬9802.000	26130.000	┬26790.000	109.0%	8.744	1.457	0.843	5801.000
2	05:19:55	┬9716.000	┬52100.000	┬9775.000	26070.000	┬26860.000	109.1%	8.236	1.532	0.890	5912.000
3	05:20:22	┬9555.000	┬52050.000	┬9784.000	25970.000	┬26770.000	109.2%	8.112	1.697	0.832	5884.000
x		┬9743.000	┬52170.000	┬9787.000	26060.000	┬26810.000	109.1%	8.364	1.562	0.855	5866.000
σ		┬202.800	┬172.500	┬14.040	83.200	┬51.440	0.1%	0.335	0.122	0.031	57.480
%RSD		┬2.081	┬0.331	┬0.144	0.319	┬0.192	0.1	4.003	7.834	3.588	0.980

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:19:28	75.120	6.404	81.110	214.200	0.250	4.468	3.170	11.290	11.400	66.040
2	05:19:55	75.150	6.402	79.580	215.300	0.254	4.596	3.977	11.330	12.190	67.050
3	05:20:22	77.420	6.464	79.430	213.800	0.256	4.504	2.804	11.160	12.200	67.730
x		75.890	6.423	80.040	214.400	0.253	4.523	3.317	11.260	11.930	66.940
σ		1.319	0.035	0.930	0.783	0.003	0.066	0.601	0.089	0.457	0.851
%RSD		1.739	0.551	1.162	0.365	1.336	1.459	18.100	0.794	3.833	1.272

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:19:28	63.140	65.240	0.271	-0.204	34.230	34.550	-1.115	-0.273	-3.711	221.900
2	05:19:55	63.290	64.230	-0.121	0.281	33.890	34.650	-3.111	-0.723	-2.583	219.700
3	05:20:22	63.460	66.160	0.133	0.032	33.690	32.250	-0.477	-0.127	-3.004	219.400
x		63.300	65.210	0.095	0.036	33.940	33.820	-1.568	-0.374	-3.099	220.300
σ		0.160	0.966	0.199	0.243	0.270	1.359	1.375	0.311	0.570	1.371
%RSD		0.253	1.481	210.500	665.700	0.796	4.017	87.680	82.980	18.400	0.622

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:19:28	114.9%	0.616	0.696	0.636	7.643	0.018	0.019	0.044	0.046	118.6%
2	05:19:55	119.1%	0.642	0.685	0.680	8.176	0.020	0.021	0.061	0.035	121.4%
3	05:20:22	118.9%	0.703	0.643	0.660	7.556	0.023	0.017	0.046	0.045	120.7%
x		117.6%	0.654	0.675	0.659	7.792	0.020	0.019	0.050	0.042	120.3%
σ		2.4%	0.045	0.028	0.022	0.335	0.002	0.002	0.009	0.006	1.5%
%RSD		2.0	6.857	4.119	3.362	4.305	11.900	8.754	17.680	13.430	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:19:28	1.323	1.818	0.295	0.289	21.030	21.350	125.3%	-0.026	-0.029	0.144
2	05:19:55	1.324	1.844	0.298	0.284	21.550	21.160	128.4%	-0.025	-0.027	0.143
3	05:20:22	1.430	1.880	0.310	0.282	21.540	20.880	129.1%	-0.029	-0.031	0.140
x		1.359	1.848	0.301	0.285	21.380	21.130	127.6%	-0.026	-0.029	0.142
σ		0.061	0.031	0.008	0.004	0.296	0.239	2.0%	0.002	0.002	0.002
%RSD		4.520	1.694	2.596	1.360	1.383	1.131	1.6	6.831	7.131	1.640

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:19:28	0.162	0.148	125.6%
2	05:19:55	0.163	0.139	128.6%
3	05:20:22	0.144	0.135	129.8%
x		0.156	0.141	128.0%
σ		0.010	0.007	2.1%
%RSD		6.603	4.871	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:25:25	121.8%	-0.032	0.785	0.808	23.810	0.570	1.626	1.617	1.793	1.483
2	05:25:52	122.7%	-0.014	0.996	0.637	31.840	0.452	1.732	1.572	1.458	1.461
3	05:26:19	123.2%	-0.042	0.723	0.661	26.130	0.322	1.591	1.638	1.785	1.476
x		122.6%	-0.029	0.835	0.702	27.260	0.448	1.650	1.609	1.679	1.473
σ		0.7%	0.014	0.143	0.092	4.130	0.124	0.073	0.034	0.191	0.011
%RSD		0.6	48.220	17.160	13.170	15.150	27.700	4.434	2.104	11.370	0.752

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:25:25	9.430	T 54310.000	5.819	3.232	2.773	110.0%	0.019	-0.060	0.464	4389.000
2	05:25:52	9.652	T 54210.000	2.879	2.676	2.942	111.8%	0.080	-0.221	0.511	4459.000
3	05:26:19	9.302	T 54670.000	4.707	3.149	2.938	111.4%	0.054	-0.153	0.465	4369.000
x		9.461	T 54400.000	4.469	3.019	2.885	111.1%	0.051	-0.145	0.480	4406.000
σ		0.177	T 241.400	1.484	0.300	0.096	1.0%	0.030	0.081	0.027	47.630
%RSD		1.872	T 0.444	33.220	9.933	3.337	0.9	59.740	55.870	5.630	1.081

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:25:25	1.314	-0.004	8.808	-21.080	-0.030	0.195	-0.189	0.108	0.137	1.149
2	05:25:52	1.177	-0.009	8.813	-24.250	-0.033	0.176	-0.167	0.123	0.120	1.048
3	05:26:19	0.784	-0.007	8.867	-27.410	-0.032	0.164	-0.478	0.100	0.106	1.094
x		1.092	-0.007	8.829	-24.250	-0.031	0.178	-0.278	0.110	0.121	1.097
σ		0.275	0.003	0.032	3.162	0.001	0.016	0.174	0.011	0.015	0.051
%RSD		25.200	42.900	0.366	13.040	4.034	8.707	62.530	10.400	12.700	4.612

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:25:25	1.593	1.141	-0.017	-0.621	2.966	3.644	-3.231	-0.781	-0.817	0.008
2	05:25:52	1.027	0.946	-0.199	0.132	2.954	3.527	-2.758	-0.641	-2.092	0.009
3	05:26:19	0.999	1.077	-0.355	-0.153	3.325	3.211	-1.474	-0.345	-1.392	0.008
x		1.206	1.054	-0.191	-0.214	3.082	3.461	-2.488	-0.589	-1.434	0.008
σ		0.335	0.099	0.169	0.380	0.211	0.224	0.909	0.223	0.639	0.001
%RSD		27.770	9.431	88.750	177.700	6.847	6.481	36.560	37.760	44.560	6.250

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:25:25	118.3%	-0.041	-0.007	-0.029	-0.209	0.001	0.001	-0.004	0.009	123.5%
2	05:25:52	120.3%	-0.043	-0.022	-0.025	0.246	0.000	0.000	0.001	0.003	124.5%
3	05:26:19	123.2%	-0.034	-0.025	-0.029	-0.454	0.000	-0.001	-0.001	-0.004	124.2%
x		120.6%	-0.039	-0.018	-0.028	-0.139	0.000	0.000	-0.001	0.003	124.1%
σ		2.4%	0.005	0.010	0.003	0.355	0.000	0.001	0.002	0.007	0.5%
%RSD		2.0	11.560	51.870	9.199	255.600	133.700	998.800	163.700	246.200	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:25:25	1.344	1.841	0.002	-0.010	0.031	0.014	125.8%	-0.031	-0.034	-0.033
2	05:25:52	1.304	1.914	0.003	-0.016	0.013	0.034	127.7%	-0.028	-0.034	-0.030
3	05:26:19	1.323	1.904	0.006	-0.004	0.013	0.022	127.8%	-0.029	-0.031	-0.024
x		1.323	1.886	0.004	-0.010	0.019	0.023	127.1%	-0.029	-0.033	-0.029
σ		0.020	0.040	0.002	0.006	0.011	0.010	1.1%	0.001	0.002	0.004
%RSD		1.516	2.105	66.670	56.400	55.730	43.640	0.9	3.990	4.684	14.820

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:25:25	-0.019	-0.026	128.2%
2	05:25:52	-0.013	-0.023	130.0%
3	05:26:19	-0.020	-0.023	131.5%
x		-0.017	-0.024	129.9%
σ		0.003	0.002	1.6%
%RSD		20.130	7.067	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:31:22	113.3%	97.360	101.300	94.800	32.120	┬1085.000	┬1010.000	939.900	937.200	97.110
2	05:31:49	113.3%	96.860	96.410	93.300	25.690	┬1076.000	┬989.800	920.800	920.700	93.440
3	05:32:15	114.0%	96.380	99.860	92.850	27.550	┬1064.000	┬983.000	907.600	917.200	93.910
x		113.5%	96.870	99.190	93.650	28.450	┬1075.000	┬994.300	922.700	925.000	94.820
σ		0.4%	0.488	2.518	1.019	3.309	┬10.440	┬14.150	16.240	10.710	1.998
%RSD		0.3	0.504	2.538	1.088	11.630	┬0.971	┬1.423	1.760	1.158	2.107

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:31:22	┬847.100	┬52520.000	1100.000	1137.000	1002.000	104.4%	97.640	97.190	97.440	4172.000
2	05:31:49	┬831.500	┬52360.000	1096.000	1088.000	999.200	103.8%	97.740	96.610	96.080	4490.000
3	05:32:15	┬831.600	┬52390.000	1098.000	1120.000	996.700	103.6%	96.690	96.160	95.970	5148.000
x		┬836.800	┬52420.000	1098.000	1115.000	999.500	103.9%	97.360	96.650	96.490	4603.000
σ		┬9.001	┬87.020	1.768	24.920	2.892	0.4%	0.576	0.516	0.819	498.100
%RSD		┬1.076	┬0.166	0.161	2.235	0.289	0.4	0.591	0.534	0.849	10.820

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:31:22	1014.000	97.650	┬1080.000	986.300	97.990	98.790	93.740	95.490	99.570	101.100
2	05:31:49	1029.000	98.070	┬1069.000	982.100	96.420	97.300	95.690	95.230	101.200	100.600
3	05:32:15	1028.000	99.650	┬1076.000	990.600	98.200	97.600	97.880	96.290	100.000	103.100
x		1024.000	98.460	┬1075.000	986.400	97.540	97.900	95.770	95.670	100.300	101.600
σ		8.481	1.052	┬5.588	4.240	0.972	0.786	2.073	0.554	0.836	1.317
%RSD		0.828	1.069	┬0.520	0.430	0.997	0.803	2.164	0.579	0.833	1.296

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:31:22	101.900	101.500	102.700	102.800	3.225	2.892	468.800	98.500	-2.976	96.590
2	05:31:49	104.500	101.000	102.000	102.500	2.999	3.270	432.400	92.910	-1.195	95.520
3	05:32:15	101.000	104.100	103.000	105.900	3.375	2.779	442.500	93.430	-0.234	95.890
x		102.500	102.200	102.600	103.700	3.199	2.980	447.900	94.950	-1.468	96.000
σ		1.817	1.668	0.523	1.907	0.189	0.257	18.780	3.087	1.391	0.544
%RSD		1.773	1.632	0.510	1.839	5.912	8.613	4.194	3.251	94.760	0.567

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:31:22	112.7%	96.790	96.960	95.840	100.400	99.840	95.810	98.630	96.750	119.7%
2	05:31:49	113.5%	95.960	95.910	96.120	97.690	99.710	95.800	97.770	97.720	117.6%
3	05:32:15	115.0%	94.140	94.790	94.880	98.440	99.660	95.210	97.870	97.660	120.9%
x		113.7%	95.630	95.890	95.610	98.850	99.740	95.610	98.090	97.380	119.4%
σ		1.2%	1.353	1.086	0.650	1.410	0.095	0.345	0.473	0.542	1.7%
%RSD		1.0	1.415	1.133	0.680	1.426	0.095	0.360	0.483	0.556	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:31:22	100.700	100.400	96.060	96.750	96.560	96.650	122.5%	100.200	104.100	102.400
2	05:31:49	100.500	99.480	95.360	96.540	98.160	96.680	122.7%	99.530	102.500	104.200
3	05:32:15	100.900	98.960	96.910	95.620	96.520	95.330	123.3%	100.500	103.100	102.300
x		100.700	99.630	96.110	96.300	97.080	96.220	122.9%	100.100	103.200	103.000
σ		0.201	0.754	0.779	0.602	0.932	0.772	0.4%	0.500	0.827	1.062
%RSD		0.199	0.756	0.811	0.625	0.960	0.803	0.3	0.499	0.801	1.032

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:31:22	97.490	98.620	128.8%
2	05:31:49	98.270	100.700	126.1%
3	05:32:15	98.260	99.850	128.5%
x		98.010	99.710	127.8%
σ		0.447	1.031	1.5%
%RSD		0.456	1.034	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:37:19	108.2%	-0.032	192.300	190.100	65.480	T 60210.000	T 2690.000	2444.000	2457.000	50.030
2	05:37:46	110.8%	0.005	190.900	189.100	62.720	T 59510.000	T 2679.000	2423.000	2429.000	T 30.280
3	05:38:13	111.3%	-0.039	191.200	184.500	63.490	T 59640.000	T 2653.000	2412.000	2424.000	49.040
x		110.1%	-0.022	191.500	187.900	63.900	T 59790.000	T 2674.000	2426.000	2437.000	T 43.120
σ		1.6%	0.024	0.754	2.972	1.426	T 369.500	T 19.140	16.640	17.820	T 11.130
%RSD		1.5	106.800	0.394	1.582	2.232	T 0.618	T 0.716	0.686	0.731	T 25.810

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:37:19	T 3975.000	T 53040.000	T 12270.000	15600.000	T 15690.000	100.2%	8.489	0.759	0.913	4451.000
2	05:37:46	T 3885.000	T 52450.000	T 12160.000	15320.000	14360.000	102.8%	8.924	0.871	0.940	4546.000
3	05:38:13	T 3854.000	T 52640.000	T 12210.000	15230.000	14450.000	103.2%	8.444	0.744	0.968	4681.000
x		T 3905.000	T 52710.000	T 12220.000	15380.000	T 14830.000	102.1%	8.619	0.791	0.940	4559.000
σ		T 63.060	T 301.900	T 56.390	192.900	T 743.500	1.7%	0.265	0.069	0.028	115.600
%RSD		T 1.615	T 0.573	T 0.462	1.254	T 5.013	1.6	3.078	8.783	2.928	2.536

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:37:19	168.800	15.380	180.100	258.500	0.539	2.036	0.939	10.920	11.810	56.070
2	05:37:46	166.600	15.010	176.500	244.400	0.492	1.774	0.784	10.720	11.480	55.290
3	05:38:13	165.700	15.090	175.100	236.800	0.515	1.788	1.008	10.690	11.070	55.190
x		167.000	15.160	177.300	246.500	0.515	1.866	0.910	10.780	11.450	55.510
σ		1.563	0.199	2.596	11.040	0.024	0.147	0.115	0.122	0.370	0.484
%RSD		0.936	1.315	1.465	4.477	4.577	7.897	12.590	1.135	3.226	0.871

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:37:19	51.410	55.410	0.783	-0.153	18.110	16.240	-3.406	-0.748	-4.405	41.380
2	05:37:46	50.940	55.010	0.638	-0.318	17.280	17.310	-0.374	-0.123	-2.155	40.570
3	05:38:13	50.240	52.630	0.424	-0.119	18.540	17.890	-1.767	-0.496	0.762	40.800
x		50.860	54.350	0.615	-0.197	17.970	17.150	-1.849	-0.456	-1.933	40.920
σ		0.590	1.507	0.181	0.107	0.642	0.840	1.518	0.315	2.590	0.417
%RSD		1.159	2.772	29.360	54.330	3.569	4.897	82.090	69.030	134.000	1.019

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:37:19	111.0%	2.347	2.394	2.472	3.145	0.013	0.010	0.097	0.084	114.7%
2	05:37:46	111.8%	2.195	2.425	2.238	1.865	0.009	0.008	0.103	0.078	114.5%
3	05:38:13	111.7%	2.416	2.449	2.341	1.684	0.011	0.007	0.081	0.098	114.9%
x		111.5%	2.319	2.423	2.350	2.231	0.011	0.008	0.094	0.087	114.7%
σ		0.5%	0.113	0.028	0.117	0.796	0.002	0.002	0.011	0.010	0.2%
%RSD		0.4	4.880	1.136	4.984	35.680	16.300	18.500	12.040	11.790	0.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:37:19	1.458	1.955	0.533	0.543	9.337	9.333	120.5%	0.009	-0.003	0.438
2	05:37:46	1.526	2.102	0.511	0.474	9.721	9.321	122.3%	0.008	-0.002	0.434
3	05:38:13	1.390	2.076	0.494	0.496	9.346	9.333	122.6%	-0.005	-0.008	0.445
x		1.458	2.044	0.513	0.504	9.468	9.329	121.8%	0.004	-0.004	0.439
σ		0.068	0.078	0.020	0.035	0.219	0.007	1.1%	0.008	0.003	0.006
%RSD		4.659	3.830	3.854	6.970	2.315	0.077	0.9	183.100	77.400	1.255

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:37:19	0.425	0.416	121.9%
2	05:37:46	0.424	0.425	123.0%
3	05:38:13	0.410	0.426	123.8%
x		0.420	0.422	122.9%
σ		0.009	0.005	0.9%
%RSD		2.047	1.274	0.8

CCV MW11050 05/09/2019 05:42:48 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:43:16	99.2%	295.600	296.100	291.400	23.940	┬67510.000	┬61650.000	┬60990.000	┬60780.000	284.300
2	05:43:43	101.3%	290.700	290.100	287.500	21.860	┬69930.000	┬62560.000	┬61730.000	┬61330.000	285.300
3	05:44:09	101.3%	295.500	296.000	289.000	26.710	┬68650.000	┬61370.000	┬61000.000	┬60710.000	283.000
x		100.6%	97.982%	98.019%	96.425%	24.170	┬114.490%	┬61860.000	┬61240.000	┬101.560%	94.734%
σ		1.2%	n/a	n/a	n/a	2.434	┬n/a	┬621.300	┬425.500	┬n/a	n/a
%RSD		1.2	0.943	1.170	0.684	10.070	┬1.764	┬1.004	┬0.695	┬0.558	0.410

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:43:16	┬3039.000	524.300	┬68500.000	61760.000	┬64750.000	98.2%	292.700	298.300	289.400	1902.000
2	05:43:43	┬3048.000	517.300	┬68940.000	61760.000	┬65030.000	100.1%	291.900	295.200	287.100	2216.000
3	05:44:09	┬3010.000	500.700	┬68610.000	60930.000	┬64140.000	99.3%	292.400	295.200	289.000	1751.000
x		┬101.074%	514.100	┬114.471%	61480.000	┬107.728%	99.2%	97.440%	98.747%	96.155%	1956.000
σ		┬n/a	12.140	┬n/a	482.000	┬n/a	0.9%	n/a	n/a	n/a	237.200
%RSD		┬0.643	2.360	┬0.332	0.784	┬0.702	1.0	0.150	0.599	0.427	12.120

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:43:16	┬63040.000	294.000	┬64200.000	┬63360.000	284.100	281.400	274.200	271.200	279.100	280.800
2	05:43:43	┬62420.000	291.900	┬63560.000	┬63980.000	292.700	283.800	279.100	274.500	279.600	285.600
3	05:44:09	┬63560.000	296.100	┬63650.000	┬64080.000	287.700	280.200	279.100	273.000	282.400	284.300
x		┬63000.000	98.001%	┬63800.000	┬106.343%	96.051%	93.937%	277.500	272.900	93.465%	94.520%
σ		┬572.200	n/a	┬345.800	┬n/a	n/a	n/a	2.843	1.660	n/a	n/a
%RSD		┬0.908	0.718	┬0.542	┬0.616	1.494	0.648	1.025	0.609	0.636	0.872

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:43:16	280.100	283.100	288.400	285.400	1.754	0.830	1260.000	276.600	-1.913	┬312.600
2	05:43:43	286.000	289.200	295.300	291.100	1.028	0.928	1240.000	275.900	-1.345	┬308.500
3	05:44:09	282.200	287.600	295.500	291.600	1.026	1.136	1243.000	272.700	-2.323	┬310.400
x		282.800	286.600	97.695%	289.400	1.269	0.965	1248.000	91.696%	-1.860	┬103.497%
σ		3.019	3.155	n/a	3.435	0.420	0.157	11.070	n/a	0.492	┬n/a
%RSD		1.068	1.101	1.392	1.187	33.060	16.210	0.887	0.764	26.420	┬0.663

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:43:16	102.9%	302.400	307.500	307.100	297.000	294.100	283.200	294.100	295.800	105.2%
2	05:43:43	106.5%	302.000	303.700	302.000	287.300	297.600	286.200	294.800	297.300	107.1%
3	05:44:09	106.9%	303.500	305.500	305.500	297.100	295.900	283.300	295.100	295.800	108.9%
x		105.4%	100.882%	101.853%	304.900	293.800	98.631%	284.200	294.700	98.767%	107.1%
σ		2.2%	n/a	n/a	2.600	5.616	n/a	1.728	0.546	n/a	1.9%
%RSD		2.1	0.259	0.624	0.853	1.911	0.599	0.608	0.185	0.297	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:43:16	302.800	301.800	302.900	302.300	293.600	296.000	111.8%	296.100	┬313.800	306.500
2	05:43:43	305.400	302.100	303.500	306.600	296.500	295.400	114.2%	294.900	┬312.600	371.700
3	05:44:09	301.700	300.600	301.500	305.600	295.400	296.800	114.7%	298.100	┬316.200	309.900
x		101.095%	100.508%	302.600	101.605%	98.391%	98.688%	113.5%	296.400	┬104.727%	109.789%
σ		n/a	n/a	1.040	n/a	n/a	n/a	1.5%	1.664	┬n/a	n/a
%RSD		0.635	0.270	0.344	0.734	0.507	0.232	1.4	0.562	┬0.597	11.140

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:43:16	301.200	304.300	111.2%
2	05:43:43	361.600	┬368.900	┬94.3%
3	05:44:09	309.500	┬308.900	112.8%
x		108.039%	┬109.132%	┬106.1%
σ		n/a	┬n/a	┬10.3%
%RSD		10.100	┬11.010	┬9.7

CCB IM9409-01 05/09/2019 05:48:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:49:14	106.7%	-0.003	1.284	1.163	20.420	-15.850	0.054	0.117	0.020	-0.017
2	05:49:41	109.5%	-0.014	1.210	1.171	10.270	-16.000	-0.026	0.052	0.015	-0.010
3	05:50:08	109.1%	0.017	0.886	0.921	6.412	-16.510	-0.037	0.075	-0.003	-0.004
x		108.4%	0.000	1.127	1.085	12.370	-16.120	-0.003	0.081	0.011	-0.011
σ		1.5%	0.016	0.212	0.142	7.234	0.345	0.050	0.033	0.012	0.007
%RSD		1.4	3936.000	18.790	13.100	58.500	2.142	1696.000	40.480	109.400	63.230

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:49:14	9.766	257.400	-3.399	-1.232	0.172	102.0%	0.003	0.014	0.003	25.480
2	05:49:41	9.165	262.400	-5.309	-0.286	-0.369	103.9%	-0.007	-0.008	0.010	36.460
3	05:50:08	9.222	259.100	-6.255	-2.258	0.043	105.2%	0.058	-0.007	-0.001	27.580
x		9.384	259.600	-4.988	-1.259	-0.051	103.7%	0.018	-0.000	0.004	29.840
σ		0.332	2.534	1.455	0.986	0.283	1.6%	0.035	0.012	0.005	5.829
%RSD		3.534	0.976	29.170	78.340	551.600	1.5	195.200	9479.000	137.300	19.540

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:49:14	-1.549	-0.005	0.058	-12.960	-0.018	-0.005	-0.211	-0.030	-0.023	0.020
2	05:49:41	-2.229	-0.001	0.628	-17.820	-0.019	-0.015	-0.183	-0.037	-0.009	-0.004
3	05:50:08	-1.836	0.006	0.718	-18.650	-0.018	0.001	-0.214	-0.042	-0.006	0.036
x		-1.871	0.000	0.468	-16.480	-0.018	-0.006	-0.203	-0.037	-0.013	0.017
σ		0.341	0.006	0.358	3.072	0.001	0.008	0.017	0.006	0.009	0.020
%RSD		18.230	6464.000	76.510	18.650	5.188	122.400	8.561	16.300	71.400	115.100

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:49:14	-0.015	0.063	-0.171	0.062	0.831	1.152	-2.607	-0.640	-0.350	-0.000
2	05:49:41	0.192	0.000	-0.071	0.192	0.808	0.359	-1.298	-0.327	-1.073	-0.000
3	05:50:08	-0.003	0.014	-0.110	0.069	0.651	0.204	-2.855	-0.665	-1.692	-0.000
x		0.058	0.026	-0.117	0.108	0.763	0.572	-2.253	-0.544	-1.038	-0.000
σ		0.116	0.033	0.050	0.074	0.098	0.508	0.837	0.188	0.672	0.000
%RSD		201.200	128.600	42.890	68.410	12.850	88.950	37.130	34.590	64.700	64.740

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:49:14	110.2%	0.008	0.020	0.020	0.572	0.003	0.003	0.001	0.006	113.7%
2	05:49:41	111.5%	0.023	0.035	0.004	-0.541	0.003	0.005	-0.004	0.003	114.2%
3	05:50:08	111.3%	0.015	0.025	0.008	-0.095	0.004	-0.000	-0.001	0.001	115.3%
x		111.0%	0.015	0.027	0.011	-0.021	0.003	0.003	-0.001	0.003	114.4%
σ		0.7%	0.007	0.008	0.008	0.560	0.000	0.003	0.003	0.003	0.9%
%RSD		0.6	48.030	28.190	80.760	2628.000	9.109	106.000	184.500	80.040	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:49:14	0.067	0.069	0.119	0.102	0.010	-0.000	116.5%	-0.019	-0.018	-0.009
2	05:49:41	0.041	0.059	0.125	0.092	-0.002	-0.000	116.1%	-0.015	-0.013	-0.000
3	05:50:08	0.045	0.055	0.115	0.090	0.002	-0.003	118.2%	-0.015	-0.018	-0.009
x		0.051	0.061	0.120	0.095	0.004	-0.001	116.9%	-0.016	-0.017	-0.006
σ		0.014	0.007	0.005	0.006	0.006	0.001	1.1%	0.002	0.003	0.005
%RSD		27.310	11.250	3.961	6.747	161.700	117.700	0.9	13.090	17.450	79.580

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:49:14	0.006	0.000	121.7%
2	05:49:41	0.011	0.005	122.8%
3	05:50:08	0.005	0.001	123.7%
x		0.008	0.002	122.7%
σ		0.003	0.002	1.0%
%RSD		42.910	127.000	0.8

UE03020-002 05/09/2019 05:54:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:55:12	109.0%	-0.025	159.900	154.500	66.610	T29290.000	T2428.000	2210.000	2235.000	T223.100
2	05:55:39	107.7%	-0.009	161.700	158.000	66.220	T28480.000	T2422.000	2205.000	2208.000	226.800
3	05:56:07	107.2%	-0.008	165.500	159.700	67.770	T28670.000	T2405.000	2184.000	2230.000	231.000
x		108.0%	-0.014	162.400	157.400	66.870	T28810.000	T2418.000	2200.000	2224.000	T227.000
σ		0.9%	0.010	2.850	2.673	0.809	T422.100	T11.740	13.590	14.340	T3.912
%RSD		0.8	68.960	1.755	1.698	1.210	T1.465	T0.486	0.618	0.645	T1.724

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:55:12	T5281.000	T53820.000	T7021.000	68930.000	T72160.000	106.3%	5.602	1.876	1.055	2376.000
2	05:55:39	T5198.000	T54720.000	T7032.000	68850.000	T72440.000	103.2%	5.783	1.795	1.144	2653.000
3	05:56:07	T5293.000	T55530.000	T7177.000	69880.000	T71870.000	102.6%	5.477	2.031	1.130	2750.000
x		T5257.000	T54690.000	T7077.000	69220.000	T72150.000	104.0%	5.621	1.900	1.110	2593.000
σ		T51.440	T855.100	T87.190	570.300	T285.500	2.0%	0.154	0.120	0.048	194.200
%RSD		T0.979	T1.564	T1.232	0.824	T0.396	1.9	2.736	6.305	4.294	7.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:55:12	398.200	53.580	T440.700	845.200	1.020	2.916	1.802	5.831	6.242	19.280
2	05:55:39	407.200	53.500	T446.100	872.300	1.018	2.959	1.693	5.682	6.235	18.850
3	05:56:07	410.800	53.900	T443.900	878.500	1.117	2.920	2.094	5.883	6.079	18.890
x		405.400	53.660	T443.600	865.300	1.052	2.932	1.863	5.799	6.185	19.010
σ		6.473	0.210	T2.739	17.730	0.057	0.023	0.207	0.105	0.092	0.240
%RSD		1.597	0.391	T0.618	2.048	5.385	0.801	11.120	1.807	1.490	1.265

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:55:12	18.480	19.860	0.846	0.016	196.900	199.300	-0.879	-0.438	-0.810	66.310
2	05:55:39	17.510	19.590	0.486	0.188	196.200	198.200	1.901	0.233	-3.407	66.060
3	05:56:07	18.500	19.320	0.820	0.026	201.800	200.000	-0.727	-0.374	-1.440	66.780
x		18.160	19.590	0.718	0.077	198.300	199.200	0.099	-0.193	-1.885	66.380
σ		0.566	0.270	0.201	0.096	3.075	0.916	1.563	0.370	1.355	0.366
%RSD		3.115	1.380	27.970	125.500	1.551	0.460	1585.000	191.700	71.850	0.551

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:55:12	116.5%	23.510	23.820	23.350	0.785	0.032	0.034	-0.048	0.037	118.2%
2	05:55:39	112.3%	23.450	23.380	23.760	2.790	0.038	0.036	-0.050	0.011	114.1%
3	05:56:07	110.2%	23.380	23.410	23.360	1.274	0.041	0.027	-0.006	0.003	111.0%
x		113.0%	23.450	23.540	23.490	1.616	0.037	0.032	-0.035	0.017	114.4%
σ		3.2%	0.064	0.245	0.237	1.046	0.005	0.005	0.025	0.017	3.6%
%RSD		2.9	0.274	1.040	1.010	64.690	12.530	14.520	70.820	101.800	3.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:55:12	1.557	2.263	0.543	0.601	20.380	20.480	124.2%	-0.028	-0.027	2.330
2	05:55:39	1.596	2.283	0.596	0.558	19.850	20.120	119.7%	-0.026	-0.027	2.263
3	05:56:07	1.552	2.260	0.615	0.577	20.570	19.790	118.7%	-0.024	-0.022	2.309
x		1.568	2.269	0.584	0.579	20.260	20.130	120.9%	-0.026	-0.026	2.301
σ		0.024	0.013	0.037	0.022	0.374	0.343	2.9%	0.002	0.003	0.034
%RSD		1.532	0.555	6.394	3.724	1.844	1.702	2.4	7.972	10.700	1.480

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:55:12	2.089	2.152	125.8%
2	05:55:39	2.082	2.114	120.9%
3	05:56:07	2.031	2.151	120.9%
x		2.067	2.139	122.5%
σ		0.032	0.022	2.8%
%RSD		1.540	1.017	2.3

UE03021-001 05/09/2019 06:00:44

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:01:11	107.3%	-0.040	22.910	22.140	27.570	TM 171400.000	177.800	169.200	171.900	TM 11670.000
2	06:01:38	109.9%	-0.015	21.640	21.790	29.100	TM 168000.000	175.100	169.300	169.500	TM 11600.000
3	06:02:05	111.3%	-0.006	22.820	21.830	29.000	TM 167500.000	174.200	165.300	166.600	TM 11510.000
x		109.5%	-0.020	22.460	21.920	28.560	TM 169000.000	175.700	167.900	169.300	TM 11600.000
σ		2.0%	0.018	0.708	0.191	0.855	TM 2147.000	1.912	2.293	2.641	TM 81.480
%RSD		1.8	88.620	3.154	0.872	2.994	TM 1.271	1.088	1.365	1.560	TM 0.703
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:01:11	148.800	T 53720.000	T 1594.000	6984.000	6399.000	105.3%	0.197	-0.104	0.504	2797.000
2	06:01:38	144.100	T 53360.000	T 1583.000	6879.000	6393.000	105.0%	0.198	-0.048	0.507	2816.000
3	06:02:05	142.600	T 53090.000	T 1578.000	6919.000	6350.000	105.3%	0.123	-0.107	0.541	2956.000
x		145.200	T 53390.000	T 1585.000	6927.000	6381.000	105.2%	0.173	-0.086	0.518	2856.000
σ		3.256	T 319.800	T 8.124	53.390	26.420	0.2%	0.043	0.033	0.021	87.160
%RSD		2.242	T 0.599	T 0.513	0.771	0.414	0.2	24.940	38.240	4.003	3.052
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:01:11	162.600	0.644	173.200	179.000	-0.013	3.607	3.105	5.994	6.701	1.685
2	06:01:38	165.100	0.631	171.800	185.800	-0.005	3.768	3.200	5.971	6.560	1.747
3	06:02:05	164.800	0.647	170.700	178.900	-0.009	3.504	2.322	6.041	6.492	1.683
x		164.200	0.641	171.900	181.200	-0.009	3.626	2.876	6.002	6.584	1.705
σ		1.349	0.009	1.234	3.941	0.004	0.133	0.482	0.035	0.106	0.036
%RSD		0.822	1.357	0.718	2.175	45.140	3.666	16.760	0.590	1.612	2.134
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:01:11	2.171	1.779	-0.128	0.214	203.400	202.700	1.460	0.107	-1.513	22.410
2	06:01:38	2.264	1.870	-0.608	0.016	205.100	206.000	-0.887	-0.457	-1.123	22.260
3	06:02:05	2.586	1.776	0.155	0.290	200.500	202.700	2.535	0.353	-2.112	21.850
x		2.340	1.808	-0.194	0.173	203.000	203.800	1.036	0.001	-1.582	22.170
σ		0.218	0.053	0.386	0.142	2.329	1.880	1.750	0.415	0.498	0.293
%RSD		9.300	2.944	199.100	81.730	1.147	0.922	168.900	45680.000	31.480	1.320
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:01:11	113.5%	1.413	1.571	1.537	-0.104	0.002	0.000	-0.005	0.015	114.4%
2	06:01:38	112.1%	1.556	1.638	1.537	0.674	0.001	0.001	-0.005	-0.007	115.6%
3	06:02:05	113.4%	1.426	1.394	1.566	0.530	0.004	0.000	-0.003	0.011	114.7%
x		113.0%	1.465	1.534	1.547	0.367	0.003	0.000	-0.005	0.006	114.9%
σ		0.8%	0.079	0.126	0.017	0.414	0.002	0.000	0.001	0.012	0.6%
%RSD		0.7	5.376	8.220	1.079	112.800	61.600	86.460	32.010	187.300	0.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:01:11	1.397	1.872	0.089	0.091	11.490	11.150	120.8%	-0.010	-0.008	-0.030
2	06:01:38	1.381	1.871	0.103	0.085	11.580	11.410	123.4%	-0.003	-0.007	-0.031
3	06:02:05	1.261	1.790	0.091	0.084	11.840	10.990	123.4%	-0.010	-0.010	-0.029
x		1.347	1.845	0.094	0.087	11.640	11.190	122.5%	-0.008	-0.008	-0.030
σ		0.074	0.047	0.007	0.004	0.183	0.212	1.5%	0.004	0.002	0.001
%RSD		5.510	2.548	7.746	4.469	1.575	1.894	1.2	52.900	21.440	2.767
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:01:11	-0.019	-0.022	117.0%							
2	06:01:38	-0.014	-0.022	119.4%							
3	06:02:05	-0.007	-0.015	119.9%							
x		-0.013	-0.020	118.8%							
σ		0.006	0.004	1.5%							
%RSD		45.370	18.760	1.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:07:09	105.0%	-0.006	23.160	21.720	831.100	TM 422200.000	T 3564.000	3212.000	T 3412.000	212.700
2	06:07:37	106.2%	-0.024	22.220	21.770	823.500	TM 434900.000	T 3560.000	3224.000	T 3451.000	T 214.700
3	06:08:04	109.3%	-0.020	21.340	21.020	811.400	TM 432800.000	T 3556.000	3225.000	T 3419.000	T 214.200
x		106.8%	-0.016	22.240	21.500	822.000	TM 430000.000	T 3560.000	3220.000	T 3427.000	T 213.900
σ		2.2%	0.009	0.909	0.420	9.904	TM 6853.000	T 3.843	7.405	T 20.500	T 1.065
%RSD		2.1	57.460	4.089	1.954	1.205	TM 1.594	T 0.108	0.230	T 0.598	T 0.498

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:07:09	T 5306.000	T 57150.000	T 47060.000	54760.000	T 57680.000	103.3%	16.100	1.435	10.610	2080.000
2	06:07:37	T 5307.000	T 58330.000	T 47410.000	55030.000	T 58090.000	103.8%	15.550	1.322	10.780	2135.000
3	06:08:04	T 5231.000	T 58050.000	T 47450.000	54550.000	T 57700.000	105.6%	15.190	1.165	10.600	2114.000
x		T 5282.000	T 57840.000	T 47310.000	54780.000	T 57820.000	104.2%	15.620	1.307	10.660	2110.000
σ		T 43.660	T 620.300	T 215.800	240.800	T 229.300	1.2%	0.461	0.136	0.102	27.720
%RSD		T 0.827	T 1.072	T 0.456	0.440	T 0.397	1.2	2.954	10.380	0.957	1.314

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:07:09	T 12480.000	267.700	T 13060.000	12690.000	1.779	25.420	25.420	63.950	66.760	278.500
2	06:07:37	T 12540.000	269.400	T 13020.000	12790.000	1.819	24.990	27.370	63.640	66.760	276.300
3	06:08:04	T 12550.000	269.700	T 13020.000	12800.000	1.781	24.570	27.450	63.590	66.130	277.900
x		T 12520.000	268.900	T 13030.000	12760.000	1.793	24.990	26.750	63.730	66.550	277.600
σ		T 35.360	1.079	T 18.030	61.080	0.022	0.425	1.149	0.194	0.366	1.143
%RSD		T 0.282	0.401	T 0.138	0.479	1.248	1.702	4.294	0.304	0.549	0.412

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:07:09	257.400	269.400	0.839	0.231	91.900	91.900	4.169	0.900	-1.820	64.400
2	06:07:37	258.700	266.200	0.154	0.422	87.910	91.340	0.050	-0.076	-2.489	64.610
3	06:08:04	255.900	267.500	-0.037	-0.152	89.010	89.160	1.364	0.168	0.512	63.220
x		257.300	267.700	0.319	0.167	89.610	90.800	1.861	0.331	-1.266	64.080
σ		1.384	1.633	0.461	0.292	2.058	1.450	2.104	0.508	1.575	0.748
%RSD		0.538	0.610	144.600	175.100	2.296	1.597	113.100	153.500	124.500	1.167

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:07:09	111.3%	3.928	3.939	3.739	0.976	0.038	0.034	0.085	0.121	109.4%
2	06:07:37	112.2%	4.038	3.732	3.875	1.404	0.035	0.048	0.121	0.112	113.5%
3	06:08:04	114.6%	3.742	4.046	3.865	-0.118	0.036	0.041	0.111	0.106	114.9%
x		112.7%	3.903	3.906	3.826	0.754	0.036	0.041	0.106	0.113	112.6%
σ		1.8%	0.149	0.160	0.076	0.785	0.001	0.007	0.019	0.008	2.9%
%RSD		1.6	3.830	4.088	1.983	104.200	4.124	17.700	17.590	6.727	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:07:09	1.416	1.907	0.509	0.511	16.220	15.640	120.2%	-0.019	-0.025	0.404
2	06:07:37	1.482	1.855	0.521	0.520	16.040	15.570	122.5%	-0.026	-0.021	0.410
3	06:08:04	1.377	1.860	0.492	0.565	15.980	15.460	125.3%	-0.024	-0.024	0.415
x		1.425	1.874	0.507	0.532	16.080	15.550	122.7%	-0.023	-0.023	0.409
σ		0.053	0.029	0.015	0.029	0.123	0.094	2.6%	0.004	0.002	0.006
%RSD		3.718	1.537	2.922	5.398	0.765	0.607	2.1	16.870	8.923	1.358

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:07:09	0.379	0.392	112.2%
2	06:07:37	0.381	0.397	115.2%
3	06:08:04	0.342	0.375	116.8%
x		0.368	0.388	114.7%
σ		0.022	0.011	2.3%
%RSD		6.019	2.924	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:13:06	102.2%	0.024	M 2595.000	TM 2908.000	1136.000	TM 1285000.000	T 815.100	716.400	723.200	82.160
2	06:13:33	103.0%	-0.027	M 2579.000	TM 2914.000	1130.000	TM 1280000.000	T 807.600	718.900	724.300	82.120
3	06:14:00	104.6%	-0.018	M 2551.000	TM 2857.000	1112.000	TM 1295000.000	T 806.300	720.500	726.400	83.290
x		103.2%	-0.007	M 2575.000	TM 2893.000	1126.000	TM 1287000.000	T 809.700	718.600	724.700	82.530
σ		1.2%	0.027	M 21.930	TM 31.060	12.240	TM 7588.000	T 4.728	2.054	1.628	0.665
%RSD		1.2	386.200	M 0.852	TM 1.074	1.087	TM 0.590	T 0.584	0.286	0.225	0.806

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:13:06	T 4871.000	T 97020.000	T 9601.000	3967.000	3656.000	103.2%	5.014	0.241	3.184	3169.000
2	06:13:33	T 4875.000	T 98120.000	T 9669.000	3914.000	3664.000	103.3%	4.724	0.264	3.074	3275.000
3	06:14:00	T 4902.000	T 98690.000	T 9726.000	3900.000	3706.000	105.0%	4.722	0.460	3.038	3219.000
x		T 4883.000	T 97940.000	T 9665.000	3927.000	3675.000	103.8%	4.820	0.322	3.099	3221.000
σ		T 16.820	T 850.800	T 62.890	35.520	27.200	1.0%	0.168	0.120	0.076	53.050
%RSD		T 0.345	T 0.869	T 0.651	0.905	0.740	1.0	3.489	37.400	2.466	1.647

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:13:06	645.500	69.720	T 716.300	646.900	0.063	2.041	10.940	9.679	7.354	44.950
2	06:13:33	649.200	69.910	T 716.900	641.200	0.065	2.050	11.520	9.799	7.518	44.830
3	06:14:00	648.500	69.460	T 710.600	640.200	0.067	2.141	10.890	9.601	7.000	44.740
x		647.700	69.690	T 714.600	642.700	0.065	2.078	11.120	9.693	7.291	44.840
σ		1.946	0.228	T 3.489	3.610	0.002	0.055	0.351	0.100	0.264	0.105
%RSD		0.300	0.327	T 0.488	0.562	2.602	2.658	3.155	1.029	3.626	0.235

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:13:06	40.970	44.010	-0.166	0.387	108.300	106.200	-0.183	-0.101	-1.846	20.290
2	06:13:33	42.030	43.510	0.525	0.565	109.000	110.400	-0.006	-0.091	-1.674	20.610
3	06:14:00	39.290	43.930	0.262	0.346	107.900	109.100	2.345	0.414	1.920	20.440
x		40.760	43.810	0.207	0.433	108.400	108.600	0.718	0.074	-0.533	20.450
σ		1.380	0.271	0.349	0.116	0.585	2.183	1.411	0.294	2.127	0.161
%RSD		3.387	0.618	168.600	26.890	0.540	2.011	196.400	396.900	398.800	0.788

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:13:06	109.0%	244.900	248.400	246.100	0.723	0.041	0.023	-0.570	0.120	107.4%
2	06:13:33	108.7%	245.800	246.500	247.900	-0.706	0.029	0.031	-0.582	0.097	108.4%
3	06:14:00	110.4%	245.000	247.700	248.800	1.115	0.034	0.033	-0.554	0.075	107.5%
x		109.4%	245.200	247.500	247.600	0.378	0.034	0.029	-0.569	0.097	107.8%
σ		0.9%	0.526	0.966	1.405	0.958	0.006	0.005	0.014	0.023	0.6%
%RSD		0.8	0.215	0.390	0.567	253.800	17.310	18.660	2.495	23.240	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:13:06	2.600	3.548	0.476	0.474	13.910	13.660	115.1%	-0.028	-0.032	0.390
2	06:13:33	2.712	3.421	0.488	0.495	14.260	14.070	117.0%	-0.029	-0.031	0.386
3	06:14:00	2.659	3.545	0.531	0.505	14.140	13.490	117.3%	-0.029	-0.032	0.422
x		2.657	3.505	0.498	0.491	14.110	13.740	116.5%	-0.029	-0.032	0.399
σ		0.056	0.072	0.029	0.016	0.181	0.295	1.2%	0.000	0.001	0.020
%RSD		2.114	2.063	5.753	3.284	1.283	2.147	1.0	1.490	1.708	4.936

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:13:06	0.351	0.374	104.1%
2	06:13:33	0.337	0.370	106.9%
3	06:14:00	0.395	0.387	106.7%
x		0.361	0.377	105.9%
σ		0.031	0.009	1.6%
%RSD		8.503	2.353	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:19:04	103.3%	84.040	M 2621.000	TM 2944.000	1132.000	TM 1281000.000	T 1771.000	1586.000	1601.000	183.100
2	06:19:31	104.3%	87.540	M 2678.000	TM 3009.000	1138.000	TM 1284000.000	T 1794.000	1582.000	1595.000	182.000
3	06:19:58	106.1%	84.670	M 2646.000	TM 2968.000	1126.000	TM 1251000.000	T 1765.000	1559.000	1579.000	178.700
x		104.6%	85.410	M 2649.000	TM 2974.000	1132.000	TM 1272000.000	T 1777.000	1575.000	1592.000	181.200
σ		1.4%	1.864	M 28.580	TM 32.600	6.037	TM 18330.000	T 15.400	14.660	11.000	2.260
%RSD		1.4	2.183	M 1.079	TM 1.096	0.533	TM 1.441	T 0.867	0.930	0.691	1.247

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:19:04	T 5835.000	T 97490.000	T 10620.000	5022.000	4667.000	104.4%	100.700	95.590	94.900	3974.000
2	06:19:31	T 5838.000	T 97480.000	T 10560.000	4948.000	4630.000	106.9%	97.350	92.110	91.700	4064.000
3	06:19:58	T 5607.000	T 96970.000	T 10470.000	5001.000	4618.000	105.3%	100.700	93.750	93.700	4248.000
x		T 5760.000	T 97310.000	T 10550.000	4990.000	4638.000	105.5%	99.600	93.820	93.430	4095.000
σ		T 132.500	T 298.100	T 74.690	38.480	25.410	1.3%	1.945	1.742	1.615	139.700
%RSD		T 2.300	T 0.306	T 0.708	0.771	0.548	1.2	1.952	1.857	1.728	3.411

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:19:04	1583.000	161.000	T 1697.000	1564.000	87.840	87.450	93.770	91.640	92.030	131.300
2	06:19:31	1563.000	159.800	T 1675.000	1533.000	86.440	85.440	93.930	91.450	91.840	129.900
3	06:19:58	1578.000	162.900	T 1702.000	1554.000	87.490	86.390	93.070	91.710	91.820	131.400
x		1575.000	161.200	T 1692.000	1551.000	87.260	86.430	93.590	91.600	91.890	130.800
σ		10.290	1.594	T 14.290	15.700	0.732	1.005	0.460	0.136	0.116	0.813
%RSD		0.653	0.988	T 0.845	1.012	0.839	1.163	0.491	0.149	0.126	0.622

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:19:04	130.900	130.000	95.960	90.510	107.600	102.200	393.100	90.820	-1.052	114.600
2	06:19:31	127.100	130.000	94.880	90.570	105.000	106.000	384.500	88.610	-1.790	114.800
3	06:19:58	126.600	129.500	95.980	87.400	104.800	108.900	395.000	89.580	-0.340	114.100
x		128.200	129.900	95.610	89.500	105.800	105.700	390.900	89.670	-1.061	114.500
σ		2.380	0.302	0.630	1.812	1.550	3.332	5.606	1.104	0.726	0.367
%RSD		1.856	0.232	0.659	2.025	1.465	3.152	1.434	1.232	68.410	0.320

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:19:04	111.1%	342.300	346.300	344.000	94.600	86.330	83.610	92.560	92.320	107.6%
2	06:19:31	112.8%	341.200	343.800	346.600	96.990	86.810	82.520	92.710	93.690	109.7%
3	06:19:58	111.7%	344.200	342.400	346.400	93.810	84.600	82.330	92.890	91.980	110.3%
x		111.9%	342.500	344.200	345.700	95.130	85.910	82.820	92.720	92.660	109.2%
σ		0.9%	1.491	1.986	1.464	1.659	1.159	0.690	0.164	0.907	1.4%
%RSD		0.8	0.435	0.577	0.423	1.744	1.349	0.834	0.177	0.979	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:19:04	97.850	98.880	100.900	100.500	112.600	111.200	116.5%	91.520	93.620	107.300
2	06:19:31	97.300	97.530	99.250	101.400	112.600	111.400	118.7%	91.130	92.450	105.300
3	06:19:58	97.960	98.280	97.470	97.800	112.100	111.900	119.0%	91.390	93.350	106.000
x		97.700	98.230	99.200	99.890	112.400	111.500	118.1%	91.350	93.140	106.200
σ		0.357	0.678	1.705	1.860	0.259	0.333	1.4%	0.198	0.613	1.002
%RSD		0.365	0.690	1.719	1.862	0.230	0.298	1.2	0.217	0.658	0.943

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:19:04	100.800	103.600	105.5%
2	06:19:31	101.700	103.200	106.6%
3	06:19:58	100.500	102.000	108.1%
x		101.000	103.000	106.7%
σ		0.641	0.822	1.3%
%RSD		0.635	0.799	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:25:02	104.2%	88.090	M 2692.000	TM 3049.000	1174.000	TM 1281000.000	T 1816.000	1620.000	1628.000	184.300
2	06:25:29	104.9%	86.040	M 2653.000	TM 3000.000	1131.000	TM 1284000.000	T 1801.000	1601.000	1596.000	182.200
3	06:25:57	106.4%	86.920	M 2659.000	TM 2990.000	1138.000	TM 1275000.000	T 1799.000	1595.000	1616.000	182.100
x		105.2%	87.020	M 2668.000	TM 3013.000	1148.000	TM 1280000.000	T 1806.000	1605.000	1613.000	182.900
σ		1.1%	1.027	M 21.040	TM 31.470	22.780	TM 4813.000	T 9.124	13.180	16.560	1.229
%RSD		1.1	1.181	M 0.789	TM 1.044	1.985	TM 0.376	T 0.505	0.821	1.027	0.672

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:25:02	T 5898.000	T 98310.000	T 10640.000	4907.000	4667.000	106.2%	99.140	94.910	93.860	4368.000
2	06:25:29	T 5873.000	T 96840.000	T 10630.000	4997.000	4633.000	108.0%	99.990	94.530	94.100	4028.000
3	06:25:57	T 5805.000	T 98070.000	T 10660.000	5056.000	4618.000	109.2%	100.900	96.220	93.270	3667.000
x		T 5859.000	T 97740.000	T 10640.000	4987.000	4640.000	107.8%	100.000	95.220	93.740	4021.000
σ		T 48.120	T 785.400	T 15.470	74.990	25.040	1.5%	0.872	0.886	0.426	350.500
%RSD		T 0.821	T 0.804	T 0.145	1.504	0.540	1.4	0.871	0.930	0.454	8.717

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:25:02	1595.000	161.200	T 1711.000	1569.000	87.970	88.020	96.840	92.980	92.990	132.300
2	06:25:29	1602.000	162.000	T 1703.000	1563.000	88.320	86.920	94.590	92.450	92.950	131.300
3	06:25:57	1593.000	163.100	T 1711.000	1568.000	89.050	87.740	99.130	93.300	92.110	129.600
x		1597.000	162.100	T 1708.000	1567.000	88.450	87.560	96.850	92.910	92.680	131.100
σ		4.686	0.942	T 4.670	3.091	0.551	0.570	2.272	0.429	0.494	1.366
%RSD		0.294	0.581	T 0.273	0.197	0.623	0.651	2.346	0.462	0.533	1.042

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:25:02	129.300	129.300	95.820	93.260	102.900	103.900	398.700	92.360	2.319	116.100
2	06:25:29	127.100	127.800	93.970	88.590	103.000	103.200	394.500	89.930	0.629	114.300
3	06:25:57	127.400	128.300	94.940	88.210	101.200	103.500	393.500	90.230	0.016	116.100
x		127.900	128.500	94.910	90.020	102.400	103.600	395.500	90.840	0.988	115.500
σ		1.225	0.766	0.929	2.809	1.005	0.329	2.751	1.329	1.193	1.021
%RSD		0.958	0.596	0.979	3.121	0.982	0.317	0.696	1.462	120.800	0.884

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:25:02	110.9%	342.200	347.000	347.200	96.480	88.740	85.520	93.830	93.100	107.4%
2	06:25:29	112.6%	339.600	341.600	345.900	93.330	87.520	84.730	93.140	94.170	110.9%
3	06:25:57	112.5%	344.800	344.800	346.200	94.030	88.280	84.930	94.170	93.250	110.4%
x		112.0%	342.200	344.500	346.500	94.610	88.180	85.060	93.720	93.510	109.5%
σ		1.0%	2.590	2.684	0.695	1.655	0.615	0.412	0.525	0.581	1.9%
%RSD		0.9	0.757	0.779	0.201	1.750	0.697	0.485	0.560	0.621	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:25:02	98.960	100.300	100.700	101.000	115.400	112.900	118.4%	91.880	93.720	107.600
2	06:25:29	99.650	99.790	99.510	99.570	111.200	110.700	120.0%	91.590	93.170	106.300
3	06:25:57	98.600	100.400	99.040	98.900	114.300	113.900	120.1%	92.030	94.320	107.000
x		99.070	100.200	99.740	99.830	113.700	112.500	119.5%	91.830	93.740	107.000
σ		0.534	0.316	0.842	1.090	2.193	1.653	1.0%	0.224	0.573	0.679
%RSD		0.539	0.316	0.845	1.092	1.930	1.469	0.8	0.244	0.612	0.635

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:25:02	103.200	104.200	106.7%
2	06:25:29	101.500	103.600	107.7%
3	06:25:57	102.300	103.500	108.8%
x		102.300	103.700	107.8%
σ		0.843	0.370	1.0%
%RSD		0.823	0.357	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:30:59	113.0%	-0.030	M 576.300	M 556.900	245.800	TM 245900.000	154.800	148.500	145.500	17.030
2	06:31:26	114.4%	0.000	M 569.100	M 552.000	228.300	TM 247200.000	153.700	145.200	144.800	16.810
3	06:31:53	115.1%	-0.028	M 572.800	M 557.800	243.900	TM 251400.000	152.600	142.600	147.300	16.990
x		114.2%	-0.019	M 572.800	M 555.500	239.300	TM 248200.000	153.700	145.500	145.900	16.940
σ		1.1%	0.017	M 3.630	M 3.096	9.571	TM 2856.000	1.102	2.983	1.308	0.119
%RSD		1.0	88.680	M 0.634	M 0.557	3.999	TM 1.151	0.717	2.051	0.896	0.701

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:30:59	T 892.300	T 18060.000	T 1814.000	771.700	722.700	110.5%	0.922	0.039	0.638	867.500
2	06:31:26	T 901.200	T 18260.000	T 1809.000	780.800	716.400	112.7%	0.826	-0.060	0.608	900.200
3	06:31:53	T 890.900	T 18250.000	T 1824.000	796.800	719.200	113.3%	0.985	0.107	0.620	816.500
x		T 894.800	T 18190.000	T 1816.000	783.100	719.400	112.2%	0.911	0.029	0.622	861.400
σ		T 5.611	T 111.500	T 7.789	12.740	3.157	1.5%	0.080	0.084	0.015	42.200
%RSD		T 0.627	T 0.613	T 0.429	1.627	0.439	1.3	8.825	290.800	2.431	4.899

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:30:59	127.700	13.660	134.700	116.000	-0.012	0.362	1.206	1.931	1.490	9.400
2	06:31:26	125.900	13.700	134.000	115.600	-0.011	0.369	0.895	1.880	1.471	9.256
3	06:31:53	126.200	13.610	132.900	110.300	-0.010	0.379	0.834	1.896	1.437	9.380
x		126.600	13.660	133.900	114.000	-0.011	0.370	0.978	1.902	1.466	9.345
σ		0.931	0.045	0.865	3.201	0.001	0.009	0.200	0.026	0.026	0.078
%RSD		0.736	0.331	0.646	2.808	8.291	2.393	20.410	1.370	1.804	0.836

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:30:59	9.084	9.195	-0.123	0.004	22.110	22.830	-2.200	-0.533	-0.661	3.918
2	06:31:26	8.191	9.053	-0.024	0.392	20.790	21.670	-2.491	-0.580	-1.260	3.906
3	06:31:53	9.575	8.812	-0.100	-0.225	21.900	20.260	-1.825	-0.431	-1.171	3.998
x		8.950	9.020	-0.083	0.057	21.600	21.590	-2.172	-0.514	-1.031	3.941
σ		0.702	0.194	0.052	0.312	0.708	1.286	0.334	0.076	0.323	0.050
%RSD		7.839	2.147	62.480	547.400	3.279	5.954	15.370	14.820	31.330	1.274

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:30:59	118.1%	46.530	46.630	46.460	0.314	0.028	0.027	-0.113	0.031	119.0%
2	06:31:26	120.5%	46.480	46.620	46.940	-0.714	0.022	0.023	-0.062	0.004	121.2%
3	06:31:53	121.3%	46.480	47.550	46.460	-0.723	0.027	0.025	-0.080	-0.006	121.8%
x		120.0%	46.490	46.930	46.620	-0.374	0.026	0.025	-0.085	0.010	120.7%
σ		1.7%	0.029	0.534	0.279	0.596	0.003	0.002	0.026	0.019	1.5%
%RSD		1.4	0.062	1.138	0.598	159.200	11.590	9.005	30.430	196.400	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:30:59	0.524	0.662	0.078	0.069	2.603	2.708	125.4%	-0.031	-0.031	0.050
2	06:31:26	0.479	0.624	0.058	0.054	2.894	2.652	128.2%	-0.030	-0.034	0.045
3	06:31:53	0.505	0.703	0.079	0.057	2.736	2.812	128.5%	-0.029	-0.030	0.041
x		0.503	0.663	0.072	0.060	2.744	2.724	127.4%	-0.030	-0.032	0.045
σ		0.023	0.039	0.012	0.008	0.146	0.082	1.7%	0.001	0.002	0.004
%RSD		4.489	5.942	16.640	13.030	5.309	2.994	1.4	3.847	6.500	9.133

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:30:59	0.064	0.054	119.3%
2	06:31:26	0.055	0.049	121.5%
3	06:31:53	0.050	0.052	121.9%
x		0.056	0.052	120.9%
σ		0.007	0.003	1.4%
%RSD		12.450	5.178	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:36:58	100.8%	-0.056	M 1762.000	TM 2156.000	-91.920	TM 1505000.000	48.560	46.560	50.020	1.242
2	06:37:25	102.4%	-0.054	M 1744.000	TM 2162.000	-91.070	TM 1497000.000	47.710	47.260	48.600	1.249
3	06:37:51	103.0%	-0.047	M 1718.000	TM 2084.000	-95.510	TM 1497000.000	47.220	45.920	48.600	1.225
x		102.1%	-0.053	M 1741.000	TM 2134.000	-92.830	TM 1500000.000	47.830	46.580	49.070	1.239
σ		1.1%	0.005	M 22.240	TM 43.470	2.360	TM 4343.000	0.680	0.670	0.816	0.012
%RSD		1.1	8.666	M 1.277	TM 2.037	2.542	TM 0.290	1.422	1.438	1.662	1.000

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:36:58	200.000	T 43250.000	T 61680.000	30590.000	T 32790.000	103.9%	0.794	-0.209	0.264	1850.000
2	06:37:25	197.000	T 43170.000	T 61350.000	30350.000	T 32330.000	105.1%	0.542	-0.158	0.269	1775.000
3	06:37:51	196.200	T 42700.000	T 61180.000	30320.000	T 32320.000	107.5%	0.676	-0.273	0.277	1818.000
x		197.700	T 43040.000	T 61400.000	30420.000	T 32480.000	105.5%	0.671	-0.213	0.270	1814.000
σ		1.987	T 294.900	T 254.200	147.400	T 269.700	1.8%	0.126	0.057	0.007	37.660
%RSD		1.005	T 0.685	T 0.414	0.484	T 0.831	1.7	18.790	26.890	2.489	2.076

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:36:58	19.940	9.126	26.870	236.400	0.048	1.011	37.960	6.407	3.112	21.690
2	06:37:25	19.720	8.996	26.770	235.300	0.033	0.951	48.880	7.118	3.171	22.310
3	06:37:51	19.260	8.972	26.910	218.400	0.028	0.943	60.440	7.589	3.145	22.110
x		19.640	9.031	26.850	230.000	0.036	0.969	49.100	7.038	3.142	22.040
σ		0.345	0.083	0.072	10.100	0.011	0.037	11.240	0.595	0.030	0.318
%RSD		1.757	0.916	0.268	4.392	29.410	3.850	22.900	8.454	0.943	1.443

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:36:58	19.770	21.220	5.904	1.615	924.700	922.500	9.525	1.188	-0.326	TM 522.800
2	06:37:25	20.520	20.520	5.021	2.569	901.600	919.100	9.560	1.068	4.307	TM 518.700
3	06:37:51	19.860	20.430	5.730	2.476	911.800	923.700	8.521	0.948	1.148	TM 519.200
x		20.050	20.720	5.552	2.220	912.700	921.800	9.202	1.068	1.710	TM 520.300
σ		0.408	0.435	0.468	0.526	11.550	2.358	0.590	0.120	2.367	TM 2.219
%RSD		2.034	2.098	8.429	23.700	1.266	0.256	6.412	11.240	138.400	TM 0.427

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:36:58	109.6%	6.193	6.057	6.051	16.850	0.005	0.002	0.003	0.021	108.4%
2	06:37:25	111.2%	6.074	6.049	5.912	14.680	0.005	0.003	-0.008	0.022	110.9%
3	06:37:51	113.8%	5.907	6.262	5.996	18.630	0.006	0.008	-0.003	0.010	111.6%
x		111.5%	6.058	6.122	5.986	16.720	0.005	0.004	-0.003	0.018	110.3%
σ		2.1%	0.144	0.121	0.070	1.979	0.001	0.003	0.006	0.006	1.7%
%RSD		1.9	2.377	1.971	1.168	11.840	15.690	76.210	209.800	35.430	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:36:58	0.328	0.451	2.397	2.460	0.520	0.505	117.2%	-0.005	-0.017	-0.008
2	06:37:25	0.323	0.439	2.413	2.341	0.494	0.497	119.2%	-0.014	-0.018	-0.015
3	06:37:51	0.326	0.457	2.284	2.410	0.441	0.533	121.3%	-0.016	-0.016	-0.025
x		0.326	0.449	2.364	2.404	0.485	0.512	119.2%	-0.012	-0.017	-0.016
σ		0.003	0.009	0.070	0.060	0.040	0.019	2.0%	0.006	0.001	0.009
%RSD		0.800	2.040	2.960	2.484	8.288	3.736	1.7	49.540	7.045	53.950

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:36:58	-0.001	-0.004	108.0%
2	06:37:25	-0.007	-0.009	109.2%
3	06:37:51	-0.008	-0.011	111.5%
x		-0.005	-0.008	109.6%
σ		0.004	0.003	1.8%
%RSD		74.620	43.100	1.6

UE03050-001S(5) 05/09/2019 06:42:29

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:42:55	101.1%	5.253	M 1737.000	TM 2113.000	-92.990	TM 1483000.000	159.900	157.700	162.100	13.340
2	06:43:22	101.7%	5.312	M 1748.000	TM 2149.000	-94.470	TM 1496000.000	160.000	156.500	162.400	13.160
3	06:43:49	102.4%	5.135	M 1747.000	TM 2103.000	-93.410	TM 1471000.000	158.200	156.100	162.400	13.220
x		101.7%	5.233	M 1744.000	TM 2122.000	-93.620	TM 1483000.000	159.400	156.800	162.300	13.240
σ		0.7%	0.090	M 6.076	TM 24.440	0.765	TM 12420.000	1.045	0.797	0.176	0.087
%RSD		0.7	1.722	M 0.348	TM 1.152	0.817	TM 0.837	0.656	0.508	0.108	0.659

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:42:55	377.500	T 42820.000	T 61250.000	30380.000	T 32510.000	104.4%	21.240	19.320	18.680	1940.000
2	06:43:22	374.400	T 42380.000	T 60810.000	30320.000	T 32060.000	105.3%	19.550	18.610	18.510	2064.000
3	06:43:49	371.200	T 42320.000	T 60800.000	30090.000	T 31660.000	105.3%	19.950	18.920	18.200	1813.000
x		374.400	T 42510.000	T 60950.000	30260.000	T 32080.000	105.0%	20.250	18.950	18.460	1939.000
σ		3.182	T 272.700	T 261.000	153.800	T 426.100	0.5%	0.880	0.358	0.241	125.300
%RSD		0.850	T 0.642	T 0.428	0.508	T 1.328	0.5	4.347	1.888	1.304	6.460

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:42:55	215.000	27.820	229.500	423.300	18.010	18.260	89.470	25.710	20.940	40.380
2	06:43:22	213.400	27.420	221.700	412.800	17.590	18.210	101.100	25.630	20.340	40.150
3	06:43:49	210.400	26.790	218.800	411.200	17.430	18.150	110.300	26.360	20.110	40.050
x		212.900	27.340	223.400	415.800	17.680	18.210	100.300	25.900	20.460	40.190
σ		2.350	0.517	5.514	6.578	0.296	0.057	10.430	0.402	0.427	0.170
%RSD		1.103	1.889	2.469	1.582	1.672	0.313	10.400	1.552	2.089	0.424

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:42:55	39.520	39.130	25.040	20.680	806.700	811.100	88.660	19.130	2.537	TM 547.500
2	06:43:22	37.750	38.300	24.390	22.360	801.600	811.600	82.160	17.370	2.497	TM 539.100
3	06:43:49	37.830	37.790	24.790	21.650	802.300	802.500	89.140	19.290	3.397	TM 532.300
x		38.370	38.410	24.740	21.560	803.500	808.400	86.650	18.600	2.810	TM 539.700
σ		1.000	0.675	0.327	0.843	2.786	5.082	3.898	1.065	0.509	TM 7.622
%RSD		2.607	1.758	1.323	3.909	0.347	0.629	4.498	5.724	18.110	TM 1.412

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:42:55	110.5%	26.180	26.390	26.200	38.450	18.040	17.790	19.200	19.240	109.5%
2	06:43:22	112.5%	26.150	26.330	26.020	37.780	18.030	17.500	19.310	18.770	113.0%
3	06:43:49	112.6%	25.890	25.910	26.090	37.630	17.940	17.390	18.600	18.700	111.1%
x		111.9%	26.070	26.210	26.100	37.950	18.000	17.560	19.040	18.900	111.2%
σ		1.2%	0.163	0.259	0.088	0.434	0.057	0.206	0.386	0.294	1.7%
%RSD		1.1	0.626	0.990	0.336	1.145	0.314	1.170	2.025	1.557	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:42:55	20.520	20.620	23.180	23.050	19.950	20.380	118.0%	17.990	18.240	21.210
2	06:43:22	20.060	20.660	22.780	22.400	20.420	20.330	122.3%	17.790	18.120	21.670
3	06:43:49	20.330	20.310	22.030	22.380	19.860	20.360	121.5%	17.750	18.090	21.270
x		20.300	20.530	22.660	22.610	20.080	20.360	120.6%	17.840	18.150	21.380
σ		0.234	0.187	0.584	0.383	0.300	0.026	2.3%	0.132	0.079	0.251
%RSD		1.152	0.911	2.575	1.693	1.493	0.126	1.9	0.738	0.438	1.174

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:42:55	20.410	20.750	110.0%
2	06:43:22	20.550	20.870	111.6%
3	06:43:49	20.270	20.500	111.6%
x		20.410	20.710	111.1%
σ		0.141	0.186	0.9%
%RSD		0.692	0.900	0.8

UE03054-001(5) 05/09/2019 06:48:27

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:48:53	114.1%	-0.051	M 2055.000	TM 2391.000	-73.960	TM 246200.000	110.900	108.800	111.700	2.320
2	06:49:20	114.7%	-0.042	M 2083.000	TM 2449.000	-71.460	TM 251500.000	111.500	108.100	112.000	2.299
3	06:49:47	115.8%	-0.051	M 2018.000	TM 2380.000	-74.570	TM 252900.000	109.100	106.600	108.500	2.208
x		114.9%	-0.048	M 2052.000	TM 2407.000	-73.330	TM 250200.000	110.500	107.800	110.700	2.276
σ		0.8%	0.005	M 32.620	TM 37.260	1.647	TM 3561.000	1.240	1.135	1.939	0.059
%RSD		0.7	10.350	M 1.590	TM 1.548	2.246	TM 1.423	1.122	1.053	1.751	2.614

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:48:53	181.600	T 16420.000	T 2551.000	18350.000	T 19110.000	111.7%	0.202	0.037	0.260	754.400
2	06:49:20	182.100	T 16350.000	T 2522.000	18280.000	T 18840.000	112.9%	0.217	-0.053	0.262	796.200
3	06:49:47	182.100	T 16000.000	T 2490.000	17790.000	T 18620.000	116.4%	0.278	-0.045	0.282	769.700
x		182.000	T 16260.000	T 2521.000	18140.000	T 18860.000	113.7%	0.233	-0.020	0.268	773.500
σ		0.310	T 226.500	T 30.440	304.500	T 241.500	2.4%	0.040	0.050	0.013	21.120
%RSD		0.170	T 1.393	T 1.207	1.679	T 1.281	2.1	17.200	244.900	4.664	2.731

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:48:53	201.000	2.276	218.600	341.700	0.017	0.595	13.040	72.000	74.800	38.030
2	06:49:20	196.100	2.204	212.300	339.700	0.013	0.569	13.810	70.980	73.180	37.910
3	06:49:47	197.800	2.206	214.200	320.600	0.016	0.601	13.690	70.880	71.930	36.810
x		198.300	2.229	215.000	334.000	0.015	0.588	13.510	71.290	73.300	37.580
σ		2.475	0.041	3.232	11.630	0.002	0.017	0.411	0.618	1.438	0.672
%RSD		1.248	1.828	1.503	3.483	15.280	2.828	3.042	0.867	1.962	1.788

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:48:53	35.170	37.320	0.399	0.486	405.300	405.400	1.893	0.007	-1.729	T 294.300
2	06:49:20	34.020	36.810	0.325	0.471	399.800	411.300	3.616	0.324	0.328	T 294.500
3	06:49:47	35.520	35.820	0.262	0.497	402.900	405.700	2.585	0.085	-0.120	T 293.600
x		34.900	36.650	0.329	0.484	402.700	407.500	2.698	0.139	-0.507	T 294.100
σ		0.783	0.766	0.069	0.013	2.753	3.301	0.867	0.165	1.082	T 0.496
%RSD		2.245	2.090	20.980	2.643	0.684	0.810	32.140	119.200	213.400	T 0.169

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:48:53	121.5%	1.326	1.410	1.317	11.480	0.003	0.003	0.013	0.003	121.7%
2	06:49:20	124.3%	1.335	1.371	1.316	8.893	0.008	0.003	-0.000	0.003	125.0%
3	06:49:47	124.2%	1.288	1.259	1.263	9.717	0.001	-0.001	-0.005	0.014	127.2%
x		123.3%	1.316	1.347	1.298	10.030	0.004	0.002	0.003	0.006	124.6%
σ		1.6%	0.025	0.079	0.031	1.322	0.004	0.002	0.009	0.006	2.8%
%RSD		1.3	1.920	5.847	2.356	13.180	85.410	113.100	336.000	96.560	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:48:53	0.942	1.347	0.135	0.171	1.053	0.992	129.6%	0.079	0.080	7.758
2	06:49:20	0.947	1.326	0.172	0.148	0.977	1.008	132.7%	0.090	0.083	7.806
3	06:49:47	0.901	1.281	0.135	0.129	0.969	0.992	133.4%	0.085	0.073	7.333
x		0.930	1.318	0.147	0.149	1.000	0.997	131.9%	0.085	0.079	7.633
σ		0.025	0.034	0.021	0.021	0.046	0.009	2.0%	0.006	0.005	0.260
%RSD		2.669	2.574	14.400	13.910	4.639	0.906	1.5	6.703	6.402	3.410

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:48:53	7.055	7.236	125.1%
2	06:49:20	7.013	7.218	127.3%
3	06:49:47	6.945	7.073	128.2%
x		7.004	7.176	126.9%
σ		0.055	0.089	1.6%
%RSD		0.789	1.247	1.2

CCV MW11050 05/09/2019 06:54:24 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:54:51	108.0%	291.500	335.500	328.800	25.310	T 73290.000	T 62600.000	T 61940.000	T 61450.000	287.500
2	06:55:18	108.4%	287.200	331.400	320.700	21.080	T 72400.000	T 61490.000	T 60730.000	T 61110.000	284.100
3	06:55:45	109.6%	293.500	329.100	324.800	23.230	T 72310.000	T 63000.000	T 62120.000	T 61540.000	286.300
x		108.7%	96.918%	110.672%	108.263%	23.210	T 121.105%	T 62360.000	T 61600.000	T 102.278%	95.329%
σ		0.8%	n/a	n/a	n/a	2.115	T n/a	T 781.000	T 760.300	T n/a	n/a
%RSD		0.8	1.100	0.977	1.238	9.114	T 0.744	T 1.252	T 1.234	T 0.369	0.597

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:54:51	T 3132.000	399.100	T 68260.000	62030.000	T 64600.000	112.1%	293.800	T 307.100	288.600	1555.000
2	06:55:18	T 3097.000	395.100	T 67320.000	61320.000	T 64550.000	111.3%	292.500	T 308.300	286.000	1683.000
3	06:55:45	T 3078.000	393.000	T 68640.000	62430.000	T 65350.000	110.2%	297.500	T 311.500	290.200	994.100
x		T 103.405%	395.800	T 113.458%	61930.000	T 108.058%	111.2%	98.203%	T 102.990%	96.083%	1411.000
σ		T n/a	3.101	T n/a	560.000	T n/a	1.0%	n/a	T n/a	n/a	366.600
%RSD		T 0.884	0.783	T 1.002	0.904	T 0.692	0.9	0.873	T 0.727	0.726	25.980

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:54:51	T 62400.000	T 303.900	T 62960.000	T 63540.000	286.900	274.400	284.800	268.100	274.500	285.700
2	06:55:18	T 61930.000	T 301.000	T 62500.000	T 63100.000	283.600	273.800	279.700	266.800	274.100	285.700
3	06:55:45	T 62620.000	T 310.600	T 63220.000	T 63650.000	T 296.500	278.800	287.600	269.600	278.100	287.900
x		T 62320.000	T 101.723%	T 62890.000	T 105.716%	T 96.328%	91.890%	284.000	268.200	91.858%	95.478%
σ		T 351.300	T n/a	T 361.500	T n/a	T n/a	n/a	4.001	1.438	n/a	n/a
%RSD		T 0.564	T 1.623	T 0.575	T 0.453	T 2.309	0.990	1.409	0.536	0.797	0.458

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:54:51	286.400	286.400	291.200	297.500	10.540	8.408	1258.000	277.900	-1.892	T 313.000
2	06:55:18	288.600	285.700	293.000	290.900	9.590	7.727	1271.000	276.500	0.610	T 315.200
3	06:55:45	285.400	289.400	298.600	295.700	9.112	7.848	1263.000	276.100	-2.077	T 314.200
x		286.800	287.100	98.101%	294.700	9.748	7.994	1264.000	92.267%	-1.120	T 104.708%
σ		1.592	1.953	n/a	3.432	0.728	0.364	6.433	n/a	1.501	T n/a
%RSD		0.555	0.680	1.310	1.165	7.468	4.549	0.509	0.342	134.000	T 0.361

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:54:51	119.1%	303.600	307.500	306.900	300.000	298.400	285.800	298.400	297.900	120.8%
2	06:55:18	118.4%	302.300	304.400	306.300	293.300	290.400	280.700	296.100	294.700	121.8%
3	06:55:45	120.3%	302.600	303.700	306.600	292.900	293.700	281.600	292.600	295.100	122.6%
x		119.3%	100.942%	101.739%	306.600	295.400	98.048%	282.700	295.700	98.635%	121.8%
σ		1.0%	n/a	n/a	0.297	3.991	n/a	2.745	2.937	n/a	0.9%
%RSD		0.8	0.231	0.666	0.097	1.351	1.366	0.971	0.993	0.598	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:54:51	308.200	303.400	303.800	307.500	298.500	298.400	128.2%	297.700	T 313.900	311.200
2	06:55:18	305.400	303.200	301.800	301.700	297.800	298.100	129.5%	293.700	T 310.700	310.700
3	06:55:45	302.600	303.600	302.700	302.200	297.100	298.000	129.9%	295.300	T 311.100	339.200
x		101.804%	101.128%	302.800	101.264%	99.262%	99.378%	129.2%	295.600	T 103.960%	106.787%
σ		n/a	n/a	1.033	n/a	n/a	n/a	0.9%	1.966	T n/a	n/a
%RSD		0.912	0.063	0.341	1.068	0.220	0.068	0.7	0.665	T 0.553	5.084

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:54:51	305.800	T 310.500	126.6%
2	06:55:18	306.900	T 311.400	126.5%
3	06:55:45	332.800	T 341.000	T 116.3%
x		105.062%	T 106.981%	T 123.1%
σ		n/a	T n/a	T 5.9%
%RSD		4.841	T 5.404	T 4.8

CCB IM9409-01 05/09/2019 07:00:22 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:00:49	114.3%	-0.013	24.590	24.370	18.590	75.620	-0.041	0.090	0.044	0.020
2	07:01:16	114.9%	-0.021	24.470	23.950	10.640	80.590	-0.039	-0.035	-0.045	-0.023
3	07:01:43	115.4%	-0.020	24.620	23.840	18.370	78.260	-0.082	0.007	-0.077	-0.010
x		114.9%	-0.018	24.560	24.060	15.860	78.160	-0.054	0.020	-0.026	-0.004
σ		0.6%	0.004	0.084	0.280	4.528	2.483	0.025	0.064	0.063	0.022
%RSD		0.5	24.100	0.341	1.165	28.540	3.177	45.560	311.500	238.700	551.400

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:00:49	9.620	221.000	24.660	-2.310	0.609	111.3%	0.045	-0.015	0.003	24.430
2	07:01:16	9.403	222.100	24.490	2.236	0.941	111.8%	0.019	-0.002	-0.006	19.870
3	07:01:43	9.554	222.700	26.760	3.597	0.910	111.9%	0.062	-0.001	-0.024	10.870
x		9.526	222.000	25.310	1.174	0.820	111.7%	0.042	-0.006	-0.009	18.390
σ		0.111	0.841	1.264	3.093	0.184	0.3%	0.022	0.008	0.014	6.900
%RSD		1.167	0.379	4.996	263.400	22.400	0.3	52.350	124.000	149.900	37.520

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:00:49	-1.641	0.022	-2.021	-7.247	-0.009	0.008	2.265	0.210	0.033	0.009
2	07:01:16	-1.225	0.026	-2.102	-6.140	-0.016	-0.005	2.418	0.211	0.050	0.008
3	07:01:43	-2.633	0.014	-1.177	-7.593	-0.018	-0.003	2.455	0.164	0.043	0.045
x		-1.833	0.020	-1.766	-6.993	-0.014	-0.000	2.379	0.195	0.042	0.021
σ		0.724	0.006	0.512	0.759	0.004	0.007	0.101	0.027	0.009	0.021
%RSD		39.470	28.970	29.000	10.850	30.740	2080.000	4.233	13.700	21.150	102.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:00:49	-0.029	0.008	-0.132	0.332	4.723	4.547	-2.320	-0.613	-0.377	0.001
2	07:01:16	-0.013	-0.000	-0.180	-0.037	4.442	5.120	-3.996	-0.900	-2.626	0.003
3	07:01:43	-0.013	-0.008	0.068	0.519	4.526	4.944	0.670	0.124	-4.169	0.001
x		-0.018	-0.000	-0.081	0.271	4.564	4.870	-1.882	-0.463	-2.391	0.002
σ		0.009	0.008	0.131	0.283	0.144	0.294	2.364	0.528	1.907	0.001
%RSD		48.440	3820.000	161.800	104.400	3.162	6.032	125.600	114.200	79.780	46.270

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:00:49	120.3%	0.021	0.020	0.033	0.205	0.013	0.008	-0.002	0.001	127.0%
2	07:01:16	122.6%	0.013	0.036	0.005	0.475	0.015	0.014	-0.004	0.004	126.6%
3	07:01:43	122.6%	0.011	0.022	0.025	-0.561	0.018	0.025	0.001	-0.003	127.7%
x		121.8%	0.015	0.026	0.021	0.039	0.015	0.016	-0.002	0.001	127.1%
σ		1.4%	0.005	0.009	0.014	0.537	0.003	0.009	0.002	0.003	0.5%
%RSD		1.1	34.920	33.440	67.980	1366.000	19.060	54.960	133.700	627.700	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:00:49	0.077	0.088	0.108	0.114	0.002	-0.003	129.8%	-0.015	-0.010	-0.006
2	07:01:16	0.059	0.074	0.112	0.084	0.006	0.003	130.3%	-0.016	-0.015	0.001
3	07:01:43	0.060	0.066	0.084	0.099	0.009	0.003	130.8%	-0.014	-0.015	-0.003
x		0.065	0.076	0.102	0.099	0.006	0.001	130.3%	-0.015	-0.014	-0.003
σ		0.010	0.011	0.015	0.015	0.004	0.003	0.5%	0.001	0.003	0.004
%RSD		15.410	14.450	15.000	15.110	63.210	245.700	0.4	5.346	20.490	136.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:00:49	0.015	0.005	136.4%
2	07:01:16	0.009	0.006	137.5%
3	07:01:43	0.001	0.003	135.5%
x		0.008	0.005	136.5%
σ		0.007	0.002	1.0%
%RSD		79.470	36.660	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:06:46	103.4%	-0.054	137.600	147.700	-56.730	TM 404100.000	T 658.800	621.000	651.400	T 466.400
2	07:07:13	103.9%	-0.059	136.500	146.400	-57.160	TM 401100.000	T 667.200	630.200	647.900	T 464.700
3	07:07:41	105.1%	-0.057	136.400	148.500	-59.160	TM 410200.000	T 679.000	633.100	660.600	T 468.700
x		104.1%	-0.057	136.800	147.500	-57.680	TM 405100.000	T 668.300	628.100	653.300	T 466.600
σ		0.9%	0.003	0.646	1.046	1.300	TM 4676.000	T 10.190	6.323	6.593	T 1.999
%RSD		0.9	4.650	0.472	0.709	2.253	TM 1.154	T 1.525	1.007	1.009	T 0.428

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:06:46	T 4199.000	T 56250.000	T 22660.000	98680.000	TM 105100.000	105.5%	1.735	-0.094	15.740	2414.000
2	07:07:13	T 4149.000	T 56590.000	T 22550.000	98670.000	TM 106100.000	104.9%	1.737	0.039	15.690	2378.000
3	07:07:41	T 4135.000	T 57670.000	T 22950.000	99380.000	TM 106900.000	104.9%	1.689	0.064	16.030	2455.000
x		T 4161.000	T 56830.000	T 22720.000	98910.000	TM 106000.000	105.1%	1.720	0.003	15.820	2416.000
σ		T 33.830	T 742.100	T 204.500	408.000	TM 881.600	0.4%	0.027	0.085	0.180	38.410
%RSD		T 0.813	T 1.306	T 0.900	0.413	TM 0.831	0.3	1.570	2523.000	1.135	1.590

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:06:46	129.700	40.790	134.900	863.600	48.600	48.210	52.670	3.301	2.959	167.400
2	07:07:13	132.900	40.510	135.500	876.600	48.430	48.040	50.500	3.318	2.823	170.600
3	07:07:41	132.900	41.680	138.800	883.300	48.750	49.620	51.890	3.270	2.916	170.600
x		131.800	40.990	136.400	874.500	48.600	48.620	51.690	3.297	2.899	169.500
σ		1.855	0.610	2.114	10.000	0.157	0.866	1.101	0.024	0.069	1.836
%RSD		1.407	1.487	1.550	1.144	0.324	1.781	2.130	0.738	2.390	1.083

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:06:46	155.700	163.100	1.235	0.208	5786.000	5867.000	49.480	4.988	-0.975	TM 1791.000
2	07:07:13	157.900	164.300	0.969	0.201	5855.000	5902.000	47.350	4.397	0.721	TM 1785.000
3	07:07:41	157.500	166.300	0.687	0.409	5869.000	5989.000	48.470	4.609	-0.497	TM 1799.000
x		157.000	164.500	0.964	0.273	5837.000	5920.000	48.430	4.665	-0.250	TM 1792.000
σ		1.134	1.601	0.274	0.119	44.550	62.620	1.069	0.299	0.875	TM 7.229
%RSD		0.722	0.973	28.420	43.450	0.763	1.058	2.208	6.418	349.500	TM 0.403

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:06:46	114.5%	25.320	26.260	25.420	62.540	1.826	1.763	0.062	0.142	112.8%
2	07:07:13	114.0%	25.440	25.590	25.350	59.260	1.814	1.747	0.004	0.128	112.8%
3	07:07:41	114.2%	25.590	26.080	25.520	60.140	1.784	1.740	0.081	0.139	112.6%
x		114.2%	25.450	25.980	25.430	60.640	1.808	1.750	0.049	0.136	112.7%
σ		0.3%	0.135	0.349	0.088	1.698	0.022	0.011	0.040	0.007	0.1%
%RSD		0.2	0.528	1.342	0.345	2.800	1.197	0.649	82.330	5.299	0.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:06:46	1.519	2.139	0.569	0.545	17.290	17.050	121.9%	-0.024	-0.021	0.371
2	07:07:13	1.590	2.028	0.568	0.545	16.870	16.740	121.3%	-0.022	-0.020	0.399
3	07:07:41	1.538	2.097	0.511	0.551	17.050	16.860	121.3%	-0.018	-0.017	0.426
x		1.549	2.088	0.549	0.547	17.070	16.880	121.5%	-0.021	-0.019	0.399
σ		0.036	0.056	0.033	0.004	0.212	0.161	0.4%	0.003	0.002	0.028
%RSD		2.350	2.692	6.085	0.663	1.241	0.954	0.3	16.020	9.361	6.957

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:06:46	0.337	0.357	113.1%
2	07:07:13	0.326	0.356	112.1%
3	07:07:41	0.363	0.378	113.6%
x		0.342	0.364	112.9%
σ		0.019	0.012	0.8%
%RSD		5.582	3.365	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:12:46	112.2%	-0.024	16.980	18.070	28.520	T 15030.000	T 6247.000	T 6010.000	T 5987.000	8.164
2	07:13:13	114.7%	-0.012	17.750	17.430	28.800	T 15370.000	T 6247.000	T 5977.000	T 5970.000	8.440
3	07:13:39	113.8%	-0.014	19.250	18.180	40.210	T 14980.000	T 6256.000	T 6084.000	T 6088.000	8.545
x		113.6%	-0.017	17.990	17.890	32.510	T 15130.000	T 6250.000	T 6024.000	T 6015.000	8.383
σ		1.3%	0.007	1.152	0.403	6.673	T 214.000	T 5.267	T 54.740	T 63.840	0.197
%RSD		1.1	41.240	6.400	2.249	20.530	T 1.415	T 0.084	T 0.909	T 1.061	2.349

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:12:46	22.330	T 54380.000	T 1327.000	6991.000	6444.000	110.4%	0.090	-0.259	0.365	2649.000
2	07:13:13	22.010	T 52800.000	T 1310.000	6976.000	6430.000	114.1%	0.164	-0.036	0.353	2396.000
3	07:13:39	22.470	T 55310.000	1321.000	6947.000	6476.000	107.2%	0.066	-0.110	0.370	2698.000
x		22.270	T 54160.000	T 1319.000	6971.000	6450.000	110.5%	0.107	-0.135	0.363	2581.000
σ		0.234	T 1270.000	T 8.812	22.330	23.540	3.5%	0.051	0.114	0.009	162.300
%RSD		1.052	T 2.345	T 0.668	0.320	0.365	3.1	47.910	84.190	2.484	6.287

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:12:46	5.022	0.220	6.638	46.920	-0.013	0.583	1.083	0.298	0.249	1.034
2	07:13:13	4.374	0.210	6.114	37.660	-0.014	0.571	1.195	0.265	0.221	0.958
3	07:13:39	6.716	0.195	7.033	57.110	-0.013	0.530	1.185	0.237	0.234	1.164
x		5.371	0.208	6.595	47.230	-0.013	0.561	1.154	0.267	0.235	1.052
σ		1.209	0.012	0.461	9.730	0.001	0.028	0.062	0.031	0.014	0.104
%RSD		22.510	6.001	6.997	20.600	4.821	4.949	5.385	11.510	5.871	9.907

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:12:46	0.994	1.019	-0.172	1.292	40.570	41.620	3.072	0.587	-1.876	31.150
2	07:13:13	1.115	0.899	-0.130	1.006	38.780	39.480	1.838	0.316	-1.340	30.670
3	07:13:39	1.113	0.948	-0.262	1.894	36.840	38.480	-0.026	-0.057	-3.780	31.040
x		1.074	0.955	-0.188	1.397	38.730	39.860	1.628	0.282	-2.332	30.950
σ		0.070	0.060	0.067	0.453	1.864	1.608	1.560	0.323	1.282	0.253
%RSD		6.475	6.330	35.800	32.450	4.812	4.033	95.830	114.600	54.990	0.817

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:12:46	116.4%	-0.004	0.026	0.001	2.224	0.006	0.006	-0.004	0.019	120.3%
2	07:13:13	121.7%	-0.015	0.000	-0.005	1.692	0.007	0.003	-0.004	-0.014	125.1%
3	07:13:39	116.9%	-0.004	0.002	-0.004	2.228	0.005	0.006	-0.004	0.003	121.2%
x		118.3%	-0.008	0.009	-0.003	2.048	0.006	0.005	-0.004	0.003	122.2%
σ		2.9%	0.006	0.014	0.003	0.308	0.001	0.002	0.000	0.016	2.6%
%RSD		2.5	79.300	154.500	115.700	15.030	18.530	31.060	0.337	635.900	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:12:46	7.872	11.420	0.043	0.024	0.305	0.334	125.7%	-0.018	-0.027	-0.022
2	07:13:13	7.787	11.360	0.045	0.044	0.270	0.363	129.2%	-0.022	-0.023	-0.024
3	07:13:39	7.788	11.150	0.034	0.027	0.294	0.352	125.2%	-0.016	-0.024	-0.031
x		7.816	11.310	0.040	0.032	0.290	0.350	126.7%	-0.019	-0.024	-0.026
σ		0.049	0.144	0.006	0.011	0.018	0.015	2.2%	0.003	0.002	0.005
%RSD		0.623	1.273	14.740	35.090	6.213	4.258	1.7	15.520	8.593	19.580

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:12:46	-0.006	-0.010	127.2%
2	07:13:13	-0.010	-0.016	129.0%
3	07:13:39	-0.010	-0.018	126.1%
x		-0.009	-0.015	127.4%
σ		0.002	0.004	1.5%
%RSD		22.110	26.810	1.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:18:43	111.1%	-0.033	15.720	14.840	38.750	T 14910.000	T 6147.000	T 5965.000	T 5960.000	8.889
2	07:19:10	111.5%	-0.020	15.410	14.110	40.930	T 15070.000	T 6166.000	T 5907.000	T 5874.000	8.537
3	07:19:37	113.5%	-0.034	14.480	14.190	40.680	T 14580.000	T 6098.000	T 5812.000	T 5836.000	8.472
x		112.0%	-0.029	15.200	14.380	40.120	T 14850.000	T 6137.000	T 5895.000	T 5890.000	8.632
σ		1.3%	0.008	0.647	0.400	1.191	T 247.800	T 35.180	T 77.120	T 63.740	0.224
%RSD		1.1	26.360	4.256	2.783	2.969	T 1.669	T 0.573	T 1.308	T 1.082	2.600

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:18:43	20.450	T 54020.000	1289.000	6895.000	6413.000	108.0%	0.074	-0.074	0.397	2810.000
2	07:19:10	20.550	T 54060.000	T 1290.000	6867.000	6405.000	109.8%	0.082	-0.258	0.390	2811.000
3	07:19:37	20.110	T 53860.000	T 1295.000	6789.000	6410.000	108.8%	0.083	-0.113	0.390	2800.000
x		20.370	T 53980.000	T 1291.000	6850.000	6409.000	108.8%	0.080	-0.148	0.392	2807.000
σ		0.233	T 107.700	T 3.580	54.530	3.811	0.9%	0.005	0.097	0.004	6.117
%RSD		1.142	T 0.200	T 0.277	0.796	0.059	0.8	5.793	65.600	0.950	0.218

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:18:43	5.212	0.143	7.469	54.710	-0.017	0.590	1.463	0.246	0.266	1.357
2	07:19:10	4.376	0.127	6.469	48.830	-0.013	0.612	1.001	0.194	0.245	1.254
3	07:19:37	4.255	0.126	6.123	46.880	-0.006	0.469	1.262	0.246	0.218	1.270
x		4.614	0.132	6.687	50.140	-0.012	0.557	1.242	0.229	0.243	1.293
σ		0.521	0.010	0.699	4.074	0.005	0.077	0.232	0.030	0.024	0.055
%RSD		11.300	7.309	10.450	8.124	44.860	13.820	18.670	13.090	9.838	4.288

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:18:43	1.558	1.045	0.100	0.905	20.340	22.480	6.319	1.303	-0.846	30.750
2	07:19:10	1.215	1.217	0.099	0.588	20.890	21.060	1.172	0.230	-3.393	30.860
3	07:19:37	1.345	1.096	-0.011	1.075	20.920	21.860	3.380	0.675	-2.526	30.840
x		1.373	1.119	0.063	0.856	20.710	21.800	3.624	0.736	-2.255	30.820
σ		0.173	0.089	0.064	0.247	0.327	0.715	2.582	0.540	1.295	0.057
%RSD		12.600	7.914	101.700	28.900	1.577	3.281	71.260	73.320	57.430	0.184

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:18:43	114.4%	-0.011	-0.000	-0.013	1.054	0.006	0.005	-0.004	-0.007	117.6%
2	07:19:10	114.3%	-0.026	-0.012	-0.006	2.258	0.007	0.006	0.009	0.025	118.3%
3	07:19:37	115.0%	-0.011	-0.007	-0.012	2.044	0.009	0.004	0.001	0.022	119.4%
x		114.6%	-0.016	-0.006	-0.011	1.786	0.007	0.005	0.002	0.013	118.4%
σ		0.4%	0.009	0.006	0.004	0.642	0.001	0.001	0.006	0.017	0.9%
%RSD		0.3	54.250	95.090	34.870	35.980	20.640	24.820	326.400	129.000	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:18:43	7.689	11.070	0.014	0.035	0.480	0.485	122.3%	-0.024	-0.028	-0.025
2	07:19:10	7.753	10.840	0.010	0.018	0.472	0.440	123.9%	-0.026	-0.025	-0.019
3	07:19:37	7.667	10.810	0.023	0.021	0.463	0.445	125.8%	-0.020	-0.026	-0.019
x		7.703	10.910	0.016	0.025	0.471	0.456	124.0%	-0.023	-0.027	-0.021
σ		0.045	0.143	0.007	0.009	0.009	0.025	1.7%	0.003	0.001	0.004
%RSD		0.584	1.307	41.990	36.940	1.839	5.405	1.4	12.600	4.962	17.950

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:18:43	-0.007	-0.012	122.9%
2	07:19:10	0.003	-0.010	124.2%
3	07:19:37	-0.003	-0.012	126.3%
x		-0.002	-0.011	124.5%
σ		0.005	0.001	1.7%
%RSD		233.400	10.840	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:24:41	106.0%	-0.012	171.400	166.300	51.250	┬89700.000	┬4895.000	┬4785.000	┬4812.000	19.190
2	07:25:09	107.4%	-0.036	167.400	166.100	50.470	┬88760.000	┬4878.000	┬4708.000	┬4708.000	19.210
3	07:25:37	108.6%	-0.014	165.400	160.000	41.540	┬89480.000	┬4853.000	┬4684.000	┬4707.000	18.790
x		107.3%	-0.021	168.000	164.100	47.760	┬89310.000	┬4876.000	┬4726.000	┬4742.000	19.070
σ		1.3%	0.014	3.041	3.580	5.394	┬490.500	┬21.540	┬53.100	┬60.230	0.239
%RSD		1.2	66.680	1.810	2.181	11.290	┬0.549	┬0.442	┬1.124	┬1.270	1.253

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:24:41	┬4861.000	┬54210.000	┬14960.000	13910.000	13260.000	103.3%	6.000	0.547	0.687	3603.000
2	07:25:09	┬4798.000	┬53840.000	┬14910.000	14090.000	13370.000	103.5%	6.212	0.999	0.709	3471.000
3	07:25:37	┬4757.000	┬53380.000	┬15080.000	13940.000	13300.000	104.8%	6.213	0.583	0.655	3677.000
x		┬4806.000	┬53810.000	┬14980.000	13980.000	13310.000	103.9%	6.142	0.710	0.684	3584.000
σ		┬52.360	┬416.700	┬86.440	94.430	55.580	0.8%	0.123	0.251	0.027	104.200
%RSD		┬1.090	┬0.775	┬0.577	0.675	0.418	0.8	1.997	35.370	3.908	2.909

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:24:41	171.800	152.200	177.400	271.300	0.711	5.271	6.049	0.999	0.990	21.300
2	07:25:09	175.100	154.100	181.300	276.400	0.748	5.102	5.570	1.066	0.940	21.600
3	07:25:37	173.100	152.300	178.600	262.300	0.715	5.140	5.741	1.000	1.004	21.150
x		173.300	152.900	179.100	270.000	0.725	5.171	5.787	1.022	0.978	21.350
σ		1.699	1.061	1.983	7.140	0.020	0.089	0.243	0.038	0.034	0.230
%RSD		0.980	0.694	1.107	2.645	2.808	1.717	4.200	3.756	3.450	1.075

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:24:41	19.470	20.460	0.201	0.444	39.790	38.140	-0.647	-0.202	-1.046	69.690
2	07:25:09	20.540	20.980	0.192	-0.023	39.520	38.610	-1.558	-0.425	-1.176	69.800
3	07:25:37	20.400	20.220	0.371	0.460	41.170	39.840	-3.364	-0.831	-0.835	69.880
x		20.140	20.550	0.255	0.294	40.160	38.860	-1.857	-0.486	-1.019	69.790
σ		0.582	0.387	0.101	0.274	0.888	0.877	1.383	0.319	0.172	0.094
%RSD		2.888	1.885	39.520	93.360	2.211	2.255	74.490	65.660	16.880	0.135

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:24:41	111.2%	0.246	0.269	0.245	3.314	0.014	0.007	0.011	0.029	112.3%
2	07:25:09	110.7%	0.281	0.265	0.273	2.395	0.011	0.007	0.016	0.018	113.7%
3	07:25:37	112.4%	0.292	0.328	0.249	2.865	0.012	0.013	0.005	0.014	115.8%
x		111.4%	0.273	0.287	0.256	2.858	0.012	0.009	0.011	0.020	113.9%
σ		0.9%	0.024	0.035	0.015	0.460	0.001	0.003	0.005	0.008	1.8%
%RSD		0.8	8.663	12.230	5.983	16.080	10.750	37.520	49.480	39.740	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:24:41	1.490	2.106	0.355	0.337	1.896	1.832	119.6%	-0.019	-0.028	0.043
2	07:25:09	1.473	1.973	0.346	0.322	1.889	1.839	119.7%	-0.022	-0.027	0.056
3	07:25:37	1.418	1.981	0.338	0.368	1.898	1.778	122.5%	-0.026	-0.029	0.018
x		1.461	2.020	0.346	0.342	1.894	1.817	120.6%	-0.023	-0.028	0.039
σ		0.038	0.074	0.009	0.023	0.004	0.033	1.6%	0.003	0.001	0.019
%RSD		2.574	3.686	2.534	6.809	0.236	1.830	1.3	14.260	3.669	48.670

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:24:41	0.062	0.054	118.0%
2	07:25:09	0.071	0.050	118.8%
3	07:25:37	0.056	0.040	121.0%
x		0.063	0.048	119.3%
σ		0.007	0.007	1.6%
%RSD		11.710	14.530	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:30:41	107.8%	-0.051	165.300	160.200	55.840	┬88150.000	┬4942.000	┬4752.000	┬4803.000	11.720
2	07:31:07	107.5%	-0.025	163.500	161.600	44.630	┬89910.000	┬4835.000	┬4690.000	┬4745.000	11.710
3	07:31:34	109.2%	-0.037	168.600	163.200	52.950	┬88870.000	┬4885.000	┬4694.000	┬4745.000	11.770
x		108.1%	-0.038	165.800	161.700	51.140	┬88970.000	┬4887.000	┬4712.000	┬4764.000	11.730
σ		0.9%	0.013	2.585	1.475	5.818	┬884.300	┬53.740	┬34.820	┬33.340	0.030
%RSD		0.9	34.990	1.559	0.912	11.380	┬0.994	┬1.100	┬0.739	┬0.700	0.258
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:30:41	┬4802.000	┬53210.000	┬14530.000	13930.000	13120.000	103.9%	6.440	0.669	0.653	3571.000
2	07:31:07	┬4815.000	┬53010.000	┬14680.000	14010.000	13090.000	104.1%	5.784	0.963	0.708	3572.000
3	07:31:34	┬4733.000	┬53780.000	┬14720.000	13800.000	13150.000	104.6%	5.530	0.407	0.684	3796.000
x		┬4783.000	┬53330.000	┬14640.000	13910.000	13120.000	104.2%	5.918	0.680	0.682	3646.000
σ		┬44.380	┬397.200	┬100.700	105.000	29.280	0.4%	0.470	0.278	0.028	129.200
%RSD		┬0.928	┬0.745	┬0.688	0.754	0.223	0.4	7.938	40.930	4.112	3.544
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:30:41	86.230	109.000	86.130	176.600	0.658	5.164	5.243	0.718	0.652	20.050
2	07:31:07	83.220	108.700	85.650	176.000	0.657	5.067	5.247	0.758	0.774	20.200
3	07:31:34	85.330	109.000	86.180	180.400	0.680	5.185	5.613	0.751	0.708	20.630
x		84.930	108.900	85.990	177.700	0.665	5.139	5.368	0.743	0.711	20.290
σ		1.541	0.196	0.292	2.416	0.013	0.063	0.213	0.021	0.061	0.299
%RSD		1.815	0.180	0.340	1.360	1.943	1.217	3.962	2.862	8.534	1.471
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:30:41	19.100	19.460	0.412	-0.248	37.330	36.330	0.017	-0.126	0.074	69.170
2	07:31:07	18.030	19.360	-0.187	0.247	36.560	38.330	0.198	-0.010	-1.577	69.260
3	07:31:34	19.320	19.680	0.183	0.315	36.730	36.440	-1.476	-0.415	-1.096	69.800
x		18.820	19.500	0.136	0.105	36.870	37.030	-0.420	-0.184	-0.866	69.410
σ		0.690	0.166	0.302	0.307	0.402	1.122	0.919	0.208	0.849	0.339
%RSD		3.666	0.850	222.700	293.500	1.090	3.030	218.600	113.300	98.060	0.488
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:30:41	112.6%	0.256	0.244	0.258	2.829	0.007	0.003	0.005	0.029	116.7%
2	07:31:07	112.2%	0.219	0.247	0.262	2.243	0.002	0.003	0.022	0.018	113.7%
3	07:31:34	111.7%	0.253	0.302	0.232	1.453	0.003	0.000	0.008	0.009	115.4%
x		112.2%	0.243	0.264	0.251	2.175	0.004	0.002	0.012	0.019	115.3%
σ		0.5%	0.021	0.033	0.016	0.691	0.003	0.001	0.009	0.010	1.5%
%RSD		0.4	8.621	12.330	6.516	31.760	66.190	77.910	74.530	52.420	1.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:30:41	1.363	1.957	0.340	0.324	2.074	2.088	122.7%	-0.023	-0.027	0.034
2	07:31:07	1.535	2.007	0.340	0.312	2.066	2.161	122.2%	-0.024	-0.028	0.025
3	07:31:34	1.469	1.989	0.322	0.311	2.283	1.986	121.6%	-0.028	-0.030	0.029
x		1.455	1.984	0.334	0.315	2.141	2.079	122.1%	-0.025	-0.028	0.029
σ		0.087	0.025	0.010	0.008	0.123	0.088	0.6%	0.002	0.001	0.004
%RSD		5.974	1.268	3.013	2.452	5.760	4.227	0.5	9.071	5.254	15.210
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	07:30:41	0.029	0.031	118.7%							
2	07:31:07	0.054	0.040	120.0%							
3	07:31:34	0.047	0.040	120.9%							
x		0.043	0.037	119.9%							
σ		0.013	0.005	1.1%							
%RSD		29.860	14.510	0.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:36:38	110.9%	-0.004	19.770	21.380	67.080	T5335.000	T2083.000	1899.000	1901.000	T374.200
2	07:37:06	111.6%	0.019	21.020	19.940	71.980	T5369.000	T2098.000	1895.000	1923.000	T377.100
3	07:37:33	110.9%	-0.000	22.180	21.420	71.020	T5360.000	T2101.000	1894.000	1907.000	T373.500
x		111.1%	0.005	20.990	20.920	70.030	T5355.000	T2094.000	1896.000	1910.000	T374.900
σ		0.4%	0.013	1.206	0.844	2.595	T17.680	T9.401	2.866	11.270	T1.930
%RSD		0.4	252.500	5.745	4.034	3.706	T0.330	T0.449	0.151	0.590	T0.515

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:36:38	T3255.000	T52400.000	T1961.000	5443.000	5115.000	105.5%	10.140	1.678	1.123	3401.000
2	07:37:06	T3295.000	T52720.000	T1962.000	5557.000	5113.000	105.3%	9.552	1.712	1.064	3397.000
3	07:37:33	T3287.000	T53120.000	T1954.000	5502.000	5123.000	105.3%	9.318	1.705	1.045	3402.000
x		T3279.000	T52750.000	T1959.000	5501.000	5117.000	105.4%	9.670	1.698	1.078	3400.000
σ		T21.490	T361.300	T3.978	56.760	5.484	0.1%	0.424	0.018	0.040	2.791
%RSD		T0.655	T0.685	T0.203	1.032	0.107	0.1	4.388	1.050	3.752	0.082

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:36:38	769.500	101.600	T833.800	800.400	0.326	1.204	6.518	2.325	1.991	2.987
2	07:37:06	769.800	101.900	T835.200	799.500	0.333	1.190	7.375	2.267	1.990	3.206
3	07:37:33	772.700	100.800	T825.300	800.000	0.319	1.202	7.546	2.347	2.158	3.232
x		770.700	101.500	T831.500	800.000	0.326	1.198	7.146	2.313	2.046	3.141
σ		1.743	0.576	T5.354	0.427	0.007	0.007	0.551	0.041	0.097	0.135
%RSD		0.226	0.567	T0.644	0.053	2.182	0.620	7.713	1.791	4.733	4.290

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:36:38	4.252	3.998	0.334	-0.134	20.610	21.510	-2.022	-0.485	-1.645	37.950
2	07:37:06	4.053	3.831	0.232	0.290	20.180	19.170	-2.056	-0.487	-2.862	37.780
3	07:37:33	4.744	4.140	0.194	-0.157	21.370	20.870	-1.064	-0.273	-2.936	38.010
x		4.350	3.990	0.253	-0.001	20.720	20.520	-1.714	-0.415	-2.481	37.920
σ		0.356	0.155	0.073	0.252	0.605	1.209	0.563	0.123	0.725	0.120
%RSD		8.183	3.877	28.640	37590.000	2.920	5.890	32.840	29.660	29.210	0.317

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:36:38	115.8%	0.125	0.143	0.125	1.826	0.004	0.002	0.011	0.007	117.4%
2	07:37:06	116.5%	0.129	0.123	0.116	1.197	0.004	0.002	-0.002	-0.005	119.9%
3	07:37:33	114.9%	0.135	0.164	0.128	2.629	0.008	0.005	0.006	0.021	118.5%
x		115.7%	0.129	0.143	0.123	1.884	0.006	0.003	0.005	0.007	118.6%
σ		0.8%	0.005	0.021	0.006	0.718	0.002	0.001	0.007	0.013	1.2%
%RSD		0.7	3.905	14.320	4.793	38.090	42.330	41.640	133.700	175.000	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:36:38	1.238	1.718	0.099	0.068	21.930	21.940	123.0%	-0.023	-0.020	0.572
2	07:37:06	1.136	1.685	0.062	0.088	22.190	21.330	124.9%	-0.025	-0.023	0.587
3	07:37:33	1.257	1.696	0.089	0.091	21.540	22.280	123.6%	-0.020	-0.023	0.584
x		1.210	1.700	0.084	0.082	21.890	21.850	123.8%	-0.023	-0.022	0.581
σ		0.065	0.017	0.019	0.012	0.327	0.482	1.0%	0.002	0.002	0.008
%RSD		5.362	0.988	23.000	14.950	1.496	2.207	0.8	10.750	8.466	1.306

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:36:38	0.547	0.560	124.8%
2	07:37:06	0.551	0.563	128.2%
3	07:37:33	0.553	0.554	126.9%
x		0.550	0.559	126.6%
σ		0.003	0.005	1.7%
%RSD		0.579	0.851	1.3

UE02078-003dis 05/09/2019 07:42:08

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:42:35	108.9%	-0.009	19.670	19.210	81.650	┬5155.000	┬1992.000	1798.000	1816.000	┬93.270
2	07:43:02	111.6%	0.025	21.270	19.710	78.670	┬5171.000	┬1992.000	1802.000	1806.000	┬94.040
3	07:43:29	112.1%	-0.021	19.880	19.490	73.290	┬5107.000	┬1938.000	1758.000	1780.000	┬93.340
x		110.9%	-0.002	20.270	19.470	77.870	┬5144.000	┬1974.000	1786.000	1801.000	┬93.550
σ		1.8%	0.024	0.867	0.249	4.236	┬33.260	┬31.300	24.640	18.770	┬0.430
%RSD		1.6	1403.000	4.276	1.280	5.439	┬0.647	┬1.586	1.379	1.042	┬0.460

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:42:35	┬2919.000	┬53460.000	┬1829.000	5287.000	4860.000	103.2%	2.799	0.798	0.818	3407.000
2	07:43:02	┬2844.000	┬53230.000	┬1818.000	5235.000	4866.000	104.1%	3.025	0.782	0.722	3479.000
3	07:43:29	┬2822.000	┬53280.000	┬1822.000	5318.000	4864.000	104.6%	2.824	0.647	0.738	3508.000
x		┬2862.000	┬53330.000	┬1823.000	5280.000	4863.000	104.0%	2.883	0.742	0.760	3465.000
σ		┬51.070	┬123.600	┬5.488	41.900	3.120	0.7%	0.124	0.083	0.052	51.880
%RSD		┬1.785	┬0.232	┬0.301	0.794	0.064	0.7	4.312	11.150	6.780	1.497

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:42:35	316.800	3.985	┬340.200	349.000	0.065	1.042	8.453	2.079	1.617	2.026
2	07:43:02	303.700	3.837	┬334.500	341.500	0.051	0.972	9.997	1.972	1.611	1.988
3	07:43:29	305.600	3.897	┬338.300	337.100	0.048	1.070	9.492	2.057	1.693	2.117
x		308.700	3.906	┬337.700	342.500	0.055	1.028	9.314	2.036	1.641	2.044
σ		7.067	0.075	┬2.909	6.045	0.009	0.050	0.787	0.056	0.046	0.066
%RSD		2.289	1.915	┬0.862	1.765	16.330	4.901	8.453	2.772	2.790	3.244

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:42:35	2.607	2.637	0.455	-0.178	18.200	18.480	-1.302	-0.329	-3.226	36.450
2	07:43:02	3.053	2.697	0.525	0.107	17.730	18.430	-1.579	-0.372	-3.016	35.970
3	07:43:29	2.673	2.536	0.212	0.391	18.610	17.360	1.221	0.235	-2.775	36.320
x		2.778	2.623	0.397	0.107	18.180	18.090	-0.553	-0.155	-3.006	36.250
σ		0.241	0.081	0.164	0.284	0.442	0.630	1.543	0.339	0.226	0.246
%RSD		8.659	3.090	41.390	266.400	2.433	3.480	278.800	218.300	7.515	0.679

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:42:35	111.7%	0.080	0.154	0.109	1.981	0.004	0.004	-0.004	0.012	116.3%
2	07:43:02	113.6%	0.088	0.124	0.114	0.725	0.009	0.005	0.003	0.003	116.6%
3	07:43:29	114.8%	0.128	0.111	0.091	1.582	0.005	0.001	0.001	0.002	117.5%
x		113.4%	0.099	0.130	0.105	1.429	0.006	0.003	-0.000	0.006	116.8%
σ		1.5%	0.026	0.022	0.012	0.642	0.003	0.002	0.004	0.005	0.6%
%RSD		1.3	25.930	17.020	11.600	44.900	42.610	72.450	2464.000	99.190	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:42:35	1.293	1.836	0.072	0.067	18.170	18.250	120.5%	-0.019	-0.028	0.141
2	07:43:02	1.275	1.931	0.096	0.073	17.740	17.400	122.4%	-0.022	-0.024	0.124
3	07:43:29	1.337	1.892	0.061	0.078	17.940	18.060	122.5%	-0.023	-0.023	0.137
x		1.302	1.887	0.076	0.073	17.950	17.900	121.8%	-0.021	-0.025	0.134
σ		0.032	0.048	0.018	0.006	0.215	0.445	1.1%	0.002	0.003	0.009
%RSD		2.463	2.534	23.160	7.757	1.198	2.487	0.9	9.060	10.830	6.493

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:42:35	0.132	0.136	124.9%
2	07:43:02	0.140	0.135	125.9%
3	07:43:29	0.128	0.136	125.0%
x		0.133	0.135	125.3%
σ		0.006	0.001	0.5%
%RSD		4.611	0.444	0.4

UE02078-004 05/09/2019 07:48:06

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:48:33	109.7%	0.009	19.010	18.430	69.570	T 5705.000	T 2116.000	1900.000	1915.000	TM 516.200
2	07:49:00	110.8%	0.043	20.300	19.250	75.470	T 5624.000	T 2134.000	1932.000	1936.000	TM 527.100
x		110.2%	0.026	19.660	18.840	72.520	T 5664.000	T 2125.000	1916.000	1925.000	TM 521.600
σ		0.8%	0.024	0.910	0.579	4.169	T 57.000	T 12.880	22.400	14.220	TM 7.713
%RSD		0.7	93.830	4.630	3.071	5.750	T 1.006	T 0.606	1.169	0.739	TM 1.479

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:48:33	T 3444.000	T 53020.000	T 2023.000	5384.000	5182.000	104.0%	13.780	1.931	1.178	3230.000
2	07:49:00	T 3426.000	T 53680.000	T 2041.000	5697.000	5217.000	101.7%	13.500	1.997	1.222	3380.000
x		T 3435.000	T 53350.000	T 2032.000	5541.000	5199.000	102.9%	13.640	1.964	1.200	3305.000
σ		T 12.670	T 463.500	T 13.130	221.400	24.300	1.7%	0.199	0.047	0.031	106.000
%RSD		T 0.369	T 0.869	T 0.646	3.996	0.467	1.6	1.461	2.379	2.607	3.206

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:48:33	903.800	117.200	T 1004.000	954.300	0.437	1.299	11.180	2.637	2.171	3.669
2	07:49:00	896.100	117.500	T 992.800	968.100	0.425	1.419	9.988	2.688	2.274	3.837
x		900.000	117.300	T 998.300	961.200	0.431	1.359	10.580	2.662	2.223	3.753
σ		5.468	0.223	T 7.716	9.727	0.008	0.085	0.842	0.036	0.073	0.119
%RSD		0.608	0.190	T 0.773	1.012	1.931	6.245	7.958	1.351	3.288	3.164

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:48:33	4.891	4.480	-0.000	0.534	17.230	16.020	-1.136	-0.309	-0.766	38.710
2	07:49:00	5.044	4.588	0.228	0.059	16.340	16.900	-0.979	-0.212	-3.480	38.500
x		4.967	4.534	0.114	0.297	16.790	16.460	-1.057	-0.260	-2.123	38.610
σ		0.108	0.076	0.161	0.336	0.623	0.620	0.112	0.069	1.919	0.147
%RSD		2.182	1.680	141.700	113.100	3.710	3.766	10.550	26.430	90.380	0.380

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:48:33	113.9%	0.128	0.091	0.130	1.499	0.007	0.010	0.009	0.024	115.8%
2	07:49:00	114.3%	0.089	0.067	0.105	1.675	0.006	0.004	0.011	0.011	115.5%
x		114.1%	0.108	0.079	0.118	1.587	0.006	0.007	0.010	0.017	115.6%
σ		0.3%	0.027	0.017	0.017	0.125	0.000	0.004	0.002	0.009	0.2%
%RSD		0.3	24.880	21.950	14.830	7.860	6.303	62.390	19.790	52.170	0.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:48:33	1.269	1.805	0.067	0.084	23.170	22.910	121.0%	-0.025	-0.021	0.741
2	07:49:00	1.259	1.841	0.100	0.120	23.040	22.580	121.8%	-0.016	-0.023	0.713
x		1.264	1.823	0.084	0.102	23.110	22.740	121.4%	-0.020	-0.022	0.727
σ		0.007	0.025	0.023	0.025	0.094	0.232	0.5%	0.006	0.001	0.020
%RSD		0.524	1.372	27.810	24.960	0.408	1.018	0.4	31.310	5.246	2.758

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:48:33	0.690	0.681	124.1%
2	07:49:00	0.670	0.679	123.1%
x		0.680	0.680	123.6%
σ		0.014	0.001	0.6%
%RSD		2.061	0.201	0.5

Performance Report

Raw Supportive Data

Analyst: JMH **Level 2 Analyst:** TJW

Status: Level 2 review released

Matrix: Aqueous

Printed: 05/07/19 1425

Prep Batch: 14282

3005A - Total Recoverable Acid Digestion (ICP-MS) Linked: 6020A,6020B and

Start Date: 04/23/2019 1602

End Date: 04/23/2019 2102

Digestion Cup ID: 19-524

Ext Solvent: 1:1 HNO3/1:1 HCl

Reagents Vol. (mL): 1.0, 0.5

Chem ID: IM9360-01, IM9361-01

Hot Block ID: Hot Block # 9

Start Temperature (°C): 95

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ14282-001	MB	PBW	1	6020B	50		0.0	50			LCS/MS/MSD Pipet ID: 315
UQ14282-002	LCS	LCS	1	6020B	50	19-29A (1/04/20)	0.5	50			
UD13009-001	Sample	16C1	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-002	Sample	16MW8	1	6020B	50		0.0	50	10/07/2019 2359	04/23/2019	
UD13009-003	Sample	16MW9	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-004	Sample	16WC1A	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-004MS	MS	16WC1AS	1	6020B	50	19-29A (1/04/20)	0.5	50			
UD13009-004MD	MSD	16WC1ASD	1	6020B	50	19-29A (1/04/20)	0.5	50			
UD13009-005	Sample	16WDUP	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-006	Sample	16WC1B	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13010-001	Sample	16-2	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-002	Sample	16-3	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-003	Sample	16-5	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-004	Sample	16WC2B	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-005	Sample	16SPRING	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	

(end of report) **Total Samples: 11**

Analyst: JMH **Level 2 Analyst:** TJW

Status: Level 2 review released

Matrix: Aqueous

Printed: 05/13/19 0907

Prep Batch: 15923

3005A - Total Recoverable Acid Digestion (ICP-MS) Linked: 6020A,6020B and

Start Date: 05/07/2019 1828

End Date: 05/07/2019 2328

Digestion Cup ID: 19-832

Ext Solvent: 1:1 HNO3/1:1 HCl

Reagents Vol. (mL): 1.0, 0.5

Chem ID: IM9400-01, IM8396-01

Hot Block ID: Hot Block # 9

Start Temperature (°C): 96

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ15923-001	MB	PBW	1	6020B	50		0.0	50			LCS/MS/MSD Pipet ID: 315
UQ15923-002	LCS	LCS	1	6020B	50	19-29G	0.5	50			
UD20014-001	Sample	MW-13	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-002	Sample	MW-12	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-002MS	MS	MW-12S	1	6020B	50	19-29G	0.5	50			
UD20014-002MD	MSD	MW-12SD	1	6020B	50	19-29G	0.5	50			
UD20014-003	Sample	MW-19	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-004	Sample	MW-20	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-005	Sample	MW-26	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-006	Sample	MW-25D	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-007	Sample	MW-18	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD20014-008	Sample	MW-16	1	6020B	50		0.0	50	10/15/2019 2359	05/16/2019	
UD13009-002	Sample	16MW8	2	6020B	50		0.0	50	10/07/2019 2359	04/23/2019	

(end of report) **Total Samples: 9**

Mercury

- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: Draper Aden Associates

SDG No.: UD13009 **Method Type:** CVAA **SOW No.:**

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Lab Sample ID	Client Sample ID	QC Description
UD13009-001	16C1	
UD13009-002	16MW8	
UD13009-003	16MW9	
UD13009-004	16WC1A	
UD13009-004S	16WC1AS	Matrix Spike
UD13009-004SD	16WC1ASD	Matrix Spike Duplicate
UD13009-005	16WDUP	
UD13009-006	16WC1B	

Were ICP interelement corrections applied? Yes/No Yes

Were ICP background corrections applied? Yes/No Yes

If yes - were raw data generated before applications of background corrections? Yes/No No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1	Mercury	2.033000	2.000000	102	90.0 - 110.0	CV	4/17/2019	18:56	HG4041719
CCV1	Mercury	1.936000	2.000000	97	80.0 - 120.0	CV	4/17/2019	19:03	HG4041719
CCV2	Mercury	2.042500	2.000000	102	80.0 - 120.0	CV	4/18/2019	02:07	HG4041719
CCV3	Mercury	2.015300	2.000000	101	80.0 - 120.0	CV	4/18/2019	02:37	HG4041719
CCV4	Mercury	2.039300	2.000000	102	80.0 - 120.0	CV	4/18/2019	03:08	HG4041719
CCV5	Mercury	2.006000	2.000000	100	80.0 - 120.0	CV	4/18/2019	03:31	HG4041719

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No:** **SAS No.:**

AA CRDL Standard Source:

ICP CRDL Standard Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV 19HG0567									
	Mercury	0.197700	0.200000	99	50 - 150	CV	4/17/2019	19:01	HG4041719

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13009

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	DL	LOQ	M	Analysis Date	Analysis Time	Run
ICB1	Mercury	-0.004000	+/-2.000000	U	0.120000	2.000000	CV	4/17/2019	18:58	HG4041719
CCB1	Mercury	-0.024100	+/-2.000000	U	0.120000	2.000000	CV	4/17/2019	19:06	HG4041719
CCB2	Mercury	0.008700	+/-2.000000	U	0.120000	2.000000	CV	4/18/2019	02:09	HG4041719
CCB3	Mercury	0.010000	+/-2.000000	U	0.120000	2.000000	CV	4/18/2019	02:40	HG4041719
CCB4	Mercury	-0.004000	+/-2.000000	U	0.120000	2.000000	CV	4/18/2019	03:10	HG4041719
CCB5	Mercury	0.015300	+/-2.000000	U	0.120000	2.000000	CV	4/18/2019	03:33	HG4041719

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Shealy Environmental Services, I Contract: RAAP HWMU16

Lab Code: Shealy Case No.: Mod. Ref. No.: SDG No.: UD13009

Instrument Type: CV Instrument ID: Hg4

Preparation Method: 7470A

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Mercury	253.70	0.120000

Comments:

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0 19HG0565	1.00	1841																X									
S01 19HG0566	1.00	1843																X									
S02 19HG0567	1.00	1846																X									
S03 19HG0568	1.00	1848																X									
S04 19HG0569	1.00	1851																X									
S05 19HG0570	1.00	1853																X									
ICV1	1.00	1856																X									
ICB1	1.00	1858																X									
LLCCV 19HG0567	1.00	1901																X									
CCV1	1.00	1903																X									
CCB1	1.00	1906																X									
ZZZZZZ	1.00	1908																										
ZZZZZZ	1.00	1911																										
ZZZZZZ	1.00	1913																										
ZZZZZZ	1.00	1916																										
ZZZZZZ	1.00	1918																										
ZZZZZZ	1.00	1921																										
ZZZZZZ	1.00	1923																										
ZZZZZZ	1.00	1926																										
ZZZZZZ	1.00	1928																										
ZZZZZZ	1.00	1931																										
ZZZZZZ	1.00	1933																										
ZZZZZZ	1.00	1936																										
ZZZZZZ	1.00	1938																										
ZZZZZZ	1.00	1941																										
ZZZZZZ	1.00	1943																										
ZZZZZZ	1.00	1946																										
ZZZZZZ	1.00	1948																										
ZZZZZZ	1.00	1951																										
ZZZZZZ	1.00	1953																										
ZZZZZZ	1.00	1956																										
ZZZZZZ	1.00	1958																										
ZZZZZZ	1.00	2001																										
ZZZZZZ	1.00	2004																										
ZZZZZZ	1.00	2006																										
ZZZZZZ	1.00	2009																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2011																								
ZZZZZZ	1.00	2014																								
ZZZZZZ	1.00	2016																								
ZZZZZZ	1.00	2019																								
ZZZZZZ	1.00	2021																								
ZZZZZZ	1.00	2024																								
ZZZZZZ	1.00	2026																								
ZZZZZZ	1.00	2029																								
ZZZZZZ	1.00	2031																								
ZZZZZZ	1.00	2034																								
ZZZZZZ	1.00	2036																								
ZZZZZZ	1.00	2039																								
ZZZZZZ	1.00	2041																								
ZZZZZZ	1.00	2044																								
ZZZZZZ	1.00	2046																								
ZZZZZZ	1.00	2049																								
ZZZZZZ	1.00	2051																								
ZZZZZZ	1.00	2054																								
ZZZZZZ	1.00	2056																								
ZZZZZZ	1.00	2059																								
ZZZZZZ	1.00	2101																								
ZZZZZZ	1.00	2104																								
ZZZZZZ	1.00	2106																								
ZZZZZZ	1.00	2109																								
ZZZZZZ	1.00	2112																								
ZZZZZZ	1.00	2114																								
ZZZZZZ	1.00	2117																								
ZZZZZZ	1.00	2119																								
ZZZZZZ	1.00	2122																								
ZZZZZZ	1.00	2124																								
ZZZZZZ	1.00	2127																								
ZZZZZZ	1.00	2129																								
ZZZZZZ	1.00	2132																								
ZZZZZZ	1.00	2134																								
ZZZZZZ	1.00	2137																								
ZZZZZZ	1.00	2139																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2142																								
ZZZZZZ	1.00	2144																								
ZZZZZZ	1.00	2147																								
ZZZZZZ	1.00	2149																								
ZZZZZZ	1.00	2152																								
ZZZZZZ	1.00	2154																								
ZZZZZZ	1.00	2157																								
ZZZZZZ	1.00	2200																								
ZZZZZZ	1.00	2202																								
ZZZZZZ	1.00	2205																								
ZZZZZZ	1.00	2207																								
ZZZZZZ	1.00	2210																								
ZZZZZZ	1.00	2212																								
ZZZZZZ	1.00	2215																								
ZZZZZZ	1.00	2217																								
ZZZZZZ	1.00	2220																								
ZZZZZZ	1.00	2222																								
ZZZZZZ	1.00	2225																								
ZZZZZZ	1.00	2227																								
ZZZZZZ	1.00	2230																								
ZZZZZZ	1.00	2232																								
ZZZZZZ	1.00	2235																								
ZZZZZZ	1.00	2237																								
ZZZZZZ	1.00	2240																								
ZZZZZZ	1.00	2242																								
ZZZZZZ	1.00	2245																								
ZZZZZZ	1.00	2247																								
ZZZZZZ	1.00	2250																								
ZZZZZZ	1.00	2252																								
ZZZZZZ	1.00	2255																								
ZZZZZZ	1.00	2257																								
ZZZZZZ	1.00	2300																								
ZZZZZZ	1.00	2303																								
ZZZZZZ	1.00	2305																								
ZZZZZZ	1.00	2308																								
ZZZZZZ	1.00	2310																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2313																								
ZZZZZZ	1.00	2315																								
ZZZZZZ	1.00	2318																								
ZZZZZZ	1.00	2320																								
ZZZZZZ	1.00	2323																								
ZZZZZZ	1.00	2325																								
ZZZZZZ	1.00	2328																								
ZZZZZZ	1.00	2330																								
ZZZZZZ	1.00	2333																								
ZZZZZZ	1.00	2335																								
ZZZZZZ	1.00	2338																								
ZZZZZZ	1.00	2340																								
ZZZZZZ	1.00	2343																								
ZZZZZZ	1.00	2345																								
ZZZZZZ	1.00	2348																								
ZZZZZZ	1.00	2350																								
ZZZZZZ	1.00	2353																								
ZZZZZZ	1.00	2356																								
ZZZZZZ	1.00	2358																								
ZZZZZZ	1.00	0001																								
ZZZZZZ	1.00	0003																								
ZZZZZZ	1.00	0006																								
ZZZZZZ	1.00	0008																								
ZZZZZZ	1.00	0011																								
ZZZZZZ	1.00	0013																								
ZZZZZZ	1.00	0016																								
ZZZZZZ	1.00	0018																								
ZZZZZZ	1.00	0021																								
ZZZZZZ	1.00	0023																								
ZZZZZZ	1.00	0026																								
ZZZZZZ	1.00	0028																								
ZZZZZZ	1.00	0031																								
ZZZZZZ	1.00	0033																								
ZZZZZZ	1.00	0036																								
ZZZZZZ	1.00	0038																								
ZZZZZZ	1.00	0041																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0043																										
ZZZZZZ	1.00	0046																										
ZZZZZZ	1.00	0048																										
ZZZZZZ	1.00	0051																										
ZZZZZZ	1.00	0054																										
ZZZZZZ	1.00	0056																										
ZZZZZZ	1.00	0059																										
ZZZZZZ	1.00	0101																										
ZZZZZZ	1.00	0104																										
ZZZZZZ	1.00	0106																										
ZZZZZZ	1.00	0109																										
ZZZZZZ	1.00	0111																										
ZZZZZZ	1.00	0114																										
ZZZZZZ	1.00	0116																										
ZZZZZZ	1.00	0119																										
ZZZZZZ	1.00	0121																										
ZZZZZZ	1.00	0124																										
ZZZZZZ	1.00	0126																										
ZZZZZZ	1.00	0129																										
ZZZZZZ	1.00	0131																										
ZZZZZZ	1.00	0134																										
ZZZZZZ	1.00	0137																										
ZZZZZZ	1.00	0139																										
ZZZZZZ	1.00	0142																										
ZZZZZZ	1.00	0144																										
ZZZZZZ	1.00	0147																										
ZZZZZZ	1.00	0149																										
ZZZZZZ	1.00	0152																										
ZZZZZZ	1.00	0154																										
ZZZZZZ	1.00	0157																										
ZZZZZZ	1.00	0159																										
ZZZZZZ	1.00	0202																										
ZZZZZZ	1.00	0204																										
CCV2	1.00	0207																X										
CCB2	1.00	0209																X										
ZZZZZZ	1.00	0212																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13009

Instrument ID Number: Hg4 Run Number: HG4041719

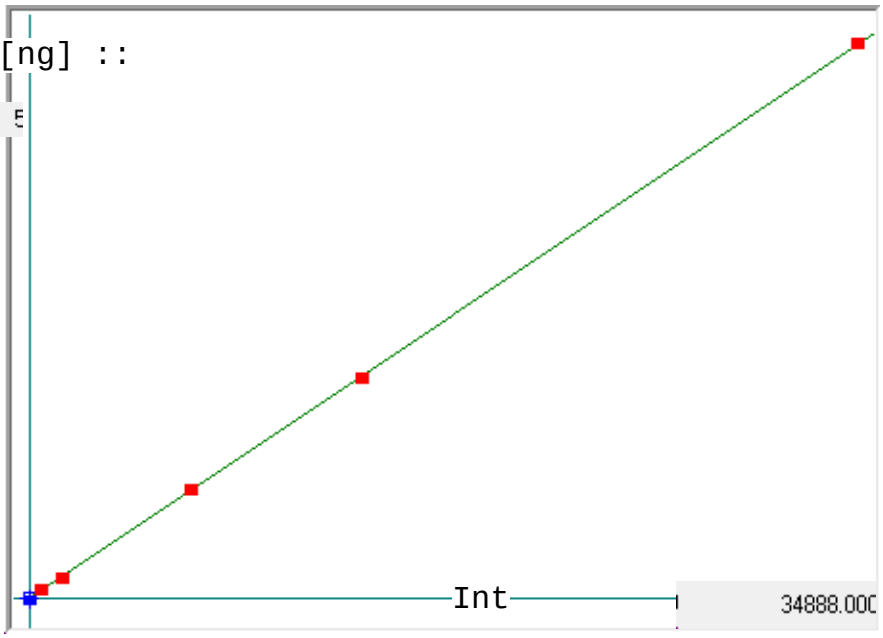
Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0215																										
ZZZZZZ	1.00	0217																										
UQ13499-001	1.00	0220																X										
UQ13499-002	1.00	0222																X										
ZZZZZZ	1.00	0225																										
ZZZZZZ	1.00	0227																										
ZZZZZZ	1.00	0230																										
ZZZZZZ	1.00	0232																										
ZZZZZZ	1.00	0235																										
CCV3	1.00	0237																X										
CCB3	1.00	0240																X										
ZZZZZZ	1.00	0242																										
ZZZZZZ	1.00	0245																										
ZZZZZZ	1.00	0247																										
UD13009-001	1.00	0250																X										
UD13009-002	1.00	0252																X										
UD13009-003	1.00	0255																X										
UD13009-004	1.00	0258																X										
UD13009-004S	1.00	0300																X										
UD13009-004SD	1.00	0303																X										
UD13009-005	1.00	0305																X										
CCV4	1.00	0308																X										
CCB4	1.00	0310																X										
UD13009-006	1.00	0313																X										
ZZZZZZ	1.00	0315																										
ZZZZZZ	1.00	0318																										
ZZZZZZ	1.00	0320																										
ZZZZZZ	1.00	0323																										
ZZZZZZ	1.00	0325																										
ZZZZZZ	10.00	0328																										
CCV5	1.00	0331																X										
CCB5	1.00	0333																X										

Raw Sample Data

7470A/245.1

Linear



A= 0.0000e+000

B= 1.4287e-004

C= 1.0441e-002

Rho= 0.9999771

Accept= Accepted

Accepted Date=

04/17/19 18:56

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4
S0 19HG0565 04/18/19	0.000	0.004	0.004	-45	0.000	-45			
S01 19HG0566 04/18/19	0.100	0.081	-0.019	497	0.0 %	497			
S02 19HG0567 04/18/19	0.200	0.211	0.011	1407	0.0 %	1407			
S03 19HG0568 04/18/19	1.000	0.992	-0.008	6870	0.0 %	6870			
S04 19HG0569 04/18/19	2.000	2.016	0.016	14040	0.0 %	14040			
S05 19HG0570 04/18/19	5.000	4.995	-0.005	34888	0.0 %	34888			

HG4041719

Method: 7470A/245.1 Operator: JMH Date of Analysis: 17 Apr 2019 17:26:41

Sample ID	Extended ID	Conc.	Units	µ Abs.	Date
S0 19HG0565 04/18/19 - 1		-	ppb	-45	17 Apr 2019 18:41:00
S01 19HG0566 04/18/19 - 1		-	ppb	497	17 Apr 2019 18:43:32
S02 19HG0567 04/18/19 - 1		-	ppb	1407	17 Apr 2019 18:46:04
S03 19HG0568 04/18/19 - 1		-	ppb	6870	17 Apr 2019 18:48:36
S04 19HG0569 04/18/19 - 1		-	ppb	14040	17 Apr 2019 18:51:06
S05 19HG0570 04/18/19 - 1		-	ppb	34888	17 Apr 2019 18:53:37
ICV 19HG0571 04/18/19 - 1		101.7% 2.0330	ppb	14157	17 Apr 2019 18:56:06
ICB 19HG0565 04/18/19 - 1		-0.0040	ppb	-101	17 Apr 2019 18:58:38
LLCCV 19HG0567 04/18/19 - 1		98.9% 0.1977	ppb	1311	17 Apr 2019 19:01:11
CCV 19HG0569 04/18/19 - 1		96.8% 1.9360	ppb	13478	17 Apr 2019 19:03:43
CCB 19HG0565 04/18/19 - 1		-0.0241	ppb	-242	17 Apr 2019 19:06:13
SnCl2 - 1	IM9372-01	0.0007	ppb	-68	17 Apr 2019 19:08:44
UQ13496001 - 1	PBW	0.0194	ppb	63	17 Apr 2019 19:11:14
UQ13496002 - 1	LCS	1.9790	ppb	13779	17 Apr 2019 19:13:44
UD10008001 - 1	RAS	0.1076	ppb	680	17 Apr 2019 19:16:15
UD10039003 - 1	Zn _ Hg	0.0526	ppb	295	17 Apr 2019 19:18:45
UD11004001 - 1	BFP Filtrate	0.0550	ppb	312	17 Apr 2019 19:21:15
UD11004002 - 1	BFP Filtrate	0.0829	ppb	507	17 Apr 2019 19:23:45
UD11054001 - 1	Waste Water Tank 9 T119-0086	0.0060	ppb	-31	17 Apr 2019 19:26:16
UD11071001 - 1	Effluent	-0.0006	ppb	-77	17 Apr 2019 19:28:47
UD11077001 - 1	2019/0922	19.0078	ppb	132971	17 Apr 2019 19:31:18
CCV 19HG0569 04/18/19 - 1		94.3% 1.8863	ppb	13130	17 Apr 2019 19:33:49
CCB 19HG0565 04/18/19 - 1		-0.0137	ppb	-169	17 Apr 2019 19:36:23
UD11077002 - 1	2019/0923	1.4586	ppb	10136	17 Apr 2019 19:38:54
UD12077001 - 1	POND C	-0.0026	ppb	-91	17 Apr 2019 19:41:26
UD12077002 - 1	POND C OUTLET PIPE	0.0103	ppb	-1	17 Apr 2019 19:43:58
UD12077003 - 1	POND C SEEP	0.0033	ppb	-50	17 Apr 2019 19:46:28
UD12077004 - 1	POND B	-0.0204	ppb	-216	17 Apr 2019 19:48:58
UD12077005 - 1	POND A	-0.0018	ppb	-86	17 Apr 2019 19:51:29
UD12077006 - 1	VENABLE POND	-0.0021	ppb	-88	17 Apr 2019 19:53:59
UD12077007 - 1	COLLINS POND	0.0000	ppb	-73	17 Apr 2019 19:56:29
UD15018001 - 1	Effluent	-0.0038	ppb	-100	17 Apr 2019 19:58:59
UD15018001MS - 1	EffluentS	1.5274	ppb	10618	17 Apr 2019 20:01:30
CCV 19HG0569 04/18/19 - 1		99.2% 1.9845	ppb	13817	17 Apr 2019 20:04:01
CCB 19HG0565 04/18/19 - 1		-0.0168	ppb	-191	17 Apr 2019 20:06:32
UD15018001MD - 1	EffluentSD	1.6096	ppb	11193	17 Apr 2019 20:09:05
UD15029001 - 1	Effluent Pipe 001	-0.0207	ppb	-218	17 Apr 2019 20:11:36
UD15029001MS - 1	Effluent Pipe 001S	2.0372	ppb	14186	17 Apr 2019 20:14:09
UQ13651001 - 1	PBW	-0.0208	ppb	-219	17 Apr 2019 20:16:41
UQ13651002 - 1	LCS	1.9433	ppb	13529	17 Apr 2019 20:19:14
UD09012018 - 1	IDW-027-DECON (04092019)	-0.0316	ppb	-294	17 Apr 2019 20:21:44
UD09012019 - 1	IDW-027-Purge (4092019)	-0.0254	ppb	-251	17 Apr 2019 20:24:15
UD10100001 - 1	43MW01	-0.0303	ppb	-285	17 Apr 2019 20:26:45
UD10100001MS - 1	43MW01S	1.9486	ppb	13566	17 Apr 2019 20:29:15
UD10100001MD - 1	43MW01SD	1.9783	ppb	13774	17 Apr 2019 20:31:46
CCV 19HG0569 04/18/19 - 1		100.9% 2.0173	ppb	14047	17 Apr 2019 20:34:16
CCB 19HG0565 04/18/19 - 1		-0.0196	ppb	-210	17 Apr 2019 20:36:46
UD10100002 - 1	43MW03	-0.0371	ppb	-333	17 Apr 2019 20:39:18
UD10100003 - 1	43MW04	-0.0326	ppb	-301	17 Apr 2019 20:41:48
UD10100004 - 1	43MW05	-0.0278	ppb	-268	17 Apr 2019 20:44:19
UD10100005 - 1	43MW06	-0.0193	ppb	-208	17 Apr 2019 20:46:51
UD10100006 - 1	DUP040919	-0.0403	ppb	-355	17 Apr 2019 20:49:22
UD10100007 - 1	DP01	-0.0133	ppb	-166	17 Apr 2019 20:51:54
UD11082011 - 1	43SW02	-0.0194	ppb	-209	17 Apr 2019 20:54:26
UD11082012 - 1	43SW03	-0.0136	ppb	-168	17 Apr 2019 20:56:57
UD11082013 - 1	EB041019	-0.0421	ppb	-368	17 Apr 2019 20:59:27
UQ14259001TC - 1	PBW	-0.0131	ppb	-165	17 Apr 2019 21:01:58
CCV 19HG0569 04/18/19 - 1		99.7% 1.9945	ppb	13887	17 Apr 2019 21:04:29
CCB 19HG0565 04/18/19 - 1		-0.0088	ppb	-135	17 Apr 2019 21:06:59
UQ14259002TC - 1	LCS	1.9813	ppb	13795	17 Apr 2019 21:09:31
UD03127001TC - 1	WWT SLUDGE	-0.0384	ppb	-342	17 Apr 2019 21:12:02
UD03127002TC - 1	Spent Blast Media	-0.0210	ppb	-220	17 Apr 2019 21:14:33
UD03127002MSTC - 1	Spent Blast MediaS	1.9707	ppb	13721	17 Apr 2019 21:17:03
UD03127002MDTC - 1	Spent Blast MediaSD	1.9729	ppb	13736	17 Apr 2019 21:19:35
UQ13650001 - 1	PBW	-0.0110	ppb	-150	17 Apr 2019 21:22:06
UQ13650002 - 1	LCS	1.9122	ppb	13311	17 Apr 2019 21:24:38
UD11077003 - 1	2019/0924	4.4179	ppb	30850	17 Apr 2019 21:27:09
UD16036001 - 1	EFFLUENT	-0.0574	ppb	-475	17 Apr 2019 21:29:42
UD16036001MS - 1	EFFLUENTS	1.4613	ppb	10155	17 Apr 2019 21:32:14
CCV 19HG0569 04/18/19 - 1		97.9% 1.9576	ppb	13629	17 Apr 2019 21:34:45
CCB 19HG0565 04/18/19 - 1		-0.0013	ppb	-82	17 Apr 2019 21:37:16
UD16036001MD - 1	EFFLUENTSD	1.4826	ppb	10304	17 Apr 2019 21:39:47
UQ13495001TC - 1	PBW	-0.0201	ppb	-214	17 Apr 2019 21:42:18
UQ13495002TC - 1	LCS	2.0032	ppb	13948	17 Apr 2019 21:44:50
UD02100001TC - 1	Waste Water	-0.0258	ppb	-254	17 Apr 2019 21:47:20
UD05064002TC - 1	AWDI-01	-0.0193	ppb	-208	17 Apr 2019 21:49:51
UD05064002MSTC - 1	AWDI-01S	1.5611	ppb	10854	17 Apr 2019 21:52:22
UD05064002MDTC - 1	AWDI-01SD	1.5068	ppb	10474	17 Apr 2019 21:54:53
UQ13493001 - 1	PBW	-0.0268	ppb	-261	17 Apr 2019 21:57:26
UQ13493002 - 1	LCS	1.9429	ppb	13526	17 Apr 2019 22:00:00
UD04007001 - 1	NPDES Permit Renewal #4 Sludge	-0.0191	ppb	-207	17 Apr 2019 22:02:31
CCV 19HG0569 04/18/19 - 1		100.4% 2.0082	ppb	13983	17 Apr 2019 22:05:04
CCB 19HG0565 04/18/19 - 1		-0.0081	ppb	-130	17 Apr 2019 22:07:33
UD05002001 - 1	1801833084	-0.0153	ppb	-180	17 Apr 2019 22:10:06
UD05002002 - 1	1900080495	-0.0230	ppb	-234	17 Apr 2019 22:12:36
UD05002002MS - 1	1900080495S	1.9846	ppb	13818	17 Apr 2019 22:15:07
UD05002002MD - 1	1900080495SD	1.9800	ppb	13786	17 Apr 2019 22:17:38
UD05002003 - 1	Weld Dust 1	-0.0204	ppb	-216	17 Apr 2019 22:20:09
UD05002004 - 1	Weld Dust 2	-0.0107	ppb	-148	17 Apr 2019 22:22:40
UD08007001 - 1	Tote 4	-0.0096	ppb	-140	17 Apr 2019 22:25:12
UD08007002 - 1	Tote 5	-0.0248	ppb	-247	17 Apr 2019 22:27:43
UD08007003 - 1	Tote 6	-0.0316	ppb	-294	17 Apr 2019 22:30:14

HG4041719

Method: 7470A/245.1 Operator: JMH Date of Analysis: 17 Apr 2019 17:26:41

Sample ID	Extended ID	Conc.	Units	µ Abs.	Date
UQ13647001 - 1	PBW	-0.0376	ppb	-336	17 Apr 2019 22:32:45
CCV 19HG0569 04/18/19 - 1		98.5% 1.9703	ppb	13718	17 Apr 2019 22:35:17
CCB 19HG0565 04/18/19 - 1		-0.0107	ppb	-148	17 Apr 2019 22:37:47
UQ13647002 - 1	LCS	2.0675	ppb	14398	17 Apr 2019 22:40:19
UD11087001 - 1	MW-1	-0.0510	ppb	-430	17 Apr 2019 22:42:51
UD11087001MS - 1	MW-1S	2.0103	ppb	13998	17 Apr 2019 22:45:22
UD11087001MD - 1	MW-1SD	1.9987	ppb	13917	17 Apr 2019 22:47:53
UD11087002 - 1	MW-3	-0.0307	ppb	-288	17 Apr 2019 22:50:24
UD11087004 - 1	MW-5	-0.0247	ppb	-246	17 Apr 2019 22:52:56
UD11087005 - 1	MW-6	-0.0243	ppb	-243	17 Apr 2019 22:55:27
UD11087006 - 1	MW-7	-0.0228	ppb	-233	17 Apr 2019 22:57:58
UD11087007 - 1	DMW-3	-0.0280	ppb	-269	17 Apr 2019 23:00:30
UD11087008 - 1	DMW-4	-0.0281	ppb	-270	17 Apr 2019 23:03:01
CCV 19HG0569 04/18/19 - 1		101.6% 2.0316	ppb	14147	17 Apr 2019 23:05:33
CCB 19HG0565 04/18/19 - 1		-0.0101	ppb	-144	17 Apr 2019 23:08:03
UQ13501001TC - 1	PBW	-0.0150	ppb	-178	17 Apr 2019 23:10:34
UQ13501002TC - 1	LCS	1.9799	ppb	13785	17 Apr 2019 23:13:06
UC27001028TC - 1	BC-44 (7-7.5)	-0.0356	ppb	-322	17 Apr 2019 23:15:37
UC27001028MSTC - 1	BC-44 (7-7.5)S	1.9662	ppb	13689	17 Apr 2019 23:18:09
UC27001028MDTC - 1	BC-44 (7-7.5)SD	1.9630	ppb	13667	17 Apr 2019 23:20:41
UC27001029TC - 1	BC-44 (12-12.5)	-0.0313	ppb	-292	17 Apr 2019 23:23:12
UC27001030TC - 1	BC-44 (17-17.5)	-0.0048	ppb	-107	17 Apr 2019 23:25:43
UC27001031TC - 1	BC-8 (0-0.5)	-0.0161	ppb	-186	17 Apr 2019 23:28:14
UC27001032TC - 1	BC-8 (2-2.5)	-0.0226	ppb	-231	17 Apr 2019 23:30:45
UC27001033TC - 1	BC-8 (7-7.5)	-0.0200	ppb	-213	17 Apr 2019 23:33:17
CCV 19HG0569 04/18/19 - 1		100.1% 2.0029	ppb	13946	17 Apr 2019 23:35:48
CCB 19HG0565 04/18/19 - 1		0.0003	ppb	-71	17 Apr 2019 23:38:18
UC27001034TC - 1	BC-8 (12-12.5)	-0.0247	ppb	-246	17 Apr 2019 23:40:50
UC27001035TC - 1	BC-8 (17-17.5)	-0.0230	ppb	-234	17 Apr 2019 23:43:22
UC27001036TC - 1	BC-7 (0-0.5)	-0.0127	ppb	-162	17 Apr 2019 23:45:53
UC27001037TC - 1	BC-7 (2-2.5)	-0.0241	ppb	-242	17 Apr 2019 23:48:25
UC27001038TC - 1	BC-7 (7-7.5)	-0.0171	ppb	-193	17 Apr 2019 23:50:57
UC27001039TC - 1	BC-7 (12-12.5)	-0.0170	ppb	-192	17 Apr 2019 23:53:28
UQ13678001TC - 1	PBW	-0.0036	ppb	-98	17 Apr 2019 23:56:00
UQ13678002TC - 1	LCS	2.0507	ppb	14281	17 Apr 2019 23:58:31
UD09113001TC - 1	2-77 II Tetra	-0.0248	ppb	-247	18 Apr 2019 00:01:03
UD09113001MSTC - 1	2-77 II TetraS	1.8946	ppb	13188	18 Apr 2019 00:03:34
CCV 19HG0569 04/18/19 - 1		99.4% 1.9887	ppb	13847	18 Apr 2019 00:06:06
CCB 19HG0565 04/18/19 - 1		-0.0073	ppb	-124	18 Apr 2019 00:08:36
UD09113001MDTC - 1	2-77 II TetraSD	1.8989	ppb	13218	18 Apr 2019 00:11:07
UQ13500001TC - 1	PBW	-0.0450	ppb	-388	18 Apr 2019 00:13:38
UQ13500002TC - 1	LCS	1.7451	ppb	12142	18 Apr 2019 00:16:10
UC27001008TC - 1	BC-3 (7-7.5)	-0.0310	ppb	-290	18 Apr 2019 00:18:41
UC27001009TC - 1	BC-3 (12-12.5)	-0.0240	ppb	-241	18 Apr 2019 00:21:13
UC27001010TC - 1	BC-3 (17-17.5)	-0.0197	ppb	-211	18 Apr 2019 00:23:44
UC27001011TC - 1	BC-4 (0-0.5)	-0.0117	ppb	-155	18 Apr 2019 00:26:16
UC27001012TC - 1	BC-4 (2-2.5)	-0.0121	ppb	-158	18 Apr 2019 00:28:48
UC27001013TC - 1	BC-4 (7-7.5)	0.0000	ppb	-73	18 Apr 2019 00:31:20
UC27001014TC - 1	BC-4 (12-12.5)	-0.0088	ppb	-135	18 Apr 2019 00:33:51
CCV 19HG0569 04/18/19 - 1		99.9% 1.9977	ppb	13910	18 Apr 2019 00:36:23
CCB 19HG0565 04/18/19 - 1		0.0070	ppb	-24	18 Apr 2019 00:38:53
UC27001015TC - 1	BC-4 (17-17.5)	-0.0134	ppb	-167	18 Apr 2019 00:41:25
UC27001016TC - 1	BC-13 (0-0.5)	-0.0063	ppb	-117	18 Apr 2019 00:43:57
UC27001017TC - 1	BC-13 (2-2.5)	0.0037	ppb	-47	18 Apr 2019 00:46:28
UC27001018TC - 1	BC-13 (7-7.5)	-0.0138	ppb	-170	18 Apr 2019 00:48:59
UC27001019TC - 1	BC-13 (12-12.5)	-0.0136	ppb	-168	18 Apr 2019 00:51:30
UC27001020TC - 1	BC-13 (17-17.5)	-0.0186	ppb	-203	18 Apr 2019 00:54:02
UC27001021TC - 1	BC-17 (0-0.5)	-0.0211	ppb	-221	18 Apr 2019 00:56:33
UC27001021MSTC - 1	BC-17 (0-0.5)S	2.0266	ppb	14112	18 Apr 2019 00:59:05
UC27001021MDTC - 1	BC-17 (0-0.5)SD	2.1372	ppb	14886	18 Apr 2019 01:01:37
UC27001022TC - 1	BC-17 (2-2.5)	-0.0218	ppb	-226	18 Apr 2019 01:04:09
CCV 19HG0569 04/18/19 - 1		98.9% 1.9776	ppb	13769	18 Apr 2019 01:06:41
CCB 19HG0565 04/18/19 - 1		-0.0001	ppb	-74	18 Apr 2019 01:09:10
UC27001023TC - 1	BC-17 (7-7.5)	-0.0091	ppb	-137	18 Apr 2019 01:11:42
UC27001024TC - 1	BC-17 (12-12.5)	-0.0143	ppb	-173	18 Apr 2019 01:14:13
UC27001025TC - 1	BC-17 (17-17.5)	-0.0133	ppb	-166	18 Apr 2019 01:16:45
UC27001026TC - 1	BC-44 (0-0.5)	-0.0134	ppb	-167	18 Apr 2019 01:19:17
UC27001027TC - 1	BC-44 (2-2.5)	0.0290	ppb	130	18 Apr 2019 01:21:49
UQ13498001DIS - 1	PBW	-0.0141	ppb	-172	18 Apr 2019 01:24:22
UQ13498002DIS - 1	LCS	2.0357	ppb	14176	18 Apr 2019 01:26:54
UD02100002 - 1	Waste Water	0.0359	ppb	178	18 Apr 2019 01:29:26
UD12075002 - 1	SWP-1	-0.0011	ppb	-81	18 Apr 2019 01:31:58
UD11011001DIS - 1	WK0219C1904	-0.0080	ppb	-129	18 Apr 2019 01:34:30
CCV 19HG0569 04/18/19 - 1		100.7% 2.0147	ppb	14029	18 Apr 2019 01:37:03
CCB 19HG0565 04/18/19 - 1		-0.0027	ppb	-92	18 Apr 2019 01:39:32
UD11011002DIS - 1	WK0223C1904	-0.0104	ppb	-146	18 Apr 2019 01:42:04
UD11011003DIS - 1	WK0229C1904	0.0032	ppb	-51	18 Apr 2019 01:44:37
UD11011003MSDIS - 1	WK0229C1904S	1.9720	ppb	13730	18 Apr 2019 01:47:09
UD11011003MDDIS - 1	WK0229C1904SD	2.0226	ppb	14084	18 Apr 2019 01:49:41
UD11011004DIS - 1	WK0236C1904	-0.0067	ppb	-120	18 Apr 2019 01:52:13
UD11011005DIS - 1	TripBlank-190410	-0.0037	ppb	-99	18 Apr 2019 01:54:45
UD11011006DIS - 1	WK0227CS1904	-0.0018	ppb	-86	18 Apr 2019 01:57:18
UD11011007DIS - 1	WK0228C1904	0.0050	ppb	-38	18 Apr 2019 01:59:50
UD11011008DIS - 1	WK0235C1904	0.0034	ppb	-49	18 Apr 2019 02:02:22
UD11011009DIS - 1	WK0201C1904	0.0074	ppb	-21	18 Apr 2019 02:04:54
CCV 19HG0569 04/18/19 - 1		102.1% 2.0425	ppb	14223	18 Apr 2019 02:07:26
CCB 19HG0565 04/18/19 - 1		0.0087	ppb	-12	18 Apr 2019 02:09:56
UD11011010DIS - 1	TripBlank-190411	-0.0028	ppb	-93	18 Apr 2019 02:12:28
UD12100011 - 1	GW-1	0.1446	ppb	939	18 Apr 2019 02:15:00
UD12100012 - 1	SW-1	-0.0030	ppb	-94	18 Apr 2019 02:17:32
UQ13499001 - 1	PBW	-0.0031	ppb	-95	18 Apr 2019 02:20:04
UQ13499002 - 1	LCS	1.9230	ppb	13387	18 Apr 2019 02:22:36

HG4041719

Method: 7470A/245.1 Operator: JMH Date of Analysis: 17 Apr 2019 17:26:41

Sample ID	Extended ID	Conc.	Units	µ Abs.	Date
UD10056002 - 1	5W5B	-0.0167	ppb	-190	18 Apr 2019 02:25:09
UD10056003 - 1	5W7B	-0.0041	ppb	-102	18 Apr 2019 02:27:41
UD10056003MS - 1	5W7BS	1.9119	ppb	13309	18 Apr 2019 02:30:13
UD10056003MD - 1	5W7BSD	1.9594	ppb	13642	18 Apr 2019 02:32:45
UD10056004 - 1	5WC21	-0.0036	ppb	-98	18 Apr 2019 02:35:17
CCV 19HG0569 04/18/19 - 1		100.8% 2.0153	ppb	14033	18 Apr 2019 02:37:49
CCB 19HG0565 04/18/19 - 1		0.0100	ppb	-3	18 Apr 2019 02:40:19
UD10056005 - 1	5WDUP	0.0040	ppb	-45	18 Apr 2019 02:42:51
UD10056006 - 1	5WC22	-0.0226	ppb	-231	18 Apr 2019 02:45:23
UD10056007 - 1	5WC23	-0.0170	ppb	-192	18 Apr 2019 02:47:55
UD13009001 - 1	16C1	-0.0046	ppb	-105	18 Apr 2019 02:50:27
UD13009002 - 1	16MW8	0.0079	ppb	-18	18 Apr 2019 02:52:59
UD13009003 - 1	16MW9	0.0013	ppb	-64	18 Apr 2019 02:55:31
UD13009004 - 1	16WC1A	-0.0077	ppb	-127	18 Apr 2019 02:58:04
UD13009004MS - 1	16WC1AS	1.8473	ppb	12857	18 Apr 2019 03:00:36
UD13009004MD - 1	16WC1ASD	1.8250	ppb	12701	18 Apr 2019 03:03:09
UD13009005 - 1	16WDUP	-0.0224	ppb	-230	18 Apr 2019 03:05:42
CCV 19HG0569 04/18/19 - 1		102.0% 2.0393	ppb	14201	18 Apr 2019 03:08:15
CCB 19HG0565 04/18/19 - 1		-0.0040	ppb	-101	18 Apr 2019 03:10:45
UD13009006 - 1	16WC1B	0.0992	ppb	621	18 Apr 2019 03:13:16
UD13010001 - 1	16-2	-0.0128	ppb	-163	18 Apr 2019 03:15:48
UD13010002 - 1	16-3	-0.0126	ppb	-161	18 Apr 2019 03:18:21
UD13010003 - 1	16-5	-0.0118	ppb	-156	18 Apr 2019 03:20:54
UD13010004 - 1	16WC2B	-0.0038	ppb	-100	18 Apr 2019 03:23:26
UD13010005 - 1	16SPRING	0.0073	ppb	-22	18 Apr 2019 03:25:58
UD11077001(10) - 1	2019/0922	2.1183	ppb	14754	18 Apr 2019 03:28:31
CCV 19HG0569 04/18/19 - 1		100.3% 2.0060	ppb	13968	18 Apr 2019 03:31:03
CCB 19HG0565 04/18/19 - 1		0.0153	ppb	34	18 Apr 2019 03:33:33

Raw Supportive Data

Analyst: JMH **Level 2 Analyst:** NJT

Status: Level 2 review released

Matrix: Aqueous

Printed: 05/07/19 0851

Prep Batch: 13499

7470A-P - Mercury Preparation Linked: 7470A,245.1 and 7470A-P Draper

Start Date: 04/17/2019 1556

End Date: 04/17/2019 1756

Digestion Cup ID: 19-651

Ext Solvent: H2SO4/1:1HNO3/KMnO4/K2S2O8/NaCl-NH2OH-HCl

Reagents Vol. (mL): 2.0, 2.0, 6.0, 3.2, 2.4

Hot Block ID: Hot Block # 9

Chem ID: 19-318, IM9360-01, IM9371-01, IM9351-01, IM9368-01

Start Temperature (°C): 94

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ13499-001	MB	PBW	1	7470A	40.000		0.0	50			LCS/MS/MSD Pipet ID: 315
UQ13499-002	LCS	LCS	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD10056-002	Sample	5W5B	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-003	Sample	5W7B	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-003MS	MS	5W7BS	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD10056-003MD	MSD	5W7BSD	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD10056-004	Sample	5WC21	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-005	Sample	5WDUP	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-006	Sample	5WC22	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-007	Sample	5WC23	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD13009-001	Sample	16C1	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-002	Sample	16MW8	1	7470A	40.000		0.0	50	05/08/2019 2359	04/23/2019	
UD13009-003	Sample	16MW9	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-004	Sample	16WC1A	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-004MS	MS	16WC1AS	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD13009-004MD	MSD	16WC1ASD	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD13009-005	Sample	16WDUP	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-006	Sample	16WC1B	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13010-001	Sample	16-2	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-002	Sample	16-3	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-003	Sample	16-5	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-004	Sample	16WC2B	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-005	Sample	16SPRING	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UQ13499-004	Standard	Conc = 0.0 mg/L	1	7470A	40.000		0.0	50			PB 13633

Analyst: JMH **Level 2 Analyst:** NJT

Status: Level 2 review released

Matrix: Aqueous

Prep Batch: 13499

7470A-P - Mercury Preparation Linked: 7470A,245.1 and 7470A-P Draper

Start Date: 04/17/2019 1556

End Date: 04/17/2019 1756

Digestion Cup ID: 19-651

Ext Solvent: H2SO4/1:1HNO3/KMnO4/K2S2O8/NaCl-NH2OH-HCl

Reagents Vol. (mL): 2.0, 2.0, 6.0, 3.2, 2.4

Hot Block ID: Hot Block # 9

Chem ID: 19-318, IM9360-01, IM9371-01, IM9351-01, IM9368-01

Start Temperature (°C): 94

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments

(end of report) **Total Samples: 17**

Analyst: JMH **Level 2 Analyst:** NJT

Status: Level 2 review released

Matrix: ERROR

Printed: 05/07/19 0852

Prep Batch: 13633

7470A-P - Mercury Preparation Linked: 7470A,245.1 and 7470A-P Draper

Start Date: 04/17/2019 1315

End Date: 04/17/2019 1515

Digestion Cup ID: 19-651

Ext Solvent: H2SO4/1:1HNO3/KMnO4/K2S2O8/NaCl-NH2OH-HCl

Reagents Vol. (mL): 2.0, 2.0, 6.0, 3.2, 2.4

Hot Block ID: Hot Block #4

Chem ID: 19-318, IM9360-01, IM9371-01, IM9351-01, IM9368-01

Start Temperature (°C): 96

Thermometer ID: 1136

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ13633-004	Standard	Conc = 0.0 mg/L	1	245.1	40.000	19HG0565	0.0	50			CAL 0
UQ13633-104	Standard	Conc = 0.0050 mg/L	1	245.1	40.000	19HG0570	0.0	50			4/18/19
UQ13633-204	Standard	Conc = 0.0020 mg/L	1	245.1	40.000	19HG0569	0.0	50			4/18/19
UQ13633-304	Standard	Conc = 0.0010 mg/L	1	245.1	40.000	19HG0568	0.0	50			4/18/19
UQ13633-404	Standard	Conc = 0.00020 mg/L	1	245.1	40.000	19HG0567	0.0	50			4/18/19
UQ13633-504	Standard	Conc = 0.00010 mg/L	1	245.1	40.000	19HG0566	0.0	50			4/18/19
UQ13633-604	Standard	Conc = 0.0 mg/L	1	245.1	40.000	19HG0565	0.0	50			CCB
UQ13633-704	Standard	Conc = 0.0020 mg/L	1	245.1	40.000	19HG0569	0.0	50			CCV
UQ13633-804	Standard	Conc = 0.0 mg/L	1	245.1	40.000	19HG0565	0.0	50			ICB
UQ13633-904	Standard	Conc = 0.0020 mg/L	1	245.1	40.000	19HG0571	0.0	50			ICV

(end of report) **Total Samples: 0**

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Draper Aden Associates
2206 South Main Street
Blacksburg, VA 24060
Attention: Janet Frazier

Project Name: RAAP HWMU16

Project Number: B03204-19A

Lot Number:**UD13010**

Date Completed:05/15/2019

Date Revised: 07/10/2019

07/10/2019
Approved and released by:
Project Manager: Cathy S. Dover

The electronic signature above is the equivalent of a handwritten signature.
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Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Draper Aden Associates
Lot Number: UD13010

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

Mercury forms updated to remove prep method 245.1 on 7/10/19. The mercury samples were prepared and analyzed by method 7470A.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Draper Aden Associates

Lot Number: UD13010

Project Name: RAAP HWMU16

Project Number: B03204-19A

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	16-2	Aqueous	04/10/2019 1205	04/12/2019
002	16-3	Aqueous	04/10/2019 1335	04/12/2019
003	16-5	Aqueous	04/10/2019 0910	04/12/2019
004	16WC2B	Aqueous	04/10/2019 1115	04/12/2019
005	16SPRING	Aqueous	04/10/2019 0920	04/12/2019

(5 samples)

Mercury

Client: Draper Aden Associates
Laboratory ID: UD13010-001
Description: 16-2
Matrix: Aqueous
Date Sampled: 04/10/2019 1205
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0315	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

ICP-MS

Client: Draper Aden Associates
Laboratory ID: UD13010-001
Description: 16-2
Matrix: Aqueous
Date Sampled: 04/10/2019 1205
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1747	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	7440-39-3	6020B	180		10	ug/L	1
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Mercury

Client: Draper Aden Associates
Laboratory ID: UD13010-002
Description: 16-3
Matrix: Aqueous
Date Sampled: 04/10/2019 1335
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0318	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: Draper Aden Associates
Laboratory ID: UD13010-002
Description: 16-3
Matrix: Aqueous
Date Sampled: 04/10/2019 1335
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1753	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	7440-39-3	6020B	800		10	ug/L	1
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13010-003
Description: 16-5
Matrix: Aqueous
Date Sampled: 04/10/2019 0910
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0320	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: Draper Aden Associates
Laboratory ID: UD13010-003
Description: 16-5
Matrix: Aqueous
Date Sampled: 04/10/2019 0910
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1759	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	7440-39-3	6020B	170		10	ug/L	1
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

Shealy Environmental Services, Inc.
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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13010-004
Description: 16WC2B
Matrix: Aqueous
Date Sampled: 04/10/2019 1115
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0323	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

Shealy Environmental Services, Inc.
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ICP-MS

Client: Draper Aden Associates
Laboratory ID: UD13010-004
Description: 16WC2B
Matrix: Aqueous
Date Sampled: 04/10/2019 1115
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1805	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	7440-39-3	6020B	120		10	ug/L	1
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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Mercury

Client: Draper Aden Associates
Laboratory ID: UD13010-005
Description: 16SPRING
Matrix: Aqueous
Date Sampled: 04/10/2019 0920
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	04/18/2019 0325	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

Shealy Environmental Services, Inc.
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ICP-MS

Client: Draper Aden Associates
Laboratory ID: UD13010-005
Description: 16SPRING
Matrix: Aqueous
Date Sampled: 04/10/2019 0920
Project Name: RAAP HWMU16
Date Received: 04/12/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1811	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	7440-39-3	6020B	180		10	ug/L	1
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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QC Summary

ICP-MS - MB

Sample ID: UQ14282-001
Batch: 14282
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Arsenic	10	U	1	10	ug/L	04/30/2019 1609
Barium	10	U	1	10	ug/L	04/30/2019 1609
Beryllium	1.0	U	1	1.0	ug/L	04/30/2019 1609
Cadmium	1.0	U	1	1.0	ug/L	04/30/2019 1609
Chromium	5.0	U	1	5.0	ug/L	04/30/2019 1609
Cobalt	5.0	U	1	5.0	ug/L	04/30/2019 1609
Copper	5.0	U	1	5.0	ug/L	04/30/2019 1609
Lead	3.0	U	1	3.0	ug/L	04/30/2019 1609
Nickel	10	U	1	10	ug/L	04/30/2019 1609
Vanadium	10	U	1	10	ug/L	04/30/2019 1609
Zinc	30	U	1	30	ug/L	04/30/2019 1609

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ14282-002
Batch: 14282
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Arsenic	100	100		1	102	80-120	04/30/2019 1615
Barium	100	100		1	100	80-120	04/30/2019 1615
Beryllium	100	99		1	99	80-120	04/30/2019 1615
Cadmium	100	100		1	100	80-120	04/30/2019 1615
Chromium	100	98		1	98	80-120	04/30/2019 1615
Cobalt	100	98		1	98	80-120	04/30/2019 1615
Copper	100	99		1	99	80-120	04/30/2019 1615
Lead	100	100		1	104	80-120	04/30/2019 1615
Nickel	100	99		1	99	80-120	04/30/2019 1615
Vanadium	100	99		1	99	80-120	04/30/2019 1615
Zinc	100	99		1	99	80-120	04/30/2019 1615

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MB

Sample ID: UQ13499-001
Batch: 13499
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Mercury	2.0	U	1	2.0	ug/L	04/18/2019 0220

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - LCS

Sample ID: UQ13499-002
Batch: 13499
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	2.0	1.9		1	96	80-120	04/18/2019 0222

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

CHAIN OF CUSTODY RECORD

3/26/19

Laboratory: Shealy Environmental - 106 Vantage Point Dr. West Columbia, SC 29172 803-227-3160 PM: Cathy Dover cell 919-818-1180

Client: 0 Attn: 0 Address: 0 0 Phone: 0 Fax: 0 Fax: 0	Consultant: Draper Aden Associates Attn: Janet C. Frazier Address: 2206 South Main Street Blacksburg, Virginia 24060 Phone: (540) 552-0444 Fax: (540) 552 0291	Sample Site: RFAAP, Radford, Virginia Location: HWMU16 Event: 2Q 2019 Annual Groundwater Monitoring Event DAA JN: 603204-18A Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES WPS Carrier: 12-237-301-01-9827-5214 Tracking Number: ~~12-237-301-01~~

Box 1: Matrix
SW Surface Water — T Trip Blank
GW Groundwater — E Equipment Blank
L Leachate — P Product
S Soil — O Other

Box 2: Preservative
A HCL — E NaOH
B HNO_3 — F ZnAc
C H_2SO_4 — G Other (Specify)
D $Na_2S_2O_3$ — H None

Box 3: Filtered/Unfiltered
F Filtered
U Unfiltered

Box 4: Sample Type
G Grab
C Composite

Box 5: Sample Container Type
P Plastic — V VOA
AG Amber Glass — CG Clear Glass

Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on Ice: YES

Box 4 - Sample Type						G	G	G					
Box 3 - Filtered/Unfiltered						U	U	U					
Required pH of Sample						<2	<2	>12					
Box 2 - Preservative						B	B	E					
Box 5 - Sample Container Type						1-500 mL P		1-500 mL P					
Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles		ICP/MS 6020A/3005A (Metals-Total)	7470A (Mercury-Total)	9012B (Cyanide)	metals pH	cyanide pH			
16C1	4/11	1320	GW	2		X	X	X	<2	>12			
16MW6	4/10	1245	GW	2		X	X	X	<2	>12			
16MW8	4/11	1225	GW	2		X	X	X	<2	>12			
16WC1A	4/11	1100	GW	6		X	X	X	<2	>12			USE FOR QC
16WDUP	4/11	1115	GW	2		X	X	X	<2	>12			
16WC1B	4/11	1015	GW	2		X	X	X	<2	>12			
16-2	4/10	1205	GW	1		X	X		<2				
16-3	4/10	1335	GW	1		X	X		<2				
16-5	4/10	0910	GW	1		X	X		<2				
16WC2B	4/10	1115	GW	1		X	X		<2				
16SPRING	4/10	0920	GW	1		X	X		<2				

GENERAL NOTES:
1. Report results to detection limit, with J flags, for italicized wells. Report to at or above QL for other locations
2. VELAP accreditation required.
3. Full Deliverable with EDD.
4. Metals -see attached list

* ERIS - OK JLF 3/26/19

UD13009
CSD

UD13010
CSD

Clients Special Instructions:

Received by lab in Good Condition: ✓ Yes ___ No — Custody Seal Intact: ✓ Yes ___ No — Temperature upon arrival: 4 °C — Received on Ice: ✓ Yes ___ No

Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 4/10/19	#1 Relinquished by (Signature):	Date: 4/11/19	#2 Relinquished by (Signature):	Date:	Sample Shipped Time Requested:
Sampler Signature:	Time: 0700	Company Name:	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Graham Snyder	Date: 4/10/19	#1 Received by (Signature):	Date: 4/12/19	#2 Received by (Signature):	Date:	SC DHS ORGN/S VTHS INORG
Sampler Signature:	Time: 0700	Company Name: Shealy Env. Services	Time: 0924	Company Name:	Time:	

1/5 JLF 3/26/19

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

INORGANICS

THIS APPLIES TO WELLS 16C1, 16MW8, 16MW9,16WC1A, 16WDUP, 16WC1B & QC

Listed (*) Report to QL, DL and "J" flag. JW 3/26/19

HWMU 16

Analyte	Method Ref	LOQ	LOD	CAS#	Units
ANTIMONY	6020A	2	0.5 0.4	7440-36-0	UG/L
ARSENIC	6020A	10	2	7440-38-2	UG/L
BARIUM	6020A	10	1	7440-39-3	UG/L
BERYLLIUM	6020A	1	0.2	7440-41-7	UG/L
CADMIUM	6020A	1	0.2	7440-43-9	UG/L
CHROMIUM	6020A	5	1	7440-47-3	UG/L
COBALT	6020A	5	1	7440-48-4	UG/L
COPPER	6020A	5	1	7440-50-8	UG/L
LEAD	6020A	3 2	1 0.2	7439-92-1	UG/L
NICKEL	6020A	10	2	7440-02-0	UG/L
SELENIUM	6020A	10	3	7782-49-2	UG/L
SILVER	6020A	2	0.5 0.2	7440-22-4	UG/L
THALLIUM	6020A	1	0.2	7440-28-0	UG/L
VANADIUM	6020A	10	2.5 1	7440-62-2	UG/L
ZINC	6020A	30	7.3	7440-66-6	UG/L

proposed 3.26.2019 JW

15 analytes

These are Appendix IX wells. Report estimated results.

Rev 12/2016 per class 1 permit mod

t:\environmental\bbg\databases\raap\sample event set up\semi-annual events\hwmu-16\hwmu16-target analyte list-annual rev 10 - 2014.doc

5/W

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: 7470A

THIS APPLIES TO ALL WELLS AND QC

	Method SW 7470A/CVAA	CAS#	Required LOQ (4)
1	Mercury	7439-97-6	2 / 0.2 ug/l

* repo. to perm. DL for
16C1, 16MW8, 16MW9
16WC1A, 16WDUP, 16WC1B, QC
(Appendix IX Wells)

JC/2
7/24/19

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: 9012B
TYPE METHOD: CLO
CLASS: CYANIDE

THIS APPLIES TO 16C1, 16MW8, 16MW9,16WC1A, 16WDUP, 16WC1B AND QC

No.	PARAMETER	CAS RN	Required LOQ/DL (µg/l)
1	Cyanide	57-12-5	20 / 5

These are Appendix IX wells. Report estimated results.

LOD revised 4Q2016 class 1 permit mod

HWMU16
Radford Army Ammunition Plant
Annual Appendix IX Groundwater Monitoring Event
DAA JN: B03204-19A

ANALYTICAL METHOD: SEE BELOW
TYPE METHOD: SEE BELOW
CLASS: TOTAL

Method SW 846-6020A/3005A (ICP/MS) (*)

THIS APPLIES TO WELLS 16-2, 16-3,16-5, 16WC2B, 16SPRING

No.	PARAMETER	CAS RN	Required QL/ LOQ (µg/l)
1.	Arsenic	7440-38-2	10
2.	Barium	7440-39-3	10
3.	Beryllium	7440-41-7	1
4.	Cadmium	7440-43-9	1
5.	Chromium	7440-47-3	5
6.	Cobalt	7440-48-4	5
7.	Copper	7440-50-8	5
8.	Lead	7440-92-1	~~2~~ 3
9.	Nickel	7440-02-0	10
10.	Vanadium	7440-62-2	10
11.	Zinc	7440-66-6	30

Report to at or above the QL.

Updated 4/8/2013 jcf
Zinc QL updated 10 2016 - JCF

JCF JMR 3.26.2019

(*) Report to at or above QL only.
JMR
3.26.2019

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4/2

Metals

Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13010-001**

Description: **16-2** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1205** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0315	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates**
Laboratory ID: **UD13010-001**
Description: **16-2**
Matrix: **Aqueous**
Date Sampled: **04/10/2019 1205**
Project Name: **RAAP HWMU16**
Date Received: **04/12/2019**
Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1747	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	**7440-39-3**	**6020B**	**180**		**10**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13010-002**

Description: **16-3** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1335** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0318	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13010-002**

Description: **16-3** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1335** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1753	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	**7440-39-3**	**6020B**	**800**		**10**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13010-003**

Description: **16-5** Matrix: **Aqueous**

Date Sampled: **04/10/2019 0910** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0320	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13010-003**

Description: **16-5** Matrix: **Aqueous**

Date Sampled: **04/10/2019 0910** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1759	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	**7440-39-3**	**6020B**	**170**		**10**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13010-004**

Description: **16WC2B** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0323	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13010-004**

Description: **16WC2B** Matrix: **Aqueous**

Date Sampled: **04/10/2019 1115** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1805	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	**7440-39-3**	**6020B**	**120**		**10**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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Mercury

Client: **Draper Aden Associates** Laboratory ID: **UD13010-005**

Description: **16SPRING** Matrix: **Aqueous**

Date Sampled: **04/10/2019 0920** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	245.1	7470A	1	04/18/2019 0325	JMH	04/17/2019 1556	13499

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Mercury	7439-97-6	7470A	2.0	U	2.0	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
D = Dilution > 1

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ICP-MS

Client: **Draper Aden Associates** Laboratory ID: **UD13010-005**

Description: **16SPRING** Matrix: **Aqueous**

Date Sampled: **04/10/2019 0920** Project Name: **RAAP HWMU16**

Date Received: **04/12/2019** Project Number: **B03204-19A**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	04/30/2019 1811	BNW	04/23/2019 1602	14282

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Arsenic	7440-38-2	6020B	10	U	10	ug/L	1
Barium	**7440-39-3**	**6020B**	**180**		**10**	**ug/L**	**1**
Beryllium	7440-41-7	6020B	1.0	U	1.0	ug/L	1
Cadmium	7440-43-9	6020B	1.0	U	1.0	ug/L	1
Chromium	7440-47-3	6020B	5.0	U	5.0	ug/L	1
Cobalt	7440-48-4	6020B	5.0	U	5.0	ug/L	1
Copper	7440-50-8	6020B	5.0	U	5.0	ug/L	1
Lead	7439-92-1	6020B	3.0	U	3.0	ug/L	1
Nickel	7440-02-0	6020B	10	U	10	ug/L	1
Vanadium	7440-62-2	6020B	10	U	10	ug/L	1
Zinc	7440-66-6	6020B	30	U	30	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
U = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis
D = Dilution > 1

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QC Summary

ICP-MS - MB

Sample ID: UQ14282-001
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Arsenic	10	U	1	10	ug/L	04/30/2019 1609
Barium	10	U	1	10	ug/L	04/30/2019 1609
Beryllium	1.0	U	1	1.0	ug/L	04/30/2019 1609
Cadmium	1.0	U	1	1.0	ug/L	04/30/2019 1609
Chromium	5.0	U	1	5.0	ug/L	04/30/2019 1609
Cobalt	5.0	U	1	5.0	ug/L	04/30/2019 1609
Copper	5.0	U	1	5.0	ug/L	04/30/2019 1609
Lead	3.0	U	1	3.0	ug/L	04/30/2019 1609
Nickel	10	U	1	10	ug/L	04/30/2019 1609
Vanadium	10	U	1	10	ug/L	04/30/2019 1609
Zinc	30	U	1	30	ug/L	04/30/2019 1609

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ14282-002
Batch: 14282
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 04/23/2019 1602

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Arsenic	100	100		1	102	80-120	04/30/2019 1615
Barium	100	100		1	100	80-120	04/30/2019 1615
Beryllium	100	99		1	99	80-120	04/30/2019 1615
Cadmium	100	100		1	100	80-120	04/30/2019 1615
Chromium	100	98		1	98	80-120	04/30/2019 1615
Cobalt	100	98		1	98	80-120	04/30/2019 1615
Copper	100	99		1	99	80-120	04/30/2019 1615
Lead	100	100		1	104	80-120	04/30/2019 1615
Nickel	100	99		1	99	80-120	04/30/2019 1615
Vanadium	100	99		1	99	80-120	04/30/2019 1615
Zinc	100	99		1	99	80-120	04/30/2019 1615

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - MB

Sample ID: UQ13499-001
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Mercury	2.0	U	1	2.0	ug/L	04/18/2019 0220

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Mercury - LCS

Sample ID: UQ13499-002
Batch: 13499
Analytical Method: 7470A
Matrix: Aqueous
Prep Method: 245.1
Prep Date: 04/17/2019 1556

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	2.0	1.9		1	96	80-120	04/18/2019 0222

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS Metals

- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: Draper Aden Associates

SDG No.: UD13010 **Method Type:** ICP-MS **SOW No.:**

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Lab Sample ID	Client Sample ID	QC Description
UD13010-001	16-2	
UD13010-002	16-3	
UD13010-003	16-5	
UD13010-004	16WC2B	
UD13010-005	16SPRING	

Were ICP interelement corrections applied?	Yes/No	Yes	
Were ICP background corrections applied?	Yes/No	Yes	
If yes - were raw data generated before applications of background corrections?	Yes/No	No	

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Arsenic	199.97	200.0	100	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Barium	199.67	200.0	100	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Beryllium	202.73	200.0	101	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Cadmium	198.33	200.0	99	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Chromium	197.57	200.0	99	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Cobalt	193.53	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Copper	193.73	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Lead	194.77	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Nickel	193.63	200.0	97	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Vanadium	205.43	200.0	103	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
	Zinc	198.50	200.0	99	90.0 - 110.0	MS	4/30/2019	11:04	MS2043019B 6020B 200.8, g
CCV1									
	Arsenic	298.40	300.0	99	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Barium	300.77	300.0	100	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Beryllium	308.30	300.0	103	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Cadmium	300.73	300.0	100	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Chromium	301.87	300.0	101	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Cobalt	297.17	300.0	99	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Copper	282.73	300.0	94	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Lead	297.20	300.0	99	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Nickel	286.97	300.0	96	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Vanadium	314.03	300.0	105	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
	Zinc	294.00	300.0	98	90.0 - 110.0	MS	4/30/2019	11:22	MS2043019B 6020B 200.8, g
CCV2									
	Arsenic	298.27	300.0	99	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Barium	303.60	300.0	101	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Beryllium	305.80	300.0	102	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Cadmium	301.50	300.0	101	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Chromium	303.07	300.0	101	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Cobalt	298.00	300.0	99	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Copper	291.77	300.0	97	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Lead	305.33	300.0	102	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Nickel	289.00	300.0	96	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Vanadium	315.23	300.0	105	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g
	Zinc	296.83	300.0	99	90.0 - 110.0	MS	4/30/2019	15:08	MS2043019B 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV3									
	Arsenic	297.30	300.0	99	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Barium	308.50	300.0	103	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Beryllium	300.83	300.0	100	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Cadmium	300.13	300.0	100	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Chromium	304.27	300.0	101	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Cobalt	300.80	300.0	100	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Copper	293.30	300.0	98	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Lead	305.20	300.0	102	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Nickel	292.23	300.0	97	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Vanadium	317.63	300.0	106	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
	Zinc	297.77	300.0	99	90.0 - 110.0	MS	4/30/2019	16:22	MS2043019B 6020B 200.8, g
CCV4									
	Arsenic	296.77	300.0	99	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Barium	308.27	300.0	103	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Beryllium	302.63	300.0	101	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Cadmium	299.50	300.0	100	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Chromium	304.63	300.0	102	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Cobalt	301.33	300.0	100	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Copper	303.33	300.0	101	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Lead	300.83	300.0	100	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Nickel	294.43	300.0	98	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Vanadium	319.33	300.0	106	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
	Zinc	303.20	300.0	101	90.0 - 110.0	MS	4/30/2019	17:35	MS2043019B 6020B 200.8, g
CCV5									
	Arsenic	298.73	300.0	100	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Barium	306.10	300.0	102	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Beryllium	303.93	300.0	101	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Cadmium	304.23	300.0	101	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Chromium	302.17	300.0	101	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Cobalt	299.53	300.0	100	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Copper	303.97	300.0	101	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Lead	308.57	300.0	103	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Nickel	290.40	300.0	97	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Vanadium	315.53	300.0	105	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g
	Zinc	306.13	300.0	102	90.0 - 110.0	MS	4/30/2019	18:48	MS2043019B 6020B 200.8, g

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	½ LOQ	½ LOQ	M	Analysis Date	Analysis Time	Run
ICB1										
	Arsenic	0.013	+/-1.000	U	1.000	1.000	MS	4/30/2019	11:10	MS2043019B 6
	Barium	0.015	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Beryllium	0.051	+/-0.200	U	0.200	0.200	MS	4/30/2019	11:10	MS2043019B 6
	Cadmium	0.029	+/-0.250	U	0.250	0.250	MS	4/30/2019	11:10	MS2043019B 6
	Chromium	0.024	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Cobalt	0.038	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Copper	0.012	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Lead	0.027	+/-0.500	U	0.500	0.500	MS	4/30/2019	11:10	MS2043019B 6
	Nickel	0.025	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Vanadium	0.014	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:10	MS2043019B 6
	Zinc	0.029	+/-5.000	U	5.000	5.000	MS	4/30/2019	11:10	MS2043019B 6
CCB1										
	Arsenic	0.089	+/-1.000	U	1.000	1.000	MS	4/30/2019	11:28	MS2043019B 6
	Barium	0.033	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Beryllium	0.030	+/-0.200	U	0.200	0.200	MS	4/30/2019	11:28	MS2043019B 6
	Cadmium	0.031	+/-0.250	U	0.250	0.250	MS	4/30/2019	11:28	MS2043019B 6
	Chromium	0.039	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Cobalt	0.049	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Copper	0.039	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Lead	0.039	+/-0.500	U	0.500	0.500	MS	4/30/2019	11:28	MS2043019B 6
	Nickel	0.018	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Vanadium	0.032	+/-2.500	U	2.500	2.500	MS	4/30/2019	11:28	MS2043019B 6
	Zinc	0.033	+/-5.000	U	5.000	5.000	MS	4/30/2019	11:28	MS2043019B 6

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	½ LOQ	½ LOQ	M	Analysis Date	Analysis Time	Run
CCB2										
	Arsenic	-0.021	+/-1.000	U	1.000	1.000	MS	4/30/2019	15:14	MS2043019B 6
	Barium	0.016	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Beryllium	0.039	+/-0.200	U	0.200	0.200	MS	4/30/2019	15:14	MS2043019B 6
	Cadmium	0.032	+/-0.250	U	0.250	0.250	MS	4/30/2019	15:14	MS2043019B 6
	Chromium	0.051	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Cobalt	0.040	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Copper	0.029	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Lead	0.034	+/-0.500	U	0.500	0.500	MS	4/30/2019	15:14	MS2043019B 6
	Nickel	0.030	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Vanadium	0.035	+/-2.500	U	2.500	2.500	MS	4/30/2019	15:14	MS2043019B 6
	Zinc	0.025	+/-5.000	U	5.000	5.000	MS	4/30/2019	15:14	MS2043019B 6
CCB3										
	Arsenic	0.007	+/-1.000	U	1.000	1.000	MS	4/30/2019	16:28	MS2043019B 6
	Barium	0.046	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Beryllium	0.044	+/-0.200	U	0.200	0.200	MS	4/30/2019	16:28	MS2043019B 6
	Cadmium	0.029	+/-0.250	U	0.250	0.250	MS	4/30/2019	16:28	MS2043019B 6
	Chromium	0.053	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Cobalt	0.055	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Copper	0.037	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Lead	0.038	+/-0.500	U	0.500	0.500	MS	4/30/2019	16:28	MS2043019B 6
	Nickel	0.028	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Vanadium	0.011	+/-2.500	U	2.500	2.500	MS	4/30/2019	16:28	MS2043019B 6
	Zinc	0.004	+/-5.000	U	5.000	5.000	MS	4/30/2019	16:28	MS2043019B 6

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	½ LOQ	½ LOQ	M	Analysis Date	Analysis Time	Run
CCB4										
	Arsenic	-0.022	+/-1.000	U	1.000	1.000	MS	4/30/2019	17:41	MS2043019B 6
	Barium	0.033	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Beryllium	0.029	+/-0.200	U	0.200	0.200	MS	4/30/2019	17:41	MS2043019B 6
	Cadmium	0.035	+/-0.250	U	0.250	0.250	MS	4/30/2019	17:41	MS2043019B 6
	Chromium	0.065	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Cobalt	0.048	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Copper	0.042	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Lead	0.036	+/-0.500	U	0.500	0.500	MS	4/30/2019	17:41	MS2043019B 6
	Nickel	0.027	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Vanadium	0.037	+/-2.500	U	2.500	2.500	MS	4/30/2019	17:41	MS2043019B 6
	Zinc	0.033	+/-5.000	U	5.000	5.000	MS	4/30/2019	17:41	MS2043019B 6
CCB5										
	Arsenic	0.026	+/-1.000	U	1.000	1.000	MS	4/30/2019	18:54	MS2043019B 6
	Barium	0.055	+/-2.500	U	2.500	2.500	MS	4/30/2019	18:54	MS2043019B 6
	Beryllium	0.049	+/-0.200	U	0.200	0.200	MS	4/30/2019	18:54	MS2043019B 6
	Cadmium	0.032	+/-0.250	U	0.250	0.250	MS	4/30/2019	18:54	MS2043019B 6
	Chromium	0.062	+/-2.500	U	2.500	2.500	MS	4/30/2019	18:54	MS2043019B 6
	Cobalt	0.054	+/-2.500	U	2.500	2.500	MS	4/30/2019	18:54	MS2043019B 6
	Copper	0.027	+/-2.500	U	2.500	2.500	MS	4/30/2019	18:54	MS2043019B 6
	Lead	0.040	+/-0.500	U	0.500	0.500	MS	4/30/2019	18:54	MS2043019B 6
	Nickel	0.031	+/-2.500	U	2.500	2.500	MS	4/30/2019	18:54	MS2043019B 6
	Vanadium	0.033	+/-2.500	U	2.500	2.500	MS	4/30/2019	18:54	MS2043019B 6
	Zinc	0.052	+/-5.000	U	5.000	5.000	MS	4/30/2019	18:54	MS2043019B 6

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INTERFERENCE CHECK SAMPLE

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

ICS Source: Inorganic Ventures **Instrument ID:** ICPMS2

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA								
	Arsenic	0.034			-4.000 to 4.000	4/30/2019	11:16	MS2043019B 6
	Barium	0.17			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Beryllium	0.016			-0.800 to 0.800	4/30/2019	11:16	MS2043019B 6
	Cadmium	0.23			-1.00 to 1.00	4/30/2019	11:16	MS2043019B 6
	Chromium	-1.8			-10.0 to 10.0	4/30/2019	11:16	MS2043019B 6
	Cobalt	0.51			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Copper	0.99			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Lead	0.078			-2.000 to 2.000	4/30/2019	11:16	MS2043019B 6
	Nickel	1.4			-10.0 to 10.0	4/30/2019	11:16	MS2043019B 6
	Vanadium	-0.88			-10.00 to 10.00	4/30/2019	11:16	MS2043019B 6
	Zinc	2.1			-20.0 to 20.0	4/30/2019	11:16	MS2043019B 6

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1002																										
BLANK	1.00	1008				X	X	X	X		X	X	X		X				X						X	X		
MW10971	1.00	1014																										
MW10956	1.00	1021																										
CAL1	1.00	1027				X	X	X			X	X	X		X				X						X	X		
CAL2	1.00	1033				X	X	X	X		X	X	X		X				X						X	X		
CAL3	1.00	1039				X	X	X	X		X	X	X		X				X						X	X		
CAL4	1.00	1045				X	X	X	X		X	X	X		X				X						X	X		
CAL5	1.00	1051																										
CAL6	1.00	1058																										
ICV1	1.00	1104				X	X	X	X		X	X	X		X				X						X	X		
ICB1	1.00	1110				X	X	X	X		X	X	X		X				X						X	X		
ICSA	1.00	1116				X	X	X	X		X	X	X		X				X						X	X		
CCV1	1.00	1122				X	X	X	X		X	X	X		X				X						X	X		
CCB1	1.00	1128				X	X	X	X		X	X	X		X				X						X	X		
ZZZZZZ	1.00	1134																										
ZZZZZZ	1.00	1141																										
ZZZZZZ	1.00	1147																										
ZZZZZZ	1.00	1153																										
ZZZZZZ	1.00	1159																										
ZZZZZZ	1.00	1205																										
ZZZZZZ	1.00	1211																										
ZZZZZZ	1.00	1217																										
ZZZZZZ	1.00	1223																										
ZZZZZZ	1.00	1229																										
ZZZZZZ	5.00	1236																										
ZZZZZZ	1.00	1242																										
ZZZZZZ	1.00	1248																										
ZZZZZZ	1.00	1254																										
ZZZZZZ	1.00	1300																										
ZZZZZZ	1.00	1306																										
ZZZZZZ	1.00	1312																										
ZZZZZZ	1.00	1318																										
ZZZZZZ	1.00	1324																										
ZZZZZZ	1.00	1330																										
ZZZZZZ	1.00	1337																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1343																								
ZZZZZZ	1.00	1349																								
ZZZZZZ	1.00	1355																								
ZZZZZZ	1.00	1401																								
ZZZZZZ	5.00	1407																								
ZZZZZZ	1.00	1413																								
ZZZZZZ	1.00	1419																								
ZZZZZZ	1.00	1425																								
ZZZZZZ	1.00	1432																								
ZZZZZZ	1.00	1438																								
ZZZZZZ	1.00	1444																								
ZZZZZZ	1.00	1450																								
ZZZZZZ	1.00	1456																								
ZZZZZZ	1.00	1502																								
CCV2	1.00	1508				X	X	X	X		X	X	X		X				X						X	X	
CCB2	1.00	1514				X	X	X	X		X	X	X		X				X						X	X	
ZZZZZZ	1.00	1520																								
ZZZZZZ	1.00	1527																								
ZZZZZZ	1.00	1533																								
ZZZZZZ	1.00	1539																								
ZZZZZZ	1.00	1545																								
ZZZZZZ	5.00	1551																								
ZZZZZZ	1.00	1557																								
ZZZZZZ	1.00	1603																								
UO14282-001	1.00	1609				X	X	X	X		X	X	X		X				X						X	X	
UO14282-002	1.00	1615				X	X	X	X		X	X	X		X				X						X	X	
CCV3	1.00	1622				X	X	X	X		X	X	X		X				X						X	X	
CCB3	1.00	1628				X	X	X	X		X	X	X		X				X						X	X	
ZZZZZZ	1.00	1634																								
ZZZZZZ	1.00	1640																								
ZZZZZZ	1.00	1646																								
ZZZZZZ	1.00	1652																								
ZZZZZZ	1.00	1658																								
ZZZZZZ	1.00	1704																								
ZZZZZZ	5.00	1710																								
ZZZZZZ	1.00	1716																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1723																								
ZZZZZZ	1.00	1729																								
CCV4	1.00	1735				X	X	X	X		X	X	X		X				X					X	X	
CCB4	1.00	1741				X	X	X	X		X	X	X		X				X					X	X	
UD13010-001	1.00	1747				X	X	X	X		X	X	X		X				X					X	X	
UD13010-002	1.00	1753				X	X	X	X		X	X	X		X				X					X	X	
UD13010-003	1.00	1759				X	X	X	X		X	X	X		X				X					X	X	
UD13010-004	1.00	1805				X	X	X	X		X	X	X		X				X					X	X	
UD13010-005	1.00	1811				X	X	X	X		X	X	X		X				X					X	X	
ZZZZZZ	1.00	1818																								
ZZZZZZ	1.00	1824																								
ZZZZZZ	1.00	1830																								
ZZZZZZ	1.00	1836																								
ZZZZZZ	1.00	1842																								
CCV5	1.00	1848				X	X	X	X		X	X	X		X				X					X	X	
CCB5	1.00	1854				X	X	X	X		X	X	X		X				X					X	X	
ZZZZZZ	1.00	1900																								
ZZZZZZ	1.00	1906																								
ZZZZZZ	1.00	1913																								
ZZZZZZ	1.00	1919																								
ZZZZZZ	1.00	1925																								
ZZZZZZ	1.00	1931																								
ZZZZZZ	1.00	1937																								
ZZZZZZ	1.00	1943																								
ZZZZZZ	1.00	1949																								
ZZZZZZ	1.00	1955																								
ZZZZZZ	1.00	2001																								
ZZZZZZ	1.00	2007																								
ZZZZZZ	1.00	2013																								
ZZZZZZ	1.00	2019																								
ZZZZZZ	1.00	2025																								
ZZZZZZ	1.00	2032																								
ZZZZZZ	1.00	2038																								
ZZZZZZ	1.00	2044																								
ZZZZZZ	1.00	2050																								
ZZZZZZ	1.00	2056																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2102																								
ZZZZZZ	5.00	2108																								
ZZZZZZ	1.00	2114																								
ZZZZZZ	1.00	2120																								
ZZZZZZ	1.00	2126																								
ZZZZZZ	5.00	2132																								
ZZZZZZ	5.00	2138																								
ZZZZZZ	5.00	2145																								
ZZZZZZ	1.00	2151																								
ZZZZZZ	1.00	2157																								
ZZZZZZ	1.00	2203																								
ZZZZZZ	1.00	2209																								
ZZZZZZ	1.00	2215																								
ZZZZZZ	1.00	2221																								
ZZZZZZ	1.00	2227																								
ZZZZZZ	1.00	2233																								
ZZZZZZ	1.00	2239																								
ZZZZZZ	1.00	2245																								
ZZZZZZ	1.00	2252																								
ZZZZZZ	5.00	2258																								
ZZZZZZ	1.00	2304																								
ZZZZZZ	1.00	2310																								
ZZZZZZ	1.00	2316																								
ZZZZZZ	1.00	2322																								
ZZZZZZ	1.00	2328																								
ZZZZZZ	1.00	2334																								
ZZZZZZ	1.00	2340																								
ZZZZZZ	1.00	2346																								
ZZZZZZ	1.00	2353																								
ZZZZZZ	1.00	2359																								
ZZZZZZ	1.00	0005																								
ZZZZZZ	1.00	0011																								
ZZZZZZ	1.00	0017																								
ZZZZZZ	1.00	0023																								
ZZZZZZ	1.00	0029																								
ZZZZZZ	1.00	0035																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0041																								
ZZZZZZ	1.00	0048																								
ZZZZZZ	1.00	0054																								
ZZZZZZ	1.00	0100																								
ZZZZZZ	1.00	0106																								
ZZZZZZ	1.00	0112																								
ZZZZZZ	1.00	0118																								
ZZZZZZ	1.00	0124																								
ZZZZZZ	1.00	0130																								
ZZZZZZ	1.00	0137																								
ZZZZZZ	1.00	0143																								
ZZZZZZ	1.00	0149																								
ZZZZZZ	1.00	0155																								
ZZZZZZ	5.00	0201																								
ZZZZZZ	1.00	0207																								
ZZZZZZ	1.00	0213																								
ZZZZZZ	1.00	0219																								
ZZZZZZ	5.00	0225																								
ZZZZZZ	5.00	0231																								
ZZZZZZ	5.00	0238																								
ZZZZZZ	25.00	0244																								
ZZZZZZ	5.00	0250																								
ZZZZZZ	5.00	0256																								
ZZZZZZ	20.00	0302																								
ZZZZZZ	200.00	0308																								
ZZZZZZ	1.00	0314																								
ZZZZZZ	1.00	0320																								
ZZZZZZ	1.00	0326																								
ZZZZZZ	20.00	0333																								
ZZZZZZ	1.00	0339																								
ZZZZZZ	1.00	0345																								
ZZZZZZ	1.00	0351																								
ZZZZZZ	1.00	0357																								
ZZZZZZ	1.00	0403																								
ZZZZZZ	1.00	0409																								
ZZZZZZ	1.00	0415																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0421																								
ZZZZZZ	1.00	0428																								
ZZZZZZ	1.00	0434																								
ZZZZZZ	1.00	0440																								
ZZZZZZ	1.00	0446																								
ZZZZZZ	1.00	0452																								
ZZZZZZ	1.00	0458																								
ZZZZZZ	1.00	0504																								
ZZZZZZ	1.00	0510																								
ZZZZZZ	1.00	0517																								
ZZZZZZ	1.00	0523																								
ZZZZZZ	1.00	0529																								
ZZZZZZ	1.00	0535																								
ZZZZZZ	1.00	0541																								
ZZZZZZ	1.00	0547																								
ZZZZZZ	1.00	0553																								
ZZZZZZ	1.00	0559																								
ZZZZZZ	1.00	0606																								
ZZZZZZ	1.00	0612																								
ZZZZZZ	5.00	0618																								
ZZZZZZ	5.00	0624																								
ZZZZZZ	5.00	0630																								
ZZZZZZ	5.00	0636																								
ZZZZZZ	5.00	0642																								
ZZZZZZ	1.00	0648																								
ZZZZZZ	1.00	0655																								
ZZZZZZ	1.00	0701																								
ZZZZZZ	1.00	0707																								
ZZZZZZ	5.00	0713																								
ZZZZZZ	1.00	0719																								
ZZZZZZ	1.00	0725																								
ZZZZZZ	1.00	0731																								
ZZZZZZ	1.00	0738																								
ZZZZZZ	1.00	0744																								
ZZZZZZ	1.00	0750																								
ZZZZZZ	1.00	0756																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: ICPMS2 Run Number: MS2043019B 6020B 200.8, generate

Start Date: 4/30/2019 End Date: 5/1/2019

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN				
ZZZZZZ	1.00	0802																												
ZZZZZZ	5.00	0808																												
ZZZZZZ	1.00	0814																												

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
TUNE	ZZZZZZ	1002	0											
BLANK	BLANK IM9353-01	1008	100		100		100		100		100		100	
MW10971	MW10971	1014	103		103		99		103		102		102	
MW10956	MW10956	1021	101		101		99		101		101		102	
CAL1	CAL1 MW-10957	1027	100		101		100		101		100		100	
CAL2	CAL2 MW-10958	1033	101		101		98		101		101		101	
CAL3	CAL3 MW-10931	1039	101		100		98		100		101		100	
CAL4	CAL4 MW-10932	1045	101		99		97		99		101		100	
CAL5	CAL5 MW-10933	1051	94		96		92		97		99		97	
CAL6	CAL6 MW-10934	1058	88		91		90		96		95		94	
ICV1	ICV1	1104	94		94		93		97		98		96	
ICB1	ICB1	1110	103		103		98		101		103		102	
ICSA	ICSA	1116	94		96		93		95		98		94	
CCV1	CCV1	1122	96		97		93		99		102		98	
CCB1	CCB1	1128	107		106		97		102		106		106	
LR	ZZZZZZ	1134	0											
UQ13877-001	ZZZZZZ	1141	0											
UQ13877-002	ZZZZZZ	1147	0											
UD12100-011	ZZZZZZ	1153	0											
UD12100-012	ZZZZZZ	1159	0											
UD11087-001	ZZZZZZ	1205	0											
UD11087-002	ZZZZZZ	1211	0											
UD11087-004	ZZZZZZ	1217	0											
UD11087-004	ZZZZZZ	1223	0											
UD11087-004	ZZZZZZ	1229	0											
UD11087-004	ZZZZZZ	1236	0											
CCV	ZZZZZZ	1242	0											
CCB	ZZZZZZ	1248	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD11087-004	ZZZZZZ	1254	0											
UD11087-005	ZZZZZZ	1300	0											
UD11087-006	ZZZZZZ	1306	0											
UD11087-007	ZZZZZZ	1312	0											
UD11087-008	ZZZZZZ	1318	0											
UQ14281-001	ZZZZZZ	1324	0											
UQ14281-002	ZZZZZZ	1330	0											
UD12086-001	ZZZZZZ	1337	0											
UD12086-001	ZZZZZZ	1343	0											
UD12086-001	ZZZZZZ	1349	0											
CCV	ZZZZZZ	1355	0											
CCB	ZZZZZZ	1401	0											
UD12086-001	ZZZZZZ	1407	0											
UD12086-001	ZZZZZZ	1413	0											
UD12086-003	ZZZZZZ	1419	0											
UD12086-005	ZZZZZZ	1425	0											
UD12086-006	ZZZZZZ	1432	0											
UD12086-007	ZZZZZZ	1438	0											
UD18014-014	ZZZZZZ	1444	0											
UD18014-017	ZZZZZZ	1450	0											
UD18014-019	ZZZZZZ	1456	0											
UD19038-008	ZZZZZZ	1502	0											
CCV2	CCV2	1508	98		97		97		101		101		99	
CCB2	CCB2	1514	110		107		107		105		106		105	
UD19038-009	ZZZZZZ	1520	0											
UD19038-010	ZZZZZZ	1527	0											
UQ14094-001	ZZZZZZ	1533	0											
UQ14094-002	ZZZZZZ	1539	0											
UD16054-002	ZZZZZZ	1545	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD16054-002	ZZZZZZ	1551	0											
UQ14280-001	ZZZZZZ	1557	0											
UQ14280-002	ZZZZZZ	1603	0											
UQ14282-001	UQ14282-001MB	1609	109		106		108		105		106		105	
UQ14282-002	LCS	1615	111		108		107		106		109		108	
CCV3	CCV3	1622	95		96		100		100		98		98	
CCB3	CCB3	1628	100		102		106		105		101		103	
UD13009-001	ZZZZZZ	1634	0											
UD13009-002	ZZZZZZ	1640	0											
UD13009-003	ZZZZZZ	1646	0											
UD13009-004	ZZZZZZ	1652	0											
UD13009-004	ZZZZZZ	1658	0											
UD13009-004	ZZZZZZ	1704	0											
UD13009-004	ZZZZZZ	1710	0											
UD13009-004	ZZZZZZ	1716	0											
UD13009-005	ZZZZZZ	1723	0											
UD13009-006	ZZZZZZ	1729	0											
CCV4	CCV4	1735	91		94		98		101		96		97	
CCB4	CCB4	1741	100		101		106		104		100		102	
UD13010-001	16-2	1747	105		103		108		106		104		104	
UD13010-002	16-3	1753	107		105		109		108		106		106	
UD13010-003	16-5	1759	99		101		109		107		101		102	
UD13010-004	16WC2B	1805	100		102		108		106		102		103	
UD13010-005	16SPRING	1811	107		106		109		107		107		106	
UQ14140-001	ZZZZZZ	1818	0											
UQ14140-002	ZZZZZZ	1824	0											
UD12037-001	ZZZZZZ	1830	0											
UD16015-001	ZZZZZZ	1836	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD16015-002	ZZZZZZ	1842	0											
CCV5	CCV5	1848	92		92		97		98		95		94	
CCB5	CCB5	1854	98		97		104		102		96		99	
UD18099-001	ZZZZZZ	1900	0											
UD18099-002	ZZZZZZ	1906	0											
UD18099-003	ZZZZZZ	1913	0											
UD18099-004	ZZZZZZ	1919	0											
UD18099-005	ZZZZZZ	1925	0											
UD18099-006	ZZZZZZ	1931	0											
UD18099-007	ZZZZZZ	1937	0											
UD18099-008	ZZZZZZ	1943	0											
UD18099-010	ZZZZZZ	1949	0											
UD18099-011	ZZZZZZ	1955	0											
CCV	ZZZZZZ	2001	0											
CCB	ZZZZZZ	2007	0											
UD18099-012	ZZZZZZ	2013	0											
UD18099-013	ZZZZZZ	2019	0											
UD18099-014	ZZZZZZ	2025	0											
UD20023-003	ZZZZZZ	2032	0											
UD20023-004	ZZZZZZ	2038	0											
UD20023-006	ZZZZZZ	2044	0											
UD20023-008	ZZZZZZ	2050	0											
UD20023-008	ZZZZZZ	2056	0											
UD20023-008	ZZZZZZ	2102	0											
UD20023-008	ZZZZZZ	2108	0											
CCV	ZZZZZZ	2114	0											
CCB	ZZZZZZ	2120	0											
UD20023-008	ZZZZZZ	2126	0											
UD12037-001	ZZZZZZ	2132	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD16015-001	ZZZZZZ	2138	0											
UD16015-002	ZZZZZZ	2145	0											
ICSA	ZZZZZZ	2151	0											
UQ14720-001	ZZZZZZ	2157	0											
UQ14720-002	ZZZZZZ	2203	0											
UD25032-037	ZZZZZZ	2209	0											
UD25032-040	ZZZZZZ	2215	0											
UD25032-041	ZZZZZZ	2221	0											
CCV	ZZZZZZ	2227	0											
CCB	ZZZZZZ	2233	0											
UD25032-044	ZZZZZZ	2239	0											
UD25032-044	ZZZZZZ	2245	0											
UD25032-044	ZZZZZZ	2252	0											
UD25032-044	ZZZZZZ	2258	0											
UD25032-044	ZZZZZZ	2304	0											
UD25032-045	ZZZZZZ	2310	0											
UD25032-047	ZZZZZZ	2316	0											
UD25032-048	ZZZZZZ	2322	0											
UD25032-051	ZZZZZZ	2328	0											
UD25032-052	ZZZZZZ	2334	0											
CCV	ZZZZZZ	2340	0											
CCB	ZZZZZZ	2346	0											
UD25032-055	ZZZZZZ	2353	0											
UD25032-056	ZZZZZZ	2359	0											
UD25032-058	ZZZZZZ	0005	0											
UD25032-059	ZZZZZZ	0011	0											
UD25032-062	ZZZZZZ	0017	0											
UD25032-063	ZZZZZZ	0023	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD25032-066	ZZZZZZ	0029	0											
UD25032-067	ZZZZZZ	0035	0											
UD25032-068	ZZZZZZ	0041	0											
UD25032-069	ZZZZZZ	0048	0											
CCV	ZZZZZZ	0054	0											
CCB	ZZZZZZ	0100	0											
UD25032-070	ZZZZZZ	0106	0											
UQ14724-001	ZZZZZZ	0112	0											
UQ14724-002	ZZZZZZ	0118	0											
UD25032-071	ZZZZZZ	0124	0											
UD25032-072	ZZZZZZ	0130	0											
UD25032-073	ZZZZZZ	0137	0											
UD25032-074	ZZZZZZ	0143	0											
UD25032-074	ZZZZZZ	0149	0											
UD25032-074	ZZZZZZ	0155	0											
UD25032-074	ZZZZZZ	0201	0											
CCV	ZZZZZZ	0207	0											
CCB	ZZZZZZ	0213	0											
UD25032-074	ZZZZZZ	0219	0											
UD18066-001	ZZZZZZ	0225	0											
UD18066-001	ZZZZZZ	0231	0											
UD18066-001	ZZZZZZ	0238	0											
UD18066-001	ZZZZZZ	0244	0											
UD18068-001	ZZZZZZ	0250	0											
UD18068-001	ZZZZZZ	0256	0											
UD18084-001	ZZZZZZ	0302	0											
UD18084-001	ZZZZZZ	0308	0											
UD18091-001	ZZZZZZ	0314	0											
CCV	ZZZZZZ	0320	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
CCB	ZZZZZZ	0326	0											
UD18097-001	ZZZZZZ	0333	0											
UD19027-003	ZZZZZZ	0339	0											
UD19053-001	ZZZZZZ	0345	0											
UD17082-002	ZZZZZZ	0351	0											
UD18051-001	ZZZZZZ	0357	0											
UD18089-001	ZZZZZZ	0403	0											
UQ14763-001	ZZZZZZ	0409	0											
UQ14763-002	ZZZZZZ	0415	0											
UD18070-004	ZZZZZZ	0421	0											
UD18070-005	ZZZZZZ	0428	0											
CCV	ZZZZZZ	0434	0											
CCB	ZZZZZZ	0440	0											
UD18070-006	ZZZZZZ	0446	0											
UD18070-007	ZZZZZZ	0452	0											
UD18090-001	ZZZZZZ	0458	0											
UD19057-001	ZZZZZZ	0504	0											
UD22037-001	ZZZZZZ	0510	0											
UD18035-001	ZZZZZZ	0517	0											
UD18035-002	ZZZZZZ	0523	0											
UD18035-003	ZZZZZZ	0529	0											
UD18035-004	ZZZZZZ	0535	0											
UD18035-005	ZZZZZZ	0541	0											
CCV	ZZZZZZ	0547	0											
CCB	ZZZZZZ	0553	0											
UD18035-006	ZZZZZZ	0559	0											
UD18035-007	ZZZZZZ	0606	0											
UD18035-008	ZZZZZZ	0612	0											

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Shealy Environmental Services, In Contract: RAAP HWMU16

Lab Code: Shealy Case No.: NRAS No.: SDG NO.: UD13010

ICP-MS Instrument ID: ICPMS2 Start Date: 04/30/2019 End Date: 04/30/2019

EPA Sample No.	Client ID	Time	Internal Standards %RI For: Element Bi	Q	Element In	Q	Element Li	Q	Element Sc	Q	Element Tb	Q	Element Y	Q
UD18052-001	ZZZZZZ	0618	0											
UD19049-001	ZZZZZZ	0624	0											
UD19049-001	ZZZZZZ	0630	0											
UD19049-001	ZZZZZZ	0636	0											
UD19049-001	ZZZZZZ	0642	0											
UD23063-001	ZZZZZZ	0648	0											
UD23063-001	ZZZZZZ	0655	0											
CCV	ZZZZZZ	0701	0											
CCB	ZZZZZZ	0707	0											
UD24009-001	ZZZZZZ	0713	0											
UQ14857-001	ZZZZZZ	0719	0											
UQ14857-002	ZZZZZZ	0725	0											
UD19046-001	ZZZZZZ	0731	0											
UD19046-002	ZZZZZZ	0738	0											
UD19046-003	ZZZZZZ	0744	0											
UD19046-004	ZZZZZZ	0750	0											
UD19046-004	ZZZZZZ	0756	0											
UD19046-004	ZZZZZZ	0802	0											
UD19046-004	ZZZZZZ	0808	0											
CCV	ZZZZZZ	0814	0											

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Shealy Environmental Services, Inc. **Contract:** RAAP HWMU16

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:** UD13010

Instrument ID: ICPMS2 **Start Date:** 4/30/2019

Analytical Method: ICP-MS **Run Batch:** MS2043019B 6020B 200.8, generated 0

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Arsenic	0.00	0	0	2.00	1.9	-7	10.0	9.6	-4
Barium	0.00	0	0	5.00	5.0	-1	25.0	25	1
Beryllium	0.00	0	0	0.400	0.41	3	2.00	2.1	5
Cadmium	0.00	0	0			0	0.500	0.52	3
Chromium	0.00	0	0	5.00	5.1	1	25.0	24	-2
Cobalt	0.00	0	0	1.00	0.99	-1	5.00	5.0	-1
Copper	0.00	0	0	5.00	5.0	0	25.0	24	-2
Lead	0.00	0	0	1.00	0.97	-3	5.00	4.9	-1
Nickel	0.00	0	0	5.00	5.0	1	25.0	24	-2
Vanadium	0.00	0	0	5.00	5.0	1	25.0	25	-2
Zinc	0.00	0	0	10.0	10	1	50.0	49	-2

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Shealy Environmental Services, **Contract:** RAAP HWMU16

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:** UD13010

Instrument ID: ICPMS2 **Start Date:** 4/30/2019

Analytical Method: ICP-MS **Run Batch:** MS2043019B 6020B 200.8, generat

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Arsenic	250	249	-1	500	503	1			
Barium	250	250	0	500	498	0			
Beryllium	250	250	0	500	496	-1			
Cadmium	250	246	-2	500	500	0			
Chromium	250	250	0	500	503	1			
Cobalt	250	251	0	500	502	0			
Copper	250	245	-2	500	499	0			
Lead	250	248	-1	500	501	0			
Nickel	250	250	0	500	501	0			
Vanadium	250	249	-1	500	502	0			
Zinc	250	249	0	500	501	0			

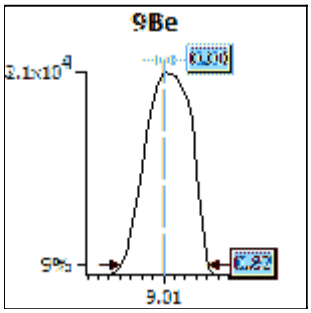
Raw Sample Data

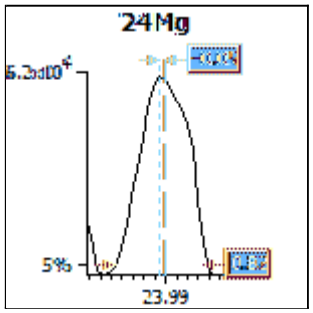
Performance Report

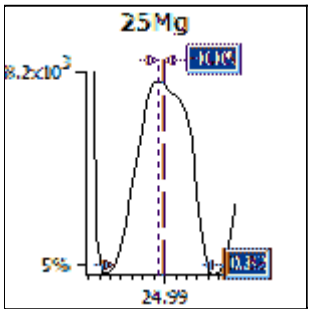
Sample details
Acquired at : 04/30/2019 08:14:04
Report name : Shealy Performance Report ICPMS2 [04/04/2019 12:35:02]

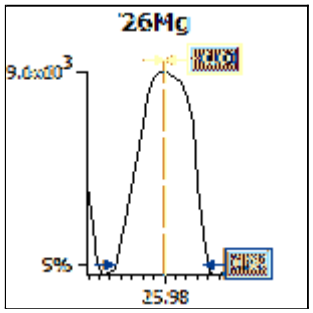
Mass Calibration verification

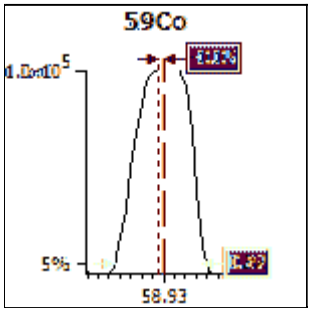
Acquisition parameters
Sweeps : 25
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum

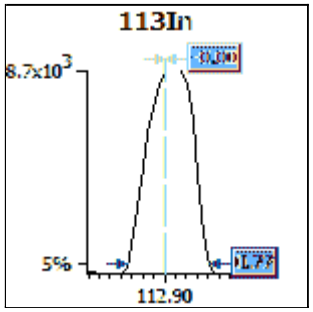


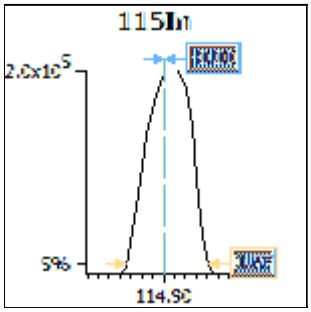


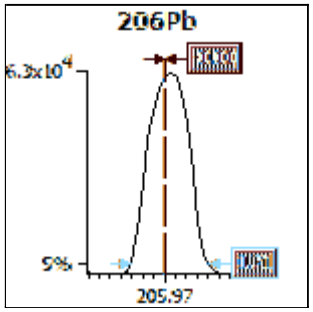


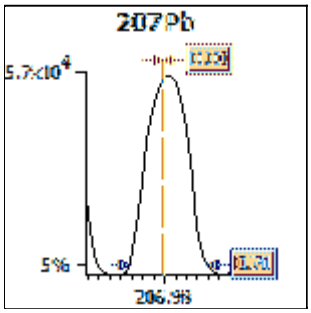


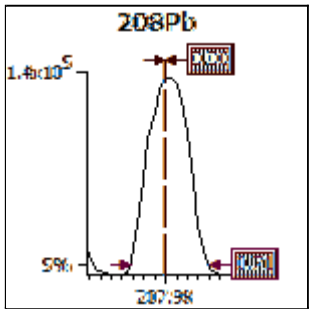












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.10	0.82	0.00
24Mg	0.85	0.65	0.10	0.82	-0.05
25Mg	0.85	0.65	0.10	0.82	-0.05
26Mg	0.85	0.65	0.10	0.82	-0.00
59Co	0.85	0.65	0.10	0.82	-0.05
113In	0.85	0.65	0.10	0.77	-0.00
115In	0.85	0.65	0.10	0.77	-0.00
206Pb	0.85	0.65	0.10	0.71	-0.00
207Pb	0.85	0.65	0.10	0.71	0.00
208Pb	0.85	0.65	0.10	0.71	0.00

Sample details
Acquired at : 04/30/2019 08:14:04
Report name : Shealy Performance Report ICPMS2 [04/04/2019 12:35:02]

Tune conditions

Major	
Extraction	-98.0
Lens 1	-1004
Lens 2	-83.1
Focus	16.9
D1	-40.0
D2	-146
Pole Bias	-1.0
Hexapole Bias	-4.0
Nebuliser	0.78

Minor	
Lens 3	-196.1
Forward power	1404
Horizontal	61
Vertical	641
DA	-58.0
Cool	13.0
Auxiliary	1.00
Sampling Depth	60

Global	
Standard resolution	110
High resolution	105
Analogue Detector	2188
PC Detector	3450

Add. Gases

Sensitivity and stability results

Acquisition parameters
Sweeps : 130

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	136Ba++	101Bkg
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-	-
	Countrate	-	>5000	>1000	>1000	>1000	-	>10000	-	-
1	08:15:27	0.769	19184.837	57068.565	8025.849	9593.521	192230.36	115139.16	2185.647	0.769
2	08:15:59	0.000	19192.546	57441.673	7908.053	9488.796	194091.59	116240.74	2114.092	0.769
3	08:16:31	0.000	19063.814	57504.375	7992.743	9571.960	195494.24	116554.72	2104.090	0.000
4	08:17:03	0.769	18594.381	57269.050	7868.789	9328.630	198984.92	114669.44	2237.198	1.538
5	08:17:35	0.000	18935.854	57634.425	8121.318	9367.131	199823.79	115799.00	2069.466	1.538
x		0.308	18994.287	57383.618	7983.350	9470.007	196124.98	115680.61	2142.099	0.923
σ		0.42	246.87	219.80	99.65	118.93	3223.39	775.80	67.91	0.64
%RSD		136.931	1.300	0.383	1.248	1.256	1.644	0.671	3.170	69.722

Run	Time	113In	115In	138Ba	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	5.0%	5.0%	-	-	-	5.0%	5.0%	5.0%	-
	Countrate	>1000	>10000	-	-	-	>10000	>10000	>10000	<2
1	08:15:27	9134.587	209117.82	168674.27	226508.66	3972.406	65606.651	56703.986	139367.07	0.000
2	08:15:59	9027.557	210029.24	168327.15	226289.45	3958.554	65354.847	56944.715	139234.29	0.000
3	08:16:31	9132.277	208413.45	167241.23	224916.78	3929.311	64906.266	56601.814	137918.30	0.000
4	08:17:03	8907.439	201417.62	162138.49	217408.16	3878.519	62621.865	54577.183	132935.67	0.000
5	08:17:35	8882.799	204206.50	164313.96	221613.27	3918.537	63441.364	55149.854	134740.41	0.000
x		9016.932	206636.93	166139.02	223347.26	3931.465	64386.199	55995.510	136839.15	0.000
σ		119.62	3673.10	2818.04	3853.37	36.69	1294.59	1060.34	2869.39	0.00
%RSD		1.327	1.778	1.696	1.725	0.933	2.011	1.894	2.097	0.000

Ratio results

Run	Time	56Ar O/59Co	136Ba++/138Ba	115In/101Bkg	156Ce O/140Ce
Ratio limits		-	-	-	-
1	08:15:27	1.670	0.013	271853.15	0.018
2	08:15:59	1.670	0.013	273038.00	0.017
3	08:16:31	1.677	0.013	INF	0.017
4	08:17:03	1.735	0.014	130921.44	0.018
5	08:17:35	1.726	0.013	132734.22	0.018
x		1.6955	0.0129	202136.70	0.0176
σ		0.03	0.00	114524.12	0.00
%RSD		1.9019	4.1039	56.6568	0.8812

Result : The performance report passed.

FORM 11-IN

ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Shealy Environmental Services, I **Contract:**

Lab Code: Shealy **Case No.:** **MA No.:** **SDG No.:**

Instrument ID: ICPMS2

Run Batch: MS2043019B 6020B 200.8, gen **Date:** 4/30/2019

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	45Sc	
Antimony	159Tb	
Arsenic	45Sc	
Barium	159Tb	
Beryllium	6Li	45Sc
Boron	6Li	45Sc
Cadmium	115In	
Calcium	6Li	45Sc
Chromium	45Sc	
Cobalt	45Sc	
Copper	115In	
Iron	45Sc	
Lead	159Tb	
Magnesium	6Li	45Sc
Manganese	45Sc	
Molybdenum	89Y	
Nickel	45Sc	
Potassium	6Li	45Sc
Selenium	115In	
Silicon	45Sc	
Silver	115In	
Sodium	6Li	45Sc
Strontium	45Sc	89Y
Thallium	159Tb	
Tin	115In	159Tb
Titanium	45Sc	
Vanadium	45Sc	
Zinc	115In	

Experiment Details

Description	PlasmaLab Template BlankExperiment
Template Filename	C:\Program Files\Thermo Fisher\PlasmaLab\data\MS2042319C 6020B 200.8.tee
Created By User	DemoX
Analyte Database	200_8.tea
Creation Timestamp	12/01/2004 11:33:01
Last Edited By	eqi.im
Last Edit Timestamp	05/01/2019 09:06:34
Instrument Detector	Simultaneous
Database Version	3.51
Acquisition Mode	Unknown

Numerical Results report key (text indicates meaning)

Blue text indicates that cell is a statistic.
Underlining indicates that a data warning flag is set.

Column headings
- No flag
- Semi Quant
- Standard Addition
- Multi Element

Result cells
- Internal Standard
- Excluded
- QC Warning
- QC Failure

Transient TRA only:
- Peak Not Found
- Manually Edited
- Merged Peak

Data warning flags
I - Invalid calibration
T - Tripped
F - Interference correction failed
M - Result over max
V - Valley integration failed
D - Different method used

Fully Quantitative Concentrations

Id	Label	9Be	10B	11B	23Na	24Mg	25Mg	26Mg	27Al	28Si	39K
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956			25.000				50.000			200.000
5	cal1 MW-10957	0.400	50.000	50.000	400.000	400.000	400.000	400.000	40.000	100.000	400.000
6	cal2 MW-10958	2.000			2000.000	2000.000	2000.000	2000.000	200.000		2000.000
7	cal3 MW-10931	250.000	250.000	250.000					250.000	250.000	
8	cal4 MW-10932	500.000	500.000	500.000					500.000	500.000	
9	cal5 MW-10933				50000.000	50000.000	50000.000	50000.000		5000.000	50000.000
10	cal6 MW-10934				100000.000	100000.000	100000.000	100000.000		10000.000	100000.000

Id	Label	43Ca	44Ca	47Ti	51V	52Cr	55Mn	54Fe	56Fe	57Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956									20.000	
5	cal1 MW-10957	400.000	400.000	5.000	5.000	5.000	5.000	50.000	50.000	50.000	1.000
6	cal2 MW-10958	2000.000	2000.000	25.000	25.000	25.000	25.000				5.000
7	cal3 MW-10931			250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932			500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933	50000.000	50000.000					50000.000	50000.000	50000.000	
10	cal6 MW-10934	100000.000	100000.000					100000.000	100000.000	100000.000	

Id	Label	60Ni	62Ni	63Cu	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971	2.000									
4	MW10956				1.000						
5	cal1 MW-10957	5.000	5.000	5.000	5.000	10.000	10.000	10.000	2.000	5.000	5.000
6	cal2 MW-10958	25.000	25.000	25.000	25.000	50.000	50.000	50.000	10.000	25.000	25.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	88Sr	95Mo	97Mo	98Mo	107Ag	109Ag	106Cd	111Cd	114Cd	116Sn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956										
5	cal1 MW-10957	10.000	10.000	10.000	10.000	1.000	1.000	0.100	0.100	0.100	20.000
6	cal2 MW-10958	50.000	50.000	50.000	50.000	5.000	5.000	0.500	0.500	0.500	100.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000
8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	118Sn	121Sb	123Sb	135Ba	137Ba	203Tl	205Tl	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
3	MW10971										
4	MW10956	5.000									
5	cal1 MW-10957	20.000	2.000	2.000	5.000	5.000	0.500	0.500	1.000	1.000	1.000
6	cal2 MW-10958	100.000	10.000	10.000	25.000	25.000	2.500	2.500	5.000	5.000	5.000
7	cal3 MW-10931	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000	250.000

8	cal4 MW-10932	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000
9	cal5 MW-10933										
10	cal6 MW-10934										

Id	Label	232Th	238U
		ppb	ppb
3	MW10971		
4	MW10956		
5	cal1 MW-10957		50.000
6	cal2 MW-10958		250.000
7	cal3 MW-10931		
8	cal4 MW-10932		500.000
9	cal5 MW-10933		
10	cal6 MW-10934		

Sample List

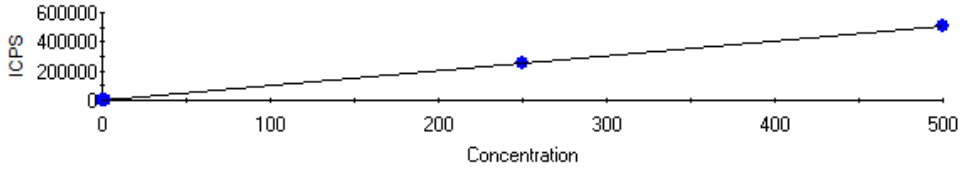
No	Label	Type	Weight	Rack	Row	Col	Height		
1	TUNE MW10939	Unknown	1.000	0	1	6	144		
2	BLANK IM9353-01	Blank	1.000	0	1	1	144		
3	MW10971	Fully Quant Standard	1.000	4	5	1	144		
4	MW10956	Fully Quant Standard	1.000	4	5	2	144		
5	cal1 MW-10957	Fully Quant Standard	1.000	4	5	3	144		
6	cal2 MW-10958	Fully Quant Standard	1.000	4	5	4	144		
7	cal3 MW-10931	Fully Quant Standard	1.000	4	5	5	144		
8	cal4 MW-10932	Fully Quant Standard	1.000	4	5	6	144		
9	cal5 MW-10933	Fully Quant Standard	1.000	4	5	7	144		
10	cal6 MW-10934	Fully Quant Standard	1.000	4	5	8	144		
11	ICV MW11020 PREP 4/30/19	QC Sample	1.000	4	5	11	144		
12	ICB IM9390-01	QC Sample	1.000	0	1	1	144		
13	ICSA MW10984	QC Sample	1.000	4	5	12	144		
14	CCV MW10994	QC Sample	1.000	0	1	8	144		
15	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
16	LR ~~MW10763~~	QC Sample	1.000	4	5	10	144	MW10963	njt 5-7-19
17	UQ13877-001	Unknown	1.000	1	1	1	144		
18	UQ13877-002	Unknown	1.000	1	1	2	144		
19	UD12100-011	Unknown	1.000	1	1	3	144		
20	UD12100-012	Unknown	1.000	1	1	4	144		
21	UD11087-001	Unknown	1.000	1	1	5	144		
22	UD11087-002	Unknown	1.000	1	1	6	144		
23	UD11087-004	Unknown	1.000	1	1	7	144		
24	UD11087-004S	Unknown	1.000	1	1	8	144		
25	UD11087-004SD	Unknown	1.000	1	1	9	144		
26	UD11087-004L(5)	Unknown	1.000	1	1	10	144		
27	CCV MW10994	QC Sample	1.000	0	1	8	144		
28	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
29	UD11087-004A	Unknown	1.000	1	2	1	144		
30	UD11087-005	Unknown	1.000	1	2	2	144		
31	UD11087-006	Unknown	1.000	1	2	3	144		
32	UD11087-007	Unknown	1.000	1	2	4	144		
33	UD11087-008	Unknown	1.000	1	2	5	144		
34	UQ14281-001	QC Sample	1.000	1	2	6	144		
35	UQ14281-002	QC Sample	1.000	1	2	7	144		
36	UD12086-001DIS	Unknown	1.000	1	2	8	144		
37	UD12086-001SDIS	Unknown	1.000	1	2	9	144		
38	UD12086-001SDDIS	Unknown	1.000	1	2	10	144		
39	CCV MW10994	QC Sample	1.000	0	1	8	144		
40	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
41	UD12086-001L(5)DIS	Unknown	1.000	1	3	1	144		
42	UD12086-001ADIS	Unknown	1.000	1	3	2	144		
43	UD12086-003DIS	Unknown	1.000	1	3	3	144		
44	UD12086-005DIS	Unknown	1.000	1	3	4	144		
45	UD12086-006DIS	Unknown	1.000	1	3	5	144		
46	UD12086-007DIS	Unknown	1.000	1	3	6	144		
47	UD18014-014	Unknown	1.000	1	3	7	144		
48	UD18014-017	Unknown	1.000	1	3	8	144		
49	UD18014-019	Unknown	1.000	1	3	9	144		
50	UD19038-008	Unknown	1.000	1	3	10	144		
51	CCV MW10994	QC Sample	1.000	0	1	8	144		
52	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
53	UD19038-009	Unknown	1.000	1	4	1	144		
54	UD19038-010	Unknown	1.000	1	4	2	144		
55	UQ14094-001	Unknown	1.000	1	4	3	144		
56	UQ14094-002	Unknown	1.000	1	4	4	144		
57	UD16054-002	Unknown	1.000	1	4	5	144		
58	UD16054-002(5)	Unknown	1.000	1	4	6	144		
59	UQ14280-001	QC Sample	1.000	1	4	7	144		
60	UQ14280-002	Unknown	1.000	1	4	8	144		
61	UQ14282-001	QC Sample	1.000	1	4	9	144		
62	UQ14282-002	Unknown	1.000	1	4	10	144		
63	CCV MW10994	QC Sample	1.000	0	1	8	144		
64	CCB IM9390-01	QC Sample	1.000	0	1	1	144		
65	UD13009-001	Unknown	1.000	1	5	1	144		
66	UD13009-002	Unknown	1.000	1	5	2	144		

67	UD13009-003	Unknown	1.000	1	5	3	144
68	UD13009-004	Unknown	1.000	1	5	4	144
69	UD13009-004S	Unknown	1.000	1	5	5	144
70	UD13009-004SD	Unknown	1.000	1	5	6	144
71	UD13009-004L(5)	Unknown	1.000	1	5	7	144
72	UD13009-004A	Unknown	1.000	1	5	8	144
73	UD13009-005	Unknown	1.000	1	5	9	144
74	UD13009-006	Unknown	1.000	1	5	10	144
75	CCV MW10994	QC Sample	1.000	0	1	8	144
76	CCB IM9390-01	QC Sample	1.000	0	1	1	144
77	UD13010-001	Unknown	1.000	2	1	1	144
78	UD13010-002	Unknown	1.000	2	1	2	144
79	UD13010-003	Unknown	1.000	2	1	3	144
80	UD13010-004	Unknown	1.000	2	1	4	144
81	UD13010-005	Unknown	1.000	2	1	5	144
82	UQ14140-001	QC Sample	1.000	2	1	6	144
83	UQ14140-002	Unknown	1.000	2	1	7	144
84	UD12037-001	Unknown	1.000	2	1	8	144
85	UD16015-001	Unknown	1.000	2	1	9	144
86	UD16015-002	Unknown	1.000	2	1	10	144
87	CCV MW10994	QC Sample	1.000	0	1	8	144
88	CCB IM9390-01	QC Sample	1.000	0	1	1	144
89	UD18099-001	Unknown	1.000	2	2	1	144
90	UD18099-002	Unknown	1.000	2	2	2	144
91	UD18099-003	Unknown	1.000	2	2	3	144
92	UD18099-004	Unknown	1.000	2	2	4	144
93	UD18099-005	Unknown	1.000	2	2	5	144
94	UD18099-006	Unknown	1.000	2	2	6	144
95	UD18099-007	Unknown	1.000	2	2	7	144
96	UD18099-008	Unknown	1.000	2	2	8	144
97	UD18099-010	Unknown	1.000	2	2	9	144
98	UD18099-011	Unknown	1.000	2	2	10	144
99	CCV MW10994	QC Sample	1.000	0	1	8	144
100	CCB IM9390-01	QC Sample	1.000	0	1	1	144
101	UD18099-012	Unknown	1.000	2	3	1	144
102	UD18099-013	Unknown	1.000	2	3	2	144
103	UD18099-014	Unknown	1.000	2	3	3	144
104	UD20023-003	Unknown	1.000	2	3	4	144
105	UD20023-004	Unknown	1.000	2	3	5	144
106	UD20023-006	Unknown	1.000	2	3	6	144
107	UD20023-008	Unknown	1.000	2	3	7	144
108	UD20023-008S	Unknown	1.000	2	3	8	144
109	UD20023-008SD	Unknown	1.000	2	3	9	144
110	UD20023-008L(5)	Unknown	1.000	2	3	10	144
111	CCV MW10994	QC Sample	1.000	0	1	8	144
112	CCB IM9390-01	QC Sample	1.000	0	1	1	144
113	UD20023-008A	Unknown	1.000	2	4	1	144
114	UD12037-001(5)	Unknown	1.000	2	4	2	144
115	UD16015-001(5)	Unknown	1.000	2	4	3	144
116	UD16015-002(5)	Unknown	1.000	2	4	4	144
117	ICSA MW10984	Unknown	1.000	2	4	5	144
118	UQ14720-001	QC Sample	1.000	2	4	6	144
119	UQ14720-002	Unknown	1.000	2	4	7	144
120	UD25032-037	Unknown	1.000	2	4	8	144
121	UD25032-040	Unknown	1.000	2	4	9	144
122	UD25032-041	Unknown	1.000	2	4	10	144
123	CCV MW10994	QC Sample	1.000	0	1	8	144
124	CCB IM9390-01	QC Sample	1.000	0	1	1	144
125	UD25032-044	Unknown	1.000	2	5	1	144
126	UD25032-044S	Unknown	1.000	2	5	2	144
127	UD25032-044SD	Unknown	1.000	2	5	3	144
128	UD25032-044L(5)	Unknown	1.000	2	5	4	144
129	UD25032-044A	Unknown	1.000	2	5	5	144
130	UD25032-045	Unknown	1.000	2	5	6	144
131	UD25032-047	Unknown	1.000	2	5	7	144
132	UD25032-048	Unknown	1.000	2	5	8	144
133	UD25032-051	Unknown	1.000	2	5	9	144
134	UD25032-052	Unknown	1.000	2	5	10	144
135	CCV MW10994	QC Sample	1.000	0	1	8	144
136	CCB IM9390-01	QC Sample	1.000	0	1	1	144
137	UD25032-055	Unknown	1.000	3	1	1	144
138	UD25032-056	Unknown	1.000	3	1	2	144
139	UD25032-058	Unknown	1.000	3	1	3	144
140	UD25032-059	Unknown	1.000	3	1	4	144
141	UD25032-062	Unknown	1.000	3	1	5	144
142	UD25032-063	Unknown	1.000	3	1	6	144
143	UD25032-066	Unknown	1.000	3	1	7	144
144	UD25032-067	Unknown	1.000	3	1	8	144
145	UD25032-068	Unknown	1.000	3	1	9	144
146	UD25032-069	Unknown	1.000	3	1	10	144
147	CCV MW10994	QC Sample	1.000	0	1	8	144
148	CCB IM9390-01	QC Sample	1.000	0	1	1	144
149	UD25032-070	Unknown	1.000	3	2	1	144
150	UQ14724-001	QC Sample	1.000	3	2	2	144

	UQ14724-002	Unknown	1.000	3	2	3	144
152	UD25032-071	Unknown	1.000	3	2	4	144
153	UD25032-072	Unknown	1.000	3	2	5	144
154	UD25032-073	Unknown	1.000	3	2	6	144
155	UD25032-074	Unknown	1.000	3	2	7	144
156	UD25032-074S	Unknown	1.000	3	2	8	144
157	UD25032-074SD	Unknown	1.000	3	2	9	144
158	UD25032-074L(5)	Unknown	1.000	3	2	10	144
159	CCV MW10994	QC Sample	1.000	0	1	8	144
160	CCB IM9390-01	QC Sample	1.000	0	1	1	144
161	UD25032-074A	Unknown	1.000	3	3	1	144
162	UD18066-001(5)	Unknown	1.000	3	3	2	144
163	UD18066-001S(5)	Unknown	1.000	3	3	3	144
164	UD18066-001SD(5)	Unknown	1.000	3	3	4	144
165	UD18066-001L(25)	Unknown	1.000	3	3	5	144
166	UD18068-001(5)	Unknown	1.000	3	3	6	144
167	UD18068-001S(5)	Unknown	1.000	3	3	7	144
168	UD18084-001(20)	Unknown	1.000	3	3	8	144
169	UD18084-001(200)	Unknown	1.000	3	3	9	144
170	UD18091-001	Unknown	1.000	3	3	10	144
171	CCV MW10994	QC Sample	1.000	0	1	8	144
172	CCB IM9390-01	QC Sample	1.000	0	1	1	144
173	UD18097-001(20)	Unknown	1.000	3	4	1	144
174	UD19027-003	Unknown	1.000	3	4	2	144
175	UD19053-001	Unknown	1.000	3	4	3	144
176	UD17082-002	Unknown	1.000	3	4	4	144
177	UD18051-001	Unknown	1.000	3	4	5	144
178	UD18089-001	Unknown	1.000	3	4	6	144
179	UQ14763-001	QC Sample	1.000	3	4	7	144
180	UQ14763-002	Unknown	1.000	3	4	8	144
181	UD18070-004	Unknown	1.000	3	4	9	144
182	UD18070-005	Unknown	1.000	3	4	10	144
183	CCV MW10994	QC Sample	1.000	0	1	8	144
184	CCB IM9390-01	QC Sample	1.000	0	1	1	144
185	UD18070-006	Unknown	1.000	3	5	1	144
186	UD18070-007	Unknown	1.000	3	5	2	144
187	UD18090-001	Unknown	1.000	3	5	3	144
188	UD19057-001	Unknown	1.000	3	5	4	144
189	UD22037-001	Unknown	1.000	3	5	5	144
190	UD18035-001	Unknown	1.000	3	5	6	144
191	UD18035-002	Unknown	1.000	3	5	7	144
192	UD18035-003	Unknown	1.000	3	5	8	144
193	UD18035-004	Unknown	1.000	3	5	9	144
194	UD18035-005	Unknown	1.000	3	5	10	144
195	CCV MW10994	QC Sample	1.000	0	1	7	144
196	CCB IM9390-01	QC Sample	1.000	0	1	2	144
197	UD18035-006	Unknown	1.000	4	1	1	144
198	UD18035-007	Unknown	1.000	4	1	2	144
199	UD18035-008	Unknown	1.000	4	1	3	144
200	UD18052-001(5)	Unknown	1.000	4	1	4	144
201	UD19049-001(5)	Unknown	1.000	4	1	5	144
202	UD19049-001S(5)	Unknown	1.000	4	1	6	144
203	UD19049-001SD(5)	Unknown	1.000	4	1	7	144
204	UD19049-001L(5)	Unknown	1.000	4	1	8	144
205	UD23063-001	Unknown	1.000	4	1	9	144
206	UD23063-001S	Unknown	1.000	4	1	10	144
207	CCV MW10994	QC Sample	1.000	0	1	7	144
208	CCB IM9390-01	QC Sample	1.000	0	1	2	144
209	UD24009-001(5)	Unknown	1.000	4	2	1	144
210	UQ14857-001	Unknown	1.000	4	2	2	144
211	UQ14857-002	Unknown	1.000	4	2	3	144
212	UD19046-001	Unknown	1.000	4	2	4	144
213	UD19046-002	Unknown	1.000	4	2	5	144
214	UD19046-003	Unknown	1.000	4	2	6	144
215	UD19046-004	Unknown	1.000	4	2	7	144
216	UD19046-004S	Unknown	1.000	4	2	8	144
217	UD19046-004SD	Unknown	1.000	4	2	9	144
218	UD19046-004L(5)	Unknown	1.000	4	2	10	144
219	CCV MW10994	QC Sample	1.000	0	1	7	144
220	CCB IM9390-01	QC Sample	1.000	0	1	2	144
221	UQ14140-001	Unknown	1.000	4	3	4	144
222	UD12037-001(50)	Unknown	1.000	4	3	6	144
223	UD23075-001	Unknown	1.000	4	3	1	144
224	UD19046-005	Unknown	1.000	4	3	2	144
225	UD19046-005S	Unknown	1.000	4	3	3	144
226	CCV MW10994	QC Sample	1.000	0	1	7	144
227	CCB IM9390-01	QC Sample	1.000	0	1	2	144
228	IS MW11021	Unknown	1.000	0	1	5	144
229	RINSE	Unknown	1.000	0	1	6	144
230	RINSE	Unknown	1.000	0	1	5	144
231	RINSE	Unknown	1.000	0	1	6	144

Fully Quant Calibration

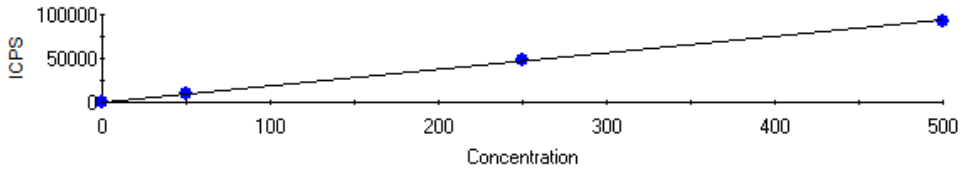
9Be FQ Block 1



Intercept CPS=52.152200 Intercept Conc=0.051140
Sensitivity=1019.801668 Correlation Coeff=0.999993

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	52.15	0.00
cal1 MW-10957	0.400	0.413	0.013	473.03	3.18
cal2 MW-10958	2.000	2.107	0.107	2201.06	5.36
cal3 MW-10931	250.000	250.149	0.149	255154.10	0.06
cal4 MW-10932	500.000	496.405	3.595	506286.61	0.72

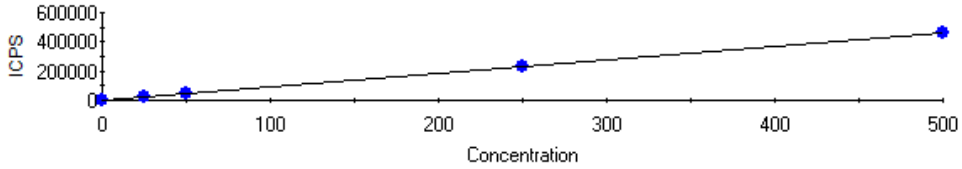
10B FQ Block 1



Intercept CPS=296.979698 Intercept Conc=1.595387
Sensitivity=186.149054 Correlation Coeff=0.999947

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	296.98	0.00
cal1 MW-10957	50.000	52.546	2.546	10078.30	5.09
cal3 MW-10931	250.000	253.730	3.730	47528.52	1.49
cal4 MW-10932	500.000	497.881	2.119	92976.98	0.42

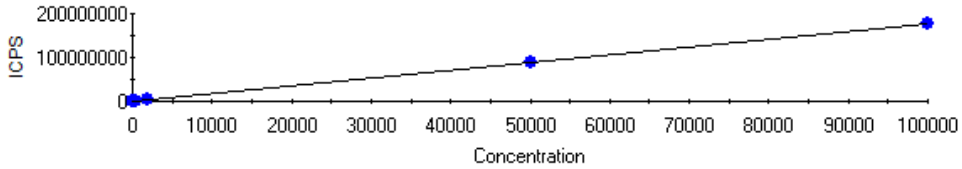
11B FQ Block 1



Intercept CPS=1594.745994 Intercept Conc=1.745341
Sensitivity=913.716223 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	1594.75	0.00
MW10956	25.000	24.865	0.135	24314.58	0.54
cal1 MW-10957	50.000	50.723	0.723	47941.41	1.45
cal3 MW-10931	250.000	250.783	0.783	230738.97	0.31
cal4 MW-10932	500.000	499.543	0.457	458035.34	0.09

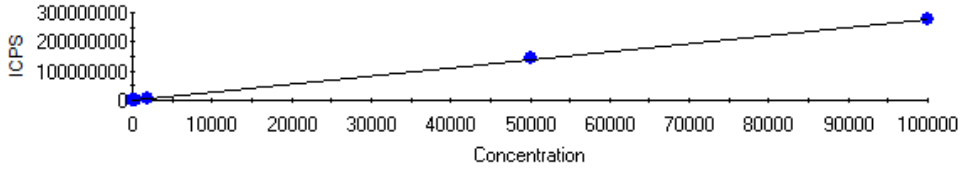
23Na FQ Block 1



Intercept CPS=10248.339795 Intercept Conc=5.747303
Sensitivity=1783.156352 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	10248.34	0.00
cal1 MW-10957	400.000	409.211	9.211	739935.98	2.30
cal2 MW-10958	2000.000	1993.982	6.018	3565830.06	0.30
cal5 MW-10933	50000.000	50445.927	445.927	89963222.88	0.89
cal6 MW-10934	100000.000	99957.092	42.908	178249371.32	0.04

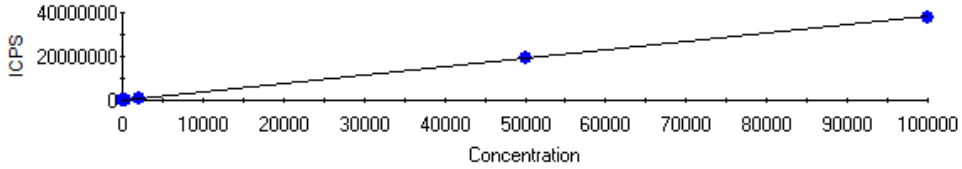
24Mg FQ Block 1



Intercept CPS=1314.463386 Intercept Conc=0.470330
Sensitivity=2794.770147 Correlation Coeff=0.999970

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	1314.46	0.00
cal1 MW-10957	400.000	421.527	21.527	1179384.59	5.38
cal2 MW-10958	2000.000	2033.364	33.364	5684099.39	1.67
cal5 MW-10933	50000.000	50637.587	637.587	141521731.61	1.28
cal6 MW-10934	100000.000	99680.453	319.547	278585268.75	0.32

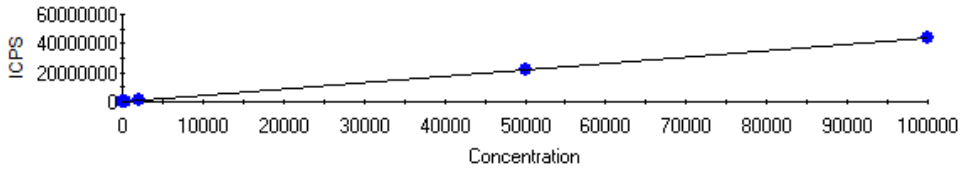
25Mg FQ Block 1



Intercept CPS=187.990801 Intercept Conc=0.493259
Sensitivity=381.119739 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	187.99	0.00
cal1 MW-10957	400.000	411.841	11.841	157148.62	2.96
cal2 MW-10958	2000.000	2055.591	55.591	783614.38	2.78
cal5 MW-10933	50000.000	50276.678	276.678	19161622.25	0.55
cal6 MW-10934	100000.000	99860.502	139.498	38058996.44	0.14

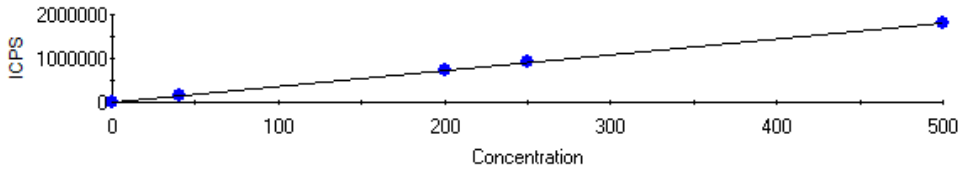
26Mg FQ Block 1



Intercept CPS=229.334767 Intercept Conc=0.517617
Sensitivity=443.058424 Correlation Coeff=0.999991

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	229.33	0.00
MW10956	50.000	53.254	3.254	23823.87	6.51
cal1 MW-10957	400.000	416.433	16.433	184733.40	4.11
cal2 MW-10958	2000.000	2063.271	63.271	914378.89	3.16
cal5 MW-10933	50000.000	50358.006	358.006	22311768.10	0.72
cal6 MW-10934	100000.000	99819.664	180.336	44226172.49	0.18

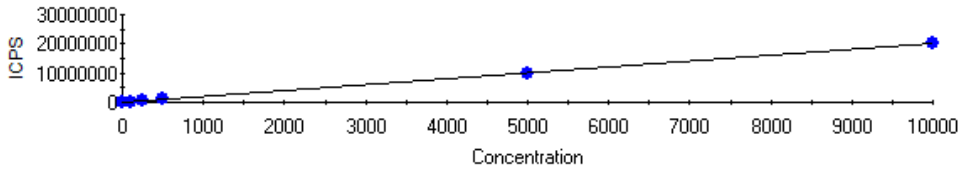
27Al FQ Block 1



Intercept CPS=2660.096109 Intercept Conc=0.732813
Sensitivity=3629.977077 Correlation Coeff=0.999991

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	2660.10	0.00
cal1 MW-10957	40.000	40.050	0.050	148040.41	0.12
cal2 MW-10958	200.000	198.050	1.950	721575.94	0.98
cal3 MW-10931	250.000	249.655	0.345	908901.86	0.14
cal4 MW-10932	500.000	500.009	0.009	1817682.80	0.00

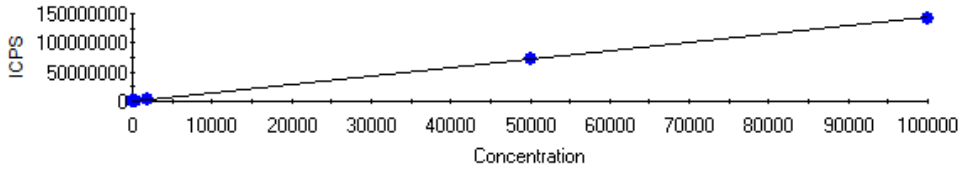
28Si FQ Block 1



Intercept CPS=0.000000 Intercept Conc=0.000000
Sensitivity=1996.360051 Correlation Coeff=0.999937

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	13.349	13.349	26649.07	0.00
cal1 MW-10957	100.000	110.972	10.972	221539.46	10.97
cal3 MW-10931	250.000	262.158	12.158	523361.24	4.86
cal4 MW-10932	500.000	515.979	15.979	1030079.29	3.20
cal5 MW-10933	5000.000	4910.736	89.264	9803597.76	1.79
cal6 MW-10934	10000.000	10043.419	43.419	20050280.98	0.43

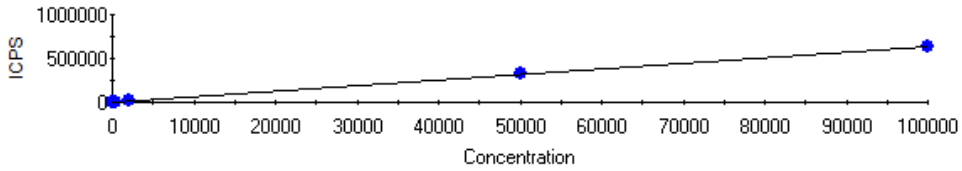
39K FQ Block 1



Intercept CPS=146137.840315 Intercept Conc=102.428092
Sensitivity=1426.735945 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	146137.84	0.00
MW10956	200.000	206.060	6.060	440131.76	3.03
cal1 MW-10957	400.000	418.195	18.195	742791.62	4.55
cal2 MW-10958	2000.000	2018.347	18.347	3025786.70	0.92
cal5 MW-10933	50000.000	49959.572	40.428	71425255.64	0.08
cal6 MW-10934	100000.000	99885.026	114.974	142655694.32	0.11

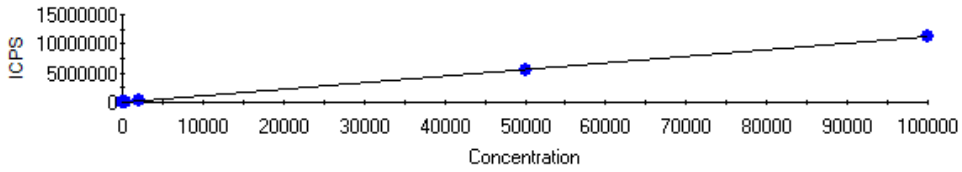
43Ca FQ Block 1



Intercept CPS=21.320145 Intercept Conc=3.346641
Sensitivity=6.370611 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	21.32	0.00
cal1 MW-10957	400.000	414.185	14.185	2659.93	3.55
cal2 MW-10958	2000.000	2116.592	116.592	13505.30	5.83
cal5 MW-10933	50000.000	50099.982	99.982	319188.81	0.20
cal6 MW-10934	100000.000	99947.620	52.380	636748.73	0.05

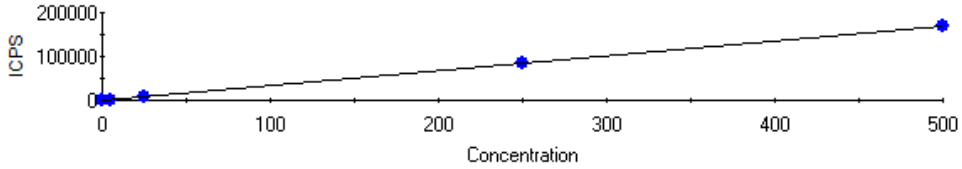
44Ca FQ Block 1



Intercept CPS=347.941743 Intercept Conc=3.120540
Sensitivity=111.500492 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	347.94	0.00
cal1 MW-10957	400.000	392.414	7.586	44102.25	1.90
cal2 MW-10958	2000.000	1956.337	43.663	218480.43	2.18
cal5 MW-10933	50000.000	50071.013	71.013	5583290.49	0.14
cal6 MW-10934	100000.000	99942.400	57.600	11143974.73	0.06

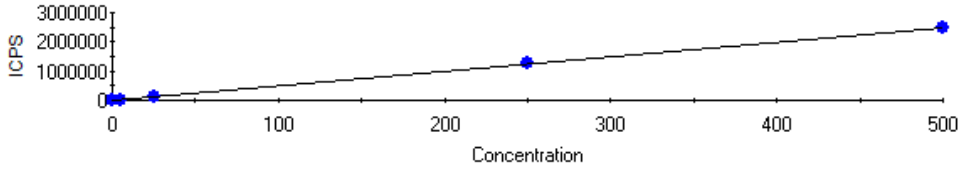
47Ti FQ Block 1



Intercept CPS=38.678252 Intercept Conc=0.115552
Sensitivity=334.725425 Correlation Coeff=0.999977

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	38.68	0.00
cal1 MW-10957	5.000	5.136	0.136	1757.96	2.73
cal2 MW-10958	25.000	24.783	0.217	8334.03	0.87
cal3 MW-10931	250.000	248.247	1.753	83133.24	0.70
cal4 MW-10932	500.000	503.393	3.393	168537.08	0.68

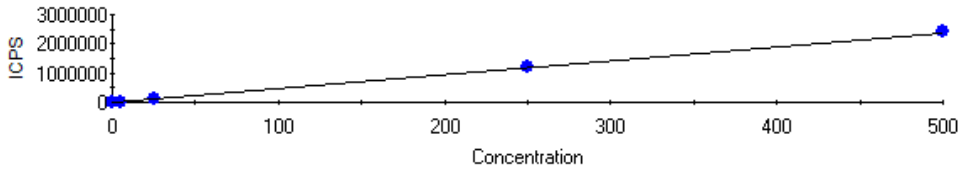
51V FQ Block 1



Intercept CPS=126.448617 Intercept Conc=0.025338
Sensitivity=4990.464518 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	126.45	0.00
cal1 MW-10957	5.000	5.049	0.049	25323.35	0.98
cal2 MW-10958	25.000	24.612	0.388	122951.34	1.55
cal3 MW-10931	250.000	248.740	1.260	1241455.58	0.50
cal4 MW-10932	500.000	501.949	1.949	2505084.35	0.39

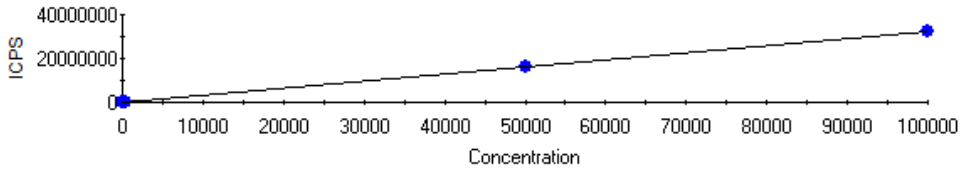
52Cr FQ Block 1



Intercept CPS=770.649812 Intercept Conc=0.161241
Sensitivity=4779.493685 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	770.65	0.00
cal1 MW-10957	5.000	5.061	0.061	24957.55	1.21
cal2 MW-10958	25.000	24.380	0.620	117296.91	2.48
cal3 MW-10931	250.000	249.967	0.033	1195487.81	0.01
cal4 MW-10932	500.000	502.856	2.856	2404168.61	0.57

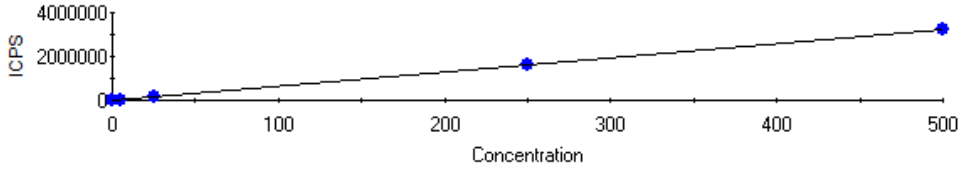
54Fe FQ Block 1



Intercept CPS=7044.785637 Intercept Conc=22.041111
Sensitivity=319.620267 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	7044.79	0.00
cal1 MW-10957	50.000	54.670	4.670	24518.44	9.34
cal3 MW-10931	250.000	369.758	119.758	125227.09	47.90
cal4 MW-10932	500.000	757.205	257.205	249063.00	51.44
cal5 MW-10933	50000.000	50019.706	19.706	15994356.59	0.04
cal6 MW-10934	100000.000	99988.559	11.441	31965414.76	0.01

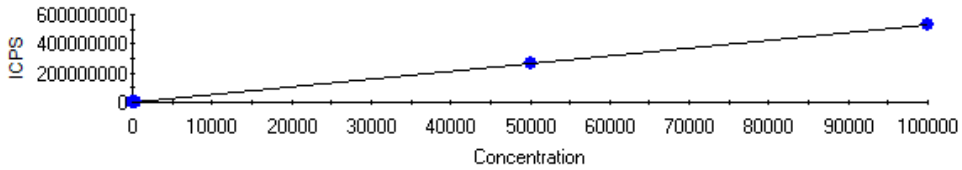
55Mn FQ Block 1



Intercept CPS=615.981938 Intercept Conc=0.095828
Sensitivity=6427.969735 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	615.98	0.00
cal1 MW-10957	5.000	4.804	0.196	31493.56	3.93
cal2 MW-10958	25.000	24.220	0.780	156299.47	3.12
cal3 MW-10931	250.000	248.696	1.304	1599227.43	0.52
cal4 MW-10932	500.000	500.037	0.037	3214841.08	0.01

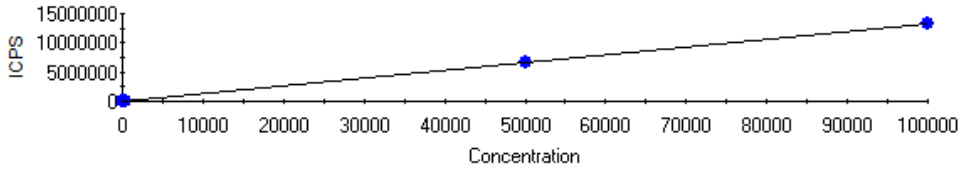
56Fe FQ Block 1



Intercept CPS=201251.455055 Intercept Conc=37.556371
Sensitivity=5358.650207 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	201251.46	0.00
cal1 MW-10957	50.000	52.707	2.707	483688.00	5.41
cal3 MW-10931	250.000	268.338	18.338	1639183.39	7.34
cal4 MW-10932	500.000	530.928	30.928	3046306.82	6.19
cal5 MW-10933	50000.000	50346.804	346.804	269992165.30	0.69
cal6 MW-10934	100000.000	99826.396	173.604	535135988.81	0.17

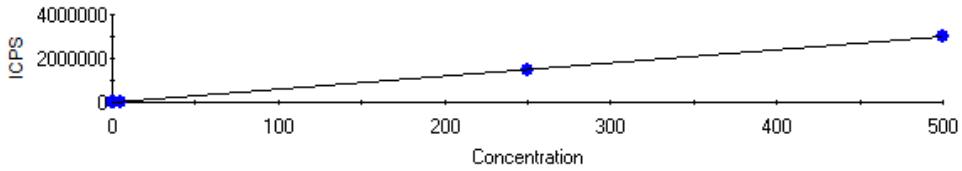
57Fe FQ Block 1



Intercept CPS=13655.960228 Intercept Conc=102.149525
Sensitivity=133.685989 Correlation Coeff=0.999986

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	13655.96	0.00
MW10956	20.000	19.921	0.079	16319.16	0.39
cal1 MW-10957	50.000	53.454	3.454	20802.00	6.91
cal3 MW-10931	250.000	254.971	4.971	47742.02	1.99
cal4 MW-10932	500.000	519.873	19.873	83155.66	3.97
cal5 MW-10933	50000.000	49950.971	49.029	6691400.92	0.10
cal6 MW-10934	100000.000	98754.775	1245.225	13215785.65	1.25

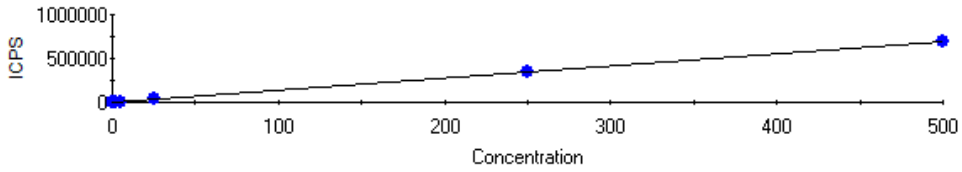
59Co FQ Block 1



Intercept CPS=94.721699 Intercept Conc=0.015843
Sensitivity=5978.866212 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	94.72	0.00
cal1 MW-10957	1.000	0.993	0.007	6034.07	0.66
cal2 MW-10958	5.000	4.974	0.026	29831.70	0.53
cal3 MW-10931	250.000	250.794	0.794	1499556.10	0.32
cal4 MW-10932	500.000	501.737	1.737	2999915.67	0.35

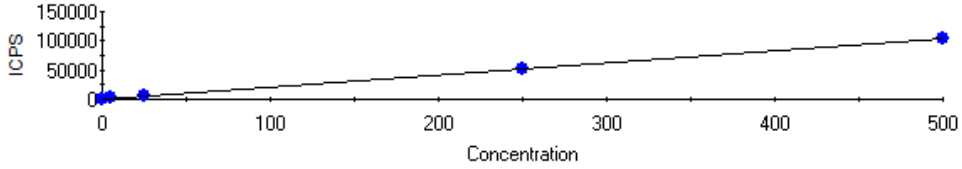
60Ni FQ Block 1



Intercept CPS=56.014032 Intercept Conc=0.040798
Sensitivity=1372.972515 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	56.01	0.00
MW10971	2.000	1.955	0.045	2740.04	2.26
cal1 MW-10957	5.000	5.029	0.029	6961.35	0.59
cal2 MW-10958	25.000	24.478	0.522	33663.62	2.09
cal3 MW-10931	250.000	250.241	0.241	343629.51	0.10
cal4 MW-10932	500.000	501.148	1.148	688118.70	0.23

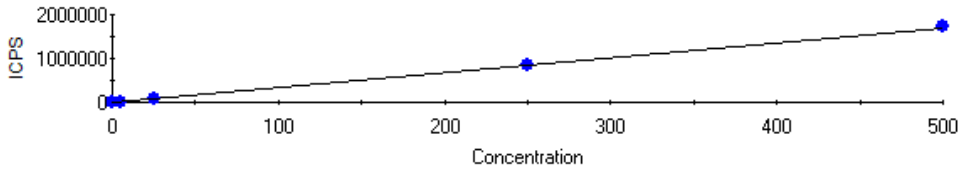
62Ni FQ Block 1



Intercept CPS=486.898954 Intercept Conc=2.375103
Sensitivity=205.001153 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	486.90	0.00
cal1 MW-10957	5.000	4.841	0.159	1479.38	3.17
cal2 MW-10958	25.000	24.940	0.060	5599.73	0.24
cal3 MW-10931	250.000	248.635	1.365	51457.39	0.55
cal4 MW-10932	500.000	500.687	0.687	103128.31	0.14

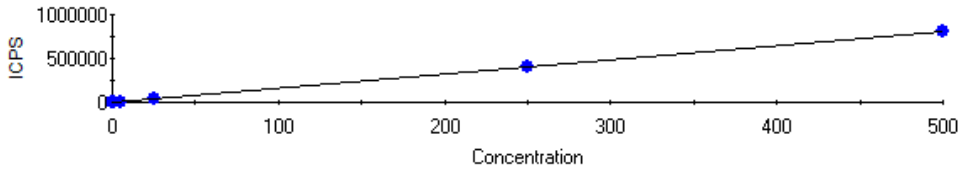
63Cu FQ Block 1



Intercept CPS=330.222080 Intercept Conc=0.098309
Sensitivity=3359.011337 Correlation Coeff=0.999946

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	330.22	0.00
cal1 MW-10957	5.000	4.998	0.002	17117.34	0.05
cal2 MW-10958	25.000	24.701	0.299	83302.35	1.19
cal3 MW-10931	250.000	250.721	0.721	842503.86	0.29
cal4 MW-10932	500.000	512.426	12.426	1721574.02	2.49

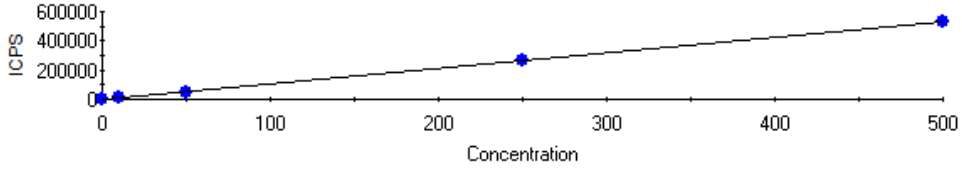
65Cu FQ Block 1



Intercept CPS=120.228876 Intercept Conc=0.074481
Sensitivity=1614.226225 Correlation Coeff=0.999956

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	120.23	0.00
MW10956	1.000	0.983	0.017	1707.55	1.67
cal1 MW-10957	5.000	5.005	0.005	8199.78	0.10
cal2 MW-10958	25.000	24.462	0.538	39606.81	2.15
cal3 MW-10931	250.000	244.692	5.308	395108.71	2.12
cal4 MW-10932	500.000	499.296	0.704	806097.67	0.14

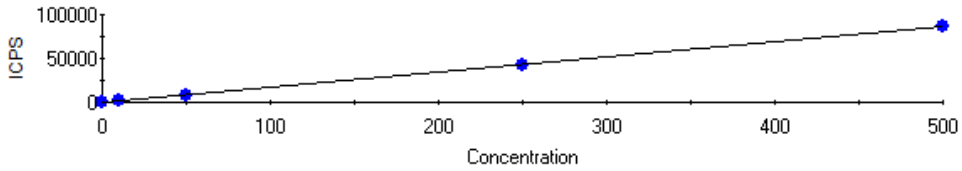
66Zn FQ Block 1



Intercept CPS=100.604835 Intercept Conc=0.095608
Sensitivity=1052.268325 Correlation Coeff=0.999996

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	100.60	0.00
cal1 MW-10957	10.000	10.129	0.129	10759.45	1.29
cal2 MW-10958	50.000	48.947	1.053	51606.34	2.11
cal3 MW-10931	250.000	249.175	0.825	262299.35	0.33
cal4 MW-10932	500.000	500.515	0.515	526776.98	0.10

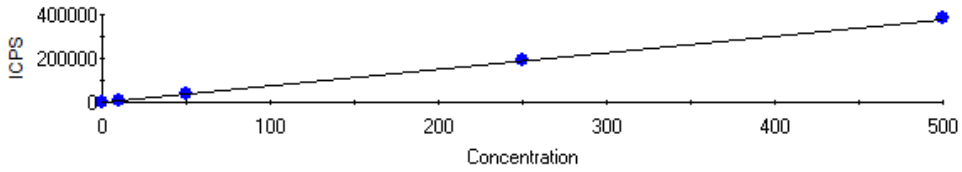
67Zn FQ Block 1



Intercept CPS=26.687351 Intercept Conc=0.154894
Sensitivity=172.294360 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	26.69	0.00
cal1 MW-10957	10.000	9.627	0.373	1685.31	3.73
cal2 MW-10958	50.000	49.018	0.982	8472.23	1.96
cal3 MW-10931	250.000	249.135	0.865	42951.27	0.35
cal4 MW-10932	500.000	500.538	0.538	86266.58	0.11

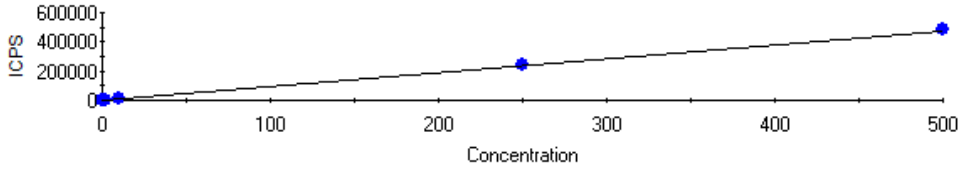
68Zn FQ Block 1



Intercept CPS=50.369704 Intercept Conc=0.066541
Sensitivity=756.973261 Correlation Coeff=0.999986

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	50.37	0.00
cal1 MW-10957	10.000	9.932	0.068	7568.65	0.68
cal2 MW-10958	50.000	49.145	0.855	37251.59	1.71
cal3 MW-10931	250.000	254.056	4.056	192363.74	1.62
cal4 MW-10932	500.000	512.800	12.800	388226.36	2.56

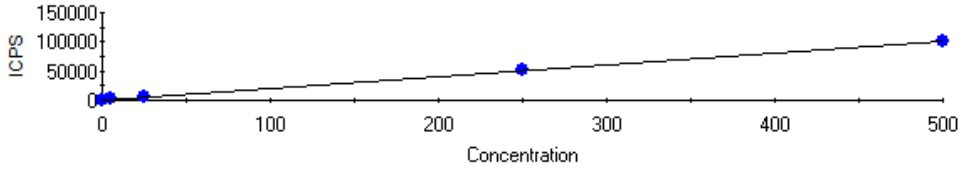
75As FQ Block 1



Intercept CPS=258.310265 Intercept Conc=0.270004
Sensitivity=956.691920 Correlation Coeff=0.999981

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	258.31	0.00
cal1 MW-10957	2.000	1.856	0.144	2033.87	7.20
cal2 MW-10958	10.000	9.604	0.396	9446.51	3.96
cal3 MW-10931	250.000	248.469	1.531	237966.29	0.61
cal4 MW-10932	500.000	503.442	3.442	481897.23	0.69

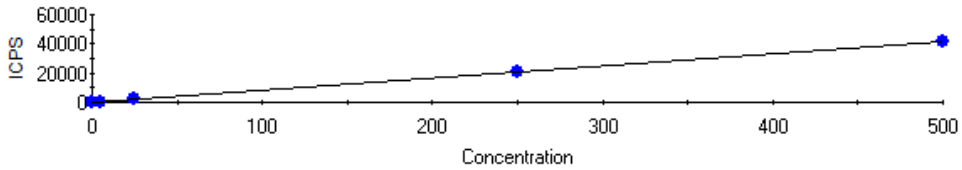
78Se FQ Block 1



Intercept CPS=577.973073 Intercept Conc=2.891348
Sensitivity=199.897440 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	577.97	0.00
cal1 MW-10957	5.000	5.087	0.087	1594.81	1.74
cal2 MW-10958	25.000	24.544	0.456	5484.23	1.82
cal3 MW-10931	250.000	250.579	0.579	50668.02	0.23
cal4 MW-10932	500.000	499.463	0.537	100419.36	0.11

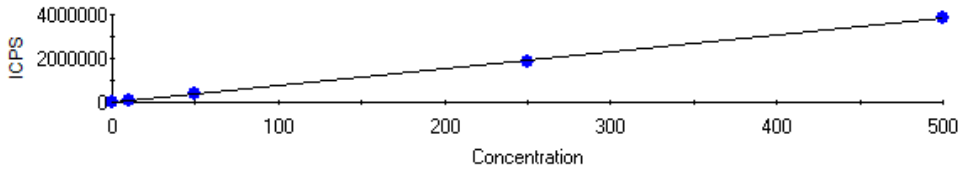
82Se FQ Block 1



Intercept CPS=110.468228 Intercept Conc=1.329878
Sensitivity=83.066430 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	110.47	0.00
cal1 MW-10957	5.000	4.839	0.161	512.44	3.22
cal2 MW-10958	25.000	24.757	0.243	2166.91	0.97
cal3 MW-10931	250.000	250.068	0.068	20882.73	0.03
cal4 MW-10932	500.000	499.980	0.020	41642.00	0.00

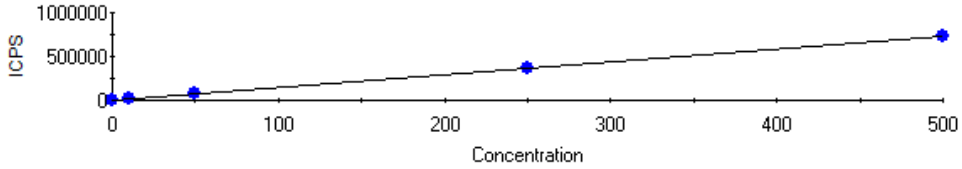
88Sr FQ Block 1



Intercept CPS=47.915420 Intercept Conc=0.006282
Sensitivity=7626.894569 Correlation Coeff=0.999855

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	47.92	0.00
cal1 MW-10957	10.000	9.493	0.507	72447.28	5.07
cal2 MW-10958	50.000	48.046	1.954	366486.48	3.91
cal3 MW-10931	250.000	243.112	6.888	1854236.17	2.76
cal4 MW-10932	500.000	503.650	3.650	3841330.90	0.73

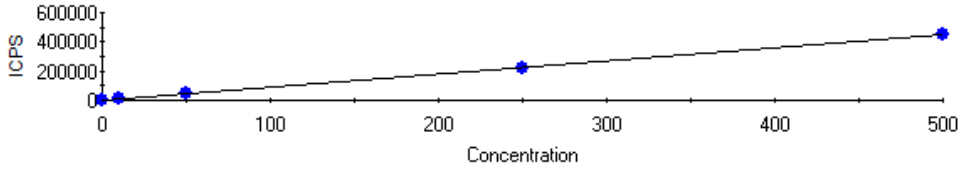
95Mo FQ Block 1



Intercept CPS=33.253721 Intercept Conc=0.022940
Sensitivity=1449.564934 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	33.25	0.00
cal1 MW-10957	10.000	9.796	0.204	14232.94	2.04
cal2 MW-10958	50.000	49.747	0.253	72145.16	0.51
cal3 MW-10931	250.000	248.361	1.639	360048.28	0.66
cal4 MW-10932	500.000	500.849	0.849	726046.38	0.17

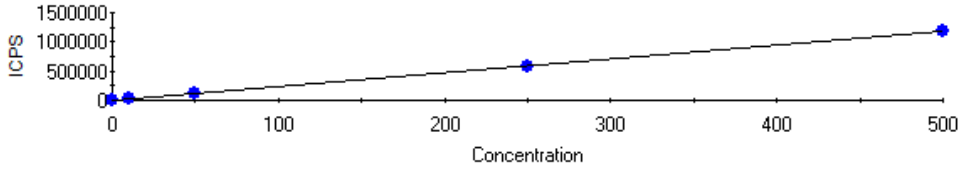
97Mo FQ Block 1



Intercept CPS=26.607665 Intercept Conc=0.029639
Sensitivity=897.733641 Correlation Coeff=0.999987

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	26.61	0.00
cal1 MW-10957	10.000	9.718	0.282	8750.75	2.82
cal2 MW-10958	50.000	50.880	0.880	45703.27	1.76
cal3 MW-10931	250.000	249.355	0.645	223880.76	0.26
cal4 MW-10932	500.000	503.512	3.512	452046.32	0.70

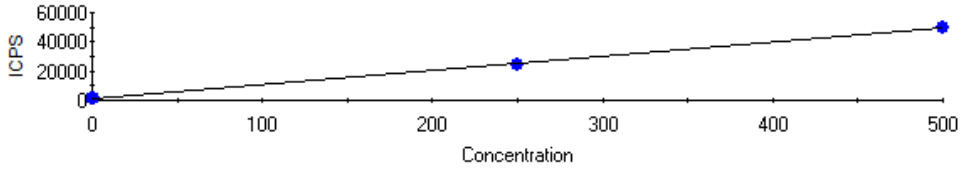
98Mo FQ Block 1



Intercept CPS=65.095613 Intercept Conc=0.027630
Sensitivity=2355.943634 Correlation Coeff=0.999973

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	65.10	0.00
cal1 MW-10957	10.000	9.798	0.202	23148.90	2.02
cal2 MW-10958	50.000	49.281	0.719	116169.06	1.44
cal3 MW-10931	250.000	247.007	2.993	582000.20	1.20
cal4 MW-10932	500.000	501.572	1.572	1181741.15	0.31

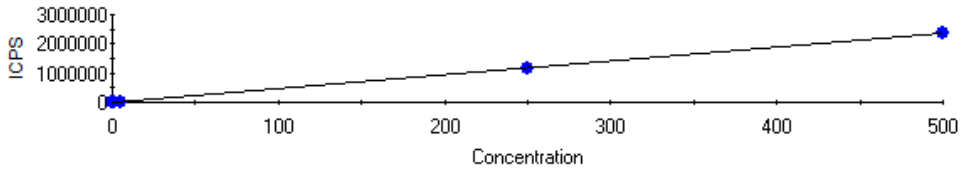
106Cd FQ Block 1



Intercept CPS=641.797994 Intercept Conc=6.601003
Sensitivity=97.227341 Correlation Coeff=0.999852

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	641.80	0.00
cal1 MW-10957	0.100	-0.101	0.201	632.02	200.55
cal2 MW-10958	0.500	1.421	0.921	779.96	184.21
cal3 MW-10931	250.000	243.023	6.977	24270.28	2.79
cal4 MW-10932	500.000	503.488	3.488	49594.56	0.70

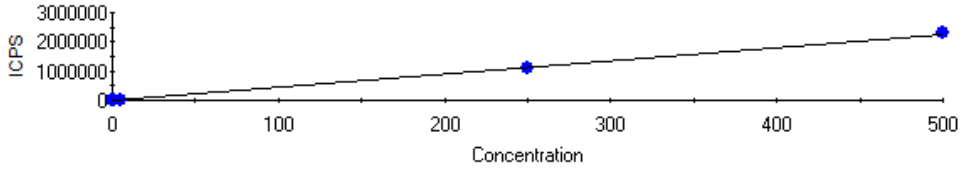
107Ag FQ Block 1



Intercept CPS=28.180923 Intercept Conc=0.005945
Sensitivity=4740.665105 Correlation Coeff=0.999881

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	28.18	0.00
cal1 MW-10957	1.000	0.943	0.057	4500.83	5.65
cal2 MW-10958	5.000	4.753	0.247	22558.47	4.95
cal3 MW-10931	250.000	243.601	6.399	1154860.66	2.56
cal4 MW-10932	500.000	503.202	3.202	2385539.90	0.64

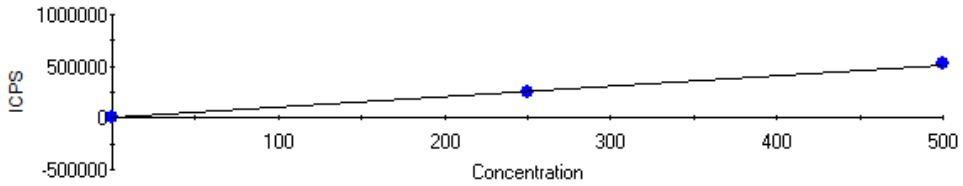
109Ag FQ Block 1



Intercept CPS=9.407969 Intercept Conc=0.002068
Sensitivity=4549.393520 Correlation Coeff=0.999958

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	9.41	0.00
cal1 MW-10957	1.000	0.960	0.040	4376.26	4.01
cal2 MW-10958	5.000	4.774	0.226	21726.79	4.53
cal3 MW-10931	250.000	246.174	3.826	1119954.03	1.53
cal4 MW-10932	500.000	501.915	1.915	2283418.71	0.38

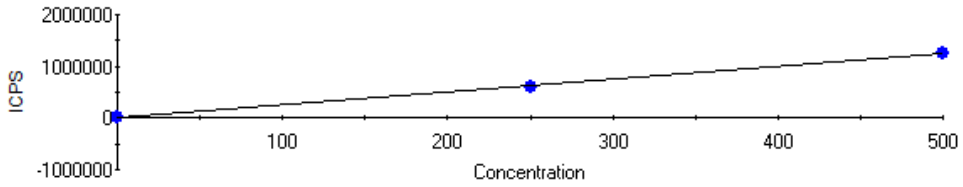
111Cd FQ Block 1



Intercept CPS=2.575436 Intercept Conc=0.002485
Sensitivity=1036.315800 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	2.58	0.00
cal1 MW-10957	0.100	0.096	0.004	101.65	4.40
cal2 MW-10958	0.500	0.464	0.036	483.35	7.22
cal3 MW-10931	250.000	248.181	1.819	257196.23	0.73
cal4 MW-10932	500.000	500.910	0.910	519103.16	0.18

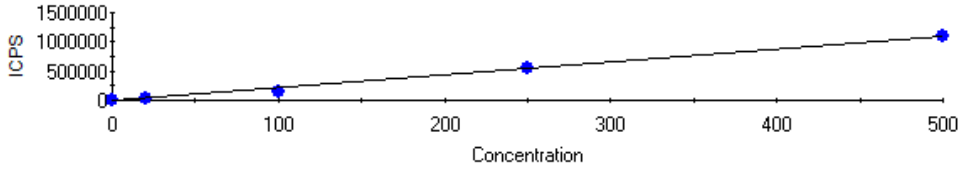
114Cd FQ Block 1



Intercept CPS=2.435600 Intercept Conc=0.000981
Sensitivity=2481.740878 Correlation Coeff=0.999971

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	2.44	0.00
cal1 MW-10957	0.100	0.120	0.020	299.91	19.86
cal2 MW-10958	0.500	0.517	0.017	1284.59	3.33
cal3 MW-10931	250.000	246.185	3.815	610970.24	1.53
cal4 MW-10932	500.000	500.248	0.248	1241487.58	0.05

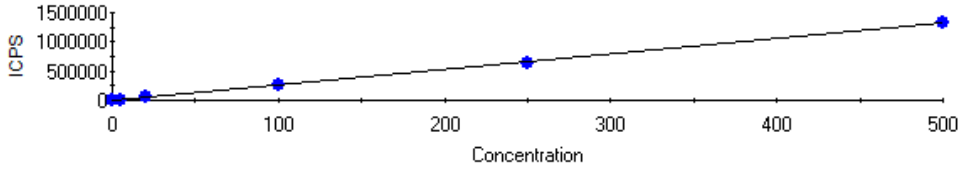
116Sn FQ Block 1



Intercept CPS=83.806700 Intercept Conc=0.038719
Sensitivity=2164.489428 Correlation Coeff=0.998225

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	83.81	0.00
cal1 MW-10957	20.000	13.692	6.308	29720.33	31.54
cal2 MW-10958	100.000	69.705	30.295	150959.53	30.30
cal3 MW-10931	250.000	249.319	0.681	539732.92	0.27
cal4 MW-10932	500.000	506.652	6.652	1096725.92	1.33

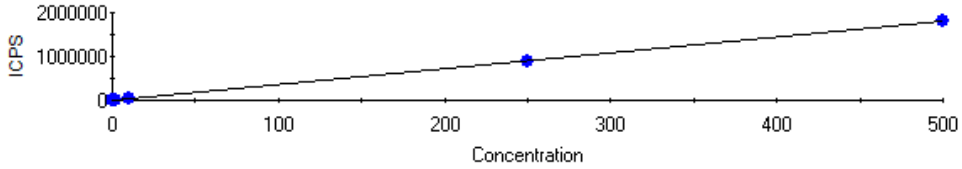
118Sn FQ Block 1



Intercept CPS=108.950595 Intercept Conc=0.041351
Sensitivity=2634.766563 Correlation Coeff=0.999955

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	108.95	0.00
MW10956	5.000	5.003	0.003	13290.09	0.06
cal1 MW-10957	20.000	19.254	0.746	50838.25	3.73
cal2 MW-10958	100.000	98.495	1.505	259620.69	1.50
cal3 MW-10931	250.000	246.266	3.734	648963.44	1.49
cal4 MW-10932	500.000	502.198	2.198	1323282.36	0.44

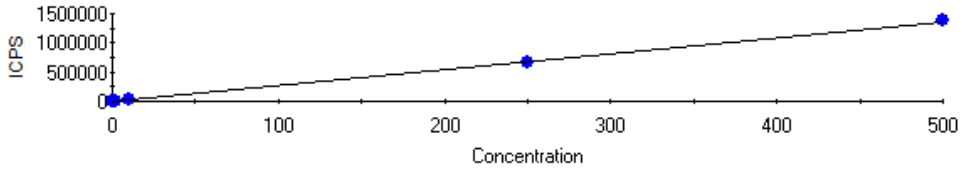
121Sb FQ Block 1



Intercept CPS=85.161412 Intercept Conc=0.023712
Sensitivity=3591.511958 Correlation Coeff=0.999908

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	85.16	0.00
cal1 MW-10957	2.000	2.025	0.025	7357.36	1.24
cal2 MW-10958	10.000	9.917	0.083	35702.26	0.83
cal3 MW-10931	250.000	244.431	5.569	877963.18	2.23
cal4 MW-10932	500.000	502.786	2.786	1805846.73	0.56

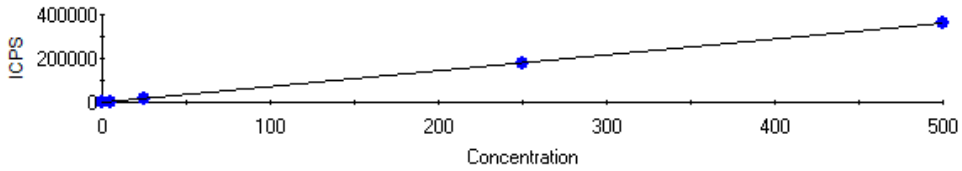
123Sb FQ Block 1



Intercept CPS=58.157779 Intercept Conc=0.021258
Sensitivity=2735.849062 Correlation Coeff=0.999959

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	58.16	0.00
cal1 MW-10957	2.000	1.924	0.076	5321.14	3.81
cal2 MW-10958	10.000	10.241	0.241	28075.53	2.41
cal3 MW-10931	250.000	246.329	3.671	673977.32	1.47
cal4 MW-10932	500.000	501.831	1.831	1372991.90	0.37

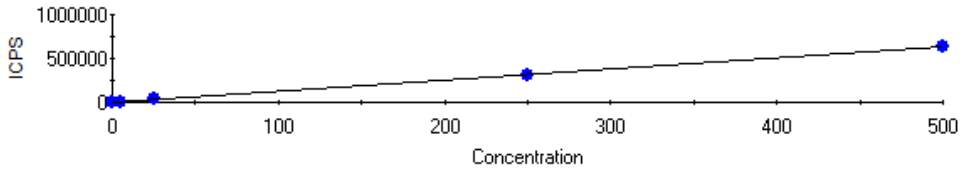
135Ba FQ Block 1



Intercept CPS=22.529234 Intercept Conc=0.031178
Sensitivity=722.604033 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	22.53	0.00
cal1 MW-10957	5.000	4.971	0.029	3614.75	0.58
cal2 MW-10958	25.000	25.188	0.188	18223.57	0.75
cal3 MW-10931	250.000	249.860	0.140	180572.09	0.06
cal4 MW-10932	500.000	497.881	2.119	359793.12	0.42

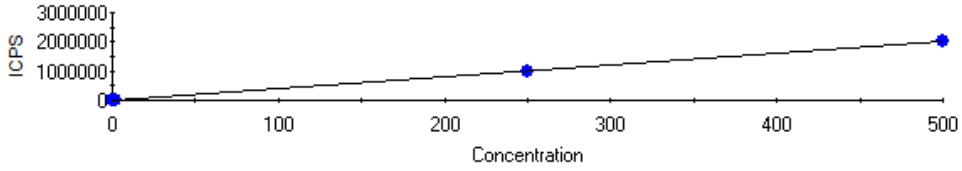
137Ba FQ Block 1



Intercept CPS=28.122298 Intercept Conc=0.022241
Sensitivity=1264.444516 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	0.000	0.000	28.12	0.00
cal1 MW-10957	5.000	5.062	0.062	6428.12	1.23
cal2 MW-10958	25.000	25.371	0.371	32108.94	1.49
cal3 MW-10931	250.000	248.844	1.156	314677.58	0.46
cal4 MW-10932	500.000	500.559	0.559	632956.95	0.11

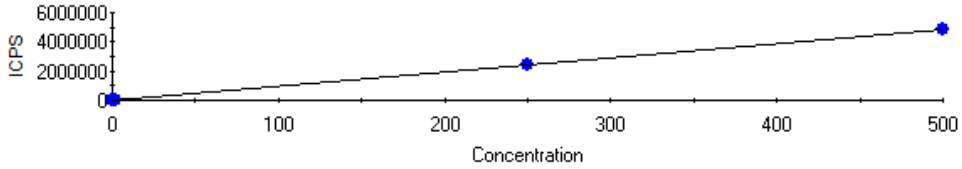
203Tl FQ Block 1



Intercept CPS=85.186991 Intercept Conc=0.021176
Sensitivity=4022.777497 Correlation Coeff=0.999971

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	85.19	0.00
cal1 MW-10957	0.500	0.483	0.017	2030.17	3.30
cal2 MW-10958	2.500	2.507	0.007	10169.64	0.27
cal3 MW-10931	250.000	247.494	2.506	995696.57	1.00
cal4 MW-10932	500.000	502.821	2.821	2022821.67	0.56

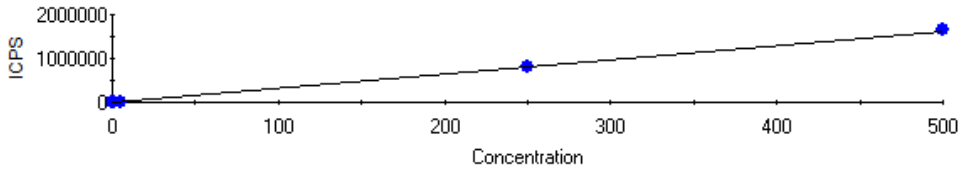
205Tl FQ Block 1



Intercept CPS=222.254098 Intercept Conc=0.022869
Sensitivity=9718.635326 Correlation Coeff=0.999996

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	222.25	0.00
cal1 MW-10957	0.500	0.476	0.024	4847.85	4.81
cal2 MW-10958	2.500	2.420	0.080	23739.20	3.21
cal3 MW-10931	250.000	250.411	0.411	2433878.76	0.16
cal4 MW-10932	500.000	497.967	2.033	4839780.92	0.41

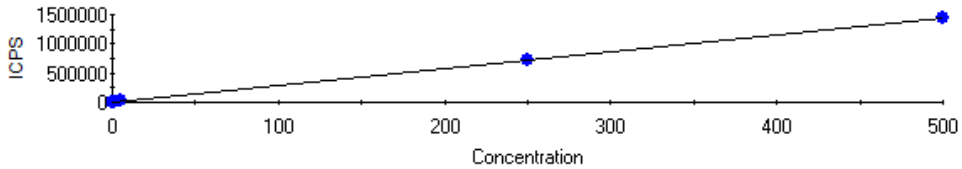
206Pb FQ Block 1



Intercept CPS=83.013015 Intercept Conc=0.025464
Sensitivity=3260.067391 Correlation Coeff=0.999961

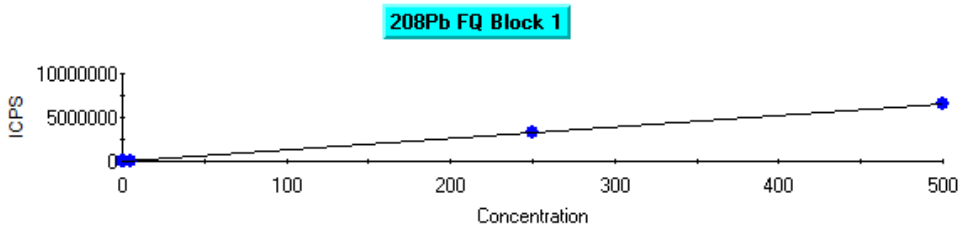
Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	83.01	0.00
cal1 MW-10957	1.000	0.966	0.034	3233.57	3.36
cal2 MW-10958	5.000	4.900	0.100	16056.61	2.00
cal3 MW-10931	250.000	246.339	3.661	803164.12	1.46
cal4 MW-10932	500.000	501.832	1.832	1636088.07	0.37

207Pb FQ Block 1



Intercept CPS=70.999164 Intercept Conc=0.024707
Sensitivity=2873.648989 Correlation Coeff=0.999969

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	71.00	0.00
cal1 MW-10957	1.000	0.995	0.005	2930.73	0.48
cal2 MW-10958	5.000	5.057	0.057	14601.80	1.13
cal3 MW-10931	250.000	246.743	3.257	709124.87	1.30
cal4 MW-10932	500.000	501.628	1.628	1441573.08	0.33



Intercept CPS=320.621844 Intercept Conc=0.024369
Sensitivity=13157.205586 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
BLANK IM9353-01	0.000	-0.000	0.000	320.62	0.00
cal1 MW-10957	1.000	0.972	0.028	13109.40	2.80
cal2 MW-10958	5.000	4.948	0.052	65418.34	1.05
cal3 MW-10931	250.000	248.312	1.688	3267410.09	0.68
cal4 MW-10932	500.000	500.845	0.845	6590037.00	0.17

Dilution Corrected Concentrations

TUNE MW10939 04/30/2019 10:02:41

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	98.8%	0.033	1.202	0.915	224.600	2.704	1.401	1.400	1.480	1.073
2	10:03:35	101.3%	0.007	1.020	0.851	228.700	3.394	1.155	1.174	1.314	1.090
3	10:04:02	100.0%	0.011	0.755	1.068	223.100	3.306	1.086	0.997	1.469	1.054
x		100.0%	0.017	0.992	0.945	225.500	3.135	1.214	1.190	1.421	1.072
σ		1.3%	0.014	0.225	0.111	2.868	0.376	0.166	0.202	0.093	0.018
%RSD		1.3	81.070	22.680	11.780	1.272	11.990	13.640	16.990	6.510	1.689

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	15.630	1103.000	-0.763	7.776	8.060	101.8%	0.014	-0.017	0.127	33.460
2	10:03:35	15.860	1096.000	0.927	7.437	8.014	98.9%	0.042	0.001	0.123	15.890
3	10:04:02	15.950	1087.000	0.392	2.339	7.207	99.3%	0.041	0.018	0.177	15.180
x		15.810	1095.000	0.186	5.851	7.760	100.0%	0.032	0.001	0.142	21.510
σ		0.162	8.397	0.864	3.046	0.480	1.6%	0.016	0.018	0.030	10.360
%RSD		1.023	0.767	465.200	52.060	6.185	1.6	49.950	1901.000	20.920	48.150

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	4.481	0.064	3.879	0.251	0.015	0.111	-0.222	0.045	0.077	0.299
2	10:03:35	5.608	0.042	5.712	5.712	0.025	0.110	-0.034	0.038	0.047	0.307
3	10:04:02	6.842	0.060	4.639	5.061	0.009	0.144	-0.175	0.057	0.036	0.263
x		5.644	0.056	4.743	3.675	0.016	0.122	-0.144	0.047	0.053	0.289
σ		1.181	0.012	0.921	2.983	0.008	0.020	0.097	0.010	0.021	0.023
%RSD		20.930	21.350	19.420	81.180	48.580	16.090	67.910	20.690	40.130	8.031

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	0.234	0.272	-0.086	-0.084	0.982	2.546	3.791	-0.586	4.809	0.005
2	10:03:35	0.593	0.349	-0.004	-0.534	0.919	2.249	6.200	-0.121	8.062	0.013
3	10:04:02	0.383	0.221	-0.120	-0.314	0.948	2.359	4.717	-0.434	7.661	0.011
x		0.404	0.281	-0.070	-0.311	0.950	2.385	4.903	-0.380	6.844	0.009
σ		0.180	0.064	0.060	0.225	0.031	0.150	1.215	0.237	1.773	0.004
%RSD		44.700	22.900	84.910	72.380	3.316	6.295	24.780	62.350	25.910	45.030

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	101.0%	0.032	0.010	0.011	0.433	0.003	0.006	0.001	0.006	101.2%
2	10:03:35	99.7%	0.024	0.024	0.017	-0.023	0.011	0.010	0.005	0.007	100.2%
3	10:04:02	99.3%	0.027	0.042	0.020	0.178	0.011	0.011	0.005	0.008	98.6%
x		100.0%	0.028	0.025	0.016	0.196	0.008	0.009	0.004	0.007	100.0%
σ		0.9%	0.004	0.016	0.005	0.229	0.005	0.003	0.002	0.001	1.3%
%RSD		0.9	13.920	63.300	28.730	116.900	53.520	32.410	59.950	13.620	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:08	0.007	0.043	0.027	0.019	-0.015	-0.000	101.0%	0.000	-0.000	0.006
2	10:03:35	0.017	0.031	0.014	0.017	-0.009	0.019	99.2%	-0.001	-0.004	0.001
3	10:04:02	0.004	0.045	0.009	0.018	-0.020	0.028	99.8%	0.016	-0.001	0.002
x		0.009	0.040	0.017	0.018	-0.015	0.016	100.0%	0.005	-0.002	0.003
σ		0.006	0.007	0.009	0.001	0.006	0.015	0.9%	0.009	0.002	0.003
%RSD		69.440	18.110	55.310	7.227	38.530	93.080	0.9	185.100	108.200	109.000

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:03:08	-0.004	0.001	101.2%
2	10:03:35	0.003	0.000	99.4%
3	10:04:02	-0.002	0.001	99.3%
x		-0.001	0.001	100.0%
σ		0.004	0.000	1.1%
%RSD		378.300	46.510	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	100.0%	-0.016	0.225	0.011	-4.287	0.328	0.044	0.019	0.031	-0.012
2	10:09:42	99.4%	0.016	-0.249	-0.038	4.479	-0.545	0.034	0.032	-0.012	0.010
3	10:10:09	100.6%	0.000	0.024	0.027	-0.192	0.218	-0.078	-0.051	-0.019	0.001
x		100.0%	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
σ		0.6%	0.016	0.238	0.034	4.386	0.475	0.068	0.044	0.027	0.011
%RSD		0.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	13.730	11.010	0.735	-0.181	-0.043	99.0%	-0.007	0.015	0.016	-1.971
2	10:09:42	12.940	-7.948	0.173	0.378	0.105	101.3%	-0.009	-0.017	-0.014	0.329
3	10:10:09	13.380	-3.066	-0.908	-0.197	-0.062	99.7%	0.016	0.002	-0.002	1.642
x		13.350	-0.000	-0.000	-0.000	0.000	100.0%	-0.000	-0.000	0.000	-0.000
σ		0.400	9.846	0.835	0.328	0.091	1.2%	0.014	0.016	0.015	1.829
%RSD		2.995	0.000	0.000	0.000	0.000	1.2	0.000	0.000	0.000	0.000
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	0.605	0.005	0.737	3.559	0.006	0.003	-0.069	0.001	0.021	0.024
2	10:09:42	-0.935	0.003	-1.135	-4.706	0.001	-0.001	-0.219	0.005	-0.014	-0.040
3	10:10:09	0.329	-0.008	0.398	1.147	-0.006	-0.003	0.288	-0.006	-0.007	0.016
x		-0.000	0.000	-0.000	0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
σ		0.821	0.007	0.997	4.250	0.006	0.003	0.260	0.006	0.019	0.035
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	0.009	-0.040	0.035	-0.108	-0.107	-0.374	1.137	0.282	-0.781	-0.001
2	10:09:42	-0.017	0.053	-0.026	-0.226	-0.018	0.269	-0.940	-0.213	-0.728	0.001
3	10:10:09	0.008	-0.014	-0.009	0.334	0.125	0.105	-0.198	-0.068	1.509	-0.000
x		0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000
σ		0.015	0.048	0.031	0.295	0.117	0.334	1.053	0.254	1.307	0.001
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	98.9%	-0.001	-0.003	-0.000	0.864	0.002	-0.001	-0.003	-0.002	98.5%
2	10:09:42	101.4%	0.007	0.010	0.000	-0.706	-0.003	-0.001	-0.003	0.002	102.8%
3	10:10:09	99.6%	-0.006	-0.007	-0.000	-0.159	0.001	0.002	0.005	-0.000	98.6%
x		100.0%	0.000	-0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000	100.0%
σ		1.3%	0.007	0.009	0.000	0.797	0.002	0.002	0.005	0.002	2.5%
%RSD		1.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:15	-0.005	-0.001	-0.001	-0.011	-0.009	-0.003	98.1%	-0.004	-0.005	0.006
2	10:09:42	0.006	0.010	0.003	0.007	0.012	-0.007	103.1%	0.002	0.002	-0.006
3	10:10:09	-0.001	-0.009	-0.002	0.004	-0.003	0.010	98.7%	0.002	0.003	0.001
x		-0.000	-0.000	-0.000	0.000	-0.000	0.000	100.0%	-0.000	-0.000	-0.000
σ		0.006	0.010	0.003	0.010	0.011	0.009	2.7%	0.003	0.004	0.006
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	2.7	0.000	0.000	0.000
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:09:15	0.005	0.003	98.7%							
2	10:09:42	-0.007	-0.003	102.8%							
3	10:10:09	0.002	0.000	98.5%							
x		-0.000	-0.000	100.0%							
σ		0.006	0.003	2.4%							
%RSD		0.000	0.000	2.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	97.7%	0.160	19.930	20.010	54.250	159.000	164.700	167.300	167.200	15.840
2	10:15:52	98.5%	0.225	22.130	19.640	52.970	166.000	169.600	163.500	158.500	15.710
3	10:16:19	99.8%	0.159	20.680	19.760	59.600	162.400	170.000	165.300	166.700	16.280
x		98.7%	0.181	20.910	19.810	55.610	162.500	168.100	165.300	164.100	15.940
σ		1.0%	0.038	1.118	0.189	3.518	3.500	2.958	1.913	4.870	0.299
%RSD		1.0	20.730	5.345	0.955	6.326	2.154	1.760	1.157	2.967	1.875
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	52.890	-17.730	163.300	164.600	154.300	101.4%	1.877	2.014	2.007	-6.184
2	10:15:52	53.050	-24.600	162.900	154.400	153.200	103.0%	2.055	2.040	1.993	1.826
3	10:16:19	52.370	-25.550	161.400	144.800	153.700	103.3%	1.910	1.928	2.006	10.180
x		52.770	-22.630	162.600	154.600	153.700	102.5%	1.947	1.994	2.002	1.939
σ		0.354	4.265	0.996	9.925	0.546	1.0%	0.095	0.059	0.008	8.180
%RSD		0.670	18.850	0.613	6.420	0.355	1.0	4.863	2.934	0.378	421.900
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	22.790	1.969	21.810	17.290	0.403	1.954	1.930	1.973	1.977	3.888
2	10:15:52	20.340	1.991	20.460	12.520	0.422	1.892	1.690	2.048	1.984	4.122
3	10:16:19	22.550	1.898	19.250	13.180	0.406	2.019	1.544	2.001	1.876	4.107
x		21.890	1.953	20.500	14.330	0.410	1.955	1.721	2.007	1.945	4.039
σ		1.348	0.049	1.280	2.583	0.010	0.064	0.195	0.038	0.060	0.131
%RSD		6.157	2.488	6.241	18.030	2.483	3.251	11.340	1.886	3.109	3.241
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	3.868	4.237	0.709	1.781	-0.096	-0.169	9.723	2.164	1.124	3.876
2	10:15:52	3.781	4.229	0.610	1.799	0.180	-0.258	7.323	1.640	0.656	3.745
3	10:16:19	4.037	3.951	0.707	1.882	-0.001	-0.417	9.955	2.259	-0.817	3.771
x		3.896	4.139	0.675	1.821	0.027	-0.281	9.000	2.021	0.321	3.797
σ		0.130	0.163	0.057	0.054	0.140	0.126	1.457	0.333	1.013	0.069
%RSD		3.339	3.931	8.420	2.954	513.200	44.660	16.190	16.490	315.500	1.826
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	101.8%	3.925	4.030	3.895	-0.264	0.334	0.372	0.056	0.004	101.9%
2	10:15:52	102.3%	4.129	4.122	3.820	-0.421	0.410	0.367	0.034	0.040	102.4%
3	10:16:19	102.8%	3.855	4.195	3.968	-0.739	0.361	0.378	0.018	0.018	103.1%
x		102.3%	3.970	4.116	3.894	-0.475	0.369	0.373	0.036	0.021	102.5%
σ		0.5%	0.142	0.082	0.074	0.242	0.038	0.006	0.019	0.018	0.6%
%RSD		0.5	3.582	1.999	1.896	51.040	10.430	1.482	54.010	85.490	0.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:24	5.634	7.871	0.779	0.851	2.159	1.871	101.1%	0.174	0.185	0.426
2	10:15:52	5.466	7.504	0.800	0.834	1.985	2.000	103.2%	0.178	0.200	0.377
3	10:16:19	5.582	7.883	0.796	0.859	1.982	2.029	102.5%	0.170	0.204	0.421
x		5.561	7.753	0.792	0.848	2.042	1.967	102.3%	0.174	0.196	0.408
σ		0.086	0.215	0.011	0.012	0.101	0.084	1.1%	0.004	0.010	0.027
%RSD		1.544	2.777	1.371	1.465	4.950	4.296	1.1	2.406	5.240	6.533
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:15:24	0.375	0.403	102.0%							
2	10:15:52	0.358	0.375	102.8%							
3	10:16:19	0.417	0.417	102.8%							
x		0.383	0.399	102.5%							
σ		0.030	0.022	0.5%							
%RSD		7.845	5.421	0.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	97.9%	0.452	25.270	25.400	59.740	206.800	53.120	53.970	53.800	40.860
2	10:22:02	98.7%	0.401	26.070	24.300	47.830	198.700	51.780	51.540	52.800	41.220
3	10:22:29	101.0%	0.434	26.940	24.900	63.840	206.300	54.090	52.760	53.160	40.320
x		99.2%	0.429	26.090	24.870	57.140	204.000	53.000	52.750	53.250	40.800
σ		1.6%	0.026	0.834	0.552	8.321	4.554	1.161	1.216	0.504	0.453
%RSD		1.6	6.014	3.196	2.222	14.560	2.233	2.191	2.305	0.947	1.110

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	113.100	-0.546	210.300	200.700	188.100	99.4%	5.112	5.035	0.993	-4.406
2	10:22:02	113.200	-27.760	207.100	199.400	200.300	99.9%	5.065	5.259	1.125	-66.960
3	10:22:29	110.200	-35.460	200.700	224.100	196.600	102.1%	5.154	4.964	0.966	32.610
x		112.200	-21.260	206.100	208.100	195.000	100.5%	5.110	5.086	1.028	-12.920
σ		1.718	18.350	4.902	13.900	6.215	1.4%	0.045	0.154	0.085	50.330
%RSD		1.532	86.300	2.379	6.678	3.187	1.4	0.873	3.028	8.260	389.500

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	23.850	4.853	21.780	26.350	5.133	4.853	4.765	1.023	1.024	9.907
2	10:22:02	21.800	5.021	21.470	17.710	4.889	5.135	5.034	0.999	0.889	9.685
3	10:22:29	20.280	4.888	20.660	15.700	4.853	4.714	4.397	1.067	1.037	9.844
x		21.980	4.921	21.300	19.920	4.958	4.901	4.732	1.030	0.983	9.812
σ		1.791	0.088	0.578	5.660	0.152	0.215	0.320	0.034	0.082	0.114
%RSD		8.149	1.796	2.714	28.410	3.065	4.378	6.757	3.332	8.316	1.164

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	9.517	9.559	0.958	1.576	-0.002	0.173	5.659	1.382	-3.556	0.010
2	10:22:02	9.805	9.780	0.955	0.853	-0.066	-0.280	3.311	0.762	-0.277	0.005
3	10:22:29	9.830	10.110	1.039	0.256	0.065	-0.270	3.174	0.746	-1.124	0.011
x		9.717	9.816	0.984	0.895	-0.001	-0.126	4.048	0.964	-1.652	0.008
σ		0.174	0.276	0.047	0.661	0.065	0.259	1.397	0.363	1.702	0.003
%RSD		1.785	2.815	4.825	73.860	7742.000	205.900	34.510	37.620	103.000	39.110

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	98.8%	10.080	9.799	9.738	0.050	0.963	0.928	0.069	0.108	98.1%
2	10:22:02	101.1%	9.947	10.150	10.080	1.364	0.975	0.932	0.092	0.115	100.5%
3	10:22:29	105.0%	10.140	9.489	9.636	-0.893	0.964	0.970	0.052	0.094	104.3%
x		101.6%	10.060	9.811	9.818	0.174	0.967	0.944	0.071	0.105	101.0%
σ		3.1%	0.098	0.328	0.234	1.133	0.007	0.023	0.020	0.011	3.1%
%RSD		3.0	0.977	3.347	2.381	652.600	0.711	2.471	28.350	10.080	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:35	3.536	4.960	0.912	0.948	5.101	4.949	98.0%	0.514	0.502	0.999
2	10:22:02	3.742	5.063	0.931	0.919	5.098	4.929	101.4%	0.465	0.493	0.949
3	10:22:29	3.633	4.986	0.907	0.934	4.871	4.896	104.2%	0.521	0.480	1.018
x		3.637	5.003	0.917	0.934	5.023	4.925	101.2%	0.500	0.492	0.989
σ		0.103	0.054	0.013	0.014	0.132	0.027	3.1%	0.031	0.011	0.035
%RSD		2.825	1.078	1.375	1.506	2.624	0.550	3.1	6.135	2.231	3.580

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:21:35	1.001	0.983	97.4%
2	10:22:02	0.934	0.947	100.1%
3	10:22:29	1.018	1.005	104.0%
x		0.985	0.978	100.5%
σ		0.045	0.029	3.3%
%RSD		4.529	2.990	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	101.4%	0.358	50.940	49.570	58.910	403.300	411.000	406.900	414.100	39.560
2	10:28:13	100.0%	0.385	54.790	51.880	63.580	415.000	424.500	419.000	420.900	41.020
3	10:28:40	98.4%	0.495	51.910	50.730	65.000	409.300	429.200	409.600	414.200	39.570
x		99.9%	0.413	52.550	50.720	62.490	409.200	421.500	411.800	416.400	40.050
σ		1.5%	0.073	2.000	1.155	3.186	5.861	9.456	6.332	3.885	0.841
%RSD		1.5	17.600	3.807	2.276	5.098	1.432	2.243	1.537	0.933	2.100

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	108.300	-42.330	418.800	413.400	388.700	101.8%	4.487	5.005	4.924	5.719
2	10:28:13	113.200	-23.420	424.400	399.200	388.900	100.5%	5.343	5.044	5.053	14.260
3	10:28:40	111.500	-27.890	411.400	430.000	399.600	99.5%	5.579	5.098	5.205	-32.960
x		111.000	-31.210	418.200	414.200	392.400	100.6%	5.136	5.049	5.061	-4.325
σ		2.510	9.883	6.514	15.410	6.219	1.2%	0.575	0.047	0.141	25.160
%RSD		2.262	31.660	1.558	3.720	1.585	1.1	11.190	0.928	2.776	581.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	53.760	4.726	52.660	54.920	1.005	5.122	5.526	4.997	4.999	10.060
2	10:28:13	54.490	4.769	52.620	53.080	0.994	4.927	4.365	4.996	5.000	9.808
3	10:28:40	55.760	4.916	52.840	52.360	0.981	5.040	4.633	5.000	5.016	10.520
x		54.670	4.804	52.710	53.450	0.993	5.029	4.841	4.998	5.005	10.130
σ		1.012	0.099	0.117	1.323	0.012	0.098	0.608	0.002	0.009	0.361
%RSD		1.851	2.069	0.222	2.475	1.212	1.948	12.560	0.046	0.190	3.559

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	8.910	9.960	1.681	5.539	-0.214	0.039	20.480	4.642	-0.356	9.493
2	10:28:13	10.360	9.880	1.929	4.542	0.171	-0.015	20.740	4.654	0.178	9.477
3	10:28:40	9.608	9.956	1.959	5.180	-0.148	0.059	23.100	5.222	-0.340	9.508
x		9.627	9.932	1.856	5.087	-0.064	0.027	21.440	4.839	-0.173	9.493
σ		0.726	0.045	0.153	0.505	0.206	0.038	1.443	0.331	0.304	0.016
%RSD		7.541	0.455	8.225	9.934	323.200	139.700	6.729	6.849	175.800	0.167

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	98.6%	9.727	9.695	9.684	0.257	0.953	0.928	0.084	0.095	99.0%
2	10:28:13	100.4%	9.646	10.030	9.806	-0.722	0.972	0.937	0.066	0.153	101.0%
3	10:28:40	102.2%	10.010	9.433	9.904	0.164	0.905	1.015	0.136	0.112	101.9%
x		100.4%	9.796	9.718	9.798	-0.101	0.944	0.960	0.096	0.120	100.6%
σ		1.8%	0.194	0.298	0.110	0.540	0.035	0.048	0.036	0.030	1.5%
%RSD		1.8	1.978	3.064	1.126	537.100	3.667	4.953	38.060	24.660	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:45	13.550	19.610	2.038	1.943	4.965	5.044	98.1%	0.441	0.458	0.963
2	10:28:13	13.830	19.130	1.996	1.846	4.755	5.323	100.4%	0.537	0.471	0.957
3	10:28:40	13.700	19.020	2.041	1.982	5.193	4.817	102.3%	0.472	0.499	0.979
x		13.690	19.250	2.025	1.924	4.971	5.062	100.2%	0.484	0.476	0.966
σ		0.138	0.316	0.025	0.070	0.219	0.253	2.1%	0.049	0.021	0.011
%RSD		1.010	1.639	1.225	3.643	4.407	5.007	2.1	10.170	4.456	1.161

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:27:45	1.020	0.968	97.1%
2	10:28:13	0.949	0.959	101.4%
3	10:28:40	1.017	0.989	102.1%
x		0.995	0.972	100.2%
σ		0.040	0.016	2.7%
%RSD		4.051	1.606	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	98.4%	2.112	251.600	245.200	60.390	T 1957.000	T 2014.000	2047.000	2062.000	203.500
2	10:34:21	97.0%	2.213	258.800	256.700	69.520	T 2009.000	T 2037.000	2055.000	2082.000	200.500
3	10:34:48	98.5%	1.997	254.300	256.000	60.480	T 2016.000	T 2049.000	2065.000	2045.000	190.200
x		98.0%	2.107	254.900	252.600	63.470	T 1994.000	T 2033.000	2056.000	2063.000	198.000
σ		0.9%	0.108	3.631	6.457	5.241	T 32.200	T 17.730	9.236	18.590	6.978
%RSD		0.9	5.118	1.424	2.556	8.259	T 1.615	T 0.872	0.449	0.901	3.524
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	512.900	-35.150	T 2008.000	2115.000	1957.000	99.9%	25.470	24.770	24.360	87.610
2	10:34:21	520.900	-38.470	T 2042.000	2114.000	1966.000	100.0%	25.390	24.760	24.360	184.000
3	10:34:48	502.400	-50.010	T 2005.000	2121.000	1946.000	102.6%	23.490	24.310	24.420	76.900
x		512.000	-41.210	T 2018.000	2117.000	1956.000	100.8%	24.780	24.610	24.380	116.200
σ		9.285	7.802	T 20.290	3.769	10.280	1.5%	1.122	0.263	0.036	58.970
%RSD		1.813	18.930	T 1.005	0.178	0.526	1.5	4.527	1.069	0.146	50.770
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	272.300	23.970	265.900	274.300	5.153	24.560	24.820	24.410	24.150	48.670
2	10:34:21	277.400	24.550	272.300	281.400	4.914	24.760	25.030	25.160	24.800	49.280
3	10:34:48	270.800	24.140	260.000	255.300	4.854	24.110	24.970	24.540	24.440	48.880
x		273.500	24.220	266.100	270.300	4.974	24.480	24.940	24.700	24.460	48.950
σ		3.429	0.296	6.145	13.490	0.159	0.332	0.105	0.399	0.323	0.310
%RSD		1.254	1.221	2.309	4.991	3.188	1.356	0.422	1.615	1.319	0.633
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	49.720	50.270	9.040	24.350	0.093	-0.245	101.000	22.550	2.496	48.080
2	10:34:21	50.680	48.260	9.949	24.920	-0.036	0.170	118.200	26.540	1.672	47.850
3	10:34:48	46.650	48.910	9.824	24.360	-0.120	-0.261	112.600	25.180	-0.500	48.210
x		49.020	49.140	9.604	24.540	-0.021	-0.112	110.600	24.760	1.223	48.050
σ		2.103	1.028	0.493	0.324	0.108	0.244	8.777	2.031	1.548	0.185
%RSD		4.290	2.091	5.130	1.320	518.000	218.400	7.938	8.205	126.600	0.385
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	100.5%	49.670	51.260	49.050	0.848	4.782	4.776	0.469	0.366	101.3%
2	10:34:21	100.2%	49.190	49.560	49.400	0.952	4.741	4.833	0.471	0.598	100.7%
3	10:34:48	100.9%	50.380	51.820	49.400	2.463	4.734	4.712	0.451	0.586	102.2%
x		100.5%	49.750	50.880	49.280	1.421	4.753	4.774	0.464	0.517	101.4%
σ		0.3%	0.601	1.178	0.205	0.904	0.026	0.061	0.011	0.131	0.8%
%RSD		0.3	1.208	2.316	0.415	63.620	0.546	1.273	2.362	25.290	0.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:33:54	70.160	98.130	9.697	10.170	24.940	25.010	101.0%	2.448	2.422	4.884
2	10:34:21	69.120	97.920	10.020	10.130	25.250	25.890	99.9%	2.530	2.458	4.965
3	10:34:48	69.840	99.440	10.030	10.420	25.370	25.220	103.0%	2.543	2.379	4.850
x		69.700	98.500	9.917	10.240	25.190	25.370	101.3%	2.507	2.420	4.900
σ		0.533	0.825	0.191	0.155	0.222	0.459	1.6%	0.052	0.040	0.059
%RSD		0.765	0.838	1.924	1.510	0.880	1.809	1.5	2.062	1.638	1.204
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:33:54	5.059	4.914	100.6%							
2	10:34:21	5.102	4.946	98.7%							
3	10:34:48	5.008	4.983	103.3%							
x		5.057	4.948	100.9%							
σ		0.047	0.034	2.3%							
%RSD		0.931	0.694	2.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	97.8%	248.100	252.800	248.500	71.220	254.400	260.800	252.600	255.200	244.900
2	10:40:29	98.3%	243.900	254.700	249.400	68.610	258.400	265.000	256.400	258.000	253.900
3	10:40:56	96.8%	258.500	253.600	254.500	67.490	257.400	262.200	259.700	261.300	250.200
x		97.6%	250.100	253.700	250.800	69.110	256.700	262.700	256.200	258.200	249.700
σ		0.8%	7.510	0.946	3.249	1.913	2.100	2.110	3.528	3.036	4.486
%RSD		0.8	3.002	0.373	1.296	2.768	0.818	0.803	1.377	1.176	1.797

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	256.700	-66.140	261.800	603.100	410.900	100.1%	246.400	244.300	247.400	1511.000
2	10:40:29	264.000	-62.530	264.100	610.300	410.000	98.4%	250.900	249.500	251.600	1354.000
3	10:40:56	265.800	-59.200	257.500	560.200	406.000	100.1%	247.400	252.400	250.900	1252.000
x		262.200	-62.620	261.100	591.200	409.000	99.5%	248.200	248.700	250.000	1373.000
σ		4.843	3.470	3.319	27.110	2.646	1.0%	2.359	4.080	2.254	130.500
%RSD		1.847	5.540	1.271	4.586	0.647	1.0	0.950	1.640	0.902	9.506

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	373.600	247.900	267.600	251.400	247.400	249.200	251.600	252.100	246.800	250.600
2	10:40:29	369.000	250.500	272.900	260.800	249.200	249.700	250.800	251.200	246.800	246.700
3	10:40:56	366.700	247.700	264.500	252.800	255.800	251.900	243.500	248.900	240.500	250.200
x		369.800	248.700	268.300	255.000	250.800	250.200	248.600	250.700	244.700	249.200
σ		3.489	1.565	4.232	5.058	4.407	1.439	4.449	1.649	3.617	2.136
%RSD		0.944	0.629	1.577	1.984	1.757	0.575	1.789	0.658	1.478	0.857

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	250.200	254.900	243.900	251.700	0.054	-0.260	1123.000	252.100	9.571	242.300
2	10:40:29	246.400	250.800	245.900	249.600	0.127	0.396	1114.000	252.200	8.327	242.800
3	10:40:56	250.800	256.500	255.600	250.500	0.205	-0.012	1087.000	245.900	12.750	244.100
x		249.100	254.100	248.500	250.600	0.129	0.041	1108.000	250.100	10.220	243.100
σ		2.408	2.922	6.268	1.083	0.075	0.331	18.340	3.611	2.283	0.923
%RSD		0.967	1.150	2.523	0.432	58.550	798.900	1.655	1.444	22.350	0.380

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	98.1%	247.300	249.500	246.100	241.600	241.900	244.600	247.500	244.900	99.0%
2	10:40:29	99.6%	248.100	247.900	245.900	241.600	243.000	244.900	244.100	244.200	99.2%
3	10:40:56	103.2%	249.700	250.600	248.900	245.800	245.900	249.000	252.900	249.500	102.6%
x		100.3%	248.400	249.400	247.000	243.000	243.600	246.200	248.200	246.200	100.3%
σ		2.7%	1.194	1.363	1.674	2.409	2.045	2.447	4.454	2.848	2.0%
%RSD		2.6	0.481	0.546	0.678	0.991	0.840	0.994	1.795	1.157	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:02	247.700	245.600	242.400	244.500	249.000	247.200	99.6%	246.500	250.200	244.400
2	10:40:29	248.600	245.600	241.900	247.000	250.500	251.200	98.5%	247.200	249.800	247.200
3	10:40:56	251.600	247.600	249.000	247.400	250.100	248.200	103.5%	248.700	251.200	247.400
x		249.300	246.300	244.400	246.300	249.900	248.800	100.6%	247.500	250.400	246.300
σ		2.063	1.118	3.944	1.565	0.792	2.085	2.6%	1.123	0.712	1.719
%RSD		0.827	0.454	1.614	0.635	0.317	0.838	2.6	0.454	0.284	0.698

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:40:02	245.100	246.700	98.9%
2	10:40:29	247.100	248.800	99.2%
3	10:40:56	248.000	249.500	104.0%
x		246.700	248.300	100.7%
σ		1.509	1.464	2.9%
%RSD		0.612	0.590	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	96.9%	497.500	M 506.000	M 504.200	68.380	503.900	522.300	513.400	525.800	T 498.600
2	10:46:40	97.1%	M 505.300	493.700	493.700	55.660	502.400	528.600	516.300	524.100	500.000
3	10:47:07	97.7%	486.500	493.900	M 500.700	59.630	495.300	512.200	505.900	504.300	TM 501.500
x		97.2%	M 496.400	M 497.900	M 499.500	61.220	500.500	521.000	511.900	518.100	TM 500.000
σ		0.4%	M 9.468	M 7.050	M 5.360	6.508	4.569	8.260	5.387	11.930	TM 1.426
%RSD		0.4	M 1.907	M 1.416	M 1.073	10.630	0.913	1.585	1.052	2.303	TM 0.285

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	518.900	-89.920	506.500	1113.000	808.500	99.1%	498.300	TM 507.100	499.300	2366.000
2	10:46:40	506.700	-90.780	507.200	1114.000	802.000	98.8%	M 504.800	T 498.800	M 510.900	876.800
3	10:47:07	522.400	-63.010	521.700	1136.000	807.800	98.2%	M 507.100	T 499.900	T 498.400	4334.000
x		516.000	-81.230	511.800	1121.000	806.100	98.7%	M 503.400	TM 501.900	TM 502.900	2526.000
σ		8.268	15.790	8.621	13.130	3.574	0.5%	M 4.576	TM 4.527	TM 6.954	1734.000
%RSD		1.602	19.440	1.684	1.172	0.443	0.5	M 0.909	TM 0.902	TM 1.383	68.660

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	758.200	TM 500.700	T 527.200	513.000	TM 501.300	498.900	493.300	M 510.700	497.500	495.200
2	10:46:40	754.900	TM 500.200	T 530.500	517.400	TM 506.600	M 500.800	498.600	M 514.100	498.200	M 505.900
3	10:47:07	758.500	T 499.200	T 535.000	529.300	T 497.400	M 503.800	M 510.100	M 512.400	M 502.200	M 500.400
x		757.200	TM 500.000	T 530.900	519.900	TM 501.700	M 501.100	M 500.700	M 512.400	M 499.300	M 500.500
σ		2.003	TM 0.747	T 3.896	8.441	TM 4.627	M 2.440	M 8.549	M 1.682	M 2.515	M 5.386
%RSD		0.265	TM 0.149	T 0.734	1.624	TM 0.922	M 0.487	M 1.708	M 0.328	M 0.504	M 1.076

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	497.600	M 510.200	M 503.300	496.300	0.149	-0.236	2226.000	M 505.000	18.190	TM 502.200
2	10:46:40	M 503.500	M 518.600	M 510.200	M 504.000	-0.010	0.321	2206.000	498.200	16.600	TM 504.000
3	10:47:07	M 500.500	M 509.600	496.800	498.100	0.111	0.195	2205.000	496.700	20.620	TM 504.800
x		M 500.500	M 512.800	M 503.400	M 499.500	0.084	0.093	2212.000	M 500.000	18.470	TM 503.600
σ		M 2.958	M 5.018	M 6.693	M 4.036	0.083	0.292	12.030	M 4.423	2.027	TM 1.328
%RSD		M 0.591	M 0.979	M 1.330	M 0.808	99.720	312.800	0.544	M 0.885	10.970	TM 0.264

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	100.1%	499.400	M 501.200	M 501.800	M 506.300	M 505.400	M 502.400	M 501.500	M 501.100	99.5%
2	10:46:40	100.6%	M 501.900	M 500.700	498.800	M 503.400	M 502.000	M 502.400	499.800	499.100	100.4%
3	10:47:07	98.0%	M 501.300	M 508.700	M 504.200	M 500.800	M 502.200	M 500.900	M 501.300	M 500.500	98.3%
x		99.6%	M 500.800	M 503.500	M 501.600	M 503.500	M 503.200	M 501.900	M 500.900	M 500.200	99.4%
σ		1.4%	M 1.312	M 4.493	M 2.720	M 2.790	M 1.878	M 0.865	M 0.927	M 1.039	1.0%
%RSD		1.4	M 0.262	M 0.892	M 0.542	M 0.554	M 0.373	M 0.172	M 0.185	M 0.208	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:13	M 506.100	M 503.200	M 505.000	M 508.100	M 504.100	M 504.700	99.7%	M 506.600	TM 502.900	M 504.800
2	10:46:40	M 506.400	M 502.100	M 505.700	M 500.900	495.000	494.900	102.8%	M 502.000	T 497.300	M 501.900
3	10:47:07	M 507.500	M 501.200	497.600	496.500	494.600	M 502.100	99.6%	499.900	T 493.800	498.800
x		M 506.700	M 502.200	M 502.800	M 501.800	M 497.900	M 500.600	100.7%	M 502.800	TM 498.000	M 501.800
σ		M 0.719	M 0.979	M 4.495	M 5.875	M 5.366	M 5.088	1.8%	M 3.423	TM 4.578	M 2.970
%RSD		M 0.142	M 0.195	M 0.894	M 1.171	M 1.078	M 1.016	1.8	M 0.681	TM 0.919	M 0.592

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	10:46:13	M 507.500	TM 504.400	T 100.7%
2	10:46:40	M 500.600	TM 500.100	102.6%
3	10:47:07	496.800	T 498.000	99.3%
x		M 501.600	TM 500.800	T 100.9%
σ		M 5.388	TM 3.290	T 1.6%
%RSD		M 1.074	TM 0.657	T 1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	91.8%	0.016	3.476	3.277	66.990	┬49870.000	┬50670.000	┬50450.000	┬50500.000	0.771
2	10:52:51	92.9%	0.062	2.836	2.831	79.000	┬50110.000	┬50220.000	┬49950.000	┬49980.000	0.683
3	10:53:19	91.8%	0.051	2.883	2.958	70.690	┬51350.000	┬51020.000	┬50440.000	┬50600.000	0.728
x		92.2%	0.043	3.065	3.022	72.220	┬50450.000	┬50640.000	┬50280.000	┬50360.000	0.727
σ		0.6%	0.024	0.357	0.229	6.153	┬794.800	┬401.400	┬284.700	┬332.600	0.044
%RSD		0.7	55.390	11.640	7.591	8.519	┬1.576	┬0.793	┬0.566	┬0.661	6.000
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	┬4929.000	-70.680	┬48440.000	49660.000	┬49750.000	99.3%	1.004	-0.009	0.218	10.650
2	10:52:51	┬4797.000	-44.300	┬49830.000	50520.000	┬50430.000	96.4%	1.311	-0.051	0.173	31.960
3	10:53:19	┬5007.000	-18.510	┬51610.000	50120.000	┬50030.000	96.7%	1.207	-0.106	0.216	69.280
x		┬4911.000	-44.490	┬49960.000	50100.000	┬50070.000	97.4%	1.174	-0.055	0.202	37.300
σ		┬106.200	26.080	┬1586.000	431.800	┬344.100	1.6%	0.156	0.049	0.025	29.680
%RSD		┬2.163	58.620	┬3.175	0.862	┬0.687	1.6	13.290	88.700	12.400	79.570
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	┬49670.000	0.783	┬50360.000	┬49130.000	2.437	2.254	1.504	0.237	0.252	0.991
2	10:52:51	┬50660.000	0.768	┬50690.000	┬50880.000	2.419	2.327	1.597	0.175	0.279	1.006
3	10:53:19	┬49740.000	0.772	┬50000.000	┬49840.000	2.361	2.386	1.160	0.149	0.313	1.040
x		┬50020.000	0.774	┬50350.000	┬49950.000	2.406	2.322	1.420	0.187	0.281	1.012
σ		┬551.700	0.007	┬345.800	┬883.700	0.040	0.066	0.230	0.045	0.031	0.025
%RSD		┬1.103	0.944	┬0.687	┬1.769	1.658	2.840	16.220	24.120	10.990	2.508
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	1.436	1.232	0.333	-0.211	0.228	-0.068	0.654	0.160	0.244	0.364
2	10:52:51	1.115	1.111	0.293	0.090	0.279	-0.051	0.834	0.172	0.631	0.381
3	10:53:19	1.480	1.121	0.075	0.098	0.692	-0.009	-3.080	-0.654	-1.278	0.429
x		1.344	1.154	0.234	-0.008	0.400	-0.043	-0.531	-0.107	-0.134	0.392
σ		0.199	0.067	0.139	0.176	0.254	0.030	2.210	0.473	1.009	0.033
%RSD		14.830	5.808	59.280	2290.000	63.640	71.340	416.100	440.600	752.200	8.542
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	96.3%	0.172	0.183	0.179	0.607	0.004	0.017	0.001	0.017	95.6%
2	10:52:51	97.4%	0.175	0.181	0.139	-0.484	0.011	0.003	0.009	0.001	97.3%
3	10:53:19	96.5%	0.149	0.210	0.153	-0.420	0.006	0.007	0.025	0.006	94.4%
x		96.8%	0.166	0.191	0.157	-0.099	0.007	0.009	0.012	0.008	95.8%
σ		0.6%	0.014	0.016	0.020	0.612	0.004	0.007	0.013	0.008	1.5%
%RSD		0.6	8.530	8.599	12.760	617.700	57.140	77.240	108.800	100.600	1.5
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:24	0.118	0.144	0.435	0.438	0.003	0.016	98.3%	0.015	0.004	0.042
2	10:52:51	0.144	0.188	0.462	0.436	-0.020	-0.013	100.4%	-0.000	0.005	0.048
3	10:53:19	0.126	0.183	0.392	0.396	-0.008	0.007	97.1%	0.007	0.005	0.029
x		0.129	0.172	0.430	0.423	-0.009	0.004	98.6%	0.007	0.005	0.040
σ		0.013	0.024	0.035	0.024	0.011	0.015	1.7%	0.008	0.001	0.010
%RSD		10.180	13.930	8.147	5.634	131.600	419.800	1.7	104.900	21.940	24.590
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	10:52:24	0.033	0.040	95.0%							
2	10:52:51	0.029	0.040	95.1%							
3	10:53:19	0.024	0.033	93.0%							
x		0.029	0.038	94.4%							
σ		0.005	0.004	1.2%							
%RSD		16.190	10.730	1.3							

cal6 MW-10934 04/30/2019 10:58:08

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	90.5%	-0.017	1.846	1.537	81.570	T 99280.000	T 98600.000	T 99240.000	T 99660.000	0.956
2	10:59:02	89.8%	0.039	1.968	1.665	85.610	TM 100700.000	T 99570.000	T 98880.000	T 99680.000	0.869
3	10:59:30	90.2%	0.050	1.919	1.539	77.040	T 99940.000	TM 100900.000	TM 101500.000	TM 100100.000	0.814
x		90.2%	0.024	1.911	1.581	81.410	TM 99960.000	TM 99680.000	TM 99860.000	TM 99820.000	0.880
σ		0.4%	0.036	0.062	0.073	4.285	TM 690.900	TM 1139.000	TM 1396.000	TM 259.800	0.072
%RSD		0.4	149.400	3.228	4.628	5.263	TM 0.691	TM 1.143	TM 1.398	TM 0.260	8.152
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	T 9752.000	-28.290	T 99820.000	99850.000	T 99610.000	95.3%	2.355	-0.120	0.492	81.040
2	10:59:02	TM 10260.000	-27.770	TM 100100.000	99710.000	T 99260.000	96.8%	2.131	-0.054	0.457	36.060
3	10:59:30	TM 10110.000	-36.150	T 99730.000	M 100300.000	TM 101000.000	96.6%	2.261	-0.077	0.473	49.900
x		TM 10040.000	-30.740	TM 99890.000	M 99950.000	TM 99940.000	96.2%	2.249	-0.084	0.474	55.670
σ		TM 263.400	4.696	TM 192.500	M 300.100	TM 893.900	0.8%	0.112	0.033	0.017	23.040
%RSD		TM 2.623	15.280	TM 0.193	M 0.300	TM 0.894	0.8	4.998	39.820	3.616	41.380
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	T 99200.000	1.568	T 98100.000	T 98000.000	4.679	4.942	3.853	0.430	0.643	3.077
2	10:59:02	TM 100200.000	1.573	TM 100000.000	T 99220.000	4.634	4.614	3.714	0.413	0.524	3.287
3	10:59:30	TM 100600.000	1.481	TM 101300.000	T 99040.000	4.770	4.532	3.499	0.367	0.588	3.182
x		TM 99990.000	1.541	TM 99830.000	T 98750.000	4.694	4.696	3.689	0.403	0.585	3.182
σ		TM 710.400	0.052	TM 1634.000	T 662.700	0.069	0.217	0.178	0.033	0.060	0.105
%RSD		TM 0.711	3.351	TM 1.636	T 0.671	1.475	4.623	4.827	8.092	10.220	3.305
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	2.981	2.436	0.456	0.277	1.326	0.482	-1.811	-0.385	-0.154	0.716
2	10:59:02	2.688	2.945	0.422	0.518	1.129	0.304	-2.786	-0.580	-1.382	0.773
3	10:59:30	3.439	3.124	0.418	0.330	1.254	-0.169	-1.168	-0.223	-0.208	0.769
x		3.036	2.835	0.432	0.375	1.236	0.206	-1.922	-0.396	-0.581	0.753
σ		0.378	0.357	0.021	0.127	0.100	0.337	0.815	0.179	0.694	0.032
%RSD		12.450	12.590	4.902	33.810	8.055	163.800	42.400	45.220	119.400	4.260
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	92.8%	0.183	0.201	0.164	0.130	0.013	0.015	0.035	0.010	91.0%
2	10:59:02	94.3%	0.157	0.164	0.156	0.571	0.010	0.007	0.009	0.006	92.2%
3	10:59:30	93.4%	0.153	0.152	0.161	-0.008	0.017	0.012	0.022	0.014	90.7%
x		93.5%	0.164	0.172	0.160	0.231	0.013	0.011	0.022	0.010	91.3%
σ		0.8%	0.017	0.026	0.004	0.302	0.004	0.004	0.013	0.004	0.8%
%RSD		0.8	10.160	14.870	2.632	131.000	29.410	39.300	57.920	42.030	0.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:34	0.055	0.052	0.516	0.542	0.034	0.032	93.1%	0.012	0.010	0.075
2	10:59:02	0.051	0.031	0.484	0.444	0.015	0.014	96.1%	0.024	-0.002	0.083
3	10:59:30	0.022	0.054	0.487	0.482	0.003	0.011	95.9%	0.001	0.007	0.081
x		0.043	0.046	0.496	0.489	0.018	0.019	95.0%	0.012	0.005	0.080
σ		0.018	0.013	0.018	0.049	0.016	0.012	1.6%	0.012	0.006	0.004
%RSD		41.620	27.840	3.580	10.060	88.580	60.710	1.7	96.630	130.100	5.489
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	10:58:34	0.068	0.083	86.2%							
2	10:59:02	0.065	0.077	89.1%							
3	10:59:30	0.103	0.082	90.0%							
x		0.079	0.081	88.4%							
σ		0.021	0.003	2.0%							
%RSD		26.870	3.889	2.3							

ICV MW11020 PREP 4/30/19 04/30/2019 11:04:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	93.1%	201.600	210.800	204.400	52.380	┬40670.000	┬40150.000	┬40150.000	┬40600.000	202.600
2	11:05:13	93.3%	202.100	215.100	206.900	49.500	┬41350.000	┬40840.000	┬40060.000	┬40200.000	198.800
3	11:05:40	92.4%	204.500	211.200	203.900	50.350	┬40860.000	┬40310.000	┬40110.000	┬39690.000	194.400
x		93.0%	101.368%	212.300	102.526%	50.740	┬102.402%	┬40430.000	┬40110.000	┬100.406%	99.302%
σ		0.5%	n/a	2.346	n/a	1.481	┬n/a	┬365.000	┬45.810	┬n/a	n/a
%RSD		0.5	0.766	1.105	0.783	2.918	┬0.866	┬0.903	┬0.114	┬1.145	2.070

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	┬2103.000	-39.880	┬40970.000	40870.000	┬40570.000	95.5%	203.500	207.300	199.200	972.500
2	11:05:13	┬2094.000	-46.260	┬40930.000	40380.000	┬39980.000	96.2%	201.600	207.700	196.000	1214.000
3	11:05:40	┬2088.000	-67.080	┬40620.000	40300.000	┬40140.000	98.2%	199.500	201.300	197.500	1556.000
x		┬104.745%	-51.070	┬102.093%	40520.000	┬100.574%	96.6%	100.766%	102.714%	98.776%	1247.000
σ		┬n/a	14.220	┬n/a	305.200	┬n/a	1.4%	n/a	n/a	n/a	293.000
%RSD		┬0.363	27.850	┬0.471	0.753	┬0.767	1.5	0.993	1.733	0.798	23.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	┬41030.000	195.500	┬40930.000	┬40270.000	194.000	195.000	195.700	195.900	198.300	200.900
2	11:05:13	┬40330.000	195.600	┬41040.000	┬40380.000	192.800	194.800	189.400	192.700	192.700	196.900
3	11:05:40	┬40730.000	195.300	┬40940.000	┬40070.000	193.800	191.100	189.100	191.400	190.200	197.700
x		┬40700.000	97.723%	┬102.422%	┬100.606%	96.764%	96.819%	191.400	193.400	96.862%	99.251%
σ		┬348.000	n/a	┬n/a	┬n/a	n/a	n/a	3.712	2.322	n/a	n/a
%RSD		┬0.855	0.068	┬0.140	┬0.397	0.329	1.143	1.939	1.201	2.136	1.088

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	192.900	196.100	196.900	203.400	0.564	0.303	886.100	206.200	4.321	195.900
2	11:05:13	194.200	195.400	201.400	201.200	0.558	0.556	876.000	200.900	2.896	194.200
3	11:05:40	197.700	199.600	201.600	198.700	0.873	0.176	879.500	203.100	1.578	194.900
x		194.900	197.000	99.991%	201.100	0.665	0.345	880.500	101.686%	2.932	97.500%
σ		2.450	2.271	n/a	2.339	0.180	0.193	5.167	n/a	1.372	n/a
%RSD		1.257	1.153	1.329	1.163	27.070	56.010	0.587	1.317	46.800	0.436

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	93.4%	205.900	206.800	205.600	199.300	199.500	198.400	199.400	199.100	91.0%
2	11:05:13	96.4%	204.100	206.000	200.700	193.000	192.600	194.900	199.500	196.600	95.1%
3	11:05:40	99.0%	203.600	203.300	203.600	201.600	194.900	195.100	201.800	199.300	96.8%
x		96.3%	102.263%	102.694%	101.642%	198.000	97.832%	196.100	100.108%	99.169%	94.3%
σ		2.8%	n/a	n/a	n/a	4.439	n/a	1.985	n/a	n/a	2.9%
%RSD		2.9	0.601	0.887	1.215	2.242	1.796	1.012	0.670	0.782	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:46	203.800	203.000	202.100	196.300	199.300	198.700	94.3%	193.000	195.500	194.300
2	11:05:13	202.500	200.600	201.400	199.400	199.700	200.300	98.0%	194.400	196.500	196.000
3	11:05:40	202.900	202.100	205.200	202.100	200.000	198.100	100.9%	192.400	194.600	193.500
x		101.547%	100.962%	202.900	99.637%	99.831%	99.523%	97.7%	193.300	97.764%	194.600
σ		n/a	n/a	2.023	n/a	n/a	n/a	3.3%	1.017	n/a	1.317
%RSD		0.330	0.604	0.997	1.474	0.170	0.577	3.4	0.526	0.476	0.677

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:04:46	193.700	194.900	90.1%
2	11:05:13	193.800	195.200	94.2%
3	11:05:40	192.900	194.200	96.8%
x		193.500	97.398%	93.7%
σ		0.496	n/a	3.4%
%RSD		0.257	0.255	3.6

ICB IM9390-01 04/30/2019 11:10:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	98.8%	0.074	0.613	0.400	-2.260	9.902	8.458	9.273	8.978	-0.032
2	11:11:21	97.2%	0.053	1.439	0.366	9.677	7.423	6.119	5.771	6.163	-0.057
3	11:11:49	99.0%	0.025	0.602	0.218	2.670	6.312	5.170	4.887	5.305	-0.079
x		98.4%	0.051	0.885	0.328	3.362	7.879	6.582	6.644	6.815	-0.056
σ		1.0%	0.024	0.480	0.097	5.998	1.838	1.693	2.319	1.921	0.023
%RSD		1.0	48.420	54.260	29.570	178.400	23.330	25.710	34.910	28.190	41.480
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	17.050	-80.410	18.910	7.365	7.034	99.6%	-0.008	0.030	0.008	1.023
2	11:11:21	16.690	-83.910	18.720	4.208	6.012	99.8%	-0.056	-0.007	0.037	15.490
3	11:11:49	15.780	-101.200	13.520	4.614	4.810	102.8%	-0.057	0.019	0.028	-4.916
x		16.510	-88.500	17.050	5.395	5.952	100.8%	-0.040	0.014	0.024	3.864
σ		0.653	11.130	3.054	1.718	1.113	1.8%	0.028	0.019	0.015	10.490
%RSD		3.953	12.580	17.910	31.840	18.700	1.8	70.310	136.200	60.460	271.500
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	9.044	0.034	10.430	16.660	0.040	0.026	-0.149	-0.002	0.007	0.014
2	11:11:21	8.010	0.046	6.509	15.060	0.040	0.026	-0.554	-0.010	0.030	0.065
3	11:11:49	5.968	0.020	5.306	7.157	0.036	0.022	-0.480	0.010	-0.002	0.009
x		7.674	0.033	7.416	12.960	0.038	0.025	-0.394	-0.000	0.012	0.029
σ		1.565	0.013	2.680	5.088	0.002	0.003	0.216	0.010	0.017	0.031
%RSD		20.400	39.830	36.140	39.260	6.458	11.370	54.700	2368.000	143.400	107.300
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	0.031	0.023	-0.009	-0.491	-0.010	0.194	-0.452	-0.101	-0.446	0.039
2	11:11:21	0.098	0.038	-0.060	0.258	-0.122	0.033	-1.170	-0.309	1.943	0.021
3	11:11:49	0.183	0.010	0.108	0.363	0.073	-0.296	2.684	0.558	-0.015	0.016
x		0.104	0.024	0.013	0.043	-0.020	-0.023	0.354	0.049	0.494	0.025
σ		0.076	0.014	0.086	0.466	0.098	0.250	2.050	0.453	1.273	0.012
%RSD		73.430	57.870	657.000	1074.000	500.600	1077.000	578.600	918.000	257.600	49.010
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	100.4%	0.048	0.037	0.055	0.139	0.028	0.028	0.024	0.035	100.9%
2	11:11:21	102.2%	0.055	0.097	0.032	0.954	0.016	0.022	0.031	0.033	101.7%
3	11:11:49	103.2%	0.044	0.039	0.041	-0.204	0.012	0.019	0.019	0.018	105.8%
x		101.9%	0.049	0.058	0.043	0.296	0.019	0.023	0.025	0.029	102.8%
σ		1.4%	0.006	0.034	0.012	0.595	0.008	0.004	0.006	0.009	2.6%
%RSD		1.4	12.190	58.670	26.900	201.000	44.830	19.550	24.730	31.560	2.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:53	0.031	0.052	0.045	0.044	0.007	0.021	101.3%	0.032	0.023	0.029
2	11:11:21	0.025	0.041	0.050	0.037	0.034	0.015	102.5%	0.021	0.018	0.020
3	11:11:49	0.008	0.032	0.033	0.036	0.006	0.020	105.1%	0.016	0.011	0.029
x		0.021	0.042	0.043	0.039	0.015	0.019	103.0%	0.023	0.017	0.026
σ		0.012	0.010	0.008	0.004	0.016	0.003	1.9%	0.008	0.006	0.005
%RSD		54.180	24.170	19.810	10.570	101.900	18.640	1.9	36.420	34.720	20.300
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	11:10:53	0.029	0.036	101.3%							
2	11:11:21	0.027	0.028	102.9%							
3	11:11:49	0.026	0.019	105.6%							
x		0.027	0.027	103.3%							
σ		0.002	0.008	2.2%							
%RSD		6.045	30.340	2.1							

ICSA MW10984 04/30/2019 11:16:35 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	90.6%	0.011	0.305	0.556	1467.000	TM 102300.000	T 99830.000	T 99550.000	T 99070.000	TM 98080.000
2	11:17:29	93.1%	0.041	1.120	0.501	1475.000	TM 102700.000	T 99510.000	T 98990.000	T 97850.000	TM 98120.000
3	11:17:56	94.2%	-0.003	0.866	0.374	1405.000	TM 102100.000	T 97250.000	T 95370.000	T 95630.000	TM 94970.000
x		92.7%	1.#IO%	0.764	1.#IO%	1449.000	TM 102.369%	T 98860.000	T 97970.000	T 97.516%	TM 97.060%
σ		1.8%	n/a	0.417	n/a	38.070	TM n/a	T 1404.000	T 2268.000	T n/a	TM n/a
%RSD		2.0	141.200	54.610	19.630	2.627	TM 0.309	T 1.420	T 2.315	T 1.788	TM 1.864

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	39.620	T 41310.000	TM 102400.000	M 104200.000	TM 102600.000	93.5%	M 2281.000	-0.877	-1.767	1384.000
2	11:17:29	39.910	T 41250.000	TM 102400.000	M 104400.000	TM 104000.000	94.2%	M 2277.000	-0.948	-1.793	1438.000
3	11:17:56	35.820	T 39800.000	TM 100500.000	M 103100.000	TM 101700.000	95.8%	M 2258.000	-0.817	-1.783	1251.000
x		1.#IO%	T 40790.000	TM 101.780%	M 103900.000	TM 102.778%	94.5%	M 113.608%	-1.#IO%	-1.#IO%	1358.000
σ		n/a	T 853.200	TM n/a	M 714.400	TM n/a	1.2%	M n/a	n/a	n/a	95.950
%RSD		5.934	T 2.092	TM 1.078	M 0.687	TM 1.123	1.2	M 0.547	7.448	0.727	7.067

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	TM 102000.000	0.563	TM 103500.000	TM 102900.000	0.517	1.455	7.148	-1.071	0.873	2.106
2	11:17:29	TM 101700.000	0.571	TM 102300.000	T 99370.000	0.505	1.434	7.657	-1.012	1.285	2.157
3	11:17:56	TM 100300.000	0.507	TM 101800.000	TM 100900.000	0.502	1.267	6.728	-1.027	0.818	2.067
x		TM 101300.000	1.#IO%	TM 102500.000	TM 101.023%	1.#IO%	1.#IO%	7.178	-1.037	1.#IO%	1.#IO%
σ		TM 942.000	n/a	TM 863.600	TM n/a	n/a	n/a	0.465	0.030	n/a	n/a
%RSD		TM 0.930	6.415	TM 0.842	TM 1.733	1.634	7.423	6.484	2.936	25.720	2.144

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	1.764	0.399	-0.064	0.822	1.362	0.684	-0.653	-0.424	11.690	0.791
2	11:17:29	2.170	0.366	0.013	0.184	2.062	1.245	-0.588	-0.532	16.500	0.830
3	11:17:56	1.439	0.379	0.153	-0.021	2.025	0.717	1.567	0.078	10.350	0.812
x		1.791	0.381	1.#IO%	0.328	1.816	0.882	0.109	-1.#IO%	12.850	0.811
σ		0.366	0.016	n/a	0.440	0.394	0.315	1.263	n/a	3.235	0.019
%RSD		20.450	4.289	323.900	133.900	21.690	35.700	1161.000	111.200	25.180	2.354

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	92.9%	TM 2346.000	M 2181.000	TM 2096.000	-1.379	0.017	0.020	-5.121	0.302	93.8%
2	11:17:29	91.5%	TM 2359.000	M 2190.000	TM 2093.000	-2.910	0.018	0.022	-4.756	0.367	94.4%
3	11:17:56	96.5%	TM 2358.000	M 2209.000	TM 2094.000	-1.824	0.015	0.017	-5.062	0.020	99.0%
x		93.6%	TM 2354.000	M 109.689%	TM 2094.000	-2.038	1.#IO%	0.020	-4.980	1.#IO%	95.7%
σ		2.6%	TM 7.119	M n/a	TM 1.126	0.788	n/a	0.002	0.196	n/a	2.9%
%RSD		2.7	TM 0.302	M 0.651	TM 0.054	38.650	8.528	11.930	3.938	80.260	3.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:02	1.372	0.030	0.207	0.188	0.181	0.158	96.4%	-0.007	-0.012	0.089
2	11:17:29	1.391	0.055	0.226	0.200	0.187	0.155	96.6%	-0.008	-0.015	0.067
3	11:17:56	1.154	0.028	0.186	0.208	0.149	0.130	101.6%	-0.011	-0.012	0.068
x		1.#IO%	1.#IO%	0.206	1.#IO%	0.172	1.#IO%	98.2%	-0.009	-1.#IO%	0.075
σ		n/a	n/a	0.020	n/a	0.021	n/a	3.0%	0.002	n/a	0.013
%RSD		10.090	40.800	9.656	5.297	11.950	10.280	3.0	28.240	12.320	16.800

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:17:02	0.091	0.084	92.9%
2	11:17:29	0.089	0.074	91.5%
3	11:17:56	0.067	0.075	97.0%
x		0.082	1.#IO%	93.8%
σ		0.013	n/a	2.9%
%RSD		16.090	7.648	3.1

CCV MW10994 04/30/2019 11:22:44 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	92.9%	305.100	308.200	305.100	84.330	┬63330.000	┬63120.000	┬63050.000	┬63000.000	309.800
2	11:23:39	92.1%	314.600	318.500	314.300	73.650	┬63740.000	┬63220.000	┬63290.000	┬62680.000	305.800
3	11:24:06	92.7%	305.200	306.900	306.600	69.180	┬62800.000	┬62060.000	┬60810.000	┬61310.000	306.500
x		92.6%	102.773%	103.721%	102.880%	75.720	┬105.484%	┬62800.000	┬62380.000	┬103.884%	102.454%
σ		0.4%	n/a	n/a	n/a	7.785	┬n/a	┬644.000	┬1368.000	┬n/a	n/a
%RSD		0.4	1.771	2.040	1.601	10.280	┬0.744	┬1.025	┬2.193	┬1.442	0.701

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	┬3280.000	124.900	┬62560.000	62720.000	┬62070.000	98.9%	310.000	313.000	300.400	399.600
2	11:23:39	┬3274.000	113.200	┬62550.000	62240.000	┬62330.000	98.1%	308.300	311.800	300.600	1908.000
3	11:24:06	┬3303.000	92.330	┬62020.000	62620.000	┬62140.000	99.6%	311.200	317.300	304.600	1432.000
x		┬109.524%	110.100	┬103.959%	62530.000	┬103.632%	98.9%	103.281%	104.690%	100.616%	1247.000
σ		┬n/a	16.480	┬n/a	253.600	┬n/a	0.8%	n/a	n/a	n/a	771.100
%RSD		┬0.467	14.960	┬0.500	0.406	┬0.213	0.8	0.482	0.924	0.795	61.860

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	┬61920.000	296.100	┬62290.000	┬61560.000	297.300	286.100	286.100	283.500	285.700	294.900
2	11:23:39	┬62360.000	298.900	┬62810.000	┬61820.000	295.900	286.900	286.500	284.600	286.300	294.200
3	11:24:06	┬61310.000	298.000	┬62650.000	┬61400.000	298.300	287.900	280.700	283.500	276.200	292.900
x		┬61870.000	99.225%	┬62580.000	┬102.661%	99.046%	95.663%	284.400	283.900	94.250%	97.996%
σ		┬525.500	n/a	┬262.400	┬n/a	n/a	n/a	3.231	0.608	n/a	n/a
%RSD		┬0.850	0.472	┬0.419	┬0.341	0.398	0.318	1.136	0.214	2.013	0.349

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	297.900	295.100	297.000	296.300	0.626	0.318	1304.000	298.600	3.244	301.600
2	11:23:39	299.500	294.400	295.400	290.900	0.856	-0.351	1301.000	295.900	4.233	300.900
3	11:24:06	292.100	298.000	302.800	290.300	1.259	0.540	1273.000	290.000	6.855	299.300
x		296.500	295.800	99.470%	292.500	0.914	0.169	1293.000	98.278%	4.777	100.210%
σ		3.870	1.888	n/a	3.277	0.320	0.464	17.240	n/a	1.866	n/a
%RSD		1.305	0.638	1.294	1.120	35.060	274.800	1.333	1.487	39.060	0.394

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	97.0%	314.600	319.200	315.700	299.500	290.800	290.400	300.400	300.700	96.1%
2	11:23:39	95.9%	316.700	320.700	316.600	299.600	288.200	289.400	299.000	298.400	95.7%
3	11:24:06	101.0%	316.100	316.600	315.400	303.100	289.400	292.800	304.000	303.100	100.0%
x		98.0%	105.264%	106.285%	315.900	300.700	96.493%	290.900	301.100	100.243%	97.3%
σ		2.7%	n/a	n/a	0.616	2.030	n/a	1.759	2.565	n/a	2.4%
%RSD		2.7	0.345	0.644	0.195	0.675	0.455	0.605	0.852	0.778	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:11	312.300	307.900	311.000	303.600	301.300	304.200	99.9%	297.000	302.400	295.500
2	11:23:39	309.000	309.000	314.500	303.500	300.100	301.000	100.4%	297.500	302.700	295.800
3	11:24:06	312.000	309.000	315.000	307.400	300.900	303.700	104.6%	296.800	303.100	295.700
x		103.688%	102.883%	313.500	101.606%	100.252%	100.989%	101.6%	297.100	100.917%	98.558%
σ		n/a	n/a	2.159	n/a	n/a	n/a	2.6%	0.390	n/a	n/a
%RSD		0.584	0.198	0.689	0.729	0.201	0.571	2.5	0.131	0.121	0.055

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:23:11	293.100	297.400	94.5%
2	11:23:39	296.100	297.500	94.8%
3	11:24:06	294.000	296.700	99.2%
x		98.129%	99.069%	96.2%
σ		n/a	n/a	2.6%
%RSD		0.525	0.155	2.7

CCB IM9390-01 04/30/2019 11:28:53 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	95.8%	0.027	1.856	1.207	2.430	14.290	9.649	10.070	10.430	2.237
2	11:29:46	97.5%	0.021	1.416	1.300	5.740	12.300	8.368	8.183	8.257	1.909
3	11:30:13	97.9%	0.041	1.243	1.174	2.889	11.210	6.942	6.958	7.105	1.552
x		97.1%	0.030	1.505	1.227	3.687	12.600	8.320	8.403	8.599	1.899
σ		1.2%	0.010	0.316	0.065	1.793	1.560	1.354	1.567	1.691	0.343
%RSD		1.2	33.600	21.020	5.336	48.640	12.380	16.280	18.640	19.660	18.050

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	15.820	-28.780	44.270	12.850	10.120	100.8%	0.133	0.032	0.046	11.120
2	11:29:46	15.120	-35.490	37.150	4.649	7.197	102.4%	0.153	0.049	0.044	-9.849
3	11:30:13	14.990	-31.540	36.740	4.064	5.869	101.9%	0.107	0.014	0.028	4.784
x		15.310	-31.940	39.390	7.188	7.728	101.7%	0.131	0.032	0.039	2.020
σ		0.446	3.375	4.232	4.912	2.174	0.8%	0.023	0.017	0.010	10.760
%RSD		2.916	10.570	10.740	68.340	28.130	0.8	17.440	55.280	24.460	532.600

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	11.050	0.047	10.970	13.090	0.064	0.023	0.173	0.067	0.056	0.073
2	11:29:46	10.190	0.051	8.697	9.806	0.050	0.008	-0.036	0.037	0.023	0.019
3	11:30:13	7.660	0.051	7.038	12.940	0.032	0.025	-0.343	0.020	0.037	0.007
x		9.632	0.050	8.900	11.940	0.049	0.018	-0.068	0.041	0.039	0.033
σ		1.762	0.002	1.972	1.853	0.016	0.009	0.260	0.024	0.017	0.035
%RSD		18.290	5.025	22.160	15.510	33.250	51.340	379.900	58.180	42.900	105.700

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	0.048	0.087	0.078	-0.131	0.239	-0.078	1.521	0.337	-0.538	0.042
2	11:29:46	0.024	0.076	0.065	0.294	-0.062	-0.250	1.323	0.310	-1.539	0.028
3	11:30:13	0.224	0.009	0.125	-0.010	0.403	-0.344	1.834	0.410	-0.611	0.023
x		0.099	0.057	0.089	0.051	0.193	-0.224	1.559	0.353	-0.896	0.031
σ		0.109	0.042	0.032	0.219	0.236	0.135	0.258	0.052	0.558	0.010
%RSD		110.700	73.040	35.360	432.300	121.800	60.310	16.530	14.730	62.300	31.210

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	105.5%	0.155	0.169	0.147	-1.516	0.036	0.033	0.066	0.042	105.9%
2	11:29:46	105.1%	0.155	0.136	0.156	-1.235	0.037	0.032	0.026	0.023	106.2%
3	11:30:13	106.7%	0.140	0.087	0.135	-0.407	0.026	0.024	0.029	0.028	107.0%
x		105.8%	0.150	0.131	0.146	-1.053	0.033	0.030	0.040	0.031	106.3%
σ		0.8%	0.009	0.041	0.011	0.577	0.006	0.005	0.022	0.010	0.6%
%RSD		0.8	5.798	31.400	7.347	54.790	18.900	15.880	55.160	32.190	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:19	0.066	0.052	0.118	0.120	0.026	0.041	105.7%	0.037	0.030	0.038
2	11:29:46	0.064	0.080	0.114	0.102	0.053	0.056	105.6%	0.027	0.033	0.034
3	11:30:13	0.042	0.062	0.133	0.083	0.021	0.037	106.8%	0.018	0.018	0.030
x		0.058	0.065	0.122	0.102	0.033	0.044	106.1%	0.027	0.027	0.034
σ		0.013	0.014	0.010	0.019	0.017	0.010	0.7%	0.010	0.008	0.004
%RSD		22.690	22.140	8.024	18.240	51.350	22.260	0.6	35.220	29.480	12.800

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:29:19	0.020	0.041	106.5%
2	11:29:46	0.036	0.037	106.1%
3	11:30:13	0.046	0.037	107.0%
x		0.034	0.039	106.5%
σ		0.013	0.002	0.4%
%RSD		38.160	6.475	0.4

MW10963 njt 5-7-19

LR ~~MW10763~~ 04/30/2019 11:34:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	88.7%	M 961.200	M 1913.000	TM 2034.000	90.450	TM 122000.000	TM 120700.000	TM 122000.000	TM 122800.000	TM 120800.000
2	11:35:53	87.3%	M 995.100	M 1955.000	TM 2049.000	83.300	TM 123500.000	TM 124600.000	TM 123000.000	TM 121000.000	TM 117200.000
3	11:36:20	87.1%	M 1024.000	M 2069.000	TM 2137.000	85.460	TM 124300.000	TM 121100.000	TM 121600.000	TM 123600.000	TM 118500.000
x		87.7%	M 99.340%	M 98.945%	TM 103.668%	86.400	TM 102.743%	TM 122100.000	TM 122200.000	TM 102.081%	TM 98.997%
σ		0.9%	M n/a	M n/a	TM n/a	3.666	TM n/a	TM 2115.000	TM 692.000	TM n/a	TM n/a
%RSD		1.0	M 3.158	M 4.086	TM 2.680	4.243	TM 0.955	TM 1.732	TM 0.566	TM 1.087	TM 1.535
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	28.350	41.180	TM 126100.000	M 130600.000	TM 127800.000	90.5%	M 2077.000	TM 2060.000	TM 1988.000	21520.000
2	11:35:53	28.450	21.270	TM 122700.000	M 128600.000	TM 126000.000	93.8%	M 2093.000	TM 2095.000	TM 2010.000	9501.000
3	11:36:20	28.950	34.590	TM 123200.000	M 127100.000	TM 124600.000	93.6%	M 2096.000	TM 2103.000	TM 2012.000	10890.000
x		28.590	32.350	TM 103.321%	M 128700.000	TM 105.125%	92.6%	M 104.431%	TM 104.301%	TM 100.177%	13970.000
σ		0.323	10.140	TM n/a	M 1752.000	TM n/a	1.8%	M n/a	TM n/a	TM n/a	6577.000
%RSD		1.129	31.350	TM 1.460	M 1.361	TM 1.250	2.0	M 0.503	TM 1.108	TM 0.668	47.070
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	TM 124200.000	TM 1975.000	TM 123000.000	TM 120900.000	TM 1957.000	M 1922.000	M 1898.000	TM 1886.000	M 1893.000	M 1876.000
2	11:35:53	TM 123200.000	TM 1982.000	TM 122600.000	TM 122000.000	TM 1968.000	M 1942.000	M 1852.000	TM 1842.000	M 1851.000	M 1902.000
3	11:36:20	TM 124000.000	TM 1985.000	TM 123500.000	TM 122000.000	TM 1956.000	M 1921.000	M 1865.000	TM 1853.000	M 1901.000	M 1945.000
x		TM 123800.000	TM 99.035%	TM 123100.000	TM 101.372%	TM 98.022%	M 96.415%	M 1872.000	TM 1860.000	M 94.072%	M 95.386%
σ		TM 569.300	TM n/a	TM 438.100	TM n/a	TM n/a	M n/a	M 23.490	TM 22.800	M n/a	M n/a
%RSD		TM 0.460	TM 0.261	TM 0.356	TM 0.511	TM 0.330	M 0.611	M 1.255	TM 1.225	M 1.418	M 1.838
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	M 2354.000	M 2282.000	M 2000.000	M 1862.000	2.540	0.930	8414.000	M 1867.000	45.170	TM 2114.000
2	11:35:53	M 2318.000	M 2278.000	M 2020.000	M 1837.000	1.597	0.386	8212.000	M 1845.000	41.740	TM 2089.000
3	11:36:20	M 2326.000	M 2295.000	M 2030.000	M 1893.000	2.029	1.300	8172.000	M 1876.000	34.270	TM 2062.000
x		M 2333.000	M 2285.000	M 100.830%	M 1864.000	2.055	0.872	8266.000	M 93.145%	40.390	TM 104.409%
σ		M 19.110	M 8.751	M n/a	M 28.110	0.472	0.460	129.900	M n/a	5.574	TM n/a
%RSD		M 0.819	M 0.383	M 0.765	M 1.508	22.980	52.750	1.572	M 0.871	13.800	TM 1.248
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	88.5%	TM 2365.000	M 2209.000	TM 2112.000	M 1979.000	272.000	275.000	M 2002.000	TM 1943.000	90.5%
2	11:35:53	93.7%	TM 2352.000	M 2177.000	TM 2097.000	M 1993.000	274.000	275.100	M 2019.000	TM 1955.000	94.3%
3	11:36:20	94.4%	TM 2355.000	M 2172.000	TM 2104.000	M 1990.000	277.800	279.800	M 2037.000	TM 1979.000	92.8%
x		92.2%	TM 2357.000	M 109.307%	TM 2104.000	M 1988.000	274.600	276.700	M 2019.000	TM 97.930%	92.5%
σ		3.2%	TM 6.539	M n/a	TM 7.583	M 7.373	2.930	2.721	M 17.350	TM n/a	1.9%
%RSD		3.5	TM 0.277	M 0.897	TM 0.360	M 0.371	1.067	0.983	M 0.860	TM 0.933	2.1
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:26	TM 2049.000	TM 2053.000	TM 1040.000	TM 1017.000	TM 10690.000	TM 10740.000	93.2%	TM 990.900	TM 995.000	TM 1931.000
2	11:35:53	TM 2050.000	TM 2046.000	TM 1052.000	TM 1022.000	TM 10570.000	TM 10570.000	98.0%	TM 989.600	TM 991.100	TM 1929.000
3	11:36:20	TM 2075.000	TM 2070.000	TM 1065.000	M 1030.000	TM 10580.000	TM 10600.000	98.1%	TM 985.700	TM 992.600	TM 1932.000
x		TM 2058.000	TM 102.828%	TM 1052.000	TM 102.303%	TM 106.137%	TM 10640.000	96.4%	TM 988.700	TM 99.289%	TM 1931.000
σ		TM 14.800	TM n/a	TM 12.420	TM n/a	TM n/a	TM 92.510	2.8%	TM 2.706	TM n/a	TM 1.568
%RSD		TM 0.719	TM 0.608	TM 1.180	TM 0.641	TM 0.660	TM 0.870	2.9	TM 0.274	TM 0.195	TM 0.081
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	11:35:26	TM 2002.000	TM 1972.000	88.8%							
2	11:35:53	TM 2001.000	TM 1973.000	94.6%							
3	11:36:20	TM 1996.000	TM 1963.000	94.2%							
x		TM 2000.000	TM 98.478%	92.5%							
σ		TM 3.199	TM n/a	3.3%							
%RSD		TM 0.160	TM 0.272	3.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	100.0%	0.143	8.126	8.580	74.760	29.680	17.920	17.350	17.770	15.980
2	11:41:58	98.8%	0.175	8.895	8.562	77.730	26.200	14.790	13.920	15.150	12.940
3	11:42:26	97.1%	0.124	8.644	7.975	79.980	23.930	13.180	12.690	13.010	11.330
x		98.6%	0.147	8.555	8.372	77.490	26.610	15.300	14.650	15.310	13.420
σ		1.5%	0.026	0.392	0.344	2.615	2.895	2.414	2.415	2.385	2.358
%RSD		1.5	17.730	4.584	4.107	3.374	10.880	15.780	16.480	15.580	17.580

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	17.340	T 96720.000	135.200	19.500	19.420	101.7%	0.366	0.087	0.742	2109.000
2	11:41:58	17.250	T 96150.000	131.000	18.450	17.680	101.0%	0.216	0.032	0.632	1963.000
3	11:42:26	16.990	T 95260.000	119.200	19.500	18.160	102.0%	0.166	-0.149	0.557	1833.000
x		17.190	T 96040.000	128.500	19.150	18.420	101.6%	0.249	-0.010	0.644	1968.000
σ		0.182	T 733.800	8.274	0.606	0.898	0.5%	0.104	0.124	0.093	137.800
%RSD		1.056	T 0.764	6.441	3.164	4.876	0.5	41.870	1197.000	14.420	7.002

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	20.990	0.389	19.300	24.240	0.359	0.397	1.108	0.350	0.334	1.803
2	11:41:58	17.630	0.358	15.240	17.930	0.311	0.363	0.231	0.281	0.243	1.831
3	11:42:26	15.460	0.299	12.310	8.071	0.274	0.316	-0.223	0.280	0.249	1.768
x		18.020	0.349	15.620	16.750	0.315	0.359	0.372	0.303	0.275	1.800
σ		2.787	0.046	3.511	8.149	0.043	0.041	0.677	0.040	0.051	0.032
%RSD		15.460	13.070	22.480	48.660	13.550	11.360	182.000	13.190	18.500	1.759

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	2.394	1.777	0.387	0.601	2.792	1.938	-0.151	-0.046	-0.159	0.258
2	11:41:58	1.467	1.865	0.073	0.181	2.698	1.331	-1.722	-0.404	-0.121	0.201
3	11:42:26	2.507	1.923	0.174	-0.206	2.731	1.683	-0.729	-0.257	2.867	0.181
x		2.123	1.855	0.211	0.192	2.740	1.651	-0.867	-0.236	0.862	0.213
σ		0.571	0.073	0.160	0.404	0.048	0.305	0.794	0.180	1.736	0.040
%RSD		26.890	3.950	75.800	210.600	1.743	18.460	91.620	76.430	201.300	18.810

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	102.3%	0.486	0.524	0.439	-0.001	0.042	0.058	0.277	0.261	103.1%
2	11:41:58	105.3%	0.380	0.377	0.348	-0.472	0.025	0.026	0.193	0.197	106.2%
3	11:42:26	105.6%	0.347	0.325	0.319	-0.018	0.029	0.035	0.202	0.179	107.3%
x		104.4%	0.404	0.408	0.369	-0.164	0.032	0.040	0.224	0.212	105.5%
σ		1.8%	0.073	0.103	0.063	0.267	0.009	0.017	0.046	0.043	2.2%
%RSD		1.7	17.980	25.240	16.980	163.300	27.820	42.100	20.640	20.160	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	1.653	2.265	0.501	0.519	1.304	1.253	103.7%	0.097	0.121	0.243
2	11:41:58	1.469	2.080	0.532	0.461	0.915	1.080	106.4%	0.088	0.078	0.218
3	11:42:26	1.416	1.869	0.444	0.457	1.035	0.975	108.5%	0.059	0.067	0.161
x		1.513	2.071	0.492	0.479	1.085	1.103	106.2%	0.081	0.089	0.207
σ		0.124	0.198	0.045	0.035	0.199	0.141	2.4%	0.020	0.028	0.042
%RSD		8.211	9.571	9.114	7.235	18.340	12.750	2.3	23.990	31.870	20.270

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:41:31	0.229	0.236	103.2%
2	11:41:58	0.213	0.200	106.2%
3	11:42:26	0.202	0.173	107.8%
x		0.215	0.203	105.7%
σ		0.013	0.032	2.3%
%RSD		6.250	15.760	2.2

UQ13877-002 04/30/2019 11:47:10

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	100.0%	103.000	108.300	104.700	97.190	T1047.000	T1050.000	1059.000	1075.000	105.300
2	11:48:04	97.0%	104.400	112.100	109.300	102.700	T1075.000	T1070.000	1076.000	1069.000	105.300
3	11:48:31	97.7%	103.400	112.000	105.300	100.700	T1043.000	T1033.000	1035.000	1031.000	102.400
x		98.2%	103.600	110.800	106.400	100.200	T1055.000	T1051.000	1056.000	1058.000	104.300
σ		1.6%	0.720	2.163	2.487	2.795	T17.630	T18.730	20.540	24.110	1.682
%RSD		1.6	0.695	1.951	2.336	2.789	T1.671	T1.782	1.944	2.278	1.612
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	T964.500	T98370.000	T1147.000	1171.000	1071.000	102.0%	101.000	101.900	99.410	3265.000
2	11:48:04	T982.500	T102100.000	T1157.000	1242.000	1078.000	100.1%	101.900	102.600	103.500	3178.000
3	11:48:31	T987.900	T99870.000	1149.000	1200.000	1063.000	102.6%	102.700	102.800	102.500	2483.000
x		T978.300	T100100.000	T1151.000	1205.000	1071.000	101.5%	101.800	102.400	101.800	2975.000
σ		T12.270	T1888.000	T5.179	35.560	7.387	1.3%	0.859	0.512	2.139	428.500
%RSD		T1.254	T1.886	T0.450	2.952	0.690	1.3	0.843	0.500	2.102	14.400
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	1118.000	101.100	T1065.000	1046.000	101.100	100.800	102.300	103.300	101.000	100.700
2	11:48:04	1120.000	101.500	T1058.000	1044.000	102.400	103.700	102.300	103.600	101.000	99.590
3	11:48:31	1105.000	101.300	T1061.000	1033.000	100.400	101.000	103.100	103.700	99.170	102.000
x		1114.000	101.300	T1061.000	1041.000	101.300	101.800	102.500	103.500	100.400	100.800
σ		7.951	0.172	T3.366	6.942	1.021	1.620	0.471	0.174	1.048	1.189
%RSD		0.714	0.170	T0.317	0.667	1.008	1.591	0.459	0.168	1.044	1.180
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	96.490	104.900	102.200	101.200	3.025	2.421	460.600	103.000	6.473	99.190
2	11:48:04	103.400	104.300	103.900	101.600	2.792	2.386	459.800	102.000	4.573	99.040
3	11:48:31	103.200	105.400	104.500	102.600	3.035	1.984	453.900	101.300	2.483	98.300
x		101.000	104.900	103.600	101.800	2.951	2.264	458.100	102.100	4.509	98.840
σ		3.947	0.541	1.202	0.721	0.138	0.243	3.656	0.884	1.996	0.479
%RSD		3.906	0.516	1.160	0.708	4.665	10.720	0.798	0.866	44.260	0.485
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	102.1%	99.280	100.100	99.090	100.700	99.450	99.410	101.500	99.170	103.1%
2	11:48:04	102.8%	100.900	101.200	98.540	100.600	98.340	99.040	99.900	99.670	104.3%
3	11:48:31	105.3%	100.400	102.400	100.400	104.200	98.820	99.430	101.100	100.600	106.2%
x		103.4%	100.200	101.200	99.350	101.900	98.870	99.290	100.800	99.800	104.5%
σ		1.7%	0.849	1.149	0.968	2.058	0.560	0.215	0.844	0.705	1.6%
%RSD		1.6	0.847	1.135	0.974	2.020	0.567	0.217	0.837	0.706	1.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:36	101.900	101.100	99.230	99.060	101.900	101.700	104.0%	100.200	101.100	101.700
2	11:48:04	102.300	100.000	98.850	98.860	101.700	101.100	104.8%	100.600	100.500	101.600
3	11:48:31	102.400	101.500	99.900	101.200	101.000	101.800	107.5%	101.100	101.600	103.400
x		102.200	100.900	99.330	99.720	101.500	101.500	105.4%	100.600	101.100	102.200
σ		0.265	0.757	0.529	1.316	0.499	0.387	1.8%	0.406	0.559	1.049
%RSD		0.260	0.750	0.533	1.319	0.492	0.381	1.7	0.403	0.553	1.026
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	11:47:36	101.400	101.200	102.0%							
2	11:48:04	101.000	101.300	103.8%							
3	11:48:31	102.300	102.700	108.5%							
x		101.600	101.700	104.8%							
σ		0.642	0.859	3.4%							
%RSD		0.632	0.845	3.2							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	94.7%	0.219	M 746.600	M 731.100	97.850	T 12950.000	T 22140.000	T 22140.000	T 22450.000	TM 16580.000
2	11:54:08	92.6%	0.166	M 726.900	M 712.100	87.930	T 13090.000	T 21880.000	T 22190.000	T 22050.000	TM 16070.000
3	11:54:36	95.5%	0.169	M 737.900	M 728.400	90.930	T 13150.000	T 21580.000	T 21510.000	T 21340.000	TM 16040.000
x		94.3%	0.185	M 737.100	M 723.900	92.240	T 13060.000	T 21870.000	T 21950.000	T 21950.000	TM 16230.000
σ		1.5%	0.030	M 9.866	M 10.310	5.090	T 103.900	T 281.000	T 382.500	T 559.100	TM 305.500
%RSD		1.6	16.020	M 1.338	M 1.425	5.518	T 0.795	T 1.285	T 1.743	T 2.548	TM 1.882

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	T 6706.000	T 93750.000	T 28360.000	74350.000	T 72860.000	98.8%	212.100	9.892	35.060	2198.000
2	11:54:08	T 6630.000	T 90920.000	T 27380.000	74130.000	T 73710.000	100.1%	211.800	9.548	34.530	2295.000
3	11:54:36	T 6531.000	T 94830.000	T 28370.000	74230.000	T 73370.000	99.2%	206.200	9.576	35.330	2507.000
x		T 6622.000	T 93160.000	T 28040.000	74230.000	T 73310.000	99.4%	210.000	9.672	34.970	2333.000
σ		T 87.450	T 2021.000	T 567.600	108.800	T 430.200	0.7%	3.347	0.191	0.403	158.100
%RSD		T 1.321	T 2.169	T 2.024	0.147	T 0.587	0.7	1.594	1.971	1.152	6.776

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	T 16730.000	TM 546.100	T 16690.000	17600.000	4.912	48.720	49.460	M 527.500	M 518.100	M 567.100
2	11:54:08	T 16630.000	TM 547.800	T 16860.000	17880.000	4.719	49.240	46.250	M 514.300	M 506.600	M 575.700
3	11:54:36	T 16660.000	TM 545.600	T 16600.000	17600.000	4.854	49.270	49.130	M 522.500	M 511.000	M 559.700
x		T 16670.000	TM 546.500	T 16720.000	17690.000	4.828	49.080	48.280	M 521.400	M 511.900	M 567.500
σ		T 56.350	TM 1.135	T 136.500	158.300	0.099	0.309	1.766	M 6.662	M 5.810	M 7.992
%RSD		T 0.338	TM 0.208	T 0.816	0.895	2.048	0.629	3.657	M 1.278	M 1.135	M 1.408

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	M 521.100	M 558.800	1.851	12.150	8.608	8.317	52.030	11.880	1.665	219.200
2	11:54:08	M 541.200	M 571.200	1.994	12.320	9.512	7.815	49.040	11.210	-0.986	219.800
3	11:54:36	M 522.400	M 559.600	2.692	12.050	9.843	8.941	54.270	12.190	0.599	220.500
x		M 528.200	M 563.200	2.179	12.170	9.321	8.358	51.780	11.760	0.426	219.800
σ		M 11.210	M 6.960	0.450	0.134	0.639	0.564	2.627	0.502	1.334	0.655
%RSD		M 2.123	M 1.236	20.650	1.099	6.859	6.745	5.073	4.269	313.400	0.298

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	100.5%	1.906	1.873	1.885	30.470	0.690	0.695	13.130	12.610	99.0%
2	11:54:08	102.6%	2.003	1.964	1.970	26.410	0.661	0.705	13.160	12.860	101.3%
3	11:54:36	100.6%	1.945	2.185	1.950	28.460	0.690	0.733	13.250	12.800	100.9%
x		101.2%	1.952	2.007	1.935	28.450	0.680	0.711	13.180	12.760	100.4%
σ		1.2%	0.049	0.160	0.044	2.026	0.017	0.020	0.066	0.132	1.2%
%RSD		1.2	2.504	7.992	2.288	7.123	2.452	2.794	0.504	1.031	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:42	23.600	28.040	8.430	8.376	211.200	212.300	102.0%	0.045	0.034	340.500
2	11:54:08	24.000	27.940	8.461	8.412	209.700	210.100	104.2%	0.026	0.030	346.700
3	11:54:36	23.860	27.710	8.103	8.180	211.300	209.700	103.0%	0.026	0.027	339.000
x		23.820	27.890	8.331	8.323	210.800	210.700	103.1%	0.032	0.030	342.100
σ		0.200	0.169	0.198	0.125	0.881	1.370	1.1%	0.011	0.003	4.044
%RSD		0.841	0.607	2.379	1.501	0.418	0.650	1.1	34.460	10.910	1.182

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:53:42	326.800	334.500	103.6%
2	11:54:08	333.600	341.500	109.1%
3	11:54:36	326.100	333.700	105.7%
x		328.800	336.500	106.1%
σ		4.138	4.279	2.7%
%RSD		1.258	1.271	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	96.1%	0.026	32.930	33.670	112.500	T 4155.000	T 2348.000	2314.000	2257.000	T 222.300
2	12:00:16	96.5%	0.034	37.310	35.090	114.400	T 4192.000	T 2300.000	2273.000	2310.000	T 224.700
3	12:00:44	97.7%	0.022	33.110	31.930	118.600	T 4046.000	T 2236.000	2225.000	2265.000	T 222.700
x		96.8%	0.027	34.450	33.570	115.200	T 4131.000	T 2295.000	2271.000	2277.000	T 223.300
σ		0.8%	0.006	2.479	1.584	3.167	T 76.130	T 56.130	44.620	28.270	T 1.252
%RSD		0.9	21.240	7.195	4.719	2.750	T 1.843	T 2.446	1.965	1.242	T 0.561

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	T 4912.000	T 95280.000	T 1760.000	5628.000	5458.000	101.0%	5.150	0.728	0.673	2076.000
2	12:00:16	T 4886.000	T 100300.000	T 1838.000	5840.000	5545.000	98.7%	5.080	0.864	0.755	2207.000
3	12:00:44	T 4881.000	T 98550.000	T 1781.000	5648.000	5486.000	100.9%	5.157	0.978	0.779	2300.000
x		T 4893.000	T 98040.000	T 1793.000	5705.000	5496.000	100.2%	5.129	0.857	0.736	2194.000
σ		T 16.820	T 2538.000	T 40.500	116.800	44.280	1.3%	0.042	0.126	0.056	112.900
%RSD		T 0.344	T 2.589	T 2.259	2.046	0.806	1.3	0.828	14.650	7.579	5.145

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	1753.000	241.700	T 1727.000	1748.000	0.891	0.403	0.009	0.706	0.676	3.249
2	12:00:16	1766.000	241.300	T 1736.000	1783.000	0.915	0.470	0.474	0.710	0.623	3.400
3	12:00:44	1740.000	239.200	T 1722.000	1770.000	0.897	0.462	0.216	0.673	0.630	3.149
x		1753.000	240.700	T 1729.000	1767.000	0.901	0.445	0.233	0.696	0.643	3.266
σ		12.900	1.359	T 7.030	17.560	0.013	0.036	0.233	0.020	0.029	0.126
%RSD		0.736	0.565	T 0.407	0.994	1.393	8.154	100.100	2.904	4.497	3.866

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	5.767	5.168	0.130	-0.262	8.290	7.874	0.153	0.016	-1.092	29.580
2	12:00:16	5.827	5.588	0.092	-0.396	8.571	7.527	0.615	0.076	1.201	29.170
3	12:00:44	5.997	4.988	-0.204	-0.054	8.344	8.124	-1.836	-0.432	-0.395	29.540
x		5.864	5.248	0.006	-0.237	8.401	7.841	-0.356	-0.113	-0.095	29.430
σ		0.119	0.308	0.183	0.172	0.149	0.300	1.303	0.278	1.175	0.226
%RSD		2.032	5.865	3140.000	72.550	1.774	3.823	365.800	245.000	1236.000	0.767

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	104.5%	0.137	0.145	0.127	0.482	-0.001	0.005	0.062	0.049	106.5%
2	12:00:16	104.1%	0.154	0.077	0.146	1.191	0.003	0.001	0.074	0.057	105.1%
3	12:00:44	102.9%	0.164	0.182	0.136	0.363	0.001	0.002	0.038	0.056	104.4%
x		103.8%	0.152	0.135	0.136	0.679	0.001	0.003	0.058	0.054	105.3%
σ		0.8%	0.013	0.053	0.010	0.448	0.002	0.002	0.019	0.004	1.1%
%RSD		0.8	8.872	39.440	7.002	65.940	204.100	73.460	32.110	7.765	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:48	0.634	0.854	0.138	0.132	38.280	38.390	107.8%	0.009	0.001	0.219
2	12:00:16	0.554	0.827	0.145	0.182	38.350	37.520	105.6%	0.008	-0.002	0.225
3	12:00:44	0.570	0.788	0.137	0.165	38.280	37.660	104.2%	-0.002	0.004	0.195
x		0.586	0.823	0.140	0.160	38.300	37.860	105.9%	0.005	0.001	0.213
σ		0.042	0.033	0.004	0.026	0.045	0.465	1.8%	0.006	0.003	0.016
%RSD		7.233	4.068	2.886	16.040	0.117	1.229	1.7	122.900	332.400	7.443

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	11:59:48	0.188	0.191	105.7%
2	12:00:16	0.196	0.205	105.9%
3	12:00:44	0.196	0.206	102.7%
x		0.193	0.201	104.8%
σ		0.004	0.008	1.8%
%RSD		2.201	4.095	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	102.9%	1.611	3.125	2.947	4.735	T 1333.000	T 5814.000	T 5809.000	T 5955.000	TM 34490.000
2	12:06:23	99.8%	1.615	2.704	2.944	8.639	T 1341.000	T 5754.000	T 5789.000	T 5856.000	TM 32830.000
3	12:06:50	102.9%	1.664	2.778	2.756	4.427	T 1368.000	T 5963.000	T 5948.000	T 5882.000	TM 32890.000
x		101.9%	1.630	2.869	2.882	5.934	T 1347.000	T 5844.000	T 5849.000	T 5897.000	TM 33400.000
σ		1.8%	0.029	0.225	0.109	2.348	T 18.250	T 107.200	T 86.580	T 51.230	TM 937.800
%RSD		1.7	1.800	7.849	3.789	39.570	T 1.355	T 1.835	T 1.480	T 0.869	TM 2.808
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	TM 47630.000	T 77810.000	T 6042.000	2545.000	2683.000	115.5%	M 1052.000	85.980	70.530	2517.000
2	12:06:23	TM 47860.000	T 74320.000	T 5792.000	2423.000	2637.000	117.8%	M 1050.000	86.250	70.390	2563.000
3	12:06:50	TM 47030.000	T 75710.000	T 5896.000	2436.000	2652.000	119.4%	M 1050.000	87.030	70.880	2486.000
x		TM 47510.000	T 75940.000	T 5910.000	2468.000	2658.000	117.5%	M 1051.000	86.420	70.600	2522.000
σ		TM 428.200	T 1756.000	T 125.800	67.090	23.540	1.9%	M 0.866	0.548	0.255	38.730
%RSD		TM 0.901	T 2.313	T 2.128	2.718	0.886	1.7	M 0.082	0.634	0.362	1.536
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	T 29690.000	TM 1508.000	T 30020.000	T 29720.000	19.110	27.450	27.740	20.390	24.510	46.800
2	12:06:23	T 30100.000	TM 1521.000	T 29800.000	T 29930.000	19.340	27.580	26.380	19.610	22.880	45.580
3	12:06:50	T 30060.000	TM 1553.000	T 30520.000	T 30790.000	19.720	27.290	27.460	20.240	23.350	46.790
x		T 29950.000	TM 1527.000	T 30110.000	T 30150.000	19.390	27.440	27.190	20.080	23.580	46.390
σ		T 229.800	TM 22.850	T 366.100	T 566.500	0.309	0.147	0.721	0.417	0.838	0.703
%RSD		T 0.767	TM 1.496	T 1.216	T 1.879	1.596	0.534	2.653	2.075	3.556	1.515
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	57.310	51.950	-0.045	-0.393	3.998	3.177	1.163	0.486	3.351	17.380
2	12:06:23	56.930	52.410	-0.017	0.113	3.898	3.409	-0.156	0.096	3.825	17.220
3	12:06:50	57.660	54.070	0.285	-0.239	3.844	3.451	0.586	0.366	1.627	17.280
x		57.300	52.810	0.074	-0.173	3.913	3.345	0.531	0.316	2.934	17.290
σ		0.363	1.115	0.183	0.259	0.078	0.148	0.661	0.200	1.156	0.079
%RSD		0.633	2.112	247.300	149.700	1.999	4.414	124.500	63.210	39.410	0.459
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	128.2%	0.086	0.026	0.068	1.948	0.012	0.017	0.036	0.071	104.9%
2	12:06:23	135.1%	0.050	0.043	0.049	1.628	0.013	0.018	0.068	0.062	111.2%
3	12:06:50	139.9%	0.077	0.082	0.057	2.239	0.013	0.026	0.040	0.059	113.9%
x		134.4%	0.071	0.050	0.058	1.938	0.012	0.020	0.048	0.064	110.0%
σ		5.8%	0.019	0.029	0.009	0.306	0.001	0.005	0.017	0.006	4.6%
%RSD		4.3	26.250	57.040	15.820	15.770	5.163	25.530	36.050	10.010	4.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:55	2.454	1.411	0.111	0.109	368.800	368.800	105.6%	0.547	0.529	28.660
2	12:06:23	2.282	1.401	0.089	0.089	369.400	368.500	113.3%	0.532	0.512	29.380
3	12:06:50	2.252	1.442	0.112	0.125	369.700	372.400	114.4%	0.601	0.533	29.490
x		2.329	1.418	0.104	0.108	369.300	369.900	111.1%	0.560	0.525	29.180
σ		0.109	0.021	0.013	0.018	0.431	2.188	4.8%	0.036	0.011	0.454
%RSD		4.685	1.498	12.440	16.520	0.117	0.591	4.3	6.415	2.130	1.556
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	12:05:55	26.980	27.730	102.9%							
2	12:06:23	26.720	27.610	111.2%							
3	12:06:50	26.900	27.950	112.7%							
x		26.870	27.770	108.9%							
σ		0.133	0.171	5.3%							
%RSD		0.496	0.616	4.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	99.9%	0.712	1.943	2.312	-24.890	T 28000.000	T 6553.000	T 6537.000	T 6675.000	TM 25850.000
2	12:12:28	98.0%	0.776	1.996	2.066	-16.980	T 28040.000	T 6482.000	T 6604.000	T 6680.000	TM 24910.000
3	12:12:55	99.1%	0.687	2.245	2.044	-24.270	T 28010.000	T 6531.000	T 6507.000	T 6454.000	TM 24440.000
x		99.0%	0.725	2.061	2.140	-22.050	T 28020.000	T 6522.000	T 6549.000	T 6603.000	TM 25070.000
σ		0.9%	0.046	0.161	0.149	4.401	T 19.470	T 36.020	T 49.500	T 129.000	TM 718.500
%RSD		0.9	6.354	7.828	6.952	19.960	T 0.069	T 0.552	T 0.756	T 1.953	TM 2.866

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	TM 37820.000	T 74750.000	T 7270.000	1751.000	1988.000	115.8%	M 897.600	66.430	23.910	2258.000
2	12:12:28	TM 37260.000	T 71800.000	T 7032.000	1762.000	1925.000	118.5%	M 883.200	64.230	23.250	1787.000
3	12:12:55	TM 37230.000	T 71720.000	T 7003.000	1711.000	1963.000	118.6%	M 872.300	65.480	22.910	1747.000
x		TM 37440.000	T 72760.000	T 7102.000	1742.000	1958.000	117.6%	M 884.400	65.380	23.360	1930.000
σ		TM 334.100	T 1727.000	T 146.600	26.960	31.630	1.6%	M 12.700	1.102	0.507	284.400
%RSD		TM 0.892	T 2.374	T 2.064	1.548	1.615	1.3	M 1.436	1.686	2.169	14.730

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	T 24460.000	TM 1364.000	T 24470.000	T 25500.000	27.330	18.030	17.600	52.900	66.730	80.180
2	12:12:28	T 24170.000	TM 1357.000	T 23850.000	T 24870.000	26.420	17.100	16.300	51.420	64.240	79.260
3	12:12:55	T 24000.000	TM 1346.000	T 24120.000	T 25160.000	26.790	17.710	18.150	51.090	63.450	79.130
x		T 24210.000	TM 1356.000	T 24150.000	T 25180.000	26.850	17.610	17.350	51.800	64.800	79.530
σ		T 232.400	TM 8.833	T 310.600	T 313.000	0.460	0.470	0.951	0.963	1.712	0.569
%RSD		T 0.960	TM 0.652	T 1.286	T 1.243	1.712	2.666	5.483	1.859	2.643	0.716

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	81.260	78.250	-0.020	0.268	4.038	3.194	0.582	0.671	3.083	17.620
2	12:12:28	80.430	77.610	-0.051	-0.051	3.412	2.909	1.036	0.890	0.603	17.550
3	12:12:55	79.310	76.940	-0.311	0.305	3.701	3.228	-0.168	0.465	1.174	17.440
x		80.330	77.600	-0.127	0.174	3.717	3.110	0.483	0.675	1.620	17.540
σ		0.977	0.654	0.160	0.196	0.314	0.175	0.608	0.213	1.299	0.090
%RSD		1.216	0.843	125.500	112.600	8.434	5.637	125.900	31.470	80.160	0.513

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	160.2%	0.039	0.020	0.022	3.546	0.001	0.011	0.071	0.126	104.5%
2	12:12:28	165.9%	0.033	0.019	0.023	2.408	0.007	0.007	0.112	0.087	108.5%
3	12:12:55	165.1%	0.024	0.003	0.012	3.377	0.003	0.008	0.078	0.105	108.9%
x		163.7%	0.032	0.014	0.019	3.110	0.004	0.008	0.087	0.106	107.3%
σ		3.1%	0.008	0.010	0.006	0.614	0.003	0.002	0.022	0.020	2.4%
%RSD		1.9	23.880	69.810	30.370	19.750	91.460	23.440	25.290	18.480	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:02	1.850	1.219	0.091	0.069	M 525.700	M 530.000	109.0%	0.401	0.394	23.800
2	12:12:28	1.859	1.181	0.091	0.089	M 521.000	M 518.500	113.3%	0.392	0.395	24.320
3	12:12:55	1.753	1.208	0.088	0.086	M 518.800	M 516.100	114.1%	0.403	0.389	24.010
x		1.821	1.203	0.090	0.082	M 521.800	M 521.500	112.1%	0.398	0.393	24.040
σ		0.059	0.020	0.002	0.011	M 3.507	M 7.417	2.8%	0.006	0.003	0.266
%RSD		3.236	1.622	1.683	13.080	M 0.672	M 1.422	2.5	1.468	0.779	1.105

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:12:02	22.850	23.190	102.3%
2	12:12:28	22.550	23.270	109.3%
3	12:12:55	22.570	23.230	109.6%
x		22.660	23.230	107.1%
σ		0.166	0.037	4.1%
%RSD		0.732	0.159	3.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	104.0%	0.280	3.140	3.045	76.660	T 3175.000	T 2878.000	2941.000	2983.000	TM 1621.000
2	12:18:36	101.7%	0.278	2.697	2.919	68.110	T 3200.000	T 2848.000	2873.000	2883.000	TM 1533.000
3	12:19:03	99.8%	0.255	3.382	2.900	78.070	T 3249.000	T 2919.000	2955.000	3000.000	TM 1588.000
x		101.9%	0.271	3.073	2.955	74.280	T 3208.000	T 2882.000	2923.000	2955.000	TM 1581.000
σ		2.1%	0.014	0.347	0.079	5.390	T 37.390	T 35.500	44.160	63.420	TM 44.210
%RSD		2.0	5.230	11.300	2.667	7.256	T 1.165	T 1.232	1.511	2.146	TM 2.797

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	T 4230.000	T 91530.000	T 2751.000	403.900	388.800	105.1%	98.920	9.681	2.087	2192.000
2	12:18:36	T 4311.000	T 87530.000	T 2624.000	369.600	391.100	108.3%	98.580	9.394	1.903	2032.000
3	12:19:03	T 4572.000	T 93900.000	T 2720.000	384.300	386.000	105.9%	99.430	9.121	1.982	2415.000
x		T 4371.000	T 90990.000	T 2698.000	385.900	388.600	106.5%	98.980	9.398	1.991	2213.000
σ		T 178.600	T 3221.000	T 66.540	17.230	2.591	1.6%	0.428	0.280	0.092	192.700
%RSD		T 4.086	T 3.540	T 2.466	4.464	0.667	1.5	0.432	2.980	4.632	8.706

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	2721.000	120.400	T 2699.000	2709.000	3.210	1.636	1.440	3.332	3.672	13.690
2	12:18:36	2677.000	119.000	T 2632.000	2569.000	3.202	1.641	1.619	3.304	3.554	13.860
3	12:19:03	2741.000	120.400	T 2708.000	2678.000	3.251	1.535	1.310	3.416	3.794	13.250
x		2713.000	119.900	T 2679.000	2652.000	3.221	1.604	1.456	3.350	3.673	13.600
σ		32.810	0.818	T 41.570	73.540	0.026	0.060	0.155	0.058	0.120	0.317
%RSD		1.209	0.682	T 1.551	2.773	0.822	3.712	10.620	1.745	3.266	2.331

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	18.510	19.350	-0.336	-0.105	17.650	16.180	-1.113	-0.121	-1.386	4.851
2	12:18:36	19.930	19.240	0.098	-0.353	17.810	17.320	-0.041	0.163	-2.796	4.729
3	12:19:03	21.310	18.920	-0.083	0.063	16.670	16.710	-1.263	-0.216	-0.618	4.807
x		19.920	19.170	-0.107	-0.132	17.370	16.740	-0.806	-0.058	-1.600	4.796
σ		1.400	0.222	0.218	0.210	0.618	0.567	0.667	0.197	1.105	0.062
%RSD		7.027	1.157	203.800	159.200	3.555	3.388	82.720	342.100	69.040	1.287

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	118.6%	0.006	-0.011	0.034	0.614	-0.002	0.003	0.008	0.005	104.8%
2	12:18:36	122.4%	0.005	0.003	0.001	0.197	-0.004	0.001	0.015	0.023	109.6%
3	12:19:03	117.5%	0.018	0.020	0.012	0.018	0.000	0.011	0.004	0.004	107.7%
x		119.5%	0.009	0.004	0.016	0.276	-0.002	0.005	0.009	0.011	107.4%
σ		2.6%	0.007	0.015	0.017	0.306	0.002	0.005	0.005	0.011	2.4%
%RSD		2.2	76.130	384.900	104.800	110.800	118.200	104.200	57.570	97.780	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:09	0.500	0.815	0.051	0.053	158.600	158.800	107.5%	0.046	0.052	1.513
2	12:18:36	0.573	0.718	0.075	0.098	161.400	159.900	111.6%	0.049	0.060	1.529
3	12:19:03	0.565	0.782	0.071	0.076	159.500	158.200	109.9%	0.058	0.046	1.445
x		0.546	0.772	0.066	0.076	159.800	159.000	109.7%	0.051	0.053	1.496
σ		0.040	0.049	0.013	0.022	1.465	0.878	2.0%	0.006	0.007	0.045
%RSD		7.308	6.344	19.020	29.530	0.917	0.552	1.9	11.430	13.040	2.996

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:18:09	1.344	1.425	104.9%
2	12:18:36	1.296	1.395	109.6%
3	12:19:03	1.377	1.416	107.4%
x		1.339	1.412	107.3%
σ		0.041	0.015	2.3%
%RSD		3.055	1.092	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	101.8%	78.430	86.740	82.620	54.130	T 4043.000	T 4055.000	T 3919.000	T 4001.000	TM 9101.000
2	12:24:43	101.9%	79.230	83.650	81.770	53.520	T 4023.000	T 3991.000	3988.000	T 3894.000	TM 8613.000
3	12:25:10	102.3%	79.960	89.720	85.030	64.020	T 4030.000	T 4018.000	T 3980.000	T 3970.000	TM 8965.000
x		102.0%	79.210	86.700	83.140	57.230	T 4032.000	T 4021.000	T 3962.000	T 3955.000	TM 8893.000
σ		0.2%	0.768	3.033	1.689	5.893	T 9.772	T 32.330	T 37.560	T 55.370	TM 251.900
%RSD		0.2	0.970	3.498	2.032	10.300	T 0.242	T 0.804	T 0.948	T 1.400	TM 2.833

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	TM 13690.000	T 89660.000	T 3986.000	1535.000	1482.000	107.7%	285.600	115.500	99.470	2981.000
2	12:24:43	TM 13180.000	T 86980.000	T 3837.000	1488.000	1499.000	110.2%	282.000	113.900	98.770	2677.000
3	12:25:10	TM 13350.000	T 90350.000	T 3923.000	1525.000	1508.000	108.2%	280.200	113.700	99.010	2684.000
x		TM 13400.000	T 89000.000	T 3915.000	1516.000	1496.000	108.7%	282.600	114.400	99.080	2781.000
σ		TM 259.400	T 1783.000	T 74.570	24.580	13.030	1.3%	2.747	0.980	0.352	173.600
%RSD		TM 1.935	T 2.003	T 1.905	1.621	0.871	1.2	0.972	0.857	0.356	6.243

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	6773.000	241.900	T 6410.000	6396.000	100.800	100.700	94.750	101.900	107.700	115.300
2	12:24:43	6610.000	239.500	T 6476.000	6488.000	101.000	98.440	92.750	100.400	104.800	116.200
3	12:25:10	6800.000	238.100	T 6445.000	6497.000	101.500	98.650	95.740	102.700	105.100	113.300
x		6728.000	239.900	T 6444.000	6460.000	101.100	99.270	94.410	101.700	105.900	114.900
σ		102.900	1.898	T 33.220	55.800	0.395	1.255	1.524	1.212	1.594	1.484
%RSD		1.530	0.791	T 0.516	0.864	0.391	1.264	1.614	1.192	1.506	1.291

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	112.900	115.900	94.960	99.460	13.720	13.550	383.500	95.200	3.048	92.990
2	12:24:43	115.900	118.600	96.220	97.570	13.510	13.460	390.600	96.250	1.378	93.050
3	12:25:10	119.200	115.900	96.320	97.790	11.800	12.810	391.400	96.110	2.624	92.750
x		116.000	116.800	95.830	98.270	13.010	13.270	388.500	95.850	2.350	92.930
σ		3.150	1.561	0.762	1.032	1.054	0.403	4.381	0.567	0.868	0.160
%RSD		2.715	1.337	0.795	1.050	8.101	3.035	1.128	0.591	36.950	0.172

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	117.0%	90.820	88.530	91.370	100.200	98.580	98.980	98.540	99.720	105.2%
2	12:24:43	119.8%	91.340	90.850	91.760	94.360	97.810	98.220	100.700	100.800	108.6%
3	12:25:10	117.7%	90.550	89.280	91.970	96.470	97.960	98.570	99.650	98.910	107.0%
x		118.2%	90.900	89.550	91.700	97.020	98.120	98.590	99.620	99.810	106.9%
σ		1.5%	0.398	1.181	0.307	2.970	0.409	0.378	1.061	0.938	1.7%
%RSD		1.3	0.438	1.319	0.335	3.061	0.417	0.383	1.065	0.940	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:24:16	102.400	101.300	98.480	97.330	264.400	265.400	107.4%	99.570	99.640	102.300
2	12:24:43	103.000	102.000	101.200	98.480	262.500	262.100	112.0%	100.800	100.500	102.400
3	12:25:10	102.400	102.200	97.900	96.330	263.700	263.200	109.0%	98.880	99.430	101.500
x		102.600	101.800	99.200	97.380	263.500	263.600	109.4%	99.770	99.850	102.100
σ		0.369	0.458	1.776	1.076	0.939	1.673	2.4%	0.995	0.548	0.503
%RSD		0.359	0.450	1.790	1.105	0.356	0.635	2.2	0.998	0.549	0.493

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:24:16	102.200	102.500	105.5%
2	12:24:43	101.700	101.900	110.5%
3	12:25:10	101.200	101.300	105.5%
x		101.700	101.900	107.2%
σ		0.511	0.587	2.9%
%RSD		0.502	0.576	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	101.2%	80.290	86.020	85.540	60.020	T 4032.000	T 3835.000	T 3861.000	T 3868.000	TM 6835.000
2	12:30:51	102.3%	81.080	87.710	87.700	69.710	T 4124.000	T 3880.000	T 3758.000	T 3838.000	TM 6948.000
3	12:31:18	102.8%	81.390	88.480	85.600	65.720	T 4111.000	T 3883.000	T 3812.000	T 3870.000	TM 6932.000
x		102.1%	80.920	87.400	86.280	65.150	T 4089.000	T 3866.000	T 3810.000	T 3858.000	TM 6905.000
σ		0.8%	0.566	1.256	1.229	4.871	T 50.060	T 26.610	T 51.520	T 18.070	TM 61.050
%RSD		0.8	0.699	1.437	1.425	7.476	T 1.224	T 0.688	T 1.352	T 0.468	TM 0.884
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	TM 11050.000	T 89610.000	T 3760.000	1526.000	1483.000	106.3%	229.400	110.300	99.560	2949.000
2	12:30:51	TM 11010.000	T 90500.000	T 3822.000	1572.000	1465.000	106.4%	235.100	111.800	100.200	2296.000
3	12:31:18	TM 10940.000	T 90590.000	T 3720.000	1577.000	1472.000	106.2%	232.800	108.700	98.300	3231.000
x		TM 11000.000	T 90230.000	T 3767.000	1559.000	1473.000	106.3%	232.400	110.300	99.350	2825.000
σ		TM 54.330	T 542.700	T 51.480	28.080	8.905	0.1%	2.877	1.512	0.965	479.700
%RSD		TM 0.494	T 0.602	T 1.366	1.802	0.605	0.1	1.238	1.371	0.971	16.980
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	5445.000	225.300	T 5176.000	5198.000	100.700	100.200	95.860	100.500	105.100	112.900
2	12:30:51	5463.000	230.300	T 5254.000	5255.000	100.300	101.000	95.210	103.000	105.300	111.200
3	12:31:18	5415.000	225.400	T 5147.000	5199.000	100.200	99.200	95.030	99.510	103.600	112.300
x		5441.000	227.000	T 5192.000	5217.000	100.400	100.100	95.370	101.000	104.700	112.100
σ		24.100	2.853	T 55.380	32.560	0.228	0.908	0.436	1.780	0.918	0.894
%RSD		0.443	1.257	T 1.067	0.624	0.227	0.907	0.457	1.763	0.877	0.797
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	112.400	112.600	95.790	96.610	15.940	17.500	405.400	100.800	4.425	92.890
2	12:30:51	116.100	114.200	97.500	101.900	15.960	17.260	407.500	100.200	2.676	92.000
3	12:31:18	113.700	115.400	97.490	96.860	18.170	16.630	400.200	99.540	-0.597	92.010
x		114.100	114.100	96.920	98.440	16.690	17.130	404.400	100.200	2.168	92.300
σ		1.872	1.405	0.985	2.958	1.283	0.447	3.808	0.610	2.549	0.508
%RSD		1.642	1.231	1.016	3.005	7.684	2.607	0.942	0.609	117.600	0.550
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	116.1%	91.100	87.770	90.520	98.910	98.570	98.920	98.330	98.850	104.1%
2	12:30:51	117.3%	89.270	89.260	90.560	94.850	96.840	97.910	97.230	97.650	106.2%
3	12:31:18	117.0%	90.640	89.070	91.890	94.650	97.480	97.950	98.340	98.180	104.8%
x		116.8%	90.340	88.700	90.990	96.140	97.630	98.260	97.970	98.230	105.1%
σ		0.6%	0.952	0.810	0.778	2.404	0.875	0.574	0.637	0.600	1.1%
%RSD		0.5	1.054	0.914	0.855	2.500	0.896	0.584	0.650	0.611	1.0
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:24	102.300	100.800	98.790	97.630	264.400	263.500	105.5%	98.330	98.770	101.400
2	12:30:51	99.830	99.380	96.140	97.330	263.700	264.400	105.8%	98.400	98.910	100.600
3	12:31:18	101.000	100.400	98.220	97.530	262.100	261.900	107.2%	98.770	99.220	100.800
x		101.000	100.200	97.720	97.500	263.400	263.300	106.2%	98.500	98.970	100.900
σ		1.234	0.715	1.394	0.155	1.178	1.262	0.9%	0.236	0.231	0.420
%RSD		1.221	0.714	1.427	0.159	0.447	0.479	0.9	0.239	0.233	0.416
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	12:30:24	99.940	100.700	102.8%							
2	12:30:51	99.920	100.700	104.1%							
3	12:31:18	100.900	101.000	104.9%							
x		100.200	100.800	103.9%							
σ		0.546	0.182	1.0%							
%RSD		0.545	0.180	1.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	100.4%	0.095	1.705	1.559	47.880	T 717.400	T 663.300	669.100	661.400	T 369.400
2	12:36:58	101.4%	0.097	1.704	1.635	52.200	T 730.400	T 658.900	655.900	672.100	T 395.000
3	12:37:24	102.9%	0.088	1.476	1.436	43.050	T 720.400	664.900	649.300	646.800	T 364.500
x		101.6%	0.093	1.628	1.543	47.710	T 722.700	T 662.300	658.100	660.100	T 376.300
σ		1.3%	0.005	0.132	0.100	4.580	T 6.786	T 3.101	10.080	12.730	T 16.390
%RSD		1.3	5.247	8.102	6.499	9.600	T 0.939	T 0.468	1.532	1.929	T 4.354

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	T 985.800	T 19650.000	580.500	69.040	83.340	104.1%	21.610	1.899	0.427	453.100
2	12:36:58	T 961.900	T 20690.000	604.000	77.220	88.160	102.7%	20.670	2.099	0.541	484.400
3	12:37:24	T 946.000	T 19520.000	579.300	66.050	84.320	102.9%	21.020	1.878	0.484	496.200
x		T 964.600	T 19950.000	587.900	70.770	85.270	103.2%	21.100	1.959	0.484	477.900
σ		T 20.020	T 640.500	13.940	5.783	2.543	0.7%	0.475	0.122	0.057	22.300
%RSD		T 2.075	T 3.210	2.371	8.172	2.983	0.7	2.252	6.214	11.700	4.666

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	584.600	25.160	T 595.200	562.400	0.723	0.351	0.310	0.739	0.820	3.050
2	12:36:58	589.600	25.290	T 597.400	579.700	0.725	0.339	0.287	0.823	0.861	2.903
3	12:37:24	598.000	25.280	T 581.500	575.100	0.765	0.358	-0.135	0.795	0.771	2.666
x		590.700	25.250	T 591.400	572.400	0.738	0.350	0.154	0.786	0.817	2.873
σ		6.754	0.070	T 8.632	8.950	0.024	0.010	0.251	0.043	0.045	0.194
%RSD		1.143	0.279	T 1.460	1.564	3.243	2.756	163.000	5.439	5.513	6.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	4.827	4.123	-0.191	0.166	4.603	3.194	-2.297	-0.524	0.390	1.114
2	12:36:58	4.755	3.948	0.092	-0.519	3.515	4.719	-0.860	-0.127	-1.882	1.118
3	12:37:24	5.378	4.203	-0.001	-0.225	4.081	4.580	-1.311	-0.286	-0.576	1.097
x		4.986	4.091	-0.033	-0.193	4.066	4.164	-1.489	-0.312	-0.689	1.109
σ		0.341	0.131	0.144	0.344	0.544	0.843	0.735	0.200	1.140	0.011
%RSD		6.834	3.192	432.600	178.500	13.380	20.250	49.350	64.040	165.400	1.025

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	109.5%	0.050	0.027	0.027	-0.631	0.006	0.026	0.008	0.036	107.3%
2	12:36:58	108.3%	0.085	0.040	0.034	0.161	0.032	0.033	0.034	0.044	104.6%
3	12:37:24	109.6%	0.030	0.044	0.017	-1.721	0.016	0.010	0.012	0.022	108.1%
x		109.2%	0.055	0.037	0.026	-0.730	0.018	0.023	0.018	0.034	106.7%
σ		0.7%	0.028	0.009	0.009	0.945	0.013	0.012	0.014	0.011	1.8%
%RSD		0.7	50.240	23.160	32.700	129.400	73.560	51.150	78.720	32.110	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:31	0.130	0.243	0.008	0.018	33.030	33.530	107.2%	0.029	0.025	0.294
2	12:36:58	0.182	0.173	0.049	0.040	33.210	33.370	105.9%	0.052	0.041	0.306
3	12:37:24	0.153	0.200	0.014	0.015	34.130	32.710	108.2%	0.019	0.033	0.302
x		0.155	0.206	0.024	0.024	33.460	33.200	107.1%	0.033	0.033	0.301
σ		0.026	0.035	0.022	0.013	0.588	0.434	1.2%	0.017	0.008	0.006
%RSD		16.840	17.110	90.900	54.630	1.757	1.306	1.1	50.500	24.090	2.086

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:36:31	0.314	0.315	107.3%
2	12:36:58	0.308	0.316	104.3%
3	12:37:24	0.296	0.305	108.4%
x		0.306	0.312	106.6%
σ		0.009	0.006	2.1%
%RSD		3.072	1.975	2.0

CCV MW10994 04/30/2019 12:42:13 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	94.2%	303.400	318.300	316.200	86.040	┬64550.000	┬63550.000	┬62400.000	┬61540.000	292.700
2	12:43:07	94.6%	304.200	301.400	299.700	74.630	┬62350.000	┬62520.000	┬61950.000	┬62190.000	294.400
3	12:43:34	93.9%	306.300	321.600	318.100	78.690	┬63500.000	┬62930.000	┬62980.000	┬62540.000	302.400
x		94.2%	101.558%	104.586%	103.782%	79.790	┬105.778%	┬63000.000	┬62450.000	┬103.483%	98.833%
σ		0.3%	n/a	n/a	n/a	5.786	┬n/a	┬515.300	┬514.100	┬n/a	n/a
%RSD		0.3	0.490	3.457	3.260	7.252	┬1.730	┬0.818	┬0.823	┬0.822	1.741

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	┬3327.000	692.500	┬63320.000	62780.000	┬61880.000	99.9%	305.300	310.100	303.000	757.800
2	12:43:07	┬3215.000	627.500	┬60340.000	61240.000	┬61930.000	101.3%	302.300	309.900	297.800	231.900
3	12:43:34	┬3364.000	695.700	┬64290.000	62370.000	┬62580.000	99.4%	310.400	317.200	300.700	1364.000
x		┬110.070%	671.900	┬104.413%	62130.000	┬103.550%	100.2%	101.993%	104.140%	100.171%	784.500
σ		┬n/a	38.500	┬n/a	795.100	┬n/a	1.0%	n/a	n/a	n/a	566.400
%RSD		┬2.352	5.731	┬3.288	1.280	┬0.627	1.0	1.348	1.333	0.873	72.200

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	┬62750.000	293.000	┬61900.000	┬60400.000	296.800	288.800	296.300	290.100	294.800	294.600
2	12:43:07	┬61930.000	295.800	┬61840.000	┬60270.000	292.900	286.000	278.100	282.200	281.400	290.300
3	12:43:34	┬63250.000	297.900	┬63400.000	┬61900.000	297.400	289.800	293.300	291.500	289.400	291.600
x		┬62640.000	98.533%	┬62380.000	┬101.429%	98.566%	96.066%	289.200	287.900	96.181%	97.376%
σ		┬668.100	n/a	┬885.000	┬n/a	n/a	n/a	9.730	5.026	n/a	n/a
%RSD		┬1.066	0.835	┬1.419	┬1.491	0.827	0.687	3.364	1.746	2.350	0.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	289.900	290.900	290.900	299.900	1.148	0.390	1310.000	300.900	1.360	301.100
2	12:43:07	294.400	298.500	298.400	293.700	0.920	0.540	1277.000	289.700	4.353	302.100
3	12:43:34	293.100	290.700	293.000	296.800	0.930	0.891	1272.000	293.400	7.418	297.400
x		292.500	293.400	98.030%	296.800	0.999	0.607	1286.000	98.217%	4.377	100.071%
σ		2.330	4.485	n/a	3.094	0.129	0.257	20.740	n/a	3.029	n/a
%RSD		0.797	1.529	1.324	1.042	12.870	42.360	1.612	1.941	69.200	0.841

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	95.9%	314.500	318.700	317.400	300.200	289.300	290.300	298.800	297.200	95.0%
2	12:43:07	100.6%	315.600	317.800	318.000	297.800	291.700	293.500	305.000	303.300	100.4%
3	12:43:34	98.2%	314.600	315.100	316.600	301.300	290.100	290.800	297.800	297.200	96.4%
x		98.2%	104.965%	105.729%	317.300	299.800	96.792%	291.500	300.500	99.743%	97.3%
σ		2.4%	n/a	n/a	0.679	1.810	n/a	1.730	3.879	n/a	2.8%
%RSD		2.4	0.184	0.592	0.214	0.604	0.433	0.594	1.291	1.182	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:40	310.900	309.400	305.900	300.300	303.500	304.900	98.9%	297.700	302.800	297.300
2	12:43:07	314.100	311.300	316.200	310.700	307.600	305.000	104.1%	301.200	306.100	295.700
3	12:43:34	309.300	306.000	307.600	299.500	305.800	303.800	99.1%	299.200	305.500	296.000
x		103.813%	102.980%	309.900	101.164%	101.877%	101.519%	100.7%	299.400	101.606%	98.783%
σ		n/a	n/a	5.550	n/a	n/a	n/a	2.9%	1.718	n/a	n/a
%RSD		0.777	0.866	1.791	2.066	0.662	0.229	2.9	0.574	0.569	0.288

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:42:40	296.200	298.600	94.7%
2	12:43:07	297.200	299.300	100.0%
3	12:43:34	297.800	299.200	93.9%
x		99.016%	99.674%	96.2%
σ		n/a	n/a	3.3%
%RSD		0.275	0.130	3.4

CCB IM9390-01 04/30/2019 12:48:20 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	100.6%	0.072	2.304	2.064	9.216	9.550	7.905	8.211	7.908	0.098
2	12:49:15	103.2%	0.062	2.599	2.139	7.714	7.412	6.031	6.374	6.012	0.077
3	12:49:42	100.6%	0.037	2.128	1.630	12.170	7.442	6.247	6.012	5.904	0.065
x		101.5%	0.057	2.344	1.944	9.701	8.135	6.728	6.866	6.608	0.080
σ		1.5%	0.018	0.238	0.275	2.269	1.226	1.025	1.179	1.127	0.017
%RSD		1.5	31.320	10.150	14.130	23.390	15.070	15.240	17.180	17.050	20.740

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	15.380	399.100	16.370	4.031	7.839	102.1%	0.037	0.042	0.056	28.770
2	12:49:15	14.420	389.200	13.970	11.200	5.048	103.7%	-0.000	0.026	0.035	22.620
3	12:49:42	14.910	369.600	11.510	8.653	6.266	104.8%	-0.036	0.032	0.070	15.420
x		14.900	386.000	13.950	7.962	6.384	103.6%	0.000	0.034	0.054	22.270
σ		0.483	15.000	2.431	3.635	1.399	1.3%	0.036	0.008	0.018	6.681
%RSD		3.237	3.886	17.430	45.660	21.920	1.3	24280.000	24.280	33.400	30.000

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	9.702	0.102	11.140	12.960	0.065	0.045	-0.170	0.015	0.049	0.017
2	12:49:15	6.985	0.087	6.928	4.307	0.046	0.027	-0.447	0.004	0.029	0.032
3	12:49:42	6.585	0.075	6.845	-0.665	0.051	0.031	0.207	0.006	0.021	0.078
x		7.757	0.088	8.305	5.533	0.054	0.034	-0.137	0.009	0.033	0.042
σ		1.696	0.014	2.457	6.893	0.010	0.009	0.328	0.006	0.014	0.032
%RSD		21.860	15.350	29.580	124.600	18.450	27.430	240.000	67.400	43.220	75.630

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	0.003	0.052	-0.028	0.205	0.098	0.251	-1.247	-0.252	-2.072	0.037
2	12:49:15	0.023	0.106	0.042	-0.170	-0.013	-0.179	0.499	0.067	0.469	0.028
3	12:49:42	0.239	0.088	-0.033	-0.198	0.121	-0.147	-1.236	-0.353	2.287	0.021
x		0.088	0.082	-0.006	-0.054	0.069	-0.025	-0.661	-0.179	0.228	0.029
σ		0.131	0.027	0.042	0.225	0.072	0.239	1.005	0.219	2.190	0.008
%RSD		147.900	33.610	692.900	415.000	104.700	957.700	152.000	122.500	959.900	27.720

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	103.5%	0.113	0.044	0.062	0.226	0.032	0.040	0.030	0.050	104.7%
2	12:49:15	105.1%	0.074	0.034	0.062	-0.468	0.031	0.037	0.066	0.024	107.4%
3	12:49:42	107.4%	0.079	0.070	0.075	-0.766	0.041	0.032	0.022	0.035	109.2%
x		105.3%	0.089	0.049	0.066	-0.336	0.035	0.036	0.039	0.036	107.1%
σ		2.0%	0.021	0.019	0.007	0.509	0.006	0.004	0.023	0.013	2.3%
%RSD		1.9	23.750	37.850	10.840	151.400	16.230	11.480	59.070	36.100	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:48:48	0.073	0.113	0.127	0.106	0.092	0.073	103.5%	0.026	0.028	0.023
2	12:49:15	0.061	0.080	0.133	0.144	0.026	0.049	106.2%	0.007	0.029	0.036
3	12:49:42	0.073	0.117	0.126	0.108	0.051	0.062	108.4%	0.030	0.022	0.030
x		0.069	0.103	0.129	0.119	0.056	0.061	106.0%	0.021	0.026	0.030
σ		0.007	0.020	0.004	0.021	0.033	0.012	2.5%	0.012	0.004	0.006
%RSD		9.745	19.410	3.009	17.950	59.140	19.040	2.3	59.010	13.610	21.280

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:48:48	0.049	0.035	102.6%
2	12:49:15	0.037	0.035	107.6%
3	12:49:42	0.031	0.033	108.6%
x		0.039	0.034	106.3%
σ		0.010	0.001	3.2%
%RSD		24.550	3.097	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	99.1%	92.950	102.100	98.270	78.240	T 4283.000	T 4037.000	4016.000	T 3965.000	TM 1923.000
2	12:55:20	101.1%	92.160	97.710	95.940	75.740	T 4208.000	T 3928.000	3980.000	T 3960.000	TM 1925.000
3	12:55:47	101.8%	92.610	103.400	99.940	81.700	T 4204.000	T 3938.000	3974.000	T 3899.000	TM 1921.000
x		100.7%	92.570	101.100	98.050	78.560	T 4231.000	T 3968.000	3990.000	T 3941.000	TM 1923.000
σ		1.4%	0.399	2.985	2.010	2.992	T 44.450	T 60.410	22.900	T 36.400	TM 1.846
%RSD		1.4	0.431	2.953	2.050	3.809	T 1.050	T 1.522	0.574	T 0.923	TM 0.096

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	T 5800.000	T 90540.000	T 3725.000	1640.000	1520.000	106.3%	213.900	118.800	108.500	2746.000
2	12:55:20	T 5662.000	T 90570.000	T 3768.000	1566.000	1491.000	106.9%	T 206.300	117.700	107.200	2981.000
3	12:55:47	T 5517.000	T 93320.000	T 3870.000	1568.000	1519.000	104.5%	208.400	117.300	108.500	2789.000
x		T 5660.000	T 91480.000	T 3787.000	1591.000	1510.000	105.9%	T 209.500	117.900	108.100	2839.000
σ		T 141.400	T 1599.000	T 74.380	42.260	16.380	1.2%	T 3.942	0.793	0.728	125.200
%RSD		T 2.499	T 1.748	T 1.964	2.656	1.085	1.2	T 1.881	0.672	0.673	4.409

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	3992.000	229.100	T 3926.000	T 3918.000	110.900	108.900	103.000	107.400	110.900	120.300
2	12:55:20	T 3848.000	228.600	T 3897.000	3883.000	109.300	107.800	104.300	106.100	110.200	119.200
3	12:55:47	T 3881.000	229.000	T 3895.000	3886.000	109.600	108.200	101.100	105.300	109.700	118.800
x		T 3907.000	228.900	T 3906.000	T 3896.000	110.000	108.300	102.800	106.300	110.300	119.400
σ		T 75.570	0.281	T 17.170	T 19.760	0.858	0.535	1.627	1.105	0.618	0.777
%RSD		T 1.934	0.123	T 0.440	T 0.507	0.780	0.494	1.582	1.040	0.560	0.651

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	122.500	121.000	108.300	110.600	17.520	16.390	433.400	108.100	0.930	100.400
2	12:55:20	120.400	121.400	106.100	102.000	17.230	16.140	446.000	109.900	1.214	100.500
3	12:55:47	120.800	119.400	106.000	107.800	16.640	17.070	424.600	105.400	7.432	99.780
x		121.200	120.600	106.800	106.800	17.130	16.530	434.700	107.800	3.192	100.200
σ		1.104	1.087	1.298	4.416	0.446	0.480	10.780	2.283	3.675	0.397
%RSD		0.911	0.901	1.215	4.135	2.603	2.903	2.479	2.118	115.100	0.396

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	119.1%	99.630	97.270	98.640	106.400	105.500	106.000	106.000	106.800	106.1%
2	12:55:20	117.2%	99.880	97.620	99.640	106.200	105.400	106.000	106.500	107.000	106.0%
3	12:55:47	117.6%	100.200	98.010	100.100	104.600	106.200	107.600	106.500	107.400	105.0%
x		118.0%	99.900	97.640	99.450	105.800	105.700	106.500	106.300	107.000	105.7%
σ		1.0%	0.286	0.372	0.737	0.978	0.403	0.937	0.301	0.306	0.6%
%RSD		0.8	0.286	0.381	0.741	0.925	0.382	0.880	0.284	0.286	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:53	110.700	108.900	105.300	104.900	272.300	271.200	106.9%	107.300	107.700	110.400
2	12:55:20	110.500	109.300	103.000	103.800	268.500	269.500	107.2%	107.400	107.200	109.100
3	12:55:47	110.500	109.400	104.700	102.800	266.800	270.400	106.9%	107.000	107.600	108.600
x		110.600	109.200	104.400	103.800	269.200	270.300	107.0%	107.200	107.500	109.300
σ		0.118	0.268	1.169	1.053	2.830	0.848	0.2%	0.181	0.246	0.944
%RSD		0.107	0.246	1.120	1.014	1.051	0.314	0.2	0.168	0.229	0.863

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	12:54:53	109.800	110.200	106.1%
2	12:55:20	108.600	108.600	103.7%
3	12:55:47	108.800	108.900	103.8%
x		109.100	109.200	104.5%
σ		0.662	0.851	1.3%
%RSD		0.607	0.779	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	99.6%	0.112	9.549	9.194	82.710	T 1334.000	T 1132.000	1113.000	1121.000	131.400
2	13:01:24	105.2%	0.060	9.167	8.938	83.070	T 1320.000	T 1111.000	1122.000	1144.000	137.700
3	13:01:51	100.5%	0.155	9.615	9.097	82.160	T 1373.000	T 1158.000	1122.000	1119.000	T 129.300
x		101.8%	0.109	9.444	9.076	82.650	T 1342.000	T 1134.000	1119.000	1128.000	T 132.800
σ		3.0%	0.048	0.242	0.129	0.456	T 27.130	T 23.120	5.267	13.740	T 4.356
%RSD		3.0	43.770	2.560	1.423	0.552	T 2.021	T 2.039	0.471	1.218	T 3.281

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	T 2447.000	T 92560.000	T 1433.000	1845.000	1743.000	104.6%	6.669	0.201	1.097	2158.000
2	13:01:24	T 2412.000	T 96030.000	T 1476.000	1855.000	1740.000	101.7%	6.300	0.175	1.196	2554.000
3	13:01:51	T 2410.000	T 94660.000	T 1460.000	1831.000	1763.000	105.7%	6.818	0.453	1.031	2050.000
x		T 2423.000	T 94410.000	T 1456.000	1844.000	1748.000	104.0%	6.596	0.276	1.108	2254.000
σ		T 20.870	T 1747.000	T 21.720	11.650	12.440	2.0%	0.267	0.154	0.083	265.400
%RSD		T 0.861	T 1.851	T 1.491	0.632	0.712	2.0	4.048	55.700	7.482	11.780

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	142.700	TM 747.000	137.600	136.400	4.786	2.594	2.368	0.340	0.376	42.020
2	13:01:24	145.600	TM 748.600	142.100	149.000	4.835	2.678	2.231	0.418	0.382	42.660
3	13:01:51	140.300	TM 748.700	141.800	138.200	4.713	2.618	1.862	0.346	0.411	43.400
x		142.900	TM 748.100	140.500	141.200	4.778	2.630	2.154	0.368	0.390	42.690
σ		2.643	TM 0.975	2.538	6.801	0.061	0.043	0.262	0.044	0.019	0.691
%RSD		1.850	TM 0.130	1.806	4.817	1.285	1.648	12.150	11.880	4.862	1.617

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	40.170	44.520	-0.140	-0.066	3.702	4.286	-1.192	-0.247	-1.615	9.995
2	13:01:24	40.850	43.580	-0.171	0.021	4.305	4.542	-1.104	-0.318	2.721	9.988
3	13:01:51	42.510	43.610	0.043	-0.173	4.606	4.618	-0.997	-0.232	-0.226	10.010
x		41.170	43.900	-0.089	-0.073	4.204	4.482	-1.098	-0.266	0.293	9.999
σ		1.203	0.534	0.116	0.097	0.460	0.174	0.098	0.046	2.214	0.014
%RSD		2.922	1.217	129.600	133.500	10.950	3.881	8.928	17.290	755.300	0.141

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	106.4%	0.070	0.050	0.051	-0.663	0.022	0.010	0.033	0.035	107.0%
2	13:01:24	105.0%	0.056	0.064	0.033	-1.547	0.013	0.011	0.005	0.021	104.4%
3	13:01:51	106.3%	0.021	0.050	0.033	-0.433	0.008	0.016	0.015	0.023	106.8%
x		105.9%	0.049	0.055	0.039	-0.881	0.014	0.013	0.018	0.026	106.1%
σ		0.8%	0.025	0.008	0.010	0.588	0.007	0.003	0.014	0.008	1.4%
%RSD		0.8	51.460	14.620	26.540	66.740	50.210	24.390	81.540	29.230	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:57	0.556	0.749	0.236	0.229	41.410	40.750	107.1%	0.027	0.024	0.088
2	13:01:24	0.487	0.745	0.245	0.211	41.220	40.930	104.0%	0.030	0.025	0.105
3	13:01:51	0.577	0.662	0.223	0.255	39.550	40.740	108.6%	0.026	0.028	0.107
x		0.540	0.719	0.235	0.231	40.730	40.810	106.6%	0.028	0.026	0.100
σ		0.047	0.049	0.011	0.022	1.026	0.104	2.3%	0.002	0.002	0.011
%RSD		8.748	6.868	4.742	9.607	2.518	0.255	2.2	7.643	6.916	10.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:00:57	0.121	0.102	106.0%
2	13:01:24	0.101	0.111	102.6%
3	13:01:51	0.104	0.101	107.5%
x		0.109	0.105	105.4%
σ		0.011	0.005	2.5%
%RSD		9.944	5.206	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	102.2%	0.254	3.088	2.889	74.940	T 1434.000	T 2046.000	2036.000	2074.000	TM 6304.000
2	13:07:27	103.4%	0.190	3.145	2.841	85.510	T 1419.000	T 2002.000	2010.000	1985.000	TM 5983.000
3	13:07:54	102.6%	0.187	2.751	3.013	62.590	T 1424.000	T 2043.000	2070.000	2032.000	TM 6178.000
x		102.8%	0.210	2.995	2.914	74.340	T 1426.000	T 2030.000	2039.000	2030.000	TM 6155.000
σ		0.6%	0.038	0.213	0.089	11.470	T 7.659	T 24.500	30.360	44.710	TM 161.400
%RSD		0.6	18.180	7.126	3.055	15.430	T 0.537	T 1.207	1.489	2.202	TM 2.623

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	TM 12530.000	T 90220.000	T 2745.000	1012.000	1017.000	106.1%	192.800	10.690	4.607	2126.000
2	13:07:27	TM 12180.000	T 87700.000	T 2689.000	935.400	1017.000	108.1%	194.400	11.070	4.333	2004.000
3	13:07:54	TM 12460.000	T 87310.000	T 2665.000	987.700	1019.000	108.5%	197.100	11.230	4.343	1988.000
x		TM 12390.000	T 88410.000	T 2700.000	978.500	1018.000	107.6%	194.800	11.000	4.428	2040.000
σ		TM 184.200	T 1577.000	T 41.120	39.300	1.063	1.3%	2.180	0.279	0.155	75.590
%RSD		TM 1.486	T 1.783	T 1.523	4.017	0.105	1.2	1.119	2.539	3.501	3.706

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	5392.000	175.200	T 5210.000	5224.000	2.382	2.332	2.516	6.547	6.834	10.660
2	13:07:27	5377.000	177.200	T 5203.000	5144.000	2.538	2.350	2.322	6.452	6.934	10.880
3	13:07:54	5412.000	178.200	T 5263.000	5237.000	2.496	2.473	2.342	6.468	6.586	10.960
x		5393.000	176.900	T 5225.000	5202.000	2.472	2.385	2.394	6.489	6.785	10.830
σ		17.410	1.504	T 32.970	50.630	0.081	0.077	0.107	0.051	0.179	0.153
%RSD		0.323	0.850	T 0.631	0.973	3.273	3.211	4.459	0.783	2.637	1.409

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	16.870	14.850	-0.043	-0.347	4.011	4.690	-1.874	-0.412	1.445	9.444
2	13:07:27	17.130	14.680	-0.001	0.135	4.480	3.713	1.765	0.520	-0.365	9.593
3	13:07:54	16.420	14.760	0.032	0.277	5.358	4.498	1.122	0.387	-1.535	9.604
x		16.810	14.760	-0.004	0.022	4.616	4.300	0.338	0.165	-0.152	9.547
σ		0.361	0.086	0.038	0.327	0.684	0.517	1.942	0.504	1.502	0.090
%RSD		2.150	0.585	873.100	1503.000	14.820	12.030	575.500	305.800	989.900	0.939

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	113.7%	0.115	0.060	0.118	0.843	0.009	0.017	0.015	0.016	106.2%
2	13:07:27	115.7%	0.120	0.082	0.117	-0.297	0.006	0.004	0.032	0.019	107.1%
3	13:07:54	117.2%	0.123	0.168	0.133	0.038	-0.001	0.011	0.028	0.020	108.6%
x		115.5%	0.120	0.104	0.123	0.195	0.005	0.011	0.025	0.018	107.3%
σ		1.7%	0.004	0.057	0.009	0.586	0.005	0.007	0.009	0.002	1.2%
%RSD		1.5	3.446	55.000	7.464	300.700	101.500	63.350	36.540	10.340	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:00	0.558	0.735	0.141	0.130	114.900	116.600	107.0%	0.037	0.044	3.078
2	13:07:27	0.644	0.728	0.142	0.137	118.400	117.000	108.6%	0.040	0.037	3.050
3	13:07:54	0.635	0.734	0.142	0.149	116.400	117.100	110.4%	0.053	0.047	2.937
x		0.612	0.732	0.142	0.139	116.600	116.900	108.7%	0.043	0.043	3.022
σ		0.047	0.004	0.001	0.010	1.735	0.243	1.7%	0.008	0.005	0.075
%RSD		7.688	0.538	0.554	6.920	1.488	0.208	1.6	18.800	12.530	2.467

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:07:00	2.845	2.940	105.4%
2	13:07:27	2.895	2.997	108.3%
3	13:07:54	2.882	2.931	110.2%
x		2.874	2.956	108.0%
σ		0.026	0.036	2.4%
%RSD		0.905	1.215	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	101.5%	0.193	3.837	3.537	86.700	┬1764.000	┬2096.000	2071.000	2087.000	78.280
2	13:13:34	102.5%	0.246	3.471	3.117	85.660	┬1754.000	┬2112.000	2102.000	2140.000	┬80.470
3	13:14:02	100.8%	0.219	3.767	3.864	92.950	┬1825.000	┬2155.000	2105.000	2084.000	74.780
x		101.6%	0.219	3.691	3.506	88.440	┬1781.000	┬2121.000	2093.000	2104.000	┬77.840
σ		0.8%	0.026	0.194	0.374	3.940	┬38.750	┬30.340	18.600	31.540	┬2.869
%RSD		0.8	12.080	5.261	10.680	4.455	┬2.176	┬1.430	0.889	1.499	┬3.686

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	┬5485.000	┬98620.000	┬2342.000	4551.000	4368.000	103.6%	3.263	0.317	2.569	2678.000
2	13:13:34	┬5477.000	┬98560.000	┬2318.000	4577.000	4348.000	103.9%	3.716	0.350	2.616	2730.000
3	13:14:02	┬5427.000	┬97690.000	┬2270.000	4483.000	4346.000	107.6%	3.539	0.285	2.397	2522.000
x		┬5463.000	┬98290.000	┬2310.000	4537.000	4354.000	105.0%	3.506	0.317	2.527	2644.000
σ		┬31.170	┬519.700	┬36.360	48.320	12.400	2.2%	0.228	0.033	0.116	108.200
%RSD		┬0.571	┬0.529	┬1.574	1.065	0.285	2.1	6.508	10.290	4.569	4.093

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	92.540	20.180	89.090	122.600	0.453	0.387	-0.120	0.261	0.303	3.783
2	13:13:34	93.770	20.470	93.040	121.600	0.411	0.363	0.237	0.261	0.330	4.084
3	13:14:02	94.750	20.570	89.230	104.600	0.409	0.319	-0.055	0.327	0.302	3.713
x		93.690	20.400	90.450	116.300	0.424	0.356	0.021	0.283	0.312	3.860
σ		1.106	0.202	2.237	10.120	0.025	0.034	0.190	0.038	0.016	0.197
%RSD		1.180	0.990	2.473	8.704	5.875	9.569	924.900	13.500	5.022	5.108

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	10.040	8.098	-0.118	-0.069	6.554	6.388	-0.983	-0.216	-0.811	28.470
2	13:13:34	9.328	7.860	0.001	-0.226	6.215	6.089	1.874	0.423	1.027	28.430
3	13:14:02	8.642	8.357	-0.100	-0.091	6.132	6.745	-1.075	-0.236	-1.108	28.640
x		9.336	8.105	-0.072	-0.129	6.300	6.407	-0.062	-0.010	-0.297	28.510
σ		0.698	0.249	0.064	0.085	0.223	0.329	1.677	0.374	1.156	0.110
%RSD		7.473	3.067	88.180	66.040	3.546	5.128	2717.000	3867.000	389.300	0.387

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	106.4%	-0.007	-0.000	0.022	0.128	-0.004	-0.000	0.012	0.036	106.4%
2	13:13:34	105.7%	0.043	-0.013	0.009	-1.018	-0.001	-0.001	0.038	0.031	103.6%
3	13:14:02	107.8%	0.010	0.008	0.009	0.329	-0.003	0.001	0.004	0.023	108.6%
x		106.6%	0.015	-0.002	0.013	-0.187	-0.003	-0.000	0.018	0.030	106.2%
σ		1.0%	0.025	0.010	0.007	0.727	0.002	0.001	0.018	0.007	2.5%
%RSD		1.0	167.100	555.100	55.820	388.700	60.020	785.400	97.650	21.770	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:06	0.502	0.674	0.129	0.106	102.400	101.700	106.0%	0.029	0.020	0.060
2	13:13:34	0.559	0.671	0.107	0.104	101.100	100.300	104.1%	0.022	0.025	0.058
3	13:14:02	0.495	0.671	0.120	0.115	102.200	101.300	109.2%	0.025	0.030	0.064
x		0.519	0.672	0.119	0.108	101.900	101.100	106.4%	0.025	0.025	0.061
σ		0.035	0.002	0.011	0.006	0.729	0.735	2.6%	0.003	0.005	0.003
%RSD		6.723	0.274	9.246	5.715	0.715	0.727	2.4	13.290	19.520	5.173

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:13:06	0.061	0.060	103.9%
2	13:13:34	0.058	0.055	103.4%
3	13:14:02	0.059	0.066	107.7%
x		0.059	0.060	105.0%
σ		0.001	0.006	2.4%
%RSD		2.010	9.576	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	102.1%	0.332	3.958	3.251	88.920	T 3146.000	T 2237.000	2220.000	2237.000	TM 1700.000
2	13:19:40	102.3%	0.359	4.065	3.157	78.600	T 3145.000	T 2205.000	2207.000	2247.000	TM 1676.000
3	13:20:08	102.2%	0.220	3.188	2.838	80.080	T 3124.000	T 2185.000	2147.000	2189.000	TM 1662.000
x		102.2%	0.304	3.737	3.082	82.540	T 3138.000	T 2209.000	2191.000	2224.000	TM 1679.000
σ		0.1%	0.074	0.479	0.217	5.579	T 12.520	T 26.020	38.890	31.210	TM 19.240
%RSD		0.1	24.350	12.810	7.038	6.759	T 0.399	T 1.178	1.775	1.403	TM 1.145

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	T 9263.000	T 96980.000	T 2027.000	5852.000	5600.000	103.4%	76.180	3.399	5.970	2777.000
2	13:19:40	T 9125.000	T 96030.000	T 1950.000	5718.000	5506.000	106.2%	73.970	3.200	5.634	2605.000
3	13:20:08	T 9135.000	T 97870.000	T 2033.000	5758.000	5505.000	105.9%	74.540	3.189	5.694	2933.000
x		T 9174.000	T 96960.000	T 2003.000	5776.000	5537.000	105.2%	74.900	3.263	5.766	2772.000
σ		T 76.840	T 923.100	T 46.470	68.950	54.800	1.5%	1.148	0.118	0.179	163.700
%RSD		T 0.838	T 0.952	T 2.319	1.194	0.990	1.4	1.533	3.620	3.107	5.906

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	1174.000	40.890	T 1177.000	1194.000	0.680	1.069	1.380	1.169	1.223	4.915
2	13:19:40	1146.000	40.260	T 1149.000	1169.000	0.659	1.031	0.651	1.079	1.143	4.790
3	13:20:08	1160.000	40.190	T 1158.000	1143.000	0.662	1.085	1.390	1.143	1.269	4.700
x		1160.000	40.440	T 1161.000	1168.000	0.667	1.062	1.140	1.130	1.212	4.802
σ		13.700	0.386	T 14.460	25.640	0.012	0.027	0.424	0.046	0.064	0.108
%RSD		1.181	0.954	T 1.245	2.194	1.749	2.568	37.160	4.062	5.241	2.251

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	7.840	7.489	0.293	0.073	5.498	5.045	-0.827	-0.168	0.522	43.020
2	13:19:40	7.662	7.252	-0.001	-0.033	5.469	5.626	0.202	0.056	1.689	42.710
3	13:20:08	7.574	7.179	-0.135	0.206	5.543	5.148	-0.419	-0.028	-1.838	42.580
x		7.692	7.307	0.052	0.082	5.503	5.273	-0.348	-0.047	0.124	42.770
σ		0.136	0.162	0.219	0.119	0.038	0.310	0.518	0.113	1.797	0.231
%RSD		1.761	2.212	417.900	145.500	0.683	5.876	148.800	242.100	1446.000	0.540

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	107.5%	0.013	-0.001	0.010	3.310	0.003	0.003	0.038	0.019	103.3%
2	13:19:40	110.0%	-0.003	0.011	-0.003	0.917	0.000	0.002	0.016	0.015	105.0%
3	13:20:08	106.8%	0.016	0.012	-0.005	1.102	-0.000	0.000	0.012	0.019	104.0%
x		108.1%	0.009	0.007	0.001	1.776	0.001	0.002	0.022	0.018	104.1%
σ		1.7%	0.010	0.007	0.008	1.331	0.002	0.001	0.014	0.002	0.9%
%RSD		1.6	113.400	94.130	1088.000	74.950	159.700	69.490	64.150	12.950	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:13	0.657	0.841	0.100	0.086	60.830	62.510	103.6%	-0.000	-0.004	0.796
2	13:19:40	0.679	0.847	0.095	0.102	62.020	61.880	106.0%	-0.001	0.004	0.864
3	13:20:08	0.695	0.883	0.091	0.118	62.450	62.780	104.1%	0.011	0.007	0.802
x		0.677	0.857	0.095	0.102	61.760	62.390	104.6%	0.003	0.002	0.821
σ		0.019	0.023	0.005	0.016	0.841	0.461	1.3%	0.007	0.006	0.037
%RSD		2.795	2.628	4.946	15.750	1.361	0.739	1.2	215.600	268.000	4.533

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:19:13	0.760	0.767	101.8%
2	13:19:40	0.722	0.743	105.4%
3	13:20:08	0.748	0.748	102.4%
x		0.744	0.753	103.2%
σ		0.019	0.013	1.9%
%RSD		2.573	1.674	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	104.0%	0.016	1.030	0.391	63.890	7.488	2.354	2.052	2.479	1.533
2	13:25:47	105.3%	-0.021	0.524	0.549	74.390	8.931	2.532	2.838	2.452	1.430
3	13:26:14	103.2%	0.020	0.955	0.616	62.240	8.103	2.556	2.942	2.515	1.502
x		104.2%	0.005	0.836	0.518	66.840	8.174	2.481	2.610	2.482	1.488
σ		1.0%	0.022	0.273	0.116	6.591	0.724	0.110	0.487	0.032	0.053
%RSD		1.0	460.600	32.670	22.320	9.862	8.858	4.446	18.640	1.269	3.541

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	18.520	T 81110.000	18.400	10.450	6.788	104.6%	-0.047	-0.118	0.664	2607.000
2	13:25:47	17.920	T 82330.000	17.110	8.734	6.404	104.0%	-0.081	0.071	0.783	2711.000
3	13:26:14	18.470	T 82340.000	15.260	4.437	6.699	104.8%	-0.024	-0.142	0.731	2655.000
x		18.300	T 81930.000	16.920	7.874	6.630	104.5%	-0.051	-0.063	0.726	2658.000
σ		0.332	T 706.600	1.582	3.098	0.201	0.4%	0.029	0.116	0.060	51.890
%RSD		1.816	T 0.863	9.347	39.340	3.030	0.4	56.170	184.800	8.249	1.952

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	112.800	0.831	115.400	95.180	0.024	0.179	-0.005	0.289	0.237	0.207
2	13:25:47	106.200	0.799	107.400	88.190	0.021	0.167	0.230	0.214	0.228	0.251
3	13:26:14	100.200	0.806	100.200	79.410	0.025	0.129	-0.066	0.247	0.231	0.241
x		106.400	0.812	107.700	87.600	0.023	0.158	0.053	0.250	0.232	0.233
σ		6.298	0.017	7.607	7.902	0.002	0.026	0.156	0.038	0.004	0.023
%RSD		5.919	2.036	7.066	9.021	7.644	16.610	293.700	15.070	1.916	10.010

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	0.356	0.201	-0.035	-0.092	1.515	1.824	1.545	0.378	-1.320	0.011
2	13:25:47	0.514	0.223	-0.152	0.317	0.868	0.696	-0.279	-0.048	-0.703	0.007
3	13:26:14	0.350	0.318	-0.144	-0.024	1.180	1.409	-1.014	-0.235	0.345	0.013
x		0.407	0.247	-0.110	0.067	1.188	1.309	0.084	0.032	-0.559	0.010
σ		0.093	0.062	0.065	0.219	0.324	0.571	1.317	0.314	0.842	0.003
%RSD		22.890	25.040	59.100	327.400	27.260	43.590	1563.000	993.700	150.600	30.430

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	104.4%	0.006	0.026	0.005	-0.423	-0.004	-0.002	0.001	0.007	104.4%
2	13:25:47	104.3%	0.006	0.005	-0.001	-0.260	-0.006	0.000	0.001	0.006	104.1%
3	13:26:14	106.9%	0.000	0.029	0.001	-1.302	-0.004	-0.001	0.001	-0.008	106.1%
x		105.2%	0.004	0.020	0.002	-0.662	-0.004	-0.001	0.001	0.002	104.9%
σ		1.4%	0.003	0.013	0.003	0.560	0.001	0.001	0.000	0.008	1.1%
%RSD		1.4	79.720	67.090	153.500	84.700	32.000	136.300	3.702	459.700	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:20	0.248	0.427	0.049	0.030	0.026	0.016	106.4%	-0.017	-0.021	-0.015
2	13:25:47	0.329	0.439	0.048	0.055	0.001	-0.004	103.1%	-0.017	-0.020	-0.009
3	13:26:14	0.303	0.438	0.055	0.058	-0.010	0.035	105.4%	-0.019	-0.017	-0.010
x		0.293	0.434	0.051	0.048	0.006	0.016	105.0%	-0.018	-0.020	-0.011
σ		0.041	0.007	0.004	0.016	0.019	0.019	1.7%	0.001	0.002	0.003
%RSD		14.050	1.588	7.719	32.830	329.000	122.400	1.6	8.091	11.650	28.690

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:25:20	-0.019	-0.016	105.5%
2	13:25:47	-0.017	-0.013	101.7%
3	13:26:14	-0.017	-0.013	105.5%
x		-0.018	-0.014	104.2%
σ		0.002	0.002	2.2%
%RSD		9.112	15.890	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	103.9%	98.140	101.600	96.300	70.170	T1028.000	T1012.000	1019.000	1027.000	100.900
2	13:31:54	105.2%	101.300	106.700	101.000	69.670	T1036.000	T1030.000	1033.000	1019.000	97.860
3	13:32:22	103.8%	99.420	107.100	100.200	76.170	T1057.000	T1046.000	1032.000	1055.000	103.400
x		104.3%	99.631%	105.100	99.142%	72.000	T104.004%	T1029.000	1028.000	103.374%	100.728%
σ		0.8%	n/a	3.083	n/a	3.616	Tn/a	T16.590	7.976	n/a	n/a
%RSD		0.7	1.610	2.933	2.515	5.023	T1.464	T1.612	0.776	1.864	2.741
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	T937.300	T80410.000	1056.000	1158.000	1032.000	104.1%	99.870	98.690	99.520	2982.000
2	13:31:54	956.600	T79570.000	1038.000	1160.000	1031.000	103.7%	100.700	102.600	100.300	1990.000
3	13:32:22	T936.400	T82710.000	1079.000	1146.000	1029.000	101.9%	102.200	100.100	101.200	2906.000
x		T94.344%	T80900.000	105.744%	1155.000	103.074%	103.3%	100.940%	100.487%	100.317%	2626.000
σ		Tn/a	T1627.000	n/a	7.437	n/a	1.2%	n/a	n/a	n/a	552.200
%RSD		T1.211	T2.011	1.949	0.644	0.146	1.1	1.188	1.988	0.829	21.030
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	1084.000	98.460	T1067.000	1028.000	100.200	99.670	96.880	102.500	102.700	101.100
2	13:31:54	1081.000	99.460	T1062.000	1001.000	99.950	99.300	95.350	99.560	101.000	101.000
3	13:32:22	1108.000	99.050	T1065.000	1032.000	101.700	101.000	98.510	102.400	99.570	99.160
x		1091.000	98.989%	T1064.000	102.054%	100.609%	99.986%	96.910	101.500	101.065%	100.396%
σ		14.720	n/a	T2.308	n/a	n/a	n/a	1.579	1.682	n/a	n/a
%RSD		1.349	0.510	T0.217	1.663	0.942	0.887	1.630	1.657	1.544	1.068
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	104.800	100.800	100.400	104.400	1.123	0.853	445.200	102.000	0.336	96.630
2	13:31:54	100.400	100.800	102.900	103.300	0.906	1.309	456.300	103.100	0.848	95.820
3	13:32:22	101.100	102.700	99.320	101.400	1.071	1.168	425.300	96.410	2.488	96.620
x		102.100	101.500	100.880%	103.100	1.033	1.110	442.300	100.504%	1.224	96.360
σ		2.352	1.109	n/a	1.524	0.114	0.233	15.690	n/a	1.124	0.461
%RSD		2.305	1.093	1.846	1.479	10.990	21.020	3.549	3.573	91.850	0.478
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	103.9%	98.600	99.370	97.920	101.900	99.190	99.680	99.930	99.040	102.6%
2	13:31:54	105.4%	98.210	100.200	98.220	101.700	99.040	98.090	99.920	99.170	105.2%
3	13:32:22	102.8%	98.820	100.400	98.340	99.100	98.230	97.540	100.200	97.790	102.3%
x		104.0%	98.550	99.987%	98.160	100.900	98.821%	98.440	100.000	98.665%	103.4%
σ		1.3%	0.308	n/a	0.218	1.564	n/a	1.110	0.156	n/a	1.6%
%RSD		1.3	0.313	0.541	0.223	1.550	0.520	1.127	0.156	0.775	1.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:26	100.200	99.530	97.720	99.140	100.900	99.690	102.9%	98.450	98.500	100.100
2	13:31:54	101.100	100.200	99.060	99.130	100.400	98.890	106.0%	99.130	99.530	100.800
3	13:32:22	100.600	99.410	96.740	97.880	100.200	100.900	102.5%	99.720	100.400	99.780
x		100.600	99.701%	97.840	98.716%	100.523%	99.840	103.8%	99.100	99.490%	100.200
σ		0.441	n/a	1.165	n/a	n/a	1.037	1.9%	0.636	n/a	0.499
%RSD		0.438	0.403	1.191	0.735	0.366	1.038	1.9	0.642	0.977	0.498
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	13:31:26	100.200	100.200	101.8%							
2	13:31:54	99.590	100.100	105.9%							
3	13:32:22	100.300	100.200	101.2%							
x		100.000	100.183%	103.0%							
σ		0.396	n/a	2.5%							
%RSD		0.396	0.051	2.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	104.4%	0.102	5.571	5.644	65.070	T 772.700	625.900	613.100	613.000	21.310
2	13:38:00	105.4%	0.112	5.450	5.495	52.080	T 743.000	T 605.400	594.700	614.600	22.450
3	13:38:27	104.6%	0.045	6.123	5.310	55.830	T 752.000	T 607.700	591.200	595.200	21.150
x		104.8%	0.086	5.715	5.483	57.660	T 755.900	T 613.000	599.700	607.600	21.640
σ		0.5%	0.036	0.359	0.167	6.684	T 15.240	T 11.230	11.780	10.730	0.711
%RSD		0.5	42.000	6.274	3.045	11.590	T 2.016	T 1.831	1.964	1.766	3.284

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	T 2189.000	T 81880.000	338.500	333.600	336.900	101.4%	0.403	-0.138	0.896	2365.000
2	13:38:00	T 2237.000	T 82680.000	338.300	322.900	342.000	101.7%	0.566	-0.020	0.932	2433.000
3	13:38:27	T 2252.000	T 81640.000	326.400	360.900	337.000	104.9%	0.454	-0.125	0.854	2327.000
x		T 2226.000	T 82070.000	334.400	339.100	338.600	102.7%	0.474	-0.094	0.894	2375.000
σ		T 33.030	T 543.000	6.957	19.630	2.928	2.0%	0.083	0.065	0.039	53.750
%RSD		T 1.484	T 0.662	2.080	5.789	0.865	1.9	17.580	68.370	4.381	2.264

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	5.187	7.003	1.987	-3.175	0.319	0.376	-0.007	0.243	0.169	0.914
2	13:38:00	5.963	6.799	2.494	-0.101	0.306	0.220	0.156	0.237	0.204	0.934
3	13:38:27	5.096	6.697	2.014	-10.210	0.292	0.384	0.040	0.261	0.230	0.960
x		5.415	6.833	2.165	-4.496	0.306	0.327	0.063	0.247	0.201	0.936
σ		0.476	0.156	0.285	5.184	0.014	0.093	0.084	0.012	0.031	0.023
%RSD		8.798	2.280	13.170	115.300	4.556	28.320	133.000	4.969	15.380	2.466

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	3.009	2.163	-0.141	0.171	2.110	1.833	-2.146	-0.528	2.065	4.130
2	13:38:00	2.377	2.529	-0.124	0.397	2.341	2.204	-1.801	-0.361	-1.587	4.173
3	13:38:27	2.629	2.156	-0.099	-0.142	2.197	2.140	-2.155	-0.492	0.447	4.223
x		2.672	2.283	-0.121	0.142	2.216	2.059	-2.034	-0.460	0.308	4.175
σ		0.318	0.213	0.021	0.270	0.116	0.198	0.202	0.088	1.830	0.047
%RSD		11.900	9.345	17.540	190.400	5.255	9.620	9.913	19.080	593.700	1.115

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	105.7%	0.066	0.021	0.042	0.124	0.014	0.009	0.019	0.034	103.9%
2	13:38:00	101.9%	0.031	0.005	0.063	-0.093	0.011	0.013	0.024	0.044	100.4%
3	13:38:27	105.2%	0.085	0.051	0.057	0.248	0.001	0.011	0.030	0.017	104.1%
x		104.3%	0.061	0.026	0.054	0.093	0.009	0.011	0.025	0.031	102.8%
σ		2.1%	0.027	0.023	0.011	0.173	0.007	0.002	0.006	0.014	2.1%
%RSD		2.0	44.610	89.880	20.010	185.400	83.650	17.810	22.520	43.620	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:33	0.342	0.394	0.210	0.225	28.690	28.720	105.5%	0.031	0.031	0.048
2	13:38:00	0.293	0.386	0.205	0.194	28.750	28.400	101.0%	0.013	0.025	0.060
3	13:38:27	0.324	0.458	0.214	0.222	28.360	28.570	104.0%	0.020	0.024	0.063
x		0.319	0.413	0.209	0.214	28.600	28.560	103.5%	0.021	0.027	0.057
σ		0.025	0.039	0.005	0.017	0.209	0.161	2.3%	0.009	0.004	0.008
%RSD		7.797	9.508	2.226	7.907	0.731	0.563	2.2	41.220	14.220	14.030

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:37:33	0.057	0.051	104.7%
2	13:38:00	0.070	0.057	100.7%
3	13:38:27	0.034	0.050	104.4%
x		0.054	0.053	103.3%
σ		0.018	0.003	2.3%
%RSD		33.980	6.518	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	104.2%	100.000	107.400	100.700	72.140	T1789.000	T1677.000	1642.000	1632.000	119.400
2	13:44:04	104.2%	98.310	100.900	102.300	76.670	T1739.000	T1629.000	1653.000	1645.000	119.700
3	13:44:31	105.4%	101.100	105.300	97.730	68.060	T1796.000	T1653.000	1636.000	1636.000	120.200
x		104.6%	99.800	104.500	100.200	72.290	T1774.000	T1653.000	1644.000	1638.000	119.800
σ		0.7%	1.392	3.360	2.333	4.307	T30.990	T24.310	8.389	6.223	0.408
%RSD		0.7	1.395	3.215	2.327	5.958	T1.746	T1.471	0.510	0.380	0.341

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	T3172.000	T79750.000	T1370.000	1494.000	1368.000	103.5%	100.000	99.630	98.710	3257.000
2	13:44:04	T3140.000	T80130.000	T1333.000	1503.000	1352.000	104.1%	101.700	101.000	97.810	2594.000
3	13:44:31	T3142.000	T80790.000	T1349.000	1457.000	1358.000	105.0%	100.600	101.600	99.070	2147.000
x		T3151.000	T80220.000	T1350.000	1485.000	1359.000	104.2%	100.800	100.700	98.530	2666.000
σ		T17.790	T529.100	T18.520	24.530	8.439	0.8%	0.861	1.001	0.649	558.300
%RSD		T0.565	T0.660	T1.371	1.652	0.621	0.8	0.854	0.994	0.659	20.940

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	1085.000	104.800	T1028.000	1004.000	98.710	98.850	98.760	100.500	101.000	100.500
2	13:44:04	1105.000	107.000	T1060.000	1013.000	99.470	99.280	101.100	101.100	103.000	102.100
3	13:44:31	1094.000	104.000	T1036.000	993.400	98.700	97.220	96.380	99.520	98.120	100.200
x		1095.000	105.300	T1041.000	1003.000	98.960	98.450	98.740	100.400	100.700	100.900
σ		10.200	1.586	T17.030	9.955	0.440	1.087	2.344	0.810	2.474	1.011
%RSD		0.932	1.506	T1.635	0.992	0.445	1.104	2.374	0.807	2.456	1.002

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	98.700	100.800	98.690	100.500	2.168	2.178	419.700	96.500	0.034	100.100
2	13:44:04	100.700	103.700	99.590	101.000	1.723	2.431	426.900	98.300	2.961	100.800
3	13:44:31	104.100	102.200	98.530	99.790	2.195	1.868	411.400	93.250	6.265	100.700
x		101.200	102.200	98.940	100.400	2.029	2.159	419.300	96.010	3.087	100.500
σ		2.728	1.452	0.573	0.601	0.265	0.282	7.796	2.556	3.117	0.371
%RSD		2.696	1.420	0.579	0.599	13.060	13.060	1.859	2.662	101.000	0.369

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	102.3%	97.860	98.820	97.880	99.320	98.350	98.470	99.200	98.730	100.8%
2	13:44:04	104.1%	98.420	99.050	99.690	100.300	99.380	99.510	99.900	99.660	102.2%
3	13:44:31	105.3%	97.910	99.130	97.880	101.200	98.050	98.490	100.700	98.890	104.8%
x		103.9%	98.070	99.000	98.480	100.300	98.590	98.820	99.920	99.090	102.6%
σ		1.5%	0.307	0.163	1.045	0.957	0.696	0.595	0.731	0.496	2.1%
%RSD		1.5	0.313	0.165	1.061	0.954	0.706	0.603	0.732	0.501	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:43:38	101.900	99.710	98.210	98.430	129.700	129.200	101.5%	99.310	98.810	99.470
2	13:44:04	101.500	100.900	98.710	99.810	129.300	129.200	102.5%	99.250	99.320	100.700
3	13:44:31	101.400	99.800	99.910	99.710	129.300	129.400	106.1%	100.500	101.400	101.900
x		101.600	100.100	98.940	99.320	129.400	129.300	103.4%	99.670	99.840	100.700
σ		0.268	0.685	0.875	0.769	0.261	0.117	2.4%	0.683	1.368	1.228
%RSD		0.264	0.684	0.884	0.775	0.202	0.090	2.3	0.685	1.370	1.219

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:43:38	99.730	99.930	100.2%
2	13:44:04	99.780	100.300	101.5%
3	13:44:31	102.200	102.000	105.7%
x		100.600	100.800	102.5%
σ		1.413	1.115	2.8%
%RSD		1.405	1.107	2.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	103.6%	100.700	105.600	103.200	81.350	┬1750.000	┬1608.000	1593.000	1601.000	116.200
2	13:50:11	106.0%	91.940	103.300	100.100	63.760	┬1711.000	┬1572.000	1545.000	1568.000	122.100
3	13:50:38	107.3%	93.330	102.700	96.010	61.740	┬1710.000	┬1568.000	1535.000	1536.000	116.700
x		105.6%	95.320	103.900	99.760	68.950	┬1724.000	┬1582.000	1558.000	1568.000	118.400
σ		1.9%	4.691	1.514	3.597	10.790	┬22.570	┬22.130	31.280	32.300	3.269
%RSD		1.8	4.922	1.457	3.605	15.640	┬1.309	┬1.399	2.008	2.060	2.762

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	┬3077.000	┬79440.000	┬1296.000	1401.000	1308.000	103.5%	101.100	97.270	96.120	2543.000
2	13:50:11	┬3070.000	┬79280.000	┬1314.000	1413.000	1332.000	105.1%	99.260	96.290	95.900	3134.000
3	13:50:38	┬2896.000	┬77310.000	┬1301.000	1411.000	1329.000	104.0%	96.380	95.290	95.050	3119.000
x		┬3014.000	┬78680.000	┬1304.000	1408.000	1323.000	104.2%	98.920	96.280	95.690	2932.000
σ		┬102.600	┬1186.000	┬9.004	6.408	13.350	0.8%	2.389	0.990	0.567	336.900
%RSD		┬3.403	┬1.508	┬0.691	0.455	1.009	0.8	2.415	1.028	0.593	11.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	1061.000	103.400	┬1005.000	966.900	96.870	95.510	97.830	97.690	94.180	94.140
2	13:50:11	1040.000	102.100	┬1001.000	986.200	97.000	97.720	93.630	96.710	94.710	91.570
3	13:50:38	1051.000	102.200	┬997.900	975.400	96.760	97.920	93.200	97.210	92.800	92.730
x		1050.000	102.600	┬1001.000	976.200	96.880	97.050	94.890	97.200	93.890	92.810
σ		10.490	0.741	┬3.611	9.686	0.123	1.338	2.557	0.490	0.987	1.288
%RSD		0.998	0.722	┬0.361	0.992	0.127	1.378	2.695	0.504	1.051	1.388

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	99.760	101.300	99.340	94.690	1.779	2.123	431.900	95.960	6.128	97.550
2	13:50:11	94.220	97.780	94.140	95.540	2.054	1.915	414.300	92.990	0.591	96.740
3	13:50:38	99.360	99.370	100.200	91.700	1.555	2.071	440.200	96.980	3.142	97.120
x		97.780	99.490	97.880	93.980	1.796	2.037	428.800	95.310	3.287	97.130
σ		3.089	1.779	3.265	2.016	0.250	0.108	13.230	2.074	2.772	0.404
%RSD		3.159	1.788	3.336	2.146	13.930	5.318	3.086	2.177	84.320	0.416

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	106.8%	96.790	97.190	95.870	96.790	95.390	95.740	98.190	96.870	108.0%
2	13:50:11	106.1%	96.450	96.150	95.460	94.450	95.120	95.760	96.560	96.050	106.7%
3	13:50:38	106.8%	95.510	97.510	95.760	95.630	94.710	95.810	98.440	96.010	109.0%
x		106.6%	96.250	96.950	95.700	95.620	95.070	95.770	97.730	96.310	107.9%
σ		0.4%	0.660	0.710	0.211	1.168	0.342	0.035	1.018	0.486	1.2%
%RSD		0.4	0.685	0.732	0.220	1.221	0.360	0.037	1.042	0.505	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:44	98.810	97.750	96.520	97.390	126.300	124.900	108.4%	98.820	99.730	100.700
2	13:50:11	98.020	97.200	93.940	95.830	126.100	124.100	106.6%	98.630	99.450	101.000
3	13:50:38	99.430	97.060	96.090	96.190	124.300	123.700	110.3%	99.080	99.010	99.610
x		98.750	97.340	95.520	96.470	125.600	124.300	108.5%	98.840	99.390	100.500
σ		0.710	0.364	1.380	0.813	1.078	0.570	1.8%	0.228	0.364	0.750
%RSD		0.719	0.374	1.445	0.842	0.858	0.458	1.7	0.231	0.366	0.746

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:49:44	101.400	100.900	111.2%
2	13:50:11	99.580	100.200	108.1%
3	13:50:38	99.420	99.560	112.1%
x		100.100	100.200	110.5%
σ		1.091	0.672	2.1%
%RSD		1.090	0.670	1.9

CCV MW10994 04/30/2019 13:55:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	93.9%	310.200	307.600	311.200	67.640	T 63380.000	T 62550.000	T 62180.000	T 61890.000	298.000
2	13:56:19	95.9%	296.200	300.600	301.700	69.140	T 63480.000	T 61740.000	T 61500.000	T 61430.000	296.900
3	13:56:47	98.6%	294.600	310.200	302.400	61.370	T 63180.000	T 61040.000	T 60260.000	T 60520.000	292.400
x		96.2%	100.115%	102.043%	101.692%	66.050	T 105.583%	T 61780.000	T 61310.000	T 102.136%	98.583%
σ		2.4%	n/a	n/a	n/a	4.120	T n/a	T 755.900	T 976.700	T n/a	n/a
%RSD		2.5	2.843	1.621	1.733	6.237	T 0.244	T 1.224	T 1.593	T 1.138	1.008

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	T 3351.000	942.000	T 63280.000	62030.000	T 62540.000	100.8%	307.100	316.000	304.100	1180.000
2	13:56:19	T 3270.000	926.800	T 62770.000	61920.000	T 61930.000	100.2%	312.300	311.200	296.800	1599.000
3	13:56:47	T 3145.000	903.800	T 63880.000	62790.000	T 63270.000	100.2%	309.500	314.600	301.900	823.900
x		T 108.513%	924.200	T 105.515%	62250.000	T 104.298%	100.4%	103.208%	104.643%	100.311%	1201.000
σ		T n/a	19.220	T n/a	474.200	T n/a	0.3%	n/a	n/a	n/a	388.000
%RSD		T 3.181	2.079	T 0.876	0.762	T 1.073	0.3	0.850	0.789	1.255	32.310

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	T 62470.000	295.000	T 62420.000	T 61980.000	301.700	290.800	291.000	290.900	285.600	293.900
2	13:56:19	T 62080.000	297.300	T 62700.000	T 60660.000	295.600	285.900	285.900	286.700	290.400	296.800
3	13:56:47	T 63070.000	296.200	T 62320.000	T 61930.000	299.200	291.500	289.400	287.200	293.500	294.400
x		T 62540.000	98.730%	T 62480.000	T 102.531%	99.602%	96.459%	288.700	288.300	96.610%	98.336%
σ		T 497.600	n/a	T 198.300	T n/a	n/a	n/a	2.590	2.335	n/a	n/a
%RSD		T 0.796	0.397	T 0.317	T 1.216	1.027	1.042	0.897	0.810	1.370	0.533

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	294.700	299.300	302.900	292.700	0.485	-0.011	1294.000	295.000	5.255	303.100
2	13:56:19	289.100	289.800	288.700	296.000	0.762	0.057	1268.000	291.500	5.667	300.800
3	13:56:47	294.100	291.100	295.900	301.500	0.454	0.059	1286.000	297.200	5.089	302.400
x		292.600	293.400	98.616%	296.700	0.567	0.035	1283.000	98.184%	5.337	100.692%
σ		3.082	5.141	n/a	4.474	0.169	0.040	13.120	n/a	0.298	n/a
%RSD		1.053	1.752	2.395	1.508	29.840	114.700	1.023	0.984	5.582	0.393

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	100.1%	317.800	319.800	317.800	300.900	292.100	293.400	301.500	300.600	99.4%
2	13:56:19	96.5%	320.100	321.100	319.600	304.400	295.000	294.500	300.200	300.000	95.5%
3	13:56:47	97.8%	316.200	319.700	317.500	305.500	293.300	293.000	302.600	297.200	96.1%
x		98.1%	106.002%	106.732%	318.300	303.600	97.820%	293.600	301.500	99.750%	97.0%
σ		1.8%	n/a	n/a	1.163	2.398	n/a	0.798	1.197	n/a	2.1%
%RSD		1.9	0.622	0.247	0.365	0.790	0.509	0.272	0.397	0.599	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:52	311.300	307.300	311.400	307.500	303.400	305.100	102.4%	300.900	307.900	299.100
2	13:56:19	314.300	311.500	311.600	301.300	307.000	304.000	99.4%	305.100	309.800	300.400
3	13:56:47	309.100	305.600	307.500	302.500	306.800	303.600	99.1%	301.300	307.600	299.000
x		103.843%	102.707%	310.100	101.259%	101.912%	101.417%	100.3%	302.400	102.813%	99.838%
σ		n/a	n/a	2.310	n/a	n/a	n/a	1.8%	2.370	n/a	n/a
%RSD		0.838	0.997	0.745	1.093	0.660	0.250	1.8	0.784	0.398	0.254

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	13:55:52	299.800	302.100	99.1%
2	13:56:19	300.100	302.700	95.6%
3	13:56:47	297.600	300.900	94.2%
x		99.727%	100.629%	96.3%
σ		n/a	n/a	2.5%
%RSD		0.449	0.314	2.6

CCB IM9390-01 04/30/2019 14:01:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	103.2%	0.090	1.891	1.793	12.690	8.159	7.568	7.820	8.285	-0.025
2	14:02:29	103.1%	0.037	1.803	1.571	12.260	7.878	6.376	6.402	6.196	-0.044
3	14:02:56	103.2%	0.012	1.842	1.407	13.090	5.568	5.362	5.169	5.115	-0.087
x		103.2%	0.046	1.846	1.591	12.680	7.202	6.435	6.464	6.532	-0.052
σ		0.0%	0.040	0.044	0.194	0.417	1.421	1.104	1.327	1.611	0.032
%RSD		0.0	85.430	2.383	12.170	3.284	19.740	17.160	20.520	24.670	60.770

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	15.090	491.200	4.117	5.735	6.529	103.8%	-0.012	0.042	0.056	7.137
2	14:02:29	15.320	540.100	7.181	2.150	7.591	102.8%	0.001	0.020	0.053	36.590
3	14:02:56	14.430	460.900	3.309	6.314	5.334	103.9%	-0.047	0.025	0.076	21.230
x		14.950	497.400	4.869	4.733	6.485	103.5%	-0.019	0.029	0.062	21.650
σ		0.460	39.940	2.043	2.256	1.129	0.6%	0.024	0.012	0.013	14.730
%RSD		3.078	8.029	41.950	47.660	17.410	0.6	126.900	40.000	20.340	68.030

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	7.853	0.058	8.758	1.456	0.058	0.049	-0.383	0.032	0.077	0.006
2	14:02:29	7.884	0.056	9.533	6.055	0.073	0.047	-0.138	0.014	0.036	0.018
3	14:02:56	5.661	0.042	6.654	-1.221	0.040	0.032	-0.455	0.002	0.073	-0.012
x		7.132	0.052	8.315	2.097	0.057	0.043	-0.325	0.016	0.062	0.004
σ		1.275	0.009	1.490	3.680	0.017	0.009	0.166	0.015	0.023	0.015
%RSD		17.870	16.370	17.910	175.500	29.660	21.690	50.970	97.300	36.730	359.300

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	0.225	0.056	-0.041	0.159	-0.008	0.012	-2.306	-0.548	0.744	0.039
2	14:02:29	0.025	0.113	-0.024	-0.492	-0.129	0.105	-0.411	-0.122	1.014	0.035
3	14:02:56	0.002	0.061	-0.031	0.417	0.046	0.622	-1.457	-0.329	-0.437	0.025
x		0.084	0.077	-0.032	0.028	-0.030	0.246	-1.391	-0.333	0.440	0.033
σ		0.123	0.032	0.009	0.469	0.090	0.329	0.949	0.213	0.771	0.007
%RSD		145.600	41.440	26.780	1689.000	295.300	133.600	68.220	64.010	175.200	21.660

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	103.9%	0.067	0.099	0.098	-0.426	0.041	0.034	0.052	0.051	105.0%
2	14:02:29	103.1%	0.087	0.087	0.078	-1.106	0.045	0.029	0.034	0.034	103.4%
3	14:02:56	103.2%	0.070	0.078	0.069	-0.296	0.030	0.030	0.019	0.031	104.1%
x		103.4%	0.075	0.088	0.082	-0.609	0.039	0.031	0.035	0.039	104.1%
σ		0.5%	0.010	0.010	0.015	0.435	0.008	0.002	0.016	0.011	0.8%
%RSD		0.4	14.010	11.780	18.000	71.360	20.860	7.933	46.520	27.220	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:02	0.108	0.093	0.137	0.130	0.070	0.063	103.6%	0.027	0.037	0.044
2	14:02:29	0.072	0.097	0.123	0.112	0.039	0.046	102.2%	0.037	0.030	0.033
3	14:02:56	0.052	0.091	0.094	0.091	0.016	0.047	104.5%	0.031	0.026	0.034
x		0.077	0.094	0.118	0.111	0.042	0.052	103.4%	0.032	0.031	0.037
σ		0.028	0.003	0.022	0.019	0.027	0.010	1.2%	0.005	0.005	0.006
%RSD		36.490	2.893	18.540	17.600	64.330	18.470	1.1	16.460	17.420	16.300

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:02:02	0.037	0.050	103.5%
2	14:02:29	0.050	0.035	101.2%
3	14:02:56	0.022	0.029	104.1%
x		0.036	0.038	102.9%
σ		0.014	0.011	1.5%
%RSD		38.910	27.850	1.5

UD12086-001L(5)DIS 04/30/2019 14:07:39

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	102.5%	0.040	2.142	1.843	39.610	156.400	132.100	128.500	131.600	5.169
2	14:08:33	106.0%	-0.006	1.669	1.894	41.680	162.800	134.200	131.200	131.300	5.135
3	14:09:00	103.8%	0.035	1.427	1.789	44.080	159.200	130.400	126.700	126.700	4.835
x		104.1%	0.023	1.746	1.842	41.790	159.500	132.200	128.800	129.900	5.046
σ		1.8%	0.025	0.364	0.053	2.235	3.202	1.897	2.280	2.749	0.184
%RSD		1.7	109.300	20.830	2.861	5.348	2.008	1.435	1.770	2.117	3.647

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	506.700	T 16900.000	73.020	82.900	78.330	102.6%	0.106	0.096	0.153	265.300
2	14:08:33	497.900	T 17460.000	74.570	67.890	72.920	102.1%	0.025	-0.035	0.171	384.400
3	14:09:00	496.400	T 16610.000	68.220	64.190	68.370	106.1%	0.008	-0.009	0.130	342.500
x		500.300	T 16990.000	71.940	71.660	73.210	103.6%	0.046	0.017	0.151	330.800
σ		5.526	T 432.200	3.309	9.904	4.985	2.2%	0.052	0.069	0.020	60.390
%RSD		1.104	T 2.544	4.599	13.820	6.810	2.1	112.500	394.900	13.520	18.260

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	3.493	1.344	3.395	-4.711	0.070	0.101	0.274	0.046	0.070	0.199
2	14:08:33	2.757	1.486	5.015	4.747	0.088	0.062	0.187	0.056	0.062	0.261
3	14:09:00	1.985	1.403	2.258	-8.546	0.087	0.064	-0.050	0.053	0.054	0.266
x		2.745	1.411	3.556	-2.837	0.082	0.076	0.137	0.051	0.062	0.242
σ		0.754	0.071	1.385	6.842	0.010	0.022	0.168	0.005	0.008	0.037
%RSD		27.470	5.057	38.960	241.200	12.810	29.400	122.200	9.773	13.360	15.240

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	0.565	0.542	-0.050	-0.073	0.448	1.059	-0.450	-0.143	1.367	0.874
2	14:08:33	0.687	0.597	-0.061	-0.147	0.338	0.230	-2.223	-0.492	-0.347	0.844
3	14:09:00	0.329	0.479	-0.113	0.082	0.256	-0.091	0.467	0.090	0.037	0.869
x		0.527	0.539	-0.075	-0.046	0.347	0.399	-0.735	-0.182	0.353	0.862
σ		0.182	0.059	0.034	0.117	0.096	0.594	1.367	0.293	0.900	0.016
%RSD		34.590	10.920	45.150	254.100	27.780	148.700	185.900	161.200	255.100	1.900

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	103.9%	0.004	0.022	0.011	0.176	0.005	0.015	0.023	0.007	104.4%
2	14:08:33	101.9%	0.010	0.001	0.024	-0.240	0.007	0.004	0.024	0.017	101.4%
3	14:09:00	105.2%	0.027	0.004	0.016	0.811	0.000	0.004	0.005	0.015	106.3%
x		103.7%	0.013	0.009	0.017	0.249	0.004	0.008	0.017	0.013	104.0%
σ		1.7%	0.012	0.011	0.007	0.529	0.003	0.006	0.011	0.005	2.5%
%RSD		1.6	90.380	124.400	38.690	212.800	81.660	84.040	63.540	40.150	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:06	0.082	0.122	0.091	0.068	5.880	5.701	103.4%	-0.000	0.004	0.036
2	14:08:33	0.063	0.125	0.062	0.093	6.080	6.266	100.8%	0.016	0.005	0.009
3	14:09:00	0.079	0.116	0.065	0.062	6.046	5.757	105.4%	0.006	-0.002	-0.003
x		0.075	0.121	0.073	0.074	6.002	5.908	103.2%	0.007	0.002	0.014
σ		0.010	0.005	0.016	0.017	0.107	0.312	2.3%	0.008	0.004	0.020
%RSD		13.340	3.843	21.450	22.670	1.783	5.272	2.3	110.100	175.000	146.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:08:06	0.009	0.017	104.1%
2	14:08:33	0.029	0.015	99.9%
3	14:09:00	0.018	0.006	105.8%
x		0.019	0.013	103.3%
σ		0.010	0.006	3.0%
%RSD		54.710	44.140	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	104.3%	105.300	116.700	111.000	68.500	T1845.000	T1724.000	1699.000	1716.000	127.500
2	14:14:37	103.5%	108.500	117.800	109.700	64.220	T1850.000	T1737.000	1737.000	1742.000	132.000
3	14:15:04	102.9%	107.700	118.700	115.100	75.470	T1875.000	T1732.000	1670.000	1723.000	133.100
x		103.6%	107.200	117.700	111.900	69.400	T1857.000	T1731.000	1702.000	1727.000	130.900
σ		0.7%	1.670	1.012	2.815	5.679	T16.110	T6.400	33.860	13.480	2.922
%RSD		0.7	1.558	0.860	2.515	8.184	T0.868	T0.370	1.990	0.781	2.233

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	T3208.000	T80130.000	T1461.000	1576.000	1445.000	102.8%	111.300	106.200	107.300	3126.000
2	14:14:37	T3248.000	T80050.000	T1453.000	1664.000	1478.000	101.8%	109.800	109.800	111.100	2917.000
3	14:15:04	T3281.000	T80690.000	T1455.000	1538.000	1444.000	102.2%	108.600	109.600	106.400	2354.000
x		T3246.000	T80290.000	T1456.000	1593.000	1455.000	102.3%	109.900	108.500	108.200	2799.000
σ		T36.860	T350.500	T4.373	64.650	19.490	0.5%	1.334	2.006	2.476	398.900
%RSD		T1.136	T0.437	T0.300	4.059	1.339	0.5	1.214	1.848	2.287	14.250

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	1172.000	110.800	T1125.000	1099.000	107.400	106.300	106.600	108.900	110.300	107.200
2	14:14:37	1194.000	114.200	T1159.000	1135.000	110.800	108.600	108.700	108.800	107.900	108.200
3	14:15:04	1174.000	112.200	T1127.000	1083.000	109.400	107.200	104.600	108.700	108.500	109.400
x		1180.000	112.400	T1137.000	1106.000	109.200	107.400	106.600	108.800	108.900	108.300
σ		12.280	1.696	T18.900	26.660	1.722	1.156	2.048	0.111	1.210	1.066
%RSD		1.041	1.509	T1.662	2.411	1.577	1.076	1.921	0.102	1.111	0.985

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	108.100	109.500	105.800	108.200	2.112	2.343	473.900	109.100	1.659	107.800
2	14:14:37	111.100	113.200	109.800	109.300	1.872	3.113	472.800	107.800	3.737	107.700
3	14:15:04	110.600	114.200	109.100	109.300	1.622	1.729	476.200	108.500	1.831	108.800
x		109.900	112.300	108.200	108.900	1.869	2.395	474.300	108.500	2.409	108.100
σ		1.590	2.456	2.144	0.640	0.245	0.694	1.739	0.628	1.153	0.606
%RSD		1.446	2.187	1.981	0.587	13.100	28.970	0.367	0.579	47.870	0.561

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	102.7%	106.400	105.200	104.500	108.300	106.000	105.400	106.700	105.400	100.9%
2	14:14:37	104.9%	105.800	105.900	106.900	105.200	106.800	106.900	109.900	108.600	103.4%
3	14:15:04	103.2%	107.600	106.400	107.000	108.300	105.700	107.000	109.100	107.400	102.3%
x		103.6%	106.600	105.900	106.100	107.300	106.200	106.400	108.600	107.100	102.2%
σ		1.1%	0.924	0.594	1.431	1.802	0.571	0.929	1.673	1.621	1.3%
%RSD		1.1	0.867	0.562	1.349	1.680	0.537	0.873	1.541	1.514	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:10	109.100	108.600	103.900	104.400	137.900	138.500	101.0%	107.900	108.900	108.900
2	14:14:37	110.400	109.200	106.200	105.300	139.700	138.800	104.8%	107.000	108.100	107.600
3	14:15:04	108.800	108.800	105.500	105.400	136.400	136.800	102.9%	108.200	108.100	109.200
x		109.400	108.900	105.200	105.000	138.000	138.000	102.9%	107.700	108.400	108.600
σ		0.874	0.279	1.217	0.555	1.689	1.083	1.9%	0.592	0.415	0.822
%RSD		0.799	0.257	1.157	0.528	1.224	0.785	1.9	0.550	0.383	0.757

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:14:10	108.500	108.700	100.6%
2	14:14:37	108.400	108.300	103.1%
3	14:15:04	108.800	109.600	103.1%
x		108.600	108.900	102.3%
σ		0.197	0.623	1.4%
%RSD		0.182	0.572	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	106.4%	0.032	10.210	9.691	84.280	T 2944.000	T 792.400	777.900	776.700	24.260
2	14:20:43	104.2%	0.032	10.910	9.982	96.170	T 2944.000	T 772.000	794.400	777.100	24.240
3	14:21:10	109.7%	0.010	9.982	9.677	78.260	T 2885.000	T 772.600	778.700	787.800	25.030
x		106.7%	0.024	10.370	9.783	86.240	T 2924.000	T 779.000	783.700	780.500	24.510
σ		2.8%	0.012	0.483	0.172	9.116	T 34.010	T 11.650	9.322	6.327	0.449
%RSD		2.6	50.190	4.660	1.762	10.570	T 1.163	T 1.496	1.189	0.811	1.833
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	T 1409.000	T 79060.000	840.100	2072.000	1914.000	105.7%	0.212	0.061	0.569	1884.000
2	14:20:43	T 1454.000	T 81100.000	869.100	1917.000	1947.000	106.1%	0.594	-0.006	0.547	1898.000
3	14:21:10	T 1410.000	T 81790.000	T 837.100	2025.000	1941.000	103.6%	0.449	0.136	0.606	2064.000
x		T 1425.000	T 80650.000	T 848.800	2005.000	1934.000	105.2%	0.419	0.064	0.574	1949.000
σ		T 25.730	T 1423.000	T 17.670	79.790	17.390	1.3%	0.193	0.071	0.030	100.400
%RSD		T 1.806	T 1.764	T 2.082	3.980	0.899	1.3	46.000	111.200	5.216	5.153
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	828.200	12.560	T 819.600	813.300	0.042	0.282	0.009	0.257	0.266	1.084
2	14:20:43	828.300	12.740	T 819.000	796.100	0.057	0.357	-0.273	0.261	0.257	0.989
3	14:21:10	842.500	12.700	T 838.000	825.600	0.064	0.283	-0.072	0.250	0.222	1.113
x		833.000	12.670	T 825.500	811.700	0.054	0.307	-0.112	0.256	0.248	1.062
σ		8.212	0.093	T 10.780	14.850	0.011	0.043	0.145	0.006	0.023	0.065
%RSD		0.986	0.737	T 1.305	1.829	20.610	14.110	129.500	2.296	9.334	6.118
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	1.803	1.611	0.407	-0.144	7.937	8.670	0.659	0.139	-0.575	9.804
2	14:20:43	1.451	1.717	0.215	0.064	7.614	8.420	-1.063	-0.261	-0.507	9.651
3	14:21:10	1.980	1.639	0.254	0.141	6.546	8.412	-0.114	-0.044	-0.744	9.630
x		1.745	1.655	0.292	0.020	7.366	8.501	-0.173	-0.055	-0.609	9.695
σ		0.269	0.055	0.102	0.147	0.728	0.146	0.863	0.200	0.122	0.095
%RSD		15.420	3.312	34.740	738.400	9.884	1.722	498.800	362.700	20.060	0.979
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	105.4%	0.053	0.030	0.067	-0.370	0.007	-0.000	0.008	0.003	106.4%
2	14:20:43	107.8%	0.033	0.053	0.058	-1.346	0.004	0.004	0.008	0.014	109.7%
3	14:21:10	105.2%	0.050	0.076	0.049	0.929	-0.000	0.009	0.008	0.003	106.9%
x		106.1%	0.045	0.053	0.058	-0.262	0.003	0.004	0.008	0.007	107.7%
σ		1.4%	0.011	0.023	0.009	1.141	0.004	0.005	0.000	0.007	1.8%
%RSD		1.4	23.530	44.160	15.000	435.500	104.600	110.600	2.145	98.230	1.7
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:20:16	0.330	0.390	0.867	0.895	11.760	12.030	107.3%	-0.002	-0.009	3.502
2	14:20:43	0.270	0.380	0.859	0.900	11.760	11.780	109.3%	-0.002	-0.005	3.527
3	14:21:10	0.264	0.367	0.853	0.769	12.130	11.970	107.6%	0.000	-0.005	3.469
x		0.288	0.379	0.860	0.855	11.880	11.930	108.0%	-0.001	-0.006	3.499
σ		0.036	0.011	0.007	0.074	0.213	0.130	1.1%	0.001	0.003	0.029
%RSD		12.670	2.919	0.805	8.646	1.788	1.087	1.0	92.980	41.630	0.830
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	14:20:16	3.271	3.368	110.1%							
2	14:20:43	3.422	3.401	110.9%							
3	14:21:10	3.203	3.358	109.1%							
x		3.299	3.376	110.0%							
σ		0.112	0.022	0.9%							
%RSD		3.407	0.657	0.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	104.1%	0.017	18.970	19.860	149.300	┬54940.000	┬9112.000	┬8820.000	┬8702.000	2.403
2	14:26:48	101.4%	0.033	18.220	19.830	148.500	┬54210.000	┬8806.000	┬8745.000	┬8862.000	2.498
3	14:27:15	100.4%	0.039	20.270	21.200	140.800	┬56270.000	┬9174.000	┬8956.000	┬8763.000	2.441
x		102.0%	0.030	19.150	20.300	146.200	┬55140.000	┬9031.000	┬8840.000	┬8776.000	2.447
σ		1.9%	0.011	1.040	0.783	4.706	┬1045.000	┬197.000	┬107.300	┬80.910	0.048
%RSD		1.9	37.970	5.427	3.858	3.218	┬1.896	┬2.181	┬1.213	┬0.922	1.944

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	884.200	┬88170.000	┬11710.000	21870.000	┬21950.000	100.7%	0.205	-0.028	0.504	1962.000
2	14:26:48	┬859.900	┬86360.000	┬11170.000	21560.000	┬21570.000	102.5%	0.176	0.006	0.472	1647.000
3	14:27:15	920.200	┬89080.000	┬11580.000	21920.000	┬21980.000	101.4%	0.097	-0.033	0.379	1632.000
x		┬888.100	┬87870.000	┬11480.000	21780.000	┬21830.000	101.5%	0.159	-0.018	0.451	1747.000
σ		┬30.340	┬1385.000	┬283.400	197.700	┬229.800	0.9%	0.056	0.021	0.065	186.600
%RSD		┬3.416	┬1.576	┬2.468	0.907	┬1.053	0.9	35.210	117.000	14.400	10.680

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	┬12780.000	86.430	┬12860.000	13120.000	0.164	0.628	0.497	0.196	0.195	0.497
2	14:26:48	┬12670.000	86.410	┬12900.000	12970.000	0.146	0.567	0.024	0.241	0.176	0.437
3	14:27:15	┬12800.000	87.200	┬13000.000	13030.000	0.190	0.566	-0.175	0.270	0.170	0.470
x		┬12750.000	86.680	┬12920.000	13040.000	0.167	0.587	0.115	0.236	0.180	0.468
σ		┬70.320	0.451	┬74.600	71.430	0.022	0.035	0.345	0.037	0.013	0.030
%RSD		┬0.551	0.521	┬0.578	0.548	13.340	6.031	299.200	15.800	7.064	6.417

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	4.396	3.441	2.055	0.874	85.090	89.150	2.934	0.597	-0.452	71.830
2	14:26:48	4.127	3.518	2.401	0.752	88.660	86.680	3.783	0.723	1.476	70.890
3	14:27:15	4.458	3.408	1.988	0.736	87.460	87.570	2.096	0.391	-1.636	72.710
x		4.327	3.456	2.148	0.787	87.070	87.800	2.938	0.570	-0.204	71.810
σ		0.176	0.056	0.222	0.076	1.817	1.249	0.844	0.168	1.571	0.909
%RSD		4.067	1.626	10.330	9.629	2.087	1.423	28.720	29.390	770.300	1.266

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	100.4%	0.010	0.028	0.018	4.604	-0.003	0.001	0.005	0.018	99.4%
2	14:26:48	102.4%	0.015	0.027	0.023	1.696	-0.003	0.003	0.009	0.017	102.7%
3	14:27:15	103.0%	0.009	0.005	0.004	3.844	-0.004	0.000	0.009	-0.003	104.3%
x		101.9%	0.011	0.020	0.015	3.381	-0.003	0.001	0.007	0.011	102.1%
σ		1.4%	0.003	0.013	0.010	1.508	0.001	0.001	0.002	0.012	2.5%
%RSD		1.4	26.500	65.140	68.530	44.600	25.760	107.100	27.100	107.000	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:21	0.885	1.202	0.268	0.253	68.250	67.620	101.4%	-0.009	-0.012	-0.013
2	14:26:48	0.891	1.151	0.264	0.232	67.390	67.840	105.5%	-0.006	-0.010	-0.021
3	14:27:15	0.792	1.239	0.290	0.297	69.900	68.010	105.5%	-0.013	-0.011	-0.013
x		0.856	1.197	0.274	0.261	68.510	67.820	104.1%	-0.009	-0.011	-0.016
σ		0.055	0.044	0.014	0.033	1.274	0.198	2.4%	0.003	0.001	0.005
%RSD		6.465	3.698	5.114	12.770	1.859	0.293	2.3	35.140	10.730	28.890

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:26:21	-0.012	-0.013	97.6%
2	14:26:48	-0.012	-0.014	102.3%
3	14:27:15	-0.010	-0.011	103.3%
x		-0.011	-0.013	101.1%
σ		0.001	0.002	3.1%
%RSD		9.562	13.870	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	106.6%	0.030	5.877	5.947	86.990	┬1482.000	┬2191.000	2185.000	2240.000	1.820
2	14:32:55	104.6%	0.028	6.653	6.922	96.410	┬1492.000	┬2219.000	2191.000	2203.000	1.844
3	14:33:22	106.7%	0.016	6.425	6.931	88.560	┬1518.000	┬2236.000	2219.000	2222.000	1.823
x		106.0%	0.024	6.318	6.600	90.650	┬1497.000	┬2215.000	2199.000	2222.000	1.829
σ		1.2%	0.008	0.399	0.566	5.046	┬18.630	┬22.920	18.340	18.630	0.013
%RSD		1.1	30.800	6.310	8.571	5.567	┬1.245	┬1.035	0.834	0.839	0.698
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	┬1024.000	┬79840.000	575.000	1638.000	1584.000	104.5%	0.228	-0.166	0.387	1575.000
2	14:32:55	┬1051.000	┬81390.000	581.100	1686.000	1626.000	103.2%	0.139	-0.191	0.345	1676.000
3	14:33:22	┬1030.000	┬83000.000	587.200	1711.000	1645.000	103.4%	0.335	-0.153	0.384	1834.000
x		┬1035.000	┬81410.000	581.100	1679.000	1618.000	103.7%	0.234	-0.170	0.372	1695.000
σ		┬14.050	┬1583.000	6.073	37.250	31.410	0.7%	0.098	0.019	0.023	130.800
%RSD		┬1.357	┬1.944	1.045	2.219	1.941	0.7	41.920	11.430	6.293	7.716
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	┬17680.000	16.520	┬17780.000	17750.000	0.602	0.534	0.607	0.110	0.153	1.632
2	14:32:55	┬17930.000	16.690	┬17550.000	17680.000	0.624	0.468	0.423	0.112	0.121	1.629
3	14:33:22	┬17670.000	16.360	┬17630.000	17770.000	0.590	0.461	0.707	0.118	0.136	1.749
x		┬17760.000	16.520	┬17650.000	17730.000	0.605	0.487	0.579	0.113	0.137	1.670
σ		┬146.600	0.163	┬118.300	44.250	0.017	0.040	0.144	0.004	0.016	0.069
%RSD		┬0.826	0.989	┬0.670	0.250	2.823	8.281	24.920	3.843	11.650	4.117
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	6.370	5.017	7.508	2.874	5.116	4.868	7.995	1.828	-1.062	17.010
2	14:32:55	5.597	4.925	7.329	2.987	4.682	5.449	12.890	2.938	0.470	16.700
3	14:33:22	6.306	5.299	6.874	3.075	6.673	5.833	9.729	2.258	0.202	16.570
x		6.091	5.080	7.237	2.978	5.491	5.383	10.210	2.341	-0.130	16.760
σ		0.429	0.195	0.327	0.101	1.047	0.486	2.483	0.560	0.818	0.229
%RSD		7.046	3.842	4.521	3.374	19.070	9.021	24.330	23.900	630.400	1.365
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	103.3%	0.033	0.035	0.045	1.481	-0.003	0.001	0.016	0.005	103.4%
2	14:32:55	105.1%	0.051	0.042	0.053	1.079	-0.004	0.000	0.019	0.020	103.8%
3	14:33:22	102.9%	0.071	0.083	0.062	1.381	-0.004	-0.001	0.012	0.012	101.0%
x		103.8%	0.052	0.053	0.053	1.314	-0.003	0.000	0.016	0.012	102.7%
σ		1.2%	0.019	0.026	0.009	0.210	0.001	0.001	0.004	0.007	1.6%
%RSD		1.2	36.980	48.280	16.330	15.950	22.830	635.200	22.200	60.330	1.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:28	0.290	0.430	0.208	0.226	70.420	70.360	104.0%	-0.017	-0.015	-0.012
2	14:32:55	0.255	0.453	0.199	0.192	70.020	70.280	104.3%	-0.010	-0.013	-0.013
3	14:33:22	0.262	0.434	0.201	0.214	70.940	70.570	101.0%	-0.012	-0.016	-0.017
x		0.269	0.439	0.203	0.211	70.460	70.400	103.1%	-0.013	-0.015	-0.014
σ		0.019	0.012	0.004	0.017	0.462	0.149	1.8%	0.004	0.001	0.003
%RSD		6.938	2.803	2.150	8.175	0.655	0.212	1.8	29.480	8.933	18.390
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	14:32:28	-0.014	-0.014	102.6%							
2	14:32:55	-0.006	-0.011	104.3%							
3	14:33:22	-0.016	-0.017	100.5%							
x		-0.012	-0.014	102.5%							
σ		0.005	0.003	1.9%							
%RSD		44.810	20.660	1.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	103.1%	-0.006	5.651	5.659	96.580	T22430.000	T2595.000	2536.000	2591.000	1.790
2	14:39:01	102.1%	0.029	5.940	5.458	91.310	T22380.000	T2574.000	2575.000	2572.000	1.825
3	14:39:28	104.8%	0.014	5.541	5.265	72.280	T21770.000	T2564.000	2556.000	2524.000	1.667
x		103.3%	0.012	5.711	5.461	86.720	T22190.000	T2578.000	2556.000	2563.000	1.761
σ		1.4%	0.017	0.206	0.197	12.780	T364.400	T16.000	19.180	34.500	0.083
%RSD		1.3	141.300	3.606	3.609	14.740	T1.642	T0.621	0.750	1.346	4.715

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	T2460.000	T83920.000	T1638.000	4097.000	3855.000	102.7%	0.676	-0.149	0.364	1860.000
2	14:39:01	T2462.000	T81900.000	T1592.000	3961.000	3846.000	105.1%	0.442	-0.120	0.314	1718.000
3	14:39:28	T2430.000	T82050.000	T1585.000	4061.000	3897.000	105.4%	0.463	0.073	0.361	1695.000
x		T2451.000	T82620.000	T1605.000	4040.000	3866.000	104.4%	0.527	-0.066	0.346	1758.000
σ		T17.850	T1127.000	T29.010	70.580	27.370	1.5%	0.130	0.121	0.028	89.290
%RSD		T0.728	T1.364	T1.807	1.747	0.708	1.4	24.590	184.000	8.154	5.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	T14440.000	10.330	T14820.000	14450.000	0.511	0.566	0.314	0.193	0.158	1.616
2	14:39:01	T14550.000	10.300	T14440.000	14390.000	0.500	0.589	0.095	0.176	0.172	1.547
3	14:39:28	T14410.000	10.330	T14750.000	14630.000	0.505	0.592	0.335	0.197	0.166	1.818
x		T14470.000	10.320	T14670.000	14490.000	0.506	0.582	0.248	0.189	0.165	1.660
σ		T75.820	0.016	T199.500	125.400	0.006	0.014	0.133	0.011	0.007	0.141
%RSD		T0.524	0.151	T1.360	0.865	1.121	2.397	53.550	6.075	4.377	8.477

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	3.875	2.782	0.570	0.286	25.770	26.520	1.008	0.254	-0.243	20.200
2	14:39:01	3.194	2.932	0.612	-0.419	27.200	28.430	0.970	0.201	0.925	20.020
3	14:39:28	3.264	2.906	0.501	0.097	27.570	28.050	2.004	0.500	-1.027	19.930
x		3.444	2.873	0.561	-0.012	26.840	27.660	1.327	0.318	-0.115	20.050
σ		0.375	0.080	0.056	0.365	0.950	1.012	0.586	0.160	0.982	0.139
%RSD		10.870	2.783	10.040	3072.000	3.539	3.659	44.170	50.200	855.700	0.692

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	103.6%	0.015	0.026	0.007	0.932	-0.003	-0.001	0.013	0.015	100.1%
2	14:39:01	107.1%	-0.005	0.012	-0.001	0.069	-0.004	0.001	0.008	0.029	104.4%
3	14:39:28	106.5%	0.006	-0.005	0.003	0.288	-0.003	-0.002	0.012	0.005	103.1%
x		105.7%	0.005	0.011	0.003	0.430	-0.003	-0.001	0.011	0.016	102.6%
σ		1.9%	0.010	0.015	0.004	0.448	0.001	0.002	0.002	0.012	2.2%
%RSD		1.8	186.700	137.200	125.000	104.400	25.320	267.900	21.040	73.390	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:34	0.448	0.697	0.154	0.172	31.860	31.540	100.7%	0.003	-0.006	-0.004
2	14:39:01	0.473	0.573	0.162	0.205	30.760	31.090	103.9%	-0.000	-0.005	-0.008
3	14:39:28	0.572	0.666	0.152	0.158	31.630	30.900	105.1%	-0.000	-0.005	-0.010
x		0.498	0.645	0.156	0.178	31.420	31.180	103.2%	0.001	-0.005	-0.007
σ		0.066	0.065	0.005	0.024	0.577	0.329	2.3%	0.002	0.001	0.003
%RSD		13.160	10.020	3.420	13.510	1.837	1.056	2.2	236.200	11.440	47.550

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:38:34	-0.008	-0.005	99.4%
2	14:39:01	-0.013	-0.010	102.7%
3	14:39:28	-0.017	-0.006	102.5%
x		-0.013	-0.007	101.5%
σ		0.004	0.003	1.8%
%RSD		34.580	39.390	1.8

UD18014-014 04/30/2019 14:44:12

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	107.3%	0.020	0.503	0.316	70.210	8.751	2.293	2.224	2.087	1.428
2	14:45:06	107.4%	0.012	0.370	0.268	54.210	7.370	2.206	2.318	2.196	1.422
3	14:45:34	104.2%	0.027	0.565	0.164	65.580	7.213	2.023	1.882	2.303	1.242
x		106.3%	0.020	0.479	0.250	63.330	7.778	2.174	2.141	2.196	1.364
σ		1.8%	0.007	0.099	0.078	8.235	0.846	0.138	0.229	0.108	0.105
%RSD		1.7	36.610	20.720	31.070	13.000	10.880	6.343	10.710	4.923	7.724

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	19.950	T 82680.000	5.613	3.238	4.095	104.9%	-0.036	-0.149	0.365	1860.000
2	14:45:06	18.870	T 80360.000	4.329	4.838	5.224	107.6%	-0.016	0.111	0.338	1586.000
3	14:45:34	20.030	T 82710.000	2.107	6.742	3.965	105.8%	-0.014	-0.381	0.359	1812.000
x		19.610	T 81920.000	4.016	4.939	4.428	106.1%	-0.022	-0.140	0.354	1753.000
σ		0.650	T 1344.000	1.774	1.754	0.692	1.3%	0.012	0.246	0.014	146.400
%RSD		3.315	T 1.641	44.160	35.510	15.630	1.3	56.040	176.200	3.991	8.355

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	3.140	0.043	3.859	-7.769	0.002	0.068	0.010	0.108	0.014	2.167
2	14:45:06	2.322	0.029	1.042	-11.620	0.007	0.038	-0.097	0.030	0.030	2.087
3	14:45:34	2.657	0.012	1.342	-11.750	0.007	0.094	-0.084	0.073	0.073	2.201
x		2.706	0.028	2.081	-10.380	0.005	0.066	-0.057	0.070	0.039	2.151
σ		0.411	0.016	1.547	2.262	0.003	0.028	0.059	0.039	0.030	0.059
%RSD		15.190	56.200	74.350	21.790	52.950	42.420	103.100	56.120	77.630	2.728

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	2.176	2.343	0.104	0.178	1.244	1.489	-0.181	0.003	-2.246	0.009
2	14:45:06	2.081	2.296	-0.042	-0.043	1.177	0.272	-0.812	-0.219	1.346	0.005
3	14:45:34	2.088	2.257	-0.035	0.070	1.388	0.666	-0.054	0.003	-0.881	0.001
x		2.115	2.299	0.009	0.068	1.270	0.809	-0.349	-0.071	-0.594	0.005
σ		0.053	0.043	0.082	0.110	0.108	0.621	0.406	0.128	1.813	0.004
%RSD		2.507	1.874	901.900	161.800	8.512	76.780	116.300	180.400	305.200	77.080

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	102.3%	-0.007	0.010	0.010	-0.525	-0.002	-0.001	0.005	0.026	103.0%
2	14:45:06	106.3%	-0.007	-0.000	-0.001	-0.698	-0.003	-0.002	0.015	0.005	106.8%
3	14:45:34	107.5%	-0.013	-0.009	-0.004	-0.283	-0.002	-0.002	0.001	0.011	107.4%
x		105.4%	-0.009	0.000	0.002	-0.502	-0.002	-0.002	0.007	0.014	105.7%
σ		2.7%	0.003	0.009	0.007	0.209	0.000	0.000	0.007	0.011	2.4%
%RSD		2.6	36.220	7780.000	386.200	41.530	22.470	27.630	105.400	77.950	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:40	0.277	0.368	0.036	0.041	0.022	-0.004	104.2%	-0.018	-0.017	-0.010
2	14:45:06	0.266	0.365	0.053	0.080	-0.005	0.010	106.6%	-0.017	-0.019	-0.017
3	14:45:34	0.240	0.360	0.047	0.062	-0.005	0.010	107.5%	-0.013	-0.020	-0.009
x		0.261	0.364	0.045	0.061	0.004	0.006	106.1%	-0.016	-0.019	-0.012
σ		0.019	0.004	0.009	0.020	0.016	0.008	1.7%	0.003	0.001	0.004
%RSD		7.273	1.123	19.870	32.690	417.700	149.900	1.6	18.110	6.642	35.590

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:44:40	-0.010	-0.013	105.6%
2	14:45:06	-0.019	-0.014	108.9%
3	14:45:34	-0.014	-0.012	109.5%
x		-0.015	-0.013	108.0%
σ		0.005	0.001	2.1%
%RSD		32.460	9.432	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	108.7%	0.033	49.350	49.810	81.510	T 4263.000	T 1438.000	1424.000	1446.000	TM 633.100
2	14:51:13	106.0%	0.019	50.030	50.630	90.990	T 4237.000	T 1439.000	1414.000	1433.000	TM 619.100
3	14:51:41	105.4%	0.022	48.780	49.050	91.660	T 4205.000	T 1438.000	1453.000	1438.000	TM 617.300
x		106.7%	0.025	49.390	49.830	88.050	T 4235.000	T 1438.000	1430.000	1439.000	TM 623.200
σ		1.8%	0.007	0.628	0.791	5.677	T 29.190	T 0.958	20.360	6.317	TM 8.644
%RSD		1.6	29.820	1.271	1.588	6.447	T 0.689	T 0.067	1.424	0.439	TM 1.387

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	T 1685.000	T 78700.000	750.000	7063.000	6821.000	106.0%	9.708	1.280	1.465	1820.000
2	14:51:13	T 1777.000	T 80250.000	744.100	7103.000	6835.000	107.3%	9.396	1.412	1.518	1640.000
3	14:51:41	T 1714.000	T 78890.000	734.700	7156.000	6753.000	106.1%	8.927	1.513	1.515	1654.000
x		T 1725.000	T 79280.000	742.900	7108.000	6803.000	106.5%	9.344	1.401	1.499	1705.000
σ		T 46.800	T 844.000	7.687	46.610	43.960	0.7%	0.393	0.117	0.030	100.200
%RSD		T 2.713	T 1.065	1.035	0.656	0.646	0.7	4.210	8.319	1.998	5.879

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	824.700	19.060	T 822.700	852.100	0.117	0.526	-0.071	1.811	1.778	7.845
2	14:51:13	824.500	19.360	T 828.000	838.000	0.092	0.540	0.337	1.635	1.639	8.515
3	14:51:41	809.100	19.200	T 823.200	848.600	0.104	0.508	0.137	1.746	1.633	7.862
x		819.400	19.200	T 824.600	846.200	0.104	0.525	0.135	1.731	1.683	8.074
σ		8.956	0.149	T 2.927	7.364	0.012	0.016	0.204	0.089	0.082	0.382
%RSD		1.093	0.774	T 0.355	0.870	11.860	3.056	151.500	5.141	4.889	4.727

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	8.467	8.504	0.228	0.162	10.820	11.460	-3.243	-0.749	0.079	32.900
2	14:51:13	7.767	8.354	0.046	0.284	11.650	12.440	-0.814	-0.171	-0.674	33.030
3	14:51:41	7.535	8.300	0.363	0.255	12.360	11.330	1.837	0.434	-0.759	33.080
x		7.923	8.386	0.212	0.234	11.610	11.740	-0.740	-0.162	-0.451	33.000
σ		0.485	0.106	0.159	0.064	0.768	0.608	2.541	0.591	0.461	0.094
%RSD		6.122	1.263	74.890	27.220	6.611	5.178	343.300	365.800	102.300	0.286

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	107.9%	0.377	0.272	0.354	1.146	-0.003	0.001	0.032	0.009	107.5%
2	14:51:13	110.8%	0.350	0.336	0.419	-0.084	0.001	0.002	0.017	-0.003	109.0%
3	14:51:41	108.9%	0.363	0.302	0.359	1.379	0.000	0.001	0.014	0.011	107.5%
x		109.2%	0.363	0.303	0.377	0.814	-0.000	0.001	0.021	0.006	108.0%
σ		1.5%	0.013	0.032	0.036	0.786	0.002	0.000	0.010	0.008	0.9%
%RSD		1.4	3.714	10.620	9.583	96.610	422.700	30.110	46.460	135.700	0.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:45	0.259	0.346	0.154	0.142	2.522	2.664	107.6%	-0.005	-0.015	0.351
2	14:51:13	0.233	0.410	0.140	0.143	2.686	2.478	108.8%	-0.009	-0.010	0.331
3	14:51:41	0.286	0.349	0.140	0.171	2.737	2.699	107.2%	-0.009	-0.011	0.352
x		0.259	0.368	0.144	0.152	2.648	2.614	107.9%	-0.008	-0.012	0.345
σ		0.027	0.036	0.008	0.017	0.113	0.119	0.9%	0.003	0.003	0.012
%RSD		10.370	9.857	5.418	10.990	4.247	4.538	0.8	35.270	22.200	3.487

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:50:45	0.296	0.332	108.1%
2	14:51:13	0.357	0.346	111.2%
3	14:51:41	0.321	0.340	108.1%
x		0.325	0.340	109.2%
σ		0.030	0.007	1.8%
%RSD		9.339	2.114	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	108.1%	0.022	9.238	8.699	93.440	T 2639.000	333.500	318.800	323.400	TM 3178.000
2	14:57:20	101.5%	0.081	9.367	9.183	123.100	T 2680.000	331.300	323.300	321.400	TM 3076.000
3	14:57:47	102.5%	0.071	8.882	8.634	114.100	T 2743.000	338.300	330.000	328.200	TM 3018.000
x		104.1%	0.058	9.162	8.839	110.200	T 2687.000	334.400	324.000	324.300	TM 3091.000
σ		3.6%	0.031	0.251	0.300	15.190	T 52.510	3.584	5.639	3.485	TM 80.950
%RSD		3.4	54.140	2.744	3.395	13.790	T 1.954	1.072	1.740	1.074	TM 2.619

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	T 2797.000	T 81110.000	673.000	14530.000	14200.000	103.1%	41.270	6.244	7.099	2063.000
2	14:57:20	T 2993.000	T 79790.000	653.700	14400.000	14030.000	106.3%	40.850	5.736	6.738	2013.000
3	14:57:47	T 2978.000	T 80060.000	659.500	14710.000	14190.000	106.4%	37.080	5.941	7.008	1902.000
x		T 2923.000	T 80320.000	662.100	14550.000	14140.000	105.3%	39.730	5.974	6.948	1993.000
σ		T 108.700	T 695.600	9.919	153.200	97.160	1.9%	2.311	0.256	0.188	82.390
%RSD		T 3.720	T 0.866	1.498	1.053	0.687	1.8	5.815	4.279	2.703	4.135

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	5121.000	10.520	T 5127.000	5114.000	0.417	1.629	1.091	5.545	5.498	314.800
2	14:57:20	5116.000	10.520	T 5034.000	4931.000	0.388	1.637	1.400	5.362	5.743	315.300
3	14:57:47	5178.000	10.650	T 5087.000	4992.000	0.410	1.613	1.444	5.324	5.551	319.300
x		5138.000	10.560	T 5083.000	5012.000	0.405	1.626	1.312	5.410	5.597	316.500
σ		34.280	0.076	T 46.520	93.300	0.015	0.012	0.193	0.118	0.129	2.471
%RSD		0.667	0.723	T 0.915	1.861	3.795	0.753	14.670	2.187	2.302	0.781

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	291.600	309.700	8.909	0.309	5.941	6.837	3.943	0.869	0.410	56.890
2	14:57:20	284.800	308.700	8.736	0.227	5.427	5.660	2.671	0.593	0.422	56.460
3	14:57:47	289.300	304.500	8.144	-0.143	6.333	6.323	-0.388	-0.030	-2.208	56.570
x		288.600	307.600	8.596	0.131	5.900	6.273	2.075	0.477	-0.459	56.640
σ		3.454	2.769	0.402	0.241	0.454	0.590	2.226	0.460	1.515	0.225
%RSD		1.197	0.900	4.672	183.400	7.700	9.409	107.300	96.460	330.300	0.397

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	102.9%	0.543	0.538	0.487	4.996	0.006	0.006	0.007	0.007	103.2%
2	14:57:20	105.4%	0.462	0.575	0.470	4.189	0.007	0.005	0.021	0.013	105.2%
3	14:57:47	106.1%	0.543	0.466	0.440	2.511	0.011	0.005	0.032	0.005	104.8%
x		104.8%	0.516	0.526	0.466	3.899	0.008	0.006	0.020	0.009	104.4%
σ		1.7%	0.047	0.055	0.024	1.268	0.003	0.001	0.013	0.004	1.1%
%RSD		1.6	9.115	10.500	5.077	32.510	36.430	9.860	64.680	49.540	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:53	0.379	0.459	0.284	0.282	4.160	4.229	103.2%	0.014	0.005	2.985
2	14:57:20	0.355	0.437	0.287	0.275	3.928	3.713	105.7%	0.000	0.005	3.038
3	14:57:47	0.339	0.455	0.291	0.282	3.904	4.021	105.5%	0.017	0.007	2.986
x		0.357	0.451	0.287	0.280	3.997	3.988	104.8%	0.010	0.006	3.003
σ		0.020	0.012	0.003	0.004	0.141	0.260	1.4%	0.009	0.001	0.030
%RSD		5.663	2.561	1.135	1.574	3.538	6.512	1.4	83.410	19.610	1.003

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	14:56:53	2.847	2.888	102.8%
2	14:57:20	2.967	2.944	105.4%
3	14:57:47	2.804	2.911	105.6%
x		2.872	2.914	104.6%
σ		0.084	0.028	1.5%
%RSD		2.940	0.958	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	104.5%	0.005	11.920	12.550	88.160	T1207.000	402.700	391.600	390.900	49.630
2	15:03:27	104.9%	0.027	12.270	11.960	97.480	T1201.000	393.700	380.300	385.400	48.940
3	15:03:54	107.1%	0.011	12.080	11.950	91.100	T1198.000	390.000	381.200	381.400	49.040
x		105.5%	0.014	12.090	12.150	92.250	T1202.000	395.500	384.400	385.900	49.210
σ		1.4%	0.011	0.173	0.342	4.766	T4.362	6.554	6.275	4.781	0.370
%RSD		1.4	77.570	1.434	2.815	5.166	T0.363	1.657	1.633	1.239	0.753

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	T1177.000	T83590.000	273.900	3652.000	3559.000	103.4%	0.844	0.139	1.052	1793.000
2	15:03:27	T1161.000	T82240.000	268.200	3724.000	3545.000	103.5%	0.854	-0.123	1.088	1924.000
3	15:03:54	T1154.000	T82630.000	272.200	3669.000	3541.000	104.8%	0.705	0.159	1.045	2032.000
x		T1164.000	T82820.000	271.400	3681.000	3548.000	103.9%	0.801	0.058	1.061	1916.000
σ		T11.670	T693.700	2.937	37.800	9.423	0.8%	0.083	0.157	0.023	119.900
%RSD		T1.003	T0.838	1.082	1.027	0.266	0.8	10.390	270.800	2.194	6.257

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	142.800	2.614	144.000	153.700	0.823	0.633	0.325	0.935	0.953	12.150
2	15:03:27	137.700	2.609	144.900	152.500	0.823	0.688	0.390	0.925	0.978	13.180
3	15:03:54	147.200	2.542	142.200	158.100	0.812	0.626	0.796	0.940	0.911	12.540
x		142.500	2.589	143.700	154.800	0.819	0.649	0.504	0.933	0.948	12.620
σ		4.742	0.040	1.362	2.923	0.006	0.034	0.255	0.008	0.034	0.520
%RSD		3.327	1.549	0.948	1.888	0.759	5.240	50.670	0.825	3.584	4.117

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	12.380	13.270	0.356	-0.649	3.337	3.938	-1.661	-0.345	-2.072	21.130
2	15:03:27	12.660	12.830	0.525	-0.056	3.487	3.303	-0.467	-0.096	-0.483	20.510
3	15:03:54	12.110	12.380	0.286	-0.204	3.645	4.028	-2.213	-0.505	0.090	20.850
x		12.390	12.830	0.389	-0.303	3.490	3.756	-1.447	-0.315	-0.822	20.830
σ		0.274	0.447	0.123	0.308	0.155	0.395	0.892	0.206	1.120	0.310
%RSD		2.210	3.481	31.520	101.800	4.426	10.530	61.670	65.240	136.400	1.488

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	103.3%	0.169	0.087	0.123	0.384	0.005	0.000	0.115	0.130	104.4%
2	15:03:27	104.1%	0.144	0.112	0.082	0.545	-0.004	-0.000	0.124	0.120	103.7%
3	15:03:54	101.1%	0.092	0.103	0.192	0.070	-0.003	-0.000	0.115	0.125	101.3%
x		102.8%	0.135	0.100	0.132	0.333	-0.001	-0.000	0.118	0.125	103.1%
σ		1.5%	0.040	0.013	0.056	0.241	0.005	0.000	0.005	0.005	1.6%
%RSD		1.5	29.280	12.480	42.200	72.550	597.400	572.200	4.128	4.008	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:03:00	0.289	0.365	0.069	0.107	9.192	9.654	103.9%	-0.011	-0.014	0.651
2	15:03:27	0.280	0.309	0.090	0.096	9.686	9.637	103.3%	-0.009	-0.016	0.734
3	15:03:54	0.290	0.365	0.091	0.079	9.445	9.714	100.3%	-0.016	-0.015	0.767
x		0.286	0.346	0.083	0.094	9.441	9.669	102.5%	-0.012	-0.015	0.717
σ		0.005	0.033	0.012	0.014	0.247	0.040	1.9%	0.004	0.001	0.060
%RSD		1.852	9.400	14.760	14.950	2.619	0.417	1.9	33.090	9.058	8.330

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:03:00	0.662	0.691	103.8%
2	15:03:27	0.737	0.706	103.7%
3	15:03:54	0.636	0.682	99.7%
x		0.678	0.693	102.4%
σ		0.052	0.012	2.3%
%RSD		7.737	1.723	2.3

CCV MW10994 04/30/2019 15:08:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	98.0%	302.000	311.000	301.900	75.720	┬63730.000	┬62230.000	┬62610.000	┬61780.000	299.500
2	15:09:36	95.3%	309.100	308.000	291.600	63.900	┬64610.000	┬62700.000	┬61900.000	┬61800.000	290.700
3	15:10:03	98.9%	306.300	298.900	300.300	58.100	┬63640.000	┬62170.000	┬62050.000	┬62090.000	300.900
x		97.4%	101.931%	101.996%	99.314%	65.910	┬106.660%	┬62370.000	┬62190.000	┬103.152%	98.999%
σ		1.9%	n/a	n/a	n/a	8.983	┬n/a	┬291.500	┬376.600	┬n/a	n/a
%RSD		1.9	1.164	2.065	1.875	13.630	┬0.837	┬0.467	┬0.606	┬0.283	1.862

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	┬3279.000	1078.000	┬65220.000	62500.000	┬63490.000	98.8%	315.500	316.100	301.800	1500.000
2	15:09:36	┬3307.000	963.400	┬63470.000	61870.000	┬62760.000	102.3%	305.900	310.400	302.600	1566.000
3	15:10:03	┬3198.000	934.400	┬63180.000	62300.000	┬63170.000	100.4%	310.600	319.200	304.800	697.000
x		┬108.718%	991.800	┬106.597%	62220.000	┬105.229%	100.5%	103.559%	105.084%	101.031%	1254.000
σ		┬n/a	75.820	┬n/a	317.900	┬n/a	1.7%	n/a	n/a	n/a	483.800
%RSD		┬1.728	7.644	┬1.728	0.511	┬0.581	1.7	1.543	1.424	0.508	38.570

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	┬63470.000	297.200	┬63630.000	┬61670.000	300.000	290.300	301.600	292.600	296.000	293.400
2	15:09:36	┬62510.000	295.500	┬62540.000	┬61190.000	296.200	285.400	288.600	287.500	285.600	296.400
3	15:10:03	┬62840.000	298.600	┬63890.000	┬62330.000	297.800	291.300	283.000	288.500	293.700	300.700
x		┬62940.000	99.032%	┬63350.000	┬102.879%	99.336%	96.341%	291.100	289.500	97.260%	98.946%
σ		┬483.800	n/a	┬715.900	┬n/a	n/a	n/a	9.538	2.702	n/a	n/a
%RSD		┬0.769	0.520	┬1.130	┬0.925	0.648	1.086	3.277	0.933	1.864	1.238

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	296.800	294.700	292.100	302.500	1.125	0.626	1332.000	302.200	7.324	305.600
2	15:09:36	297.300	297.200	301.300	299.600	0.952	0.455	1265.000	291.700	3.996	302.200
3	15:10:03	297.000	298.300	301.400	296.800	1.014	0.282	1315.000	304.100	2.557	304.200
x		297.000	296.700	99.420%	299.600	1.030	0.455	1304.000	99.781%	4.625	101.338%
σ		0.284	1.833	n/a	2.864	0.088	0.172	34.880	n/a	2.445	n/a
%RSD		0.096	0.618	1.791	0.956	8.536	37.890	2.674	2.223	52.860	0.570

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	94.0%	317.300	324.300	321.300	302.000	290.700	292.300	299.000	298.500	94.4%
2	15:09:36	102.0%	315.600	318.800	318.000	298.500	292.600	293.600	301.700	302.500	100.1%
3	15:10:03	99.7%	318.900	320.300	316.800	304.900	296.200	297.500	303.300	303.500	97.6%
x		98.6%	105.759%	107.048%	318.700	301.800	97.725%	294.500	301.300	100.510%	97.4%
σ		4.1%	n/a	n/a	2.295	3.192	n/a	2.722	2.181	n/a	2.8%
%RSD		4.2	0.522	0.880	0.720	1.058	0.947	0.925	0.724	0.873	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:09	311.300	311.500	310.200	304.900	305.300	304.700	97.9%	302.000	307.500	297.600
2	15:09:36	┬304.900	309.000	314.100	307.700	301.600	304.300	103.4%	307.300	312.900	303.900
3	15:10:03	313.500	313.300	317.000	308.400	303.900	304.200	101.5%	305.800	313.300	305.500
x		┬103.294%	103.757%	313.800	102.335%	101.197%	101.465%	100.9%	305.000	103.744%	100.782%
σ		┬n/a	n/a	3.428	n/a	n/a	n/a	2.8%	2.731	n/a	n/a
%RSD		┬1.437	0.684	1.093	0.597	0.606	0.091	2.8	0.895	1.031	1.371

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:09:09	299.400	301.600	93.3%
2	15:09:36	303.600	307.200	101.1%
3	15:10:03	304.100	307.200	99.4%
x		100.788%	101.778%	98.0%
σ		n/a	n/a	4.1%
%RSD		0.845	1.062	4.2

CCB IM9390-01 04/30/2019 15:14:52 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	107.8%	0.015	0.770	1.363	15.520	8.648	6.311	6.195	6.812	-0.005
2	15:15:46	106.3%	0.060	1.581	1.012	15.390	7.602	6.537	6.427	6.475	-0.120
3	15:16:13	107.7%	0.041	1.039	0.674	10.800	5.143	5.177	5.132	5.466	-0.044
x		107.3%	0.039	1.130	1.016	13.900	7.131	6.008	5.918	6.251	-0.056
σ		0.8%	0.023	0.413	0.345	2.685	1.799	0.729	0.691	0.700	0.059
%RSD		0.8	58.680	36.570	33.910	19.320	25.230	12.130	11.670	11.200	103.900

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	14.600	558.600	5.885	4.008	6.523	102.2%	-0.057	0.061	0.058	14.020
2	15:15:46	14.170	503.100	3.766	9.823	6.520	105.0%	-0.059	0.025	0.049	26.200
3	15:16:13	14.230	462.600	2.573	4.300	6.120	106.8%	-0.037	0.019	0.046	23.740
x		14.330	508.100	4.075	6.044	6.388	104.7%	-0.051	0.035	0.051	21.320
σ		0.233	48.180	1.678	3.276	0.232	2.3%	0.012	0.023	0.006	6.443
%RSD		1.624	9.484	41.170	54.210	3.631	2.2	23.420	65.070	12.150	30.220

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	6.562	0.034	10.450	6.241	0.040	0.053	-0.162	0.013	0.026	0.036
2	15:15:46	8.287	0.040	8.376	-3.832	0.048	0.040	-0.168	0.033	0.037	0.016
3	15:16:13	5.864	0.025	7.538	-5.247	0.032	-0.003	-0.157	0.016	0.025	0.022
x		6.904	0.033	8.787	-0.946	0.040	0.030	-0.162	0.021	0.029	0.025
σ		1.247	0.007	1.498	6.265	0.008	0.029	0.006	0.011	0.007	0.010
%RSD		18.060	22.050	17.050	662.100	19.230	96.780	3.600	51.150	23.360	41.170

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	-0.041	0.052	0.031	0.005	-0.049	0.145	-0.161	-0.059	0.243	0.031
2	15:15:46	0.132	0.094	-0.046	0.185	-0.141	0.566	-0.955	-0.247	-0.175	0.030
3	15:16:13	0.083	0.071	-0.048	0.175	0.162	-0.116	-1.479	-0.309	-1.902	0.021
x		0.058	0.072	-0.021	0.122	-0.009	0.198	-0.865	-0.205	-0.611	0.027
σ		0.089	0.021	0.045	0.101	0.156	0.344	0.663	0.130	1.137	0.005
%RSD		154.700	28.870	212.900	83.020	1652.000	173.700	76.690	63.450	186.100	20.020

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	102.4%	0.060	0.075	0.088	0.495	0.036	0.030	0.012	0.034	103.6%
2	15:15:46	105.5%	0.128	0.063	0.045	-0.256	0.029	0.027	0.044	0.032	108.6%
3	15:16:13	108.1%	0.084	0.028	0.074	-1.023	0.027	0.024	0.032	0.031	109.6%
x		105.4%	0.091	0.055	0.069	-0.261	0.031	0.027	0.029	0.032	107.3%
σ		2.9%	0.034	0.024	0.022	0.759	0.004	0.003	0.016	0.002	3.2%
%RSD		2.7	37.700	43.970	31.410	290.500	14.480	12.210	54.770	5.138	3.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:19	0.059	0.091	0.120	0.121	0.060	0.036	103.5%	0.025	0.024	0.042
2	15:15:46	0.067	0.073	0.105	0.110	-0.016	0.066	107.1%	0.030	0.021	0.039
3	15:16:13	0.037	0.068	0.098	0.156	0.005	0.025	108.1%	0.020	0.011	0.026
x		0.054	0.077	0.108	0.129	0.016	0.042	106.2%	0.025	0.019	0.035
σ		0.015	0.012	0.011	0.024	0.039	0.022	2.4%	0.005	0.007	0.009
%RSD		28.320	15.120	10.460	18.580	240.200	51.190	2.3	19.370	35.960	24.600

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:15:19	0.048	0.040	107.0%
2	15:15:46	0.035	0.037	110.3%
3	15:16:13	0.033	0.025	112.5%
x		0.039	0.034	109.9%
σ		0.008	0.008	2.8%
%RSD		20.690	23.820	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	109.8%	0.004	12.770	12.330	83.560	T 1219.000	405.300	396.900	401.900	57.630
2	15:21:52	105.3%	0.030	13.330	12.460	101.000	T 1266.000	409.200	398.300	392.700	55.230
3	15:22:19	106.8%	-0.008	12.550	11.990	97.130	T 1229.000	398.100	390.500	393.800	54.510
x		107.3%	0.009	12.880	12.260	93.880	T 1238.000	404.200	395.200	396.100	55.790
σ		2.3%	0.019	0.403	0.242	9.144	T 24.440	5.602	4.171	5.007	1.632
%RSD		2.1	219.700	3.129	1.974	9.739	T 1.974	1.386	1.055	1.264	2.926

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	T 1162.000	T 79110.000	312.300	3786.000	3669.000	106.3%	0.885	0.125	0.924	1559.000
2	15:21:52	T 1172.000	T 79750.000	313.000	3859.000	3628.000	105.8%	1.105	0.072	0.976	1570.000
3	15:22:19	T 1141.000	T 79550.000	308.700	3842.000	3670.000	107.2%	0.866	-0.050	0.961	1573.000
x		T 1158.000	T 79470.000	311.300	3829.000	3656.000	106.4%	0.952	0.049	0.954	1567.000
σ		T 15.950	T 326.700	2.287	37.910	23.670	0.7%	0.133	0.090	0.026	7.333
%RSD		T 1.377	T 0.411	0.735	0.990	0.648	0.7	13.960	182.200	2.769	0.468

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	160.900	2.300	171.500	183.800	0.782	0.677	0.289	1.967	2.043	13.470
2	15:21:52	163.700	2.279	165.500	178.300	0.768	0.813	0.300	1.966	1.972	13.630
3	15:22:19	161.000	2.291	162.400	172.700	0.797	0.786	0.235	1.950	1.925	13.470
x		161.900	2.290	166.500	178.300	0.782	0.759	0.274	1.961	1.980	13.530
σ		1.606	0.010	4.610	5.535	0.015	0.072	0.035	0.009	0.059	0.094
%RSD		0.992	0.452	2.770	3.105	1.895	9.471	12.630	0.478	2.996	0.693

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	14.280	13.630	0.807	-0.272	4.707	4.335	0.705	0.122	1.834	20.720
2	15:21:52	12.730	14.140	0.824	0.198	4.725	4.548	-0.462	-0.112	0.288	20.910
3	15:22:19	12.320	13.560	0.663	0.357	4.143	3.555	-1.615	-0.371	-0.445	21.290
x		13.110	13.780	0.765	0.094	4.525	4.146	-0.457	-0.120	0.559	20.970
σ		1.033	0.315	0.089	0.327	0.331	0.523	1.160	0.247	1.163	0.286
%RSD		7.881	2.288	11.590	346.500	7.313	12.600	253.700	205.100	208.200	1.362

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	108.0%	0.200	0.313	0.245	-0.493	0.006	0.009	0.169	0.154	106.9%
2	15:21:52	107.7%	0.308	0.206	0.236	0.834	0.007	0.009	0.184	0.158	106.9%
3	15:22:19	106.5%	0.238	0.247	0.201	0.825	0.009	0.009	0.101	0.122	107.8%
x		107.4%	0.249	0.255	0.227	0.389	0.007	0.009	0.151	0.145	107.2%
σ		0.8%	0.055	0.054	0.024	0.763	0.002	0.000	0.045	0.020	0.5%
%RSD		0.7	22.090	21.090	10.410	196.500	21.970	4.741	29.430	13.680	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:25	0.307	0.407	0.146	0.154	9.320	9.267	107.7%	0.001	-0.008	0.700
2	15:21:52	0.271	0.366	0.160	0.154	9.479	9.363	106.6%	-0.013	-0.011	0.743
3	15:22:19	0.294	0.383	0.148	0.180	9.521	9.248	107.0%	-0.001	-0.008	0.716
x		0.291	0.385	0.151	0.163	9.440	9.293	107.1%	-0.004	-0.009	0.720
σ		0.018	0.020	0.007	0.015	0.106	0.061	0.5%	0.008	0.002	0.022
%RSD		6.283	5.306	4.945	9.047	1.122	0.662	0.5	179.700	23.160	3.074

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:21:25	0.671	0.700	108.8%
2	15:21:52	0.704	0.714	109.5%
3	15:22:19	0.709	0.696	109.2%
x		0.695	0.703	109.2%
σ		0.021	0.009	0.4%
%RSD		2.968	1.336	0.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	111.1%	0.002	0.897	0.331	46.220	6.618	1.689	1.614	1.841	1.520
2	15:27:56	108.0%	0.042	0.555	0.375	70.030	6.041	1.785	1.596	1.470	1.456
3	15:28:23	106.5%	-0.010	0.551	0.378	74.830	3.288	1.689	1.760	1.838	1.447
x		108.6%	0.011	0.668	0.361	63.690	5.316	1.721	1.657	1.716	1.474
σ		2.3%	0.028	0.199	0.027	15.320	1.779	0.055	0.090	0.213	0.040
%RSD		2.2	243.800	29.730	7.366	24.050	33.470	3.213	5.416	12.410	2.695
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	19.130	T 17930.000	3.129	4.618	5.301	102.0%	-0.034	0.040	0.187	394.900
2	15:27:56	19.810	T 18380.000	-0.768	3.296	5.163	103.9%	-0.024	-0.081	0.165	459.600
3	15:28:23	19.780	T 17530.000	-1.845	2.549	5.399	106.6%	-0.015	0.057	0.110	347.200
x		19.570	T 17950.000	0.172	3.488	5.288	104.2%	-0.024	0.005	0.154	400.600
σ		0.388	T 423.500	2.617	1.047	0.119	2.3%	0.009	0.075	0.039	56.430
%RSD		1.981	T 2.360	1522.000	30.030	2.243	2.2	39.550	1437.000	25.510	14.090
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	2.640	0.037	4.279	0.865	0.015	0.016	-0.089	0.028	0.042	0.842
2	15:27:56	2.948	0.027	3.644	-6.396	0.005	0.026	-0.185	0.028	0.019	0.801
3	15:28:23	0.777	0.024	0.870	-10.250	0.010	0.003	-0.216	0.015	0.020	1.030
x		2.122	0.029	2.931	-5.260	0.010	0.015	-0.163	0.024	0.027	0.891
σ		1.175	0.006	1.813	5.644	0.005	0.012	0.066	0.007	0.013	0.122
%RSD		55.370	21.810	61.860	107.300	47.490	77.440	40.710	30.840	47.850	13.700
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	1.173	0.929	0.064	0.438	0.010	-0.003	0.135	-0.010	2.436	0.012
2	15:27:56	0.835	1.009	-0.061	0.546	-0.026	0.588	-1.840	-0.398	-1.013	0.007
3	15:28:23	0.955	1.023	0.035	-0.063	0.465	0.316	1.172	0.309	-0.654	0.005
x		0.988	0.987	0.013	0.307	0.149	0.300	-0.178	-0.033	0.257	0.008
σ		0.171	0.051	0.066	0.325	0.274	0.296	1.530	0.354	1.896	0.004
%RSD		17.330	5.163	518.800	106.000	183.000	98.590	861.000	1072.000	738.600	47.030
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	100.9%	-0.004	-0.021	0.002	-0.651	-0.003	-0.000	0.005	-0.000	99.8%
2	15:27:56	102.5%	0.015	-0.004	-0.008	-0.453	-0.004	0.000	-0.003	0.007	103.0%
3	15:28:23	106.8%	0.016	-0.009	-0.008	-1.342	-0.001	-0.001	-0.003	-0.002	104.7%
x		103.4%	0.009	-0.011	-0.005	-0.815	-0.003	-0.000	-0.000	0.002	102.5%
σ		3.0%	0.011	0.009	0.006	0.467	0.002	0.001	0.004	0.005	2.5%
%RSD		2.9	122.800	80.140	131.900	57.280	56.040	247.800	45680.000	283.900	2.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:30	0.082	0.105	0.031	0.025	0.003	0.004	98.3%	-0.014	-0.017	-0.009
2	15:27:56	0.058	0.128	0.011	0.032	-0.009	0.009	102.1%	-0.017	-0.018	-0.015
3	15:28:23	0.085	0.111	0.022	0.016	-0.026	0.011	104.8%	-0.009	-0.019	-0.004
x		0.075	0.115	0.021	0.024	-0.011	0.008	101.7%	-0.013	-0.018	-0.009
σ		0.015	0.012	0.010	0.008	0.014	0.004	3.3%	0.004	0.001	0.005
%RSD		19.470	10.560	47.350	31.530	131.000	49.430	3.2	31.790	6.652	54.460
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:27:30	0.006	-0.001	98.1%							
2	15:27:56	-0.012	-0.010	100.6%							
3	15:28:23	-0.006	-0.003	106.0%							
x		-0.004	-0.005	101.6%							
σ		0.010	0.005	4.1%							
%RSD		238.500	95.660	4.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	107.4%	0.018	0.168	0.068	74.730	7.256	1.456	1.535	1.526	0.841
2	15:34:01	111.1%	-0.008	0.586	0.050	77.730	8.227	1.343	1.383	1.428	0.750
3	15:34:28	106.7%	0.015	0.263	0.279	73.740	6.185	1.466	1.228	1.242	0.792
x		108.4%	0.009	0.339	0.132	75.400	7.222	1.422	1.382	1.399	0.794
σ		2.4%	0.014	0.219	0.127	2.076	1.021	0.068	0.153	0.144	0.046
%RSD		2.2	165.700	64.760	96.030	2.753	14.140	4.801	11.080	10.310	5.731
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	16.010	┬82740.000	7.817	1.449	2.398	104.6%	-0.058	-0.007	0.401	1649.000
2	15:34:01	15.980	┬83990.000	7.910	4.420	3.816	104.9%	-0.036	-0.134	0.428	1884.000
3	15:34:28	15.980	┬82940.000	6.664	1.346	2.576	107.1%	-0.037	0.070	0.304	1508.000
x		15.990	┬83220.000	7.463	2.405	2.930	105.5%	-0.044	-0.024	0.378	1680.000
σ		0.012	┬668.700	0.694	1.746	0.772	1.4%	0.013	0.103	0.065	190.100
%RSD		0.077	┬0.803	9.300	72.600	26.360	1.3	28.730	437.800	17.330	11.310
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	1.647	0.034	3.225	-6.238	0.001	0.149	0.273	1.367	1.362	2.026
2	15:34:01	2.798	0.028	3.919	-9.011	0.009	0.145	0.171	1.328	1.441	1.969
3	15:34:28	2.327	0.042	1.612	-13.320	0.009	0.150	0.074	1.293	1.250	1.810
x		2.257	0.035	2.919	-9.524	0.007	0.148	0.172	1.330	1.351	1.935
σ		0.579	0.007	1.183	3.570	0.004	0.002	0.099	0.037	0.096	0.112
%RSD		25.650	20.680	40.550	37.480	67.670	1.542	57.650	2.788	7.120	5.776
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	2.218	1.850	0.044	-0.282	1.338	1.849	-0.829	-0.149	-1.244	0.002
2	15:34:01	1.787	1.941	-0.019	0.790	1.408	2.086	-1.257	-0.232	-1.874	0.004
3	15:34:28	2.021	1.930	0.072	0.017	1.523	1.702	-0.806	-0.240	1.354	0.001
x		2.009	1.907	0.032	0.175	1.423	1.879	-0.964	-0.207	-0.588	0.002
σ		0.216	0.050	0.047	0.553	0.094	0.194	0.254	0.050	1.711	0.002
%RSD		10.740	2.607	144.600	315.800	6.579	10.310	26.370	24.320	291.000	70.980
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	102.9%	-0.010	-0.012	-0.004	-0.085	0.002	0.002	0.001	0.012	102.0%
2	15:34:01	103.2%	0.007	-0.012	-0.001	-1.069	-0.003	0.001	-0.003	0.000	102.2%
3	15:34:28	106.3%	-0.018	0.004	0.009	-0.584	0.000	-0.000	-0.003	-0.003	108.7%
x		104.1%	-0.007	-0.007	0.001	-0.579	-0.000	0.001	-0.001	0.003	104.3%
σ		1.9%	0.012	0.009	0.007	0.492	0.002	0.001	0.002	0.008	3.8%
%RSD		1.8	179.000	135.400	786.200	84.960	728.800	177.600	163.300	246.500	3.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:33	0.251	0.364	0.034	0.046	-0.015	-0.007	100.7%	-0.013	-0.020	0.020
2	15:34:01	0.229	0.381	0.040	0.033	-0.020	-0.003	100.1%	-0.018	-0.018	0.016
3	15:34:28	0.245	0.364	0.057	0.040	-0.000	-0.019	106.9%	-0.018	-0.015	0.009
x		0.242	0.370	0.044	0.040	-0.012	-0.010	102.6%	-0.017	-0.017	0.015
σ		0.012	0.010	0.012	0.006	0.010	0.008	3.8%	0.003	0.003	0.005
%RSD		4.754	2.684	27.630	16.220	88.860	87.140	3.7	17.420	14.980	36.430
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:33:33	0.018	0.016	100.3%							
2	15:34:01	0.004	0.011	100.1%							
3	15:34:28	0.030	0.018	107.8%							
x		0.018	0.015	102.7%							
σ		0.013	0.004	4.4%							
%RSD		72.760	25.460	4.3							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	105.2%	98.990	100.400	96.190	77.510	┬1033.000	┬980.100	973.500	992.900	97.040
2	15:40:07	107.1%	98.540	101.400	99.480	81.550	┬1042.000	┬1017.000	1004.000	1010.000	98.970
3	15:40:34	108.6%	96.920	102.300	101.400	79.340	┬1029.000	┬1014.000	1000.000	998.600	104.000
x		107.0%	98.150	101.400	99.040	79.470	┬1035.000	┬1004.000	992.600	1001.000	100.000
σ		1.7%	1.091	0.924	2.653	2.019	┬6.808	┬20.540	16.700	8.918	3.589
%RSD		1.6	1.112	0.911	2.678	2.540	┬0.658	┬2.046	1.683	0.891	3.589

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	┬922.400	┬82990.000	1065.000	1155.000	1041.000	105.1%	100.200	100.600	99.710	2455.000
2	15:40:07	┬911.900	┬83220.000	1059.000	1166.000	1035.000	107.6%	97.450	98.980	98.830	2376.000
3	15:40:34	┬931.400	┬86110.000	┬1071.000	1184.000	1051.000	105.3%	101.800	100.700	100.500	2373.000
x		┬921.900	┬84110.000	┬1065.000	1168.000	1043.000	106.0%	99.810	100.100	99.670	2402.000
σ		┬9.745	┬1740.000	┬6.032	14.630	8.254	1.4%	2.190	0.955	0.831	46.580
%RSD		┬1.057	┬2.069	┬0.566	1.252	0.792	1.3	2.194	0.954	0.833	1.939

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	1083.000	98.020	┬1035.000	1015.000	100.200	99.520	100.700	101.100	98.770	98.300
2	15:40:07	1081.000	98.100	┬1041.000	982.500	98.010	98.480	99.330	98.250	98.590	100.200
3	15:40:34	1093.000	97.120	┬1042.000	985.900	99.790	101.700	101.200	102.700	100.800	99.920
x		1086.000	97.740	┬1039.000	994.600	99.320	99.890	100.400	100.700	99.380	99.480
σ		6.474	0.544	┬3.278	18.070	1.152	1.626	0.990	2.257	1.225	1.034
%RSD		0.596	0.557	┬0.315	1.816	1.160	1.628	0.986	2.242	1.232	1.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	101.000	103.200	102.100	99.980	1.273	1.399	433.000	96.630	0.720	98.090
2	15:40:07	102.000	104.200	99.790	95.170	2.074	1.393	440.000	98.100	3.089	97.480
3	15:40:34	101.500	103.200	101.900	103.300	1.158	1.515	452.700	101.400	1.683	97.100
x		101.500	103.500	101.300	99.500	1.502	1.436	441.900	98.720	1.831	97.560
σ		0.498	0.592	1.288	4.105	0.499	0.069	9.963	2.460	1.191	0.495
%RSD		0.491	0.572	1.272	4.126	33.240	4.773	2.255	2.492	65.060	0.507

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	107.2%	98.880	101.200	98.430	99.430	99.010	98.530	98.600	98.130	108.2%
2	15:40:07	106.8%	99.070	99.210	98.950	95.910	98.150	99.140	99.850	98.980	108.4%
3	15:40:34	104.7%	99.540	101.600	98.640	100.700	97.570	98.010	99.160	97.570	105.7%
x		106.2%	99.160	100.700	98.670	98.670	98.240	98.560	99.200	98.230	107.5%
σ		1.3%	0.342	1.295	0.258	2.465	0.728	0.566	0.628	0.712	1.5%
%RSD		1.2	0.345	1.286	0.262	2.499	0.741	0.574	0.633	0.725	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:40	101.000	99.750	99.800	100.200	99.640	100.500	109.3%	101.000	101.800	102.200
2	15:40:07	100.400	99.980	98.780	100.400	100.900	101.500	107.7%	103.000	104.100	103.400
3	15:40:34	99.850	98.760	97.090	98.910	101.500	100.200	104.7%	102.300	103.800	103.100
x		100.400	99.490	98.560	99.830	100.700	100.700	107.2%	102.100	103.200	102.900
σ		0.558	0.650	1.366	0.798	0.933	0.662	2.4%	1.029	1.262	0.624
%RSD		0.555	0.653	1.386	0.800	0.926	0.657	2.2	1.008	1.222	0.606

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:39:40	102.800	102.700	111.7%
2	15:40:07	103.700	104.200	112.6%
3	15:40:34	104.500	103.800	107.3%
x		103.700	103.500	110.5%
σ		0.891	0.787	2.8%
%RSD		0.859	0.761	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	98.8%	0.001	253.100	261.400	86.120	TM 249600.000	T 1799.000	1801.000	1798.000	TM 1817.000
2	15:46:13	97.8%	0.002	257.800	253.700	79.480	TM 249000.000	T 1800.000	1807.000	1837.000	TM 1717.000
3	15:46:40	97.0%	-0.024	269.200	265.400	78.560	TM 258200.000	T 1829.000	1840.000	1889.000	TM 1777.000
x		97.9%	-0.007	260.100	260.200	81.390	TM 252300.000	T 1809.000	1816.000	1841.000	TM 1770.000
σ		0.9%	0.014	8.270	5.969	4.126	TM 5169.000	T 16.880	20.770	45.820	TM 50.070
%RSD		0.9	206.400	3.180	2.294	5.069	TM 2.049	T 0.933	1.143	2.488	TM 2.828

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	T 2605.000	T 84280.000	T 38950.000	47040.000	T 48240.000	100.2%	5.014	2.792	2.408	1876.000
2	15:46:13	T 2559.000	T 81010.000	T 37420.000	46410.000	T 47770.000	104.9%	4.622	2.608	2.256	1689.000
3	15:46:40	T 2688.000	T 83680.000	T 38330.000	48330.000	T 49160.000	104.3%	4.915	2.492	2.343	1809.000
x		T 2617.000	T 82990.000	T 38240.000	47260.000	T 48390.000	103.1%	4.850	2.631	2.336	1791.000
σ		T 65.390	T 1739.000	T 772.500	980.400	T 709.100	2.6%	0.204	0.151	0.076	94.900
%RSD		T 2.499	T 2.095	T 2.020	2.074	T 1.465	2.5	4.200	5.744	3.268	5.297

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	2779.000	17.460	T 2742.000	3147.000	41.360	15.090	13.340	10.690	11.450	52.930
2	15:46:13	2708.000	17.370	T 2719.000	2983.000	40.550	14.490	14.520	10.340	10.940	52.780
3	15:46:40	2780.000	18.130	T 2831.000	3145.000	42.240	15.750	15.340	10.820	11.160	55.080
x		2756.000	17.660	T 2764.000	3092.000	41.380	15.110	14.400	10.620	11.180	53.600
σ		41.140	0.415	T 59.360	94.000	0.845	0.630	1.007	0.246	0.259	1.288
%RSD		1.493	2.352	T 2.148	3.040	2.042	4.170	6.995	2.319	2.318	2.403

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	46.250	50.170	0.685	0.599	8.492	8.714	-1.104	-0.179	-0.884	70.140
2	15:46:13	49.170	50.030	0.425	0.510	9.668	9.226	0.468	0.128	1.039	69.810
3	15:46:40	49.300	51.200	0.572	-0.130	9.407	9.811	0.109	0.094	-0.723	70.810
x		48.240	50.470	0.561	0.326	9.189	9.250	-0.176	0.014	-0.189	70.250
σ		1.725	0.641	0.131	0.397	0.618	0.549	0.823	0.168	1.067	0.510
%RSD		3.576	1.270	23.280	121.700	6.724	5.934	468.600	1173.000	564.200	0.725

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	100.6%	5.406	5.631	5.391	3.392	0.012	0.006	0.158	0.131	95.2%
2	15:46:13	105.4%	5.563	5.414	5.237	4.402	0.001	0.009	0.099	0.111	101.2%
3	15:46:40	108.5%	5.523	5.571	5.374	2.392	0.004	0.011	0.108	0.113	102.9%
x		104.8%	5.497	5.539	5.334	3.395	0.005	0.009	0.122	0.118	99.8%
σ		3.9%	0.082	0.112	0.085	1.005	0.006	0.002	0.032	0.011	4.1%
%RSD		3.8	1.488	2.025	1.588	29.600	104.100	26.210	26.270	9.228	4.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:44	0.359	0.495	2.004	1.834	4.003	4.062	99.6%	0.020	0.012	0.138
2	15:46:13	0.370	0.428	1.882	1.876	4.142	4.202	107.1%	0.012	0.007	0.149
3	15:46:40	0.352	0.440	1.950	1.914	4.096	4.130	108.0%	0.007	0.001	0.125
x		0.360	0.454	1.945	1.875	4.080	4.131	104.9%	0.013	0.007	0.137
σ		0.009	0.036	0.061	0.040	0.071	0.070	4.6%	0.006	0.006	0.012
%RSD		2.438	7.834	3.146	2.128	1.743	1.696	4.4	47.490	87.300	8.868

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:45:44	0.177	0.152	93.5%
2	15:46:13	0.139	0.135	102.1%
3	15:46:40	0.130	0.124	101.8%
x		0.149	0.137	99.1%
σ		0.025	0.014	4.9%
%RSD		16.590	10.410	4.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	104.5%	0.003	79.870	81.550	51.220	T 63510.000	456.400	457.600	455.500	355.800
2	15:52:18	102.9%	0.012	83.580	81.570	49.480	T 64010.000	457.300	440.900	441.600	359.500
3	15:52:46	104.5%	-0.020	83.540	83.210	48.110	T 62990.000	447.900	445.700	446.600	356.800
x		104.0%	-0.001	82.330	82.110	49.600	T 63500.000	453.900	448.100	447.900	357.400
σ		0.9%	0.016	2.131	0.955	1.555	T 511.000	5.150	8.616	7.069	1.919
%RSD		0.9	1152.000	2.589	1.163	3.134	T 0.805	1.135	1.923	1.578	0.537
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	533.400	T 17710.000	T 8061.000	9637.000	9262.000	106.2%	0.762	0.577	0.498	341.800
2	15:52:18	546.300	T 17840.000	T 8158.000	9735.000	9252.000	105.3%	0.804	0.563	0.459	339.700
3	15:52:46	536.600	T 17980.000	T 8153.000	9608.000	9268.000	106.6%	0.916	0.598	0.479	345.200
x		538.800	T 17840.000	T 8124.000	9660.000	9261.000	106.0%	0.827	0.580	0.479	342.200
σ		6.751	T 136.100	T 54.290	66.760	8.093	0.7%	0.080	0.018	0.020	2.773
%RSD		1.253	T 0.763	T 0.668	0.691	0.087	0.6	9.613	3.024	4.136	0.810
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	563.500	3.630	T 579.300	617.800	8.495	3.011	2.634	2.327	2.200	11.480
2	15:52:18	558.300	3.680	T 579.900	630.300	8.447	3.154	2.538	2.341	2.350	11.360
3	15:52:46	560.300	3.574	T 568.100	631.700	8.595	3.218	3.078	2.351	2.401	11.010
x		560.700	3.628	T 575.800	626.600	8.512	3.128	2.750	2.340	2.317	11.280
σ		2.585	0.053	T 6.641	7.636	0.075	0.106	0.288	0.012	0.104	0.241
%RSD		0.461	1.462	T 1.153	1.219	0.884	3.399	10.470	0.524	4.505	2.135
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	9.899	10.850	0.094	-0.251	1.663	2.294	-1.656	-0.348	-0.629	14.480
2	15:52:18	10.140	10.990	0.186	0.225	1.976	1.570	-0.788	-0.129	-1.611	14.260
3	15:52:46	9.969	10.500	-0.046	0.434	1.513	1.578	-1.510	-0.353	1.724	14.050
x		10.000	10.780	0.078	0.136	1.717	1.814	-1.318	-0.277	-0.172	14.260
σ		0.125	0.255	0.117	0.351	0.237	0.416	0.465	0.128	1.714	0.213
%RSD		1.252	2.365	149.900	257.800	13.770	22.940	35.270	46.380	997.200	1.490
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	102.6%	1.082	1.125	1.076	1.268	0.003	0.001	0.008	0.024	101.5%
2	15:52:18	106.2%	1.137	1.199	1.065	-0.432	-0.004	0.003	0.007	0.032	104.7%
3	15:52:46	104.0%	1.099	1.170	1.125	0.467	-0.003	0.005	0.027	0.015	101.1%
x		104.3%	1.106	1.165	1.089	0.434	-0.002	0.003	0.014	0.023	102.4%
σ		1.8%	0.028	0.037	0.032	0.850	0.004	0.002	0.011	0.009	1.9%
%RSD		1.7	2.539	3.202	2.933	195.800	269.600	78.110	78.210	36.990	1.9
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:51:52	0.063	0.114	0.391	0.362	0.678	0.879	104.6%	-0.009	-0.012	0.009
2	15:52:18	0.088	0.067	0.400	0.392	0.914	0.742	107.2%	-0.011	-0.008	0.007
3	15:52:46	0.075	0.103	0.383	0.404	0.709	0.747	103.3%	-0.003	-0.014	0.043
x		0.075	0.095	0.391	0.386	0.767	0.789	105.0%	-0.008	-0.012	0.020
σ		0.013	0.024	0.008	0.022	0.128	0.078	2.0%	0.004	0.003	0.021
%RSD		16.760	25.700	2.150	5.605	16.720	9.843	1.9	55.440	25.750	106.300
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	15:51:52	0.023	0.023	101.8%							
2	15:52:18	0.025	0.020	103.7%							
3	15:52:46	0.020	0.028	99.6%							
x		0.023	0.024	101.7%							
σ		0.002	0.004	2.1%							
%RSD		11.060	17.290	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	103.7%	-0.002	1.602	1.356	74.780	29.200	1.885	1.840	1.983	1.677
2	15:58:25	105.6%	0.009	1.109	1.075	81.600	24.280	1.839	1.893	1.815	1.630
3	15:58:53	110.1%	0.002	1.325	1.348	73.400	23.810	1.860	1.976	1.994	1.736
x		106.5%	0.003	1.345	1.260	76.590	25.760	1.861	1.903	1.931	1.681
σ		3.3%	0.006	0.247	0.160	4.390	2.981	0.023	0.069	0.100	0.053
%RSD		3.1	191.400	18.370	12.720	5.732	11.570	1.223	3.624	5.192	3.158

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	18.990	T 82940.000	14.700	9.584	6.110	107.0%	0.019	-0.098	0.404	1734.000
2	15:58:25	18.070	T 81970.000	14.610	4.839	5.557	107.6%	0.095	-0.177	0.382	1631.000
3	15:58:53	17.900	T 82050.000	13.860	8.504	5.691	105.8%	0.054	-0.246	0.411	1880.000
x		18.320	T 82320.000	14.390	7.642	5.786	106.8%	0.056	-0.173	0.399	1749.000
σ		0.590	T 539.900	0.459	2.487	0.288	0.9%	0.039	0.074	0.015	125.000
%RSD		3.222	T 0.656	3.188	32.550	4.983	0.9	68.790	42.710	3.835	7.151

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	4.263	0.068	5.158	-11.950	0.008	0.123	0.033	0.228	0.238	0.498
2	15:58:25	3.615	0.062	2.541	-16.890	0.010	0.160	-0.481	0.207	0.271	0.555
3	15:58:53	4.731	0.060	5.642	-8.401	0.013	0.105	-0.111	0.227	0.243	0.619
x		4.203	0.063	4.447	-12.410	0.010	0.129	-0.186	0.221	0.251	0.557
σ		0.561	0.004	1.669	4.263	0.003	0.028	0.265	0.012	0.018	0.061
%RSD		13.340	6.611	37.520	34.350	26.470	21.490	142.300	5.266	7.061	10.930

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	0.605	0.674	-0.009	0.120	0.804	0.695	-0.241	-0.050	-0.275	0.018
2	15:58:25	0.452	0.605	-0.140	0.309	1.297	1.910	-2.616	-0.573	-1.242	0.016
3	15:58:53	0.398	0.624	-0.245	0.226	1.264	2.269	-2.121	-0.452	-1.720	0.017
x		0.485	0.634	-0.131	0.218	1.122	1.625	-1.659	-0.358	-1.079	0.017
σ		0.107	0.036	0.118	0.095	0.276	0.825	1.253	0.274	0.736	0.001
%RSD		22.070	5.660	89.940	43.470	24.590	50.790	75.520	76.340	68.230	6.931

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	107.0%	-0.013	-0.013	-0.001	-0.257	-0.003	0.000	0.005	0.005	107.0%
2	15:58:25	106.5%	0.003	0.008	-0.009	-0.651	-0.003	-0.000	0.008	0.000	107.6%
3	15:58:53	104.1%	0.009	-0.017	-0.003	0.735	-0.003	0.000	-0.003	0.006	105.3%
x		105.9%	-0.000	-0.007	-0.004	-0.058	-0.003	0.000	0.003	0.004	106.6%
σ		1.5%	0.011	0.013	0.004	0.714	0.000	0.000	0.006	0.003	1.2%
%RSD		1.4	3567.000	184.300	96.810	1239.000	1.281	366.900	161.200	83.960	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:57:58	0.260	0.399	0.023	0.046	0.084	0.088	106.1%	-0.016	-0.017	0.010
2	15:58:25	0.267	0.368	0.035	0.017	0.087	0.131	107.3%	-0.015	-0.016	0.005
3	15:58:53	0.274	0.397	0.041	0.027	0.089	0.119	105.5%	-0.018	-0.017	-0.008
x		0.267	0.388	0.033	0.030	0.087	0.113	106.3%	-0.017	-0.017	0.003
σ		0.007	0.017	0.009	0.015	0.003	0.022	0.9%	0.002	0.001	0.010
%RSD		2.551	4.443	27.240	50.150	3.432	19.640	0.9	11.080	5.067	367.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	15:57:58	0.004	0.003	106.7%
2	15:58:25	0.003	-0.001	107.5%
3	15:58:53	-0.010	-0.003	106.7%
x		-0.001	-0.000	107.0%
σ		0.008	0.003	0.5%
%RSD		672.600	1237.000	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	110.7%	96.040	100.100	95.720	94.600	┬1028.000	┬1003.000	1000.000	1021.000	104.000
2	16:04:30	107.6%	98.140	101.100	97.360	102.700	┬1075.000	┬1043.000	1006.000	1008.000	97.220
3	16:04:57	107.7%	100.100	106.300	103.000	124.200	┬1096.000	┬1052.000	1022.000	1050.000	102.900
x		108.7%	98.090	102.500	98.680	107.200	┬1067.000	┬1033.000	1009.000	1026.000	101.400
σ		1.7%	2.022	3.328	3.804	15.310	┬34.890	┬26.150	11.010	21.480	3.648
%RSD		1.6	2.062	3.247	3.855	14.290	┬3.272	┬2.532	1.091	2.093	3.598

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	┬916.800	┬81490.000	┬1037.000	1126.000	1032.000	104.6%	98.000	100.800	98.180	2800.000
2	16:04:30	┬923.500	┬80410.000	┬1050.000	1143.000	1041.000	106.6%	100.200	98.600	99.380	2432.000
3	16:04:57	┬932.700	┬85470.000	┬1087.000	1179.000	1068.000	103.0%	103.300	101.300	100.700	2646.000
x		┬924.300	┬82450.000	┬1058.000	1149.000	1047.000	104.7%	100.500	100.200	99.400	2626.000
σ		┬7.959	┬2665.000	┬26.270	26.930	18.260	1.8%	2.690	1.421	1.242	185.200
%RSD		┬0.861	┬3.232	┬2.483	2.343	1.744	1.7	2.676	1.418	1.249	7.052

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	1079.000	97.760	┬1058.000	1025.000	100.300	99.960	102.000	101.400	101.800	99.420
2	16:04:30	1093.000	99.280	┬1041.000	1004.000	99.530	98.580	100.200	101.600	102.100	102.500
3	16:04:57	1093.000	98.470	┬1069.000	1042.000	101.200	103.800	102.300	104.200	103.500	100.900
x		1088.000	98.500	┬1056.000	1024.000	100.400	100.800	101.500	102.400	102.500	100.900
σ		8.008	0.762	┬13.780	19.060	0.846	2.696	1.145	1.556	0.895	1.536
%RSD		0.736	0.774	┬1.305	1.862	0.842	2.675	1.128	1.520	0.873	1.522

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	100.100	101.200	99.250	104.600	1.817	2.270	422.300	96.790	0.596	98.240
2	16:04:30	101.700	102.600	100.600	100.900	1.465	2.125	461.300	104.500	0.316	98.320
3	16:04:57	99.360	101.500	102.600	106.500	2.305	1.544	461.200	105.500	3.777	97.670
x		100.400	101.800	100.800	104.000	1.862	1.980	448.300	102.300	1.563	98.080
σ		1.185	0.769	1.676	2.830	0.422	0.384	22.510	4.776	1.923	0.356
%RSD		1.180	0.755	1.663	2.721	22.650	19.410	5.021	4.670	123.000	0.363

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	103.0%	98.500	99.090	98.150	99.040	99.720	99.330	101.600	99.000	101.8%
2	16:04:30	103.8%	99.960	101.600	99.900	101.200	98.000	98.980	101.100	100.200	104.1%
3	16:04:57	104.3%	100.100	98.960	98.900	103.300	97.920	98.970	99.390	99.150	102.8%
x		103.7%	99.520	99.870	98.990	101.200	98.550	99.090	100.700	99.450	102.9%
σ		0.7%	0.893	1.466	0.878	2.153	1.013	0.204	1.169	0.657	1.1%
%RSD		0.6	0.897	1.468	0.887	2.128	1.028	0.206	1.161	0.660	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:03	101.800	101.000	99.050	100.700	103.200	102.900	101.0%	101.800	102.100	101.900
2	16:04:30	103.100	101.600	100.100	100.200	100.700	102.200	105.4%	100.500	100.900	101.300
3	16:04:57	101.700	100.800	98.170	98.910	101.200	101.600	102.7%	100.200	99.800	100.600
x		102.200	101.100	99.110	99.930	101.700	102.300	103.0%	100.800	100.900	101.300
σ		0.783	0.434	0.975	0.913	1.317	0.653	2.2%	0.838	1.137	0.624
%RSD		0.766	0.429	0.983	0.914	1.295	0.639	2.2	0.831	1.127	0.616

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:04:03	101.500	102.000	101.4%
2	16:04:30	101.000	101.600	105.3%
3	16:04:57	100.900	101.200	101.8%
x		101.100	101.600	102.9%
σ		0.306	0.402	2.1%
%RSD		0.302	0.396	2.1

UQ14282-001 04/30/2019 16:09:43 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	105.7%	0.026	1.057	0.717	69.020	9.361	1.164	1.262	1.221	0.852
2	16:10:37	110.1%	0.015	0.830	0.730	67.010	10.220	1.248	1.208	1.032	1.043
3	16:11:04	108.8%	-0.007	1.098	0.553	66.660	7.827	1.139	1.194	1.088	0.970
x		108.2%	0.011	0.995	0.667	67.570	9.135	1.184	1.222	1.114	0.955
σ		2.3%	0.017	0.144	0.099	1.275	1.211	0.057	0.036	0.097	0.096
%RSD		2.1	150.800	14.520	14.800	1.888	13.260	4.791	2.948	8.722	10.050

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	16.450	T 81790.000	7.843	1.358	4.069	106.8%	0.052	0.067	0.379	1625.000
2	16:10:37	16.370	T 85330.000	6.423	7.412	4.132	104.7%	-0.047	-0.135	0.464	1924.000
3	16:11:04	15.980	T 81730.000	10.520	5.639	3.628	104.6%	0.010	0.015	0.337	1667.000
x		16.270	T 82950.000	8.263	4.803	3.943	105.4%	0.005	-0.017	0.393	1739.000
σ		0.249	T 2061.000	2.082	3.112	0.275	1.2%	0.050	0.105	0.065	161.600
%RSD		1.528	T 2.485	25.200	64.800	6.964	1.2	978.500	599.800	16.440	9.292

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	2.738	0.063	2.800	-17.300	0.026	0.112	-0.235	0.047	0.053	0.388
2	16:10:37	4.541	0.049	4.043	-10.390	0.012	0.104	-0.147	0.063	0.049	0.303
3	16:11:04	1.985	0.055	1.595	-11.870	0.019	0.084	-0.101	0.067	0.040	0.351
x		3.088	0.056	2.812	-13.190	0.019	0.100	-0.161	0.059	0.047	0.347
σ		1.314	0.007	1.224	3.637	0.007	0.014	0.068	0.011	0.007	0.042
%RSD		42.540	12.170	43.530	27.580	38.080	14.100	42.470	18.270	14.010	12.230

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	0.527	0.385	0.115	-0.029	1.359	1.153	-0.501	-0.082	-2.740	0.019
2	16:10:37	0.157	0.543	0.074	0.382	0.850	1.333	-0.446	-0.069	-1.681	0.011
3	16:11:04	0.635	0.403	0.115	-0.134	0.787	1.166	1.181	0.225	0.738	0.012
x		0.440	0.443	0.101	0.073	0.999	1.217	0.078	0.025	-1.228	0.014
σ		0.251	0.087	0.023	0.273	0.314	0.100	0.956	0.174	1.783	0.004
%RSD		56.940	19.550	23.140	373.500	31.410	8.250	1225.000	696.200	145.200	31.190

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	104.2%	0.077	0.017	0.042	0.698	0.005	0.007	0.004	0.011	107.0%
2	16:10:37	103.5%	0.028	0.009	0.010	-0.538	-0.000	0.011	-0.003	0.014	103.9%
3	16:11:04	107.0%	0.044	-0.005	0.023	-0.497	0.003	0.011	0.001	0.007	108.1%
x		104.9%	0.050	0.007	0.025	-0.112	0.002	0.010	0.001	0.011	106.3%
σ		1.9%	0.025	0.011	0.016	0.702	0.003	0.002	0.004	0.004	2.2%
%RSD		1.8	50.800	152.700	64.330	624.100	107.700	23.160	396.300	35.320	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:10	0.271	0.352	0.027	0.042	-0.005	0.019	106.7%	0.014	0.003	-0.007
2	16:10:37	0.281	0.391	0.038	0.039	0.017	0.017	103.5%	0.006	0.010	-0.010
3	16:11:04	0.260	0.404	0.034	0.032	0.015	-0.002	108.7%	0.004	0.003	-0.004
x		0.271	0.382	0.033	0.038	0.009	0.012	106.3%	0.008	0.005	-0.007
σ		0.011	0.027	0.006	0.005	0.012	0.012	2.6%	0.005	0.004	0.003
%RSD		3.889	7.053	16.860	12.930	138.800	100.800	2.5	65.470	75.950	42.870

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:10:10	0.005	-0.000	109.2%
2	16:10:37	-0.010	-0.006	105.3%
3	16:11:04	-0.005	-0.006	111.5%
x		-0.003	-0.004	108.7%
σ		0.008	0.003	3.1%
%RSD		232.200	83.360	2.9

UQ14282-002 04/30/2019 16:15:50

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	107.0%	101.200	103.900	100.800	69.960	┬1061.000	┬1025.000	1033.000	1042.000	99.240
2	16:16:45	108.0%	96.790	100.300	96.910	62.840	┬1031.000	┬1010.000	1015.000	999.000	99.180
3	16:17:13	105.6%	99.050	101.400	94.850	63.180	┬1043.000	┬1000.000	997.200	1008.000	98.860
x		106.9%	99.010	101.900	97.530	65.320	┬1045.000	┬1012.000	1015.000	1016.000	99.090
σ		1.2%	2.205	1.842	3.046	4.016	┬15.090	┬12.330	17.820	22.680	0.202
%RSD		1.2	2.227	1.808	3.123	6.148	┬1.444	┬1.219	1.756	2.232	0.204

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	┬901.800	┬82580.000	1084.000	1115.000	1044.000	105.6%	102.100	99.790	98.940	2494.000
2	16:16:45	┬881.200	┬81290.000	┬1045.000	1090.000	1044.000	105.6%	101.200	99.210	98.290	2633.000
3	16:17:13	┬915.400	┬80820.000	1056.000	1164.000	1027.000	107.0%	98.570	99.410	97.500	2431.000
x		┬899.400	┬81560.000	┬1062.000	1123.000	1038.000	106.1%	100.600	99.470	98.250	2519.000
σ		┬17.220	┬913.100	┬20.090	37.400	9.779	0.8%	1.846	0.293	0.721	103.700
%RSD		┬1.915	┬1.119	┬1.892	3.330	0.942	0.8	1.834	0.295	0.734	4.116

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	1082.000	97.740	┬1021.000	1003.000	98.180	99.850	100.700	99.850	99.030	99.480
2	16:16:45	1084.000	99.280	┬1039.000	990.100	98.740	99.190	98.370	101.200	98.840	99.500
3	16:17:13	1069.000	96.310	┬1026.000	1001.000	98.440	98.950	97.830	100.100	97.970	98.120
x		1079.000	97.780	┬1029.000	997.900	98.450	99.330	98.960	100.400	98.610	99.030
σ		8.324	1.488	┬8.821	6.862	0.280	0.463	1.522	0.726	0.566	0.790
%RSD		0.772	1.522	┬0.857	0.688	0.284	0.466	1.538	0.723	0.574	0.798

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	101.600	101.800	101.600	103.600	1.025	0.839	468.200	105.200	3.077	97.110
2	16:16:45	104.900	102.200	103.200	100.700	1.098	1.224	461.000	103.800	3.668	97.320
3	16:17:13	102.200	103.600	101.000	103.000	1.687	1.694	457.500	102.600	2.201	97.600
x		102.900	102.500	102.000	102.500	1.270	1.252	462.200	103.900	2.982	97.340
σ		1.756	0.960	1.139	1.510	0.363	0.428	5.435	1.271	0.738	0.246
%RSD		1.706	0.937	1.117	1.474	28.580	34.160	1.176	1.224	24.750	0.253

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	107.3%	98.530	100.300	98.360	97.860	98.740	99.350	101.700	99.150	107.6%
2	16:16:45	107.3%	98.700	99.080	98.630	100.700	99.600	99.140	100.700	99.370	107.4%
3	16:17:13	108.2%	99.390	100.100	97.840	97.690	98.790	99.110	100.900	100.100	108.8%
x		107.6%	98.870	99.840	98.270	98.740	99.050	99.200	101.100	99.550	107.9%
σ		0.5%	0.456	0.668	0.403	1.679	0.482	0.130	0.567	0.516	0.8%
%RSD		0.5	0.461	0.669	0.410	1.701	0.487	0.131	0.561	0.519	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:18	101.900	100.200	100.200	99.340	99.060	100.500	108.8%	101.900	102.600	103.500
2	16:16:45	101.200	99.940	98.460	98.810	101.100	99.930	107.8%	100.900	102.300	102.900
3	16:17:13	101.600	99.700	99.300	99.170	99.900	100.100	110.1%	101.400	102.700	103.400
x		101.600	99.960	99.310	99.110	100.000	100.200	108.9%	101.400	102.500	103.300
σ		0.350	0.270	0.867	0.271	1.042	0.270	1.1%	0.500	0.242	0.308
%RSD		0.344	0.270	0.873	0.273	1.041	0.270	1.1	0.493	0.236	0.298

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:16:18	103.800	104.100	111.4%
2	16:16:45	103.400	103.100	110.0%
3	16:17:13	104.000	103.600	112.7%
x		103.700	103.600	111.4%
σ		0.294	0.512	1.4%
%RSD		0.284	0.494	1.2

CCV MW10994 04/30/2019 16:22:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	99.4%	301.500	304.000	297.500	66.480	┬64430.000	┬62590.000	┬61820.000	┬61930.000	299.200
2	16:22:55	100.3%	297.500	305.400	298.100	57.320	┬63580.000	┬62360.000	┬61260.000	┬61000.000	309.200
3	16:23:22	100.4%	303.500	316.000	306.200	65.760	┬63670.000	┬61790.000	┬62080.000	┬62040.000	306.300
x		100.0%	100.272%	102.813%	100.200%	63.180	┬106.489%	┬62250.000	┬61720.000	┬102.758%	101.629%
σ		0.6%	n/a	n/a	n/a	5.093	┬n/a	┬415.200	┬420.000	┬n/a	n/a
%RSD		0.6	1.019	2.124	1.629	8.061	┬0.729	┬0.667	┬0.680	┬0.921	1.694

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	┬3189.000	803.700	┬62890.000	62790.000	┬63540.000	101.4%	310.400	320.000	301.000	708.900
2	16:22:55	┬3187.000	809.600	┬66070.000	64180.000	┬64440.000	98.3%	313.100	321.300	307.500	1870.000
3	16:23:22	┬3245.000	796.100	┬65390.000	63440.000	┬63430.000	99.5%	314.900	311.600	304.300	2426.000
x		┬106.901%	803.100	┬107.975%	63470.000	┬106.341%	99.7%	104.260%	105.873%	101.413%	1668.000
σ		┬n/a	6.762	┬n/a	694.700	┬n/a	1.5%	n/a	n/a	n/a	876.200
%RSD		┬1.014	0.842	┬2.585	1.095	┬0.867	1.5	0.716	1.664	1.066	52.520

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	┬63800.000	300.500	┬63710.000	┬61410.000	295.200	283.200	286.600	289.700	294.000	301.600
2	16:22:55	┬64560.000	302.200	┬64790.000	┬63980.000	306.300	296.600	297.500	291.500	292.400	295.900
3	16:23:22	┬63600.000	299.100	┬63530.000	┬62080.000	300.900	296.900	296.800	289.600	293.500	295.800
x		┬63990.000	100.204%	┬64010.000	┬104.155%	100.261%	97.413%	293.600	290.300	97.769%	99.252%
σ		┬506.800	n/a	┬680.000	┬n/a	n/a	n/a	6.103	1.029	n/a	n/a
%RSD		┬0.792	0.512	┬1.062	┬2.131	1.843	2.679	2.078	0.355	0.284	1.126

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	293.500	299.800	301.200	301.700	0.845	0.466	1298.000	299.200	3.318	303.000
2	16:22:55	296.500	295.900	295.000	304.100	0.734	-0.132	1267.000	291.400	8.022	304.400
3	16:23:22	296.500	292.800	295.700	306.500	1.257	0.537	1307.000	303.200	4.252	305.400
x		295.500	296.200	99.091%	304.100	0.945	0.290	1291.000	99.308%	5.197	101.418%
σ		1.729	3.524	n/a	2.365	0.276	0.367	20.830	n/a	2.491	n/a
%RSD		0.585	1.190	1.144	0.778	29.140	126.500	1.613	2.019	47.920	0.381

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	98.1%	318.500	320.200	320.000	304.800	293.000	297.000	302.600	301.600	96.8%
2	16:22:55	97.1%	320.300	319.500	317.600	305.100	292.600	295.200	299.200	297.600	95.6%
3	16:23:22	97.7%	319.700	320.800	319.700	303.600	295.000	298.400	305.400	301.200	95.5%
x		97.6%	106.510%	106.726%	319.100	304.500	97.843%	296.900	302.400	100.043%	96.0%
σ		0.5%	n/a	n/a	1.318	0.769	n/a	1.639	3.114	n/a	0.7%
%RSD		0.5	0.280	0.208	0.413	0.253	0.441	0.552	1.030	0.736	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:28	314.500	312.800	314.400	310.300	309.500	310.400	99.8%	307.000	313.500	304.500
2	16:22:55	311.400	308.200	306.900	303.500	308.900	306.500	97.1%	305.600	311.700	304.100
3	16:23:22	313.800	311.600	310.200	306.700	307.100	309.500	98.2%	303.500	310.700	299.900
x		104.396%	103.612%	310.500	102.268%	102.832%	102.931%	98.4%	305.300	103.988%	100.944%
σ		n/a	n/a	3.751	n/a	n/a	n/a	1.4%	1.746	n/a	n/a
%RSD		0.519	0.766	1.208	1.104	0.416	0.664	1.4	0.572	0.463	0.842

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:22:28	304.900	307.400	97.9%
2	16:22:55	302.900	304.700	92.7%
3	16:23:22	300.900	303.500	93.2%
x		100.965%	101.726%	94.6%
σ		n/a	n/a	2.9%
%RSD		0.651	0.653	3.0

CCB IM9390-01 04/30/2019 16:28:08 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	106.7%	0.024	2.193	1.457	25.480	9.460	7.704	8.175	7.874	-0.035
2	16:29:01	104.4%	0.079	1.299	1.270	27.180	8.178	5.967	5.925	6.633	-0.068
3	16:29:28	105.9%	0.029	1.129	1.278	16.190	5.374	5.359	6.036	5.231	-0.087
x		105.7%	0.044	1.540	1.335	22.950	7.671	6.344	6.712	6.579	-0.063
σ		1.1%	0.031	0.571	0.106	5.916	2.090	1.217	1.269	1.322	0.026
%RSD		1.1	69.550	37.090	7.908	25.780	27.240	19.190	18.900	20.100	41.680

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	14.970	413.100	8.827	13.710	7.186	103.0%	0.058	0.056	0.073	24.420
2	16:29:01	15.170	423.800	4.106	6.202	5.780	105.2%	-0.036	-0.015	0.048	46.730
3	16:29:28	14.520	386.800	0.551	2.538	5.580	106.9%	-0.082	-0.008	0.040	34.590
x		14.890	407.900	4.495	7.483	6.182	105.0%	-0.020	0.011	0.053	35.240
σ		0.331	19.070	4.152	5.695	0.876	2.0%	0.072	0.039	0.017	11.170
%RSD		2.222	4.675	92.370	76.110	14.160	1.9	360.800	359.200	31.870	31.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	9.176	0.059	11.560	8.570	0.056	0.019	-0.154	0.021	0.024	-0.016
2	16:29:01	6.497	0.034	8.670	4.909	0.061	0.034	-0.009	0.028	0.043	0.002
3	16:29:28	5.897	0.039	7.029	-8.127	0.049	0.033	-0.358	0.018	0.045	0.025
x		7.190	0.044	9.085	1.784	0.055	0.028	-0.174	0.022	0.037	0.004
σ		1.746	0.013	2.292	8.776	0.006	0.009	0.175	0.005	0.011	0.021
%RSD		24.280	30.070	25.230	491.900	11.360	30.050	100.900	22.440	30.060	553.700

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	0.116	0.072	0.014	1.008	0.051	-0.060	-0.381	-0.023	-1.418	0.036
2	16:29:01	0.069	0.061	-0.080	0.812	-0.127	0.242	-2.451	-0.565	0.658	0.029
3	16:29:28	0.243	0.110	0.086	0.158	0.343	0.509	0.778	0.195	-0.870	0.030
x		0.143	0.081	0.007	0.659	0.089	0.230	-0.685	-0.131	-0.543	0.031
σ		0.090	0.025	0.083	0.445	0.238	0.285	1.636	0.391	1.076	0.004
%RSD		62.880	31.370	1221.000	67.490	266.700	123.700	238.900	298.800	198.000	12.000

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	102.5%	0.126	0.088	0.084	1.106	0.049	0.038	0.039	0.045	100.1%
2	16:29:01	101.9%	0.102	0.053	0.091	0.357	0.018	0.044	0.046	0.021	101.6%
3	16:29:28	103.2%	0.097	0.048	0.056	0.152	0.026	0.033	0.027	0.021	103.7%
x		102.5%	0.108	0.063	0.077	0.538	0.031	0.038	0.038	0.029	101.8%
σ		0.6%	0.015	0.022	0.018	0.502	0.016	0.006	0.010	0.014	1.8%
%RSD		0.6	14.270	34.130	23.890	93.270	51.690	14.500	26.170	46.860	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:34	0.096	0.112	0.159	0.112	0.091	0.044	99.6%	0.042	0.030	0.044
2	16:29:01	0.060	0.065	0.103	0.110	0.035	0.040	101.0%	0.022	0.029	0.047
3	16:29:28	0.056	0.067	0.142	0.140	0.012	0.012	102.4%	0.037	0.032	0.033
x		0.070	0.081	0.135	0.121	0.046	0.032	101.0%	0.034	0.031	0.041
σ		0.022	0.027	0.029	0.017	0.041	0.018	1.4%	0.010	0.001	0.007
%RSD		31.610	32.690	21.550	13.660	88.670	55.360	1.4	30.440	4.154	17.650

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:28:34	0.038	0.040	97.7%
2	16:29:01	0.039	0.040	100.0%
3	16:29:28	0.031	0.033	102.2%
x		0.036	0.038	100.0%
σ		0.004	0.004	2.2%
%RSD		11.880	10.790	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	105.1%	-0.012	1.470	1.228	-18.880	┬2525.000	┬16150.000	┬16460.000	┬16730.000	2.740
2	16:35:07	103.9%	0.003	1.283	1.165	-25.500	┬2546.000	┬16160.000	┬16360.000	┬16870.000	2.613
3	16:35:34	107.2%	-0.028	1.211	0.890	-31.090	┬2480.000	┬16100.000	┬16330.000	┬16530.000	2.581
x		105.4%	-0.012	1.321	1.094	-25.160	┬2517.000	┬16140.000	┬16380.000	┬16710.000	2.645
σ		1.7%	0.015	0.134	0.180	6.116	┬33.780	┬28.150	┬69.800	┬167.900	0.084
%RSD		1.6	126.200	10.110	16.420	24.310	┬1.342	┬0.174	┬0.426	┬1.005	3.182

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	┬7986.000	┬73220.000	┬3503.000	63380.000	┬64300.000	103.2%	1.749	0.092	0.637	1867.000
2	16:35:07	┬7947.000	┬71750.000	┬3404.000	63870.000	┬64610.000	103.6%	1.546	0.099	0.593	1832.000
3	16:35:34	┬7771.000	┬71360.000	┬3346.000	62830.000	┬64010.000	105.4%	1.811	0.187	0.574	1797.000
x		┬7901.000	┬72110.000	┬3417.000	63360.000	┬64310.000	104.1%	1.702	0.126	0.601	1832.000
σ		┬114.700	┬979.800	┬79.220	520.000	┬301.800	1.2%	0.139	0.053	0.033	34.700
%RSD		┬1.451	┬1.359	┬2.318	0.821	┬0.469	1.1	8.162	42.380	5.451	1.894

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	19.710	66.740	25.680	703.700	0.837	4.254	3.374	0.180	0.370	0.758
2	16:35:07	18.490	67.870	23.830	646.600	0.861	4.227	3.353	0.173	0.285	0.533
3	16:35:34	19.020	67.540	23.390	618.100	0.823	4.352	3.303	0.140	0.366	0.711
x		19.080	67.380	24.300	656.100	0.840	4.278	3.343	0.164	0.340	0.667
σ		0.610	0.582	1.211	43.630	0.019	0.066	0.037	0.022	0.048	0.119
%RSD		3.196	0.863	4.983	6.649	2.261	1.531	1.093	13.130	14.080	17.750

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	9.246	6.798	0.151	0.254	4.669	4.893	0.459	0.101	-0.171	36.200
2	16:35:07	7.981	6.672	-0.043	0.190	4.371	4.697	-1.744	-0.384	-0.551	36.090
3	16:35:34	8.288	6.586	0.064	0.256	4.299	3.915	0.150	0.087	-1.666	36.050
x		8.505	6.685	0.057	0.233	4.446	4.502	-0.378	-0.065	-0.796	36.110
σ		0.660	0.107	0.097	0.037	0.196	0.518	1.193	0.276	0.777	0.080
%RSD		7.760	1.596	170.100	16.050	4.414	11.490	315.400	423.500	97.600	0.221

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	102.3%	0.069	0.018	0.032	1.590	0.006	0.017	0.046	0.057	102.4%
2	16:35:07	105.3%	0.043	0.042	0.039	1.474	0.005	0.010	0.082	0.035	104.6%
3	16:35:34	107.4%	0.029	0.074	0.021	1.641	0.012	0.018	0.030	0.045	105.5%
x		105.0%	0.047	0.045	0.031	1.568	0.008	0.015	0.053	0.046	104.2%
σ		2.6%	0.020	0.028	0.009	0.086	0.004	0.004	0.027	0.011	1.6%
%RSD		2.5	43.600	62.340	28.370	5.463	47.380	30.100	50.320	24.200	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:40	0.319	0.426	0.094	0.095	142.800	141.800	102.3%	0.015	0.004	0.021
2	16:35:07	0.288	0.448	0.099	0.089	142.100	141.900	106.4%	0.012	0.000	0.022
3	16:35:34	0.301	0.420	0.091	0.099	140.900	141.700	106.7%	0.006	0.008	0.006
x		0.302	0.431	0.094	0.094	141.900	141.800	105.1%	0.011	0.004	0.016
σ		0.015	0.014	0.004	0.005	0.951	0.105	2.5%	0.005	0.004	0.009
%RSD		5.045	3.361	3.958	5.549	0.670	0.074	2.4	42.090	90.330	56.890

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:34:40	0.019	0.016	101.5%
2	16:35:07	0.015	0.011	107.4%
3	16:35:34	0.014	0.007	107.1%
x		0.016	0.011	105.4%
σ		0.003	0.005	3.3%
%RSD		15.790	40.580	3.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	106.6%	0.113	3.661	3.757	38.970	┬4003.000	┬4670.000	┬4598.000	┬4695.000	13.350
2	16:41:13	107.3%	0.110	3.407	3.508	31.600	┬3988.000	┬4763.000	┬4658.000	┬4669.000	13.560
3	16:41:40	110.5%	0.114	3.838	3.548	27.990	┬3936.000	┬4698.000	┬4680.000	┬4740.000	13.480
x		108.1%	0.112	3.635	3.604	32.850	┬3976.000	┬4710.000	┬4645.000	┬4701.000	13.460
σ		2.1%	0.002	0.216	0.133	5.595	┬35.130	┬47.450	┬42.520	┬35.550	0.105
%RSD		1.9	2.148	5.951	3.702	17.030	┬0.883	┬1.007	┬0.915	┬0.756	0.780
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	┬5681.000	┬76640.000	┬3407.000	9760.000	9495.000	105.5%	1.154	0.050	0.616	1596.000
2	16:41:13	┬5655.000	┬76220.000	┬3391.000	9753.000	9500.000	104.5%	1.200	0.149	0.546	1691.000
3	16:41:40	┬5484.000	┬76060.000	┬3360.000	9560.000	9473.000	104.9%	1.468	0.133	0.580	1847.000
x		┬5606.000	┬76310.000	┬3386.000	9691.000	9489.000	104.9%	1.274	0.111	0.581	1712.000
σ		┬107.100	┬298.600	┬23.740	113.300	14.200	0.5%	0.170	0.053	0.035	126.800
%RSD		┬1.910	┬0.391	┬0.701	1.169	0.150	0.5	13.340	48.000	6.015	7.406
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	1478.000	™2954.000	┬1469.000	1503.000	6.865	7.320	6.831	6.356	6.607	32.140
2	16:41:13	1492.000	™2998.000	┬1498.000	1543.000	6.837	7.301	7.208	6.431	6.650	33.050
3	16:41:40	1477.000	™2948.000	┬1496.000	1535.000	6.770	7.099	6.905	6.383	6.659	32.960
x		1482.000	™2967.000	┬1487.000	1527.000	6.824	7.240	6.982	6.390	6.639	32.720
σ		8.233	™27.360	┬16.270	21.070	0.049	0.123	0.200	0.038	0.028	0.502
%RSD		0.555	™0.922	┬1.094	1.380	0.712	1.692	2.864	0.599	0.418	1.533
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	35.110	36.410	0.184	0.105	2.964	3.153	-1.961	-0.417	-0.276	43.140
2	16:41:13	35.410	37.100	0.321	-0.052	4.094	3.915	0.488	0.097	0.827	42.770
3	16:41:40	34.410	35.750	0.316	-0.268	3.654	3.888	-0.348	-0.037	-0.775	43.230
x		34.980	36.420	0.274	-0.072	3.571	3.652	-0.607	-0.119	-0.075	43.040
σ		0.512	0.674	0.078	0.187	0.570	0.432	1.245	0.267	0.819	0.244
%RSD		1.464	1.850	28.340	260.200	15.950	11.840	205.000	224.800	1097.000	0.568
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	110.8%	0.055	0.051	0.059	1.382	2.186	2.237	0.231	0.226	106.9%
2	16:41:13	108.7%	0.076	0.069	0.058	2.319	2.140	2.120	0.238	0.238	107.1%
3	16:41:40	105.5%	0.072	0.063	0.032	2.786	2.181	2.135	0.225	0.226	103.0%
x		108.4%	0.068	0.061	0.050	2.162	2.169	2.164	0.231	0.230	105.7%
σ		2.7%	0.011	0.009	0.015	0.715	0.026	0.064	0.006	0.007	2.3%
%RSD		2.5	16.700	15.120	30.520	33.050	1.181	2.935	2.806	2.944	2.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:46	0.318	0.382	0.073	0.083	109.500	109.500	107.5%	0.112	0.092	0.324
2	16:41:13	0.306	0.364	0.066	0.091	109.200	108.900	106.9%	0.087	0.080	0.256
3	16:41:40	0.284	0.355	0.069	0.065	110.200	109.100	103.7%	0.079	0.110	0.311
x		0.303	0.367	0.069	0.080	109.600	109.200	106.0%	0.093	0.094	0.297
σ		0.017	0.014	0.004	0.014	0.520	0.313	2.0%	0.017	0.015	0.036
%RSD		5.584	3.717	5.347	17.050	0.474	0.287	1.9	18.380	15.970	12.120
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:40:46	0.286	0.312	109.6%							
2	16:41:13	0.339	0.295	108.2%							
3	16:41:40	0.320	0.302	105.2%							
x		0.315	0.303	107.7%							
σ		0.027	0.009	2.2%							
%RSD		8.503	2.801	2.1							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	107.5%	-0.014	1.763	1.729	-52.200	T 3368.000	T 28840.000	T 29200.000	T 30060.000	1.802
2	16:47:20	105.4%	-0.036	1.883	1.800	-50.760	T 3423.000	T 28250.000	T 28760.000	T 29610.000	1.755
3	16:47:48	104.0%	-0.021	1.817	1.765	-51.940	T 3471.000	T 28720.000	T 28700.000	T 29550.000	1.760
x		105.6%	-0.024	1.821	1.765	-51.630	T 3420.000	T 28600.000	T 28890.000	T 29740.000	1.772
σ		1.8%	0.011	0.060	0.036	0.770	T 51.690	T 311.000	T 274.400	T 279.400	0.025
%RSD		1.7	47.990	3.319	2.026	1.492	T 1.511	T 1.087	T 0.950	T 0.939	1.428
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	T 9368.000	T 67560.000	T 3404.000	M 131500.000	TM 134000.000	104.4%	1.923	-0.024	0.454	1912.000
2	16:47:20	T 9687.000	T 68040.000	T 3408.000	M 131700.000	TM 133000.000	106.5%	2.039	0.100	0.384	1772.000
3	16:47:48	T 9588.000	T 66940.000	T 3431.000	M 132200.000	TM 135600.000	106.6%	2.092	-0.180	0.384	1936.000
x		T 9548.000	T 67510.000	T 3414.000	M 131800.000	TM 134200.000	105.8%	2.018	-0.035	0.408	1873.000
σ		T 163.200	T 552.100	T 14.440	M 383.100	TM 1299.000	1.3%	0.087	0.140	0.040	88.350
%RSD		T 1.709	T 0.818	T 0.423	M 0.291	TM 0.968	1.2	4.304	405.800	9.881	4.717
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	2044.000	T 404.000	T 2027.000	3351.000	6.183	16.390	14.460	0.172	0.577	0.971
2	16:47:20	1995.000	T 404.100	T 2062.000	3220.000	6.285	15.980	13.980	0.165	0.660	0.940
3	16:47:48	2020.000	T 413.500	T 2091.000	3212.000	6.247	16.160	15.360	0.155	0.576	1.057
x		2020.000	T 407.200	T 2060.000	3261.000	6.238	16.170	14.600	0.164	0.604	0.990
σ		24.440	T 5.467	T 31.920	78.120	0.052	0.207	0.702	0.008	0.048	0.061
%RSD		1.210	T 1.343	T 1.550	2.395	0.831	1.280	4.806	5.126	7.941	6.150
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	33.660	25.850	1.674	0.220	18.270	18.650	-0.712	-0.098	-2.585	83.460
2	16:47:20	33.030	25.120	1.698	-0.009	17.480	17.980	-0.952	-0.163	-1.572	82.770
3	16:47:48	34.080	27.220	1.599	0.202	16.440	17.760	0.303	0.114	-1.334	82.890
x		33.590	26.070	1.657	0.137	17.400	18.130	-0.454	-0.049	-1.830	83.040
σ		0.529	1.065	0.052	0.127	0.921	0.463	0.666	0.145	0.664	0.370
%RSD		1.576	4.086	3.132	92.620	5.292	2.552	146.900	293.400	36.300	0.446
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	100.5%	0.051	0.050	0.038	3.952	0.004	0.004	0.013	0.008	99.1%
2	16:47:20	105.2%	0.085	0.059	0.045	4.366	-0.002	0.010	0.001	0.009	102.1%
3	16:47:48	104.4%	0.067	0.056	0.056	3.309	0.003	0.002	0.008	0.024	102.2%
x		103.4%	0.068	0.055	0.046	3.876	0.002	0.005	0.007	0.013	101.1%
σ		2.5%	0.017	0.005	0.009	0.532	0.003	0.004	0.006	0.009	1.8%
%RSD		2.4	24.940	8.372	18.760	13.730	173.300	74.080	80.870	66.550	1.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:52	0.237	0.303	0.053	0.054	M 598.000	M 602.200	100.1%	0.026	0.035	-0.005
2	16:47:20	0.249	0.359	0.054	0.075	M 599.600	M 600.700	103.2%	0.020	0.017	-0.020
3	16:47:48	0.232	0.332	0.039	0.057	M 593.900	M 597.200	104.4%	0.036	0.025	-0.008
x		0.240	0.331	0.049	0.062	M 597.200	M 600.000	102.6%	0.027	0.026	-0.011
σ		0.009	0.028	0.008	0.011	M 2.959	M 2.562	2.2%	0.008	0.009	0.008
%RSD		3.590	8.339	16.490	17.900	M 0.495	M 0.427	2.2	29.390	33.850	73.590
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:46:52	-0.007	-0.006	96.7%							
2	16:47:20	-0.007	-0.012	99.6%							
3	16:47:48	-0.005	-0.010	100.6%							
x		-0.006	-0.009	98.9%							
σ		0.001	0.003	2.0%							
%RSD		21.050	28.630	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	104.7%	-0.020	2.761	2.630	-23.400	T 5452.000	T 26130.000	T 25910.000	T 25930.000	2.427
2	16:53:27	108.4%	-0.007	2.849	2.807	-33.270	T 5436.000	T 26210.000	T 26280.000	T 26520.000	2.522
3	16:53:55	105.2%	-0.001	3.006	2.789	-34.930	T 5353.000	T 25670.000	T 26140.000	T 26840.000	2.457
x		106.1%	-0.009	2.872	2.742	-30.540	T 5413.000	T 26000.000	T 26110.000	T 26430.000	2.469
σ		2.0%	0.010	0.124	0.097	6.236	T 52.900	T 290.600	T 183.800	T 459.100	0.049
%RSD		1.9	102.700	4.306	3.546	20.420	T 0.977	T 1.118	T 0.704	T 1.737	1.973

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	T 7321.000	T 69310.000	T 2816.000	M 101100.000	TM 101600.000	105.1%	1.590	-0.028	0.488	1667.000
2	16:53:27	T 7256.000	T 70870.000	T 2876.000	M 101900.000	TM 102600.000	102.3%	2.444	-0.039	0.524	1974.000
3	16:53:55	T 7385.000	T 67820.000	T 2740.000	98580.000	TM 100800.000	107.2%	1.323	-0.191	0.426	1825.000
x		T 7321.000	T 69330.000	T 2811.000	M 100500.000	TM 101700.000	104.8%	1.786	-0.086	0.479	1822.000
σ		T 64.450	T 1523.000	T 68.150	M 1726.000	TM 870.200	2.5%	0.585	0.091	0.050	153.100
%RSD		T 0.880	T 2.196	T 2.424	M 1.718	TM 0.856	2.3	32.780	105.800	10.350	8.404

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	1626.000	TM 6232.000	T 1635.000	2550.000	13.320	14.540	14.780	0.150	0.516	16.180
2	16:53:27	1644.000	TM 6195.000	T 1649.000	2736.000	13.500	15.120	14.360	0.113	0.518	15.950
3	16:53:55	1603.000	TM 6159.000	T 1637.000	2504.000	13.150	15.050	13.180	0.135	0.532	15.900
x		1624.000	TM 6195.000	T 1641.000	2597.000	13.320	14.900	14.110	0.133	0.522	16.010
σ		20.590	TM 36.630	T 7.576	122.700	0.177	0.316	0.831	0.019	0.009	0.148
%RSD		1.268	TM 0.591	T 0.462	4.726	1.331	2.121	5.886	13.950	1.689	0.922

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	33.070	29.640	1.165	0.052	9.310	9.726	-0.731	-0.135	-0.723	98.100
2	16:53:27	34.250	29.870	1.067	0.539	8.817	9.495	-1.664	-0.358	-0.353	97.740
3	16:53:55	32.800	29.280	1.296	0.340	10.330	9.417	-0.067	0.028	-0.893	98.930
x		33.370	29.600	1.176	0.310	9.486	9.546	-0.821	-0.155	-0.656	98.260
σ		0.768	0.301	0.114	0.244	0.773	0.161	0.802	0.194	0.276	0.612
%RSD		2.302	1.018	9.730	78.780	8.146	1.683	97.770	124.900	42.050	0.623

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	100.8%	0.282	0.262	0.304	5.271	-0.004	0.001	0.008	0.016	99.2%
2	16:53:27	98.4%	0.284	0.256	0.281	4.833	0.003	0.005	0.008	0.003	96.8%
3	16:53:55	103.6%	0.296	0.233	0.293	4.368	0.001	0.001	0.015	0.005	101.6%
x		100.9%	0.287	0.250	0.293	4.824	-0.000	0.002	0.010	0.008	99.2%
σ		2.6%	0.007	0.015	0.012	0.452	0.004	0.003	0.004	0.007	2.4%
%RSD		2.6	2.537	6.185	3.978	9.368	1395.000	127.200	40.190	85.560	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:59	0.270	0.392	0.073	0.083	345.200	343.400	99.4%	0.063	0.065	-0.012
2	16:53:27	0.225	0.354	0.041	0.103	342.900	342.400	97.7%	0.062	0.049	-0.018
3	16:53:55	0.249	0.304	0.066	0.062	339.400	340.700	102.2%	0.050	0.061	-0.016
x		0.248	0.350	0.060	0.083	342.500	342.200	99.7%	0.058	0.058	-0.015
σ		0.023	0.044	0.017	0.021	2.959	1.370	2.3%	0.007	0.008	0.003
%RSD		9.245	12.590	28.380	24.970	0.864	0.400	2.3	12.610	13.960	20.190

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	16:52:59	-0.015	-0.014	95.7%
2	16:53:27	-0.012	-0.012	92.0%
3	16:53:55	-0.008	-0.015	97.8%
x		-0.012	-0.014	95.2%
σ		0.003	0.001	2.9%
%RSD		27.940	9.738	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	106.2%	44.270	49.400	49.950	-30.170	T 6220.000	T 26800.000	T 26990.000	T 27530.000	101.800
2	16:59:32	107.7%	44.470	51.630	50.020	-35.130	T 6244.000	T 27070.000	T 27120.000	T 27490.000	100.500
3	16:59:59	103.1%	46.290	52.070	50.210	-34.010	T 6310.000	T 26650.000	T 26300.000	T 26950.000	99.750
x		105.7%	45.010	51.030	50.060	-33.100	T 6258.000	T 26840.000	T 26800.000	T 27320.000	100.700
σ		2.4%	1.116	1.433	0.134	2.600	T 46.290	T 212.100	T 439.600	T 324.000	1.020
%RSD		2.3	2.479	2.807	0.268	7.855	T 0.740	T 0.790	T 1.640	T 1.186	1.014
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	T 8264.000	T 71730.000	T 3943.000	M 104100.000	TM 104300.000	104.0%	101.800	104.200	99.030	2552.000
2	16:59:32	T 8111.000	T 71090.000	T 3891.000	M 103100.000	TM 104000.000	104.6%	102.700	98.890	95.640	3347.000
3	16:59:59	T 8466.000	T 69890.000	T 3856.000	M 102000.000	TM 103600.000	106.6%	101.300	102.200	98.430	1817.000
x		T 8280.000	T 70900.000	T 3897.000	M 103100.000	TM 104000.000	105.1%	101.900	101.700	97.700	2572.000
σ		T 177.900	T 934.500	T 43.640	M 1064.000	TM 377.900	1.4%	0.682	2.664	1.809	765.100
%RSD		T 2.148	T 1.318	T 1.120	M 1.033	TM 0.363	1.3	0.669	2.619	1.852	29.750
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	2717.000	TM 6329.000	T 2708.000	3722.000	109.000	111.800	112.500	96.190	96.950	110.500
2	16:59:32	2703.000	TM 6326.000	T 2673.000	3693.000	109.400	108.200	107.100	96.130	98.900	110.000
3	16:59:59	2651.000	TM 6315.000	T 2694.000	3535.000	107.400	108.600	106.600	94.060	94.950	111.700
x		2691.000	TM 6323.000	T 2692.000	3650.000	108.600	109.500	108.700	95.460	96.930	110.800
σ		34.770	TM 7.549	T 17.500	100.300	1.069	1.986	3.295	1.213	1.972	0.894
%RSD		1.292	TM 0.119	T 0.650	2.748	0.985	1.813	3.031	1.270	2.034	0.807
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	127.200	125.400	99.820	99.080	8.214	8.045	453.500	104.200	2.758	197.800
2	16:59:32	125.800	123.900	98.040	98.280	7.973	8.068	422.400	96.530	1.443	198.900
3	16:59:59	125.900	125.000	102.500	100.700	6.839	7.949	440.900	101.400	2.255	197.300
x		126.300	124.800	100.100	99.360	7.675	8.021	438.900	100.700	2.152	198.000
σ		0.774	0.764	2.234	1.254	0.734	0.063	15.640	3.861	0.664	0.794
%RSD		0.613	0.612	2.232	1.262	9.565	0.785	3.563	3.834	30.840	0.401
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	101.7%	102.100	101.500	100.900	106.200	96.850	97.210	99.060	99.450	100.4%
2	16:59:32	99.8%	102.100	104.100	102.000	104.700	97.190	96.730	100.300	98.460	99.4%
3	16:59:59	107.6%	103.000	102.600	102.000	101.500	98.410	97.830	100.900	99.470	105.6%
x		103.0%	102.400	102.800	101.600	104.100	97.480	97.260	100.100	99.130	101.8%
σ		4.1%	0.527	1.288	0.669	2.375	0.821	0.550	0.950	0.573	3.3%
%RSD		3.9	0.514	1.253	0.659	2.282	0.843	0.566	0.949	0.578	3.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:05	101.700	100.900	99.430	99.420	443.600	446.800	102.2%	100.200	101.200	100.700
2	16:59:32	102.000	101.900	98.320	99.120	444.800	448.000	100.3%	101.700	102.900	101.600
3	16:59:59	102.800	102.000	102.300	100.300	445.200	446.200	108.2%	101.400	101.900	101.500
x		102.200	101.600	100.000	99.620	444.500	447.000	103.6%	101.100	102.000	101.200
σ		0.592	0.584	2.036	0.619	0.834	0.891	4.1%	0.801	0.891	0.472
%RSD		0.580	0.575	2.035	0.621	0.188	0.199	4.0	0.792	0.874	0.466
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	16:59:05	100.700	100.500	100.0%							
2	16:59:32	101.000	101.600	99.5%							
3	16:59:59	101.100	101.000	105.9%							
x		101.000	101.000	101.8%							
σ		0.222	0.535	3.6%							
%RSD		0.220	0.530	3.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	109.1%	44.140	52.740	49.810	-34.340	T 6252.000	T 27170.000	T 27830.000	T 28340.000	102.100
2	17:05:37	105.5%	45.560	49.700	50.450	-35.810	T 6341.000	T 26690.000	T 26980.000	T 27660.000	99.950
3	17:06:04	108.3%	46.530	50.870	50.180	-28.000	T 6342.000	T 27470.000	T 27510.000	T 27450.000	99.350
x		107.6%	45.410	51.100	50.150	-32.720	T 6312.000	T 27110.000	T 27440.000	T 27810.000	100.500
σ		1.9%	1.199	1.534	0.318	4.148	T 51.700	T 393.100	T 431.400	T 464.600	1.457
%RSD		1.7	2.641	3.002	0.635	12.680	T 0.819	T 1.450	T 1.572	T 1.671	1.450

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	T 8283.000	T 72490.000	T 3960.000	M 106300.000	TM 106800.000	104.7%	105.600	100.600	97.490	2839.000
2	17:05:37	T 8458.000	T 72260.000	T 3925.000	M 103900.000	TM 105700.000	107.2%	101.600	101.000	99.290	2620.000
3	17:06:04	T 8286.000	T 71490.000	T 3802.000	M 104100.000	TM 106400.000	106.5%	101.100	101.600	97.920	2737.000
x		T 8342.000	T 72080.000	T 3895.000	M 104800.000	TM 106300.000	106.1%	102.800	101.100	98.230	2732.000
σ		T 100.500	T 524.100	T 83.090	M 1344.000	TM 544.200	1.3%	2.457	0.464	0.939	109.600
%RSD		T 1.205	T 0.727	T 2.133	M 1.283	TM 0.512	1.2	2.390	0.459	0.956	4.011

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	2753.000	TM 6350.000	T 2743.000	3810.000	109.400	109.700	110.800	97.800	97.880	110.800
2	17:05:37	2733.000	TM 6472.000	T 2721.000	3587.000	109.400	110.800	109.600	95.130	97.340	114.100
3	17:06:04	2744.000	TM 6496.000	T 2716.000	3601.000	109.200	110.200	108.600	96.280	97.260	112.800
x		2743.000	TM 6439.000	T 2727.000	3666.000	109.300	110.200	109.700	96.410	97.490	112.600
σ		10.230	TM 78.450	T 14.620	124.800	0.115	0.581	1.089	1.339	0.338	1.640
%RSD		0.373	TM 1.218	T 0.536	3.404	0.105	0.527	0.993	1.389	0.346	1.457

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	128.800	126.700	100.200	102.800	9.056	9.091	456.300	103.900	-0.225	203.100
2	17:05:37	129.100	127.800	102.400	100.300	9.562	8.611	453.700	104.400	0.588	200.900
3	17:06:04	128.000	128.000	101.000	99.040	8.761	9.059	412.700	94.480	-0.803	201.100
x		128.700	127.500	101.200	100.700	9.126	8.920	440.900	100.900	-0.147	201.700
σ		0.603	0.675	1.128	1.941	0.405	0.268	24.490	5.588	0.699	1.252
%RSD		0.469	0.530	1.115	1.928	4.440	3.009	5.554	5.536	477.200	0.621

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	99.5%	102.700	102.800	102.900	112.400	98.540	97.810	100.400	98.280	99.6%
2	17:05:37	105.8%	103.000	105.200	102.700	106.200	97.660	97.890	100.300	100.000	104.2%
3	17:06:04	105.8%	103.100	104.600	103.000	109.000	98.420	97.960	99.790	100.600	104.7%
x		103.7%	102.900	104.200	102.900	109.200	98.210	97.890	100.200	99.640	102.8%
σ		3.7%	0.195	1.223	0.153	3.084	0.477	0.072	0.334	1.206	2.8%
%RSD		3.5	0.189	1.174	0.149	2.824	0.485	0.073	0.333	1.210	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:10	102.800	102.800	99.850	99.060	451.000	449.700	102.3%	102.800	104.000	102.500
2	17:05:37	103.000	101.900	101.300	100.200	449.500	451.100	106.3%	102.800	103.500	102.800
3	17:06:04	104.000	103.100	101.500	100.600	453.500	448.600	107.8%	102.700	103.400	103.200
x		103.300	102.600	100.900	99.950	451.300	449.800	105.5%	102.800	103.600	102.900
σ		0.655	0.621	0.912	0.793	2.029	1.255	2.9%	0.054	0.315	0.367
%RSD		0.634	0.605	0.904	0.793	0.450	0.279	2.7	0.052	0.303	0.357

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:05:10	103.200	102.800	100.6%
2	17:05:37	103.100	103.100	105.1%
3	17:06:04	102.800	102.800	106.7%
x		103.000	102.900	104.1%
σ		0.187	0.156	3.1%
%RSD		0.181	0.152	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	108.3%	-0.005	1.287	1.104	5.662	T 1437.000	T 6791.000	T 6779.000	T 6834.000	1.126
2	17:11:43	105.4%	-0.006	1.334	0.978	8.623	T 1418.000	T 6750.000	T 6697.000	T 6924.000	1.088
3	17:12:10	105.1%	0.033	1.276	1.221	18.590	T 1416.000	T 6729.000	T 6737.000	T 6662.000	1.001
x		106.3%	0.007	1.299	1.101	10.960	T 1424.000	T 6756.000	T 6738.000	T 6807.000	1.072
σ		1.7%	0.022	0.031	0.122	6.774	T 11.690	T 31.570	T 40.800	T 133.100	0.064
%RSD		1.6	304.800	2.392	11.060	61.810	T 0.821	T 0.467	T 0.606	T 1.956	5.939

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	T 1514.000	T 16310.000	625.300	21020.000	T 21310.000	103.3%	0.231	-0.043	0.141	445.200
2	17:11:43	T 1524.000	T 15850.000	596.100	20470.000	T 20910.000	107.1%	0.253	-0.021	0.135	395.300
3	17:12:10	T 1514.000	T 15670.000	594.100	20600.000	T 20960.000	106.7%	0.220	0.080	0.112	302.100
x		T 1517.000	T 15940.000	605.200	20700.000	T 21060.000	105.7%	0.235	0.005	0.129	380.900
σ		T 5.855	T 330.000	17.450	287.900	T 215.500	2.1%	0.016	0.066	0.015	72.670
%RSD		T 0.386	T 2.070	2.884	1.391	T 1.023	2.0	6.972	1259.000	11.690	19.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	344.000	TM 1309.000	357.200	564.900	2.876	3.442	3.014	0.018	0.191	3.364
2	17:11:43	328.400	TM 1290.000	358.100	518.200	2.797	3.167	2.923	0.037	0.108	3.148
3	17:12:10	321.400	TM 1262.000	349.000	513.400	2.746	2.982	1.865	0.009	0.133	3.239
x		331.300	TM 1287.000	354.700	532.200	2.806	3.197	2.601	0.021	0.144	3.251
σ		11.550	TM 23.520	5.036	28.460	0.066	0.232	0.639	0.014	0.043	0.109
%RSD		3.485	TM 1.827	1.420	5.347	2.338	7.247	24.570	65.930	29.740	3.346

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	7.046	6.484	0.189	0.358	1.936	2.143	-1.572	-0.306	-1.561	20.040
2	17:11:43	6.969	6.543	0.279	0.515	1.883	2.045	1.049	0.241	0.415	19.830
3	17:12:10	6.727	6.409	0.201	0.106	2.326	2.077	-0.720	-0.145	0.072	19.790
x		6.914	6.478	0.223	0.326	2.048	2.088	-0.414	-0.070	-0.358	19.890
σ		0.167	0.067	0.049	0.207	0.242	0.050	1.337	0.281	1.056	0.136
%RSD		2.408	1.036	21.850	63.360	11.790	2.387	322.700	399.700	294.900	0.682

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	101.1%	0.125	0.107	0.106	0.341	0.004	0.016	0.020	0.003	99.8%
2	17:11:43	105.4%	0.108	0.055	0.113	0.889	0.014	0.008	0.004	0.013	104.6%
3	17:12:10	104.5%	0.107	0.056	0.072	0.895	0.006	0.008	0.016	0.015	102.8%
x		103.7%	0.113	0.073	0.097	0.709	0.008	0.011	0.013	0.010	102.4%
σ		2.3%	0.010	0.030	0.022	0.318	0.005	0.004	0.008	0.006	2.4%
%RSD		2.2	8.835	41.160	22.510	44.870	68.110	40.620	61.080	64.040	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:16	0.085	0.119	0.024	0.018	71.260	71.380	97.7%	0.070	0.064	0.006
2	17:11:43	0.087	0.127	0.017	0.023	68.730	69.040	102.8%	0.066	0.059	0.013
3	17:12:10	0.042	0.133	0.027	0.021	68.900	68.940	103.7%	0.049	0.056	0.004
x		0.071	0.126	0.023	0.020	69.630	69.790	101.4%	0.062	0.059	0.008
σ		0.025	0.007	0.005	0.003	1.414	1.384	3.2%	0.011	0.004	0.005
%RSD		35.550	5.635	23.350	12.470	2.031	1.983	3.2	18.470	6.298	59.800

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:11:16	-0.010	0.005	96.6%
2	17:11:43	0.005	0.006	103.5%
3	17:12:10	0.012	0.004	103.7%
x		0.002	0.005	101.3%
σ		0.011	0.001	4.1%
%RSD		550.600	23.310	4.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	105.6%	50.840	56.110	57.480	-23.710	T 6151.000	T 26390.000	T 26960.000	T 27140.000	108.200
2	17:17:50	105.3%	50.270	54.150	56.890	-29.900	T 6108.000	T 26480.000	T 26840.000	T 26770.000	107.200
3	17:18:16	108.2%	49.090	55.720	55.910	-29.820	T 6057.000	T 26530.000	T 27080.000	T 27140.000	107.700
x		106.4%	50.070	55.330	56.760	-27.810	T 6105.000	T 26470.000	T 26960.000	T 27020.000	107.700
σ		1.6%	0.892	1.036	0.792	3.549	T 47.280	T 71.450	T 120.100	T 217.100	0.540
%RSD		1.5	1.781	1.873	1.395	12.760	T 0.774	T 0.270	T 0.445	T 0.803	0.502

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	T 8153.000	T 67680.000	T 3739.000	M 100200.000	TM 101500.000	104.1%	111.600	109.200	106.200	2393.000
2	17:17:50	T 8408.000	T 68850.000	T 3835.000	M 101900.000	TM 103000.000	104.4%	112.800	110.600	108.200	2234.000
3	17:18:16	T 8031.000	T 69160.000	T 3836.000	M 101100.000	TM 102800.000	105.4%	112.300	107.800	106.500	3092.000
x		T 8197.000	T 68560.000	T 3803.000	M 101100.000	TM 102400.000	104.6%	112.200	109.200	107.000	2573.000
σ		T 192.200	T 778.000	T 55.830	M 820.400	TM 821.900	0.7%	0.615	1.369	1.091	456.400
%RSD		T 2.345	T 1.135	T 1.468	M 0.812	TM 0.802	0.7	0.548	1.253	1.020	17.740

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	2764.000	TM 6273.000	T 2770.000	3550.000	115.200	117.800	119.500	103.400	108.000	124.500
2	17:17:50	2768.000	TM 6174.000	T 2748.000	3598.000	116.800	118.200	113.600	104.000	107.400	124.700
3	17:18:16	2833.000	TM 6269.000	T 2751.000	3640.000	116.700	118.500	119.200	105.800	111.600	125.400
x		2788.000	TM 6239.000	T 2756.000	3596.000	116.200	118.200	117.400	104.400	109.000	124.900
σ		38.920	TM 56.040	T 11.450	45.100	0.912	0.384	3.329	1.232	2.257	0.450
%RSD		1.396	TM 0.898	T 0.415	1.254	0.784	0.325	2.835	1.180	2.071	0.361

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	138.500	135.800	108.900	109.400	8.918	8.621	454.500	105.300	-0.735	205.000
2	17:17:50	137.300	133.900	107.800	110.800	9.197	9.644	459.600	108.500	0.677	204.900
3	17:18:16	137.400	133.400	108.100	112.500	9.409	8.932	470.000	111.800	-0.950	207.700
x		137.700	134.400	108.300	110.900	9.175	9.066	461.400	108.500	-0.336	205.900
σ		0.657	1.306	0.540	1.553	0.246	0.524	7.897	3.266	0.884	1.629
%RSD		0.477	0.972	0.499	1.401	2.681	5.782	1.712	3.009	263.000	0.791

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	101.1%	109.500	109.700	109.600	118.600	102.900	104.100	107.800	107.100	99.2%
2	17:17:50	101.8%	111.000	110.800	111.400	117.200	105.300	105.400	108.500	108.400	97.9%
3	17:18:16	101.1%	111.100	111.200	111.200	113.500	104.600	105.100	107.200	105.700	96.8%
x		101.3%	110.500	110.600	110.700	116.400	104.300	104.800	107.800	107.100	98.0%
σ		0.4%	0.921	0.754	0.961	2.624	1.256	0.697	0.654	1.319	1.2%
%RSD		0.4	0.833	0.682	0.868	2.254	1.205	0.664	0.606	1.232	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:23	111.300	109.800	105.600	106.400	449.500	454.200	100.2%	106.900	107.400	106.300
2	17:17:50	111.300	111.500	107.500	106.600	456.600	450.400	99.6%	108.100	108.100	107.700
3	17:18:16	110.000	110.600	104.800	105.300	453.200	452.500	97.1%	107.100	106.600	105.200
x		110.900	110.600	106.000	106.100	453.100	452.400	99.0%	107.400	107.400	106.400
σ		0.774	0.890	1.427	0.729	3.559	1.901	1.7%	0.628	0.759	1.272
%RSD		0.699	0.805	1.347	0.687	0.785	0.420	1.7	0.585	0.707	1.195

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:17:23	106.100	106.100	95.7%
2	17:17:50	107.600	107.500	95.8%
3	17:18:16	104.900	105.100	91.1%
x		106.200	106.200	94.2%
σ		1.346	1.195	2.7%
%RSD		1.268	1.124	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	107.6%	0.002	2.418	2.510	-28.770	T 5639.000	T 26340.000	T 26320.000	T 26970.000	1.446
2	17:23:55	107.6%	0.004	2.108	1.970	-34.510	T 5567.000	T 26080.000	T 26110.000	T 26480.000	1.295
3	17:24:22	109.0%	-0.016	1.958	2.150	-31.980	T 5622.000	T 26310.000	T 26450.000	T 26810.000	1.493
x		108.1%	-0.003	2.161	2.210	-31.750	T 5609.000	T 26240.000	T 26290.000	T 26750.000	1.411
σ		0.8%	0.011	0.234	0.275	2.876	T 37.310	T 142.500	T 172.300	T 250.100	0.103
%RSD		0.7	338.500	10.840	12.440	9.057	T 0.665	T 0.543	T 0.655	T 0.935	7.316

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	T 7482.000	T 75500.000	T 3003.000	M 104100.000	TM 103900.000	103.8%	1.900	-0.262	0.589	2154.000
2	17:23:55	T 7153.000	T 70700.000	T 2824.000	M 101300.000	TM 103600.000	108.1%	1.609	-0.138	0.537	1787.000
3	17:24:22	T 7314.000	T 74180.000	T 2970.000	M 102100.000	TM 103900.000	106.3%	1.616	0.067	0.516	1885.000
x		T 7316.000	T 73460.000	T 2932.000	M 102500.000	TM 103800.000	106.1%	1.708	-0.111	0.547	1942.000
σ		T 164.300	T 2480.000	T 94.880	M 1444.000	TM 209.800	2.2%	0.166	0.166	0.038	190.200
%RSD		T 2.246	T 3.376	T 3.236	M 1.408	TM 0.202	2.1	9.729	150.000	6.927	9.793

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	1651.000	TM 6286.000	T 1646.000	2684.000	13.910	16.060	14.450	0.171	0.534	15.850
2	17:23:55	1612.000	TM 6128.000	T 1605.000	2472.000	13.280	14.940	14.740	0.143	0.575	16.090
3	17:24:22	1649.000	TM 6294.000	T 1656.000	2658.000	13.350	15.520	13.600	0.163	0.552	16.000
x		1637.000	TM 6236.000	T 1636.000	2605.000	13.510	15.510	14.260	0.159	0.554	15.980
σ		22.370	TM 93.410	T 27.210	115.400	0.343	0.561	0.592	0.015	0.020	0.119
%RSD		1.366	TM 1.498	T 1.664	4.433	2.536	3.617	4.152	9.192	3.690	0.746

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	32.700	30.300	1.469	0.394	8.727	10.730	-0.992	-0.187	-1.611	99.900
2	17:23:55	32.820	29.450	1.168	-0.060	9.761	9.912	0.849	0.197	0.819	99.260
3	17:24:22	32.450	29.270	1.153	0.433	10.590	9.922	-0.651	-0.082	-2.699	99.990
x		32.660	29.670	1.263	0.255	9.693	10.190	-0.265	-0.024	-1.164	99.720
σ		0.188	0.551	0.178	0.274	0.934	0.470	0.979	0.198	1.801	0.398
%RSD		0.574	1.857	14.110	107.300	9.636	4.613	369.900	829.400	154.800	0.399

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	102.1%	0.373	0.285	0.236	3.976	0.018	0.016	0.015	0.016	101.1%
2	17:23:55	105.2%	0.304	0.275	0.282	5.544	0.008	0.011	0.026	0.013	103.2%
3	17:24:22	103.1%	0.312	0.251	0.240	6.974	0.007	0.015	0.026	0.011	102.3%
x		103.5%	0.330	0.270	0.253	5.498	0.011	0.014	0.023	0.013	102.2%
σ		1.6%	0.038	0.017	0.026	1.499	0.006	0.003	0.006	0.003	1.0%
%RSD		1.5	11.390	6.388	10.150	27.270	55.240	20.730	27.610	19.940	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:28	0.270	0.398	0.168	0.225	347.200	346.800	102.7%	0.079	0.083	0.010
2	17:23:55	0.267	0.375	0.214	0.173	346.300	349.300	104.6%	0.066	0.075	-0.002
3	17:24:22	0.257	0.400	0.187	0.213	348.100	345.500	103.5%	0.090	0.088	-0.003
x		0.265	0.391	0.190	0.204	347.200	347.200	103.6%	0.078	0.082	0.002
σ		0.007	0.014	0.024	0.027	0.892	1.952	1.0%	0.012	0.006	0.007
%RSD		2.525	3.652	12.400	13.470	0.257	0.562	0.9	15.330	7.779	410.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:23:28	0.006	0.008	100.4%
2	17:23:55	0.003	0.004	104.9%
3	17:24:22	-0.005	0.001	102.8%
x		0.002	0.004	102.7%
σ		0.006	0.004	2.2%
%RSD		328.200	86.260	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	107.0%	0.001	4.329	4.423	40.740	T 2373.000	T 16990.000	T 16620.000	T 16520.000	8.529
2	17:30:02	110.7%	-0.011	4.268	4.285	34.640	T 2278.000	T 16610.000	T 16380.000	T 16380.000	8.912
3	17:30:29	108.1%	-0.012	5.444	4.504	39.760	T 2389.000	T 16900.000	T 16480.000	T 16410.000	8.614
x		108.6%	-0.007	4.680	4.404	38.380	T 2347.000	T 16830.000	T 16490.000	T 16440.000	8.685
σ		1.9%	0.007	0.662	0.111	3.272	T 59.690	T 200.000	T 120.700	T 70.630	0.201
%RSD		1.7	94.410	14.150	2.517	8.525	T 2.544	T 1.188	T 0.732	T 0.430	2.317

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	T 3116.000	T 78970.000	T 3468.000	46110.000	T 46240.000	106.5%	0.883	-0.068	0.638	1775.000
2	17:30:02	T 3110.000	T 80390.000	T 3494.000	45360.000	T 45740.000	108.0%	0.991	0.129	0.680	1895.000
3	17:30:29	T 3062.000	T 78600.000	T 3500.000	45820.000	T 46290.000	106.2%	0.998	-0.062	0.652	1800.000
x		T 3096.000	T 79320.000	T 3487.000	45770.000	T 46090.000	106.9%	0.957	-0.001	0.657	1823.000
σ		T 29.550	T 945.400	T 16.550	378.500	T 303.300	1.0%	0.065	0.112	0.021	63.240
%RSD		T 0.955	T 1.192	T 0.475	0.827	T 0.658	0.9	6.753	14330.000	3.232	3.469

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	1285.000	TM 9186.000	T 1291.000	1661.000	18.080	4.755	4.032	0.576	0.757	4.538
2	17:30:02	1252.000	TM 9063.000	T 1313.000	1694.000	18.210	5.059	3.673	0.575	0.689	4.682
3	17:30:29	1280.000	TM 9215.000	T 1306.000	1714.000	18.450	4.947	4.365	0.544	0.703	4.483
x		1273.000	TM 9155.000	T 1303.000	1690.000	18.250	4.920	4.023	0.565	0.716	4.568
σ		17.720	TM 80.470	T 11.040	26.620	0.189	0.154	0.346	0.018	0.036	0.102
%RSD		1.392	TM 0.879	T 0.847	1.575	1.034	3.132	8.604	3.148	4.971	2.243

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	11.450	10.230	0.238	-0.110	4.358	3.709	-1.055	-0.194	-1.479	158.400
2	17:30:02	10.800	10.160	0.031	0.352	4.332	4.089	-0.588	-0.027	-2.604	158.700
3	17:30:29	11.760	9.772	0.073	-0.702	4.007	3.654	0.042	0.081	-1.755	157.600
x		11.340	10.050	0.114	-0.154	4.232	3.817	-0.533	-0.047	-1.946	158.200
σ		0.493	0.245	0.109	0.528	0.196	0.237	0.550	0.138	0.586	0.604
%RSD		4.344	2.438	95.520	344.100	4.629	6.206	103.200	296.900	30.130	0.382

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	107.5%	0.103	0.095	0.091	8.023	0.166	0.144	0.190	0.204	105.8%
2	17:30:02	105.7%	0.088	0.038	0.080	9.295	0.163	0.178	0.197	0.183	101.8%
3	17:30:29	109.4%	0.089	0.060	0.076	6.535	0.170	0.192	0.196	0.186	106.0%
x		107.5%	0.093	0.064	0.082	7.951	0.167	0.172	0.194	0.191	104.5%
σ		1.8%	0.009	0.029	0.008	1.381	0.003	0.025	0.004	0.012	2.4%
%RSD		1.7	9.341	44.720	9.801	17.370	2.032	14.340	1.983	6.029	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:35	0.342	0.388	0.097	0.090	131.600	132.500	106.1%	0.031	0.019	-0.000
2	17:30:02	0.304	0.379	0.094	0.115	131.500	132.200	103.8%	0.025	0.024	-0.008
3	17:30:29	0.303	0.359	0.111	0.089	131.900	132.200	106.8%	0.017	0.028	-0.005
x		0.316	0.375	0.101	0.098	131.700	132.300	105.6%	0.024	0.024	-0.004
σ		0.022	0.015	0.009	0.015	0.199	0.141	1.6%	0.007	0.004	0.004
%RSD		7.049	3.865	8.666	15.100	0.151	0.106	1.5	29.440	18.130	93.020

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:29:35	0.008	0.004	106.6%
2	17:30:02	0.006	0.002	103.5%
3	17:30:29	0.000	-0.002	106.6%
x		0.005	0.001	105.5%
σ		0.004	0.003	1.8%
%RSD		88.190	233.900	1.7

CCV MW10994 04/30/2019 17:35:16 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	100.0%	296.000	301.900	293.500	63.610	┬63700.000	┬61670.000	┬62890.000	┬62440.000	305.400
2	17:36:11	96.7%	302.300	316.100	309.500	70.350	┬64640.000	┬62300.000	┬62680.000	┬62290.000	304.100
3	17:36:38	97.1%	309.600	306.000	303.500	59.110	┬63930.000	┬61680.000	┬61080.000	┬61750.000	302.000
x		97.9%	100.880%	102.672%	100.725%	64.360	┬106.818%	┬61880.000	┬62220.000	┬103.600%	101.270%
σ		1.8%	n/a	n/a	n/a	5.659	┬n/a	┬359.900	┬990.500	┬n/a	n/a
%RSD		1.8	2.245	2.381	2.684	8.793	┬0.766	┬0.582	┬1.592	┬0.578	0.568

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	┬3246.000	760.100	┬64990.000	62520.000	┬63360.000	99.9%	307.500	313.800	299.400	1942.000
2	17:36:11	┬3386.000	752.400	┬65650.000	62900.000	┬63060.000	99.7%	307.700	320.100	307.200	1009.000
3	17:36:38	┬3413.000	704.000	┬64120.000	63450.000	┬64460.000	102.0%	309.500	324.100	307.300	1102.000
x		┬111.611%	738.900	┬108.195%	62960.000	┬106.042%	100.5%	102.754%	106.453%	101.536%	1351.000
σ		┬n/a	30.400	┬n/a	470.200	┬n/a	1.3%	n/a	n/a	n/a	514.200
%RSD		┬2.679	4.114	┬1.181	0.747	┬1.155	1.3	0.354	1.622	1.490	38.060

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	┬62960.000	294.500	┬63330.000	┬61790.000	295.700	291.800	291.900	293.300	306.200	300.800
2	17:36:11	┬64200.000	302.500	┬64920.000	┬62200.000	307.700	295.900	302.000	297.300	303.800	304.100
3	17:36:38	┬64030.000	302.500	┬63420.000	┬62380.000	300.600	295.600	294.600	290.100	300.000	304.700
x		┬63730.000	99.949%	┬63890.000	┬103.544%	100.436%	98.144%	296.200	293.600	101.115%	101.072%
σ		┬671.900	n/a	┬892.400	┬n/a	n/a	n/a	5.223	3.597	n/a	n/a
%RSD		┬1.054	1.551	┬1.397	┬0.487	1.999	0.773	1.763	1.225	1.017	0.682

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	287.000	293.300	290.500	307.300	0.867	0.527	1326.000	310.100	1.908	304.500
2	17:36:11	287.400	297.900	297.000	310.200	0.865	0.712	1346.000	311.900	4.329	304.300
3	17:36:38	291.200	296.200	302.800	310.900	0.958	0.313	1284.000	304.800	1.753	301.800
x		288.500	295.800	98.912%	309.500	0.897	0.517	1319.000	102.972%	2.663	101.180%
σ		2.328	2.361	n/a	1.916	0.053	0.200	31.640	n/a	1.445	n/a
%RSD		0.807	0.798	2.072	0.619	5.887	38.560	2.400	1.192	54.250	0.497

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	94.6%	316.700	319.700	316.900	298.300	292.700	295.400	300.000	296.300	92.3%
2	17:36:11	94.8%	318.700	321.800	320.000	310.100	292.400	293.800	299.200	298.900	93.2%
3	17:36:38	101.6%	319.900	315.300	317.600	302.700	296.900	296.400	302.600	303.300	96.8%
x		97.0%	106.148%	106.311%	318.100	303.700	98.014%	295.200	300.600	99.825%	94.1%
σ		4.0%	n/a	n/a	1.599	5.946	n/a	1.326	1.778	n/a	2.4%
%RSD		4.1	0.523	1.037	0.503	1.958	0.855	0.449	0.591	1.180	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:43	310.600	309.300	305.900	304.500	309.300	311.400	94.2%	300.500	305.900	297.400
2	17:36:11	310.600	306.900	306.800	305.900	308.800	313.600	94.2%	305.400	308.500	299.600
3	17:36:38	314.000	311.800	315.300	311.500	306.700	309.300	99.3%	301.100	306.100	298.400
x		103.918%	103.115%	309.300	102.431%	102.752%	103.811%	95.9%	302.300	102.287%	99.489%
σ		n/a	n/a	5.231	n/a	n/a	n/a	3.0%	2.668	n/a	n/a
%RSD		0.638	0.782	1.691	1.195	0.444	0.697	3.1	0.883	0.473	0.364

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:35:43	296.100	299.100	89.2%
2	17:36:11	299.400	301.900	89.8%
3	17:36:38	299.400	301.500	94.5%
x		99.435%	100.284%	91.2%
σ		n/a	n/a	2.9%
%RSD		0.640	0.507	3.2

CCB IM9390-01 04/30/2019 17:41:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	107.5%	0.062	1.335	1.080	16.870	9.485	8.750	8.308	8.893	-0.076
2	17:42:20	104.8%	0.005	1.422	0.781	17.820	6.399	7.087	6.786	7.218	-0.008
3	17:42:47	104.9%	0.019	1.051	0.955	7.756	4.676	5.901	5.327	5.705	0.023
x		105.7%	0.029	1.269	0.939	14.150	6.853	7.246	6.807	7.272	-0.020
σ		1.5%	0.030	0.194	0.150	5.557	2.437	1.431	1.490	1.595	0.050
%RSD		1.5	103.900	15.280	15.970	39.270	35.560	19.750	21.890	21.930	250.800

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	15.300	407.000	9.858	8.231	9.742	102.8%	0.036	0.042	0.093	15.480
2	17:42:20	15.260	388.700	7.362	6.269	6.944	104.4%	0.010	0.011	0.057	32.990
3	17:42:47	14.900	364.400	6.642	10.350	6.918	105.4%	-0.036	0.058	0.044	7.209
x		15.150	386.700	7.954	8.284	7.868	104.2%	0.003	0.037	0.065	18.560
σ		0.218	21.390	1.688	2.041	1.623	1.3%	0.036	0.024	0.026	13.160
%RSD		1.440	5.530	21.220	24.640	20.630	1.3	1128.000	64.200	40.110	70.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	8.790	0.720	13.460	11.190	0.054	0.013	0.211	0.018	0.051	0.024
2	17:42:20	7.160	0.704	9.837	1.402	0.046	0.018	-0.006	0.018	0.059	0.050
3	17:42:47	4.766	0.588	8.623	2.803	0.044	0.050	0.081	-0.012	0.017	0.027
x		6.905	0.671	10.640	5.132	0.048	0.027	0.095	0.008	0.042	0.033
σ		2.024	0.072	2.517	5.294	0.005	0.020	0.109	0.017	0.022	0.014
%RSD		29.310	10.760	23.660	103.200	10.590	75.090	114.400	218.900	51.920	42.380

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	0.007	0.039	-0.059	0.288	-0.005	1.021	-2.530	-0.568	-0.150	0.044
2	17:42:20	0.204	0.081	-0.043	0.303	-0.206	0.230	0.007	0.012	-0.003	0.041
3	17:42:47	0.022	0.100	0.036	0.332	-0.086	0.324	0.539	0.130	0.719	0.016
x		0.078	0.073	-0.022	0.308	-0.099	0.525	-0.661	-0.142	0.189	0.033
σ		0.110	0.032	0.051	0.023	0.101	0.432	1.640	0.374	0.465	0.015
%RSD		141.100	42.940	231.900	7.376	102.100	82.250	247.900	262.400	246.400	45.660

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	98.5%	0.086	0.070	0.098	0.150	0.035	0.042	0.036	0.032	98.8%
2	17:42:20	102.7%	0.087	0.070	0.044	-0.010	0.028	0.031	0.016	0.033	102.1%
3	17:42:47	104.0%	0.092	0.047	0.056	-0.694	0.030	0.024	0.042	0.041	102.4%
x		101.8%	0.088	0.062	0.066	-0.185	0.031	0.032	0.031	0.035	101.1%
σ		2.9%	0.003	0.013	0.029	0.449	0.004	0.009	0.014	0.005	2.0%
%RSD		2.8	3.161	20.840	43.430	242.900	11.630	29.350	43.460	14.270	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:54	0.040	0.111	0.126	0.125	0.015	0.077	95.8%	0.047	0.026	0.037
2	17:42:20	0.036	0.110	0.131	0.180	0.029	0.059	101.5%	0.035	0.023	0.028
3	17:42:47	0.068	0.080	0.104	0.127	0.056	0.028	101.6%	0.023	0.025	0.023
x		0.048	0.101	0.120	0.144	0.033	0.054	99.6%	0.035	0.025	0.029
σ		0.018	0.018	0.015	0.031	0.021	0.025	3.4%	0.012	0.001	0.007
%RSD		36.680	17.490	12.160	21.740	62.550	45.850	3.4	35.060	5.077	25.180

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:41:54	0.036	0.037	95.6%
2	17:42:20	0.064	0.045	101.9%
3	17:42:47	0.019	0.026	103.3%
x		0.040	0.036	100.3%
σ		0.023	0.009	4.1%
%RSD		57.230	25.150	4.1

UD13010-001 04/30/2019 17:47:32

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	110.8%	-0.019	4.875	4.922	-23.610	┬3096.000	┬13960.000	┬14100.000	┬14430.000	66.720
2	17:48:26	106.2%	-0.013	4.737	4.614	-29.230	┬3117.000	┬13960.000	┬13850.000	┬14150.000	65.290
3	17:48:53	106.9%	-0.010	4.485	4.674	-24.570	┬3082.000	┬13920.000	┬14060.000	┬14370.000	66.450
x		108.0%	-0.014	4.699	4.737	-25.800	┬3098.000	┬13950.000	┬14000.000	┬14320.000	66.150
σ		2.5%	0.005	0.198	0.164	3.003	┬17.730	┬23.800	┬131.600	┬150.400	0.763
%RSD		2.3	33.730	4.207	3.454	11.640	┬0.572	┬0.171	┬0.940	┬1.051	1.153
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	┬6248.000	┬74760.000	┬3252.000	68630.000	┬69900.000	105.3%	2.688	0.427	1.395	1956.000
2	17:48:26	┬6412.000	┬71810.000	┬3128.000	67500.000	┬69090.000	107.0%	2.474	0.670	1.332	1594.000
3	17:48:53	┬6458.000	┬73330.000	┬3234.000	68820.000	┬70280.000	106.4%	2.860	0.308	1.353	1973.000
x		┬6373.000	┬73300.000	┬3204.000	68320.000	┬69760.000	106.3%	2.674	0.468	1.360	1841.000
σ		┬110.600	┬1477.000	┬67.020	712.300	┬608.100	0.9%	0.193	0.185	0.032	214.200
%RSD		┬1.736	┬2.015	┬2.092	1.043	┬0.872	0.8	7.224	39.390	2.353	11.640
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	140.400	8.331	153.300	868.600	0.332	1.135	0.156	0.406	0.781	1.595
2	17:48:26	136.500	8.027	148.600	769.000	0.259	1.059	-0.140	0.408	0.610	1.564
3	17:48:53	139.800	8.010	150.000	824.100	0.280	1.172	0.240	0.403	0.612	1.475
x		138.900	8.123	150.600	820.600	0.291	1.122	0.086	0.406	0.667	1.545
σ		2.095	0.181	2.441	49.880	0.038	0.058	0.200	0.003	0.098	0.062
%RSD		1.508	2.225	1.621	6.079	12.970	5.145	232.900	0.657	14.680	4.020
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	11.310	9.283	0.159	0.500	2.743	2.543	-0.801	-0.137	-1.831	36.140
2	17:48:26	11.860	9.428	-0.087	-0.189	2.324	2.403	0.433	0.108	-0.197	36.380
3	17:48:53	11.760	9.258	0.072	0.054	2.329	2.691	0.162	0.012	1.575	36.100
x		11.640	9.323	0.048	0.122	2.466	2.546	-0.069	-0.006	-0.151	36.210
σ		0.293	0.092	0.125	0.349	0.241	0.144	0.648	0.123	1.704	0.150
%RSD		2.514	0.982	258.500	287.300	9.761	5.643	945.900	2162.000	1128.000	0.414
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	102.2%	0.215	0.284	0.278	1.639	0.016	0.019	0.030	0.022	102.1%
2	17:48:26	105.6%	0.320	0.308	0.288	0.933	0.020	0.011	0.029	0.015	105.1%
3	17:48:53	103.3%	0.309	0.363	0.274	2.309	0.015	0.016	0.023	0.013	102.6%
x		103.7%	0.281	0.318	0.280	1.627	0.017	0.016	0.027	0.017	103.3%
σ		1.8%	0.058	0.040	0.007	0.688	0.002	0.004	0.004	0.005	1.6%
%RSD		1.7	20.530	12.660	2.524	42.290	14.510	26.250	15.300	29.500	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:59	0.356	0.501	0.169	0.160	184.200	185.200	102.3%	-0.004	-0.005	0.200
2	17:48:26	0.336	0.498	0.157	0.209	182.500	184.700	106.5%	0.011	-0.006	0.213
3	17:48:53	0.311	0.492	0.164	0.160	184.000	182.400	104.2%	-0.009	-0.001	0.201
x		0.334	0.497	0.163	0.176	183.500	184.100	104.4%	-0.001	-0.004	0.205
σ		0.023	0.005	0.006	0.029	0.906	1.497	2.1%	0.010	0.002	0.007
%RSD		6.793	0.930	3.735	16.170	0.493	0.813	2.0	1586.000	62.890	3.595
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	17:47:59	0.182	0.190	102.1%							
2	17:48:26	0.173	0.190	107.3%							
3	17:48:53	0.196	0.193	104.0%							
x		0.184	0.191	104.5%							
σ		0.012	0.002	2.6%							
%RSD		6.321	1.020	2.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	108.8%	-0.017	1.684	1.435	-10.390	T 419.200	T 14370.000	T 14140.000	T 14520.000	18.510
2	17:54:31	110.9%	-0.022	1.417	1.260	-12.810	T 411.600	T 14060.000	T 14090.000	T 14670.000	18.350
3	17:54:59	108.5%	-0.018	1.330	1.233	-2.574	T 435.500	T 14530.000	T 14210.000	T 14380.000	17.510
x		109.4%	-0.019	1.477	1.309	-8.594	T 422.100	T 14320.000	T 14150.000	T 14520.000	18.120
σ		1.3%	0.003	0.184	0.110	5.352	T 12.200	T 234.600	T 62.710	T 145.500	0.540
%RSD		1.2	13.980	12.480	8.400	62.280	T 2.891	T 1.639	T 0.443	T 1.002	2.981

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	T 4293.000	T 74250.000	T 1057.000	20230.000	T 20560.000	105.9%	1.160	0.089	2.167	2034.000
2	17:54:31	T 4214.000	T 72960.000	T 1048.000	20260.000	T 20180.000	108.2%	1.232	0.134	2.151	2003.000
3	17:54:59	T 4249.000	T 72650.000	1058.000	20220.000	T 20310.000	110.3%	1.195	0.267	2.135	1729.000
x		T 4252.000	T 73290.000	T 1054.000	20240.000	T 20350.000	108.1%	1.196	0.163	2.151	1922.000
σ		T 39.700	T 851.300	T 5.862	21.240	T 192.200	2.2%	0.036	0.093	0.016	167.800
%RSD		T 0.934	T 1.162	T 0.556	0.105	T 0.944	2.1	2.996	56.830	0.758	8.732

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	41.730	1.311	47.800	263.000	0.078	0.389	-0.305	0.447	0.737	2.716
2	17:54:31	43.190	1.246	47.020	250.400	0.081	0.444	-0.226	0.418	0.730	2.969
3	17:54:59	43.510	1.239	44.710	209.800	0.085	0.345	-0.352	0.437	0.626	2.662
x		42.810	1.265	46.510	241.100	0.081	0.392	-0.294	0.434	0.698	2.783
σ		0.951	0.040	1.606	27.780	0.004	0.050	0.064	0.015	0.062	0.164
%RSD		2.221	3.154	3.454	11.520	4.374	12.660	21.750	3.449	8.881	5.895

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	46.720	37.200	0.050	0.272	1.714	1.720	-2.689	-0.592	-0.631	26.310
2	17:54:31	48.110	37.640	0.003	0.061	2.050	2.401	-1.781	-0.388	0.004	26.020
3	17:54:59	44.540	36.370	0.080	-0.022	1.843	2.062	-0.387	-0.077	-0.240	26.150
x		46.460	37.070	0.044	0.104	1.869	2.061	-1.619	-0.352	-0.289	26.160
σ		1.796	0.645	0.039	0.151	0.169	0.340	1.159	0.259	0.320	0.144
%RSD		3.866	1.741	87.860	145.800	9.059	16.520	71.610	73.570	110.800	0.550

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	102.7%	0.203	0.209	0.213	0.799	0.011	0.006	0.030	0.029	102.5%
2	17:54:31	105.4%	0.193	0.165	0.201	1.971	-0.001	0.004	0.041	0.035	103.7%
3	17:54:59	109.4%	0.210	0.227	0.176	1.951	0.010	0.006	0.050	0.043	108.8%
x		105.8%	0.202	0.200	0.197	1.574	0.007	0.005	0.040	0.036	105.0%
σ		3.3%	0.009	0.032	0.019	0.671	0.007	0.001	0.010	0.007	3.3%
%RSD		3.2	4.240	15.990	9.605	42.640	100.600	22.210	24.120	20.540	3.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:04	0.257	0.308	0.145	0.148	M 799.300	M 799.900	105.2%	-0.010	-0.015	0.064
2	17:54:31	0.311	0.415	0.117	0.140	M 803.600	M 808.000	104.1%	-0.007	-0.015	0.071
3	17:54:59	0.255	0.345	0.135	0.127	M 797.200	M 803.300	109.8%	-0.015	-0.014	0.070
x		0.274	0.356	0.132	0.138	M 800.100	M 803.700	106.4%	-0.011	-0.015	0.068
σ		0.032	0.055	0.014	0.011	M 3.272	M 4.042	3.0%	0.004	0.001	0.004
%RSD		11.490	15.360	10.820	7.918	M 0.409	M 0.503	2.8	38.390	6.708	5.238

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	17:54:04	0.077	0.070	106.0%
2	17:54:31	0.074	0.075	103.8%
3	17:54:59	0.062	0.083	110.4%
x		0.071	0.076	106.8%
σ		0.008	0.007	3.3%
%RSD		11.710	8.777	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	110.6%	-0.019	14.580	14.300	13.460	┬2253.000	┬22540.000	┬22810.000	┬22700.000	12.520
2	18:00:38	109.9%	0.000	15.210	14.130	6.759	┬2247.000	┬22630.000	┬22440.000	┬23110.000	12.650
3	18:01:05	107.6%	-0.016	14.020	14.220	9.983	┬2322.000	┬22750.000	┬22740.000	┬22880.000	12.300
x		109.4%	-0.012	14.610	14.220	10.070	┬2274.000	┬22640.000	┬22660.000	┬22900.000	12.490
σ		1.6%	0.010	0.593	0.086	3.349	┬41.770	┬105.900	┬194.300	┬204.600	0.178
%RSD		1.4	88.110	4.063	0.605	33.270	┬1.837	┬0.468	┬0.858	┬0.894	1.425
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	┬4920.000	┬77340.000	┬1843.000	64570.000	┬65270.000	104.6%	1.336	0.580	1.739	2009.000
2	18:00:38	┬5038.000	┬77260.000	┬1843.000	64880.000	┬65840.000	106.5%	1.320	0.254	1.548	2213.000
3	18:01:05	┬4985.000	┬75370.000	┬1794.000	63770.000	┬64770.000	109.6%	1.193	0.422	1.482	1863.000
x		┬4981.000	┬76650.000	┬1827.000	64410.000	┬65300.000	106.9%	1.283	0.419	1.589	2028.000
σ		┬59.260	┬1116.000	┬28.010	575.800	┬536.400	2.5%	0.078	0.163	0.134	176.000
%RSD		┬1.190	┬1.456	┬1.533	0.894	┬0.822	2.4	6.111	38.990	8.410	8.678
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	39.450	2.360	48.530	777.400	0.293	1.692	0.639	0.764	1.108	2.260
2	18:00:38	38.150	2.359	46.740	715.300	0.259	1.652	1.030	0.700	0.993	2.012
3	18:01:05	36.690	2.282	43.410	616.600	0.230	1.557	1.187	0.711	0.908	1.981
x		38.100	2.334	46.230	703.100	0.261	1.634	0.952	0.725	1.003	2.084
σ		1.383	0.045	2.595	81.100	0.032	0.069	0.283	0.034	0.100	0.153
%RSD		3.631	1.934	5.614	11.530	12.210	4.252	29.690	4.743	10.000	7.330
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	10.920	9.676	0.141	1.316	4.882	4.726	4.132	0.991	-0.075	57.990
2	18:00:38	11.380	9.223	0.074	1.393	5.480	4.275	3.434	0.773	1.544	58.310
3	18:01:05	10.720	9.431	0.240	0.848	5.351	5.558	2.124	0.476	-0.125	58.840
x		11.010	9.443	0.152	1.186	5.238	4.853	3.230	0.747	0.448	58.380
σ		0.338	0.227	0.083	0.295	0.315	0.651	1.019	0.259	0.949	0.433
%RSD		3.067	2.404	54.990	24.850	6.010	13.410	31.560	34.650	211.700	0.742
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	100.5%	1.699	1.616	1.474	2.623	0.009	0.009	0.018	0.008	98.5%
2	18:00:38	100.9%	1.613	1.697	1.683	2.415	0.003	0.004	-0.006	0.007	100.0%
3	18:01:05	104.0%	1.569	1.710	1.540	0.882	0.006	0.007	-0.002	0.009	104.9%
x		101.8%	1.627	1.674	1.566	1.973	0.006	0.007	0.003	0.008	101.1%
σ		1.9%	0.066	0.051	0.107	0.951	0.003	0.002	0.013	0.001	3.4%
%RSD		1.9	4.070	3.049	6.846	48.190	48.690	35.050	375.700	9.982	3.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:11	0.228	0.366	0.085	0.100	172.500	169.900	98.0%	0.008	0.004	0.110
2	18:00:38	0.207	0.357	0.081	0.071	169.300	170.200	100.4%	0.009	0.007	0.132
3	18:01:05	0.321	0.328	0.094	0.101	170.600	168.000	105.2%	0.011	0.001	0.133
x		0.252	0.350	0.087	0.090	170.800	169.400	101.2%	0.009	0.004	0.125
σ		0.060	0.020	0.007	0.017	1.606	1.179	3.7%	0.001	0.003	0.013
%RSD		24.010	5.680	7.777	18.990	0.940	0.696	3.6	16.120	68.820	10.630
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:00:11	0.132	0.120	96.4%							
2	18:00:38	0.108	0.123	97.9%							
3	18:01:05	0.105	0.117	103.4%							
x		0.115	0.120	99.2%							
σ		0.014	0.003	3.7%							
%RSD		12.530	2.835	3.7							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	110.2%	-0.007	5.133	4.838	17.710	┬508.700	┬20540.000	┬20530.000	┬20390.000	2.689
2	18:06:44	106.2%	0.007	5.305	4.818	22.160	┬522.900	┬20530.000	┬20000.000	┬20310.000	2.538
3	18:07:12	108.4%	-0.003	5.323	4.922	13.440	┬507.300	┬19820.000	┬19680.000	┬19970.000	2.504
x		108.3%	-0.001	5.254	4.859	17.770	┬513.000	┬20300.000	┬20070.000	┬20220.000	2.577
σ		2.0%	0.008	0.105	0.055	4.365	┬8.613	┬409.200	┬426.900	┬219.600	0.099
%RSD		1.8	868.900	2.000	1.140	24.560	┬1.679	┬2.016	┬2.127	┬1.086	3.823

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	┬3802.000	┬76100.000	┬1235.000	26420.000	┬26660.000	105.8%	0.844	0.060	0.469	1990.000
2	18:06:44	┬3839.000	┬76530.000	┬1251.000	26100.000	┬26550.000	106.2%	0.920	0.055	0.425	1851.000
3	18:07:12	┬3721.000	┬75030.000	┬1224.000	25790.000	┬26660.000	106.4%	0.884	-0.231	0.439	2118.000
x		┬3787.000	┬75890.000	┬1237.000	26100.000	┬26620.000	106.1%	0.883	-0.039	0.445	1986.000
σ		┬60.310	┬771.100	┬13.390	316.600	┬63.060	0.3%	0.038	0.166	0.022	133.600
%RSD		┬1.593	┬1.016	┬1.083	1.213	┬0.237	0.3	4.277	429.400	5.049	6.724

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	19.770	1.566	25.260	272.500	0.096	0.502	0.050	0.089	0.236	1.209
2	18:06:44	19.280	1.594	23.550	250.400	0.120	0.500	-0.027	0.078	0.211	1.066
3	18:07:12	19.920	1.575	23.560	259.100	0.098	0.583	0.024	0.080	0.215	1.135
x		19.660	1.578	24.120	260.700	0.105	0.528	0.016	0.082	0.221	1.137
σ		0.332	0.014	0.984	11.150	0.013	0.048	0.039	0.006	0.013	0.072
%RSD		1.691	0.902	4.077	4.278	12.520	9.047	252.900	6.868	5.967	6.312

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	7.640	5.885	-0.189	0.553	2.144	2.045	-1.657	-0.338	-0.631	43.210
2	18:06:44	7.792	5.908	0.081	-0.011	1.641	2.300	-1.237	-0.269	-0.210	43.870
3	18:07:12	6.996	6.362	0.035	-0.238	1.503	1.780	-2.347	-0.489	-1.143	43.590
x		7.476	6.052	-0.024	0.101	1.763	2.041	-1.747	-0.365	-0.661	43.560
σ		0.423	0.269	0.145	0.408	0.337	0.260	0.561	0.113	0.467	0.328
%RSD		5.655	4.450	598.000	402.100	19.140	12.720	32.090	30.840	70.670	0.752

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	102.7%	2.186	2.252	2.266	2.410	-0.004	-0.001	0.030	0.062	100.5%
2	18:06:44	102.5%	2.217	2.188	2.192	2.635	-0.004	-0.000	0.048	0.040	102.1%
3	18:07:12	104.6%	2.195	2.087	2.192	2.253	0.001	0.001	0.037	0.063	102.6%
x		103.3%	2.199	2.176	2.217	2.433	-0.003	-0.000	0.038	0.055	101.7%
σ		1.2%	0.016	0.083	0.043	0.192	0.003	0.001	0.009	0.013	1.1%
%RSD		1.1	0.720	3.835	1.931	7.906	107.400	2184.000	24.810	23.290	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:16	0.298	0.425	0.074	0.061	116.700	117.100	100.9%	-0.010	-0.015	-0.007
2	18:06:44	0.296	0.437	0.059	0.081	116.300	116.700	103.3%	-0.017	-0.014	-0.011
3	18:07:12	0.239	0.400	0.079	0.087	117.100	115.500	102.9%	-0.013	-0.017	0.003
x		0.278	0.421	0.071	0.076	116.700	116.400	102.4%	-0.014	-0.016	-0.005
σ		0.034	0.019	0.011	0.013	0.385	0.827	1.3%	0.004	0.002	0.007
%RSD		12.110	4.551	14.850	17.350	0.330	0.711	1.3	25.580	10.430	145.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:06:16	0.002	-0.003	97.4%
2	18:06:44	-0.010	-0.011	100.7%
3	18:07:12	-0.015	-0.007	101.0%
x		-0.008	-0.007	99.7%
σ		0.009	0.004	2.0%
%RSD		108.700	58.700	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	108.4%	-0.007	12.940	13.240	-0.165	┬3682.000	┬17660.000	┬17670.000	┬17870.000	85.290
2	18:12:51	110.4%	-0.014	13.220	12.720	-9.027	┬3652.000	┬17920.000	┬17830.000	┬17880.000	84.280
3	18:13:18	107.2%	-0.005	13.670	13.320	-0.678	┬3687.000	┬18040.000	┬18030.000	┬17880.000	84.910
x		108.7%	-0.009	13.280	13.100	-3.290	┬3674.000	┬17870.000	┬17840.000	┬17880.000	84.820
σ		1.6%	0.005	0.369	0.325	4.975	┬19.270	┬194.100	┬181.600	┬7.461	0.510
%RSD		1.4	53.670	2.776	2.479	151.200	┬0.525	┬1.086	┬1.018	┬0.042	0.601
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	┬5476.000	┬73210.000	┬2325.000	69330.000	┬70160.000	105.8%	2.606	0.452	1.062	1798.000
2	18:12:51	┬5354.000	┬72970.000	┬2296.000	69450.000	┬70080.000	108.2%	2.846	0.334	1.025	1877.000
3	18:13:18	┬5414.000	┬73300.000	┬2308.000	70370.000	┬71500.000	107.0%	3.214	0.581	1.040	1864.000
x		┬5415.000	┬73160.000	┬2310.000	69720.000	┬70580.000	107.0%	2.889	0.456	1.042	1847.000
σ		┬60.830	┬169.200	┬14.560	570.800	┬797.300	1.2%	0.306	0.124	0.019	42.270
%RSD		┬1.123	┬0.231	┬0.630	0.819	┬1.130	1.1	10.590	27.150	1.775	2.289
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	147.000	10.610	161.100	792.600	0.227	0.909	-0.175	0.172	0.369	0.801
2	18:12:51	144.600	10.290	155.600	756.900	0.201	0.864	-0.124	0.148	0.406	0.858
3	18:13:18	148.500	10.620	158.500	776.700	0.187	0.934	0.160	0.161	0.386	0.837
x		146.700	10.510	158.400	775.400	0.205	0.903	-0.046	0.161	0.387	0.832
σ		1.991	0.186	2.712	17.920	0.020	0.035	0.180	0.012	0.019	0.029
%RSD		1.357	1.765	1.712	2.311	9.819	3.921	391.300	7.464	4.850	3.446
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	11.740	8.332	0.087	0.702	5.449	3.729	1.690	0.430	-1.964	58.440
2	18:12:51	11.560	8.202	-0.313	-0.059	4.430	4.226	-0.420	-0.047	-1.638	58.610
3	18:13:18	10.410	8.278	0.344	0.059	4.688	5.001	-1.435	-0.367	1.502	59.080
x		11.240	8.271	0.039	0.234	4.856	4.319	-0.055	0.005	-0.700	58.710
σ		0.718	0.066	0.331	0.409	0.529	0.641	1.595	0.401	1.914	0.332
%RSD		6.387	0.794	841.100	175.000	10.900	14.850	2898.000	7361.000	273.400	0.566
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	105.1%	0.379	0.314	0.395	2.022	-0.004	0.002	0.014	0.021	104.7%
2	18:12:51	106.4%	0.359	0.410	0.384	2.707	-0.004	-0.000	0.014	0.006	105.3%
3	18:13:18	107.0%	0.436	0.362	0.399	1.689	-0.002	-0.000	0.003	0.011	107.2%
x		106.2%	0.392	0.362	0.393	2.139	-0.003	0.000	0.010	0.013	105.7%
σ		1.0%	0.040	0.048	0.008	0.519	0.001	0.001	0.006	0.008	1.3%
%RSD		0.9	10.150	13.310	1.989	24.260	35.970	337.200	62.500	61.200	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:24	0.217	0.275	0.060	0.055	181.400	180.700	105.3%	-0.005	-0.009	0.065
2	18:12:51	0.235	0.326	0.056	0.059	180.100	180.700	107.5%	-0.008	-0.011	0.074
3	18:13:18	0.187	0.324	0.066	0.069	179.000	180.100	108.3%	-0.003	-0.011	0.095
x		0.213	0.308	0.061	0.061	180.100	180.500	107.0%	-0.005	-0.010	0.078
σ		0.024	0.029	0.005	0.007	1.183	0.325	1.6%	0.003	0.001	0.015
%RSD		11.370	9.424	7.476	11.730	0.657	0.180	1.5	50.290	13.680	19.240
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	18:12:24	0.047	0.062	106.2%							
2	18:12:51	0.070	0.066	107.6%							
3	18:13:18	0.061	0.071	107.2%							
x		0.059	0.066	107.0%							
σ		0.012	0.005	0.7%							
%RSD		19.780	7.261	0.7							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	115.2%	-0.007	-0.025	-0.451	49.650	16.030	3.944	4.070	3.836	1.080
2	18:18:57	115.8%	-0.006	0.053	-0.263	68.740	15.770	3.754	4.019	3.585	1.116
3	18:19:24	112.8%	0.002	-0.303	-0.290	59.300	15.690	4.052	3.967	3.999	1.003
x		114.6%	-0.004	-0.091	-0.334	59.230	15.830	3.917	4.019	3.807	1.067
σ		1.6%	0.005	0.187	0.102	9.547	0.177	0.151	0.051	0.209	0.058
%RSD		1.4	125.200	204.700	30.440	16.120	1.117	3.857	1.281	5.490	5.401

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	17.230	T 446000.000	38.980	9.474	7.459	107.3%	0.107	-1.611	1.883	10450.000
2	18:18:57	17.200	T 435100.000	39.880	5.483	6.008	106.4%	0.210	-0.617	1.590	9405.000
3	18:19:24	17.030	T 444500.000	37.470	4.820	6.088	107.4%	0.140	-0.368	1.412	8973.000
x		17.150	T 441900.000	38.780	6.592	6.518	107.0%	0.153	-0.865	1.628	9610.000
σ		0.105	T 5908.000	1.218	2.518	0.816	0.6%	0.053	0.657	0.238	759.600
%RSD		0.609	T 1.337	3.141	38.190	12.510	0.5	34.470	75.990	14.600	7.905

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	18.280	14.880	6.375	-17.630	0.009	0.274	-0.184	0.145	0.089	0.724
2	18:18:57	17.670	15.000	4.357	-16.450	0.005	0.252	0.026	0.159	0.088	0.696
3	18:19:24	17.400	14.450	4.163	-21.160	0.003	0.263	-0.255	0.147	0.056	0.706
x		17.780	14.770	4.965	-18.410	0.006	0.263	-0.138	0.150	0.078	0.708
σ		0.448	0.286	1.225	2.447	0.003	0.011	0.146	0.008	0.019	0.014
%RSD		2.518	1.935	24.680	13.290	56.770	4.172	105.900	5.032	24.170	2.008

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	0.802	0.780	0.275	0.085	41.910	41.070	-0.804	-0.216	-0.431	0.009
2	18:18:57	0.804	0.683	0.117	-0.133	42.190	38.900	1.379	0.249	-0.053	0.005
3	18:19:24	0.707	0.576	-0.087	-0.339	42.030	41.970	-0.302	-0.122	0.245	0.004
x		0.771	0.679	0.102	-0.129	42.050	40.640	0.091	-0.030	-0.080	0.006
σ		0.056	0.102	0.181	0.212	0.140	1.579	1.143	0.246	0.339	0.002
%RSD		7.225	15.070	177.900	164.400	0.332	3.884	1252.000	832.300	424.500	41.460

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	106.2%	0.117	0.054	0.083	-0.357	-0.003	0.001	0.004	0.003	106.2%
2	18:18:57	106.7%	0.054	0.091	0.066	-0.642	-0.001	0.001	0.004	0.008	108.1%
3	18:19:24	108.1%	0.084	0.106	0.112	-1.054	0.005	0.004	-0.003	0.002	108.2%
x		107.0%	0.085	0.084	0.087	-0.684	0.000	0.002	0.002	0.004	107.5%
σ		1.0%	0.031	0.027	0.023	0.350	0.004	0.001	0.004	0.003	1.1%
%RSD		0.9	36.890	31.910	26.700	51.190	1301.000	68.910	232.800	65.420	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:30	4.382	6.372	0.062	0.089	0.083	0.046	106.3%	-0.020	-0.018	-0.007
2	18:18:57	4.281	6.318	0.059	0.048	0.046	0.042	107.9%	-0.012	-0.017	-0.012
3	18:19:24	4.462	6.445	0.067	0.084	0.055	0.073	109.8%	-0.014	-0.019	-0.012
x		4.375	6.378	0.063	0.074	0.061	0.054	108.0%	-0.015	-0.018	-0.010
σ		0.090	0.063	0.004	0.023	0.020	0.017	1.7%	0.004	0.001	0.003
%RSD		2.064	0.995	6.364	30.730	32.090	30.910	1.6	28.140	4.528	27.690

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:18:30	-0.006	-0.007	109.7%
2	18:18:57	-0.012	-0.009	110.8%
3	18:19:24	-0.006	-0.010	113.3%
x		-0.008	-0.008	111.3%
σ		0.003	0.001	1.9%
%RSD		42.020	16.570	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	108.9%	203.700	206.300	203.600	77.710	T 2223.000	T 2081.000	2025.000	1988.000	195.300
2	18:25:02	115.9%	193.200	203.300	195.600	71.060	T 2141.000	T 2048.000	2009.000	2017.000	203.500
3	18:25:30	110.5%	204.400	208.000	198.800	70.280	T 2189.000	T 2031.000	1991.000	1987.000	193.400
x		111.8%	200.400	205.800	199.400	73.020	T 2185.000	T 2053.000	2009.000	1997.000	197.400
σ		3.6%	6.289	2.381	4.054	4.087	T 41.070	T 25.530	17.140	16.970	5.365
%RSD		3.3	3.137	1.157	2.034	5.597	T 1.880	T 1.244	0.853	0.849	2.718

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	232.900	T 478000.000	T 2167.000	2308.000	2102.000	105.5%	204.700	206.500	202.100	10990.000
2	18:25:02	225.600	T 487900.000	T 2206.000	2319.000	2107.000	104.7%	203.500	204.800	208.600	12350.000
3	18:25:30	232.100	T 478100.000	T 2164.000	2344.000	2076.000	105.9%	204.500	209.300	206.800	8728.000
x		230.200	T 481300.000	T 2179.000	2324.000	2095.000	105.4%	204.200	206.900	205.800	10690.000
σ		4.016	T 5679.000	T 23.310	18.590	16.710	0.6%	0.636	2.273	3.335	1829.000
%RSD		1.745	T 1.180	T 1.070	0.800	0.798	0.6	0.311	1.099	1.620	17.120

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	2250.000	204.700	T 2136.000	2025.000	204.200	202.400	201.400	202.900	202.600	193.800
2	18:25:02	2271.000	204.400	T 2126.000	2025.000	204.300	203.000	200.900	204.900	213.400	196.300
3	18:25:30	2222.000	199.200	T 2125.000	2047.000	201.300	198.100	199.000	207.200	204.000	194.700
x		2248.000	202.800	T 2129.000	2033.000	203.200	201.100	200.500	205.000	206.700	194.900
σ		24.980	3.095	T 6.348	12.370	1.693	2.672	1.290	2.140	5.870	1.307
%RSD		1.111	1.526	T 0.298	0.609	0.833	1.329	0.643	1.044	2.840	0.670

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	198.700	197.800	199.300	187.900	41.050	42.850	839.800	191.400	4.790	201.400
2	18:25:02	192.700	194.600	192.000	197.900	41.360	42.950	822.800	192.100	3.599	200.700
3	18:25:30	192.000	197.900	199.800	189.300	40.970	40.900	837.100	190.500	3.832	199.600
x		194.500	196.800	197.000	191.700	41.130	42.230	833.300	191.300	4.074	200.600
σ		3.696	1.860	4.326	5.398	0.204	1.159	9.144	0.818	0.631	0.952
%RSD		1.901	0.945	2.196	2.816	0.497	2.744	1.097	0.427	15.490	0.475

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	105.9%	206.900	207.000	206.500	201.800	204.800	206.300	203.000	201.600	105.0%
2	18:25:02	103.7%	205.100	204.500	204.900	202.500	206.600	207.700	199.600	199.200	100.5%
3	18:25:30	105.4%	205.700	205.700	205.000	201.100	202.600	203.900	201.400	199.000	104.8%
x		105.0%	205.900	205.700	205.500	201.800	204.600	206.000	201.300	199.900	103.4%
σ		1.2%	0.931	1.217	0.896	0.709	2.000	1.924	1.719	1.423	2.5%
%RSD		1.1	0.452	0.591	0.436	0.351	0.977	0.934	0.854	0.712	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:35	213.900	212.500	201.200	201.800	204.300	208.200	105.5%	206.400	210.300	210.400
2	18:25:02	210.000	211.500	199.600	199.600	208.000	207.500	100.3%	208.800	210.600	209.600
3	18:25:30	208.900	209.100	201.200	201.900	204.500	202.200	105.7%	205.200	209.800	209.400
x		210.900	211.000	200.700	201.100	205.600	206.000	103.8%	206.800	210.300	209.800
σ		2.662	1.772	0.958	1.335	2.063	3.275	3.1%	1.837	0.394	0.555
%RSD		1.262	0.840	0.477	0.664	1.004	1.590	2.9	0.888	0.187	0.265

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:24:35	209.400	210.900	105.1%
2	18:25:02	209.300	210.300	99.5%
3	18:25:30	208.600	209.800	105.6%
x		209.100	210.300	103.4%
σ		0.434	0.555	3.4%
%RSD		0.208	0.264	3.3

UD12037-001 04/30/2019 18:30:16

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	105.9%	0.572	5.084	4.842	-49.200	T 1074.000	T 11530.000	T 11790.000	T 12120.000	TM 41190.000
2	18:31:10	103.7%	0.658	4.748	5.182	-51.620	T 1092.000	T 11400.000	T 11370.000	T 11930.000	TM 41050.000
3	18:31:37	102.6%	0.643	4.991	5.084	-54.220	T 1076.000	T 11380.000	T 11360.000	T 11570.000	TM 39090.000
x		104.1%	0.624	4.941	5.036	-51.680	T 1081.000	T 11440.000	T 11500.000	T 11870.000	TM 40440.000
σ		1.7%	0.046	0.173	0.175	2.507	T 9.854	T 81.850	T 245.000	T 278.400	TM 1172.000
%RSD		1.6	7.386	3.503	3.473	4.851	T 0.912	T 0.716	T 2.130	T 2.345	TM 2.898

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	T 2312.000	T 314100.000	T 5478.000	TM 532600.000	TM 512900.000	105.2%	M 1843.000	331.900	72.220	8020.000
2	18:31:10	T 2351.000	T 307400.000	T 5382.000	TM 526200.000	TM 507000.000	107.0%	M 1842.000	335.600	71.500	7294.000
3	18:31:37	T 2379.000	T 304100.000	T 5227.000	TM 521500.000	TM 503900.000	108.7%	M 1826.000	327.200	70.630	7325.000
x		T 2347.000	T 308500.000	T 5363.000	TM 526800.000	TM 507900.000	107.0%	M 1837.000	331.600	71.450	7546.000
σ		T 34.060	T 5097.000	T 126.800	TM 5592.000	TM 4607.000	1.7%	M 9.573	4.199	0.796	410.600
%RSD		T 1.451	T 1.652	T 2.365	TM 1.062	TM 0.907	1.6	M 0.521	1.266	1.115	5.441

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	T 98430.000	TM 16140.000	T 93670.000	TM 113700.000	41.270	74.730	61.270	21.510	35.320	260.500
2	18:31:10	T 98060.000	TM 16140.000	T 93780.000	TM 112300.000	40.640	73.370	56.710	21.440	33.880	258.100
3	18:31:37	T 96650.000	TM 15950.000	T 92980.000	TM 110500.000	38.750	70.370	57.590	20.990	33.780	254.500
x		T 97710.000	TM 16080.000	T 93470.000	TM 112200.000	40.220	72.820	58.520	21.310	34.320	257.700
σ		T 937.700	TM 108.500	T 431.700	TM 1615.000	1.314	2.229	2.417	0.280	0.865	3.053
%RSD		T 0.960	TM 0.675	T 0.462	TM 1.440	3.267	3.060	4.131	1.312	2.519	1.185

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	170.600	163.000	10.930	1.295	10.200	8.719	1.095	1.673	7.865	T 216.200
2	18:31:10	172.200	166.000	11.250	0.302	11.250	8.170	-0.395	1.010	5.795	T 213.200
3	18:31:37	168.700	166.300	10.000	0.614	11.070	7.667	-0.531	0.883	6.569	T 214.000
x		170.500	165.100	10.730	0.737	10.840	8.186	0.056	1.188	6.743	T 214.500
σ		1.729	1.847	0.650	0.508	0.559	0.526	0.902	0.424	1.046	T 1.525
%RSD		1.014	1.119	6.059	68.870	5.159	6.429	1607.000	35.710	15.510	T 0.711

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	229.9%	0.758	0.600	0.860	31.560	0.177	0.139	0.833	0.809	88.9%
2	18:31:10	237.2%	0.763	0.566	0.799	26.140	0.188	0.126	0.773	0.801	92.7%
3	18:31:37	237.2%	0.701	0.562	0.907	28.670	0.157	0.119	0.765	0.881	94.2%
x		234.8%	0.741	0.576	0.855	28.790	0.174	0.128	0.790	0.830	91.9%
σ		4.2%	0.034	0.021	0.054	2.711	0.016	0.010	0.037	0.044	2.7%
%RSD		1.8	4.616	3.651	6.368	9.418	8.971	7.966	4.715	5.355	3.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:43	6.112	7.826	0.400	0.394	464.900	465.100	92.3%	0.506	0.503	15.040
2	18:31:10	6.234	7.588	0.449	0.410	462.500	465.900	95.9%	0.506	0.487	15.130
3	18:31:37	6.259	7.765	0.419	0.442	452.700	460.000	97.7%	0.536	0.534	14.660
x		6.201	7.726	0.423	0.415	460.000	463.700	95.3%	0.516	0.508	14.950
σ		0.079	0.124	0.024	0.025	6.461	3.194	2.7%	0.017	0.024	0.248
%RSD		1.267	1.606	5.792	5.985	1.405	0.689	2.9	3.356	4.713	1.658

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:30:43	13.720	14.260	86.2%
2	18:31:10	13.790	14.290	90.5%
3	18:31:37	13.430	14.060	91.2%
x		13.650	14.200	89.3%
σ		0.188	0.126	2.7%
%RSD		1.375	0.890	3.0

UD16015-001 04/30/2019 18:36:22

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	108.9%	0.435	2.483	2.326	-66.270	T 1059.000	T 14310.000	T 14750.000	T 14730.000	TM 52060.000
2	18:37:16	110.9%	0.427	2.300	2.546	-67.410	T 1043.000	T 14200.000	T 14320.000	T 14720.000	TM 55030.000
3	18:37:43	110.9%	0.413	2.369	2.450	-65.370	T 1003.000	T 13710.000	T 14040.000	T 14570.000	TM 53760.000
x		110.2%	0.425	2.384	2.441	-66.350	T 1035.000	T 14070.000	T 14370.000	T 14680.000	TM 53610.000
σ		1.1%	0.011	0.092	0.110	1.026	T 28.670	T 322.900	T 359.900	T 88.240	TM 1490.000
%RSD		1.0	2.550	3.876	4.510	1.547	T 2.770	T 2.294	T 2.504	T 0.601	TM 2.779

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	T 2912.000	T 289800.000	T 5186.000	22010.000	T 22180.000	117.6%	M 741.800	317.300	102.400	7283.000
2	18:37:16	T 2971.000	T 302800.000	T 5310.000	22260.000	T 22130.000	116.1%	M 752.100	313.300	103.400	8643.000
3	18:37:43	T 2901.000	T 291300.000	T 5035.000	21340.000	T 21640.000	117.0%	M 726.400	308.900	100.600	7626.000
x		T 2928.000	T 294700.000	T 5177.000	21870.000	T 21990.000	116.9%	M 740.100	313.100	102.200	7851.000
σ		T 37.630	T 7105.000	T 137.600	474.500	T 298.300	0.8%	M 12.930	4.219	1.412	707.400
%RSD		T 1.285	T 2.411	T 2.659	2.169	T 1.357	0.6	M 1.747	1.347	1.382	9.011

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	T 92540.000	TM 1378.000	T 91700.000	T 97780.000	42.170	78.480	68.500	41.060	57.610	348.500
2	18:37:16	T 93700.000	TM 1390.000	T 91550.000	T 98190.000	42.660	79.210	72.560	41.810	57.700	335.700
3	18:37:43	T 91770.000	TM 1335.000	T 90320.000	T 96620.000	41.660	77.630	67.080	40.080	54.530	330.700
x		T 92670.000	TM 1368.000	T 91190.000	T 97530.000	42.170	78.440	69.380	40.980	56.610	338.300
σ		T 969.600	TM 28.740	T 754.900	T 812.300	0.502	0.791	2.846	0.868	1.802	9.213
%RSD		T 1.046	TM 2.101	T 0.828	T 0.833	1.190	1.009	4.102	2.117	3.183	2.723

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	251.000	249.000	11.030	1.031	13.810	13.450	1.728	1.480	0.488	96.350
2	18:37:16	245.100	244.000	12.490	0.845	13.640	13.490	1.112	1.138	2.620	95.650
3	18:37:43	239.700	241.400	11.720	0.307	13.640	12.830	1.180	1.164	2.497	93.920
x		245.300	244.800	11.750	0.728	13.700	13.260	1.340	1.261	1.868	95.310
σ		5.696	3.860	0.732	0.376	0.098	0.372	0.338	0.190	1.197	1.250
%RSD		2.323	1.577	6.227	51.730	0.714	2.808	25.230	15.080	64.070	1.311

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	176.5%	1.875	1.518	1.924	15.290	0.118	0.076	0.516	0.545	98.5%
2	18:37:16	172.3%	1.806	1.510	2.088	15.240	0.096	0.084	0.562	0.575	97.5%
3	18:37:43	177.5%	1.672	1.567	1.852	15.700	0.117	0.088	0.537	0.565	100.1%
x		175.4%	1.784	1.532	1.955	15.410	0.111	0.082	0.538	0.562	98.7%
σ		2.8%	0.104	0.031	0.121	0.252	0.012	0.006	0.023	0.015	1.3%
%RSD		1.6	5.800	2.015	6.199	1.636	11.250	7.364	4.257	2.710	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:49	7.074	8.726	0.266	0.225	467.500	471.200	103.1%	0.252	0.259	22.310
2	18:37:16	7.032	8.694	0.263	0.257	465.700	466.800	102.9%	0.274	0.239	22.060
3	18:37:43	7.005	8.629	0.259	0.241	454.200	453.300	105.3%	0.262	0.254	21.690
x		7.037	8.683	0.263	0.241	462.500	463.800	103.8%	0.263	0.251	22.020
σ		0.035	0.049	0.004	0.016	7.202	9.332	1.4%	0.011	0.010	0.314
%RSD		0.496	0.570	1.377	6.508	1.557	2.012	1.3	4.148	4.166	1.424

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:36:49	20.880	21.630	99.7%
2	18:37:16	20.640	21.050	97.6%
3	18:37:43	20.270	20.760	101.6%
x		20.600	21.150	99.6%
σ		0.305	0.440	2.0%
%RSD		1.481	2.078	2.0

UD16015-002 04/30/2019 18:42:30

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	103.9%	0.602	13.060	13.460	-11.510	T 1406.000	T 20820.000	T 21570.000	T 21740.000	TM 65100.000
2	18:43:25	106.6%	0.655	13.420	13.510	-11.970	T 1383.000	T 20820.000	T 21770.000	T 21910.000	TM 65340.000
3	18:43:53	109.1%	0.632	13.300	14.010	-13.960	T 1375.000	T 20920.000	T 20970.000	T 21540.000	TM 64600.000
x		106.5%	0.630	13.260	13.660	-12.480	T 1388.000	T 20860.000	T 21440.000	T 21730.000	TM 65010.000
σ		2.6%	0.027	0.181	0.303	1.301	T 16.200	T 57.060	T 417.500	T 186.900	TM 377.100
%RSD		2.5	4.223	1.366	2.218	10.430	T 1.167	T 0.274	T 1.947	T 0.860	TM 0.580

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	T 1575.000	T 330000.000	T 14530.000	M 115800.000	TM 118800.000	105.1%	M 965.700	172.500	84.080	7963.000
2	18:43:25	T 1569.000	T 327300.000	T 14140.000	M 113000.000	TM 116000.000	106.7%	M 973.300	177.700	83.130	7483.000
3	18:43:53	T 1505.000	T 318600.000	T 14080.000	M 113000.000	TM 115400.000	106.4%	M 965.300	171.900	82.340	7926.000
x		T 1550.000	T 325300.000	T 14250.000	M 113900.000	TM 116800.000	106.1%	M 968.100	174.000	83.180	7791.000
σ		T 38.650	T 5996.000	T 245.600	M 1603.000	TM 1834.000	0.9%	M 4.517	3.220	0.870	267.000
%RSD		T 2.494	T 1.843	T 1.723	M 1.407	TM 1.571	0.8	M 0.467	1.850	1.045	3.427

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	T 68940.000	TM 1260.000	T 65890.000	T 72500.000	26.040	62.410	53.710	86.560	109.000	328.900
2	18:43:25	T 67930.000	TM 1259.000	T 66800.000	T 74440.000	26.760	62.790	53.330	84.390	109.100	332.100
3	18:43:53	T 66800.000	TM 1239.000	T 65260.000	T 71960.000	25.310	61.530	52.270	83.820	107.100	326.100
x		T 67890.000	TM 1253.000	T 65980.000	T 72970.000	26.030	62.240	53.100	84.920	108.400	329.000
σ		T 1073.000	TM 11.890	T 774.100	T 1300.000	0.725	0.647	0.746	1.448	1.091	3.016
%RSD		T 1.581	TM 0.949	T 1.173	T 1.782	2.785	1.039	1.404	1.705	1.006	0.917

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	259.700	260.400	41.530	0.876	18.920	16.280	2.433	1.685	1.395	161.100
2	18:43:25	259.400	262.100	41.050	0.970	18.570	15.880	1.149	1.234	1.263	160.200
3	18:43:53	254.500	255.900	40.970	1.281	18.100	16.740	3.088	1.944	0.917	159.800
x		257.900	259.500	41.180	1.042	18.530	16.300	2.223	1.621	1.192	160.400
σ		2.907	3.165	0.302	0.212	0.408	0.430	0.987	0.359	0.247	0.696
%RSD		1.127	1.220	0.734	20.350	2.199	2.636	44.380	22.160	20.730	0.434

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	184.7%	1.709	1.398	1.785	29.700	0.620	0.572	1.489	1.484	99.9%
2	18:43:25	187.6%	1.689	1.469	1.660	28.020	0.602	0.525	1.378	1.436	100.5%
3	18:43:53	187.0%	1.565	1.372	1.784	24.170	0.614	0.526	1.341	1.345	101.2%
x		186.5%	1.654	1.413	1.743	27.300	0.612	0.541	1.403	1.422	100.5%
σ		1.5%	0.078	0.050	0.072	2.834	0.009	0.027	0.077	0.071	0.7%
%RSD		0.8	4.700	3.560	4.116	10.380	1.545	4.936	5.463	4.961	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:57	8.590	9.855	0.675	0.679	M 784.600	M 784.400	104.1%	0.786	0.774	82.710
2	18:43:25	8.622	10.030	0.683	0.756	M 773.800	M 775.200	105.1%	0.868	0.824	82.730
3	18:43:53	8.506	9.605	0.695	0.709	M 768.600	M 772.200	104.4%	0.832	0.824	82.130
x		8.573	9.831	0.685	0.714	M 775.700	M 777.200	104.5%	0.829	0.807	82.520
σ		0.060	0.215	0.010	0.039	M 8.163	M 6.353	0.5%	0.041	0.029	0.338
%RSD		0.699	2.184	1.490	5.411	M 1.052	M 0.817	0.5	4.987	3.581	0.410

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:42:57	79.740	81.360	102.9%
2	18:43:25	79.860	81.470	104.4%
3	18:43:53	78.380	79.950	102.4%
x		79.330	80.920	103.2%
σ		0.825	0.847	1.0%
%RSD		1.039	1.047	1.0

CCV MW10994 04/30/2019 18:48:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	97.1%	305.900	305.500	293.800	65.360	┬63400.000	┬60070.000	┬60540.000	┬61140.000	302.800
2	18:49:34	94.8%	304.800	311.300	300.600	69.440	┬64760.000	┬61650.000	┬61270.000	┬61770.000	297.400
3	18:50:01	97.5%	301.100	312.700	306.300	59.490	┬64420.000	┬61410.000	┬61360.000	┬60820.000	298.700
x		96.5%	101.302%	103.269%	100.072%	64.760	┬106.990%	┬61040.000	┬61060.000	┬102.073%	99.880%
σ		1.5%	n/a	n/a	n/a	5.000	┬n/a	┬849.600	┬446.300	┬n/a	n/a
%RSD		1.5	0.824	1.226	2.077	7.720	┬1.102	┬1.392	┬0.731	┬0.790	0.950

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	┬3198.000	2957.000	┬63990.000	63520.000	┬63560.000	97.7%	318.200	318.700	302.800	1148.000
2	18:49:34	┬3145.000	2847.000	┬63720.000	62940.000	┬63650.000	98.1%	312.600	315.500	301.000	1629.000
3	18:50:01	┬3205.000	2913.000	┬67040.000	64580.000	┬64120.000	97.6%	308.200	312.400	302.700	1149.000
x		┬106.089%	2906.000	┬108.191%	63680.000	┬106.298%	97.8%	104.329%	105.181%	100.717%	1309.000
σ		┬n/a	54.990	┬n/a	834.500	┬n/a	0.3%	n/a	n/a	n/a	277.600
%RSD		┬1.028	1.893	┬2.838	1.311	┬0.473	0.3	1.588	0.990	0.337	21.210

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	┬62460.000	298.600	┬63570.000	┬60930.000	299.900	288.500	285.000	293.300	300.800	303.300
2	18:49:34	┬64200.000	299.600	┬63340.000	┬60620.000	296.800	291.500	290.100	294.900	303.400	308.500
3	18:50:01	┬63170.000	293.400	┬63010.000	┬61670.000	301.900	291.200	294.100	296.800	307.700	306.600
x		┬63280.000	99.068%	┬63310.000	┬101.785%	99.835%	96.795%	289.700	295.000	101.331%	102.042%
σ		┬878.900	n/a	┬285.900	┬n/a	n/a	n/a	4.558	1.719	n/a	n/a
%RSD		┬1.389	1.125	┬0.452	┬0.881	0.858	0.567	1.573	0.583	1.145	0.872

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	292.900	299.700	299.900	308.500	2.221	1.623	1311.000	304.200	-0.062	302.900
2	18:49:34	295.400	300.400	302.500	311.300	2.305	1.751	1305.000	305.500	2.079	306.000
3	18:50:01	290.500	294.900	293.800	319.100	1.755	1.944	1291.000	305.500	0.255	307.200
x		293.000	298.300	99.577%	313.000	2.094	1.773	1303.000	101.693%	0.757	101.796%
σ		2.436	3.002	n/a	5.502	0.297	0.162	10.060	n/a	1.156	n/a
%RSD		0.832	1.006	1.503	1.758	14.160	9.108	0.772	0.239	152.600	0.737

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	94.5%	323.300	321.100	320.900	305.100	298.400	300.700	305.600	303.900	92.6%
2	18:49:34	95.4%	319.900	320.600	320.900	302.200	298.600	298.500	303.500	304.700	92.6%
3	18:50:01	93.1%	323.900	320.600	321.800	298.900	301.300	301.000	302.400	304.100	89.7%
x		94.3%	107.466%	106.919%	321.200	302.100	99.805%	300.100	303.800	101.408%	91.6%
σ		1.2%	n/a	n/a	0.528	3.098	n/a	1.375	1.660	n/a	1.7%
%RSD		1.2	0.674	0.086	0.164	1.026	0.536	0.458	0.546	0.124	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:07	315.700	313.200	314.500	309.800	306.600	309.700	95.2%	311.900	316.400	308.400
2	18:49:34	314.700	311.700	314.600	306.500	305.400	308.000	96.2%	308.600	313.500	303.900
3	18:50:01	314.900	313.300	312.600	304.700	306.300	310.700	92.9%	307.900	316.000	305.900
x		105.031%	104.246%	313.900	102.339%	102.038%	103.156%	94.8%	309.500	105.101%	102.027%
σ		n/a	n/a	1.143	n/a	n/a	n/a	1.6%	2.103	n/a	n/a
%RSD		0.181	0.288	0.364	0.845	0.208	0.439	1.7	0.679	0.498	0.745

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:49:07	309.600	311.500	93.4%
2	18:49:34	304.900	306.600	93.0%
3	18:50:01	306.700	307.600	89.9%
x		102.363%	102.866%	92.1%
σ		n/a	n/a	1.9%
%RSD		0.773	0.837	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	106.1%	0.053	0.861	0.949	21.490	9.892	7.860	8.054	8.308	1.195
2	18:55:42	102.9%	0.046	1.035	1.087	19.470	6.613	7.467	7.454	6.712	1.131
3	18:56:10	103.2%	0.047	0.764	0.662	9.234	5.917	6.876	6.624	6.703	1.140
x		104.1%	0.049	0.887	0.899	16.730	7.474	7.401	7.378	7.241	1.156
σ		1.8%	0.004	0.138	0.217	6.571	2.123	0.495	0.718	0.924	0.035
%RSD		1.7	7.766	15.520	24.070	39.270	28.400	6.694	9.731	12.760	2.997

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	14.790	1681.000	9.786	6.066	9.627	99.8%	-0.008	0.032	0.060	79.520
2	18:55:42	14.650	1708.000	8.264	5.965	9.008	101.2%	0.026	0.024	0.059	59.750
3	18:56:10	14.990	1649.000	5.329	7.575	9.015	103.5%	-0.012	0.044	0.067	66.330
x		14.810	1679.000	7.793	6.535	9.216	101.5%	0.002	0.033	0.062	68.530
σ		0.171	29.770	2.265	0.902	0.355	1.9%	0.021	0.010	0.004	10.070
%RSD		1.155	1.772	29.070	13.800	3.855	1.8	916.100	30.830	7.018	14.690

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	10.550	0.299	16.210	3.312	0.065	0.041	-0.033	0.053	0.007	0.062
2	18:55:42	7.675	0.299	12.440	-6.158	0.054	0.002	-0.319	0.006	0.041	0.046
3	18:56:10	8.700	0.310	11.990	-5.025	0.042	0.049	-0.261	0.004	0.034	0.047
x		8.974	0.303	13.550	-2.623	0.054	0.031	-0.204	0.021	0.027	0.052
σ		1.455	0.006	2.318	5.172	0.011	0.025	0.151	0.028	0.018	0.009
%RSD		16.210	2.132	17.110	197.100	21.260	81.040	74.100	133.200	65.960	16.760

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	0.011	0.085	-0.074	0.141	0.579	0.600	-1.760	-0.338	-1.715	0.042
2	18:55:42	0.099	0.018	0.006	-0.574	0.331	0.768	0.637	0.185	0.218	0.033
3	18:56:10	0.072	0.078	0.144	0.301	0.549	0.346	2.429	0.683	-3.431	0.040
x		0.061	0.060	0.026	-0.044	0.486	0.571	0.435	0.177	-1.643	0.038
σ		0.045	0.037	0.110	0.466	0.135	0.213	2.102	0.511	1.826	0.005
%RSD		74.160	61.430	431.400	1057.000	27.820	37.220	482.900	288.600	111.100	12.640

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	96.0%	0.118	0.086	0.098	-0.974	0.031	0.036	0.087	0.038	94.4%
2	18:55:42	99.7%	0.069	0.073	0.062	-0.707	0.022	0.026	0.041	0.036	96.7%
3	18:56:10	100.9%	0.082	0.072	0.075	-0.936	0.033	0.028	0.040	0.022	98.4%
x		98.9%	0.090	0.077	0.079	-0.872	0.029	0.030	0.056	0.032	96.5%
σ		2.5%	0.026	0.008	0.018	0.144	0.006	0.005	0.027	0.009	2.0%
%RSD		2.6	28.610	10.360	23.490	16.540	20.930	17.460	47.850	28.410	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:15	0.059	0.083	0.117	0.137	0.023	0.056	92.5%	0.034	0.017	0.058
2	18:55:42	0.064	0.062	0.129	0.176	0.089	0.063	97.0%	0.020	0.022	0.033
3	18:56:10	0.021	0.091	0.133	0.133	0.054	0.069	97.0%	0.028	0.023	0.050
x		0.048	0.079	0.126	0.148	0.055	0.063	95.5%	0.027	0.021	0.047
σ		0.024	0.015	0.008	0.024	0.033	0.006	2.6%	0.007	0.003	0.013
%RSD		48.600	19.040	6.505	16.150	59.720	10.100	2.7	25.580	14.450	27.650

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	18:55:15	0.039	0.046	93.8%
2	18:55:42	0.027	0.034	100.1%
3	18:56:10	0.040	0.041	99.2%
x		0.035	0.040	97.7%
σ		0.007	0.006	3.4%
%RSD		20.210	15.470	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	114.0%	0.212	0.789	0.774	77.890	28.040	T 618.000	626.600	627.000	TM 23520.000
2	19:01:47	108.3%	0.191	1.077	0.876	87.440	25.160	T 621.800	598.800	616.600	TM 22970.000
3	19:02:13	112.7%	0.189	0.977	0.778	93.790	26.090	T 617.900	603.000	625.400	TM 23330.000
x		111.6%	0.197	0.948	0.809	86.370	26.430	T 619.300	609.400	623.000	TM 23270.000
σ		3.0%	0.012	0.146	0.058	8.002	1.472	T 2.238	14.980	5.618	TM 280.200
%RSD		2.7	6.248	15.440	7.153	9.265	5.571	T 0.361	2.458	0.902	TM 1.204

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	T 1776.000	T 396100.000	474.800	375.900	191.700	101.2%	376.700	35.940	28.450	10740.000
2	19:01:47	T 1875.000	T 394600.000	457.100	273.700	177.100	103.6%	369.200	36.090	28.770	9426.000
3	19:02:13	T 1737.000	T 388500.000	457.900	318.800	176.300	102.7%	369.700	34.670	27.720	10620.000
x		T 1796.000	T 393100.000	463.300	322.800	181.700	102.5%	371.900	35.560	28.310	10260.000
σ		T 70.930	T 4023.000	9.996	51.220	8.631	1.2%	4.189	0.781	0.536	724.800
%RSD		T 3.950	T 1.023	2.158	15.870	4.750	1.2	1.126	2.196	1.894	7.064

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	T 14960.000	53.430	T 15300.000	15360.000	5.790	9.350	9.695	8.391	9.128	30.440
2	19:01:47	T 15330.000	53.970	T 15330.000	15340.000	5.764	9.394	10.020	8.123	9.330	32.080
3	19:02:13	T 15030.000	53.260	T 15110.000	14970.000	5.912	9.201	9.105	8.258	9.405	31.570
x		T 15110.000	53.550	T 15240.000	15220.000	5.822	9.315	9.606	8.258	9.288	31.360
σ		T 194.800	0.370	T 117.800	215.100	0.079	0.101	0.463	0.134	0.143	0.836
%RSD		T 1.290	0.692	T 0.773	1.413	1.361	1.084	4.821	1.621	1.544	2.665

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	32.440	29.910	3.692	1.860	29.920	31.520	8.654	2.366	0.275	5.121
2	19:01:47	30.510	30.640	4.460	2.342	29.540	31.800	9.714	2.650	-1.604	5.143
3	19:02:13	31.160	29.820	3.812	1.724	29.300	29.370	7.199	2.024	-2.300	5.058
x		31.370	30.120	3.988	1.975	29.590	30.890	8.522	2.347	-1.210	5.107
σ		0.984	0.448	0.413	0.325	0.309	1.331	1.263	0.314	1.332	0.044
%RSD		3.137	1.488	10.350	16.440	1.043	4.310	14.810	13.360	110.100	0.857

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	108.7%	1.657	1.639	1.552	1.835	0.087	0.097	0.034	0.017	94.3%
2	19:01:47	110.8%	1.597	1.567	1.646	2.594	0.089	0.095	0.013	0.070	97.1%
3	19:02:13	109.0%	1.531	1.524	1.598	4.112	0.082	0.097	0.010	0.034	95.8%
x		109.5%	1.595	1.577	1.599	2.847	0.086	0.096	0.019	0.040	95.8%
σ		1.1%	0.063	0.058	0.047	1.160	0.003	0.001	0.013	0.027	1.4%
%RSD		1.0	3.925	3.685	2.926	40.730	4.019	1.258	69.490	67.480	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:19	6.719	8.413	1.358	1.363	47.980	47.950	95.5%	0.208	0.214	15.180
2	19:01:47	6.721	8.379	1.347	1.411	48.500	46.850	99.5%	0.181	0.180	15.210
3	19:02:13	6.530	8.179	1.300	1.305	48.110	47.530	97.3%	0.198	0.197	14.890
x		6.657	8.323	1.335	1.360	48.200	47.440	97.4%	0.195	0.197	15.100
σ		0.110	0.127	0.031	0.053	0.271	0.554	2.0%	0.014	0.017	0.178
%RSD		1.646	1.522	2.309	3.869	0.561	1.168	2.0	6.981	8.561	1.178

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:01:19	14.270	14.660	93.7%
2	19:01:47	14.360	14.740	98.5%
3	19:02:13	13.900	14.420	94.4%
x		14.180	14.610	95.5%
σ		0.240	0.166	2.6%
%RSD		1.695	1.137	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	107.6%	0.250	0.771	0.621	63.330	20.960	T 470.900	467.400	479.800	TM 17990.000
2	19:07:52	105.5%	0.195	0.500	0.578	74.020	18.980	482.600	453.100	467.300	TM 17390.000
3	19:08:19	112.8%	0.270	0.489	0.490	59.670	20.420	T 458.700	472.100	476.100	TM 17810.000
x		108.6%	0.238	0.587	0.563	65.670	20.120	T 470.700	464.200	474.400	TM 17730.000
σ		3.8%	0.039	0.160	0.067	7.456	1.024	T 11.940	9.890	6.408	TM 310.700
%RSD		3.5	16.230	27.190	11.850	11.350	5.090	T 2.536	2.131	1.351	TM 1.752

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	T 1749.000	T 398700.000	409.700	243.600	113.600	102.2%	306.900	28.570	23.610	10050.000
2	19:07:52	T 1725.000	T 386400.000	399.100	168.300	98.560	103.2%	300.900	26.980	23.590	8934.000
3	19:08:19	T 1652.000	T 389100.000	401.500	212.100	108.400	103.5%	299.700	27.660	23.610	9506.000
x		T 1709.000	T 391400.000	403.500	208.000	106.900	103.0%	302.500	27.740	23.600	9495.000
σ		T 50.580	T 6477.000	5.565	37.810	7.640	0.7%	3.890	0.795	0.013	555.800
%RSD		T 2.960	T 1.655	1.379	18.180	7.150	0.6	1.286	2.868	0.055	5.853

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	T 12580.000	45.330	T 12450.000	12590.000	2.473	7.301	8.186	5.734	6.558	21.580
2	19:07:52	T 12240.000	45.840	T 12580.000	12610.000	2.392	7.013	7.611	5.900	6.503	21.630
3	19:08:19	T 12350.000	45.210	T 12480.000	12550.000	2.444	7.035	6.603	5.968	6.481	20.930
x		T 12390.000	45.460	T 12510.000	12580.000	2.437	7.116	7.467	5.867	6.514	21.380
σ		T 174.800	0.335	T 66.680	31.870	0.041	0.160	0.802	0.121	0.039	0.394
%RSD		T 1.411	0.736	T 0.533	0.253	1.681	2.249	10.740	2.054	0.604	1.842

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	19.620	19.670	3.029	0.830	22.800	22.070	2.131	0.745	-0.646	4.121
2	19:07:52	20.700	20.370	3.557	0.462	21.020	21.970	3.803	1.100	-0.066	4.110
3	19:08:19	21.090	20.100	3.154	0.682	21.390	22.500	3.291	0.958	0.920	4.192
x		20.470	20.050	3.247	0.658	21.730	22.180	3.075	0.935	0.069	4.141
σ		0.765	0.354	0.276	0.185	0.940	0.279	0.856	0.179	0.792	0.045
%RSD		3.734	1.766	8.499	28.170	4.327	1.258	27.850	19.130	1144.000	1.079

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	111.1%	0.859	0.872	0.879	3.864	0.039	0.031	0.045	0.055	95.2%
2	19:07:52	114.4%	0.869	0.788	0.846	3.097	0.032	0.026	0.009	0.024	100.3%
3	19:08:19	113.6%	0.889	0.818	0.831	4.252	0.049	0.022	0.013	0.017	99.1%
x		113.0%	0.872	0.826	0.852	3.738	0.040	0.026	0.022	0.032	98.2%
σ		1.7%	0.015	0.043	0.025	0.588	0.008	0.005	0.020	0.020	2.7%
%RSD		1.5	1.737	5.173	2.889	15.720	20.860	17.690	90.190	62.240	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:25	6.230	7.182	0.186	0.202	31.560	31.920	97.4%	0.108	0.119	8.121
2	19:07:52	5.831	7.372	0.181	0.225	31.120	31.070	102.6%	0.129	0.126	8.024
3	19:08:19	5.911	7.314	0.194	0.165	30.620	31.180	100.3%	0.114	0.125	7.844
x		5.991	7.289	0.187	0.197	31.100	31.390	100.1%	0.117	0.123	7.996
σ		0.211	0.097	0.006	0.031	0.469	0.460	2.6%	0.011	0.004	0.140
%RSD		3.523	1.336	3.430	15.560	1.508	1.466	2.6	9.181	2.886	1.756

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:07:25	7.254	7.709	97.6%
2	19:07:52	7.395	7.705	103.9%
3	19:08:19	7.197	7.645	100.8%
x		7.282	7.686	100.8%
σ		0.102	0.036	3.2%
%RSD		1.403	0.466	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	110.1%	0.224	0.621	0.476	329.500	24.920	461.200	457.900	460.900	T 28430.000
2	19:13:56	109.5%	0.196	0.858	0.486	331.300	24.510	457.300	438.300	446.300	T 28570.000
3	19:14:23	T 118.3%	0.260	0.493	0.479	335.200	25.340	T 430.500	427.500	447.400	T 29390.000
x		T 112.6%	0.226	0.657	0.481	332.000	24.920	T 449.700	441.200	451.500	T 28800.000
σ		T 4.9%	0.032	0.186	0.005	2.906	0.416	T 16.710	15.420	8.155	T 517.600
%RSD		T 4.4	14.200	28.220	1.094	0.875	1.669	T 3.716	3.495	1.806	T 1.797
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	T 2083.000	T 360800.000	T 510.900	411.900	296.900	106.0%	393.700	55.860	59.500	8092.000
2	19:13:56	T 2079.000	T 359300.000	522.000	400.600	289.100	106.4%	383.900	55.220	58.400	7892.000
3	19:14:23	T 1897.000	T 355900.000	T 501.600	460.700	289.500	104.9%	381.200	53.490	58.840	8846.000
x		T 2020.000	T 358700.000	T 511.500	424.400	291.800	105.8%	386.200	54.860	58.910	8277.000
σ		T 106.500	T 2506.000	T 10.200	31.960	4.396	0.8%	6.560	1.225	0.556	503.500
%RSD		T 5.272	T 0.699	T 1.995	7.530	1.506	0.7	1.699	2.232	0.943	6.083
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	T 22210.000	137.500	T 22710.000	T 22340.000	76.980	10.820	11.850	44.420	50.380	47.010
2	19:13:56	T 21550.000	133.500	T 21740.000	T 21560.000	75.480	10.790	10.140	43.050	49.150	45.470
3	19:14:23	T 21840.000	133.500	T 21720.000	T 21630.000	76.500	10.550	11.760	43.170	47.950	43.970
x		T 21870.000	134.800	T 22060.000	T 21840.000	76.320	10.720	11.250	43.550	49.160	45.480
σ		T 329.000	2.296	T 566.600	T 427.000	0.764	0.145	0.961	0.757	1.219	1.519
%RSD		T 1.505	1.703	T 2.569	T 1.955	1.001	1.353	8.538	1.739	2.480	3.341
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	44.340	43.710	7.073	0.401	23.090	21.890	3.751	1.223	0.233	9.515
2	19:13:56	42.410	42.860	6.730	0.637	21.680	22.580	6.299	1.959	-1.242	9.226
3	19:14:23	41.780	41.830	6.250	0.134	22.590	23.270	3.431	1.100	0.968	9.264
x		42.840	42.800	6.684	0.391	22.450	22.580	4.494	1.427	-0.014	9.335
σ		1.335	0.943	0.413	0.252	0.715	0.689	1.572	0.465	1.126	0.157
%RSD		3.115	2.203	6.183	64.470	3.186	3.052	34.970	32.540	8215.000	1.685
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	122.1%	10.230	10.230	10.370	4.776	0.677	0.650	0.236	0.344	100.3%
2	19:13:56	123.5%	10.450	10.090	10.480	3.787	0.634	0.674	0.293	0.362	100.9%
3	19:14:23	121.8%	10.110	9.951	10.400	4.461	0.659	0.619	0.254	0.306	100.5%
x		122.5%	10.260	10.090	10.420	4.341	0.657	0.648	0.261	0.337	100.6%
σ		0.9%	0.168	0.139	0.054	0.505	0.022	0.028	0.029	0.028	0.3%
%RSD		0.7	1.636	1.380	0.519	11.640	3.350	4.261	11.100	8.426	0.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:13:29	24.930	33.280	21.530	21.910	62.480	62.260	102.3%	0.143	0.132	42.730
2	19:13:56	24.780	33.070	21.790	21.080	61.180	62.160	102.9%	0.159	0.151	42.030
3	19:14:23	24.170	32.590	20.940	20.900	59.390	60.570	101.8%	0.143	0.139	41.360
x		24.630	32.980	21.420	21.300	61.010	61.660	102.4%	0.148	0.141	42.040
σ		0.402	0.351	0.435	0.540	1.552	0.947	0.5%	0.009	0.010	0.683
%RSD		1.633	1.065	2.033	2.536	2.543	1.536	0.5	6.096	6.885	1.624
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	19:13:29	41.000	41.600	102.1%							
2	19:13:56	40.870	41.300	103.4%							
3	19:14:23	40.020	40.500	101.3%							
x		40.630	41.140	102.3%							
σ		0.535	0.570	1.1%							
%RSD		1.317	1.385	1.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	111.1%	0.239	0.628	0.407	39.360	28.680	337.900	334.000	347.200	™36340.000
2	19:20:00	108.2%	0.238	0.411	0.392	48.230	26.750	333.300	334.100	333.800	™33970.000
3	19:20:27	108.8%	0.256	0.669	0.338	47.480	25.870	331.200	327.000	328.900	™33360.000
x		109.4%	0.244	0.569	0.379	45.020	27.100	334.100	331.700	336.600	™34560.000
σ		1.6%	0.010	0.139	0.036	4.919	1.442	3.426	4.029	9.488	™1572.000
%RSD		1.4	4.149	24.410	9.586	10.930	5.322	1.026	1.215	2.818	™4.550

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	₸1978.000	₸376900.000	678.900	772.200	548.000	103.8%	312.400	90.280	64.290	9922.000
2	19:20:00	₸1963.000	₸366300.000	650.100	722.400	542.600	105.6%	305.200	87.570	62.740	8705.000
3	19:20:27	₸1915.000	₸352500.000	630.400	656.500	525.500	106.4%	297.200	88.500	61.750	8411.000
x		₸1952.000	₸365300.000	653.100	717.000	538.700	105.3%	304.900	88.780	62.930	9013.000
σ		₸32.940	₸12210.000	24.410	58.050	11.770	1.3%	7.610	1.377	1.278	801.200
%RSD		₸1.688	₸3.342	3.737	8.097	2.185	1.2	2.495	1.551	2.030	8.889

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	₸23830.000	35.410	₸23810.000	₸23390.000	27.680	9.322	8.893	11.470	13.240	33.300
2	19:20:00	₸23730.000	35.340	₸23550.000	₸23660.000	27.430	9.151	9.123	11.340	12.880	33.520
3	19:20:27	₸22930.000	34.270	₸23160.000	₸23230.000	26.910	8.874	8.108	11.230	12.820	33.220
x		₸23500.000	35.010	₸23510.000	₸23430.000	27.340	9.116	8.708	11.350	12.980	33.350
σ		₸491.400	0.643	₸328.000	₸216.500	0.393	0.227	0.532	0.118	0.230	0.155
%RSD		₸2.092	1.835	₸1.395	₸0.924	1.438	2.484	6.112	1.041	1.770	0.463

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	29.780	29.820	13.150	0.898	21.160	21.160	2.665	0.953	0.338	12.950
2	19:20:00	31.800	29.950	13.610	0.776	20.040	22.000	1.925	0.799	-0.683	12.810
3	19:20:27	31.000	29.600	13.050	0.472	21.800	23.820	3.852	1.278	0.703	12.750
x		30.860	29.790	13.270	0.716	21.000	22.330	2.814	1.010	0.119	12.840
σ		1.016	0.173	0.299	0.219	0.892	1.363	0.972	0.245	0.718	0.105
%RSD		3.292	0.580	2.258	30.670	4.248	6.106	34.550	24.220	601.800	0.816

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	117.2%	3.584	3.444	3.557	7.438	0.096	0.048	0.039	0.071	95.6%
2	19:20:00	122.9%	3.501	3.347	3.645	8.199	0.063	0.042	0.029	0.043	98.8%
3	19:20:27	123.1%	3.446	3.482	3.690	8.470	0.076	0.044	0.070	0.062	99.4%
x		121.0%	3.510	3.424	3.631	8.036	0.078	0.044	0.046	0.058	97.9%
σ		3.4%	0.070	0.070	0.068	0.535	0.016	0.003	0.021	0.014	2.0%
%RSD		2.8	1.984	2.034	1.861	6.661	20.720	6.870	46.260	24.590	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:19:33	8.373	8.258	0.380	0.496	45.260	43.110	95.4%	0.184	0.201	22.340
2	19:20:00	8.015	8.260	0.348	0.447	44.480	43.900	101.1%	0.183	0.211	21.990
3	19:20:27	8.040	7.965	0.481	0.463	42.850	42.580	101.1%	0.201	0.180	21.760
x		8.143	8.161	0.403	0.469	44.200	43.200	99.2%	0.190	0.197	22.030
σ		0.200	0.169	0.069	0.025	1.231	0.664	3.3%	0.010	0.016	0.290
%RSD		2.455	2.076	17.160	5.279	2.786	1.536	3.3	5.269	8.237	1.316

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:19:33	20.440	21.480	94.2%
2	19:20:00	20.220	21.160	100.5%
3	19:20:27	19.880	20.970	100.2%
x		20.180	21.210	98.3%
σ		0.278	0.257	3.6%
%RSD		1.379	1.210	3.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	110.1%	0.155	0.345	0.218	101.800	19.130	261.100	262.000	261.400	™18360.000
2	19:26:04	107.2%	0.117	0.027	0.159	103.500	16.930	256.300	252.400	258.900	™17900.000
3	19:26:31	108.6%	0.165	0.284	-0.004	95.480	16.220	260.200	257.000	249.300	™16910.000
x		108.6%	0.146	0.219	0.124	100.300	17.430	259.200	257.100	256.500	™17720.000
σ		1.4%	0.026	0.169	0.115	4.244	1.520	2.588	4.819	6.375	™738.700
%RSD		1.3	17.650	77.170	92.560	4.232	8.722	0.999	1.874	2.485	™4.168

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	┬1782.000	┬405700.000	┬317.100	247.700	131.800	103.5%	284.100	33.790	27.740	10040.000
2	19:26:04	┬1782.000	┬393600.000	306.300	198.900	125.500	104.6%	279.000	32.840	27.170	8889.000
3	19:26:31	┬1707.000	┬376300.000	289.600	174.500	122.700	105.0%	277.600	33.330	26.040	8319.000
x		┬1757.000	┬391900.000	┬304.300	207.100	126.700	104.3%	280.200	33.320	26.980	9082.000
σ		┬43.560	┬14780.000	┬13.820	37.270	4.658	0.8%	3.427	0.478	0.864	875.300
%RSD		┬2.479	┬3.772	┬4.540	18.000	3.677	0.7	1.223	1.433	3.202	9.638

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	┬13540.000	49.900	┬13670.000	13310.000	14.360	5.373	6.708	13.430	15.360	23.530
2	19:26:04	┬13500.000	49.910	┬13410.000	13130.000	14.140	5.347	5.325	13.020	14.470	23.090
3	19:26:31	┬13140.000	49.660	┬13410.000	13090.000	13.720	5.424	4.865	12.860	14.010	22.190
x		┬13400.000	49.820	┬13490.000	13170.000	14.070	5.381	5.632	13.100	14.610	22.940
σ		┬220.600	0.139	┬149.100	120.000	0.326	0.039	0.960	0.295	0.688	0.683
%RSD		┬1.647	0.280	┬1.105	0.911	2.315	0.724	17.040	2.255	4.709	2.978

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	22.230	21.650	3.316	0.830	26.690	26.850	1.128	0.442	-0.925	5.878
2	19:26:04	22.510	21.580	3.441	-0.026	25.930	25.240	0.282	0.215	-0.941	5.590
3	19:26:31	20.000	21.410	3.085	0.082	23.480	25.160	1.899	0.685	-2.397	5.522
x		21.580	21.540	3.281	0.295	25.370	25.750	1.103	0.447	-1.421	5.663
σ		1.378	0.121	0.181	0.466	1.674	0.953	0.809	0.235	0.845	0.189
%RSD		6.384	0.563	5.502	157.900	6.600	3.701	73.350	52.590	59.460	3.340

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	104.8%	2.856	2.747	2.941	2.998	0.295	0.269	0.139	0.181	93.0%
2	19:26:04	108.9%	2.954	2.819	2.865	4.510	0.294	0.328	0.192	0.208	97.1%
3	19:26:31	111.2%	2.714	2.933	2.794	3.126	0.288	0.284	0.151	0.140	97.6%
x		108.3%	2.841	2.833	2.867	3.545	0.292	0.294	0.161	0.176	95.9%
σ		3.2%	0.120	0.094	0.074	0.839	0.004	0.030	0.028	0.034	2.5%
%RSD		3.0	4.238	3.307	2.569	23.650	1.299	10.370	17.120	19.430	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:37	12.650	17.040	3.054	2.930	26.810	26.180	94.0%	0.074	0.075	13.100
2	19:26:04	12.650	16.520	3.091	3.131	26.760	25.330	99.1%	0.091	0.081	12.520
3	19:26:31	12.540	16.400	3.097	2.846	24.850	24.350	99.6%	0.072	0.071	12.400
x		12.620	16.650	3.081	2.969	26.140	25.290	97.6%	0.079	0.076	12.670
σ		0.063	0.342	0.023	0.146	1.116	0.917	3.1%	0.011	0.005	0.376
%RSD		0.500	2.052	0.754	4.930	4.269	3.627	3.2	13.520	6.397	2.970

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:25:37	11.940	12.320	93.2%
2	19:26:04	11.720	12.070	98.3%
3	19:26:31	11.560	11.880	98.9%
x		11.740	12.090	96.8%
σ		0.191	0.222	3.1%
%RSD		1.627	1.839	3.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	108.2%	0.173	-0.018	-0.244	71.040	12.320	161.800	156.700	158.500	™15970.000
2	19:32:08	108.7%	0.135	-0.187	-0.176	80.810	12.680	156.700	153.100	155.300	™16050.000
3	19:32:35	110.5%	0.161	0.024	-0.285	82.000	13.810	159.200	161.300	159.600	™16090.000
x		109.1%	0.156	-0.060	-0.235	77.950	12.940	159.200	157.000	157.800	™16040.000
σ		1.2%	0.020	0.112	0.055	6.012	0.776	2.510	4.110	2.226	™57.290
%RSD		1.1	12.580	185.100	23.370	7.713	5.998	1.576	2.617	1.411	™0.357
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	┬1562.000	┬343400.000	201.800	104.000	47.410	102.3%	183.300	36.310	27.340	7877.000
2	19:32:08	┬1526.000	┬344100.000	203.000	123.900	47.760	103.3%	184.000	36.440	27.790	8049.000
3	19:32:35	┬1508.000	┬350300.000	205.300	149.000	45.380	103.4%	184.600	35.680	26.990	8754.000
x		┬1532.000	┬346000.000	203.300	125.600	46.850	103.0%	184.000	36.140	27.370	8227.000
σ		┬27.390	┬3801.000	1.794	22.540	1.284	0.6%	0.653	0.408	0.403	464.600
%RSD		┬1.788	┬1.099	0.882	17.950	2.741	0.6	0.355	1.129	1.471	5.647
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	┬14810.000	10.000	┬14670.000	14590.000	1.134	3.692	3.507	5.795	6.159	9.733
2	19:32:08	┬14500.000	9.770	┬14590.000	14250.000	1.040	3.589	3.169	5.801	6.069	9.844
3	19:32:35	┬14810.000	9.730	┬14800.000	14430.000	1.075	3.297	3.950	5.837	6.111	9.883
x		┬14700.000	9.835	┬14690.000	14430.000	1.083	3.526	3.542	5.811	6.113	9.820
σ		┬180.700	0.148	┬101.500	170.900	0.048	0.205	0.391	0.023	0.045	0.078
%RSD		┬1.229	1.509	┬0.691	1.185	4.386	5.810	11.050	0.395	0.736	0.790
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	10.260	9.829	5.724	0.462	15.090	17.160	3.402	0.907	-0.905	4.248
2	19:32:08	10.270	9.383	4.312	0.144	16.830	16.550	0.733	0.268	-0.308	4.200
3	19:32:35	9.588	9.594	4.739	0.369	14.330	16.790	0.028	0.106	-0.599	4.255
x		10.040	9.602	4.925	0.325	15.420	16.840	1.388	0.427	-0.604	4.234
σ		0.393	0.223	0.725	0.164	1.282	0.306	1.780	0.423	0.299	0.030
%RSD		3.909	2.324	14.710	50.430	8.319	1.816	128.200	99.140	49.440	0.710
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	104.6%	1.770	1.764	1.882	3.532	0.035	0.021	0.020	0.013	97.9%
2	19:32:08	104.6%	1.801	1.632	1.839	3.937	0.030	0.020	-0.003	0.006	96.9%
3	19:32:35	102.5%	1.728	1.835	1.780	3.631	0.034	0.023	-0.003	0.007	95.1%
x		103.9%	1.766	1.743	1.834	3.700	0.033	0.021	0.005	0.009	96.6%
σ		1.2%	0.037	0.103	0.051	0.211	0.003	0.002	0.013	0.004	1.4%
%RSD		1.2	2.079	5.919	2.773	5.708	8.030	7.472	271.500	44.850	1.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:41	5.107	6.736	0.179	0.195	17.000	17.090	97.3%	0.056	0.060	6.062
2	19:32:08	5.213	6.638	0.175	0.195	16.840	16.730	97.4%	0.057	0.054	5.778
3	19:32:35	4.957	6.652	0.178	0.296	16.940	16.780	95.7%	0.048	0.052	5.944
x		5.092	6.675	0.177	0.229	16.930	16.870	96.8%	0.054	0.055	5.928
σ		0.128	0.053	0.002	0.059	0.080	0.193	0.9%	0.005	0.004	0.142
%RSD		2.518	0.798	1.168	25.590	0.471	1.143	1.0	8.793	7.612	2.402
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	19:31:41	5.631	5.903	98.1%							
2	19:32:08	5.426	5.699	96.9%							
3	19:32:35	5.656	5.724	94.5%							
x		5.571	5.775	96.5%							
σ		0.126	0.111	1.9%							
%RSD		2.267	1.929	1.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	109.1%	0.215	0.973	0.617	128.400	21.020	456.700	446.600	446.800	TM 26680.000
2	19:38:11	109.2%	0.167	0.724	0.440	123.400	20.880	457.600	445.500	450.500	TM 26590.000
3	19:38:38	112.2%	0.189	0.837	0.433	128.100	21.030	T 455.500	452.400	452.000	TM 26830.000
x		110.2%	0.190	0.845	0.497	126.600	20.980	T 456.600	448.100	449.800	TM 26700.000
σ		1.8%	0.024	0.125	0.104	2.807	0.082	T 1.055	3.697	2.668	TM 123.600
%RSD		1.6	12.730	14.780	20.950	2.217	0.393	T 0.231	0.825	0.593	TM 0.463

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	T 2020.000	T 382600.000	538.500	283.300	131.000	105.2%	T 372.900	47.550	36.810	9235.000
2	19:38:11	T 1996.000	T 390000.000	551.400	246.400	134.400	105.0%	360.900	47.410	38.280	8973.000
3	19:38:38	T 1923.000	T 384500.000	543.200	249.400	131.000	105.3%	360.000	47.440	37.180	9288.000
x		T 1980.000	T 385700.000	544.400	259.700	132.100	105.2%	T 364.600	47.470	37.430	9165.000
σ		T 50.690	T 3874.000	6.520	20.510	1.947	0.2%	T 7.207	0.072	0.764	168.800
%RSD		T 2.560	T 1.004	1.198	7.897	1.474	0.1	T 1.977	0.151	2.042	1.841

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	T 17950.000	37.910	T 17810.000	17840.000	7.174	10.370	10.830	15.710	17.530	29.530
2	19:38:11	T 17620.000	37.680	T 17710.000	17750.000	7.338	10.360	11.740	15.160	17.460	30.360
3	19:38:38	T 17650.000	37.350	T 17590.000	T 17590.000	7.194	10.370	9.191	15.460	17.210	29.730
x		T 17740.000	37.650	T 17700.000	T 17730.000	7.235	10.370	10.580	15.450	17.400	29.870
σ		T 181.000	0.280	T 110.500	T 128.600	0.089	0.008	1.290	0.277	0.167	0.434
%RSD		T 1.020	0.745	T 0.624	T 0.726	1.236	0.074	12.190	1.794	0.961	1.454

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	29.860	28.220	4.849	0.701	30.270	32.800	0.730	0.376	-1.062	6.896
2	19:38:11	28.650	28.210	5.188	0.485	31.500	32.110	3.270	1.026	-0.977	6.704
3	19:38:38	28.690	27.770	4.706	0.612	30.450	33.340	1.014	0.412	-0.012	6.713
x		29.060	28.070	4.914	0.599	30.740	32.750	1.671	0.605	-0.684	6.771
σ		0.692	0.255	0.247	0.109	0.664	0.618	1.392	0.365	0.583	0.108
%RSD		2.380	0.909	5.031	18.120	2.160	1.887	83.270	60.460	85.250	1.594

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	111.3%	5.392	4.974	5.825	2.984	0.544	0.530	0.018	-0.018	95.8%
2	19:38:11	113.5%	5.155	5.223	5.541	3.731	0.533	0.530	0.072	0.119	97.8%
3	19:38:38	113.0%	5.540	5.321	5.516	2.216	0.484	0.501	0.057	0.016	97.7%
x		112.6%	5.362	5.173	5.628	2.977	0.520	0.521	0.049	0.039	97.1%
σ		1.2%	0.195	0.179	0.172	0.757	0.032	0.017	0.028	0.071	1.1%
%RSD		1.1	3.627	3.457	3.049	25.440	6.134	3.220	57.510	182.100	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:44	22.610	30.060	5.471	5.382	44.380	45.170	97.8%	0.140	0.130	21.810
2	19:38:11	22.230	29.980	5.337	5.425	44.960	44.400	99.2%	0.134	0.136	21.540
3	19:38:38	22.140	29.660	5.420	5.139	44.260	43.780	98.9%	0.132	0.126	21.940
x		22.330	29.900	5.410	5.315	44.530	44.450	98.6%	0.135	0.131	21.760
σ		0.248	0.213	0.068	0.154	0.374	0.693	0.7%	0.004	0.005	0.201
%RSD		1.112	0.712	1.250	2.905	0.840	1.559	0.8	2.952	4.003	0.922

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:37:44	20.030	21.040	95.2%
2	19:38:11	20.210	21.140	97.8%
3	19:38:38	20.010	21.020	98.4%
x		20.080	21.070	97.1%
σ		0.107	0.062	1.7%
%RSD		0.533	0.297	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	111.4%	0.125	0.107	-0.124	60.780	16.450	190.800	186.300	193.500	™25130.000
2	19:44:14	111.4%	0.151	-0.026	-0.082	59.350	14.480	187.100	186.700	193.600	™24050.000
3	19:44:41	109.6%	0.144	0.050	-0.086	56.310	12.820	185.500	184.000	192.700	™23520.000
x		110.8%	0.140	0.044	-0.097	58.820	14.580	187.800	185.700	193.300	™24230.000
σ		1.1%	0.013	0.067	0.023	2.283	1.818	2.744	1.497	0.495	™820.700
%RSD		1.0	9.499	152.600	23.880	3.881	12.470	1.461	0.806	0.256	™3.387

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	┬1688.000	┬400500.000	254.000	236.200	63.530	101.3%	265.200	51.490	39.870	10510.000
2	19:44:14	┬1679.000	┬390400.000	243.400	172.200	58.660	103.4%	258.800	52.350	38.550	8697.000
3	19:44:41	┬1658.000	┬372100.000	236.600	131.700	54.720	106.6%	257.600	51.060	37.670	8290.000
x		┬1675.000	┬387700.000	244.600	180.000	58.970	103.8%	260.500	51.630	38.700	9166.000
σ		┬15.370	┬14430.000	8.755	52.680	4.412	2.6%	4.076	0.658	1.107	1182.000
%RSD		┬0.918	┬3.722	3.579	29.270	7.481	2.5	1.565	1.274	2.860	12.900

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	┬14470.000	25.030	┬14460.000	14230.000	7.830	5.726	6.512	7.587	8.243	14.610
2	19:44:14	┬13990.000	24.840	┬14230.000	14350.000	7.565	5.265	4.972	7.139	8.077	14.620
3	19:44:41	┬14010.000	25.110	┬14310.000	14220.000	7.543	5.289	5.929	7.000	7.924	14.300
x		┬14160.000	24.990	┬14330.000	14270.000	7.646	5.427	5.804	7.242	8.081	14.510
σ		┬272.500	0.140	┬121.200	76.000	0.160	0.259	0.778	0.307	0.160	0.178
%RSD		┬1.924	0.562	┬0.846	0.533	2.091	4.778	13.400	4.238	1.974	1.229

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	15.130	13.480	4.961	0.351	21.390	21.570	-1.944	-0.352	-0.351	5.298
2	19:44:14	14.490	13.520	4.727	0.725	20.430	20.630	0.292	0.233	-0.934	5.331
3	19:44:41	15.430	13.760	4.667	0.539	22.250	19.380	-1.928	-0.339	-0.324	5.257
x		15.010	13.590	4.785	0.538	21.360	20.530	-1.193	-0.153	-0.536	5.295
σ		0.479	0.151	0.155	0.187	0.910	1.098	1.286	0.334	0.344	0.037
%RSD		3.192	1.109	3.247	34.740	4.262	5.348	107.800	218.800	64.250	0.700

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	105.7%	2.506	2.441	2.587	5.123	0.053	0.026	0.018	0.018	93.8%
2	19:44:14	108.9%	2.752	2.626	2.660	5.515	0.056	0.027	0.025	-0.013	96.3%
3	19:44:41	115.2%	2.476	2.501	2.679	5.944	0.062	0.025	0.019	0.015	100.9%
x		109.9%	2.578	2.522	2.642	5.527	0.057	0.026	0.020	0.007	97.0%
σ		4.8%	0.152	0.094	0.049	0.411	0.004	0.001	0.004	0.017	3.6%
%RSD		4.4	5.879	3.743	1.849	7.431	7.434	4.248	17.700	256.400	3.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:47	6.128	7.209	0.447	0.420	19.860	19.970	94.5%	0.049	0.051	8.122
2	19:44:14	6.171	7.206	0.414	0.405	19.610	19.350	97.5%	0.049	0.049	8.147
3	19:44:41	6.284	7.354	0.429	0.372	19.650	19.340	102.1%	0.049	0.051	8.328
x		6.194	7.256	0.430	0.399	19.710	19.550	98.0%	0.049	0.050	8.199
σ		0.080	0.085	0.017	0.025	0.137	0.360	3.8%	0.000	0.001	0.113
%RSD		1.296	1.168	3.870	6.163	0.694	1.842	3.9	0.420	1.911	1.372

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:43:47	7.579	7.935	93.6%
2	19:44:14	7.651	8.018	98.4%
3	19:44:41	7.474	7.954	102.4%
x		7.568	7.969	98.1%
σ		0.089	0.043	4.4%
%RSD		1.173	0.544	4.5

UD18099-010 04/30/2019 19:49:26

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	110.2%	0.173	0.479	0.293	78.330	20.590	207.600	201.700	206.900	™21270.000
2	19:50:20	107.8%	0.243	0.327	0.349	74.090	18.980	200.300	198.100	198.100	™20580.000
3	19:50:48	109.3%	0.226	0.445	0.280	70.430	18.410	198.200	196.300	199.800	™20030.000
x		109.1%	0.214	0.417	0.307	74.290	19.330	202.000	198.700	201.600	™20630.000
σ		1.2%	0.036	0.080	0.037	3.955	1.131	4.911	2.758	4.628	™621.400
%RSD		1.1	17.010	19.220	12.030	5.324	5.849	2.431	1.388	2.296	™3.013
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	┬1656.000	┬391800.000	484.900	590.600	435.200	104.9%	236.100	62.570	46.150	8500.000
2	19:50:20	┬1704.000	┬387700.000	469.400	493.900	421.900	106.6%	236.300	62.510	44.160	8404.000
3	19:50:48	┬1662.000	┬373200.000	450.400	486.800	413.800	108.3%	233.200	59.230	42.860	8451.000
x		┬1674.000	┬384300.000	468.200	523.800	423.600	106.6%	235.200	61.440	44.390	8452.000
σ		┬25.880	┬9755.000	17.270	57.940	10.810	1.7%	1.717	1.909	1.659	47.940
%RSD		┬1.546	┬2.539	3.687	11.060	2.551	1.6	0.730	3.107	3.738	0.567
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	┬17200.000	23.180	┬17460.000	17730.000	6.333	5.208	4.462	10.500	12.140	14.280
2	19:50:20	┬16910.000	22.750	┬16950.000	17360.000	5.937	4.937	4.130	10.180	11.280	13.770
3	19:50:48	┬16840.000	22.450	┬17020.000	17290.000	6.107	4.825	4.669	10.090	11.470	13.800
x		┬16980.000	22.790	┬17150.000	17460.000	6.126	4.990	4.421	10.260	11.630	13.950
σ		┬193.300	0.366	┬277.600	236.800	0.199	0.197	0.272	0.212	0.452	0.287
%RSD		┬1.138	1.605	┬1.619	1.356	3.244	3.947	6.153	2.065	3.888	2.054
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	14.200	13.590	8.966	0.045	23.260	22.390	3.094	0.988	1.508	9.730
2	19:50:20	15.640	13.560	10.620	0.968	22.020	21.610	5.327	1.606	0.566	9.721
3	19:50:48	14.160	13.840	9.017	1.278	22.960	23.160	3.521	1.175	-0.328	9.456
x		14.670	13.660	9.534	0.763	22.750	22.390	3.981	1.256	0.582	9.636
σ		0.842	0.155	0.940	0.641	0.645	0.776	1.185	0.317	0.918	0.155
%RSD		5.743	1.135	9.855	84.000	2.836	3.465	29.780	25.230	157.800	1.613
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	118.7%	2.570	2.526	2.653	4.756	0.073	0.025	0.038	0.000	98.8%
2	19:50:20	122.3%	2.647	2.459	2.772	6.768	0.049	0.046	0.043	-0.004	101.6%
3	19:50:48	122.3%	2.608	2.503	2.547	7.174	0.064	0.034	0.011	0.015	100.8%
x		121.1%	2.608	2.496	2.657	6.233	0.062	0.035	0.031	0.004	100.4%
σ		2.1%	0.038	0.034	0.113	1.295	0.012	0.010	0.017	0.010	1.5%
%RSD		1.7	1.462	1.378	4.247	20.780	19.480	30.260	55.480	279.300	1.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:53	7.245	6.952	0.299	0.323	29.670	29.180	100.3%	0.074	0.091	15.970
2	19:50:20	6.975	6.935	0.300	0.324	29.630	29.000	102.7%	0.099	0.089	15.910
3	19:50:48	6.689	6.757	0.264	0.293	28.520	28.570	104.0%	0.076	0.090	15.930
x		6.970	6.881	0.288	0.313	29.280	28.920	102.3%	0.083	0.090	15.940
σ		0.278	0.108	0.021	0.017	0.651	0.311	1.9%	0.014	0.001	0.028
%RSD		3.995	1.564	7.262	5.579	2.225	1.074	1.8	16.520	1.038	0.175
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	19:49:53	14.530	15.500	99.9%							
2	19:50:20	14.450	15.470	104.0%							
3	19:50:48	14.110	15.160	105.0%							
x		14.360	15.380	103.0%							
σ		0.224	0.185	2.7%							
%RSD		1.560	1.203	2.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	109.0%	0.176	1.597	1.207	313.400	18.930	506.200	491.800	491.800	™20140.000
2	19:56:27	108.8%	0.185	1.497	1.150	325.900	18.380	485.800	483.100	490.800	™19740.000
3	19:56:54	111.3%	0.203	1.295	1.176	314.900	18.590	┬490.500	495.500	497.500	™20110.000
x		109.7%	0.188	1.463	1.178	318.100	18.630	┬494.200	490.100	493.400	™20000.000
σ		1.4%	0.014	0.154	0.029	6.805	0.277	┬10.670	6.337	3.616	™225.000
%RSD		1.3	7.202	10.530	2.445	2.139	1.486	┬2.159	1.293	0.733	™1.125

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	┬1479.000	┬351600.000	381.600	487.100	396.300	105.6%	339.000	27.780	20.020	8220.000
2	19:56:27	┬1460.000	┬348400.000	377.400	493.400	382.300	105.2%	325.200	28.610	19.860	7813.000
3	19:56:54	┬1454.000	┬356300.000	383.100	505.400	373.800	104.4%	331.100	29.650	19.930	7718.000
x		┬1464.000	┬352100.000	380.700	495.300	384.200	105.1%	331.800	28.680	19.940	7917.000
σ		┬12.830	┬4005.000	2.942	9.259	11.360	0.6%	6.933	0.937	0.081	267.100
%RSD		┬0.876	┬1.137	0.773	1.869	2.957	0.6	2.089	3.266	0.404	3.373

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	┬11710.000	35.510	┬11780.000	11680.000	14.810	8.258	9.083	10.090	11.520	33.750
2	19:56:27	┬11800.000	35.530	┬11740.000	11480.000	14.610	8.103	8.391	10.110	11.360	33.540
3	19:56:54	┬11690.000	35.280	┬11910.000	11700.000	14.940	8.277	8.509	9.831	11.180	34.160
x		┬11730.000	35.440	┬11810.000	11620.000	14.790	8.213	8.661	10.010	11.350	33.810
σ		┬55.580	0.140	┬89.320	120.900	0.168	0.095	0.370	0.157	0.171	0.317
%RSD		┬0.474	0.396	┬0.756	1.041	1.135	1.163	4.272	1.566	1.509	0.938

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	31.680	32.610	2.390	0.273	25.580	27.260	0.853	0.388	-0.930	7.047
2	19:56:27	33.130	32.960	2.850	0.461	26.050	27.200	0.996	0.454	-1.913	6.990
3	19:56:54	33.580	32.970	2.407	0.024	28.500	27.860	2.107	0.728	-1.621	7.093
x		32.790	32.850	2.549	0.253	26.710	27.440	1.319	0.523	-1.488	7.044
σ		0.992	0.210	0.261	0.220	1.571	0.362	0.686	0.180	0.505	0.052
%RSD		3.025	0.638	10.240	86.910	5.882	1.321	52.030	34.480	33.920	0.733

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	112.4%	1.736	1.548	1.758	1.438	0.074	0.072	0.032	0.036	98.0%
2	19:56:27	113.4%	1.778	1.810	1.646	1.750	0.065	0.064	0.013	0.039	98.5%
3	19:56:54	111.1%	1.873	1.676	1.702	2.080	0.076	0.060	0.033	0.042	96.8%
x		112.3%	1.796	1.678	1.702	1.756	0.072	0.065	0.026	0.039	97.8%
σ		1.2%	0.070	0.131	0.056	0.321	0.006	0.006	0.011	0.003	0.9%
%RSD		1.0	3.919	7.807	3.285	18.300	8.063	9.866	43.450	7.264	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:59	5.521	6.899	4.112	4.138	64.310	64.150	99.3%	0.167	0.170	16.300
2	19:56:27	5.305	7.048	4.218	4.180	63.950	63.920	100.0%	0.167	0.166	15.840
3	19:56:54	5.504	6.610	4.227	4.049	63.550	63.810	97.9%	0.188	0.163	15.950
x		5.443	6.852	4.185	4.122	63.940	63.960	99.0%	0.174	0.166	16.030
σ		0.120	0.223	0.064	0.067	0.379	0.174	1.0%	0.012	0.004	0.239
%RSD		2.206	3.252	1.531	1.628	0.592	0.271	1.1	6.983	2.233	1.492

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	19:55:59	14.920	15.650	98.5%
2	19:56:27	15.090	15.570	99.0%
3	19:56:54	15.230	15.620	98.0%
x		15.080	15.610	98.5%
σ		0.152	0.044	0.5%
%RSD		1.009	0.284	0.5

CCV MW10994 04/30/2019 20:01:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	95.1%	306.500	305.900	302.900	62.230	┬64640.000	┬62470.000	┬62010.000	┬60840.000	296.900
2	20:02:34	96.9%	295.600	302.800	295.200	63.600	┬64780.000	┬61190.000	┬60230.000	┬61500.000	304.100
3	20:03:01	94.2%	309.400	309.800	301.300	70.740	┬66280.000	┬63260.000	┬61900.000	┬61790.000	293.600
x		95.4%	101.276%	102.050%	99.941%	65.520	┬108.718%	┬62310.000	┬61380.000	┬102.290%	99.403%
σ		1.4%	n/a	n/a	n/a	4.570	┬n/a	┬1046.000	┬997.500	┬n/a	n/a
%RSD		1.4	2.389	1.135	1.349	6.974	┬1.392	┬1.678	┬1.625	┬0.794	1.794

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	┬3211.000	3610.000	┬64100.000	63040.000	┬64110.000	95.6%	310.600	318.900	299.000	880.700
2	20:02:34	┬3224.000	3710.000	┬67120.000	64630.000	┬65340.000	95.0%	312.100	320.200	305.100	2730.000
3	20:03:01	┬3224.000	3435.000	┬65730.000	63610.000	┬64570.000	97.0%	309.500	314.000	301.300	1542.000
x		┬107.326%	3585.000	┬109.414%	63760.000	┬107.789%	95.9%	103.576%	105.888%	100.595%	1718.000
σ		┬n/a	139.300	┬n/a	804.500	┬n/a	1.0%	n/a	n/a	n/a	937.200
%RSD		┬0.244	3.886	┬2.304	1.262	┬0.963	1.0	0.425	1.028	1.023	54.560

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	┬65060.000	299.000	┬64250.000	┬62510.000	295.600	290.600	295.000	296.700	313.300	314.200
2	20:02:34	┬64970.000	299.000	┬65200.000	┬63080.000	302.800	296.600	294.900	299.000	322.200	317.900
3	20:03:01	┬63450.000	295.000	┬64410.000	┬62850.000	295.900	288.700	290.600	296.000	306.500	313.600
x		┬64490.000	99.225%	┬64620.000	┬104.693%	99.357%	97.330%	293.500	297.200	104.658%	105.072%
σ		┬903.400	n/a	┬505.200	┬n/a	n/a	n/a	2.500	1.568	n/a	n/a
%RSD		┬1.401	0.779	┬0.782	┬0.455	1.362	1.420	0.852	0.528	2.518	0.736

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	298.700	301.100	295.400	309.900	2.063	1.641	1342.000	314.900	-0.347	305.300
2	20:02:34	296.600	297.800	290.500	321.500	2.365	1.368	1301.000	312.100	0.390	304.700
3	20:03:01	295.600	302.500	297.300	316.500	1.752	1.590	1308.000	306.400	2.051	┬318.800
x		296.900	300.500	98.122%	315.900	2.060	1.533	1317.000	103.714%	0.698	┬103.198%
σ		1.573	2.418	n/a	5.803	0.306	0.145	22.080	n/a	1.228	┬n/a
%RSD		0.530	0.805	1.191	1.837	14.880	9.468	1.676	1.395	176.000	┬2.573

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	88.7%	320.800	317.900	318.800	312.100	296.400	297.100	303.600	302.000	86.5%
2	20:02:34	88.4%	321.900	322.700	324.700	309.200	297.600	298.500	303.300	300.700	84.3%
3	20:03:01	90.7%	320.300	319.900	321.700	305.500	296.400	298.100	303.300	302.500	88.5%
x		89.3%	106.999%	106.715%	321.700	308.900	98.930%	297.900	303.400	100.571%	86.4%
σ		1.2%	n/a	n/a	2.993	3.287	n/a	0.727	0.204	n/a	2.1%
%RSD		1.4	0.251	0.754	0.930	1.064	0.245	0.244	0.067	0.319	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:07	312.500	310.400	310.800	309.100	312.000	312.300	87.4%	308.000	313.100	304.400
2	20:02:34	312.800	309.700	309.000	303.000	309.900	308.800	86.1%	305.000	309.200	301.000
3	20:03:01	312.000	309.600	312.400	313.600	308.900	311.700	89.0%	307.800	313.300	305.800
x		104.135%	103.297%	310.700	102.866%	103.430%	103.655%	87.5%	307.000	103.962%	101.234%
σ		n/a	n/a	1.692	n/a	n/a	n/a	1.4%	1.679	n/a	n/a
%RSD		0.125	0.151	0.544	1.721	0.506	0.600	1.6	0.547	0.748	0.819

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:02:07	304.900	306.400	84.6%
2	20:02:34	300.700	303.500	82.1%
3	20:03:01	306.100	307.700	86.4%
x		101.300%	101.955%	84.4%
σ		n/a	n/a	2.2%
%RSD		0.940	0.695	2.6

CCB IM9390-01 04/30/2019 20:07:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	102.6%	0.035	1.182	0.439	23.200	8.914	8.575	8.439	8.303	0.924
2	20:08:40	101.9%	0.019	1.027	0.588	19.550	9.071	6.614	6.261	6.712	0.703
3	20:09:07	106.8%	0.047	0.900	0.434	17.940	8.865	5.455	5.241	5.726	0.660
x		103.7%	0.033	1.036	0.487	20.230	8.950	6.881	6.647	6.914	0.762
σ		2.7%	0.014	0.142	0.088	2.697	0.107	1.577	1.634	1.300	0.141
%RSD		2.6	41.630	13.660	18.000	13.330	1.199	22.920	24.580	18.800	18.540

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	14.640	2181.000	10.120	7.098	7.091	102.3%	-0.045	0.072	0.086	61.150
2	20:08:40	15.000	2306.000	11.480	6.143	8.597	99.2%	-0.067	0.066	0.088	69.610
3	20:09:07	14.240	2239.000	10.930	7.395	7.545	99.1%	-0.091	0.055	0.074	49.740
x		14.630	2242.000	10.840	6.879	7.744	100.2%	-0.068	0.064	0.083	60.170
σ		0.382	62.590	0.687	0.654	0.773	1.8%	0.023	0.009	0.007	9.972
%RSD		2.610	2.792	6.333	9.512	9.978	1.8	33.780	13.350	8.712	16.570

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	10.490	0.171	13.610	-10.770	0.052	0.045	-0.413	0.019	0.030	0.093
2	20:08:40	8.010	0.153	12.850	-3.736	0.043	0.021	0.097	0.016	0.017	0.024
3	20:09:07	6.788	0.171	12.000	-4.425	0.048	0.042	0.174	0.012	0.066	0.040
x		8.429	0.165	12.820	-6.309	0.048	0.036	-0.047	0.016	0.038	0.052
σ		1.886	0.010	0.807	3.876	0.005	0.013	0.319	0.004	0.025	0.036
%RSD		22.370	6.134	6.292	61.430	9.797	36.140	673.200	23.900	67.240	69.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	-0.014	0.046	0.056	0.283	0.445	1.247	1.128	0.311	-1.255	0.038
2	20:08:40	0.110	0.065	-0.033	-0.107	0.603	1.061	-0.765	-0.103	-1.604	0.033
3	20:09:07	0.039	0.044	0.039	0.363	0.340	0.855	0.221	0.131	-1.078	0.042
x		0.045	0.052	0.021	0.180	0.463	1.054	0.195	0.113	-1.312	0.037
σ		0.062	0.012	0.047	0.252	0.132	0.196	0.947	0.208	0.268	0.005
%RSD		137.400	22.380	229.600	140.000	28.630	18.620	486.800	183.900	20.410	12.130

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	95.3%	0.108	0.120	0.090	0.206	0.039	0.039	0.017	0.054	94.6%
2	20:08:40	93.9%	0.069	0.089	0.102	0.503	0.038	0.037	0.039	0.044	92.0%
3	20:09:07	92.5%	0.082	0.076	0.061	-0.583	0.024	0.030	0.044	0.047	89.8%
x		93.9%	0.086	0.095	0.084	0.042	0.034	0.035	0.033	0.048	92.1%
σ		1.4%	0.020	0.023	0.021	0.561	0.008	0.005	0.014	0.005	2.4%
%RSD		1.5	23.030	23.670	24.810	1342.000	24.470	12.830	42.370	10.570	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:13	0.084	0.123	0.147	0.136	0.059	0.095	92.1%	0.030	0.028	0.037
2	20:08:40	0.070	0.093	0.129	0.172	0.049	0.041	89.5%	0.017	0.023	0.027
3	20:09:07	0.044	0.050	0.126	0.136	0.051	0.025	87.4%	0.019	0.018	0.029
x		0.066	0.088	0.134	0.148	0.053	0.054	89.7%	0.022	0.023	0.031
σ		0.021	0.036	0.011	0.021	0.005	0.036	2.3%	0.007	0.005	0.005
%RSD		31.320	41.210	8.289	14.040	9.688	67.980	2.6	32.250	20.930	17.590

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:08:13	0.043	0.041	93.7%
2	20:08:40	0.024	0.037	90.7%
3	20:09:07	0.028	0.028	89.1%
x		0.032	0.035	91.1%
σ		0.010	0.007	2.3%
%RSD		32.950	19.510	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	108.2%	0.214	0.654	0.596	56.630	17.480	T 514.800	517.600	514.500	TM 16740.000
2	20:14:44	107.2%	0.215	0.952	0.681	49.200	16.430	T 498.800	505.600	504.500	TM 16810.000
3	20:15:11	106.7%	0.283	0.513	0.509	56.180	16.370	T 494.900	506.700	500.700	TM 16600.000
x		107.3%	0.237	0.706	0.596	54.000	16.760	T 502.900	510.000	506.500	TM 16720.000
σ		0.8%	0.040	0.224	0.086	4.166	0.621	T 10.530	6.668	7.158	TM 103.900
%RSD		0.7	16.710	31.690	14.490	7.715	3.704	T 2.094	1.307	1.413	TM 0.621

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	T 1543.000	T 371400.000	479.100	303.500	226.800	101.8%	339.000	27.500	21.700	8275.000
2	20:14:44	T 1527.000	T 369800.000	463.500	285.700	218.700	102.8%	335.300	27.080	21.360	8321.000
3	20:15:11	T 1532.000	T 363700.000	461.600	296.900	219.200	104.2%	329.600	26.930	20.680	7672.000
x		T 1534.000	T 368300.000	468.100	295.400	221.600	103.0%	334.600	27.170	21.250	8089.000
σ		T 8.311	T 4043.000	9.586	8.964	4.574	1.2%	4.725	0.296	0.517	362.100
%RSD		T 0.542	T 1.098	2.048	3.035	2.064	1.2	1.412	1.091	2.434	4.477

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	T 12260.000	48.560	T 12320.000	12360.000	5.578	8.028	8.045	5.814	6.698	25.690
2	20:14:44	T 12070.000	47.840	T 12110.000	12330.000	5.518	7.720	9.150	5.888	6.539	24.800
3	20:15:11	T 11780.000	47.550	T 12210.000	12330.000	5.530	7.676	7.956	5.660	6.094	24.320
x		T 12040.000	47.990	T 12210.000	12340.000	5.542	7.808	8.384	5.787	6.444	24.940
σ		T 240.000	0.520	T 107.300	16.650	0.032	0.192	0.665	0.117	0.313	0.695
%RSD		T 1.994	1.083	T 0.879	0.135	0.575	2.457	7.936	2.014	4.860	2.786

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	23.020	24.050	2.249	0.469	20.680	22.810	2.837	0.959	0.478	4.462
2	20:14:44	25.180	23.690	3.141	0.641	21.970	21.160	1.389	0.616	-2.035	4.404
3	20:15:11	23.270	23.610	2.116	0.611	22.770	23.270	1.062	0.479	0.040	4.346
x		23.820	23.780	2.502	0.574	21.810	22.410	1.763	0.685	-0.506	4.404
σ		1.183	0.231	0.557	0.092	1.058	1.109	0.945	0.247	1.342	0.058
%RSD		4.967	0.971	22.270	15.950	4.850	4.949	53.600	36.100	265.500	1.319

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	115.0%	0.653	0.691	0.717	4.383	0.044	0.039	0.014	0.062	95.3%
2	20:14:44	117.0%	0.771	0.724	0.674	3.132	0.041	0.034	0.025	0.026	98.0%
3	20:15:11	119.3%	0.766	0.733	0.735	4.024	0.027	0.042	0.013	-0.023	99.4%
x		117.1%	0.730	0.716	0.709	3.846	0.037	0.038	0.017	0.021	97.6%
σ		2.1%	0.066	0.022	0.031	0.644	0.009	0.004	0.007	0.043	2.1%
%RSD		1.8	9.103	3.088	4.404	16.750	23.620	10.950	39.320	200.600	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:17	6.034	6.604	0.516	0.480	47.370	46.440	97.3%	0.140	0.144	9.705
2	20:14:44	6.141	6.721	0.479	0.509	45.970	46.210	100.6%	0.144	0.148	10.300
3	20:15:11	5.873	6.622	0.446	0.454	46.260	46.490	100.6%	0.158	0.145	9.704
x		6.016	6.649	0.480	0.481	46.530	46.380	99.5%	0.147	0.146	9.904
σ		0.135	0.063	0.035	0.028	0.740	0.151	1.9%	0.009	0.002	0.346
%RSD		2.246	0.947	7.287	5.735	1.590	0.327	1.9	6.299	1.583	3.495

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:14:17	8.594	9.209	98.1%
2	20:14:44	8.654	9.345	100.3%
3	20:15:11	8.540	9.230	101.3%
x		8.596	9.261	99.9%
σ		0.057	0.073	1.7%
%RSD		0.660	0.789	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	111.5%	0.126	1.278	1.047	203.400	18.070	T 443.000	444.200	458.100	TM 18900.000
2	20:20:49	108.4%	0.138	1.307	0.977	209.300	16.730	T 443.700	439.200	444.900	TM 18140.000
3	20:21:16	110.5%	0.129	1.465	1.075	211.700	14.780	448.900	435.800	436.000	TM 17690.000
x		110.1%	0.131	1.350	1.033	208.100	16.530	T 445.200	439.800	446.300	TM 18240.000
σ		1.6%	0.006	0.101	0.051	4.271	1.651	T 3.226	4.225	11.090	TM 611.100
%RSD		1.5	4.373	7.462	4.928	2.052	9.991	T 0.725	0.961	2.485	TM 3.350

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	T 1598.000	T 391500.000	399.500	261.800	126.400	98.8%	315.100	27.990	21.580	10210.000
2	20:20:49	T 1586.000	T 382800.000	383.000	226.800	126.600	101.1%	293.300	28.120	21.130	9243.000
3	20:21:16	T 1493.000	T 373400.000	T 372.200	202.600	119.500	101.4%	298.600	27.400	20.870	8783.000
x		T 1559.000	T 382600.000	T 384.900	230.400	124.200	100.4%	302.300	27.840	21.190	9412.000
σ		T 57.380	T 9064.000	T 13.740	29.780	4.064	1.4%	11.370	0.386	0.357	727.600
%RSD		T 3.681	T 2.369	T 3.571	12.920	3.272	1.4	3.762	1.385	1.686	7.731

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	T 11400.000	35.540	T 11630.000	11460.000	9.164	7.027	7.734	16.010	17.360	26.730
2	20:20:49	T 11340.000	35.340	T 11600.000	11310.000	8.896	6.641	8.450	15.570	16.830	26.290
3	20:21:16	T 11190.000	34.880	T 11520.000	11530.000	8.982	7.088	7.596	15.810	16.810	26.110
x		T 11310.000	35.260	T 11580.000	11430.000	9.014	6.919	7.927	15.800	17.000	26.370
σ		T 105.800	0.339	T 54.910	111.400	0.137	0.242	0.459	0.219	0.311	0.316
%RSD		T 0.936	0.962	T 0.474	0.974	1.518	3.502	5.789	1.388	1.831	1.198

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	24.990	24.560	3.137	0.785	28.500	28.740	0.549	0.271	0.311	3.923
2	20:20:49	25.250	25.030	2.207	0.456	29.500	29.610	0.938	0.361	-0.513	3.828
3	20:21:16	25.030	24.910	2.911	-0.018	27.710	27.850	1.908	0.649	-1.692	3.831
x		25.090	24.830	2.751	0.408	28.570	28.730	1.132	0.427	-0.631	3.861
σ		0.142	0.245	0.485	0.403	0.896	0.881	0.700	0.197	1.007	0.054
%RSD		0.565	0.987	17.630	98.990	3.135	3.065	61.840	46.170	159.500	1.399

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	105.2%	4.526	4.165	4.526	1.469	0.184	0.200	0.046	0.047	92.0%
2	20:20:49	105.0%	4.287	4.366	4.479	2.911	0.179	0.178	0.025	0.076	93.9%
3	20:21:16	108.7%	4.330	4.590	4.443	1.824	0.182	0.208	0.028	0.061	96.1%
x		106.3%	4.381	4.373	4.482	2.068	0.182	0.195	0.033	0.062	94.0%
σ		2.1%	0.128	0.213	0.041	0.751	0.002	0.016	0.011	0.014	2.1%
%RSD		2.0	2.917	4.860	0.922	36.320	1.290	8.065	34.100	23.490	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:22	11.230	14.930	5.350	5.480	39.040	39.550	93.5%	0.149	0.154	22.190
2	20:20:49	11.160	14.990	5.306	5.368	38.410	38.190	95.7%	0.169	0.144	21.830
3	20:21:16	10.980	14.640	5.503	5.383	38.220	38.090	97.6%	0.162	0.138	21.950
x		11.130	14.860	5.386	5.410	38.560	38.610	95.6%	0.160	0.145	21.990
σ		0.130	0.188	0.103	0.061	0.430	0.812	2.1%	0.010	0.008	0.184
%RSD		1.169	1.268	1.920	1.122	1.115	2.102	2.2	6.352	5.682	0.837

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:20:22	21.260	21.620	93.9%
2	20:20:49	20.930	21.290	95.2%
3	20:21:16	20.840	21.350	98.0%
x		21.010	21.420	95.7%
σ		0.217	0.177	2.1%
%RSD		1.032	0.827	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	T 121.7%	0.166	0.128	0.203	56.700	13.220	T 438.700	428.800	427.400	TM 13610.000
2	20:26:52	110.4%	0.200	0.439	0.197	61.850	12.300	441.900	435.500	440.800	TM 13170.000
3	20:27:19	109.6%	0.171	0.835	0.305	64.870	11.970	424.100	412.300	418.900	TM 13130.000
x		T 113.9%	0.179	0.467	0.235	61.140	12.490	T 434.900	425.500	429.000	TM 13300.000
σ		T 6.8%	0.019	0.354	0.061	4.132	0.647	T 9.494	11.950	11.020	TM 264.800
%RSD		T 5.9	10.370	75.780	25.860	6.759	5.181	T 2.183	2.808	2.568	TM 1.990

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	T 1312.000	T 388700.000	402.200	157.800	96.210	99.5%	279.100	20.710	17.950	10300.000
2	20:26:52	T 1407.000	T 379900.000	389.200	152.400	97.230	100.0%	270.800	22.670	17.470	8367.000
3	20:27:19	T 1457.000	T 374600.000	381.000	141.000	90.110	103.8%	T 273.400	21.240	16.870	8920.000
x		T 1392.000	T 381100.000	390.800	150.400	94.520	101.1%	T 274.400	21.540	17.430	9197.000
σ		T 74.040	T 7128.000	10.710	8.572	3.851	2.3%	T 4.267	1.014	0.542	997.400
%RSD		T 5.319	T 1.870	2.741	5.700	4.074	2.3	T 1.555	4.706	3.107	10.850

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	T 10120.000	56.750	T 9975.000	9767.000	5.532	6.823	7.617	4.911	5.555	19.320
2	20:26:52	T 10010.000	57.010	T 10000.000	10010.000	5.571	6.280	6.355	4.851	5.532	19.320
3	20:27:19	T 9806.000	54.910	T 9776.000	9595.000	5.392	6.561	6.960	4.771	5.527	20.240
x		T 9979.000	56.220	T 9917.000	9792.000	5.498	6.555	6.977	4.845	5.538	19.620
σ		T 158.800	1.144	T 122.800	210.200	0.094	0.272	0.631	0.070	0.015	0.530
%RSD		T 1.592	2.034	T 1.239	2.147	1.710	4.144	9.043	1.447	0.274	2.702

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	19.980	18.330	2.207	0.190	29.320	28.750	1.095	0.397	0.452	3.386
2	20:26:52	18.200	19.030	1.918	0.484	28.440	27.960	-0.169	0.140	-1.803	3.248
3	20:27:19	17.740	17.970	2.387	-0.025	29.020	30.160	0.864	0.323	0.627	3.242
x		18.640	18.450	2.171	0.217	28.920	28.960	0.597	0.287	-0.242	3.292
σ		1.185	0.539	0.237	0.256	0.447	1.116	0.673	0.132	1.355	0.081
%RSD		6.358	2.923	10.900	118.000	1.547	3.852	112.800	46.080	561.400	2.474

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	102.8%	0.898	0.885	0.855	3.300	0.033	0.019	0.010	-0.002	90.9%
2	20:26:52	107.0%	0.928	0.916	0.928	2.016	0.035	0.016	0.017	0.013	93.7%
3	20:27:19	105.7%	0.887	0.931	0.908	3.675	0.035	0.030	0.009	0.022	94.2%
x		105.2%	0.904	0.911	0.897	2.997	0.034	0.022	0.012	0.011	92.9%
σ		2.1%	0.021	0.024	0.038	0.870	0.001	0.007	0.004	0.013	1.8%
%RSD		2.0	2.375	2.587	4.240	29.030	3.308	33.570	35.920	114.800	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:25	5.343	6.577	0.297	0.292	27.980	27.860	92.3%	0.100	0.106	6.953
2	20:26:52	5.583	6.653	0.308	0.316	28.340	28.090	94.1%	0.110	0.109	7.204
3	20:27:19	5.153	6.508	0.294	0.285	27.360	26.910	94.6%	0.103	0.106	6.971
x		5.360	6.579	0.299	0.298	27.890	27.620	93.7%	0.104	0.107	7.043
σ		0.216	0.073	0.007	0.016	0.495	0.625	1.2%	0.005	0.002	0.140
%RSD		4.026	1.103	2.446	5.464	1.774	2.264	1.3	5.043	1.967	1.990

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:26:25	6.527	6.836	89.0%
2	20:26:52	6.559	6.869	92.2%
3	20:27:19	6.332	6.794	92.2%
x		6.472	6.833	91.1%
σ		0.123	0.037	1.9%
%RSD		1.899	0.545	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	109.8%	0.120	0.323	-0.018	115.200	18.130	350.200	346.400	359.300	™14130.000
2	20:32:57	106.7%	0.129	0.256	0.052	113.300	16.450	348.200	341.400	347.000	™13360.000
3	20:33:24	106.9%	0.161	0.131	-0.061	113.300	15.920	342.000	333.900	347.900	™13350.000
x		107.8%	0.137	0.237	-0.009	113.900	16.840	346.800	340.600	351.400	™13610.000
σ		1.7%	0.022	0.097	0.057	1.084	1.151	4.236	6.303	6.861	™447.200
%RSD		1.6	15.870	41.120	649.100	0.952	6.837	1.221	1.851	1.953	™3.285

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	₸1647.000	₸354900.000	333.000	192.400	117.100	99.9%	220.000	16.110	13.470	8772.000
2	20:32:57	₸1635.000	₸338900.000	317.600	148.600	107.200	102.5%	213.400	16.490	13.260	7491.000
3	20:33:24	₸1593.000	₸335500.000	314.400	148.800	110.300	103.7%	₸237.200	16.260	12.620	8002.000
x		₸1625.000	₸343100.000	321.700	163.300	111.500	102.0%	₸223.500	16.290	13.120	8088.000
σ		₸28.000	₸10370.000	9.976	25.230	5.098	2.0%	₸12.260	0.192	0.445	644.700
%RSD		₸1.723	₸3.022	3.101	15.450	4.570	1.9	₸5.486	1.177	3.389	7.971

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	2203.000	16.320	₸2215.000	2127.000	0.853	4.512	5.152	5.539	6.298	24.290
2	20:32:57	2169.000	16.140	₸2194.000	2078.000	0.766	4.578	4.392	5.090	6.086	24.770
3	20:33:24	2154.000	16.000	₸2162.000	2067.000	0.776	4.217	4.652	5.245	6.181	23.690
x		2175.000	16.150	₸2190.000	2091.000	0.798	4.436	4.732	5.291	6.189	24.250
σ		25.210	0.158	₸26.590	31.700	0.048	0.192	0.386	0.228	0.106	0.538
%RSD		1.159	0.980	₸1.214	1.516	5.985	4.335	8.158	4.311	1.718	2.220

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	21.910	22.160	1.156	0.943	17.120	17.470	1.168	0.592	-1.854	3.651
2	20:32:57	23.060	22.170	1.042	0.235	17.750	17.420	1.910	0.708	-0.092	3.507
3	20:33:24	21.300	21.800	0.644	0.059	16.880	18.550	0.069	0.240	-0.952	3.455
x		22.090	22.040	0.947	0.412	17.250	17.810	1.049	0.514	-0.966	3.538
σ		0.895	0.210	0.269	0.468	0.452	0.636	0.926	0.244	0.881	0.102
%RSD		4.052	0.952	28.370	113.500	2.621	3.572	88.290	47.440	91.210	2.868

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	108.2%	0.437	0.489	0.476	1.555	0.023	0.029	0.091	0.106	89.8%
2	20:32:57	111.5%	0.421	0.426	0.481	2.606	0.023	0.029	0.119	0.083	94.1%
3	20:33:24	113.2%	0.478	0.470	0.476	2.044	0.010	0.019	0.078	0.132	95.6%
x		111.0%	0.445	0.462	0.478	2.068	0.019	0.026	0.096	0.107	93.2%
σ		2.6%	0.029	0.033	0.003	0.526	0.008	0.006	0.021	0.024	3.0%
%RSD		2.3	6.575	7.041	0.583	25.430	40.430	22.360	21.930	22.800	3.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:32:30	6.043	6.931	0.180	0.140	33.810	33.260	91.6%	0.137	0.107	31.990
2	20:32:57	5.842	6.947	0.163	0.160	33.510	32.470	95.7%	0.120	0.111	32.020
3	20:33:24	5.989	7.045	0.160	0.158	32.880	32.860	96.2%	0.106	0.110	31.330
x		5.958	6.975	0.168	0.153	33.400	32.860	94.5%	0.121	0.109	31.780
σ		0.104	0.062	0.011	0.011	0.478	0.397	2.5%	0.016	0.002	0.392
%RSD		1.751	0.888	6.557	7.419	1.431	1.209	2.6	12.930	1.472	1.232

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:32:30	29.950	30.770	88.7%
2	20:32:57	30.040	30.770	93.4%
3	20:33:24	29.350	30.310	93.4%
x		29.780	30.620	91.8%
σ		0.375	0.267	2.7%
%RSD		1.258	0.872	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	109.3%	0.168	0.292	-0.037	123.600	17.410	363.000	354.200	357.100	™14220.000
2	20:39:00	106.1%	0.157	0.120	-0.213	120.300	15.110	351.500	352.100	357.000	™13830.000
3	20:39:27	107.1%	0.167	0.128	-0.122	121.500	15.760	354.400	347.500	353.600	™13690.000
x		107.5%	0.164	0.180	-0.124	121.800	16.090	356.300	351.300	355.900	™13910.000
σ		1.7%	0.006	0.097	0.088	1.702	1.185	5.997	3.429	2.011	™274.600
%RSD		1.5	3.820	53.960	70.900	1.397	7.362	1.683	0.976	0.565	™1.974

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	₸1751.000	₸351000.000	₸359.400	205.000	114.000	98.5%	₸233.200	16.760	13.730	9134.000
2	20:39:00	₸1752.000	₸333300.000	318.000	159.000	110.000	101.2%	230.500	17.470	13.250	7661.000
3	20:39:27	₸1747.000	₸340300.000	₸341.200	168.200	109.500	100.8%	231.600	16.480	13.240	8201.000
x		₸1750.000	₸341500.000	₸339.500	177.400	111.200	100.2%	₸231.800	16.900	13.410	8332.000
σ		₸2.738	₸8924.000	₸20.740	24.370	2.481	1.5%	₸1.367	0.510	0.279	744.900
%RSD		₸0.156	₸2.613	₸6.107	13.740	2.232	1.5	₸0.590	3.018	2.078	8.940

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	2393.000	16.870	₸2378.000	2263.000	0.801	4.641	5.300	5.393	6.187	29.830
2	20:39:00	2386.000	16.970	₸2355.000	2278.000	0.793	4.859	4.291	5.305	5.717	30.100
3	20:39:27	2373.000	16.580	₸2308.000	2250.000	0.859	4.475	4.519	5.153	5.639	29.610
x		2384.000	16.810	₸2347.000	2264.000	0.818	4.658	4.703	5.284	5.848	29.840
σ		10.110	0.203	₸35.670	14.360	0.036	0.192	0.529	0.121	0.296	0.243
%RSD		0.424	1.210	₸1.520	0.634	4.373	4.130	11.250	2.296	5.064	0.816

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	27.000	26.350	1.241	0.190	13.210	13.090	1.085	0.505	-0.168	3.652
2	20:39:00	28.610	27.310	0.232	0.256	13.100	12.760	0.246	0.187	2.512	3.567
3	20:39:27	28.460	26.740	0.498	-0.266	12.220	11.930	0.910	0.419	-0.508	3.418
x		28.020	26.800	0.657	0.060	12.840	12.590	0.747	0.370	0.612	3.546
σ		0.887	0.482	0.523	0.284	0.544	0.599	0.442	0.165	1.654	0.118
%RSD		3.164	1.800	79.660	475.800	4.235	4.758	59.220	44.440	270.300	3.339

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	106.5%	0.437	0.384	0.517	1.414	0.022	0.019	0.125	0.130	89.6%
2	20:39:00	110.3%	0.406	0.492	0.467	4.067	0.020	0.018	0.095	0.148	94.1%
3	20:39:27	112.5%	0.481	0.497	0.502	1.912	0.032	0.022	0.108	0.124	96.8%
x		109.8%	0.441	0.458	0.495	2.464	0.025	0.020	0.110	0.134	93.5%
σ		3.0%	0.038	0.064	0.026	1.410	0.006	0.002	0.015	0.013	3.6%
%RSD		2.7	8.504	13.890	5.241	57.210	24.690	8.971	13.630	9.537	3.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:38:33	6.050	6.931	0.119	0.154	34.220	32.760	90.0%	0.103	0.108	27.890
2	20:39:00	5.915	7.086	0.120	0.167	32.540	32.790	96.0%	0.109	0.110	27.980
3	20:39:27	5.767	6.969	0.123	0.129	31.830	32.340	97.3%	0.099	0.106	27.410
x		5.911	6.995	0.121	0.150	32.860	32.630	94.4%	0.104	0.108	27.760
σ		0.141	0.081	0.002	0.019	1.226	0.248	3.9%	0.005	0.002	0.310
%RSD		2.393	1.159	1.843	12.980	3.732	0.759	4.1	4.879	1.804	1.116

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:38:33	26.440	26.930	87.7%
2	20:39:00	26.000	26.970	94.4%
3	20:39:27	25.690	26.530	95.0%
x		26.050	26.810	92.4%
σ		0.379	0.247	4.0%
%RSD		1.455	0.922	4.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	T 116.8%	0.469	0.938	0.733	704.500	28.120	T 496.900	497.500	501.800	TM 7454.000
2	20:45:05	104.4%	0.469	1.053	0.683	743.400	27.430	508.500	494.400	496.200	TM 7128.000
3	20:45:32	109.0%	0.428	0.820	0.580	695.900	25.460	493.100	487.600	499.000	TM 7375.000
x		T 110.1%	0.455	0.937	0.666	714.600	27.010	T 499.500	493.200	499.000	TM 7319.000
σ		T 6.3%	0.024	0.116	0.078	25.280	1.381	T 8.004	5.024	2.816	TM 169.700
%RSD		T 5.7	5.206	12.430	11.690	3.538	5.114	T 1.602	1.019	0.565	TM 2.318

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	T 1156.000	T 394000.000	249.200	1659.000	1554.000	100.0%	84.440	9.772	10.890	8950.000
2	20:45:05	T 1266.000	T 388800.000	247.600	1604.000	1559.000	99.9%	86.440	9.772	10.400	8148.000
3	20:45:32	T 1243.000	T 383200.000	239.400	1647.000	1521.000	101.6%	85.810	10.060	10.350	8455.000
x		T 1222.000	T 388700.000	245.400	1637.000	1545.000	100.5%	85.560	9.867	10.550	8517.000
σ		T 58.090	T 5377.000	5.269	28.850	20.490	0.9%	1.020	0.165	0.295	404.700
%RSD		T 4.755	T 1.383	2.147	1.762	1.326	0.9	1.193	1.673	2.801	4.751

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	2907.000	88.880	T 2956.000	2837.000	3.987	4.330	3.843	8.636	9.395	28.330
2	20:45:05	2923.000	91.320	T 2916.000	2838.000	3.917	4.265	4.023	8.858	9.015	28.310
3	20:45:32	2917.000	90.960	T 2943.000	2830.000	3.907	4.531	4.323	8.411	8.944	28.490
x		2916.000	90.380	T 2939.000	2835.000	3.937	4.375	4.063	8.635	9.118	28.380
σ		8.211	1.318	T 20.320	4.299	0.044	0.139	0.243	0.223	0.242	0.096
%RSD		0.282	1.459	T 0.691	0.152	1.107	3.167	5.977	2.588	2.659	0.337

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	33.200	33.240	1.245	2.799	31.380	31.810	4.958	1.333	-0.428	15.230
2	20:45:05	34.840	33.550	0.664	1.726	31.820	34.330	9.413	2.362	-0.354	15.200
3	20:45:32	32.260	34.050	0.592	3.100	33.590	33.830	7.117	1.899	-2.654	15.230
x		33.430	33.620	0.834	2.542	32.260	33.320	7.163	1.865	-1.145	15.220
σ		1.306	0.409	0.358	0.722	1.169	1.335	2.228	0.515	1.307	0.019
%RSD		3.907	1.218	42.940	28.420	3.624	4.005	31.100	27.630	114.100	0.126

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	103.7%	0.536	0.537	0.543	1.892	0.045	0.052	0.230	0.188	93.9%
2	20:45:05	106.0%	0.474	0.454	0.462	1.753	0.060	0.053	0.160	0.229	97.5%
3	20:45:32	108.1%	0.481	0.543	0.442	2.971	0.052	0.060	0.162	0.205	98.2%
x		106.0%	0.497	0.511	0.483	2.205	0.052	0.055	0.184	0.207	96.5%
σ		2.2%	0.034	0.050	0.054	0.667	0.007	0.004	0.040	0.021	2.3%
%RSD		2.1	6.827	9.789	11.150	30.230	13.960	7.516	21.720	10.040	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:44:38	4.643	6.344	0.362	0.384	170.600	170.400	93.1%	0.049	0.054	43.500
2	20:45:05	4.798	6.396	0.337	0.384	169.100	167.200	98.1%	0.053	0.045	42.840
3	20:45:32	4.760	6.455	0.330	0.323	166.900	166.100	97.9%	0.047	0.056	43.260
x		4.733	6.398	0.343	0.364	168.900	167.900	96.4%	0.050	0.052	43.200
σ		0.081	0.055	0.017	0.035	1.862	2.240	2.8%	0.003	0.006	0.336
%RSD		1.708	0.863	4.910	9.636	1.103	1.334	3.0	6.035	11.480	0.777

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:44:38	41.410	42.320	94.3%
2	20:45:05	41.040	41.830	99.3%
3	20:45:32	41.700	42.190	99.6%
x		41.380	42.110	97.7%
σ		0.330	0.254	3.0%
%RSD		0.796	0.604	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	106.6%	0.046	-0.050	-0.452	132.300	6.956	64.430	61.920	63.100	TM 1469.000
2	20:51:10	110.7%	0.066	-0.515	-0.440	115.300	8.384	61.210	59.830	60.750	TM 1474.000
3	20:51:37	109.5%	0.039	-0.333	-0.290	129.000	7.468	60.990	61.530	62.270	TM 1497.000
x		108.9%	0.051	-0.299	-0.394	125.500	7.603	62.210	61.090	62.040	TM 1480.000
σ		2.1%	0.014	0.234	0.090	9.041	0.723	1.925	1.112	1.194	TM 15.110
%RSD		1.9	27.450	78.240	22.860	7.203	9.515	3.095	1.821	1.924	TM 1.021

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	T 756.900	T 422900.000	96.490	64.410	55.660	102.5%	194.600	4.873	4.940	8536.000
2	20:51:10	T 715.100	T 411400.000	96.970	53.840	56.260	102.6%	190.900	4.482	4.938	9020.000
3	20:51:37	T 722.400	T 407200.000	96.070	64.050	57.920	100.0%	188.800	4.466	4.936	9831.000
x		T 731.500	T 413800.000	96.510	60.770	56.610	101.7%	191.400	4.607	4.938	9129.000
σ		T 22.360	T 8099.000	0.453	5.998	1.169	1.5%	2.929	0.231	0.002	654.400
%RSD		T 3.057	T 1.957	0.470	9.871	2.065	1.5	1.530	5.004	0.035	7.169

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	905.400	6.214	T 891.900	828.900	0.189	0.695	0.969	0.547	0.685	2.509
2	20:51:10	884.900	6.129	T 884.400	820.300	0.156	0.677	0.723	0.499	0.742	2.527
3	20:51:37	882.300	6.107	T 868.600	825.000	0.156	0.577	1.135	0.540	0.820	2.425
x		890.900	6.150	T 881.600	824.700	0.167	0.650	0.942	0.529	0.749	2.487
σ		12.640	0.057	T 11.890	4.331	0.019	0.064	0.208	0.026	0.068	0.054
%RSD		1.419	0.924	T 1.349	0.525	11.350	9.812	22.020	4.862	9.060	2.174

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	2.630	2.432	-0.255	0.473	14.300	14.340	-2.422	-0.404	-2.839	1.760
2	20:51:10	2.429	2.308	0.058	0.326	14.620	14.730	-2.228	-0.398	-0.672	1.685
3	20:51:37	2.348	2.542	-0.078	-0.285	15.800	15.200	-0.532	0.012	-0.161	1.669
x		2.469	2.427	-0.091	0.172	14.900	14.760	-1.727	-0.263	-1.224	1.705
σ		0.146	0.117	0.157	0.402	0.789	0.429	1.040	0.238	1.422	0.049
%RSD		5.898	4.818	171.500	234.100	5.291	2.907	60.180	90.550	116.100	2.860

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	107.6%	0.143	0.095	0.122	0.912	0.003	0.009	0.009	-0.029	95.8%
2	20:51:10	107.8%	0.157	0.140	0.154	0.966	0.003	0.003	-0.003	0.032	94.5%
3	20:51:37	106.1%	0.103	0.113	0.198	0.142	-0.001	0.002	0.001	0.034	93.7%
x		107.2%	0.134	0.116	0.158	0.673	0.002	0.004	0.002	0.012	94.6%
σ		0.9%	0.028	0.023	0.038	0.461	0.002	0.004	0.006	0.036	1.1%
%RSD		0.8	20.820	19.680	24.220	68.510	113.000	89.860	311.600	288.900	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:50:43	5.845	7.081	0.064	0.066	4.507	4.681	97.3%	-0.008	-0.014	4.186
2	20:51:10	5.792	7.109	0.023	0.063	4.930	4.920	95.5%	-0.015	-0.015	4.187
3	20:51:37	5.998	6.678	0.045	0.044	4.926	4.656	94.8%	-0.010	-0.015	3.961
x		5.878	6.956	0.044	0.057	4.788	4.753	95.9%	-0.011	-0.014	4.111
σ		0.107	0.241	0.021	0.012	0.243	0.146	1.3%	0.004	0.000	0.130
%RSD		1.822	3.462	46.420	21.020	5.072	3.066	1.4	33.840	2.658	3.164

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:50:43	3.652	3.961	98.4%
2	20:51:10	3.700	4.054	96.1%
3	20:51:37	3.465	3.862	94.2%
x		3.606	3.959	96.2%
σ		0.125	0.096	2.1%
%RSD		3.453	2.425	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	109.6%	193.700	202.600	192.900	113.100	T 2256.000	T 2142.000	2145.000	2137.000	TM 4422.000
2	20:57:14	109.2%	202.300	206.900	197.600	122.000	T 2333.000	T 2193.000	2129.000	2135.000	TM 4297.000
3	20:57:40	T 125.0%	185.000	196.000	186.000	107.300	T 2235.000	T 2072.000	2036.000	2072.000	TM 4390.000
x		T 114.6%	193.700	201.800	192.200	114.100	T 2275.000	T 2136.000	2103.000	2115.000	TM 4370.000
σ		T 9.0%	8.607	5.495	5.804	7.382	T 51.870	T 60.730	58.820	37.020	TM 64.660
%RSD		T 7.9	4.444	2.722	3.020	6.468	T 2.280	T 2.843	2.797	1.751	TM 1.480

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	T 1771.000	T 485100.000	T 2704.000	2597.000	2382.000	99.1%	M 570.600	229.200	221.300	12820.000
2	20:57:14	T 1699.000	T 468600.000	T 2672.000	2650.000	2365.000	100.3%	M 570.600	228.800	221.500	10840.000
3	20:57:40	T 1531.000	T 473300.000	T 2721.000	2620.000	2348.000	100.0%	M 574.800	224.200	224.000	11140.000
x		T 1667.000	T 475600.000	T 2699.000	2622.000	2365.000	99.8%	M 572.000	227.400	222.300	11600.000
σ		T 122.800	T 8492.000	T 24.820	26.900	16.950	0.6%	M 2.410	2.769	1.512	1070.000
%RSD		T 7.367	T 1.785	T 0.920	1.026	0.717	0.6	M 0.421	1.218	0.680	9.221

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	3395.000	224.000	T 3307.000	3223.000	217.000	215.200	209.000	201.100	232.600	220.800
2	20:57:14	3360.000	225.200	T 3306.000	3261.000	213.900	211.000	198.700	203.200	232.100	220.300
3	20:57:40	3373.000	222.600	T 3298.000	3209.000	217.100	212.600	208.500	209.600	242.900	220.800
x		3376.000	223.900	T 3304.000	3231.000	216.000	212.900	205.400	204.600	235.900	220.600
σ		17.650	1.294	T 4.682	26.570	1.829	2.128	5.809	4.469	6.073	0.300
%RSD		0.523	0.578	T 0.142	0.823	0.847	1.000	2.828	2.184	2.574	0.136

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	189.000	190.000	196.100	214.300	29.870	28.690	739.800	208.100	0.605	183.500
2	20:57:14	194.100	195.000	202.300	206.800	30.680	30.060	776.800	213.300	0.631	184.800
3	20:57:40	190.900	191.000	193.600	211.900	30.260	30.560	753.400	210.100	-1.055	186.200
x		191.300	192.000	197.300	211.000	30.270	29.770	756.700	210.500	0.060	184.800
σ		2.590	2.636	4.476	3.837	0.404	0.968	18.680	2.631	0.966	1.336
%RSD		1.353	1.372	2.268	1.819	1.335	3.253	2.469	1.250	1603.000	0.723

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	113.4%	189.200	178.700	192.800	213.200	223.400	222.200	208.200	212.400	89.2%
2	20:57:14	115.9%	191.100	180.500	194.800	206.200	221.000	221.100	210.300	215.200	93.3%
3	20:57:40	112.1%	189.900	180.800	192.900	209.600	220.100	220.200	207.900	212.200	89.3%
x		113.8%	190.100	180.000	193.500	209.700	221.500	221.200	208.800	213.300	90.6%
σ		2.0%	0.946	1.132	1.128	3.481	1.710	0.995	1.289	1.676	2.3%
%RSD		1.7	0.498	0.629	0.583	1.660	0.772	0.450	0.617	0.786	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:47	229.200	227.000	210.000	206.100	233.000	232.400	91.7%	215.500	218.300	225.000
2	20:57:14	227.100	227.000	212.400	207.300	229.700	230.900	96.5%	214.000	216.200	223.500
3	20:57:40	228.400	223.600	209.200	204.200	229.600	233.100	91.9%	214.200	216.800	225.300
x		228.200	225.900	210.600	205.900	230.800	232.100	93.4%	214.600	217.100	224.600
σ		1.027	1.982	1.662	1.607	1.963	1.149	2.7%	0.856	1.122	0.962
%RSD		0.450	0.878	0.789	0.781	0.850	0.495	2.9	0.399	0.517	0.428

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	20:56:47	223.700	225.500	87.6%
2	20:57:14	223.800	224.400	93.0%
3	20:57:40	225.400	226.200	89.2%
x		224.300	225.400	90.0%
σ		0.924	0.890	2.7%
%RSD		0.412	0.395	3.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	104.4%	200.800	208.000	195.700	120.100	T 2263.000	T 2124.000	2097.000	2108.000	TM 3643.000
2	21:03:16	T 120.2%	192.100	199.300	189.300	118.500	T 2267.000	T 2073.000	2026.000	2029.000	TM 3586.000
3	21:03:43	110.5%	186.300	196.300	186.800	122.400	T 2209.000	T 2095.000	2018.000	2033.000	TM 3673.000
x		T 111.7%	193.100	201.200	190.600	120.300	T 2246.000	T 2097.000	2047.000	2057.000	TM 3634.000
σ		T 8.0%	7.320	6.064	4.604	1.975	T 32.290	T 25.450	43.700	44.220	TM 43.850
%RSD		T 7.1	3.791	3.014	2.415	1.642	T 1.437	T 1.214	2.135	2.150	TM 1.207

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	T 1768.000	T 487700.000	T 2519.000	2412.000	2220.000	100.6%	382.100	220.300	216.600	10480.000
2	21:03:16	T 1492.000	T 481200.000	T 2544.000	2575.000	2256.000	101.2%	389.200	214.400	213.600	11880.000
3	21:03:43	T 1668.000	T 486800.000	T 2515.000	2476.000	2237.000	100.3%	384.800	210.000	210.200	12770.000
x		T 1643.000	T 485300.000	T 2526.000	2487.000	2238.000	100.7%	385.400	214.900	213.500	11710.000
σ		T 140.000	T 3523.000	T 15.680	82.070	18.220	0.4%	3.582	5.164	3.214	1157.000
%RSD		T 8.523	T 0.726	T 0.621	3.299	0.814	0.4	0.929	2.403	1.506	9.879

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	3023.000	212.400	T 2986.000	2896.000	209.200	207.000	203.600	205.500	226.300	216.100
2	21:03:16	3038.000	210.200	T 2898.000	2858.000	210.700	207.100	206.900	203.900	224.200	210.800
3	21:03:43	3017.000	206.900	T 2922.000	2760.000	205.500	203.500	203.200	202.200	229.400	213.000
x		3026.000	209.800	T 2936.000	2838.000	208.500	205.900	204.600	203.900	226.700	213.300
σ		11.000	2.741	T 45.220	69.980	2.660	2.044	2.008	1.618	2.630	2.632
%RSD		0.363	1.306	T 1.540	2.466	1.276	0.993	0.982	0.794	1.160	1.234

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	195.900	197.100	201.000	208.300	34.270	36.070	791.700	204.500	0.800	191.900
2	21:03:16	190.800	192.900	197.000	203.800	36.520	36.150	800.800	206.500	-0.039	191.300
3	21:03:43	186.000	189.800	190.400	207.800	37.290	36.540	794.900	208.600	1.994	190.800
x		190.900	193.300	196.200	206.600	36.020	36.250	795.800	206.600	0.918	191.300
σ		4.951	3.700	5.356	2.457	1.569	0.251	4.590	2.055	1.021	0.532
%RSD		2.594	1.915	2.730	1.189	4.357	0.691	0.577	0.995	111.200	0.278

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	106.7%	195.800	191.600	198.800	215.000	216.000	216.200	207.300	210.000	92.6%
2	21:03:16	107.3%	194.500	191.700	198.700	205.400	213.300	212.500	202.700	207.400	93.2%
3	21:03:43	104.1%	195.500	190.700	197.300	210.900	212.600	213.800	202.100	204.900	89.2%
x		106.0%	195.300	191.400	198.200	210.400	214.000	214.200	204.000	207.500	91.7%
σ		1.7%	0.667	0.541	0.811	4.823	1.795	1.833	2.852	2.555	2.2%
%RSD		1.6	0.342	0.283	0.409	2.292	0.839	0.856	1.398	1.231	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:49	221.400	223.200	209.900	207.500	226.100	224.800	94.3%	212.000	214.700	219.900
2	21:03:16	220.700	219.700	206.500	206.400	221.500	222.700	95.0%	209.300	211.400	216.800
3	21:03:43	220.400	217.300	203.700	202.800	216.700	220.000	91.3%	209.800	211.800	217.000
x		220.900	220.100	206.700	205.600	221.400	222.500	93.5%	210.400	212.600	217.900
σ		0.499	2.965	3.123	2.444	4.712	2.364	2.0%	1.425	1.767	1.761
%RSD		0.226	1.347	1.511	1.188	2.128	1.063	2.1	0.677	0.831	0.808

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:02:49	219.200	221.400	91.8%
2	21:03:16	215.600	216.500	91.5%
3	21:03:43	214.900	216.400	88.3%
x		216.600	218.100	90.5%
σ		2.281	2.847	1.9%
%RSD		1.053	1.305	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	102.9%	0.026	0.781	0.383	36.480	0.916	10.990	11.490	10.570	T 238.000
2	21:09:22	101.8%	0.080	0.491	0.076	36.730	-0.109	10.980	10.620	10.180	T 227.900
3	21:09:49	101.9%	0.026	0.582	0.044	43.320	-0.171	10.880	10.640	11.220	T 230.100
x		102.2%	0.044	0.618	0.168	38.850	0.212	10.950	10.920	10.660	T 232.000
σ		0.6%	0.031	0.149	0.187	3.879	0.610	0.063	0.496	0.523	T 5.318
%RSD		0.6	71.150	24.020	111.700	9.985	287.400	0.579	4.541	4.906	T 2.292

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	134.600	T 69870.000	17.720	12.640	10.160	97.9%	30.770	0.789	0.817	1563.000
2	21:09:22	128.300	T 67970.000	15.030	7.283	9.605	100.3%	31.850	0.924	0.864	1471.000
3	21:09:49	127.500	T 68010.000	17.260	13.220	7.993	98.4%	31.790	0.734	0.777	1420.000
x		130.100	T 68620.000	16.670	11.050	9.253	98.9%	31.470	0.816	0.819	1484.000
σ		3.877	T 1088.000	1.440	3.273	1.126	1.3%	0.607	0.098	0.044	72.580
%RSD		2.979	T 1.586	8.637	29.630	12.170	1.3	1.928	12.000	5.319	4.890

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	140.000	1.075	152.300	115.600	0.070	0.176	-0.573	0.133	0.128	0.548
2	21:09:22	137.700	1.082	146.200	105.700	0.071	0.142	-0.512	0.088	0.145	0.402
3	21:09:49	135.600	1.062	144.500	110.900	0.081	0.116	-0.493	0.115	0.158	0.491
x		137.800	1.073	147.700	110.700	0.074	0.145	-0.526	0.112	0.144	0.480
σ		2.192	0.010	4.084	4.966	0.007	0.030	0.042	0.023	0.015	0.074
%RSD		1.591	0.962	2.766	4.486	8.803	20.830	7.932	20.440	10.760	15.370

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	0.668	0.419	-0.095	0.139	3.638	3.271	0.596	0.290	-2.938	0.343
2	21:09:22	0.438	0.441	0.104	0.010	3.827	4.130	0.905	0.312	-1.479	0.320
3	21:09:49	0.586	0.467	-0.207	0.285	3.697	3.944	-1.528	-0.264	-1.704	0.300
x		0.564	0.442	-0.066	0.145	3.721	3.782	-0.009	0.113	-2.040	0.321
σ		0.117	0.024	0.157	0.137	0.097	0.452	1.325	0.326	0.785	0.021
%RSD		20.700	5.412	237.800	95.010	2.598	11.950	14330.000	289.400	38.490	6.682

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	94.0%	0.037	0.027	0.051	-0.171	0.040	0.028	0.040	0.051	89.2%
2	21:09:22	95.6%	0.062	0.050	0.068	-1.339	0.026	0.019	0.026	0.032	91.7%
3	21:09:49	96.0%	0.050	0.054	0.072	-0.360	0.022	0.027	0.010	0.030	92.0%
x		95.2%	0.049	0.044	0.064	-0.623	0.030	0.024	0.025	0.038	91.0%
σ		1.1%	0.013	0.014	0.011	0.627	0.009	0.005	0.015	0.012	1.6%
%RSD		1.2	25.430	32.780	17.420	100.600	31.820	19.130	60.310	30.760	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:55	0.909	1.062	0.048	0.046	0.754	0.793	88.9%	0.091	0.092	0.705
2	21:09:22	0.870	1.149	0.042	0.027	0.737	0.756	91.5%	0.069	0.072	0.632
3	21:09:49	0.908	1.109	0.018	0.038	0.977	0.746	90.6%	0.056	0.068	0.650
x		0.896	1.107	0.036	0.037	0.822	0.765	90.3%	0.072	0.077	0.662
σ		0.022	0.043	0.016	0.010	0.134	0.025	1.3%	0.018	0.012	0.038
%RSD		2.465	3.920	44.690	26.490	16.270	3.253	1.5	24.660	15.920	5.757

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:08:55	0.635	0.647	89.7%
2	21:09:22	0.611	0.633	92.7%
3	21:09:49	0.525	0.638	91.7%
x		0.590	0.639	91.4%
σ		0.058	0.007	1.6%
%RSD		9.764	1.087	1.7

CCV MW10994 04/30/2019 21:14:34 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	90.2%	312.000	306.100	302.900	61.120	T64920.000	T61540.000	T61250.000	T61370.000	299.800
2	21:15:27	92.5%	312.700	309.200	299.500	71.860	T65090.000	T62720.000	T62280.000	T61500.000	295.100
3	21:15:54	93.2%	293.800	311.000	300.300	62.090	T64080.000	T60890.000	T61140.000	T61220.000	300.400
x		92.0%	102.058%	102.921%	100.296%	65.030	T107.829%	T61720.000	T61560.000	T102.271%	99.466%
σ		1.6%	n/a	n/a	n/a	5.939	Tn/a	T927.100	T633.500	Tn/a	n/a
%RSD		1.7	3.511	0.795	0.606	9.133	T0.839	T1.502	T1.029	T0.223	0.967

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	T3370.000	3060.000	T65490.000	62940.000	T64620.000	93.9%	310.500	317.300	301.600	2195.000
2	21:15:27	T3212.000	2988.000	T65370.000	62520.000	T64510.000	93.7%	312.600	317.900	302.900	307.700
3	21:15:54	T3232.000	2964.000	T67230.000	64360.000	T64920.000	92.3%	315.300	315.100	300.800	1819.000
x		T109.040%	3004.000	T110.046%	63270.000	T107.809%	93.3%	104.277%	105.592%	100.590%	1441.000
σ		Tn/a	49.700	Tn/a	965.400	Tn/a	0.9%	n/a	n/a	n/a	999.100
%RSD		T2.643	1.655	T1.580	1.526	T0.331	0.9	0.768	0.472	0.346	69.350

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	T63520.000	292.900	T64100.000	T60980.000	293.000	292.100	292.700	289.300	309.300	313.900
2	21:15:27	T64730.000	297.200	T64460.000	T62010.000	294.400	287.700	285.700	295.300	315.300	320.800
3	21:15:54	T64600.000	291.700	T63700.000	T61860.000	298.100	288.500	299.100	295.500	318.900	316.300
x		T64290.000	97.979%	T64090.000	T102.697%	98.395%	96.481%	292.500	293.400	104.837%	105.674%
σ		T663.300	n/a	T383.500	Tn/a	n/a	n/a	6.749	3.543	n/a	n/a
%RSD		T1.032	0.988	T0.598	T0.902	0.889	0.801	2.307	1.207	1.532	1.105

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	297.900	300.600	291.900	316.400	1.935	1.913	1298.000	306.200	1.217	307.800
2	21:15:27	296.500	303.600	293.800	320.100	2.223	2.251	1329.000	319.100	2.389	304.600
3	21:15:54	297.700	295.200	290.800	319.900	1.585	1.207	1305.000	314.200	-0.117	304.800
x		297.400	299.800	97.389%	318.800	1.914	1.790	1311.000	104.391%	1.163	101.915%
σ		0.770	4.282	n/a	2.067	0.319	0.533	16.320	n/a	1.254	n/a
%RSD		0.259	1.428	0.511	0.648	16.670	29.770	1.245	2.075	107.800	0.582

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	87.1%	326.800	323.500	322.200	309.700	301.000	301.500	307.800	304.400	84.5%
2	21:15:27	87.5%	322.300	323.800	323.500	304.400	301.600	304.500	308.000	307.200	83.3%
3	21:15:54	85.8%	318.700	317.200	320.800	300.700	298.300	300.600	302.700	302.100	81.6%
x		86.8%	107.538%	107.173%	322.200	304.900	100.094%	302.200	306.200	101.532%	83.1%
σ		0.9%	n/a	n/a	1.355	4.534	n/a	2.086	3.025	n/a	1.5%
%RSD		1.0	1.264	1.159	0.421	1.487	0.591	0.690	0.988	0.842	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:00	315.000	311.500	316.200	312.600	312.000	314.700	85.8%	308.400	315.200	307.100
2	21:15:27	317.600	314.800	320.200	313.200	311.800	312.300	85.8%	306.600	311.100	305.200
3	21:15:54	314.600	313.500	309.600	307.800	311.100	311.700	83.7%	307.600	312.100	304.400
x		105.234%	104.416%	315.300	103.733%	103.882%	104.300%	85.1%	307.600	104.265%	101.850%
σ		n/a	n/a	5.395	n/a	n/a	n/a	1.2%	0.879	n/a	n/a
%RSD		0.519	0.538	1.711	0.952	0.147	0.499	1.4	0.286	0.671	0.450

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:15:00	307.700	309.600	83.7%
2	21:15:27	304.600	306.800	83.1%
3	21:15:54	304.400	306.600	80.3%
x		101.857%	102.558%	82.4%
σ		n/a	n/a	1.8%
%RSD		0.601	0.538	2.2

CCB IM9390-01 04/30/2019 21:20:41 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	99.1%	0.037	0.939	0.959	24.780	7.428	7.398	7.375	8.186	0.003
2	21:21:35	T 111.5%	0.031	1.308	0.869	26.990	9.330	6.141	5.826	6.095	0.050
3	21:22:02	101.3%	0.033	1.307	0.740	27.300	6.217	5.660	5.852	5.911	-0.031
x		T 103.9%	0.033	1.185	0.856	26.360	7.658	6.400	6.351	6.731	0.008
σ		T 6.6%	0.003	0.213	0.110	1.375	1.569	0.898	0.887	1.264	0.041
%RSD		T 6.3	9.104	17.990	12.860	5.218	20.490	14.020	13.960	18.780	536.800

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	15.380	2015.000	17.240	6.528	8.174	95.2%	-0.028	0.087	0.116	29.600
2	21:21:35	13.540	2077.000	14.740	13.060	7.957	95.4%	-0.003	0.015	0.077	99.870
3	21:22:02	14.640	1944.000	9.760	6.190	5.343	98.8%	-0.019	0.048	0.084	71.210
x		14.520	2012.000	13.910	8.592	7.158	96.5%	-0.016	0.050	0.092	66.890
σ		0.927	66.670	3.809	3.871	1.575	2.0%	0.013	0.036	0.020	35.330
%RSD		6.385	3.313	27.380	45.060	22.010	2.1	76.720	72.800	22.050	52.820

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	8.089	0.147	12.090	-1.732	0.066	0.030	-0.214	0.022	0.024	0.098
2	21:21:35	7.798	0.143	11.930	0.826	0.054	0.026	-0.012	-0.005	0.001	0.059
3	21:22:02	4.575	0.120	11.160	-7.753	0.049	0.033	-0.546	0.023	0.013	0.026
x		6.821	0.137	11.730	-2.886	0.056	0.030	-0.257	0.013	0.013	0.061
σ		1.951	0.015	0.495	4.404	0.009	0.003	0.269	0.016	0.012	0.036
%RSD		28.600	10.880	4.223	152.600	15.210	11.060	104.700	119.700	89.490	58.790

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	-0.006	0.160	0.073	-0.426	0.919	0.923	0.077	0.046	0.140	0.042
2	21:21:35	-0.130	0.025	0.023	0.283	0.998	0.601	-0.056	0.042	-0.676	0.035
3	21:22:02	0.016	0.072	-0.021	0.030	1.074	0.736	-1.339	-0.268	-0.354	0.035
x		-0.040	0.086	0.025	-0.038	0.997	0.753	-0.439	-0.060	-0.297	0.037
σ		0.079	0.068	0.047	0.360	0.077	0.162	0.782	0.180	0.411	0.004
%RSD		196.500	79.920	187.900	958.500	7.759	21.470	177.900	299.900	138.600	10.090

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	91.8%	0.074	0.063	0.108	0.426	0.029	0.051	0.010	0.051	90.1%
2	21:21:35	90.2%	0.039	0.094	0.062	-0.778	0.032	0.028	0.019	0.015	88.2%
3	21:22:02	91.9%	0.113	0.067	0.074	-0.046	0.034	0.024	0.014	0.031	90.4%
x		91.3%	0.075	0.075	0.081	-0.133	0.032	0.034	0.014	0.033	89.6%
σ		1.0%	0.037	0.017	0.024	0.607	0.003	0.014	0.005	0.018	1.2%
%RSD		1.1	49.470	22.620	29.690	456.600	8.780	41.880	32.240	54.900	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:08	0.060	0.080	0.181	0.146	0.043	0.059	89.1%	0.045	0.028	0.025
2	21:21:35	0.047	0.097	0.114	0.109	0.033	0.044	86.3%	0.023	0.019	0.031
3	21:22:02	0.070	0.078	0.154	0.138	0.037	0.060	88.8%	0.031	0.034	0.033
x		0.059	0.085	0.150	0.131	0.038	0.054	88.1%	0.033	0.027	0.030
σ		0.011	0.010	0.033	0.020	0.005	0.009	1.6%	0.011	0.007	0.004
%RSD		19.130	11.940	22.290	14.880	13.750	16.800	1.8	33.710	27.280	12.760

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:21:08	0.039	0.037	91.0%
2	21:21:35	0.037	0.031	86.9%
3	21:22:02	0.027	0.036	90.7%
x		0.034	0.035	89.5%
σ		0.006	0.003	2.3%
%RSD		18.840	8.596	2.5

UD20023-008A 04/30/2019 21:26:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	102.5%	348.600	364.300	347.400	141.000	T 3786.000	T 3756.000	3711.000	3669.000	TM 1792.000
2	21:27:40	104.0%	322.600	331.000	315.100	141.800	T 3490.000	T 3361.000	3283.000	3345.000	TM 1710.000
3	21:28:07	105.6%	289.500	299.000	287.600	124.900	T 3110.000	T 3078.000	2996.000	3050.000	TM 1759.000
x		104.1%	320.200	331.400	316.700	135.900	T 3462.000	T 3398.000	3330.000	3355.000	TM 1754.000
σ		1.6%	29.600	32.650	29.940	9.540	T 338.900	T 340.800	360.000	309.500	TM 41.100
%RSD		1.5	9.244	9.851	9.454	7.020	T 9.791	T 10.030	10.810	9.225	TM 2.344

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	T 4208.000	T 362100.000	T 3812.000	4299.000	3917.000	96.2%	M 530.800	379.300	377.100	8305.000
2	21:27:40	T 3711.000	T 354400.000	T 3561.000	3891.000	3578.000	96.1%	M 504.100	353.600	349.500	9065.000
3	21:28:07	T 3445.000	T 357100.000	T 3283.000	3464.000	3232.000	95.2%	479.600	319.800	313.600	7911.000
x		T 3788.000	T 357900.000	T 3552.000	3885.000	3576.000	95.8%	M 504.800	350.900	346.700	8427.000
σ		T 386.900	T 3894.000	T 264.800	417.800	342.500	0.5%	M 25.570	29.860	31.830	586.300
%RSD		T 10.220	T 1.088	T 7.456	10.760	9.577	0.5	M 5.065	8.511	9.180	6.958

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	4810.000	371.300	T 4651.000	4527.000	367.100	361.100	362.300	370.300	390.100	370.500
2	21:27:40	4419.000	340.900	T 4223.000	4088.000	336.000	332.500	322.900	331.000	352.900	342.800
3	21:28:07	4129.000	310.700	T 4081.000	3967.000	310.800	300.800	291.700	300.100	325.400	309.700
x		4452.000	341.000	T 4318.000	4194.000	338.000	331.500	325.600	333.800	356.100	341.000
σ		341.700	30.300	T 296.900	294.800	28.190	30.170	35.380	35.180	32.480	30.470
%RSD		7.675	8.888	T 6.875	7.029	8.339	9.102	10.860	10.540	9.120	8.933

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	338.000	341.300	351.700	355.900	10.550	11.330	1419.000	358.400	3.196	T 347.300
2	21:27:40	317.300	319.900	330.200	332.100	10.790	11.060	1295.000	326.200	4.147	309.300
3	21:28:07	280.800	288.300	297.300	307.300	11.540	10.940	1201.000	304.500	4.554	282.400
x		312.000	316.500	326.400	331.800	10.960	11.110	1305.000	329.700	3.966	T 313.000
σ		28.930	26.680	27.390	24.310	0.514	0.202	109.200	27.100	0.697	T 32.600
%RSD		9.271	8.429	8.391	7.329	4.694	1.814	8.368	8.220	17.580	T 10.420

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	100.3%	350.400	340.600	352.700	357.700	370.600	370.300	362.900	364.800	89.2%
2	21:27:40	101.5%	322.300	315.200	324.800	334.400	340.000	342.300	335.400	336.900	90.3%
3	21:28:07	99.6%	294.000	285.000	296.700	296.500	311.000	310.800	303.100	303.300	88.2%
x		100.5%	322.200	313.600	324.800	329.500	340.500	341.100	333.800	335.000	89.3%
σ		0.9%	28.230	27.810	27.970	30.870	29.800	29.810	29.930	30.770	1.0%
%RSD		0.9	8.760	8.867	8.613	9.368	8.752	8.737	8.966	9.185	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:27:13	381.100	380.100	352.300	353.500	376.000	374.500	89.9%	361.100	371.100	374.200
2	21:27:40	350.000	348.100	328.200	322.800	339.600	343.900	92.4%	330.700	339.200	344.800
3	21:28:07	322.200	321.600	295.500	289.400	311.100	311.700	90.7%	306.400	312.100	313.200
x		351.100	349.900	325.300	321.900	342.300	343.400	91.0%	332.800	340.800	344.100
σ		29.440	29.280	28.510	32.040	32.520	31.400	1.3%	27.430	29.550	30.520
%RSD		8.384	8.366	8.764	9.952	9.501	9.143	1.4	8.244	8.669	8.869

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:27:13	372.700	376.300	88.4%
2	21:27:40	343.200	346.400	90.7%
3	21:28:07	312.000	314.500	87.8%
x		342.700	345.700	89.0%
σ		30.360	30.900	1.5%
%RSD		8.860	8.937	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	100.2%	0.314	2.784	2.514	-8.782	293.800	T 3283.000	3244.000	3283.000	TM 8823.000
2	21:33:47	98.4%	0.312	2.292	2.427	-11.580	288.800	T 3160.000	3147.000	3218.000	TM 8617.000
3	21:34:14	102.0%	0.333	2.548	2.380	-13.010	287.000	T 3190.000	3167.000	3254.000	TM 8691.000
x		100.2%	0.320	2.542	2.441	-11.120	289.900	T 3211.000	3186.000	3251.000	TM 8710.000
σ		1.8%	0.012	0.246	0.068	2.149	3.539	T 64.300	51.190	32.910	TM 104.500
%RSD		1.8	3.697	9.677	2.792	19.320	1.221	T 2.003	1.607	1.012	TM 1.200

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	T 476.900	T 71600.000	T 1220.000	M 108100.000	TM 109300.000	92.9%	383.400	69.220	15.860	1692.000
2	21:33:47	T 479.900	T 70820.000	T 1204.000	M 103800.000	TM 106300.000	95.5%	383.100	68.660	15.290	1559.000
3	21:34:14	T 464.800	T 73990.000	T 1252.000	M 107500.000	TM 108100.000	93.6%	386.500	69.050	15.240	1867.000
x		T 473.900	T 72130.000	T 1225.000	M 106500.000	TM 107900.000	94.0%	384.300	68.980	15.460	1706.000
σ		T 8.011	T 1651.000	T 24.180	M 2320.000	TM 1500.000	1.4%	1.899	0.286	0.341	154.700
%RSD		T 1.691	T 2.289	T 1.973	M 2.179	TM 1.390	1.5	0.494	0.415	2.203	9.066

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	T 23170.000	TM 3513.000	T 23120.000	T 24630.000	8.970	16.510	14.690	5.756	7.351	56.750
2	21:33:47	T 22710.000	TM 3477.000	T 22800.000	T 24160.000	8.988	16.440	15.050	5.746	7.517	56.110
3	21:34:14	T 22560.000	TM 3429.000	T 22880.000	T 24600.000	8.896	16.370	16.070	5.626	7.332	56.260
x		T 22810.000	TM 3473.000	T 22930.000	T 24460.000	8.952	16.440	15.270	5.709	7.400	56.370
σ		T 318.600	TM 41.760	T 168.900	T 264.300	0.049	0.070	0.718	0.072	0.102	0.338
%RSD		T 1.397	TM 1.202	T 0.737	T 1.080	0.543	0.426	4.699	1.265	1.378	0.599

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	48.180	47.990	2.415	-0.082	2.408	2.437	-1.223	0.095	-2.250	74.880
2	21:33:47	49.400	48.640	2.173	0.254	3.081	2.224	-0.329	0.339	-1.736	74.480
3	21:34:14	46.770	46.930	2.641	-0.217	2.802	2.900	0.538	0.565	-0.320	73.940
x		48.120	47.850	2.410	-0.015	2.763	2.520	-0.338	0.333	-1.435	74.430
σ		1.316	0.865	0.234	0.243	0.338	0.346	0.881	0.235	1.000	0.471
%RSD		2.735	1.808	9.712	1617.000	12.240	13.730	260.500	70.600	69.660	0.633

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	114.9%	0.330	0.250	0.271	7.867	0.076	0.063	0.217	0.255	85.5%
2	21:33:47	115.6%	0.252	0.256	0.249	6.841	0.060	0.066	0.185	0.251	86.5%
3	21:34:14	114.1%	0.259	0.298	0.254	9.533	0.054	0.049	0.246	0.179	84.6%
x		114.9%	0.280	0.268	0.258	8.080	0.063	0.059	0.216	0.228	85.5%
σ		0.8%	0.043	0.027	0.011	1.358	0.011	0.009	0.031	0.043	1.0%
%RSD		0.7	15.270	9.962	4.390	16.810	17.890	15.370	14.150	18.780	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:33:19	1.330	1.608	0.367	0.315	92.220	92.280	86.5%	0.120	0.139	3.005
2	21:33:47	1.296	1.529	0.349	0.354	90.510	90.930	88.0%	0.116	0.133	3.145
3	21:34:14	1.174	1.501	0.305	0.301	91.530	92.470	84.7%	0.123	0.114	3.052
x		1.267	1.546	0.340	0.323	91.420	91.890	86.4%	0.120	0.129	3.067
σ		0.082	0.055	0.031	0.027	0.863	0.842	1.6%	0.004	0.013	0.071
%RSD		6.457	3.579	9.232	8.466	0.944	0.916	1.9	3.216	10.150	2.327

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:33:19	2.858	2.946	84.8%
2	21:33:47	2.828	2.961	86.6%
3	21:34:14	2.925	2.961	84.0%
x		2.870	2.956	85.2%
σ		0.050	0.009	1.4%
%RSD		1.738	0.302	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	105.9%	0.246	0.756	0.744	-34.900	285.900	T 4019.000	T 4016.000	T 4086.000	TM 11940.000
2	21:39:52	T 116.4%	0.215	0.937	0.872	-37.010	273.000	T 3865.000	T 3905.000	T 3989.000	TM 11710.000
3	21:40:19	102.3%	0.248	0.753	0.909	-33.140	275.100	T 3928.000	T 3964.000	T 3942.000	TM 11290.000
x		T 108.2%	0.236	0.815	0.842	-35.020	278.000	T 3937.000	T 3962.000	T 4005.000	TM 11650.000
σ		T 7.3%	0.019	0.105	0.086	1.938	6.902	T 77.060	T 55.860	T 73.580	TM 326.000
%RSD		T 6.8	7.903	12.910	10.260	5.535	2.483	T 1.957	T 1.410	T 1.837	TM 2.799

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	T 578.000	T 69910.000	T 1184.000	4643.000	4401.000	97.0%	152.900	65.220	21.630	2009.000
2	21:39:52	T 528.500	T 68520.000	T 1154.000	4553.000	4352.000	99.3%	153.700	65.170	21.250	2183.000
3	21:40:19	573.800	T 67220.000	1133.000	4631.000	4353.000	98.7%	153.100	63.980	21.540	1743.000
x		T 560.100	T 68550.000	T 1157.000	4609.000	4369.000	98.3%	153.200	64.790	21.470	1978.000
σ		T 27.480	T 1348.000	T 25.720	49.150	28.030	1.2%	0.415	0.697	0.200	221.700
%RSD		T 4.906	T 1.966	T 2.223	1.066	0.642	1.2	0.271	1.076	0.931	11.210

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	T 20990.000	291.100	T 21200.000	T 20840.000	9.192	16.700	18.360	10.300	11.660	66.700
2	21:39:52	T 21270.000	291.400	T 21250.000	T 20910.000	8.858	17.090	15.620	10.140	11.570	69.700
3	21:40:19	T 20910.000	292.900	T 21150.000	T 20910.000	8.754	16.210	15.670	9.985	11.280	66.090
x		T 21060.000	291.800	T 21200.000	T 20880.000	8.935	16.670	16.550	10.140	11.500	67.500
σ		T 187.400	0.986	T 47.830	T 43.010	0.229	0.443	1.567	0.160	0.202	1.935
%RSD		T 0.890	0.338	T 0.226	T 0.206	2.558	2.661	9.468	1.574	1.757	2.867

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	61.670	62.970	2.415	-0.027	3.861	3.426	-1.754	-0.243	-0.910	26.920
2	21:39:52	64.380	61.190	2.569	-0.427	3.099	4.275	0.200	0.278	-0.437	27.010
3	21:40:19	60.910	63.050	2.812	-0.280	3.086	3.938	3.110	1.025	-1.370	26.540
x		62.320	62.410	2.599	-0.244	3.349	3.880	0.518	0.354	-0.906	26.830
σ		1.824	1.051	0.200	0.202	0.444	0.427	2.448	0.637	0.467	0.249
%RSD		2.927	1.683	7.695	82.740	13.260	11.010	472.200	180.200	51.490	0.926

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	101.7%	0.455	0.396	0.506	3.467	0.040	0.019	0.154	0.100	88.0%
2	21:39:52	104.0%	0.469	0.378	0.440	3.139	0.017	0.020	0.127	0.128	88.5%
3	21:40:19	106.5%	0.538	0.468	0.471	1.660	0.023	0.009	0.073	0.118	91.9%
x		104.0%	0.487	0.414	0.472	2.755	0.027	0.016	0.118	0.115	89.5%
σ		2.4%	0.045	0.048	0.033	0.963	0.012	0.006	0.041	0.014	2.1%
%RSD		2.3	9.190	11.620	6.952	34.940	45.550	35.900	34.770	12.250	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:25	1.261	1.440	0.180	0.190	89.460	89.850	87.3%	0.065	0.032	4.126
2	21:39:52	1.327	1.459	0.177	0.186	88.300	89.220	89.4%	0.039	0.043	4.084
3	21:40:19	1.338	1.472	0.187	0.158	87.720	86.520	91.8%	0.046	0.047	4.226
x		1.309	1.457	0.182	0.178	88.490	88.530	89.5%	0.050	0.041	4.145
σ		0.042	0.016	0.005	0.017	0.890	1.768	2.2%	0.014	0.007	0.073
%RSD		3.179	1.110	2.760	9.822	1.005	1.997	2.5	27.370	18.360	1.753

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:39:25	3.931	4.005	85.6%
2	21:39:52	3.759	3.969	87.9%
3	21:40:19	3.869	4.019	90.9%
x		3.853	3.998	88.1%
σ		0.087	0.026	2.6%
%RSD		2.270	0.648	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	100.5%	0.355	5.464	5.452	-5.324	361.800	T 5754.000	T 5743.000	T 5932.000	TM 14050.000
2	21:45:56	98.5%	0.339	7.110	5.539	-0.176	371.600	T 5792.000	T 5699.000	T 5884.000	TM 13820.000
3	21:46:24	102.0%	0.355	5.846	5.903	-4.740	369.600	T 5791.000	T 5844.000	T 5891.000	TM 13940.000
x		100.3%	0.349	6.140	5.631	-3.413	367.700	T 5779.000	T 5762.000	T 5902.000	TM 13940.000
σ		1.8%	0.009	0.861	0.240	2.819	5.221	T 21.640	T 74.210	T 25.990	TM 115.000
%RSD		1.8	2.614	14.030	4.257	82.580	1.420	T 0.375	T 1.288	T 0.440	TM 0.825

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	T 332.100	T 72840.000	T 3004.000	23500.000	T 24340.000	95.9%	200.000	35.990	16.990	1948.000
2	21:45:56	T 333.000	T 73310.000	T 3038.000	23550.000	T 24480.000	95.9%	198.200	35.320	17.010	1847.000
3	21:46:24	T 322.600	T 74420.000	T 3116.000	23880.000	T 24370.000	97.2%	200.400	34.790	17.440	2210.000
x		T 329.200	T 73520.000	T 3053.000	23650.000	T 24400.000	96.3%	199.600	35.370	17.150	2002.000
σ		T 5.788	T 811.100	T 57.690	207.100	T 71.940	0.7%	1.199	0.602	0.251	187.100
%RSD		T 1.758	T 1.103	T 1.890	0.876	T 0.295	0.7	0.601	1.701	1.466	9.348

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	T 14790.000	258.300	T 15600.000	15780.000	5.668	13.640	13.500	20.720	23.590	72.810
2	21:45:56	T 15440.000	261.600	T 15260.000	15500.000	5.501	13.760	13.730	21.430	23.590	73.740
3	21:46:24	T 15370.000	262.500	T 15450.000	15550.000	5.449	13.180	11.570	21.230	24.640	72.460
x		T 15200.000	260.800	T 15440.000	15610.000	5.540	13.530	12.930	21.130	23.940	73.000
σ		T 357.000	2.231	T 171.600	149.300	0.114	0.307	1.185	0.363	0.607	0.661
%RSD		T 2.349	0.855	T 1.111	0.957	2.063	2.266	9.164	1.718	2.536	0.905

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	66.900	68.810	9.079	0.161	5.114	4.772	1.106	0.546	-0.957	48.010
2	21:45:56	68.260	69.020	8.850	0.022	4.222	4.089	-0.131	0.177	0.227	48.070
3	21:46:24	67.430	67.510	8.521	1.133	4.356	3.820	1.024	0.540	-0.626	48.390
x		67.530	68.450	8.817	0.439	4.564	4.227	0.666	0.421	-0.452	48.160
σ		0.686	0.815	0.281	0.605	0.481	0.490	0.692	0.212	0.611	0.204
%RSD		1.016	1.191	3.185	137.900	10.540	11.600	103.800	50.210	135.100	0.423

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	106.8%	0.410	0.413	0.446	5.816	0.135	0.100	0.286	0.331	89.2%
2	21:45:56	107.1%	0.410	0.370	0.462	5.476	0.127	0.106	0.343	0.337	90.0%
3	21:46:24	107.9%	0.420	0.404	0.379	6.150	0.125	0.119	0.287	0.269	89.0%
x		107.3%	0.413	0.396	0.429	5.814	0.129	0.109	0.305	0.313	89.4%
σ		0.6%	0.006	0.023	0.044	0.337	0.005	0.010	0.032	0.038	0.5%
%RSD		0.5	1.411	5.773	10.270	5.793	4.133	9.335	10.570	12.070	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:45:30	1.738	1.850	0.230	0.239	157.800	158.300	89.6%	0.140	0.166	16.630
2	21:45:56	1.608	1.900	0.210	0.228	154.200	155.700	91.1%	0.131	0.155	15.990
3	21:46:24	1.562	1.903	0.234	0.239	154.700	154.700	89.8%	0.158	0.162	16.150
x		1.636	1.884	0.224	0.235	155.600	156.200	90.2%	0.143	0.161	16.260
σ		0.091	0.029	0.013	0.006	1.945	1.878	0.8%	0.014	0.006	0.335
%RSD		5.565	1.558	5.702	2.727	1.250	1.202	0.9	9.864	3.561	2.063

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:45:30	15.770	16.190	89.7%
2	21:45:56	15.750	15.930	91.0%
3	21:46:24	15.850	15.840	88.6%
x		15.790	15.990	89.8%
σ		0.057	0.183	1.2%
%RSD		0.360	1.145	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	92.3%	0.064	0.259	0.008	1514.000	TM 107500.000	TM 100500.000	T 98720.000	TM 100000.000	TM 100600.000
2	21:52:03	94.9%	0.021	0.049	0.057	1469.000	TM 107800.000	TM 100400.000	TM 101600.000	T 99140.000	TM 97360.000
3	21:52:31	95.9%	-0.015	0.017	0.172	1515.000	TM 109300.000	TM 101000.000	T 99900.000	TM 100500.000	TM 103900.000
x		94.4%	0.023	0.109	0.079	1499.000	TM 108200.000	TM 100600.000	TM 100100.000	TM 99880.000	TM 100600.000
σ		1.8%	0.040	0.132	0.084	26.060	TM 981.200	TM 312.100	TM 1438.000	TM 677.100	TM 3262.000
%RSD		1.9	169.600	121.200	106.700	1.738	TM 0.907	TM 0.310	TM 1.437	TM 0.678	TM 3.243

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	38.090	T 44120.000	TM 106000.000	M 106100.000	TM 107500.000	91.2%	M 2329.000	-1.044	-1.788	1505.000
2	21:52:03	35.700	T 43490.000	TM 103600.000	M 103800.000	TM 107300.000	94.1%	M 2283.000	-0.702	-1.766	1301.000
3	21:52:31	39.170	T 47210.000	TM 112400.000	M 108300.000	TM 108800.000	89.9%	M 2334.000	-0.766	-1.730	1583.000
x		37.650	T 44940.000	TM 107300.000	M 106100.000	TM 107900.000	91.7%	M 2315.000	-0.837	-1.761	1463.000
σ		1.772	T 1991.000	TM 4590.000	M 2241.000	TM 829.800	2.1%	M 28.180	0.182	0.029	145.500
%RSD		4.706	T 4.429	TM 4.276	M 2.112	TM 0.769	2.3	M 1.217	21.710	1.647	9.946

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	TM 105300.000	0.751	TM 107000.000	TM 101500.000	0.507	1.358	6.832	-1.395	0.895	2.113
2	21:52:03	TM 105200.000	0.714	TM 104500.000	TM 101900.000	0.440	1.201	7.132	-1.466	0.760	1.907
3	21:52:31	TM 106600.000	0.744	TM 107400.000	TM 104900.000	0.544	1.291	6.740	-1.463	0.872	2.182
x		TM 105700.000	0.736	TM 106300.000	TM 102800.000	0.497	1.283	6.901	-1.441	0.842	2.067
σ		TM 780.700	0.020	TM 1574.000	TM 1887.000	0.052	0.078	0.205	0.040	0.072	0.143
%RSD		TM 0.739	2.697	TM 1.480	TM 1.836	10.550	6.111	2.970	2.783	8.604	6.924

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	1.809	0.351	0.020	-0.339	1.943	1.172	-0.978	-0.496	12.280	0.869
2	21:52:03	2.094	0.347	0.156	-0.053	2.035	1.393	-1.571	-0.662	13.320	0.816
3	21:52:31	1.707	0.250	-0.077	0.146	2.495	0.269	-0.531	-0.426	13.340	0.805
x		1.870	0.316	0.033	-0.082	2.158	0.945	-1.027	-0.528	12.980	0.830
σ		0.201	0.057	0.117	0.244	0.296	0.596	0.522	0.121	0.607	0.034
%RSD		10.730	18.120	351.700	296.500	13.710	63.020	50.830	22.950	4.677	4.135

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	86.2%	TM 2465.000	M 2248.000	TM 2210.000	-2.349	0.005	0.007	-5.396	0.026	86.2%
2	21:52:03	87.8%	TM 2448.000	M 2220.000	TM 2187.000	-1.853	0.010	0.021	-5.808	-0.069	88.8%
3	21:52:31	87.1%	TM 2459.000	M 2234.000	TM 2196.000	0.100	0.017	0.013	-5.724	0.164	87.6%
x		87.1%	TM 2457.000	M 2234.000	TM 2198.000	-1.367	0.011	0.014	-5.643	0.041	87.6%
σ		0.8%	TM 8.672	M 13.710	TM 11.430	1.294	0.006	0.007	0.218	0.117	1.3%
%RSD		0.9	TM 0.353	M 0.614	TM 0.520	94.660	57.700	50.110	3.865	287.700	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:36	1.266	0.038	0.206	0.217	0.223	0.185	87.1%	-0.009	-0.015	0.060
2	21:52:03	1.242	0.015	0.201	0.249	0.116	0.180	90.5%	-0.009	-0.014	0.034
3	21:52:31	1.313	0.026	0.227	0.195	0.171	0.147	87.6%	-0.012	-0.012	0.078
x		1.274	0.026	0.211	0.221	0.170	0.171	88.4%	-0.010	-0.014	0.058
σ		0.036	0.011	0.014	0.027	0.054	0.020	1.9%	0.002	0.002	0.022
%RSD		2.837	43.400	6.387	12.290	31.660	11.970	2.1	19.000	11.810	38.420

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:51:36	0.042	0.050	84.7%
2	21:52:03	0.058	0.052	86.9%
3	21:52:31	0.071	0.067	84.4%
x		0.057	0.056	85.3%
σ		0.014	0.009	1.3%
%RSD		24.720	16.370	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	T 119.4%	-0.010	-0.116	-0.491	50.520	19.580	14.340	14.140	13.860	13.870
2	21:58:08	105.0%	-0.006	-0.273	-0.486	42.720	16.750	13.390	13.630	13.450	13.410
3	21:58:35	106.5%	0.031	-0.052	-0.443	48.730	15.050	11.690	11.740	11.720	11.760
x		T 110.3%	0.005	-0.147	-0.473	47.320	17.120	13.140	13.170	13.010	13.020
σ		T 7.9%	0.023	0.114	0.026	4.088	2.291	1.342	1.264	1.136	1.108
%RSD		T 7.1	443.900	77.280	5.519	8.638	13.380	10.210	9.597	8.733	8.509

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	14.960	T 363700.000	49.090	14.210	14.900	96.1%	0.382	0.081	1.627	8461.000
2	21:58:08	17.180	T 347200.000	37.750	12.900	15.320	100.3%	0.337	-0.002	1.385	7795.000
3	21:58:35	16.710	T 348200.000	37.570	10.100	10.770	97.7%	0.398	-0.397	1.304	8111.000
x		16.280	T 353100.000	41.470	12.400	13.670	98.0%	0.372	-0.106	1.439	8122.000
σ		1.171	T 9208.000	6.599	2.098	2.515	2.1%	0.032	0.255	0.168	333.200
%RSD		7.192	T 2.608	15.910	16.910	18.400	2.1	8.457	240.800	11.700	4.102

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	29.480	0.227	18.610	-4.717	0.010	0.111	0.102	0.055	0.075	0.188
2	21:58:08	28.900	0.213	16.950	-11.580	0.008	0.099	-0.448	0.105	0.078	0.171
3	21:58:35	26.730	0.207	13.390	-12.650	0.005	0.081	-0.614	0.082	0.135	0.139
x		28.370	0.216	16.320	-9.649	0.008	0.097	-0.320	0.081	0.096	0.166
σ		1.452	0.010	2.665	4.305	0.002	0.015	0.375	0.025	0.034	0.025
%RSD		5.117	4.552	16.330	44.620	29.140	15.160	117.100	31.250	35.040	15.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	0.334	0.173	-0.337	-0.234	7.995	8.929	-1.645	-0.349	-0.691	0.004
2	21:58:08	0.197	0.190	-0.571	-0.422	7.645	6.705	-1.612	-0.327	-0.931	0.009
3	21:58:35	0.274	0.194	0.144	-0.343	6.594	7.151	-0.696	-0.144	-0.232	0.002
x		0.268	0.186	-0.255	-0.333	7.411	7.595	-1.318	-0.273	-0.618	0.005
σ		0.068	0.011	0.364	0.094	0.729	1.177	0.538	0.113	0.355	0.004
%RSD		25.470	6.123	143.100	28.240	9.837	15.500	40.860	41.320	57.460	70.910

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	94.1%	0.619	0.695	0.597	0.641	0.000	-0.001	-0.005	0.004	92.6%
2	21:58:08	97.6%	0.540	0.600	0.612	-0.790	-0.002	0.001	-0.005	0.024	95.6%
3	21:58:35	97.2%	0.504	0.530	0.511	-0.338	-0.002	0.004	0.007	-0.010	95.8%
x		96.3%	0.554	0.609	0.573	-0.162	-0.001	0.001	-0.001	0.006	94.7%
σ		1.9%	0.059	0.083	0.055	0.731	0.001	0.003	0.007	0.017	1.8%
%RSD		2.0	10.600	13.630	9.530	450.500	124.300	213.000	666.300	281.100	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:57:41	4.138	5.786	0.169	0.188	-0.007	-0.002	92.7%	-0.014	-0.014	-0.019
2	21:58:08	4.072	5.718	0.166	0.168	-0.008	0.027	96.3%	-0.013	-0.018	-0.015
3	21:58:35	3.955	5.776	0.174	0.145	-0.008	0.001	95.7%	-0.012	-0.019	-0.004
x		4.055	5.760	0.170	0.167	-0.008	0.009	94.9%	-0.013	-0.017	-0.013
σ		0.093	0.037	0.004	0.022	0.000	0.016	2.0%	0.001	0.002	0.008
%RSD		2.292	0.637	2.406	12.900	6.203	182.300	2.1	7.235	14.150	63.030

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	21:57:41	-0.007	-0.012	92.8%
2	21:58:08	-0.007	-0.012	96.2%
3	21:58:35	-0.007	-0.008	94.4%
x		-0.007	-0.011	94.4%
σ		0.000	0.003	1.7%
%RSD		5.166	25.140	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	109.9%	197.000	203.700	196.600	31.270	T 2182.000	T 2071.000	2027.000	2086.000	216.000
2	22:04:13	111.7%	201.000	206.300	193.900	30.610	T 2166.000	T 2085.000	2013.000	2044.000	207.900
3	22:04:40	105.4%	210.200	214.900	199.100	42.360	T 2252.000	T 2124.000	2018.000	2003.000	199.100
x		109.0%	202.700	208.300	196.600	34.750	T 2200.000	T 2093.000	2019.000	2044.000	207.700
σ		3.2%	6.758	5.851	2.615	6.599	T 46.060	T 27.330	7.497	41.800	8.479
%RSD		3.0	3.334	2.809	1.331	18.990	T 2.093	T 1.306	0.371	2.045	4.083
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	81.650	T 392500.000	T 2256.000	2309.000	2165.000	96.7%	209.200	207.600	205.100	11370.000
2	22:04:13	79.080	T 385200.000	T 2231.000	2362.000	2128.000	99.0%	207.000	206.000	205.400	10680.000
3	22:04:40	83.520	T 383600.000	T 2185.000	2347.000	2104.000	100.0%	205.200	206.700	203.000	9032.000
x		81.420	T 387100.000	T 2224.000	2339.000	2132.000	98.6%	207.100	206.700	204.500	10360.000
σ		2.226	T 4729.000	T 35.680	27.380	30.700	1.7%	2.029	0.800	1.325	1201.000
%RSD		2.734	T 1.222	T 1.605	1.170	1.440	1.7	0.980	0.387	0.648	11.590
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	2267.000	202.200	T 2201.000	2066.000	208.300	205.600	204.700	209.700	218.400	205.900
2	22:04:13	2246.000	198.900	T 2178.000	2019.000	201.500	200.200	204.500	208.200	221.200	204.900
3	22:04:40	2243.000	199.100	T 2150.000	2045.000	201.900	198.000	202.700	208.500	216.200	209.200
x		2252.000	200.000	T 2176.000	2043.000	203.900	201.300	204.000	208.800	218.600	206.700
σ		13.220	1.861	T 25.210	23.650	3.855	3.883	1.071	0.757	2.509	2.234
%RSD		0.587	0.930	T 1.159	1.157	1.891	1.930	0.525	0.362	1.148	1.081
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	199.300	198.700	194.500	200.800	11.320	11.270	837.700	195.900	-0.778	202.900
2	22:04:13	197.800	195.800	194.500	204.400	12.640	12.960	859.800	201.600	3.679	204.800
3	22:04:40	197.800	201.200	199.200	204.100	11.450	12.030	854.700	201.800	0.216	204.100
x		198.300	198.600	196.100	203.100	11.800	12.090	850.700	199.700	1.039	203.900
σ		0.849	2.701	2.740	1.986	0.731	0.844	11.590	3.371	2.340	0.943
%RSD		0.428	1.360	1.397	0.978	6.193	6.986	1.362	1.688	225.200	0.463
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	91.7%	208.100	208.500	206.000	202.700	208.200	211.000	203.000	202.000	89.4%
2	22:04:13	92.5%	208.000	209.500	210.000	209.600	208.800	209.300	204.700	200.600	90.1%
3	22:04:40	96.6%	212.800	211.100	211.500	209.400	211.700	210.500	207.000	204.400	93.1%
x		93.6%	209.600	209.700	209.200	207.200	209.600	210.200	204.900	202.300	90.9%
σ		2.6%	2.770	1.288	2.872	3.961	1.849	0.884	1.996	1.923	1.9%
%RSD		2.8	1.321	0.614	1.373	1.911	0.882	0.420	0.974	0.951	2.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:03:46	214.500	211.600	200.700	203.600	211.500	211.100	88.9%	209.600	211.900	209.300
2	22:04:13	212.800	214.100	199.900	202.100	210.300	211.100	89.8%	210.400	210.500	210.200
3	22:04:40	214.300	215.300	205.000	204.200	208.900	211.200	94.0%	209.600	211.200	211.300
x		213.800	213.700	201.900	203.300	210.200	211.100	90.9%	209.900	211.200	210.300
σ		0.898	1.874	2.719	1.084	1.295	0.067	2.7%	0.445	0.713	1.028
%RSD		0.420	0.877	1.347	0.533	0.616	0.032	3.0	0.212	0.338	0.489
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	22:03:46	209.300	210.200	87.2%							
2	22:04:13	210.500	210.700	88.8%							
3	22:04:40	210.100	211.900	93.4%							
x		210.000	210.900	89.8%							
σ		0.608	0.878	3.2%							
%RSD		0.290	0.416	3.6							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	108.8%	0.093	1.242	1.052	26.070	25.240	T 597.500	603.000	608.400	TM 36580.000
2	22:10:17	107.8%	0.102	1.015	1.001	19.380	25.230	T 595.000	585.600	614.600	TM 36650.000
3	22:10:44	105.5%	0.098	1.064	0.827	21.030	25.160	T 577.600	582.900	598.400	TM 35910.000
x		107.4%	0.098	1.107	0.960	22.160	25.210	T 590.000	590.500	607.100	TM 36380.000
σ		1.7%	0.004	0.119	0.118	3.483	0.044	T 10.820	10.910	8.167	TM 410.400
%RSD		1.6	4.528	10.770	12.300	15.720	0.176	T 1.834	1.847	1.345	TM 1.128

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	T 1682.000	T 276600.000	531.800	1675.000	1460.000	101.2%	443.000	20.290	68.570	7642.000
2	22:10:17	T 1638.000	T 271400.000	528.800	1660.000	1448.000	102.4%	440.500	20.750	69.950	7262.000
3	22:10:44	T 1707.000	T 275400.000	530.900	1595.000	1436.000	102.7%	436.800	21.030	70.260	6988.000
x		T 1676.000	T 274500.000	530.500	1643.000	1448.000	102.1%	440.100	20.690	69.590	7297.000
σ		T 35.030	T 2748.000	1.519	42.640	12.080	0.8%	3.107	0.374	0.902	328.100
%RSD		T 2.090	T 1.001	0.286	2.594	0.834	0.8	0.706	1.807	1.296	4.497

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	4565.000	20.570	T 4497.000	4397.000	2.061	10.180	9.806	0.627	1.000	10.330
2	22:10:17	4548.000	20.730	T 4536.000	4491.000	2.025	10.260	10.400	0.551	0.981	10.050
3	22:10:44	4528.000	20.540	T 4495.000	4397.000	2.145	10.070	10.200	0.586	0.947	9.537
x		4547.000	20.610	T 4509.000	4428.000	2.077	10.170	10.140	0.588	0.976	9.973
σ		18.570	0.100	T 23.230	54.660	0.062	0.097	0.303	0.038	0.027	0.402
%RSD		0.408	0.483	T 0.515	1.234	2.962	0.958	2.990	6.388	2.746	4.034

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	12.450	10.410	0.871	0.518	5.175	6.018	1.145	0.479	-1.080	27.500
2	22:10:17	11.230	10.790	0.892	0.039	5.502	6.373	3.021	0.902	0.251	27.700
3	22:10:44	13.000	10.520	0.717	0.717	5.692	5.910	0.607	0.291	-0.618	27.790
x		12.230	10.570	0.827	0.425	5.456	6.101	1.591	0.557	-0.482	27.660
σ		0.907	0.193	0.096	0.348	0.261	0.242	1.267	0.313	0.676	0.147
%RSD		7.422	1.828	11.560	81.980	4.789	3.969	79.630	56.240	140.100	0.532

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	108.3%	0.519	0.550	0.444	6.132	0.055	0.039	0.035	0.031	95.1%
2	22:10:17	112.2%	0.481	0.538	0.488	3.888	0.041	0.042	0.030	0.052	99.0%
3	22:10:44	110.5%	0.454	0.458	0.448	5.258	0.040	0.030	0.060	0.023	99.3%
x		110.3%	0.485	0.516	0.460	5.092	0.045	0.037	0.042	0.035	97.8%
σ		2.0%	0.033	0.050	0.024	1.131	0.009	0.006	0.016	0.015	2.3%
%RSD		1.8	6.748	9.707	5.310	22.210	18.910	17.410	39.350	42.630	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:50	5.274	6.265	0.286	0.313	38.350	37.830	97.1%	0.152	0.157	16.290
2	22:10:17	5.045	6.223	0.292	0.339	38.280	37.630	99.1%	0.167	0.154	16.510
3	22:10:44	5.234	6.069	0.306	0.294	37.530	38.030	100.4%	0.143	0.141	16.380
x		5.184	6.186	0.295	0.315	38.050	37.830	98.9%	0.154	0.150	16.390
σ		0.122	0.104	0.010	0.022	0.456	0.201	1.7%	0.012	0.008	0.111
%RSD		2.356	1.672	3.424	7.046	1.199	0.532	1.7	7.666	5.624	0.674

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:09:50	15.330	15.760	96.6%
2	22:10:17	15.420	15.970	100.2%
3	22:10:44	15.540	15.940	100.5%
x		15.430	15.890	99.1%
σ		0.103	0.113	2.2%
%RSD		0.666	0.709	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	107.9%	0.117	0.421	0.432	96.050	16.430	T 484.200	489.300	489.200	TM 31080.000
2	22:16:21	107.6%	0.129	1.259	0.718	101.400	16.840	T 483.200	484.000	496.500	TM 31610.000
3	22:16:48	T 118.8%	0.093	0.956	0.630	83.560	18.060	T 487.500	481.100	501.500	TM 33490.000
x		T 111.5%	0.113	0.879	0.594	93.670	17.110	T 485.000	484.800	495.700	TM 32060.000
σ		T 6.4%	0.018	0.425	0.146	9.160	0.850	T 2.243	4.157	6.198	TM 1267.000
%RSD		T 5.7	16.170	48.320	24.660	9.779	4.967	T 0.462	0.857	1.250	TM 3.953

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	T 1427.000	T 278200.000	412.300	351.000	201.300	103.9%	394.500	70.950	37.430	7031.000
2	22:16:21	T 1495.000	T 282800.000	414.800	315.400	202.900	106.4%	395.800	71.170	36.590	6664.000
3	22:16:48	T 1368.000	T 288900.000	423.300	425.900	209.200	103.7%	397.100	71.870	37.260	7022.000
x		T 1430.000	T 283300.000	416.800	364.100	204.400	104.7%	395.800	71.330	37.090	6906.000
σ		T 63.410	T 5390.000	5.781	56.400	4.200	1.5%	1.276	0.480	0.447	209.500
%RSD		T 4.434	T 1.903	1.387	15.490	2.055	1.4	0.323	0.673	1.206	3.033

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	T 21820.000	18.260	T 21930.000	T 20850.000	1.708	8.233	9.121	0.369	0.742	7.844
2	22:16:21	T 21880.000	17.910	T 22180.000	T 21340.000	1.720	8.673	8.526	0.327	0.591	7.795
3	22:16:48	T 21670.000	18.050	T 22020.000	T 21670.000	1.668	8.404	9.259	0.373	0.570	7.402
x		T 21790.000	18.070	T 22040.000	T 21290.000	1.698	8.437	8.969	0.356	0.634	7.681
σ		T 109.900	0.174	T 127.200	T 409.200	0.027	0.222	0.389	0.025	0.094	0.242
%RSD		T 0.504	0.964	T 0.577	T 1.923	1.608	2.631	4.341	7.133	14.780	3.156

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	9.941	8.231	8.372	0.901	6.127	5.031	6.663	1.907	-1.090	14.200
2	22:16:21	9.719	7.657	9.083	1.547	5.616	5.884	6.796	1.956	-1.287	14.410
3	22:16:48	10.330	7.652	8.230	1.387	5.579	5.865	5.886	1.645	1.763	14.230
x		9.998	7.847	8.562	1.279	5.774	5.593	6.448	1.836	-0.205	14.280
σ		0.312	0.333	0.457	0.337	0.306	0.488	0.492	0.167	1.707	0.115
%RSD		3.117	4.243	5.338	26.320	5.309	8.715	7.622	9.100	834.200	0.802

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	112.1%	0.983	0.937	1.009	4.603	0.031	0.022	0.031	0.021	97.6%
2	22:16:21	116.0%	1.019	0.923	1.046	5.102	0.030	0.019	0.023	-0.003	100.5%
3	22:16:48	112.2%	1.047	0.943	0.973	4.860	0.033	0.009	0.001	0.015	97.3%
x		113.4%	1.016	0.934	1.009	4.855	0.031	0.017	0.018	0.011	98.5%
σ		2.2%	0.032	0.010	0.037	0.250	0.001	0.007	0.016	0.013	1.8%
%RSD		2.0	3.143	1.112	3.639	5.146	4.727	42.150	86.970	118.400	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:15:54	5.418	6.117	0.253	0.180	25.760	26.310	98.6%	0.085	0.098	15.620
2	22:16:21	5.529	6.213	0.175	0.183	25.270	25.730	102.2%	0.102	0.073	15.310
3	22:16:48	5.260	6.251	0.205	0.207	26.040	25.700	97.9%	0.100	0.089	15.470
x		5.402	6.194	0.211	0.190	25.690	25.920	99.6%	0.096	0.087	15.460
σ		0.135	0.069	0.039	0.015	0.389	0.342	2.3%	0.010	0.013	0.156
%RSD		2.501	1.113	18.620	7.938	1.516	1.319	2.3	9.985	14.490	1.006

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:15:54	14.400	14.900	99.0%
2	22:16:21	14.340	14.770	102.3%
3	22:16:48	14.280	14.790	97.7%
x		14.340	14.820	99.6%
σ		0.060	0.074	2.4%
%RSD		0.422	0.498	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	105.3%	0.105	0.925	0.694	192.900	16.730	422.200	404.400	405.300	™ 23120.000
2	22:22:26	109.6%	0.113	0.915	0.560	173.100	15.390	406.200	390.800	396.400	™ 22470.000
3	22:22:53	106.5%	0.109	0.785	0.665	187.500	15.710	401.000	394.700	401.300	™ 23240.000
x		107.1%	0.109	0.875	0.640	184.500	15.940	409.800	396.600	401.000	™ 22950.000
σ		2.2%	0.004	0.078	0.070	10.190	0.702	11.070	7.019	4.453	™ 413.300
%RSD		2.1	3.610	8.902	11.010	5.522	4.402	2.702	1.770	1.110	™ 1.801

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	ᵀ 1531.000	ᵀ 312900.000	351.500	380.900	307.600	102.1%	253.000	50.170	44.010	6997.000
2	22:22:26	ᵀ 1531.000	ᵀ 310000.000	346.900	404.700	302.700	103.6%	245.500	49.960	43.370	7334.000
3	22:22:53	ᵀ 1529.000	ᵀ 304300.000	341.700	420.100	294.800	101.8%	240.000	48.660	42.160	6731.000
x		ᵀ 1530.000	ᵀ 309100.000	346.700	401.900	301.700	102.5%	246.100	49.600	43.180	7021.000
σ		ᵀ 1.174	ᵀ 4383.000	4.940	19.770	6.450	0.9%	6.528	0.817	0.939	302.000
%RSD		ᵀ 0.077	ᵀ 1.418	1.425	4.918	2.138	0.9	2.652	1.647	2.175	4.301

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	ᵀ 16800.000	11.100	ᵀ 16630.000	16550.000	1.142	4.960	5.356	0.322	0.478	4.948
2	22:22:26	ᵀ 16080.000	10.720	ᵀ 16470.000	16240.000	1.145	5.136	4.987	0.257	0.499	5.202
3	22:22:53	ᵀ 16110.000	10.470	ᵀ 16040.000	15860.000	1.094	4.919	5.128	0.281	0.479	4.836
x		ᵀ 16330.000	10.770	ᵀ 16380.000	16220.000	1.127	5.005	5.157	0.287	0.485	4.996
σ		ᵀ 411.100	0.318	ᵀ 302.200	349.700	0.028	0.115	0.186	0.033	0.012	0.187
%RSD		ᵀ 2.518	2.953	ᵀ 1.845	2.156	2.526	2.306	3.608	11.430	2.425	3.751

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	7.109	5.495	4.998	1.647	5.881	7.042	3.625	1.013	-1.503	15.840
2	22:22:26	7.140	5.551	4.309	1.036	6.155	6.335	4.636	1.289	-2.010	15.680
3	22:22:53	6.967	5.206	4.599	1.028	5.455	5.245	3.128	0.859	-0.147	15.230
x		7.072	5.417	4.635	1.237	5.830	6.207	3.796	1.054	-1.220	15.580
σ		0.092	0.185	0.346	0.355	0.353	0.906	0.769	0.218	0.963	0.317
%RSD		1.305	3.422	7.461	28.710	6.054	14.590	20.240	20.670	78.930	2.033

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	104.4%	1.138	1.281	1.250	2.977	0.025	0.002	0.008	0.050	96.6%
2	22:22:26	106.5%	1.061	1.175	1.093	2.601	0.022	0.011	0.008	-0.014	97.8%
3	22:22:53	105.6%	1.085	1.085	1.145	3.874	0.010	0.007	0.016	0.016	97.5%
x		105.5%	1.095	1.180	1.163	3.151	0.019	0.006	0.010	0.018	97.3%
σ		1.1%	0.039	0.098	0.080	0.654	0.008	0.004	0.005	0.032	0.7%
%RSD		1.0	3.577	8.316	6.868	20.770	42.630	70.930	43.680	182.200	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:59	5.678	7.216	0.131	0.165	24.810	24.660	96.4%	0.062	0.066	11.260
2	22:22:26	5.591	7.091	0.129	0.192	24.500	24.470	98.6%	0.047	0.051	11.110
3	22:22:53	5.286	6.965	0.155	0.170	24.730	24.130	98.4%	0.050	0.055	10.860
x		5.518	7.091	0.138	0.176	24.680	24.420	97.8%	0.053	0.057	11.080
σ		0.206	0.126	0.015	0.014	0.160	0.270	1.2%	0.008	0.008	0.201
%RSD		3.727	1.772	10.710	8.085	0.649	1.105	1.2	15.240	13.360	1.812

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:21:59	10.670	10.920	96.9%
2	22:22:26	10.630	10.740	97.2%
3	22:22:53	10.190	10.460	97.9%
x		10.500	10.710	97.3%
σ		0.264	0.232	0.5%
%RSD		2.511	2.164	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	94.1%	300.200	304.300	296.600	51.280	┬65100.000	┬62060.000	┬60930.000	┬61500.000	315.000
2	22:28:34	94.5%	307.000	309.300	298.800	58.320	┬65770.000	┬62080.000	┬61410.000	┬60900.000	302.900
3	22:29:01	97.4%	292.900	297.600	293.000	56.150	┬64020.000	┬60910.000	┬60670.000	┬60650.000	295.700
x		95.3%	100.002%	101.238%	98.705%	55.250	┬108.276%	┬61680.000	┬61000.000	┬101.694%	101.512%
σ		1.8%	n/a	n/a	n/a	3.604	┬n/a	┬673.400	┬375.700	┬n/a	n/a
%RSD		1.9	2.346	1.930	0.985	6.524	┬1.358	┬1.092	┬0.616	┬0.723	3.207

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	┬3260.000	2992.000	┬67100.000	65610.000	┬64860.000	92.9%	318.300	324.600	309.200	984.100
2	22:28:34	┬3214.000	2747.000	┬65280.000	64130.000	┬65740.000	94.6%	312.000	323.500	306.200	1015.000
3	22:29:01	┬3090.000	2678.000	┬64920.000	64310.000	┬65610.000	94.0%	312.300	309.900	301.200	3110.000
x		┬106.270%	2806.000	┬109.613%	64680.000	┬109.006%	93.8%	104.728%	106.446%	101.847%	1703.000
σ		┬n/a	165.100	┬n/a	805.600	┬n/a	0.9%	n/a	n/a	n/a	1218.000
%RSD		┬2.762	5.882	┬1.782	1.245	┬0.731	0.9	1.128	2.558	1.317	71.550

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	┬64590.000	299.000	┬64460.000	┬62400.000	302.100	295.800	303.200	297.100	317.700	320.500
2	22:28:34	┬63770.000	299.800	┬64890.000	┬63620.000	303.400	291.500	291.600	293.500	309.600	318.700
3	22:29:01	┬64950.000	294.300	┬63750.000	┬61840.000	297.800	295.200	295.000	297.800	314.700	315.700
x		┬64440.000	99.231%	┬64360.000	┬104.366%	100.369%	98.047%	296.600	296.100	104.662%	106.101%
σ		┬604.100	n/a	┬574.600	┬n/a	n/a	n/a	5.954	2.342	n/a	n/a
%RSD		┬0.938	0.996	┬0.893	┬1.458	0.979	0.788	2.008	0.791	1.310	0.756

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	301.000	305.500	297.800	318.800	1.073	1.315	1300.000	311.200	2.130	308.000
2	22:28:34	300.000	301.300	302.900	306.600	1.519	0.318	1330.000	316.700	-1.217	307.000
3	22:29:01	302.000	297.100	298.200	318.300	1.400	0.626	1391.000	329.800	0.005	304.900
x		301.000	301.300	99.879%	314.600	1.331	0.753	1340.000	106.399%	0.306	102.209%
σ		0.997	4.240	n/a	6.942	0.231	0.511	45.870	n/a	1.694	n/a
%RSD		0.331	1.407	0.941	2.207	17.360	67.850	3.422	2.996	553.600	0.505

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	87.8%	323.500	322.800	324.300	303.000	301.700	301.200	304.100	307.300	83.7%
2	22:28:34	91.6%	319.400	317.900	320.500	299.900	300.600	300.700	306.200	306.700	87.5%
3	22:29:01	87.3%	319.200	319.900	323.500	313.000	299.800	302.400	305.600	305.000	84.2%
x		88.9%	106.901%	106.736%	322.800	305.300	100.229%	301.400	305.300	102.117%	85.2%
σ		2.4%	n/a	n/a	1.987	6.831	n/a	0.886	1.075	n/a	2.1%
%RSD		2.7	0.768	0.772	0.616	2.237	0.323	0.294	0.352	0.391	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:28:06	317.300	314.000	315.000	308.300	308.500	311.800	86.0%	308.100	312.100	305.500
2	22:28:34	316.700	316.100	318.700	314.300	314.100	312.800	89.2%	309.700	314.600	305.900
3	22:29:01	315.900	311.400	312.900	312.100	313.600	313.200	85.4%	309.100	316.000	308.000
x		105.540%	104.618%	315.500	103.851%	104.016%	104.197%	86.8%	309.000	104.742%	102.150%
σ		n/a	n/a	2.966	n/a	n/a	n/a	2.0%	0.826	n/a	n/a
%RSD		0.229	0.752	0.940	0.979	0.987	0.217	2.4	0.267	0.625	0.432

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:28:06	304.800	307.800	83.3%
2	22:28:34	307.500	308.800	86.5%
3	22:29:01	308.000	309.900	82.1%
x		102.261%	102.950%	84.0%
σ		n/a	n/a	2.3%
%RSD		0.565	0.353	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	100.5%	0.070	1.109	0.684	27.640	7.369	7.234	6.688	7.195	0.913
2	22:34:41	102.5%	0.029	0.786	0.614	30.200	5.504	5.663	5.664	6.193	0.752
3	22:35:08	106.8%	0.012	0.991	0.514	14.410	6.956	5.094	5.450	5.380	0.690
x		103.3%	0.037	0.962	0.604	24.080	6.610	5.997	5.934	6.256	0.785
σ		3.2%	0.030	0.164	0.086	8.475	0.980	1.108	0.662	0.909	0.115
%RSD		3.1	80.400	16.990	14.190	35.190	14.820	18.480	11.150	14.530	14.620

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	14.670	1719.000	14.450	10.870	7.177	97.2%	-0.066	0.074	0.107	32.590
2	22:34:41	14.200	1664.000	12.690	6.228	6.618	98.4%	-0.055	0.062	0.082	40.130
3	22:35:08	14.530	1731.000	14.320	3.697	5.274	97.7%	0.019	0.051	0.086	58.500
x		14.470	1705.000	13.820	6.930	6.356	97.8%	-0.034	0.062	0.092	43.740
σ		0.240	35.700	0.983	3.635	0.978	0.6%	0.046	0.012	0.014	13.320
%RSD		1.657	2.094	7.112	52.460	15.380	0.6	136.000	18.890	14.750	30.460

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	6.697	0.119	12.210	-8.055	0.065	0.061	0.173	0.022	0.051	0.391
2	22:34:41	5.704	0.095	9.917	-5.931	0.056	0.027	-0.269	0.011	0.070	0.143
3	22:35:08	8.070	0.099	11.650	-5.038	0.042	0.034	-0.041	0.016	0.013	0.005
x		6.824	0.104	11.260	-6.341	0.054	0.041	-0.046	0.016	0.044	0.179
σ		1.188	0.013	1.196	1.550	0.012	0.018	0.221	0.006	0.029	0.196
%RSD		17.410	12.260	10.620	24.440	21.450	44.030	484.300	36.420	65.400	109.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	0.600	0.455	-0.018	-0.331	0.281	0.129	-0.948	-0.230	1.135	0.036
2	22:34:41	0.085	0.173	0.049	-0.233	-0.010	0.269	0.928	0.305	-1.684	0.030
3	22:35:08	-0.058	0.050	0.006	0.173	0.526	0.939	-0.290	-0.002	-0.687	0.024
x		0.209	0.226	0.013	-0.131	0.265	0.446	-0.103	0.025	-0.412	0.030
σ		0.346	0.208	0.034	0.268	0.268	0.433	0.952	0.269	1.429	0.006
%RSD		165.700	91.970	270.300	204.900	101.100	97.170	920.900	1087.000	347.000	19.660

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	93.5%	0.069	0.085	0.103	-0.558	0.023	0.040	0.026	0.040	93.0%
2	22:34:41	95.6%	0.108	0.068	0.048	-0.361	0.020	0.026	0.035	0.029	92.6%
3	22:35:08	93.7%	0.060	0.118	0.068	-0.191	0.023	0.031	0.039	0.048	90.8%
x		94.3%	0.079	0.090	0.073	-0.370	0.022	0.033	0.033	0.039	92.1%
σ		1.2%	0.025	0.025	0.028	0.184	0.002	0.007	0.007	0.009	1.2%
%RSD		1.3	32.290	27.920	38.460	49.720	9.023	22.040	20.420	24.250	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:34:14	0.079	0.099	0.171	0.161	0.029	0.047	91.5%	0.019	0.025	0.027
2	22:34:41	0.071	0.078	0.130	0.149	0.047	0.060	92.1%	0.018	0.016	0.028
3	22:35:08	0.059	0.068	0.128	0.125	0.082	0.050	88.1%	0.009	0.008	0.016
x		0.070	0.082	0.143	0.145	0.053	0.052	90.6%	0.015	0.017	0.024
σ		0.010	0.016	0.024	0.018	0.027	0.007	2.2%	0.005	0.008	0.006
%RSD		14.120	19.640	16.820	12.640	50.770	13.470	2.4	34.430	50.920	26.980

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:34:14	0.042	0.044	92.9%
2	22:34:41	0.021	0.030	93.3%
3	22:35:08	0.029	0.024	88.8%
x		0.031	0.032	91.7%
σ		0.011	0.010	2.5%
%RSD		35.570	31.350	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	106.6%	0.093	1.065	0.946	-0.735	41.210	T 1178.000	1197.000	1234.000	TM 72790.000
2	22:40:48	103.7%	0.096	1.222	1.094	-0.456	40.170	T 1164.000	1195.000	1220.000	TM 71300.000
3	22:41:15	108.2%	0.091	1.125	0.894	-2.623	40.470	T 1178.000	1187.000	1230.000	TM 73390.000
x		106.1%	0.093	1.137	0.978	-1.271	40.620	T 1173.000	1193.000	1228.000	TM 72490.000
σ		2.3%	0.003	0.079	0.104	1.179	0.533	T 8.232	4.867	7.310	TM 1079.000
%RSD		2.1	2.868	6.972	10.600	92.730	1.313	T 0.702	0.408	0.595	TM 1.488

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	T 1265.000	T 292900.000	999.500	2235.000	1881.000	102.5%	M 682.600	44.700	109.000	8704.000
2	22:40:48	T 1261.000	T 284100.000	979.500	2253.000	1832.000	103.7%	M 671.300	45.030	108.400	7599.000
3	22:41:15	T 1224.000	T 286800.000	T 988.800	2392.000	1831.000	101.7%	M 686.200	46.100	109.800	8803.000
x		T 1250.000	T 288000.000	T 989.300	2293.000	1848.000	102.7%	M 680.000	45.280	109.100	8368.000
σ		T 22.300	T 4514.000	T 9.995	85.680	28.100	1.0%	M 7.745	0.734	0.665	668.400
%RSD		T 1.784	T 1.568	T 1.010	3.737	1.520	1.0	M 1.139	1.620	0.610	7.987

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	T 9549.000	35.940	T 9602.000	9547.000	4.366	22.470	21.860	1.009	1.756	19.260
2	22:40:48	T 9429.000	35.280	T 9402.000	9374.000	4.415	23.000	24.030	0.989	1.571	18.950
3	22:41:15	T 9505.000	35.510	T 9558.000	9429.000	4.382	22.890	23.770	0.931	1.628	18.600
x		T 9494.000	35.570	T 9521.000	9450.000	4.388	22.790	23.220	0.976	1.652	18.940
σ		T 61.050	0.334	T 105.400	88.610	0.025	0.282	1.188	0.040	0.095	0.330
%RSD		T 0.643	0.939	T 1.108	0.938	0.569	1.236	5.116	4.145	5.734	1.741

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	19.820	19.800	1.702	1.030	8.630	7.734	3.765	1.228	1.400	25.130
2	22:40:48	20.800	19.020	0.898	0.791	8.798	7.651	4.641	1.431	2.484	24.870
3	22:41:15	20.320	18.890	0.823	0.732	8.285	8.319	2.116	0.786	0.321	24.940
x		20.310	19.240	1.141	0.851	8.571	7.901	3.507	1.148	1.402	24.980
σ		0.488	0.491	0.487	0.158	0.262	0.364	1.282	0.330	1.081	0.133
%RSD		2.402	2.551	42.720	18.520	3.053	4.609	36.550	28.700	77.140	0.532

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	115.1%	1.277	1.295	1.350	10.460	0.066	0.030	0.019	0.030	94.4%
2	22:40:48	118.0%	1.324	1.421	1.411	11.840	0.076	0.024	0.061	0.042	96.7%
3	22:41:15	114.5%	1.219	1.422	1.289	10.150	0.059	0.030	0.019	0.007	95.0%
x		115.9%	1.273	1.379	1.350	10.820	0.067	0.028	0.033	0.027	95.4%
σ		1.9%	0.052	0.073	0.061	0.902	0.009	0.003	0.024	0.018	1.2%
%RSD		1.6	4.121	5.309	4.525	8.336	12.800	11.740	73.360	66.340	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:21	6.647	7.386	0.427	0.449	71.930	71.820	95.5%	0.164	0.193	31.850
2	22:40:48	6.751	7.288	0.444	0.431	72.520	71.170	97.7%	0.186	0.180	31.760
3	22:41:15	6.549	7.179	0.368	0.445	70.750	71.140	95.6%	0.196	0.168	31.810
x		6.649	7.284	0.413	0.442	71.730	71.380	96.3%	0.182	0.180	31.810
σ		0.101	0.104	0.040	0.010	0.901	0.386	1.2%	0.016	0.012	0.049
%RSD		1.521	1.424	9.761	2.165	1.256	0.540	1.3	8.972	6.743	0.153

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:40:21	29.550	30.830	95.6%
2	22:40:48	29.860	30.790	97.0%
3	22:41:15	29.290	30.570	95.4%
x		29.570	30.730	96.0%
σ		0.285	0.140	0.9%
%RSD		0.963	0.455	0.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	106.7%	74.860	83.420	83.740	-24.280	T 1544.000	T 2624.000	T 2609.000	T 2724.000	TM 72170.000
2	22:46:54	109.6%	73.460	81.750	81.490	-26.140	T 1516.000	T 2489.000	2501.000	T 2564.000	TM 67430.000
3	22:47:21	107.0%	75.890	81.090	78.920	-27.980	T 1493.000	T 2439.000	2461.000	2508.000	TM 62470.000
x		107.8%	74.740	82.090	81.380	-26.130	T 1518.000	T 2517.000	T 2524.000	T 2599.000	TM 67360.000
σ		1.6%	1.221	1.205	2.409	1.849	T 25.300	T 95.770	T 76.570	T 112.000	TM 4849.000
%RSD		1.5	1.634	1.467	2.960	7.076	T 1.667	T 3.804	T 3.034	T 4.311	TM 7.199

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	T 4371.000	T 353500.000	T 3925.000	4865.000	4228.000	99.8%	M 1173.000	277.400	321.700	10440.000
2	22:46:54	T 4136.000	T 334000.000	T 3787.000	4506.000	3948.000	104.7%	M 1116.000	266.600	293.500	10260.000
3	22:47:21	T 4036.000	T 325700.000	T 3587.000	4295.000	3961.000	105.2%	M 1069.000	259.600	296.000	8023.000
x		T 4181.000	T 337700.000	T 3767.000	4555.000	4046.000	103.2%	M 1120.000	267.900	303.700	9576.000
σ		T 171.900	T 14260.000	T 170.300	288.400	158.000	3.0%	M 52.060	8.966	15.590	1348.000
%RSD		T 4.111	T 4.223	T 4.520	6.331	3.907	2.9	M 4.650	3.347	5.134	14.080

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	T 11920.000	274.100	T 12000.000	11860.000	232.600	248.500	236.000	213.400	241.500	249.500
2	22:46:54	T 11270.000	250.400	T 11210.000	10980.000	210.400	228.600	221.400	202.700	225.000	232.300
3	22:47:21	T 10960.000	246.800	T 11080.000	11070.000	209.900	222.400	220.100	198.600	216.800	231.300
x		T 11380.000	257.100	T 11430.000	11300.000	217.600	233.200	225.800	204.900	227.800	237.700
σ		T 491.400	14.810	T 497.300	483.300	12.950	13.600	8.827	7.607	12.610	10.230
%RSD		T 4.318	5.762	T 4.349	4.276	5.950	5.834	3.909	3.712	5.534	4.305

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	220.200	223.200	203.500	222.200	13.240	12.730	814.200	218.100	3.544	T 234.800
2	22:46:54	210.200	211.200	189.900	202.300	12.760	14.150	800.800	209.500	3.652	218.800
3	22:47:21	208.300	213.200	195.500	200.600	12.560	11.910	758.700	199.200	2.512	214.900
x		212.900	215.900	196.300	208.400	12.860	12.930	791.300	208.900	3.236	T 222.800
σ		6.366	6.404	6.824	12.010	0.352	1.135	28.940	9.488	0.629	T 10.540
%RSD		2.990	2.967	3.476	5.761	2.737	8.777	3.658	4.541	19.450	T 4.729

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	109.8%	200.300	193.700	203.900	245.200	234.100	234.200	226.400	230.500	91.3%
2	22:46:54	112.2%	192.100	187.600	197.800	225.600	218.600	218.300	214.100	216.900	96.0%
3	22:47:21	117.3%	186.900	181.900	191.800	219.600	214.400	216.600	212.200	215.800	99.3%
x		113.1%	193.100	187.700	197.800	230.200	222.400	223.000	217.600	221.000	95.5%
σ		3.8%	6.756	5.876	6.089	13.390	10.340	9.712	7.698	8.184	4.0%
%RSD		3.4	3.499	3.130	3.078	5.817	4.652	4.355	3.538	3.703	4.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:26	239.400	237.000	192.400	191.100	325.400	327.000	92.9%	237.500	240.800	267.400
2	22:46:54	224.400	222.300	181.300	182.500	308.200	309.900	96.4%	226.000	228.300	255.700
3	22:47:21	221.700	219.400	184.100	183.000	306.000	300.000	100.5%	221.300	226.700	254.100
x		228.500	226.200	185.900	185.600	313.200	312.300	96.6%	228.300	231.900	259.100
σ		9.562	9.396	5.769	4.855	10.630	13.690	3.8%	8.316	7.729	7.264
%RSD		4.185	4.153	3.103	2.616	3.393	4.384	4.0	3.643	3.333	2.804

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:46:26	266.000	269.400	90.3%
2	22:46:54	253.200	254.600	95.5%
3	22:47:21	253.200	254.500	99.9%
x		257.500	259.500	95.2%
σ		7.353	8.585	4.8%
%RSD		2.856	3.309	5.0

UD25032-044SD 04/30/2019 22:52:05

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	112.0%	66.650	75.220	76.420	-17.130	T 1433.000	T 2536.000	2545.000	T 2591.000	TM 72660.000
2	22:52:59	111.0%	66.890	75.650	75.030	-23.150	T 1428.000	T 2553.000	2527.000	T 2605.000	TM 71930.000
3	22:53:26	108.2%	66.950	73.670	70.000	-25.180	T 1353.000	T 2387.000	2480.000	T 2536.000	TM 70430.000
x		110.4%	66.830	74.840	73.810	-21.820	T 1405.000	T 2492.000	2517.000	T 2577.000	TM 71670.000
σ		1.9%	0.157	1.044	3.378	4.187	T 44.680	T 91.170	33.580	T 36.420	TM 1140.000
%RSD		1.8	0.235	1.394	4.576	19.190	T 3.180	T 3.659	1.334	T 1.413	TM 1.591

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	T 3354.000	T 277800.000	T 3710.000	4857.000	4110.000	102.3%	M 1078.000	250.700	307.800	9430.000
2	22:52:59	T 3318.000	T 272900.000	T 3662.000	4713.000	3989.000	102.9%	M 1087.000	254.800	306.500	8510.000
3	22:53:26	T 3350.000	T 258600.000	T 3482.000	4478.000	4036.000	104.2%	M 1095.000	257.000	301.800	7438.000
x		T 3341.000	T 269800.000	T 3618.000	4683.000	4045.000	103.1%	M 1086.000	254.200	305.400	8459.000
σ		T 19.300	T 9997.000	T 120.300	191.500	60.990	1.0%	M 8.356	3.206	3.144	997.000
%RSD		T 0.578	T 3.706	T 3.326	4.089	1.508	0.9	M 0.769	1.262	1.029	11.790

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	T 11680.000	237.200	T 11400.000	11440.000	205.000	218.700	209.000	188.900	216.600	224.000
2	22:52:59	T 11560.000	237.200	T 11540.000	11540.000	200.700	215.700	206.000	188.400	218.100	225.500
3	22:53:26	T 11380.000	236.100	T 11570.000	11500.000	199.100	216.000	203.100	186.800	215.300	228.700
x		T 11540.000	236.900	T 11500.000	11500.000	201.600	216.800	206.000	188.100	216.700	226.100
σ		T 150.000	0.627	T 86.130	53.680	3.018	1.672	2.994	1.119	1.407	2.413
%RSD		T 1.300	0.265	T 0.749	0.467	1.497	0.771	1.453	0.595	0.650	1.067

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	197.000	200.600	175.200	197.400	7.681	6.933	714.400	192.600	2.042	202.300
2	22:52:59	198.200	201.800	179.000	192.400	6.639	8.526	732.200	197.900	6.305	202.800
3	22:53:26	201.900	204.300	182.500	204.200	7.782	7.104	708.400	193.200	3.551	203.200
x		199.000	202.200	178.900	198.000	7.367	7.521	718.300	194.600	3.966	202.800
σ		2.575	1.891	3.644	5.881	0.632	0.875	12.360	2.933	2.161	0.458
%RSD		1.294	0.935	2.037	2.970	8.584	11.630	1.721	1.508	54.500	0.226

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	111.2%	174.800	168.300	177.600	211.700	205.200	205.400	199.200	202.500	92.1%
2	22:52:59	112.6%	175.400	170.300	178.900	214.100	208.800	207.800	202.000	202.500	92.9%
3	22:53:26	115.9%	175.900	166.800	178.900	209.600	207.500	207.200	202.300	205.000	94.5%
x		113.2%	175.400	168.500	178.500	211.800	207.100	206.800	201.100	203.300	93.2%
σ		2.4%	0.545	1.745	0.783	2.241	1.795	1.245	1.710	1.464	1.2%
%RSD		2.1	0.311	1.036	0.439	1.058	0.866	0.602	0.850	0.720	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:52:32	211.000	206.300	161.100	163.000	298.900	300.900	91.9%	210.100	213.000	238.800
2	22:52:59	211.100	206.900	161.800	163.600	296.000	296.700	93.4%	209.200	211.300	237.900
3	22:53:26	212.400	208.900	165.900	166.300	295.600	295.900	95.5%	209.000	212.900	239.200
x		211.500	207.400	162.900	164.300	296.900	297.800	93.6%	209.400	212.400	238.600
σ		0.791	1.337	2.557	1.726	1.814	2.721	1.8%	0.565	0.988	0.637
%RSD		0.374	0.645	1.569	1.050	0.611	0.914	1.9	0.270	0.465	0.267

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:52:32	236.100	238.000	89.4%
2	22:52:59	235.100	237.200	90.9%
3	22:53:26	237.600	239.800	93.8%
x		236.300	238.400	91.4%
σ		1.259	1.327	2.2%
%RSD		0.533	0.557	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	104.8%	0.097	0.552	0.548	20.460	8.152	264.000	259.500	264.900	TM 11970.000
2	22:59:04	102.1%	0.086	0.827	0.432	19.760	7.266	260.600	258.600	263.100	TM 12060.000
3	22:59:31	104.9%	0.077	0.926	0.430	18.570	7.253	261.200	260.000	265.700	TM 11800.000
x		103.9%	0.087	0.768	0.470	19.600	7.557	262.000	259.400	264.500	TM 11940.000
σ		1.6%	0.010	0.194	0.067	0.954	0.516	1.809	0.675	1.333	TM 132.300
%RSD		1.5	11.940	25.270	14.320	4.868	6.823	0.691	0.260	0.504	TM 1.108

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	T 213.900	T 54910.000	170.200	408.200	300.400	101.8%	106.700	7.161	17.550	1534.000
2	22:59:04	T 217.300	T 54380.000	168.700	382.700	306.500	100.7%	109.000	7.876	17.660	1190.000
3	22:59:31	T 211.100	T 54720.000	168.600	367.000	304.900	101.8%	107.000	7.398	18.000	1441.000
x		T 214.100	T 54670.000	169.200	386.000	303.900	101.5%	107.600	7.478	17.740	1389.000
σ		T 3.103	T 264.500	0.876	20.790	3.153	0.6%	1.262	0.364	0.234	177.700
%RSD		T 1.450	T 0.484	0.518	5.386	1.037	0.6	1.173	4.872	1.317	12.800

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	1586.000	5.850	T 1616.000	1488.000	0.777	3.746	3.927	0.242	0.329	3.370
2	22:59:04	1574.000	5.863	T 1612.000	1519.000	0.799	3.648	3.589	0.196	0.279	3.338
3	22:59:31	1589.000	5.992	T 1638.000	1514.000	0.752	3.731	3.894	0.237	0.327	3.126
x		1583.000	5.901	T 1622.000	1507.000	0.776	3.709	3.803	0.225	0.312	3.278
σ		7.948	0.078	T 14.270	16.590	0.024	0.053	0.186	0.025	0.029	0.132
%RSD		0.502	1.329	T 0.880	1.100	3.078	1.417	4.901	11.120	9.170	4.040

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	3.425	3.572	0.392	0.103	1.903	1.953	0.301	0.132	-0.110	4.679
2	22:59:04	4.143	3.779	0.104	0.103	1.938	1.481	2.814	0.741	0.042	4.602
3	22:59:31	3.518	3.771	0.374	0.068	1.882	1.880	1.135	0.373	-0.540	4.629
x		3.695	3.707	0.290	0.091	1.908	1.772	1.417	0.415	-0.203	4.637
σ		0.391	0.118	0.161	0.020	0.029	0.254	1.280	0.307	0.302	0.039
%RSD		10.570	3.173	55.600	22.160	1.498	14.340	90.350	73.880	149.000	0.847

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	98.0%	0.307	0.202	0.280	1.869	0.056	0.029	0.037	0.048	94.2%
2	22:59:04	99.2%	0.222	0.249	0.322	-0.050	0.031	0.020	0.028	0.021	94.2%
3	22:59:31	101.7%	0.209	0.277	0.235	0.825	0.030	0.032	0.044	0.065	95.3%
x		99.6%	0.246	0.243	0.279	0.882	0.039	0.027	0.037	0.045	94.6%
σ		1.9%	0.053	0.038	0.044	0.961	0.015	0.006	0.008	0.022	0.6%
%RSD		1.9	21.650	15.580	15.590	109.000	37.440	22.350	21.820	49.130	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:37	1.072	1.181	0.080	0.078	12.430	11.810	91.2%	0.129	0.118	5.058
2	22:59:04	1.082	1.165	0.067	0.071	11.680	11.580	93.2%	0.113	0.120	5.002
3	22:59:31	1.000	1.152	0.071	0.095	11.390	11.420	94.7%	0.112	0.119	5.041
x		1.051	1.166	0.073	0.081	11.830	11.600	93.0%	0.118	0.119	5.034
σ		0.044	0.015	0.006	0.012	0.536	0.194	1.8%	0.010	0.001	0.029
%RSD		4.222	1.249	8.578	14.710	4.534	1.674	1.9	8.092	0.825	0.568

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	22:58:37	4.662	4.856	91.7%
2	22:59:04	4.870	4.932	94.2%
3	22:59:31	4.788	4.874	95.8%
x		4.773	4.887	93.9%
σ		0.105	0.040	2.1%
%RSD		2.192	0.809	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	104.9%	76.760	85.950	84.420	6.949	T 1508.000	T 2479.000	2530.000	T 2673.000	TM 65030.000
2	23:05:10	104.1%	80.330	89.930	86.510	17.380	T 1540.000	T 2505.000	2518.000	2629.000	TM 66580.000
3	23:05:37	T 121.5%	77.680	85.650	86.240	12.520	T 1558.000	T 2553.000	T 2621.000	T 2724.000	TM 67800.000
x		T 110.2%	78.260	87.170	85.720	12.280	T 1535.000	T 2512.000	T 2556.000	T 2676.000	TM 66470.000
σ		T 9.8%	1.856	2.388	1.135	5.221	T 25.450	T 37.420	T 56.310	T 47.640	TM 1387.000
%RSD		T 8.9	2.372	2.739	1.324	42.500	T 1.657	T 1.489	T 2.203	T 1.781	TM 2.086

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	T 3239.000	T 272500.000	T 2995.000	4399.000	3966.000	102.6%	M 832.800	275.800	321.100	6885.000
2	23:05:10	T 3320.000	T 270600.000	T 3072.000	4471.000	3943.000	101.8%	M 853.100	280.400	334.900	6906.000
3	23:05:37	T 2835.000	T 274100.000	T 3180.000	4782.000	4149.000	101.2%	M 856.100	278.900	329.600	8658.000
x		T 3131.000	T 272400.000	T 3082.000	4551.000	4020.000	101.9%	M 847.300	278.300	328.500	7483.000
σ		T 259.600	T 1742.000	T 93.030	203.500	112.900	0.7%	M 12.680	2.367	6.968	1018.000
%RSD		T 8.291	T 0.640	T 3.018	4.471	2.808	0.7	M 1.497	0.851	2.121	13.600

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	T 11020.000	249.200	T 10910.000	10870.000	223.900	235.000	226.800	214.500	243.600	255.500
2	23:05:10	T 11070.000	256.300	T 11020.000	11040.000	228.600	246.900	231.300	213.600	243.000	260.100
3	23:05:37	T 11120.000	257.100	T 11030.000	10890.000	230.600	244.100	240.000	216.800	241.800	256.300
x		T 11070.000	254.200	T 10980.000	10930.000	227.700	242.000	232.700	215.000	242.800	257.300
σ		T 51.860	4.375	T 66.320	92.590	3.473	6.208	6.668	1.636	0.919	2.431
%RSD		T 0.469	1.721	T 0.604	0.847	1.525	2.565	2.866	0.761	0.379	0.945

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	222.000	223.400	220.200	234.000	8.424	8.229	872.400	236.000	5.893	220.500
2	23:05:10	234.800	227.600	228.500	234.100	8.534	8.061	880.400	238.000	1.840	222.500
3	23:05:37	226.800	224.500	223.600	235.700	7.585	7.623	866.400	232.700	6.345	225.000
x		227.800	225.100	224.100	234.600	8.181	7.971	873.000	235.500	4.693	222.700
σ		6.438	2.145	4.164	0.997	0.519	0.313	7.005	2.684	2.481	2.212
%RSD		2.826	0.953	1.858	0.425	6.342	3.921	0.802	1.139	52.870	0.993

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	111.1%	210.300	203.600	215.600	233.000	235.300	234.000	228.500	231.700	91.7%
2	23:05:10	114.2%	215.100	206.200	216.900	237.200	236.000	234.000	231.000	235.700	93.8%
3	23:05:37	110.7%	210.600	203.400	216.500	229.000	235.900	234.500	229.700	233.500	91.9%
x		112.0%	212.000	204.400	216.300	233.100	235.700	234.200	229.700	233.700	92.5%
σ		1.9%	2.673	1.581	0.670	4.106	0.375	0.265	1.271	1.959	1.2%
%RSD		1.7	1.261	0.774	0.310	1.762	0.159	0.113	0.553	0.839	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:43	242.400	242.300	229.200	226.000	302.700	298.500	93.3%	234.300	238.300	262.200
2	23:05:10	247.200	245.800	232.300	232.300	301.000	305.100	94.5%	236.200	238.400	262.500
3	23:05:37	245.500	243.200	227.100	230.000	306.700	307.200	91.8%	237.300	240.700	266.900
x		245.000	243.800	229.600	229.400	303.400	303.600	93.2%	235.900	239.100	263.800
σ		2.448	1.776	2.636	3.206	2.942	4.559	1.3%	1.505	1.391	2.655
%RSD		0.999	0.729	1.148	1.397	0.970	1.502	1.4	0.638	0.582	1.006

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:04:43	261.000	262.800	90.3%
2	23:05:10	261.100	264.400	92.0%
3	23:05:37	264.000	266.700	89.2%
x		262.000	264.600	90.5%
σ		1.739	1.931	1.4%
%RSD		0.664	0.730	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	107.3%	0.067	1.161	0.973	44.410	20.210	T 491.900	490.200	492.500	TM 25080.000
2	23:11:15	107.8%	0.055	1.274	0.877	41.620	19.200	471.300	468.500	475.300	TM 23860.000
3	23:11:42	110.6%	0.072	1.287	0.939	36.160	21.690	T 469.600	459.000	476.200	TM 24370.000
x		108.6%	0.064	1.241	0.930	40.730	20.370	T 477.600	472.600	481.400	TM 24440.000
σ		1.8%	0.009	0.069	0.049	4.196	1.251	T 12.430	15.970	9.687	TM 612.800
%RSD		1.6	13.630	5.558	5.257	10.300	6.140	T 2.603	3.379	2.012	TM 2.507

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	T 1616.000	T 318700.000	365.600	797.400	655.100	99.9%	412.400	16.980	34.180	7609.000
2	23:11:15	T 1628.000	T 311000.000	355.200	783.100	650.200	102.0%	393.200	15.430	33.760	7456.000
3	23:11:42	T 1529.000	T 312800.000	358.500	820.900	647.400	102.5%	390.300	14.680	32.270	8824.000
x		T 1591.000	T 314200.000	359.700	800.500	650.900	101.5%	398.600	15.700	33.400	7963.000
σ		T 54.470	T 4009.000	5.307	19.120	3.882	1.4%	12.000	1.171	1.001	749.600
%RSD		T 3.423	T 1.276	1.475	2.389	0.597	1.4	3.011	7.462	2.997	9.414

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	3220.000	18.950	T 3204.000	3114.000	1.623	8.002	8.006	0.463	0.875	6.431
2	23:11:15	3073.000	18.210	T 3042.000	2934.000	1.533	8.018	8.285	0.465	0.897	6.776
3	23:11:42	3126.000	17.850	T 3074.000	2920.000	1.503	7.768	8.349	0.431	0.813	6.596
x		3140.000	18.340	T 3107.000	2989.000	1.553	7.930	8.214	0.453	0.862	6.601
σ		74.610	0.559	T 86.000	107.900	0.062	0.140	0.183	0.019	0.043	0.172
%RSD		2.376	3.049	T 2.768	3.610	4.006	1.763	2.222	4.255	5.032	2.612

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	8.288	6.802	0.348	0.420	6.168	5.708	-0.663	0.019	-0.514	14.920
2	23:11:15	8.211	7.265	0.224	0.576	5.853	5.598	-0.354	0.140	-1.185	14.700
3	23:11:42	7.662	6.772	1.091	0.028	5.248	5.465	1.225	0.480	1.377	14.750
x		8.054	6.946	0.554	0.342	5.757	5.590	0.069	0.213	-0.107	14.790
σ		0.341	0.276	0.469	0.282	0.467	0.121	1.013	0.239	1.329	0.116
%RSD		4.239	3.976	84.610	82.610	8.120	2.171	1461.000	112.100	1240.000	0.783

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	109.0%	0.515	0.494	0.534	3.006	0.042	0.043	0.023	0.035	94.3%
2	23:11:15	110.4%	0.656	0.560	0.581	5.354	0.034	0.043	0.023	0.035	94.1%
3	23:11:42	106.7%	0.554	0.484	0.496	4.684	0.044	0.040	0.053	0.027	91.8%
x		108.7%	0.575	0.513	0.537	4.348	0.040	0.042	0.033	0.032	93.4%
σ		1.9%	0.073	0.041	0.042	1.209	0.005	0.002	0.017	0.005	1.3%
%RSD		1.7	12.670	8.057	7.859	27.820	12.490	3.714	52.470	15.340	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:48	5.739	7.205	0.402	0.456	27.680	27.690	93.7%	0.115	0.102	13.220
2	23:11:15	5.670	6.822	0.430	0.380	27.000	27.500	95.1%	0.092	0.086	12.550
3	23:11:42	5.536	6.760	0.346	0.354	26.780	26.390	92.3%	0.080	0.090	12.770
x		5.648	6.929	0.393	0.397	27.160	27.200	93.7%	0.096	0.093	12.850
σ		0.103	0.241	0.043	0.053	0.468	0.701	1.4%	0.018	0.009	0.340
%RSD		1.830	3.478	10.930	13.410	1.722	2.577	1.5	18.410	9.377	2.645

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:10:48	12.330	12.800	90.7%
2	23:11:15	12.060	12.320	92.4%
3	23:11:42	11.600	12.250	88.5%
x		12.000	12.460	90.6%
σ		0.369	0.296	1.9%
%RSD		3.077	2.375	2.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	110.8%	0.109	1.125	1.057	71.780	37.810	T 933.200	946.800	976.300	TM 64200.000
2	23:17:20	106.2%	0.121	1.297	0.868	68.020	34.930	T 907.900	915.200	960.800	TM 61890.000
3	23:17:48	110.1%	0.101	0.945	0.946	67.530	33.340	T 892.000	888.000	919.000	TM 57830.000
x		109.0%	0.111	1.122	0.957	69.110	35.360	T 911.000	916.700	952.000	TM 61310.000
σ		2.5%	0.010	0.176	0.095	2.322	2.266	T 20.760	29.470	29.600	TM 3227.000
%RSD		2.3	8.991	15.690	9.938	3.360	6.409	T 2.279	3.214	3.110	TM 5.263

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	T 1611.000	T 305400.000	T 862.800	1931.000	1406.000	99.9%	M 629.300	63.660	65.750	8613.000
2	23:17:20	T 1640.000	T 294600.000	820.000	1807.000	1411.000	101.5%	M 624.200	64.550	64.520	7742.000
3	23:17:48	T 1533.000	T 283600.000	798.400	1671.000	1370.000	103.9%	M 598.000	59.710	61.460	7392.000
x		T 1595.000	T 294600.000	T 827.100	1803.000	1396.000	101.8%	M 617.200	62.640	63.910	7916.000
σ		T 55.020	T 10920.000	T 32.760	130.300	22.230	2.0%	M 16.780	2.579	2.207	628.800
%RSD		T 3.450	T 3.709	T 3.962	7.226	1.593	2.0	M 2.718	4.117	3.454	7.944

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	T 34180.000	30.150	T 34530.000	T 34430.000	3.461	17.270	19.110	0.734	1.489	15.130
2	23:17:20	T 34280.000	30.330	T 34100.000	T 33820.000	3.447	17.800	17.700	0.761	1.360	14.830
3	23:17:48	T 33610.000	29.080	T 33360.000	T 32550.000	3.140	16.150	17.880	0.847	1.224	14.760
x		T 34030.000	29.850	T 34000.000	T 33600.000	3.350	17.070	18.230	0.781	1.358	14.910
σ		T 361.100	0.677	T 592.800	T 960.500	0.182	0.845	0.767	0.059	0.133	0.196
%RSD		T 1.061	2.269	T 1.744	T 2.859	5.418	4.946	4.208	7.541	9.757	1.313

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	17.440	14.470	15.000	0.900	6.927	5.765	7.612	2.256	-0.044	34.080
2	23:17:20	16.740	14.280	14.680	1.332	6.169	6.333	3.360	1.069	1.138	33.670
3	23:17:48	16.910	14.380	14.750	1.423	5.922	5.997	3.214	1.066	-0.509	33.140
x		17.030	14.380	14.810	1.218	6.339	6.032	4.729	1.464	0.195	33.630
σ		0.362	0.095	0.167	0.280	0.523	0.286	2.498	0.687	0.849	0.469
%RSD		2.127	0.663	1.127	22.940	8.255	4.739	52.830	46.910	435.100	1.395

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	107.6%	0.767	0.807	0.819	11.270	0.063	0.022	0.039	0.027	90.3%
2	23:17:20	110.5%	0.810	0.858	0.808	10.770	0.071	0.023	0.014	0.014	93.4%
3	23:17:48	111.9%	0.888	0.791	0.821	8.153	0.065	0.016	0.025	0.042	95.1%
x		110.0%	0.822	0.818	0.816	10.070	0.066	0.021	0.026	0.028	92.9%
σ		2.2%	0.061	0.035	0.007	1.675	0.004	0.004	0.013	0.014	2.4%
%RSD		2.0	7.470	4.291	0.841	16.640	6.018	18.040	49.090	50.590	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:16:53	6.609	7.549	0.286	0.309	52.680	51.930	89.7%	0.136	0.150	23.150
2	23:17:20	6.855	7.414	0.241	0.257	50.910	51.050	92.8%	0.169	0.148	22.390
3	23:17:48	6.330	7.224	0.229	0.286	50.330	49.230	95.9%	0.191	0.128	22.240
x		6.598	7.396	0.252	0.284	51.310	50.740	92.8%	0.165	0.142	22.590
σ		0.262	0.163	0.030	0.026	1.223	1.376	3.1%	0.028	0.012	0.492
%RSD		3.976	2.209	11.950	9.267	2.383	2.711	3.4	16.720	8.513	2.175

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:16:53	20.990	22.100	87.6%
2	23:17:20	21.050	21.700	90.7%
3	23:17:48	20.750	21.530	94.7%
x		20.930	21.780	91.0%
σ		0.162	0.293	3.6%
%RSD		0.776	1.344	3.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	107.7%	0.106	0.676	0.532	67.970	27.700	T 734.200	741.600	760.900	TM 45630.000
2	23:23:26	109.0%	0.098	0.806	0.929	74.830	28.850	T 738.900	733.200	753.100	TM 47080.000
3	23:23:53	112.8%	0.080	0.746	0.449	75.810	28.090	T 714.600	725.700	730.000	TM 44980.000
x		109.8%	0.095	0.743	0.637	72.870	28.210	T 729.200	733.500	748.000	TM 45890.000
σ		2.7%	0.013	0.065	0.257	4.274	0.583	T 12.910	7.947	16.070	TM 1074.000
%RSD		2.4	13.910	8.725	40.340	5.866	2.066	T 1.770	1.083	2.148	TM 2.341

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	T 1273.000	T 294700.000	628.500	1223.000	999.300	103.8%	M 528.900	55.240	41.700	7490.000
2	23:23:26	T 1323.000	T 313900.000	658.600	1311.000	992.400	101.4%	M 532.800	55.940	43.220	8399.000
3	23:23:53	T 1221.000	T 299100.000	629.200	1256.000	988.100	104.6%	M 520.100	53.280	41.330	7966.000
x		T 1272.000	T 302600.000	638.700	1263.000	993.200	103.3%	M 527.300	54.820	42.090	7952.000
σ		T 50.920	T 10060.000	17.170	44.580	5.646	1.7%	M 6.515	1.381	1.002	454.700
%RSD		T 4.001	T 3.325	2.687	3.529	0.568	1.6	M 1.236	2.519	2.380	5.718

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	T 13730.000	25.260	T 13900.000	13580.000	2.684	13.180	13.080	0.493	1.119	11.220
2	23:23:26	T 13620.000	25.270	T 13870.000	13690.000	2.870	13.760	14.830	0.586	0.928	11.360
3	23:23:53	T 13450.000	24.790	T 13530.000	13500.000	2.844	13.070	14.990	0.561	1.011	10.930
x		T 13600.000	25.110	T 13770.000	13590.000	2.799	13.340	14.300	0.547	1.019	11.170
σ		T 141.000	0.276	T 205.600	96.260	0.101	0.367	1.058	0.048	0.096	0.219
%RSD		T 1.037	1.098	T 1.493	0.708	3.599	2.756	7.395	8.842	9.390	1.964

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	11.420	10.990	4.558	0.948	8.307	7.423	2.780	0.782	3.863	26.600
2	23:23:26	12.510	11.370	4.403	1.832	7.486	8.168	1.274	0.449	1.989	26.880
3	23:23:53	13.010	11.000	3.968	1.058	7.442	7.641	3.156	0.987	0.780	26.360
x		12.310	11.120	4.310	1.279	7.745	7.744	2.403	0.739	2.211	26.620
σ		0.815	0.217	0.306	0.482	0.487	0.383	0.996	0.272	1.554	0.261
%RSD		6.619	1.950	7.095	37.670	6.291	4.945	41.440	36.740	70.290	0.982

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	109.9%	0.642	0.660	0.629	5.774	0.021	0.017	0.018	0.016	95.9%
2	23:23:26	109.4%	0.648	0.712	0.598	7.862	0.032	0.017	0.019	0.024	94.9%
3	23:23:53	112.6%	0.649	0.699	0.621	7.054	0.039	0.015	0.034	0.013	96.8%
x		110.6%	0.646	0.690	0.616	6.897	0.031	0.017	0.023	0.018	95.9%
σ		1.7%	0.004	0.027	0.016	1.053	0.009	0.001	0.009	0.005	0.9%
%RSD		1.5	0.612	3.916	2.605	15.260	29.360	7.305	37.470	30.630	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:22:59	5.974	6.739	0.193	0.206	41.740	42.090	96.3%	0.128	0.099	20.350
2	23:23:26	5.849	6.675	0.196	0.195	41.870	40.760	94.4%	0.101	0.094	20.100
3	23:23:53	5.887	6.609	0.167	0.187	42.080	41.310	96.9%	0.112	0.106	19.920
x		5.903	6.675	0.186	0.196	41.900	41.390	95.9%	0.114	0.100	20.120
σ		0.064	0.065	0.016	0.009	0.172	0.669	1.3%	0.013	0.006	0.218
%RSD		1.092	0.974	8.534	4.807	0.409	1.617	1.4	11.690	6.154	1.083

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:22:59	18.890	19.760	95.0%
2	23:23:26	18.680	19.370	93.8%
3	23:23:53	18.640	19.340	96.6%
x		18.730	19.490	95.1%
σ		0.137	0.238	1.4%
%RSD		0.728	1.220	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	111.3%	0.087	1.336	0.857	16.110	45.240	T 1250.000	1235.000	1270.000	TM 67070.000
2	23:29:32	109.3%	0.090	1.318	1.058	20.060	47.220	T 1277.000	1286.000	1345.000	TM 73160.000
3	23:29:59	112.6%	0.113	1.253	1.079	25.540	47.720	T 1291.000	1317.000	1362.000	TM 75950.000
x		111.1%	0.097	1.302	0.998	20.570	46.730	T 1272.000	1279.000	1326.000	TM 72060.000
σ		1.7%	0.014	0.044	0.123	4.737	1.309	T 20.910	41.540	49.410	TM 4539.000
%RSD		1.5	14.780	3.350	12.270	23.030	2.801	T 1.643	3.247	3.727	TM 6.298

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	T 1093.000	T 263700.000	T 1035.000	2337.000	1938.000	108.7%	M 634.300	93.870	71.550	7599.000
2	23:29:32	T 1142.000	T 275600.000	1086.000	2452.000	2041.000	104.3%	M 678.000	101.600	79.010	7660.000
3	23:29:59	T 1139.000	T 280800.000	T 1128.000	2540.000	2024.000	103.8%	M 671.700	102.100	79.300	7908.000
x		T 1125.000	T 273400.000	T 1083.000	2443.000	2001.000	105.6%	M 661.400	99.190	76.620	7722.000
σ		T 27.330	T 8735.000	T 46.490	101.700	55.360	2.7%	M 23.620	4.618	4.392	163.600
%RSD		T 2.430	T 3.195	T 4.293	4.162	2.766	2.6	M 3.571	4.656	5.732	2.118

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	T 20940.000	40.120	T 20620.000	T 20220.000	3.881	20.840	22.290	1.497	2.049	20.010
2	23:29:32	T 22410.000	43.640	T 22290.000	T 21850.000	4.345	21.550	22.980	1.529	2.238	21.570
3	23:29:59	T 21960.000	42.740	T 22450.000	T 22020.000	4.318	22.450	22.020	1.556	2.294	21.330
x		T 21770.000	42.170	T 21780.000	T 21370.000	4.181	21.610	22.430	1.527	2.194	20.970
σ		T 754.600	1.828	T 1014.000	T 994.800	0.260	0.809	0.496	0.030	0.129	0.840
%RSD		T 3.466	4.336	T 4.655	T 4.656	6.226	3.743	2.210	1.950	5.869	4.008

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	22.760	19.610	3.882	0.791	5.812	6.117	5.677	1.650	1.714	18.110
2	23:29:32	24.420	20.620	3.679	1.711	6.280	6.404	5.119	1.466	4.052	18.920
3	23:29:59	22.960	19.280	3.904	2.009	6.587	6.852	5.029	1.440	4.345	18.960
x		23.380	19.840	3.822	1.504	6.226	6.458	5.275	1.519	3.370	18.660
σ		0.907	0.697	0.124	0.635	0.390	0.370	0.351	0.115	1.442	0.478
%RSD		3.878	3.511	3.242	42.250	6.267	5.733	6.656	7.553	42.790	2.560

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	117.6%	1.711	1.535	1.676	13.710	0.075	0.021	0.016	0.051	100.0%
2	23:29:32	114.3%	1.691	1.729	1.687	13.450	0.088	0.036	0.044	0.019	96.1%
3	23:29:59	111.0%	1.715	1.589	1.764	12.700	0.066	0.025	0.054	0.048	93.5%
x		114.3%	1.706	1.617	1.709	13.290	0.076	0.027	0.038	0.039	96.5%
σ		3.3%	0.013	0.100	0.048	0.523	0.011	0.008	0.020	0.018	3.3%
%RSD		2.9	0.755	6.190	2.829	3.937	14.330	29.240	51.660	44.450	3.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:29:05	6.374	7.022	0.255	0.271	55.720	54.920	99.4%	0.225	0.219	27.300
2	23:29:32	6.689	7.700	0.284	0.283	58.110	57.660	97.3%	0.260	0.239	28.040
3	23:29:59	6.682	7.390	0.287	0.279	57.290	57.810	93.0%	0.210	0.243	28.190
x		6.581	7.370	0.276	0.278	57.040	56.790	96.5%	0.232	0.234	27.840
σ		0.180	0.339	0.018	0.006	1.216	1.625	3.3%	0.026	0.013	0.476
%RSD		2.735	4.605	6.487	2.172	2.131	2.862	3.4	11.110	5.612	1.708

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:29:05	25.660	26.560	99.7%
2	23:29:32	26.670	27.350	96.8%
3	23:29:59	26.110	27.190	91.3%
x		26.140	27.030	95.9%
σ		0.505	0.420	4.2%
%RSD		1.929	1.555	4.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	109.9%	0.073	1.141	1.039	30.450	38.380	T 1060.000	1057.000	1107.000	TM 63920.000
2	23:35:38	111.8%	0.088	1.509	1.154	25.800	40.000	T 1096.000	1087.000	1104.000	TM 64290.000
3	23:36:06	110.1%	0.087	1.124	1.110	23.590	37.060	T 1061.000	1059.000	1072.000	TM 60780.000
x		110.6%	0.082	1.258	1.101	26.610	38.480	T 1072.000	1067.000	1094.000	TM 62990.000
σ		1.0%	0.008	0.218	0.058	3.501	1.470	T 20.540	16.760	19.570	TM 1929.000
%RSD		0.9	9.671	17.330	5.245	13.160	3.820	T 1.916	1.570	1.788	TM 3.063

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	T 1212.000	T 290500.000	T 917.600	1886.000	1501.000	105.2%	M 574.900	62.460	57.600	7489.000
2	23:35:38	T 1190.000	T 297000.000	T 951.800	2032.000	1515.000	103.9%	M 563.600	62.170	58.540	8664.000
3	23:36:06	T 1163.000	T 278600.000	863.900	1792.000	1444.000	107.0%	M 551.400	58.690	55.820	7187.000
x		T 1188.000	T 288700.000	T 911.100	1903.000	1486.000	105.4%	M 563.300	61.110	57.320	7780.000
σ		T 24.790	T 9352.000	T 44.340	121.100	37.760	1.5%	M 11.780	2.098	1.381	780.300
%RSD		T 2.086	T 3.239	T 4.867	6.364	2.540	1.5	M 2.092	3.434	2.410	10.030

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	T 15540.000	30.110	T 15660.000	15420.000	3.804	18.490	18.350	1.153	1.827	15.720
2	23:35:38	T 15800.000	30.480	T 16010.000	15850.000	3.882	18.630	19.750	1.228	1.611	15.890
3	23:36:06	T 15080.000	29.190	T 15460.000	15050.000	3.699	18.050	18.940	1.139	1.824	15.420
x		T 15470.000	29.930	T 15710.000	15440.000	3.795	18.390	19.020	1.174	1.754	15.670
σ		T 362.800	0.664	T 277.000	401.000	0.092	0.300	0.701	0.048	0.124	0.238
%RSD		T 2.345	2.219	T 1.763	2.597	2.422	1.632	3.685	4.076	7.042	1.521

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	17.330	14.740	2.440	1.427	7.851	7.231	2.515	0.891	-0.260	19.700
2	23:35:38	16.580	15.000	3.332	1.683	7.432	8.036	7.566	2.172	3.011	19.780
3	23:36:06	17.000	14.520	2.791	1.209	8.392	7.629	6.154	1.795	3.970	19.570
x		16.970	14.750	2.854	1.440	7.892	7.632	5.411	1.619	2.240	19.680
σ		0.375	0.243	0.449	0.237	0.481	0.403	2.606	0.659	2.218	0.105
%RSD		2.210	1.646	15.740	16.480	6.099	5.278	48.160	40.670	99.000	0.531

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	110.6%	1.353	1.203	1.324	9.775	0.061	0.019	0.044	0.004	93.6%
2	23:35:38	110.8%	1.398	1.333	1.371	9.108	0.052	0.018	0.015	0.012	92.7%
3	23:36:06	114.8%	1.352	1.349	1.315	8.013	0.050	0.029	0.015	0.049	95.2%
x		112.1%	1.368	1.295	1.337	8.965	0.054	0.022	0.025	0.022	93.8%
σ		2.4%	0.026	0.080	0.030	0.890	0.006	0.006	0.016	0.024	1.2%
%RSD		2.1	1.919	6.163	2.235	9.927	10.490	29.350	66.930	110.900	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:11	6.176	6.597	0.234	0.223	42.260	41.560	91.4%	0.133	0.133	26.260
2	23:35:38	6.318	6.469	0.270	0.212	42.230	41.170	91.8%	0.128	0.140	26.150
3	23:36:06	5.952	6.687	0.228	0.254	40.920	40.580	95.3%	0.118	0.130	26.230
x		6.148	6.584	0.244	0.230	41.800	41.100	92.8%	0.126	0.134	26.210
σ		0.184	0.110	0.023	0.022	0.767	0.492	2.1%	0.008	0.005	0.056
%RSD		2.996	1.663	9.252	9.594	1.835	1.197	2.3	6.341	3.973	0.213

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:35:11	24.500	25.440	89.2%
2	23:35:38	24.570	25.190	88.1%
3	23:36:06	24.540	25.400	93.8%
x		24.540	25.340	90.4%
σ		0.037	0.138	3.0%
%RSD		0.150	0.544	3.3

CCV MW10994 04/30/2019 23:40:52 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	97.1%	298.300	308.100	294.900	59.090	T 64130.000	T 62030.000	T 62370.000	T 61700.000	316.100
2	23:41:45	97.5%	301.400	304.700	292.600	61.810	T 65440.000	T 62080.000	T 61630.000	T 61250.000	308.800
3	23:42:12	95.6%	309.200	300.900	290.500	53.620	T 65680.000	T 62380.000	T 62160.000	T 62410.000	298.500
x		96.7%	100.998%	101.528%	97.559%	58.170	T 108.471%	T 62170.000	T 62050.000	T 102.976%	102.600%
σ		1.0%	n/a	n/a	n/a	4.169	T n/a	T 190.900	T 383.500	T n/a	n/a
%RSD		1.0	1.856	1.185	0.753	7.167	T 1.277	T 0.307	T 0.618	T 0.950	2.868

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	T 3254.000	3153.000	T 64980.000	63250.000	T 65600.000	95.2%	319.700	321.100	301.400	716.600
2	23:41:45	T 3207.000	3155.000	T 66570.000	64780.000	T 65720.000	94.8%	314.100	316.200	302.500	2613.000
3	23:42:12	T 3217.000	2915.000	T 64700.000	63260.000	T 65120.000	97.4%	312.400	316.300	298.700	805.300
x		T 107.534%	3074.000	T 109.024%	63760.000	T 109.138%	95.8%	105.138%	105.958%	100.291%	1378.000
σ		T n/a	137.600	T n/a	881.400	T n/a	1.4%	n/a	n/a	n/a	1070.000
%RSD		T 0.766	4.476	T 1.543	1.382	T 0.484	1.5	1.218	0.889	0.654	77.660

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	T 64990.000	298.100	T 64860.000	T 62490.000	300.800	293.600	300.000	296.300	321.000	320.900
2	23:41:45	T 64210.000	293.900	T 64620.000	T 62790.000	296.900	294.600	301.600	297.700	321.400	319.200
3	23:42:12	T 64030.000	297.000	T 64740.000	T 62880.000	298.200	293.300	294.300	290.200	311.900	317.900
x		T 64410.000	98.774%	T 64740.000	T 104.533%	99.542%	97.947%	298.700	294.800	106.036%	106.451%
σ		T 506.500	n/a	T 115.300	T n/a	n/a	n/a	3.859	3.996	n/a	n/a
%RSD		T 0.786	0.732	T 0.178	T 0.332	0.664	0.228	1.292	1.356	1.700	0.464

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	291.600	296.500	288.600	322.100	1.104	0.538	1309.000	316.700	2.886	309.300
2	23:41:45	294.200	297.200	287.200	323.500	1.674	1.545	1317.000	317.100	-1.645	308.300
3	23:42:12	295.800	306.200	299.900	317.300	1.347	0.878	1311.000	311.500	-0.055	311.300
x		293.900	300.000	97.296%	320.900	1.375	0.987	1312.000	105.026%	0.396	103.220%
σ		2.089	5.392	n/a	3.253	0.286	0.512	4.364	n/a	2.299	n/a
%RSD		0.711	1.798	2.389	1.013	20.810	51.910	0.333	0.996	581.100	0.498

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	87.1%	325.600	325.200	327.000	309.700	305.700	305.600	303.900	304.700	82.5%
2	23:41:45	86.7%	322.600	321.000	325.200	315.600	304.000	303.300	307.500	303.700	82.6%
3	23:42:12	91.0%	328.500	328.600	326.800	309.200	302.500	305.900	311.000	307.000	87.6%
x		88.3%	108.516%	108.307%	326.300	311.500	101.355%	304.900	307.500	101.713%	84.2%
σ		2.4%	n/a	n/a	0.974	3.568	n/a	1.452	3.533	n/a	2.9%
%RSD		2.7	0.909	1.176	0.298	1.146	0.512	0.476	1.149	0.563	3.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:41:18	317.600	314.200	315.300	313.100	315.300	319.100	83.2%	306.600	311.900	300.200
2	23:41:45	316.700	318.100	312.000	314.000	316.300	317.500	83.4%	308.300	314.800	305.200
3	23:42:12	319.200	318.300	320.300	318.400	317.200	314.700	88.6%	309.300	314.300	306.200
x		105.938%	105.617%	315.900	105.058%	105.427%	105.712%	85.0%	308.100	104.546%	101.290%
σ		n/a	n/a	4.199	n/a	n/a	n/a	3.0%	1.367	n/a	n/a
%RSD		0.399	0.726	1.329	0.901	0.309	0.704	3.6	0.444	0.497	1.047

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:41:18	301.400	303.200	78.0%
2	23:41:45	304.700	307.500	79.8%
3	23:42:12	305.000	308.500	85.3%
x		101.238%	102.126%	81.0%
σ		n/a	n/a	3.8%
%RSD		0.672	0.923	4.7

CCB IM9390-01 04/30/2019 23:46:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	102.4%	0.043	1.062	0.671	20.750	9.784	7.188	7.254	7.826	2.017
2	23:47:54	T 115.4%	0.022	0.725	0.675	31.550	7.418	6.302	6.124	5.927	1.668
3	23:48:20	103.1%	0.059	0.779	0.349	22.980	5.169	4.951	4.932	5.086	1.252
x		T 107.0%	0.041	0.855	0.565	25.090	7.457	6.147	6.103	6.280	1.646
σ		T 7.3%	0.019	0.181	0.187	5.704	2.308	1.127	1.161	1.404	0.383
%RSD		T 6.8	45.030	21.130	33.140	22.730	30.950	18.330	19.020	22.350	23.290

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	15.060	2013.000	16.890	8.690	7.827	98.8%	-0.031	0.032	0.078	80.890
2	23:47:54	13.110	1971.000	13.980	5.408	6.245	100.3%	-0.044	0.058	0.090	41.600
3	23:48:20	14.520	1901.000	11.780	4.176	5.878	100.0%	-0.008	0.068	0.076	38.240
x		14.230	1961.000	14.220	6.091	6.650	99.7%	-0.028	0.053	0.081	53.580
σ		1.006	56.590	2.567	2.333	1.036	0.8%	0.018	0.018	0.008	23.720
%RSD		7.070	2.885	18.060	38.300	15.580	0.8	66.060	34.920	9.546	44.270

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	10.700	0.064	15.620	-8.554	0.044	0.024	0.078	0.033	0.031	-0.008
2	23:47:54	6.986	0.057	13.700	-15.120	0.029	0.035	-0.094	0.021	0.028	0.008
3	23:48:20	5.910	0.056	10.200	-14.230	0.038	0.017	-0.633	0.001	0.029	0.051
x		7.867	0.059	13.170	-12.630	0.037	0.025	-0.216	0.018	0.029	0.017
σ		2.515	0.004	2.750	3.562	0.008	0.009	0.371	0.016	0.002	0.031
%RSD		31.980	7.584	20.880	28.190	21.100	34.200	171.400	88.760	5.762	182.800

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	-0.033	0.011	0.060	0.282	0.007	0.942	-0.452	-0.075	-0.161	0.037
2	23:47:54	0.013	0.120	-0.033	0.109	0.330	0.988	1.056	0.310	-1.361	0.026
3	23:48:20	0.011	0.079	0.061	0.181	0.010	-0.258	0.201	0.100	0.013	0.026
x		-0.003	0.070	0.029	0.191	0.116	0.558	0.269	0.112	-0.503	0.029
σ		0.026	0.055	0.054	0.087	0.185	0.707	0.756	0.192	0.748	0.006
%RSD		819.700	78.470	185.100	45.560	160.300	126.700	281.700	172.300	148.700	21.690

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	92.4%	0.088	0.081	0.072	-0.011	0.033	0.041	0.039	0.039	91.4%
2	23:47:54	93.4%	0.084	0.085	0.080	0.812	0.033	0.034	0.039	0.033	92.0%
3	23:48:20	96.4%	0.052	0.063	0.058	-1.150	0.025	0.032	0.005	0.018	93.1%
x		94.1%	0.075	0.076	0.070	-0.116	0.030	0.036	0.028	0.030	92.2%
σ		2.1%	0.020	0.012	0.011	0.986	0.005	0.005	0.019	0.011	0.9%
%RSD		2.2	26.230	15.480	15.950	846.900	15.790	13.510	69.850	37.000	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:27	0.054	0.095	0.152	0.179	0.001	0.094	87.1%	0.036	0.023	0.045
2	23:47:54	0.050	0.076	0.129	0.157	0.043	0.034	89.4%	0.014	0.027	0.012
3	23:48:20	0.051	0.097	0.124	0.130	0.030	0.033	90.9%	0.009	0.012	0.050
x		0.052	0.090	0.135	0.155	0.024	0.054	89.1%	0.020	0.020	0.036
σ		0.002	0.012	0.015	0.024	0.022	0.035	1.9%	0.014	0.008	0.021
%RSD		4.792	13.170	10.900	15.700	88.810	64.340	2.2	70.600	38.940	58.820

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:47:27	0.010	0.041	87.2%
2	23:47:54	0.034	0.027	89.6%
3	23:48:20	0.014	0.028	91.6%
x		0.019	0.032	89.5%
σ		0.013	0.008	2.2%
%RSD		66.960	24.600	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	107.7%	0.045	0.551	0.284	72.340	12.670	147.500	143.800	146.900	T 5864.000
2	23:54:01	108.2%	0.019	0.390	0.192	73.840	12.450	148.900	147.800	144.300	T 5743.000
3	23:54:28	110.5%	0.042	0.129	0.079	70.750	13.140	144.400	140.800	143.800	T 5709.000
x		108.8%	0.035	0.356	0.185	72.310	12.750	146.900	144.100	145.000	T 5772.000
σ		1.5%	0.014	0.213	0.103	1.546	0.356	2.293	3.495	1.657	T 81.450
%RSD		1.4	39.930	59.780	55.520	2.138	2.789	1.561	2.425	1.143	T 1.411

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	T 821.000	T 338300.000	132.400	239.100	213.000	101.3%	291.800	6.069	9.394	7252.000
2	23:54:01	T 803.600	T 341400.000	130.800	259.800	215.500	101.9%	285.800	4.981	9.420	7895.000
3	23:54:28	T 827.700	T 347300.000	134.300	268.100	220.100	101.1%	283.400	4.498	9.568	8999.000
x		T 817.400	T 342300.000	132.500	255.700	216.200	101.4%	287.000	5.183	9.461	8049.000
σ		T 12.430	T 4567.000	1.724	14.920	3.594	0.4%	4.325	0.805	0.094	883.300
%RSD		T 1.521	T 1.334	1.302	5.835	1.662	0.4	1.507	15.530	0.989	10.970

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	1167.000	14.190	T 1228.000	1106.000	0.374	1.883	2.152	0.095	0.277	1.915
2	23:54:01	1184.000	14.050	T 1186.000	1093.000	0.382	1.881	2.436	0.043	0.411	1.961
3	23:54:28	1144.000	13.700	T 1188.000	1101.000	0.392	2.083	2.720	0.075	0.304	1.828
x		1165.000	13.980	T 1201.000	1100.000	0.382	1.949	2.436	0.071	0.331	1.901
σ		20.070	0.253	T 23.400	6.515	0.009	0.116	0.284	0.026	0.071	0.067
%RSD		1.723	1.812	T 1.949	0.592	2.355	5.944	11.650	37.280	21.530	3.531

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	2.475	1.961	0.131	0.192	4.997	5.822	0.409	0.292	-3.298	7.949
2	23:54:01	1.742	2.009	-0.219	0.056	6.192	5.173	-0.231	0.059	0.977	8.118
3	23:54:28	2.371	2.134	-0.098	-0.217	5.258	4.732	-1.976	-0.336	-0.918	7.984
x		2.196	2.034	-0.062	0.010	5.483	5.242	-0.599	0.005	-1.080	8.017
σ		0.397	0.089	0.178	0.209	0.628	0.548	1.234	0.318	2.142	0.089
%RSD		18.070	4.393	287.100	1992.000	11.460	10.460	206.000	6001.000	198.400	1.111

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	103.5%	0.301	0.341	0.292	0.259	0.021	0.020	0.024	0.026	94.7%
2	23:54:01	103.8%	0.258	0.292	0.266	0.212	0.023	0.019	0.017	0.012	93.0%
3	23:54:28	101.1%	0.223	0.182	0.242	0.389	0.010	0.010	0.009	-0.001	91.3%
x		102.8%	0.261	0.272	0.267	0.287	0.018	0.016	0.017	0.012	93.0%
σ		1.5%	0.039	0.081	0.025	0.092	0.007	0.005	0.008	0.014	1.7%
%RSD		1.4	14.950	29.950	9.365	32.010	39.810	31.930	46.680	110.700	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:53:34	4.973	6.355	0.291	0.297	7.095	7.458	94.6%	0.008	0.012	7.978
2	23:54:01	4.948	6.386	0.321	0.257	7.265	7.454	93.0%	0.000	0.009	7.875
3	23:54:28	4.931	6.465	0.239	0.314	7.450	6.968	91.6%	0.009	0.010	7.846
x		4.951	6.402	0.284	0.290	7.270	7.293	93.0%	0.006	0.010	7.900
σ		0.021	0.057	0.042	0.029	0.178	0.282	1.5%	0.005	0.002	0.069
%RSD		0.426	0.887	14.770	10.110	2.447	3.867	1.6	83.830	18.270	0.874

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:53:34	7.361	7.689	91.7%
2	23:54:01	7.208	7.643	91.8%
3	23:54:28	7.258	7.616	89.4%
x		7.276	7.650	91.0%
σ		0.078	0.037	1.4%
%RSD		1.071	0.479	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	105.7%	0.048	0.442	0.033	46.860	11.720	202.900	202.400	203.100	TM 9102.000
2	00:00:06	109.9%	0.028	0.148	0.116	59.520	11.210	198.000	197.700	199.800	TM 8818.000
3	00:00:33	104.6%	0.053	0.712	0.119	67.790	11.170	201.900	194.300	197.700	TM 8702.000
x		106.8%	0.043	0.434	0.089	58.060	11.370	200.900	198.100	200.200	TM 8874.000
σ		2.8%	0.014	0.282	0.049	10.540	0.311	2.597	4.060	2.716	TM 206.000
%RSD		2.6	31.460	65.020	54.600	18.160	2.734	1.293	2.050	1.357	TM 2.321

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	T 994.400	T 311900.000	171.300	374.600	315.000	101.0%	271.100	7.282	12.270	7210.000
2	00:00:06	T 952.800	T 306800.000	168.400	336.300	313.200	102.0%	268.900	6.989	11.690	6805.000
3	00:00:33	T 957.800	T 309600.000	169.900	368.800	318.500	101.8%	T 193.200	7.045	11.870	6896.000
x		T 968.300	T 309500.000	169.900	359.900	315.600	101.6%	T 244.400	7.105	11.950	6970.000
σ		T 22.730	T 2556.000	1.466	20.610	2.665	0.5%	T 44.330	0.155	0.298	212.200
%RSD		T 2.347	T 0.826	0.863	5.728	0.845	0.5	T 18.140	2.182	2.496	3.044

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	1858.000	13.280	T 1857.000	1758.000	0.517	2.979	3.360	0.361	0.607	3.022
2	00:00:06	1856.000	13.350	T 1842.000	1764.000	0.547	2.751	2.969	0.361	0.709	3.049
3	00:00:33	1843.000	13.170	T 1830.000	1773.000	0.566	2.816	2.367	0.464	0.697	2.619
x		1852.000	13.270	T 1843.000	1765.000	0.543	2.849	2.899	0.395	0.671	2.897
σ		7.970	0.095	T 13.610	7.845	0.025	0.117	0.500	0.060	0.056	0.241
%RSD		0.430	0.715	T 0.738	0.445	4.529	4.109	17.250	15.160	8.317	8.316

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	3.284	2.831	0.689	0.064	4.409	4.362	-0.929	-0.122	0.655	8.936
2	00:00:06	2.229	2.758	0.472	0.269	4.395	4.548	-0.270	0.118	-1.494	8.877
3	00:00:33	2.909	2.814	0.080	0.261	4.841	5.337	-0.688	0.011	-2.103	8.868
x		2.807	2.801	0.414	0.198	4.548	4.749	-0.629	0.002	-0.981	8.894
σ		0.534	0.038	0.308	0.116	0.253	0.518	0.334	0.120	1.449	0.037
%RSD		19.040	1.354	74.550	58.720	5.572	10.900	53.090	5311.000	147.800	0.411

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	105.8%	0.271	0.206	0.265	0.786	0.012	0.014	0.012	0.012	95.5%
2	00:00:06	108.6%	0.218	0.204	0.281	1.135	0.018	0.003	0.004	-0.016	96.3%
3	00:00:33	109.1%	0.265	0.293	0.234	1.759	0.005	0.014	-0.004	0.028	97.8%
x		107.8%	0.251	0.235	0.260	1.227	0.012	0.010	0.004	0.008	96.5%
σ		1.8%	0.029	0.051	0.024	0.493	0.006	0.006	0.008	0.022	1.2%
%RSD		1.7	11.650	21.600	9.125	40.170	53.780	58.170	190.900	274.100	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:59:39	4.785	5.881	0.168	0.154	9.959	9.555	95.9%	0.017	0.008	8.668
2	00:00:06	4.844	5.803	0.142	0.190	9.965	9.576	96.6%	0.013	0.021	8.383
3	00:00:33	4.793	5.853	0.153	0.171	9.315	9.645	98.2%	0.011	0.019	8.508
x		4.807	5.846	0.154	0.172	9.746	9.592	96.9%	0.014	0.016	8.520
σ		0.032	0.040	0.013	0.018	0.374	0.047	1.2%	0.003	0.007	0.143
%RSD		0.668	0.681	8.401	10.720	3.835	0.487	1.2	22.460	41.260	1.675

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	23:59:39	7.934	8.265	96.0%
2	00:00:06	7.541	8.080	96.4%
3	00:00:33	7.722	8.119	97.9%
x		7.732	8.155	96.8%
σ		0.197	0.098	1.0%
%RSD		2.544	1.196	1.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	104.2%	0.086	0.991	0.323	177.500	14.700	T 690.200	684.400	696.700	TM 15480.000
2	00:06:11	106.4%	0.072	0.549	0.401	174.500	14.690	T 688.500	690.100	679.800	TM 15360.000
3	00:06:39	T 117.2%	0.074	0.402	0.371	155.300	15.780	T 681.800	667.000	677.600	TM 15720.000
x		T 109.3%	0.077	0.647	0.365	169.100	15.060	T 686.900	680.500	684.700	TM 15520.000
σ		T 6.9%	0.008	0.306	0.040	12.060	0.628	T 4.436	12.010	10.440	TM 186.200
%RSD		T 6.3	10.330	47.340	10.890	7.129	4.167	T 0.646	1.765	1.525	TM 1.200

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	T 989.100	T 301800.000	149.800	7960.000	7621.000	101.5%	282.100	13.640	149.800	7642.000
2	00:06:11	T 941.500	T 301500.000	146.900	7967.000	7507.000	102.8%	278.900	14.850	149.200	6879.000
3	00:06:39	T 877.400	T 308000.000	150.700	7906.000	7477.000	101.4%	277.900	12.000	144.900	9441.000
x		T 936.000	T 303800.000	149.100	7944.000	7535.000	101.9%	279.600	13.500	148.000	7987.000
σ		T 56.040	T 3686.000	1.990	33.870	76.400	0.8%	2.237	1.432	2.705	1316.000
%RSD		T 5.987	T 1.213	1.335	0.426	1.014	0.8	0.800	10.610	1.828	16.470

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	4483.000	T 431.700	T 4374.000	4349.000	0.537	4.215	4.412	16.930	18.810	10.640
2	00:06:11	4492.000	T 428.900	T 4426.000	4354.000	0.562	3.977	3.863	17.320	18.160	10.580
3	00:06:39	4395.000	T 422.600	T 4338.000	4245.000	0.523	4.199	4.397	16.440	18.810	10.360
x		4457.000	T 427.700	T 4379.000	4316.000	0.540	4.130	4.224	16.900	18.590	10.530
σ		53.400	T 4.674	T 44.620	61.730	0.020	0.133	0.313	0.445	0.377	0.151
%RSD		1.198	T 1.093	T 1.019	1.430	3.638	3.225	7.404	2.634	2.026	1.432

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	11.340	10.380	15.020	1.091	7.444	7.256	3.189	0.953	0.189	16.220
2	00:06:11	10.950	10.380	14.480	0.595	7.597	8.136	2.090	0.738	-1.252	16.350
3	00:06:39	10.300	10.140	14.500	1.322	7.588	9.272	-0.854	-0.064	0.678	16.150
x		10.860	10.300	14.670	1.003	7.543	8.221	1.475	0.542	-0.128	16.240
σ		0.526	0.142	0.309	0.372	0.086	1.011	2.090	0.536	1.003	0.100
%RSD		4.843	1.380	2.105	37.060	1.139	12.290	141.700	98.780	781.400	0.615

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	110.1%	0.866	0.893	0.876	3.596	33.430	33.560	0.044	0.062	97.0%
2	00:06:11	111.7%	0.854	0.804	0.947	3.583	32.970	33.220	0.032	0.040	97.0%
3	00:06:39	108.5%	0.933	0.903	0.910	3.379	32.900	33.230	0.025	0.042	94.0%
x		110.1%	0.885	0.867	0.911	3.519	33.100	33.340	0.034	0.048	96.0%
σ		1.6%	0.043	0.054	0.035	0.122	0.289	0.195	0.010	0.012	1.7%
%RSD		1.4	4.814	6.251	3.873	3.459	0.874	0.586	28.210	25.410	1.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:05:44	5.293	5.821	0.167	0.191	19.710	20.330	98.0%	0.033	0.026	14.830
2	00:06:11	5.102	5.950	0.184	0.197	19.990	20.540	96.9%	0.028	0.024	15.110
3	00:06:39	4.911	5.800	0.206	0.199	19.940	19.860	94.7%	0.025	0.020	14.940
x		5.102	5.857	0.186	0.196	19.880	20.250	96.5%	0.029	0.024	14.960
σ		0.191	0.081	0.020	0.004	0.149	0.347	1.7%	0.004	0.003	0.142
%RSD		3.743	1.390	10.570	2.263	0.752	1.713	1.7	13.370	13.240	0.951

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:05:44	13.960	14.610	98.0%
2	00:06:11	13.820	14.430	97.0%
3	00:06:39	14.040	14.500	93.8%
x		13.940	14.510	96.3%
σ		0.112	0.093	2.2%
%RSD		0.800	0.638	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	112.6%	0.048	-0.103	-0.322	82.010	11.970	286.600	287.100	289.700	TM 12990.000
2	00:12:19	110.3%	0.033	-0.036	-0.307	92.550	11.400	279.100	274.200	282.300	TM 12410.000
3	00:12:46	105.6%	0.042	-0.063	-0.353	91.810	9.940	280.000	267.800	274.800	TM 12260.000
x		109.5%	0.041	-0.067	-0.327	88.790	11.100	281.900	276.400	282.300	TM 12550.000
σ		3.6%	0.008	0.034	0.024	5.883	1.048	4.117	9.852	7.417	TM 382.200
%RSD		3.2	18.440	50.740	7.198	6.626	9.441	1.460	3.565	2.628	TM 3.045

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	T 912.600	T 321000.000	182.100	1207.000	1030.000	100.1%	401.500	11.730	84.680	9357.000
2	00:12:19	T 894.100	T 307800.000	172.500	1131.000	1020.000	101.4%	395.400	12.470	80.640	8126.000
3	00:12:46	T 956.900	T 301300.000	163.700	1131.000	983.000	102.4%	T 400.800	11.380	81.750	7865.000
x		T 921.200	T 310000.000	172.800	1156.000	1011.000	101.3%	T 399.200	11.860	82.360	8450.000
σ		T 32.260	T 10030.000	9.204	44.020	24.920	1.2%	T 3.348	0.556	2.088	797.000
%RSD		T 3.503	T 3.235	5.327	3.807	2.464	1.2	T 0.839	4.691	2.535	9.432

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	2352.000	26.990	T 2347.000	2238.000	0.721	5.121	5.883	0.526	1.004	4.132
2	00:12:19	2278.000	26.410	T 2273.000	2159.000	0.617	4.881	6.263	0.540	0.986	3.759
3	00:12:46	2252.000	26.040	T 2222.000	2111.000	0.633	4.811	5.137	0.478	0.802	4.057
x		2294.000	26.480	T 2281.000	2169.000	0.657	4.938	5.761	0.515	0.930	3.983
σ		52.190	0.479	T 62.950	64.050	0.056	0.163	0.573	0.032	0.111	0.197
%RSD		2.275	1.809	T 2.760	2.953	8.478	3.291	9.942	6.273	11.970	4.949

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	4.827	3.987	1.230	1.077	6.655	6.392	-0.531	0.092	-0.562	7.757
2	00:12:19	4.871	3.695	1.139	0.263	5.940	5.913	0.985	0.528	-0.652	7.439
3	00:12:46	4.457	3.528	1.692	0.933	5.509	6.133	1.468	0.639	-2.307	7.484
x		4.718	3.737	1.354	0.758	6.035	6.146	0.640	0.420	-1.174	7.560
σ		0.227	0.232	0.297	0.435	0.579	0.240	1.043	0.289	0.983	0.172
%RSD		4.817	6.218	21.920	57.370	9.594	3.902	162.900	68.950	83.720	2.276

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	106.1%	0.403	0.323	0.316	3.262	0.016	0.019	0.029	0.013	89.8%
2	00:12:19	107.6%	0.412	0.318	0.363	2.782	0.014	0.006	0.008	-0.017	89.5%
3	00:12:46	109.2%	0.313	0.321	0.359	1.778	0.013	0.007	0.008	-0.002	93.7%
x		107.6%	0.376	0.321	0.346	2.607	0.014	0.011	0.015	-0.002	91.0%
σ		1.6%	0.055	0.002	0.026	0.757	0.001	0.008	0.012	0.015	2.3%
%RSD		1.4	14.560	0.758	7.475	29.030	9.716	69.030	81.520	684.500	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:11:51	5.788	6.465	0.142	0.132	12.320	12.200	90.5%	0.030	0.028	11.410
2	00:12:19	5.469	6.385	0.150	0.110	11.950	11.780	90.0%	0.041	0.038	11.050
3	00:12:46	5.328	6.387	0.125	0.138	11.970	11.620	94.6%	0.044	0.028	11.100
x		5.528	6.412	0.139	0.127	12.080	11.860	91.7%	0.038	0.031	11.190
σ		0.236	0.046	0.013	0.015	0.209	0.300	2.5%	0.007	0.006	0.193
%RSD		4.262	0.715	9.444	11.850	1.733	2.527	2.7	18.410	19.480	1.728

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:11:51	10.510	10.990	86.9%
2	00:12:19	10.370	10.880	87.9%
3	00:12:46	10.560	10.900	92.7%
x		10.480	10.920	89.2%
σ		0.101	0.060	3.1%
%RSD		0.968	0.553	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	105.1%	0.047	0.213	-0.245	61.400	8.920	204.600	205.700	204.500	TM 9155.000
2	00:18:26	109.1%	0.006	-0.333	-0.352	63.470	10.570	201.300	203.900	200.500	TM 9117.000
3	00:18:54	105.2%	0.025	-0.370	-0.448	67.520	8.666	201.700	197.500	200.000	TM 8827.000
x		106.5%	0.026	-0.163	-0.348	64.130	9.387	202.500	202.400	201.700	TM 9033.000
σ		2.3%	0.020	0.326	0.102	3.111	1.036	1.800	4.318	2.416	TM 179.300
%RSD		2.2	77.530	199.600	29.200	4.851	11.040	0.889	2.134	1.198	TM 1.985

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	T 834.100	T 307400.000	137.000	1001.000	903.200	100.2%	378.800	13.890	16.880	7126.000
2	00:18:26	T 749.600	T 318200.000	T 156.500	1065.000	935.000	100.2%	375.600	13.100	16.730	8042.000
3	00:18:54	T 809.100	T 295100.000	132.600	1008.000	898.900	102.8%	370.400	13.100	16.040	7161.000
x		T 797.600	T 306900.000	T 142.000	1025.000	912.300	101.1%	374.900	13.360	16.550	7443.000
σ		T 43.390	T 11560.000	T 12.750	35.020	19.720	1.5%	4.237	0.458	0.451	518.900
%RSD		T 5.441	T 3.765	T 8.979	3.417	2.161	1.5	1.130	3.426	2.726	6.971

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	2319.000	25.450	T 2384.000	2284.000	0.490	3.705	4.235	0.320	0.630	3.029
2	00:18:26	2368.000	25.470	T 2358.000	2257.000	0.473	3.662	4.841	0.246	0.657	3.076
3	00:18:54	2350.000	24.910	T 2309.000	2208.000	0.465	3.773	3.751	0.367	0.613	2.946
x		2346.000	25.280	T 2350.000	2250.000	0.476	3.713	4.275	0.311	0.634	3.017
σ		24.770	0.321	T 38.470	38.350	0.013	0.056	0.546	0.061	0.022	0.066
%RSD		1.056	1.271	T 1.637	1.704	2.697	1.503	12.770	19.610	3.474	2.183

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	3.571	2.770	0.689	0.692	5.989	6.290	-0.693	0.024	1.016	6.045
2	00:18:26	3.265	3.104	-0.077	0.634	6.863	6.471	0.667	0.444	-0.377	6.098
3	00:18:54	3.336	3.106	0.853	0.599	6.184	6.326	1.311	0.544	2.570	5.896
x		3.391	2.993	0.489	0.642	6.346	6.362	0.429	0.337	1.070	6.013
σ		0.160	0.193	0.497	0.047	0.459	0.095	1.023	0.275	1.474	0.105
%RSD		4.730	6.461	101.700	7.373	7.232	1.499	238.700	81.690	137.800	1.749

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	109.6%	0.328	0.259	0.282	1.296	-0.000	0.005	0.017	-0.016	91.0%
2	00:18:26	106.4%	0.293	0.276	0.274	2.660	0.007	0.011	0.005	0.067	88.0%
3	00:18:54	111.8%	0.293	0.289	0.300	1.945	0.016	0.008	0.000	0.021	91.7%
x		109.2%	0.305	0.275	0.285	1.967	0.007	0.008	0.007	0.024	90.2%
σ		2.7%	0.020	0.015	0.014	0.682	0.008	0.003	0.009	0.042	2.0%
%RSD		2.5	6.596	5.515	4.756	34.690	111.700	39.080	120.800	172.800	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:17:59	5.313	5.835	0.101	0.124	11.050	10.830	90.9%	0.032	0.042	8.792
2	00:18:26	5.190	5.797	0.113	0.133	10.610	11.230	88.1%	0.049	0.023	8.471
3	00:18:54	5.119	5.551	0.123	0.100	10.250	10.290	91.5%	0.036	0.041	8.553
x		5.207	5.727	0.113	0.119	10.640	10.780	90.1%	0.039	0.035	8.605
σ		0.098	0.154	0.011	0.017	0.398	0.475	1.8%	0.009	0.011	0.167
%RSD		1.878	2.695	9.844	14.200	3.743	4.404	2.0	21.750	30.640	1.936

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:17:59	7.922	8.495	87.6%
2	00:18:26	8.051	8.377	84.3%
3	00:18:54	7.797	8.331	88.1%
x		7.923	8.401	86.7%
σ		0.127	0.084	2.1%
%RSD		1.601	1.004	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	104.1%	0.054	-0.177	-0.399	74.300	10.390	208.800	198.800	205.200	TM 8112.000
2	00:24:34	108.0%	0.043	-0.381	-0.438	67.830	10.290	199.000	193.700	198.300	TM 7863.000
3	00:25:01	107.2%	0.027	-0.089	-0.379	76.200	11.950	202.000	197.600	200.400	TM 8066.000
x		106.4%	0.041	-0.216	-0.405	72.780	10.870	203.300	196.700	201.300	TM 8014.000
σ		2.1%	0.013	0.149	0.030	4.387	0.932	5.012	2.684	3.550	TM 132.500
%RSD		1.9	32.160	69.340	7.419	6.028	8.575	2.466	1.365	1.764	TM 1.654
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	T 750.200	T 294200.000	142.100	949.400	903.200	100.1%	339.000	13.080	27.320	6901.000
2	00:24:34	T 708.200	T 287900.000	139.100	1021.000	881.500	102.8%	338.600	13.390	26.800	7001.000
3	00:25:01	T 707.300	T 302700.000	152.200	979.500	884.700	98.4%	341.000	12.260	26.900	8267.000
x		T 721.900	T 294900.000	144.500	983.200	889.800	100.4%	339.500	12.910	27.010	7389.000
σ		T 24.540	T 7428.000	6.845	35.790	11.700	2.2%	1.329	0.583	0.274	761.300
%RSD		T 3.399	T 2.518	4.738	3.640	1.315	2.2	0.392	4.512	1.016	10.300
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	2596.000	23.540	T 2576.000	2456.000	0.521	3.433	4.008	0.426	0.769	3.486
2	00:24:34	2513.000	22.970	T 2524.000	2425.000	0.444	3.618	3.696	0.416	0.755	3.320
3	00:25:01	2591.000	23.320	T 2551.000	2466.000	0.542	3.624	4.735	0.414	0.814	3.555
x		2567.000	23.280	T 2551.000	2449.000	0.502	3.558	4.146	0.419	0.779	3.454
σ		46.560	0.290	T 26.090	21.320	0.052	0.108	0.533	0.006	0.031	0.121
%RSD		1.814	1.247	T 1.023	0.871	10.290	3.048	12.850	1.488	3.938	3.503
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	3.361	3.291	0.796	0.616	5.481	6.355	1.516	0.632	-0.121	6.269
2	00:24:34	4.339	3.444	0.409	0.189	5.647	6.073	-2.243	-0.329	-1.482	6.162
3	00:25:01	4.057	3.236	0.632	-0.335	5.191	5.674	0.651	0.336	1.601	6.220
x		3.919	3.324	0.612	0.157	5.440	6.034	-0.025	0.213	-0.001	6.217
σ		0.503	0.108	0.195	0.476	0.231	0.342	1.969	0.492	1.545	0.053
%RSD		12.840	3.248	31.770	304.400	4.247	5.673	7821.000	231.000	198500.000	0.859
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	109.0%	0.178	0.212	0.240	2.147	0.001	0.006	0.009	0.019	91.3%
2	00:24:34	108.2%	0.238	0.197	0.248	1.645	0.008	0.008	0.033	0.021	90.9%
3	00:25:01	107.1%	0.197	0.233	0.250	2.177	0.020	0.006	0.005	0.051	90.8%
x		108.1%	0.204	0.214	0.246	1.989	0.010	0.006	0.016	0.030	91.0%
σ		0.9%	0.031	0.018	0.005	0.299	0.010	0.001	0.016	0.018	0.2%
%RSD		0.9	14.960	8.379	2.151	15.030	103.600	17.790	100.800	57.910	0.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:06	5.196	5.830	0.066	0.098	10.000	10.160	92.0%	0.030	0.034	8.395
2	00:24:34	5.383	5.649	0.085	0.101	10.070	10.490	91.1%	0.024	0.039	8.467
3	00:25:01	5.154	5.620	0.087	0.071	10.320	10.080	90.5%	0.028	0.036	8.534
x		5.244	5.700	0.079	0.090	10.130	10.240	91.2%	0.027	0.037	8.465
σ		0.122	0.114	0.011	0.016	0.168	0.217	0.8%	0.003	0.003	0.070
%RSD		2.330	2.001	14.210	18.360	1.654	2.117	0.8	11.690	7.596	0.824
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	00:24:06	7.532	8.113	90.1%							
2	00:24:34	7.663	8.245	90.0%							
3	00:25:01	7.555	8.223	89.5%							
x		7.583	8.194	89.9%							
σ		0.070	0.071	0.3%							
%RSD		0.926	0.867	0.4							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	107.0%	0.056	1.263	0.721	42.930	30.950	T 1010.000	1024.000	1067.000	TM 58560.000
2	00:30:40	109.9%	0.088	0.848	0.753	45.540	30.770	T 998.400	1004.000	1038.000	TM 56810.000
3	00:31:07	110.9%	0.077	0.829	0.749	46.220	30.640	T 996.800	995.500	1008.000	TM 55510.000
x		109.3%	0.074	0.980	0.741	44.900	30.790	T 1002.000	1008.000	1038.000	TM 56960.000
σ		2.0%	0.016	0.245	0.017	1.738	0.152	T 7.071	14.840	29.210	TM 1529.000
%RSD		1.9	21.710	25.030	2.351	3.872	0.492	T 0.706	1.472	2.815	TM 2.684

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	T 1332.000	T 306800.000	T 868.300	1437.000	1041.000	101.7%	M 644.400	65.050	41.290	8214.000
2	00:30:40	T 1302.000	T 300300.000	T 855.000	1424.000	1018.000	102.7%	M 638.200	61.470	40.190	8566.000
3	00:31:07	T 1264.000	T 299800.000	847.400	1384.000	1005.000	104.3%	M 629.500	62.880	39.260	7920.000
x		T 1300.000	T 302300.000	T 856.900	1415.000	1021.000	102.9%	M 637.400	63.130	40.240	8233.000
σ		T 34.120	T 3929.000	T 10.590	28.040	18.540	1.3%	M 7.489	1.803	1.015	323.500
%RSD		T 2.625	T 1.300	T 1.236	1.982	1.816	1.2	M 1.175	2.856	2.522	3.929

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	T 17920.000	35.970	T 18310.000	T 17630.000	3.207	18.590	19.950	1.115	1.634	18.260
2	00:30:40	T 17750.000	36.140	T 18010.000	18010.000	3.089	18.750	20.040	1.221	1.835	17.960
3	00:31:07	T 17770.000	35.800	T 18020.000	T 17340.000	3.179	18.090	18.700	1.190	1.941	18.250
x		T 17810.000	35.970	T 18110.000	T 17660.000	3.158	18.480	19.560	1.175	1.803	18.160
σ		T 96.530	0.168	T 173.000	T 337.000	0.062	0.345	0.747	0.054	0.156	0.174
%RSD		T 0.542	0.466	T 0.955	T 1.908	1.962	1.869	3.817	4.635	8.657	0.957

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	19.330	18.060	5.904	1.800	6.799	7.933	6.041	1.815	-0.725	18.800
2	00:30:40	20.680	16.920	5.877	1.475	7.961	7.336	6.470	1.846	0.936	18.790
3	00:31:07	19.130	17.350	5.768	1.571	8.515	7.012	3.722	1.072	4.018	18.690
x		19.720	17.440	5.850	1.615	7.758	7.427	5.411	1.578	1.410	18.760
σ		0.845	0.574	0.072	0.167	0.876	0.467	1.478	0.438	2.407	0.063
%RSD		4.287	3.288	1.234	10.330	11.290	6.294	27.320	27.760	170.700	0.337

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	108.9%	1.319	1.300	1.309	8.356	0.047	0.025	0.032	0.011	92.6%
2	00:30:40	110.4%	1.272	1.238	1.355	8.380	0.047	0.025	0.015	0.020	94.9%
3	00:31:07	110.2%	1.265	1.191	1.282	8.894	0.059	0.015	0.027	0.019	94.2%
x		109.9%	1.285	1.243	1.316	8.543	0.051	0.022	0.025	0.017	93.9%
σ		0.8%	0.029	0.054	0.037	0.304	0.007	0.006	0.009	0.005	1.2%
%RSD		0.7	2.288	4.377	2.810	3.562	13.500	27.760	35.560	31.300	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:13	7.317	8.241	0.154	0.167	46.660	46.330	93.1%	0.151	0.178	25.290
2	00:30:40	7.140	8.117	0.136	0.155	46.530	46.180	93.4%	0.168	0.178	25.580
3	00:31:07	7.172	8.244	0.148	0.183	46.050	45.600	95.0%	0.185	0.189	25.670
x		7.210	8.200	0.146	0.168	46.410	46.040	93.8%	0.168	0.182	25.510
σ		0.094	0.072	0.009	0.014	0.319	0.386	1.0%	0.017	0.006	0.197
%RSD		1.310	0.881	6.208	8.457	0.688	0.838	1.1	10.230	3.416	0.773

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:30:13	23.750	24.600	92.2%
2	00:30:40	23.520	24.680	93.2%
3	00:31:07	23.880	24.690	95.4%
x		23.720	24.660	93.6%
σ		0.184	0.050	1.6%
%RSD		0.775	0.203	1.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	103.2%	0.046	-0.036	-0.167	47.270	17.150	392.200	384.800	398.500	™13650.000
2	00:36:47	103.3%	0.065	0.232	-0.166	50.960	17.410	390.300	383.600	390.400	™13720.000
3	00:37:14	110.0%	0.005	1.269	-0.061	53.710	19.310	388.600	386.400	393.400	™13860.000
x		105.5%	0.039	0.488	-0.132	50.650	17.950	390.300	385.000	394.100	™13740.000
σ		3.9%	0.031	0.689	0.061	3.232	1.177	1.796	1.403	4.112	™106.400
%RSD		3.7	78.680	141.200	46.370	6.382	6.556	0.460	0.364	1.043	™0.774

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	ᵀ1521.000	ᵀ242000.000	283.000	853.100	764.200	104.3%	461.300	10.870	84.100	5959.000
2	00:36:47	ᵀ1542.000	ᵀ244600.000	276.300	858.800	765.800	104.2%	ᵀ450.700	11.650	83.360	5863.000
3	00:37:14	ᵀ1464.000	ᵀ252700.000	298.900	940.500	761.000	102.4%	455.700	9.745	83.220	7416.000
x		ᵀ1509.000	ᵀ246400.000	286.100	884.200	763.700	103.6%	ᵀ455.900	10.750	83.560	6413.000
σ		ᵀ39.950	ᵀ5592.000	11.590	48.910	2.406	1.0%	ᵀ5.307	0.956	0.470	870.500
%RSD		ᵀ2.647	ᵀ2.269	4.050	5.531	0.315	1.0	ᵀ1.164	8.890	0.563	13.570

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	2465.000	30.040	ᵀ2504.000	2360.000	0.796	4.851	5.577	4.992	6.029	7.664
2	00:36:47	2501.000	30.180	ᵀ2486.000	2380.000	0.810	4.701	5.199	4.989	5.748	7.839
3	00:37:14	2467.000	29.500	ᵀ2451.000	2377.000	0.836	4.857	5.291	4.863	5.957	7.362
x		2478.000	29.910	ᵀ2480.000	2373.000	0.814	4.803	5.356	4.948	5.911	7.622
σ		19.820	0.362	ᵀ27.200	10.810	0.020	0.088	0.198	0.074	0.146	0.241
%RSD		0.800	1.211	ᵀ1.097	0.456	2.501	1.833	3.687	1.492	2.470	3.165

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	8.258	7.654	4.203	0.554	2.874	3.336	-0.308	0.178	-0.757	8.303
2	00:36:47	7.465	7.756	4.647	0.248	2.598	3.490	2.314	0.780	1.650	8.360
3	00:37:14	7.909	7.275	4.439	0.582	3.017	3.131	1.632	0.680	-0.577	8.517
x		7.877	7.562	4.430	0.461	2.830	3.319	1.213	0.546	0.105	8.393
σ		0.398	0.253	0.222	0.185	0.213	0.180	1.360	0.322	1.340	0.111
%RSD		5.046	3.349	5.016	40.090	7.537	5.430	112.200	59.070	1274.000	1.317

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	113.0%	0.274	0.242	0.208	2.156	0.018	0.013	0.008	0.038	94.1%
2	00:36:47	113.8%	0.255	0.241	0.245	2.372	0.020	0.006	0.012	-0.005	96.2%
3	00:37:14	109.7%	0.229	0.271	0.230	2.705	0.006	0.015	0.004	0.061	92.2%
x		112.2%	0.253	0.251	0.228	2.411	0.015	0.011	0.008	0.031	94.2%
σ		2.1%	0.022	0.017	0.019	0.276	0.008	0.005	0.004	0.033	2.0%
%RSD		1.9	8.837	6.751	8.126	11.460	52.380	40.940	45.010	107.100	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:19	6.004	6.683	0.236	0.236	26.750	26.200	95.9%	0.076	0.081	10.410
2	00:36:47	5.934	6.461	0.205	0.259	25.920	26.120	97.5%	0.081	0.076	10.430
3	00:37:14	5.770	6.365	0.212	0.208	26.830	26.250	92.6%	0.071	0.074	10.610
x		5.902	6.503	0.218	0.234	26.500	26.190	95.3%	0.076	0.077	10.480
σ		0.120	0.163	0.016	0.026	0.500	0.066	2.5%	0.005	0.004	0.109
%RSD		2.039	2.507	7.495	11.030	1.888	0.252	2.6	6.371	5.153	1.038

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:36:19	9.840	10.310	94.9%
2	00:36:47	9.561	10.210	96.3%
3	00:37:14	9.454	10.040	90.3%
x		9.618	10.190	93.8%
σ		0.199	0.137	3.1%
%RSD		2.070	1.340	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	107.7%	0.093	1.057	0.944	10.850	45.990	T 1418.000	1432.000	1471.000	TM 88560.000
2	00:42:54	107.4%	0.108	0.998	0.734	9.550	45.790	T 1408.000	1427.000	1478.000	TM 92420.000
3	00:43:22	T 122.3%	0.115	0.816	0.922	16.690	45.920	T 1414.000	1392.000	1476.000	TM 91040.000
x		T 112.5%	0.106	0.957	0.867	12.360	45.900	T 1414.000	1417.000	1475.000	TM 90670.000
σ		T 8.5%	0.011	0.126	0.116	3.805	0.099	T 4.643	22.010	3.631	TM 1955.000
%RSD		T 7.5	10.520	13.130	13.340	30.770	0.215	T 0.328	1.554	0.246	TM 2.156

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	T 2050.000	T 266600.000	T 1165.000	2739.000	2300.000	104.1%	M 791.300	85.550	122.400	7752.000
2	00:42:54	T 2064.000	T 268400.000	T 1202.000	2915.000	2320.000	102.2%	M 781.400	87.250	124.100	7889.000
3	00:43:22	T 1778.000	T 263100.000	T 1192.000	2888.000	2297.000	102.0%	M 777.400	88.000	123.600	8019.000
x		T 1964.000	T 266000.000	T 1187.000	2848.000	2306.000	102.7%	M 783.300	86.930	123.400	7886.000
σ		T 161.600	T 2697.000	T 19.180	94.580	12.190	1.2%	M 7.139	1.252	0.872	133.400
%RSD		T 8.227	T 1.014	T 1.616	3.322	0.529	1.1	M 0.911	1.440	0.707	1.692

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	T 19240.000	41.040	T 19260.000	19190.000	5.147	28.530	28.620	1.256	1.974	25.450
2	00:42:54	T 19460.000	41.560	T 19520.000	T 19000.000	5.245	28.450	29.370	1.206	2.016	24.130
3	00:43:22	T 19210.000	41.800	T 19610.000	T 19120.000	5.436	27.990	29.380	1.267	2.204	23.830
x		T 19300.000	41.460	T 19460.000	T 19100.000	5.276	28.320	29.120	1.243	2.065	24.470
σ		T 132.100	0.390	T 184.000	T 98.510	0.147	0.289	0.434	0.032	0.122	0.863
%RSD		T 0.684	0.940	T 0.945	T 0.516	2.788	1.021	1.490	2.583	5.915	3.525

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	28.370	24.020	4.027	1.135	6.169	6.352	3.962	1.222	3.856	29.080
2	00:42:54	25.990	23.420	3.422	1.151	5.356	6.001	3.711	1.089	5.204	29.250
3	00:43:22	25.090	23.220	3.692	0.588	6.143	6.088	4.684	1.398	4.384	28.460
x		26.480	23.560	3.714	0.958	5.889	6.147	4.119	1.236	4.482	28.930
σ		1.693	0.418	0.303	0.321	0.462	0.183	0.505	0.155	0.679	0.420
%RSD		6.393	1.774	8.171	33.470	7.845	2.971	12.270	12.520	15.160	1.453

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	112.2%	1.823	1.798	1.969	13.290	0.080	0.034	0.057	-0.026	92.4%
2	00:42:54	108.3%	1.764	1.743	1.917	10.560	0.091	0.018	0.022	0.015	90.6%
3	00:43:22	110.9%	1.912	1.606	1.878	13.070	0.076	0.015	0.030	-0.008	91.5%
x		110.5%	1.833	1.716	1.921	12.310	0.082	0.023	0.036	-0.006	91.5%
σ		2.0%	0.075	0.099	0.045	1.518	0.008	0.010	0.019	0.021	0.9%
%RSD		1.8	4.065	5.762	2.366	12.330	9.329	44.830	51.680	343.400	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:42:27	7.195	7.751	0.348	0.360	86.610	85.830	92.8%	0.217	0.229	34.690
2	00:42:54	7.007	7.696	0.327	0.347	86.700	85.860	90.2%	0.219	0.191	34.380
3	00:43:22	6.845	7.556	0.355	0.337	85.160	85.400	90.0%	0.210	0.193	34.220
x		7.016	7.667	0.343	0.348	86.150	85.700	91.0%	0.215	0.204	34.430
σ		0.175	0.101	0.015	0.011	0.866	0.260	1.5%	0.005	0.021	0.240
%RSD		2.493	1.310	4.243	3.217	1.005	0.303	1.7	2.284	10.390	0.696

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:42:27	32.280	33.760	89.2%
2	00:42:54	32.060	33.270	85.7%
3	00:43:22	32.340	33.420	87.1%
x		32.230	33.480	87.4%
σ		0.145	0.250	1.7%
%RSD		0.451	0.746	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	103.5%	0.038	0.302	0.017	31.520	16.370	308.600	301.100	307.000	TM 8111.000
2	00:49:01	104.5%	0.077	0.351	0.039	35.790	15.760	302.900	301.800	305.900	TM 7951.000
3	00:49:28	107.5%	0.055	-0.236	-0.084	32.370	17.570	302.600	296.300	305.600	TM 8119.000
x		105.2%	0.057	0.139	-0.009	33.230	16.560	304.700	299.700	306.200	TM 8061.000
σ		2.0%	0.019	0.326	0.066	2.259	0.922	3.416	2.997	0.734	TM 94.770
%RSD		1.9	33.800	234.400	711.800	6.798	5.568	1.121	1.000	0.240	TM 1.176

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	T 1091.000	T 303300.000	175.900	4009.000	3821.000	101.1%	295.100	9.613	80.430	7655.000
2	00:49:01	T 1107.000	T 302100.000	172.800	4038.000	3864.000	102.1%	304.300	9.540	77.070	7889.000
3	00:49:28	T 1033.000	T 303000.000	174.300	4019.000	3797.000	101.3%	T 337.300	9.188	75.170	8954.000
x		T 1077.000	T 302800.000	174.300	4022.000	3827.000	101.5%	T 312.300	9.447	77.560	8166.000
σ		T 39.070	T 608.100	1.554	14.780	33.900	0.5%	T 22.180	0.227	2.662	692.400
%RSD		T 3.628	T 0.201	0.891	0.367	0.886	0.5	T 7.103	2.402	3.432	8.478

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	2485.000	33.000	T 2493.000	2386.000	0.899	3.811	4.049	36.750	40.140	33.130
2	00:49:01	2508.000	33.030	T 2488.000	2371.000	0.874	3.947	3.721	36.080	40.500	32.120
3	00:49:28	2453.000	32.030	T 2466.000	2369.000	0.820	3.649	4.300	36.020	40.580	32.560
x		2482.000	32.690	T 2483.000	2375.000	0.864	3.803	4.024	36.280	40.410	32.600
σ		27.890	0.571	T 14.560	9.622	0.040	0.149	0.290	0.404	0.235	0.503
%RSD		1.124	1.748	T 0.587	0.405	4.631	3.929	7.211	1.113	0.581	1.544

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	27.430	29.670	29.010	0.528	4.495	4.392	1.480	0.558	0.030	12.660
2	00:49:01	26.530	28.980	28.140	0.050	4.392	4.662	-0.606	0.114	-3.419	12.520
3	00:49:28	27.630	28.690	28.390	1.303	5.011	5.053	2.930	1.007	-1.956	12.590
x		27.200	29.120	28.510	0.627	4.632	4.703	1.268	0.560	-1.782	12.590
σ		0.587	0.503	0.449	0.632	0.332	0.333	1.777	0.447	1.731	0.072
%RSD		2.157	1.727	1.576	100.800	7.162	7.071	140.100	79.830	97.150	0.572

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	106.1%	0.278	0.264	0.267	2.390	0.013	0.012	0.090	0.114	92.5%
2	00:49:01	107.3%	0.360	0.236	0.305	1.519	0.022	0.012	0.097	0.095	93.2%
3	00:49:28	105.6%	0.248	0.211	0.276	1.708	0.008	0.013	0.062	0.099	91.1%
x		106.3%	0.296	0.237	0.283	1.872	0.014	0.013	0.083	0.103	92.3%
σ		0.8%	0.058	0.027	0.020	0.458	0.007	0.001	0.018	0.010	1.0%
%RSD		0.8	19.700	11.280	7.117	24.480	49.660	5.674	22.170	10.150	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:48:33	5.427	6.766	0.263	0.279	18.390	18.770	92.8%	0.029	0.033	14.250
2	00:49:01	5.421	6.767	0.231	0.278	17.710	18.440	93.6%	0.035	0.035	14.480
3	00:49:28	5.568	6.850	0.266	0.259	18.370	18.400	91.3%	0.043	0.033	14.380
x		5.472	6.794	0.253	0.272	18.160	18.540	92.6%	0.036	0.034	14.370
σ		0.083	0.048	0.020	0.011	0.388	0.205	1.2%	0.007	0.001	0.117
%RSD		1.518	0.707	7.705	4.178	2.137	1.105	1.3	19.530	2.912	0.816

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:48:33	13.630	14.010	90.5%
2	00:49:01	13.530	13.940	91.3%
3	00:49:28	13.410	13.880	88.6%
x		13.520	13.940	90.1%
σ		0.111	0.065	1.4%
%RSD		0.823	0.469	1.6

CCV MW10994 05/01/2019 00:54:14 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	91.3%	322.400	318.300	310.900	72.860	T67830.000	T64350.000	T64970.000	T63930.000	303.500
2	00:55:09	94.5%	306.700	307.100	297.100	50.660	T65760.000	T62910.000	T62300.000	T62050.000	296.200
3	00:55:36	95.1%	301.600	300.100	295.700	53.370	T65560.000	T62370.000	T61830.000	T62110.000	310.900
x		93.6%	103.412%	102.830%	100.412%	58.960	T110.637%	T63210.000	T63030.000	T104.491%	101.187%
σ		2.0%	n/a	n/a	n/a	12.110	Tn/a	T1023.000	T1691.000	Tn/a	n/a
%RSD		2.2	3.508	2.977	2.799	20.540	T1.890	T1.619	T2.683	T1.700	2.425

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	T3374.000	3357.000	T66620.000	64450.000	T66670.000	92.7%	314.400	323.000	309.500	1688.000
2	00:55:09	T3305.000	3131.000	T65270.000	63610.000	T65470.000	97.7%	310.300	314.900	303.400	2091.000
3	00:55:36	T3321.000	3222.000	T68080.000	64010.000	T65610.000	93.9%	315.600	T329.300	305.600	1044.000
x		T111.117%	3237.000	T111.094%	64020.000	T109.859%	94.7%	104.488%	T107.465%	102.049%	1608.000
σ		Tn/a	113.600	Tn/a	418.100	Tn/a	2.6%	n/a	Tn/a	n/a	528.500
%RSD		T1.087	3.509	T2.114	0.653	T0.997	2.7	0.891	T2.246	1.010	32.870

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	T65530.000	302.900	T66660.000	T64300.000	307.900	297.800	303.000	302.600	319.600	327.500
2	00:55:09	T65170.000	297.200	T65330.000	T63550.000	298.500	291.700	298.200	292.900	325.800	328.600
3	00:55:36	T64770.000	296.400	T65660.000	T63110.000	300.800	293.100	299.400	296.400	317.500	315.300
x		T65160.000	99.607%	T65880.000	T106.090%	100.799%	98.059%	300.200	297.300	106.979%	107.937%
σ		T381.300	n/a	T689.400	Tn/a	n/a	n/a	2.466	4.935	n/a	n/a
%RSD		T0.585	1.176	T1.046	T0.943	1.616	1.099	0.821	1.660	1.348	2.276

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	301.200	309.400	306.800	323.700	1.550	0.715	1387.000	331.900	0.003	314.600
2	00:55:09	296.600	300.200	298.800	324.700	1.265	0.156	1314.000	321.400	0.655	309.400
3	00:55:36	295.600	297.000	294.300	321.600	1.378	0.958	1313.000	312.200	2.921	308.800
x		297.800	302.200	99.984%	323.400	1.398	0.610	1338.000	107.271%	1.193	103.637%
σ		2.983	6.447	n/a	1.579	0.143	0.411	42.530	n/a	1.531	n/a
%RSD		1.002	2.133	2.113	0.488	10.260	67.460	3.179	3.063	128.400	1.035

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	87.5%	327.400	323.700	327.900	313.700	307.100	305.400	307.600	309.300	83.5%
2	00:55:09	90.7%	322.600	322.500	329.500	314.600	309.300	307.100	313.000	309.900	84.9%
3	00:55:36	86.9%	322.700	323.100	324.700	310.700	300.000	300.800	305.000	302.600	83.6%
x		88.4%	108.077%	107.701%	327.400	313.000	101.828%	304.400	308.500	102.429%	84.0%
σ		2.1%	n/a	n/a	2.468	2.073	n/a	3.226	4.102	n/a	0.8%
%RSD		2.3	0.834	0.184	0.754	0.662	1.591	1.060	1.330	1.314	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:54:41	319.600	318.200	320.600	320.400	323.100	320.500	83.9%	309.700	312.700	307.500
2	00:55:09	321.600	317.300	321.300	318.000	319.500	315.600	86.2%	306.300	312.500	303.800
3	00:55:36	314.600	312.400	313.300	313.700	317.300	321.200	84.1%	306.400	312.000	303.700
x		106.194%	105.329%	318.400	105.783%	106.659%	106.368%	84.7%	307.500	104.140%	101.663%
σ		n/a	n/a	4.464	n/a	n/a	n/a	1.3%	1.943	n/a	n/a
%RSD		1.140	0.983	1.402	1.070	0.917	0.956	1.5	0.632	0.116	0.717

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	00:54:41	304.600	307.800	80.0%
2	00:55:09	303.500	305.200	82.5%
3	00:55:36	303.800	305.400	79.6%
x		101.322%	102.047%	80.7%
σ		n/a	n/a	1.6%
%RSD		0.200	0.464	2.0

CCB IM9390-01 05/01/2019 01:00:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	99.7%	0.048	0.552	0.674	41.750	11.360	7.915	7.823	7.991	0.929
2	01:01:19	103.2%	0.031	0.878	0.637	29.990	9.005	5.676	5.659	5.822	0.630
3	01:01:46	106.4%	0.033	0.289	0.382	38.180	8.136	5.488	5.474	5.514	0.596
x		103.1%	0.037	0.573	0.564	36.640	9.501	6.360	6.319	6.442	0.718
σ		3.4%	0.009	0.295	0.159	6.027	1.669	1.350	1.306	1.350	0.184
%RSD		3.3	25.280	51.520	28.200	16.450	17.560	21.230	20.670	20.960	25.580
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	16.240	2164.000	22.000	14.900	7.572	96.2%	0.009	0.059	0.112	70.180
2	01:01:19	14.880	2078.000	18.910	2.403	6.231	98.1%	-0.103	0.046	0.065	64.760
3	01:01:46	14.280	2010.000	16.670	4.348	5.611	97.7%	-0.042	0.009	0.084	99.820
x		15.130	2084.000	19.190	7.215	6.471	97.3%	-0.046	0.038	0.087	78.250
σ		1.005	77.150	2.674	6.722	1.002	1.0%	0.056	0.026	0.024	18.870
%RSD		6.640	3.702	13.930	93.160	15.490	1.0	123.000	68.870	27.260	24.120
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	9.606	0.059	16.110	-3.128	0.059	0.044	-0.185	0.005	0.048	0.092
2	01:01:19	7.601	0.073	13.590	-9.468	0.041	0.016	0.097	0.040	0.020	0.049
3	01:01:46	7.909	0.047	13.550	-8.145	0.048	0.052	0.356	0.013	0.031	-0.006
x		8.372	0.060	14.420	-6.913	0.049	0.037	0.089	0.020	0.033	0.045
σ		1.080	0.013	1.467	3.344	0.009	0.019	0.271	0.018	0.014	0.049
%RSD		12.900	21.810	10.180	48.370	18.280	51.230	303.300	94.120	43.590	110.300
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	0.068	0.091	0.001	-0.261	-0.098	1.142	-1.312	-0.241	-0.781	0.038
2	01:01:19	0.090	0.084	-0.033	-0.388	0.040	0.885	0.060	0.044	0.584	0.030
3	01:01:46	-0.032	0.018	0.037	0.685	0.129	0.539	0.097	-0.004	2.696	0.039
x		0.042	0.064	0.002	0.012	0.024	0.855	-0.385	-0.067	0.833	0.036
σ		0.065	0.041	0.035	0.586	0.115	0.302	0.803	0.152	1.752	0.005
%RSD		154.500	63.040	2184.000	4927.000	483.200	35.350	208.600	226.800	210.200	13.550
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	91.8%	0.107	0.077	0.096	0.123	0.036	0.027	0.044	0.041	89.0%
2	01:01:19	91.6%	0.095	0.068	0.073	0.740	0.026	0.038	0.036	0.033	89.5%
3	01:01:46	91.1%	0.093	0.054	0.057	-0.389	0.031	0.029	0.006	0.028	89.5%
x		91.5%	0.098	0.066	0.075	0.158	0.031	0.031	0.029	0.034	89.4%
σ		0.4%	0.008	0.012	0.020	0.565	0.005	0.006	0.020	0.006	0.3%
%RSD		0.4	7.961	18.010	26.040	358.000	15.640	19.340	70.880	18.920	0.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:51	0.082	0.085	0.145	0.168	0.065	0.073	86.6%	0.027	0.020	0.038
2	01:01:19	0.073	0.096	0.130	0.162	0.026	0.069	87.0%	0.007	0.020	0.011
3	01:01:46	0.032	0.083	0.159	0.122	0.020	0.051	86.7%	0.013	-0.002	0.027
x		0.062	0.088	0.144	0.150	0.037	0.064	86.8%	0.016	0.013	0.025
σ		0.027	0.007	0.014	0.025	0.024	0.012	0.2%	0.010	0.013	0.014
%RSD		43.220	8.233	9.974	16.580	65.790	18.240	0.3	63.500	100.100	53.420
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	01:00:51	0.032	0.040	86.2%							
2	01:01:19	0.015	0.022	86.4%							
3	01:01:46	0.054	0.032	86.4%							
x		0.034	0.031	86.3%							
σ		0.019	0.009	0.1%							
%RSD		57.840	28.920	0.2							

UD25032-070 05/01/2019 01:06:30

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	106.5%	0.026	0.166	0.021	69.470	18.110	195.300	193.100	193.700	TM 6960.000
2	01:07:25	110.8%	0.029	0.159	-0.048	61.640	17.800	187.300	188.700	190.500	TM 7047.000
3	01:07:52	111.4%	0.028	0.307	-0.102	63.950	17.600	187.800	184.400	186.900	TM 6859.000
x		109.6%	0.027	0.210	-0.043	65.020	17.840	190.100	188.800	190.400	TM 6955.000
σ		2.7%	0.002	0.083	0.061	4.020	0.255	4.463	4.351	3.409	TM 94.250
%RSD		2.5	5.917	39.640	142.800	6.183	1.428	2.347	2.305	1.791	TM 1.355

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	T 999.100	T 353800.000	147.900	816.000	764.700	101.5%	411.100	10.820	31.550	8505.000
2	01:07:25	T 949.300	T 354300.000	147.700	781.700	754.300	101.0%	409.700	11.490	31.350	8724.000
3	01:07:52	T 969.100	T 352500.000	145.800	818.800	752.800	101.3%	399.700	10.370	30.380	9070.000
x		T 972.500	T 353500.000	147.200	805.500	757.300	101.3%	406.900	10.900	31.090	8766.000
σ		T 25.080	T 941.100	1.141	20.680	6.489	0.3%	6.222	0.563	0.626	285.100
%RSD		T 2.579	T 0.266	0.775	2.568	0.857	0.3	1.529	5.171	2.012	3.253

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	1928.000	28.170	T 1926.000	1838.000	0.526	2.769	3.246	1.619	2.305	2.986
2	01:07:25	1902.000	28.090	T 1912.000	1848.000	0.530	2.666	3.085	1.618	2.107	2.843
3	01:07:52	1867.000	27.690	T 1872.000	1775.000	0.531	2.408	2.415	1.674	2.296	2.753
x		1899.000	27.980	T 1903.000	1820.000	0.529	2.614	2.915	1.637	2.236	2.861
σ		30.810	0.261	T 28.020	39.340	0.003	0.186	0.441	0.032	0.112	0.117
%RSD		1.622	0.933	T 1.472	2.161	0.535	7.114	15.120	1.973	5.006	4.103

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	3.354	2.933	9.134	0.440	5.826	5.071	0.421	0.407	-1.579	5.088
2	01:07:25	3.474	2.558	9.289	0.793	5.775	5.823	0.107	0.284	-0.144	5.080
3	01:07:52	3.017	2.822	9.003	0.857	5.711	6.471	1.141	0.554	0.098	4.948
x		3.281	2.771	9.142	0.697	5.770	5.788	0.556	0.415	-0.542	5.039
σ		0.237	0.193	0.144	0.225	0.058	0.701	0.530	0.136	0.906	0.079
%RSD		7.226	6.953	1.571	32.240	0.997	12.100	95.370	32.690	167.300	1.558

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	110.6%	0.312	0.248	0.330	0.865	0.018	0.011	0.012	-0.003	91.3%
2	01:07:25	109.2%	0.295	0.227	0.269	1.620	0.011	0.014	0.004	0.056	90.2%
3	01:07:52	108.3%	0.284	0.262	0.250	0.976	0.011	0.009	0.026	-0.009	89.7%
x		109.4%	0.297	0.246	0.283	1.154	0.013	0.011	0.014	0.015	90.4%
σ		1.1%	0.014	0.018	0.042	0.408	0.004	0.002	0.011	0.036	0.8%
%RSD		1.0	4.749	7.144	14.740	35.350	30.930	21.520	75.710	241.100	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:06:58	5.819	6.927	0.371	0.378	10.870	11.530	92.2%	0.011	0.023	7.235
2	01:07:25	5.580	6.610	0.308	0.339	11.460	11.290	90.5%	0.033	0.025	7.230
3	01:07:52	5.601	6.389	0.279	0.334	11.060	10.680	90.4%	0.009	0.020	7.136
x		5.667	6.642	0.320	0.350	11.130	11.160	91.0%	0.017	0.023	7.200
σ		0.132	0.270	0.047	0.024	0.299	0.439	1.1%	0.013	0.002	0.056
%RSD		2.335	4.068	14.710	6.821	2.685	3.932	1.2	75.860	10.870	0.774

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:06:58	6.450	6.986	89.7%
2	01:07:25	6.395	6.940	86.9%
3	01:07:52	6.393	6.853	86.5%
x		6.413	6.926	87.7%
σ		0.032	0.067	1.7%
%RSD		0.502	0.973	2.0

UQ14724-001 05/01/2019 01:12:37 QC Status: PASS (Initial: UNKNOWN)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	109.3%	0.009	-0.428	-0.613	63.290	2.409	1.496	1.319	1.503	1.648
2	01:13:31	106.6%	-0.002	-0.330	-0.312	62.060	0.993	1.542	1.306	1.630	1.590
3	01:13:58	112.3%	0.002	-0.348	-0.479	62.300	3.099	1.619	1.344	1.529	1.645
x		109.4%	0.003	-0.369	-0.468	62.550	2.167	1.553	1.323	1.554	1.628
σ		2.9%	0.005	0.052	0.151	0.650	1.074	0.062	0.019	0.067	0.032
%RSD		2.6	183.600	14.160	32.230	1.039	49.560	4.000	1.431	4.310	1.985

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	31.610	T 358100.000	22.850	-1.457	1.781	99.4%	0.197	0.486	1.654	8344.000
2	01:13:31	31.390	T 347600.000	20.360	3.456	2.607	101.4%	0.273	-0.121	1.258	7654.000
3	01:13:58	30.780	T 354700.000	20.450	2.888	3.879	100.2%	0.183	0.101	1.496	8666.000
x		31.260	T 353500.000	21.220	1.629	2.756	100.3%	0.218	0.155	1.470	8221.000
σ		0.432	T 5344.000	1.413	2.688	1.057	1.0%	0.049	0.307	0.199	517.000
%RSD		1.383	T 1.512	6.660	165.000	38.360	1.0	22.390	197.600	13.550	6.289

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	18.110	0.113	7.240	-16.480	0.002	0.065	0.007	0.019	0.049	0.257
2	01:13:31	13.180	0.109	6.627	-23.230	0.012	0.094	0.239	0.032	0.073	0.256
3	01:13:58	16.770	0.098	7.572	-18.570	0.016	0.076	-0.121	0.043	0.053	0.258
x		16.020	0.107	7.146	-19.430	0.010	0.078	0.041	0.031	0.058	0.257
σ		2.547	0.008	0.480	3.460	0.007	0.015	0.182	0.012	0.013	0.001
%RSD		15.900	7.427	6.714	17.810	70.030	19.100	439.600	38.970	22.740	0.394

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	0.354	0.237	0.481	-0.425	6.203	6.125	2.262	0.626	-0.630	0.002
2	01:13:31	0.249	0.253	-0.295	-0.368	6.457	5.620	0.535	0.185	-0.752	0.006
3	01:13:58	0.546	0.297	-0.429	0.178	5.237	5.368	-0.684	-0.125	0.743	0.001
x		0.383	0.262	-0.081	-0.205	5.966	5.704	0.705	0.229	-0.213	0.003
σ		0.151	0.031	0.491	0.333	0.644	0.385	1.480	0.378	0.830	0.003
%RSD		39.350	11.870	607.600	162.500	10.790	6.753	210.100	165.200	389.900	105.800

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	92.6%	0.037	0.038	0.079	0.177	-0.000	0.009	-0.003	0.004	88.4%
2	01:13:31	94.3%	0.030	0.051	0.032	-1.024	0.000	-0.000	-0.003	0.004	92.0%
3	01:13:58	92.3%	0.031	0.019	0.013	-0.861	-0.002	0.001	0.002	0.015	89.3%
x		93.1%	0.033	0.036	0.041	-0.570	-0.001	0.003	-0.001	0.008	89.9%
σ		1.1%	0.004	0.016	0.034	0.652	0.001	0.005	0.003	0.007	1.8%
%RSD		1.2	11.820	45.120	81.400	114.400	215.100	154.300	191.300	83.210	2.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:13:03	4.108	6.210	0.086	0.112	-0.018	0.003	86.7%	-0.013	-0.014	-0.016
2	01:13:31	4.438	5.927	0.089	0.125	-0.013	0.006	89.9%	-0.016	-0.018	-0.017
3	01:13:58	4.207	6.078	0.078	0.103	0.001	0.014	87.2%	-0.013	-0.016	-0.016
x		4.251	6.072	0.084	0.113	-0.010	0.008	87.9%	-0.014	-0.016	-0.016
σ		0.169	0.142	0.006	0.011	0.010	0.006	1.7%	0.001	0.002	0.001
%RSD		3.976	2.330	7.125	9.799	95.710	72.270	2.0	10.230	12.450	6.062

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:13:03	-0.017	-0.016	86.0%
2	01:13:31	-0.011	-0.012	90.0%
3	01:13:58	-0.014	-0.015	86.0%
x		-0.014	-0.015	87.3%
σ		0.003	0.002	2.3%
%RSD		21.620	14.660	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	105.2%	201.800	198.100	194.600	42.950	T 2225.000	T 2120.000	2059.000	2058.000	207.500
2	01:19:38	107.6%	200.100	203.100	198.800	47.200	T 2255.000	T 2105.000	2061.000	2013.000	204.900
3	01:20:05	107.1%	207.000	210.000	193.400	48.930	T 2296.000	T 2105.000	2051.000	2080.000	203.000
x		106.6%	203.000	203.700	195.600	46.360	T 2259.000	T 2110.000	2057.000	2050.000	205.100
σ		1.3%	3.592	5.939	2.854	3.076	T 35.680	T 8.635	5.236	34.380	2.261
%RSD		1.2	1.769	2.915	1.459	6.636	T 1.580	T 0.409	0.255	1.677	1.102

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	99.380	T 384900.000	T 2278.000	2519.000	2174.000	99.7%	215.000	211.700	212.700	9487.000
2	01:19:38	97.790	T 392700.000	T 2323.000	2453.000	2178.000	98.4%	208.500	213.000	208.500	9717.000
3	01:20:05	96.880	T 384900.000	T 2258.000	2389.000	2157.000	100.8%	211.900	214.900	206.100	9343.000
x		98.020	T 387500.000	T 2286.000	2454.000	2170.000	99.6%	211.800	213.200	209.100	9516.000
σ		1.267	T 4495.000	T 33.250	64.810	11.470	1.2%	3.261	1.606	3.331	188.700
%RSD		1.293	T 1.160	T 1.454	2.641	0.529	1.2	1.539	0.753	1.593	1.983

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	2282.000	207.300	T 2253.000	2082.000	208.900	208.800	212.300	215.700	228.300	217.000
2	01:19:38	2288.000	202.100	T 2241.000	2083.000	207.400	205.800	211.200	211.300	223.700	208.600
3	01:20:05	2272.000	203.800	T 2183.000	2058.000	205.800	202.800	207.100	210.600	219.700	208.400
x		2281.000	204.400	T 2226.000	2074.000	207.400	205.800	210.200	212.600	223.900	211.400
σ		8.524	2.680	T 37.390	14.320	1.548	3.011	2.709	2.768	4.306	4.897
%RSD		0.374	1.311	T 1.680	0.690	0.747	1.463	1.289	1.302	1.923	2.317

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	200.500	204.000	203.400	212.000	8.317	8.724	881.300	209.100	3.042	207.400
2	01:19:38	196.400	198.400	197.400	204.500	8.914	8.332	835.900	197.500	0.278	206.300
3	01:20:05	197.100	202.700	199.400	204.500	7.793	8.925	872.100	205.700	1.369	204.100
x		198.000	201.700	200.100	207.000	8.341	8.660	863.100	204.100	1.563	206.000
σ		2.218	2.955	3.063	4.340	0.561	0.301	23.990	5.991	1.392	1.687
%RSD		1.121	1.465	1.531	2.096	6.722	3.481	2.779	2.935	89.060	0.819

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	94.3%	214.300	213.800	213.000	207.200	213.400	213.900	207.400	207.200	90.7%
2	01:19:38	92.7%	210.300	213.100	210.800	202.900	210.900	211.700	202.700	202.100	89.6%
3	01:20:05	95.6%	209.600	208.800	208.400	199.300	211.400	211.200	206.700	204.100	92.5%
x		94.2%	211.400	211.900	210.700	203.100	211.900	212.300	205.600	204.500	90.9%
σ		1.5%	2.530	2.710	2.281	3.910	1.296	1.432	2.543	2.584	1.5%
%RSD		1.6	1.197	1.279	1.082	1.925	0.612	0.675	1.237	1.264	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:19:10	217.000	217.300	207.100	210.100	215.600	214.500	89.8%	209.700	213.000	211.100
2	01:19:38	214.600	215.400	205.100	207.300	214.300	215.400	88.5%	208.300	211.700	210.500
3	01:20:05	214.700	214.600	205.200	208.500	212.100	213.200	91.4%	207.600	211.900	208.300
x		215.500	215.800	205.800	208.600	214.000	214.400	89.9%	208.500	212.200	210.000
σ		1.381	1.416	1.104	1.447	1.774	1.105	1.4%	1.053	0.717	1.470
%RSD		0.641	0.656	0.536	0.694	0.829	0.515	1.6	0.505	0.338	0.700

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:19:10	212.300	212.900	88.3%
2	01:19:38	210.500	211.200	86.1%
3	01:20:05	210.600	210.600	90.0%
x		211.100	211.600	88.1%
σ		1.004	1.144	2.0%
%RSD		0.475	0.541	2.2

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	106.0%	0.065	0.802	0.286	67.760	20.720	277.400	273.300	274.500	™13000.000
2	01:25:45	103.4%	0.062	0.706	0.250	59.920	21.010	274.000	269.700	272.200	™12820.000
3	01:26:12	111.4%	0.046	0.079	0.093	60.340	22.480	270.500	263.900	265.100	™13110.000
x		106.9%	0.058	0.529	0.210	62.670	21.400	274.000	269.000	270.600	™12980.000
σ		4.1%	0.010	0.393	0.102	4.410	0.944	3.438	4.730	4.899	™143.700
%RSD		3.8	18.000	74.270	48.840	7.037	4.409	1.255	1.758	1.810	™1.107

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	₸1208.000	₸314800.000	197.800	1557.000	1392.000	98.8%	377.000	12.560	103.400	7589.000
2	01:25:45	₸1263.000	₸303100.000	189.400	1477.000	1352.000	101.7%	361.200	11.530	98.000	7487.000
3	01:26:12	₸1138.000	₸315000.000	197.500	1487.000	1346.000	99.0%	367.300	10.270	99.620	9238.000
x		₸1203.000	₸311000.000	194.900	1507.000	1363.000	99.8%	368.500	11.450	100.300	8105.000
σ		₸62.800	₸6817.000	4.758	43.690	25.020	1.6%	7.989	1.146	2.755	982.600
%RSD		₸5.220	₸2.192	2.441	2.899	1.835	1.6	2.168	10.010	2.746	12.120

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	2380.000	27.480	₸2358.000	2247.000	0.741	4.699	5.888	8.181	9.502	9.190
2	01:25:45	2309.000	27.040	₸2311.000	2205.000	0.693	4.549	5.470	8.108	9.460	9.767
3	01:26:12	2338.000	26.330	₸2340.000	2207.000	0.702	4.491	5.309	8.011	9.512	8.729
x		2343.000	26.950	₸2336.000	2220.000	0.712	4.580	5.556	8.100	9.492	9.229
σ		35.570	0.583	₸23.420	23.710	0.026	0.107	0.299	0.086	0.027	0.520
%RSD		1.518	2.163	₸1.003	1.068	3.626	2.340	5.384	1.057	0.290	5.635

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	9.018	8.137	10.260	0.238	6.622	6.411	-0.591	0.061	-0.830	9.628
2	01:25:45	8.582	8.742	8.971	0.436	6.228	6.479	0.720	0.467	-1.938	9.511
3	01:26:12	8.704	8.318	10.530	0.620	5.594	7.113	1.613	0.630	0.147	9.470
x		8.768	8.399	9.918	0.431	6.148	6.668	0.581	0.386	-0.874	9.536
σ		0.225	0.311	0.831	0.191	0.519	0.388	1.109	0.293	1.043	0.082
%RSD		2.566	3.697	8.383	44.240	8.435	5.814	190.900	75.890	119.400	0.861

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	107.7%	0.257	0.318	0.262	2.039	0.041	0.032	0.033	0.051	92.1%
2	01:25:45	105.2%	0.289	0.242	0.304	2.429	0.035	0.026	0.043	0.017	89.0%
3	01:26:12	104.5%	0.329	0.231	0.264	2.241	0.026	0.023	0.022	-0.005	88.9%
x		105.8%	0.291	0.263	0.277	2.237	0.034	0.027	0.032	0.021	90.0%
σ		1.7%	0.036	0.048	0.023	0.195	0.007	0.005	0.010	0.028	1.8%
%RSD		1.6	12.390	18.100	8.487	8.719	21.400	18.430	32.360	133.400	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:19	5.659	6.575	0.251	0.256	15.760	15.310	92.3%	0.114	0.119	11.080
2	01:25:45	5.668	6.626	0.240	0.267	14.750	15.530	90.6%	0.147	0.133	11.280
3	01:26:12	5.427	6.715	0.238	0.234	14.870	15.590	88.9%	0.123	0.120	10.820
x		5.585	6.639	0.243	0.253	15.120	15.480	90.6%	0.128	0.124	11.060
σ		0.137	0.071	0.007	0.017	0.551	0.147	1.7%	0.017	0.008	0.233
%RSD		2.445	1.064	2.843	6.827	3.642	0.951	1.9	13.390	6.461	2.106

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:25:19	10.380	10.760	89.1%
2	01:25:45	10.440	10.990	89.1%
3	01:26:12	10.080	10.620	85.2%
x		10.300	10.790	87.8%
σ		0.194	0.188	2.2%
%RSD		1.879	1.739	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	103.9%	0.027	-0.113	-0.283	48.140	15.640	187.500	188.000	189.900	TM 7347.000
2	01:31:51	105.2%	0.027	-0.147	-0.490	37.790	14.590	184.700	183.400	183.400	TM 7367.000
3	01:32:19	106.8%	0.032	-0.135	-0.469	41.870	14.400	185.300	184.900	182.700	TM 7150.000
x		105.3%	0.029	-0.132	-0.414	42.600	14.880	185.800	185.400	185.300	TM 7288.000
σ		1.4%	0.003	0.017	0.114	5.213	0.664	1.514	2.373	3.951	TM 120.300
%RSD		1.4	10.790	13.210	27.520	12.240	4.462	0.815	1.280	2.132	TM 1.651

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	T 917.500	T 325800.000	140.100	785.200	754.500	99.6%	338.100	9.159	68.110	8306.000
2	01:31:51	T 841.200	T 315300.000	136.100	804.000	741.400	101.4%	332.700	8.924	68.020	7482.000
3	01:32:19	T 833.800	T 314500.000	136.200	784.400	725.900	101.8%	T 328.200	9.399	67.060	7807.000
x		T 864.200	T 318500.000	137.500	791.200	740.600	100.9%	T 333.000	9.161	67.730	7865.000
σ		T 46.370	T 6299.000	2.313	11.070	14.320	1.2%	T 4.948	0.238	0.583	415.000
%RSD		T 5.366	T 1.977	1.683	1.400	1.933	1.2	T 1.486	2.593	0.861	5.277

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	2198.000	30.530	T 2185.000	2124.000	0.498	2.734	2.713	27.480	30.740	5.603
2	01:31:51	2182.000	29.860	T 2135.000	2064.000	0.481	2.468	3.110	27.300	30.900	5.435
3	01:32:19	2172.000	30.070	T 2175.000	2056.000	0.429	2.680	2.905	27.550	30.800	5.462
x		2184.000	30.150	T 2165.000	2081.000	0.469	2.627	2.909	27.440	30.820	5.500
σ		13.200	0.340	T 26.780	37.300	0.036	0.140	0.198	0.126	0.081	0.090
%RSD		0.604	1.129	T 1.237	1.792	7.727	5.337	6.820	0.459	0.264	1.638

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	5.238	5.125	15.270	0.429	6.255	6.308	1.364	0.550	0.315	5.613
2	01:31:51	5.592	5.013	15.250	0.209	6.334	6.027	2.348	0.898	-2.454	5.476
3	01:32:19	5.521	5.042	14.860	0.513	5.537	6.090	0.619	0.350	0.939	5.537
x		5.450	5.060	15.130	0.384	6.042	6.142	1.444	0.599	-0.400	5.542
σ		0.187	0.058	0.229	0.157	0.439	0.147	0.868	0.278	1.806	0.068
%RSD		3.438	1.145	1.516	40.900	7.267	2.400	60.090	46.290	451.600	1.236

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	108.3%	0.234	0.258	0.242	2.226	0.020	0.014	0.017	0.019	92.2%
2	01:31:51	108.1%	0.222	0.313	0.299	0.749	0.012	0.012	0.017	0.008	91.6%
3	01:32:19	110.5%	0.250	0.245	0.226	1.359	0.013	0.018	0.016	0.052	93.5%
x		109.0%	0.235	0.272	0.256	1.444	0.015	0.015	0.017	0.027	92.4%
σ		1.3%	0.014	0.036	0.039	0.742	0.004	0.003	0.000	0.023	0.9%
%RSD		1.2	6.112	13.210	15.180	51.370	26.650	18.550	0.676	85.250	1.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:31:24	5.643	6.817	0.185	0.179	12.760	12.410	91.9%	0.045	0.054	7.930
2	01:31:51	5.455	6.413	0.205	0.133	12.540	11.770	91.6%	0.068	0.055	8.174
3	01:32:19	5.662	6.587	0.159	0.208	11.820	12.190	93.6%	0.066	0.049	7.734
x		5.587	6.606	0.183	0.174	12.380	12.120	92.4%	0.060	0.053	7.946
σ		0.114	0.202	0.023	0.038	0.492	0.326	1.1%	0.013	0.003	0.220
%RSD		2.040	3.064	12.680	21.790	3.974	2.690	1.2	21.460	6.564	2.773

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:31:24	7.308	7.668	89.5%
2	01:31:51	7.068	7.768	89.7%
3	01:32:19	7.258	7.560	90.5%
x		7.212	7.665	89.9%
σ		0.127	0.104	0.5%
%RSD		1.755	1.352	0.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	105.1%	0.043	-0.081	-0.225	98.320	14.590	228.200	222.900	230.200	TM 8711.000
2	01:37:58	102.7%	0.044	0.182	-0.185	101.800	14.360	217.200	216.400	224.100	TM 8263.000
3	01:38:25	105.8%	0.052	-0.295	-0.152	89.900	13.720	212.400	206.500	211.600	TM 7872.000
x		104.6%	0.046	-0.065	-0.188	96.680	14.220	219.300	215.300	222.000	TM 8282.000
σ		1.6%	0.005	0.239	0.037	6.128	0.451	8.126	8.240	9.455	TM 419.600
%RSD		1.5	10.270	369.900	19.550	6.339	3.168	3.706	3.828	4.260	TM 5.067

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	T 934.400	T 343100.000	152.300	1709.000	1672.000	100.1%	379.300	8.025	89.240	8037.000
2	01:37:58	T 946.900	T 340600.000	143.400	1680.000	1608.000	104.0%	359.000	8.571	85.290	7509.000
3	01:38:25	T 887.800	T 323900.000	141.300	1613.000	1553.000	102.8%	352.600	8.064	81.230	7722.000
x		T 923.000	T 335800.000	145.700	1667.000	1611.000	102.3%	363.700	8.220	85.250	7756.000
σ		T 31.140	T 10450.000	5.809	49.530	59.160	2.0%	13.940	0.305	4.007	265.600
%RSD		T 3.373	T 3.112	3.989	2.971	3.672	2.0	3.833	3.706	4.700	3.425

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	1722.000	22.610	T 1696.000	1604.000	0.386	2.606	3.074	2.945	3.572	3.463
2	01:37:58	1658.000	21.510	T 1621.000	1538.000	0.413	2.402	2.743	2.690	3.477	3.259
3	01:38:25	1586.000	21.020	T 1597.000	1514.000	0.379	2.247	1.838	2.745	3.350	3.225
x		1655.000	21.710	T 1638.000	1552.000	0.393	2.418	2.552	2.793	3.466	3.316
σ		67.810	0.815	T 51.940	46.470	0.018	0.180	0.639	0.134	0.111	0.129
%RSD		4.096	3.756	T 3.171	2.994	4.469	7.455	25.060	4.802	3.208	3.875

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	3.402	3.224	5.867	0.664	7.337	6.715	-0.546	0.052	0.424	10.110
2	01:37:58	3.395	3.252	5.623	0.588	7.468	7.104	0.462	0.333	0.991	9.756
3	01:38:25	3.000	3.129	6.148	0.556	6.670	7.326	-0.239	0.172	-1.267	9.526
x		3.266	3.202	5.879	0.603	7.158	7.048	-0.108	0.185	0.049	9.799
σ		0.230	0.064	0.262	0.056	0.428	0.309	0.517	0.141	1.175	0.297
%RSD		7.044	2.004	4.463	9.215	5.983	4.387	480.300	76.140	2402.000	3.027

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	106.4%	0.268	0.205	0.280	1.288	0.012	0.011	0.017	-0.011	90.6%
2	01:37:58	109.3%	0.215	0.178	0.254	0.933	0.005	0.010	-0.004	-0.000	91.5%
3	01:38:25	107.8%	0.262	0.202	0.241	1.186	0.007	0.005	0.021	0.020	92.3%
x		107.8%	0.248	0.195	0.258	1.136	0.008	0.009	0.011	0.003	91.4%
σ		1.4%	0.029	0.015	0.020	0.183	0.003	0.003	0.013	0.016	0.8%
%RSD		1.3	11.810	7.447	7.718	16.110	43.420	39.870	117.100	546.400	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:37:31	5.792	6.888	0.233	0.252	10.640	10.280	90.3%	0.028	0.035	8.592
2	01:37:58	5.737	6.621	0.256	0.213	10.480	10.310	91.8%	0.031	0.041	8.507
3	01:38:25	5.357	6.476	0.175	0.224	10.100	10.280	91.1%	0.046	0.043	8.152
x		5.629	6.662	0.221	0.229	10.410	10.290	91.1%	0.035	0.040	8.417
σ		0.237	0.209	0.042	0.020	0.279	0.017	0.8%	0.010	0.004	0.234
%RSD		4.214	3.137	19.030	8.826	2.683	0.161	0.8	27.860	10.190	2.775

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:37:31	7.876	8.388	87.4%
2	01:37:58	7.619	8.269	90.2%
3	01:38:25	7.460	7.986	88.8%
x		7.651	8.215	88.8%
σ		0.210	0.206	1.4%
%RSD		2.743	2.511	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	104.4%	0.085	0.372	-0.129	108.800	13.190	90.210	88.120	90.980	TM 5840.000
2	01:44:04	104.9%	0.064	-0.125	0.062	109.100	12.430	87.890	88.280	89.030	TM 5706.000
3	01:44:31	108.1%	0.043	0.433	-0.104	106.800	13.680	85.290	85.960	87.320	TM 5862.000
x		105.8%	0.064	0.226	-0.057	108.200	13.100	87.800	87.450	89.110	TM 5803.000
σ		2.0%	0.021	0.306	0.104	1.236	0.630	2.462	1.297	1.834	TM 84.330
%RSD		1.9	33.370	135.300	182.300	1.142	4.810	2.804	1.483	2.058	TM 1.453
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	T 961.900	T 313000.000	91.980	2696.000	2570.000	99.8%	283.600	5.053	128.000	7546.000
2	01:44:04	T 974.300	T 309400.000	91.030	2645.000	2521.000	100.3%	283.900	4.472	127.500	7843.000
3	01:44:31	T 917.100	T 313900.000	97.710	2693.000	2500.000	97.5%	277.500	3.547	127.200	9140.000
x		T 951.100	T 312100.000	93.580	2678.000	2530.000	99.2%	281.700	4.358	127.600	8176.000
σ		T 30.100	T 2372.000	3.616	28.330	36.160	1.5%	3.633	0.759	0.401	847.800
%RSD		T 3.165	T 0.760	3.864	1.058	1.429	1.5	1.290	17.430	0.314	10.370
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	1594.000	73.600	T 1560.000	1492.000	0.363	4.028	4.154	23.600	26.670	280.900
2	01:44:04	1583.000	73.330	T 1564.000	1459.000	0.349	4.108	3.760	23.490	26.430	275.500
3	01:44:31	1573.000	72.460	T 1546.000	1487.000	0.376	4.128	3.979	23.840	26.880	269.700
x		1583.000	73.130	T 1557.000	1479.000	0.363	4.088	3.964	23.640	26.660	275.400
σ		10.160	0.599	T 9.271	17.860	0.013	0.053	0.197	0.178	0.227	5.614
%RSD		0.642	0.819	T 0.596	1.207	3.662	1.296	4.978	0.751	0.853	2.039
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	222.700	239.800	51.390	0.376	6.133	6.715	1.668	0.672	0.813	9.155
2	01:44:04	224.300	239.300	50.460	0.246	6.914	6.781	0.342	0.285	1.075	9.011
3	01:44:31	218.400	232.000	49.080	0.318	7.792	7.068	2.998	0.991	1.114	8.890
x		221.800	237.000	50.310	0.313	6.946	6.855	1.669	0.650	1.001	9.019
σ		3.093	4.352	1.162	0.065	0.830	0.187	1.328	0.354	0.164	0.133
%RSD		1.395	1.836	2.310	20.800	11.950	2.734	79.570	54.470	16.360	1.472
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	109.8%	0.185	0.161	0.165	2.486	0.019	0.038	1.132	1.167	90.6%
2	01:44:04	108.6%	0.192	0.163	0.225	4.109	0.021	0.021	1.032	1.092	91.2%
3	01:44:31	105.5%	0.206	0.241	0.221	2.633	0.013	0.021	1.259	1.125	88.6%
x		108.0%	0.195	0.188	0.204	3.076	0.018	0.027	1.141	1.128	90.1%
σ		2.2%	0.011	0.045	0.034	0.897	0.004	0.010	0.114	0.037	1.4%
%RSD		2.0	5.545	24.050	16.560	29.170	23.050	36.550	9.952	3.313	1.6
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:43:37	7.193	8.350	0.200	0.173	46.920	47.290	90.1%	0.016	0.012	49.500
2	01:44:04	6.624	8.224	0.164	0.178	47.330	46.840	92.5%	0.010	0.002	48.570
3	01:44:31	6.977	7.996	0.163	0.155	47.430	46.570	87.9%	0.012	0.010	47.790
x		6.931	8.190	0.176	0.169	47.220	46.900	90.2%	0.013	0.008	48.620
σ		0.288	0.180	0.021	0.012	0.269	0.366	2.3%	0.003	0.005	0.858
%RSD		4.147	2.194	12.110	7.282	0.569	0.781	2.5	26.000	66.240	1.764
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	01:43:37	48.640	49.000	88.3%							
2	01:44:04	47.110	47.980	89.9%							
3	01:44:31	46.720	47.240	85.1%							
x		47.490	48.070	87.8%							
σ		1.016	0.884	2.4%							
%RSD		2.139	1.838	2.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	108.0%	134.500	140.600	138.800	60.590	T 1996.000	T 1859.000	1840.000	1859.000	TM 8960.000
2	01:50:10	103.4%	141.300	144.100	136.800	64.910	T 2013.000	T 1828.000	1825.000	1813.000	TM 8552.000
3	01:50:37	104.0%	140.100	143.600	136.100	66.450	T 2011.000	T 1823.000	1792.000	1802.000	TM 8323.000
x		105.1%	138.600	142.800	137.200	63.990	T 2007.000	T 1836.000	1819.000	1824.000	TM 8612.000
σ		2.5%	3.610	1.903	1.391	3.037	T 9.273	T 19.330	24.740	29.960	TM 322.700
%RSD		2.3	2.604	1.333	1.014	4.747	T 0.462	T 1.052	1.360	1.642	TM 3.747

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	T 1552.000	T 336900.000	T 3746.000	4962.000	4495.000	96.6%	M 870.700	222.200	318.800	9229.000
2	01:50:10	T 1624.000	T 327300.000	T 3583.000	4767.000	4413.000	100.2%	M 860.800	220.000	313.600	8215.000
3	01:50:37	T 1611.000	T 322300.000	T 3546.000	4560.000	4429.000	101.6%	M 841.600	219.500	305.500	8520.000
x		T 1596.000	T 328900.000	T 3625.000	4763.000	4446.000	99.5%	M 857.700	220.600	312.700	8654.000
σ		T 38.350	T 7440.000	T 106.000	200.700	43.710	2.6%	M 14.800	1.470	6.713	520.200
%RSD		T 2.403	T 2.262	T 2.925	4.214	0.983	2.6	M 1.725	0.666	2.147	6.011

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	4011.000	306.800	T 3874.000	3779.000	208.200	213.200	203.700	220.000	255.500	477.000
2	01:50:10	3894.000	300.800	T 3844.000	3687.000	205.300	207.300	201.000	219.100	248.200	479.000
3	01:50:37	3984.000	294.300	T 3754.000	3634.000	205.200	206.200	196.000	212.700	246.500	478.100
x		3963.000	300.600	T 3824.000	3700.000	206.200	208.900	200.200	217.300	250.100	478.000
σ		61.570	6.239	T 62.350	73.550	1.680	3.783	3.884	3.953	4.762	1.013
%RSD		1.554	2.075	T 1.630	1.988	0.815	1.811	1.940	1.820	1.904	0.212

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	394.800	406.400	241.100	211.500	8.765	9.342	736.700	203.500	1.594	194.000
2	01:50:10	394.800	411.100	243.600	204.600	8.158	9.290	764.100	208.800	0.864	192.500
3	01:50:37	386.600	405.400	234.400	209.100	8.524	9.894	739.900	203.500	2.287	192.500
x		392.100	407.600	239.700	208.400	8.482	9.509	746.900	205.200	1.582	193.000
σ		4.720	3.046	4.763	3.514	0.306	0.335	14.990	3.055	0.711	0.902
%RSD		1.204	0.747	1.987	1.686	3.604	3.519	2.007	1.488	44.970	0.468

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	107.5%	179.100	173.400	184.900	207.100	214.300	214.600	208.000	210.000	86.6%
2	01:50:10	112.0%	181.400	172.500	186.400	203.300	212.900	214.100	210.200	210.600	91.1%
3	01:50:37	110.6%	181.500	173.600	185.600	205.000	214.400	213.900	209.400	209.000	89.8%
x		110.0%	180.700	173.200	185.600	205.100	213.900	214.200	209.200	209.900	89.2%
σ		2.3%	1.362	0.578	0.758	1.904	0.840	0.377	1.151	0.849	2.3%
%RSD		2.1	0.754	0.334	0.408	0.928	0.393	0.176	0.550	0.405	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:43	216.800	214.400	192.800	192.700	301.100	302.900	87.4%	207.900	210.500	237.500
2	01:50:10	216.800	212.700	193.200	195.600	298.800	300.700	91.4%	209.200	210.100	238.700
3	01:50:37	215.600	213.800	194.600	191.800	294.900	295.900	92.0%	207.500	209.100	236.700
x		216.400	213.600	193.500	193.300	298.300	299.900	90.3%	208.200	209.900	237.600
σ		0.682	0.874	0.982	2.015	3.120	3.546	2.5%	0.879	0.759	1.041
%RSD		0.315	0.409	0.507	1.042	1.046	1.182	2.8	0.422	0.362	0.438

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:49:43	236.300	237.900	82.7%
2	01:50:10	236.400	238.000	87.6%
3	01:50:37	236.700	237.000	88.9%
x		236.500	237.600	86.4%
σ		0.225	0.545	3.3%
%RSD		0.095	0.229	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	106.0%	142.700	148.800	147.400	72.610	T 2190.000	T 1994.000	1962.000	2001.000	TM 9738.000
2	01:56:16	104.4%	145.300	150.300	144.000	73.230	T 2144.000	T 1929.000	1918.000	2002.000	TM 9028.000
3	01:56:43	106.5%	142.500	150.000	148.000	83.230	T 2168.000	T 1933.000	1882.000	1903.000	TM 9181.000
x		105.6%	143.500	149.700	146.500	76.360	T 2167.000	T 1952.000	1921.000	1968.000	TM 9316.000
σ		1.1%	1.543	0.769	2.120	5.962	T 22.810	T 36.130	40.280	57.010	TM 373.400
%RSD		1.0	1.075	0.514	1.448	7.809	T 1.052	T 1.851	2.097	2.896	TM 4.008

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	T 2461.000	T 335900.000	T 4196.000	5653.000	5047.000	97.6%	M 958.800	236.900	348.600	9982.000
2	01:56:16	T 2438.000	T 322400.000	T 3899.000	5295.000	4996.000	100.9%	M 946.600	232.900	342.500	9007.000
3	01:56:43	T 2410.000	T 328100.000	T 4027.000	5440.000	5027.000	97.4%	M 931.900	233.800	341.500	10120.000
x		T 2436.000	T 328800.000	T 4041.000	5463.000	5024.000	98.6%	M 945.700	234.500	344.200	9704.000
σ		T 25.690	T 6763.000	T 149.300	180.100	25.610	2.0%	M 13.490	2.089	3.816	608.400
%RSD		T 1.055	T 2.057	T 3.696	3.297	0.510	2.0	M 1.426	0.891	1.109	6.269

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	4621.000	327.000	T 4479.000	4318.000	219.800	223.700	220.000	238.800	271.000	M 520.100
2	01:56:16	4580.000	323.100	T 4368.000	4232.000	216.100	219.000	209.100	233.400	260.500	M 527.700
3	01:56:43	4584.000	327.200	T 4437.000	4343.000	221.500	224.400	222.900	237.600	267.000	M 515.100
x		4595.000	325.800	T 4428.000	4297.000	219.200	222.300	217.300	236.600	266.200	M 520.900
σ		22.240	2.329	T 56.190	58.220	2.791	2.931	7.304	2.865	5.270	M 6.325
%RSD		0.484	0.715	T 1.269	1.355	1.274	1.318	3.361	1.211	1.980	M 1.214

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	424.400	440.100	256.300	218.500	9.296	9.517	824.100	223.100	2.869	213.100
2	01:56:16	431.800	453.000	264.900	222.800	10.070	9.745	814.000	221.600	0.925	210.600
3	01:56:43	429.000	442.400	260.200	217.500	10.360	9.577	808.300	218.200	-0.560	209.500
x		428.400	445.200	260.500	219.600	9.908	9.613	815.500	221.000	1.078	211.000
σ		3.764	6.880	4.320	2.819	0.550	0.118	8.027	2.524	1.720	1.855
%RSD		0.879	1.545	1.658	1.284	5.553	1.230	0.984	1.142	159.500	0.879

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	103.9%	195.700	189.600	201.900	221.400	232.300	231.200	221.800	224.000	86.0%
2	01:56:16	110.9%	195.900	186.700	200.900	225.600	228.500	230.000	221.200	224.300	90.8%
3	01:56:43	106.6%	193.600	185.600	197.000	218.500	222.200	225.000	217.700	220.300	88.1%
x		107.1%	195.100	187.300	199.900	221.900	227.600	228.700	220.300	222.900	88.3%
σ		3.5%	1.273	2.041	2.586	3.570	5.102	3.254	2.231	2.223	2.4%
%RSD		3.3	0.652	1.089	1.294	1.609	2.241	1.423	1.013	0.998	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:55:49	238.100	236.500	206.200	204.300	329.300	330.000	87.9%	221.500	226.700	264.700
2	01:56:16	237.200	236.300	209.100	206.500	323.500	326.400	92.5%	223.700	225.800	263.100
3	01:56:43	232.300	231.200	202.400	202.800	322.800	321.000	89.0%	221.600	224.200	260.900
x		235.900	234.700	205.900	204.600	325.200	325.800	89.8%	222.300	225.600	262.900
σ		3.095	3.010	3.379	1.876	3.549	4.501	2.4%	1.213	1.293	1.890
%RSD		1.312	1.283	1.641	0.917	1.091	1.382	2.7	0.546	0.573	0.719

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	01:55:49	263.200	264.400	83.8%
2	01:56:16	260.600	263.300	88.8%
3	01:56:43	257.900	260.300	85.1%
x		260.600	262.700	85.9%
σ		2.630	2.127	2.6%
%RSD		1.009	0.810	3.0

UD25032-074L(5) 05/01/2019 02:01:28

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	106.5%	0.061	0.413	0.389	52.960	4.086	22.980	23.150	22.380	TM 1319.000
2	02:02:22	101.4%	0.083	0.566	0.246	60.570	3.044	23.820	23.220	23.030	TM 1299.000
3	02:02:49	100.2%	0.045	0.712	0.123	63.880	1.997	23.000	23.430	22.830	TM 1262.000
x		102.7%	0.063	0.564	0.253	59.140	3.042	23.270	23.260	22.750	TM 1293.000
σ		3.3%	0.019	0.149	0.133	5.600	1.044	0.480	0.145	0.333	TM 28.650
%RSD		3.2	30.570	26.530	52.710	9.469	34.330	2.063	0.624	1.465	TM 2.216

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	T 217.200	T 75760.000	28.670	619.100	573.800	96.3%	62.750	0.894	28.680	2211.000
2	02:02:22	T 218.400	T 75240.000	25.840	608.500	571.700	96.5%	61.320	1.377	29.340	1708.000
3	02:02:49	T 227.900	T 73200.000	26.760	600.000	567.800	96.4%	58.740	0.797	27.620	1942.000
x		T 221.200	T 74730.000	27.090	609.200	571.100	96.4%	60.940	1.023	28.550	1954.000
σ		T 5.861	T 1352.000	1.444	9.600	3.058	0.1%	2.031	0.311	0.869	251.600
%RSD		T 2.650	T 1.809	5.331	1.576	0.535	0.1	3.333	30.380	3.044	12.880

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	365.400	16.410	T 375.700	322.700	0.134	0.994	0.562	5.835	6.389	64.600
2	02:02:22	348.400	16.420	T 369.200	315.900	0.112	1.125	0.732	5.485	6.137	65.240
3	02:02:49	352.400	16.180	354.300	316.800	0.107	0.947	1.016	5.463	6.084	62.130
x		355.400	16.340	T 366.400	318.500	0.118	1.022	0.770	5.594	6.203	63.990
σ		8.920	0.138	T 10.980	3.718	0.015	0.092	0.229	0.209	0.163	1.641
%RSD		2.510	0.841	T 2.996	1.168	12.400	8.994	29.780	3.733	2.629	2.565

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	52.760	58.440	11.650	0.569	1.819	2.094	-0.463	-0.008	-0.179	2.300
2	02:02:22	54.390	59.290	11.500	0.564	1.770	2.733	-0.593	-0.045	-0.331	2.233
3	02:02:49	57.000	58.560	11.490	0.618	1.631	2.082	-1.713	-0.362	1.207	2.245
x		54.720	58.760	11.550	0.583	1.740	2.303	-0.923	-0.138	0.232	2.259
σ		2.139	0.462	0.092	0.030	0.098	0.373	0.687	0.195	0.847	0.036
%RSD		3.909	0.787	0.796	5.085	5.604	16.180	74.440	140.600	365.000	1.583

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	93.0%	0.113	0.104	0.101	1.219	0.040	0.046	0.292	0.302	86.7%
2	02:02:22	95.4%	0.080	0.120	0.094	0.162	0.023	0.026	0.284	0.263	89.2%
3	02:02:49	95.5%	0.065	0.073	0.094	0.941	0.022	0.022	0.256	0.278	90.1%
x		94.7%	0.086	0.099	0.097	0.774	0.028	0.031	0.277	0.281	88.7%
σ		1.4%	0.024	0.024	0.004	0.548	0.010	0.013	0.019	0.020	1.7%
%RSD		1.5	28.490	24.120	4.448	70.760	34.610	40.450	6.815	7.105	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:01:55	1.539	1.822	0.077	0.071	10.740	10.620	85.2%	0.082	0.106	11.300
2	02:02:22	1.416	1.785	0.048	0.063	10.810	10.670	88.4%	0.089	0.087	11.070
3	02:02:49	1.488	1.793	0.080	0.073	10.490	10.590	88.2%	0.079	0.084	10.940
x		1.481	1.800	0.068	0.069	10.680	10.630	87.3%	0.083	0.093	11.110
σ		0.062	0.019	0.018	0.005	0.171	0.044	1.8%	0.005	0.011	0.185
%RSD		4.158	1.081	26.380	7.773	1.602	0.413	2.1	6.241	12.390	1.666

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:01:55	11.010	11.130	85.4%
2	02:02:22	10.820	11.050	88.7%
3	02:02:49	10.940	10.900	89.1%
x		10.920	11.030	87.7%
σ		0.094	0.118	2.0%
%RSD		0.864	1.073	2.3

CCV MW10994 05/01/2019 02:07:34 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	93.0%	305.100	318.500	316.500	76.230	T 67230.000	T 64760.000	T 64660.000	T 63010.000	303.000
2	02:08:28	94.2%	302.900	307.100	291.400	55.420	T 65940.000	T 63530.000	T 62870.000	T 63530.000	300.500
3	02:08:54	90.5%	315.300	315.700	311.000	64.180	T 67610.000	T 64380.000	T 63890.000	T 63220.000	299.700
x		92.6%	102.588%	104.584%	102.101%	65.280	T 111.545%	T 64220.000	T 63800.000	T 105.425%	100.358%
σ		1.8%	n/a	n/a	n/a	10.450	T n/a	T 626.600	T 897.500	T n/a	n/a
%RSD		2.0	2.146	1.883	4.319	16.010	T 1.313	T 0.976	T 1.407	T 0.410	0.583

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	T 3324.000	2696.000	T 69400.000	64990.000	T 65660.000	91.8%	312.200	314.800	301.100	1584.000
2	02:08:28	T 3196.000	2535.000	T 68350.000	64070.000	T 66030.000	93.2%	317.700	316.100	302.000	936.400
3	02:08:54	T 3453.000	2489.000	T 67400.000	64970.000	T 66320.000	94.8%	313.100	320.800	303.800	622.500
x		T 110.814%	2573.000	T 113.972%	64680.000	T 110.003%	93.3%	104.776%	105.749%	100.763%	1048.000
σ		T n/a	108.600	T n/a	525.800	T n/a	1.5%	n/a	n/a	n/a	490.400
%RSD		T 3.874	4.219	T 1.460	0.813	T 0.499	1.6	0.950	1.000	0.448	46.810

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	T 64600.000	296.000	T 65270.000	T 62600.000	300.700	295.300	303.900	299.300	329.400	323.300
2	02:08:28	T 65140.000	295.000	T 65000.000	T 63610.000	301.300	293.400	303.100	295.000	319.200	320.000
3	02:08:54	T 65120.000	299.100	T 65030.000	T 63300.000	295.600	288.600	298.700	296.700	314.000	317.800
x		T 64950.000	98.900%	T 65100.000	T 105.283%	99.738%	97.465%	301.900	297.000	106.964%	106.780%
σ		T 304.600	n/a	T 146.900	T n/a	n/a	n/a	2.794	2.141	n/a	n/a
%RSD		T 0.469	0.716	T 0.226	T 0.821	1.059	1.181	0.925	0.721	2.432	0.863

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	297.500	299.700	287.000	327.600	0.758	0.153	1320.000	317.900	0.620	309.100
2	02:08:28	292.000	302.000	295.100	319.100	1.274	0.776	1351.000	323.800	1.786	308.400
3	02:08:54	298.600	300.600	298.300	314.000	1.514	1.156	1345.000	318.900	3.903	306.900
x		296.000	300.800	97.835%	320.200	1.182	0.695	1339.000	106.737%	2.103	102.708%
σ		3.492	1.176	n/a	6.854	0.387	0.507	16.600	n/a	1.665	n/a
%RSD		1.180	0.391	1.985	2.140	32.700	72.930	1.240	0.993	79.150	0.369

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	82.8%	324.200	324.900	326.400	312.000	302.900	300.800	303.400	306.400	79.0%
2	02:08:28	86.2%	325.300	325.600	325.900	323.400	303.300	303.000	306.200	305.000	82.3%
3	02:08:54	88.8%	322.600	326.400	326.600	313.700	303.500	303.000	306.800	310.300	85.5%
x		85.9%	108.013%	108.542%	326.300	316.400	101.071%	302.300	305.500	102.410%	82.3%
σ		3.0%	n/a	n/a	0.357	6.141	n/a	1.243	1.779	n/a	3.3%
%RSD		3.5	0.412	0.229	0.109	1.941	0.094	0.411	0.582	0.901	4.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:08:01	315.400	316.800	313.600	312.300	317.100	321.100	80.1%	309.300	315.100	308.200
2	02:08:28	319.600	316.100	316.300	317.400	320.300	320.900	82.8%	310.100	315.600	307.200
3	02:08:54	319.200	318.200	321.300	320.600	316.800	319.500	86.5%	311.500	317.100	308.400
x		106.021%	105.682%	317.100	105.594%	106.023%	106.834%	83.2%	310.300	105.309%	102.634%
σ		n/a	n/a	3.917	n/a	n/a	n/a	3.2%	1.140	n/a	n/a
%RSD		0.736	0.338	1.235	1.321	0.620	0.262	3.9	0.367	0.322	0.203

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:08:01	308.500	310.100	76.8%
2	02:08:28	308.600	309.100	78.7%
3	02:08:54	307.800	310.200	83.3%
x		102.756%	103.267%	79.6%
σ		n/a	n/a	3.3%
%RSD		0.143	0.205	4.2

CCB IM9390-01 05/01/2019 02:13:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	99.1%	0.060	0.988	0.941	43.230	9.273	7.363	7.032	7.695	0.181
2	02:14:36	101.1%	0.004	1.016	0.913	40.050	7.307	5.632	5.050	6.122	0.021
3	02:15:03	100.3%	0.020	1.001	0.520	36.930	4.874	5.002	4.915	5.108	0.099
x		100.2%	0.028	1.002	0.792	40.070	7.151	5.999	5.666	6.308	0.100
σ		1.0%	0.028	0.014	0.236	3.153	2.204	1.222	1.185	1.304	0.080
%RSD		1.0	100.700	1.408	29.770	7.868	30.810	20.380	20.920	20.670	80.090

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	16.010	1820.000	21.570	9.815	8.048	95.4%	-0.053	0.014	0.097	68.410
2	02:14:36	15.490	1727.000	20.900	3.871	5.999	95.5%	-0.028	0.048	0.095	54.730
3	02:15:03	14.850	1668.000	17.800	6.530	5.578	95.2%	-0.003	0.011	0.070	67.160
x		15.450	1738.000	20.090	6.739	6.542	95.4%	-0.028	0.024	0.087	63.430
σ		0.579	76.890	2.013	2.977	1.321	0.2%	0.025	0.020	0.015	7.560
%RSD		3.745	4.423	10.020	44.180	20.200	0.2	90.540	82.120	17.280	11.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	8.987	0.091	15.900	-3.317	0.059	0.042	0.153	0.018	0.055	0.041
2	02:14:36	7.250	0.067	13.440	-0.262	0.063	0.039	0.044	0.022	0.034	0.053
3	02:15:03	5.633	0.036	11.010	-7.400	0.050	0.036	-0.028	0.002	0.031	0.040
x		7.290	0.065	13.450	-3.660	0.057	0.039	0.056	0.014	0.040	0.045
σ		1.678	0.027	2.447	3.581	0.006	0.003	0.091	0.011	0.013	0.007
%RSD		23.010	42.240	18.190	97.860	11.040	7.680	161.700	77.370	33.110	16.200

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	-0.054	0.066	0.078	0.010	0.064	0.530	1.239	0.332	0.378	0.038
2	02:14:36	0.072	0.060	-0.033	0.126	0.381	1.010	0.509	0.152	0.360	0.029
3	02:15:03	0.193	0.052	-0.063	0.325	-0.042	0.835	-1.775	-0.403	1.271	0.026
x		0.070	0.059	-0.006	0.154	0.135	0.792	-0.009	0.027	0.670	0.031
σ		0.123	0.007	0.074	0.159	0.220	0.243	1.572	0.383	0.521	0.007
%RSD		175.100	11.730	1285.000	103.500	163.600	30.720	17320.000	1426.000	77.830	21.220

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	88.5%	0.055	0.066	0.091	-0.238	0.047	0.046	0.064	0.068	86.2%
2	02:14:36	88.7%	0.096	0.031	0.092	-1.194	0.030	0.028	0.024	0.027	86.9%
3	02:15:03	92.0%	0.080	0.053	0.060	0.039	0.025	0.029	0.044	0.039	89.6%
x		89.8%	0.077	0.050	0.081	-0.465	0.034	0.035	0.044	0.045	87.6%
σ		2.0%	0.020	0.018	0.018	0.647	0.011	0.010	0.020	0.021	1.8%
%RSD		2.2	26.370	35.920	22.600	139.200	33.600	28.570	45.900	46.530	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:14:09	0.079	0.112	0.173	0.142	0.014	0.052	85.0%	0.034	0.035	0.040
2	02:14:36	0.025	0.083	0.121	0.098	0.067	0.056	84.4%	0.011	0.038	0.025
3	02:15:03	0.050	0.061	0.165	0.133	0.026	0.054	87.4%	0.017	0.014	0.015
x		0.051	0.085	0.153	0.124	0.036	0.054	85.6%	0.021	0.029	0.027
σ		0.027	0.026	0.028	0.023	0.028	0.002	1.6%	0.012	0.013	0.012
%RSD		52.590	30.320	18.500	18.550	77.600	4.010	1.9	57.650	44.300	45.600

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:14:09	0.039	0.037	86.0%
2	02:14:36	0.033	0.035	85.8%
3	02:15:03	0.047	0.031	89.7%
x		0.040	0.034	87.2%
σ		0.007	0.003	2.2%
%RSD		17.550	8.151	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	105.9%	139.300	148.600	144.200	131.000	T 1788.000	T 1811.000	1786.000	1816.000	TM 5891.000
2	02:20:41	103.1%	147.000	151.000	143.400	125.600	T 1840.000	T 1857.000	1809.000	1843.000	TM 5547.000
3	02:21:08	106.2%	148.000	156.800	150.900	122.200	T 1907.000	T 1914.000	1882.000	1878.000	TM 5715.000
x		105.1%	144.800	152.100	146.200	126.300	T 1845.000	T 1861.000	1826.000	1846.000	TM 5718.000
σ		1.7%	4.786	4.188	4.114	4.439	T 59.520	T 51.400	50.330	31.140	TM 172.300
%RSD		1.6	3.306	2.753	2.815	3.516	T 3.226	T 2.763	2.757	1.687	TM 3.014

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	T 2910.000	T 311700.000	T 2234.000	5014.000	4525.000	96.3%	467.500	210.700	324.200	8850.000
2	02:20:41	T 2918.000	T 289500.000	T 2140.000	4782.000	4531.000	100.1%	T 487.300	216.500	324.300	5996.000
3	02:21:08	T 2911.000	T 307900.000	T 2335.000	5081.000	4677.000	96.9%	470.600	222.100	335.900	7748.000
x		T 2913.000	T 303100.000	T 2236.000	4959.000	4578.000	97.8%	T 475.100	216.500	328.100	7532.000
σ		T 4.175	T 11860.000	T 97.580	156.800	86.080	2.0%	T 10.640	5.679	6.747	1439.000
%RSD		T 0.143	T 3.914	T 4.363	3.161	1.880	2.1	T 2.240	2.624	2.056	19.110

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	3700.000	270.200	T 3575.000	3486.000	201.200	204.400	199.600	220.200	252.300	475.900
2	02:20:41	3667.000	273.400	T 3595.000	3467.000	205.000	205.700	196.500	219.500	251.600	471.200
3	02:21:08	3755.000	275.900	T 3663.000	3564.000	210.800	211.000	209.200	229.500	253.300	464.400
x		3707.000	273.200	T 3611.000	3506.000	205.700	207.000	201.800	223.100	252.400	470.500
σ		44.720	2.827	T 45.930	51.750	4.816	3.522	6.597	5.593	0.855	5.768
%RSD		1.206	1.035	T 1.272	1.476	2.342	1.701	3.270	2.507	0.339	1.226

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	392.500	406.300	242.600	203.700	5.765	6.435	794.800	213.200	-0.521	184.000
2	02:20:41	392.100	413.000	247.400	209.400	6.386	6.061	794.100	211.800	-0.633	189.400
3	02:21:08	400.000	410.300	251.900	214.900	5.918	7.169	812.800	214.400	2.437	194.400
x		394.900	409.900	247.300	209.300	6.023	6.555	800.500	213.100	0.428	189.300
σ		4.436	3.382	4.662	5.613	0.324	0.563	10.590	1.321	1.741	5.210
%RSD		1.124	0.825	1.885	2.682	5.375	8.596	1.323	0.620	407.200	2.753

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	102.3%	184.500	178.100	188.800	193.700	205.000	204.700	197.800	200.600	85.5%
2	02:20:41	107.5%	190.200	183.400	194.000	200.800	209.400	208.700	205.700	208.800	90.2%
3	02:21:08	104.3%	197.000	187.300	198.700	217.100	211.700	214.000	209.600	211.300	88.4%
x		104.7%	190.500	183.000	193.800	203.900	208.700	209.100	204.400	206.900	88.0%
σ		2.6%	6.245	4.613	4.952	12.000	3.383	4.694	6.018	5.591	2.4%
%RSD		2.5	3.277	2.521	2.555	5.887	1.621	2.245	2.945	2.702	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:20:14	214.800	211.700	195.800	192.600	247.400	251.200	87.1%	201.500	204.400	252.200
2	02:20:41	218.700	217.500	202.800	202.100	252.400	253.700	92.2%	207.000	208.400	255.100
3	02:21:08	223.500	223.000	204.200	204.000	262.100	259.400	89.7%	211.100	212.600	259.200
x		219.000	217.400	200.900	199.600	253.900	254.800	89.6%	206.500	208.500	255.500
σ		4.364	5.619	4.523	6.092	7.472	4.199	2.6%	4.830	4.101	3.528
%RSD		1.993	2.584	2.251	3.052	2.942	1.648	2.9	2.339	1.967	1.381

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:20:14	249.300	251.100	84.8%
2	02:20:41	252.200	254.700	90.5%
3	02:21:08	256.300	258.900	86.6%
x		252.600	254.900	87.3%
σ		3.537	3.923	2.9%
%RSD		1.400	1.539	3.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	86.3%	-0.017	M 1335.000	TM 1547.000	-66.920	TM 741100.000	76.390	78.610	80.250	1.884
2	02:26:47	84.0%	-0.017	M 1371.000	TM 1532.000	-68.300	TM 761600.000	75.650	76.310	79.640	1.623
3	02:27:14	87.0%	-0.015	M 1389.000	TM 1505.000	-69.640	TM 760200.000	77.150	79.110	79.010	1.457
x		85.8%	-0.016	M 1365.000	TM 1528.000	-68.290	TM 754300.000	76.400	78.010	79.630	1.655
σ		1.6%	0.001	M 27.350	TM 21.340	1.362	TM 11490.000	0.750	1.496	0.623	0.215
%RSD		1.8	6.660	M 2.003	TM 1.397	1.995	TM 1.523	0.981	1.918	0.783	13.020

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	175.800	T 60330.000	T 52830.000	29870.000	T 31720.000	89.5%	0.606	0.162	0.302	1257.000
2	02:26:47	174.900	T 60550.000	T 53100.000	30750.000	T 32120.000	90.1%	0.680	0.056	0.287	1154.000
3	02:27:14	172.800	T 60060.000	T 52220.000	30580.000	T 31950.000	91.5%	0.903	0.177	0.279	1098.000
x		174.500	T 60310.000	T 52710.000	30400.000	T 31930.000	90.4%	0.730	0.132	0.289	1169.000
σ		1.560	T 244.000	T 448.600	465.500	T 196.900	1.0%	0.155	0.066	0.012	80.630
%RSD		0.894	T 0.405	T 0.851	1.531	T 0.617	1.2	21.200	50.000	4.102	6.895

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	283.600	38.020	311.200	549.000	0.122	0.845	5.461	3.650	3.311	6.373
2	02:26:47	286.900	38.190	307.200	524.800	0.123	0.764	5.215	3.865	3.068	5.865
3	02:27:14	288.100	37.880	301.400	504.200	0.086	0.755	5.782	3.800	2.971	6.032
x		286.200	38.030	306.600	526.000	0.110	0.788	5.486	3.772	3.117	6.090
σ		2.366	0.156	4.929	22.420	0.021	0.049	0.284	0.110	0.175	0.259
%RSD		0.827	0.411	1.608	4.263	19.190	6.276	5.181	2.920	5.613	4.252

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	5.307	3.801	5.309	0.750	266.800	280.200	5.081	0.971	0.968	T 499.300
2	02:26:47	4.690	4.105	5.751	1.075	276.000	274.900	6.512	1.253	3.706	TM 500.600
3	02:27:14	3.785	3.828	5.152	0.391	272.200	274.000	5.997	1.119	3.008	T 496.900
x		4.594	3.911	5.404	0.739	271.700	276.400	5.863	1.114	2.561	TM 498.900
σ		0.766	0.168	0.311	0.342	4.624	3.321	0.725	0.141	1.423	TM 1.921
%RSD		16.670	4.292	5.751	46.300	1.702	1.202	12.360	12.640	55.580	TM 0.385

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	84.9%	5.252	4.967	5.410	17.730	0.026	0.019	0.026	0.060	80.2%
2	02:26:47	89.1%	5.262	5.593	5.202	18.320	0.016	0.019	0.024	0.031	83.8%
3	02:27:14	91.2%	5.470	5.246	5.387	14.440	0.012	0.018	0.009	0.018	86.6%
x		88.4%	5.328	5.269	5.333	16.830	0.018	0.019	0.020	0.036	83.5%
σ		3.2%	0.124	0.314	0.114	2.089	0.007	0.000	0.009	0.021	3.2%
%RSD		3.6	2.318	5.956	2.136	12.410	40.070	1.902	47.600	58.410	3.8

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:26:19	0.129	0.149	1.467	1.576	0.642	0.570	83.9%	0.053	0.044	0.018
2	02:26:47	0.105	0.185	1.547	1.444	0.547	0.603	88.0%	0.033	0.038	0.022
3	02:27:14	0.089	0.104	1.448	1.569	0.566	0.535	90.9%	0.028	0.038	0.031
x		0.108	0.146	1.487	1.529	0.585	0.569	87.6%	0.038	0.040	0.024
σ		0.020	0.040	0.053	0.075	0.050	0.034	3.5%	0.013	0.003	0.007
%RSD		18.750	27.760	3.547	4.871	8.549	5.983	4.0	35.250	8.643	27.840

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:26:19	0.042	0.033	76.8%
2	02:26:47	0.004	0.023	80.4%
3	02:27:14	0.034	0.022	82.4%
x		0.026	0.026	79.9%
σ		0.020	0.006	2.8%
%RSD		75.840	23.270	3.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	84.9%	6.143	M 1375.000	TM 1561.000	-66.900	TM 749400.000	195.000	197.300	201.700	19.210
2	02:32:53	86.7%	6.167	M 1369.000	TM 1541.000	-69.810	TM 744900.000	193.400	196.300	204.700	20.110
3	02:33:20	84.8%	6.293	M 1374.000	TM 1522.000	-70.080	TM 755400.000	191.400	192.100	195.900	19.220
x		85.4%	6.201	M 1373.000	TM 1541.000	-68.930	TM 749900.000	193.300	195.200	200.800	19.520
σ		1.1%	0.080	M 3.072	TM 19.170	1.764	TM 5284.000	1.804	2.788	4.515	0.517
%RSD		1.3	1.297	M 0.224	TM 1.244	2.559	TM 0.705	0.933	1.428	2.249	2.647
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	369.800	T 59070.000	T 51940.000	30550.000	T 31790.000	90.4%	21.360	19.700	18.870	1289.000
2	02:32:53	369.400	T 59090.000	T 52830.000	30440.000	T 31400.000	91.6%	19.910	20.260	18.630	1139.000
3	02:33:20	370.000	T 58370.000	T 51810.000	29620.000	T 31540.000	93.1%	20.790	19.620	18.670	1132.000
x		369.700	T 58840.000	T 52190.000	30200.000	T 31580.000	91.7%	20.690	19.860	18.720	1187.000
σ		0.325	T 410.000	T 555.600	506.500	T 200.600	1.3%	0.730	0.351	0.125	88.830
%RSD		0.088	T 0.697	T 1.064	1.677	T 0.635	1.5	3.528	1.768	0.666	7.487
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	480.600	55.250	503.100	696.900	17.630	17.720	27.250	21.330	20.930	24.230
2	02:32:53	471.200	55.040	T 513.300	730.400	17.880	18.260	26.370	21.240	21.530	24.040
3	02:33:20	475.400	54.570	T 502.300	685.400	17.720	17.340	27.300	21.090	20.920	23.110
x		475.700	54.960	T 506.200	704.200	17.750	17.770	26.970	21.220	21.130	23.790
σ		4.702	0.349	T 6.133	23.430	0.124	0.464	0.524	0.122	0.347	0.599
%RSD		0.988	0.635	T 1.212	3.327	0.697	2.608	1.944	0.573	1.640	2.519
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	21.540	22.110	24.860	19.480	399.300	404.200	90.490	20.890	2.215	TM 510.000
2	02:32:53	22.860	21.360	23.780	20.520	407.800	399.800	85.150	19.990	-1.333	TM 507.100
3	02:33:20	21.160	22.230	24.770	20.140	397.600	409.700	82.160	18.650	0.345	TM 508.700
x		21.850	21.900	24.470	20.040	401.600	404.600	85.940	19.840	0.409	TM 508.600
σ		0.890	0.474	0.601	0.524	5.476	4.958	4.223	1.128	1.775	TM 1.438
%RSD		4.073	2.164	2.455	2.616	1.364	1.226	4.914	5.683	434.000	TM 0.283
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	89.8%	24.540	25.350	24.950	36.760	17.330	17.770	19.110	18.980	86.2%
2	02:32:53	90.0%	25.060	25.010	24.500	39.260	17.870	17.650	19.140	18.660	85.5%
3	02:33:20	92.5%	24.320	25.390	24.770	30.990	17.480	17.620	18.650	18.910	90.2%
x		90.8%	24.640	25.250	24.740	35.670	17.560	17.680	18.970	18.850	87.3%
σ		1.5%	0.381	0.210	0.227	4.244	0.278	0.078	0.273	0.167	2.5%
%RSD		1.6	1.545	0.830	0.918	11.900	1.584	0.439	1.441	0.883	2.9
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:32:25	20.000	19.300	21.240	21.070	20.180	19.820	90.1%	18.290	18.010	18.910
2	02:32:53	19.370	19.910	21.200	20.600	20.440	20.230	89.3%	18.120	17.960	18.700
3	02:33:20	19.890	19.610	21.230	21.100	20.690	19.330	94.2%	18.160	18.190	18.540
x		19.760	19.610	21.220	20.930	20.440	19.790	91.2%	18.190	18.050	18.720
σ		0.335	0.304	0.021	0.278	0.256	0.452	2.6%	0.090	0.124	0.182
%RSD		1.698	1.550	0.100	1.329	1.253	2.284	2.9	0.493	0.688	0.975
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	02:32:25	18.390	18.510	81.2%							
2	02:32:53	18.780	18.680	79.9%							
3	02:33:20	18.610	18.540	85.4%							
x		18.590	18.580	82.2%							
σ		0.194	0.092	2.9%							
%RSD		1.041	0.495	3.5							

UD18066-001SD(5) 05/01/2019 02:38:05

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	84.4%	6.186	M 1378.000	TM 1531.000	-68.830	TM 756600.000	194.300	197.600	200.300	19.080
2	02:38:59	85.8%	5.904	M 1391.000	TM 1560.000	-69.920	TM 758900.000	197.900	195.300	201.400	20.030
3	02:39:26	86.4%	6.099	M 1370.000	TM 1510.000	-71.220	TM 740300.000	195.800	197.200	199.900	T 16.010
x		85.5%	6.063	M 1380.000	TM 1534.000	-69.990	TM 751900.000	196.000	196.700	200.500	T 18.380
σ		1.0%	0.145	M 10.430	TM 25.520	1.199	TM 10140.000	1.821	1.209	0.779	T 2.099
%RSD		1.2	2.386	M 0.756	TM 1.664	1.713	TM 1.348	0.929	0.615	0.388	T 11.430

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	378.000	T 59390.000	T 53110.000	30570.000	T 31970.000	91.5%	20.040	19.730	18.760	1233.000
2	02:38:59	383.900	T 60780.000	T 53730.000	30760.000	T 32030.000	91.6%	20.660	19.300	18.750	1392.000
3	02:39:26	372.000	T 58670.000	T 51790.000	30010.000	T 31730.000	93.3%	20.200	19.310	18.250	1328.000
x		378.000	T 59610.000	T 52870.000	30440.000	T 31910.000	92.1%	20.300	19.450	18.580	1318.000
σ		5.965	T 1074.000	T 990.200	387.500	T 158.900	1.0%	0.325	0.245	0.290	79.690
%RSD		1.578	T 1.802	T 1.873	1.273	T 0.498	1.1	1.600	1.260	1.559	6.048

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	491.000	55.370	T 505.700	715.300	18.110	18.060	25.320	21.420	20.910	23.940
2	02:38:59	481.300	56.200	505.300	719.700	17.600	17.860	25.600	21.190	21.060	24.240
3	02:39:26	470.600	55.070	T 505.200	691.400	17.590	18.080	23.980	21.000	21.560	23.810
x		481.000	55.550	T 505.400	708.800	17.760	18.000	24.970	21.200	21.180	24.000
σ		10.220	0.584	T 0.228	15.230	0.297	0.121	0.869	0.212	0.340	0.218
%RSD		2.124	1.050	T 0.045	2.149	1.675	0.672	3.479	0.998	1.603	0.910

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	22.340	21.920	25.770	19.410	492.400	491.900	86.790	19.710	0.285	TM 517.200
2	02:38:59	22.680	20.730	24.770	19.620	485.300	491.100	86.600	19.990	-0.123	TM 512.300
3	02:39:26	22.040	21.500	23.990	21.200	485.600	498.900	86.520	19.880	2.753	TM 514.000
x		22.350	21.380	24.840	20.080	487.800	494.000	86.630	19.860	0.972	TM 514.500
σ		0.321	0.605	0.895	0.981	3.987	4.271	0.138	0.138	1.556	TM 2.521
%RSD		1.437	2.829	3.603	4.887	0.818	0.865	0.159	0.695	160.100	TM 0.490

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	90.3%	25.850	25.030	25.420	37.310	18.100	18.010	19.710	19.010	87.9%
2	02:38:59	89.5%	25.240	25.170	25.590	33.400	17.760	18.220	18.570	18.700	85.9%
3	02:39:26	91.1%	25.060	25.310	25.200	35.700	17.740	17.970	18.830	19.430	87.5%
x		90.3%	25.380	25.170	25.400	35.470	17.870	18.070	19.030	19.050	87.1%
σ		0.8%	0.410	0.137	0.194	1.968	0.201	0.135	0.596	0.366	1.1%
%RSD		0.9	1.614	0.545	0.762	5.547	1.124	0.745	3.128	1.923	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:38:32	19.540	20.110	21.540	21.180	20.550	20.210	90.8%	18.670	18.340	18.780
2	02:38:59	20.370	20.070	21.490	20.980	20.320	20.500	90.1%	18.420	18.210	18.850
3	02:39:26	20.110	19.770	21.690	21.040	19.950	19.510	91.9%	18.770	18.390	18.860
x		20.010	19.980	21.570	21.070	20.280	20.070	90.9%	18.620	18.310	18.830
σ		0.425	0.186	0.105	0.104	0.304	0.507	0.9%	0.180	0.098	0.042
%RSD		2.125	0.930	0.488	0.494	1.502	2.525	1.0	0.969	0.532	0.225

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:38:32	18.730	18.820	82.6%
2	02:38:59	18.570	18.660	81.1%
3	02:39:26	19.080	18.990	83.8%
x		18.790	18.830	82.5%
σ		0.261	0.168	1.3%
%RSD		1.391	0.891	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	94.8%	0.015	M 575.700	M 562.900	-19.790	TM 194700.000	19.860	20.410	19.920	0.477
2	02:45:06	96.7%	-0.004	M 565.600	M 561.100	-17.830	TM 196100.000	19.930	20.210	19.940	0.422
3	02:45:33	96.7%	-0.012	M 529.500	M 527.600	-17.480	TM 192200.000	18.500	18.970	18.870	0.415
x		96.1%	-0.000	M 556.900	M 550.500	-18.370	TM 194300.000	19.430	19.860	19.580	0.438
σ		1.1%	0.014	M 24.270	M 19.910	1.245	TM 1994.000	0.805	0.784	0.616	0.034
%RSD		1.1	8620.000	M 4.358	M 3.616	6.779	TM 1.026	4.141	3.945	3.144	7.697
Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	46.130	T 12070.000	T 10100.000	5600.000	5400.000	100.9%	0.133	0.013	0.075	270.200
2	02:45:06	44.340	T 12200.000	T 10120.000	5581.000	5382.000	99.4%	0.017	0.046	0.066	262.800
3	02:45:33	42.930	T 11800.000	T 9709.000	5217.000	5003.000	104.1%	0.080	0.063	0.039	213.500
x		44.470	T 12030.000	T 9978.000	5466.000	5262.000	101.5%	0.076	0.041	0.060	248.800
σ		1.607	T 200.400	T 233.100	215.800	224.300	2.4%	0.058	0.025	0.019	30.810
%RSD		3.614	T 1.666	T 2.336	3.948	4.263	2.4	76.240	61.990	31.510	12.380
Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	46.070	7.087	58.710	86.520	0.025	0.106	1.116	0.763	0.535	1.231
2	02:45:06	45.920	6.857	58.430	94.270	0.026	0.065	1.194	0.724	0.603	1.360
3	02:45:33	43.630	6.498	52.490	70.620	0.015	0.108	0.773	0.654	0.507	1.097
x		45.210	6.814	56.540	83.800	0.022	0.093	1.028	0.714	0.548	1.230
σ		1.367	0.297	3.514	12.060	0.006	0.024	0.224	0.055	0.049	0.132
%RSD		3.024	4.359	6.215	14.390	27.260	26.260	21.790	7.735	8.996	10.720
Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	0.815	0.817	0.779	0.274	56.580	56.670	-2.998	-0.716	-0.440	85.430
2	02:45:06	1.020	0.811	0.909	0.910	57.390	58.330	-0.550	-0.125	-1.388	84.170
3	02:45:33	0.924	0.762	0.785	0.168	53.720	54.160	-1.843	-0.431	-1.427	80.470
x		0.920	0.797	0.824	0.451	55.900	56.390	-1.797	-0.424	-1.085	83.360
σ		0.102	0.030	0.074	0.401	1.927	2.100	1.224	0.296	0.559	2.578
%RSD		11.140	3.747	8.921	88.960	3.448	3.724	68.140	69.730	51.540	3.093
Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	100.1%	0.908	0.950	0.895	3.511	0.000	-0.002	0.005	0.002	98.0%
2	02:45:06	98.2%	0.898	0.973	0.907	3.692	-0.001	0.002	0.013	-0.002	95.8%
3	02:45:33	102.5%	0.892	1.001	0.802	2.667	-0.005	-0.000	0.002	-0.001	101.4%
x		100.3%	0.900	0.975	0.868	3.290	-0.002	-0.000	0.007	-0.000	98.4%
σ		2.1%	0.008	0.026	0.057	0.547	0.003	0.002	0.006	0.002	2.8%
%RSD		2.1	0.890	2.621	6.617	16.630	148.200	689.400	90.690	1134.000	2.8
Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:44:39	0.008	0.045	0.275	0.221	0.104	0.084	98.6%	0.015	0.013	-0.013
2	02:45:06	0.004	0.028	0.286	0.197	0.098	0.093	98.5%	0.017	0.016	-0.007
3	02:45:33	0.003	0.023	0.219	0.210	0.092	0.113	103.0%	0.021	0.015	-0.008
x		0.005	0.032	0.260	0.209	0.098	0.097	100.0%	0.018	0.014	-0.009
σ		0.003	0.012	0.036	0.012	0.006	0.015	2.6%	0.003	0.001	0.003
%RSD		56.690	36.400	13.860	5.638	5.676	15.420	2.6	17.590	8.938	37.150
Run	Time	207Pb	208Pb	209Bi							
		ppb	ppb	ppb							
1	02:44:39	-0.012	-0.012	90.7%							
2	02:45:06	-0.013	-0.007	90.5%							
3	02:45:33	-0.008	-0.010	96.7%							
x		-0.011	-0.010	92.6%							
σ		0.003	0.003	3.6%							
%RSD		22.410	26.920	3.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	102.9%	0.007	M 537.800	M 548.800	33.140	T 21890.000	250.200	244.300	251.200	8.686
2	02:51:13	98.4%	0.010	M 565.900	M 548.300	40.030	T 22050.000	253.400	246.000	252.300	8.329
3	02:51:41	103.2%	0.001	M 543.900	M 559.100	46.530	T 22020.000	255.300	250.600	247.100	8.604
x		101.5%	0.006	M 549.200	M 552.100	39.900	T 21990.000	253.000	247.000	250.200	8.540
σ		2.7%	0.005	M 14.780	M 6.144	6.693	T 87.610	2.596	3.236	2.723	0.187
%RSD		2.7	78.560	M 2.690	M 1.113	16.770	T 0.398	1.026	1.310	1.088	2.191

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	T 969.200	T 18330.000	588.200	3320.000	3151.000	107.0%	0.354	0.055	0.388	364.500
2	02:51:13	T 980.200	T 17940.000	579.800	3326.000	3139.000	106.3%	0.492	0.066	0.363	316.600
3	02:51:41	T 942.800	T 19230.000	609.900	3525.000	3274.000	102.0%	0.259	-0.038	0.419	438.200
x		T 964.100	T 18500.000	592.600	3390.000	3188.000	105.1%	0.368	0.027	0.390	373.100
σ		T 19.220	T 663.000	15.530	116.600	74.590	2.7%	0.117	0.057	0.028	61.290
%RSD		T 1.994	T 3.584	2.620	3.439	2.340	2.5	31.760	208.200	7.161	16.430

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	250.300	2.036	273.000	270.200	0.025	0.305	-0.060	52.560	53.600	32.110
2	02:51:13	246.800	2.011	266.000	250.900	0.025	0.283	0.022	51.030	50.050	31.430
3	02:51:41	258.000	2.086	275.700	279.700	0.036	0.316	0.459	53.200	51.900	32.710
x		251.700	2.044	271.500	267.000	0.029	0.301	0.140	52.270	51.850	32.080
σ		5.717	0.038	5.023	14.650	0.006	0.017	0.279	1.114	1.778	0.638
%RSD		2.271	1.874	1.850	5.488	21.450	5.650	198.700	2.132	3.429	1.990

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	29.130	31.310	-0.013	-0.258	14.390	15.650	-1.585	-0.413	1.549	32.250
2	02:51:13	30.720	32.190	-0.030	-0.087	16.740	16.140	-1.835	-0.387	-2.056	31.710
3	02:51:41	30.680	31.940	0.043	0.166	14.290	15.600	-0.008	-0.052	0.589	32.240
x		30.180	31.810	-0.000	-0.060	15.140	15.800	-1.143	-0.284	0.027	32.070
σ		0.904	0.453	0.038	0.213	1.383	0.298	0.991	0.201	1.867	0.306
%RSD		2.997	1.424	133300.000	356.900	9.137	1.888	86.670	70.880	6846.000	0.956

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	100.8%	0.400	0.390	0.437	2.382	-0.003	0.003	0.015	-0.001	101.8%
2	02:51:13	107.2%	0.502	0.386	0.406	1.443	-0.004	-0.000	0.003	0.027	107.0%
3	02:51:41	103.5%	0.464	0.436	0.394	1.491	-0.001	-0.000	-0.001	0.007	104.7%
x		103.8%	0.456	0.404	0.413	1.772	-0.003	0.001	0.006	0.011	104.5%
σ		3.2%	0.051	0.027	0.022	0.528	0.002	0.002	0.008	0.014	2.6%
%RSD		3.1	11.300	6.787	5.445	29.830	60.290	265.200	141.700	129.800	2.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:50:45	1.385	1.962	0.055	0.090	3.429	3.503	100.2%	-0.003	0.001	9.956
2	02:51:13	1.381	1.904	0.064	0.082	3.681	3.224	106.6%	-0.003	-0.002	9.441
3	02:51:41	1.393	1.905	0.063	0.053	3.279	3.205	102.9%	-0.004	-0.006	9.731
x		1.386	1.924	0.061	0.075	3.463	3.310	103.2%	-0.003	-0.003	9.709
σ		0.006	0.033	0.005	0.019	0.203	0.167	3.3%	0.001	0.004	0.258
%RSD		0.445	1.720	7.662	26.070	5.861	5.047	3.2	19.650	126.900	2.660

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:50:45	9.213	9.451	97.0%
2	02:51:13	9.094	9.309	105.0%
3	02:51:41	8.939	9.220	99.3%
x		9.082	9.327	100.4%
σ		0.138	0.116	4.1%
%RSD		1.514	1.248	4.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	98.9%	20.160	M 543.300	M 529.600	23.810	T 20790.000	456.100	435.000	437.500	27.130
2	02:57:19	100.1%	18.830	M 536.800	M 520.600	26.160	T 19740.000	432.000	423.800	425.400	27.330
3	02:57:47	99.5%	18.620	M 530.100	M 504.600	32.190	T 20050.000	422.900	414.900	412.100	25.740
x		99.5%	19.200	M 536.700	M 518.200	27.390	T 20190.000	437.000	424.600	425.000	26.730
σ		0.6%	0.835	M 6.620	M 12.660	4.320	T 538.700	17.170	10.080	12.710	0.863
%RSD		0.6	4.348	M 1.233	M 2.444	15.770	T 2.668	3.930	2.374	2.991	3.228

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	T 1122.000	T 16890.000	749.200	3461.000	3225.000	106.1%	20.250	20.270	20.050	485.000
2	02:57:19	T 1112.000	T 17130.000	759.500	3368.000	3120.000	106.4%	19.860	19.800	19.670	544.400
3	02:57:47	T 1075.000	T 17080.000	733.400	3276.000	3038.000	107.5%	20.830	19.230	19.340	355.300
x		T 1103.000	T 17030.000	747.300	3368.000	3128.000	106.6%	20.310	19.770	19.690	461.600
σ		T 24.840	T 128.800	13.140	92.500	93.390	0.7%	0.492	0.521	0.356	96.720
%RSD		T 2.251	T 0.756	1.758	2.746	2.986	0.7	2.422	2.636	1.810	20.950

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	452.900	21.450	T 475.200	449.200	19.400	20.420	19.580	68.010	67.320	51.750
2	02:57:19	441.500	20.900	T 464.000	449.300	19.220	19.780	20.070	68.340	69.080	50.980
3	02:57:47	428.900	19.640	T 437.200	408.000	18.620	18.330	18.460	64.550	64.140	48.390
x		441.100	20.660	T 458.800	435.500	19.080	19.510	19.370	66.970	66.840	50.370
σ		12.010	0.929	T 19.550	23.810	0.405	1.072	0.826	2.097	2.503	1.759
%RSD		2.722	4.497	T 4.262	5.466	2.122	5.492	4.263	3.132	3.744	3.493

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	49.100	51.870	20.920	21.160	12.090	12.390	94.700	21.420	0.592	50.160
2	02:57:19	47.840	49.480	20.040	21.740	13.510	12.740	96.000	21.860	-0.518	49.640
3	02:57:47	44.640	47.220	19.970	19.510	12.450	12.320	84.520	19.160	-2.240	47.240
x		47.190	49.520	20.310	20.810	12.690	12.480	91.740	20.810	-0.722	49.010
σ		2.297	2.330	0.529	1.156	0.739	0.227	6.287	1.449	1.427	1.559
%RSD		4.867	4.704	2.607	5.554	5.825	1.816	6.854	6.964	197.700	3.180

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	105.9%	20.300	20.330	20.070	22.980	19.090	19.200	20.990	20.580	105.8%
2	02:57:19	104.3%	19.820	20.390	19.690	20.940	18.770	19.000	19.990	20.040	103.9%
3	02:57:47	106.7%	19.240	19.170	18.570	20.480	18.620	18.680	19.210	19.010	106.8%
x		105.6%	19.790	19.960	19.440	21.470	18.830	18.960	20.060	19.880	105.5%
σ		1.2%	0.535	0.691	0.780	1.330	0.241	0.259	0.892	0.799	1.4%
%RSD		1.2	2.703	3.462	4.012	6.197	1.282	1.364	4.445	4.020	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	02:56:53	21.710	22.050	20.640	20.270	24.110	23.910	105.3%	19.450	19.710	29.340
2	02:57:19	21.060	21.030	19.610	20.170	23.120	22.890	101.6%	19.360	19.280	28.610
3	02:57:47	20.670	21.040	19.120	19.720	22.280	22.270	105.2%	18.860	19.110	27.840
x		21.150	21.380	19.790	20.050	23.170	23.030	104.0%	19.220	19.370	28.590
σ		0.529	0.587	0.777	0.292	0.917	0.831	2.1%	0.316	0.309	0.751
%RSD		2.501	2.746	3.926	1.455	3.959	3.609	2.0	1.643	1.594	2.627

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	02:56:53	29.090	29.070	103.0%
2	02:57:19	27.980	28.100	98.6%
3	02:57:47	27.150	27.430	103.9%
x		28.070	28.200	101.8%
σ		0.974	0.823	2.8%
%RSD		3.469	2.918	2.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	96.7%	-0.024	54.040	56.440	-79.040	T 99890.000	230.000	230.400	236.600	3.246
2	03:03:26	99.0%	-0.037	56.470	56.640	-78.850	TM 103300.000	229.000	239.000	250.100	3.513
3	03:03:53	99.1%	-0.035	57.680	60.240	-77.050	TM 103400.000	233.700	235.400	240.600	3.195
x		98.3%	-0.032	56.070	57.770	-78.320	TM 102200.000	230.900	234.900	242.400	3.318
σ		1.3%	0.007	1.853	2.140	1.097	TM 2006.000	2.513	4.348	6.968	0.171
%RSD		1.4	22.600	3.306	3.704	1.401	TM 1.963	1.088	1.851	2.874	5.150

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	60.680	6616.000	T 8504.000	23510.000	T 24760.000	105.3%	0.157	22.330	0.108	148.600
2	03:03:26	59.380	T 7665.000	T 8889.000	24110.000	T 24920.000	103.9%	0.114	22.490	0.111	215.500
3	03:03:53	59.870	T 7737.000	T 8867.000	23950.000	T 24880.000	104.0%	0.149	22.420	0.107	241.300
x		59.980	T 7339.000	T 8753.000	23850.000	T 24850.000	104.4%	0.140	22.410	0.109	201.800
σ		0.653	T 627.700	T 216.500	311.000	T 80.910	0.7%	0.023	0.079	0.002	47.830
%RSD		1.089	T 8.553	T 2.473	1.304	T 0.326	0.7	16.110	0.353	1.664	23.700

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	13.280	0.168	18.960	197.800	0.069	0.294	0.132	0.520	0.579	1.011
2	03:03:26	14.000	0.188	22.730	250.800	0.056	0.310	0.899	0.508	0.639	1.106
3	03:03:53	14.350	0.162	19.790	235.900	0.059	0.318	0.902	0.540	0.682	0.925
x		13.880	0.173	20.500	228.200	0.061	0.307	0.644	0.523	0.633	1.014
σ		0.545	0.014	1.981	27.370	0.007	0.012	0.444	0.016	0.052	0.090
%RSD		3.925	7.816	9.665	11.990	11.190	3.905	68.860	3.058	8.167	8.912

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	1.570	0.658	1.500	0.725	4.024	4.314	0.093	0.074	-1.140	56.160
2	03:03:26	1.245	0.591	1.230	0.321	4.476	5.114	-1.813	-0.421	0.887	56.890
3	03:03:53	1.201	0.742	1.232	0.631	4.282	3.918	-1.175	-0.245	-0.546	56.780
x		1.338	0.664	1.321	0.559	4.261	4.449	-0.965	-0.197	-0.267	56.610
σ		0.201	0.075	0.156	0.212	0.227	0.609	0.971	0.251	1.042	0.392
%RSD		15.050	11.330	11.790	37.890	5.320	13.690	100.600	127.400	390.900	0.692

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	104.8%	338.000	341.300	339.400	1.640	-0.003	0.001	-0.854	-0.023	102.4%
2	03:03:26	101.8%	339.100	342.600	339.500	3.054	-0.002	0.001	-0.815	0.006	100.3%
3	03:03:53	101.5%	337.900	341.600	341.000	1.182	-0.001	0.005	-0.796	-0.032	100.6%
x		102.7%	338.300	341.800	340.000	1.959	-0.002	0.003	-0.822	-0.016	101.1%
σ		1.8%	0.672	0.687	0.917	0.976	0.001	0.002	0.030	0.020	1.1%
%RSD		1.8	0.199	0.201	0.270	49.830	64.070	78.940	3.606	124.100	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:02:59	0.225	0.039	0.040	0.035	2.621	2.539	104.2%	0.878	0.726	-0.003
2	03:03:26	0.208	0.036	0.024	0.020	2.618	2.795	102.0%	0.880	0.723	0.008
3	03:03:53	0.246	0.028	0.022	0.037	2.609	2.538	102.3%	0.874	0.715	0.009
x		0.226	0.034	0.029	0.031	2.616	2.624	102.8%	0.877	0.721	0.005
σ		0.019	0.005	0.010	0.009	0.006	0.148	1.2%	0.003	0.006	0.007
%RSD		8.409	16.090	35.690	29.670	0.243	5.648	1.1	0.354	0.782	142.500

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:02:59	-0.009	-0.001	96.4%
2	03:03:26	0.005	0.009	93.7%
3	03:03:53	0.004	0.003	95.2%
x		0.000	0.004	95.1%
σ		0.008	0.005	1.3%
%RSD		4546.000	134.700	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	101.5%	-0.013	19.900	18.340	11.270	T 15460.000	35.450	35.540	34.160	0.792
2	03:09:32	100.3%	-0.009	19.670	18.890	1.837	T 15170.000	34.010	34.760	34.670	0.758
3	03:09:59	103.4%	0.003	19.860	19.470	5.513	T 15170.000	34.910	34.560	33.790	0.882
x		101.8%	-0.007	19.810	18.900	6.205	T 15270.000	34.790	34.950	34.200	0.811
σ		1.6%	0.008	0.123	0.565	4.752	T 168.400	0.732	0.515	0.441	0.064
%RSD		1.5	127.000	0.621	2.987	76.590	T 1.103	2.104	1.474	1.290	7.926

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	20.260	1193.000	904.500	2298.000	2196.000	107.0%	-0.037	2.026	0.054	25.060
2	03:09:32	20.700	1165.000	914.900	2369.000	2227.000	109.2%	-0.061	2.090	0.043	21.040
3	03:09:59	20.910	1155.000	T 907.800	2333.000	2223.000	109.8%	-0.061	2.175	0.029	13.580
x		20.620	1171.000	T 909.100	2333.000	2215.000	108.7%	-0.053	2.097	0.042	19.890
σ		0.330	19.770	T 5.322	35.330	16.930	1.5%	0.014	0.075	0.012	5.821
%RSD		1.600	1.689	T 0.585	1.514	0.764	1.4	25.670	3.555	29.270	29.260

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	1.628	0.094	5.452	8.004	0.017	0.052	0.178	0.032	0.082	0.623
2	03:09:32	0.876	0.071	4.026	4.781	0.015	0.026	-0.435	0.048	0.087	0.556
3	03:09:59	2.139	0.081	5.820	13.470	0.007	0.020	-0.220	0.054	0.096	0.563
x		1.548	0.082	5.099	8.752	0.013	0.033	-0.159	0.045	0.088	0.581
σ		0.635	0.011	0.948	4.393	0.005	0.017	0.311	0.012	0.007	0.037
%RSD		41.050	13.860	18.580	50.190	39.790	51.570	195.300	25.820	8.390	6.314

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	0.474	0.551	0.036	-0.132	1.634	1.921	-1.436	-0.279	-3.239	5.300
2	03:09:32	0.353	0.608	0.036	-0.186	1.334	1.574	-1.387	-0.289	-1.238	5.278
3	03:09:59	0.531	0.485	0.145	0.036	1.599	1.644	0.931	0.210	-0.094	5.263
x		0.453	0.548	0.072	-0.094	1.522	1.713	-0.631	-0.119	-1.524	5.280
σ		0.091	0.061	0.063	0.116	0.164	0.184	1.353	0.285	1.592	0.019
%RSD		20.100	11.190	87.240	123.800	10.780	10.720	214.500	238.800	104.500	0.357

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	107.0%	30.740	30.660	30.730	-1.343	-0.005	0.001	-0.049	0.008	109.5%
2	03:09:32	110.2%	30.750	31.330	30.840	-0.052	-0.003	-0.002	-0.066	0.011	110.2%
3	03:09:59	106.8%	31.400	31.420	30.770	0.071	-0.001	-0.001	-0.074	0.004	107.3%
x		108.0%	30.960	31.140	30.780	-0.441	-0.003	-0.001	-0.063	0.008	109.0%
σ		1.9%	0.376	0.417	0.056	0.783	0.002	0.002	0.013	0.004	1.5%
%RSD		1.8	1.216	1.340	0.182	177.500	64.060	230.500	20.340	51.560	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:09:05	0.019	-0.012	-0.011	-0.004	0.257	0.245	107.5%	0.064	0.076	0.004
2	03:09:32	0.012	-0.014	-0.001	0.003	0.251	0.253	108.1%	0.068	0.062	-0.002
3	03:09:59	-0.006	-0.000	-0.005	0.004	0.215	0.274	105.7%	0.066	0.074	-0.001
x		0.008	-0.009	-0.006	0.001	0.241	0.257	107.1%	0.066	0.071	0.000
σ		0.013	0.007	0.005	0.004	0.023	0.015	1.2%	0.002	0.008	0.003
%RSD		156.700	84.300	85.540	383.500	9.436	5.737	1.1	3.185	11.050	649.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:09:05	0.008	0.001	105.5%
2	03:09:32	-0.004	-0.006	106.9%
3	03:09:59	-0.004	-0.001	103.4%
x		-0.000	-0.002	105.3%
σ		0.007	0.004	1.7%
%RSD		22390.000	225.100	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	92.7%	0.012	45.560	45.850	56.690	TM 612100.000	T 3676.000	3584.000	T 3639.000	167.100
2	03:15:38	91.5%	-0.021	47.120	46.440	57.500	TM 630300.000	T 3757.000	3617.000	T 3734.000	167.900
3	03:16:05	91.3%	-0.008	47.900	46.040	56.640	TM 619400.000	T 3761.000	3585.000	3575.000	164.700
x		91.8%	-0.006	46.860	46.110	56.940	TM 620600.000	T 3731.000	3596.000	T 3649.000	166.600
σ		0.7%	0.017	1.194	0.301	0.484	TM 9153.000	T 48.020	18.710	T 80.200	1.693
%RSD		0.8	291.600	2.549	0.653	0.850	TM 1.475	T 1.287	0.520	T 2.198	1.016
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	T 9416.000	T 124600.000	T 4361.000	13660.000	13520.000	102.0%	7.481	0.309	4.402	2530.000
2	03:15:38	T 9409.000	T 123300.000	T 4360.000	13950.000	13450.000	101.5%	7.963	0.704	4.522	2162.000
3	03:16:05	T 9351.000	T 121900.000	T 4295.000	13580.000	13460.000	103.4%	6.891	0.544	4.278	2071.000
x		T 9392.000	T 123300.000	T 4339.000	13730.000	13480.000	102.3%	7.445	0.519	4.401	2254.000
σ		T 35.780	T 1342.000	T 38.030	195.400	36.850	1.0%	0.537	0.199	0.122	242.800
%RSD		T 0.381	T 1.088	T 0.877	1.423	0.273	1.0	7.208	38.320	2.779	10.770
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	428.500	6.252	T 449.000	547.200	0.167	1.094	4.530	9.514	8.204	397.600
2	03:15:38	426.400	6.430	T 453.800	531.800	0.148	1.148	3.764	9.372	7.839	400.500
3	03:16:05	422.200	6.392	T 453.100	514.500	0.157	1.090	3.256	9.045	8.030	391.000
x		425.700	6.358	T 452.000	531.200	0.157	1.110	3.850	9.310	8.024	396.400
σ		3.206	0.094	T 2.539	16.330	0.009	0.032	0.642	0.240	0.183	4.869
%RSD		0.753	1.471	T 0.562	3.074	6.030	2.923	16.660	2.582	2.274	1.228
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	348.200	369.500	0.305	0.167	35.100	34.630	2.094	0.429	3.188	79.080
2	03:15:38	355.700	377.800	0.761	0.290	36.900	37.550	-0.259	-0.055	-0.254	79.910
3	03:16:05	351.700	377.100	0.455	0.201	37.300	36.700	-0.872	-0.213	0.336	78.770
x		351.900	374.800	0.507	0.219	36.430	36.290	0.321	0.053	1.090	79.250
σ		3.745	4.595	0.232	0.063	1.170	1.502	1.565	0.334	1.841	0.589
%RSD		1.064	1.226	45.800	28.750	3.212	4.140	487.900	626.300	168.900	0.743
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	97.1%	0.335	0.305	0.335	4.543	0.003	0.007	0.143	0.128	94.2%
2	03:15:38	100.4%	0.309	0.281	0.260	3.198	0.010	0.010	0.166	0.167	97.5%
3	03:16:05	104.0%	0.311	0.275	0.302	0.558	0.008	0.011	0.148	0.139	100.9%
x		100.5%	0.318	0.287	0.299	2.766	0.007	0.009	0.152	0.145	97.6%
σ		3.4%	0.014	0.016	0.038	2.027	0.003	0.002	0.012	0.021	3.4%
%RSD		3.4	4.492	5.652	12.550	73.280	50.140	20.310	7.865	14.190	3.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:15:11	0.348	0.514	0.293	0.335	50.170	50.690	97.2%	0.009	-0.001	2.311
2	03:15:38	0.346	0.453	0.354	0.362	50.760	50.110	101.1%	-0.002	-0.000	2.288
3	03:16:05	0.358	0.450	0.362	0.353	50.480	51.220	103.5%	0.009	0.003	2.247
x		0.351	0.472	0.336	0.350	50.470	50.680	100.6%	0.006	0.000	2.282
σ		0.007	0.036	0.038	0.014	0.297	0.555	3.2%	0.006	0.002	0.032
%RSD		1.950	7.637	11.230	3.892	0.588	1.095	3.2	110.400	559.000	1.418
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:15:11	2.265	2.208	88.1%							
2	03:15:38	2.258	2.236	91.7%							
3	03:16:05	2.233	2.223	95.2%							
x		2.252	2.222	91.7%							
σ		0.017	0.014	3.6%							
%RSD		0.741	0.625	3.9							

CCV MW10994 05/01/2019 03:20:51 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	94.8%	329.700	337.800	322.500	78.210	T71390.000	T66620.000	T65330.000	T65710.000	305.100
2	03:21:45	92.1%	332.700	328.200	321.600	71.120	T73130.000	T68950.000	T68160.000	T66660.000	304.600
3	03:22:12	93.8%	321.500	328.000	319.600	68.670	T70890.000	T65590.000	T65510.000	T65050.000	300.200
x		93.6%	109.326%	110.446%	107.077%	72.670	T119.673%	T67050.000	T66330.000	T109.678%	101.103%
σ		1.4%	n/a	n/a	n/a	4.957	Tn/a	T1721.000	T1588.000	Tn/a	n/a
%RSD		1.5	1.772	1.689	0.475	6.822	T1.639	T2.567	T2.394	T1.234	0.880

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	T3526.000	1004.000	T66950.000	65320.000	T65660.000	102.6%	318.600	321.600	307.300	1502.000
2	03:21:45	T3594.000	995.400	T69240.000	67550.000	T68370.000	101.9%	321.900	326.900	315.100	973.900
3	03:22:12	T3429.000	966.500	T67630.000	65610.000	T66910.000	101.0%	323.000	323.400	304.300	1558.000
x		T117.206%	988.700	T113.234%	66160.000	T111.630%	101.8%	107.056%	107.989%	102.959%	1345.000
σ		Tn/a	19.700	Tn/a	1210.000	Tn/a	0.8%	n/a	n/a	n/a	322.300
%RSD		T2.363	1.993	T1.730	1.828	T2.022	0.8	0.711	0.841	1.809	23.970

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	T64120.000	300.700	T64000.000	T62300.000	301.100	291.300	289.100	293.100	295.800	300.100
2	03:21:45	T65920.000	310.100	T66200.000	T65000.000	311.600	296.100	296.400	299.400	300.700	309.500
3	03:22:12	T65090.000	301.600	T64990.000	T64000.000	299.300	290.300	288.400	293.000	295.100	299.700
x		T65050.000	101.368%	T65060.000	T106.278%	101.334%	97.530%	291.300	295.200	99.058%	101.037%
σ		T900.500	n/a	T1103.000	Tn/a	n/a	n/a	4.397	3.673	n/a	n/a
%RSD		T1.384	1.703	T1.695	T2.136	2.183	1.049	1.509	1.244	1.032	1.813

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	299.800	297.800	304.000	298.900	2.179	1.625	1339.000	308.800	-1.540	309.600
2	03:21:45	304.000	310.500	317.700	313.600	2.129	2.211	1378.000	313.100	-0.078	319.100
3	03:22:12	294.900	298.200	305.100	308.700	2.503	1.511	1324.000	306.100	2.882	311.900
x		299.600	302.200	102.979%	307.100	2.271	1.783	1347.000	103.098%	0.422	104.508%
σ		4.563	7.221	n/a	7.483	0.203	0.376	28.020	n/a	2.253	n/a
%RSD		1.523	2.390	2.463	2.437	8.936	21.080	2.080	1.142	534.500	1.584

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	100.8%	326.300	326.200	326.700	311.600	302.600	304.400	314.000	309.800	99.2%
2	03:21:45	100.9%	333.400	340.100	337.600	325.600	307.600	307.700	318.700	318.500	100.6%
3	03:22:12	100.7%	328.000	325.700	331.000	316.700	304.800	304.700	313.100	312.700	98.6%
x		100.8%	109.745%	110.223%	331.800	318.000	101.664%	305.600	315.300	104.557%	99.4%
σ		0.1%	n/a	n/a	5.449	7.094	n/a	1.818	3.015	n/a	1.1%
%RSD		0.1	1.121	2.465	1.643	2.231	0.825	0.595	0.957	1.412	1.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:21:18	321.500	321.500	325.000	318.900	319.200	318.200	101.7%	307.700	313.800	304.400
2	03:21:45	329.600	330.300	334.100	333.000	324.700	325.300	101.9%	316.800	322.800	313.900
3	03:22:12	322.700	322.000	323.100	320.900	319.300	317.600	100.5%	310.100	317.300	307.400
x		108.214%	108.190%	327.400	108.090%	107.024%	106.786%	101.4%	311.600	105.995%	102.860%
σ		n/a	n/a	5.854	n/a	n/a	n/a	0.7%	4.704	n/a	n/a
%RSD		1.345	1.527	1.788	2.354	0.975	1.345	0.7	1.510	1.418	1.570

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:21:18	304.200	307.100	97.1%
2	03:21:45	315.400	317.400	96.8%
3	03:22:12	307.000	309.600	94.7%
x		102.958%	103.795%	96.2%
σ		n/a	n/a	1.3%
%RSD		1.874	1.728	1.4

CCB IM9390-01 05/01/2019 03:26:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	101.1%	0.049	4.847	4.718	48.590	39.020	8.137	8.231	8.392	-0.026
2	03:27:52	101.1%	0.070	5.500	4.650	49.050	31.630	6.212	6.544	6.311	-0.085
3	03:28:19	102.9%	0.036	4.851	4.621	39.260	28.570	5.605	5.712	5.677	-0.028
x		101.7%	0.052	5.066	4.663	45.630	33.070	6.652	6.829	6.793	-0.046
σ		1.0%	0.017	0.376	0.050	5.525	5.373	1.322	1.283	1.420	0.033
%RSD		1.0	33.390	7.418	1.066	12.110	16.250	19.870	18.790	20.910	72.060

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	16.940	585.000	25.020	9.073	7.816	106.4%	-0.059	0.066	0.094	25.930
2	03:27:52	16.240	507.500	22.440	4.309	7.560	107.0%	0.018	0.057	0.032	19.380
3	03:28:19	15.350	518.600	19.690	3.636	5.912	108.2%	-0.005	0.023	0.061	30.060
x		16.180	537.000	22.380	5.673	7.096	107.2%	-0.015	0.048	0.062	25.130
σ		0.799	41.940	2.664	2.964	1.033	0.9%	0.040	0.023	0.031	5.386
%RSD		4.939	7.809	11.900	52.250	14.560	0.8	260.300	46.790	50.250	21.430

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	8.912	0.037	13.200	7.075	0.046	0.039	-0.079	0.016	0.060	0.093
2	03:27:52	5.383	0.034	9.191	-4.185	0.052	0.022	-0.177	0.015	0.049	0.026
3	03:28:19	5.342	0.054	8.565	-8.975	0.040	0.016	-0.065	-0.005	0.002	0.036
x		6.546	0.042	10.320	-2.028	0.046	0.025	-0.107	0.009	0.037	0.052
σ		2.049	0.011	2.512	8.239	0.006	0.012	0.061	0.012	0.031	0.036
%RSD		31.300	25.190	24.350	406.200	13.520	46.600	56.760	135.500	82.740	69.900

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	-0.022	0.069	-0.094	-0.047	0.640	1.016	-2.319	-0.479	-2.319	0.034
2	03:27:52	-0.002	0.068	-0.022	-0.124	0.546	1.039	-0.780	-0.110	-3.197	0.032
3	03:28:19	-0.048	0.046	-0.052	-0.575	1.055	0.881	-1.485	-0.341	-0.538	0.027
x		-0.024	0.061	-0.056	-0.249	0.747	0.978	-1.528	-0.310	-2.018	0.031
σ		0.023	0.013	0.036	0.285	0.271	0.085	0.771	0.186	1.355	0.004
%RSD		94.790	21.420	64.490	114.800	36.290	8.700	50.430	60.090	67.140	11.320

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	103.8%	0.136	0.108	0.088	1.465	0.042	0.052	0.045	0.043	104.8%
2	03:27:52	105.7%	0.100	0.042	0.104	0.414	0.028	0.034	0.011	0.028	106.3%
3	03:28:19	108.0%	0.092	0.069	0.074	-1.285	0.023	0.040	0.032	0.018	109.7%
x		105.9%	0.109	0.073	0.089	0.198	0.031	0.042	0.030	0.030	106.9%
σ		2.1%	0.024	0.033	0.015	1.388	0.010	0.010	0.017	0.012	2.5%
%RSD		2.0	21.780	45.180	16.830	699.800	31.780	23.120	57.120	41.850	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:27:26	0.060	0.095	0.139	0.191	0.034	0.064	102.4%	0.033	0.023	0.040
2	03:27:52	0.066	0.059	0.140	0.137	0.016	0.050	105.1%	0.022	0.023	0.031
3	03:28:19	0.030	0.061	0.149	0.150	0.056	0.022	108.3%	0.021	0.015	0.030
x		0.052	0.072	0.143	0.160	0.035	0.045	105.3%	0.026	0.020	0.034
σ		0.019	0.020	0.005	0.028	0.020	0.022	3.0%	0.007	0.005	0.006
%RSD		36.440	28.350	3.841	17.710	56.190	48.040	2.8	26.200	22.650	17.440

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:27:26	0.049	0.046	102.3%
2	03:27:52	0.043	0.035	105.8%
3	03:28:19	0.042	0.035	108.3%
x		0.045	0.039	105.4%
σ		0.004	0.006	3.0%
%RSD		8.153	16.180	2.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	95.9%	-0.033	52.050	53.620	-71.080	T 92880.000	209.200	207.100	214.300	3.007
2	03:33:59	97.3%	-0.035	49.630	51.170	-72.980	T 92830.000	207.800	213.800	214.800	2.959
3	03:34:26	97.7%	-0.031	50.590	53.350	-71.330	T 95290.000	212.900	210.700	215.000	2.922
x		96.9%	-0.033	50.750	52.710	-71.790	T 93660.000	210.000	210.500	214.700	2.963
σ		1.0%	0.002	1.219	1.343	1.033	T 1405.000	2.598	3.311	0.345	0.042
%RSD		1.0	5.006	2.401	2.548	1.438	T 1.500	1.237	1.573	0.161	1.432

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	56.050	5933.000	T 7785.000	31010.000	T 32260.000	103.0%	0.151	19.300	0.066	157.700
2	03:33:59	55.240	5853.000	T 7590.000	30930.000	T 32430.000	104.2%	0.091	19.630	0.106	125.900
3	03:34:26	56.990	T 6891.000	T 8001.000	31220.000	T 32210.000	102.9%	0.186	19.960	0.096	212.000
x		56.090	T 6226.000	T 7792.000	31050.000	T 32300.000	103.4%	0.143	19.630	0.089	165.200
σ		0.878	T 577.200	T 205.500	150.900	T 117.200	0.7%	0.048	0.332	0.021	43.510
%RSD		1.564	T 9.272	T 2.637	0.486	T 0.363	0.7	33.850	1.691	23.370	26.340

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	13.980	0.175	19.350	301.800	0.093	0.415	0.647	0.360	0.690	1.137
2	03:33:59	13.920	0.191	18.290	284.800	0.100	0.404	1.221	0.439	0.549	1.155
3	03:34:26	14.420	0.186	22.650	341.100	0.095	0.410	1.517	0.461	0.728	1.109
x		14.110	0.184	20.100	309.200	0.096	0.409	1.128	0.420	0.656	1.134
σ		0.271	0.008	2.273	28.870	0.004	0.005	0.442	0.053	0.094	0.023
%RSD		1.922	4.610	11.310	9.337	3.815	1.319	39.190	12.580	14.390	2.062

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	1.619	0.736	1.030	0.030	2.746	4.293	0.173	0.050	0.154	56.720
2	03:33:59	1.837	0.734	1.106	0.535	2.964	2.965	-0.343	-0.037	-1.572	57.270
3	03:34:26	1.460	0.803	0.939	0.170	3.247	3.128	-0.738	-0.190	0.931	57.830
x		1.639	0.758	1.025	0.245	2.986	3.462	-0.302	-0.059	-0.162	57.270
σ		0.190	0.039	0.084	0.261	0.251	0.724	0.457	0.122	1.282	0.552
%RSD		11.560	5.204	8.180	106.300	8.413	20.920	151.100	207.200	790.200	0.963

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	103.7%	310.900	313.000	312.100	1.629	0.004	0.011	-0.777	0.015	102.1%
2	03:33:59	105.6%	308.100	310.300	309.900	0.573	-0.000	0.010	-0.813	0.011	104.5%
3	03:34:26	101.3%	310.500	313.500	313.800	2.490	0.012	0.008	-0.695	0.026	101.3%
x		103.5%	309.800	312.300	311.900	1.564	0.005	0.010	-0.762	0.017	102.6%
σ		2.1%	1.528	1.726	1.976	0.960	0.006	0.001	0.060	0.008	1.7%
%RSD		2.1	0.493	0.553	0.633	61.410	120.400	13.030	7.924	45.010	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:33:32	0.206	0.018	0.050	0.059	2.410	2.392	104.1%	0.592	0.470	0.003
2	03:33:59	0.233	0.018	0.069	0.084	2.385	2.278	106.8%	0.554	0.475	0.003
3	03:34:26	0.211	0.004	0.075	0.054	2.382	2.381	102.5%	0.589	0.463	0.025
x		0.217	0.013	0.065	0.066	2.393	2.350	104.5%	0.579	0.469	0.010
σ		0.015	0.008	0.013	0.016	0.016	0.063	2.1%	0.021	0.006	0.013
%RSD		6.779	63.290	19.880	24.970	0.648	2.684	2.0	3.610	1.301	121.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:33:32	0.010	0.006	98.9%
2	03:33:59	-0.003	0.004	100.9%
3	03:34:26	-0.000	0.004	96.9%
x		0.002	0.005	98.9%
σ		0.007	0.001	2.0%
%RSD		278.000	18.960	2.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	93.3%	0.044	97.340	92.760	2851.000	T 8484.000	T 11270.000	T 11120.000	T 11160.000	238.500
2	03:40:05	93.2%	0.057	97.360	94.370	2956.000	T 8824.000	T 11740.000	T 11270.000	T 11210.000	224.500
3	03:40:32	94.1%	0.020	101.700	96.230	2966.000	T 8735.000	T 11560.000	T 11240.000	T 11330.000	223.700
x		93.5%	0.040	98.810	94.460	2924.000	T 8681.000	T 11520.000	T 11210.000	T 11230.000	228.900
σ		0.5%	0.019	2.531	1.740	63.890	T 176.500	T 233.600	T 80.470	T 90.200	8.339
%RSD		0.5	45.970	2.562	1.842	2.185	T 2.034	T 2.027	T 0.718	T 0.803	3.644
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	T 5874.000	T 82320.000	TM 260400.000	TM 187700.000	TM 179500.000	97.6%	43.890	1.637	6.135	1474.000
2	03:40:05	T 5694.000	T 82360.000	TM 260600.000	M 178200.000	TM 178900.000	98.6%	40.710	1.789	6.174	1216.000
3	03:40:32	T 5732.000	T 81920.000	TM 257800.000	TM 187500.000	TM 182800.000	99.3%	41.010	1.451	5.919	1541.000
x		T 5767.000	T 82200.000	TM 259600.000	TM 184500.000	TM 180400.000	98.5%	41.870	1.626	6.076	1410.000
σ		T 95.110	T 241.300	TM 1556.000	TM 5406.000	TM 2126.000	0.9%	1.759	0.169	0.137	171.400
%RSD		T 1.649	T 0.294	TM 0.599	TM 2.931	TM 1.179	0.9	4.202	10.420	2.262	12.150
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	415.000	67.340	T 450.600	2008.000	0.587	9.900	7.863	26.460	26.730	99.890
2	03:40:05	417.100	67.960	T 446.500	1795.000	0.520	9.057	7.769	26.250	26.970	103.500
3	03:40:32	421.000	66.380	T 448.300	1895.000	0.528	9.283	7.925	26.600	26.870	102.000
x		417.700	67.230	T 448.500	1899.000	0.545	9.413	7.852	26.440	26.860	101.800
σ		3.082	0.794	T 2.067	106.700	0.037	0.436	0.079	0.180	0.120	1.807
%RSD		0.738	1.182	T 0.461	5.615	6.710	4.634	1.001	0.681	0.446	1.775
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	94.380	99.470	-0.077	-0.061	72.880	70.630	0.891	0.214	-2.232	133.700
2	03:40:05	94.840	102.000	0.411	0.361	75.000	71.940	2.479	0.500	-0.022	134.200
3	03:40:32	94.370	100.100	0.047	0.855	74.340	70.730	-0.146	-0.073	-0.985	134.500
x		94.530	100.500	0.127	0.385	74.070	71.100	1.074	0.214	-1.080	134.100
σ		0.265	1.337	0.253	0.459	1.083	0.725	1.322	0.286	1.108	0.392
%RSD		0.281	1.330	199.500	119.100	1.462	1.020	123.000	134.100	102.600	0.292
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	103.1%	3.007	3.056	3.044	8.163	0.025	0.046	0.389	0.427	99.7%
2	03:40:05	104.0%	2.887	2.966	3.182	4.494	0.039	0.047	0.391	0.438	102.1%
3	03:40:32	102.7%	2.927	2.939	2.954	6.730	0.038	0.046	0.435	0.403	100.9%
x		103.3%	2.940	2.987	3.060	6.462	0.034	0.046	0.405	0.423	100.9%
σ		0.7%	0.061	0.061	0.115	1.849	0.008	0.001	0.026	0.018	1.2%
%RSD		0.6	2.065	2.046	3.747	28.610	22.800	1.248	6.434	4.292	1.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:39:38	0.384	0.269	0.285	0.335	11.880	11.510	102.3%	0.031	0.032	0.379
2	03:40:05	0.276	0.272	0.330	0.281	11.520	11.440	104.5%	0.032	0.033	0.380
3	03:40:32	0.351	0.257	0.258	0.329	11.190	11.410	103.6%	0.034	0.033	0.350
x		0.337	0.266	0.291	0.315	11.530	11.450	103.5%	0.032	0.033	0.370
σ		0.055	0.008	0.036	0.029	0.343	0.053	1.1%	0.001	0.001	0.017
%RSD		16.410	2.850	12.490	9.352	2.978	0.461	1.0	3.494	1.549	4.571
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:39:38	0.356	0.360	95.7%							
2	03:40:05	0.370	0.368	99.4%							
3	03:40:32	0.307	0.341	98.0%							
x		0.344	0.356	97.7%							
σ		0.033	0.014	1.8%							
%RSD		9.560	3.921	1.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	97.9%	0.033	M 716.500	M 693.700	282.900	TM 158500.000	T 2984.000	2910.000	2895.000	188.900
2	03:46:12	96.4%	0.027	M 678.600	M 663.100	250.100	TM 153100.000	T 2891.000	2835.000	2897.000	190.000
3	03:46:39	98.6%	0.018	M 674.600	M 675.100	266.100	TM 154000.000	T 2899.000	2786.000	2785.000	183.400
x		97.6%	0.026	M 689.900	M 677.300	266.400	TM 155200.000	T 2925.000	2844.000	2859.000	187.400
σ		1.1%	0.007	M 23.140	M 15.450	16.430	TM 2908.000	T 51.480	62.920	64.310	3.565
%RSD		1.1	27.680	M 3.354	M 2.281	6.168	TM 1.873	T 1.760	2.213	2.250	1.902

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	T 8866.000	T 94430.000	T 20530.000	12310.000	12070.000	102.6%	9.542	1.105	6.810	2021.000
2	03:46:12	T 9004.000	T 91320.000	T 20060.000	12120.000	11740.000	105.2%	11.270	1.356	6.585	1848.000
3	03:46:39	T 8537.000	T 91480.000	T 19950.000	12190.000	11830.000	103.1%	8.020	1.325	6.615	1627.000
x		T 8802.000	T 92410.000	T 20180.000	12210.000	11880.000	103.6%	9.610	1.262	6.670	1832.000
σ		T 239.800	T 1752.000	T 308.000	96.710	166.700	1.4%	1.626	0.137	0.122	197.400
%RSD		T 2.725	T 1.896	T 1.526	0.792	1.404	1.3	16.920	10.830	1.832	10.770

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	591.900	18.000	T 609.500	681.500	1.752	20.290	21.170	42.500	43.640	110.000
2	03:46:12	582.300	17.860	T 607.200	659.900	1.821	20.530	19.840	41.780	41.890	110.800
3	03:46:39	583.500	18.120	T 606.200	661.400	1.807	20.720	20.650	41.840	40.710	111.200
x		585.900	17.990	T 607.600	667.600	1.794	20.510	20.550	42.040	42.080	110.700
σ		5.231	0.132	T 1.681	12.070	0.036	0.213	0.671	0.404	1.472	0.581
%RSD		0.893	0.733	T 0.277	1.808	2.030	1.036	3.267	0.962	3.498	0.525

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	104.600	109.800	12.120	1.211	4864.000	4933.000	48.920	5.989	-2.803	70.880
2	03:46:12	104.400	109.700	11.400	0.518	4882.000	4954.000	38.870	3.576	-0.709	70.770
3	03:46:39	104.000	111.500	12.600	0.420	4939.000	5024.000	43.410	4.461	-0.387	71.300
x		104.300	110.300	12.040	0.716	4895.000	4970.000	43.730	4.675	-1.299	70.980
σ		0.313	0.996	0.603	0.431	39.170	47.640	5.032	1.221	1.312	0.282
%RSD		0.300	0.903	5.010	60.190	0.800	0.958	11.510	26.120	100.900	0.398

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	101.0%	M 801.500	M 803.800	M 811.100	3.773	0.019	0.031	-2.026	0.138	99.5%
2	03:46:12	104.3%	M 791.200	M 799.500	M 802.900	3.921	0.019	0.027	-2.151	0.123	103.3%
3	03:46:39	106.1%	M 800.700	M 803.400	M 812.800	3.808	0.033	0.024	-2.128	0.038	105.8%
x		103.8%	M 797.800	M 802.200	M 809.000	3.834	0.024	0.027	-2.102	0.100	102.9%
σ		2.6%	M 5.726	M 2.361	M 5.276	0.077	0.008	0.003	0.066	0.054	3.1%
%RSD		2.5	M 0.718	M 0.294	M 0.652	2.010	34.440	12.800	3.158	54.010	3.1

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:45:45	1.047	0.763	0.755	0.749	66.680	65.860	102.0%	-0.001	-0.012	1.029
2	03:46:12	0.943	0.798	0.762	0.868	66.680	65.480	105.3%	-0.013	-0.012	1.119
3	03:46:39	0.948	0.839	0.833	0.741	65.720	65.650	107.2%	-0.010	-0.006	1.115
x		0.980	0.800	0.783	0.786	66.360	65.660	104.8%	-0.008	-0.010	1.088
σ		0.059	0.038	0.043	0.071	0.554	0.189	2.7%	0.006	0.003	0.051
%RSD		5.985	4.776	5.530	9.028	0.836	0.288	2.5	80.640	30.480	4.695

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:45:45	1.014	1.047	97.5%
2	03:46:12	1.018	1.051	100.6%
3	03:46:39	1.026	1.059	102.8%
x		1.019	1.052	100.3%
σ		0.006	0.006	2.7%
%RSD		0.558	0.603	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	95.5%	-0.002	120.700	117.200	124.800	T 58380.000	T 4302.000	4156.000	T 4201.000	448.100
2	03:52:20	96.6%	0.013	118.800	115.300	106.900	T 57660.000	T 4243.000	4156.000	4100.000	441.800
3	03:52:47	102.0%	0.008	116.200	110.500	108.500	T 56990.000	T 4168.000	T 4077.000	T 4142.000	T 452.600
x		98.0%	0.006	118.600	114.300	113.400	T 57680.000	T 4237.000	T 4130.000	T 4148.000	T 447.500
σ		3.4%	0.008	2.282	3.462	9.894	T 692.900	T 66.920	T 45.350	T 50.620	T 5.411
%RSD		3.5	128.100	1.924	3.027	8.727	T 1.201	T 1.579	T 1.098	T 1.221	T 1.209
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	T 6522.000	T 85040.000	T 10760.000	16160.000	15560.000	106.6%	8.043	2.589	1.675	1746.000
2	03:52:20	T 6375.000	T 84680.000	T 10840.000	16350.000	15910.000	105.6%	7.601	2.914	1.666	1704.000
3	03:52:47	T 6154.000	T 84850.000	T 10640.000	15990.000	T 16220.000	107.7%	7.765	2.880	1.647	1841.000
x		T 6350.000	T 84860.000	T 10750.000	16160.000	T 15900.000	106.7%	7.803	2.794	1.662	1764.000
σ		T 185.300	T 182.700	T 99.700	180.400	T 327.300	1.0%	0.223	0.179	0.014	70.400
%RSD		T 2.918	T 0.215	T 0.928	1.116	T 2.059	1.0	2.863	6.387	0.845	3.992
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	326.700	23.360	346.800	445.900	0.373	4.750	3.768	13.100	13.400	60.320
2	03:52:20	326.800	23.330	352.700	437.300	0.362	4.675	3.780	12.960	12.780	61.570
3	03:52:47	326.500	23.230	T 351.600	441.300	0.397	4.487	3.853	13.240	12.870	62.030
x		326.700	23.310	T 350.400	441.500	0.377	4.637	3.800	13.100	13.020	61.310
σ		0.166	0.067	T 3.135	4.263	0.018	0.135	0.046	0.140	0.333	0.887
%RSD		0.051	0.286	T 0.895	0.966	4.829	2.915	1.214	1.065	2.557	1.447
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	60.120	60.000	0.370	0.032	50.680	48.370	0.368	0.068	-1.649	65.780
2	03:52:20	58.060	61.590	0.027	0.377	48.390	48.270	-2.255	-0.517	-1.887	65.310
3	03:52:47	55.640	60.080	0.436	0.429	46.700	44.750	-0.013	-0.014	-1.433	66.530
x		57.940	60.560	0.278	0.279	48.590	47.130	-0.634	-0.154	-1.657	65.870
σ		2.243	0.895	0.220	0.216	2.000	2.065	1.417	0.317	0.227	0.615
%RSD		3.871	1.478	79.100	77.310	4.116	4.383	223.700	205.500	13.710	0.934
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	106.9%	4.855	5.226	5.056	2.839	0.098	0.073	0.008	0.036	106.8%
2	03:52:20	108.0%	4.928	4.994	4.844	3.363	0.075	0.078	-0.009	0.022	107.2%
3	03:52:47	106.3%	4.944	4.896	5.021	3.798	0.079	0.069	0.016	0.026	106.1%
x		107.0%	4.909	5.038	4.974	3.333	0.084	0.073	0.005	0.028	106.7%
σ		0.8%	0.047	0.169	0.114	0.480	0.012	0.005	0.013	0.008	0.5%
%RSD		0.8	0.964	3.362	2.288	14.400	14.720	6.257	263.200	27.090	0.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:51:53	0.629	0.880	0.518	0.547	13.430	12.870	109.0%	-0.016	-0.013	0.327
2	03:52:20	0.649	0.918	0.579	0.564	12.520	12.870	109.7%	-0.008	-0.010	0.349
3	03:52:47	0.712	0.908	0.529	0.544	12.730	13.280	107.4%	-0.004	-0.010	0.320
x		0.663	0.902	0.542	0.552	12.890	13.010	108.7%	-0.009	-0.011	0.332
σ		0.043	0.020	0.033	0.011	0.476	0.236	1.2%	0.006	0.002	0.016
%RSD		6.525	2.176	6.037	1.943	3.691	1.811	1.1	69.030	18.080	4.676
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	03:51:53	0.302	0.313	106.0%							
2	03:52:20	0.284	0.321	107.1%							
3	03:52:47	0.364	0.335	105.3%							
x		0.317	0.323	106.1%							
σ		0.042	0.011	0.9%							
%RSD		13.330	3.382	0.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	94.2%	0.086	43.510	41.250	281.000	TM 139800.000	T 2794.000	2772.000	2786.000	TM 26460.000
2	03:58:27	97.4%	0.054	43.260	41.890	286.400	TM 138700.000	T 2830.000	2742.000	2764.000	TM 25820.000
3	03:58:54	98.6%	0.053	45.990	43.460	285.500	TM 140900.000	T 2883.000	T 2844.000	2829.000	TM 27830.000
x		96.7%	0.064	44.250	42.200	284.300	TM 139800.000	T 2836.000	T 2786.000	2793.000	TM 26700.000
σ		2.2%	0.019	1.509	1.137	2.909	TM 1126.000	T 44.500	T 52.920	32.650	TM 1030.000
%RSD		2.3	28.890	3.410	2.694	1.023	TM 0.805	T 1.569	T 1.899	1.169	TM 3.857

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	T 4776.000	T 83330.000	T 11660.000	15760.000	15420.000	106.7%	2.627	1.184	20.590	1957.000
2	03:58:27	T 4437.000	T 81050.000	T 11600.000	15980.000	15450.000	107.4%	2.632	1.475	20.420	1668.000
3	03:58:54	T 4626.000	T 86220.000	T 12200.000	16390.000	T 16720.000	105.1%	2.523	1.500	20.950	2145.000
x		T 4613.000	T 83530.000	T 11820.000	16040.000	T 15860.000	106.4%	2.594	1.386	20.650	1923.000
σ		T 169.700	T 2588.000	T 332.900	316.700	T 742.000	1.2%	0.062	0.176	0.266	240.300
%RSD		T 3.679	T 3.098	T 2.817	1.974	T 4.677	1.1	2.385	12.670	1.290	12.490

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	1250.000	60.310	T 1298.000	1321.000	46.440	5.696	4.776	24.150	24.870	337.600
2	03:58:27	1251.000	58.580	T 1258.000	1310.000	45.710	5.839	5.049	24.360	24.910	337.500
3	03:58:54	1273.000	60.140	T 1320.000	1351.000	46.980	5.759	4.950	25.390	26.250	338.500
x		1258.000	59.680	T 1292.000	1327.000	46.370	5.765	4.925	24.630	25.340	337.800
σ		13.280	0.955	T 31.680	21.380	0.638	0.072	0.138	0.660	0.784	0.529
%RSD		1.056	1.601	T 2.452	1.611	1.375	1.240	2.806	2.681	3.093	0.157

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	304.100	326.600	0.686	0.196	230.000	237.000	1.093	-0.049	3.001	87.910
2	03:58:27	307.800	326.700	0.217	0.126	233.000	232.300	1.616	0.143	0.390	87.700
3	03:58:54	294.800	323.800	0.261	0.080	232.900	235.600	3.548	0.607	-0.534	88.210
x		302.200	325.700	0.388	0.134	232.000	235.000	2.086	0.234	0.952	87.940
σ		6.719	1.639	0.259	0.059	1.713	2.404	1.293	0.338	1.834	0.257
%RSD		2.223	0.503	66.690	43.820	0.739	1.023	62.020	144.500	192.500	0.292

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	108.0%	0.989	1.043	0.999	5.547	3.391	3.374	2.517	2.389	105.6%
2	03:58:27	109.0%	0.963	1.042	1.007	4.194	3.401	3.508	2.417	2.495	106.1%
3	03:58:54	104.8%	0.907	0.847	0.959	5.233	3.347	3.297	2.311	2.413	102.4%
x		107.3%	0.953	0.977	0.988	4.991	3.380	3.393	2.415	2.432	104.7%
σ		2.2%	0.042	0.113	0.025	0.708	0.028	0.107	0.103	0.055	2.0%
%RSD		2.1	4.413	11.560	2.574	14.190	0.843	3.150	4.250	2.274	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	03:57:59	1.349	0.774	54.780	54.220	38.240	38.060	110.1%	-0.004	-0.004	0.760
2	03:58:27	1.260	0.751	55.540	53.850	37.930	38.480	110.5%	-0.009	-0.002	0.721
3	03:58:54	1.287	0.743	54.590	54.080	38.230	38.900	105.2%	-0.001	-0.009	0.695
x		1.299	0.756	54.970	54.050	38.140	38.480	108.6%	-0.005	-0.005	0.725
σ		0.046	0.016	0.502	0.188	0.175	0.421	2.9%	0.004	0.003	0.032
%RSD		3.531	2.139	0.912	0.348	0.460	1.095	2.7	84.050	67.510	4.458

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	03:57:59	0.670	0.703	103.7%
2	03:58:27	0.711	0.716	104.2%
3	03:58:54	0.662	0.695	99.1%
x		0.681	0.705	102.3%
σ		0.026	0.011	2.8%
%RSD		3.889	1.528	2.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	88.4%	-0.011	34.480	31.690	615.400	TM 910600.000	T 7040.000	T 6962.000	T 6982.000	59.550
2	04:04:33	88.8%	-0.014	33.870	33.270	636.100	TM 917300.000	T 7133.000	T 7065.000	T 7111.000	62.520
3	04:05:00	90.2%	0.002	34.620	32.050	632.200	TM 924900.000	T 7057.000	T 7037.000	T 7017.000	62.140
x		89.1%	-0.008	34.320	32.340	627.900	TM 917600.000	T 7077.000	T 7021.000	T 7037.000	61.400
σ		1.0%	0.009	0.402	0.827	11.030	TM 7183.000	T 49.700	T 53.440	T 66.960	1.617
%RSD		1.1	114.700	1.172	2.556	1.756	TM 0.783	T 0.702	T 0.761	T 0.952	2.634

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	TM 21500.000	T 143900.000	T 13070.000	26710.000	T 27610.000	102.0%	10.090	0.465	4.800	2403.000
2	04:04:33	TM 22490.000	T 150700.000	T 13370.000	26340.000	T 27160.000	101.0%	10.130	0.588	4.905	2766.000
3	04:05:00	TM 21900.000	T 150500.000	T 13510.000	26570.000	T 27820.000	102.7%	9.612	0.582	4.881	2678.000
x		TM 21960.000	T 148400.000	T 13310.000	26540.000	T 27530.000	101.9%	9.945	0.545	4.862	2616.000
σ		TM 496.500	T 3881.000	T 221.900	186.800	T 335.300	0.9%	0.290	0.070	0.055	189.300
%RSD		TM 2.261	T 2.616	T 1.667	0.704	T 1.218	0.8	2.911	12.760	1.127	7.237

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	586.900	31.360	T 619.700	765.400	2.199	11.200	13.470	11.470	9.350	117.700
2	04:04:33	594.300	30.630	T 630.300	805.200	2.364	11.140	14.310	11.610	9.753	119.400
3	04:05:00	588.300	31.090	T 633.700	781.100	2.260	11.370	15.350	11.530	9.376	118.100
x		589.800	31.030	T 627.900	783.900	2.274	11.230	14.380	11.540	9.493	118.400
σ		3.918	0.372	T 7.278	20.080	0.083	0.123	0.940	0.070	0.226	0.896
%RSD		0.664	1.198	T 1.159	2.561	3.660	1.098	6.536	0.604	2.380	0.757

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	115.400	117.400	0.992	0.680	1240.000	1247.000	15.130	2.083	3.710	180.100
2	04:04:33	109.100	112.900	0.053	0.196	1259.000	1261.000	8.794	0.598	5.525	179.800
3	04:05:00	108.900	113.600	0.864	1.118	1259.000	1263.000	10.050	1.025	-0.399	181.700
x		111.100	114.600	0.637	0.665	1252.000	1257.000	11.330	1.235	2.946	180.500
σ		3.719	2.455	0.509	0.461	10.690	8.689	3.357	0.765	3.035	1.043
%RSD		3.346	2.141	79.970	69.400	0.854	0.691	29.640	61.900	103.000	0.578

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	100.7%	1.704	1.896	1.747	7.144	20.230	20.490	0.216	0.216	98.6%
2	04:04:33	97.6%	1.976	1.828	1.818	6.817	20.560	20.230	0.222	0.230	94.0%
3	04:05:00	99.1%	1.824	1.696	1.747	9.663	20.510	20.720	0.282	0.293	95.8%
x		99.1%	1.835	1.807	1.771	7.875	20.440	20.480	0.240	0.247	96.1%
σ		1.5%	0.136	0.102	0.041	1.557	0.176	0.244	0.037	0.041	2.3%
%RSD		1.5	7.434	5.616	2.295	19.770	0.859	1.190	15.230	16.590	2.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:04:06	0.701	0.862	M 548.000	M 531.600	94.640	94.940	102.0%	-0.007	-0.010	1.478
2	04:04:33	0.629	0.862	M 544.000	M 522.900	94.520	95.110	98.3%	-0.002	-0.006	1.393
3	04:05:00	0.784	0.902	M 543.000	M 527.400	95.740	94.850	99.6%	0.007	-0.001	1.375
x		0.705	0.875	M 545.000	M 527.300	94.970	94.970	100.0%	-0.001	-0.006	1.415
σ		0.078	0.023	M 2.638	M 4.361	0.669	0.132	1.9%	0.007	0.004	0.055
%RSD		11.000	2.642	M 0.484	M 0.827	0.704	0.139	1.9	1163.000	75.430	3.884

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:04:06	1.359	1.404	92.4%
2	04:04:33	1.311	1.357	88.2%
3	04:05:00	1.406	1.390	89.5%
x		1.359	1.384	90.0%
σ		0.047	0.024	2.1%
%RSD		3.493	1.751	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	103.1%	0.018	2.896	2.394	82.660	164.300	4.470	4.691	4.247	3.859
2	04:10:39	105.0%	0.001	2.678	2.288	75.880	165.800	4.669	4.410	4.327	2.862
3	04:11:06	T 118.8%	-0.008	2.731	2.446	71.760	141.700	4.264	4.227	3.841	2.756
x		T 109.0%	0.004	2.769	2.376	76.770	157.300	4.468	4.443	4.138	3.159
σ		T 8.5%	0.014	0.114	0.081	5.507	13.530	0.203	0.234	0.261	0.608
%RSD		T 7.8	385.900	4.098	3.400	7.173	8.600	4.535	5.265	6.300	19.250

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	32.160	T 88480.000	33.690	54.450	58.160	109.9%	0.004	0.152	0.419	1722.000
2	04:10:39	32.340	T 91460.000	32.880	62.240	56.770	109.3%	0.005	-0.019	0.406	1894.000
3	04:11:06	27.760	T 92510.000	31.630	47.390	60.480	108.8%	-0.006	0.083	0.461	2025.000
x		30.750	T 90820.000	32.730	54.690	58.470	109.3%	0.001	0.072	0.429	1880.000
σ		2.595	T 2093.000	1.036	7.427	1.870	0.5%	0.006	0.086	0.029	151.700
%RSD		8.438	T 2.305	3.164	13.580	3.198	0.5	580.500	119.300	6.699	8.069

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	19.140	0.206	24.370	1.434	0.007	0.352	0.169	0.198	0.159	0.963
2	04:10:39	18.610	0.229	23.220	-2.587	0.006	0.271	-0.064	0.157	0.193	1.013
3	04:11:06	19.890	0.218	25.500	4.599	0.013	0.326	0.476	0.159	0.134	0.990
x		19.210	0.218	24.360	1.149	0.009	0.316	0.194	0.171	0.162	0.989
σ		0.644	0.011	1.140	3.601	0.004	0.041	0.271	0.023	0.029	0.025
%RSD		3.351	5.199	4.682	313.500	45.330	13.030	139.800	13.550	18.060	2.499

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	0.862	0.883	-0.149	0.202	13.600	14.560	1.371	0.254	0.540	0.068
2	04:10:39	0.838	0.962	-0.143	0.515	13.430	14.370	-0.623	-0.122	-1.631	0.067
3	04:11:06	1.071	1.026	-0.251	0.131	11.820	13.250	0.534	0.078	0.101	0.061
x		0.924	0.957	-0.181	0.283	12.950	14.060	0.427	0.070	-0.330	0.065
σ		0.128	0.071	0.060	0.205	0.982	0.707	1.001	0.188	1.148	0.004
%RSD		13.890	7.451	33.420	72.350	7.581	5.028	234.300	269.700	347.700	5.957

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	109.3%	0.032	0.015	0.019	0.384	0.001	0.003	0.001	-0.006	111.3%
2	04:10:39	110.5%	0.027	-0.001	0.000	-0.939	-0.001	0.005	-0.003	-0.002	110.4%
3	04:11:06	107.0%	0.023	0.029	0.008	-0.696	-0.001	0.000	-0.003	-0.009	109.2%
x		108.9%	0.028	0.014	0.009	-0.417	-0.000	0.003	-0.001	-0.006	110.3%
σ		1.7%	0.005	0.015	0.009	0.704	0.001	0.002	0.002	0.004	1.0%
%RSD		1.6	16.640	106.400	104.800	168.800	984.300	87.800	133.000	66.860	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:10:12	0.315	0.492	0.146	0.113	0.035	0.013	109.0%	-0.017	-0.019	-0.009
2	04:10:39	0.313	0.420	0.133	0.137	0.035	0.042	109.1%	-0.014	-0.016	-0.005
3	04:11:06	0.300	0.485	0.128	0.112	0.036	0.034	106.6%	-0.016	-0.019	-0.012
x		0.309	0.465	0.136	0.121	0.035	0.029	108.2%	-0.015	-0.018	-0.008
σ		0.008	0.040	0.009	0.014	0.001	0.015	1.4%	0.001	0.001	0.003
%RSD		2.677	8.546	6.940	11.780	2.476	51.080	1.3	8.958	7.725	37.880

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:10:12	-0.012	-0.007	108.4%
2	04:10:39	-0.006	-0.006	108.3%
3	04:11:06	-0.003	-0.006	105.9%
x		-0.007	-0.006	107.5%
σ		0.005	0.001	1.4%
%RSD		72.020	12.140	1.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	103.4%	104.300	107.000	102.100	82.270	T 1208.000	T 1070.000	1066.000	1070.000	103.500
2	04:16:45	101.4%	107.200	112.900	105.000	88.880	T 1242.000	T 1081.000	1049.000	1057.000	103.300
3	04:17:12	100.0%	109.600	113.000	108.700	97.570	T 1252.000	T 1082.000	1063.000	1059.000	102.600
x		101.6%	107.100	111.000	105.200	89.570	T 1234.000	T 1078.000	1059.000	1062.000	103.100
σ		1.7%	2.635	3.448	3.297	7.676	T 22.890	T 6.702	9.204	7.271	0.495
%RSD		1.7	2.461	3.108	3.133	8.570	T 1.855	T 0.622	0.869	0.685	0.481

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	T 1025.000	T 86420.000	T 1131.000	1281.000	1156.000	108.2%	102.000	101.800	98.570	2889.000
2	04:16:45	T 1047.000	T 86810.000	1153.000	1282.000	1166.000	106.4%	101.500	104.000	101.600	2266.000
3	04:17:12	T 1077.000	T 88020.000	T 1161.000	1225.000	1153.000	107.6%	104.200	102.600	101.500	2333.000
x		T 1049.000	T 87090.000	T 1148.000	1263.000	1158.000	107.4%	102.500	102.800	100.500	2496.000
σ		T 26.040	T 834.000	T 15.200	32.430	6.805	0.9%	1.424	1.126	1.715	342.100
%RSD		T 2.481	T 0.958	T 1.324	2.568	0.588	0.8	1.389	1.095	1.706	13.710

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	1089.000	99.550	T 1100.000	1023.000	100.900	101.700	99.330	103.200	101.600	104.400
2	04:16:45	1102.000	100.900	T 1075.000	1025.000	100.500	100.400	103.700	102.600	99.530	103.500
3	04:17:12	1095.000	98.570	T 1095.000	1013.000	101.000	100.700	100.800	103.400	100.300	101.300
x		1095.000	99.680	T 1090.000	1020.000	100.800	100.900	101.300	103.100	100.500	103.100
σ		6.389	1.180	T 13.120	6.349	0.256	0.702	2.210	0.403	1.030	1.611
%RSD		0.584	1.184	T 1.204	0.622	0.254	0.696	2.182	0.390	1.026	1.563

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	101.600	104.700	103.900	106.100	7.669	8.371	468.100	105.600	0.376	101.400
2	04:16:45	104.500	105.500	107.700	104.400	7.984	7.232	474.300	107.300	-1.573	100.200
3	04:17:12	103.700	106.400	105.600	105.100	7.252	8.468	474.900	105.200	2.494	102.000
x		103.300	105.500	105.700	105.200	7.635	8.024	472.500	106.000	0.433	101.200
σ		1.500	0.834	1.901	0.893	0.367	0.687	3.750	1.105	2.034	0.907
%RSD		1.453	0.790	1.798	0.849	4.808	8.561	0.794	1.042	470.300	0.896

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	105.9%	102.400	103.700	101.100	99.970	103.000	103.600	104.000	102.500	106.5%
2	04:16:45	109.6%	103.000	104.700	103.400	101.900	102.000	103.200	103.300	103.200	109.1%
3	04:17:12	106.9%	103.600	106.100	104.200	109.000	101.700	103.100	104.400	102.000	109.1%
x		107.4%	103.000	104.800	102.900	103.600	102.200	103.300	103.900	102.600	108.2%
σ		1.9%	0.584	1.195	1.578	4.776	0.663	0.300	0.539	0.600	1.5%
%RSD		1.8	0.567	1.140	1.534	4.608	0.648	0.290	0.519	0.584	1.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:16:18	104.700	104.000	102.900	104.500	105.600	106.100	105.3%	102.600	103.800	104.100
2	04:16:45	105.000	103.600	102.900	104.600	105.900	106.100	107.9%	103.200	103.800	104.300
3	04:17:12	105.900	103.700	102.300	104.700	106.400	106.300	107.7%	103.800	104.200	105.700
x		105.200	103.800	102.700	104.600	106.000	106.200	107.0%	103.200	103.900	104.700
σ		0.608	0.199	0.320	0.087	0.397	0.123	1.4%	0.587	0.270	0.891
%RSD		0.578	0.192	0.312	0.083	0.375	0.116	1.4	0.569	0.260	0.851

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:16:18	103.200	103.600	102.9%
2	04:16:45	104.800	104.900	107.3%
3	04:17:12	104.600	105.500	108.1%
x		104.200	104.700	106.1%
σ		0.880	0.946	2.8%
%RSD		0.844	0.904	2.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	99.5%	0.034	10.520	10.470	88.090	┬10930.000	┬1045.000	1016.000	1005.000	6.674
2	04:22:52	99.9%	0.012	10.460	10.110	86.800	┬10790.000	┬1050.000	1005.000	996.900	6.772
3	04:23:18	102.5%	0.004	10.940	9.968	77.200	┬11030.000	┬1044.000	999.300	1010.000	6.684
x		100.6%	0.017	10.640	10.180	84.030	┬10920.000	┬1046.000	1007.000	1004.000	6.710
σ		1.6%	0.016	0.263	0.261	5.948	┬123.200	┬3.112	8.275	6.772	0.054
%RSD		1.6	93.290	2.475	2.565	7.078	┬1.128	┬0.297	0.822	0.674	0.805

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	┬5604.000	┬89350.000	┬1522.000	3517.000	3367.000	105.4%	1.448	0.006	0.431	1901.000
2	04:22:52	┬5393.000	┬87130.000	┬1500.000	3526.000	3348.000	105.0%	1.489	0.186	0.436	1827.000
3	04:23:18	┬5450.000	┬87300.000	┬1523.000	3500.000	3295.000	106.3%	1.324	-0.011	0.463	2197.000
x		┬5482.000	┬87930.000	┬1515.000	3514.000	3337.000	105.6%	1.420	0.060	0.443	1975.000
σ		┬109.000	┬1237.000	┬13.050	13.520	37.100	0.6%	0.086	0.109	0.017	195.600
%RSD		┬1.989	┬1.407	┬0.861	0.385	1.112	0.6	6.066	180.900	3.857	9.903

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	341.900	2.919	355.700	337.100	0.053	0.960	0.599	142.700	138.300	2.557
2	04:22:52	340.400	2.942	359.200	340.100	0.066	0.991	0.017	141.100	141.100	2.615
3	04:23:18	335.400	2.835	┬352.800	328.900	0.057	0.957	0.811	140.800	139.500	2.423
x		339.200	2.899	┬355.900	335.400	0.059	0.969	0.476	141.500	139.600	2.532
σ		3.373	0.056	┬3.222	5.775	0.006	0.019	0.411	1.002	1.376	0.098
%RSD		0.994	1.939	┬0.905	1.722	10.790	1.973	86.410	0.708	0.986	3.890

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	3.360	3.108	-0.078	0.006	11.540	11.990	-0.172	-0.050	-0.401	20.650
2	04:22:52	2.727	3.157	-0.030	-0.090	12.130	10.940	-0.455	-0.167	2.264	20.300
3	04:23:18	2.850	2.775	-0.112	0.423	11.120	11.560	-1.364	-0.287	-1.581	20.770
x		2.979	3.013	-0.073	0.113	11.600	11.500	-0.664	-0.168	0.094	20.570
σ		0.336	0.208	0.042	0.273	0.508	0.525	0.623	0.119	1.969	0.241
%RSD		11.260	6.903	56.680	241.400	4.379	4.563	93.790	70.680	2100.000	1.173

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	105.9%	0.235	0.227	0.201	0.342	0.014	0.017	0.011	0.021	106.4%
2	04:22:52	107.7%	0.239	0.181	0.244	1.105	0.011	0.007	0.011	0.007	107.2%
3	04:23:18	105.4%	0.241	0.258	0.238	0.143	0.004	0.005	0.007	0.015	105.7%
x		106.4%	0.238	0.222	0.227	0.530	0.009	0.010	0.010	0.015	106.4%
σ		1.2%	0.003	0.038	0.023	0.508	0.005	0.006	0.002	0.007	0.7%
%RSD		1.1	1.393	17.320	10.170	95.780	55.840	64.020	21.250	48.000	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:22:25	0.418	0.481	0.500	0.461	10.410	10.520	106.2%	0.014	0.009	6.841
2	04:22:52	0.377	0.543	0.498	0.501	10.920	10.140	106.1%	0.019	0.011	6.670
3	04:23:18	0.371	0.481	0.491	0.474	9.983	10.230	104.0%	0.003	0.012	6.728
x		0.389	0.502	0.496	0.479	10.440	10.300	105.4%	0.012	0.011	6.746
σ		0.026	0.036	0.005	0.021	0.471	0.201	1.2%	0.008	0.002	0.087
%RSD		6.656	7.111	0.976	4.303	4.509	1.948	1.2	69.800	18.210	1.292

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:22:25	6.496	6.611	104.0%
2	04:22:52	6.599	6.621	103.9%
3	04:23:18	6.379	6.507	102.0%
x		6.491	6.580	103.3%
σ		0.110	0.063	1.1%
%RSD		1.697	0.962	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	98.3%	0.035	9.681	9.081	80.240	T10480.000	T1007.000	954.800	958.500	8.089
2	04:28:57	100.9%	0.021	9.852	9.429	84.080	T10750.000	T986.800	955.600	962.000	8.061
3	04:29:24	99.2%	0.013	10.190	9.042	78.360	T10530.000	T987.600	944.800	952.500	7.993
x		99.4%	0.023	9.908	9.184	80.900	T10590.000	T993.700	951.800	957.700	8.047
σ		1.3%	0.011	0.260	0.213	2.916	T145.600	T11.210	6.019	4.778	0.050
%RSD		1.3	48.640	2.622	2.323	3.604	T1.375	T1.128	0.632	0.499	0.615
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	T5224.000	T87720.000	T1478.000	3165.000	3121.000	104.1%	1.136	0.166	0.547	1953.000
2	04:28:57	T5160.000	T89070.000	T1483.000	3322.000	3127.000	104.4%	1.509	0.247	0.512	1752.000
3	04:29:24	T5135.000	T88470.000	T1500.000	3270.000	3156.000	104.8%	1.139	0.000	0.509	1969.000
x		T5173.000	T88420.000	T1487.000	3252.000	3135.000	104.4%	1.261	0.138	0.523	1891.000
σ		T45.480	T673.700	T11.560	79.830	18.720	0.3%	0.215	0.126	0.021	120.900
%RSD		T0.879	T0.762	T0.777	2.454	0.597	0.3	17.040	91.150	4.064	6.395
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	46.000	0.651	49.030	50.310	0.052	0.788	0.432	117.200	116.100	89.230
2	04:28:57	43.310	0.637	48.340	50.320	0.046	0.955	0.412	118.200	115.600	89.850
3	04:29:24	44.810	0.667	48.470	51.710	0.049	0.766	0.627	116.400	113.900	90.130
x		44.710	0.652	48.610	50.780	0.049	0.836	0.490	117.300	115.200	89.740
σ		1.349	0.015	0.365	0.808	0.003	0.104	0.119	0.869	1.136	0.462
%RSD		3.018	2.363	0.751	1.592	6.774	12.410	24.170	0.741	0.986	0.515
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	83.880	88.100	0.027	0.356	10.550	10.030	-1.851	-0.399	-1.643	19.610
2	04:28:57	85.150	89.930	0.060	0.077	10.830	10.170	-0.680	-0.159	-0.492	19.530
3	04:29:24	84.400	90.280	0.037	-0.075	8.817	9.288	-0.292	-0.037	-1.727	19.480
x		84.480	89.440	0.041	0.119	10.070	9.829	-0.941	-0.198	-1.287	19.540
σ		0.640	1.169	0.017	0.219	1.091	0.474	0.812	0.184	0.690	0.064
%RSD		0.757	1.307	40.400	183.200	10.840	4.817	86.220	92.760	53.610	0.327
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	102.7%	0.162	0.166	0.137	3.225	0.014	0.011	0.045	0.038	103.5%
2	04:28:57	104.1%	0.184	0.167	0.137	1.688	0.017	0.017	0.026	0.063	104.5%
3	04:29:24	104.4%	0.181	0.158	0.156	2.585	0.025	0.022	0.048	0.017	104.4%
x		103.8%	0.175	0.164	0.143	2.499	0.019	0.016	0.040	0.040	104.2%
σ		0.9%	0.012	0.005	0.011	0.772	0.006	0.005	0.012	0.023	0.6%
%RSD		0.9	6.631	2.984	7.613	30.890	30.390	33.120	29.850	57.700	0.5
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:28:30	11.650	16.600	0.496	0.416	10.750	10.420	103.4%	-0.009	-0.010	135.200
2	04:28:57	11.980	16.540	0.472	0.522	10.480	10.550	104.7%	-0.006	-0.008	138.000
3	04:29:24	11.610	16.710	0.484	0.520	10.900	10.680	103.7%	-0.003	-0.008	136.900
x		11.740	16.620	0.484	0.486	10.710	10.550	103.9%	-0.006	-0.009	136.700
σ		0.206	0.086	0.012	0.061	0.210	0.131	0.6%	0.003	0.001	1.458
%RSD		1.751	0.519	2.506	12.550	1.964	1.238	0.6	48.710	15.720	1.066
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	04:28:30	133.200	135.200	102.0%							
2	04:28:57	135.900	137.600	103.9%							
3	04:29:24	134.600	136.500	102.0%							
x		134.600	136.400	102.6%							
σ		1.351	1.207	1.1%							
%RSD		1.004	0.885	1.1							

CCV MW10994 05/01/2019 04:34:10 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	92.3%	327.000	326.600	315.200	71.740	┬71060.000	┬67060.000	┬65090.000	┬65070.000	302.900
2	04:35:04	91.3%	322.300	326.900	323.800	81.860	┬72120.000	┬65420.000	┬64950.000	┬65570.000	298.600
3	04:35:31	93.1%	312.200	322.600	322.500	74.810	┬70750.000	┬66310.000	┬65400.000	┬65530.000	305.600
x		92.3%	106.831%	108.453%	106.832%	76.140	┬118.853%	┬66260.000	┬65150.000	┬108.986%	100.783%
σ		0.9%	n/a	n/a	n/a	5.190	┬n/a	┬824.200	┬231.100	┬n/a	n/a
%RSD		1.0	2.363	0.733	1.432	6.816	┬1.009	┬1.244	┬0.355	┬0.433	1.161

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	┬3616.000	934.300	┬68060.000	65260.000	┬66210.000	100.0%	313.600	325.000	307.700	2265.000
2	04:35:04	┬3578.000	893.400	┬68640.000	65270.000	┬66900.000	100.3%	317.300	323.700	307.700	1602.000
3	04:35:31	┬3593.000	889.900	┬68910.000	64920.000	┬66860.000	101.0%	316.000	320.100	306.000	468.700
x		┬119.859%	905.900	┬114.228%	65150.000	┬111.095%	100.4%	105.210%	107.642%	102.372%	1445.000
σ		┬n/a	24.700	┬n/a	198.300	┬n/a	0.5%	n/a	n/a	n/a	908.100
%RSD		┬0.542	2.727	┬0.632	0.304	┬0.586	0.5	0.590	0.782	0.321	62.840

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	┬64460.000	303.300	┬64720.000	┬63500.000	306.700	296.500	299.500	292.600	298.600	306.900
2	04:35:04	┬65830.000	302.800	┬65490.000	┬64150.000	298.900	291.200	296.800	297.100	300.900	303.400
3	04:35:31	┬64710.000	297.000	┬65430.000	┬63680.000	299.900	289.800	286.000	289.400	299.300	300.500
x		┬65000.000	100.342%	┬65210.000	┬106.297%	100.610%	97.500%	294.100	293.000	99.858%	101.200%
σ		┬732.500	n/a	┬425.500	┬n/a	n/a	n/a	7.160	3.857	n/a	n/a
%RSD		┬1.127	1.163	┬0.653	┬0.520	1.416	1.205	2.434	1.316	0.387	1.066

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	300.100	302.000	309.000	312.100	3.579	3.501	1328.000	308.400	1.184	314.200
2	04:35:04	298.700	303.800	304.700	310.700	3.957	3.598	1332.000	306.100	1.469	315.500
3	04:35:31	292.200	301.200	299.400	300.800	5.175	4.411	1337.000	306.900	0.636	315.100
x		297.000	302.300	101.463%	307.900	4.237	3.837	1332.000	102.371%	1.096	104.970%
σ		4.229	1.355	n/a	6.196	0.834	0.500	4.905	n/a	0.424	n/a
%RSD		1.424	0.448	1.579	2.013	19.680	13.020	0.368	0.383	38.640	0.215

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	98.2%	329.400	331.100	328.600	315.300	304.000	305.500	312.100	311.900	95.9%
2	04:35:04	97.2%	329.000	330.600	328.800	316.100	302.300	302.700	310.600	307.700	96.2%
3	04:35:31	96.7%	332.200	333.400	331.100	305.000	303.300	305.700	314.300	312.600	95.9%
x		97.4%	110.066%	110.560%	329.500	312.100	101.063%	304.600	312.300	103.577%	96.0%
σ		0.8%	n/a	n/a	1.378	6.184	n/a	1.693	1.899	n/a	0.2%
%RSD		0.8	0.518	0.453	0.418	1.981	0.281	0.556	0.608	0.865	0.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:34:37	322.800	320.100	325.100	321.200	320.700	321.600	97.5%	310.900	315.200	307.400
2	04:35:04	320.900	318.900	321.200	320.400	318.100	321.600	97.7%	311.900	318.000	308.600
3	04:35:31	323.300	322.300	322.900	318.400	320.800	321.000	97.8%	309.700	315.800	306.900
x		107.441%	106.815%	323.100	106.662%	106.616%	107.137%	97.7%	310.800	105.442%	102.547%
σ		n/a	n/a	1.972	n/a	n/a	n/a	0.2%	1.059	n/a	n/a
%RSD		0.385	0.534	0.610	0.440	0.471	0.111	0.2	0.341	0.471	0.285

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:34:37	306.000	308.900	91.6%
2	04:35:04	307.700	310.200	92.4%
3	04:35:31	305.800	308.600	91.9%
x		102.160%	103.081%	92.0%
σ		n/a	n/a	0.4%
%RSD		0.336	0.275	0.4

CCB IM9390-01 05/01/2019 04:40:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	97.2%	0.048	2.730	2.705	48.690	10.210	6.381	6.065	7.012	-0.030
2	04:41:12	97.7%	0.042	2.364	2.348	58.290	9.771	6.339	6.029	6.165	-0.093
3	04:41:39	99.8%	0.044	2.944	2.449	54.010	10.280	5.123	4.529	4.981	-0.044
x		98.2%	0.045	2.679	2.501	53.660	10.090	5.948	5.541	6.053	-0.056
σ		1.3%	0.003	0.294	0.184	4.811	0.275	0.715	0.877	1.020	0.033
%RSD		1.4	7.246	10.960	7.359	8.965	2.721	12.010	15.820	16.850	59.080

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	19.520	491.300	15.500	5.838	7.050	102.8%	-0.046	-0.010	0.070	53.530
2	04:41:12	19.720	503.100	14.240	8.181	6.152	103.9%	-0.058	0.062	0.074	6.129
3	04:41:39	19.350	515.100	14.260	5.239	4.476	102.6%	-0.022	0.053	0.101	24.720
x		19.530	503.200	14.660	6.419	5.893	103.1%	-0.042	0.035	0.082	28.120
σ		0.182	11.900	0.720	1.555	1.306	0.7%	0.018	0.039	0.017	23.880
%RSD		0.933	2.365	4.907	24.220	22.160	0.7	43.120	111.800	20.940	84.920

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	7.332	0.042	11.780	2.161	0.049	0.044	-0.325	0.031	0.029	0.033
2	04:41:12	5.445	0.044	11.210	-2.404	0.052	0.004	-0.422	0.008	0.079	0.072
3	04:41:39	5.736	0.047	11.780	2.510	0.026	0.016	-0.245	0.003	0.033	0.058
x		6.171	0.044	11.590	0.756	0.043	0.021	-0.331	0.014	0.047	0.054
σ		1.016	0.003	0.334	2.742	0.014	0.021	0.089	0.015	0.028	0.019
%RSD		16.470	6.449	2.877	362.900	34.050	96.230	26.780	108.700	59.930	35.640

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	0.003	0.021	0.005	0.019	1.779	2.239	-0.602	-0.139	-0.198	0.030
2	04:41:12	0.069	0.066	-0.079	-0.117	1.954	2.612	-1.897	-0.488	2.165	0.023
3	04:41:39	0.026	0.052	-0.045	-0.331	2.470	2.295	-2.046	-0.515	2.486	0.026
x		0.033	0.046	-0.040	-0.143	2.068	2.382	-1.515	-0.381	1.484	0.027
σ		0.033	0.023	0.042	0.176	0.359	0.201	0.794	0.209	1.466	0.003
%RSD		101.600	49.750	105.900	123.400	17.370	8.436	52.430	55.030	98.750	12.150

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	102.8%	0.114	0.109	0.108	0.345	0.037	0.045	0.038	0.042	103.1%
2	04:41:12	103.9%	0.080	0.078	0.091	-1.325	0.047	0.044	0.027	0.030	104.6%
3	04:41:39	102.7%	0.106	0.053	0.060	0.336	0.021	0.017	0.016	0.021	101.6%
x		103.1%	0.100	0.080	0.086	-0.215	0.035	0.035	0.027	0.031	103.1%
σ		0.7%	0.018	0.028	0.024	0.961	0.013	0.016	0.011	0.011	1.5%
%RSD		0.7	17.490	35.340	27.810	447.600	36.960	45.000	40.910	34.390	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:40:45	0.085	0.100	0.162	0.127	0.013	0.044	100.9%	0.016	0.019	0.037
2	04:41:12	0.057	0.114	0.138	0.170	0.034	0.034	101.5%	0.024	0.014	0.028
3	04:41:39	0.058	0.093	0.144	0.140	0.019	0.061	99.3%	0.022	0.016	0.021
x		0.067	0.103	0.148	0.146	0.022	0.046	100.6%	0.021	0.016	0.029
σ		0.016	0.011	0.012	0.022	0.011	0.014	1.1%	0.004	0.003	0.008
%RSD		24.090	10.400	8.411	15.310	50.370	29.380	1.1	19.020	15.760	26.560

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:40:45	0.035	0.037	102.5%
2	04:41:12	0.025	0.031	102.1%
3	04:41:39	0.029	0.033	99.4%
x		0.029	0.034	101.3%
σ		0.005	0.003	1.7%
%RSD		17.200	9.075	1.6

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	96.0%	0.040	13.400	12.880	87.970	T 11300.000	T 993.000	949.400	949.500	82.110
2	04:47:19	97.5%	0.031	14.010	12.360	82.980	T 11120.000	T 998.300	950.900	937.200	81.010
3	04:47:46	100.4%	-0.018	12.760	11.940	83.550	T 10890.000	T 952.900	916.900	940.600	81.840
x		98.0%	0.018	13.390	12.390	84.830	T 11100.000	T 981.400	939.100	942.400	81.650
σ		2.2%	0.031	0.628	0.472	2.731	T 207.200	T 24.830	19.230	6.374	0.574
%RSD		2.3	173.700	4.688	3.804	3.219	T 1.866	T 2.530	2.048	0.676	0.703

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	T 9687.000	T 89280.000	T 1542.000	3155.000	3145.000	103.2%	2.188	1.169	1.256	1653.000
2	04:47:19	T 9482.000	T 90780.000	T 1549.000	3148.000	3102.000	102.6%	2.121	1.244	1.226	1797.000
3	04:47:46	T 9446.000	T 90230.000	T 1540.000	3178.000	3127.000	103.3%	2.396	1.121	1.259	2022.000
x		T 9538.000	T 90100.000	T 1544.000	3160.000	3125.000	103.0%	2.235	1.178	1.247	1824.000
σ		T 129.800	T 757.300	T 4.450	15.830	21.460	0.4%	0.143	0.062	0.019	185.700
%RSD		T 1.361	T 0.841	T 0.288	0.501	0.687	0.4	6.406	5.286	1.490	10.180

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	2251.000	107.200	T 2289.000	2176.000	0.261	6.732	6.179	TM 2841.000	TM 2516.000	293.700
2	04:47:19	2245.000	105.600	T 2316.000	2206.000	0.259	6.742	6.752	TM 2841.000	TM 2545.000	296.600
3	04:47:46	2241.000	105.400	T 2260.000	2159.000	0.251	6.771	7.650	TM 2879.000	TM 2643.000	297.300
x		2246.000	106.100	T 2288.000	2180.000	0.257	6.748	6.860	TM 2854.000	TM 2568.000	295.900
σ		4.978	0.972	T 27.960	24.070	0.006	0.020	0.742	TM 21.480	TM 66.510	1.893
%RSD		0.222	0.916	T 1.222	1.104	2.196	0.294	10.810	TM 0.753	TM 2.590	0.640

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	269.000	286.200	0.122	-0.016	8.007	8.683	2.035	0.456	-0.447	18.520
2	04:47:19	269.800	287.700	0.357	0.227	9.080	8.813	0.058	0.002	0.463	18.390
3	04:47:46	259.700	280.300	0.299	0.798	8.742	9.290	-0.984	-0.188	-0.570	18.530
x		266.200	284.700	0.259	0.336	8.610	8.929	0.370	0.090	-0.185	18.480
σ		5.609	3.917	0.123	0.418	0.549	0.320	1.534	0.331	0.564	0.077
%RSD		2.107	1.376	47.280	124.100	6.375	3.579	415.000	367.100	305.700	0.416

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	103.5%	0.476	0.517	0.544	0.086	0.119	0.119	0.222	0.217	103.7%
2	04:47:19	102.1%	0.505	0.511	0.587	1.398	0.105	0.124	0.234	0.241	101.4%
3	04:47:46	102.0%	0.568	0.564	0.608	2.140	0.123	0.118	0.281	0.212	99.3%
x		102.6%	0.516	0.531	0.580	1.208	0.116	0.120	0.246	0.223	101.4%
σ		0.8%	0.047	0.029	0.032	1.040	0.010	0.003	0.031	0.016	2.2%
%RSD		0.8	9.144	5.483	5.567	86.090	8.335	2.361	12.680	7.139	2.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:46:52	0.771	0.863	0.925	0.943	17.150	16.900	102.8%	0.039	0.031	26.820
2	04:47:19	0.696	0.921	0.963	0.928	16.970	17.020	101.7%	0.048	0.033	27.190
3	04:47:46	0.699	0.857	0.944	0.977	16.850	17.190	98.7%	0.029	0.038	27.270
x		0.722	0.880	0.944	0.949	16.990	17.040	101.1%	0.039	0.034	27.090
σ		0.042	0.036	0.019	0.025	0.150	0.147	2.1%	0.010	0.004	0.241
%RSD		5.884	4.053	1.986	2.656	0.885	0.863	2.1	24.620	11.770	0.888

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:46:52	26.060	26.350	100.8%
2	04:47:19	26.220	26.570	100.7%
3	04:47:46	26.260	26.620	97.6%
x		26.180	26.510	99.7%
σ		0.106	0.145	1.8%
%RSD		0.403	0.549	1.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	101.1%	0.042	9.317	9.651	73.160	T10770.000	T1057.000	1024.000	1019.000	5.484
2	04:53:28	96.7%	0.015	10.470	9.295	74.780	T10770.000	T1044.000	998.800	1002.000	5.497
3	04:53:55	97.0%	0.003	8.905	9.528	71.250	T10810.000	T1050.000	986.600	1003.000	5.011
x		98.3%	0.020	9.564	9.492	73.060	T10780.000	T1050.000	1003.000	1008.000	5.330
σ		2.5%	0.020	0.812	0.181	1.768	T21.860	T6.690	19.290	9.591	0.277
%RSD		2.5	98.460	8.485	1.906	2.420	T0.203	T0.637	1.923	0.951	5.191

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	T5300.000	T88530.000	T1535.000	3367.000	3217.000	102.9%	1.719	0.146	0.531	1970.000
2	04:53:28	T5301.000	T89380.000	T1542.000	3381.000	3246.000	100.3%	1.517	0.064	0.466	1896.000
3	04:53:55	T5324.000	T88710.000	T1514.000	3256.000	3216.000	102.6%	1.947	0.043	0.497	1799.000
x		T5308.000	T88870.000	T1530.000	3335.000	3226.000	101.9%	1.727	0.084	0.498	1888.000
σ		T13.760	T448.900	T14.620	68.690	17.190	1.4%	0.215	0.055	0.032	85.860
%RSD		T0.259	T0.505	T0.955	2.060	0.533	1.4	12.450	64.830	6.523	4.547

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	72.760	0.796	76.090	95.180	0.053	1.114	0.648	189.700	191.400	23.230
2	04:53:28	70.450	0.772	76.240	87.700	0.056	1.069	0.761	188.000	188.300	23.030
3	04:53:55	68.020	0.801	73.560	80.490	0.040	1.084	0.404	186.900	183.600	22.950
x		70.410	0.790	75.300	87.790	0.050	1.089	0.604	188.200	187.800	23.070
σ		2.372	0.015	1.505	7.347	0.009	0.023	0.182	1.395	3.928	0.147
%RSD		3.369	1.915	1.999	8.369	17.770	2.106	30.190	0.742	2.092	0.637

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	22.180	23.390	0.224	0.016	9.217	10.660	-0.189	-0.022	-1.235	20.230
2	04:53:28	21.730	23.330	0.019	0.125	10.020	10.050	0.840	0.167	0.417	20.390
3	04:53:55	21.680	23.460	0.207	-0.384	9.467	9.291	2.328	0.543	-1.618	20.350
x		21.860	23.390	0.150	-0.081	9.569	10.000	0.993	0.229	-0.812	20.320
σ		0.271	0.065	0.114	0.268	0.413	0.684	1.265	0.288	1.082	0.085
%RSD		1.240	0.277	75.700	331.600	4.312	6.839	127.400	125.500	133.200	0.419

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	98.9%	0.164	0.182	0.182	0.482	0.009	0.022	0.012	0.009	99.1%
2	04:53:28	100.0%	0.214	0.149	0.191	0.659	0.014	0.011	0.008	0.021	100.2%
3	04:53:55	102.4%	0.168	0.184	0.176	0.114	0.015	0.018	0.027	0.031	103.0%
x		100.4%	0.182	0.171	0.183	0.418	0.013	0.017	0.016	0.021	100.7%
σ		1.8%	0.028	0.020	0.008	0.278	0.003	0.005	0.010	0.011	2.0%
%RSD		1.8	15.340	11.540	4.161	66.430	22.830	32.210	62.150	53.920	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:53:00	0.866	1.164	0.550	0.518	13.150	13.300	98.1%	-0.014	-0.012	7.857
2	04:53:28	0.814	1.165	0.540	0.562	13.260	12.810	100.5%	-0.010	-0.011	7.962
3	04:53:55	0.852	1.212	0.538	0.527	13.130	12.990	103.2%	-0.006	-0.013	7.695
x		0.844	1.180	0.543	0.536	13.180	13.030	100.6%	-0.010	-0.012	7.838
σ		0.027	0.028	0.007	0.023	0.070	0.247	2.5%	0.004	0.001	0.135
%RSD		3.197	2.335	1.240	4.356	0.533	1.898	2.5	41.530	7.669	1.721

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:53:00	7.322	7.587	96.7%
2	04:53:28	7.386	7.636	98.8%
3	04:53:55	7.371	7.586	101.6%
x		7.360	7.603	99.0%
σ		0.033	0.029	2.5%
%RSD		0.449	0.379	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	96.4%	0.013	36.930	34.890	790.400	TM 113500.000	T 5357.000	T 5246.000	T 5248.000	384.800
2	04:59:35	94.8%	0.002	34.480	34.500	797.700	TM 112900.000	T 5203.000	T 5176.000	T 5296.000	T 378.400
3	05:00:02	92.5%	0.008	37.460	36.110	787.800	TM 115300.000	T 5347.000	T 5203.000	T 5220.000	359.900
x		94.6%	0.008	36.290	35.160	792.000	TM 113900.000	T 5302.000	T 5208.000	T 5255.000	T 374.400
σ		2.0%	0.005	1.590	0.840	5.106	TM 1236.000	T 86.580	T 35.460	T 38.320	T 12.920
%RSD		2.1	67.820	4.382	2.390	0.645	TM 1.086	T 1.633	T 0.681	T 0.729	T 3.452

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	T 4881.000	T 97410.000	T 42690.000	20670.000	T 21480.000	96.8%	51.930	0.765	2.005	1965.000
2	04:59:35	T 4739.000	T 94860.000	T 42930.000	20500.000	T 21330.000	97.8%	47.150	0.439	1.951	2019.000
3	05:00:02	T 4890.000	T 95360.000	T 42360.000	21050.000	T 21810.000	98.0%	46.370	0.813	1.879	1732.000
x		T 4837.000	T 95880.000	T 42660.000	20740.000	T 21540.000	97.5%	48.480	0.672	1.945	1905.000
σ		T 84.980	T 1354.000	T 289.300	281.900	T 244.200	0.6%	3.013	0.204	0.063	152.300
%RSD		T 1.757	T 1.412	T 0.678	1.359	T 1.134	0.7	6.214	30.270	3.244	7.991

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	464.000	17.520	T 493.500	646.200	0.369	5.115	5.397	41.530	43.450	274.600
2	04:59:35	461.200	17.620	T 480.700	589.700	0.359	5.011	4.226	41.650	42.000	274.000
3	05:00:02	449.700	17.020	T 472.500	582.000	0.335	4.599	2.986	39.700	39.680	266.800
x		458.300	17.390	T 482.200	606.000	0.354	4.909	4.203	40.960	41.710	271.800
σ		7.587	0.322	T 10.600	35.020	0.018	0.273	1.205	1.093	1.904	4.340
%RSD		1.655	1.850	T 2.198	5.779	5.051	5.558	28.680	2.670	4.565	1.597

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	243.500	258.200	0.904	0.854	88.140	89.950	8.524	1.946	0.212	119.300
2	04:59:35	244.100	262.900	0.739	1.021	87.840	86.060	3.827	0.900	-3.304	122.800
3	05:00:02	240.200	261.100	0.619	0.682	86.190	88.820	3.507	0.702	0.963	119.500
x		242.600	260.700	0.754	0.852	87.390	88.280	5.286	1.183	-0.710	120.500
σ		2.084	2.373	0.143	0.169	1.051	1.999	2.809	0.669	2.278	1.935
%RSD		0.859	0.910	18.930	19.890	1.203	2.264	53.140	56.530	320.900	1.605

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	97.1%	2.944	2.704	2.749	7.177	0.022	0.027	0.071	0.068	93.5%
2	04:59:35	98.0%	2.759	2.722	2.760	4.465	0.025	0.034	0.110	0.100	95.7%
3	05:00:02	101.6%	2.637	2.693	2.835	4.448	0.019	0.022	0.109	0.052	99.7%
x		98.9%	2.780	2.707	2.781	5.363	0.022	0.028	0.097	0.074	96.3%
σ		2.4%	0.155	0.015	0.047	1.571	0.003	0.006	0.022	0.024	3.1%
%RSD		2.4	5.565	0.542	1.688	29.290	12.390	21.900	22.580	33.100	3.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	04:59:08	0.726	0.865	0.364	0.349	30.950	30.780	95.2%	-0.004	-0.003	0.519
2	04:59:35	0.664	0.906	0.396	0.397	30.430	30.230	98.6%	-0.007	-0.010	0.594
3	05:00:02	0.675	0.799	0.386	0.425	29.860	30.240	102.3%	-0.010	-0.006	0.512
x		0.688	0.857	0.382	0.390	30.410	30.420	98.7%	-0.007	-0.007	0.541
σ		0.033	0.054	0.017	0.038	0.546	0.315	3.6%	0.003	0.004	0.046
%RSD		4.800	6.268	4.345	9.815	1.796	1.034	3.6	36.010	56.180	8.431

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	04:59:08	0.581	0.527	89.7%
2	04:59:35	0.523	0.540	93.6%
3	05:00:02	0.524	0.520	96.7%
x		0.542	0.529	93.3%
σ		0.033	0.010	3.5%
%RSD		6.118	1.965	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	93.9%	0.066	36.180	33.490	1650.000	TM 104000.000	T 5072.000	T 5081.000	T 5072.000	TM 3122.000
2	05:05:43	97.9%	0.033	36.460	36.120	1705.000	TM 107600.000	T 5227.000	T 5115.000	T 5098.000	TM 3228.000
3	05:06:10	99.2%	0.014	34.070	35.140	1642.000	TM 103700.000	T 5041.000	T 5089.000	T 5129.000	TM 3309.000
x		97.0%	0.037	35.570	34.910	1665.000	TM 105100.000	T 5113.000	T 5095.000	T 5099.000	TM 3220.000
σ		2.8%	0.027	1.305	1.331	34.170	TM 2189.000	T 99.340	T 17.970	T 28.520	TM 93.770
%RSD		2.9	70.930	3.669	3.811	2.052	TM 2.083	T 1.943	T 0.353	T 0.559	TM 2.913
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	T 9418.000	T 84530.000	T 26240.000	23290.000	T 24320.000	101.9%	54.670	3.537	9.491	1650.000
2	05:05:43	T 9204.000	T 88930.000	T 27440.000	23940.000	T 25000.000	101.7%	55.970	3.364	9.735	2007.000
3	05:06:10	T 9226.000	T 89850.000	T 27310.000	23800.000	T 24710.000	99.7%	55.300	3.667	9.630	2031.000
x		T 9283.000	T 87770.000	T 27000.000	23680.000	T 24680.000	101.1%	55.320	3.523	9.619	1896.000
σ		T 117.600	T 2844.000	T 663.000	344.600	T 340.800	1.2%	0.649	0.152	0.122	213.800
%RSD		T 1.267	T 3.241	T 2.456	1.456	T 1.381	1.2	1.174	4.323	1.272	11.280
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	4446.000	97.840	T 4587.000	4489.000	1.016	9.695	8.932	80.670	83.640	M 1402.000
2	05:05:43	4556.000	97.670	T 4638.000	4544.000	0.987	9.997	9.664	83.320	86.080	M 1397.000
3	05:06:10	4559.000	98.930	T 4624.000	4577.000	1.024	10.100	9.394	83.330	85.020	M 1403.000
x		4520.000	98.150	T 4616.000	4537.000	1.009	9.930	9.330	82.440	84.910	M 1401.000
σ		64.490	0.681	T 26.500	44.730	0.020	0.210	0.370	1.531	1.220	M 3.041
%RSD		1.427	0.694	T 0.574	0.986	1.964	2.112	3.965	1.857	1.437	M 0.217
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	M 1223.000	M 1316.000	1.409	1.284	46.410	49.670	1.945	0.475	-0.976	91.500
2	05:05:43	M 1204.000	M 1301.000	1.392	1.044	45.450	47.070	2.596	0.585	0.677	91.670
3	05:06:10	M 1207.000	M 1305.000	1.580	1.459	47.120	49.240	6.921	1.702	-1.105	88.830
x		M 1211.000	M 1308.000	1.461	1.262	46.330	48.660	3.820	0.921	-0.468	90.670
σ		M 10.500	M 7.756	0.104	0.208	0.842	1.391	2.705	0.679	0.994	1.590
%RSD		M 0.867	M 0.593	7.100	16.470	1.818	2.858	70.790	73.730	212.400	1.754
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	102.1%	10.420	9.914	10.490	7.232	0.170	0.174	1.189	1.232	98.3%
2	05:05:43	99.1%	10.500	10.250	10.670	7.492	0.169	0.203	1.182	1.304	96.1%
3	05:06:10	100.9%	10.170	10.430	10.160	3.922	0.183	0.184	1.069	1.172	95.2%
x		100.7%	10.370	10.200	10.440	6.215	0.174	0.187	1.147	1.236	96.5%
σ		1.5%	0.173	0.262	0.257	1.990	0.008	0.015	0.067	0.066	1.6%
%RSD		1.5	1.668	2.568	2.462	32.020	4.447	7.764	5.869	5.361	1.6
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:05:16	1.915	2.152	3.944	3.966	86.050	87.130	99.9%	0.014	0.000	17.110
2	05:05:43	1.795	2.063	3.854	3.960	87.510	87.090	98.4%	-0.005	0.007	17.220
3	05:06:10	1.905	2.114	3.929	3.728	85.810	85.200	97.6%	0.004	0.007	17.430
x		1.872	2.110	3.909	3.885	86.460	86.470	98.7%	0.004	0.005	17.250
σ		0.066	0.045	0.048	0.136	0.922	1.101	1.2%	0.009	0.004	0.163
%RSD		3.550	2.114	1.238	3.497	1.067	1.274	1.2	216.600	82.910	0.947
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:05:16	16.460	16.590	96.7%							
2	05:05:43	16.120	16.650	95.3%							
3	05:06:10	16.250	16.620	94.6%							
x		16.280	16.620	95.6%							
σ		0.169	0.029	1.1%							
%RSD		1.038	0.177	1.1							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	99.9%	0.033	12.900	12.000	70.700	T 33780.000	T 658.100	637.100	631.400	94.560
2	05:11:50	100.4%	-0.005	12.600	12.270	87.440	T 34220.000	T 654.800	626.800	640.300	94.790
3	05:12:17	98.4%	0.017	11.980	11.930	75.900	T 34350.000	T 653.900	629.700	617.800	89.530
x		99.6%	0.015	12.490	12.070	78.020	T 34120.000	T 655.600	631.200	629.800	92.960
σ		1.1%	0.019	0.469	0.179	8.568	T 296.000	T 2.215	5.287	11.280	2.974
%RSD		1.1	128.700	3.755	1.479	10.980	T 0.868	T 0.338	0.838	1.791	3.199
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	T 4901.000	T 87060.000	T 1597.000	27410.000	T 28330.000	103.4%	4.425	0.440	4.394	1809.000
2	05:11:50	T 4979.000	T 88200.000	T 1584.000	27220.000	T 28000.000	103.6%	4.370	0.420	4.338	1873.000
3	05:12:17	T 4821.000	T 84950.000	T 1547.000	27040.000	T 28220.000	105.2%	4.611	0.145	4.271	1716.000
x		T 4900.000	T 86730.000	T 1576.000	27220.000	T 28180.000	104.1%	4.469	0.335	4.334	1799.000
σ		T 79.210	T 1648.000	T 26.020	181.500	T 169.000	0.9%	0.127	0.165	0.062	79.260
%RSD		T 1.616	T 1.900	T 1.651	0.667	T 0.600	0.9	2.831	49.120	1.422	4.405
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	211.100	5.317	214.900	468.500	0.292	2.089	1.633	5.315	5.313	53.080
2	05:11:50	207.300	5.182	215.300	460.800	0.268	2.104	1.938	5.330	5.372	53.640
3	05:12:17	204.100	5.503	211.700	404.400	0.258	2.106	1.214	5.226	5.142	54.160
x		207.500	5.334	214.000	444.600	0.272	2.100	1.595	5.290	5.276	53.630
σ		3.484	0.161	1.969	34.970	0.018	0.010	0.364	0.056	0.119	0.544
%RSD		1.679	3.020	0.920	7.867	6.487	0.461	22.800	1.066	2.257	1.015
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	48.710	52.000	0.075	0.224	6.781	7.882	-1.062	-0.204	-1.254	39.020
2	05:11:50	48.110	52.360	0.312	0.347	6.412	6.803	-1.955	-0.411	-1.514	39.200
3	05:12:17	50.330	53.260	-0.106	-0.125	6.754	6.540	-2.539	-0.566	-0.119	38.510
x		49.050	52.540	0.093	0.149	6.649	7.075	-1.852	-0.394	-0.962	38.910
σ		1.149	0.649	0.209	0.245	0.206	0.711	0.744	0.182	0.742	0.361
%RSD		2.343	1.236	224.300	165.100	3.094	10.050	40.170	46.100	77.120	0.928
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	99.2%	0.443	0.505	0.530	1.296	0.006	0.009	0.015	0.025	98.3%
2	05:11:50	100.1%	0.534	0.567	0.386	1.843	0.008	0.006	0.038	0.022	100.1%
3	05:12:17	104.5%	0.518	0.550	0.499	0.498	0.010	0.008	0.021	0.026	102.7%
x		101.3%	0.498	0.541	0.472	1.213	0.008	0.008	0.025	0.024	100.4%
σ		2.9%	0.049	0.032	0.076	0.676	0.002	0.002	0.012	0.002	2.2%
%RSD		2.8	9.761	5.898	16.040	55.780	22.610	20.050	48.720	9.309	2.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:11:23	0.621	0.810	0.456	0.412	34.090	34.750	98.1%	-0.013	-0.015	1.099
2	05:11:50	0.569	0.843	0.417	0.441	34.180	34.120	99.6%	-0.009	-0.015	1.114
3	05:12:17	0.607	0.864	0.433	0.406	34.280	34.430	104.0%	-0.008	-0.014	1.079
x		0.599	0.839	0.435	0.420	34.190	34.430	100.6%	-0.010	-0.015	1.097
σ		0.027	0.027	0.019	0.019	0.097	0.318	3.1%	0.003	0.001	0.018
%RSD		4.529	3.247	4.445	4.477	0.285	0.922	3.0	27.290	4.045	1.620
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:11:23	1.000	1.022	94.0%							
2	05:11:50	1.066	1.078	96.1%							
3	05:12:17	1.085	1.057	101.3%							
x		1.050	1.052	97.2%							
σ		0.045	0.028	3.7%							
%RSD		4.271	2.659	3.9							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	102.2%	0.090	10.880	10.230	54.510	T 1372.000	T 1427.000	1401.000	1412.000	TM 10270.000
2	05:17:59	101.2%	0.112	11.040	10.570	59.280	T 1408.000	T 1436.000	1367.000	1395.000	TM 9955.000
3	05:18:26	102.9%	0.108	10.530	10.350	62.050	T 1372.000	T 1446.000	1387.000	1378.000	TM 9710.000
x		102.1%	0.103	10.810	10.380	58.620	T 1384.000	T 1436.000	1385.000	1395.000	TM 9979.000
σ		0.8%	0.012	0.257	0.174	3.816	T 20.750	T 9.463	17.420	17.060	TM 282.200
%RSD		0.8	11.370	2.374	1.679	6.510	T 1.500	T 0.659	1.258	1.223	TM 2.828

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	T 9392.000	T 84950.000	T 2503.000	3474.000	3414.000	104.7%	28.000	6.116	5.819	2110.000
2	05:17:59	T 9222.000	T 83770.000	T 2554.000	3497.000	3368.000	104.6%	28.470	6.118	6.045	1904.000
3	05:18:26	T 8992.000	T 83470.000	T 2458.000	3486.000	3380.000	105.5%	25.930	6.210	5.901	1891.000
x		T 9202.000	T 84060.000	T 2505.000	3485.000	3387.000	104.9%	27.470	6.148	5.922	1968.000
σ		T 200.900	T 786.000	T 48.280	11.710	23.830	0.5%	1.352	0.054	0.115	123.100
%RSD		T 2.184	T 0.935	T 1.927	0.336	0.704	0.5	4.923	0.872	1.937	6.254

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	2053.000	10.160	T 2101.000	2007.000	0.877	2.278	2.837	1.176	1.250	3.070
2	05:17:59	2038.000	10.230	T 2090.000	1984.000	0.862	2.447	2.231	1.146	1.205	3.001
3	05:18:26	2020.000	9.983	T 2084.000	1983.000	0.851	2.522	2.095	1.138	1.297	3.042
x		2037.000	10.120	T 2091.000	1991.000	0.863	2.416	2.388	1.153	1.251	3.038
σ		16.440	0.125	T 8.536	13.390	0.013	0.125	0.395	0.020	0.046	0.035
%RSD		0.807	1.239	T 0.408	0.672	1.466	5.189	16.520	1.753	3.664	1.142

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	6.695	5.463	0.537	0.373	10.270	9.642	0.340	0.185	-2.522	24.460
2	05:17:59	6.256	5.274	0.449	-0.336	8.405	9.968	0.186	0.064	0.345	24.300
3	05:18:26	6.598	5.589	0.653	0.248	8.556	10.960	0.373	0.153	-1.448	24.290
x		6.517	5.442	0.546	0.095	9.078	10.190	0.299	0.134	-1.208	24.350
σ		0.231	0.158	0.102	0.379	1.038	0.685	0.100	0.063	1.449	0.097
%RSD		3.537	2.911	18.700	397.600	11.430	6.726	33.390	46.930	119.900	0.399

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	104.1%	0.272	0.180	0.200	2.480	0.006	0.008	0.020	0.021	99.9%
2	05:17:59	106.9%	0.164	0.245	0.210	0.218	0.001	0.003	0.026	0.017	103.4%
3	05:18:26	107.0%	0.232	0.208	0.223	0.652	0.004	0.003	0.019	0.023	103.3%
x		106.0%	0.223	0.211	0.211	1.117	0.004	0.005	0.021	0.020	102.2%
σ		1.6%	0.054	0.033	0.011	1.201	0.002	0.003	0.004	0.003	2.0%
%RSD		1.6	24.340	15.520	5.306	107.500	60.370	57.870	19.050	15.940	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:17:31	0.481	0.535	0.104	0.089	58.700	60.180	98.9%	0.035	0.037	5.159
2	05:17:59	0.398	0.518	0.071	0.096	60.080	58.660	103.1%	0.031	0.026	5.003
3	05:18:26	0.445	0.398	0.086	0.082	59.010	59.460	103.2%	0.046	0.035	5.150
x		0.441	0.484	0.087	0.089	59.270	59.440	101.7%	0.037	0.033	5.104
σ		0.042	0.075	0.016	0.007	0.721	0.760	2.4%	0.008	0.006	0.088
%RSD		9.505	15.410	18.640	7.871	1.216	1.278	2.4	21.250	18.880	1.719

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:17:31	4.833	4.951	96.1%
2	05:17:59	4.772	4.922	100.4%
3	05:18:26	4.829	4.948	101.4%
x		4.812	4.940	99.3%
σ		0.034	0.016	2.8%
%RSD		0.708	0.325	2.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	98.3%	0.089	17.230	17.060	106.500	T 15890.000	T 2482.000	2404.000	2372.000	TM 776.400
2	05:24:06	102.4%	0.109	17.550	16.810	91.610	T 15500.000	T 2447.000	2375.000	2350.000	TM 759.800
3	05:24:33	101.4%	0.095	17.480	17.430	97.910	T 15680.000	T 2453.000	2356.000	2395.000	TM 786.500
x		100.7%	0.098	17.420	17.100	98.670	T 15690.000	T 2461.000	2378.000	2372.000	TM 774.300
σ		2.1%	0.010	0.165	0.309	7.472	T 197.400	T 19.190	24.290	22.330	TM 13.480
%RSD		2.1	10.290	0.944	1.805	7.572	T 1.258	T 0.780	1.021	0.941	TM 1.740

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	T 3001.000	T 88080.000	T 2258.000	8592.000	8277.000	102.0%	1.735	0.222	0.743	1916.000
2	05:24:06	T 2954.000	T 85800.000	T 2212.000	8577.000	8178.000	105.1%	2.341	0.416	0.627	1690.000
3	05:24:33	T 3040.000	T 90530.000	T 2317.000	8595.000	8238.000	103.6%	1.845	0.335	0.708	2044.000
x		T 2998.000	T 88140.000	T 2262.000	8588.000	8231.000	103.6%	1.974	0.324	0.692	1883.000
σ		T 43.220	T 2366.000	T 52.600	9.657	50.070	1.5%	0.323	0.098	0.060	179.500
%RSD		T 1.441	T 2.685	T 2.325	0.113	0.608	1.5	16.370	30.070	8.597	9.530

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	1438.000	10.960	T 1496.000	1470.000	1.033	0.559	0.344	0.286	0.384	1.231
2	05:24:06	1427.000	11.020	T 1496.000	1455.000	0.929	0.580	-0.209	0.323	0.346	1.193
3	05:24:33	1428.000	11.100	T 1501.000	1460.000	1.030	0.583	0.805	0.301	0.348	1.277
x		1431.000	11.020	T 1498.000	1462.000	0.997	0.574	0.313	0.303	0.359	1.233
σ		5.872	0.072	T 2.810	7.425	0.059	0.013	0.508	0.018	0.021	0.042
%RSD		0.410	0.653	T 0.188	0.508	5.959	2.331	162.200	6.092	5.932	3.407

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	5.040	4.529	0.679	1.021	25.510	28.370	0.192	0.109	-2.076	25.890
2	05:24:06	4.840	4.210	0.509	0.716	24.110	26.650	0.231	-0.013	3.593	26.110
3	05:24:33	5.262	3.821	0.528	0.488	26.620	27.010	-1.275	-0.291	0.956	26.030
x		5.047	4.187	0.572	0.742	25.410	27.340	-0.284	-0.065	0.824	26.010
σ		0.211	0.354	0.093	0.267	1.261	0.911	0.859	0.205	2.837	0.111
%RSD		4.187	8.462	16.310	36.050	4.964	3.332	302.400	315.700	344.200	0.428

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	103.6%	0.017	0.022	0.007	0.076	0.001	0.001	0.005	0.009	99.7%
2	05:24:06	106.0%	0.009	0.004	0.010	1.299	-0.003	0.002	0.024	0.011	102.1%
3	05:24:33	103.8%	0.020	0.005	0.012	0.928	0.004	0.002	0.013	0.007	98.9%
x		104.5%	0.015	0.010	0.010	0.768	0.001	0.002	0.014	0.009	100.2%
σ		1.3%	0.006	0.010	0.003	0.627	0.003	0.000	0.009	0.002	1.7%
%RSD		1.3	39.180	99.680	26.410	81.640	419.500	24.480	67.460	23.660	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:23:39	0.313	0.370	0.077	0.098	67.640	68.140	99.1%	0.006	0.013	1.496
2	05:24:06	0.313	0.399	0.086	0.119	68.330	68.400	100.8%	0.009	0.012	1.497
3	05:24:33	0.270	0.402	0.078	0.082	68.610	68.040	98.6%	0.014	0.015	1.490
x		0.298	0.391	0.080	0.100	68.200	68.190	99.5%	0.010	0.013	1.494
σ		0.025	0.018	0.005	0.019	0.498	0.184	1.2%	0.004	0.001	0.003
%RSD		8.379	4.607	6.007	18.530	0.730	0.269	1.2	41.880	9.595	0.226

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:23:39	1.360	1.415	96.1%
2	05:24:06	1.399	1.439	97.6%
3	05:24:33	1.391	1.442	94.8%
x		1.383	1.432	96.2%
σ		0.021	0.015	1.4%
%RSD		1.519	1.020	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	96.7%	0.069	10.890	10.400	109.300	T 15820.000	T 7608.000	T 7203.000	T 7132.000	TM 3253.000
2	05:30:13	98.1%	0.074	9.422	10.270	106.000	T 15810.000	T 7255.000	T 7092.000	T 7139.000	TM 3370.000
3	05:30:40	100.9%	0.065	9.772	10.130	99.490	T 15360.000	T 7269.000	T 7304.000	T 7283.000	TM 3435.000
x		98.6%	0.069	10.030	10.260	104.900	T 15660.000	T 7377.000	T 7200.000	T 7185.000	TM 3353.000
σ		2.1%	0.005	0.764	0.133	4.973	T 262.100	T 200.200	T 106.000	T 85.190	TM 92.170
%RSD		2.2	7.055	7.624	1.299	4.740	T 1.673	T 2.714	T 1.472	T 1.186	TM 2.749
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	T 4386.000	T 87400.000	T 3202.000	16460.000	15900.000	103.0%	11.250	2.655	2.469	1894.000
2	05:30:13	T 4333.000	T 87760.000	T 3240.000	16400.000	15770.000	102.4%	10.210	3.060	2.522	1652.000
3	05:30:40	T 4317.000	T 89040.000	T 3260.000	16080.000	15690.000	101.5%	10.760	2.880	2.428	2083.000
x		T 4345.000	T 88070.000	T 3234.000	16310.000	15790.000	102.3%	10.740	2.865	2.473	1877.000
σ		T 36.370	T 861.000	T 29.270	205.600	105.800	0.7%	0.518	0.203	0.047	215.900
%RSD		T 0.837	T 0.978	T 0.905	1.260	0.670	0.7	4.824	7.090	1.904	11.500
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	1478.000	28.410	T 1513.000	1555.000	1.097	1.015	0.486	0.520	0.455	1.214
2	05:30:13	1480.000	28.590	T 1527.000	1552.000	1.140	1.055	0.482	0.471	0.553	1.283
3	05:30:40	1492.000	29.190	T 1552.000	1597.000	1.163	1.059	0.920	0.429	0.573	1.284
x		1483.000	28.730	T 1530.000	1568.000	1.133	1.043	0.629	0.474	0.527	1.260
σ		7.636	0.412	T 19.910	25.440	0.034	0.024	0.252	0.046	0.063	0.040
%RSD		0.515	1.433	T 1.301	1.622	2.957	2.326	40.010	9.620	11.950	3.199
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	5.769	3.972	1.452	1.903	13.090	12.900	7.250	1.831	-3.346	62.490
2	05:30:13	5.635	4.599	1.461	2.031	12.770	13.460	5.697	1.367	-0.186	61.660
3	05:30:40	5.495	4.422	1.613	1.270	12.480	13.250	5.519	1.311	0.561	63.090
x		5.633	4.331	1.509	1.735	12.780	13.200	6.155	1.503	-0.991	62.410
σ		0.137	0.323	0.091	0.408	0.304	0.284	0.952	0.286	2.074	0.720
%RSD		2.433	7.457	5.998	23.480	2.381	2.150	15.470	19.000	209.400	1.153
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	104.8%	0.134	0.200	0.126	3.155	0.002	0.007	0.031	0.036	100.2%
2	05:30:13	106.2%	0.092	0.134	0.116	3.083	0.006	0.006	0.042	0.036	102.0%
3	05:30:40	104.0%	0.114	0.112	0.141	2.967	0.001	0.007	0.024	0.041	100.0%
x		105.0%	0.113	0.149	0.128	3.068	0.003	0.006	0.032	0.038	100.7%
σ		1.1%	0.021	0.046	0.012	0.095	0.003	0.001	0.009	0.003	1.1%
%RSD		1.1	18.350	30.890	9.595	3.090	95.900	9.321	28.570	7.495	1.1
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:29:46	0.332	0.436	0.055	0.056	74.740	74.180	100.8%	0.026	0.020	3.921
2	05:30:13	0.345	0.411	0.063	0.053	75.470	73.970	102.2%	0.026	0.020	3.888
3	05:30:40	0.299	0.442	0.059	0.066	74.970	75.200	99.4%	0.037	0.033	3.970
x		0.326	0.429	0.059	0.058	75.060	74.450	100.8%	0.030	0.024	3.926
σ		0.024	0.016	0.004	0.007	0.376	0.658	1.4%	0.006	0.008	0.041
%RSD		7.237	3.795	6.234	11.270	0.500	0.884	1.4	20.310	31.990	1.052
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	05:29:46	3.623	3.795	97.5%							
2	05:30:13	3.779	3.849	98.9%							
3	05:30:40	3.691	3.821	96.0%							
x		3.698	3.822	97.5%							
σ		0.078	0.027	1.4%							
%RSD		2.107	0.698	1.5							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	102.0%	0.041	12.950	12.370	91.760	T 6720.000	454.800	449.200	450.300	TM 1368.000
2	05:36:20	101.6%	0.047	11.820	12.620	101.500	T 6648.000	448.200	446.100	438.000	TM 1328.000
3	05:36:47	102.3%	0.024	12.610	12.840	103.400	T 7001.000	462.600	444.500	447.400	TM 1346.000
x		102.0%	0.037	12.460	12.610	98.880	T 6789.000	455.200	446.600	445.200	TM 1347.000
σ		0.4%	0.012	0.580	0.234	6.234	T 186.500	7.249	2.373	6.405	TM 20.130
%RSD		0.4	31.380	4.655	1.853	6.305	T 2.747	1.592	0.531	1.439	TM 1.494

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	T 3166.000	T 91370.000	T 998.900	1182.000	1134.000	102.9%	5.378	1.543	1.513	2087.000
2	05:36:20	T 3097.000	T 90570.000	T 990.700	1152.000	1138.000	102.4%	5.800	1.286	1.504	2148.000
3	05:36:47	T 3124.000	T 90390.000	962.200	1170.000	1156.000	101.4%	5.261	1.548	1.536	2021.000
x		T 3129.000	T 90780.000	T 984.000	1168.000	1143.000	102.2%	5.479	1.459	1.518	2085.000
σ		T 35.130	T 521.900	T 19.250	15.340	12.170	0.8%	0.284	0.150	0.017	63.360
%RSD		T 1.123	T 0.575	T 1.956	1.314	1.065	0.8	5.175	10.270	1.094	3.038

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	T 7072.000	5.387	T 7151.000	6703.000	0.420	0.517	0.524	1.298	1.348	2.637
2	05:36:20	T 7118.000	5.374	T 7024.000	6753.000	0.463	0.588	0.955	1.267	1.349	2.455
3	05:36:47	T 7076.000	5.677	T 7257.000	6891.000	0.445	0.557	0.485	1.383	1.332	2.623
x		T 7089.000	5.479	T 7144.000	6782.000	0.443	0.554	0.655	1.316	1.343	2.572
σ		T 25.680	0.172	T 116.500	97.760	0.022	0.036	0.261	0.060	0.010	0.101
%RSD		T 0.362	3.130	T 1.630	1.441	4.898	6.412	39.840	4.570	0.715	3.935

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	3.308	3.287	1.906	0.486	31.150	30.820	0.620	0.147	-0.642	7.987
2	05:36:20	3.314	3.371	1.873	0.085	32.410	31.390	2.745	0.549	2.735	7.965
3	05:36:47	3.528	3.151	1.896	0.459	32.990	32.100	-0.679	-0.124	-2.142	7.755
x		3.383	3.270	1.892	0.343	32.180	31.440	0.896	0.191	-0.016	7.902
σ		0.125	0.111	0.017	0.224	0.944	0.637	1.729	0.338	2.498	0.128
%RSD		3.702	3.397	0.884	65.160	2.933	2.025	193.000	177.400	15570.000	1.624

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	99.6%	0.144	0.082	0.128	0.141	-0.003	-0.001	0.005	0.014	98.4%
2	05:36:20	99.7%	0.119	0.171	0.162	0.308	0.003	0.001	0.008	0.002	98.8%
3	05:36:47	100.4%	0.137	0.108	0.135	-0.163	-0.004	0.001	0.005	0.021	99.2%
x		99.9%	0.133	0.121	0.142	0.096	-0.002	0.000	0.006	0.012	98.8%
σ		0.4%	0.013	0.046	0.018	0.239	0.004	0.001	0.002	0.010	0.4%
%RSD		0.4	9.825	38.110	12.540	249.500	222.400	447.400	37.020	80.710	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:35:53	0.337	0.442	0.127	0.164	15.810	16.110	96.9%	-0.008	-0.009	0.562
2	05:36:20	0.233	0.470	0.133	0.172	15.960	15.410	98.4%	-0.013	-0.009	0.588
3	05:36:47	0.373	0.423	0.163	0.175	15.970	15.550	98.9%	-0.004	-0.005	0.510
x		0.314	0.445	0.141	0.170	15.920	15.690	98.1%	-0.008	-0.008	0.553
σ		0.073	0.024	0.019	0.006	0.089	0.368	1.0%	0.005	0.003	0.040
%RSD		23.260	5.391	13.550	3.324	0.562	2.347	1.0	54.290	32.240	7.242

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:35:53	0.554	0.543	94.7%
2	05:36:20	0.502	0.550	96.1%
3	05:36:47	0.530	0.531	97.6%
x		0.529	0.541	96.1%
σ		0.026	0.009	1.4%
%RSD		4.966	1.730	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	105.3%	0.124	14.130	14.890	92.420	T 22610.000	T 1542.000	1483.000	1492.000	225.200
2	05:42:27	100.8%	0.106	14.800	15.130	103.800	T 22910.000	T 1552.000	1489.000	1493.000	217.600
3	05:42:54	97.7%	0.095	15.630	15.950	105.300	T 23370.000	T 1532.000	1466.000	1504.000	219.300
x		101.3%	0.108	14.850	15.320	100.500	T 22960.000	T 1542.000	1479.000	1496.000	220.700
σ		3.8%	0.015	0.751	0.555	7.040	T 385.500	T 9.989	12.330	6.858	3.993
%RSD		3.8	13.700	5.060	3.620	7.005	T 1.679	T 0.648	0.833	0.458	1.809

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	T 2340.000	T 87810.000	T 1987.000	7663.000	7314.000	101.8%	0.530	0.238	0.544	1921.000
2	05:42:27	T 2335.000	T 85890.000	T 1968.000	7467.000	7320.000	101.8%	0.530	0.377	0.500	1662.000
3	05:42:54	T 2461.000	T 86520.000	T 1996.000	7580.000	7196.000	103.5%	0.519	0.431	0.531	1658.000
x		T 2379.000	T 86740.000	T 1983.000	7570.000	7277.000	102.4%	0.527	0.349	0.525	1747.000
σ		T 71.170	T 978.800	T 14.440	98.730	70.120	1.0%	0.006	0.100	0.023	150.600
%RSD		T 2.992	T 1.128	T 0.728	1.304	0.964	1.0	1.181	28.670	4.343	8.620

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	3132.000	24.520	T 3167.000	3097.000	0.871	0.437	0.516	0.374	0.454	1.624
2	05:42:27	3140.000	24.500	T 3171.000	3078.000	0.859	0.386	-0.326	0.391	0.372	1.569
3	05:42:54	3092.000	24.420	T 3185.000	3045.000	0.872	0.384	-0.285	0.394	0.324	1.460
x		3121.000	24.480	T 3174.000	3073.000	0.867	0.402	-0.032	0.386	0.383	1.551
σ		26.030	0.056	T 9.630	26.050	0.007	0.030	0.475	0.011	0.066	0.084
%RSD		0.834	0.229	T 0.303	0.848	0.860	7.506	1490.000	2.737	17.270	5.389

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	6.995	5.957	0.065	0.451	30.750	32.930	-1.394	-0.364	1.921	19.480
2	05:42:27	6.997	5.600	-0.104	-0.282	32.100	32.720	-2.226	-0.519	-0.353	19.440
3	05:42:54	6.332	5.474	0.231	0.150	28.770	32.370	-0.370	-0.078	-0.201	19.220
x		6.775	5.677	0.064	0.106	30.540	32.670	-1.330	-0.320	0.456	19.380
σ		0.383	0.250	0.167	0.368	1.671	0.283	0.930	0.224	1.271	0.137
%RSD		5.659	4.405	260.400	346.800	5.472	0.867	69.900	69.950	278.900	0.708

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	102.1%	0.010	0.023	0.001	0.003	-0.001	-0.002	0.009	0.015	98.8%
2	05:42:27	102.1%	0.007	0.018	0.011	1.058	-0.002	-0.001	0.024	0.022	100.5%
3	05:42:54	106.2%	0.014	0.016	0.011	1.133	-0.004	-0.000	0.016	0.012	102.6%
x		103.5%	0.010	0.019	0.008	0.731	-0.002	-0.001	0.016	0.016	100.6%
σ		2.4%	0.003	0.003	0.006	0.632	0.002	0.001	0.008	0.005	1.9%
%RSD		2.3	33.800	16.620	75.780	86.410	78.750	71.090	46.080	31.370	1.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:42:00	0.264	0.395	0.065	0.065	100.700	101.700	98.2%	0.007	0.007	1.046
2	05:42:27	0.237	0.415	0.069	0.084	101.400	102.500	100.5%	0.009	0.019	1.120
3	05:42:54	0.251	0.411	0.077	0.068	102.800	102.200	102.5%	0.002	0.007	1.023
x		0.251	0.407	0.071	0.072	101.600	102.100	100.4%	0.006	0.011	1.063
σ		0.014	0.011	0.006	0.010	1.071	0.411	2.2%	0.003	0.007	0.051
%RSD		5.414	2.580	8.495	14.500	1.054	0.403	2.2	57.110	62.090	4.794

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:42:00	1.051	1.046	93.8%
2	05:42:27	1.076	1.070	98.4%
3	05:42:54	1.063	1.050	99.5%
x		1.063	1.055	97.2%
σ		0.012	0.013	3.0%
%RSD		1.134	1.205	3.1

CCV MW10994 05/01/2019 05:47:41 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	91.8%	323.300	324.300	309.100	74.260	T 70380.000	T 66530.000	T 65960.000	T 65720.000	300.800
2	05:48:34	91.8%	325.200	322.600	314.200	74.890	T 71020.000	T 67350.000	T 65570.000	T 65390.000	301.900
3	05:49:01	93.1%	325.000	330.900	317.900	74.660	T 71440.000	T 67530.000	T 67180.000	T 66350.000	308.300
x		92.2%	108.157%	108.649%	104.570%	74.600	T 118.240%	T 67140.000	T 66230.000	T 109.697%	101.229%
σ		0.8%	n/a	n/a	n/a	0.317	T n/a	T 531.200	T 843.200	T n/a	n/a
%RSD		0.8	0.325	1.343	1.414	0.425	T 0.753	T 0.791	T 1.273	T 0.739	1.332

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	T 3494.000	965.600	T 67900.000	65290.000	T 66500.000	99.4%	314.400	320.800	303.900	1208.000
2	05:48:34	T 3539.000	956.500	T 68150.000	65360.000	T 67850.000	97.1%	321.000	329.000	308.500	1354.000
3	05:49:01	T 3557.000	926.800	T 69250.000	64980.000	T 67070.000	97.9%	319.900	324.900	308.800	286.200
x		T 117.663%	949.600	T 114.057%	65210.000	T 111.902%	98.2%	106.147%	108.299%	102.346%	949.500
σ		T n/a	20.320	T n/a	203.700	T n/a	1.2%	n/a	n/a	n/a	579.100
%RSD		T 0.907	2.140	T 1.049	0.312	T 1.005	1.2	1.105	1.270	0.898	60.990

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	T 64830.000	296.900	T 64690.000	T 62460.000	299.400	289.600	292.400	296.900	302.900	312.400
2	05:48:34	T 65400.000	300.200	T 66600.000	T 65090.000	301.500	299.000	302.200	298.600	301.500	308.400
3	05:49:01	T 65150.000	299.400	T 65410.000	T 64520.000	304.100	293.400	298.100	295.700	304.400	311.200
x		T 65130.000	99.609%	T 65570.000	T 106.708%	100.556%	98.004%	297.600	297.100	100.978%	103.554%
σ		T 282.700	n/a	T 966.800	T n/a	n/a	n/a	4.908	1.470	n/a	n/a
%RSD		T 0.434	0.577	T 1.475	T 2.161	0.791	1.612	1.650	0.495	0.488	0.651

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	294.900	299.700	298.600	314.800	2.431	1.560	1302.000	303.600	-0.296	309.200
2	05:48:34	300.300	307.800	308.900	306.800	2.021	1.908	1349.000	310.800	1.241	313.300
3	05:49:01	298.700	299.600	304.300	317.200	2.116	2.880	1347.000	315.700	1.199	311.800
x		298.000	302.400	101.311%	312.900	2.190	2.116	1333.000	103.341%	0.715	103.802%
σ		2.748	4.682	n/a	5.460	0.214	0.684	26.360	n/a	0.876	n/a
%RSD		0.922	1.548	1.708	1.745	9.794	32.340	1.978	1.964	122.500	0.670

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	94.4%	327.900	326.800	326.200	314.600	303.500	303.600	311.000	312.700	92.4%
2	05:48:34	95.0%	329.800	330.500	329.100	312.500	304.900	305.100	314.300	313.900	93.6%
3	05:49:01	95.4%	326.000	325.400	326.500	321.600	306.500	305.000	313.900	311.400	92.5%
x		94.9%	109.295%	109.192%	327.300	316.200	101.654%	304.600	313.100	104.220%	92.8%
σ		0.5%	n/a	n/a	1.619	4.767	n/a	0.830	1.820	n/a	0.7%
%RSD		0.5	0.576	0.810	0.495	1.507	0.489	0.273	0.581	0.404	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:48:07	325.200	321.300	326.600	319.200	318.300	319.100	95.2%	307.100	313.300	305.000
2	05:48:34	322.700	321.500	330.200	325.300	320.500	319.900	96.2%	308.500	313.600	305.100
3	05:49:01	323.400	321.700	323.700	322.100	319.000	322.300	94.1%	312.900	317.200	309.400
x		107.918%	107.164%	326.900	107.396%	106.429%	106.813%	95.2%	309.500	104.901%	102.161%
σ		n/a	n/a	3.249	n/a	n/a	n/a	1.0%	3.013	n/a	n/a
%RSD		0.399	0.068	0.994	0.946	0.341	0.524	1.1	0.974	0.695	0.811

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:48:07	304.700	307.200	90.6%
2	05:48:34	305.200	307.600	90.8%
3	05:49:01	309.300	311.500	90.1%
x		102.126%	102.919%	90.5%
σ		n/a	n/a	0.4%
%RSD		0.823	0.786	0.4

CCB IM9390-01 05/01/2019 05:53:49 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	102.9%	0.011	1.765	1.826	52.650	5.661	1.803	1.608	1.738	0.000
2	05:54:43	100.0%	-0.008	1.854	1.661	59.290	3.052	1.341	1.395	1.565	0.012
3	05:55:10	98.7%	0.012	1.767	1.621	46.650	1.814	1.041	0.777	0.950	-0.062
x		100.5%	0.005	1.796	1.702	52.860	3.509	1.395	1.260	1.418	-0.017
σ		2.1%	0.011	0.051	0.109	6.324	1.964	0.384	0.432	0.414	0.040
%RSD		2.1	215.100	2.832	6.393	11.960	55.960	27.490	34.280	29.220	237.300

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	16.580	553.600	11.330	5.381	2.472	100.7%	-0.032	-0.023	0.046	55.130
2	05:54:43	16.340	517.100	8.444	2.852	1.198	101.4%	-0.057	-0.002	0.010	38.070
3	05:55:10	16.700	494.900	8.608	1.567	0.421	102.4%	-0.046	0.035	0.143	-3.194
x		16.540	521.900	9.461	3.267	1.364	101.5%	-0.045	0.003	0.067	30.000
σ		0.185	29.640	1.622	1.940	1.036	0.8%	0.012	0.029	0.068	29.990
%RSD		1.121	5.679	17.140	59.400	75.940	0.8	26.940	893.700	102.900	99.950

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	2.323	0.038	10.850	-1.408	0.025	0.017	-0.378	-0.014	-0.011	-0.033
2	05:54:43	1.481	0.025	7.924	-5.173	0.013	0.028	-0.191	0.002	0.029	0.014
3	05:55:10	0.454	0.007	6.960	-11.030	0.021	0.002	-0.483	0.005	-0.019	-0.010
x		1.420	0.023	8.579	-5.870	0.020	0.016	-0.351	-0.002	-0.000	-0.010
σ		0.936	0.016	2.028	4.847	0.006	0.013	0.148	0.010	0.026	0.024
%RSD		65.940	67.330	23.640	82.580	31.100	83.980	42.130	490.900	17180.000	243.800

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	-0.038	0.077	0.008	0.284	1.034	2.011	0.310	0.109	-0.961	0.008
2	05:54:43	0.144	0.049	-0.081	0.138	0.768	1.317	-2.157	-0.418	-3.189	0.003
3	05:55:10	-0.018	0.053	-0.063	-0.254	0.929	1.246	-3.052	-0.642	-2.411	0.007
x		0.029	0.060	-0.045	0.056	0.911	1.525	-1.633	-0.317	-2.187	0.006
σ		0.100	0.015	0.047	0.278	0.134	0.423	1.741	0.386	1.131	0.003
%RSD		341.500	25.850	103.500	497.000	14.680	27.760	106.600	121.800	51.690	43.090

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	98.1%	0.070	0.034	0.045	0.157	0.010	0.011	0.005	0.016	97.1%
2	05:54:43	100.2%	0.040	0.068	0.045	0.533	-0.002	0.011	0.009	0.009	100.4%
3	05:55:10	101.7%	0.031	0.045	0.077	-0.080	0.006	0.007	0.008	0.001	102.4%
x		100.0%	0.047	0.049	0.056	0.203	0.005	0.009	0.007	0.009	100.0%
σ		1.8%	0.020	0.017	0.019	0.309	0.006	0.003	0.002	0.008	2.7%
%RSD		1.8	43.050	35.640	33.090	152.300	123.000	26.670	26.720	90.820	2.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	05:54:16	0.051	0.056	0.105	0.129	0.021	0.021	95.4%	-0.008	-0.004	0.023
2	05:54:43	0.031	0.051	0.141	0.122	0.031	0.023	98.2%	-0.017	0.000	-0.002
3	05:55:10	0.006	0.076	0.106	0.144	0.002	0.006	100.6%	-0.008	0.002	0.011
x		0.029	0.061	0.117	0.132	0.018	0.017	98.1%	-0.011	-0.001	0.011
σ		0.022	0.013	0.020	0.011	0.015	0.009	2.6%	0.005	0.003	0.013
%RSD		75.460	21.690	17.420	8.684	82.400	55.310	2.6	48.000	564.500	114.900

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	05:54:16	0.018	0.016	96.0%
2	05:54:43	0.009	0.006	99.1%
3	05:55:10	0.017	0.008	100.6%
x		0.015	0.010	98.6%
σ		0.005	0.006	2.3%
%RSD		31.380	55.470	2.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	103.2%	0.178	15.240	16.250	83.600	T 12150.000	T 4605.000	T 4529.000	T 4503.000	TM 6014.000
2	06:00:51	100.6%	0.147	15.340	14.840	79.530	T 12140.000	T 4647.000	T 4542.000	T 4436.000	TM 5960.000
3	06:01:18	99.8%	0.180	14.640	15.550	77.300	T 12290.000	T 4542.000	4494.000	T 4441.000	TM 5614.000
x		101.2%	0.168	15.070	15.550	80.140	T 12190.000	T 4598.000	T 4522.000	T 4460.000	TM 5863.000
σ		1.8%	0.018	0.375	0.701	3.190	T 80.920	T 52.980	T 24.790	T 37.320	TM 216.800
%RSD		1.7	10.860	2.489	4.509	3.980	T 0.664	T 1.152	T 0.548	T 0.837	TM 3.697

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	T 6293.000	T 86270.000	T 3336.000	18020.000	T 17990.000	102.2%	13.830	2.941	2.926	1976.000
2	06:00:51	T 6346.000	T 84730.000	T 3280.000	18020.000	17410.000	101.4%	13.680	2.922	2.962	1904.000
3	06:01:18	T 6137.000	T 83420.000	T 3238.000	17590.000	17060.000	102.9%	13.000	3.040	2.839	1660.000
x		T 6258.000	T 84810.000	T 3285.000	17880.000	T 17490.000	102.2%	13.510	2.968	2.909	1846.000
σ		T 108.500	T 1424.000	T 49.050	248.500	T 469.700	0.8%	0.441	0.064	0.063	165.300
%RSD		T 1.734	T 1.680	T 1.493	1.390	T 2.686	0.7	3.263	2.142	2.180	8.953

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	957.300	17.160	T 979.600	1114.000	1.799	1.916	1.440	0.723	0.939	2.112
2	06:00:51	976.200	17.440	T 986.400	1095.000	1.806	1.901	1.256	0.709	0.926	1.761
3	06:01:18	952.900	17.380	T 992.700	1084.000	1.828	1.694	1.014	0.727	0.863	1.902
x		962.100	17.320	T 986.200	1098.000	1.811	1.837	1.237	0.720	0.909	1.925
σ		12.390	0.150	T 6.508	14.980	0.015	0.124	0.214	0.009	0.041	0.177
%RSD		1.287	0.863	T 0.660	1.365	0.818	6.743	17.270	1.292	4.495	9.182

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	10.880	8.054	0.479	0.429	19.960	20.600	2.942	0.835	0.898	44.370
2	06:00:51	10.420	8.149	0.239	0.821	19.050	20.760	1.983	0.633	-1.772	44.160
3	06:01:18	10.480	8.778	0.598	0.146	19.740	19.330	0.295	0.197	-0.920	44.220
x		10.590	8.327	0.438	0.465	19.580	20.230	1.740	0.555	-0.598	44.250
σ		0.249	0.393	0.183	0.339	0.479	0.784	1.340	0.326	1.364	0.108
%RSD		2.354	4.722	41.720	72.830	2.444	3.874	77.010	58.750	228.100	0.245

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	108.0%	0.108	0.090	0.121	3.315	0.005	0.006	0.036	0.016	96.4%
2	06:00:51	110.6%	0.133	0.115	0.111	2.601	0.005	0.008	0.035	0.034	99.7%
3	06:01:18	112.7%	0.108	0.097	0.130	3.074	0.002	0.011	0.034	0.024	101.5%
x		110.4%	0.116	0.101	0.121	2.997	0.004	0.008	0.035	0.024	99.2%
σ		2.4%	0.014	0.013	0.010	0.363	0.001	0.002	0.001	0.009	2.5%
%RSD		2.1	12.450	13.020	8.034	12.110	35.710	29.800	2.788	36.800	2.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:00:24	0.343	0.461	0.157	0.177	172.500	171.100	95.8%	0.036	0.029	3.543
2	06:00:51	0.393	0.476	0.135	0.159	171.000	169.800	99.7%	0.037	0.031	3.411
3	06:01:18	0.320	0.438	0.169	0.163	168.700	171.300	100.4%	0.032	0.031	3.429
x		0.352	0.458	0.153	0.167	170.700	170.700	98.6%	0.035	0.030	3.461
σ		0.037	0.019	0.017	0.009	1.877	0.831	2.5%	0.002	0.001	0.072
%RSD		10.600	4.218	11.170	5.600	1.099	0.487	2.5	6.663	3.247	2.073

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:00:24	3.283	3.325	92.2%
2	06:00:51	3.407	3.315	95.0%
3	06:01:18	3.296	3.325	96.8%
x		3.328	3.322	94.7%
σ		0.068	0.006	2.3%
%RSD		2.044	0.186	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	102.1%	0.186	9.260	9.996	67.190	T 9525.000	T 8567.000	T 8585.000	T 8662.000	TM 9480.000
2	06:06:57	97.8%	0.188	9.302	10.100	75.860	T 10010.000	T 8788.000	T 8608.000	T 8691.000	TM 9518.000
3	06:07:24	102.5%	0.271	9.355	9.826	69.650	T 9833.000	T 8727.000	T 8746.000	T 8653.000	TM 9448.000
x		100.8%	0.215	9.306	9.973	70.900	T 9789.000	T 8694.000	T 8647.000	T 8668.000	TM 9482.000
σ		2.6%	0.048	0.048	0.137	4.471	T 244.900	T 114.000	T 87.140	T 19.700	TM 35.240
%RSD		2.6	22.510	0.512	1.368	6.306	T 2.502	T 1.312	T 1.008	T 0.227	TM 0.372
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	T 9096.000	T 87380.000	T 4171.000	16840.000	T 17150.000	103.3%	20.510	3.428	4.437	2266.000
2	06:06:57	T 9326.000	T 86820.000	T 4113.000	16930.000	16410.000	102.5%	20.690	3.961	4.580	1825.000
3	06:07:24	T 9005.000	T 88430.000	T 4101.000	16820.000	16440.000	102.1%	20.560	3.855	4.560	2035.000
x		T 9142.000	T 87540.000	T 4128.000	16860.000	T 16670.000	102.6%	20.590	3.748	4.525	2042.000
σ		T 165.200	T 819.200	T 37.170	53.910	T 422.300	0.6%	0.094	0.282	0.077	220.700
%RSD		T 1.807	T 0.936	T 0.900	0.320	T 2.534	0.6	0.457	7.522	1.711	10.810
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	1142.000	53.480	T 1172.000	1258.000	2.200	2.444	2.029	1.448	1.680	4.774
2	06:06:57	1136.000	53.330	T 1178.000	1223.000	2.234	2.331	1.539	1.418	1.505	4.966
3	06:07:24	1144.000	52.710	T 1186.000	1277.000	2.194	2.383	1.900	1.494	1.673	5.073
x		1141.000	53.170	T 1179.000	1253.000	2.210	2.386	1.822	1.453	1.619	4.938
σ		4.086	0.410	T 7.279	27.080	0.022	0.057	0.254	0.039	0.099	0.151
%RSD		0.358	0.770	T 0.618	2.161	0.974	2.372	13.930	2.656	6.114	3.066
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	11.440	10.020	0.420	0.698	10.720	10.510	2.021	0.676	-1.217	97.170
2	06:06:57	12.570	10.100	0.342	0.960	10.200	10.230	0.253	0.162	0.194	96.020
3	06:07:24	11.070	10.190	0.369	0.478	10.420	9.685	-0.015	0.105	0.141	96.520
x		11.690	10.100	0.377	0.712	10.450	10.140	0.753	0.314	-0.294	96.570
σ		0.782	0.083	0.040	0.241	0.263	0.418	1.106	0.314	0.800	0.577
%RSD		6.685	0.826	10.490	33.900	2.521	4.127	147.000	100.100	272.100	0.598
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	106.6%	0.147	0.096	0.163	6.451	0.006	0.016	0.056	0.056	95.3%
2	06:06:57	109.9%	0.142	0.185	0.147	4.423	0.014	0.011	0.077	0.062	99.8%
3	06:07:24	107.5%	0.140	0.145	0.149	4.676	0.018	0.020	0.090	0.059	97.4%
x		108.0%	0.143	0.142	0.153	5.183	0.013	0.016	0.075	0.059	97.5%
σ		1.7%	0.004	0.045	0.009	1.105	0.006	0.004	0.017	0.003	2.2%
%RSD		1.6	2.631	31.630	5.739	21.330	46.790	27.130	23.000	5.483	2.3
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:06:30	0.440	0.495	0.137	0.098	149.500	147.900	96.8%	0.036	0.040	5.650
2	06:06:57	0.369	0.501	0.114	0.140	149.800	149.300	99.5%	0.040	0.035	5.652
3	06:07:24	0.381	0.512	0.118	0.124	151.500	149.900	96.9%	0.026	0.028	5.757
x		0.397	0.503	0.123	0.121	150.300	149.000	97.7%	0.034	0.034	5.686
σ		0.038	0.009	0.012	0.022	1.089	1.021	1.5%	0.007	0.006	0.061
%RSD		9.607	1.763	10.150	17.840	0.725	0.685	1.6	21.070	17.720	1.071
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:06:30	5.528	5.544	92.3%							
2	06:06:57	5.446	5.549	96.0%							
3	06:07:24	5.462	5.588	93.4%							
x		5.479	5.560	93.9%							
σ		0.044	0.024	1.9%							
%RSD		0.798	0.435	2.0							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	103.0%	0.114	11.210	11.290	75.920	T 4229.000	T 718.800	691.000	702.300	TM 1839.000
2	06:13:04	103.1%	0.082	11.140	11.780	79.400	T 4309.000	T 728.100	693.200	687.600	TM 1840.000
3	06:13:31	100.3%	0.045	11.590	12.080	81.660	T 4272.000	T 703.300	689.600	691.900	TM 1772.000
x		102.1%	0.081	11.310	11.720	78.990	T 4270.000	T 716.700	691.200	693.900	TM 1817.000
σ		1.6%	0.035	0.245	0.400	2.889	T 39.900	T 12.540	1.826	7.585	TM 39.180
%RSD		1.5	42.880	2.167	3.413	3.657	T 0.935	T 1.749	0.264	1.093	TM 2.156

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	T 4035.000	T 86340.000	452.500	443.900	468.500	102.7%	4.922	2.810	1.532	1894.000
2	06:13:04	T 4085.000	T 88750.000	459.300	454.500	455.100	100.4%	4.361	2.861	1.482	2107.000
3	06:13:31	T 4166.000	T 87190.000	438.600	400.500	444.500	103.1%	4.428	3.096	1.463	1703.000
x		T 4095.000	T 87430.000	450.100	433.000	456.000	102.1%	4.570	2.922	1.492	1901.000
σ		T 65.880	T 1220.000	10.540	28.570	12.020	1.5%	0.306	0.153	0.036	202.200
%RSD		T 1.609	T 1.396	2.341	6.598	2.635	1.4	6.695	5.228	2.382	10.640

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	578.000	6.488	T 598.100	538.800	0.277	1.000	1.387	0.620	0.585	6.304
2	06:13:04	578.300	6.844	T 612.200	551.700	0.299	1.068	1.159	0.611	0.649	6.141
3	06:13:31	557.100	6.503	T 596.500	527.700	0.277	1.087	0.945	0.582	0.708	6.132
x		571.100	6.612	T 602.300	539.400	0.284	1.052	1.164	0.604	0.647	6.192
σ		12.160	0.201	T 8.632	12.000	0.013	0.046	0.221	0.020	0.062	0.097
%RSD		2.129	3.042	T 1.433	2.225	4.417	4.340	19.000	3.288	9.518	1.568

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	9.018	8.035	0.434	0.546	12.070	12.990	-0.527	-0.050	-1.982	5.958
2	06:13:04	7.929	8.147	0.532	0.463	13.480	13.390	2.279	0.524	-0.257	5.996
3	06:13:31	8.249	8.010	0.211	-0.098	12.430	11.790	-0.380	-0.115	1.468	6.031
x		8.399	8.064	0.392	0.303	12.660	12.720	0.457	0.120	-0.257	5.995
σ		0.560	0.073	0.165	0.350	0.728	0.834	1.579	0.352	1.725	0.036
%RSD		6.661	0.905	41.990	115.300	5.750	6.558	345.300	293.600	671.000	0.605

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	101.3%	0.136	0.151	0.152	-0.109	0.002	0.009	0.008	0.022	98.4%
2	06:13:04	100.7%	0.205	0.218	0.189	-0.401	0.004	0.001	0.000	0.008	99.6%
3	06:13:31	102.5%	0.131	0.201	0.191	-0.403	-0.000	0.004	0.012	0.009	101.0%
x		101.5%	0.158	0.190	0.177	-0.304	0.002	0.005	0.007	0.013	99.7%
σ		0.9%	0.041	0.035	0.022	0.169	0.002	0.004	0.006	0.008	1.3%
%RSD		0.9	26.270	18.460	12.330	55.670	110.100	77.330	84.650	62.250	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:12:38	0.314	0.497	0.126	0.113	44.260	44.730	99.1%	0.001	-0.010	1.339
2	06:13:04	0.317	0.466	0.105	0.105	45.330	45.750	99.3%	-0.002	-0.010	1.341
3	06:13:31	0.331	0.490	0.108	0.084	43.750	44.640	100.2%	-0.008	-0.001	1.365
x		0.321	0.484	0.113	0.101	44.450	45.040	99.5%	-0.003	-0.007	1.348
σ		0.009	0.016	0.011	0.015	0.806	0.617	0.6%	0.005	0.005	0.015
%RSD		2.756	3.308	9.945	14.940	1.813	1.370	0.6	147.000	73.490	1.092

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:12:38	1.322	1.318	96.8%
2	06:13:04	1.299	1.323	96.7%
3	06:13:31	1.344	1.324	99.3%
x		1.322	1.322	97.6%
σ		0.023	0.004	1.5%
%RSD		1.711	0.265	1.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	87.5%	-0.005	M 1222.000	TM 1390.000	762.500	TM 313200.000	T 9072.000	T 9278.000	T 9243.000	338.000
2	06:19:13	88.7%	0.007	M 1223.000	TM 1400.000	760.900	TM 318100.000	T 9157.000	T 9167.000	T 9332.000	336.300
3	06:19:40	91.0%	-0.002	M 1257.000	TM 1421.000	752.200	TM 320600.000	T 9171.000	T 9225.000	T 9419.000	348.400
x		89.1%	-0.000	M 1234.000	TM 1404.000	758.500	TM 317300.000	T 9134.000	T 9224.000	T 9331.000	340.900
σ		1.8%	0.006	M 19.700	TM 15.550	5.540	TM 3729.000	T 53.620	T 55.420	T 88.210	6.589
%RSD		2.0	4312.000	M 1.597	TM 1.108	0.730	TM 1.175	T 0.587	T 0.601	T 0.945	1.933
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	T 5204.000	T 29490.000	TM 113800.000	18530.000	18480.000	96.5%	101.900	19.750	81.120	818.000
2	06:19:13	T 5257.000	T 30580.000	TM 118100.000	18850.000	18670.000	96.7%	101.000	19.530	80.610	1089.000
3	06:19:40	T 5152.000	T 30510.000	TM 117700.000	19160.000	T 20350.000	96.2%	98.990	20.010	82.140	1001.000
x		T 5204.000	T 30190.000	TM 116500.000	18850.000	T 19170.000	96.5%	100.600	19.760	81.290	969.400
σ		T 52.530	T 610.400	TM 2392.000	315.300	T 1025.000	0.3%	1.497	0.240	0.780	138.300
%RSD		T 1.009	T 2.022	TM 2.053	1.673	T 5.350	0.3	1.487	1.214	0.959	14.270
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	1617.000	160.600	T 1642.000	1664.000	13.300	155.100	155.900	6.544	6.153	45.300
2	06:19:13	1614.000	161.100	T 1648.000	1680.000	13.280	152.300	156.700	6.622	6.296	44.770
3	06:19:40	1627.000	162.200	T 1660.000	1717.000	13.700	156.400	157.900	6.578	6.147	44.210
x		1619.000	161.300	T 1650.000	1687.000	13.430	154.600	156.800	6.581	6.199	44.760
σ		6.494	0.835	T 8.983	27.260	0.238	2.115	0.967	0.039	0.084	0.544
%RSD		0.401	0.517	T 0.544	1.615	1.771	1.368	0.617	0.591	1.363	1.217
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	42.540	44.940	21.640	0.982	14670.000	14850.000	119.300	12.020	0.441	195.600
2	06:19:13	43.200	45.100	21.160	1.472	14660.000	14950.000	128.100	14.150	0.262	195.200
3	06:19:40	43.310	43.960	21.060	1.287	14800.000	15040.000	118.800	11.730	-0.123	194.100
x		43.020	44.670	21.290	1.247	14710.000	14950.000	122.100	12.630	0.194	195.000
σ		0.415	0.621	0.311	0.247	76.220	94.300	5.222	1.319	0.288	0.763
%RSD		0.965	1.389	1.462	19.850	0.518	0.631	4.279	10.440	149.000	0.391
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	97.0%	6.270	6.163	6.085	20.790	0.109	0.039	0.148	0.128	90.4%
2	06:19:13	96.4%	6.239	6.151	6.062	21.350	0.099	0.033	0.222	0.126	89.4%
3	06:19:40	99.1%	6.325	5.914	5.867	24.530	0.107	0.039	0.199	0.097	92.0%
x		97.5%	6.278	6.076	6.005	22.220	0.105	0.037	0.190	0.117	90.6%
σ		1.4%	0.044	0.140	0.120	2.018	0.005	0.003	0.038	0.017	1.3%
%RSD		1.5	0.696	2.309	1.990	9.078	5.095	8.714	20.120	14.810	1.4
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:18:45	23.080	31.690	6.281	6.186	85.430	85.100	93.8%	-0.012	-0.012	4.854
2	06:19:13	22.220	31.790	6.128	5.962	84.690	84.730	93.2%	-0.011	-0.016	4.859
3	06:19:40	22.850	32.000	6.248	5.964	82.870	84.800	96.9%	-0.006	-0.007	4.678
x		22.720	31.830	6.219	6.038	84.330	84.880	94.7%	-0.009	-0.011	4.797
σ		0.447	0.159	0.081	0.129	1.314	0.196	2.0%	0.003	0.005	0.103
%RSD		1.966	0.501	1.297	2.133	1.559	0.231	2.1	33.390	39.680	2.149
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:18:45	4.505	4.628	85.8%							
2	06:19:13	4.395	4.552	84.3%							
3	06:19:40	4.601	4.616	87.4%							
x		4.500	4.599	85.8%							
σ		0.103	0.041	1.6%							
%RSD		2.280	0.882	1.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	93.1%	0.004	M 577.100	M 574.300	430.400	TM 217400.000	T 10170.000	T 9804.000	T 9816.000	TM 586.100
2	06:25:21	95.0%	-0.020	M 559.200	M 548.500	419.300	TM 214200.000	T 10030.000	T 9954.000	T 9941.000	TM 578.600
3	06:25:48	97.9%	0.008	M 560.900	M 540.700	396.900	TM 211000.000	T 9999.000	T 10010.000	T 10150.000	TM 604.600
x		95.3%	-0.003	M 565.800	M 554.500	415.500	TM 214200.000	T 10070.000	T 9922.000	T 9968.000	TM 589.800
σ		2.4%	0.015	M 9.866	M 17.580	17.040	TM 3189.000	T 91.620	T 106.200	T 168.000	TM 13.380
%RSD		2.6	527.900	M 1.744	M 3.170	4.101	TM 1.489	T 0.910	T 1.070	T 1.686	TM 2.268

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	T 1904.000	T 26220.000	T 57520.000	16910.000	16260.000	102.3%	2.865	0.530	13.130	512.800
2	06:25:21	T 1833.000	T 25990.000	T 56370.000	16530.000	16290.000	102.1%	2.096	0.606	12.880	446.000
3	06:25:48	T 1839.000	T 26910.000	T 57820.000	16930.000	16400.000	100.7%	2.710	0.603	12.970	584.400
x		T 1859.000	T 26380.000	T 57240.000	16790.000	16320.000	101.7%	2.557	0.580	12.990	514.400
σ		T 39.350	T 477.700	T 763.200	225.900	70.610	0.9%	0.407	0.043	0.130	69.250
%RSD		T 2.117	T 1.811	T 1.333	1.345	0.433	0.9	15.900	7.400	0.999	13.460

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	583.300	109.400	T 617.000	702.700	6.561	19.230	18.680	0.843	0.359	132.300
2	06:25:21	581.200	110.100	T 613.500	707.600	6.624	18.490	18.570	0.794	0.382	131.000
3	06:25:48	582.400	110.100	T 622.900	743.700	6.814	19.440	18.570	0.780	0.416	129.500
x		582.300	109.900	T 617.800	718.000	6.666	19.050	18.610	0.806	0.386	130.900
σ		1.021	0.391	T 4.774	22.400	0.132	0.498	0.062	0.033	0.028	1.405
%RSD		0.175	0.356	T 0.773	3.120	1.978	2.615	0.332	4.092	7.372	1.073

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	117.000	123.500	7.065	0.627	788.000	798.500	6.481	0.737	-0.690	50.580
2	06:25:21	117.400	123.500	6.906	0.419	794.300	790.100	5.666	0.538	-0.374	49.990
3	06:25:48	116.600	124.300	6.537	0.305	787.800	790.400	7.450	0.965	-0.633	50.410
x		117.000	123.800	6.836	0.450	790.000	793.000	6.532	0.747	-0.566	50.320
σ		0.363	0.490	0.271	0.163	3.673	4.764	0.893	0.214	0.168	0.303
%RSD		0.311	0.396	3.964	36.270	0.465	0.601	13.670	28.630	29.750	0.603

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	100.6%	1.690	1.689	1.542	2.356	0.013	-0.000	0.015	0.018	95.6%
2	06:25:21	102.4%	1.797	1.672	1.605	1.303	0.016	0.005	0.010	0.006	97.3%
3	06:25:48	99.8%	1.766	1.528	1.503	3.570	0.008	0.003	0.015	0.021	95.2%
x		100.9%	1.751	1.630	1.550	2.410	0.012	0.002	0.013	0.015	96.0%
σ		1.3%	0.055	0.088	0.051	1.135	0.004	0.003	0.003	0.008	1.1%
%RSD		1.3	3.125	5.424	3.314	47.080	30.850	108.000	21.060	52.690	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:24:54	1.637	2.215	3.441	3.392	60.870	61.980	97.9%	-0.011	-0.018	0.023
2	06:25:21	1.662	2.238	3.413	3.319	62.320	61.140	99.9%	-0.015	-0.016	0.014
3	06:25:48	1.664	2.192	3.324	3.233	61.030	61.290	97.4%	-0.015	-0.019	0.022
x		1.654	2.215	3.393	3.315	61.410	61.470	98.4%	-0.014	-0.017	0.020
σ		0.015	0.023	0.061	0.079	0.797	0.451	1.3%	0.002	0.001	0.005
%RSD		0.889	1.018	1.790	2.388	1.298	0.734	1.4	17.250	8.181	26.470

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:24:54	0.018	0.017	91.5%
2	06:25:21	0.018	0.018	92.8%
3	06:25:48	0.021	0.024	89.4%
x		0.019	0.020	91.2%
σ		0.002	0.004	1.7%
%RSD		8.598	19.250	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	94.5%	17.300	M 603.800	M 585.000	438.700	TM 215000.000	T 10460.000	T 10380.000	T 10330.000	TM 625.900
2	06:31:29	95.8%	17.570	M 588.100	M 567.800	427.000	TM 212000.000	T 10320.000	T 10200.000	T 10200.000	TM 620.600
3	06:31:56	96.3%	17.930	M 597.600	M 588.400	422.300	TM 215900.000	T 10430.000	T 10140.000	T 9993.000	TM 609.800
x		95.5%	17.600	M 596.500	M 580.400	429.300	TM 214300.000	T 10400.000	T 10240.000	T 10170.000	TM 618.700
σ		0.9%	0.317	M 7.879	M 11.010	8.429	TM 2019.000	T 76.070	T 125.500	T 169.700	TM 8.201
%RSD		1.0	1.801	M 1.321	M 1.897	1.963	TM 0.942	T 0.731	T 1.226	T 1.668	TM 1.325

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	T 1180.000	T 26820.000	T 58300.000	17030.000	16540.000	100.7%	22.890	21.980	32.940	669.900
2	06:31:29	T 1133.000	T 26160.000	T 57090.000	16850.000	T 17500.000	101.6%	23.020	20.500	32.110	786.400
3	06:31:56	T 1141.000	T 25940.000	T 57910.000	17120.000	16540.000	103.1%	23.590	21.090	32.700	744.300
x		T 1151.000	T 26310.000	T 57770.000	17000.000	T 16860.000	101.8%	23.170	21.190	32.580	733.500
σ		T 25.140	T 456.900	T 618.200	133.400	T 553.100	1.2%	0.372	0.744	0.426	59.010
%RSD		T 2.184	T 1.737	T 1.070	0.785	T 3.280	1.2	1.606	3.510	1.306	8.044

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	797.700	129.200	T 822.500	933.600	26.260	39.740	39.520	19.950	20.970	145.000
2	06:31:29	794.000	128.600	T 836.800	940.300	25.780	37.710	38.330	20.030	20.300	146.700
3	06:31:56	802.300	127.000	T 828.100	917.800	25.650	37.890	37.720	20.140	21.030	149.200
x		798.000	128.300	T 829.200	930.600	25.900	38.450	38.530	20.040	20.770	147.000
σ		4.137	1.099	T 7.204	11.580	0.319	1.122	0.917	0.095	0.401	2.113
%RSD		0.518	0.857	T 0.869	1.244	1.233	2.919	2.380	0.476	1.932	1.437

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	132.900	137.800	27.240	22.420	790.300	798.800	95.580	22.050	-1.882	69.320
2	06:31:29	133.500	141.000	27.710	23.030	788.000	807.800	98.920	22.890	-1.473	69.880
3	06:31:56	136.500	137.700	27.100	21.260	810.300	819.700	102.800	23.760	-0.046	69.650
x		134.300	138.900	27.350	22.240	796.200	808.700	99.080	22.900	-1.134	69.620
σ		1.932	1.892	0.321	0.902	12.280	10.460	3.594	0.859	0.964	0.279
%RSD		1.439	1.363	1.174	4.053	1.542	1.293	3.627	3.750	85.050	0.401

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	99.4%	22.270	22.210	22.180	23.770	18.930	19.260	19.860	19.990	94.3%
2	06:31:29	99.6%	22.150	22.480	21.660	24.680	19.290	19.300	20.270	20.020	94.3%
3	06:31:56	100.2%	22.040	22.140	22.330	25.440	19.090	19.330	19.980	19.860	95.1%
x		99.7%	22.150	22.270	22.060	24.630	19.110	19.300	20.040	19.950	94.6%
σ		0.4%	0.117	0.181	0.354	0.837	0.182	0.032	0.208	0.084	0.4%
%RSD		0.4	0.527	0.812	1.606	3.396	0.954	0.168	1.038	0.420	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:31:02	22.030	21.850	24.010	23.990	83.260	82.240	95.9%	19.160	19.540	19.590
2	06:31:29	21.560	21.870	23.960	23.950	82.410	82.600	96.2%	19.470	19.550	19.550
3	06:31:56	21.380	21.690	24.240	23.810	81.420	81.440	97.5%	19.310	19.370	19.460
x		21.660	21.800	24.070	23.920	82.360	82.090	96.5%	19.310	19.490	19.540
σ		0.337	0.099	0.148	0.099	0.921	0.597	0.9%	0.159	0.098	0.065
%RSD		1.556	0.456	0.613	0.413	1.118	0.727	0.9	0.821	0.503	0.335

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:31:02	19.380	19.470	88.3%
2	06:31:29	19.440	19.550	89.0%
3	06:31:56	19.470	19.490	89.5%
x		19.430	19.500	88.9%
σ		0.045	0.045	0.6%
%RSD		0.232	0.230	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	94.2%	17.730	M 598.500	M 596.700	427.300	TM 214600.000	T 10340.000	T 10270.000	T 10260.000	TM 631.700
2	06:37:36	95.8%	18.450	M 586.700	M 594.500	427.500	TM 219600.000	T 10440.000	T 10180.000	T 10280.000	TM 639.000
3	06:38:03	93.8%	18.280	M 603.900	M 582.000	437.600	TM 222600.000	T 10470.000	T 10370.000	T 10320.000	TM 600.400
x		94.6%	18.150	M 596.400	M 591.100	430.800	TM 218900.000	T 10420.000	T 10280.000	T 10290.000	TM 623.700
σ		1.1%	0.375	M 8.769	M 7.936	5.875	TM 4047.000	T 71.580	T 96.150	T 26.780	TM 20.500
%RSD		1.1	2.066	M 1.470	M 1.343	1.364	TM 1.848	T 0.687	T 0.936	T 0.260	TM 3.287
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	T 1172.000	T 27000.000	T 58360.000	17080.000	16480.000	100.9%	24.110	21.570	33.260	906.900
2	06:37:36	T 1135.000	T 26730.000	T 59220.000	17190.000	16410.000	100.9%	22.920	21.470	33.670	977.700
3	06:38:03	T 1147.000	T 26560.000	T 58070.000	17460.000	16790.000	104.4%	22.940	20.970	33.510	844.300
x		T 1151.000	T 26770.000	T 58550.000	17240.000	16560.000	102.1%	23.320	21.340	33.480	909.600
σ		T 18.520	T 220.300	T 602.600	191.400	204.100	2.0%	0.683	0.323	0.209	66.750
%RSD		T 1.608	T 0.823	T 1.029	1.110	1.233	2.0	2.927	1.512	0.623	7.338
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	808.400	131.400	T 842.400	942.800	27.160	39.930	39.700	20.360	21.110	150.100
2	06:37:36	803.600	130.600	T 834.700	943.500	26.560	39.250	39.530	20.050	20.840	150.500
3	06:38:03	805.500	131.100	T 828.600	894.800	26.330	38.500	37.840	20.330	20.450	149.400
x		805.900	131.000	T 835.200	927.000	26.680	39.230	39.020	20.250	20.800	150.000
σ		2.440	0.404	T 6.904	27.930	0.428	0.714	1.028	0.172	0.327	0.575
%RSD		0.303	0.308	T 0.827	3.013	1.606	1.820	2.633	0.851	1.572	0.383
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	134.300	141.000	27.170	22.270	784.000	781.200	96.700	22.460	-1.656	71.100
2	06:37:36	133.100	141.000	27.390	20.550	770.800	787.900	87.800	20.220	-0.434	71.590
3	06:38:03	138.900	144.800	28.120	19.680	780.500	795.100	89.520	20.340	0.459	70.950
x		135.400	142.300	27.560	20.830	778.400	788.100	91.340	21.010	-0.543	71.220
σ		3.048	2.220	0.497	1.317	6.821	6.949	4.717	1.262	1.061	0.335
%RSD		2.250	1.560	1.802	6.321	0.876	0.882	5.165	6.008	195.300	0.470
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	99.1%	22.470	22.430	22.590	23.830	19.710	19.850	20.060	20.400	93.6%
2	06:37:36	100.0%	23.020	22.250	22.530	23.310	19.750	19.970	20.690	20.510	94.6%
3	06:38:03	105.1%	23.060	22.280	22.360	23.580	19.850	19.580	20.720	20.720	100.4%
x		101.4%	22.850	22.320	22.490	23.580	19.770	19.800	20.490	20.540	96.2%
σ		3.3%	0.327	0.096	0.119	0.264	0.072	0.198	0.371	0.165	3.7%
%RSD		3.2	1.431	0.431	0.527	1.118	0.365	1.002	1.811	0.805	3.8
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:37:09	22.020	22.060	24.550	24.080	84.340	83.420	95.9%	19.880	19.510	19.790
2	06:37:36	22.200	22.200	24.640	23.680	83.760	83.250	97.3%	19.900	19.710	19.910
3	06:38:03	22.270	22.630	25.120	24.850	83.270	84.720	102.5%	19.960	20.020	20.030
x		22.160	22.300	24.770	24.200	83.790	83.800	98.5%	19.910	19.750	19.910
σ		0.131	0.296	0.307	0.592	0.533	0.804	3.5%	0.041	0.253	0.118
%RSD		0.589	1.326	1.240	2.448	0.636	0.960	3.5	0.207	1.279	0.593
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	06:37:09	20.010	19.810	87.5%							
2	06:37:36	20.070	19.880	89.2%							
3	06:38:03	20.570	20.120	95.0%							
x		20.220	19.940	90.6%							
σ		0.307	0.165	3.9%							
%RSD		1.519	0.828	4.4							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	104.3%	-0.022	136.500	132.200	138.500	T45850.000	T2213.000	2129.000	2091.000	117.300
2	06:43:43	100.7%	0.007	132.700	132.300	142.100	T45020.000	T2121.000	2088.000	2143.000	117.600
3	06:44:11	99.9%	-0.006	138.200	138.400	140.100	T46080.000	T2196.000	2104.000	2099.000	116.100
x		101.6%	-0.007	135.800	134.300	140.300	T45650.000	T2177.000	2107.000	2111.000	117.000
σ		2.3%	0.015	2.827	3.564	1.760	T553.900	T48.960	20.500	28.100	0.760
%RSD		2.3	207.300	2.082	2.653	1.255	T1.213	T2.249	0.973	1.331	0.649

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	T372.900	4986.000	T11940.000	3371.000	3193.000	103.8%	0.563	0.109	2.671	129.500
2	06:43:43	389.400	5102.000	T11850.000	3321.000	3171.000	105.5%	0.473	0.080	2.715	167.900
3	06:44:11	386.300	5140.000	T12020.000	3400.000	3162.000	104.9%	0.534	0.122	2.695	135.700
x		T382.800	5076.000	T11940.000	3364.000	3175.000	104.7%	0.524	0.104	2.694	144.400
σ		T8.788	80.330	T87.190	39.870	15.730	0.8%	0.046	0.021	0.022	20.650
%RSD		T2.295	1.583	T0.731	1.185	0.496	0.8	8.772	20.550	0.819	14.300

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	121.800	22.260	130.200	154.200	1.355	3.958	3.790	0.172	0.083	26.900
2	06:43:43	118.200	21.860	129.800	148.900	1.336	4.014	3.701	0.107	0.048	25.950
3	06:44:11	118.700	21.840	126.600	145.800	1.395	3.864	3.955	0.143	0.058	26.200
x		119.600	21.990	128.900	149.600	1.362	3.945	3.815	0.141	0.063	26.350
σ		1.937	0.235	1.984	4.248	0.030	0.075	0.129	0.032	0.018	0.494
%RSD		1.620	1.069	1.540	2.839	2.213	1.912	3.379	23.060	28.210	1.873

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	24.540	25.160	1.268	0.562	153.800	153.500	-1.586	-0.494	-0.330	10.160
2	06:43:43	24.490	24.970	1.255	0.246	154.000	158.600	-0.994	-0.353	-1.197	10.170
3	06:44:11	25.610	25.410	1.351	0.253	160.600	155.900	1.314	0.185	-1.390	10.240
x		24.880	25.180	1.292	0.354	156.100	156.000	-0.422	-0.221	-0.972	10.190
σ		0.629	0.218	0.052	0.180	3.884	2.566	1.532	0.358	0.565	0.045
%RSD		2.530	0.865	4.000	50.990	2.487	1.644	363.000	162.300	58.080	0.439

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	101.4%	0.278	0.357	0.334	1.467	-0.003	0.006	0.011	0.010	99.1%
2	06:43:43	101.8%	0.317	0.342	0.312	0.911	-0.000	0.002	-0.000	0.005	100.8%
3	06:44:11	101.6%	0.306	0.326	0.293	-0.696	-0.000	0.002	0.004	0.011	100.5%
x		101.6%	0.300	0.342	0.313	0.561	-0.001	0.004	0.005	0.009	100.1%
σ		0.2%	0.020	0.016	0.021	1.124	0.001	0.002	0.006	0.004	0.9%
%RSD		0.2	6.643	4.645	6.565	200.400	158.400	59.600	117.100	41.760	0.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:43:17	0.327	0.436	0.611	0.620	12.610	12.350	98.2%	-0.015	-0.012	-0.003
2	06:43:43	0.319	0.458	0.675	0.664	12.270	12.410	99.2%	-0.014	-0.013	-0.009
3	06:44:11	0.336	0.447	0.661	0.601	12.740	12.240	100.0%	-0.014	-0.012	0.000
x		0.327	0.447	0.649	0.629	12.540	12.330	99.2%	-0.014	-0.012	-0.004
σ		0.009	0.011	0.034	0.032	0.241	0.090	0.9%	0.001	0.001	0.005
%RSD		2.649	2.505	5.203	5.122	1.921	0.728	0.9	3.645	7.926	122.200

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:43:17	-0.001	0.002	94.4%
2	06:43:43	0.002	-0.003	94.7%
3	06:44:11	-0.005	-0.003	95.7%
x		-0.001	-0.001	95.0%
σ		0.004	0.003	0.7%
%RSD		280.000	219.900	0.7

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	92.8%	-0.038	37.440	40.870	141.700	TM 210800.000	T 805.200	801.400	853.200	TM 523.500
2	06:49:51	95.6%	-0.034	37.090	39.940	139.700	TM 208100.000	T 797.500	805.000	835.700	TM 518.500
3	06:50:19	94.8%	-0.040	37.790	41.710	150.200	TM 211400.000	T 797.700	793.400	828.000	TM 510.200
x		94.4%	-0.037	37.440	40.840	143.900	TM 210100.000	T 800.100	799.900	839.000	TM 517.400
σ		1.5%	0.003	0.349	0.890	5.564	TM 1750.000	T 4.400	5.935	12.900	TM 6.734
%RSD		1.6	7.768	0.932	2.180	3.867	TM 0.833	T 0.550	0.742	1.538	TM 1.301

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	T 4235.000	T 76210.000	T 65200.000	61680.000	T 63920.000	98.2%	27.640	2.747	21.570	2016.000
2	06:49:51	T 4149.000	T 75080.000	T 64720.000	60630.000	T 63940.000	100.4%	26.220	3.340	21.430	1667.000
3	06:50:19	T 4126.000	T 76520.000	T 65080.000	61270.000	T 63960.000	100.1%	25.800	2.254	21.130	2378.000
x		T 4170.000	T 75940.000	T 65000.000	61190.000	T 63940.000	99.6%	26.550	2.780	21.380	2020.000
σ		T 57.320	T 755.400	T 247.200	531.500	T 17.610	1.2%	0.964	0.543	0.221	356.000
%RSD		T 1.374	T 0.995	T 0.380	0.869	T 0.028	1.2	3.629	19.550	1.035	17.620

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	T 29020.000	347.900	T 29380.000	T 28970.000	2.982	36.670	36.870	94.410	98.290	M 1039.000
2	06:49:51	T 28930.000	344.300	T 29320.000	T 29010.000	2.951	36.950	37.440	93.160	98.190	M 1044.000
3	06:50:19	T 28880.000	347.500	T 29110.000	T 28910.000	2.992	37.420	40.030	95.070	98.480	M 1054.000
x		T 28950.000	346.600	T 29270.000	T 28960.000	2.975	37.010	38.110	94.210	98.320	M 1045.000
σ		T 71.900	1.958	T 143.500	T 46.770	0.021	0.378	1.685	0.969	0.150	M 7.531
%RSD		T 0.248	0.565	T 0.490	T 0.162	0.712	1.022	4.420	1.028	0.153	M 0.720

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	M 934.500	M 1000.000	9.504	0.933	158.400	160.400	-0.448	-0.219	-0.853	TM 1728.000
2	06:49:51	M 939.700	M 997.000	9.498	0.662	158.400	166.100	2.294	0.388	0.576	TM 1745.000
3	06:50:19	M 943.200	M 998.700	9.379	0.785	159.900	162.600	2.058	0.363	-0.088	TM 1739.000
x		M 939.100	M 998.700	9.460	0.793	158.900	163.000	1.301	0.178	-0.122	TM 1737.000
σ		M 4.364	M 1.670	0.071	0.136	0.849	2.866	1.520	0.343	0.715	TM 8.376
%RSD		M 0.465	M 0.167	0.746	17.110	0.534	1.758	116.800	193.300	588.000	TM 0.482

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	96.5%	12.810	12.720	12.310	M 795.200	4.541	0.529	2.475	0.280	93.7%
2	06:49:51	97.6%	12.250	12.260	12.260	M 778.800	4.591	0.495	2.279	0.310	94.6%
3	06:50:19	97.9%	12.420	12.480	12.340	M 785.700	4.478	0.503	2.323	0.344	94.2%
x		97.4%	12.490	12.480	12.300	M 786.600	4.537	0.509	2.359	0.311	94.1%
σ		0.7%	0.291	0.228	0.042	M 8.244	0.057	0.018	0.103	0.032	0.5%
%RSD		0.8	2.331	1.824	0.344	M 1.048	1.249	3.512	4.367	10.200	0.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:49:23	7.929	11.720	6.790	6.814	M 646.500	M 648.000	97.6%	0.156	0.152	3.896
2	06:49:51	8.208	11.410	6.598	6.624	M 649.100	M 650.600	97.8%	0.170	0.147	4.029
3	06:50:19	8.357	11.460	6.697	6.638	M 645.100	M 649.500	98.0%	0.178	0.183	4.005
x		8.165	11.530	6.695	6.692	M 646.900	M 649.400	97.8%	0.168	0.161	3.977
σ		0.217	0.167	0.096	0.106	M 2.027	M 1.266	0.2%	0.011	0.020	0.071
%RSD		2.663	1.451	1.437	1.581	M 0.313	M 0.195	0.2	6.487	12.180	1.779

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:49:23	3.743	3.862	108.3%
2	06:49:51	3.961	3.932	109.0%
3	06:50:19	4.070	3.918	109.3%
x		3.925	3.904	108.9%
σ		0.166	0.037	0.5%
%RSD		4.239	0.948	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	94.9%	16.040	56.400	62.770	158.300	TM 209800.000	T 1341.000	1318.000	1432.000	TM 708.700
2	06:56:00	95.9%	15.840	54.550	61.170	159.600	TM 213600.000	T 1368.000	1343.000	1378.000	TM 677.400
3	06:56:27	92.2%	16.070	55.550	59.120	140.900	TM 209700.000	T 1311.000	1312.000	1373.000	TM 657.800
x		94.3%	15.990	55.500	61.020	152.900	TM 211000.000	T 1340.000	1324.000	1395.000	TM 681.300
σ		1.9%	0.126	0.926	1.832	10.470	TM 2209.000	T 28.520	16.300	32.720	TM 25.630
%RSD		2.0	0.790	1.668	3.003	6.844	TM 1.047	T 2.129	1.231	2.346	TM 3.762

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	T 5329.000	T 75370.000	T 65370.000	61640.000	T 64740.000	98.7%	132.000	108.500	118.700	2564.000
2	06:56:00	T 5226.000	T 75500.000	T 66450.000	62220.000	T 65260.000	100.1%	127.300	103.800	119.000	2786.000
3	06:56:27	T 5402.000	T 74420.000	T 64950.000	61320.000	T 64320.000	102.2%	T 133.800	107.200	120.400	2110.000
x		T 5319.000	T 75100.000	T 65590.000	61720.000	T 64770.000	100.3%	T 131.000	106.500	119.400	2487.000
σ		T 88.040	T 589.600	T 773.200	455.100	T 472.200	1.7%	T 3.400	2.439	0.890	344.400
%RSD		T 1.655	T 0.785	T 1.179	0.737	T 0.729	1.7	T 2.594	2.291	0.745	13.850

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	T 29710.000	T 456.800	T 29850.000	T 29370.000	99.120	129.000	130.700	188.600	197.700	M 1130.000
2	06:56:00	T 29840.000	T 458.600	T 29830.000	T 29280.000	99.290	130.800	136.500	191.000	200.100	M 1136.000
3	06:56:27	T 29860.000	T 455.200	T 29780.000	T 29660.000	99.730	131.000	132.500	188.700	190.000	M 1145.000
x		T 29800.000	T 456.900	T 29820.000	T 29440.000	99.380	130.200	133.200	189.400	195.900	M 1137.000
σ		T 83.390	T 1.696	T 37.550	T 203.000	0.313	1.107	2.984	1.344	5.295	M 7.396
%RSD		T 0.280	T 0.371	T 0.126	T 0.690	0.315	0.850	2.240	0.710	2.703	M 0.651

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	M 1017.000	M 1084.000	111.800	106.800	150.200	153.400	452.800	106.000	1.329	TM 1845.000
2	06:56:00	M 1026.000	M 1098.000	112.900	106.200	151.800	150.700	452.400	105.200	1.847	TM 1841.000
3	06:56:27	M 1061.000	M 1126.000	119.000	108.300	148.500	153.900	459.000	105.700	2.463	TM 1853.000
x		M 1034.000	M 1103.000	114.500	107.100	150.200	152.600	454.700	105.600	1.880	TM 1847.000
σ		M 23.710	M 21.330	3.881	1.105	1.667	1.726	3.708	0.427	0.568	TM 6.230
%RSD		M 2.292	M 1.934	3.388	1.032	1.110	1.131	0.815	0.404	30.210	TM 0.337

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	96.5%	119.800	120.000	119.400	M 997.900	103.600	99.700	104.100	101.800	93.4%
2	06:56:00	98.0%	119.900	120.200	120.500	M 988.400	103.200	98.700	105.500	102.300	95.5%
3	06:56:27	103.0%	119.800	122.300	121.100	M 952.500	103.400	99.800	106.900	102.900	100.9%
x		99.2%	119.800	120.800	120.300	M 979.600	103.400	99.400	105.500	102.300	96.6%
σ		3.4%	0.064	1.271	0.834	M 23.970	0.203	0.610	1.402	0.552	3.9%
%RSD		3.5	0.053	1.052	0.693	M 2.446	0.196	0.614	1.329	0.540	4.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	06:55:32	115.600	117.600	112.800	111.200	M 727.900	M 730.500	97.0%	100.100	100.200	103.300
2	06:56:00	114.300	116.000	114.100	109.700	M 731.700	M 731.400	99.4%	100.100	100.200	103.700
3	06:56:27	115.800	117.900	115.100	113.500	M 728.500	M 730.800	104.7%	99.880	100.900	105.400
x		115.200	117.200	114.000	111.400	M 729.400	M 730.900	100.4%	100.000	100.400	104.100
σ		0.814	0.997	1.168	1.899	M 2.046	M 0.458	3.9%	0.136	0.394	1.104
%RSD		0.707	0.851	1.025	1.704	M 0.281	M 0.063	3.9	0.136	0.392	1.061

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	06:55:32	103.700	103.600	105.5%
2	06:56:00	104.600	104.200	109.9%
3	06:56:27	105.700	105.800	118.0%
x		104.700	104.500	111.2%
σ		0.976	1.119	6.4%
%RSD		0.933	1.070	5.7

CCV MW10994 05/01/2019 07:01:14 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	93.3%	334.000	335.800	327.400	83.060	T 73180.000	T 69860.000	T 68290.000	T 68460.000	312.200
2	07:02:08	93.7%	326.300	328.300	317.400	75.160	T 71690.000	T 67250.000	T 66940.000	T 65810.000	311.400
3	07:02:35	94.8%	320.300	324.700	321.200	77.080	T 72680.000	T 68240.000	T 66800.000	T 66390.000	311.900
x		93.9%	108.957%	109.863%	107.328%	78.430	T 120.860%	T 68450.000	T 67340.000	T 111.477%	103.945%
σ		0.8%	n/a	n/a	n/a	4.124	T n/a	T 1322.000	T 819.500	T n/a	n/a
%RSD		0.9	2.104	1.713	1.567	5.258	T 1.046	T 1.931	T 1.217	T 2.078	0.124

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	T 3653.000	710.400	T 68770.000	66580.000	T 68100.000	102.0%	324.100	328.100	312.100	734.700
2	07:02:08	T 3637.000	684.200	T 69660.000	66370.000	T 67340.000	101.4%	317.600	318.900	307.600	2744.000
3	07:02:35	T 3645.000	686.000	T 70240.000	66430.000	T 67900.000	101.6%	320.300	322.600	311.600	1597.000
x		T 121.503%	693.500	T 115.930%	66460.000	T 112.969%	101.7%	106.893%	107.732%	103.474%	1692.000
σ		T n/a	14.610	T n/a	108.300	T n/a	0.3%	n/a	n/a	n/a	1008.000
%RSD		T 0.215	2.107	T 1.062	0.163	T 0.587	0.3	1.022	1.430	0.781	59.590

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	T 65780.000	306.300	T 65690.000	T 64280.000	304.700	296.500	293.100	291.700	300.500	307.300
2	07:02:08	T 65530.000	298.100	T 65810.000	T 64330.000	301.900	295.400	296.700	294.900	298.000	304.000
3	07:02:35	T 66610.000	306.600	T 66430.000	T 64280.000	302.400	294.100	296.100	301.600	300.000	304.400
x		T 65970.000	101.227%	T 65970.000	T 107.158%	100.991%	98.440%	295.300	296.100	99.831%	101.741%
σ		T 564.400	n/a	T 396.300	T n/a	n/a	n/a	1.934	5.018	n/a	n/a
%RSD		T 0.856	1.600	T 0.601	T 0.048	0.496	0.397	0.655	1.695	0.454	0.581

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	299.100	303.300	306.700	309.900	4.408	3.733	1325.000	306.900	-0.199	315.200
2	07:02:08	299.600	306.100	308.000	311.000	4.585	3.426	1373.000	315.800	-0.310	315.800
3	07:02:35	304.800	306.000	309.700	308.200	4.528	3.563	1347.000	307.400	0.203	314.000
x		301.200	305.100	102.703%	309.700	4.507	3.574	1349.000	103.349%	-0.102	105.002%
σ		3.165	1.579	n/a	1.394	0.090	0.154	24.210	n/a	0.270	n/a
%RSD		1.051	0.517	0.486	0.450	2.001	4.303	1.795	1.617	264.600	0.290

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	99.4%	330.200	331.300	330.300	324.800	305.100	307.000	316.900	313.600	97.5%
2	07:02:08	97.8%	332.300	334.200	332.700	323.200	302.700	305.500	314.900	315.300	96.8%
3	07:02:35	99.8%	330.600	332.400	331.200	310.800	304.000	305.300	314.000	310.000	99.2%
x		99.0%	110.341%	110.870%	331.400	319.600	101.323%	306.000	315.300	104.330%	97.8%
σ		1.1%	n/a	n/a	1.219	7.638	n/a	0.953	1.504	n/a	1.3%
%RSD		1.1	0.336	0.437	0.368	2.390	0.393	0.312	0.477	0.859	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:01:41	326.500	325.100	327.200	322.700	323.000	322.700	99.4%	308.700	315.600	306.300
2	07:02:08	325.600	323.800	328.000	321.400	323.500	320.000	99.9%	310.400	317.300	308.100
3	07:02:35	323.100	322.700	324.900	323.800	321.500	324.100	100.4%	309.500	316.400	308.100
x		108.358%	107.945%	326.700	107.543%	107.552%	107.427%	99.9%	309.600	105.478%	102.500%
σ		n/a	n/a	1.602	n/a	n/a	n/a	0.5%	0.851	n/a	n/a
%RSD		0.552	0.378	0.490	0.359	0.331	0.646	0.5	0.275	0.269	0.342

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:01:41	305.500	308.500	93.5%
2	07:02:08	308.400	309.900	93.6%
3	07:02:35	305.600	309.100	93.4%
x		102.165%	103.054%	93.5%
σ		n/a	n/a	0.1%
%RSD		0.529	0.222	0.1

CCB IM9390-01 05/01/2019 07:07:23 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	97.2%	0.023	4.592	3.552	63.340	12.380	1.089	1.059	1.316	0.031
2	07:08:17	102.2%	-0.004	4.106	3.590	66.430	13.080	0.923	0.932	1.038	0.033
3	07:08:44	101.4%	0.015	4.043	3.529	52.930	11.350	0.834	0.794	1.150	-0.012
x		100.3%	0.011	4.247	3.557	60.900	12.270	0.949	0.928	1.168	0.017
σ		2.7%	0.014	0.301	0.031	7.073	0.870	0.129	0.133	0.140	0.025
%RSD		2.7	125.000	7.080	0.862	11.610	7.086	13.620	14.300	11.960	144.300
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	20.060	276.700	21.730	3.185	2.333	106.1%	-0.071	-0.009	0.054	27.370
2	07:08:17	19.900	344.100	21.460	1.380	1.766	106.6%	-0.082	0.036	0.067	7.344
3	07:08:44	18.880	304.200	19.550	0.245	1.970	105.1%	-0.036	0.054	0.070	-9.341
x		19.610	308.300	20.920	1.603	2.023	106.0%	-0.063	0.027	0.064	8.457
σ		0.637	33.850	1.189	1.482	0.287	0.8%	0.024	0.032	0.009	18.380
%RSD		3.245	10.980	5.686	92.460	14.190	0.7	38.090	118.700	13.490	217.300
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	1.482	0.043	7.699	-1.330	0.026	0.009	0.099	0.006	0.014	0.012
2	07:08:17	2.335	0.024	8.739	4.165	0.021	-0.008	0.028	-0.009	-0.001	0.003
3	07:08:44	1.182	0.034	7.031	0.935	0.029	0.017	0.204	0.011	-0.008	0.035
x		1.666	0.034	7.823	1.257	0.025	0.006	0.110	0.003	0.002	0.017
σ		0.598	0.009	0.861	2.761	0.004	0.013	0.088	0.011	0.011	0.017
%RSD		35.910	27.830	11.000	219.800	15.060	214.900	80.090	377.500	645.500	99.630
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	-0.023	0.024	-0.092	0.108	2.343	3.020	-2.762	-0.636	0.048	0.015
2	07:08:17	-0.045	0.054	-0.034	0.108	2.165	2.912	-0.486	-0.091	-0.904	0.016
3	07:08:44	-0.088	0.035	-0.005	-0.080	1.959	3.072	-0.649	-0.134	-1.270	0.013
x		-0.052	0.038	-0.044	0.045	2.156	3.002	-1.299	-0.287	-0.709	0.015
σ		0.033	0.015	0.044	0.108	0.193	0.082	1.270	0.303	0.681	0.001
%RSD		63.980	41.000	101.300	241.100	8.930	2.718	97.760	105.600	96.030	10.080
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	105.0%	0.085	0.081	0.072	-1.311	0.002	0.005	0.001	0.010	106.1%
2	07:08:17	103.9%	0.038	0.082	0.062	0.031	0.006	0.004	0.005	0.014	104.1%
3	07:08:44	103.3%	0.068	0.018	0.049	-0.283	0.001	0.005	0.008	0.005	104.6%
x		104.1%	0.063	0.060	0.061	-0.521	0.003	0.005	0.005	0.010	104.9%
σ		0.8%	0.024	0.037	0.012	0.702	0.003	0.001	0.004	0.005	1.0%
%RSD		0.8	37.050	60.980	18.840	134.700	101.700	18.820	83.510	49.420	1.0
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:07:50	0.041	0.118	0.110	0.108	0.016	0.044	104.5%	0.001	-0.005	0.006
2	07:08:17	0.036	0.081	0.088	0.073	0.018	0.030	102.3%	0.003	-0.005	0.006
3	07:08:44	0.044	0.088	0.110	0.115	-0.020	0.033	103.3%	0.005	-0.002	0.011
x		0.041	0.096	0.102	0.098	0.005	0.036	103.4%	0.003	-0.004	0.008
σ		0.004	0.019	0.013	0.022	0.022	0.007	1.1%	0.002	0.002	0.003
%RSD		10.580	20.250	12.350	22.540	478.700	20.820	1.1	71.700	38.880	40.190
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	07:07:50	0.009	0.007	101.7%							
2	07:08:17	0.003	0.006	99.6%							
3	07:08:44	0.010	0.009	101.7%							
x		0.007	0.007	101.0%							
σ		0.004	0.001	1.2%							
%RSD		57.560	20.650	1.2							

UD24009-001(5) 05/01/2019 07:13:30

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	99.4%	0.262	23.390	22.450	2838.000	T 7471.000	T 2355.000	2275.000	2324.000	TM 13800.000
2	07:14:25	96.0%	0.283	23.010	22.330	2856.000	T 7554.000	T 2372.000	2263.000	2259.000	TM 12940.000
3	07:14:52	97.9%	0.258	23.540	22.080	2794.000	T 7537.000	T 2353.000	2281.000	2295.000	TM 13140.000
x		97.8%	0.268	23.310	22.290	2829.000	T 7521.000	T 2360.000	2273.000	2292.000	TM 13290.000
σ		1.7%	0.014	0.272	0.187	31.710	T 44.230	T 10.630	9.122	32.580	TM 451.300
%RSD		1.7	5.064	1.167	0.840	1.121	T 0.588	T 0.451	0.401	1.421	TM 3.394

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	T 8449.000	T 15630.000	T 7698.000	37460.000	T 38280.000	104.9%	118.600	27.130	20.670	393.400
2	07:14:25	T 8345.000	T 15140.000	T 7477.000	36220.000	T 37760.000	107.4%	112.600	26.100	20.730	440.800
3	07:14:52	T 8349.000	T 15440.000	T 7531.000	36750.000	T 37290.000	107.0%	116.200	27.010	20.540	489.200
x		T 8381.000	T 15400.000	T 7569.000	36810.000	T 37780.000	106.4%	115.800	26.750	20.650	441.100
σ		T 58.800	T 246.500	T 115.300	621.500	T 491.900	1.3%	3.042	0.564	0.094	47.910
%RSD		T 0.702	T 1.601	T 1.523	1.688	T 1.302	1.3	2.628	2.109	0.455	10.860

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	T 6978.000	T 395.700	T 7017.000	7256.000	T 472.800	11.070	10.670	27.460	28.510	M 568.400
2	07:14:25	6946.000	T 390.900	T 6845.000	6944.000	T 462.500	10.490	10.570	27.420	29.680	M 585.100
3	07:14:52	6891.000	T 397.800	T 6955.000	7003.000	T 467.100	10.490	9.070	27.460	29.010	M 575.100
x		T 6938.000	T 394.800	T 6939.000	7068.000	T 467.500	10.680	10.100	27.440	29.070	M 576.200
σ		T 43.890	T 3.546	T 86.670	165.500	T 5.150	0.334	0.897	0.022	0.588	M 8.413
%RSD		T 0.633	T 0.898	T 1.249	2.342	T 1.102	3.125	8.879	0.082	2.023	M 1.460

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	496.200	M 527.600	4.018	1.511	1992.000	2009.000	25.440	4.084	-1.365	33.000
2	07:14:25	487.600	M 527.000	3.462	1.484	1992.000	2038.000	20.060	2.762	1.191	32.540
3	07:14:52	498.800	M 528.800	4.079	1.539	2002.000	2039.000	25.240	4.013	0.020	32.600
x		494.200	M 527.800	3.853	1.511	1995.000	2028.000	23.580	3.620	-0.051	32.710
σ		5.839	M 0.923	0.340	0.028	5.895	17.030	3.051	0.744	1.280	0.250
%RSD		1.182	M 0.175	8.822	1.846	0.296	0.840	12.940	20.550	2492.000	0.765

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	113.8%	5.828	6.099	5.826	2.167	0.240	0.242	0.351	0.372	103.2%
2	07:14:25	117.5%	5.993	5.937	6.034	3.063	0.274	0.232	0.342	0.420	103.8%
3	07:14:52	119.1%	6.082	6.142	5.978	1.548	0.242	0.260	0.376	0.409	106.6%
x		116.8%	5.968	6.059	5.946	2.259	0.252	0.245	0.356	0.401	104.5%
σ		2.7%	0.129	0.108	0.108	0.762	0.019	0.015	0.018	0.025	1.8%
%RSD		2.3	2.160	1.788	1.808	33.730	7.475	5.936	4.988	6.287	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:13:57	0.196	0.154	266.200	267.200	57.040	56.940	103.0%	0.105	0.104	9.135
2	07:14:25	0.200	0.106	272.500	269.500	55.140	56.430	106.1%	0.120	0.096	9.305
3	07:14:52	0.188	0.110	269.100	270.200	55.570	56.620	107.0%	0.113	0.119	9.198
x		0.195	0.123	269.200	268.900	55.920	56.660	105.4%	0.113	0.106	9.213
σ		0.006	0.027	3.152	1.557	0.998	0.256	2.1%	0.008	0.012	0.086
%RSD		2.952	21.820	1.171	0.579	1.784	0.452	2.0	6.669	11.310	0.934

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:13:57	8.843	8.843	99.2%
2	07:14:25	8.794	8.878	103.5%
3	07:14:52	8.610	8.871	103.2%
x		8.749	8.864	102.0%
σ		0.123	0.019	2.4%
%RSD		1.406	0.212	2.4

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	99.3%	0.003	2.411	2.398	96.340	22.440	1.788	1.747	1.938	2.161
2	07:20:33	99.3%	0.037	2.312	2.059	106.000	22.710	1.796	1.720	1.765	2.056
3	07:21:00	T 116.9%	-0.003	2.697	2.041	88.840	22.200	1.790	2.003	1.757	2.104
x		T 105.2%	0.012	2.473	2.166	97.060	22.450	1.792	1.823	1.820	2.107
σ		T 10.2%	0.021	0.200	0.201	8.616	0.252	0.004	0.156	0.102	0.052
%RSD		T 9.7	175.200	8.075	9.272	8.876	1.123	0.230	8.550	5.616	2.473
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	21.810	T 88280.000	44.570	11.780	14.050	103.9%	0.022	-0.267	0.333	1827.000
2	07:20:33	21.790	T 88420.000	41.350	14.530	14.890	105.8%	0.065	-0.179	0.343	1699.000
3	07:21:00	19.050	T 88480.000	37.180	16.770	12.470	106.1%	-0.025	0.055	0.337	1804.000
x		20.880	T 88390.000	41.030	14.360	13.800	105.3%	0.021	-0.130	0.338	1777.000
σ		1.585	T 105.600	3.702	2.499	1.228	1.2%	0.045	0.167	0.005	68.390
%RSD		7.590	T 0.120	9.023	17.400	8.894	1.1	218.600	127.900	1.514	3.849
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	3.002	0.671	7.472	-0.894	0.054	0.136	-0.386	0.146	0.166	0.991
2	07:20:33	2.443	0.638	6.196	-4.043	0.047	0.144	-0.027	0.133	0.092	1.016
3	07:21:00	3.393	0.640	6.643	-3.255	0.043	0.108	0.245	0.125	0.088	1.104
x		2.946	0.650	6.770	-2.731	0.048	0.129	-0.056	0.135	0.115	1.037
σ		0.477	0.019	0.648	1.639	0.006	0.019	0.316	0.011	0.044	0.059
%RSD		16.200	2.901	9.567	60.010	12.200	14.740	567.500	7.815	37.770	5.730
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	1.207	0.991	-0.032	0.929	14.920	14.340	1.170	0.222	0.330	0.014
2	07:20:33	1.174	1.208	0.033	0.137	13.250	13.760	1.548	0.378	-2.845	0.008
3	07:21:00	1.230	1.194	-0.200	0.724	14.100	13.930	0.869	0.214	-1.370	0.016
x		1.204	1.131	-0.066	0.597	14.090	14.010	1.196	0.271	-1.295	0.013
σ		0.028	0.122	0.120	0.411	0.837	0.299	0.340	0.092	1.589	0.004
%RSD		2.307	10.760	181.700	68.900	5.940	2.131	28.430	33.990	122.700	31.140
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	104.0%	-0.004	0.009	0.005	-0.742	-0.004	-0.002	0.001	0.005	105.3%
2	07:20:33	107.3%	0.016	0.020	0.011	-0.977	-0.003	-0.001	0.008	0.002	108.4%
3	07:21:00	105.2%	0.014	0.008	0.029	-0.421	-0.006	0.005	-0.003	0.023	105.2%
x		105.5%	0.008	0.013	0.015	-0.714	-0.004	0.000	0.002	0.010	106.3%
σ		1.6%	0.011	0.007	0.012	0.279	0.002	0.004	0.005	0.011	1.8%
%RSD		1.6	133.200	53.100	80.570	39.130	39.760	845.100	257.700	108.600	1.7
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:20:07	0.246	0.412	0.073	0.088	0.038	0.038	104.8%	-0.016	-0.016	0.000
2	07:20:33	0.320	0.444	0.078	0.078	0.046	0.022	107.5%	-0.016	-0.018	-0.008
3	07:21:00	0.250	0.434	0.070	0.107	0.043	0.051	103.9%	-0.016	-0.020	-0.007
x		0.272	0.430	0.073	0.091	0.042	0.037	105.4%	-0.016	-0.018	-0.005
σ		0.042	0.016	0.004	0.015	0.004	0.015	1.9%	0.000	0.002	0.005
%RSD		15.290	3.822	5.876	16.220	10.310	39.240	1.8	2.803	10.980	93.760
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	07:20:07	-0.001	-0.002	103.0%							
2	07:20:33	-0.012	-0.008	105.4%							
3	07:21:00	-0.003	-0.003	101.8%							
x		-0.005	-0.004	103.4%							
σ		0.006	0.003	1.8%							
%RSD		109.000	72.730	1.8							

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	103.3%	106.400	115.600	107.500	104.000	T 1194.000	T 1141.000	1101.000	1101.000	108.100
2	07:26:41	104.9%	106.800	113.800	109.700	102.200	T 1213.000	T 1159.000	1121.000	1124.000	108.100
3	07:27:08	99.8%	110.400	112.800	111.900	113.700	T 1239.000	T 1163.000	1100.000	1081.000	103.800
x		102.7%	107.900	114.100	109.700	106.600	T 1215.000	T 1154.000	1107.000	1102.000	106.700
σ		2.6%	2.172	1.416	2.219	6.194	T 22.650	T 11.970	11.880	21.720	2.496
%RSD		2.5	2.014	1.241	2.023	5.808	T 1.864	T 1.037	1.073	1.971	2.340

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	T 1056.000	T 89940.000	T 1225.000	1229.000	1112.000	104.0%	106.100	105.200	102.500	2466.000
2	07:26:41	T 1053.000	T 90800.000	T 1196.000	1197.000	1117.000	106.7%	109.200	105.500	101.300	2405.000
3	07:27:08	T 1057.000	T 88800.000	1167.000	1192.000	1100.000	104.7%	106.700	105.800	103.000	2752.000
x		T 1055.000	T 89850.000	T 1196.000	1206.000	1110.000	105.1%	107.300	105.500	102.300	2541.000
σ		T 2.035	T 1004.000	T 28.970	19.670	8.868	1.4%	1.620	0.291	0.913	185.200
%RSD		T 0.193	T 1.117	T 2.422	1.631	0.799	1.3	1.509	0.276	0.892	7.288

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	1142.000	101.800	T 1122.000	1046.000	101.300	103.800	100.800	106.000	104.700	103.100
2	07:26:41	1126.000	102.400	T 1130.000	1039.000	101.800	101.700	103.800	104.700	105.400	103.800
3	07:27:08	1120.000	102.700	T 1113.000	1050.000	101.700	102.600	101.300	103.700	101.400	102.400
x		1129.000	102.300	T 1122.000	1045.000	101.600	102.700	102.000	104.800	103.800	103.100
σ		11.700	0.499	T 8.294	5.991	0.249	1.062	1.600	1.178	2.111	0.676
%RSD		1.036	0.488	T 0.739	0.573	0.245	1.033	1.569	1.124	2.033	0.655

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	103.000	104.400	104.200	105.800	10.070	9.862	486.800	109.200	-0.111	102.100
2	07:26:41	102.900	103.800	103.000	108.300	9.780	10.340	463.800	105.400	-0.307	102.900
3	07:27:08	104.700	107.200	108.600	106.600	8.443	9.922	470.400	104.700	-1.978	102.600
x		103.500	105.100	105.300	106.900	9.432	10.040	473.700	106.400	-0.798	102.500
σ		1.018	1.829	2.956	1.288	0.869	0.263	11.830	2.443	1.026	0.388
%RSD		0.983	1.740	2.808	1.204	9.215	2.616	2.497	2.295	128.500	0.379

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	101.2%	103.000	104.800	102.800	106.100	101.900	103.200	103.700	102.900	102.4%
2	07:26:41	104.1%	104.200	105.400	104.300	104.800	104.600	105.000	105.300	103.500	104.0%
3	07:27:08	105.6%	104.200	107.100	104.500	107.300	103.000	104.100	106.300	103.700	107.2%
x		103.6%	103.800	105.800	103.900	106.100	103.200	104.100	105.100	103.400	104.5%
σ		2.2%	0.677	1.224	0.935	1.265	1.339	0.897	1.320	0.383	2.4%
%RSD		2.2	0.653	1.157	0.901	1.193	1.298	0.862	1.255	0.371	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:26:14	104.700	104.200	102.200	104.300	108.300	109.500	100.2%	104.200	104.600	105.700
2	07:26:41	106.200	105.800	103.400	105.000	106.900	109.200	103.3%	102.400	103.300	103.900
3	07:27:08	106.800	105.500	105.500	107.700	107.000	108.300	106.2%	103.800	103.900	104.500
x		105.900	105.200	103.700	105.700	107.400	109.000	103.2%	103.400	104.000	104.700
σ		1.072	0.859	1.692	1.783	0.768	0.610	3.0%	0.964	0.612	0.895
%RSD		1.013	0.817	1.632	1.687	0.715	0.559	2.9	0.932	0.589	0.855

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:26:14	104.700	105.400	98.5%
2	07:26:41	104.500	104.500	101.2%
3	07:27:08	104.500	104.600	104.0%
x		104.600	104.800	101.2%
σ		0.129	0.507	2.8%
%RSD		0.123	0.484	2.7

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Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	101.3%	0.072	7.741	6.778	98.250	T 1656.000	T 523.500	494.600	498.600	23.440
2	07:32:49	100.9%	0.054	6.936	6.198	83.850	T 1631.000	516.600	501.000	497.000	22.870
3	07:33:16	100.4%	0.060	6.253	6.145	88.950	T 1645.000	512.100	492.200	490.200	21.330
x		100.9%	0.062	6.977	6.374	90.350	T 1644.000	T 517.400	495.900	495.200	22.540
σ		0.5%	0.009	0.745	0.351	7.301	T 12.150	T 5.763	4.547	4.448	1.092
%RSD		0.4	14.780	10.670	5.511	8.081	T 0.739	T 1.114	0.917	0.898	4.844

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	T 2229.000	T 81140.000	579.600	263.600	278.300	104.1%	0.447	0.060	0.420	1741.000
2	07:32:49	T 2142.000	T 77450.000	549.000	243.400	279.600	104.5%	0.410	0.122	0.327	1537.000
3	07:33:16	T 2166.000	T 77410.000	549.200	264.100	264.900	107.1%	0.375	-0.204	0.300	1585.000
x		T 2179.000	T 78670.000	559.300	257.000	274.300	105.2%	0.411	-0.007	0.349	1621.000
σ		T 45.260	T 2140.000	17.610	11.770	8.172	1.6%	0.036	0.173	0.063	106.700
%RSD		T 2.077	T 2.720	3.149	4.580	2.980	1.6	8.726	2345.000	18.110	6.580

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	10.050	2.403	13.030	7.358	0.201	0.315	0.220	0.259	0.272	1.340
2	07:32:49	9.380	2.366	10.350	4.251	0.195	0.338	0.201	0.264	0.265	1.443
3	07:33:16	6.824	2.388	10.080	-4.526	0.205	0.329	-0.047	0.282	0.260	1.336
x		8.752	2.385	11.150	2.361	0.200	0.327	0.125	0.268	0.266	1.373
σ		1.703	0.019	1.629	6.163	0.005	0.012	0.149	0.012	0.006	0.061
%RSD		19.460	0.780	14.610	261.100	2.498	3.629	119.300	4.498	2.257	4.410

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	2.062	2.009	0.005	0.731	8.513	8.316	-1.665	-0.375	-0.031	3.191
2	07:32:49	2.399	1.996	-0.303	0.085	7.640	7.633	-1.314	-0.341	1.908	3.217
3	07:33:16	2.030	2.090	0.003	0.626	8.123	9.118	-0.070	-0.059	1.072	3.218
x		2.164	2.032	-0.098	0.481	8.092	8.356	-1.016	-0.258	0.983	3.209
σ		0.204	0.051	0.178	0.347	0.438	0.743	0.838	0.174	0.973	0.015
%RSD		9.442	2.516	180.500	72.140	5.407	8.897	82.500	67.210	98.950	0.472

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	103.2%	0.023	0.018	0.022	0.135	0.003	0.003	0.020	0.017	102.2%
2	07:32:49	104.6%	0.022	0.017	0.021	-1.344	-0.004	0.001	0.008	0.006	103.5%
3	07:33:16	107.5%	0.010	0.008	0.021	-0.389	-0.004	0.002	0.001	0.011	108.1%
x		105.1%	0.018	0.014	0.021	-0.533	-0.002	0.002	0.010	0.011	104.6%
σ		2.2%	0.007	0.006	0.000	0.750	0.004	0.001	0.010	0.006	3.1%
%RSD		2.1	37.600	40.100	2.193	140.700	258.000	41.620	98.260	50.980	2.9

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:32:22	0.296	0.412	0.054	0.069	17.200	17.620	100.1%	0.018	0.022	0.027
2	07:32:49	0.268	0.415	0.045	0.063	17.470	17.350	102.9%	0.018	0.005	0.048
3	07:33:16	0.285	0.348	0.060	0.043	18.080	17.380	106.8%	0.010	0.001	0.034
x		0.283	0.392	0.053	0.058	17.590	17.450	103.3%	0.015	0.009	0.037
σ		0.014	0.038	0.007	0.014	0.452	0.145	3.4%	0.004	0.011	0.011
%RSD		4.907	9.670	13.940	23.530	2.569	0.828	3.3	28.210	121.600	29.540

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:32:22	0.046	0.037	97.5%
2	07:32:49	0.032	0.040	101.6%
3	07:33:16	0.035	0.035	105.3%
x		0.038	0.037	101.5%
σ		0.007	0.003	3.9%
%RSD		19.520	7.384	3.8

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	103.3%	0.028	11.800	10.680	91.690	T 1756.000	560.500	539.000	544.400	31.840
2	07:38:57	99.3%	0.046	10.390	11.110	95.200	T 1740.000	T 565.200	542.500	532.900	31.030
3	07:39:24	98.1%	0.072	11.810	10.790	82.570	T 1703.000	539.600	529.400	530.300	30.600
x		100.3%	0.049	11.330	10.860	89.820	T 1733.000	T 555.100	537.000	535.900	31.160
σ		2.7%	0.022	0.817	0.223	6.522	T 27.230	T 13.620	6.771	7.514	0.628
%RSD		2.7	45.810	7.211	2.054	7.261	T 1.572	T 2.453	1.261	1.402	2.014

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	T 2194.000	T 84090.000	602.900	329.400	334.500	103.6%	0.335	-0.304	0.468	1979.000
2	07:38:57	T 2217.000	T 81880.000	588.400	309.800	328.600	106.4%	0.424	0.122	0.367	1690.000
3	07:39:24	T 2226.000	T 81600.000	588.600	301.100	318.700	103.6%	0.334	-0.030	0.395	1632.000
x		T 2212.000	T 82520.000	593.300	313.400	327.300	104.5%	0.364	-0.070	0.410	1767.000
σ		T 16.290	T 1361.000	8.334	14.480	7.977	1.6%	0.052	0.216	0.052	185.900
%RSD		T 0.736	T 1.649	1.405	4.620	2.438	1.5	14.150	306.800	12.730	10.520

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	7.586	3.051	7.374	4.756	0.221	0.269	0.039	0.299	0.350	2.619
2	07:38:57	5.316	3.084	7.325	-8.321	0.225	0.307	-0.021	0.316	0.380	2.473
3	07:39:24	4.673	3.090	5.748	-9.976	0.211	0.215	-0.111	0.344	0.296	2.394
x		5.858	3.075	6.816	-4.514	0.219	0.264	-0.031	0.320	0.342	2.496
σ		1.530	0.021	0.925	8.070	0.007	0.046	0.075	0.022	0.042	0.114
%RSD		26.120	0.691	13.570	178.800	3.366	17.520	242.800	7.032	12.360	4.572

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	3.473	3.259	-0.319	0.339	6.940	7.656	-2.419	-0.468	-3.651	3.990
2	07:38:57	3.350	3.489	-0.080	-0.222	7.073	7.400	-0.970	-0.222	0.409	3.841
3	07:39:24	2.615	3.058	-0.011	0.485	8.034	6.525	-1.037	-0.210	-0.479	3.969
x		3.146	3.269	-0.137	0.201	7.349	7.194	-1.475	-0.300	-1.240	3.933
σ		0.464	0.216	0.162	0.373	0.597	0.593	0.818	0.146	2.134	0.081
%RSD		14.740	6.592	118.300	185.700	8.121	8.242	55.430	48.530	172.100	2.056

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	101.3%	0.018	0.032	0.007	0.842	-0.003	-0.000	0.009	0.007	101.0%
2	07:38:57	105.6%	0.003	-0.004	0.008	0.235	-0.003	-0.000	0.020	-0.001	104.2%
3	07:39:24	107.7%	0.031	-0.001	-0.001	-0.550	0.003	-0.002	0.008	0.014	104.9%
x		104.8%	0.017	0.009	0.005	0.176	-0.001	-0.001	0.012	0.007	103.3%
σ		3.3%	0.014	0.020	0.005	0.698	0.003	0.001	0.006	0.007	2.1%
%RSD		3.1	79.950	222.200	102.200	397.000	400.600	107.100	51.540	108.700	2.0

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:38:30	0.238	0.438	0.023	0.050	20.300	20.910	98.1%	-0.001	-0.003	-0.008
2	07:38:57	0.251	0.412	0.033	0.043	20.050	19.900	102.3%	-0.002	-0.002	-0.000
3	07:39:24	0.257	0.367	0.048	0.049	20.250	21.060	103.3%	-0.004	-0.001	-0.016
x		0.249	0.406	0.034	0.048	20.200	20.620	101.2%	-0.002	-0.002	-0.008
σ		0.010	0.036	0.012	0.004	0.131	0.634	2.7%	0.002	0.001	0.008
%RSD		3.985	8.804	36.090	8.112	0.651	3.076	2.7	70.300	47.670	97.370

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:38:30	-0.001	-0.005	96.7%
2	07:38:57	-0.006	-0.007	99.5%
3	07:39:24	-0.019	-0.013	101.6%
x		-0.009	-0.008	99.3%
σ		0.010	0.004	2.5%
%RSD		113.800	46.920	2.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	102.7%	0.024	59.670	59.180	97.670	T 1780.000	T 615.300	592.800	583.900	39.230
2	07:45:04	102.4%	0.020	57.040	55.770	86.000	T 1754.000	T 610.000	575.700	577.300	38.720
3	07:45:32	99.0%	0.026	55.210	57.560	91.570	T 1807.000	609.100	591.300	590.800	37.760
x		101.4%	0.023	57.310	57.500	91.750	T 1780.000	T 611.500	586.600	584.000	38.570
σ		2.1%	0.003	2.242	1.704	5.834	T 26.540	T 3.312	9.479	6.763	0.749
%RSD		2.0	13.080	3.913	2.963	6.359	T 1.491	T 0.542	1.616	1.158	1.941

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	T 2354.000	T 86540.000	643.800	400.400	431.300	102.9%	0.465	-0.040	0.414	1916.000
2	07:45:04	T 2256.000	T 83230.000	632.700	429.300	428.400	103.3%	0.579	-0.250	0.386	1879.000
3	07:45:32	T 2321.000	T 83830.000	633.200	381.600	434.200	105.1%	0.465	-0.110	0.326	1654.000
x		T 2310.000	T 84530.000	636.500	403.800	431.300	103.7%	0.503	-0.133	0.375	1816.000
σ		T 49.890	T 1761.000	6.272	23.990	2.863	1.2%	0.066	0.106	0.045	141.800
%RSD		T 2.159	T 2.083	0.985	5.941	0.664	1.1	13.090	79.830	12.020	7.805

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	7.111	3.821	8.711	6.218	0.263	0.288	0.613	0.202	0.194	2.814
2	07:45:04	5.206	3.842	7.020	0.966	0.238	0.253	0.063	0.237	0.206	2.832
3	07:45:32	4.820	3.785	6.367	-10.490	0.298	0.323	0.172	0.178	0.183	2.697
x		5.712	3.816	7.366	-1.102	0.266	0.288	0.283	0.206	0.195	2.781
σ		1.227	0.029	1.210	8.543	0.030	0.035	0.292	0.029	0.012	0.073
%RSD		21.480	0.755	16.420	775.300	11.440	12.150	103.200	14.280	5.929	2.641

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	4.130	3.960	0.146	0.096	12.500	14.030	-0.767	-0.178	0.269	5.343
2	07:45:04	3.825	3.706	-0.053	-0.096	14.350	14.190	-1.247	-0.292	-0.228	5.338
3	07:45:32	4.318	3.820	-0.139	0.015	13.600	14.690	-1.888	-0.433	-0.946	5.271
x		4.091	3.829	-0.015	0.005	13.480	14.300	-1.300	-0.301	-0.302	5.317
σ		0.249	0.127	0.147	0.097	0.934	0.344	0.563	0.128	0.611	0.040
%RSD		6.079	3.327	963.700	1936.000	6.928	2.402	43.260	42.390	202.400	0.753

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	101.9%	0.002	-0.012	-0.008	1.094	-0.003	-0.001	0.013	0.011	100.5%
2	07:45:04	103.2%	-0.002	-0.004	0.005	-0.625	-0.005	0.000	0.016	0.020	103.1%
3	07:45:32	108.9%	0.023	-0.005	-0.001	-0.736	-0.004	-0.002	0.019	0.010	109.5%
x		104.7%	0.008	-0.007	-0.001	-0.089	-0.004	-0.001	0.016	0.013	104.3%
σ		3.7%	0.013	0.005	0.006	1.026	0.001	0.001	0.003	0.006	4.6%
%RSD		3.5	174.800	64.580	560.500	1150.000	32.410	140.800	18.460	41.210	4.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:44:37	0.298	0.352	0.030	0.029	23.740	23.700	99.4%	0.007	0.003	-0.007
2	07:45:04	0.277	0.354	0.025	0.042	24.710	23.380	101.3%	0.004	0.005	-0.018
3	07:45:32	0.299	0.395	0.022	0.040	24.150	23.920	107.1%	0.001	0.007	-0.020
x		0.291	0.367	0.026	0.037	24.200	23.660	102.6%	0.004	0.005	-0.015
σ		0.013	0.024	0.004	0.007	0.488	0.272	4.0%	0.003	0.002	0.007
%RSD		4.294	6.625	14.500	19.840	2.017	1.148	3.9	69.910	37.790	46.640

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:44:37	-0.014	-0.012	97.5%
2	07:45:04	-0.019	-0.016	101.1%
3	07:45:32	-0.018	-0.017	106.4%
x		-0.017	-0.015	101.7%
σ		0.003	0.002	4.5%
%RSD		17.930	15.540	4.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	98.7%	-0.013	60.580	60.840	94.790	T 2010.000	T 2216.000	2144.000	2098.000	24.210
2	07:51:13	99.0%	0.018	61.580	63.850	97.790	T 2032.000	T 2253.000	2147.000	2123.000	24.690
3	07:51:40	103.2%	0.009	62.930	63.170	96.890	T 1982.000	T 2198.000	2084.000	2106.000	25.080
x		100.3%	0.005	61.700	62.620	96.490	T 2008.000	T 2222.000	2125.000	2109.000	24.660
σ		2.5%	0.016	1.176	1.579	1.540	T 25.000	T 27.810	35.680	12.310	0.434
%RSD		2.5	322.300	1.906	2.522	1.596	T 1.245	T 1.251	1.679	0.584	1.761

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	T 2603.000	T 88880.000	732.000	33860.000	T 35000.000	105.5%	0.598	-0.089	0.351	1882.000
2	07:51:13	T 2675.000	T 90930.000	762.300	34180.000	T 34800.000	105.6%	0.439	0.147	0.379	1934.000
3	07:51:40	T 2546.000	T 91120.000	745.500	34280.000	T 34570.000	105.8%	0.449	0.068	0.336	1955.000
x		T 2608.000	T 90310.000	746.600	34100.000	T 34790.000	105.6%	0.495	0.042	0.356	1924.000
σ		T 64.740	T 1240.000	15.210	221.900	T 213.400	0.2%	0.089	0.120	0.022	37.490
%RSD		T 2.482	T 1.373	2.037	0.651	T 0.613	0.2	17.940	285.000	6.080	1.949

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	4.535	8.777	7.711	291.400	0.175	0.498	0.187	0.076	0.125	1.944
2	07:51:13	5.574	8.739	9.412	327.100	0.190	0.624	-0.147	0.077	0.194	2.021
3	07:51:40	6.342	8.740	10.100	328.800	0.173	0.614	0.410	0.110	0.139	1.988
x		5.484	8.752	9.076	315.800	0.179	0.579	0.150	0.088	0.153	1.984
σ		0.907	0.022	1.231	21.130	0.009	0.071	0.280	0.020	0.037	0.039
%RSD		16.540	0.247	13.570	6.692	5.199	12.190	186.500	22.380	23.960	1.967

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	3.716	3.061	0.083	0.091	19.780	19.180	-0.296	-0.045	-2.336	29.610
2	07:51:13	3.960	3.153	-0.071	0.506	20.560	19.340	0.859	0.166	0.023	29.740
3	07:51:40	3.562	2.998	-0.073	0.508	20.820	21.250	-0.932	-0.187	-2.383	30.060
x		3.746	3.071	-0.021	0.368	20.380	19.920	-0.123	-0.022	-1.565	29.800
σ		0.201	0.078	0.089	0.240	0.542	1.151	0.908	0.177	1.376	0.234
%RSD		5.366	2.544	435.400	65.160	2.659	5.777	736.700	802.800	87.890	0.786

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	104.4%	0.001	-0.013	-0.011	0.301	-0.004	0.000	0.005	0.015	105.3%
2	07:51:13	102.1%	0.012	-0.025	0.007	0.526	-0.003	-0.002	0.009	0.002	103.1%
3	07:51:40	100.5%	-0.007	0.001	0.019	0.323	-0.002	-0.001	-0.003	0.005	101.8%
x		102.3%	0.002	-0.012	0.005	0.383	-0.003	-0.001	0.004	0.008	103.4%
σ		2.0%	0.009	0.013	0.016	0.124	0.001	0.001	0.006	0.007	1.8%
%RSD		1.9	439.500	109.900	311.900	32.410	33.610	134.500	161.000	86.400	1.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:50:47	0.267	0.381	0.028	0.025	26.660	26.570	104.5%	-0.004	0.000	-0.020
2	07:51:13	0.277	0.416	0.030	0.042	26.620	26.240	101.6%	0.008	0.001	-0.012
3	07:51:40	0.219	0.429	0.051	0.037	25.840	26.440	101.2%	-0.004	0.008	-0.011
x		0.254	0.409	0.036	0.034	26.370	26.420	102.4%	-0.000	0.003	-0.014
σ		0.031	0.024	0.012	0.009	0.462	0.166	1.8%	0.007	0.004	0.005
%RSD		12.150	5.986	34.110	25.770	1.750	0.628	1.7	6131.000	143.300	32.910

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:50:47	-0.009	-0.013	102.0%
2	07:51:13	-0.011	-0.012	99.0%
3	07:51:40	-0.011	-0.012	97.5%
x		-0.010	-0.013	99.5%
σ		0.001	0.000	2.3%
%RSD		12.810	1.611	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	98.8%	104.200	160.100	155.200	103.700	┬3081.000	┬3192.000	3058.000	3027.000	120.300
2	07:57:24	98.1%	107.000	161.400	161.200	103.800	┬3119.000	┬3241.000	3122.000	3056.000	122.200
3	07:57:52	103.7%	100.500	161.800	156.400	90.660	┬2995.000	┬3147.000	3076.000	┬3176.000	125.700
x		100.2%	103.900	161.100	157.600	99.370	┬3065.000	┬3194.000	3085.000	┬3086.000	122.700
σ		3.0%	3.285	0.903	3.209	7.545	┬63.340	┬46.610	33.130	┬79.510	2.779
%RSD		3.0	3.162	0.560	2.036	7.593	┬2.066	┬1.459	1.074	┬2.576	2.264

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	┬3425.000	┬84110.000	┬1854.000	33730.000	┬33920.000	104.0%	104.700	103.100	100.600	2007.000
2	07:57:24	┬3513.000	┬84470.000	┬1825.000	33730.000	┬34740.000	103.8%	106.600	102.900	100.300	2455.000
3	07:57:52	┬3437.000	┬85520.000	┬1847.000	33500.000	┬34640.000	105.0%	103.500	101.400	97.670	2893.000
x		┬3458.000	┬84700.000	┬1842.000	33660.000	┬34430.000	104.3%	104.900	102.500	99.530	2452.000
σ		┬47.630	┬729.300	┬14.970	132.300	┬445.900	0.6%	1.563	0.958	1.621	442.900
%RSD		┬1.377	┬0.861	┬0.813	0.393	┬1.295	0.6	1.489	0.935	1.629	18.060

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	1110.000	108.400	┬1089.000	1276.000	96.960	95.140	97.590	100.300	102.200	102.200
2	07:57:24	1112.000	109.200	┬1115.000	1299.000	98.810	98.950	100.300	100.600	100.800	102.400
3	07:57:52	1096.000	105.400	┬1104.000	1340.000	98.690	100.200	99.490	101.000	104.600	100.300
x		1106.000	107.700	┬1103.000	1305.000	98.160	98.080	99.110	100.600	102.500	101.600
σ		8.430	2.001	┬13.170	32.370	1.034	2.622	1.376	0.355	1.917	1.168
%RSD		0.762	1.859	┬1.195	2.480	1.053	2.673	1.388	0.353	1.870	1.149

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	102.000	105.100	102.200	103.200	18.520	18.380	444.000	100.300	-0.973	129.300
2	07:57:24	106.400	104.800	103.400	104.100	18.990	19.940	461.300	104.600	1.055	128.500
3	07:57:52	99.850	104.400	101.600	100.600	18.810	19.250	447.500	101.800	-0.880	130.500
x		102.700	104.800	102.400	102.600	18.780	19.190	450.900	102.200	-0.266	129.400
σ		3.329	0.327	0.922	1.790	0.239	0.780	9.114	2.164	1.145	1.027
%RSD		3.240	0.312	0.900	1.744	1.272	4.062	2.021	2.117	430.800	0.793

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	101.7%	103.500	103.700	103.000	106.300	100.200	100.500	102.900	101.100	102.2%
2	07:57:24	102.4%	103.300	104.600	104.400	105.100	100.600	101.300	103.800	101.200	102.3%
3	07:57:52	99.8%	102.700	105.000	103.200	105.200	99.860	100.000	100.900	99.620	100.0%
x		101.3%	103.200	104.400	103.600	105.500	100.200	100.600	102.500	100.700	101.5%
σ		1.3%	0.369	0.685	0.780	0.653	0.385	0.651	1.482	0.905	1.3%
%RSD		1.3	0.358	0.656	0.754	0.619	0.384	0.647	1.446	0.899	1.2

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:56:57	104.200	102.200	102.900	105.000	130.400	130.100	101.0%	100.800	99.640	100.600
2	07:57:24	105.200	103.100	102.800	105.600	130.900	131.600	101.3%	99.960	100.000	100.600
3	07:57:52	103.600	102.600	101.200	103.400	131.800	131.900	98.4%	99.290	100.000	99.440
x		104.300	102.600	102.300	104.700	131.000	131.200	100.2%	100.000	99.900	100.200
σ		0.824	0.435	0.952	1.137	0.690	0.986	1.6%	0.774	0.221	0.664
%RSD		0.790	0.424	0.930	1.086	0.527	0.752	1.6	0.774	0.221	0.662

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	07:56:57	99.590	100.300	97.2%
2	07:57:24	100.100	100.300	96.2%
3	07:57:52	100.500	99.860	93.8%
x		100.100	100.100	95.7%
σ		0.474	0.249	1.8%
%RSD		0.473	0.249	1.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	99.9%	111.400	170.700	162.900	109.900	┬3177.000	┬3353.000	3268.000	3271.000	130.600
2	08:03:32	100.3%	110.400	175.400	167.000	108.000	┬3194.000	┬3352.000	3226.000	3234.000	126.900
3	08:03:59	103.6%	104.500	170.300	165.000	101.700	┬3147.000	┬3305.000	3211.000	3199.000	133.700
x		101.3%	108.800	172.100	165.000	106.500	┬3172.000	┬3337.000	3235.000	3235.000	130.400
σ		2.0%	3.722	2.831	2.015	4.301	┬23.490	┬27.370	29.900	35.910	3.416
%RSD		2.0	3.422	1.645	1.221	4.038	┬0.741	┬0.820	0.924	1.110	2.620

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	┬3605.000	┬88930.000	┬1890.000	35090.000	┬35690.000	102.5%	110.800	107.800	103.900	2616.000
2	08:03:32	┬3532.000	┬89640.000	┬1883.000	34680.000	┬35970.000	102.8%	105.500	106.000	103.000	2501.000
3	08:03:59	┬3557.000	┬93170.000	┬1980.000	35520.000	┬36570.000	101.2%	105.400	107.200	103.600	2717.000
x		┬3564.000	┬90580.000	┬1918.000	35100.000	┬36080.000	102.2%	107.200	107.000	103.500	2611.000
σ		┬37.050	┬2272.000	┬53.770	416.700	┬447.800	0.8%	3.069	0.932	0.461	108.000
%RSD		┬1.040	┬2.508	┬2.804	1.187	┬1.241	0.8	2.862	0.871	0.446	4.136

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	1129.000	108.600	┬1127.000	1373.000	103.200	102.700	102.900	101.500	102.900	107.700
2	08:03:32	1138.000	110.900	┬1142.000	1345.000	100.700	99.560	103.500	105.100	107.400	107.600
3	08:03:59	1146.000	111.500	┬1154.000	1443.000	104.200	103.200	103.700	106.100	106.000	106.700
x		1138.000	110.400	┬1141.000	1387.000	102.700	101.800	103.400	104.300	105.400	107.300
σ		8.609	1.539	┬13.520	50.340	1.803	1.972	0.423	2.410	2.281	0.564
%RSD		0.756	1.394	┬1.184	3.629	1.756	1.937	0.409	2.311	2.163	0.526

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	105.900	107.200	105.700	112.500	13.640	15.530	464.200	107.900	-0.473	132.900
2	08:03:32	109.000	108.700	109.000	110.500	13.310	13.500	482.300	110.600	-0.679	133.500
3	08:03:59	102.900	107.700	105.100	112.000	13.750	13.560	493.200	113.300	-0.812	134.100
x		105.900	107.900	106.600	111.700	13.560	14.200	479.900	110.600	-0.655	133.500
σ		3.078	0.755	2.136	1.023	0.229	1.157	14.640	2.690	0.171	0.583
%RSD		2.906	0.700	2.004	0.916	1.686	8.153	3.050	2.432	26.060	0.437

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	100.4%	106.100	106.400	105.900	105.300	103.900	104.700	105.800	105.600	98.1%
2	08:03:32	100.3%	107.300	108.200	108.200	102.600	103.100	104.000	105.700	105.400	99.3%
3	08:03:59	99.2%	108.000	107.200	106.800	110.200	104.100	105.200	106.100	105.000	98.0%
x		100.0%	107.100	107.300	107.000	106.000	103.700	104.600	105.900	105.300	98.4%
σ		0.7%	0.991	0.882	1.171	3.840	0.507	0.620	0.223	0.330	0.7%
%RSD		0.7	0.925	0.822	1.095	3.621	0.489	0.593	0.211	0.313	0.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:05	109.200	107.100	107.400	108.100	134.900	137.100	97.6%	103.400	103.100	103.000
2	08:03:32	107.800	107.700	106.100	108.400	137.100	136.300	98.9%	103.100	103.000	104.200
3	08:03:59	108.300	106.400	104.900	106.100	135.600	136.100	97.2%	102.700	103.200	102.200
x		108.400	107.100	106.100	107.500	135.900	136.500	97.9%	103.100	103.100	103.100
σ		0.674	0.628	1.224	1.249	1.129	0.542	0.9%	0.352	0.131	1.026
%RSD		0.622	0.587	1.154	1.161	0.831	0.397	0.9	0.341	0.128	0.994

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:03:05	103.100	102.800	92.6%
2	08:03:32	103.100	103.200	93.9%
3	08:03:59	101.900	102.200	91.8%
x		102.700	102.700	92.8%
σ		0.695	0.524	1.1%
%RSD		0.676	0.510	1.1

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	100.6%	-0.001	13.230	13.520	68.170	386.200	453.500	436.100	431.500	5.574
2	08:09:40	101.3%	-0.020	13.020	13.280	64.550	385.200	436.800	425.300	418.600	5.546
3	08:10:07	102.3%	0.018	13.470	14.060	74.840	389.800	439.900	436.800	436.600	5.524
x		101.4%	-0.001	13.240	13.620	69.190	387.100	443.400	432.700	428.900	5.548
σ		0.8%	0.019	0.224	0.400	5.223	2.447	8.881	6.428	9.276	0.025
%RSD		0.8	1528.000	1.694	2.937	7.549	0.632	2.003	1.486	2.163	0.447

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	534.200	T 18760.000	153.400	6890.000	6608.000	102.7%	0.152	0.103	0.156	324.700
2	08:09:40	539.200	T 18730.000	154.600	6795.000	6577.000	102.9%	0.035	0.032	0.122	379.900
3	08:10:07	526.600	T 19320.000	162.000	6862.000	6564.000	99.7%	0.040	0.010	0.110	464.400
x		533.400	T 18940.000	156.600	6849.000	6583.000	101.8%	0.076	0.048	0.129	389.700
σ		6.325	T 334.600	4.663	48.720	22.580	1.8%	0.066	0.048	0.024	70.400
%RSD		1.186	T 1.766	2.977	0.711	0.343	1.8	86.970	100.700	18.290	18.070

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	0.936	1.834	7.458	68.360	0.054	0.098	-0.231	-0.006	0.030	0.444
2	08:09:40	2.012	1.769	6.775	71.950	0.054	0.072	-0.256	0.010	0.063	0.441
3	08:10:07	2.211	1.831	8.382	80.900	0.057	0.178	0.246	-0.005	0.061	0.436
x		1.720	1.811	7.539	73.740	0.055	0.116	-0.080	-0.000	0.051	0.440
σ		0.686	0.037	0.807	6.456	0.002	0.055	0.283	0.009	0.018	0.004
%RSD		39.900	2.016	10.700	8.755	3.704	47.500	353.500	3205.000	35.990	0.862

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	0.781	0.698	-0.036	0.611	4.715	6.164	-2.814	-0.627	-0.279	5.944
2	08:09:40	0.984	0.711	-0.227	0.399	3.822	4.740	-1.565	-0.274	-2.806	5.963
3	08:10:07	0.809	0.651	0.001	1.185	4.868	4.043	0.547	0.196	-3.743	6.035
x		0.858	0.687	-0.087	0.732	4.468	4.982	-1.277	-0.235	-2.276	5.981
σ		0.110	0.032	0.122	0.407	0.565	1.081	1.699	0.413	1.792	0.048
%RSD		12.790	4.645	140.200	55.610	12.650	21.700	133.000	175.800	78.720	0.800

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	100.7%	0.002	0.006	0.025	-0.267	-0.004	-0.000	0.001	0.010	99.4%
2	08:09:40	101.0%	0.029	0.001	0.021	0.320	-0.002	0.001	-0.003	0.009	99.1%
3	08:10:07	97.9%	0.022	0.011	0.018	0.319	-0.003	-0.000	0.001	0.001	98.7%
x		99.9%	0.018	0.006	0.021	0.124	-0.003	0.000	-0.000	0.006	99.1%
σ		1.7%	0.014	0.005	0.003	0.338	0.001	0.001	0.002	0.005	0.4%
%RSD		1.7	80.350	82.650	14.990	272.800	41.900	343.200	2222.000	79.140	0.4

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:09:13	0.060	0.095	-0.006	0.013	5.672	5.554	96.3%	0.033	0.024	-0.019
2	08:09:40	0.045	0.083	0.004	0.002	5.209	5.629	96.4%	0.036	0.012	-0.015
3	08:10:07	0.055	0.082	0.003	0.011	5.475	5.483	95.5%	0.026	0.023	-0.015
x		0.053	0.087	0.001	0.009	5.452	5.556	96.1%	0.031	0.020	-0.017
σ		0.007	0.007	0.006	0.006	0.232	0.073	0.5%	0.005	0.007	0.002
%RSD		13.970	8.259	741.900	72.780	4.263	1.316	0.5	16.240	33.340	13.490

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:09:13	-0.016	-0.015	93.0%
2	08:09:40	-0.017	-0.016	92.9%
3	08:10:07	-0.019	-0.019	92.1%
x		-0.017	-0.016	92.7%
σ		0.001	0.002	0.5%
%RSD		8.141	13.260	0.5

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	94.0%	319.000	314.500	311.400	87.580	T 71430.000	T 69060.000	T 69470.000	T 68380.000	323.600
2	08:15:49	92.9%	318.100	323.000	317.800	73.440	T 69920.000	T 67870.000	T 67610.000	T 68240.000	315.200
3	08:16:16	93.2%	325.300	334.500	313.900	79.250	T 72720.000	T 69660.000	T 68320.000	T 68010.000	319.200
x		93.4%	106.935%	108.001%	104.785%	80.090	T 118.929%	T 68860.000	T 68470.000	T 113.680%	106.443%
σ		0.6%	n/a	n/a	n/a	7.109	T n/a	T 913.500	T 937.900	T n/a	n/a
%RSD		0.6	1.234	3.102	1.031	8.877	T 1.969	T 1.327	T 1.370	T 0.275	1.322

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	T 3596.000	715.500	T 69460.000	67460.000	T 69170.000	95.7%	321.100	330.900	312.100	1711.000
2	08:15:49	T 3730.000	697.200	T 68080.000	65630.000	T 67710.000	98.4%	323.000	323.300	306.500	2095.000
3	08:16:16	T 3658.000	708.400	T 68820.000	66190.000	T 69380.000	97.6%	325.500	327.700	310.900	2202.000
x		T 122.045%	707.000	T 114.642%	66430.000	T 114.585%	97.2%	107.726%	109.108%	103.276%	2003.000
σ		T n/a	9.198	T n/a	936.000	T n/a	1.4%	n/a	n/a	n/a	258.200
%RSD		T 1.839	1.301	T 1.004	1.409	T 1.326	1.4	0.677	1.168	0.958	12.890

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	T 66020.000	302.100	T 66890.000	T 66000.000	311.200	300.300	300.200	299.800	314.500	313.500
2	08:15:49	T 66370.000	306.400	T 66430.000	T 64660.000	303.400	296.900	298.800	297.200	313.000	312.800
3	08:16:16	T 68030.000	301.700	T 66670.000	T 64780.000	301.900	295.000	301.700	298.100	306.300	310.800
x		T 66810.000	101.129%	T 66660.000	T 108.577%	101.836%	99.140%	300.200	298.400	103.758%	104.122%
σ		T 1074.000	n/a	T 227.800	T n/a	n/a	n/a	1.465	1.328	n/a	n/a
%RSD		T 1.608	0.849	T 0.342	T 1.137	1.639	0.903	0.488	0.445	1.416	0.449

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	302.000	303.300	309.600	321.600	2.733	2.232	1386.000	326.300	1.232	314.300
2	08:15:49	296.500	302.300	305.700	324.600	2.359	2.059	1384.000	326.500	-0.057	313.600
3	08:16:16	298.300	307.700	304.700	312.100	2.700	2.083	1341.000	310.600	3.191	317.500
x		299.000	304.500	102.216%	319.500	2.598	2.125	1371.000	107.050%	1.456	105.044%
σ		2.803	2.899	n/a	6.524	0.208	0.094	25.280	n/a	1.635	n/a
%RSD		0.938	0.952	0.853	2.042	7.987	4.434	1.845	2.852	112.400	0.653

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	92.4%	330.800	330.500	327.600	314.800	305.100	306.500	312.800	312.300	89.3%
2	08:15:49	94.3%	329.200	329.900	330.000	311.400	304.500	307.300	313.700	315.400	91.0%
3	08:16:16	93.1%	331.300	330.200	329.600	314.000	306.200	306.300	318.700	313.100	91.6%
x		93.3%	110.141%	110.072%	329.100	313.400	101.744%	306.700	315.100	104.544%	90.6%
σ		0.9%	n/a	n/a	1.272	1.811	n/a	0.568	3.199	n/a	1.2%
%RSD		1.0	0.332	0.090	0.386	0.578	0.283	0.185	1.015	0.514	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:22	324.300	321.200	327.300	325.000	329.100	328.800	90.1%	301.200	306.600	299.300
2	08:15:49	328.500	325.800	329.800	326.300	330.400	330.200	91.8%	303.700	308.400	301.200
3	08:16:16	325.300	324.000	330.800	327.400	324.400	327.100	93.3%	302.900	307.600	298.200
x		108.678%	107.876%	329.300	108.752%	109.321%	109.562%	91.7%	302.600	102.509%	99.863%
σ		n/a	n/a	1.817	n/a	n/a	n/a	1.6%	1.266	n/a	n/a
%RSD		0.669	0.715	0.552	0.369	0.958	0.477	1.7	0.418	0.308	0.504

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:15:22	296.000	298.900	82.0%
2	08:15:49	300.500	301.200	83.7%
3	08:16:16	298.500	300.600	85.4%
x		99.442%	100.080%	83.7%
σ		n/a	n/a	1.7%
%RSD		0.747	0.391	2.1

CCB IM9390-01 05/01/2019 08:21:03 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	101.6%	0.012	3.586	2.997	67.310	2.938	0.203	0.295	0.196	-0.007
2	08:21:57	96.8%	0.056	2.541	2.602	65.120	1.426	0.133	-0.001	0.310	-0.037
3	08:22:25	98.7%	0.033	2.604	2.322	66.980	1.170	0.062	0.065	0.315	-0.016
x		99.0%	0.034	2.910	2.640	66.470	1.845	0.132	0.120	0.274	-0.020
σ		2.4%	0.022	0.586	0.340	1.183	0.956	0.070	0.156	0.067	0.016
%RSD		2.5	64.410	20.130	12.860	1.780	51.810	53.130	129.900	24.560	78.380

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	16.850	506.900	11.970	0.374	0.880	101.4%	-0.068	-0.010	0.056	29.900
2	08:21:57	17.990	488.700	13.150	0.343	-0.032	102.3%	-0.104	0.009	0.050	23.870
3	08:22:25	17.450	461.700	13.310	2.190	0.250	102.3%	-0.069	-0.025	0.050	44.590
x		17.430	485.800	12.810	0.969	0.366	102.0%	-0.080	-0.009	0.052	32.790
σ		0.568	22.780	0.730	1.058	0.467	0.5%	0.020	0.017	0.003	10.660
%RSD		3.258	4.689	5.701	109.100	127.600	0.5	25.320	195.500	6.708	32.510

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	2.616	0.006	8.721	11.540	0.024	0.011	-0.263	0.006	-0.007	-0.022
2	08:21:57	1.565	0.023	6.863	4.502	0.029	0.013	-0.162	-0.016	0.005	0.008
3	08:22:25	1.623	0.012	6.727	6.620	0.025	0.008	0.073	-0.022	0.021	0.012
x		1.935	0.014	7.437	7.555	0.026	0.011	-0.117	-0.011	0.006	-0.001
σ		0.591	0.008	1.114	3.613	0.002	0.003	0.173	0.014	0.014	0.019
%RSD		30.530	61.460	14.980	47.820	8.480	27.010	146.900	134.100	211.300	2161.000

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	0.032	0.019	-0.008	0.078	0.775	2.533	-1.608	-0.337	-1.572	0.003
2	08:21:57	0.098	0.116	-0.042	0.446	1.678	1.523	-0.881	-0.231	1.661	0.002
3	08:22:25	-0.017	0.049	0.026	0.349	1.139	1.925	-0.430	-0.135	2.122	-0.002
x		0.038	0.061	-0.008	0.291	1.198	1.994	-0.973	-0.234	0.737	0.001
σ		0.057	0.050	0.034	0.191	0.454	0.508	0.594	0.101	2.013	0.003
%RSD		152.600	81.690	429.000	65.580	37.940	25.490	61.070	42.950	273.200	193.800

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	97.3%	0.082	0.057	0.056	0.067	0.003	0.003	0.001	0.007	98.4%
2	08:21:57	100.0%	0.057	0.086	0.034	0.043	-0.000	0.003	0.001	0.002	99.5%
3	08:22:25	99.5%	0.052	0.051	0.075	1.748	0.000	0.001	0.013	0.002	98.8%
x		98.9%	0.064	0.065	0.055	0.619	0.001	0.003	0.005	0.004	98.9%
σ		1.4%	0.016	0.019	0.021	0.978	0.002	0.001	0.007	0.003	0.6%
%RSD		1.5	24.910	28.950	37.880	157.900	171.000	38.280	134.600	83.720	0.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:21:30	0.048	0.086	0.086	0.109	0.010	0.028	94.5%	-0.004	-0.012	-0.007
2	08:21:57	0.050	0.093	0.110	0.134	0.009	0.020	97.3%	-0.002	-0.006	0.004
3	08:22:25	0.036	0.094	0.120	0.112	-0.014	0.024	96.5%	-0.009	-0.004	0.003
x		0.045	0.091	0.105	0.118	0.002	0.024	96.1%	-0.005	-0.007	-0.000
σ		0.008	0.005	0.018	0.014	0.013	0.004	1.4%	0.004	0.004	0.006
%RSD		16.980	5.151	16.810	11.450	892.300	16.580	1.5	71.890	61.800	1458.000

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:21:30	0.000	0.001	91.7%
2	08:21:57	-0.003	-0.000	96.0%
3	08:22:25	0.017	0.005	94.4%
x		0.005	0.002	94.0%
σ		0.011	0.003	2.2%
%RSD		229.500	133.700	2.3

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	106.4%	0.018	1.945	1.664	67.000	31.940	1.219	1.267	1.302	1.407
2	08:28:06	103.2%	0.013	2.304	1.843	74.480	29.380	1.490	1.212	1.509	0.867
3	08:28:33	108.0%	-0.008	2.246	1.709	61.520	28.390	2.266	2.087	2.208	1.102
x		105.9%	0.008	2.165	1.738	67.670	29.910	1.659	1.522	1.673	1.125
σ		2.5%	0.014	0.193	0.093	6.505	1.832	0.544	0.490	0.475	0.271
%RSD		2.3	181.600	8.917	5.346	9.614	6.127	32.770	32.220	28.380	24.070

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	20.260	T 493900.000	68.780	-0.858	3.006	100.5%	0.170	-0.468	2.317	11000.000
2	08:28:06	19.940	T 476400.000	63.170	2.774	2.478	102.5%	0.234	0.533	1.700	9081.000
3	08:28:33	19.590	T 476700.000	53.780	2.147	3.657	102.5%	0.246	-0.334	1.748	10870.000
x		19.930	T 482300.000	61.910	1.354	3.047	101.8%	0.217	-0.090	1.922	10320.000
σ		0.335	T 10010.000	7.578	1.941	0.591	1.1%	0.041	0.543	0.343	1071.000
%RSD		1.682	T 2.076	12.240	143.300	19.380	1.1	18.930	605.500	17.850	10.380

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	24.880	15.790	13.320	3.710	0.031	0.475	0.382	0.147	0.105	0.754
2	08:28:06	21.630	15.830	9.221	-4.449	0.038	0.448	0.229	0.150	0.076	0.711
3	08:28:33	22.660	15.110	9.936	0.870	0.029	0.391	0.077	0.189	0.074	0.685
x		23.060	15.580	10.830	0.043	0.033	0.438	0.229	0.162	0.085	0.716
σ		1.658	0.405	2.189	4.142	0.005	0.043	0.152	0.024	0.017	0.035
%RSD		7.191	2.597	20.220	9545.000	14.950	9.776	66.460	14.570	20.420	4.865

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	0.739	0.732	-0.077	0.508	127.300	127.700	0.165	-0.123	2.145	0.010
2	08:28:06	1.112	0.579	0.272	0.283	100.200	102.000	1.725	0.334	-1.882	0.003
3	08:28:33	0.964	0.677	-0.464	0.099	89.520	87.010	0.799	0.077	2.122	-0.001
x		0.938	0.663	-0.090	0.297	105.700	105.600	0.896	0.096	0.795	0.004
σ		0.188	0.078	0.368	0.205	19.490	20.590	0.785	0.229	2.318	0.006
%RSD		20.010	11.710	410.800	69.100	18.440	19.510	87.550	238.600	291.500	141.500

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	96.9%	0.189	0.173	0.148	-0.785	-0.001	0.003	-0.003	-0.023	95.4%
2	08:28:06	99.1%	0.116	0.123	0.135	-0.088	0.000	0.001	-0.003	0.004	99.0%
3	08:28:33	96.9%	0.117	0.122	0.157	0.938	0.002	0.001	-0.003	0.027	95.0%
x		97.6%	0.141	0.139	0.146	0.021	0.000	0.001	-0.003	0.003	96.5%
σ		1.3%	0.041	0.029	0.011	0.867	0.001	0.001	0.000	0.025	2.2%
%RSD		1.3	29.470	20.740	7.492	4035.000	292.200	85.190	1.575	984.800	2.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:27:40	4.749	7.039	0.208	0.170	0.004	0.015	93.6%	-0.013	-0.015	-0.006
2	08:28:06	4.837	6.827	0.206	0.200	0.048	0.052	98.0%	-0.011	-0.012	-0.018
3	08:28:33	4.845	6.696	0.194	0.177	0.016	0.031	94.9%	-0.006	-0.012	-0.016
x		4.810	6.854	0.203	0.183	0.023	0.033	95.5%	-0.010	-0.013	-0.013
σ		0.053	0.173	0.007	0.016	0.023	0.019	2.3%	0.003	0.002	0.007
%RSD		1.110	2.520	3.677	8.556	100.300	56.860	2.4	31.780	15.450	49.380

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:27:40	-0.017	-0.007	89.8%
2	08:28:06	-0.002	-0.009	95.2%
3	08:28:33	-0.019	-0.010	91.2%
x		-0.013	-0.009	92.1%
σ		0.009	0.001	2.8%
%RSD		73.300	14.580	3.0

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	99.7%	0.065	1.754	1.341	21.430	40.250	433.500	421.800	419.100	TM 981.600
2	08:34:16	98.7%	0.024	1.073	1.295	15.390	37.440	415.100	405.000	407.000	TM 940.000
3	08:34:42	100.6%	0.045	1.644	1.174	16.610	40.240	414.200	413.100	417.900	TM 952.400
x		99.6%	0.045	1.490	1.270	17.810	39.310	420.900	413.300	414.700	TM 958.000
σ		1.0%	0.021	0.365	0.086	3.196	1.618	10.900	8.430	6.635	TM 21.380
%RSD		1.0	46.200	24.530	6.792	17.940	4.115	2.590	2.040	1.600	TM 2.231

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	66.730	T 10310.000	140.800	11570.000	11230.000	98.6%	42.920	7.288	1.661	302.900
2	08:34:16	64.350	T 10010.000	138.700	11460.000	10940.000	99.8%	41.650	7.060	1.689	316.900
3	08:34:42	T 76.200	T 10140.000	141.500	11360.000	10870.000	98.7%	38.870	6.845	1.640	347.200
x		T 69.090	T 10150.000	140.300	11470.000	11010.000	99.0%	41.150	7.064	1.663	322.300
σ		T 6.265	T 149.900	1.447	105.700	188.200	0.6%	2.073	0.222	0.025	22.670
%RSD		T 9.068	T 1.477	1.031	0.922	1.709	0.6	5.037	3.137	1.480	7.035

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	2563.000	T 379.900	T 2650.000	2561.000	0.975	1.820	1.642	0.697	0.674	5.833
2	08:34:16	2493.000	363.800	T 2560.000	2506.000	0.974	1.691	1.963	0.642	0.619	5.655
3	08:34:42	2532.000	366.100	T 2579.000	2523.000	0.919	1.733	1.637	0.612	0.756	6.255
x		2529.000	T 369.900	T 2596.000	2530.000	0.956	1.748	1.747	0.650	0.683	5.914
σ		35.370	T 8.726	T 47.350	28.300	0.032	0.066	0.187	0.043	0.069	0.308
%RSD		1.398	T 2.359	T 1.824	1.119	3.346	3.759	10.700	6.676	10.090	5.211

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	6.339	5.967	0.151	0.186	2.472	3.639	-0.494	-0.059	-0.684	9.937
2	08:34:16	5.285	5.691	0.171	0.064	2.712	3.292	-0.005	0.081	-1.480	9.653
3	08:34:42	5.490	5.516	0.199	0.646	2.551	2.969	0.220	0.140	-1.938	9.745
x		5.704	5.725	0.174	0.299	2.578	3.300	-0.093	0.054	-1.367	9.778
σ		0.559	0.228	0.025	0.307	0.123	0.335	0.365	0.102	0.635	0.145
%RSD		9.800	3.978	14.130	102.700	4.751	10.150	391.500	189.700	46.430	1.480

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	97.3%	0.023	0.021	0.024	1.461	-0.001	-0.000	0.026	0.027	94.3%
2	08:34:16	100.0%	0.041	0.019	0.031	1.983	0.005	0.001	0.001	0.017	96.1%
3	08:34:42	96.3%	0.041	0.049	0.012	2.119	-0.002	-0.001	0.010	0.031	93.4%
x		97.9%	0.035	0.030	0.022	1.854	0.001	-0.000	0.012	0.025	94.6%
σ		1.9%	0.010	0.017	0.010	0.347	0.004	0.001	0.012	0.007	1.4%
%RSD		2.0	29.970	56.340	44.290	18.730	479.000	413.600	101.900	28.370	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:33:49	0.112	0.138	0.020	0.021	9.527	9.724	91.9%	0.002	-0.005	0.282
2	08:34:16	0.071	0.166	0.012	0.029	10.020	9.720	93.7%	0.006	0.003	0.294
3	08:34:42	0.072	0.136	0.005	0.028	9.642	9.473	92.1%	-0.004	-0.003	0.274
x		0.085	0.147	0.012	0.026	9.731	9.639	92.6%	0.001	-0.002	0.283
σ		0.024	0.017	0.008	0.004	0.260	0.144	1.0%	0.005	0.004	0.010
%RSD		27.660	11.430	60.790	15.230	2.674	1.490	1.0	382.200	236.800	3.549

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:33:49	0.258	0.284	89.8%
2	08:34:16	0.244	0.271	92.0%
3	08:34:42	0.294	0.283	89.7%
x		0.266	0.279	90.5%
σ		0.026	0.007	1.3%
%RSD		9.688	2.634	1.4

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	96.9%	-0.038	72.940	83.690	-10.010	TM 156600.000	T 4436.000	T 4581.000	T 4769.000	TM 1357.000
2	08:40:24	96.9%	-0.033	73.460	84.980	-4.732	TM 158100.000	T 4498.000	T 4565.000	T 4744.000	TM 1346.000
3	08:40:51	96.1%	-0.040	72.100	80.690	-10.910	TM 158800.000	T 4351.000	T 4479.000	T 4610.000	TM 1263.000
x		96.6%	-0.037	72.830	83.120	-8.552	TM 157800.000	T 4428.000	T 4542.000	T 4708.000	TM 1322.000
σ		0.5%	0.004	0.685	2.200	3.339	TM 1155.000	T 73.980	T 54.940	T 85.640	TM 51.540
%RSD		0.5	9.561	0.941	2.647	39.040	TM 0.732	T 1.671	T 1.210	T 1.819	TM 3.899

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	T 8125.000	T 74160.000	T 21960.000	60750.000	T 64140.000	95.9%	18.040	24.740	3.654	2126.000
2	08:40:24	T 8176.000	T 77250.000	T 22730.000	61810.000	T 64700.000	96.7%	18.300	24.750	3.754	2152.000
3	08:40:51	T 7992.000	T 73930.000	T 21780.000	61570.000	T 65330.000	99.1%	16.990	24.660	3.595	1843.000
x		T 8098.000	T 75110.000	T 22160.000	61380.000	T 64720.000	97.2%	17.780	24.720	3.668	2040.000
σ		T 94.990	T 1855.000	T 504.500	557.500	T 597.000	1.7%	0.693	0.047	0.081	171.300
%RSD		T 1.173	T 2.469	T 2.277	0.908	T 0.922	1.7	3.897	0.189	2.198	8.398

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	1447.000	79.350	T 1545.000	2061.000	0.878	11.870	12.050	21.010	22.550	103.500
2	08:40:24	1481.000	79.550	T 1591.000	2071.000	0.879	12.200	12.420	21.040	23.620	106.000
3	08:40:51	1480.000	78.760	T 1532.000	1945.000	0.861	11.770	10.850	20.960	22.060	103.700
x		1469.000	79.220	T 1556.000	2026.000	0.873	11.950	11.770	21.000	22.740	104.400
σ		19.570	0.410	T 31.140	69.940	0.010	0.222	0.818	0.043	0.799	1.380
%RSD		1.332	0.517	T 2.001	3.452	1.176	1.862	6.949	0.206	3.513	1.322

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	92.080	95.390	19.830	1.119	84.470	82.270	6.949	1.653	-1.354	144.500
2	08:40:24	95.580	99.280	20.090	1.424	83.730	85.400	4.446	1.072	-2.034	145.800
3	08:40:51	97.630	100.100	19.640	1.750	80.400	81.640	2.526	0.485	1.665	143.900
x		95.100	98.250	19.850	1.431	82.870	83.100	4.640	1.070	-0.575	144.700
σ		2.804	2.509	0.228	0.315	2.166	2.012	2.218	0.584	1.969	0.961
%RSD		2.949	2.554	1.147	22.040	2.614	2.421	47.800	54.560	342.800	0.664

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	93.9%	M 793.200	M 786.600	M 797.000	9.058	2.406	2.419	-1.832	0.144	89.8%
2	08:40:24	93.9%	M 796.600	M 792.500	M 799.600	9.213	2.421	2.433	-1.933	0.138	90.0%
3	08:40:51	97.7%	M 784.700	M 790.400	M 798.300	4.842	2.360	2.492	-2.038	0.095	95.7%
x		95.2%	M 791.500	M 789.800	M 798.300	7.705	2.396	2.448	-1.935	0.126	91.8%
σ		2.2%	M 6.124	M 2.993	M 1.349	2.480	0.032	0.039	0.103	0.027	3.4%
%RSD		2.3	M 0.774	M 0.379	M 0.169	32.190	1.336	1.589	5.331	21.310	3.7

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:57	2.688	3.042	1.998	1.892	56.160	54.420	93.1%	3.114	2.589	1.357
2	08:40:24	2.737	3.027	2.001	1.906	55.550	55.540	93.4%	3.108	2.561	1.312
3	08:40:51	2.666	2.933	2.039	1.982	55.010	56.530	99.8%	3.094	2.566	1.279
x		2.697	3.001	2.013	1.927	55.570	55.500	95.4%	3.106	2.572	1.316
σ		0.036	0.059	0.023	0.049	0.576	1.055	3.8%	0.010	0.015	0.039
%RSD		1.346	1.967	1.127	2.519	1.036	1.900	4.0	0.326	0.581	2.989

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:39:57	1.188	1.256	89.1%
2	08:40:24	1.217	1.242	89.3%
3	08:40:51	1.251	1.245	97.1%
x		1.219	1.248	91.8%
σ		0.032	0.007	4.5%
%RSD		2.604	0.591	4.9

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	T 118.0%	0.055	13.570	12.420	90.750	T 1918.000	T 631.300	585.500	594.000	35.680
2	08:46:31	103.7%	0.015	12.000	11.670	78.800	T 1879.000	T 595.000	578.600	580.200	33.270
3	08:46:58	102.7%	0.012	12.630	11.960	87.250	T 1907.000	594.900	567.600	575.200	33.430
x		T 108.2%	0.027	12.730	12.020	85.600	T 1901.000	T 607.000	577.300	583.100	34.130
σ		T 8.6%	0.024	0.789	0.379	6.142	T 20.440	T 20.990	9.017	9.745	1.347
%RSD		T 7.9	86.580	6.195	3.155	7.175	T 1.075	T 3.458	1.562	1.671	3.948
Run	**Time**	**28Si**	**35Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	T 2120.000	T 91190.000	638.900	316.600	354.900	103.2%	0.718	0.020	0.466	2083.000
2	08:46:31	T 2358.000	T 88260.000	621.300	329.500	345.600	105.2%	0.589	-0.012	0.383	1823.000
3	08:46:58	T 2358.000	T 87940.000	617.700	317.700	341.100	106.7%	0.389	-0.090	0.388	1840.000
x		T 2279.000	T 89130.000	626.000	321.300	347.200	105.0%	0.565	-0.027	0.412	1915.000
σ		T 137.700	T 1790.000	11.330	7.170	7.033	1.7%	0.166	0.056	0.046	145.400
%RSD		T 6.043	T 2.008	1.810	2.232	2.025	1.7	29.390	206.600	11.230	7.594
Run	**Time**	**54Fe**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**62Ni**	**63Cu**	**65Cu**	**66Zn**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	7.542	3.220	7.956	0.770	0.230	0.290	0.576	0.332	0.343	2.217
2	08:46:31	5.066	3.172	5.346	-6.278	0.207	0.222	0.497	0.327	0.305	2.015
3	08:46:58	4.122	3.126	5.461	-13.060	0.230	0.292	0.426	0.288	0.205	2.089
x		5.577	3.173	6.254	-6.190	0.222	0.268	0.500	0.316	0.284	2.107
σ		1.767	0.047	1.475	6.917	0.013	0.040	0.075	0.024	0.071	0.102
%RSD		31.680	1.483	23.580	111.700	6.038	14.810	15.000	7.644	24.970	4.839
Run	**Time**	**67Zn**	**68Zn**	**75As**	**78Se**	**79Br**	**81Br**	**82Kr**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	3.530	3.083	-0.096	0.583	3.864	4.169	-1.300	-0.261	-0.860	4.214
2	08:46:31	2.798	2.873	-0.031	0.137	4.943	4.694	-1.761	-0.423	1.432	4.213
3	08:46:58	3.397	3.182	0.161	0.578	4.591	4.554	-0.409	-0.101	1.149	4.219
x		3.242	3.046	0.011	0.433	4.466	4.472	-1.157	-0.262	0.574	4.215
σ		0.390	0.158	0.134	0.256	0.550	0.272	0.687	0.161	1.250	0.003
%RSD		12.020	5.180	1202.000	59.210	12.320	6.083	59.420	61.470	217.800	0.075
Run	**Time**	**89Y**	**95Mo**	**97Mo**	**98Mo**	**106Cd**	**107Ag**	**109Ag**	**111Cd**	**114Cd**	**115In**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	99.7%	0.188	0.194	0.167	-0.577	-0.005	-0.002	0.008	0.013	98.5%
2	08:46:31	105.5%	0.148	0.135	0.149	0.099	-0.006	0.001	0.023	0.017	103.8%
3	08:46:58	106.4%	0.118	0.150	0.131	-0.402	-0.003	-0.001	0.023	0.018	104.4%
x		103.9%	0.151	0.160	0.149	-0.293	-0.005	-0.001	0.018	0.016	102.2%
σ		3.6%	0.035	0.030	0.018	0.351	0.002	0.002	0.008	0.003	3.2%
%RSD		3.5	23.320	19.030	12.260	119.700	36.550	268.500	45.990	18.540	3.2
Run	**Time**	**116Sn**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**203Tl**	**205Tl**	**206Pb**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:04	0.322	0.420	0.010	0.045	22.100	22.490	97.1%	-0.001	-0.007	-0.017
2	08:46:31	0.321	0.426	0.031	0.031	21.720	21.670	102.9%	0.001	-0.008	-0.010
3	08:46:58	0.253	0.390	0.031	0.041	21.500	21.870	103.0%	-0.003	-0.008	-0.014
x		0.299	0.412	0.024	0.039	21.770	22.010	101.0%	-0.001	-0.008	-0.013
σ		0.039	0.020	0.012	0.007	0.300	0.425	3.4%	0.002	0.001	0.003
%RSD		13.140	4.737	49.600	18.570	1.376	1.932	3.4	235.700	9.950	24.910
Run	**Time**	**207Pb**	**208Pb**	**209Bi**							
		ppb	ppb	ppb							
1	08:46:04	-0.013	-0.014	94.5%							
2	08:46:31	-0.010	-0.009	100.7%							
3	08:46:58	-0.014	-0.014	101.2%							
x		-0.012	-0.013	98.8%							
σ		0.002	0.003	3.7%							
%RSD		17.750	22.540	3.8							

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	100.4%	107.300	119.500	111.300	98.110	T 3091.000	T 1771.000	1712.000	1717.000	143.400
2	08:52:39	102.4%	105.300	122.000	118.100	99.420	T 3153.000	T 1806.000	1708.000	1707.000	148.800
3	08:53:06	104.8%	104.800	121.100	120.300	107.000	T 3146.000	T 1770.000	1651.000	1708.000	147.900
x		102.5%	105.800	120.900	116.600	101.500	T 3130.000	T 1782.000	1690.000	1710.000	146.700
σ		2.2%	1.278	1.271	4.675	4.805	T 34.170	T 20.460	34.330	5.442	2.874
%RSD		2.2	1.208	1.051	4.011	4.733	T 1.092	T 1.148	2.031	0.318	1.960

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	T 3541.000	T 87710.000	T 1812.000	1612.000	1471.000	102.9%	109.900	106.000	103.600	2397.000
2	08:52:39	T 3478.000	T 92210.000	T 1925.000	1609.000	1527.000	99.3%	109.600	106.800	107.300	2783.000
3	08:53:06	T 3448.000	T 90740.000	T 1874.000	1660.000	1502.000	100.9%	110.300	107.900	104.300	3073.000
x		T 3489.000	T 90220.000	T 1870.000	1627.000	1500.000	101.0%	110.000	106.900	105.100	2751.000
σ		T 47.490	T 2293.000	T 56.410	28.850	27.900	1.8%	0.351	0.926	1.937	339.300
%RSD		T 1.361	T 2.542	T 3.016	1.773	1.860	1.8	0.319	0.866	1.844	12.330

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	1152.000	107.900	T 1144.000	1053.000	104.300	105.100	103.400	106.500	108.200	108.500
2	08:52:39	1192.000	108.500	T 1170.000	1086.000	106.500	109.300	107.400	108.800	111.200	107.200
3	08:53:06	1157.000	108.100	T 1168.000	1108.000	104.800	104.900	106.600	108.900	110.200	108.100
x		1167.000	108.200	T 1160.000	1082.000	105.200	106.500	105.800	108.100	109.900	107.900
σ		22.180	0.270	T 14.470	27.770	1.151	2.503	2.105	1.345	1.502	0.636
%RSD		1.900	0.250	T 1.247	2.566	1.094	2.351	1.991	1.245	1.367	0.590

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	105.200	109.700	105.300	110.700	3.300	4.128	475.700	110.200	1.705	108.800
2	08:52:39	108.300	108.400	105.200	108.900	3.605	4.395	450.900	104.500	-0.160	109.100
3	08:53:06	105.100	108.100	106.000	106.000	3.825	4.051	467.300	107.200	-0.645	108.500
x		106.200	108.700	105.500	108.500	3.577	4.191	464.600	107.300	0.300	108.800
σ		1.786	0.889	0.437	2.381	0.263	0.181	12.630	2.821	1.241	0.267
%RSD		1.682	0.818	0.414	2.194	7.365	4.315	2.719	2.629	413.700	0.245

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	102.1%	106.500	107.500	105.200	109.700	106.200	107.700	106.900	106.700	99.8%
2	08:52:39	99.2%	105.600	106.800	104.600	105.900	105.900	107.100	106.000	106.100	96.8%
3	08:53:06	100.0%	105.200	106.700	106.400	106.000	106.800	107.000	105.700	105.200	98.8%
x		100.4%	105.700	107.000	105.400	107.200	106.300	107.200	106.200	106.000	98.5%
σ		1.5%	0.663	0.413	0.938	2.187	0.419	0.422	0.648	0.758	1.5%
%RSD		1.5	0.627	0.386	0.890	2.040	0.394	0.394	0.610	0.715	1.5

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:52:12	110.100	109.500	106.800	108.600	133.700	133.400	99.4%	106.000	106.500	107.500
2	08:52:39	108.300	106.800	104.900	106.700	134.700	133.300	95.6%	106.800	107.200	107.400
3	08:53:06	108.200	107.500	105.100	107.000	134.400	134.500	97.2%	106.800	106.000	106.600
x		108.900	107.900	105.600	107.400	134.300	133.700	97.4%	106.500	106.600	107.200
σ		1.076	1.364	1.041	1.050	0.510	0.642	1.9%	0.461	0.612	0.509
%RSD		0.989	1.264	0.986	0.977	0.380	0.480	1.9	0.433	0.574	0.475

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:52:12	107.200	107.200	98.1%
2	08:52:39	107.700	107.700	94.5%
3	08:53:06	106.100	106.600	93.8%
x		107.000	107.200	95.5%
σ		0.824	0.544	2.3%
%RSD		0.771	0.508	2.4

CCV MW10994 05/01/2019 08:57:54 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	90.1%	330.300	322.800	320.700	81.000	T 72810.000	T 68680.000	T 66750.000	T 66710.000	308.200
2	08:58:48	93.4%	319.800	319.900	321.200	83.420	T 71780.000	T 67880.000	T 66570.000	T 66080.000	320.500
3	08:59:15	93.2%	329.000	332.300	321.100	85.570	T 71670.000	T 68800.000	T 68090.000	T 67500.000	312.400
x		92.2%	108.789%	108.337%	106.997%	83.330	T 120.140%	T 68450.000	T 67140.000	T 111.278%	104.569%
σ		1.9%	n/a	n/a	n/a	2.287	T n/a	T 503.500	T 832.600	T n/a	n/a
%RSD		2.0	1.752	1.999	0.088	2.744	T 0.875	T 0.736	T 1.240	T 1.066	1.986

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	T 3615.000	1063.000	T 69490.000	65690.000	T 68490.000	96.7%	319.200	322.000	314.300	34.120
2	08:58:48	T 3646.000	1030.000	T 70580.000	66700.000	T 68590.000	96.4%	328.400	322.900	312.900	1404.000
3	08:59:15	T 3574.000	965.900	T 68250.000	65110.000	T 68560.000	97.3%	321.400	322.900	307.100	1435.000
x		T 120.389%	1020.000	T 115.736%	65840.000	T 114.242%	96.8%	107.673%	107.539%	103.813%	957.700
σ		T n/a	49.270	T n/a	805.000	T n/a	0.5%	n/a	n/a	n/a	800.000
%RSD		T 1.006	4.832	T 1.682	1.223	T 0.076	0.5	1.484	0.169	1.215	83.530

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	T 66460.000	302.700	T 65820.000	T 65000.000	307.900	296.100	300.100	302.700	305.500	311.200
2	08:58:48	T 67820.000	303.800	T 67100.000	T 65730.000	308.200	298.800	296.900	301.800	309.300	307.700
3	08:59:15	T 66830.000	304.900	T 67560.000	T 65340.000	305.900	297.700	304.500	297.600	307.000	310.100
x		T 67040.000	101.267%	T 66830.000	T 108.925%	102.436%	99.177%	300.500	300.700	102.429%	103.222%
σ		T 700.900	n/a	T 902.200	T n/a	n/a	n/a	3.789	2.709	n/a	n/a
%RSD		T 1.046	0.348	T 1.350	T 0.560	0.396	0.463	1.261	0.901	0.630	0.587

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	306.900	308.900	309.900	313.300	2.667	1.614	1358.000	310.800	-0.149	314.900
2	08:58:48	296.200	300.300	301.500	318.300	2.076	1.761	1338.000	310.700	1.525	T 340.700
3	08:59:15	296.000	305.200	304.700	320.800	2.201	1.973	1360.000	314.700	-0.646	315.200
x		299.700	304.800	101.788%	317.400	2.315	1.782	1352.000	104.031%	0.243	T 107.874%
σ		6.230	4.337	n/a	3.825	0.312	0.181	12.480	n/a	1.137	T n/a
%RSD		2.079	1.423	1.382	1.205	13.460	10.130	0.923	0.730	467.400	T 4.584

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	92.5%	330.800	335.900	332.800	316.800	303.200	305.800	314.800	312.300	92.0%
2	08:58:48	91.5%	333.400	333.500	331.900	312.300	304.400	305.400	314.700	310.100	89.8%
3	08:59:15	93.1%	328.900	331.700	330.900	316.100	304.100	304.100	312.100	311.800	91.7%
x		92.4%	110.348%	111.232%	331.900	315.100	101.303%	305.100	313.900	103.800%	91.2%
σ		0.8%	n/a	n/a	0.937	2.426	n/a	0.872	1.570	n/a	1.2%
%RSD		0.9	0.680	0.642	0.282	0.770	0.199	0.286	0.500	0.380	1.3

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:21	323.300	322.100	329.100	328.700	325.300	326.000	92.7%	311.600	317.400	309.800
2	08:58:48	325.000	325.500	322.200	319.900	323.900	328.100	91.0%	310.100	314.200	304.300
3	08:59:15	324.700	323.000	327.300	324.900	325.300	324.600	93.1%	311.000	315.600	307.000
x		108.113%	107.840%	326.200	108.163%	108.278%	108.751%	92.3%	310.900	105.245%	102.348%
σ		n/a	n/a	3.592	n/a	n/a	n/a	1.1%	0.736	n/a	n/a
%RSD		0.280	0.533	1.101	1.364	0.243	0.541	1.2	0.237	0.497	0.896

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	08:58:21	308.700	311.800	88.3%
2	08:58:48	303.600	306.400	84.2%
3	08:59:15	306.100	307.400	87.0%
x		102.037%	102.847%	86.5%
σ		n/a	n/a	2.1%
%RSD		0.838	0.919	2.4

CCB IM9390-01 05/01/2019 09:04:04 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	100.0%	0.039	2.704	2.394	61.060	3.952	0.623	0.640	0.882	-0.003
2	09:04:58	98.9%	0.014	2.542	2.596	60.620	2.042	0.584	0.551	0.618	0.008
3	09:05:25	100.3%	0.004	2.540	2.209	55.860	1.651	0.412	0.610	0.547	0.010
x		99.7%	0.019	2.595	2.400	59.180	2.548	0.540	0.600	0.682	0.005
σ		0.7%	0.018	0.094	0.194	2.887	1.231	0.113	0.045	0.176	0.007
%RSD		0.7	97.570	3.628	8.071	4.878	48.320	20.890	7.544	25.820	131.500

Run	Time	28Si	35Cl	39K	43Ca	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	16.510	574.200	11.740	1.673	1.504	100.1%	-0.044	0.029	0.054	23.290
2	09:04:58	17.270	567.600	12.380	0.414	1.030	100.4%	-0.092	-0.006	0.071	41.860
3	09:05:25	16.380	490.700	11.350	0.982	0.588	101.6%	-0.069	0.005	0.035	35.730
x		16.720	544.200	11.820	1.023	1.041	100.7%	-0.068	0.009	0.053	33.630
σ		0.478	46.440	0.519	0.630	0.458	0.8%	0.024	0.018	0.018	9.465
%RSD		2.861	8.534	4.386	61.610	44.020	0.8	35.150	196.100	33.700	28.150

Run	Time	54Fe	55Mn	56Fe	57Fe	59Co	60Ni	62Ni	63Cu	65Cu	66Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	2.984	0.032	7.979	5.418	0.032	0.017	-0.257	0.009	0.002	0.010
2	09:04:58	1.970	0.040	8.013	-3.782	0.033	-0.003	-0.465	-0.015	0.005	-0.016
3	09:05:25	0.403	0.029	7.215	1.817	0.027	0.034	0.058	-0.004	0.002	-0.035
x		1.785	0.033	7.736	1.151	0.031	0.016	-0.221	-0.003	0.003	-0.013
σ		1.300	0.006	0.451	4.636	0.003	0.018	0.263	0.012	0.001	0.022
%RSD		72.840	17.760	5.832	402.700	11.250	115.000	119.200	372.500	48.260	166.600

Run	Time	67Zn	68Zn	75As	78Se	79Br	81Br	82Kr	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	0.034	0.095	-0.072	0.384	0.738	0.674	-1.550	-0.352	-0.196	0.006
2	09:04:58	-0.155	0.023	-0.158	0.950	1.145	0.849	-2.555	-0.529	-2.316	0.006
3	09:05:25	-0.017	0.038	-0.073	0.198	0.847	1.165	-1.517	-0.300	-1.711	0.001
x		-0.046	0.052	-0.101	0.511	0.910	0.896	-1.874	-0.394	-1.408	0.004
σ		0.098	0.038	0.049	0.392	0.210	0.249	0.590	0.120	1.092	0.003
%RSD		214.000	72.600	48.740	76.780	23.110	27.760	31.480	30.470	77.570	76.130

Run	Time	89Y	95Mo	97Mo	98Mo	106Cd	107Ag	109Ag	111Cd	114Cd	115In
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	96.2%	0.106	0.031	0.069	0.580	0.002	0.005	0.001	0.012	97.2%
2	09:04:58	99.7%	0.041	0.087	0.069	-0.056	0.004	0.004	0.005	0.018	100.0%
3	09:05:25	100.1%	0.057	0.046	0.039	-1.209	-0.000	0.002	0.001	0.006	99.8%
x		98.7%	0.068	0.054	0.059	-0.228	0.002	0.004	0.002	0.012	99.0%
σ		2.1%	0.034	0.029	0.018	0.907	0.002	0.001	0.002	0.006	1.6%
%RSD		2.2	49.950	53.190	29.970	397.000	104.800	36.980	92.460	51.500	1.6

Run	Time	116Sn	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	203Tl	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:04:31	0.093	0.101	0.111	0.112	0.004	0.021	94.3%	0.001	-0.006	0.011
2	09:04:58	0.065	0.083	0.110	0.115	0.025	0.013	97.8%	0.001	-0.006	0.012
3	09:05:25	0.045	0.062	0.132	0.086	0.025	0.039	98.4%	-0.008	-0.007	0.008
x		0.067	0.082	0.118	0.104	0.018	0.025	96.9%	-0.002	-0.006	0.010
σ		0.024	0.019	0.012	0.016	0.012	0.013	2.2%	0.005	0.000	0.002
%RSD		35.740	23.690	10.360	15.400	67.410	53.220	2.3	267.400	7.854	19.470

Run	Time	207Pb	208Pb	209Bi
		ppb	ppb	ppb
1	09:04:31	0.018	0.013	93.7%
2	09:04:58	0.012	0.005	96.7%
3	09:05:25	0.013	0.009	96.8%
x		0.015	0.009	95.7%
σ		0.003	0.004	1.7%
%RSD		20.940	44.000	1.8

Performance Report

Raw Supportive Data

Analyst: JMH **Level 2 Analyst:** TJW

Status: Level 2 review released

Matrix: Aqueous

Printed: 05/07/19 1425

Prep Batch: 14282

3005A - Total Recoverable Acid Digestion (ICP-MS) Linked: 6020A,6020B and

Start Date: 04/23/2019 1602

End Date: 04/23/2019 2102

Digestion Cup ID: 19-524

Ext Solvent: 1:1 HNO3/1:1 HCl

Reagents Vol. (mL): 1.0, 0.5

Chem ID: IM9360-01, IM9361-01

Hot Block ID: Hot Block # 9

Start Temperature (°C): 95

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ14282-001	MB	PBW	1	6020B	50		0.0	50			LCS/MS/MSD Pipet ID: 315
UQ14282-002	LCS	LCS	1	6020B	50	19-29A (1/04/20)	0.5	50			
UD13009-001	Sample	16C1	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-002	Sample	16MW8	1	6020B	50		0.0	50	10/07/2019 2359	04/23/2019	
UD13009-003	Sample	16MW9	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-004	Sample	16WC1A	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-004MS	MS	16WC1AS	1	6020B	50	19-29A (1/04/20)	0.5	50			
UD13009-004MD	MSD	16WC1ASD	1	6020B	50	19-29A (1/04/20)	0.5	50			
UD13009-005	Sample	16WDUP	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13009-006	Sample	16WC1B	1	6020B	50		0.0	50	10/08/2019 2359	04/23/2019	
UD13010-001	Sample	16-2	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-002	Sample	16-3	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-003	Sample	16-5	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-004	Sample	16WC2B	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	
UD13010-005	Sample	16SPRING	1	6020B	50		0.0	50	10/07/2019 2359	04/29/2019	

(end of report) **Total Samples: 11**

Mercury

- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: Draper Aden Associates

SDG No.: UD13010 **Method Type:** CVAA **SOW No.:**

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Lab Sample ID	Client Sample ID	QC Description
UD13010-001	16-2	
UD13010-002	16-3	
UD13010-003	16-5	
UD13010-004	16WC2B	
UD13010-005	16SPRING	

Were ICP interelement corrections applied?	Yes/No	Yes	
Were ICP background corrections applied?	Yes/No	Yes	
If yes - were raw data generated before applications of background corrections?	Yes/No	No	

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Initial Calibration Source: VHG

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1	Mercury	2.033000	2.000000	102	90.0 - 110.0	CV	4/17/2019	18:56	HG4041719
CCV1	Mercury	2.000000	2.000000	97	80.0 - 120.0	CV	4/17/2019	19:03	HG4041719
CCV2	Mercury	2.042500	2.000000	102	80.0 - 120.0	CV	4/18/2019	02:07	HG4041719
CCV3	Mercury	2.015300	2.000000	101	80.0 - 120.0	CV	4/18/2019	02:37	HG4041719
CCV4	Mercury	2.039300	2.000000	102	80.0 - 120.0	CV	4/18/2019	03:08	HG4041719
CCV5	Mercury	2.006000	2.000000	100	80.0 - 120.0	CV	4/18/2019	03:31	HG4041719

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No:** **SAS No.:**

AA CRDL Standard Source:

ICP CRDL Standard Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV 19HG0567									
	Mercury	0.197700	0.200000	99	50 - 150	CV	4/17/2019	19:01	HG4041719

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Draper Aden Associates **SDG No.:** UD13010

Contract: RAAP HWMU16 **Lab Code:** Shealy **Case No.:** **SAS No.:**

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOQ	LOQ	M	Analysis Date	Analysis Time	Run
ICB1	Mercury	-0.004000	+/-2.000000	U	2.000000	2.000000	CV	4/17/2019	18:58	HG4041719
CCB1	Mercury	-0.024100	+/-2.000000	U	2.000000	2.000000	CV	4/17/2019	19:06	HG4041719
CCB2	Mercury	0.008700	+/-2.000000	U	2.000000	2.000000	CV	4/18/2019	02:09	HG4041719
CCB3	Mercury	0.010000	+/-2.000000	U	2.000000	2.000000	CV	4/18/2019	02:40	HG4041719
CCB4	Mercury	-0.004000	+/-2.000000	U	2.000000	2.000000	CV	4/18/2019	03:10	HG4041719
CCB5	Mercury	0.015300	+/-2.000000	U	2.000000	2.000000	CV	4/18/2019	03:33	HG4041719

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0 19HG0565	1.00	1841																X									
S01 19HG0566	1.00	1843																X									
S02 19HG0567	1.00	1846																X									
S03 19HG0568	1.00	1848																X									
S04 19HG0569	1.00	1851																X									
S05 19HG0570	1.00	1853																X									
ICV1	1.00	1856																X									
ICB1	1.00	1858																X									
LLCCV 19HG0567	1.00	1901																X									
CCV1	1.00	1903																X									
CCB1	1.00	1906																X									
ZZZZZZ	1.00	1908																										
ZZZZZZ	1.00	1911																										
ZZZZZZ	1.00	1913																										
ZZZZZZ	1.00	1916																										
ZZZZZZ	1.00	1918																										
ZZZZZZ	1.00	1921																										
ZZZZZZ	1.00	1923																										
ZZZZZZ	1.00	1926																										
ZZZZZZ	1.00	1928																										
ZZZZZZ	1.00	1931																										
ZZZZZZ	1.00	1933																										
ZZZZZZ	1.00	1936																										
ZZZZZZ	1.00	1938																										
ZZZZZZ	1.00	1941																										
ZZZZZZ	1.00	1943																										
ZZZZZZ	1.00	1946																										
ZZZZZZ	1.00	1948																										
ZZZZZZ	1.00	1951																										
ZZZZZZ	1.00	1953																										
ZZZZZZ	1.00	1956																										
ZZZZZZ	1.00	1958																										
ZZZZZZ	1.00	2001																										
ZZZZZZ	1.00	2004																										
ZZZZZZ	1.00	2006																										
ZZZZZZ	1.00	2009																										

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2011																								
ZZZZZZ	1.00	2014																								
ZZZZZZ	1.00	2016																								
ZZZZZZ	1.00	2019																								
ZZZZZZ	1.00	2021																								
ZZZZZZ	1.00	2024																								
ZZZZZZ	1.00	2026																								
ZZZZZZ	1.00	2029																								
ZZZZZZ	1.00	2031																								
ZZZZZZ	1.00	2034																								
ZZZZZZ	1.00	2036																								
ZZZZZZ	1.00	2039																								
ZZZZZZ	1.00	2041																								
ZZZZZZ	1.00	2044																								
ZZZZZZ	1.00	2046																								
ZZZZZZ	1.00	2049																								
ZZZZZZ	1.00	2051																								
ZZZZZZ	1.00	2054																								
ZZZZZZ	1.00	2056																								
ZZZZZZ	1.00	2059																								
ZZZZZZ	1.00	2101																								
ZZZZZZ	1.00	2104																								
ZZZZZZ	1.00	2106																								
ZZZZZZ	1.00	2109																								
ZZZZZZ	1.00	2112																								
ZZZZZZ	1.00	2114																								
ZZZZZZ	1.00	2117																								
ZZZZZZ	1.00	2119																								
ZZZZZZ	1.00	2122																								
ZZZZZZ	1.00	2124																								
ZZZZZZ	1.00	2127																								
ZZZZZZ	1.00	2129																								
ZZZZZZ	1.00	2132																								
ZZZZZZ	1.00	2134																								
ZZZZZZ	1.00	2137																								
ZZZZZZ	1.00	2139																								

14

ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2142																								
ZZZZZZ	1.00	2144																								
ZZZZZZ	1.00	2147																								
ZZZZZZ	1.00	2149																								
ZZZZZZ	1.00	2152																								
ZZZZZZ	1.00	2154																								
ZZZZZZ	1.00	2157																								
ZZZZZZ	1.00	2200																								
ZZZZZZ	1.00	2202																								
ZZZZZZ	1.00	2205																								
ZZZZZZ	1.00	2207																								
ZZZZZZ	1.00	2210																								
ZZZZZZ	1.00	2212																								
ZZZZZZ	1.00	2215																								
ZZZZZZ	1.00	2217																								
ZZZZZZ	1.00	2220																								
ZZZZZZ	1.00	2222																								
ZZZZZZ	1.00	2225																								
ZZZZZZ	1.00	2227																								
ZZZZZZ	1.00	2230																								
ZZZZZZ	1.00	2232																								
ZZZZZZ	1.00	2235																								
ZZZZZZ	1.00	2237																								
ZZZZZZ	1.00	2240																								
ZZZZZZ	1.00	2242																								
ZZZZZZ	1.00	2245																								
ZZZZZZ	1.00	2247																								
ZZZZZZ	1.00	2250																								
ZZZZZZ	1.00	2252																								
ZZZZZZ	1.00	2255																								
ZZZZZZ	1.00	2257																								
ZZZZZZ	1.00	2300																								
ZZZZZZ	1.00	2303																								
ZZZZZZ	1.00	2305																								
ZZZZZZ	1.00	2308																								
ZZZZZZ	1.00	2310																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2313																								
ZZZZZZ	1.00	2315																								
ZZZZZZ	1.00	2318																								
ZZZZZZ	1.00	2320																								
ZZZZZZ	1.00	2323																								
ZZZZZZ	1.00	2325																								
ZZZZZZ	1.00	2328																								
ZZZZZZ	1.00	2330																								
ZZZZZZ	1.00	2333																								
ZZZZZZ	1.00	2335																								
ZZZZZZ	1.00	2338																								
ZZZZZZ	1.00	2340																								
ZZZZZZ	1.00	2343																								
ZZZZZZ	1.00	2345																								
ZZZZZZ	1.00	2348																								
ZZZZZZ	1.00	2350																								
ZZZZZZ	1.00	2353																								
ZZZZZZ	1.00	2356																								
ZZZZZZ	1.00	2358																								
ZZZZZZ	1.00	0001																								
ZZZZZZ	1.00	0003																								
ZZZZZZ	1.00	0006																								
ZZZZZZ	1.00	0008																								
ZZZZZZ	1.00	0011																								
ZZZZZZ	1.00	0013																								
ZZZZZZ	1.00	0016																								
ZZZZZZ	1.00	0018																								
ZZZZZZ	1.00	0021																								
ZZZZZZ	1.00	0023																								
ZZZZZZ	1.00	0026																								
ZZZZZZ	1.00	0028																								
ZZZZZZ	1.00	0031																								
ZZZZZZ	1.00	0033																								
ZZZZZZ	1.00	0036																								
ZZZZZZ	1.00	0038																								
ZZZZZZ	1.00	0041																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: Hg4 Run Number: HG4041719

Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0043																								
ZZZZZZ	1.00	0046																								
ZZZZZZ	1.00	0048																								
ZZZZZZ	1.00	0051																								
ZZZZZZ	1.00	0054																								
ZZZZZZ	1.00	0056																								
ZZZZZZ	1.00	0059																								
ZZZZZZ	1.00	0101																								
ZZZZZZ	1.00	0104																								
ZZZZZZ	1.00	0106																								
ZZZZZZ	1.00	0109																								
ZZZZZZ	1.00	0111																								
ZZZZZZ	1.00	0114																								
ZZZZZZ	1.00	0116																								
ZZZZZZ	1.00	0119																								
ZZZZZZ	1.00	0121																								
ZZZZZZ	1.00	0124																								
ZZZZZZ	1.00	0126																								
ZZZZZZ	1.00	0129																								
ZZZZZZ	1.00	0131																								
ZZZZZZ	1.00	0134																								
ZZZZZZ	1.00	0137																								
ZZZZZZ	1.00	0139																								
ZZZZZZ	1.00	0142																								
ZZZZZZ	1.00	0144																								
ZZZZZZ	1.00	0147																								
ZZZZZZ	1.00	0149																								
ZZZZZZ	1.00	0152																								
ZZZZZZ	1.00	0154																								
ZZZZZZ	1.00	0157																								
ZZZZZZ	1.00	0159																								
ZZZZZZ	1.00	0202																								
ZZZZZZ	1.00	0204																								
CCV2	1.00	0207																X								
CCB2	1.00	0209																X								
ZZZZZZ	1.00	0212																								

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ANALYSIS RUN LOG

Client: Draper Aden Associates Contract: RAAP HWMU16

Lab Code: Shealy Case No.: SAS No.: SDG No.: UD13010

Instrument ID Number: Hg4 Run Number: HG4041719

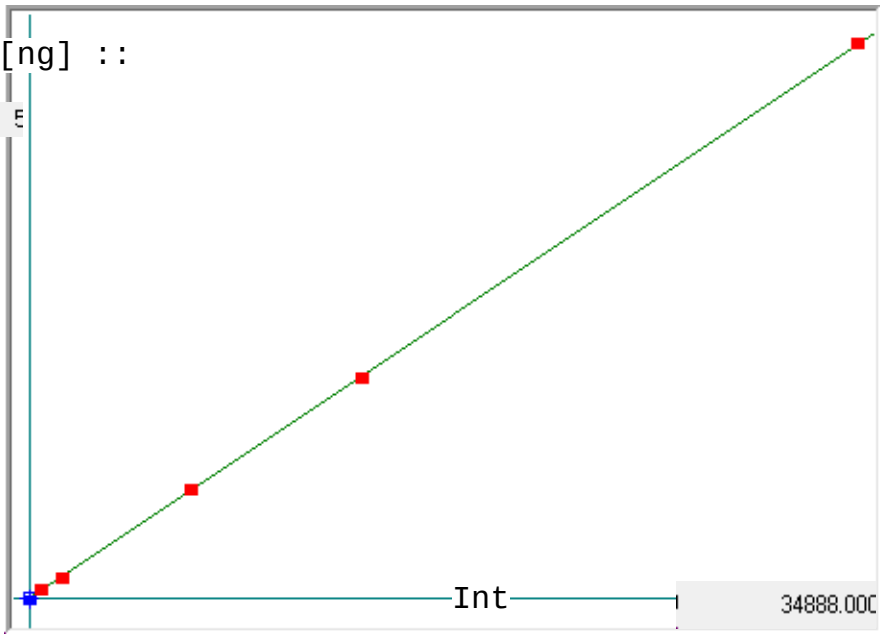
Start Date: 4/17/2019 End Date: 4/18/2019

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0215																										
ZZZZZZ	1.00	0217																										
UQ13499-001	1.00	0220																X										
UQ13499-002	1.00	0222																X										
ZZZZZZ	1.00	0225																										
ZZZZZZ	1.00	0227																										
ZZZZZZ	1.00	0230																										
ZZZZZZ	1.00	0232																										
ZZZZZZ	1.00	0235																										
CCV3	1.00	0237																X										
CCB3	1.00	0240																X										
ZZZZZZ	1.00	0242																										
ZZZZZZ	1.00	0245																										
ZZZZZZ	1.00	0247																										
ZZZZZZ	1.00	0250																										
ZZZZZZ	1.00	0252																										
ZZZZZZ	1.00	0255																										
ZZZZZZ	1.00	0258																										
ZZZZZZ	1.00	0300																										
ZZZZZZ	1.00	0303																										
ZZZZZZ	1.00	0305																										
CCV4	1.00	0308																X										
CCB4	1.00	0310																X										
ZZZZZZ	1.00	0313																										
UD13010-001	1.00	0315																X										
UD13010-002	1.00	0318																X										
UD13010-003	1.00	0320																X										
UD13010-004	1.00	0323																X										
UD13010-005	1.00	0325																X										
ZZZZZZ	10.00	0328																										
CCV5	1.00	0331																X										
CCB5	1.00	0333																X										

Raw Sample Data

7470A/245.1

Linear



A= 0.0000e+000

B= 1.4287e-004

C= 1.0441e-002

Rho= 0.9999771

Accept= Accepted

Accepted Date=

04/17/19 18:56

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4
S0 19HG0565 04/18/19	0.000	0.004	0.004	-45	0.000	-45			
S01 19HG0566 04/18/19	0.100	0.081	-0.019	497	0.0 %	497			
S02 19HG0567 04/18/19	0.200	0.211	0.011	1407	0.0 %	1407			
S03 19HG0568 04/18/19	1.000	0.992	-0.008	6870	0.0 %	6870			
S04 19HG0569 04/18/19	2.000	2.016	0.016	14040	0.0 %	14040			
S05 19HG0570 04/18/19	5.000	4.995	-0.005	34888	0.0 %	34888			

HG4041719

Method: 7470A/245.1 Operator: JMH Date of Analysis: 17 Apr 2019 17:26:41

Sample ID	Extended ID	Conc.	Units	µ Abs.	Date
S0 19HG0565 04/18/19 - 1		-	ppb	-45	17 Apr 2019 18:41:00
S01 19HG0566 04/18/19 - 1		-	ppb	497	17 Apr 2019 18:43:32
S02 19HG0567 04/18/19 - 1		-	ppb	1407	17 Apr 2019 18:46:04
S03 19HG0568 04/18/19 - 1		-	ppb	6870	17 Apr 2019 18:48:36
S04 19HG0569 04/18/19 - 1		-	ppb	14040	17 Apr 2019 18:51:06
S05 19HG0570 04/18/19 - 1		-	ppb	34888	17 Apr 2019 18:53:37
ICV 19HG0571 04/18/19 - 1		101.7% 2.0330	ppb	14157	17 Apr 2019 18:56:06
ICB 19HG0565 04/18/19 - 1		-0.0040	ppb	-101	17 Apr 2019 18:58:38
LLCCV 19HG0567 04/18/19 - 1		98.9% 0.1977	ppb	1311	17 Apr 2019 19:01:11
CCV 19HG0569 04/18/19 - 1		96.8% 1.9360	ppb	13478	17 Apr 2019 19:03:43
CCB 19HG0565 04/18/19 - 1		-0.0241	ppb	-242	17 Apr 2019 19:06:13
SnCl2 - 1	IM9372-01	0.0007	ppb	-68	17 Apr 2019 19:08:44
UQ13496001 - 1	PBW	0.0194	ppb	63	17 Apr 2019 19:11:14
UQ13496002 - 1	LCS	1.9790	ppb	13779	17 Apr 2019 19:13:44
UD10008001 - 1	RAS	0.1076	ppb	680	17 Apr 2019 19:16:15
UD10039003 - 1	Zn _ Hg	0.0526	ppb	295	17 Apr 2019 19:18:45
UD11004001 - 1	BFP Filtrate	0.0550	ppb	312	17 Apr 2019 19:21:15
UD11004002 - 1	BFP Filtrate	0.0829	ppb	507	17 Apr 2019 19:23:45
UD11054001 - 1	Waste Water Tank 9 T119-0086	0.0060	ppb	-31	17 Apr 2019 19:26:16
UD11071001 - 1	Effluent	-0.0006	ppb	-77	17 Apr 2019 19:28:47
UD11077001 - 1	2019/0922	19.0078	ppb	132971	17 Apr 2019 19:31:18
CCV 19HG0569 04/18/19 - 1		94.3% 1.8863	ppb	13130	17 Apr 2019 19:33:49
CCB 19HG0565 04/18/19 - 1		-0.0137	ppb	-169	17 Apr 2019 19:36:23
UD11077002 - 1	2019/0923	1.4586	ppb	10136	17 Apr 2019 19:38:54
UD12077001 - 1	POND C	-0.0026	ppb	-91	17 Apr 2019 19:41:26
UD12077002 - 1	POND C OUTLET PIPE	0.0103	ppb	-1	17 Apr 2019 19:43:58
UD12077003 - 1	POND C SEEP	0.0033	ppb	-50	17 Apr 2019 19:46:28
UD12077004 - 1	POND B	-0.0204	ppb	-216	17 Apr 2019 19:48:58
UD12077005 - 1	POND A	-0.0018	ppb	-86	17 Apr 2019 19:51:29
UD12077006 - 1	VENABLE POND	-0.0021	ppb	-88	17 Apr 2019 19:53:59
UD12077007 - 1	COLLINS POND	0.0000	ppb	-73	17 Apr 2019 19:56:29
UD15018001 - 1	Effluent	-0.0038	ppb	-100	17 Apr 2019 19:58:59
UD15018001MS - 1	EffluentS	1.5274	ppb	10618	17 Apr 2019 20:01:30
CCV 19HG0569 04/18/19 - 1		99.2% 1.9845	ppb	13817	17 Apr 2019 20:04:01
CCB 19HG0565 04/18/19 - 1		-0.0168	ppb	-191	17 Apr 2019 20:06:32
UD15018001MD - 1	EffluentSD	1.6096	ppb	11193	17 Apr 2019 20:09:05
UD15029001 - 1	Effluent Pipe 001	-0.0207	ppb	-218	17 Apr 2019 20:11:36
UD15029001MS - 1	Effluent Pipe 001S	2.0372	ppb	14186	17 Apr 2019 20:14:09
UQ13651001 - 1	PBW	-0.0208	ppb	-219	17 Apr 2019 20:16:41
UQ13651002 - 1	LCS	1.9433	ppb	13529	17 Apr 2019 20:19:14
UD09012018 - 1	IDW-027-DECON (04092019)	-0.0316	ppb	-294	17 Apr 2019 20:21:44
UD09012019 - 1	IDW-027-Purge (4092019)	-0.0254	ppb	-251	17 Apr 2019 20:24:15
UD10100001 - 1	43MW01	-0.0303	ppb	-285	17 Apr 2019 20:26:45
UD10100001MS - 1	43MW01S	1.9486	ppb	13566	17 Apr 2019 20:29:15
UD10100001MD - 1	43MW01SD	1.9783	ppb	13774	17 Apr 2019 20:31:46
CCV 19HG0569 04/18/19 - 1		100.9% 2.0173	ppb	14047	17 Apr 2019 20:34:16
CCB 19HG0565 04/18/19 - 1		-0.0196	ppb	-210	17 Apr 2019 20:36:46
UD10100002 - 1	43MW03	-0.0371	ppb	-333	17 Apr 2019 20:39:18
UD10100003 - 1	43MW04	-0.0326	ppb	-301	17 Apr 2019 20:41:48
UD10100004 - 1	43MW05	-0.0278	ppb	-268	17 Apr 2019 20:44:19
UD10100005 - 1	43MW06	-0.0193	ppb	-208	17 Apr 2019 20:46:51
UD10100006 - 1	DUP040919	-0.0403	ppb	-355	17 Apr 2019 20:49:22
UD10100007 - 1	DP01	-0.0133	ppb	-166	17 Apr 2019 20:51:54
UD11082011 - 1	43SW02	-0.0194	ppb	-209	17 Apr 2019 20:54:26
UD11082012 - 1	43SW03	-0.0136	ppb	-168	17 Apr 2019 20:56:57
UD11082013 - 1	EB041019	-0.0421	ppb	-368	17 Apr 2019 20:59:27
UQ14259001TC - 1	PBW	-0.0131	ppb	-165	17 Apr 2019 21:01:58
CCV 19HG0569 04/18/19 - 1		99.7% 1.9945	ppb	13887	17 Apr 2019 21:04:29
CCB 19HG0565 04/18/19 - 1		-0.0088	ppb	-135	17 Apr 2019 21:06:59
UQ14259002TC - 1	LCS	1.9813	ppb	13795	17 Apr 2019 21:09:31
UD03127001TC - 1	WWT SLUDGE	-0.0384	ppb	-342	17 Apr 2019 21:12:02
UD03127002TC - 1	Spent Blast Media	-0.0210	ppb	-220	17 Apr 2019 21:14:33
UD03127002MSTC - 1	Spent Blast MediaS	1.9707	ppb	13721	17 Apr 2019 21:17:03
UD03127002MDTC - 1	Spent Blast MediaSD	1.9729	ppb	13736	17 Apr 2019 21:19:35
UQ13650001 - 1	PBW	-0.0110	ppb	-150	17 Apr 2019 21:22:06
UQ13650002 - 1	LCS	1.9122	ppb	13311	17 Apr 2019 21:24:38
UD11077003 - 1	2019/0924	4.4179	ppb	30850	17 Apr 2019 21:27:09
UD16036001 - 1	EFFLUENT	-0.0574	ppb	-475	17 Apr 2019 21:29:42
UD16036001MS - 1	EFFLUENTS	1.4613	ppb	10155	17 Apr 2019 21:32:14
CCV 19HG0569 04/18/19 - 1		97.9% 1.9576	ppb	13629	17 Apr 2019 21:34:45
CCB 19HG0565 04/18/19 - 1		-0.0013	ppb	-82	17 Apr 2019 21:37:16
UD16036001MD - 1	EFFLUENTSD	1.4826	ppb	10304	17 Apr 2019 21:39:47
UQ13495001TC - 1	PBW	-0.0201	ppb	-214	17 Apr 2019 21:42:18
UQ13495002TC - 1	LCS	2.0032	ppb	13948	17 Apr 2019 21:44:50
UD02100001TC - 1	Waste Water	-0.0258	ppb	-254	17 Apr 2019 21:47:20
UD05064002TC - 1	AWDI-01	-0.0193	ppb	-208	17 Apr 2019 21:49:51
UD05064002MSTC - 1	AWDI-01S	1.5611	ppb	10854	17 Apr 2019 21:52:22
UD05064002MDTC - 1	AWDI-01SD	1.5068	ppb	10474	17 Apr 2019 21:54:53
UQ13493001 - 1	PBW	-0.0268	ppb	-261	17 Apr 2019 21:57:26
UQ13493002 - 1	LCS	1.9429	ppb	13526	17 Apr 2019 22:00:00
UD04007001 - 1	NPDES Permit Renewal #4 Sludge	-0.0191	ppb	-207	17 Apr 2019 22:02:31
CCV 19HG0569 04/18/19 - 1		100.4% 2.0082	ppb	13983	17 Apr 2019 22:05:04
CCB 19HG0565 04/18/19 - 1		-0.0081	ppb	-130	17 Apr 2019 22:07:33
UD05002001 - 1	1801833084	-0.0153	ppb	-180	17 Apr 2019 22:10:06
UD05002002 - 1	1900080495	-0.0230	ppb	-234	17 Apr 2019 22:12:36
UD05002002MS - 1	1900080495S	1.9846	ppb	13818	17 Apr 2019 22:15:07
UD05002002MD - 1	1900080495SD	1.9800	ppb	13786	17 Apr 2019 22:17:38
UD05002003 - 1	Weld Dust 1	-0.0204	ppb	-216	17 Apr 2019 22:20:09
UD05002004 - 1	Weld Dust 2	-0.0107	ppb	-148	17 Apr 2019 22:22:40
UD08007001 - 1	Tote 4	-0.0096	ppb	-140	17 Apr 2019 22:25:12
UD08007002 - 1	Tote 5	-0.0248	ppb	-247	17 Apr 2019 22:27:43
UD08007003 - 1	Tote 6	-0.0316	ppb	-294	17 Apr 2019 22:30:14

HG4041719

Method: 7470A/245.1 Operator: JMH Date of Analysis: 17 Apr 2019 17:26:41

Sample ID	Extended ID	Conc.	Units	µ Abs.	Date
UQ13647001 - 1	PBW	-0.0376	ppb	-336	17 Apr 2019 22:32:45
CCV 19HG0569 04/18/19 - 1		98.5% 1.9703	ppb	13718	17 Apr 2019 22:35:17
CCB 19HG0565 04/18/19 - 1		-0.0107	ppb	-148	17 Apr 2019 22:37:47
UQ13647002 - 1	LCS	2.0675	ppb	14398	17 Apr 2019 22:40:19
UD11087001 - 1	MW-1	-0.0510	ppb	-430	17 Apr 2019 22:42:51
UD11087001MS - 1	MW-1S	2.0103	ppb	13998	17 Apr 2019 22:45:22
UD11087001MD - 1	MW-1SD	1.9987	ppb	13917	17 Apr 2019 22:47:53
UD11087002 - 1	MW-3	-0.0307	ppb	-288	17 Apr 2019 22:50:24
UD11087004 - 1	MW-5	-0.0247	ppb	-246	17 Apr 2019 22:52:56
UD11087005 - 1	MW-6	-0.0243	ppb	-243	17 Apr 2019 22:55:27
UD11087006 - 1	MW-7	-0.0228	ppb	-233	17 Apr 2019 22:57:58
UD11087007 - 1	DMW-3	-0.0280	ppb	-269	17 Apr 2019 23:00:30
UD11087008 - 1	DMW-4	-0.0281	ppb	-270	17 Apr 2019 23:03:01
CCV 19HG0569 04/18/19 - 1		101.6% 2.0316	ppb	14147	17 Apr 2019 23:05:33
CCB 19HG0565 04/18/19 - 1		-0.0101	ppb	-144	17 Apr 2019 23:08:03
UQ13501001TC - 1	PBW	-0.0150	ppb	-178	17 Apr 2019 23:10:34
UQ13501002TC - 1	LCS	1.9799	ppb	13785	17 Apr 2019 23:13:06
UC27001028TC - 1	BC-44 (7-7.5)	-0.0356	ppb	-322	17 Apr 2019 23:15:37
UC27001028MSTC - 1	BC-44 (7-7.5)S	1.9662	ppb	13689	17 Apr 2019 23:18:09
UC27001028MDTC - 1	BC-44 (7-7.5)SD	1.9630	ppb	13667	17 Apr 2019 23:20:41
UC27001029TC - 1	BC-44 (12-12.5)	-0.0313	ppb	-292	17 Apr 2019 23:23:12
UC27001030TC - 1	BC-44 (17-17.5)	-0.0048	ppb	-107	17 Apr 2019 23:25:43
UC27001031TC - 1	BC-8 (0-0.5)	-0.0161	ppb	-186	17 Apr 2019 23:28:14
UC27001032TC - 1	BC-8 (2-2.5)	-0.0226	ppb	-231	17 Apr 2019 23:30:45
UC27001033TC - 1	BC-8 (7-7.5)	-0.0200	ppb	-213	17 Apr 2019 23:33:17
CCV 19HG0569 04/18/19 - 1		100.1% 2.0029	ppb	13946	17 Apr 2019 23:35:48
CCB 19HG0565 04/18/19 - 1		0.0003	ppb	-71	17 Apr 2019 23:38:18
UC27001034TC - 1	BC-8 (12-12.5)	-0.0247	ppb	-246	17 Apr 2019 23:40:50
UC27001035TC - 1	BC-8 (17-17.5)	-0.0230	ppb	-234	17 Apr 2019 23:43:22
UC27001036TC - 1	BC-7 (0-0.5)	-0.0127	ppb	-162	17 Apr 2019 23:45:53
UC27001037TC - 1	BC-7 (2-2.5)	-0.0241	ppb	-242	17 Apr 2019 23:48:25
UC27001038TC - 1	BC-7 (7-7.5)	-0.0171	ppb	-193	17 Apr 2019 23:50:57
UC27001039TC - 1	BC-7 (12-12.5)	-0.0170	ppb	-192	17 Apr 2019 23:53:28
UQ13678001TC - 1	PBW	-0.0036	ppb	-98	17 Apr 2019 23:56:00
UQ13678002TC - 1	LCS	2.0507	ppb	14281	17 Apr 2019 23:58:31
UD09113001TC - 1	2-77 II Tetra	-0.0248	ppb	-247	18 Apr 2019 00:01:03
UD09113001MSTC - 1	2-77 II TetraS	1.8946	ppb	13188	18 Apr 2019 00:03:34
CCV 19HG0569 04/18/19 - 1		99.4% 1.9887	ppb	13847	18 Apr 2019 00:06:06
CCB 19HG0565 04/18/19 - 1		-0.0073	ppb	-124	18 Apr 2019 00:08:36
UD09113001MDTC - 1	2-77 II TetraSD	1.8989	ppb	13218	18 Apr 2019 00:11:07
UQ13500001TC - 1	PBW	-0.0450	ppb	-388	18 Apr 2019 00:13:38
UQ13500002TC - 1	LCS	1.7451	ppb	12142	18 Apr 2019 00:16:10
UC27001008TC - 1	BC-3 (7-7.5)	-0.0310	ppb	-290	18 Apr 2019 00:18:41
UC27001009TC - 1	BC-3 (12-12.5)	-0.0240	ppb	-241	18 Apr 2019 00:21:13
UC27001010TC - 1	BC-3 (17-17.5)	-0.0197	ppb	-211	18 Apr 2019 00:23:44
UC27001011TC - 1	BC-4 (0-0.5)	-0.0117	ppb	-155	18 Apr 2019 00:26:16
UC27001012TC - 1	BC-4 (2-2.5)	-0.0121	ppb	-158	18 Apr 2019 00:28:48
UC27001013TC - 1	BC-4 (7-7.5)	0.0000	ppb	-73	18 Apr 2019 00:31:20
UC27001014TC - 1	BC-4 (12-12.5)	-0.0088	ppb	-135	18 Apr 2019 00:33:51
CCV 19HG0569 04/18/19 - 1		99.9% 1.9977	ppb	13910	18 Apr 2019 00:36:23
CCB 19HG0565 04/18/19 - 1		0.0070	ppb	-24	18 Apr 2019 00:38:53
UC27001015TC - 1	BC-4 (17-17.5)	-0.0134	ppb	-167	18 Apr 2019 00:41:25
UC27001016TC - 1	BC-13 (0-0.5)	-0.0063	ppb	-117	18 Apr 2019 00:43:57
UC27001017TC - 1	BC-13 (2-2.5)	0.0037	ppb	-47	18 Apr 2019 00:46:28
UC27001018TC - 1	BC-13 (7-7.5)	-0.0138	ppb	-170	18 Apr 2019 00:48:59
UC27001019TC - 1	BC-13 (12-12.5)	-0.0136	ppb	-168	18 Apr 2019 00:51:30
UC27001020TC - 1	BC-13 (17-17.5)	-0.0186	ppb	-203	18 Apr 2019 00:54:02
UC27001021TC - 1	BC-17 (0-0.5)	-0.0211	ppb	-221	18 Apr 2019 00:56:33
UC27001021MSTC - 1	BC-17 (0-0.5)S	2.0266	ppb	14112	18 Apr 2019 00:59:05
UC27001021MDTC - 1	BC-17 (0-0.5)SD	2.1372	ppb	14886	18 Apr 2019 01:01:37
UC27001022TC - 1	BC-17 (2-2.5)	-0.0218	ppb	-226	18 Apr 2019 01:04:09
CCV 19HG0569 04/18/19 - 1		98.9% 1.9776	ppb	13769	18 Apr 2019 01:06:41
CCB 19HG0565 04/18/19 - 1		-0.0001	ppb	-74	18 Apr 2019 01:09:10
UC27001023TC - 1	BC-17 (7-7.5)	-0.0091	ppb	-137	18 Apr 2019 01:11:42
UC27001024TC - 1	BC-17 (12-12.5)	-0.0143	ppb	-173	18 Apr 2019 01:14:13
UC27001025TC - 1	BC-17 (17-17.5)	-0.0133	ppb	-166	18 Apr 2019 01:16:45
UC27001026TC - 1	BC-44 (0-0.5)	-0.0134	ppb	-167	18 Apr 2019 01:19:17
UC27001027TC - 1	BC-44 (2-2.5)	0.0290	ppb	130	18 Apr 2019 01:21:49
UQ13498001DIS - 1	PBW	-0.0141	ppb	-172	18 Apr 2019 01:24:22
UQ13498002DIS - 1	LCS	2.0357	ppb	14176	18 Apr 2019 01:26:54
UD02100002 - 1	Waste Water	0.0359	ppb	178	18 Apr 2019 01:29:26
UD12075002 - 1	SWP-1	-0.0011	ppb	-81	18 Apr 2019 01:31:58
UD11011001DIS - 1	WK0219C1904	-0.0080	ppb	-129	18 Apr 2019 01:34:30
CCV 19HG0569 04/18/19 - 1		100.7% 2.0147	ppb	14029	18 Apr 2019 01:37:03
CCB 19HG0565 04/18/19 - 1		-0.0027	ppb	-92	18 Apr 2019 01:39:32
UD11011002DIS - 1	WK0223C1904	-0.0104	ppb	-146	18 Apr 2019 01:42:04
UD11011003DIS - 1	WK0229C1904	0.0032	ppb	-51	18 Apr 2019 01:44:37
UD11011003MSDIS - 1	WK0229C1904S	1.9720	ppb	13730	18 Apr 2019 01:47:09
UD11011003MDDIS - 1	WK0229C1904SD	2.0226	ppb	14084	18 Apr 2019 01:49:41
UD11011004DIS - 1	WK0236C1904	-0.0067	ppb	-120	18 Apr 2019 01:52:13
UD11011005DIS - 1	TripBlank-190410	-0.0037	ppb	-99	18 Apr 2019 01:54:45
UD11011006DIS - 1	WK0227CS1904	-0.0018	ppb	-86	18 Apr 2019 01:57:18
UD11011007DIS - 1	WK0228C1904	0.0050	ppb	-38	18 Apr 2019 01:59:50
UD11011008DIS - 1	WK0235C1904	0.0034	ppb	-49	18 Apr 2019 02:02:22
UD11011009DIS - 1	WK0201C1904	0.0074	ppb	-21	18 Apr 2019 02:04:54
CCV 19HG0569 04/18/19 - 1		102.1% 2.0425	ppb	14223	18 Apr 2019 02:07:26
CCB 19HG0565 04/18/19 - 1		0.0087	ppb	-12	18 Apr 2019 02:09:56
UD11011010DIS - 1	TripBlank-190411	-0.0028	ppb	-93	18 Apr 2019 02:12:28
UD12100011 - 1	GW-1	0.1446	ppb	939	18 Apr 2019 02:15:00
UD12100012 - 1	SW-1	-0.0030	ppb	-94	18 Apr 2019 02:17:32
UQ13499001 - 1	PBW	-0.0031	ppb	-95	18 Apr 2019 02:20:04
UQ13499002 - 1	LCS	1.9230	ppb	13387	18 Apr 2019 02:22:36

HG4041719

Method: 7470A/245.1 Operator: JMH Date of Analysis: 17 Apr 2019 17:26:41

Sample ID	Extended ID	Conc.	Units	µ Abs.	Date
UD10056002 - 1	5W5B	-0.0167	ppb	-190	18 Apr 2019 02:25:09
UD10056003 - 1	5W7B	-0.0041	ppb	-102	18 Apr 2019 02:27:41
UD10056003MS - 1	5W7BS	1.9119	ppb	13309	18 Apr 2019 02:30:13
UD10056003MD - 1	5W7BSD	1.9594	ppb	13642	18 Apr 2019 02:32:45
UD10056004 - 1	5WC21	-0.0036	ppb	-98	18 Apr 2019 02:35:17
CCV 19HG0569 04/18/19 - 1		100.8% 2.0153	ppb	14033	18 Apr 2019 02:37:49
CCB 19HG0565 04/18/19 - 1		0.0100	ppb	-3	18 Apr 2019 02:40:19
UD10056005 - 1	5WDUP	0.0040	ppb	-45	18 Apr 2019 02:42:51
UD10056006 - 1	5WC22	-0.0226	ppb	-231	18 Apr 2019 02:45:23
UD10056007 - 1	5WC23	-0.0170	ppb	-192	18 Apr 2019 02:47:55
UD13009001 - 1	16C1	-0.0046	ppb	-105	18 Apr 2019 02:50:27
UD13009002 - 1	16MW8	0.0079	ppb	-18	18 Apr 2019 02:52:59
UD13009003 - 1	16MW9	0.0013	ppb	-64	18 Apr 2019 02:55:31
UD13009004 - 1	16WC1A	-0.0077	ppb	-127	18 Apr 2019 02:58:04
UD13009004MS - 1	16WC1AS	1.8473	ppb	12857	18 Apr 2019 03:00:36
UD13009004MD - 1	16WC1ASD	1.8250	ppb	12701	18 Apr 2019 03:03:09
UD13009005 - 1	16WDUP	-0.0224	ppb	-230	18 Apr 2019 03:05:42
CCV 19HG0569 04/18/19 - 1		102.0% 2.0393	ppb	14201	18 Apr 2019 03:08:15
CCB 19HG0565 04/18/19 - 1		-0.0040	ppb	-101	18 Apr 2019 03:10:45
UD13009006 - 1	16WC1B	0.0992	ppb	621	18 Apr 2019 03:13:16
UD13010001 - 1	16-2	-0.0128	ppb	-163	18 Apr 2019 03:15:48
UD13010002 - 1	16-3	-0.0126	ppb	-161	18 Apr 2019 03:18:21
UD13010003 - 1	16-5	-0.0118	ppb	-156	18 Apr 2019 03:20:54
UD13010004 - 1	16WC2B	-0.0038	ppb	-100	18 Apr 2019 03:23:26
UD13010005 - 1	16SPRING	0.0073	ppb	-22	18 Apr 2019 03:25:58
UD11077001(10) - 1	2019/0922	2.1183	ppb	14754	18 Apr 2019 03:28:31
CCV 19HG0569 04/18/19 - 1		100.3% 2.0060	ppb	13968	18 Apr 2019 03:31:03
CCB 19HG0565 04/18/19 - 1		0.0153	ppb	34	18 Apr 2019 03:33:33

Raw Supportive Data

Analyst: JMH **Level 2 Analyst:** NJT

Status: Level 2 review released

Matrix: Aqueous

Printed: 05/07/19 0851

Prep Batch: 13499

7470A-P - Mercury Preparation Linked: 7470A,245.1 and 7470A-P Draper

Start Date: 04/17/2019 1556

End Date: 04/17/2019 1756

Digestion Cup ID: 19-651

Ext Solvent: H2SO4/1:1HNO3/KMnO4/K2S2O8/NaCl-NH2OH-HCl

Reagents Vol. (mL): 2.0, 2.0, 6.0, 3.2, 2.4

Hot Block ID: Hot Block # 9

Chem ID: 19-318, IM9360-01, IM9371-01, IM9351-01, IM9368-01

Start Temperature (°C): 94

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ13499-001	MB	PBW	1	7470A	40.000		0.0	50			LCS/MS/MSD Pipet ID: 315
UQ13499-002	LCS	LCS	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD10056-002	Sample	5W5B	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-003	Sample	5W7B	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-003MS	MS	5W7BS	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD10056-003MD	MSD	5W7BSD	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD10056-004	Sample	5WC21	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-005	Sample	5WDUP	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-006	Sample	5WC22	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD10056-007	Sample	5WC23	1	7470A	40.000		0.0	50	05/07/2019 2359	04/19/2019	
UD13009-001	Sample	16C1	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-002	Sample	16MW8	1	7470A	40.000		0.0	50	05/08/2019 2359	04/23/2019	
UD13009-003	Sample	16MW9	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-004	Sample	16WC1A	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-004MS	MS	16WC1AS	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD13009-004MD	MSD	16WC1ASD	1	7470A	40.000	19HG0563 (04/18/19)	0.8	50			
UD13009-005	Sample	16WDUP	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13009-006	Sample	16WC1B	1	7470A	40.000		0.0	50	05/09/2019 2359	04/23/2019	
UD13010-001	Sample	16-2	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-002	Sample	16-3	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-003	Sample	16-5	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-004	Sample	16WC2B	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UD13010-005	Sample	16SPRING	1	7470A	40.000		0.0	50	05/08/2019 2359	04/29/2019	
UQ13499-004	Standard	Conc = 0.0 mg/L	1	7470A	40.000		0.0	50			PB 13633

Analyst: JMH **Level 2 Analyst:** NJT

Status: Level 2 review released

Matrix: Aqueous

Prep Batch: 13499

7470A-P - Mercury Preparation Linked: 7470A,245.1 and 7470A-P Draper

Start Date: 04/17/2019 1556

End Date: 04/17/2019 1756

Digestion Cup ID: 19-651

Ext Solvent: H2SO4/1:1HNO3/KMnO4/K2S2O8/NaCl-NH2OH-HCl

Reagents Vol. (mL): 2.0, 2.0, 6.0, 3.2, 2.4

Hot Block ID: Hot Block # 9

Chem ID: 19-318, IM9360-01, IM9371-01, IM9351-01, IM9368-01

Start Temperature (°C): 94

Thermometer ID: 326394

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments

(end of report) **Total Samples: 17**

Analyst: JMH **Level 2 Analyst:** NJT

Status: Level 2 review released

Matrix: ERROR

Printed: 05/07/19 0852

Prep Batch: 13633

7470A-P - Mercury Preparation Linked: 7470A,245.1 and 7470A-P Draper

Start Date: 04/17/2019 1315

End Date: 04/17/2019 1515

Digestion Cup ID: 19-651

Ext Solvent: H2SO4/1:1HNO3/KMnO4/K2S2O8/NaCl-NH2OH-HCl

Reagents Vol. (mL): 2.0, 2.0, 6.0, 3.2, 2.4

Hot Block ID: Hot Block #4

Chem ID: 19-318, IM9360-01, IM9371-01, IM9351-01, IM9368-01

Start Temperature (°C): 96

Thermometer ID: 1136

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Vol. (mL)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
UQ13633-004	Standard	Conc = 0.0 mg/L	1	245.1	40.000	19HG0565	0.0	50			CAL 0
UQ13633-104	Standard	Conc = 0.0050 mg/L	1	245.1	40.000	19HG0570	0.0	50			4/18/19
UQ13633-204	Standard	Conc = 0.0020 mg/L	1	245.1	40.000	19HG0569	0.0	50			4/18/19
UQ13633-304	Standard	Conc = 0.0010 mg/L	1	245.1	40.000	19HG0568	0.0	50			4/18/19
UQ13633-404	Standard	Conc = 0.00020 mg/L	1	245.1	40.000	19HG0567	0.0	50			4/18/19
UQ13633-504	Standard	Conc = 0.00010 mg/L	1	245.1	40.000	19HG0566	0.0	50			4/18/19
UQ13633-604	Standard	Conc = 0.0 mg/L	1	245.1	40.000	19HG0565	0.0	50			CCB
UQ13633-704	Standard	Conc = 0.0020 mg/L	1	245.1	40.000	19HG0569	0.0	50			CCV
UQ13633-804	Standard	Conc = 0.0 mg/L	1	245.1	40.000	19HG0565	0.0	50			ICB
UQ13633-904	Standard	Conc = 0.0020 mg/L	1	245.1	40.000	19HG0571	0.0	50			ICV

(end of report) **Total Samples: 0**

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Draper Aden Associates
2206 South Main Street
Blacksburg, VA 24060
Attention: Janet Frazier

Project Name: RAAP HWMU16

Project Number: B03204-19A

Lot Number:**UF26007**

Date Completed:07/11/2019

07/11/2019 4:12 PM
Approved and released by:
Project Manager: Cathy S. Dover

The electronic signature above is the equivalent of a handwritten signature.
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Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Draper Aden Associates
Lot Number: UF26007

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Draper Aden Associates

Lot Number: UF26007

Project Name: RAAP HWMU16

Project Number: B03204-19A

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	16MW8	Aqueous	06/25/2019 0920	06/26/2019
002	16MWDUP	Aqueous	06/25/2019 0925	06/26/2019

(2 samples)

ICP-MS

Client: Draper Aden Associates
Laboratory ID: UF26007-001
Description: 16MW8
Matrix: Aqueous
Date Sampled: 06/25/2019 0920
Project Name: RAAP HWMU16
Date Received: 06/26/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	07/08/2019 0208	LLL	06/27/2019 0834	20901

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cobalt	7440-48-4	6020B	3.1	J	5.0	1.3	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	1

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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ICP-MS

Client: Draper Aden Associates
Laboratory ID: UF26007-002
Description: 16MWDUP
Matrix: Aqueous
Date Sampled: 06/25/2019 0925
Project Name: RAAP HWMU16
Date Received: 06/26/2019
Project Number: B03204-19A

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	07/08/2019 0318	LLL	06/27/2019 0834	20901
2	3005A	6020B	1	07/10/2019 2218	BNW	06/27/2019 0834	20901

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Cobalt	7440-48-4	6020B	3.2	J	5.0	1.3	ug/L	1
Silver	7440-22-4	6020B	2.0	U	2.0	0.30	ug/L	2

LOQ = Limit of Quantitation
U = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
D = Dilution > 1

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QC Summary

ICP-MS - MB

Sample ID: UQ20901-001
Batch: 20901
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 06/27/2019 834

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Cobalt	5.0	U	1	5.0	1.3	ug/L	07/08/2019 0156
Silver	2.0	U	1	2.0	0.30	ug/L	07/08/2019 0156

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: UQ20901-002
Batch: 20901
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 06/27/2019 834

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cobalt	100	110		1	109	80-120	07/08/2019 0202
Silver	100	110		1	109	80-120	07/08/2019 0202

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MS

Sample ID: UF26007-001MS
Batch: 20901
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 06/27/2019 834

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cobalt	3.1	100	110		1	107	70-130	07/08/2019 0214
Silver	0.0	100	110		1	106	70-130	07/08/2019 0214

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MSD

Sample ID: UF26007-001MD
Batch: 20901
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 06/27/2019 834

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Cobalt	3.1	100	110		1	106	1.2	70-130	20	07/08/2019 0248
Silver	0.0	100	110		1	108	1.9	70-130	20	07/08/2019 0248

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the detection limit

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

CHAIN OF CUSTODY RECORD

Laboratory: Shealy Environmental - 106 Vantage Point Dr. West Columbia, SC 29172 803-227-3100 PM: Cathy Dower cell 919-316-1180

NSR 6-20-19

Client: C	Consultant: Draper Aden Associates	Sample Site: RFAAP, Radford, Virginia	Project Specific (PS) or Batch (B) QC:		
Attn: C	Attn: Jared D. Frazier	Location: IWMU#6	Sample Collection for Project Complete? YES		
Address C	Address: 2206 South Main Street Blacksburg, Virginia 24060	Event: 2Q 2019 Annual Groundwater Monitoring Event	UPS: 1Z 259 301 01 9886 7898		
Phone: C	Phone: (540) 552-0444	DAA JN: 603264-18A	Carrier:		
Fax: C	Fax: (540) 552-0291	Lab JN:	Tracking Number:		
Fax: C					

UF26007

Box 1: Matrix	Box 2: Preservative	Box 3: Filtered/Unfiltered	Box 4: Sample Type	Invoice	
SW Surface Water	T Trip Blank	A HCL	E NaOH	F Filtered	G Grab	Copy to Consultant: YES	
GW Groundwater	E Equipment Blank	B HNO_3	F ZnAc	U Unfiltered	C Composite	Bill: CLIENT OTHER	
L Leachate	P Product	C H_2SO_4	G Other (Specify)	Box 5: Sample Container Type		Preserved and shipped on Ice: YES	
S Soil	O Other	D $Na_2S_2O_3$	H None	P Plastic V VOA			
				AG Amber Glass CG Clear Glass			

CSD

Box 4 - Sample Type					G								
Box 3 - Filtered/Unfiltered					U								
Received pH of Sample					<2								
Box 2 - Preservative					A								
Box 5 - Sample Container Type					1-500 mL P								
Sample ID	Date: 2019	Time	Box 1: Matrix	Number of Bottles	ICP/MS 6020A/3005A (Metals-Cobalt & Silver ONLY)	metals pH							
16MW8	6/25	0920	GW	1	x	<2							
16MWDUP	6/25	0925	GW	1	x	<2							

GENERAL NOTES:
1. Report results to detection limit, with J flags, for italicized wells. Report to at or above QL for other locations
2. VELAP accreditation required.
3. Full Deliverable with EDD
4. Metals - analyze for Cobalt & Silver ONLY.

Cobalt / QL 5 ug/L
DL 1.3 ug/L

Silver / QL 2 ug/L
DL 0.3 ug/L

JLF 6/24/19

Client Special Instructions:

Received by lab in Good Condition ✓ Yes ___ No Custody Seal Intact ✓ Yes ___ No Temperature upon arrival 2.5 °C Received on Ice ✓ Yes ___ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 6-25-19	#1 Relinquished by (Signature):	6-25-19	#2 Relinquished by (Signature): UPS	Date: 6-26-19	Sample Storage Time Requested:
Sampler Signature:	Time: 0700	Company Name: DAA	1700	Company Name:	Time: 0942	
Sampler Name (Print): Ian M. Crawford	Date: 6-25-19	#1 Received by (Signature):	Date:	#2 Received by (Signature): Erin Brown	Date: 6-26-19	30 DYS CRGW MTHS INORG
Sampler Signature:	Time: 0700	Company Name:	Time	Company Name: Shealy / EQI	Time: 0942	

QC 6/24/19 JLF

6-20-19 NSR

1/1

Shealy Environmental Services, Inc.
Document Number: MB00180-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Draper Cooler Inspected by/date: ETB / 6/26/19 Lot #: UF26007

Means of receipt: ☐ SESI ☐ Client ☑ UPS ☐ FedEx ☐ Other: _____

☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: 18-2225 Chlorine Strip ID: NA Tested by: ETB

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.5 / 2.5 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☑ Yes	☐ No	☐ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: ETB Date: 6/26/19

Comments: